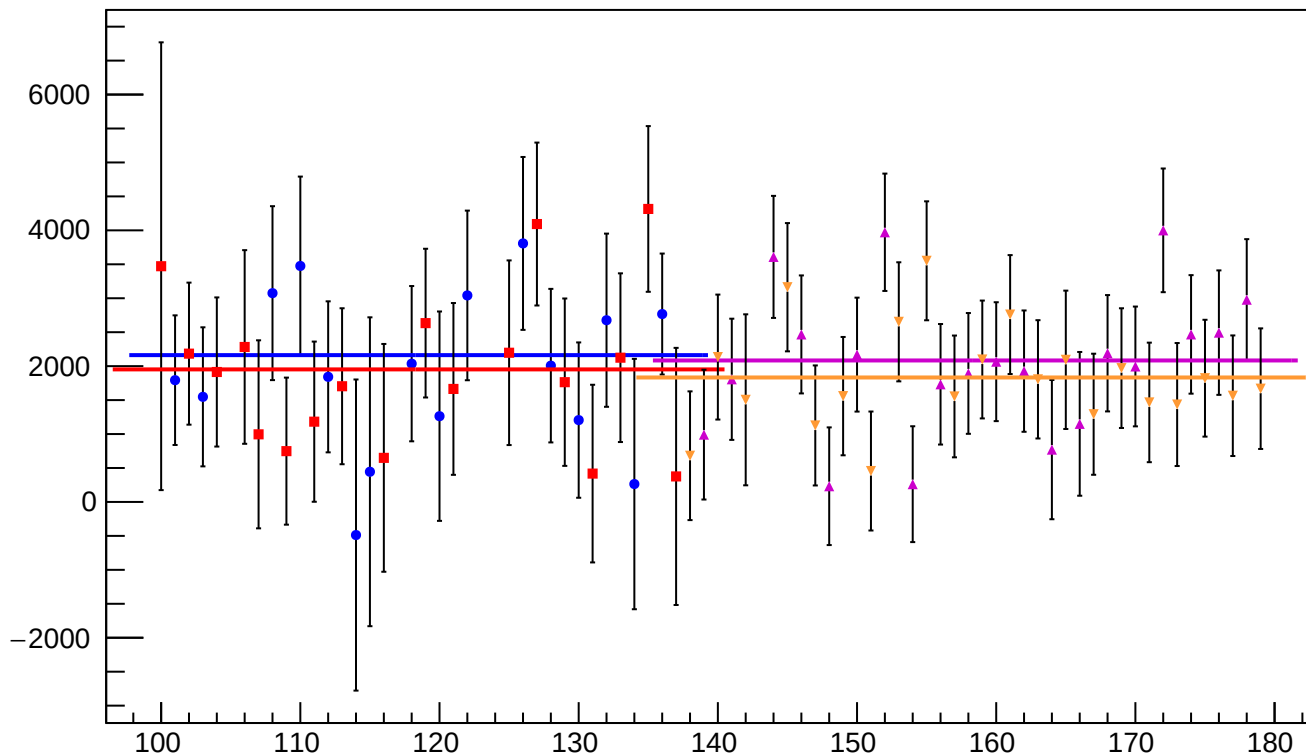


# reg\_asym\_us\_avg\_mean vs Slug, Sign Corrected



Right In: 2162.311+/-307.312

Left Out: 1833.097+/-197.466

Right Out: 1952.148+/-300.581

Left In: 2083.787+/-200.297

$\chi^2$ /NDF: 8.9/15

$\chi^2$ /NDF:13.8/20

$\chi^2$ /NDF: 12.6/17

$\chi^2$ /NDF:26.9/19

Left: 1956.658+/-140.620

Right: 2054.903+/-214.883

In: 2107.199+/-167.802

Out: 1868.987+/-165.038

$\chi^2$ /NDF: 41.5/40

$\chi^2$ /NDF: 21.8/33

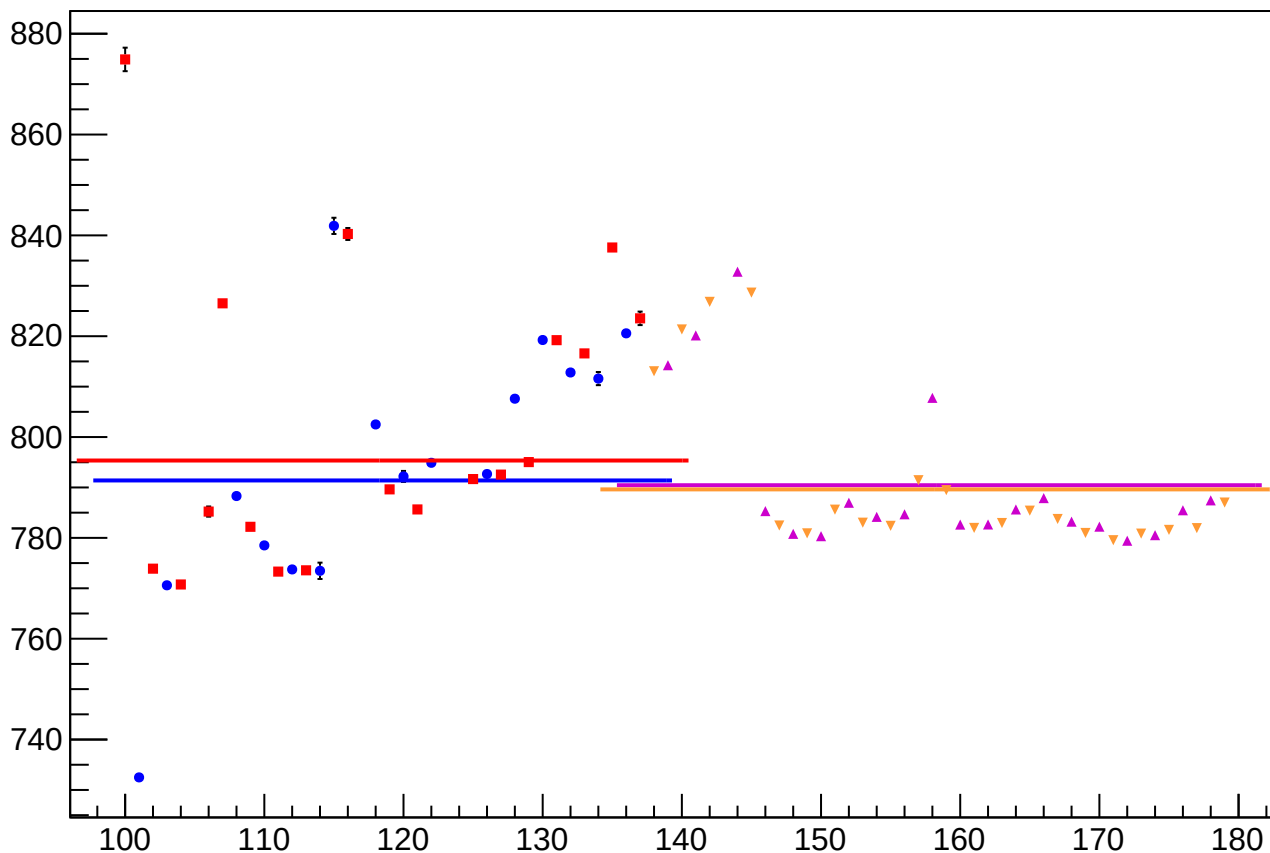
$\chi^2$ /NDF:35.9/35

$\chi^2$ /NDF:26.6/38

All: 1986.115+/-117.665

$\chi^2$ /NDF: 63.5/74

# reg\_asym\_us\_avg\_rms vs Slug, Sign Corrected



Right In: 791.390 $\pm$ 0.217  $\chi^2$ /NDF: 15008.3/15

Left Out: 789.617 $\pm$ 0.140  $\chi^2$ /NDF:10764.0/20

Right Out: 795.345 $\pm$ 0.213  $\chi^2$ /NDF: 11559.8/17

Left In: 790.443 $\pm$ 0.142  $\chi^2$ /NDF:10803.6/19

Left: 790.024 $\pm$ 0.099  $\chi^2$ /NDF: 21584.9/40

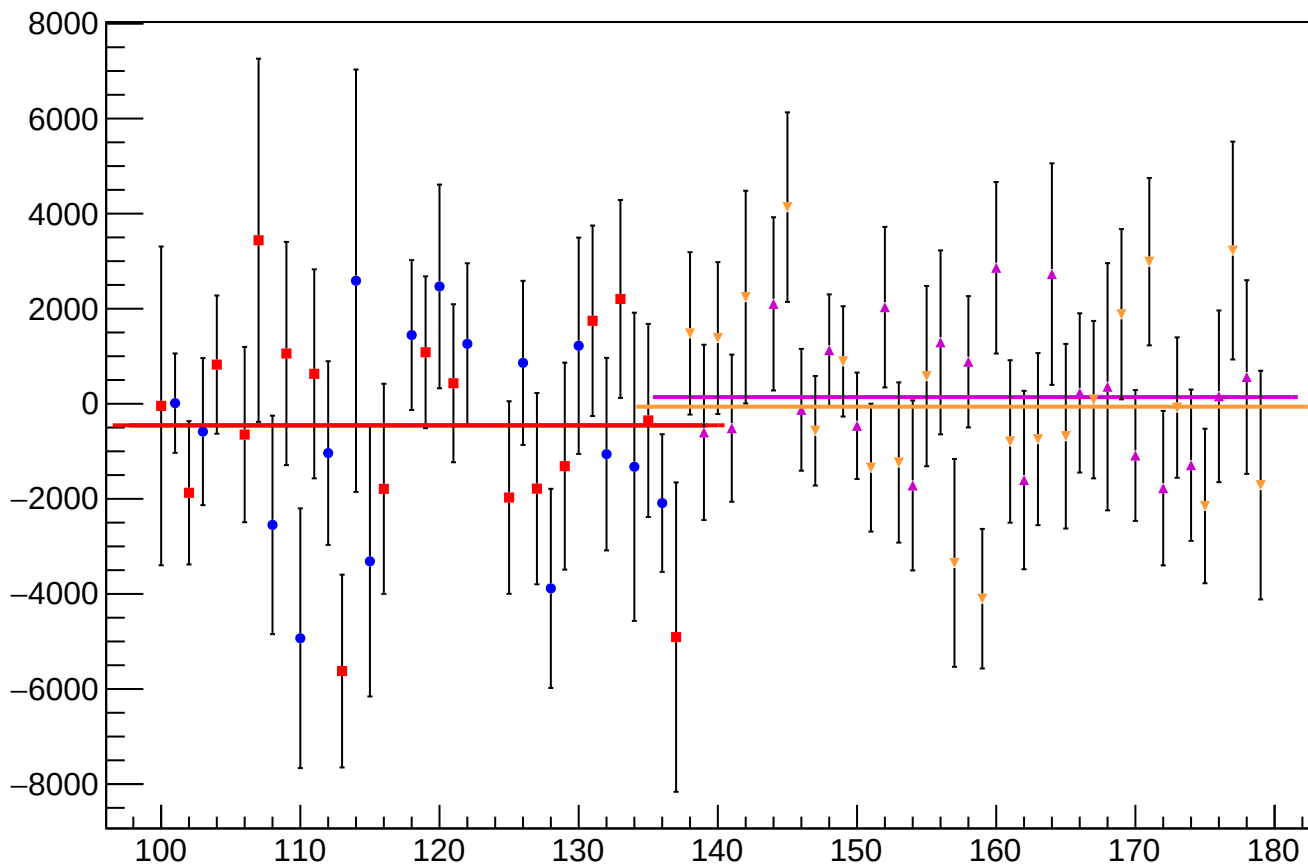
Right: 793.411 $\pm$ 0.152  $\chi^2$ /NDF: 26737.3/33

In: 790.726 $\pm$ 0.119  $\chi^2$ /NDF:25825.2/35

Out: 791.344 $\pm$ 0.117  $\chi^2$ /NDF:22831.1/38

All: 791.040 $\pm$ 0.083  $\chi^2$ /NDF: 48670.1/74

asym\_us\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -455.675+/-464.232  $\chi^2/\text{NDF}$ : 14.9/15

Left Out: -61.779+/-361.506  $\chi^2/\text{NDF}$ : 28.1/20

Right Out: -452.644+/-472.760  $\chi^2/\text{NDF}$ : 17.3/17

Left In: 140.295+/-359.699  $\chi^2/\text{NDF}$ : 12.9/19

Left: 39.764+/-254.982  $\chi^2/\text{NDF}$ : 41.2/40

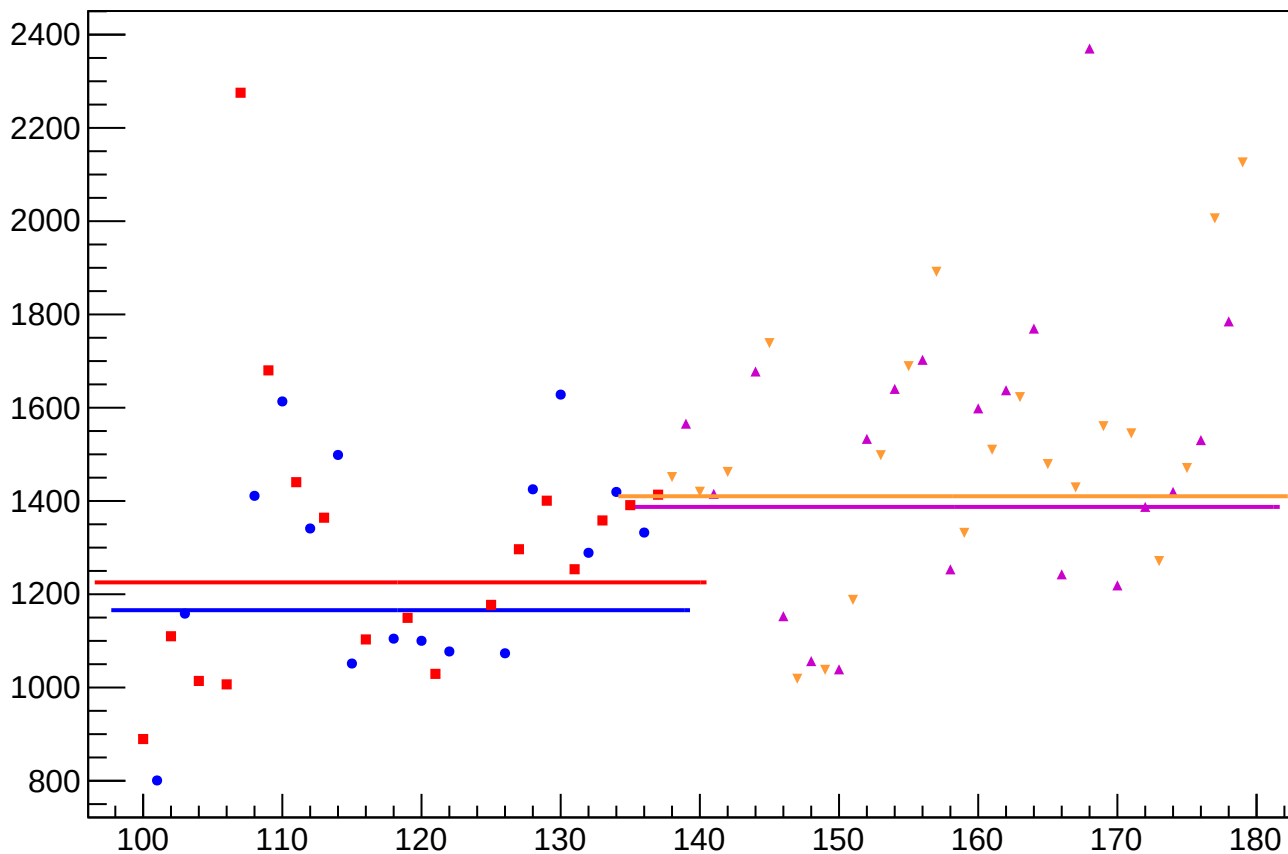
Right: -454.187+/-331.236  $\chi^2/\text{NDF}$ : 32.2/33

In: -83.276+/-284.335  $\chi^2/\text{NDF}$ : 28.8/35

Out: -205.998+/-287.170  $\chi^2/\text{NDF}$ : 45.9/38

All: -144.029+/-202.050  $\chi^2/\text{NDF}$ : 74.8/74

asym\_us\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 1165.812 $\pm$ 0.328  $\chi^2$ /NDF: 526801.3/15

Left Out: 1410.150 $\pm$ 0.256  $\chi^2$ /NDF: 1095280.1/20

Right Out: 1225.448 $\pm$ 0.334  $\chi^2$ /NDF: 440420.8/17

Left In: 1387.273 $\pm$ 0.254  $\chi^2$ /NDF: 1153421.3/19

Left: 1398.654 $\pm$ 0.180  $\chi^2$ /NDF: 2252726.0/40

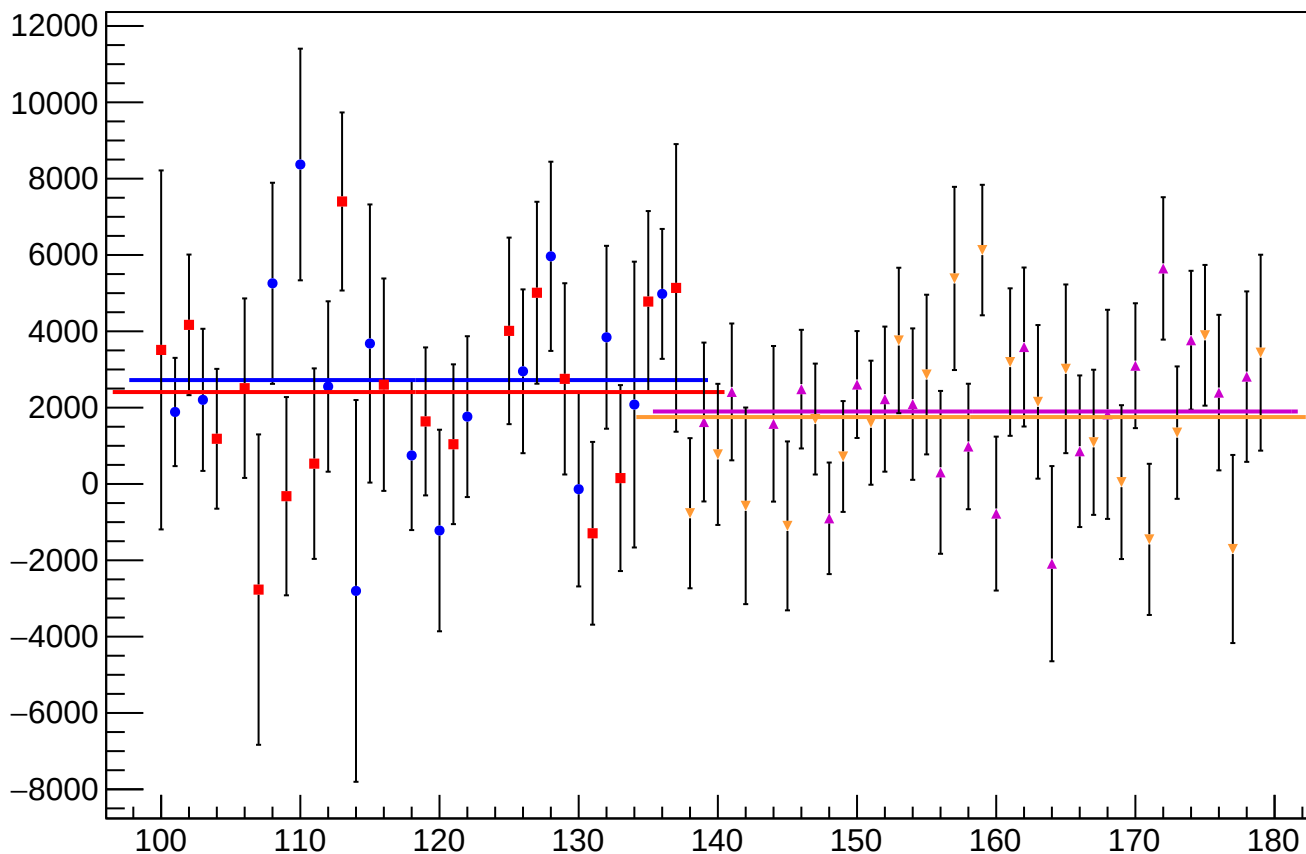
Right: 1195.087 $\pm$ 0.234  $\chi^2$ /NDF: 983424.3/33

In: 1304.194 $\pm$ 0.201  $\chi^2$ /NDF: 1964628.8/35

Out: 1342.000 $\pm$ 0.203  $\chi^2$ /NDF: 1728336.4/38

All: 1322.910 $\pm$ 0.143  $\chi^2$ /NDF: 3710468.5/74

# asym\_us\_avg\_mean vs Slug, Sign Corrected



Right In: 2722.309+/-567.154  $\chi^2/\text{NDF}$ : 14.6/15

Left Out: 1753.065+/-419.141  $\chi^2/\text{NDF}$ : 23.3/20

Right Out: 2408.446+/-568.977  $\chi^2/\text{NDF}$ : 16.3/17

Left In: 1899.175+/-418.295  $\chi^2/\text{NDF}$ : 16.1/19

Left: 1826.268+/-296.078  $\chi^2/\text{NDF}$ : 39.5/40

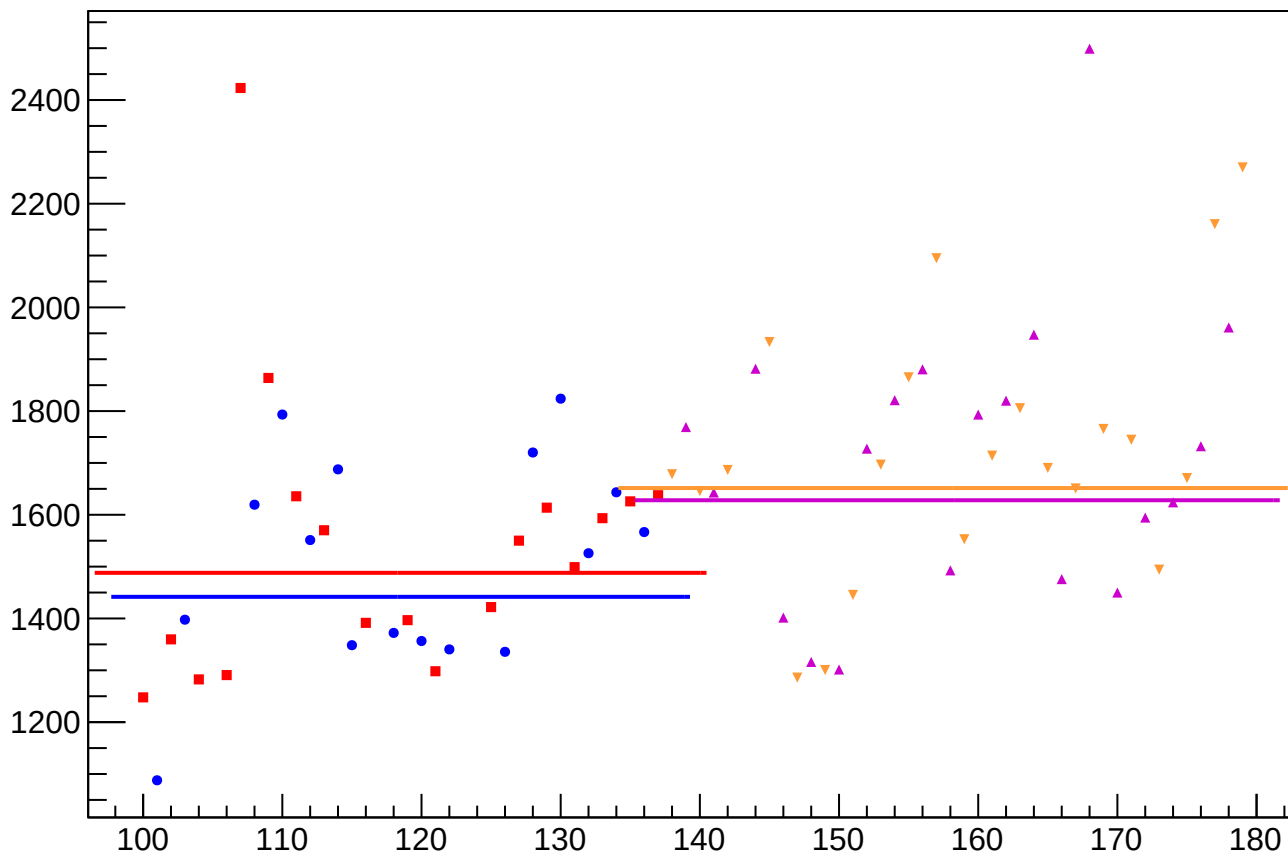
Right: 2565.881+/-401.681  $\chi^2/\text{NDF}$ : 31.0/33

In: 2189.176+/-336.639  $\chi^2/\text{NDF}$ : 32.0/35

Out: 1983.609+/-337.462  $\chi^2/\text{NDF}$ : 40.5/38

All: 2086.643+/-238.330  $\chi^2/\text{NDF}$ : 72.7/74

# asym\_us\_avg\_rms vs Slug, Sign Corrected



Right In: 1441.720 $\pm$ 0.401  $\chi^2/\text{NDF}$ : 275902.8/15

Left Out: 1651.560 $\pm$ 0.296  $\chi^2/\text{NDF}$ : 649075.3/20

Right Out: 1488.026 $\pm$ 0.402  $\chi^2/\text{NDF}$ : 256140.4/17

Left In: 1628.034 $\pm$ 0.296  $\chi^2/\text{NDF}$ : 697976.4/19

Left: 1639.773 $\pm$ 0.209  $\chi^2/\text{NDF}$ : 1350208.6/40

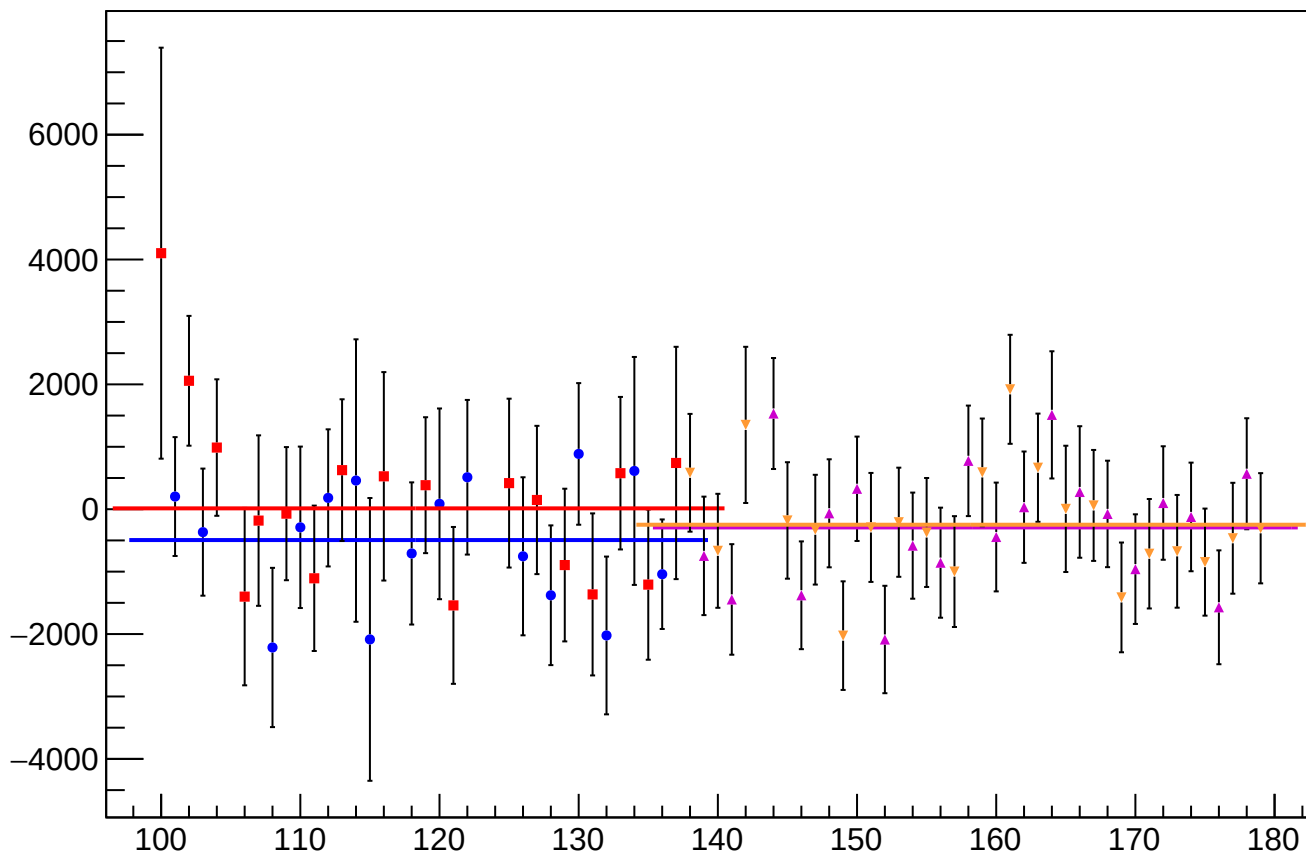
Right: 1464.799 $\pm$ 0.284  $\chi^2/\text{NDF}$ : 538687.7/33

In: 1562.393 $\pm$ 0.238  $\chi^2/\text{NDF}$ : 1113671.9/35

Out: 1594.033 $\pm$ 0.239  $\chi^2/\text{NDF}$ : 1012315.7/38

All: 1578.175 $\pm$ 0.169  $\chi^2/\text{NDF}$ : 2134799.8/74

# reg\_asym\_us\_dd\_mean vs Slug, Sign Corrected



Right In:  $-494.223 \pm 304.644$   $\chi^2/\text{NDF}$ : 8.7/15

Left Out:  $-248.669 \pm 196.538$   $\chi^2/\text{NDF}$ : 18.8/20

Right Out:  $13.512 \pm 297.736$   $\chi^2/\text{NDF}$ : 13.4/17

Left In:  $-291.971 \pm 199.352$   $\chi^2/\text{NDF}$ : 22.0/19

Left:  $-270.012 \pm 139.958$   $\chi^2/\text{NDF}$ : 40.8/40

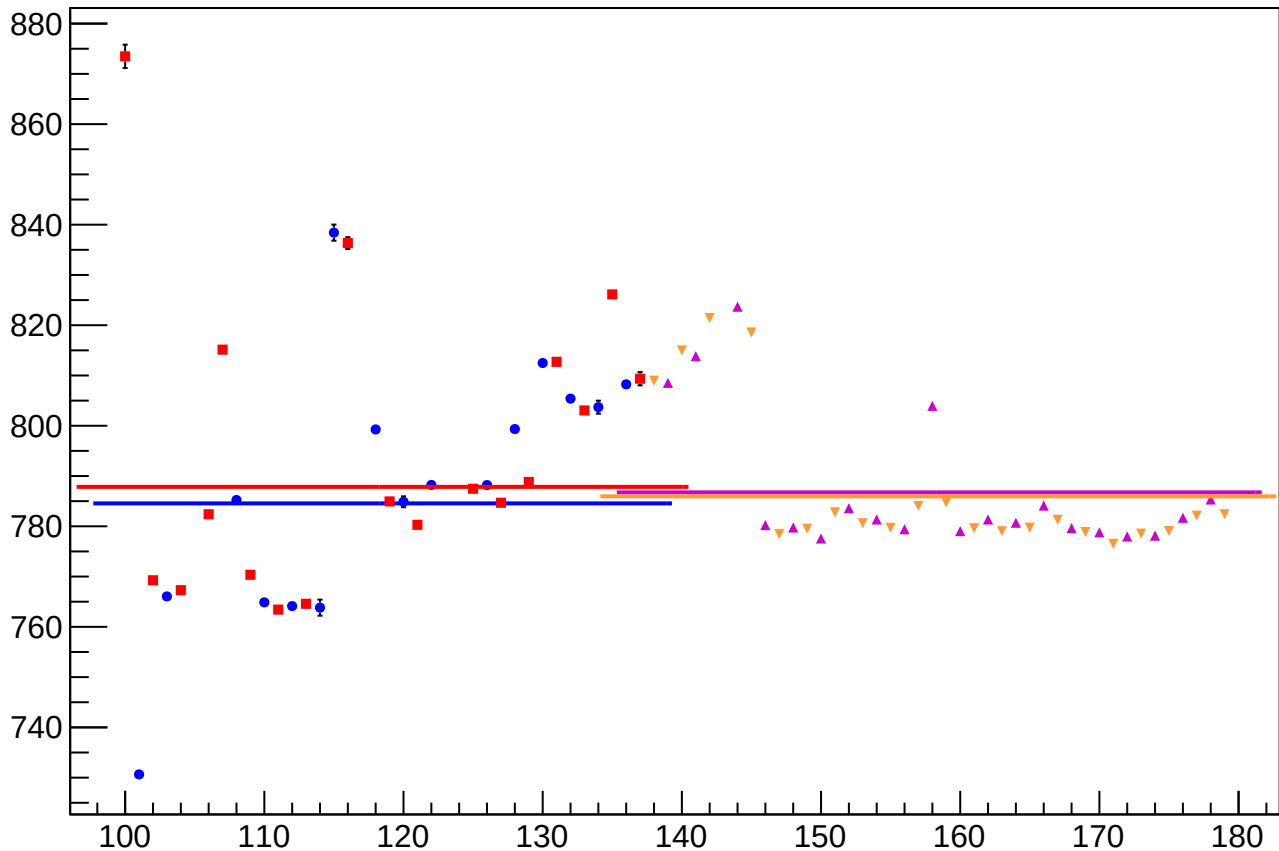
Right:  $-234.534 \pm 212.932$   $\chi^2/\text{NDF}$ : 23.4/33

In:  $-352.611 \pm 166.811$   $\chi^2/\text{NDF}$ : 31.0/35

Out:  $-169.099 \pm 164.024$   $\chi^2/\text{NDF}$ : 32.7/38

All:  $-259.309 \pm 116.955$   $\chi^2/\text{NDF}$ : 64.3/74

# reg\_asym\_us\_dd\_rms vs Slug, Sign Corrected



Right In: 784.558 $\pm$ 0.215  $\chi^2$ /NDF: 13677.7/15

Left Out: 785.959 $\pm$ 0.139  $\chi^2$ /NDF: 8795.0/20

Right Out: 787.844 $\pm$ 0.211  $\chi^2$ /NDF: 10909.0/17

Left In: 786.751 $\pm$ 0.141  $\chi^2$ /NDF: 8929.6/19

Left: 786.349 $\pm$ 0.099  $\chi^2$ /NDF: 17740.7/40

Right: 786.239 $\pm$ 0.151  $\chi^2$ /NDF: 24705.7/33

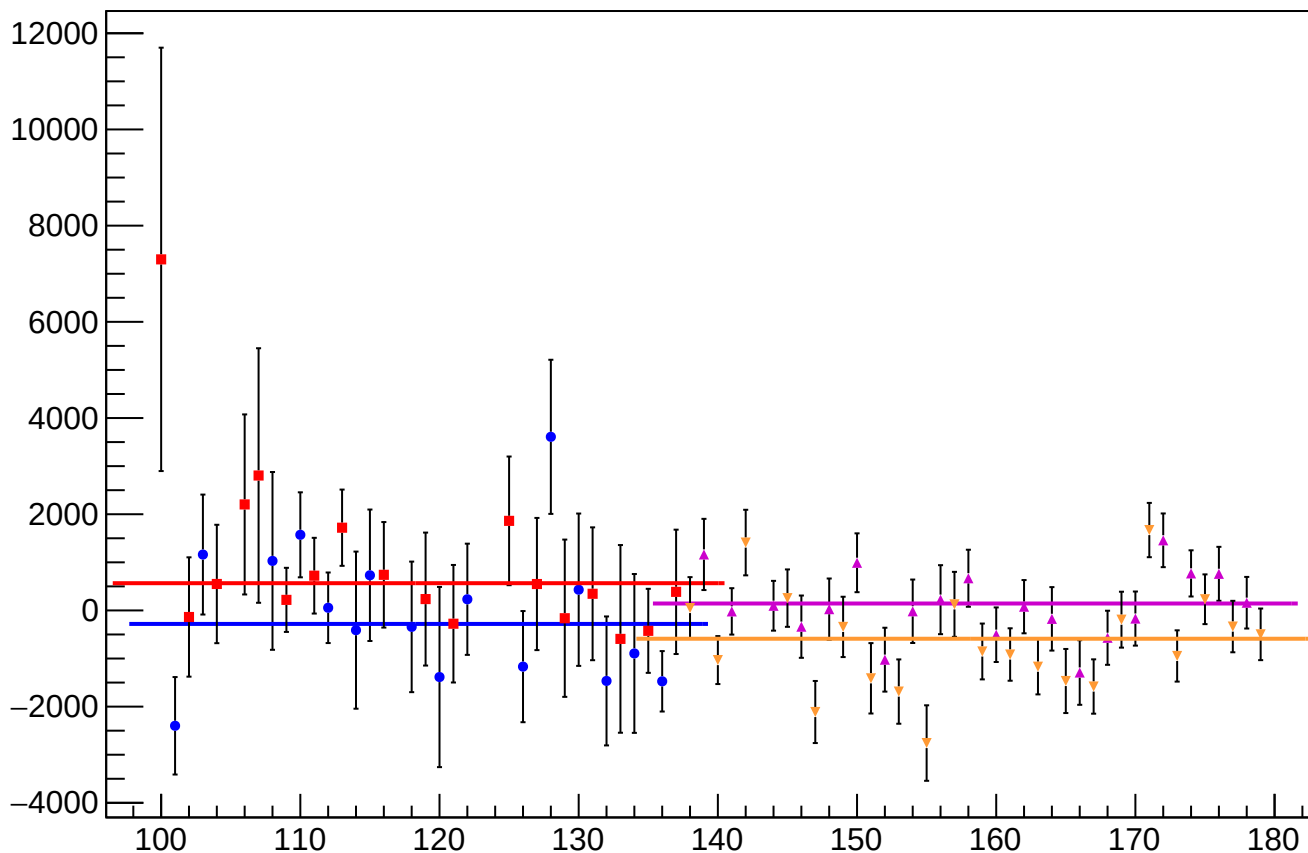
In: 786.093 $\pm$ 0.118  $\chi^2$ /NDF: 22679.9/35

Out: 786.531 $\pm$ 0.116  $\chi^2$ /NDF: 19759.9/38

All: 786.316 $\pm$ 0.083  $\chi^2$ /NDF: 42446.8/74



asym\_us\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -280.632+/-282.501  $\chi^2/\text{NDF}$ : 23.1/15

Left Out: -588.573+/-129.822  $\chi^2/\text{NDF}$ : 57.0/20

Right Out: 566.224+/-272.883  $\chi^2/\text{NDF}$ : 9.9/17

Left In: 143.919+/-131.142  $\chi^2/\text{NDF}$ : 25.0/19

Left: -226.032+/-92.261  $\chi^2/\text{NDF}$ : 97.7/40

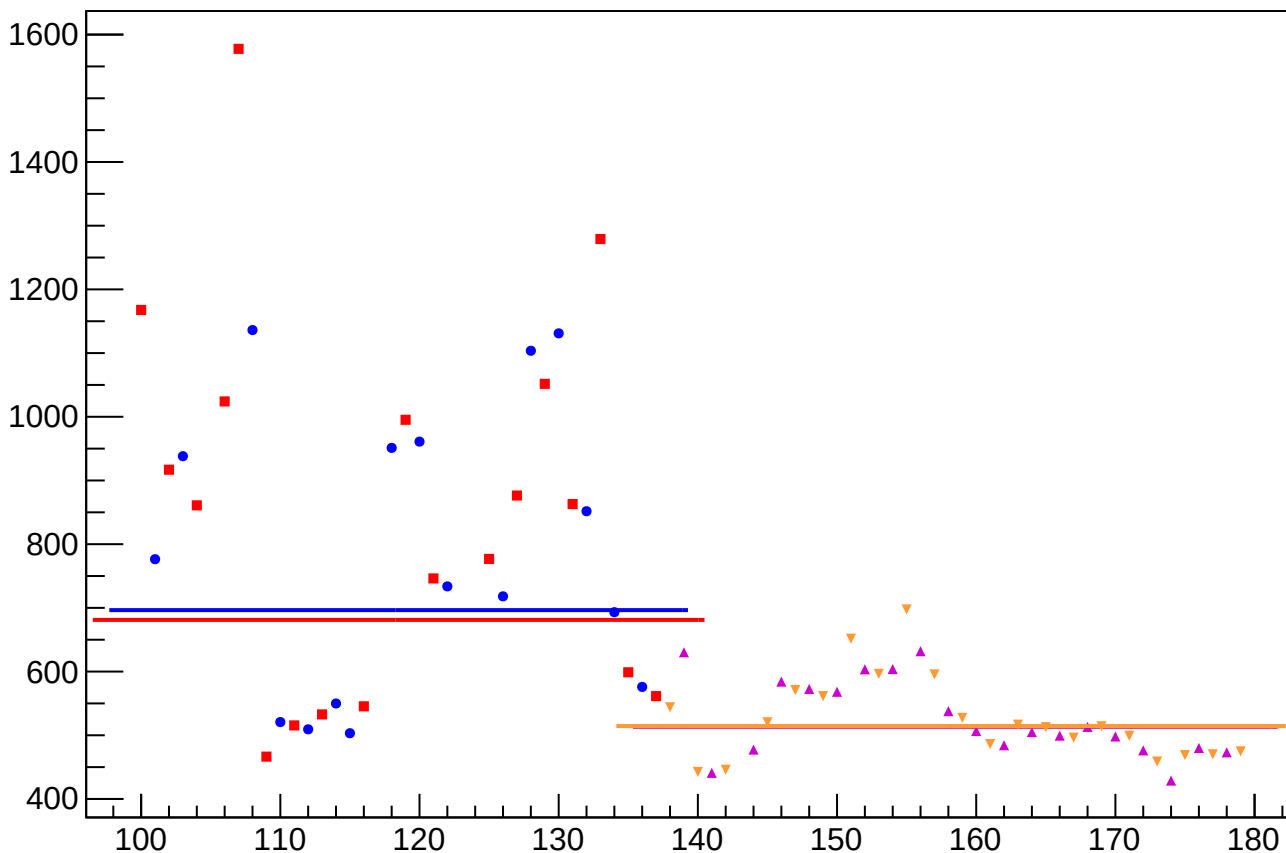
Right: 157.456+/-196.270  $\chi^2/\text{NDF}$ : 37.7/33

In: 68.649+/-118.950  $\chi^2/\text{NDF}$ : 49.9/35

Out: -375.444+/-117.232  $\chi^2/\text{NDF}$ : 81.5/38

All: -156.628+/-83.496  $\chi^2/\text{NDF}$ : 138.5/74

asym\_us\_dd\_correction\_rms vs Slug, Sign Corrected



Right In:  $696.462 \pm 0.200$   $\chi^2/\text{NDF}$ : 959490.0/15

Left Out:  $514.477 \pm 0.092$   $\chi^2/\text{NDF}$ : 402960.0/20

Right Out:  $681.127 \pm 0.193$   $\chi^2/\text{NDF}$ : 1352555.6/17

Left In:  $513.336 \pm 0.093$   $\chi^2/\text{NDF}$ : 392062.4/19

Left:  $513.912 \pm 0.065$   $\chi^2/\text{NDF}$ : 795098.9/40

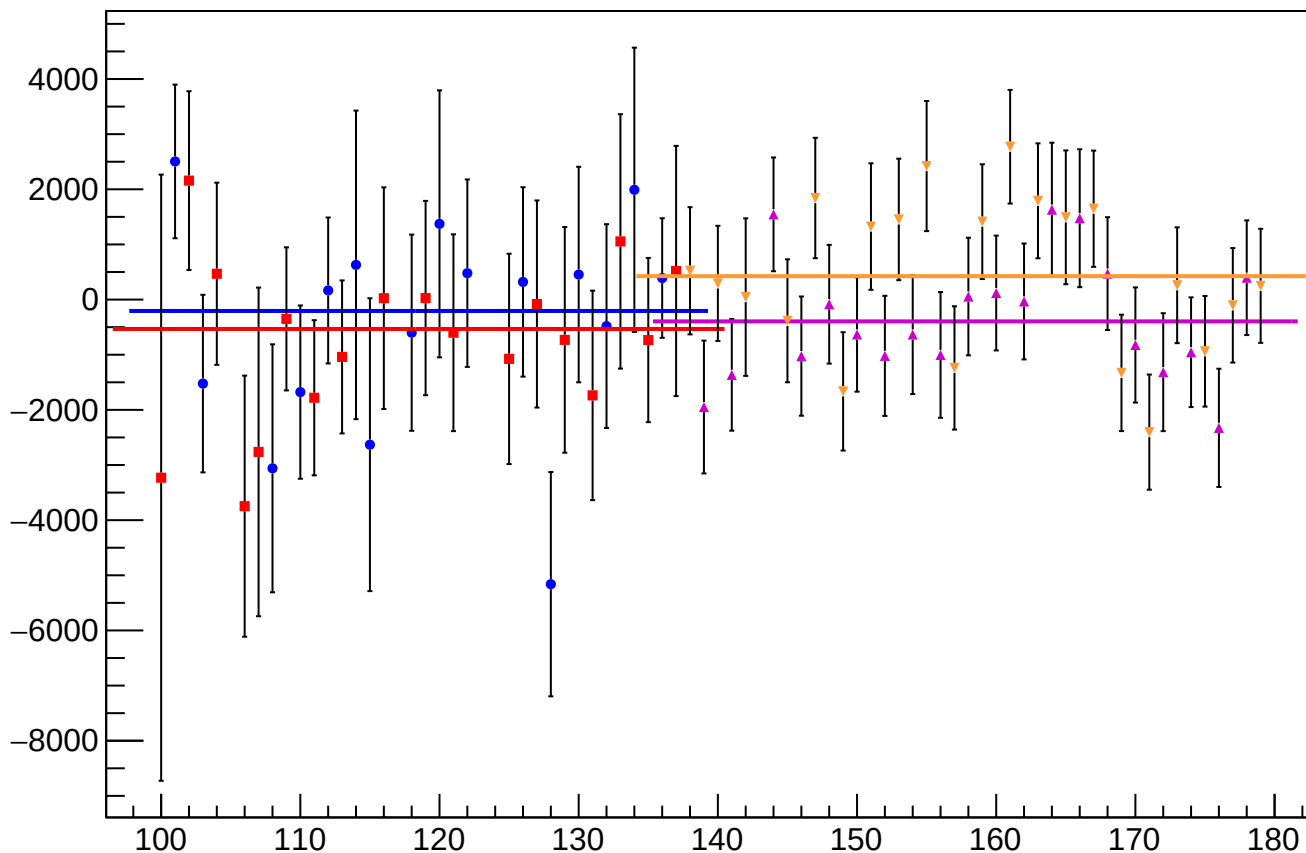
Right:  $688.529 \pm 0.139$   $\chi^2/\text{NDF}$ : 2315094.2/33

In:  $545.803 \pm 0.084$   $\chi^2/\text{NDF}$ : 2042963.1/35

Out:  $545.234 \pm 0.083$   $\chi^2/\text{NDF}$ : 2363758.8/38

All:  $545.514 \pm 0.059$   $\chi^2/\text{NDF}$ : 4406745.1/74

# asym\_us\_dd\_mean vs Slug, Sign Corrected



Right In: -206.385+/-433.774  $\chi^2/\text{NDF}$ : 15.8/15

Left Out: 425.024+/-237.568  $\chi^2/\text{NDF}$ : 34.9/20

Right Out: -532.837+/-427.128  $\chi^2/\text{NDF}$ : 8.1/17

Left In: -395.456+/-240.411  $\chi^2/\text{NDF}$ : 18.6/19

Left: 19.664+/-168.982  $\chi^2/\text{NDF}$ : 59.3/40

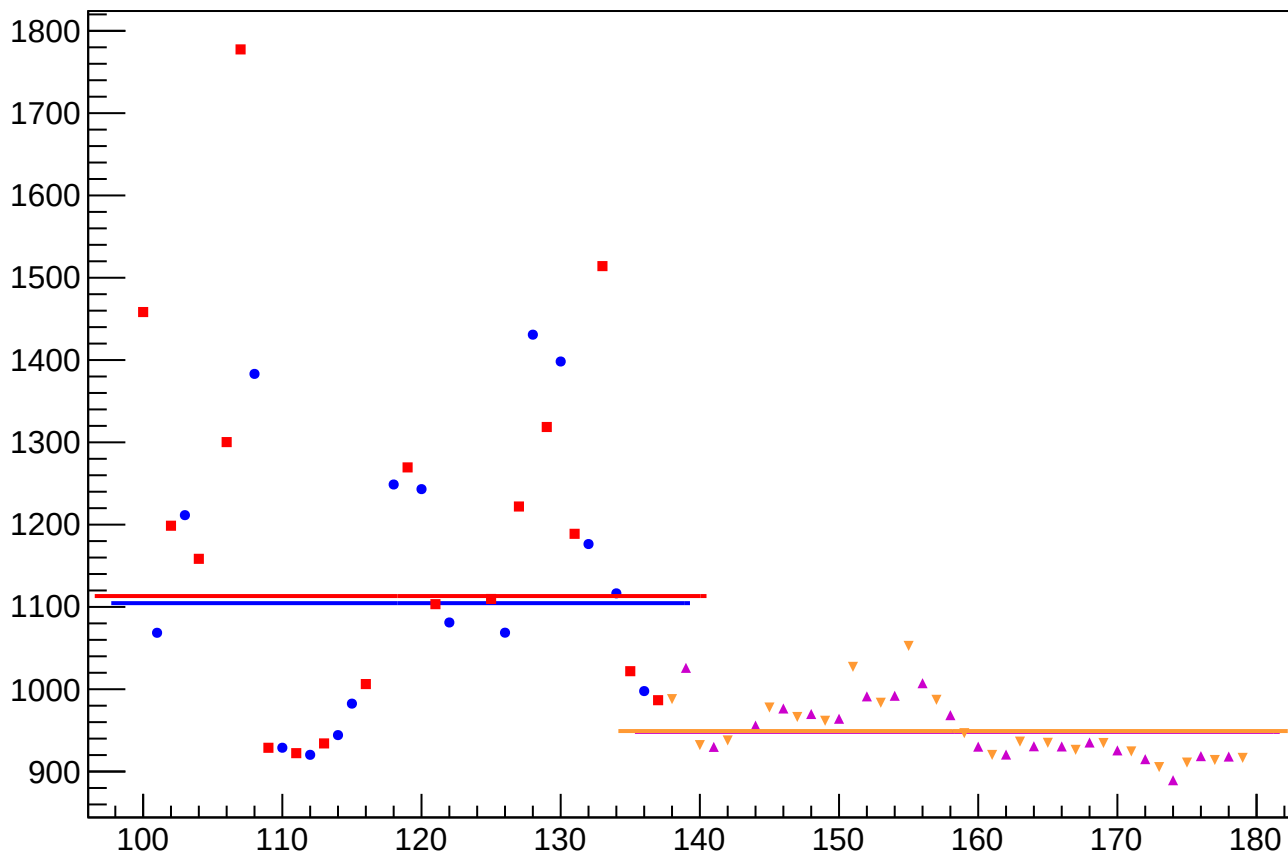
Right: -372.131+/-304.348  $\chi^2/\text{NDF}$ : 24.2/33

In: -351.026+/-210.275  $\chi^2/\text{NDF}$ : 34.5/35

Out: 198.714+/-207.615  $\chi^2/\text{NDF}$ : 46.8/38

All: -72.657+/-147.738  $\chi^2/\text{NDF}$ : 84.8/74

# asym\_us\_dd\_rms vs Slug, Sign Corrected



Right In:  $1104.596 \pm 0.307$   $\chi^2/\text{NDF}: 255488.3/15$

Left Out:  $949.173 \pm 0.168$   $\chi^2/\text{NDF}: 49190.7/20$

Right Out:  $1113.215 \pm 0.302$   $\chi^2/\text{NDF}: 362982.2/17$

Left In:  $948.124 \pm 0.170$   $\chi^2/\text{NDF}: 40439.0/19$

Left:  $948.655 \pm 0.119$   $\chi^2/\text{NDF}: 89648.9/40$

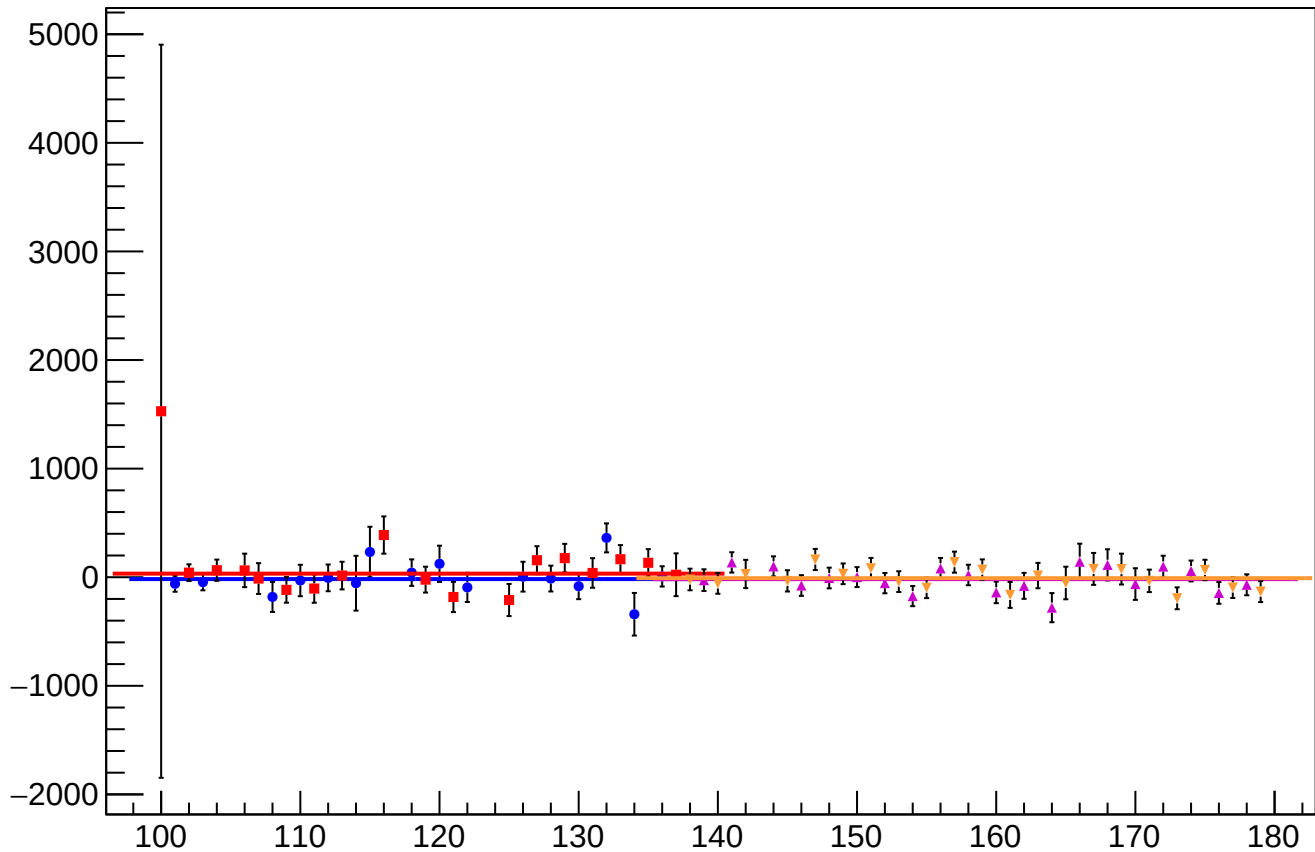
Right:  $1108.972 \pm 0.215$   $\chi^2/\text{NDF}: 618871.4/33$

In:  $984.893 \pm 0.149$   $\chi^2/\text{NDF}: 495015.2/35$

Out:  $987.931 \pm 0.147$   $\chi^2/\text{NDF}: 637474.8/38$

All:  $986.432 \pm 0.104$   $\chi^2/\text{NDF}: 1132701.4/74$

# reg\_asym\_ds\_avg\_mean vs Slug, Sign Corrected



Right In:  $-17.236 \pm 29.988$   $\chi^2/\text{NDF}: 15.6/15$

Left Out:  $-8.819 \pm 22.682$   $\chi^2/\text{NDF}: 17.6/20$

Right Out:  $32.892 \pm 30.446$   $\chi^2/\text{NDF}: 16.5/17$

Left In:  $-17.697 \pm 22.972$   $\chi^2/\text{NDF}: 20.3/19$

Left:  $-13.202 \pm 16.140$   $\chi^2/\text{NDF}: 38.0/40$

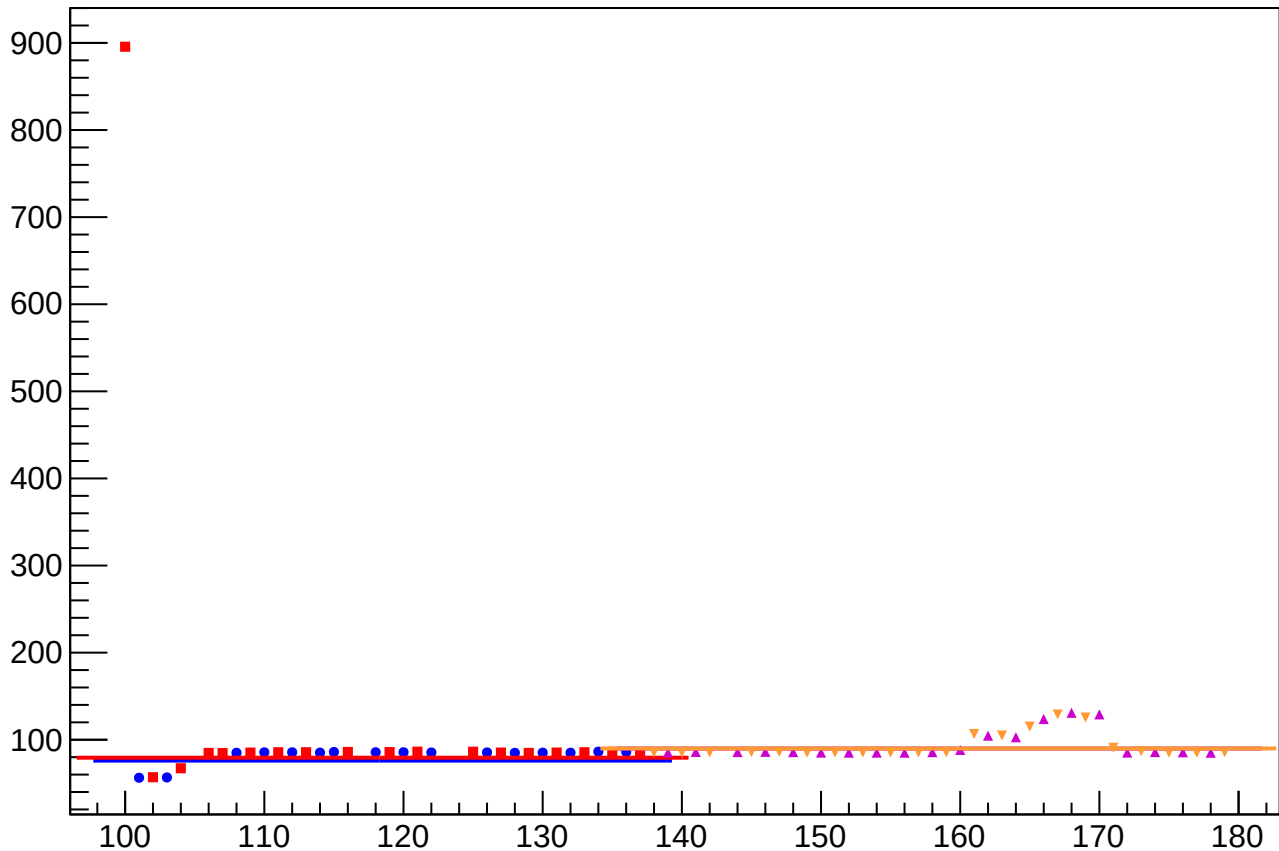
Right:  $7.447 \pm 21.365$   $\chi^2/\text{NDF}: 33.5/33$

In:  $-17.527 \pm 18.236$   $\chi^2/\text{NDF}: 35.9/35$

Out:  $6.069 \pm 18.189$   $\chi^2/\text{NDF}: 35.4/38$

All:  $-5.699 \pm 12.878$   $\chi^2/\text{NDF}: 72.1/74$

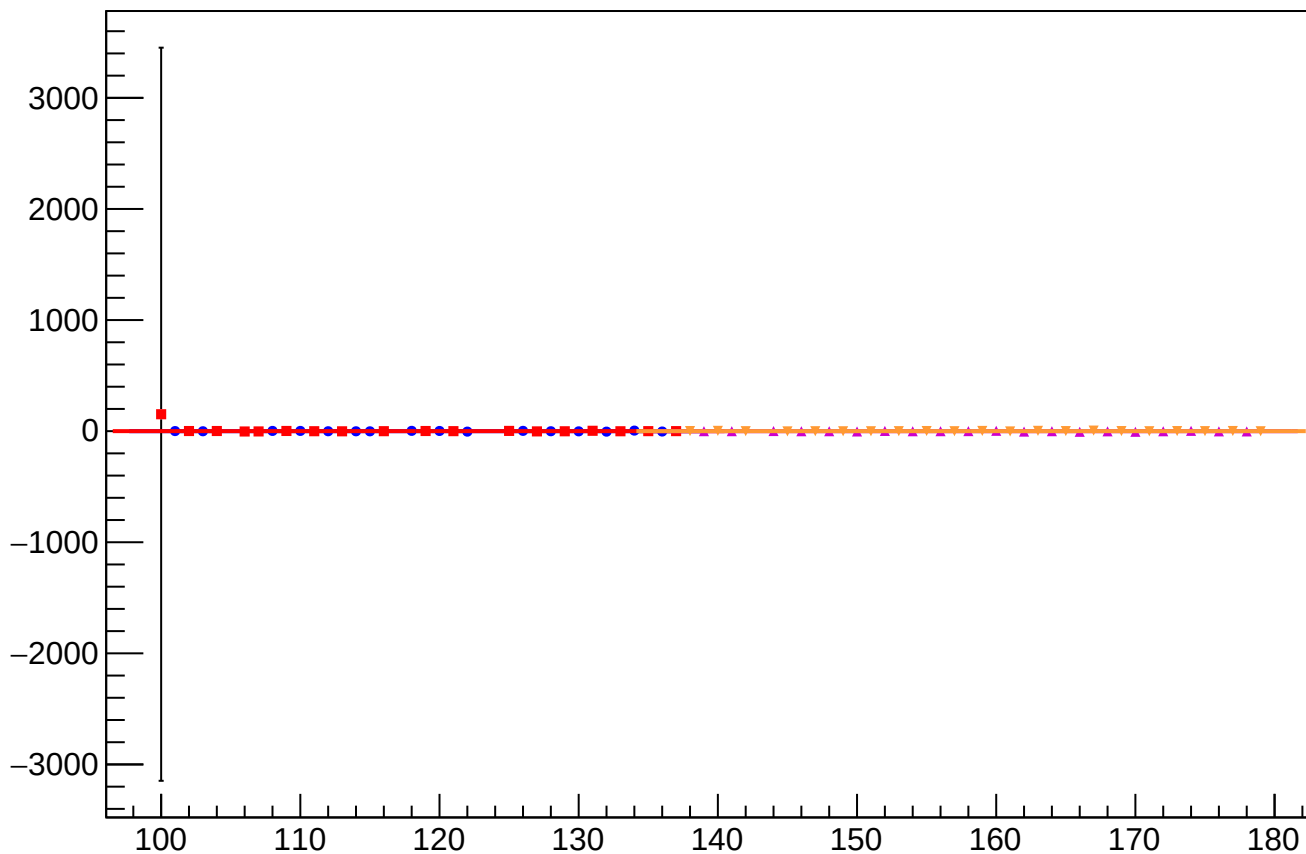
# reg\_asym\_ds\_avg\_rms vs Slug, Sign Corrected



Right In: 76.079 $\pm$ 0.021  $\chi^2$ /NDF: 409170.8/15  
Left Out: 89.997 $\pm$ 0.016  $\chi^2$ /NDF: 456630.4/20  
Right Out: 79.390 $\pm$ 0.022  $\chi^2$ /NDF: 378526.1/17  
Left In: 89.899 $\pm$ 0.016  $\chi^2$ /NDF: 499688.4/19

Left: 89.949 $\pm$ 0.011  $\chi^2$ /NDF: 956337.2/40  
Right: 77.709 $\pm$ 0.015  $\chi^2$ /NDF: 799700.2/33  
In: 84.788 $\pm$ 0.013  $\chi^2$ /NDF: 1176541.5/35  
Out: 86.211 $\pm$ 0.013  $\chi^2$ /NDF: 991258.4/38  
All: 85.502 $\pm$ 0.009  $\chi^2$ /NDF: 2173900.9/74

asym\_ds\_avg\_correction\_mean vs Slug, Sign Corrected



Right In:  $-0.281 \pm 0.501$   $\chi^2/\text{NDF}$ : 21.2/15

Left Out:  $0.022 \pm 0.396$   $\chi^2/\text{NDF}$ : 13.7/20

Right Out:  $0.078 \pm 0.521$   $\chi^2/\text{NDF}$ : 9.0/17

Left In:  $-0.429 \pm 0.411$   $\chi^2/\text{NDF}$ : 25.0/19

Left:  $-0.195 \pm 0.285$   $\chi^2/\text{NDF}$ : 39.3/40

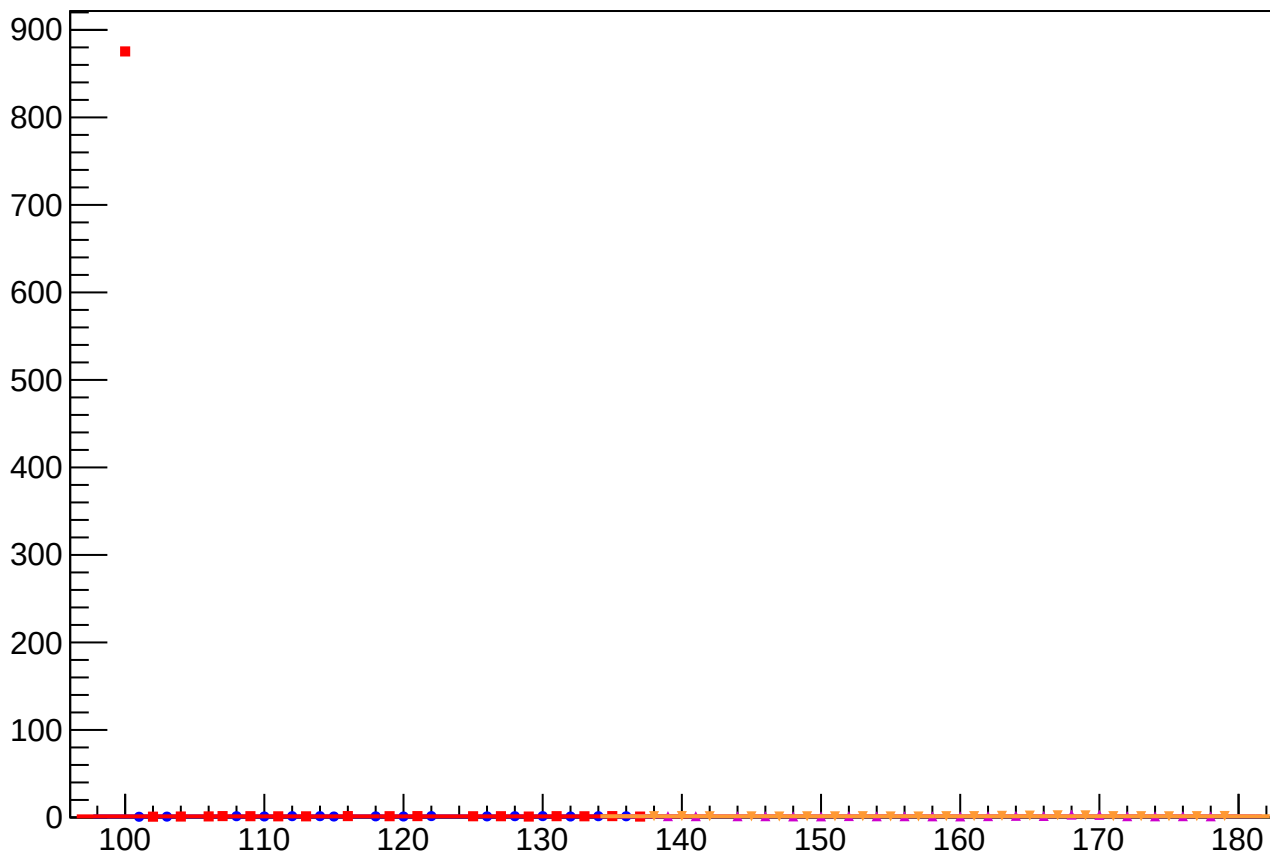
Right:  $-0.108 \pm 0.361$   $\chi^2/\text{NDF}$ : 30.4/33

In:  $-0.369 \pm 0.318$   $\chi^2/\text{NDF}$ : 46.2/35

Out:  $0.043 \pm 0.315$   $\chi^2/\text{NDF}$ : 22.7/38

All:  $-0.162 \pm 0.224$   $\chi^2/\text{NDF}$ : 69.8/74

asym\_ds\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 1.152+/-0.000  $\chi^2/\text{NDF}$ : 514348.9/15

Left Out: 1.401+/-0.000  $\chi^2/\text{NDF}$ : 940783.4/20

Right Out: 1.247+/-0.000  $\chi^2/\text{NDF}$ : 517130.7/17

Left In: 1.457+/-0.000  $\chi^2/\text{NDF}$ : 992347.1/19

Left: 1.428+/-0.000  $\chi^2/\text{NDF}$ : 1952557.3/40

Right: 1.198+/-0.000  $\chi^2/\text{NDF}$ : 1065824.7/33

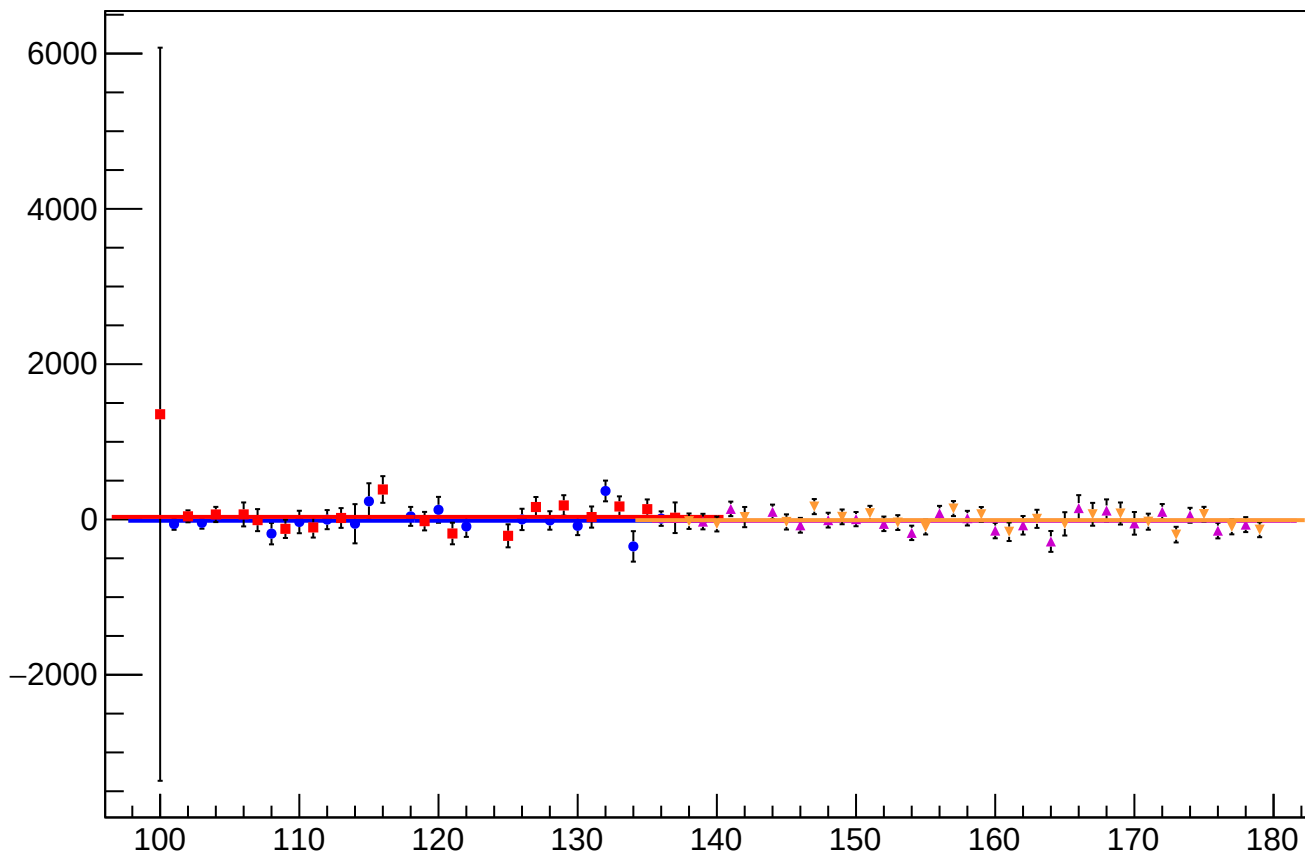
In: 1.335+/-0.000  $\chi^2/\text{NDF}$ : 1948555.3/35

Out: 1.345+/-0.000  $\chi^2/\text{NDF}$ : 1568435.9/38

All: 1.340+/-0.000  $\chi^2/\text{NDF}$ : 3517986.0/74



# asym\_ds\_avg\_mean vs Slug, Sign Corrected



Right In:  $-16.311 \pm 29.996$   $\chi^2/\text{NDF}$ : 15.9/15

Left Out:  $-8.829 \pm 22.689$   $\chi^2/\text{NDF}$ : 17.6/20

Right Out:  $33.114 \pm 30.455$   $\chi^2/\text{NDF}$ : 16.5/17

Left In:  $-17.389 \pm 22.979$   $\chi^2/\text{NDF}$ : 20.2/19

Left:  $-13.055 \pm 16.145$   $\chi^2/\text{NDF}$ : 37.8/40

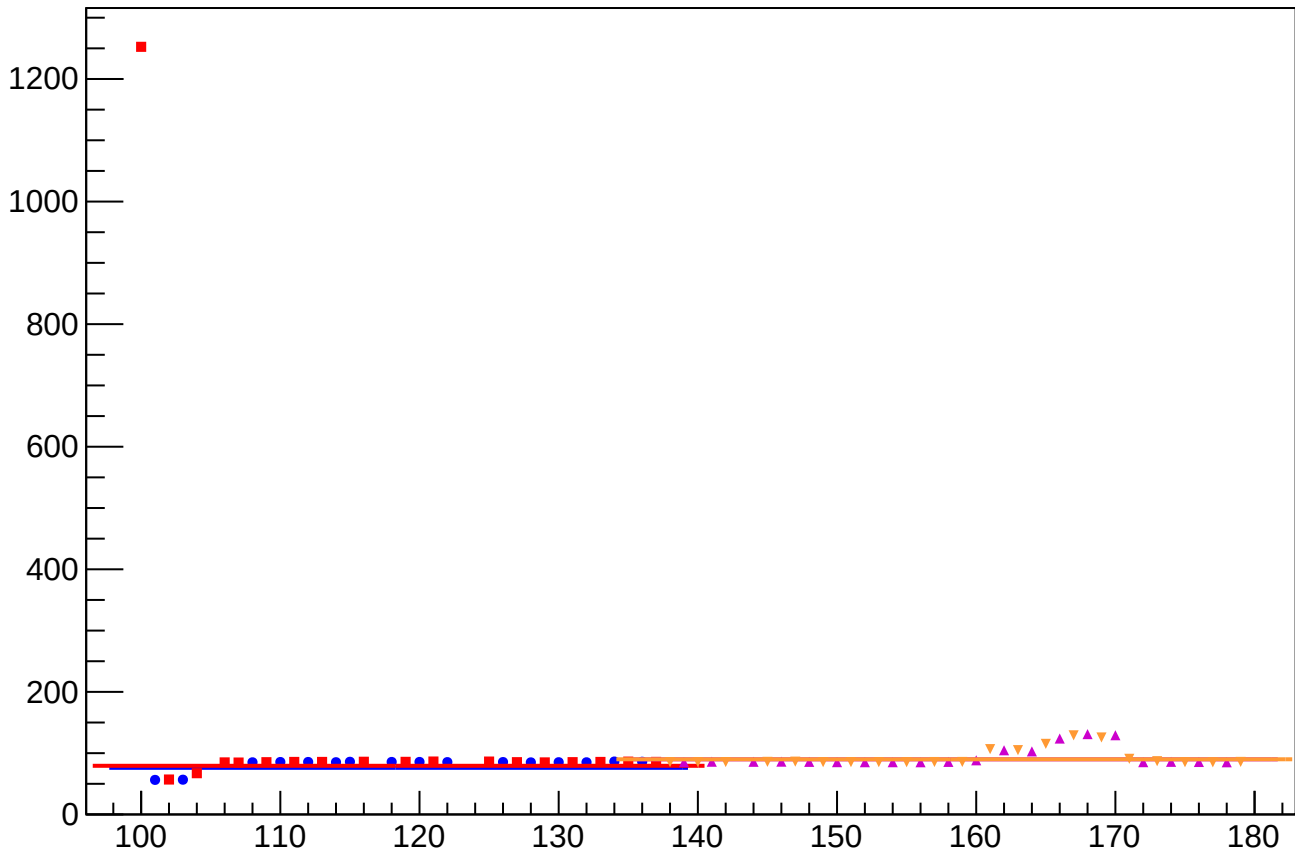
Right:  $8.026 \pm 21.371$   $\chi^2/\text{NDF}$ : 33.7/33

In:  $-16.990 \pm 18.241$   $\chi^2/\text{NDF}$ : 36.0/35

Out:  $6.142 \pm 18.195$   $\chi^2/\text{NDF}$ : 35.3/38

All:  $-5.395 \pm 12.882$   $\chi^2/\text{NDF}$ : 72.2/74

# asym\_ds\_avg\_rms vs Slug, Sign Corrected



Right In: 76.099+/-0.021  $\chi^2/\text{NDF}$ : 409200.9/15

Left Out: 90.023+/-0.016  $\chi^2/\text{NDF}$ : 457364.9/20

Right Out: 79.393+/-0.022  $\chi^2/\text{NDF}$ : 385048.8/17

Left In: 89.925+/-0.016  $\chi^2/\text{NDF}$ : 500560.9/19

Left: 89.975+/-0.011  $\chi^2/\text{NDF}$ : 957944.2/40

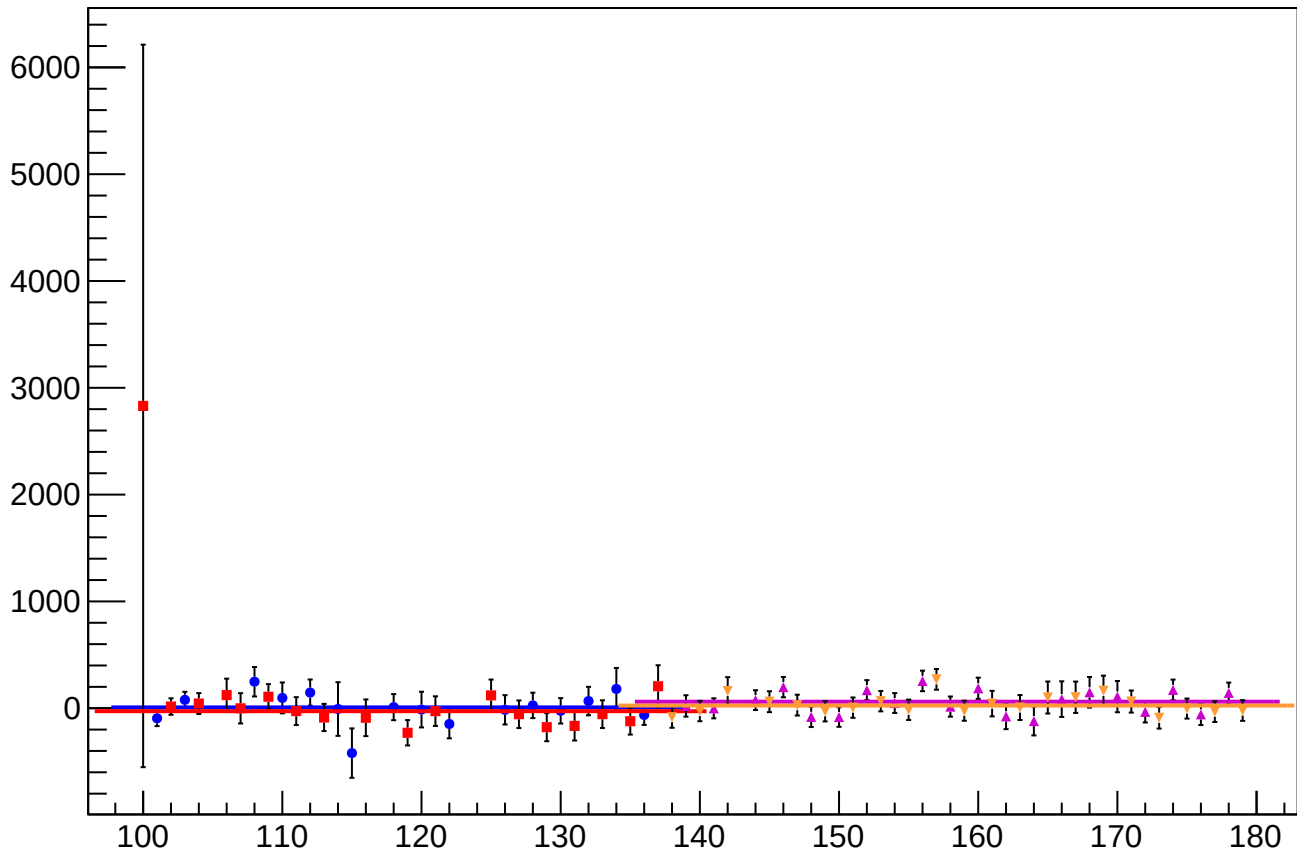
Right: 77.721+/-0.015  $\chi^2/\text{NDF}$ : 806127.4/33

In: 84.812+/-0.013  $\chi^2/\text{NDF}$ : 1177549.6/35

Out: 86.229+/-0.013  $\chi^2/\text{NDF}$ : 999108.9/38

All: 85.522+/-0.009  $\chi^2/\text{NDF}$ : 2182709.1/74

# reg\_asym\_ds\_dd\_mean vs Slug, Sign Corrected



Right In:  $7.460 \pm 29.969$   $\chi^2/\text{NDF}$ : 13.9/15

Left Out:  $24.988 \pm 22.687$   $\chi^2/\text{NDF}$ : 13.7/20

Right Out:  $-27.920 \pm 30.428$   $\chi^2/\text{NDF}$ : 12.5/17

Left In:  $60.861 \pm 22.982$   $\chi^2/\text{NDF}$ : 22.6/19

Left:  $42.692 \pm 16.145$   $\chi^2/\text{NDF}$ : 37.5/40

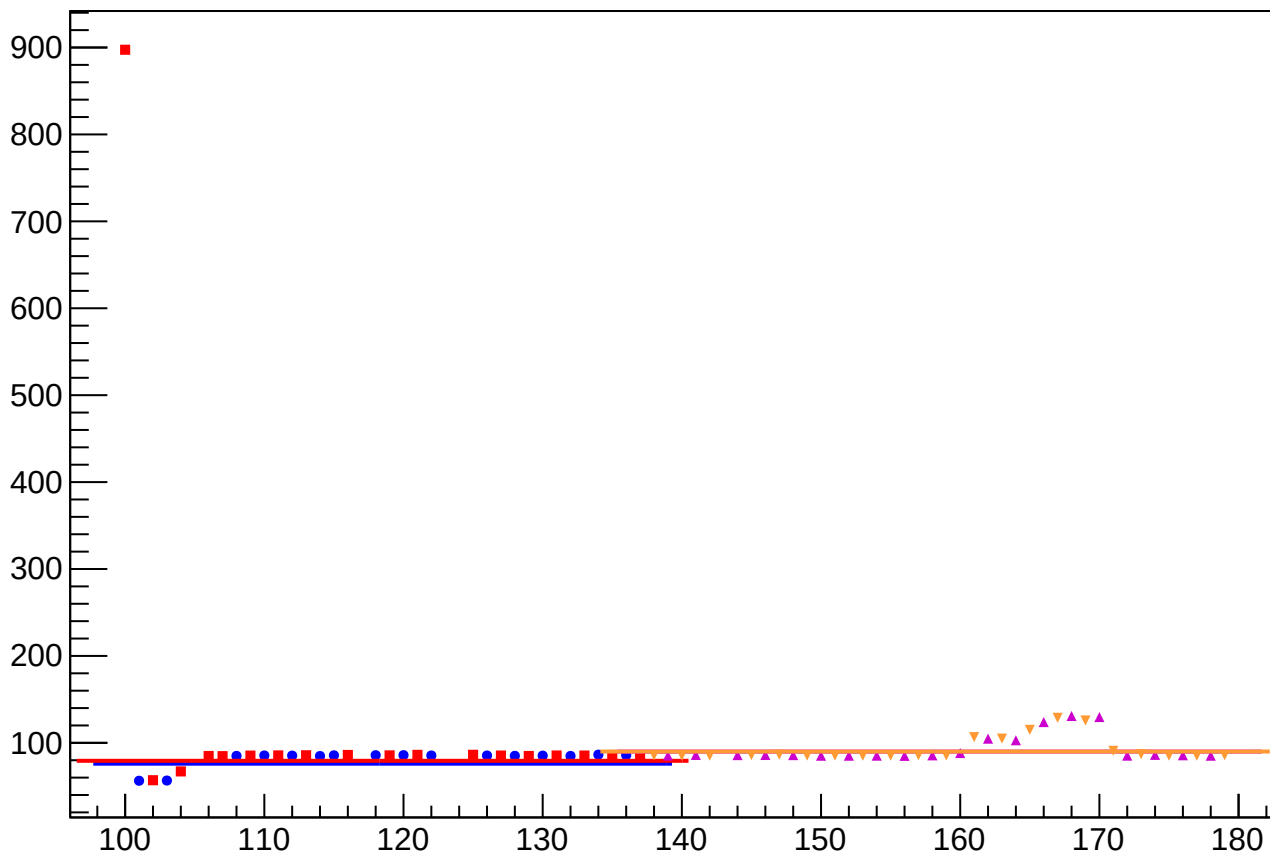
Right:  $-9.961 \pm 21.352$   $\chi^2/\text{NDF}$ : 27.1/33

In:  $41.086 \pm 18.237$   $\chi^2/\text{NDF}$ : 38.5/35

Out:  $6.085 \pm 18.188$   $\chi^2/\text{NDF}$ : 28.1/38

All:  $23.538 \pm 12.878$   $\chi^2/\text{NDF}$ : 68.5/74

# reg\_asym\_ds\_dd\_rms vs Slug, Sign Corrected



Right In: 76.032 $\pm$ 0.021  $\chi^2$ /NDF: 408917.7/15

Left Out: 90.014 $\pm$ 0.016  $\chi^2$ /NDF: 455428.0/20

Right Out: 79.342 $\pm$ 0.022  $\chi^2$ /NDF: 378371.9/17

Left In: 89.934 $\pm$ 0.016  $\chi^2$ /NDF: 502309.1/19

Left: 89.975 $\pm$ 0.011  $\chi^2$ /NDF: 957749.2/40

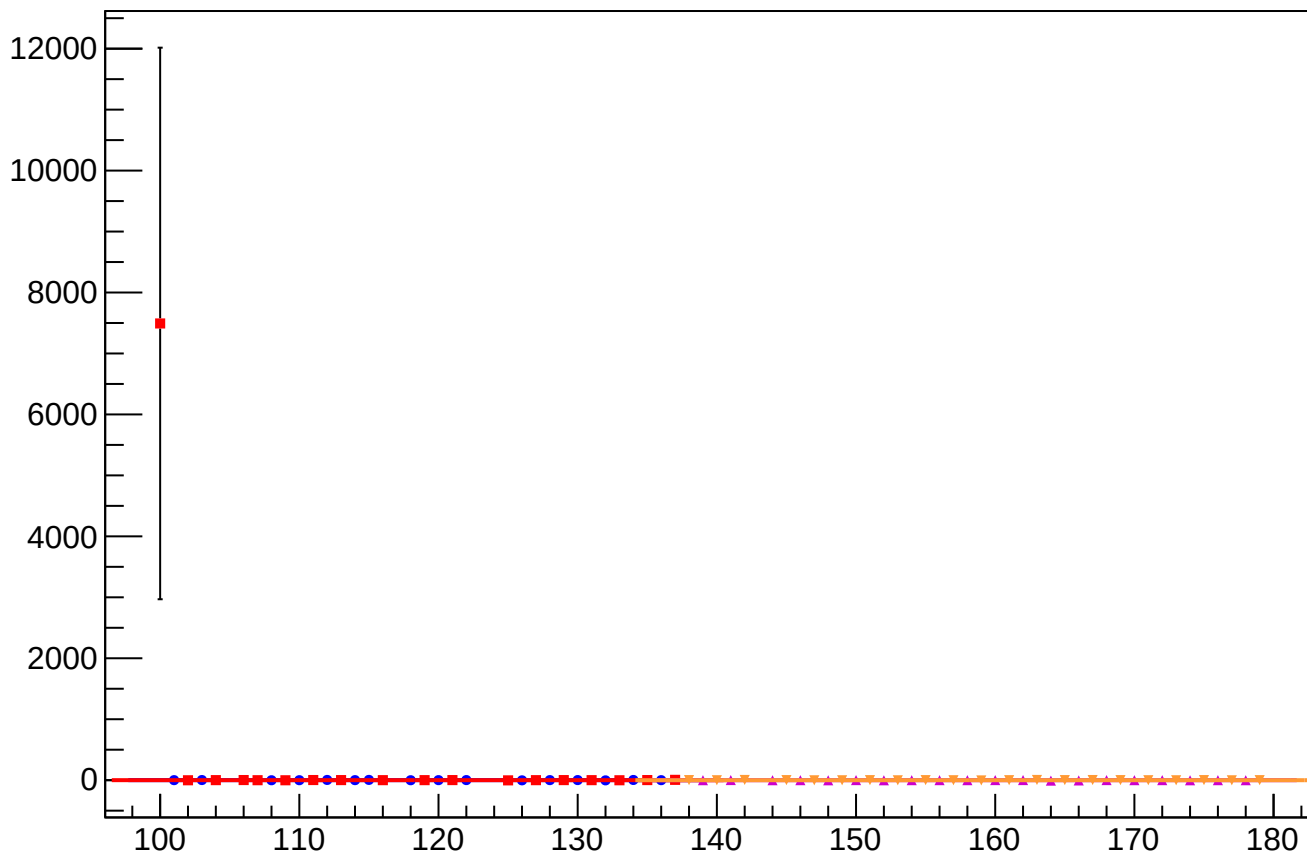
Right: 77.662 $\pm$ 0.015  $\chi^2$ /NDF: 799302.8/33

In: 84.786 $\pm$ 0.013  $\chi^2$ /NDF: 1182254.5/35

Out: 86.201 $\pm$ 0.013  $\chi^2$ /NDF: 991933.6/38

All: 85.495 $\pm$ 0.009  $\chi^2$ /NDF: 2180223.1/74

asym\_ds\_dd\_correction\_mean vs Slug, Sign Corrected



Right In:  $0.911 \pm 0.532$   $\chi^2/\text{NDF}$ : 12.0/15

Left Out:  $-0.387 \pm 0.407$   $\chi^2/\text{NDF}$ : 18.7/20

Right Out:  $0.314 \pm 0.548$   $\chi^2/\text{NDF}$ : 12.6/17

Left In:  $0.045 \pm 0.412$   $\chi^2/\text{NDF}$ : 15.7/19

Left:  $-0.174 \pm 0.289$   $\chi^2/\text{NDF}$ : 35.0/40

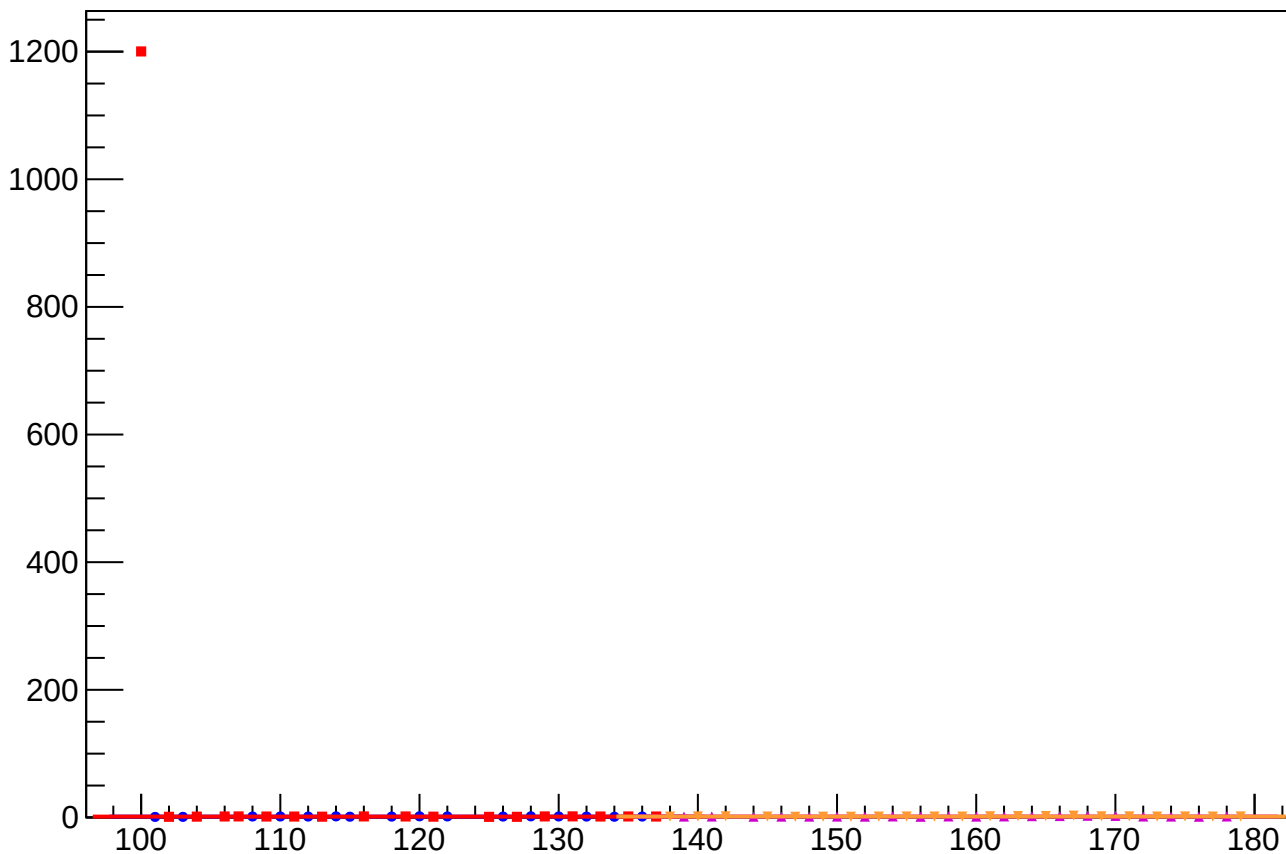
Right:  $0.621 \pm 0.382$   $\chi^2/\text{NDF}$ : 25.2/33

In:  $0.369 \pm 0.326$   $\chi^2/\text{NDF}$ : 29.4/35

Out:  $-0.139 \pm 0.327$   $\chi^2/\text{NDF}$ : 32.4/38

All:  $0.116 \pm 0.231$   $\chi^2/\text{NDF}$ : 63.0/74

asym\_ds\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 1.238+/-0.000  $\chi^2/\text{NDF}$ : 657848.9/15

Left Out: 1.449+/-0.000  $\chi^2/\text{NDF}$ :1061616.8/20

Right Out: 1.317+/-0.000  $\chi^2/\text{NDF}$ : 521587.9/17

Left In: 1.447+/-0.000  $\chi^2/\text{NDF}$ :999445.2/19

Left: 1.448+/-0.000  $\chi^2/\text{NDF}$ : 2061072.3/40

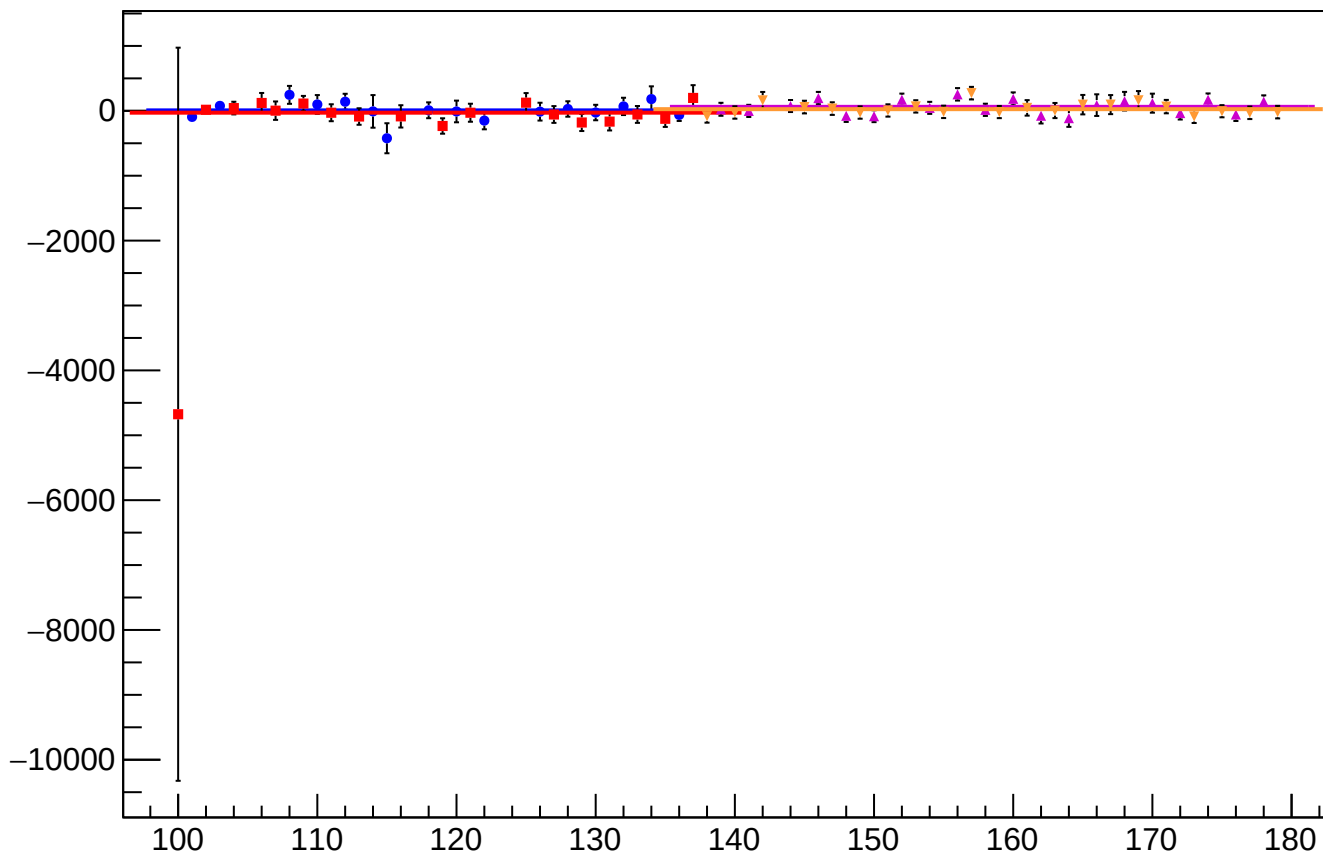
Right: 1.276+/-0.000  $\chi^2/\text{NDF}$ : 1201203.5/33

In: 1.369+/-0.000  $\chi^2/\text{NDF}$ :1851429.8/35

Out: 1.402+/-0.000  $\chi^2/\text{NDF}$ :1657095.2/38

All: 1.385+/-0.000  $\chi^2/\text{NDF}$ : 3518926.8/74

# asym\_ds\_dd\_mean vs Slug, Sign Corrected



Right In:  $6.781 \pm 29.977$   $\chi^2/\text{NDF}$ : 13.8/15

Left Out:  $25.649 \pm 22.694$   $\chi^2/\text{NDF}$ : 13.6/20

Right Out:  $-28.551 \pm 30.437$   $\chi^2/\text{NDF}$ : 12.7/17

Left In:  $61.304 \pm 22.989$   $\chi^2/\text{NDF}$ : 22.2/19

Left:  $43.245 \pm 16.150$   $\chi^2/\text{NDF}$ : 37.0/40

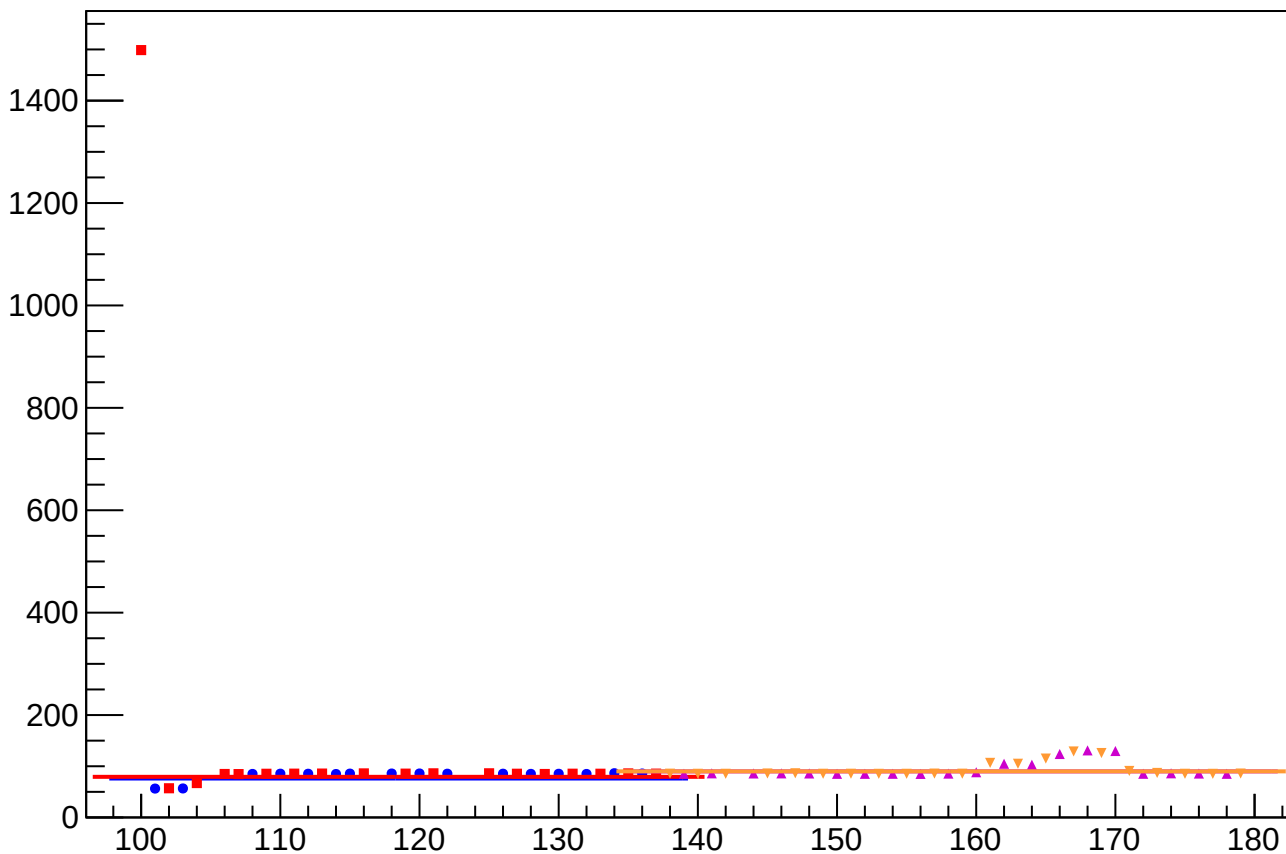
Right:  $-10.616 \pm 21.358$   $\chi^2/\text{NDF}$ : 27.2/33

In:  $41.112 \pm 18.243$   $\chi^2/\text{NDF}$ : 38.2/35

Out:  $6.284 \pm 18.193$   $\chi^2/\text{NDF}$ : 28.3/38

All:  $23.651 \pm 12.882$   $\chi^2/\text{NDF}$ : 68.3/74

# asym\_ds\_dd\_rms vs Slug, Sign Corrected



Right In: 76.052 $\pm$ 0.021  $\chi^2$ /NDF: 408962.1/15

Left Out: 90.041 $\pm$ 0.016  $\chi^2$ /NDF: 456170.2/20

Right Out: 79.338 $\pm$ 0.022  $\chi^2$ /NDF: 387631.3/17

Left In: 89.961 $\pm$ 0.016  $\chi^2$ /NDF: 503112.6/19

Left: 90.002 $\pm$ 0.011  $\chi^2$ /NDF: 959294.9/40

Right: 77.670 $\pm$ 0.015  $\chi^2$ /NDF: 808427.1/33

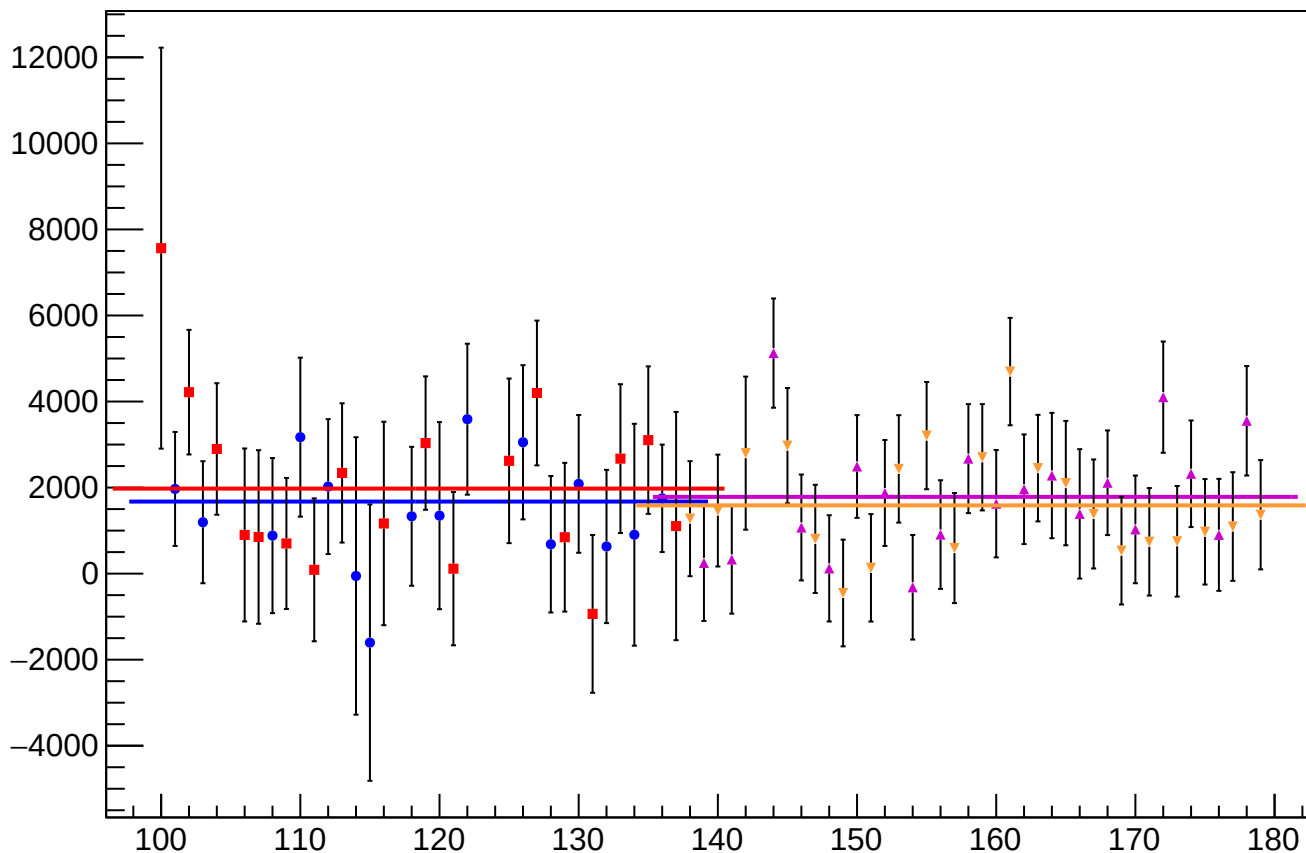
In: 84.810 $\pm$ 0.013  $\chi^2$ /NDF: 1183189.4/35

Out: 86.217 $\pm$ 0.013  $\chi^2$ /NDF: 1002732.9/38

All: 85.516 $\pm$ 0.009  $\chi^2$ /NDF: 2191883.5/74



# reg\_asym\_usl\_mean vs Slug, Sign Corrected



Right In: 1674.993 $\pm$ 430.597  $\chi^2$ /NDF: 5.1/15

Left Out: 1585.496 $\pm$ 280.692  $\chi^2$ /NDF:18.5/20

Right Out: 1976.296 $\pm$ 422.405  $\chi^2$ /NDF: 14.0/17

Left In: 1784.165 $\pm$ 284.556  $\chi^2$ /NDF:22.5/19

Left: 1683.473 $\pm$ 199.831  $\chi^2$ /NDF: 41.2/40

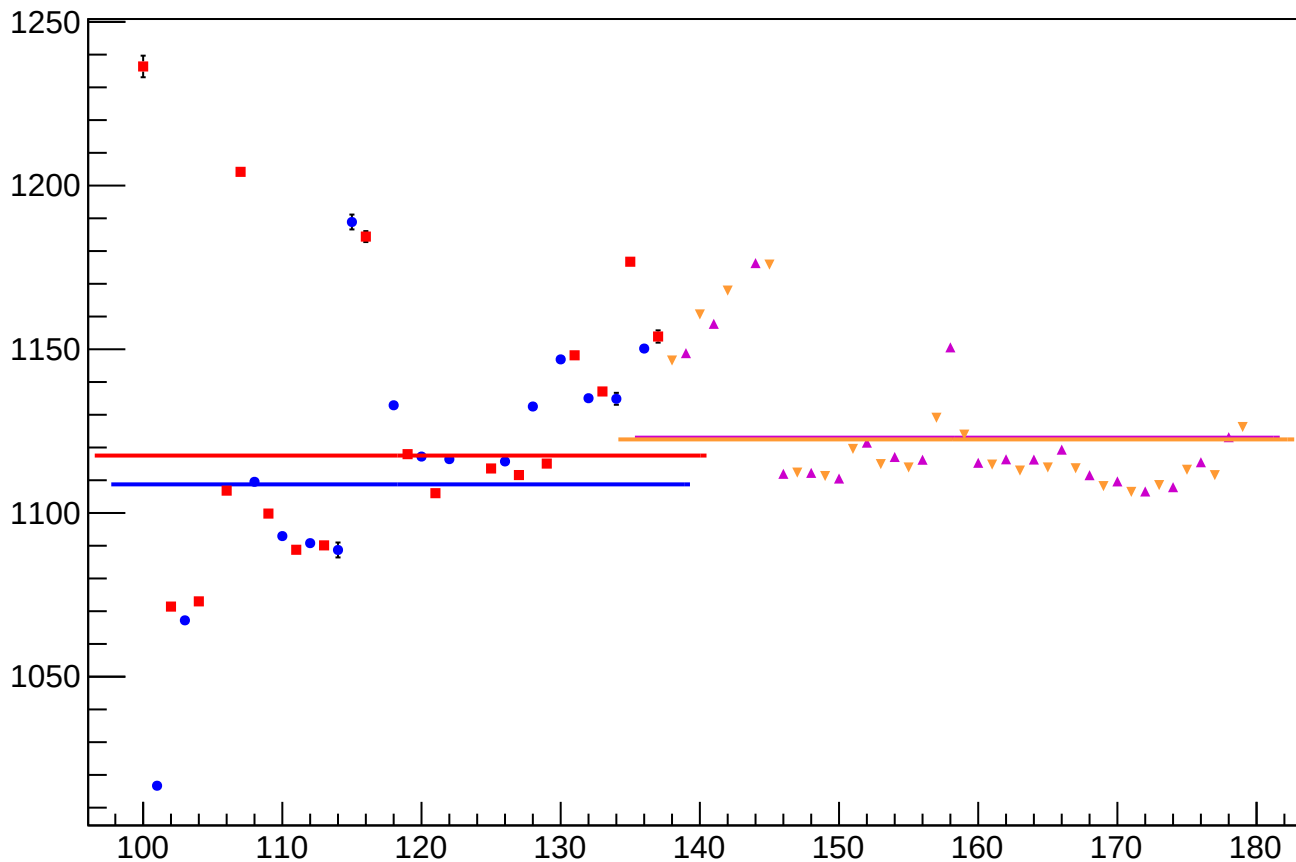
Right: 1828.538 $\pm$ 301.540  $\chi^2$ /NDF: 19.4/33

In: 1750.981 $\pm$ 237.401  $\chi^2$ /NDF:27.7/35

Out: 1705.203 $\pm$ 233.782  $\chi^2$ /NDF:33.1/38

All: 1727.740 $\pm$ 166.574  $\chi^2$ /NDF: 60.8/74

# reg\_asym\_usl\_rms vs Slug, Sign Corrected



Right In: 1108.739 $\pm$ 0.304  $\chi^2$ /NDF: 18080.7/15

Left Out: 1122.472 $\pm$ 0.198  $\chi^2$ /NDF:8849.1/20

Right Out: 1117.539 $\pm$ 0.299  $\chi^2$ /NDF: 15515.2/17

Left In: 1123.007 $\pm$ 0.201  $\chi^2$ /NDF:8646.8/19

Left: 1122.736 $\pm$ 0.141  $\chi^2$ /NDF: 17499.4/40

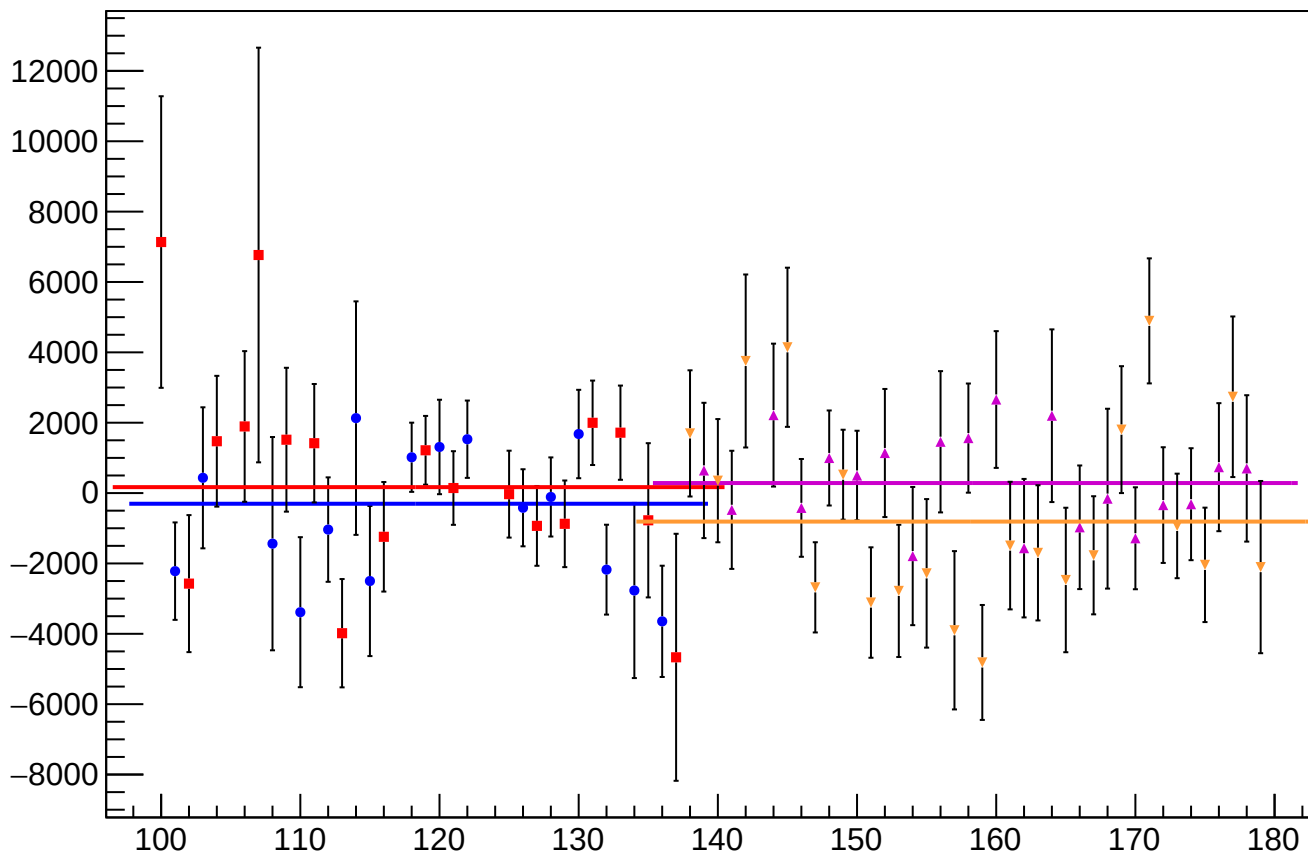
Right: 1113.224 $\pm$ 0.213  $\chi^2$ /NDF: 34021.5/33

In: 1118.670 $\pm$ 0.168  $\chi^2$ /NDF:28255.9/35

Out: 1120.961 $\pm$ 0.165  $\chi^2$ /NDF:24553.4/38

All: 1119.833 $\pm$ 0.118  $\chi^2$ /NDF: 52903.8/74

# asym\_usl\_correction\_mean vs Slug, Sign Corrected



Right In:  $-303.335 \pm 360.068$   $\chi^2/\text{NDF}: 22.3/15$

Left Out:  $-810.190 \pm 386.760$   $\chi^2/\text{NDF}: 42.5/20$

Right Out:  $168.849 \pm 356.237$   $\chi^2/\text{NDF}: 24.9/17$

Left In:  $285.352 \pm 385.892$   $\chi^2/\text{NDF}: 9.2/19$

Left:  $-261.187 \pm 273.173$   $\chi^2/\text{NDF}: 55.7/40$

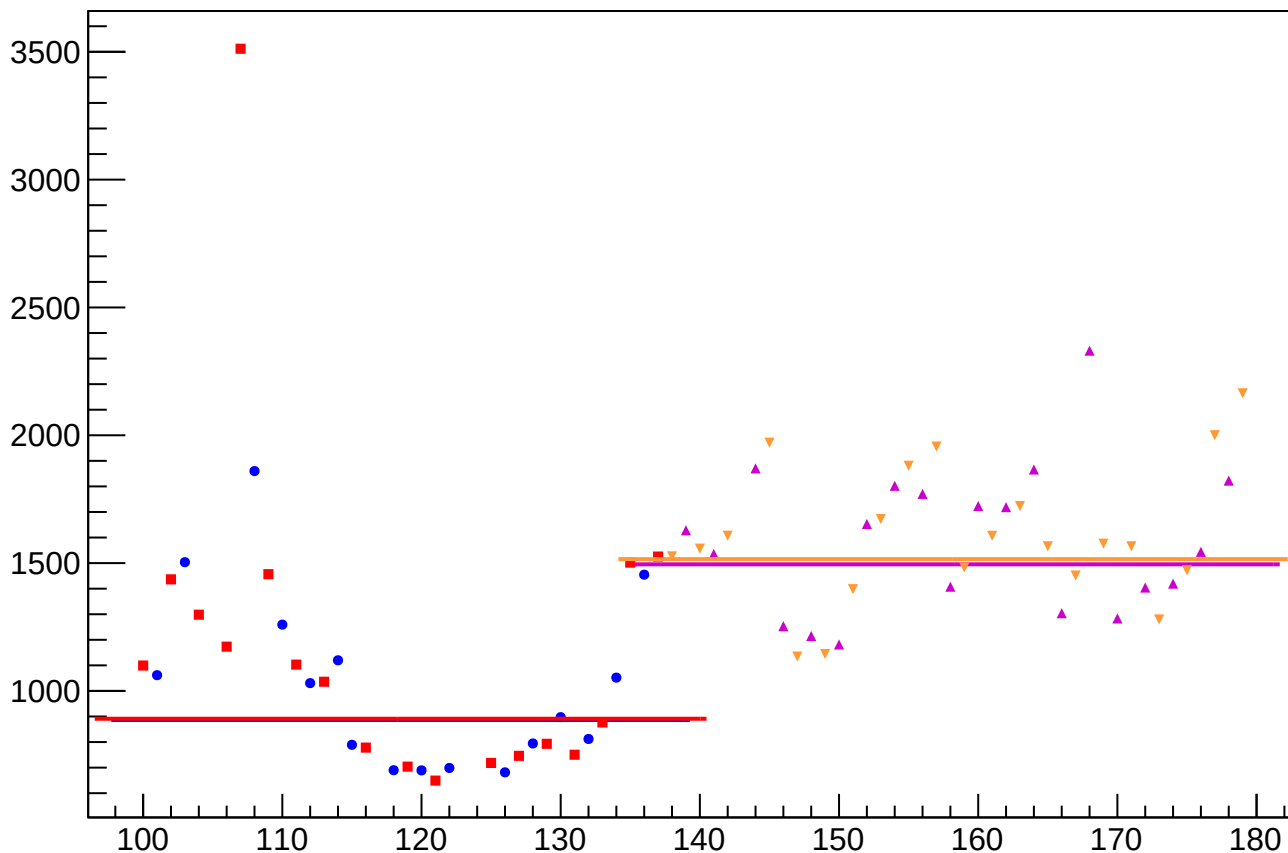
Right:  $-64.717 \pm 253.241$   $\chi^2/\text{NDF}: 48.0/33$

In:  $-29.346 \pm 263.263$   $\chi^2/\text{NDF}: 32.7/35$

Out:  $-280.518 \pm 262.025$   $\chi^2/\text{NDF}: 70.8/38$

All:  $-155.524 \pm 185.716$   $\chi^2/\text{NDF}: 104.0/74$

# asym\_usl\_correction\_rms vs Slug, Sign Corrected



Right In: 886.691+/-0.255  $\chi^2/\text{NDF}$ : 1060864.2/15

Left Out: 1515.583+/-0.273  $\chi^2/\text{NDF}$ : 912038.9/20

Right Out: 891.197+/-0.252  $\chi^2/\text{NDF}$ : 1414187.9/17

Left In: 1495.242+/-0.273  $\chi^2/\text{NDF}$ : 896217.4/19

Left: 1505.390+/-0.193  $\chi^2/\text{NDF}$ : 1811028.6/40

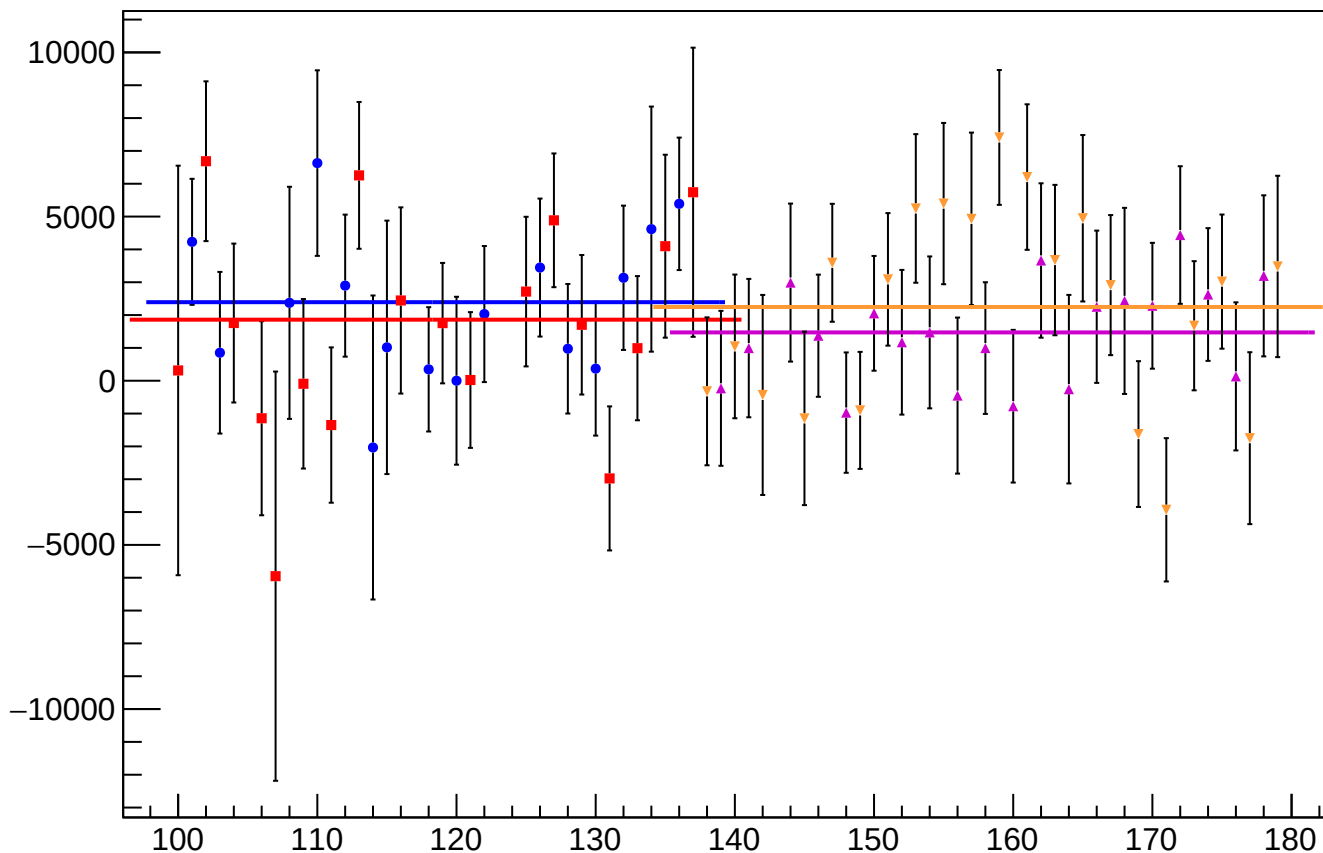
Right: 888.968+/-0.179  $\chi^2/\text{NDF}$ : 2475210.4/33

In: 1169.925+/-0.186  $\chi^2/\text{NDF}$ : 4615990.2/35

Out: 1177.783+/-0.185  $\chi^2/\text{NDF}$ : 5146301.9/38

All: 1173.872+/-0.131  $\chi^2/\text{NDF}$ : 9763187.1/74

# asym\_usl\_mean vs Slug, Sign Corrected



Right In: 2392.385 $\pm$ 588.991  $\chi^2$ /NDF: 11.2/15

Left Out: 2246.637 $\pm$ 486.340  $\chi^2$ /NDF:37.3/20

Right Out: 1859.867 $\pm$ 583.119  $\chi^2$ /NDF: 22.5/17

Left In: 1471.664 $\pm$ 487.063  $\chi^2$ /NDF:9.3/19

Left: 1859.726 $\pm$ 344.150  $\chi^2$ /NDF: 47.9/40

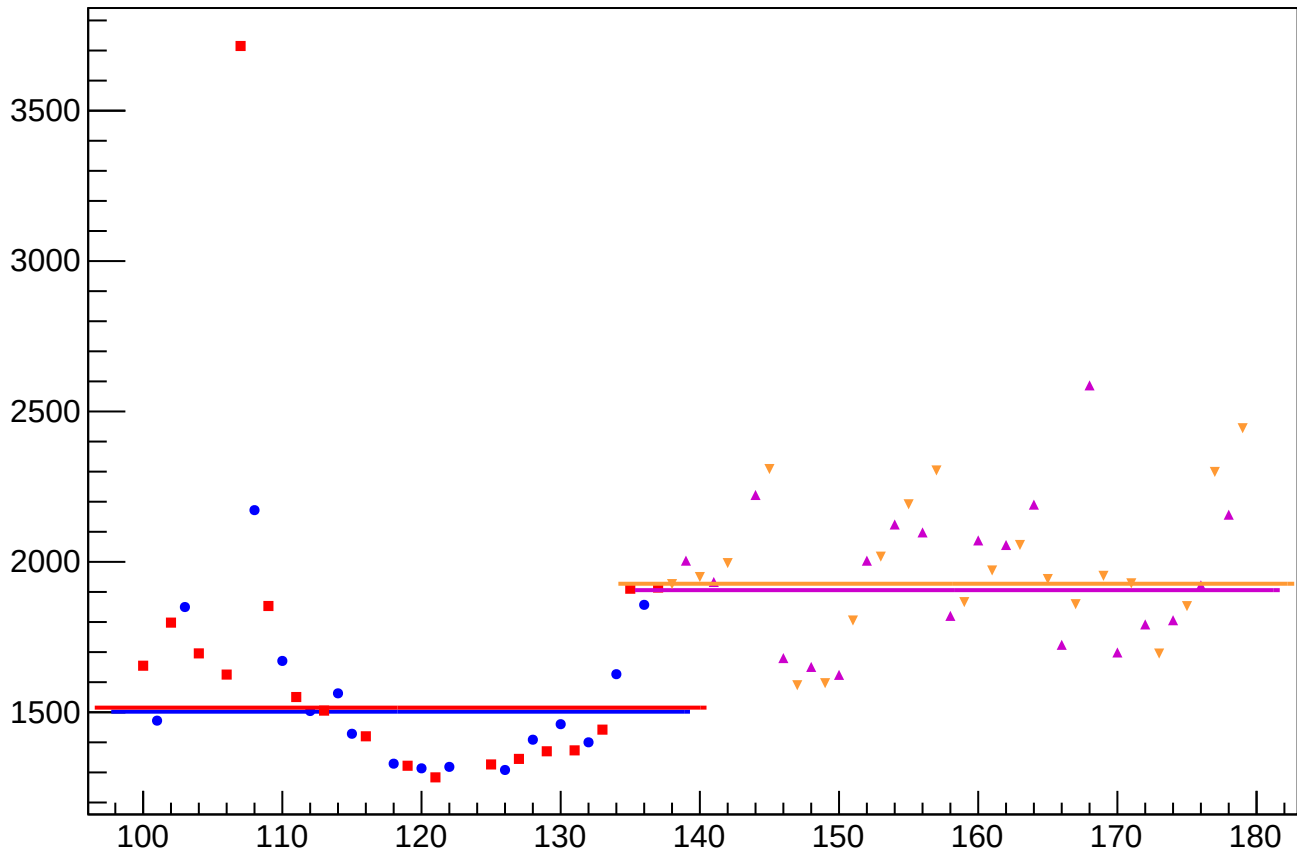
Right: 2123.458 $\pm$ 414.388  $\chi^2$ /NDF: 34.1/33

In: 1845.586 $\pm$ 375.349  $\chi^2$ /NDF:21.9/35

Out: 2087.968 $\pm$ 373.488  $\chi^2$ /NDF:60.0/38

All: 1967.379 $\pm$ 264.751  $\chi^2$ /NDF: 82.2/74

# asym\_usl\_rms vs Slug, Sign Corrected



Right In:  $1501.937 \pm 0.416$   $\chi^2/\text{NDF}: 254549.7/15$

Left Out:  $1927.273 \pm 0.344$   $\chi^2/\text{NDF}: 409228.4/20$

Right Out:  $1515.406 \pm 0.412$   $\chi^2/\text{NDF}: 479759.9/17$

Left In:  $1905.977 \pm 0.344$   $\chi^2/\text{NDF}: 417752.6/19$

Left:  $1916.641 \pm 0.243$   $\chi^2/\text{NDF}: 828895.6/40$

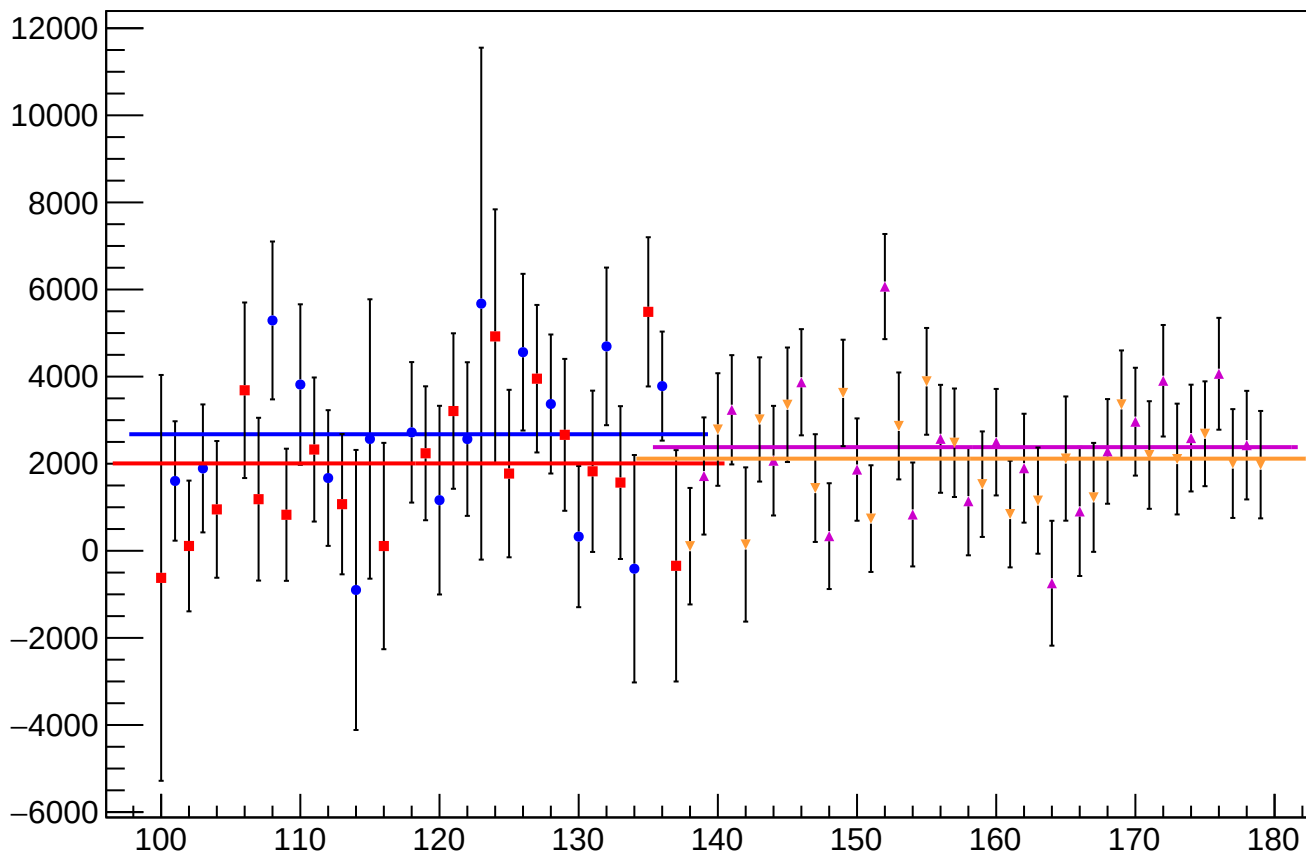
Right:  $1508.739 \pm 0.293$   $\chi^2/\text{NDF}: 734837.7/33$

In:  $1741.889 \pm 0.265$   $\chi^2/\text{NDF}: 1231238.9/35$

Out:  $1758.308 \pm 0.264$   $\chi^2/\text{NDF}: 1477432.4/38$

All:  $1750.139 \pm 0.187$   $\chi^2/\text{NDF}: 2710594.4/74$

# reg\_asym\_usr\_mean vs Slug, Sign Corrected



Right In: 2676.683 $\pm$ 433.582  $\chi^2$ /NDF: 12.6/16

Left Out: 2116.145 $\pm$ 271.448  $\chi^2$ /NDF: 14.4/21

Right Out: 2006.577 $\pm$ 419.165  $\chi^2$ /NDF: 12.8/18

Left In: 2380.378 $\pm$ 280.617  $\chi^2$ /NDF: 26.6/19

Left: 2243.874 $\pm$ 195.104  $\chi^2$ /NDF: 41.5/41

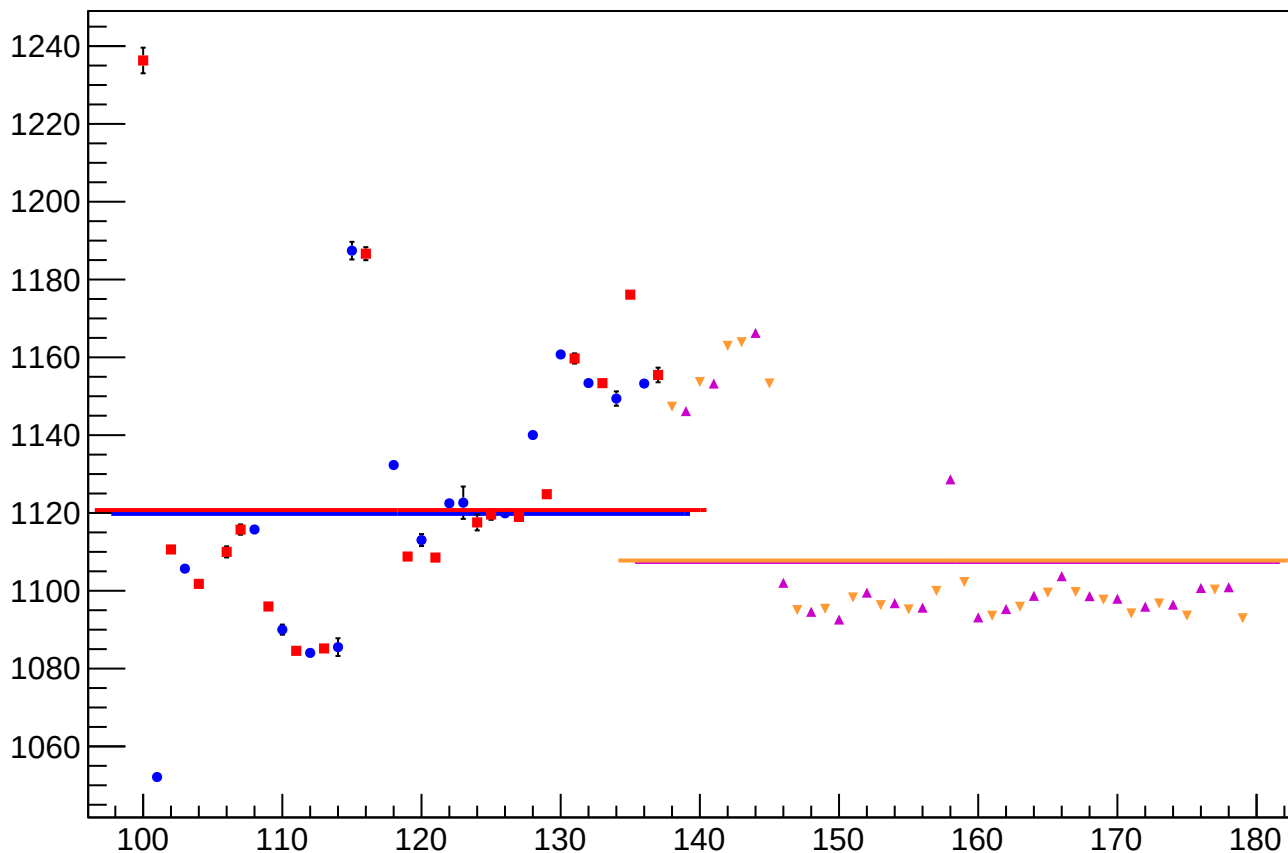
Right: 2330.304 $\pm$ 301.362  $\chi^2$ /NDF: 26.6/35

In: 2467.852 $\pm$ 235.582  $\chi^2$ /NDF: 39.5/36

Out: 2083.772 $\pm$ 227.844  $\chi^2$ /NDF: 27.2/40

All: 2269.401 $\pm$ 163.777  $\chi^2$ /NDF: 68.1/77

# reg\_asym\_usr\_rms vs Slug, Sign Corrected



Right In: 1119.762 $\pm$ 0.307  $\chi^2$ /NDF: 11876.8/16

Left Out: 1107.774 $\pm$ 0.192  $\chi^2$ /NDF:14514.1/21

Right Out: 1120.746 $\pm$ 0.296  $\chi^2$ /NDF: 9934.2/18

Left In: 1107.411 $\pm$ 0.198  $\chi^2$ /NDF:11490.9/19

Left: 1107.599 $\pm$ 0.138  $\chi^2$ /NDF: 26006.7/41

Right: 1120.271 $\pm$ 0.213  $\chi^2$ /NDF: 21816.3/35

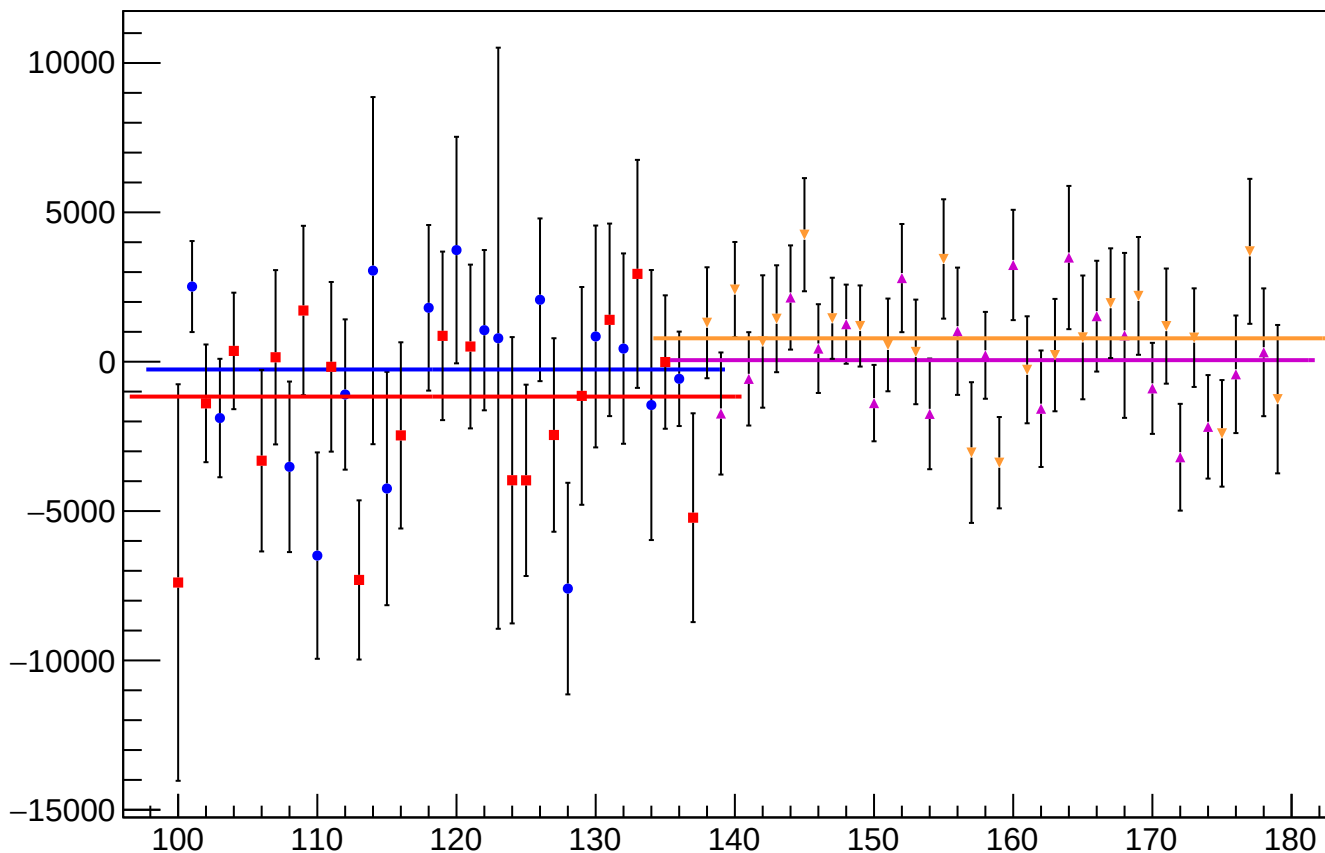
In: 1111.058 $\pm$ 0.167  $\chi^2$ /NDF:24511.4/36

Out: 1111.607 $\pm$ 0.161  $\chi^2$ /NDF:25797.8/40

All: 1111.341 $\pm$ 0.116  $\chi^2$ /NDF: 50314.9/77



asym\_usr\_correction\_mean vs Slug, Sign Corrected



Right In: -259.821 $\pm$ 655.275  $\chi^2$ /NDF: 17.2/16

Left Out: 783.465 $\pm$ 382.757  $\chi^2$ /NDF:23.6/21

Right Out: -1167.598 $\pm$ 662.428  $\chi^2$ /NDF: 14.4/18

Left In: 52.152 $\pm$ 389.031  $\chi^2$ /NDF:19.9/19

Left: 423.752 $\pm$ 272.841  $\chi^2$ /NDF: 45.2/41

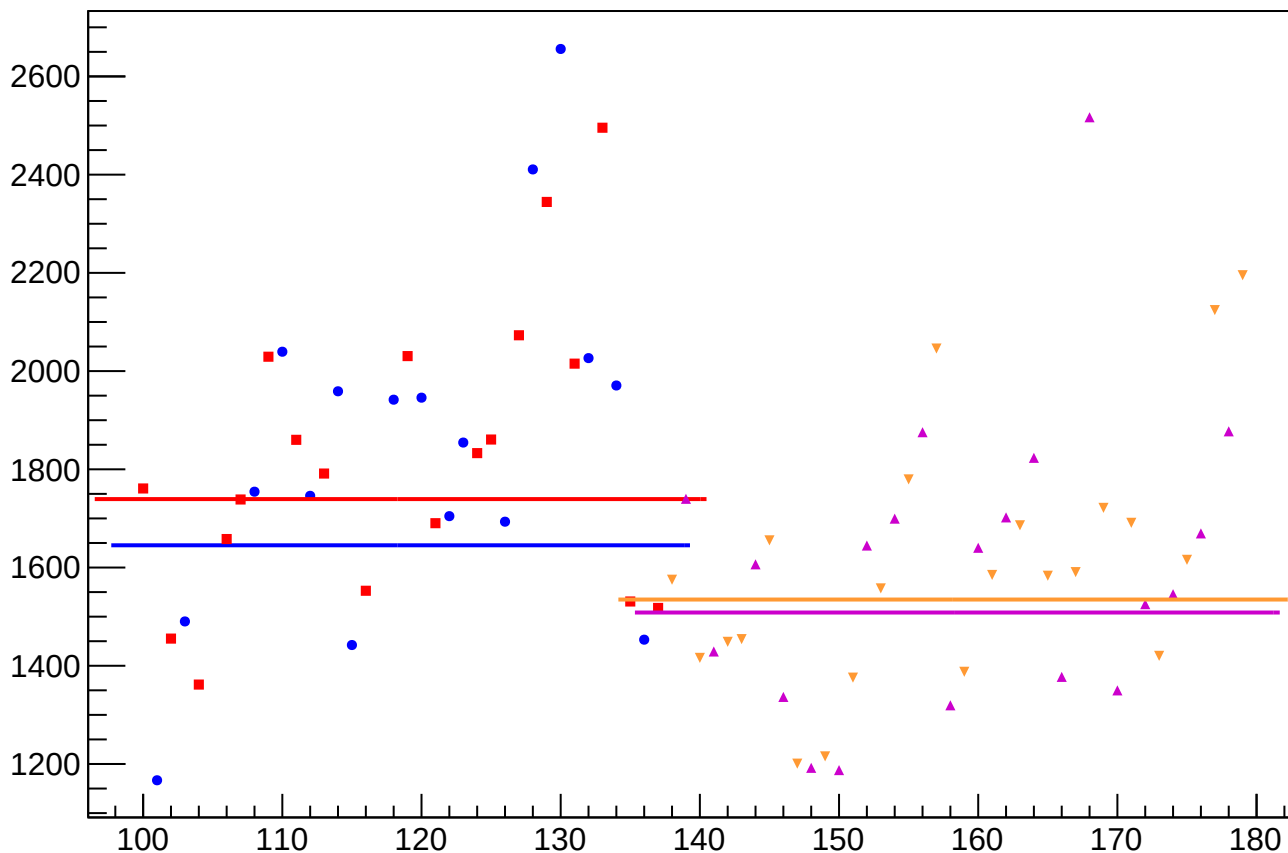
Right: -708.782 $\pm$ 465.858  $\chi^2$ /NDF: 32.6/35

In: -29.151 $\pm$ 334.519  $\chi^2$ /NDF:37.2/36

Out: 295.117 $\pm$ 331.412  $\chi^2$ /NDF:44.5/40

All: 134.496 $\pm$ 235.434  $\chi^2$ /NDF: 82.2/77

# asym\_usr\_correction\_rms vs Slug, Sign Corrected



Right In: 1645.307 $\pm$ 0.463  $\chi^2$ /NDF: 600915.2/16

Left Out: 1534.854 $\pm$ 0.271  $\chi^2$ /NDF: 744534.0/21

Right Out: 1739.382 $\pm$ 0.468  $\chi^2$ /NDF: 371012.9/18

Left In: 1508.410 $\pm$ 0.275  $\chi^2$ /NDF: 866503.3/19

Left: 1521.847 $\pm$ 0.193  $\chi^2$ /NDF: 1615733.1/41

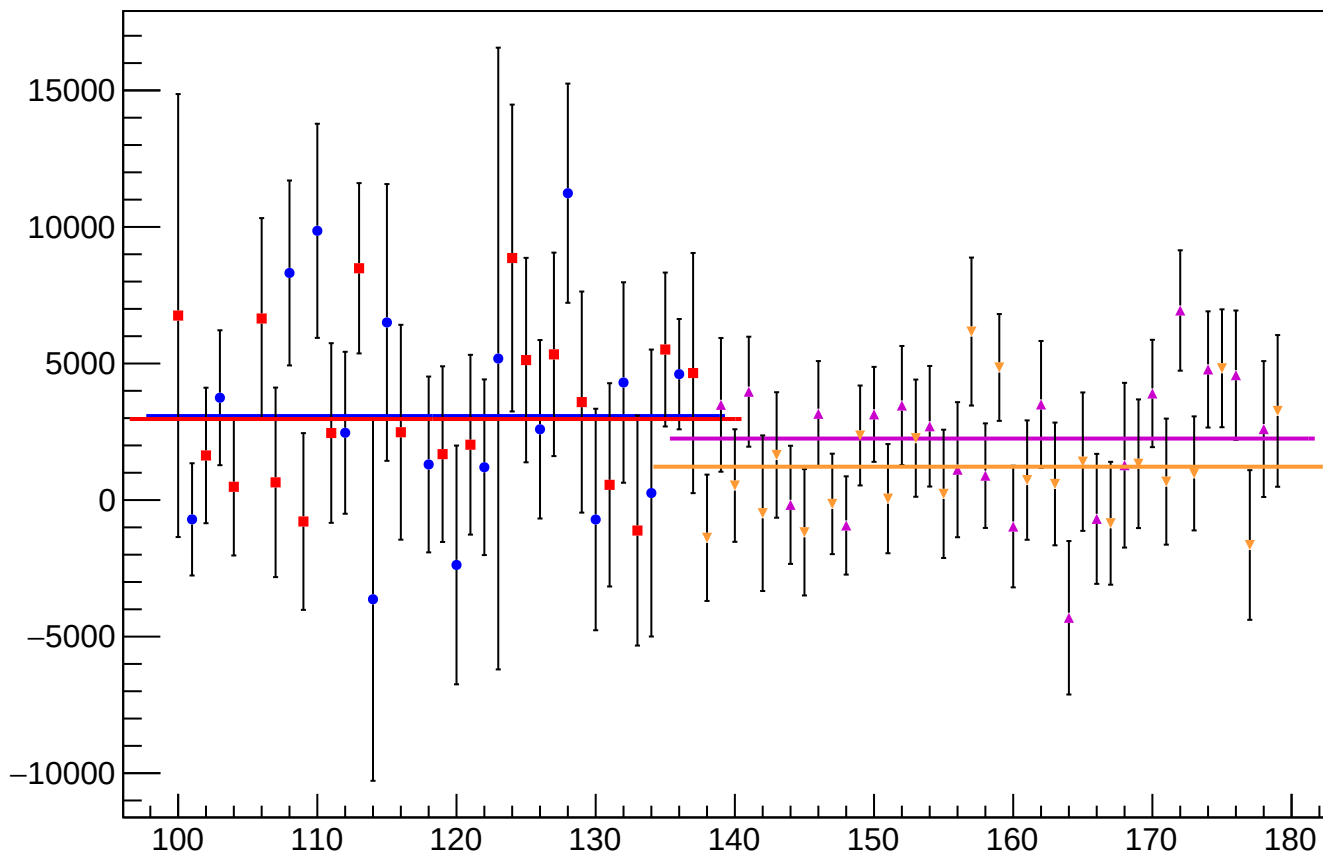
Right: 1691.833 $\pm$ 0.329  $\chi^2$ /NDF: 992315.5/35

In: 1544.086 $\pm$ 0.237  $\chi^2$ /NDF: 1531960.6/36

Out: 1586.047 $\pm$ 0.234  $\chi^2$ /NDF: 1258483.7/40

All: 1565.263 $\pm$ 0.166  $\chi^2$ /NDF: 2806325.2/77

# asym\_usr\_mean vs Slug, Sign Corrected



Right In: 3075.401 $\pm$ 802.249  $\chi^2/\text{NDF}$ : 18.6/16

Left Out: 1221.548 $\pm$ 476.815  $\chi^2/\text{NDF}$ : 16.8/21

Right Out: 2967.536 $\pm$ 795.639  $\chi^2/\text{NDF}$ : 11.9/18

Left In: 2251.783 $\pm$ 487.218  $\chi^2/\text{NDF}$ : 24.0/19

Left: 1725.549 $\pm$ 340.778  $\chi^2/\text{NDF}$ : 43.1/41

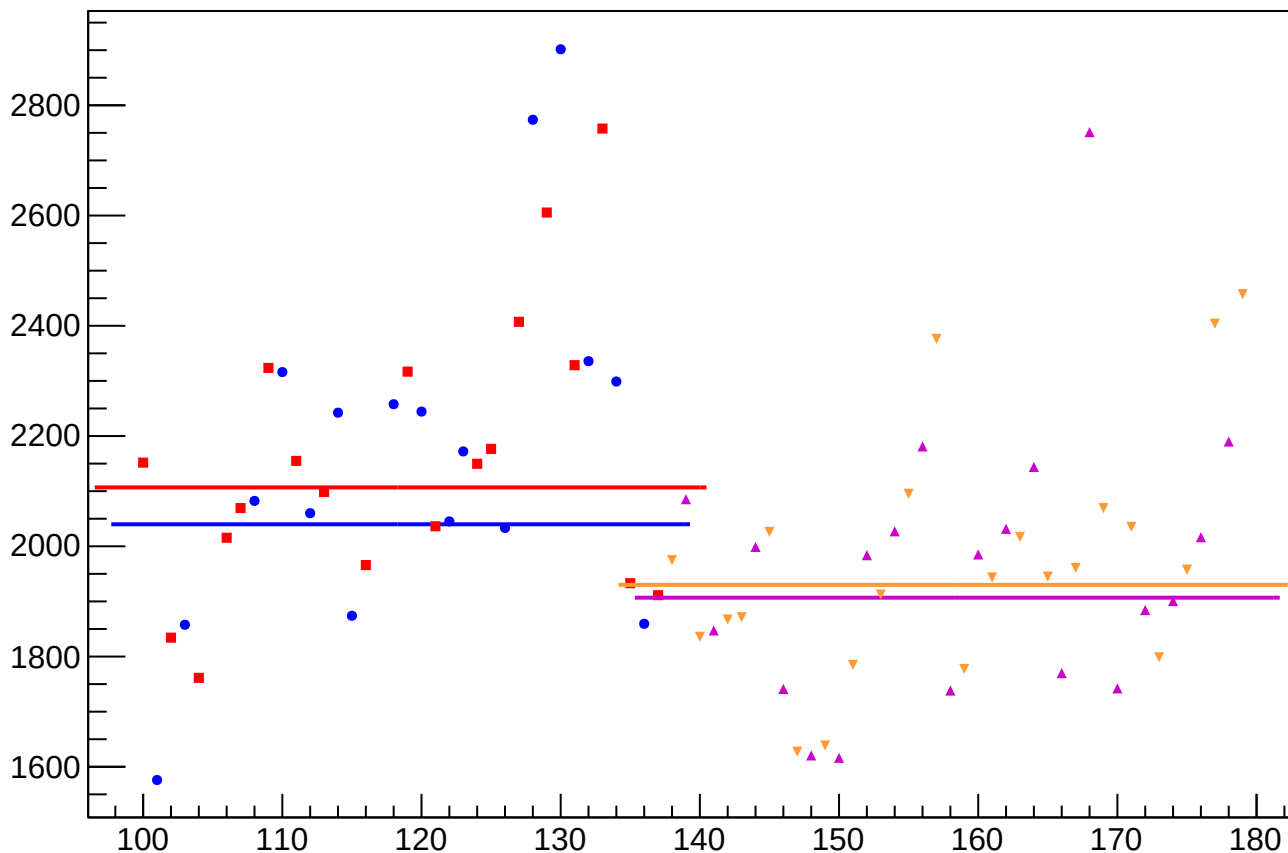
Right: 3021.022 $\pm$ 564.924  $\chi^2/\text{NDF}$ : 30.5/35

In: 2473.707 $\pm$ 416.436  $\chi^2/\text{NDF}$ : 43.4/36

Out: 1682.912 $\pm$ 408.994  $\chi^2/\text{NDF}$ : 32.2/40

All: 2071.180 $\pm$ 291.798  $\chi^2/\text{NDF}$ : 77.4/77

# asym\_usr\_rms vs Slug, Sign Corrected



Right In: 2039.942 $\pm$ 0.567  $\chi^2$ /NDF: 331984.0/16

Left Out: 1930.038 $\pm$ 0.337  $\chi^2$ /NDF:357352.0/21

Right Out: 2106.832 $\pm$ 0.563  $\chi^2$ /NDF: 195448.9/18

Left In: 1906.799 $\pm$ 0.345  $\chi^2$ /NDF:416128.8/19

Left: 1918.669 $\pm$ 0.241  $\chi^2$ /NDF: 775804.9/41

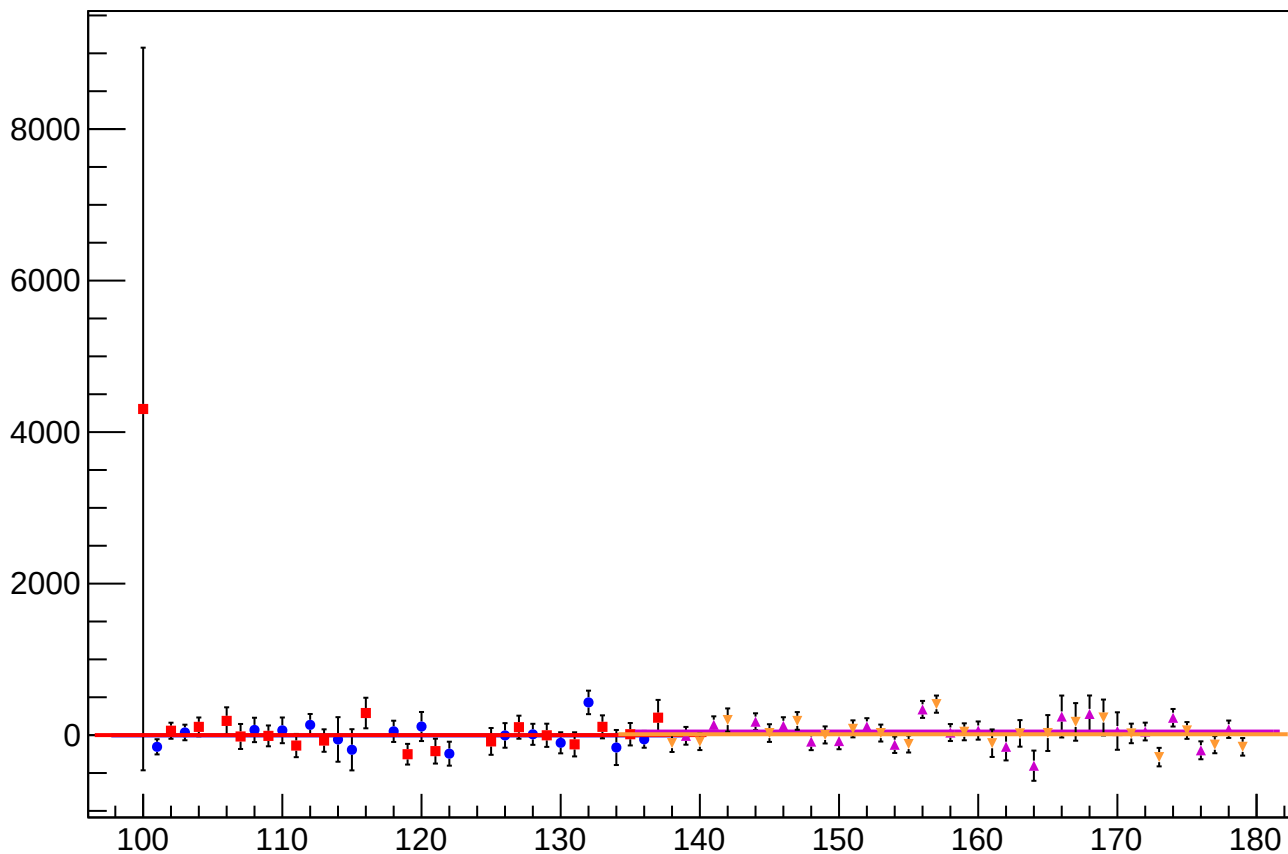
Right: 2073.664 $\pm$ 0.399  $\chi^2$ /NDF: 534442.4/35

In: 1942.675 $\pm$ 0.294  $\chi^2$ /NDF:788356.2/36

Out: 1976.754 $\pm$ 0.289  $\chi^2$ /NDF:625456.7/40

All: 1960.022 $\pm$ 0.206  $\chi^2$ /NDF: 1420631.0/77

# reg\_asym\_dsl\_mean vs Slug, Sign Corrected



Right In:  $-3.283 \pm 36.714$   $\chi^2/\text{NDF}: 16.1/15$

Left Out:  $11.685 \pm 27.793$   $\chi^2/\text{NDF}: 31.2/20$

Right Out:  $0.487 \pm 36.699$   $\chi^2/\text{NDF}: 14.0/17$

Left In:  $47.237 \pm 28.045$   $\chi^2/\text{NDF}: 29.9/19$

Left:  $29.300 \pm 19.741$   $\chi^2/\text{NDF}: 62.0/40$

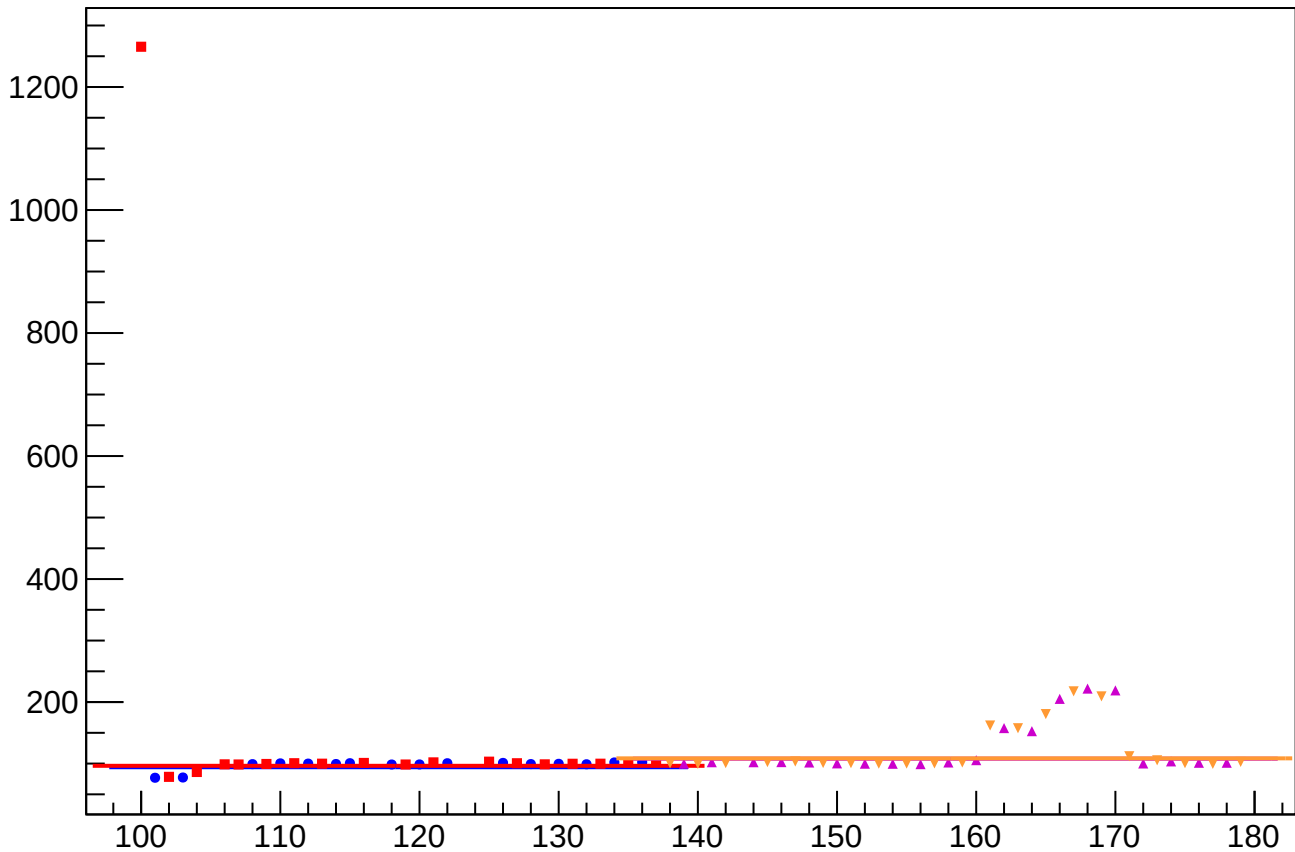
Right:  $-1.397 \pm 25.955$   $\chi^2/\text{NDF}: 30.1/33$

In:  $28.620 \pm 22.287$   $\chi^2/\text{NDF}: 47.3/35$

Out:  $7.603 \pm 22.156$   $\chi^2/\text{NDF}: 45.2/38$

All:  $18.050 \pm 15.713$   $\chi^2/\text{NDF}: 92.9/74$

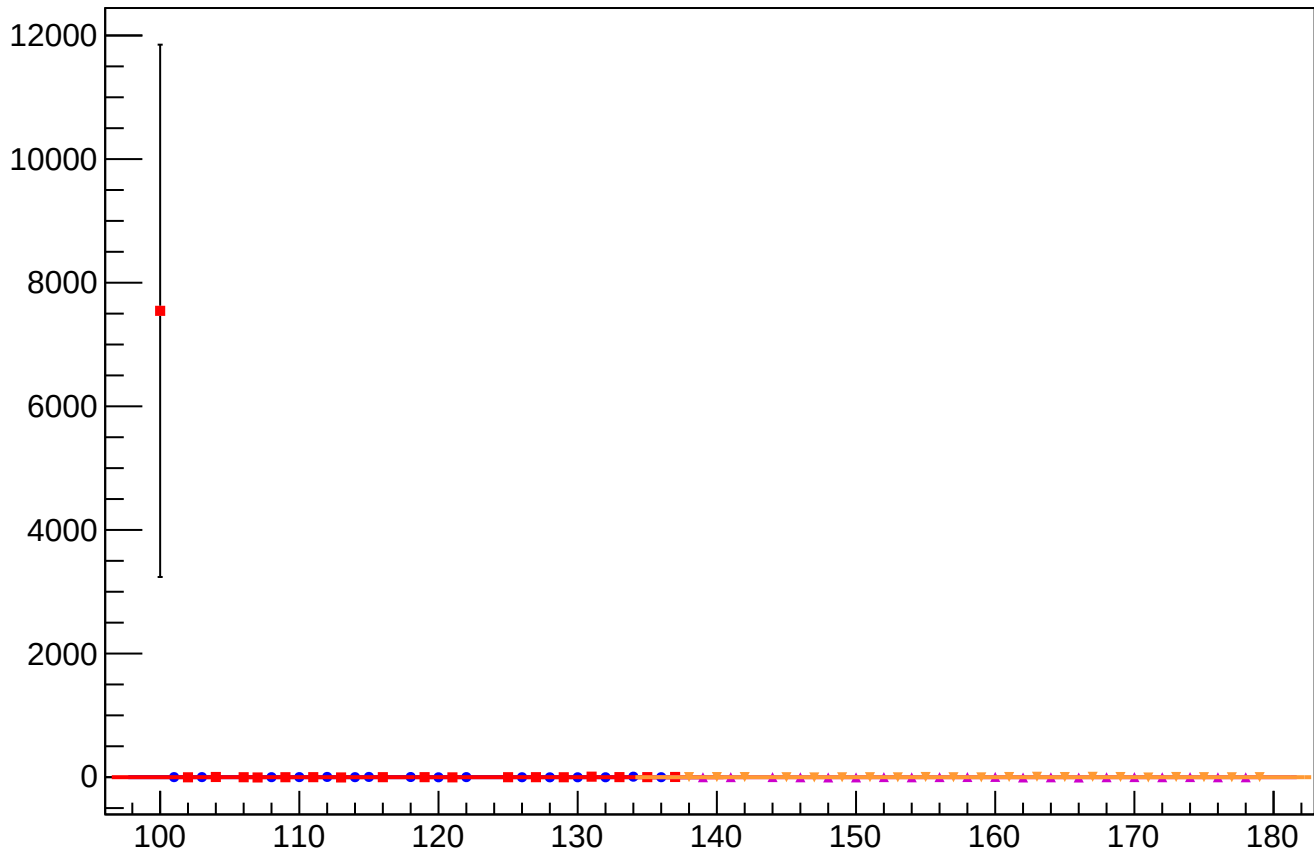
# reg\_asym\_dsl\_rms vs Slug, Sign Corrected



Right In: 94.068 $\pm$ 0.026  $\chi^2$ /NDF: 152285.6/15  
Left Out: 108.498 $\pm$ 0.020  $\chi^2$ /NDF:1388492.1/20  
Right Out: 96.372 $\pm$ 0.026  $\chi^2$ /NDF: 209228.5/17  
Left In: 107.935 $\pm$ 0.020  $\chi^2$ /NDF:1448641.2/19

Left: 108.219 $\pm$ 0.014  $\chi^2$ /NDF: 2837539.6/40  
Right: 95.221 $\pm$ 0.018  $\chi^2$ /NDF: 365453.7/33  
In: 102.825 $\pm$ 0.016  $\chi^2$ /NDF:1781093.9/35  
Out: 104.078 $\pm$ 0.016  $\chi^2$ /NDF:1736472.1/38  
All: 103.455 $\pm$ 0.011  $\chi^2$ /NDF: 3520745.0/74

# asym\_dsl\_correction\_mean vs Slug, Sign Corrected



Right In: 0.426+/-0.616  $\chi^2/\text{NDF}$ : 9.7/15

Left Out: -0.406+/-0.496  $\chi^2/\text{NDF}$ : 27.3/20

Right Out: -0.313+/-0.643  $\chi^2/\text{NDF}$ : 22.8/17

Left In: -0.097+/-0.515  $\chi^2/\text{NDF}$ : 22.7/19

Left: -0.257+/-0.357  $\chi^2/\text{NDF}$ : 50.1/40

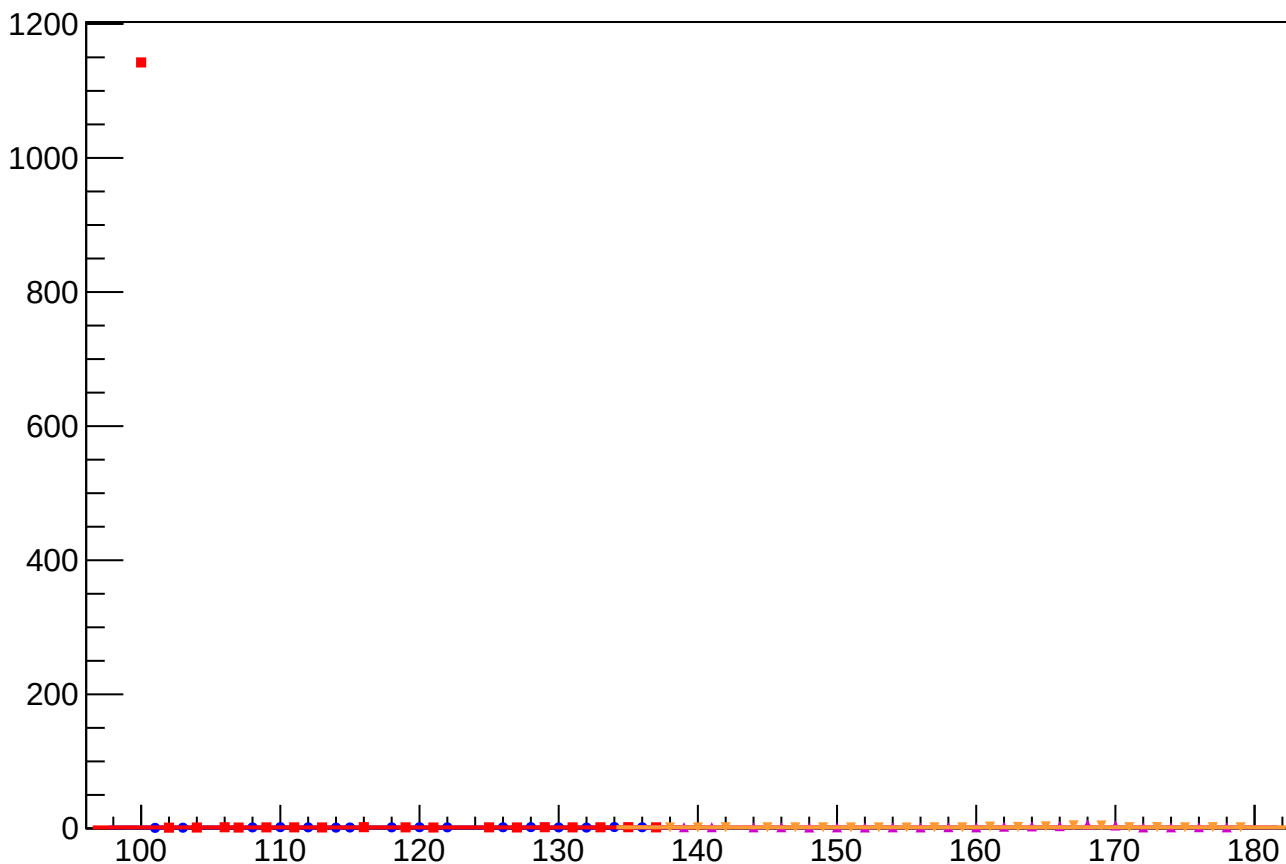
Right: 0.073+/-0.445  $\chi^2/\text{NDF}$ : 33.2/33

In: 0.118+/-0.395  $\chi^2/\text{NDF}$ : 32.9/35

Out: -0.371+/-0.392  $\chi^2/\text{NDF}$ : 50.0/38

All: -0.128+/-0.278  $\chi^2/\text{NDF}$ : 83.7/74

# asym\_dsl\_correction\_rms vs Slug, Sign Corrected



Right In: 1.420+/-0.000  $\chi^2/\text{NDF}$ : 730935.2/15

Left Out: 1.749+/-0.000  $\chi^2/\text{NDF}$ : 1488371.0/20

Right Out: 1.556+/-0.000  $\chi^2/\text{NDF}$ : 315908.9/17

Left In: 1.804+/-0.000  $\chi^2/\text{NDF}$ : 1806244.5/19

Left: 1.776+/-0.000  $\chi^2/\text{NDF}$ : 3306419.7/40

Right: 1.485+/-0.000  $\chi^2/\text{NDF}$ : 1093611.9/33

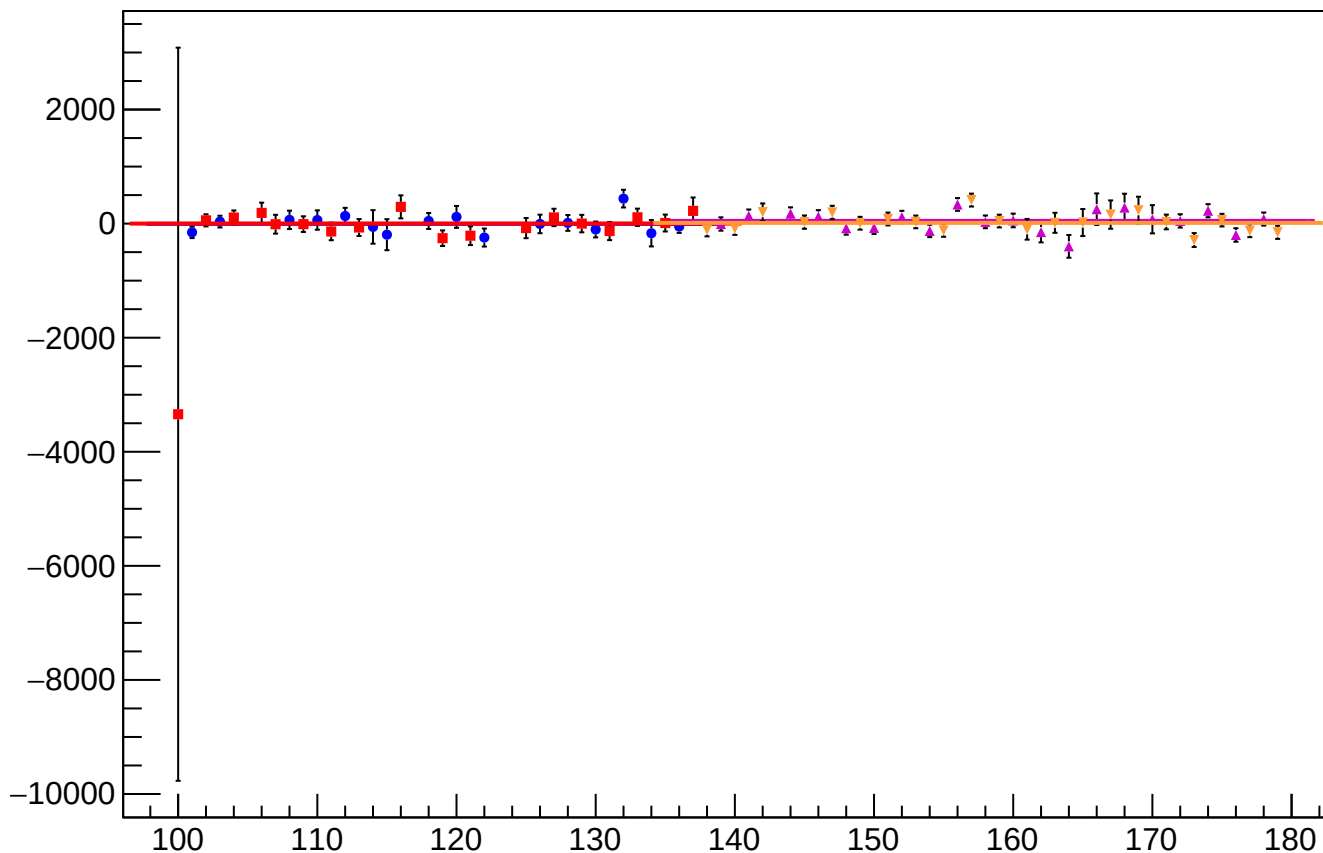
In: 1.646+/-0.000  $\chi^2/\text{NDF}$ : 2996284.6/35

Out: 1.677+/-0.000  $\chi^2/\text{NDF}$ : 1918044.6/38

All: 1.662+/-0.000  $\chi^2/\text{NDF}$ : 4920541.0/74



# asym\_dsl\_mean vs Slug, Sign Corrected



Right In:  $-3.099 \pm 36.723$   $\chi^2/\text{NDF}$ : 16.3/15

Left Out:  $12.669 \pm 27.801$   $\chi^2/\text{NDF}$ : 31.4/20

Right Out:  $0.172 \pm 36.709$   $\chi^2/\text{NDF}$ : 13.5/17

Left In:  $47.529 \pm 28.054$   $\chi^2/\text{NDF}$ : 29.3/19

Left:  $29.941 \pm 19.747$   $\chi^2/\text{NDF}$ : 61.5/40

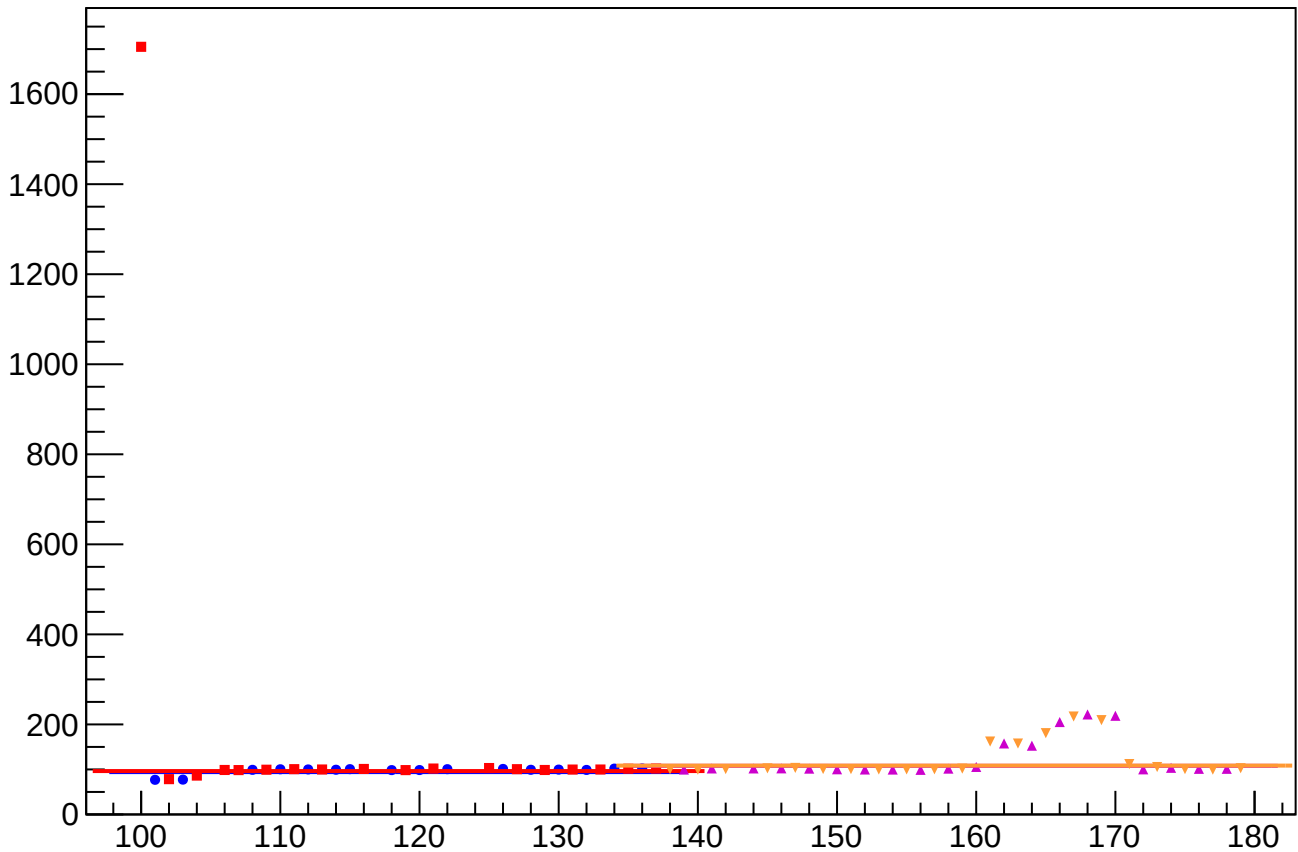
Right:  $-1.463 \pm 25.962$   $\chi^2/\text{NDF}$ : 29.8/33

In:  $28.871 \pm 22.293$   $\chi^2/\text{NDF}$ : 46.8/35

Out:  $8.114 \pm 22.163$   $\chi^2/\text{NDF}$ : 45.0/38

All:  $18.432 \pm 15.717$   $\chi^2/\text{NDF}$ : 92.3/74

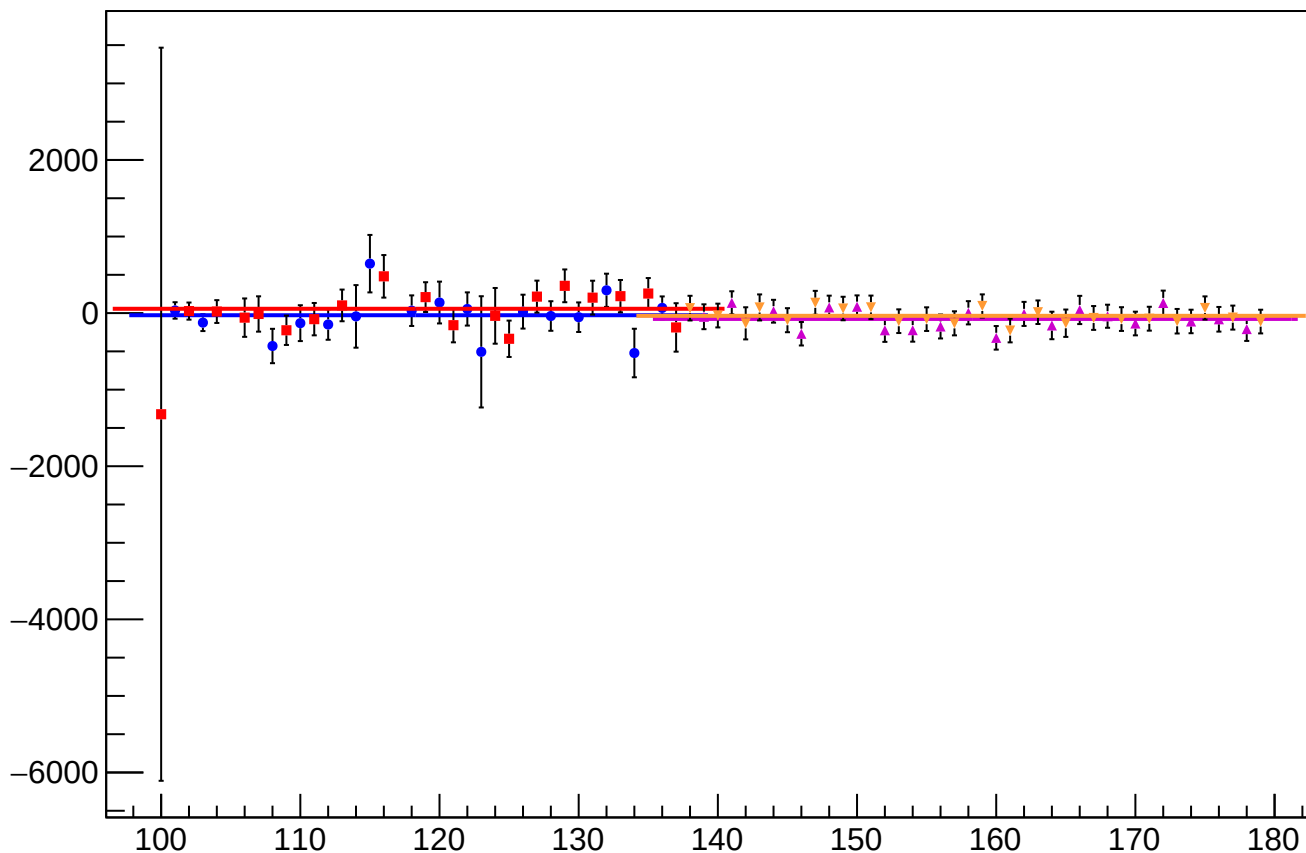
# asym\_dsl\_rms vs Slug, Sign Corrected



Right In: 94.093 $\pm$ 0.026  $\chi^2/\text{NDF}$ : 152305.3/15  
Left Out: 108.527 $\pm$ 0.020  $\chi^2/\text{NDF}$ : 1389813.5/20  
Right Out: 96.381 $\pm$ 0.026  $\chi^2/\text{NDF}$ : 214362.3/17  
Left In: 107.965 $\pm$ 0.020  $\chi^2/\text{NDF}$ : 1449887.1/19

Left: 108.249 $\pm$ 0.014  $\chi^2/\text{NDF}$ : 2840106.2/40  
Right: 95.237 $\pm$ 0.018  $\chi^2/\text{NDF}$ : 370551.8/33  
In: 102.853 $\pm$ 0.016  $\chi^2/\text{NDF}$ : 1782412.2/35  
Out: 104.100 $\pm$ 0.016  $\chi^2/\text{NDF}$ : 1743332.8/38  
All: 103.480 $\pm$ 0.011  $\chi^2/\text{NDF}$ : 3528893.3/74

# reg\_asym\_dsr\_mean vs Slug, Sign Corrected



Right In:  $-27.840 \pm 46.777$   $\chi^2/\text{NDF}: 14.3/16$

Left Out:  $-35.611 \pm 33.776$   $\chi^2/\text{NDF}: 7.7/21$

Right Out:  $56.398 \pm 47.708$   $\chi^2/\text{NDF}: 14.9/18$

Left In:  $-76.338 \pm 34.934$   $\chi^2/\text{NDF}: 14.8/19$

Left:  $-55.288 \pm 24.282$   $\chi^2/\text{NDF}: 23.1/41$

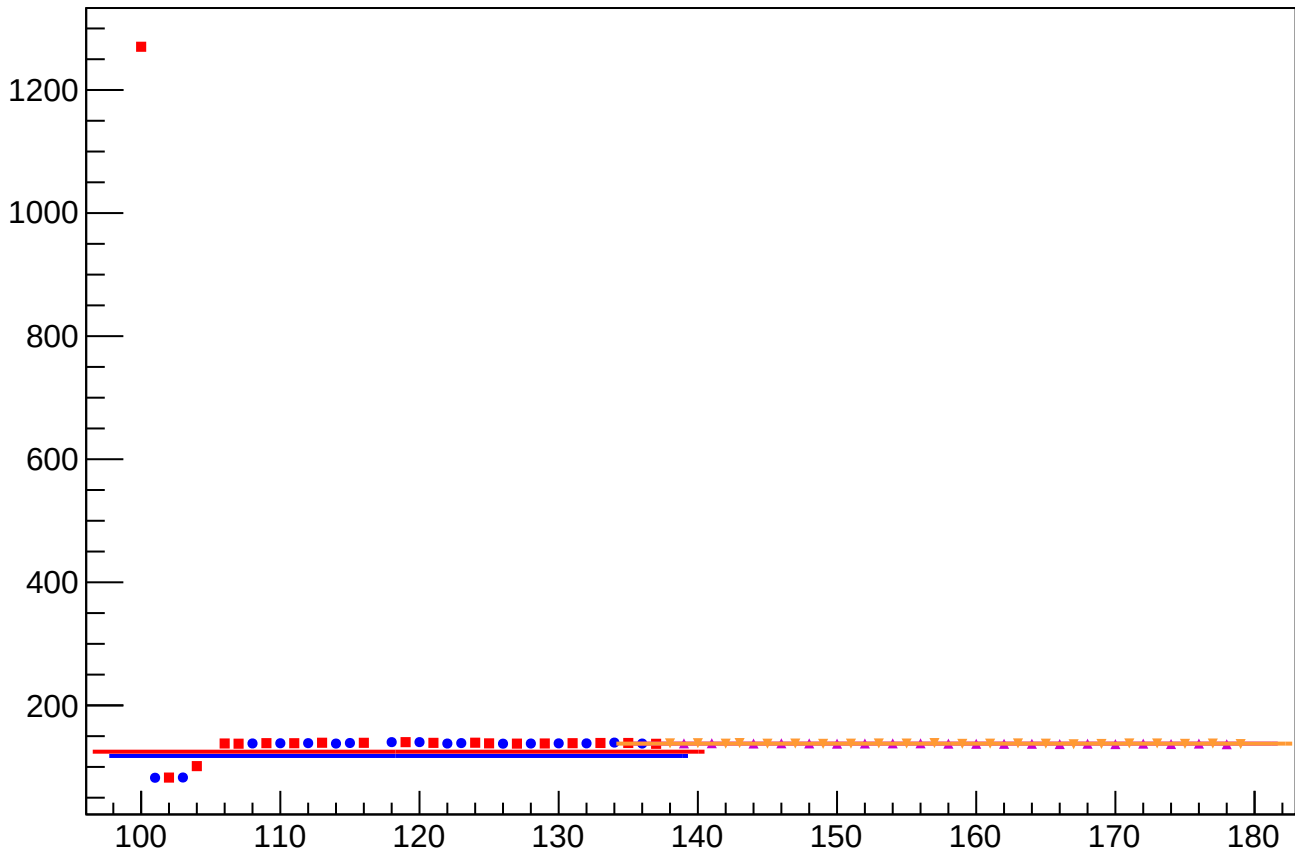
Right:  $13.449 \pm 33.401$   $\chi^2/\text{NDF}: 30.8/35$

In:  $-58.973 \pm 27.990$   $\chi^2/\text{NDF}: 29.7/36$

Out:  $-4.892 \pm 27.567$   $\chi^2/\text{NDF}: 25.0/40$

All:  $-31.520 \pm 19.640$   $\chi^2/\text{NDF}: 56.7/77$

# reg\_asym\_dsr\_rms vs Slug, Sign Corrected



Right In: 117.815 $\pm$ 0.033  $\chi^2$ /NDF: 666581.7/16

Left Out: 137.863 $\pm$ 0.024  $\chi^2$ /NDF: 398.6/21

Right Out: 124.763 $\pm$ 0.034  $\chi^2$ /NDF: 569771.6/18

Left In: 137.879 $\pm$ 0.025  $\chi^2$ /NDF: 344.2/19

Left: 137.871 $\pm$ 0.017  $\chi^2$ /NDF: 743.0/41

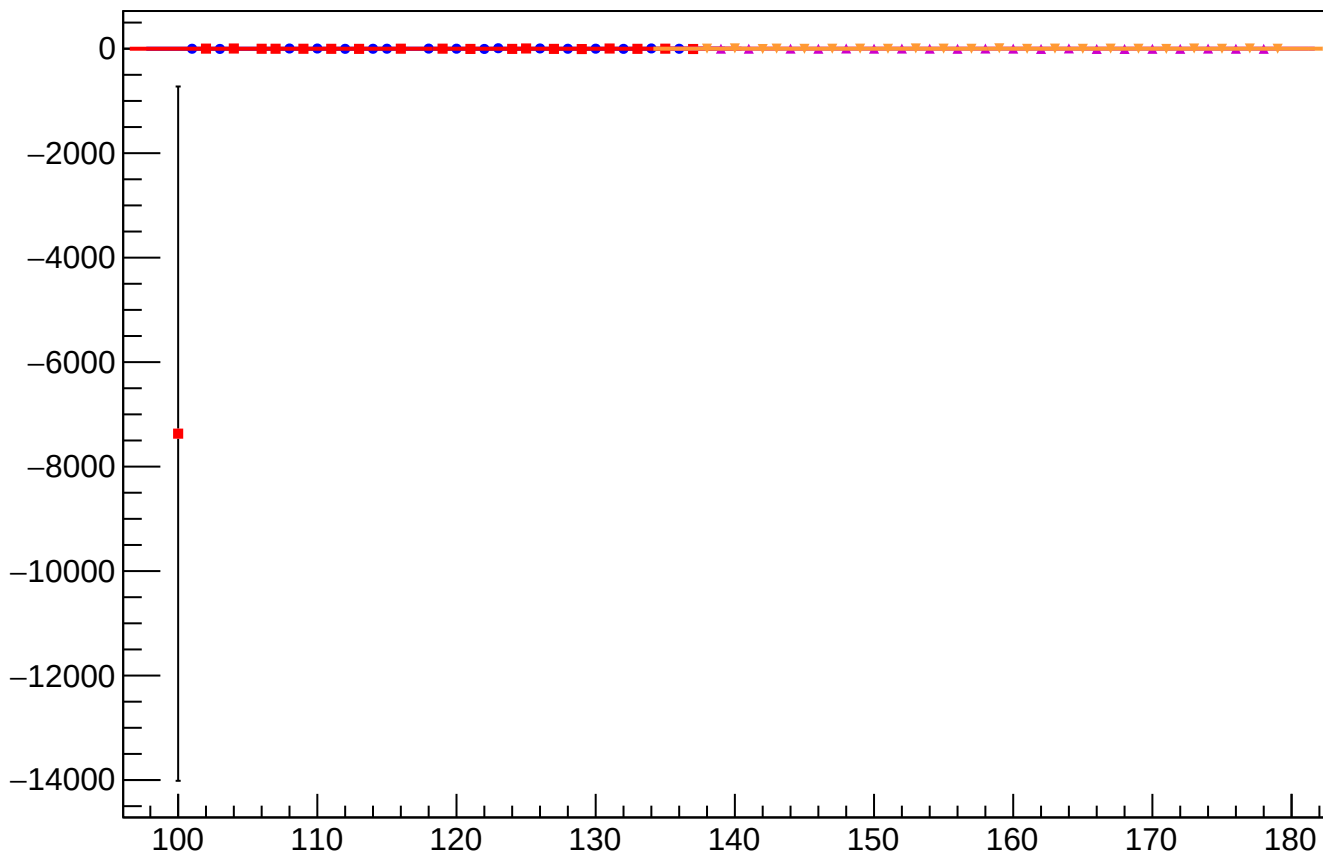
Right: 121.221 $\pm$ 0.024  $\chi^2$ /NDF: 1257984.7/35

In: 130.695 $\pm$ 0.020  $\chi^2$ /NDF: 903146.4/36

Out: 133.490 $\pm$ 0.019  $\chi^2$ /NDF: 670618.5/40

All: 132.114 $\pm$ 0.014  $\chi^2$ /NDF: 1583884.9/77

# asym\_dsr\_correction\_mean vs Slug, Sign Corrected



Right In: -0.695 $\pm$ 0.810  $\chi^2$ /NDF: 12.7/16

Left Out: 0.436 $\pm$ 0.596  $\chi^2$ /NDF:26.7/21

Right Out: -0.649 $\pm$ 0.851  $\chi^2$ /NDF: 13.7/18

Left In: 0.422 $\pm$ 0.615  $\chi^2$ /NDF:17.9/19

Left: 0.429 $\pm$ 0.428  $\chi^2$ /NDF: 44.6/41

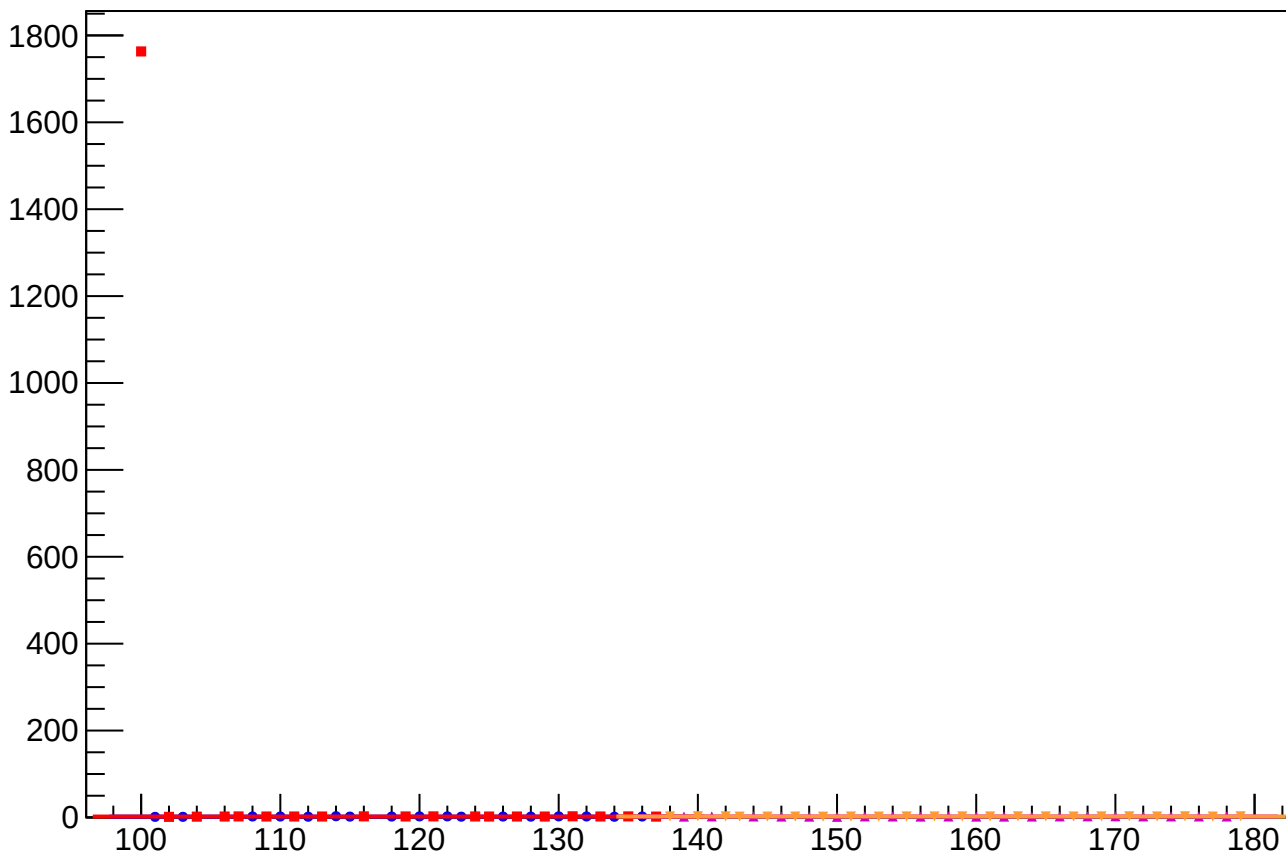
Right: -0.673 $\pm$ 0.587  $\chi^2$ /NDF: 26.3/35

In: 0.013 $\pm$ 0.490  $\chi^2$ /NDF:31.8/36

Out: 0.079 $\pm$ 0.488  $\chi^2$ /NDF:41.4/40

All: 0.046 $\pm$ 0.346  $\chi^2$ /NDF: 73.2/77

# asym\_dsr\_correction\_rms vs Slug, Sign Corrected



Right In: 1.869 $\pm$ 0.001  $\chi^2$ /NDF: 493173.6/16

Left Out: 2.235 $\pm$ 0.000  $\chi^2$ /NDF:334313.7/21

Right Out: 2.065 $\pm$ 0.001  $\chi^2$ /NDF: 525497.0/18

Left In: 2.200 $\pm$ 0.000  $\chi^2$ /NDF:491367.1/19

Left: 2.218 $\pm$ 0.000  $\chi^2$ /NDF: 829071.8/41

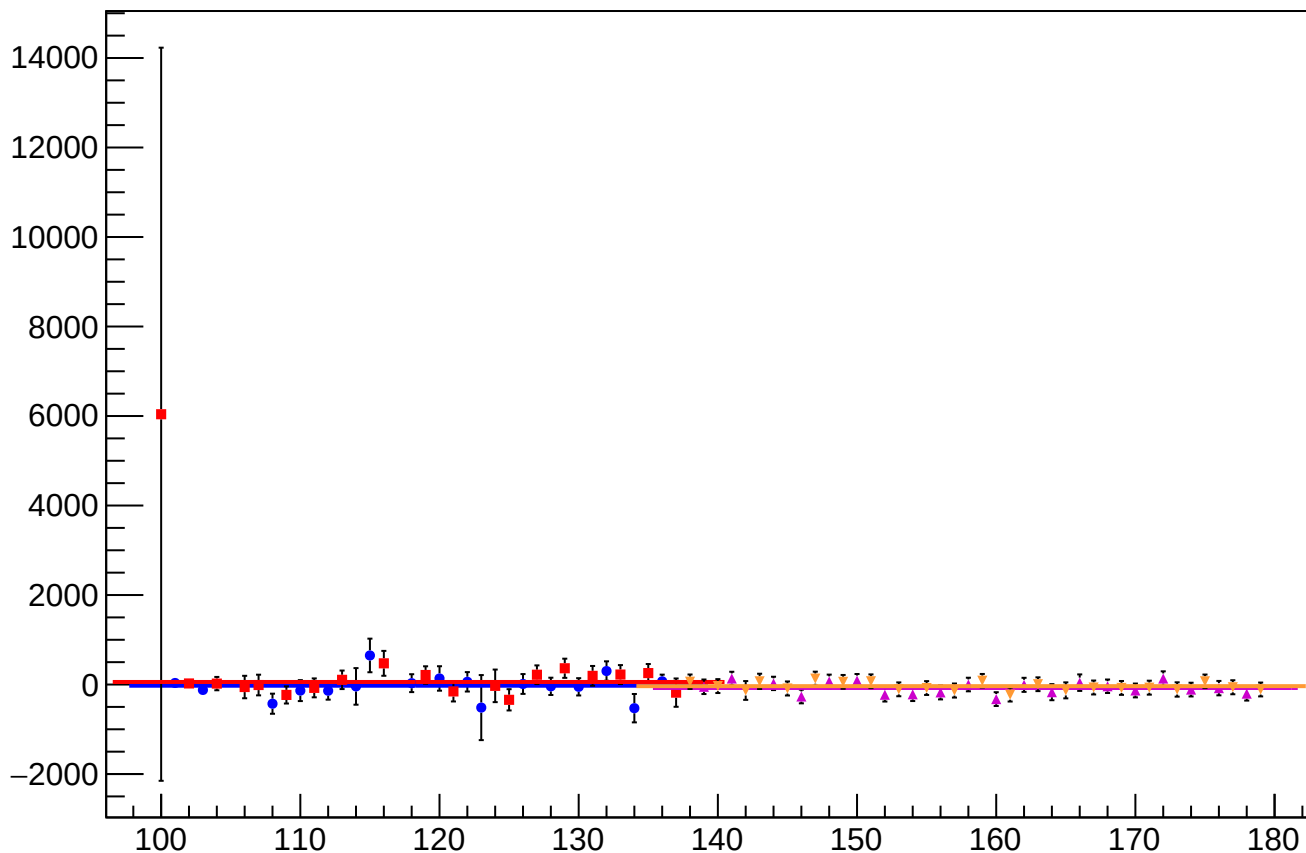
Right: 1.962 $\pm$ 0.000  $\chi^2$ /NDF: 1074296.8/35

In: 2.079 $\pm$ 0.000  $\chi^2$ /NDF:1196136.4/36

Out: 2.179 $\pm$ 0.000  $\chi^2$ /NDF:913447.5/40

All: 2.129 $\pm$ 0.000  $\chi^2$ /NDF: 2151595.8/77

# asym\_dsr\_mean vs Slug, Sign Corrected



Right In: -26.258 $\pm$ 46.789  $\chi^2/\text{NDF}$ : 14.4/16

Left Out: -36.188 $\pm$ 33.785  $\chi^2/\text{NDF}$ : 7.5/21

Right Out: 57.268 $\pm$ 47.722  $\chi^2/\text{NDF}$ : 15.5/18

Left In: -76.334 $\pm$ 34.944  $\chi^2/\text{NDF}$ : 14.8/19

Left: -55.584 $\pm$ 24.289  $\chi^2/\text{NDF}$ : 22.9/41

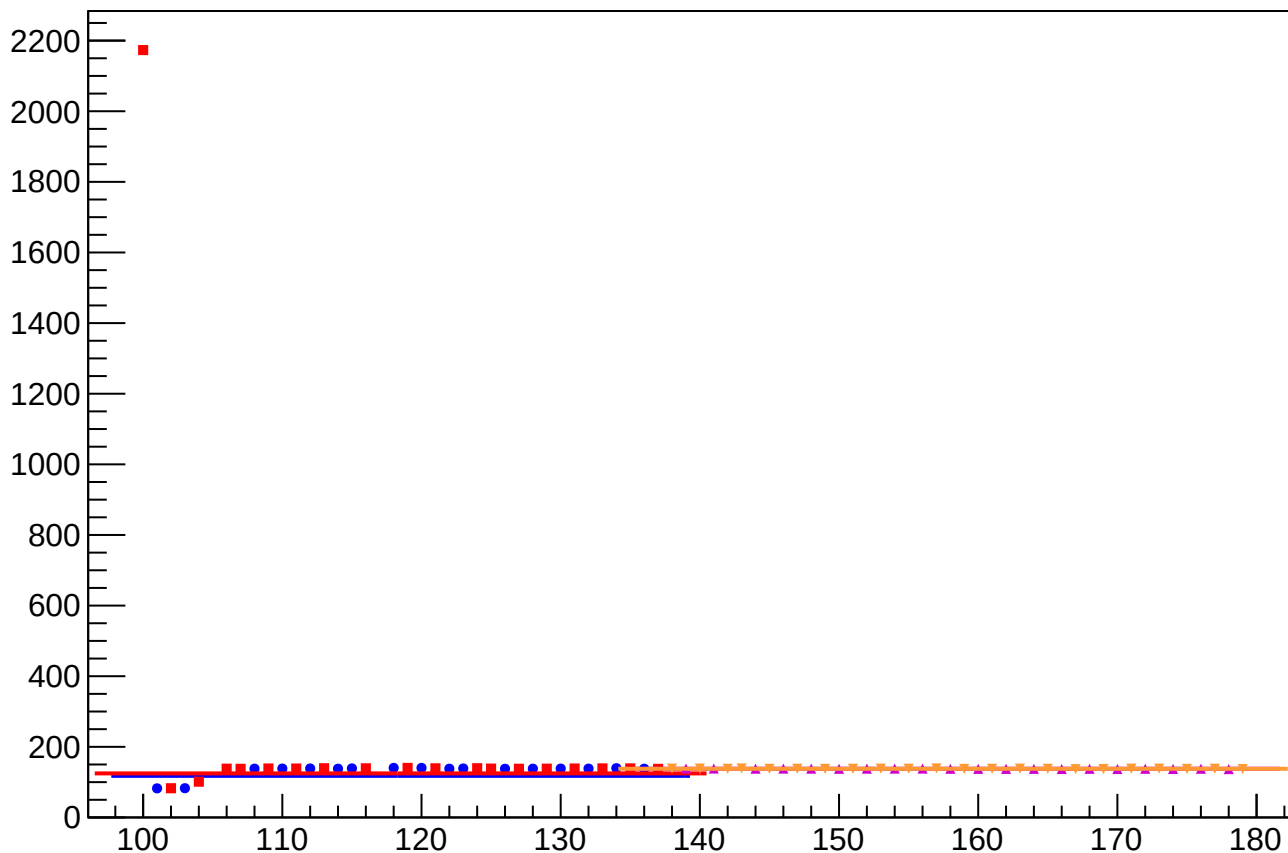
Right: 14.681 $\pm$ 33.410  $\chi^2/\text{NDF}$ : 31.4/35

In: -58.404 $\pm$ 27.998  $\chi^2/\text{NDF}$ : 29.9/36

Out: -4.986 $\pm$ 27.574  $\chi^2/\text{NDF}$ : 25.5/40

All: -31.289 $\pm$ 19.646  $\chi^2/\text{NDF}$ : 57.2/77

# asym\_dsr\_rms vs Slug, Sign Corrected



Right In: 117.847 $\pm$ 0.033  $\chi^2/\text{NDF}$ : 666622.8/16

Left Out: 137.901 $\pm$ 0.024  $\chi^2/\text{NDF}$ : 396.4/21

Right Out: 124.752 $\pm$ 0.034  $\chi^2/\text{NDF}$ : 580350.4/18

Left In: 137.918 $\pm$ 0.025  $\chi^2/\text{NDF}$ : 340.9/19

Left: 137.909 $\pm$ 0.017  $\chi^2/\text{NDF}$ : 737.5/41

Right: 121.231 $\pm$ 0.024  $\chi^2/\text{NDF}$ : 1268326.7/35

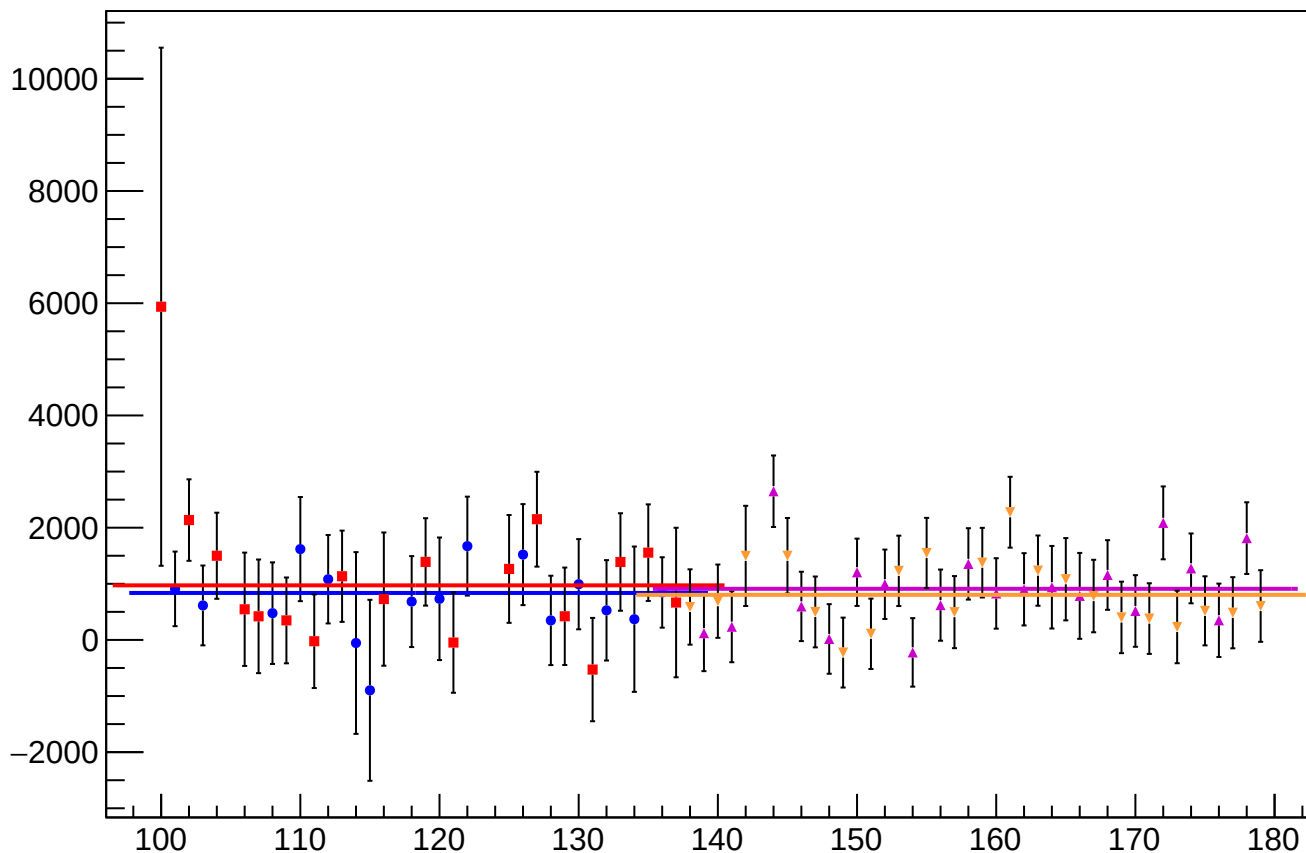
In: 130.731 $\pm$ 0.020  $\chi^2/\text{NDF}$ : 903220.0/36

Out: 133.511 $\pm$ 0.019  $\chi^2/\text{NDF}$ : 681887.6/40

All: 132.143 $\pm$ 0.014  $\chi^2/\text{NDF}$ : 1595116.9/77



# reg\_asym\_left\_avg\_mean vs Slug, Sign Corrected



Right In: 837.048 $\pm$ 216.181  $\chi^2$ /NDF: 4.7/15

Left Out: 803.400 $\pm$ 141.341  $\chi^2$ /NDF:17.2/20

Right Out: 972.425 $\pm$ 212.746  $\chi^2$ /NDF: 14.3/17

Left In: 910.517 $\pm$ 143.296  $\chi^2$ /NDF:23.6/19

Left: 856.223 $\pm$ 100.627  $\chi^2$ /NDF: 41.1/40

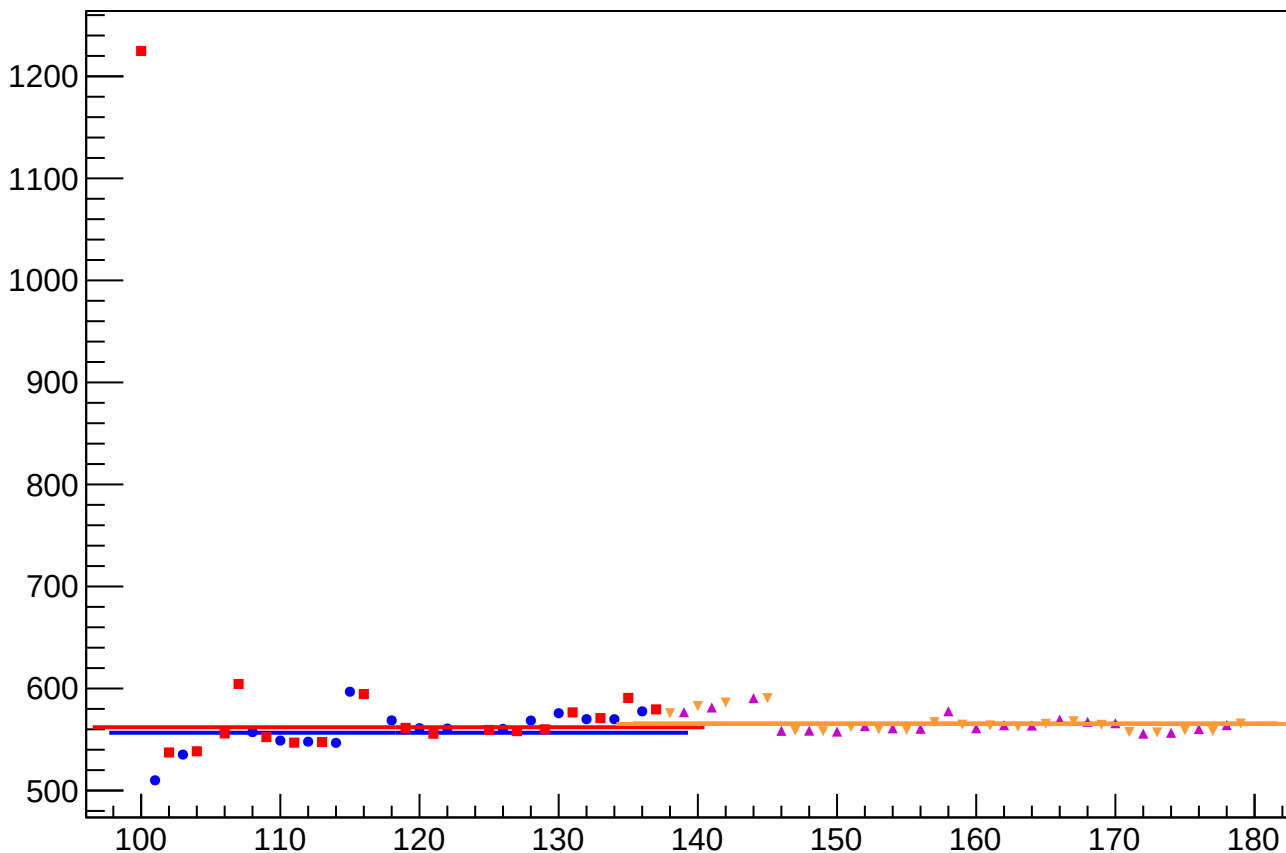
Right: 905.821 $\pm$ 151.634  $\chi^2$ /NDF: 19.2/33

In: 888.090 $\pm$ 119.440  $\chi^2$ /NDF:28.4/35

Out: 855.159 $\pm$ 117.728  $\chi^2$ /NDF:31.9/38

All: 871.387 $\pm$ 83.845  $\chi^2$ /NDF: 60.4/74

# reg\_asym\_left\_avg\_rms vs Slug, Sign Corrected



Right In: 556.637 $\pm$ 0.153  $\chi^2$ /NDF: 18391.7/15

Left Out: 565.223 $\pm$ 0.100  $\chi^2$ /NDF: 7892.3/20

Right Out: 562.048 $\pm$ 0.150  $\chi^2$ /NDF: 55575.3/17

Left In: 565.530 $\pm$ 0.101  $\chi^2$ /NDF: 7931.4/19

Left: 565.374 $\pm$ 0.071  $\chi^2$ /NDF: 15828.4/40

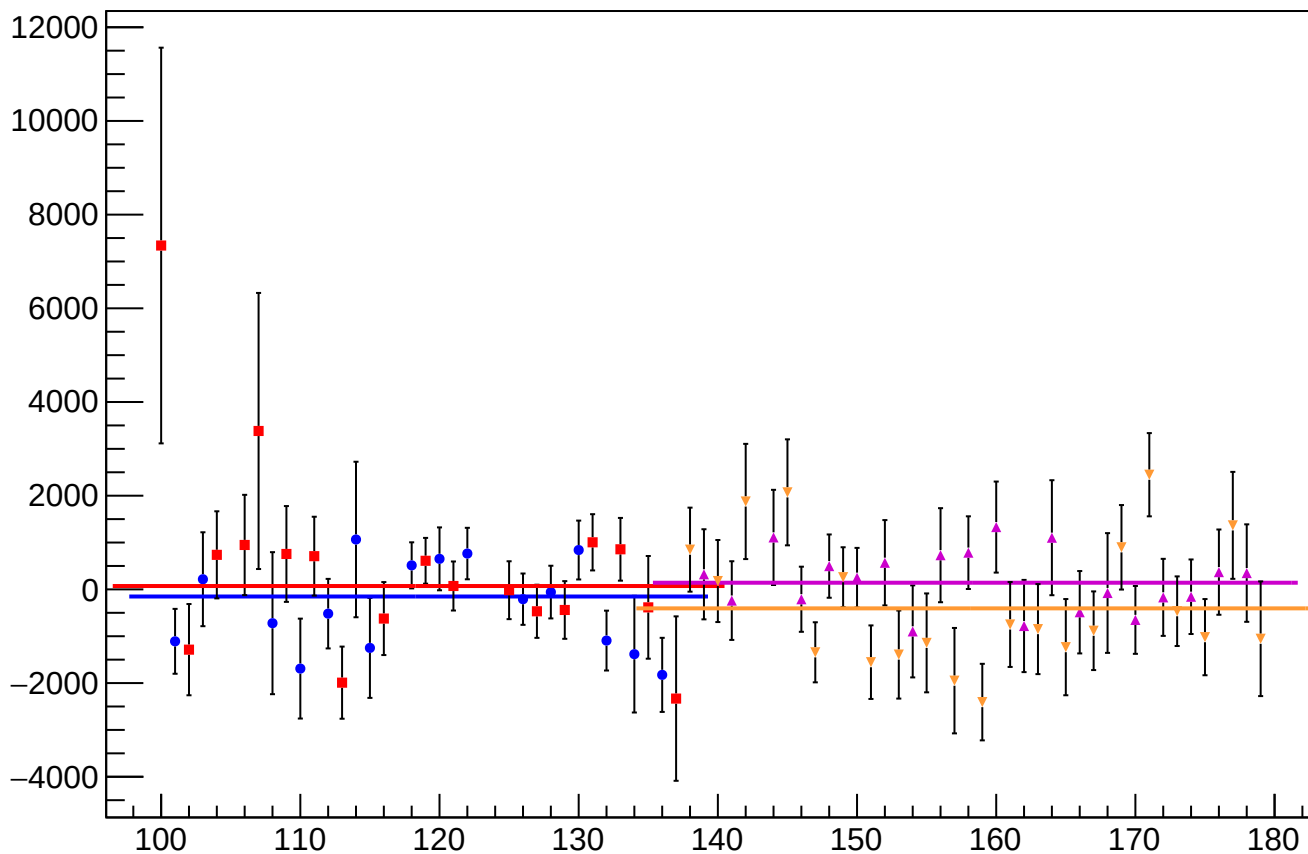
Right: 559.386 $\pm$ 0.107  $\chi^2$ /NDF: 74603.5/33

In: 562.815 $\pm$ 0.084  $\chi^2$ /NDF: 28674.1/35

Out: 564.251 $\pm$ 0.083  $\chi^2$ /NDF: 63776.6/38

All: 563.543 $\pm$ 0.059  $\chi^2$ /NDF: 92597.3/74

asym\_left\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -151.876 $\pm$ 180.078  $\chi^2/\text{NDF}$ : 22.3/15

Left Out: -405.238 $\pm$ 193.421  $\chi^2/\text{NDF}$ :42.5/20

Right Out: 71.760 $\pm$ 178.665  $\chi^2/\text{NDF}$ : 25.0/17

Left In: 142.144 $\pm$ 192.989  $\chi^2/\text{NDF}$ :9.2/19

Left: -130.935 $\pm$ 136.616  $\chi^2/\text{NDF}$ : 55.7/40

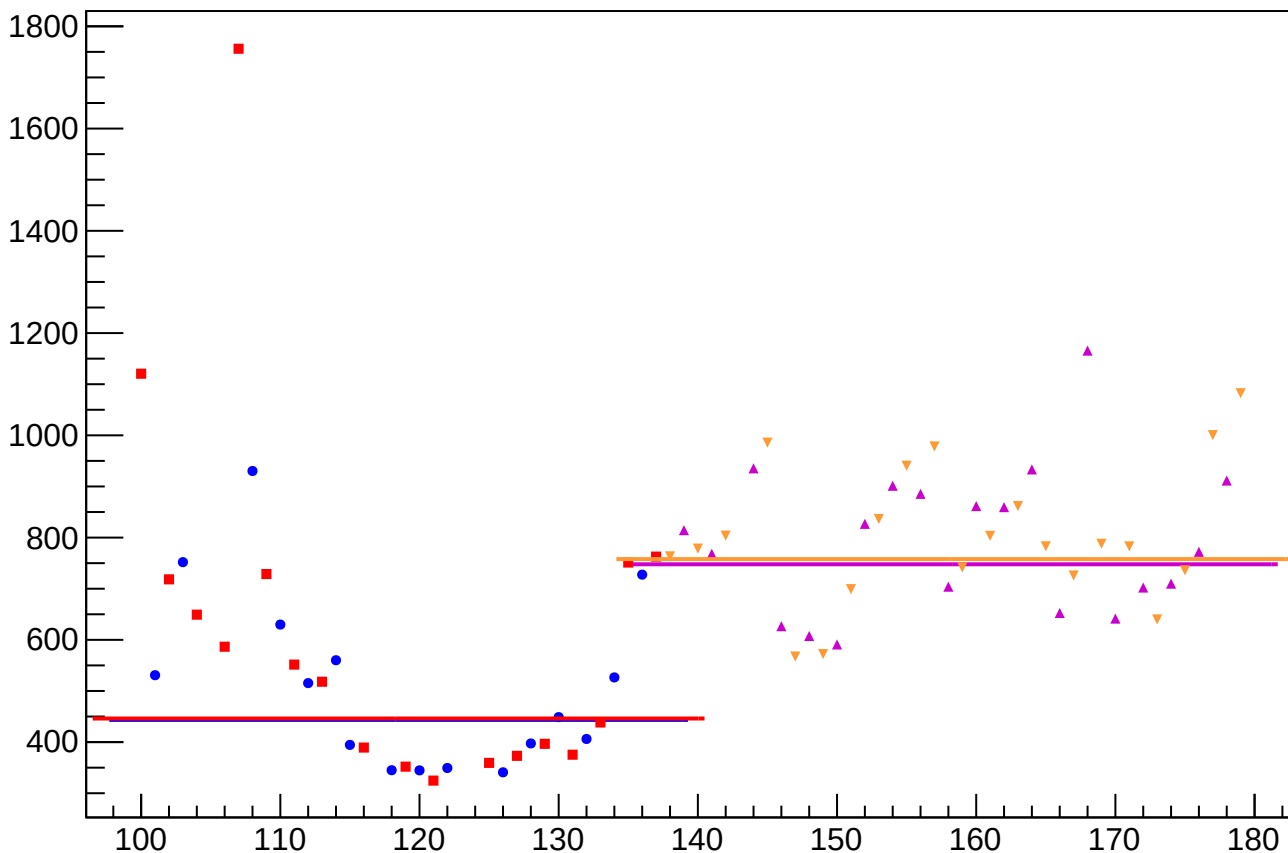
Right: -39.177 $\pm$ 126.832  $\chi^2/\text{NDF}$ : 48.1/33

In: -15.029 $\pm$ 131.662  $\chi^2/\text{NDF}$ :32.7/35

Out: -147.853 $\pm$ 131.242  $\chi^2/\text{NDF}$ :70.8/38

All: -81.653 $\pm$ 92.950  $\chi^2/\text{NDF}$ : 104.0/74

asym\_left\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 443.451+/-0.127  $\chi^2/\text{NDF}$ : 1060940.9/15

Left Out: 757.943+/-0.137  $\chi^2/\text{NDF}$ : 911853.5/20

Right Out: 446.147+/-0.126  $\chi^2/\text{NDF}$ : 1459986.4/17

Left In: 747.790+/-0.136  $\chi^2/\text{NDF}$ : 896131.3/19

Left: 752.855+/-0.097  $\chi^2/\text{NDF}$ : 1810746.6/40

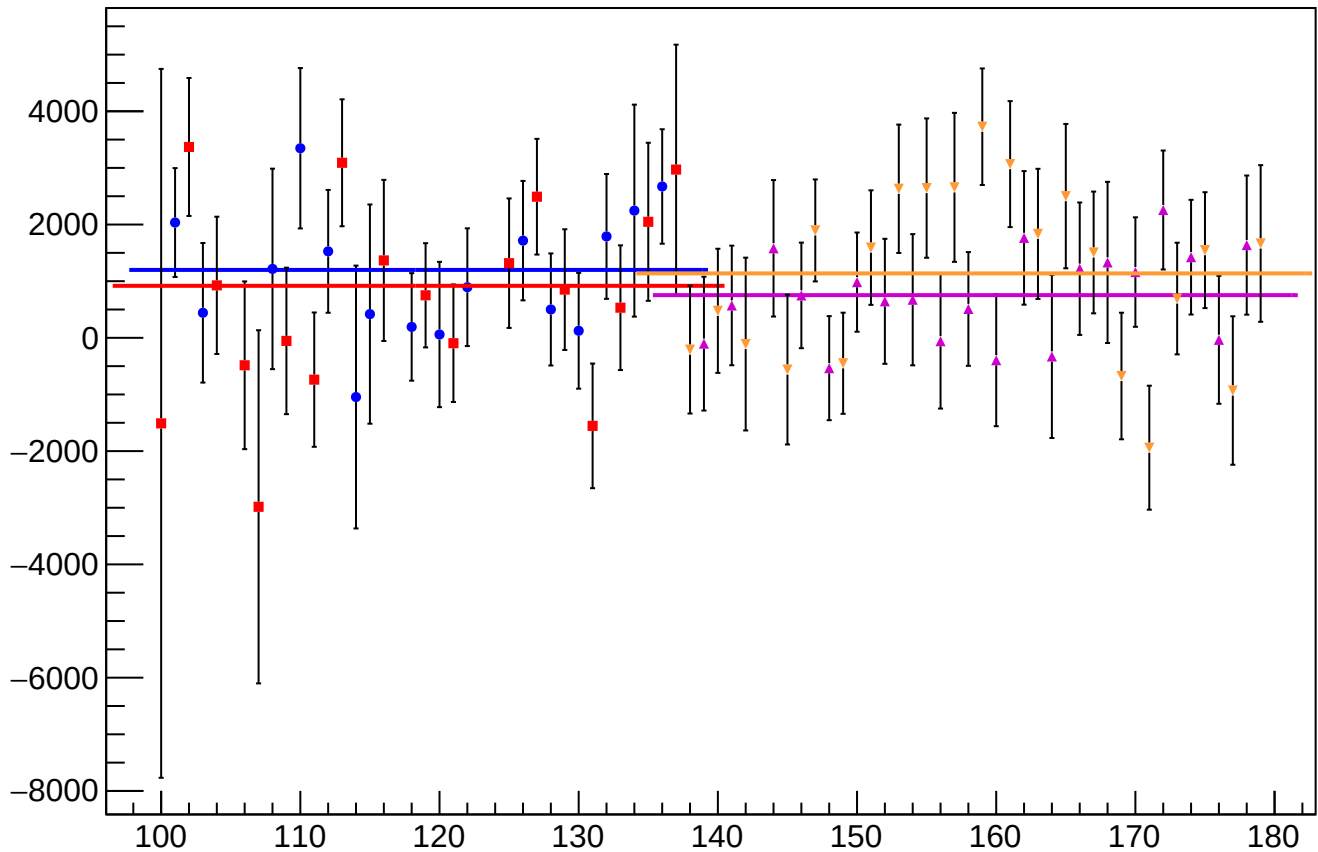
Right: 444.809+/-0.090  $\chi^2/\text{NDF}$ : 2521153.2/33

In: 585.100+/-0.093  $\chi^2/\text{NDF}$ : 4615841.7/35

Out: 589.700+/-0.093  $\chi^2/\text{NDF}$ : 5176188.8/38

All: 587.407+/-0.066  $\chi^2/\text{NDF}$ : 9793254.7/74

# asym\_left\_avg\_mean vs Slug, Sign Corrected



Right In: 1198.972 $\pm$ 295.243  $\chi^2$ /NDF: 11.2/15

Left Out: 1137.486 $\pm$ 243.818  $\chi^2$ /NDF:37.3/20

Right Out: 918.412 $\pm$ 293.294  $\chi^2$ /NDF: 23.2/17

Left In: 753.627 $\pm$ 244.185  $\chi^2$ /NDF:9.9/19

Left: 945.845 $\pm$ 172.535  $\chi^2$ /NDF: 48.4/40

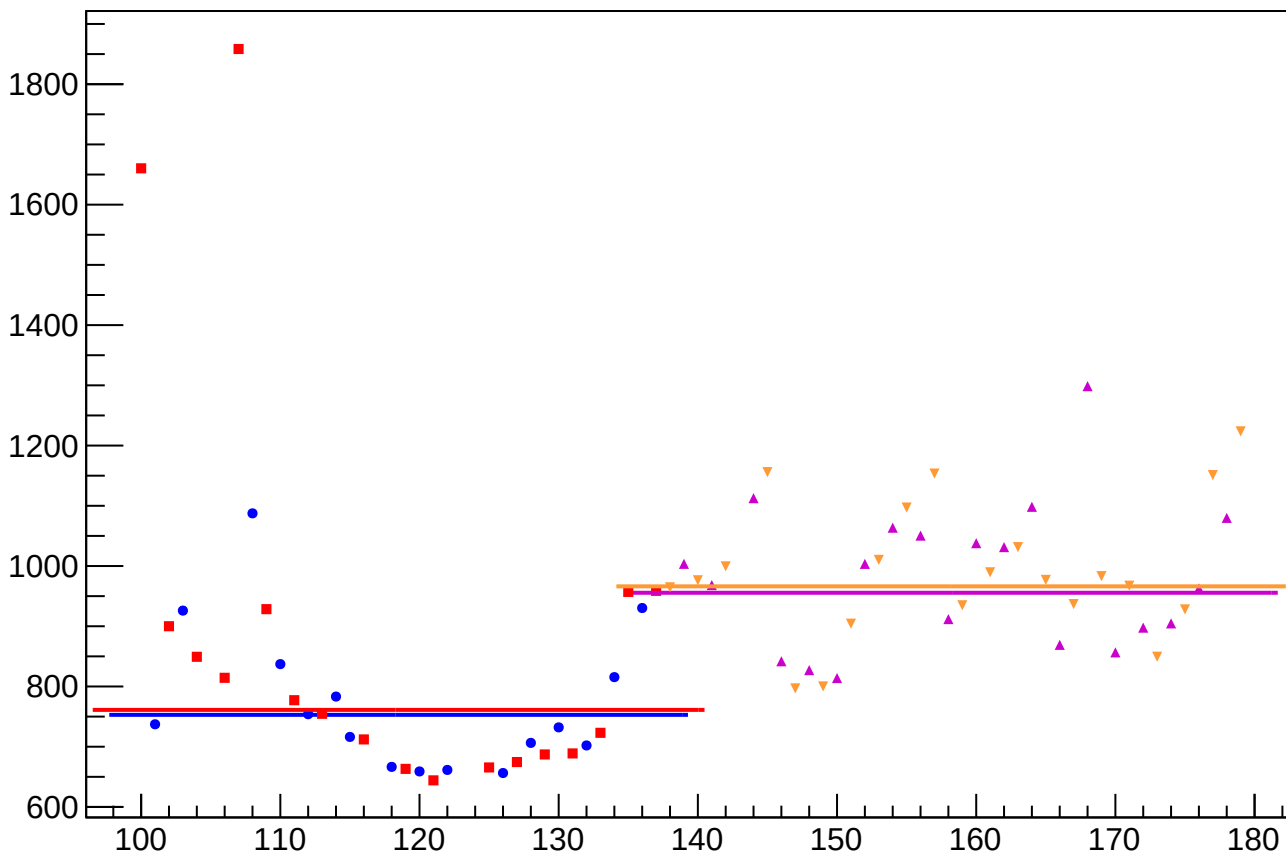
Right: 1057.763 $\pm$ 208.076  $\chi^2$ /NDF: 34.9/33

In: 934.521 $\pm$ 188.167  $\chi^2$ /NDF:22.4/35

Out: 1047.959 $\pm$ 187.493  $\chi^2$ /NDF:60.8/38

All: 991.444 $\pm$ 132.815  $\chi^2$ /NDF: 83.4/74

# asym\_left\_avg\_rms vs Slug, Sign Corrected



Right In: 752.937 $\pm$ 0.209  $\chi^2$ /NDF: 252526.4/15

Left Out: 966.271 $\pm$ 0.172  $\chi^2$ /NDF: 407162.9/20

Right Out: 761.160 $\pm$ 0.207  $\chi^2$ /NDF: 517136.7/17

Left In: 955.620 $\pm$ 0.173  $\chi^2$ /NDF: 414181.8/19

Left: 960.953 $\pm$ 0.122  $\chi^2$ /NDF: 823250.2/40

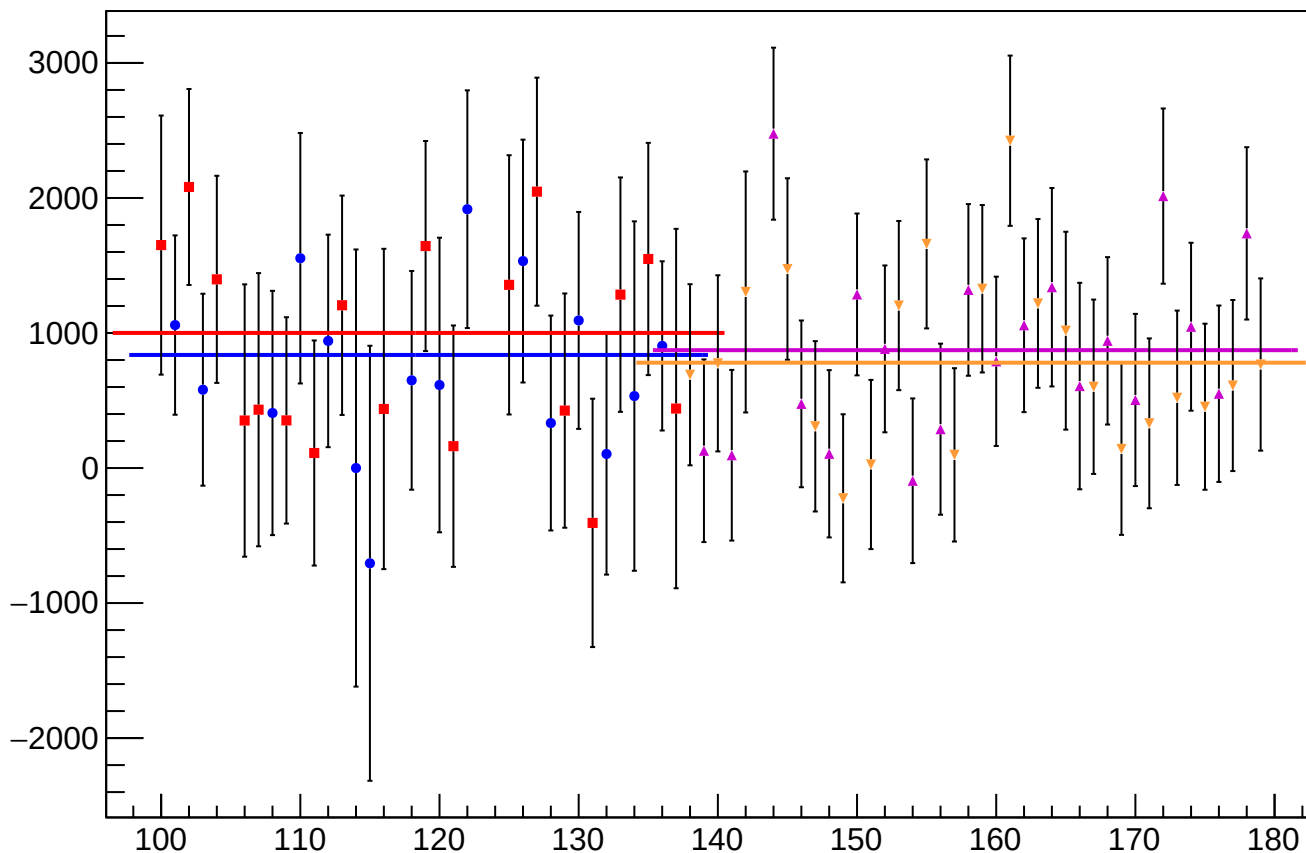
Right: 757.076 $\pm$ 0.147  $\chi^2$ /NDF: 770443.9/33

In: 873.293 $\pm$ 0.133  $\chi^2$ /NDF: 1226403.6/35

Out: 882.450 $\pm$ 0.133  $\chi^2$ /NDF: 1502711.3/38

All: 877.888 $\pm$ 0.094  $\chi^2$ /NDF: 2731492.2/74

# reg\_asym\_left\_dd\_mean vs Slug, Sign Corrected



Right In: 837.557 $\pm$ 216.015  $\chi^2$ /NDF: 5.7/15

Left Out: 780.155 $\pm$ 141.225  $\chi^2$ /NDF:19.9/20

Right Out: 1000.617 $\pm$ 207.748  $\chi^2$ /NDF: 12.5/17

Left In: 872.823 $\pm$ 143.178  $\chi^2$ /NDF:21.6/19

Left: 825.853 $\pm$ 100.545  $\chi^2$ /NDF: 41.7/40

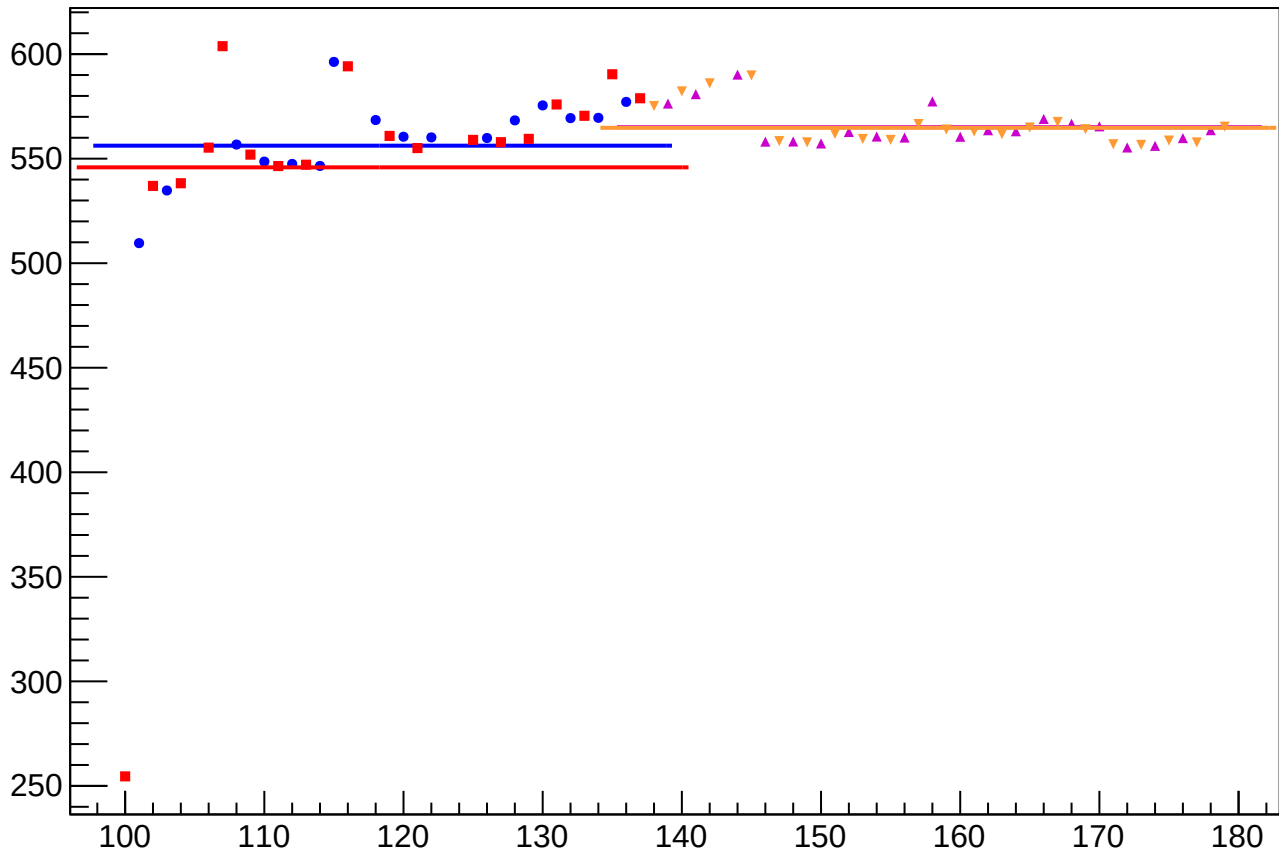
Right: 922.267 $\pm$ 149.737  $\chi^2$ /NDF: 18.5/33

In: 862.059 $\pm$ 119.343  $\chi^2$ /NDF:27.3/35

Out: 849.835 $\pm$ 116.794  $\chi^2$ /NDF:33.2/38

All: 855.815 $\pm$ 83.473  $\chi^2$ /NDF: 60.5/74

# reg\_asym\_left\_dd\_rms vs Slug, Sign Corrected



Right In: 556.210 $\pm$ 0.153  $\chi^2$ /NDF: 18417.4/15

Left Out: 564.762 $\pm$ 0.100  $\chi^2$ /NDF: 7827.4/20

Right Out: 545.844 $\pm$ 0.147  $\chi^2$ /NDF: 207640.3/17

Left In: 565.062 $\pm$ 0.101  $\chi^2$ /NDF: 7961.3/19

Left: 564.910 $\pm$ 0.071  $\chi^2$ /NDF: 15793.2/40

Right: 550.825 $\pm$ 0.106  $\chi^2$ /NDF: 228450.1/33

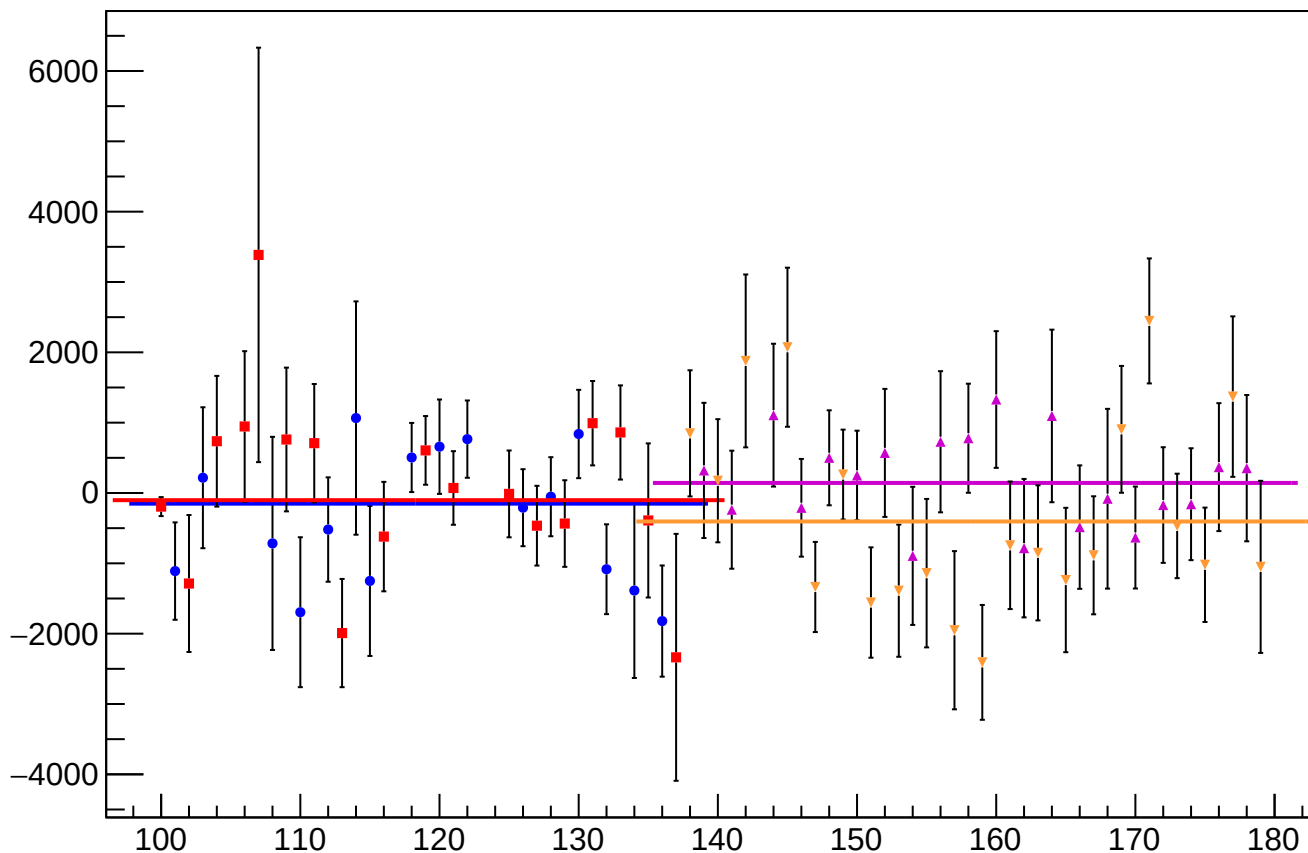
In: 562.360 $\pm$ 0.084  $\chi^2$ /NDF: 28712.0/35

Out: 558.783 $\pm$ 0.083  $\chi^2$ /NDF: 226809.9/38

All: 560.533 $\pm$ 0.059  $\chi^2$ /NDF: 256439.8/74



asym\_left\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -151.459 $\pm$ 179.991  $\chi^2/\text{NDF}$ : 22.3/15

Left Out: -404.947 $\pm$ 193.339  $\chi^2/\text{NDF}$ : 42.5/20

Right Out: -102.079 $\pm$ 107.707  $\chi^2/\text{NDF}$ : 23.2/17

Left In: 143.207 $\pm$ 192.903  $\chi^2/\text{NDF}$ : 9.1/19

Left: -130.250 $\pm$ 136.557  $\chi^2/\text{NDF}$ : 55.7/40

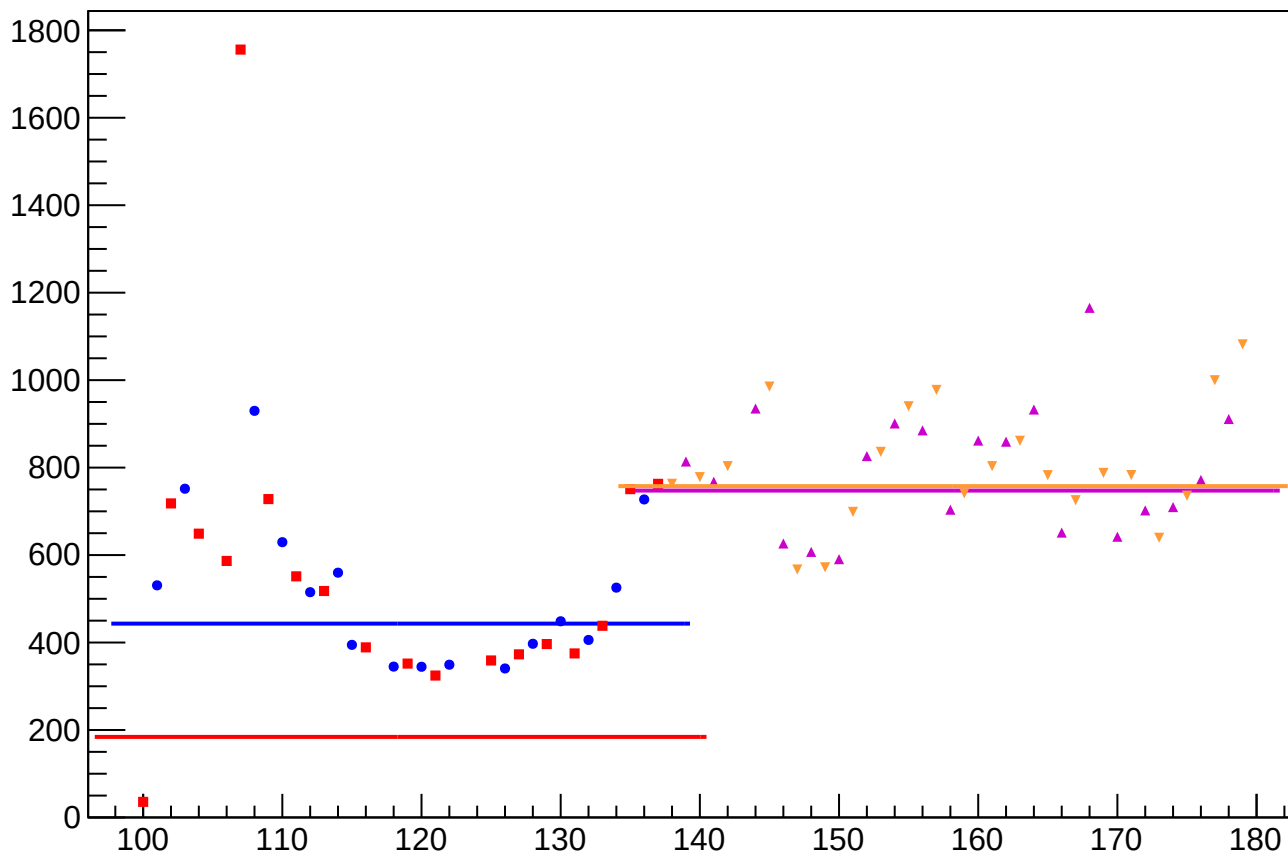
Right: -115.099 $\pm$ 92.423  $\chi^2/\text{NDF}$ : 45.6/33

In: -14.317 $\pm$ 131.601  $\chi^2/\text{NDF}$ : 32.6/35

Out: -173.812 $\pm$ 94.092  $\chi^2/\text{NDF}$ : 67.6/38

All: -119.859 $\pm$ 76.540  $\chi^2/\text{NDF}$ : 101.2/74

asym\_left\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 443.240+/-0.127  $\chi^2/\text{NDF}$ : 1060784.8/15

Left Out: 757.639+/-0.137  $\chi^2/\text{NDF}$ : 912220.5/20

Right Out: 184.215+/-0.076  $\chi^2/\text{NDF}$ : 8079776.8/17

Left In: 747.452+/-0.136  $\chi^2/\text{NDF}$ : 896310.7/19

Left: 752.534+/-0.097  $\chi^2/\text{NDF}$ : 1811313.8/40

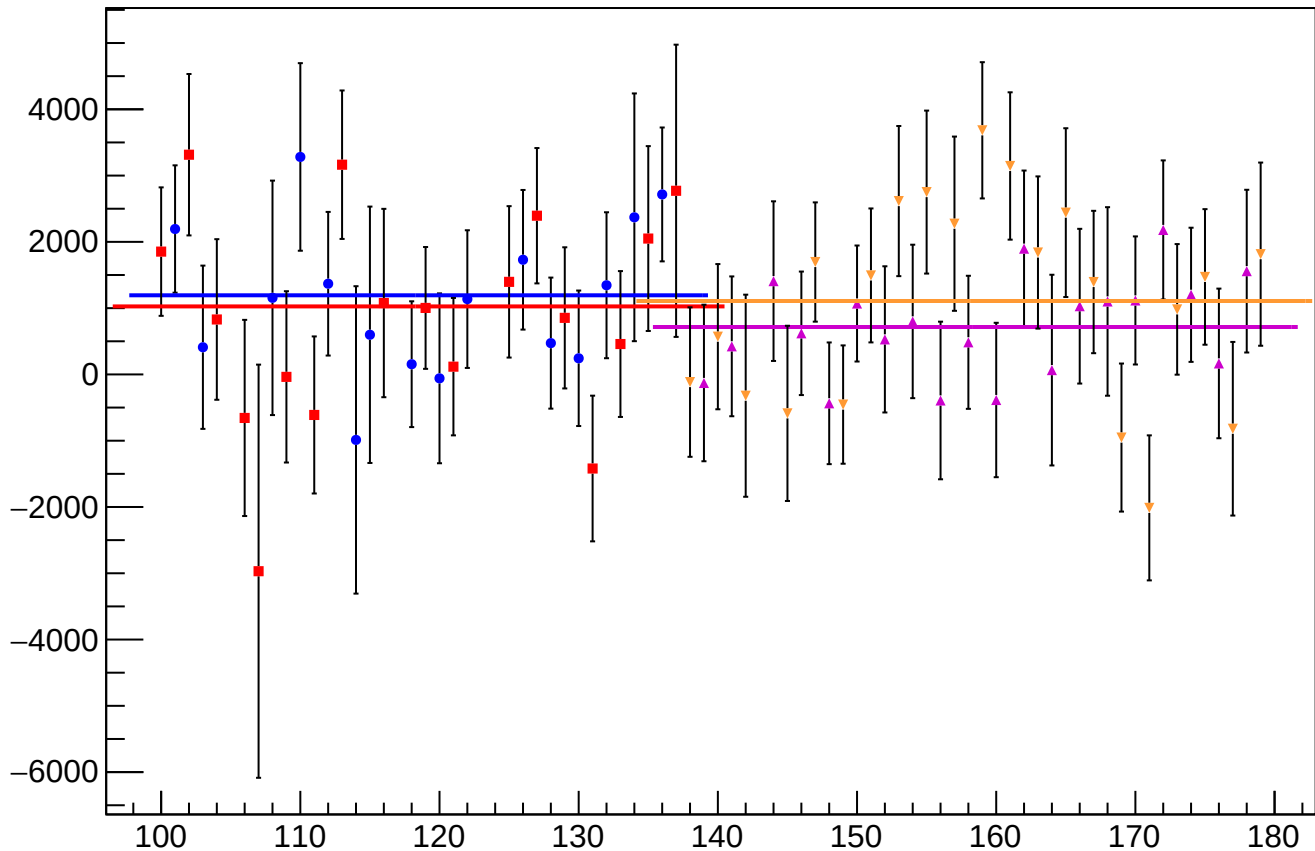
Right: 252.512+/-0.065  $\chi^2/\text{NDF}$ : 12190461.3/33

In: 584.825+/-0.093  $\chi^2/\text{NDF}$ : 4616116.1/35

Out: 320.027+/-0.067  $\chi^2/\text{NDF}$ : 22418218.4/38

All: 409.600+/-0.054  $\chi^2/\text{NDF}$ : 32392569.8/74

# asym\_left\_dd\_mean vs Slug, Sign Corrected



Right In: 1193.849 $\pm$ 295.046  $\chi^2$ /NDF: 11.2/15

Left Out: 1107.898 $\pm$ 243.679  $\chi^2$ /NDF:37.2/20

Right Out: 1026.130 $\pm$ 280.822  $\chi^2$ /NDF: 22.5/17

Left In: 715.457 $\pm$ 244.043  $\chi^2$ /NDF:8.9/19

Left: 911.970 $\pm$ 172.436  $\chi^2$ /NDF: 47.5/40

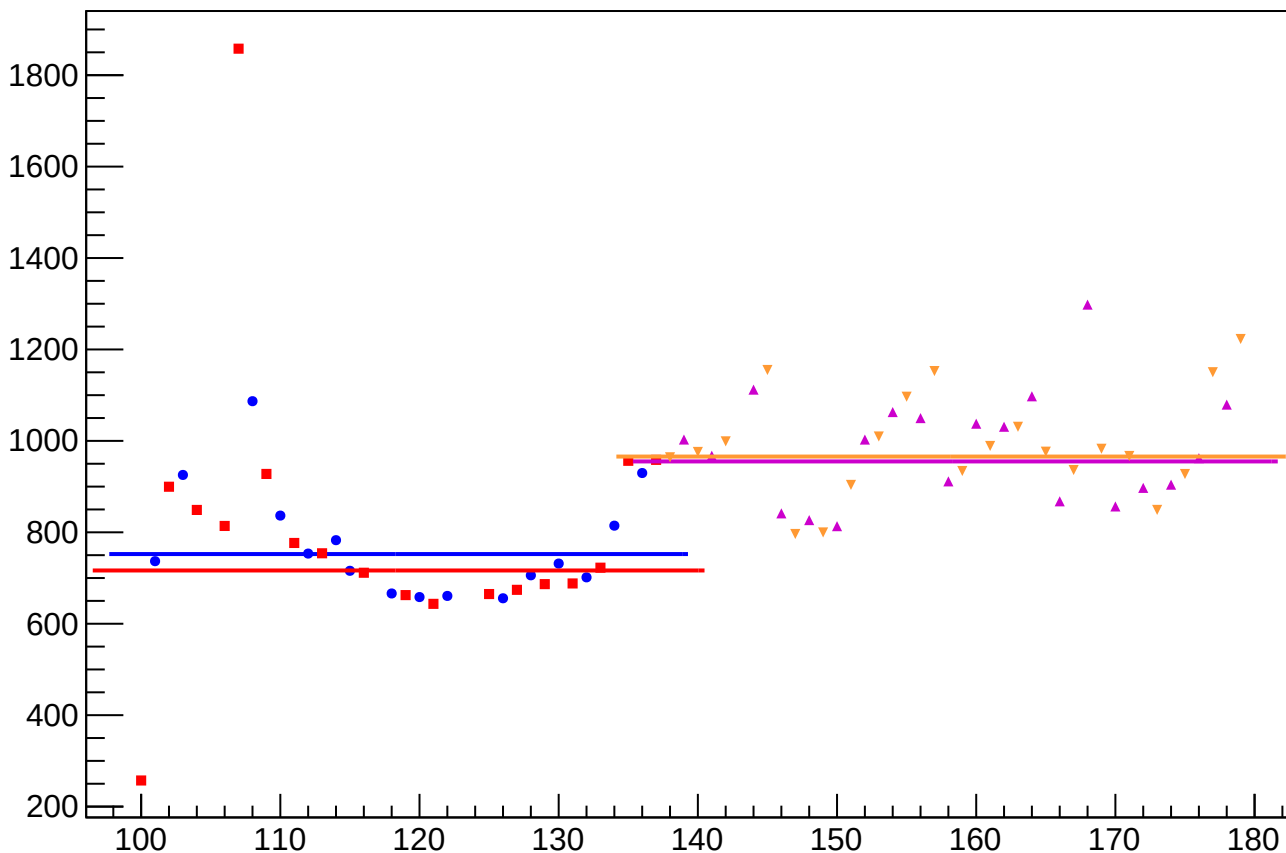
Right: 1105.849 $\pm$ 203.414  $\chi^2$ /NDF: 33.9/33

In: 909.794 $\pm$ 188.051  $\chi^2$ /NDF:21.7/35

Out: 1072.776 $\pm$ 184.048  $\chi^2$ /NDF:59.8/38

All: 993.038 $\pm$ 131.534  $\chi^2$ /NDF: 81.9/74

# asym\_left\_dd\_rms vs Slug, Sign Corrected



Right In: 752.429+/-0.209  $\chi^2/\text{NDF}$ : 252705.1/15

Left Out: 965.731+/-0.172  $\chi^2/\text{NDF}$ : 407017.6/20

Right Out: 716.522+/-0.199  $\chi^2/\text{NDF}$ : 966934.7/17

Left In: 955.055+/-0.173  $\chi^2/\text{NDF}$ : 414422.9/19

Left: 960.401+/-0.122  $\chi^2/\text{NDF}$ : 823356.9/40

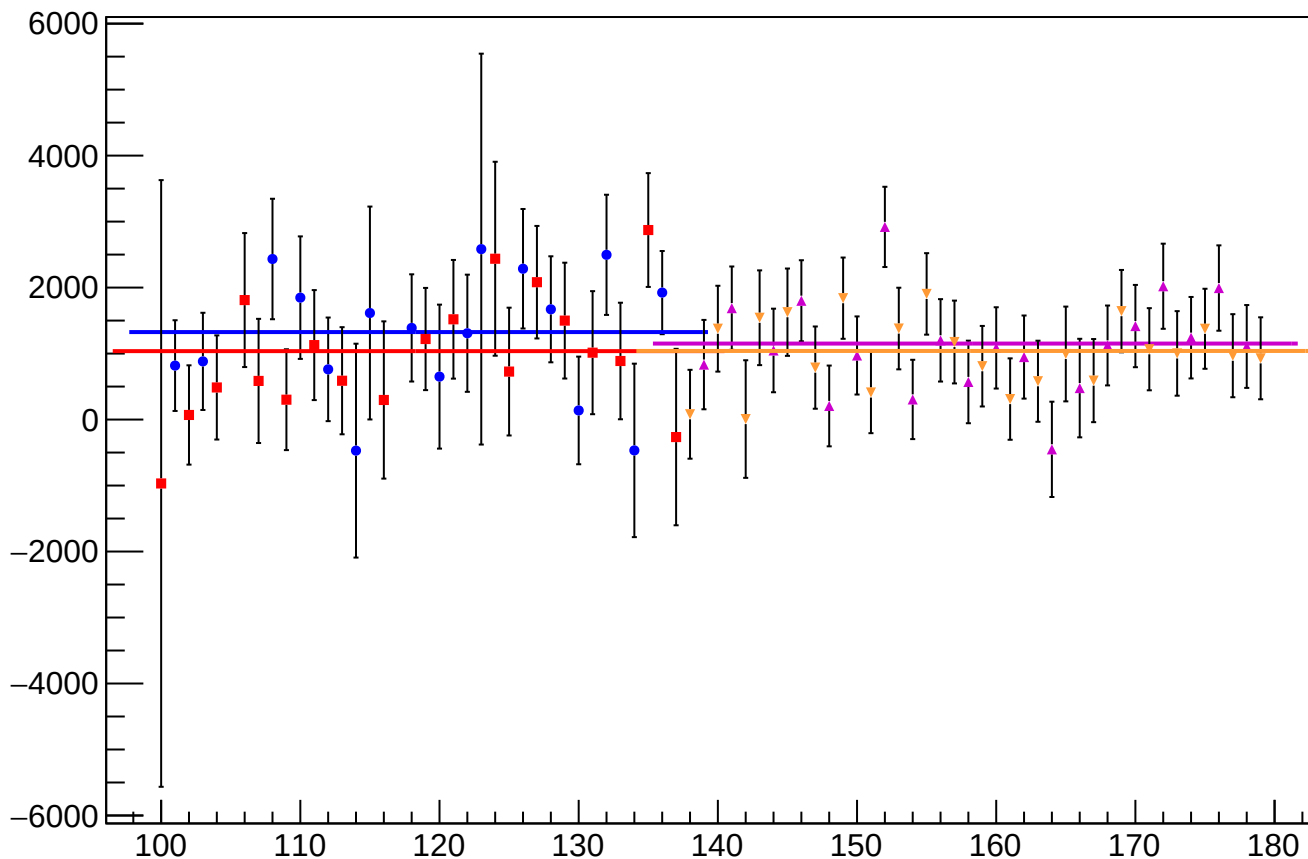
Right: 733.589+/-0.144  $\chi^2/\text{NDF}$ : 1235181.4/33

In: 872.742+/-0.133  $\chi^2/\text{NDF}$ : 1227226.5/35

Out: 858.686+/-0.130  $\chi^2/\text{NDF}$ : 2272457.7/38

All: 865.563+/-0.093  $\chi^2/\text{NDF}$ : 3505391.6/74

# reg\_asym\_right\_avg\_mean vs Slug, Sign Corrected



Right In: 1325.776 $\pm$ 218.106  $\chi^2/\text{NDF}$ : 12.9/16

Left Out: 1039.698 $\pm$ 136.704  $\chi^2/\text{NDF}$ : 14.0/21

Right Out: 1037.028 $\pm$ 211.583  $\chi^2/\text{NDF}$ : 13.4/18

Left In: 1151.600 $\pm$ 141.315  $\chi^2/\text{NDF}$ : 25.4/19

Left: 1093.794 $\pm$ 98.254  $\chi^2/\text{NDF}$ : 39.8/41

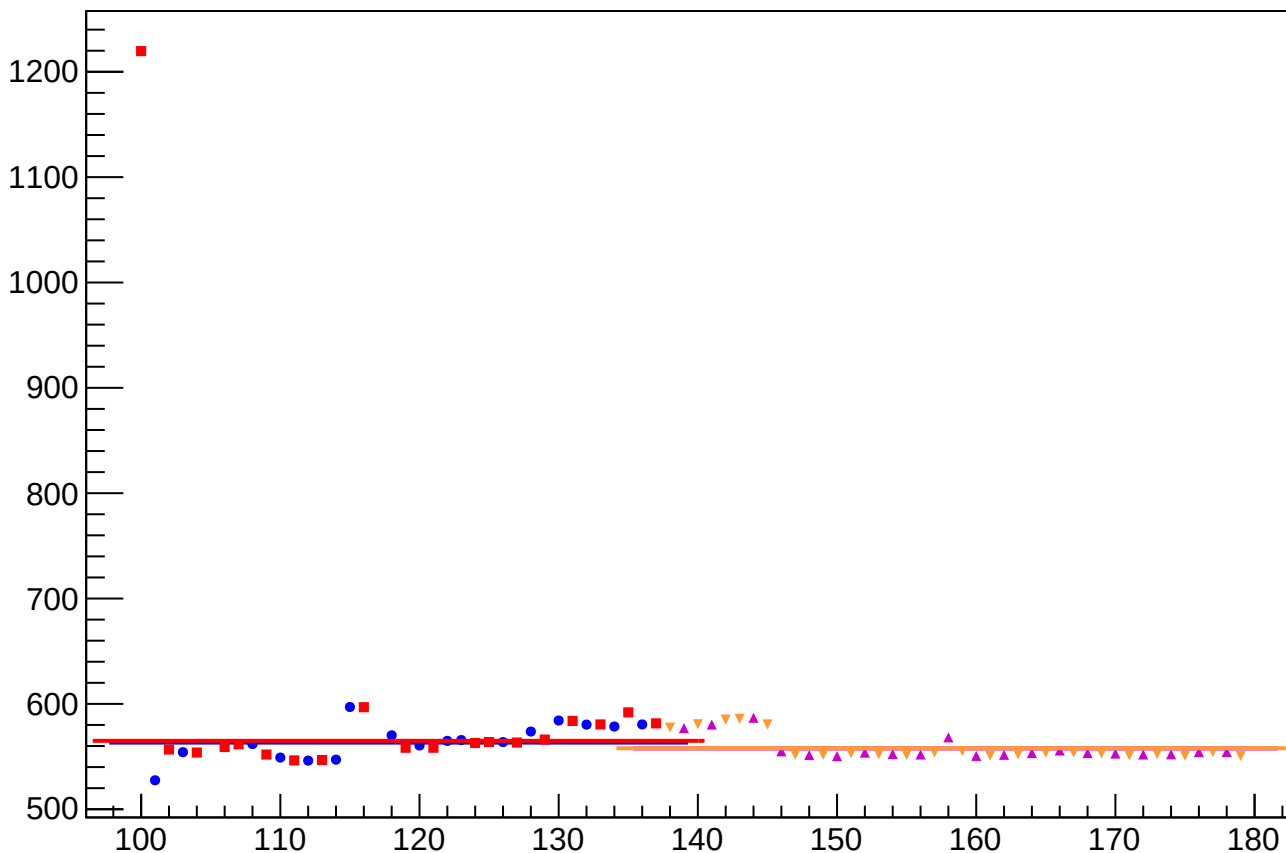
Right: 1177.020 $\pm$ 151.865  $\chi^2/\text{NDF}$ : 27.2/35

In: 1203.099 $\pm$ 118.597  $\chi^2/\text{NDF}$ : 38.8/36

Out: 1038.912 $\pm$ 114.823  $\chi^2/\text{NDF}$ : 27.4/40

All: 1118.351 $\pm$ 82.494  $\chi^2/\text{NDF}$ : 67.2/77

# reg\_asym\_right\_avg\_rms vs Slug, Sign Corrected



Right In: 563.266+/-0.154  $\chi^2/\text{NDF}$ : 12520.3/16

Left Out: 557.892+/-0.097  $\chi^2/\text{NDF}$ :14100.1/21

Right Out: 564.944+/-0.150  $\chi^2/\text{NDF}$ : 49295.9/18

Left In: 557.680+/-0.100  $\chi^2/\text{NDF}$ :11142.3/19

Left: 557.790+/-0.069  $\chi^2/\text{NDF}$ : 25244.8/41

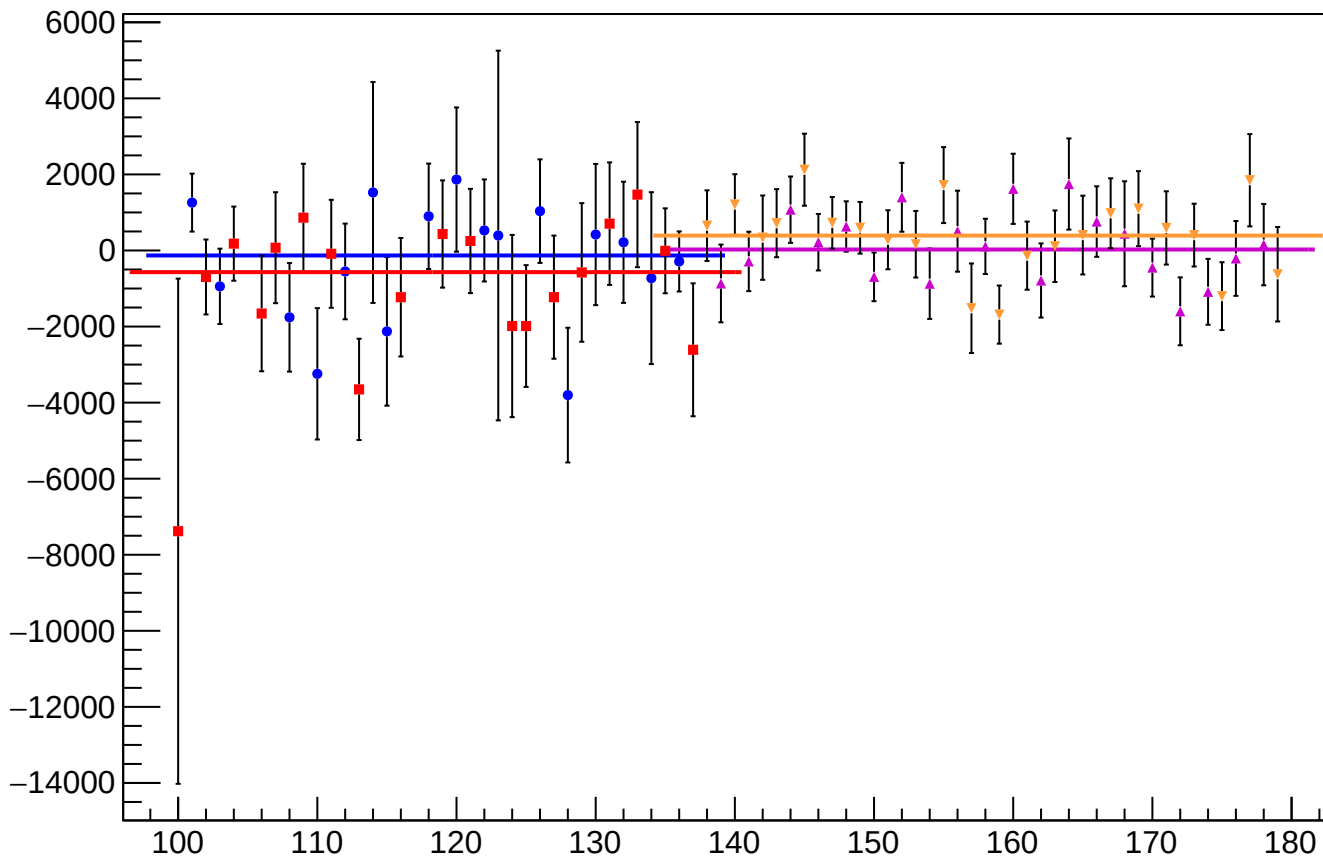
Right: 564.130+/-0.107  $\chi^2/\text{NDF}$ : 61877.2/35

In: 559.331+/-0.084  $\chi^2/\text{NDF}$ :24586.6/36

Out: 559.969+/-0.081  $\chi^2/\text{NDF}$ :64963.3/40

All: 559.661+/-0.058  $\chi^2/\text{NDF}$ : 89579.7/77

asym\_right\_avg\_correction\_mean vs Slug, Sign Corrected



Right In:  $-131.097 \pm 327.588$   $\chi^2/\text{NDF}$ : 17.2/16

Left Out:  $391.957 \pm 191.347$   $\chi^2/\text{NDF}$ : 23.5/21

Right Out:  $-569.844 \pm 332.404$   $\chi^2/\text{NDF}$ : 14.6/18

Left In:  $25.695 \pm 194.468$   $\chi^2/\text{NDF}$ : 19.9/19

Left:  $211.789 \pm 136.393$   $\chi^2/\text{NDF}$ : 45.2/41

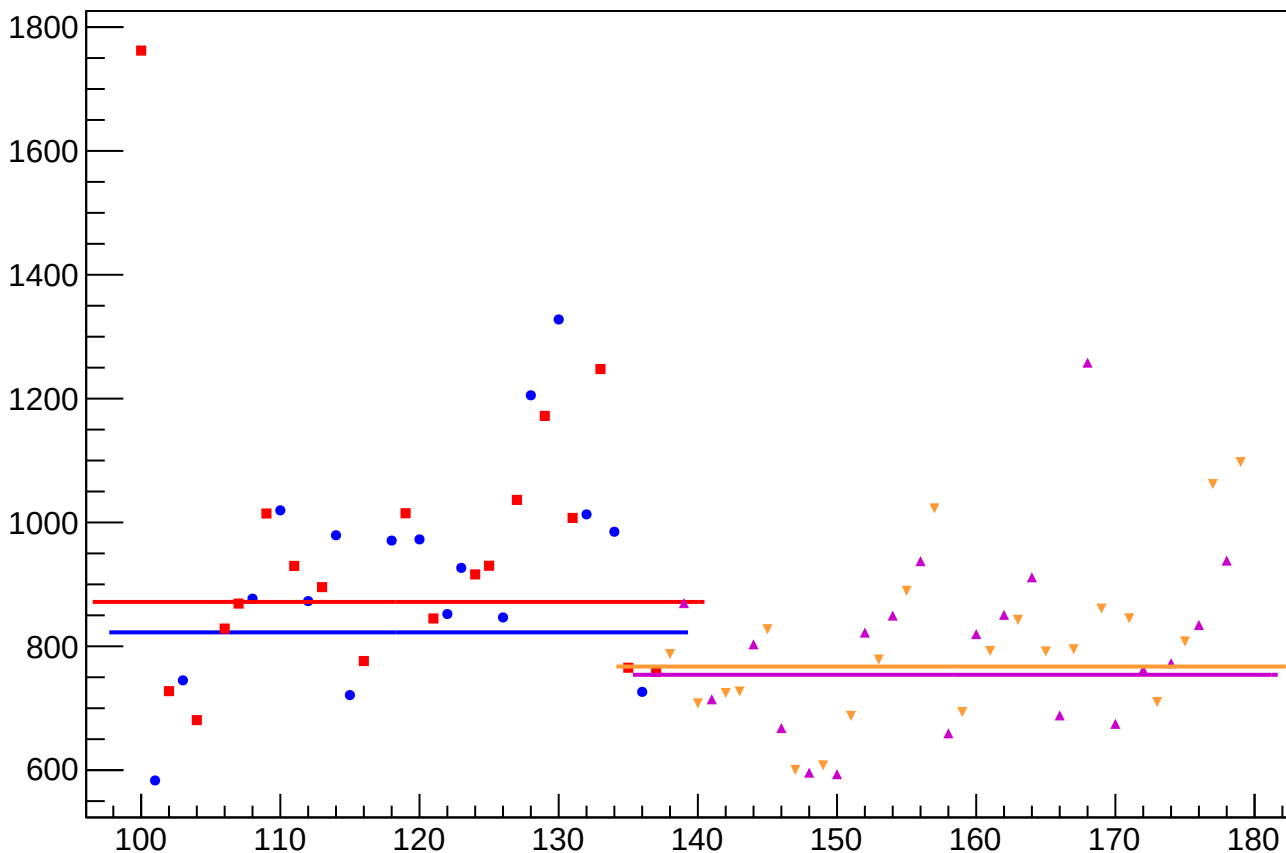
Right:  $-347.269 \pm 233.324$   $\chi^2/\text{NDF}$ : 32.7/35

In:  $-15.162 \pm 167.223$   $\chi^2/\text{NDF}$ : 37.3/36

Out:  $152.572 \pm 165.834$   $\chi^2/\text{NDF}$ : 44.4/40

All:  $69.405 \pm 117.750$   $\chi^2/\text{NDF}$ : 82.2/77

asym\_right\_avg\_correction\_rms vs Slug, Sign Corrected



Right In:  $822.527 \pm 0.232$   $\chi^2/\text{NDF}$ : 600956.1/16

Left Out:  $767.304 \pm 0.135$   $\chi^2/\text{NDF}$ : 744560.6/21

Right Out:  $871.679 \pm 0.235$   $\chi^2/\text{NDF}$ : 406857.8/18

Left In:  $754.019 \pm 0.138$   $\chi^2/\text{NDF}$ : 866616.5/19

Left:  $760.769 \pm 0.096$   $\chi^2/\text{NDF}$ : 1615919.5/41

Right:  $846.744 \pm 0.165$   $\chi^2/\text{NDF}$ : 1029998.2/35

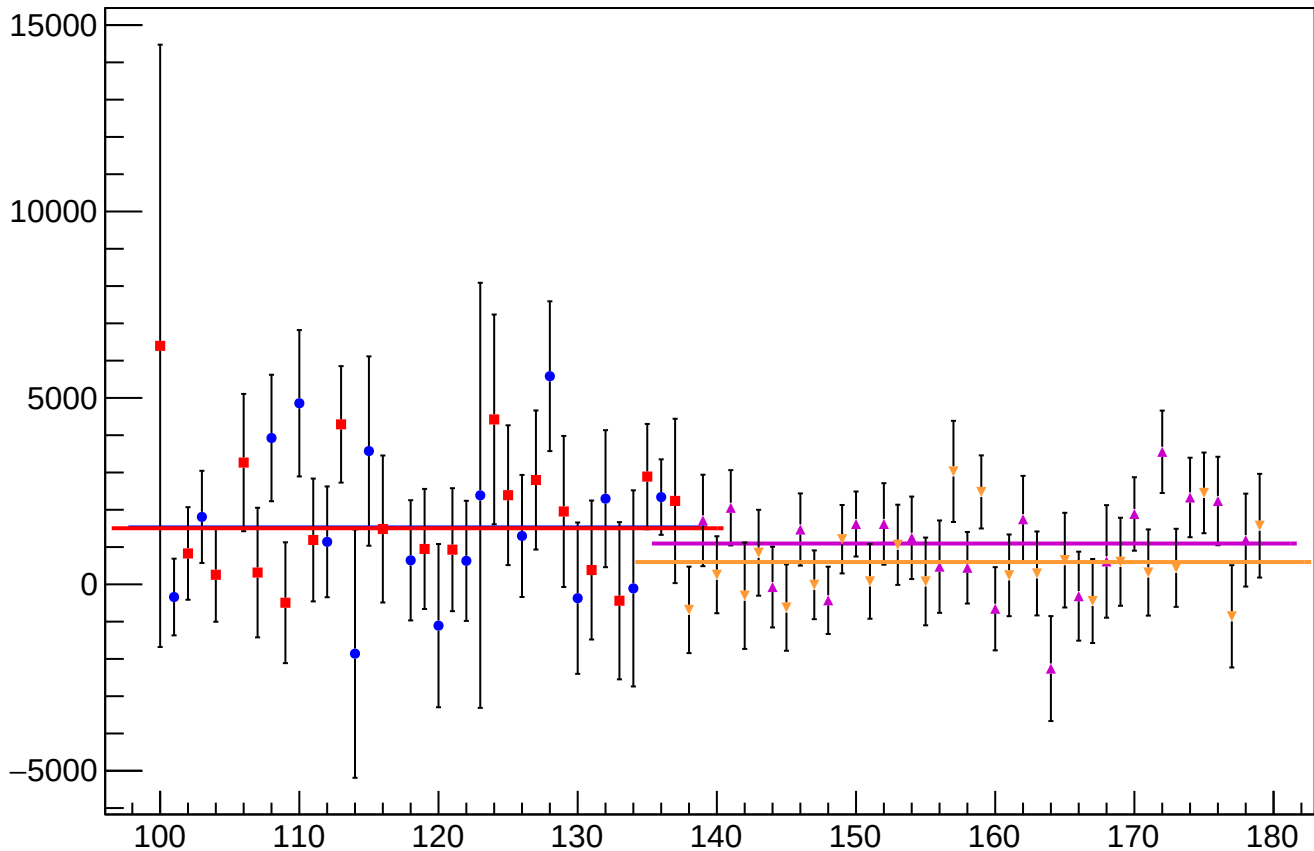
In:  $771.871 \pm 0.118$   $\chi^2/\text{NDF}$ : 1532248.8/36

Out:  $793.282 \pm 0.117$   $\chi^2/\text{NDF}$ : 1299530.1/40

All:  $782.666 \pm 0.083$   $\chi^2/\text{NDF}$ : 2848310.6/77



# asym\_right\_avg\_mean vs Slug, Sign Corrected



Right In: 1525.470+/-401.784  $\chi^2/\text{NDF}$ : 18.2/16

Left Out: 598.198+/-238.977  $\chi^2/\text{NDF}$ : 17.0/21

Right Out: 1504.406+/-399.953  $\chi^2/\text{NDF}$ : 12.1/18

Left In: 1095.069+/-244.189  $\chi^2/\text{NDF}$ : 24.5/19

Left: 841.275+/-170.795  $\chi^2/\text{NDF}$ : 43.6/41

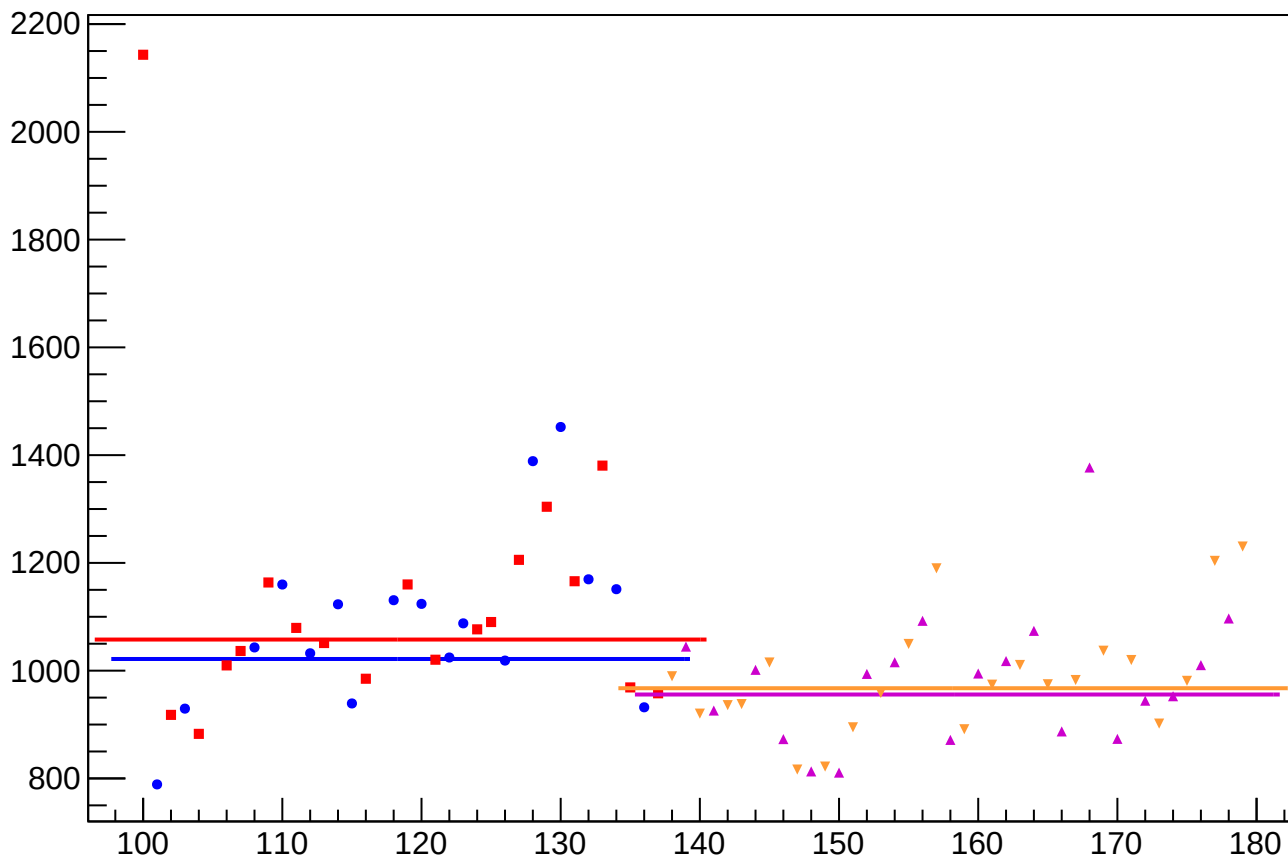
Right: 1514.890+/-283.454  $\chi^2/\text{NDF}$ : 30.4/35

In: 1211.166+/-208.672  $\chi^2/\text{NDF}$ : 43.5/36

Out: 836.615+/-205.146  $\chi^2/\text{NDF}$ : 32.9/40

All: 1020.699+/-146.291  $\chi^2/\text{NDF}$ : 78.1/77

# asym\_right\_avg\_rms vs Slug, Sign Corrected



Right In: 1021.665 $\pm$ 0.284  $\chi^2$ /NDF: 331949.3/16

Left Out: 967.403 $\pm$ 0.169  $\chi^2$ /NDF: 354128.3/21

Right Out: 1057.748 $\pm$ 0.283  $\chi^2$ /NDF: 230944.1/18

Left In: 955.740 $\pm$ 0.173  $\chi^2$ /NDF: 412453.6/19

Left: 961.697 $\pm$ 0.121  $\chi^2$ /NDF: 768912.1/41

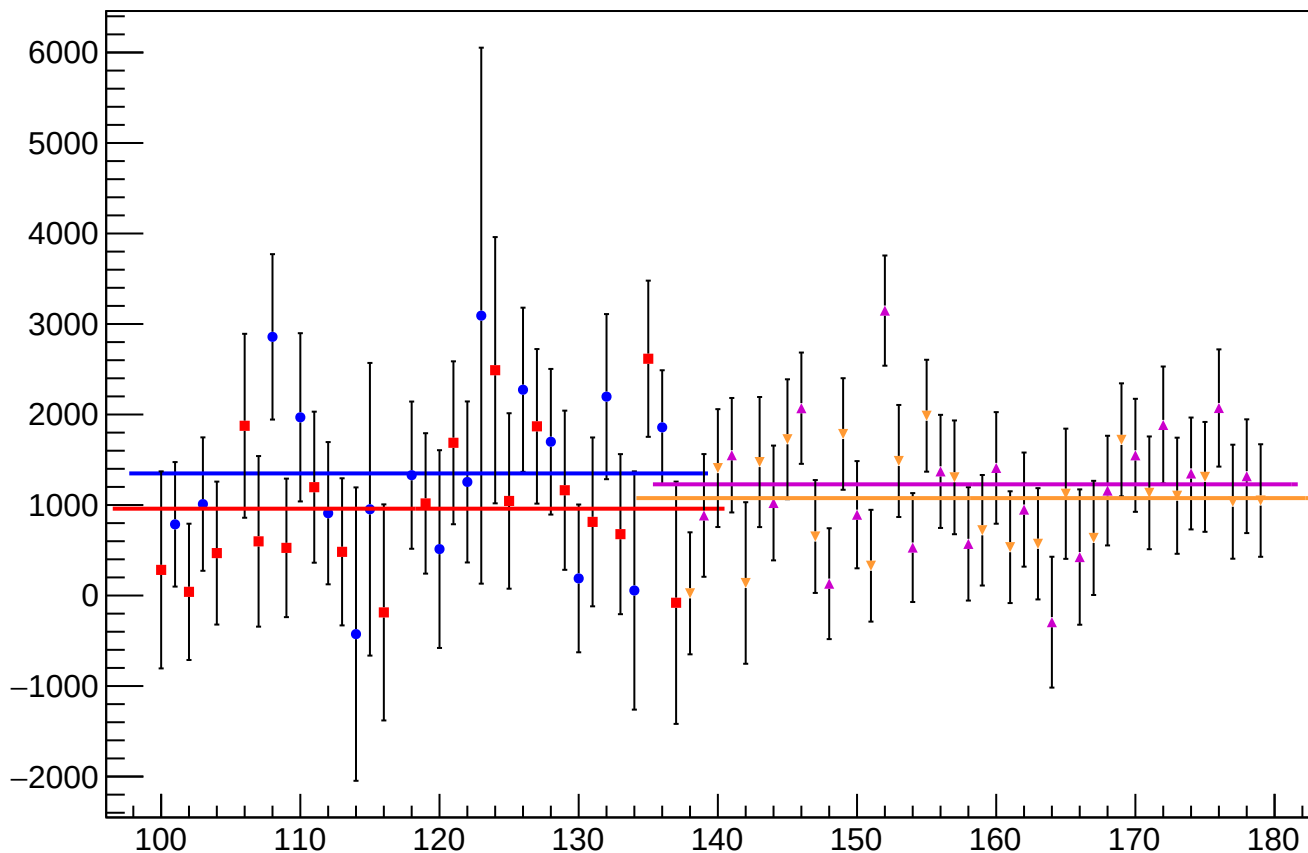
Right: 1039.788 $\pm$ 0.200  $\chi^2$ /NDF: 570995.5/35

In: 973.523 $\pm$ 0.148  $\chi^2$ /NDF: 783723.1/36

Out: 991.172 $\pm$ 0.145  $\chi^2$ /NDF: 660274.6/40

All: 982.498 $\pm$ 0.103  $\chi^2$ /NDF: 1451273.1/77

# reg\_asym\_right\_dd\_mean vs Slug, Sign Corrected



Right In: 1349.156 $\pm$ 218.361  $\chi^2$ /NDF: 12.3/16

Left Out: 1076.345 $\pm$ 136.842  $\chi^2$ /NDF:14.6/21

Right Out: 959.496 $\pm$ 208.143  $\chi^2$ /NDF: 12.2/18

Left In: 1228.704 $\pm$ 141.472  $\chi^2$ /NDF:27.4/19

Left: 1149.990 $\pm$ 98.358  $\chi^2$ /NDF: 42.6/41

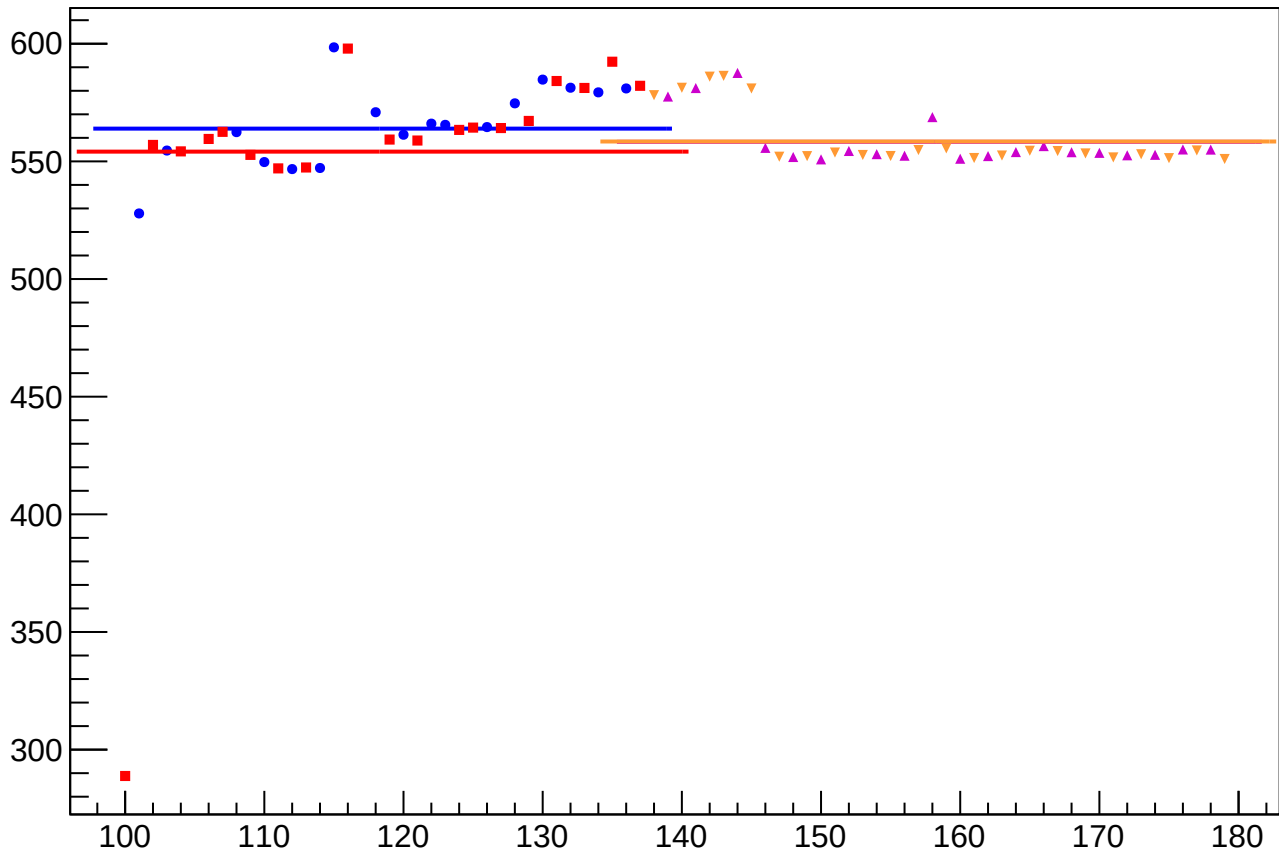
Right: 1144.995 $\pm$ 150.662  $\chi^2$ /NDF: 26.2/35

In: 1264.315 $\pm$ 118.731  $\chi^2$ /NDF:39.9/36

Out: 1041.081 $\pm$ 114.344  $\chi^2$ /NDF:27.0/40

All: 1148.498 $\pm$ 82.361  $\chi^2$ /NDF: 68.8/77

# reg\_asym\_right\_dd\_rms vs Slug, Sign Corrected



Right In: 563.922 $\pm$ 0.154  $\chi^2$ /NDF: 12663.1/16

Left Out: 558.452 $\pm$ 0.097  $\chi^2$ /NDF:14144.5/21

Right Out: 554.145 $\pm$ 0.147  $\chi^2$ /NDF: 131965.1/18

Left In: 558.301 $\pm$ 0.100  $\chi^2$ /NDF:11216.5/19

Left: 558.379 $\pm$ 0.070  $\chi^2$ /NDF: 25362.2/41

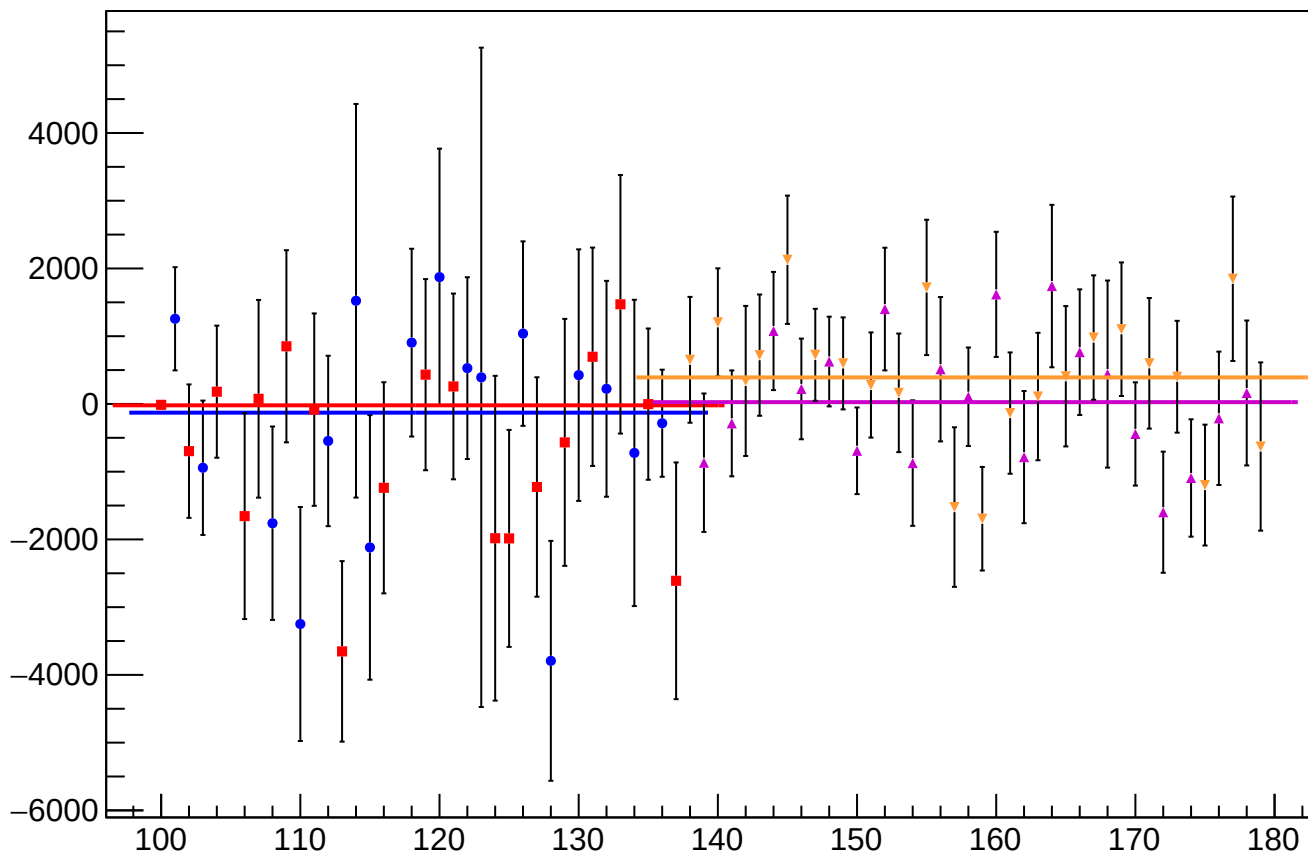
Right: 558.799 $\pm$ 0.107  $\chi^2$ /NDF: 146729.2/35

In: 559.963 $\pm$ 0.084  $\chi^2$ /NDF:24813.2/36

Out: 557.152 $\pm$ 0.081  $\chi^2$ /NDF:146707.7/40

All: 558.505 $\pm$ 0.058  $\chi^2$ /NDF: 172102.3/77

asym\_right\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -128.725 $\pm$ 327.688  $\chi^2/\text{NDF}$ : 17.2/16

Left Out: 391.503 $\pm$ 191.410  $\chi^2/\text{NDF}$ : 23.6/21

Right Out: -20.384 $\pm$ 38.954  $\chi^2/\text{NDF}$ : 16.1/18

Left In: 26.459 $\pm$ 194.562  $\chi^2/\text{NDF}$ : 19.8/19

Left: 211.962 $\pm$ 136.448  $\chi^2/\text{NDF}$ : 45.2/41

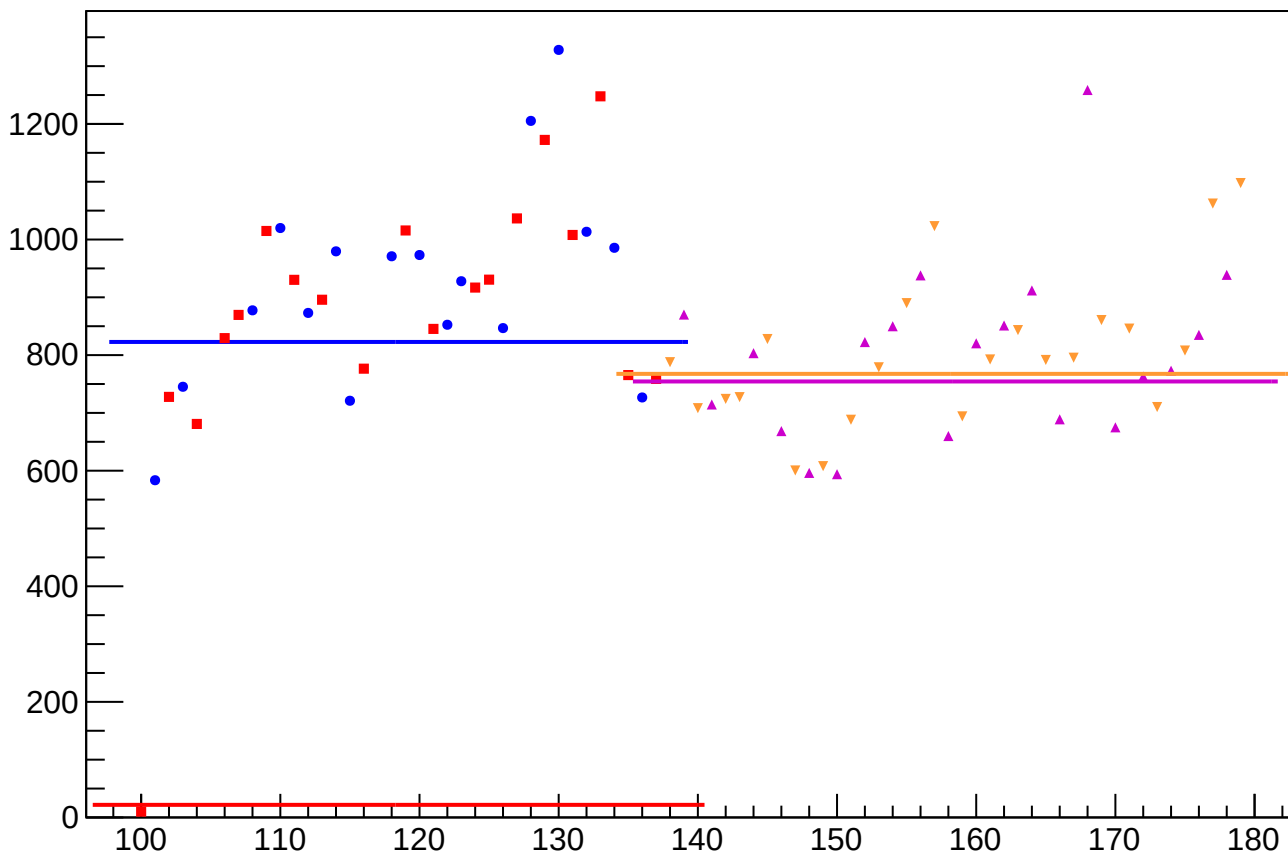
Right: -21.894 $\pm$ 38.682  $\chi^2/\text{NDF}$ : 33.4/35

In: -13.989 $\pm$ 167.296  $\chi^2/\text{NDF}$ : 37.2/36

Out: -4.003 $\pm$ 38.172  $\chi^2/\text{NDF}$ : 44.1/40

All: -4.497 $\pm$ 37.215  $\chi^2/\text{NDF}$ : 81.4/77

asym\_right\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 822.780 $\pm$ 0.232  $\chi^2$ /NDF: 600873.9/16

Left Out: 767.550 $\pm$ 0.135  $\chi^2$ /NDF: 744507.4/21

Right Out: 21.812 $\pm$ 0.028  $\chi^2$ /NDF: 13523611.9/18

Left In: 754.391 $\pm$ 0.138  $\chi^2$ /NDF: 866386.4/19

Left: 761.078 $\pm$ 0.096  $\chi^2$ /NDF: 1615543.0/41

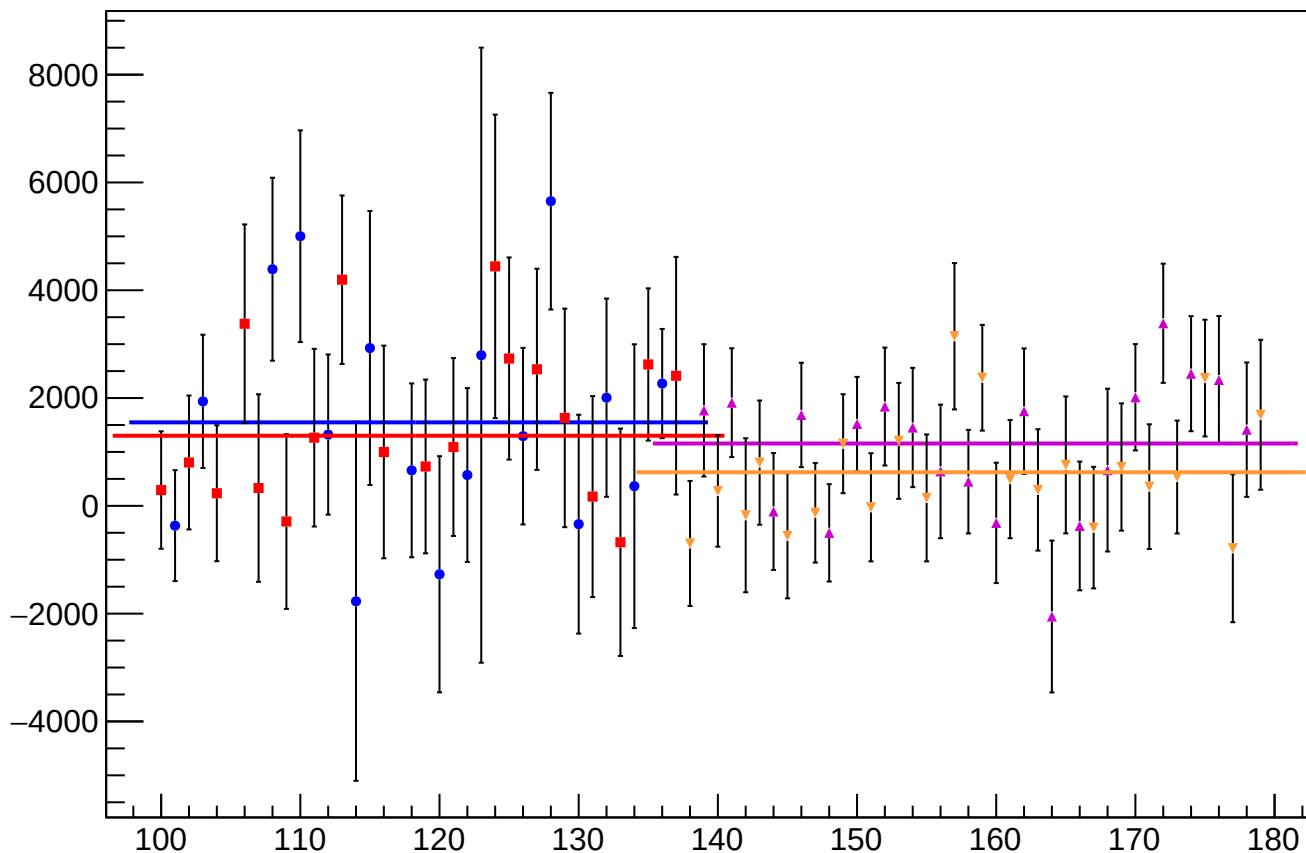
Right: 32.973 $\pm$ 0.027  $\chi^2$ /NDF: 25907183.1/35

In: 772.216 $\pm$ 0.118  $\chi^2$ /NDF: 1531667.1/36

Out: 51.470 $\pm$ 0.027  $\chi^2$ /NDF: 43418660.1/40

All: 87.136 $\pm$ 0.026  $\chi^2$ /NDF: 80234732.8/77

# asym\_right\_dd\_mean vs Slug, Sign Corrected



Right In: 1548.873 $\pm$ 402.008  $\chi^2/\text{NDF}$ : 19.0/16

Left Out: 623.582 $\pm$ 239.109  $\chi^2/\text{NDF}$ :16.6/21

Right Out: 1300.945 $\pm$ 376.043  $\chi^2/\text{NDF}$ : 12.5/18

Left In: 1156.502 $\pm$ 244.360  $\chi^2/\text{NDF}$ :23.5/19

Left: 884.255 $\pm$ 170.902  $\chi^2/\text{NDF}$ : 42.5/41

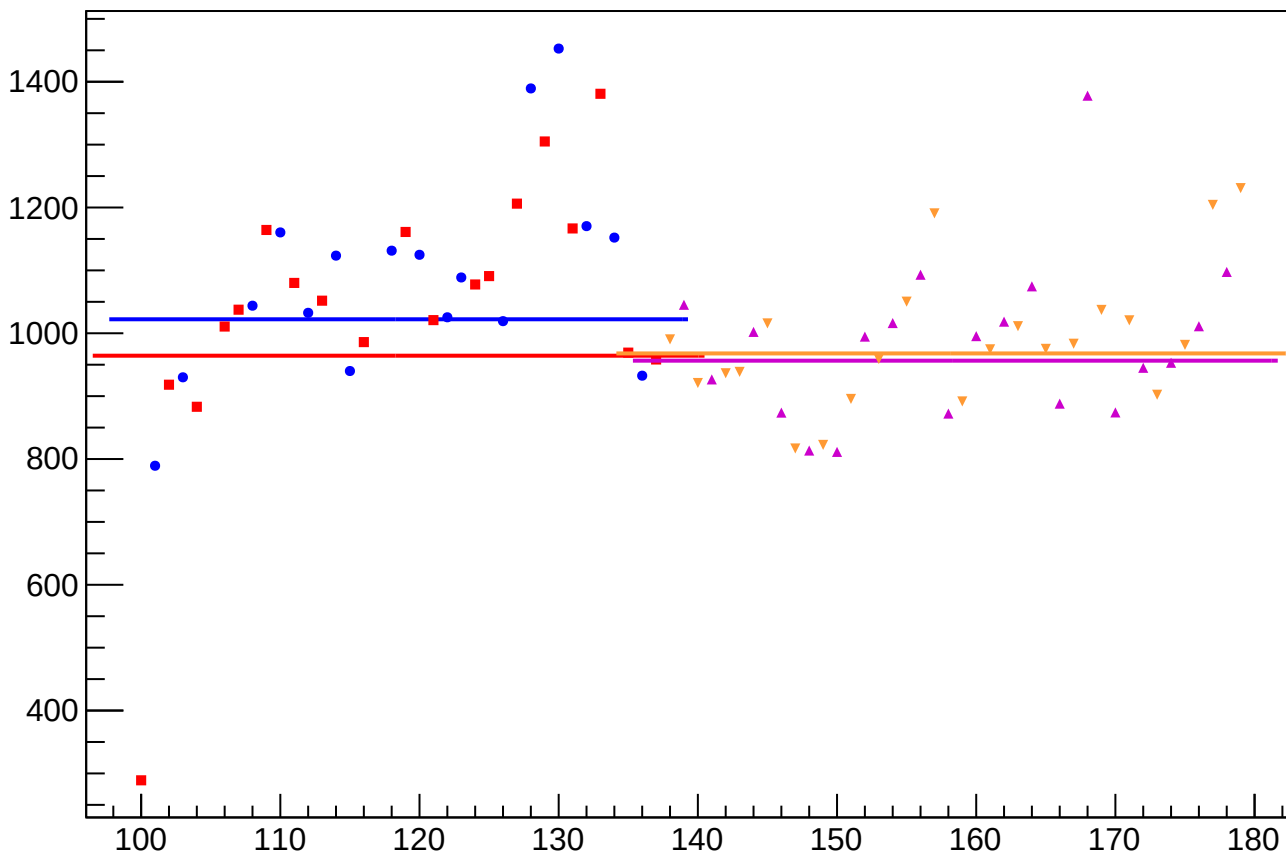
Right: 1416.645 $\pm$ 274.624  $\chi^2/\text{NDF}$ : 31.7/35

In: 1262.362 $\pm$ 208.811  $\chi^2/\text{NDF}$ :43.1/36

Out: 818.600 $\pm$ 201.774  $\chi^2/\text{NDF}$ :31.4/40

All: 1032.878 $\pm$ 145.100  $\chi^2/\text{NDF}$ : 76.9/77

# asym\_right\_dd\_rms vs Slug, Sign Corrected



Right In: 1022.241 $\pm$ 0.284  $\chi^2$ /NDF: 331865.9/16

Left Out: 967.933 $\pm$ 0.169  $\chi^2$ /NDF:354007.1/21

Right Out: 964.330 $\pm$ 0.266  $\chi^2$ /NDF: 1067281.2/18

Left In: 956.417 $\pm$ 0.173  $\chi^2$ /NDF:412172.0/19

Left: 962.300 $\pm$ 0.121  $\chi^2$ /NDF: 768448.5/41

Right: 991.355 $\pm$ 0.194  $\chi^2$ /NDF: 1421282.7/35

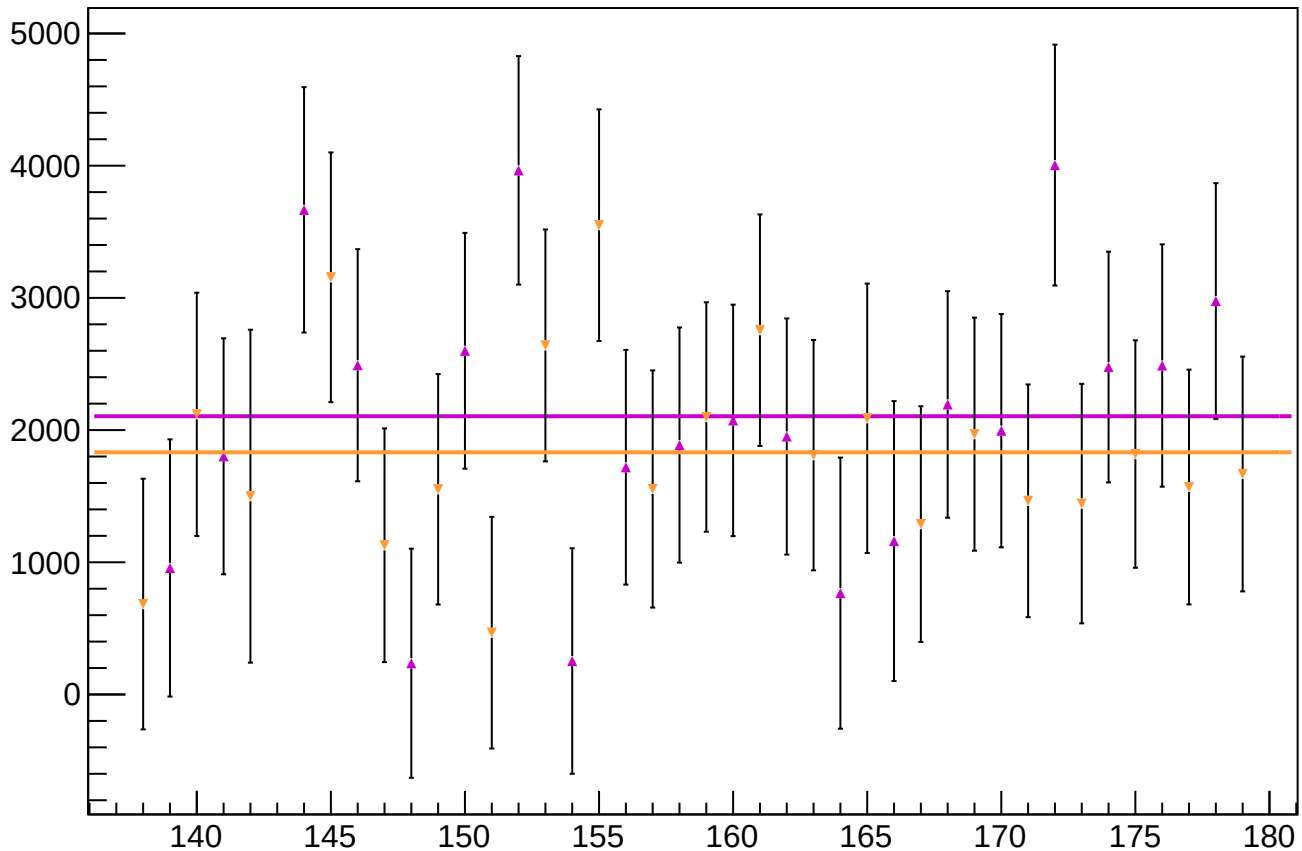
In: 974.176 $\pm$ 0.148  $\chi^2$ /NDF:783192.4/36

Out: 966.896 $\pm$ 0.143  $\chi^2$ /NDF:1421419.1/40

All: 970.411 $\pm$ 0.103  $\chi^2$ /NDF: 2205868.7/77



# cor\_asym\_us\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1831.987+/-197.474  $\chi^2/\text{NDF}$ :13.7/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 2104.686+/-201.544  $\chi^2/\text{NDF}$ :27.3/19

Left: 1965.555+/-141.052  $\chi^2/\text{NDF}$ : 41.9/40

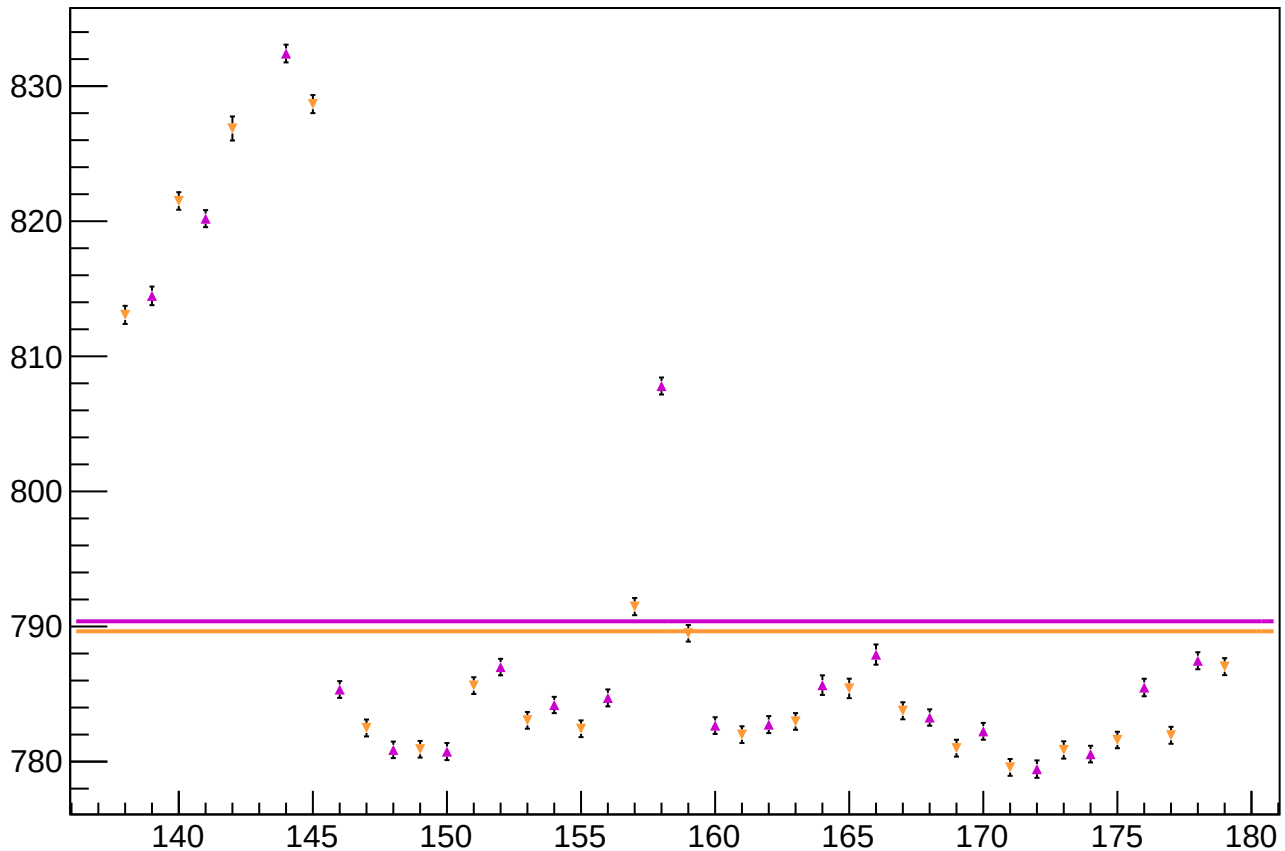
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 2104.686+/-201.544  $\chi^2/\text{NDF}$ :27.3/19

Out: 1831.987+/-197.474  $\chi^2/\text{NDF}$ :13.7/20

All: 1965.555+/-141.052  $\chi^2/\text{NDF}$ : 41.9/40

# cor\_asym\_us\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 789.647+/-0.140  $\chi^2/\text{NDF}$ :10783.8/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 790.385+/-0.143  $\chi^2/\text{NDF}$ :10367.3/19

Left: 790.009+/-0.100  $\chi^2/\text{NDF}$ : 21164.8/40

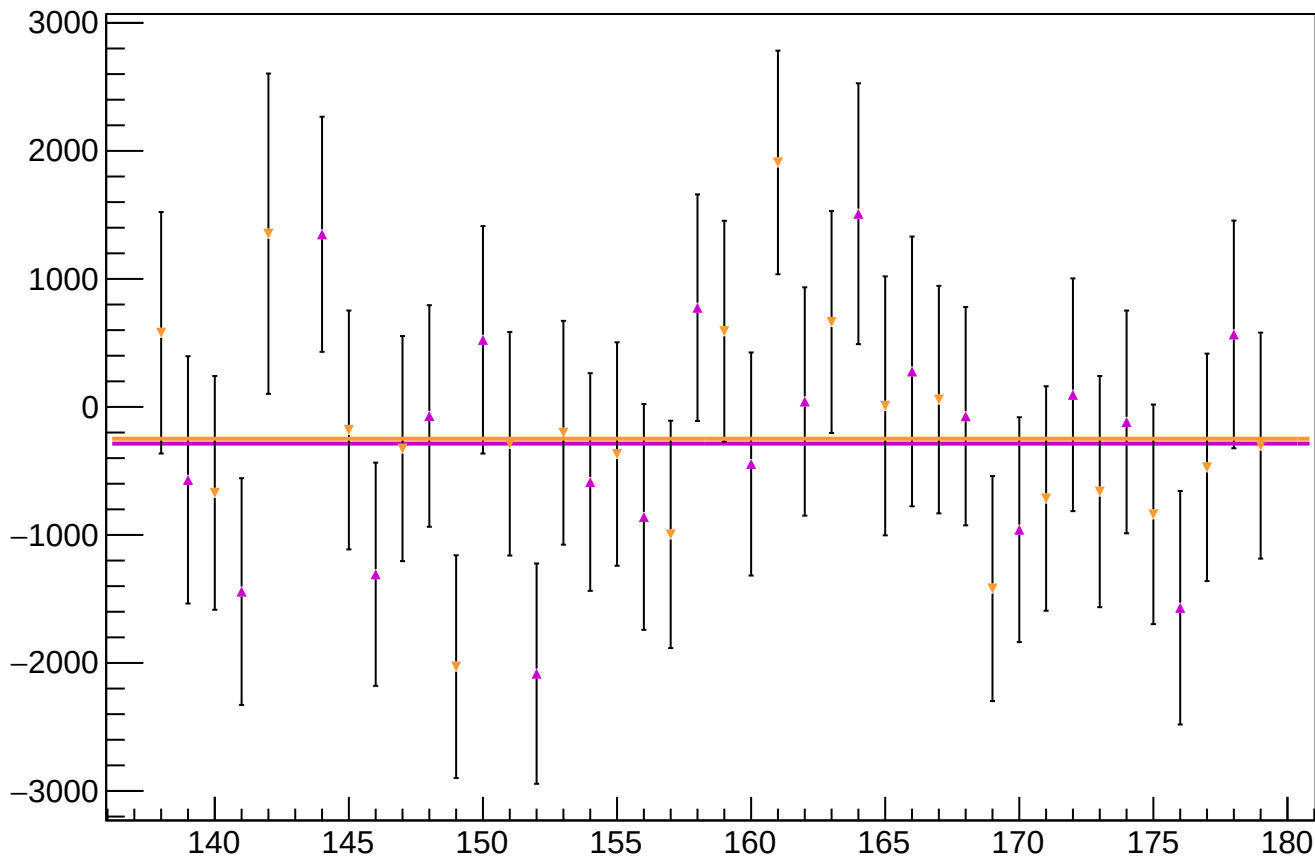
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 790.385+/-0.143  $\chi^2/\text{NDF}$ :10367.3/19

Out: 789.647+/-0.140  $\chi^2/\text{NDF}$ :10783.8/20

All: 790.009+/-0.100  $\chi^2/\text{NDF}$ : 21164.8/40

# cor\_asym\_us\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -248.164+/-196.543  $\chi^2/\text{NDF}$ :18.7/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -286.568+/-200.589  $\chi^2/\text{NDF}$ :20.9/19

Left: -266.974+/-140.385  $\chi^2/\text{NDF}$ : 39.6/40

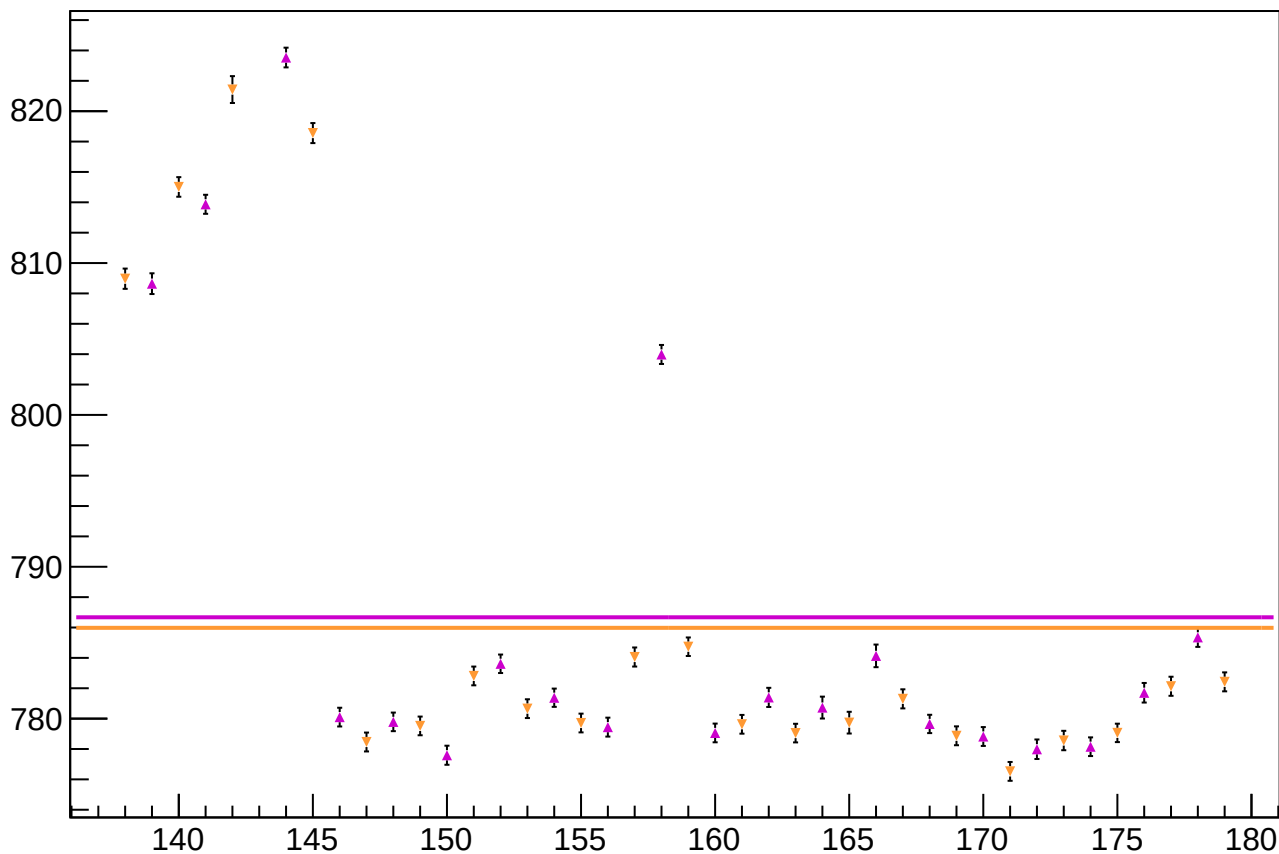
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -286.568+/-200.589  $\chi^2/\text{NDF}$ :20.9/19

Out: -248.164+/-196.543  $\chi^2/\text{NDF}$ :18.7/20

All: -266.974+/-140.385  $\chi^2/\text{NDF}$ : 39.6/40

# cor\_asym\_us\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 785.979+/-0.139  $\chi^2/\text{NDF}$ : 8791.9/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 786.673+/-0.142  $\chi^2/\text{NDF}$ : 8631.6/19

Left: 786.319+/-0.099  $\chi^2/\text{NDF}$ : 17435.8/40

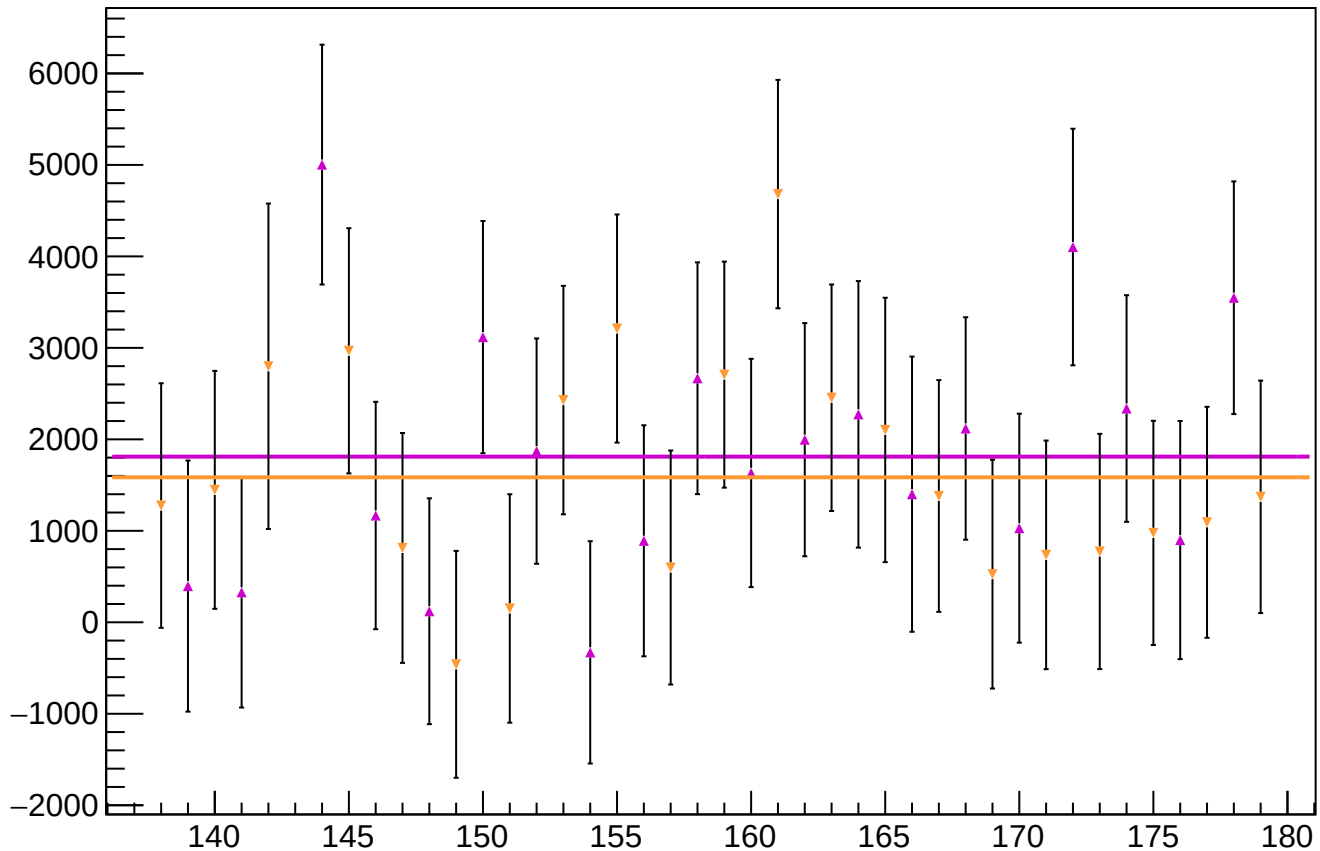
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 786.673+/-0.142  $\chi^2/\text{NDF}$ : 8631.6/19

Out: 785.979+/-0.139  $\chi^2/\text{NDF}$ : 8791.9/20

All: 786.319+/-0.099  $\chi^2/\text{NDF}$ : 17435.8/40

# cor\_asym\_usl\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1584.946+/-280.701  $\chi^2/\text{NDF}$ :18.4/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 1810.845+/-286.332  $\chi^2/\text{NDF}$ :22.0/19

Left: 1695.653+/-200.447  $\chi^2/\text{NDF}$ : 40.7/40

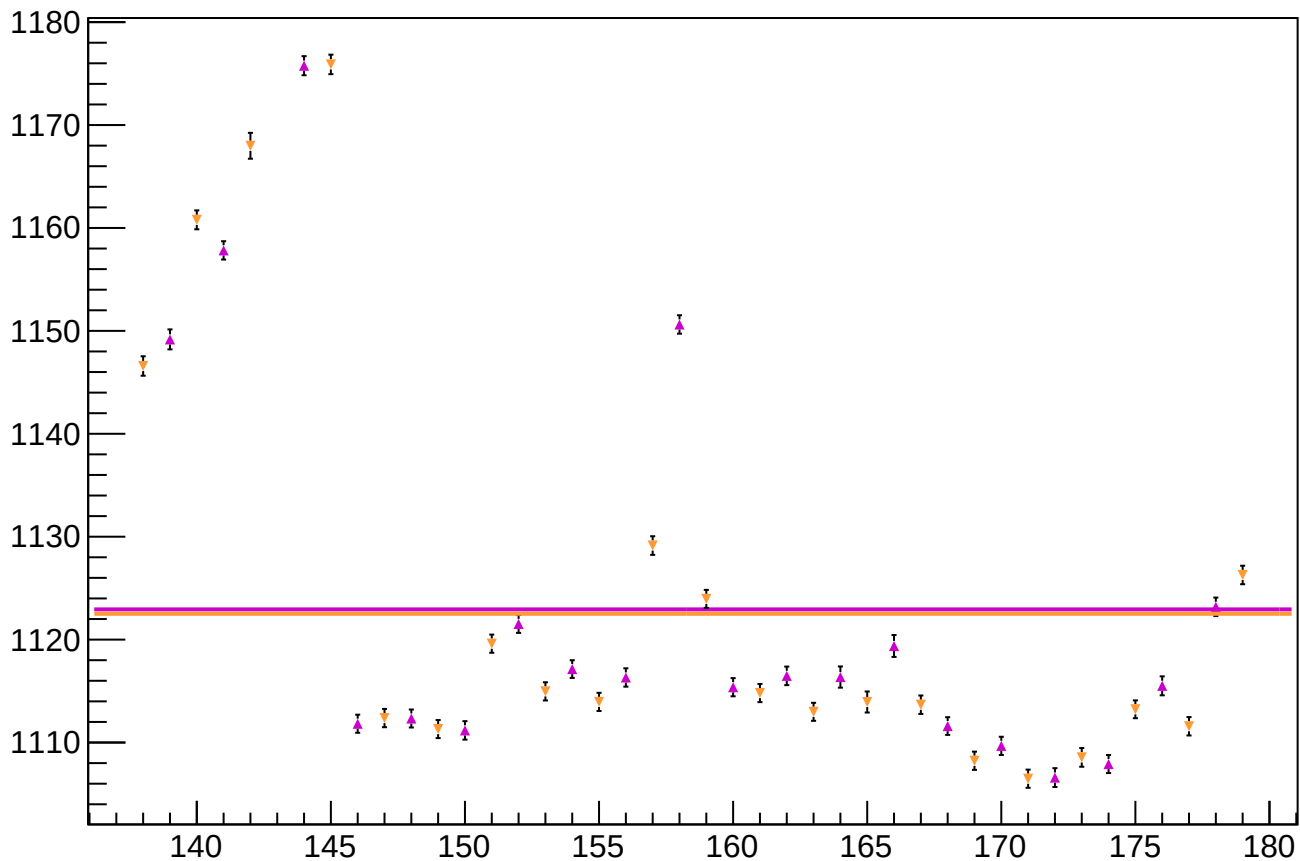
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 1810.845+/-286.332  $\chi^2/\text{NDF}$ :22.0/19

Out: 1584.946+/-280.701  $\chi^2/\text{NDF}$ :18.4/20

All: 1695.653+/-200.447  $\chi^2/\text{NDF}$ : 40.7/40

# cor\_asym\_usl\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1122.509+/-0.198  $\chi^2/\text{NDF}$ : 8858.5/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 1122.937+/-0.202  $\chi^2/\text{NDF}$ : 8303.1/19

Left: 1122.719+/-0.142  $\chi^2/\text{NDF}$ : 17163.8/40

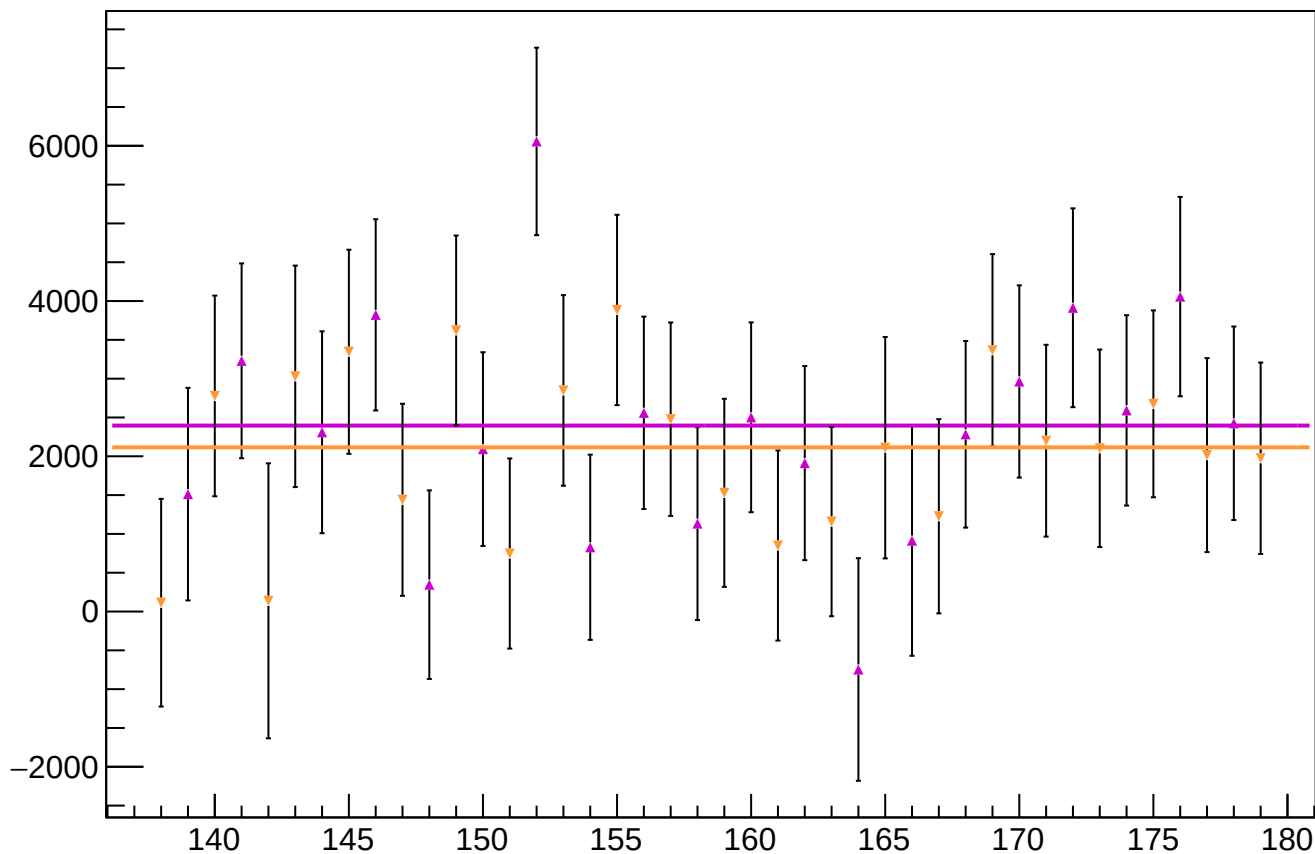
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 1122.937+/-0.202  $\chi^2/\text{NDF}$ : 8303.1/19

Out: 1122.509+/-0.198  $\chi^2/\text{NDF}$ : 8858.5/20

All: 1122.719+/-0.142  $\chi^2/\text{NDF}$ : 17163.8/40

# cor\_asym\_usr\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 2115.206+/-271.457  $\chi^2/\text{NDF}$ :14.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 2395.521+/-282.354  $\chi^2/\text{NDF}$ :26.4/19

Left: 2249.850+/-195.688  $\chi^2/\text{NDF}$ : 41.2/41

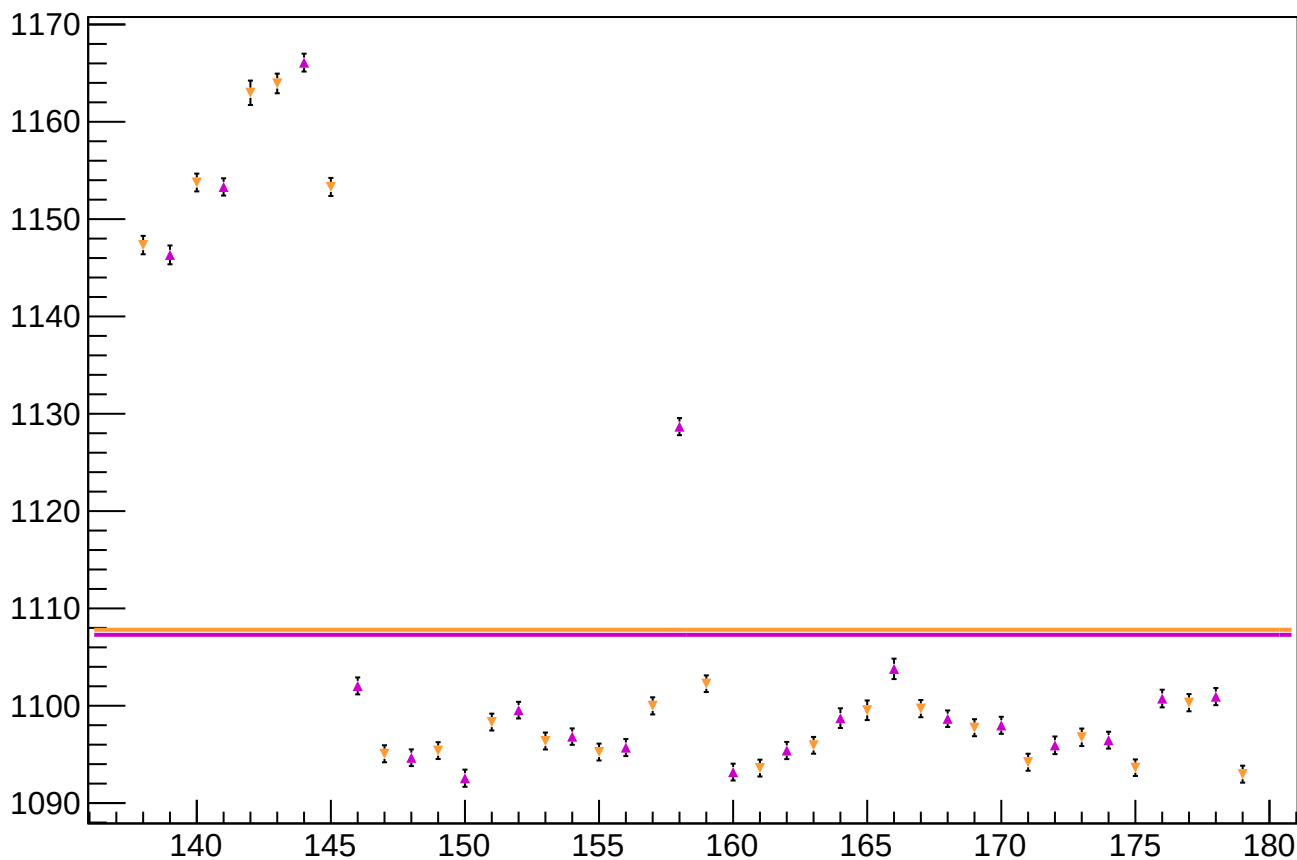
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 2395.521+/-282.354  $\chi^2/\text{NDF}$ :26.4/19

Out: 2115.206+/-271.457  $\chi^2/\text{NDF}$ :14.3/21

All: 2249.850+/-195.688  $\chi^2/\text{NDF}$ : 41.2/41

# cor\_asym\_usr\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1107.809+/-0.192  $\chi^2/\text{NDF}$ :14523.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 1107.288+/-0.200  $\chi^2/\text{NDF}$ :11101.2/19

Left: 1107.559+/-0.138  $\chi^2/\text{NDF}$ : 25627.9/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

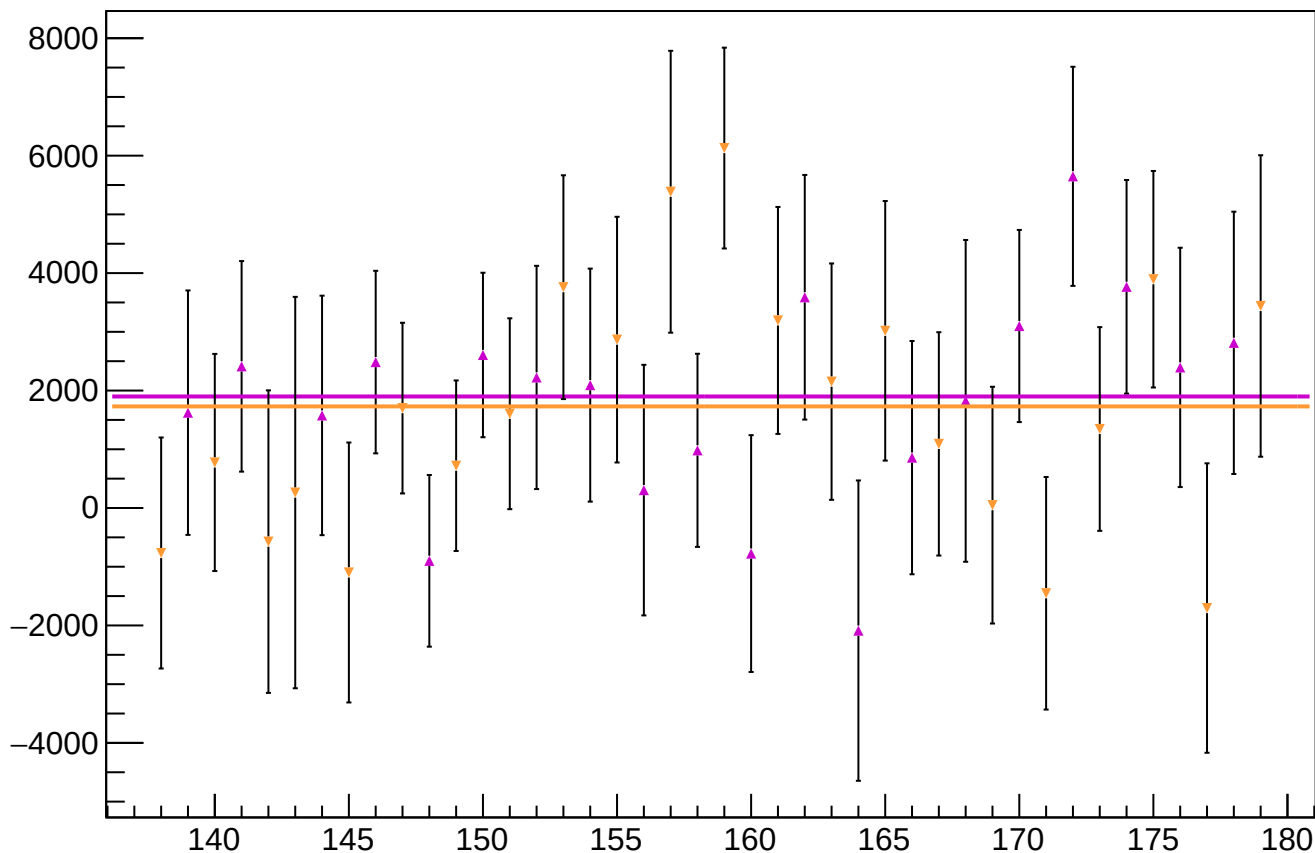
In: 1107.288+/-0.200  $\chi^2/\text{NDF}$ :11101.2/19

Out: 1107.809+/-0.192  $\chi^2/\text{NDF}$ :14523.1/21

All: 1107.559+/-0.138  $\chi^2/\text{NDF}$ : 25627.9/41



# asym\_us\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1729.857+/-415.864  $\chi^2/\text{NDF}$ :23.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 1899.175+/-418.295  $\chi^2/\text{NDF}$ :16.1/19

Left: 1814.022+/-294.916  $\chi^2/\text{NDF}$ : 39.7/41

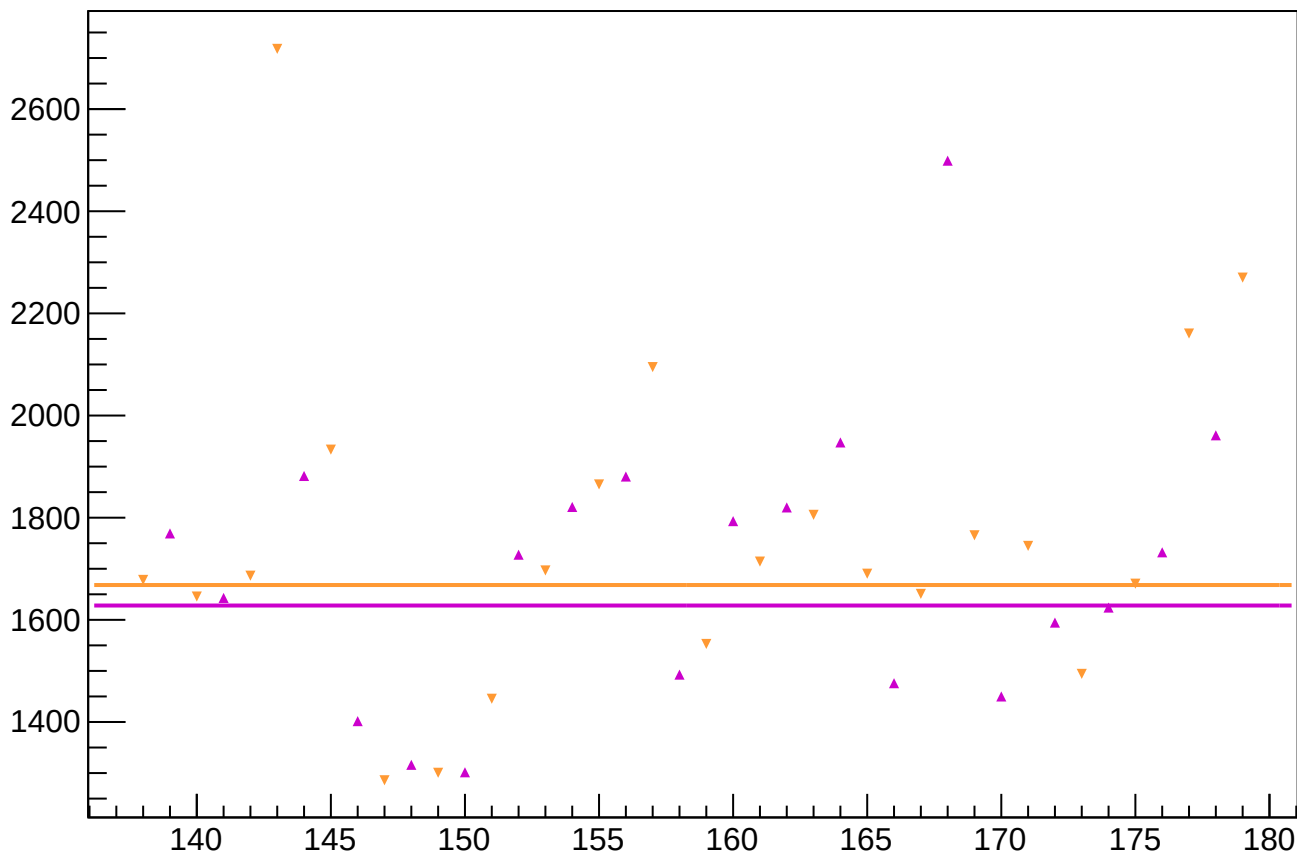
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 1899.175+/-418.295  $\chi^2/\text{NDF}$ :16.1/19

Out: 1729.857+/-415.864  $\chi^2/\text{NDF}$ :23.5/21

All: 1814.022+/-294.916  $\chi^2/\text{NDF}$ : 39.7/41

# asym\_us\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

Left Out: 1668.166+/-0.294  $\chi^2$ /NDF:850667.2/21

Right Out: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

Left In: 1628.034+/-0.296  $\chi^2$ /NDF:697976.4/19

Left: 1648.217+/-0.209  $\chi^2$ /NDF: 1557902.0/41

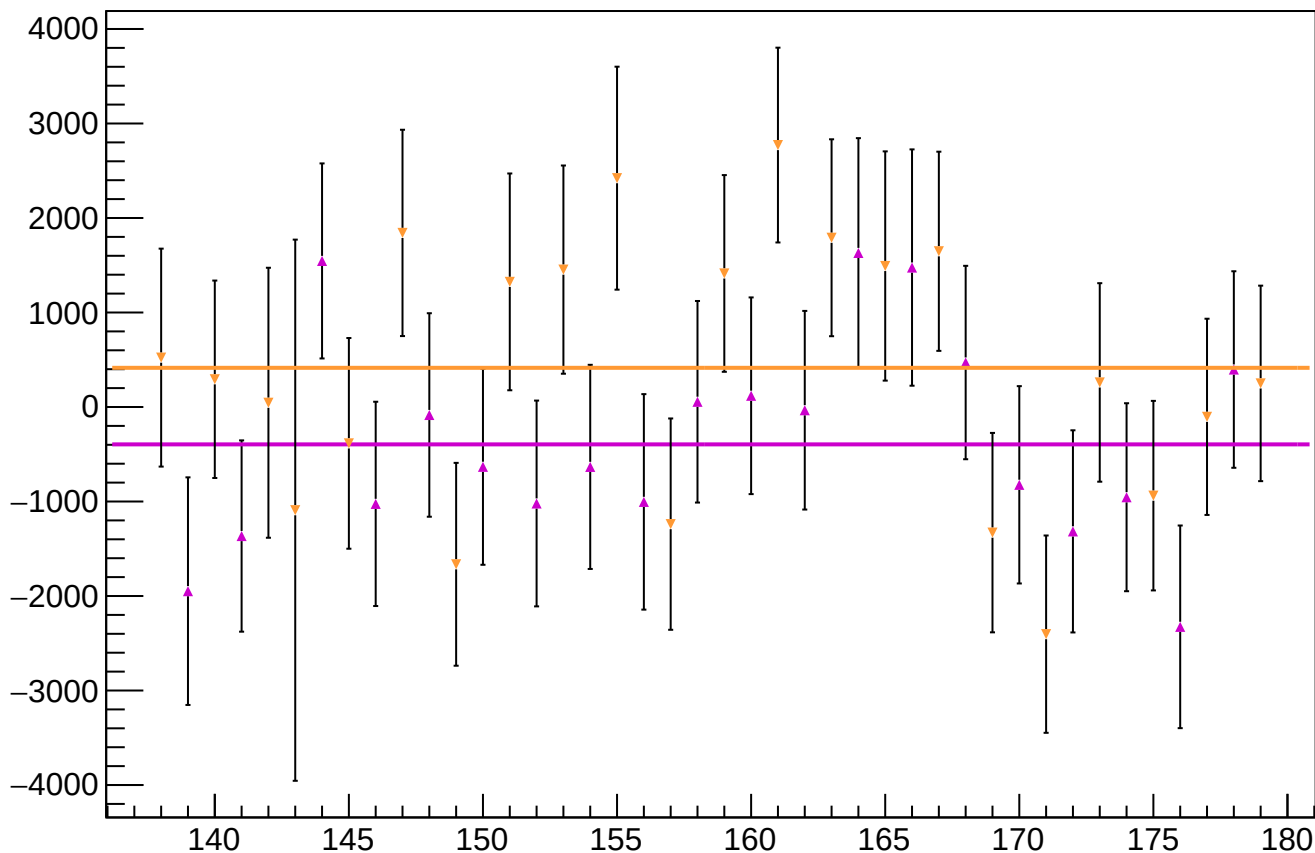
Right: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

In: 1628.034+/-0.296  $\chi^2$ /NDF:697976.4/19

Out: 1668.166+/-0.294  $\chi^2$ /NDF:850667.2/21

All: 1648.217+/-0.209  $\chi^2$ /NDF: 1557902.0/41

# asym\_us\_agg\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 414.651+/-236.755  $\chi^2/\text{NDF}$ : 35.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -395.456+/-240.411  $\chi^2/\text{NDF}$ : 18.6/19

Left: 15.805+/-168.689  $\chi^2/\text{NDF}$ : 59.5/41

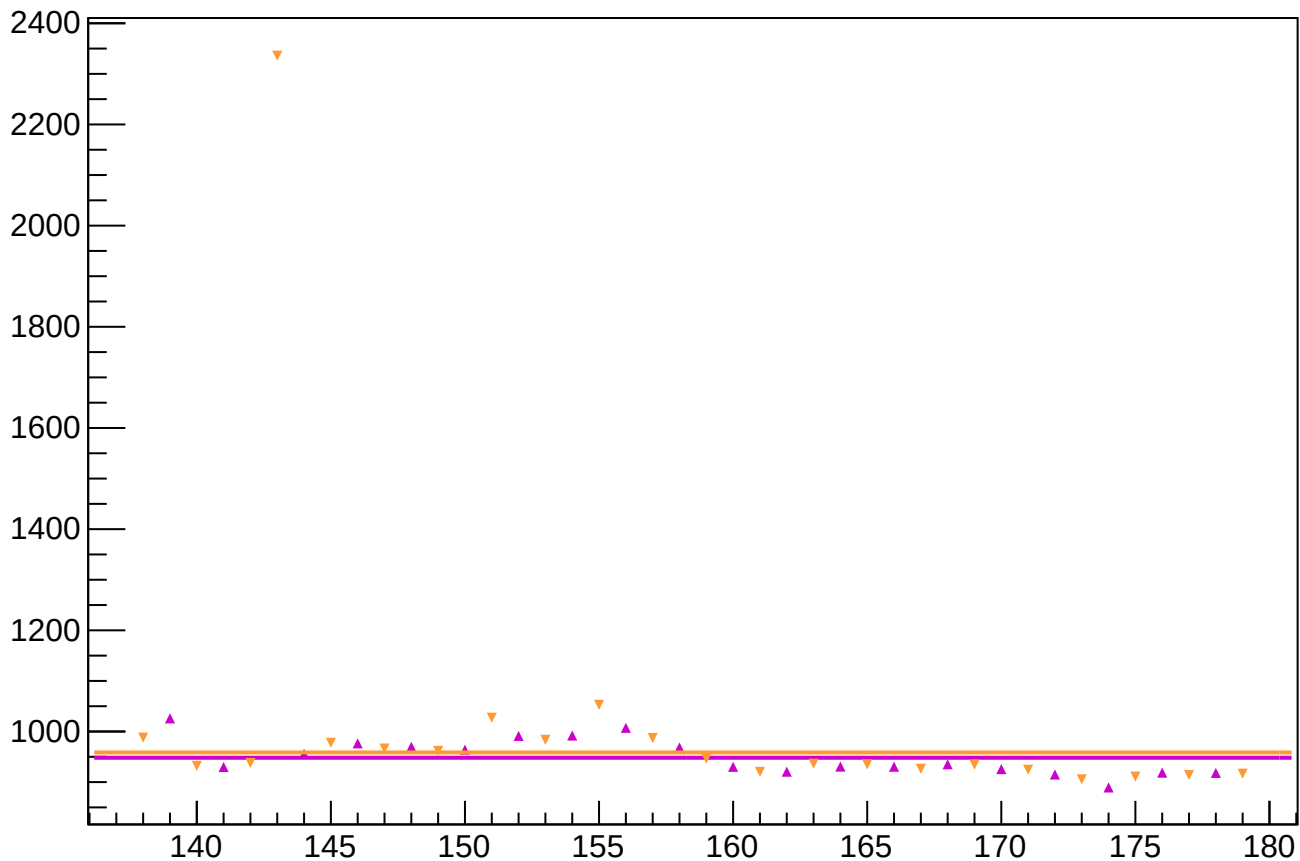
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -395.456+/-240.411  $\chi^2/\text{NDF}$ : 18.6/19

Out: 414.651+/-236.755  $\chi^2/\text{NDF}$ : 35.1/21

All: 15.805+/-168.689  $\chi^2/\text{NDF}$ : 59.5/41

# asym\_us\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 958.655+/-0.167  $\chi^2/\text{NDF}$ : 515123.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 948.124+/-0.170  $\chi^2/\text{NDF}$ : 40439.0/19

Left: 953.470+/-0.119  $\chi^2/\text{NDF}$ : 557510.6/41

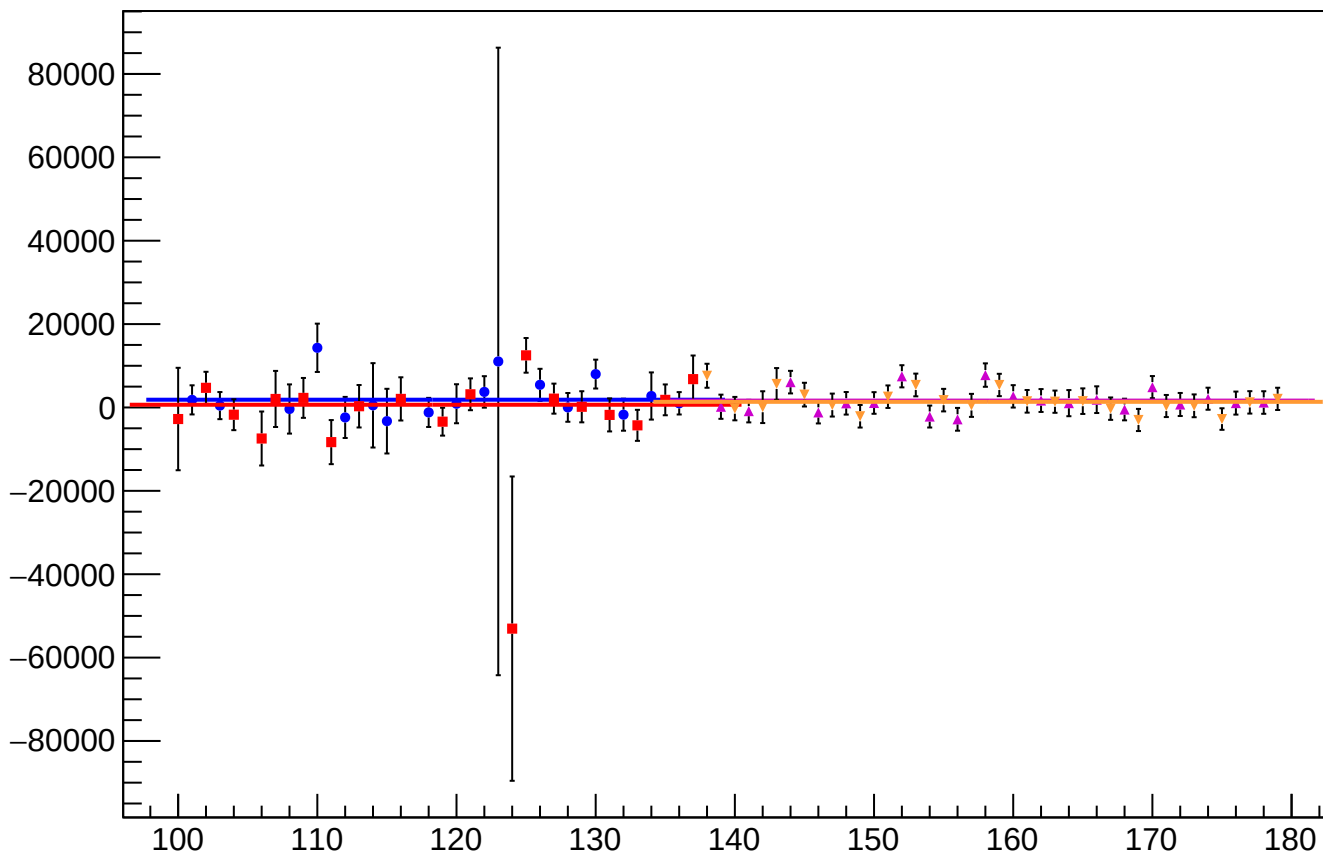
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 948.124+/-0.170  $\chi^2/\text{NDF}$ : 40439.0/19

Out: 958.655+/-0.167  $\chi^2/\text{NDF}$ : 515123.4/21

All: 953.470+/-0.119  $\chi^2/\text{NDF}$ : 557510.6/41

# reg\_asym\_atl1\_mean vs Slug, Sign Corrected



Right In: 1859.767 $\pm$ 1013.438  $\chi^2$ /NDF: 12.5/16

Left Out: 1352.926 $\pm$ 595.056  $\chi^2$ /NDF:19.3/21

Right Out: 654.213 $\pm$ 1023.772  $\chi^2$ /NDF: 22.1/18

Left In: 1647.594 $\pm$ 612.134  $\chi^2$ /NDF:22.0/19

Left: 1496.092 $\pm$ 426.678  $\chi^2$ /NDF: 41.4/41

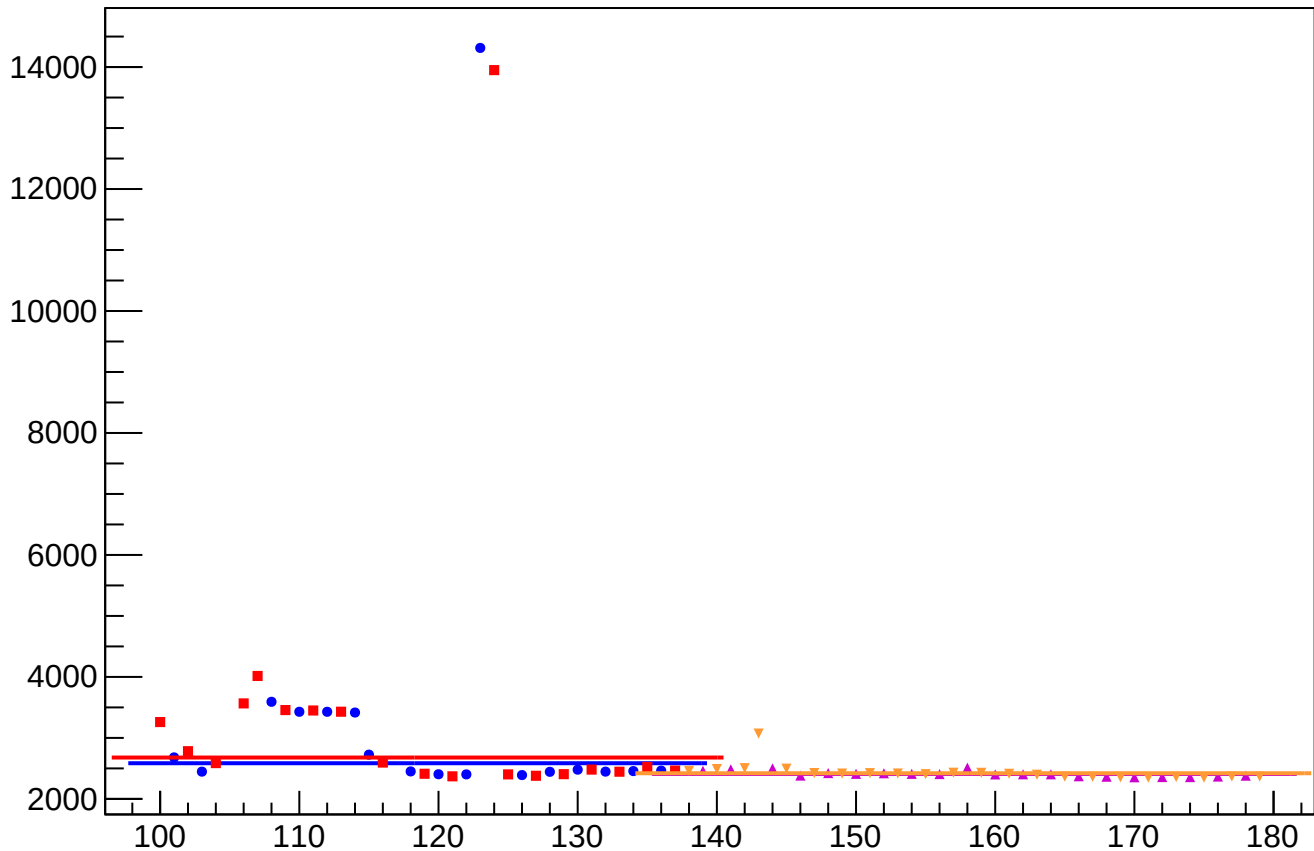
Right: 1263.106 $\pm$ 720.235  $\chi^2$ /NDF: 35.3/35

In: 1704.310 $\pm$ 523.970  $\chi^2$ /NDF:34.5/36

Out: 1176.483 $\pm$ 514.465  $\chi^2$ /NDF:41.7/40

All: 1435.566 $\pm$ 367.096  $\chi^2$ /NDF: 76.8/77

# reg\_asym\_atl1\_rms vs Slug, Sign Corrected



Right In: 2584.819 $\pm$ 0.717  $\chi^2$ /NDF: 255710.5/16

Left Out: 2420.436 $\pm$ 0.421  $\chi^2$ /NDF: 71298.5/21

Right Out: 2678.229 $\pm$ 0.724  $\chi^2$ /NDF: 532096.9/18

Left In: 2408.403 $\pm$ 0.433  $\chi^2$ /NDF: 11398.1/19

Left: 2414.590 $\pm$ 0.302  $\chi^2$ /NDF: 83093.8/41

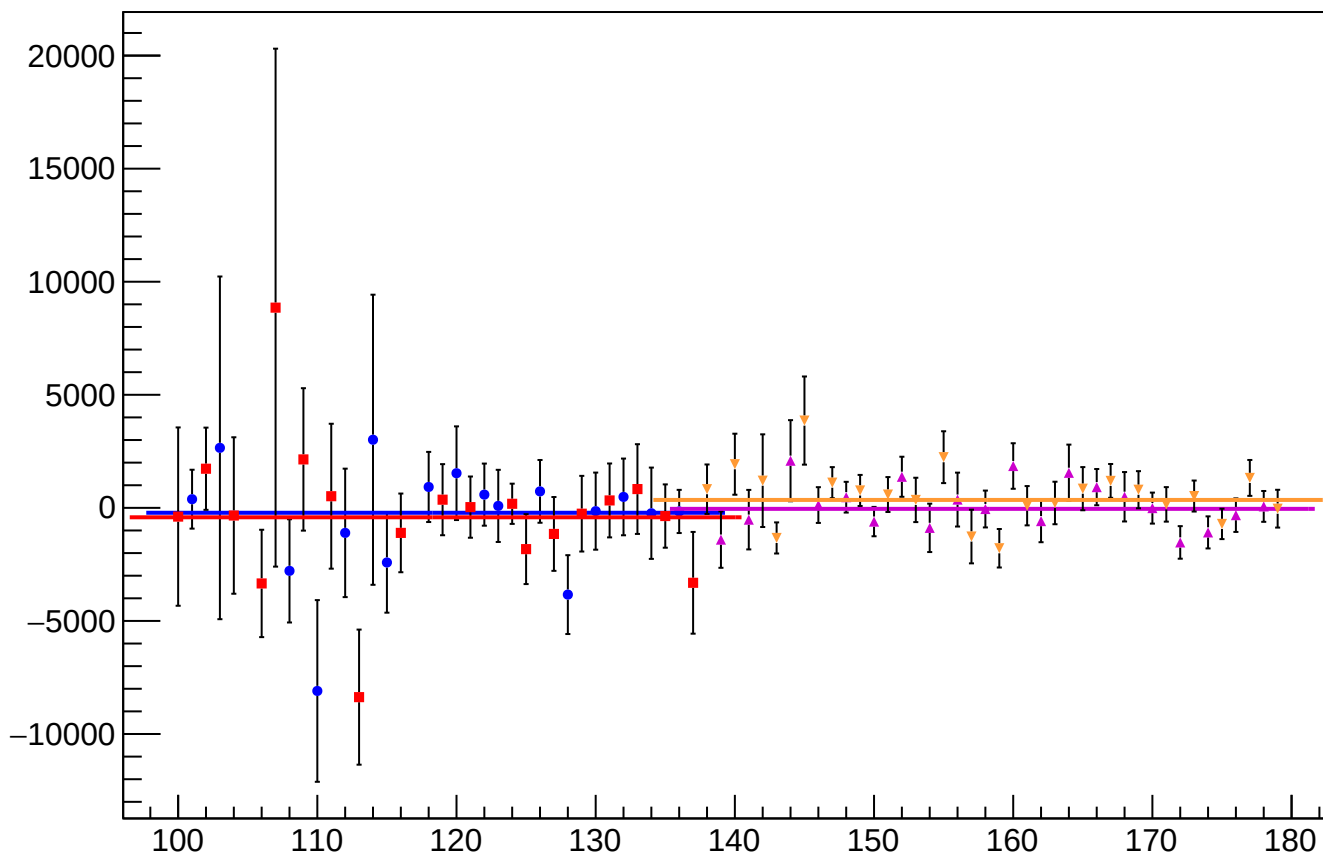
Right: 2631.050 $\pm$ 0.509  $\chi^2$ /NDF: 796216.7/35

In: 2455.561 $\pm$ 0.371  $\chi^2$ /NDF: 311513.1/36

Out: 2485.535 $\pm$ 0.364  $\chi^2$ /NDF: 698185.4/40

All: 2470.822 $\pm$ 0.260  $\chi^2$ /NDF: 1013030.8/77

asym\_atl1\_correction\_mean vs Slug, Sign Corrected



Right In:  $-217.017 \pm 420.077$   $\chi^2/\text{NDF}: 13.4/16$

Left Out:  $350.249 \pm 183.449$   $\chi^2/\text{NDF}: 29.8/21$

Right Out:  $-417.202 \pm 408.976$   $\chi^2/\text{NDF}: 15.7/18$

Left In:  $-44.245 \pm 191.706$   $\chi^2/\text{NDF}: 21.2/19$

Left:  $161.681 \pm 132.541$   $\chi^2/\text{NDF}: 53.2/41$

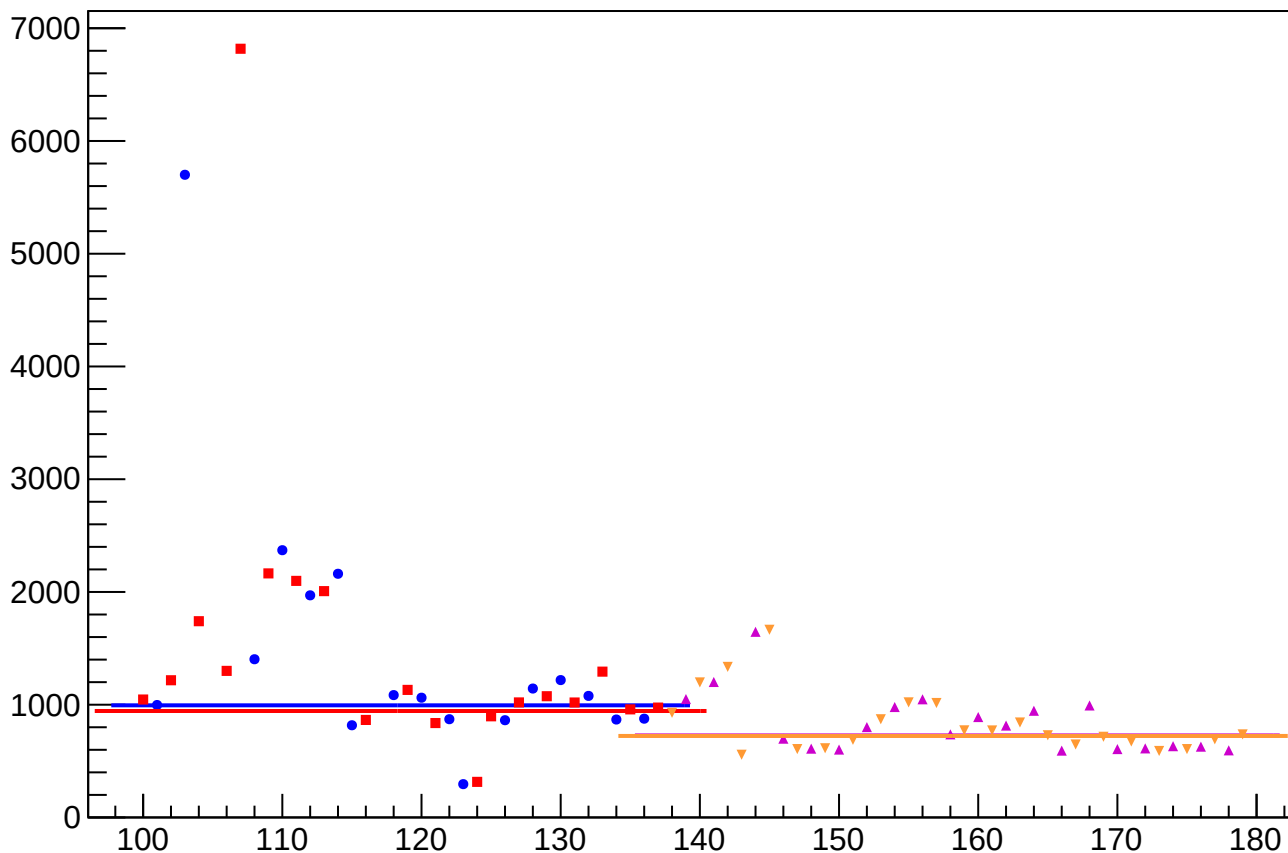
Right:  $-319.789 \pm 293.036$   $\chi^2/\text{NDF}: 29.2/35$

In:  $-74.025 \pm 174.403$   $\chi^2/\text{NDF}: 34.7/36$

Out:  $221.700 \pm 167.381$   $\chi^2/\text{NDF}: 48.4/40$

All:  $79.911 \pm 120.763$   $\chi^2/\text{NDF}: 84.6/77$

# asym\_atl1\_correction\_rms vs Slug, Sign Corrected



Right In: 994.541 $\pm$ 0.297  $\chi^2$ /NDF: 1904549.2/16

Left Out: 722.969 $\pm$ 0.130  $\chi^2$ /NDF:1708373.6/21

Right Out: 944.286 $\pm$ 0.289  $\chi^2$ /NDF: 2666007.0/18

Left In: 727.748 $\pm$ 0.136  $\chi^2$ /NDF:1892583.7/19

Left: 725.253 $\pm$ 0.094  $\chi^2$ /NDF: 3601606.1/41

Right: 968.741 $\pm$ 0.207  $\chi^2$ /NDF: 4585251.1/35

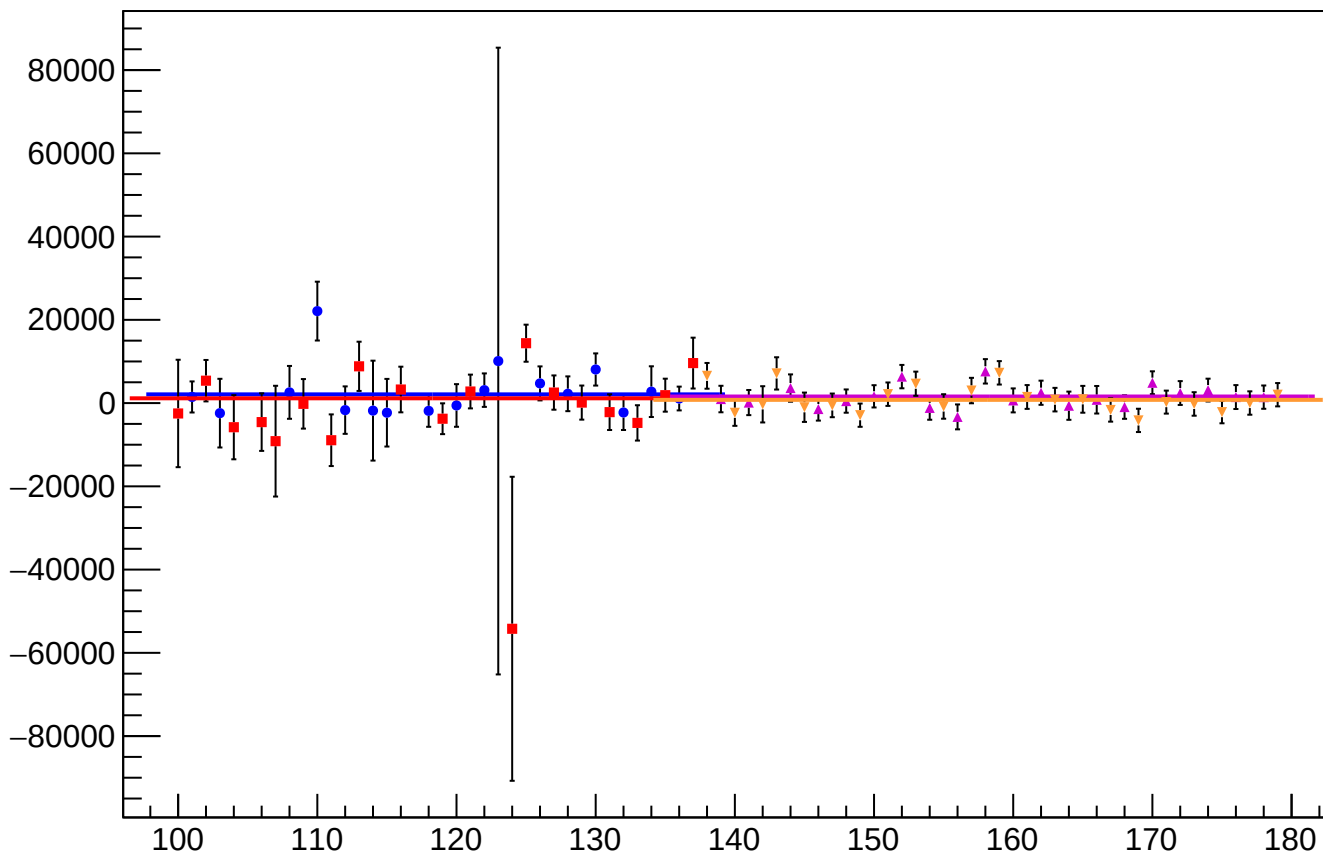
In: 773.734 $\pm$ 0.123  $\chi^2$ /NDF:4464796.7/36

Out: 760.040 $\pm$ 0.118  $\chi^2$ /NDF:4861964.8/40

All: 766.606 $\pm$ 0.085  $\chi^2$ /NDF: 9333180.2/77



# asym\_atl1\_mean vs Slug, Sign Corrected



Right In: 2094.050+/-1160.426  $\chi^2$ /NDF: 14.6/16

Left Out: 775.341+/-632.332  $\chi^2$ /NDF:23.2/21

Right Out: 1147.788+/-1187.007  $\chi^2$ /NDF: 25.1/18

Left In: 1579.590+/-651.501  $\chi^2$ /NDF:16.1/19

Left: 1165.460+/-453.752  $\chi^2$ /NDF: 40.0/41

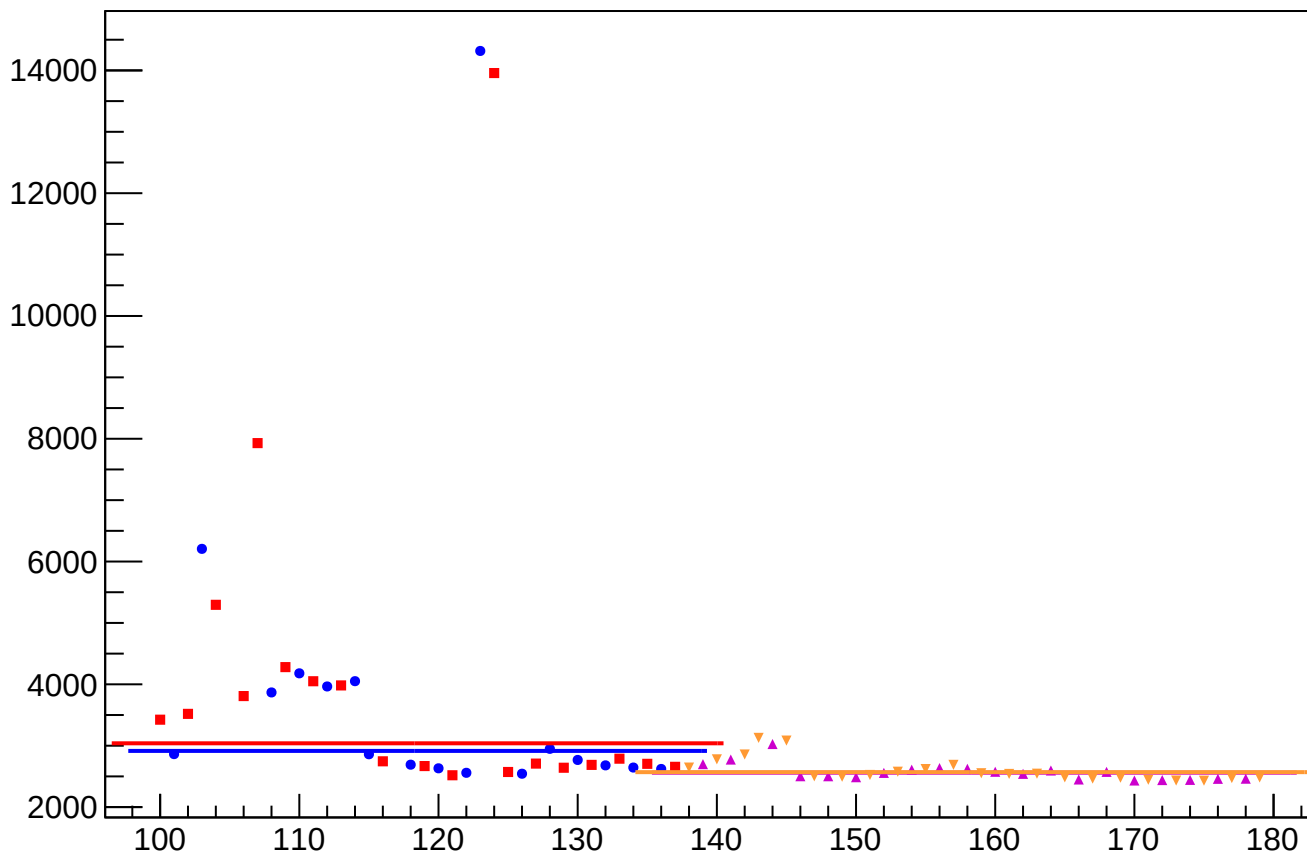
Right: 1631.633+/-829.783  $\chi^2$ /NDF: 40.1/35

In: 1702.887+/-568.091  $\chi^2$ /NDF:30.8/36

Out: 857.671+/-558.084  $\chi^2$ /NDF:48.4/40

All: 1272.769+/-398.116  $\chi^2$ /NDF: 80.3/77

# asym\_atl1\_rms vs Slug, Sign Corrected



Right In: 2915.201+/-0.821  $\chi^2$ /NDF: 639136.4/16

Left Out: 2569.240+/-0.447  $\chi^2$ /NDF:134742.4/21

Right Out: 3039.139+/-0.839  $\chi^2$ /NDF: 1011383.0/18

Left In: 2560.311+/-0.461  $\chi^2$ /NDF:79418.3/19

Left: 2564.908+/-0.321  $\chi^2$ /NDF: 214354.2/41

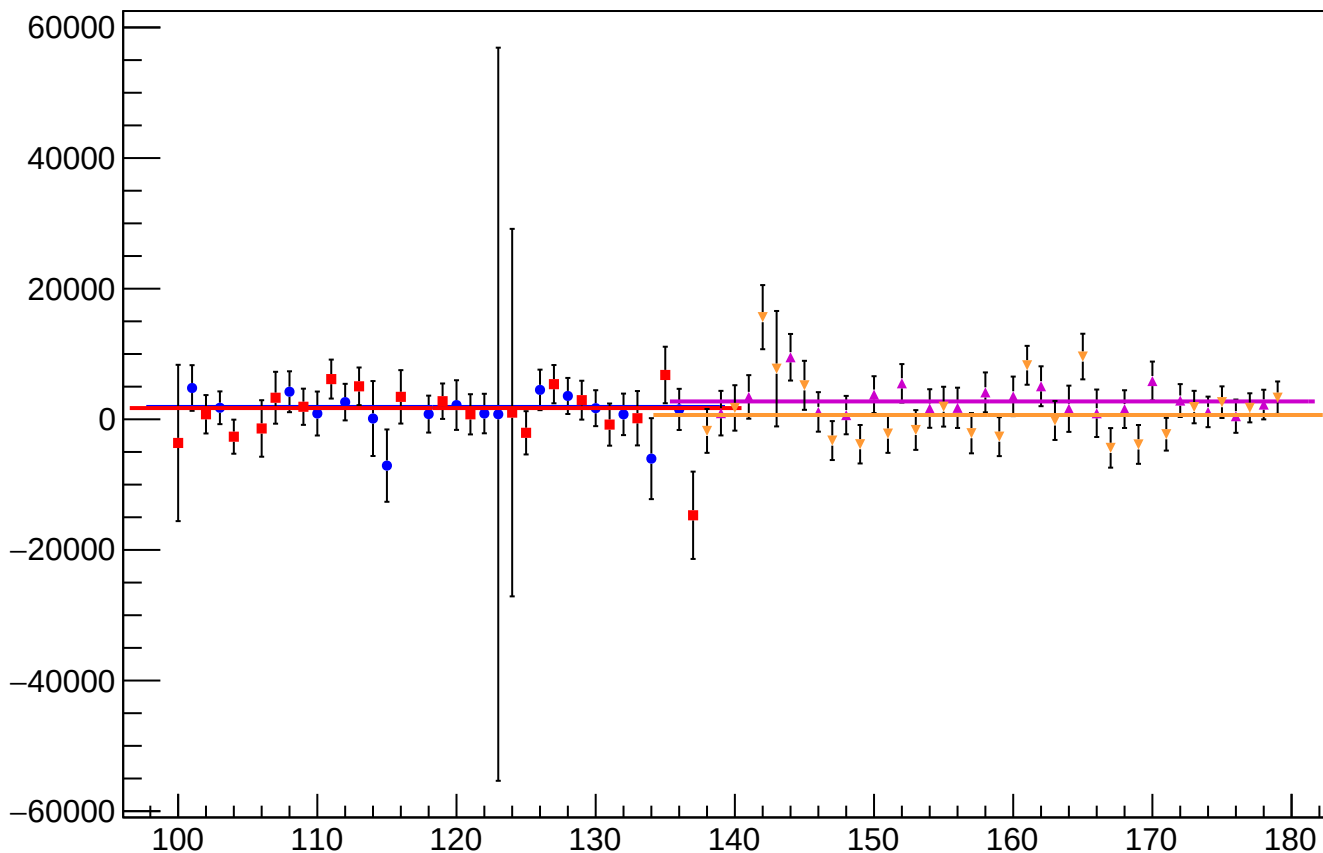
Right: 2975.767+/-0.587  $\chi^2$ /NDF: 1661668.2/35

In: 2645.365+/-0.402  $\chi^2$ /NDF:860784.1/36

Out: 2673.111+/-0.395  $\chi^2$ /NDF:1390267.4/40

All: 2659.485+/-0.282  $\chi^2$ /NDF: 2253479.4/77

# reg\_asym\_atl2\_mean vs Slug, Sign Corrected



Right In: 1889.943 $\pm$ 811.431  $\chi^2$ /NDF: 7.3/16

Left Out: 659.976 $\pm$ 637.924  $\chi^2$ /NDF:41.7/21

Right Out: 1719.130 $\pm$ 790.110  $\chi^2$ /NDF: 19.0/18

Left In: 2736.560 $\pm$ 653.613  $\chi^2$ /NDF:9.7/19

Left: 1673.047 $\pm$ 456.526  $\chi^2$ /NDF: 56.6/41

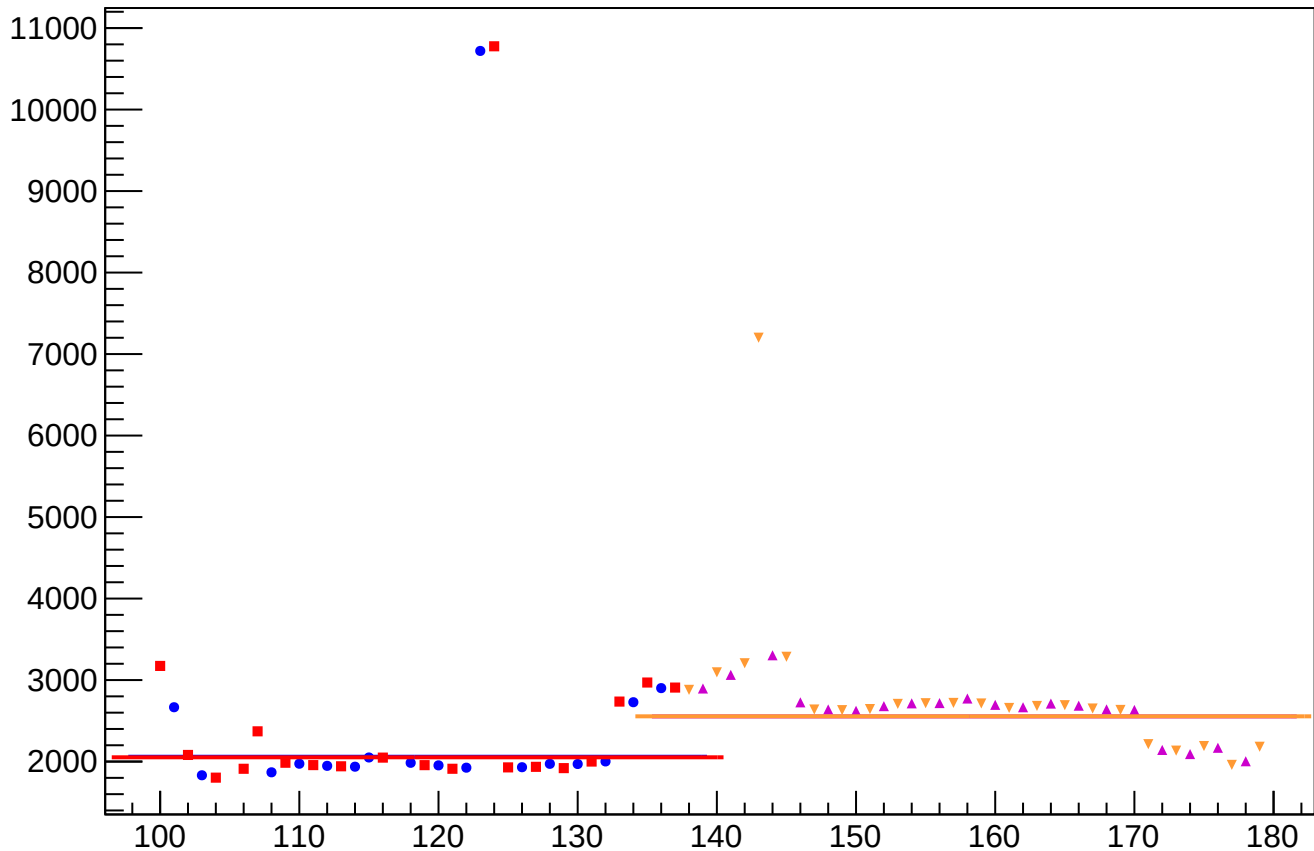
Right: 1802.263 $\pm$ 566.080  $\chi^2$ /NDF: 26.2/35

In: 2403.405 $\pm$ 509.016  $\chi^2$ /NDF:17.7/36

Out: 1077.947 $\pm$ 496.342  $\chi^2$ /NDF:61.8/40

All: 1723.969 $\pm$ 355.363  $\chi^2$ /NDF: 82.9/77

# reg\_asym\_atl2\_rms vs Slug, Sign Corrected



Right In: 2058.963 $\pm$ 0.574  $\chi^2$ /NDF: 318561.5/16

Left Out: 2555.085 $\pm$ 0.451  $\chi^2$ /NDF:1097833.1/21

Right Out: 2052.260 $\pm$ 0.559  $\chi^2$ /NDF: 443321.6/18

Left In: 2553.821 $\pm$ 0.462  $\chi^2$ /NDF:501676.3/19

Left: 2554.468 $\pm$ 0.323  $\chi^2$ /NDF: 1599513.2/41

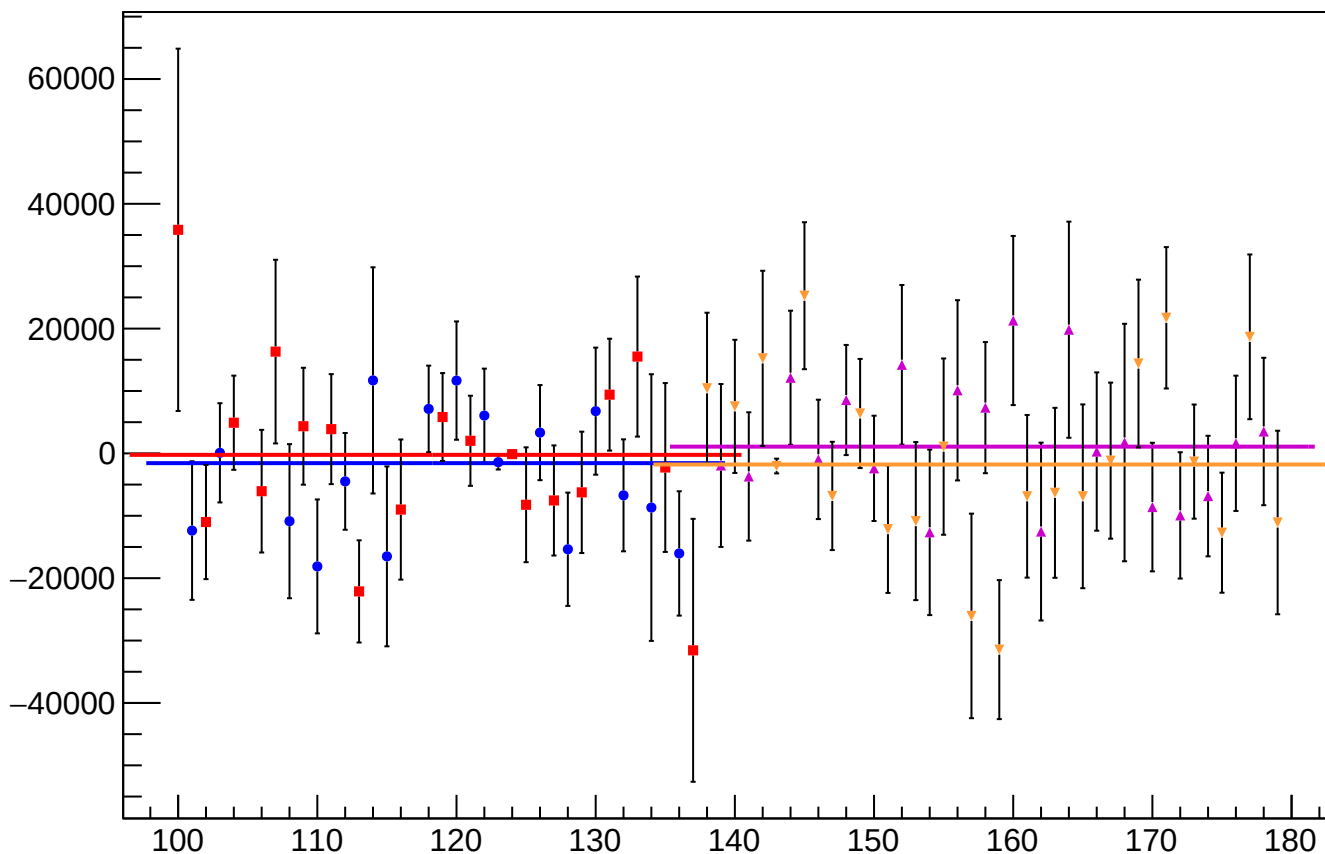
Right: 2055.522 $\pm$ 0.400  $\chi^2$ /NDF: 761953.2/35

In: 2359.088 $\pm$ 0.360  $\chi^2$ /NDF:1271375.1/36

Out: 2356.656 $\pm$ 0.351  $\chi^2$ /NDF:2031515.4/40

All: 2357.841 $\pm$ 0.251  $\chi^2$ /NDF: 3302913.9/77

asym\_atl2\_correction\_mean vs Slug, Sign Corrected



Right In: -1563.218+/-1053.946  $\chi^2/\text{NDF}$ : 16.2/16

Left Out: -1779.024+/-1071.780  $\chi^2/\text{NDF}$ : 30.9/21

Right Out: -236.197+/-695.167  $\chi^2/\text{NDF}$ : 20.8/18

Left In: 1081.661+/-2534.600  $\chi^2/\text{NDF}$ : 12.2/19

Left: -1345.095+/-987.151  $\chi^2/\text{NDF}$ : 44.2/41

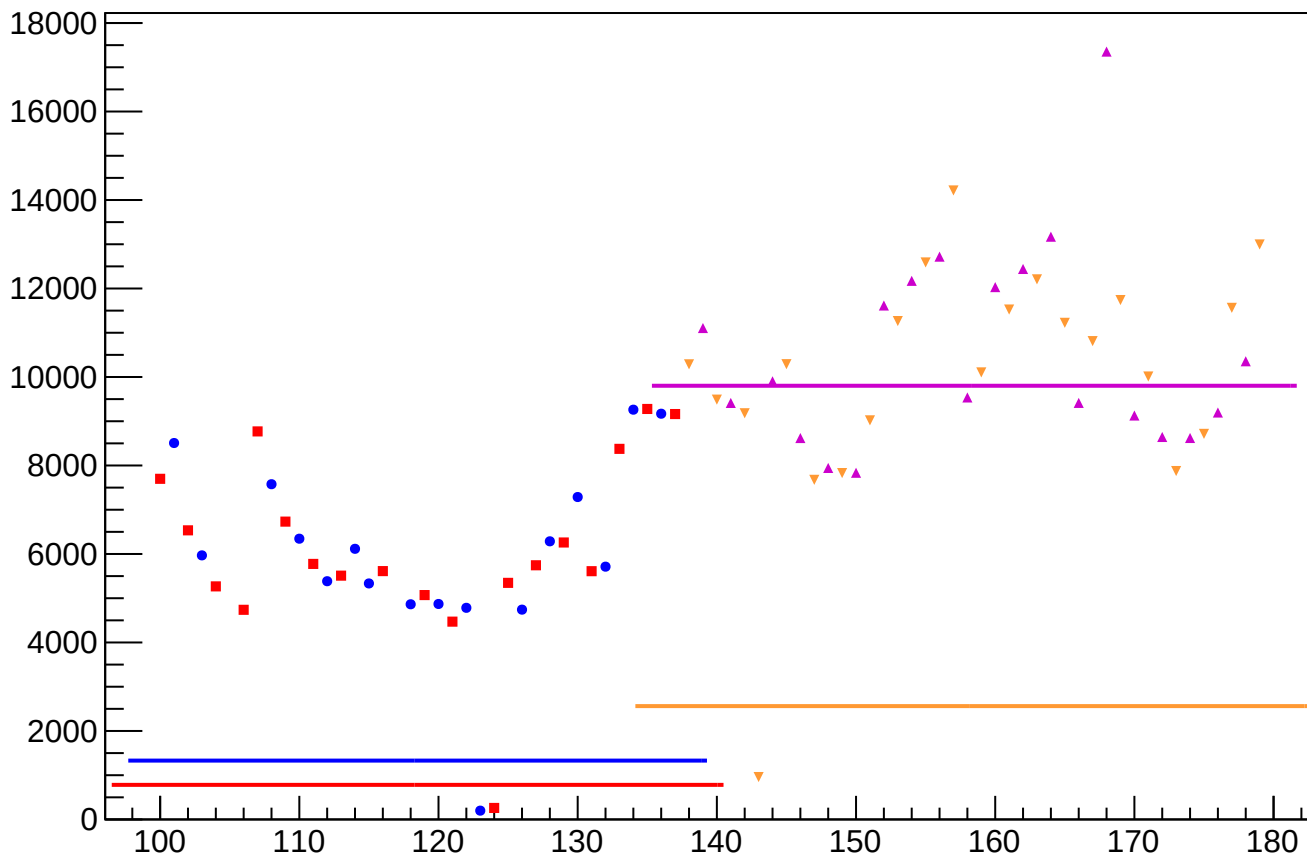
Right: -638.499+/-580.304  $\chi^2/\text{NDF}$ : 38.1/35

In: -1173.313+/-973.164  $\chi^2/\text{NDF}$ : 29.3/36

Out: -693.058+/-583.229  $\chi^2/\text{NDF}$ : 53.1/40

All: -819.970+/-500.266  $\chi^2/\text{NDF}$ : 82.7/77

asym\_atl2\_correction\_rms vs Slug, Sign Corrected



Right In: 1330.250+/-0.745  $\chi^2/\text{NDF}$ : 10046828.9/16

Left Out: 2561.711+/-0.758  $\chi^2/\text{NDF}$ : 21473095.4/21

Right Out: 781.848+/-0.492  $\chi^2/\text{NDF}$ : 11439893.7/18

Left In: 9802.021+/-1.792  $\chi^2/\text{NDF}$ : 1028068.9/19

Left: 3659.972+/-0.698  $\chi^2/\text{NDF}$ : 36345805.4/41

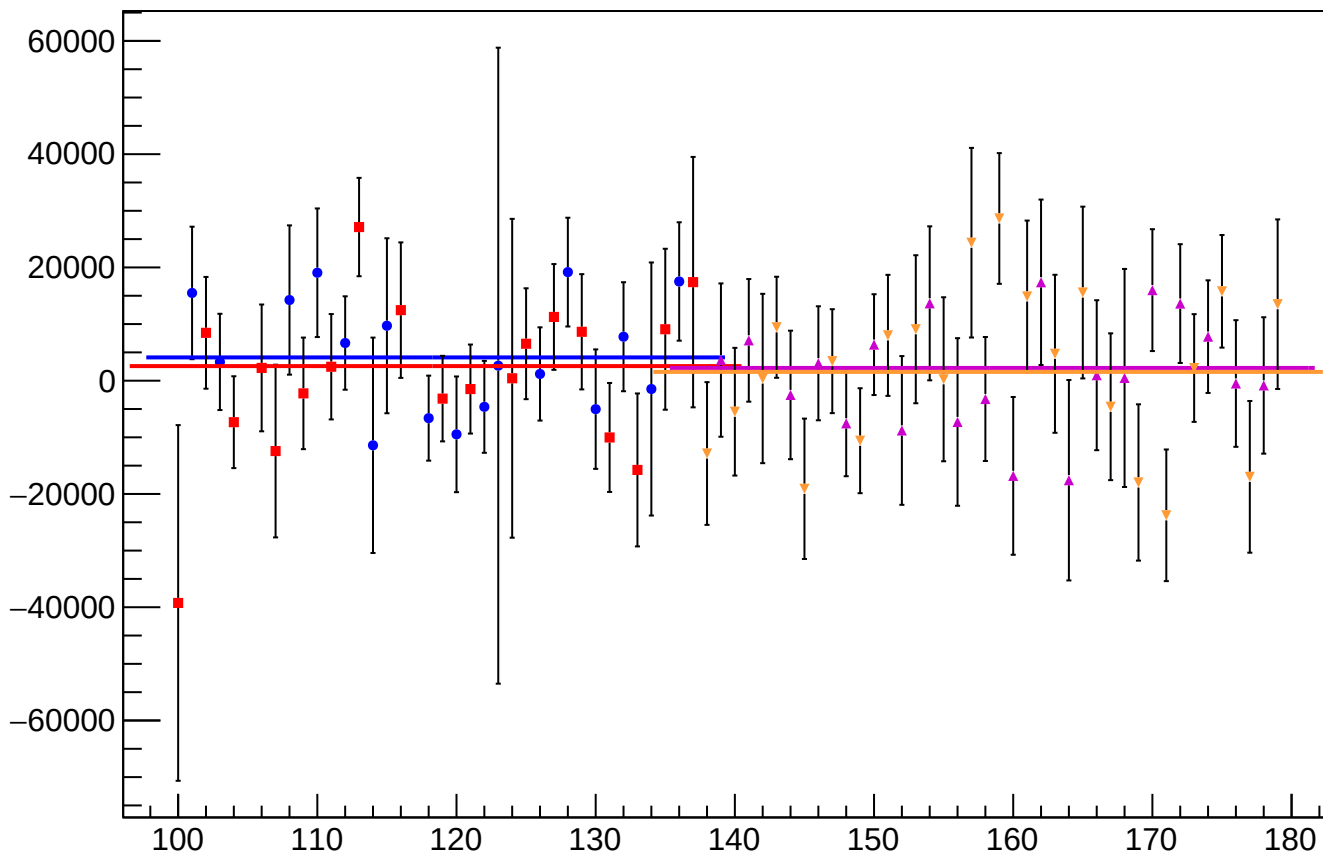
Right: 948.102+/-0.410  $\chi^2/\text{NDF}$ : 21864055.1/35

In: 2579.149+/-0.688  $\chi^2/\text{NDF}$ : 30124916.4/36

Out: 1308.900+/-0.412  $\chi^2/\text{NDF}$ : 36795308.7/40

All: 1644.575+/-0.354  $\chi^2/\text{NDF}$ : 69427263.8/77

# asym\_atl2\_mean vs Slug, Sign Corrected



Right In: 4111.784+/-2534.444  $\chi^2/\text{NDF}$ : 14.3/16

Left Out: 1554.745+/-2527.321  $\chi^2/\text{NDF}$ : 28.6/21

Right Out: 2577.719+/-2420.480  $\chi^2/\text{NDF}$ : 20.0/18

Left In: 2254.635+/-2635.226  $\chi^2/\text{NDF}$ : 11.2/19

Left: 1890.068+/-1824.040  $\chi^2/\text{NDF}$ : 39.8/41

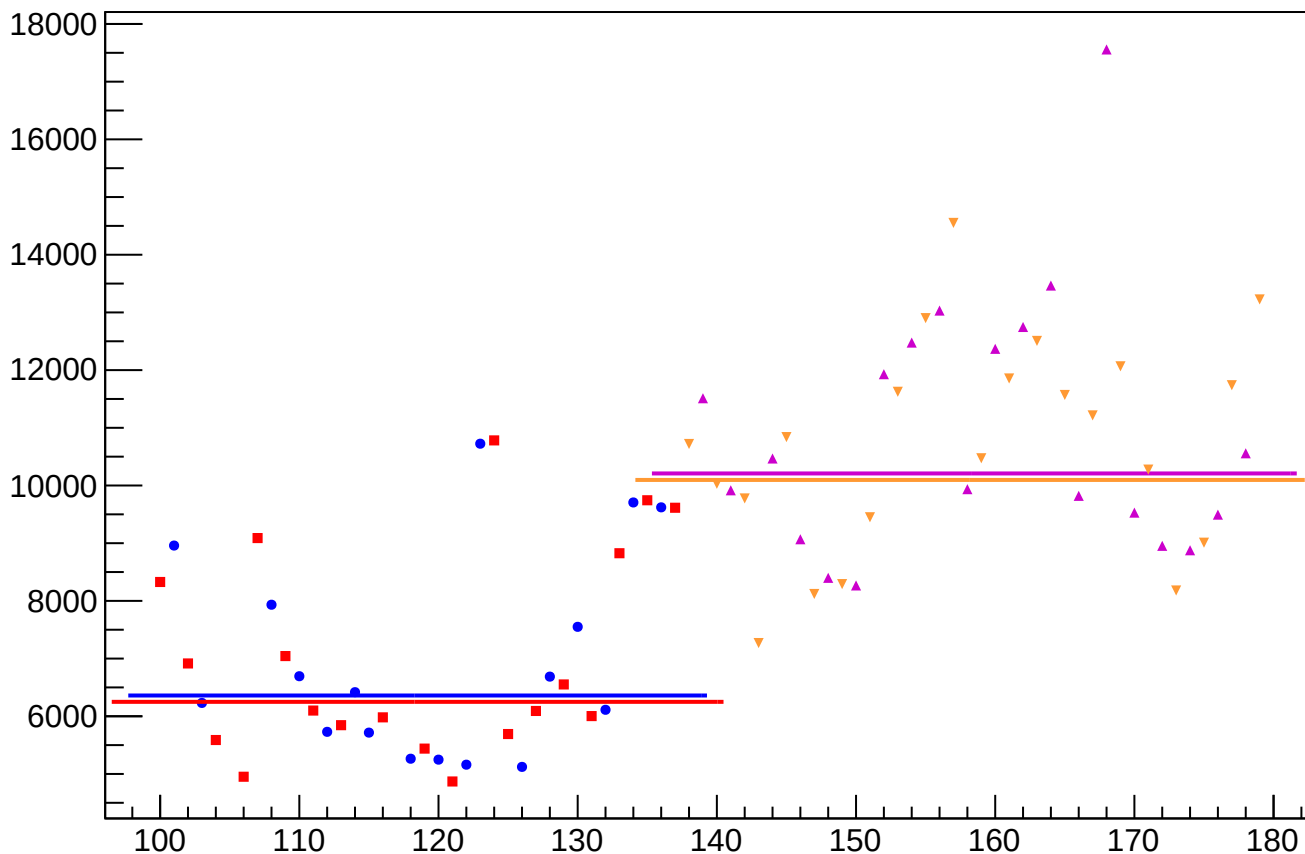
Right: 3309.487+/-1750.441  $\chi^2/\text{NDF}$ : 34.5/35

In: 3219.401+/-1826.713  $\chi^2/\text{NDF}$ : 25.8/36

Out: 2088.311+/-1748.089  $\chi^2/\text{NDF}$ : 48.6/40

All: 2628.991+/-1262.966  $\chi^2/\text{NDF}$ : 74.6/77

# asym\_atl2\_rms vs Slug, Sign Corrected



Right In: 6359.928+/-1.792  $\chi^2/\text{NDF}$ : 580471.0/16

Left Out: 10096.385+/-1.787  $\chi^2/\text{NDF}$ : 1027776.5/21

Right Out: 6250.049+/-1.711  $\chi^2/\text{NDF}$ : 532966.2/18

Left In: 10208.980+/-1.863  $\chi^2/\text{NDF}$ : 932734.6/19

Left: 10150.330+/-1.290  $\chi^2/\text{NDF}$ : 1962412.9/41

Right: 6302.460+/-1.238  $\chi^2/\text{NDF}$ : 1115403.3/35

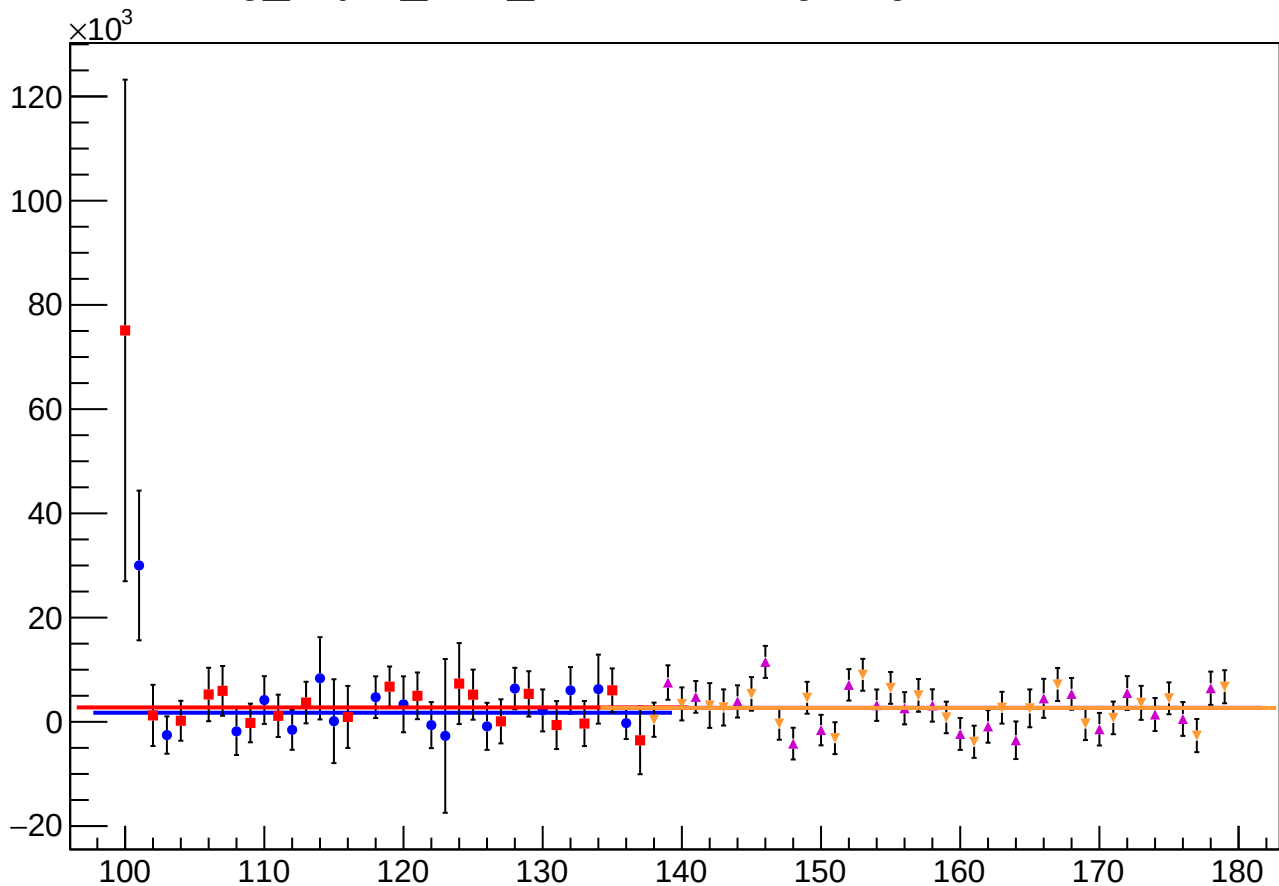
In: 8209.437+/-1.292  $\chi^2/\text{NDF}$ : 3729763.0/36

Out: 8090.111+/-1.236  $\chi^2/\text{NDF}$ : 3977019.5/40

All: 8147.150+/-0.893  $\chi^2/\text{NDF}$ : 7711237.2/77



# reg\_asym\_atr1\_mean vs Slug, Sign Corrected



Right In: 1746.001+/-1128.522  $\chi^2/\text{NDF}$ : 12.2/16

Left Out: 2672.341+/-680.774  $\chi^2/\text{NDF}$ : 25.6/21

Right Out: 2763.863+/-1071.947  $\chi^2/\text{NDF}$ : 9.7/18

Left In: 2688.416+/-703.923  $\chi^2/\text{NDF}$ : 32.9/19

Left: 2680.110+/-489.359  $\chi^2/\text{NDF}$ : 58.5/41

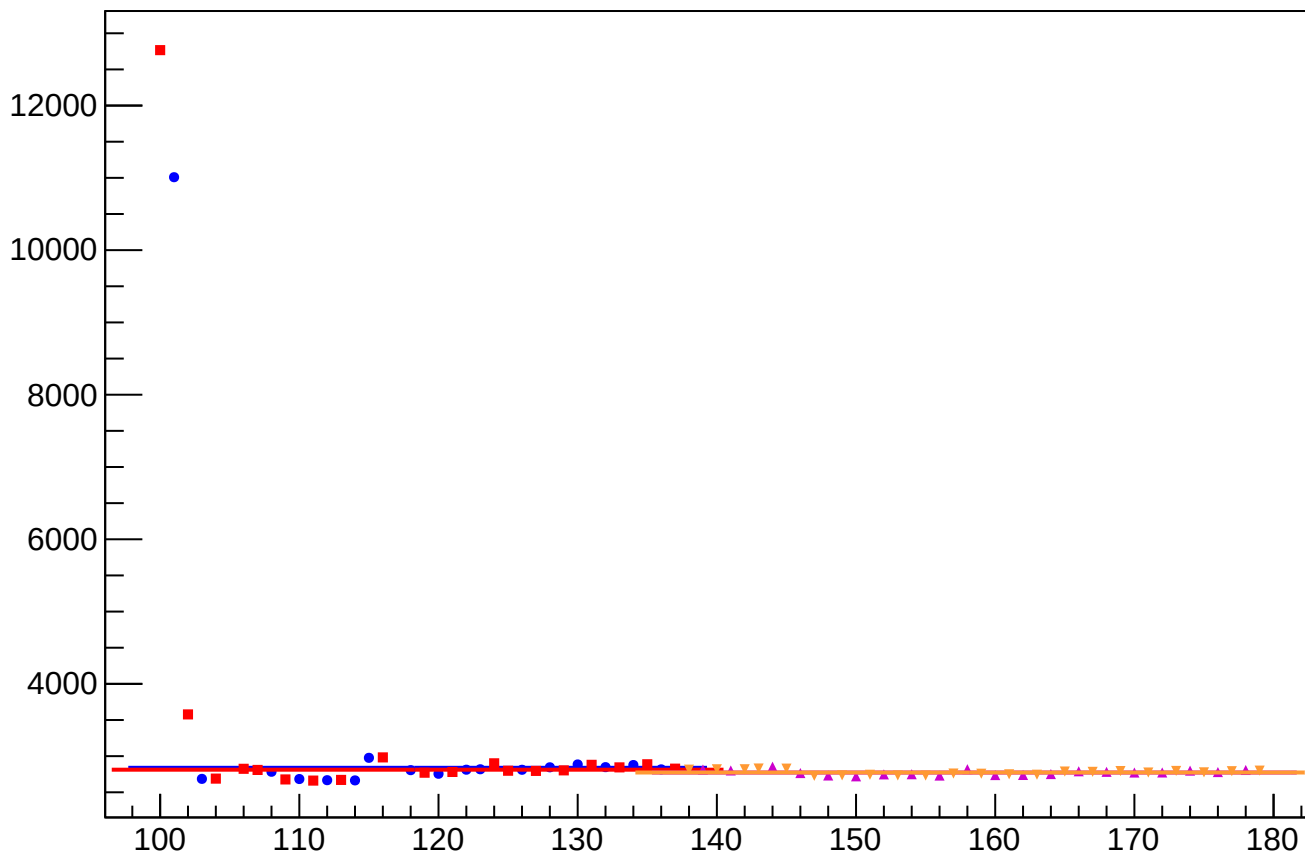
Right: 2281.084+/-777.212  $\chi^2/\text{NDF}$ : 22.3/35

In: 2424.450+/-597.259  $\chi^2/\text{NDF}$ : 45.6/36

Out: 2698.645+/-574.676  $\chi^2/\text{NDF}$ : 35.3/40

All: 2566.829+/-414.111  $\chi^2/\text{NDF}$ : 81.0/77

# reg\_asym\_atr1\_rms vs Slug, Sign Corrected



Right In: 2838.737+/-0.798  $\chi^2/\text{NDF}$ : 660209.3/16

Left Out: 2773.834+/-0.481  $\chi^2/\text{NDF}$ : 4554.8/21

Right Out: 2812.627+/-0.758  $\chi^2/\text{NDF}$ : 133064.0/18

Left In: 2773.174+/-0.498  $\chi^2/\text{NDF}$ : 4985.1/19

Left: 2773.515+/-0.346  $\chi^2/\text{NDF}$ : 9540.7/41

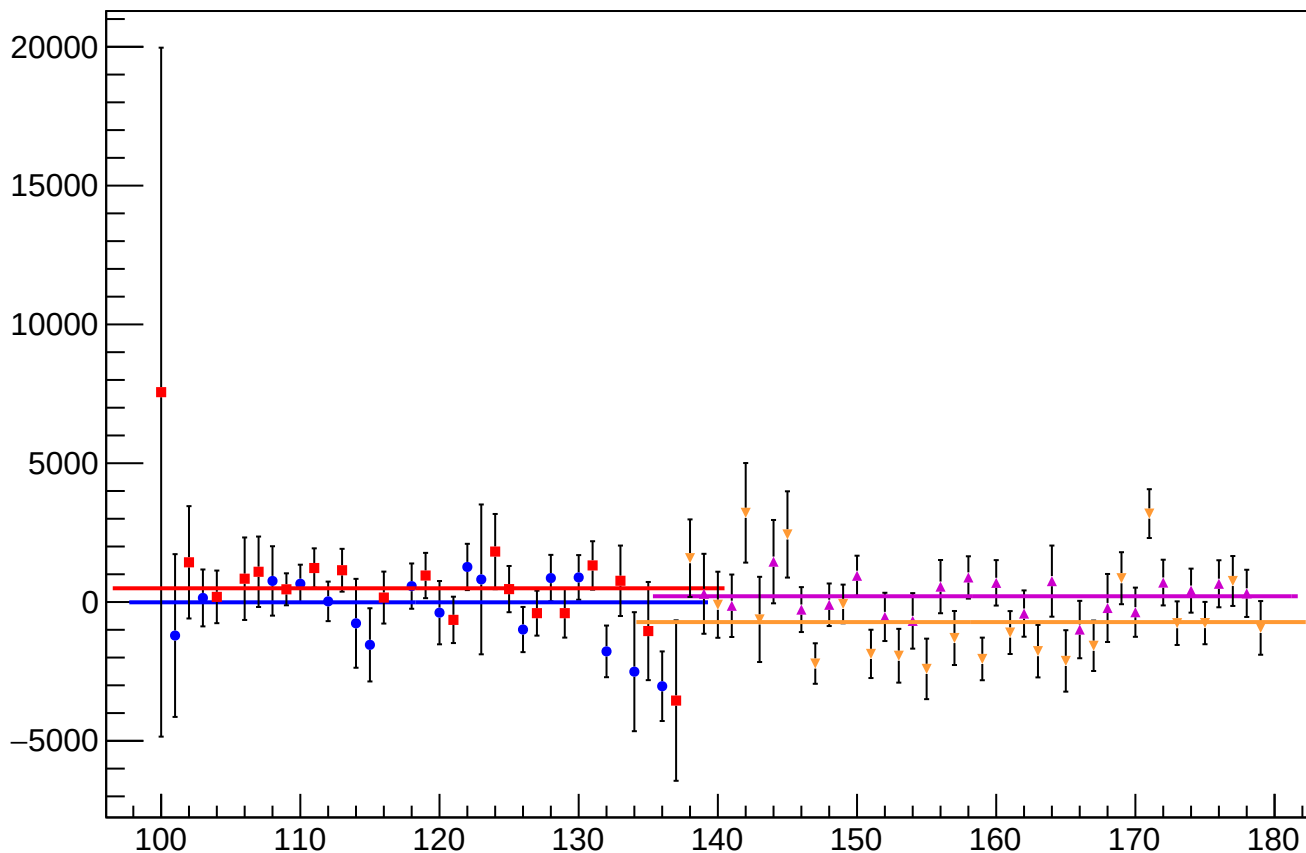
Right: 2825.011+/-0.550  $\chi^2/\text{NDF}$ : 793836.1/35

In: 2791.538+/-0.422  $\chi^2/\text{NDF}$ : 670054.1/36

Out: 2784.983+/-0.406  $\chi^2/\text{NDF}$ : 139485.3/40

All: 2788.134+/-0.293  $\chi^2/\text{NDF}$ : 809664.5/77

# asym\_atr1\_correction\_mean vs Slug, Sign Corrected



Right In:  $-9.845 \pm 241.678$   $\chi^2/\text{NDF}: 20.7/16$

Left Out:  $-721.992 \pm 199.236$   $\chi^2/\text{NDF}: 55.3/21$

Right Out:  $495.250 \pm 221.487$   $\chi^2/\text{NDF}: 11.9/18$

Left In:  $208.208 \pm 203.046$   $\chi^2/\text{NDF}: 8.5/19$

Left:  $-265.701 \pm 142.209$   $\chi^2/\text{NDF}: 74.5/41$

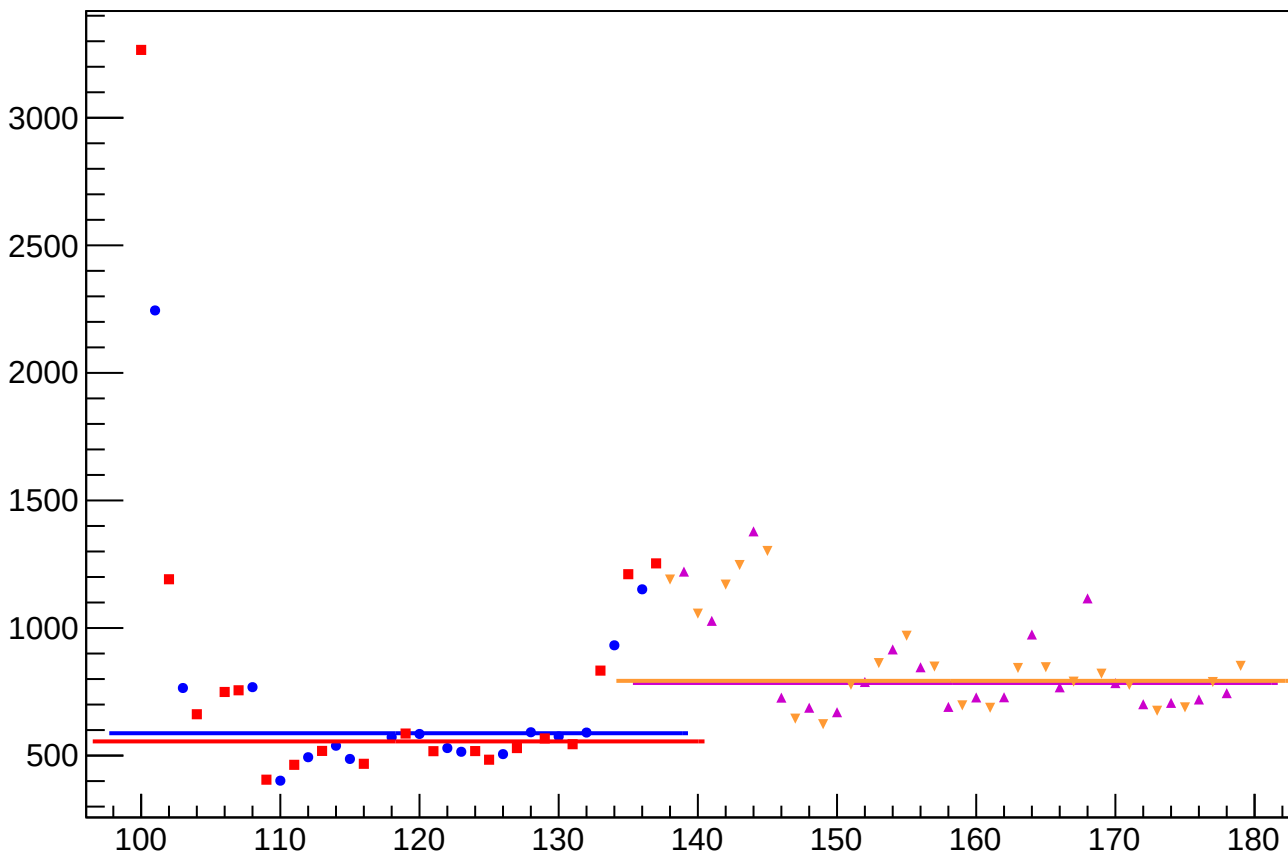
Right:  $264.680 \pm 163.287$   $\chi^2/\text{NDF}: 35.0/35$

In:  $117.982 \pm 155.462$   $\chi^2/\text{NDF}: 29.7/36$

Out:  $-177.569 \pm 148.125$   $\chi^2/\text{NDF}: 83.9/40$

All:  $-36.932 \pm 107.240$   $\chi^2/\text{NDF}: 115.5/77$

# asym\_atr1\_correction\_rms vs Slug, Sign Corrected



Right In: 587.596+/-0.171  $\chi^2/\text{NDF}$ : 1425769.6/16

Left Out: 792.913+/-0.141  $\chi^2/\text{NDF}$ :1180055.6/21

Right Out: 555.534+/-0.157  $\chi^2/\text{NDF}$ : 1106760.5/18

Left In: 784.611+/-0.144  $\chi^2/\text{NDF}$ :1022064.2/19

Left: 788.841+/-0.101  $\chi^2/\text{NDF}$ : 2203823.0/41

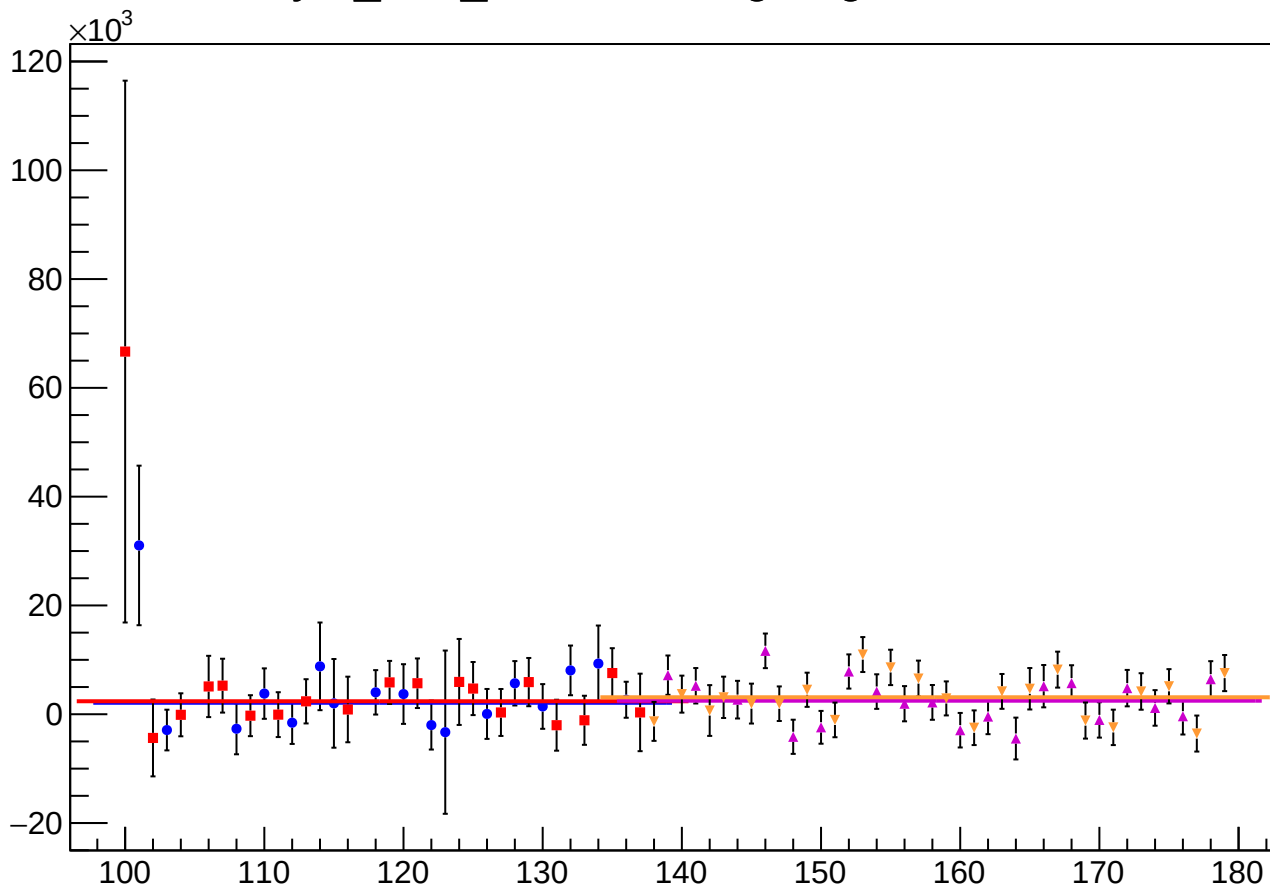
Right: 570.170+/-0.115  $\chi^2/\text{NDF}$ : 2551661.9/35

In: 703.090+/-0.110  $\chi^2/\text{NDF}$ :3226968.2/36

Out: 686.743+/-0.105  $\chi^2/\text{NDF}$ :3556626.4/40

All: 694.522+/-0.076  $\chi^2/\text{NDF}$ : 6795185.9/77

# asym\_atr1\_mean vs Slug, Sign Corrected



Right In: 2108.498 $\pm$ 1164.336  $\chi^2$ /NDF: 13.5/16

Left Out: 3117.822 $\pm$ 715.802  $\chi^2$ /NDF:30.6/21

Right Out: 2385.851 $\pm$ 1110.248  $\chi^2$ /NDF: 9.9/18

Left In: 2487.719 $\pm$ 738.089  $\chi^2$ /NDF:33.4/19

Left: 2812.428 $\pm$ 513.847  $\chi^2$ /NDF: 64.4/41

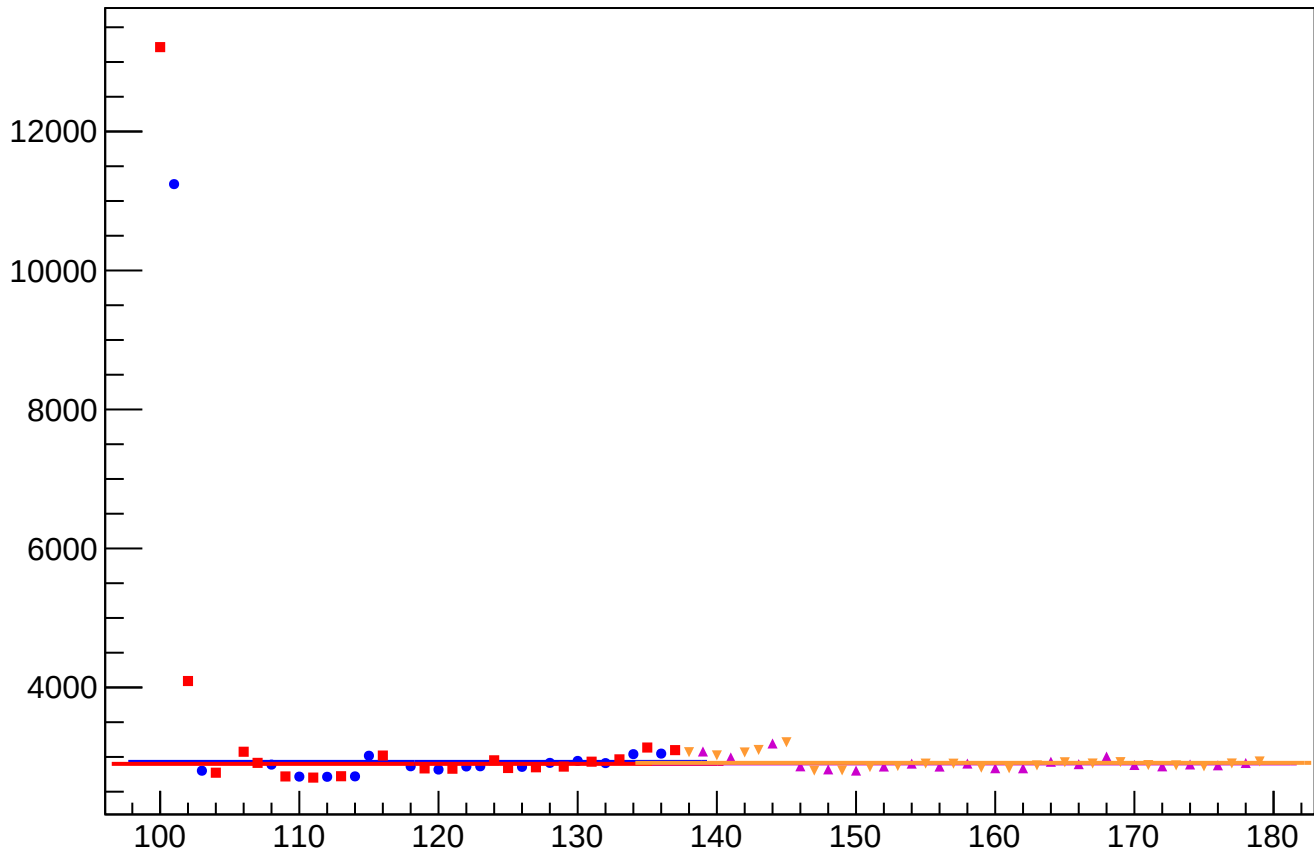
Right: 2253.766 $\pm$ 803.505  $\chi^2$ /NDF: 23.4/35

In: 2379.013 $\pm$ 623.388  $\chi^2$ /NDF:47.0/36

Out: 2902.902 $\pm$ 601.606  $\chi^2$ /NDF:40.8/40

All: 2650.270 $\pm$ 432.895  $\chi^2$ /NDF: 88.1/77

# asym\_atr1\_rms vs Slug, Sign Corrected



Right In: 2928.700+/-0.823  $\chi^2/\text{NDF}$ : 662362.9/16

Left Out: 2914.924+/-0.506  $\chi^2/\text{NDF}$ : 35136.9/21

Right Out: 2900.472+/-0.785  $\chi^2/\text{NDF}$ : 169720.6/18

Left In: 2906.658+/-0.522  $\chi^2/\text{NDF}$ : 28967.4/19

Left: 2910.918+/-0.363  $\chi^2/\text{NDF}$ : 64233.5/41

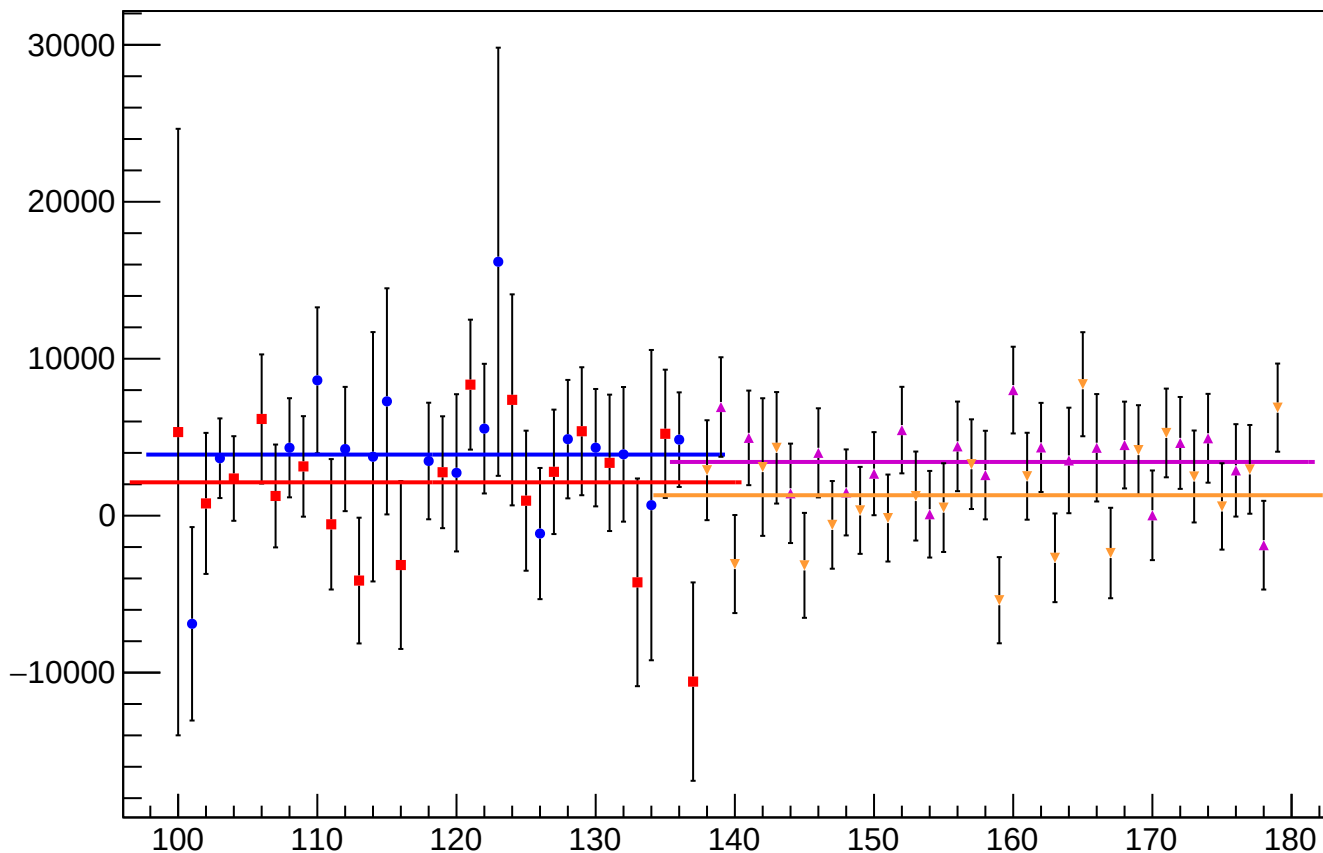
Right: 2913.915+/-0.568  $\chi^2/\text{NDF}$ : 832699.2/35

In: 2912.977+/-0.441  $\chi^2/\text{NDF}$ : 691841.6/36

Out: 2910.681+/-0.425  $\chi^2/\text{NDF}$ : 205096.9/40

All: 2911.788+/-0.306  $\chi^2/\text{NDF}$ : 896952.5/77

# reg\_asym\_atr2\_mean vs Slug, Sign Corrected



Right In: 3892.504+/-1011.718  $\chi^2/\text{NDF}$ : 7.1/16

Left Out: 1302.252+/-628.691  $\chi^2/\text{NDF}$ : 28.1/21

Right Out: 2124.700+/-958.418  $\chi^2/\text{NDF}$ : 14.3/18

Left In: 3422.423+/-647.580  $\chi^2/\text{NDF}$ : 13.2/19

Left: 2330.966+/-451.082  $\chi^2/\text{NDF}$ : 46.8/41

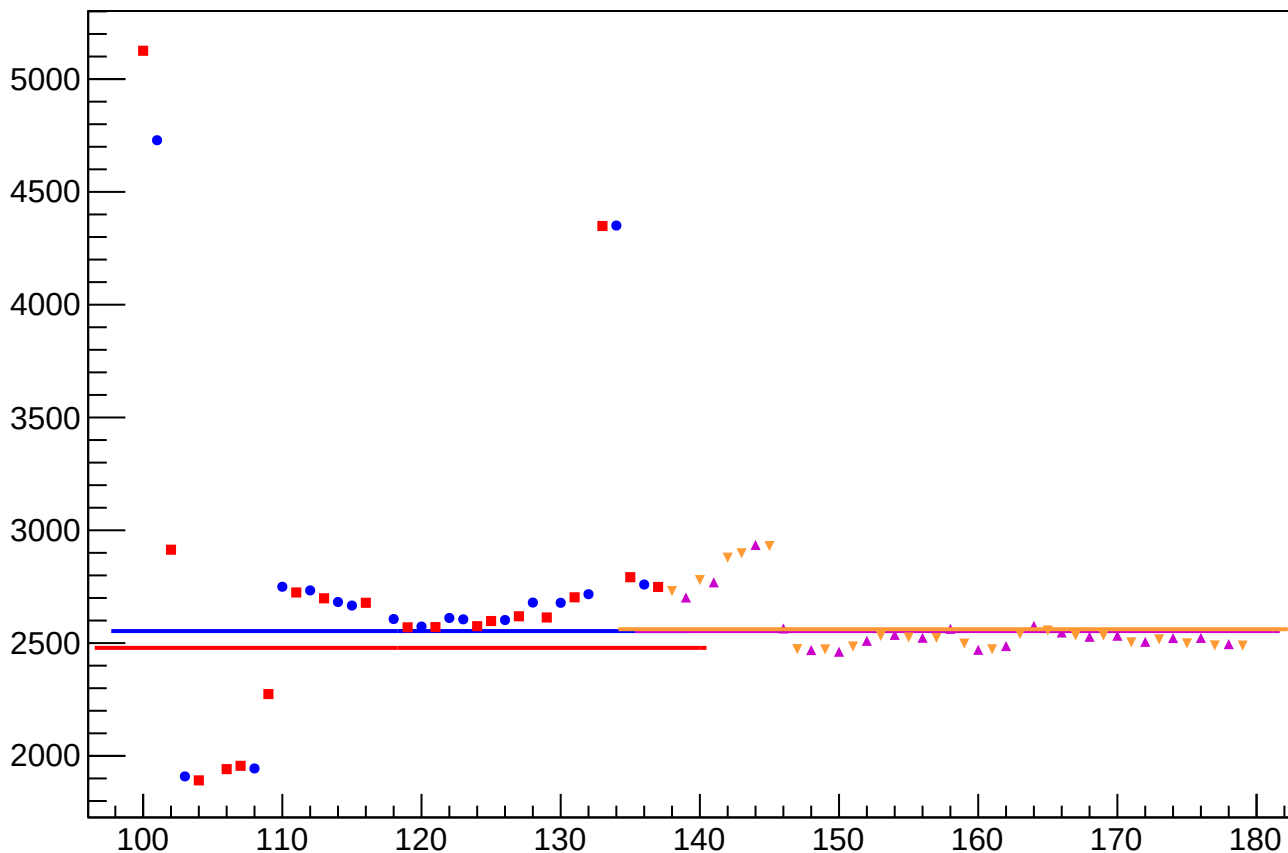
Right: 2960.811+/-695.784  $\chi^2/\text{NDF}$ : 23.1/35

In: 3559.042+/-545.418  $\chi^2/\text{NDF}$ : 20.5/36

Out: 1549.680+/-525.684  $\chi^2/\text{NDF}$ : 43.0/40

All: 2517.353+/-378.499  $\chi^2/\text{NDF}$ : 70.5/77

# reg\_asym\_atr2\_rms vs Slug, Sign Corrected



Right In: 2553.280 $\pm$ 0.715  $\chi^2$ /NDF: 545226.9/16

Left Out: 2561.494 $\pm$ 0.445  $\chi^2$ /NDF: 83283.3/21

Right Out: 2478.860 $\pm$ 0.678  $\chi^2$ /NDF: 449502.6/18

Left In: 2553.286 $\pm$ 0.458  $\chi^2$ /NDF: 53949.4/19

Left: 2557.511 $\pm$ 0.319  $\chi^2$ /NDF: 137398.2/41

Right: 2514.058 $\pm$ 0.492  $\chi^2$ /NDF: 1000433.0/35

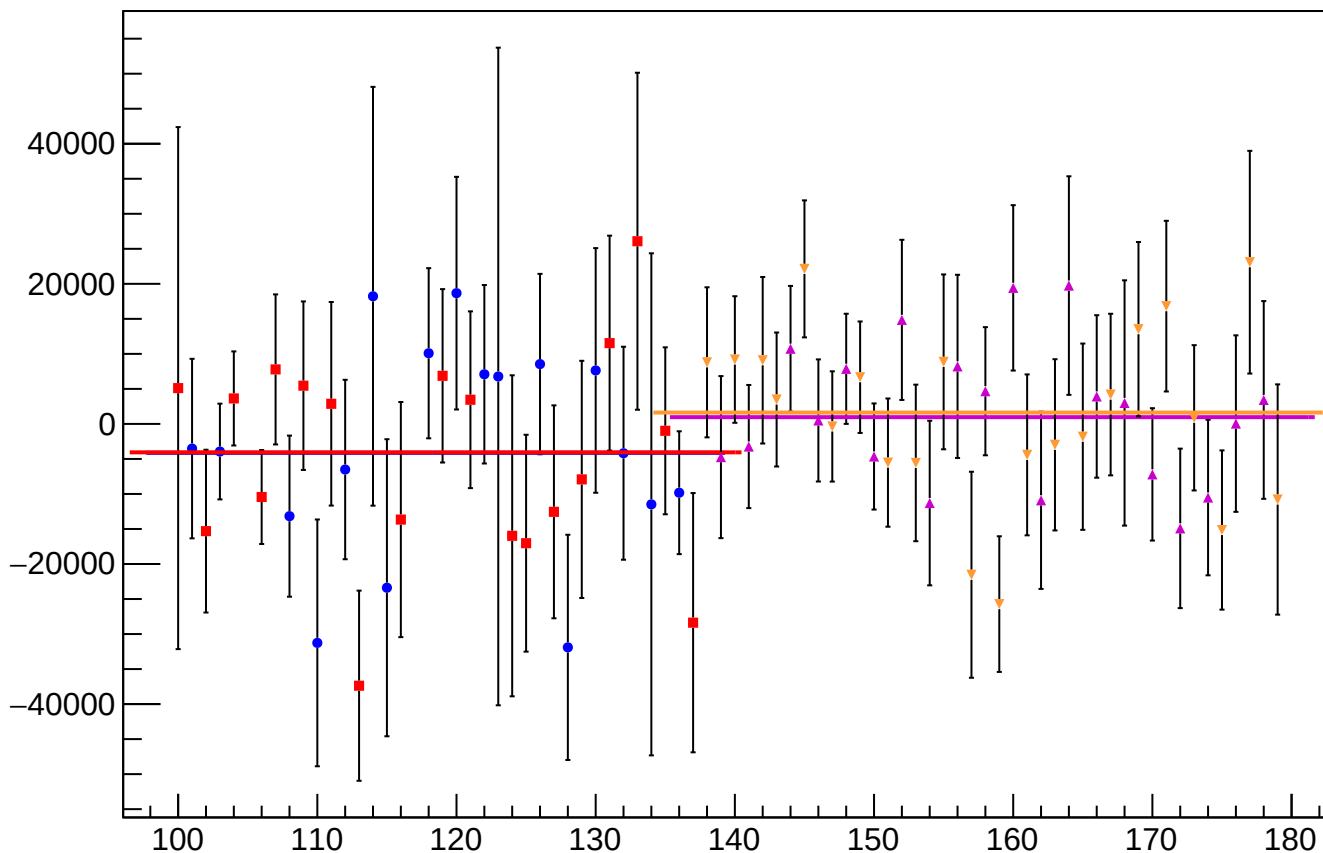
In: 2553.284 $\pm$ 0.386  $\chi^2$ /NDF: 599176.3/36

Out: 2536.634 $\pm$ 0.372  $\chi^2$ /NDF: 543180.8/40

All: 2544.653 $\pm$ 0.268  $\chi^2$ /NDF: 1143323.3/77



asym\_atr2\_correction\_mean vs Slug, Sign Corrected



Right In: -4126.319 $\pm$ 3227.044  $\chi^2$ /NDF: 13.4/16

Left Out: 1623.066 $\pm$ 2304.313  $\chi^2$ /NDF:25.8/21

Right Out: -4060.328 $\pm$ 2834.326  $\chi^2$ /NDF: 18.5/18

Left In: 963.525 $\pm$ 2364.423  $\chi^2$ /NDF:14.7/19

Left: 1301.786 $\pm$ 1650.237  $\chi^2$ /NDF: 40.6/41

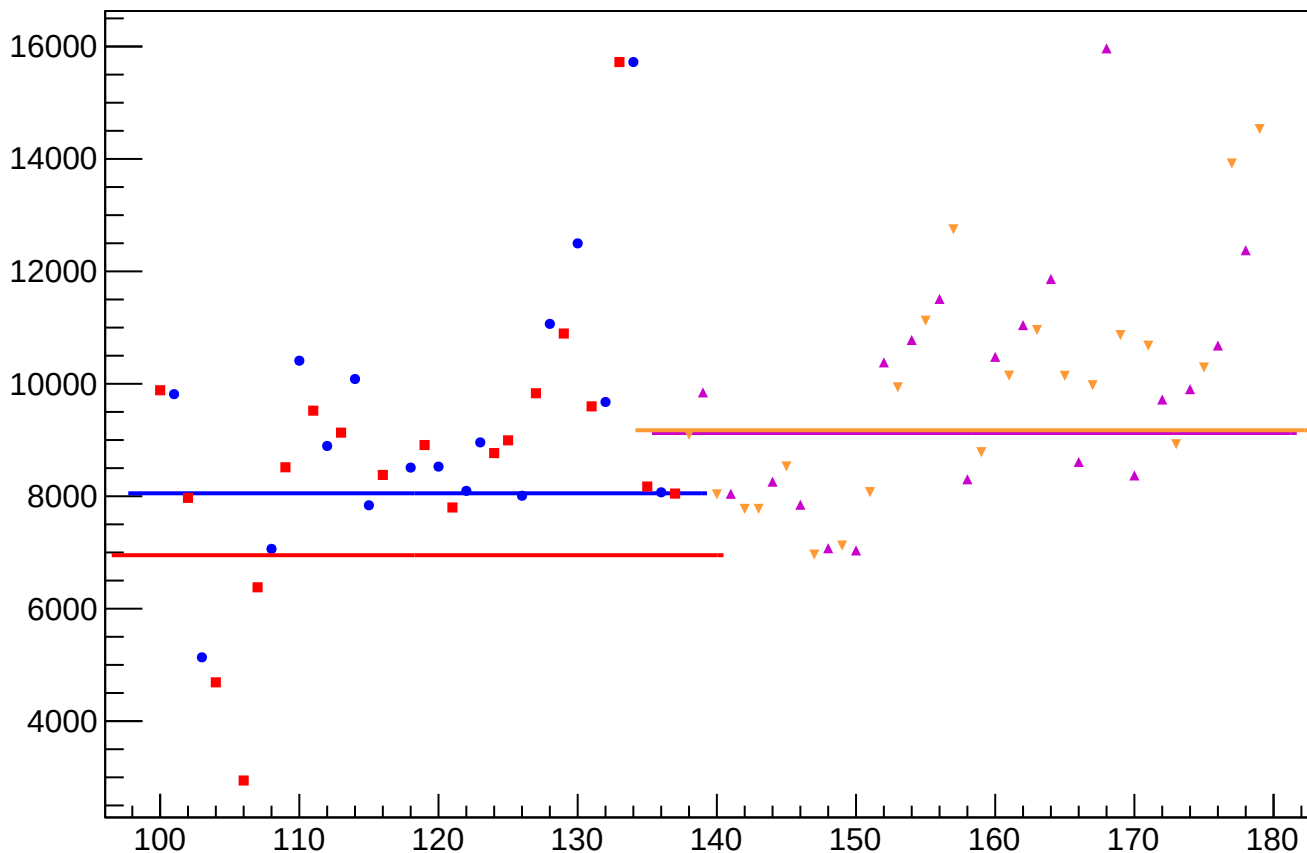
Right: -4089.066 $\pm$ 2129.557  $\chi^2$ /NDF: 31.9/35

In: -814.419 $\pm$ 1907.268  $\chi^2$ /NDF:29.6/36

Out: -638.602 $\pm$ 1787.970  $\chi^2$ /NDF:46.8/40

All: -720.840 $\pm$ 1304.423  $\chi^2$ /NDF: 76.4/77

# asym\_atr2\_correction\_rms vs Slug, Sign Corrected



Right In: 8052.552 $\pm$ 2.282  $\chi^2$ /NDF: 790724.2/16

Left Out: 9173.670 $\pm$ 1.629  $\chi^2$ /NDF:1165736.1/21

Right Out: 6950.943 $\pm$ 2.004  $\chi^2$ /NDF: 1776578.9/18

Left In: 9125.315 $\pm$ 1.672  $\chi^2$ /NDF:1142173.8/19

Left: 9150.115 $\pm$ 1.167  $\chi^2$ /NDF: 2308338.9/41

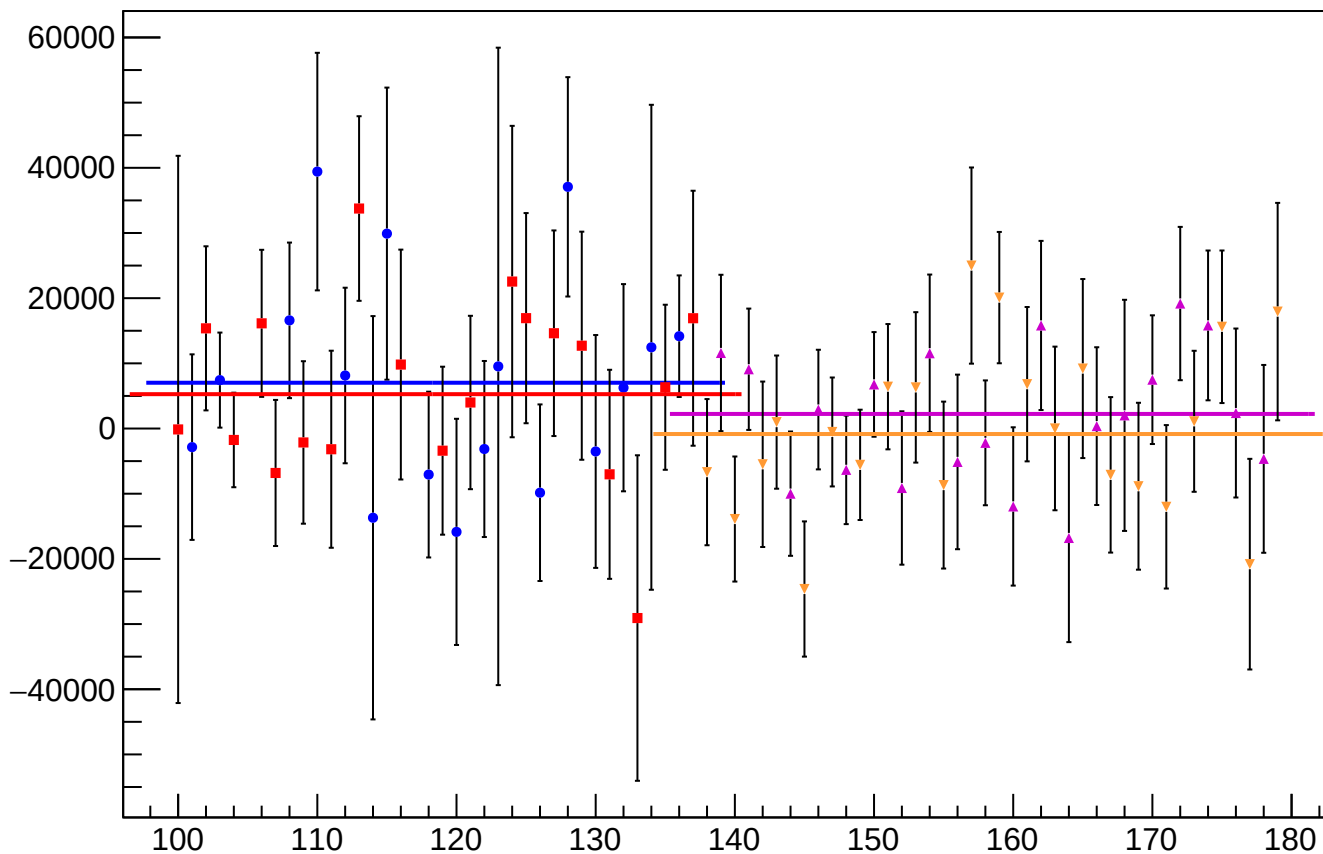
Right: 7430.673 $\pm$ 1.506  $\chi^2$ /NDF: 2698872.2/35

In: 8750.586 $\pm$ 1.349  $\chi^2$ /NDF:2076711.9/36

Out: 8289.151 $\pm$ 1.264  $\chi^2$ /NDF:3682840.3/40

All: 8504.987 $\pm$ 0.922  $\chi^2$ /NDF: 5821860.2/77

# asym\_atr2\_mean vs Slug, Sign Corrected



Right In: 7025.400+/-3409.490  $\chi^2/\text{NDF}$ : 15.0/16

Left Out: -843.241+/-2408.238  $\chi^2/\text{NDF}$ : 23.7/21

Right Out: 5271.793+/-3168.195  $\chi^2/\text{NDF}$ : 13.4/18

Left In: 2238.403+/-2466.892  $\chi^2/\text{NDF}$ : 14.1/19

Left: 660.510+/-1723.245  $\chi^2/\text{NDF}$ : 38.6/41

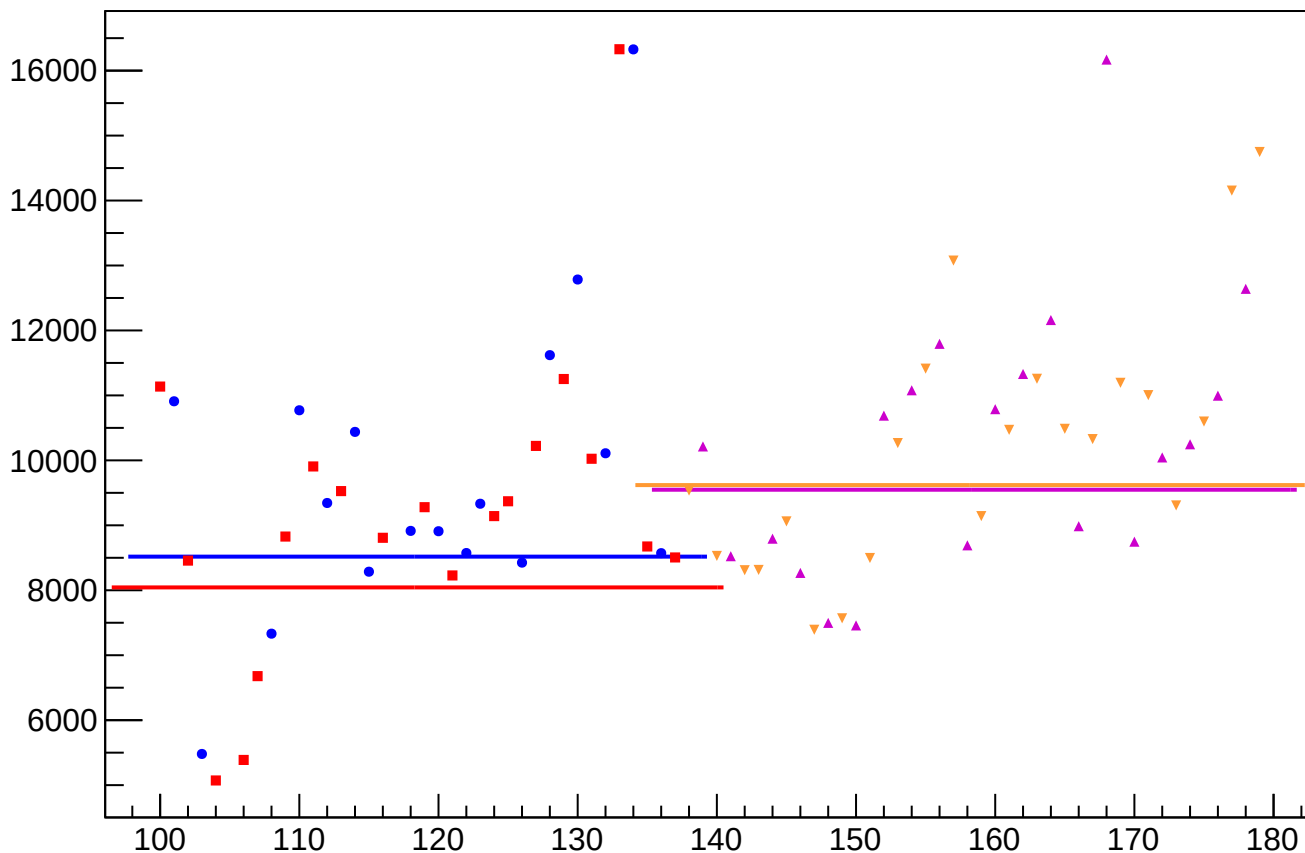
Right: 6084.354+/-2320.872  $\chi^2/\text{NDF}$ : 28.5/35

In: 3883.307+/-1998.610  $\chi^2/\text{NDF}$ : 30.4/36

Out: 1396.113+/-1917.229  $\chi^2/\text{NDF}$ : 39.4/40

All: 2588.042+/-1383.561  $\chi^2/\text{NDF}$ : 70.6/77

# asym\_atr2\_rms vs Slug, Sign Corrected



Right In: 8517.886+/-2.411  $\chi^2/\text{NDF}$ : 763281.4/16

Left Out: 9619.357+/-1.703  $\chi^2/\text{NDF}$ : 1004181.1/21

Right Out: 8043.998+/-2.240  $\chi^2/\text{NDF}$ : 952125.8/18

Left In: 9547.782+/-1.744  $\chi^2/\text{NDF}$ : 998049.7/19

Left: 9584.430+/-1.219  $\chi^2/\text{NDF}$ : 2003092.8/41

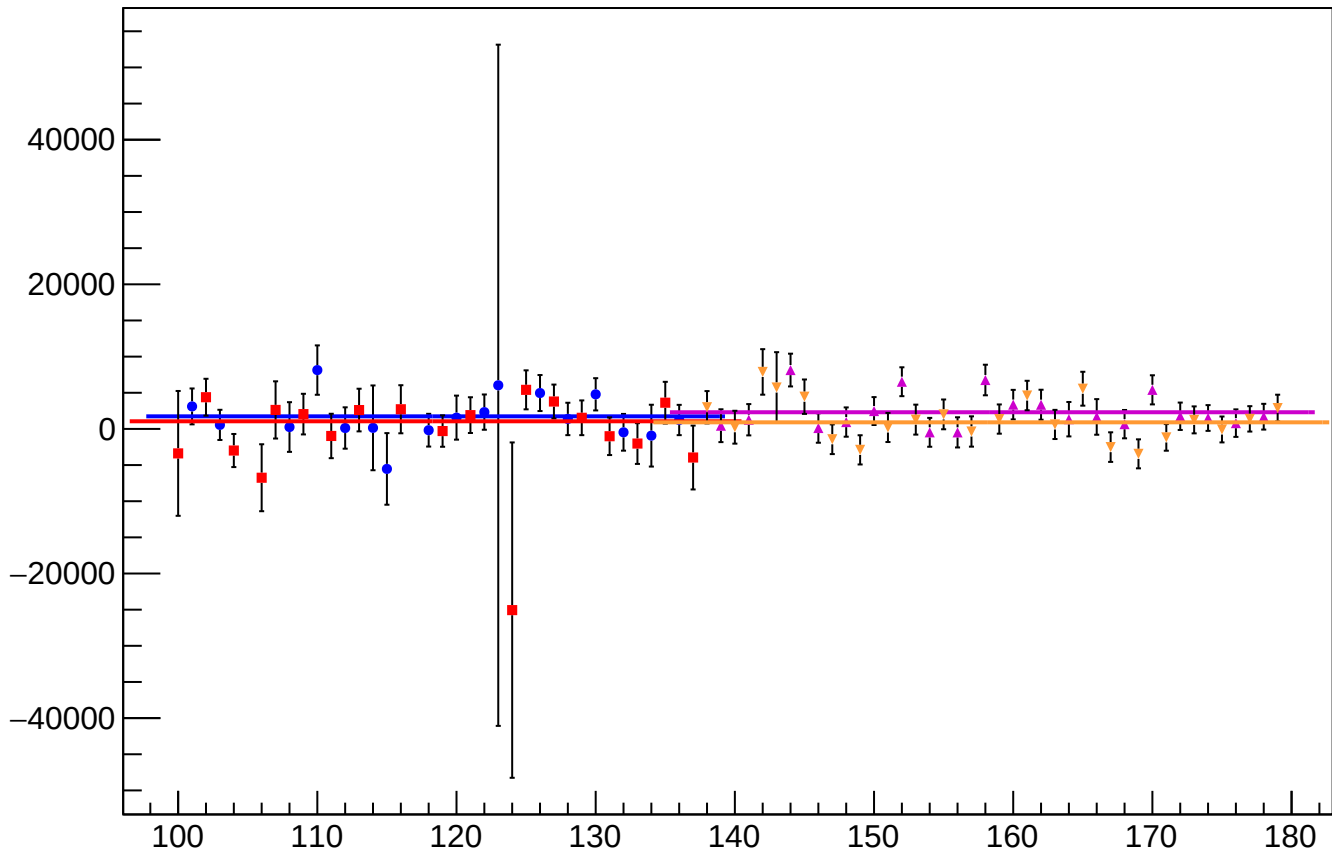
Right: 8263.573+/-1.641  $\chi^2/\text{NDF}$ : 1736141.9/35

In: 9193.890+/-1.413  $\chi^2/\text{NDF}$ : 1881113.6/36

Out: 9042.427+/-1.356  $\chi^2/\text{NDF}$ : 2269731.9/40

All: 9115.011+/-0.978  $\chi^2/\text{NDF}$ : 4156827.5/77

# reg\_asym\_atl\_avg\_mean vs Slug, Sign Corrected



Right In: 1739.640+/-670.395  $\chi^2/\text{NDF}$ : 12.4/16

Left Out: 911.035+/-444.987  $\chi^2/\text{NDF}$ : 32.4/21

Right Out: 1055.584+/-670.984  $\chi^2/\text{NDF}$ : 18.9/18

Left In: 2306.152+/-455.656  $\chi^2/\text{NDF}$ : 26.6/19

Left: 1592.068+/-318.358  $\chi^2/\text{NDF}$ : 63.8/41

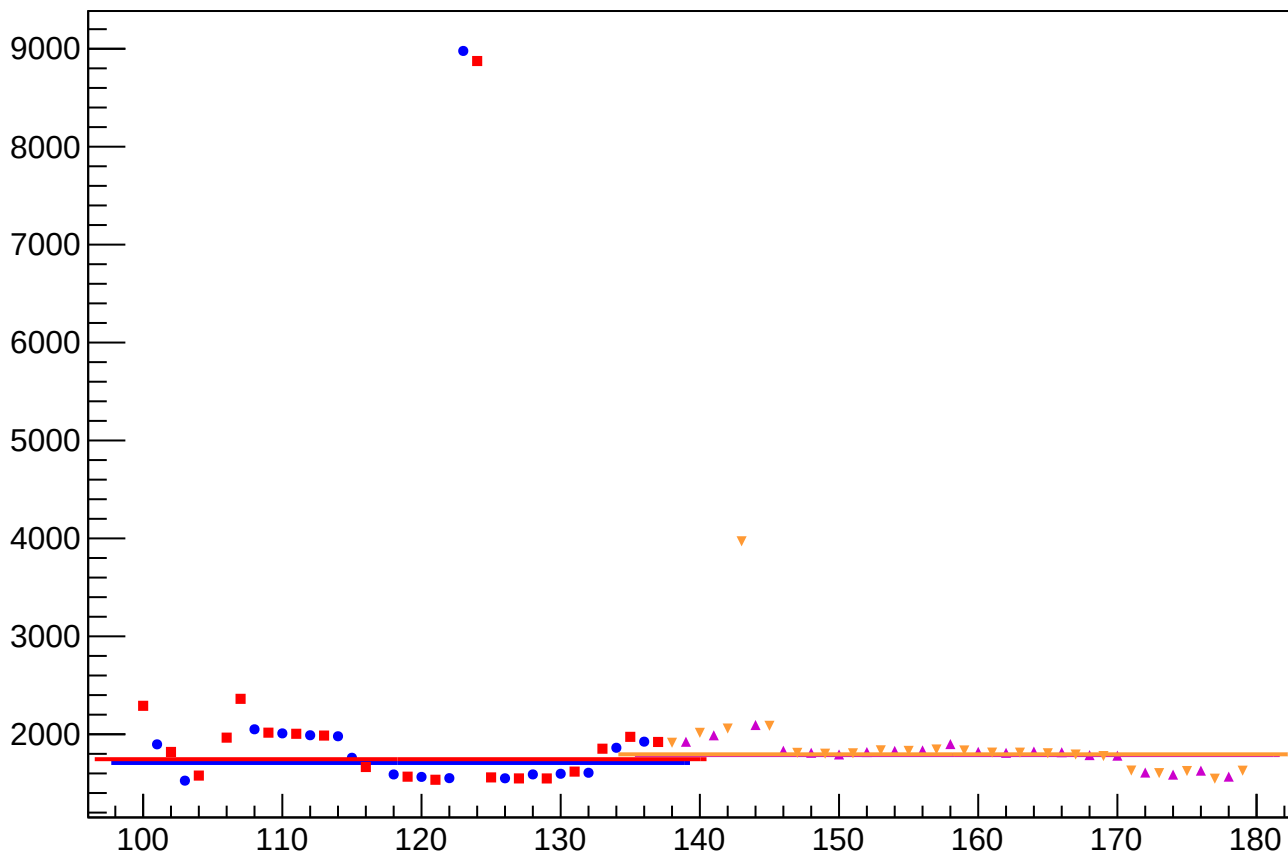
Right: 1397.913+/-474.249  $\chi^2/\text{NDF}$ : 31.8/35

In: 2127.139+/-376.850  $\chi^2/\text{NDF}$ : 39.5/36

Out: 955.190+/-370.846  $\chi^2/\text{NDF}$ : 51.3/40

All: 1531.755+/-264.325  $\chi^2/\text{NDF}$ : 95.7/77

# reg\_asym\_atl\_avg\_rms vs Slug, Sign Corrected



Right In: 1706.867+/-0.474  $\chi^2/\text{NDF}$ : 197555.1/16

Left Out: 1795.104+/-0.315  $\chi^2/\text{NDF}$ : 580317.4/21

Right Out: 1745.434+/-0.472  $\chi^2/\text{NDF}$ : 399811.9/18

Left In: 1787.392+/-0.322  $\chi^2/\text{NDF}$ : 159561.0/19

Left: 1791.339+/-0.225  $\chi^2/\text{NDF}$ : 740171.6/41

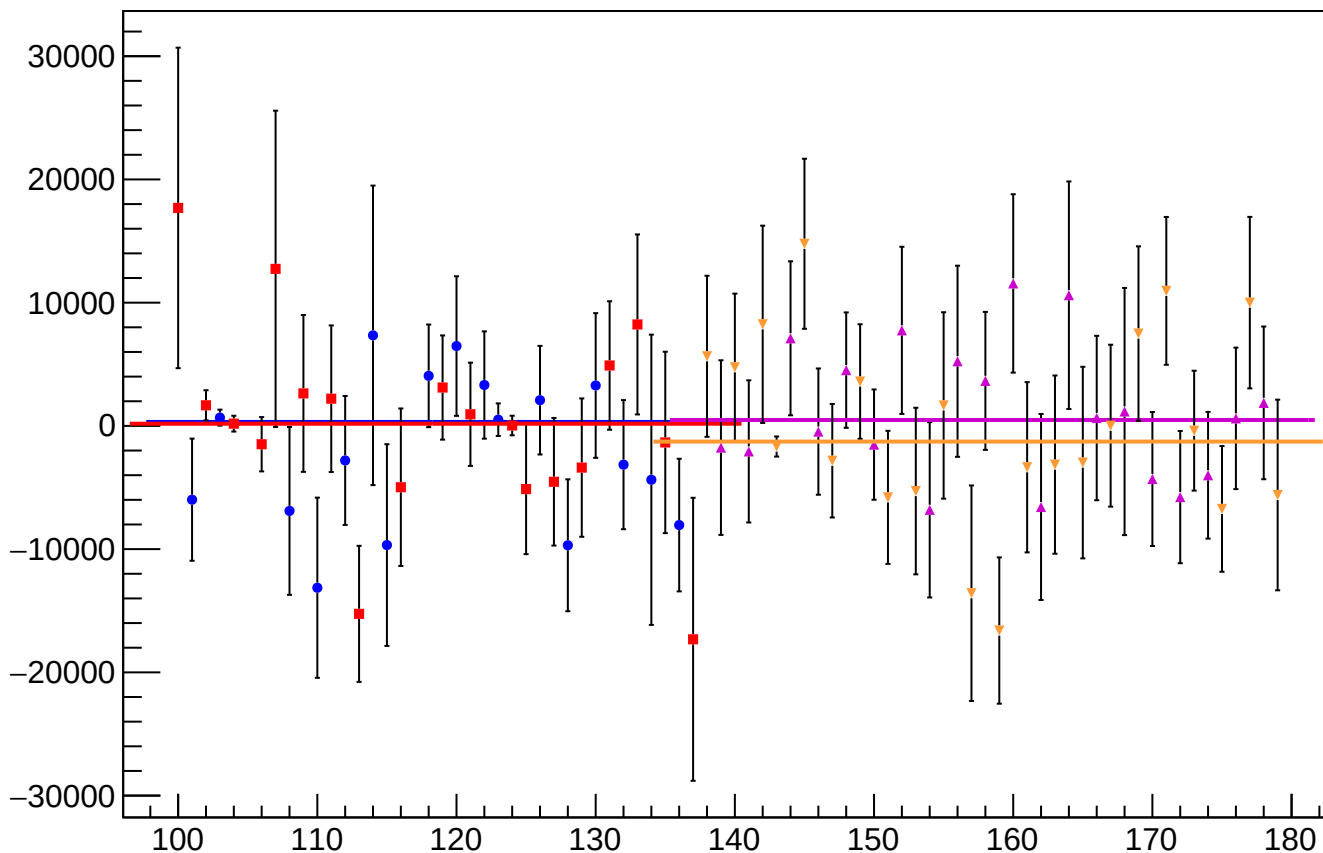
Right: 1726.220+/-0.335  $\chi^2/\text{NDF}$ : 600688.4/35

In: 1761.947+/-0.266  $\chi^2/\text{NDF}$ : 376853.7/36

Out: 1779.837+/-0.262  $\chi^2/\text{NDF}$ : 987788.3/40

All: 1771.048+/-0.187  $\chi^2/\text{NDF}$ : 1366935.0/77

asym\_atl\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 320.899 $\pm$ 540.384  $\chi^2$ /NDF: 18.0/16

Left Out: -1272.832 $\pm$ 698.619  $\chi^2$ /NDF:30.3/21

Right Out: 176.640 $\pm$ 433.552  $\chi^2$ /NDF: 20.8/18

Left In: 479.886 $\pm$ 1357.243  $\chi^2$ /NDF:12.7/19

Left: -905.715 $\pm$ 621.160  $\chi^2$ /NDF: 44.3/41

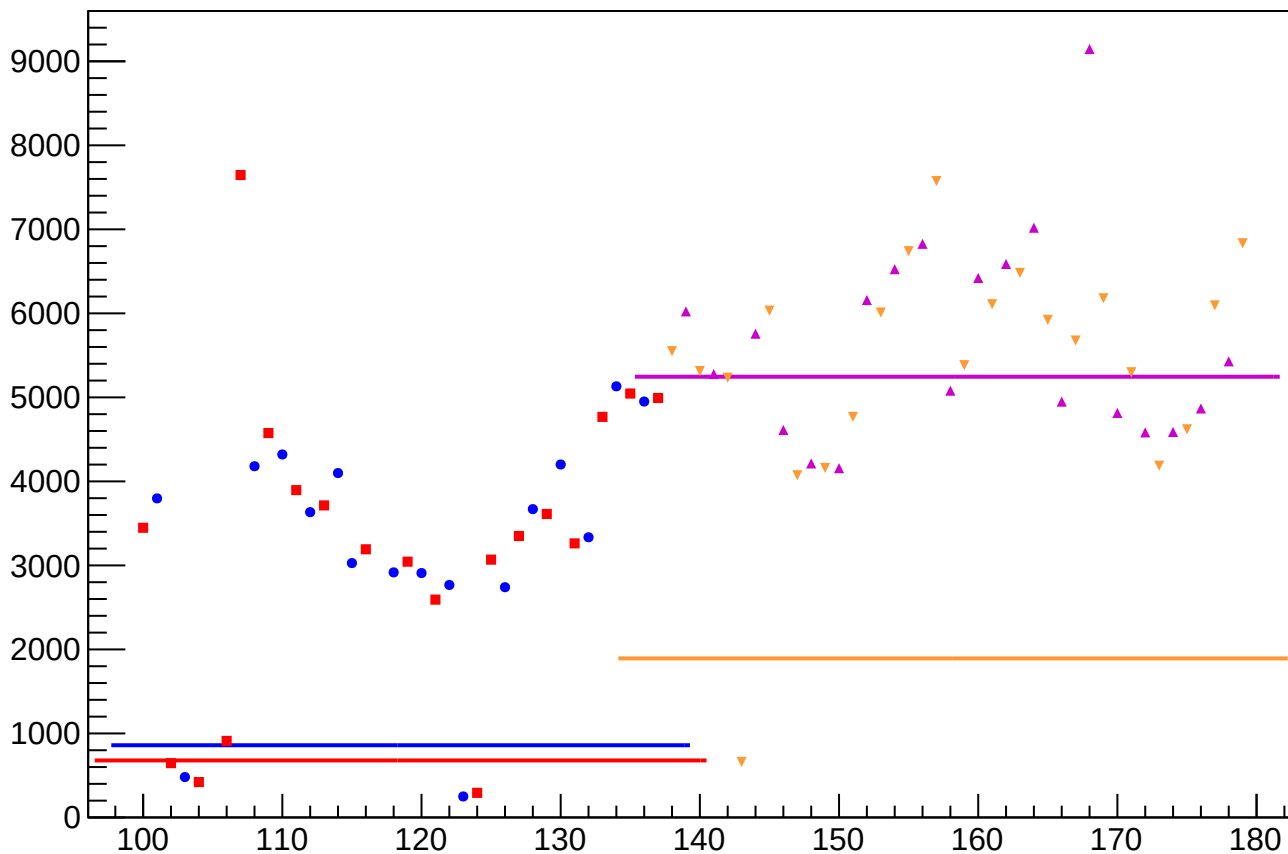
Right: 233.134 $\pm$ 338.167  $\chi^2$ /NDF: 38.8/35

In: 342.654 $\pm$ 502.054  $\chi^2$ /NDF:30.7/36

Out: -226.376 $\pm$ 368.380  $\chi^2$ /NDF:54.2/40

All: -27.234 $\pm$ 297.005  $\chi^2$ /NDF: 85.7/77

asym\_atl\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 859.557 $\pm$ 0.382  $\chi^2$ /NDF: 8143264.5/16

Left Out: 1892.952 $\pm$ 0.494  $\chi^2$ /NDF: 18210816.7/21

Right Out: 678.603 $\pm$ 0.307  $\chi^2$ /NDF: 8384814.2/18

Left In: 5245.775 $\pm$ 0.960  $\chi^2$ /NDF: 1052036.9/19

Left: 2595.220 $\pm$ 0.439  $\chi^2$ /NDF: 28911416.6/41

Right: 749.467 $\pm$ 0.239  $\chi^2$ /NDF: 16664518.8/35

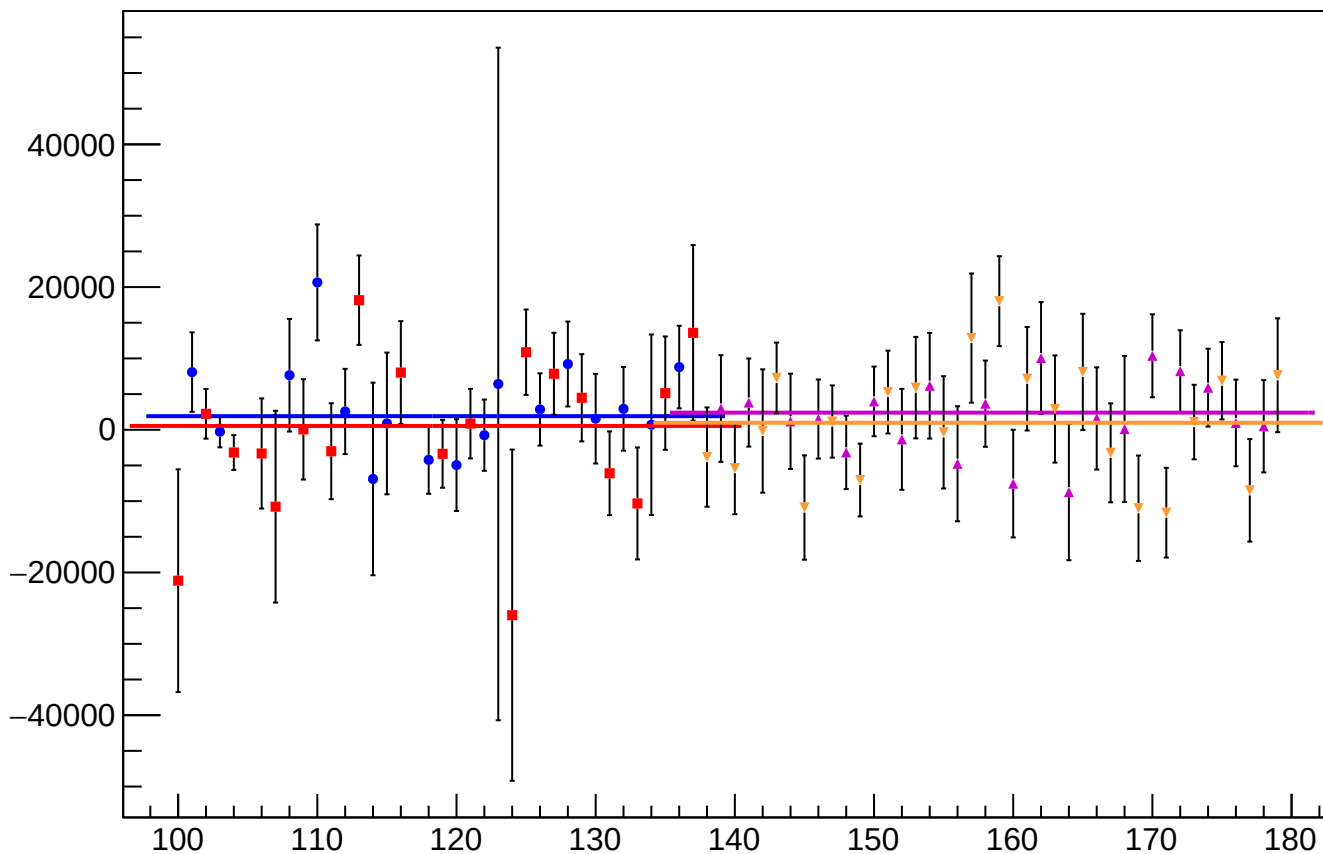
In: 1459.729 $\pm$ 0.355  $\chi^2$ /NDF: 27225116.0/36

Out: 1016.244 $\pm$ 0.260  $\chi^2$ /NDF: 30958249.1/40

All: 1171.449 $\pm$ 0.210  $\chi^2$ /NDF: 59197795.2/71



# asym\_atl\_avg\_mean vs Slug, Sign Corrected



Right In: 1909.348+/-1310.219  $\chi^2/\text{NDF}$ : 14.6/16

Left Out: 982.309+/-1386.851  $\chi^2/\text{NDF}$ :30.5/21

Right Out: 539.549+/-1285.817  $\chi^2/\text{NDF}$ : 26.4/18

Left In: 2403.258+/-1445.995  $\chi^2/\text{NDF}$ :10.3/19

Left: 1663.129+/-1000.908  $\chi^2/\text{NDF}$ : 41.3/41

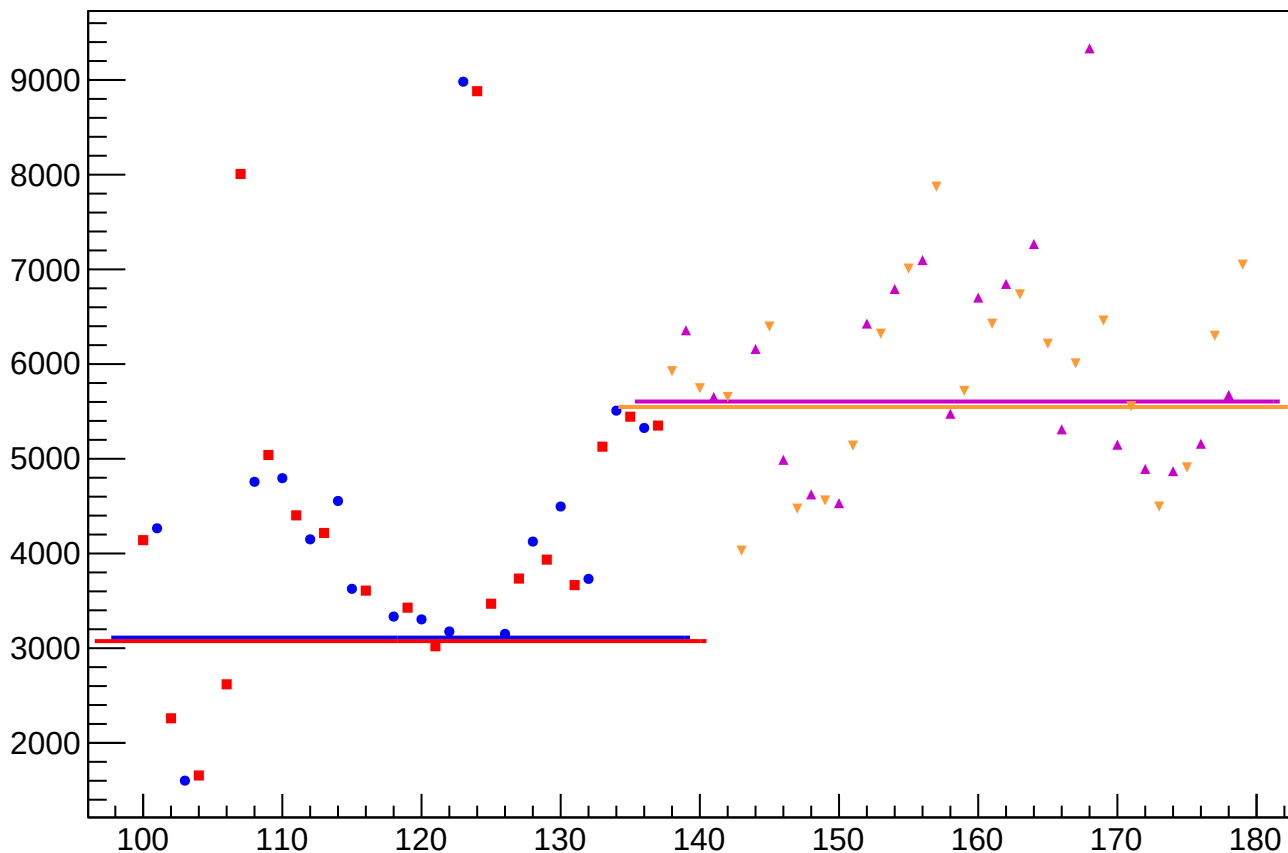
Right: 1211.574+/-917.716  $\chi^2/\text{NDF}$ : 41.6/35

In: 2132.031+/-970.927  $\chi^2/\text{NDF}$ :25.0/36

Out: 744.215+/-942.907  $\chi^2/\text{NDF}$ :56.9/40

All: 1417.809+/-676.425  $\chi^2/\text{NDF}$ : 83.0/77

# asym\_atl\_avg\_rms vs Slug, Sign Corrected



Right In: 3111.825+/-0.926  $\chi^2/\text{NDF}$ : 1879558.6/16

Left Out: 5546.976+/-0.981  $\chi^2/\text{NDF}$ : 956957.4/21

Right Out: 3074.771+/-0.896  $\chi^2/\text{NDF}$ : 2005627.6/18

Left In: 5604.627+/-1.022  $\chi^2/\text{NDF}$ : 888733.0/19

Left: 5574.599+/-0.708  $\chi^2/\text{NDF}$ : 1847346.2/41

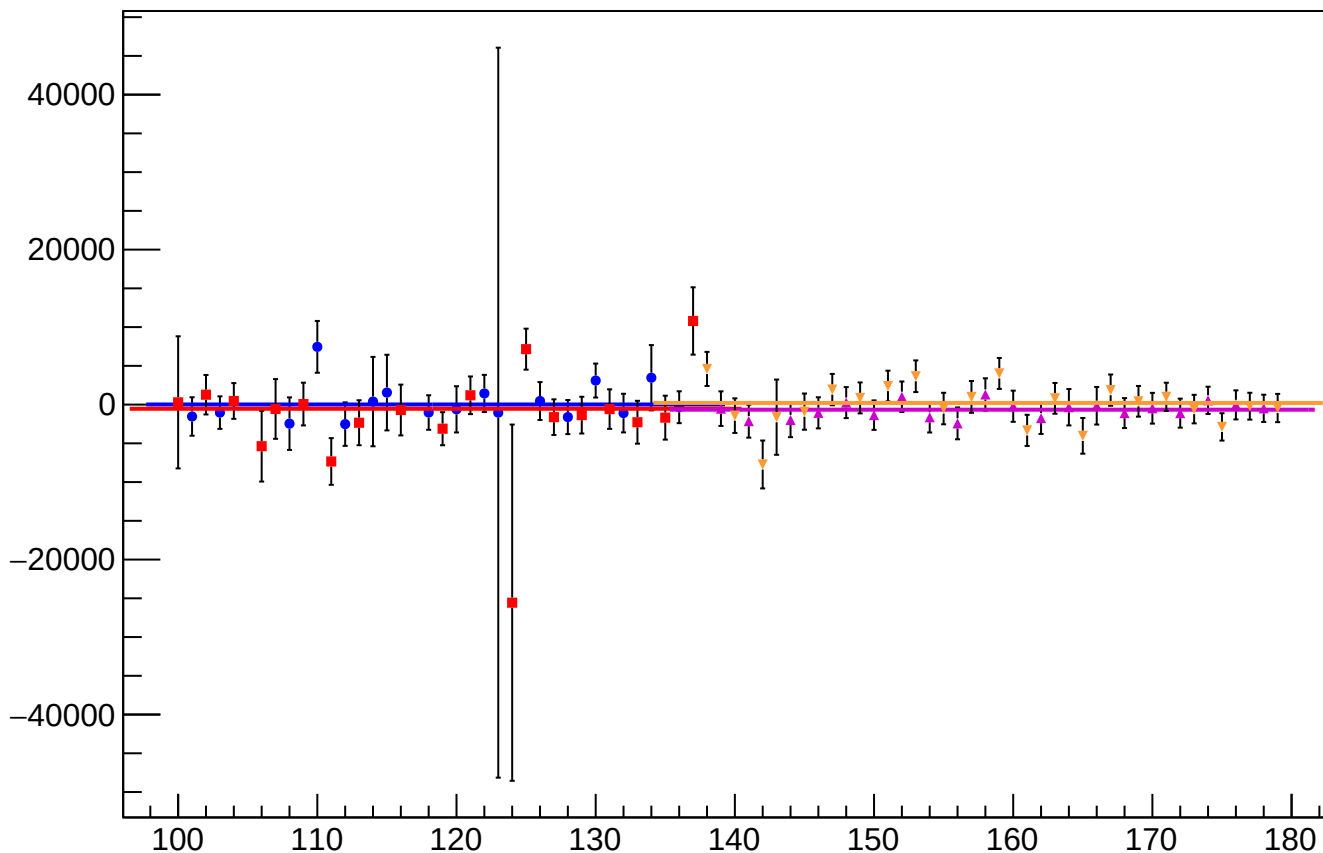
Right: 3092.680+/-0.644  $\chi^2/\text{NDF}$ : 3886012.7/35

In: 4235.716+/-0.687  $\chi^2/\text{NDF}$ : 6032357.1/36

Out: 4199.661+/-0.661  $\chi^2/\text{NDF}$ : 6426160.4/40

All: 4217.019+/-0.476  $\chi^2/\text{NDF}$ : 12459947.8/77

# reg\_asym\_atl\_dd\_mean vs Slug, Sign Corrected



Right In:  $14.118 \pm 661.101$   $\chi^2/\text{NDF}$ : 11.1/16

Left Out:  $214.167 \pm 438.642$   $\chi^2/\text{NDF}$ : 31.2/21

Right Out:  $-537.476 \pm 661.143$   $\chi^2/\text{NDF}$ : 26.7/18

Left In:  $-657.348 \pm 449.231$   $\chi^2/\text{NDF}$ : 4.9/19

Left:  $-211.198 \pm 313.844$   $\chi^2/\text{NDF}$ : 38.0/41

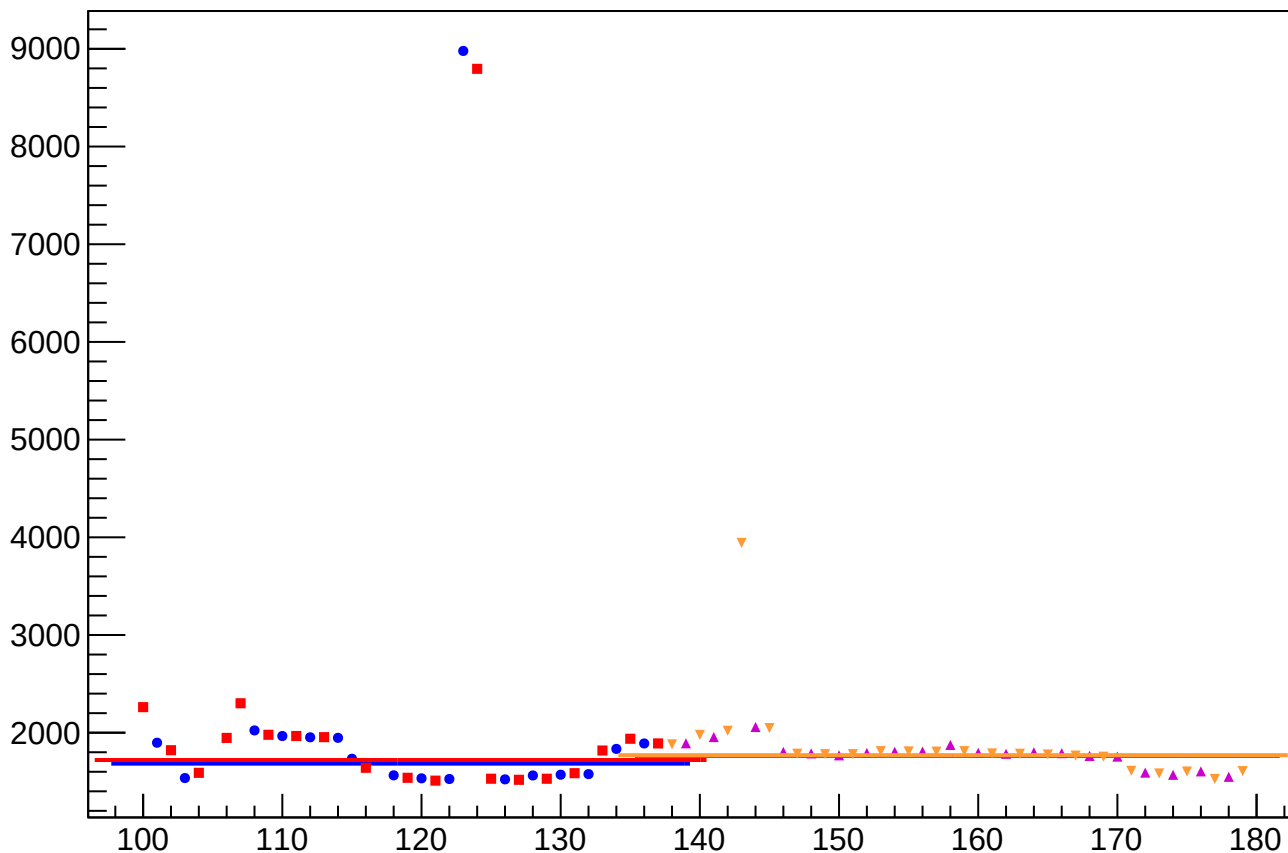
Right:  $-261.662 \pm 467.484$   $\chi^2/\text{NDF}$ : 38.1/35

In:  $-445.241 \pm 371.564$   $\chi^2/\text{NDF}$ : 16.7/36

Out:  $-15.567 \pm 365.513$   $\chi^2/\text{NDF}$ : 58.8/40

All:  $-226.876 \pm 260.570$   $\chi^2/\text{NDF}$ : 76.2/77

# reg\_asym\_atl\_dd\_rms vs Slug, Sign Corrected



Right In: 1683.259+/-0.467  $\chi^2/\text{NDF}$ : 195893.7/16

Left Out: 1769.581+/-0.310  $\chi^2/\text{NDF}$ : 577737.1/21

Right Out: 1720.379+/-0.465  $\chi^2/\text{NDF}$ : 396099.9/18

Left In: 1762.291+/-0.318  $\chi^2/\text{NDF}$ : 153979.5/19

Left: 1766.023+/-0.222  $\chi^2/\text{NDF}$ : 731986.3/41

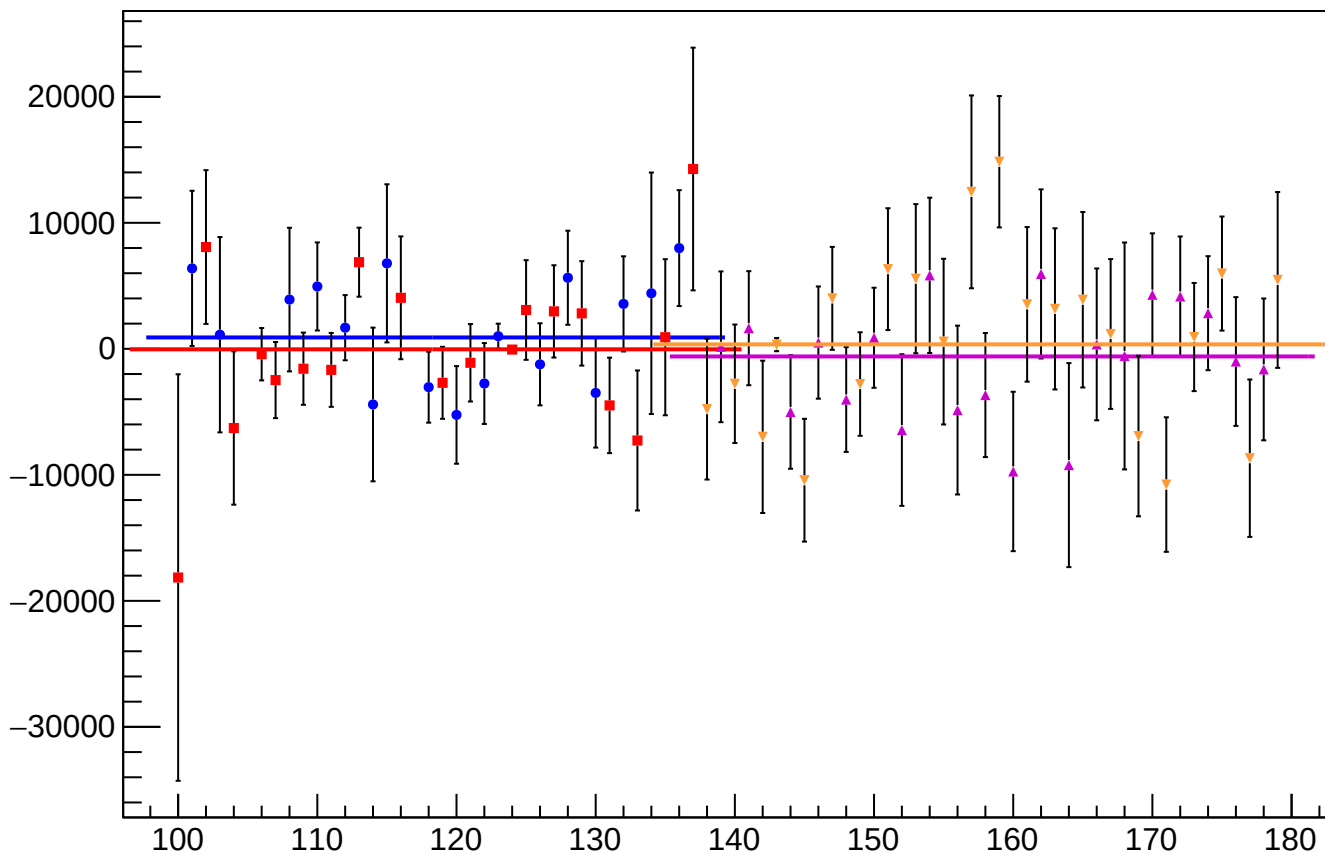
Right: 1701.898+/-0.330  $\chi^2/\text{NDF}$ : 595159.7/35

In: 1737.326+/-0.263  $\chi^2/\text{NDF}$ : 369426.9/36

Out: 1754.452+/-0.258  $\chi^2/\text{NDF}$ : 981574.4/40

All: 1746.041+/-0.184  $\chi^2/\text{NDF}$ : 1353163.6/77

asym\_atl\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 903.344+/-705.564  $\chi^2/\text{NDF}$ : 16.0/16

Left Out: 354.383+/-477.465  $\chi^2/\text{NDF}$ : 32.2/21

Right Out: -38.143+/-357.176  $\chi^2/\text{NDF}$ : 20.5/18

Left In: -604.468+/-1176.466  $\chi^2/\text{NDF}$ : 11.7/19

Left: 218.784+/-442.417  $\chi^2/\text{NDF}$ : 44.5/41

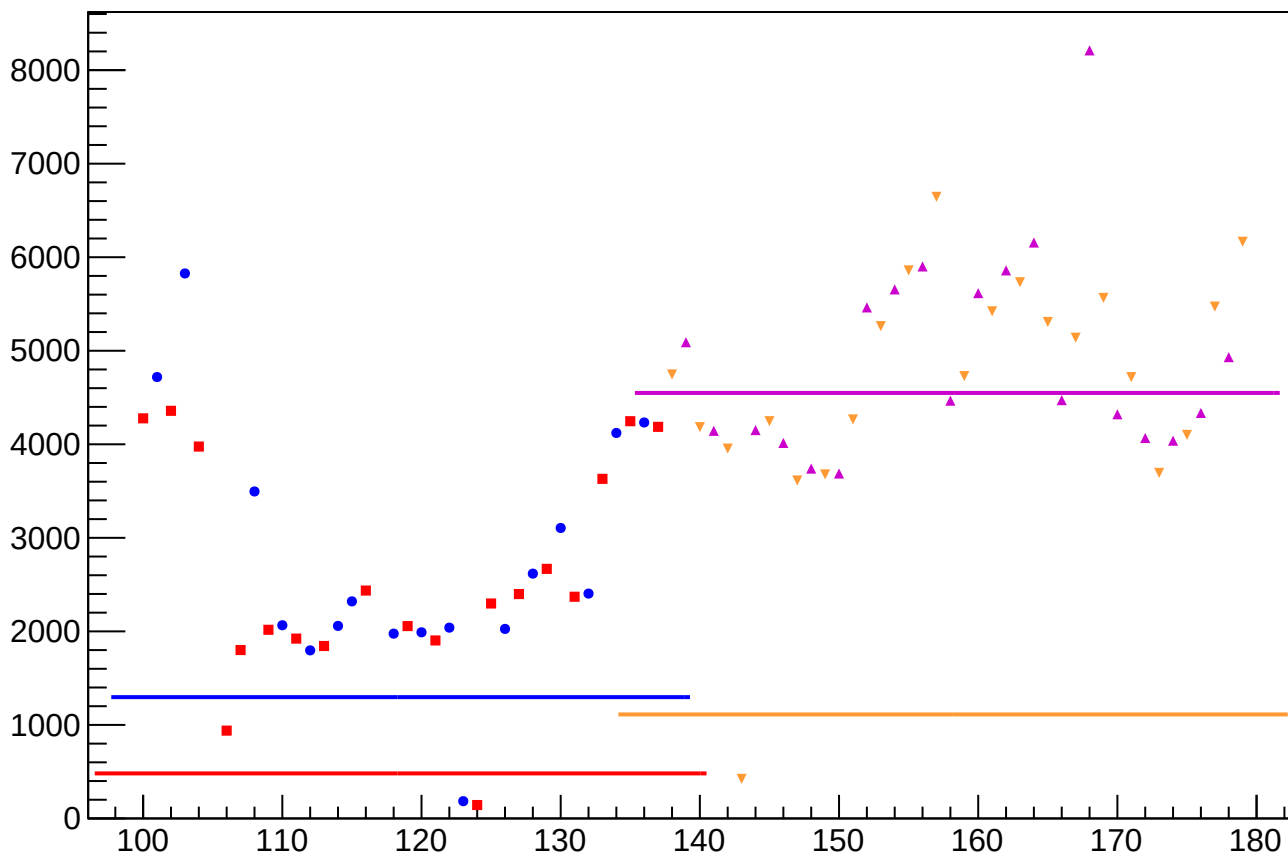
Right: 153.912+/-318.670  $\chi^2/\text{NDF}$ : 37.9/35

In: 504.479+/-605.088  $\chi^2/\text{NDF}$ : 28.9/36

Out: 102.700+/-286.006  $\chi^2/\text{NDF}$ : 53.1/40

All: 176.072+/-258.576  $\chi^2/\text{NDF}$ : 82.4/77

asym\_atl\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 1297.005 $\pm$ 0.499  $\chi^2$ /NDF: 6509608.5/16

Left Out: 1112.027 $\pm$ 0.338  $\chi^2$ /NDF: 22048242.0/21

Right Out: 481.577 $\pm$ 0.253  $\chi^2$ /NDF: 10144170.1/18

Left In: 4549.103 $\pm$ 0.832  $\chi^2$ /NDF: 1045713.1/19

Left: 1598.092 $\pm$ 0.313  $\chi^2$ /NDF: 37750483.7/41

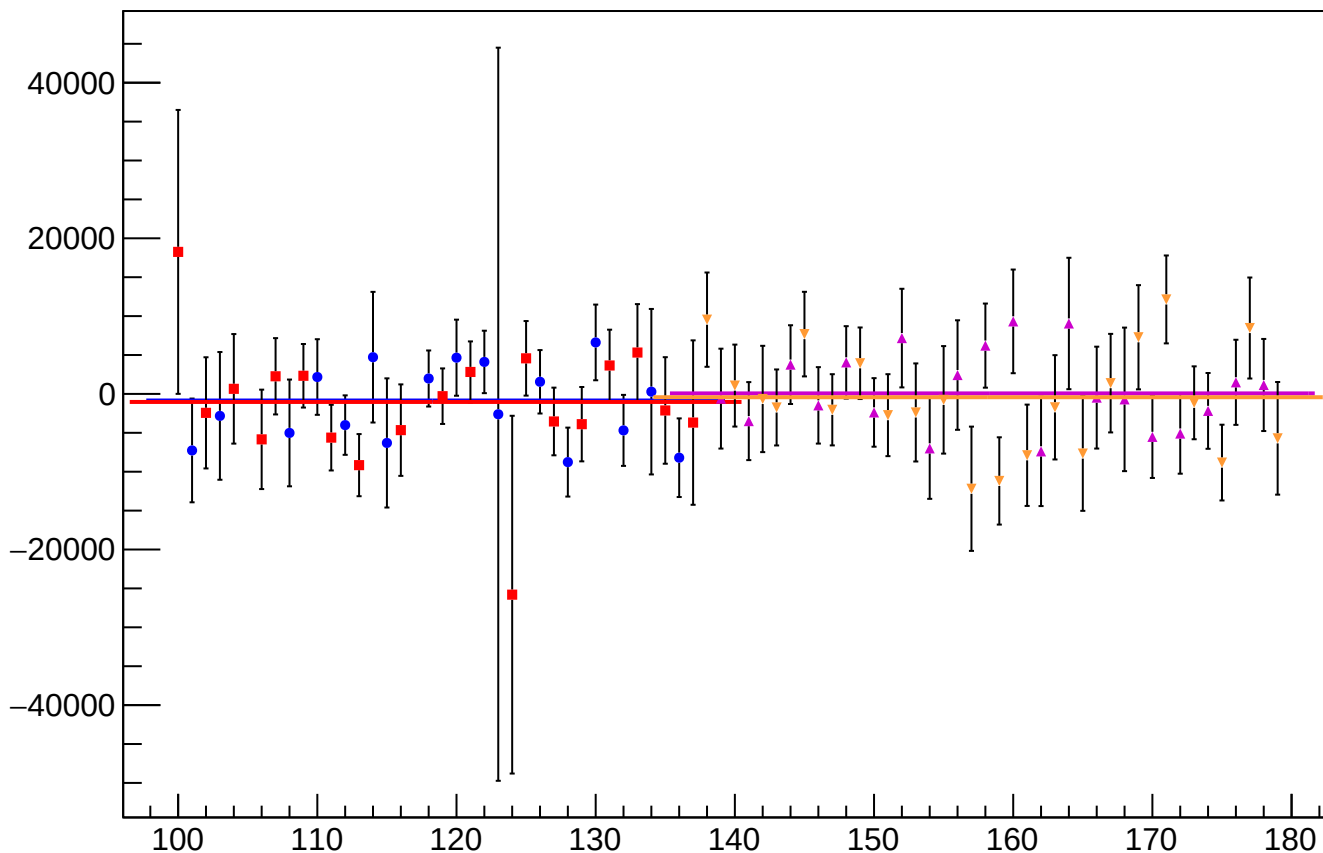
Right: 647.917 $\pm$ 0.225  $\chi^2$ /NDF: 18780181.6/35

In: 2157.288 $\pm$ 0.428  $\chi^2$ /NDF: 18795219.5/36

Out: 707.791 $\pm$ 0.202  $\chi^2$ /NDF: 34428215.1/40

All: 972.493 $\pm$ 0.183  $\chi^2$ /NDF: 62604543.3/77

# asym\_atl\_dd\_mean vs Slug, Sign Corrected



Right In: -849.372 $\pm$ 1261.026  $\chi^2$ /NDF: 15.4/16

Left Out: -427.249 $\pm$ 1232.325  $\chi^2$ /NDF:26.3/21

Right Out: -1033.205 $\pm$ 1190.714  $\chi^2$ /NDF: 15.0/18

Left In: 64.321 $\pm$ 1275.469  $\chi^2$ /NDF:12.7/19

Left: -189.918 $\pm$ 886.245  $\chi^2$ /NDF: 39.1/41

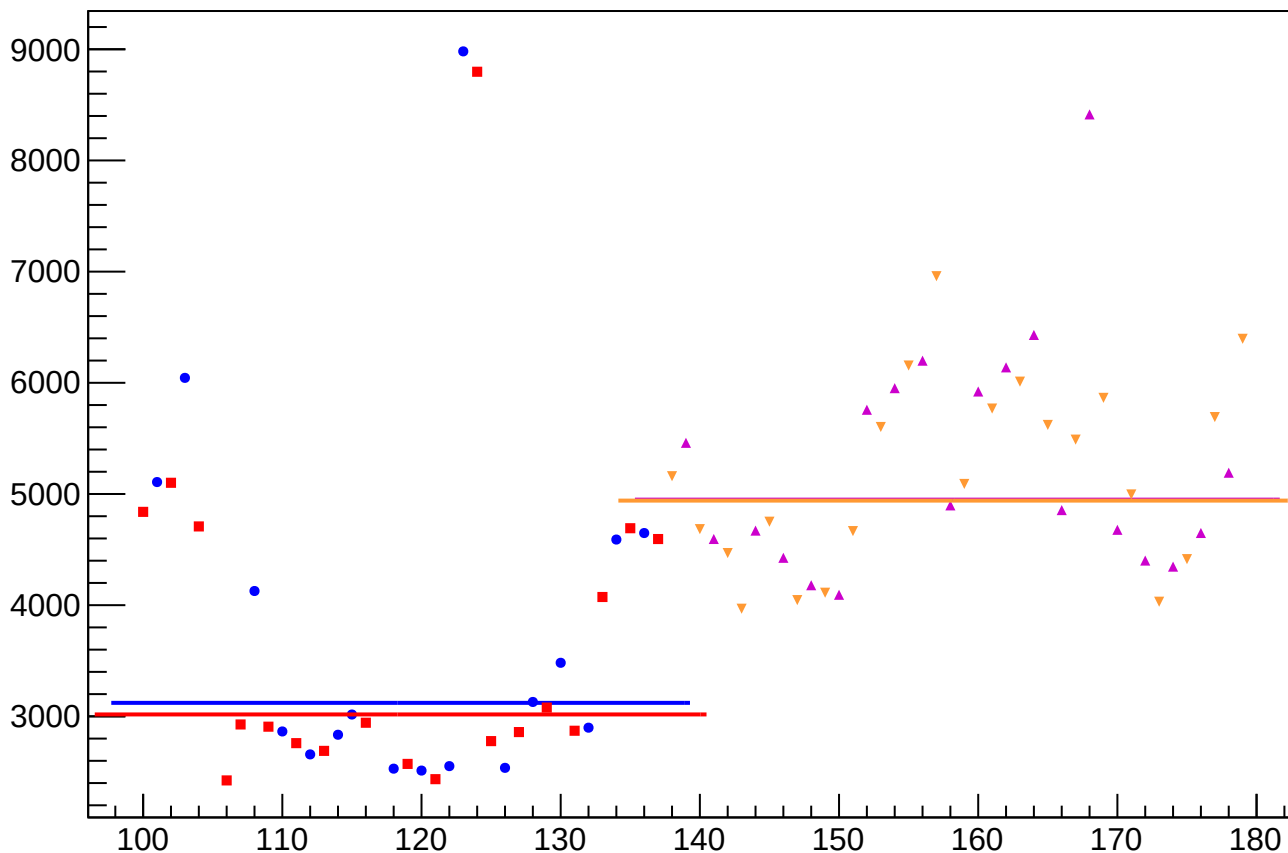
Right: -946.556 $\pm$ 865.752  $\chi^2$ /NDF: 30.4/35

In: -397.728 $\pm$ 896.743  $\chi^2$ /NDF:28.4/36

Out: -740.630 $\pm$ 856.295  $\chi^2$ /NDF:41.5/40

All: -577.086 $\pm$ 619.297  $\chi^2$ /NDF: 69.9/77

# asym\_atl\_dd\_rms vs Slug, Sign Corrected



Right In: 3121.417 $\pm$ 0.892  $\chi^2$ /NDF: 945708.1/16

Left Out: 4940.532 $\pm$ 0.871  $\chi^2$ /NDF:818542.9/21

Right Out: 3017.215 $\pm$ 0.831  $\chi^2$ /NDF: 791997.9/18

Left In: 4949.262 $\pm$ 0.902  $\chi^2$ /NDF:836940.2/19

Left: 4944.747 $\pm$ 0.627  $\chi^2$ /NDF: 1655531.5/41

Right: 3065.680 $\pm$ 0.608  $\chi^2$ /NDF: 1745010.6/35

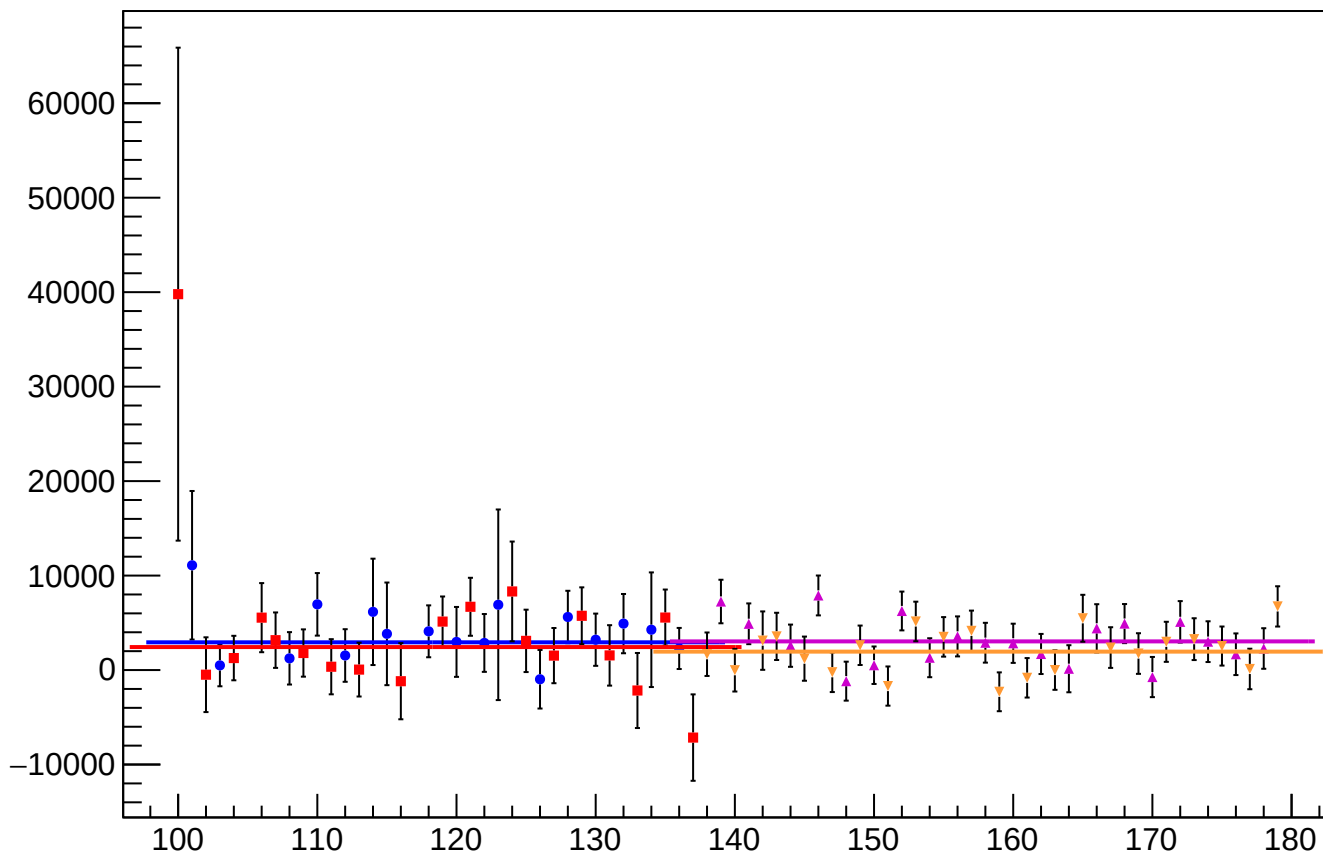
In: 4024.927 $\pm$ 0.634  $\chi^2$ /NDF:3859755.6/36

Out: 3933.831 $\pm$ 0.602  $\chi^2$ /NDF:4160489.3/40

All: 3976.982 $\pm$ 0.436  $\chi^2$ /NDF: 8031107.7/77



# reg\_asym\_atr\_avg\_mean vs Slug, Sign Corrected



Right In: 2935.827+/-775.365  $\chi^2/\text{NDF}$ : 8.2/16

Left Out: 1951.378+/-467.117  $\chi^2/\text{NDF}$ : 25.1/21

Right Out: 2432.756+/-740.416  $\chi^2/\text{NDF}$ : 18.2/18

Left In: 3033.681+/-481.830  $\chi^2/\text{NDF}$ : 25.9/19

Left: 2475.753+/-335.383  $\chi^2/\text{NDF}$ : 53.5/41

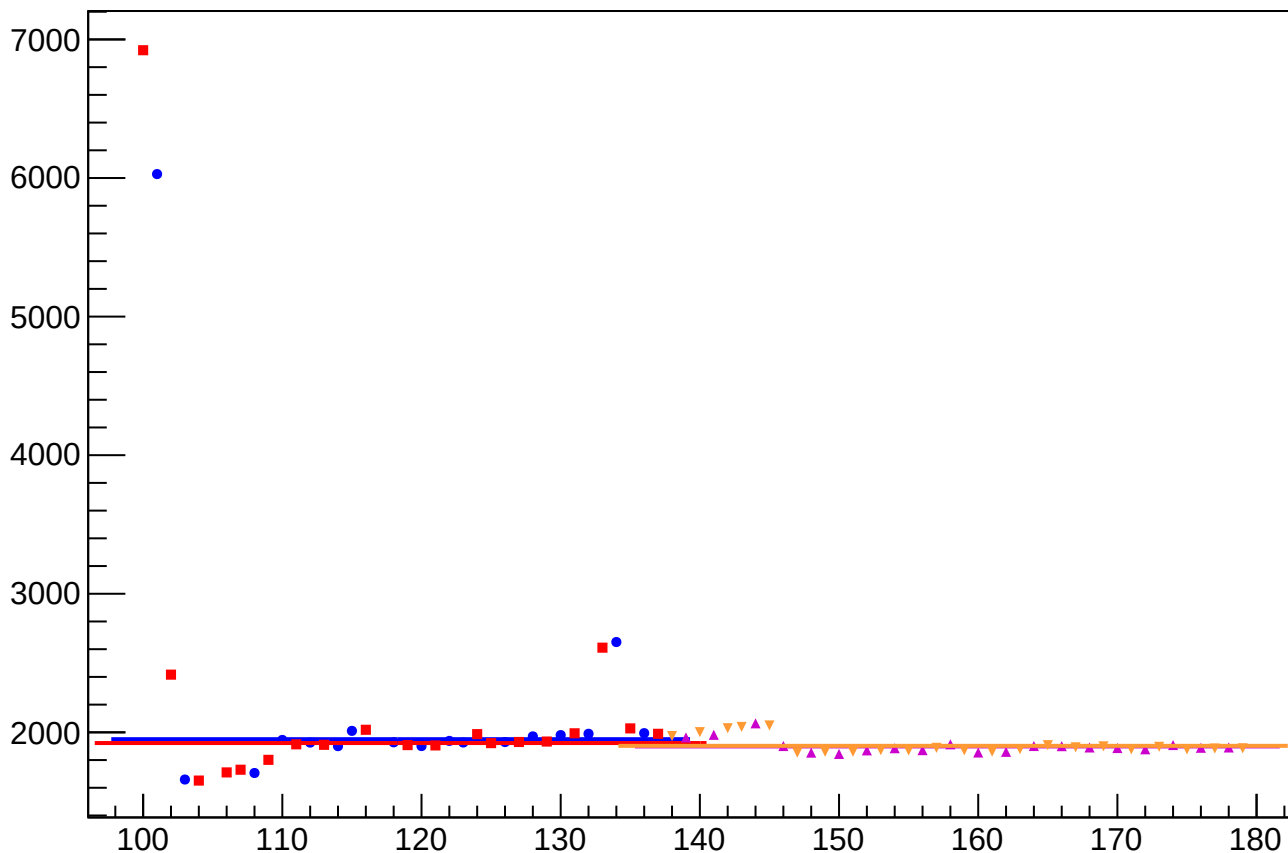
Right: 2672.699+/-535.482  $\chi^2/\text{NDF}$ : 26.5/35

In: 3006.420+/-409.248  $\chi^2/\text{NDF}$ : 34.0/36

Out: 2088.427+/-395.066  $\chi^2/\text{NDF}$ : 43.5/40

All: 2531.243+/-284.235  $\chi^2/\text{NDF}$ : 80.2/77

# reg\_asym\_atr\_avg\_rms vs Slug, Sign Corrected



Right In: 1950.615+/-0.548  $\chi^2/\text{NDF}$ : 617332.2/16

Left Out: 1902.569+/-0.330  $\chi^2/\text{NDF}$ : 29312.4/21

Right Out: 1922.752+/-0.522  $\chi^2/\text{NDF}$ : 217400.0/18

Left In: 1898.301+/-0.341  $\chi^2/\text{NDF}$ : 20969.3/19

Left: 1900.501+/-0.237  $\chi^2/\text{NDF}$ : 50362.6/41

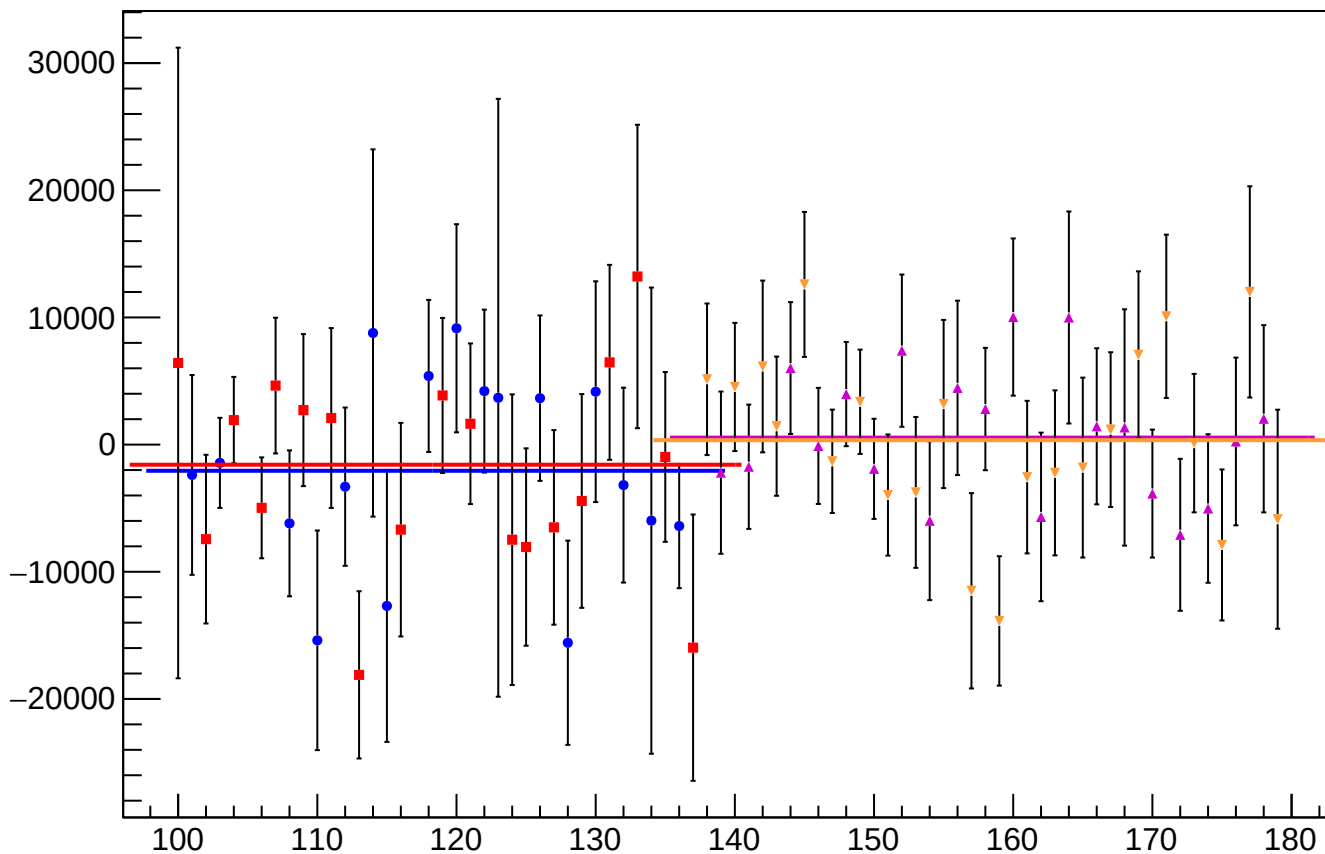
Right: 1936.009+/-0.378  $\chi^2/\text{NDF}$ : 836086.0/35

In: 1912.875+/-0.289  $\chi^2/\text{NDF}$ : 644869.6/36

Out: 1908.335+/-0.279  $\chi^2/\text{NDF}$ : 247778.8/40

All: 1910.523+/-0.201  $\chi^2/\text{NDF}$ : 892775.9/77

asym\_atr\_avg\_correction\_mean vs Slug, Sign Corrected



Right In:  $-2056.876 \pm 1661.079$   $\chi^2/\text{NDF}: 14.0/16$

Left Out:  $349.587 \pm 1230.263$   $\chi^2/\text{NDF}: 27.4/21$

Right Out:  $-1580.717 \pm 1477.405$   $\chi^2/\text{NDF}: 18.6/18$

Left In:  $551.934 \pm 1256.577$   $\chi^2/\text{NDF}: 13.5/19$

Left:  $448.619 \pm 879.083$   $\chi^2/\text{NDF}: 40.9/41$

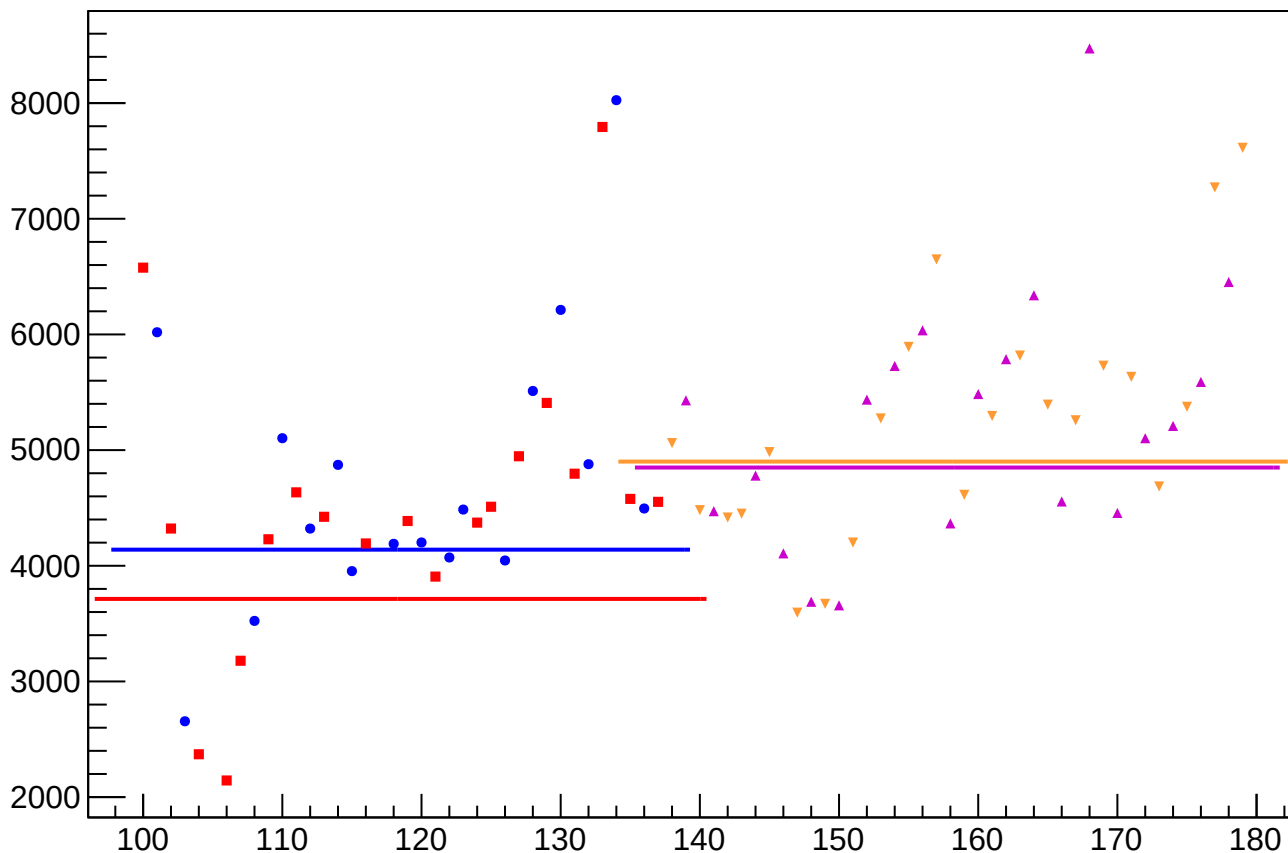
Right:  $-1791.026 \pm 1103.932$   $\chi^2/\text{NDF}: 32.6/35$

In:  $-397.609 \pm 1002.135$   $\chi^2/\text{NDF}: 29.0/36$

Out:  $-440.833 \pm 945.400$   $\chi^2/\text{NDF}: 47.0/40$

All:  $-420.479 \pm 687.681$   $\chi^2/\text{NDF}: 76.0/77$

asym\_atr\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 4139.394+/-1.175  $\chi^2/\text{NDF}$ : 813550.8/16

Left Out: 4900.664+/-0.870  $\chi^2/\text{NDF}$ :1132274.2/21

Right Out: 3713.526+/-1.045  $\chi^2/\text{NDF}$ : 1275828.5/18

Left In: 4849.293+/-0.889  $\chi^2/\text{NDF}$ :1140897.1/19

Left: 4875.522+/-0.622  $\chi^2/\text{NDF}$ : 2274878.0/41

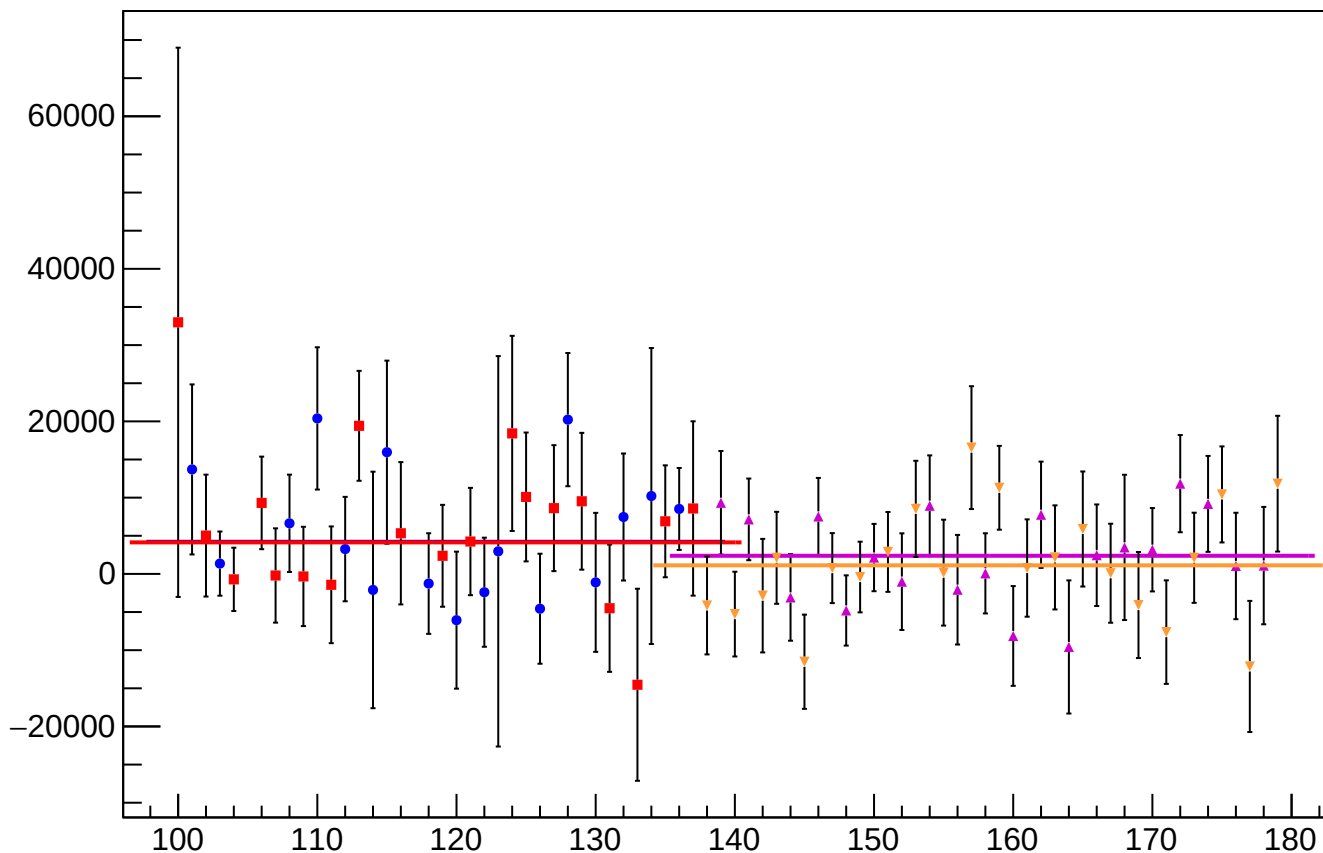
Right: 3901.622+/-0.781  $\chi^2/\text{NDF}$ : 2162777.5/35

In: 4590.907+/-0.709  $\chi^2/\text{NDF}$ :2186783.7/36

Out: 4414.555+/-0.668  $\chi^2/\text{NDF}$ :3170653.3/40

All: 4497.598+/-0.486  $\chi^2/\text{NDF}$ : 5390207.3/77

# asym\_atr\_avg\_mean vs Slug, Sign Corrected



Right In: 4211.844+/-1871.304  $\chi^2/\text{NDF}$ : 14.4/16

Left Out: 1123.991+/-1332.501  $\chi^2/\text{NDF}$ : 23.9/21

Right Out: 4133.660+/-1725.341  $\chi^2/\text{NDF}$ : 14.8/18

Left In: 2378.045+/-1360.469  $\chi^2/\text{NDF}$ : 16.6/19

Left: 1737.995+/-951.955  $\chi^2/\text{NDF}$ : 41.0/41

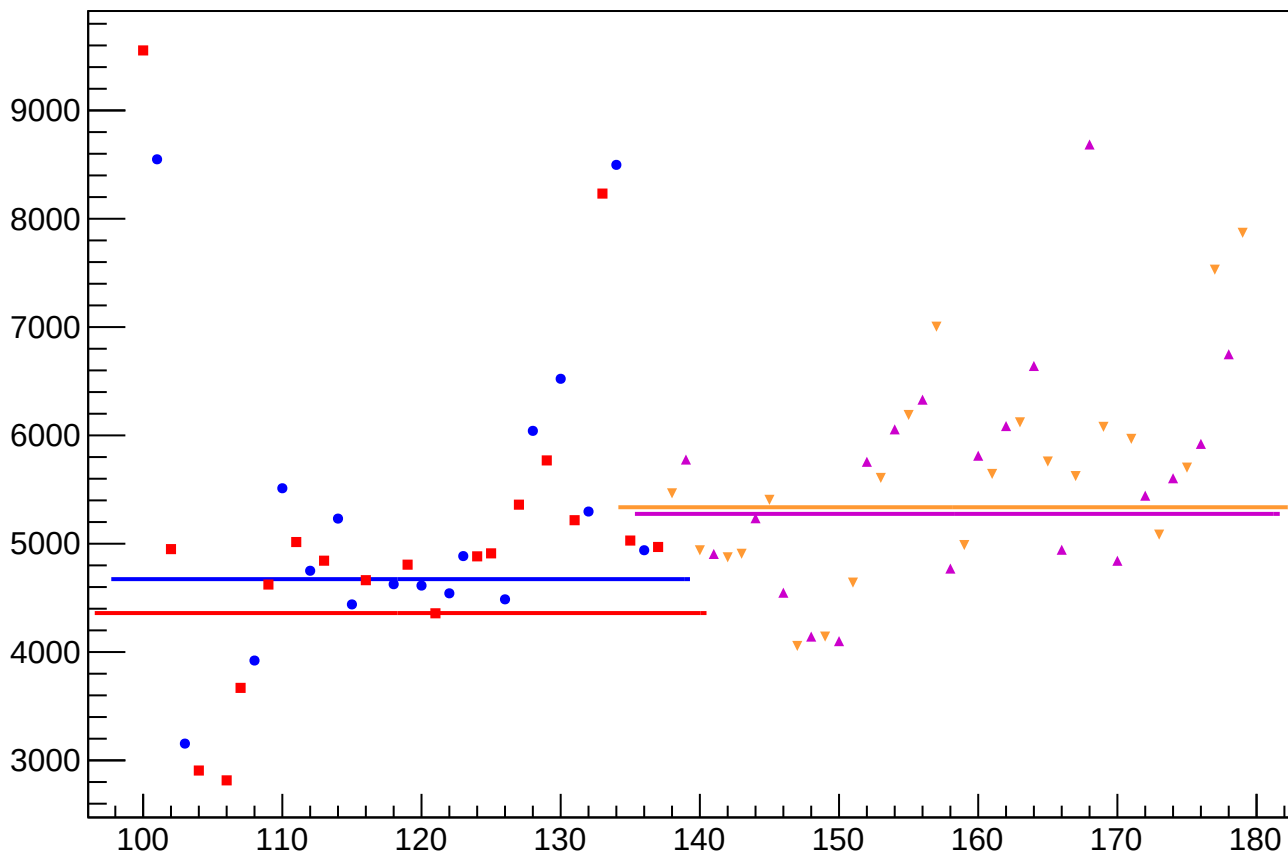
Right: 4169.584+/-1268.468  $\chi^2/\text{NDF}$ : 29.2/35

In: 3012.148+/-1100.394  $\chi^2/\text{NDF}$ : 31.7/36

Out: 2248.452+/-1054.600  $\chi^2/\text{NDF}$ : 40.6/40

All: 2614.079+/-761.390  $\chi^2/\text{NDF}$ : 72.5/77

# asym\_atr\_avg\_rms vs Slug, Sign Corrected



Right In: 4673.046 $\pm$ 1.323  $\chi^2$ /NDF: 777321.1/16

Left Out: 5336.793 $\pm$ 0.942  $\chi^2$ /NDF: 864541.2/21

Right Out: 4359.833 $\pm$ 1.213  $\chi^2$ /NDF: 832191.0/18

Left In: 5275.432 $\pm$ 0.962  $\chi^2$ /NDF: 886629.4/19

Left: 5306.750 $\pm$ 0.673  $\chi^2$ /NDF: 1753247.1/41

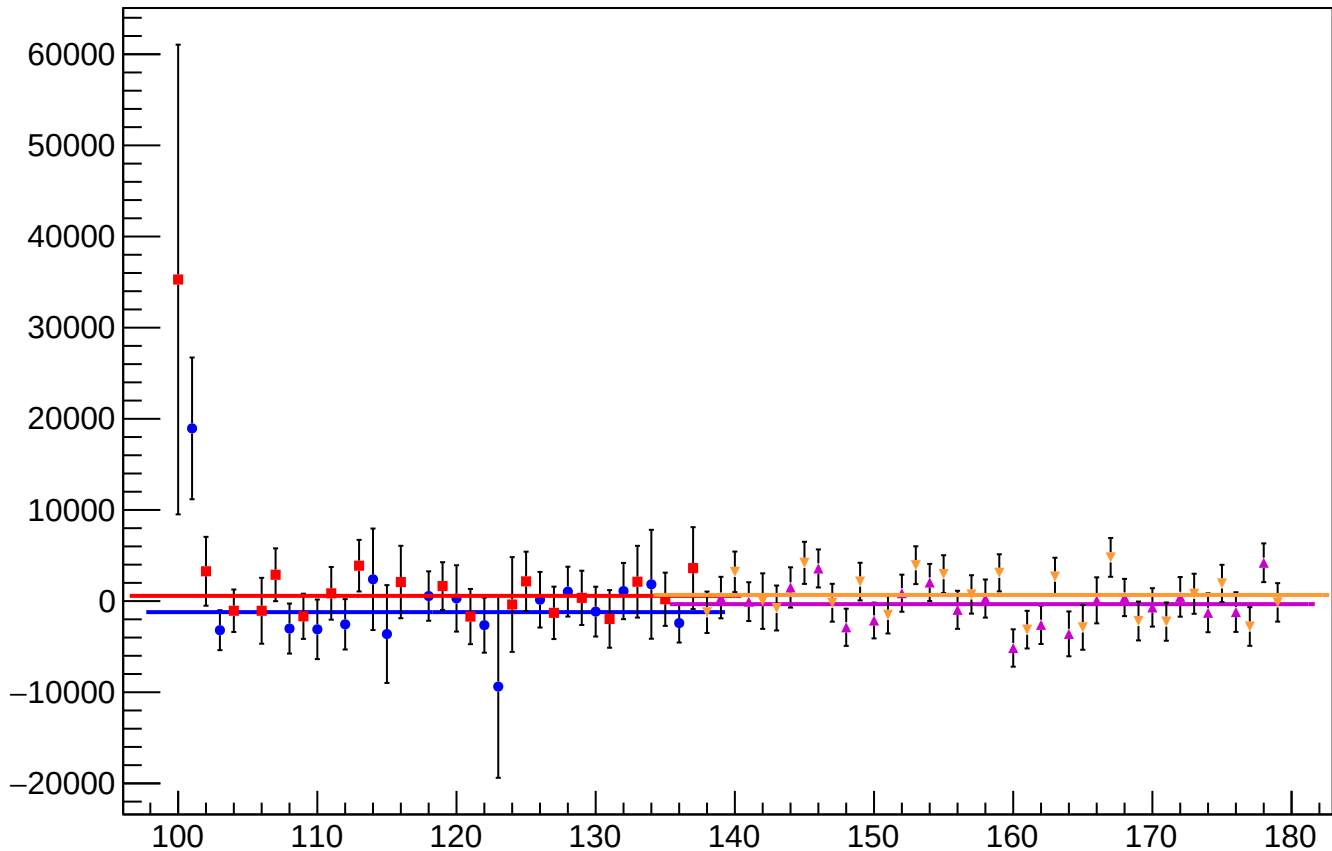
Right: 4502.849 $\pm$ 0.894  $\chi^2$ /NDF: 1639958.3/35

In: 5067.135 $\pm$ 0.778  $\chi^2$ /NDF: 1799535.5/36

Out: 4969.133 $\pm$ 0.744  $\chi^2$ /NDF: 2101325.1/40

All: 5015.946 $\pm$ 0.538  $\chi^2$ /NDF: 3909146.7/77

# reg\_asym\_atr\_dd\_mean vs Slug, Sign Corrected



Right In: -1211.176+/-765.294  $\chi^2/\text{NDF}$ : 12.7/16

Left Out: 673.773+/-461.941  $\chi^2/\text{NDF}$ : 28.8/21

Right Out: 573.457+/-730.668  $\chi^2/\text{NDF}$ : 8.7/18

Left In: -333.031+/-476.553  $\chi^2/\text{NDF}$ : 22.3/19

Left: 186.042+/-331.687  $\chi^2/\text{NDF}$ : 53.3/41

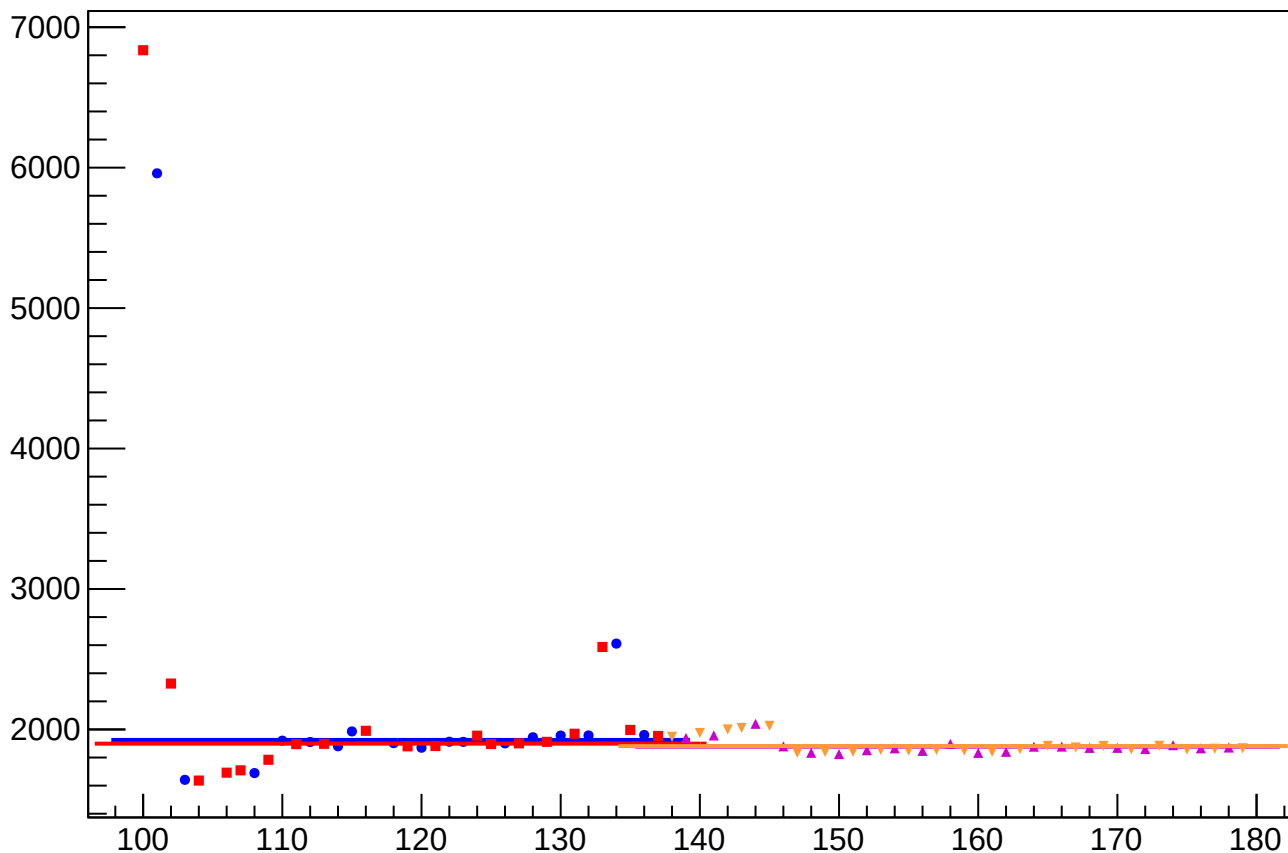
Right: -277.573+/-528.478  $\chi^2/\text{NDF}$ : 24.2/35

In: -578.398+/-404.532  $\chi^2/\text{NDF}$ : 35.9/36

Out: 645.127+/-390.453  $\chi^2/\text{NDF}$ : 37.5/40

All: 55.026+/-280.938  $\chi^2/\text{NDF}$ : 78.1/77

# reg\_asym\_atr\_dd\_rms vs Slug, Sign Corrected



Right In: 1925.320+/-0.541  $\chi^2/\text{NDF}$ : 615863.6/16

Left Out: 1881.553+/-0.327  $\chi^2/\text{NDF}$ : 27563.0/21

Right Out: 1898.854+/-0.515  $\chi^2/\text{NDF}$ : 210875.1/18

Left In: 1877.516+/-0.337  $\chi^2/\text{NDF}$ : 20348.2/19

Left: 1879.597+/-0.235  $\chi^2/\text{NDF}$ : 47985.2/41

Right: 1911.445+/-0.373  $\chi^2/\text{NDF}$ : 827992.7/35

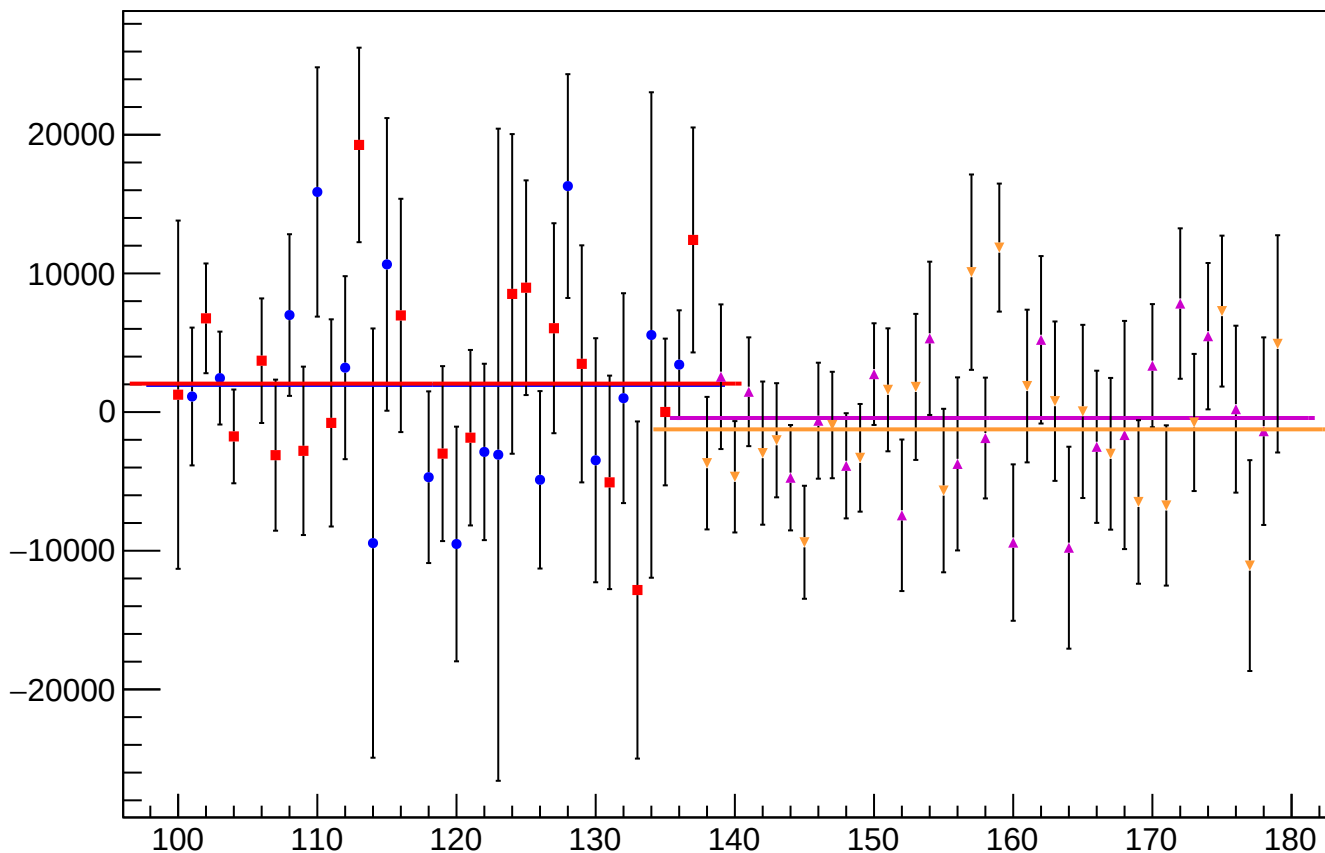
In: 1890.873+/-0.286  $\chi^2/\text{NDF}$ : 641835.2/36

Out: 1886.509+/-0.276  $\chi^2/\text{NDF}$ : 239241.8/40

All: 1888.613+/-0.199  $\chi^2/\text{NDF}$ : 881197.6/77



asym\_atr\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 1959.060+/-1556.840  $\chi^2/\text{NDF}$ : 12.9/16

Left Out: -1246.054+/-1072.917  $\chi^2/\text{NDF}$ : 24.4/21

Right Out: 2052.842+/-1413.641  $\chi^2/\text{NDF}$ : 17.4/18

Left In: -426.647+/-1109.496  $\chi^2/\text{NDF}$ : 16.1/19

Left: -850.080+/-771.274  $\chi^2/\text{NDF}$ : 40.8/41

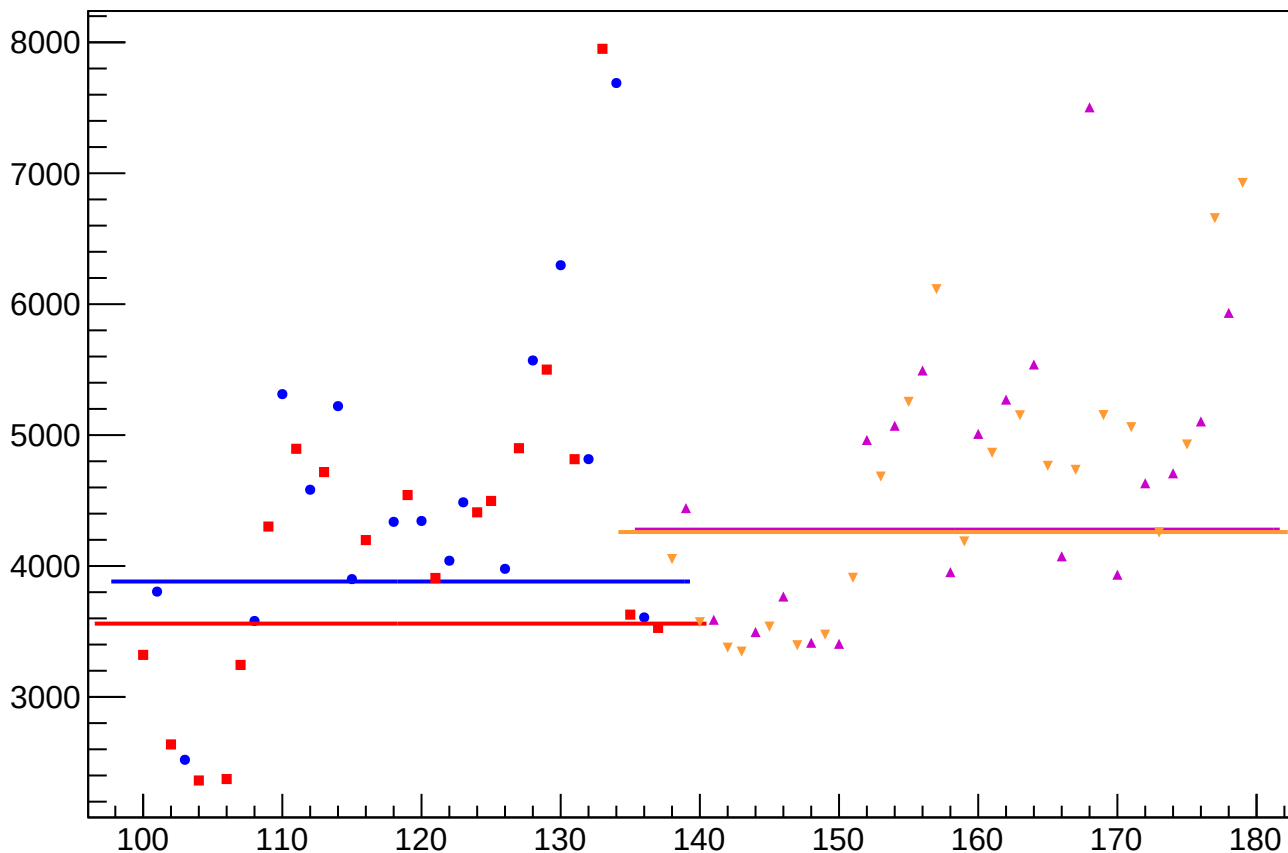
Right: 2010.461+/-1046.568  $\chi^2/\text{NDF}$ : 30.4/35

In: 376.903+/-903.529  $\chi^2/\text{NDF}$ : 30.6/36

Out: -40.311+/-854.638  $\chi^2/\text{NDF}$ : 45.3/40

All: 156.703+/-620.885  $\chi^2/\text{NDF}$ : 76.0/77

# asym\_atr\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 3881.577+/-1.101  $\chi^2/\text{NDF}$ : 817466.6/16

Left Out: 4259.423+/-0.759  $\chi^2/\text{NDF}$ :1332266.9/21

Right Out: 3560.054+/-1.000  $\chi^2/\text{NDF}$ : 1241523.0/18

Left In: 4277.839+/-0.785  $\chi^2/\text{NDF}$ :1203907.6/19

Left: 4268.322+/-0.545  $\chi^2/\text{NDF}$ : 2536459.3/41

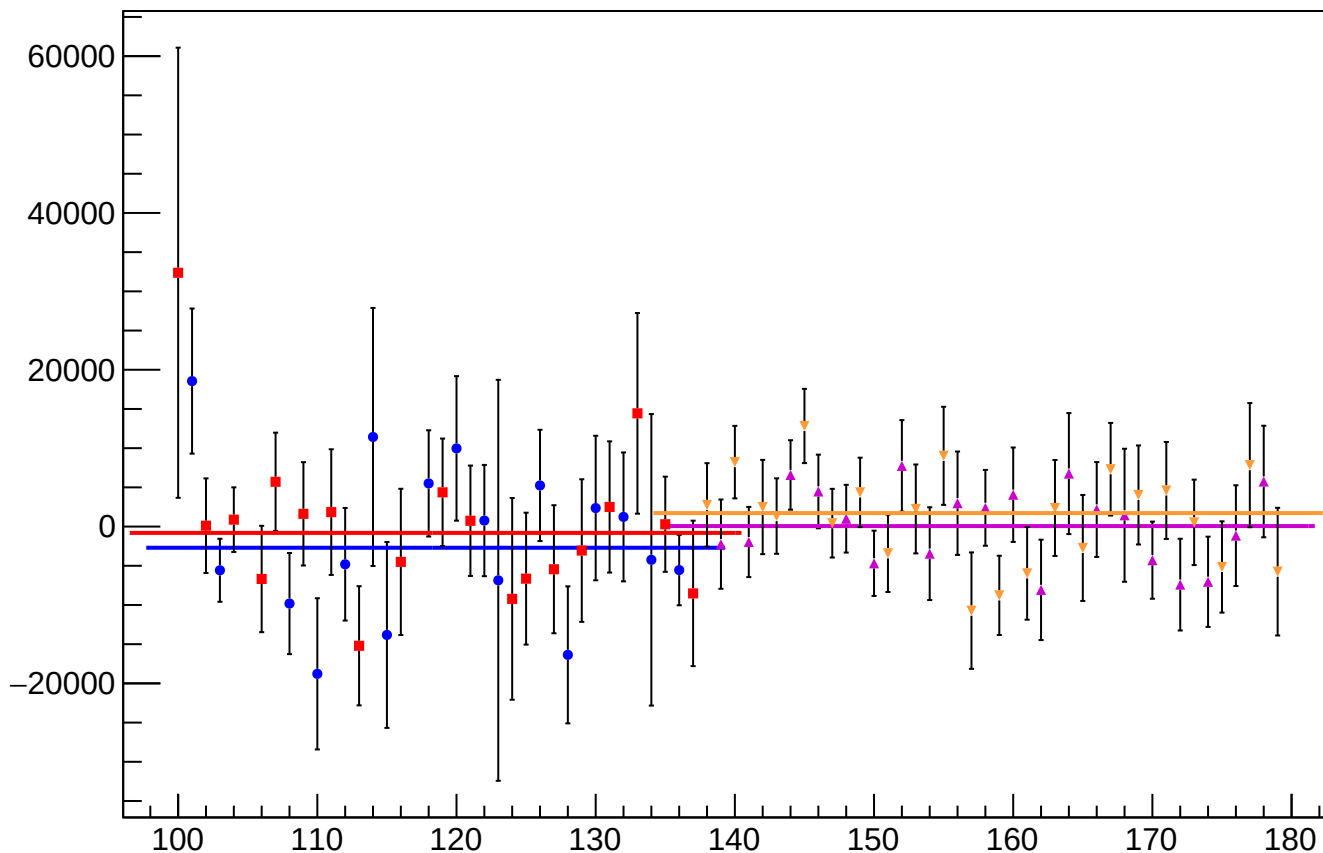
Right: 3705.352+/-0.740  $\chi^2/\text{NDF}$ : 2105744.2/35

In: 4144.371+/-0.639  $\chi^2/\text{NDF}$ :2107302.8/36

Out: 4003.804+/-0.604  $\chi^2/\text{NDF}$ :2884386.3/40

All: 4070.181+/-0.439  $\chi^2/\text{NDF}$ : 5017237.9/77

# asym\_atr\_dd\_mean vs Slug, Sign Corrected



Right In: -2700.702 $\pm$ 1809.055  $\chi^2$ /NDF: 19.8/16

Left Out: 1721.492 $\pm$ 1189.227  $\chi^2$ /NDF: 23.8/21

Right Out: -805.951 $\pm$ 1690.353  $\chi^2$ /NDF: 11.6/18

Left In: 62.157 $\pm$ 1224.647  $\chi^2$ /NDF: 14.8/19

Left: 916.168 $\pm$ 853.158  $\chi^2$ /NDF: 39.6/41

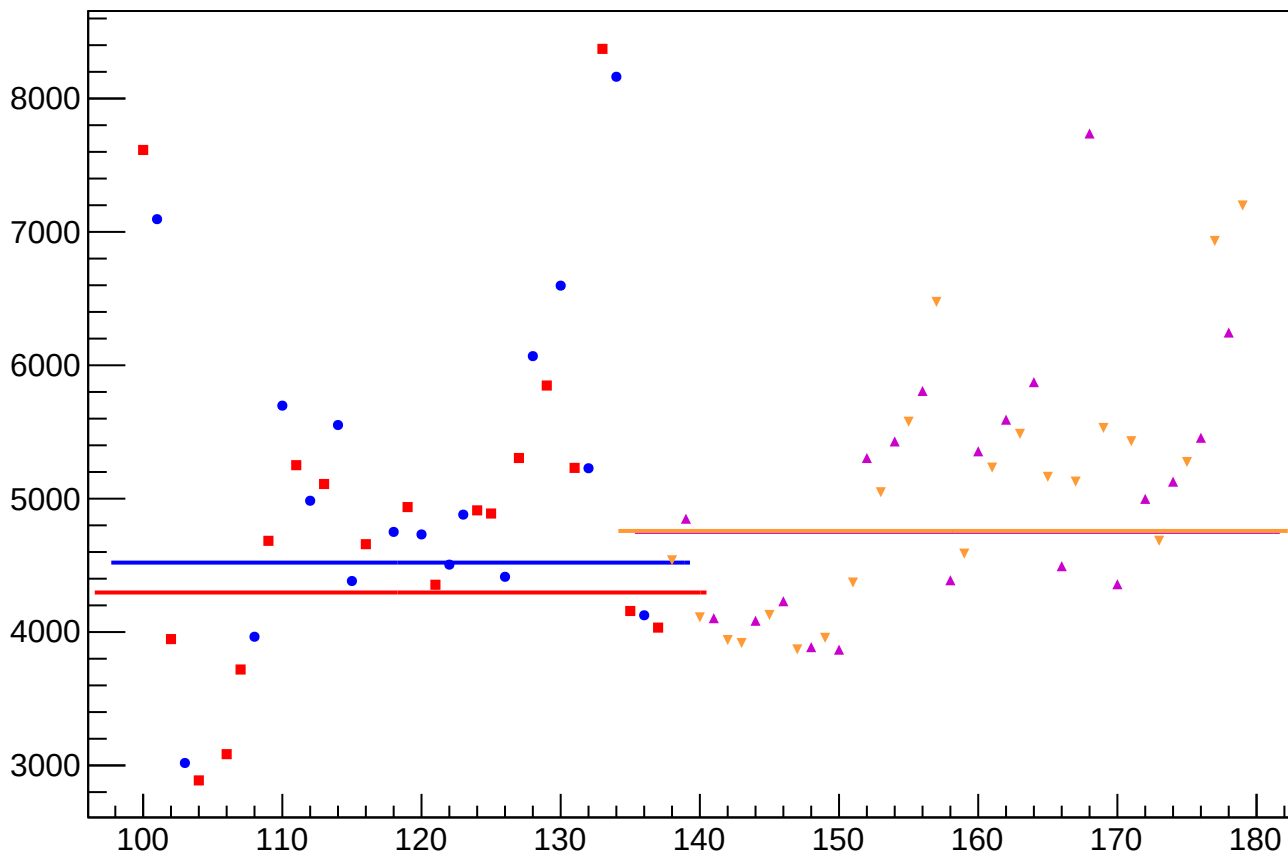
Right: -1689.130 $\pm$ 1235.094  $\chi^2$ /NDF: 31.9/35

In: -806.083 $\pm$ 1014.127  $\chi^2$ /NDF: 36.2/36

Out: 884.686 $\pm$ 972.633  $\chi^2$ /NDF: 36.9/40

All: 74.598 $\pm$ 701.967  $\chi^2$ /NDF: 74.5/77

# asym\_atr\_dd\_rms vs Slug, Sign Corrected



Right In: 4520.685 $\pm$ 1.279  $\chi^2/\text{NDF}$ : 770887.4/16

Left Out: 4757.979 $\pm$ 0.841  $\chi^2/\text{NDF}$ :941556.2/21

Right Out: 4296.527 $\pm$ 1.189  $\chi^2/\text{NDF}$ : 771785.2/18

Left In: 4750.844 $\pm$ 0.866  $\chi^2/\text{NDF}$ :874919.3/19

Left: 4754.516 $\pm$ 0.603  $\chi^2/\text{NDF}$ : 1816510.5/41

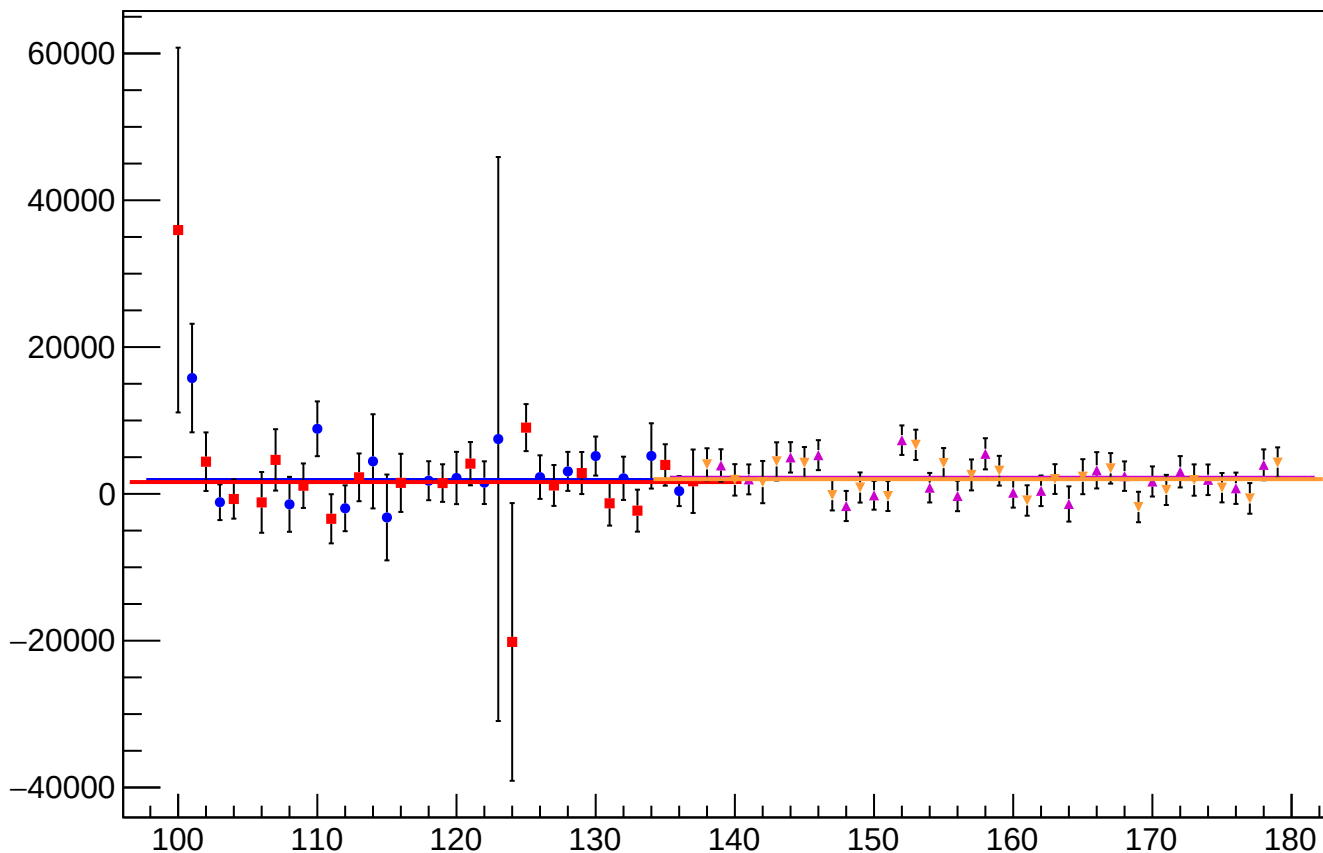
Right: 4400.391 $\pm$ 0.871  $\chi^2/\text{NDF}$ : 1559151.4/35

In: 4678.516 $\pm$ 0.717  $\chi^2/\text{NDF}$ :1668006.5/36

Out: 4604.059 $\pm$ 0.686  $\chi^2/\text{NDF}$ :1813785.3/40

All: 4639.664 $\pm$ 0.496  $\chi^2/\text{NDF}$ : 3487417.2/77

# reg\_asym\_at1\_avg\_mean vs Slug, Sign Corrected



Right In: 1887.915 $\pm$ 783.827  $\chi^2$ /NDF: 14.7/16

Left Out: 2005.922 $\pm$ 454.332  $\chi^2$ /NDF:21.6/21

Right Out: 1610.310 $\pm$ 765.843  $\chi^2$ /NDF: 17.5/18

Left In: 2196.361 $\pm$ 468.497  $\chi^2$ /NDF:25.9/19

Left: 2098.219 $\pm$ 326.154  $\chi^2$ /NDF: 47.6/41

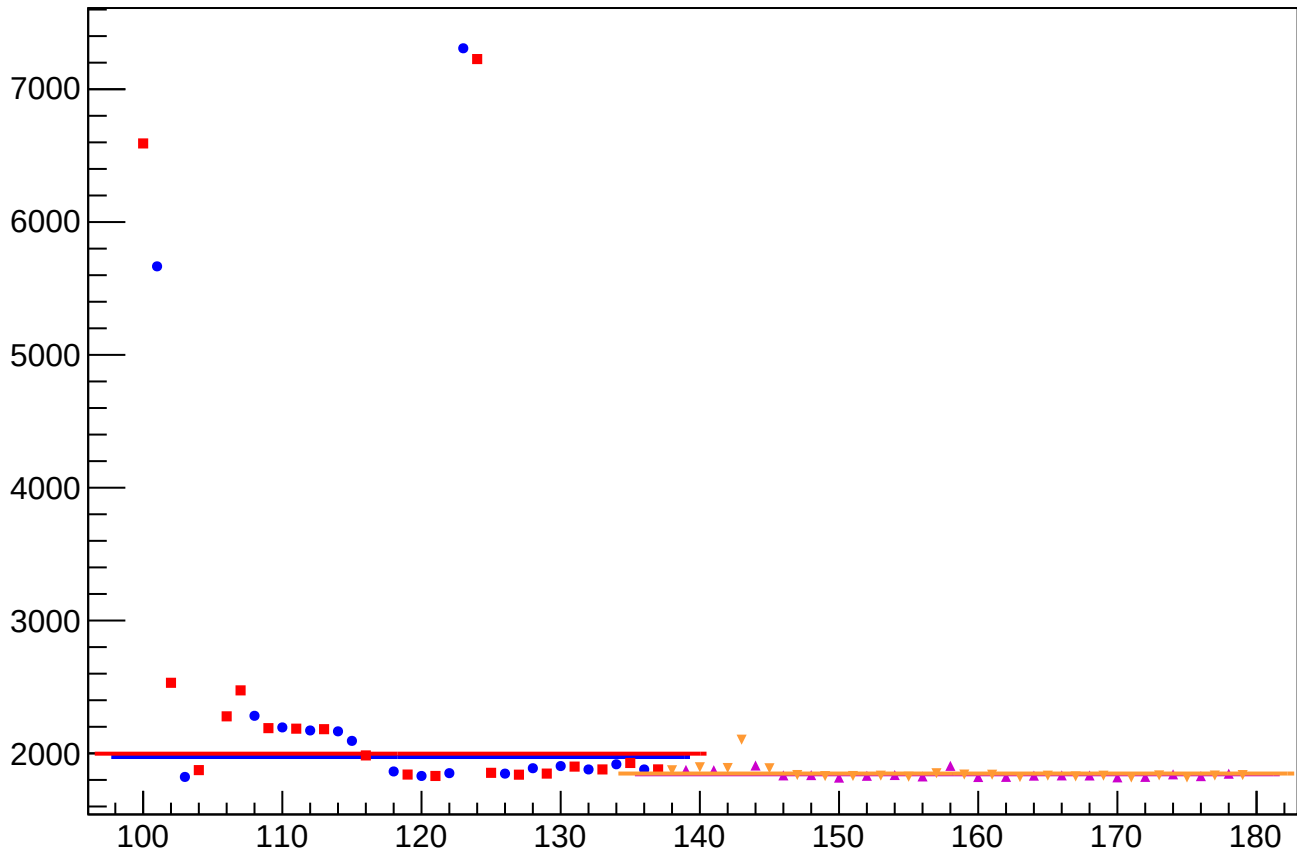
Right: 1745.891 $\pm$ 547.780  $\chi^2$ /NDF: 32.2/35

In: 2115.173 $\pm$ 402.140  $\chi^2$ /NDF:40.7/36

Out: 1902.936 $\pm$ 390.746  $\chi^2$ /NDF:39.3/40

All: 2006.005 $\pm$ 280.241  $\chi^2$ /NDF: 80.1/77

# reg\_asym\_at1\_avg\_rms vs Slug, Sign Corrected



Right In: 1972.484+/-0.554  $\chi^2/\text{NDF}$ : 600869.6/16

Left Out: 1848.040+/-0.321  $\chi^2/\text{NDF}$ :24309.0/21

Right Out: 1997.647+/-0.542  $\chi^2/\text{NDF}$ : 355572.5/18

Left In: 1842.327+/-0.331  $\chi^2/\text{NDF}$ :6293.2/19

Left: 1845.271+/-0.231  $\chi^2/\text{NDF}$ : 30755.5/41

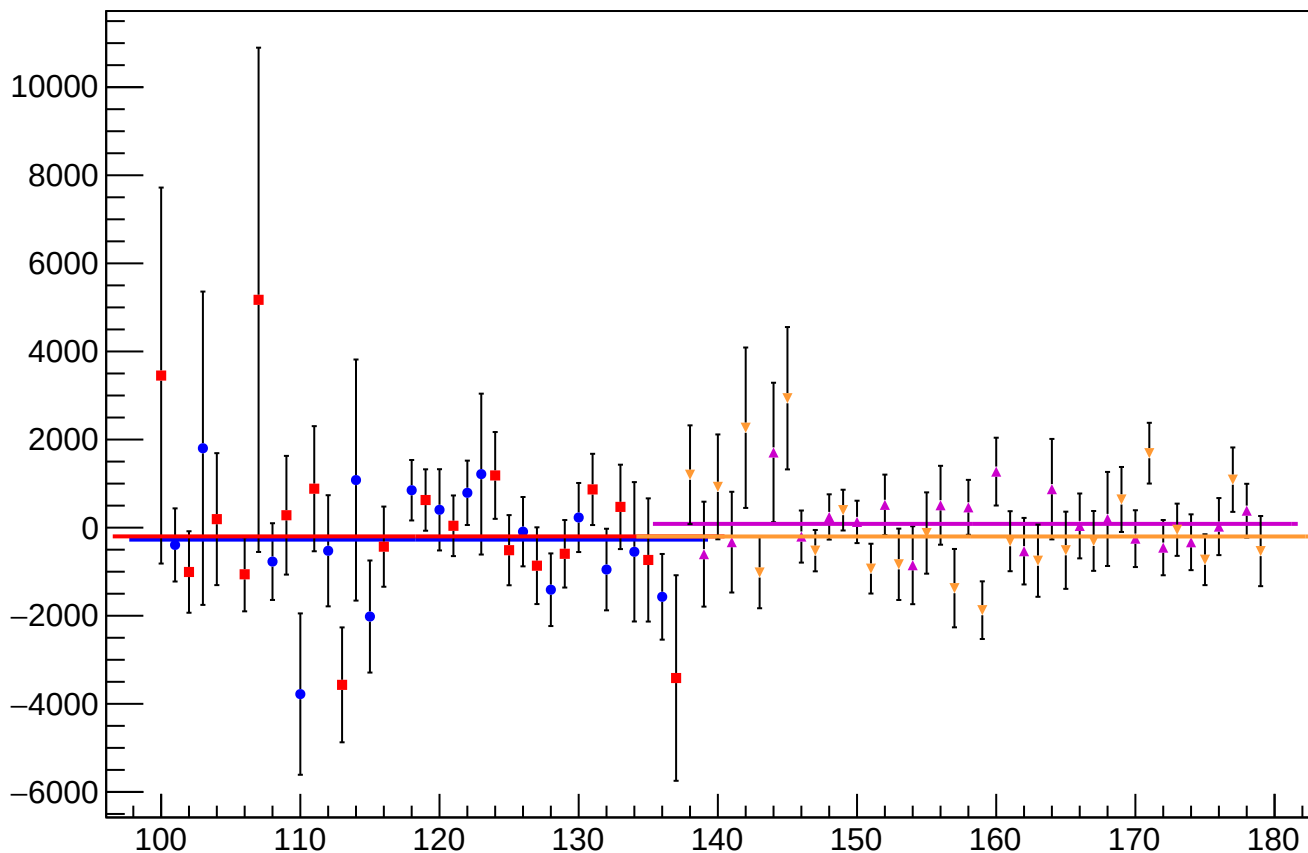
Right: 1985.358+/-0.387  $\chi^2/\text{NDF}$ : 957496.6/35

In: 1876.587+/-0.284  $\chi^2/\text{NDF}$ :647794.5/36

Out: 1886.986+/-0.276  $\chi^2/\text{NDF}$ :436336.0/40

All: 1881.936+/-0.198  $\chi^2/\text{NDF}$ : 1084818.5/77

asym\_at1\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -271.773+/-240.214  $\chi^2/\text{NDF}$ : 17.2/16

Left Out: -200.543+/-153.064  $\chi^2/\text{NDF}$ : 35.4/21

Right Out: -198.424+/-229.035  $\chi^2/\text{NDF}$ : 19.7/18

Left In: 85.566+/-159.133  $\chi^2/\text{NDF}$ : 9.2/19

Left: -63.048+/-110.316  $\chi^2/\text{NDF}$ : 46.3/41

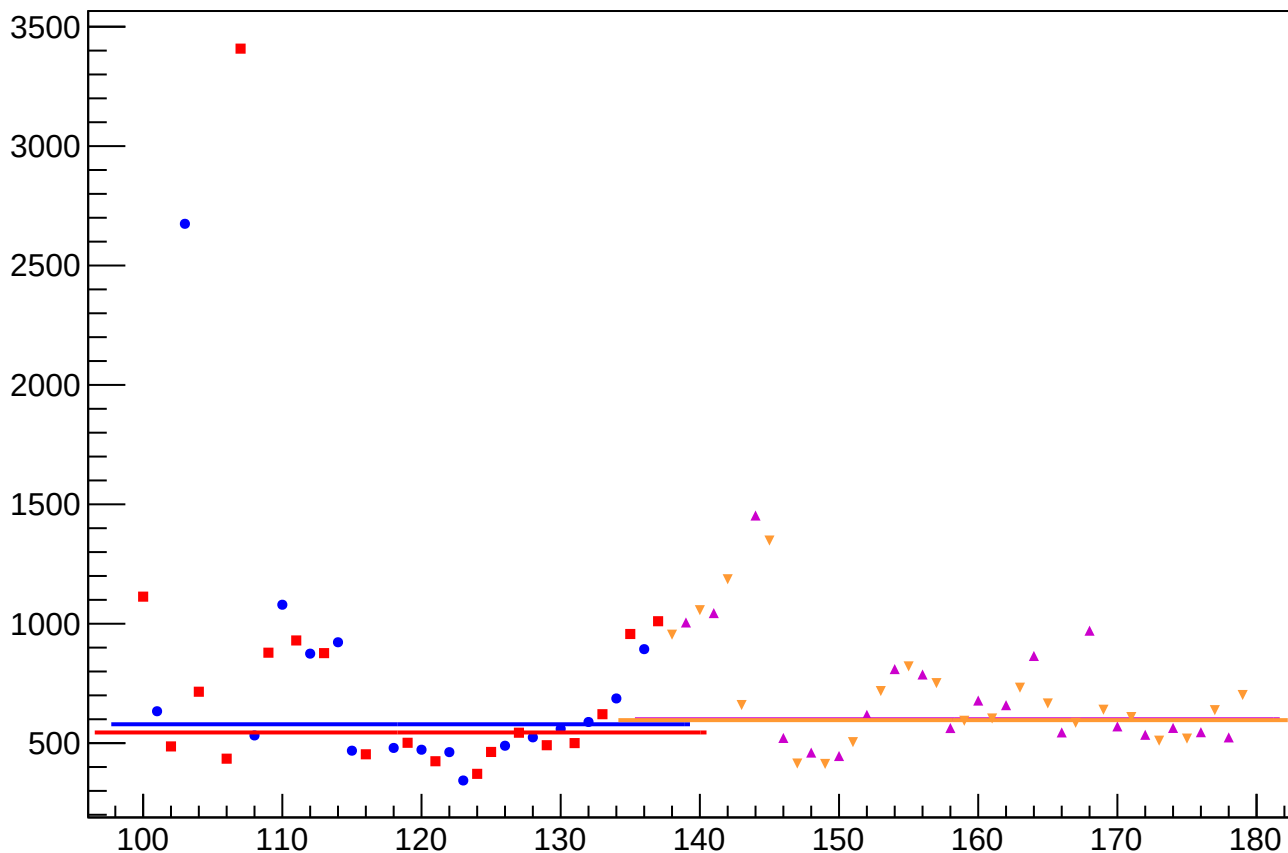
Right: -233.352+/-165.764  $\chi^2/\text{NDF}$ : 37.0/35

In: -23.424+/-132.664  $\chi^2/\text{NDF}$ : 28.0/36

Out: -199.889+/-127.261  $\chi^2/\text{NDF}$ : 55.1/40

All: -115.323+/-91.838  $\chi^2/\text{NDF}$ : 84.0/77

asym\_at1\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 579.010 $\pm$ 0.170  $\chi^2$ /NDF: 1422148.6/16

Left Out: 596.276 $\pm$ 0.108  $\chi^2$ /NDF:2245582.1/21

Right Out: 544.674 $\pm$ 0.162  $\chi^2$ /NDF: 1457799.9/18

Left In: 599.973 $\pm$ 0.113  $\chi^2$ /NDF:2181244.3/19

Left: 598.052 $\pm$ 0.078  $\chi^2$ /NDF: 4427387.2/41

Right: 561.024 $\pm$ 0.117  $\chi^2$ /NDF: 2901353.8/35

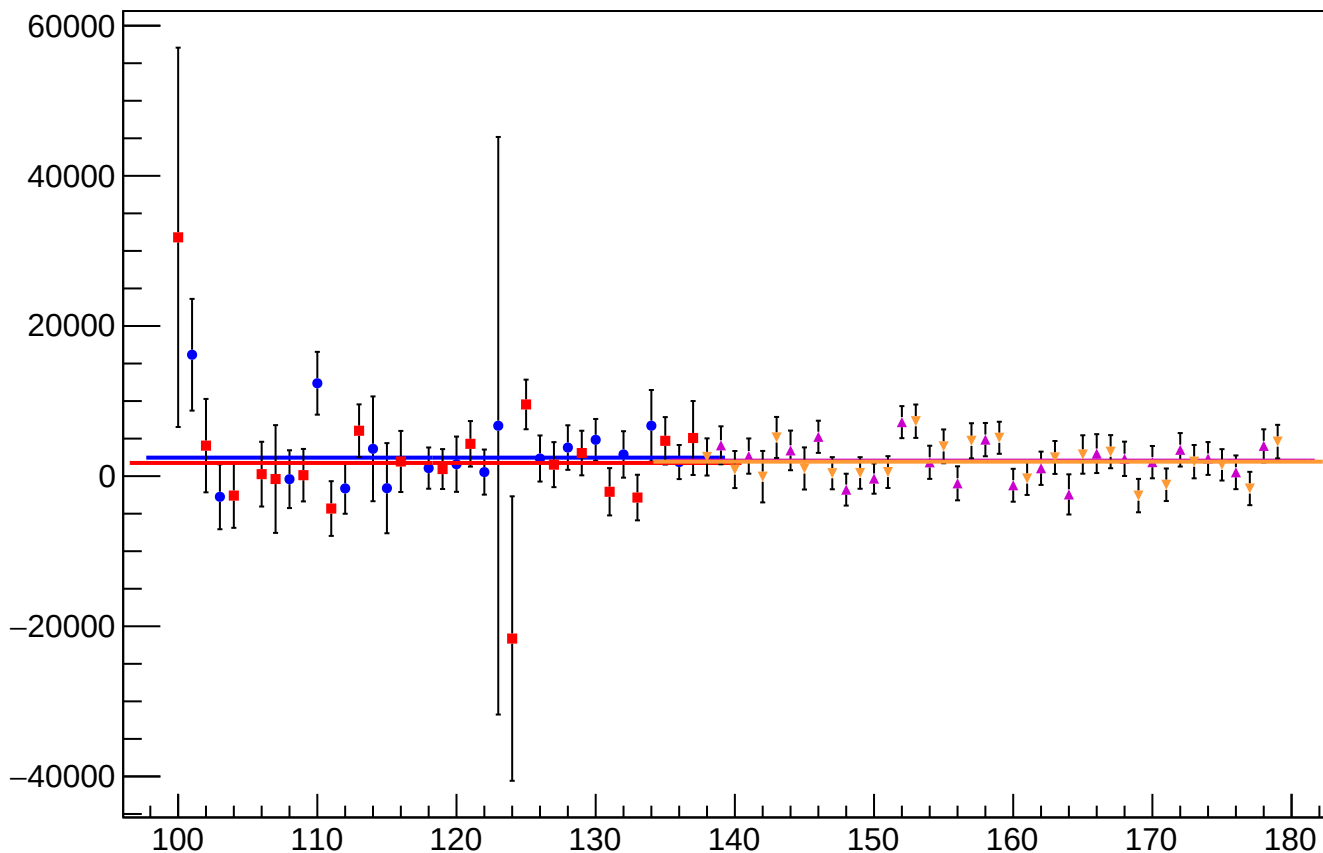
In: 593.579 $\pm$ 0.094  $\chi^2$ /NDF:3613978.2/36

Out: 580.344 $\pm$ 0.090  $\chi^2$ /NDF:3773560.3/40

All: 586.687 $\pm$ 0.065  $\chi^2$ /NDF: 7397904.6/77



# asym\_at1\_avg\_mean vs Slug, Sign Corrected



Right In: 2464.076 $\pm$ 863.197  $\chi^2/\text{NDF}$ : 15.5/16

Left Out: 1929.027 $\pm$ 489.927  $\chi^2/\text{NDF}$ : 25.7/21

Right Out: 1756.788 $\pm$ 853.292  $\chi^2/\text{NDF}$ : 20.5/18

Left In: 2065.366 $\pm$ 505.538  $\chi^2/\text{NDF}$ : 24.2/19

Left: 1995.059 $\pm$ 351.820  $\chi^2/\text{NDF}$ : 49.9/41

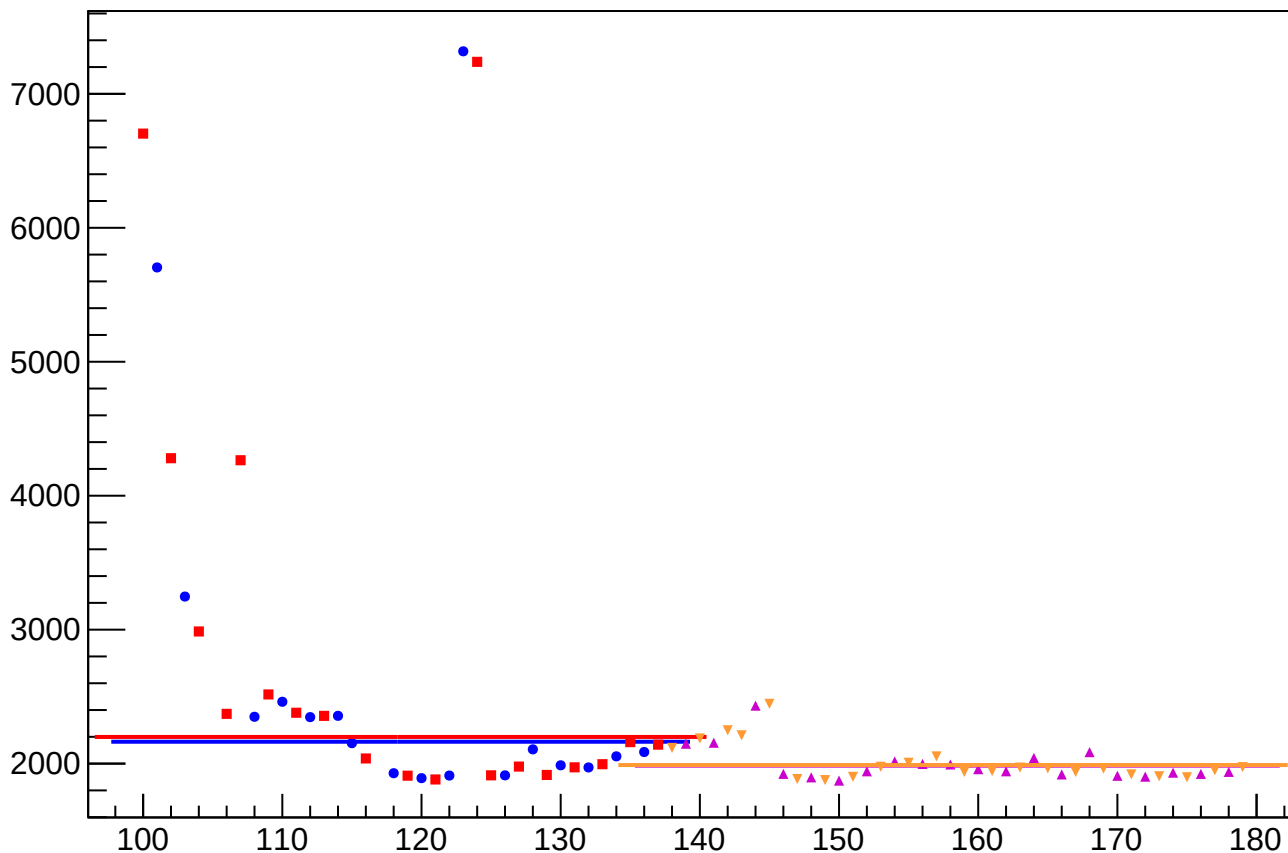
Right: 2106.351 $\pm$ 606.840  $\chi^2/\text{NDF}$ : 36.4/35

In: 2167.195 $\pm$ 436.231  $\chi^2/\text{NDF}$ : 39.9/36

Out: 1886.324 $\pm$ 424.875  $\chi^2/\text{NDF}$ : 46.2/40

All: 2023.056 $\pm$ 304.368  $\chi^2/\text{NDF}$ : 86.3/77

# asym\_at1\_avg\_rms vs Slug, Sign Corrected



Right In: 2163.303+/-0.610  $\chi^2/\text{NDF}$ : 709584.4/16

Left Out: 1989.261+/-0.346  $\chi^2/\text{NDF}$ :124753.9/21

Right Out: 2199.003+/-0.603  $\chi^2/\text{NDF}$ : 803297.2/18

Left In: 1984.811+/-0.357  $\chi^2/\text{NDF}$ :104916.6/19

Left: 1987.106+/-0.249  $\chi^2/\text{NDF}$ : 229750.4/41

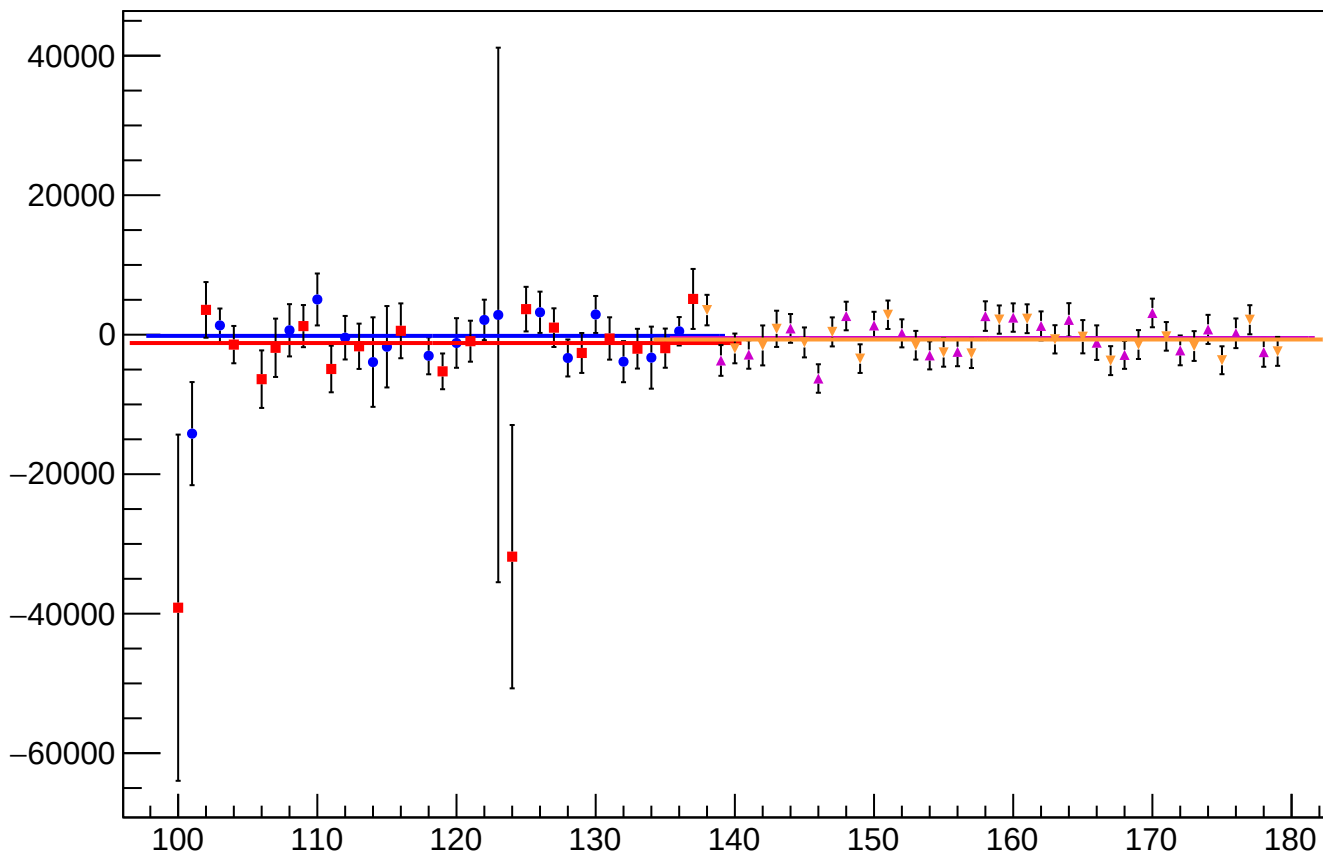
Right: 2181.359+/-0.429  $\chi^2/\text{NDF}$ : 1514611.9/35

In: 2030.397+/-0.308  $\chi^2/\text{NDF}$ :878176.6/36

Out: 2041.262+/-0.300  $\chi^2/\text{NDF}$ :1018930.8/40

All: 2035.973+/-0.215  $\chi^2/\text{NDF}$ : 1897744.1/77

# reg\_asym\_at1\_dd\_mean vs Slug, Sign Corrected



Right In: -170.351+/-782.384  $\chi^2/\text{NDF}$ : 14.5/16

Left Out: -689.663+/-453.591  $\chi^2/\text{NDF}$ : 22.8/21

Right Out: -1197.543+/-764.254  $\chi^2/\text{NDF}$ : 18.2/18

Left In: -476.992+/-467.941  $\chi^2/\text{NDF}$ : 30.6/19

Left: -586.638+/-325.692  $\chi^2/\text{NDF}$ : 53.6/41

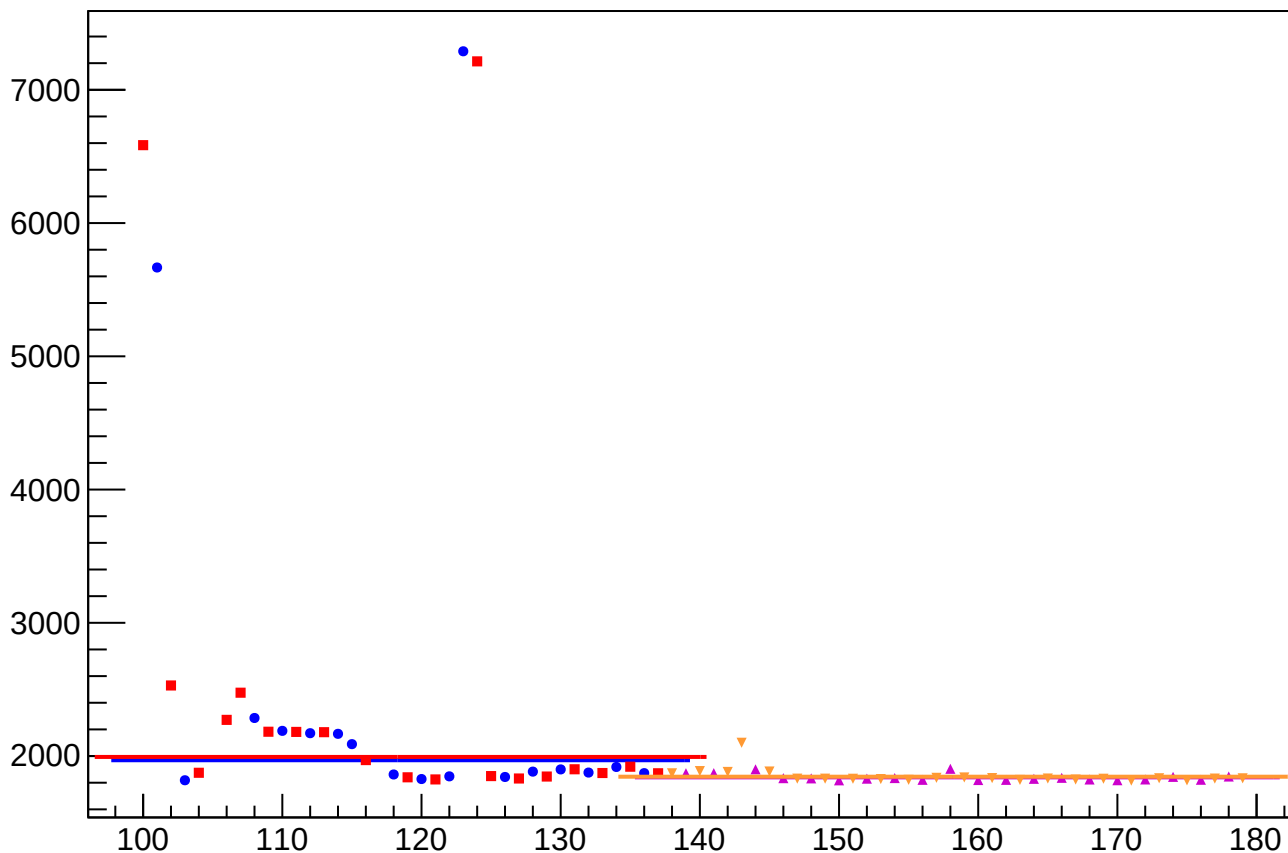
Right: -695.987+/-546.706  $\chi^2/\text{NDF}$ : 33.6/35

In: -396.201+/-401.593  $\chi^2/\text{NDF}$ : 45.3/36

Out: -821.962+/-390.064  $\chi^2/\text{NDF}$ : 41.3/40

All: -615.281+/-279.804  $\chi^2/\text{NDF}$ : 87.2/77

# reg\_asym\_at1\_dd\_rms vs Slug, Sign Corrected



Right In: 1968.632 $\pm$ 0.553  $\chi^2$ /NDF: 602972.8/16

Left Out: 1845.062 $\pm$ 0.321  $\chi^2$ /NDF:23766.7/21

Right Out: 1993.422 $\pm$ 0.540  $\chi^2$ /NDF: 356172.4/18

Left In: 1840.145 $\pm$ 0.331  $\chi^2$ /NDF:5968.0/19

Left: 1842.680 $\pm$ 0.230  $\chi^2$ /NDF: 29848.6/41

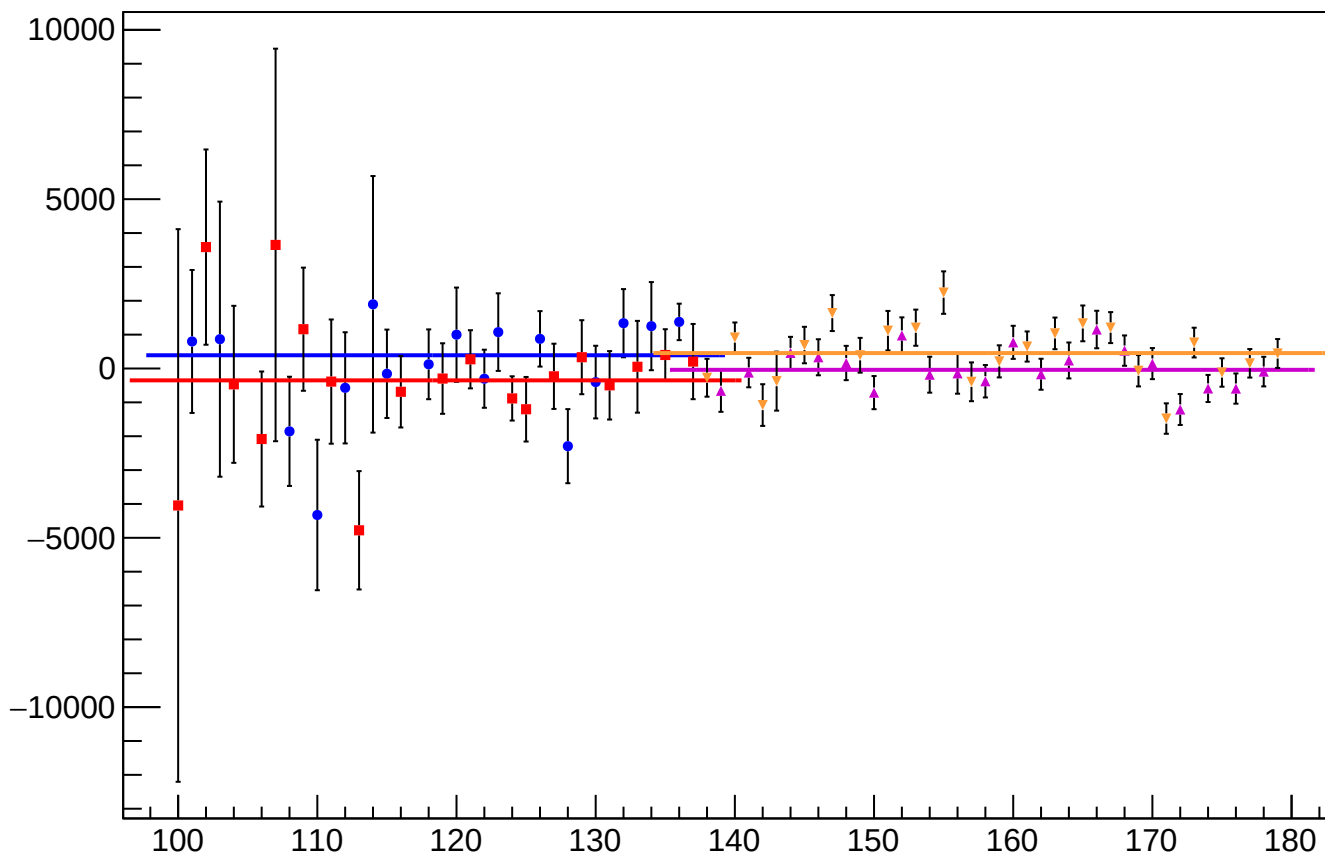
Right: 1981.318 $\pm$ 0.387  $\chi^2$ /NDF: 960172.6/35

In: 1873.998 $\pm$ 0.284  $\chi^2$ /NDF:648669.1/36

Out: 1883.709 $\pm$ 0.276  $\chi^2$ /NDF:435674.0/40

All: 1878.995 $\pm$ 0.198  $\chi^2$ /NDF: 1084945.0/77

asym\_at1\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 390.923+/-270.128  $\chi^2/\text{NDF}$ : 20.0/16

Left Out: 455.120+/-105.938  $\chi^2/\text{NDF}$ :58.7/21

Right Out: -350.642+/-266.097  $\chi^2/\text{NDF}$ : 14.2/18

Left In: -39.361+/-108.553  $\chi^2/\text{NDF}$ :28.4/19

Left: 213.907+/-75.817  $\chi^2/\text{NDF}$ : 97.8/41

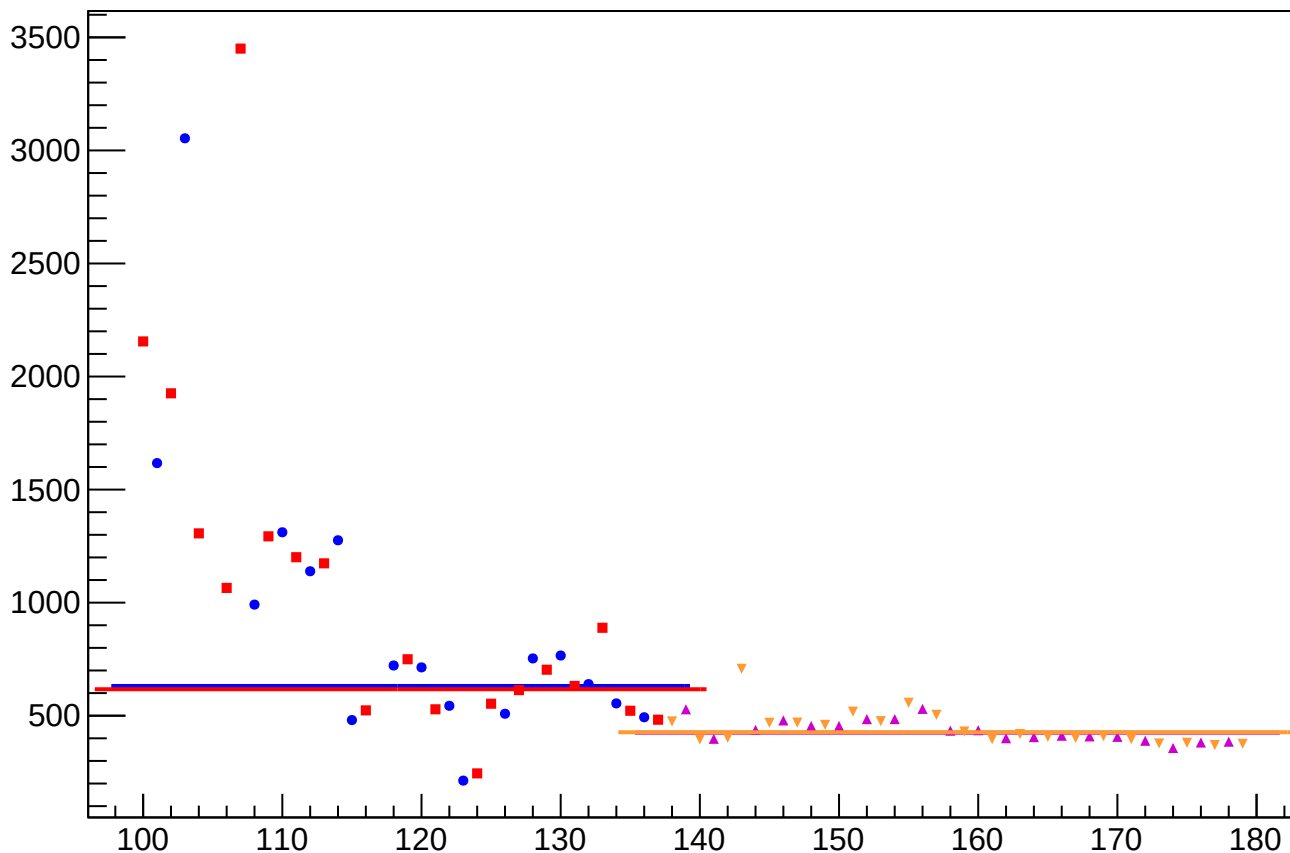
Right: 14.566+/-189.568  $\chi^2/\text{NDF}$ : 38.1/35

In: 20.464+/-100.724  $\chi^2/\text{NDF}$ :50.6/36

Out: 344.881+/-98.424  $\chi^2/\text{NDF}$ :80.9/40

All: 186.418+/-70.396  $\chi^2/\text{NDF}$ : 136.8/77

asym\_at1\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 631.430 $\pm$ 0.191  $\chi^2$ /NDF: 2260692.7/16

Left Out: 426.805 $\pm$ 0.075  $\chi^2$ /NDF: 603088.8/21

Right Out: 617.035 $\pm$ 0.188  $\chi^2$ /NDF: 2802149.9/18

Left In: 424.855 $\pm$ 0.077  $\chi^2$ /NDF: 334030.8/19

Left: 425.854 $\pm$ 0.054  $\chi^2$ /NDF: 937450.2/41

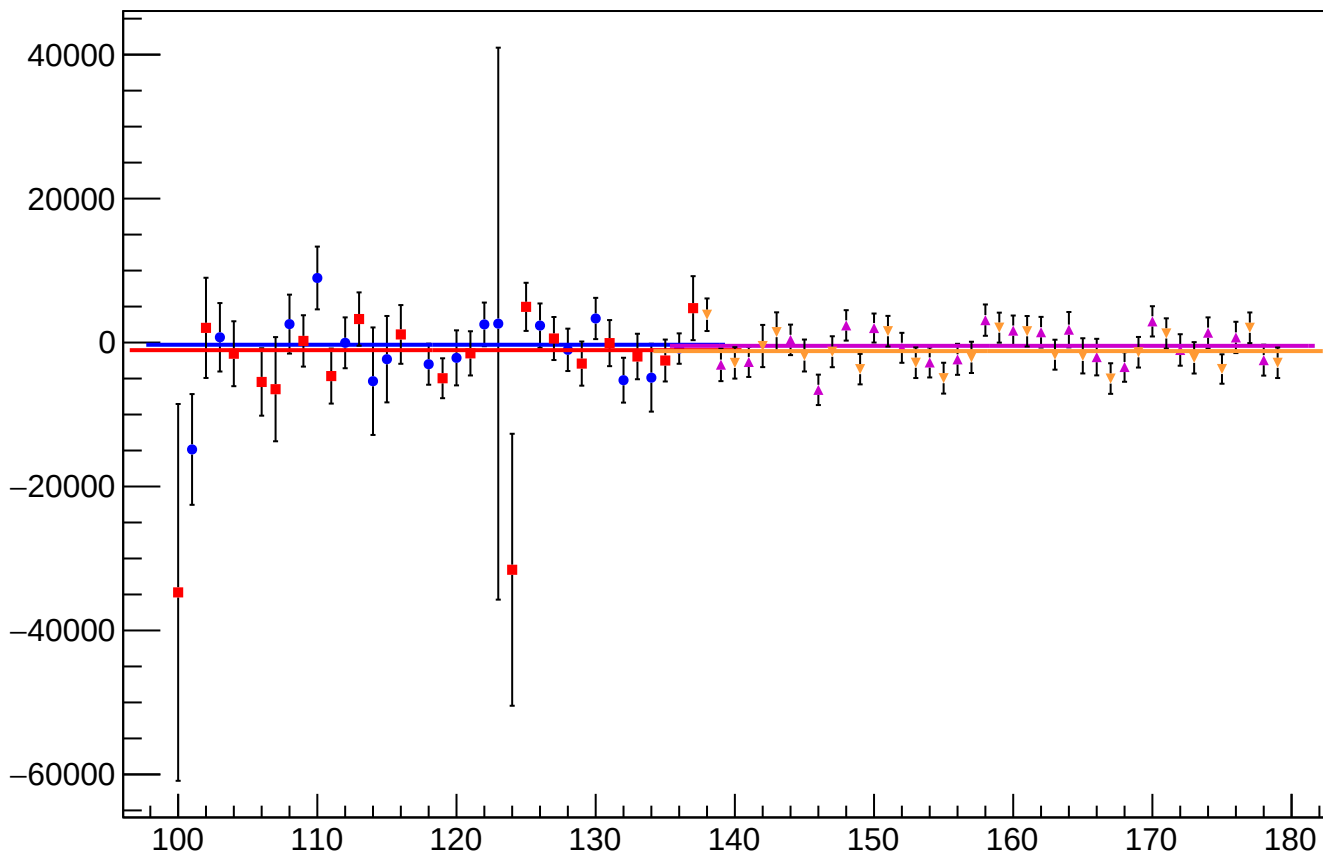
Right: 624.124 $\pm$ 0.134  $\chi^2$ /NDF: 5065724.7/35

In: 453.576 $\pm$ 0.071  $\chi^2$ /NDF: 3601721.1/36

Out: 452.831 $\pm$ 0.070  $\chi^2$ /NDF: 4287537.3/40

All: 453.195 $\pm$ 0.050  $\chi^2$ /NDF: 7889314.4/77

# asym\_at1\_dd\_mean vs Slug, Sign Corrected



Right In:  $-305.713 \pm 871.922$   $\chi^2/\text{NDF}$ : 17.2/16

Left Out:  $-1187.753 \pm 467.162$   $\chi^2/\text{NDF}$ : 26.9/21

Right Out:  $-1056.856 \pm 867.445$   $\chi^2/\text{NDF}$ : 16.6/18

Left In:  $-455.978 \pm 481.351$   $\chi^2/\text{NDF}$ : 28.6/19

Left:  $-832.810 \pm 335.237$   $\chi^2/\text{NDF}$ : 56.8/41

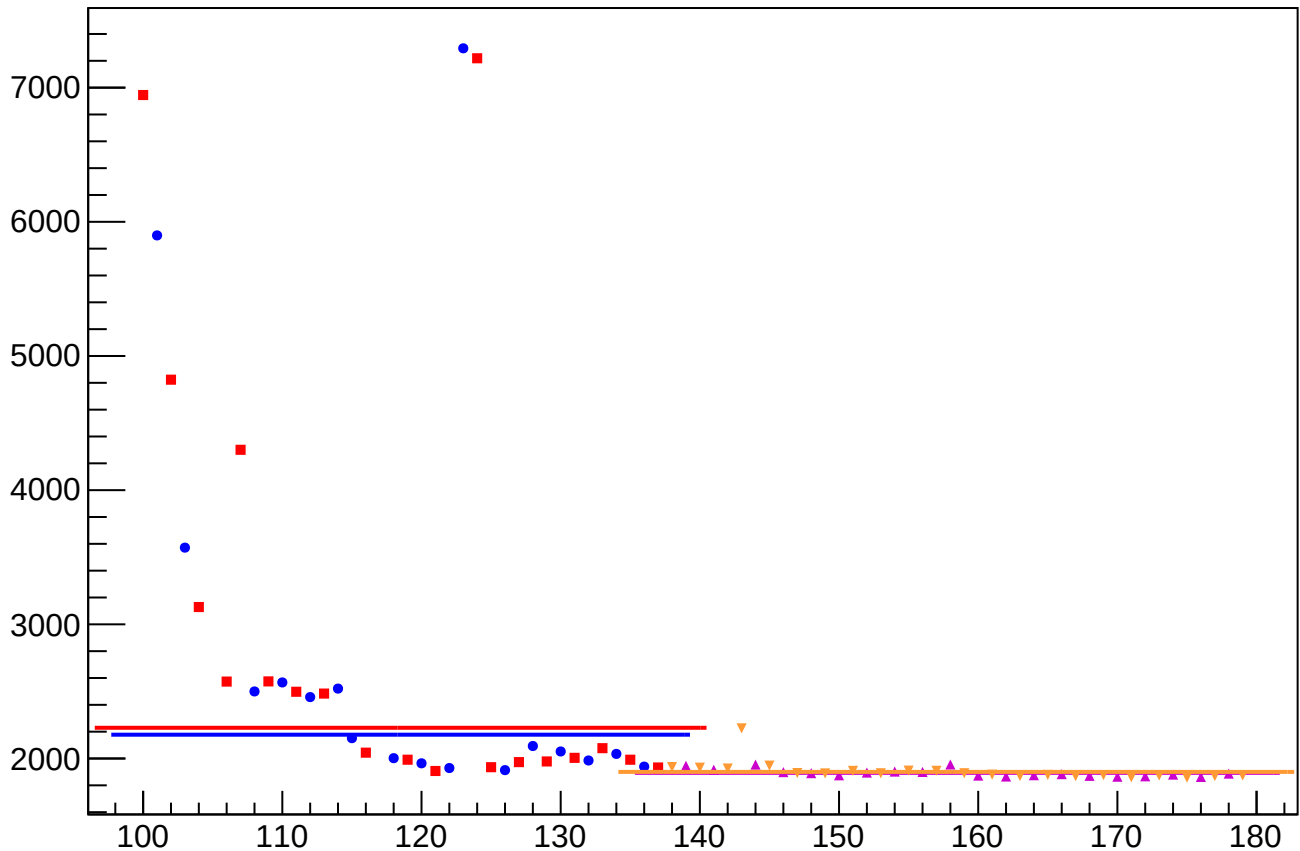
Right:  $-683.218 \pm 614.953$   $\chi^2/\text{NDF}$ : 34.2/35

In:  $-420.879 \pm 421.401$   $\chi^2/\text{NDF}$ : 45.8/36

Out:  $-1158.324 \pm 411.307$   $\chi^2/\text{NDF}$ : 43.6/40

All:  $-798.539 \pm 294.342$   $\chi^2/\text{NDF}$ : 91.0/77

# asym\_at1\_dd\_rms vs Slug, Sign Corrected



Right In: 2177.446+/-0.617  $\chi^2/\text{NDF}$ : 802836.7/16

Left Out: 1900.148+/-0.330  $\chi^2/\text{NDF}$ : 34250.0/21

Right Out: 2229.014+/-0.613  $\chi^2/\text{NDF}$ : 895809.1/18

Left In: 1893.026+/-0.340  $\chi^2/\text{NDF}$ : 6880.8/19

Left: 1896.693+/-0.237  $\chi^2/\text{NDF}$ : 41356.3/41

Right: 2203.363+/-0.435  $\chi^2/\text{NDF}$ : 1702161.6/35

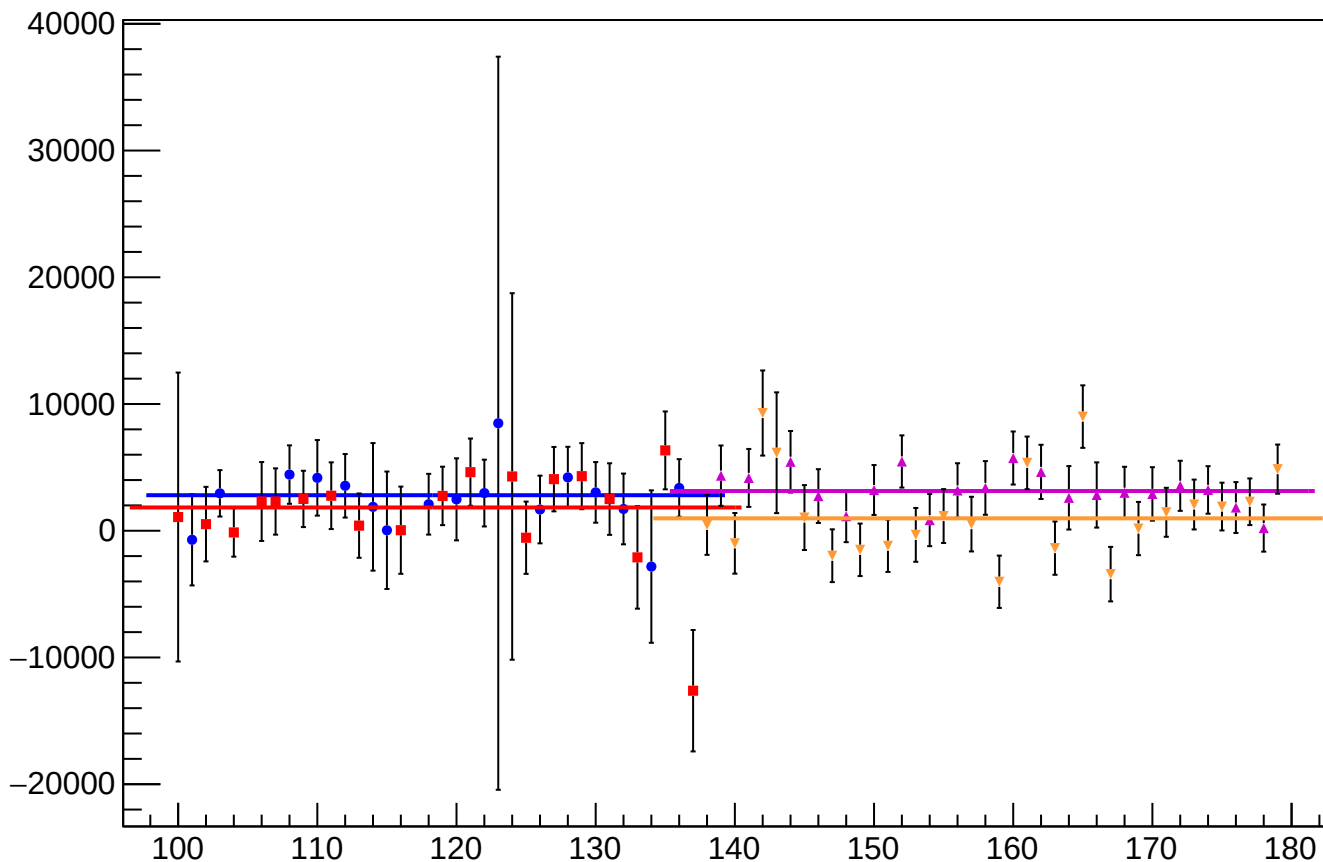
In: 1959.461+/-0.298  $\chi^2/\text{NDF}$ : 972821.2/36

Out: 1974.086+/-0.291  $\chi^2/\text{NDF}$ : 1152894.7/40

All: 1966.950+/-0.208  $\chi^2/\text{NDF}$ : 2126949.6/77



# reg\_asym\_at2\_avg\_mean vs Slug, Sign Corrected



Right In: 2803.917+/-678.548  $\chi^2/\text{NDF}$ : 3.9/16

Left Out: 980.476+/-463.070  $\chi^2/\text{NDF}$ : 44.6/21

Right Out: 1837.168+/-655.307  $\chi^2/\text{NDF}$ : 18.0/18

Left In: 3134.752+/-473.263  $\chi^2/\text{NDF}$ : 9.9/19

Left: 2034.165+/-330.985  $\chi^2/\text{NDF}$ : 65.1/41

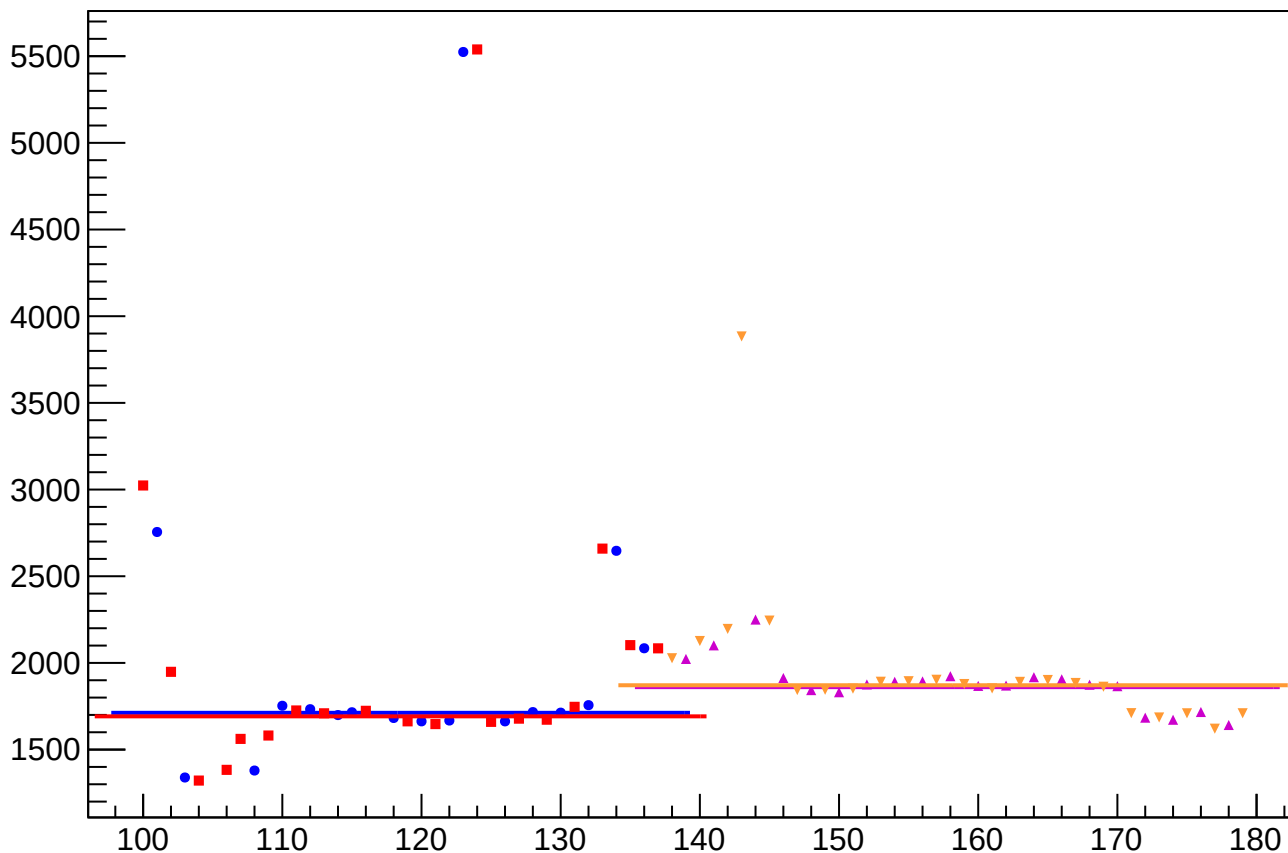
Right: 2303.702+/-471.374  $\chi^2/\text{NDF}$ : 23.0/35

In: 3026.483+/-388.174  $\chi^2/\text{NDF}$ : 14.0/36

Out: 1265.792+/-378.177  $\chi^2/\text{NDF}$ : 63.8/40

All: 2123.174+/-270.877  $\chi^2/\text{NDF}$ : 88.4/77

# reg\_asym\_at2\_avg\_rms vs Slug, Sign Corrected



Right In: 1712.154+/-0.480  $\chi^2/\text{NDF}$ : 432478.4/16

Left Out: 1871.161+/-0.327  $\chi^2/\text{NDF}$ : 549068.6/21

Right Out: 1691.747+/-0.463  $\chi^2/\text{NDF}$ : 454922.1/18

Left In: 1860.281+/-0.335  $\chi^2/\text{NDF}$ : 163335.9/19

Left: 1865.840+/-0.234  $\chi^2/\text{NDF}$ : 712944.5/41

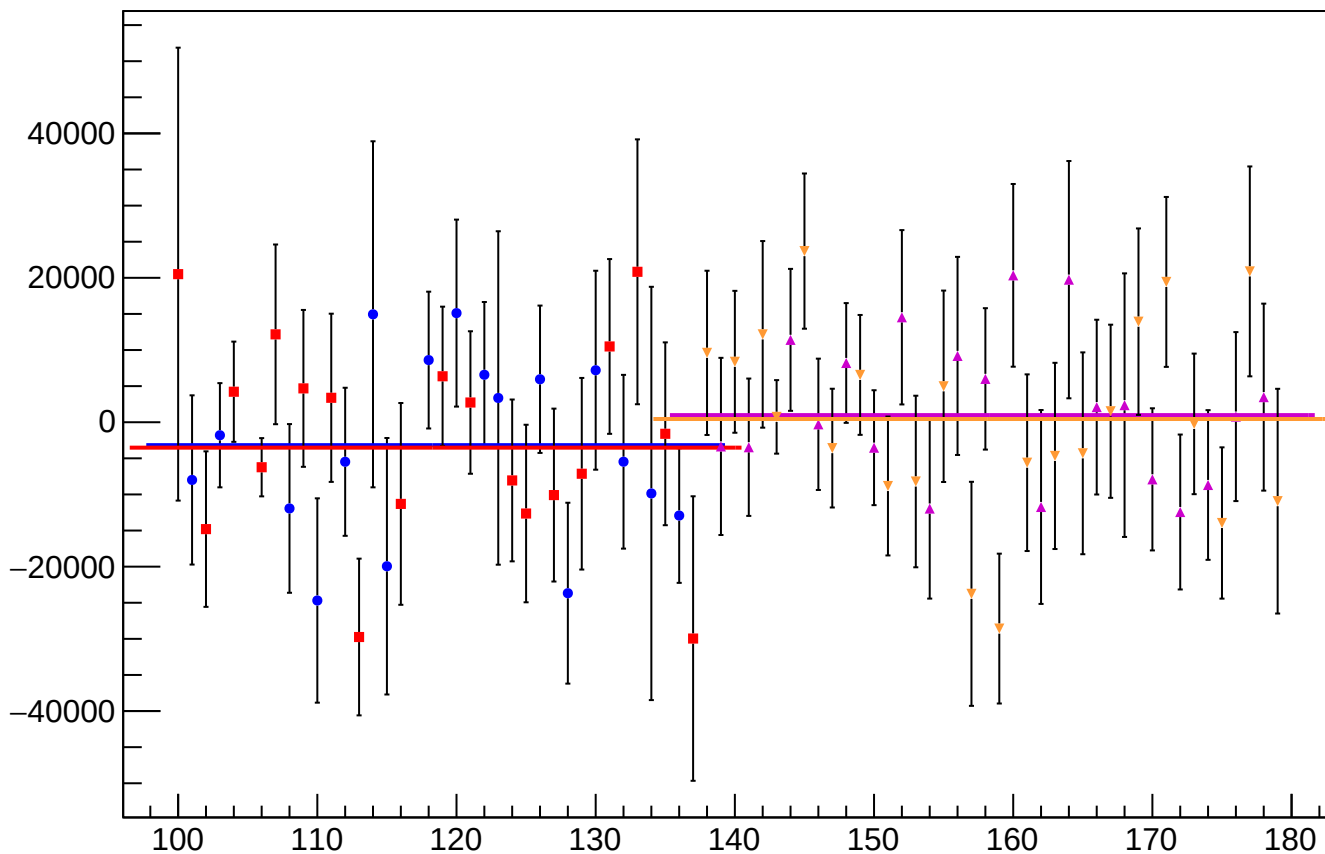
Right: 1701.595+/-0.333  $\chi^2/\text{NDF}$ : 888336.5/35

In: 1811.805+/-0.274  $\chi^2/\text{NDF}$ : 659933.4/36

Out: 1811.408+/-0.267  $\chi^2/\text{NDF}$ : 1103980.9/40

All: 1811.601+/-0.192  $\chi^2/\text{NDF}$ : 1763915.3/77

asym\_at2\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -3173.245 $\pm$ 2851.982  $\chi^2$ /NDF: 14.4/16

Left Out: 447.287 $\pm$ 2213.162  $\chi^2$ /NDF:28.1/21

Right Out: -3520.105 $\pm$ 2266.532  $\chi^2$ /NDF: 19.5/18

Left In: 987.571 $\pm$ 2451.264  $\chi^2$ /NDF:13.4/19

Left: 689.921 $\pm$ 1642.687  $\chi^2$ /NDF: 41.4/41

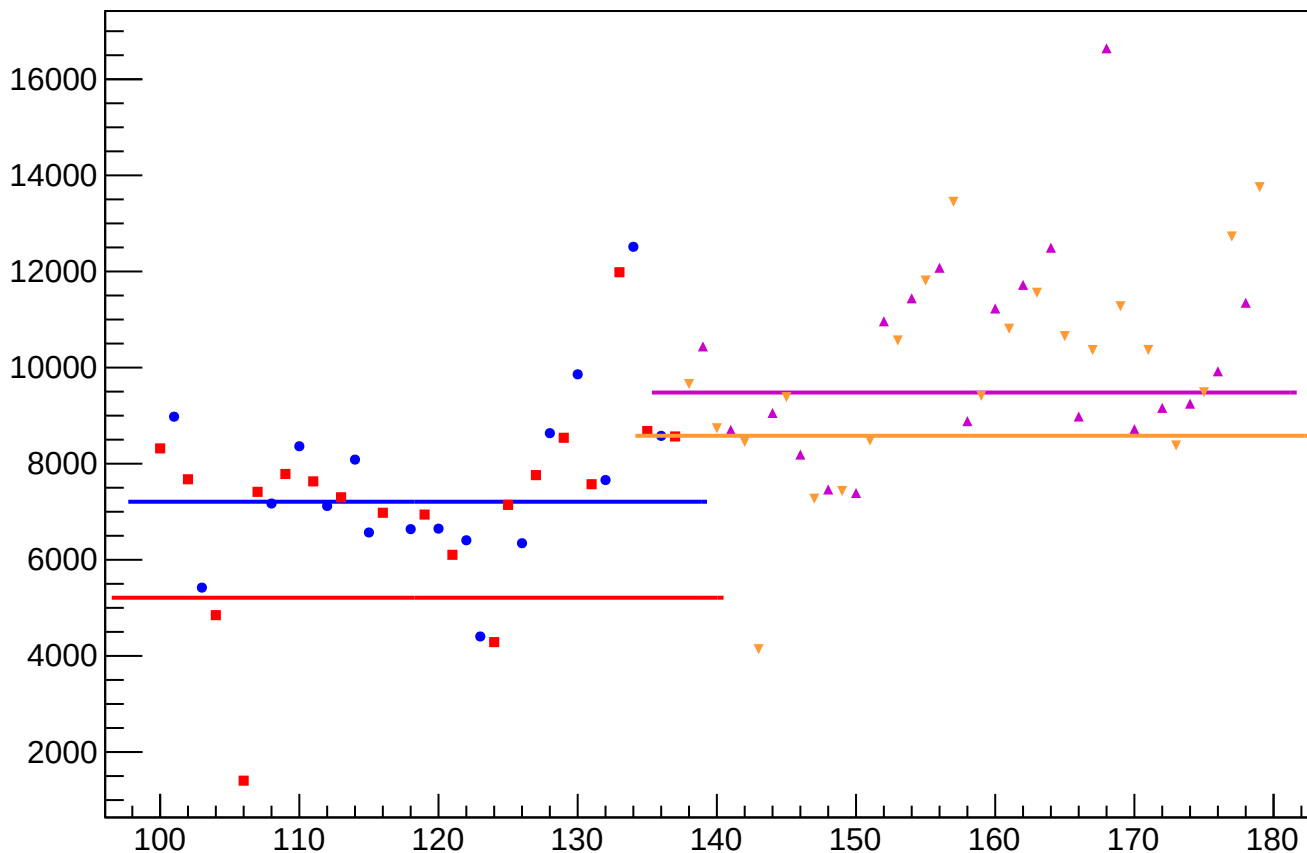
Right: -3385.836 $\pm$ 1774.424  $\chi^2$ /NDF: 33.9/35

In: -780.227 $\pm$ 1858.976  $\chi^2$ /NDF:29.0/36

Out: -1489.149 $\pm$ 1583.474  $\chi^2$ /NDF:49.1/40

All: -1191.062 $\pm$ 1205.440  $\chi^2$ /NDF: 78.2/77

asym\_at2\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 7208.567 $\pm$ 2.017  $\chi^2$ /NDF: 469302.0/16

Left Out: 8581.164 $\pm$ 1.565  $\chi^2$ /NDF: 2819054.3/21

Right Out: 5211.187 $\pm$ 1.603  $\chi^2$ /NDF: 3196870.2/18

Left In: 9480.932 $\pm$ 1.733  $\chi^2$ /NDF: 1016559.0/19

Left: 8985.238 $\pm$ 1.162  $\chi^2$ /NDF: 3984068.4/41

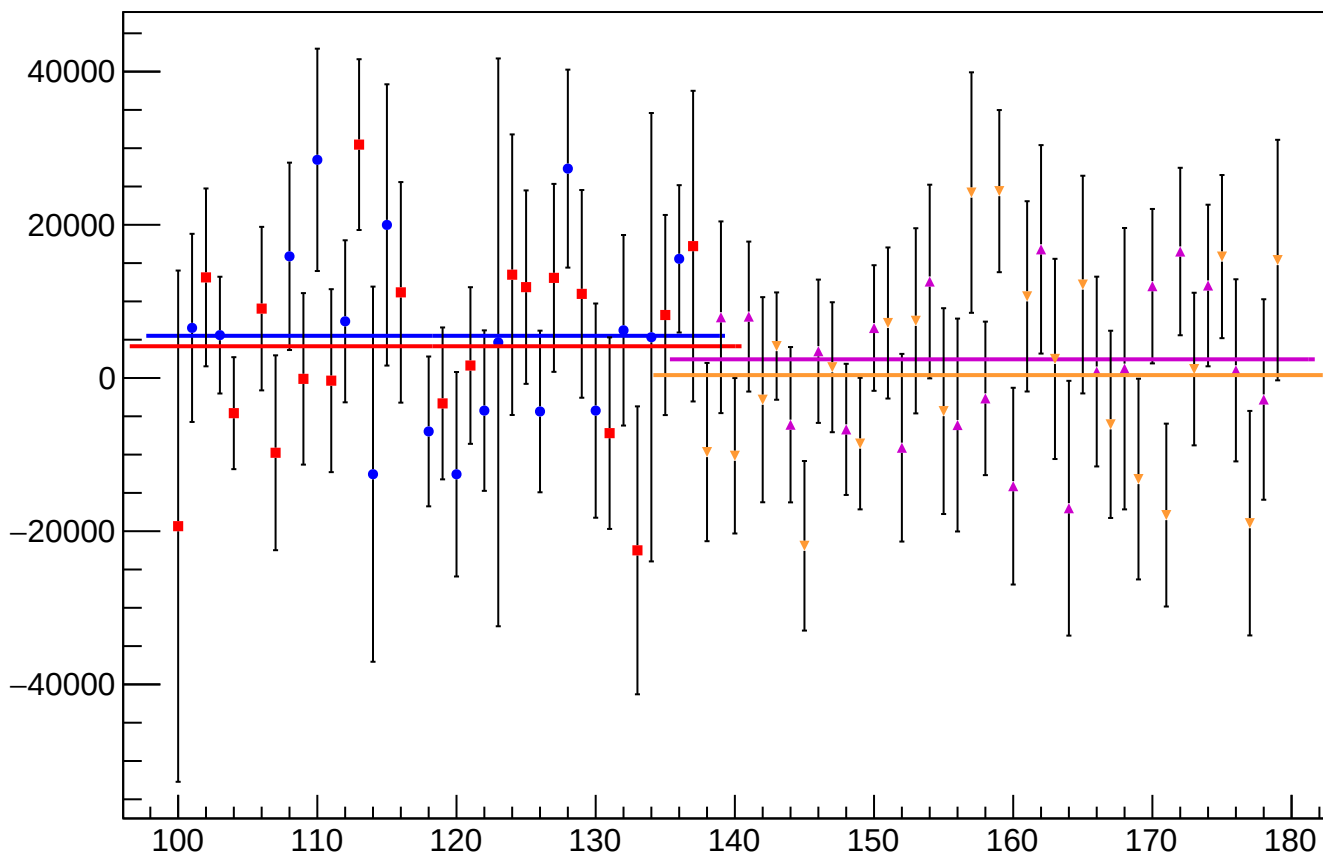
Right: 5984.369 $\pm$ 1.255  $\chi^2$ /NDF: 4267414.1/35

In: 8515.477 $\pm$ 1.314  $\chi^2$ /NDF: 2216091.9/36

Out: 6936.319 $\pm$ 1.120  $\chi^2$ /NDF: 8279294.8/40

All: 7600.321 $\pm$ 0.852  $\chi^2$ /NDF: 11331766.1/77

# asym\_at2\_avg\_mean vs Slug, Sign Corrected



Right In: 5509.395 $\pm$ 2971.033  $\chi^2$ /NDF: 14.1/16

Left Out: 378.520 $\pm$ 2365.229  $\chi^2$ /NDF:25.6/21

Right Out: 4146.067 $\pm$ 2790.212  $\chi^2$ /NDF: 15.4/18

Left In: 2439.556 $\pm$ 2506.093  $\chi^2$ /NDF:12.5/19

Left: 1349.489 $\pm$ 1720.113  $\chi^2$ /NDF: 38.5/41

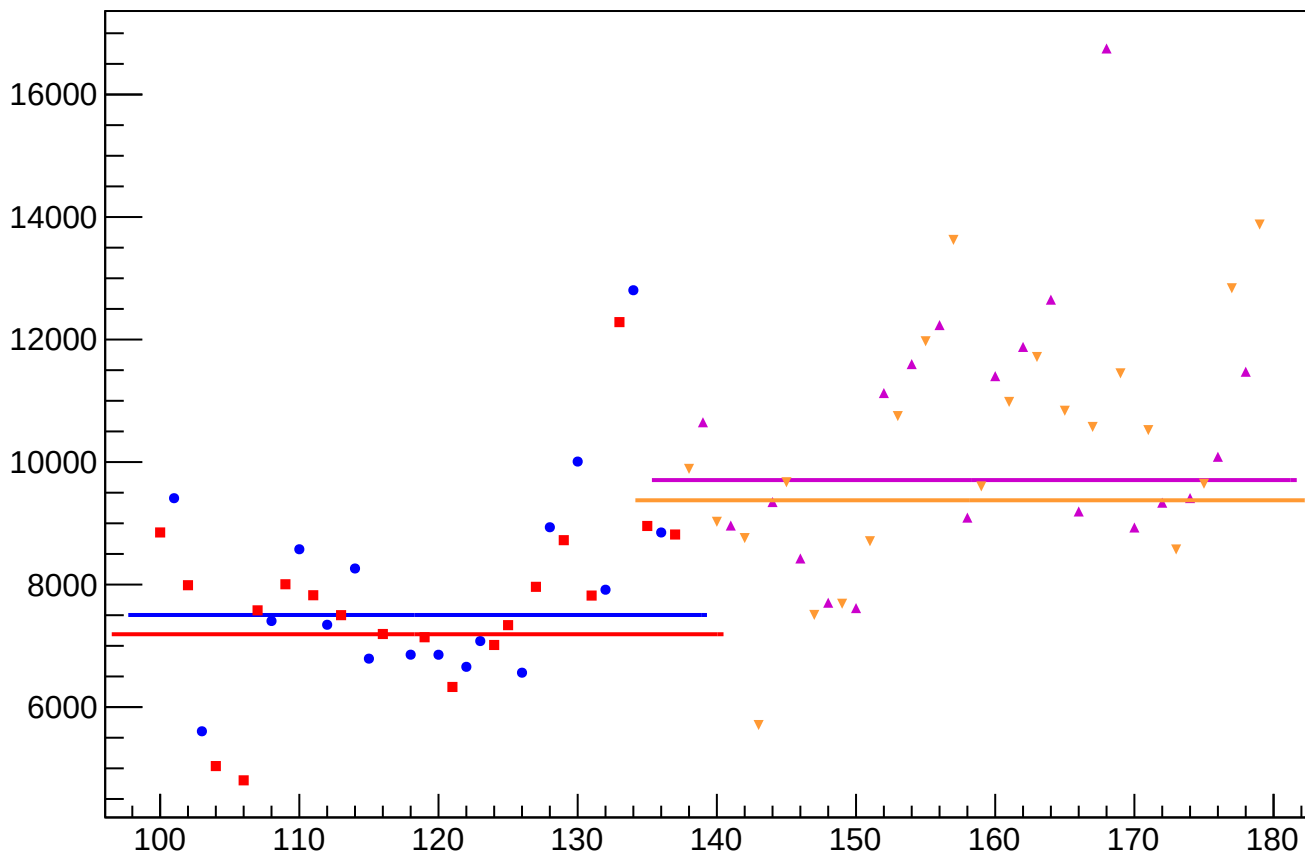
Right: 4784.984 $\pm$ 2033.900  $\chi^2$ /NDF: 29.6/35

In: 3715.749 $\pm$ 1915.613  $\chi^2$ /NDF:27.2/36

Out: 1953.816 $\pm$ 1804.218  $\chi^2$ /NDF:42.1/40

All: 2782.066 $\pm$ 1313.391  $\chi^2$ /NDF: 69.7/77

# asym\_at2\_avg\_rms vs Slug, Sign Corrected



Right In: 7503.667+/-2.101  $\chi^2/\text{NDF}$ : 427313.5/16

Left Out: 9375.952+/-1.672  $\chi^2/\text{NDF}$ : 1488883.1/21

Right Out: 7189.231+/-1.973  $\chi^2/\text{NDF}$ : 557703.4/18

Left In: 9705.863+/-1.772  $\chi^2/\text{NDF}$ : 948204.2/19

Left: 9531.375+/-1.216  $\chi^2/\text{NDF}$ : 2455418.8/41

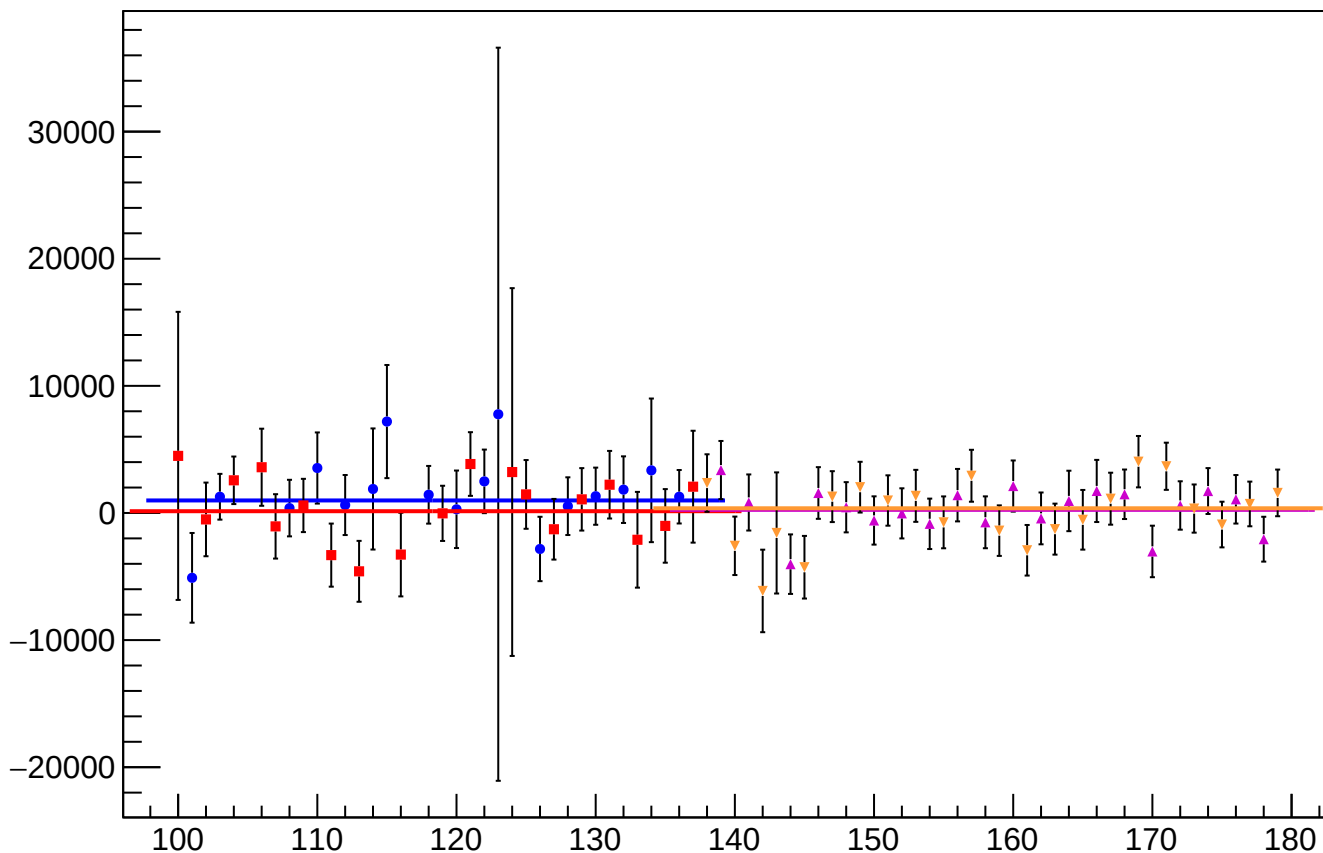
Right: 7336.574+/-1.438  $\chi^2/\text{NDF}$ : 996921.9/35

In: 8790.339+/-1.355  $\chi^2/\text{NDF}$ : 2017556.4/36

Out: 8461.498+/-1.276  $\chi^2/\text{NDF}$ : 2761475.5/40

All: 8616.073+/-0.929  $\chi^2/\text{NDF}$ : 4810265.5/77

reg\_asym\_at2\_dd\_mean vs Slug, Sign Corrected



Right In:  $985.452 \pm 644.630$   $\chi^2/\text{NDF}: 9.1/16$

Left Out:  $368.637 \pm 443.587$   $\chi^2/\text{NDF}: 25.2/21$

Right Out:  $138.627 \pm 623.555$   $\chi^2/\text{NDF}: 14.7/18$

Left In:  $245.444 \pm 453.653$   $\chi^2/\text{NDF}: 13.8/19$

Left:  $308.423 \pm 317.162$   $\chi^2/\text{NDF}: 39.0/41$

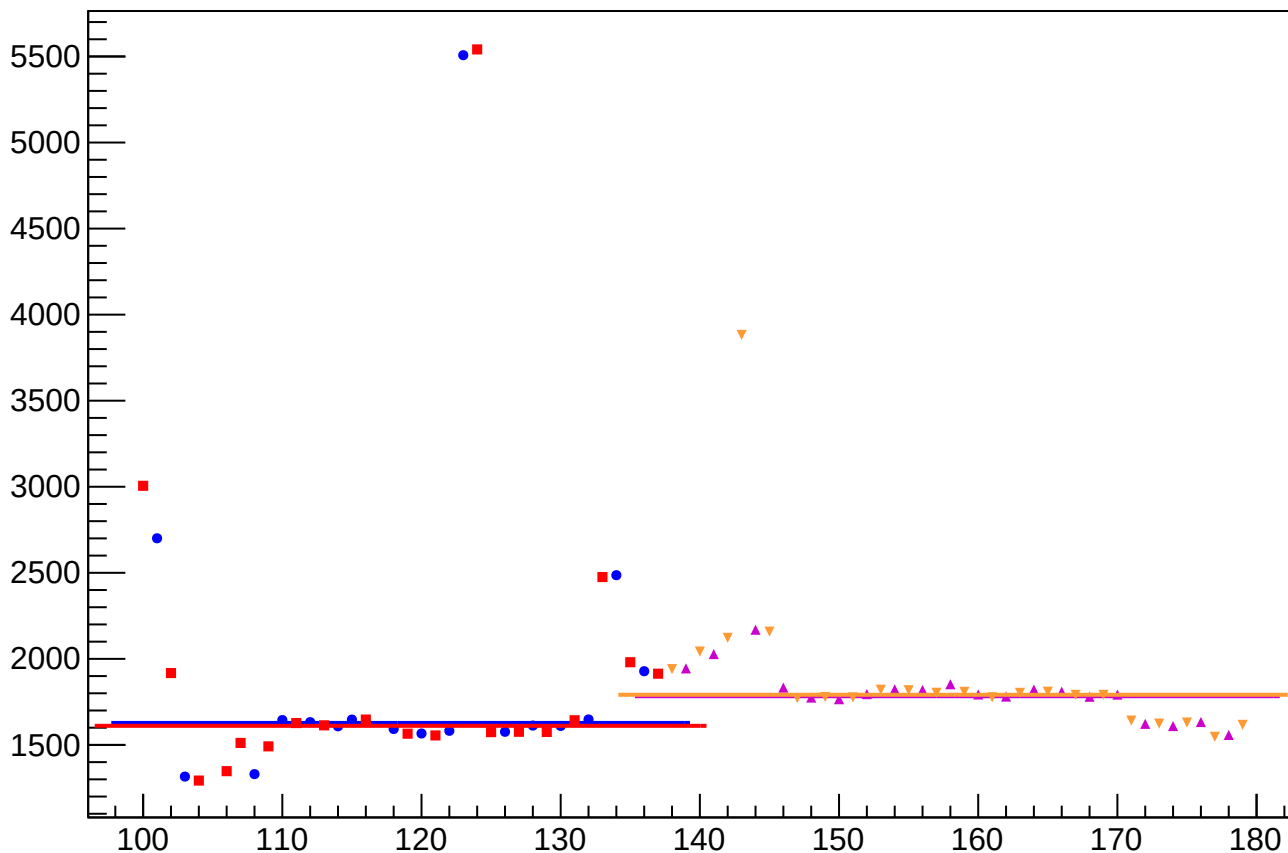
Right:  $547.971 \pm 448.185$   $\chi^2/\text{NDF}: 24.6/35$

In:  $490.547 \pm 370.994$   $\chi^2/\text{NDF}: 23.7/36$

Out:  $291.350 \pm 361.457$   $\chi^2/\text{NDF}: 39.9/40$

All:  $388.355 \pm 258.895$   $\chi^2/\text{NDF}: 63.8/77$

# reg\_asym\_at2\_dd\_rms vs Slug, Sign Corrected



Right In: 1627.836+/-0.456  $\chi^2/\text{NDF}$ : 407106.6/16

Left Out: 1791.354+/-0.314  $\chi^2/\text{NDF}$ : 586082.3/21

Right Out: 1610.948+/-0.441  $\chi^2/\text{NDF}$ : 433960.8/18

Left In: 1782.898+/-0.321  $\chi^2/\text{NDF}$ : 172658.9/19

Left: 1787.221+/-0.224  $\chi^2/\text{NDF}$ : 759096.4/41

Right: 1619.112+/-0.317  $\chi^2/\text{NDF}$ : 841776.5/35

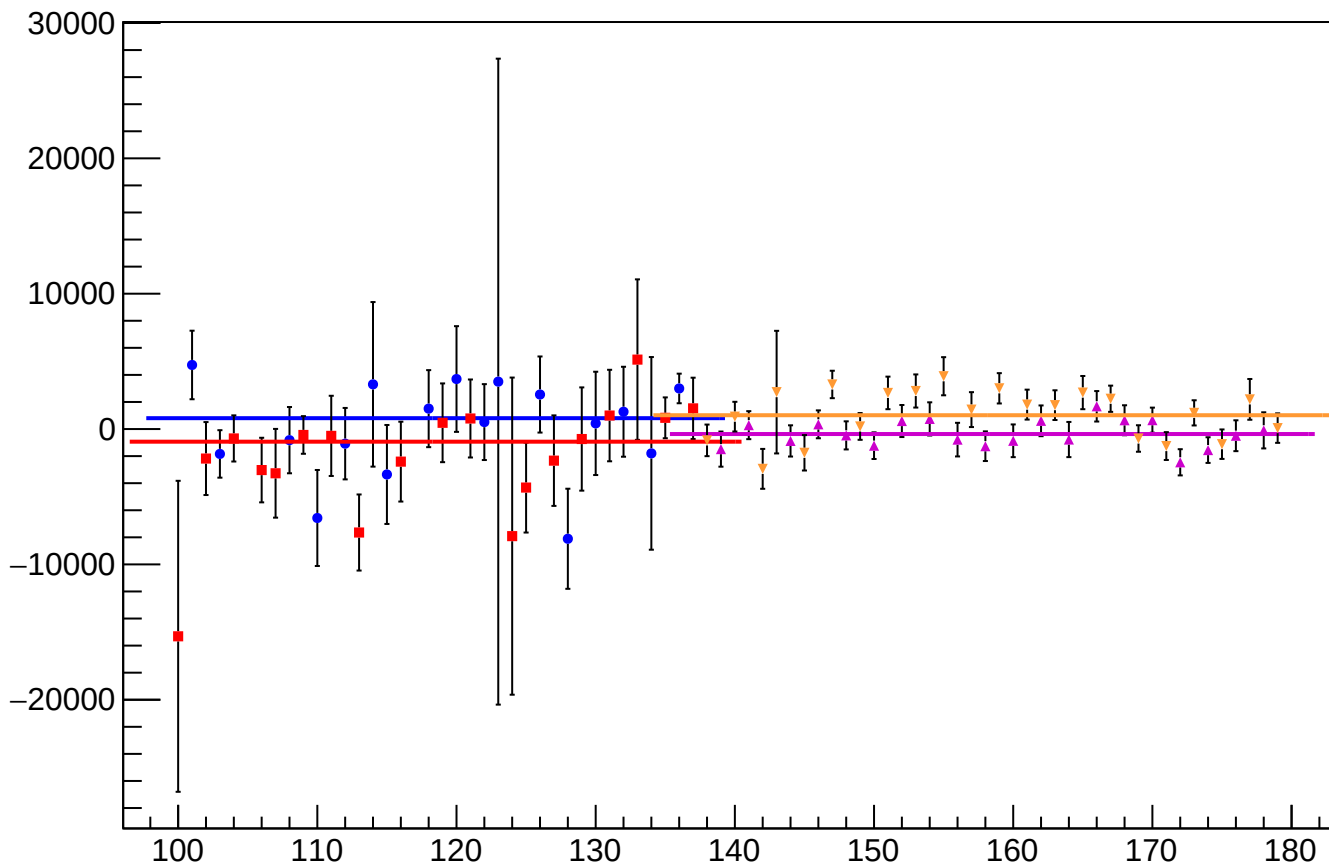
In: 1731.539+/-0.262  $\chi^2/\text{NDF}$ : 657159.2/36

Out: 1730.734+/-0.256  $\chi^2/\text{NDF}$ : 1131200.9/40

All: 1731.126+/-0.183  $\chi^2/\text{NDF}$ : 1788364.9/77



asym\_at2\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 803.048+/-631.676  $\chi^2/\text{NDF}$ : 22.4/16

Left Out: 1021.321+/-245.690  $\chi^2/\text{NDF}$ : 49.3/21

Right Out: -933.645+/-589.727  $\chi^2/\text{NDF}$ : 15.3/18

Left In: -368.367+/-247.112  $\chi^2/\text{NDF}$ : 17.5/19

Left: 330.488+/-174.230  $\chi^2/\text{NDF}$ : 82.7/41

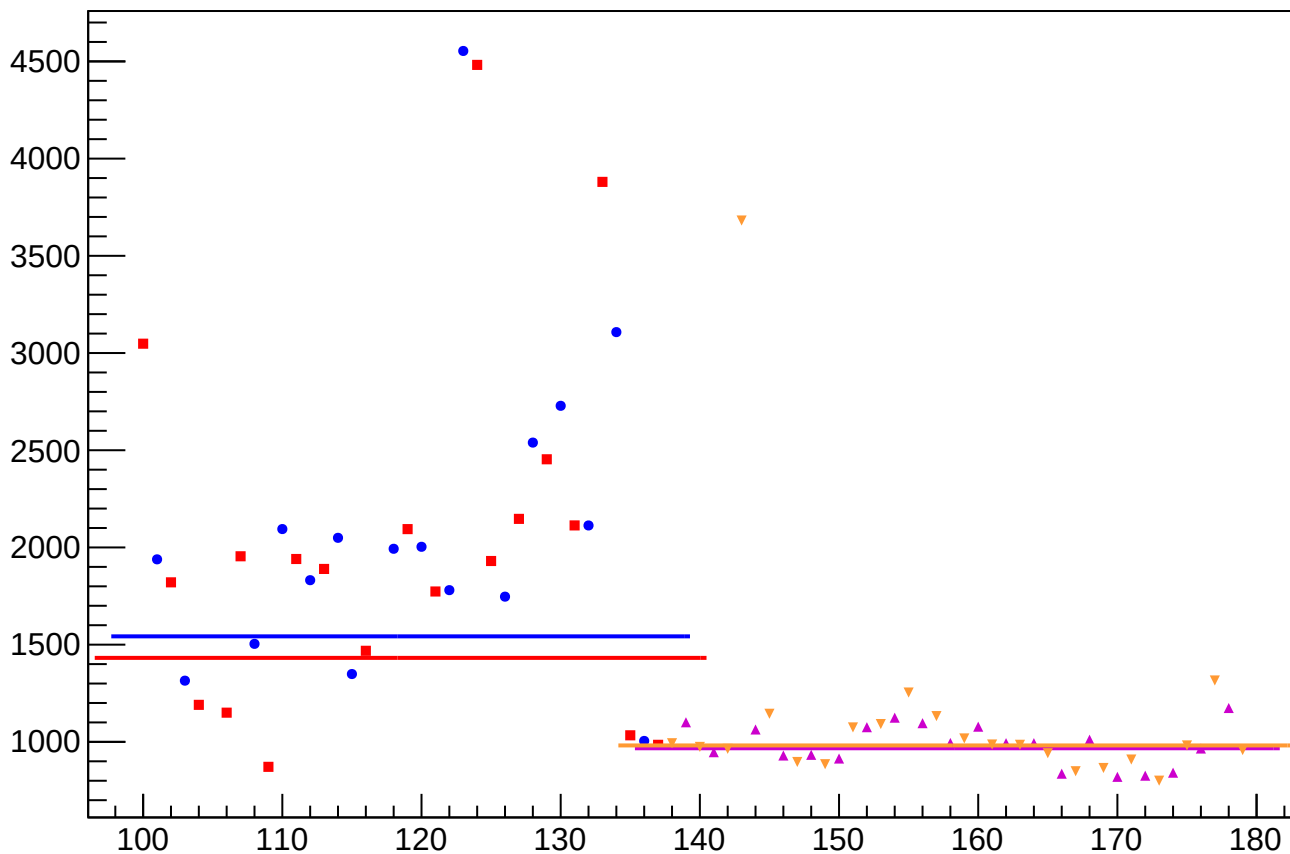
Right: -124.875+/-431.067  $\chi^2/\text{NDF}$ : 41.7/35

In: -212.890+/-230.129  $\chi^2/\text{NDF}$ : 42.9/36

Out: 732.184+/-226.794  $\chi^2/\text{NDF}$ : 73.9/40

All: 266.545+/-161.534  $\chi^2/\text{NDF}$ : 125.4/77

asym\_at2\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 1542.705 $\pm$ 0.447  $\chi^2$ /NDF: 1287946.3/16

Left Out: 981.650 $\pm$ 0.174  $\chi^2$ /NDF: 1160574.1/21

Right Out: 1432.013 $\pm$ 0.417  $\chi^2$ /NDF: 1823809.4/18

Left In: 967.043 $\pm$ 0.175  $\chi^2$ /NDF: 344050.6/19

Left: 974.389 $\pm$ 0.123  $\chi^2$ /NDF: 1508139.3/41

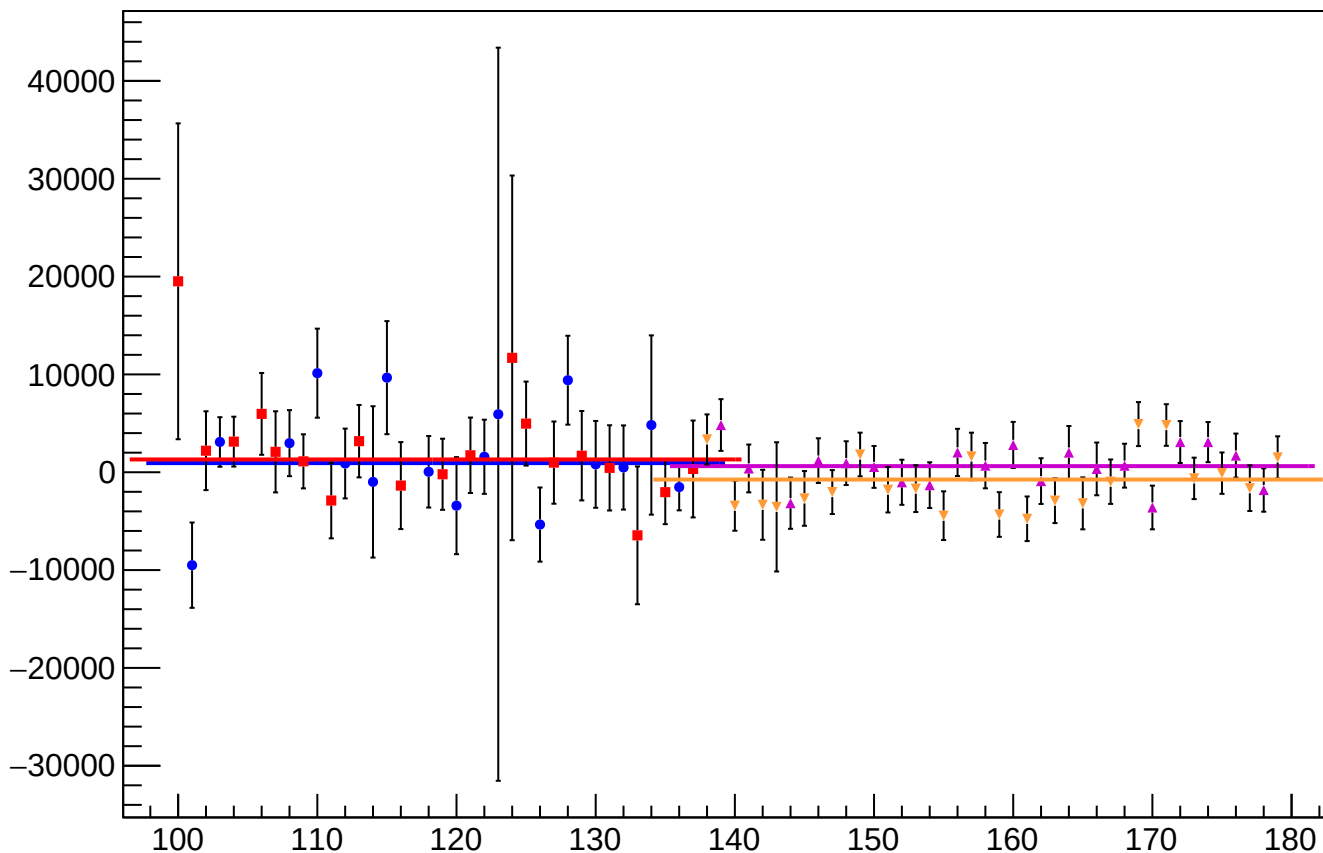
Right: 1483.562 $\pm$ 0.305  $\chi^2$ /NDF: 3144570.0/35

In: 1043.448 $\pm$ 0.163  $\chi^2$ /NDF: 3072562.8/36

Out: 1048.258 $\pm$ 0.160  $\chi^2$ /NDF: 3978287.8/40

All: 1045.888 $\pm$ 0.114  $\chi^2$ /NDF: 7051293.9/77

# asym\_at2\_dd\_mean vs Slug, Sign Corrected



Right In:  $932.818 \pm 967.941$   $\chi^2/\text{NDF}: 21.6/16$

Left Out:  $-745.588 \pm 513.059$   $\chi^2/\text{NDF}: 31.8/21$

Right Out:  $1307.802 \pm 925.415$   $\chi^2/\text{NDF}: 8.5/18$

Left In:  $625.204 \pm 520.694$   $\chi^2/\text{NDF}: 15.6/19$

Left:  $-70.317 \pm 365.457$   $\chi^2/\text{NDF}: 50.9/41$

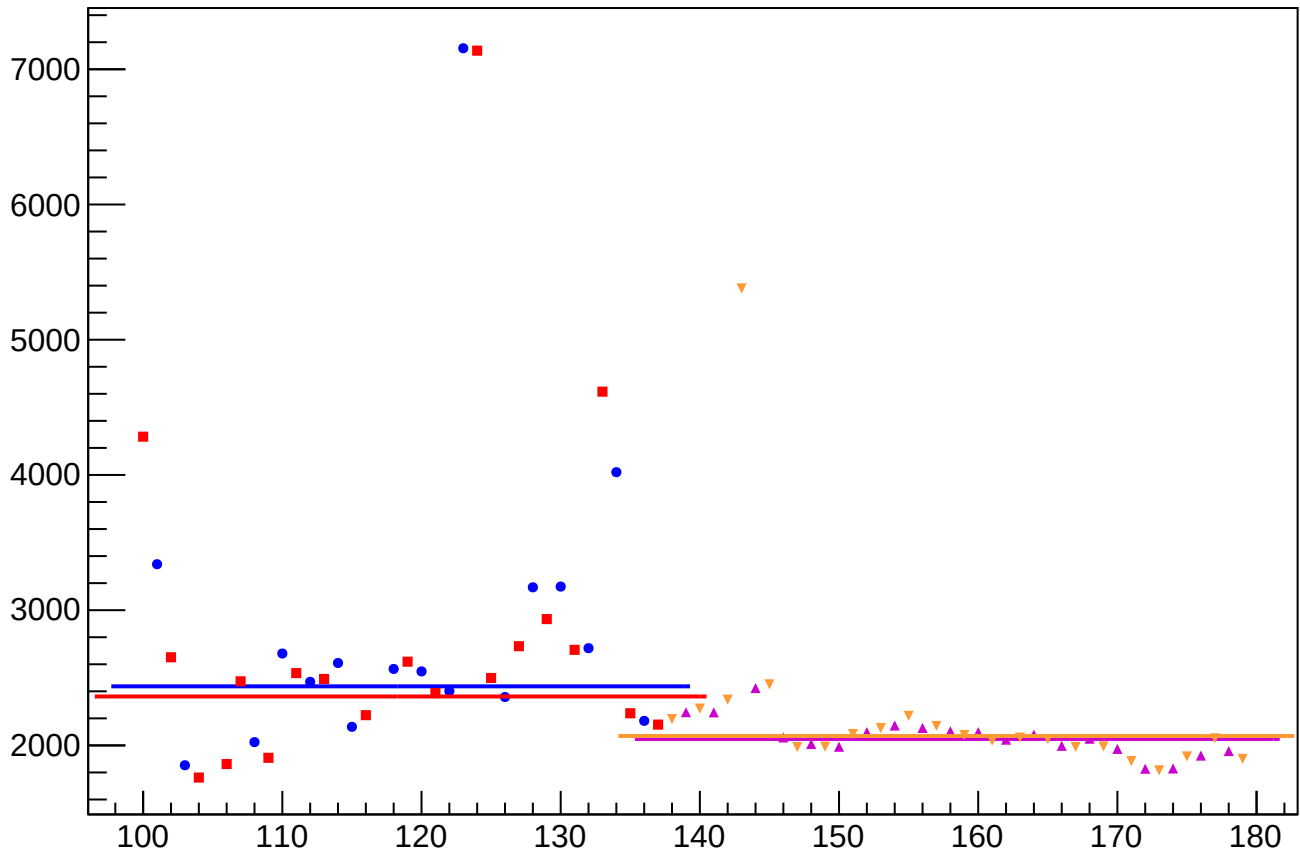
Right:  $1128.728 \pm 668.896$   $\chi^2/\text{NDF}: 30.2/35$

In:  $694.243 \pm 458.556$   $\chi^2/\text{NDF}: 37.3/36$

Out:  $-262.825 \pm 448.712$   $\chi^2/\text{NDF}: 44.0/40$

All:  $205.326 \pm 320.711$   $\chi^2/\text{NDF}: 83.5/77$

# asym\_at2\_dd\_rms vs Slug, Sign Corrected



Right In: 2436.855 $\pm$ 0.684  $\chi^2/\text{NDF}$ : 469030.2/16

Left Out: 2069.747 $\pm$ 0.363  $\chi^2/\text{NDF}$ : 656124.4/21

Right Out: 2361.880 $\pm$ 0.654  $\chi^2/\text{NDF}$ : 655847.5/18

Left In: 2047.759 $\pm$ 0.368  $\chi^2/\text{NDF}$ : 132676.7/19

Left: 2058.915 $\pm$ 0.258  $\chi^2/\text{NDF}$ : 790610.7/41

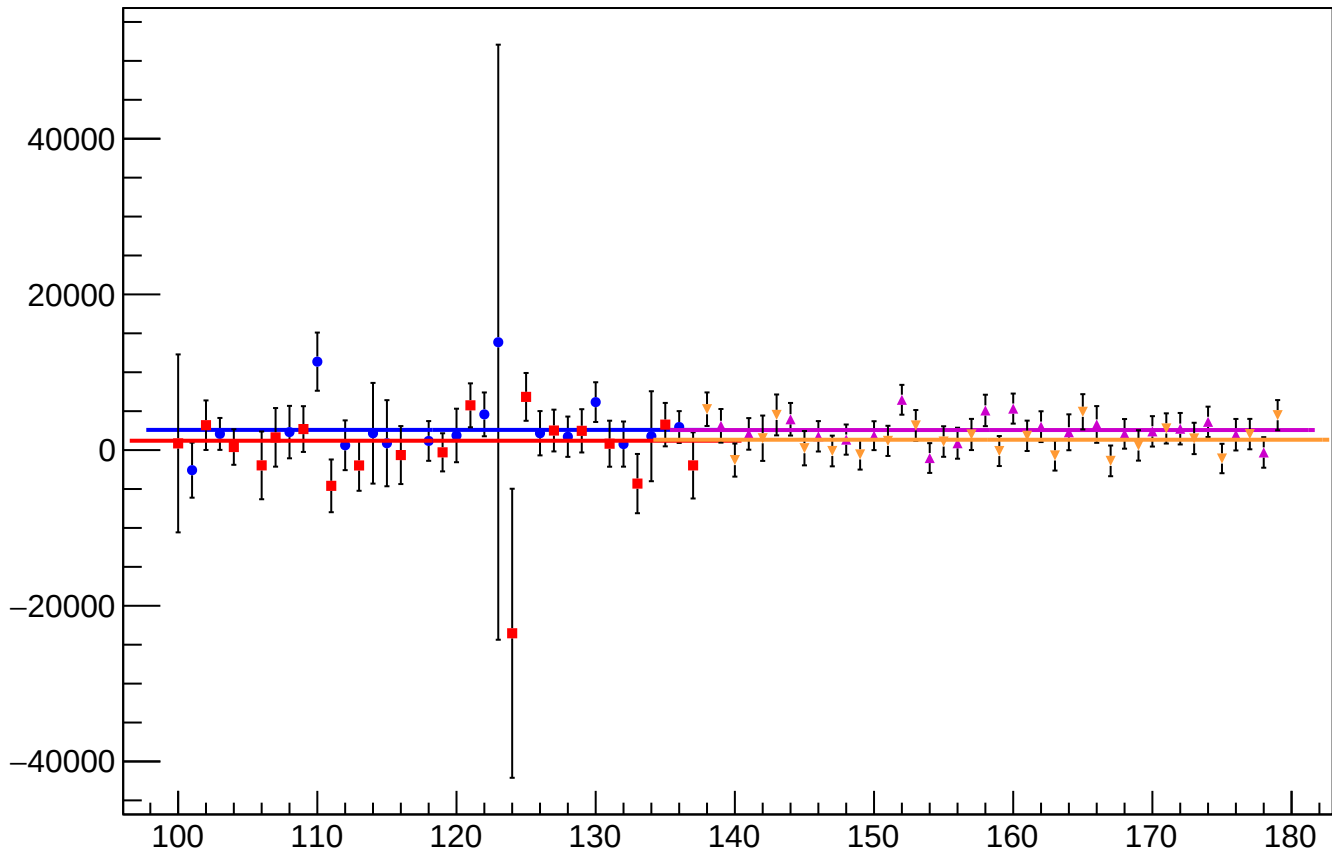
Right: 2397.684 $\pm$ 0.473  $\chi^2/\text{NDF}$ : 1131146.9/35

In: 2135.085 $\pm$ 0.324  $\chi^2/\text{NDF}$ : 852356.8/36

Out: 2138.429 $\pm$ 0.317  $\chi^2/\text{NDF}$ : 1464420.6/40

All: 2136.793 $\pm$ 0.227  $\chi^2/\text{NDF}$ : 2316831.7/77

# reg\_asym\_atl1r2\_avg\_mean vs Slug, Sign Corrected



Right In: 2594.684+/-743.000  $\chi^2/\text{NDF}$ : 11.7/16

Left Out: 1329.876+/-434.940  $\chi^2/\text{NDF}$ : 20.2/21

Right Out: 1202.548+/-739.618  $\chi^2/\text{NDF}$ : 17.2/18

Left In: 2576.447+/-447.766  $\chi^2/\text{NDF}$ : 16.0/19

Left: 1935.053+/-311.985  $\chi^2/\text{NDF}$ : 40.2/41

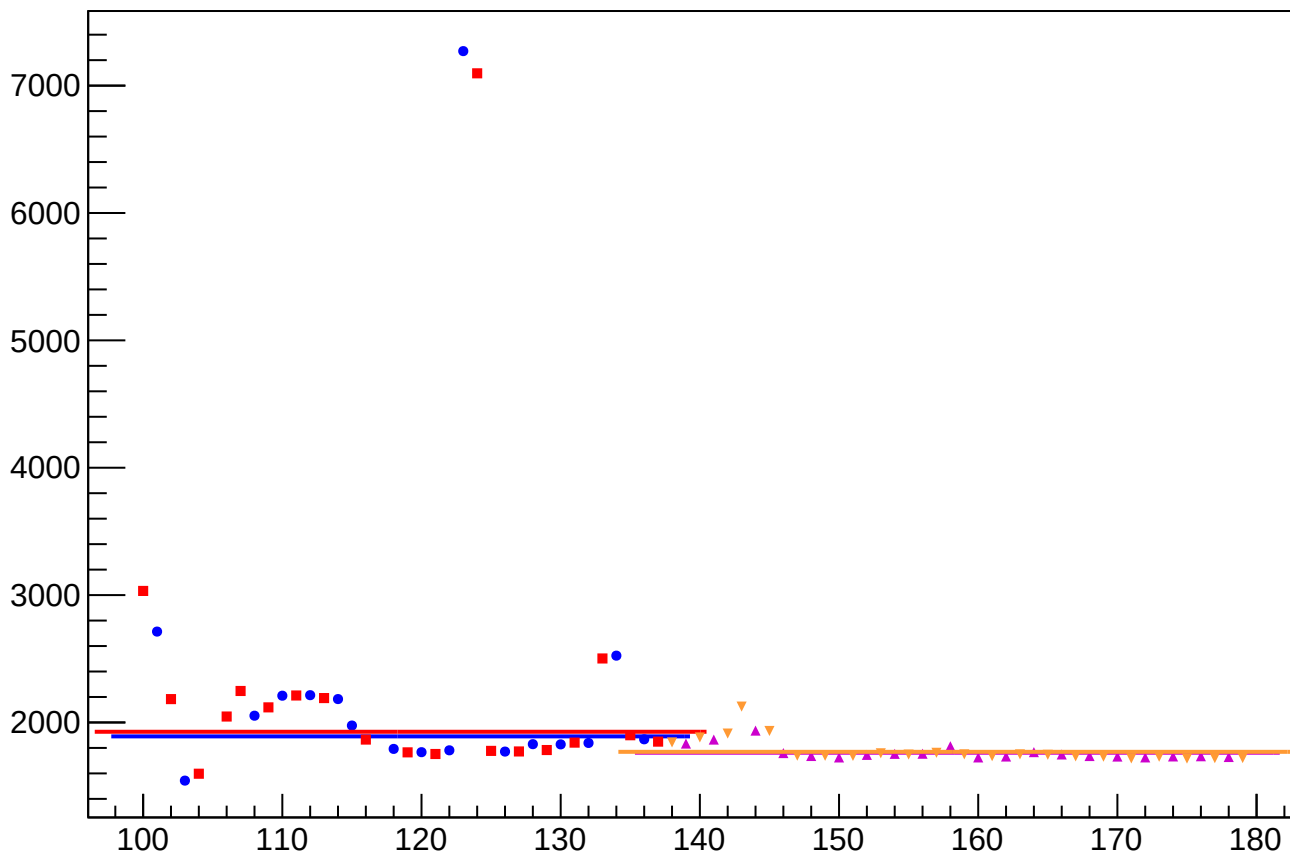
Right: 1895.439+/-524.180  $\chi^2/\text{NDF}$ : 30.7/35

In: 2581.305+/-383.508  $\chi^2/\text{NDF}$ : 27.7/36

Out: 1297.158+/-374.919  $\chi^2/\text{NDF}$ : 37.5/40

All: 1924.691+/-268.093  $\chi^2/\text{NDF}$ : 70.9/77

# reg\_asym\_atl1r2\_avg\_rms vs Slug, Sign Corrected



Right In: 1890.721+/-0.525     $\chi^2/\text{NDF}$ : 288944.9/16

Left Out: 1769.441+/-0.308     $\chi^2/\text{NDF}$ : 71293.1/21

Right Out: 1926.949+/-0.522     $\chi^2/\text{NDF}$ : 362254.5/18

Left In: 1762.272+/-0.317     $\chi^2/\text{NDF}$ : 27953.7/19

Left: 1765.960+/-0.221     $\chi^2/\text{NDF}$ : 99510.7/41

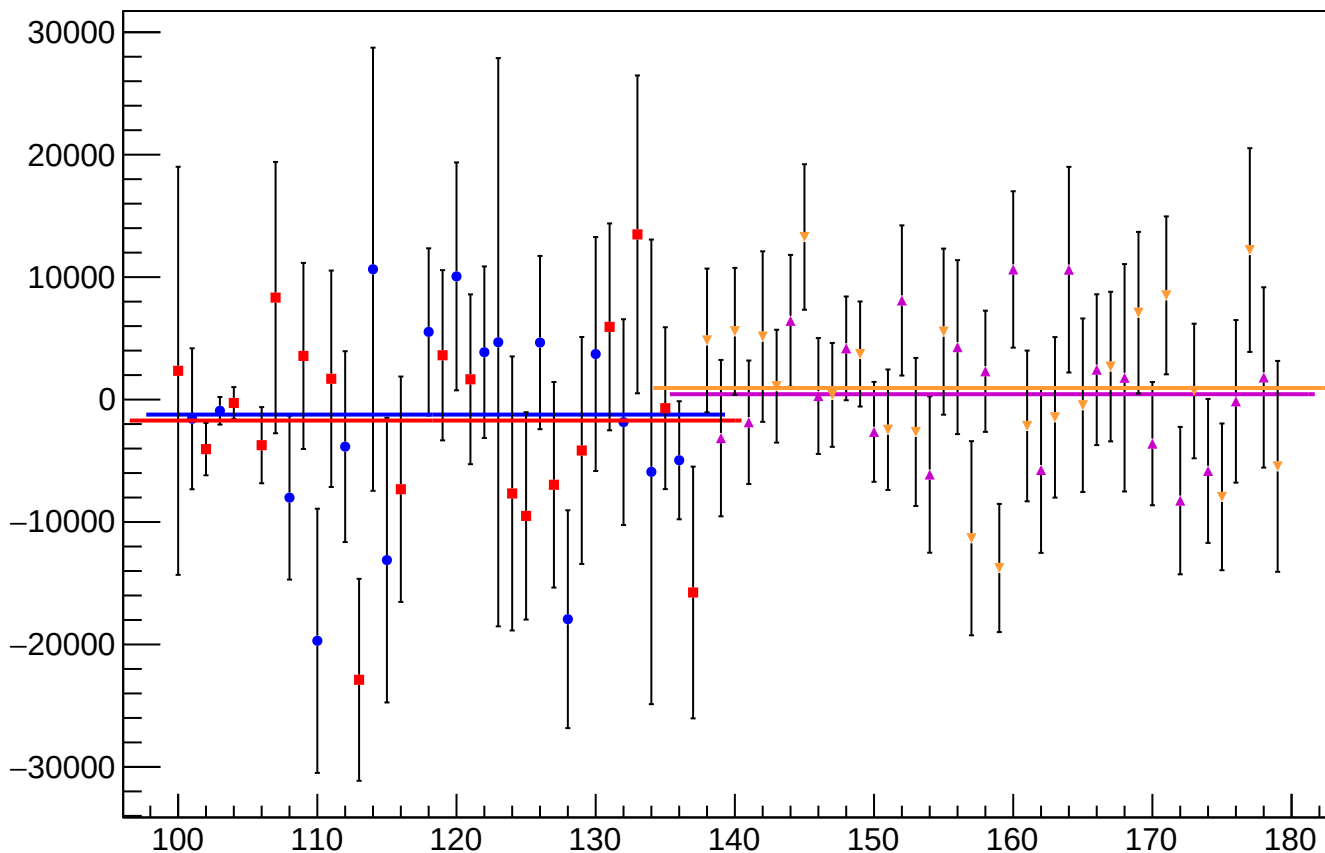
Right: 1908.946+/-0.370     $\chi^2/\text{NDF}$ : 653591.4/35

In: 1796.493+/-0.271     $\chi^2/\text{NDF}$ : 360748.3/36

Out: 1810.008+/-0.265     $\chi^2/\text{NDF}$ : 501101.3/40

All: 1803.407+/-0.190     $\chi^2/\text{NDF}$ : 863120.0/77

asym\_atl1r2\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -1226.915+/-984.603  $\chi^2/\text{NDF}$ : 13.8/16

Left Out: 949.014+/-1243.036  $\chi^2/\text{NDF}$ : 25.3/21

Right Out: -1711.747+/-941.580  $\chi^2/\text{NDF}$ : 17.8/18

Left In: 438.330+/-1284.457  $\chi^2/\text{NDF}$ : 15.0/19

Left: 702.039+/-893.244  $\chi^2/\text{NDF}$ : 40.4/41

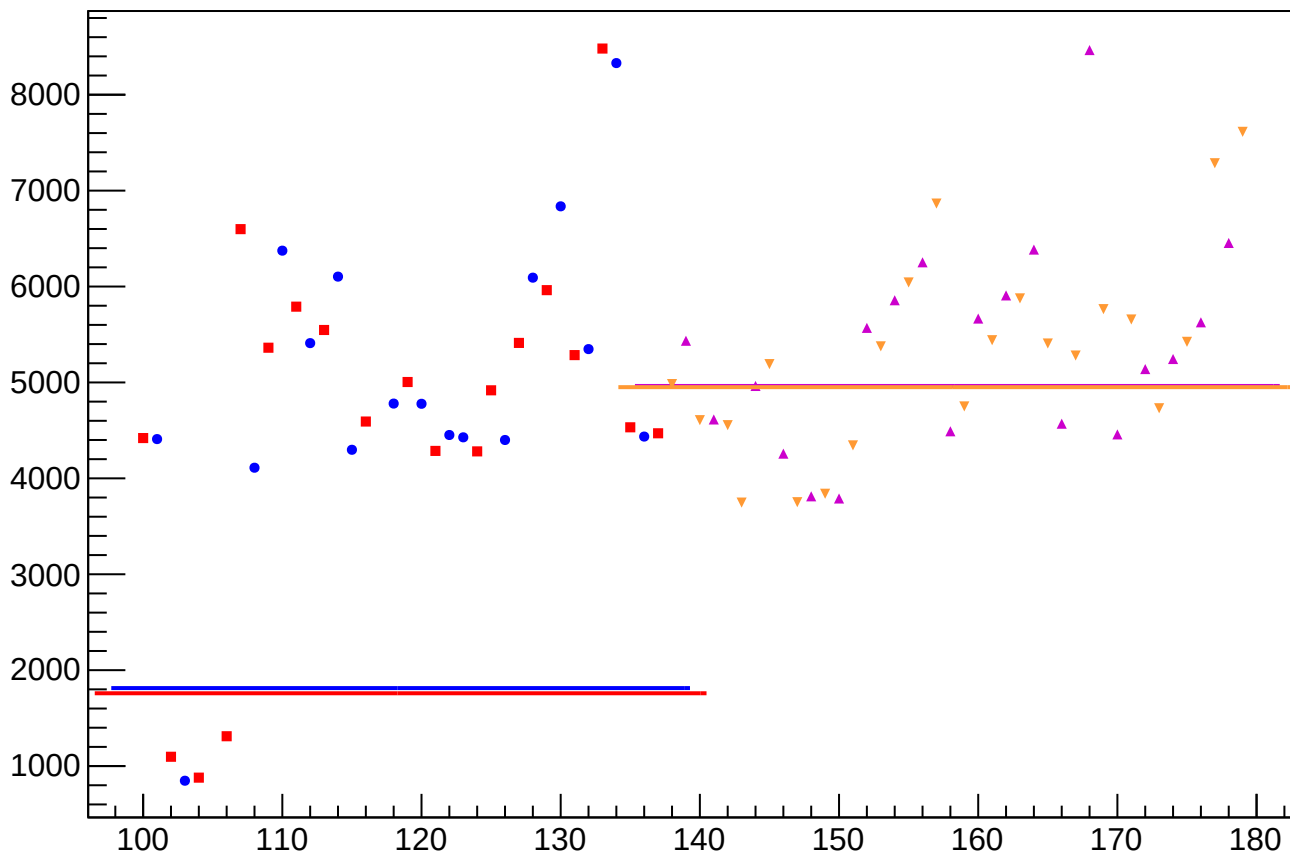
Right: -1480.155+/-680.499  $\chi^2/\text{NDF}$ : 31.8/35

In: -610.576+/-781.430  $\chi^2/\text{NDF}$ : 29.9/36

Out: -741.665+/-750.559  $\chi^2/\text{NDF}$ : 46.0/40

All: -678.761+/-541.310  $\chi^2/\text{NDF}$ : 75.9/77

asym\_atl1r2\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 1813.195+/-0.696  $\chi^2/\text{NDF}$ : 6449038.4/16

Left Out: 4950.746+/-0.879  $\chi^2/\text{NDF}$ :1145939.5/21

Right Out: 1759.135+/-0.666  $\chi^2/\text{NDF}$ : 6313068.7/18

Left In: 4963.262+/-0.908  $\chi^2/\text{NDF}$ :1062340.9/19

Left: 4956.799+/-0.632  $\chi^2/\text{NDF}$ : 2208378.5/41

Right: 1784.958+/-0.481  $\chi^2/\text{NDF}$ : 12765256.3/35

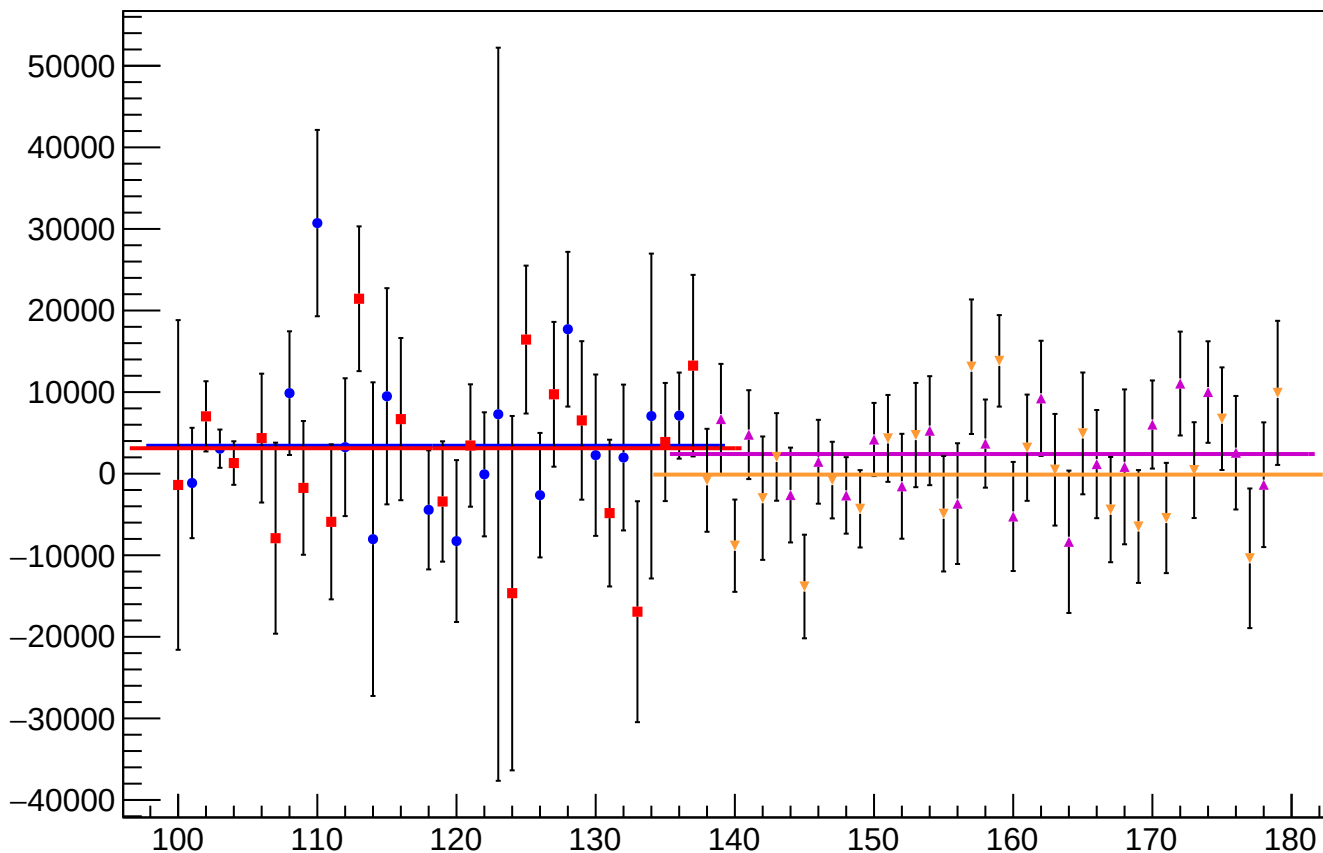
In: 2979.095+/-0.553  $\chi^2/\text{NDF}$ :15088231.6/36

Out: 2922.758+/-0.531  $\chi^2/\text{NDF}$ :15836958.9/40

All: 2949.792+/-0.383  $\chi^2/\text{NDF}$ : 30930597.5/79



# asym\_atl1r2\_avg\_mean vs Slug, Sign Corrected



Right In: 3421.264+/-1606.678  $\chi^2/\text{NDF}$ : 13.7/16

Left Out: -112.741+/-1336.530  $\chi^2/\text{NDF}$ : 25.2/21

Right Out: 3117.857+/-1605.930  $\chi^2/\text{NDF}$ : 16.0/18

Left In: 2406.968+/-1374.599  $\chi^2/\text{NDF}$ : 11.8/19

Left: 1111.739+/-958.245  $\chi^2/\text{NDF}$ : 38.8/41

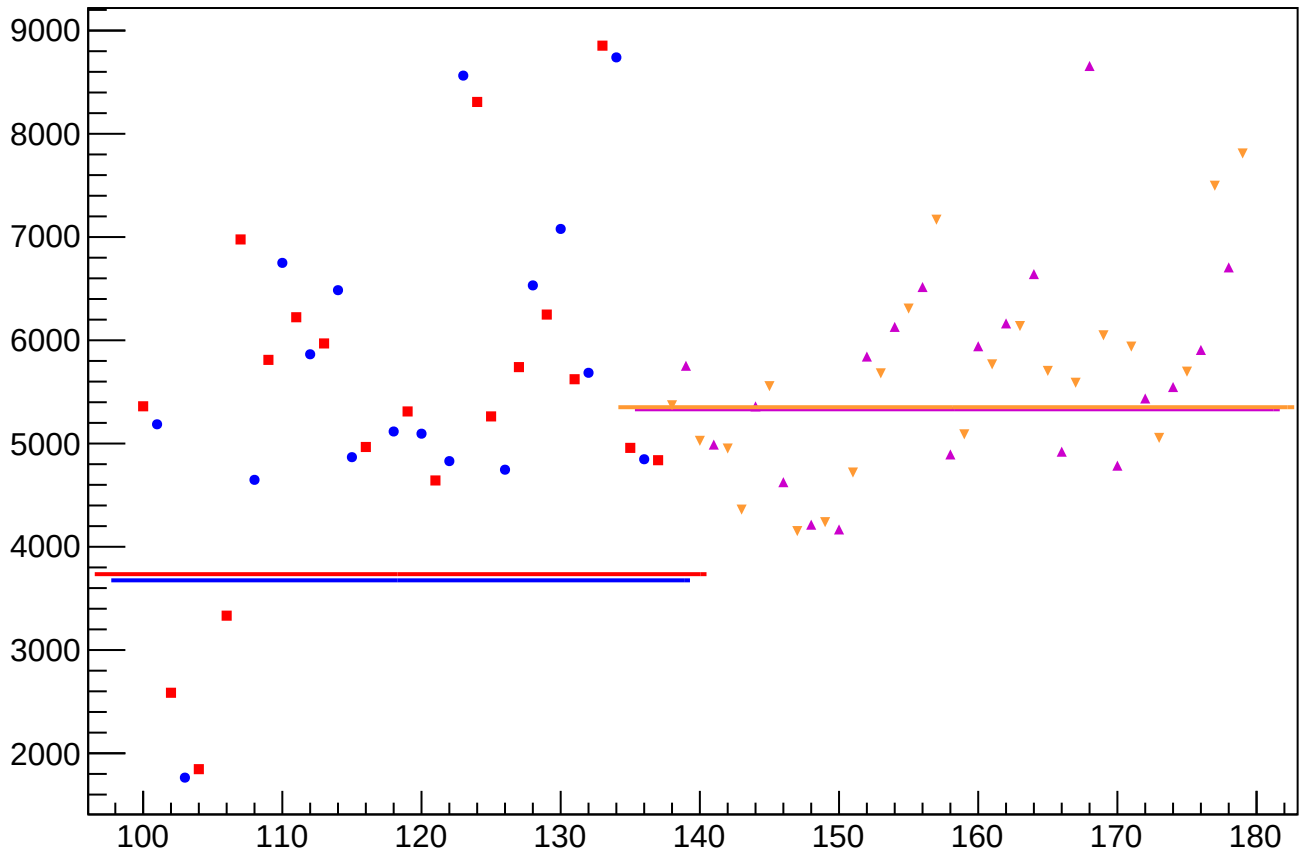
Right: 3269.490+/-1135.828  $\chi^2/\text{NDF}$ : 29.7/35

In: 2835.634+/-1044.493  $\chi^2/\text{NDF}$ : 25.8/36

Out: 1209.235+/-1027.299  $\chi^2/\text{NDF}$ : 43.6/40

All: 2008.938+/-732.414  $\chi^2/\text{NDF}$ : 70.6/77

# asym\_atl1r2\_avg\_rms vs Slug, Sign Corrected



Right In: 3675.003 $\pm$ 1.136  $\chi^2$ /NDF: 2775085.7/16

Left Out: 5351.858 $\pm$ 0.945  $\chi^2$ /NDF: 863392.1/21

Right Out: 3734.796 $\pm$ 1.128  $\chi^2$ /NDF: 2693929.0/18

Left In: 5331.716 $\pm$ 0.972  $\chi^2$ /NDF: 851342.9/19

Left: 5342.070 $\pm$ 0.678  $\chi^2$ /NDF: 1714955.8/41

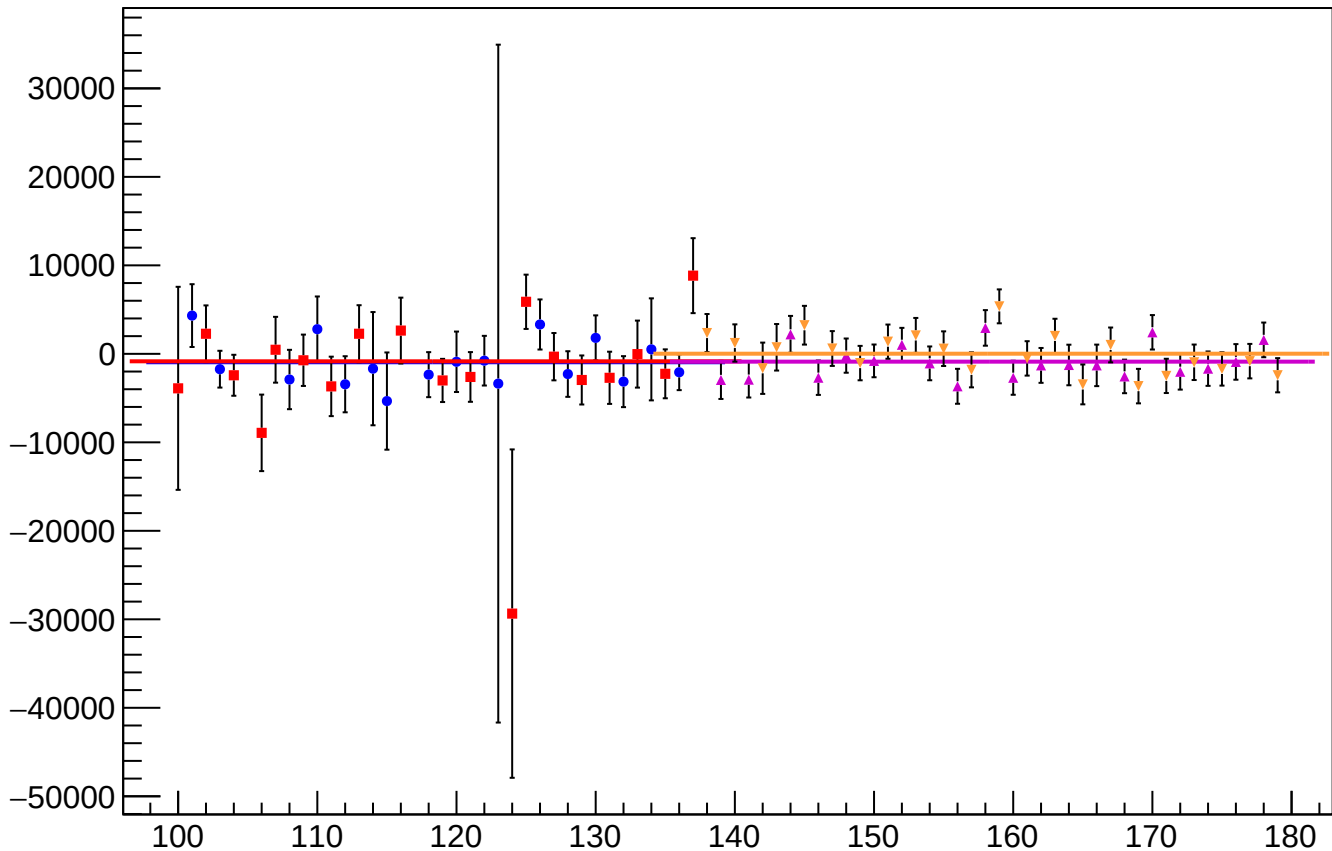
Right: 3705.112 $\pm$ 0.800  $\chi^2$ /NDF: 5470409.5/35

In: 4631.550 $\pm$ 0.739  $\chi^2$ /NDF: 4854224.5/36

Out: 4684.933 $\pm$ 0.724  $\chi^2$ /NDF: 4764792.7/40

All: 4658.758 $\pm$ 0.517  $\chi^2$ /NDF: 9621679.9/77

# reg\_asym\_atl1r2\_dd\_mean vs Slug, Sign Corrected



Right In: -951.377+/-740.668  $\chi^2$ /NDF: 10.0/16

Left Out: 15.690+/-433.284  $\chi^2$ /NDF:26.6/21

Right Out: -843.515+/-737.527  $\chi^2$ /NDF: 22.5/18

Left In: -882.914+/-445.984  $\chi^2$ /NDF:18.5/19

Left: -420.636+/-310.771  $\chi^2$ /NDF: 47.2/41

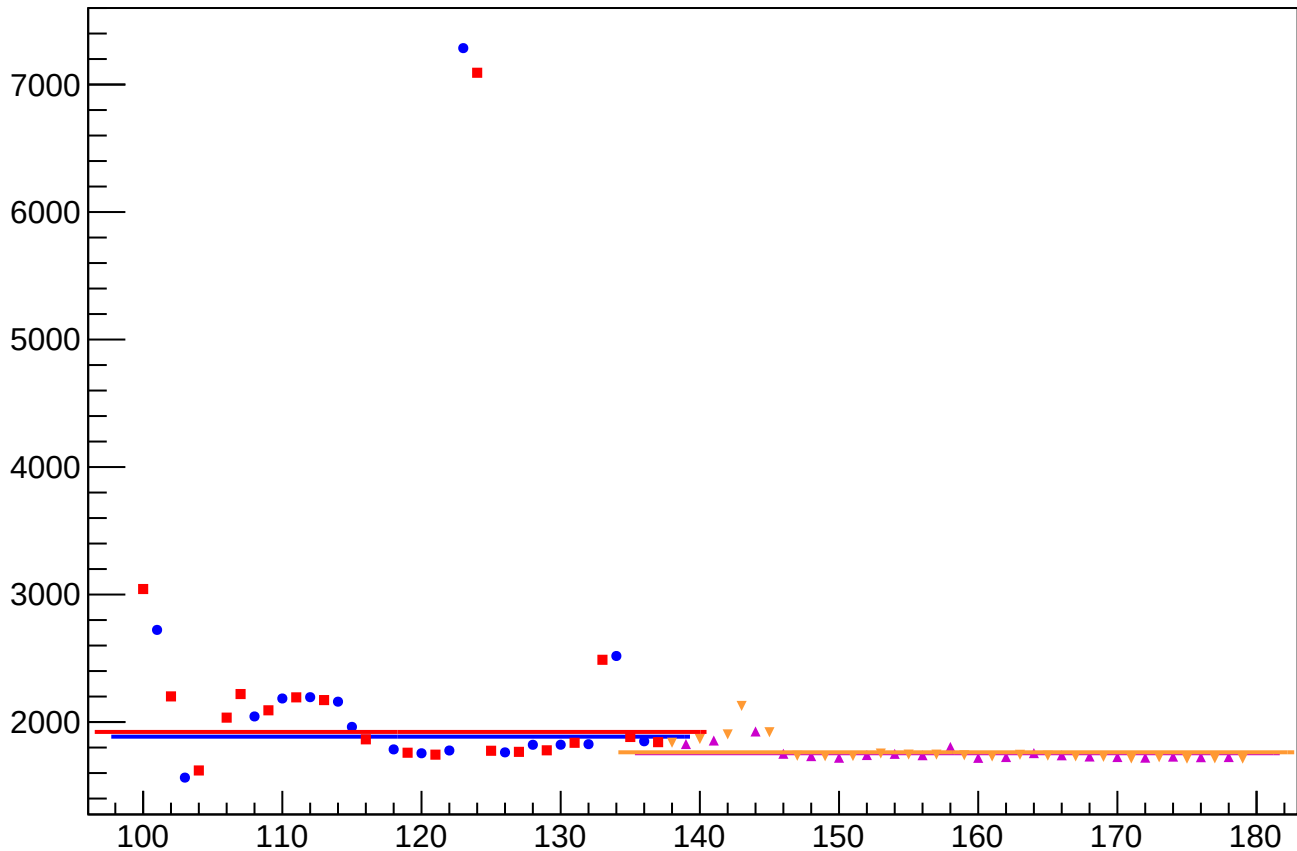
Right: -897.217+/-522.617  $\chi^2$ /NDF: 32.5/35

In: -901.132+/-382.067  $\chi^2$ /NDF:28.4/36

Out: -204.765+/-373.585  $\chi^2$ /NDF:50.1/40

All: -545.133+/-267.113  $\chi^2$ /NDF: 80.3/77

# reg\_asym\_atl1r2\_dd\_rms vs Slug, Sign Corrected



Right In: 1885.360+/-0.524  $\chi^2/\text{NDF}$ : 280429.0/16

Left Out: 1762.753+/-0.306  $\chi^2/\text{NDF}$ : 70911.4/21

Right Out: 1922.538+/-0.521  $\chi^2/\text{NDF}$ : 351512.1/18

Left In: 1755.287+/-0.315  $\chi^2/\text{NDF}$ : 27003.7/19

Left: 1759.128+/-0.220  $\chi^2/\text{NDF}$ : 98203.4/41

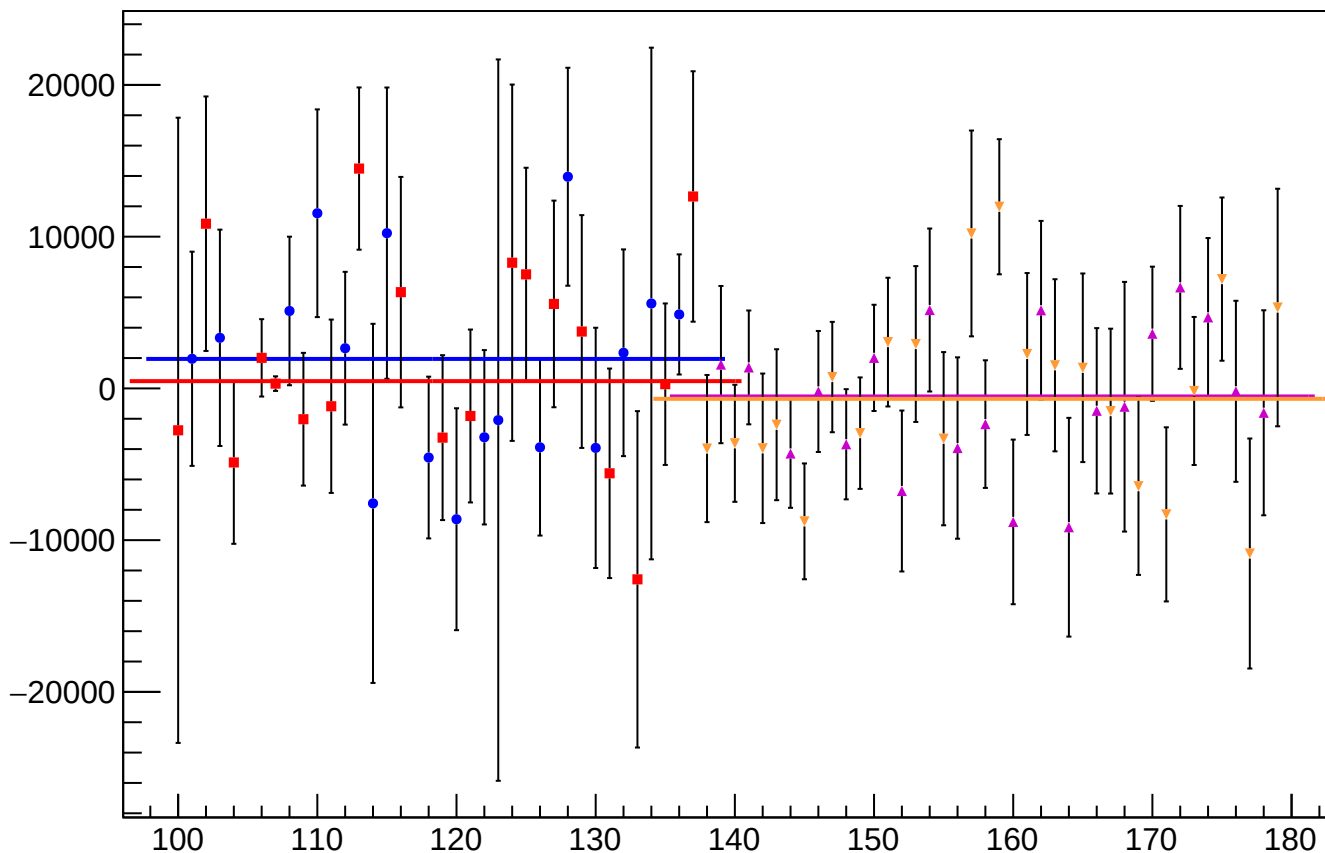
Right: 1904.057+/-0.369  $\chi^2/\text{NDF}$ : 634475.3/35

In: 1789.899+/-0.270  $\chi^2/\text{NDF}$ : 352701.4/36

Out: 1803.846+/-0.264  $\chi^2/\text{NDF}$ : 492374.1/40

All: 1797.032+/-0.189  $\chi^2/\text{NDF}$ : 846438.5/77

asym\_atl1r2\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 1943.178+/-1581.060  $\chi^2/\text{NDF}$ : 13.2/16

Left Out: -686.760+/-1052.889  $\chi^2/\text{NDF}$ : 26.6/21

Right Out: 478.828+/-453.684  $\chi^2/\text{NDF}$ : 18.1/18

Left In: -530.298+/-1075.471  $\chi^2/\text{NDF}$ : 14.2/19

Left: -610.189+/-752.362  $\chi^2/\text{NDF}$ : 40.9/41

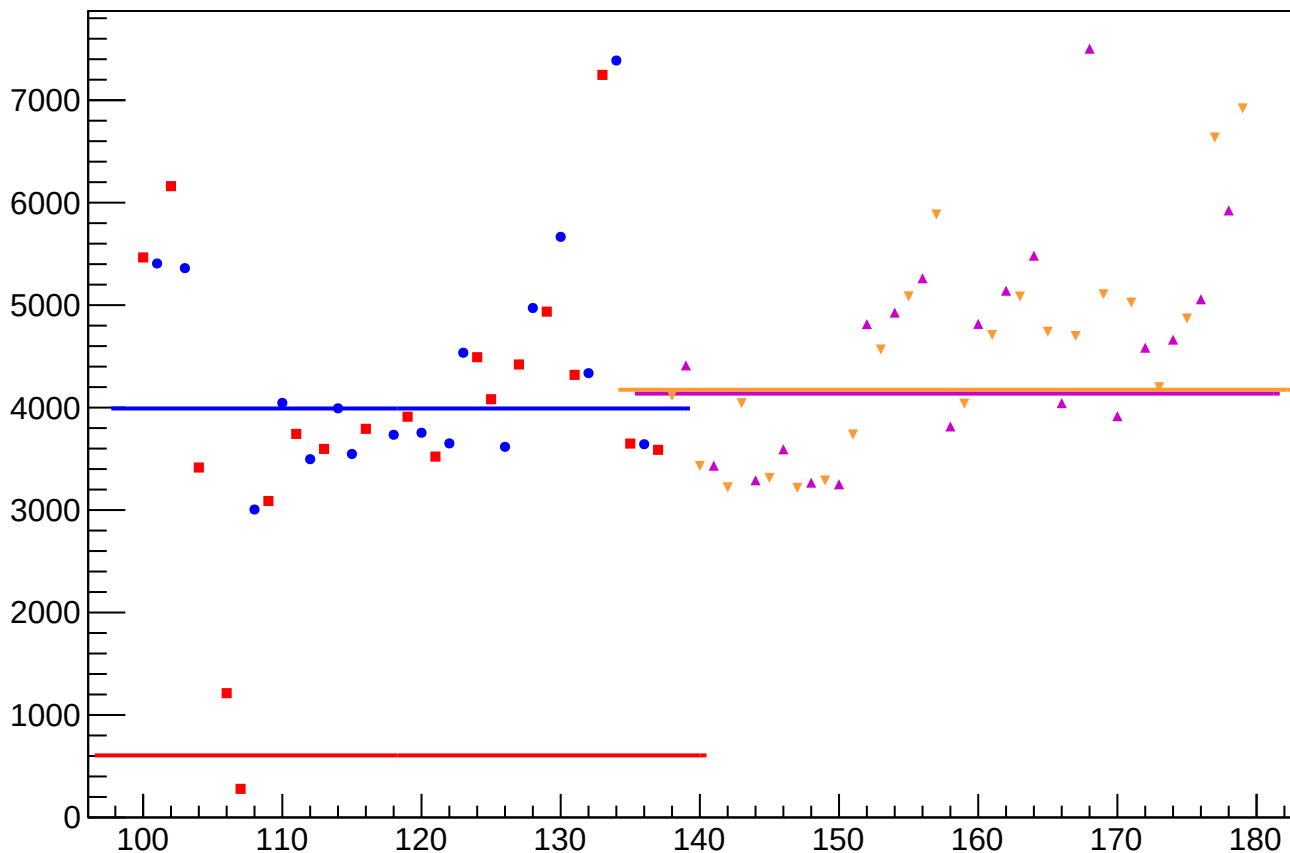
Right: 590.230+/-436.086  $\chi^2/\text{NDF}$ : 32.0/35

In: 252.145+/-889.244  $\chi^2/\text{NDF}$ : 29.1/36

Out: 296.303+/-416.651  $\chi^2/\text{NDF}$ : 45.7/40

All: 288.354+/-377.290  $\chi^2/\text{NDF}$ : 74.8/77

asym\_atl1r2\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 3991.416+/-1.118  $\chi^2/\text{NDF}$ : 510782.7/16

Left Out: 4174.183+/-0.745  $\chi^2/\text{NDF}$ : 1412362.1/21

Right Out: 605.731+/-0.321  $\chi^2/\text{NDF}$ : 10246585.0/18

Left In: 4136.562+/-0.760  $\chi^2/\text{NDF}$ : 1347768.4/19

Left: 4155.772+/-0.532  $\chi^2/\text{NDF}$ : 2761380.1/41

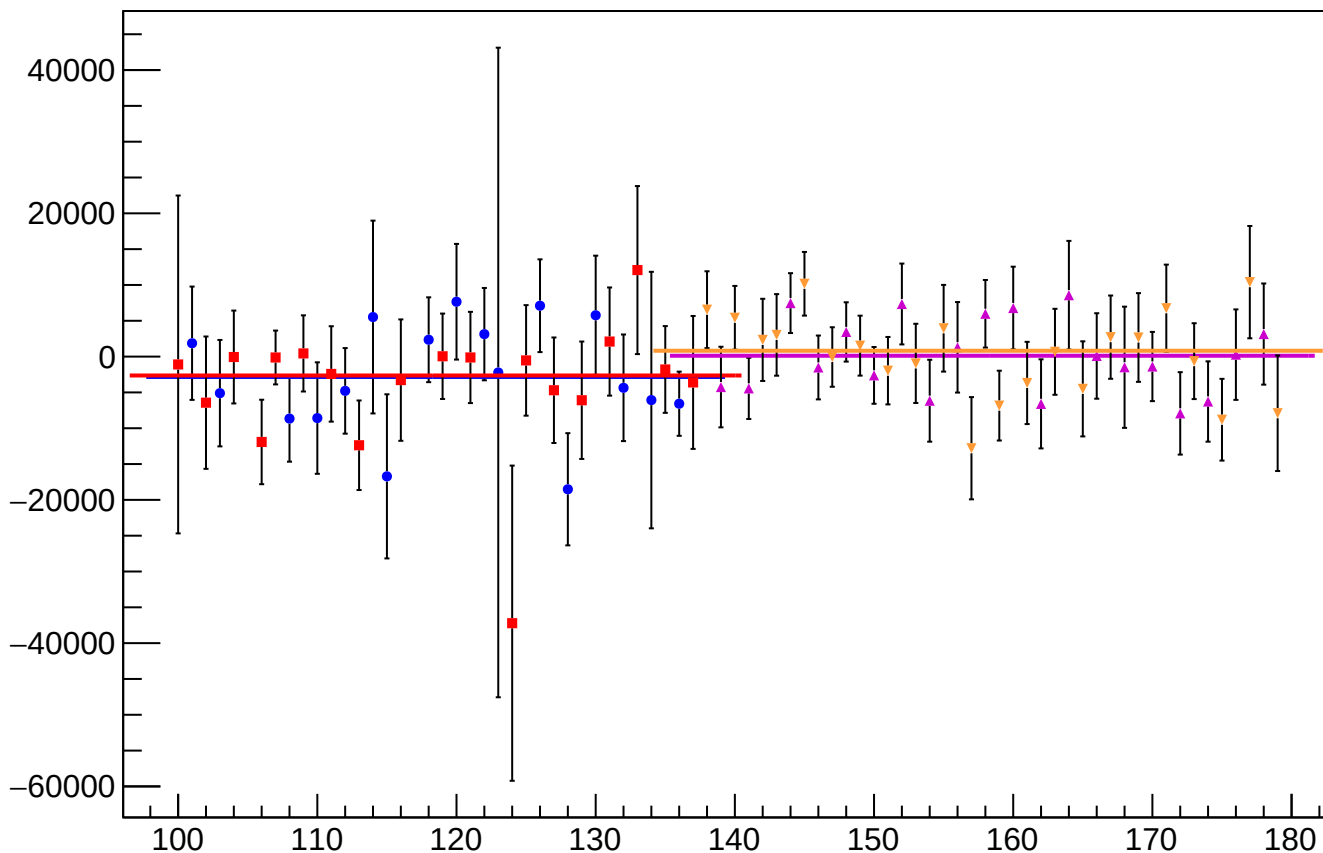
Right: 863.300+/-0.308  $\chi^2/\text{NDF}$ : 19230863.1/35

In: 4090.648+/-0.629  $\chi^2/\text{NDF}$ : 1870074.7/36

Out: 1164.533+/-0.295  $\chi^2/\text{NDF}$ : 31034773.1/40

All: 1691.277+/-0.267  $\chi^2/\text{NDF}$ : 50662143.4/71

# asym\_atl1r2\_dd\_mean vs Slug, Sign Corrected



Right In: -2839.599+/-1786.019  $\chi^2/\text{NDF}$ : 15.4/16

Left Out: 817.267+/-1161.850  $\chi^2/\text{NDF}$ : 21.8/21

Right Out: -2637.071+/-1575.105  $\chi^2/\text{NDF}$ : 11.2/18

Left In: 119.935+/-1184.010  $\chi^2/\text{NDF}$ : 17.8/19

Left: 475.188+/-829.276  $\chi^2/\text{NDF}$ : 39.7/41

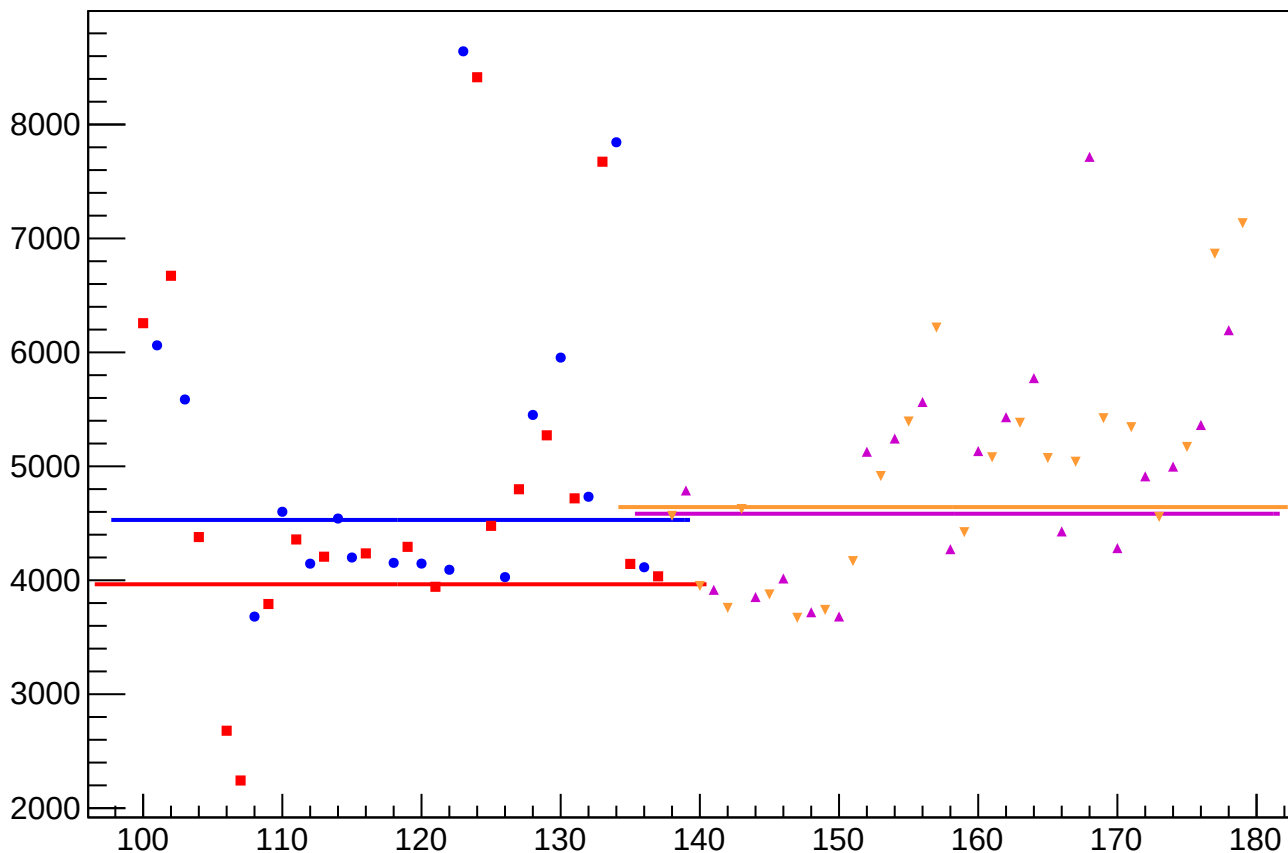
Right: -2725.676+/-1181.334  $\chi^2/\text{NDF}$ : 26.6/35

In: -783.623+/-986.853  $\chi^2/\text{NDF}$ : 35.1/36

Out: -399.955+/-935.001  $\chi^2/\text{NDF}$ : 36.0/40

All: -581.445+/-678.736  $\chi^2/\text{NDF}$ : 71.3/77

# asym\_atl1r2\_dd\_rms vs Slug, Sign Corrected



Right In: 4529.462 $\pm$ 1.263  $\chi^2$ /NDF: 389326.2/16

Left Out: 4642.327 $\pm$ 0.822  $\chi^2$ /NDF:1003675.3/21

Right Out: 3964.829 $\pm$ 1.107  $\chi^2$ /NDF: 1140409.6/18

Left In: 4583.893 $\pm$ 0.837  $\chi^2$ /NDF:977960.6/19

Left: 4613.662 $\pm$ 0.586  $\chi^2$ /NDF: 1984117.6/41

Right: 4210.073 $\pm$ 0.832  $\chi^2$ /NDF: 1642804.6/35

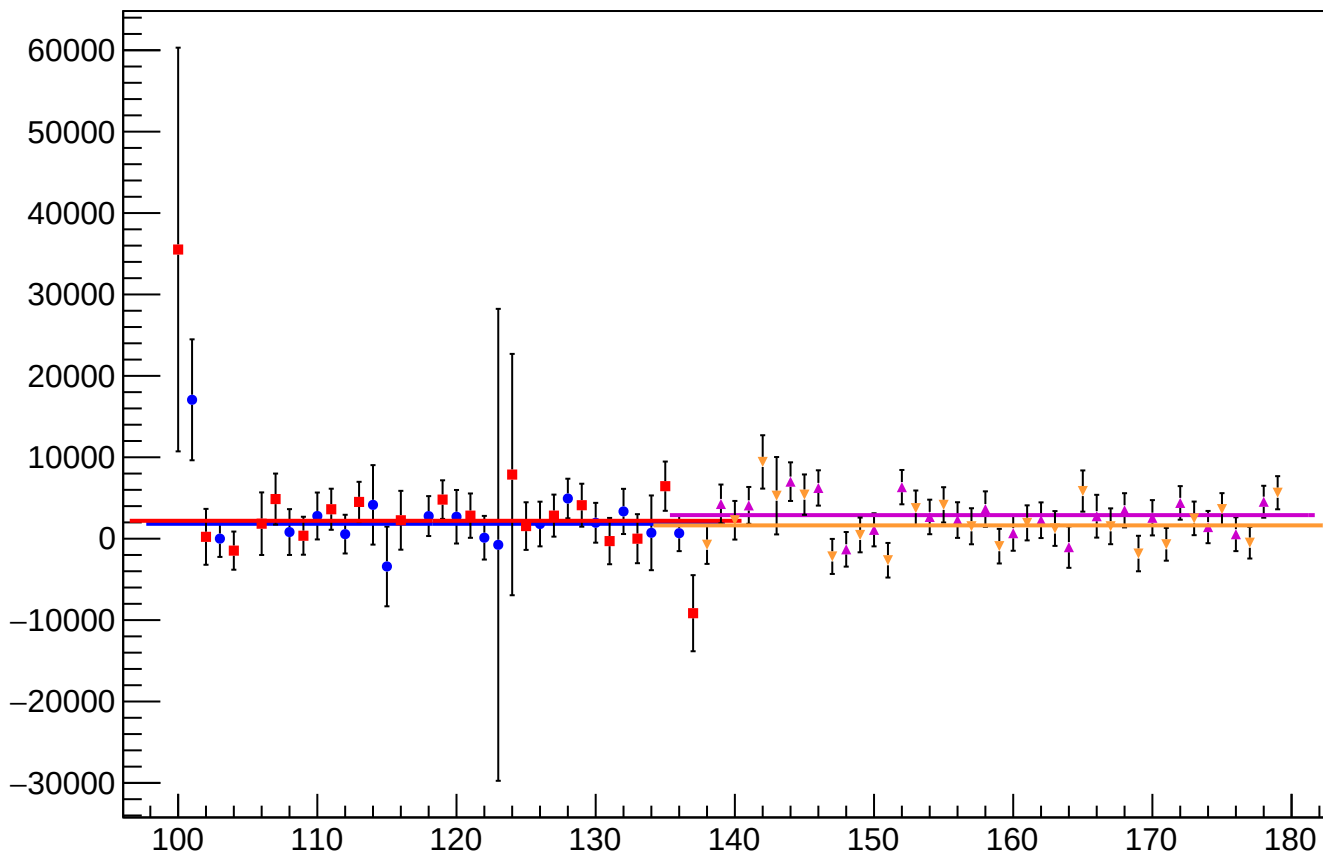
In: 4567.275 $\pm$ 0.698  $\chi^2$ /NDF:1368577.2/36

Out: 4401.608 $\pm$ 0.660  $\chi^2$ /NDF:2385714.0/40

All: 4479.788 $\pm$ 0.479  $\chi^2$ /NDF: 3784056.1/77



reg\_asym\_atr1l2\_avg\_mean vs Slug, Sign Corrected



Right In: 1830.102+/-711.335  $\chi^2/\text{NDF}$ : 9.7/16

Left Out: 1634.558+/-475.502  $\chi^2/\text{NDF}$ :33.9/21

Right Out: 2198.063+/-684.205  $\chi^2/\text{NDF}$ : 18.3/18

Left In: 2893.703+/-485.963  $\chi^2/\text{NDF}$ :20.2/19

Left: 2250.432+/-339.869  $\chi^2/\text{NDF}$ : 57.6/41

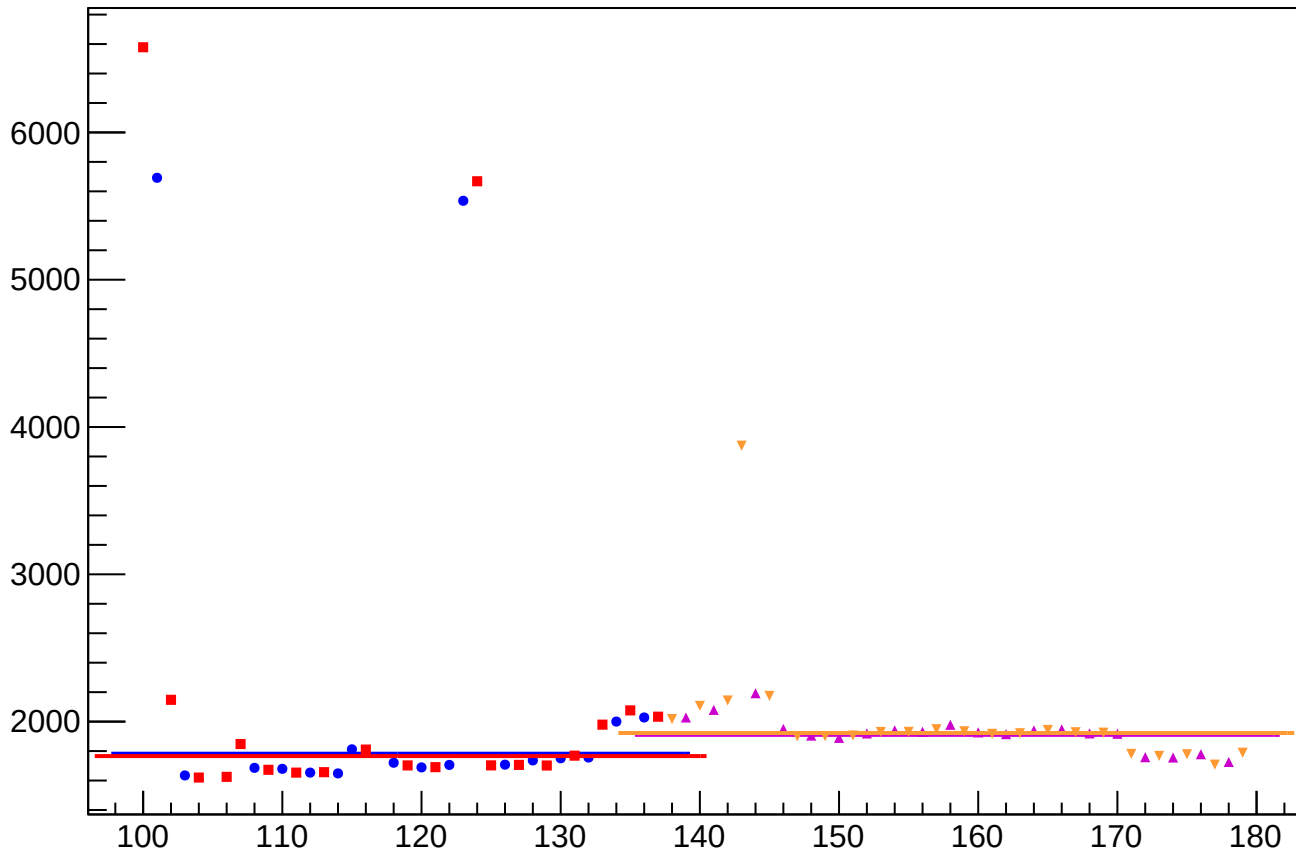
Right: 2021.233+/-493.118  $\chi^2/\text{NDF}$ : 28.2/35

In: 2555.257+/-401.263  $\chi^2/\text{NDF}$ :31.4/36

Out: 1818.082+/-390.467  $\chi^2/\text{NDF}$ :52.7/40

All: 2176.619+/-279.841  $\chi^2/\text{NDF}$ : 85.9/77

reg\_asym\_atr1l2\_avg\_rms vs Slug, Sign Corrected



Right In: 1782.137+/-0.503  $\chi^2/\text{NDF}$ : 645188.8/16

Left Out: 1922.741+/-0.336  $\chi^2/\text{NDF}$ : 448241.4/21

Right Out: 1765.967+/-0.480  $\chi^2/\text{NDF}$ : 306798.2/18

Left In: 1910.007+/-0.344  $\chi^2/\text{NDF}$ : 97434.4/19

Left: 1916.513+/-0.240  $\chi^2/\text{NDF}$ : 546377.3/41

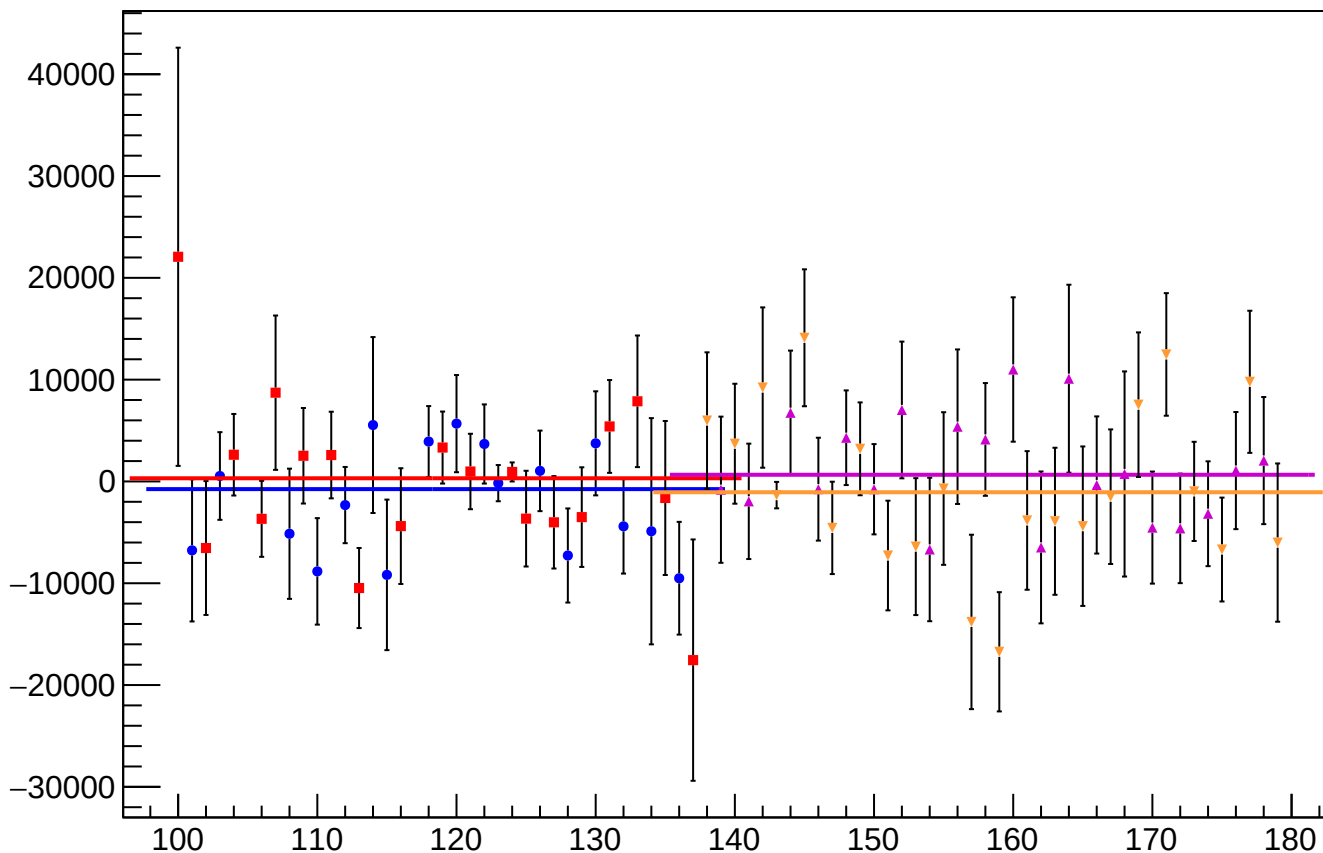
Right: 1773.682+/-0.347  $\chi^2/\text{NDF}$ : 952527.4/35

In: 1869.318+/-0.284  $\chi^2/\text{NDF}$ : 786686.3/36

Out: 1871.208+/-0.275  $\chi^2/\text{NDF}$ : 826503.3/40

All: 1870.291+/-0.198  $\chi^2/\text{NDF}$ : 1613212.5/77

asym\_atr1l2\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -753.428+/-1008.523  $\chi^2/\text{NDF}$ : 16.9/16

Left Out: -1061.264+/-936.254  $\chi^2/\text{NDF}$ : 32.5/21

Right Out: 311.405+/-725.132  $\chi^2/\text{NDF}$ : 22.0/18

Left In: 655.885+/-1350.230  $\chi^2/\text{NDF}$ : 11.4/19

Left: -503.717+/-769.386  $\chi^2/\text{NDF}$ : 44.9/41

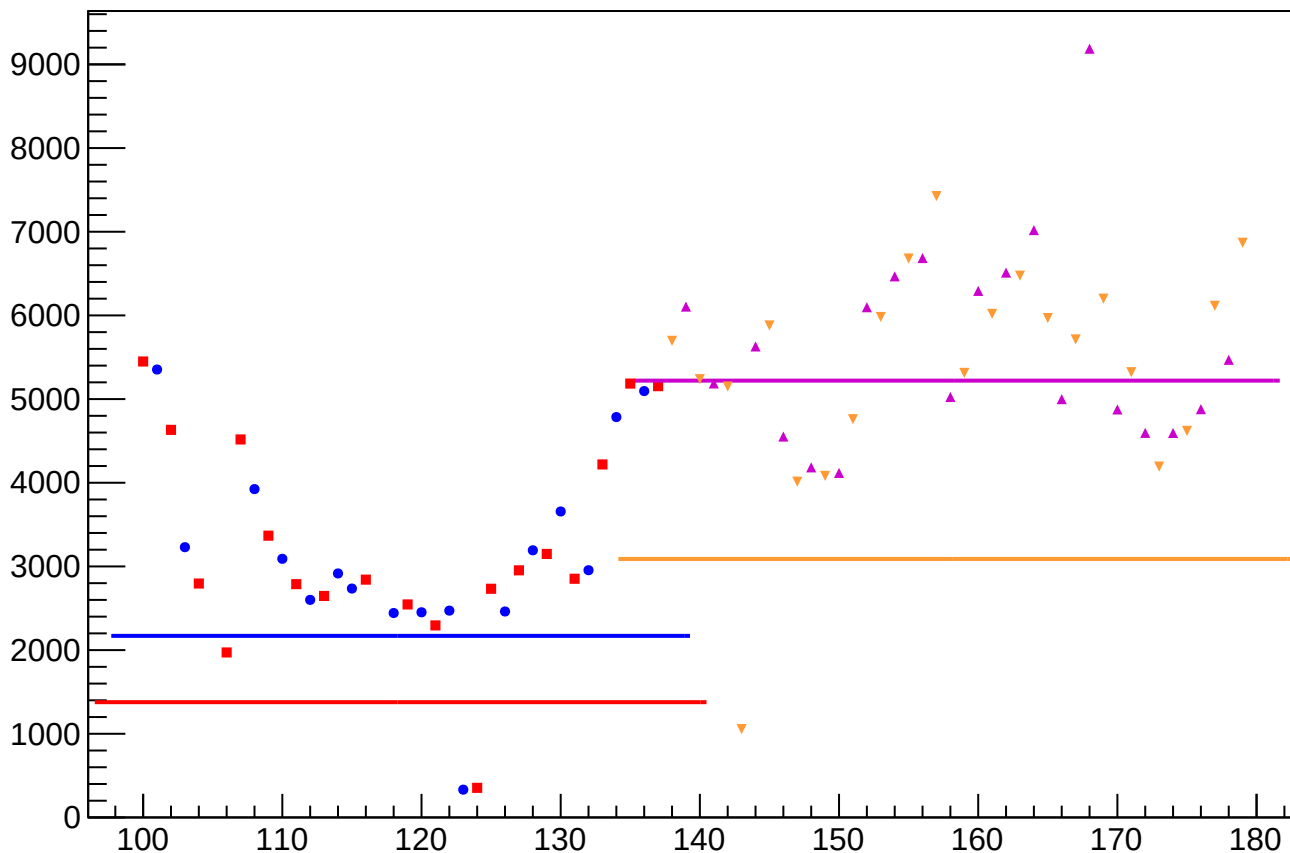
Right: -51.479+/-588.747  $\chi^2/\text{NDF}$ : 39.7/35

In: -248.738+/-808.009  $\chi^2/\text{NDF}$ : 29.0/36

Out: -203.268+/-573.293  $\chi^2/\text{NDF}$ : 55.8/40

All: -218.493+/-467.561  $\chi^2/\text{NDF}$ : 84.8/77

asym\_atr1l2\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 2170.242+/-0.713  $\chi^2/\text{NDF}$ : 3973725.5/16

Left Out: 3089.217+/-0.662  $\chi^2/\text{NDF}$ :11137533.9/21

Right Out: 1377.716+/-0.513  $\chi^2/\text{NDF}$ : 6847297.6/18

Left In: 5220.418+/-0.955  $\chi^2/\text{NDF}$ :1039528.5/19

Left: 3781.203+/-0.544  $\chi^2/\text{NDF}$ : 15541901.6/41

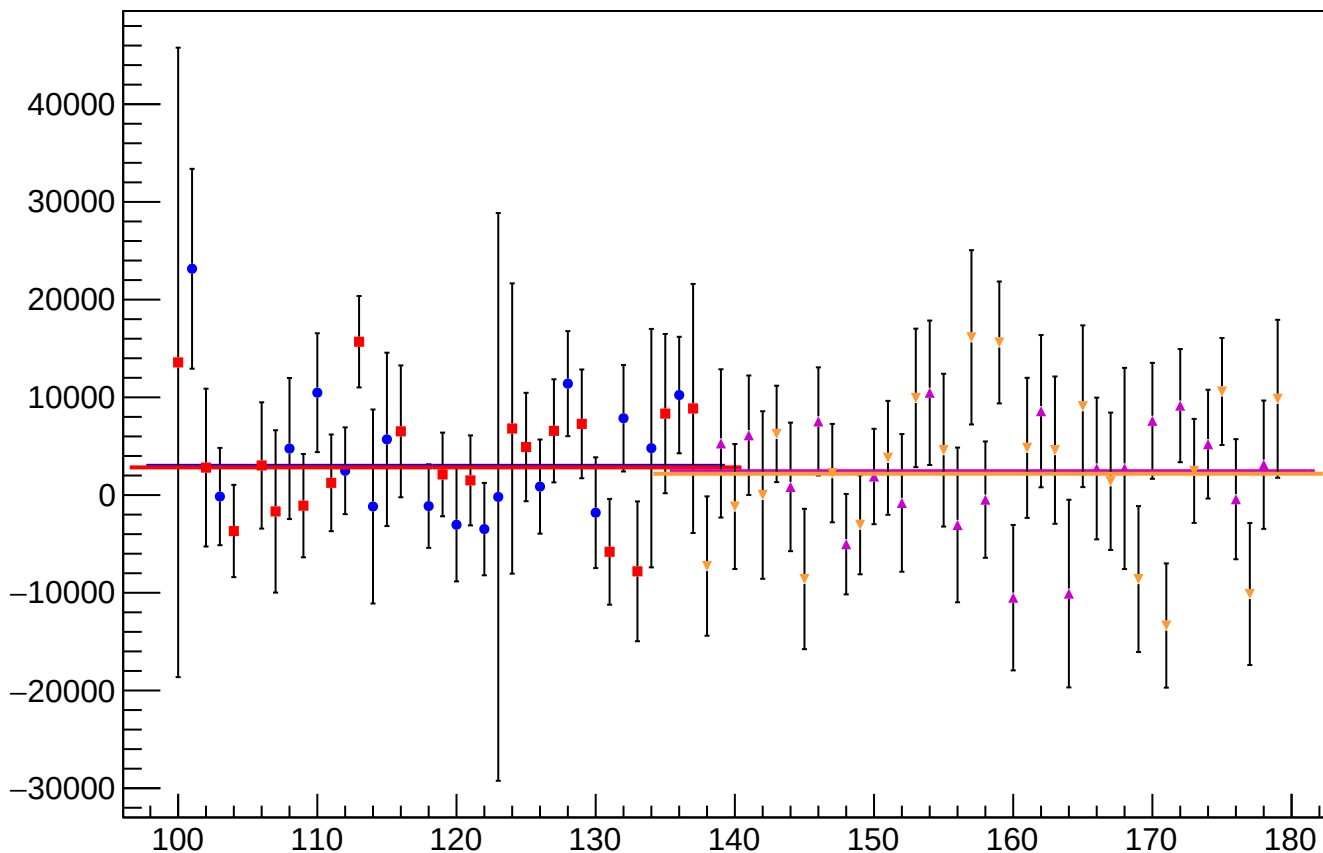
Right: 1647.801+/-0.416  $\chi^2/\text{NDF}$ : 11635181.2/35

In: 3262.541+/-0.571  $\chi^2/\text{NDF}$ :11564512.2/36

Out: 2019.432+/-0.405  $\chi^2/\text{NDF}$ :22162323.6/40

All: 2435.681+/-0.331  $\chi^2/\text{NDF}$ : 36875592.3/7

# asym\_atr1l2\_avg\_mean vs Slug, Sign Corrected



Right In: 2992.806 $\pm$ 1447.211  $\chi^2$ /NDF: 15.7/16

Left Out: 2181.277 $\pm$ 1389.337  $\chi^2$ /NDF: 29.7/21

Right Out: 2833.408 $\pm$ 1379.110  $\chi^2$ /NDF: 17.7/18

Left In: 2440.697 $\pm$ 1448.862  $\chi^2$ /NDF: 13.6/19

Left: 2305.548 $\pm$ 1002.793  $\chi^2$ /NDF: 43.3/41

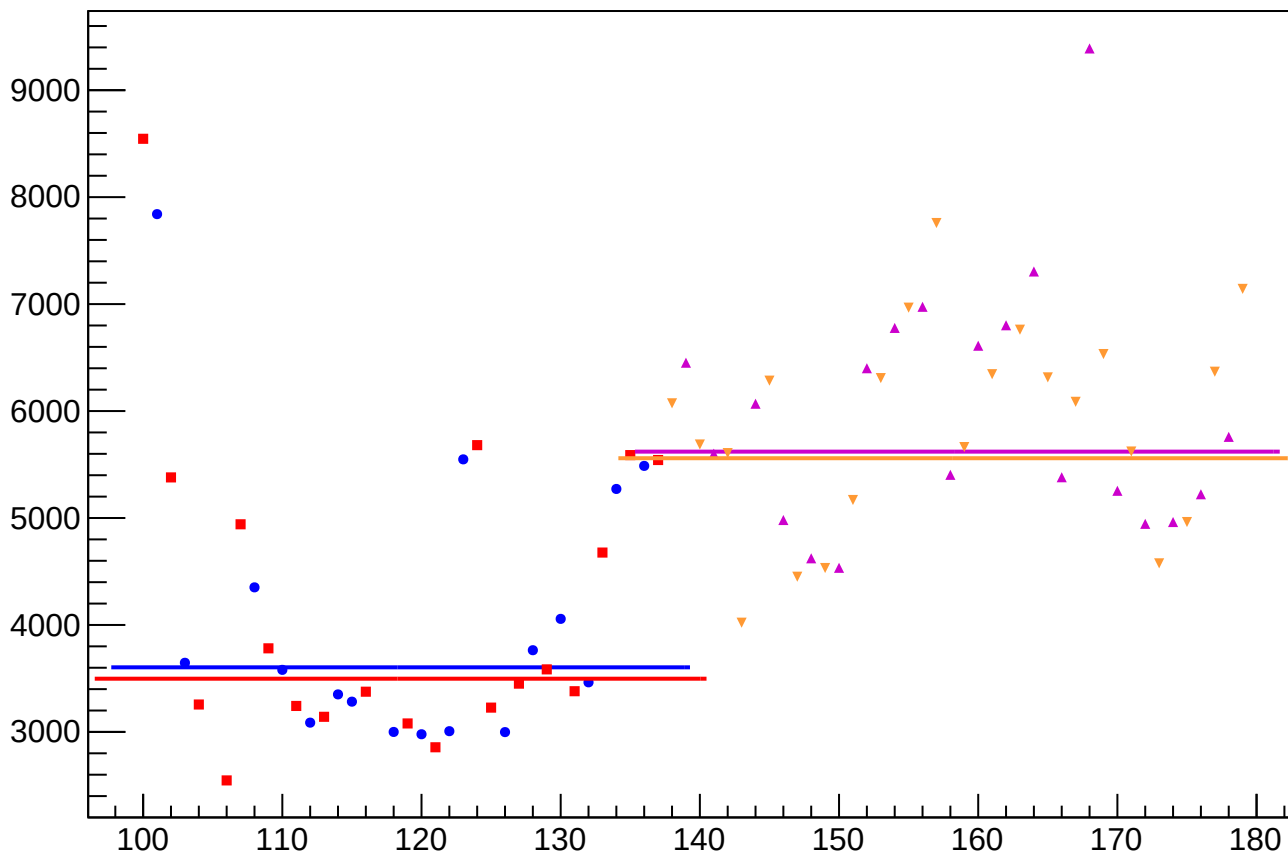
Right: 2909.269 $\pm$ 998.385  $\chi^2$ /NDF: 33.4/35

In: 2717.067 $\pm$ 1023.916  $\chi^2$ /NDF: 29.3/36

Out: 2509.751 $\pm$ 978.774  $\chi^2$ /NDF: 47.5/40

All: 2608.738 $\pm$ 707.518  $\chi^2$ /NDF: 76.9/77

# asym\_atr1l2\_avg\_rms vs Slug, Sign Corrected



Right In: 3603.930 $\pm$ 1.023  $\chi^2/\text{NDF}$ : 784674.5/16

Left Out: 5558.965 $\pm$ 0.982  $\chi^2/\text{NDF}$ : 953650.2/21

Right Out: 3497.586 $\pm$ 0.962  $\chi^2/\text{NDF}$ : 661898.6/18

Left In: 5620.599 $\pm$ 1.025  $\chi^2/\text{NDF}$ : 854333.7/19

Left: 5588.490 $\pm$ 0.709  $\chi^2/\text{NDF}$ : 1809869.4/41

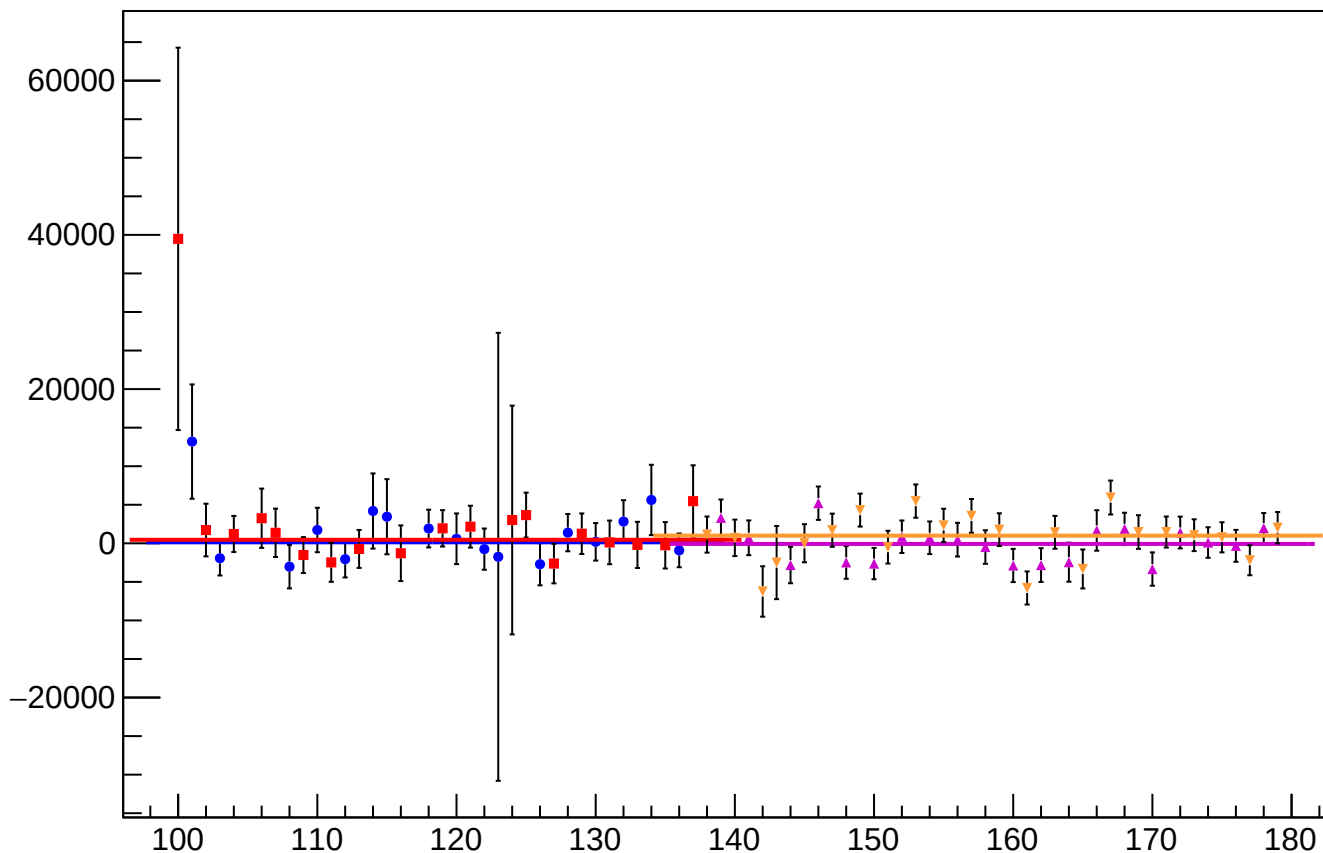
Right: 3547.455 $\pm$ 0.701  $\chi^2/\text{NDF}$ : 1452308.2/35

In: 4611.108 $\pm$ 0.724  $\chi^2/\text{NDF}$ : 3578611.6/36

Out: 4506.239 $\pm$ 0.687  $\chi^2/\text{NDF}$ : 3864023.2/40

All: 4555.940 $\pm$ 0.498  $\chi^2/\text{NDF}$ : 7453671.4/77

# reg\_asym\_atr1l2\_dd\_mean vs Slug, Sign Corrected



Right In: 130.913 $\pm$ 709.207  $\chi^2$ /NDF: 12.2/16

Left Out: 1000.659 $\pm$ 474.629  $\chi^2$ /NDF:35.9/21

Right Out: 459.034 $\pm$ 681.841  $\chi^2$ /NDF: 10.7/18

Left In: -79.020 $\pm$ 485.242  $\chi^2$ /NDF:22.0/19

Left: 472.756 $\pm$ 339.303  $\chi^2$ /NDF: 60.5/41

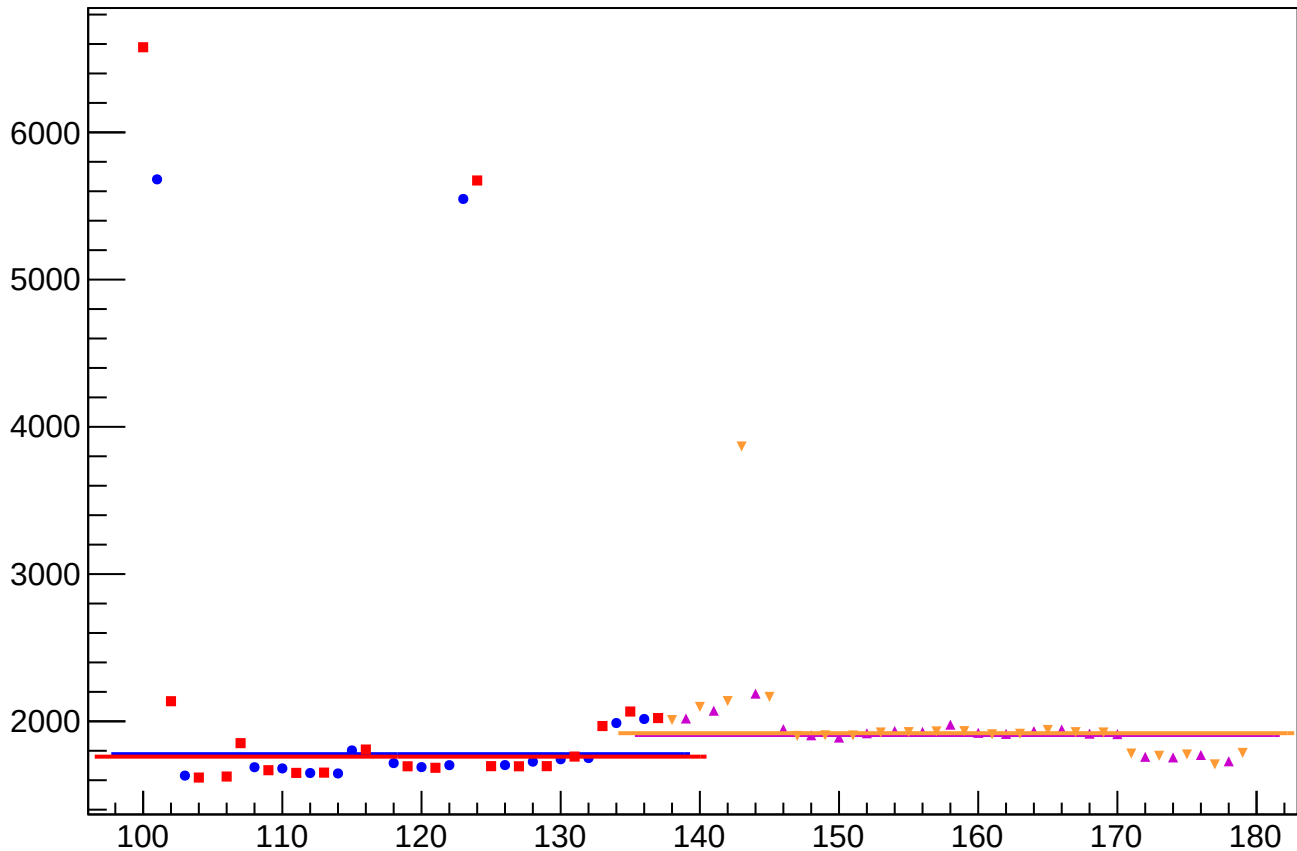
Right: 301.426 $\pm$ 491.524  $\chi^2$ /NDF: 23.0/35

In: -12.080 $\pm$ 400.475  $\chi^2$ /NDF:34.3/36

Out: 823.875 $\pm$ 389.544  $\chi^2$ /NDF:47.0/40

All: 417.462 $\pm$ 279.234  $\chi^2$ /NDF: 83.5/77

# reg\_asym\_atr1l2\_dd\_rms vs Slug, Sign Corrected



Right In: 1776.879+/-0.501  $\chi^2/\text{NDF}$ : 643576.8/16

Left Out: 1919.368+/-0.336  $\chi^2/\text{NDF}$ : 444597.8/21

Right Out: 1759.990+/-0.479  $\chi^2/\text{NDF}$ : 306154.6/18

Left In: 1907.269+/-0.343  $\chi^2/\text{NDF}$ : 94890.4/19

Left: 1913.452+/-0.240  $\chi^2/\text{NDF}$ : 540123.7/41

Right: 1768.045+/-0.346  $\chi^2/\text{NDF}$ : 950324.7/35

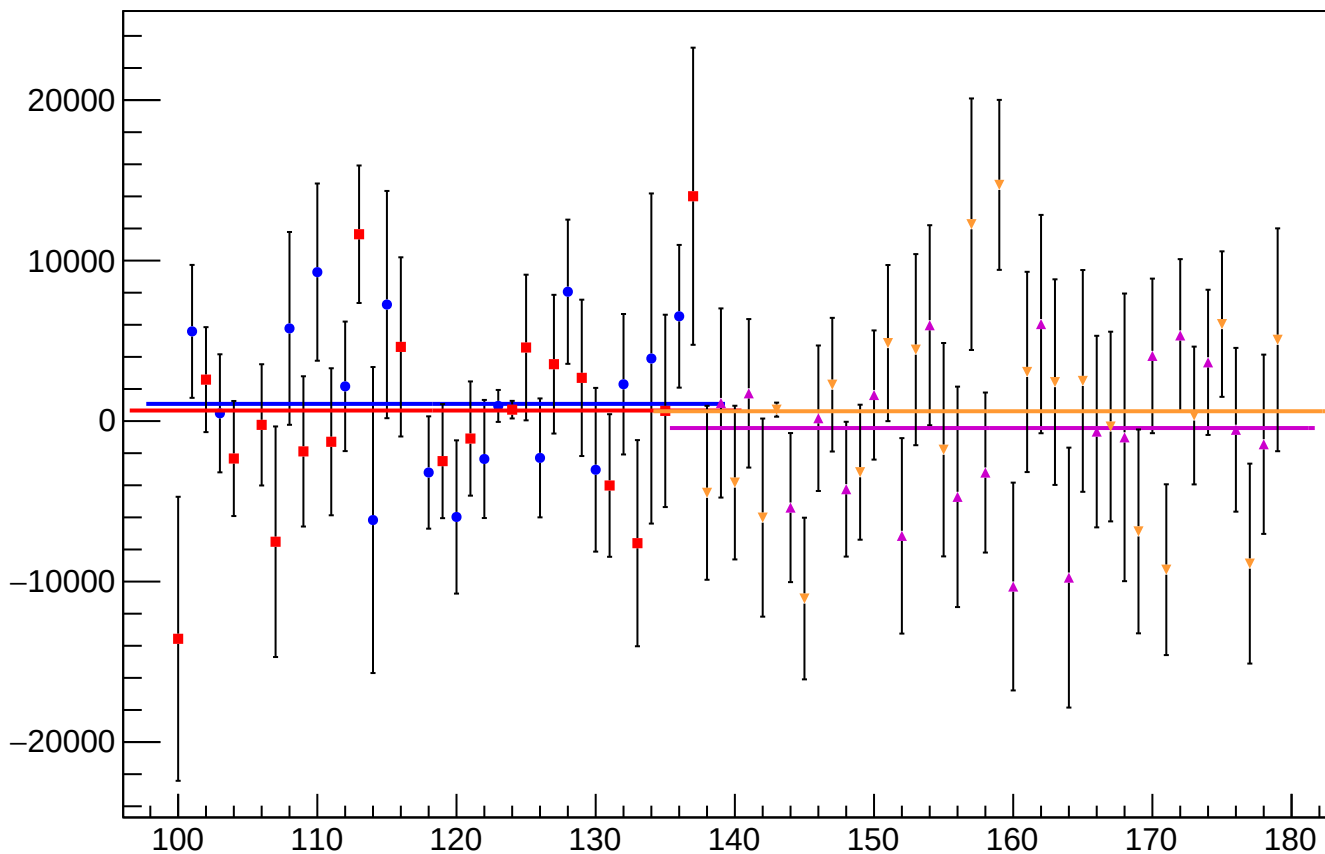
In: 1865.692+/-0.283  $\chi^2/\text{NDF}$ : 784514.5/36

Out: 1866.868+/-0.275  $\chi^2/\text{NDF}$ : 825038.4/40

All: 1866.298+/-0.197  $\chi^2/\text{NDF}$ : 1609561.7/77



asym\_atr1l2\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 1072.194+/-752.280  $\chi^2/\text{NDF}$ : 15.6/16

Left Out: 613.602+/-411.592  $\chi^2/\text{NDF}$ : 29.2/21

Right Out: 658.759+/-488.034  $\chi^2/\text{NDF}$ : 19.8/18

Left In: -433.367+/-1185.857  $\chi^2/\text{NDF}$ : 13.3/19

Left: 501.037+/-388.836  $\chi^2/\text{NDF}$ : 43.2/41

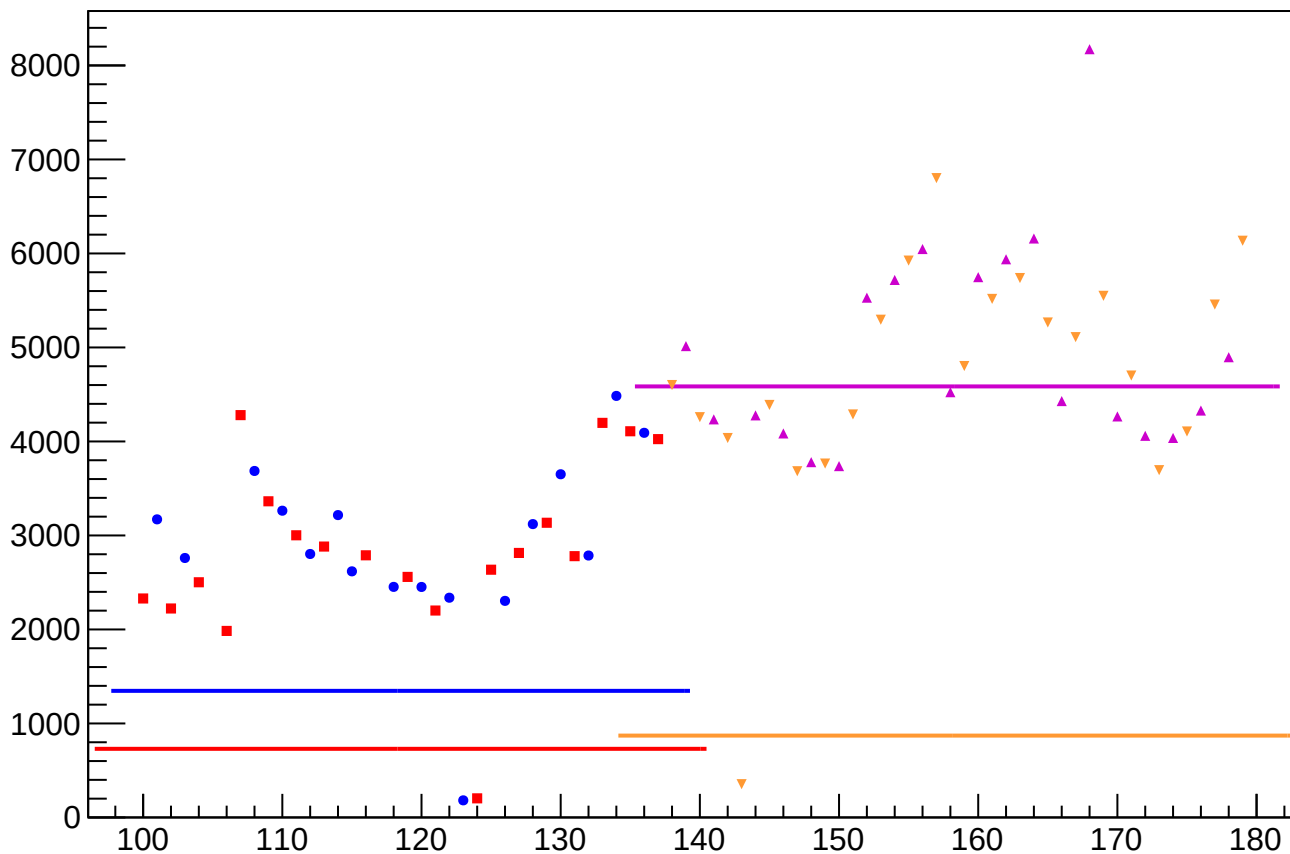
Right: 781.219+/-409.424  $\chi^2/\text{NDF}$ : 35.6/35

In: 640.168+/-635.241  $\chi^2/\text{NDF}$ : 30.0/36

Out: 632.371+/-314.635  $\chi^2/\text{NDF}$ : 49.0/40

All: 633.907+/-281.946  $\chi^2/\text{NDF}$ : 79.0/77

asym\_atr1l2\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 1346.836 $\pm$ 0.532  $\chi^2$ /NDF: 6839112.6/16

Left Out: 870.874 $\pm$ 0.291  $\chi^2$ /NDF: 23919895.6/21

Right Out: 730.119 $\pm$ 0.345  $\chi^2$ /NDF: 9503127.2/18

Left In: 4585.487 $\pm$ 0.839  $\chi^2$ /NDF: 1037477.1/19

Left: 1270.251 $\pm$ 0.275  $\chi^2$ /NDF: 42471688.7/41

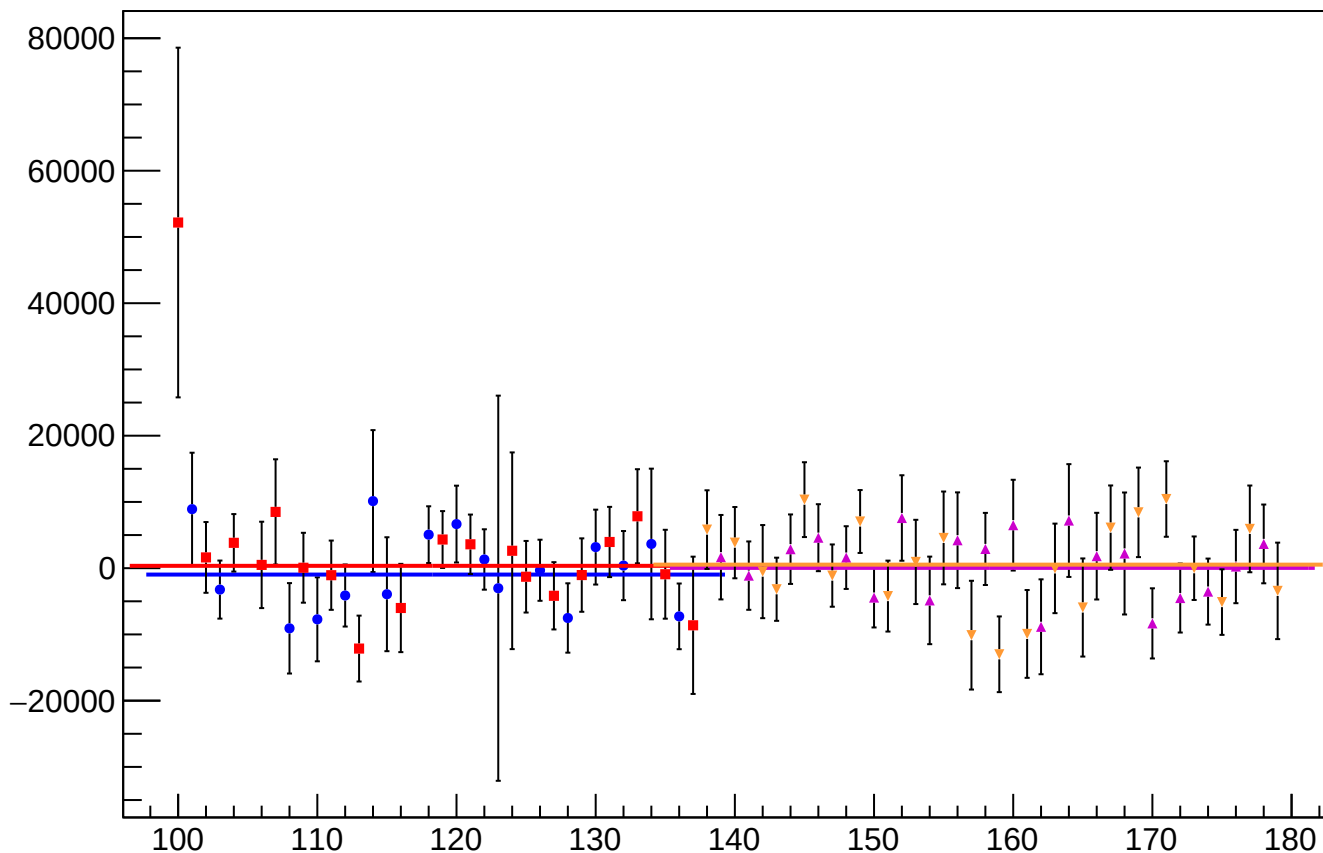
Right: 912.792 $\pm$ 0.290  $\chi^2$ /NDF: 17288237.9/35

In: 2276.179 $\pm$ 0.449  $\chi^2$ /NDF: 18513395.0/36

Out: 812.371 $\pm$ 0.222  $\chi^2$ /NDF: 33520238.9/40

All: 1100.735 $\pm$ 0.199  $\chi^2$ /NDF: 60561479.6/79

# asym\_atr1l2\_dd\_mean vs Slug, Sign Corrected



Right In: -964.151+/-1395.626  $\chi^2/\text{NDF}$ : 13.7/16

Left Out: 533.922+/-1249.660  $\chi^2/\text{NDF}$ : 25.9/21

Right Out: 354.646+/-1329.760  $\chi^2/\text{NDF}$ : 17.6/18

Left In: 43.798+/-1296.797  $\chi^2/\text{NDF}$ : 12.2/19

Left: 297.930+/-899.846  $\chi^2/\text{NDF}$ : 38.3/41

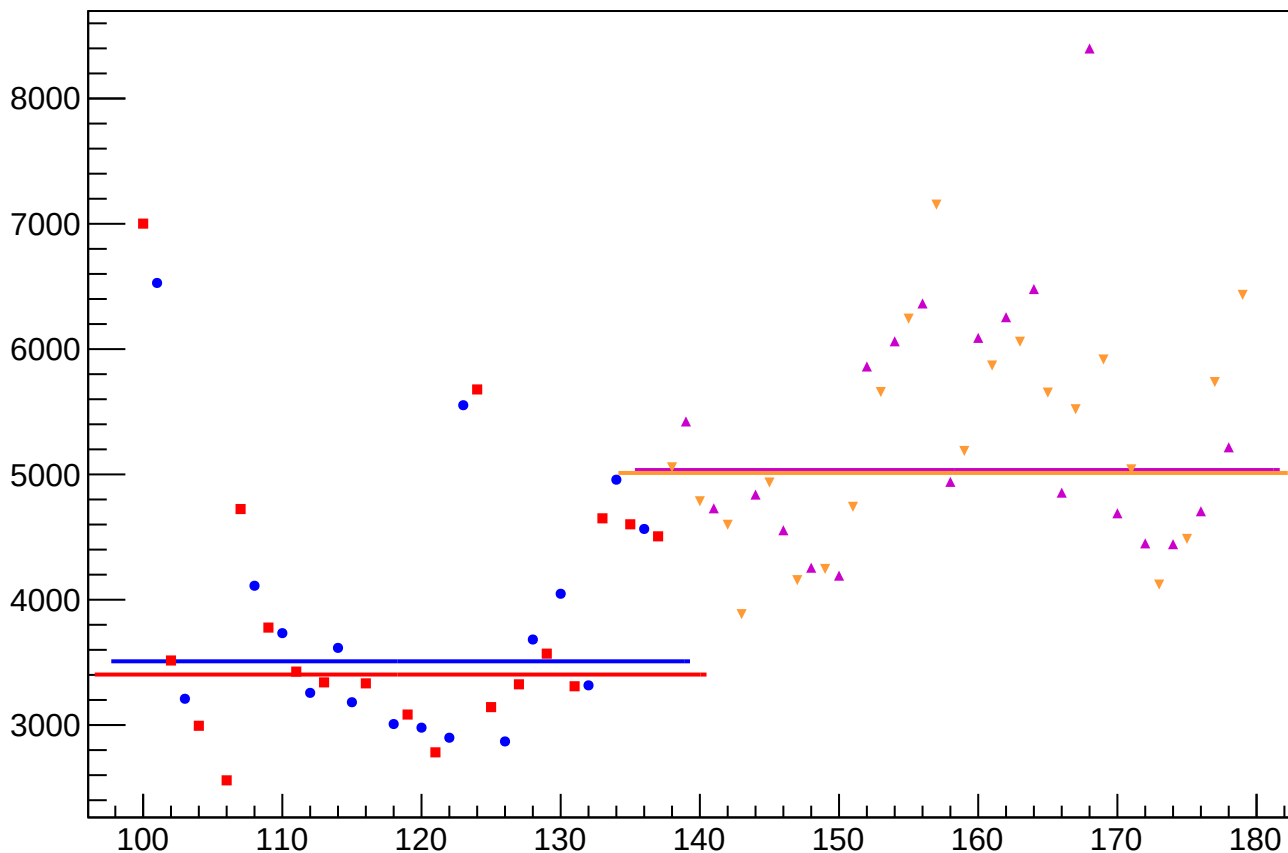
Right: -272.899+/-962.726  $\chi^2/\text{NDF}$ : 31.8/35

In: -423.228+/-949.993  $\chi^2/\text{NDF}$ : 26.3/36

Out: 449.846+/-910.644  $\chi^2/\text{NDF}$ : 43.6/40

All: 31.764+/-657.393  $\chi^2/\text{NDF}$ : 70.3/77

# asym\_atr1l2\_dd\_rms vs Slug, Sign Corrected



Right In: 3508.483 $\pm$ 0.987  $\chi^2$ /NDF: 562197.7/16

Left Out: 5011.740 $\pm$ 0.884  $\chi^2$ /NDF: 804102.7/21

Right Out: 3402.883 $\pm$ 0.928  $\chi^2$ /NDF: 428556.1/18

Left In: 5034.972 $\pm$ 0.917  $\chi^2$ /NDF: 811087.6/19

Left: 5022.926 $\pm$ 0.636  $\chi^2$ /NDF: 1615523.1/41

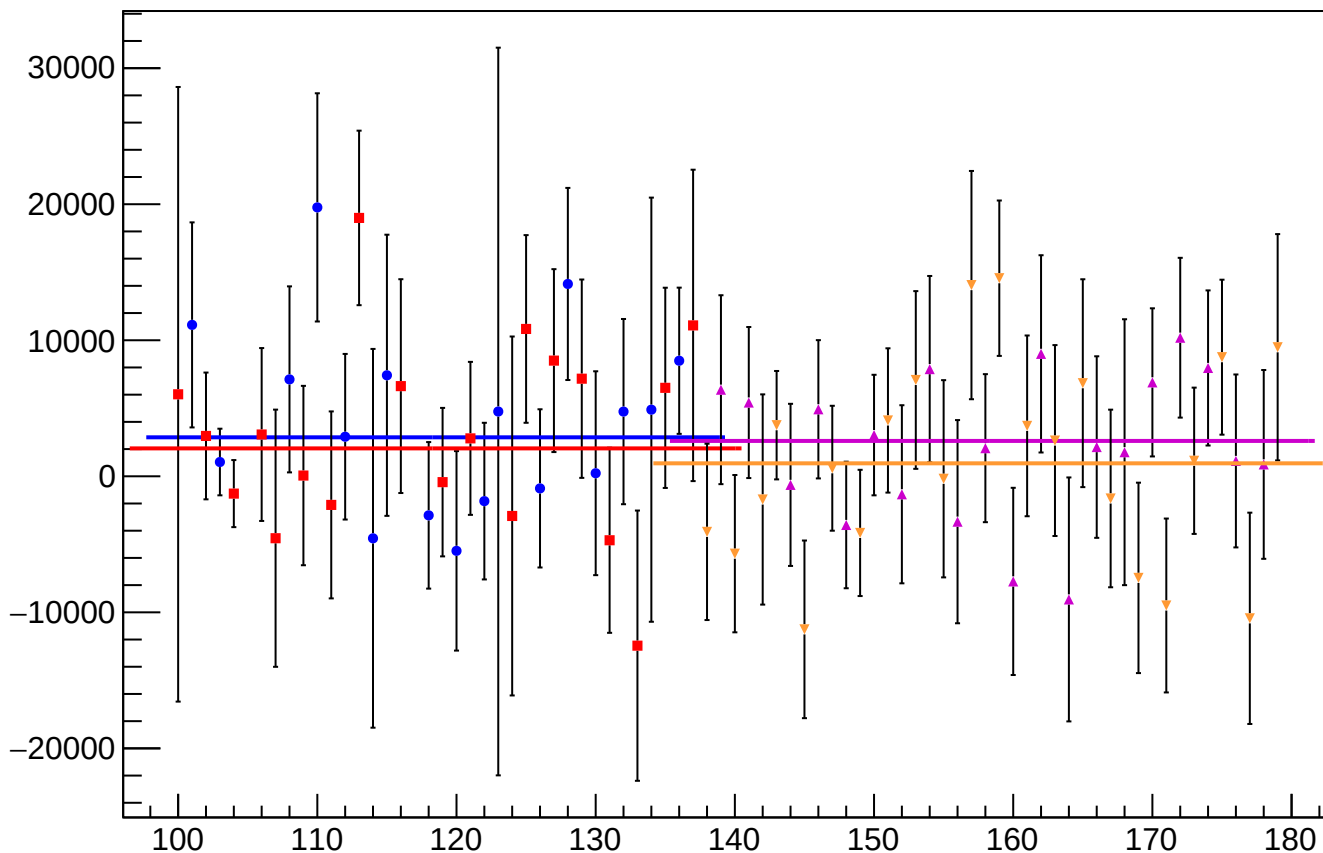
Right: 3452.447 $\pm$ 0.676  $\chi^2$ /NDF: 996829.8/35

In: 4327.680 $\pm$ 0.672  $\chi^2$ /NDF: 2657326.4/36

Out: 4246.776 $\pm$ 0.640  $\chi^2$ /NDF: 2808833.4/40

All: 4285.270 $\pm$ 0.463  $\chi^2$ /NDF: 5473763.6/77

reg\_asym\_atl\_avg\_atr\_avg\_avg\_mean vs Slug, Sign Corrected



Right In: 2864.770+/-1452.658  $\chi^2/\text{NDF}$ : 14.1/16

Left Out: 953.171+/-1292.509  $\chi^2/\text{NDF}$ : 26.8/21

Right Out: 2051.211+/-1381.577  $\chi^2/\text{NDF}$ : 17.7/18

Left In: 2599.461+/-1363.204  $\chi^2/\text{NDF}$ : 12.5/19

Left: 1732.523+/-937.939  $\chi^2/\text{NDF}$ : 40.0/41

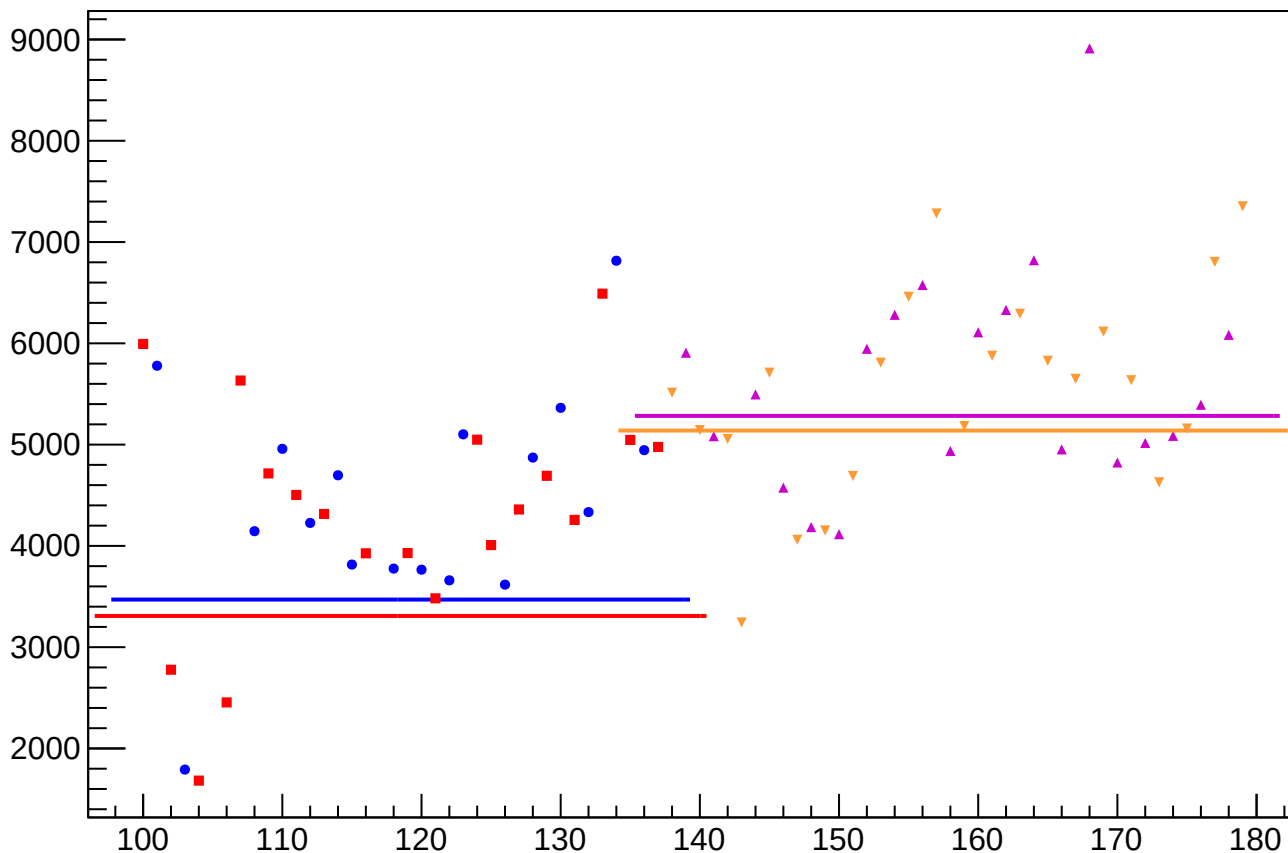
Right: 2437.600+/-1001.108  $\chi^2/\text{NDF}$ : 31.9/35

In: 2723.696+/-994.051  $\chi^2/\text{NDF}$ : 26.5/36

Out: 1465.659+/-943.860  $\chi^2/\text{NDF}$ : 44.8/40

All: 2062.116+/-684.466  $\chi^2/\text{NDF}$ : 72.2/77

reg\_asym\_atl\_avg\_atr\_avg\_avg\_rms vs Slug, Sign Corrected



Right In: 3470.042 $\pm$ 1.027  $\chi^2$ /NDF: 1760860.6/16

Left Out: 5138.907 $\pm$ 0.914  $\chi^2$ /NDF: 1317724.3/21

Right Out: 3308.243 $\pm$ 0.968  $\chi^2$ /NDF: 1910782.0/18

Left In: 5283.679 $\pm$ 0.964  $\chi^2$ /NDF: 899294.9/19

Left: 5207.442 $\pm$ 0.663  $\chi^2$ /NDF: 2228897.7/41

Right: 3384.349 $\pm$ 0.704  $\chi^2$ /NDF: 3684784.1/35

In: 4434.396 $\pm$ 0.703  $\chi^2$ /NDF: 4317876.1/36

Out: 4276.114 $\pm$ 0.665  $\chi^2$ /NDF: 5119448.1/40

All: 4350.819 $\pm$ 0.483  $\chi^2$ /NDF: 9464099.7/77

asym\_atl\_avg\_atr\_avg\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

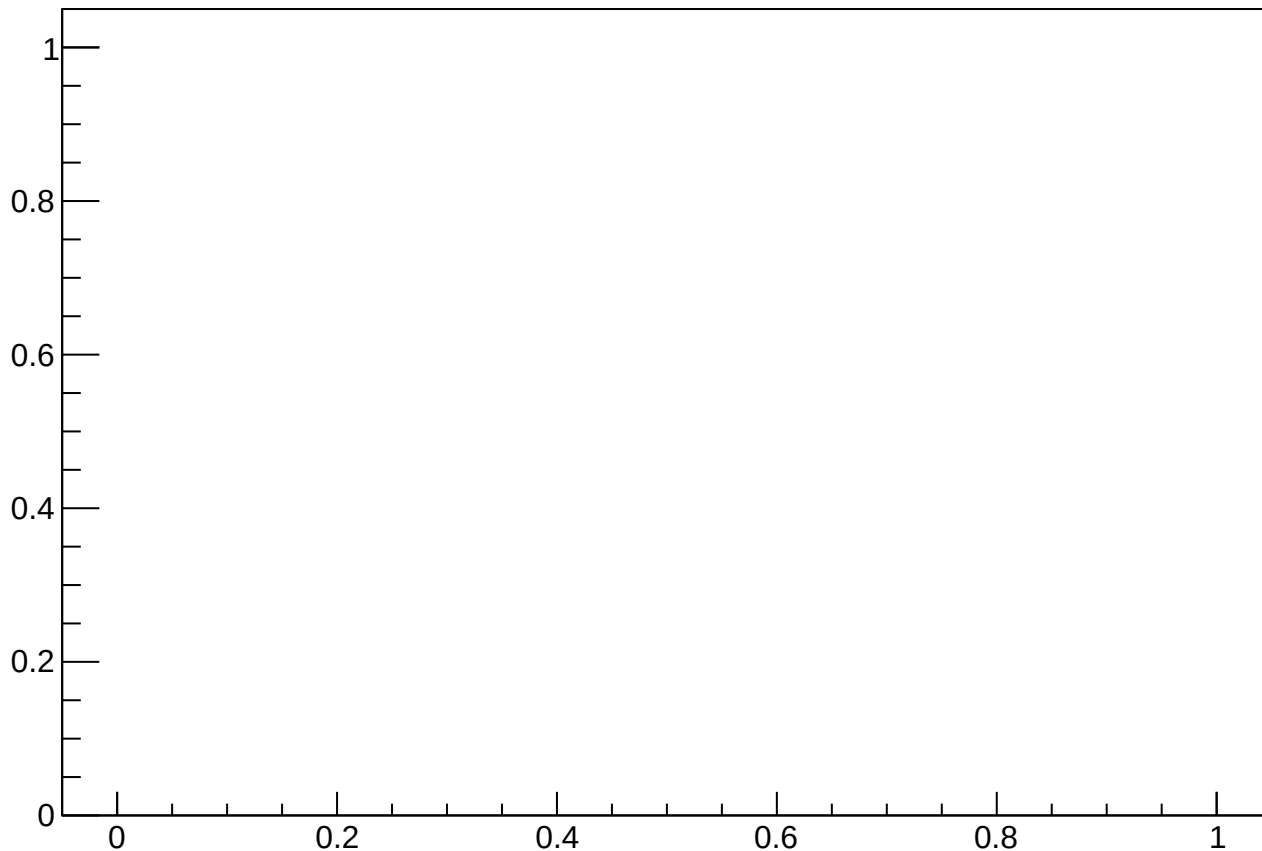
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_avg\_atr\_avg\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

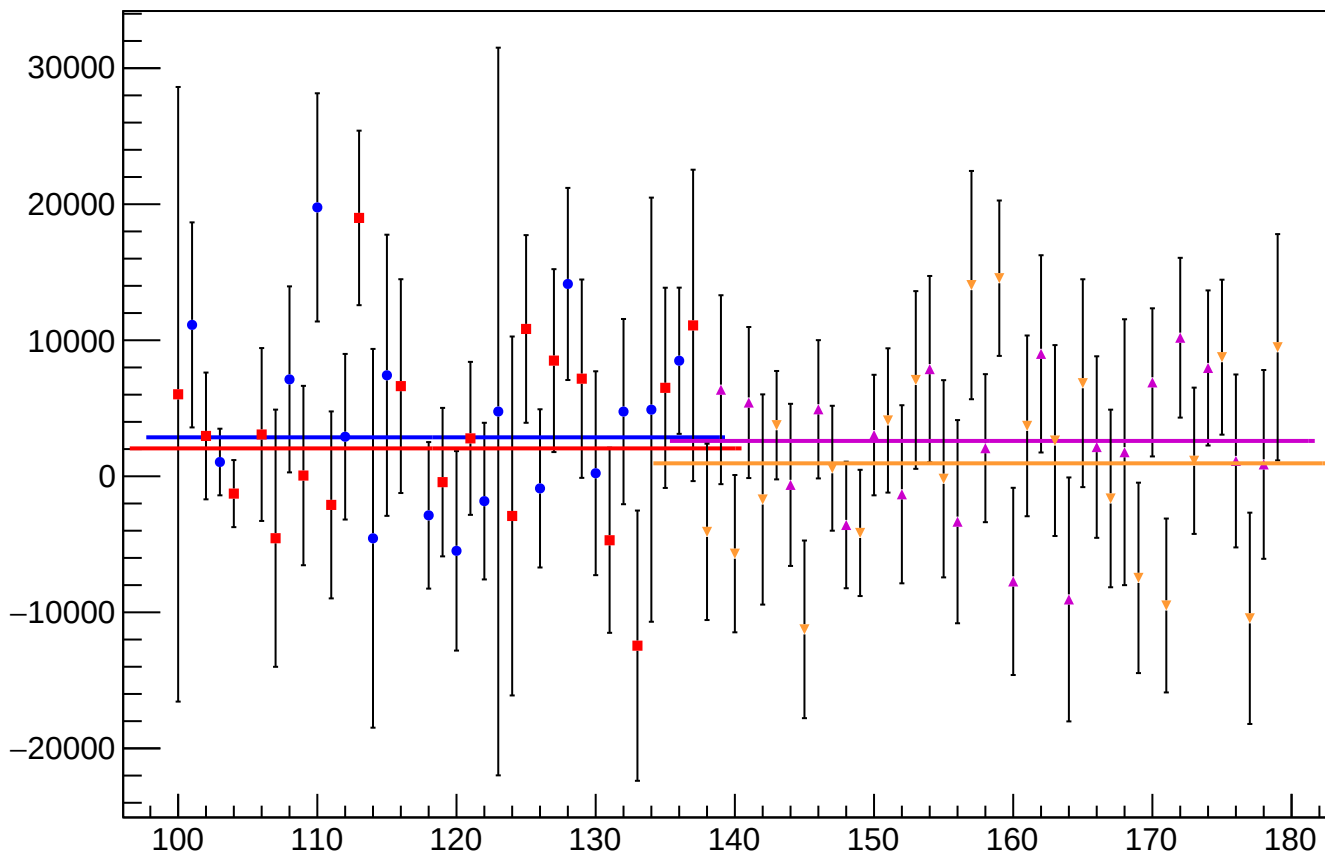
In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0



asym\_atl\_avg\_atr\_avg\_avg\_mean vs Slug, Sign Corrected



Right In: 2864.770+/-1452.658  $\chi^2/\text{NDF}$ : 14.1/16

Left Out: 953.171+/-1292.509  $\chi^2/\text{NDF}$ : 26.8/21

Right Out: 2051.211+/-1381.577  $\chi^2/\text{NDF}$ : 17.7/18

Left In: 2599.461+/-1363.204  $\chi^2/\text{NDF}$ : 12.5/19

Left: 1732.523+/-937.939  $\chi^2/\text{NDF}$ : 40.0/41

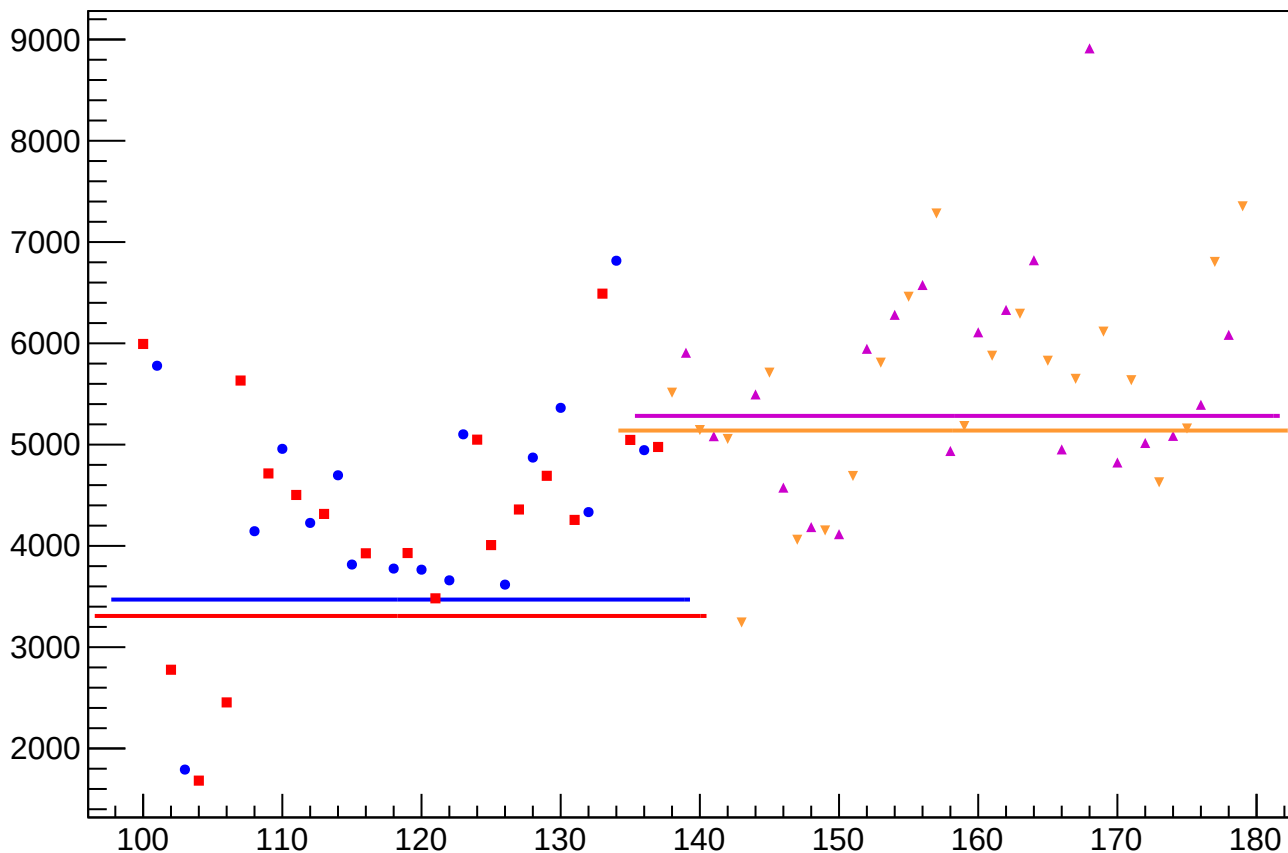
Right: 2437.600+/-1001.108  $\chi^2/\text{NDF}$ : 31.9/35

In: 2723.696+/-994.051  $\chi^2/\text{NDF}$ : 26.5/36

Out: 1465.659+/-943.860  $\chi^2/\text{NDF}$ : 44.8/40

All: 2062.116+/-684.466  $\chi^2/\text{NDF}$ : 72.2/77

asym\_atl\_avg\_atr\_avg\_avg\_rms vs Slug, Sign Corrected



Right In: 3470.042 $\pm$ 1.027  $\chi^2$ /NDF: 1760860.6/16

Left Out: 5138.907 $\pm$ 0.914  $\chi^2$ /NDF: 1317724.3/21

Right Out: 3308.243 $\pm$ 0.968  $\chi^2$ /NDF: 1910782.0/18

Left In: 5283.679 $\pm$ 0.964  $\chi^2$ /NDF: 899294.9/19

Left: 5207.442 $\pm$ 0.663  $\chi^2$ /NDF: 2228897.7/41

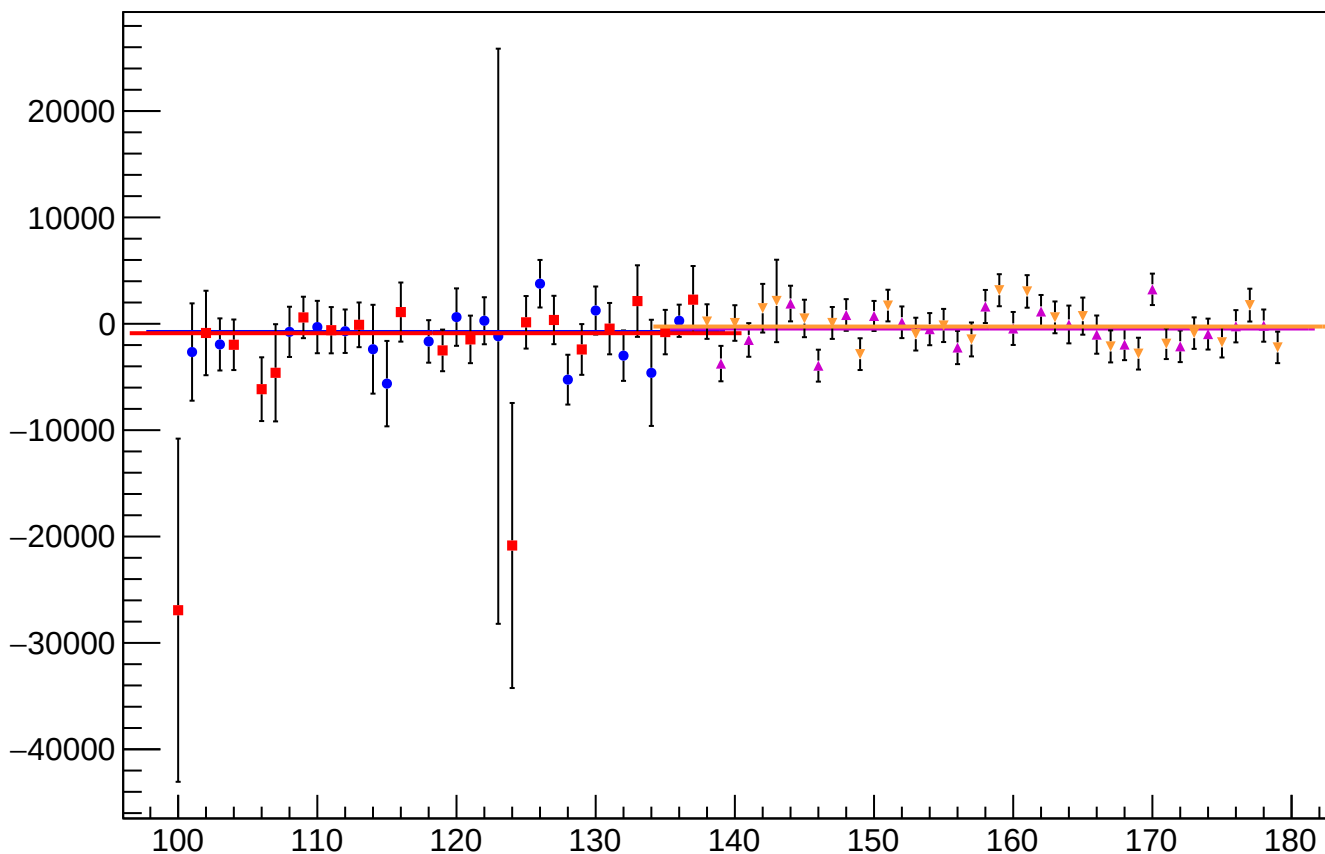
Right: 3384.349 $\pm$ 0.704  $\chi^2$ /NDF: 3684784.1/35

In: 4434.396 $\pm$ 0.703  $\chi^2$ /NDF: 4317876.1/36

Out: 4276.114 $\pm$ 0.665  $\chi^2$ /NDF: 5119448.1/40

All: 4350.819 $\pm$ 0.483  $\chi^2$ /NDF: 9464099.7/77

reg\_asym\_atl\_avg\_atr\_avg\_dd\_mean vs Slug, Sign Corrected



Right In: -771.153+/-603.689  $\chi^2$ /NDF: 13.3/16

Left Out: -259.337+/-338.575  $\chi^2$ /NDF:27.7/21

Right Out: -885.145+/-595.053  $\chi^2$ /NDF: 13.5/18

Left In: -443.916+/-344.895  $\chi^2$ /NDF:26.4/19

Left: -349.920+/-241.612  $\chi^2$ /NDF: 54.2/41

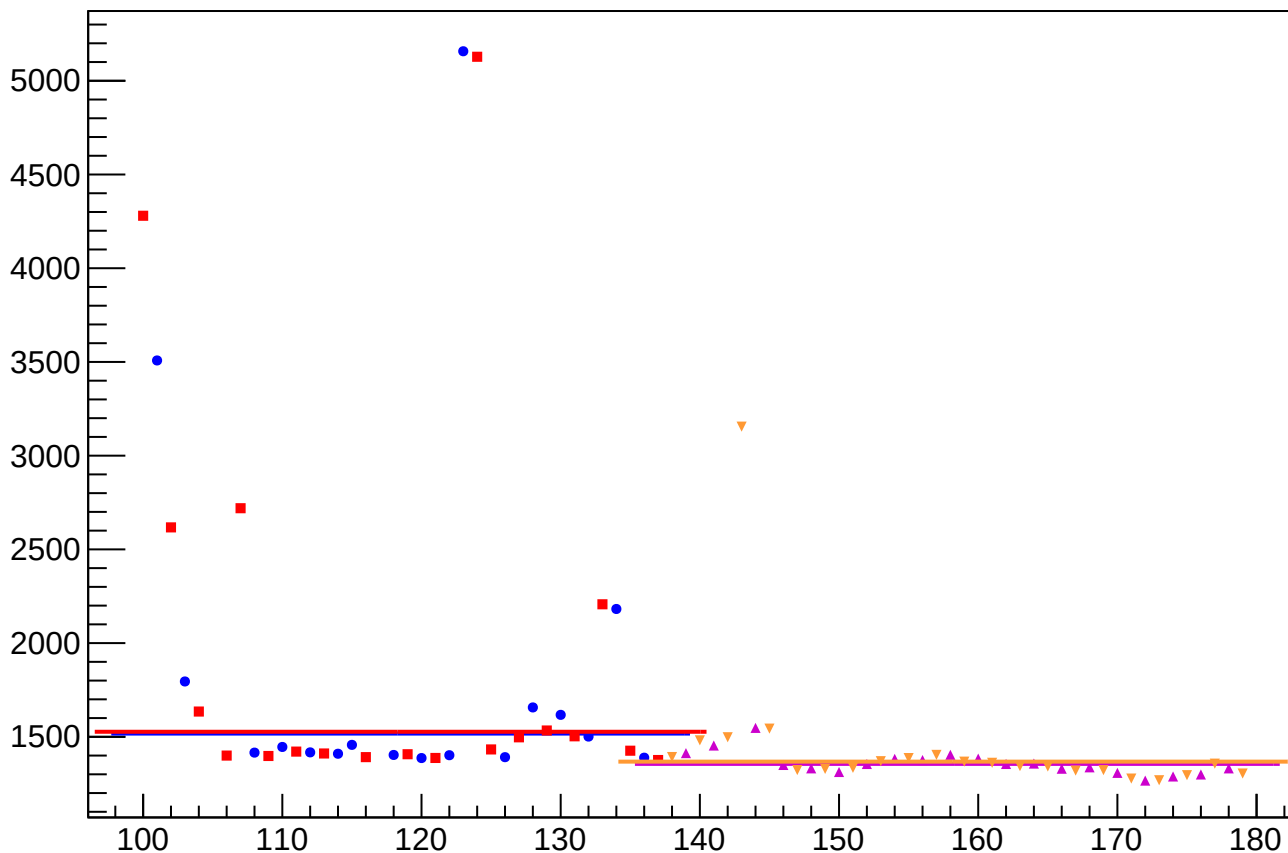
Right: -828.970+/-423.787  $\chi^2$ /NDF: 26.8/35

In: -524.442+/-299.468  $\chi^2$ /NDF:39.9/36

Out: -412.388+/-294.275  $\chi^2$ /NDF:42.1/40

All: -467.435+/-209.896  $\chi^2$ /NDF: 82.0/77

reg\_asym\_atl\_avg\_atr\_avg\_dd\_rms vs Slug, Sign Corrected



Right In:  $1517.334 \pm 0.427$   $\chi^2/\text{NDF}$ : 536662.7/16

Left Out:  $1367.633 \pm 0.239$   $\chi^2/\text{NDF}$ : 497518.1/21

Right Out:  $1527.005 \pm 0.421$   $\chi^2/\text{NDF}$ : 631684.2/18

Left In:  $1355.588 \pm 0.244$   $\chi^2/\text{NDF}$ : 59919.8/19

Left:  $1361.722 \pm 0.171$   $\chi^2/\text{NDF}$ : 558680.0/41

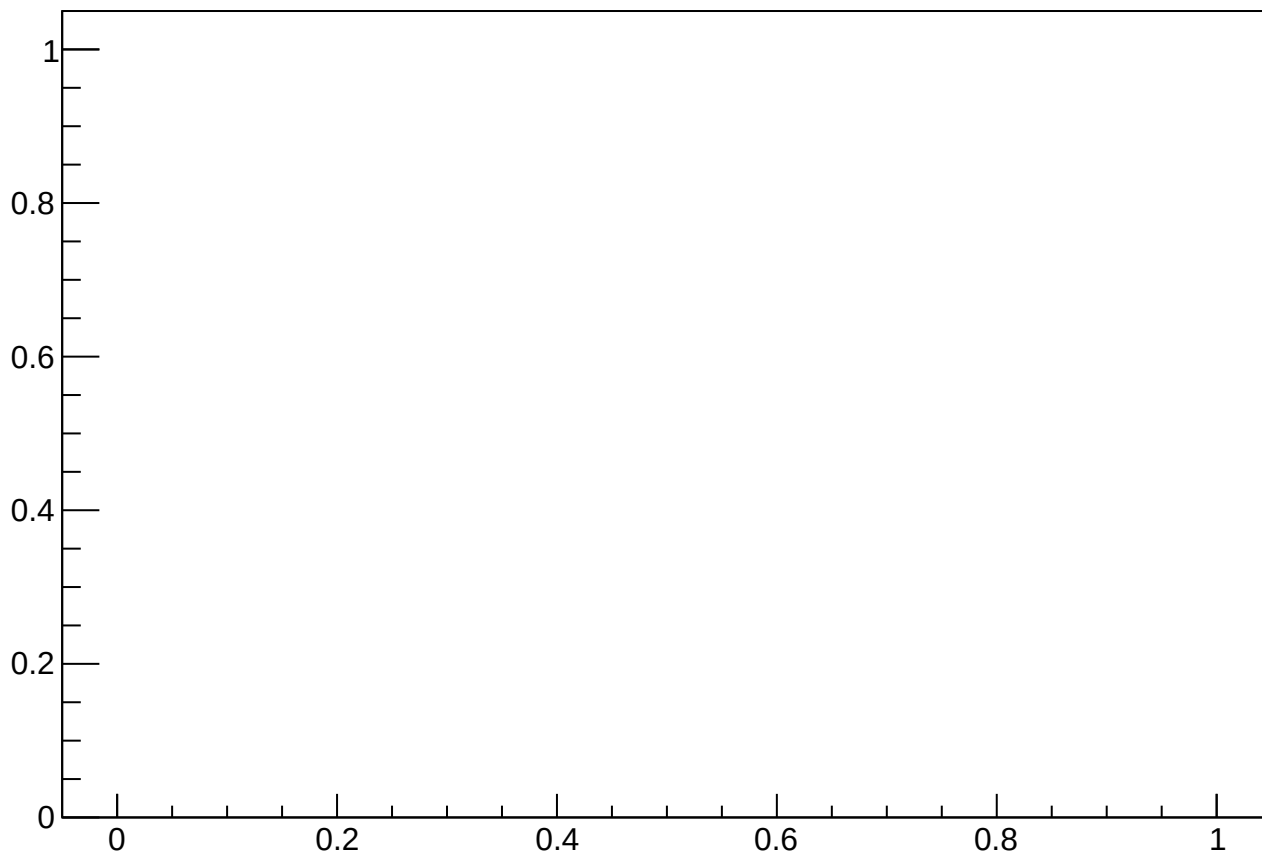
Right:  $1522.239 \pm 0.300$   $\chi^2/\text{NDF}$ : 1168607.3/35

In:  $1395.390 \pm 0.212$   $\chi^2/\text{NDF}$ : 704825.2/36

Out:  $1406.610 \pm 0.208$   $\chi^2/\text{NDF}$ : 1237581.7/40

All:  $1401.098 \pm 0.148$   $\chi^2/\text{NDF}$ : 1943835.1/77

asym\_atl\_avg\_atr\_avg\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

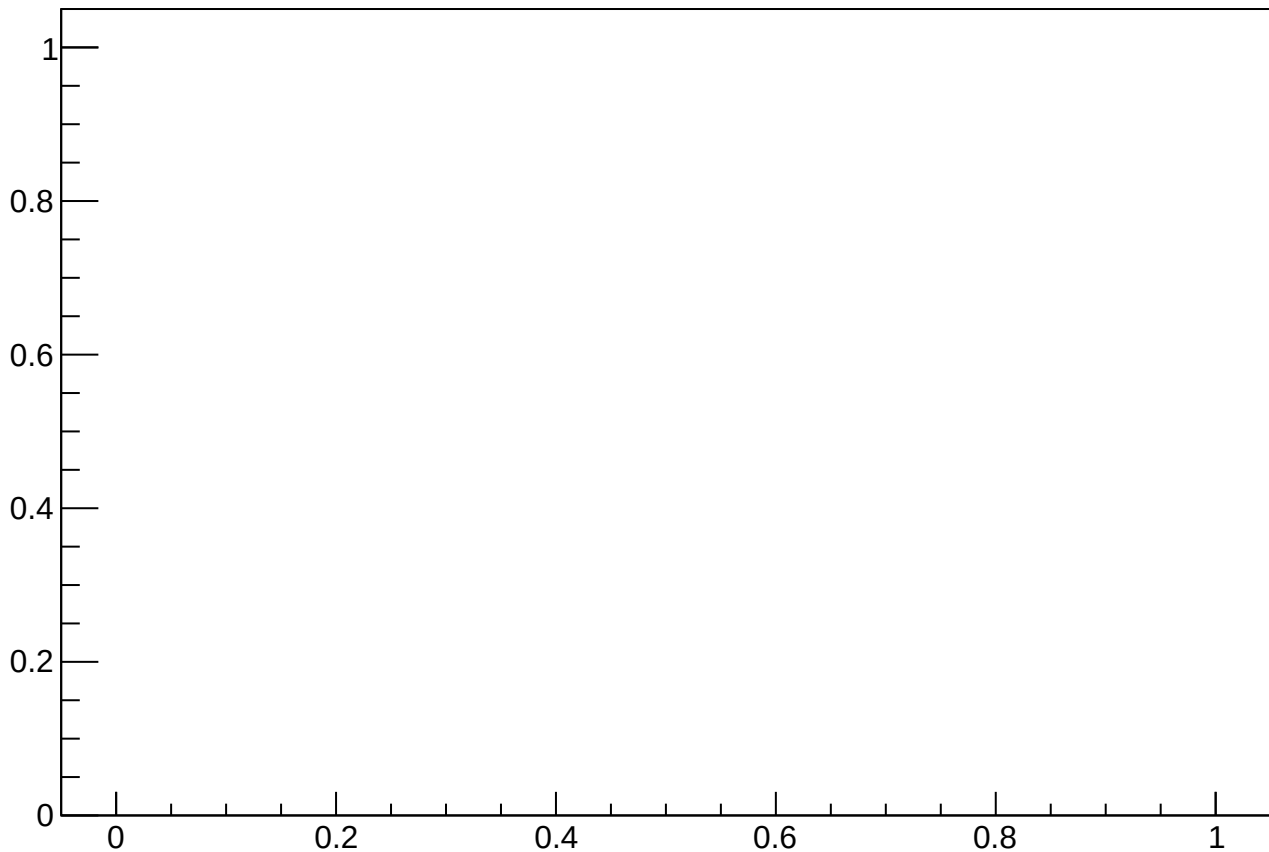
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_avg\_atr\_avg\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

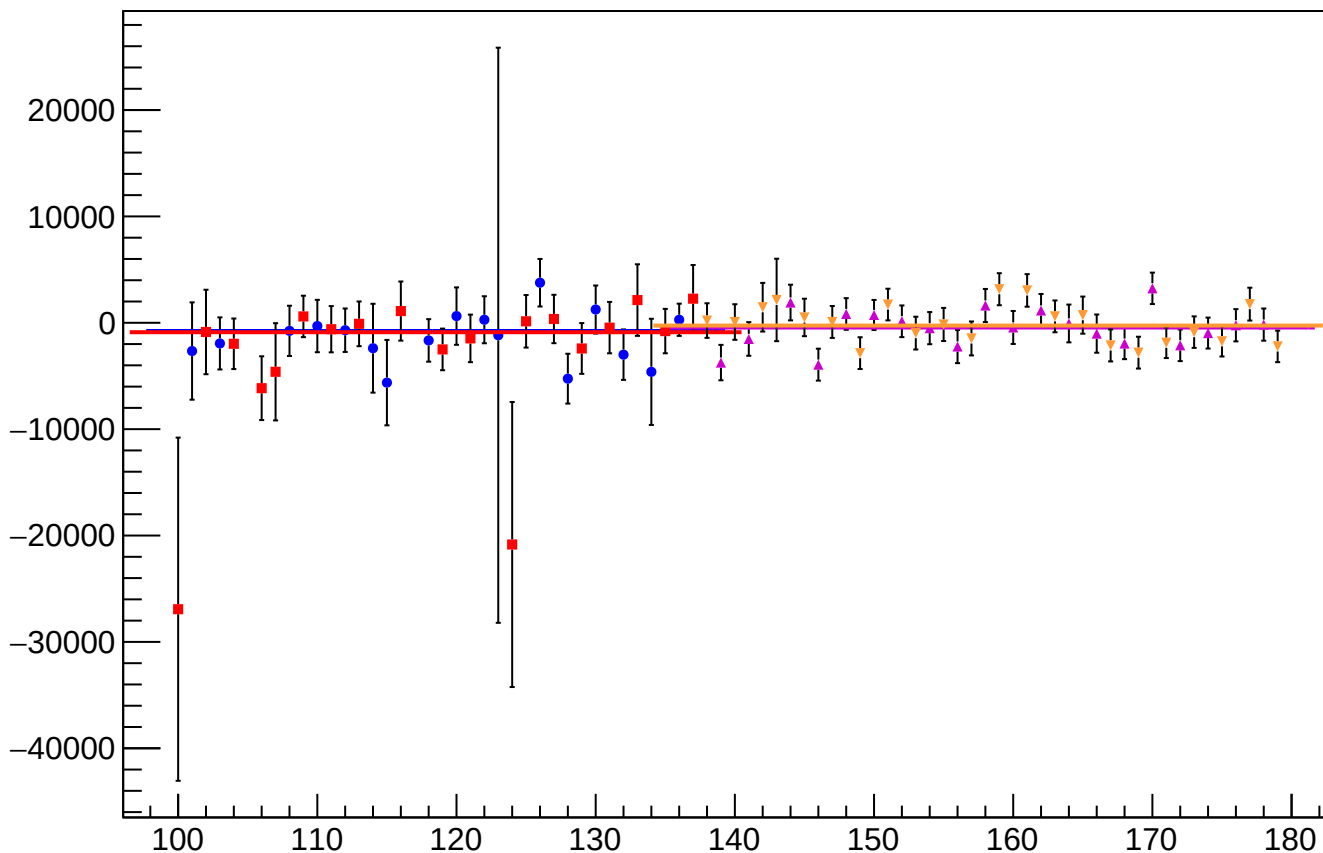
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_avg\_atr\_avg\_dd\_mean vs Slug, Sign Corrected



Right In: -771.153+/-603.689  $\chi^2/\text{NDF}$ : 13.3/16

Left Out: -259.337+/-338.575  $\chi^2/\text{NDF}$ : 27.7/21

Right Out: -885.145+/-595.053  $\chi^2/\text{NDF}$ : 13.5/18

Left In: -443.916+/-344.895  $\chi^2/\text{NDF}$ : 26.4/19

Left: -349.920+/-241.612  $\chi^2/\text{NDF}$ : 54.2/41

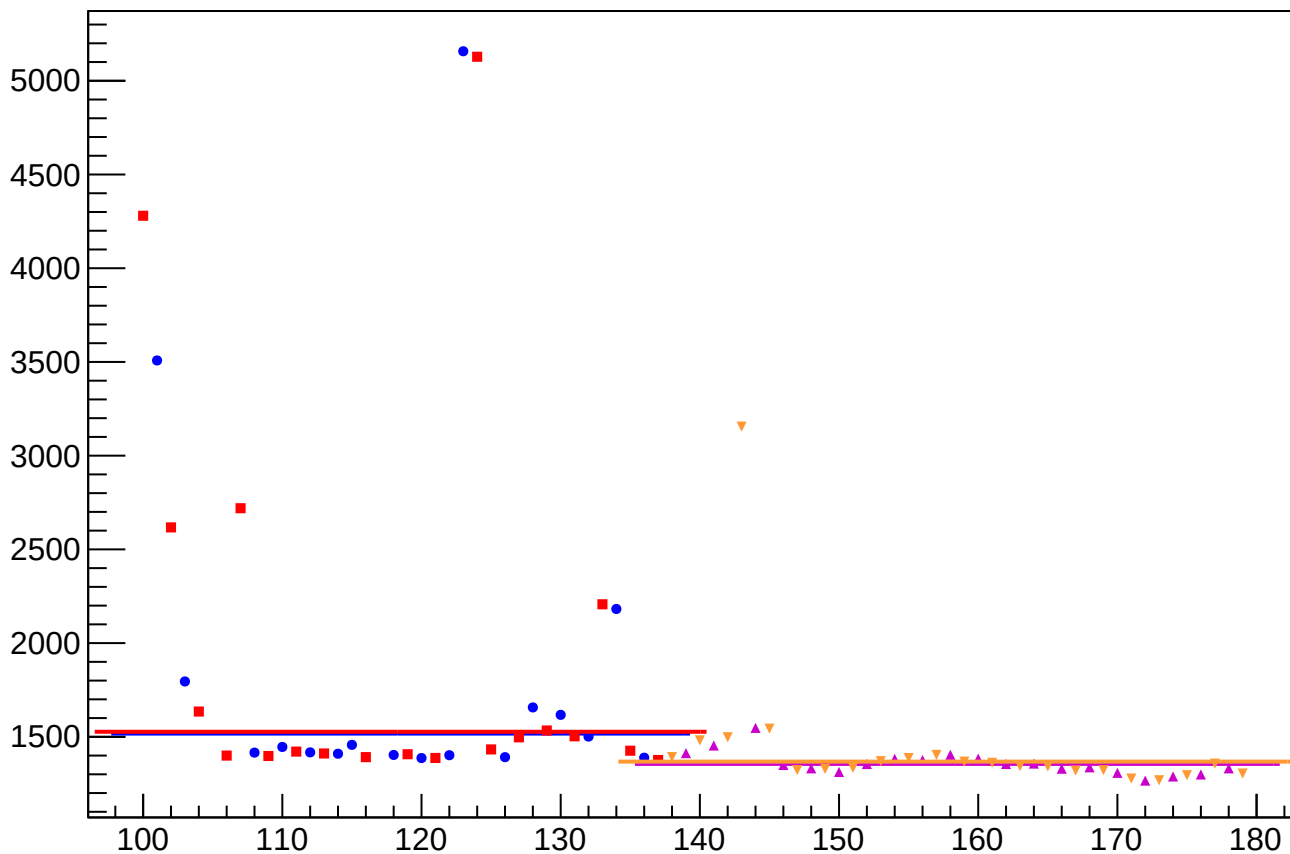
Right: -828.970+/-423.787  $\chi^2/\text{NDF}$ : 26.8/35

In: -524.442+/-299.468  $\chi^2/\text{NDF}$ : 39.9/36

Out: -412.388+/-294.275  $\chi^2/\text{NDF}$ : 42.1/40

All: -467.435+/-209.896  $\chi^2/\text{NDF}$ : 82.0/77

asym\_atl\_avg\_atr\_avg\_dd\_rms vs Slug, Sign Corrected



Right In: 1517.334+/-0.427  $\chi^2/\text{NDF}$ : 536662.7/16

Left Out: 1367.633+/-0.239  $\chi^2/\text{NDF}$ : 497518.1/21

Right Out: 1527.005+/-0.421  $\chi^2/\text{NDF}$ : 631684.2/18

Left In: 1355.588+/-0.244  $\chi^2/\text{NDF}$ : 59919.8/19

Left: 1361.722+/-0.171  $\chi^2/\text{NDF}$ : 558680.0/41

Right: 1522.239+/-0.300  $\chi^2/\text{NDF}$ : 1168607.3/35

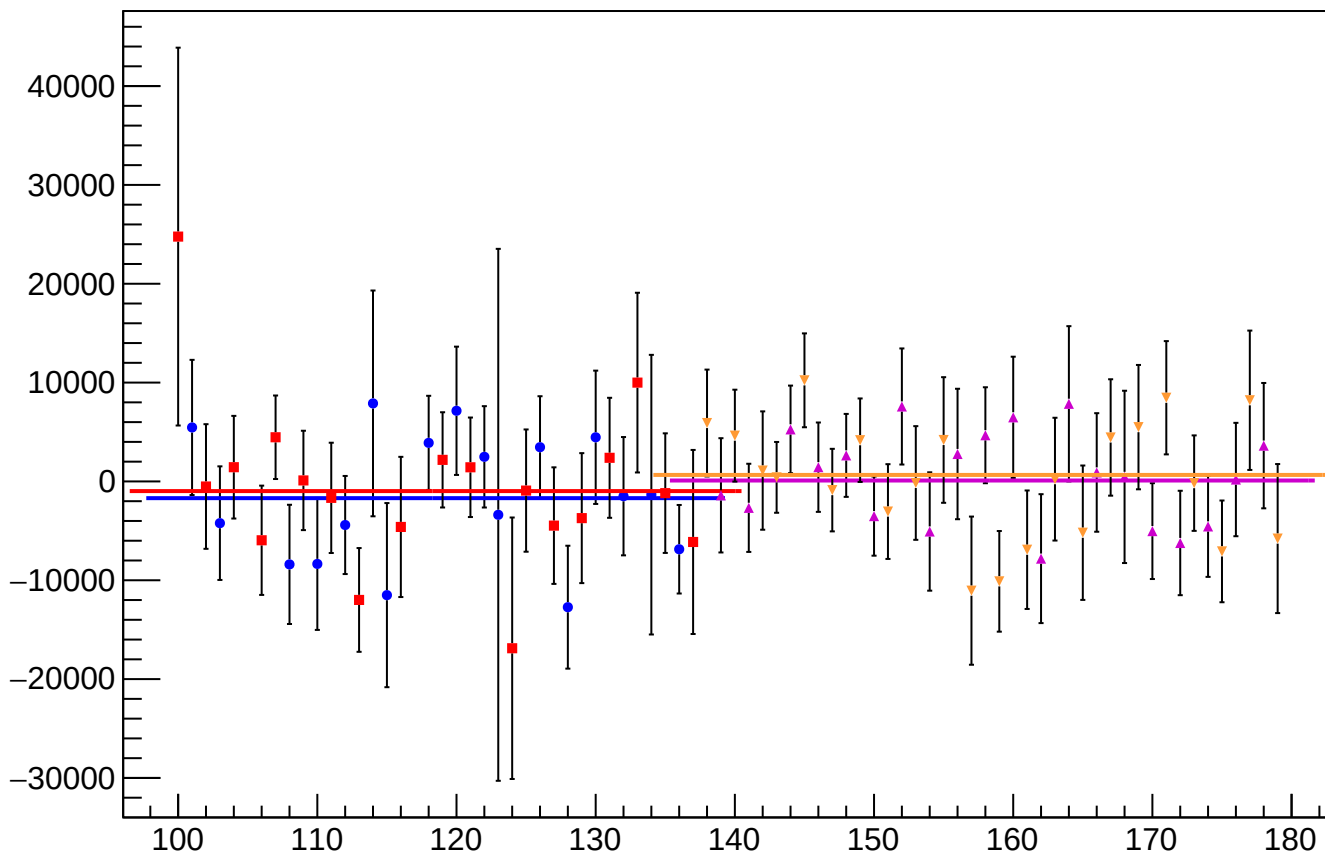
In: 1395.390+/-0.212  $\chi^2/\text{NDF}$ : 704825.2/36

Out: 1406.610+/-0.208  $\chi^2/\text{NDF}$ : 1237581.7/40

All: 1401.098+/-0.148  $\chi^2/\text{NDF}$ : 1943835.1/77



reg\_asym\_atl\_dd\_atr\_dd\_avg\_mean vs Slug, Sign Corrected



Right In:  $-1692.604 \pm 1512.935$   $\chi^2/\text{NDF}: 15.8/16$

Left Out:  $657.732 \pm 1134.288$   $\chi^2/\text{NDF}: 23.8/21$

Right Out:  $-977.899 \pm 1378.874$   $\chi^2/\text{NDF}: 13.9/18$

Left In:  $92.418 \pm 1194.517$   $\chi^2/\text{NDF}: 13.7/19$

Left:  $389.686 \pm 822.531$   $\chi^2/\text{NDF}: 37.6/41$

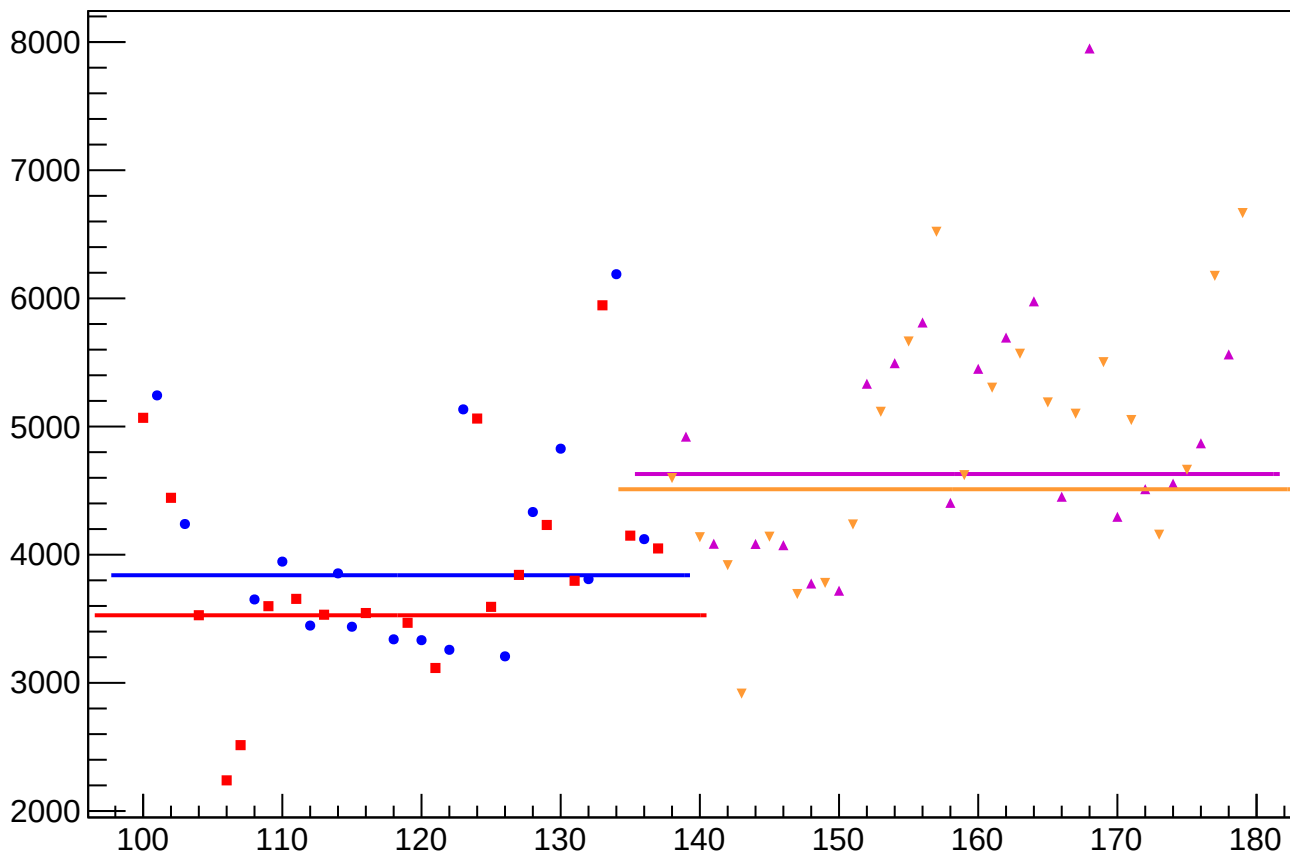
Right:  $-1302.190 \pm 1019.117$   $\chi^2/\text{NDF}: 29.9/35$

In:  $-593.024 \pm 937.527$   $\chi^2/\text{NDF}: 30.4/36$

Out:  $-2.394 \pm 875.982$   $\chi^2/\text{NDF}: 38.6/40$

All:  $-277.688 \pm 640.066$   $\chi^2/\text{NDF}: 69.2/77$

reg\_asym\_atl\_dd\_atr\_dd\_avg\_rms vs Slug, Sign Corrected



Right In: 3839.751 $\pm$ 1.070  $\chi^2$ /NDF: 325959.2/16

Left Out: 4510.737 $\pm$ 0.802  $\chi^2$ /NDF:1304938.9/21

Right Out: 3527.320 $\pm$ 0.966  $\chi^2$ /NDF: 554785.4/18

Left In: 4629.521 $\pm$ 0.845  $\chi^2$ /NDF:918356.7/19

Left: 4567.059 $\pm$ 0.582  $\chi^2$ /NDF: 2233695.3/41

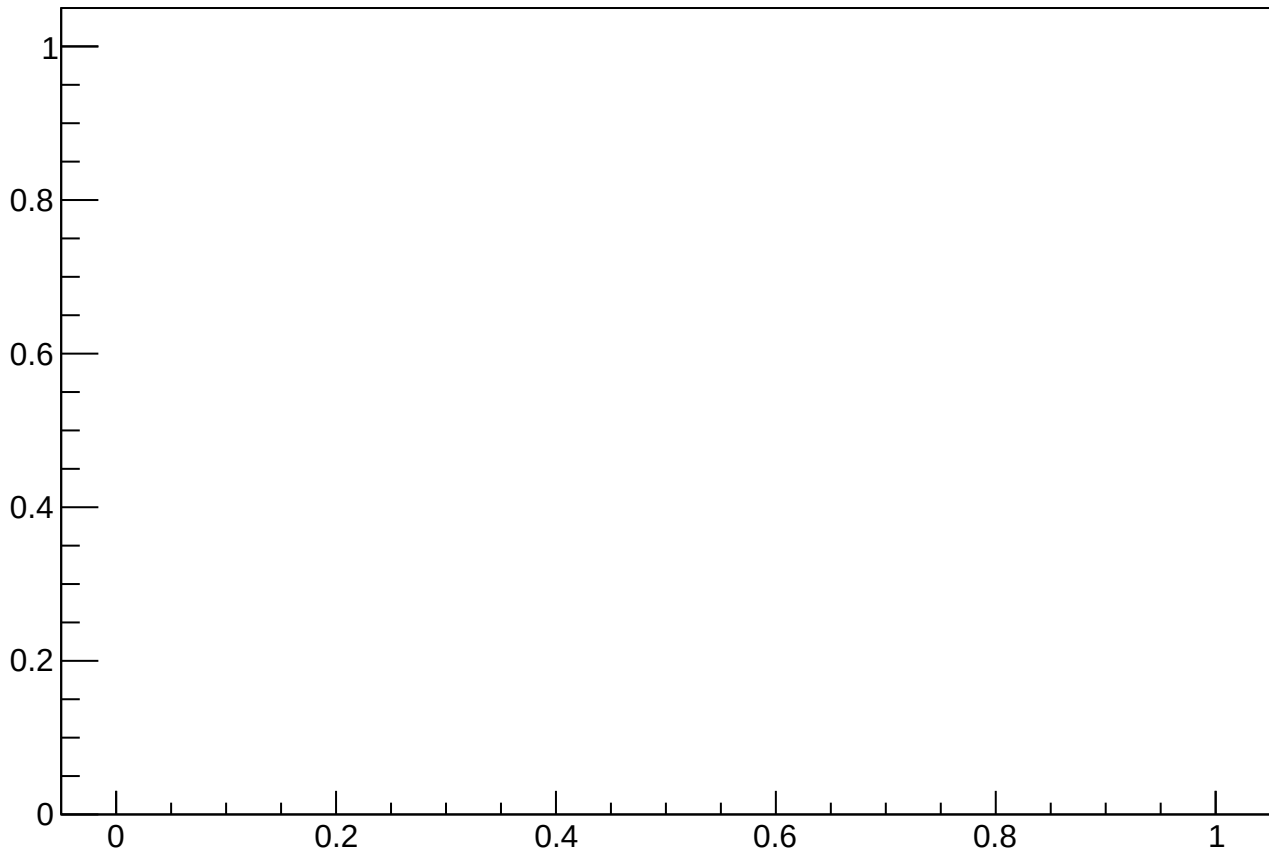
Right: 3667.674 $\pm$ 0.717  $\chi^2$ /NDF: 927722.2/35

In: 4326.242 $\pm$ 0.663  $\chi^2$ /NDF:1580044.3/36

Out: 4109.509 $\pm$ 0.617  $\chi^2$ /NDF:2473081.1/40

All: 4210.130 $\pm$ 0.452  $\chi^2$ /NDF: 4110388.6/77

asym\_atl\_dd\_atr\_dd\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_dd\_atr\_dd\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

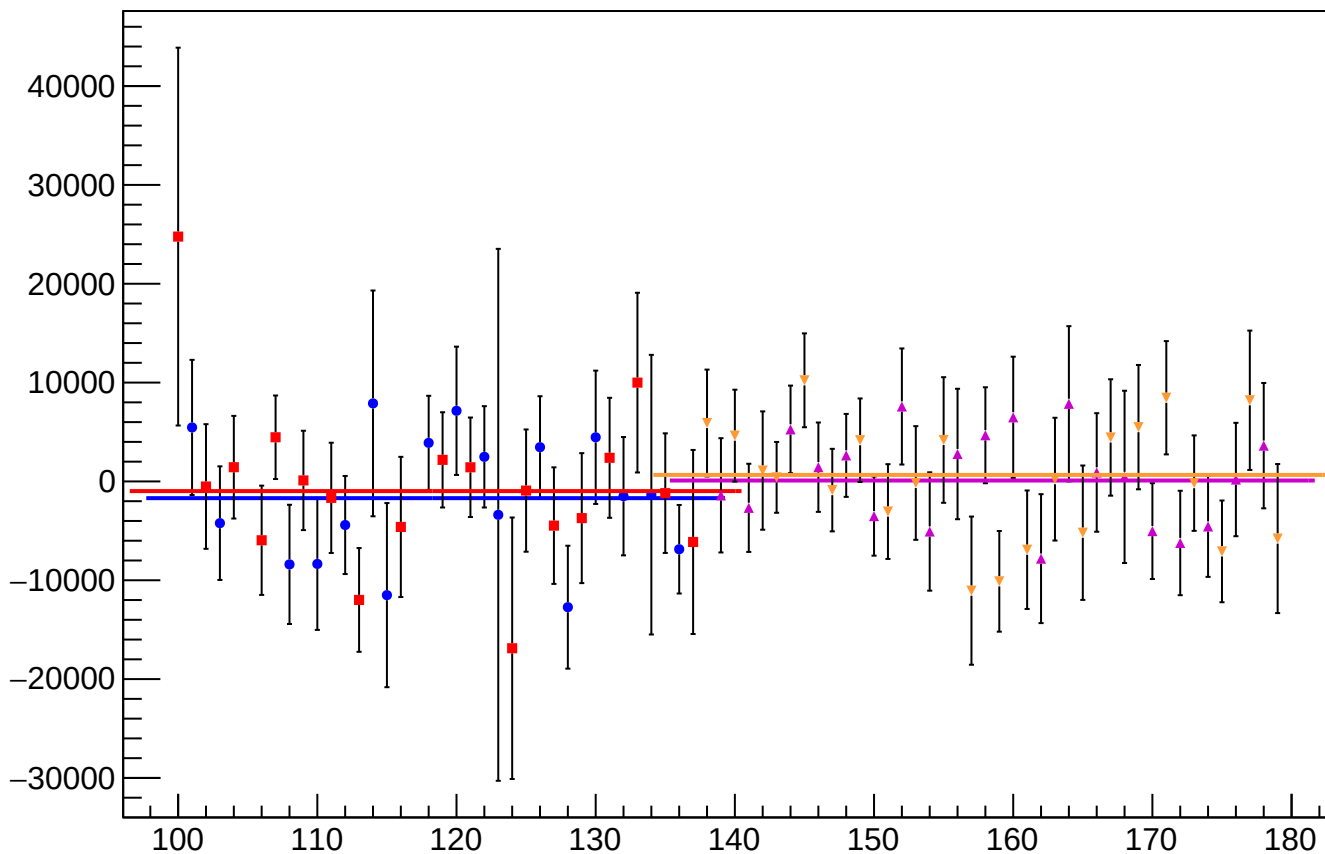
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_dd\_atr\_dd\_avg\_mean vs Slug, Sign Corrected



Right In: -1692.604 $\pm$ 1512.935  $\chi^2$ /NDF: 15.8/16

Left Out: 657.732 $\pm$ 1134.288  $\chi^2$ /NDF:23.8/21

Right Out: -977.899 $\pm$ 1378.874  $\chi^2$ /NDF: 13.9/18

Left In: 92.418 $\pm$ 1194.517  $\chi^2$ /NDF:13.7/19

Left: 389.686 $\pm$ 822.531  $\chi^2$ /NDF: 37.6/41

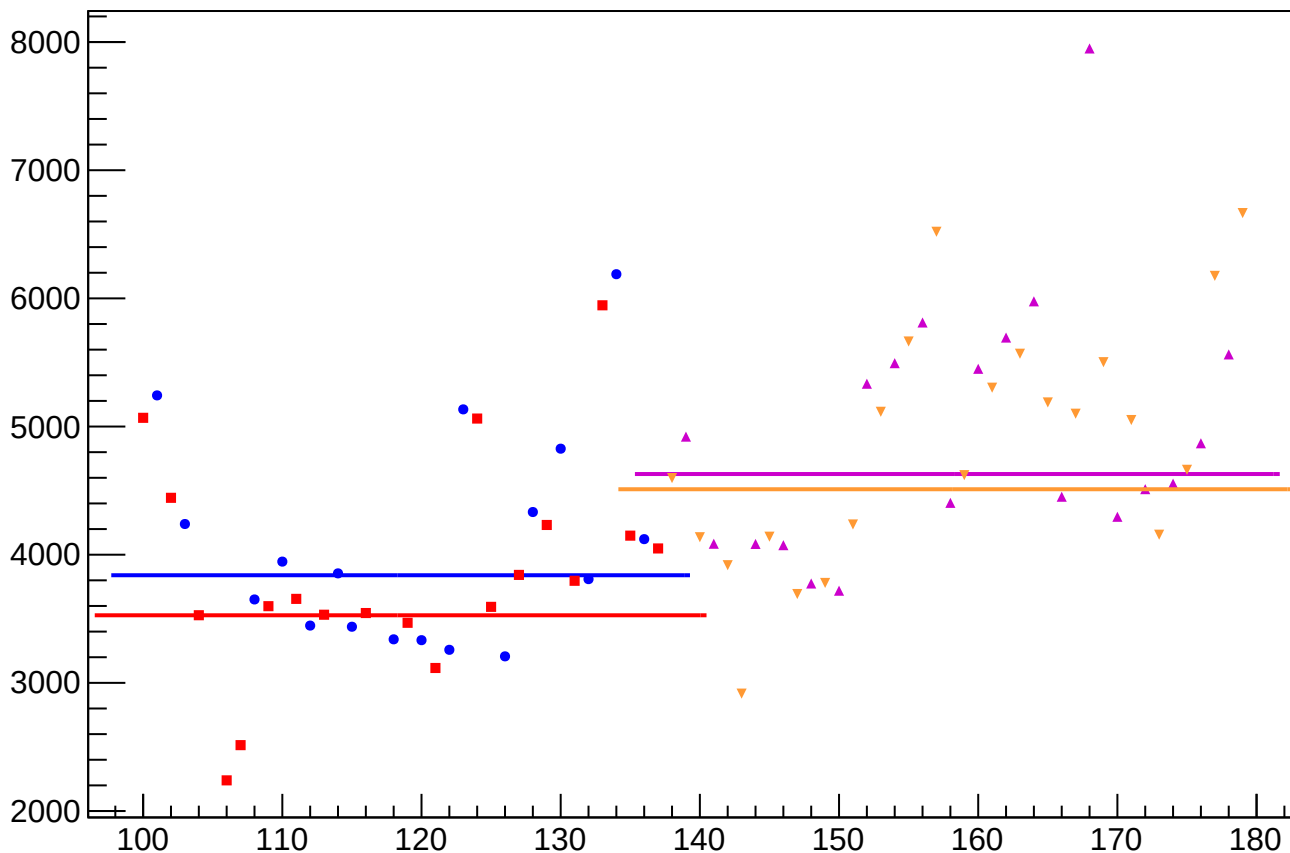
Right: -1302.190 $\pm$ 1019.117  $\chi^2$ /NDF: 29.9/35

In: -593.024 $\pm$ 937.527  $\chi^2$ /NDF:30.4/36

Out: -2.394 $\pm$ 875.982  $\chi^2$ /NDF:38.6/40

All: -277.688 $\pm$ 640.066  $\chi^2$ /NDF: 69.2/77

asym\_atl\_dd\_atr\_dd\_avg\_rms vs Slug, Sign Corrected



Right In: 3839.751+/-1.070  $\chi^2/\text{NDF}$ : 325959.2/16

Left Out: 4510.737+/-0.802  $\chi^2/\text{NDF}$ :1304938.9/21

Right Out: 3527.320+/-0.966  $\chi^2/\text{NDF}$ : 554785.4/18

Left In: 4629.521+/-0.845  $\chi^2/\text{NDF}$ :918356.7/19

Left: 4567.059+/-0.582  $\chi^2/\text{NDF}$ : 2233695.3/41

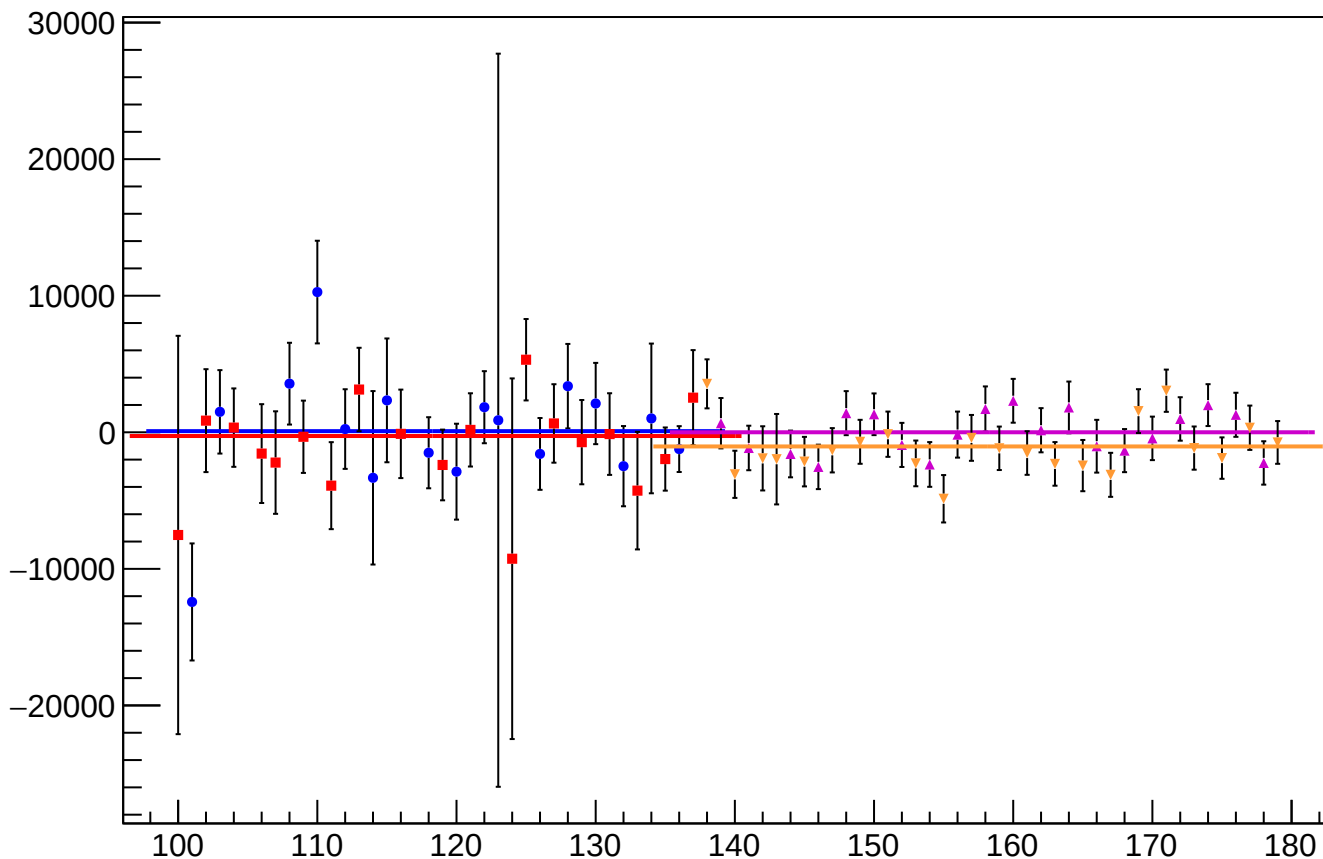
Right: 3667.674+/-0.717  $\chi^2/\text{NDF}$ : 927722.2/35

In: 4326.242+/-0.663  $\chi^2/\text{NDF}$ :1580044.3/36

Out: 4109.509+/-0.617  $\chi^2/\text{NDF}$ :2473081.1/40

All: 4210.130+/-0.452  $\chi^2/\text{NDF}$ : 4110388.6/77

reg\_asym\_atl\_dd\_atr\_dd\_dd\_mean vs Slug, Sign Corrected



Right In:  $83.860 \pm 750.549$   $\chi^2/\text{NDF}: 22.9/16$

Left Out:  $-1036.251 \pm 360.984$   $\chi^2/\text{NDF}: 28.0/21$

Right Out:  $-272.707 \pm 734.115$   $\chi^2/\text{NDF}: 10.2/18$

Left In:  $1.516 \pm 367.804$   $\chi^2/\text{NDF}: 17.7/19$

Left:  $-527.078 \pm 257.632$   $\chi^2/\text{NDF}: 49.7/41$

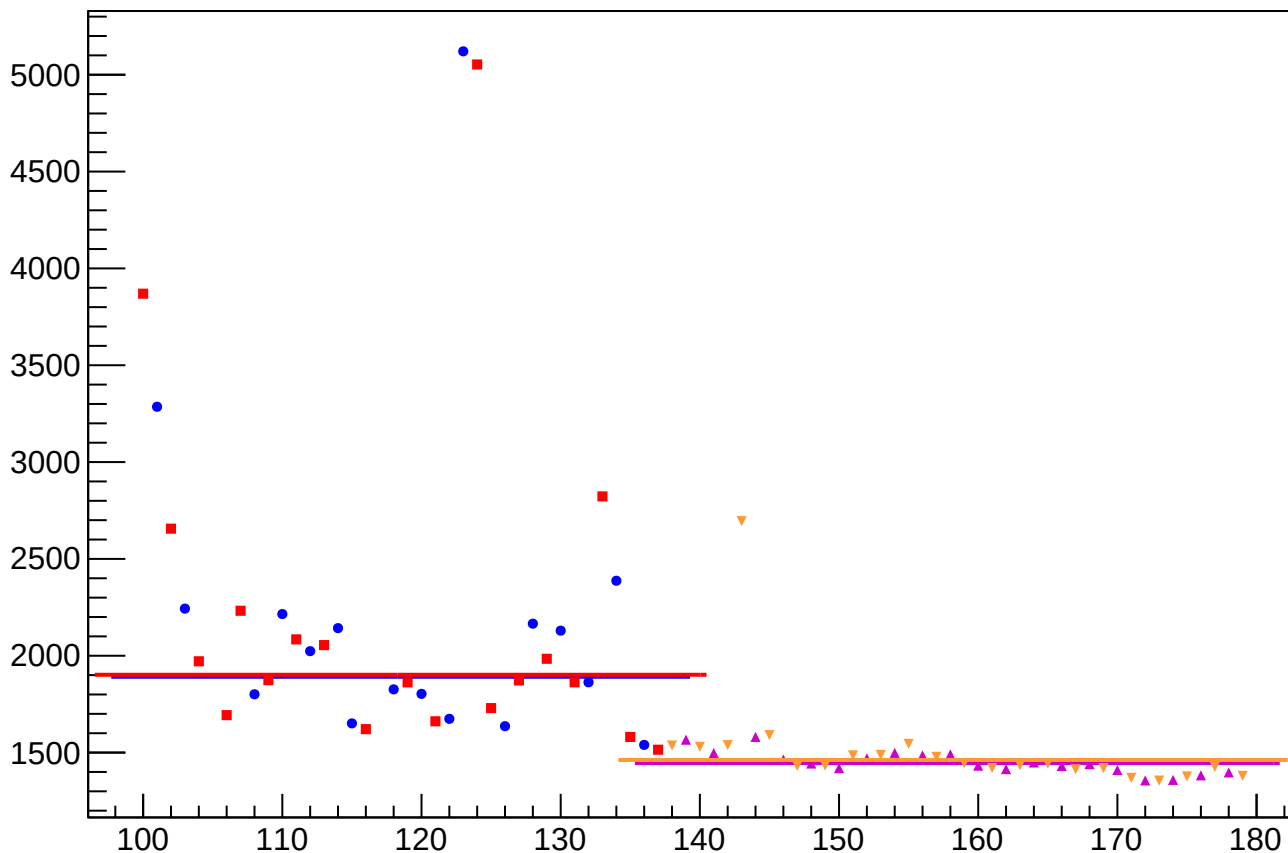
Right:  $-98.370 \pm 524.811$   $\chi^2/\text{NDF}: 33.2/35$

In:  $17.462 \pm 330.278$   $\chi^2/\text{NDF}: 40.6/36$

Out:  $-887.578 \pm 323.939$   $\chi^2/\text{NDF}: 39.1/40$

All:  $-443.827 \pm 231.268$   $\chi^2/\text{NDF}: 83.4/77$

reg\_asym\_atl\_dd\_atr\_dd\_dd\_rms vs Slug, Sign Corrected



Right In: 1891.492+/-0.531  $\chi^2/\text{NDF}$ : 464497.5/16

Left Out: 1461.992+/-0.255  $\chi^2/\text{NDF}$ : 337441.7/21

Right Out: 1901.797+/-0.519  $\chi^2/\text{NDF}$ : 460687.3/18

Left In: 1446.276+/-0.260  $\chi^2/\text{NDF}$ : 48761.7/19

Left: 1454.281+/-0.182  $\chi^2/\text{NDF}$ : 388063.4/41

Right: 1896.759+/-0.371  $\chi^2/\text{NDF}$ : 925377.5/35

In: 1532.490+/-0.234  $\chi^2/\text{NDF}$ : 1080733.2/36

Out: 1547.630+/-0.229  $\chi^2/\text{NDF}$ : 1376202.8/40

All: 1540.207+/-0.164  $\chi^2/\text{NDF}$ : 2459078.2/77



asym\_atl\_dd\_atr\_dd\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_dd\_atr\_dd\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

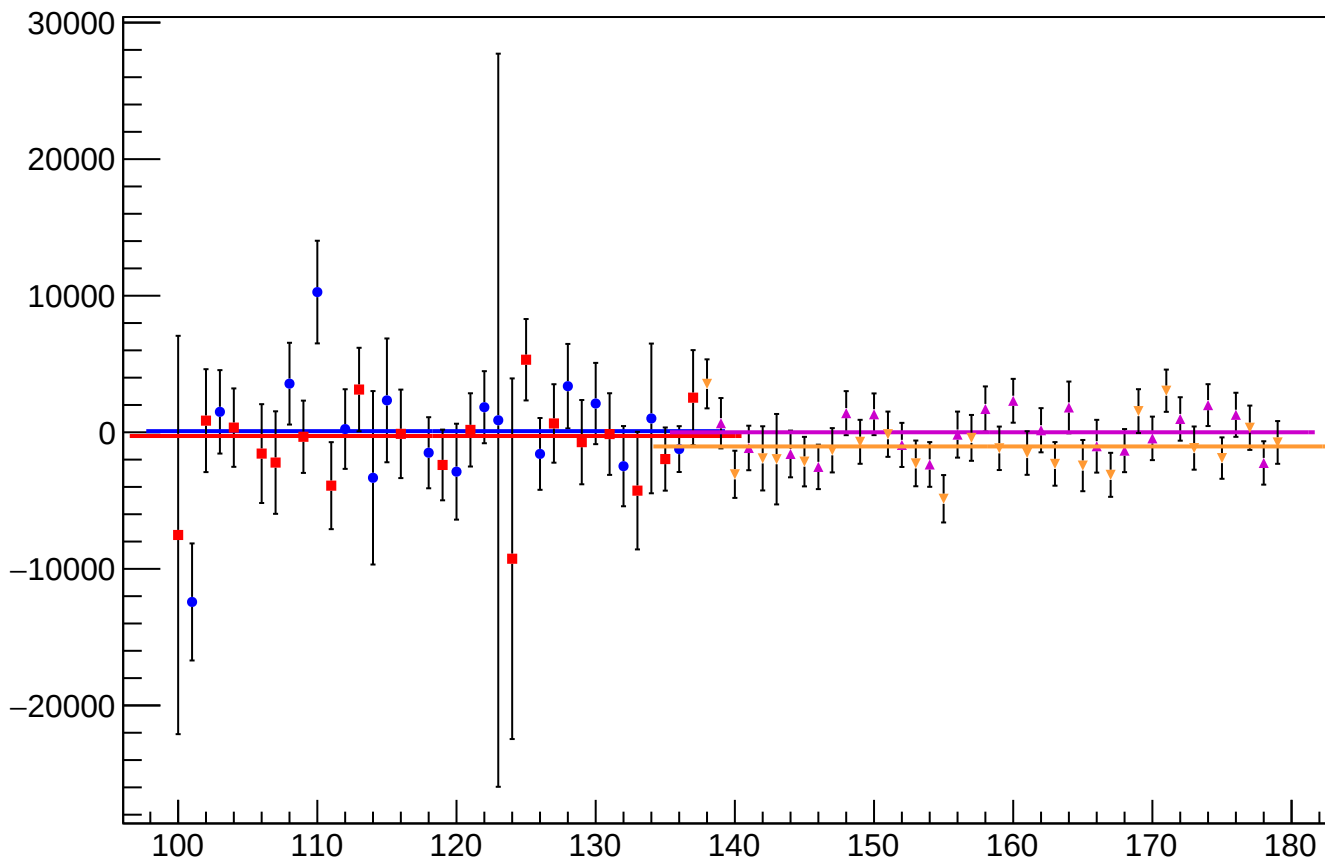
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

asym\_atl\_dd\_atr\_dd\_dd\_mean vs Slug, Sign Corrected



Right In:  $83.860 \pm 750.549$   $\chi^2/\text{NDF}: 22.9/16$

Left Out:  $-1036.251 \pm 360.984$   $\chi^2/\text{NDF}: 28.0/21$

Right Out:  $-272.707 \pm 734.115$   $\chi^2/\text{NDF}: 10.2/18$

Left In:  $1.516 \pm 367.804$   $\chi^2/\text{NDF}: 17.7/19$

Left:  $-527.078 \pm 257.632$   $\chi^2/\text{NDF}: 49.7/41$

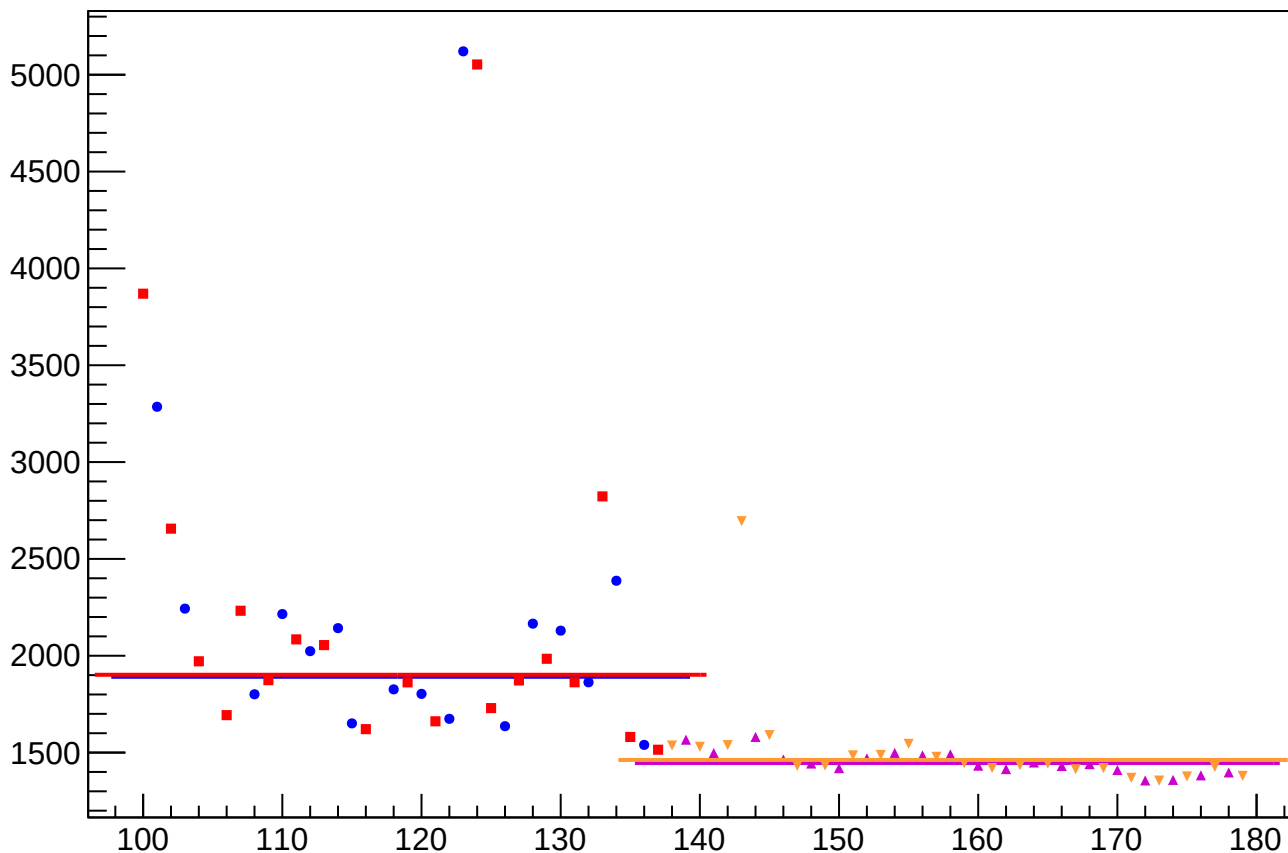
Right:  $-98.370 \pm 524.811$   $\chi^2/\text{NDF}: 33.2/35$

In:  $17.462 \pm 330.278$   $\chi^2/\text{NDF}: 40.6/36$

Out:  $-887.578 \pm 323.939$   $\chi^2/\text{NDF}: 39.1/40$

All:  $-443.827 \pm 231.268$   $\chi^2/\text{NDF}: 83.4/77$

asym\_atl\_dd\_atr\_dd\_dd\_rms vs Slug, Sign Corrected



Right In: 1891.492+/-0.531  $\chi^2/\text{NDF}$ : 464497.5/16

Left Out: 1461.992+/-0.255  $\chi^2/\text{NDF}$ : 337441.7/21

Right Out: 1901.797+/-0.519  $\chi^2/\text{NDF}$ : 460687.3/18

Left In: 1446.276+/-0.260  $\chi^2/\text{NDF}$ : 48761.7/19

Left: 1454.281+/-0.182  $\chi^2/\text{NDF}$ : 388063.4/41

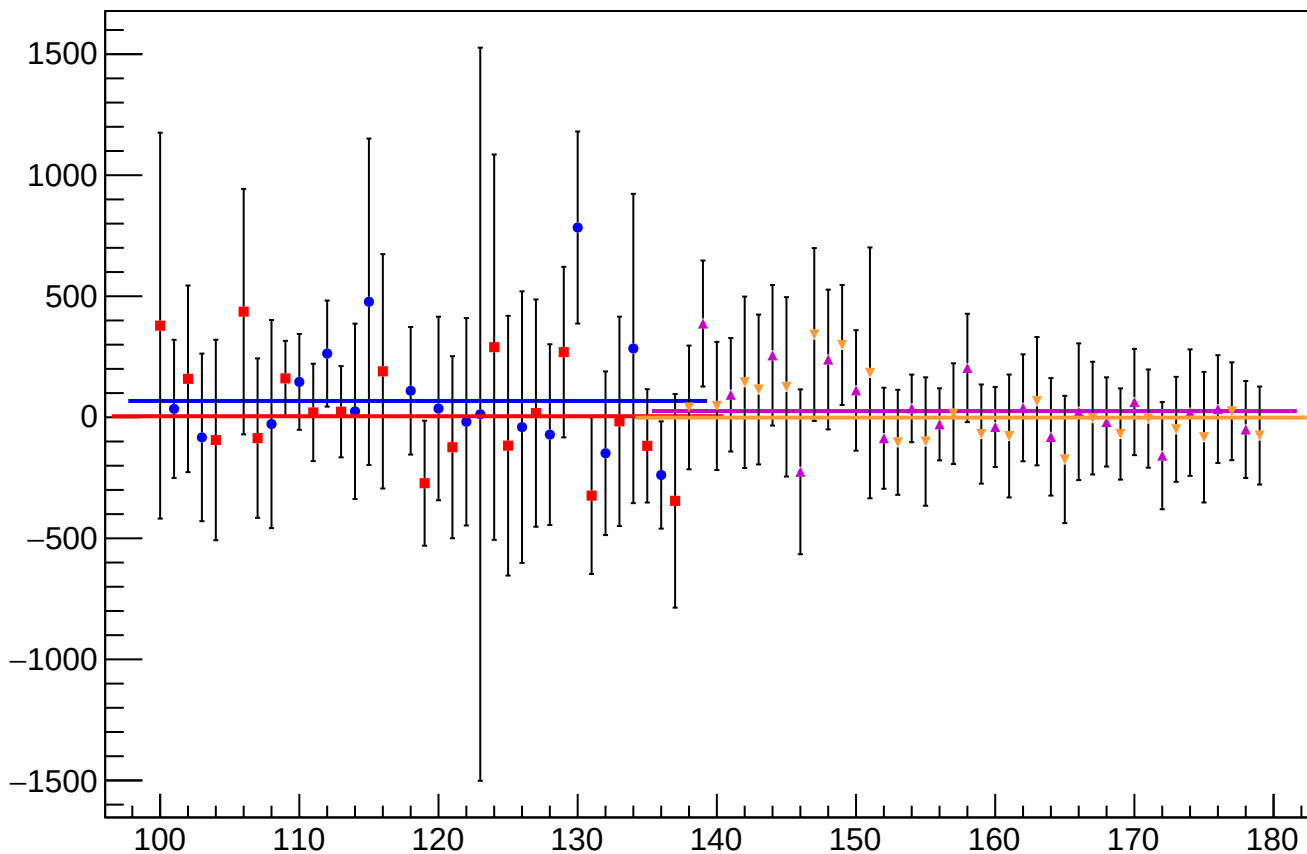
Right: 1896.759+/-0.371  $\chi^2/\text{NDF}$ : 925377.5/35

In: 1532.490+/-0.234  $\chi^2/\text{NDF}$ : 1080733.2/36

Out: 1547.630+/-0.229  $\chi^2/\text{NDF}$ : 1376202.8/40

All: 1540.207+/-0.164  $\chi^2/\text{NDF}$ : 2459078.2/77

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 67.542 $\pm$ 79.608  $\chi^2$ /NDF: 7.5/16

Left Out: -1.301 $\pm$ 52.376  $\chi^2$ /NDF:4.5/21

Right Out: 4.423 $\pm$ 70.009  $\chi^2$ /NDF: 6.4/18

Left In: 25.825 $\pm$ 47.795  $\chi^2$ /NDF:6.2/19

Left: 13.500 $\pm$ 35.305  $\chi^2$ /NDF: 10.8/41

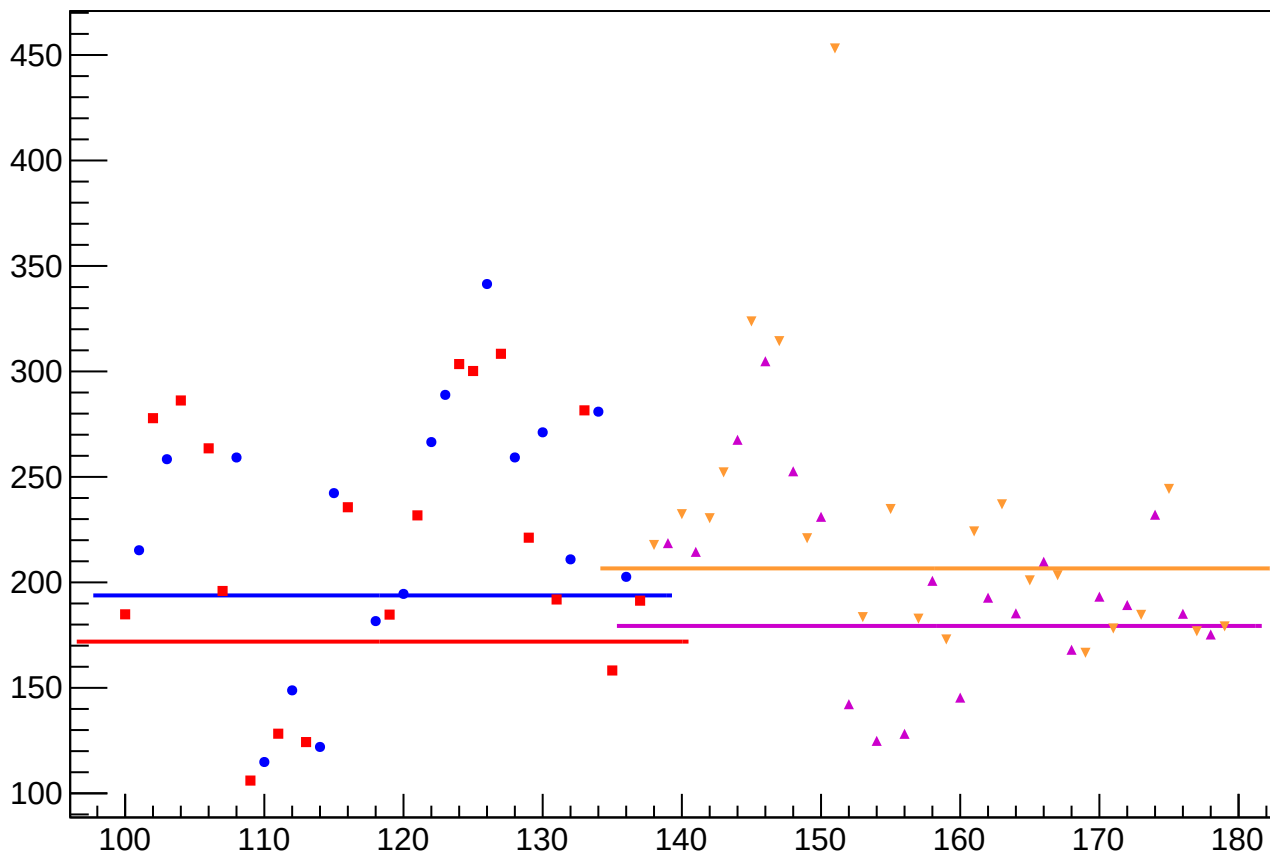
Right: 31.949 $\pm$ 52.572  $\chi^2$ /NDF: 14.2/35

In: 36.878 $\pm$ 40.977  $\chi^2$ /NDF:13.9/36

Out: 0.753 $\pm$ 41.938  $\chi^2$ /NDF:10.8/40

All: 19.234 $\pm$ 29.309  $\chi^2$ /NDF: 25.2/77

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 193.815 $\pm$ 0.056  $\chi^2$ /NDF: 1010325.5/16

Left Out: 206.625 $\pm$ 0.037  $\chi^2$ /NDF:1348310.0/21

Right Out: 171.920 $\pm$ 0.050  $\chi^2$ /NDF: 1577076.0/18

Left In: 179.356 $\pm$ 0.034  $\chi^2$ /NDF:1602953.3/19

Left: 191.746 $\pm$ 0.025  $\chi^2$ /NDF: 3247063.9/41

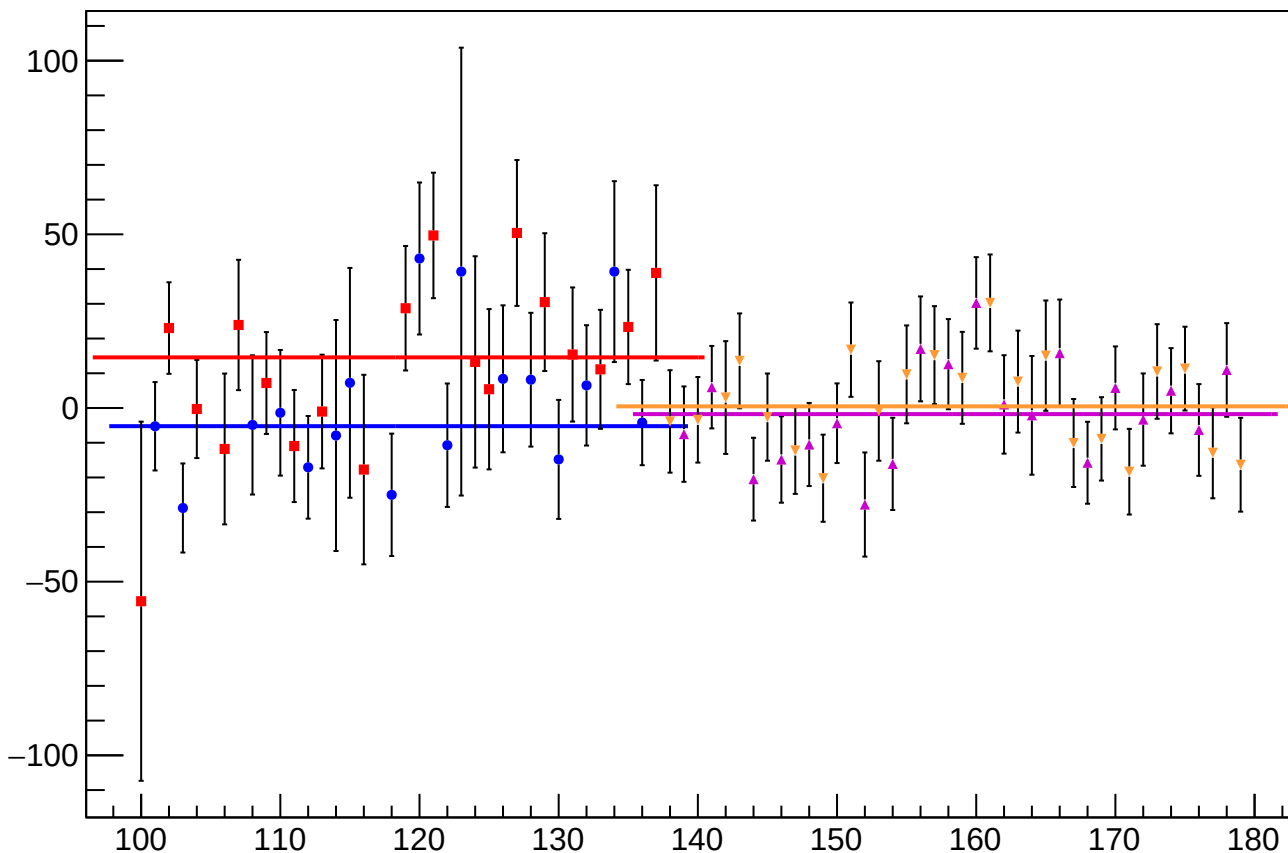
Right: 181.469 $\pm$ 0.037  $\chi^2$ /NDF: 2672713.5/35

In: 183.187 $\pm$ 0.029  $\chi^2$ /NDF:2661776.0/36

Out: 194.171 $\pm$ 0.030  $\chi^2$ /NDF:3240493.7/40

All: 188.552 $\pm$ 0.021  $\chi^2$ /NDF: 5972455.8/77

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_dd\_mean vs Slug, Sign Corrected



Right In:  $-5.231 \pm 4.356$   $\chi^2/\text{NDF}$ : 15.5/16

Left Out:  $0.471 \pm 2.856$   $\chi^2/\text{NDF}$ : 21.5/21

Right Out:  $14.579 \pm 4.265$   $\chi^2/\text{NDF}$ : 19.5/18

Left In:  $-1.759 \pm 2.923$   $\chi^2/\text{NDF}$ : 22.1/19

Left:  $-0.618 \pm 2.043$   $\chi^2/\text{NDF}$ : 43.9/41

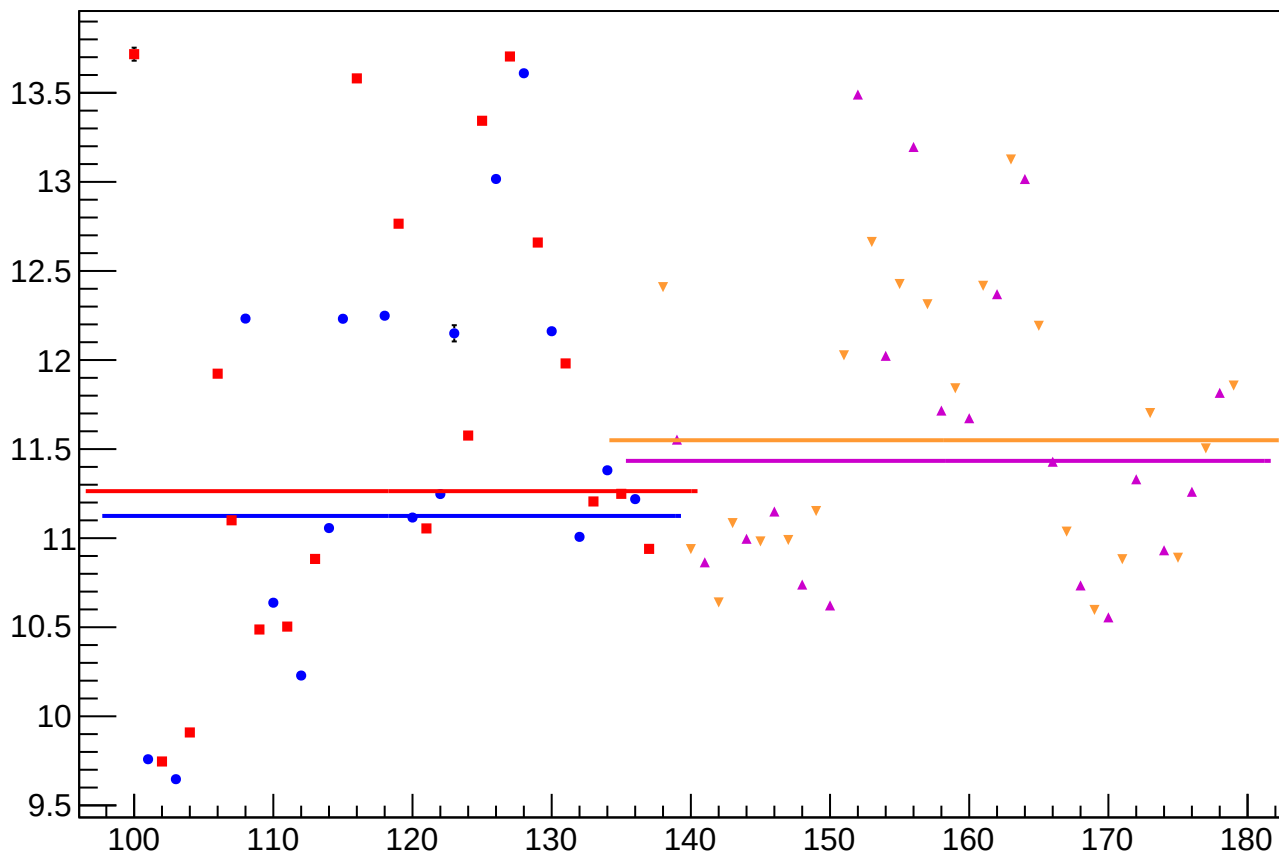
Right:  $4.883 \pm 3.047$   $\chi^2/\text{NDF}$ : 45.6/35

In:  $-2.837 \pm 2.427$   $\chi^2/\text{NDF}$ : 38.0/36

Out:  $4.839 \pm 2.373$   $\chi^2/\text{NDF}$ : 48.6/40

All:  $1.087 \pm 1.697$   $\chi^2/\text{NDF}$ : 91.7/77

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 11.125 $\pm$ 0.003  $\chi^2$ /NDF: 132520.1/16

Left Out: 11.550 $\pm$ 0.002  $\chi^2$ /NDF:122658.1/21

Right Out: 11.264 $\pm$ 0.003  $\chi^2$ /NDF: 147733.2/18

Left In: 11.434 $\pm$ 0.002  $\chi^2$ /NDF:144783.6/19

Left: 11.493 $\pm$ 0.001  $\chi^2$ /NDF: 269047.8/41

Right: 11.196 $\pm$ 0.002  $\chi^2$ /NDF: 281295.0/35

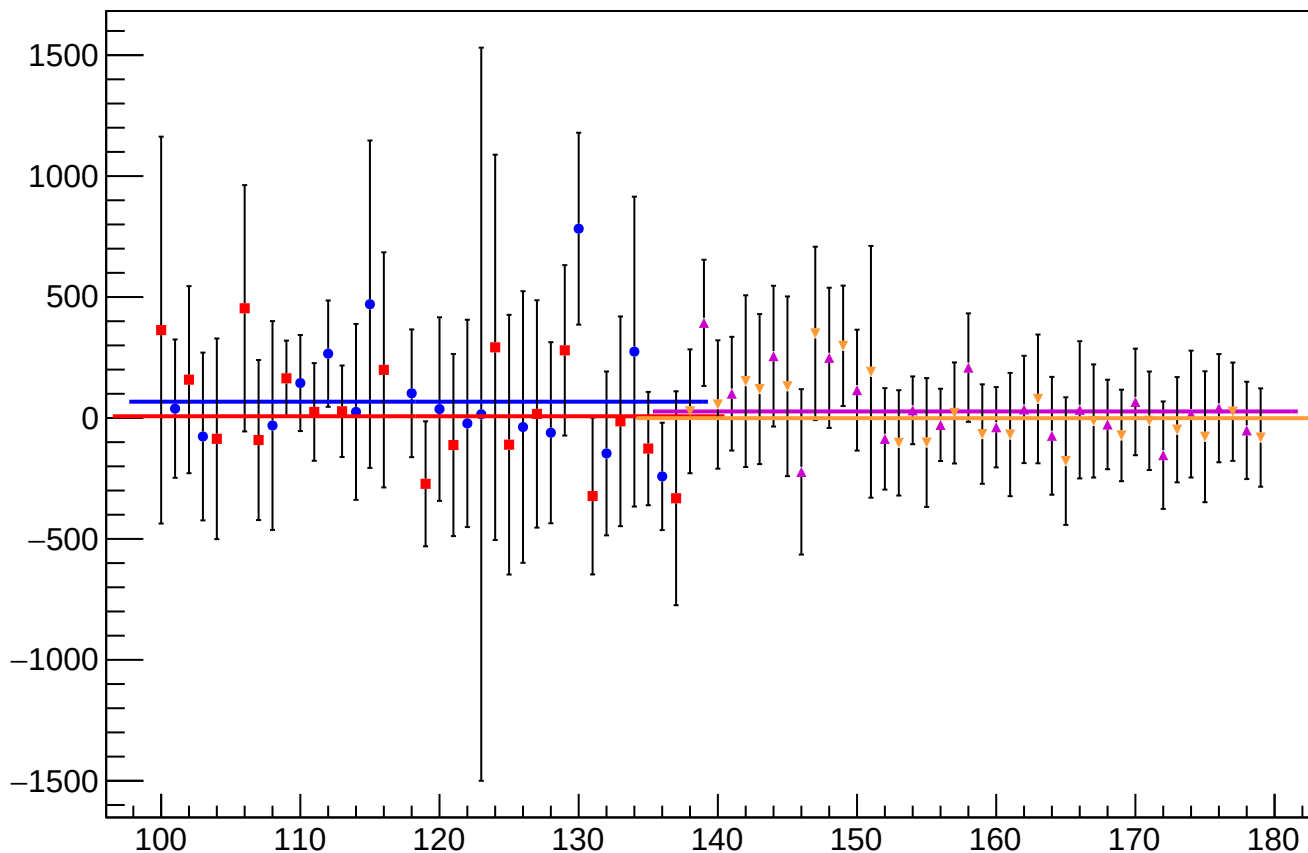
In: 11.338 $\pm$ 0.002  $\chi^2$ /NDF:284247.3/36

Out: 11.461 $\pm$ 0.002  $\chi^2$ /NDF:276590.2/40

All: 11.401 $\pm$ 0.001  $\chi^2$ /NDF: 563476.5/77



asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 67.305+/-79.817  $\chi^2/\text{NDF}$ : 7.5/16

Left Out: -0.811+/-52.570  $\chi^2/\text{NDF}$ : 4.6/21

Right Out: 7.039+/-70.212  $\chi^2/\text{NDF}$ : 6.4/18

Left In: 27.030+/-47.964  $\chi^2/\text{NDF}$ : 6.3/19

Left: 14.382+/-35.432  $\chi^2/\text{NDF}$ : 11.0/41

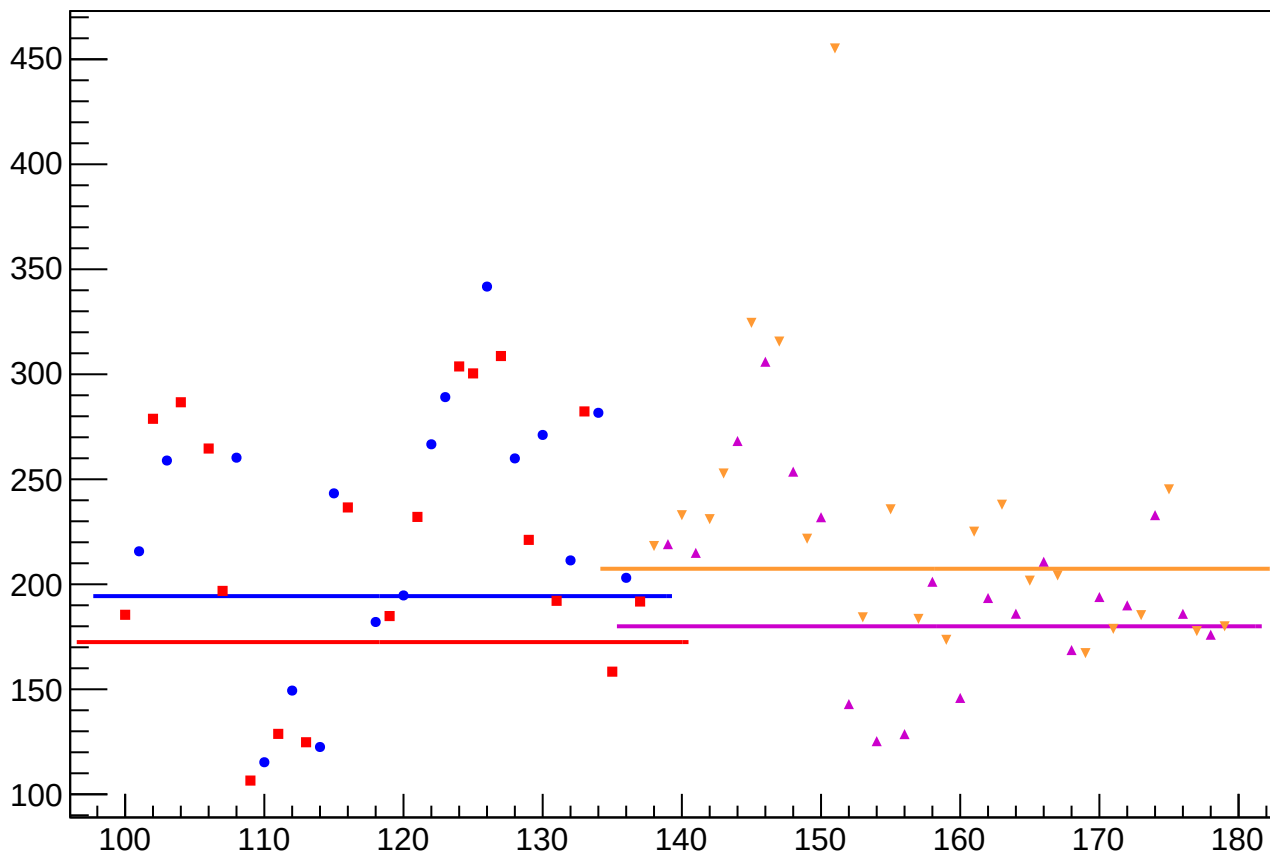
Right: 33.329+/-52.718  $\chi^2/\text{NDF}$ : 14.2/35

In: 37.715+/-41.112  $\chi^2/\text{NDF}$ : 13.9/36

Out: 2.009+/-42.081  $\chi^2/\text{NDF}$ : 11.0/40

All: 20.278+/-29.407  $\chi^2/\text{NDF}$ : 25.4/77

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 194.365 $\pm$ 0.056  $\chi^2/\text{NDF}$ : 1005234.4/16

Left Out: 207.396 $\pm$ 0.037  $\chi^2/\text{NDF}$ :1345818.6/21

Right Out: 172.471 $\pm$ 0.050  $\chi^2/\text{NDF}$ : 1569648.4/18

Left In: 179.994 $\pm$ 0.034  $\chi^2/\text{NDF}$ :1601213.4/19

Left: 192.443 $\pm$ 0.025  $\chi^2/\text{NDF}$ : 3243572.5/41

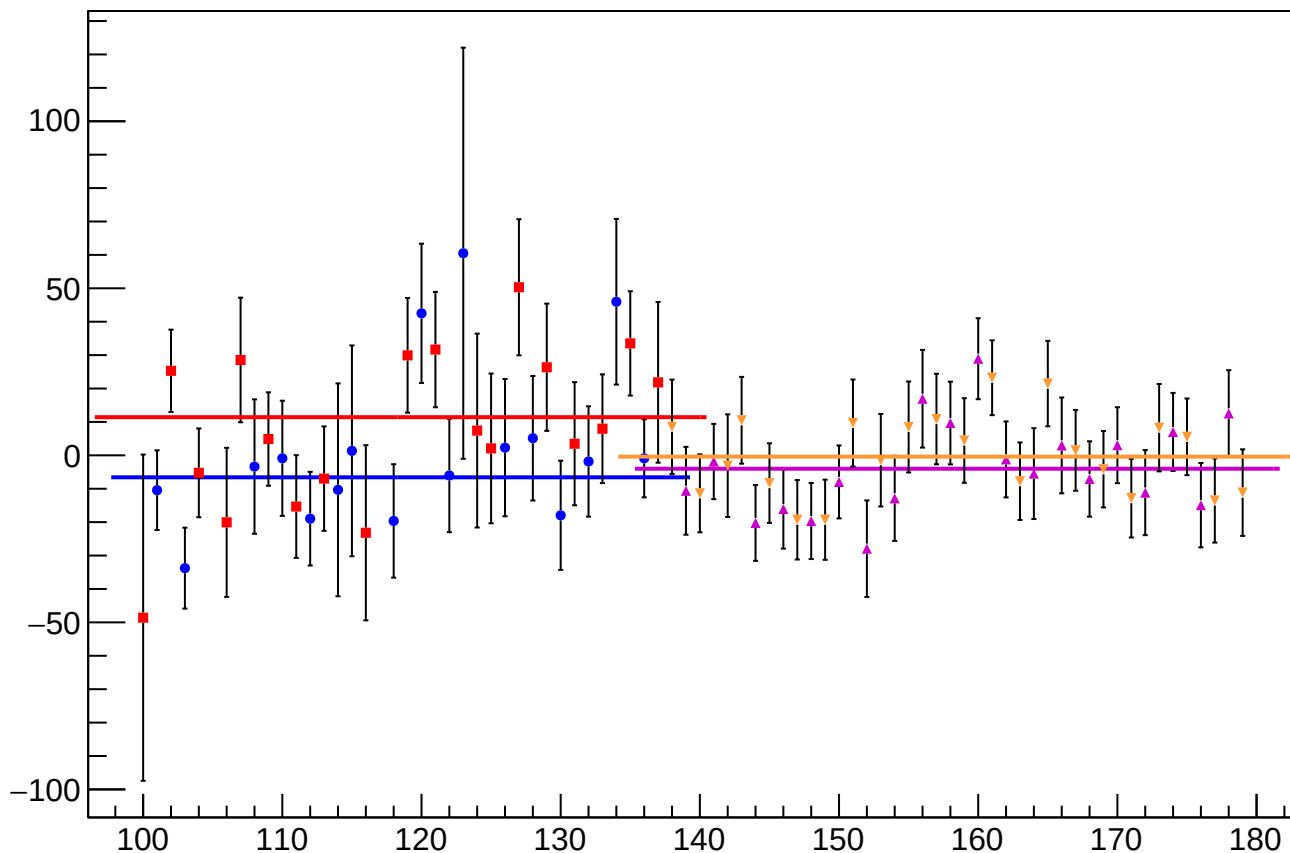
Right: 182.022 $\pm$ 0.037  $\chi^2/\text{NDF}$ : 2659717.0/35

In: 183.807 $\pm$ 0.029  $\chi^2/\text{NDF}$ :2654079.7/36

Out: 194.851 $\pm$ 0.030  $\chi^2/\text{NDF}$ :3232560.4/40

All: 189.200 $\pm$ 0.021  $\chi^2/\text{NDF}$ : 5957116.3/77

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_dd\_mean vs Slug, Sign Corrected



Right In:  $-6.575 \pm 4.157$   $\chi^2/\text{NDF}: 19.3/16$

Left Out:  $-0.385 \pm 2.666$   $\chi^2/\text{NDF}: 20.8/21$

Right Out:  $11.423 \pm 4.080$   $\chi^2/\text{NDF}: 23.0/18$

Left In:  $-4.009 \pm 2.743$   $\chi^2/\text{NDF}: 23.6/19$

Left:  $-2.146 \pm 1.912$   $\chi^2/\text{NDF}: 45.4/41$

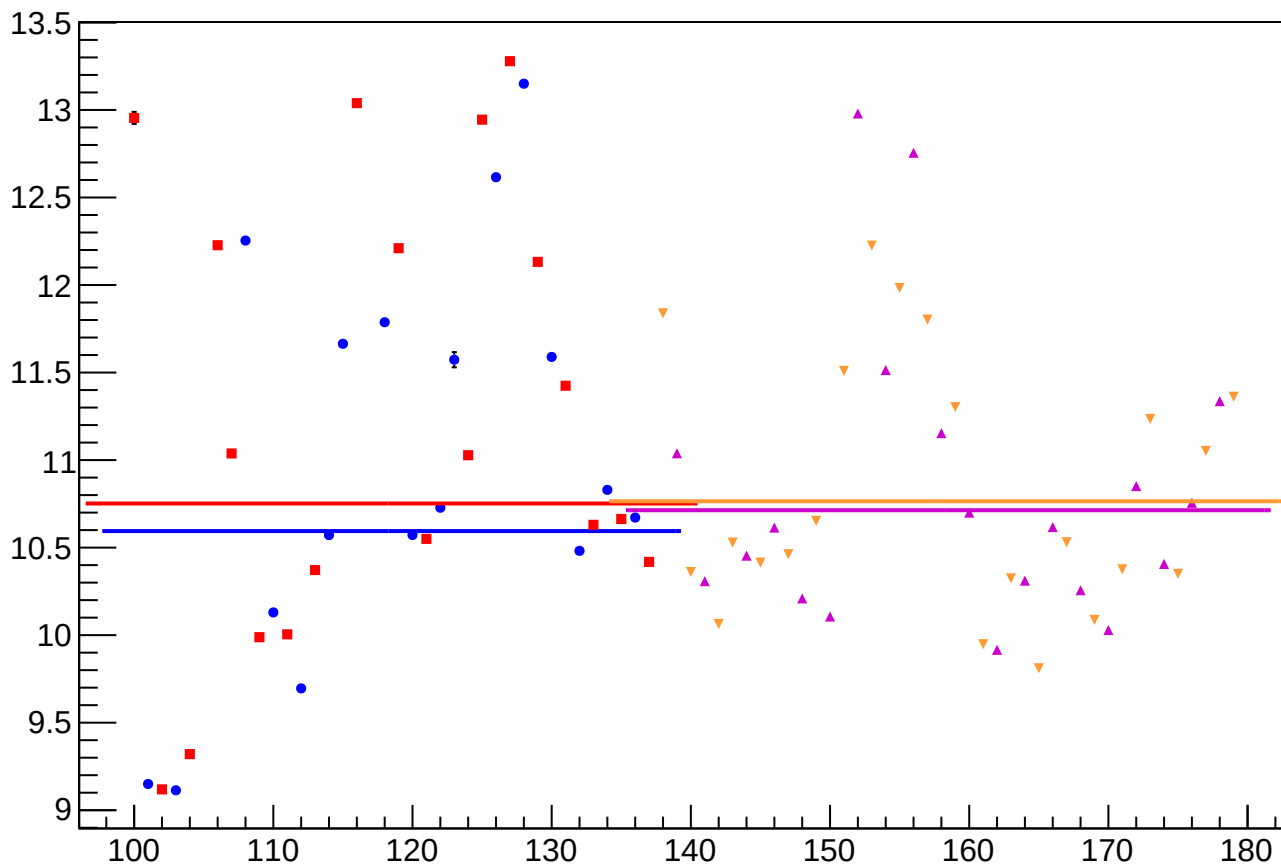
Right:  $2.593 \pm 2.912$   $\chi^2/\text{NDF}: 51.8/35$

In:  $-4.787 \pm 2.289$   $\chi^2/\text{NDF}: 43.2/36$

Out:  $3.149 \pm 2.232$   $\chi^2/\text{NDF}: 49.7/40$

All:  $-0.718 \pm 1.598$   $\chi^2/\text{NDF}: 99.0/77$

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_dd\_rms vs Slug, Sign Corrected



Right In:  $10.594 \pm 0.003$   $\chi^2/\text{NDF}$ : 160059.2/16

Left Out:  $10.765 \pm 0.002$   $\chi^2/\text{NDF}$ : 127214.4/21

Right Out:  $10.752 \pm 0.003$   $\chi^2/\text{NDF}$ : 177173.0/18

Left In:  $10.714 \pm 0.002$   $\chi^2/\text{NDF}$ : 142179.8/19

Left:  $10.740 \pm 0.001$   $\chi^2/\text{NDF}$ : 269753.0/41

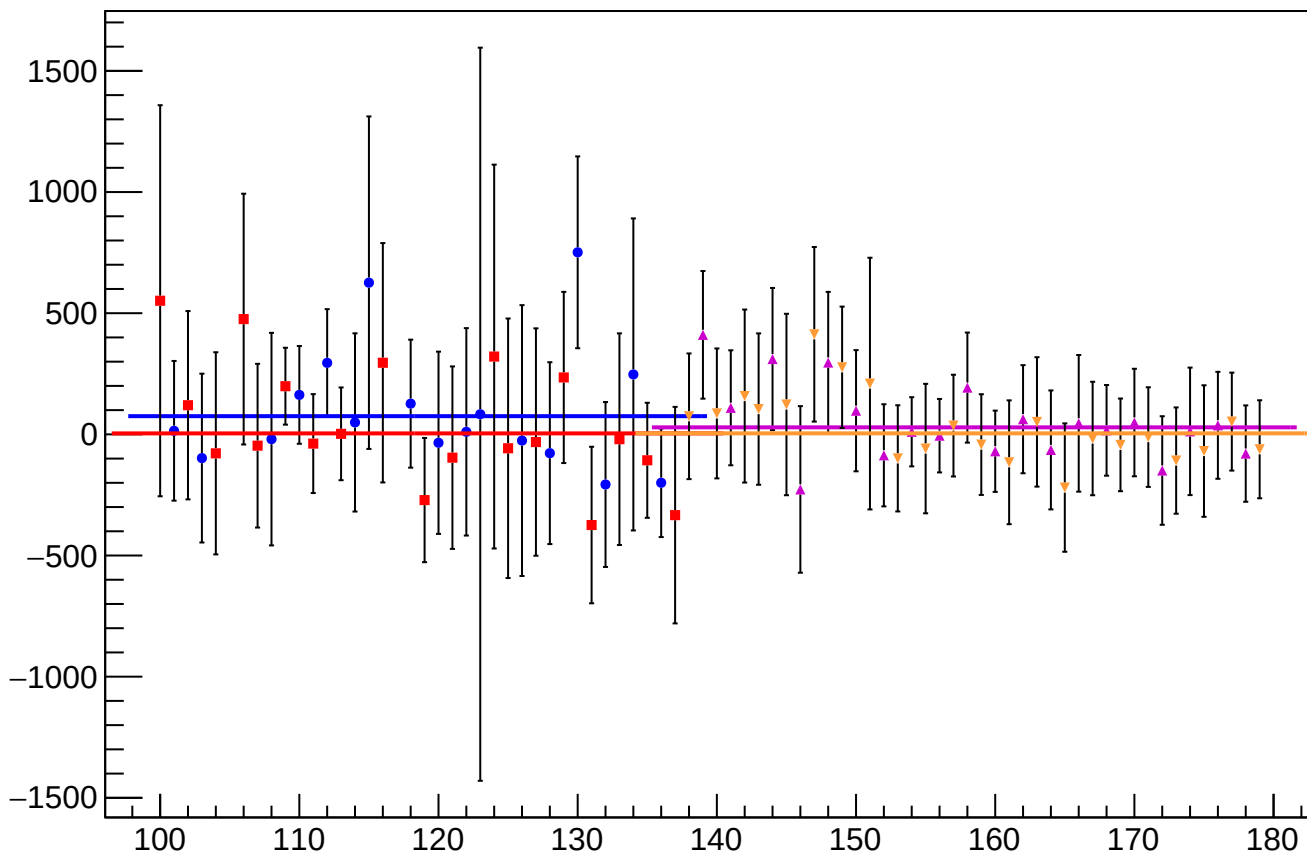
Right:  $10.675 \pm 0.002$   $\chi^2/\text{NDF}$ : 338695.4/35

In:  $10.677 \pm 0.002$   $\chi^2/\text{NDF}$ : 303382.1/36

Out:  $10.761 \pm 0.002$   $\chi^2/\text{NDF}$ : 304401.0/40

All:  $10.720 \pm 0.001$   $\chi^2/\text{NDF}$ : 609148.1/77

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 75.086+/-80.352  $\chi^2/\text{NDF}$ : 7.7/16

Left Out: 4.142+/-52.840  $\chi^2/\text{NDF}$ : 5.1/21

Right Out: 3.999+/-70.883  $\chi^2/\text{NDF}$ : 7.3/18

Left In: 28.909+/-48.315  $\chi^2/\text{NDF}$ : 7.0/19

Left: 17.631+/-35.657  $\chi^2/\text{NDF}$ : 12.2/41

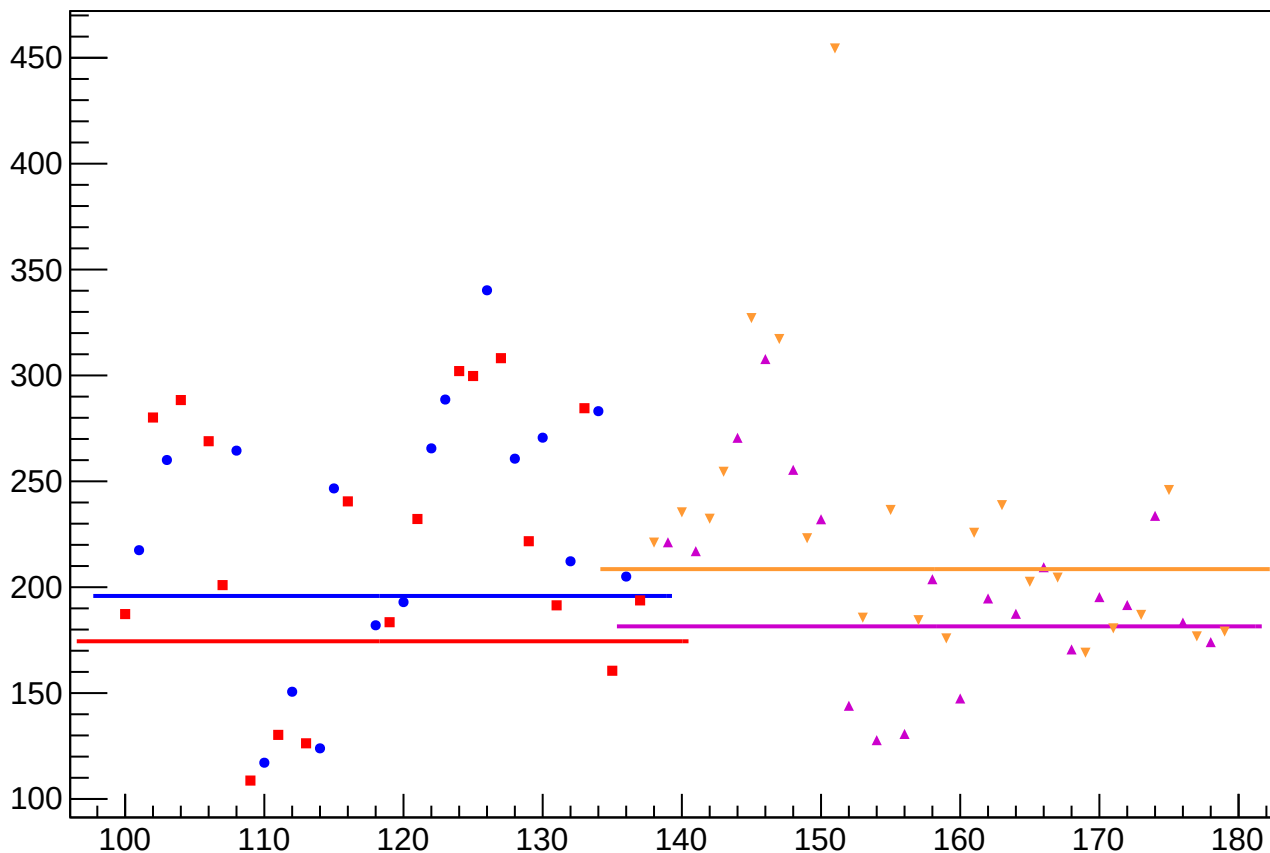
Right: 35.109+/-53.156  $\chi^2/\text{NDF}$ : 15.5/35

In: 41.171+/-41.406  $\chi^2/\text{NDF}$ : 14.9/36

Out: 4.091+/-42.364  $\chi^2/\text{NDF}$ : 12.4/40

All: 23.055+/-29.612  $\chi^2/\text{NDF}$ : 27.7/77

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 195.869 $\pm$ 0.057  $\chi^2$ /NDF: 979247.4/16

Left Out: 208.538 $\pm$ 0.037  $\chi^2$ /NDF:1341712.0/21

Right Out: 174.465 $\pm$ 0.050  $\chi^2$ /NDF: 1528778.5/18

Left In: 181.512 $\pm$ 0.034  $\chi^2$ /NDF:1555337.2/19

Left: 193.819 $\pm$ 0.025  $\chi^2$ /NDF: 3182006.0/41

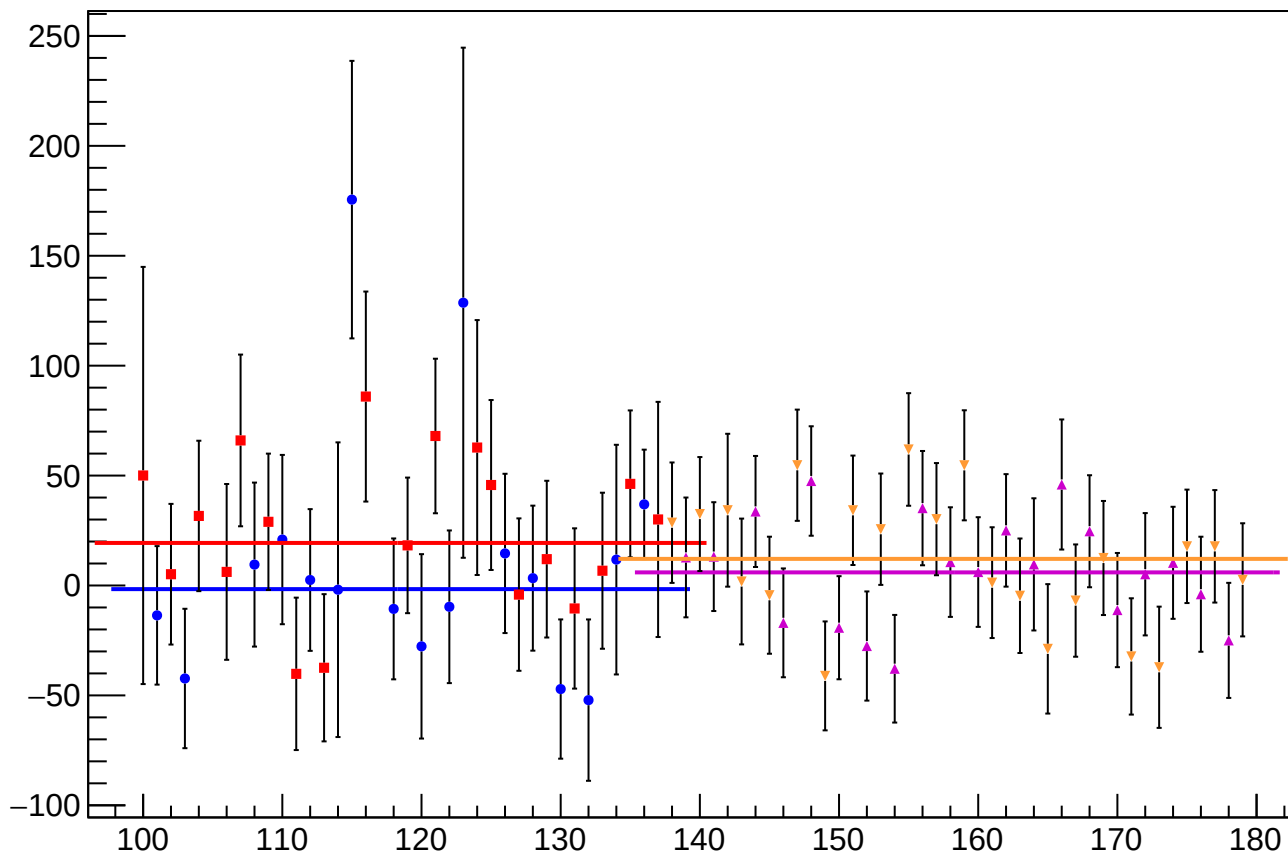
Right: 183.832 $\pm$ 0.038  $\chi^2$ /NDF: 2587830.9/35

In: 185.324 $\pm$ 0.029  $\chi^2$ /NDF:2581479.1/36

Out: 196.367 $\pm$ 0.030  $\chi^2$ /NDF:3167543.9/40

All: 190.720 $\pm$ 0.021  $\chi^2$ /NDF: 5818520.5/77

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_dd\_mean vs Slug, Sign Corrected



Right In:  $-1.654 \pm 8.881$   $\chi^2/\text{NDF}$ : 18.5/16

Left Out:  $12.105 \pm 5.607$   $\chi^2/\text{NDF}$ : 26.9/21

Right Out:  $19.357 \pm 8.556$   $\chi^2/\text{NDF}$ : 14.8/18

Left In:  $5.958 \pm 5.760$   $\chi^2/\text{NDF}$ : 17.4/19

Left:  $9.114 \pm 4.018$   $\chi^2/\text{NDF}$ : 44.9/41

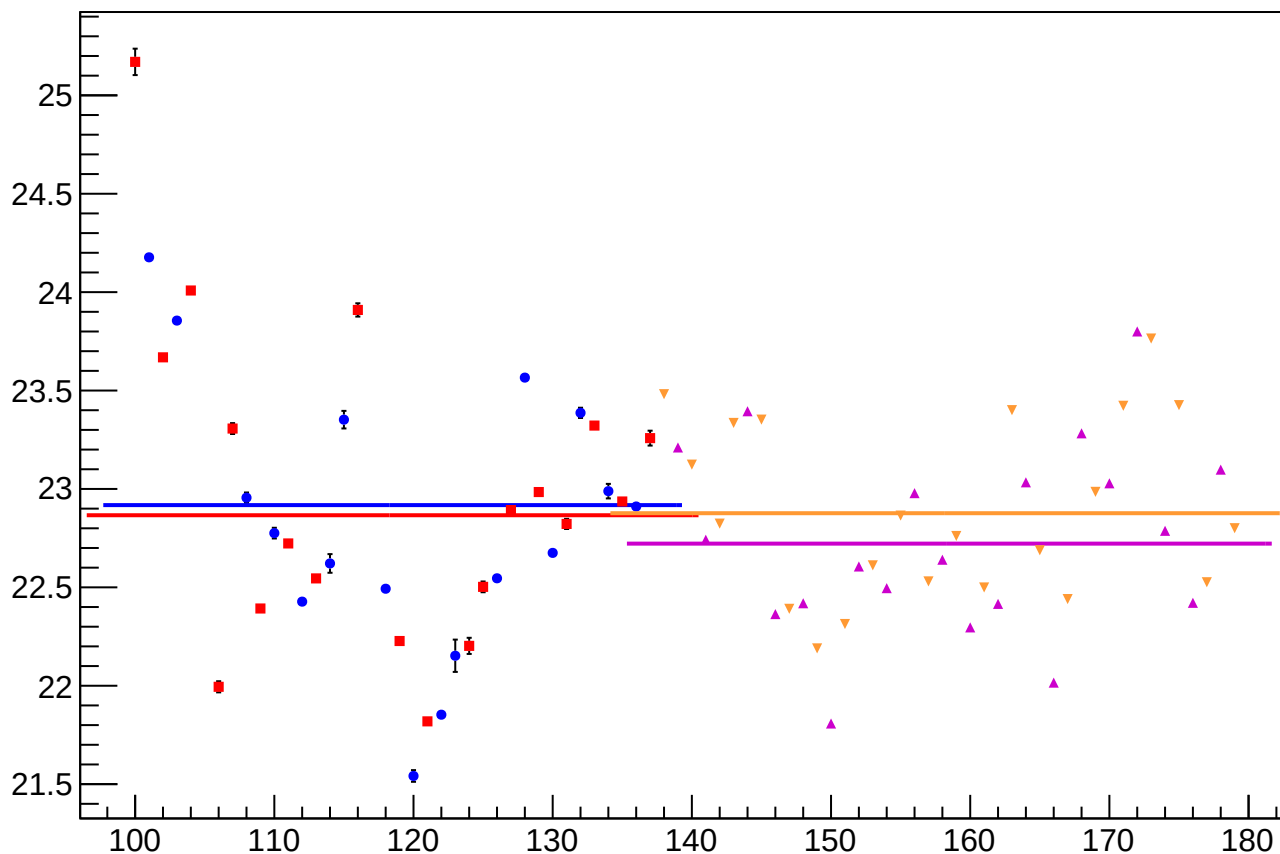
Right:  $9.244 \pm 6.162$   $\chi^2/\text{NDF}$ : 36.2/35

In:  $3.704 \pm 4.832$   $\chi^2/\text{NDF}$ : 36.5/36

Out:  $14.284 \pm 4.690$   $\chi^2/\text{NDF}$ : 42.2/40

All:  $9.153 \pm 3.365$   $\chi^2/\text{NDF}$ : 81.1/77

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 22.918 $\pm$ 0.006  $\chi^2$ /NDF: 11472.2/16

Left Out: 22.877 $\pm$ 0.004  $\chi^2$ /NDF:12421.8/21

Right Out: 22.866 $\pm$ 0.006  $\chi^2$ /NDF: 11052.6/18

Left In: 22.722 $\pm$ 0.004  $\chi^2$ /NDF:13408.1/19

Left: 22.801 $\pm$ 0.003  $\chi^2$ /NDF: 26569.4/41

Right: 22.891 $\pm$ 0.004  $\chi^2$ /NDF: 22559.6/35

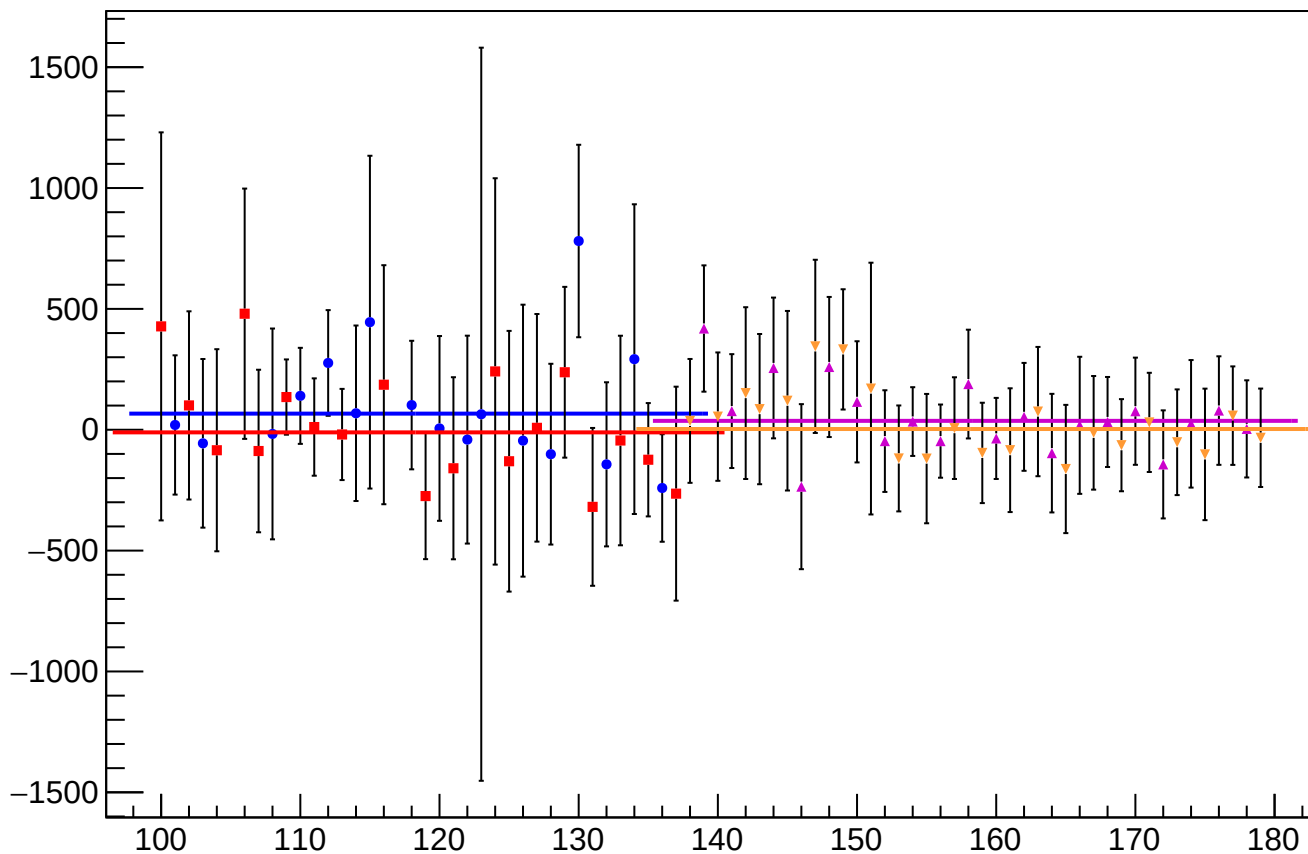
In: 22.780 $\pm$ 0.003  $\chi^2$ /NDF:25564.2/36

Out: 22.874 $\pm$ 0.003  $\chi^2$ /NDF:23476.4/40

All: 22.828 $\pm$ 0.002  $\chi^2$ /NDF: 49426.3/77



asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 66.701 $\pm$ 79.995  $\chi^2$ /NDF: 7.5/16

Left Out: 3.025 $\pm$ 52.802  $\chi^2$ /NDF:5.0/21

Right Out: -10.870 $\pm$ 70.386  $\chi^2$ /NDF: 5.7/18

Left In: 36.781 $\pm$ 48.271  $\chi^2$ /NDF:6.2/19

Left: 21.413 $\pm$ 35.627  $\chi^2$ /NDF: 11.4/41

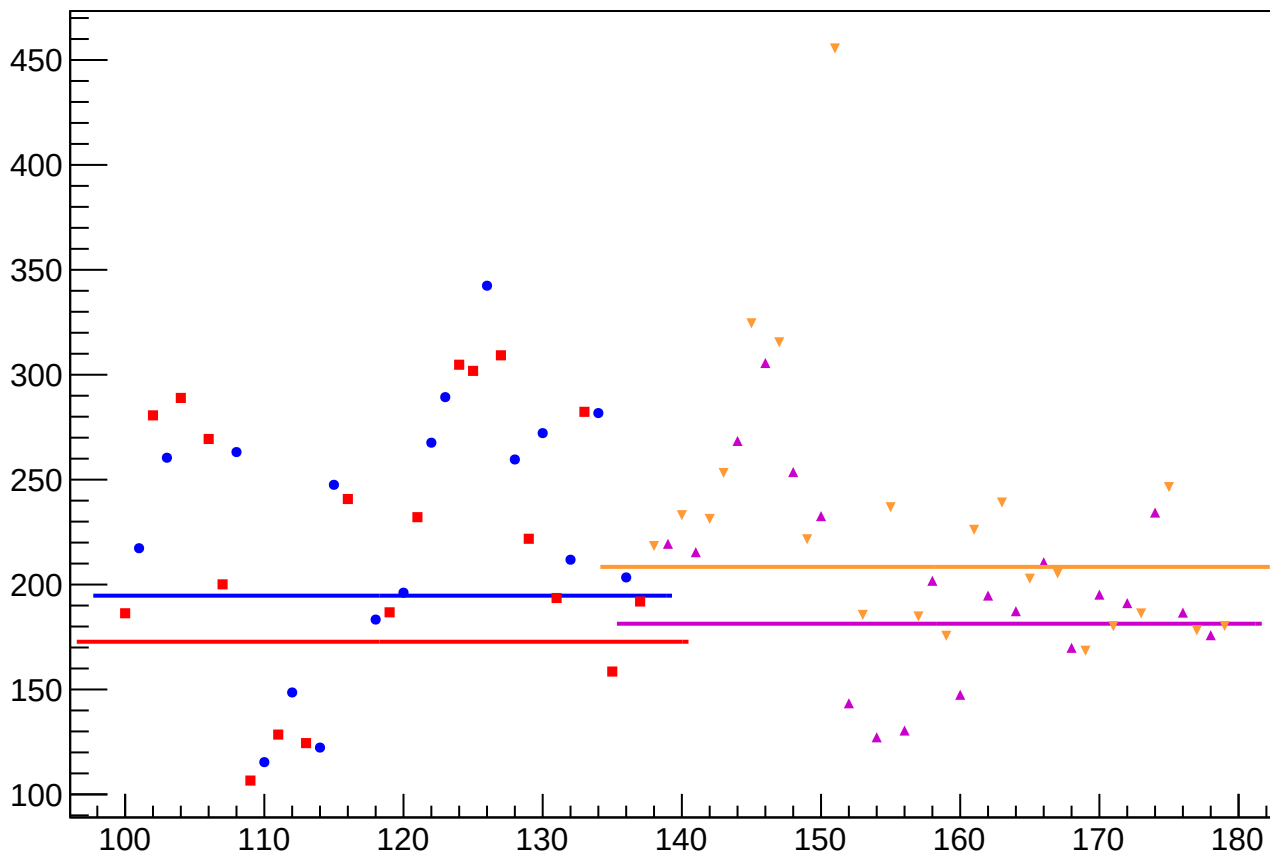
Right: 22.979 $\pm$ 52.843  $\chi^2$ /NDF: 13.8/35

In: 44.767 $\pm$ 41.330  $\chi^2$ /NDF:13.9/36

Out: -1.978 $\pm$ 42.238  $\chi^2$ /NDF:10.7/40

All: 21.903 $\pm$ 29.541  $\chi^2$ /NDF: 25.2/77

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 194.703 $\pm$ 0.057  $\chi^2$ /NDF: 1019872.4/16

Left Out: 208.422 $\pm$ 0.037  $\chi^2$ /NDF:1324206.6/21

Right Out: 172.753 $\pm$ 0.050  $\chi^2$ /NDF: 1596944.9/18

Left In: 181.340 $\pm$ 0.034  $\chi^2$ /NDF:1547840.5/19

Left: 193.669 $\pm$ 0.025  $\chi^2$ /NDF: 3158648.7/41

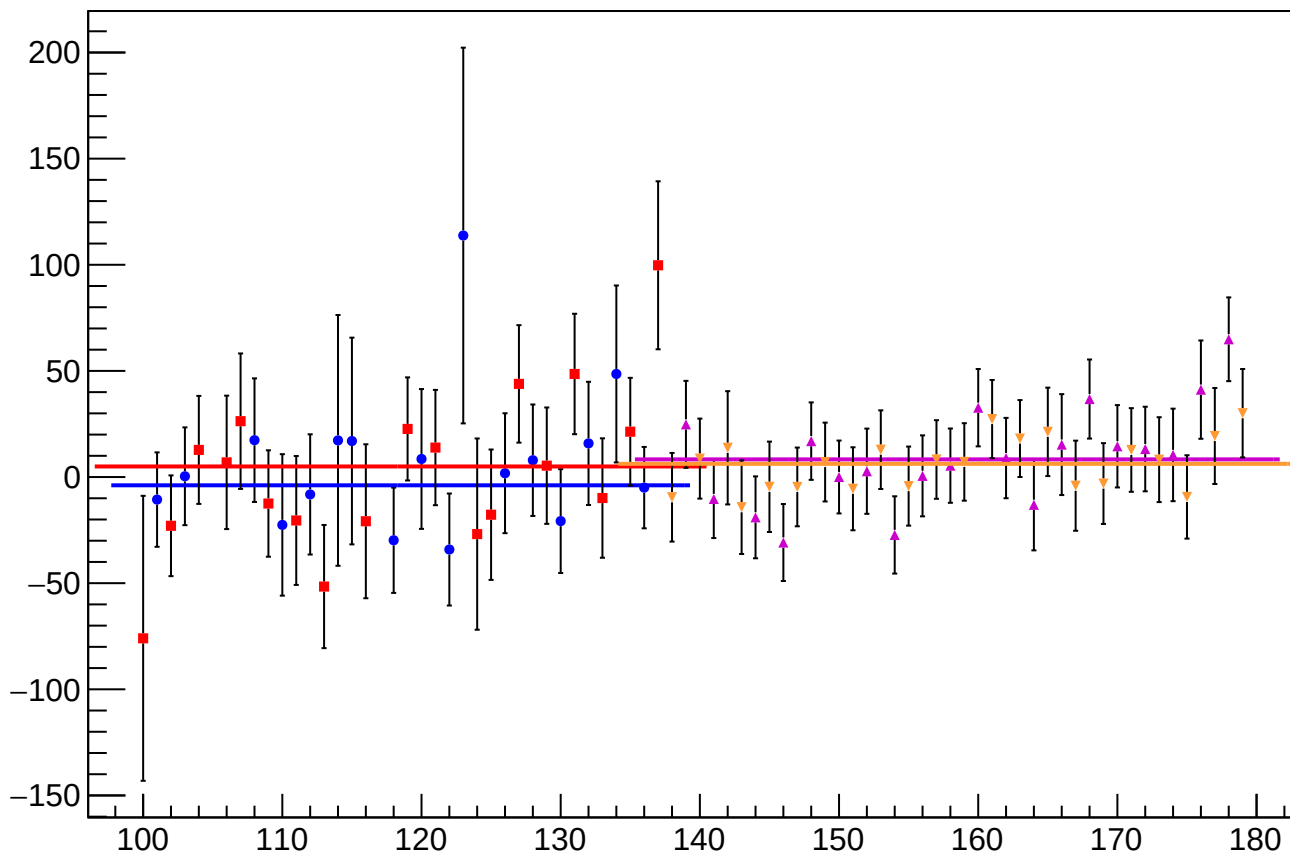
Right: 182.331 $\pm$ 0.037  $\chi^2$ /NDF: 2701685.9/35

In: 184.907 $\pm$ 0.029  $\chi^2$ /NDF:2608625.4/36

Out: 195.577 $\pm$ 0.030  $\chi^2$ /NDF:3249799.0/40

All: 190.126 $\pm$ 0.021  $\chi^2$ /NDF: 5923633.0/77

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_dd\_mean vs Slug, Sign Corrected



Right In:  $-3.894 \pm 6.915$   $\chi^2/\text{NDF}$ : 8.4/16

Left Out:  $6.226 \pm 4.221$   $\chi^2/\text{NDF}$ : 8.1/21

Right Out:  $4.985 \pm 6.727$   $\chi^2/\text{NDF}$ : 21.3/18

Left In:  $8.322 \pm 4.331$   $\chi^2/\text{NDF}$ : 28.5/19

Left:  $7.247 \pm 3.023$   $\chi^2/\text{NDF}$ : 36.7/41

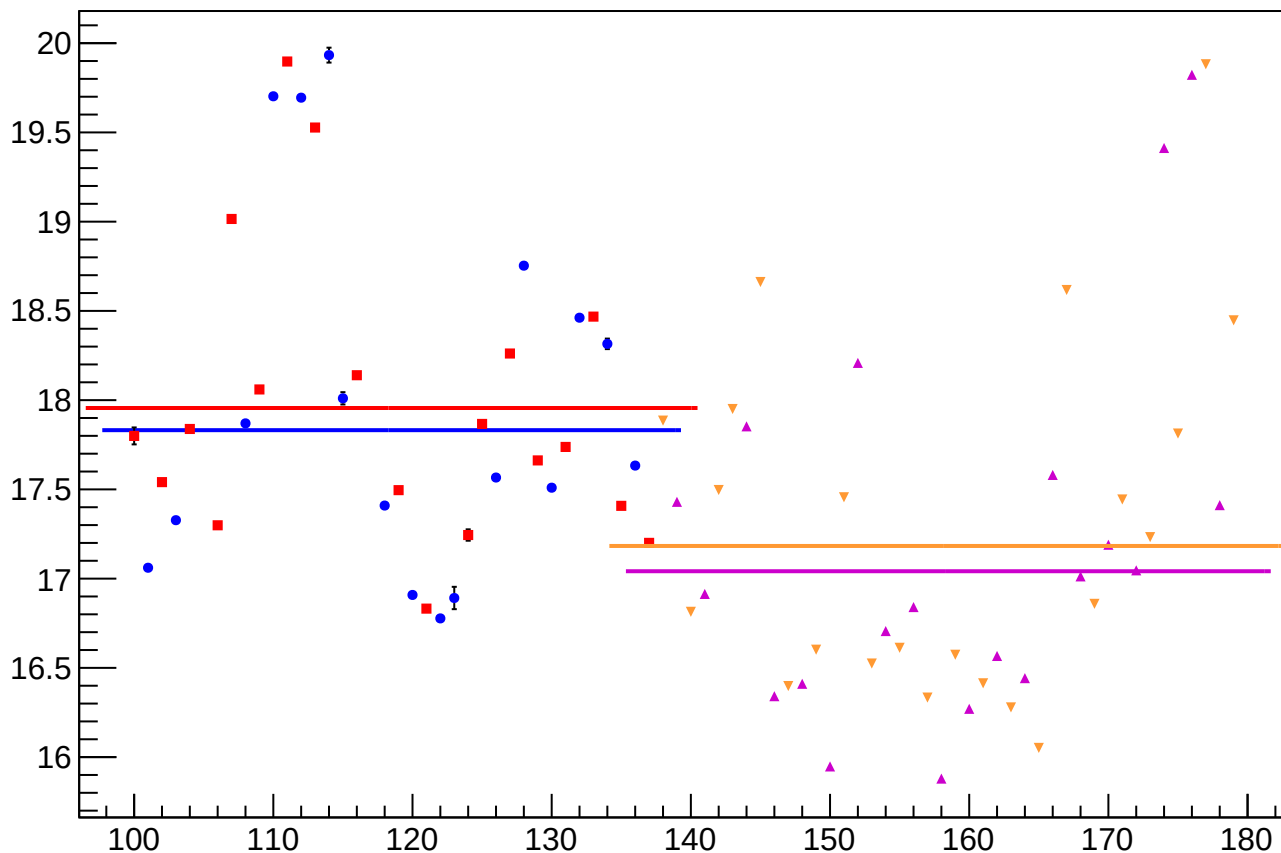
Right:  $0.668 \pm 4.822$   $\chi^2/\text{NDF}$ : 30.6/35

In:  $4.880 \pm 3.671$   $\chi^2/\text{NDF}$ : 39.1/36

Out:  $5.876 \pm 3.575$   $\chi^2/\text{NDF}$ : 29.5/40

All:  $5.391 \pm 2.561$   $\chi^2/\text{NDF}$ : 68.6/77

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 17.832+/-0.005  $\chi^2/\text{NDF}$ : 30863.4/16

Left Out: 17.183+/-0.003  $\chi^2/\text{NDF}$ : 94506.5/21

Right Out: 17.956+/-0.005  $\chi^2/\text{NDF}$ : 25448.9/18

Left In: 17.041+/-0.003  $\chi^2/\text{NDF}$ : 95097.5/19

Left: 17.114+/-0.002  $\chi^2/\text{NDF}$ : 190699.8/41

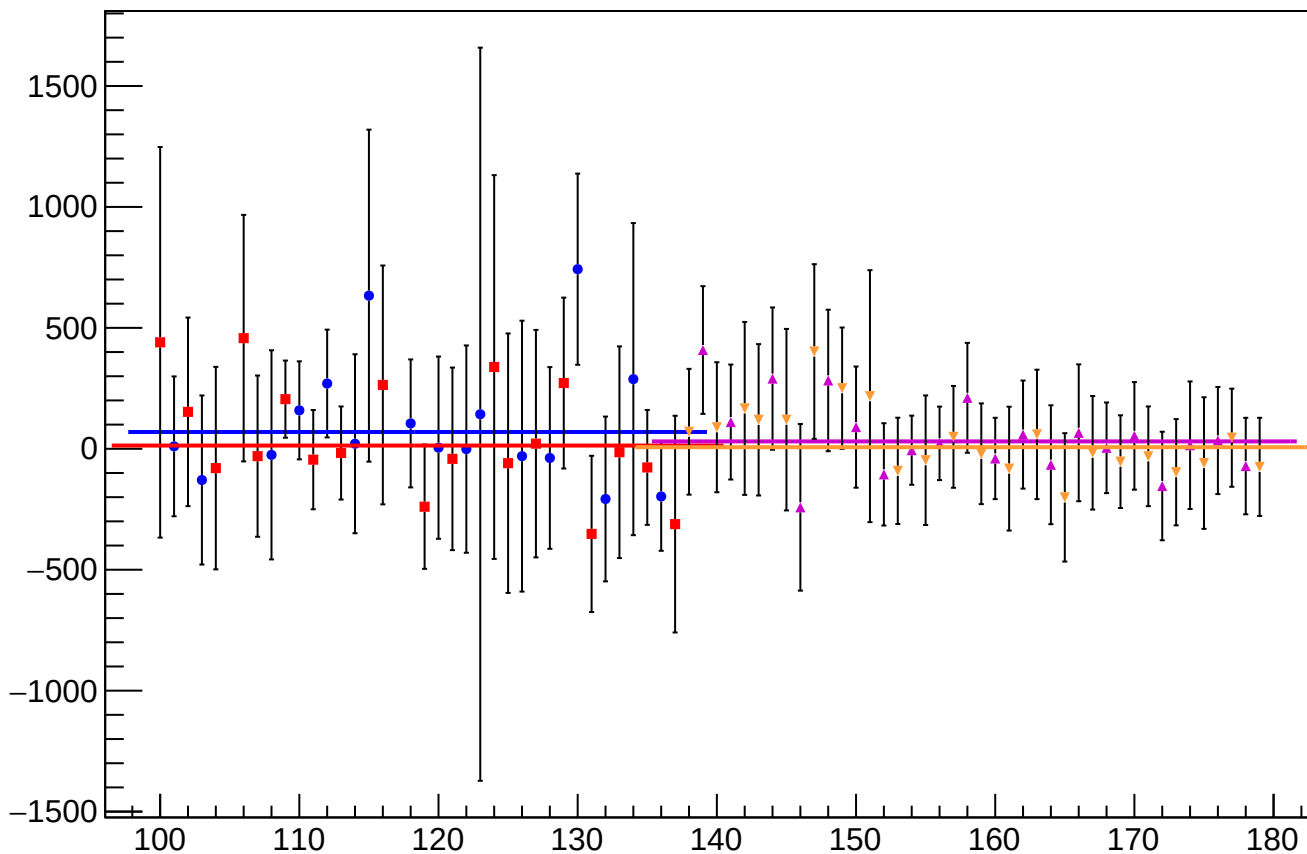
Right: 17.896+/-0.003  $\chi^2/\text{NDF}$ : 56643.8/35

In: 17.264+/-0.003  $\chi^2/\text{NDF}$ : 144723.7/36

Out: 17.401+/-0.003  $\chi^2/\text{NDF}$ : 138902.4/40

All: 17.335+/-0.002  $\chi^2/\text{NDF}$ : 285061.0/77

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 69.511+/-80.550  $\chi^2/\text{NDF}$ : 7.4/16

Left Out: 6.649+/-52.965  $\chi^2/\text{NDF}$ : 4.6/21

Right Out: 13.410+/-71.041  $\chi^2/\text{NDF}$ : 6.7/18

Left In: 30.577+/-48.420  $\chi^2/\text{NDF}$ : 6.8/19

Left: 19.684+/-35.737  $\chi^2/\text{NDF}$ : 11.5/41

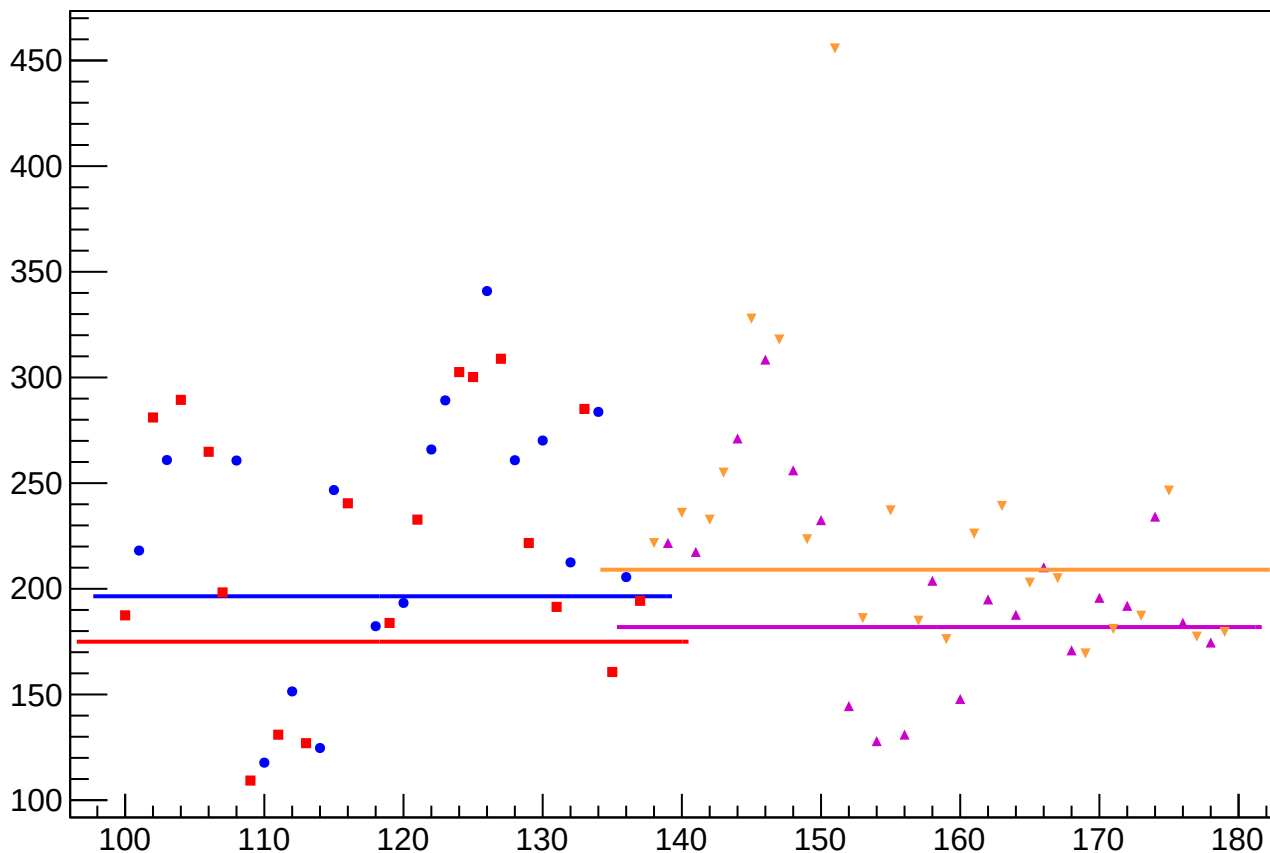
Right: 37.955+/-53.280  $\chi^2/\text{NDF}$ : 14.4/35

In: 40.911+/-41.499  $\chi^2/\text{NDF}$ : 14.4/36

Out: 9.065+/-42.463  $\chi^2/\text{NDF}$ : 11.3/40

All: 25.353+/-29.679  $\chi^2/\text{NDF}$ : 25.9/77

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 196.470+/-0.057  $\chi^2/\text{NDF}$ : 964281.5/16

Left Out: 209.034+/-0.037  $\chi^2/\text{NDF}$ :1340617.5/21

Right Out: 174.981+/-0.050  $\chi^2/\text{NDF}$ : 1511102.3/18

Left In: 181.904+/-0.034  $\chi^2/\text{NDF}$ :1554996.7/19

Left: 194.255+/-0.025  $\chi^2/\text{NDF}$ : 3181463.8/41

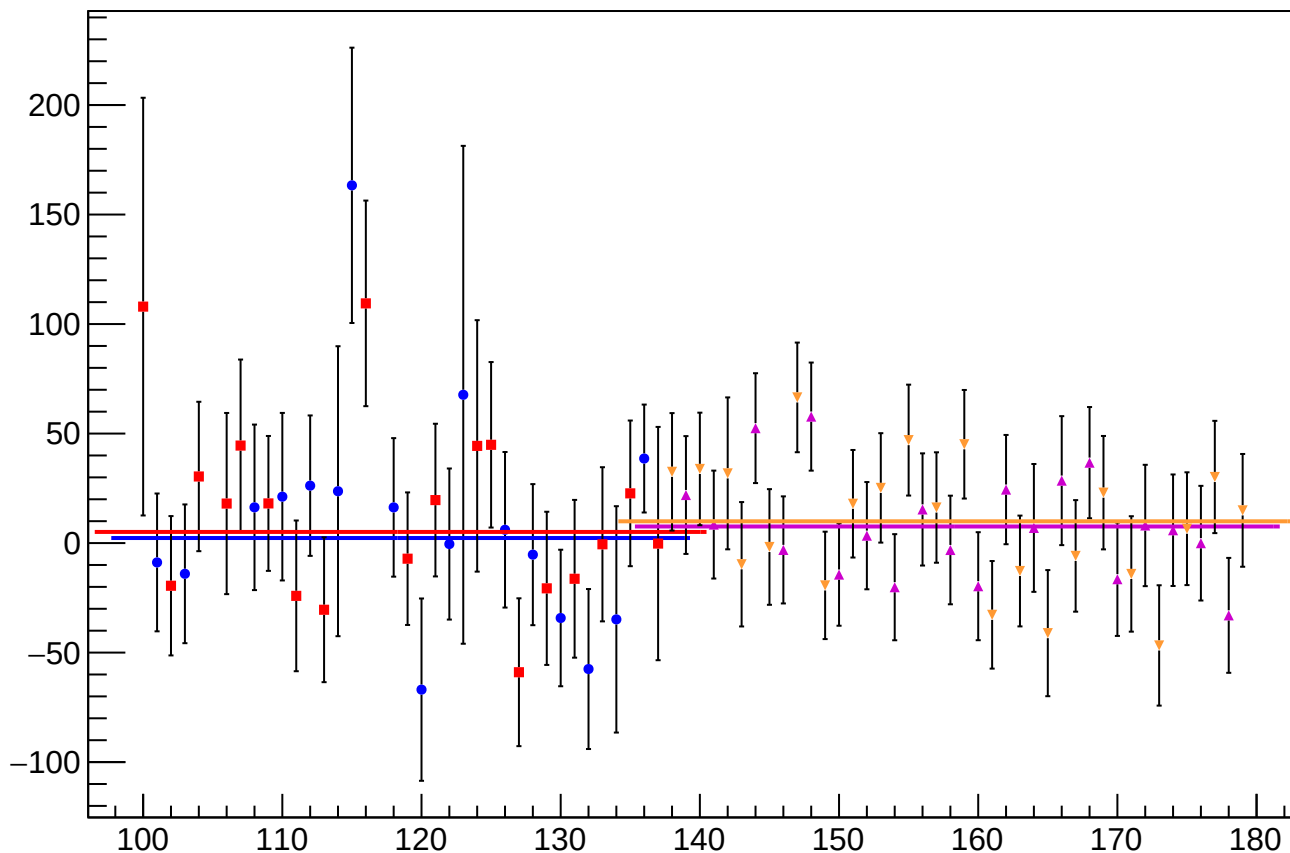
Right: 184.383+/-0.038  $\chi^2/\text{NDF}$ : 2555448.8/35

In: 185.770+/-0.029  $\chi^2/\text{NDF}$ :2567322.0/36

Out: 196.868+/-0.030  $\chi^2/\text{NDF}$ :3147072.0/40

All: 191.192+/-0.021  $\chi^2/\text{NDF}$ : 5784267.2/77

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_dd\_mean vs Slug, Sign Corrected



Right In: 2.307+/-8.805  $\chi^2/\text{NDF}$ : 18.1/16

Left Out: 9.940+/-5.550  $\chi^2/\text{NDF}$ : 27.3/21

Right Out: 5.089+/-8.479  $\chi^2/\text{NDF}$ : 17.1/18

Left In: 7.574+/-5.710  $\chi^2/\text{NDF}$ : 17.2/19

Left: 8.791+/-3.980  $\chi^2/\text{NDF}$ : 44.5/41

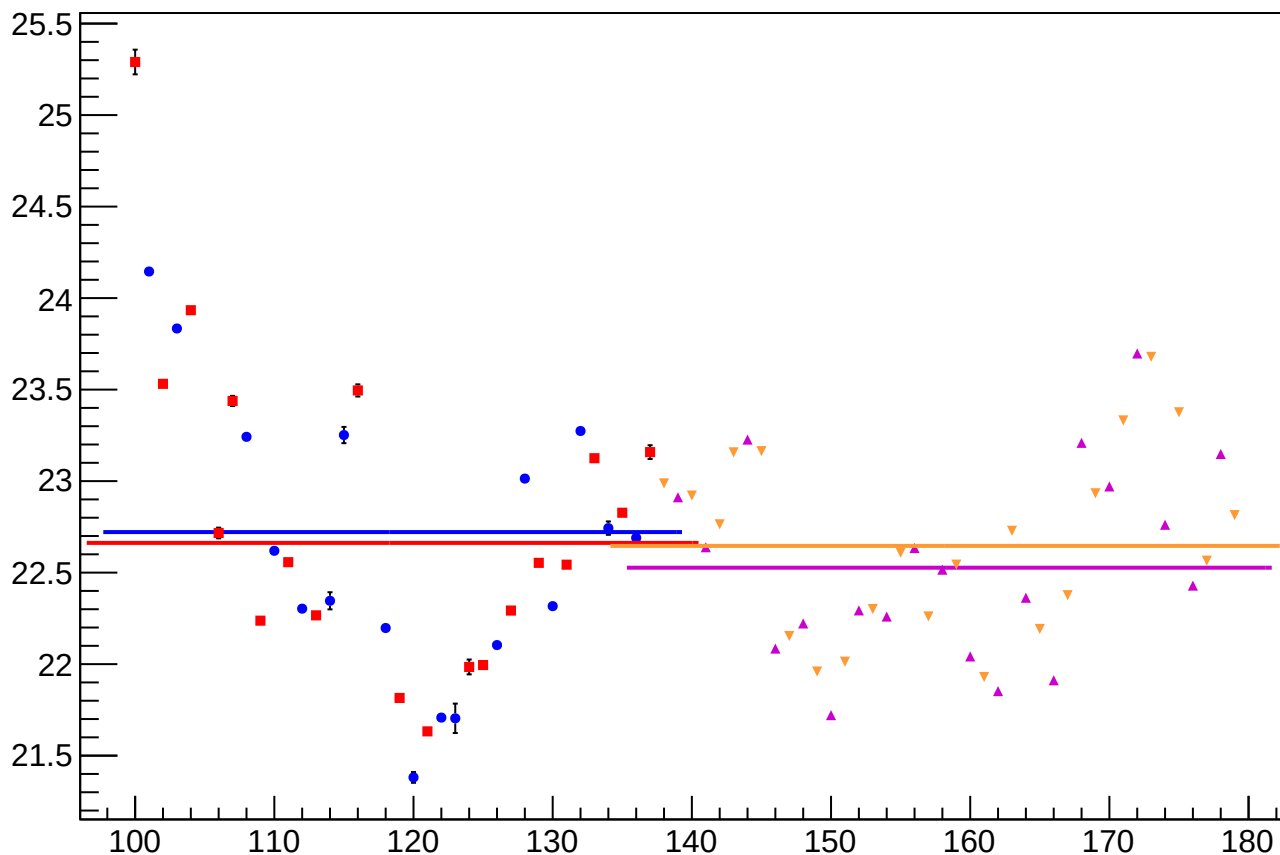
Right: 3.750+/-6.108  $\chi^2/\text{NDF}$ : 35.3/35

In: 6.015+/-4.791  $\chi^2/\text{NDF}$ : 35.5/36

Out: 8.485+/-4.644  $\chi^2/\text{NDF}$ : 44.6/40

All: 7.288+/-3.335  $\chi^2/\text{NDF}$ : 80.3/77

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 22.722 $\pm$ 0.006  $\chi^2$ /NDF: 13580.6/16

Left Out: 22.646 $\pm$ 0.004  $\chi^2$ /NDF:15134.4/21

Right Out: 22.662 $\pm$ 0.006  $\chi^2$ /NDF: 12955.6/18

Left In: 22.527 $\pm$ 0.004  $\chi^2$ /NDF:15898.2/19

Left: 22.588 $\pm$ 0.003  $\chi^2$ /NDF: 31480.6/41

Right: 22.691 $\pm$ 0.004  $\chi^2$ /NDF: 26582.8/35

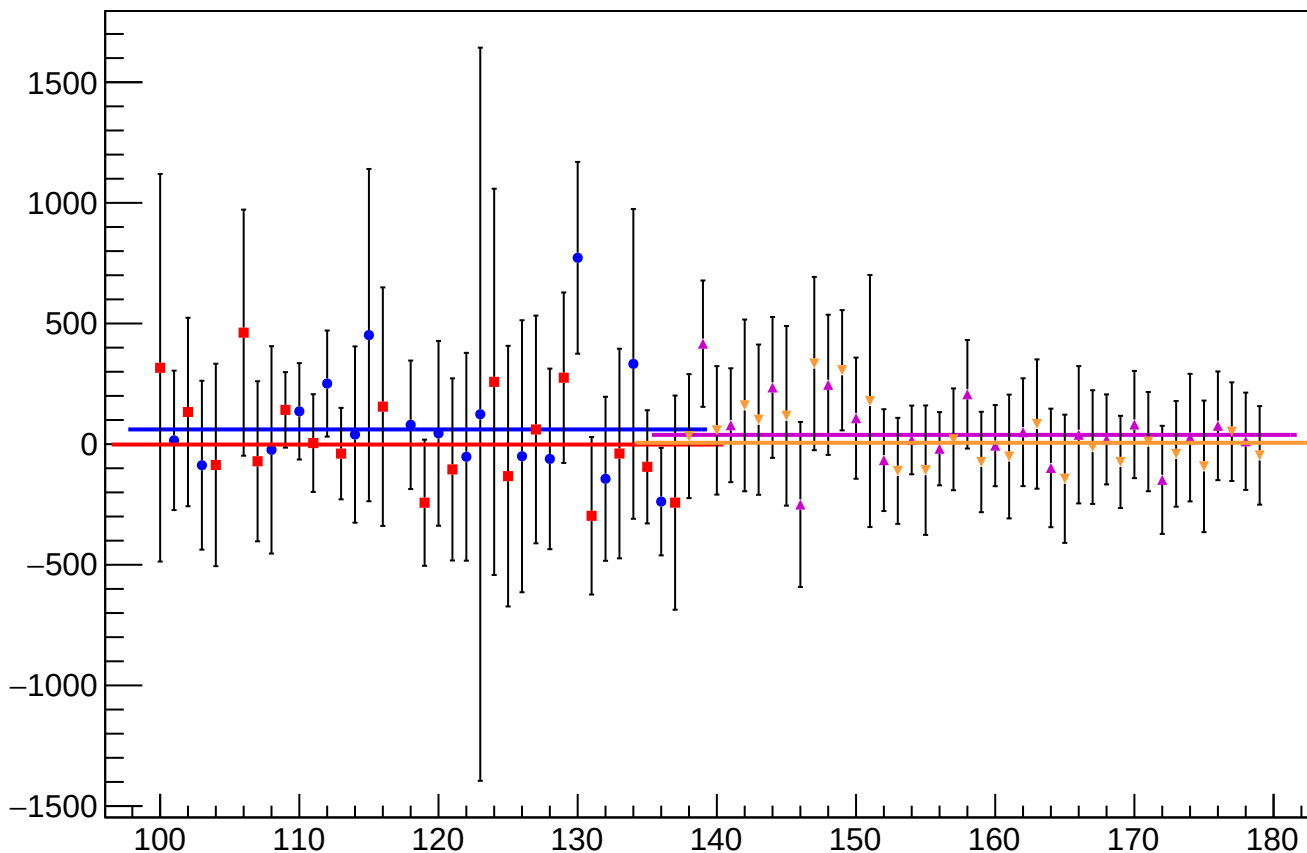
In: 22.585 $\pm$ 0.003  $\chi^2$ /NDF:30166.7/36

Out: 22.651 $\pm$ 0.003  $\chi^2$ /NDF:28095.2/40

All: 22.619 $\pm$ 0.002  $\chi^2$ /NDF: 58460.4/77



asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 60.960 $\pm$ 80.197  $\chi^2$ /NDF: 7.2/16

Left Out: 5.601 $\pm$ 52.927  $\chi^2$ /NDF:4.4/21

Right Out: -1.647 $\pm$ 70.549  $\chi^2$ /NDF: 5.2/18

Left In: 38.399 $\pm$ 48.375  $\chi^2$ /NDF:6.0/19

Left: 23.471 $\pm$ 35.707  $\chi^2$ /NDF: 10.6/41

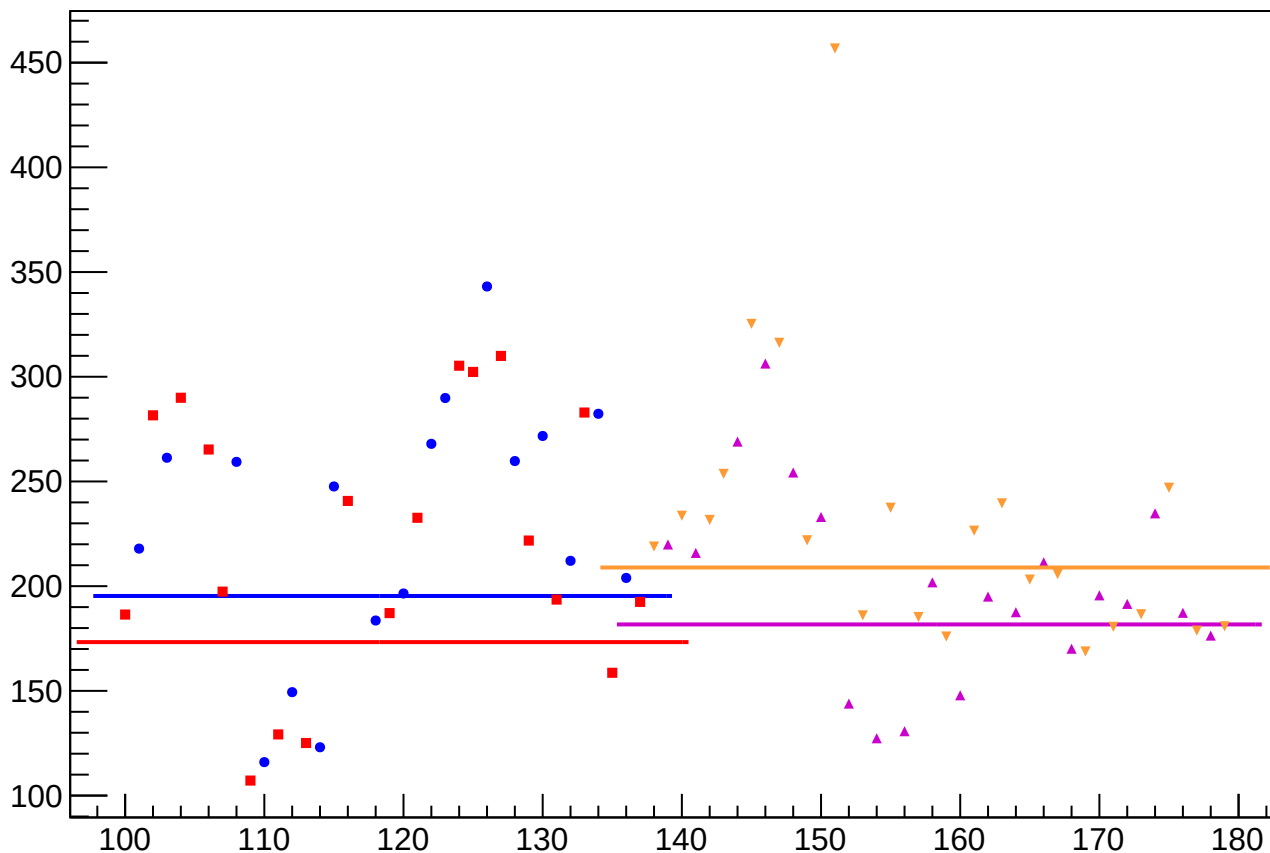
Right: 25.666 $\pm$ 52.970  $\chi^2$ /NDF: 12.7/35

In: 44.418 $\pm$ 41.423  $\chi^2$ /NDF:13.3/36

Out: 2.991 $\pm$ 42.337  $\chi^2$ /NDF:9.5/40

All: 24.157 $\pm$ 29.608  $\chi^2$ /NDF: 23.3/77

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 195.316 $\pm$ 0.057  $\chi^2$ /NDF: 1004211.5/16

Left Out: 208.917 $\pm$ 0.037  $\chi^2$ /NDF:1323178.1/21

Right Out: 173.285 $\pm$ 0.050  $\chi^2$ /NDF: 1578382.8/18

Left In: 181.729 $\pm$ 0.034  $\chi^2$ /NDF:1547710.3/19

Left: 194.104 $\pm$ 0.025  $\chi^2$ /NDF: 3158438.3/41

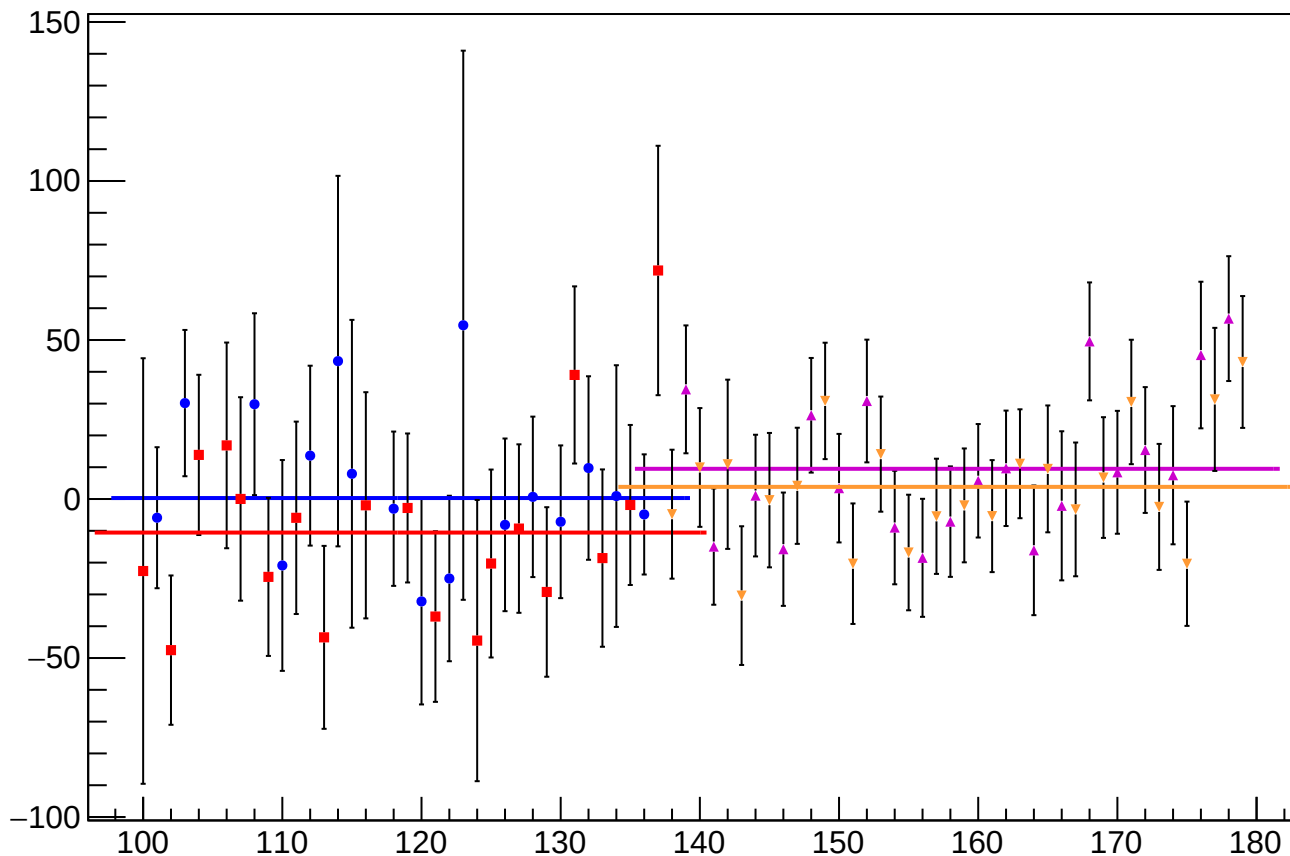
Right: 182.896 $\pm$ 0.037  $\chi^2$ /NDF: 2667678.3/35

In: 185.354 $\pm$ 0.029  $\chi^2$ /NDF:2594013.3/36

Out: 196.085 $\pm$ 0.030  $\chi^2$ /NDF:3228011.9/40

All: 190.602 $\pm$ 0.021  $\chi^2$ /NDF: 5887675.6/77

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_dd\_mean vs Slug, Sign Corrected



Right In:  $0.305 \pm 6.812$   $\chi^2/\text{NDF}$ : 6.8/16

Left Out:  $3.818 \pm 4.140$   $\chi^2/\text{NDF}$ : 17.9/21

Right Out:  $-10.553 \pm 6.628$   $\chi^2/\text{NDF}$ : 16.0/18

Left In:  $9.499 \pm 4.262$   $\chi^2/\text{NDF}$ : 26.9/19

Left:  $6.576 \pm 2.970$   $\chi^2/\text{NDF}$ : 45.7/41

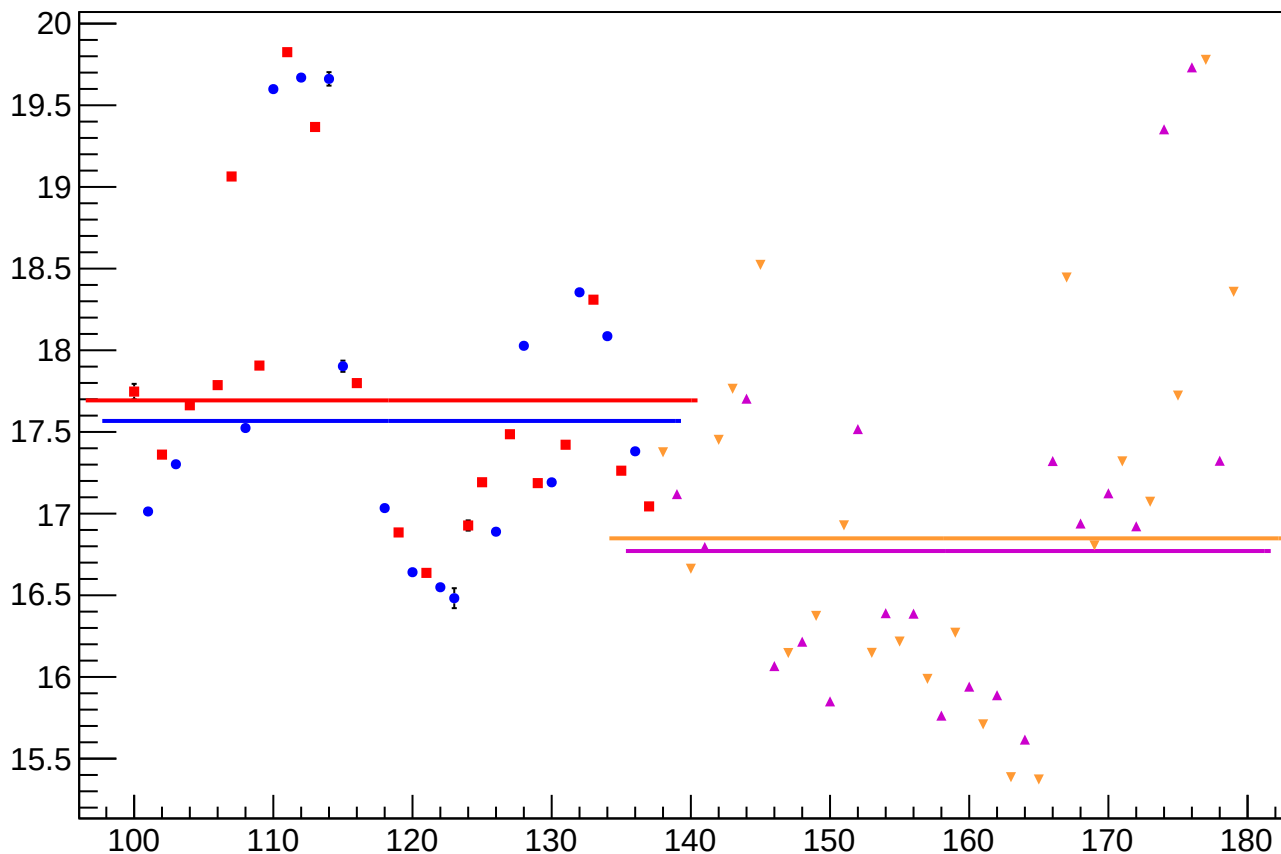
Right:  $-5.273 \pm 4.751$   $\chi^2/\text{NDF}$ : 24.1/35

In:  $6.913 \pm 3.613$   $\chi^2/\text{NDF}$ : 34.9/36

Out:  $-0.215 \pm 3.511$   $\chi^2/\text{NDF}$ : 37.3/40

All:  $3.247 \pm 2.518$   $\chi^2/\text{NDF}$ : 74.3/77

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 17.567 $\pm$ 0.005  $\chi^2$ /NDF: 33145.0/16

Left Out: 16.849 $\pm$ 0.003  $\chi^2$ /NDF:130391.2/21

Right Out: 17.693 $\pm$ 0.005  $\chi^2$ /NDF: 30767.1/18

Left In: 16.771 $\pm$ 0.003  $\chi^2$ /NDF:108060.6/19

Left: 16.811 $\pm$ 0.002  $\chi^2$ /NDF: 238793.9/41

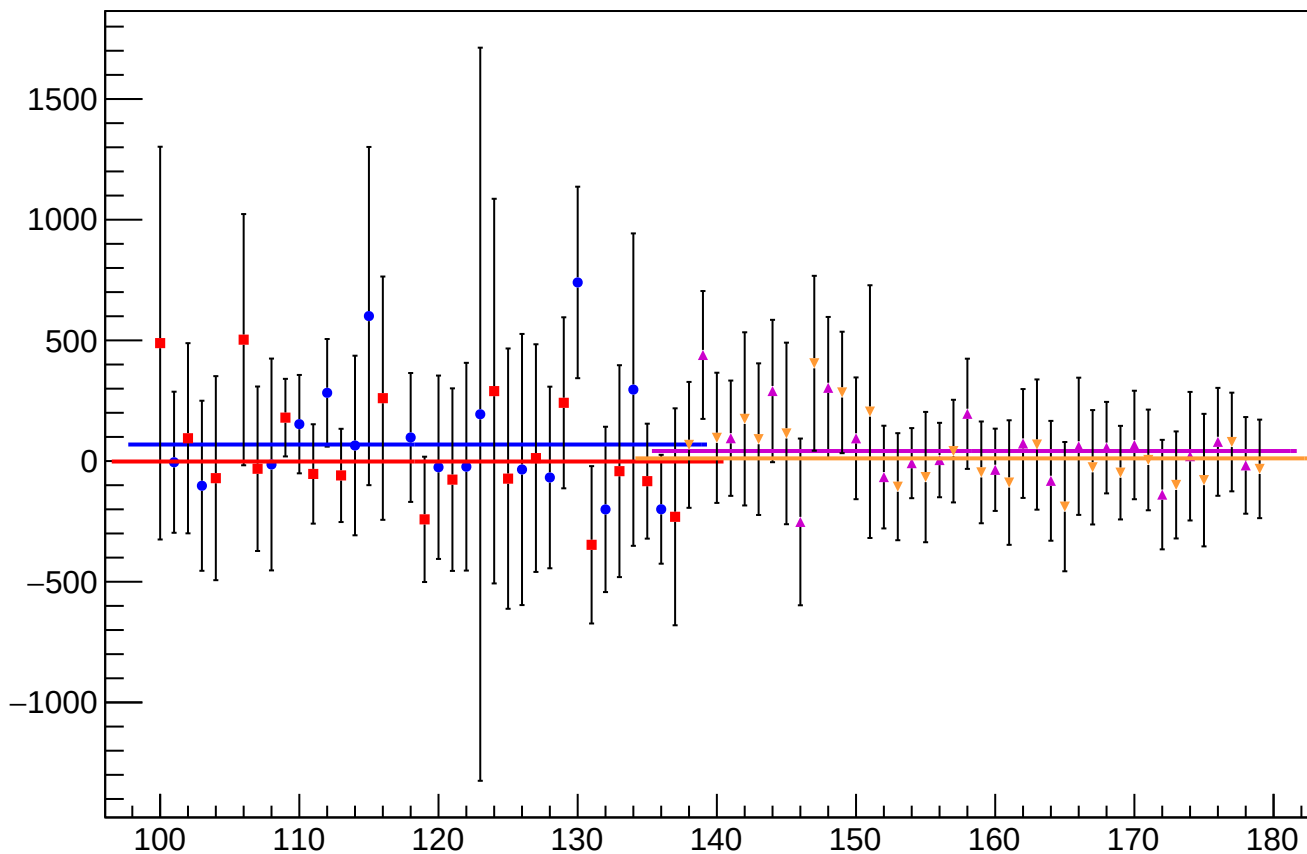
Right: 17.632 $\pm$ 0.003  $\chi^2$ /NDF: 64262.5/35

In: 16.995 $\pm$ 0.003  $\chi^2$ /NDF:160849.6/36

Out: 17.086 $\pm$ 0.002  $\chi^2$ /NDF:184514.7/40

All: 17.042 $\pm$ 0.002  $\chi^2$ /NDF: 346012.2/77

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 68.553 $\pm$ 81.018  $\chi^2$ /NDF: 7.3/16

Left Out: 11.150 $\pm$ 53.392  $\chi^2$ /NDF:4.8/21

Right Out: -1.831 $\pm$ 71.538  $\chi^2$ /NDF: 6.1/18

Left In: 41.653 $\pm$ 48.881  $\chi^2$ /NDF:6.7/19

Left: 27.744 $\pm$ 36.053  $\chi^2$ /NDF: 11.7/41

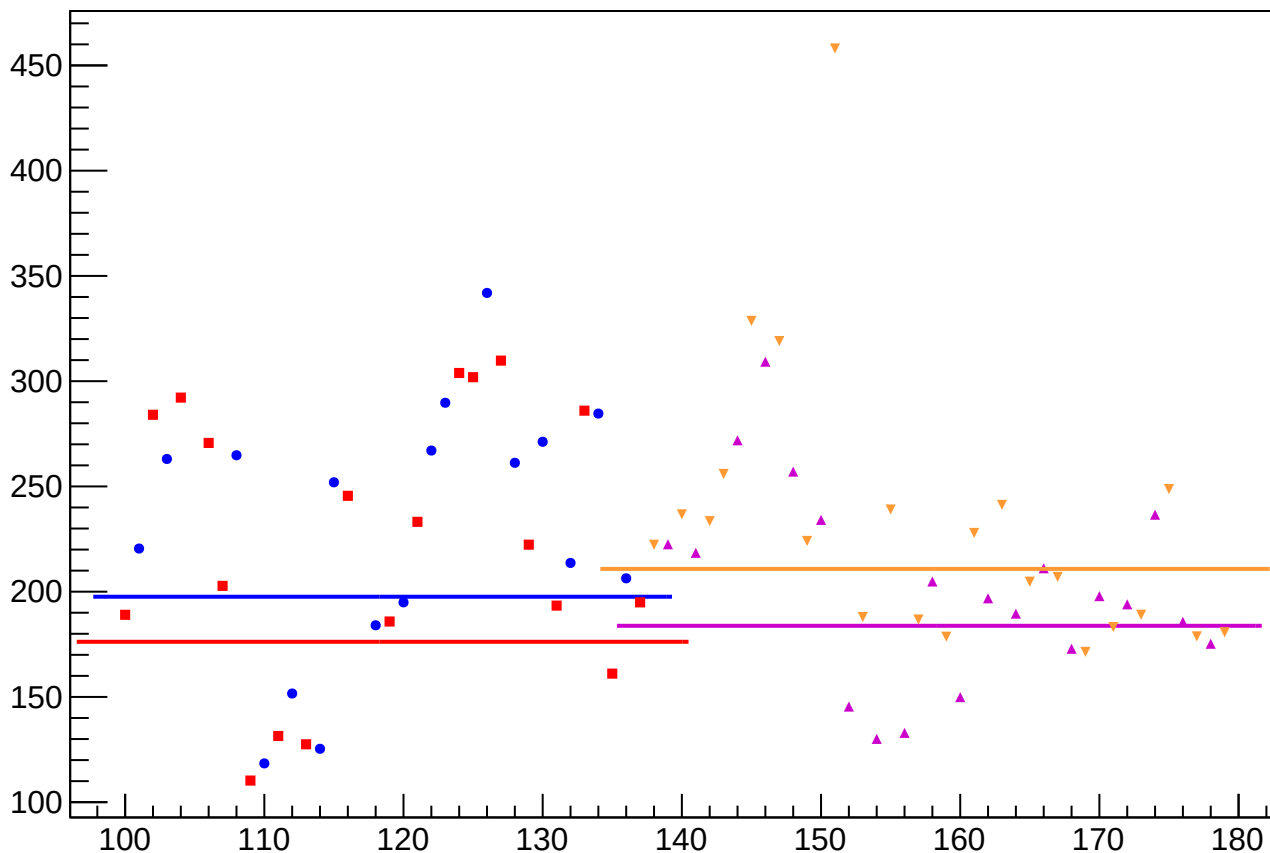
Right: 29.004 $\pm$ 53.625  $\chi^2$ /NDF: 13.9/35

In: 48.832 $\pm$ 41.853  $\chi^2$ /NDF:14.1/36

Out: 6.506 $\pm$ 42.788  $\chi^2$ /NDF:11.0/40

All: 28.137 $\pm$ 29.920  $\chi^2$ /NDF: 25.6/77

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 197.603 $\pm$ 0.057  $\chi^2$ /NDF: 968827.8/16

Left Out: 210.827 $\pm$ 0.038  $\chi^2$ /NDF:1316764.8/21

Right Out: 176.201 $\pm$ 0.051  $\chi^2$ /NDF: 1519832.7/18

Left In: 183.794 $\pm$ 0.035  $\chi^2$ /NDF:1511071.6/19

Left: 196.121 $\pm$ 0.025  $\chi^2$ /NDF: 3106754.3/41

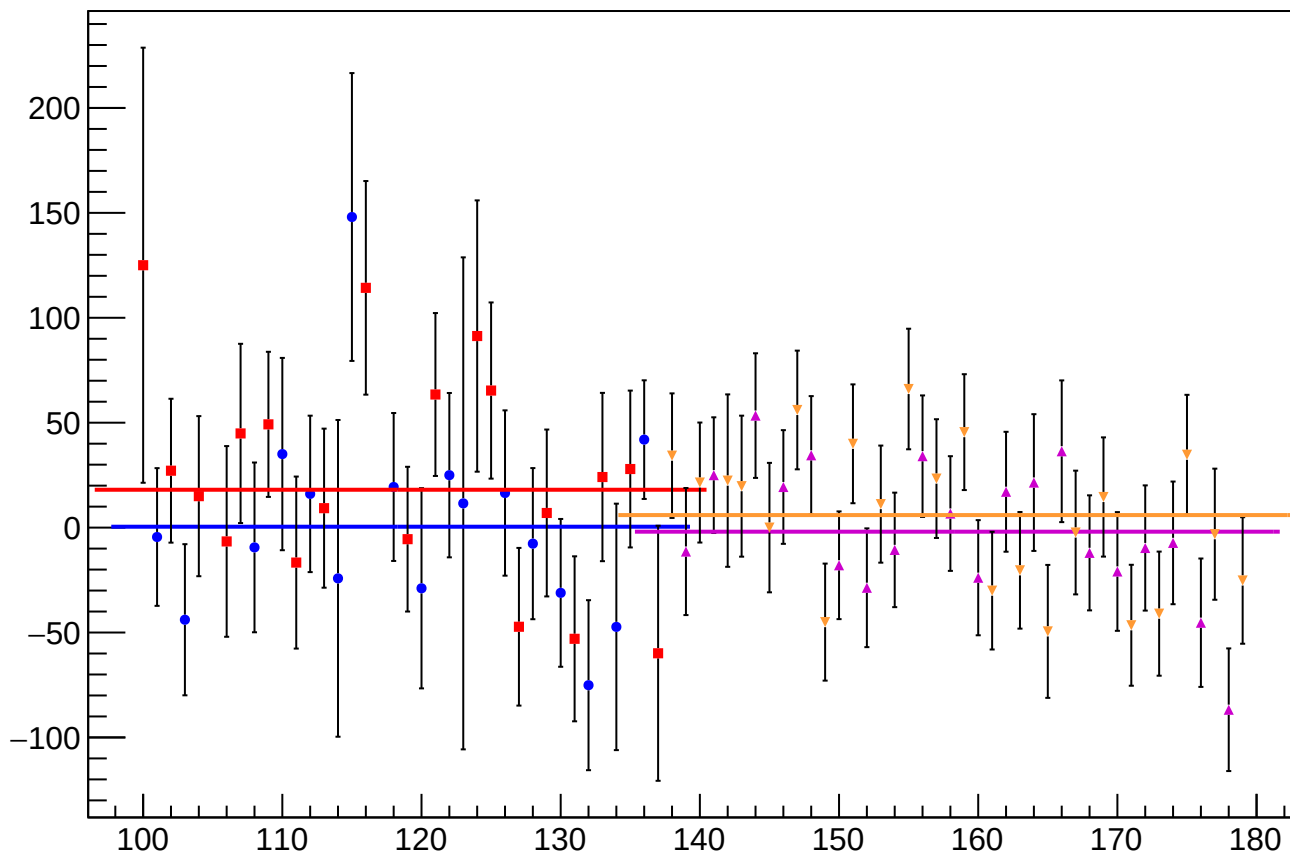
Right: 185.577 $\pm$ 0.038  $\chi^2$ /NDF: 2567082.7/35

In: 187.479 $\pm$ 0.030  $\chi^2$ /NDF:2522496.2/36

Out: 198.440 $\pm$ 0.030  $\chi^2$ /NDF:3137522.7/40

All: 192.838 $\pm$ 0.021  $\chi^2$ /NDF: 5727079.8/77

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_dd\_mean vs Slug, Sign Corrected



Right In:  $0.427 \pm 9.884$   $\chi^2/\text{NDF}: 15.5/16$

Left Out:  $5.971 \pm 6.277$   $\chi^2/\text{NDF}: 30.1/21$

Right Out:  $18.044 \pm 9.499$   $\chi^2/\text{NDF}: 19.5/18$

Left In:  $-1.944 \pm 6.417$   $\chi^2/\text{NDF}: 23.8/19$

Left:  $2.100 \pm 4.487$   $\chi^2/\text{NDF}: 54.7/41$

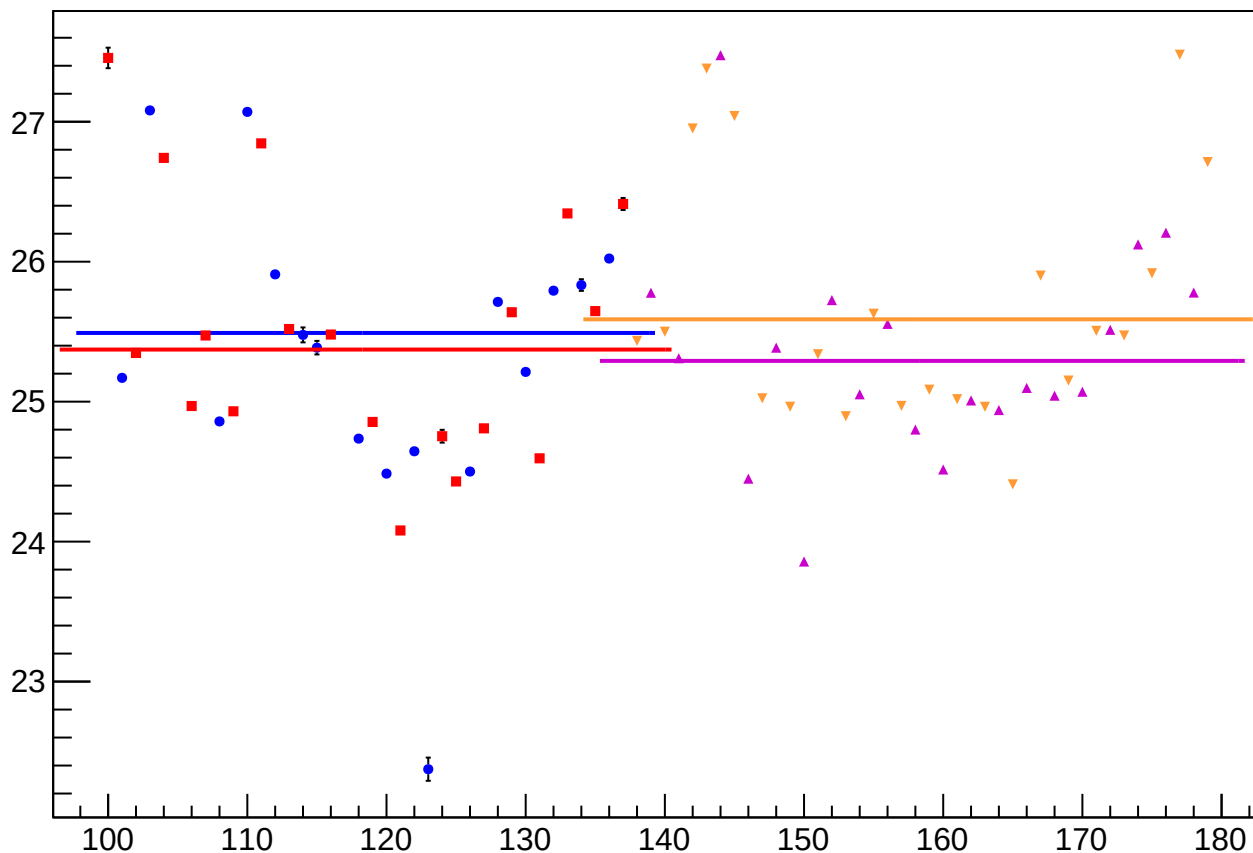
Right:  $9.585 \pm 6.849$   $\chi^2/\text{NDF}: 36.6/35$

In:  $-1.241 \pm 5.382$   $\chi^2/\text{NDF}: 39.3/36$

Out:  $9.641 \pm 5.237$   $\chi^2/\text{NDF}: 50.7/40$

All:  $4.348 \pm 3.753$   $\chi^2/\text{NDF}: 92.2/77$

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 25.491 $\pm$ 0.007  $\chi^2$ /NDF: 13713.0/16

Left Out: 25.588 $\pm$ 0.004  $\chi^2$ /NDF: 32931.2/21

Right Out: 25.372 $\pm$ 0.007  $\chi^2$ /NDF: 13550.5/18

Left In: 25.291 $\pm$ 0.005  $\chi^2$ /NDF: 27423.6/19

Left: 25.443 $\pm$ 0.003  $\chi^2$ /NDF: 62543.6/41

Right: 25.429 $\pm$ 0.005  $\chi^2$ /NDF: 27413.4/35

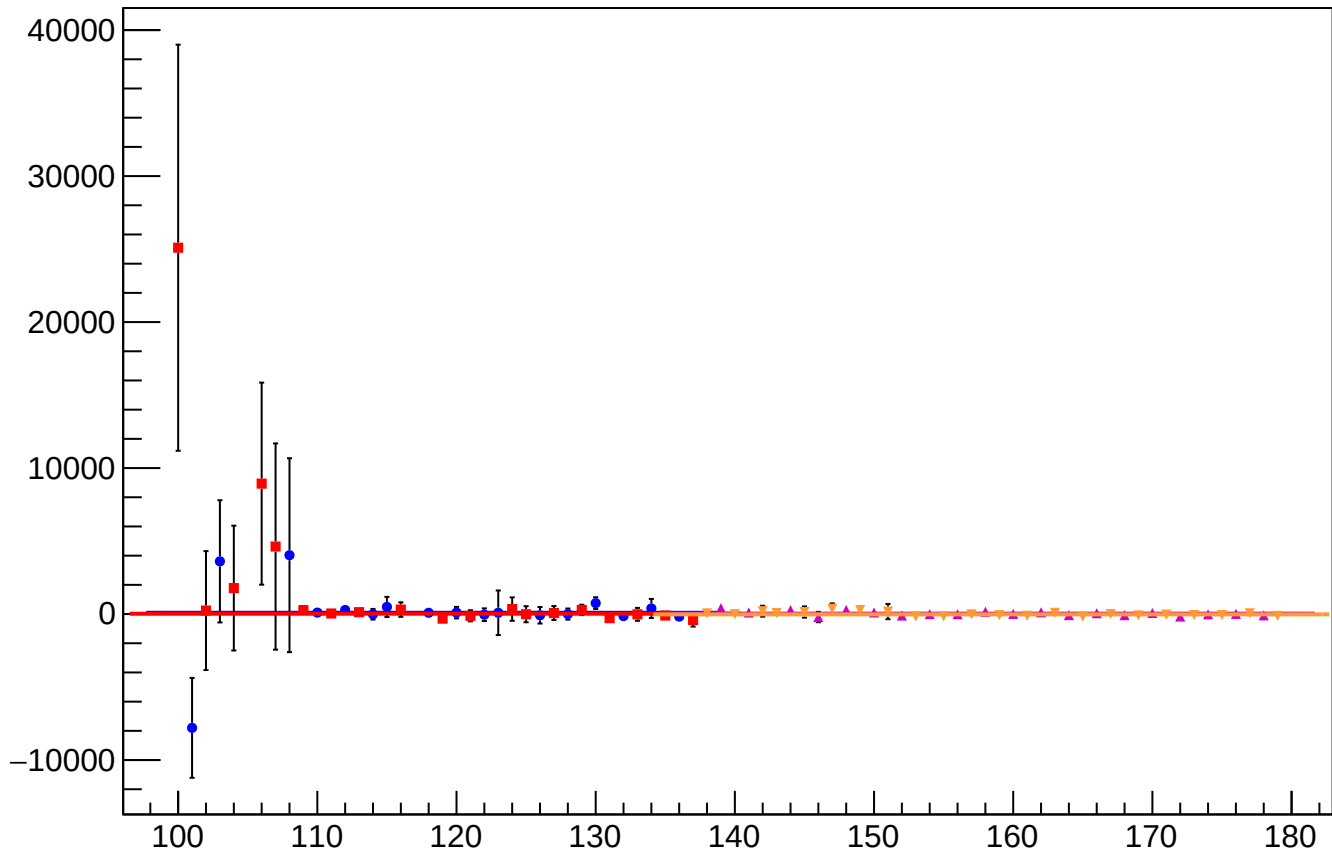
In: 25.350 $\pm$ 0.004  $\chi^2$ /NDF: 41710.2/36

Out: 25.523 $\pm$ 0.004  $\chi^2$ /NDF: 47201.9/40

All: 25.439 $\pm$ 0.003  $\chi^2$ /NDF: 89962.7/77



asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 86.558+/-88.423  $\chi^2/\text{NDF}$ : 12.5/16

Left Out: -21.454+/-53.233  $\chi^2/\text{NDF}$ : 5.2/21

Right Out: 23.352+/-80.948  $\chi^2/\text{NDF}$ : 11.9/18

Left In: 27.358+/-49.392  $\chi^2/\text{NDF}$ : 6.7/19

Left: 4.776+/-36.207  $\chi^2/\text{NDF}$ : 12.4/41

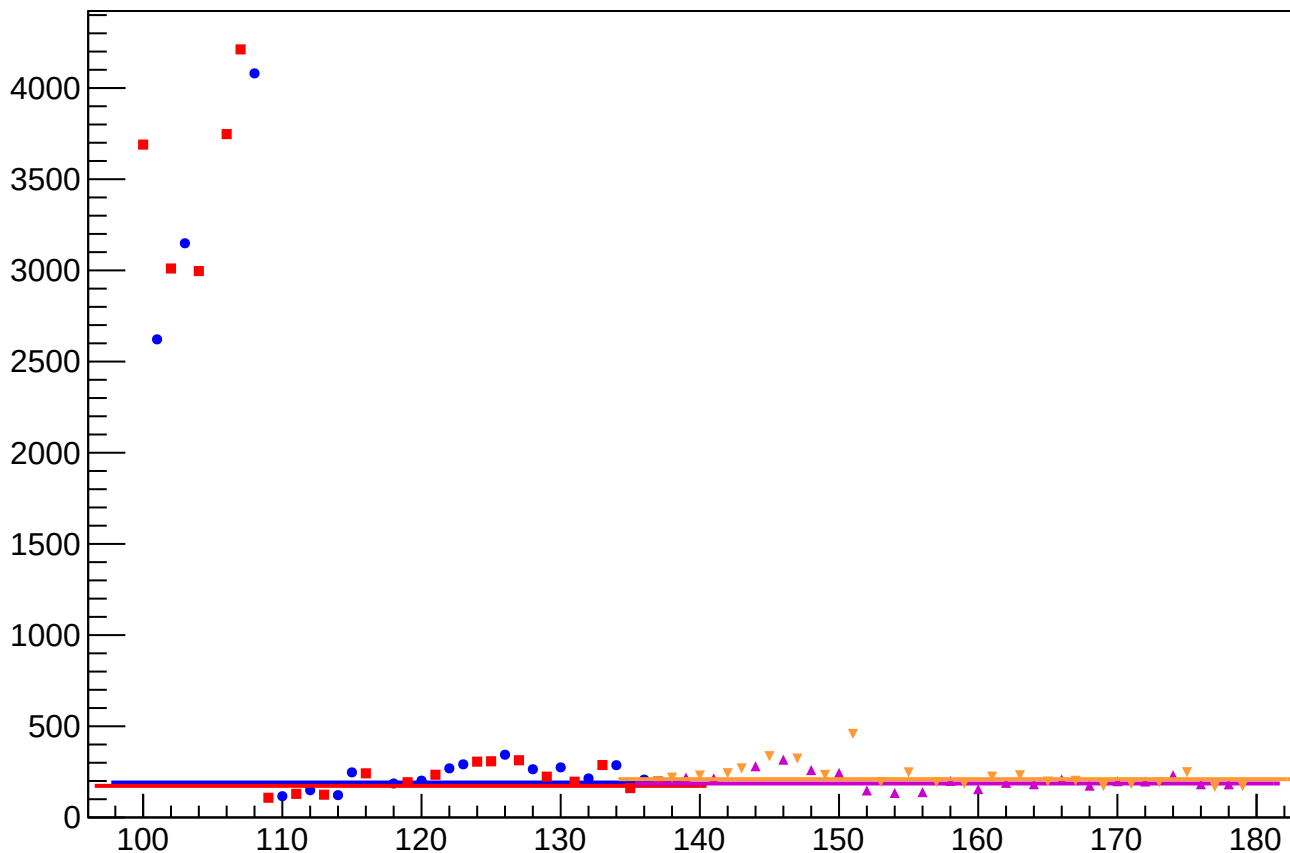
Right: 52.171+/-59.707  $\chi^2/\text{NDF}$ : 24.7/35

In: 41.437+/-43.121  $\chi^2/\text{NDF}$ : 19.5/36

Out: -7.927+/-44.477  $\chi^2/\text{NDF}$ : 17.4/40

All: 17.519+/-30.959  $\chi^2/\text{NDF}$ : 37.5/77

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 191.478+/-0.063  $\chi^2/\text{NDF}$ : 3573154.3/16

Left Out: 209.962+/-0.038  $\chi^2/\text{NDF}$ : 1410932.0/21

Right Out: 173.297+/-0.057  $\chi^2/\text{NDF}$ : 4207424.0/18

Left In: 186.196+/-0.035  $\chi^2/\text{NDF}$ : 1383492.6/19

Left: 197.191+/-0.026  $\chi^2/\text{NDF}$ : 3008648.1/41

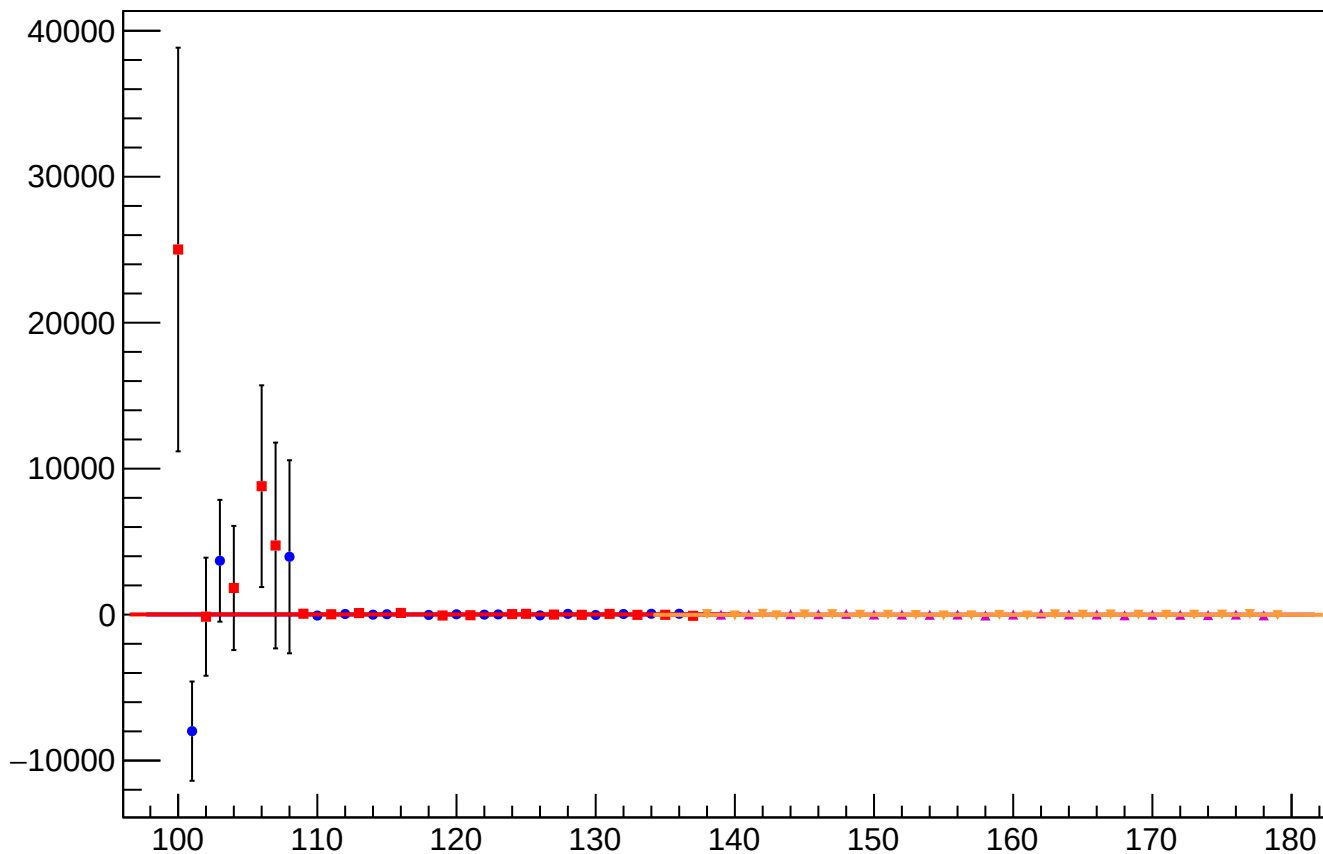
Right: 181.587+/-0.042  $\chi^2/\text{NDF}$ : 7826577.3/35

In: 187.452+/-0.030  $\chi^2/\text{NDF}$ : 4962087.1/36

Out: 198.893+/-0.031  $\chi^2/\text{NDF}$ : 5904788.9/40

All: 192.995+/-0.022  $\chi^2/\text{NDF}$ : 10935094.5/77

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_dd\_mean vs Slug, Sign Corrected



Right In: 10.286+/-12.282  $\chi^2/\text{NDF}$ : 18.4/16

Left Out: -14.369+/-7.063  $\chi^2/\text{NDF}$ : 19.9/21

Right Out: 12.668+/-12.232  $\chi^2/\text{NDF}$ : 24.8/18

Left In: 1.884+/-7.311  $\chi^2/\text{NDF}$ : 21.6/19

Left: -6.523+/-5.080  $\chi^2/\text{NDF}$ : 44.0/41

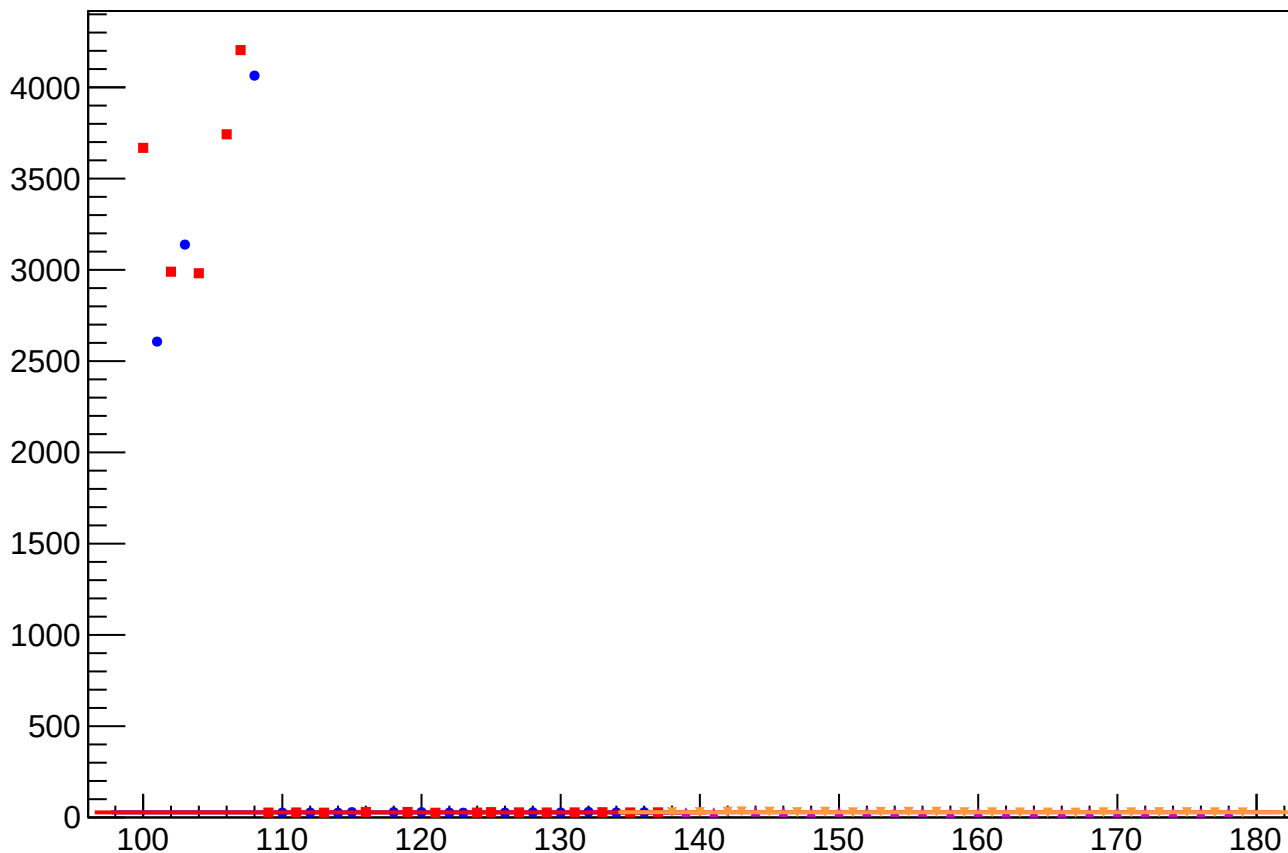
Right: 11.482+/-8.667  $\chi^2/\text{NDF}$ : 43.2/35

In: 4.082+/-6.282  $\chi^2/\text{NDF}$ : 40.3/36

Out: -7.608+/-6.117  $\chi^2/\text{NDF}$ : 48.4/40

All: -1.919+/-4.382  $\chi^2/\text{NDF}$ : 90.4/77

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 27.855+/-0.009  $\chi^2/\text{NDF}$ : 3027666.8/16

Left Out: 28.744+/-0.005  $\chi^2/\text{NDF}$ : 101820.0/21

Right Out: 27.695+/-0.009  $\chi^2/\text{NDF}$ : 3476852.9/18

Left In: 28.740+/-0.005  $\chi^2/\text{NDF}$ : 121077.2/19

Left: 28.742+/-0.004  $\chi^2/\text{NDF}$ : 222897.4/41

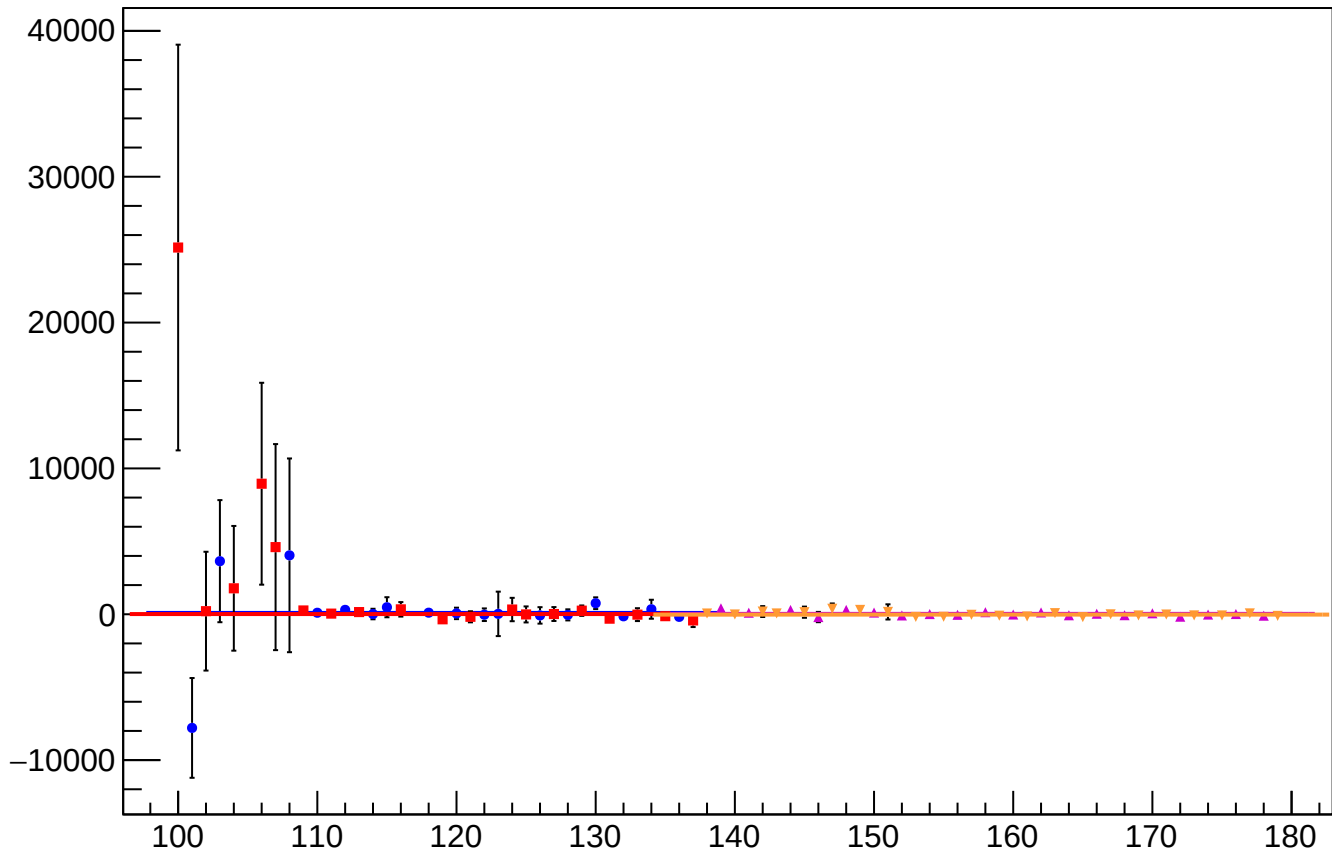
Right: 27.774+/-0.006  $\chi^2/\text{NDF}$ : 6504689.9/35

In: 28.509+/-0.004  $\chi^2/\text{NDF}$ : 3156421.7/36

Out: 28.481+/-0.004  $\chi^2/\text{NDF}$ : 3589699.3/40

All: 28.495+/-0.003  $\chi^2/\text{NDF}$ : 6746140.3/77

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 90.773+/-88.149  $\chi^2/\text{NDF}$ : 12.8/16

Left Out: -23.917+/-53.107  $\chi^2/\text{NDF}$ : 5.8/21

Right Out: 13.341+/-80.686  $\chi^2/\text{NDF}$ : 12.7/18

Left In: 25.831+/-49.289  $\chi^2/\text{NDF}$ : 6.8/19

Left: 2.810+/-36.127  $\chi^2/\text{NDF}$ : 13.1/41

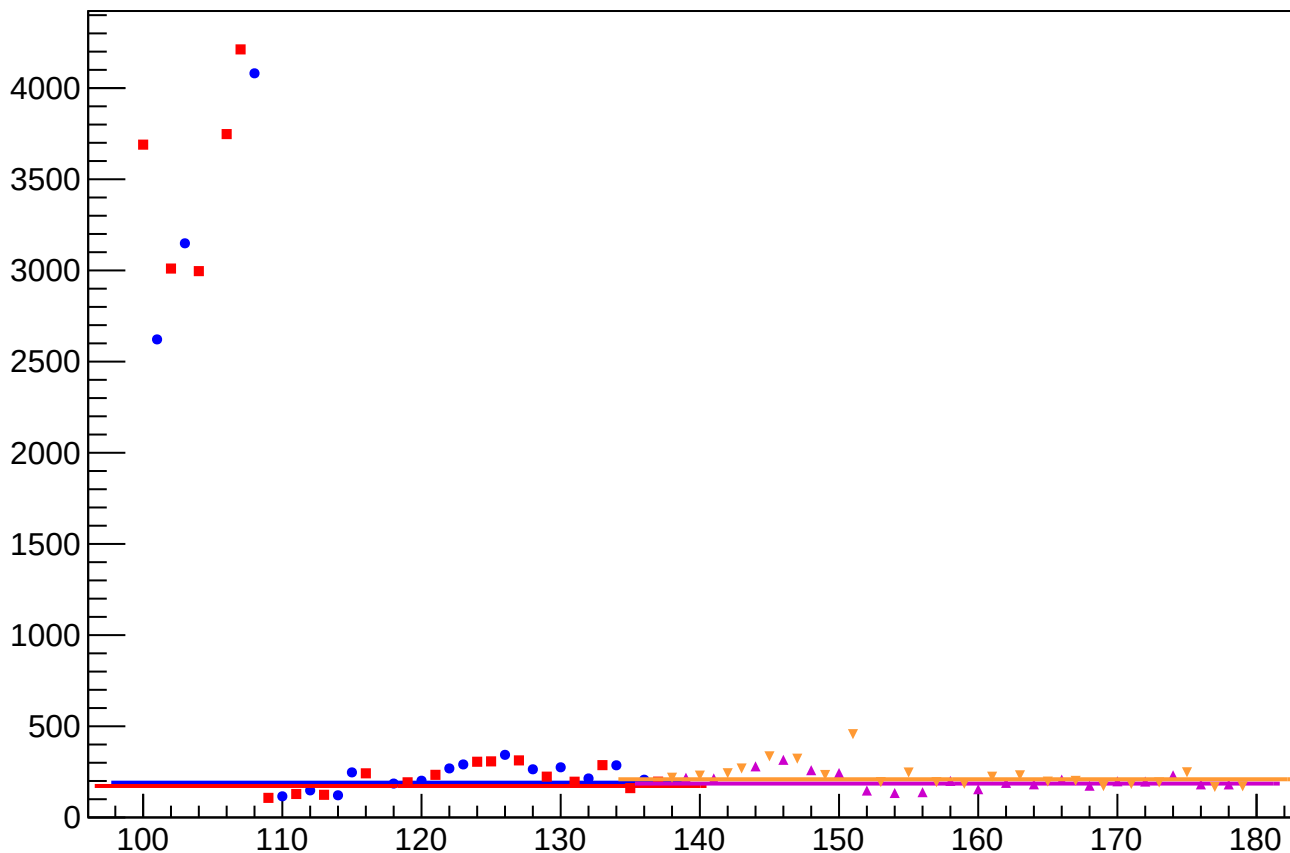
Right: 48.642+/-59.518  $\chi^2/\text{NDF}$ : 25.9/35

In: 41.300+/-43.021  $\chi^2/\text{NDF}$ : 20.0/36

Out: -12.655+/-44.361  $\chi^2/\text{NDF}$ : 18.6/40

All: 15.150+/-30.883  $\chi^2/\text{NDF}$ : 39.4/77

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 190.770+/-0.062  $\chi^2/\text{NDF}$ : 3585034.0/16

Left Out: 209.462+/-0.038  $\chi^2/\text{NDF}$ :1412948.0/21

Right Out: 172.629+/-0.057  $\chi^2/\text{NDF}$ : 4218625.1/18

Left In: 185.809+/-0.035  $\chi^2/\text{NDF}$ :1383370.9/19

Left: 196.755+/-0.026  $\chi^2/\text{NDF}$ : 3009467.3/41

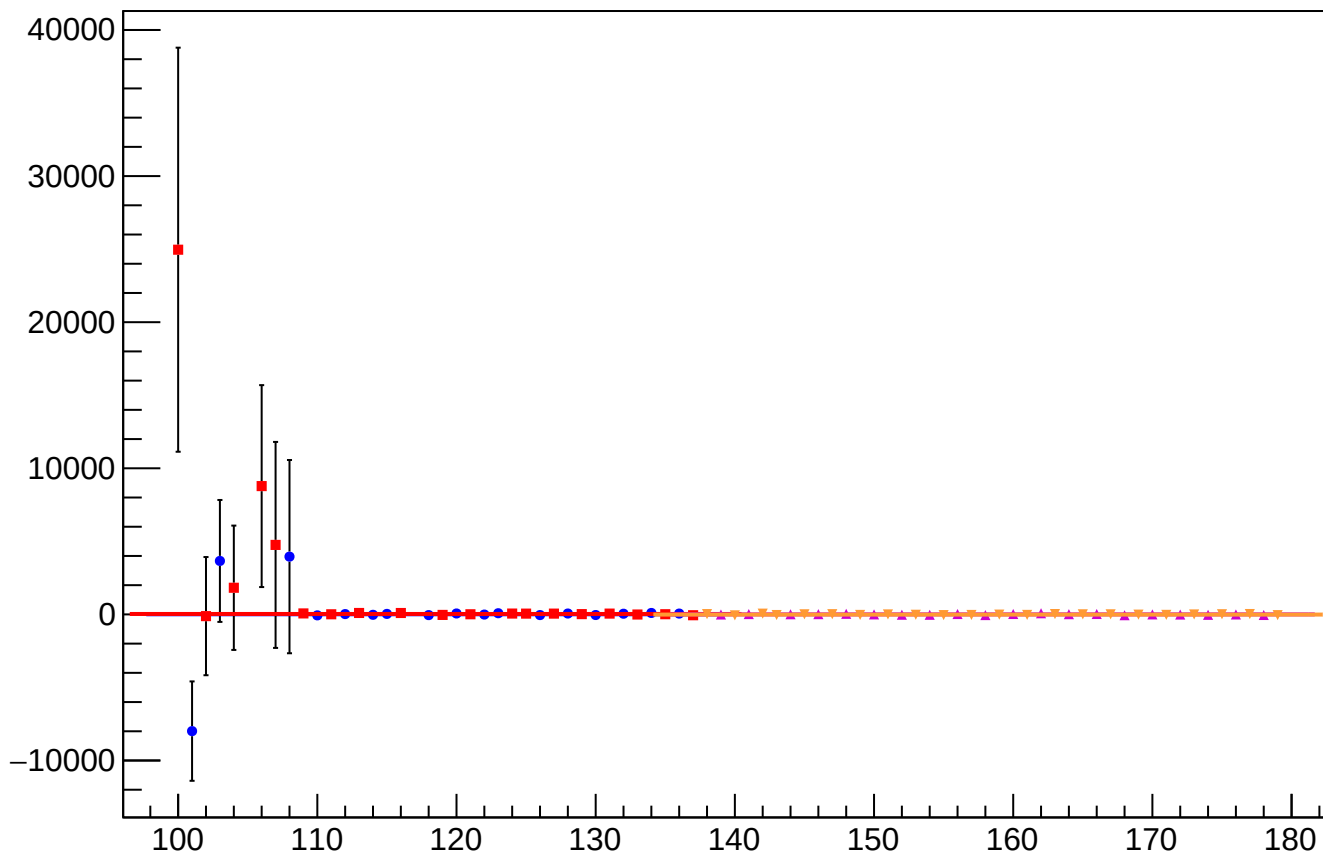
Right: 180.899+/-0.042  $\chi^2/\text{NDF}$ : 7849745.6/35

In: 186.990+/-0.030  $\chi^2/\text{NDF}$ :4973230.4/36

Out: 198.329+/-0.031  $\chi^2/\text{NDF}$ :5922372.5/40

All: 192.486+/-0.022  $\chi^2/\text{NDF}$ : 10962937.0/77

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_dd\_mean vs Slug, Sign Corrected



Right In: 8.600 $\pm$ 12.368  $\chi^2$ /NDF: 23.2/16

Left Out: -12.056 $\pm$ 7.099  $\chi^2$ /NDF:15.3/21

Right Out: 29.397 $\pm$ 12.333  $\chi^2$ /NDF: 16.8/18

Left In: 1.316 $\pm$ 7.346  $\chi^2$ /NDF:20.3/19

Left: -5.598 $\pm$ 5.105  $\chi^2$ /NDF: 37.3/41

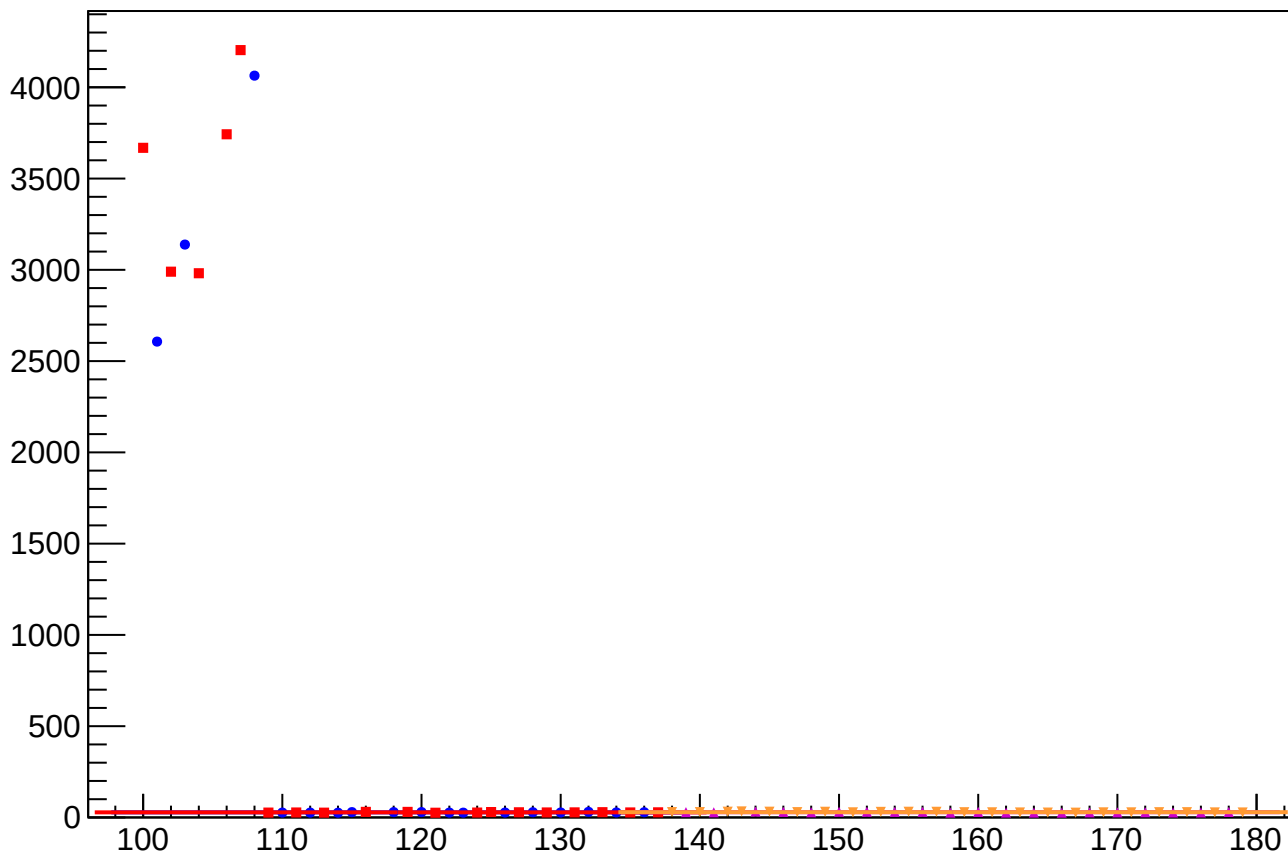
Right: 19.027 $\pm$ 8.733  $\chi^2$ /NDF: 41.4/35

In: 3.215 $\pm$ 6.316  $\chi^2$ /NDF:43.7/36

Out: -1.739 $\pm$ 6.153  $\chi^2$ /NDF:40.6/40

All: 0.673 $\pm$ 4.407  $\chi^2$ /NDF: 84.7/77

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 28.044+/-0.009  $\chi^2/\text{NDF}$ : 3027898.7/16

Left Out: 28.885+/-0.005  $\chi^2/\text{NDF}$ : 111567.5/21

Right Out: 27.918+/-0.009  $\chi^2/\text{NDF}$ : 3479690.8/18

Left In: 28.877+/-0.005  $\chi^2/\text{NDF}$ : 124722.0/19

Left: 28.881+/-0.004  $\chi^2/\text{NDF}$ : 236290.7/41

Right: 27.981+/-0.006  $\chi^2/\text{NDF}$ : 6507693.6/35

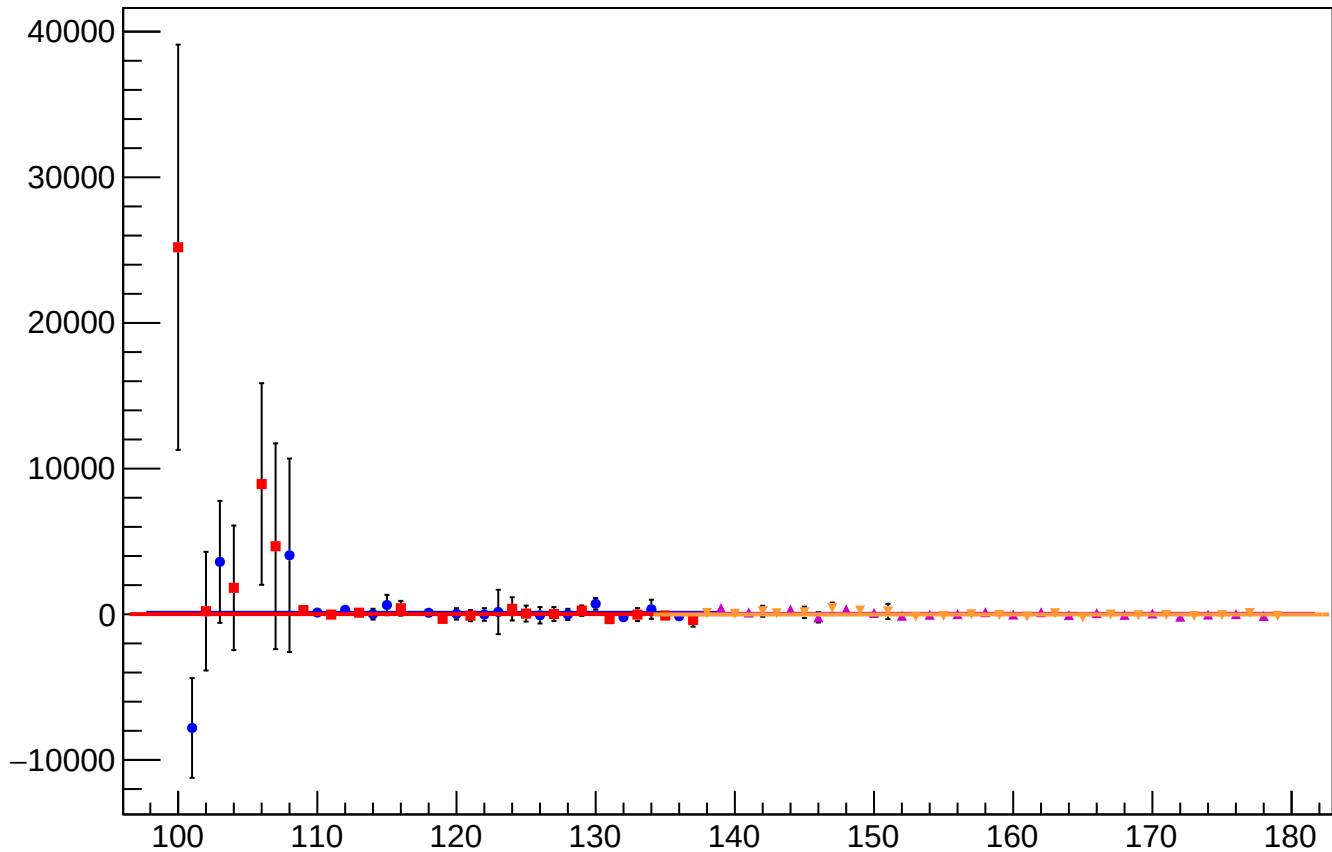
In: 28.660+/-0.004  $\chi^2/\text{NDF}$ : 3159334.5/36

Out: 28.645+/-0.004  $\chi^2/\text{NDF}$ : 3600501.4/40

All: 28.652+/-0.003  $\chi^2/\text{NDF}$ : 6759842.0/77



asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 98.142+/-89.203  $\chi^2/\text{NDF}$ : 12.5/16

Left Out: -15.969+/-53.669  $\chi^2/\text{NDF}$ : 5.8/21

Right Out: 11.728+/-81.772  $\chi^2/\text{NDF}$ : 12.3/18

Left In: 30.746+/-49.873  $\chi^2/\text{NDF}$ : 7.6/19

Left: 9.098+/-36.534  $\chi^2/\text{NDF}$ : 13.8/41

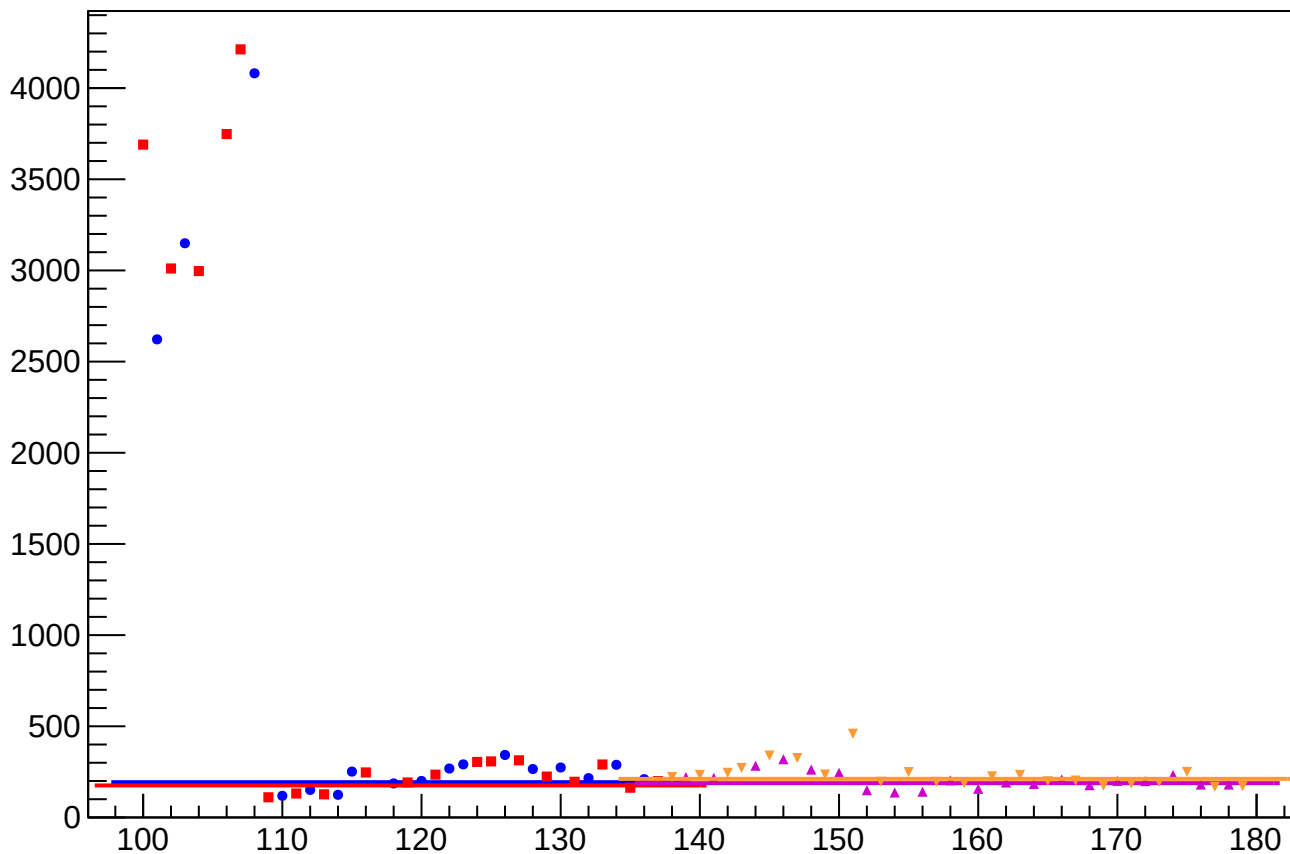
Right: 51.186+/-60.278  $\chi^2/\text{NDF}$ : 25.3/35

In: 46.796+/-43.531  $\chi^2/\text{NDF}$ : 20.5/36

Out: -7.630+/-44.868  $\chi^2/\text{NDF}$ : 18.2/40

All: 20.406+/-31.243  $\chi^2/\text{NDF}$ : 39.5/77

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 193.516+/-0.063  $\chi^2/\text{NDF}$ : 3536947.8/16

Left Out: 211.720+/-0.038  $\chi^2/\text{NDF}$ : 1414176.3/21

Right Out: 175.509+/-0.058  $\chi^2/\text{NDF}$ : 4165575.9/18

Left In: 188.152+/-0.035  $\chi^2/\text{NDF}$ : 1354753.6/19

Left: 199.073+/-0.026  $\chi^2/\text{NDF}$ : 2975899.1/41

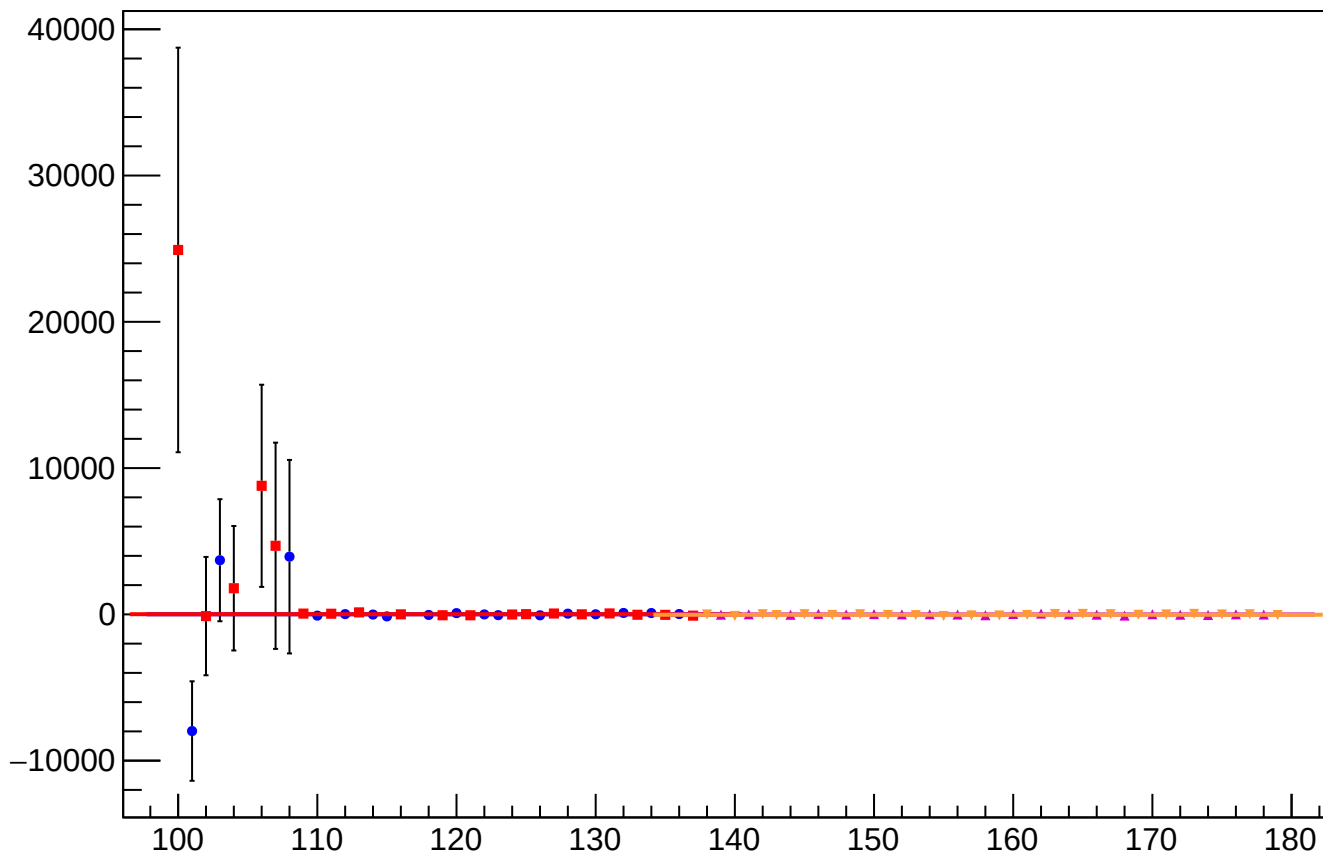
Right: 183.732+/-0.043  $\chi^2/\text{NDF}$ : 7746808.4/35

In: 189.430+/-0.031  $\chi^2/\text{NDF}$ : 4897211.7/36

Out: 200.818+/-0.032  $\chi^2/\text{NDF}$ : 5853868.4/40

All: 194.952+/-0.022  $\chi^2/\text{NDF}$ : 10817458.5/77

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_dd\_mean vs Slug, Sign Corrected



Right In: 5.565+/-15.052  $\chi^2/\text{NDF}$ : 20.4/16

Left Out: -24.848+/-8.493  $\chi^2/\text{NDF}$ : 23.4/21

Right Out: 12.158+/-14.952  $\chi^2/\text{NDF}$ : 21.9/18

Left In: -5.163+/-8.807  $\chi^2/\text{NDF}$ : 13.0/19

Left: -15.363+/-6.114  $\chi^2/\text{NDF}$ : 38.9/41

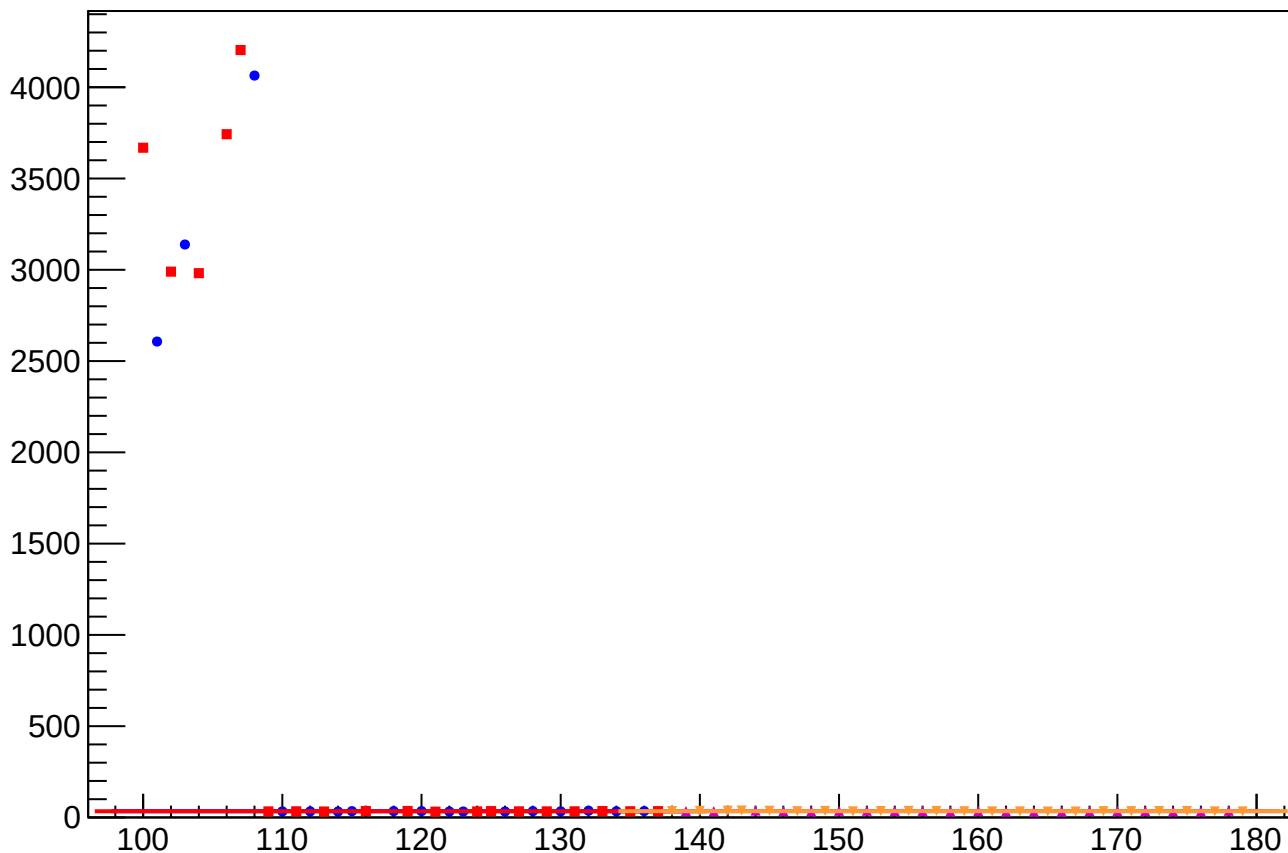
Right: 8.883+/-10.608  $\chi^2/\text{NDF}$ : 42.5/35

In: -2.427+/-7.602  $\chi^2/\text{NDF}$ : 33.8/36

Out: -15.820+/-7.385  $\chi^2/\text{NDF}$ : 49.9/40

All: -9.317+/-5.297  $\chi^2/\text{NDF}$ : 85.3/77

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 34.168 $\pm$ 0.011  $\chi^2$ /NDF: 3006512.8/16

Left Out: 34.610 $\pm$ 0.006  $\chi^2$ /NDF: 53490.6/21

Right Out: 33.913 $\pm$ 0.011  $\chi^2$ /NDF: 3451912.6/18

Left In: 34.687 $\pm$ 0.006  $\chi^2$ /NDF: 59118.8/19

Left: 34.647 $\pm$ 0.004  $\chi^2$ /NDF: 112689.0/41

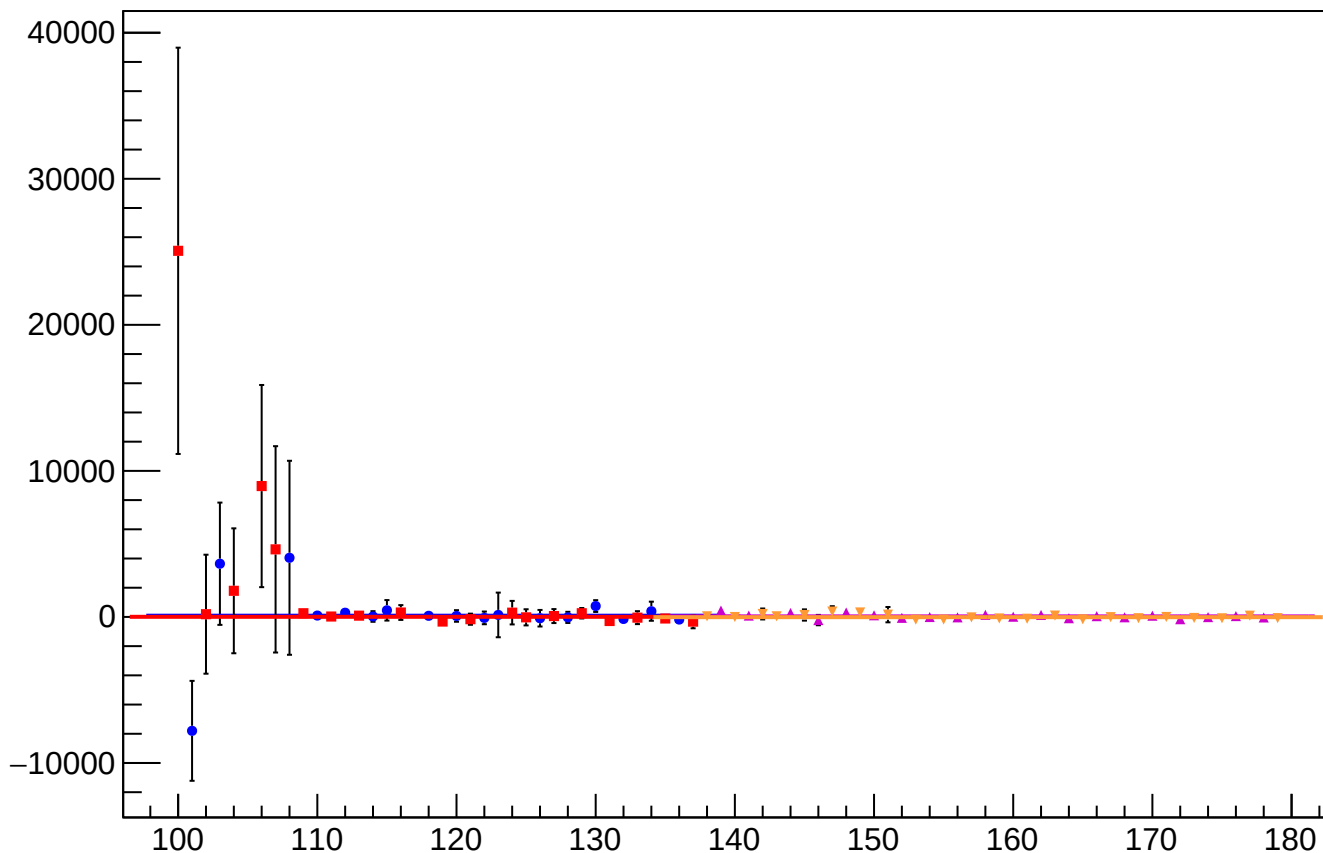
Right: 34.039 $\pm$ 0.008  $\chi^2$ /NDF: 6458714.0/35

In: 34.555 $\pm$ 0.005  $\chi^2$ /NDF: 3067407.2/36

Out: 34.440 $\pm$ 0.005  $\chi^2$ /NDF: 3508691.7/40

All: 34.496 $\pm$ 0.004  $\chi^2$ /NDF: 6576333.2/77

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_mean vs Slug, Sign Corrected



Right In: 84.504+/-88.746  $\chi^2/\text{NDF}$ : 12.5/16

Left Out: -16.201+/-53.642  $\chi^2/\text{NDF}$ : 5.7/21

Right Out: 8.565+/-81.257  $\chi^2/\text{NDF}$ : 11.1/18

Left In: 38.560+/-49.837  $\chi^2/\text{NDF}$ : 6.5/19

Left: 13.190+/-36.511  $\chi^2/\text{NDF}$ : 12.7/41

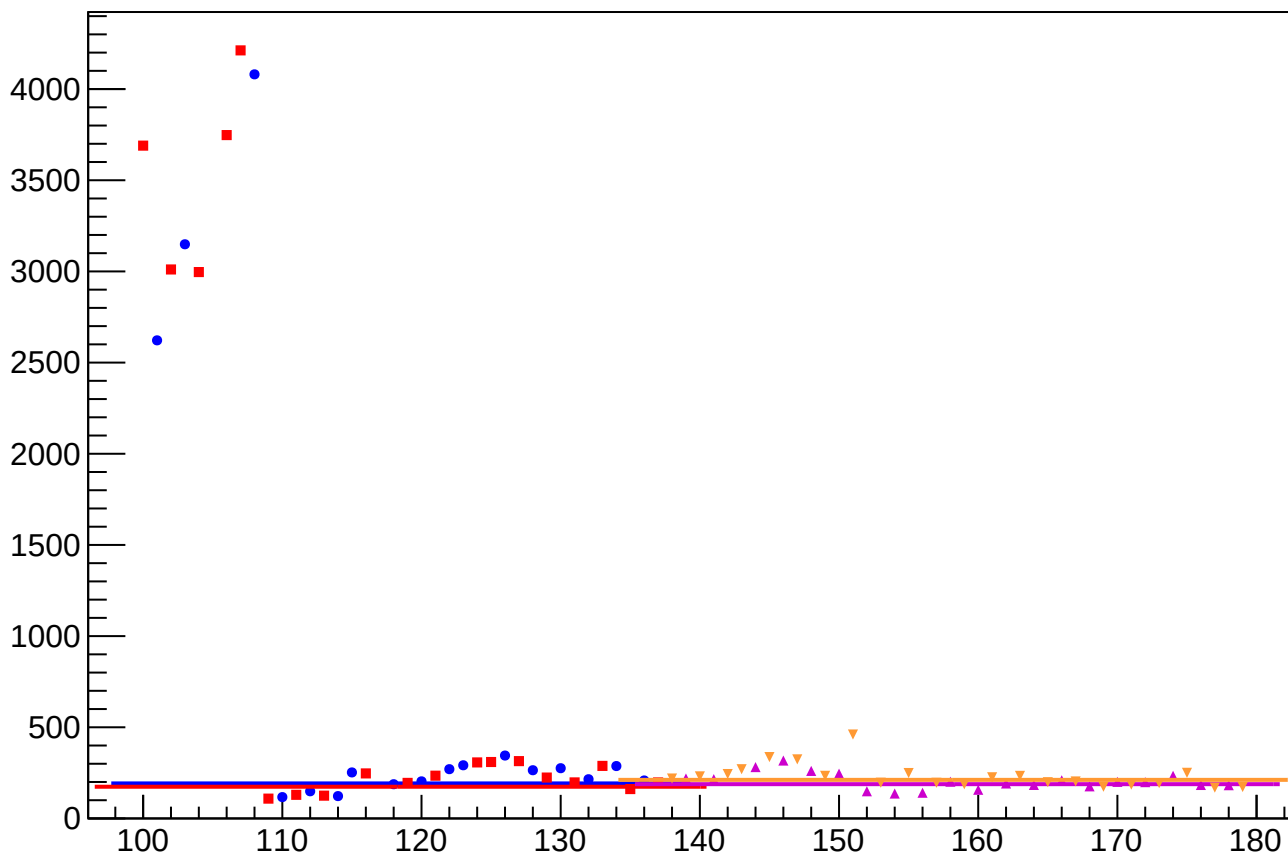
Right: 43.196+/-59.931  $\chi^2/\text{NDF}$ : 24.0/35

In: 49.575+/-43.454  $\chi^2/\text{NDF}$ : 19.2/36

Out: -8.684+/-44.767  $\chi^2/\text{NDF}$ : 16.8/40

All: 21.313+/-31.181  $\chi^2/\text{NDF}$ : 36.9/77

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_rms vs Slug, Sign Corrected



Right In: 192.177+/-0.063  $\chi^2/\text{NDF}$ : 3574617.3/16

Left Out: 211.675+/-0.038  $\chi^2/\text{NDF}$ :1390515.0/21

Right Out: 173.961+/-0.057  $\chi^2/\text{NDF}$ : 4211616.2/18

Left In: 188.025+/-0.035  $\chi^2/\text{NDF}$ :1342112.9/19

Left: 198.981+/-0.026  $\chi^2/\text{NDF}$ : 2941295.1/41

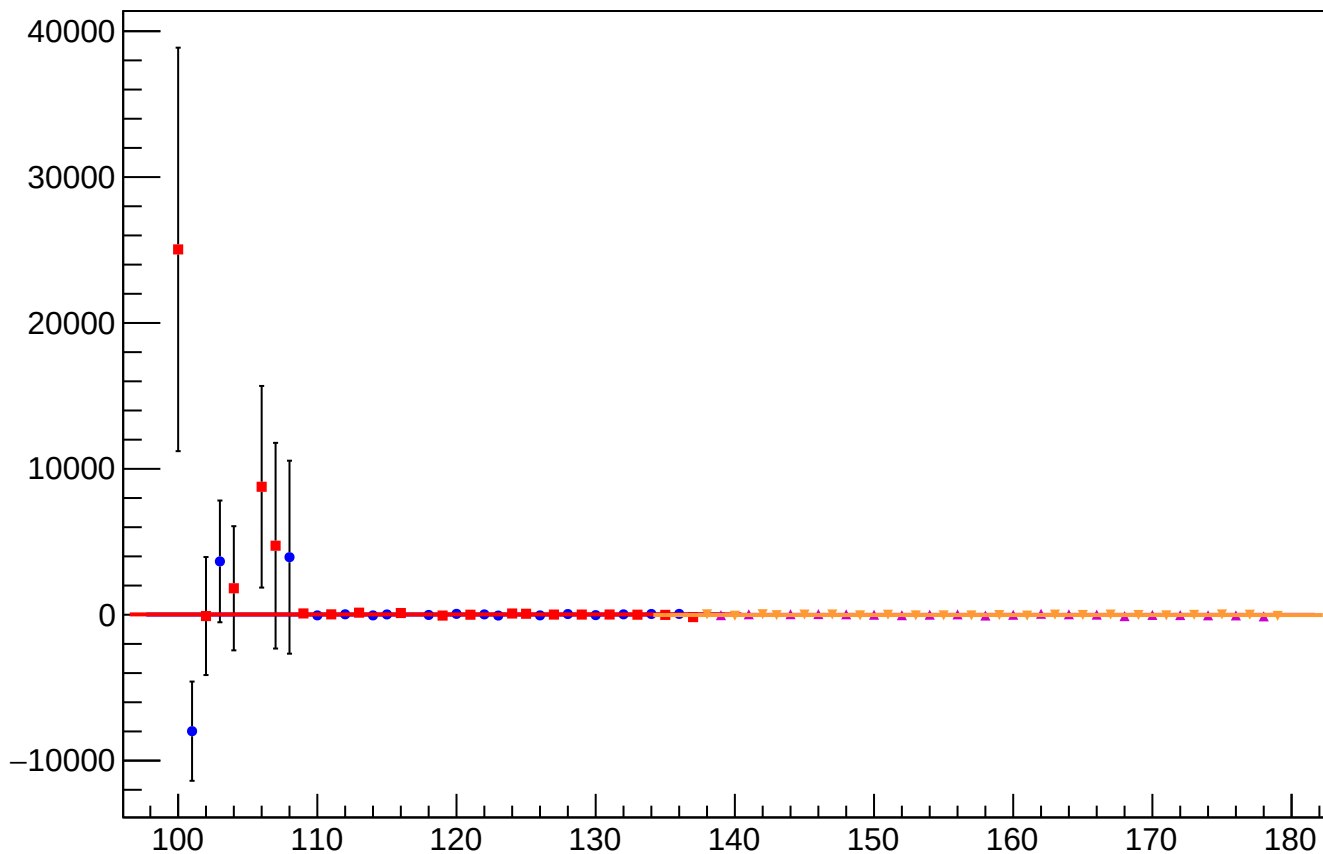
Right: 182.268+/-0.042  $\chi^2/\text{NDF}$ : 7832071.5/35

In: 189.020+/-0.031  $\chi^2/\text{NDF}$ :4920058.7/36

Out: 200.228+/-0.032  $\chi^2/\text{NDF}$ :5902210.3/40

All: 194.457+/-0.022  $\chi^2/\text{NDF}$ : 10886812.4/77

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_mean vs Slug, Sign Corrected



Right In: 12.751+/-13.723  $\chi^2/\text{NDF}$ : 14.6/16

Left Out: -20.552+/-7.730  $\chi^2/\text{NDF}$ : 17.3/21

Right Out: 22.618+/-13.660  $\chi^2/\text{NDF}$ : 28.0/18

Left In: -7.684+/-8.000  $\chi^2/\text{NDF}$ : 32.6/19

Left: -14.338+/-5.559  $\chi^2/\text{NDF}$ : 51.2/41

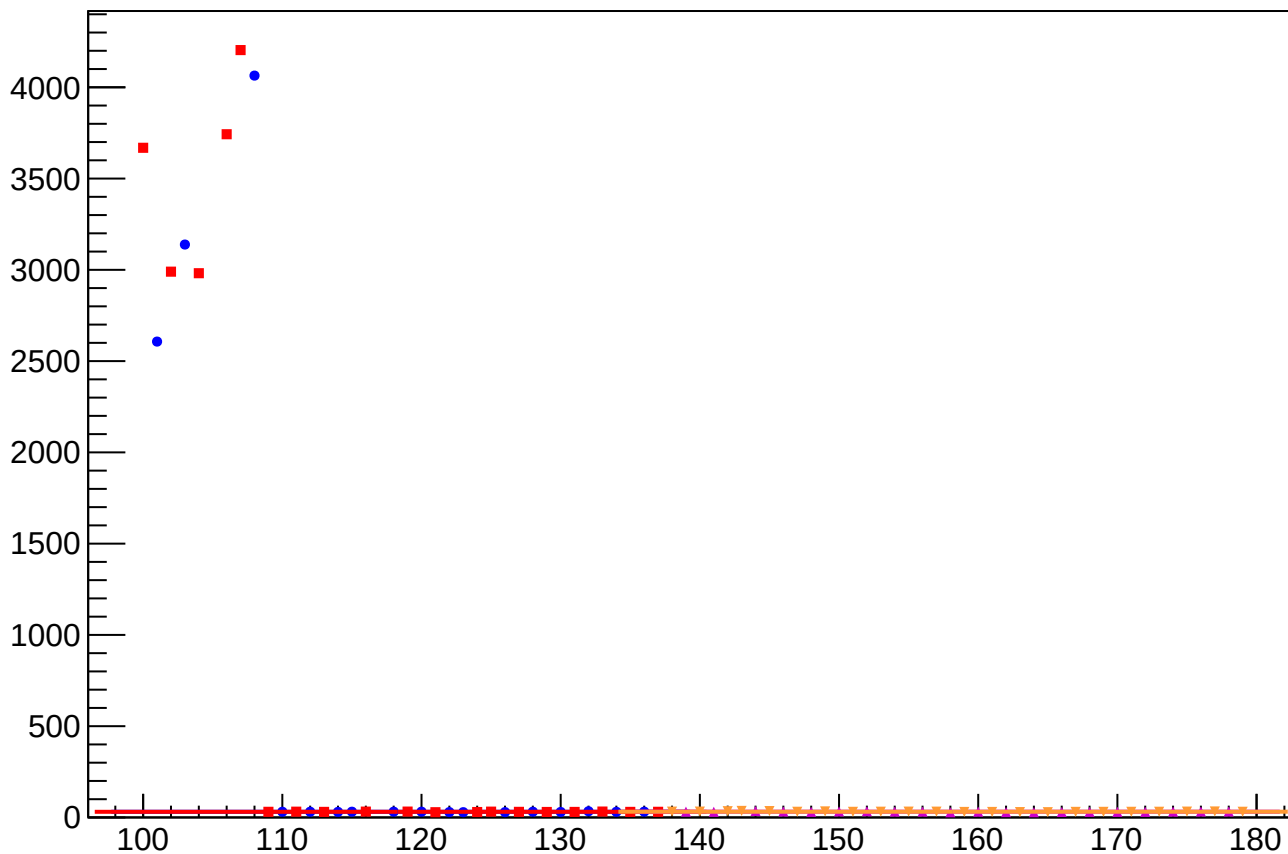
Right: 17.707+/-9.681  $\chi^2/\text{NDF}$ : 42.9/35

In: -2.501+/-6.911  $\chi^2/\text{NDF}$ : 48.9/36

Out: -10.081+/-6.728  $\chi^2/\text{NDF}$ : 52.9/40

All: -6.393+/-4.821  $\chi^2/\text{NDF}$ : 102.3/77

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_rms vs Slug, Sign Corrected



Right In: 31.153+/-0.010  $\chi^2/\text{NDF}$ : 3014515.0/16

Left Out: 31.477+/-0.005  $\chi^2/\text{NDF}$ : 77111.8/21

Right Out: 30.963+/-0.010  $\chi^2/\text{NDF}$ : 3458924.5/18

Left In: 31.469+/-0.006  $\chi^2/\text{NDF}$ : 87207.7/19

Left: 31.473+/-0.004  $\chi^2/\text{NDF}$ : 164320.5/41

Right: 31.057+/-0.007  $\chi^2/\text{NDF}$ : 6473633.0/35

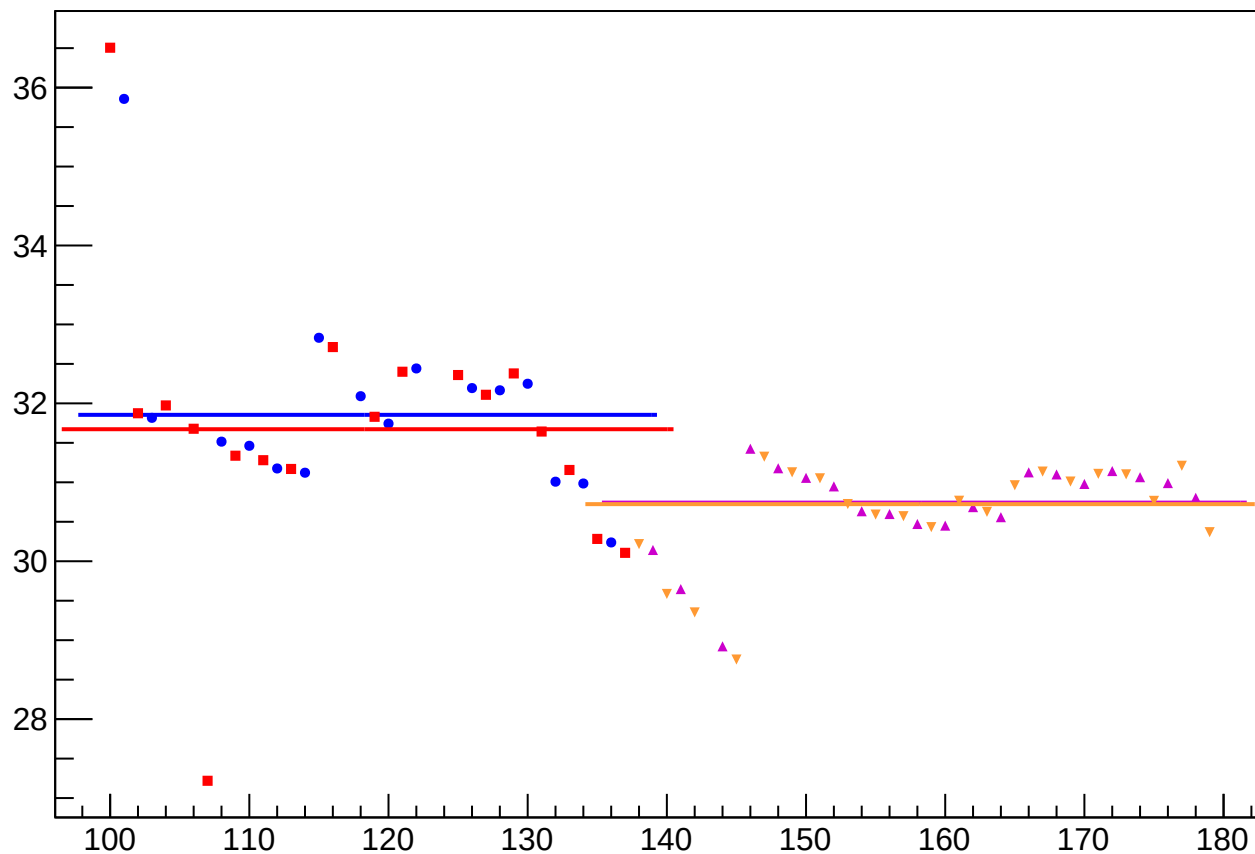
In: 31.389+/-0.005  $\chi^2/\text{NDF}$ : 3102513.1/36

Out: 31.352+/-0.005  $\chi^2/\text{NDF}$ : 3538183.5/40

All: 31.370+/-0.003  $\chi^2/\text{NDF}$ : 6640725.4/77



# yield\_usl\_mean vs Slug, Sign Corrected



Right In: 31.855+/-0.000  $\chi^2/\text{NDF}$ : 1570522165.5/15

Left Out: 30.723+/-0.000  $\chi^2/\text{NDF}$ : 766188214.4/20

Right Out: 31.672+/-0.000  $\chi^2/\text{NDF}$ : 917899841.8/17

Left In: 30.743+/-0.000  $\chi^2/\text{NDF}$ : 689595833.6/19

Left: 30.733+/-0.000  $\chi^2/\text{NDF}$ : 1456238336.7/40

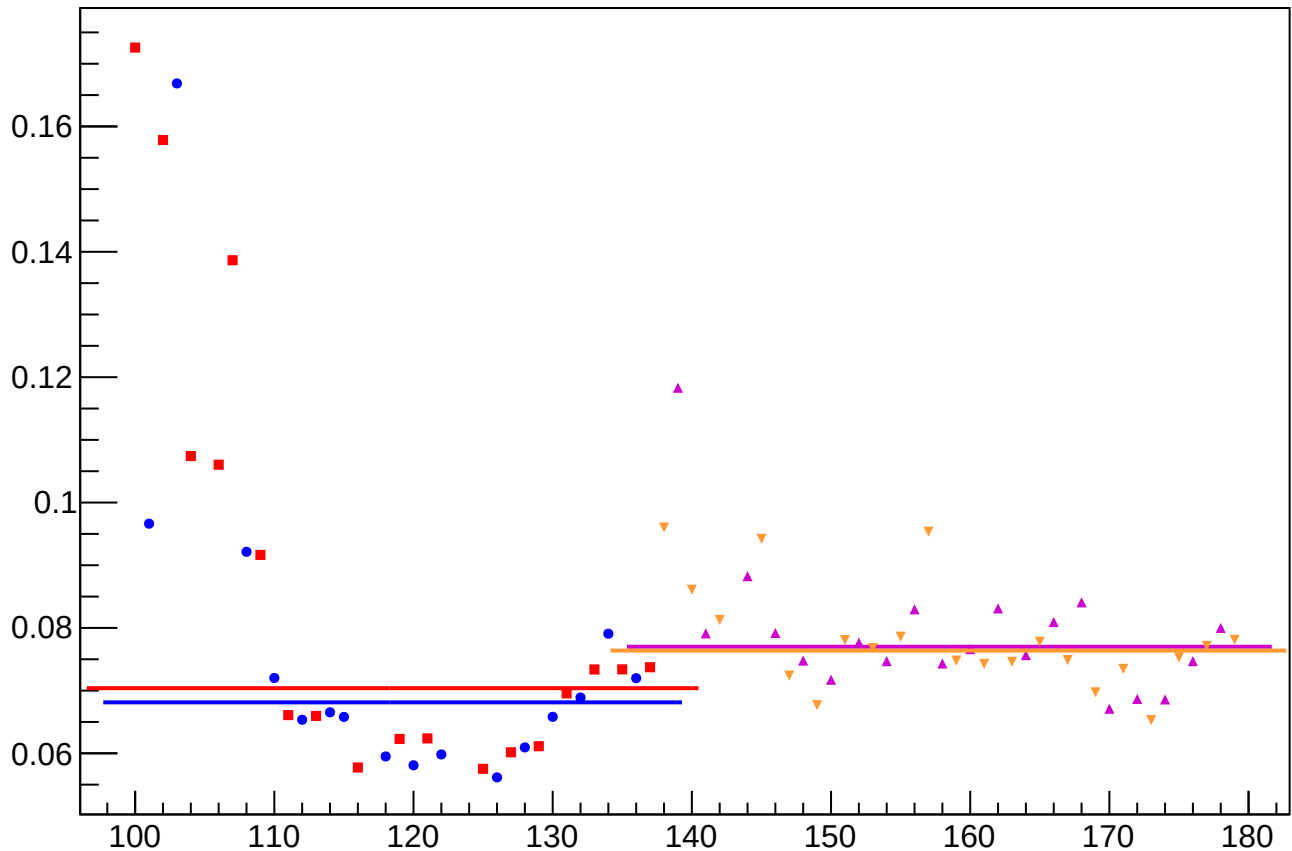
Right: 31.765+/-0.000  $\chi^2/\text{NDF}$ : 2508641774.0/33

In: 31.125+/-0.000  $\chi^2/\text{NDF}$ : 3268926311.9/35

Out: 31.032+/-0.000  $\chi^2/\text{NDF}$ : 2409570773.1/38

All: 31.078+/-0.000  $\chi^2/\text{NDF}$ : 5694256224.9/77

# yield\_usl\_rms vs Slug, Sign Corrected



Right In: 0.068 $\pm$ 0.000  $\chi^2$ /NDF: 629767.4/15

Left Out: 0.076 $\pm$ 0.000  $\chi^2$ /NDF:268132.0/20

Right Out: 0.070 $\pm$ 0.000  $\chi^2$ /NDF: 841320.1/17

Left In: 0.077 $\pm$ 0.000  $\chi^2$ /NDF:316923.9/19

Left: 0.077 $\pm$ 0.000  $\chi^2$ /NDF: 585965.2/40

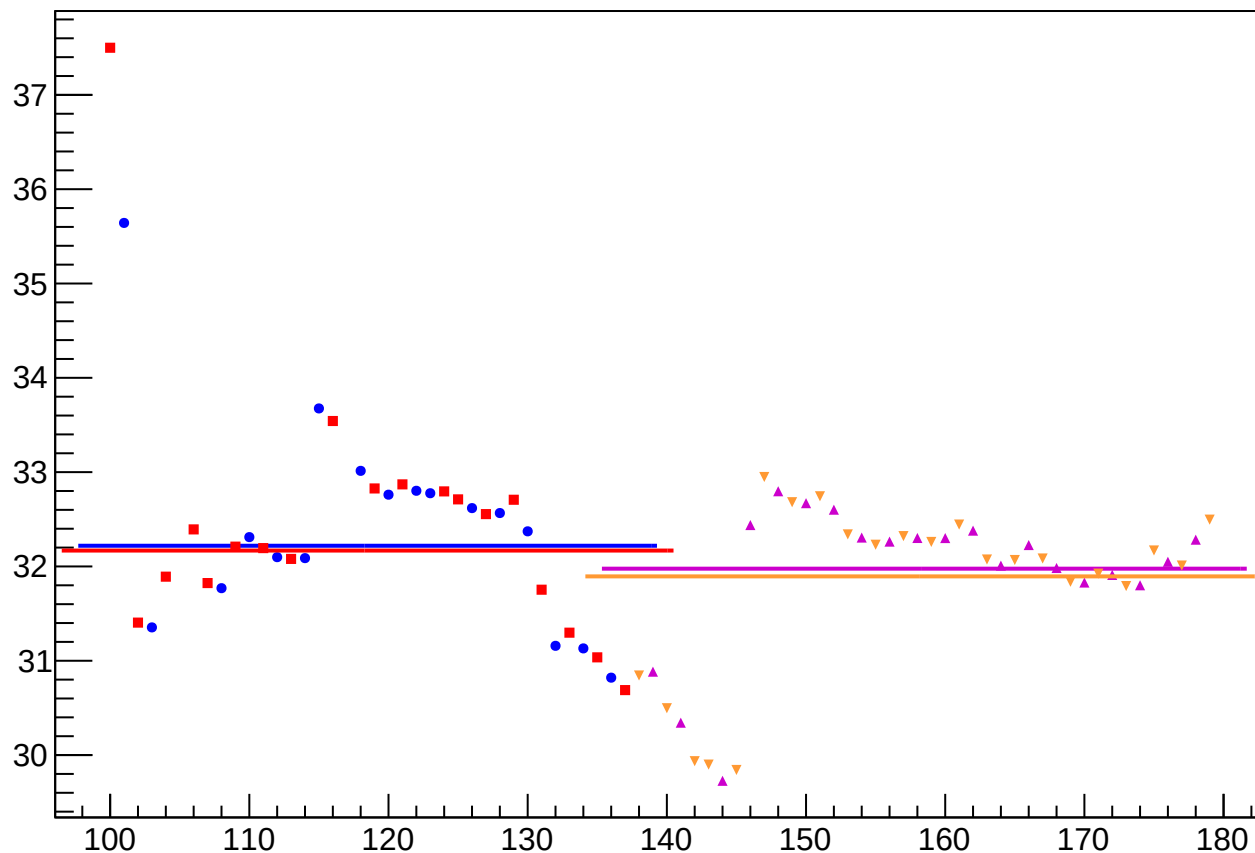
Right: 0.069 $\pm$ 0.000  $\chi^2$ /NDF: 1477315.9/33

In: 0.074 $\pm$ 0.000  $\chi^2$ /NDF:1075186.0/35

Out: 0.074 $\pm$ 0.000  $\chi^2$ /NDF:1167438.1/38

All: 0.074 $\pm$ 0.000  $\chi^2$ /NDF: 2243489.4/74

# yield\_usr\_mean vs Slug, Sign Corrected



Right In: 32.220+/-0.000  $\chi^2/\text{NDF}$ : 1013864543.3/16

Left Out: 31.895+/-0.000  $\chi^2/\text{NDF}$ : 1887936894.5/21

Right Out: 32.168+/-0.000  $\chi^2/\text{NDF}$ : 442298310.3/18

Left In: 31.976+/-0.000  $\chi^2/\text{NDF}$ : 1420992181.4/19

Left: 31.934+/-0.000  $\chi^2/\text{NDF}$ : 3317195565.8/41

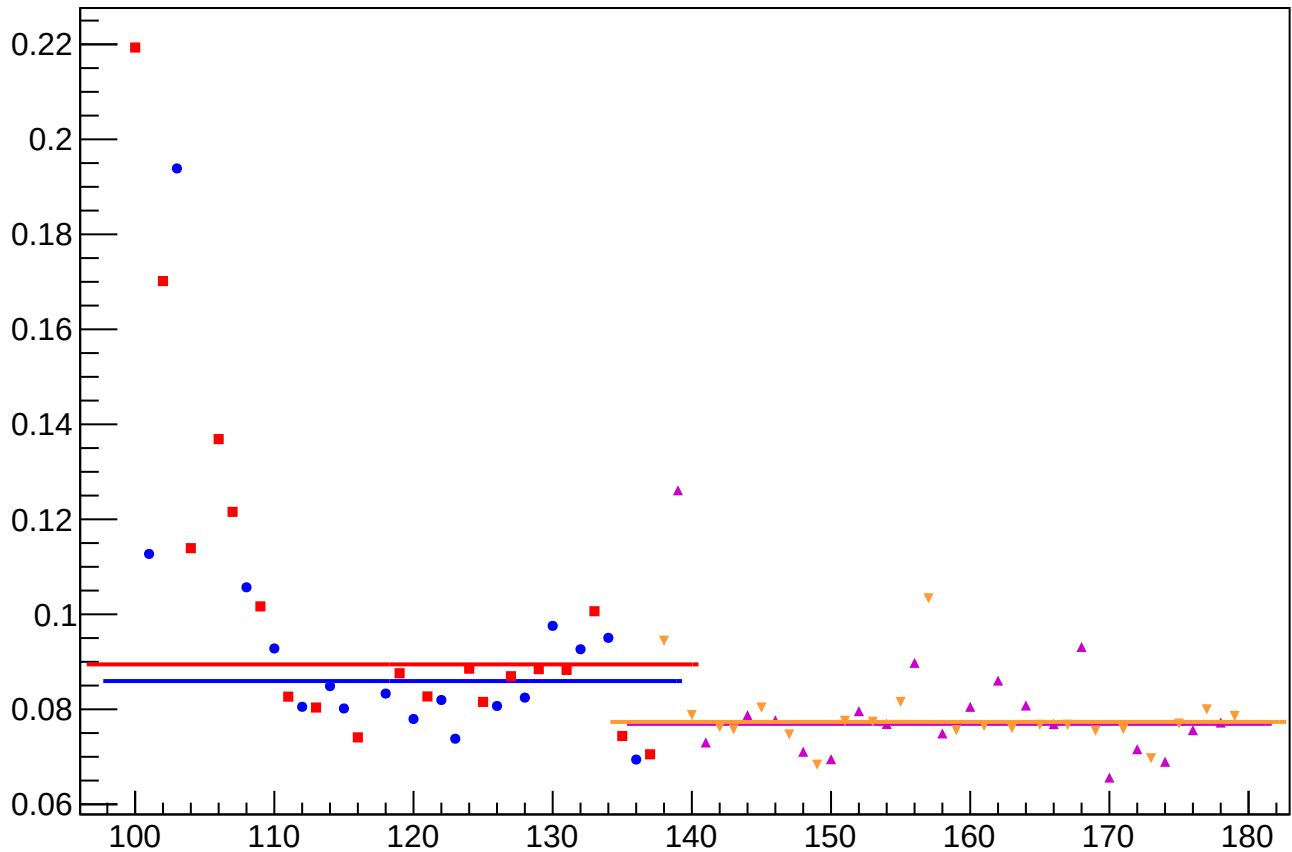
Right: 32.194+/-0.000  $\chi^2/\text{NDF}$ : 1457173552.7/35

In: 32.036+/-0.000  $\chi^2/\text{NDF}$ : 2469839960.7/36

Out: 31.958+/-0.000  $\chi^2/\text{NDF}$ : 2374424265.1/40

All: 31.997+/-0.000  $\chi^2/\text{NDF}$ : 4854105502.1/77

# yield\_usr\_rms vs Slug, Sign Corrected



Right In: 0.086+/-0.000  $\chi^2/\text{NDF}$ : 553280.3/16

Left Out: 0.077+/-0.000  $\chi^2/\text{NDF}$ :182331.2/21

Right Out: 0.089+/-0.000  $\chi^2/\text{NDF}$ : 539869.9/18

Left In: 0.077+/-0.000  $\chi^2/\text{NDF}$ :421649.9/19

Left: 0.077+/-0.000  $\chi^2/\text{NDF}$ : 604392.0/41

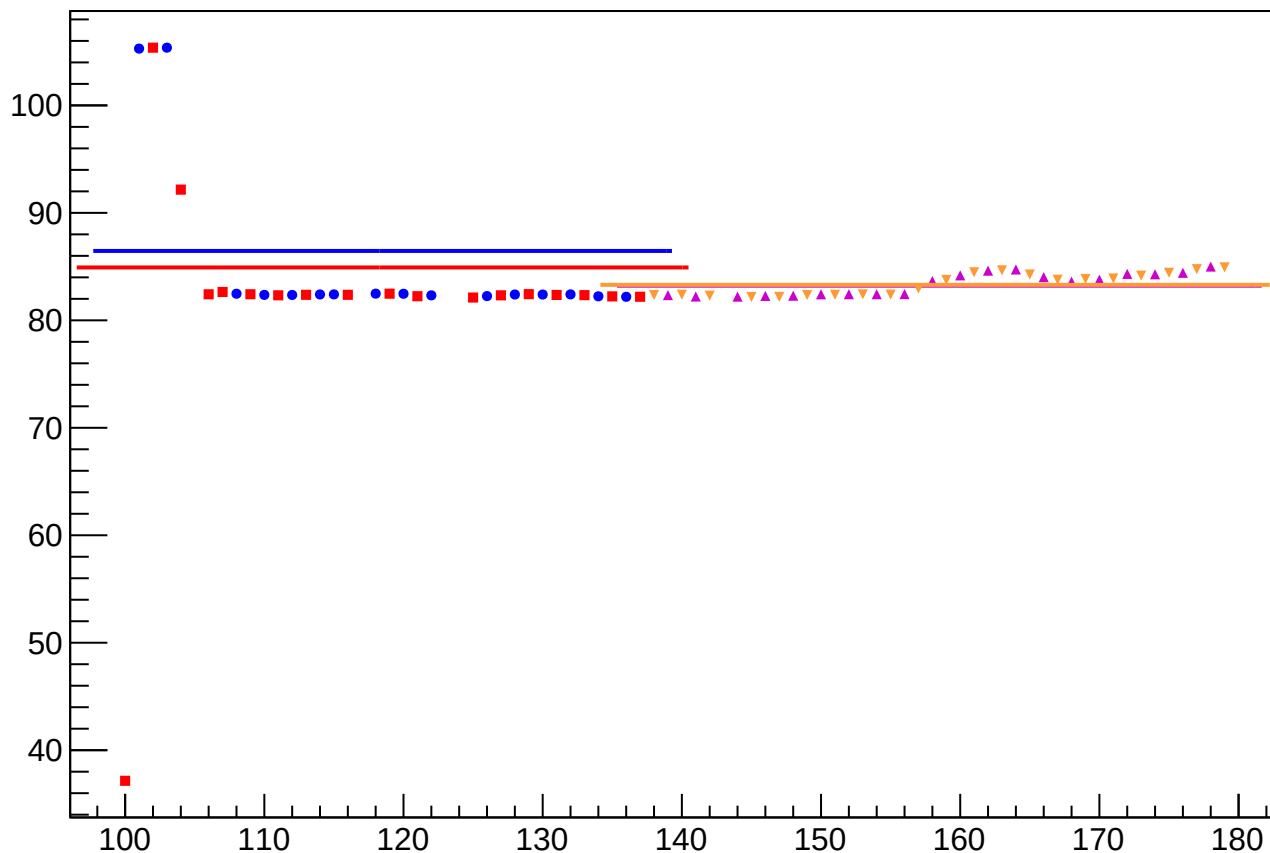
Right: 0.088+/-0.000  $\chi^2/\text{NDF}$ : 1102728.3/35

In: 0.079+/-0.000  $\chi^2/\text{NDF}$ :1070994.5/36

Out: 0.080+/-0.000  $\chi^2/\text{NDF}$ :895128.0/40

All: 0.080+/-0.000  $\chi^2/\text{NDF}$ : 1969441.9/77

# yield\_dsl\_mean vs Slug, Sign Corrected



Right In: 86.457 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 291421048436.2/15

Left: 83.263 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 15480994632.1/40

Right: 85.675 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 468146833571.9/33

Left Out: 83.302 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 7787198726.7/20

In: 84.302 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 325331473347.2/35

Right Out: 84.920 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 172195187677.7/17

Out: 83.854 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 186716448055.1/38

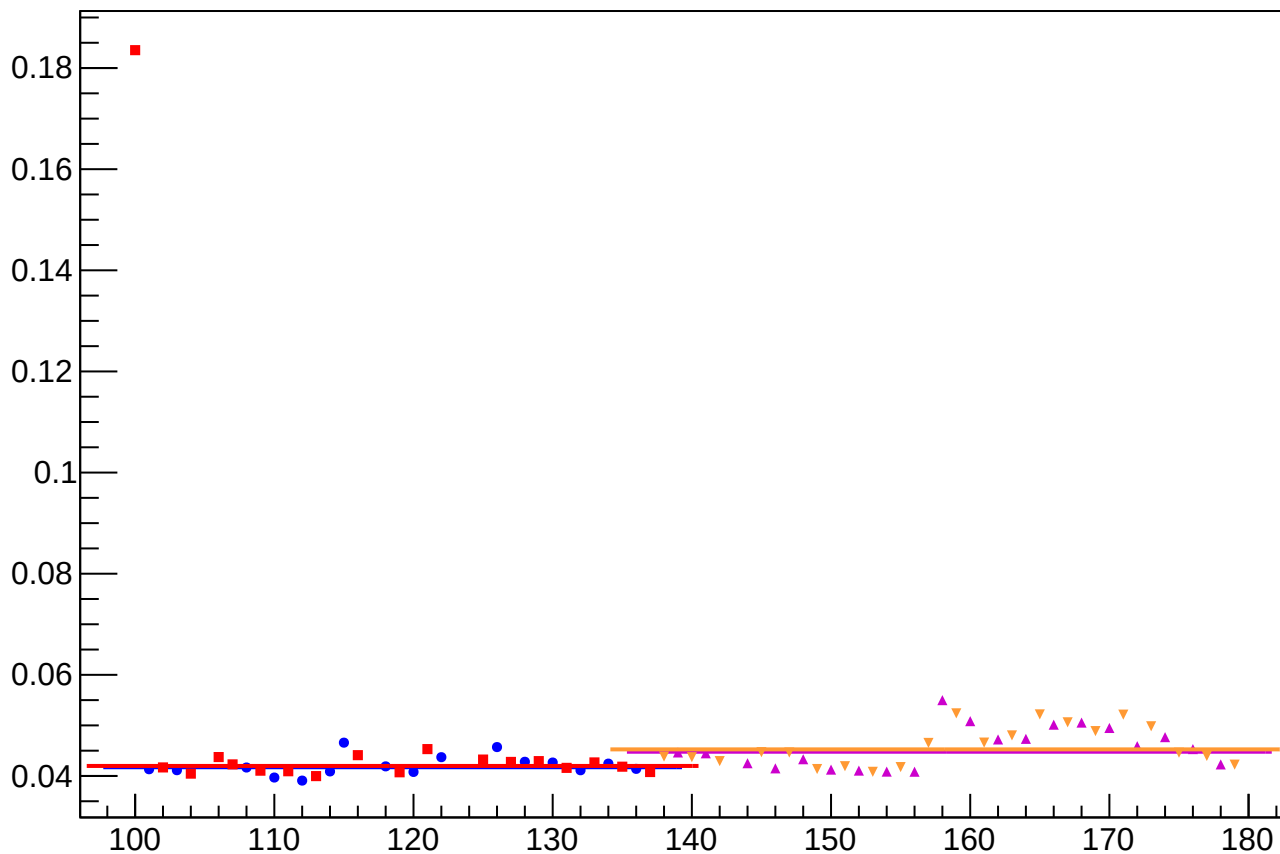
Left In: 83.225 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 7671291749.3/19

All: 84.077 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 513193712435.0

# yield\_dsl\_rms vs Slug, Sign Corrected



Right In:  $0.042 \pm 0.000$   $\chi^2/\text{NDF}$ : 18887.0/15

Left Out:  $0.045 \pm 0.000$   $\chi^2/\text{NDF}$ : 189220.0/20

Right Out:  $0.042 \pm 0.000$   $\chi^2/\text{NDF}$ : 96869.3/17

Left In:  $0.045 \pm 0.000$   $\chi^2/\text{NDF}$ : 215601.2/19

Left:  $0.045 \pm 0.000$   $\chi^2/\text{NDF}$ : 406443.0/40

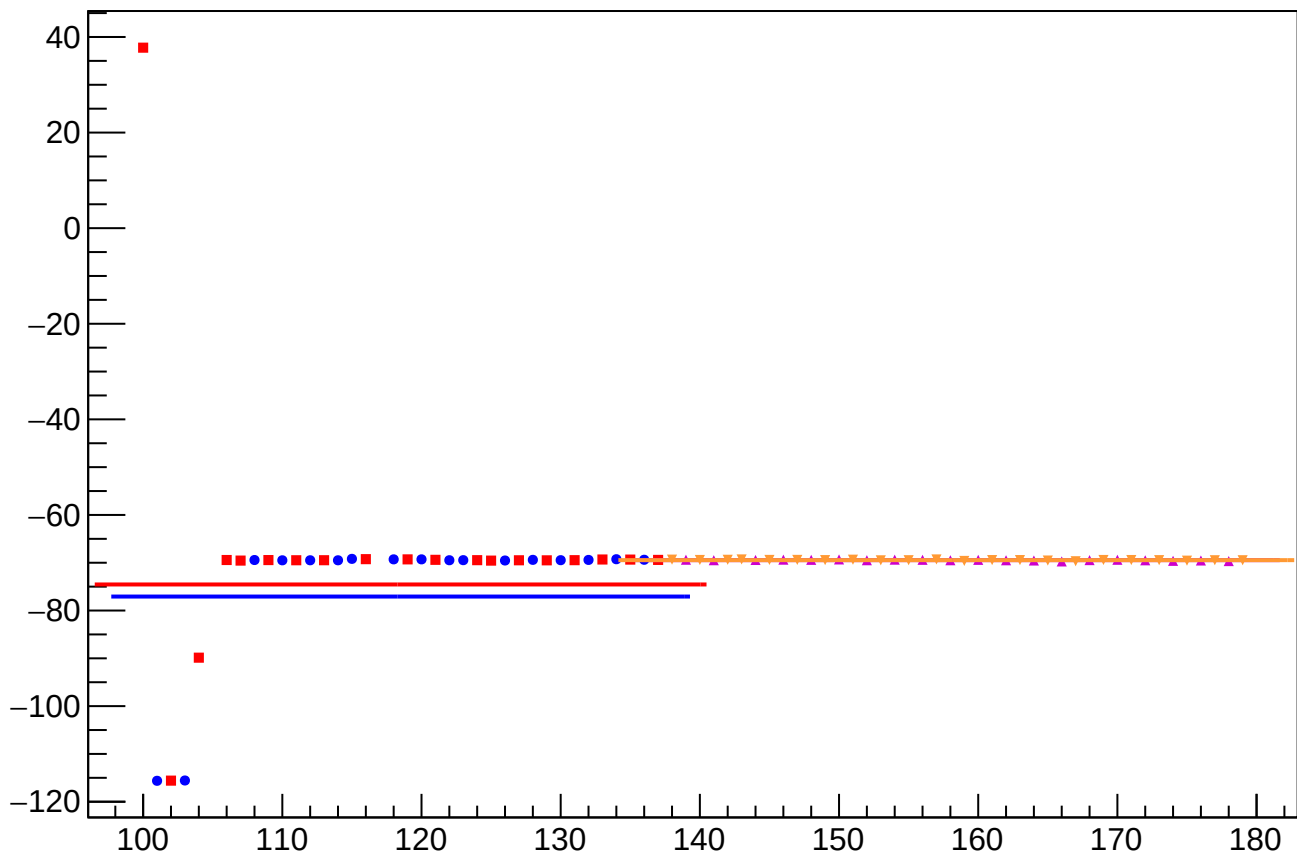
Right:  $0.042 \pm 0.000$   $\chi^2/\text{NDF}$ : 116001.6/33

In:  $0.044 \pm 0.000$   $\chi^2/\text{NDF}$ : 281695.4/35

Out:  $0.044 \pm 0.000$   $\chi^2/\text{NDF}$ : 341332.2/38

All:  $0.044 \pm 0.000$   $\chi^2/\text{NDF}$ : 624574.1/74

# yield\_dsr\_mean vs Slug, Sign Corrected



Right In: -77.074+/-0.000  $\chi^2/\text{NDF}$ : 565391865606.1/16

Left Out: -69.458+/-0.000  $\chi^2/\text{NDF}$ : 42935590.2/21

Right Out: -74.547+/-0.000  $\chi^2/\text{NDF}$ : 371890102737.4/18

Left In: -69.457+/-0.000  $\chi^2/\text{NDF}$ : 51449201.6/19

Left: -69.457+/-0.000  $\chi^2/\text{NDF}$ : 94391278.4/41

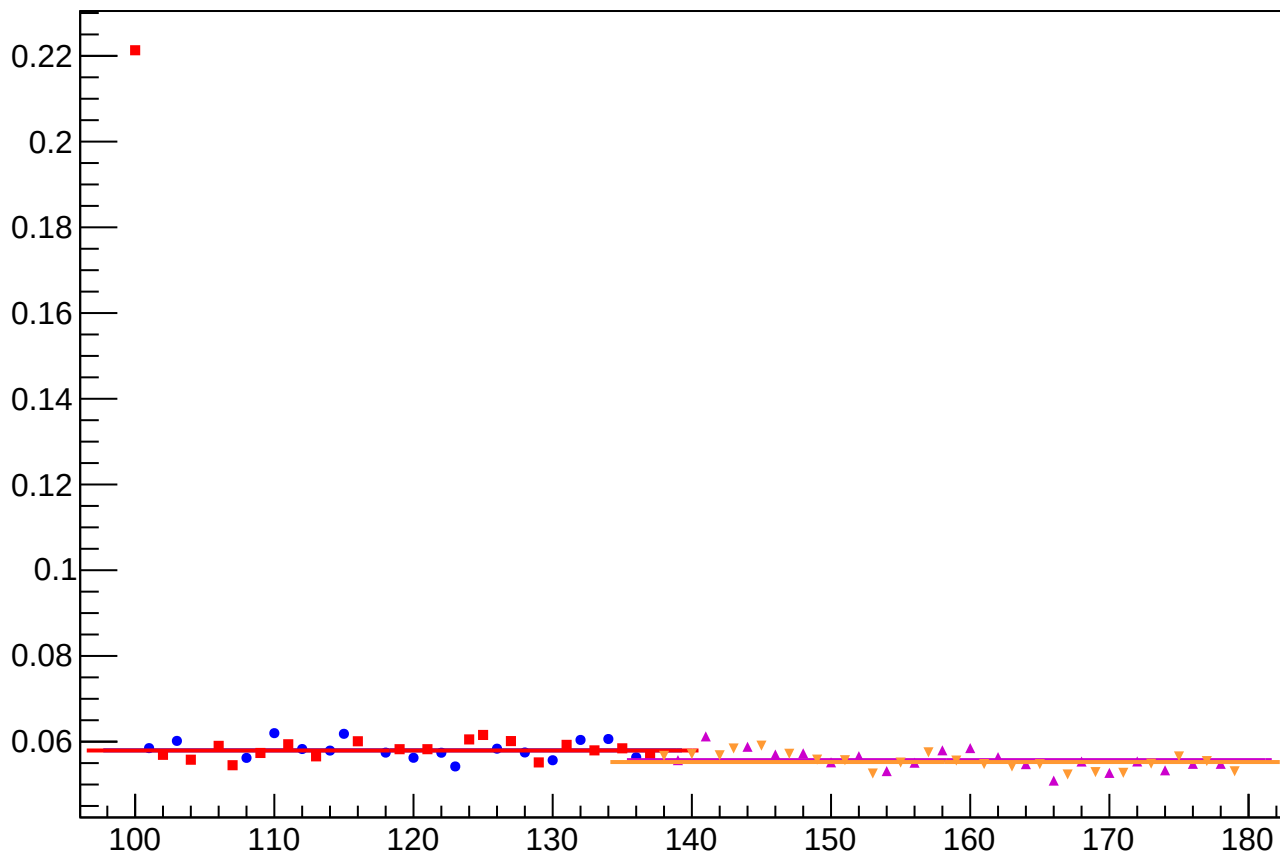
Right: -75.769+/-0.000  $\chi^2/\text{NDF}$ : 943595296169.5/3

In: -71.617+/-0.000  $\chi^2/\text{NDF}$ : 645042309103.0/36

Out: -70.884+/-0.000  $\chi^2/\text{NDF}$ : 409999865037.2/40

All: -71.237+/-0.000  $\chi^2/\text{NDF}$ : 105692727753

# yield\_dsr\_rms vs Slug, Sign Corrected



Right In: 0.058+/-0.000  $\chi^2/\text{NDF}$ : 12275.6/16

Left Out: 0.055+/-0.000  $\chi^2/\text{NDF}$ : 36708.1/21

Right Out: 0.058+/-0.000  $\chi^2/\text{NDF}$ : 86466.5/18

Left In: 0.056+/-0.000  $\chi^2/\text{NDF}$ : 49271.3/19

Left: 0.055+/-0.000  $\chi^2/\text{NDF}$ : 86988.9/41

Right: 0.058+/-0.000  $\chi^2/\text{NDF}$ : 98743.9/35

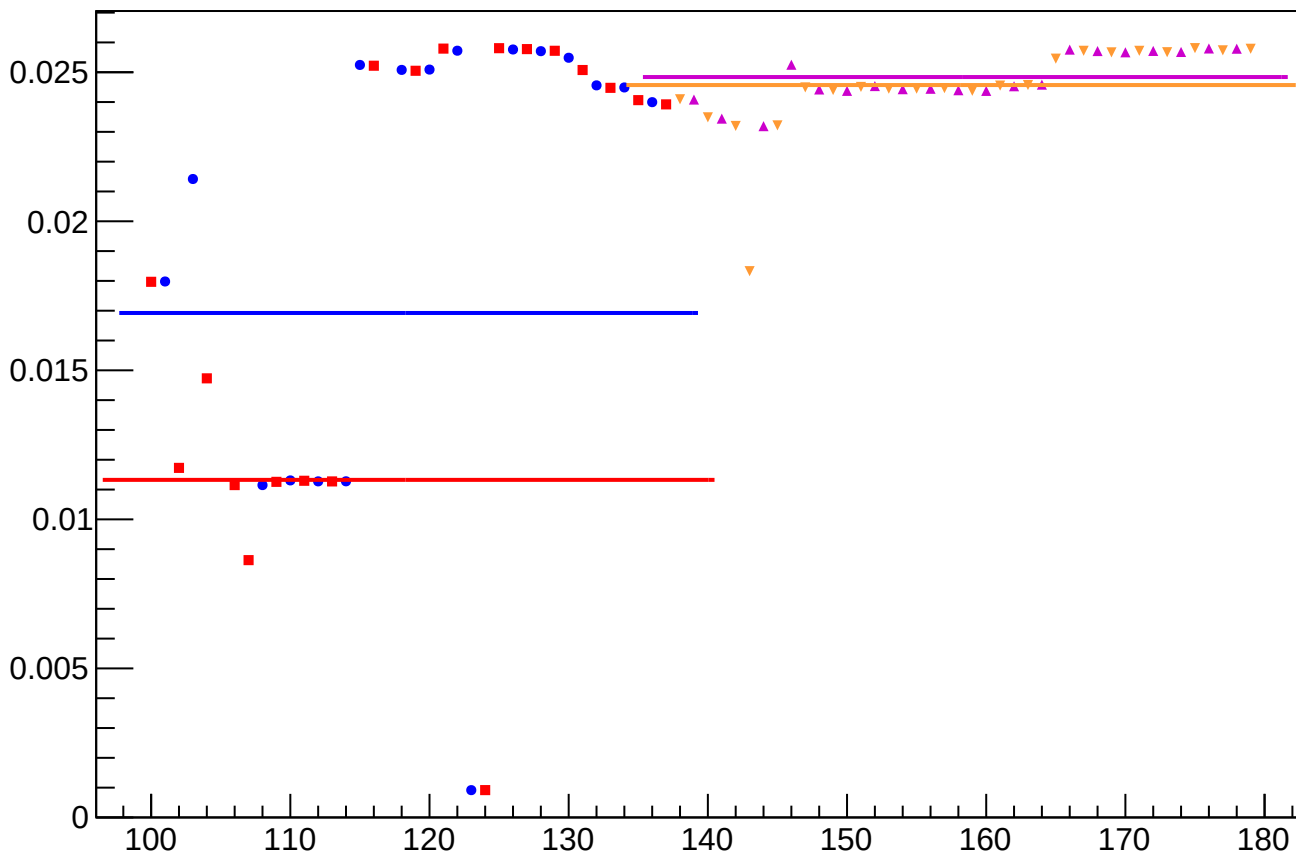
In: 0.056+/-0.000  $\chi^2/\text{NDF}$ : 75770.1/36

Out: 0.056+/-0.000  $\chi^2/\text{NDF}$ : 144523.5/40

All: 0.056+/-0.000  $\chi^2/\text{NDF}$ : 221097.6/77



# yield\_atl1\_mean vs Slug, Sign Corrected



Right In: 0.017 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 126447785006.7/16

Left Out: 0.025 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 7847323674.9/21

Right Out: 0.011 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 234754769754.2/18

Left In: 0.025 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1798443773.4/19

Left: 0.025 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 9761488960.5/41

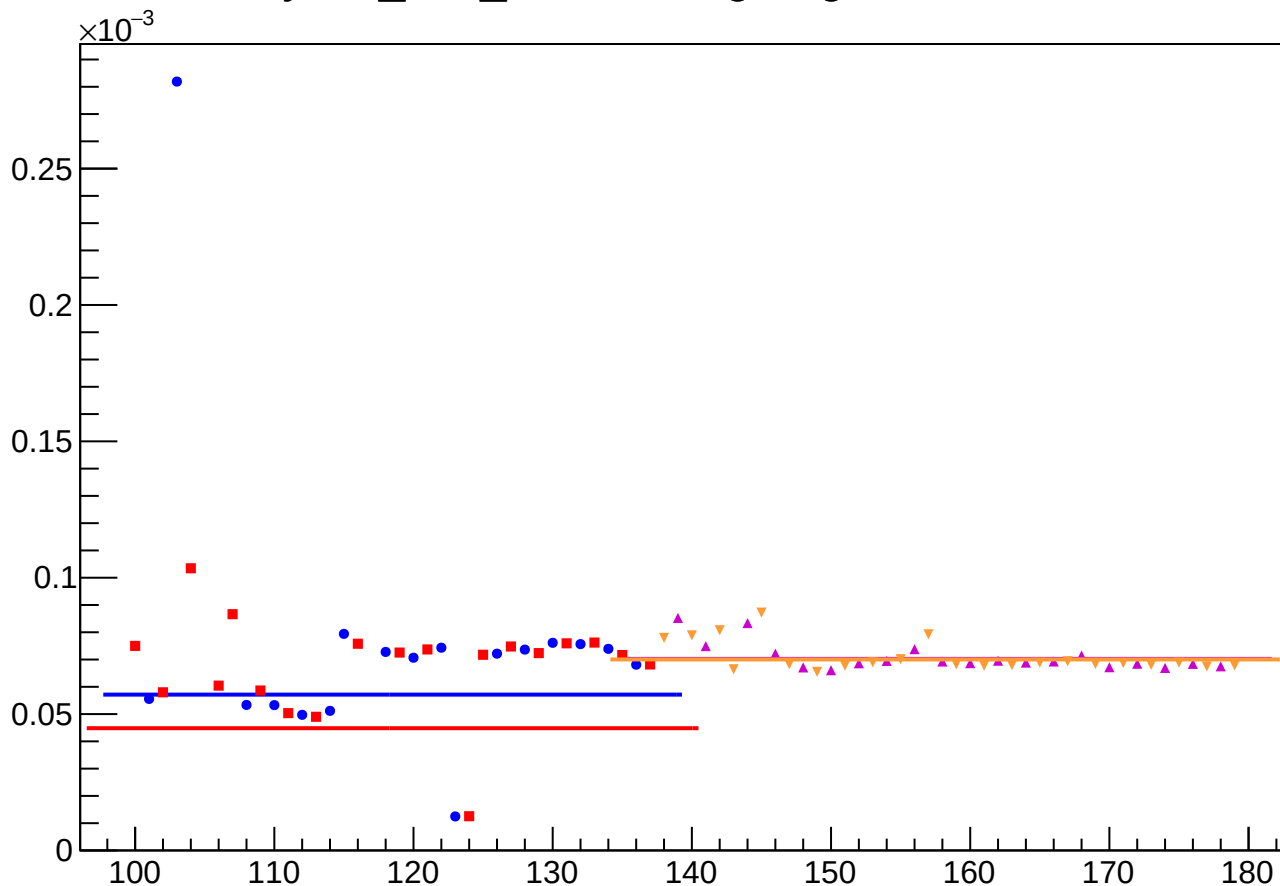
Right: 0.014 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 392122680736.2/35

In: 0.022 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 196394497666.7/36

Out: 0.019 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 486580784814.3/40

All: 0.020 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 707079072786.9

# yield\_atl1\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2000446.9/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :150935.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 3592224.4/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :121684.6/19

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 272752.3/41

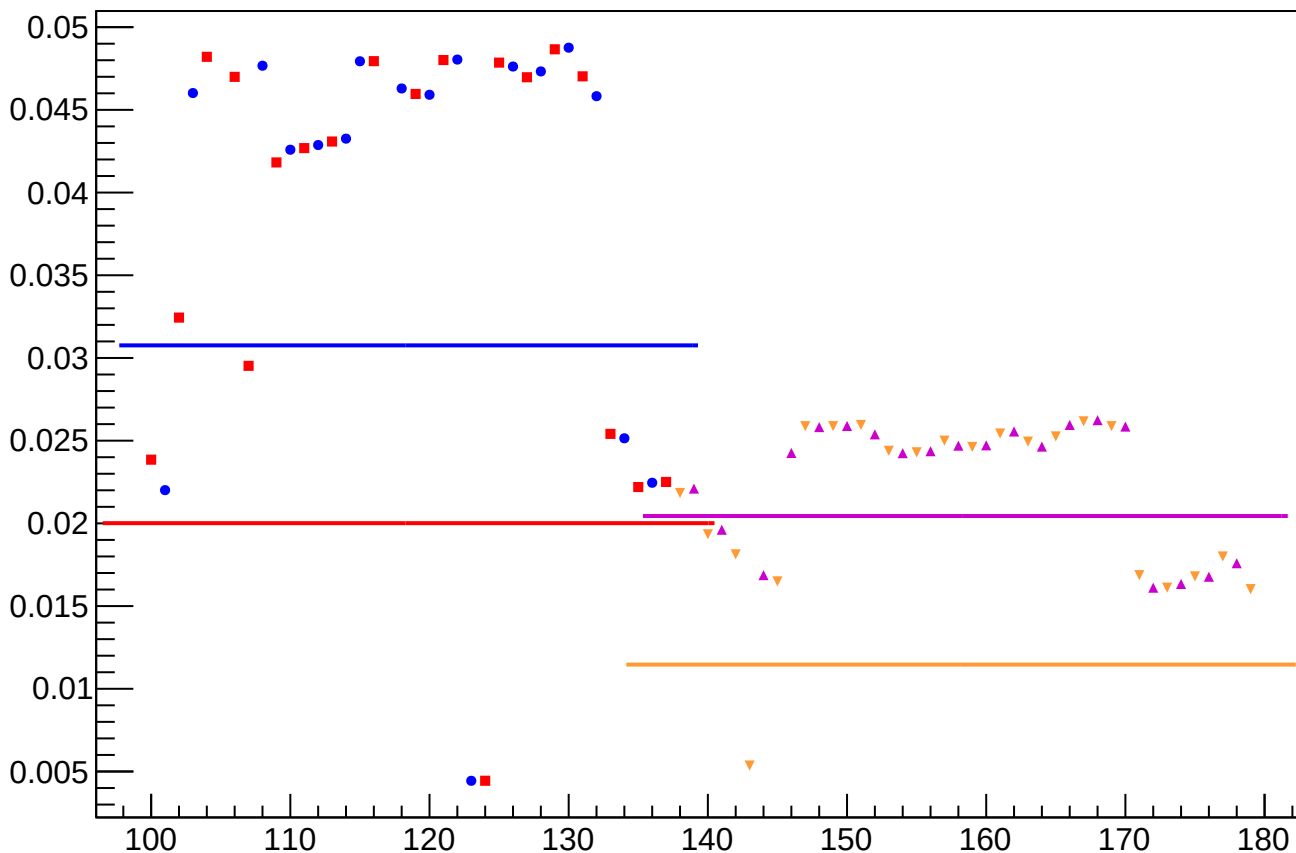
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5891779.4/35

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :2495468.9/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :5510843.8/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8204740.2/77

# yield\_atl2\_mean vs Slug, Sign Corrected



Right In: 0.031+/-0.000

$\chi^2/\text{NDF}$ : 21174738549.0/16

Left: 0.014+/-0.000

$\chi^2/\text{NDF}$ : 53066083309.1/41

Left Out: 0.011+/-0.000

$\chi^2/\text{NDF}$ : 35668340759.6/21

Right: 0.024+/-0.000

$\chi^2/\text{NDF}$ : 66286425044.9/35

Right Out: 0.020+/-0.000

$\chi^2/\text{NDF}$ : 40011334157.0/18

In: 0.023+/-0.000

$\chi^2/\text{NDF}$ : 30933514880.4/36

Out: 0.013+/-0.000

$\chi^2/\text{NDF}$ : 82837530327.6/40

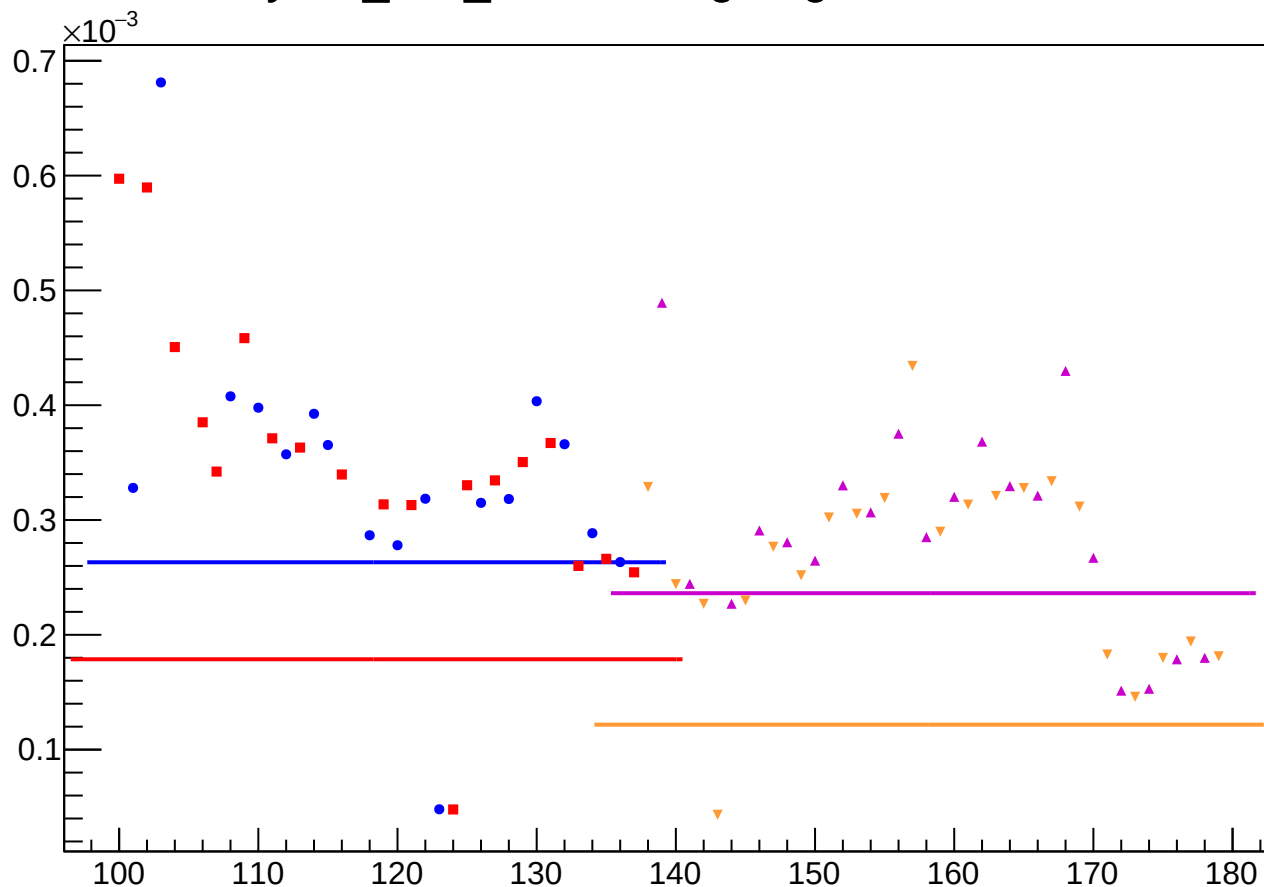
Left In: 0.020+/-0.000

$\chi^2/\text{NDF}$ : 3992024889.0/19

All: 0.016+/-0.000

$\chi^2/\text{NDF}$ : 134911088233.4

# yield\_atl2\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2401048.9/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :12581160.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5341022.6/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :2860526.0/19

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19801684.7/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8372315.9/35

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :5340103.4/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :18557730.2/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 29158134.0/77

# yield\_atr1\_mean vs Slug, Sign Corrected



Right In: 0.030+/-0.000

$\chi^2/\text{NDF}$ : 97152184939.3/16

Left: 0.039+/-0.000

$\chi^2/\text{NDF}$ : 961676489.5/41

Left Out: 0.039+/-0.000

$\chi^2/\text{NDF}$ : 514037382.7/21

Right: 0.032+/-0.000

$\chi^2/\text{NDF}$ : 145974720907.4/35

Right Out: 0.035+/-0.000

$\chi^2/\text{NDF}$ : 43669374279.3/18

In: 0.036+/-0.000

$\chi^2/\text{NDF}$ : 121855976480.6/36

Out: 0.037+/-0.000

$\chi^2/\text{NDF}$ : 48996401625.9/40

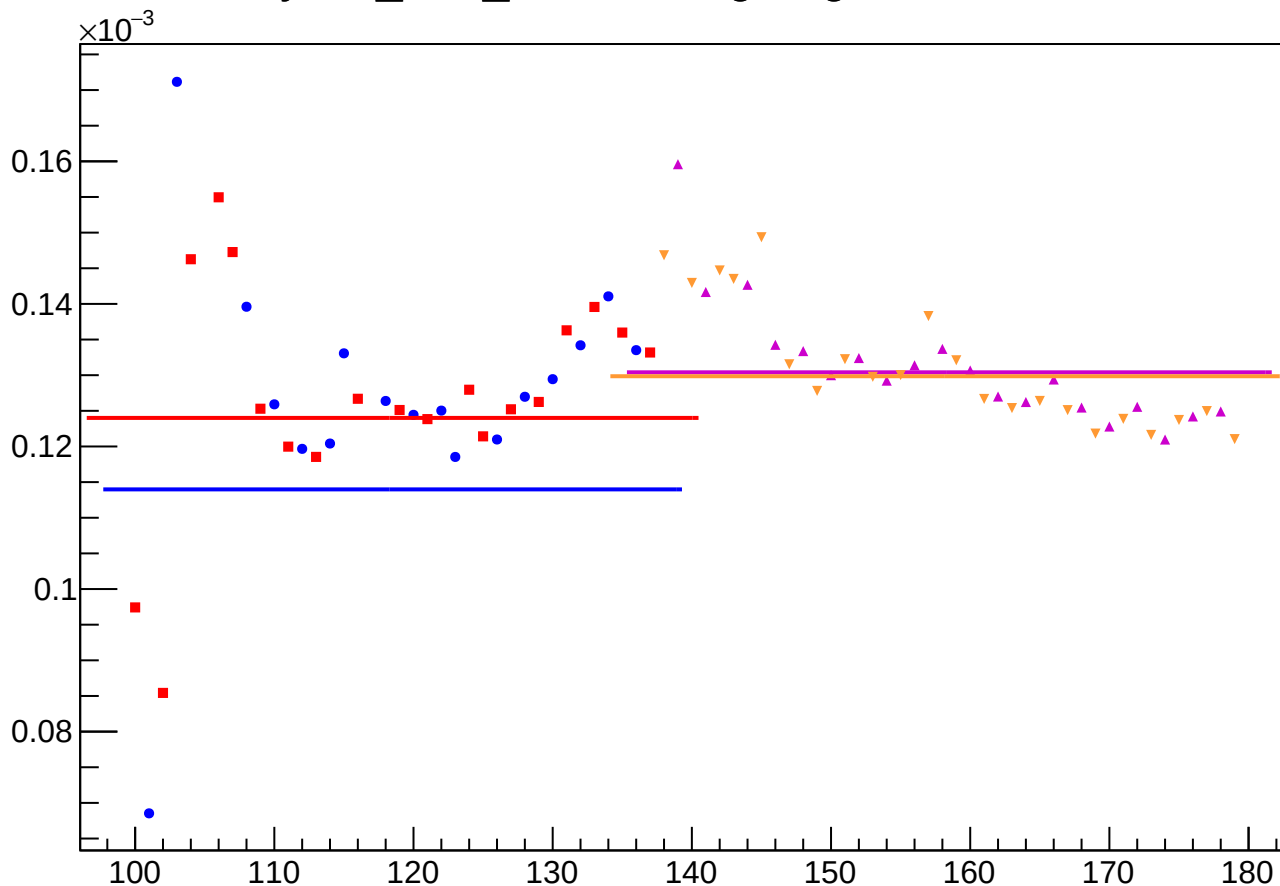
Left In: 0.039+/-0.000

$\chi^2/\text{NDF}$ : 445426621.0/19

All: 0.036+/-0.000

$\chi^2/\text{NDF}$ : 172963735608.1

# yield\_atr1\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 794542.9/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :121480.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 245154.5/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :103066.9/19

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 224826.8/41

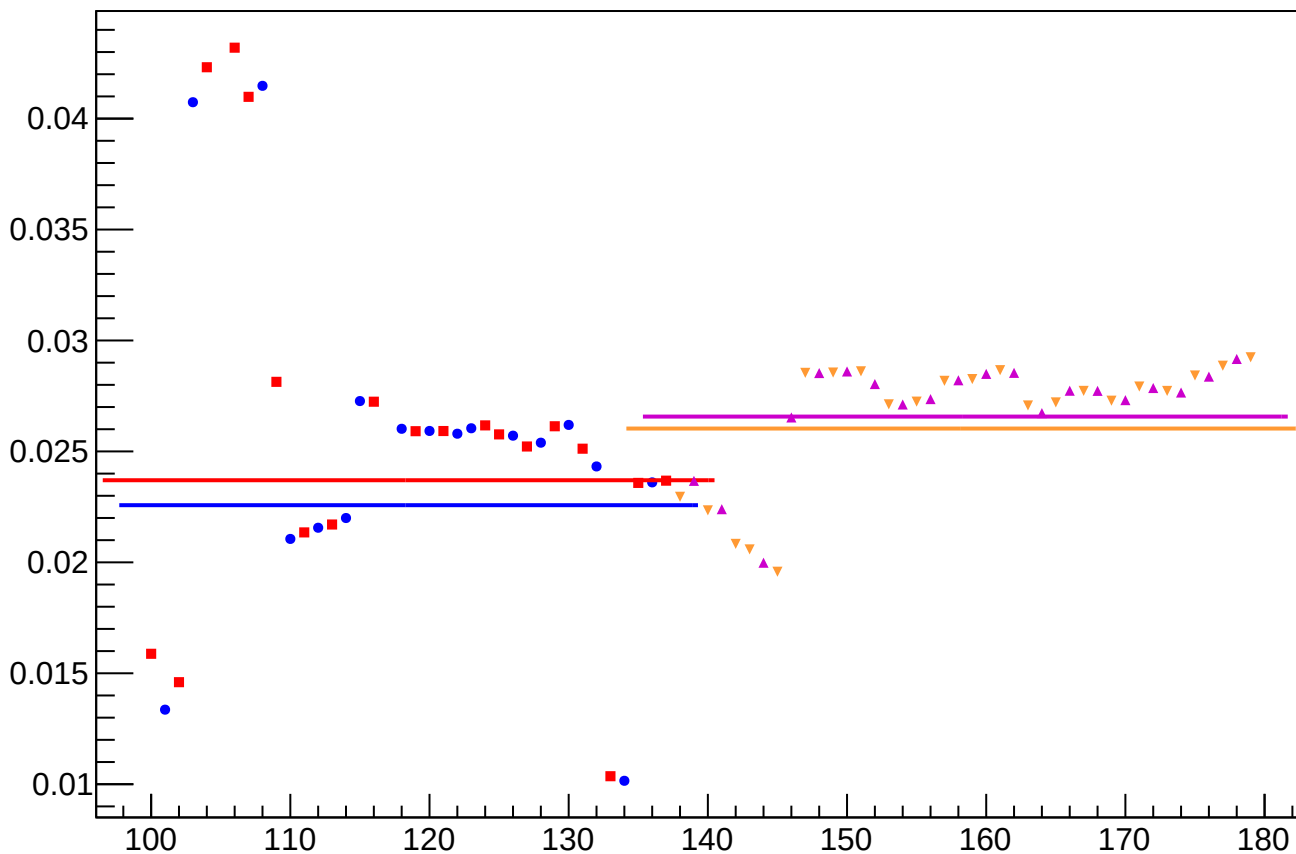
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1085105.2/35

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :1064217.3/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :387034.3/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1466424.1/77

# yield\_atr2\_mean vs Slug, Sign Corrected



Right In: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 4247774712.9/16

Left Out: 0.026+/-0.000  $\chi^2/\text{NDF}$ : 1914087710.4/21

Right Out: 0.024+/-0.000  $\chi^2/\text{NDF}$ : 5651397656.1/18

Left In: 0.027+/-0.000  $\chi^2/\text{NDF}$ : 1250251482.7/19

Left: 0.026+/-0.000  $\chi^2/\text{NDF}$ : 3189212534.1/41

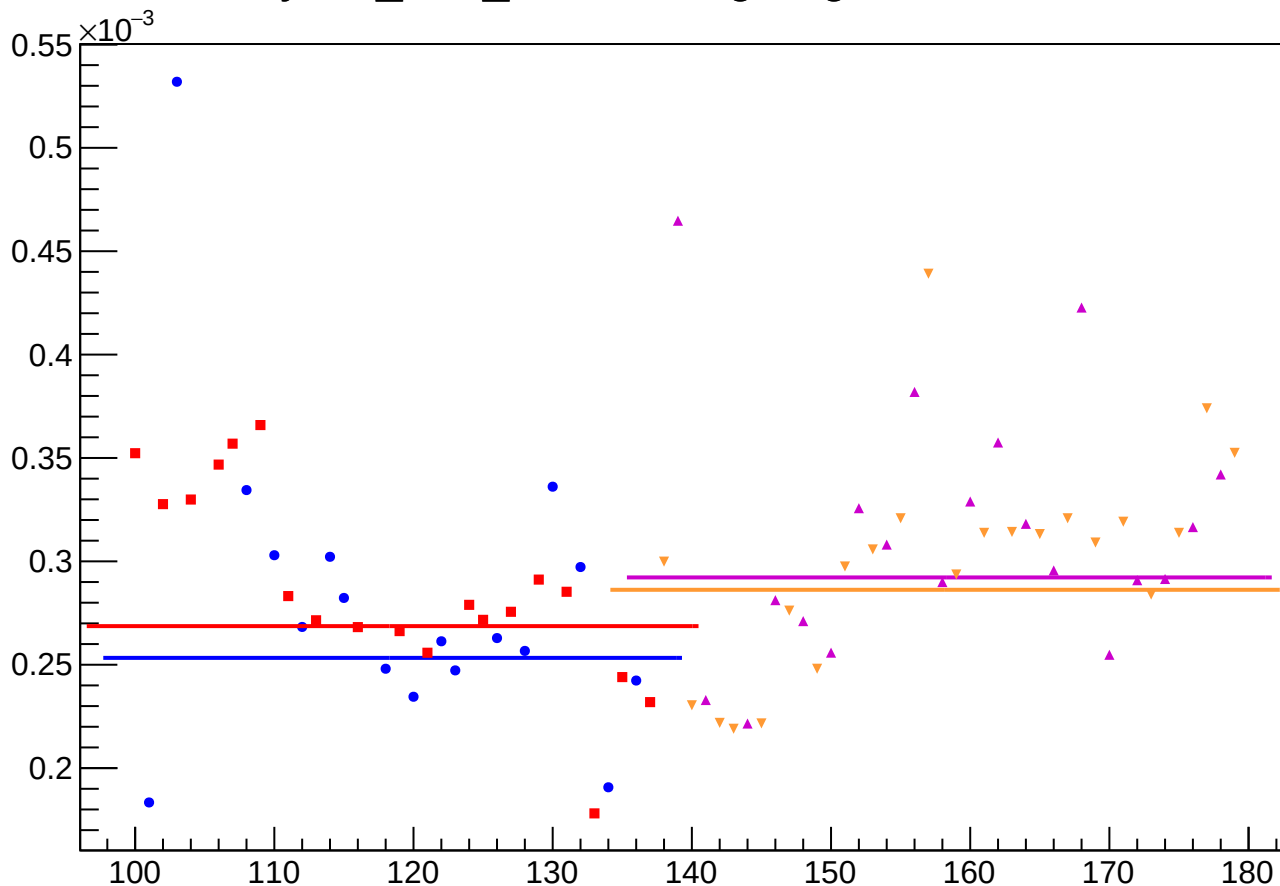
Right: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 9954563356.3/35

In: 0.025+/-0.000  $\chi^2/\text{NDF}$ : 6425168735.8/36

Out: 0.025+/-0.000  $\chi^2/\text{NDF}$ : 7878863925.9/40

All: 0.025+/-0.000  $\chi^2/\text{NDF}$ : 14306146688.0/7

# yield\_atr2\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 629159.2/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 782971.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 428329.0/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 883170.7/19

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1672256.0/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1078147.4/35

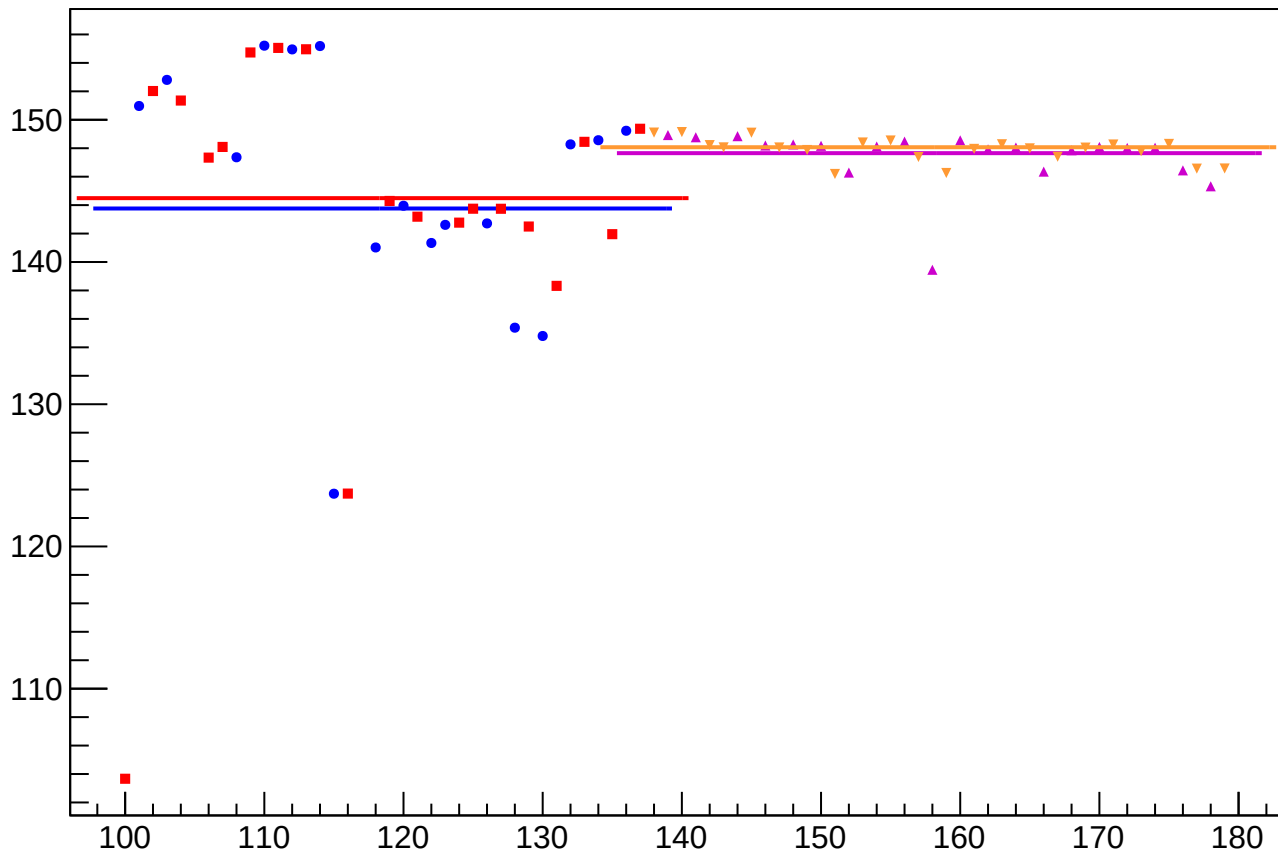
In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1688295.6/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1246941.4/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2936459.8/77



# yield\_bcm\_an\_ds\_mean vs Slug, Sign Corrected



Right In: 143.763 $\pm$ 0.000  $\chi^2$ /NDF: 3534699505.1/16

Left Out: 148.070 $\pm$ 0.000  $\chi^2$ /NDF: 65455393.2/21

Right Out: 144.490 $\pm$ 0.000  $\chi^2$ /NDF: 4182548232.5/18

Left In: 147.653 $\pm$ 0.000  $\chi^2$ /NDF: 344839232.1/19

Left: 147.870 $\pm$ 0.000  $\chi^2$ /NDF: 417570491.7/41

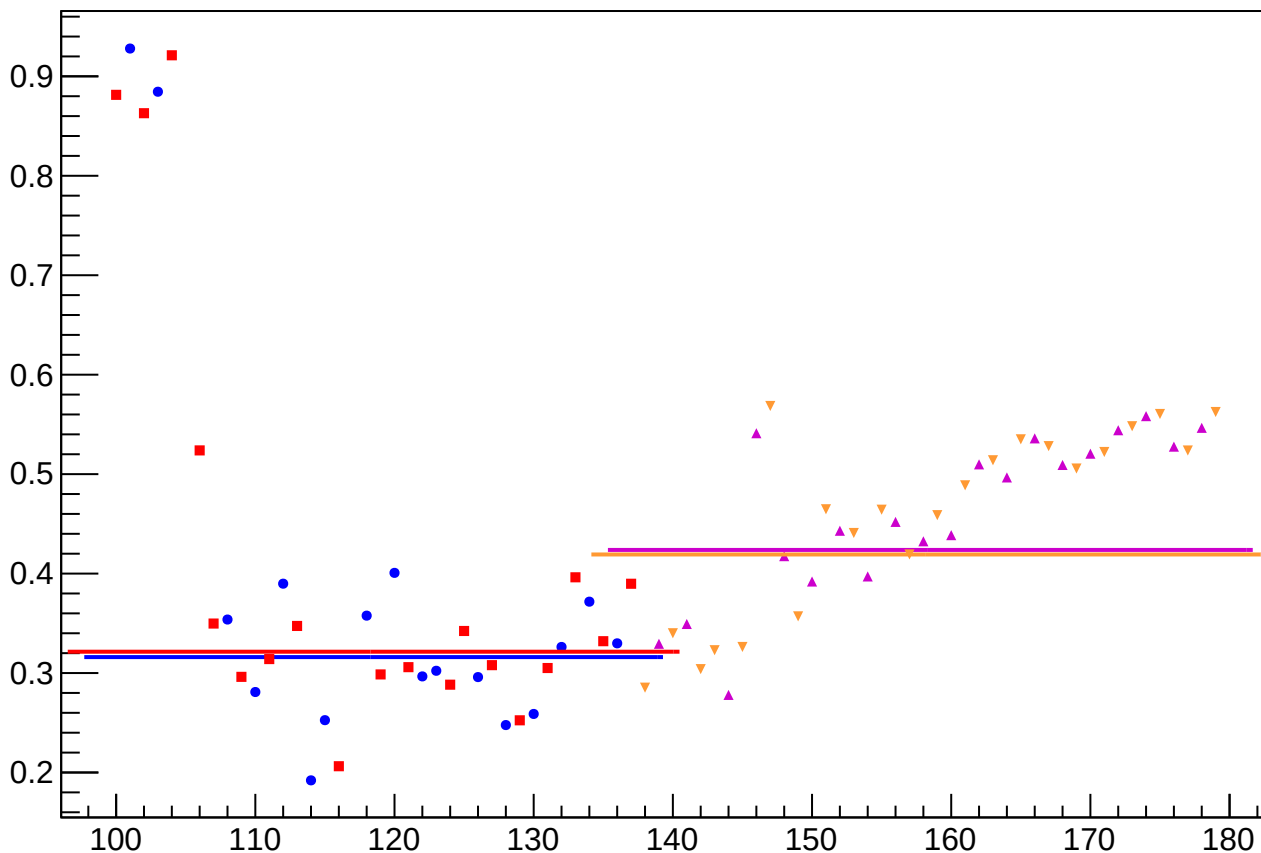
Right: 144.130 $\pm$ 0.000  $\chi^2$ /NDF: 7732099987.4/35

In: 146.065 $\pm$ 0.000  $\chi^2$ /NDF: 4377617931.9/36

Out: 146.660 $\pm$ 0.000  $\chi^2$ /NDF: 4688215622.8/40

All: 146.370 $\pm$ 0.000  $\chi^2$ /NDF: 9090580072.3

# yield\_bcm\_an\_ds\_rms vs Slug, Sign Corrected



Right In: 0.316+/-0.000  $\chi^2/\text{NDF}$ : 1265921.5/16

Left Out: 0.419+/-0.000  $\chi^2/\text{NDF}$ :1595183.6/21

Right Out: 0.321+/-0.000  $\chi^2/\text{NDF}$ : 1219073.9/18

Left In: 0.424+/-0.000  $\chi^2/\text{NDF}$ :1259565.1/19

Left: 0.421+/-0.000  $\chi^2/\text{NDF}$ : 2856496.9/41

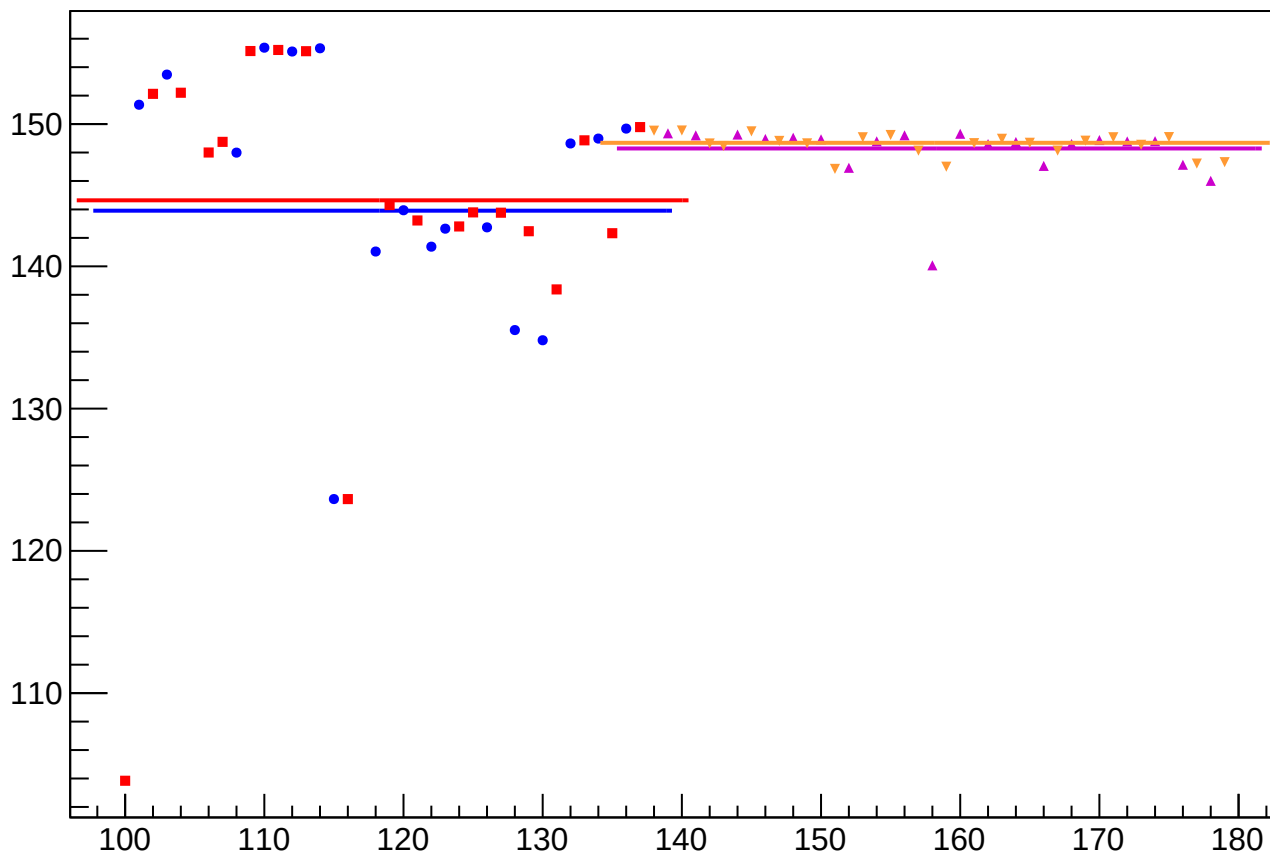
Right: 0.319+/-0.000  $\chi^2/\text{NDF}$ : 2486648.0/35

In: 0.380+/-0.000  $\chi^2/\text{NDF}$ :3289639.5/36

Out: 0.381+/-0.000  $\chi^2/\text{NDF}$ :3470797.5/40

All: 0.380+/-0.000  $\chi^2/\text{NDF}$ : 6760552.2/77

# yield\_bcm\_an\_ds3\_mean vs Slug, Sign Corrected



Right In: 143.912 $\pm$ 0.000  $\chi^2$ /NDF: 3587769790.2/16

Left Out: 148.683 $\pm$ 0.000  $\chi^2$ /NDF: 52405788.4/21

Right Out: 144.640 $\pm$ 0.000  $\chi^2$ /NDF: 4209610240.4/18

Left In: 148.285 $\pm$ 0.000  $\chi^2$ /NDF: 332967320.4/19

Left: 148.492 $\pm$ 0.000  $\chi^2$ /NDF: 391866488.3/41

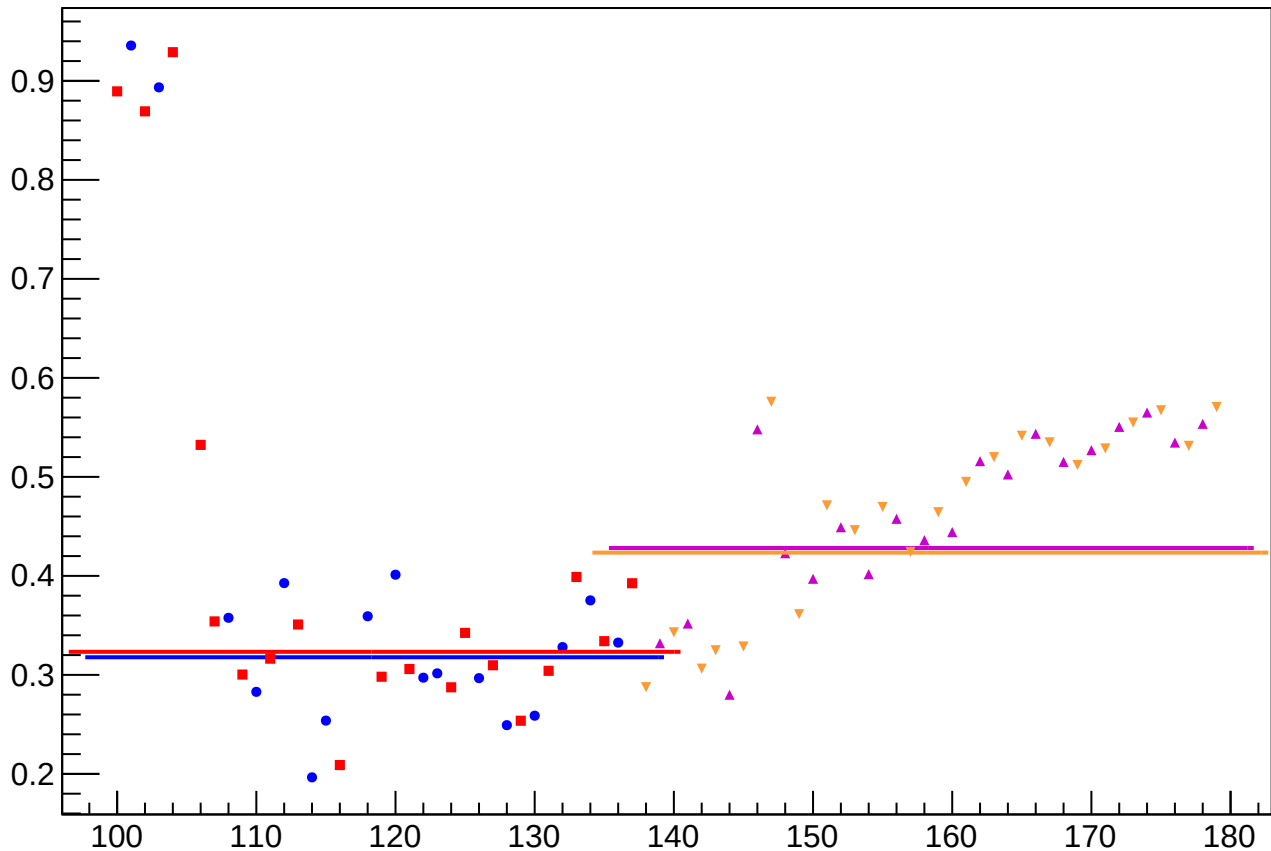
Right: 144.280 $\pm$ 0.000  $\chi^2$ /NDF: 7812104995.9/35

In: 146.489 $\pm$ 0.000  $\chi^2$ /NDF: 4540302112.9/36

Out: 147.081 $\pm$ 0.000  $\chi^2$ /NDF: 4814627725.0/40

All: 146.793 $\pm$ 0.000  $\chi^2$ /NDF: 9379037220.4

# yield\_bcm\_an\_ds3\_rms vs Slug, Sign Corrected



Right In: 0.318+/-0.000  $\chi^2/\text{NDF}$ : 1268257.9/16

Left Out: 0.424+/-0.000  $\chi^2/\text{NDF}$ :1624473.9/21

Right Out: 0.323+/-0.000  $\chi^2/\text{NDF}$ : 1222241.9/18

Left In: 0.428+/-0.000  $\chi^2/\text{NDF}$ :1282808.9/19

Left: 0.426+/-0.000  $\chi^2/\text{NDF}$ : 2909069.9/41

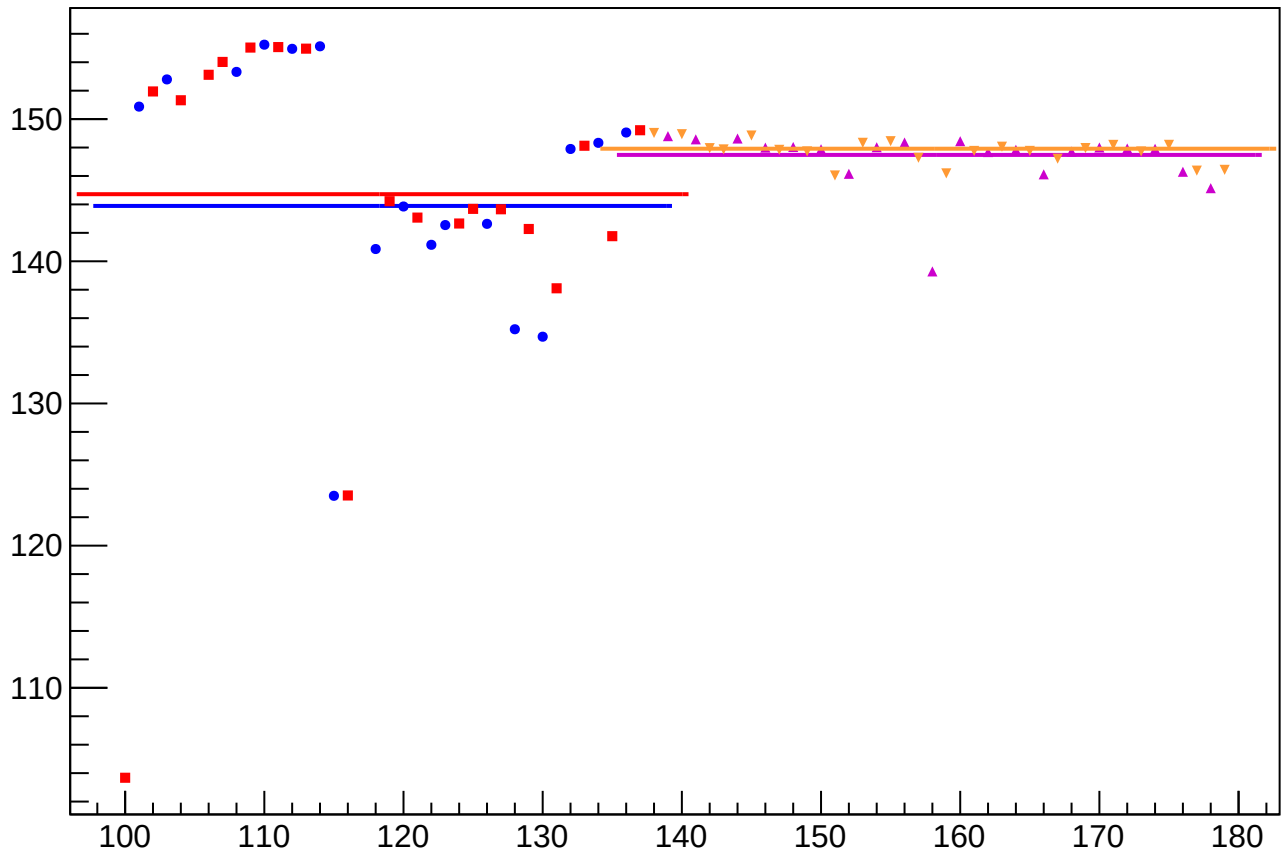
Right: 0.321+/-0.000  $\chi^2/\text{NDF}$ : 2492180.0/35

In: 0.383+/-0.000  $\chi^2/\text{NDF}$ :3340522.1/36

Out: 0.384+/-0.000  $\chi^2/\text{NDF}$ :3525826.9/40

All: 0.383+/-0.000  $\chi^2/\text{NDF}$ : 6866474.7/77

# yield\_bcm\_an\_us\_mean vs Slug, Sign Corrected



Right In: 143.893 +/- 0.000  $\chi^2/\text{NDF}$ : 3752655677.2/16

Left Out: 147.918 +/- 0.000  $\chi^2/\text{NDF}$ : 63967382.3/21

Right Out: 144.719 +/- 0.000  $\chi^2/\text{NDF}$ : 4473225884.5/18

Left In: 147.481 +/- 0.000  $\chi^2/\text{NDF}$ : 343808446.8/19

Left: 147.708 +/- 0.000  $\chi^2/\text{NDF}$ : 415692903.7/41

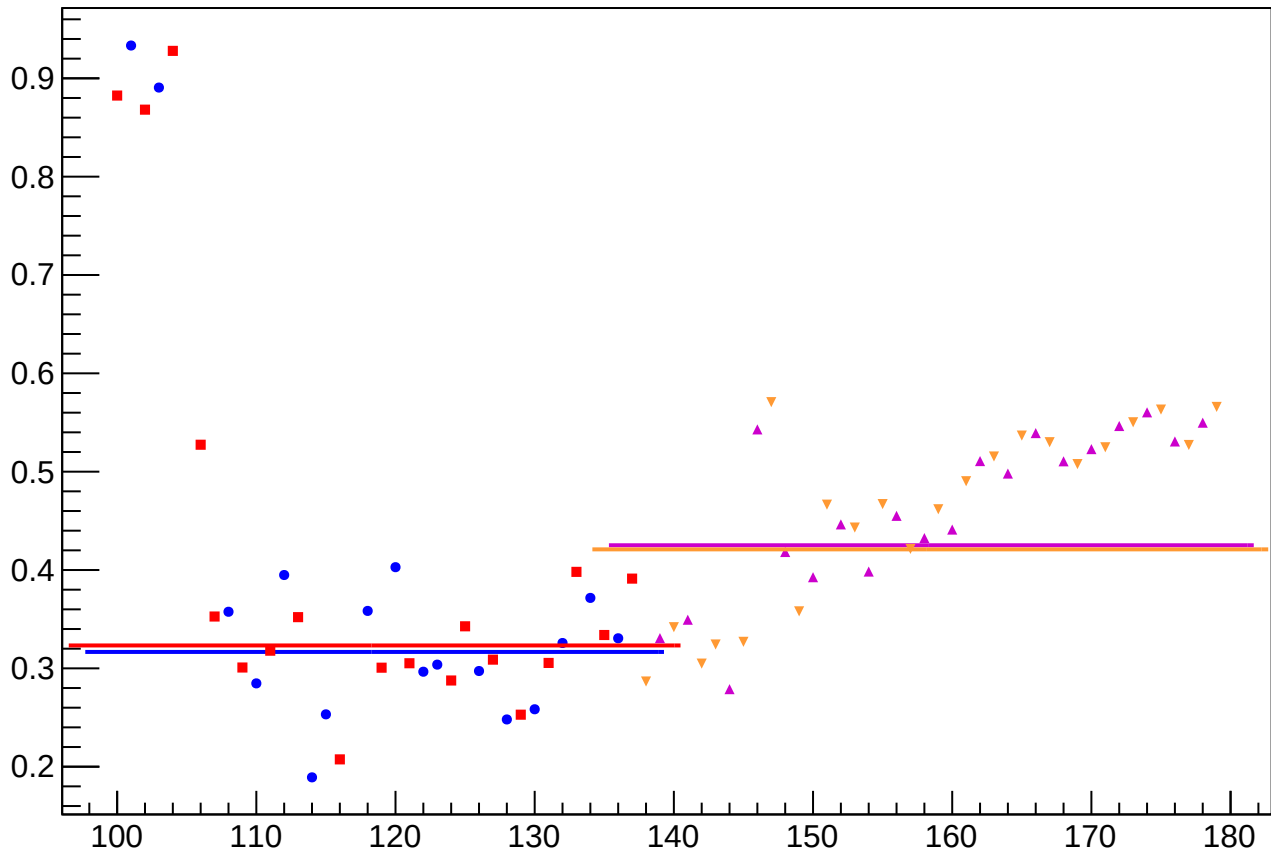
Right: 144.309 +/- 0.000  $\chi^2/\text{NDF}$ : 8244852440.8/35

In: 146.016 +/- 0.000  $\chi^2/\text{NDF}$ : 4517417587.2/36

Out: 146.660 +/- 0.000  $\chi^2/\text{NDF}$ : 4885062766.5/40

All: 146.346 +/- 0.000  $\chi^2/\text{NDF}$ : 9431242281.3

# yield\_bcm\_an\_us\_rms vs Slug, Sign Corrected



Right In: 0.317 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1280358.6/16

Left Out: 0.421 $\pm$ 0.000  $\chi^2/\text{NDF}$ :1598905.4/21

Right Out: 0.323 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1222784.7/18

Left In: 0.425 $\pm$ 0.000  $\chi^2/\text{NDF}$ :1268175.3/19

Left: 0.423 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2868530.6/41

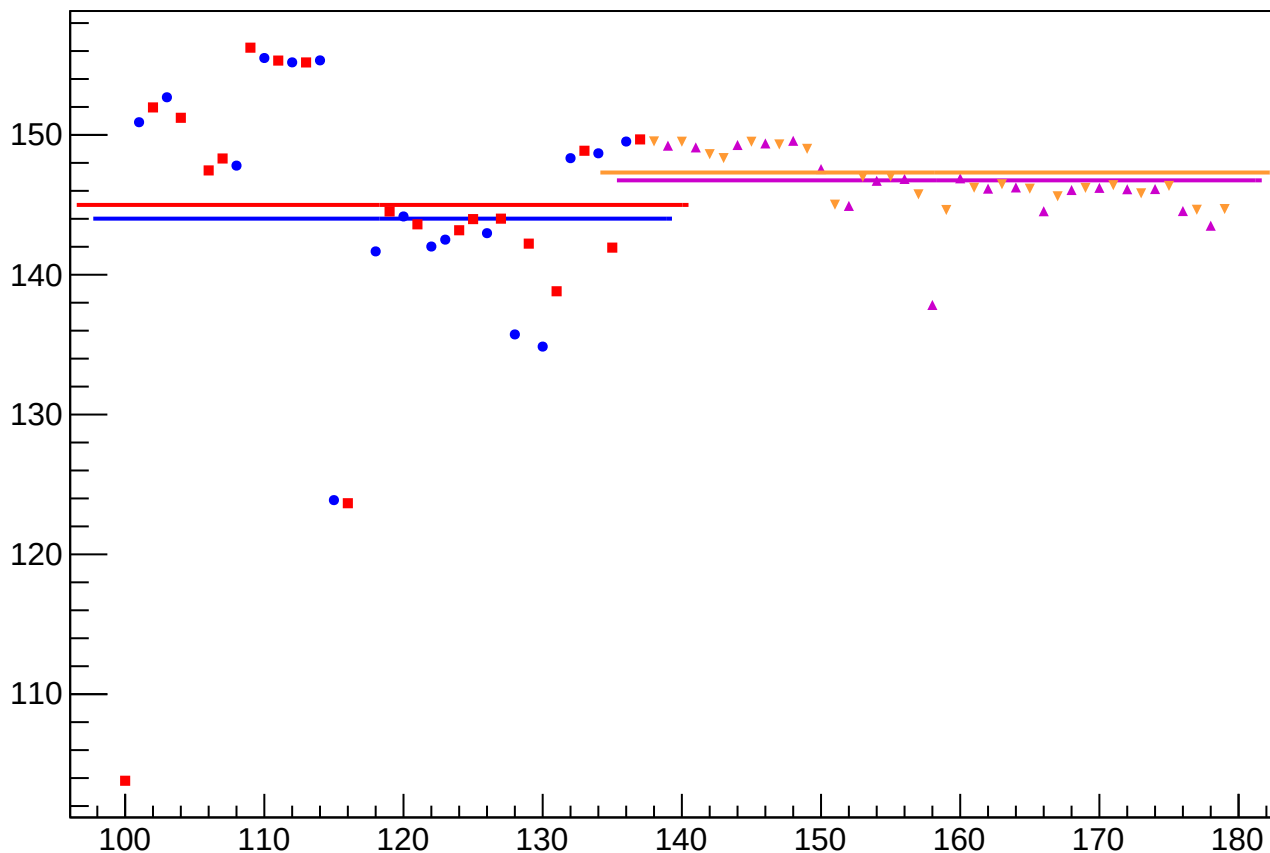
Right: 0.320 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2505560.8/35

In: 0.381 $\pm$ 0.000  $\chi^2/\text{NDF}$ :3317941.1/36

Out: 0.383 $\pm$ 0.000  $\chi^2/\text{NDF}$ :3470713.1/40

All: 0.382 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 6789054.0/77

# yield\_bcm\_dg\_us\_mean vs Slug, Sign Corrected



Right In: 144.012 $\pm$ 0.000  $\chi^2$ /NDF: 3241696920.3/16

Left Out: 147.311 $\pm$ 0.000  $\chi^2$ /NDF: 251904460.0/21

Right Out: 144.994 $\pm$ 0.000  $\chi^2$ /NDF: 3852381452.1/18

Left In: 146.751 $\pm$ 0.000  $\chi^2$ /NDF: 554615152.3/19

Left: 147.041 $\pm$ 0.000  $\chi^2$ /NDF: 818873151.9/41

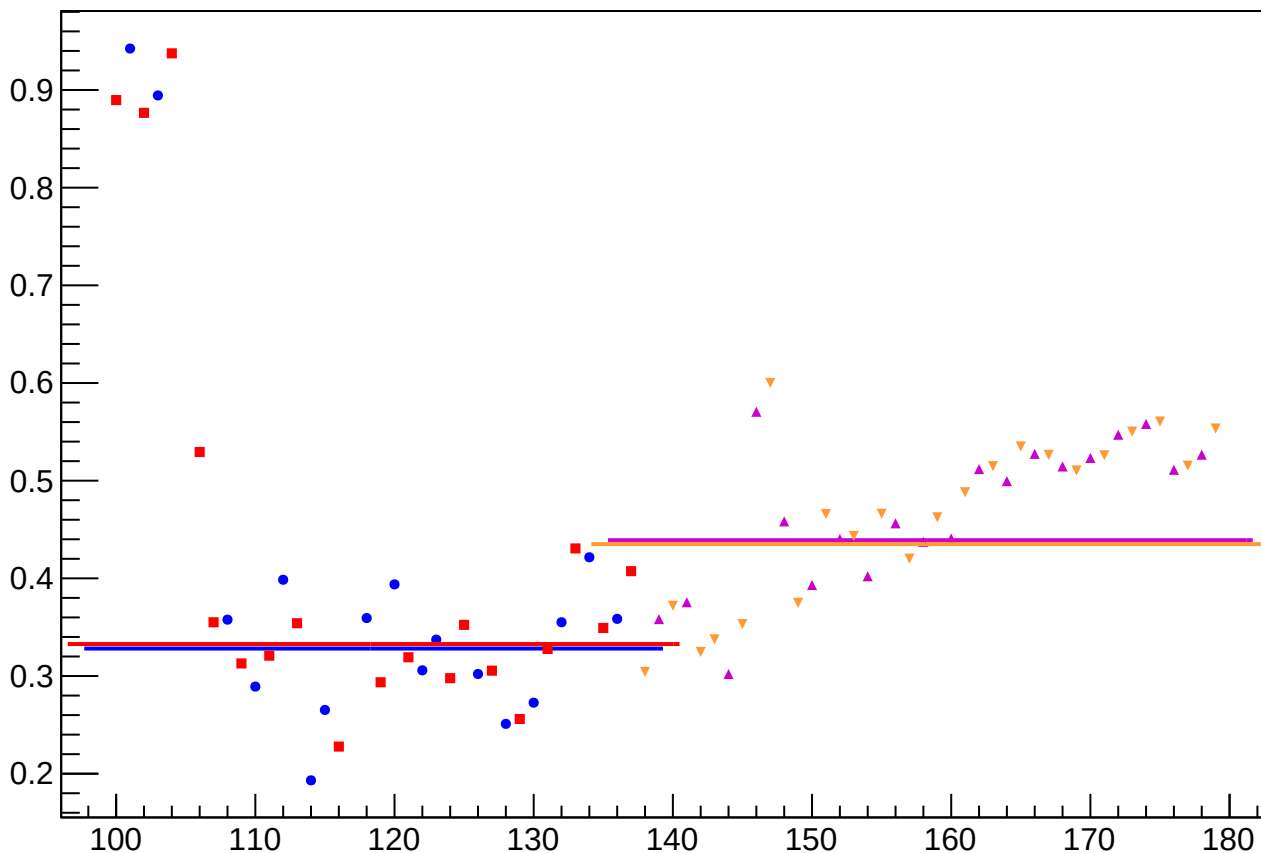
Right: 144.510 $\pm$ 0.000  $\chi^2$ /NDF: 7119138597.7/35

In: 145.645 $\pm$ 0.000  $\chi^2$ /NDF: 4025837008.5/36

Out: 146.401 $\pm$ 0.000  $\chi^2$ /NDF: 4276571916.8/40

All: 146.034 $\pm$ 0.000  $\chi^2$ /NDF: 8339729695.7

# yield\_bcm\_dg\_us\_rms vs Slug, Sign Corrected



Right In: 0.328+/-0.000  $\chi^2/\text{NDF}$ : 1265892.9/16

Left Out: 0.435+/-0.000  $\chi^2/\text{NDF}$ :1227460.6/21

Right Out: 0.333+/-0.000  $\chi^2/\text{NDF}$ : 1185129.6/18

Left In: 0.439+/-0.000  $\chi^2/\text{NDF}$ :930842.7/19

Left: 0.437+/-0.000  $\chi^2/\text{NDF}$ : 2159583.2/41

Right: 0.330+/-0.000  $\chi^2/\text{NDF}$ : 2452140.8/35

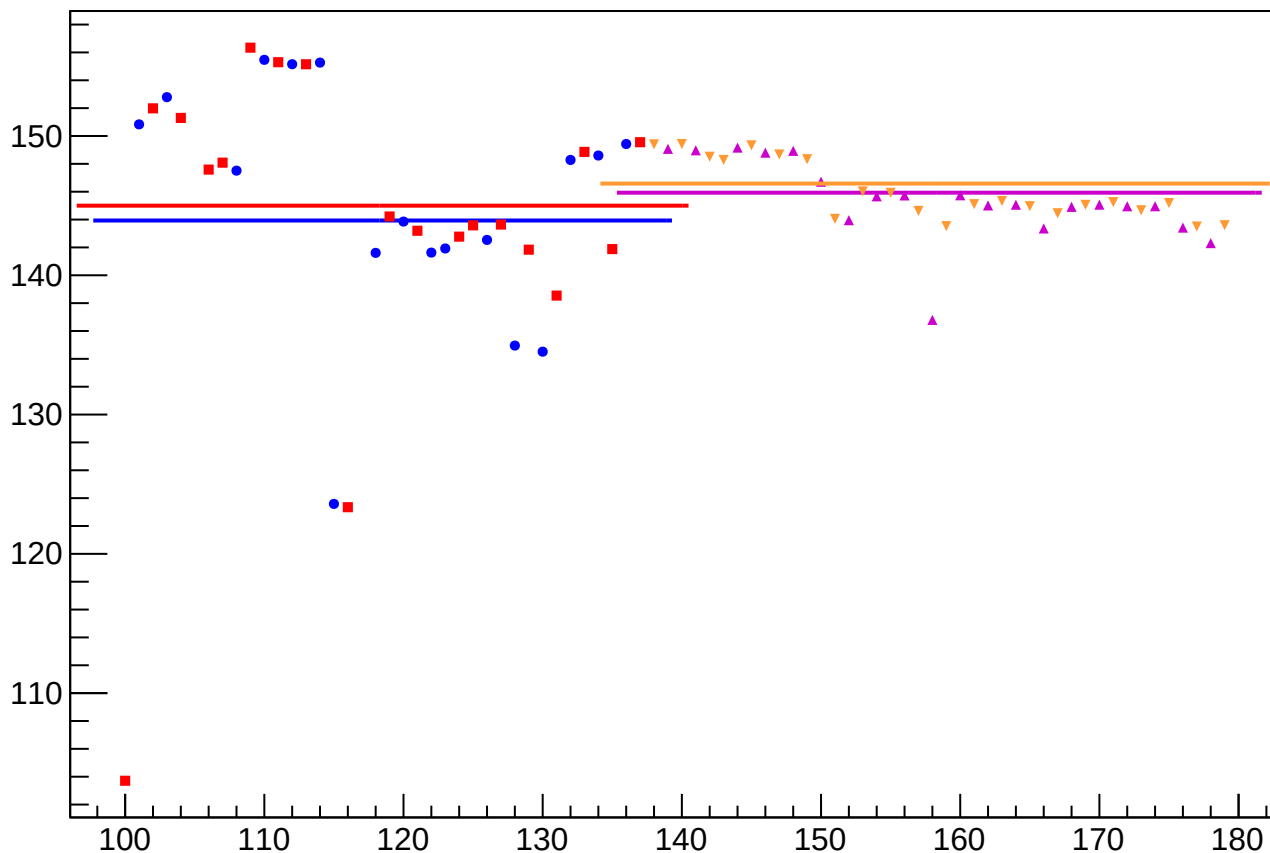
In: 0.394+/-0.000  $\chi^2/\text{NDF}$ :2950087.8/36

Out: 0.395+/-0.000  $\chi^2/\text{NDF}$ :3083451.9/40

All: 0.395+/-0.000  $\chi^2/\text{NDF}$ : 6033584.1/77



# yield\_bcm\_dg\_ds\_mean vs Slug, Sign Corrected



Right In: 143.932 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 3383012861.2/16

Left: 146.269 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 1087516286.3/41

Right: 144.474 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 7345100324.4/35

Left Out: 146.584 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 382944114.1/21

In: 145.128 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 4191193262.9/36

Right Out: 144.998 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 3932958476.0/18

Out: 145.964 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 4395935143.3/40

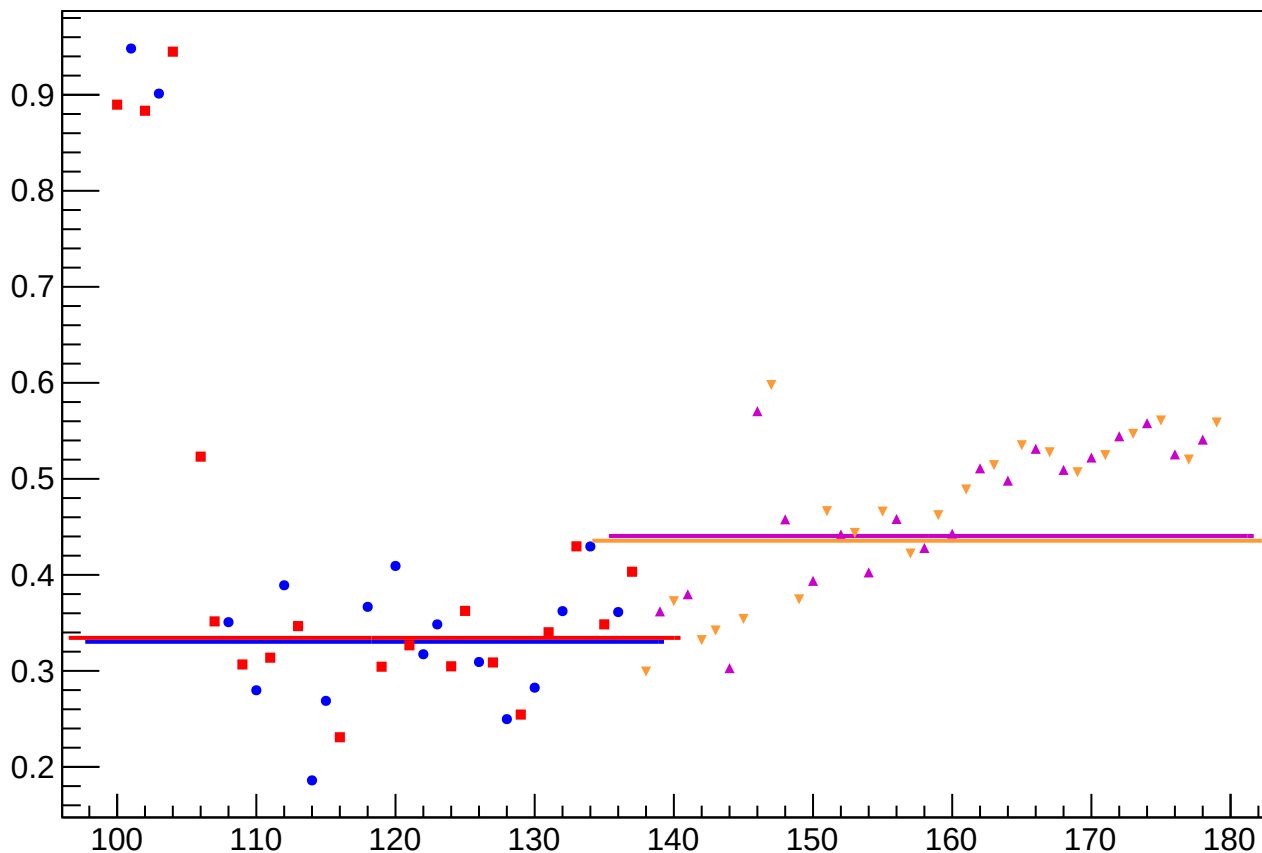
Left In: 145.929 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 687781923.2/19

All: 145.559 $\pm$ 0.000

$\chi^2/\text{NDF}$ : 8632463995.2

# yield\_bcm\_dg\_ds\_rms vs Slug, Sign Corrected



Right In: 0.330 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1283955.7/16

Left Out: 0.436 $\pm$ 0.000  $\chi^2/\text{NDF}$ :1224438.5/21

Right Out: 0.334 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1174012.0/18

Left In: 0.441 $\pm$ 0.000  $\chi^2/\text{NDF}$ :923516.5/19

Left: 0.438 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2149874.9/41

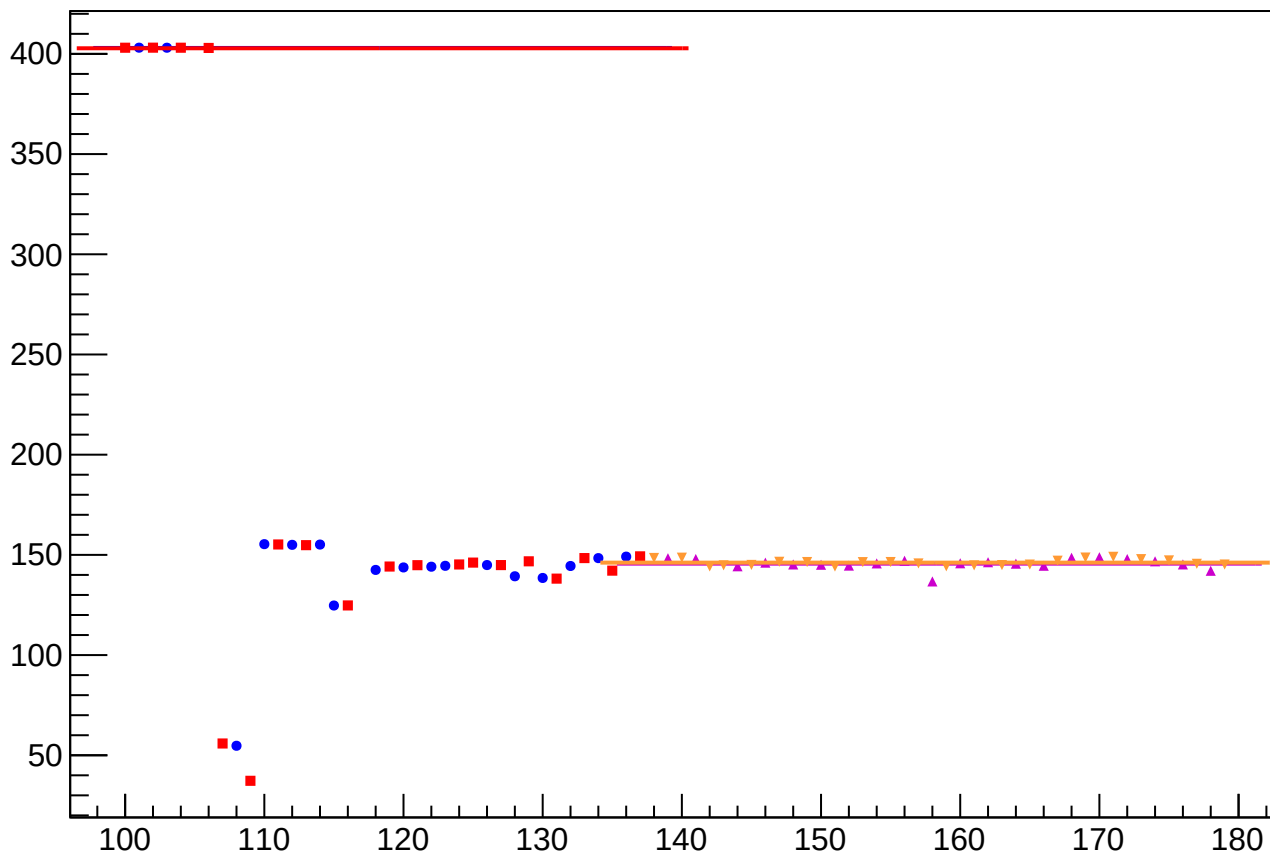
Right: 0.332 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2458819.5/35

In: 0.396 $\pm$ 0.000  $\chi^2/\text{NDF}$ :2941253.4/36

Out: 0.396 $\pm$ 0.000  $\chi^2/\text{NDF}$ :3049744.2/40

All: 0.396 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 5991006.6/77

# yield\_cav4bQ\_mean vs Slug, Sign Corrected



Right In: 402.958+/-0.000  $\chi^2/\text{NDF}$ : 1094364588383.4/16

Left Out: 146.134+/-0.000  $\chi^2/\text{NDF}$ : 77330225.9/21

Right Out: 402.799+/-0.000  $\chi^2/\text{NDF}$ : 3102036567767.5/18

Left In: 145.623+/-0.000  $\chi^2/\text{NDF}$ : 193226383.4/19

Left: 145.883+/-0.000  $\chi^2/\text{NDF}$ : 274737830.8/41

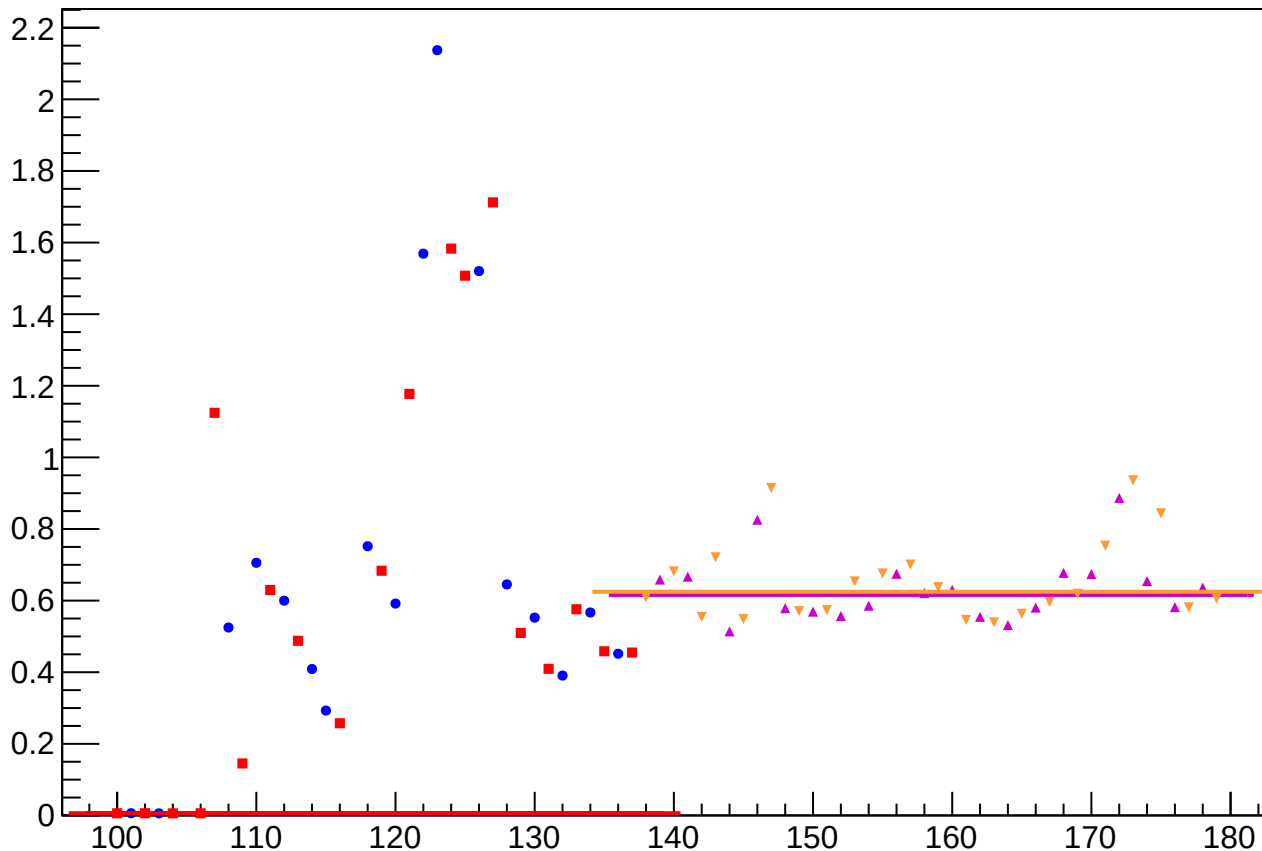
Right: 402.873+/-0.000  $\chi^2/\text{NDF}$ : 4196818264482.1/16

In: 402.698+/-0.000  $\chi^2/\text{NDF}$ : 3177482696734.1/30

Out: 402.561+/-0.000  $\chi^2/\text{NDF}$ : 5252651192415.4/41

All: 402.625+/-0.000  $\chi^2/\text{NDF}$ : 84304427001.1/100

# yield\_cav4bQ\_rms vs Slug, Sign Corrected



Right In: 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 9079322.7/16

Left Out: 0.625 $\pm$ 0.000  $\chi^2$ /NDF:559973.5/21

Right Out: 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 9193355.5/18

Left In: 0.616 $\pm$ 0.000  $\chi^2$ /NDF:356943.5/19

Left: 0.620 $\pm$ 0.000  $\chi^2$ /NDF: 919504.8/41

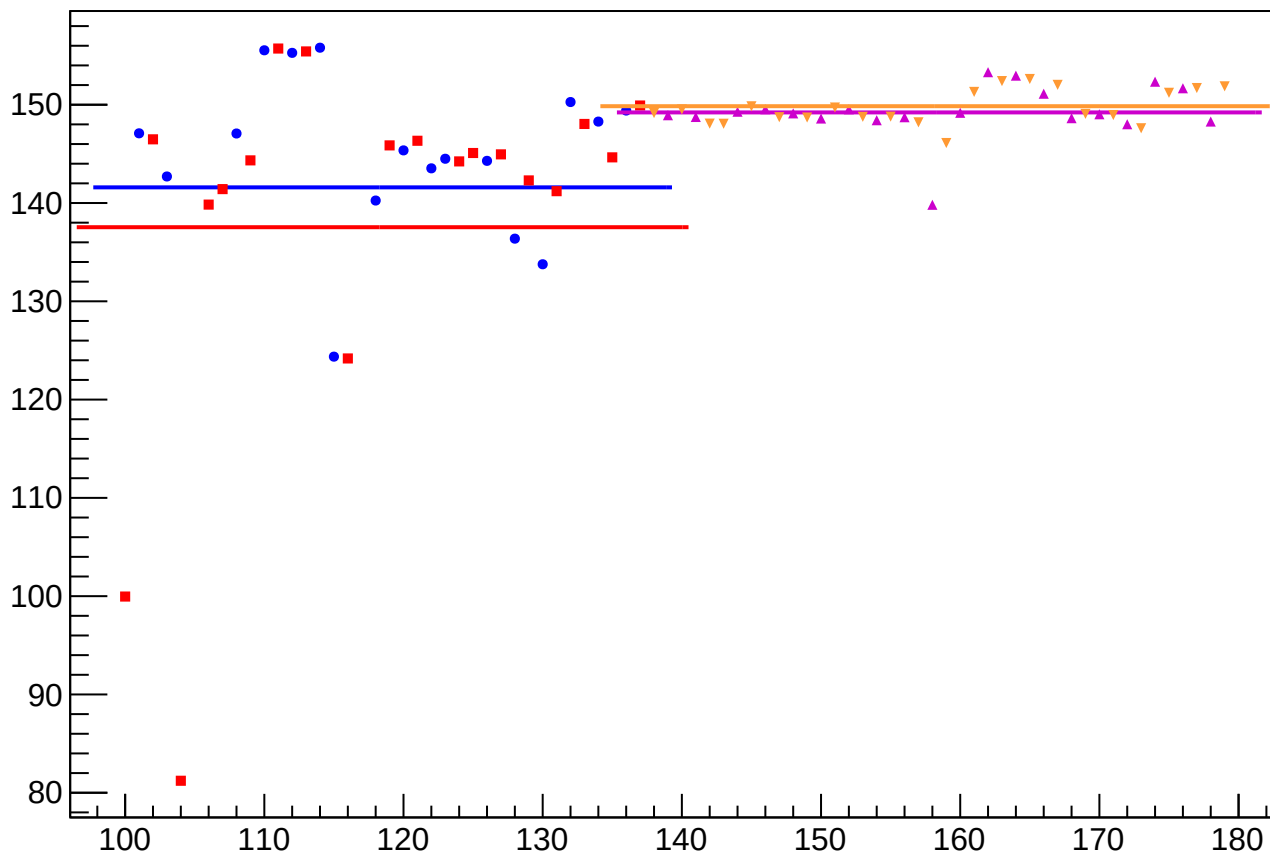
Right: 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 18272681.8/35

In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:32807431.2/36

Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:34730217.2/40

All: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 67537742.1/77

# yield\_cav4cQ\_mean vs Slug, Sign Corrected



Right In: 141.593 $\pm$ 0.000  $\chi^2$ /NDF: 980101868.2/16

Left Out: 149.850 $\pm$ 0.000  $\chi^2$ /NDF: 153256683.5/21

Right Out: 137.539 $\pm$ 0.000  $\chi^2$ /NDF: 1316096307.7/18

Left In: 149.218 $\pm$ 0.000  $\chi^2$ /NDF: 405800261.5/19

Left: 149.548 $\pm$ 0.000  $\chi^2$ /NDF: 568222507.7/41

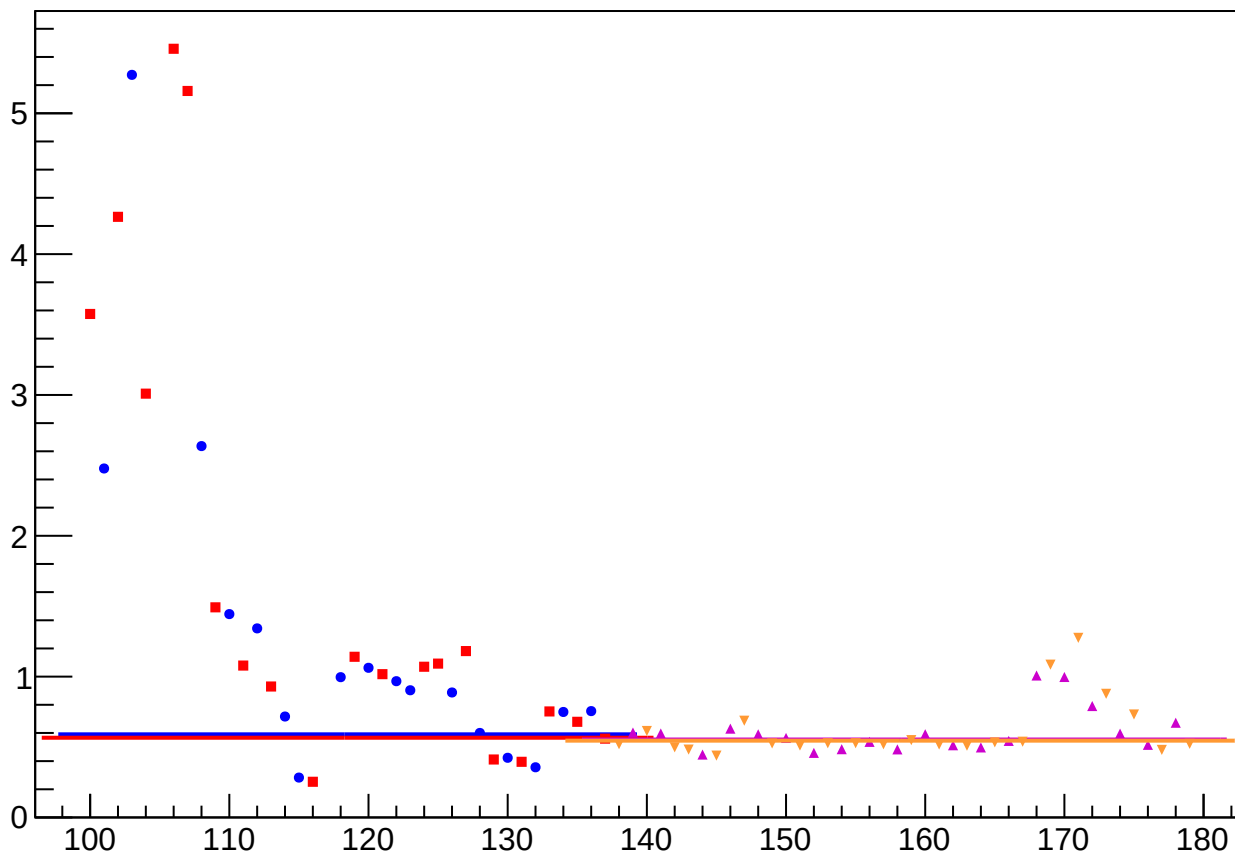
Right: 139.514 $\pm$ 0.000  $\chi^2$ /NDF: 2381261600.7/35

In: 147.792 $\pm$ 0.000  $\chi^2$ /NDF: 1862993619.3/36

Out: 147.620 $\pm$ 0.000  $\chi^2$ /NDF: 2787628303.5/40

All: 147.702 $\pm$ 0.000  $\chi^2$ /NDF: 4651451465.0

# yield\_cav4cQ\_rms vs Slug, Sign Corrected



Right In: 0.590 $\pm$ 0.000  $\chi^2$ /NDF: 3491995.1/16

Left Out: 0.545 $\pm$ 0.000  $\chi^2$ /NDF:1345486.6/21

Right Out: 0.566 $\pm$ 0.000  $\chi^2$ /NDF: 4683596.4/18

Left In: 0.553 $\pm$ 0.000  $\chi^2$ /NDF:1020867.0/19

Left: 0.549 $\pm$ 0.000  $\chi^2$ /NDF: 2369352.1/41

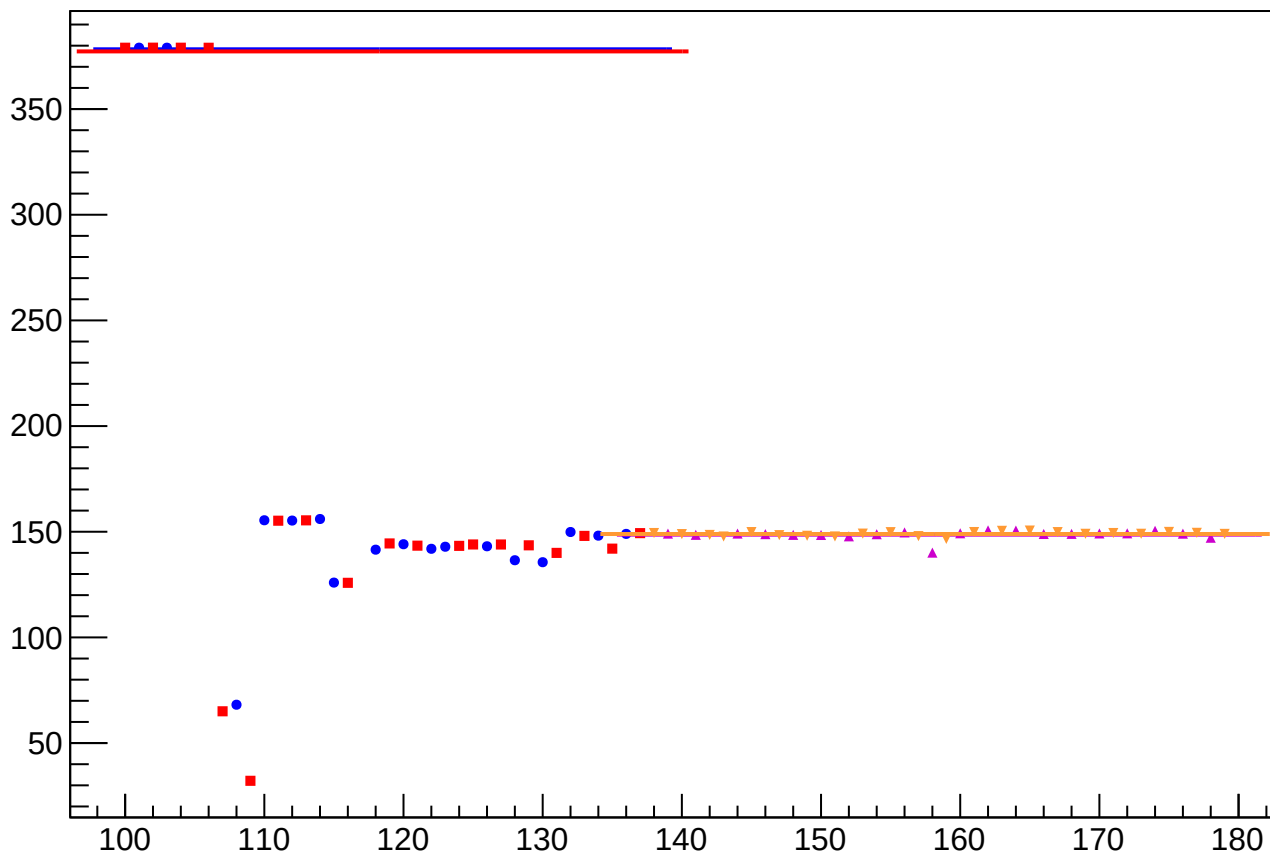
Right: 0.578 $\pm$ 0.000  $\chi^2$ /NDF: 8181648.0/35

In: 0.560 $\pm$ 0.000  $\chi^2$ /NDF:4535084.4/36

Out: 0.549 $\pm$ 0.000  $\chi^2$ /NDF:6036532.5/40

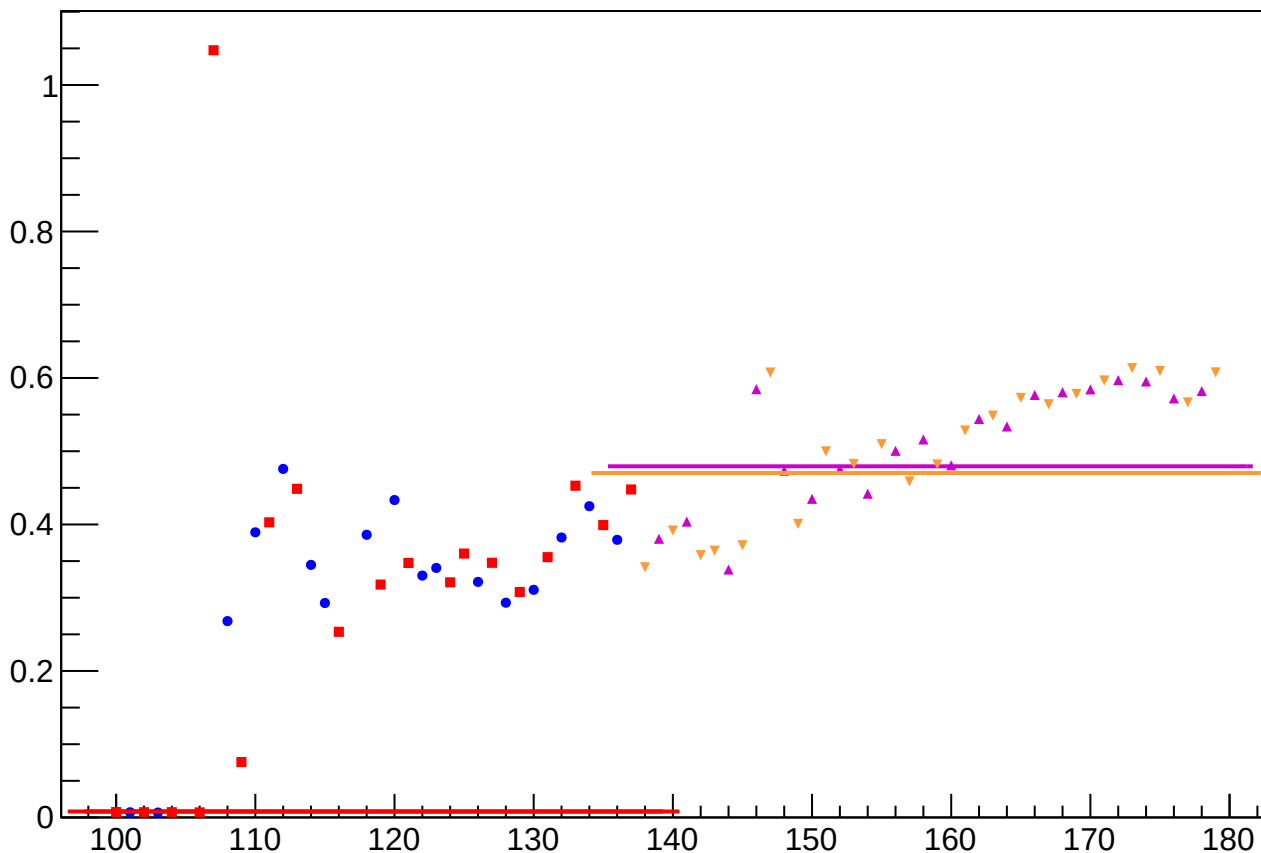
All: 0.554 $\pm$ 0.000  $\chi^2$ /NDF: 10578692.5/77

# yield\_cav4dQ\_mean vs Slug, Sign Corrected



Right In: 378.283 +/- 0.000  $\chi^2/NDF$ : 2508313421453.8/16  
 Left Out: 148.927 +/- 0.000  $\chi^2/NDF$ : 63777342.5/21  
 Right Out: 377.287 +/- 0.000  $\chi^2/NDF$ : 8286303106836.4/18  
 Left In: 148.622 +/- 0.000  $\chi^2/NDF$ : 248455542.5/19  
 Left: 148.782 +/- 0.000  $\chi^2/NDF$ : 315352419.8/41  
 Right: 377.752 +/- 0.000  $\chi^2/NDF$ : 10801647529340.  
 In: 377.185 +/- 0.000  $\chi^2/NDF$ : 5867040967837.8/30  
 Out: 376.235 +/- 0.000  $\chi^2/NDF$ : 11934994339512.2  
 All: 376.679 +/- 0.000  $\chi^2/NDF$ : 178084639229

# yield\_cav4dQ\_rms vs Slug, Sign Corrected



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 9806719.4/16

Left Out: 0.470+/-0.000  $\chi^2/\text{NDF}$ :1240743.7/21

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 9522827.2/18

Left In: 0.479+/-0.000  $\chi^2/\text{NDF}$ :900048.4/19

Left: 0.475+/-0.000  $\chi^2/\text{NDF}$ : 2146399.7/41

Right: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 19329555.6/35

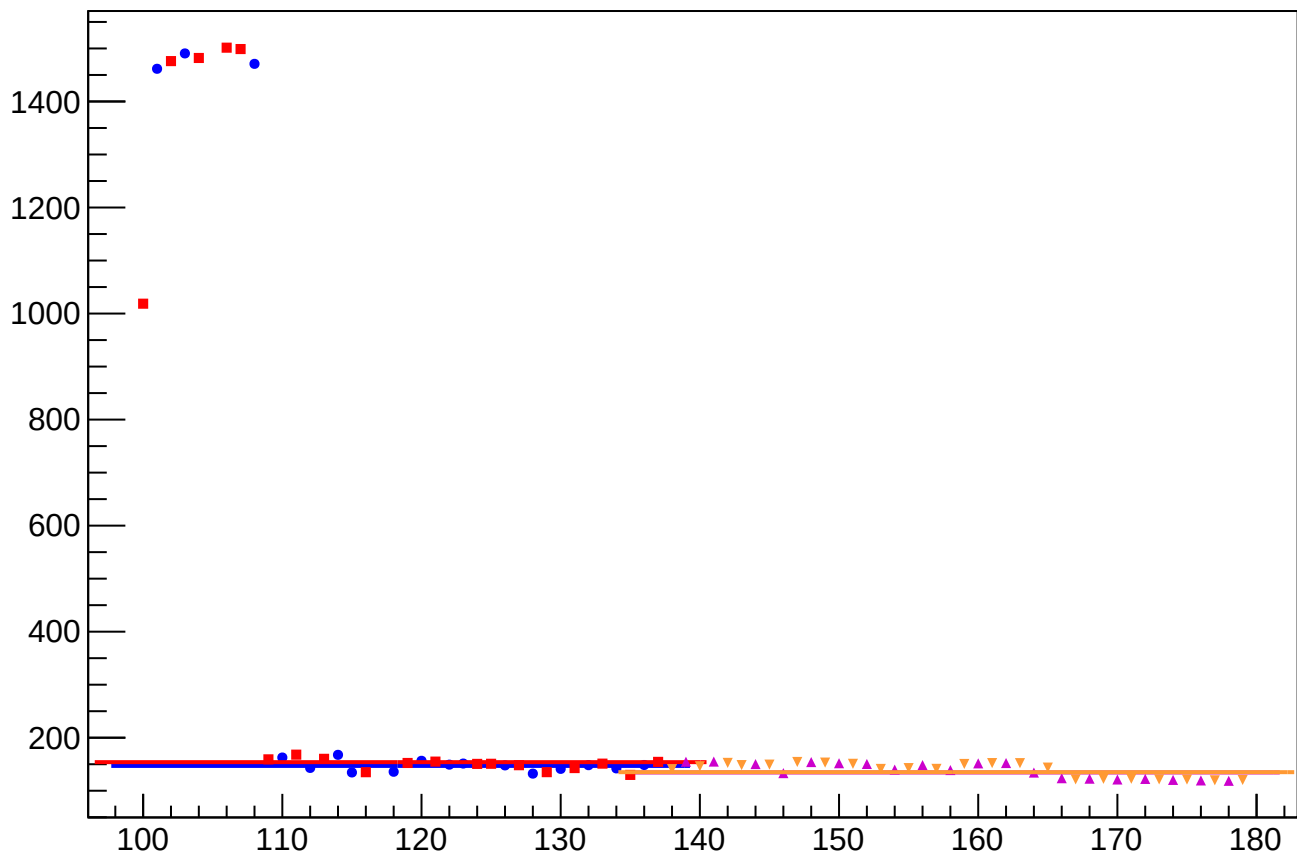
In: 0.010+/-0.000  $\chi^2/\text{NDF}$ :38991675.6/36

Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ :40644867.3/40

All: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 79636682.5/77



# yield\_bcm0l02\_mean vs Slug, Sign Corrected



Right In: 146.819 $\pm$ 0.000  $\chi^2$ /NDF: 24360774977.7/16

Left Out: 135.005 $\pm$ 0.000  $\chi^2$ /NDF: 4017528005.9/21

Right Out: 153.901 $\pm$ 0.000  $\chi^2$ /NDF: 33737565970.8/18

Left In: 134.474 $\pm$ 0.000  $\chi^2$ /NDF: 3983601532.6/19

Left: 134.750 $\pm$ 0.000  $\chi^2$ /NDF: 8004102528.6/41

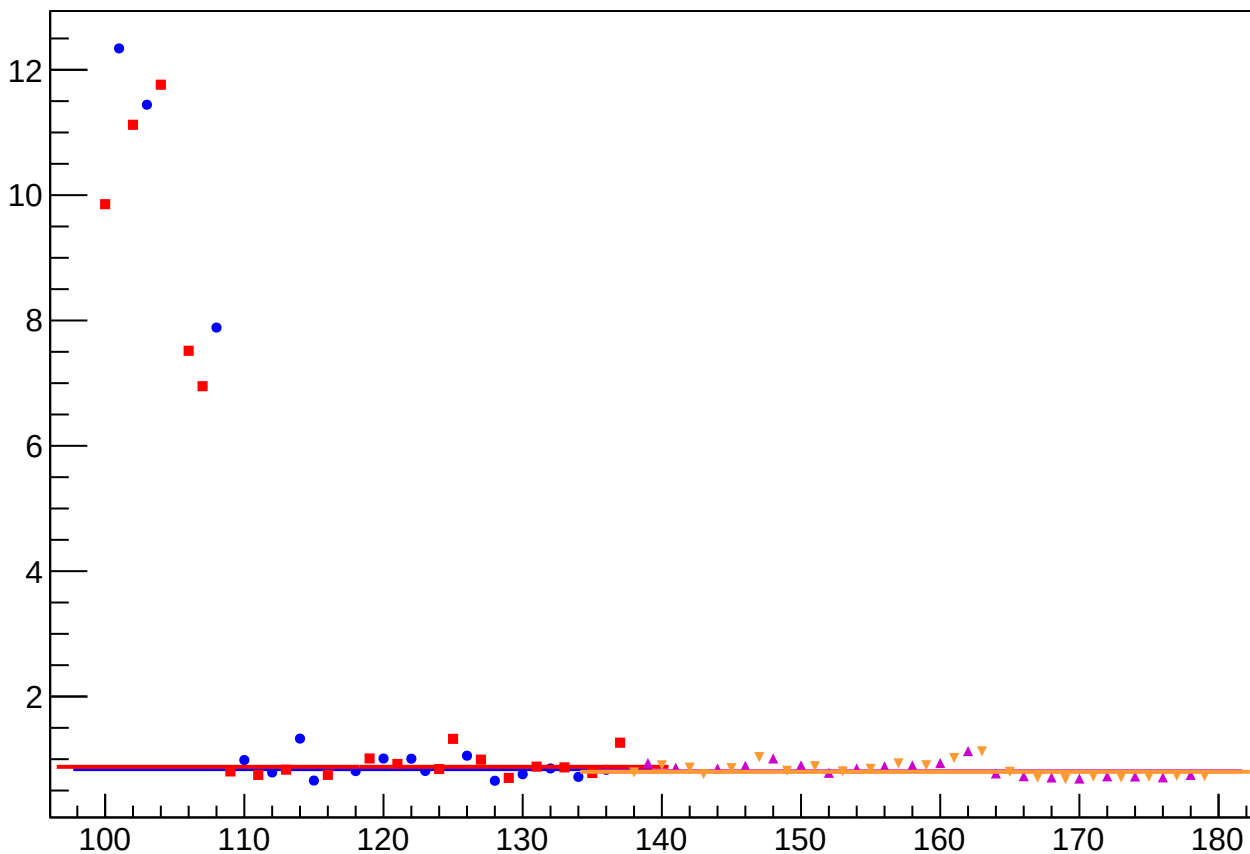
Right: 150.348 $\pm$ 0.000  $\chi^2$ /NDF: 58231390734.2/35

In: 137.043 $\pm$ 0.000  $\chi^2$ /NDF: 28986910215.5/36

Out: 138.684 $\pm$ 0.000  $\chi^2$ /NDF: 39275548535.2/40

All: 137.888 $\pm$ 0.000  $\chi^2$ /NDF: 68297939755.0/100

# yield\_bcm0l02\_rms vs Slug, Sign Corrected



Right In: 0.841 $\pm$ 0.000  $\chi^2$ /NDF: 2662395.1/16

Left Out: 0.799 $\pm$ 0.000  $\chi^2$ /NDF:492132.2/21

Right Out: 0.878 $\pm$ 0.000  $\chi^2$ /NDF: 2814626.6/18

Left In: 0.807 $\pm$ 0.000  $\chi^2$ /NDF:442985.0/19

Left: 0.803 $\pm$ 0.000  $\chi^2$ /NDF: 936386.6/41

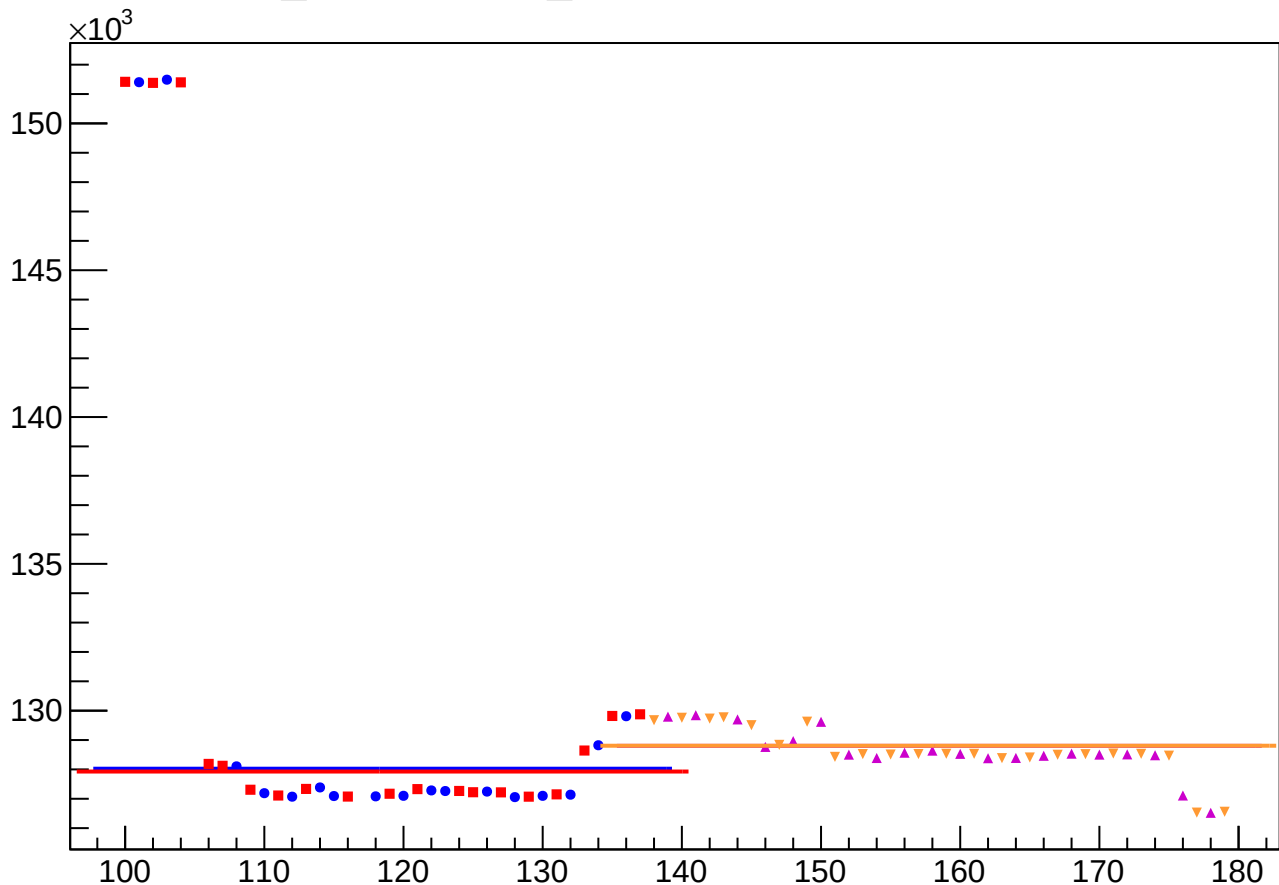
Right: 0.860 $\pm$ 0.000  $\chi^2$ /NDF: 5484331.4/35

In: 0.814 $\pm$ 0.000  $\chi^2$ /NDF:3115367.1/36

Out: 0.814 $\pm$ 0.000  $\chi^2$ /NDF:3360318.7/40

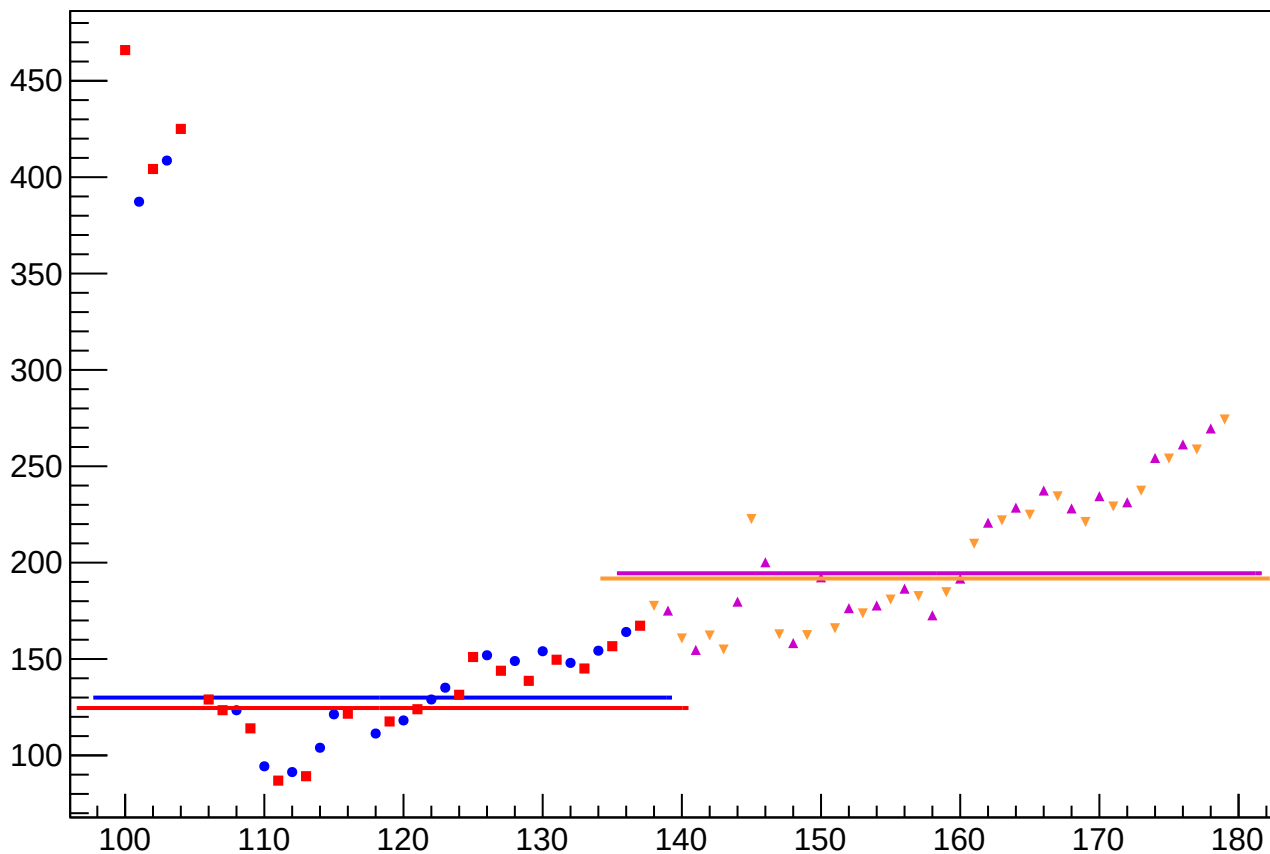
All: 0.814 $\pm$ 0.000  $\chi^2$ /NDF: 6475692.6/77

yield\_bpm2i01WS\_mean vs Slug, Sign Corrected



Right In: 128023.527 $\pm$ 0.055  $\chi^2$ /NDF: 4316540586.9/16  
 Left Out: 128806.299 $\pm$ 0.048  $\chi^2$ /NDF: 248400922.2/21  
 Right Out: 127927.471 $\pm$ 0.050  $\chi^2$ /NDF: 3767047216.9/18  
 Left In: 128800.805 $\pm$ 0.050  $\chi^2$ /NDF: 206354156.5/19  
 Left: 128803.678 $\pm$ 0.035  $\chi^2$ /NDF: 454761347.6/41  
 Right: 127971.691 $\pm$ 0.037  $\chi^2$ /NDF: 8085261759.1/41  
 In: 128444.438 $\pm$ 0.037  $\chi^2$ /NDF: 4632887008.1/30  
 Out: 128388.759 $\pm$ 0.035  $\chi^2$ /NDF: 4175212112.8/41  
 All: 128414.885 $\pm$ 0.025  $\chi^2$ /NDF: 880930573.0/100

# yield\_bpm2i01WS\_rms vs Slug, Sign Corrected



Right In: 129.980 $\pm$ 0.039  $\chi^2$ /NDF: 1485519.5/16

Left Out: 191.767 $\pm$ 0.034  $\chi^2$ /NDF: 953892.6/21

Right Out: 124.566 $\pm$ 0.036  $\chi^2$ /NDF: 1531273.9/18

Left In: 194.485 $\pm$ 0.035  $\chi^2$ /NDF: 794099.5/19

Left: 193.063 $\pm$ 0.025  $\chi^2$ /NDF: 1751061.8/41

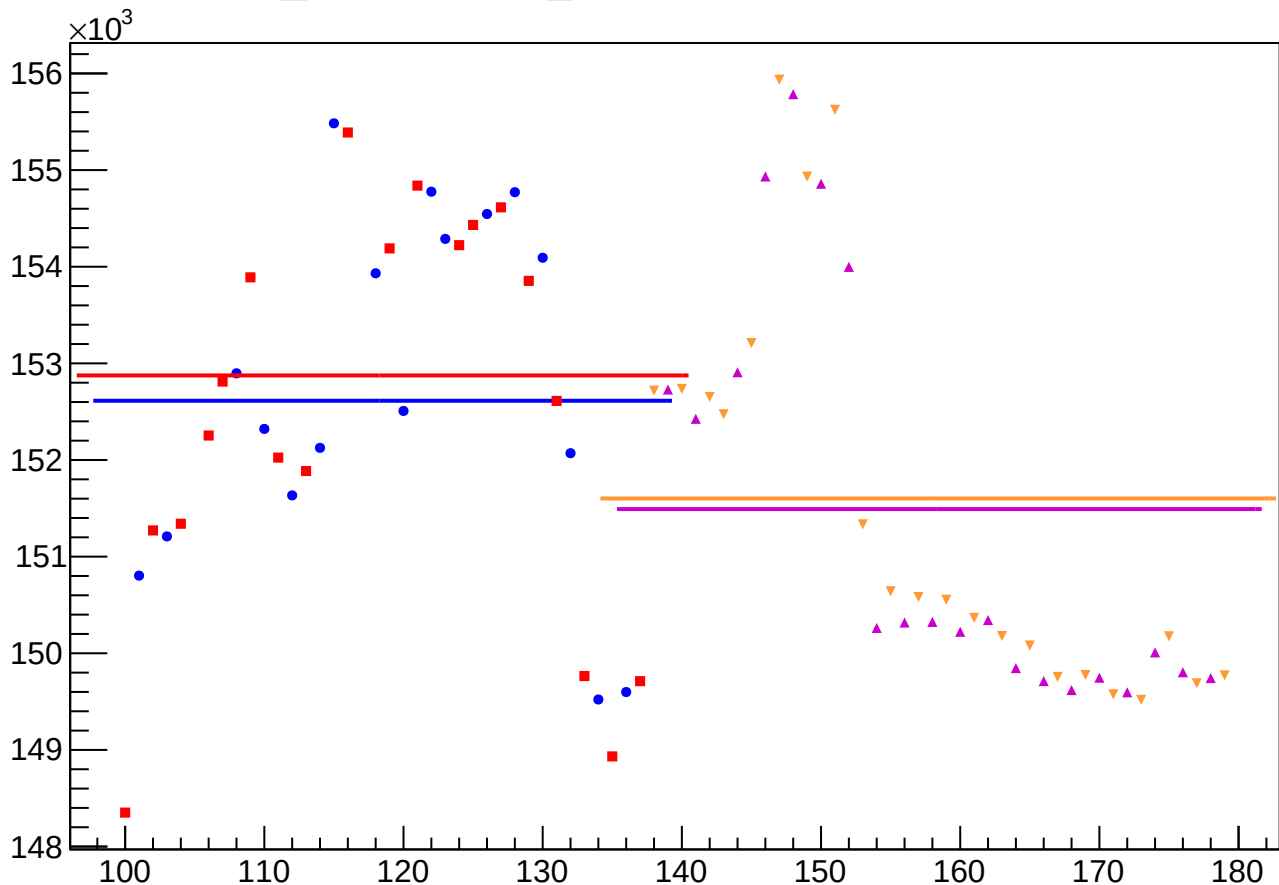
Right: 127.058 $\pm$ 0.026  $\chi^2$ /NDF: 3027426.7/35

In: 164.911 $\pm$ 0.026  $\chi^2$ /NDF: 3794688.9/36

Out: 159.839 $\pm$ 0.025  $\chi^2$ /NDF: 4353457.6/40

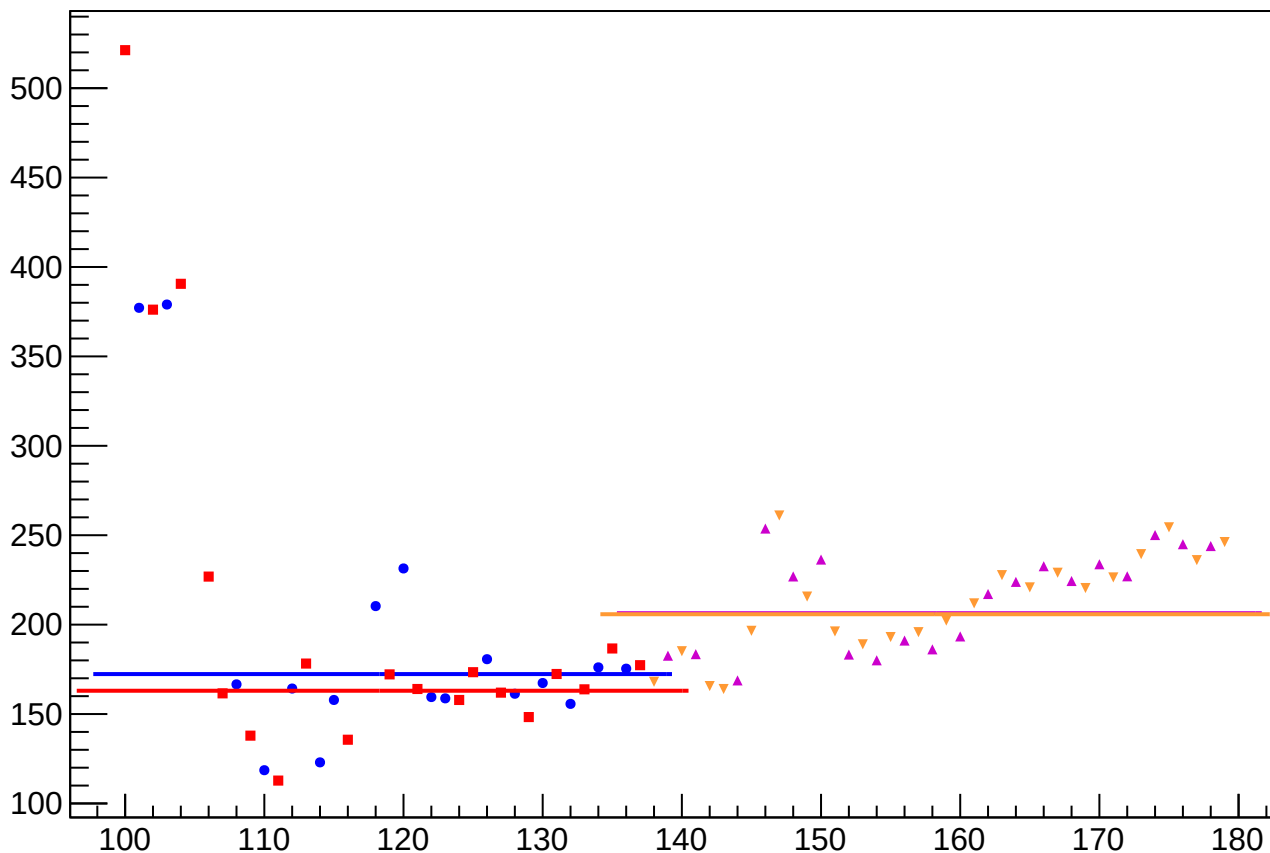
All: 162.219 $\pm$ 0.018  $\chi^2$ /NDF: 8168168.4/77

# yield\_bpm0i07WS\_mean vs Slug, Sign Corrected



|                                   |                                |                               |                                |
|-----------------------------------|--------------------------------|-------------------------------|--------------------------------|
| Right In: 152613.122 $\pm$ 0.072  | $\chi^2$ /NDF: 623356098.4/16  | Left: 151549.176 $\pm$ 0.037  | $\chi^2$ /NDF: 2714235516.8/4  |
| Left Out: 151602.120 $\pm$ 0.051  | $\chi^2$ /NDF: 1375465003.2/21 | Right: 152755.689 $\pm$ 0.049 | $\chi^2$ /NDF: 1346872378.3/4  |
| Right Out: 152875.313 $\pm$ 0.066 | $\chi^2$ /NDF: 716358700.9/18  | In: 151885.329 $\pm$ 0.043    | $\chi^2$ /NDF: 2116111613.3/30 |
| Left In: 151492.270 $\pm$ 0.053   | $\chi^2$ /NDF: 1336554167.2/19 | Out: 152078.994 $\pm$ 0.041   | $\chi^2$ /NDF: 2323195433.0/4  |
|                                   |                                | All: 151987.462 $\pm$ 0.029   | $\chi^2$ /NDF: 445010742.0/10  |

# yield\_bpm0i07WS\_rms vs Slug, Sign Corrected



Right In: 172.351+/-0.051  $\chi^2/\text{NDF}$ : 921911.1/16

Left Out: 205.816+/-0.036  $\chi^2/\text{NDF}$ : 542143.8/21

Right Out: 163.029+/-0.047  $\chi^2/\text{NDF}$ : 1032736.0/18

Left In: 206.402+/-0.038  $\chi^2/\text{NDF}$ : 517334.7/19

Left: 206.098+/-0.026  $\chi^2/\text{NDF}$ : 1059604.7/41

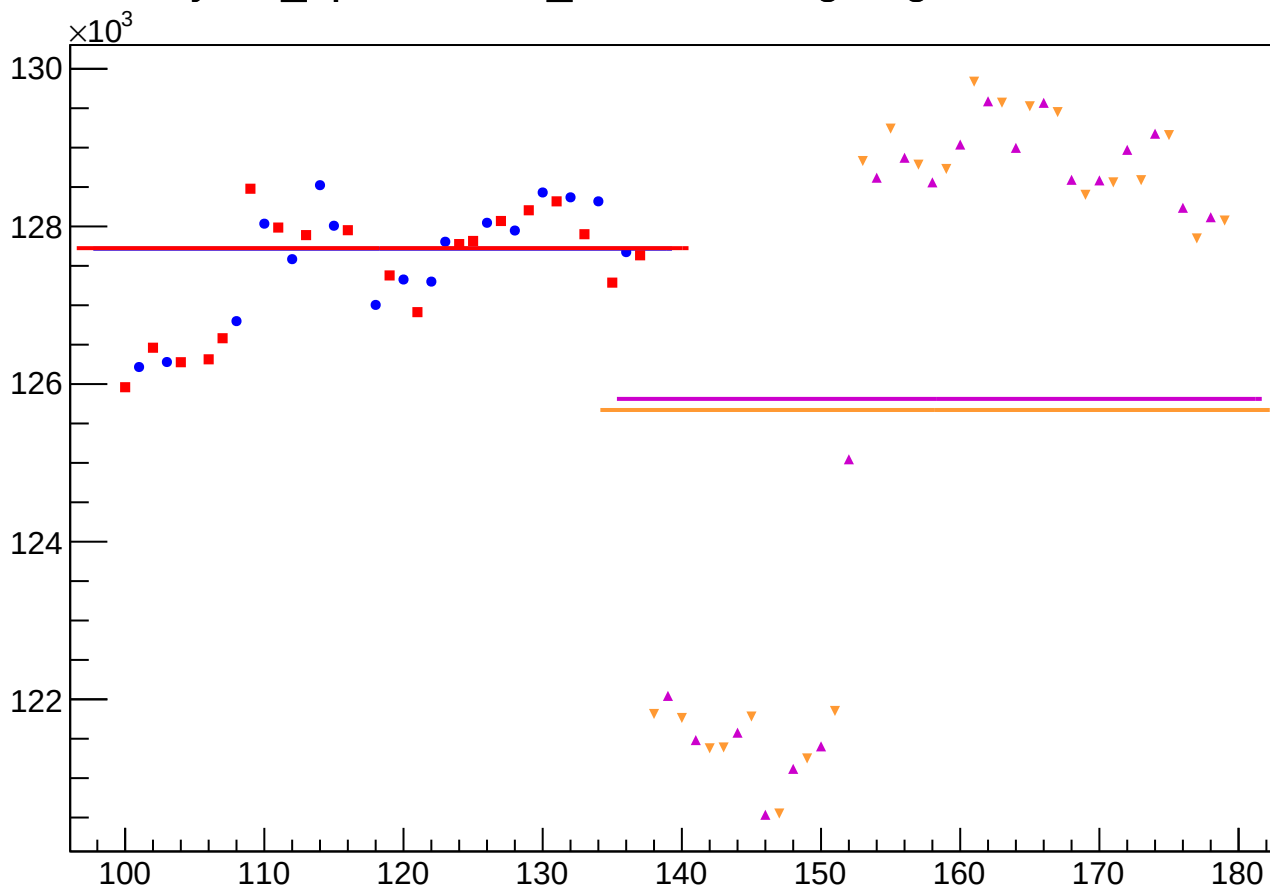
Right: 167.282+/-0.035  $\chi^2/\text{NDF}$ : 1972741.3/35

In: 194.461+/-0.030  $\chi^2/\text{NDF}$ : 1727564.8/36

Out: 189.790+/-0.029  $\chi^2/\text{NDF}$ : 2097465.6/40

All: 191.998+/-0.021  $\chi^2/\text{NDF}$ : 3837595.6/77

# yield\_bpm0l01WS\_mean vs Slug, Sign Corrected



Right In: 127717.888 $\pm$ 0.058

$\chi^2$ /NDF: 95177660.2/16

Left Out: 125671.249 $\pm$ 0.046

$\chi^2$ /NDF: 6470862864.4/21

Right Out: 127724.519 $\pm$ 0.055

$\chi^2$ /NDF: 112550604.4/18

Left In: 125811.899 $\pm$ 0.046

$\chi^2$ /NDF: 5705849777.7/19

Left: 125740.624 $\pm$ 0.033

$\chi^2$ /NDF: 12181392435.9

Right: 127721.424 $\pm$ 0.040

$\chi^2$ /NDF: 207735167.4/3

In: 126548.988 $\pm$ 0.036

$\chi^2$ /NDF: 6456856734.5/30

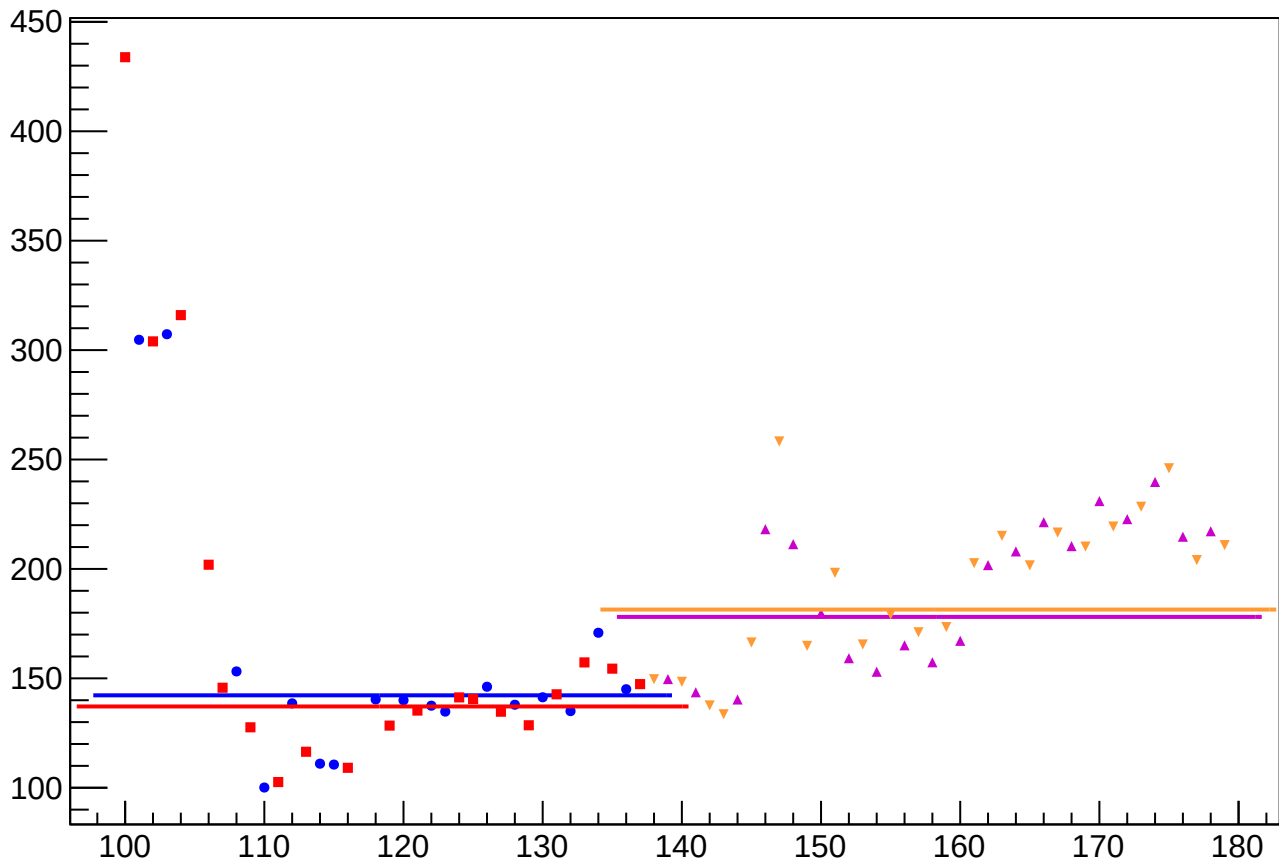
Out: 126517.714 $\pm$ 0.035

$\chi^2$ /NDF: 7416981369.1/4

All: 126532.808 $\pm$ 0.025

$\chi^2$ /NDF: 138742232

# yield\_bpm0l01WS\_rms vs Slug, Sign Corrected



Right In: 142.240 $\pm$ 0.041  $\chi^2$ /NDF: 836415.1/16

Left Out: 181.440 $\pm$ 0.032  $\chi^2$ /NDF: 996247.8/21

Right Out: 137.151 $\pm$ 0.039  $\chi^2$ /NDF: 957730.8/18

Left In: 178.074 $\pm$ 0.033  $\chi^2$ /NDF: 935525.7/19

Left: 179.779 $\pm$ 0.023  $\chi^2$ /NDF: 1937135.0/41

Right: 139.526 $\pm$ 0.028  $\chi^2$ /NDF: 1802277.5/35

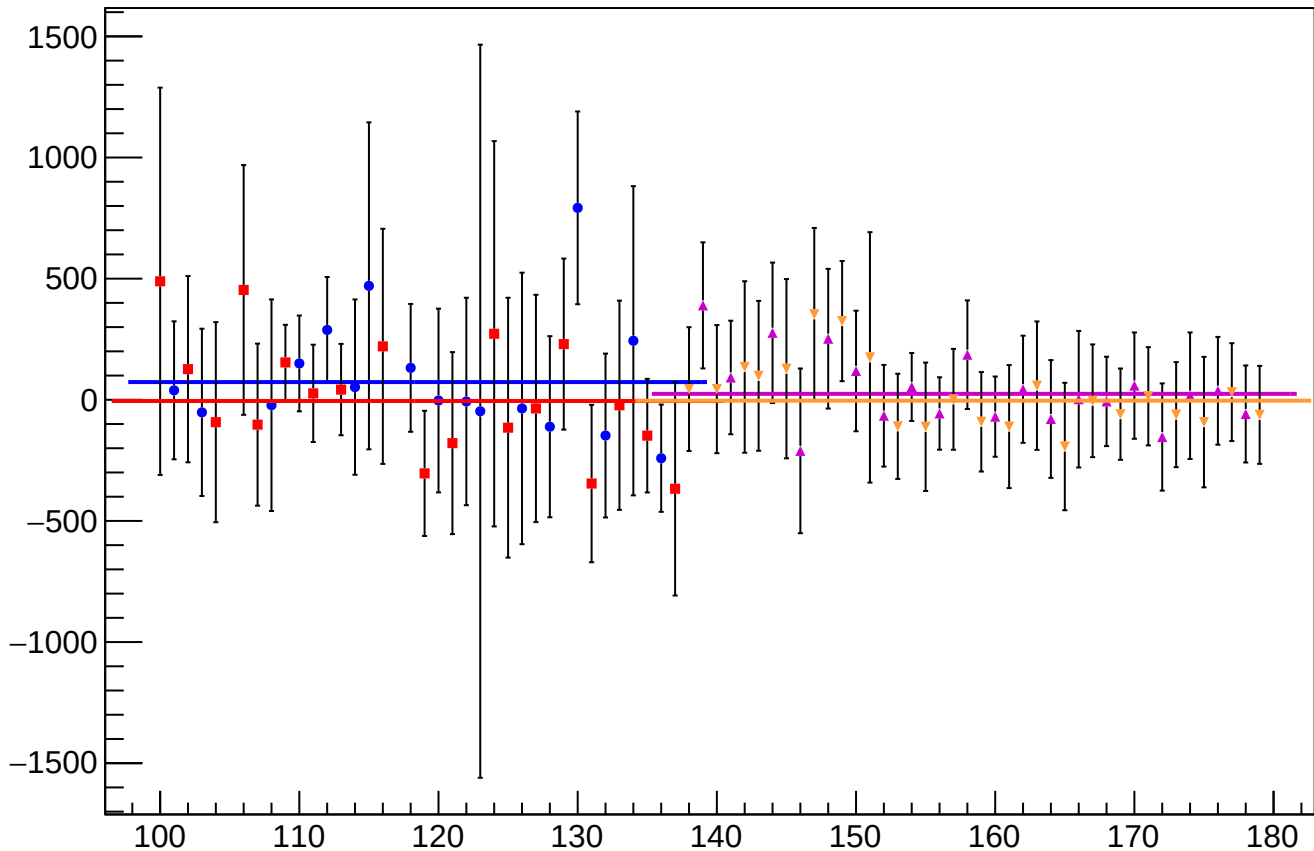
In: 164.216 $\pm$ 0.026  $\chi^2$ /NDF: 2235553.7/36

Out: 163.182 $\pm$ 0.025  $\chi^2$ /NDF: 2729626.6/40

All: 163.681 $\pm$ 0.018  $\chi^2$ /NDF: 4966022.7/77



# asym\_bcm\_an\_ds\_mean vs Slug, Sign Corrected



Right In: 73.109+/-79.604  $\chi^2/\text{NDF}$ : 7.9/16

Left Out: -3.631+/-52.366  $\chi^2/\text{NDF}$ : 5.1/21

Right Out: -5.021+/-70.098  $\chi^2/\text{NDF}$ : 7.1/18

Left In: 24.488+/-47.850  $\chi^2/\text{NDF}$ : 6.5/19

Left: 11.693+/-35.324  $\chi^2/\text{NDF}$ : 11.7/41

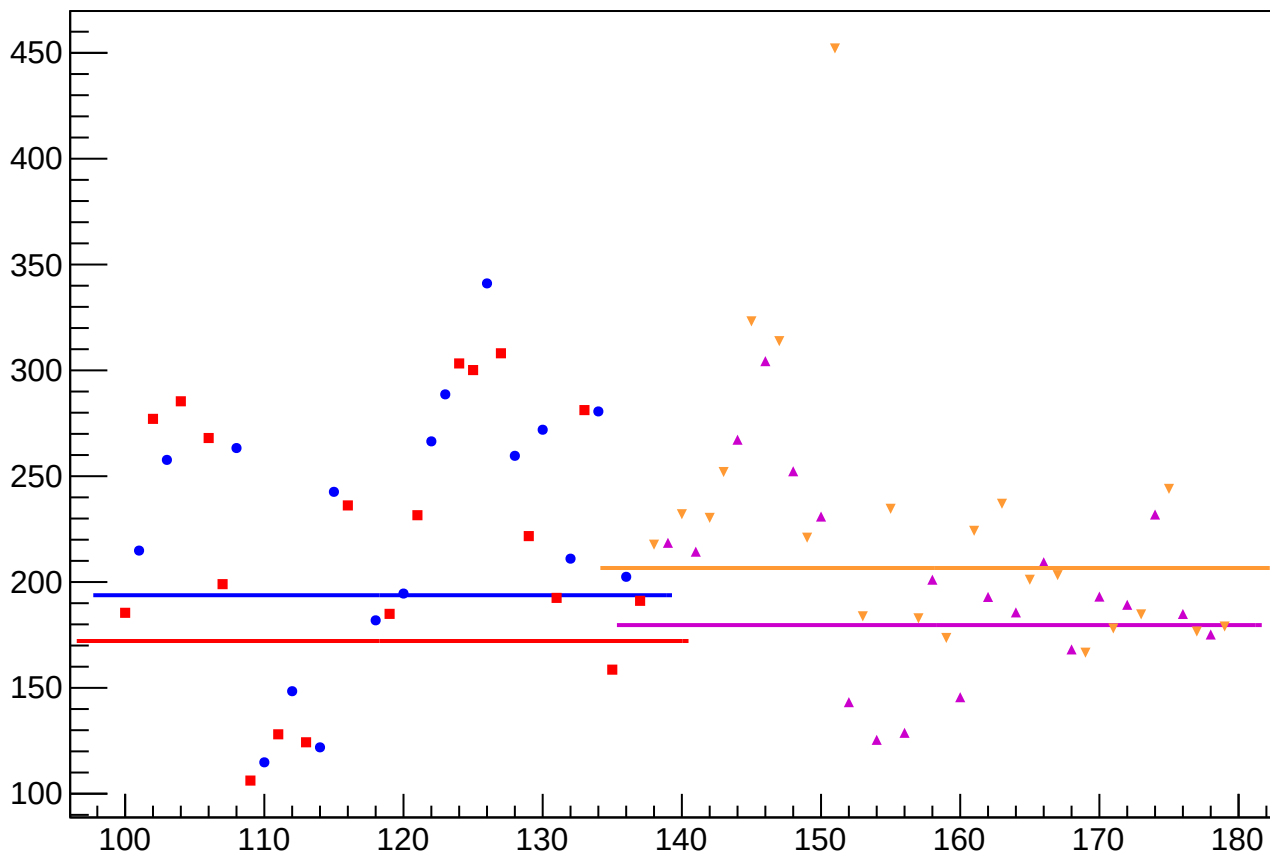
Right: 29.103+/-52.608  $\chi^2/\text{NDF}$ : 15.5/35

In: 37.393+/-41.011  $\chi^2/\text{NDF}$ : 14.6/36

Out: -4.129+/-41.952  $\chi^2/\text{NDF}$ : 12.1/40

All: 17.103+/-29.326  $\chi^2/\text{NDF}$ : 27.3/77

# asym\_bcm\_an\_ds\_rms vs Slug, Sign Corrected



Right In:  $193.773 \pm 0.056$   $\chi^2/\text{NDF}: 1017081.7/16$

Left Out:  $206.635 \pm 0.037$   $\chi^2/\text{NDF}: 1340913.0/21$

Right Out:  $172.142 \pm 0.050$   $\chi^2/\text{NDF}: 1580035.1/18$

Left In:  $179.665 \pm 0.034$   $\chi^2/\text{NDF}: 1577638.4/19$

Left:  $191.937 \pm 0.025$   $\chi^2/\text{NDF}: 3207669.5/41$

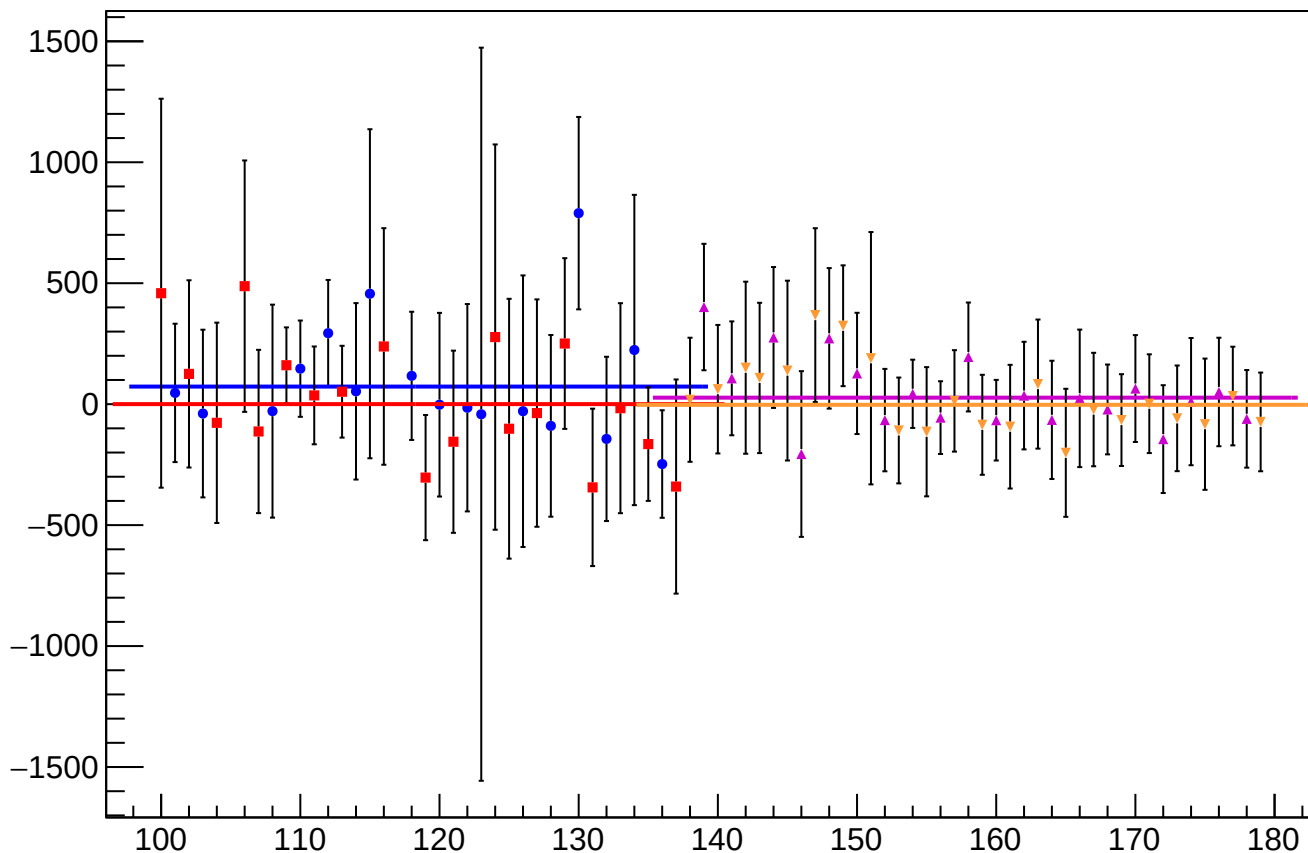
Right:  $181.589 \pm 0.037$   $\chi^2/\text{NDF}: 2680292.0/35$

In:  $183.409 \pm 0.029$   $\chi^2/\text{NDF}: 2640865.0/36$

Out:  $194.280 \pm 0.030$   $\chi^2/\text{NDF}: 3231754.5/40$

All:  $188.721 \pm 0.021$   $\chi^2/\text{NDF}: 5941291.9/77$

# asym\_bcm\_an\_ds3\_mean vs Slug, Sign Corrected



Right In: 72.675+/-79.992  $\chi^2/\text{NDF}$ : 7.8/16

Left Out: -2.671+/-52.732  $\chi^2/\text{NDF}$ : 5.2/21

Right Out: 0.181+/-70.467  $\chi^2/\text{NDF}$ : 7.3/18

Left In: 26.873+/-48.161  $\chi^2/\text{NDF}$ : 6.6/19

Left: 13.437+/-35.561  $\chi^2/\text{NDF}$ : 12.0/41

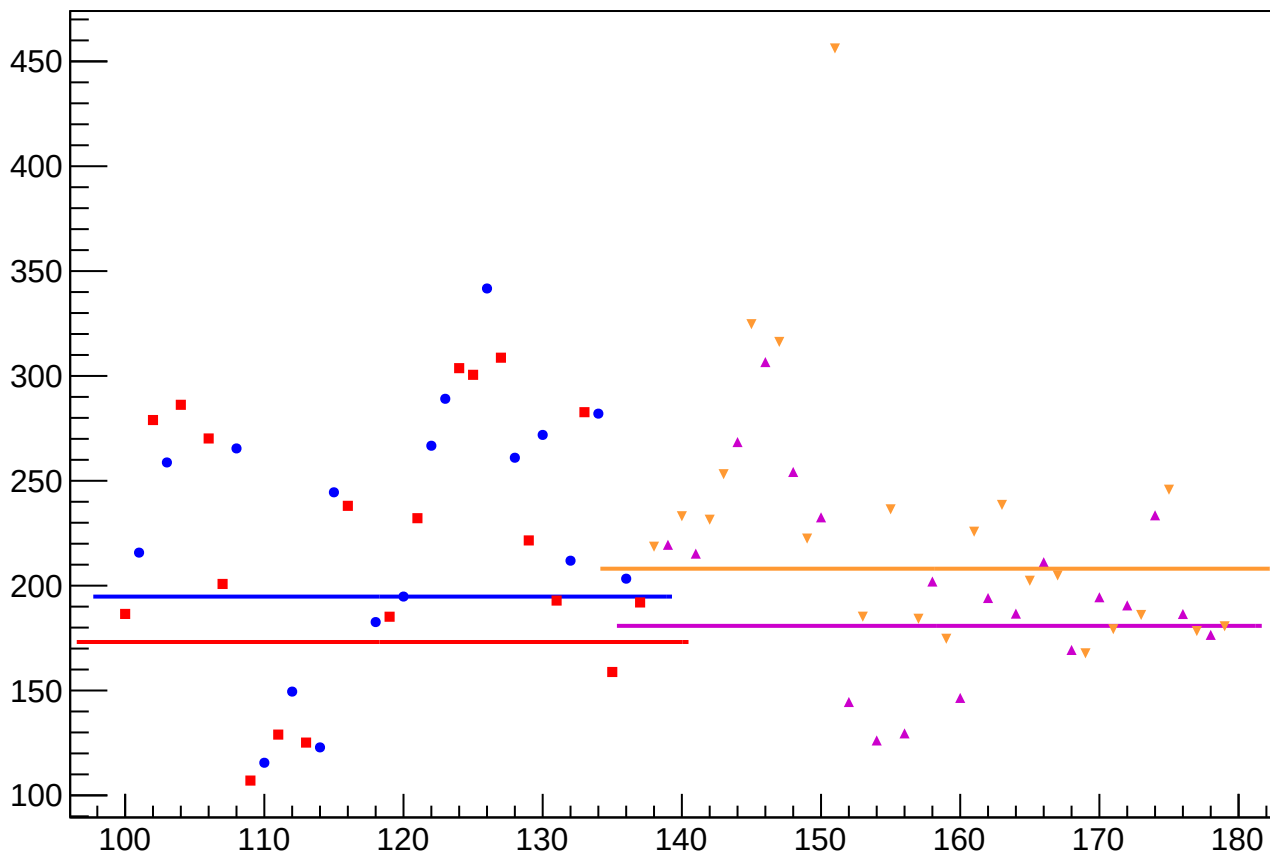
Right: 31.857+/-52.876  $\chi^2/\text{NDF}$ : 15.5/35

In: 39.058+/-41.260  $\chi^2/\text{NDF}$ : 14.6/36

Out: -1.647+/-42.219  $\chi^2/\text{NDF}$ : 12.5/40

All: 19.174+/-29.508  $\chi^2/\text{NDF}$ : 27.6/77

# asym\_bcm\_an\_ds3\_rms vs Slug, Sign Corrected



Right In:  $194.782 \pm 0.057$   $\chi^2/\text{NDF}$ : 1008292.8/16

Left Out:  $208.087 \pm 0.037$   $\chi^2/\text{NDF}$ : 1336587.7/21

Right Out:  $173.131 \pm 0.050$   $\chi^2/\text{NDF}$ : 1567556.0/18

Left In:  $180.827 \pm 0.034$   $\chi^2/\text{NDF}$ : 1576984.9/19

Left:  $193.225 \pm 0.025$   $\chi^2/\text{NDF}$ : 3204972.8/41

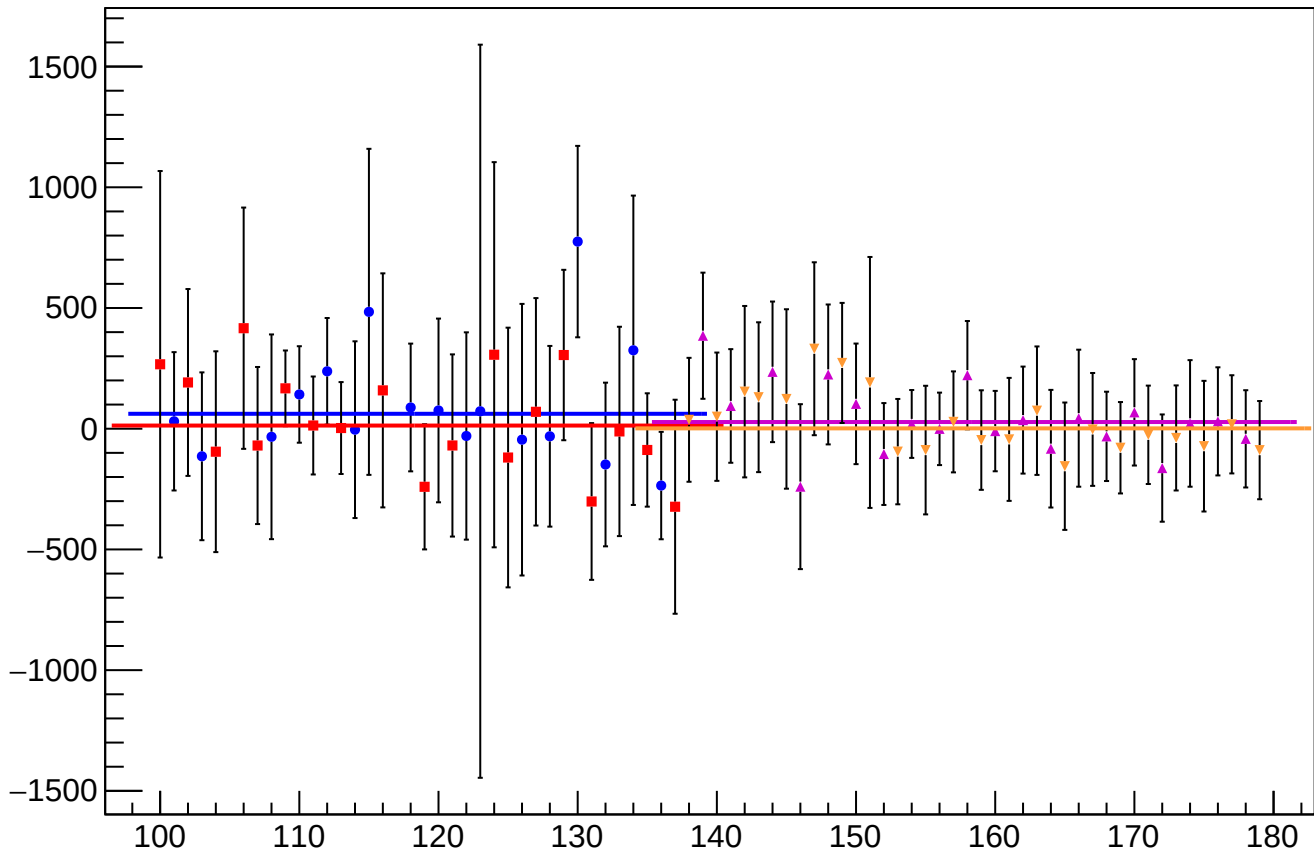
Right:  $182.592 \pm 0.037$   $\chi^2/\text{NDF}$ : 2658346.9/35

In:  $184.540 \pm 0.029$   $\chi^2/\text{NDF}$ : 2629952.1/36

Out:  $195.539 \pm 0.030$   $\chi^2/\text{NDF}$ : 3219626.8/40

All:  $189.913 \pm 0.021$   $\chi^2/\text{NDF}$ : 5919008.0/77

# asym\_bcm\_an\_us\_mean vs Slug, Sign Corrected



Right In: 61.814 $\pm$ 79.986  $\chi^2$ /NDF: 7.3/16

Left Out: 1.405 $\pm$ 52.604  $\chi^2$ /NDF: 4.0/21

Right Out: 13.101 $\pm$ 70.391  $\chi^2$ /NDF: 5.8/18

Left In: 27.704 $\pm$ 48.040  $\chi^2$ /NDF: 6.1/19

Left: 15.745 $\pm$ 35.473  $\chi^2$ /NDF: 10.2/41

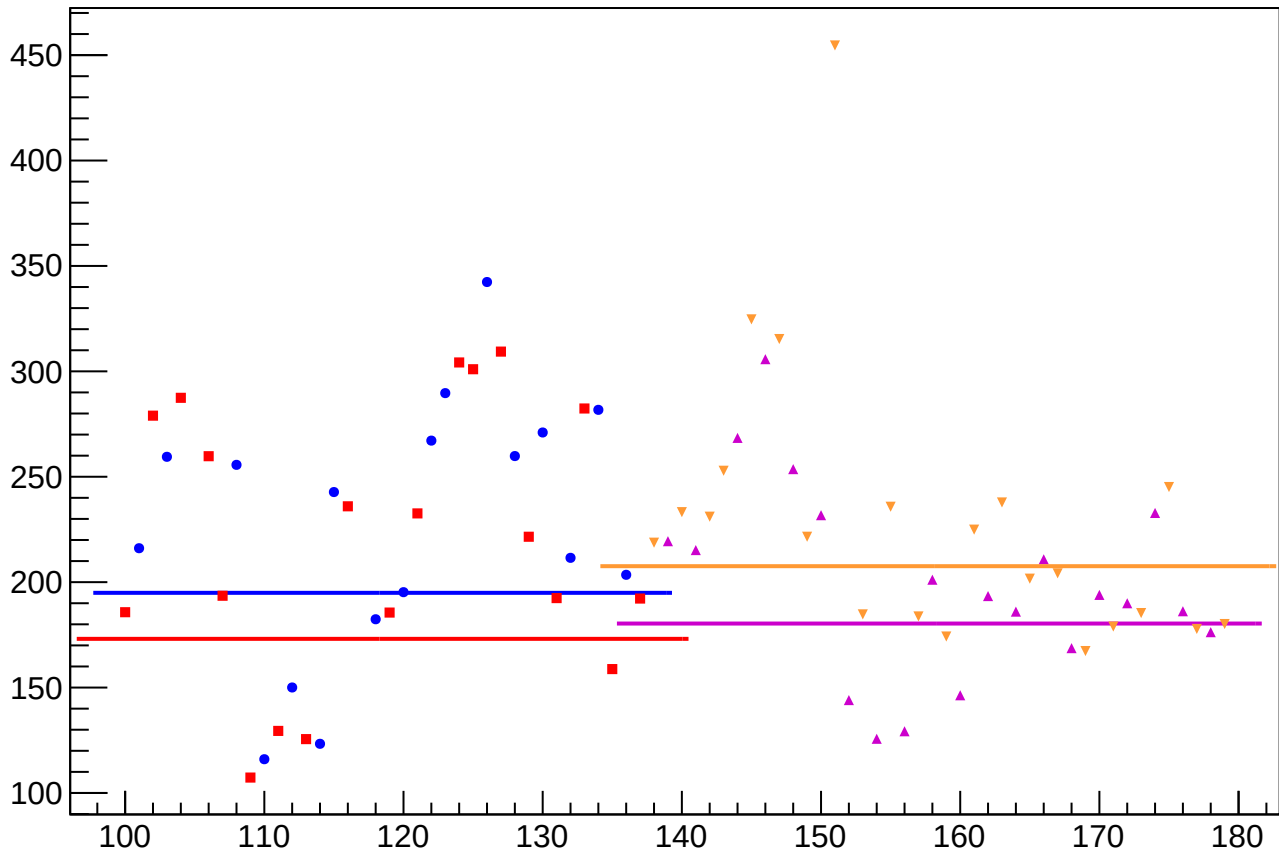
Right: 34.362 $\pm$ 52.842  $\chi^2$ /NDF: 13.2/35

In: 36.747 $\pm$ 41.183  $\chi^2$ /NDF: 13.5/36

Out: 5.597 $\pm$ 42.137  $\chi^2$ /NDF: 9.8/40

All: 21.528 $\pm$ 29.452  $\chi^2$ /NDF: 23.6/77

# asym\_bcm\_an\_us\_rms vs Slug, Sign Corrected



Right In:  $194.939 \pm 0.057$   $\chi^2/\text{NDF}: 986629.1/16$

Left Out:  $207.574 \pm 0.037$   $\chi^2/\text{NDF}: 1339188.2/21$

Right Out:  $173.109 \pm 0.050$   $\chi^2/\text{NDF}: 1544723.9/18$

Left In:  $180.367 \pm 0.034$   $\chi^2/\text{NDF}: 1580504.8/19$

Left:  $192.739 \pm 0.025$   $\chi^2/\text{NDF}: 3211421.1/41$

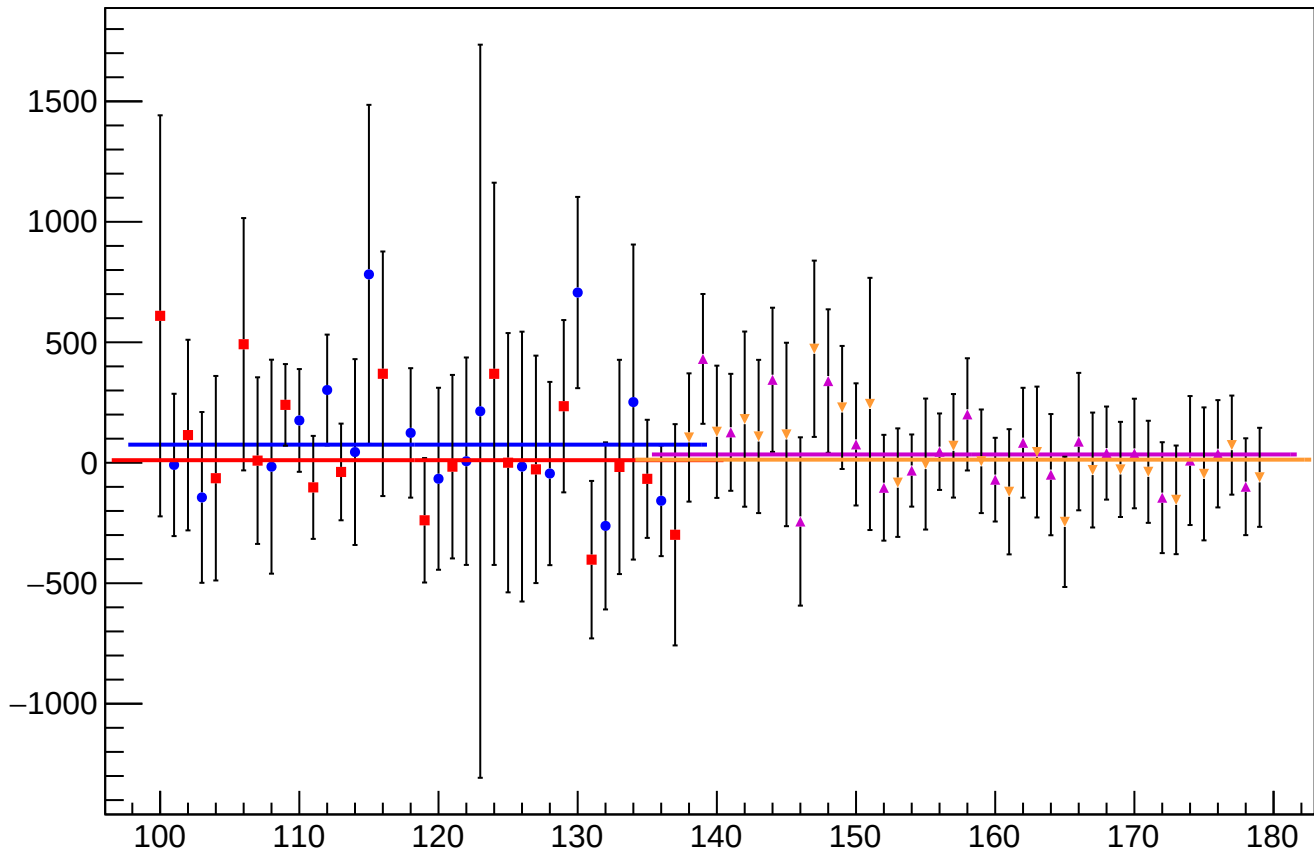
Right:  $182.637 \pm 0.037$   $\chi^2/\text{NDF}: 2615306.2/35$

In:  $184.230 \pm 0.029$   $\chi^2/\text{NDF}: 2615918.0/36$

Out:  $195.224 \pm 0.030$   $\chi^2/\text{NDF}: 3191570.3/40$

All:  $189.601 \pm 0.021$   $\chi^2/\text{NDF}: 5877121.4/77$

# asym\_bcm\_dg\_us\_mean vs Slug, Sign Corrected



Right In: 75.207 $\pm$ 82.504  $\chi^2$ /NDF: 7.6/16

Left Out: 12.878 $\pm$ 54.040  $\chi^2$ /NDF: 5.6/21

Right Out: 10.674 $\pm$ 73.338  $\chi^2$ /NDF: 7.8/18

Left In: 34.512 $\pm$ 49.702  $\chi^2$ /NDF: 7.8/19

Left: 24.598 $\pm$ 36.582  $\chi^2$ /NDF: 13.5/41

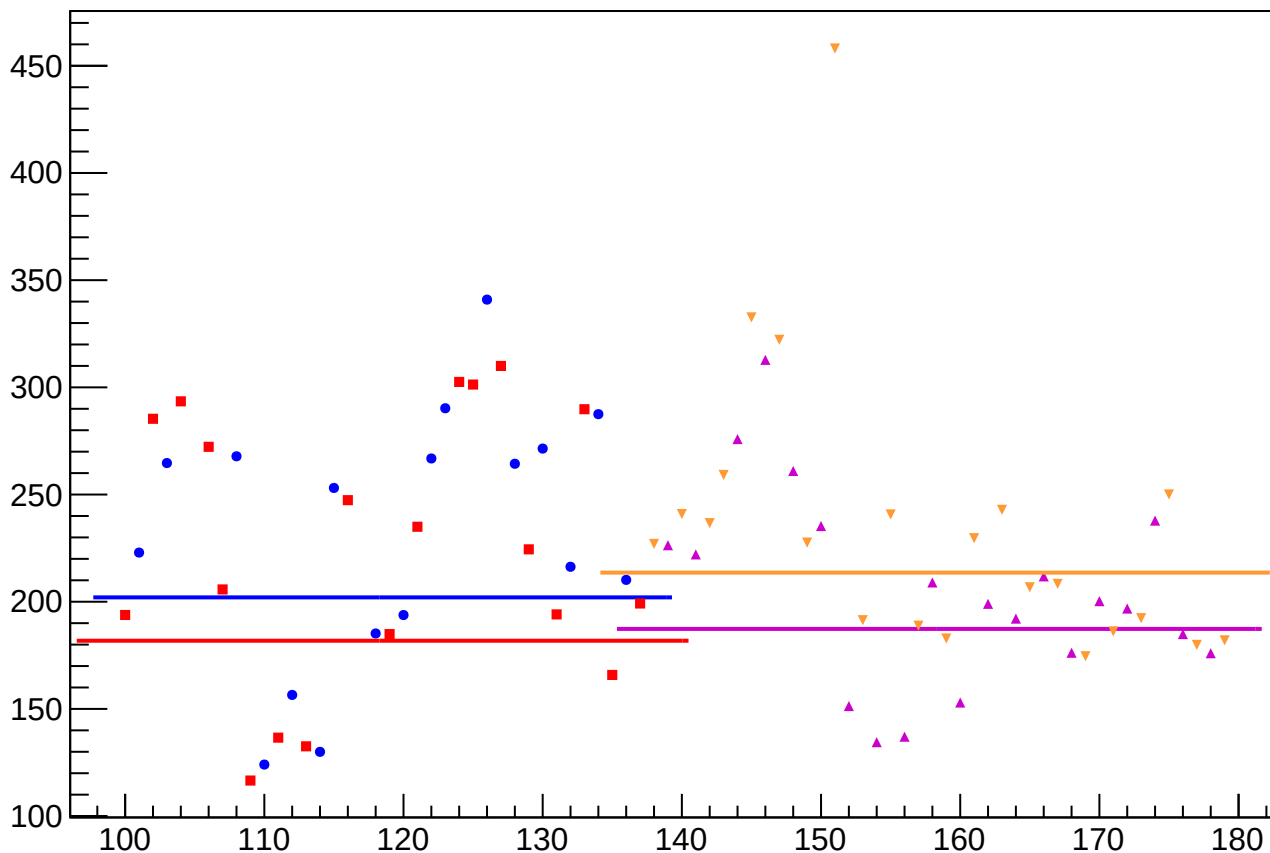
Right: 39.157 $\pm$ 54.813  $\chi^2$ /NDF: 15.8/35

In: 45.348 $\pm$ 42.574  $\chi^2$ /NDF: 15.6/36

Out: 12.102 $\pm$ 43.505  $\chi^2$ /NDF: 13.4/40

All: 29.085 $\pm$ 30.428  $\chi^2$ /NDF: 29.3/77

# asym\_bcm\_dg\_us\_rms vs Slug, Sign Corrected



Right In: 202.029 $\pm$ 0.058  $\chi^2/\text{NDF}$ : 881608.7/16

Left Out: 213.583 $\pm$ 0.038  $\chi^2/\text{NDF}$ :1293504.3/21

Right Out: 181.811 $\pm$ 0.052  $\chi^2/\text{NDF}$ : 1377537.2/18

Left In: 187.310 $\pm$ 0.035  $\chi^2/\text{NDF}$ :1424651.3/19

Left: 199.350 $\pm$ 0.026  $\chi^2/\text{NDF}$ : 2974256.1/41

Right: 190.735 $\pm$ 0.039  $\chi^2/\text{NDF}$ : 2326235.8/35

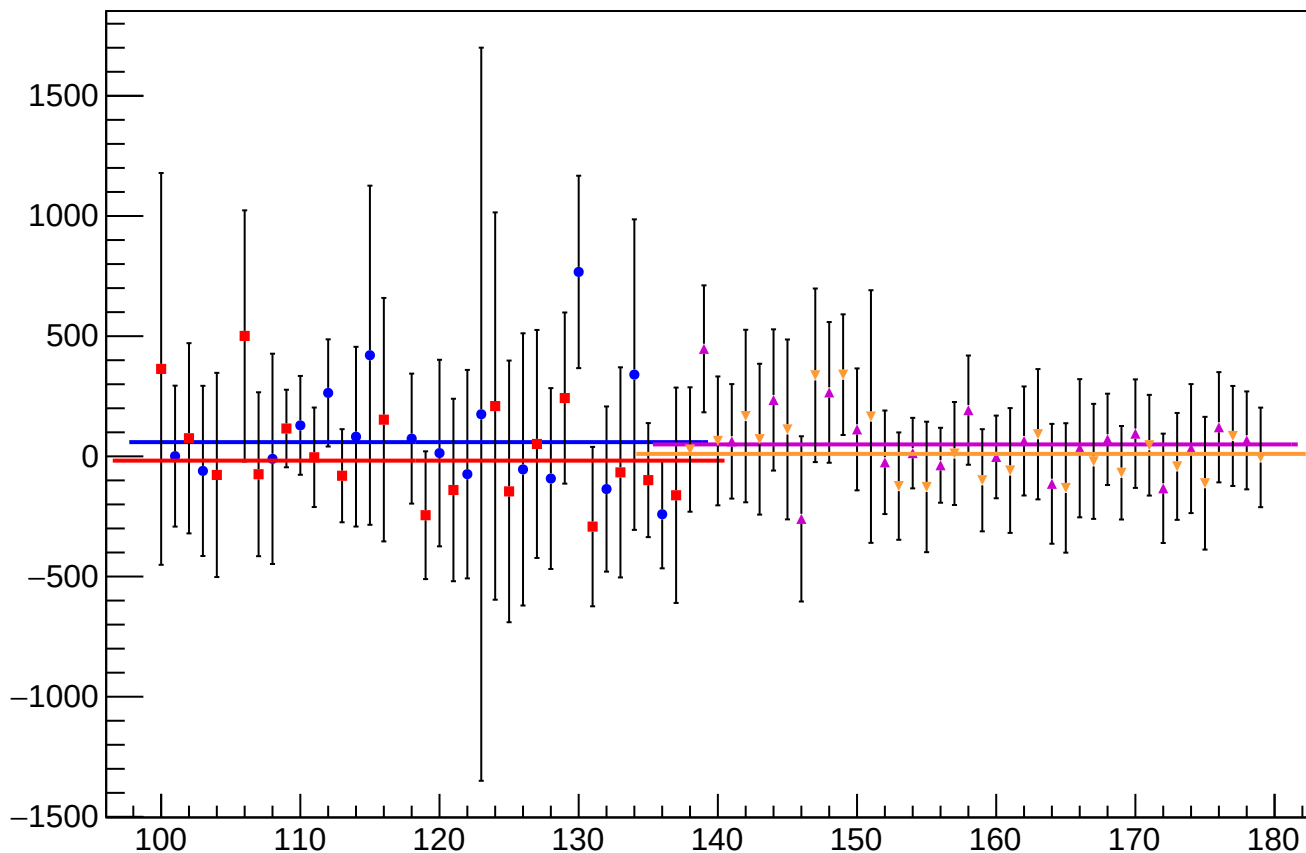
In: 191.229 $\pm$ 0.030  $\chi^2/\text{NDF}$ :2352965.0/36

Out: 202.403 $\pm$ 0.031  $\chi^2/\text{NDF}$ :2914318.5/40

All: 196.695 $\pm$ 0.022  $\chi^2/\text{NDF}$ : 5334671.2/77



# asym\_bcm\_dg\_ds\_mean vs Slug, Sign Corrected



Right In: 59.175 $\pm$ 81.417  $\chi^2/\text{NDF}$ : 7.1/16

Left Out: 10.333 $\pm$ 53.661  $\chi^2/\text{NDF}$ : 4.9/21

Right Out: -17.727 $\pm$ 71.900  $\chi^2/\text{NDF}$ : 4.7/18

Left In: 49.708 $\pm$ 49.218  $\chi^2/\text{NDF}$ : 6.3/19

Left: 31.718 $\pm$ 36.272  $\chi^2/\text{NDF}$ : 11.5/41

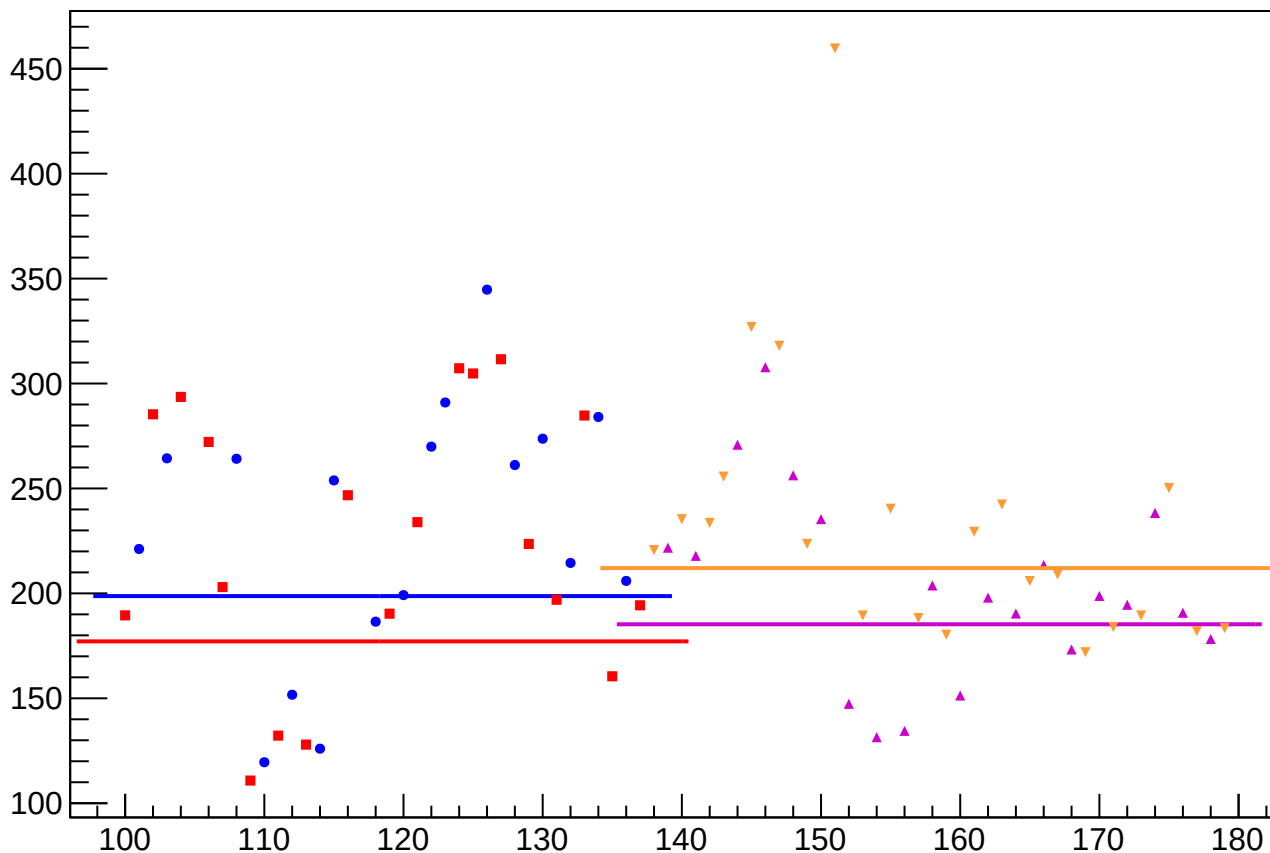
Right: 15.968 $\pm$ 53.893  $\chi^2/\text{NDF}$ : 12.3/35

In: 52.242 $\pm$ 42.120  $\chi^2/\text{NDF}$ : 13.5/36

Out: 0.294 $\pm$ 43.004  $\chi^2/\text{NDF}$ : 9.7/40

All: 26.808 $\pm$ 30.091  $\chi^2/\text{NDF}$ : 23.9/77

# asym\_bcm\_dg\_ds\_rms vs Slug, Sign Corrected



Right In:  $198.704 \pm 0.058$   $\chi^2/\text{NDF}: 963394.4/16$

Left Out:  $212.042 \pm 0.038$   $\chi^2/\text{NDF}: 1278070.2/21$

Right Out:  $177.125 \pm 0.051$   $\chi^2/\text{NDF}: 1524889.9/18$

Left In:  $185.272 \pm 0.035$   $\chi^2/\text{NDF}: 1455767.3/19$

Left:  $197.503 \pm 0.026$   $\chi^2/\text{NDF}: 3004162.8/41$

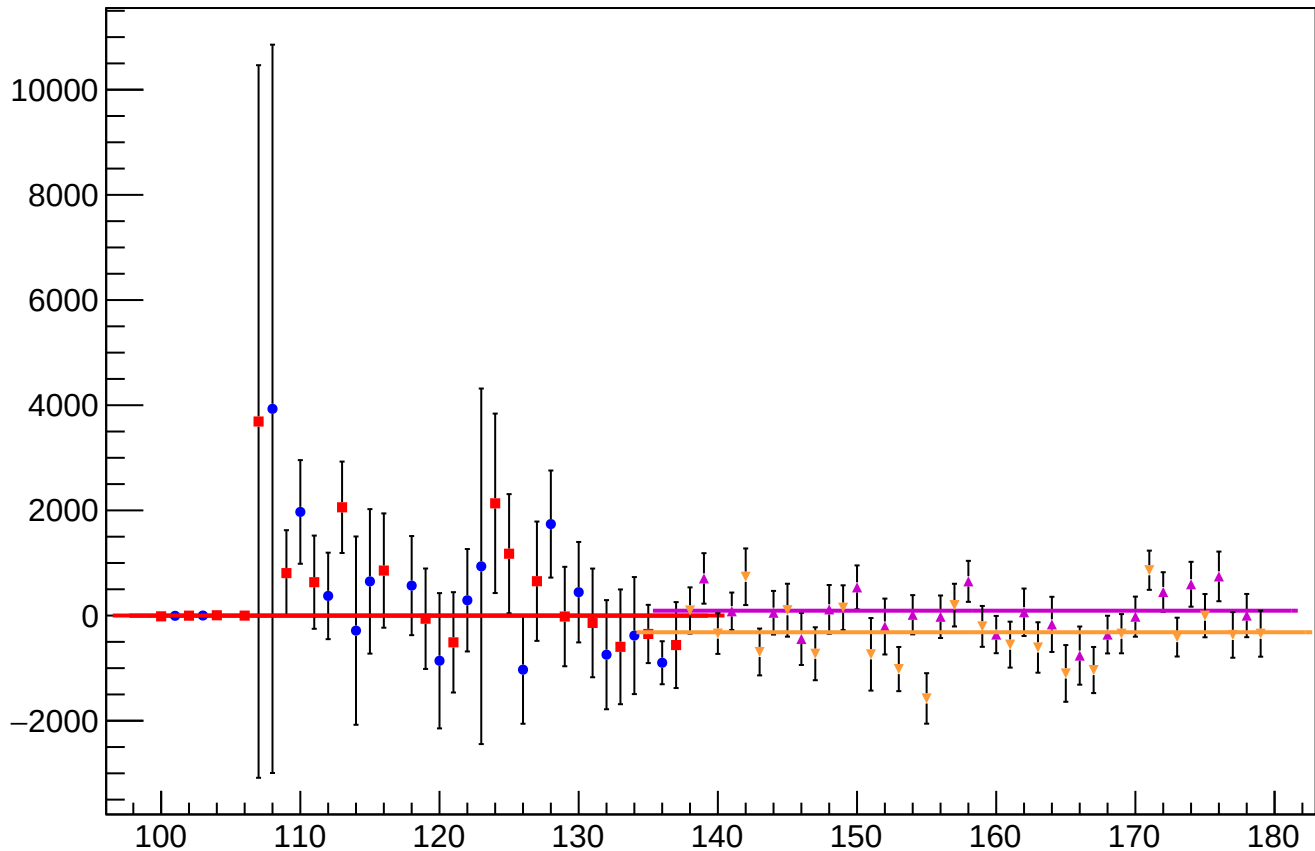
Right:  $186.580 \pm 0.038$   $\chi^2/\text{NDF}: 2567217.8/35$

In:  $188.867 \pm 0.030$   $\chi^2/\text{NDF}: 2459027.6/36$

Out:  $199.550 \pm 0.030$   $\chi^2/\text{NDF}: 3105894.8/40$

All:  $194.098 \pm 0.021$   $\chi^2/\text{NDF}: 5627924.3/77$

# asym\_cav4bQ\_mean vs Slug, Sign Corrected



Right In:  $-1.529 \pm 2.251$   $\chi^2/\text{NDF}$ : 16.6/16

Left Out:  $-316.816 \pm 93.264$   $\chi^2/\text{NDF}$ : 35.8/21

Right Out:  $0.731 \pm 2.111$   $\chi^2/\text{NDF}$ : 18.4/18

Left In:  $92.755 \pm 93.930$   $\chi^2/\text{NDF}$ : 16.7/19

Left:  $-113.487 \pm 66.182$   $\chi^2/\text{NDF}$ : 62.1/41

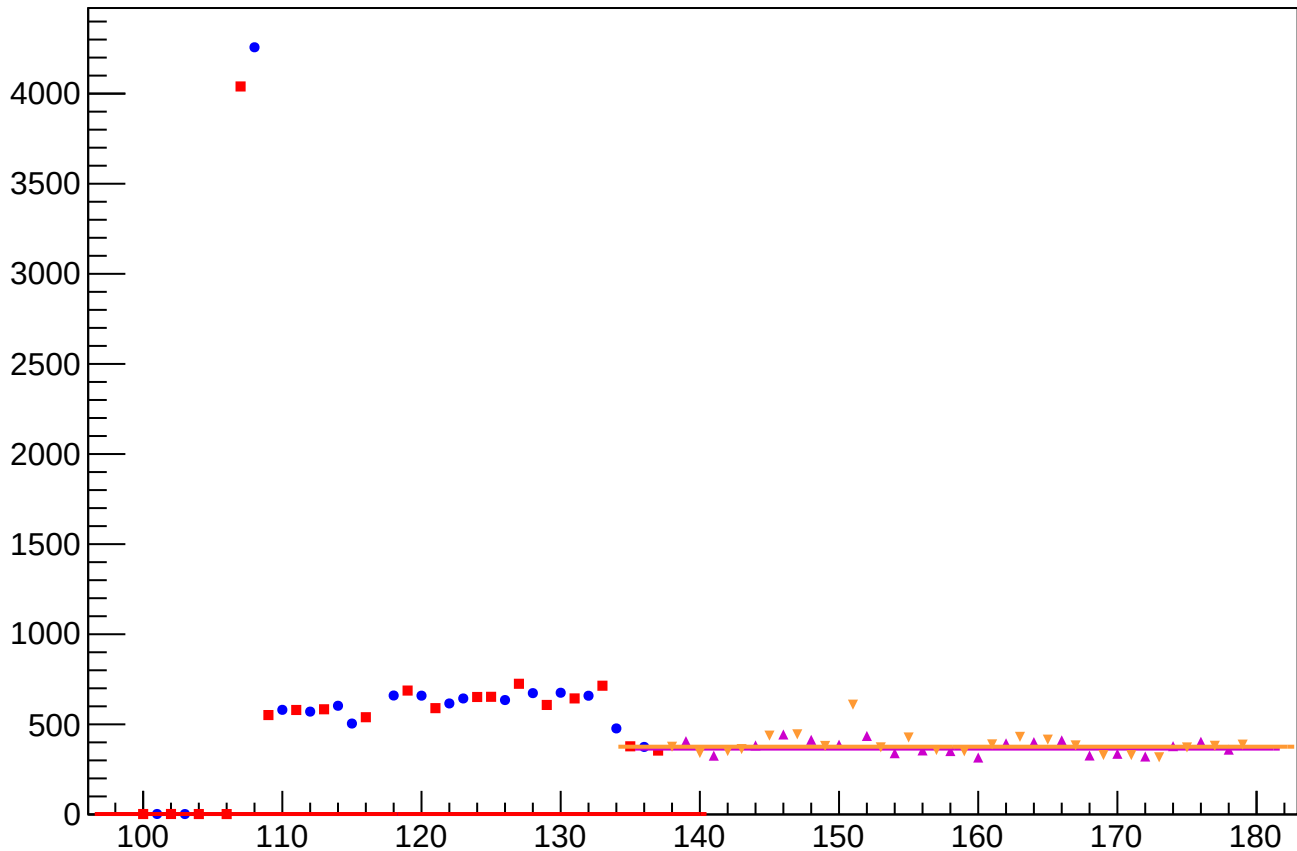
Right:  $-0.326 \pm 1.540$   $\chi^2/\text{NDF}$ : 35.6/35

In:  $-1.475 \pm 2.251$   $\chi^2/\text{NDF}$ : 34.3/36

Out:  $0.569 \pm 2.111$   $\chi^2/\text{NDF}$ : 65.8/40

All:  $-0.387 \pm 1.540$   $\chi^2/\text{NDF}$ : 100.6/77

# asym\_cav4bQ\_rms vs Slug, Sign Corrected



Right In: 2.456 $\pm$ 0.002  $\chi^2$ /NDF: 10706347.4/16

Left Out: 375.961 $\pm$ 0.066  $\chi^2$ /NDF: 507331.0/21

Right Out: 2.437 $\pm$ 0.001  $\chi^2$ /NDF: 11140185.1/18

Left In: 365.433 $\pm$ 0.066  $\chi^2$ /NDF: 315411.7/19

Left: 370.735 $\pm$ 0.047  $\chi^2$ /NDF: 835395.5/41

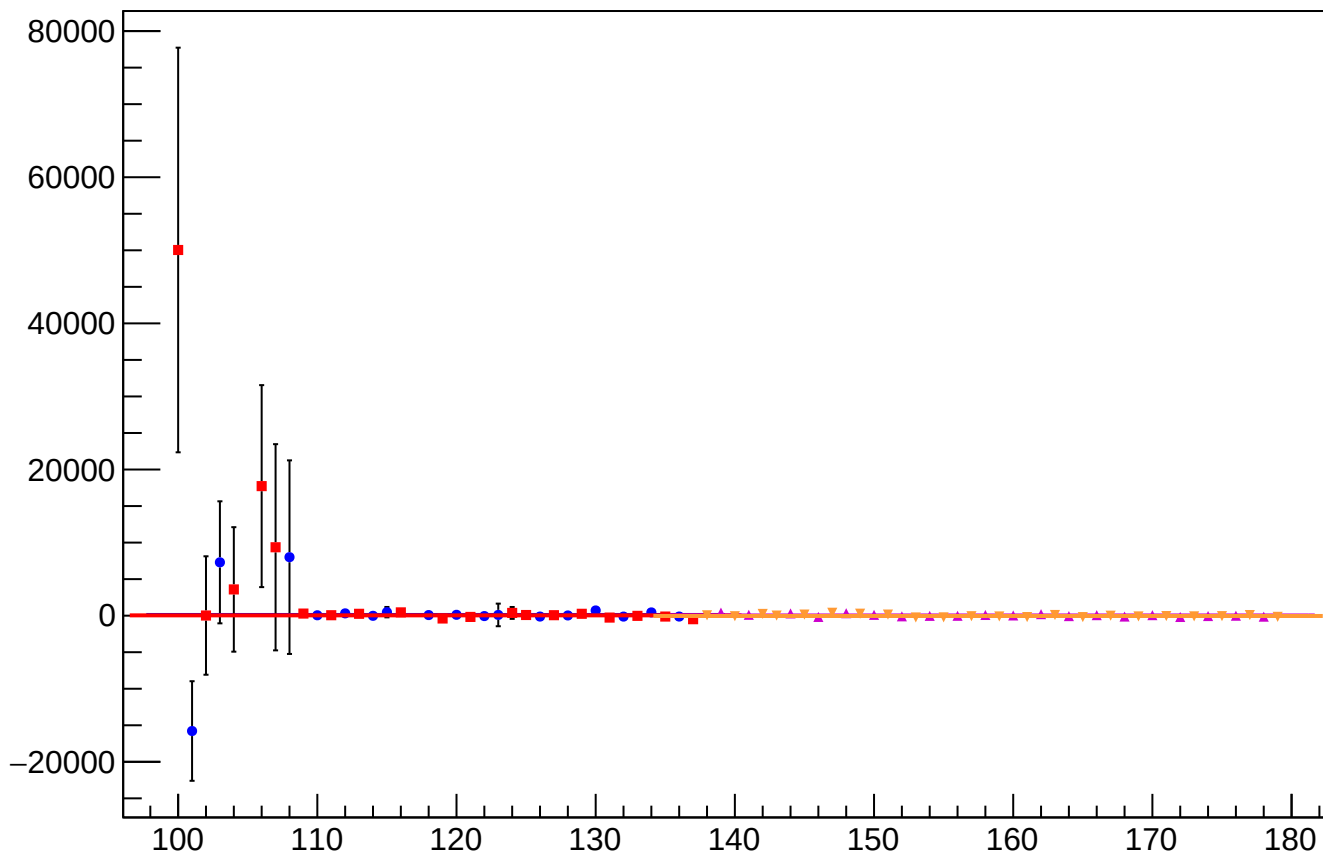
Right: 2.446 $\pm$ 0.001  $\chi^2$ /NDF: 21846612.0/35

In: 2.665 $\pm$ 0.002  $\chi^2$ /NDF: 40870690.0/36

Out: 2.628 $\pm$ 0.001  $\chi^2$ /NDF: 43711256.1/40

All: 2.645 $\pm$ 0.001  $\chi^2$ /NDF: 84582227.4/77

# asym\_cav4cQ\_mean vs Slug, Sign Corrected



Right In: 95.353+/-91.708  $\chi^2/\text{NDF}$ : 12.0/16

Left Out: -41.613+/-54.628  $\chi^2/\text{NDF}$ : 6.9/21

Right Out: 42.617+/-84.547  $\chi^2/\text{NDF}$ : 14.0/18

Left In: 29.176+/-51.848  $\chi^2/\text{NDF}$ : 7.9/19

Left: -4.372+/-37.607  $\chi^2/\text{NDF}$ : 15.6/41

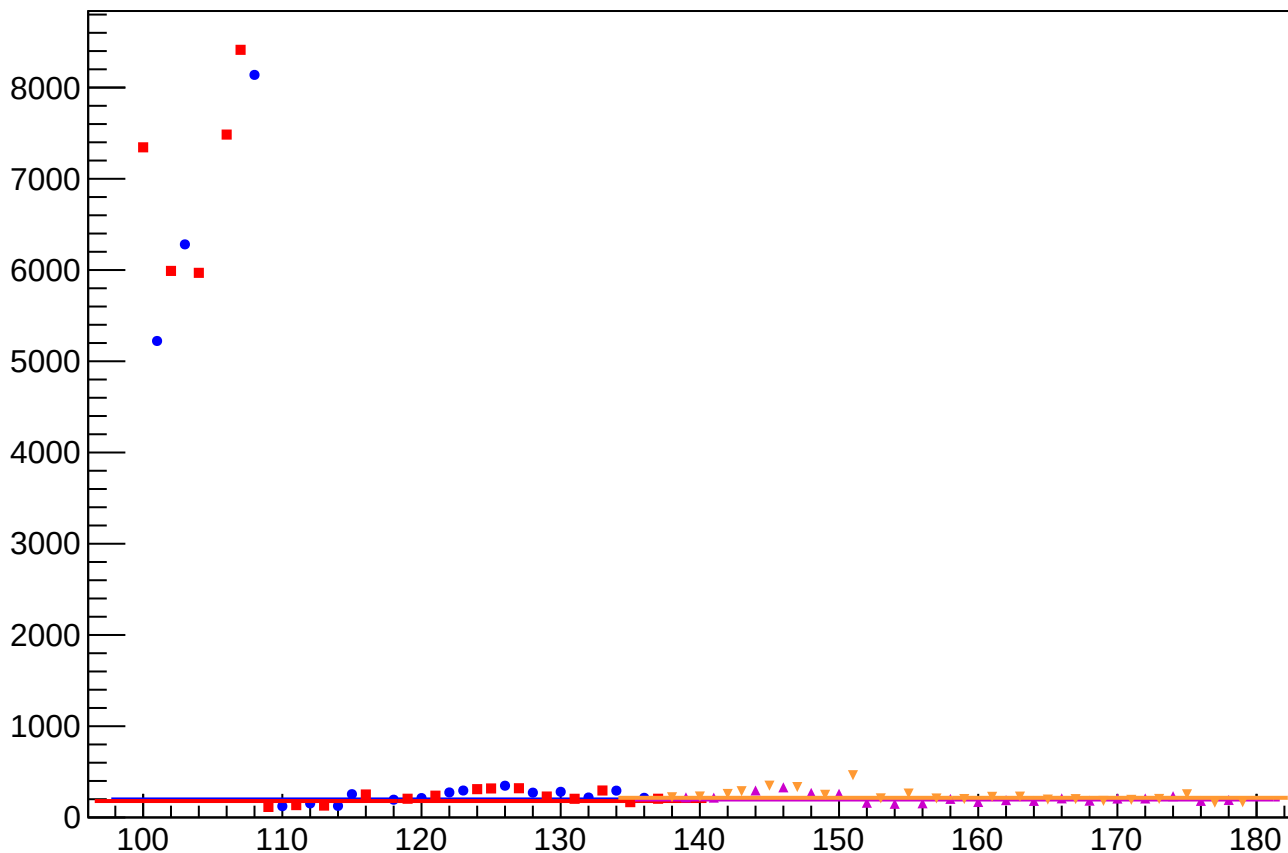
Right: 66.846+/-62.161  $\chi^2/\text{NDF}$ : 26.2/35

In: 45.205+/-45.135  $\chi^2/\text{NDF}$ : 20.3/36

Out: -16.805+/-45.884  $\chi^2/\text{NDF}$ : 21.6/40

All: 14.710+/-32.176  $\chi^2/\text{NDF}$ : 42.8/77

# asym\_cav4cQ\_rms vs Slug, Sign Corrected



Right In: 197.422+/-0.065  $\chi^2/\text{NDF}$ : 3695848.3/16

Left Out: 215.335+/-0.039  $\chi^2/\text{NDF}$ :1511453.4/21

Right Out: 179.983+/-0.060  $\chi^2/\text{NDF}$ : 4321404.4/18

Left In: 196.550+/-0.037  $\chi^2/\text{NDF}$ :1131183.0/19

Left: 205.452+/-0.027  $\chi^2/\text{NDF}$ : 2767050.4/41

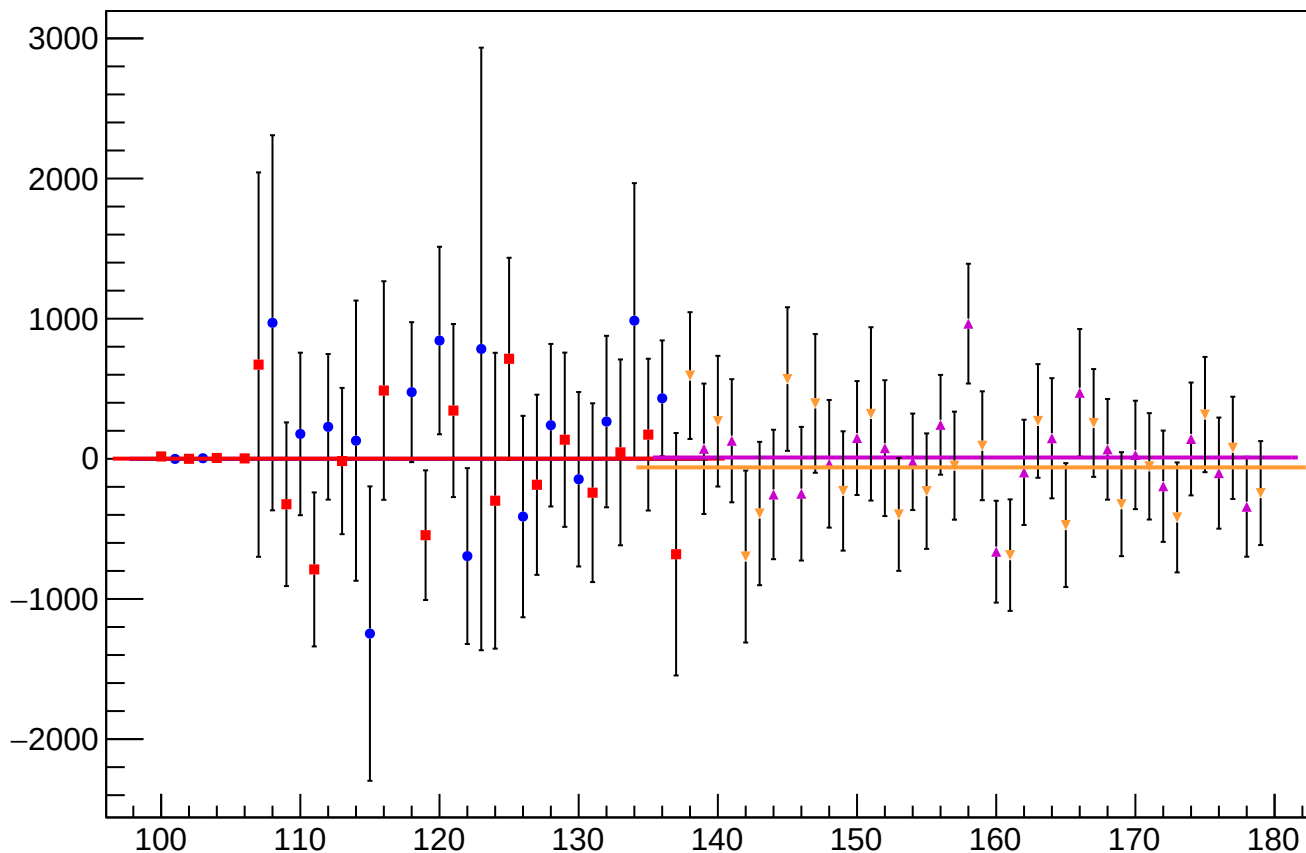
Right: 187.995+/-0.044  $\chi^2/\text{NDF}$ : 8056346.9/35

In: 196.761+/-0.032  $\chi^2/\text{NDF}$ :4827168.4/36

Out: 204.923+/-0.032  $\chi^2/\text{NDF}$ :6079542.7/40

All: 200.775+/-0.023  $\chi^2/\text{NDF}$ : 10938871.7/77

# asym\_cav4dQ\_mean vs Slug, Sign Corrected



Right In:  $-0.139 \pm 1.737$   $\chi^2/\text{NDF}$ : 9.8/16

Left Out:  $-61.065 \pm 90.132$   $\chi^2/\text{NDF}$ : 15.3/21

Right Out:  $1.324 \pm 1.623$   $\chi^2/\text{NDF}$ : 9.5/18

Left In:  $9.454 \pm 90.564$   $\chi^2/\text{NDF}$ : 12.4/19

Left:  $-25.974 \pm 63.885$   $\chi^2/\text{NDF}$ : 27.9/41

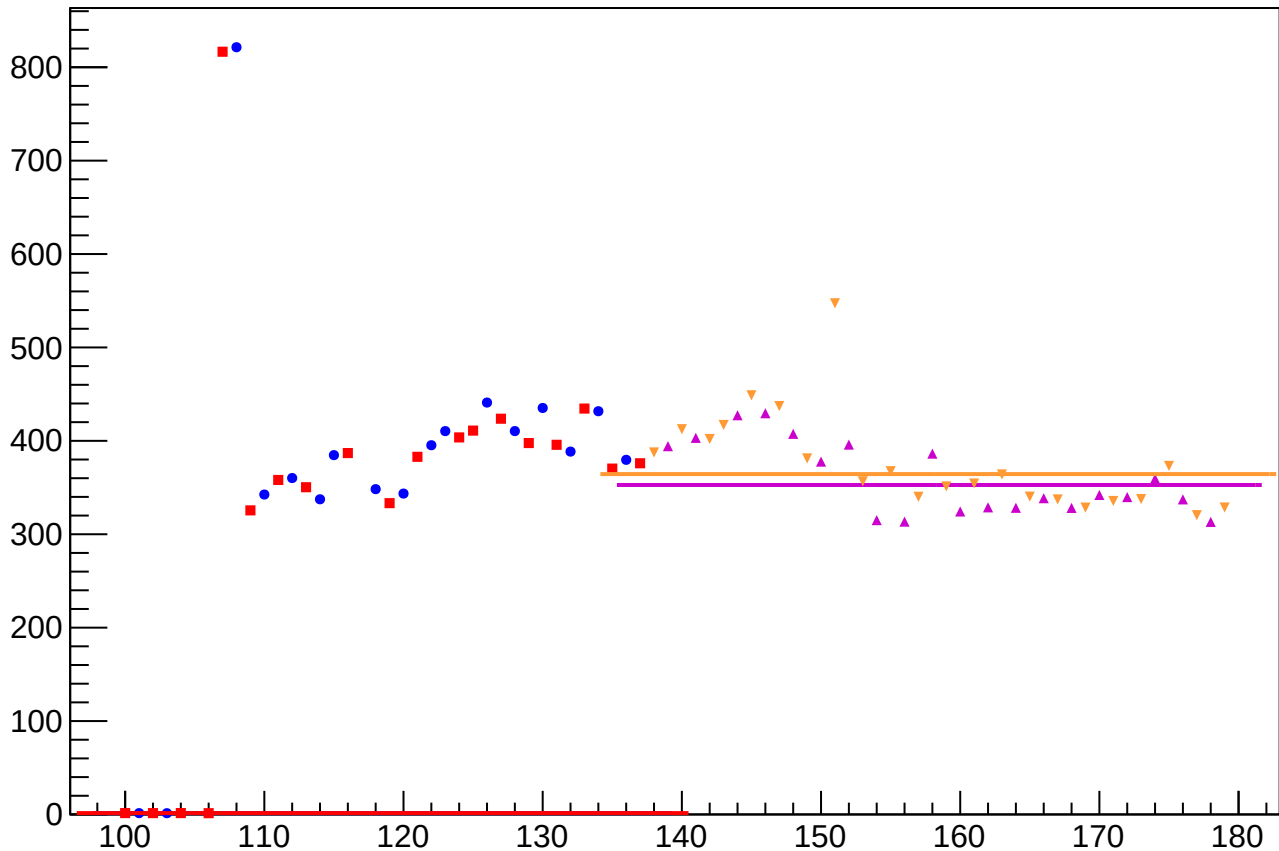
Right:  $0.642 \pm 1.186$   $\chi^2/\text{NDF}$ : 19.7/35

In:  $-0.135 \pm 1.736$   $\chi^2/\text{NDF}$ : 22.2/36

Out:  $1.303 \pm 1.622$   $\chi^2/\text{NDF}$ : 25.2/40

All:  $0.633 \pm 1.185$   $\chi^2/\text{NDF}$ : 47.8/77

# asym\_cav4dQ\_rms vs Slug, Sign Corrected



Right In: 1.452+/-0.001  $\chi^2/\text{NDF}$ : 10815892.9/16

Left Out: 364.402+/-0.064  $\chi^2/\text{NDF}$ : 447155.0/21

Right Out: 1.451+/-0.001  $\chi^2/\text{NDF}$ : 10873552.2/18

Left In: 352.747+/-0.064  $\chi^2/\text{NDF}$ : 329299.0/19

Left: 358.603+/-0.045  $\chi^2/\text{NDF}$ : 793095.1/41

Right: 1.452+/-0.001  $\chi^2/\text{NDF}$ : 21689445.7/35

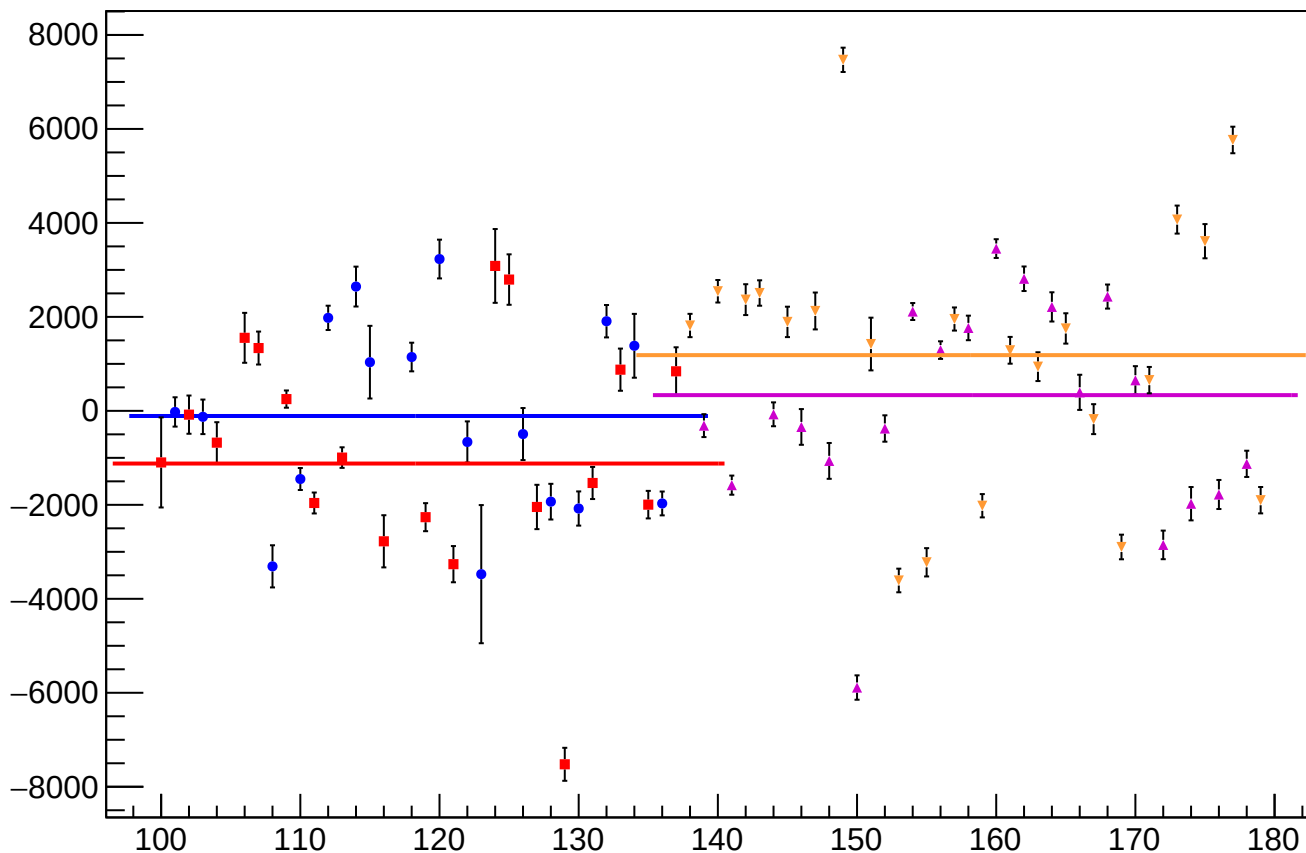
In: 1.581+/-0.001  $\chi^2/\text{NDF}$ : 41226923.0/36

Out: 1.569+/-0.001  $\chi^2/\text{NDF}$ : 43741718.3/40

All: 1.575+/-0.001  $\chi^2/\text{NDF}$ : 84968698.6/77



# asym\_bcm0l02\_mean vs Slug, Sign Corrected



Right In: -109.225+/-87.961  $\chi^2/\text{NDF}$ : 428.3/16

Left Out: 1185.820+/-61.538  $\chi^2/\text{NDF}$ : 2221.0/21

Right Out: -1121.203+/-78.396  $\chi^2/\text{NDF}$ : 670.1/18

Left In: 334.699+/-58.007  $\chi^2/\text{NDF}$ : 1515.3/19

Left: 735.141+/-42.210  $\chi^2/\text{NDF}$ : 3837.5/41

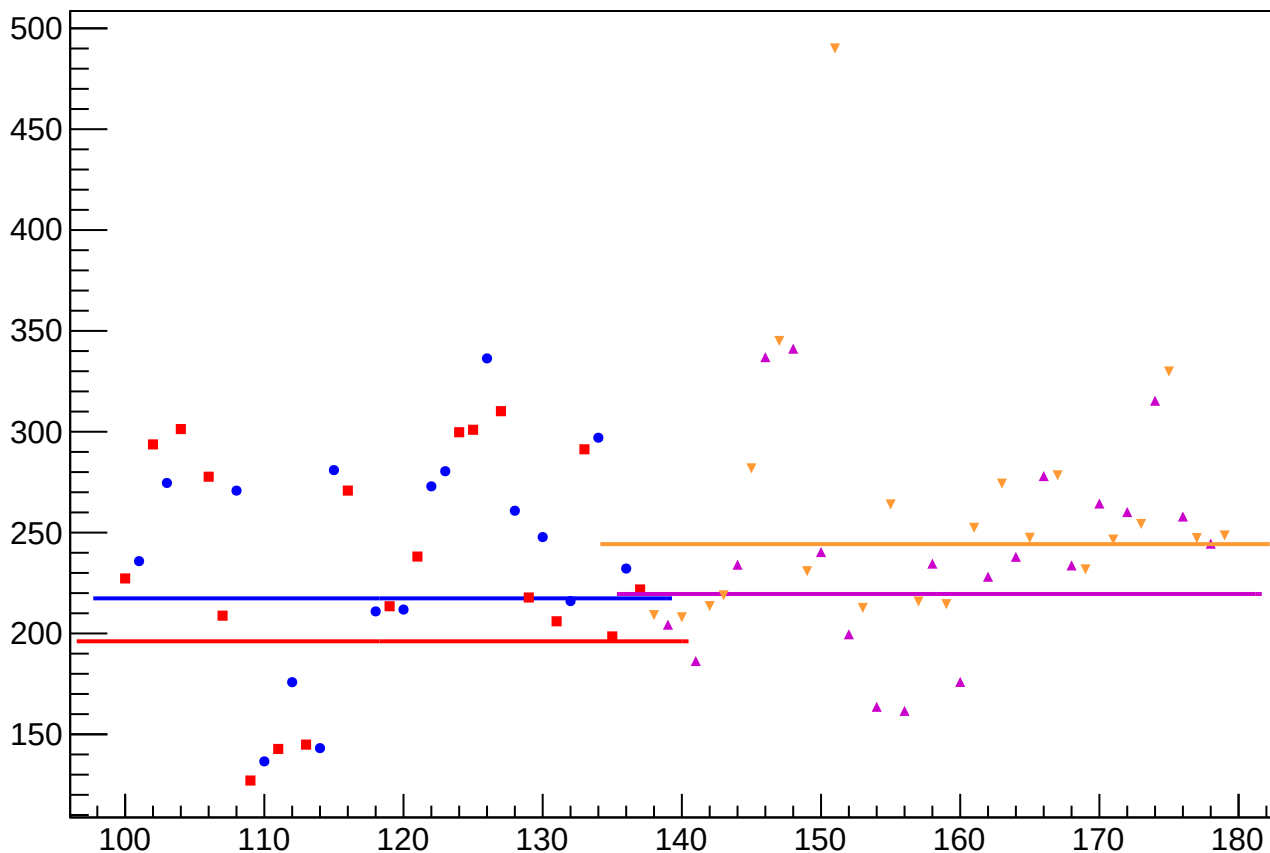
Right: -673.210+/-58.525  $\chi^2/\text{NDF}$ : 1172.2/35

In: 200.153+/-48.425  $\chi^2/\text{NDF}$ : 1961.4/36

Out: 306.255+/-48.406  $\chi^2/\text{NDF}$ : 3426.8/40

All: 253.225+/-34.235  $\chi^2/\text{NDF}$ : 5390.6/77

# asym\_bcm0l02\_rms vs Slug, Sign Corrected



Right In:  $217.403 \pm 0.062$   $\chi^2/\text{NDF}$ : 652632.9/16

Left Out:  $244.292 \pm 0.044$   $\chi^2/\text{NDF}$ : 926807.3/21

Right Out:  $196.112 \pm 0.055$   $\chi^2/\text{NDF}$ : 1190862.3/18

Left In:  $219.574 \pm 0.041$   $\chi^2/\text{NDF}$ : 1306756.5/19

Left:  $231.203 \pm 0.030$   $\chi^2/\text{NDF}$ : 2404435.9/41

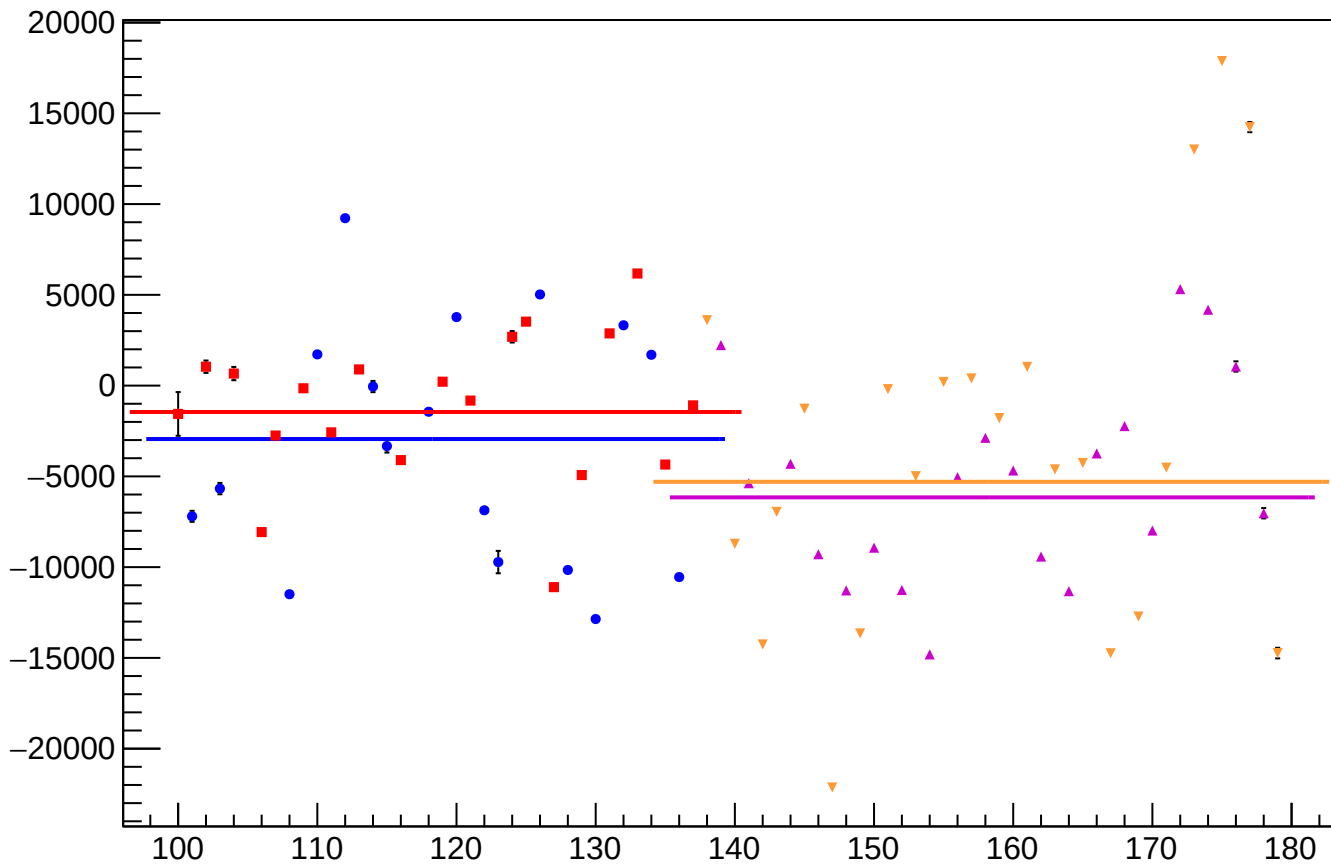
Right:  $205.537 \pm 0.041$   $\chi^2/\text{NDF}$ : 1908796.2/35

In:  $218.916 \pm 0.034$   $\chi^2/\text{NDF}$ : 1960238.3/36

Out:  $225.923 \pm 0.034$   $\chi^2/\text{NDF}$ : 2585074.1/40

All:  $222.421 \pm 0.024$   $\chi^2/\text{NDF}$ : 4566262.7/77

asym\_bpm2i01WS\_mean vs Slug, Sign Corrected



Right In: -2943.123+/-48.612  $\chi^2/\text{NDF}$ : 20909.8/16

Left Out: -5299.220+/-36.701  $\chi^2/\text{NDF}$ : 58586.4/21

Right Out: -1453.116+/-46.404  $\chi^2/\text{NDF}$ : 7996.0/18

Left In: -6156.948+/-37.950  $\chi^2/\text{NDF}$ : 17091.9/19

Left: -5713.740+/-26.382  $\chi^2/\text{NDF}$ : 75942.3/41

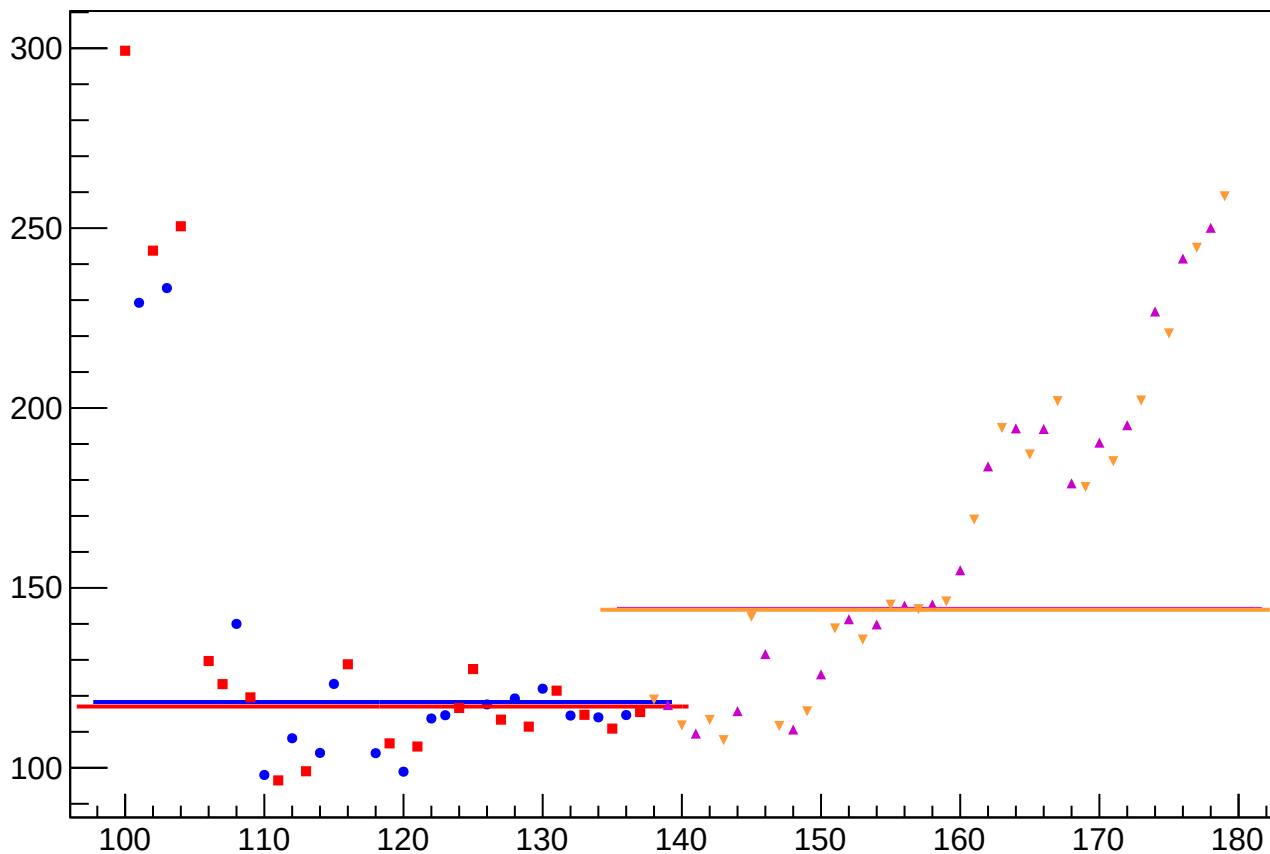
Right: -2163.502+/-33.566  $\chi^2/\text{NDF}$ : 29397.3/35

In: -4939.995+/-29.914  $\chi^2/\text{NDF}$ : 40717.4/36

Out: -3819.173+/-28.786  $\chi^2/\text{NDF}$ : 70808.6/40

All: -4358.054+/-20.742  $\chi^2/\text{NDF}$ : 112254.9/77

# asym\_bpm2i01WS\_rms vs Slug, Sign Corrected



Right In: 118.286+/-0.034  $\chi^2/\text{NDF}$ : 636918.0/16

Left Out: 143.935+/-0.026  $\chi^2/\text{NDF}$ :1978287.0/21

Right Out: 117.031+/-0.033  $\chi^2/\text{NDF}$ : 690861.5/18

Left In: 144.172+/-0.027  $\chi^2/\text{NDF}$ :1737832.6/19

Left: 144.050+/-0.019  $\chi^2/\text{NDF}$ : 3716160.1/41

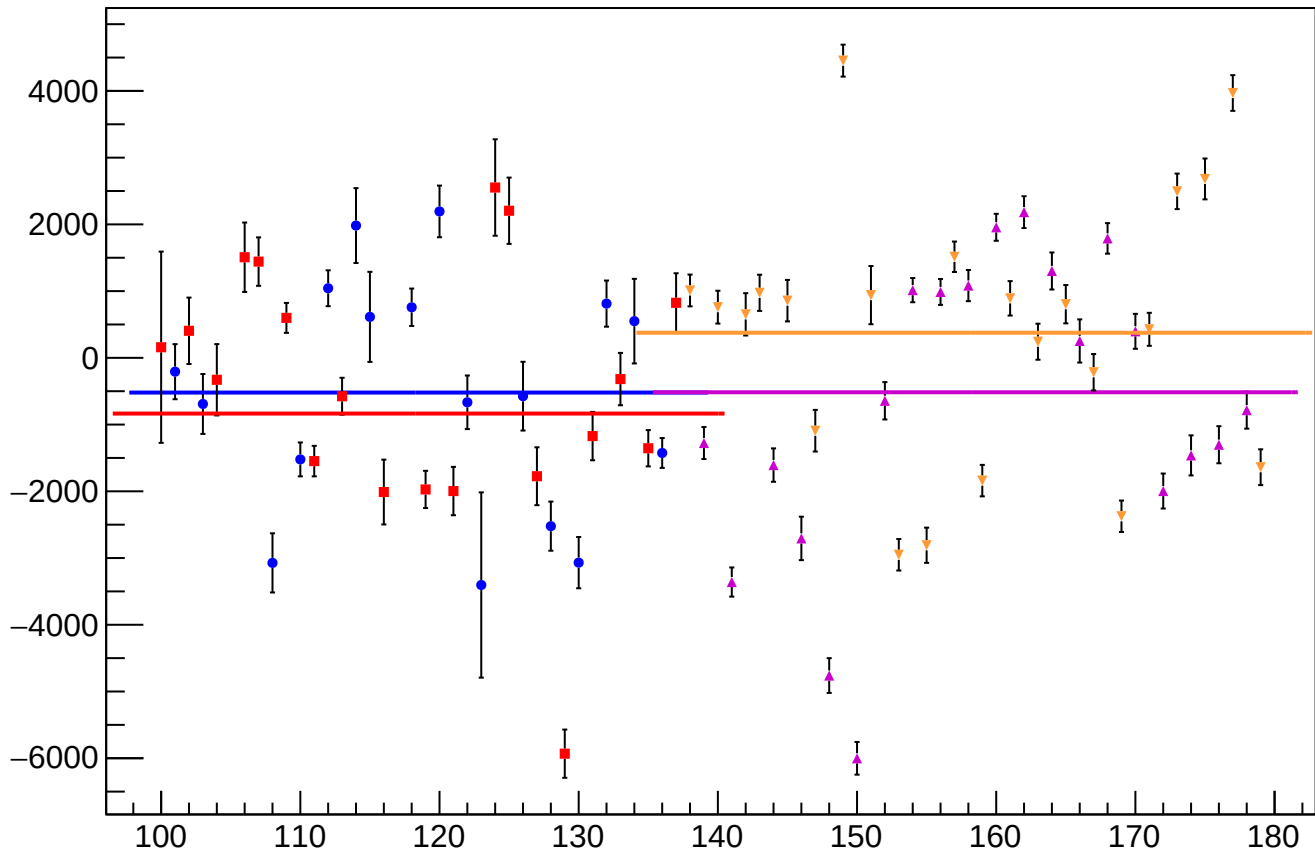
Right: 117.629+/-0.024  $\chi^2/\text{NDF}$ : 1328476.0/35

In: 134.370+/-0.021  $\chi^2/\text{NDF}$ :2727141.3/36

Out: 133.582+/-0.020  $\chi^2/\text{NDF}$ :3082713.7/40

All: 133.961+/-0.015  $\chi^2/\text{NDF}$ : 5810575.8/77

# asym\_bpm0i07WS\_mean vs Slug, Sign Corrected



Right In: -520.267±/89.241  $\chi^2/\text{NDF}$ : 288.1/16

Left Out: 376.111±/56.618  $\chi^2/\text{NDF}$ :1293.6/21

Right Out: -834.834±/82.273  $\chi^2/\text{NDF}$ : 434.7/18

Left In: -515.752±/54.785  $\chi^2/\text{NDF}$ :1680.2/19

Left: -84.494±/39.371  $\chi^2/\text{NDF}$ : 3101.9/41

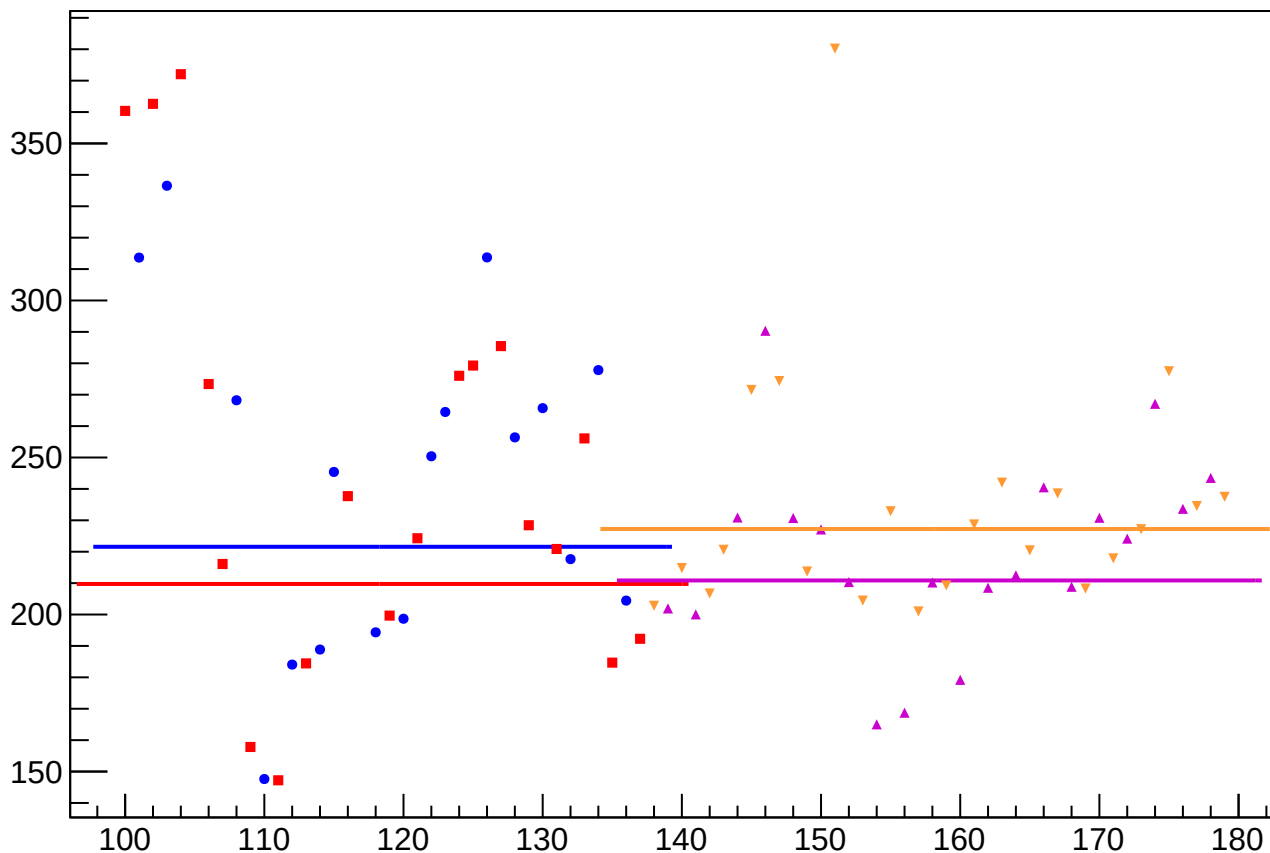
Right: -690.308±/60.489  $\chi^2/\text{NDF}$ : 729.5/35

In: -516.988±/46.689  $\chi^2/\text{NDF}$ :1968.3/36

Out: -13.065±/46.641  $\chi^2/\text{NDF}$ :1875.3/40

All: -264.768±/32.997  $\chi^2/\text{NDF}$ : 3901.9/77

# asym\_bpm0i07WS\_rms vs Slug, Sign Corrected



Right In: 221.570 $\pm$ 0.063  $\chi^2$ /NDF: 644941.4/16

Left Out: 227.238 $\pm$ 0.040  $\chi^2$ /NDF: 516508.2/21

Right Out: 209.736 $\pm$ 0.058  $\chi^2$ /NDF: 883922.1/18

Left In: 210.850 $\pm$ 0.039  $\chi^2$ /NDF: 576789.6/19

Left: 218.775 $\pm$ 0.028  $\chi^2$ /NDF: 1179840.6/41

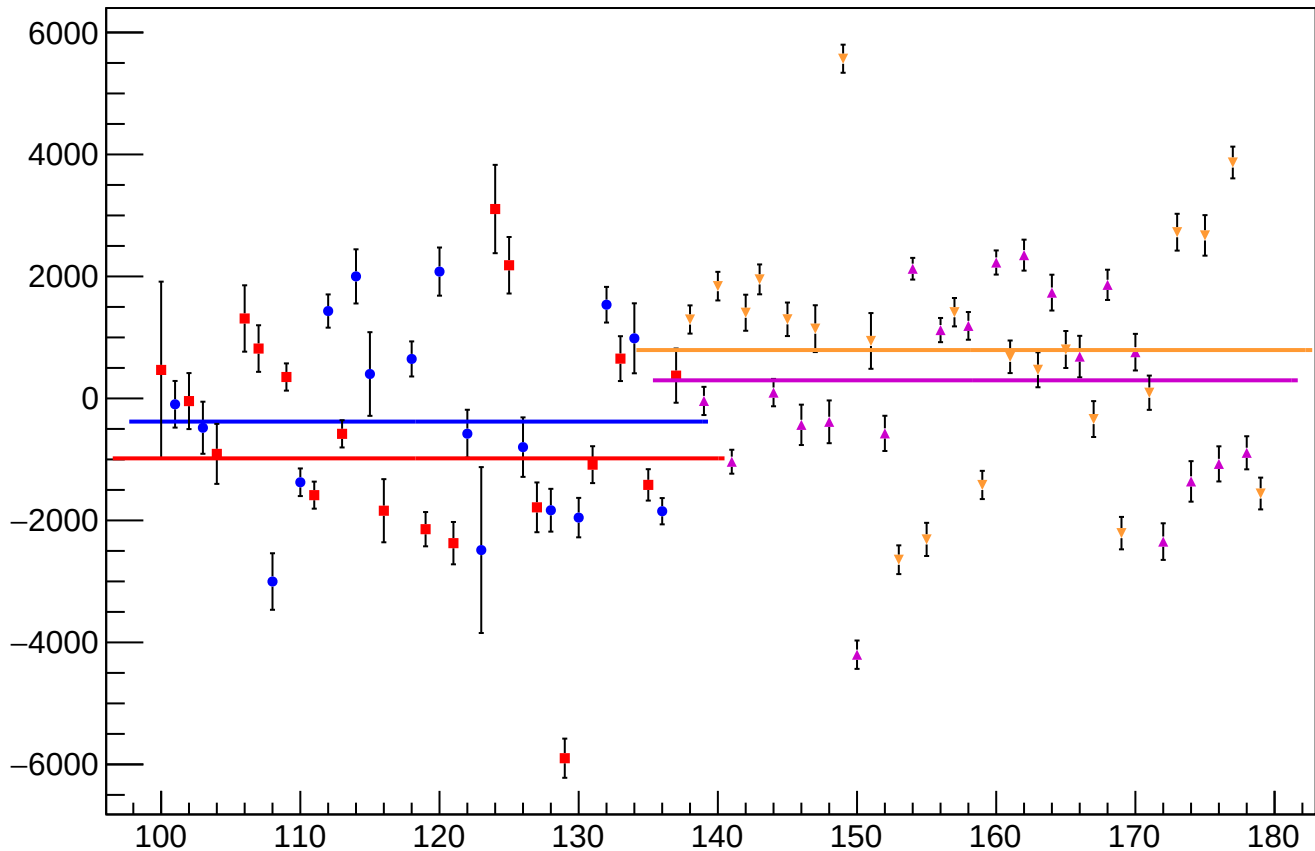
Right: 215.173 $\pm$ 0.043  $\chi^2$ /NDF: 1547873.9/35

In: 213.784 $\pm$ 0.033  $\chi^2$ /NDF: 1242690.9/36

Out: 221.614 $\pm$ 0.033  $\chi^2$ /NDF: 1461854.2/40

All: 217.703 $\pm$ 0.023  $\chi^2$ /NDF: 2732694.8/77

# asym\_bpm0l01WS\_mean vs Slug, Sign Corrected



Right In: -379.647 $\pm$ 84.260  $\chi^2$ /NDF: 317.2/16

Left Out: 793.050 $\pm$ 57.514  $\chi^2$ /NDF:1371.4/21

Right Out: -982.539 $\pm$ 77.724  $\chi^2$ /NDF: 476.3/18

Left In: 296.812 $\pm$ 55.634  $\chi^2$ /NDF:951.6/19

Left: 536.685 $\pm$ 39.987  $\chi^2$ /NDF: 2361.5/41

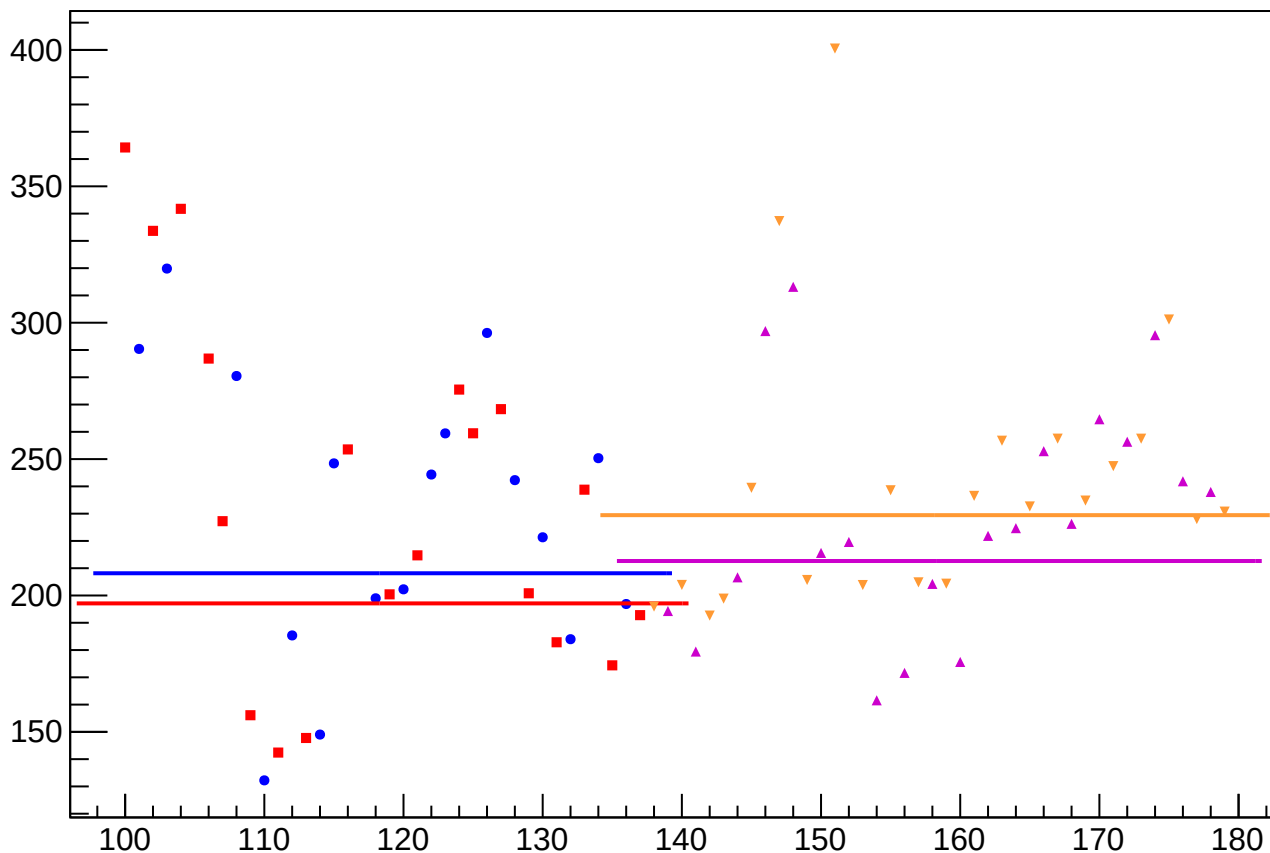
Right: -705.376 $\pm$ 57.130  $\chi^2$ /NDF: 821.1/35

In: 91.441 $\pm$ 46.427  $\chi^2$ /NDF:1313.7/36

Out: 164.805 $\pm$ 46.233  $\chi^2$ /NDF:2184.9/40

All: 128.276 $\pm$ 32.760  $\chi^2$ /NDF: 3499.8/77

# asym\_bpm0l01WS\_rms vs Slug, Sign Corrected



Right In: 208.151 $\pm$ 0.060  $\chi^2$ /NDF: 699084.2/16

Left Out: 229.450 $\pm$ 0.041  $\chi^2$ /NDF: 819376.9/21

Right Out: 197.103 $\pm$ 0.055  $\chi^2$ /NDF: 926467.5/18

Left In: 212.642 $\pm$ 0.039  $\chi^2$ /NDF: 994675.4/19

Left: 220.767 $\pm$ 0.028  $\chi^2$ /NDF: 1902302.3/41

Right: 202.182 $\pm$ 0.040  $\chi^2$ /NDF: 1644129.7/35

In: 211.278 $\pm$ 0.033  $\chi^2$ /NDF: 1697716.1/36

Out: 218.005 $\pm$ 0.033  $\chi^2$ /NDF: 1969694.6/40

All: 214.656 $\pm$ 0.023  $\chi^2$ /NDF: 3688491.1/77



# bcm\_an\_us\_ds\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# bcm\_an\_us\_ds\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

bcm\_dg\_us\_dg\_ds\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

bcm\_dg\_us\_dg\_ds\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

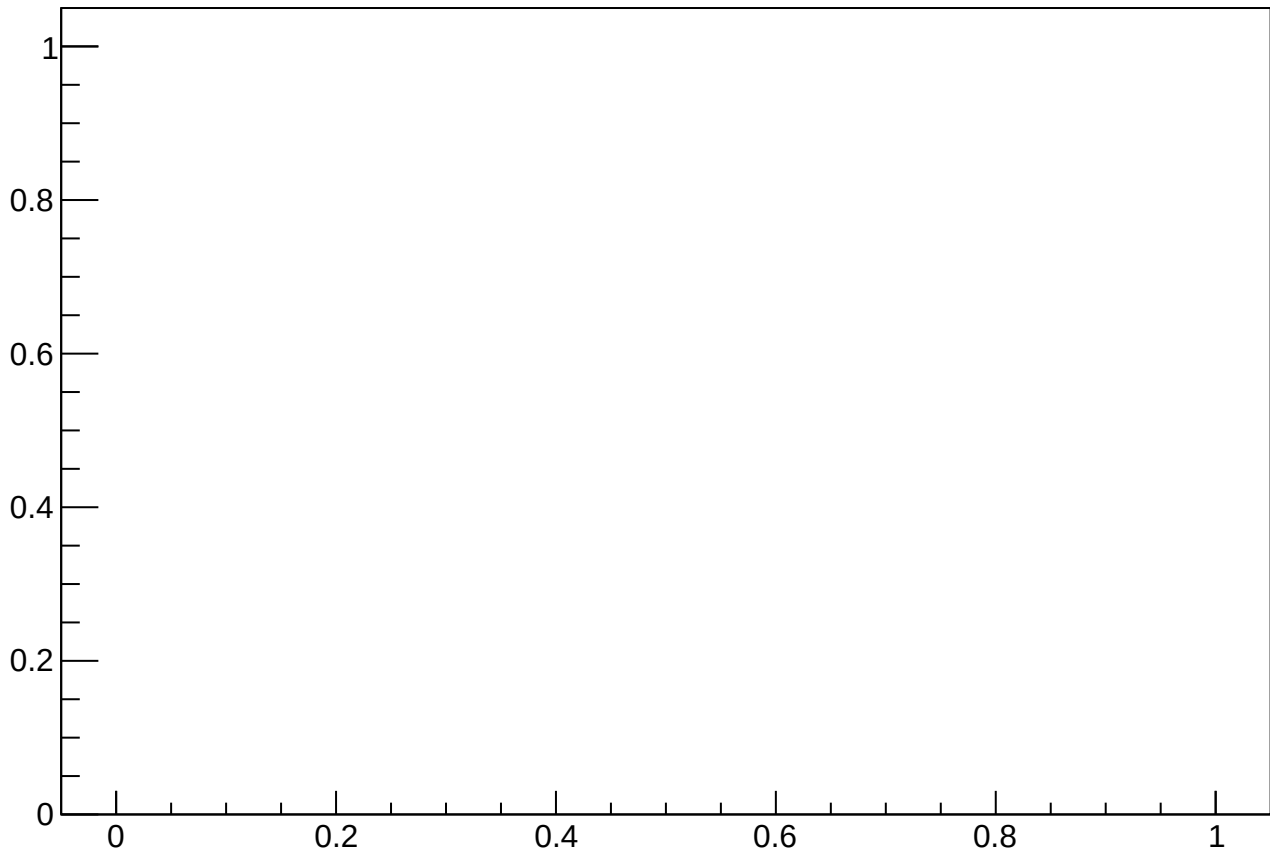
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# bcm\_dg\_us\_ds\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# bcm\_dg\_us\_ds\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

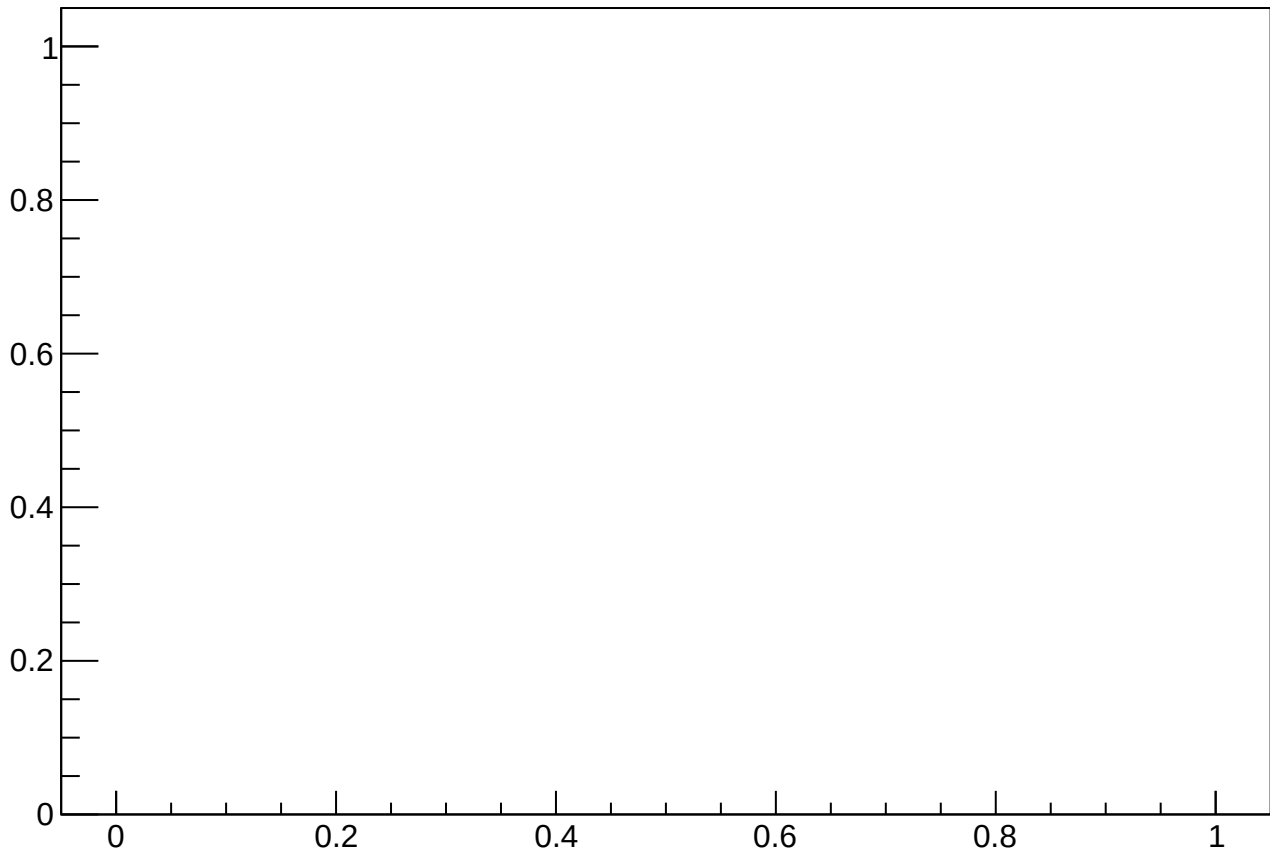
Right: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

In: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0

bcm\_dg\_ds\_ds\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# bcm\_dg\_ds\_ds\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

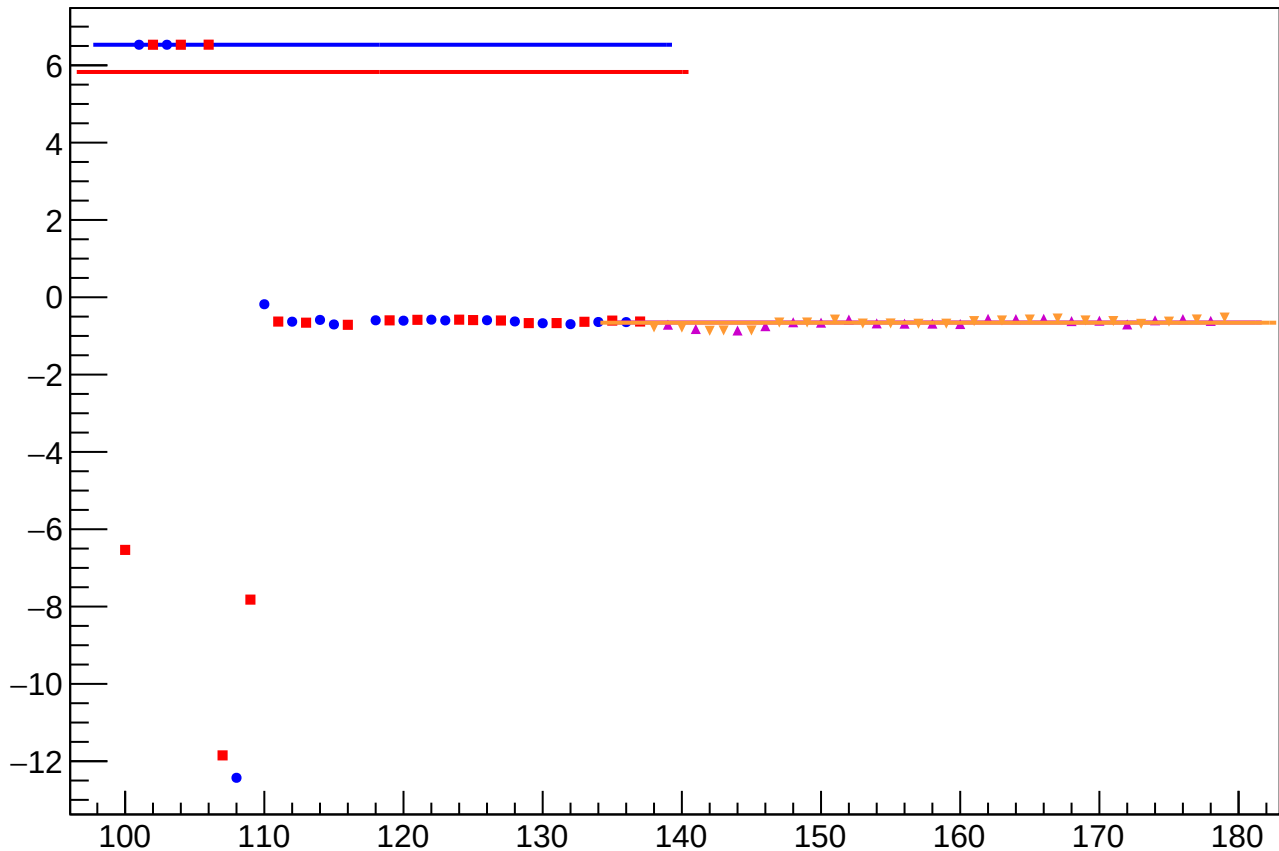
In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0



# yield\_cav4bX\_mean vs Slug, Sign Corrected



Right In: 6.532+/-0.000  $\chi^2/\text{NDF}$ : 127219747629.7/16

Left Out: -0.658+/-0.000  $\chi^2/\text{NDF}$ : 164229892.8/21

Right Out: 5.827+/-0.000  $\chi^2/\text{NDF}$ : 755963218053643.4/18

Left In: -0.652+/-0.000  $\chi^2/\text{NDF}$ : 113730141.9/19

Left: -0.655+/-0.000  $\chi^2/\text{NDF}$ : 278227696.0/41

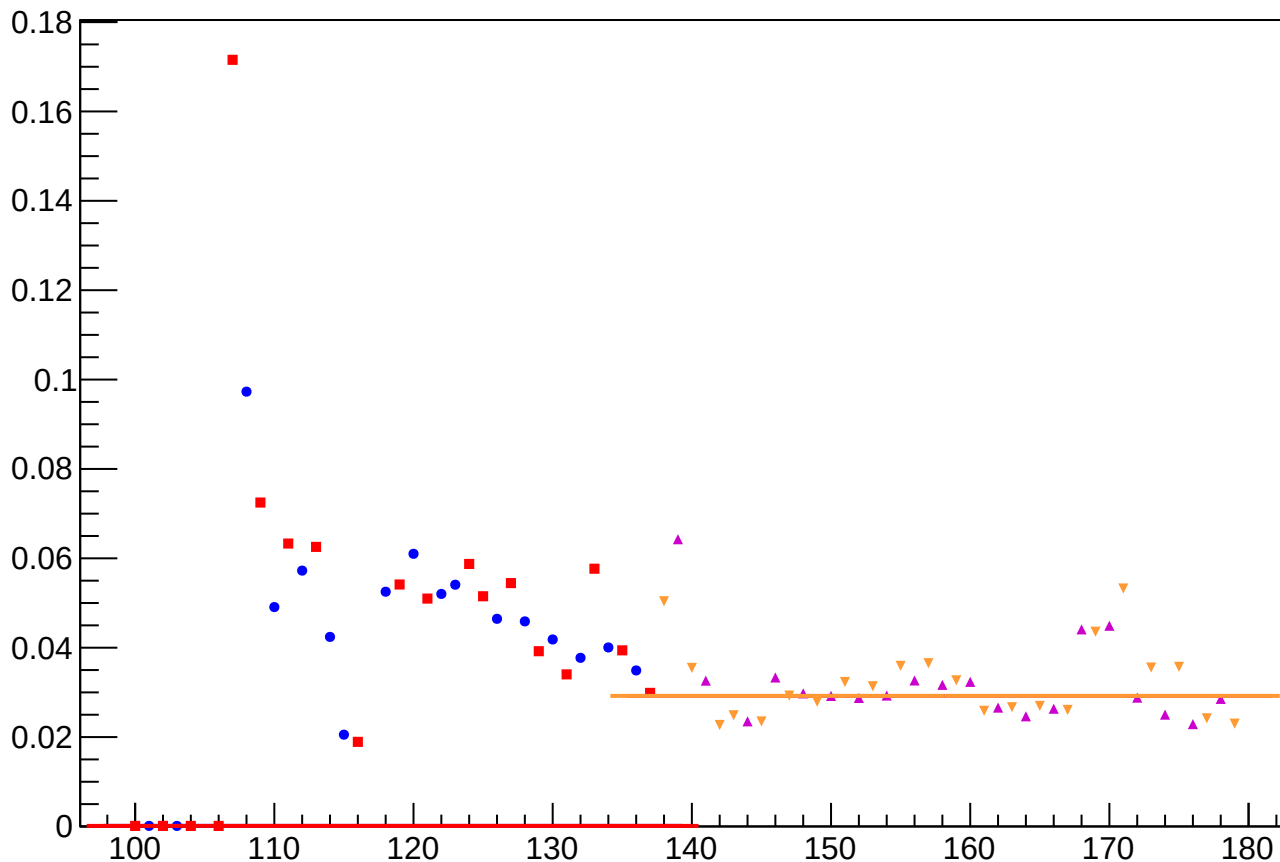
Right: 6.155+/-0.000  $\chi^2/\text{NDF}$ : 776094576922584.5/41

In: 6.530+/-0.000  $\chi^2/\text{NDF}$ : 862295141280.9/36

Out: 5.826+/-0.000  $\chi^2/\text{NDF}$ : 756603254833373.8/41

All: 6.154+/-0.000  $\chi^2/\text{NDF}$ : 77746081574659.0/82

# yield\_cav4bX\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8888070.2/16

Left Out: 0.029+/-0.000  $\chi^2/\text{NDF}$ :1244889.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9349631.9/18

Left In: 0.029+/-0.000  $\chi^2/\text{NDF}$ :1059780.7/19

Left: 0.029+/-0.000  $\chi^2/\text{NDF}$ : 2304673.5/41

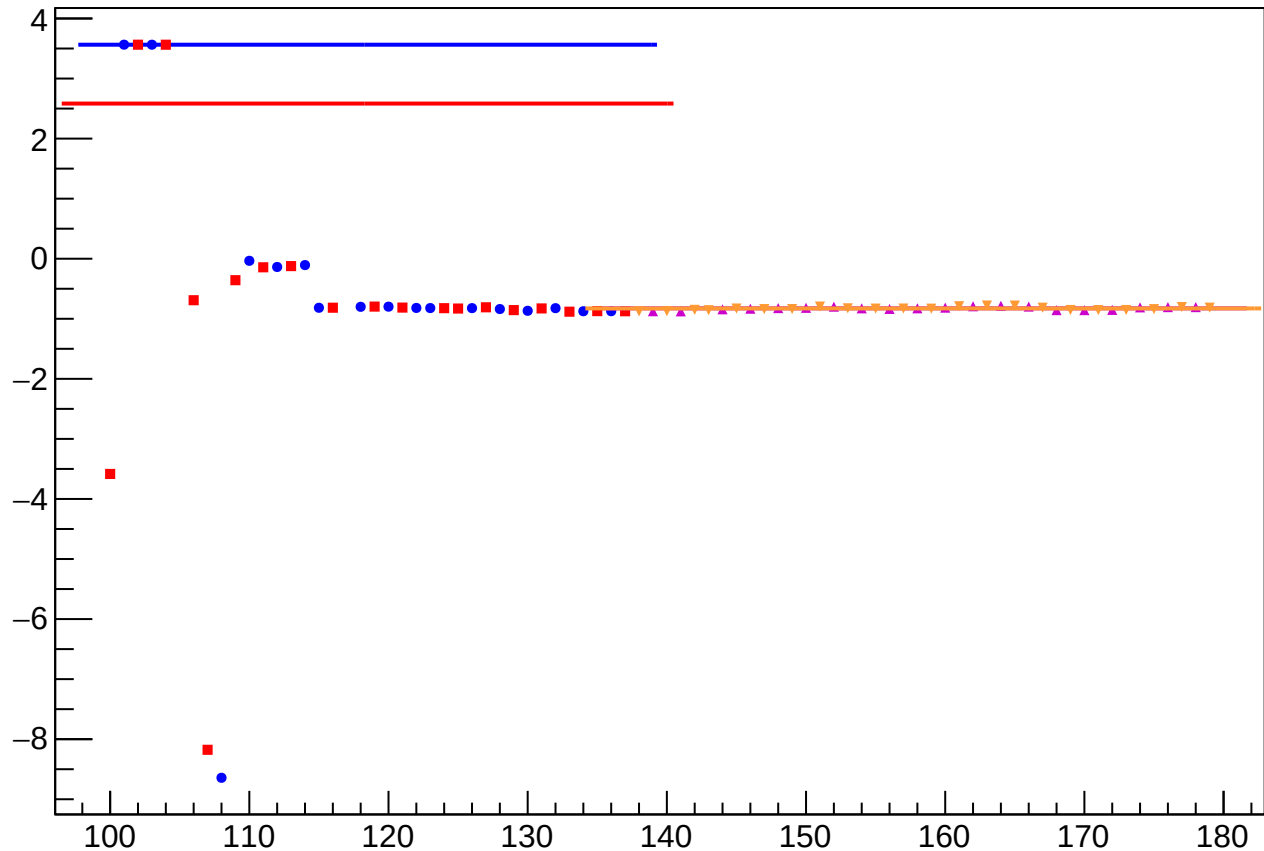
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 18237948.0/35

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :34032127.9/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :36349541.5/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 70382039.0/77

# yield\_cav4bY\_mean vs Slug, Sign Corrected



Right In: 3.563+/-0.000  $\chi^2/\text{NDF}$ : 481634392464.0/16

Left Out: -0.828+/-0.000  $\chi^2/\text{NDF}$ : 157980912.1/21

Right Out: 2.583+/-0.000  $\chi^2/\text{NDF}$ : 1253502070019187.0/18

Left In: -0.826+/-0.000  $\chi^2/\text{NDF}$ : 137183404.6/19

Left: -0.827+/-0.000  $\chi^2/\text{NDF}$ : 295316016.0/41

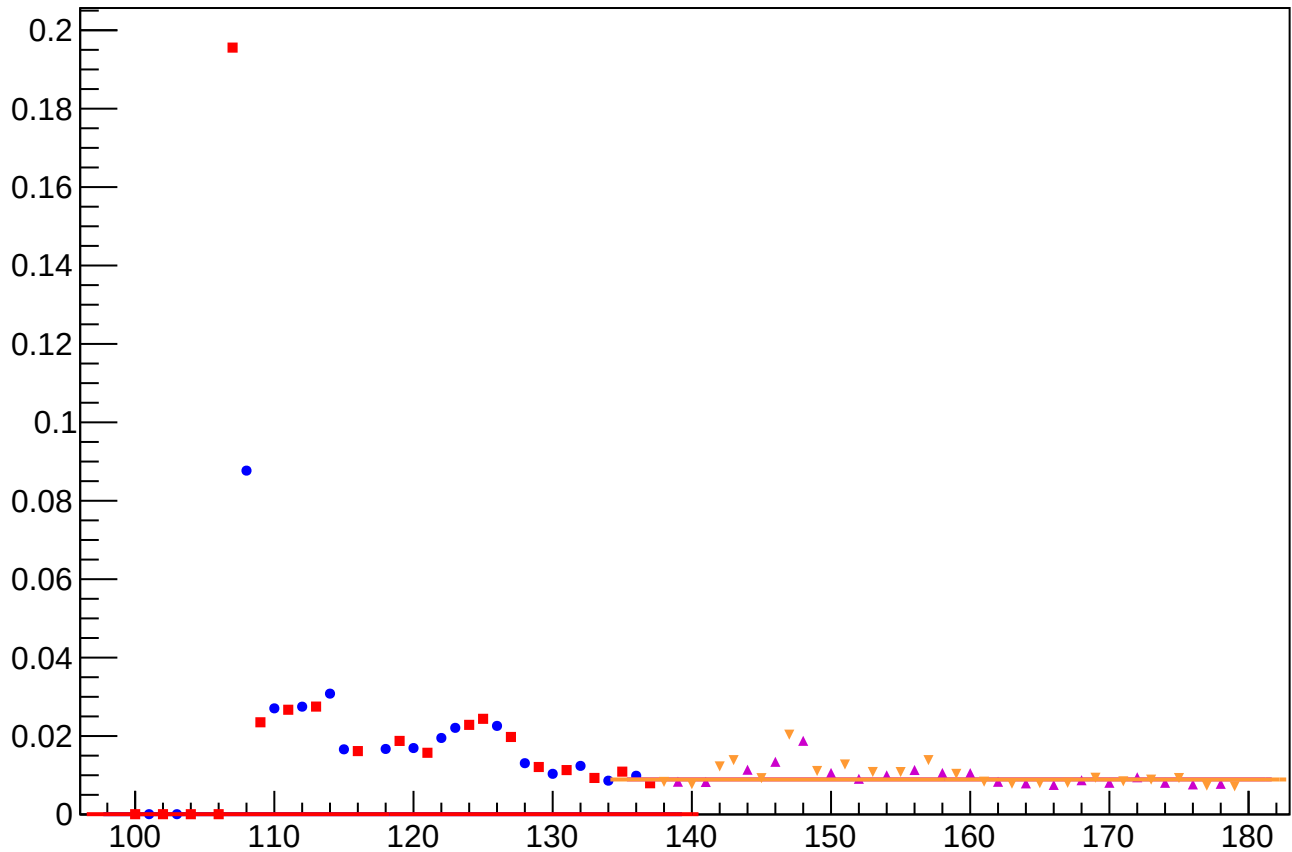
Right: 3.040+/-0.000  $\chi^2/\text{NDF}$ : 1382254685120485.1

In: 3.561+/-0.000  $\chi^2/\text{NDF}$ : 3576247800739.1/36

Out: 2.581+/-0.000  $\chi^2/\text{NDF}$ : 1255511729719001.5

All: 3.038+/-0.000  $\chi^2/\text{NDF}$ : 13872399883927

# yield\_cav4bY\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9724059.3/16

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :1275459.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9861757.0/18

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :899219.2/19

Left: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 2174816.6/41

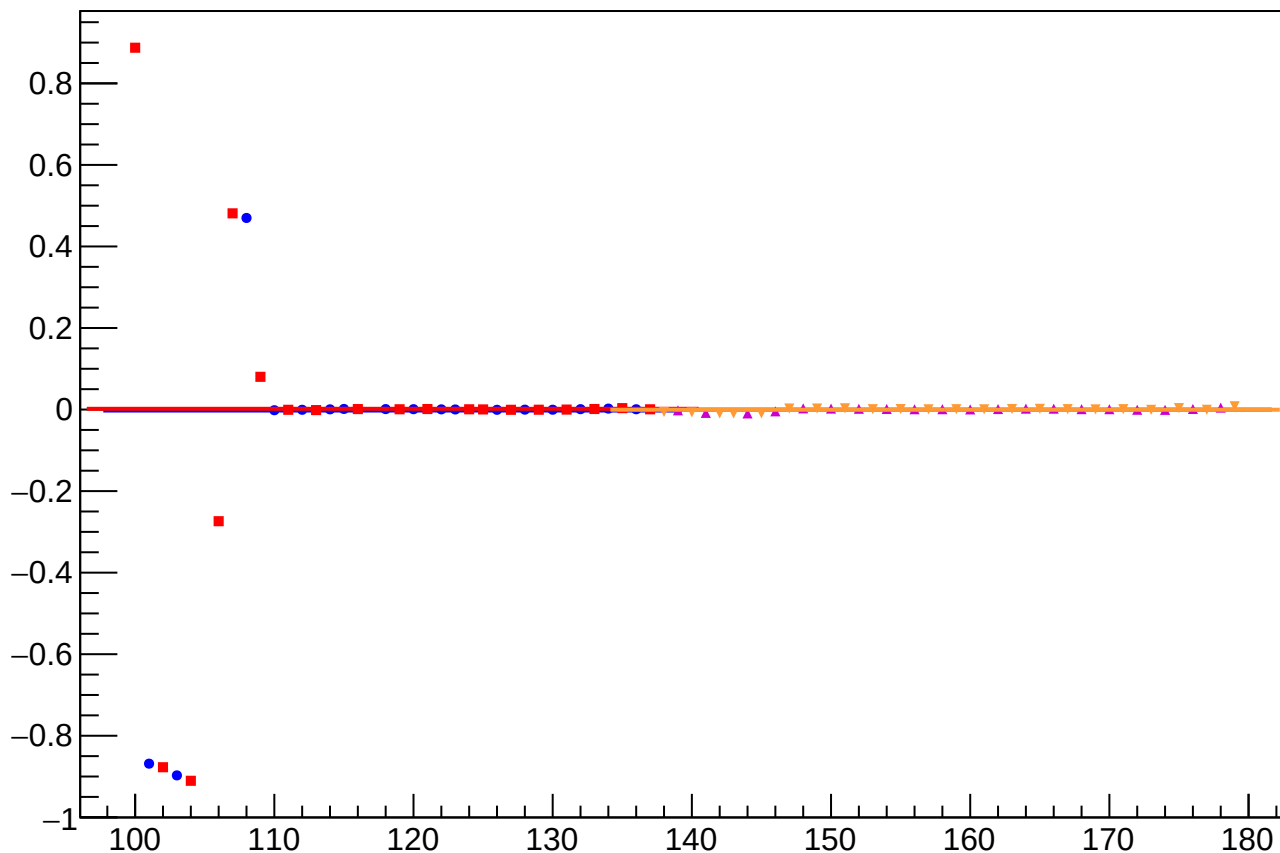
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19586090.4/35

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :35933659.6/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :38187173.6/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 74121337.5/77

# yield\_cav4cX\_mean vs Slug, Sign Corrected



Right In: -0.002+/-0.000  $\chi^2/\text{NDF}$ : 9794863405.3/16

Left Out: -0.000+/-0.000  $\chi^2/\text{NDF}$ : 131645298.2/21

Right Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 3041319824.4/18

Left In: -0.000+/-0.000  $\chi^2/\text{NDF}$ : 77038889.8/19

Left: -0.000+/-0.000  $\chi^2/\text{NDF}$ : 208927420.4/41

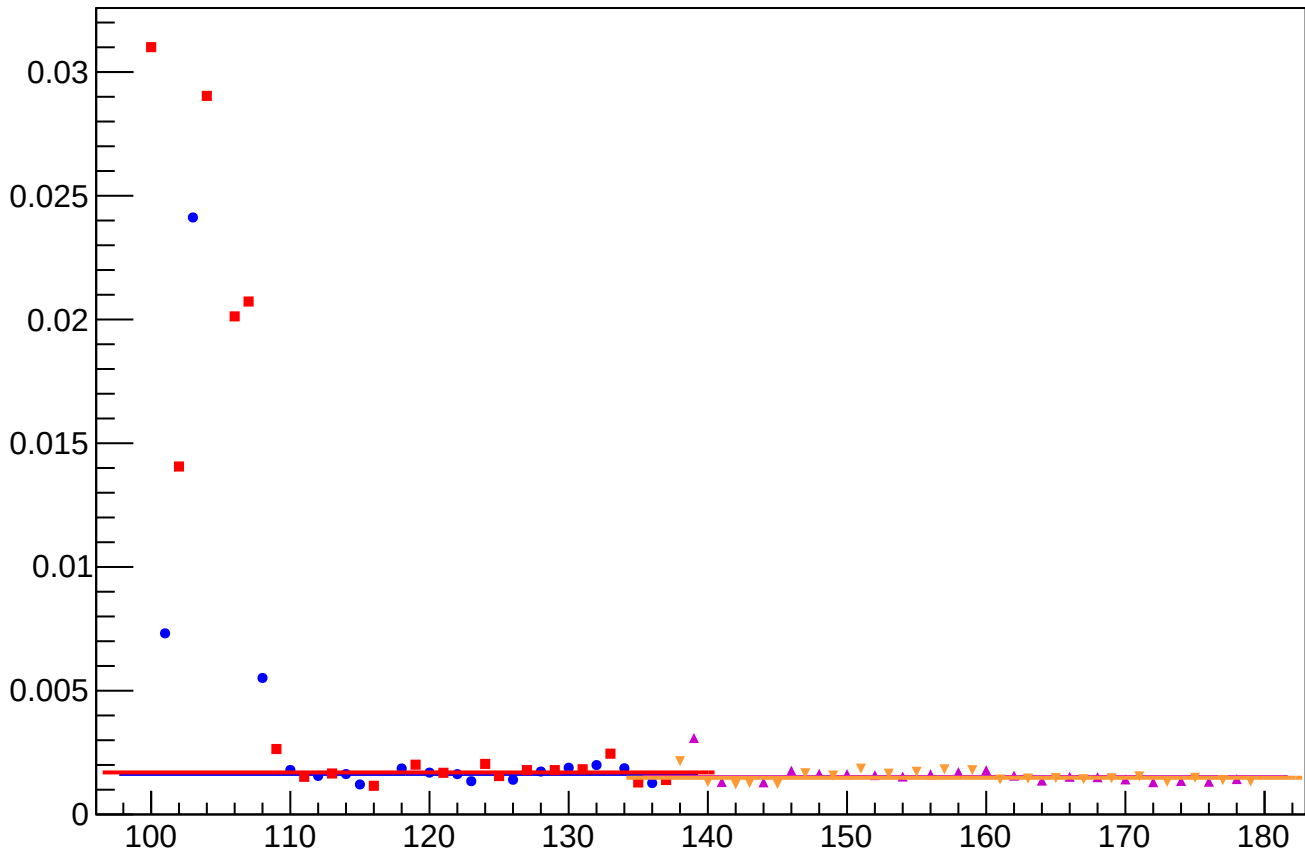
Right: -0.000+/-0.000  $\chi^2/\text{NDF}$ : 12850350896.6/35

In: -0.001+/-0.000  $\chi^2/\text{NDF}$ : 9878184107.6/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 3179354898.0/40

All: -0.000+/-0.000  $\chi^2/\text{NDF}$ : 13059282934.9/100

# yield\_cav4cX\_rms vs Slug, Sign Corrected



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 1916349.1/16

Left Out: 0.001 $\pm$ 0.000  $\chi^2$ /NDF:483399.8/21

Right Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 3023899.0/18

Left In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF:633768.0/19

Left: 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 1121133.0/41

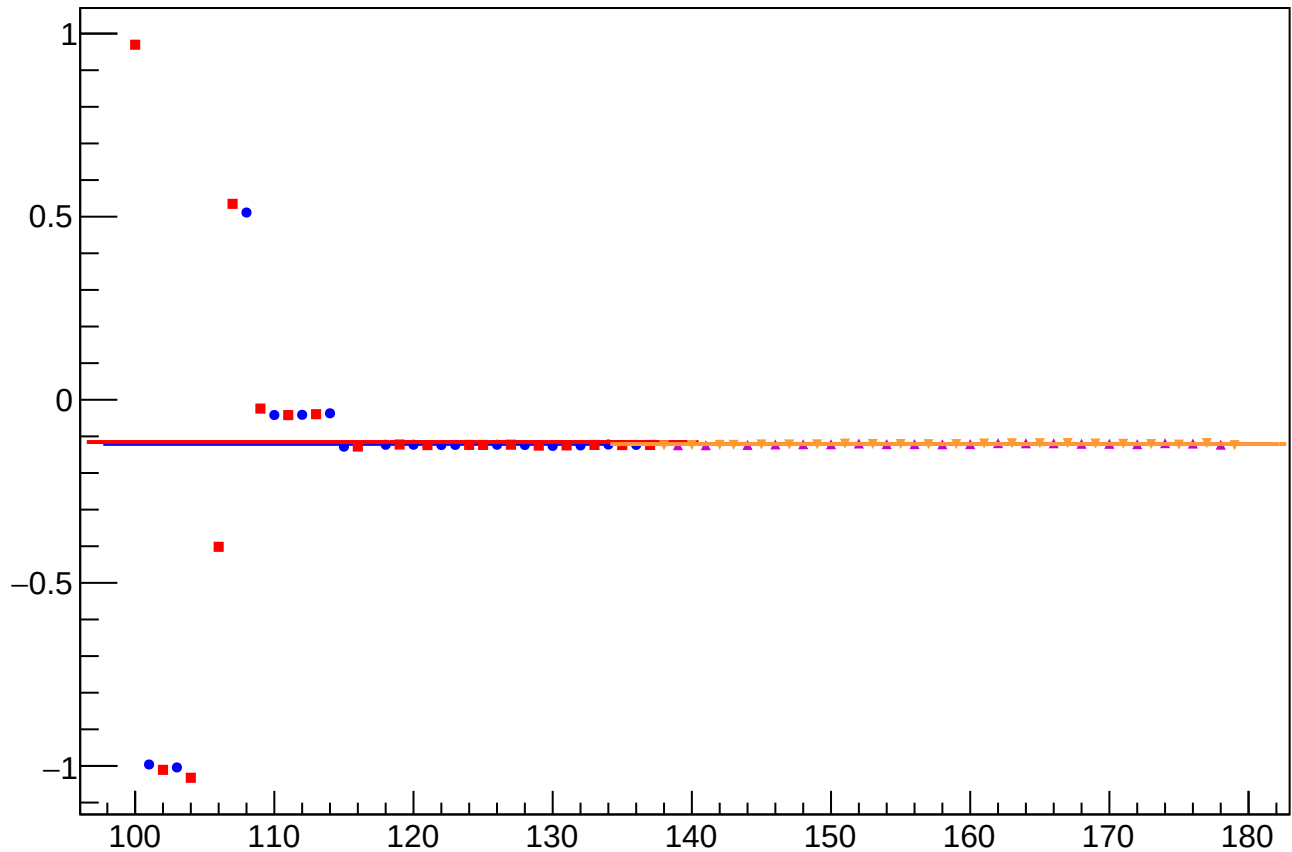
Right: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 4945998.5/35

In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF:2592384.6/36

Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF:3620696.4/40

All: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 6214269.4/77

# yield\_cav4cY\_mean vs Slug, Sign Corrected



Right In: -0.120+/-0.000  $\chi^2/\text{NDF}$ : 3932144335.2/16

Left Out: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 54513609.5/21

Right Out: -0.115+/-0.000  $\chi^2/\text{NDF}$ : 2456843337.8/18

Left In: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 38129448.7/19

Left: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 93080139.3/41

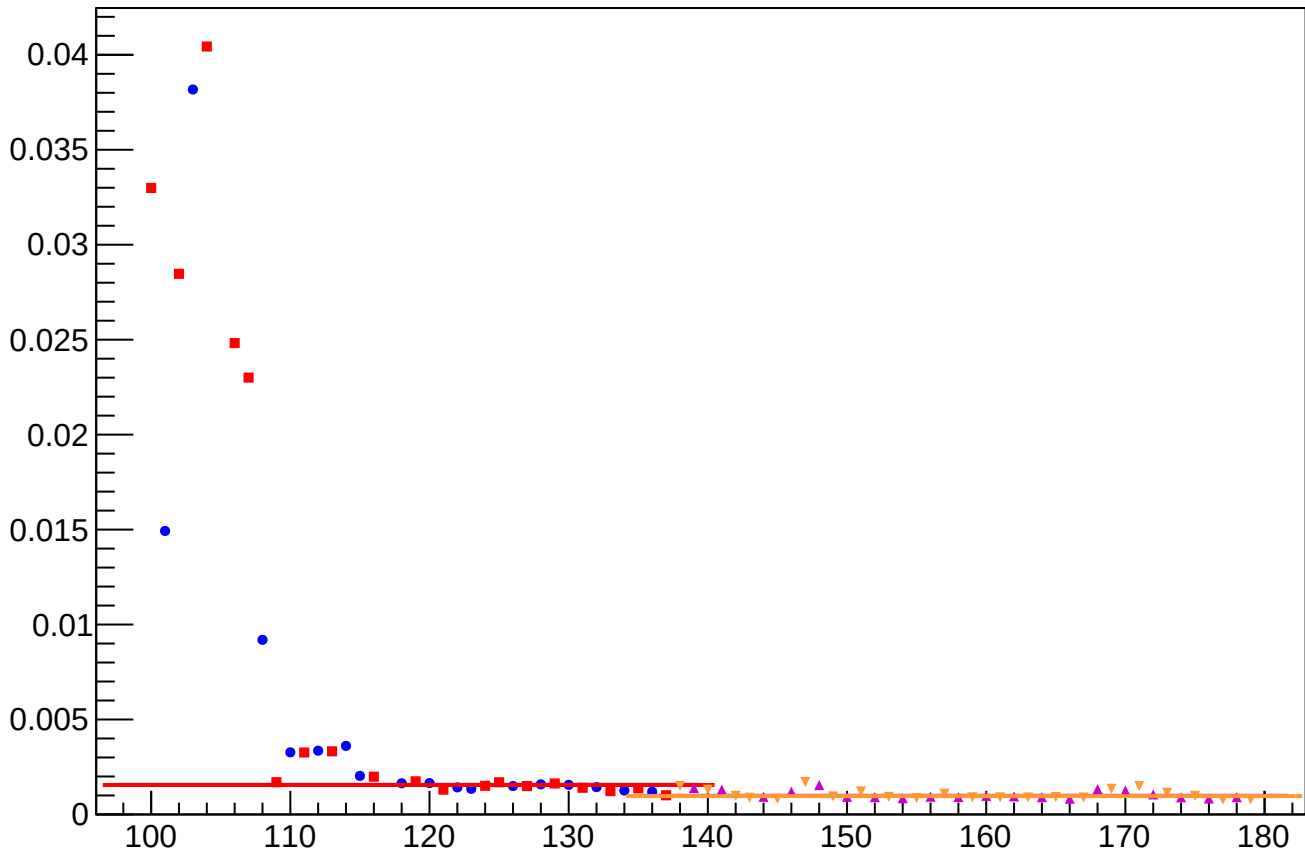
Right: -0.118+/-0.000  $\chi^2/\text{NDF}$ : 6411653427.4/35

In: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 3970539045.3/36

Out: -0.120+/-0.000  $\chi^2/\text{NDF}$ : 2563378086.5/40

All: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 6534672240.0/7

# yield\_cav4cY\_rms vs Slug, Sign Corrected



Right In: 0.002+/-0.000  $\chi^2/NDF$ : 2901093.3/16

Left Out: 0.001+/-0.000  $\chi^2/NDF$ : 1213844.2/21

Right Out: 0.002+/-0.000  $\chi^2/NDF$ : 3539455.6/18

Left In: 0.001+/-0.000  $\chi^2/NDF$ : 809520.7/19

Left: 0.001+/-0.000  $\chi^2/NDF$ : 2026720.0/41

Right: 0.002+/-0.000  $\chi^2/NDF$ : 6440590.7/35

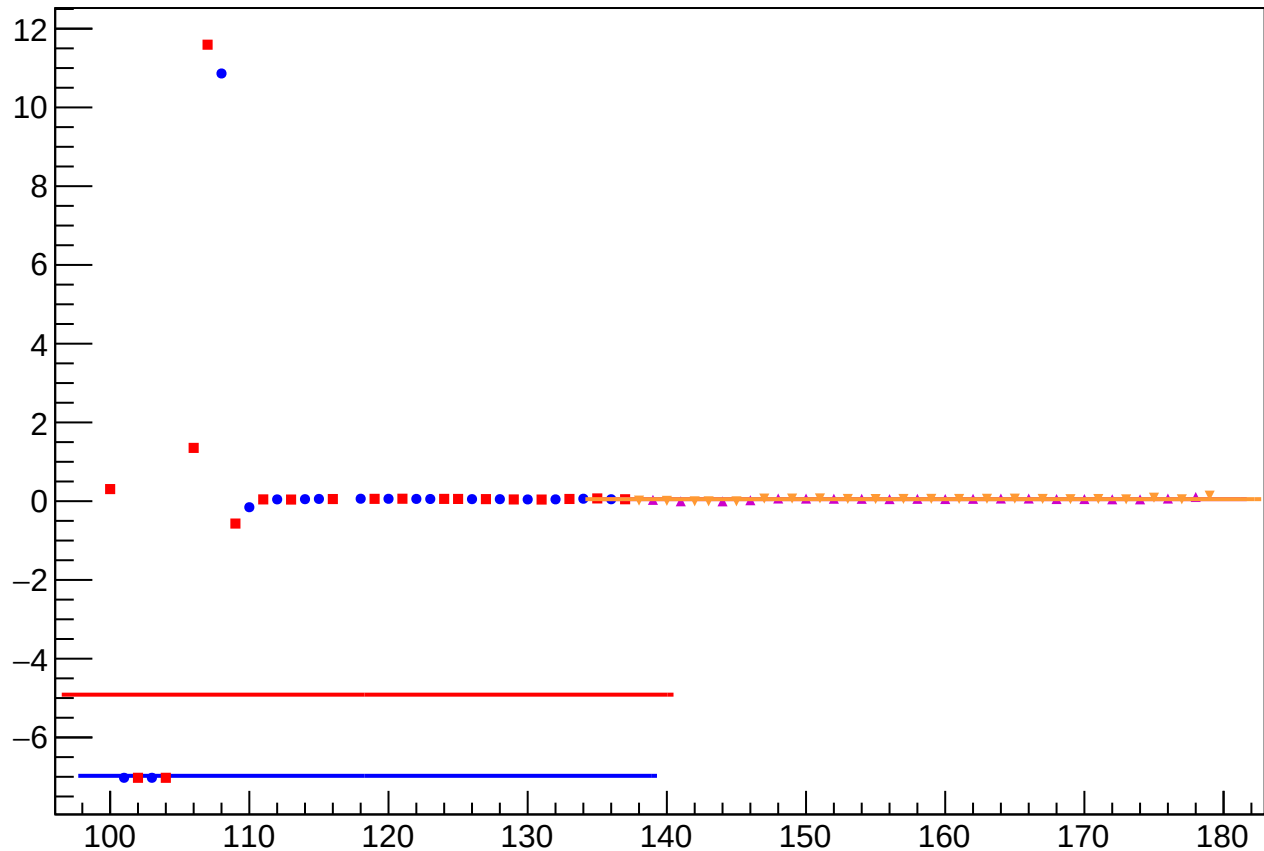
In: 0.001+/-0.000  $\chi^2/NDF$ : 4812139.7/36

Out: 0.001+/-0.000  $\chi^2/NDF$ : 5912153.6/40

All: 0.001+/-0.000  $\chi^2/NDF$ : 10730154.4/77

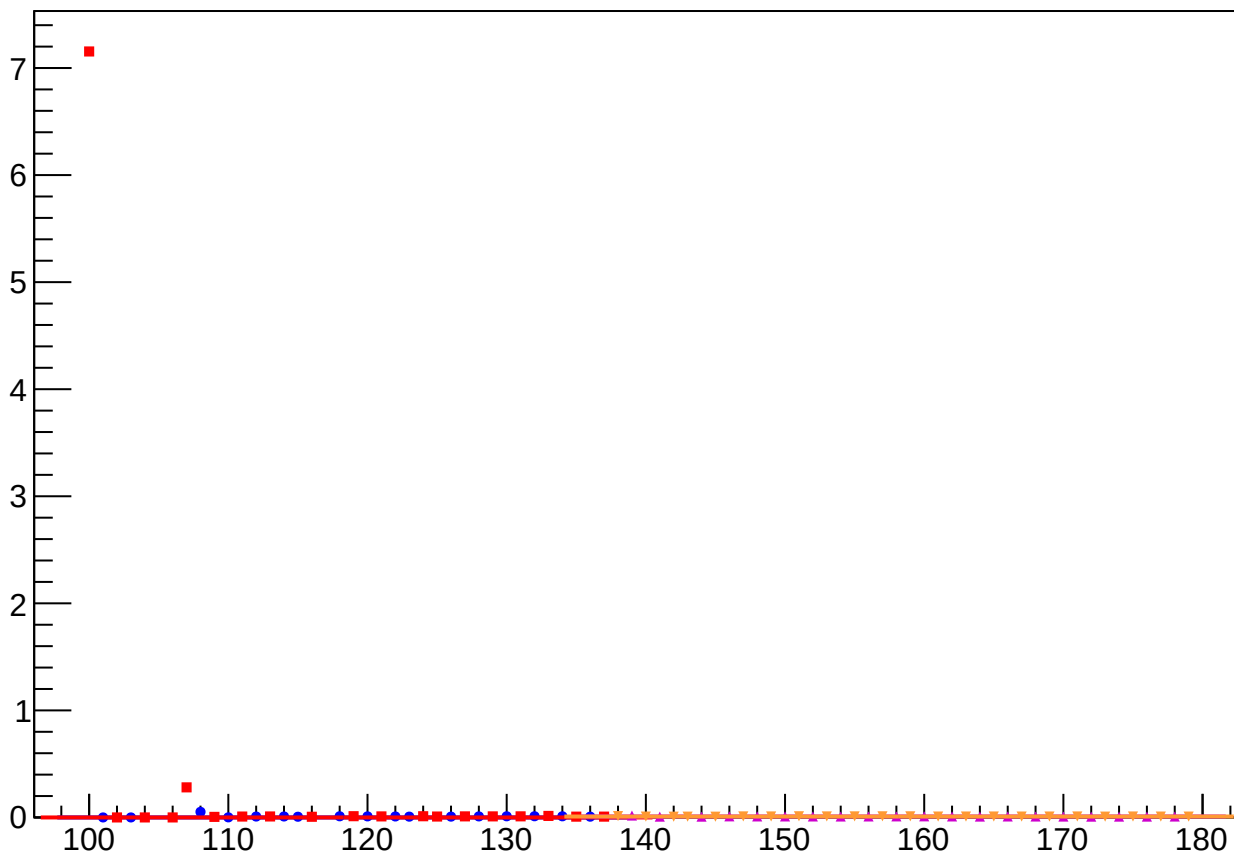


# yield\_cav4dX\_mean vs Slug, Sign Corrected



Right In:  $-6.975 \pm 0.000$   $\chi^2/\text{NDF}: 8749579700722.8/16$  Left:  $0.052 \pm 0.000$   $\chi^2/\text{NDF}: 305919220.4/41$   
 Left Out:  $0.051 \pm 0.000$   $\chi^2/\text{NDF}: 199623671.6/21$  Right:  $-5.900 \pm 0.000$   $\chi^2/\text{NDF}: 430307691650468.6$   
 Right Out:  $-4.914 \pm 0.000$   $\chi^2/\text{NDF}: 365358092730279.9/18$  In:  $-6.932 \pm 0.000$   $\chi^2/\text{NDF}: 16473443045927.9/36$   
 Left In:  $0.052 \pm 0.000$   $\chi^2/\text{NDF}: 106287376.5/19$  Out:  $-4.883 \pm 0.000$   $\chi^2/\text{NDF}: 369626700175337.1/17$   
 All:  $-5.863 \pm 0.000$   $\chi^2/\text{NDF}: 4419807674640.0/100$

# yield\_cav4dX\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8242728.7/16

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 472348.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8775982.6/18

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 625815.9/19

Left: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 1101969.5/41

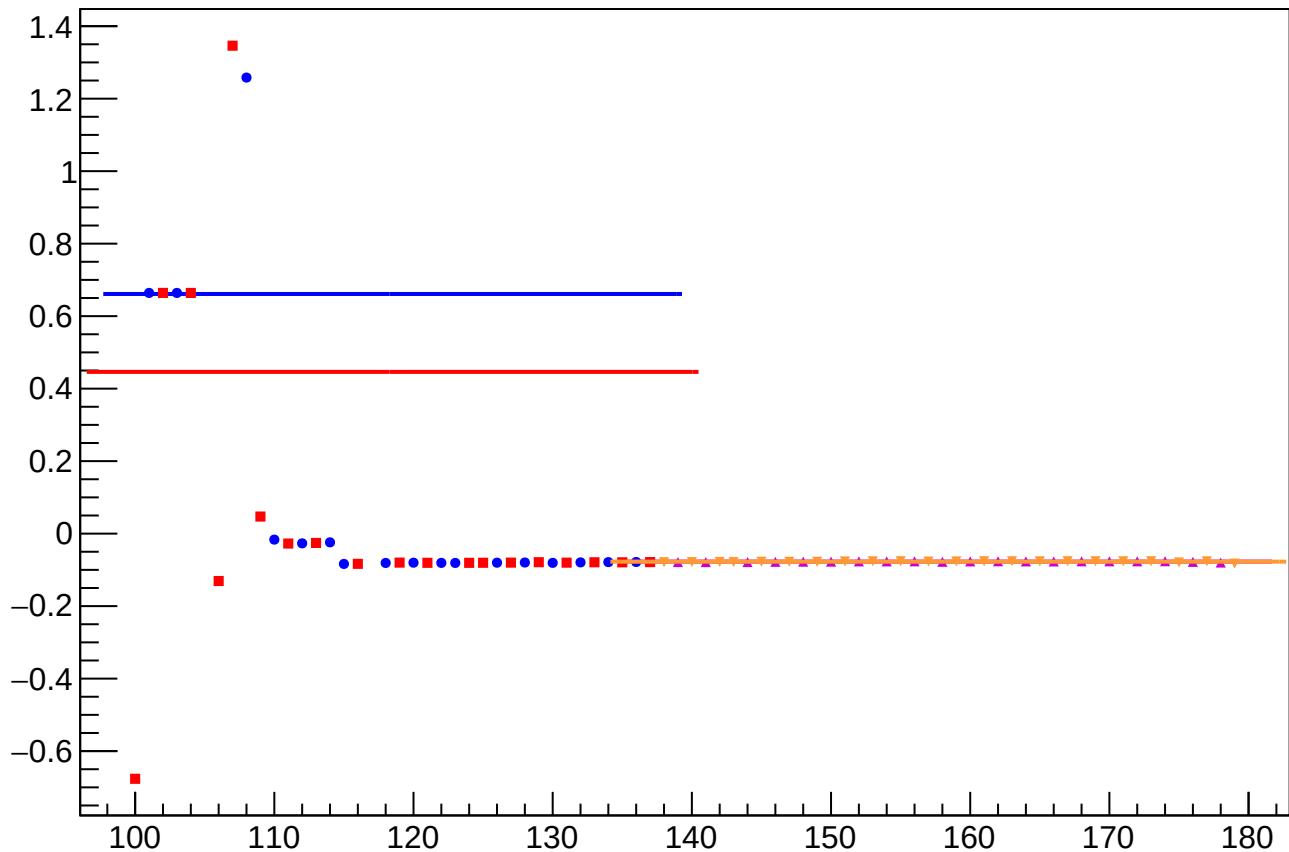
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 17018999.2/35

In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 32801167.8/36

Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 34846337.1/40

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 67647816.7/77

# yield\_cav4dY\_mean vs Slug, Sign Corrected



Right In: 0.661+/-0.000

$\chi^2/\text{NDF}$ : 5607525081216.0/16

Left: -0.077+/-0.000

$\chi^2/\text{NDF}$ : 179398939.9/41

Left Out: -0.077+/-0.000

$\chi^2/\text{NDF}$ : 131864132.3/21

Right: 0.549+/-0.000

$\chi^2/\text{NDF}$ : 473947475230218.3

Right Out: 0.446+/-0.000

$\chi^2/\text{NDF}$ : 405416924315199.0/18

In: 0.648+/-0.000

$\chi^2/\text{NDF}$ : 30801464215906.7/36

Out: 0.437+/-0.000

$\chi^2/\text{NDF}$ : 419130281666375.2/4

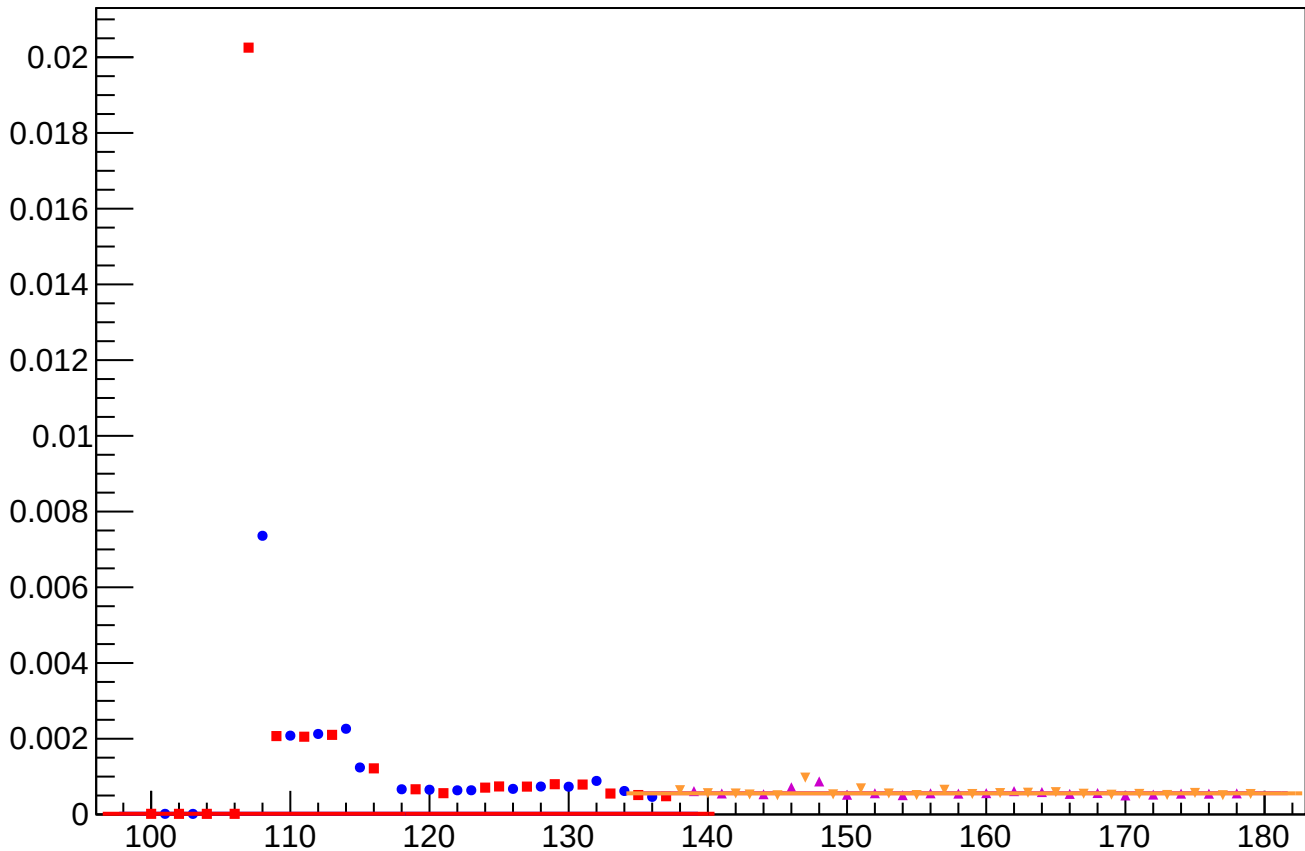
Left In: -0.077+/-0.000

$\chi^2/\text{NDF}$ : 46652982.2/19

All: 0.538+/-0.000

$\chi^2/\text{NDF}$ : 51167382988057

# yield\_cav4dY\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000

$\chi^2$ /NDF: 9874012.7/16

Left Out: 0.001+/-0.000

$\chi^2$ /NDF: 457317.7/21

Right Out: 0.000+/-0.000

$\chi^2$ /NDF: 9480848.1/18

Left In: 0.001+/-0.000

$\chi^2$ /NDF: 353294.3/19

Left: 0.001+/-0.000

$\chi^2$ /NDF: 811605.7/41

Right: 0.000+/-0.000

$\chi^2$ /NDF: 19354868.6/35

In: 0.000+/-0.000

$\chi^2$ /NDF: 37547637.3/36

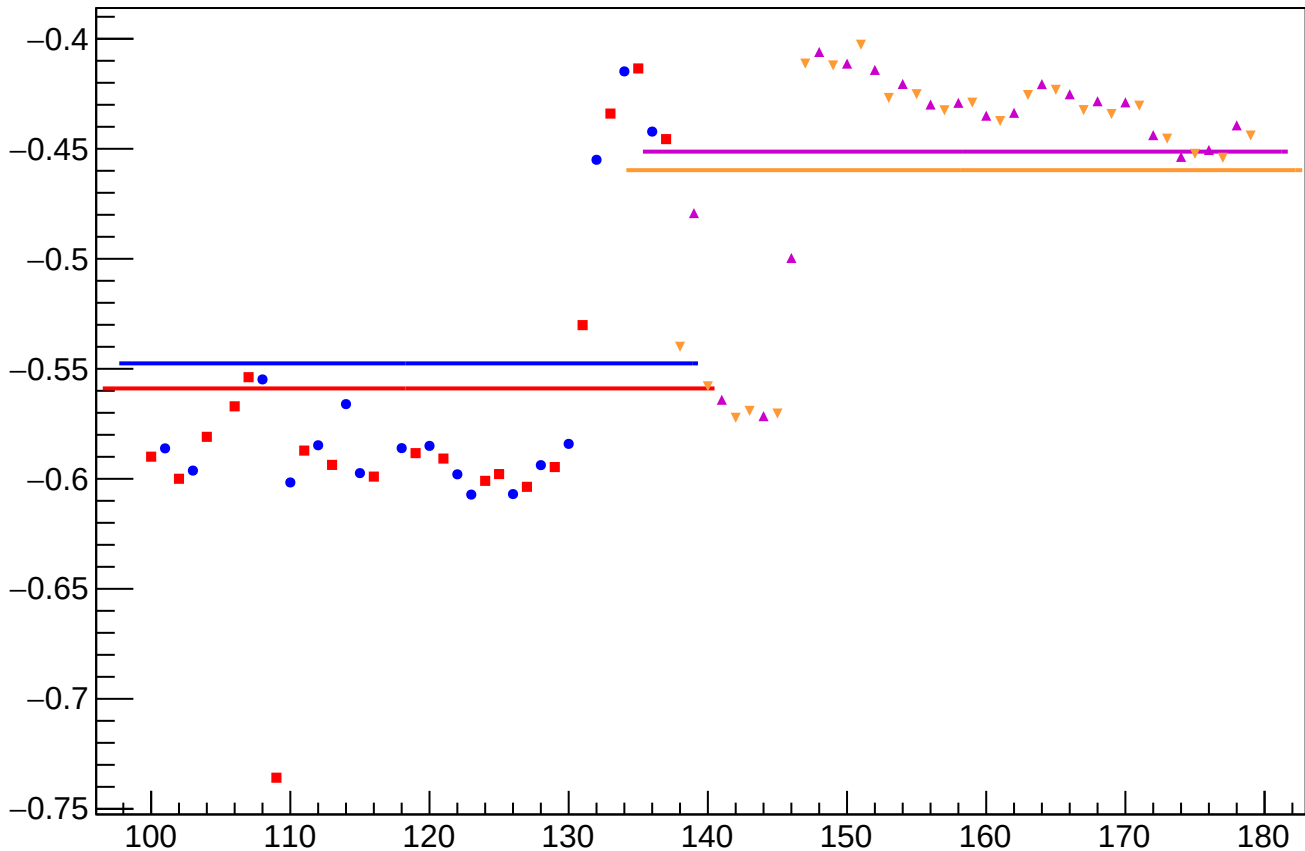
Out: 0.000+/-0.000

$\chi^2$ /NDF: 39024617.6/40

All: 0.000+/-0.000

$\chi^2$ /NDF: 76572415.0/77

# yield\_bpm4aX\_mean vs Slug, Sign Corrected



Right In:  $-0.548 \pm 0.000$   $\chi^2/\text{NDF}: 48545285.9/16$

Left Out:  $-0.460 \pm 0.000$   $\chi^2/\text{NDF}: 107377406.4/21$

Right Out:  $-0.559 \pm 0.000$   $\chi^2/\text{NDF}: 65330923.3/18$

Left In:  $-0.451 \pm 0.000$   $\chi^2/\text{NDF}: 75554664.4/19$

Left:  $-0.456 \pm 0.000$   $\chi^2/\text{NDF}: 184129828.7/41$

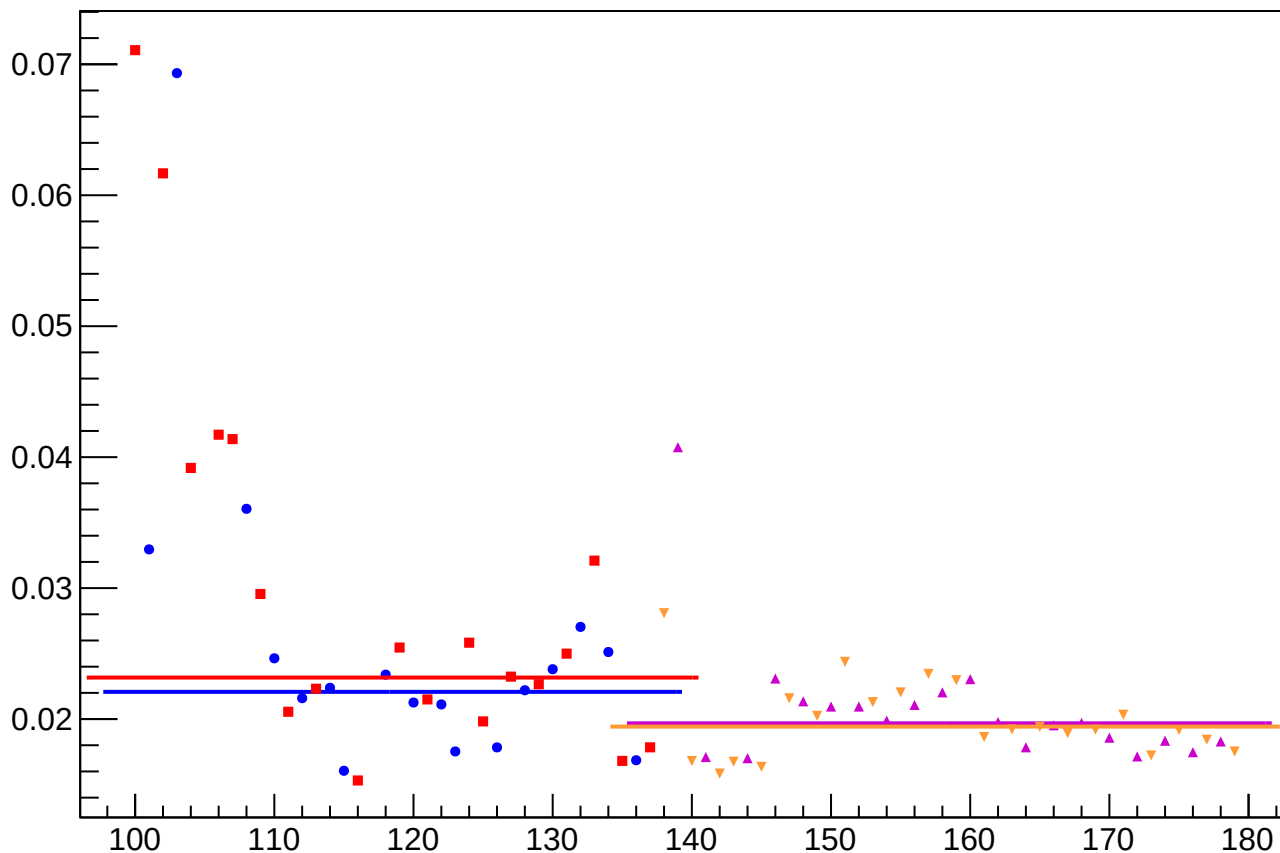
Right:  $-0.553 \pm 0.000$   $\chi^2/\text{NDF}: 114532950.1/35$

In:  $-0.475 \pm 0.000$   $\chi^2/\text{NDF}: 196673483.2/36$

Out:  $-0.481 \pm 0.000$   $\chi^2/\text{NDF}: 248928222.2/40$

All:  $-0.478 \pm 0.000$   $\chi^2/\text{NDF}: 446597547.4/77$

# yield\_bpm4aX\_rms vs Slug, Sign Corrected



Right In: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 954779.5/16

Left Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 447352.0/21

Right Out: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 1156758.3/18

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 612970.7/19

Left: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1062399.5/41

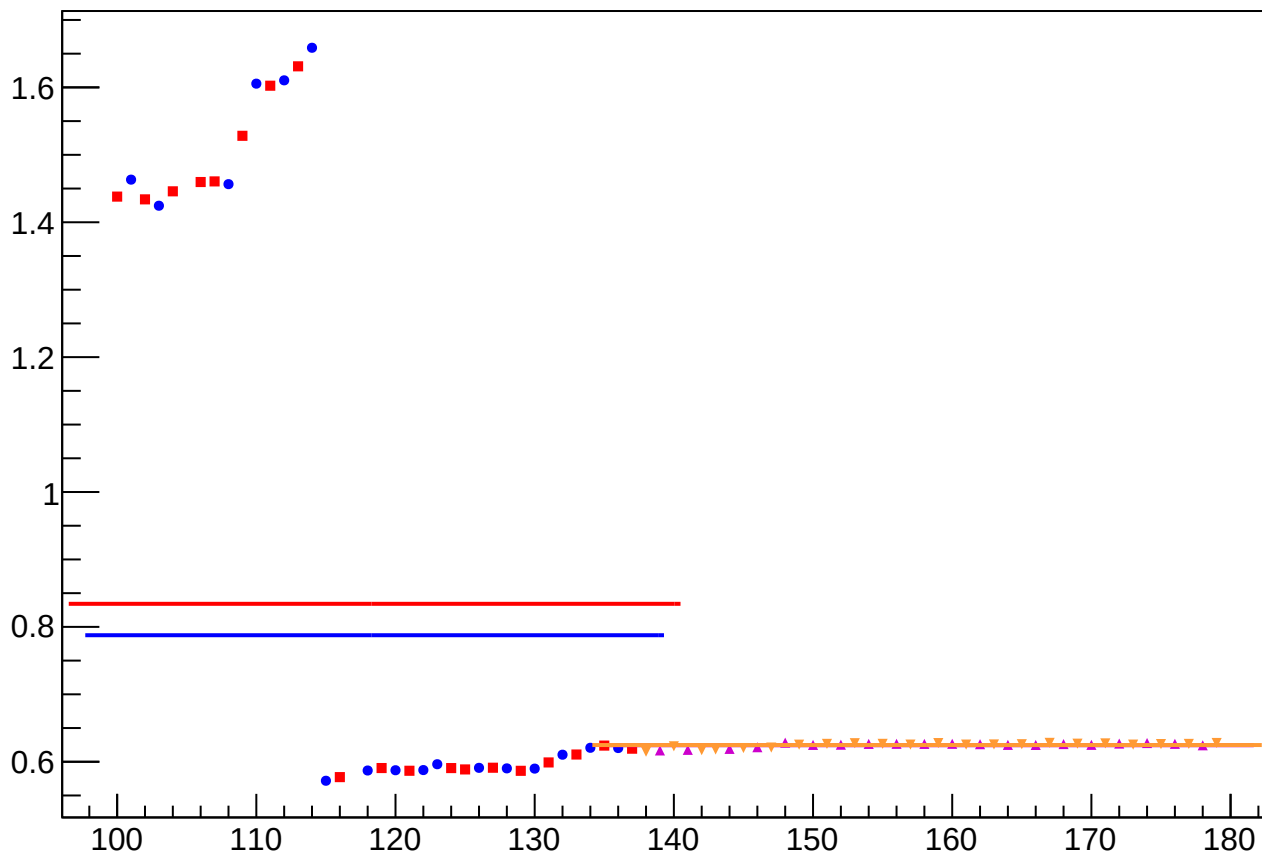
Right: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 2123609.7/35

In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1658270.5/36

Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1821151.0/40

All: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 3479429.3/77

# yield\_bpm4aY\_mean vs Slug, Sign Corrected



Right In: 0.788+/-0.000  $\chi^2/\text{NDF}$ : 3581400502.4/16

Left Out: 0.625+/-0.000  $\chi^2/\text{NDF}$ :1344007.8/21

Right Out: 0.834+/-0.000  $\chi^2/\text{NDF}$ : 4152115639.4/18

Left In: 0.624+/-0.000  $\chi^2/\text{NDF}$ :1049799.3/19

Left: 0.625+/-0.000  $\chi^2/\text{NDF}$ : 2398098.6/41

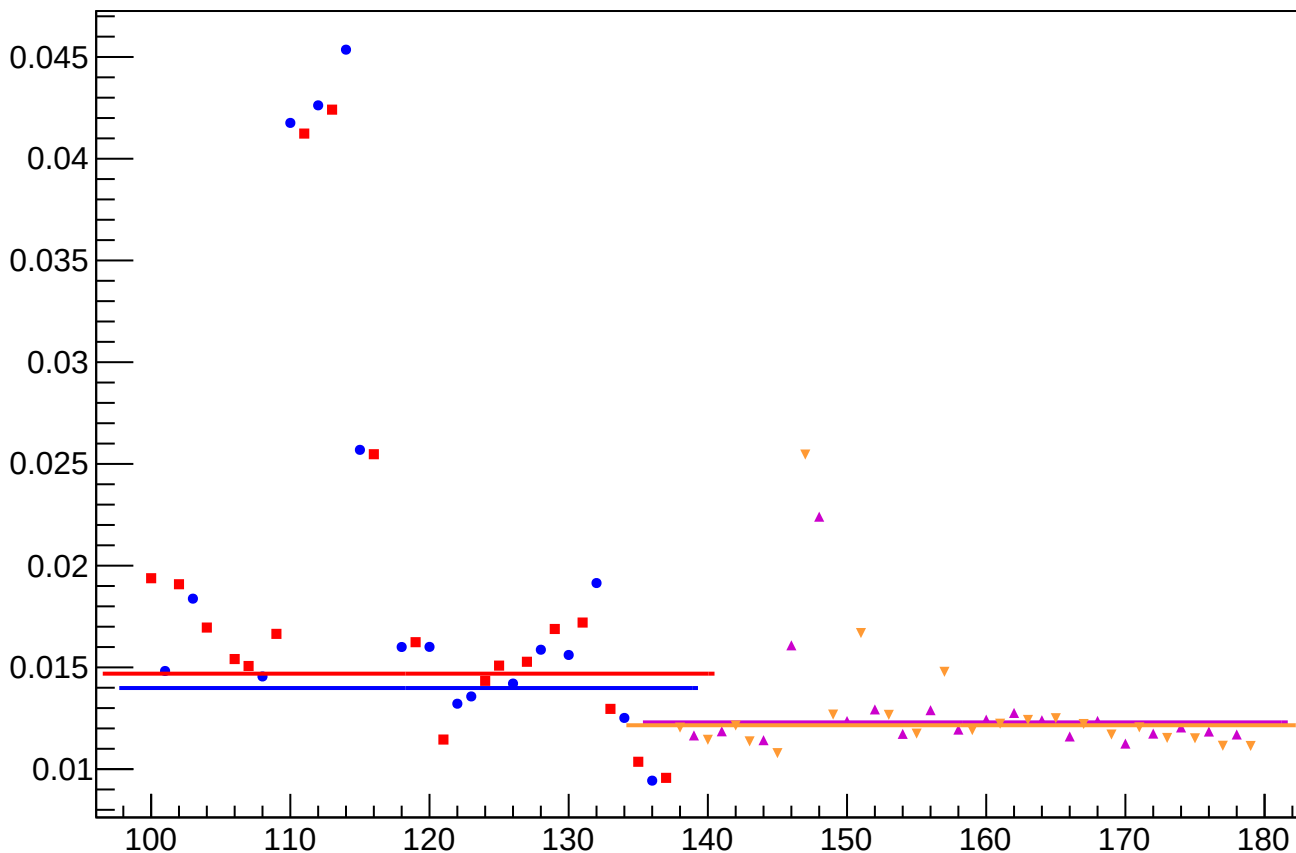
Right: 0.811+/-0.000  $\chi^2/\text{NDF}$ : 7764167044.9/35

In: 0.661+/-0.000  $\chi^2/\text{NDF}$ :4174903330.2/36

Out: 0.668+/-0.000  $\chi^2/\text{NDF}$ :5122965346.1/40

All: 0.665+/-0.000  $\chi^2/\text{NDF}$ : 9300748134.3/77

# yield\_bpm4aY\_rms vs Slug, Sign Corrected



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1398505.7/16

Left Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:641599.2/21

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 1258511.3/18

Left In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:448293.5/19

Left: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1091943.8/41

Right: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 2671110.0/35

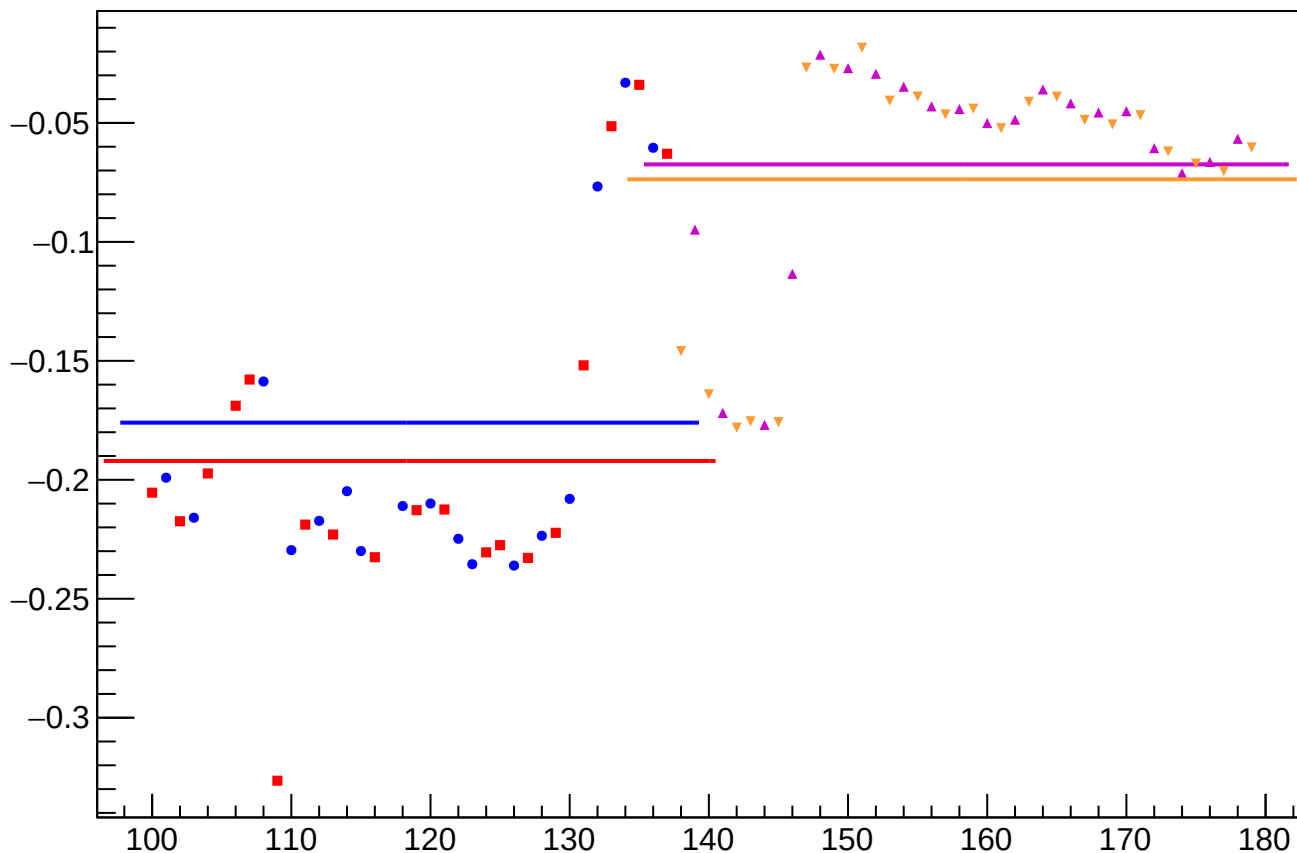
In: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:1973667.0/36

Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:2184287.1/40

All: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 4157954.1/77



# yield\_bpm4eX\_mean vs Slug, Sign Corrected



Right In: -0.176+/-0.000  $\chi^2$ /NDF: 70121069.1/16

Left Out: -0.074+/-0.000  $\chi^2$ /NDF:101880477.3/21

Right Out: -0.192+/-0.000  $\chi^2$ /NDF: 83253954.4/18

Left In: -0.067+/-0.000  $\chi^2$ /NDF:75828546.4/19

Left: -0.071+/-0.000  $\chi^2$ /NDF: 178404599.9/41

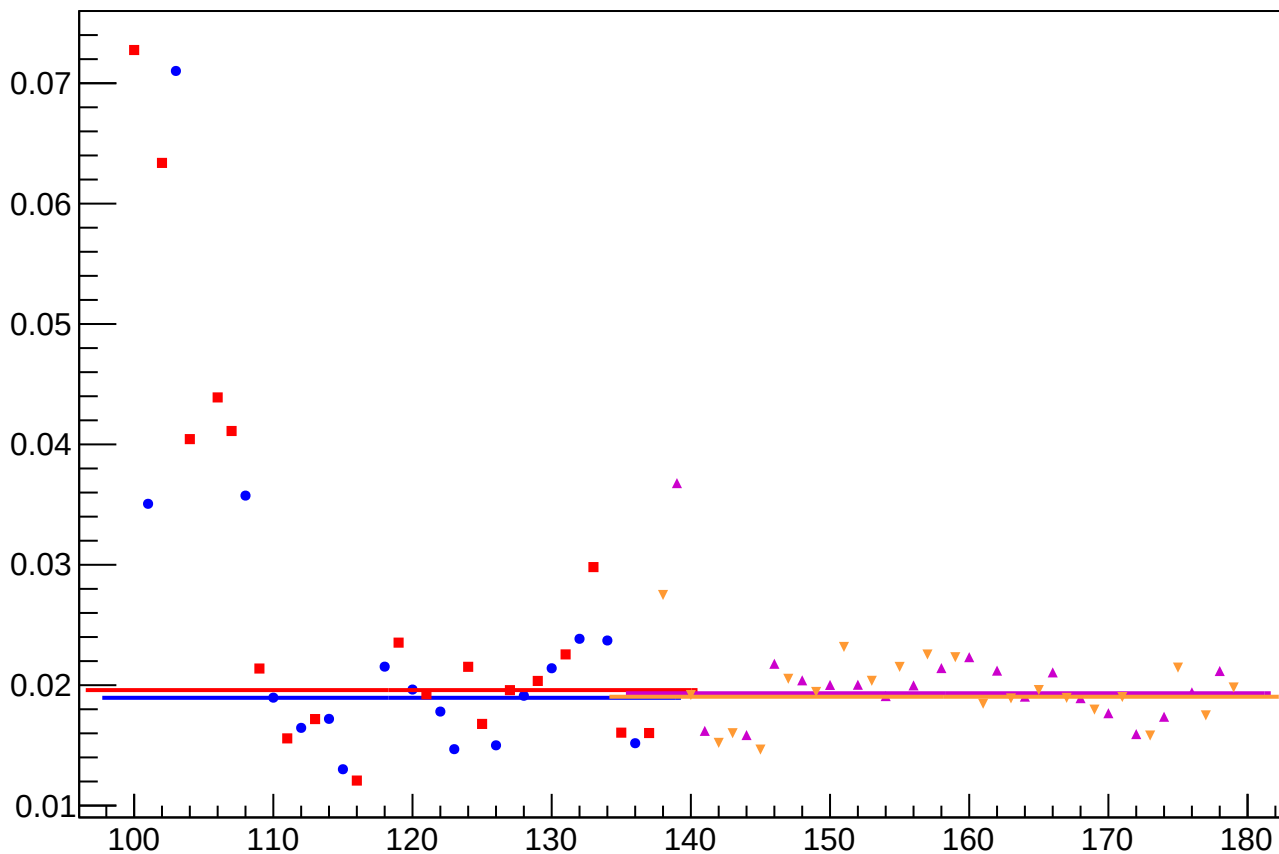
Right: -0.184+/-0.000  $\chi^2$ /NDF: 155143425.4/35

In: -0.099+/-0.000  $\chi^2$ /NDF:261348344.7/36

Out: -0.105+/-0.000  $\chi^2$ /NDF:324174489.6/40

All: -0.102+/-0.000  $\chi^2$ /NDF: 586501764.1/77

# yield\_bpm4eX\_rms vs Slug, Sign Corrected



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1203275.7/16

Left Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 507666.7/21

Right Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1455327.3/18

Left In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 599362.6/19

Left: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1110040.4/41

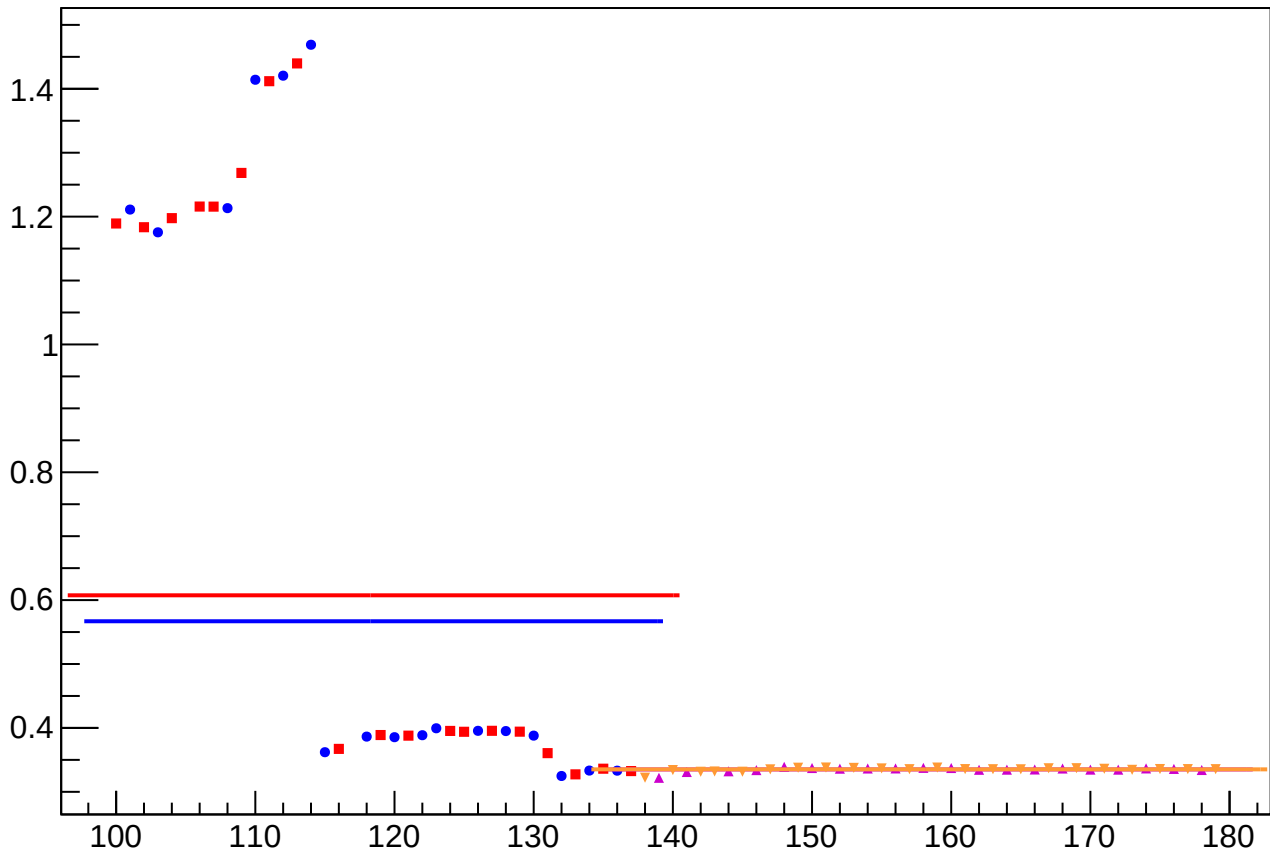
Right: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 2664188.0/35

In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1805444.2/36

Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1969049.9/40

All: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 3774554.6/77

# yield\_bpm4eY\_mean vs Slug, Sign Corrected



Right In: 0.567+/-0.000  $\chi^2/\text{NDF}$ : 5016913731.3/16

Left Out: 0.335+/-0.000  $\chi^2/\text{NDF}$ : 1137296.3/21

Right Out: 0.607+/-0.000  $\chi^2/\text{NDF}$ : 5505226431.3/18

Left In: 0.335+/-0.000  $\chi^2/\text{NDF}$ : 1194726.1/19

Left: 0.335+/-0.000  $\chi^2/\text{NDF}$ : 2333430.5/41

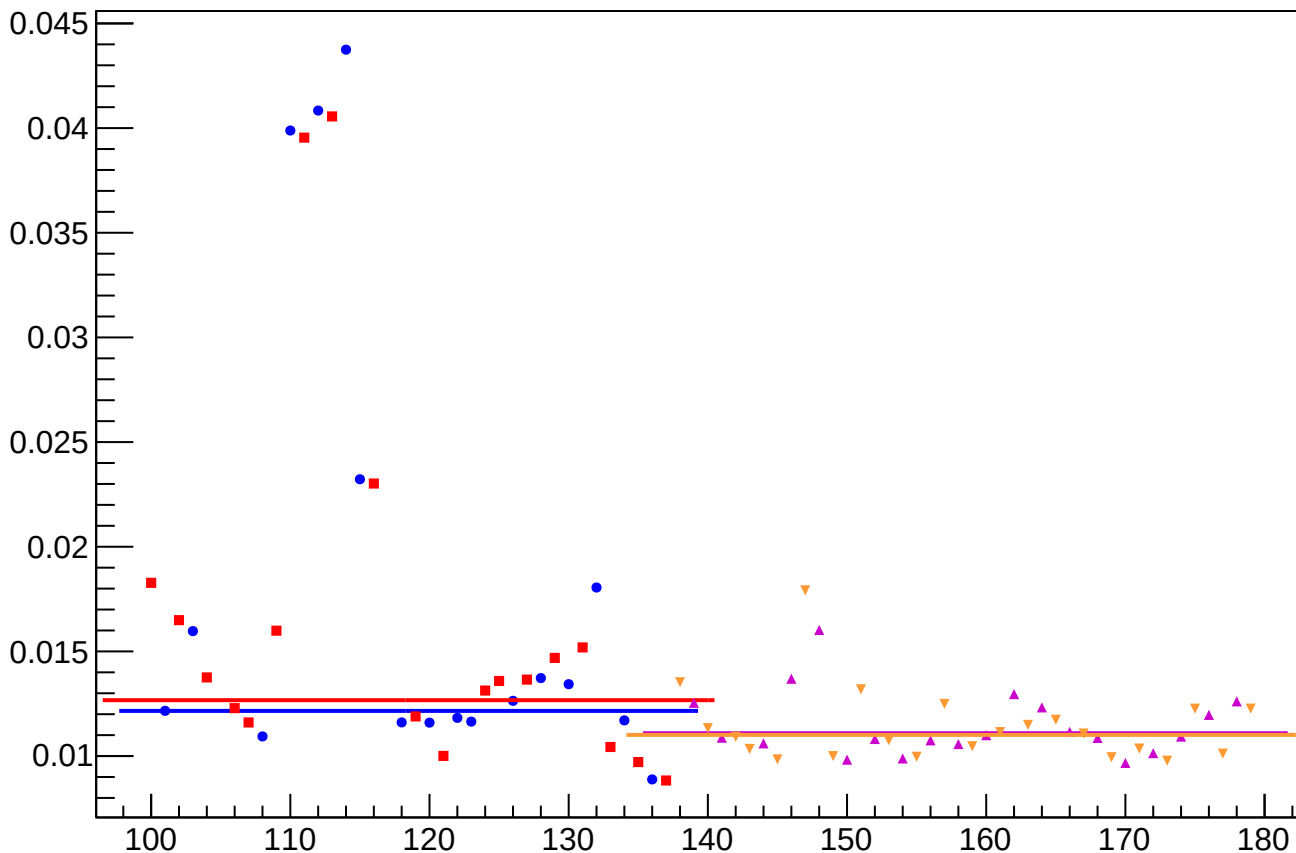
Right: 0.587+/-0.000  $\chi^2/\text{NDF}$ : 10552855690.4/35

In: 0.391+/-0.000  $\chi^2/\text{NDF}$ : 6567783777.3/36

Out: 0.395+/-0.000  $\chi^2/\text{NDF}$ : 7628285944.8/40

All: 0.393+/-0.000  $\chi^2/\text{NDF}$ : 14197642397.6/77

# yield\_bpm4eY\_rms vs Slug, Sign Corrected



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1307948.2/16

Left Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:496506.5/21

Right Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1267219.4/18

Left In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:400104.7/19

Left: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 897441.9/41

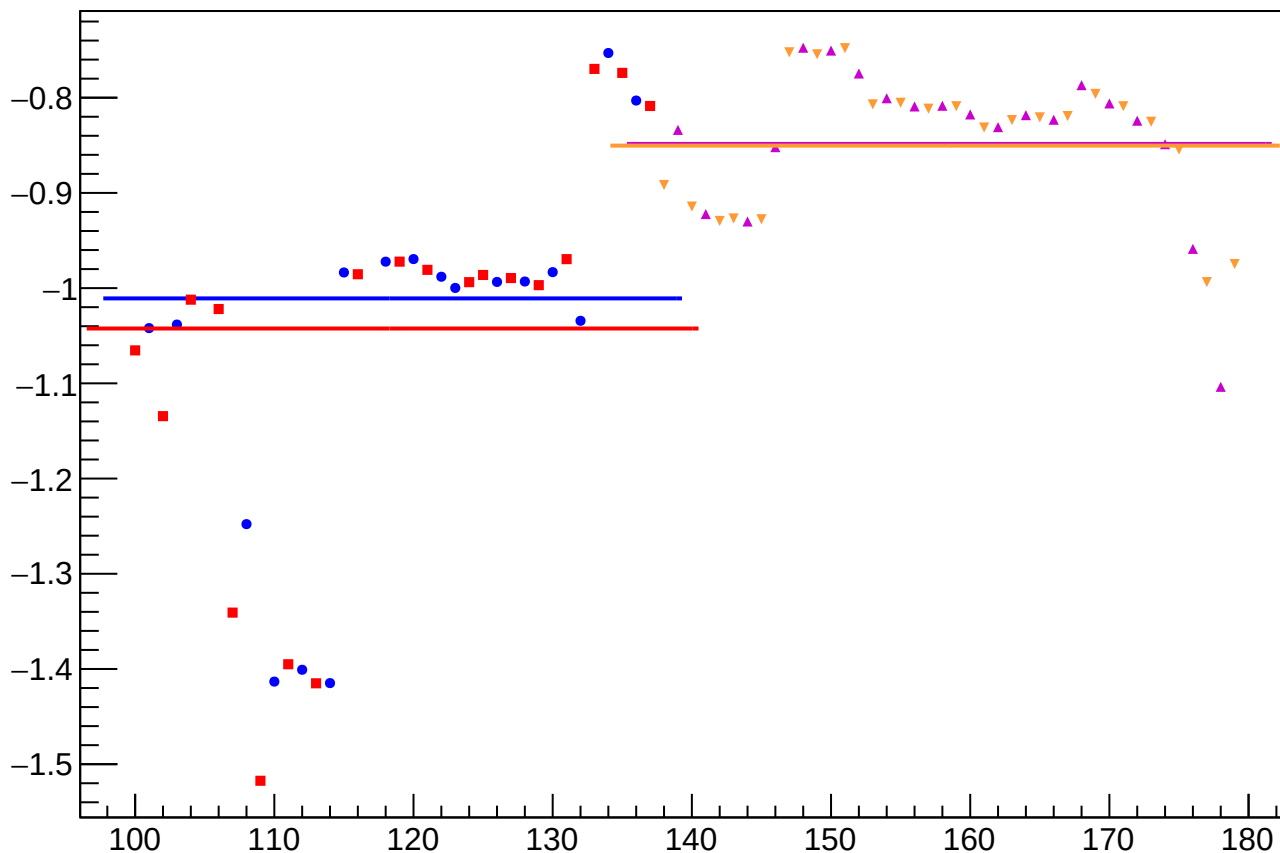
Right: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 2584926.4/35

In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:1773396.4/36

Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:1921010.5/40

All: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 3694529.5/77

# yield\_bpm4acX\_mean vs Slug, Sign Corrected



Right In: -1.011+/-0.000  $\chi^2/\text{NDF}$ : 387140230.3/16

Left Out: -0.850+/-0.000  $\chi^2/\text{NDF}$ : 180127767.9/21

Right Out: -1.042+/-0.000  $\chi^2/\text{NDF}$ : 528958824.5/18

Left In: -0.849+/-0.000  $\chi^2/\text{NDF}$ : 246220212.0/19

Left: -0.849+/-0.000  $\chi^2/\text{NDF}$ : 426403296.8/41

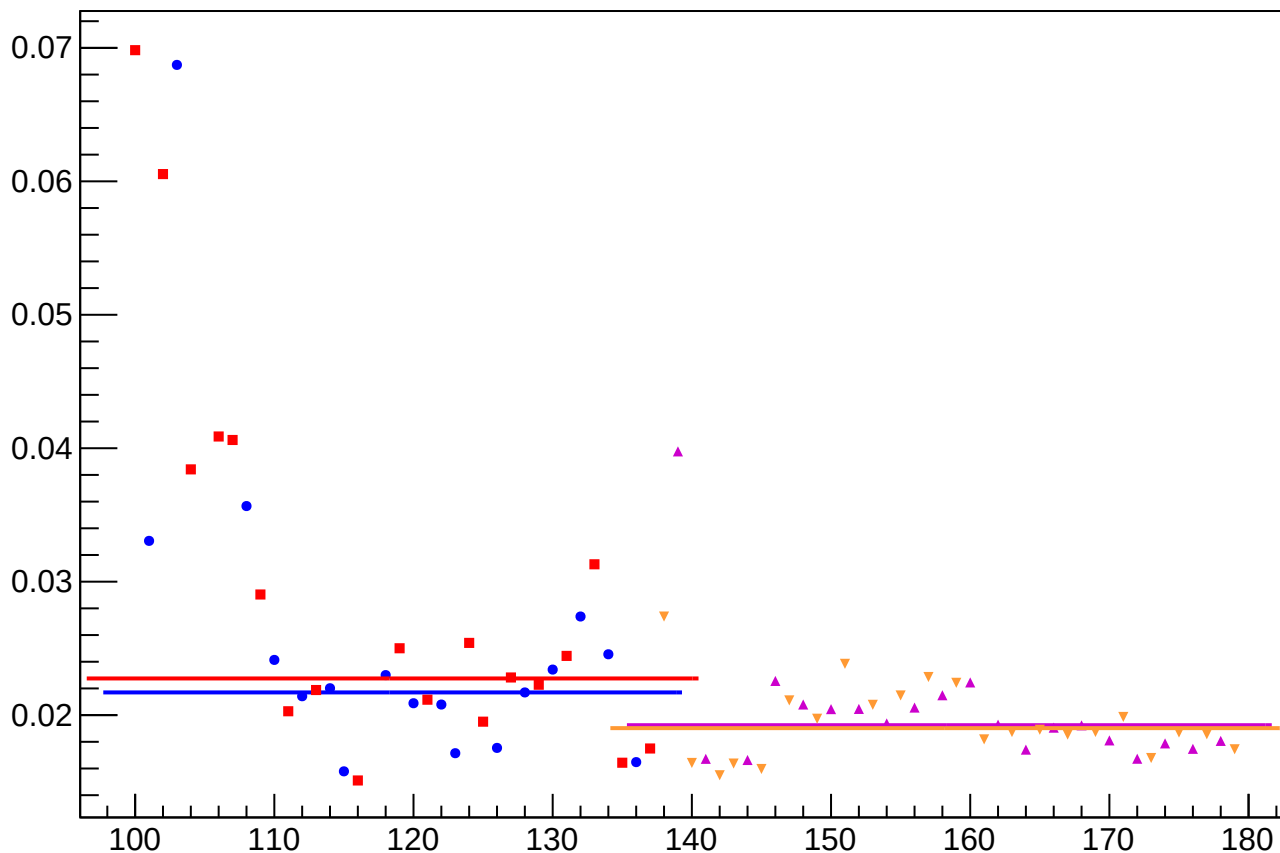
Right: -1.026+/-0.000  $\chi^2/\text{NDF}$ : 921337924.7/35

In: -0.888+/-0.000  $\chi^2/\text{NDF}$ : 847006402.5/36

Out: -0.892+/-0.000  $\chi^2/\text{NDF}$ : 1005283075.3/40

All: -0.890+/-0.000  $\chi^2/\text{NDF}$ : 1852754495.2/77

# yield\_bpm4acX\_rms vs Slug, Sign Corrected



Right In: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 979293.5/16

Left Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 436456.5/21

Right Out: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 1152332.6/18

Left In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 600721.9/19

Left: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1038888.1/41

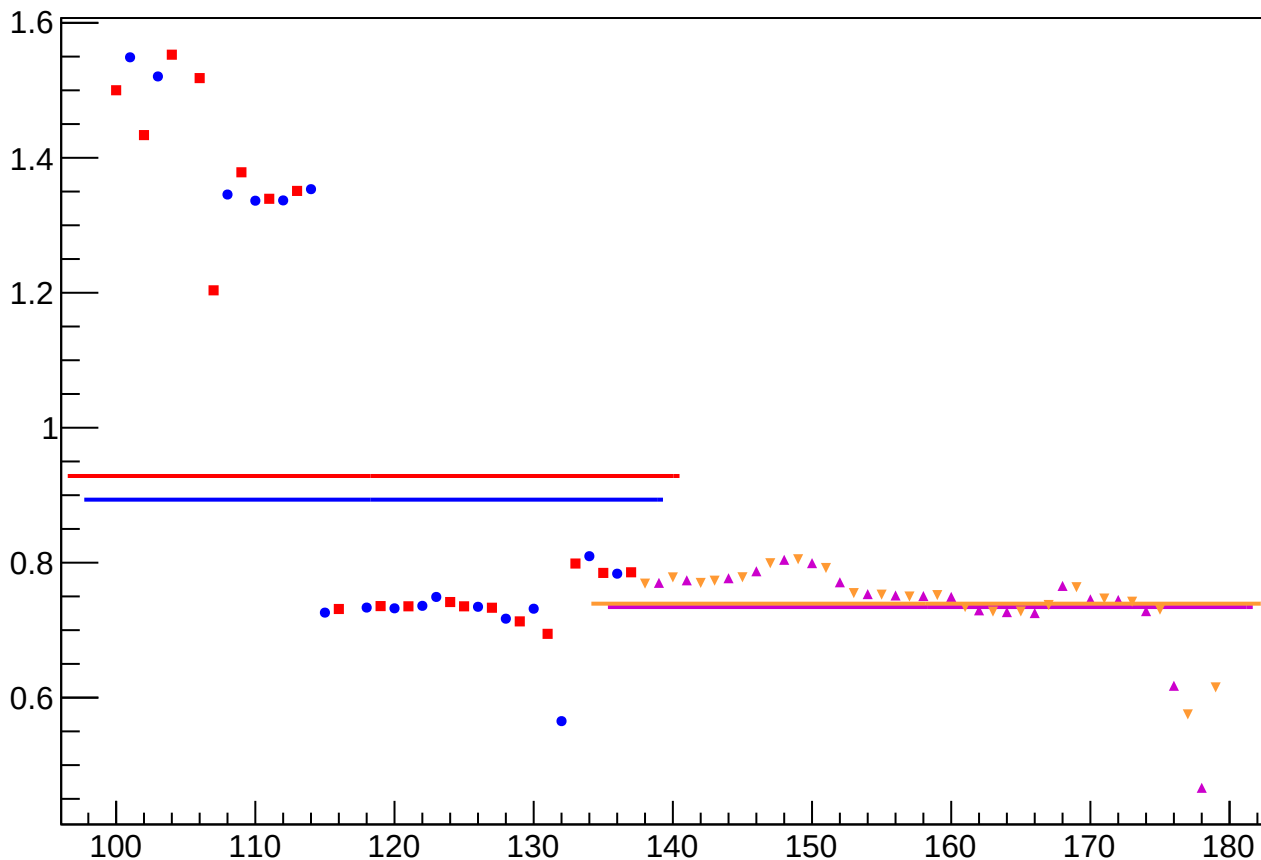
Right: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 2143091.8/35

In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1677958.8/36

Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1811297.9/40

All: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 3489256.8/77

# yield\_bpm4acY\_mean vs Slug, Sign Corrected



Right In: 0.893 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2408017556.1/16

Left Out: 0.739 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 315302034.8/21

Right Out: 0.928 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2435640156.0/18

Left In: 0.734 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 539915389.7/19

Left: 0.737 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 856492800.5/41

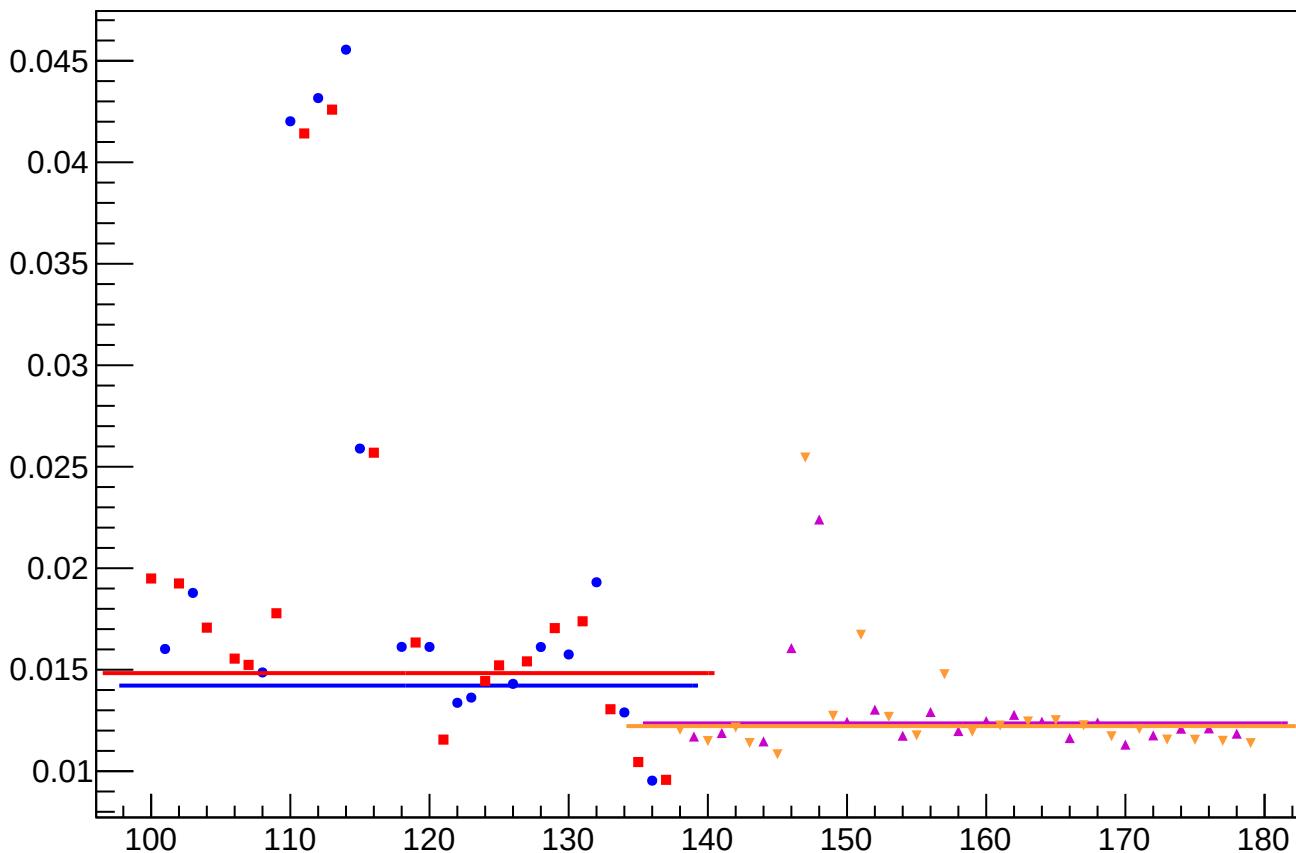
Right: 0.911 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 4860512064.2/35

In: 0.769 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3493742611.0/36

Out: 0.778 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3525781799.1/40

All: 0.774 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 7024249118.0/77

# yield\_bpm4acY\_rms vs Slug, Sign Corrected



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1409594.2/16

Left Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:623664.4/21

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 1269559.2/18

Left In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:440577.9/19

Left: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1066048.1/41

Right: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 2689500.8/35

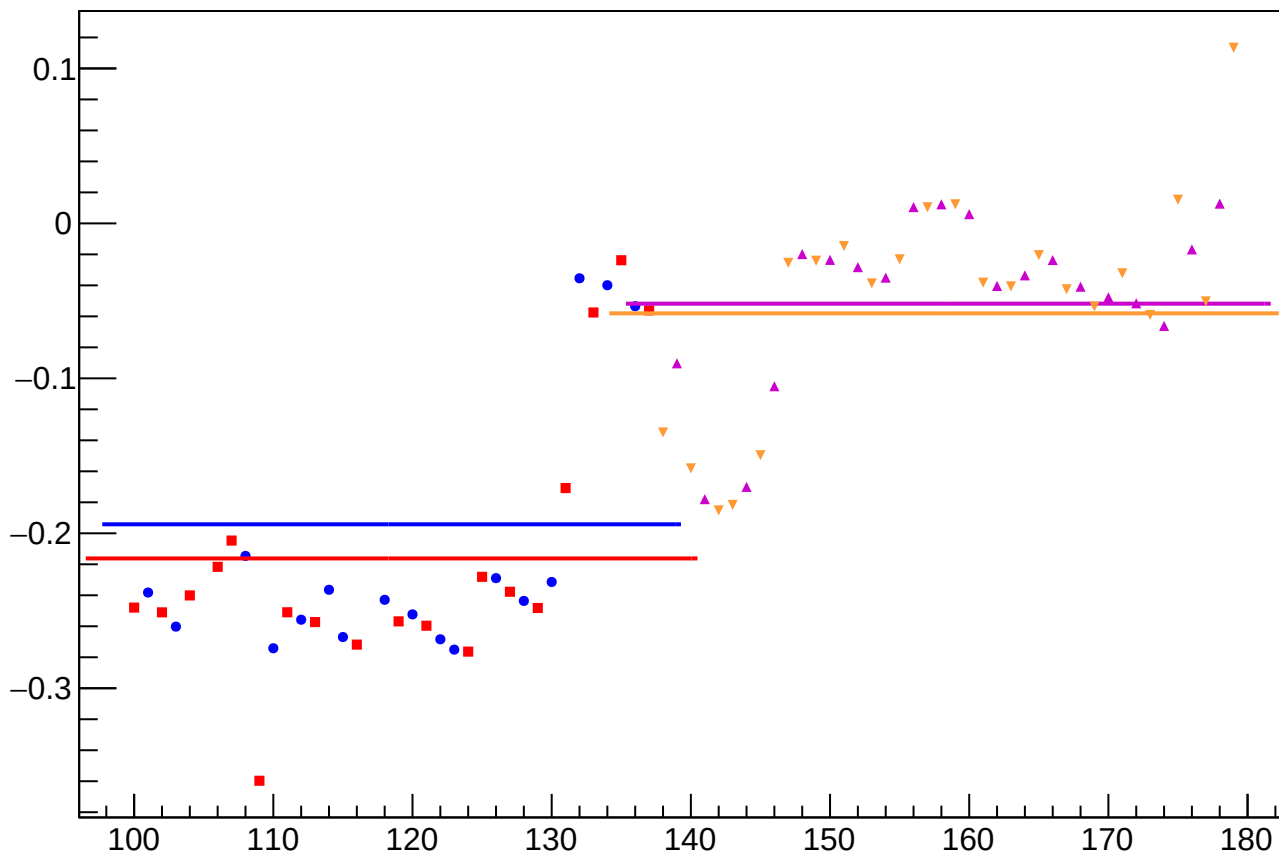
In: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:1999665.3/36

Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:2188093.4/40

All: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 4187774.3/77



# yield\_bpm4ecX\_mean vs Slug, Sign Corrected



Right In:  $-0.194 \pm 0.000$   $\chi^2/\text{NDF}: 108425823.4/16$

Left Out:  $-0.058 \pm 0.000$   $\chi^2/\text{NDF}: 143175782.3/21$

Right Out:  $-0.216 \pm 0.000$   $\chi^2/\text{NDF}: 111036295.0/18$

Left In:  $-0.052 \pm 0.000$   $\chi^2/\text{NDF}: 106128364.3/19$

Left:  $-0.055 \pm 0.000$   $\chi^2/\text{NDF}: 249987245.5/41$

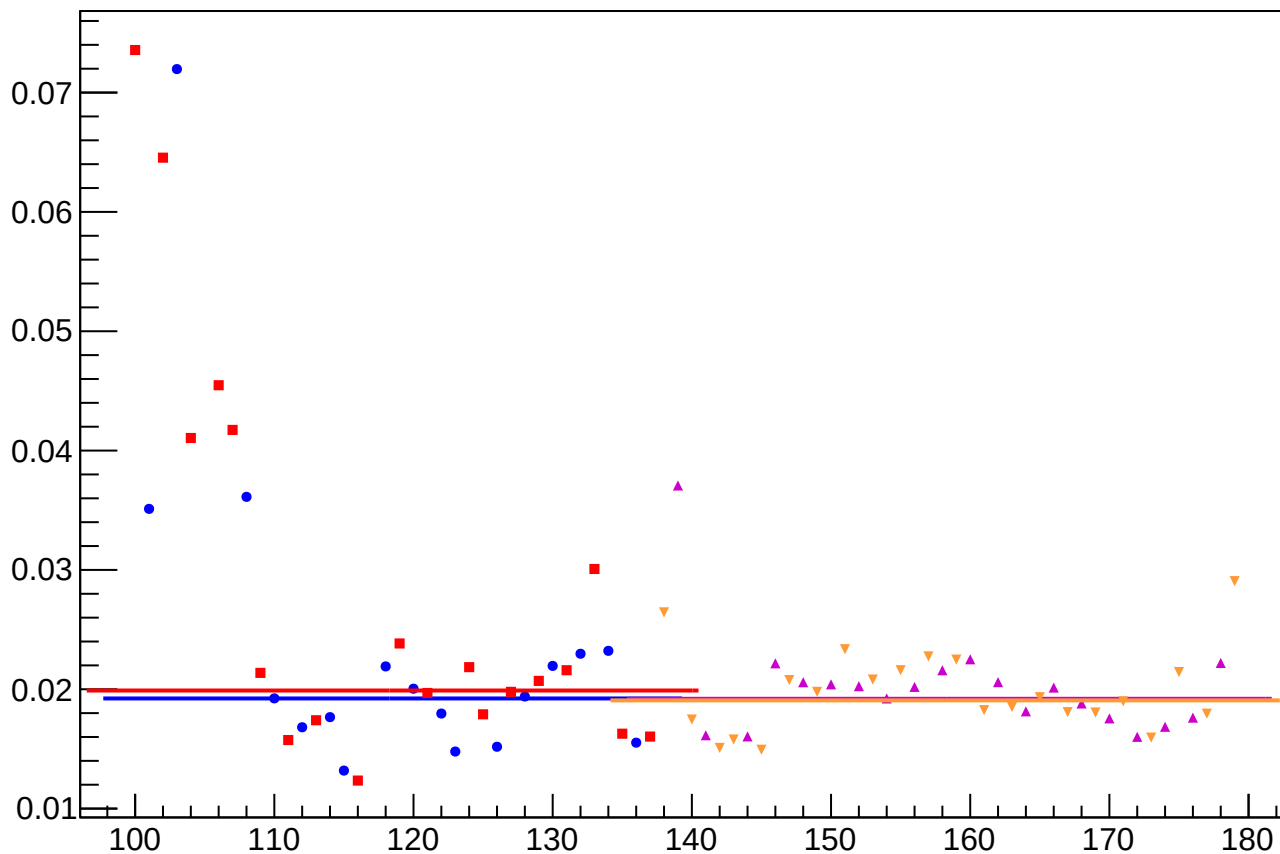
Right:  $-0.205 \pm 0.000$   $\chi^2/\text{NDF}: 222671892.3/35$

In:  $-0.092 \pm 0.000$   $\chi^2/\text{NDF}: 409267070.5/36$

Out:  $-0.100 \pm 0.000$   $\chi^2/\text{NDF}: 494435548.8/40$

All:  $-0.096 \pm 0.000$   $\chi^2/\text{NDF}: 905203381.9/77$

# yield\_bpm4ecX\_rms vs Slug, Sign Corrected



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1174577.3/16

Left Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 608431.0/21

Right Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 1444442.2/18

Left In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 639872.1/19

Left: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1248913.6/41

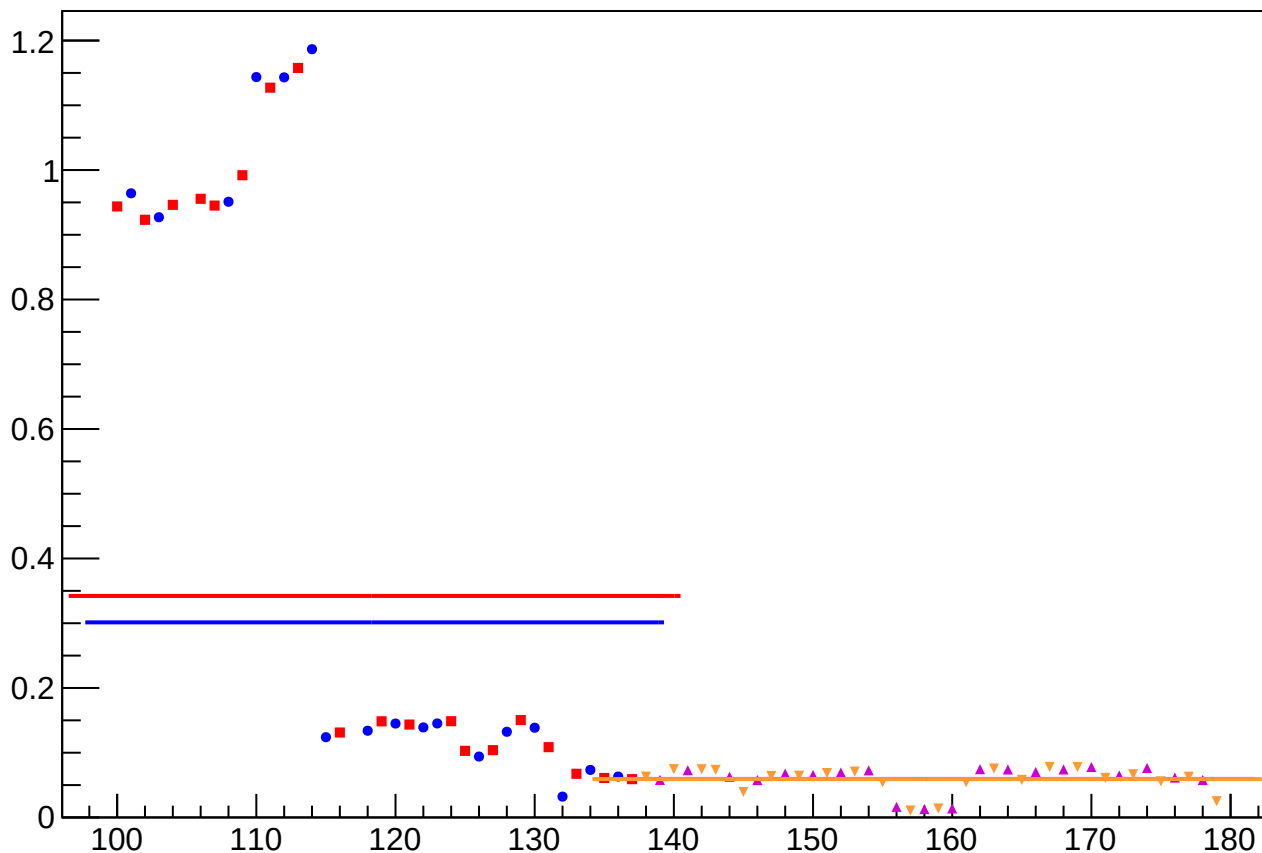
Right: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 2624881.7/35

In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1814465.3/36

Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 2065987.7/40

All: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 3880754.7/77

# yield\_bpm4ecY\_mean vs Slug, Sign Corrected



Right In: 0.301+/-0.000  $\chi^2/\text{NDF}$ : 5154791073.8/16

Left Out: 0.059+/-0.000  $\chi^2/\text{NDF}$ : 46052863.7/21

Right Out: 0.342+/-0.000  $\chi^2/\text{NDF}$ : 5442717599.3/18

Left In: 0.060+/-0.000  $\chi^2/\text{NDF}$ : 57340216.6/19

Left: 0.059+/-0.000  $\chi^2/\text{NDF}$ : 103396507.6/41

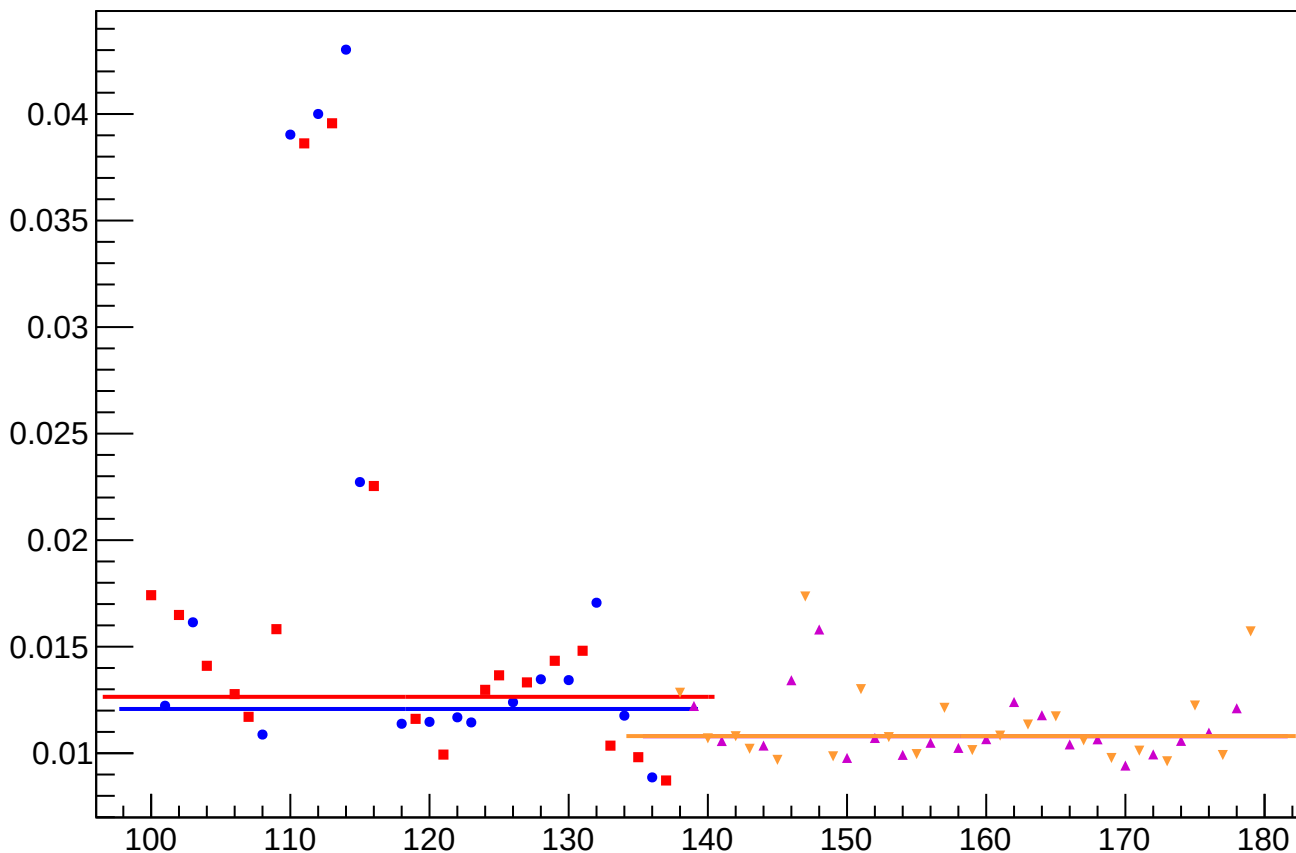
Right: 0.321+/-0.000  $\chi^2/\text{NDF}$ : 10628899850.1/35

In: 0.116+/-0.000  $\chi^2/\text{NDF}$ : 6935393465.0/36

Out: 0.121+/-0.000  $\chi^2/\text{NDF}$ : 7790827076.9/40

All: 0.119+/-0.000  $\chi^2/\text{NDF}$ : 14728382365.6/71

# yield\_bpm4ecY\_rms vs Slug, Sign Corrected



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1280342.2/16

Left Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:535595.8/21

Right Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1236084.9/18

Left In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:366138.9/19

Left: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 901744.5/41

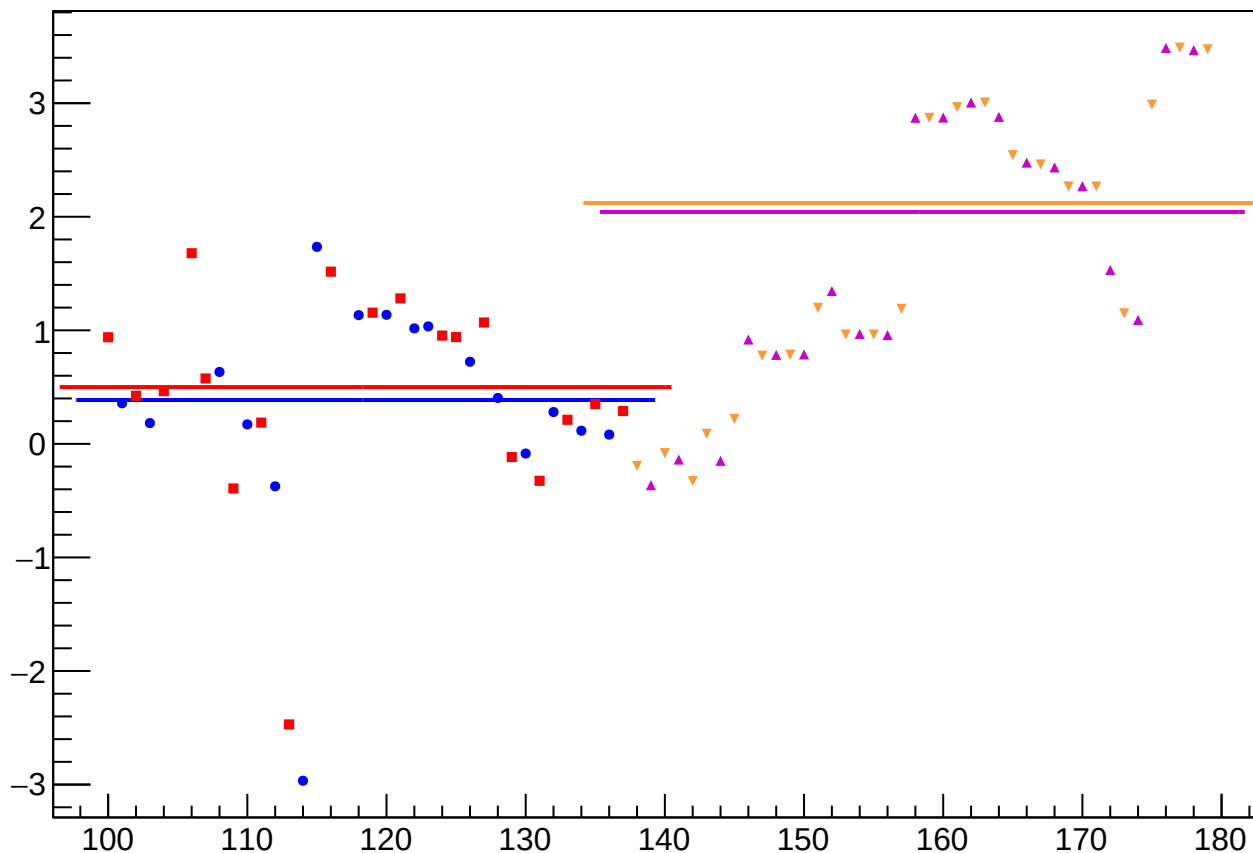
Right: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 2528646.1/35

In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:1743235.2/36

Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:1966976.6/40

All: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 3712300.4/77

# yield\_bpm1X\_mean vs Slug, Sign Corrected



Right In: 0.386+/-0.000  $\chi^2/\text{NDF}$ : 246380221.7/16

Left Out: 2.121+/-0.000  $\chi^2/\text{NDF}$ :43181104803.1/21

Right Out: 0.500+/-0.000  $\chi^2/\text{NDF}$ : 983386658.7/18

Left In: 2.042+/-0.000  $\chi^2/\text{NDF}$ :42507170015.8/19

Left: 2.081+/-0.000  $\chi^2/\text{NDF}$ : 85826872528.4/41

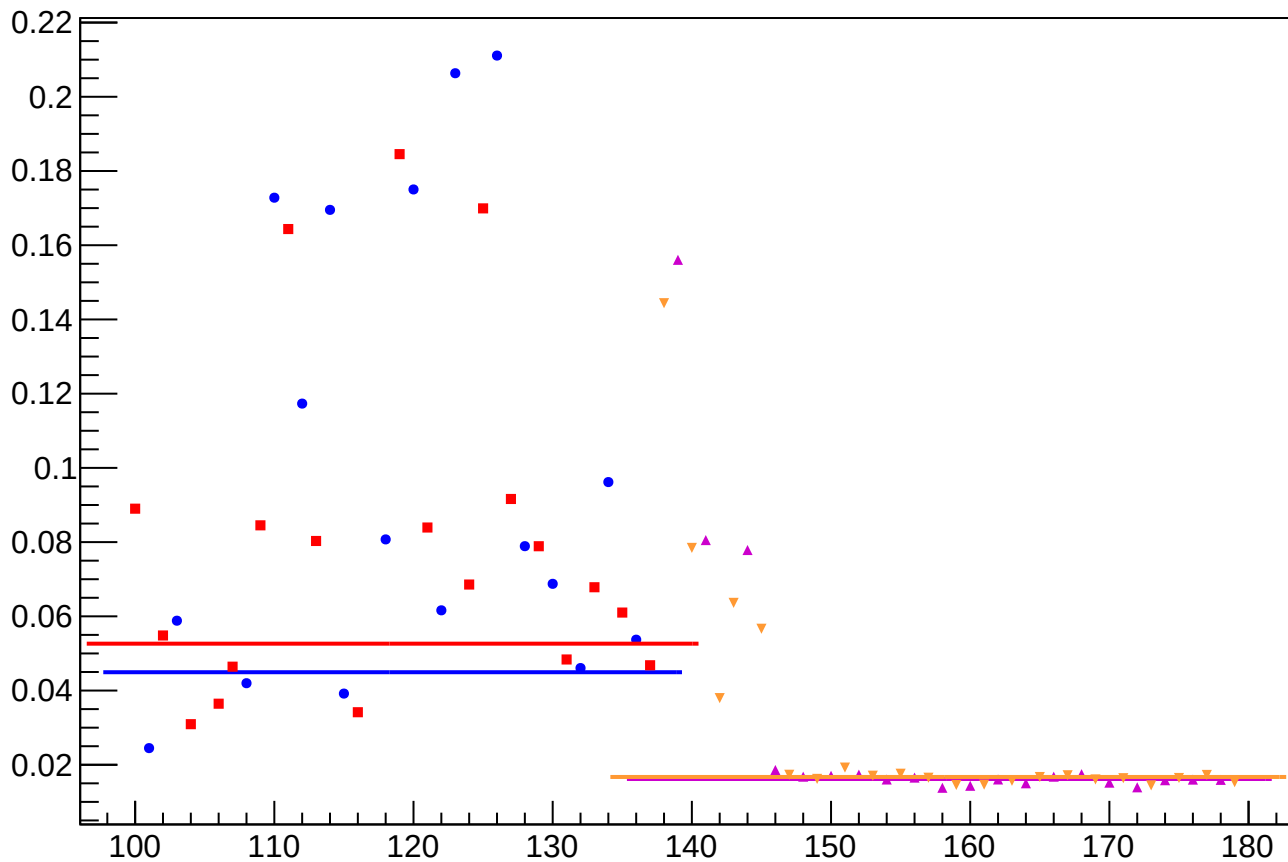
Right: 0.439+/-0.000  $\chi^2/\text{NDF}$ : 1240216918.3/35

In: 1.980+/-0.000  $\chi^2/\text{NDF}$ :47366810104.8/36

Out: 2.069+/-0.000  $\chi^2/\text{NDF}$ :47947647668.5/40

All: 2.024+/-0.000  $\chi^2/\text{NDF}$ : 95495323524.4/71

# yield\_bpm1X\_rms vs Slug, Sign Corrected



Right In: 0.045+/-0.000  $\chi^2/\text{NDF}$ : 2788348.6/16

Left Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 2792453.4/21

Right Out: 0.053+/-0.000  $\chi^2/\text{NDF}$ : 2191752.0/18

Left In: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 2451196.9/19

Left: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 5257075.1/41

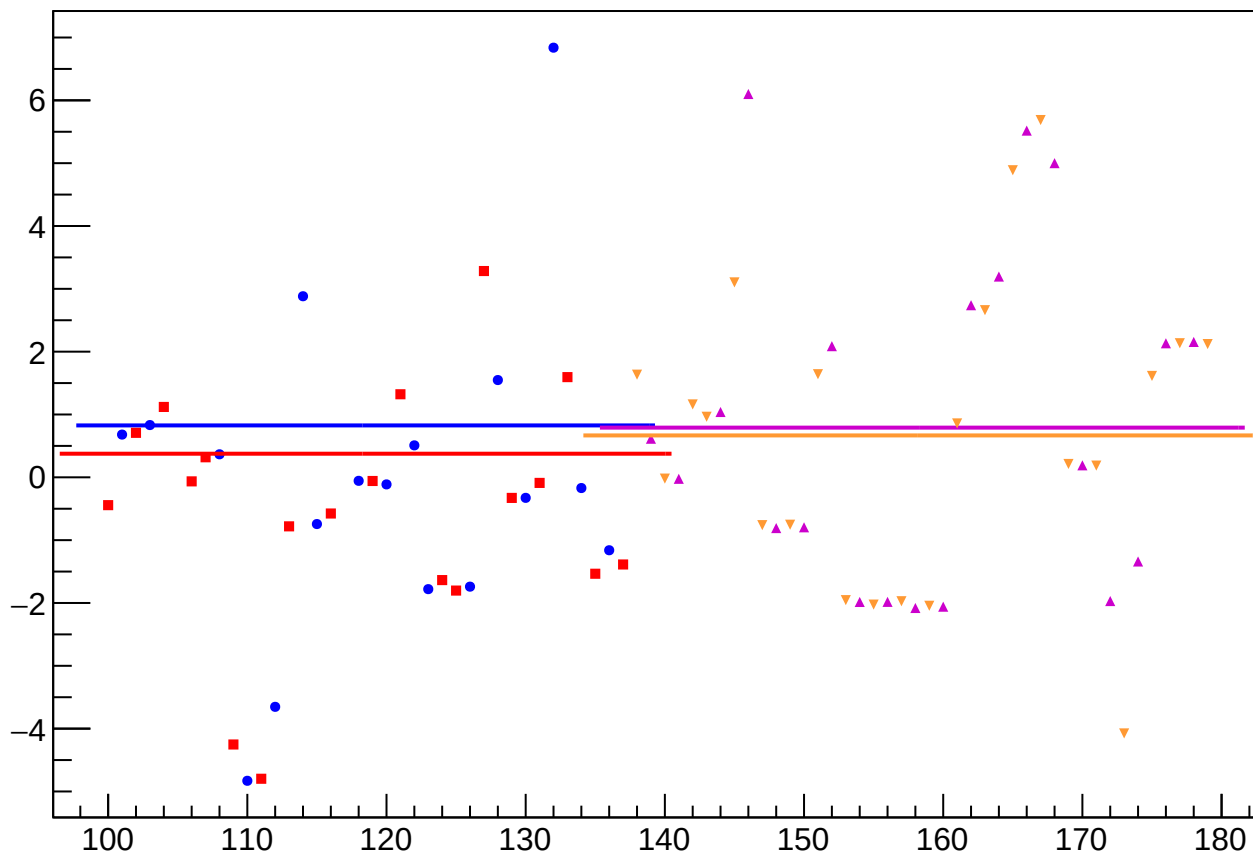
Right: 0.048+/-0.000  $\chi^2/\text{NDF}$ : 5075265.3/35

In: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 8024350.3/36

Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 8700771.0/40

All: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 16743579.6/77

# yield\_bpm1Y\_mean vs Slug, Sign Corrected



Right In: 0.826+/-0.000

$\chi^2/\text{NDF}$ : 10945455664.9/16

Left: 0.728+/-0.000

$\chi^2/\text{NDF}$ : 1057344128373.4/41

Left Out: 0.667+/-0.000

$\chi^2/\text{NDF}$ : 495778122468.8/21

Right: 0.614+/-0.000

$\chi^2/\text{NDF}$ : 16267855103.5/35

Right Out: 0.376+/-0.000

$\chi^2/\text{NDF}$ : 4947158634.2/18

In: 0.793+/-0.000

$\chi^2/\text{NDF}$ : 571949444867.4/36

Left In: 0.791+/-0.000

$\chi^2/\text{NDF}$ : 560999334072.3/19

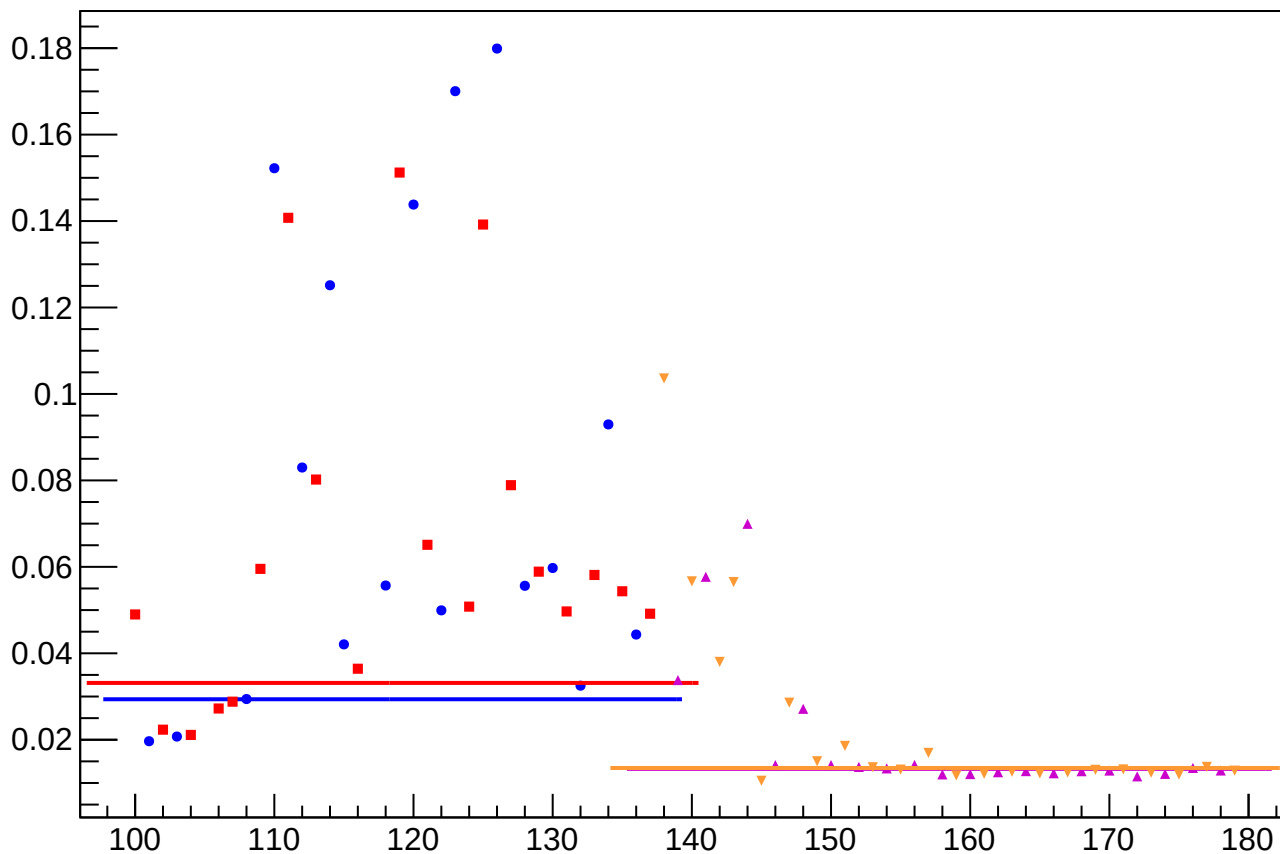
Out: 0.654+/-0.000

$\chi^2/\text{NDF}$ : 501007846393.1/40

All: 0.723+/-0.000

$\chi^2/\text{NDF}$ : 1073704178189.

# yield\_bpm1Y\_rms vs Slug, Sign Corrected



Right In: 0.029+/-0.000  $\chi^2/\text{NDF}$ : 2987169.5/16

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :2894450.4/21

Right Out: 0.033+/-0.000  $\chi^2/\text{NDF}$ : 3099105.0/18

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :1950662.4/19

Left: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 4848174.9/41

Right: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 6139085.6/35

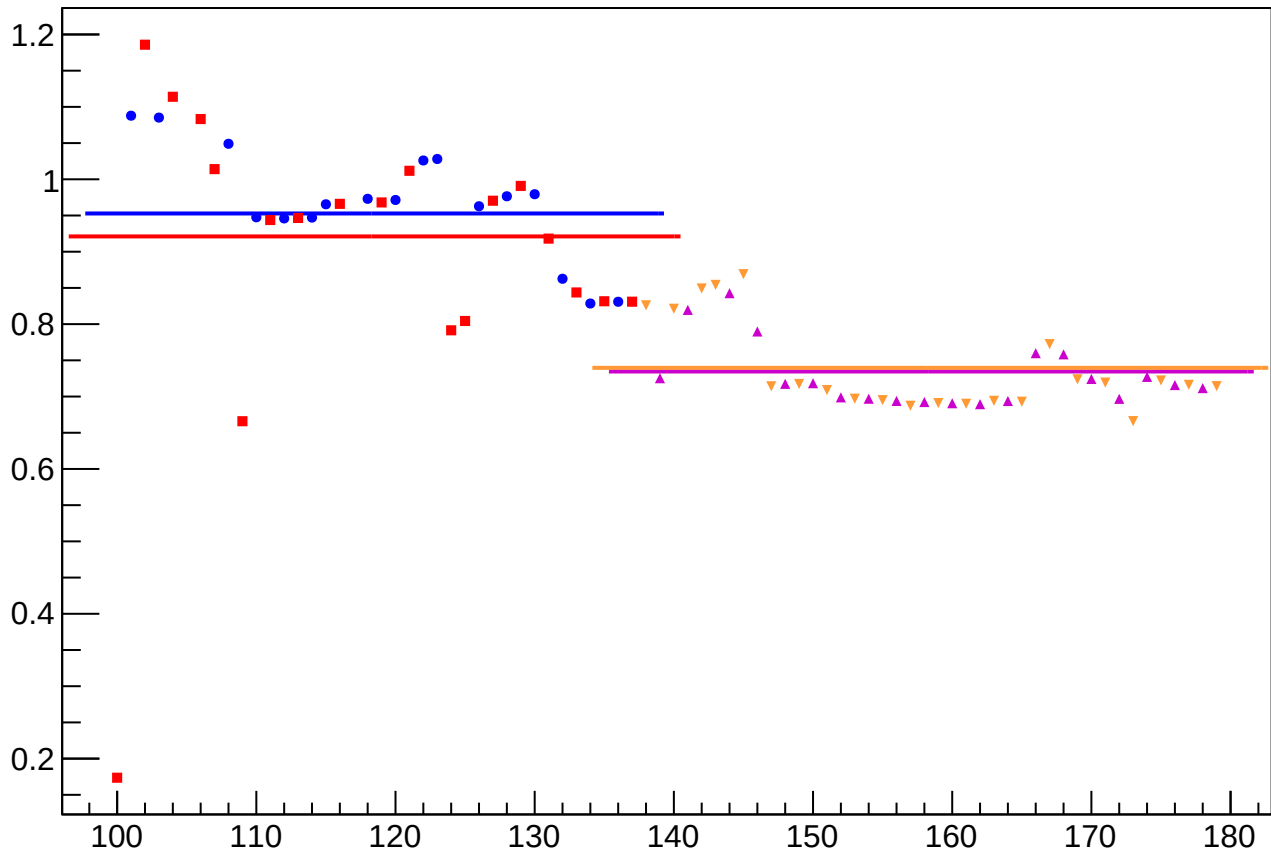
In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :6873778.7/36

Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :8576620.3/40

All: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 15456038.1/77



# yield\_bpm11X\_mean vs Slug, Sign Corrected



Right In: 0.953 $\pm$ 0.000  $\chi^2$ /NDF: 175750243.6/16

Left Out: 0.740 $\pm$ 0.000  $\chi^2$ /NDF: 294260380.7/21

Right Out: 0.921 $\pm$ 0.000  $\chi^2$ /NDF: 374151585.5/18

Left In: 0.735 $\pm$ 0.000  $\chi^2$ /NDF: 167542878.7/19

Left: 0.737 $\pm$ 0.000  $\chi^2$ /NDF: 462758875.2/41

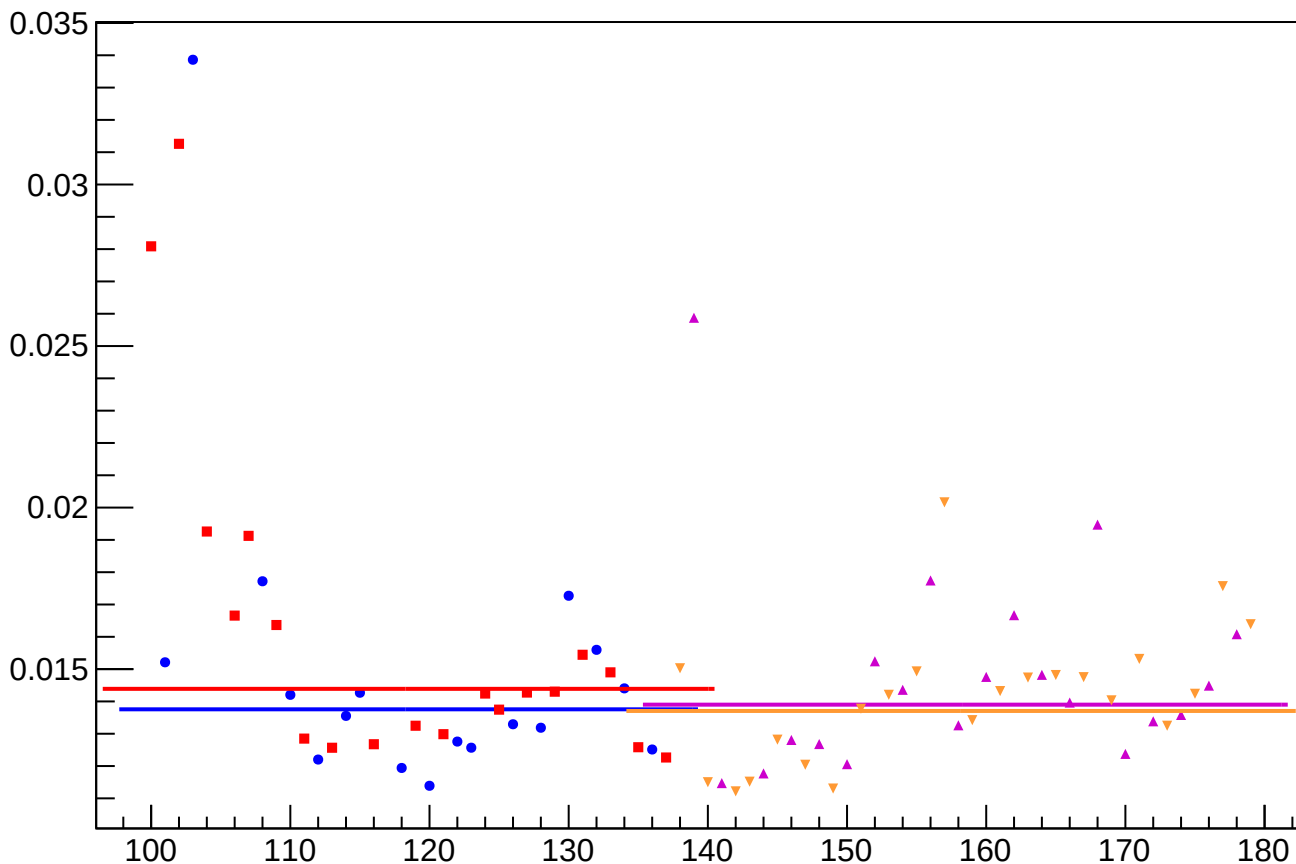
Right: 0.937 $\pm$ 0.000  $\chi^2$ /NDF: 564889848.1/35

In: 0.800 $\pm$ 0.000  $\chi^2$ /NDF: 1358390466.4/36

Out: 0.790 $\pm$ 0.000  $\chi^2$ /NDF: 1368714101.4/40

All: 0.795 $\pm$ 0.000  $\chi^2$ /NDF: 2732570494.4/77

# yield\_bpm11X\_rms vs Slug, Sign Corrected



Right In: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 538469.4/16

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 513516.9/21

Right Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 503813.0/18

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 782626.5/19

Left: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 1298960.8/41

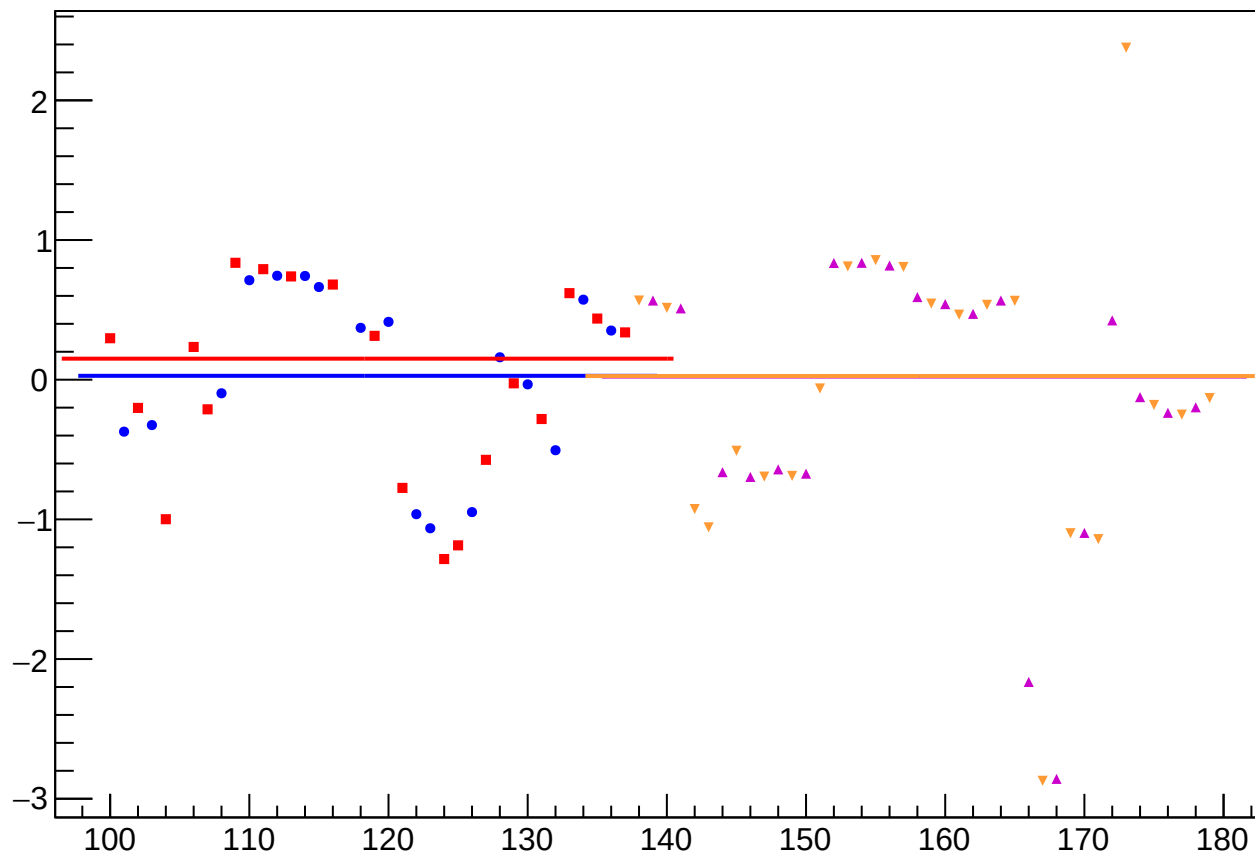
Right: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 1054284.2/35

In: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 1321983.5/36

Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 1037260.7/40

All: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 2359383.9/77

# yield\_bpm11Y\_mean vs Slug, Sign Corrected



Right In: 0.028 $\pm$ 0.000  $\chi^2$ /NDF: 6276955529.7/16

Left Out: 0.026 $\pm$ 0.000  $\chi^2$ /NDF: 95288061103.9/21

Right Out: 0.151 $\pm$ 0.000  $\chi^2$ /NDF: 12653743155.9/18

Left In: 0.022 $\pm$ 0.000  $\chi^2$ /NDF: 79359727227.0/19

Left: 0.024 $\pm$ 0.000  $\chi^2$ /NDF: 174648435950.0/41

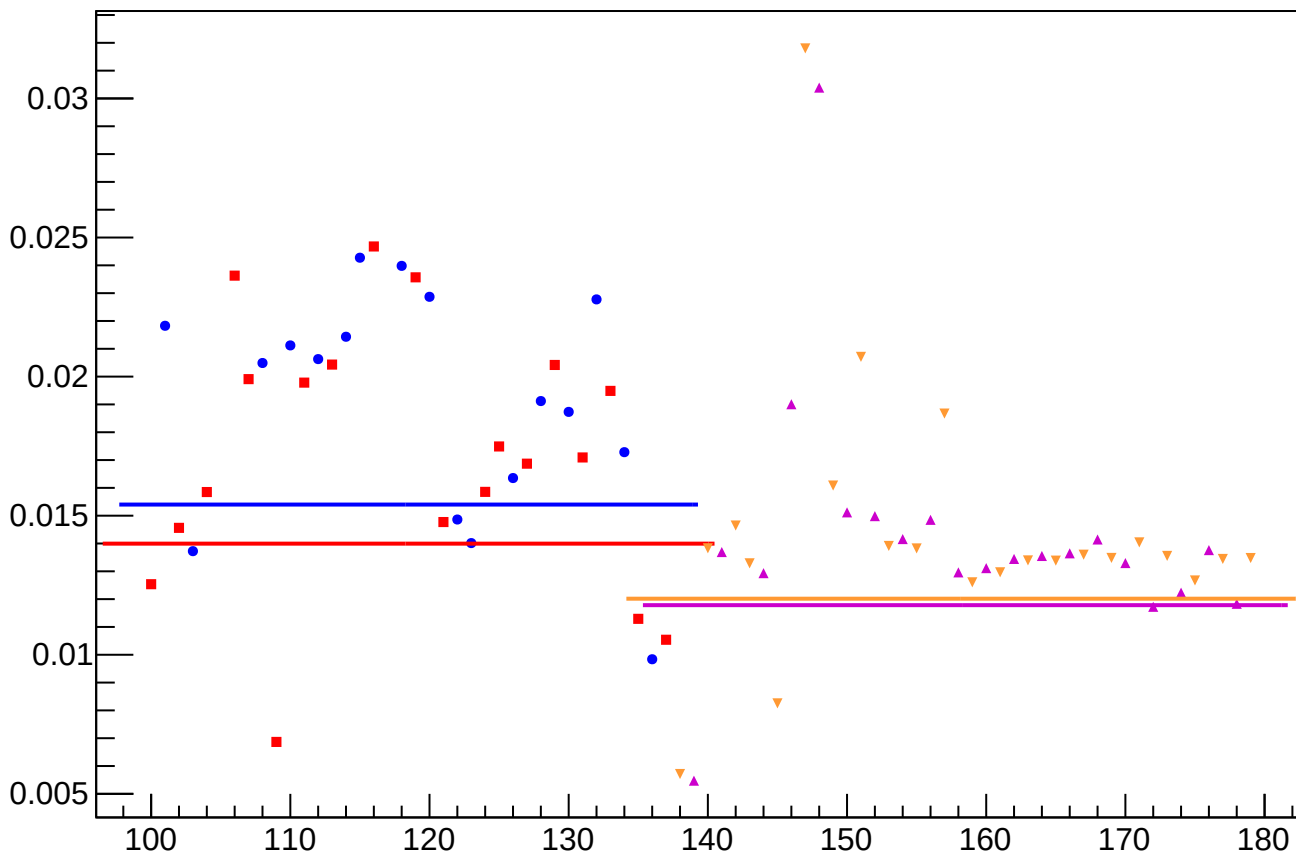
Right: 0.095 $\pm$ 0.000  $\chi^2$ /NDF: 19125643372.9/35

In: 0.023 $\pm$ 0.000  $\chi^2$ /NDF: 85637221575.5/36

Out: 0.054 $\pm$ 0.000  $\chi^2$ /NDF: 108285250871.9/40

All: 0.039 $\pm$ 0.000  $\chi^2$ /NDF: 193979672307.2

# yield\_bpm11Y\_rms vs Slug, Sign Corrected



Right In: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 1141655.8/16

Left Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 3087125.6/21

Right Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 1561550.9/18

Left In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 3067326.7/19

Left: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 6159702.2/41

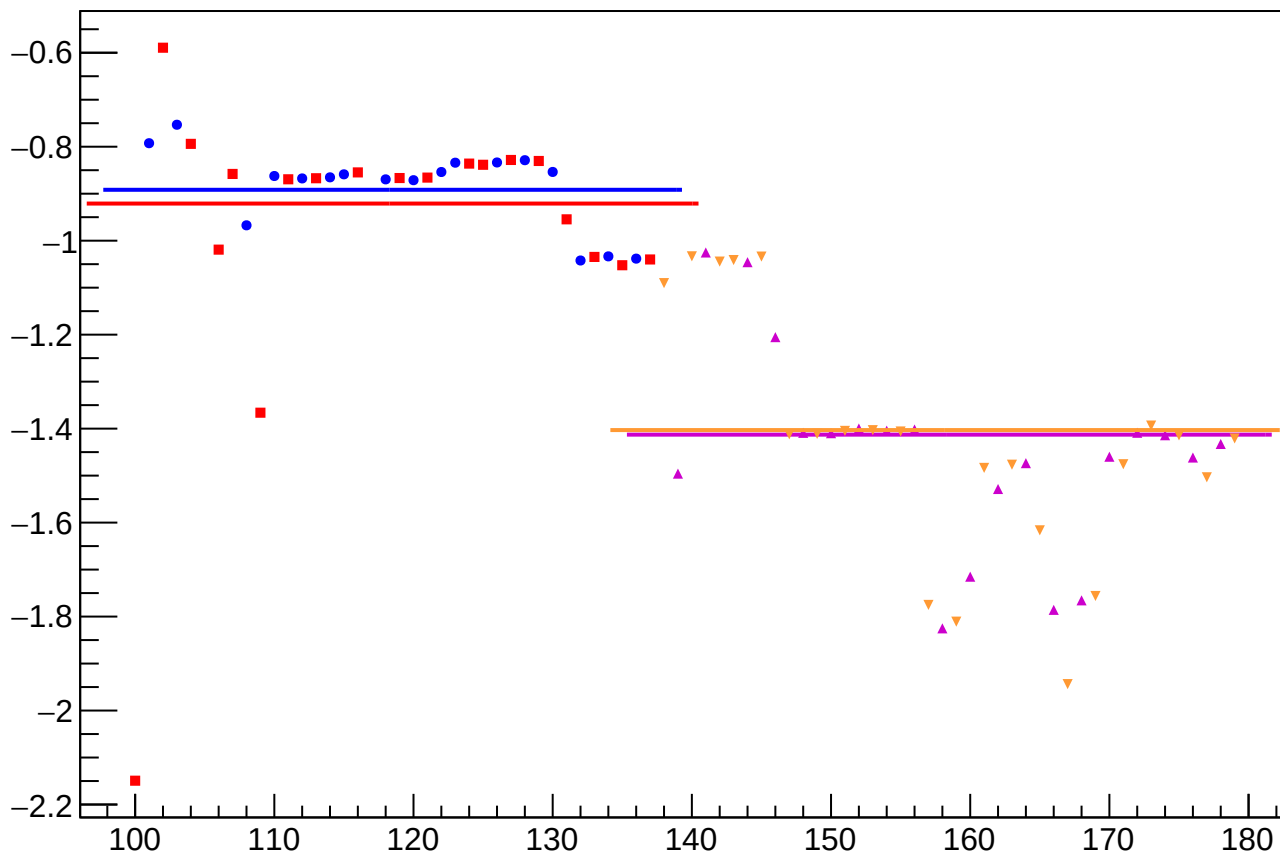
Right: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 2754233.9/35

In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 4704355.8/36

Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 4822281.6/40

All: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 9526843.4/77

# yield\_bpm12X\_mean vs Slug, Sign Corrected



Right In:  $-0.892 \pm 0.000$   $\chi^2/\text{NDF}: 39793337.2/16$

Left Out:  $-1.403 \pm 0.000$   $\chi^2/\text{NDF}: 718079776.6/21$

Right Out:  $-0.921 \pm 0.000$   $\chi^2/\text{NDF}: 131159330.1/18$

Left In:  $-1.413 \pm 0.000$   $\chi^2/\text{NDF}: 512347137.8/19$

Left:  $-1.408 \pm 0.000$   $\chi^2/\text{NDF}: 1230949584.2/41$

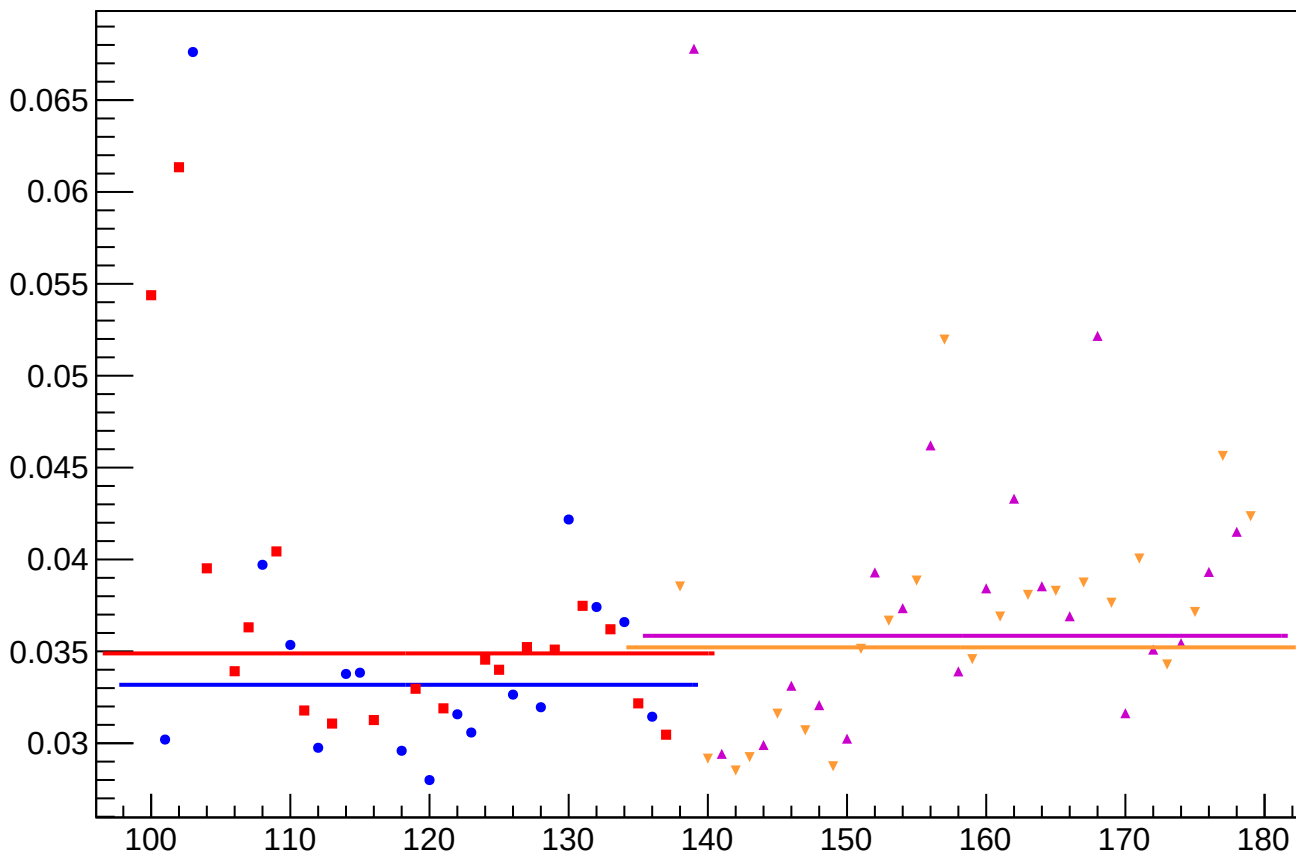
Right:  $-0.906 \pm 0.000$   $\chi^2/\text{NDF}: 173170801.3/35$

In:  $-1.239 \pm 0.000$   $\chi^2/\text{NDF}: 1508868931.0/36$

Out:  $-1.257 \pm 0.000$   $\chi^2/\text{NDF}: 1666842350.5/40$

All:  $-1.248 \pm 0.000$   $\chi^2/\text{NDF}: 3178153178.3/77$

# yield\_bpm12X\_rms vs Slug, Sign Corrected



Right In: 0.033+/-0.000  $\chi^2/\text{NDF}$ : 400106.0/16

Left Out: 0.035+/-0.000  $\chi^2/\text{NDF}$ : 579176.1/21

Right Out: 0.035+/-0.000  $\chi^2/\text{NDF}$ : 275013.9/18

Left In: 0.036+/-0.000  $\chi^2/\text{NDF}$ : 874940.9/19

Left: 0.036+/-0.000  $\chi^2/\text{NDF}$ : 1458486.1/41

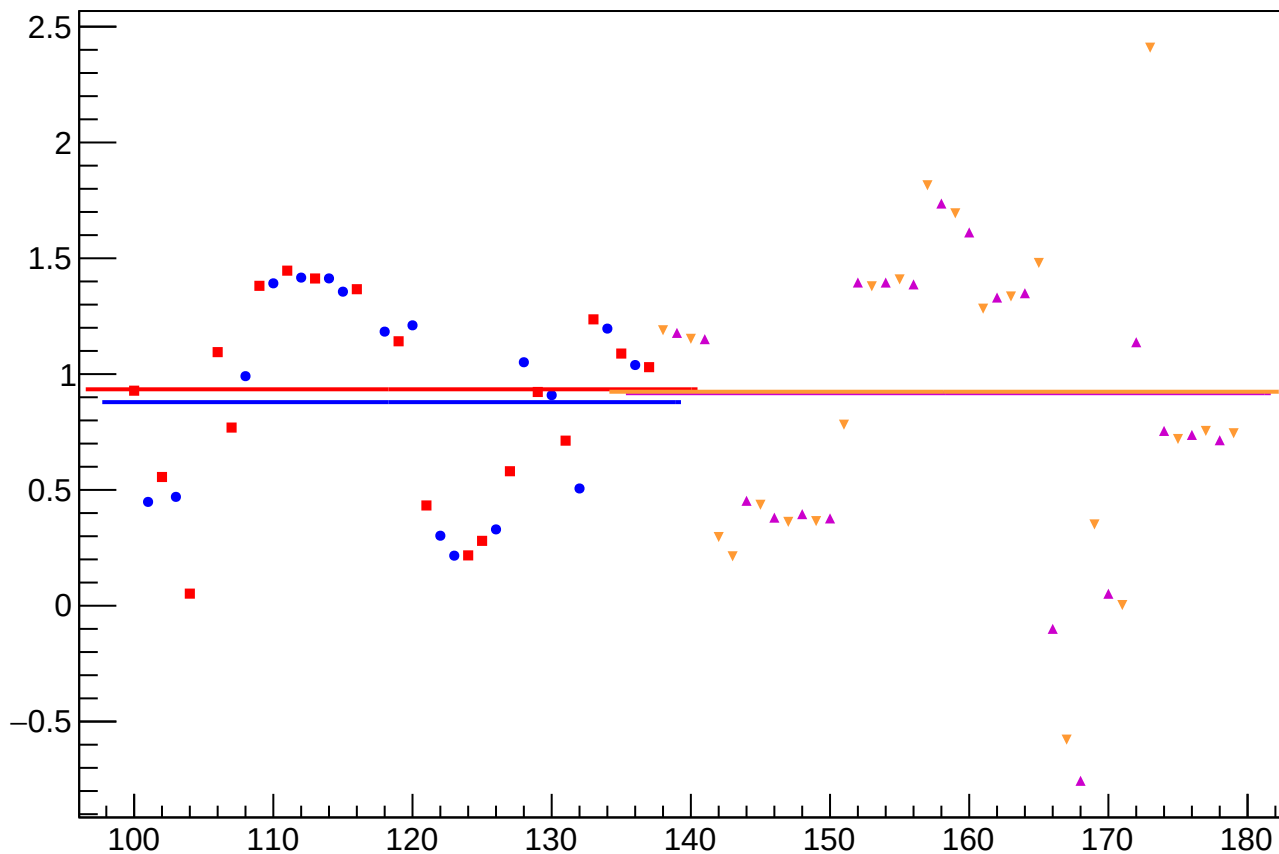
Right: 0.034+/-0.000  $\chi^2/\text{NDF}$ : 690186.6/35

In: 0.035+/-0.000  $\chi^2/\text{NDF}$ : 1325137.3/36

Out: 0.035+/-0.000  $\chi^2/\text{NDF}$ : 854954.7/40

All: 0.035+/-0.000  $\chi^2/\text{NDF}$ : 2180501.8/77

# yield\_bpm12Y\_mean vs Slug, Sign Corrected



Right In: 0.879+/-0.000  $\chi^2/\text{NDF}$ : 6371602566.2/16

Left Out: 0.924+/-0.000  $\chi^2/\text{NDF}$ : 83073749362.8/21

Right Out: 0.934+/-0.000  $\chi^2/\text{NDF}$ : 9827120184.9/18

Left In: 0.918+/-0.000  $\chi^2/\text{NDF}$ : 66481443000.0/19

Left: 0.921+/-0.000  $\chi^2/\text{NDF}$ : 149559074996.0/41

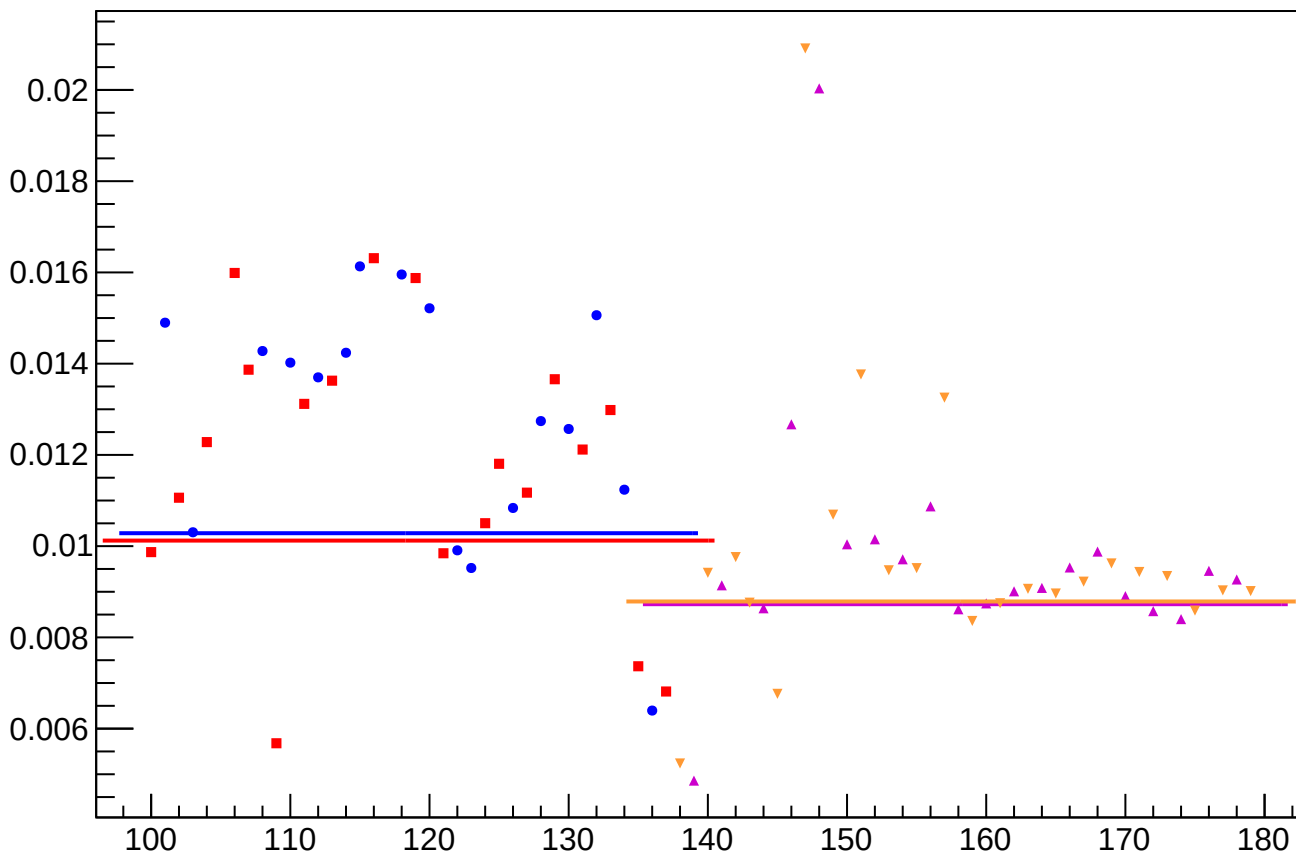
Right: 0.908+/-0.000  $\chi^2/\text{NDF}$ : 16282606826.3/35

In: 0.909+/-0.000  $\chi^2/\text{NDF}$ : 72913731512.9/36

Out: 0.926+/-0.000  $\chi^2/\text{NDF}$ : 92905697116.2/40

All: 0.918+/-0.000  $\chi^2/\text{NDF}$ : 165856104530.1

# yield\_bpm12Y\_rms vs Slug, Sign Corrected



Right In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1207460.1/16

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :1697495.7/21

Right Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1176642.1/18

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :1669739.8/19

Left: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 3367908.6/41

Right: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 2385530.8/35

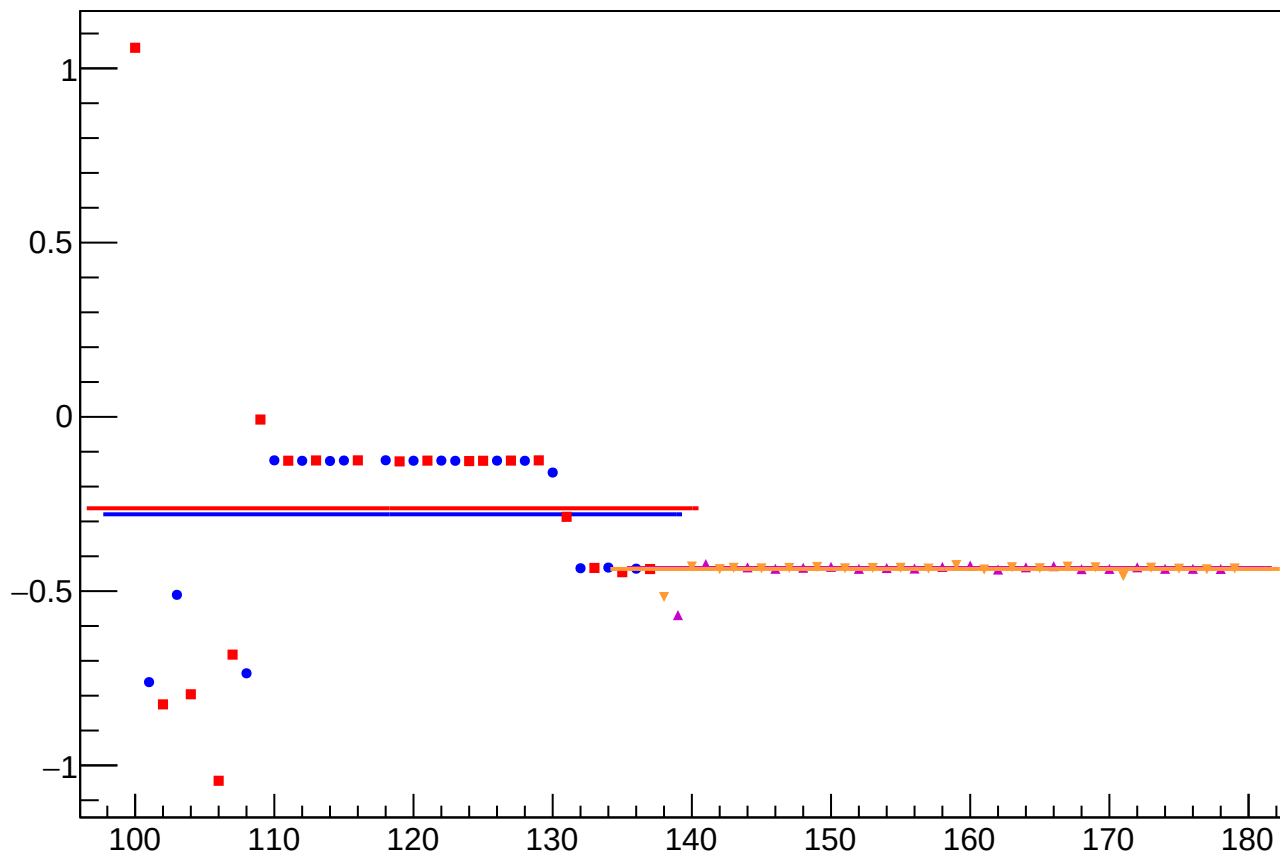
In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :3075012.4/36

Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :3031265.4/40

All: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 6106327.6/77



# yield\_bpm16X\_mean vs Slug, Sign Corrected



Right In:  $-0.280 \pm 0.000$   $\chi^2/\text{NDF}: 929210245.5/16$

Left Out:  $-0.436 \pm 0.000$   $\chi^2/\text{NDF}: 28768648.4/21$

Right Out:  $-0.262 \pm 0.000$   $\chi^2/\text{NDF}: 1006263824.6/18$

Left In:  $-0.434 \pm 0.000$   $\chi^2/\text{NDF}: 19963132.3/19$

Left:  $-0.435 \pm 0.000$   $\chi^2/\text{NDF}: 49200947.2/41$

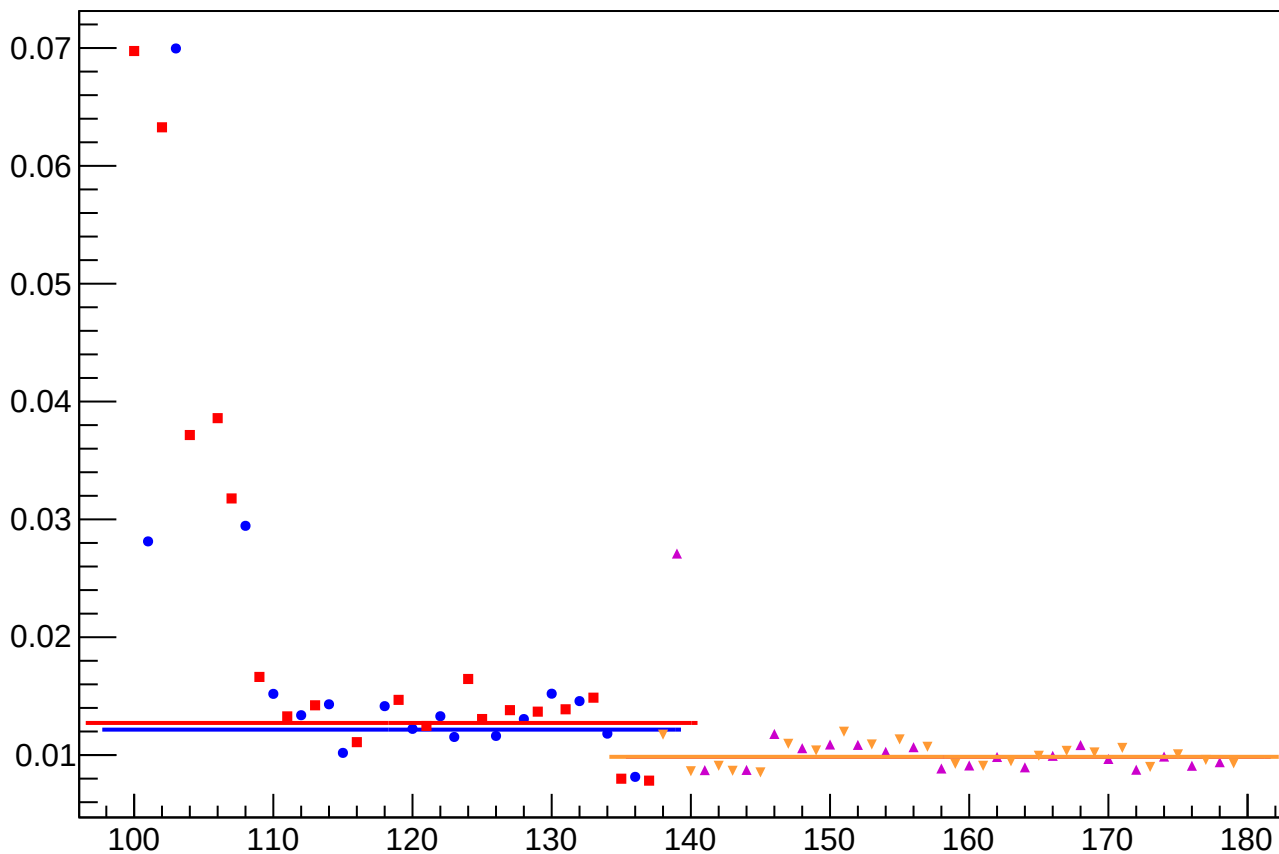
Right:  $-0.271 \pm 0.000$   $\chi^2/\text{NDF}: 1940066892.0/35$

In:  $-0.404 \pm 0.000$   $\chi^2/\text{NDF}: 1555215497.9/36$

Out:  $-0.407 \pm 0.000$   $\chi^2/\text{NDF}: 1784648945.6/40$

All:  $-0.405 \pm 0.000$   $\chi^2/\text{NDF}: 3340239303.1/77$

# yield\_bpm16X\_rms vs Slug, Sign Corrected



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1722777.4/16

Left Out: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:255650.4/21

Right Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1967397.9/18

Left In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:776415.4/19

Left: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 1032089.3/41

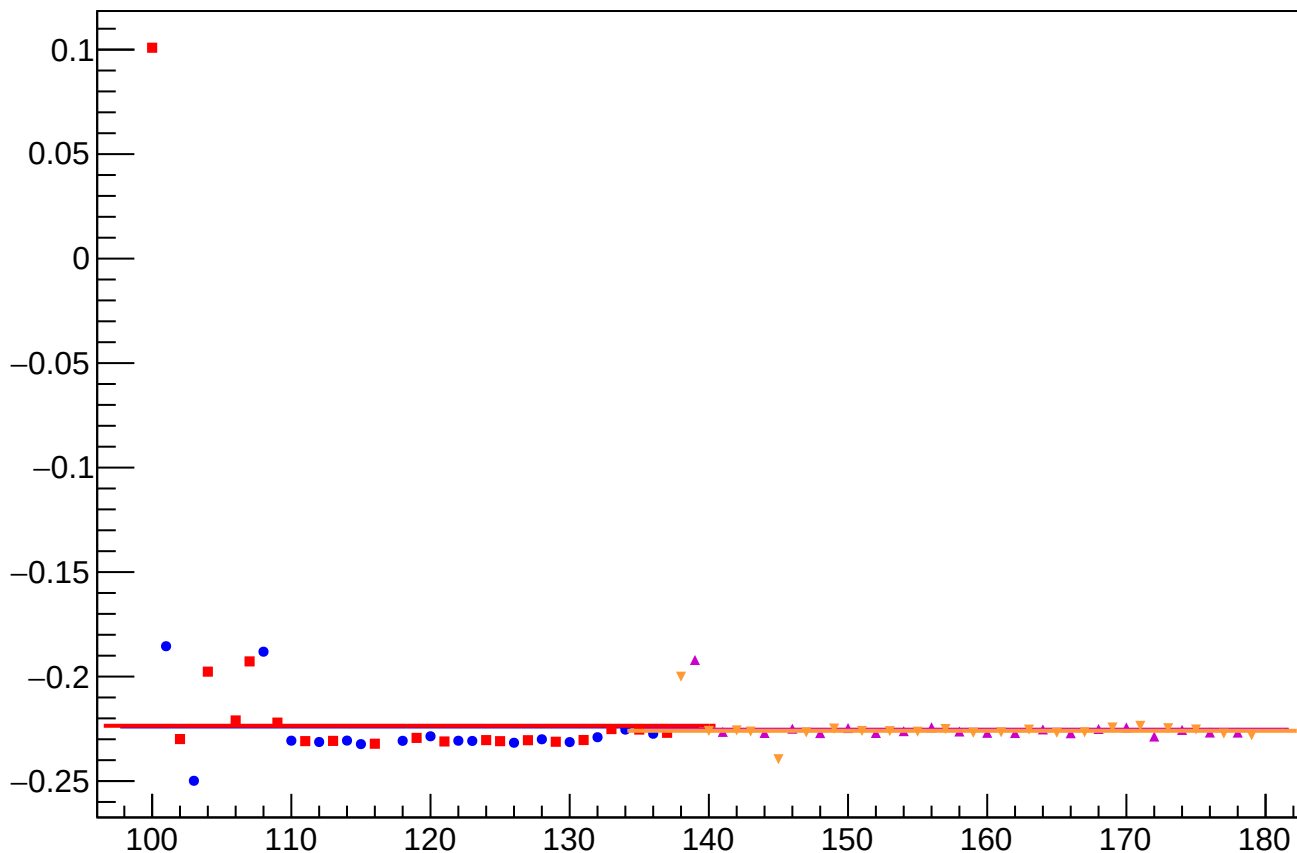
Right: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 3700041.2/35

In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:2774075.9/36

Out: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:2632294.3/40

All: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 5407067.3/77

# yield\_bpm16Y\_mean vs Slug, Sign Corrected



Right In: -0.224+/-0.000  $\chi^2/\text{NDF}$ : 74600073.9/16

Left Out: -0.226+/-0.000  $\chi^2/\text{NDF}$ : 21092317.4/21

Right Out: -0.224+/-0.000  $\chi^2/\text{NDF}$ : 168124199.3/18

Left In: -0.225+/-0.000  $\chi^2/\text{NDF}$ : 13275883.6/19

Left: -0.226+/-0.000  $\chi^2/\text{NDF}$ : 34447844.4/41

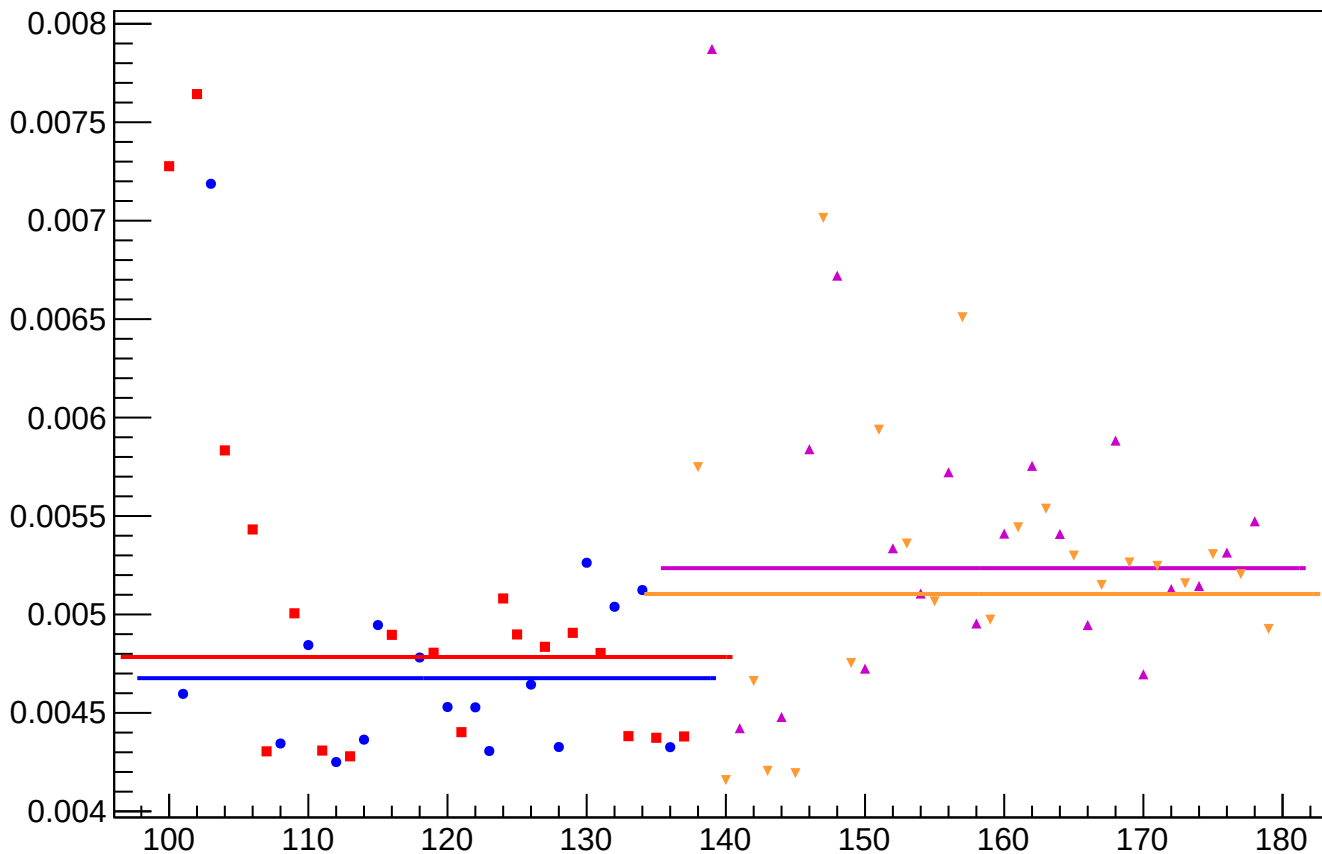
Right: -0.224+/-0.000  $\chi^2/\text{NDF}$ : 242740169.2/35

In: -0.225+/-0.000  $\chi^2/\text{NDF}$ : 88301325.5/36

Out: -0.225+/-0.000  $\chi^2/\text{NDF}$ : 190316621.4/40

All: -0.225+/-0.000  $\chi^2/\text{NDF}$ : 278652375.6/77

# yield\_bpm16Y\_rms vs Slug, Sign Corrected



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 180780.8/16

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 457659.1/21

Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 248269.2/18

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 440289.7/19

Left: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 907622.4/41

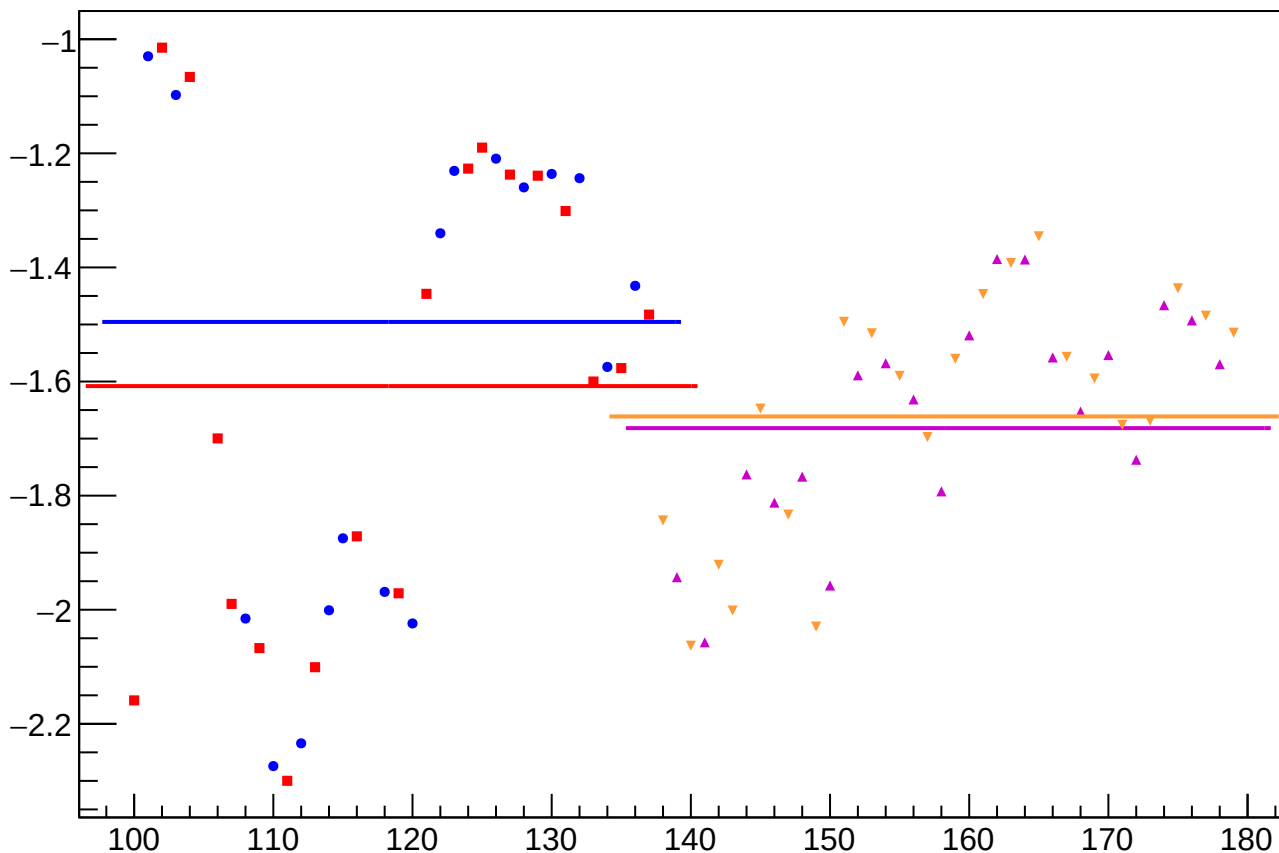
Right: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 432242.2/35

In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 733887.4/36

Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 744879.7/40

All: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1480350.0/77

# yield\_bpm0l01X\_mean vs Slug, Sign Corrected



Right In: -1.496+/-0.000  $\chi^2/\text{NDF}$ : 22506050663.3/16

Left Out: -1.661+/-0.000  $\chi^2/\text{NDF}$ : 17910935958.1/21

Right Out: -1.608+/-0.000  $\chi^2/\text{NDF}$ : 27852841950.3/18

Left In: -1.682+/-0.000  $\chi^2/\text{NDF}$ : 13449359124.4/19

Left: -1.671+/-0.000  $\chi^2/\text{NDF}$ : 31441730192.4/41

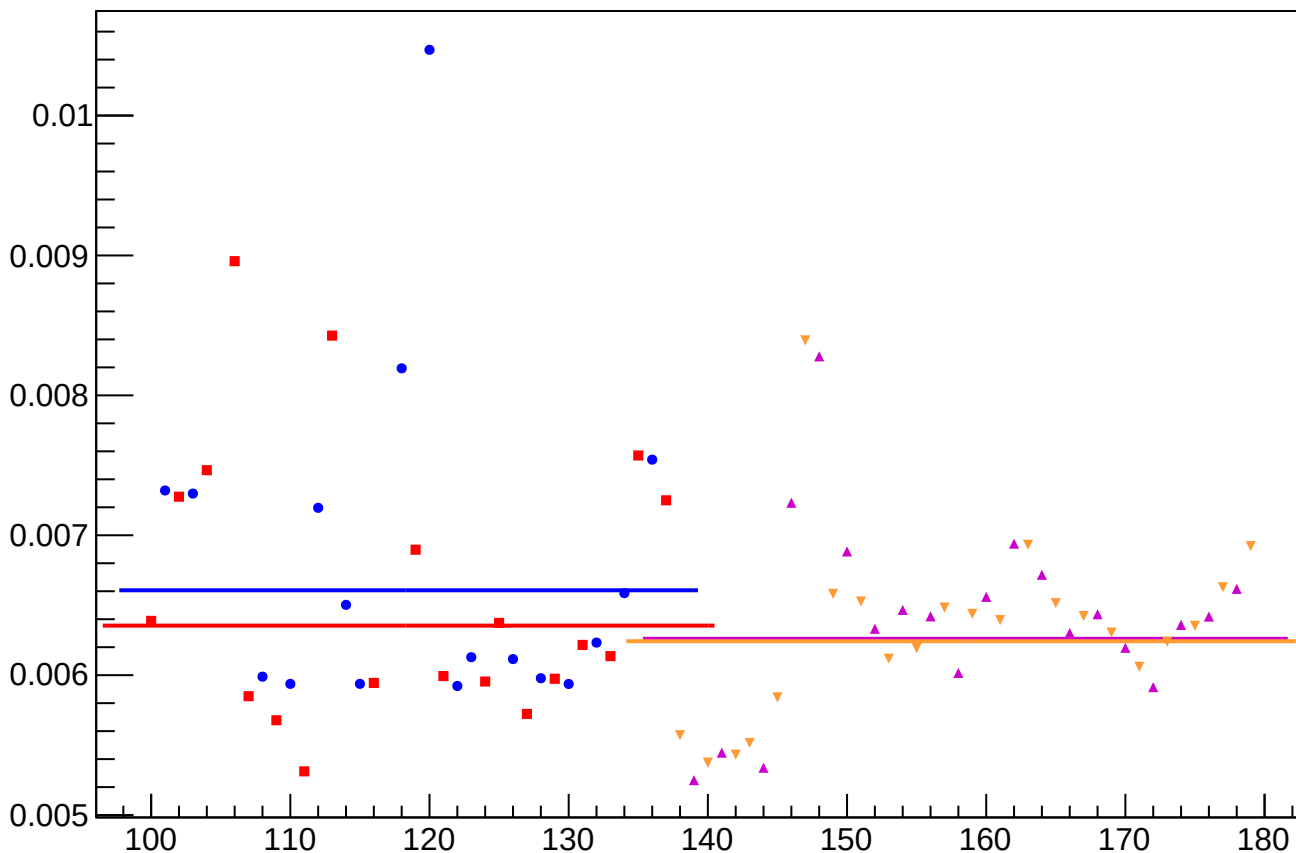
Right: -1.556+/-0.000  $\chi^2/\text{NDF}$ : 51308404748.0/35

In: -1.631+/-0.000  $\chi^2/\text{NDF}$ : 39466693408.9/36

Out: -1.646+/-0.000  $\chi^2/\text{NDF}$ : 46092803285.1/40

All: -1.639+/-0.000  $\chi^2/\text{NDF}$ : 85616906110.3/76

# yield\_bpm0l01X\_rms vs Slug, Sign Corrected



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 201323.2/16

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ :252351.8/21

Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 227287.9/18

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :301793.5/19

Left: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 554260.8/41

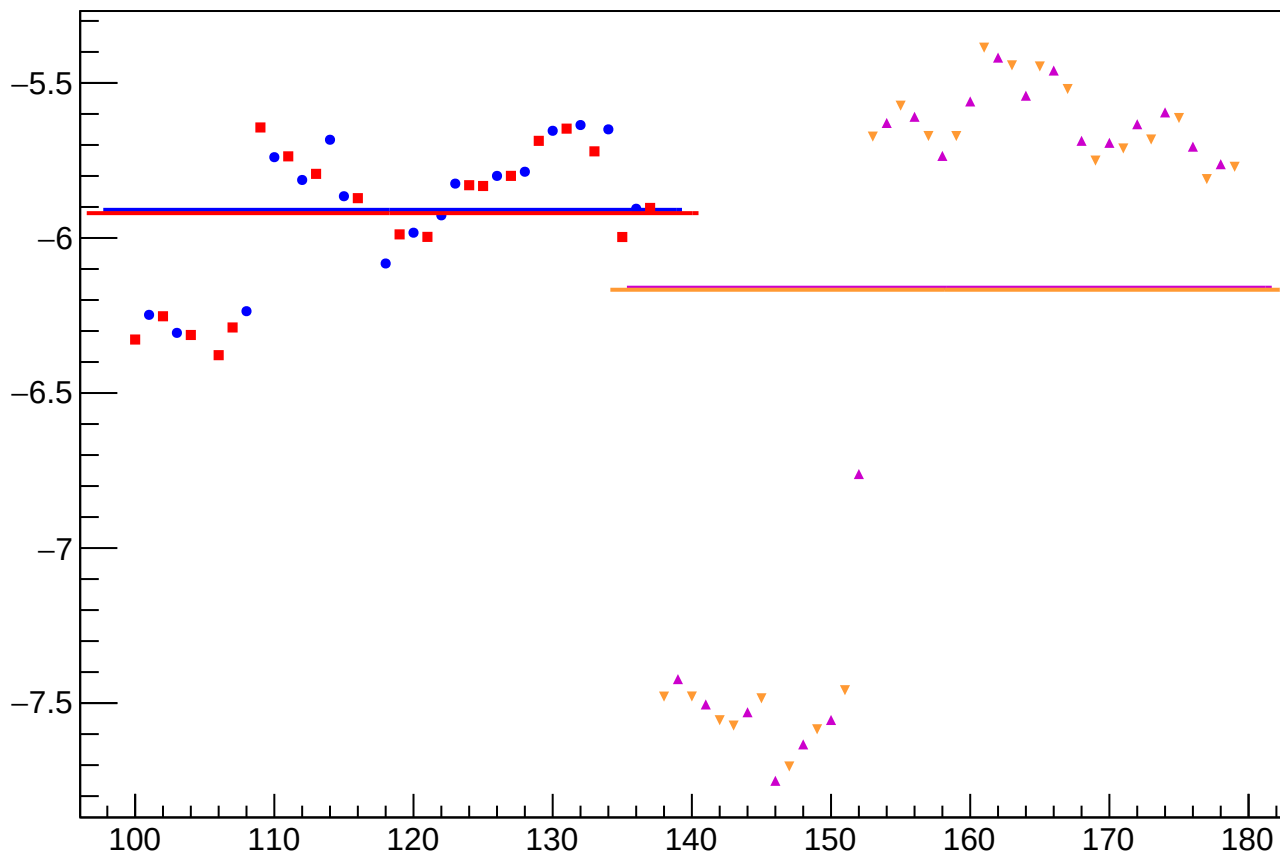
Right: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 438183.3/35

In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :527506.2/36

Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ :482533.8/40

All: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1013403.9/77

# yield\_bpm0l01Y\_mean vs Slug, Sign Corrected



Right In: -5.909+/-0.000  $\chi^2/\text{NDF}$ : 11125163629.1/16

Left Out: -6.167+/-0.000  $\chi^2/\text{NDF}$ : 180644584592.4/21

Right Out: -5.920+/-0.000  $\chi^2/\text{NDF}$ : 12785272526.6/18

Left In: -6.160+/-0.000  $\chi^2/\text{NDF}$ : 156525786154.8/19

Left: -6.164+/-0.000  $\chi^2/\text{NDF}$ : 337175312323.1/41

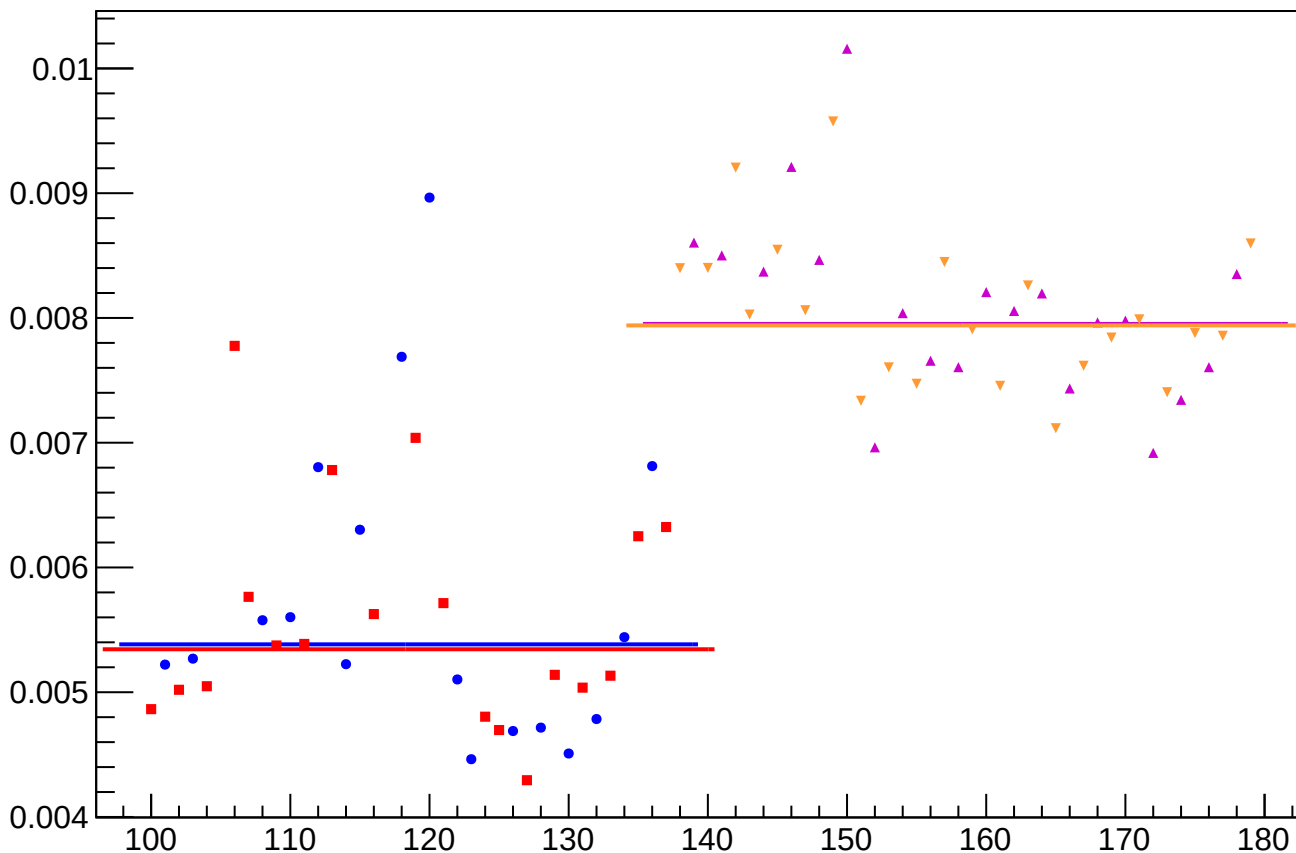
Right: -5.915+/-0.000  $\chi^2/\text{NDF}$ : 23922455242.5/35

In: -6.041+/-0.000  $\chi^2/\text{NDF}$ : 174353332191.9/36

Out: -6.047+/-0.000  $\chi^2/\text{NDF}$ : 200450581190.8/40

All: -6.044+/-0.000  $\chi^2/\text{NDF}$ : 374812311479.0

# yield\_bpm0l01Y\_rms vs Slug, Sign Corrected



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 347627.8/16

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :133086.4/21

Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 244700.0/18

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :206805.1/19

Left: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 339922.4/41

Right: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 592657.5/35

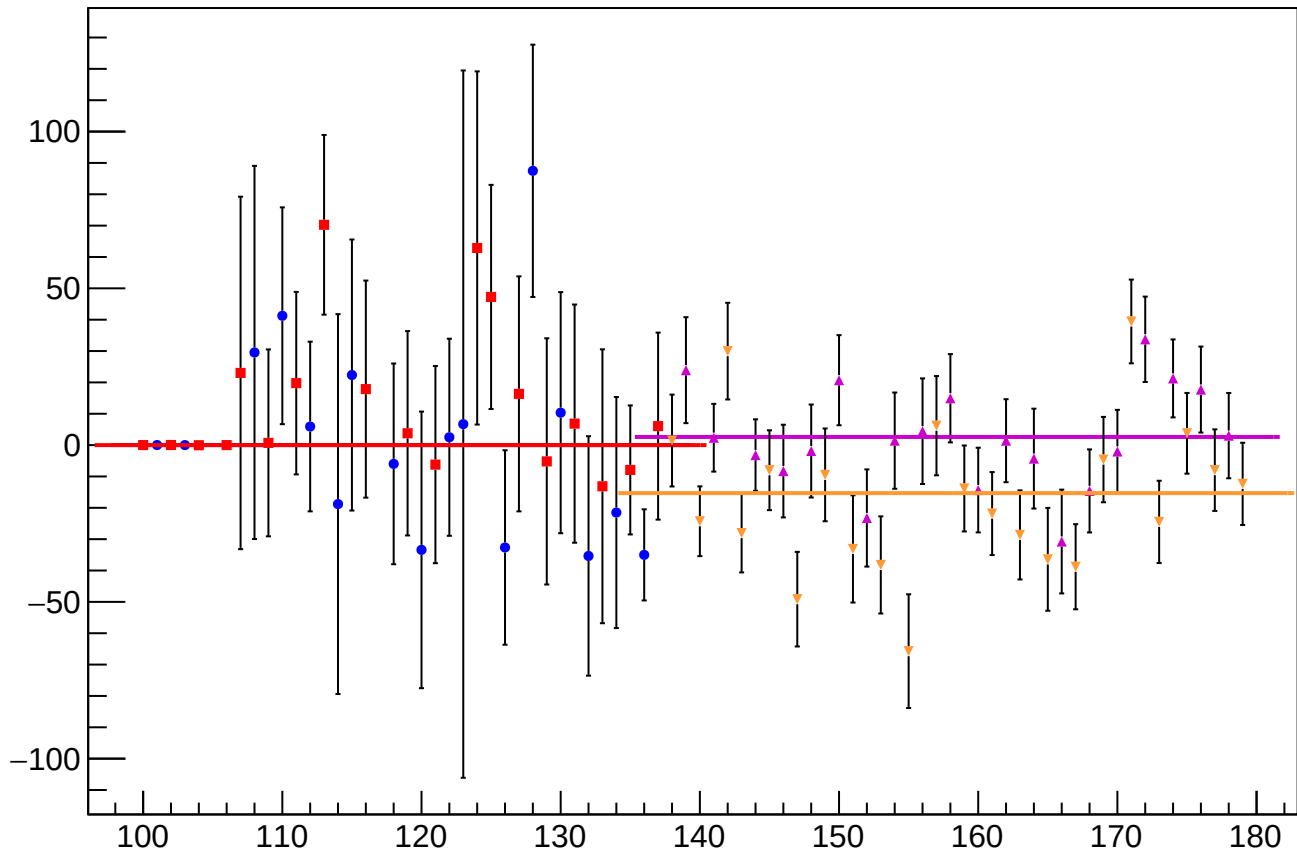
In: 0.007+/-0.000  $\chi^2/\text{NDF}$ :1956145.6/36

Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :1928328.7/40

All: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3885550.6/77



# diff\_cav4bX\_mean vs Slug, Sign Corrected



Right In:  $0.013 \pm 0.017$   $\chi^2/\text{NDF}: 15.8/16$

Left Out:  $-15.308 \pm 2.978$   $\chi^2/\text{NDF}: 56.2/21$

Right Out:  $-0.003 \pm 0.016$   $\chi^2/\text{NDF}: 15.3/18$

Left In:  $2.600 \pm 3.109$   $\chi^2/\text{NDF}: 24.0/19$

Left:  $-6.739 \pm 2.151$   $\chi^2/\text{NDF}: 97.5/41$

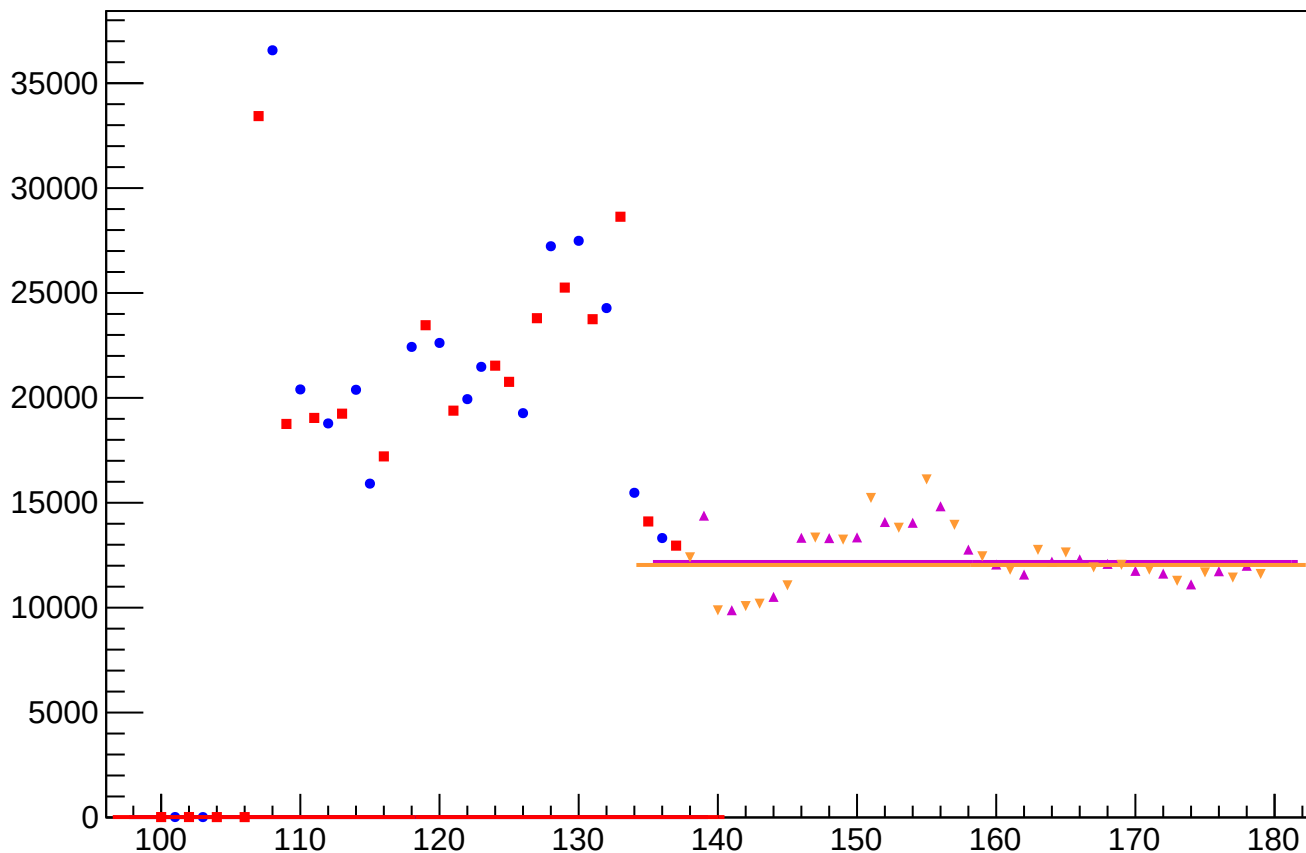
Right:  $0.004 \pm 0.012$   $\chi^2/\text{NDF}: 31.6/35$

In:  $0.013 \pm 0.017$   $\chi^2/\text{NDF}: 40.4/36$

Out:  $-0.004 \pm 0.016$   $\chi^2/\text{NDF}: 98.0/40$

All:  $0.004 \pm 0.012$   $\chi^2/\text{NDF}: 138.9/77$

# diff\_cav4bX\_rms vs Slug, Sign Corrected



Right In: 18.641+/-0.012  $\chi^2/\text{NDF}$ : 10841561.4/16

Left Out: 12035.489+/-2.106  $\chi^2/\text{NDF}$ : 444212.1/21

Right Out: 18.311+/-0.011  $\chi^2/\text{NDF}$ : 11103320.8/18

Left In: 12177.575+/-2.198  $\chi^2/\text{NDF}$ : 344660.4/19

Left: 12103.474+/-1.521  $\chi^2/\text{NDF}$ : 791050.9/41

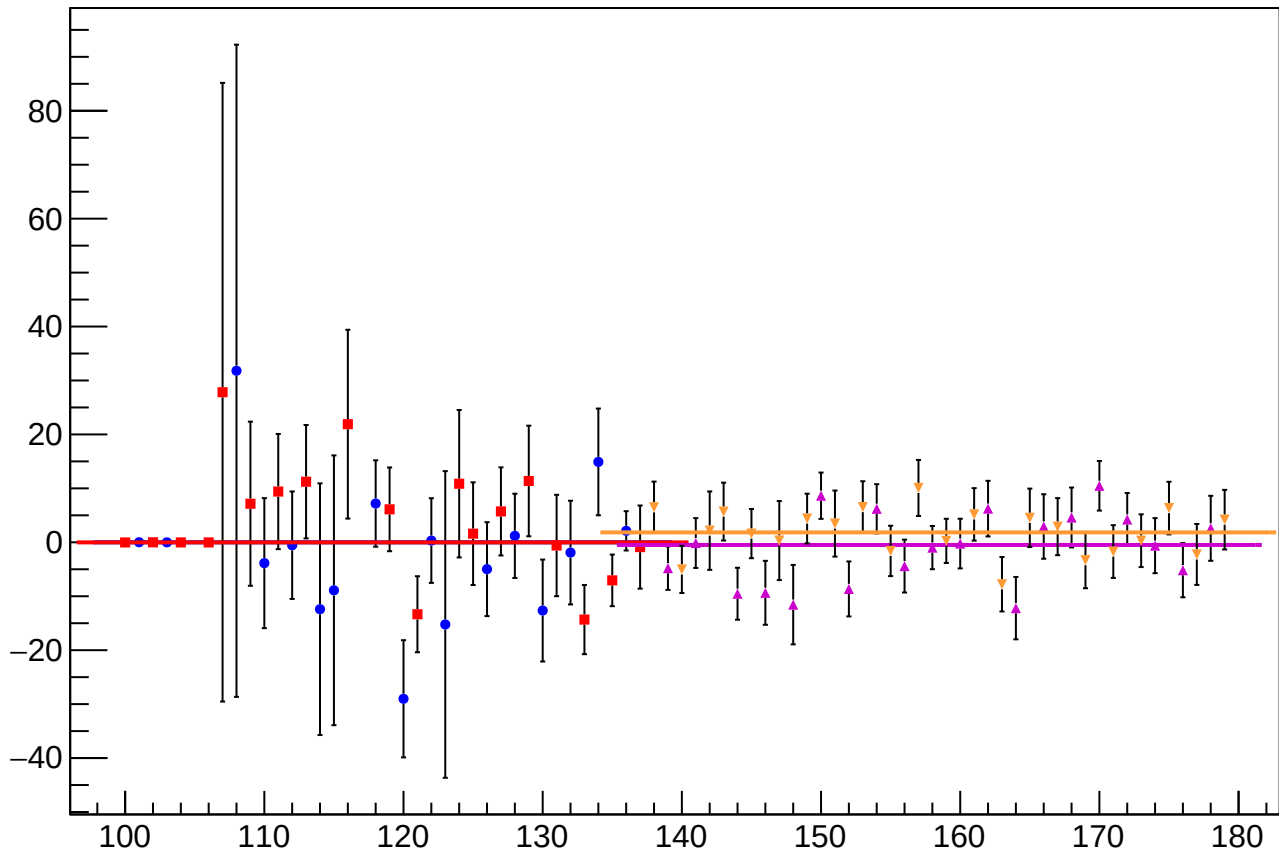
Right: 18.464+/-0.008  $\chi^2/\text{NDF}$ : 21945270.7/35

In: 19.019+/-0.012  $\chi^2/\text{NDF}$ : 41773701.9/36

Out: 18.661+/-0.011  $\chi^2/\text{NDF}$ : 44113759.4/40

All: 18.827+/-0.008  $\chi^2/\text{NDF}$ : 85887918.5/77

# diff\_cav4bY\_mean vs Slug, Sign Corrected



Right In: 0.001 $\pm$ 0.009  $\chi^2/\text{NDF}$ : 14.9/16

Left Out: 1.836 $\pm$ 1.082  $\chi^2/\text{NDF}$ : 16.1/21

Right Out: -0.014 $\pm$ 0.009  $\chi^2/\text{NDF}$ : 18.4/18

Left In: -0.493 $\pm$ 1.109  $\chi^2/\text{NDF}$ : 33.8/19

Left: 0.701 $\pm$ 0.774  $\chi^2/\text{NDF}$ : 52.1/41

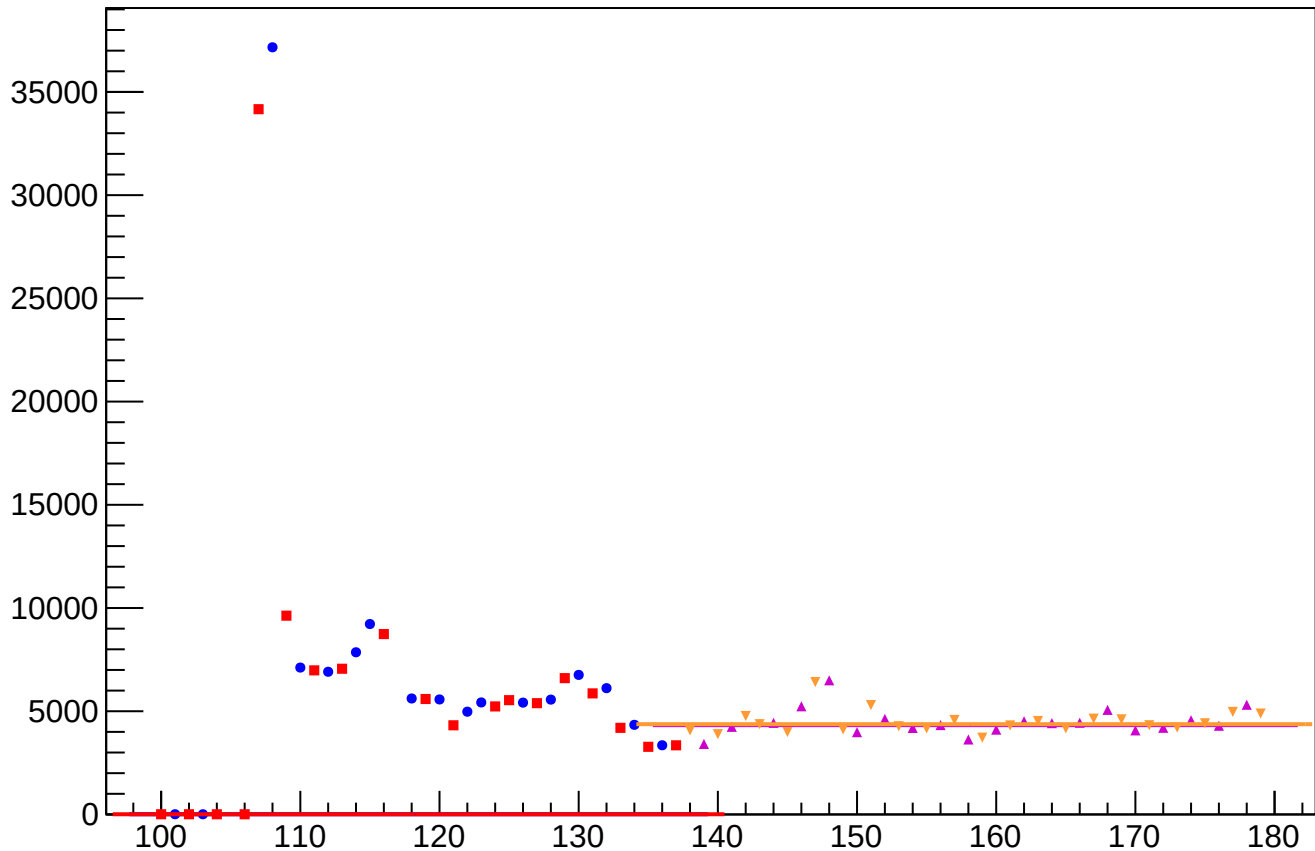
Right: -0.007 $\pm$ 0.006  $\chi^2/\text{NDF}$ : 34.7/35

In: 0.001 $\pm$ 0.009  $\chi^2/\text{NDF}$ : 48.9/36

Out: -0.014 $\pm$ 0.009  $\chi^2/\text{NDF}$ : 37.4/40

All: -0.007 $\pm$ 0.006  $\chi^2/\text{NDF}$ : 87.7/77

# diff\_cav4bY\_rms vs Slug, Sign Corrected



Right In:  $9.938 \pm 0.007$   $\chi^2/\text{NDF}$ : 10973577.1/16

Left Out:  $4372.345 \pm 0.765$   $\chi^2/\text{NDF}$ : 374093.6/21

Right Out:  $9.854 \pm 0.006$   $\chi^2/\text{NDF}$ : 11152667.7/18

Left In:  $4325.396 \pm 0.784$   $\chi^2/\text{NDF}$ : 516546.0/19

Left:  $4349.461 \pm 0.548$   $\chi^2/\text{NDF}$ : 892475.9/41

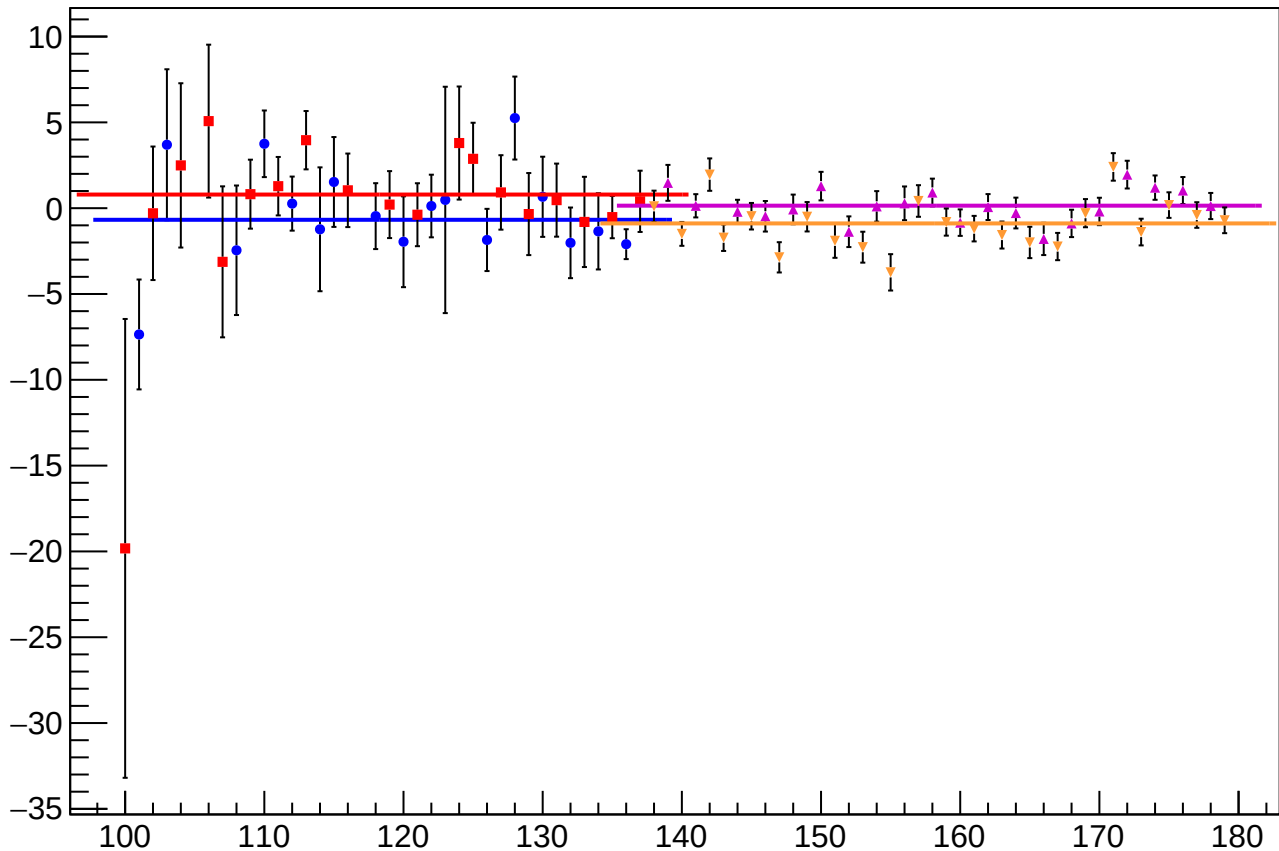
Right:  $9.894 \pm 0.004$   $\chi^2/\text{NDF}$ : 22126332.7/35

In:  $10.235 \pm 0.007$   $\chi^2/\text{NDF}$ : 41757040.1/36

Out:  $10.133 \pm 0.006$   $\chi^2/\text{NDF}$ : 44052952.6/40

All:  $10.181 \pm 0.004$   $\chi^2/\text{NDF}$ : 85810122.4/77

# diff\_cav4cX\_mean vs Slug, Sign Corrected



Right In:  $-0.677 \pm 0.484$   $\chi^2/\text{NDF}$ : 22.3/16

Left Out:  $-0.888 \pm 0.175$   $\chi^2/\text{NDF}$ : 56.0/21

Right Out:  $0.795 \pm 0.501$   $\chi^2/\text{NDF}$ : 12.0/18

Left In:  $0.146 \pm 0.182$   $\chi^2/\text{NDF}$ : 24.6/19

Left:  $-0.391 \pm 0.126$   $\chi^2/\text{NDF}$ : 97.3/41

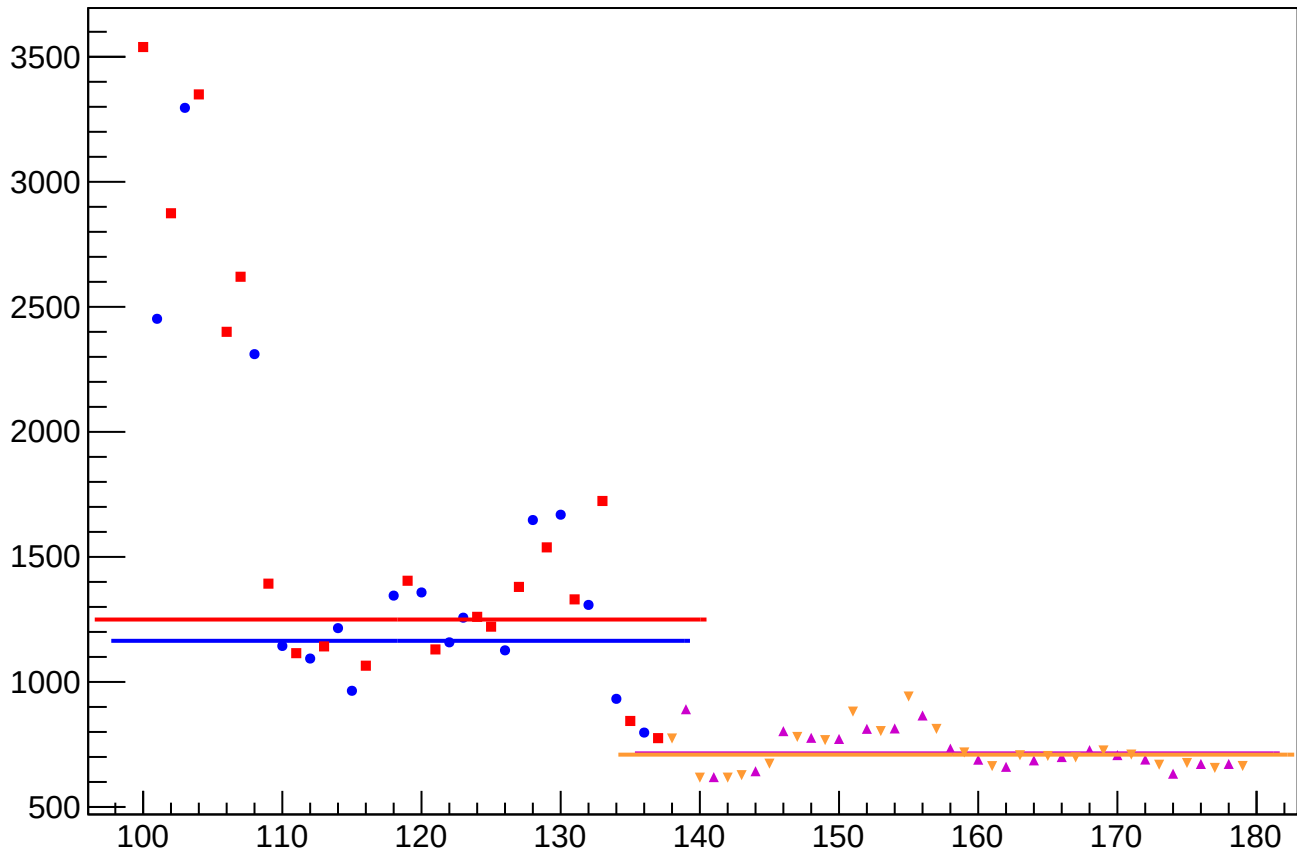
Right:  $0.033 \pm 0.348$   $\chi^2/\text{NDF}$ : 38.7/35

In:  $0.044 \pm 0.171$   $\chi^2/\text{NDF}$ : 49.4/36

Out:  $-0.705 \pm 0.165$   $\chi^2/\text{NDF}$ : 78.0/40

All:  $-0.342 \pm 0.119$   $\chi^2/\text{NDF}$ : 137.3/77

# diff\_cav4cX\_rms vs Slug, Sign Corrected



Right In: 1164.459+/-0.342  $\chi^2/\text{NDF}$ : 1584212.9/16

Left Out: 709.276+/-0.124  $\chi^2/\text{NDF}$ : 352575.7/21

Right Out: 1249.596+/-0.354  $\chi^2/\text{NDF}$ : 1650133.1/18

Left In: 714.460+/-0.129  $\chi^2/\text{NDF}$ : 310681.2/19

Left: 711.766+/-0.089  $\chi^2/\text{NDF}$ : 664097.8/41

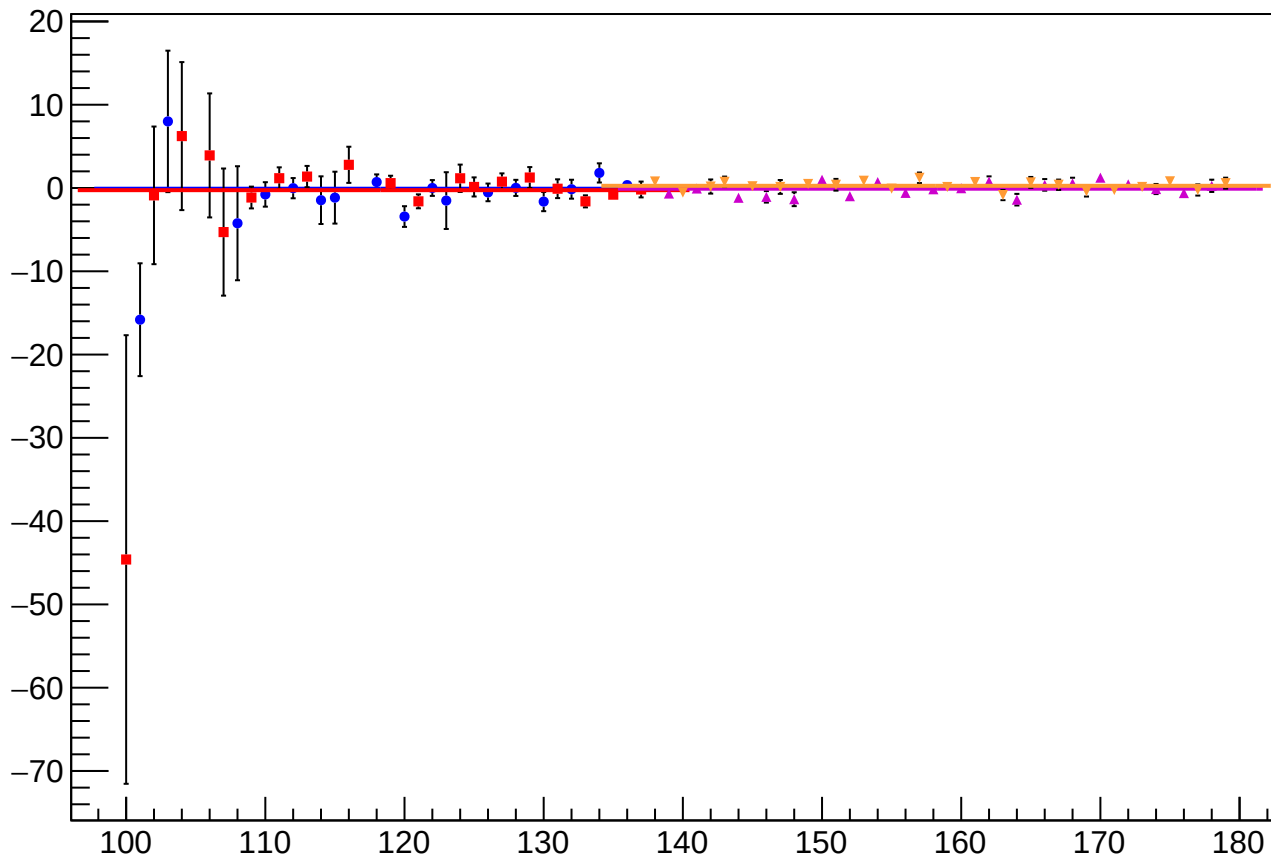
Right: 1205.546+/-0.246  $\chi^2/\text{NDF}$ : 3264193.7/35

In: 770.323+/-0.121  $\chi^2/\text{NDF}$ : 3408281.5/36

Out: 768.089+/-0.117  $\chi^2/\text{NDF}$ : 4073341.3/40

All: 769.171+/-0.084  $\chi^2/\text{NDF}$ : 7481799.6/77

# diff\_cav4cY\_mean vs Slug, Sign Corrected



Right In:  $-0.086 \pm 0.270$   $\chi^2/\text{NDF}$ : 21.1/16

Left Out:  $0.264 \pm 0.130$   $\chi^2/\text{NDF}$ : 15.8/21

Right Out:  $-0.259 \pm 0.264$   $\chi^2/\text{NDF}$ : 20.4/18

Left In:  $-0.084 \pm 0.133$   $\chi^2/\text{NDF}$ : 33.2/19

Left:  $0.095 \pm 0.093$   $\chi^2/\text{NDF}$ : 52.5/41

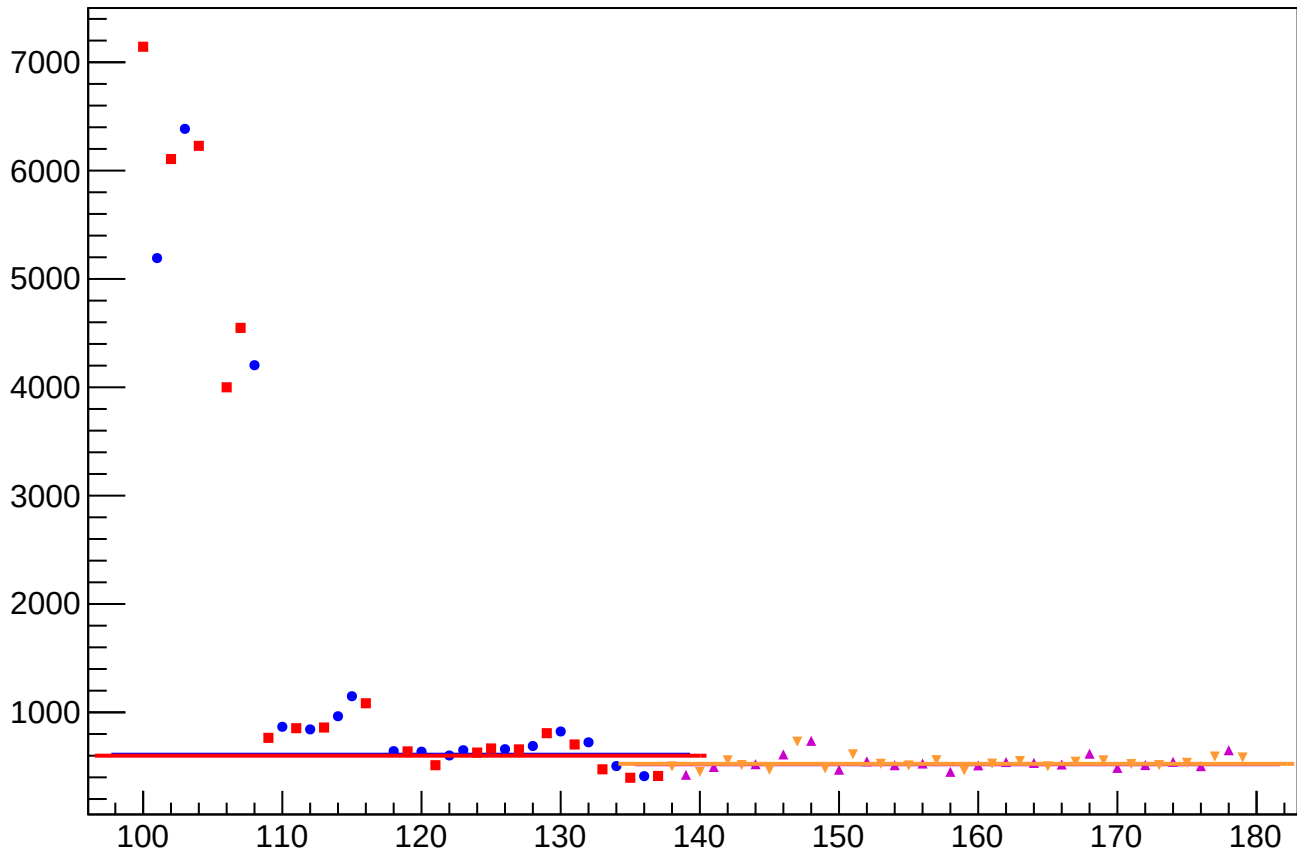
Right:  $-0.174 \pm 0.189$   $\chi^2/\text{NDF}$ : 41.7/35

In:  $-0.084 \pm 0.120$   $\chi^2/\text{NDF}$ : 54.3/36

Out:  $0.162 \pm 0.116$   $\chi^2/\text{NDF}$ : 39.4/40

All:  $0.042 \pm 0.083$   $\chi^2/\text{NDF}$ : 95.8/77

# diff\_cav4cY\_rms vs Slug, Sign Corrected



Right In:  $609.016 \pm 0.191$   $\chi^2/\text{NDF}$ : 3139231.5/16

Left Out:  $524.844 \pm 0.092$   $\chi^2/\text{NDF}$ : 322112.9/21

Right Out:  $599.910 \pm 0.187$   $\chi^2/\text{NDF}$ : 3547599.8/18

Left In:  $520.852 \pm 0.094$   $\chi^2/\text{NDF}$ : 431009.7/19

Left:  $522.903 \pm 0.066$   $\chi^2/\text{NDF}$ : 754043.8/41

Right:  $604.364 \pm 0.134$   $\chi^2/\text{NDF}$ : 6687992.0/35

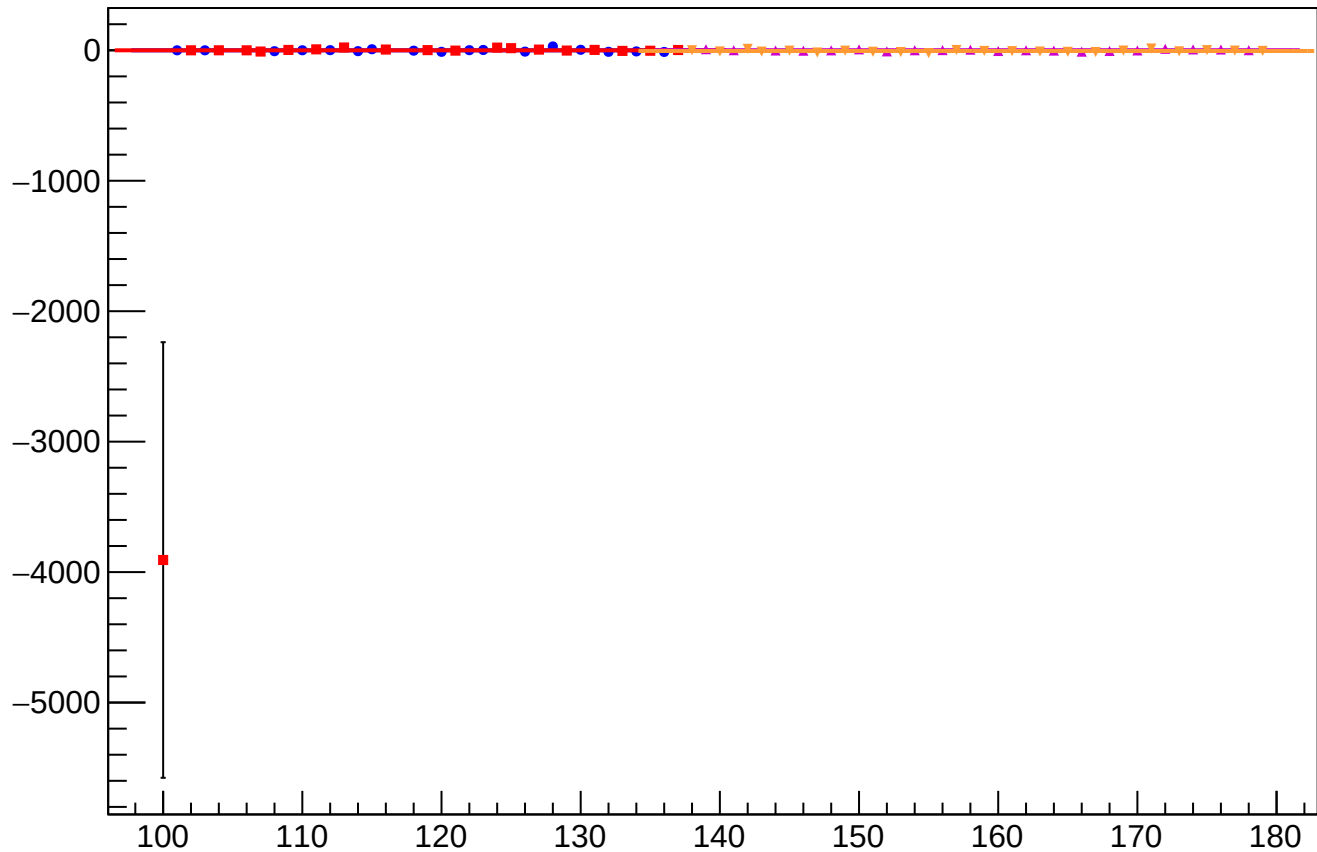
In:  $538.126 \pm 0.085$   $\chi^2/\text{NDF}$ : 3741513.7/36

Out:  $539.411 \pm 0.082$   $\chi^2/\text{NDF}$ : 3999701.1/40

All:  $538.786 \pm 0.059$   $\chi^2/\text{NDF}$ : 7741333.5/77



# diff\_cav4dX\_mean vs Slug, Sign Corrected



Right In:  $-0.022 \pm 0.021$   $\chi^2/\text{NDF}$ : 15.3/16

Left Out:  $-5.135 \pm 1.020$   $\chi^2/\text{NDF}$ : 55.8/21

Right Out:  $0.027 \pm 0.020$   $\chi^2/\text{NDF}$ : 17.3/18

Left In:  $0.907 \pm 1.062$   $\chi^2/\text{NDF}$ : 24.7/19

Left:  $-2.234 \pm 0.736$   $\chi^2/\text{NDF}$ : 97.4/41

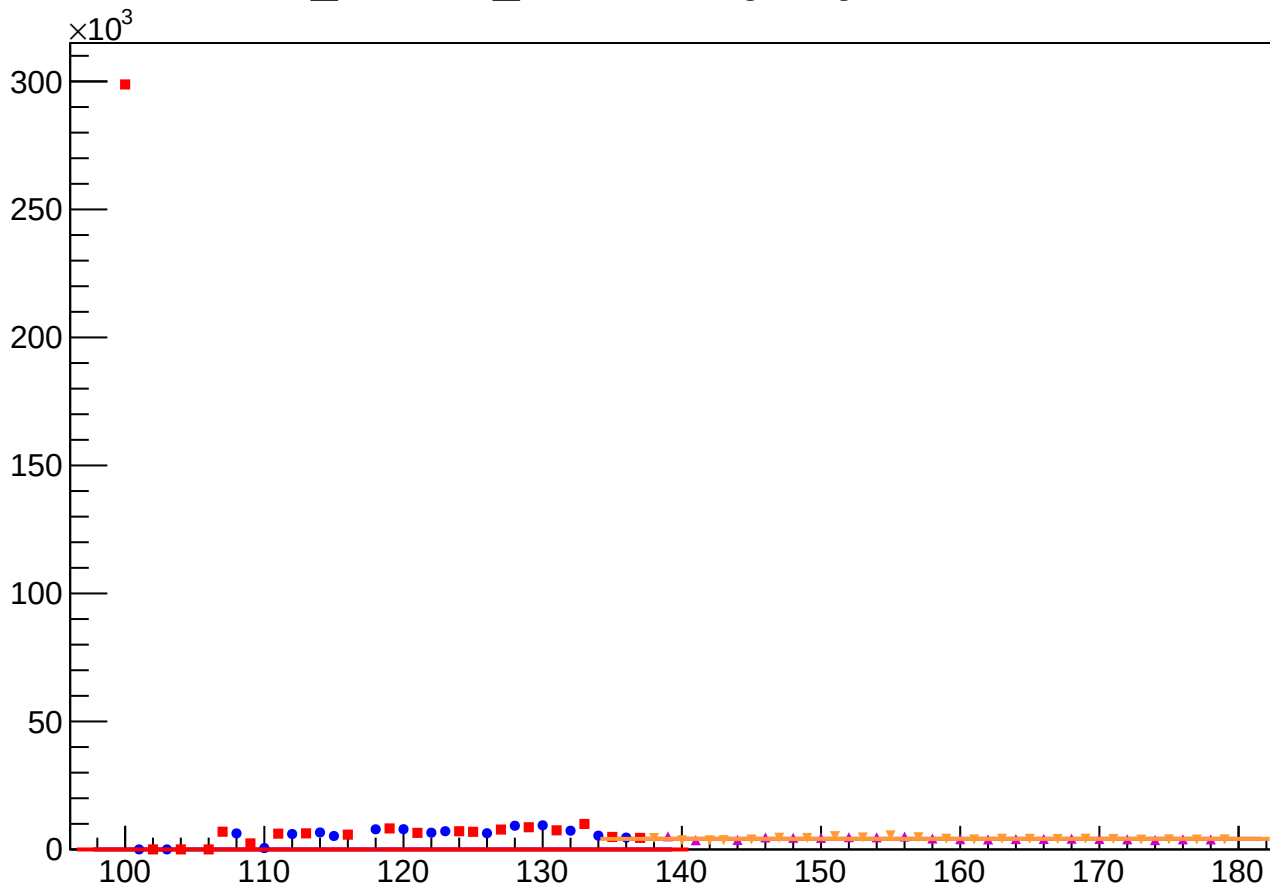
Right:  $0.004 \pm 0.014$   $\chi^2/\text{NDF}$ : 35.4/35

In:  $-0.021 \pm 0.021$   $\chi^2/\text{NDF}$ : 40.7/36

Out:  $0.025 \pm 0.020$   $\chi^2/\text{NDF}$ : 98.7/40

All:  $0.003 \pm 0.014$   $\chi^2/\text{NDF}$ : 142.0/77

# diff\_cav4dX\_rms vs Slug, Sign Corrected



Right In:  $17.337 \pm 0.015$   $\chi^2/\text{NDF}: 10359409.4/16$

Left Out:  $4128.354 \pm 0.721$   $\chi^2/\text{NDF}: 370659.7/21$

Right Out:  $17.268 \pm 0.014$   $\chi^2/\text{NDF}: 10813350.8/18$

Left In:  $4161.122 \pm 0.751$   $\chi^2/\text{NDF}: 320938.9/19$

Left:  $4144.082 \pm 0.520$   $\chi^2/\text{NDF}: 692589.2/41$

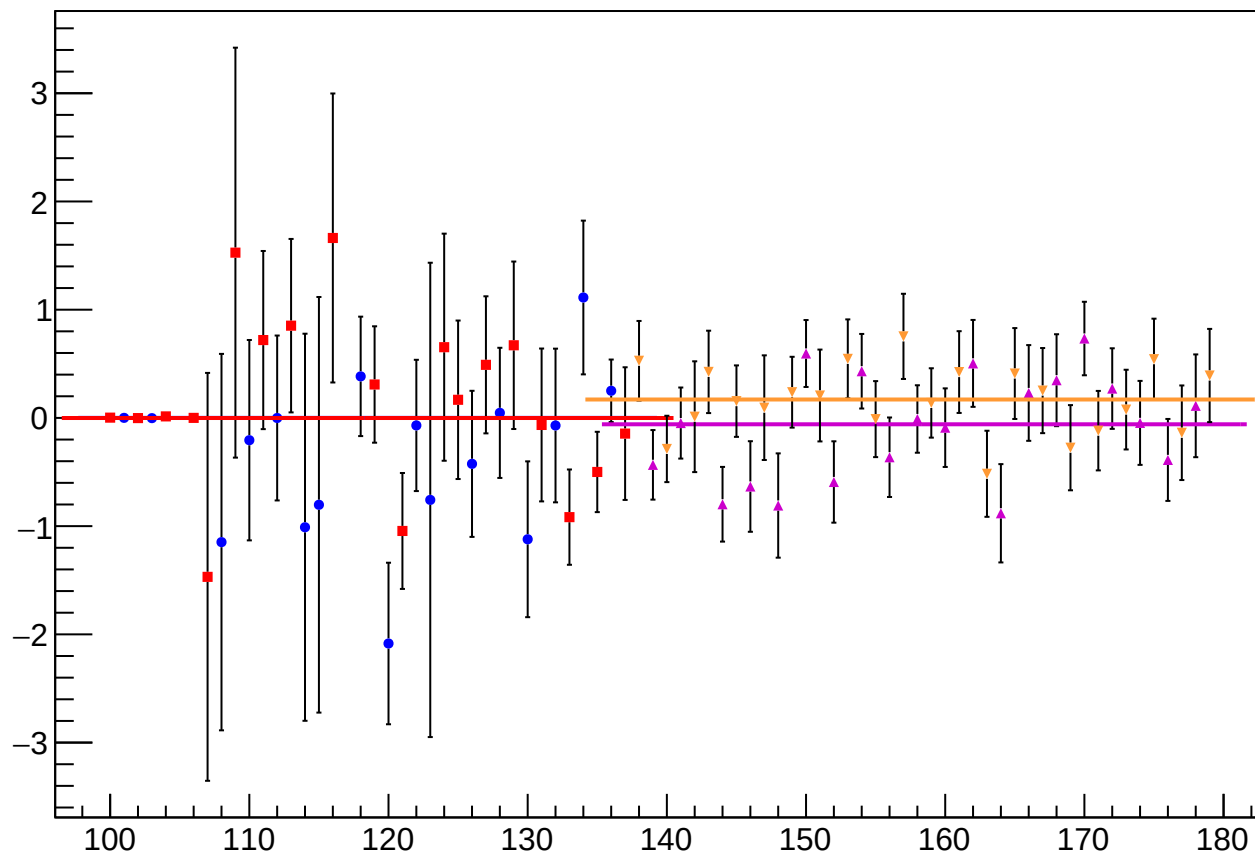
Right:  $17.301 \pm 0.010$   $\chi^2/\text{NDF}: 21172771.7/35$

In:  $18.926 \pm 0.015$   $\chi^2/\text{NDF}: 41133534.2/36$

Out:  $18.813 \pm 0.014$   $\chi^2/\text{NDF}: 43657945.5/40$

All:  $18.867 \pm 0.010$   $\chi^2/\text{NDF}: 84791510.7/77$

# diff\_cav4dY\_mean vs Slug, Sign Corrected



Right In:  $0.000 \pm 0.002$   $\chi^2/\text{NDF}$ : 15.6/16

Left Out:  $0.170 \pm 0.081$   $\chi^2/\text{NDF}$ : 14.8/21

Right Out:  $-0.001 \pm 0.002$   $\chi^2/\text{NDF}$ : 17.8/18

Left In:  $-0.059 \pm 0.083$   $\chi^2/\text{NDF}$ : 33.2/19

Left:  $0.059 \pm 0.058$   $\chi^2/\text{NDF}$ : 51.9/41

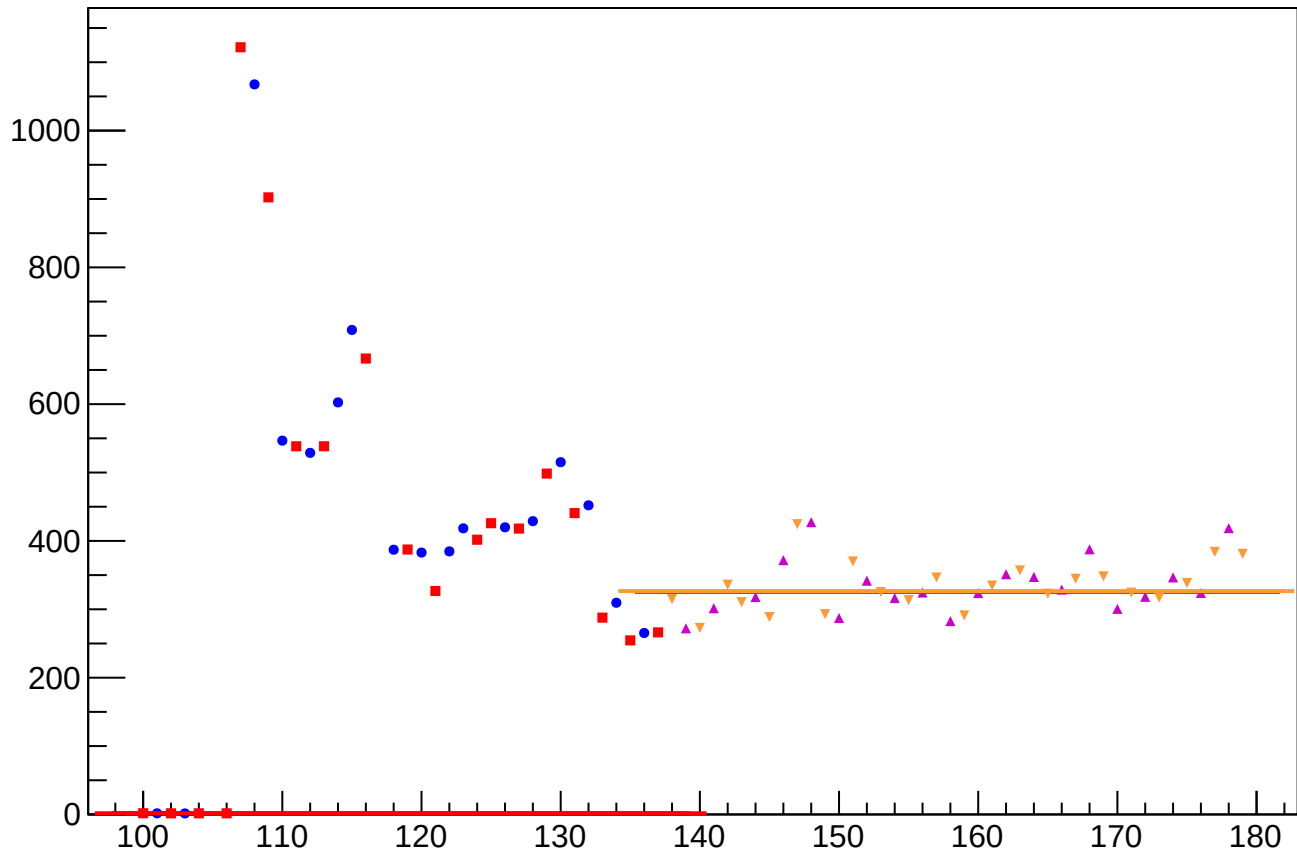
Right:  $-0.000 \pm 0.001$   $\chi^2/\text{NDF}$ : 33.6/35

In:  $0.000 \pm 0.002$   $\chi^2/\text{NDF}$ : 49.3/36

Out:  $-0.001 \pm 0.002$   $\chi^2/\text{NDF}$ : 37.1/40

All:  $-0.000 \pm 0.001$   $\chi^2/\text{NDF}$ : 86.6/77

# diff\_cav4dY\_rms vs Slug, Sign Corrected



Right In:  $1.698 \pm 0.001$   $\chi^2/\text{NDF}: 10911617.0/16$

Left Out:  $326.620 \pm 0.057$   $\chi^2/\text{NDF}: 343630.7/21$

Right Out:  $1.728 \pm 0.001$   $\chi^2/\text{NDF}: 10736674.8/18$

Left In:  $325.395 \pm 0.059$   $\chi^2/\text{NDF}: 404622.2/19$

Left:  $326.026 \pm 0.041$   $\chi^2/\text{NDF}: 748476.0/41$

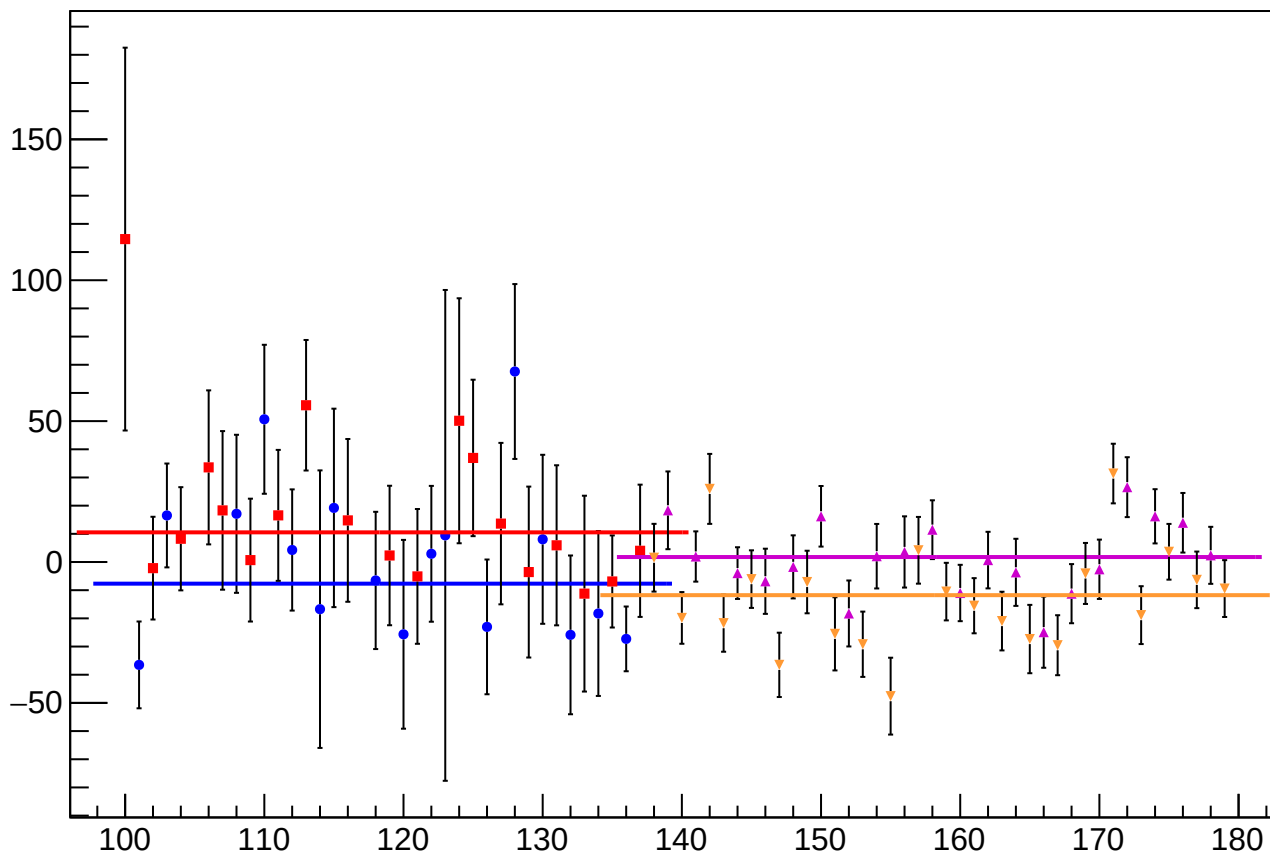
Right:  $1.714 \pm 0.001$   $\chi^2/\text{NDF}: 21648518.8/35$

In:  $1.890 \pm 0.001$   $\chi^2/\text{NDF}: 41529254.2/36$

Out:  $1.916 \pm 0.001$   $\chi^2/\text{NDF}: 43441628.8/40$

All:  $1.903 \pm 0.001$   $\chi^2/\text{NDF}: 84971051.0/77$

# diff\_bpm4aX\_mean vs Slug, Sign Corrected



Right In: -7.683 $\pm$ 5.627  $\chi^2/\text{NDF}$ : 22.4/16

Left Out: -11.765 $\pm$ 2.306  $\chi^2/\text{NDF}$ : 55.2/21

Right Out: 10.524 $\pm$ 5.682  $\chi^2/\text{NDF}$ : 11.9/18

Left In: 1.767 $\pm$ 2.398  $\chi^2/\text{NDF}$ : 25.1/19

Left: -5.264 $\pm$ 1.662  $\chi^2/\text{NDF}$ : 96.9/41

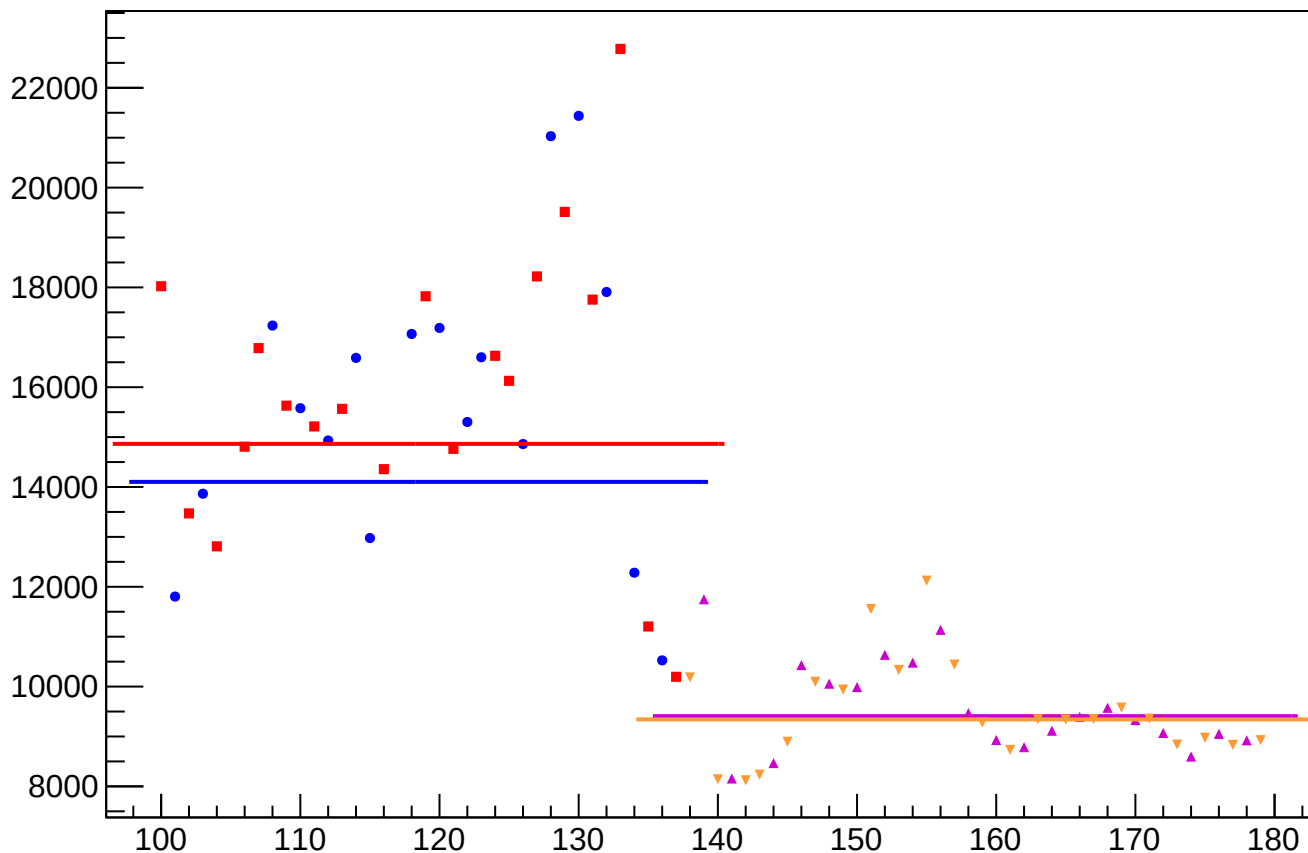
Right: 1.332 $\pm$ 3.998  $\chi^2/\text{NDF}$ : 39.4/35

In: 0.315 $\pm$ 2.206  $\chi^2/\text{NDF}$ : 49.9/36

Out: -8.613 $\pm$ 2.137  $\chi^2/\text{NDF}$ : 80.3/40

All: -4.292 $\pm$ 1.535  $\chi^2/\text{NDF}$ : 138.6/77

# diff\_bpm4aX\_rms vs Slug, Sign Corrected



Right In: 14102.522 $\pm$ 3.979  $\chi^2$ /NDF: 598934.8/16

Left Out: 9342.193 $\pm$ 1.630  $\chi^2$ /NDF:303779.4/21

Right Out: 14864.163 $\pm$ 4.018  $\chi^2$ /NDF: 470280.3/18

Left In: 9407.596 $\pm$ 1.696  $\chi^2$ /NDF:260418.4/19

Left: 9373.612 $\pm$ 1.175  $\chi^2$ /NDF: 564970.8/41

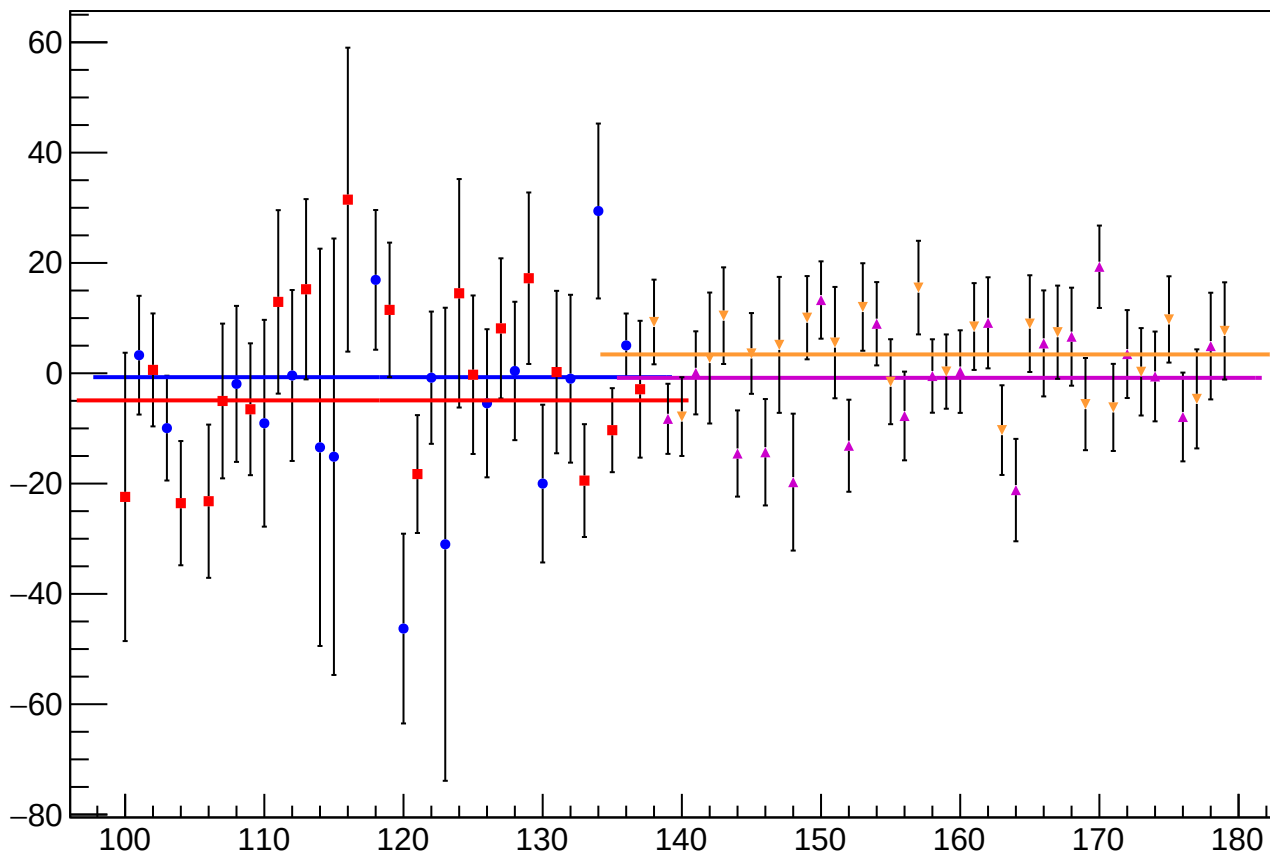
Right: 14479.636 $\pm$ 2.827  $\chi^2$ /NDF: 1087356.3/35

In: 10129.193 $\pm$ 1.560  $\chi^2$ /NDF:2037574.6/36

Out: 10122.918 $\pm$ 1.511  $\chi^2$ /NDF:2395781.9/40

All: 10125.955 $\pm$ 1.085  $\chi^2$ /NDF: 4433364.8/77

# diff\_bpm4aY\_mean vs Slug, Sign Corrected



Right In:  $-0.708 \pm 3.084$   $\chi^2/\text{NDF}$ : 17.6/16

Left Out:  $3.414 \pm 1.756$   $\chi^2/\text{NDF}$ : 16.8/21

Right Out:  $-4.918 \pm 2.940$   $\chi^2/\text{NDF}$ : 19.8/18

Left In:  $-0.831 \pm 1.800$   $\chi^2/\text{NDF}$ : 33.5/19

Left:  $1.343 \pm 1.257$   $\chi^2/\text{NDF}$ : 53.2/41

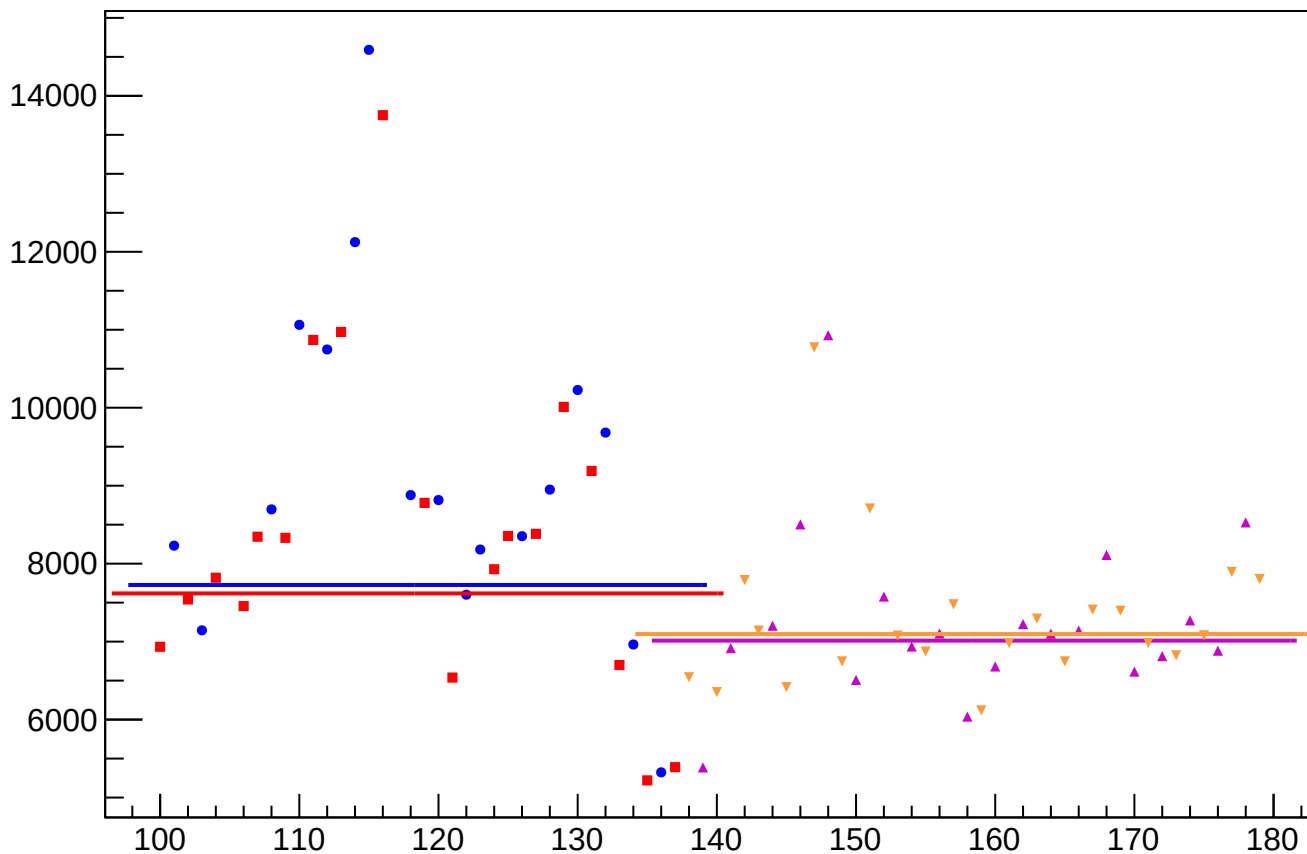
Right:  $-2.914 \pm 2.128$   $\chi^2/\text{NDF}$ : 38.3/35

In:  $-0.800 \pm 1.554$   $\chi^2/\text{NDF}$ : 51.1/36

Out:  $1.222 \pm 1.508$   $\chi^2/\text{NDF}$ : 42.5/40

All:  $0.242 \pm 1.082$   $\chi^2/\text{NDF}$ : 94.4/77

# diff\_bpm4aY\_rms vs Slug, Sign Corrected



Right In: 7726.745 $\pm$ 2.180  $\chi^2/\text{NDF}$ : 742512.8/16

Left Out: 7097.089 $\pm$ 1.242  $\chi^2/\text{NDF}$ : 379127.6/21

Right Out: 7618.206 $\pm$ 2.079  $\chi^2/\text{NDF}$ : 675125.4/18

Left In: 7012.910 $\pm$ 1.273  $\chi^2/\text{NDF}$ : 537421.9/19

Left: 7056.026 $\pm$ 0.889  $\chi^2/\text{NDF}$ : 918790.7/41

Right: 7669.883 $\pm$ 1.504  $\chi^2/\text{NDF}$ : 1418936.4/35

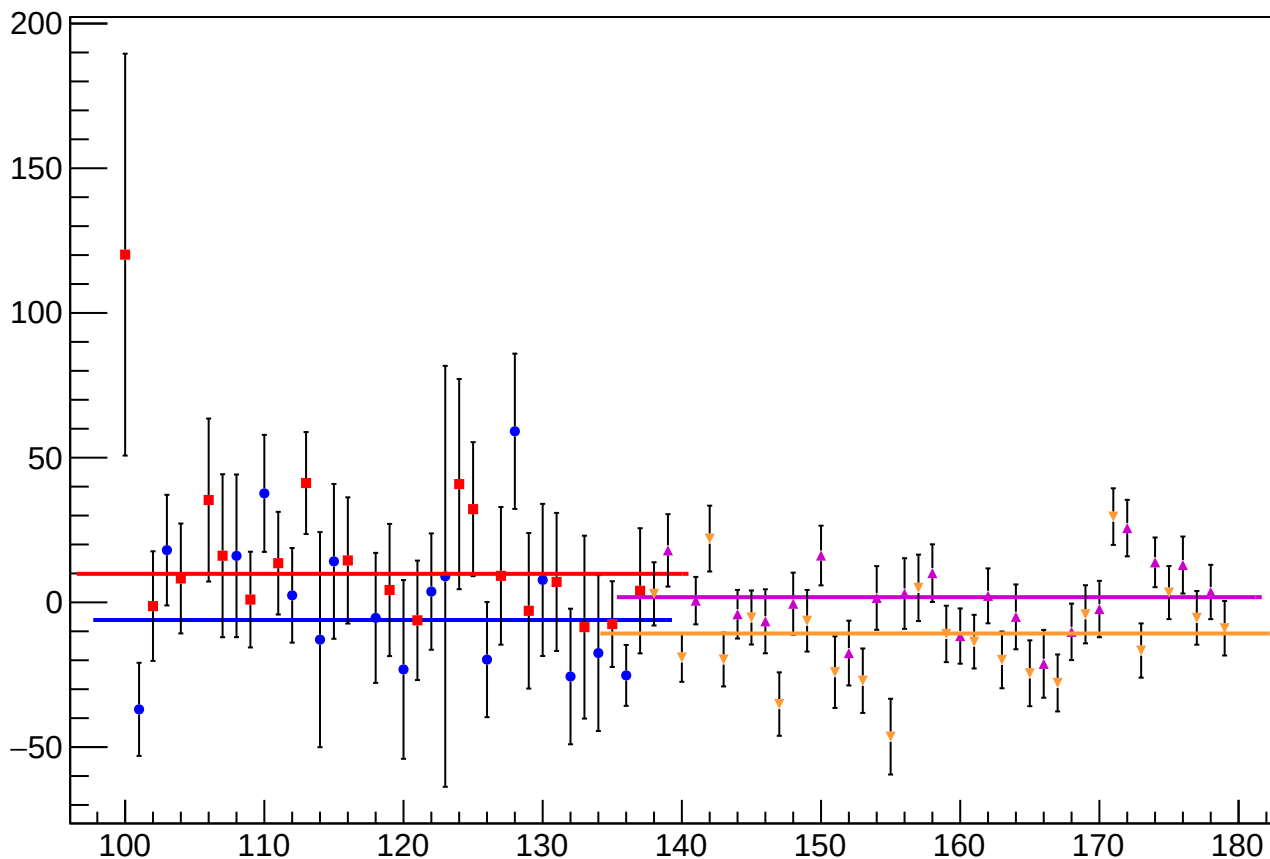
In: 7194.284 $\pm$ 1.099  $\chi^2/\text{NDF}$ : 1359885.8/36

Out: 7234.179 $\pm$ 1.066  $\chi^2/\text{NDF}$ : 1100573.0/40

All: 7214.839 $\pm$ 0.765  $\chi^2/\text{NDF}$ : 2461137.7/77



# diff\_bpm4eX\_mean vs Slug, Sign Corrected



Right In:  $-6.092 \pm 5.034$   $\chi^2/\text{NDF}$ : 22.9/16

Left Out:  $-10.751 \pm 2.154$   $\chi^2/\text{NDF}$ : 55.9/21

Right Out:  $9.864 \pm 5.004$   $\chi^2/\text{NDF}$ : 11.6/18

Left In:  $1.799 \pm 2.243$   $\chi^2/\text{NDF}$ : 25.6/19

Left:  $-4.730 \pm 1.553$   $\chi^2/\text{NDF}$ : 97.8/41

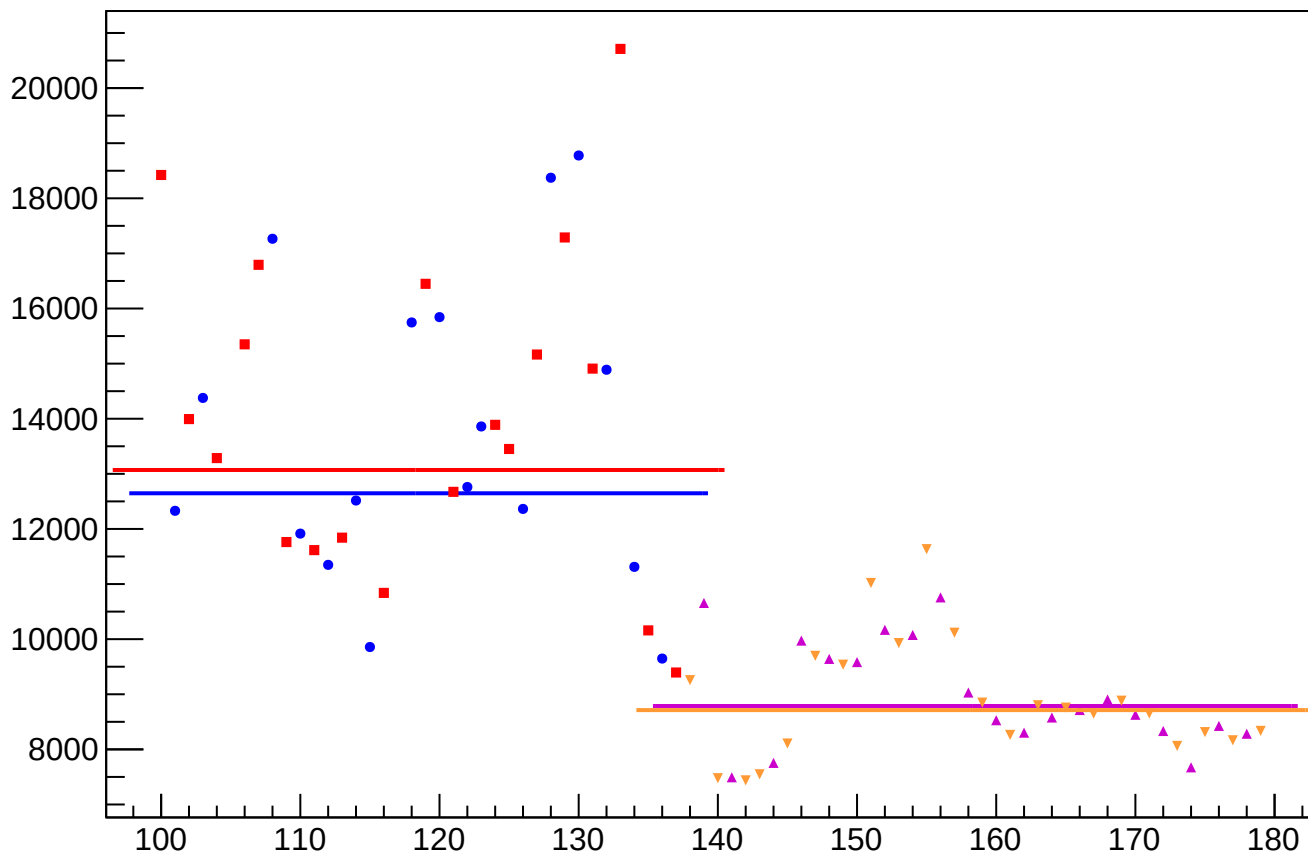
Right:  $1.934 \pm 3.549$   $\chi^2/\text{NDF}$ : 39.6/35

In:  $0.492 \pm 2.049$   $\chi^2/\text{NDF}$ : 50.5/36

Out:  $-7.529 \pm 1.978$   $\chi^2/\text{NDF}$ : 81.9/40

All:  $-3.658 \pm 1.423$   $\chi^2/\text{NDF}$ : 140.4/77

# diff\_bpm4eX\_rms vs Slug, Sign Corrected



Right In: 12647.257 $\pm$ 3.559  $\chi^2$ /NDF: 554320.4/16

Left Out: 8712.538 $\pm$ 1.523  $\chi^2$ /NDF:393656.6/21

Right Out: 13069.930 $\pm$ 3.538  $\chi^2$ /NDF: 496271.7/18

Left In: 8787.019 $\pm$ 1.586  $\chi^2$ /NDF:338287.0/19

Left: 8748.270 $\pm$ 1.098  $\chi^2$ /NDF: 733091.3/41

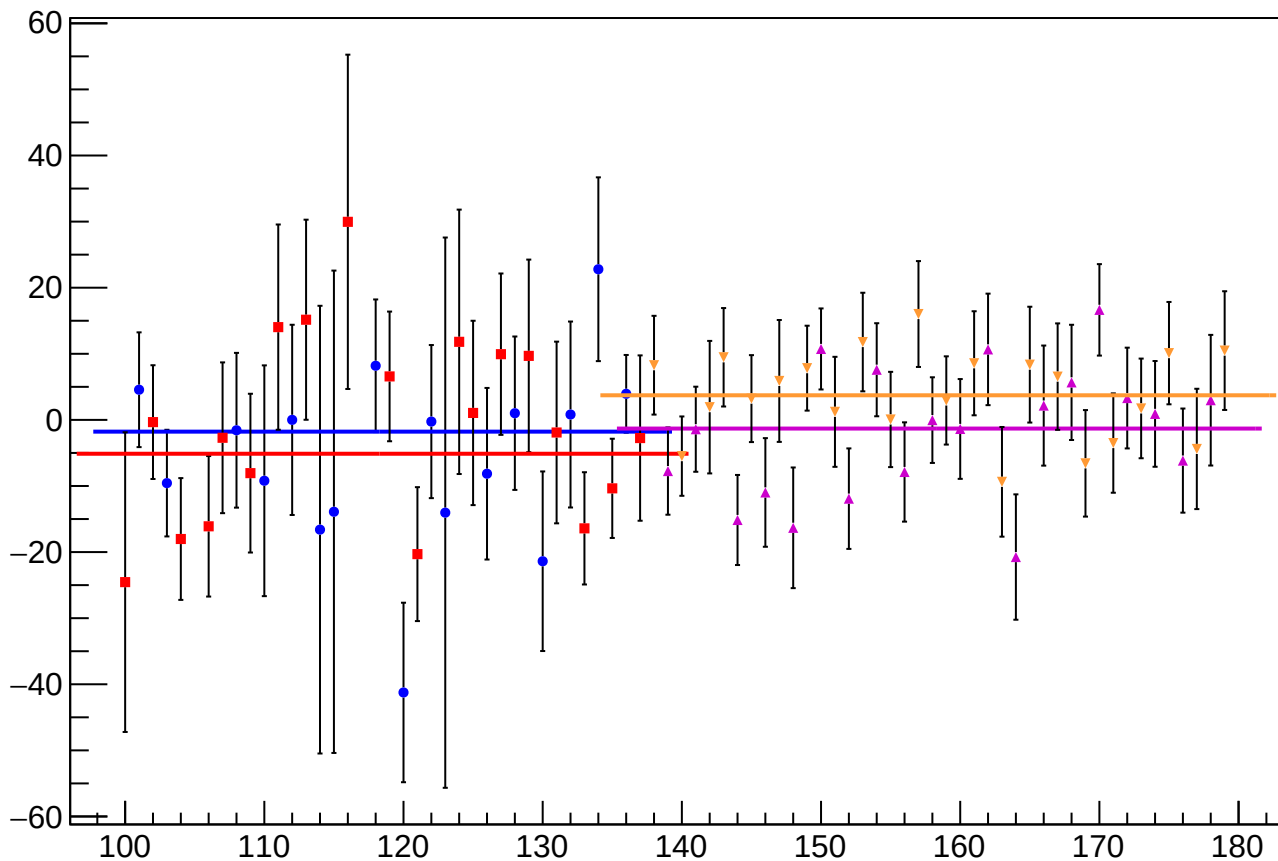
Right: 12859.864 $\pm$ 2.509  $\chi^2$ /NDF: 1057685.3/35

In: 9426.349 $\pm$ 1.449  $\chi^2$ /NDF:1874014.1/36

Out: 9393.583 $\pm$ 1.399  $\chi^2$ /NDF:2169668.3/40

All: 9409.393 $\pm$ 1.006  $\chi^2$ /NDF: 4043947.1/77

# diff\_bpm4eY\_mean vs Slug, Sign Corrected



Right In:  $-1.777 \pm 2.806$   $\chi^2/\text{NDF}$ : 18.0/16

Left Out:  $3.723 \pm 1.636$   $\chi^2/\text{NDF}$ : 15.6/21

Right Out:  $-5.122 \pm 2.642$   $\chi^2/\text{NDF}$ : 18.9/18

Left In:  $-1.312 \pm 1.692$   $\chi^2/\text{NDF}$ : 32.1/19

Left:  $1.290 \pm 1.176$   $\chi^2/\text{NDF}$ : 52.3/41

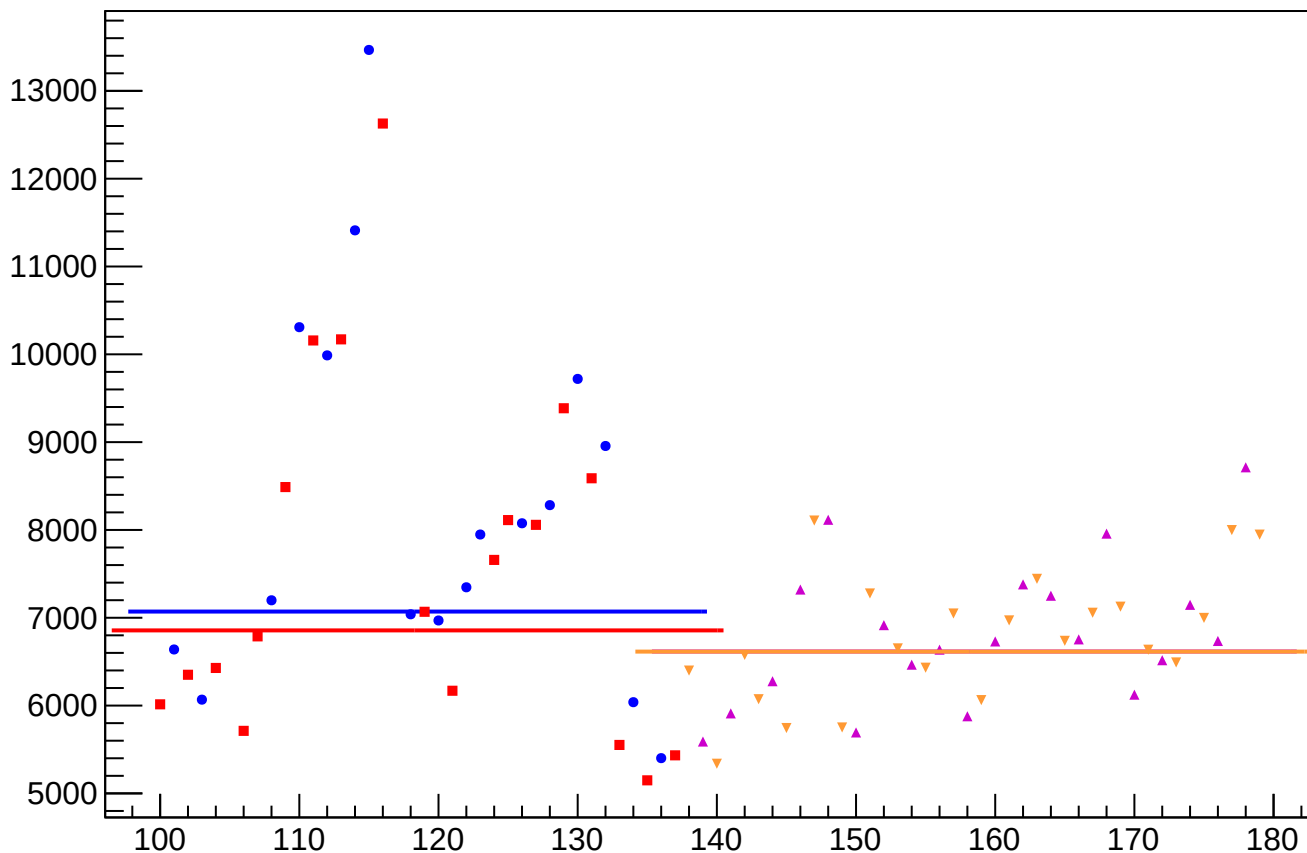
Right:  $-3.550 \pm 1.923$   $\chi^2/\text{NDF}$ : 37.6/35

In:  $-1.436 \pm 1.449$   $\chi^2/\text{NDF}$ : 50.1/36

Out:  $1.271 \pm 1.391$   $\chi^2/\text{NDF}$ : 42.6/40

All:  $-0.027 \pm 1.004$   $\chi^2/\text{NDF}$ : 94.6/77

# diff\_bpm4eY\_rms vs Slug, Sign Corrected



Right In: 7070.672+/-1.984  $\chi^2/\text{NDF}$ : 601692.5/16

Left Out: 6614.688+/-1.157  $\chi^2/\text{NDF}$ : 394193.9/21

Right Out: 6856.136+/-1.868  $\chi^2/\text{NDF}$ : 682220.3/18

Left In: 6615.848+/-1.197  $\chi^2/\text{NDF}$ : 404592.9/19

Left: 6615.248+/-0.832  $\chi^2/\text{NDF}$ : 798787.3/41

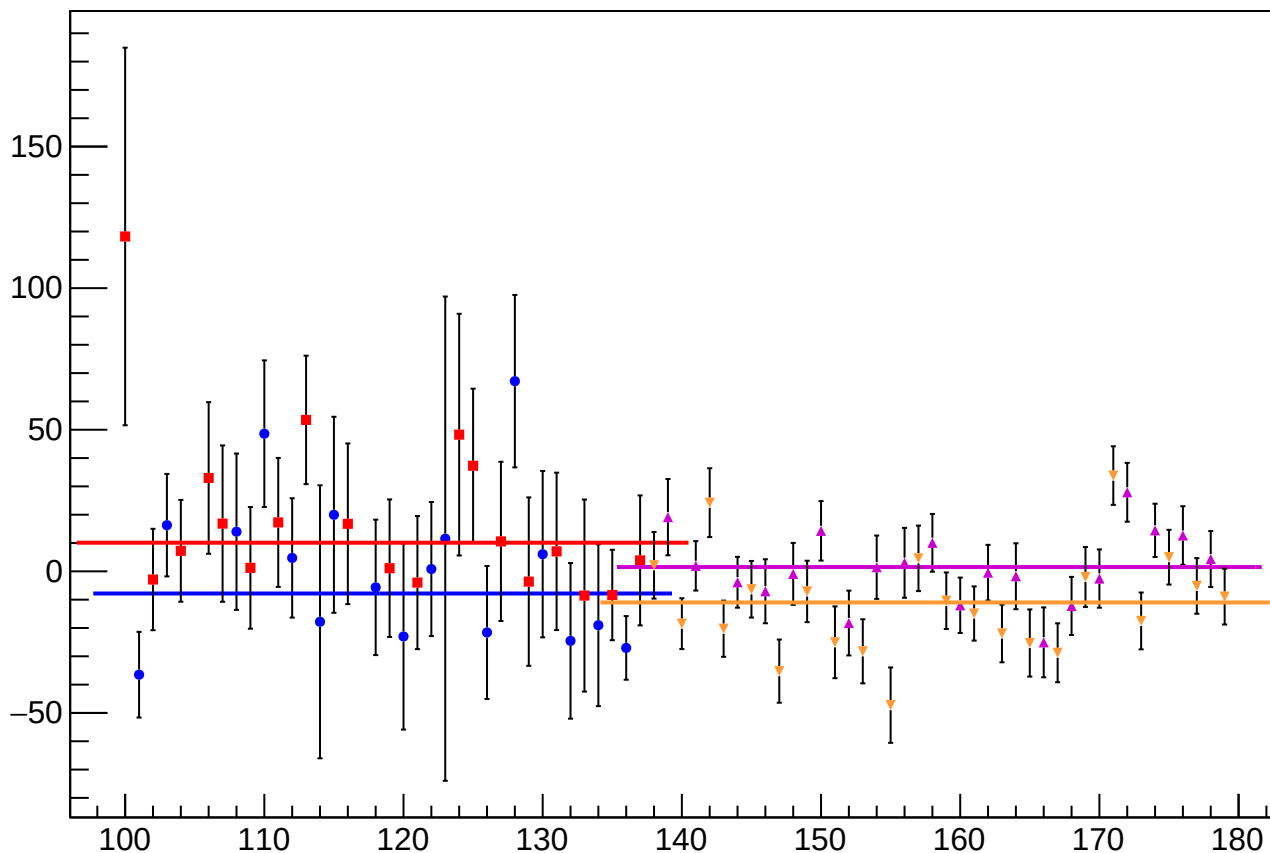
Right: 6956.947+/-1.360  $\chi^2/\text{NDF}$ : 1290110.2/35

In: 6737.172+/-1.025  $\chi^2/\text{NDF}$ : 1044815.1/36

Out: 6681.640+/-0.984  $\chi^2/\text{NDF}$ : 1088487.2/40

All: 6708.271+/-0.710  $\chi^2/\text{NDF}$ : 2134830.6/77

# diff\_bpm4acX\_mean vs Slug, Sign Corrected



Right In:  $-7.825 \pm 5.516$   $\chi^2/\text{NDF}: 22.3/16$

Left Out:  $-10.985 \pm 2.254$   $\chi^2/\text{NDF}: 57.8/21$

Right Out:  $10.117 \pm 5.571$   $\chi^2/\text{NDF}: 12.2/18$

Left In:  $1.518 \pm 2.344$   $\chi^2/\text{NDF}: 26.1/19$

Left:  $-4.978 \pm 1.625$   $\chi^2/\text{NDF}: 98.7/41$

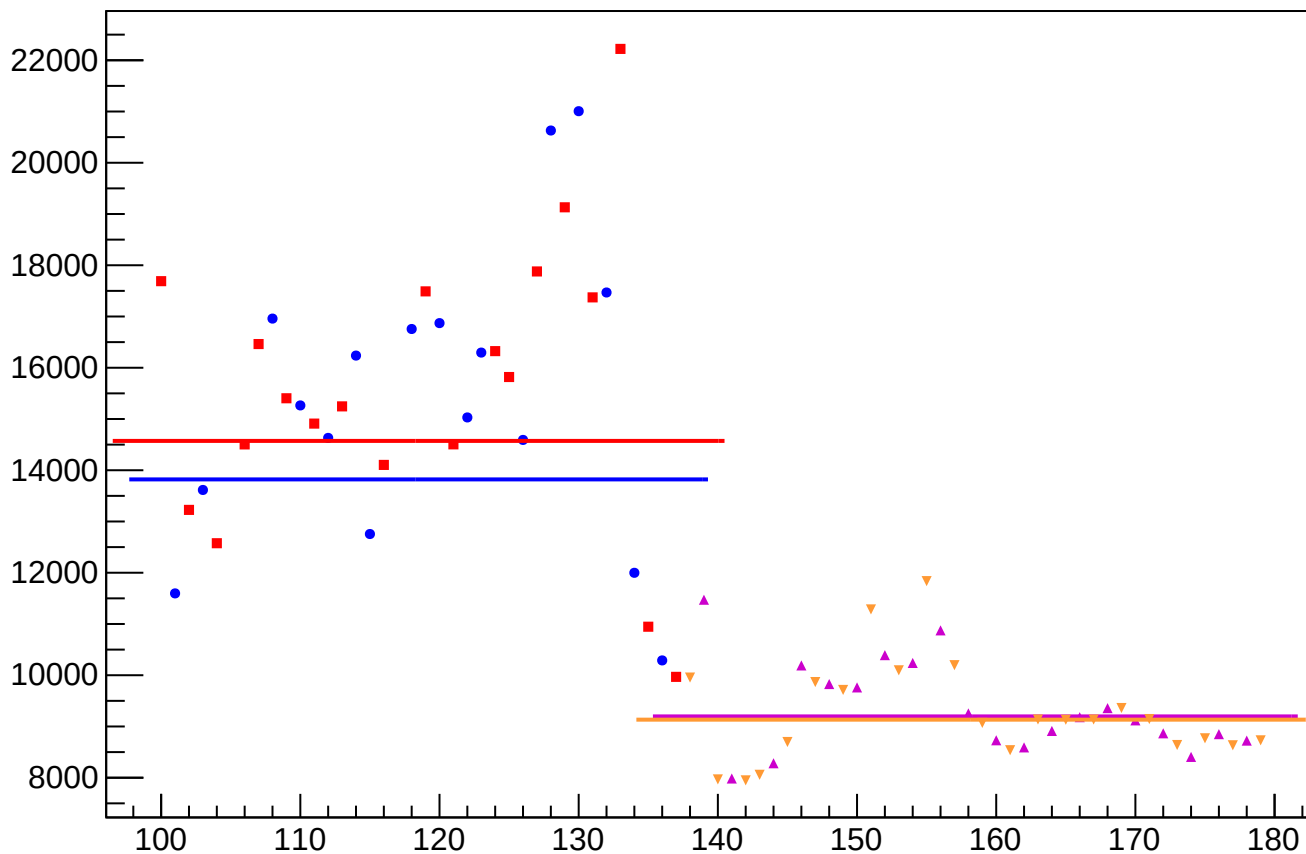
Right:  $1.056 \pm 3.920$   $\chi^2/\text{NDF}: 39.7/35$

In:  $0.088 \pm 2.157$   $\chi^2/\text{NDF}: 50.8/36$

Out:  $-8.016 \pm 2.089$   $\chi^2/\text{NDF}: 82.4/40$

All:  $-4.094 \pm 1.501$   $\chi^2/\text{NDF}: 140.4/77$

# diff\_bpm4acX\_rms vs Slug, Sign Corrected



Right In: 13821.195 $\pm$ 3.900  $\chi^2$ /NDF: 602672.4/16

Left Out: 9133.102 $\pm$ 1.594  $\chi^2$ /NDF: 300613.3/21

Right Out: 14572.437 $\pm$ 3.939  $\chi^2$ /NDF: 472468.2/18

Left In: 9196.486 $\pm$ 1.658  $\chi^2$ /NDF: 257562.9/19

Left: 9163.552 $\pm$ 1.149  $\chi^2$ /NDF: 558936.0/41

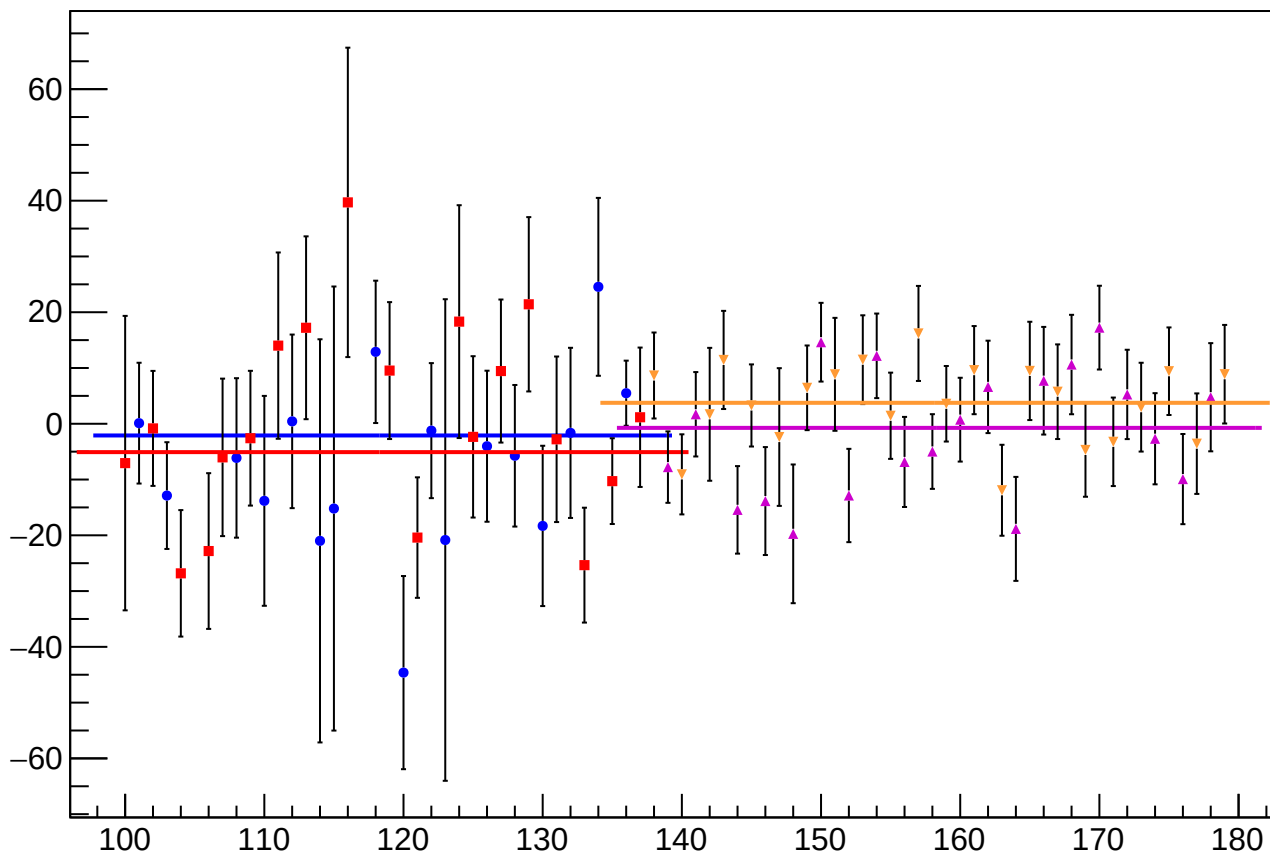
Right: 14193.062 $\pm$ 2.772  $\chi^2$ /NDF: 1093505.5/35

In: 9903.976 $\pm$ 1.525  $\chi^2$ /NDF: 2051154.1/36

Out: 9898.216 $\pm$ 1.477  $\chi^2$ /NDF: 2411380.3/40

All: 9901.004 $\pm$ 1.061  $\chi^2$ /NDF: 4462541.8/77

# diff\_bpm4acY\_mean vs Slug, Sign Corrected



Right In:  $-2.098 \pm 3.106$   $\chi^2/\text{NDF}: 15.6/16$

Left Out:  $3.757 \pm 1.764$   $\chi^2/\text{NDF}: 16.2/21$

Right Out:  $-5.085 \pm 2.962$   $\chi^2/\text{NDF}: 24.8/18$

Left In:  $-0.736 \pm 1.808$   $\chi^2/\text{NDF}: 34.7/19$

Left:  $1.566 \pm 1.263$   $\chi^2/\text{NDF}: 54.0/41$

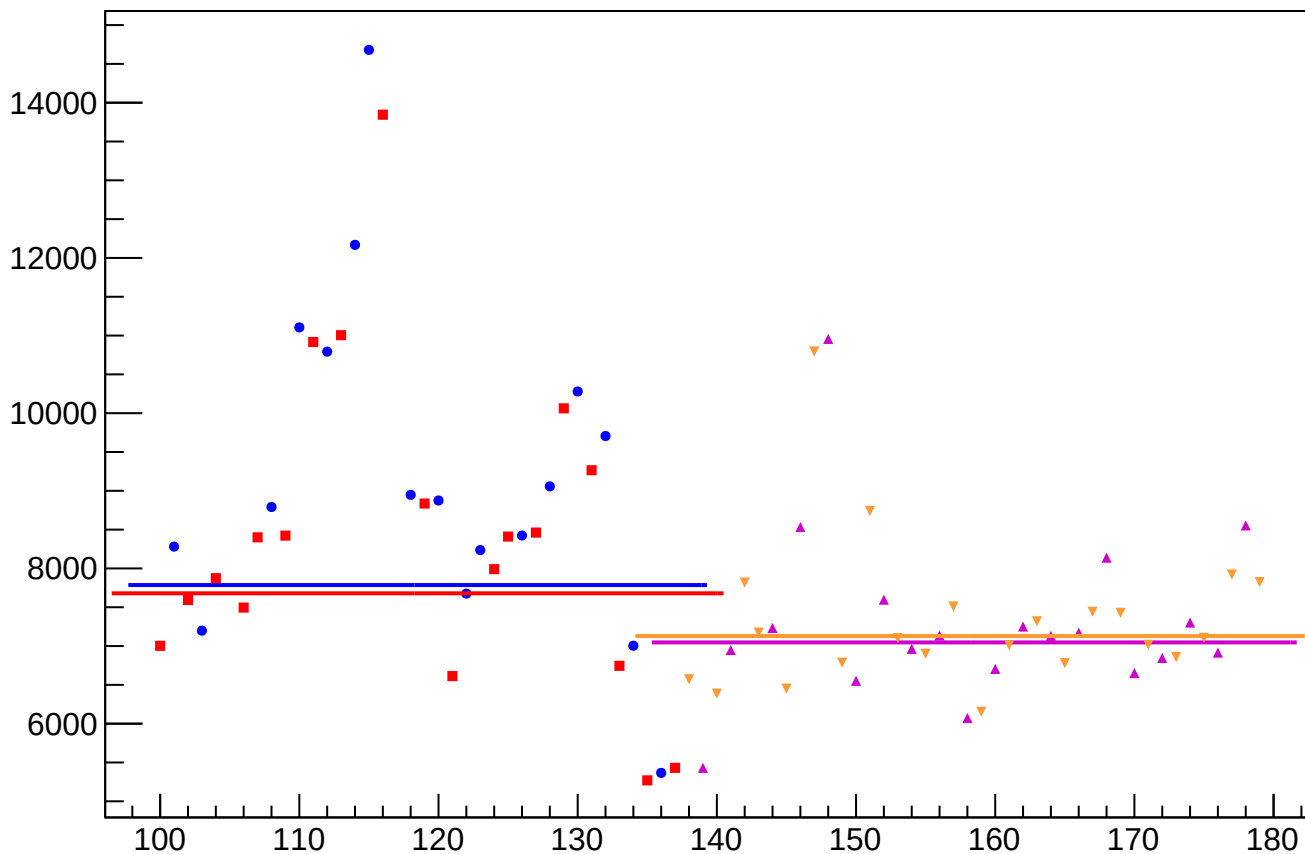
Right:  $-3.662 \pm 2.144$   $\chi^2/\text{NDF}: 40.9/35$

In:  $-1.080 \pm 1.563$   $\chi^2/\text{NDF}: 50.4/36$

Out:  $1.443 \pm 1.516$   $\chi^2/\text{NDF}: 47.6/40$

All:  $0.220 \pm 1.088$   $\chi^2/\text{NDF}: 99.4/77$

# diff\_bpm4acY\_rms vs Slug, Sign Corrected



Right In: 7785.931+/-2.197  $\chi^2/\text{NDF}$ : 738101.9/16

Left Out: 7128.931+/-1.247  $\chi^2/\text{NDF}$ : 374385.3/21

Right Out: 7679.182+/-2.095  $\chi^2/\text{NDF}$ : 668736.8/18

Left In: 7046.804+/-1.278  $\chi^2/\text{NDF}$ : 528391.4/19

Left: 7088.880+/-0.893  $\chi^2/\text{NDF}$ : 904891.1/41

Right: 7730.020+/-1.516  $\chi^2/\text{NDF}$ : 1408075.7/35

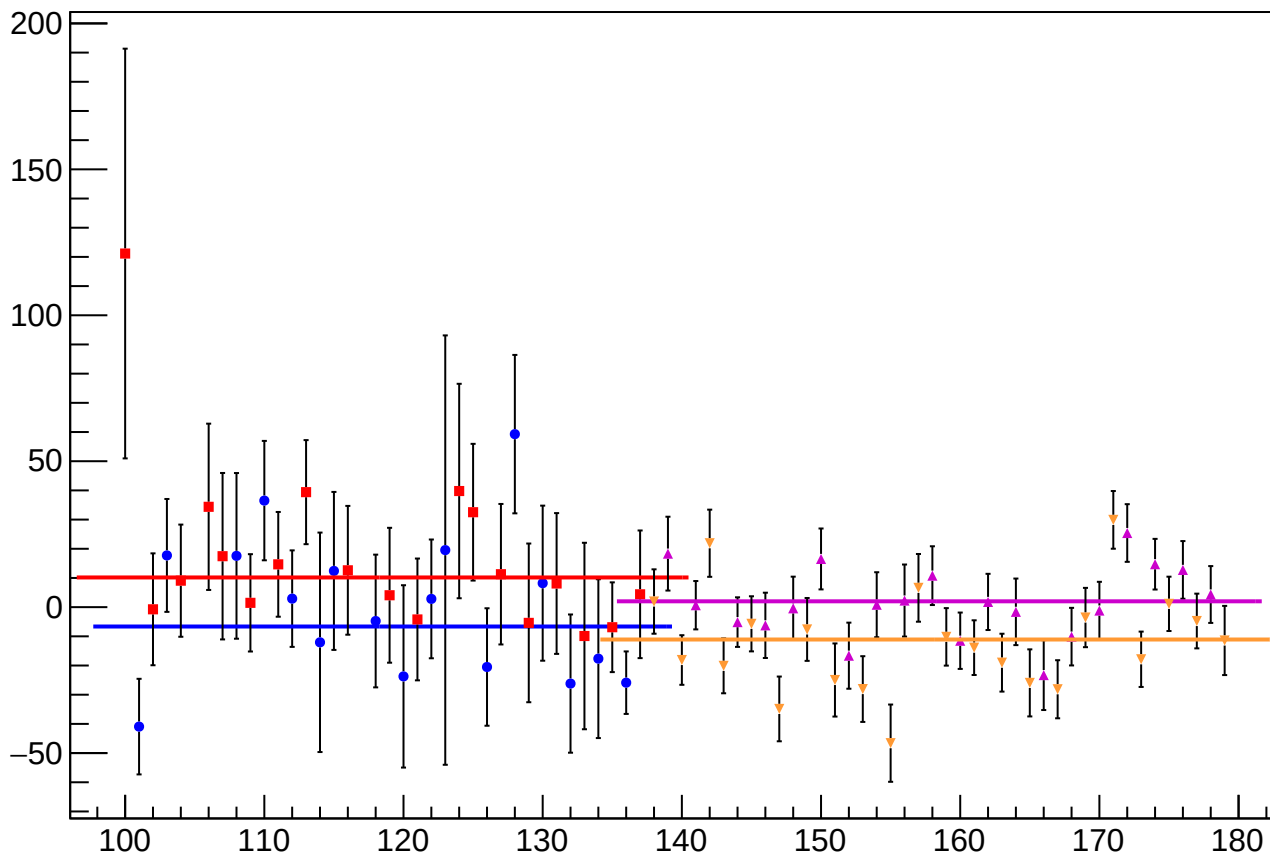
In: 7233.818+/-1.105  $\chi^2/\text{NDF}$ : 1351068.3/36

Out: 7272.969+/-1.072  $\chi^2/\text{NDF}$ : 1094068.7/40

All: 7253.992+/-0.769  $\chi^2/\text{NDF}$ : 2445783.9/77



# diff\_bpm4ecX\_mean vs Slug, Sign Corrected



Right In: -6.634 $\pm$ 5.101  $\chi^2$ /NDF: 23.4/16

Left Out: -11.088 $\pm$ 2.198  $\chi^2$ /NDF:55.1/21

Right Out: 10.172 $\pm$ 5.075  $\chi^2$ /NDF: 10.8/18

Left In: 1.999 $\pm$ 2.272  $\chi^2$ /NDF:25.5/19

Left: -4.760 $\pm$ 1.580  $\chi^2$ /NDF: 97.7/41

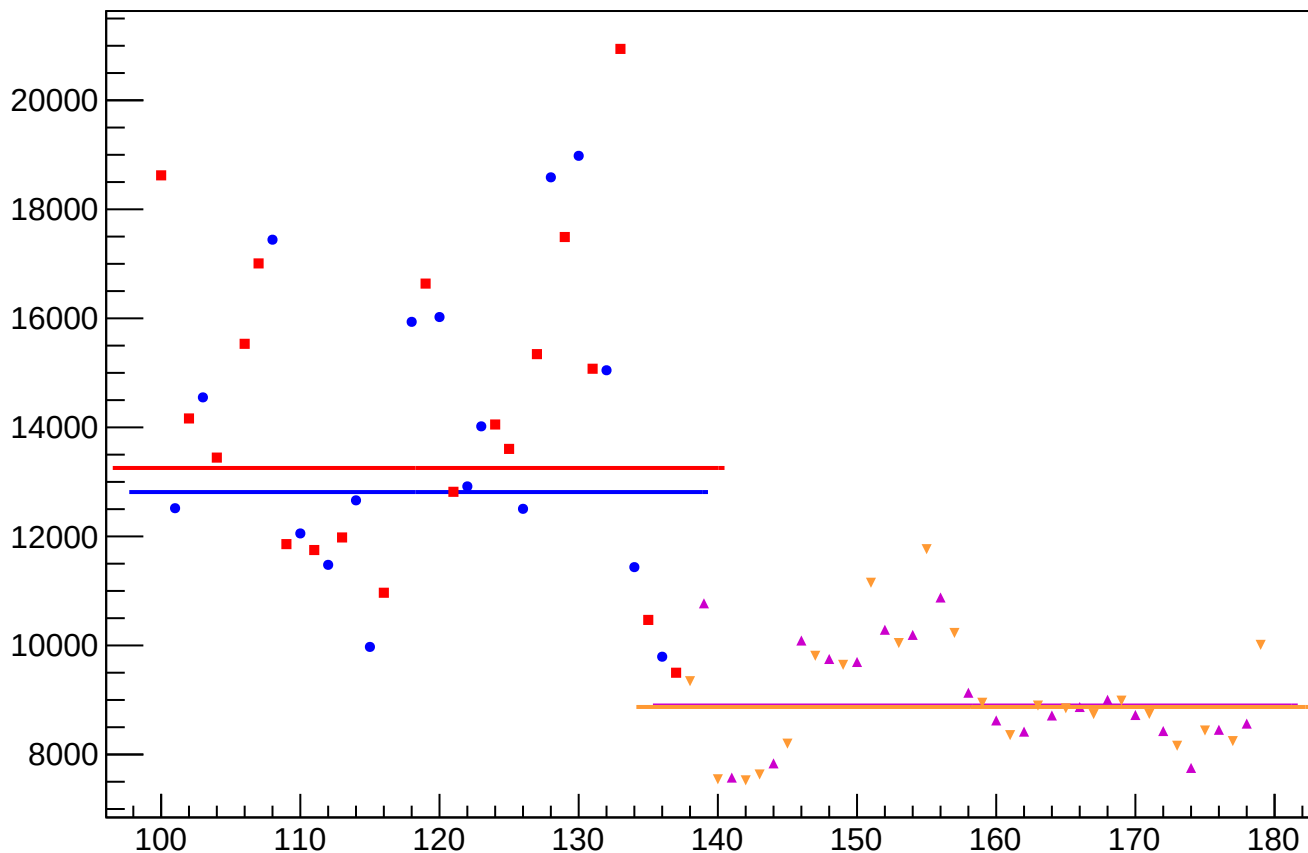
Right: 1.813 $\pm$ 3.598  $\chi^2$ /NDF: 39.7/35

In: 0.570 $\pm$ 2.075  $\chi^2$ /NDF:51.3/36

Out: -7.729 $\pm$ 2.017  $\chi^2$ /NDF:80.6/40

All: -3.698 $\pm$ 1.446  $\chi^2$ /NDF: 140.2/77

# diff\_bpm4ecX\_rms vs Slug, Sign Corrected



Right In: 12813.726+/-3.607  $\chi^2/\text{NDF}$ : 548127.6/16

Left Out: 8871.560+/-1.554  $\chi^2/\text{NDF}$ : 410294.2/21

Right Out: 13255.535+/-3.588  $\chi^2/\text{NDF}$ : 484287.4/18

Left In: 8898.425+/-1.606  $\chi^2/\text{NDF}$ : 336378.1/19

Left: 8884.550+/-1.117  $\chi^2/\text{NDF}$ : 746816.7/41

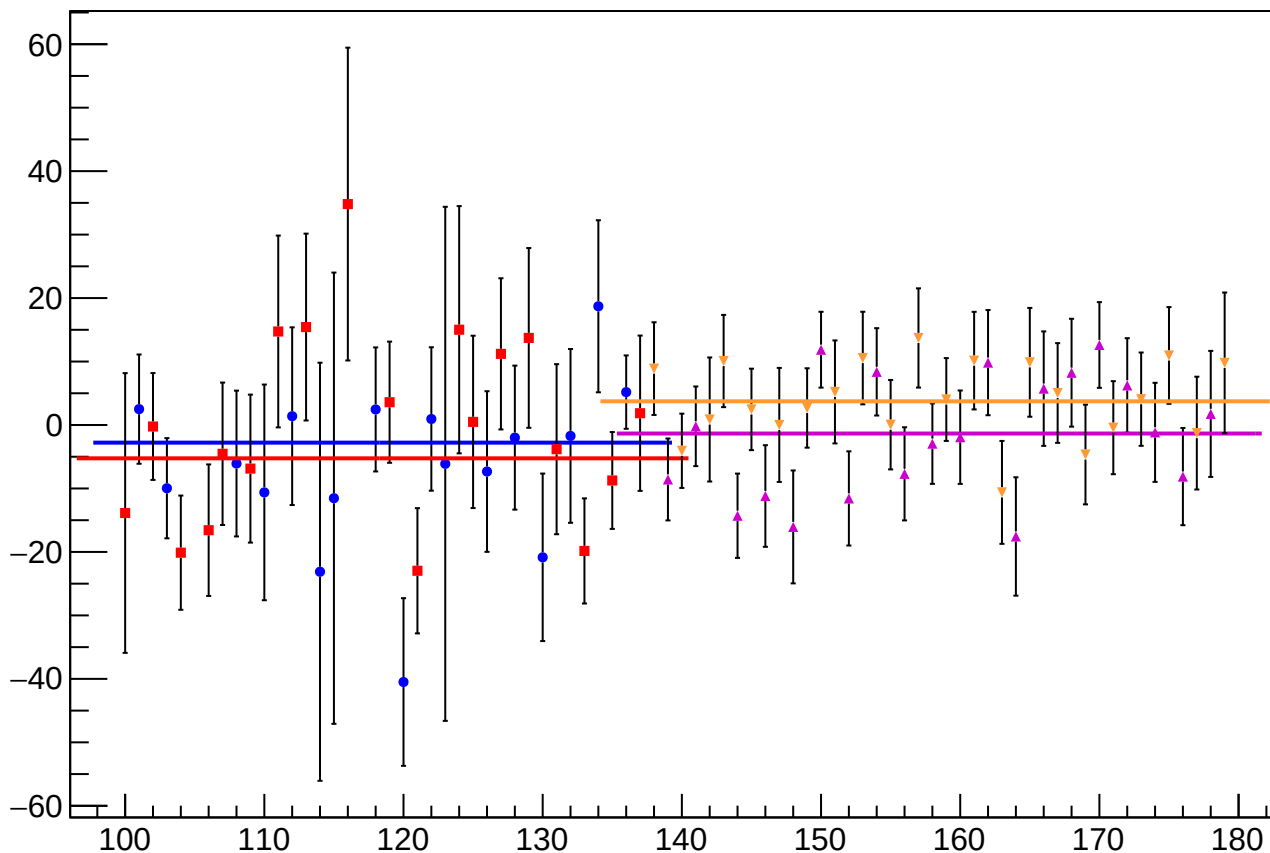
Right: 13035.784+/-2.544  $\chi^2/\text{NDF}$ : 1039954.9/35

In: 9546.379+/-1.467  $\chi^2/\text{NDF}$ : 1867663.9/36

Out: 9564.148+/-1.426  $\chi^2/\text{NDF}$ : 2151343.1/40

All: 9555.516+/-1.023  $\chi^2/\text{NDF}$ : 4019082.4/77

# diff\_bpm4ecY\_mean vs Slug, Sign Corrected



Right In:  $-2.778 \pm 2.747$   $\chi^2/\text{NDF}$ : 17.0/16

Left Out:  $3.734 \pm 1.608$   $\chi^2/\text{NDF}$ : 13.5/21

Right Out:  $-5.252 \pm 2.590$   $\chi^2/\text{NDF}$ : 23.5/18

Left In:  $-1.342 \pm 1.654$   $\chi^2/\text{NDF}$ : 31.9/19

Left:  $1.268 \pm 1.153$   $\chi^2/\text{NDF}$ : 50.2/41

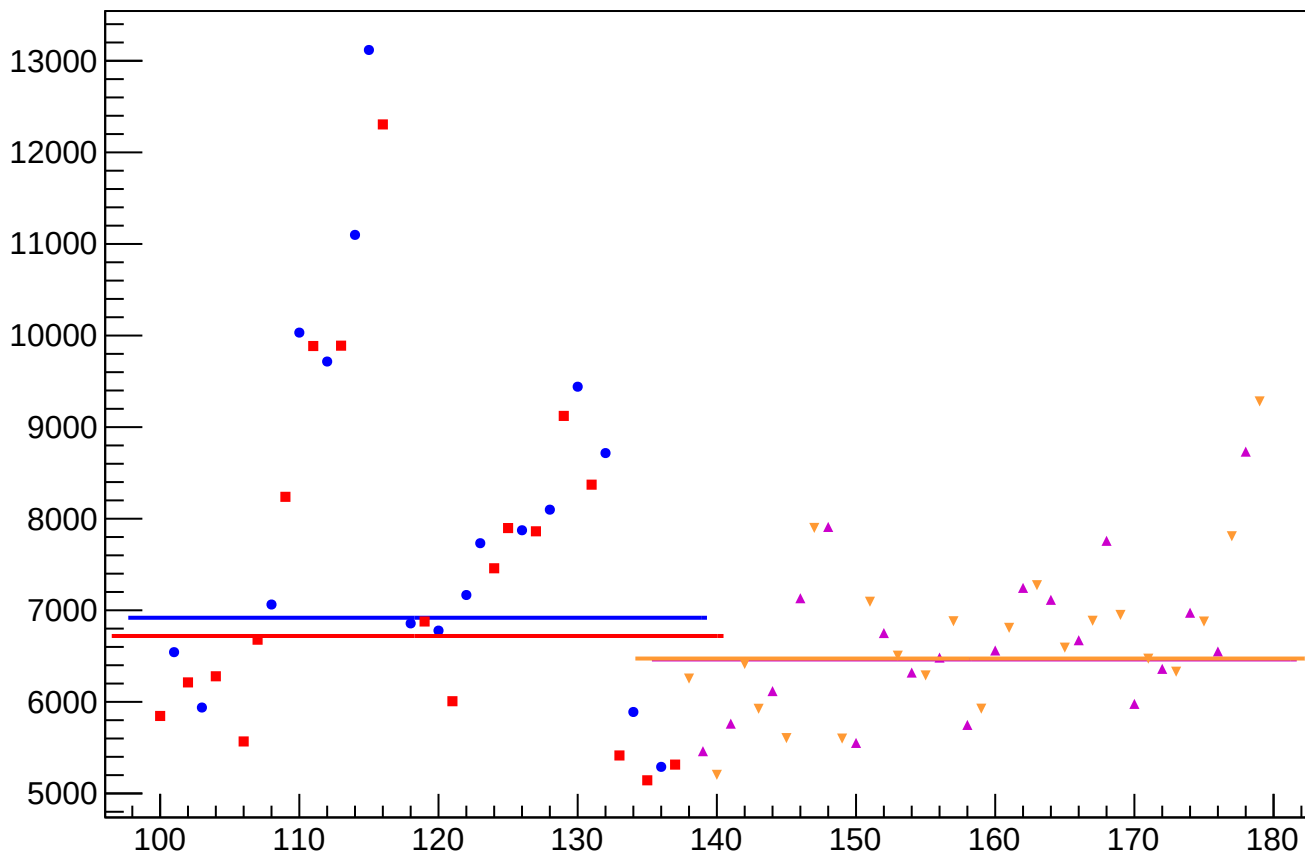
Right:  $-4.088 \pm 1.884$   $\chi^2/\text{NDF}$ : 41.0/35

In:  $-1.725 \pm 1.417$   $\chi^2/\text{NDF}$ : 49.1/36

Out:  $1.234 \pm 1.366$   $\chi^2/\text{NDF}$ : 45.7/40

All:  $-0.191 \pm 0.984$   $\chi^2/\text{NDF}$ : 97.1/77

# diff\_bpm4ecY\_rms vs Slug, Sign Corrected



Right In:  $6918.554 \pm 1.943$   $\chi^2/\text{NDF}: 587976.6/16$

Left Out:  $6473.175 \pm 1.137$   $\chi^2/\text{NDF}: 482591.6/21$

Right Out:  $6719.404 \pm 1.831$   $\chi^2/\text{NDF}: 653831.7/18$

Left In:  $6462.896 \pm 1.170$   $\chi^2/\text{NDF}: 420694.1/19$

Left:  $6468.183 \pm 0.815$   $\chi^2/\text{NDF}: 903325.4/41$

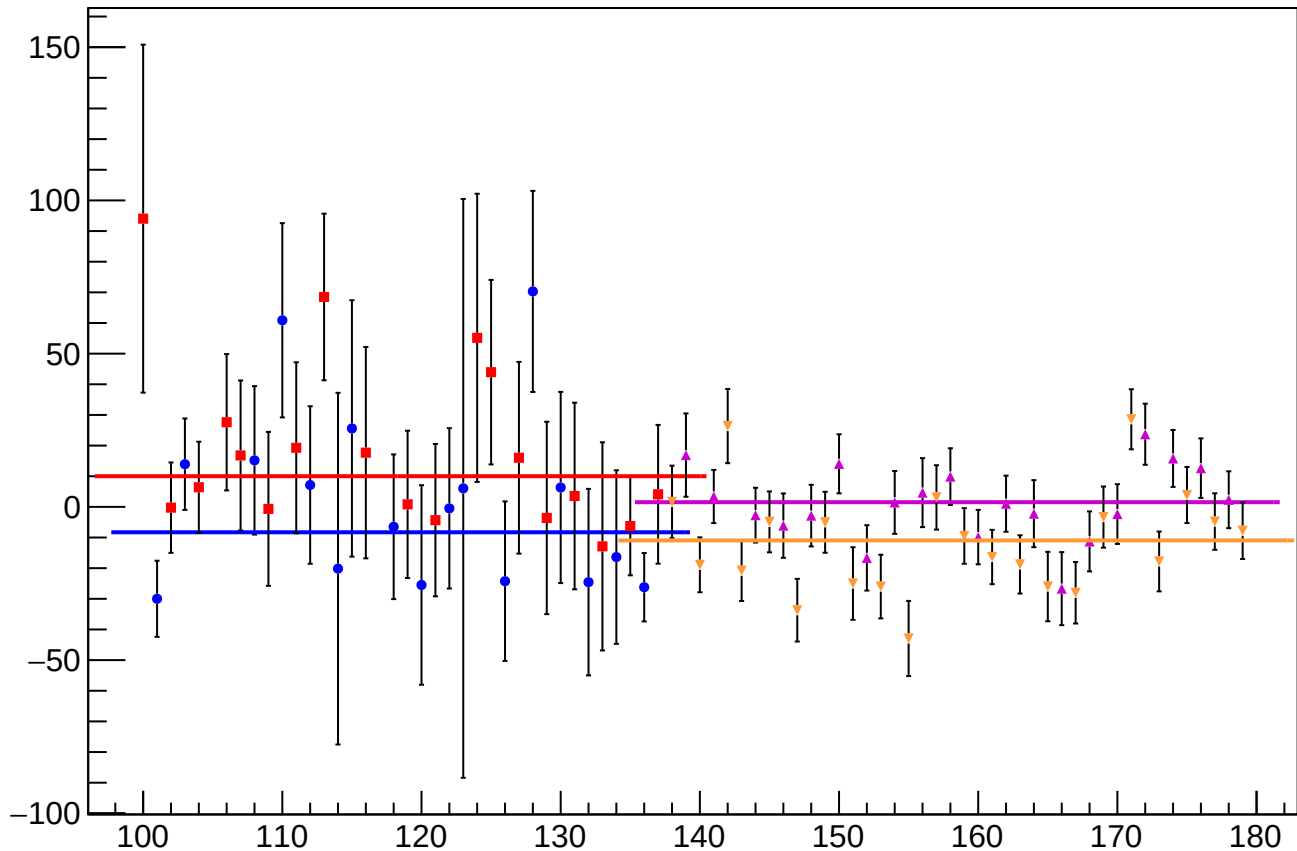
Right:  $6813.106 \pm 1.332$   $\chi^2/\text{NDF}: 1247373.6/35$

In:  $6584.179 \pm 1.002$   $\chi^2/\text{NDF}: 1049048.7/36$

Out:  $6541.679 \pm 0.966$   $\chi^2/\text{NDF}: 1149474.3/40$

All:  $6562.145 \pm 0.695$   $\chi^2/\text{NDF}: 2199455.3/77$

# diff\_bpm1X\_mean vs Slug, Sign Corrected



Right In:  $-8.286 \pm 5.410$   $\chi^2/\text{NDF}$ : 21.7/16

Left Out:  $-10.944 \pm 2.138$   $\chi^2/\text{NDF}$ : 56.5/21

Right Out:  $10.007 \pm 5.513$   $\chi^2/\text{NDF}$ : 12.9/18

Left In:  $1.530 \pm 2.216$   $\chi^2/\text{NDF}$ : 25.6/19

Left:  $-4.930 \pm 1.539$   $\chi^2/\text{NDF}$ : 98.5/41

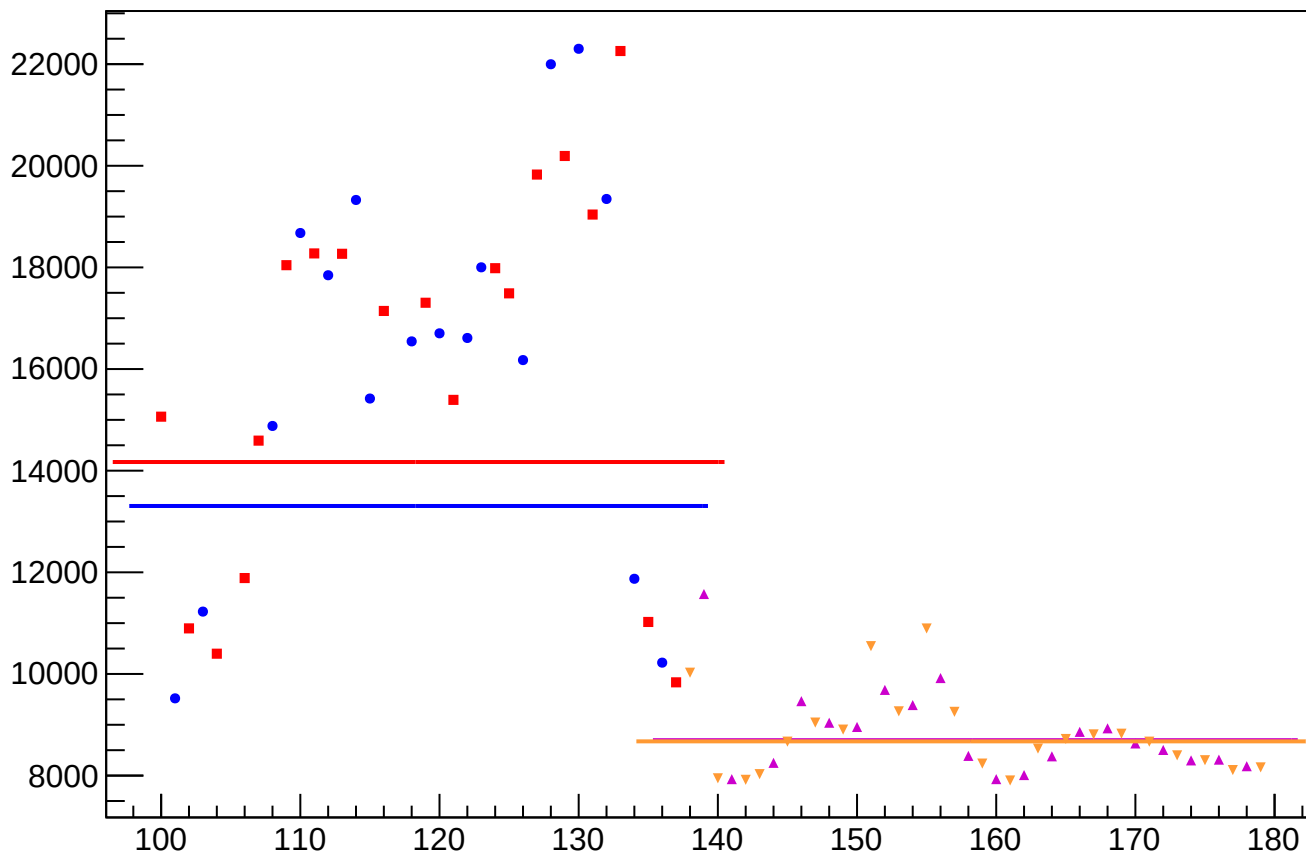
Right:  $0.688 \pm 3.861$   $\chi^2/\text{NDF}$ : 40.2/35

In:  $0.120 \pm 2.050$   $\chi^2/\text{NDF}$ : 50.2/36

Out:  $-8.205 \pm 1.993$   $\chi^2/\text{NDF}$ : 82.0/40

All:  $-4.160 \pm 1.429$   $\chi^2/\text{NDF}$ : 140.6/77

# diff\_bpm1X\_rms vs Slug, Sign Corrected



Right In: 13305.410+/-3.826  $\chi^2/\text{NDF}$ : 1044091.1/16

Left Out: 8673.692+/-1.512  $\chi^2/\text{NDF}$ : 227213.0/21

Right Out: 14170.668+/-3.898  $\chi^2/\text{NDF}$ : 930612.1/18

Left In: 8697.313+/-1.567  $\chi^2/\text{NDF}$ : 219857.1/19

Left: 8685.081+/-1.088  $\chi^2/\text{NDF}$ : 447187.8/41

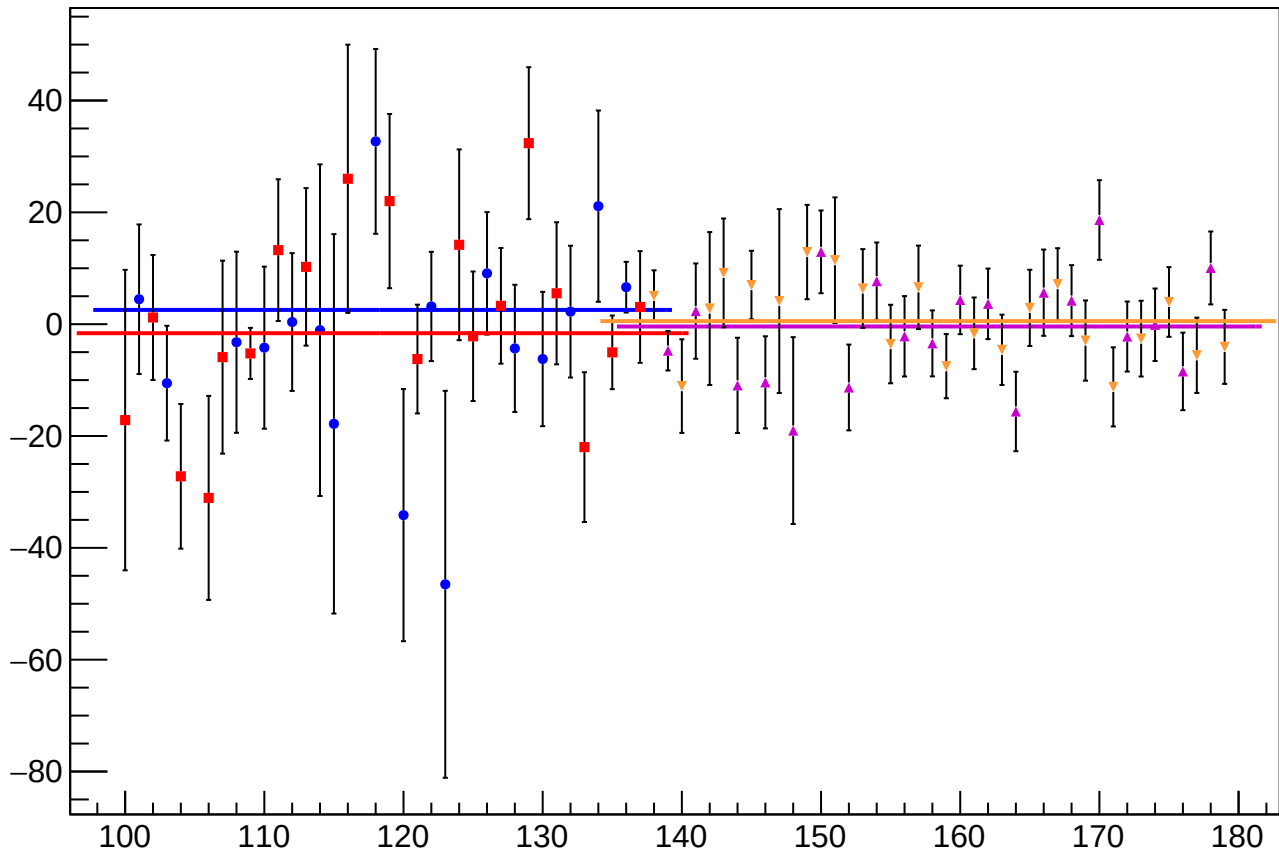
Right: 13729.884+/-2.730  $\chi^2/\text{NDF}$ : 1999799.5/35

In: 9359.208+/-1.450  $\chi^2/\text{NDF}$ : 2506499.6/36

Out: 9392.336+/-1.410  $\chi^2/\text{NDF}$ : 2886207.5/40

All: 9376.239+/-1.011  $\chi^2/\text{NDF}$ : 5392975.5/77

# diff\_bpm1Y\_mean vs Slug, Sign Corrected



Right In: 2.551+/-2.757  $\chi^2/\text{NDF}$ : 13.6/16

Left Out: 0.548+/-1.497  $\chi^2/\text{NDF}$ : 18.4/21

Right Out: -1.613+/-2.442  $\chi^2/\text{NDF}$ : 24.0/18

Left In: -0.415+/-1.480  $\chi^2/\text{NDF}$ : 30.7/19

Left: 0.061+/-1.052  $\chi^2/\text{NDF}$ : 49.3/41

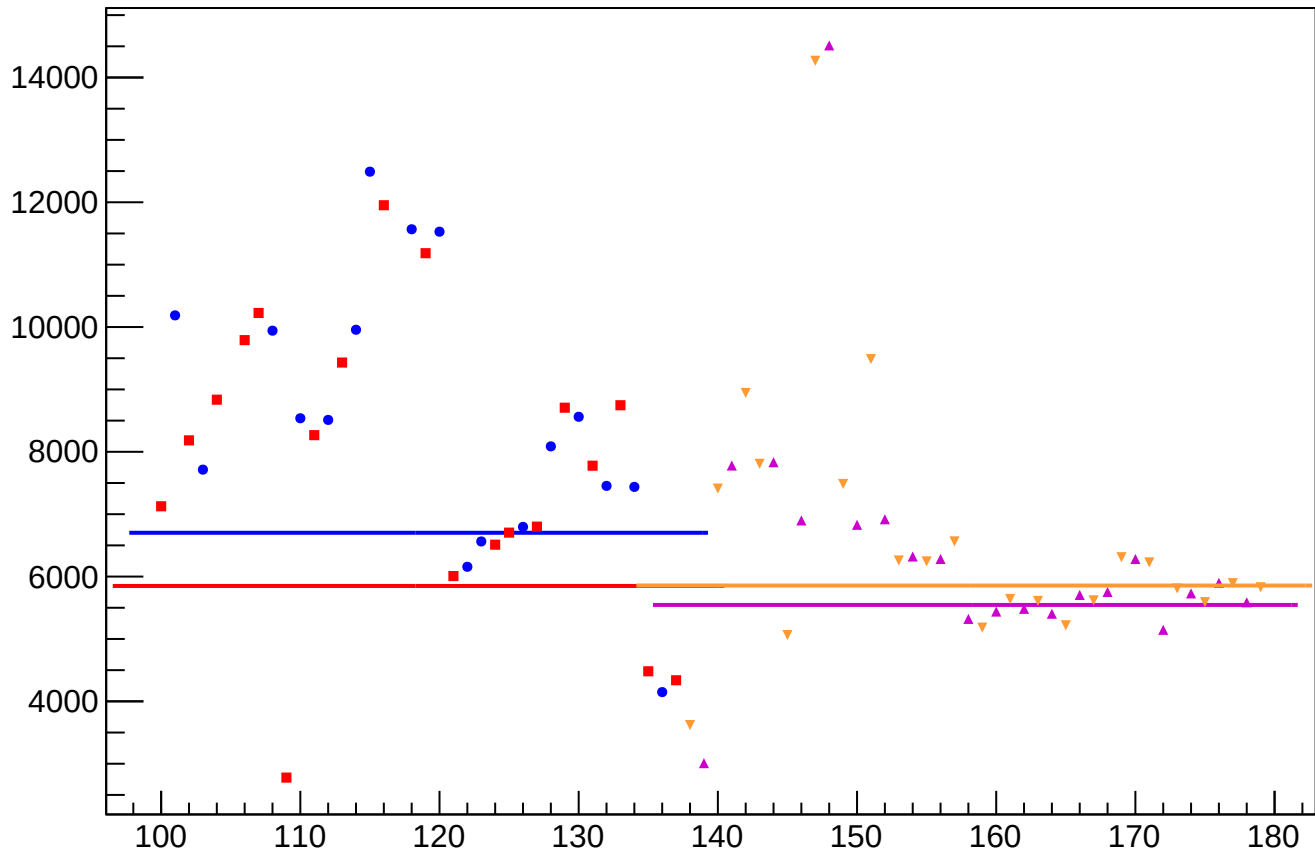
Right: 0.218+/-1.828  $\chi^2/\text{NDF}$ : 38.9/35

In: 0.248+/-1.304  $\chi^2/\text{NDF}$ : 45.2/36

Out: -0.042+/-1.276  $\chi^2/\text{NDF}$ : 42.9/40

All: 0.100+/-0.912  $\chi^2/\text{NDF}$ : 88.2/77

# diff\_bpm1Y\_rms vs Slug, Sign Corrected



Right In: 6702.245+/-1.949  $\chi^2/\text{NDF}$ : 1389956.8/16

Left Out: 5856.456+/-1.059  $\chi^2/\text{NDF}$ : 1669644.0/21

Right Out: 5849.606+/-1.727  $\chi^2/\text{NDF}$ : 2278464.5/18

Left In: 5545.472+/-1.046  $\chi^2/\text{NDF}$ : 2156645.3/19

Left: 5699.136+/-0.744  $\chi^2/\text{NDF}$ : 3869940.3/41

Right: 6224.538+/-1.293  $\chi^2/\text{NDF}$ : 3775609.7/35

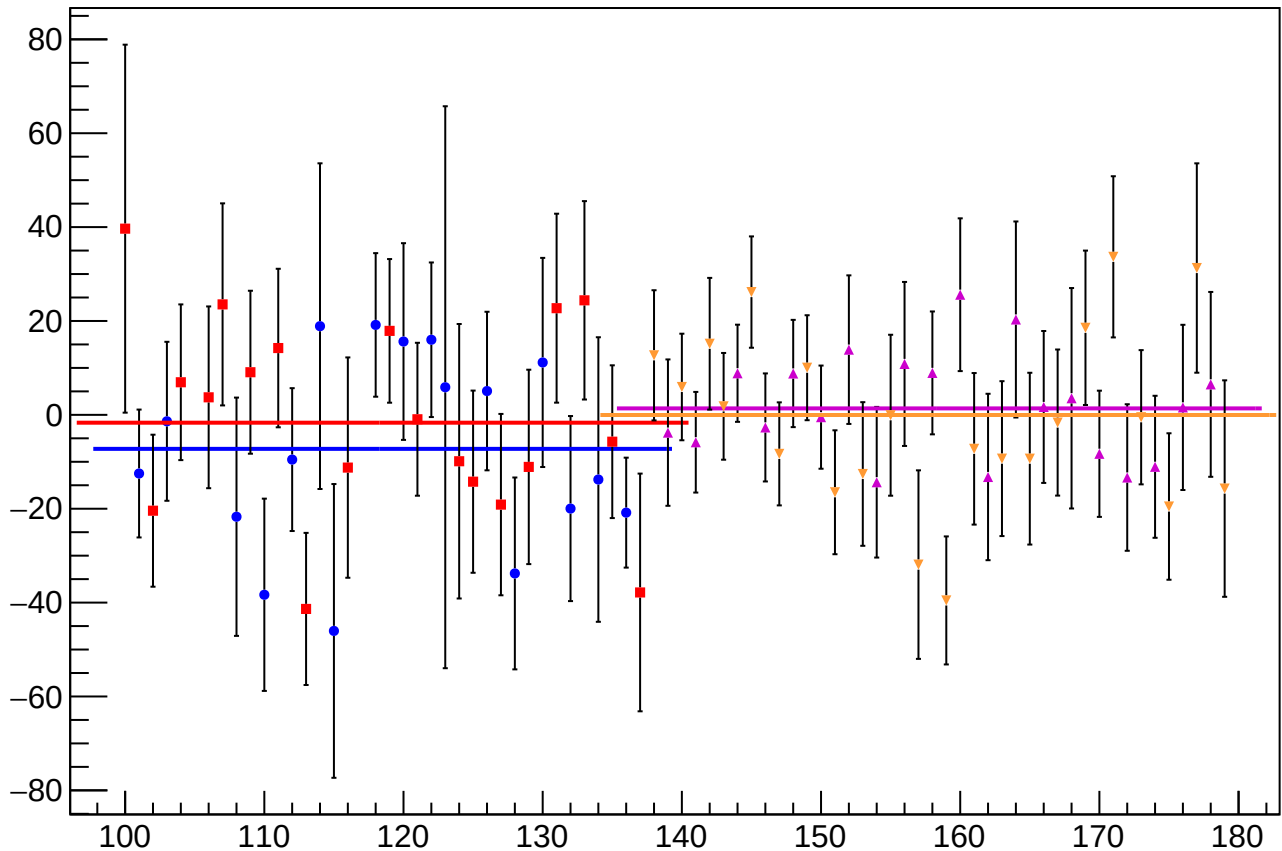
In: 5804.196+/-0.922  $\chi^2/\text{NDF}$ : 3819983.6/36

Out: 5854.585+/-0.903  $\chi^2/\text{NDF}$ : 3948120.0/40

All: 5829.924+/-0.645  $\chi^2/\text{NDF}$ : 7769628.9/77



# diff\_bpm11X\_mean vs Slug, Sign Corrected



Right In:  $-7.245 \pm 4.547$   $\chi^2/\text{NDF}$ : 15.9/16

Left Out:  $-0.032 \pm 3.085$   $\chi^2/\text{NDF}$ : 31.6/21

Right Out:  $-1.671 \pm 4.373$   $\chi^2/\text{NDF}$ : 19.9/18

Left In:  $1.374 \pm 3.206$   $\chi^2/\text{NDF}$ : 9.8/19

Left:  $0.644 \pm 2.223$   $\chi^2/\text{NDF}$ : 41.5/41

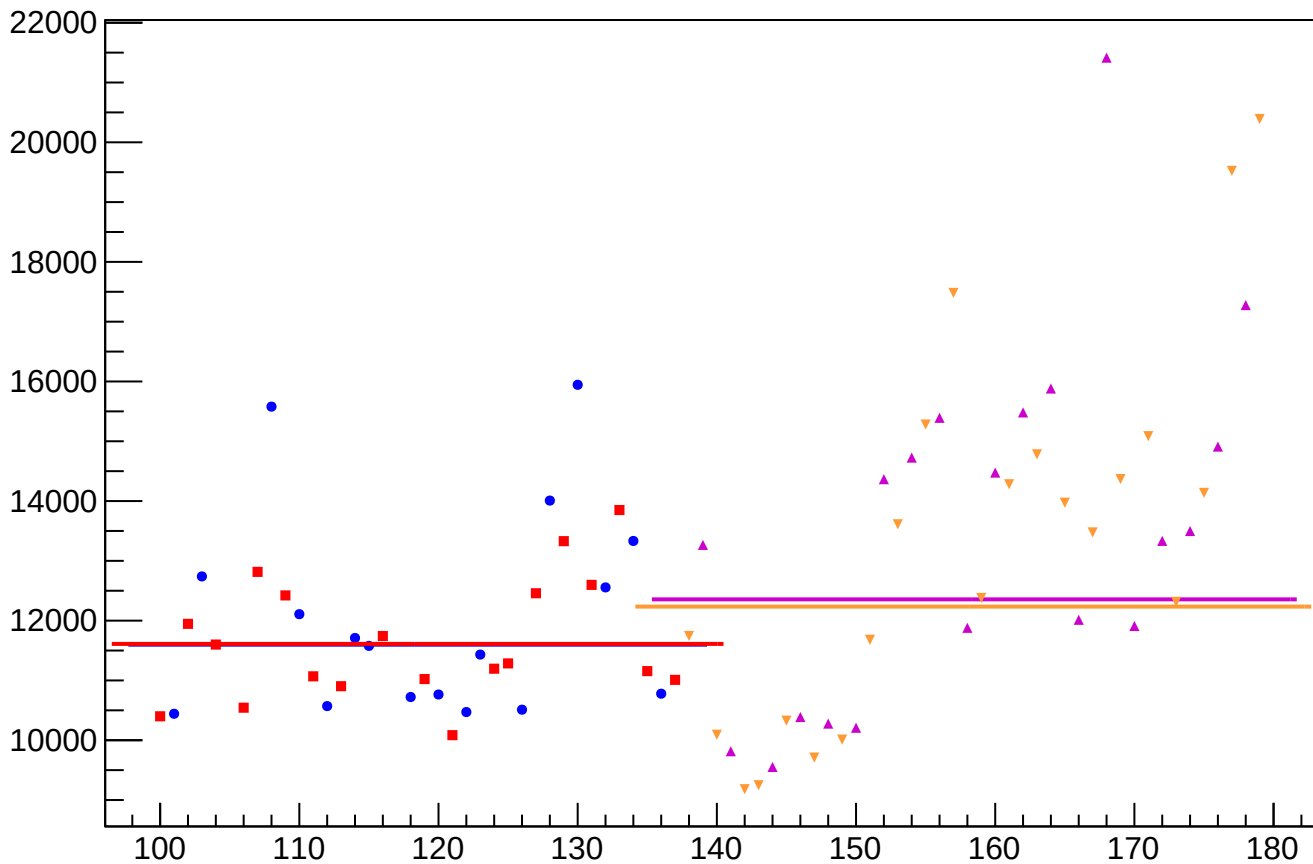
Right:  $-4.349 \pm 3.152$   $\chi^2/\text{NDF}$ : 36.6/35

In:  $-1.487 \pm 2.620$   $\chi^2/\text{NDF}$ : 28.1/36

Out:  $-0.577 \pm 2.521$   $\chi^2/\text{NDF}$ : 51.6/40

All:  $-1.014 \pm 1.817$   $\chi^2/\text{NDF}$ : 79.7/77

# diff\_bpm11X\_rms vs Slug, Sign Corrected



Right In: 11598.751  $\pm$  3.215  $\chi^2/\text{NDF}$ : 235423.8/16

Left Out: 12234.798  $\pm$  2.182  $\chi^2/\text{NDF}$ : 1455568.6/21

Right Out: 11610.941  $\pm$  3.092  $\chi^2/\text{NDF}$ : 94447.0/18

Left In: 12355.805  $\pm$  2.267  $\chi^2/\text{NDF}$ : 1246026.1/19

Left: 12292.987  $\pm$  1.572  $\chi^2/\text{NDF}$ : 2703074.2/41

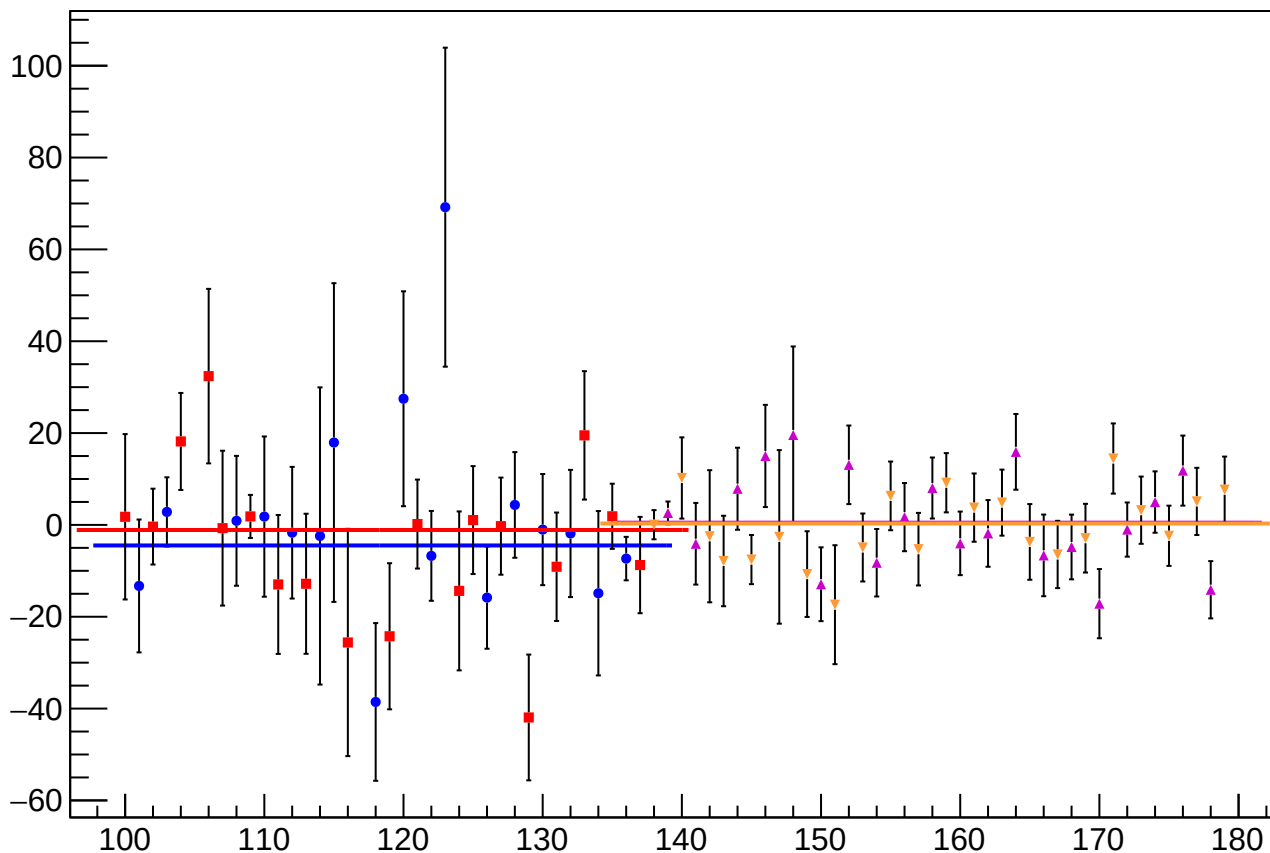
Right: 11605.084  $\pm$  2.229  $\chi^2/\text{NDF}$ : 329878.2/35

In: 12104.453  $\pm$  1.853  $\chi^2/\text{NDF}$ : 1518485.2/36

Out: 12027.465  $\pm$  1.783  $\chi^2/\text{NDF}$ : 1577192.0/40

All: 12064.478  $\pm$  1.285  $\chi^2/\text{NDF}$ : 3096573.8/77

# diff\_bpm11Y\_mean vs Slug, Sign Corrected



Right In:  $-4.476 \pm 2.782$   $\chi^2/\text{NDF}$ : 14.8/16

Left Out:  $0.304 \pm 1.501$   $\chi^2/\text{NDF}$ : 18.1/21

Right Out:  $-1.105 \pm 2.429$   $\chi^2/\text{NDF}$ : 24.0/18

Left In:  $0.483 \pm 1.437$   $\chi^2/\text{NDF}$ : 31.0/19

Left:  $0.397 \pm 1.038$   $\chi^2/\text{NDF}$ : 49.0/41

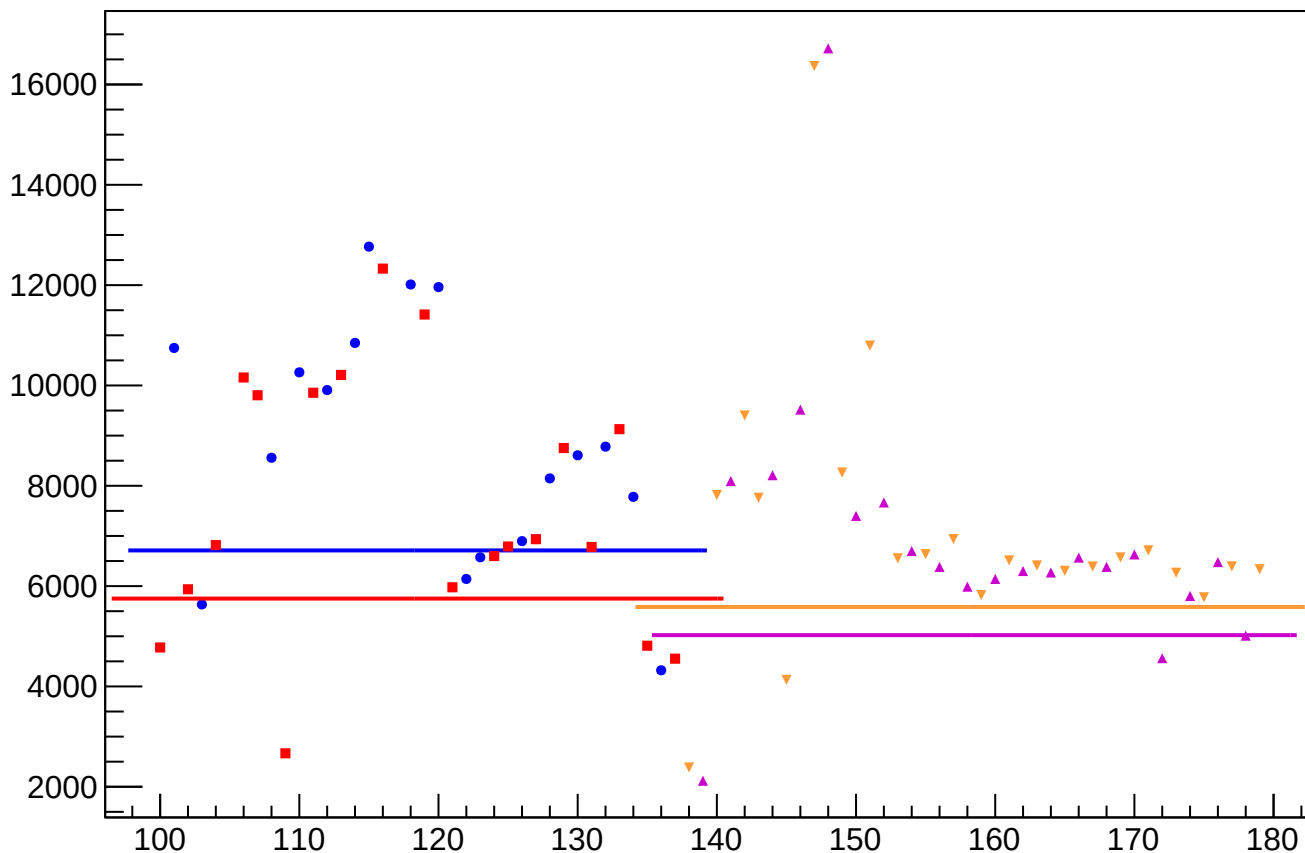
Right:  $-2.563 \pm 1.830$   $\chi^2/\text{NDF}$ : 39.7/35

In:  $-0.561 \pm 1.276$   $\chi^2/\text{NDF}$ : 48.3/36

Out:  $-0.086 \pm 1.277$   $\chi^2/\text{NDF}$ : 42.4/40

All:  $-0.324 \pm 0.903$   $\chi^2/\text{NDF}$ : 90.7/77

# diff\_bpm11Y\_rms vs Slug, Sign Corrected



Right In: 6711.550+/-1.967  $\chi^2/\text{NDF}$ : 1446972.0/16

Left Out: 5584.170+/-1.061  $\chi^2/\text{NDF}$ : 4057397.4/21

Right Out: 5751.505+/-1.718  $\chi^2/\text{NDF}$ : 2165110.0/18

Left In: 5022.238+/-1.016  $\chi^2/\text{NDF}$ : 5348816.7/19

Left: 5290.900+/-0.734  $\chi^2/\text{NDF}$ : 9552503.3/41

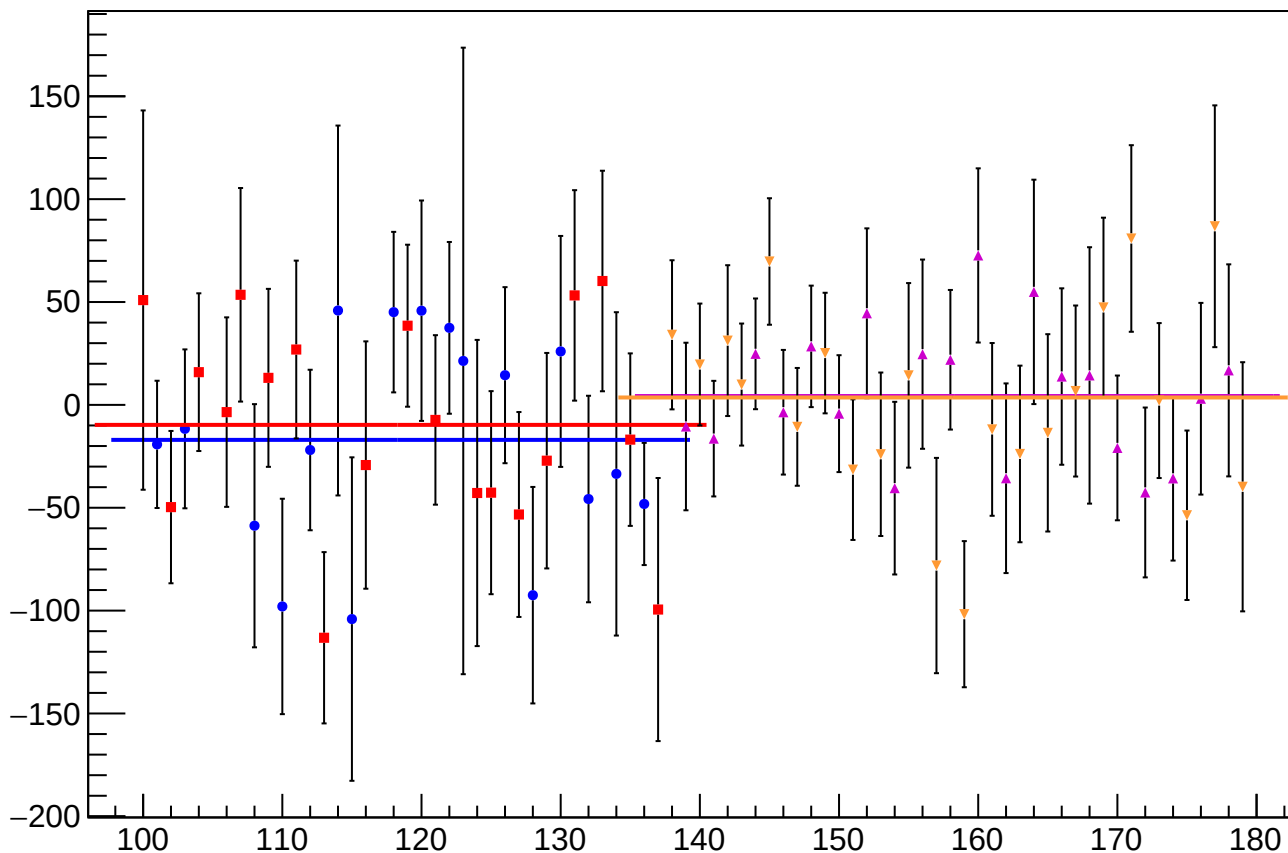
Right: 6166.836+/-1.294  $\chi^2/\text{NDF}$ : 3747249.5/35

In: 5377.961+/-0.903  $\chi^2/\text{NDF}$ : 7378084.6/36

Out: 5630.413+/-0.903  $\chi^2/\text{NDF}$ : 6229376.4/40

All: 5504.146+/-0.638  $\chi^2/\text{NDF}$ : 13646562.9/77

# diff\_bpm12X\_mean vs Slug, Sign Corrected



Right In:  $-17.010 \pm 11.287$   $\chi^2/\text{NDF}$ : 15.0/16

Left Out:  $3.597 \pm 8.068$   $\chi^2/\text{NDF}$ : 28.9/21

Right Out:  $-9.719 \pm 10.891$   $\chi^2/\text{NDF}$ : 19.1/18

Left In:  $4.299 \pm 8.378$   $\chi^2/\text{NDF}$ : 11.8/19

Left:  $3.935 \pm 5.812$   $\chi^2/\text{NDF}$ : 40.7/41

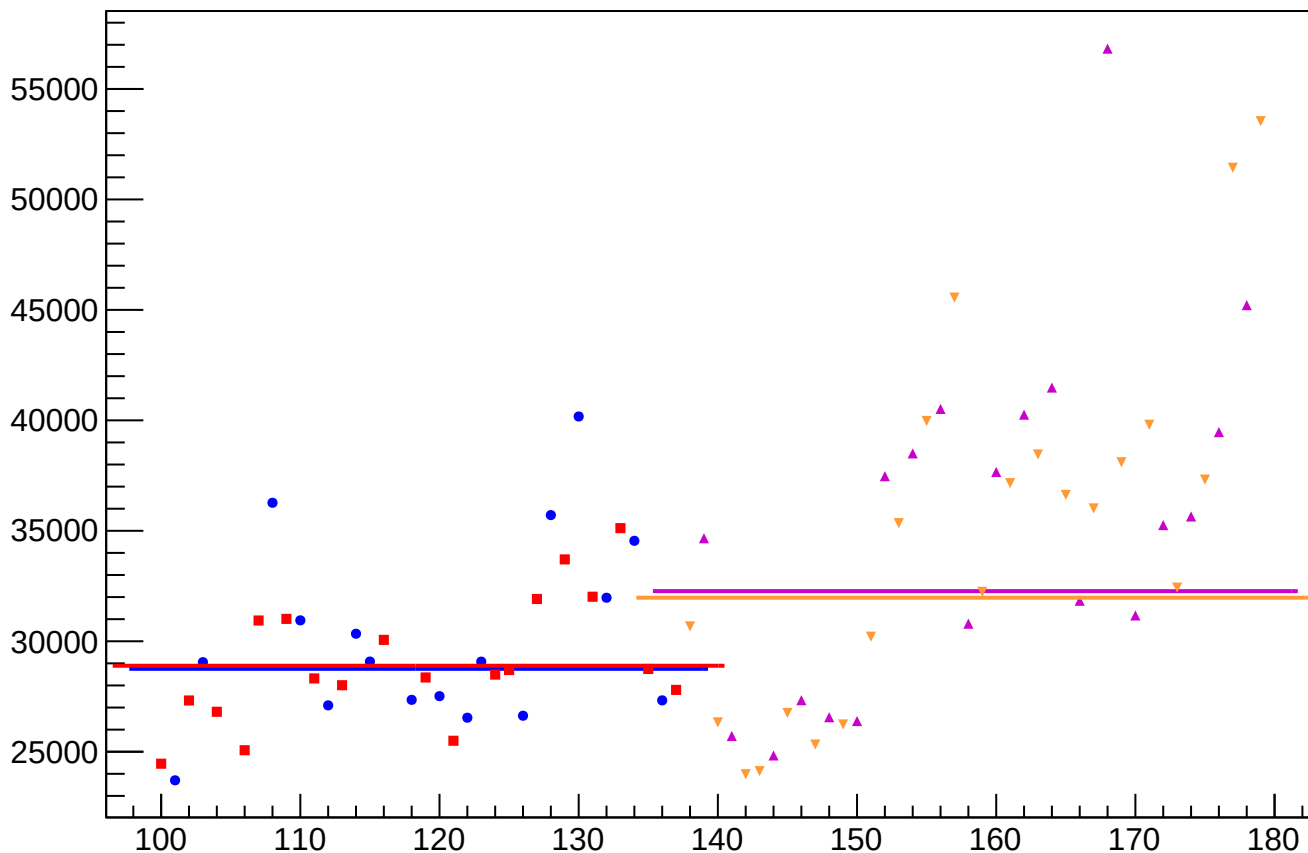
Right:  $-13.234 \pm 7.837$   $\chi^2/\text{NDF}$ : 34.3/35

In:  $-3.270 \pm 6.727$   $\chi^2/\text{NDF}$ : 29.1/36

Out:  $-1.122 \pm 6.483$   $\chi^2/\text{NDF}$ : 48.9/40

All:  $-2.156 \pm 4.668$   $\chi^2/\text{NDF}$ : 78.1/77

# diff\_bpm12X\_rms vs Slug, Sign Corrected



Right In: 28753.787+/-7.981  $\chi^2/\text{NDF}$ : 249215.1/16

Left Out: 31973.103+/-5.705  $\chi^2/\text{NDF}$ : 1490796.0/21

Right Out: 28892.154+/-7.701  $\chi^2/\text{NDF}$ : 111241.2/18

Left In: 32269.076+/-5.924  $\chi^2/\text{NDF}$ : 1287262.7/19

Left: 32115.522+/-4.109  $\chi^2/\text{NDF}$ : 2779353.7/41

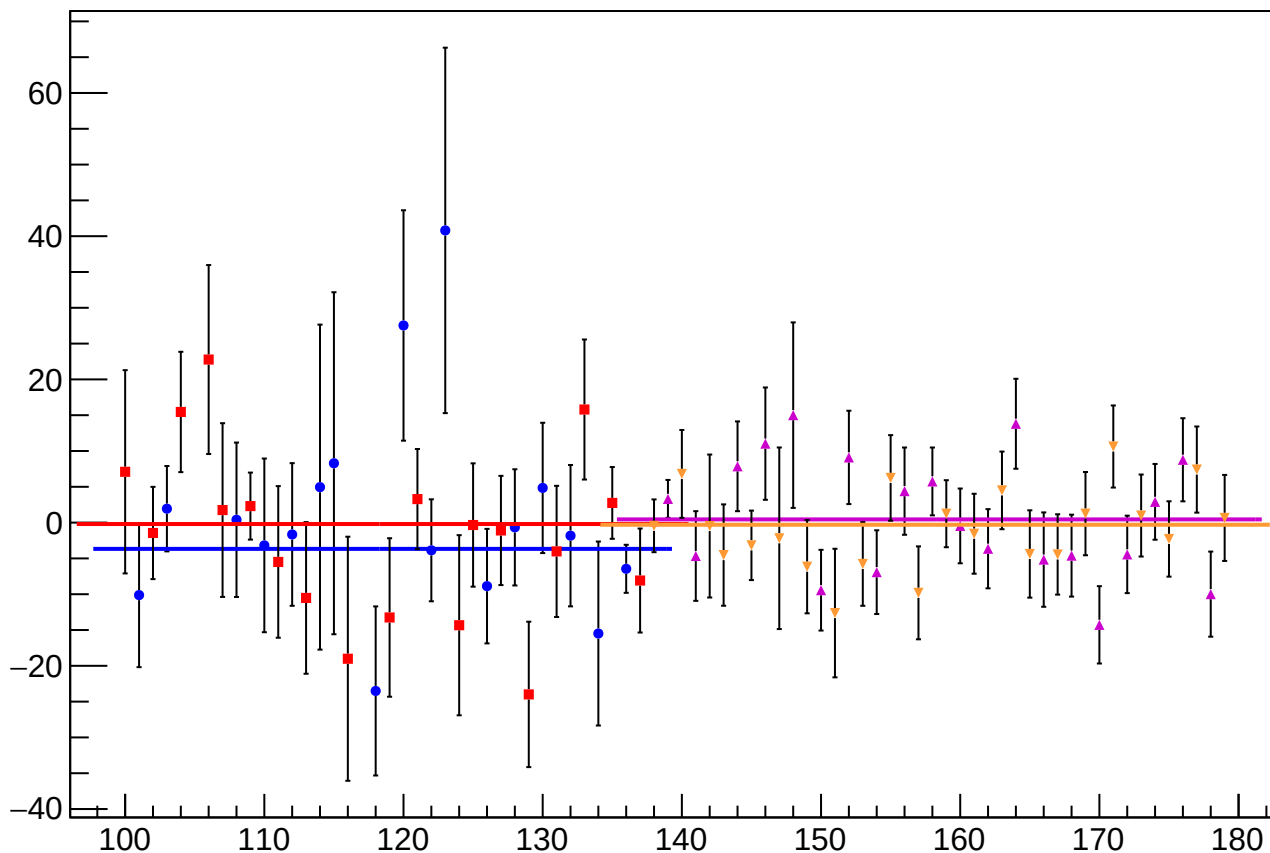
Right: 28825.443+/-5.542  $\chi^2/\text{NDF}$ : 360612.0/35

In: 31020.348+/-4.757  $\chi^2/\text{NDF}$ : 1661559.6/36

Out: 30881.328+/-4.584  $\chi^2/\text{NDF}$ : 1705378.9/40

All: 30948.269+/-3.301  $\chi^2/\text{NDF}$ : 3367381.3/77

# diff\_bpm12Y\_mean vs Slug, Sign Corrected



Right In:  $-3.668 \pm 2.010$   $\chi^2/\text{NDF}$ : 14.5/16

Left Out:  $-0.298 \pm 1.242$   $\chi^2/\text{NDF}$ : 16.5/21

Right Out:  $-0.199 \pm 1.893$   $\chi^2/\text{NDF}$ : 22.3/18

Left In:  $0.448 \pm 1.211$   $\chi^2/\text{NDF}$ : 34.6/19

Left:  $0.085 \pm 0.867$   $\chi^2/\text{NDF}$ : 51.3/41

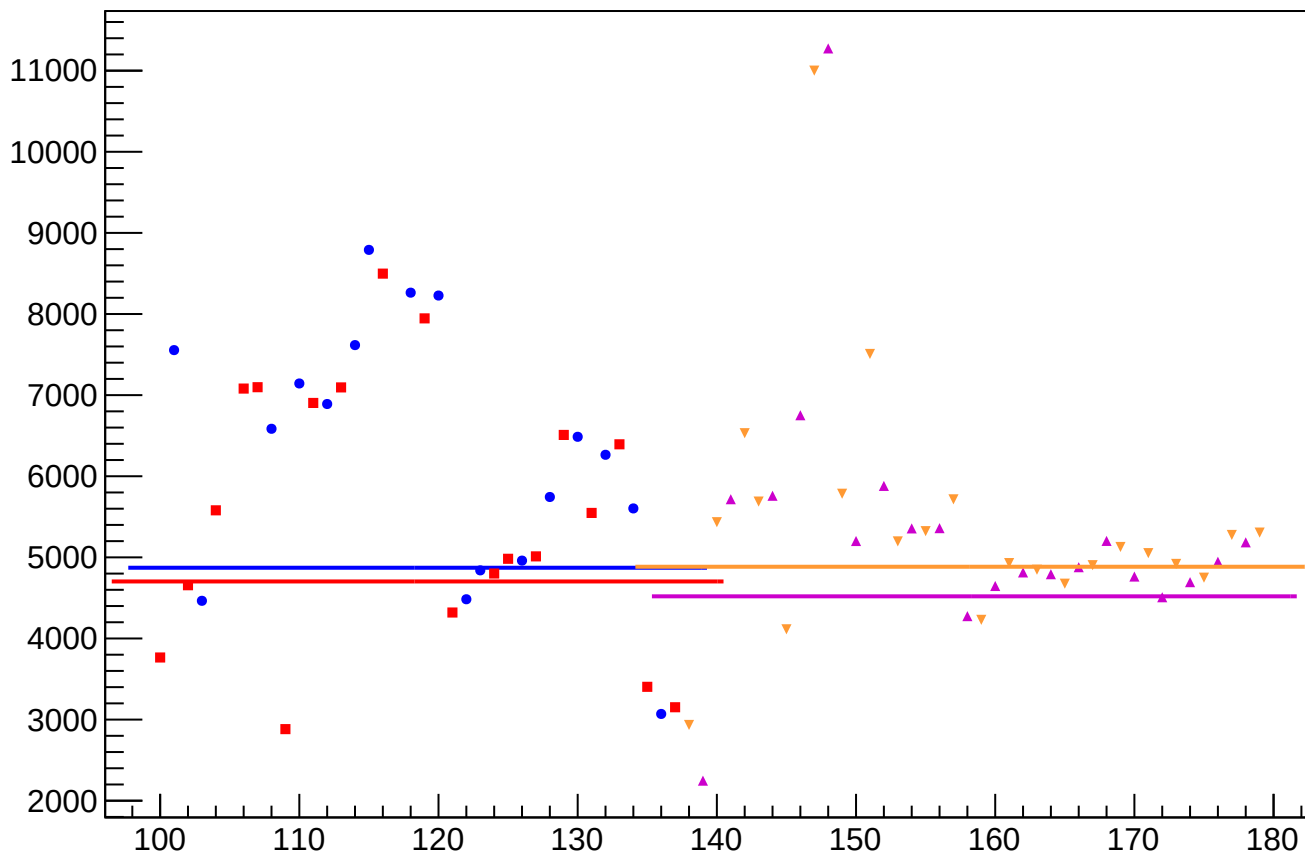
Right:  $-1.830 \pm 1.378$   $\chi^2/\text{NDF}$ : 38.4/35

In:  $-0.648 \pm 1.037$   $\chi^2/\text{NDF}$ : 52.2/36

Out:  $-0.268 \pm 1.038$   $\chi^2/\text{NDF}$ : 38.8/40

All:  $-0.458 \pm 0.734$   $\chi^2/\text{NDF}$ : 91.1/77

# diff\_bpm12Y\_rms vs Slug, Sign Corrected



Right In:  $4872.105 \pm 1.421$   $\chi^2/\text{NDF}: 1405253.2/16$

Left Out:  $4884.350 \pm 0.878$   $\chi^2/\text{NDF}: 1497321.8/21$

Right Out:  $4702.994 \pm 1.338$   $\chi^2/\text{NDF}: 1312720.8/18$

Left In:  $4519.631 \pm 0.856$   $\chi^2/\text{NDF}: 2620078.7/19$

Left:  $4697.345 \pm 0.613$   $\chi^2/\text{NDF}: 4205840.6/41$

Right:  $4782.480 \pm 0.974$   $\chi^2/\text{NDF}: 2725478.8/35$

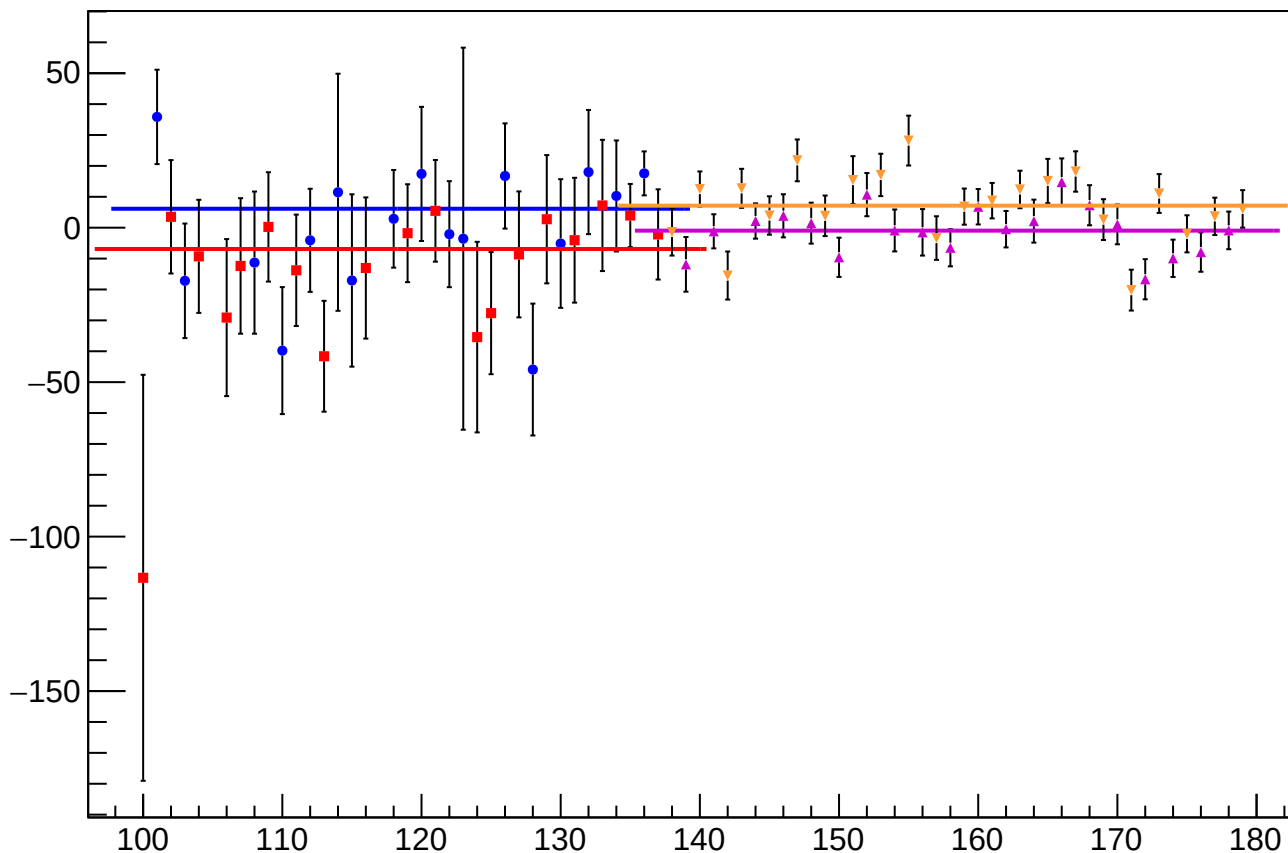
In:  $4613.482 \pm 0.733$   $\chi^2/\text{NDF}: 4070468.9/36$

Out:  $4829.766 \pm 0.734$   $\chi^2/\text{NDF}: 2822878.7/40$

All:  $4721.489 \pm 0.519$   $\chi^2/\text{NDF}: 6936789.4/77$



# diff\_bpm16X\_mean vs Slug, Sign Corrected



Right In: 6.133 $\pm$ 4.080  $\chi^2/\text{NDF}$ : 22.2/16

Left Out: 7.127 $\pm$ 1.391  $\chi^2/\text{NDF}$ : 54.4/21

Right Out: -6.892 $\pm$ 4.224  $\chi^2/\text{NDF}$ : 12.5/18

Left In: -0.954 $\pm$ 1.445  $\chi^2/\text{NDF}$ : 25.1/19

Left: 3.239 $\pm$ 1.002  $\chi^2/\text{NDF}$ : 95.8/41

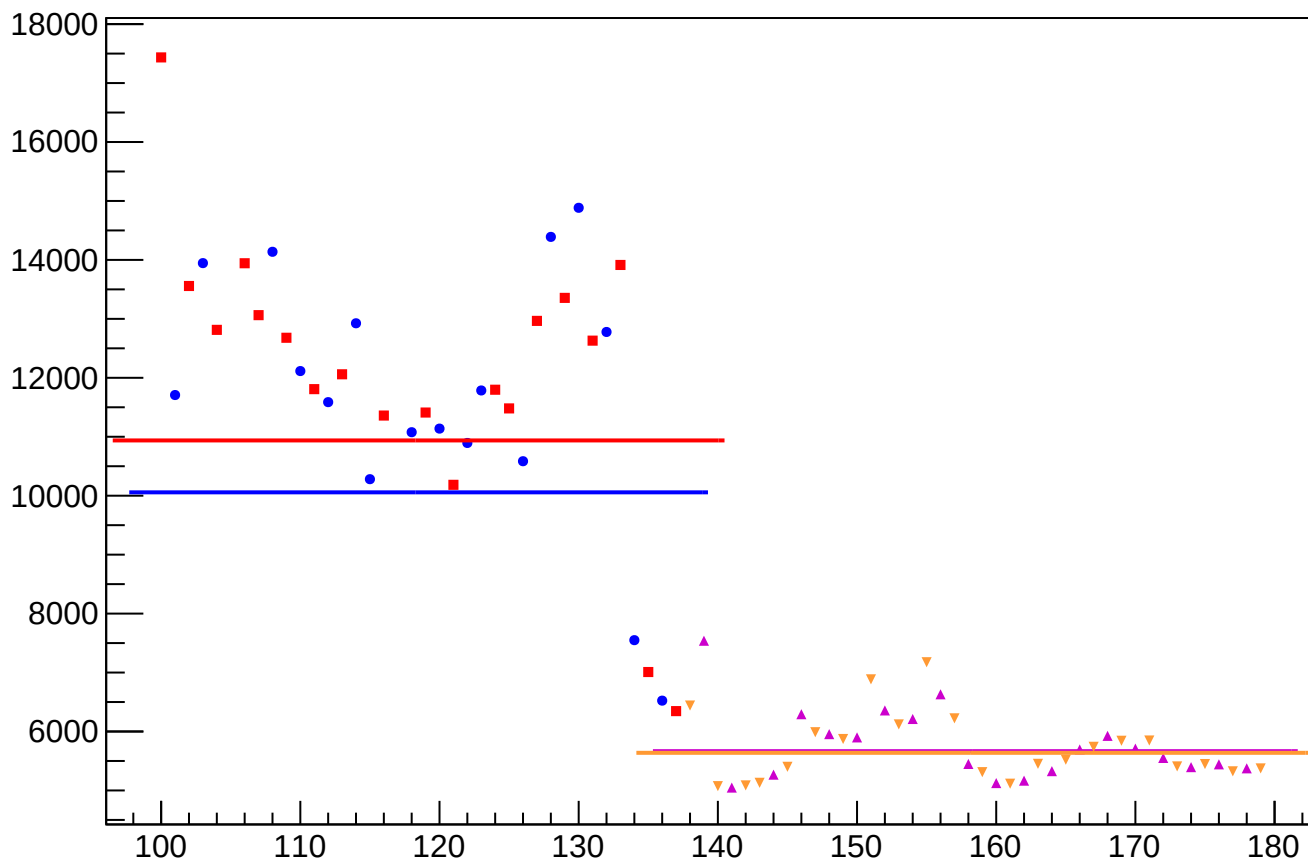
Right: -0.153 $\pm$ 2.935  $\chi^2/\text{NDF}$ : 39.6/35

In: -0.164 $\pm$ 1.362  $\chi^2/\text{NDF}$ : 50.0/36

Out: 5.756 $\pm$ 1.321  $\chi^2/\text{NDF}$ : 76.8/40

All: 2.885 $\pm$ 0.948  $\chi^2/\text{NDF}$ : 136.5/77

# diff\_bpm16X\_rms vs Slug, Sign Corrected



Right In: 10056.991 $\pm$ 2.885  $\chi^2$ /NDF: 1002872.6/16

Left Out: 5638.457 $\pm$ 0.984  $\chi^2$ /NDF: 267397.8/21

Right Out: 10937.573 $\pm$ 2.987  $\chi^2$ /NDF: 762909.5/18

Left In: 5666.520 $\pm$ 1.022  $\chi^2$ /NDF: 266814.7/19

Left: 5651.958 $\pm$ 0.709  $\chi^2$ /NDF: 534604.1/41

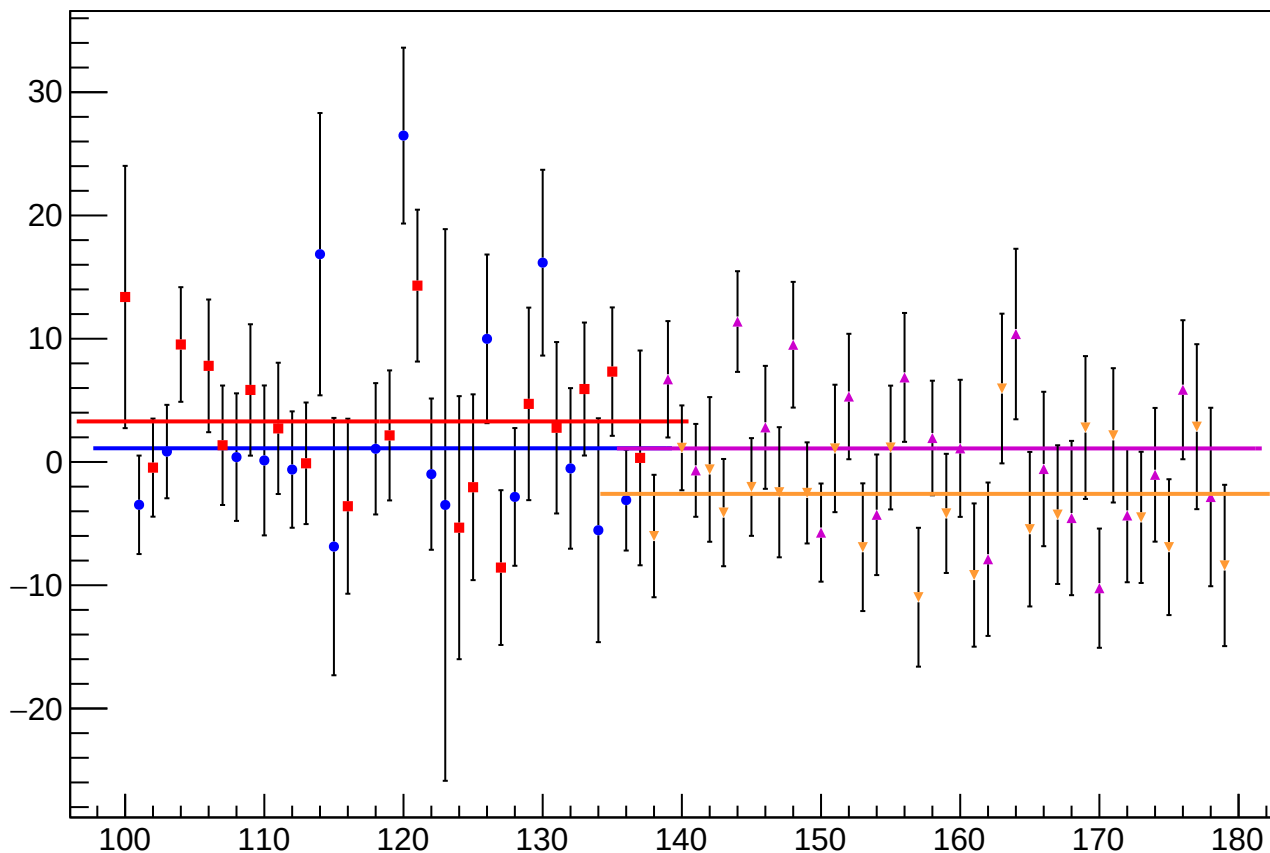
Right: 10481.996 $\pm$ 2.075  $\chi^2$ /NDF: 1810742.6/35

In: 6155.603 $\pm$ 0.963  $\chi^2$ /NDF: 3327462.2/36

Out: 6156.815 $\pm$ 0.934  $\chi^2$ /NDF: 3869530.3/40

All: 6156.227 $\pm$ 0.671  $\chi^2$ /NDF: 7196993.2/77

# diff\_bpm16Y\_mean vs Slug, Sign Corrected



Right In:  $1.112 \pm 1.403$   $\chi^2/\text{NDF}: 24.6/16$

Left Out:  $-2.587 \pm 1.088$   $\chi^2/\text{NDF}: 13.4/21$

Right Out:  $3.290 \pm 1.334$   $\chi^2/\text{NDF}: 15.1/18$

Left In:  $1.099 \pm 1.138$   $\chi^2/\text{NDF}: 29.3/19$

Left:  $-0.828 \pm 0.786$   $\chi^2/\text{NDF}: 48.2/41$

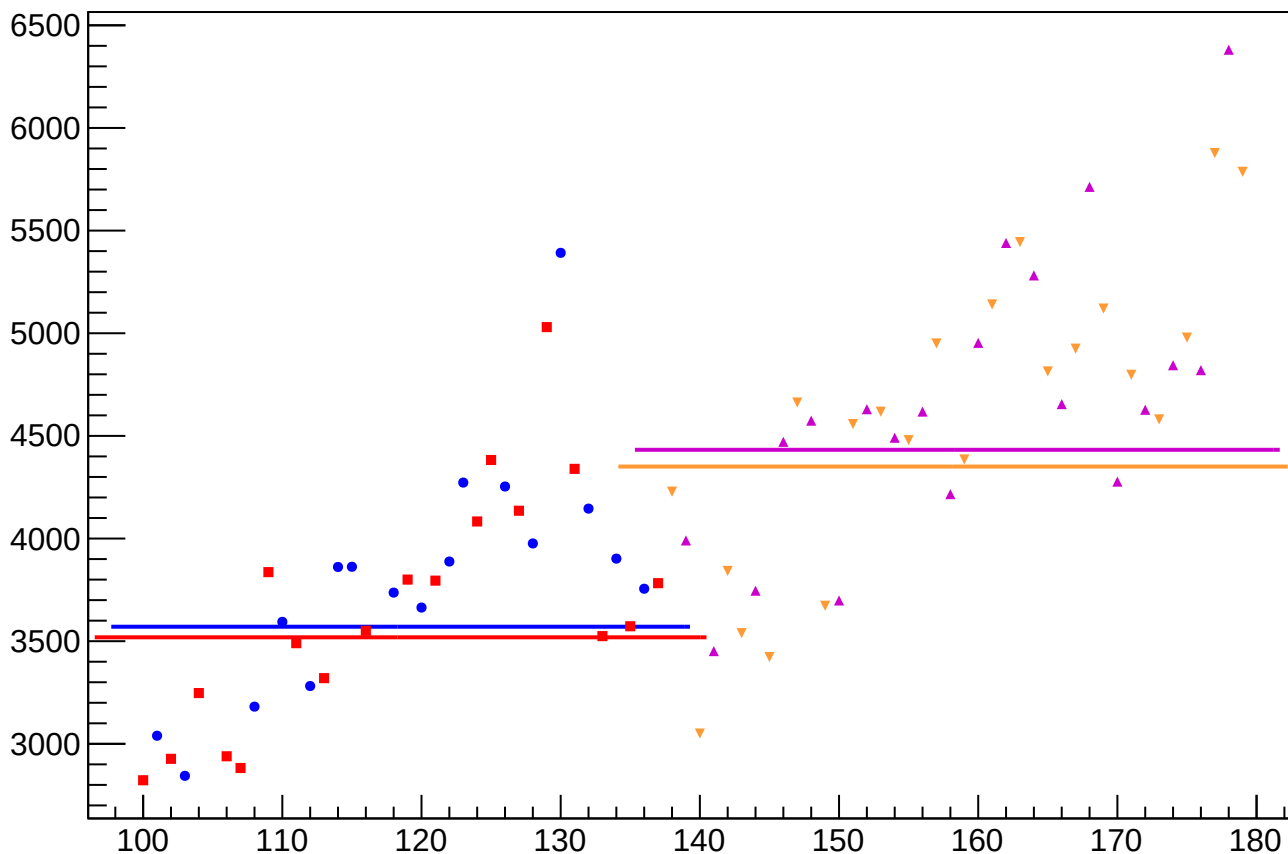
Right:  $2.256 \pm 0.967$   $\chi^2/\text{NDF}: 40.9/35$

In:  $1.104 \pm 0.884$   $\chi^2/\text{NDF}: 54.0/36$

Out:  $-0.240 \pm 0.843$   $\chi^2/\text{NDF}: 40.1/40$

All:  $0.400 \pm 0.610$   $\chi^2/\text{NDF}: 95.3/77$

# diff\_bpm16Y\_rms vs Slug, Sign Corrected



Right In: 3570.481 $\pm$ 0.992  $\chi^2$ /NDF: 309699.2/16

Left Out: 4350.650 $\pm$ 0.769  $\chi^2$ /NDF: 987706.6/21

Right Out: 3518.886 $\pm$ 0.943  $\chi^2$ /NDF: 293392.5/18

Left In: 4432.291 $\pm$ 0.805  $\chi^2$ /NDF: 646219.4/19

Left: 4389.603 $\pm$ 0.556  $\chi^2$ /NDF: 1639303.9/41

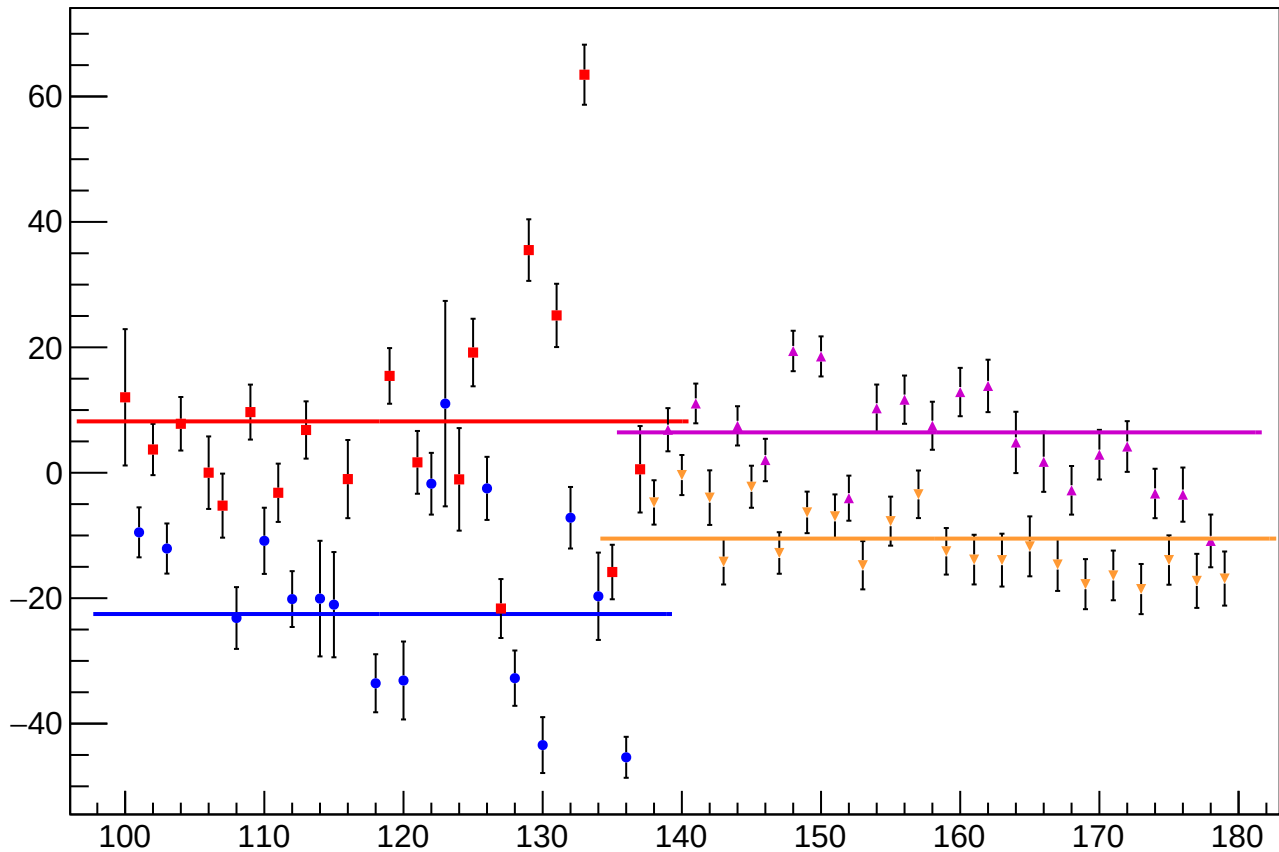
Right: 3543.379 $\pm$ 0.683  $\chi^2$ /NDF: 604512.8/35

In: 4090.084 $\pm$ 0.625  $\chi^2$ /NDF: 1411015.9/36

Out: 4018.450 $\pm$ 0.596  $\chi^2$ /NDF: 1748366.5/40

All: 4052.560 $\pm$ 0.431  $\chi^2$ /NDF: 3166262.1/77

# diff\_bpm0l01X\_mean vs Slug, Sign Corrected



Right In: -22.526+/-1.201  $\chi^2/\text{NDF}$ : 155.5/16

Left Out: -10.497+/-0.812  $\chi^2/\text{NDF}$ : 48.0/21

Right Out: 8.192+/-1.157  $\chi^2/\text{NDF}$ : 275.8/18

Left In: 6.440+/-0.837  $\chi^2/\text{NDF}$ : 88.1/19

Left: -2.285+/-0.583  $\chi^2/\text{NDF}$ : 347.0/41

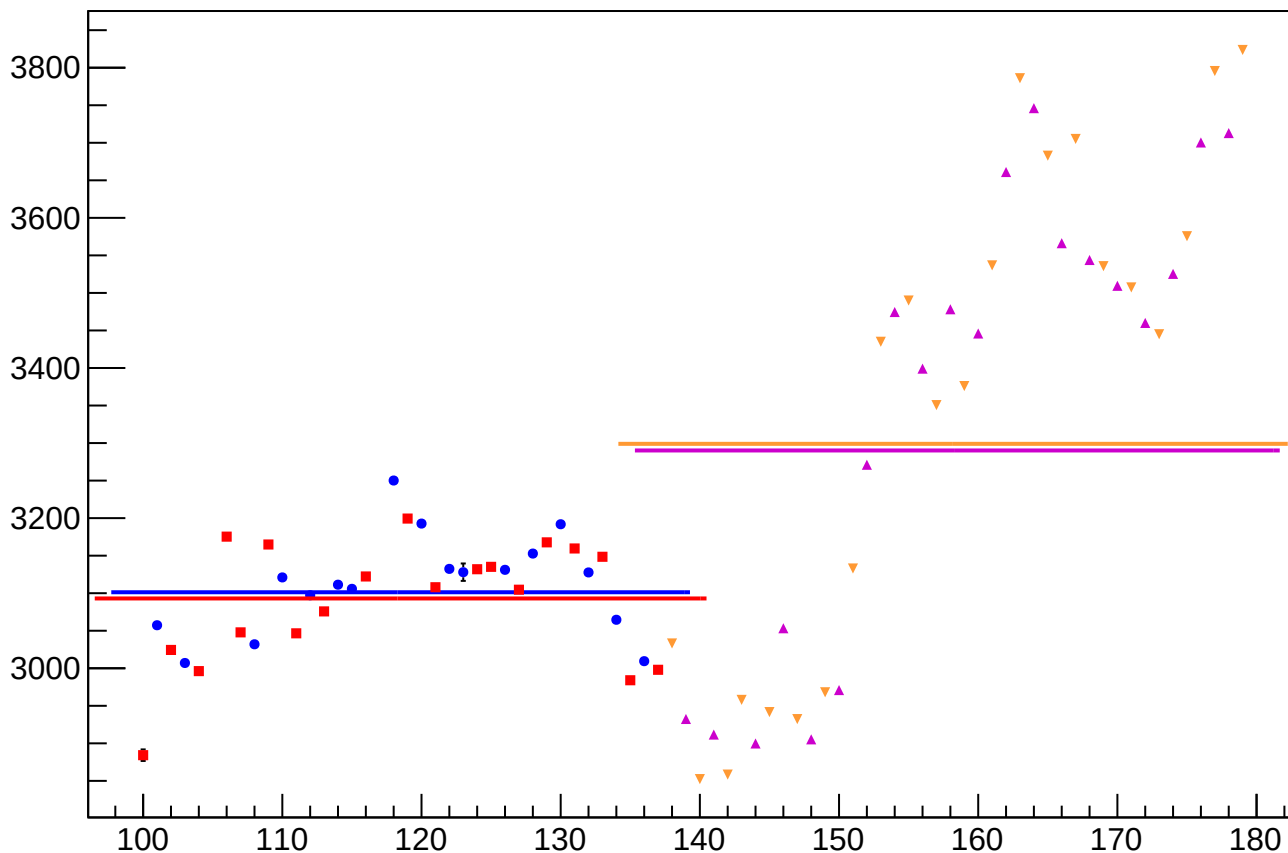
Right: -6.598+/-0.833  $\chi^2/\text{NDF}$ : 770.8/35

In: -3.038+/-0.687  $\chi^2/\text{NDF}$ : 635.3/36

Out: -4.327+/-0.665  $\chi^2/\text{NDF}$ : 498.7/40

All: -3.703+/-0.478  $\chi^2/\text{NDF}$ : 1135.8/77

# diff\_bpm0l01X\_rms vs Slug, Sign Corrected



Right In: 3101.270+/-0.849  $\chi^2/\text{NDF}$ : 7233.8/16

Left Out: 3298.974+/-0.574  $\chi^2/\text{NDF}$ : 315309.0/21

Right Out: 3092.993+/-0.818  $\chi^2/\text{NDF}$ : 7766.0/18

Left In: 3290.140+/-0.592  $\chi^2/\text{NDF}$ : 257398.7/19

Left: 3294.691+/-0.412  $\chi^2/\text{NDF}$ : 572822.4/41

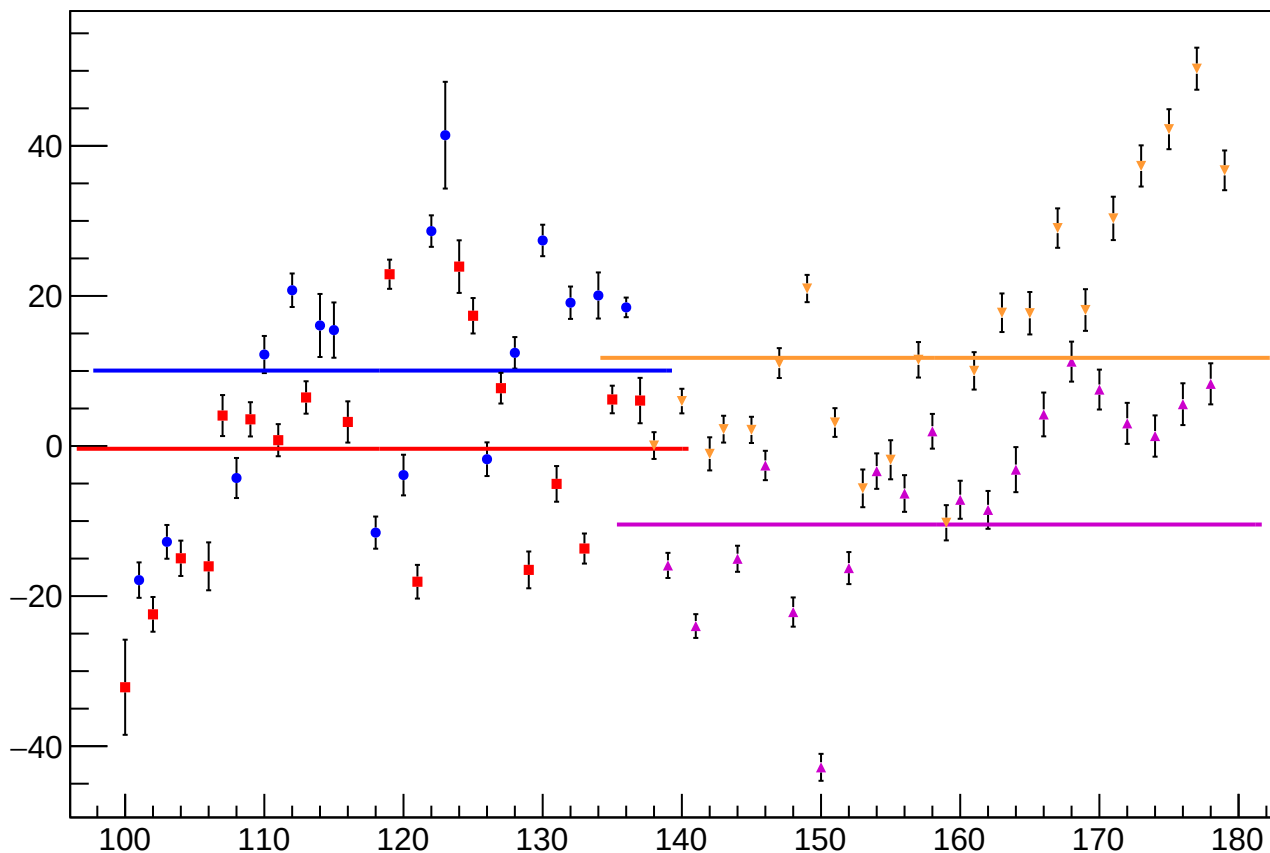
Right: 3096.979+/-0.589  $\chi^2/\text{NDF}$ : 15049.1/35

In: 3228.343+/-0.486  $\chi^2/\text{NDF}$ : 297936.3/36

Out: 3230.970+/-0.470  $\chi^2/\text{NDF}$ : 365544.4/40

All: 3229.699+/-0.338  $\chi^2/\text{NDF}$ : 663495.7/77

# diff\_bpm0l01Y\_mean vs Slug, Sign Corrected



Right In:  $10.055 \pm 0.562$   $\chi^2/\text{NDF}: 692.2/16$

Left Out:  $11.751 \pm 0.477$   $\chi^2/\text{NDF}: 952.4/21$

Right Out:  $-0.367 \pm 0.547$   $\chi^2/\text{NDF}: 629.8/18$

Left In:  $-10.462 \pm 0.498$   $\chi^2/\text{NDF}: 783.8/19$

Left:  $1.142 \pm 0.344$   $\chi^2/\text{NDF}: 2773.5/41$

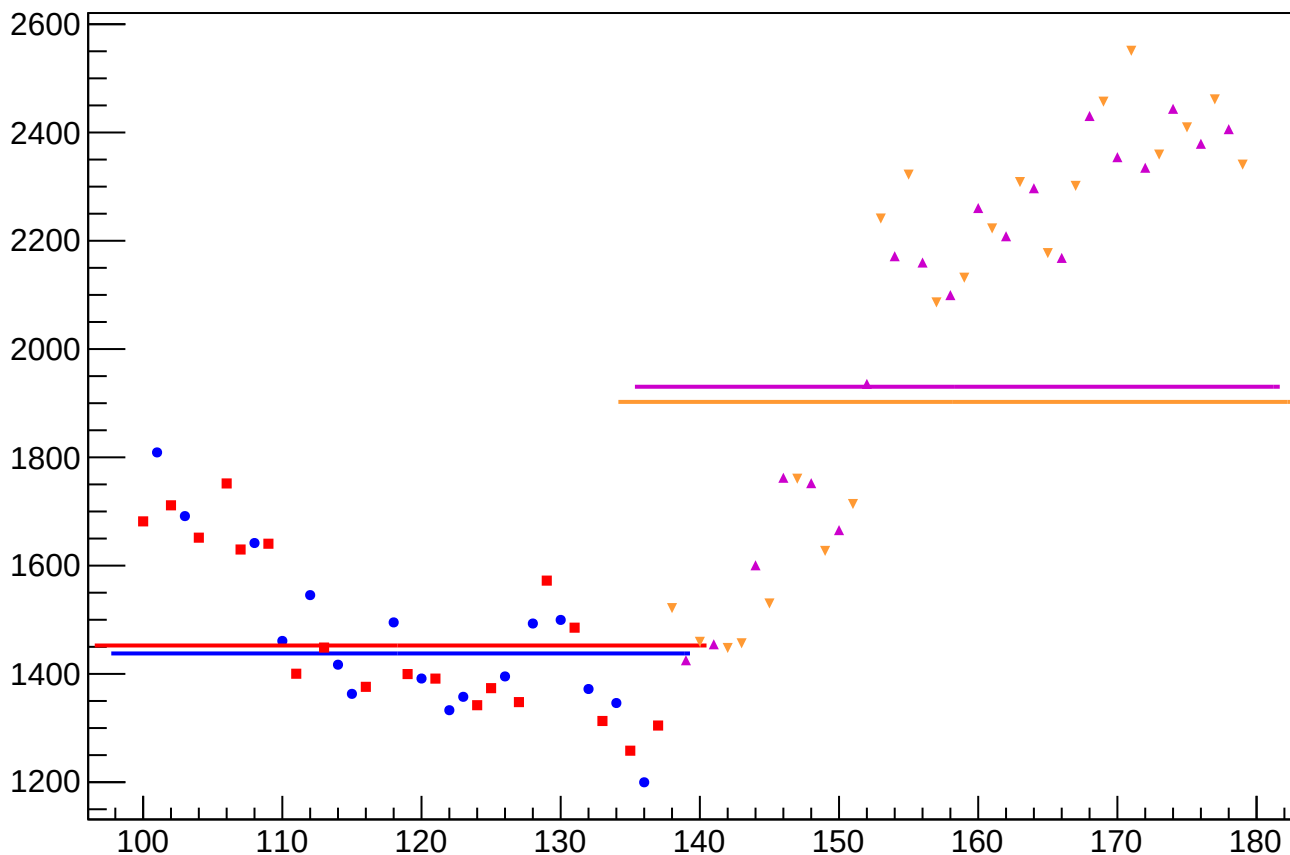
Right:  $4.707 \pm 0.392$   $\chi^2/\text{NDF}: 1498.8/35$

In:  $-1.422 \pm 0.373$   $\chi^2/\text{NDF}: 2222.5/36$

Out:  $6.521 \pm 0.359$   $\chi^2/\text{NDF}: 1861.2/40$

All:  $2.696 \pm 0.259$   $\chi^2/\text{NDF}: 4319.0/77$

# diff\_bpm0l01Y\_rms vs Slug, Sign Corrected



Right In: 1437.776 $\pm$ 0.397  $\chi^2$ /NDF: 173216.2/16

Left Out: 1902.401 $\pm$ 0.337  $\chi^2$ /NDF:1323027.5/21

Right Out: 1452.469 $\pm$ 0.387  $\chi^2$ /NDF: 138605.8/18

Left In: 1930.389 $\pm$ 0.352  $\chi^2$ /NDF:1006870.9/19

Left: 1915.769 $\pm$ 0.244  $\chi^2$ /NDF: 2333192.2/41

Right: 1445.316 $\pm$ 0.277  $\chi^2$ /NDF: 312524.3/35

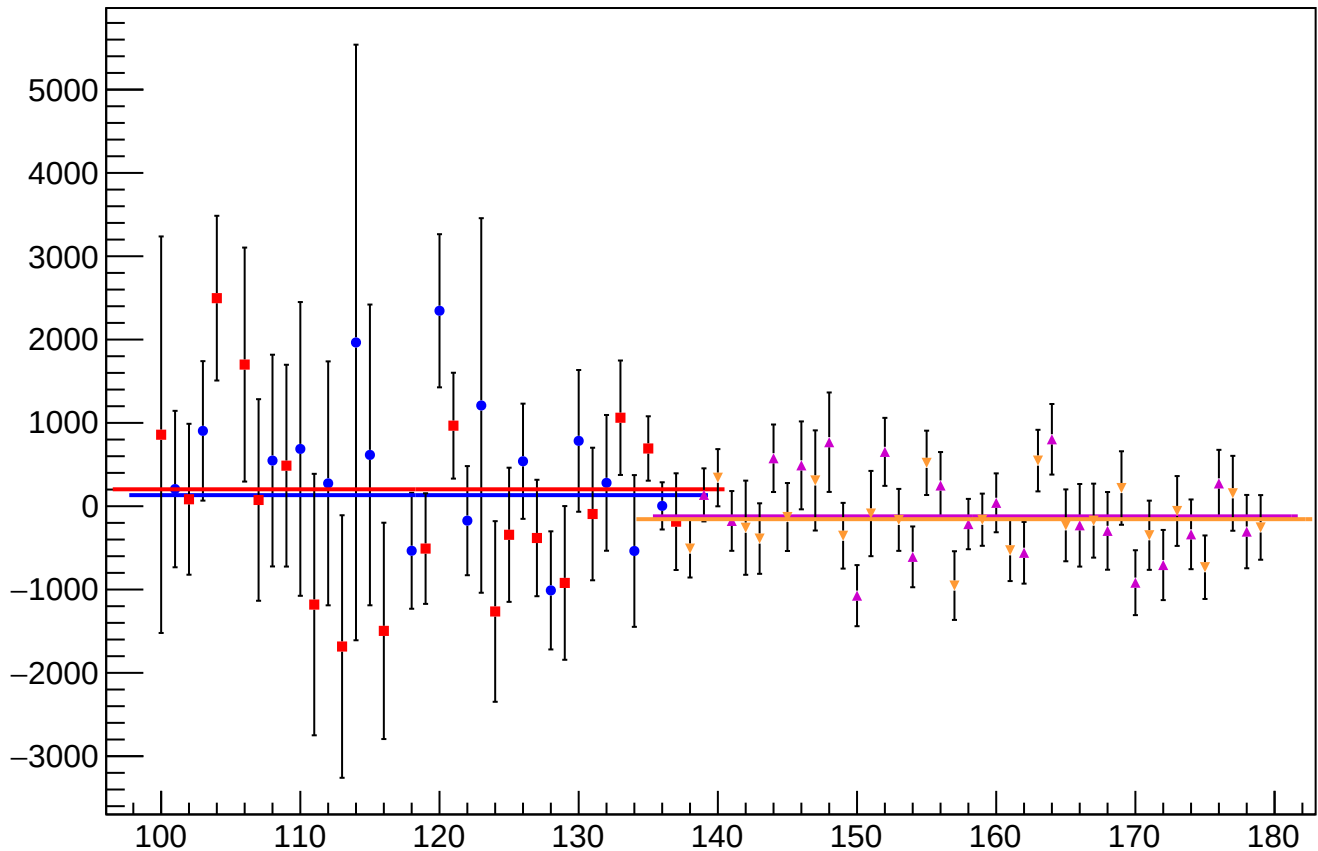
In: 1713.336 $\pm$ 0.264  $\chi^2$ /NDF:2040734.3/36

Out: 1708.227 $\pm$ 0.254  $\chi^2$ /NDF:2230743.1/40

All: 1710.687 $\pm$ 0.183  $\chi^2$ /NDF: 4271672.1/77



# asym\_sam1\_mean vs Slug, Sign Corrected



Right In: 132.921 $\pm$ 180.271  $\chi^2/\text{NDF}$ : 12.9/16

Left Out: -155.547 $\pm$ 86.137  $\chi^2/\text{NDF}$ : 19.6/21

Right Out: 203.062 $\pm$ 184.353  $\chi^2/\text{NDF}$ : 21.4/18

Left In: -121.672 $\pm$ 88.720  $\chi^2/\text{NDF}$ : 34.3/19

Left: -139.110 $\pm$ 61.801  $\chi^2/\text{NDF}$ : 54.0/41

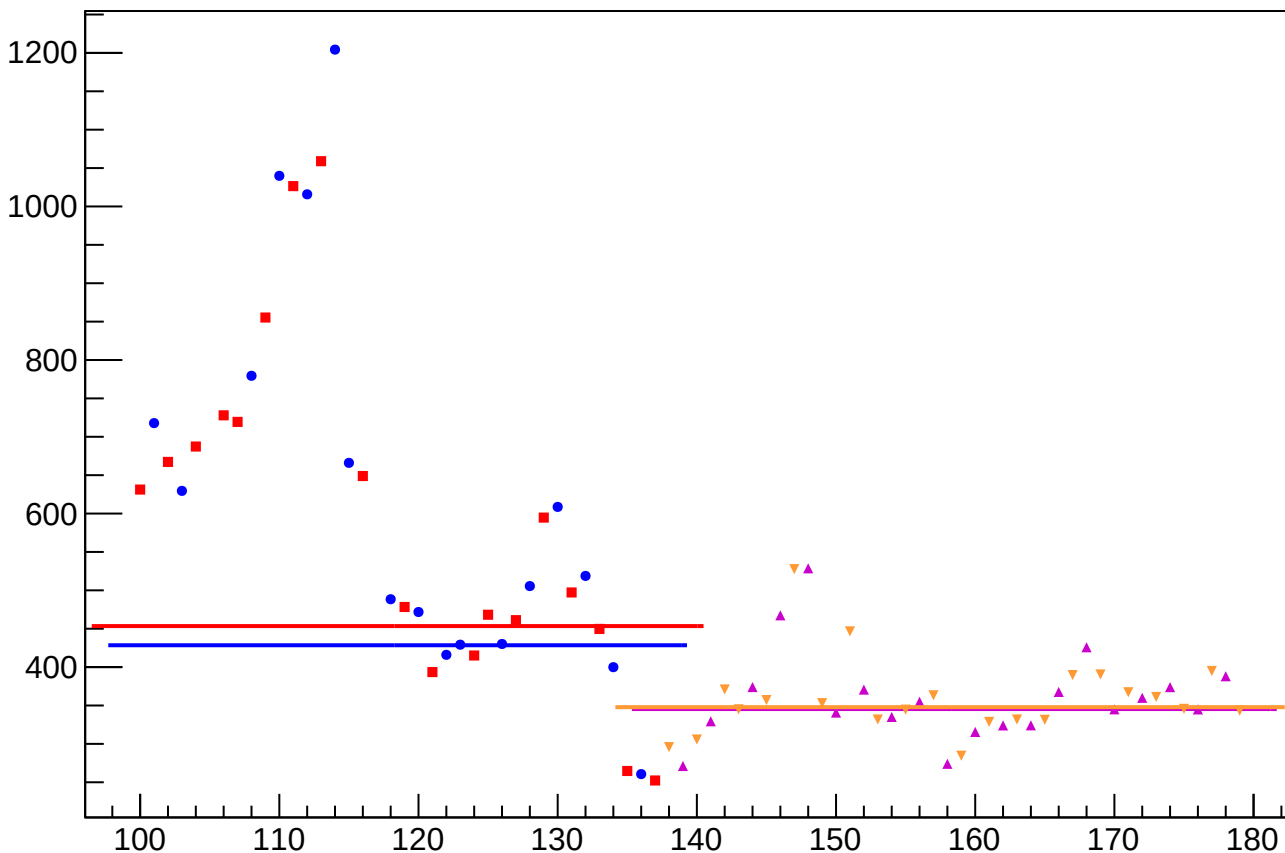
Right: 167.206 $\pm$ 128.890  $\chi^2/\text{NDF}$ : 34.4/35

In: -72.030 $\pm$ 79.602  $\chi^2/\text{NDF}$ : 48.8/36

Out: -91.287 $\pm$ 78.039  $\chi^2/\text{NDF}$ : 44.2/40

All: -81.849 $\pm$ 55.726  $\chi^2/\text{NDF}$ : 93.0/77

# asym\_sam1\_rms vs Slug, Sign Corrected



Right In: 428.460+/-0.127  $\chi^2/\text{NDF}$ : 2011453.8/16

Left Out: 347.830+/-0.061  $\chi^2/\text{NDF}$ : 498657.7/21

Right Out: 453.435+/-0.130  $\chi^2/\text{NDF}$ : 2029813.8/18

Left In: 345.374+/-0.063  $\chi^2/\text{NDF}$ : 660468.9/19

Left: 346.638+/-0.044  $\chi^2/\text{NDF}$ : 1159915.6/41

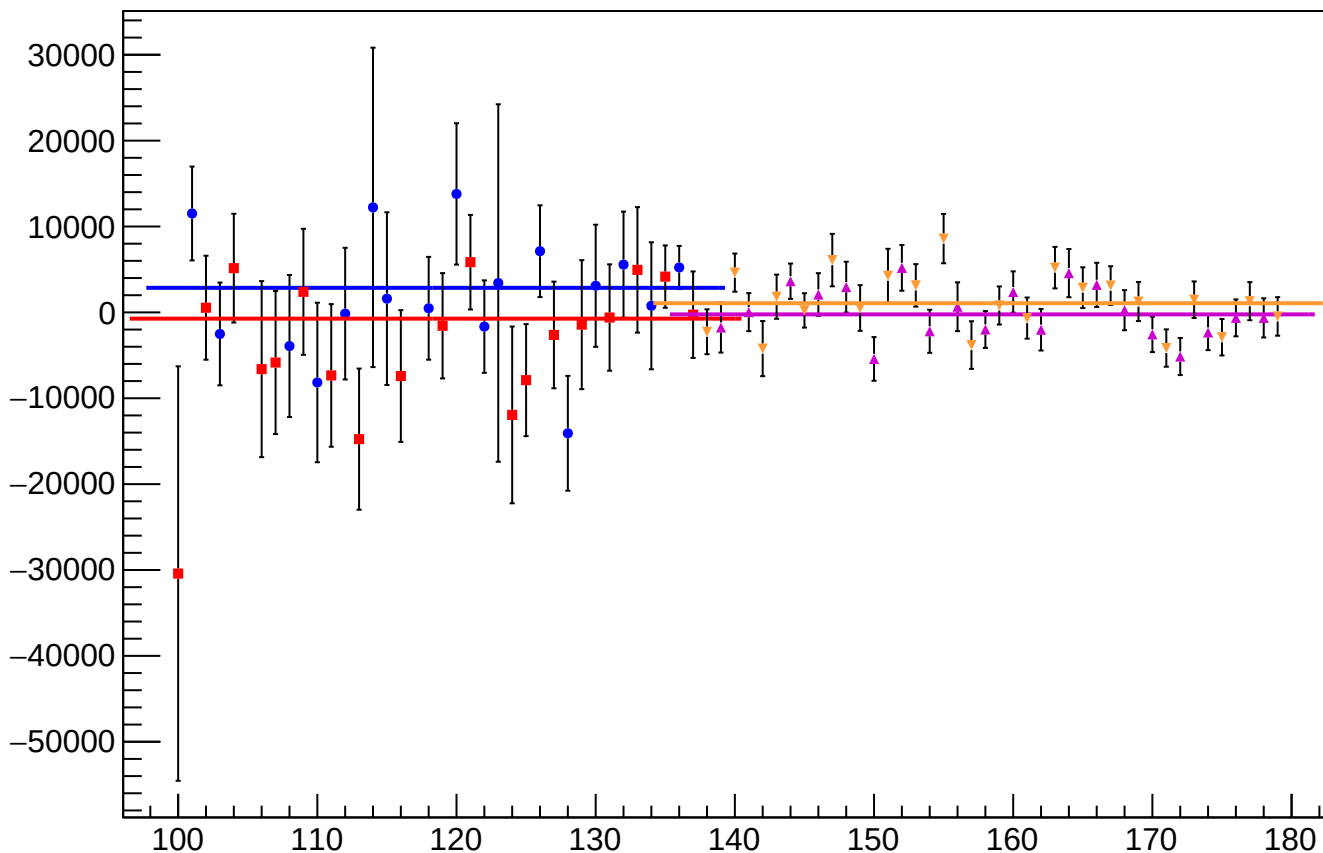
Right: 440.668+/-0.091  $\chi^2/\text{NDF}$ : 4060031.3/35

In: 361.575+/-0.056  $\chi^2/\text{NDF}$ : 3013934.2/36

Out: 366.754+/-0.055  $\chi^2/\text{NDF}$ : 3067162.3/40

All: 364.216+/-0.039  $\chi^2/\text{NDF}$ : 6085413.9/77

# asym\_sam2\_mean vs Slug, Sign Corrected



Right In: 2859.622+/-1447.884     $\chi^2/\text{NDF}$ : 16.7/16

Left Out: 1067.468+/-514.075     $\chi^2/\text{NDF}$ : 36.3/21

Right Out: -729.571+/-1509.224     $\chi^2/\text{NDF}$ : 14.0/18

Left In: -232.075+/-532.298     $\chi^2/\text{NDF}$ : 29.5/19

Left: 440.321+/-369.781     $\chi^2/\text{NDF}$ : 68.9/41

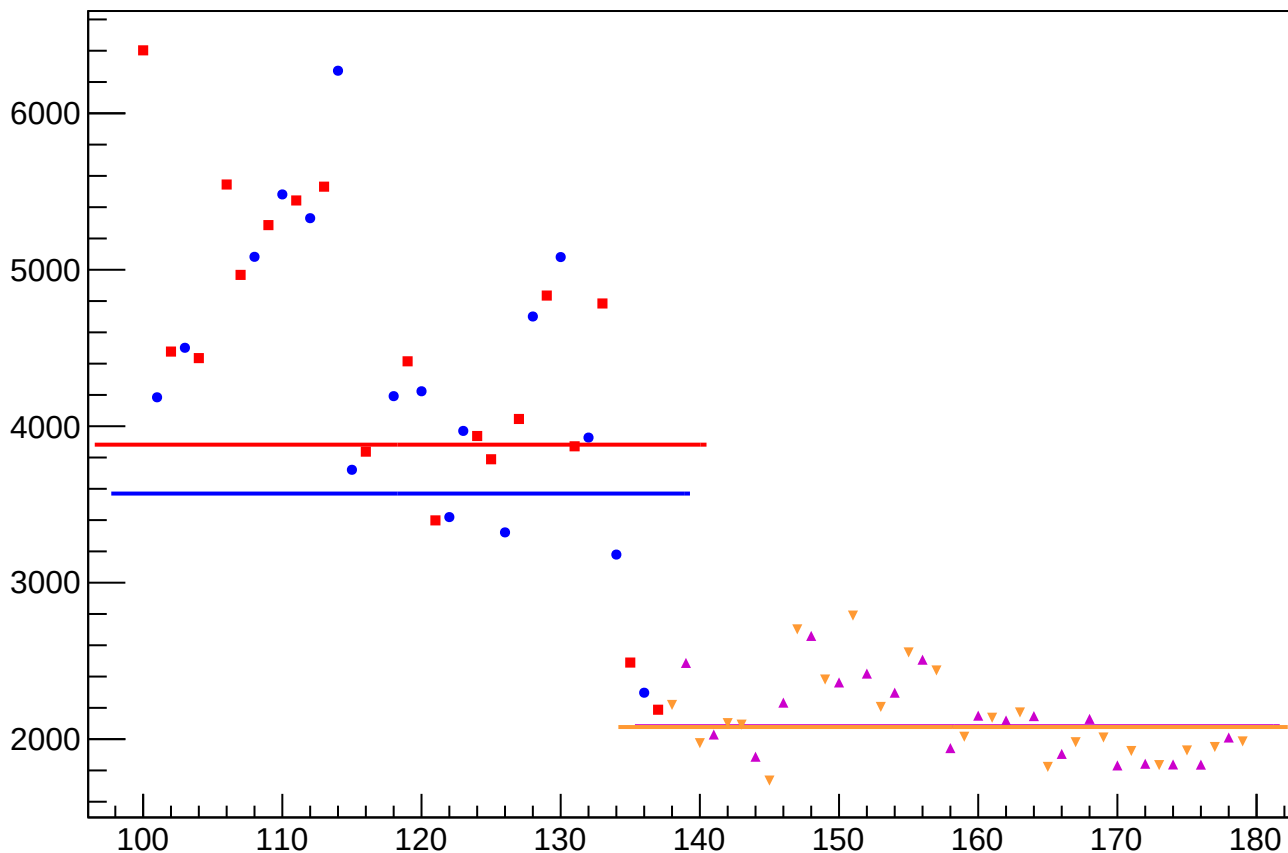
Right: 1139.446+/-1044.821     $\chi^2/\text{NDF}$ : 33.6/35

In: 136.040+/-499.605     $\chi^2/\text{NDF}$ : 50.2/36

Out: 880.645+/-486.620     $\chi^2/\text{NDF}$ : 51.5/40

All: 518.144+/-348.593     $\chi^2/\text{NDF}$ : 102.9/77

# asym\_sam2\_rms vs Slug, Sign Corrected



Right In: 3569.631+/-1.024  $\chi^2/\text{NDF}$ : 1087935.4/16

Left Out: 2077.399+/-0.364  $\chi^2/\text{NDF}$ : 466670.9/21

Right Out: 3882.169+/-1.067  $\chi^2/\text{NDF}$ : 983087.5/18

Left In: 2082.913+/-0.376  $\chi^2/\text{NDF}$ : 388796.6/19

Left: 2080.060+/-0.261  $\chi^2/\text{NDF}$ : 855578.6/41

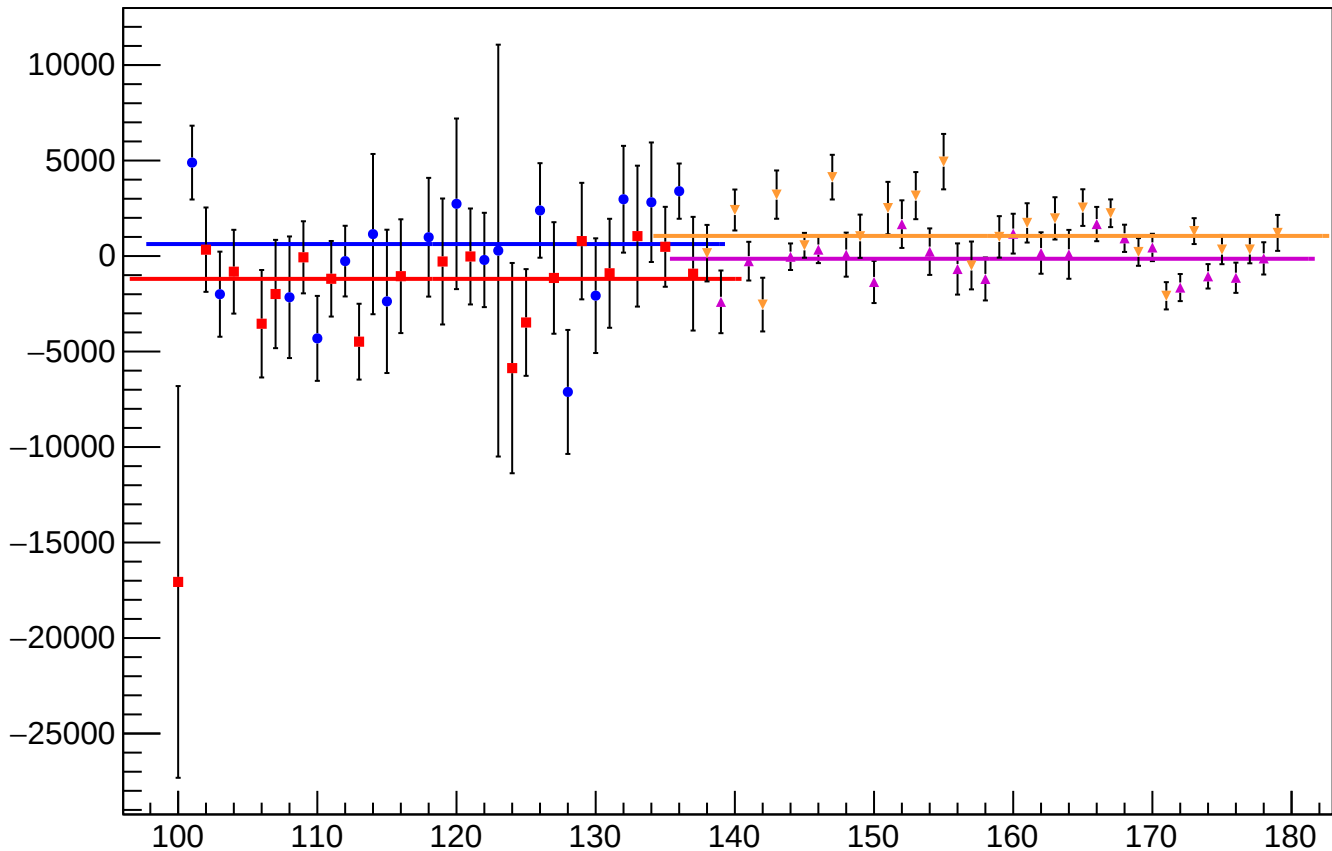
Right: 3719.420+/-0.739  $\chi^2/\text{NDF}$ : 2115685.3/35

In: 2259.930+/-0.353  $\chi^2/\text{NDF}$ : 3334379.8/36

Out: 2265.026+/-0.344  $\chi^2/\text{NDF}$ : 4012427.4/40

All: 2262.545+/-0.246  $\chi^2/\text{NDF}$ : 7346914.0/77

# asym\_sam3\_mean vs Slug, Sign Corrected



Right In:  $627.655 \pm 620.929$   $\chi^2/\text{NDF}$ : 25.1/16

Left Out:  $1054.016 \pm 199.907$   $\chi^2/\text{NDF}$ : 60.5/21

Right Out:  $-1195.385 \pm 603.058$   $\chi^2/\text{NDF}$ : 9.9/18

Left In:  $-143.075 \pm 201.533$   $\chi^2/\text{NDF}$ : 23.8/19

Left:  $460.320 \pm 141.927$   $\chi^2/\text{NDF}$ : 102.1/41

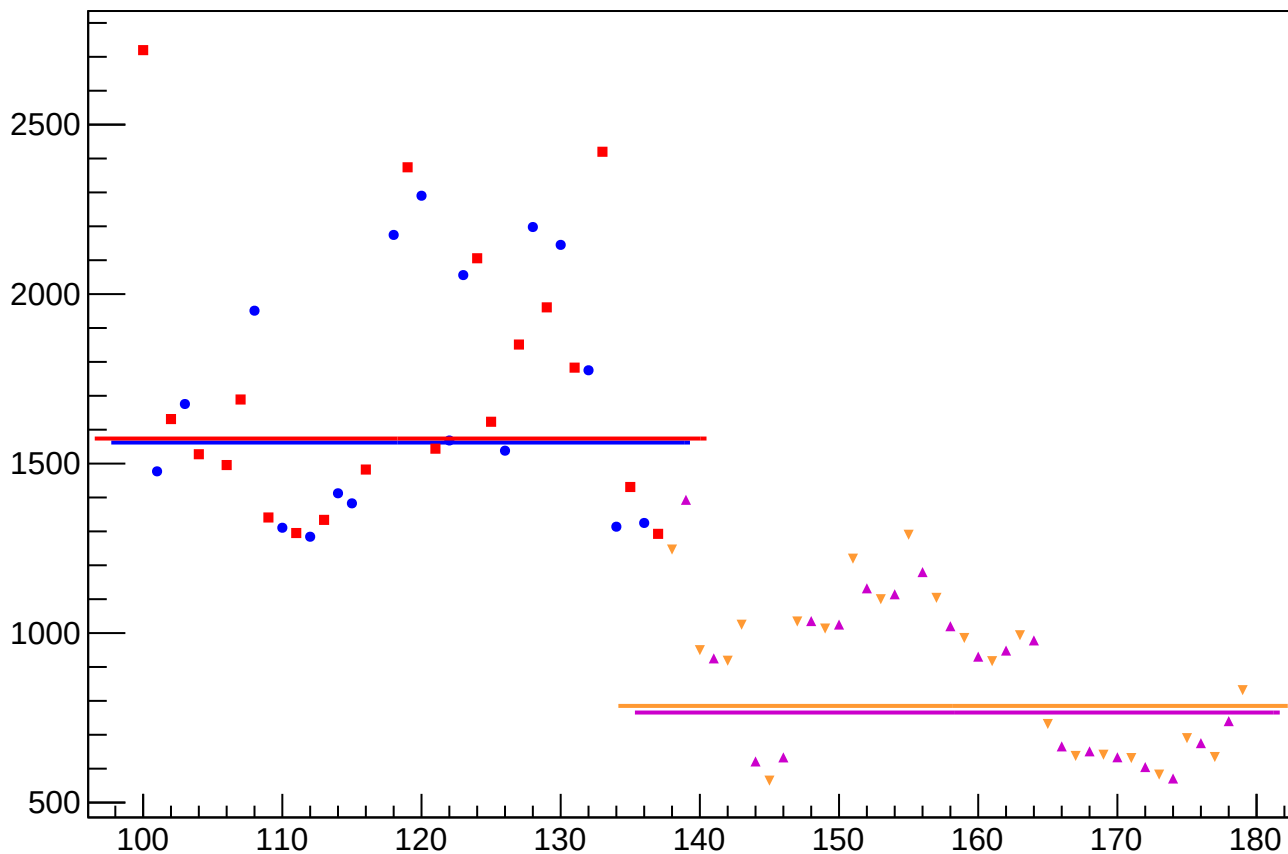
Right:  $-310.478 \pm 432.606$   $\chi^2/\text{NDF}$ : 39.4/35

In:  $-69.621 \pm 191.689$   $\chi^2/\text{NDF}$ : 50.2/36

Out:  $831.313 \pm 189.753$   $\chi^2/\text{NDF}$ : 83.0/40

All:  $385.419 \pm 134.855$   $\chi^2/\text{NDF}$ : 144.4/77

# asym\_sam3\_rms vs Slug, Sign Corrected



Right In: 1562.101 $\pm$ 0.439  $\chi^2$ /NDF: 482088.3/16

Left Out: 785.128 $\pm$ 0.141  $\chi^2$ /NDF: 2169620.1/21

Right Out: 1573.906 $\pm$ 0.426  $\chi^2$ /NDF: 463991.4/18

Left In: 765.587 $\pm$ 0.143  $\chi^2$ /NDF: 1971425.4/19

Left: 775.436 $\pm$ 0.100  $\chi^2$ /NDF: 4150523.7/41

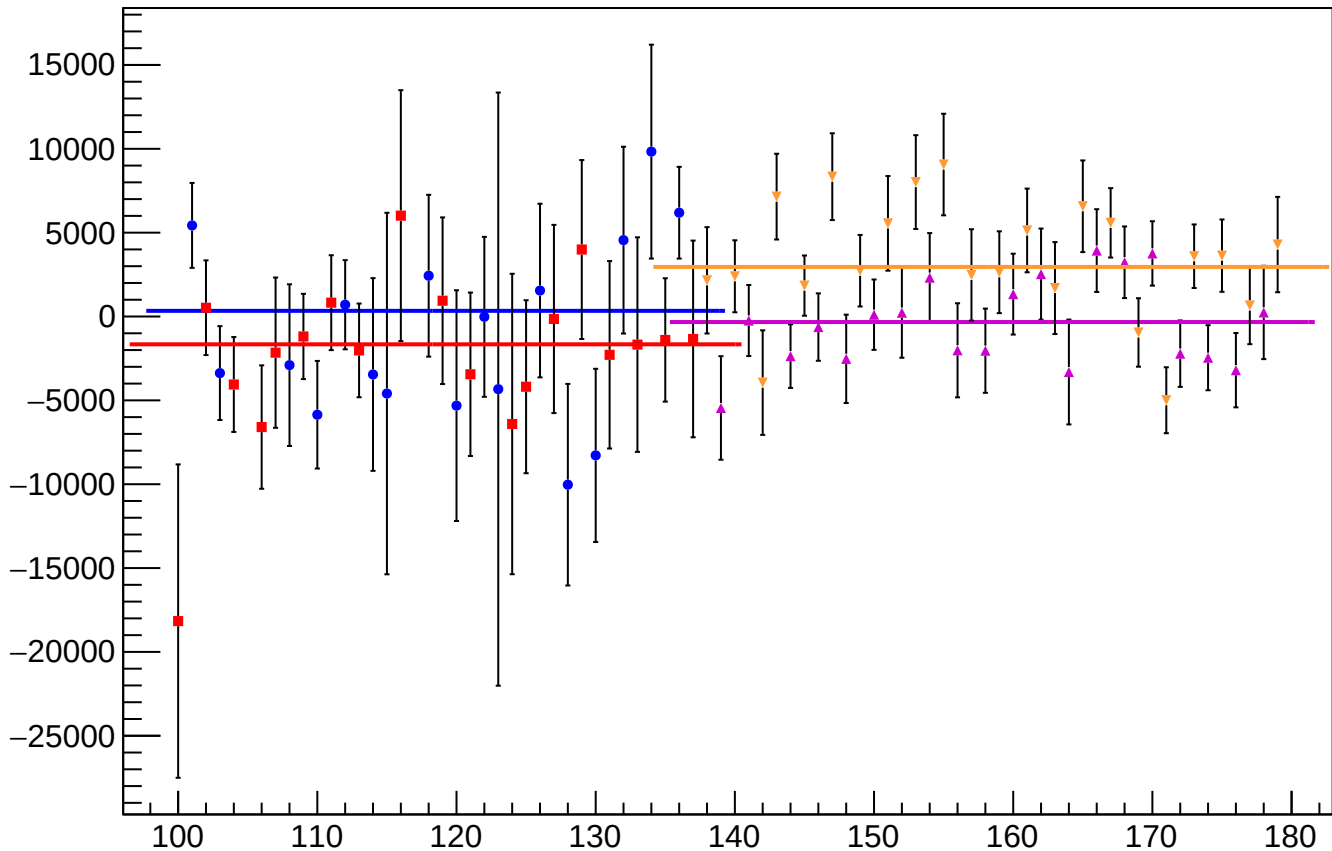
Right: 1568.176 $\pm$ 0.306  $\chi^2$ /NDF: 946451.6/35

In: 841.497 $\pm$ 0.136  $\chi^2$ /NDF: 5430906.6/36

Out: 863.221 $\pm$ 0.134  $\chi^2$ /NDF: 5716402.4/40

All: 852.470 $\pm$ 0.095  $\chi^2$ /NDF: 11160283.0/77

# asym\_sam4\_mean vs Slug, Sign Corrected



Right In: 338.117 $\pm$ 995.842  $\chi^2/\text{NDF}$ : 24.8/16

Left Out: 2956.823 $\pm$ 507.566  $\chi^2/\text{NDF}$ :46.4/21

Right Out: -1658.069 $\pm$ 924.453  $\chi^2/\text{NDF}$ : 10.3/18

Left In: -329.804 $\pm$ 519.319  $\chi^2/\text{NDF}$ :23.2/19

Left: 1351.122 $\pm$ 362.988  $\chi^2/\text{NDF}$ : 90.1/41

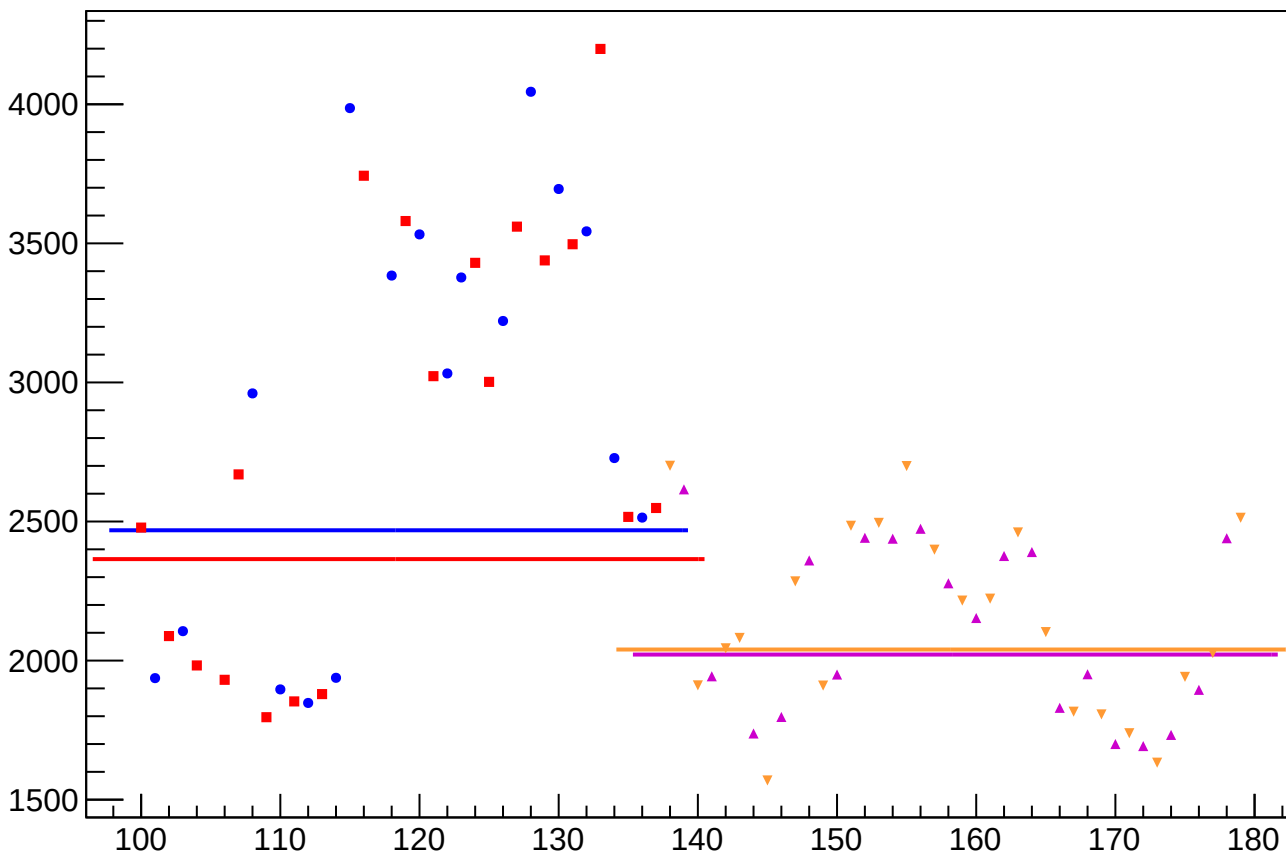
Right: -734.084 $\pm$ 677.520  $\chi^2/\text{NDF}$ : 37.2/35

In: -186.999 $\pm$ 460.468  $\chi^2/\text{NDF}$ :48.3/36

Out: 1887.892 $\pm$ 444.917  $\chi^2/\text{NDF}$ :75.8/40

All: 886.075 $\pm$ 319.960  $\chi^2/\text{NDF}$ : 134.6/77

# asym\_sam4\_rms vs Slug, Sign Corrected



Right In: 2468.489 $\pm$ 0.704  $\chi^2$ /NDF: 896153.6/16

Left Out: 2039.813 $\pm$ 0.359  $\chi^2$ /NDF: 807256.6/21

Right Out: 2364.833 $\pm$ 0.654  $\chi^2$ /NDF: 1025161.0/18

Left In: 2021.675 $\pm$ 0.367  $\chi^2$ /NDF: 641898.0/19

Left: 2030.952 $\pm$ 0.257  $\chi^2$ /NDF: 1450402.3/41

Right: 2412.813 $\pm$ 0.479  $\chi^2$ /NDF: 1932953.4/35

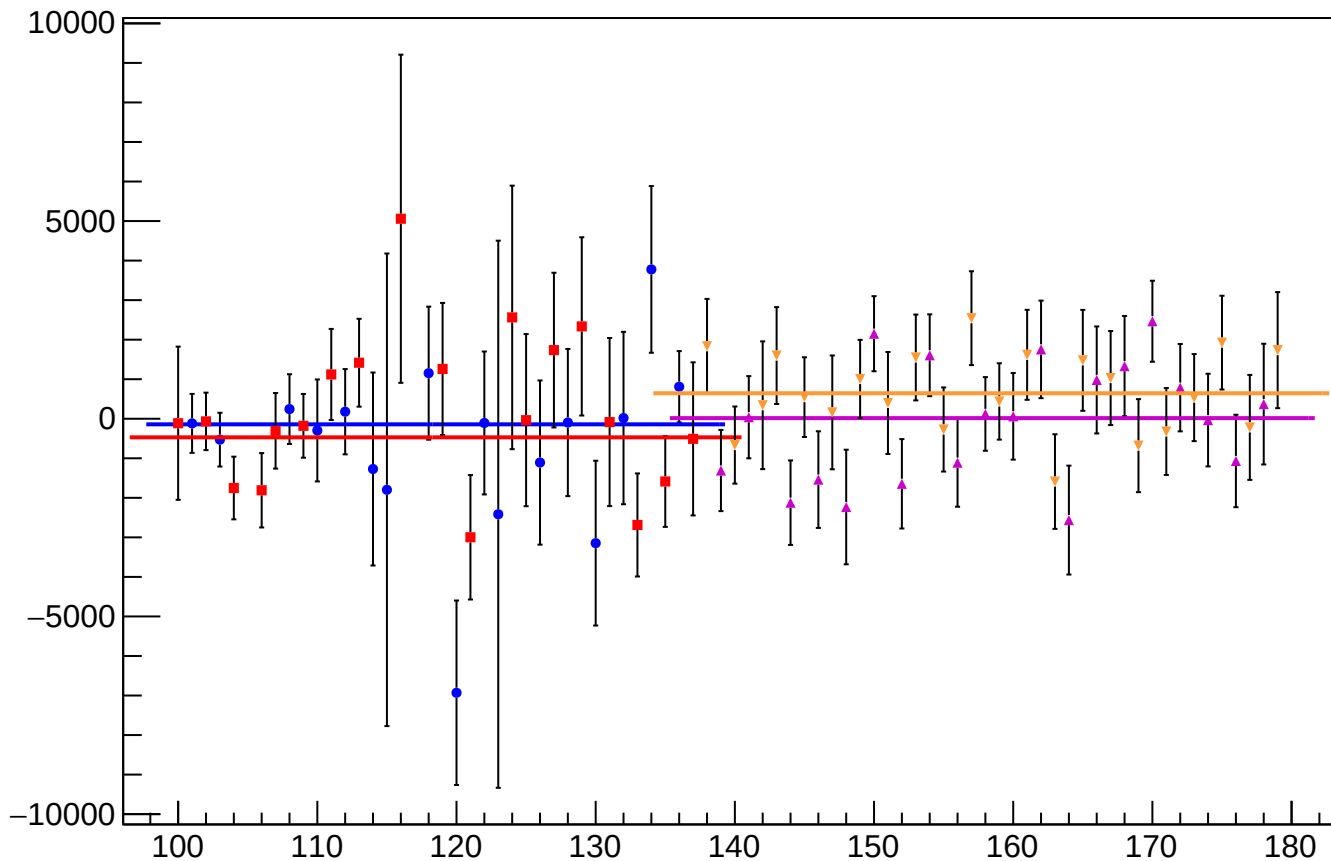
In: 2117.206 $\pm$ 0.326  $\chi^2$ /NDF: 1854594.0/36

Out: 2115.096 $\pm$ 0.315  $\chi^2$ /NDF: 2022373.6/40

All: 2116.115 $\pm$ 0.226  $\chi^2$ /NDF: 3876989.3/77



# asym\_sam5\_mean vs Slug, Sign Corrected



Right In:  $-141.213 \pm 313.319$   $\chi^2/\text{NDF}: 16.9/16$

Left Out:  $645.006 \pm 247.584$   $\chi^2/\text{NDF}: 16.7/21$

Right Out:  $-470.143 \pm 282.892$   $\chi^2/\text{NDF}: 22.9/18$

Left In:  $15.978 \pm 253.786$   $\chi^2/\text{NDF}: 34.5/19$

Left:  $338.272 \pm 177.220$   $\chi^2/\text{NDF}: 54.4/41$

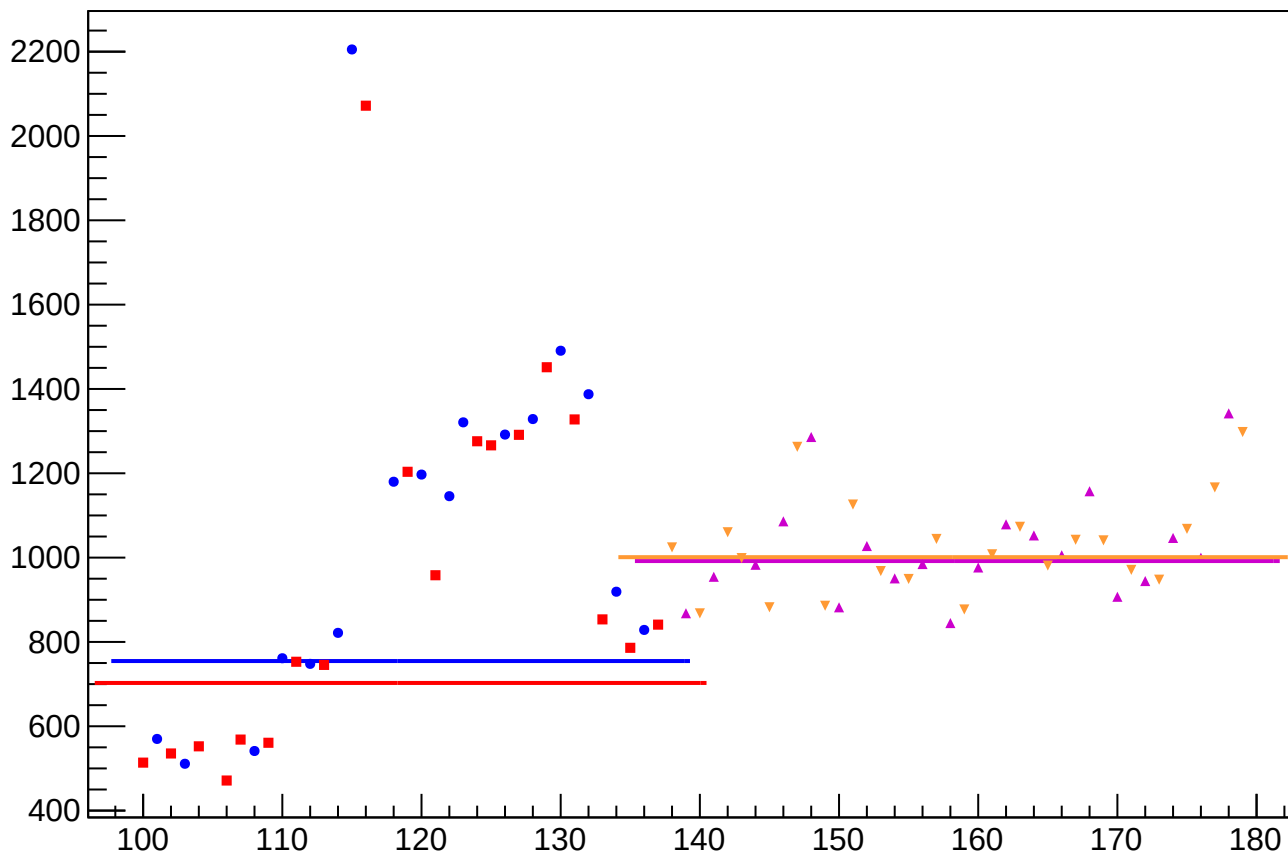
Right:  $-322.421 \pm 209.970$   $\chi^2/\text{NDF}: 40.5/35$

In:  $-46.296 \pm 197.208$   $\chi^2/\text{NDF}: 51.6/36$

Out:  $161.328 \pm 186.308$   $\chi^2/\text{NDF}: 48.4/40$

All:  $63.412 \pm 135.429$   $\chi^2/\text{NDF}: 100.6/77$

# asym\_sam5\_rms vs Slug, Sign Corrected



Right In: 754.684 $\pm$ 0.222  $\chi^2/\text{NDF}$ : 1690621.2/16

Left Out: 1001.052 $\pm$ 0.175  $\chi^2/\text{NDF}$ : 360737.2/21

Right Out: 702.721 $\pm$ 0.200  $\chi^2/\text{NDF}$ : 1691602.9/18

Left In: 991.841 $\pm$ 0.179  $\chi^2/\text{NDF}$ : 383596.0/19

Left: 996.560 $\pm$ 0.125  $\chi^2/\text{NDF}$ : 745683.0/41

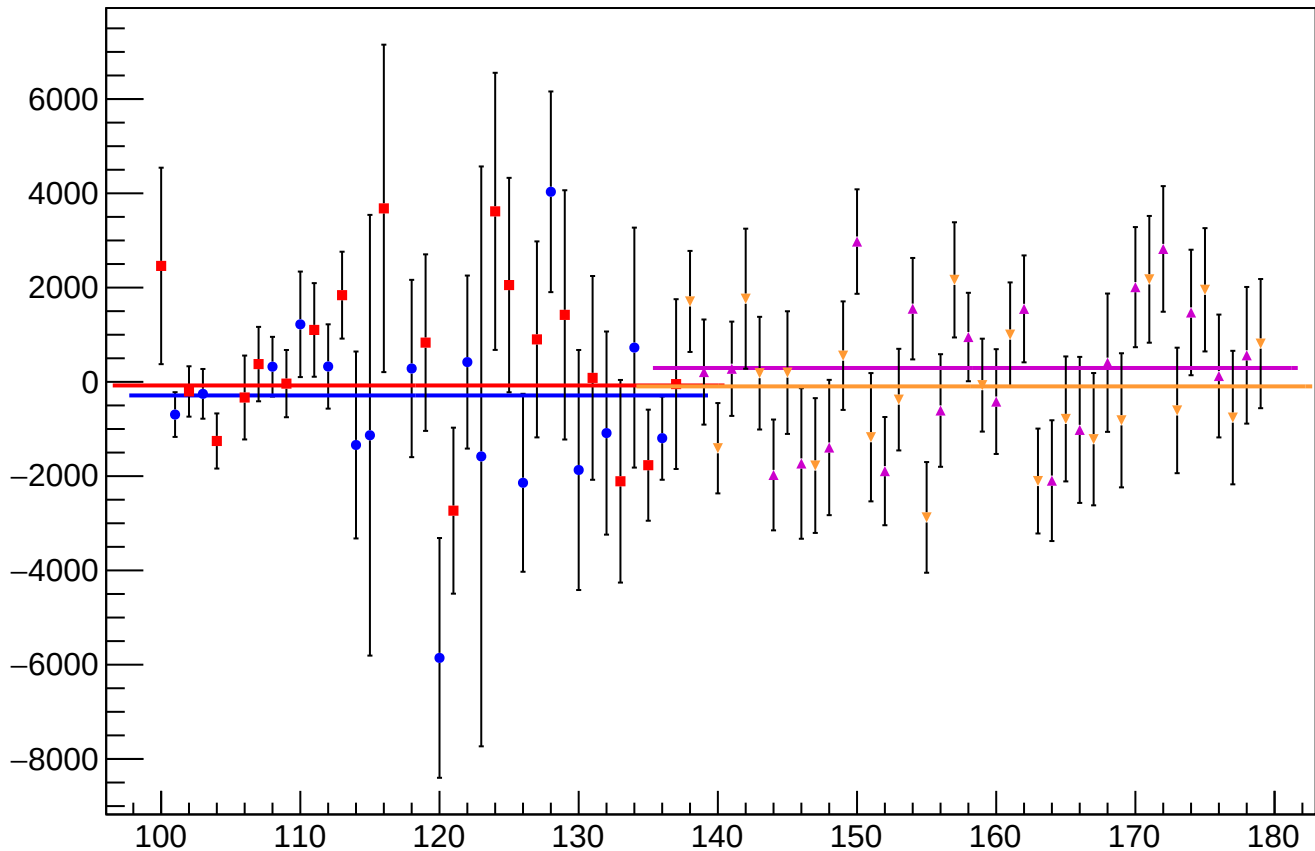
Right: 726.058 $\pm$ 0.148  $\chi^2/\text{NDF}$ : 3412528.8/35

In: 897.887 $\pm$ 0.139  $\chi^2/\text{NDF}$ : 2766124.2/36

Out: 871.656 $\pm$ 0.132  $\chi^2/\text{NDF}$ : 3311856.3/40

All: 884.027 $\pm$ 0.096  $\chi^2/\text{NDF}$ : 6096678.0/77

# asym\_sam6\_mean vs Slug, Sign Corrected



Right In:  $-288.037 \pm 250.436$   $\chi^2/\text{NDF}: 16.2/16$

Left Out:  $-95.934 \pm 260.832$   $\chi^2/\text{NDF}: 29.3/21$

Right Out:  $-76.119 \pm 246.083$   $\chi^2/\text{NDF}: 21.4/18$

Left In:  $294.452 \pm 271.527$   $\chi^2/\text{NDF}: 30.7/19$

Left:  $91.419 \pm 188.103$   $\chi^2/\text{NDF}: 61.1/41$

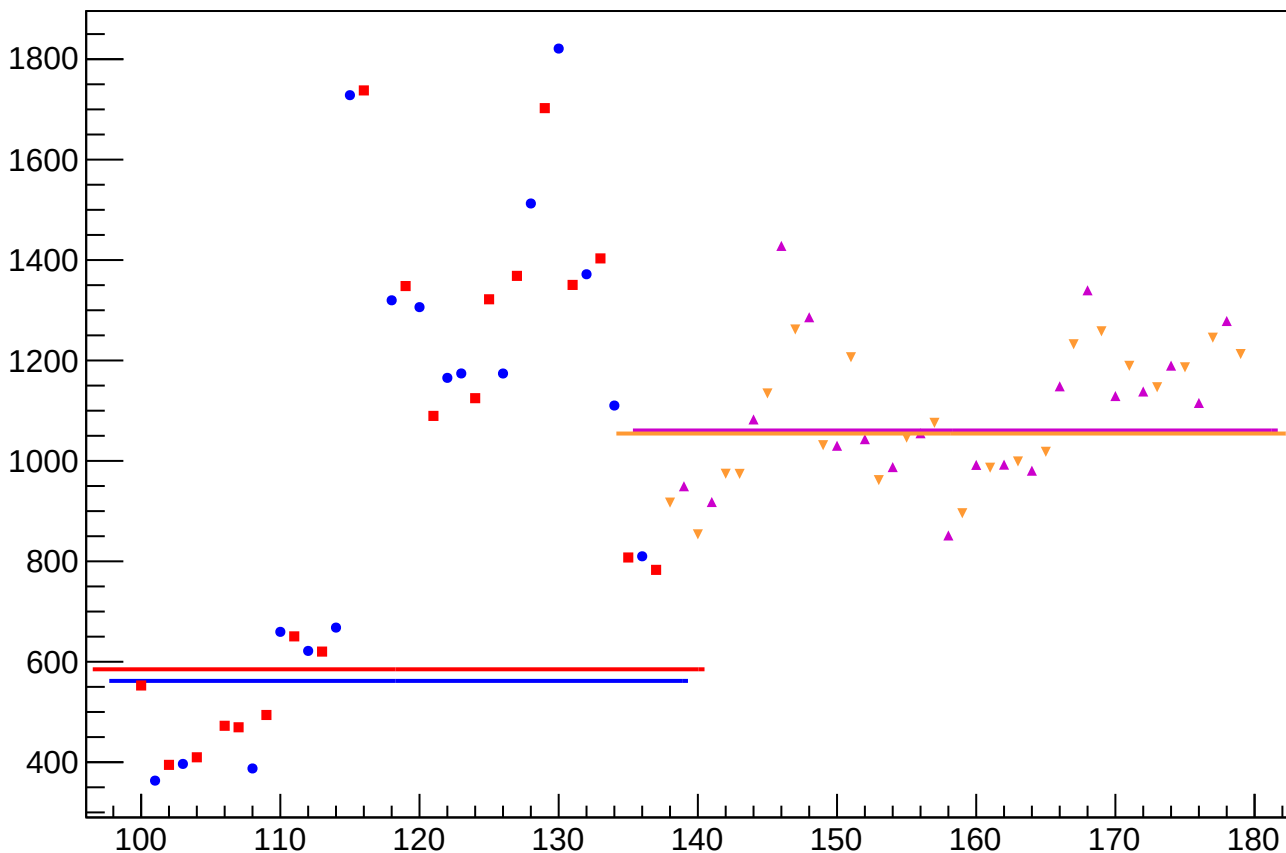
Right:  $-180.221 \pm 175.526$   $\chi^2/\text{NDF}: 37.9/35$

In:  $-20.292 \pm 184.090$   $\chi^2/\text{NDF}: 49.4/36$

Out:  $-85.450 \pm 178.994$   $\chi^2/\text{NDF}: 50.7/40$

All:  $-53.785 \pm 128.332$   $\chi^2/\text{NDF}: 100.1/77$

# asym\_sam6\_rms vs Slug, Sign Corrected



Right In:  $561.894 \pm 0.177$   $\chi^2/\text{NDF}$ : 3216651.3/16

Left Out:  $1054.507 \pm 0.184$   $\chi^2/\text{NDF}$ : 478428.5/21

Right Out:  $584.993 \pm 0.174$   $\chi^2/\text{NDF}$ : 2824449.5/18

Left In:  $1060.580 \pm 0.192$   $\chi^2/\text{NDF}$ : 508582.5/19

Left:  $1057.421 \pm 0.133$   $\chi^2/\text{NDF}$ : 987531.4/41

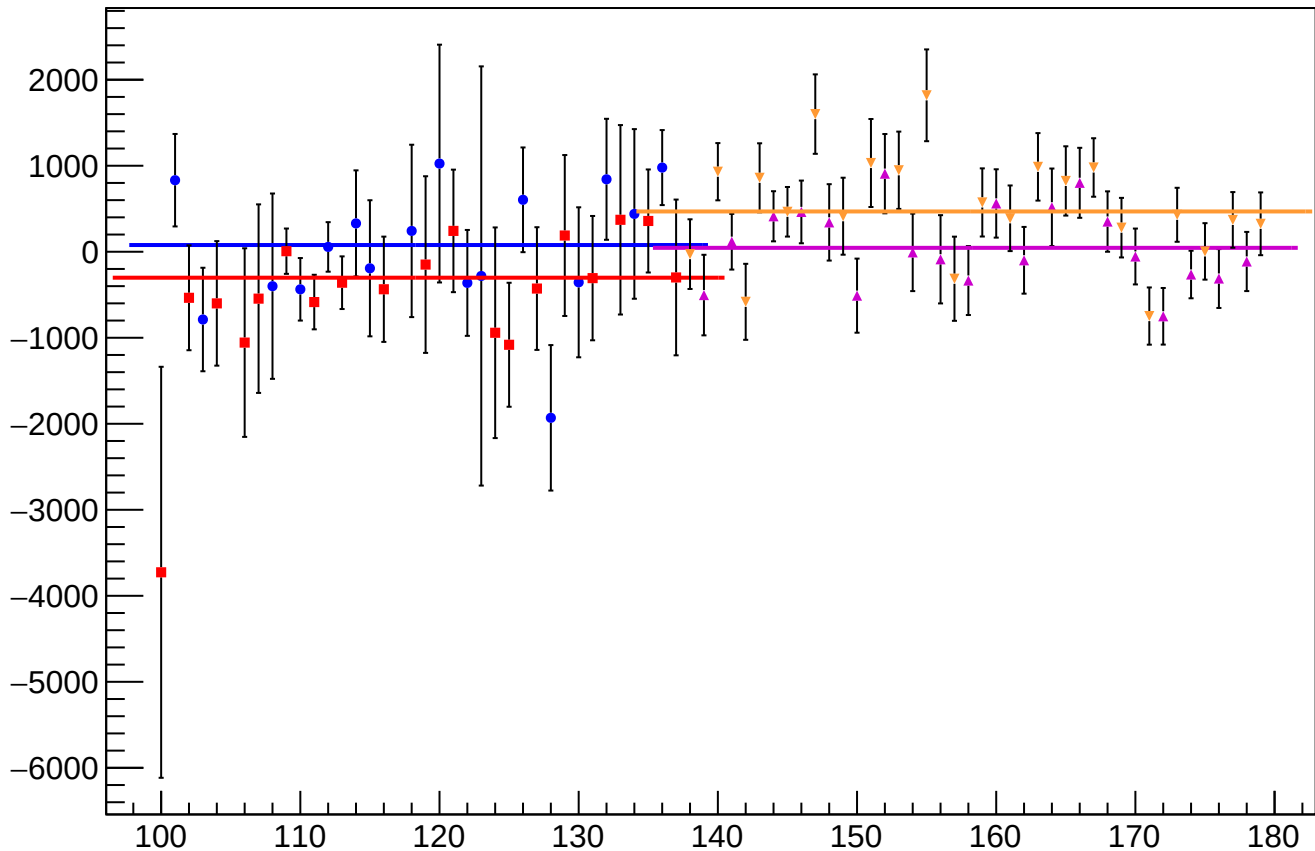
Right:  $573.646 \pm 0.124$   $\chi^2/\text{NDF}$ : 6049757.3/35

In:  $791.119 \pm 0.130$   $\chi^2/\text{NDF}$ : 7370487.4/36

Out:  $806.101 \pm 0.127$   $\chi^2/\text{NDF}$ : 6731495.9/40

All:  $798.820 \pm 0.091$   $\chi^2/\text{NDF}$ : 14108792.5/77

# asym\_sam7\_mean vs Slug, Sign Corrected



Right In: 78.184+/-142.869  $\chi^2/\text{NDF}$ : 19.8/16

Left Out: 468.462+/-80.831  $\chi^2/\text{NDF}$ : 48.2/21

Right Out: -301.651+/-129.650  $\chi^2/\text{NDF}$ : 9.1/18

Left In: 45.463+/-83.225  $\chi^2/\text{NDF}$ : 26.5/19

Left: 263.135+/-57.984  $\chi^2/\text{NDF}$ : 88.0/41

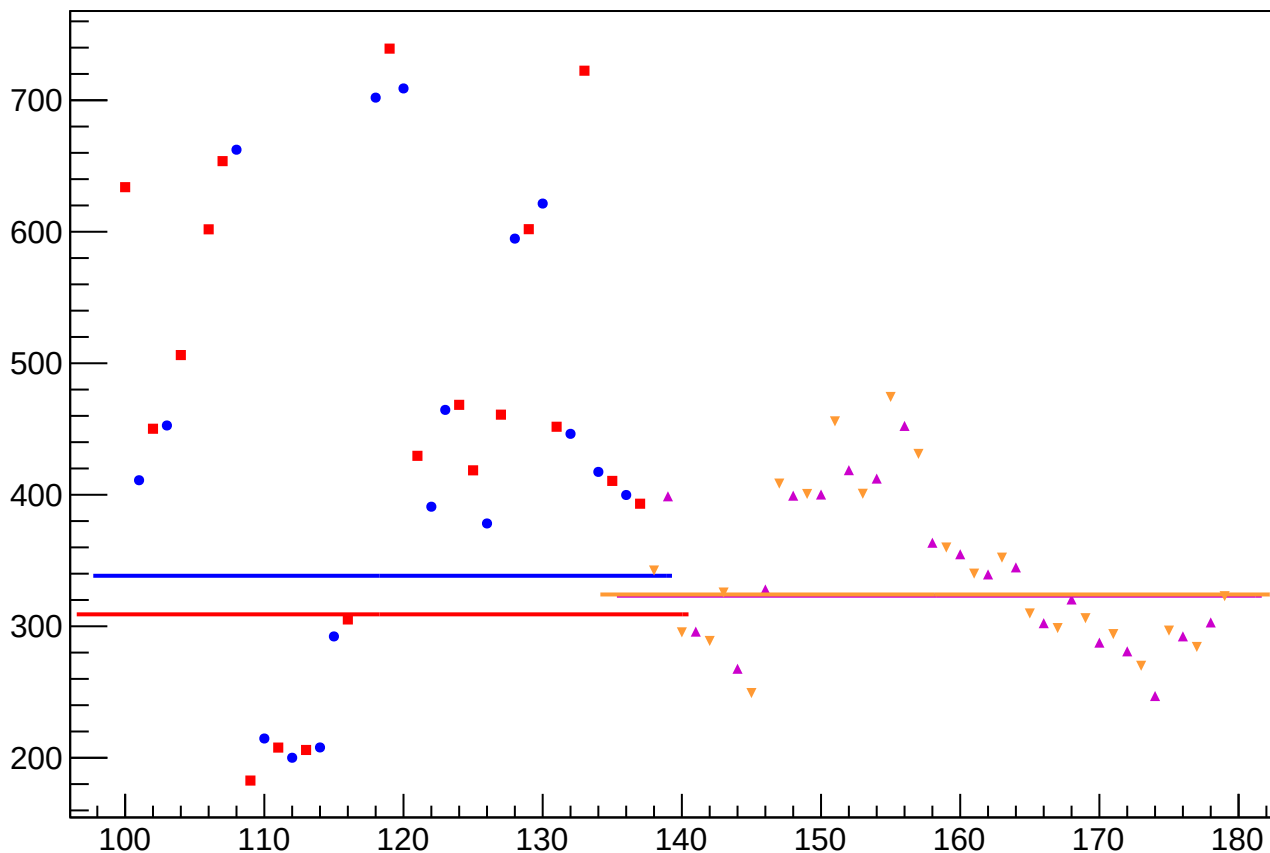
Right: -130.116+/-96.010  $\chi^2/\text{NDF}$ : 32.7/35

In: 53.753+/-71.913  $\chi^2/\text{NDF}$ : 46.4/36

Out: 252.908+/-68.592  $\chi^2/\text{NDF}$ : 82.7/40

All: 158.036+/-49.634  $\chi^2/\text{NDF}$ : 133.1/77

# asym\_sam7\_rms vs Slug, Sign Corrected



Right In: 338.408 $\pm$ 0.101  $\chi^2/\text{NDF}$ : 2009287.1/16

Left Out: 324.186 $\pm$ 0.057  $\chi^2/\text{NDF}$ : 906135.0/21

Right Out: 309.081 $\pm$ 0.092  $\chi^2/\text{NDF}$ : 2733465.5/18

Left In: 323.242 $\pm$ 0.059  $\chi^2/\text{NDF}$ : 831382.2/19

Left: 323.728 $\pm$ 0.041  $\chi^2/\text{NDF}$ : 1737649.5/41

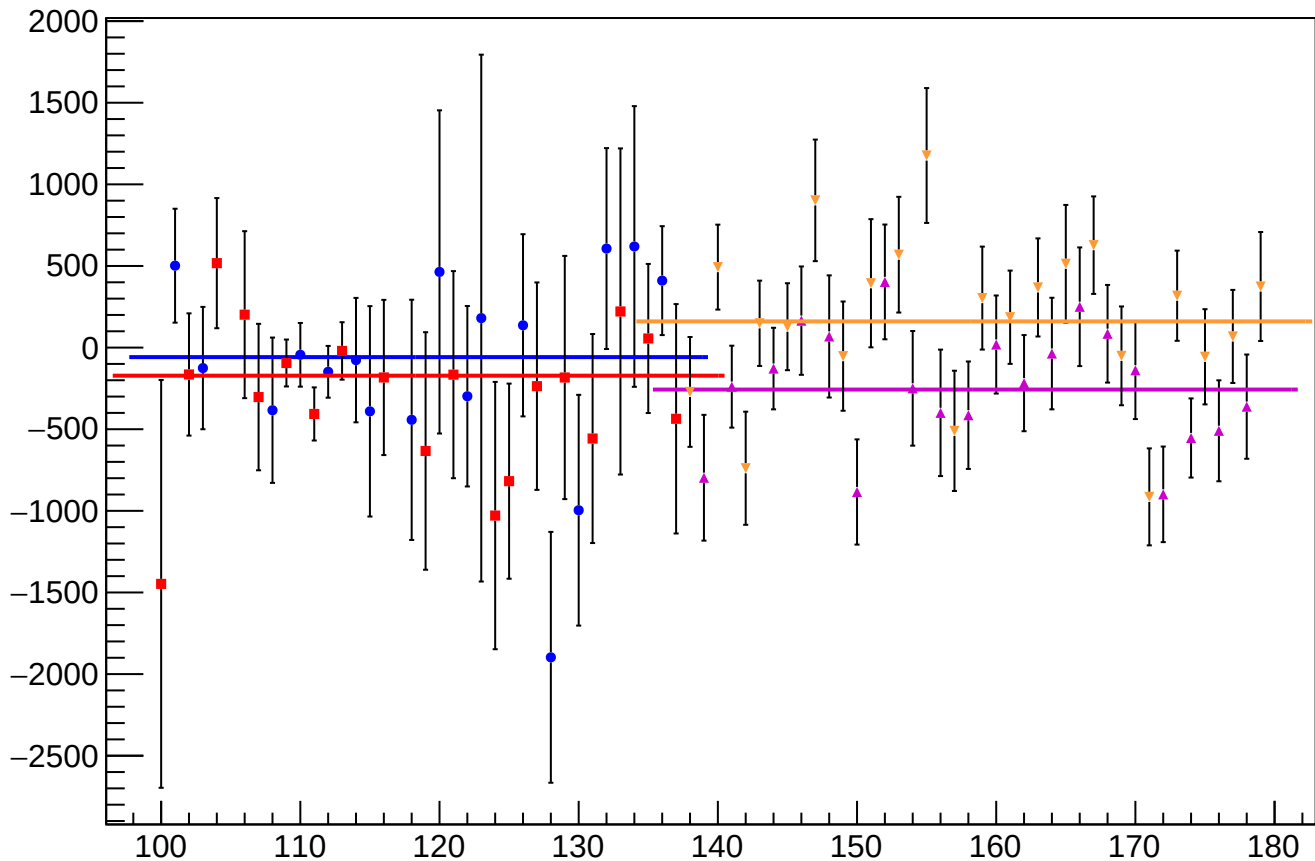
Right: 322.325 $\pm$ 0.068  $\chi^2/\text{NDF}$ : 4788966.2/35

In: 327.084 $\pm$ 0.051  $\chi^2/\text{NDF}$ : 2857495.5/36

Out: 319.958 $\pm$ 0.049  $\chi^2/\text{NDF}$ : 3659148.5/40

All: 323.353 $\pm$ 0.035  $\chi^2/\text{NDF}$ : 6526928.4/77

# asym\_sam8\_mean vs Slug, Sign Corrected



Right In:  $-58.299 \pm 90.484$   $\chi^2/\text{NDF}: 15.9/16$

Left Out:  $160.570 \pm 66.639$   $\chi^2/\text{NDF}: 44.5/21$

Right Out:  $-171.954 \pm 76.920$   $\chi^2/\text{NDF}: 11.3/18$

Left In:  $-257.045 \pm 69.565$   $\chi^2/\text{NDF}: 24.0/19$

Left:  $-39.269 \pm 48.122$   $\chi^2/\text{NDF}: 87.4/41$

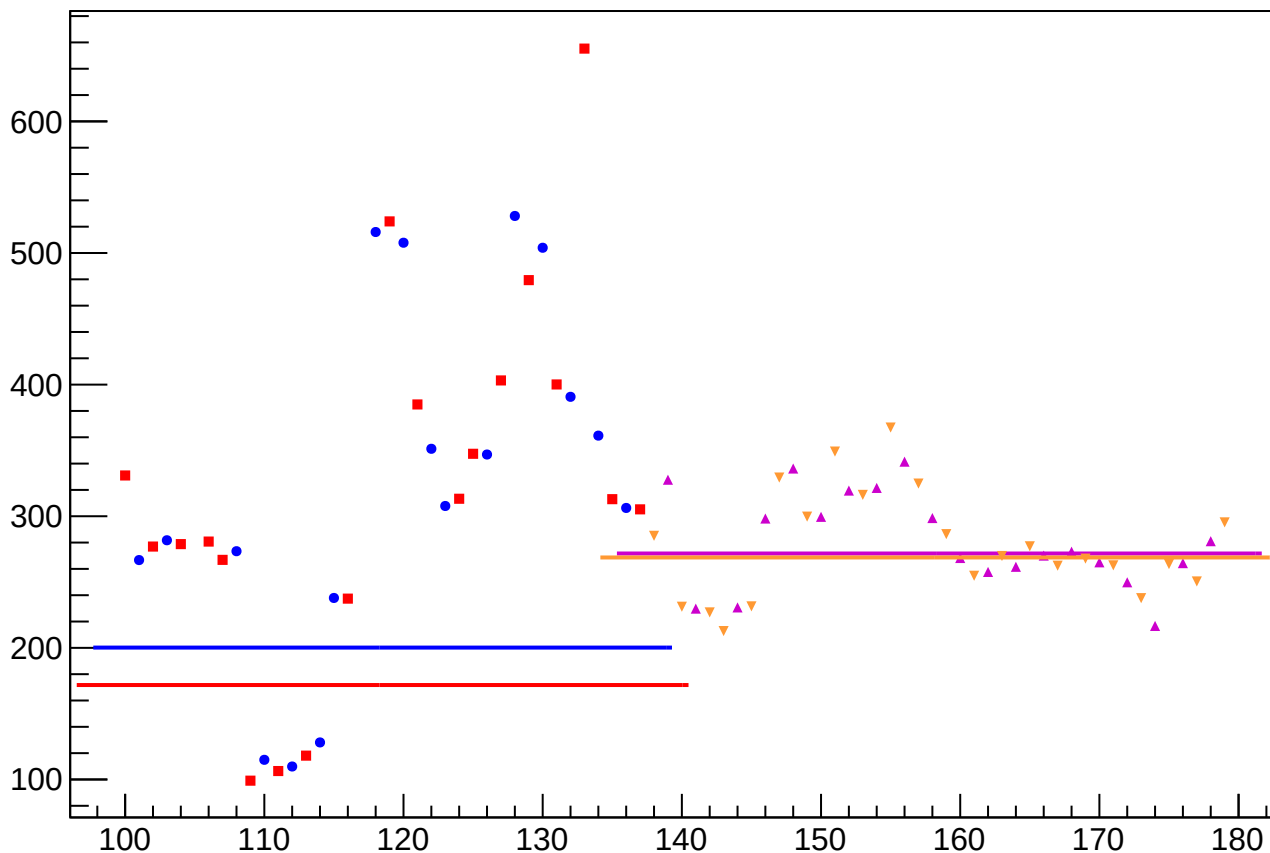
Right:  $-124.276 \pm 58.606$   $\chi^2/\text{NDF}: 28.1/35$

In:  $-183.213 \pm 55.150$   $\chi^2/\text{NDF}: 43.0/36$

Out:  $18.001 \pm 50.366$   $\chi^2/\text{NDF}: 66.5/40$

All:  $-73.502 \pm 37.191$   $\chi^2/\text{NDF}: 116.8/77$

# asym\_sam8\_rms vs Slug, Sign Corrected



Right In:  $200.209 \pm 0.064$   $\chi^2/\text{NDF}: 3387197.7/16$

Left Out:  $268.672 \pm 0.047$   $\chi^2/\text{NDF}: 617277.5/21$

Right Out:  $171.757 \pm 0.054$   $\chi^2/\text{NDF}: 4093922.6/18$

Left In:  $271.689 \pm 0.049$   $\chi^2/\text{NDF}: 519376.0/19$

Left:  $270.116 \pm 0.034$   $\chi^2/\text{NDF}: 1138615.1/41$

Right:  $183.693 \pm 0.041$   $\chi^2/\text{NDF}: 7595909.3/35$

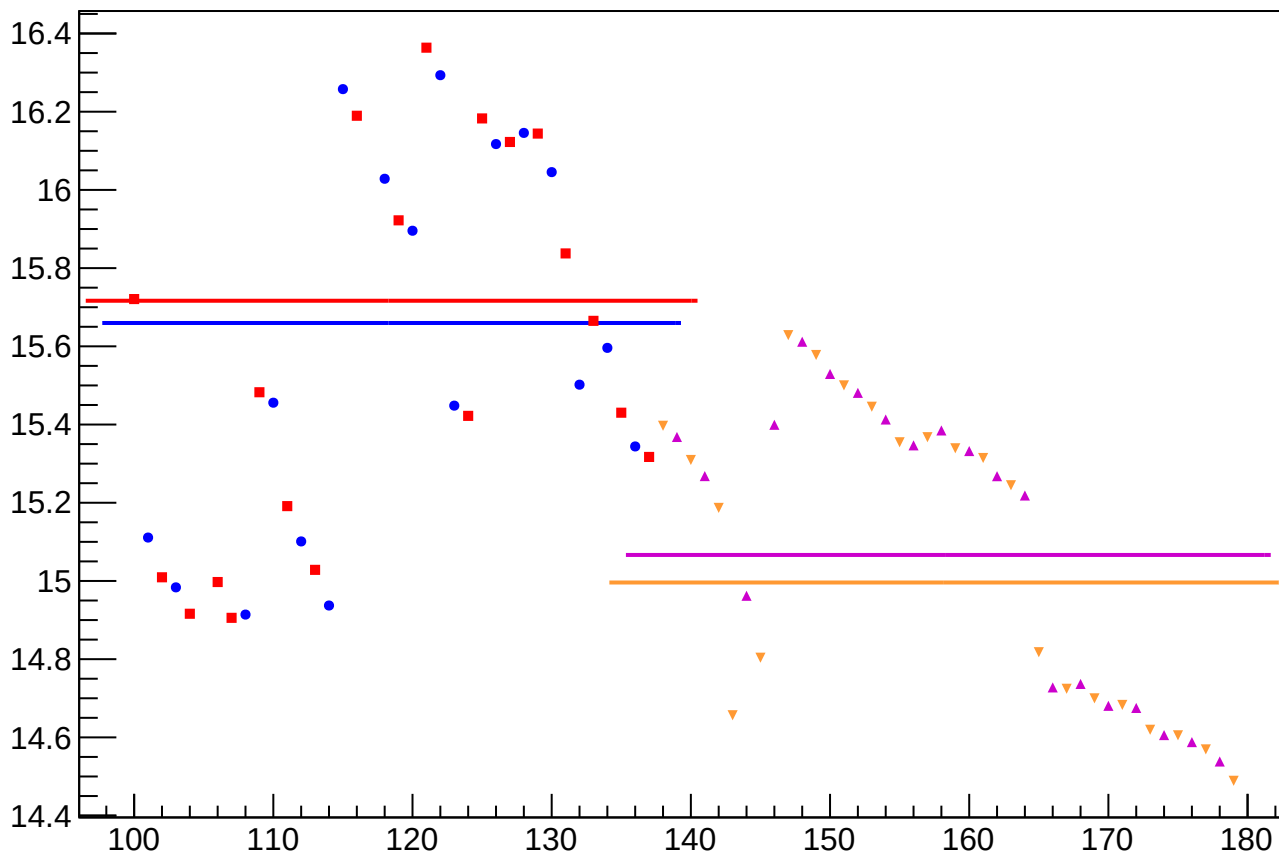
In:  $245.135 \pm 0.039$   $\chi^2/\text{NDF}: 4691030.2/36$

Out:  $227.120 \pm 0.036$   $\chi^2/\text{NDF}: 6524892.0/40$

All:  $235.312 \pm 0.026$   $\chi^2/\text{NDF}: 11332277.8/77$



# yield\_sam1\_mean vs Slug, Sign Corrected



Right In: 15.660 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 5782644553.5/16

Left Out: 14.996 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 20340324993.6/21

Right Out: 15.717 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 5461829475.3/18

Left In: 15.067 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 16686078720.1/19

Left: 15.029 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 37369754303.6/41

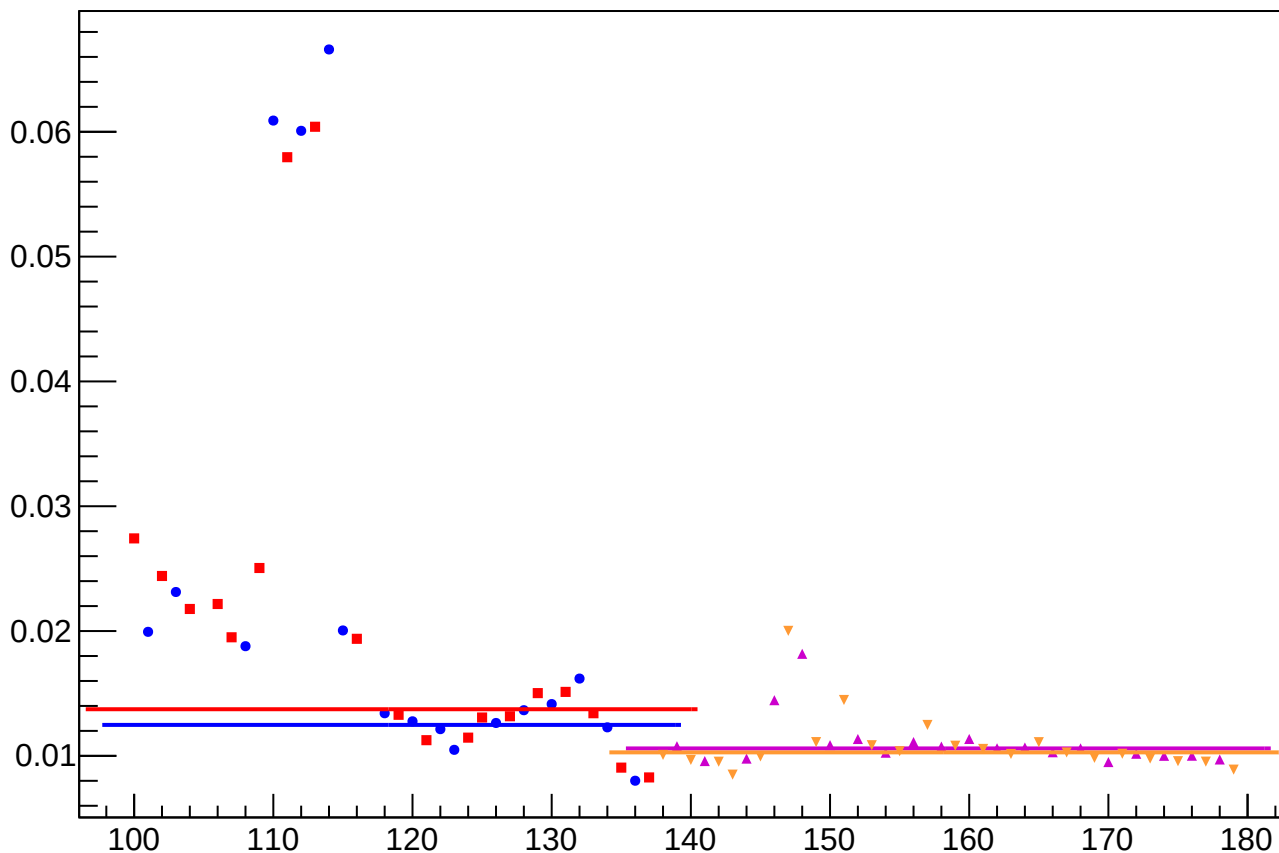
Right: 15.686 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 11294352327.9/35

In: 15.186 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 31759746160.3/36

Out: 15.114 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 38328340575.8/40

All: 15.149 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 70530966744.1

# yield\_sam1\_rms vs Slug, Sign Corrected



Right In: 0.012+/-0.000     $\chi^2/\text{NDF}$ : 2152911.4/16

Left Out: 0.010+/-0.000     $\chi^2/\text{NDF}$ :674551.3/21

Right Out: 0.014+/-0.000     $\chi^2/\text{NDF}$ : 2077569.4/18

Left In: 0.011+/-0.000     $\chi^2/\text{NDF}$ :465805.6/19

Left: 0.010+/-0.000     $\chi^2/\text{NDF}$ : 1154110.2/41

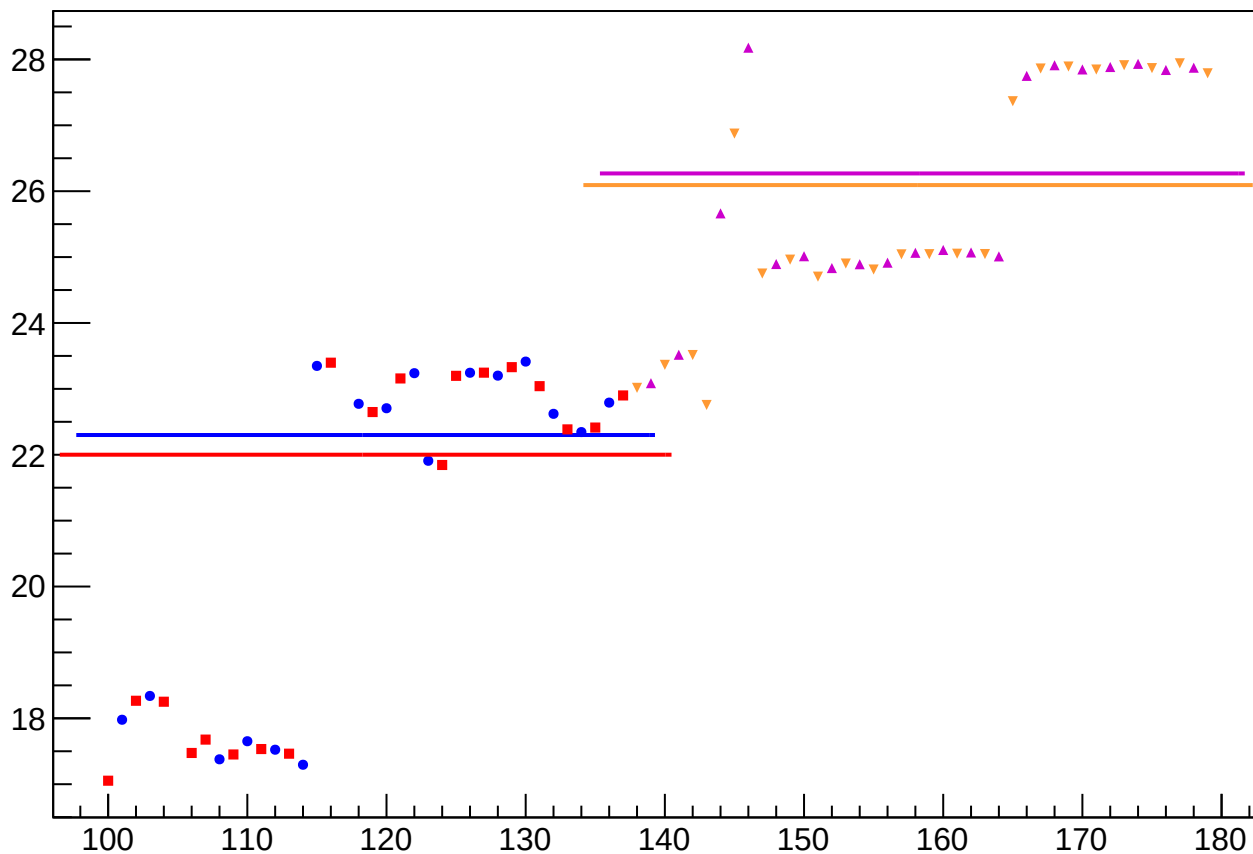
Right: 0.013+/-0.000     $\chi^2/\text{NDF}$ : 4279107.1/35

In: 0.011+/-0.000     $\chi^2/\text{NDF}$ :2806403.7/36

Out: 0.011+/-0.000     $\chi^2/\text{NDF}$ :3328596.6/40

All: 0.011+/-0.000     $\chi^2/\text{NDF}$ : 6137857.5/77

# yield\_sam2\_mean vs Slug, Sign Corrected



Right In: 22.300+/-0.000  $\chi^2/\text{NDF}$ : 938398636.8/16

Left Out: 26.093+/-0.000  $\chi^2/\text{NDF}$ : 3904609017.2/21

Right Out: 22.001+/-0.000  $\chi^2/\text{NDF}$ : 1066041325.5/18

Left In: 26.269+/-0.000  $\chi^2/\text{NDF}$ : 2801543841.4/19

Left: 26.176+/-0.000  $\chi^2/\text{NDF}$ : 6724174142.3/41

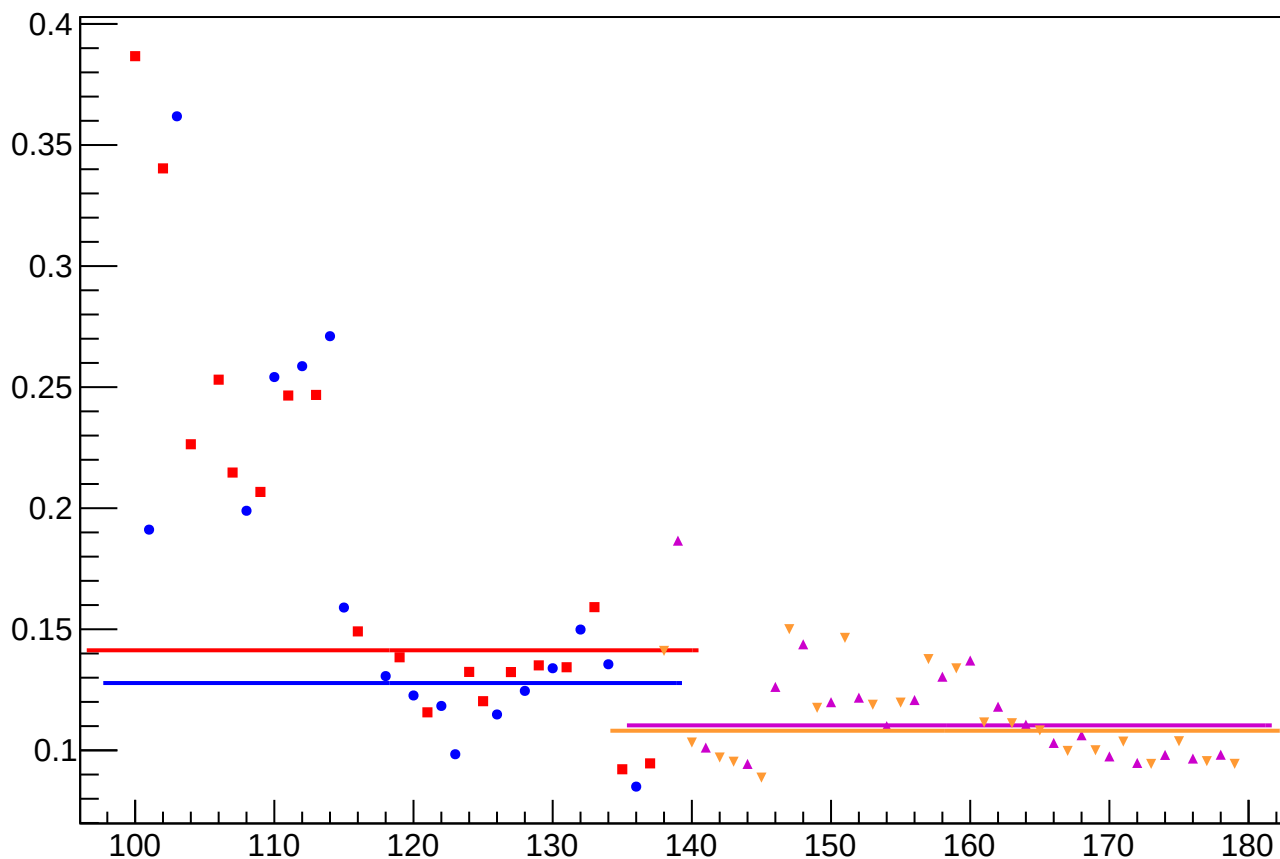
Right: 22.159+/-0.000  $\chi^2/\text{NDF}$ : 2017477949.3/35

In: 25.395+/-0.000  $\chi^2/\text{NDF}$ : 7545182495.9/36

Out: 25.338+/-0.000  $\chi^2/\text{NDF}$ : 8735992703.1/40

All: 25.365+/-0.000  $\chi^2/\text{NDF}$ : 16283548044.1

# yield\_sam2\_rms vs Slug, Sign Corrected



Right In: 0.128+/-0.000  $\chi^2/\text{NDF}$ : 1492109.7/16

Left Out: 0.108+/-0.000  $\chi^2/\text{NDF}$ :628019.0/21

Right Out: 0.141+/-0.000  $\chi^2/\text{NDF}$ : 1449275.1/18

Left In: 0.110+/-0.000  $\chi^2/\text{NDF}$ :653682.1/19

Left: 0.109+/-0.000  $\chi^2/\text{NDF}$ : 1287357.3/41

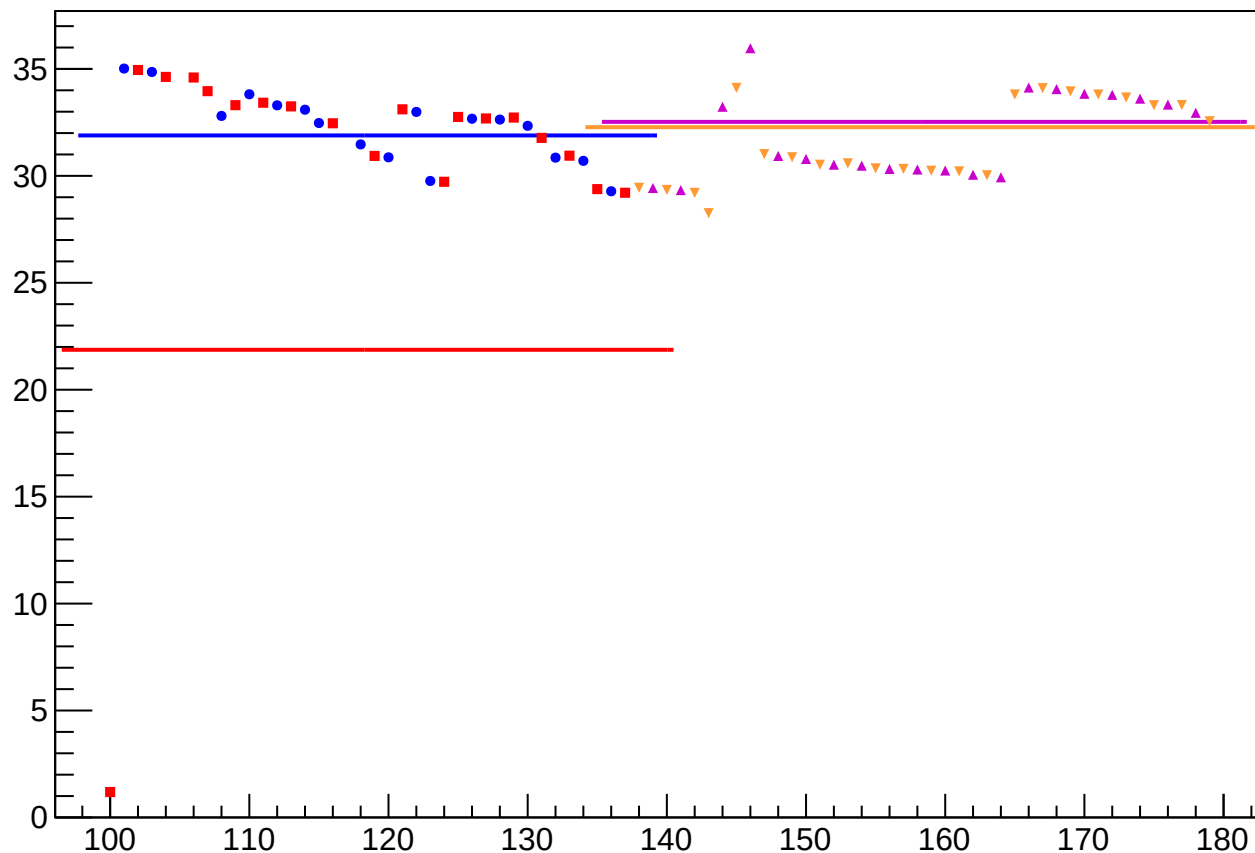
Right: 0.134+/-0.000  $\chi^2/\text{NDF}$ : 2994732.7/35

In: 0.114+/-0.000  $\chi^2/\text{NDF}$ :2293383.2/36

Out: 0.114+/-0.000  $\chi^2/\text{NDF}$ :2573564.1/40

All: 0.114+/-0.000  $\chi^2/\text{NDF}$ : 4866953.3/77

# yield\_sam3\_mean vs Slug, Sign Corrected



Right In: 31.889+/-0.000

$\chi^2/\text{NDF}$ : 1930403776.3/16

Left: 32.397+/-0.000

$\chi^2/\text{NDF}$ : 23906631815.8/41

Left Out: 32.275+/-0.000

$\chi^2/\text{NDF}$ : 12094286205.2/21

Right: 25.887+/-0.000

$\chi^2/\text{NDF}$ : 274879927198.7/35

Right Out: 21.867+/-0.000

$\chi^2/\text{NDF}$ : 230068750081.7/18

In: 32.416+/-0.000

$\chi^2/\text{NDF}$ : 13871627026.6/36

Out: 29.905+/-0.000

$\chi^2/\text{NDF}$ : 331203948994.3/40

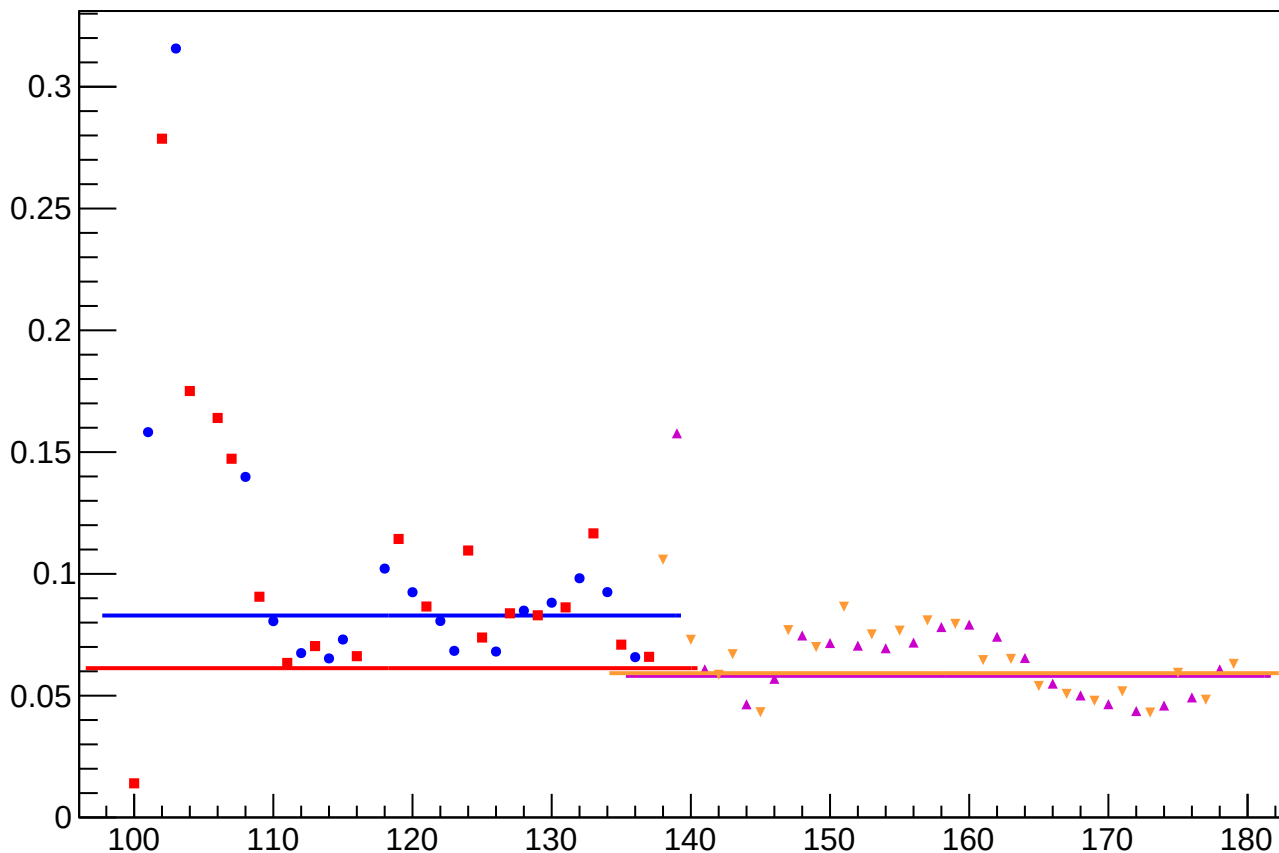
Left In: 32.524+/-0.000

$\chi^2/\text{NDF}$ : 11702957664.3/19

All: 31.091+/-0.000

$\chi^2/\text{NDF}$ : 358993703086.0

# yield\_sam3\_rms vs Slug, Sign Corrected



Right In: 0.083 $\pm$ 0.000  $\chi^2$ /NDF: 1164452.3/16

Left Out: 0.059 $\pm$ 0.000  $\chi^2$ /NDF:1357124.6/21

Right Out: 0.061 $\pm$ 0.000  $\chi^2$ /NDF: 3603853.3/18

Left In: 0.058 $\pm$ 0.000  $\chi^2$ /NDF:1513916.5/19

Left: 0.059 $\pm$ 0.000  $\chi^2$ /NDF: 2875208.5/41

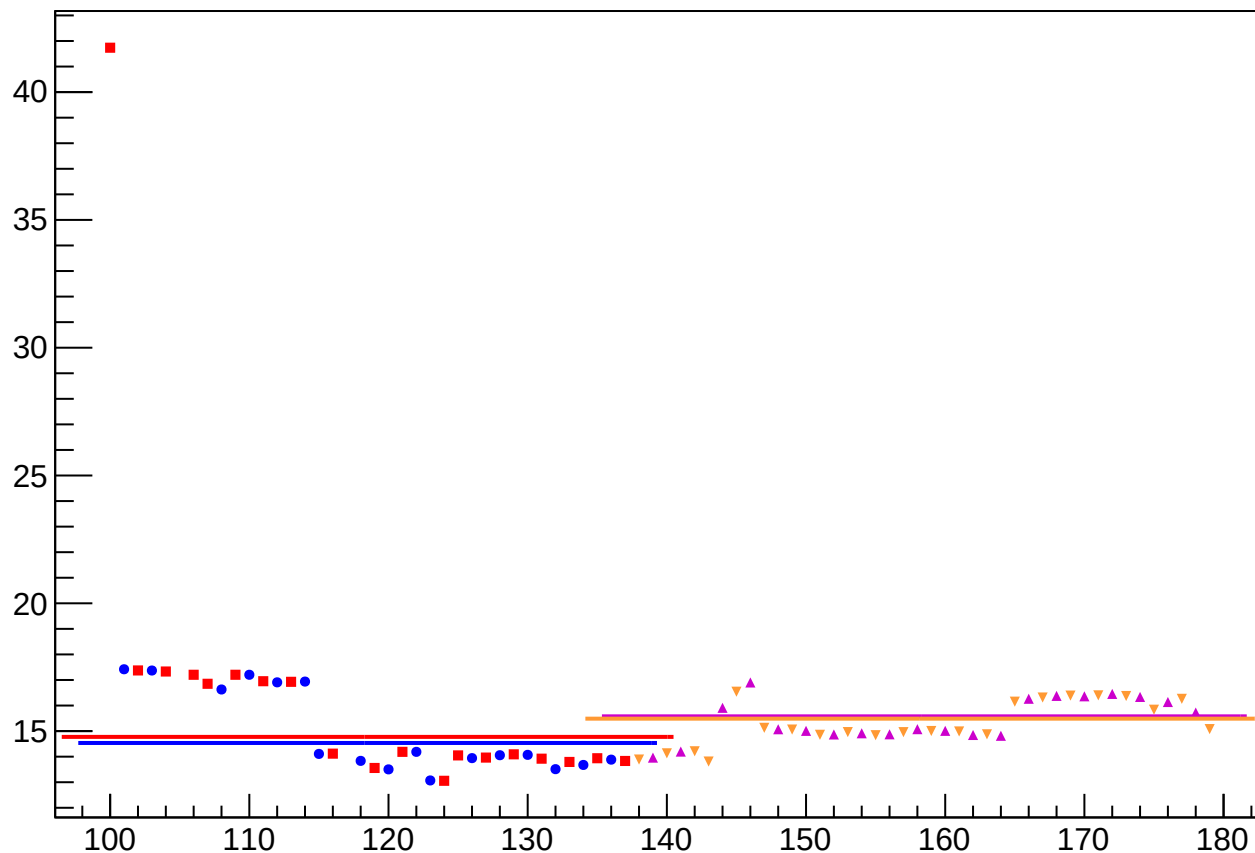
Right: 0.070 $\pm$ 0.000  $\chi^2$ /NDF: 5167150.6/35

In: 0.062 $\pm$ 0.000  $\chi^2$ /NDF:3403286.2/36

Out: 0.060 $\pm$ 0.000  $\chi^2$ /NDF:4967949.8/40

All: 0.061 $\pm$ 0.000  $\chi^2$ /NDF: 8402590.9/77

# yield\_sam4\_mean vs Slug, Sign Corrected



Right In: 14.536+/-0.000  $\chi^2/\text{NDF}$ : 1470499792.7/16

Left Out: 15.487+/-0.000  $\chi^2/\text{NDF}$ : 2379053011.9/21

Right Out: 14.774+/-0.000  $\chi^2/\text{NDF}$ : 1886755709.2/18

Left In: 15.577+/-0.000  $\chi^2/\text{NDF}$ : 1871311787.5/19

Left: 15.530+/-0.000  $\chi^2/\text{NDF}$ : 4263834438.2/41

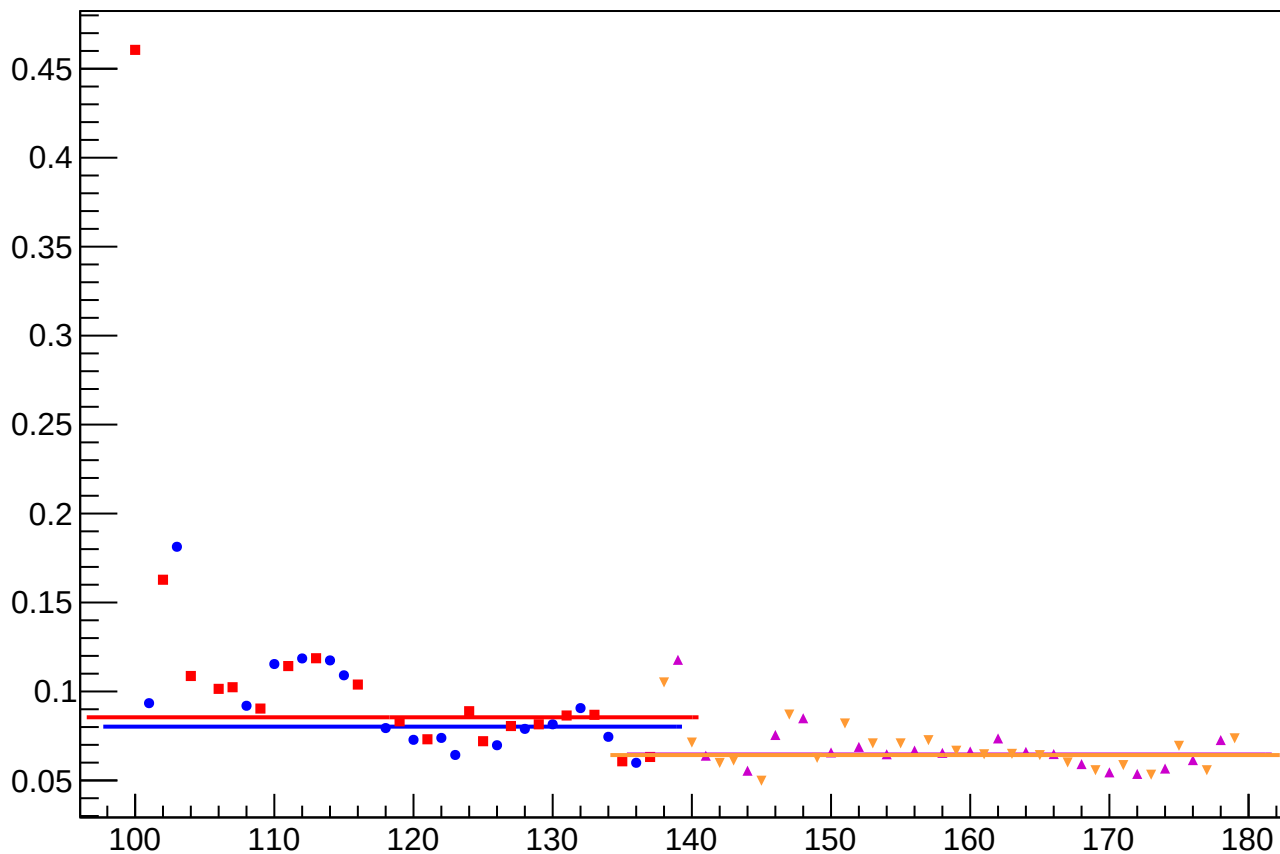
Right: 14.651+/-0.000  $\chi^2/\text{NDF}$ : 3380785876.4/35

In: 15.355+/-0.000  $\chi^2/\text{NDF}$ : 4073440740.0/36

Out: 15.350+/-0.000  $\chi^2/\text{NDF}$ : 4596216786.7/40

All: 15.352+/-0.000  $\chi^2/\text{NDF}$ : 8669695614.0/71

# yield\_sam4\_rms vs Slug, Sign Corrected



Right In: 0.080+/-0.000  $\chi^2/\text{NDF}$ : 778734.5/16

Left Out: 0.064+/-0.000  $\chi^2/\text{NDF}$ : 688381.4/21

Right Out: 0.085+/-0.000  $\chi^2/\text{NDF}$ : 738043.0/18

Left In: 0.065+/-0.000  $\chi^2/\text{NDF}$ : 623540.2/19

Left: 0.064+/-0.000  $\chi^2/\text{NDF}$ : 1312294.4/41

Right: 0.083+/-0.000  $\chi^2/\text{NDF}$ : 1539722.7/35

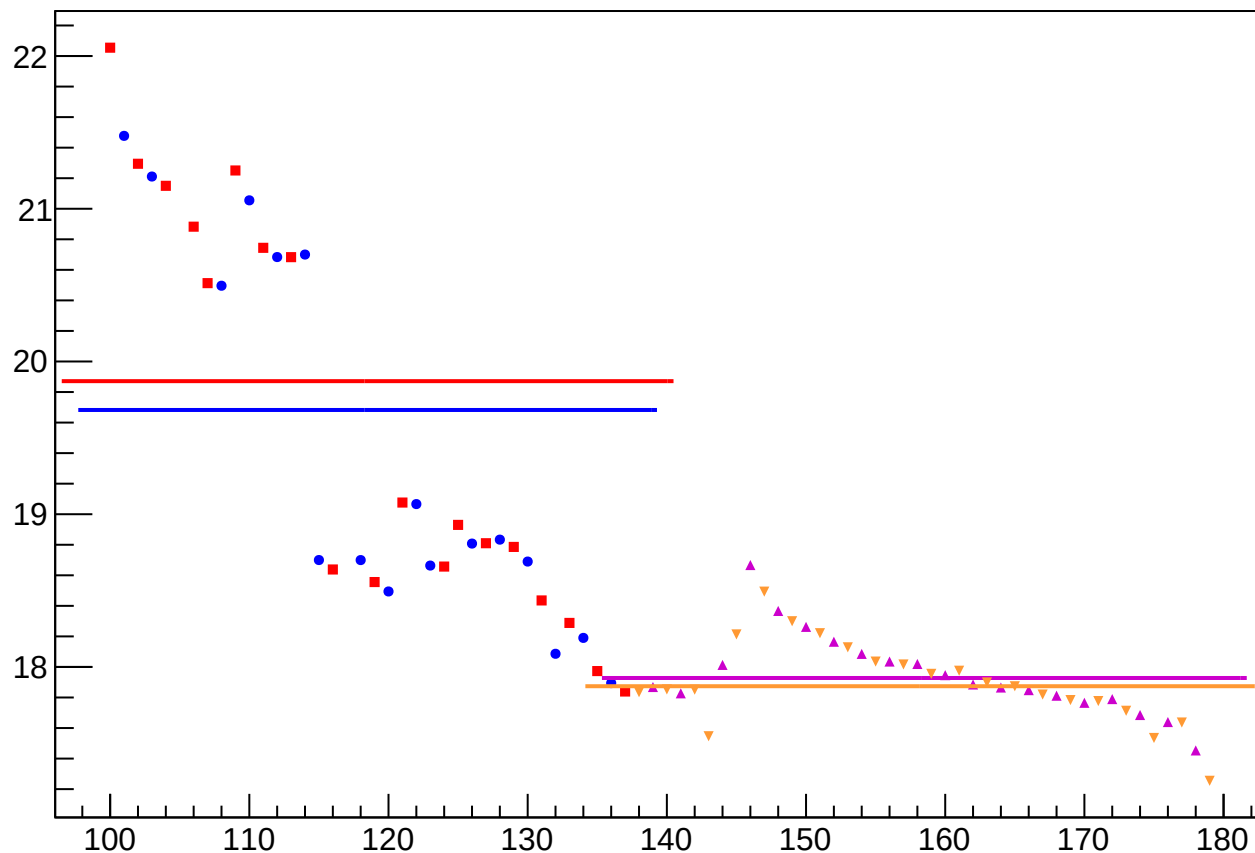
In: 0.068+/-0.000  $\chi^2/\text{NDF}$ : 1731938.5/36

Out: 0.068+/-0.000  $\chi^2/\text{NDF}$ : 2012636.2/40

All: 0.068+/-0.000  $\chi^2/\text{NDF}$ : 3745165.2/77



# yield\_sam5\_mean vs Slug, Sign Corrected



Right In: 19.683+/-0.000  $\chi^2/\text{NDF}$ : 12276801857.2/16

Left Out: 17.874+/-0.000  $\chi^2/\text{NDF}$ : 1089827728.0/21

Right Out: 19.871+/-0.000  $\chi^2/\text{NDF}$ : 11324266794.7/18

Left In: 17.928+/-0.000  $\chi^2/\text{NDF}$ : 899450508.2/19

Left: 17.900+/-0.000  $\chi^2/\text{NDF}$ : 2012831800.1/41

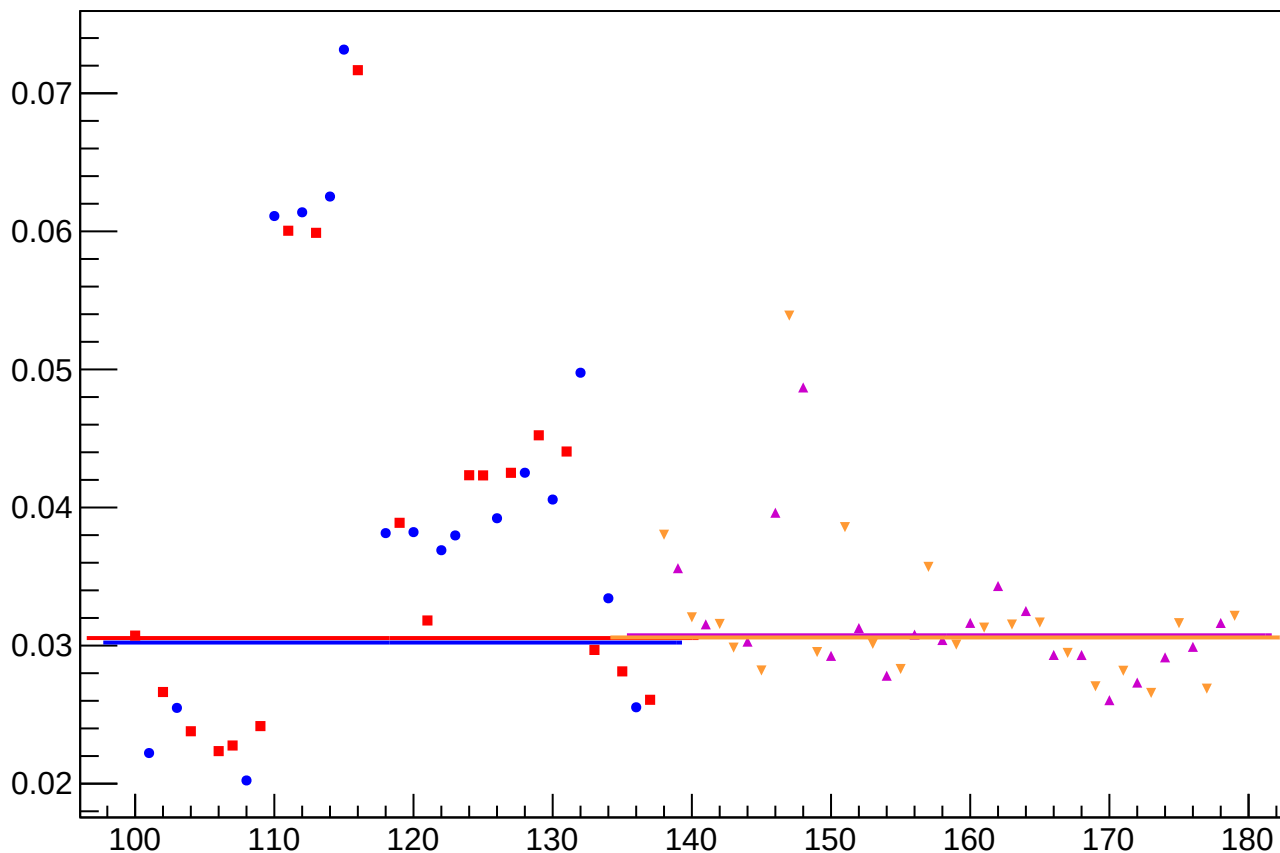
Right: 17.778+/-0.000  $\chi^2/\text{NDF}$ : 23711776447.8/35

In: 18.421+/-0.000  $\chi^2/\text{NDF}$ : 26708568645.2/36

Out: 18.420+/-0.000  $\chi^2/\text{NDF}$ : 30746162263.6/40

All: 18.421+/-0.000  $\chi^2/\text{NDF}$ : 57454757539.7

# yield\_sam5\_rms vs Slug, Sign Corrected



Right In: 0.030+/-0.000  $\chi^2/\text{NDF}$ : 1324518.2/16

Left Out: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 565715.9/21

Right Out: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 1189734.1/18

Left In: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 439513.5/19

Left: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 1005625.6/41

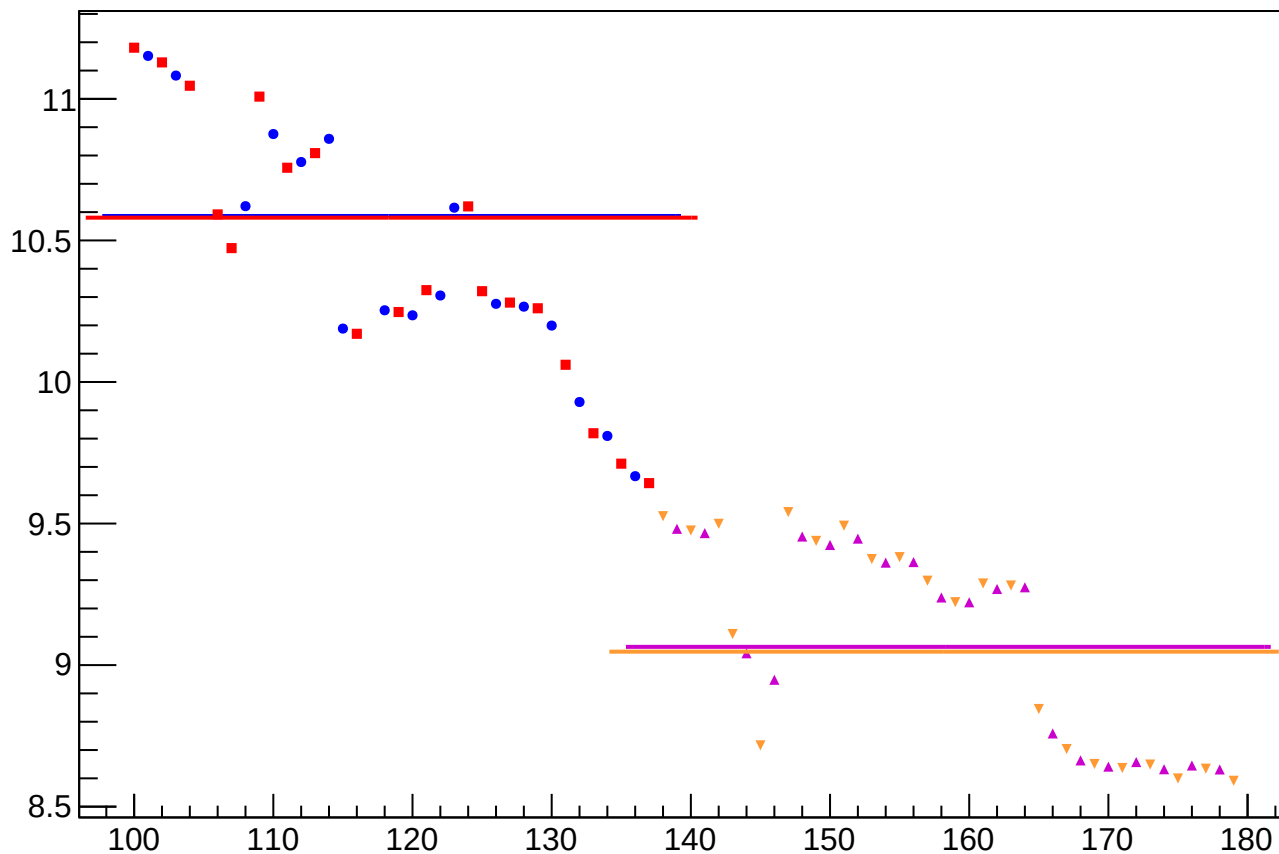
Right: 0.030+/-0.000  $\chi^2/\text{NDF}$ : 2514909.2/35

In: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 1766451.2/36

Out: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 1755467.1/40

All: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 3521927.9/77

# yield\_sam6\_mean vs Slug, Sign Corrected



Right In: 10.586 $\pm$ 0.000  $\chi^2$ /NDF: 7420104563.4/16

Left Out: 9.047 $\pm$ 0.000  $\chi^2$ /NDF: 5488162139.8/21

Right Out: 10.580 $\pm$ 0.000  $\chi^2$ /NDF: 5763852721.2/18

Left In: 9.064 $\pm$ 0.000  $\chi^2$ /NDF: 4222255034.3/19

Left: 9.055 $\pm$ 0.000  $\chi^2$ /NDF: 9716034358.3/41

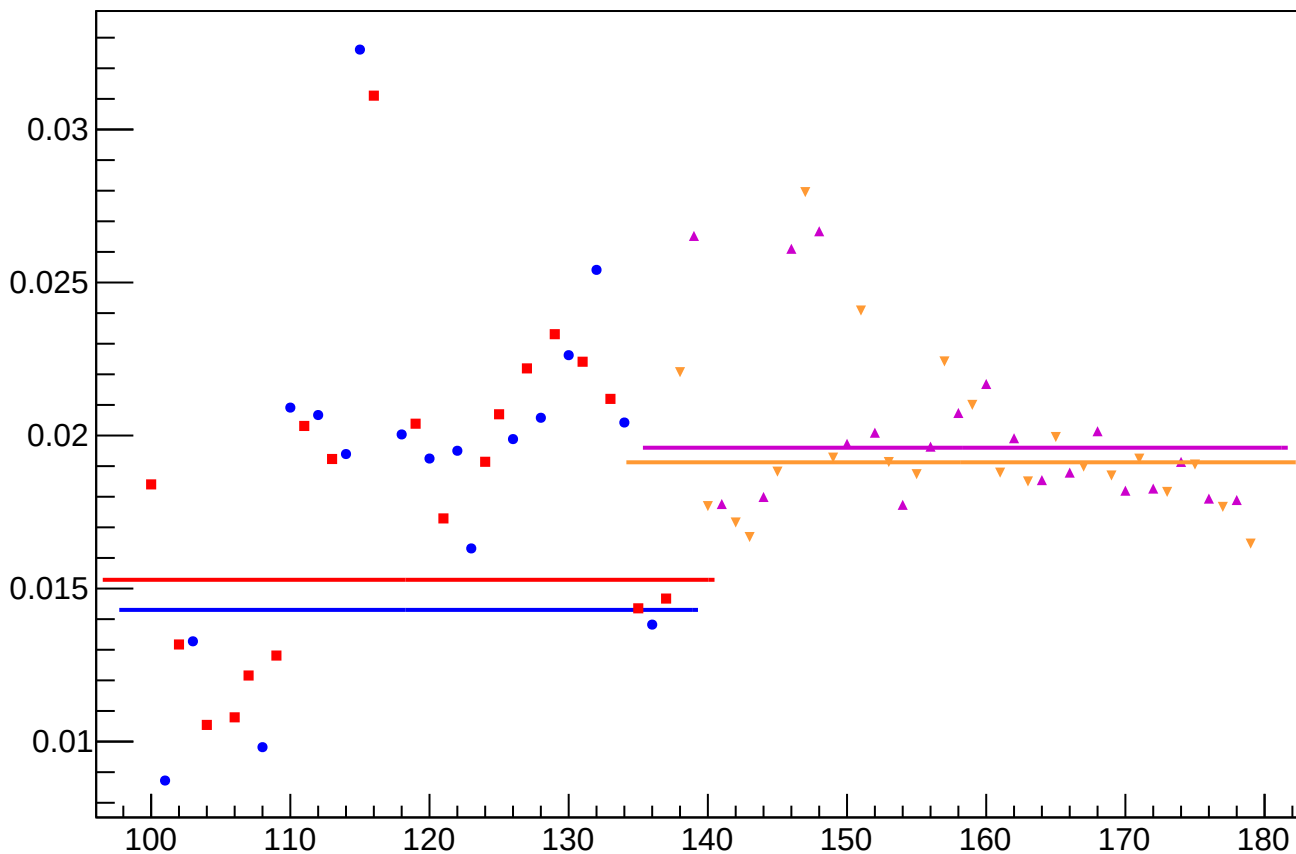
Right: 10.583 $\pm$ 0.000  $\chi^2$ /NDF: 13184410027.5/35

In: 9.696 $\pm$ 0.000  $\chi^2$ /NDF: 46929334418.0/36

Out: 9.629 $\pm$ 0.000  $\chi^2$ /NDF: 48093634655.3/40

All: 9.662 $\pm$ 0.000  $\chi^2$ /NDF: 95166206031.3/77

# yield\_sam6\_rms vs Slug, Sign Corrected



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1408012.0/16

Left Out: 0.019 $\pm$ 0.000  $\chi^2$ /NDF:381886.5/21

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 989017.0/18

Left In: 0.020 $\pm$ 0.000  $\chi^2$ /NDF:406896.2/19

Left: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 797597.5/41

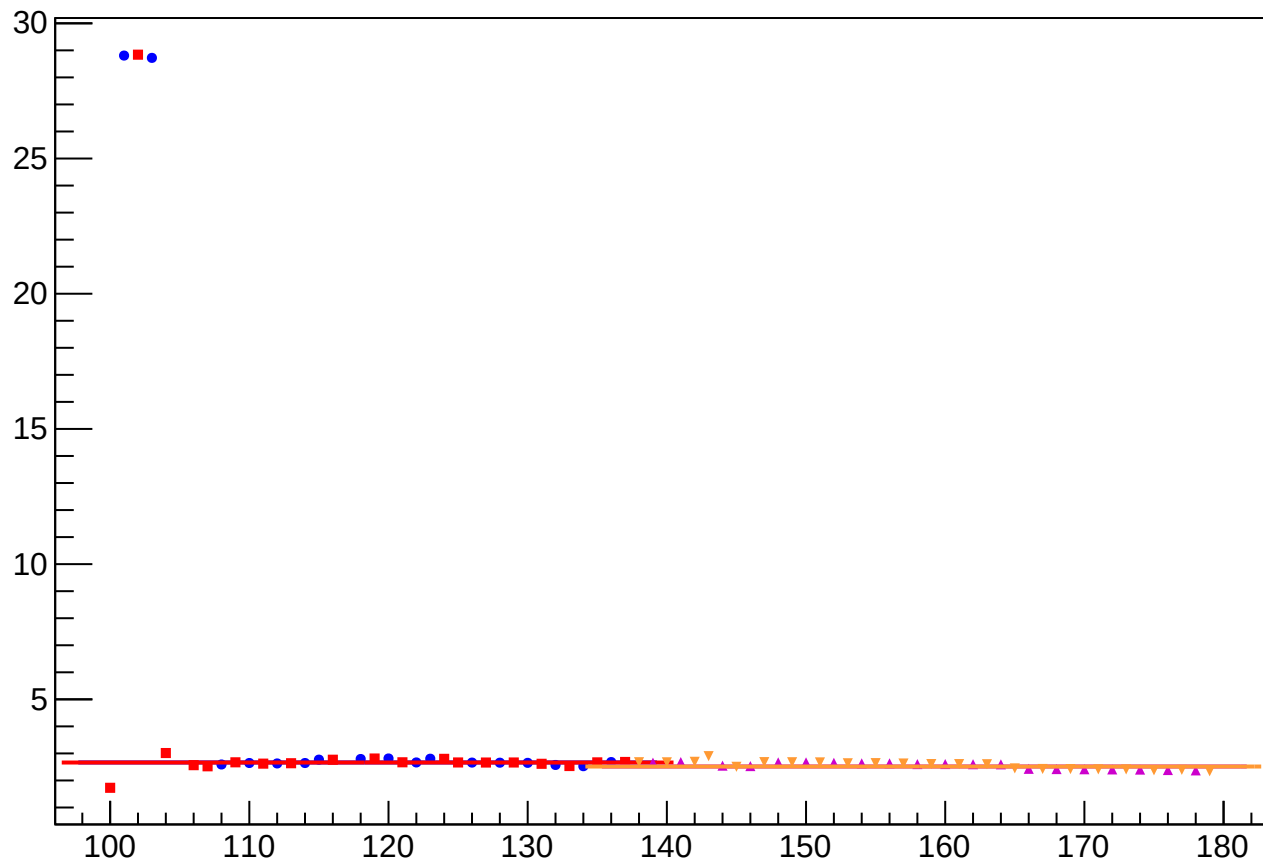
Right: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 2421831.8/35

In: 0.017 $\pm$ 0.000  $\chi^2$ /NDF:2670461.1/36

Out: 0.018 $\pm$ 0.000  $\chi^2$ /NDF:1833099.1/40

All: 0.018 $\pm$ 0.000  $\chi^2$ /NDF: 4508099.7/77

# yield\_sam7\_mean vs Slug, Sign Corrected



Right In: 2.666+/-0.000  $\chi^2/\text{NDF}$ : 163167327359.4/16

Left Out: 2.515+/-0.000  $\chi^2/\text{NDF}$ : 55891506352.2/21

Right Out: 2.664+/-0.000  $\chi^2/\text{NDF}$ : 70398125461.7/18

Left In: 2.517+/-0.000  $\chi^2/\text{NDF}$ : 37642221339.2/19

Left: 2.516+/-0.000  $\chi^2/\text{NDF}$ : 93535627134.7/41

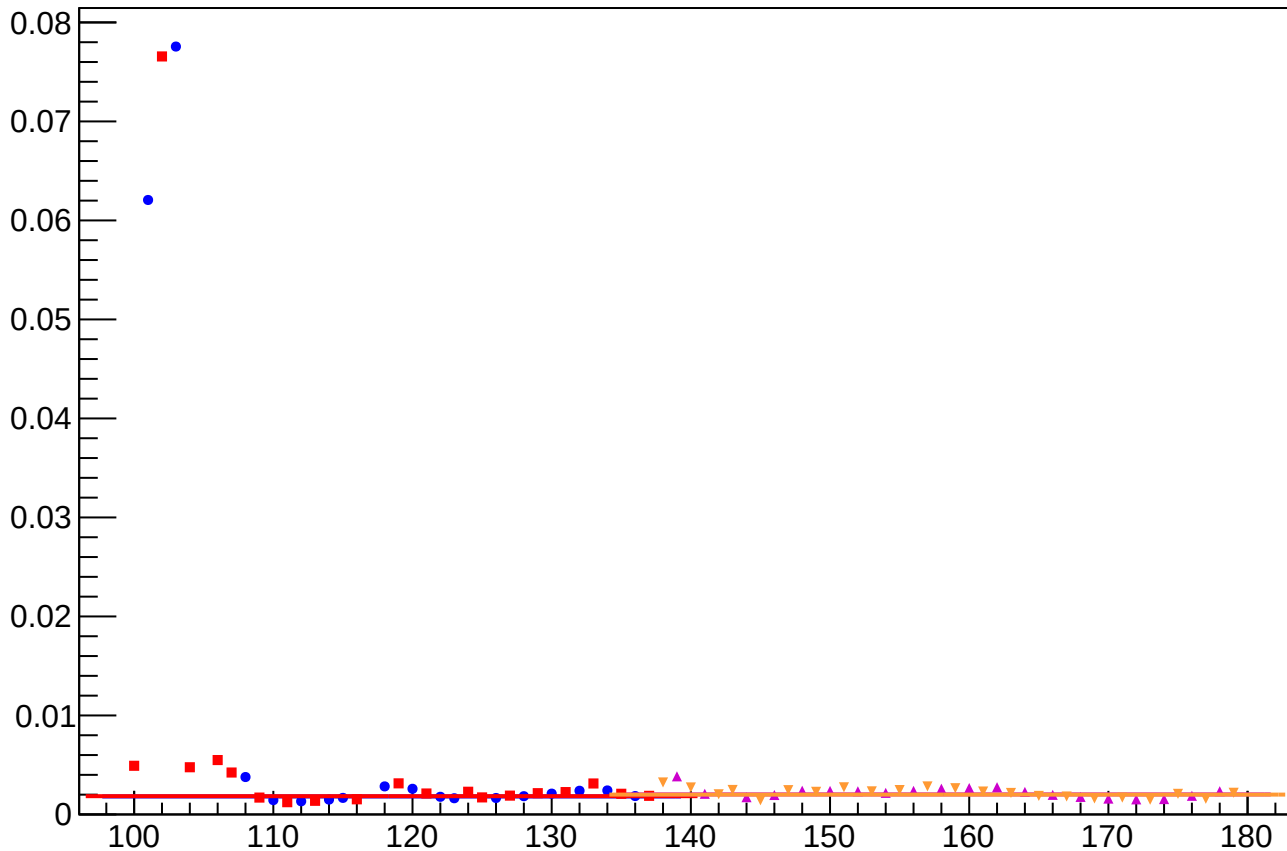
Right: 2.665+/-0.000  $\chi^2/\text{NDF}$ : 233569925265.6/35

In: 2.562+/-0.000  $\chi^2/\text{NDF}$ : 221692002418.7/36

Out: 2.560+/-0.000  $\chi^2/\text{NDF}$ : 148017635957.2/40

All: 2.561+/-0.000  $\chi^2/\text{NDF}$ : 369724236685.4

# yield\_sam7\_rms vs Slug, Sign Corrected



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 2661372.0/16

Left Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ :1354892.7/21

Right Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 2331228.4/18

Left In: 0.002+/-0.000  $\chi^2/\text{NDF}$ :1147250.8/19

Left: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 2503323.6/41

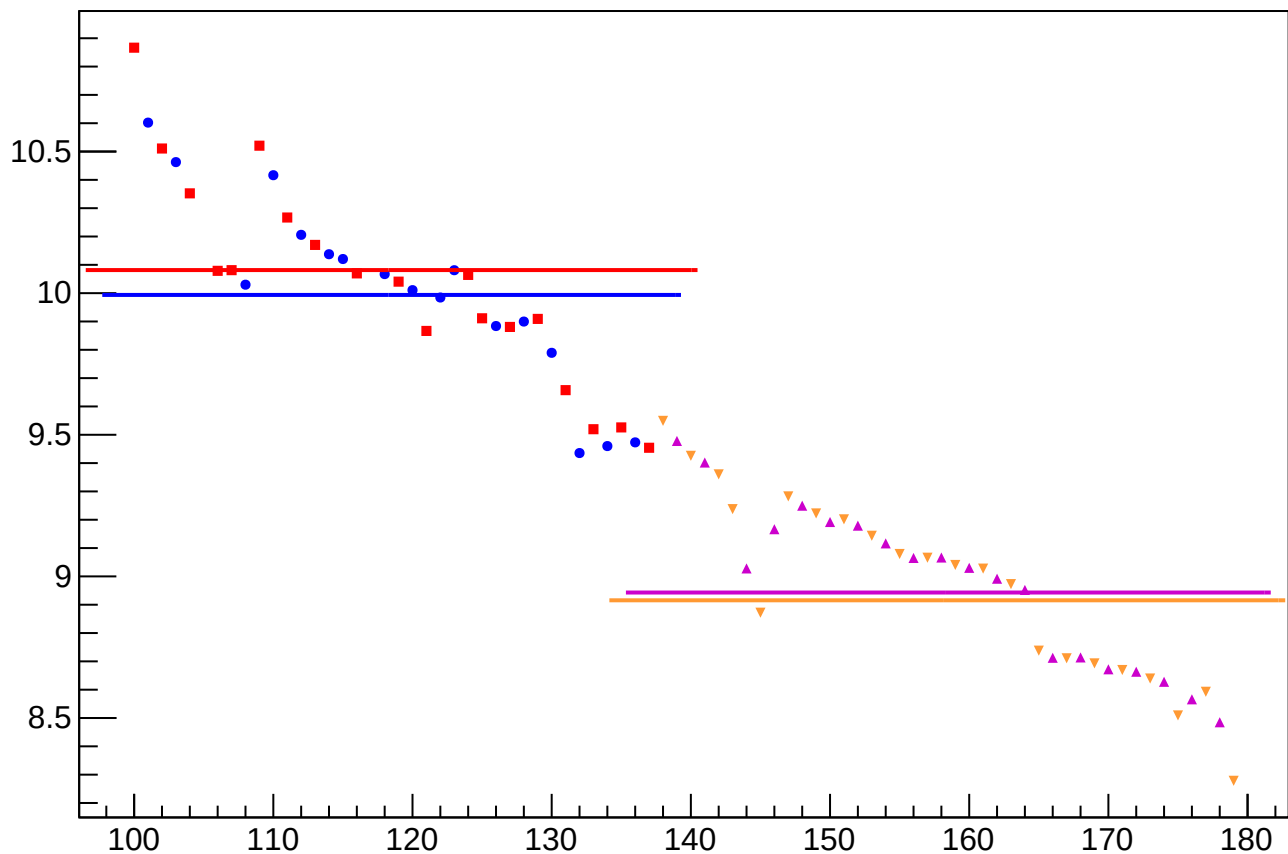
Right: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 4993749.3/35

In: 0.002+/-0.000  $\chi^2/\text{NDF}$ :3888912.6/36

Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ :3736338.2/40

All: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 7625305.5/77

# yield\_sam8\_mean vs Slug, Sign Corrected



Right In: 9.994 $\pm$ 0.000  $\chi^2$ /NDF: 18815741664.6/16

Left Out: 8.916 $\pm$ 0.000  $\chi^2$ /NDF: 29194270788.2/21

Right Out: 10.082 $\pm$ 0.000  $\chi^2$ /NDF: 15502695798.7/18

Left In: 8.943 $\pm$ 0.000  $\chi^2$ /NDF: 22721399402.7/19

Left: 8.929 $\pm$ 0.000  $\chi^2$ /NDF: 52046794798.7/41

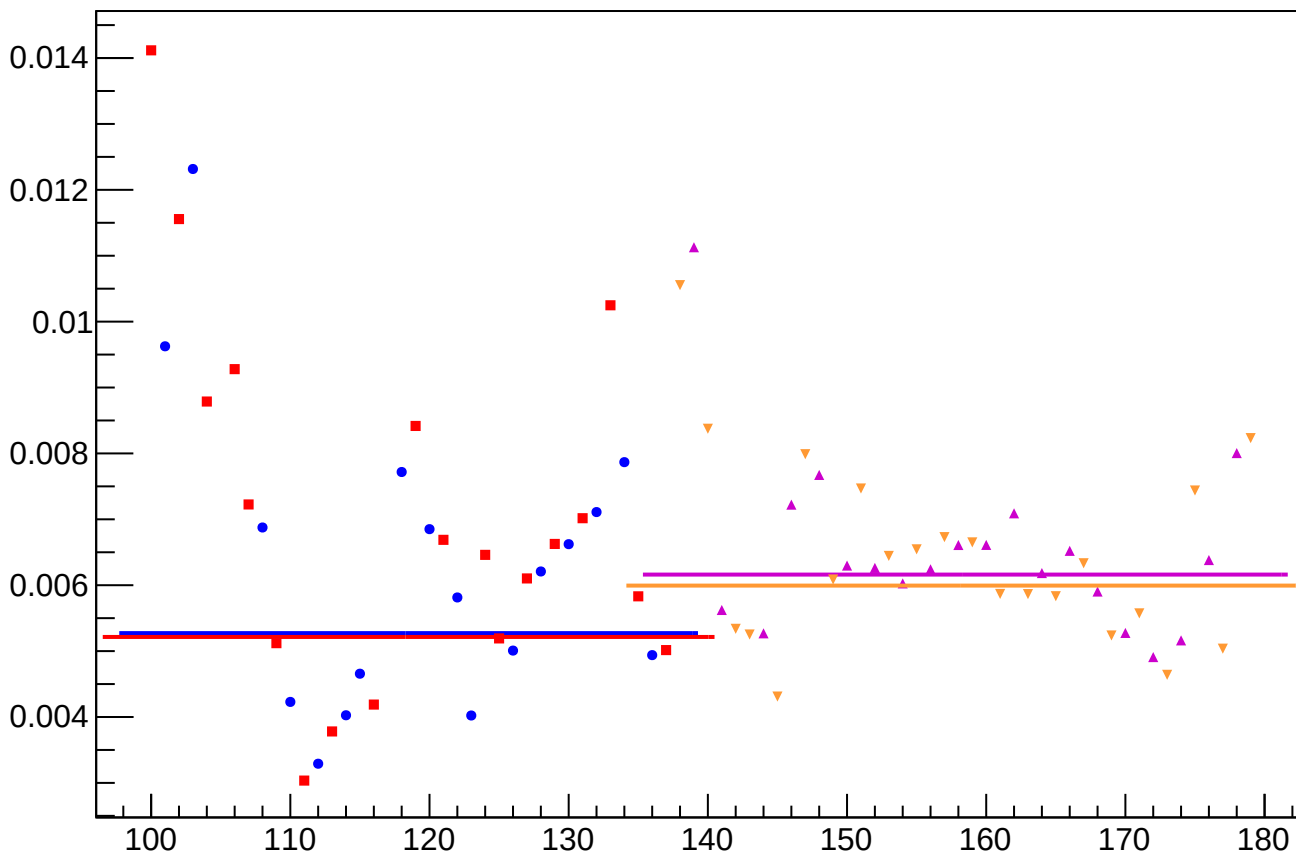
Right: 10.039 $\pm$ 0.000  $\chi^2$ /NDF: 35036056098.5/35

In: 9.316 $\pm$ 0.000  $\chi^2$ /NDF: 170370811864.2/36

Out: 9.315 $\pm$ 0.000  $\chi^2$ /NDF: 216375578064.8/40

All: 9.315 $\pm$ 0.000  $\chi^2$ /NDF: 386746407112.0

# yield\_sam8\_rms vs Slug, Sign Corrected



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1245563.1/16

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ :1041366.8/21

Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1657948.7/18

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :676869.7/19

Left: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1727931.0/41

Right: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 2904141.2/35

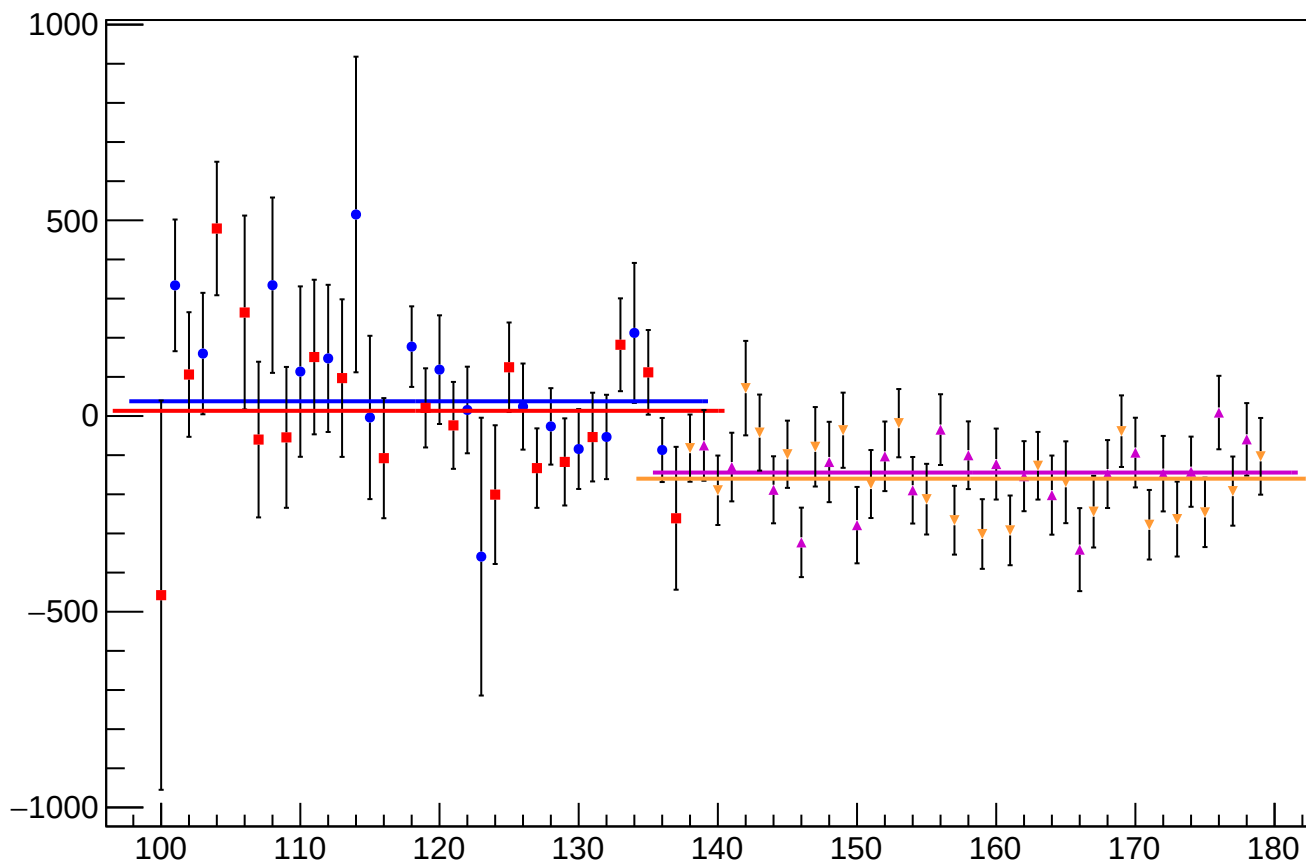
In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :2106617.1/36

Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ :2852770.1/40

All: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 4966983.8/77



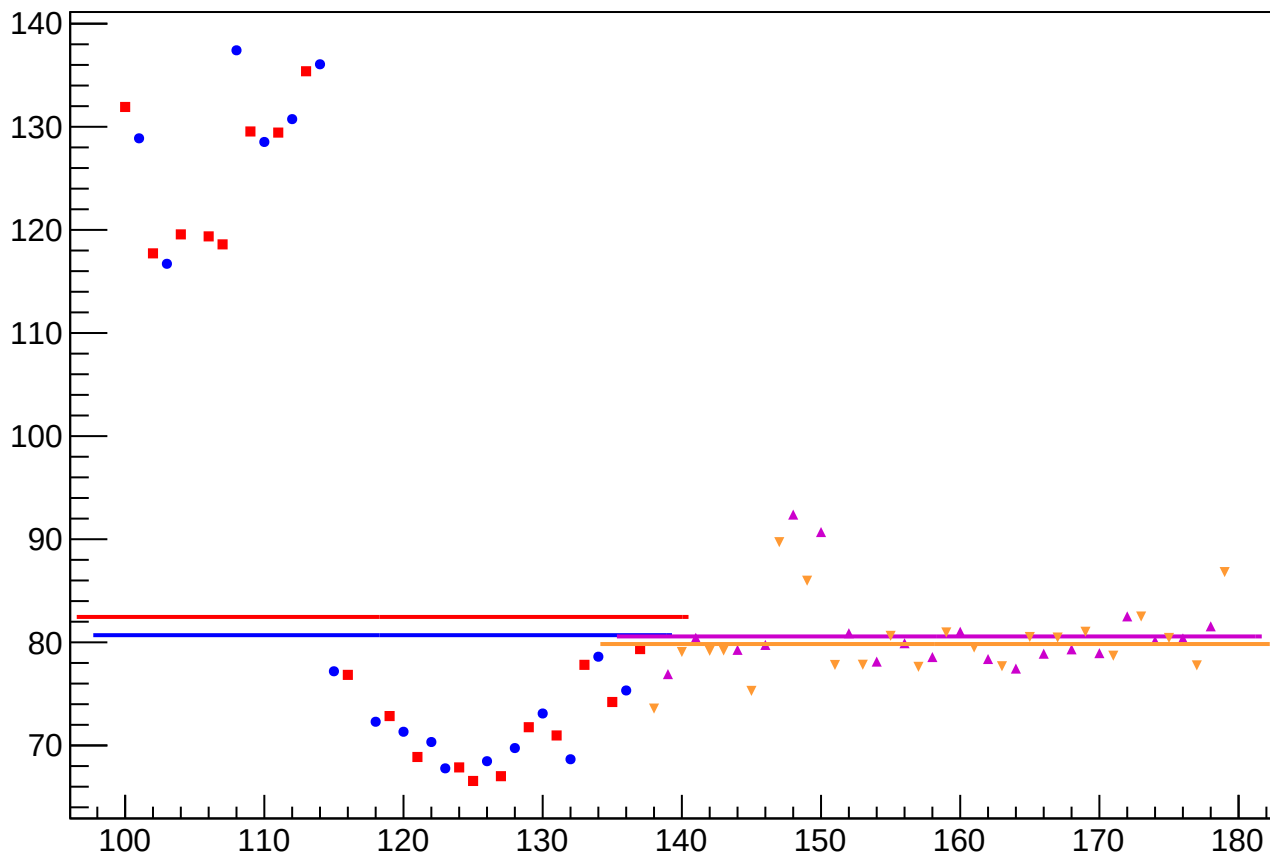
# reg\_asym\_sam1\_mean vs Slug, Sign Corrected



Right In:  $37.694 \pm 32.253$   $\chi^2/\text{NDF}: 16.7/16$   
 Left Out:  $-160.086 \pm 19.587$   $\chi^2/\text{NDF}: 25.2/21$   
 Right Out:  $13.278 \pm 32.066$   $\chi^2/\text{NDF}: 22.7/18$   
 Left In:  $-144.432 \pm 20.450$   $\chi^2/\text{NDF}: 16.8/19$

Left:  $-152.597 \pm 14.145$   $\chi^2/\text{NDF}: 42.3/41$   
 Right:  $25.415 \pm 22.740$   $\chi^2/\text{NDF}: 39.7/35$   
 In:  $-92.208 \pm 17.271$   $\chi^2/\text{NDF}: 56.2/36$   
 Out:  $-112.979 \pm 16.715$   $\chi^2/\text{NDF}: 69.2/40$   
 All:  $-102.934 \pm 12.011$   $\chi^2/\text{NDF}: 126.2/77$

# reg\_asym\_sam1\_rms vs Slug, Sign Corrected



Right In: 80.694 $\pm$ 0.023  $\chi^2$ /NDF: 814026.4/16

Left Out: 79.836 $\pm$ 0.014  $\chi^2$ /NDF: 62544.9/21

Right Out: 82.464 $\pm$ 0.023  $\chi^2$ /NDF: 914878.0/18

Left In: 80.572 $\pm$ 0.014  $\chi^2$ /NDF: 60607.0/19

Left: 80.188 $\pm$ 0.010  $\chi^2$ /NDF: 124504.6/41

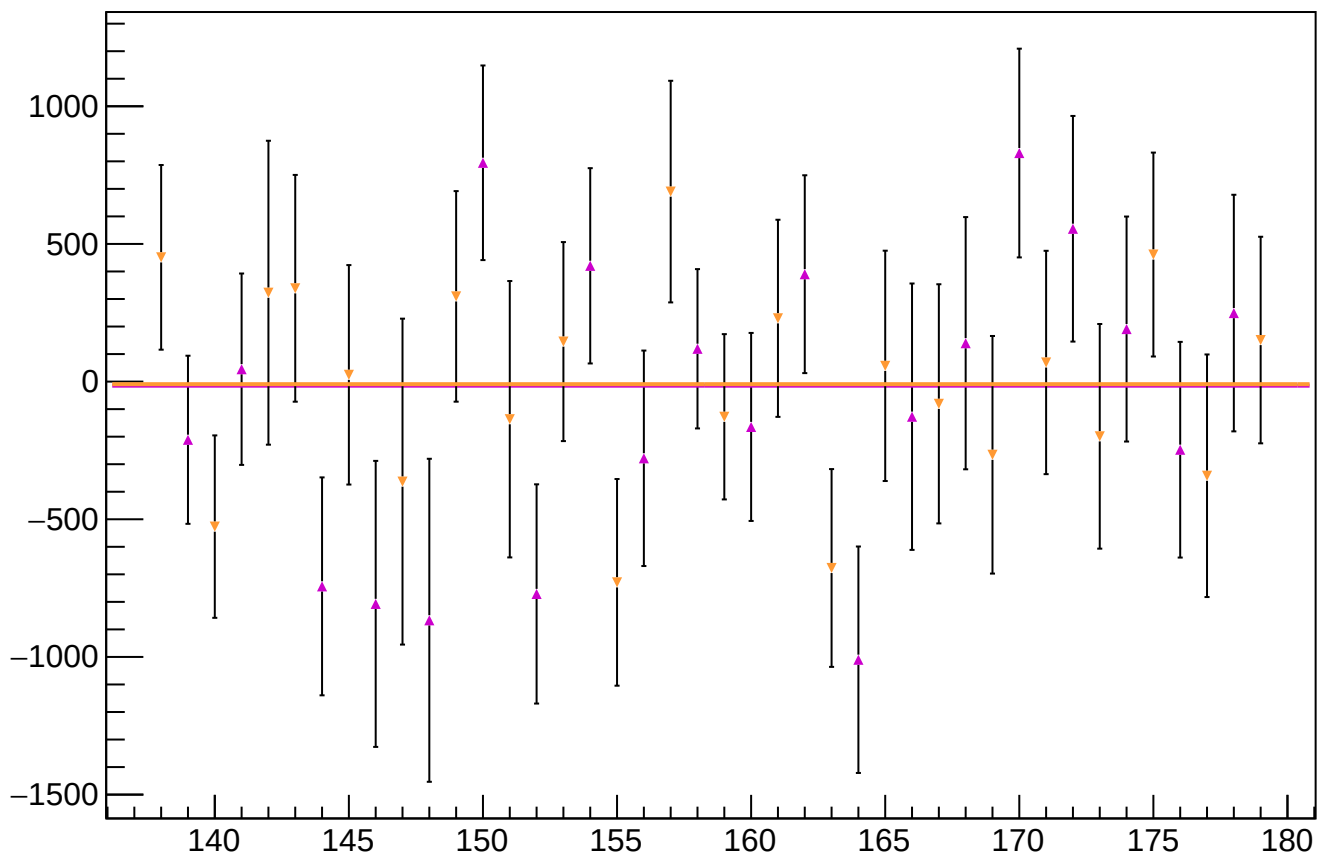
Right: 81.584 $\pm$ 0.016  $\chi^2$ /NDF: 1731931.3/35

In: 80.607 $\pm$ 0.012  $\chi^2$ /NDF: 874653.7/36

Out: 80.550 $\pm$ 0.012  $\chi^2$ /NDF: 987202.9/40

All: 80.578 $\pm$ 0.008  $\chi^2$ /NDF: 1861868.1/77

asym\_sam1\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -9.345+/-83.697  $\chi^2/\text{NDF}$ :20.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -14.743+/-86.108  $\chi^2/\text{NDF}$ :34.7/19

Left: -11.967+/-60.017  $\chi^2/\text{NDF}$ : 55.2/41

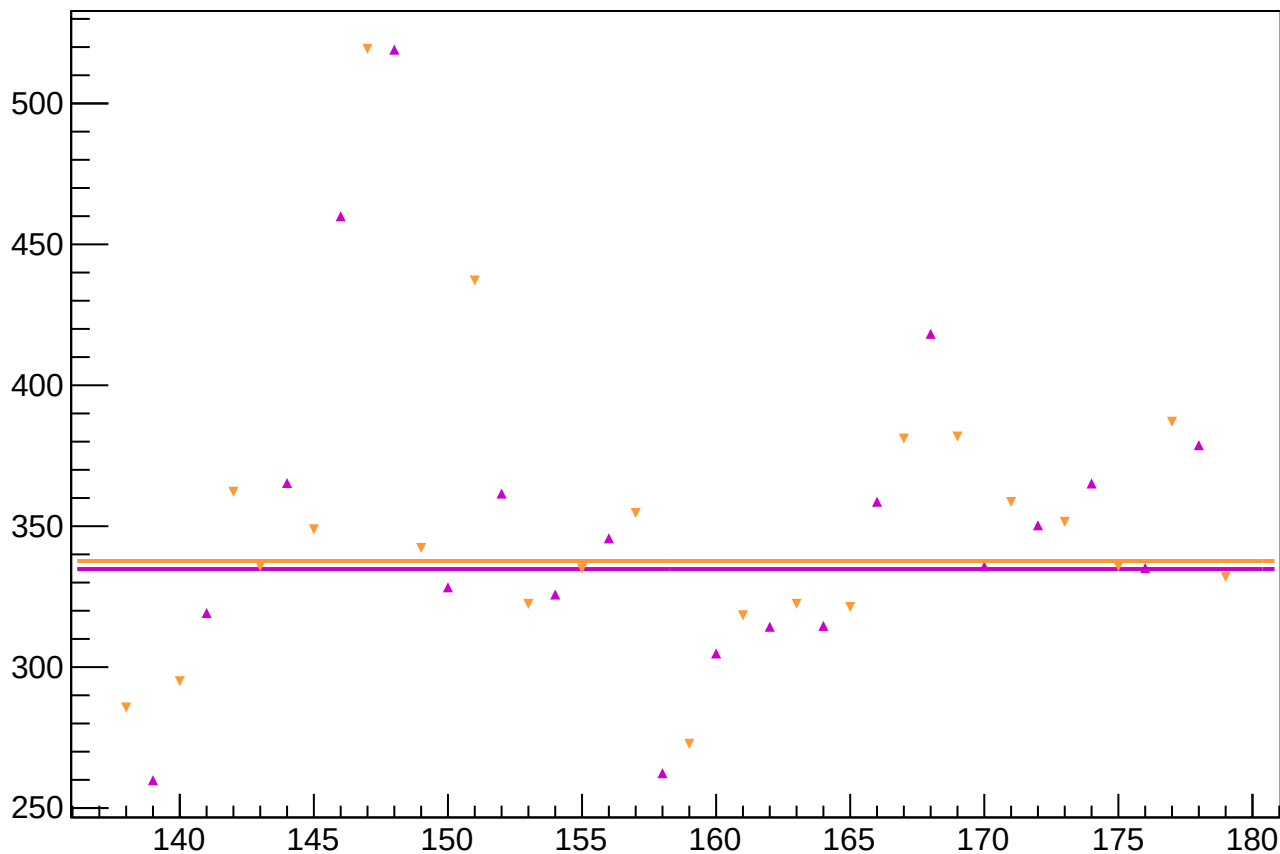
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -14.743+/-86.108  $\chi^2/\text{NDF}$ :34.7/19

Out: -9.345+/-83.697  $\chi^2/\text{NDF}$ :20.5/21

All: -11.967+/-60.017  $\chi^2/\text{NDF}$ : 55.2/41

# asym\_sam1\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 337.652 $\pm$ 0.059  $\chi^2/\text{NDF}$ :541640.5/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 334.801 $\pm$ 0.061  $\chi^2/\text{NDF}$ :720773.4/19

Left: 336.267 $\pm$ 0.042  $\chi^2/\text{NDF}$ : 1263541.2/41

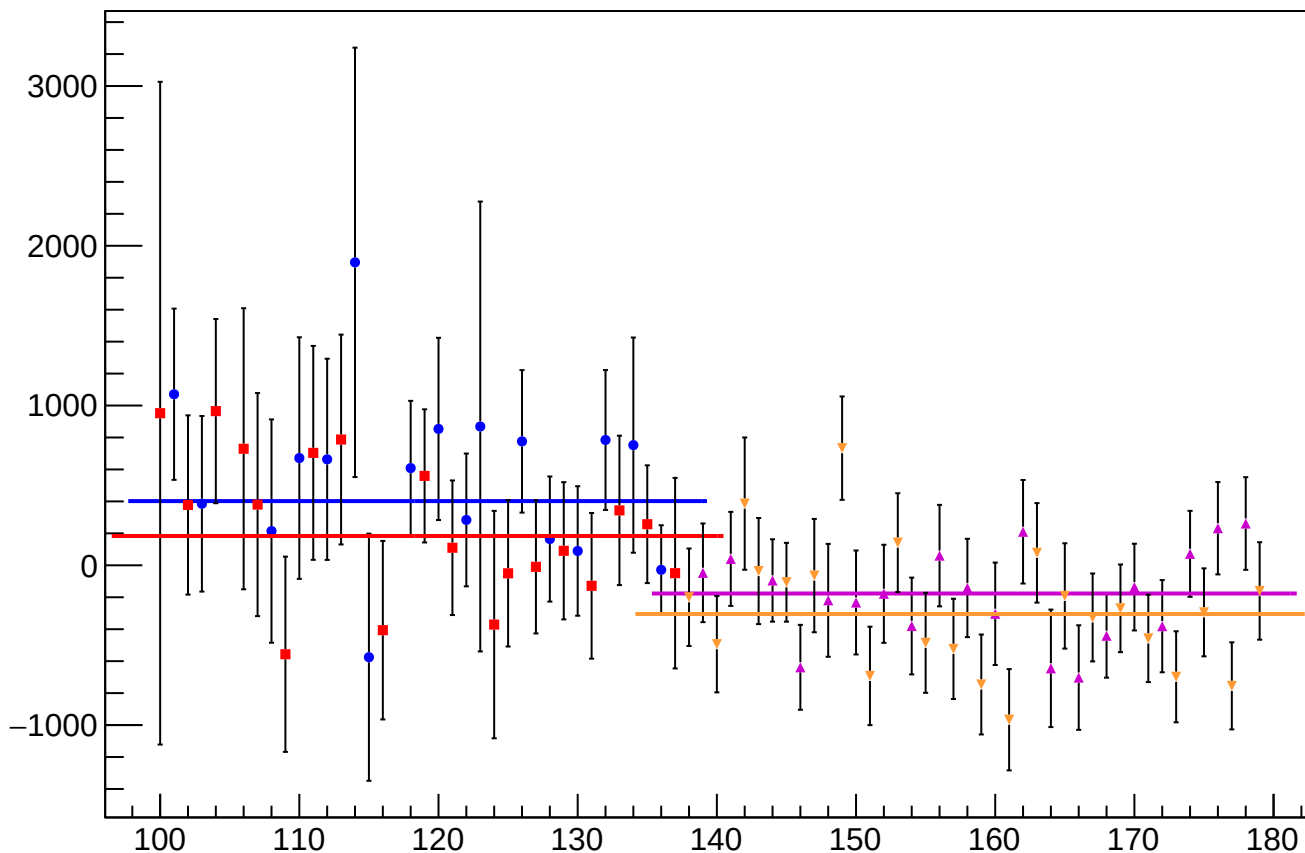
Right: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 334.801 $\pm$ 0.061  $\chi^2/\text{NDF}$ :720773.4/19

Out: 337.652 $\pm$ 0.059  $\chi^2/\text{NDF}$ :541640.5/21

All: 336.267 $\pm$ 0.042  $\chi^2/\text{NDF}$ : 1263541.2/41

# reg\_asym\_sam2\_mean vs Slug, Sign Corrected



Right In: 401.871+/-121.048  $\chi^2/\text{NDF}$ : 10.9/16

Left Out: -304.984+/-64.389  $\chi^2/\text{NDF}$ :33.0/21

Right Out: 183.481+/-120.338  $\chi^2/\text{NDF}$ : 9.3/18

Left In: -176.535+/-66.746  $\chi^2/\text{NDF}$ :17.4/19

Left: -243.067+/-46.341  $\chi^2/\text{NDF}$ : 52.3/41

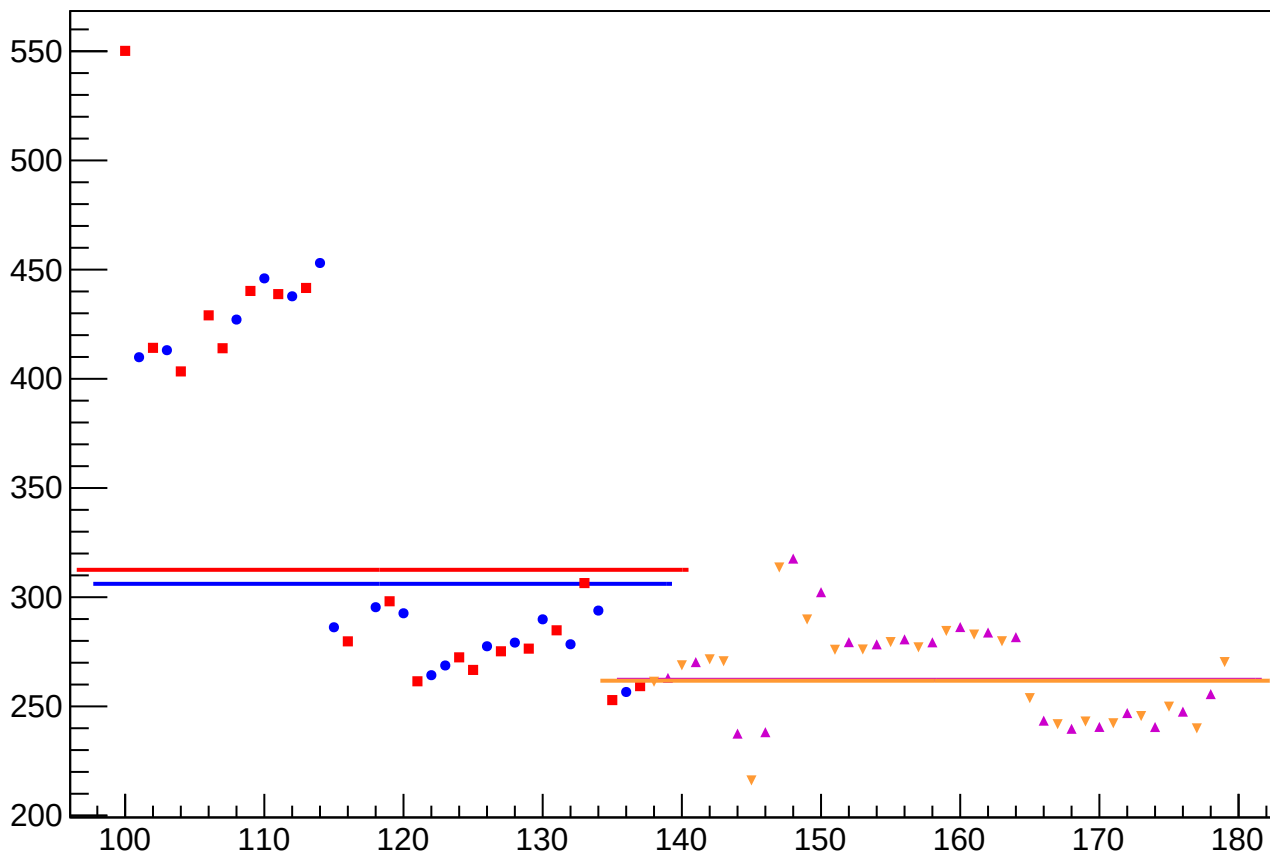
Right: 292.034+/-85.342  $\chi^2/\text{NDF}$ : 21.9/35

In: -41.677+/-58.449  $\chi^2/\text{NDF}$ :45.8/36

Out: -196.263+/-56.773  $\chi^2/\text{NDF}$ :55.2/40

All: -121.218+/-40.724  $\chi^2/\text{NDF}$ : 104.5/77

# reg\_asym\_sam2\_rms vs Slug, Sign Corrected



Right In: 306.123+/-0.086  $\chi^2/\text{NDF}$ : 508435.8/16

Left Out: 261.763+/-0.046  $\chi^2/\text{NDF}$ : 231417.6/21

Right Out: 312.543+/-0.085  $\chi^2/\text{NDF}$ : 625769.8/18

Left In: 262.182+/-0.047  $\chi^2/\text{NDF}$ : 225249.8/19

Left: 261.965+/-0.033  $\chi^2/\text{NDF}$ : 456708.3/41

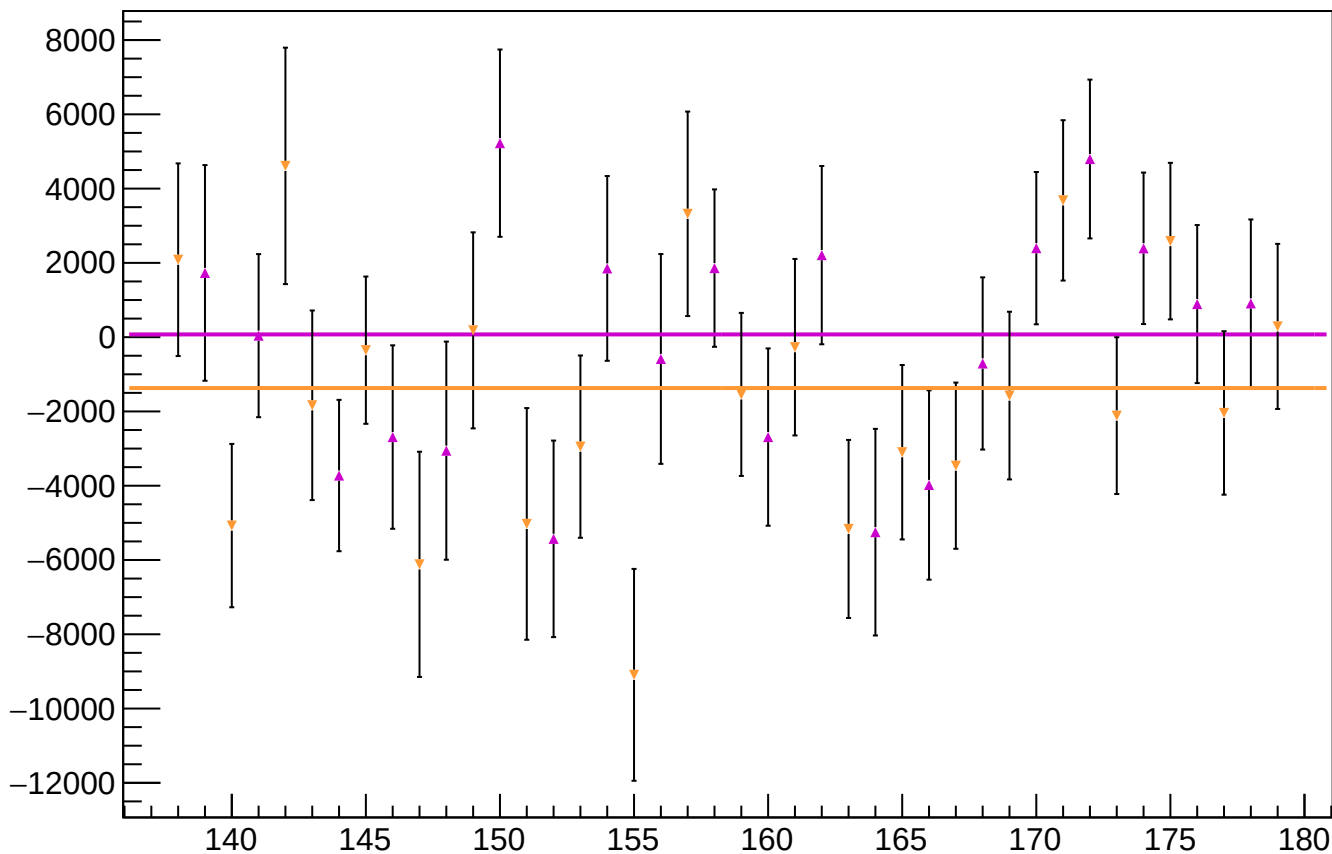
Right: 309.352+/-0.060  $\chi^2/\text{NDF}$ : 1137034.2/35

In: 272.427+/-0.041  $\chi^2/\text{NDF}$ : 935790.9/36

Out: 273.065+/-0.040  $\chi^2/\text{NDF}$ : 1134048.2/40

All: 272.755+/-0.029  $\chi^2/\text{NDF}$ : 2069961.8/77

asym\_sam2\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -1370.273+/-509.869  $\chi^2/\text{NDF}$ :37.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 73.627+/-527.931  $\chi^2/\text{NDF}$ :32.1/19

Left: -673.444+/-366.751  $\chi^2/\text{NDF}$ : 73.2/41

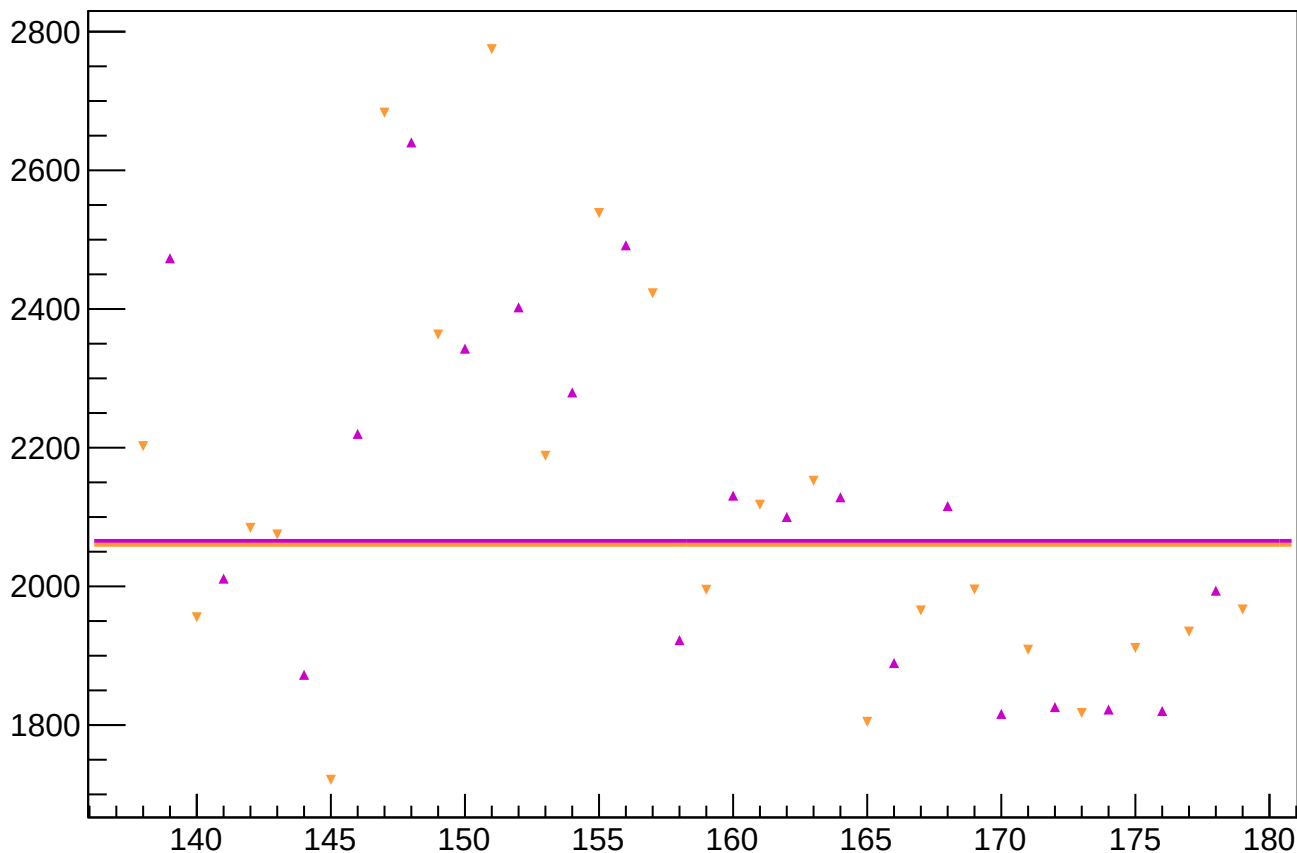
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 73.627+/-527.931  $\chi^2/\text{NDF}$ :32.1/19

Out: -1370.273+/-509.869  $\chi^2/\text{NDF}$ :37.2/21

All: -673.444+/-366.751  $\chi^2/\text{NDF}$ : 73.2/41

# asym\_sam2\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 2060.081+/-0.361  $\chi^2/\text{NDF}$ :472424.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 2065.543+/-0.373  $\chi^2/\text{NDF}$ :394278.0/19

Left: 2062.717+/-0.259  $\chi^2/\text{NDF}$ : 866812.9/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

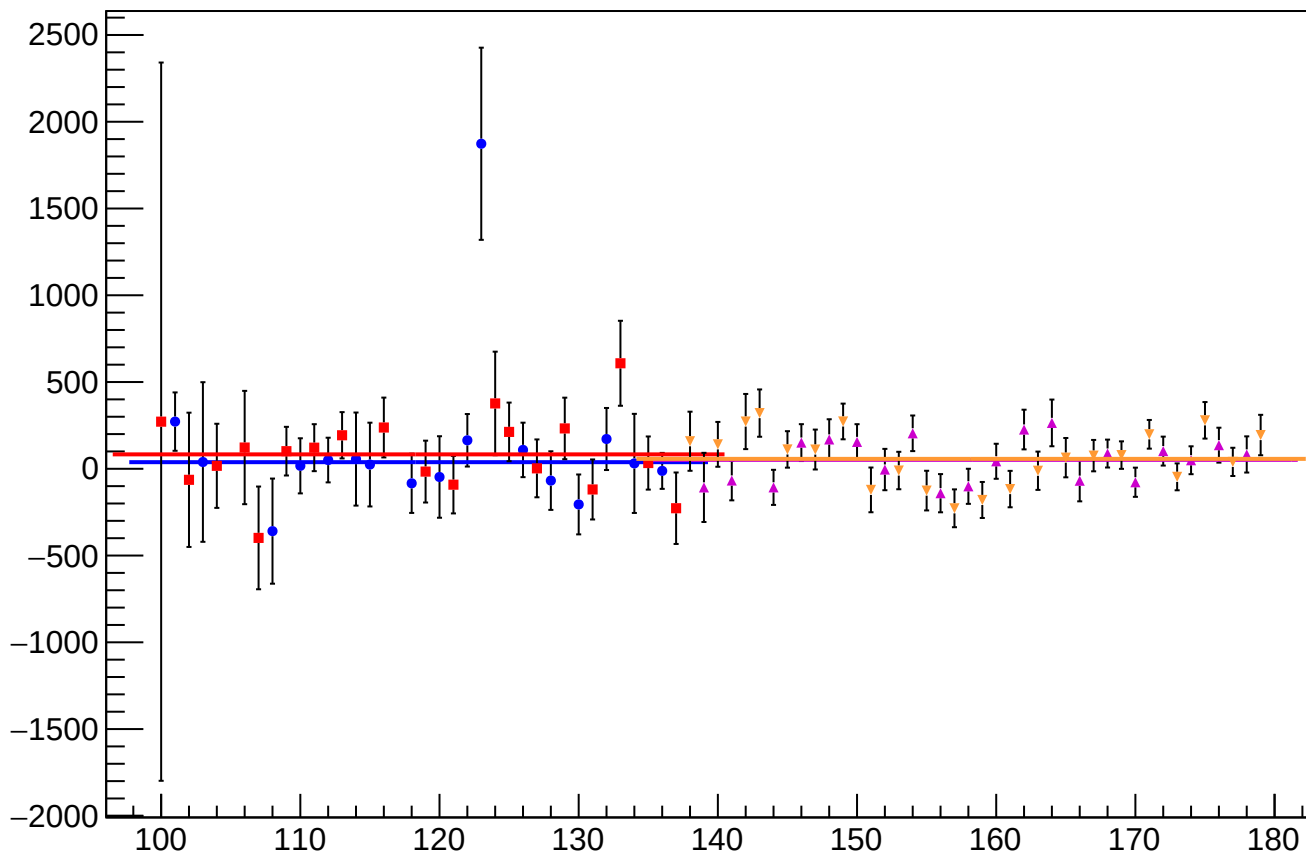
In: 2065.543+/-0.373  $\chi^2/\text{NDF}$ :394278.0/19

Out: 2060.081+/-0.361  $\chi^2/\text{NDF}$ :472424.1/21

All: 2062.717+/-0.259  $\chi^2/\text{NDF}$ : 866812.9/41



# reg\_asym\_sam3\_mean vs Slug, Sign Corrected



Right In: 38.126 $\pm$ 43.548  $\chi^2$ /NDF: 19.4/16

Left Out: 57.141 $\pm$ 22.317  $\chi^2$ /NDF:42.0/21

Right Out: 83.101 $\pm$ 43.098  $\chi^2$ /NDF: 16.7/18

Left In: 51.444 $\pm$ 23.005  $\chi^2$ /NDF:24.4/19

Left: 54.379 $\pm$ 16.018  $\chi^2$ /NDF: 66.5/41

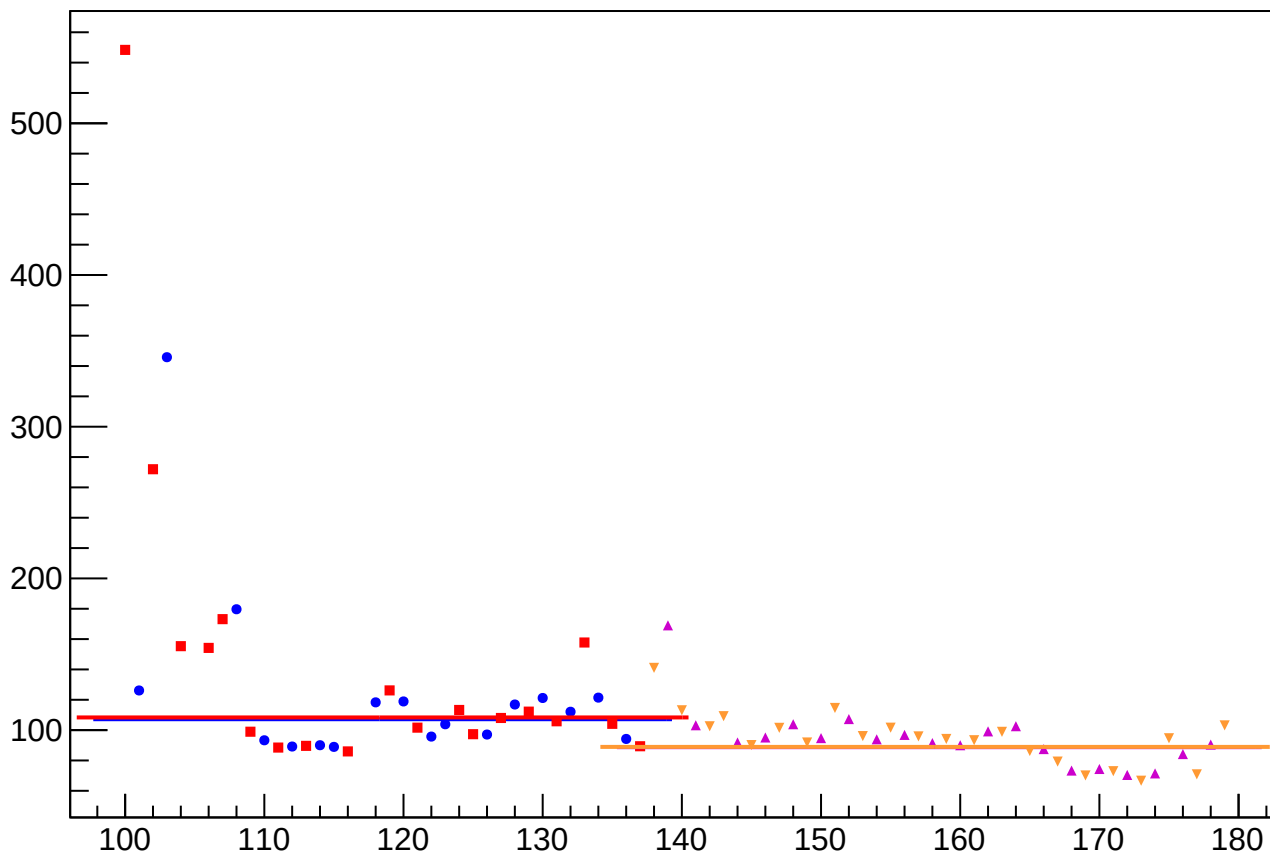
Right: 60.847 $\pm$ 30.633  $\chi^2$ /NDF: 36.7/35

In: 48.539 $\pm$ 20.341  $\chi^2$ /NDF:43.9/36

Out: 62.630 $\pm$ 19.817  $\chi^2$ /NDF:59.0/40

All: 55.768 $\pm$ 14.195  $\chi^2$ /NDF: 103.2/77

# reg\_asym\_sam3\_rms vs Slug, Sign Corrected



Right In: 107.189 $\pm$ 0.031  $\chi^2$ /NDF: 843115.1/16

Left Out: 88.939 $\pm$ 0.016  $\chi^2$ /NDF:998555.4/21

Right Out: 108.359 $\pm$ 0.030  $\chi^2$ /NDF: 917287.7/18

Left In: 88.759 $\pm$ 0.016  $\chi^2$ /NDF:835853.5/19

Left: 88.852 $\pm$ 0.011  $\chi^2$ /NDF: 1834471.9/41

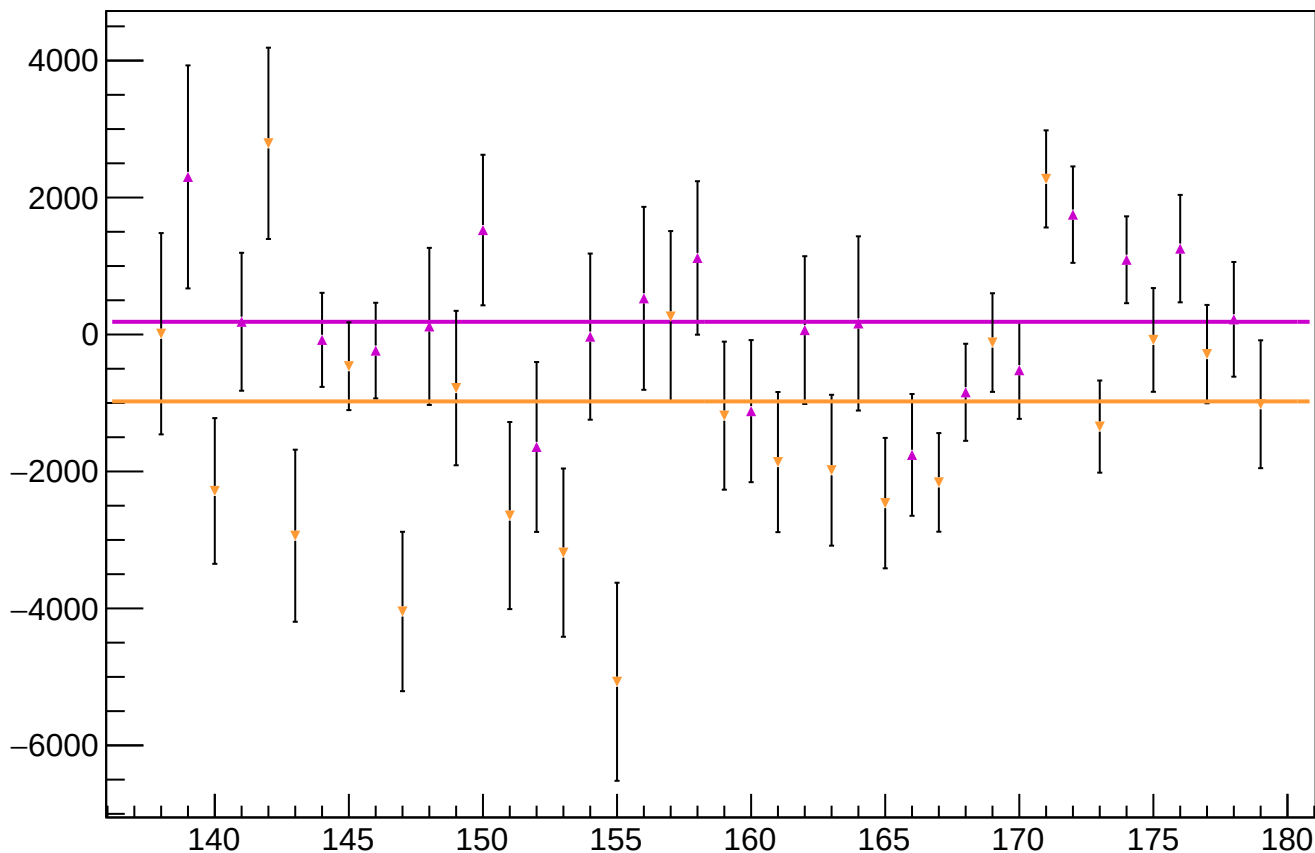
Right: 107.780 $\pm$ 0.022  $\chi^2$ /NDF: 1761132.0/35

In: 92.780 $\pm$ 0.014  $\chi^2$ /NDF:1959023.8/36

Out: 93.045 $\pm$ 0.014  $\chi^2$ /NDF:2236062.5/40

All: 92.916 $\pm$ 0.010  $\chi^2$ /NDF: 4195260.3/77

asym\_sam3\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -976.908+/-198.471  $\chi^2/\text{NDF}$ : 64.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 185.371+/-199.997  $\chi^2/\text{NDF}$ : 25.0/19

Left: -400.219+/-140.877  $\chi^2/\text{NDF}$ : 106.8/41

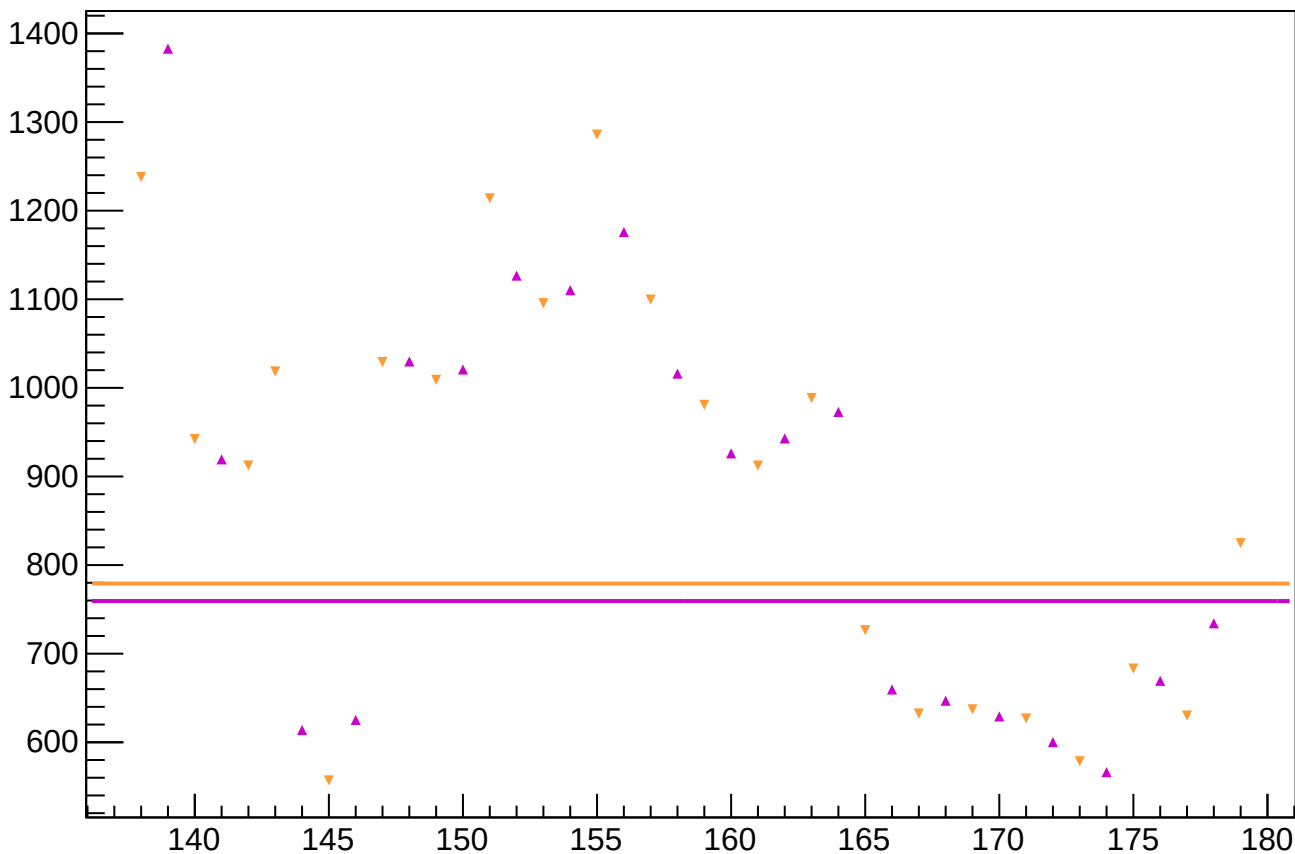
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 185.371+/-199.997  $\chi^2/\text{NDF}$ : 25.0/19

Out: -976.908+/-198.471  $\chi^2/\text{NDF}$ : 64.8/21

All: -400.219+/-140.877  $\chi^2/\text{NDF}$ : 106.8/41

asym\_sam3\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 779.172+/-0.140  $\chi^2/\text{NDF}$ :2196304.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 759.400+/-0.141  $\chi^2/\text{NDF}$ :1997419.7/19

Left: 769.361+/-0.100  $\chi^2/\text{NDF}$ : 4203572.3/41

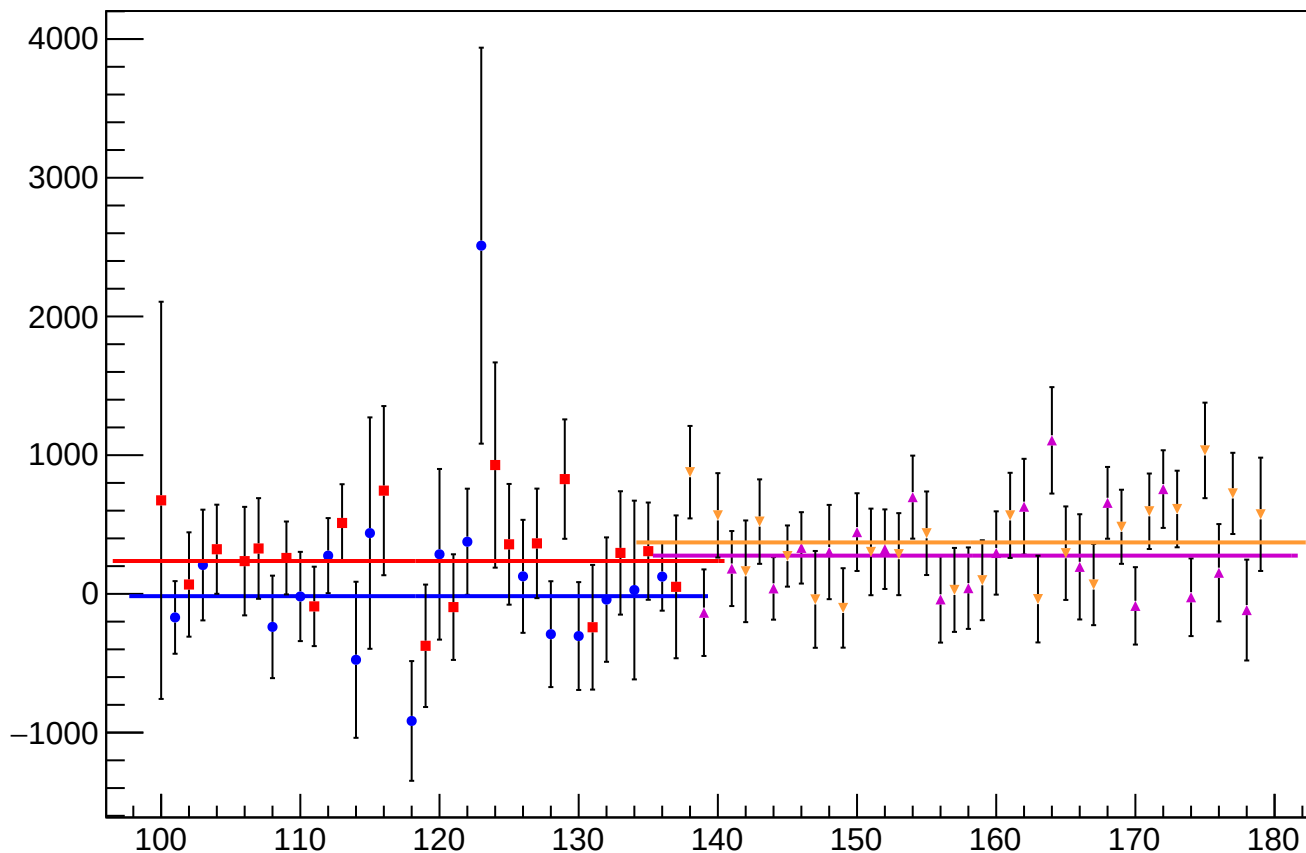
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 759.400+/-0.141  $\chi^2/\text{NDF}$ :1997419.7/19

Out: 779.172+/-0.140  $\chi^2/\text{NDF}$ :2196304.3/21

All: 769.361+/-0.100  $\chi^2/\text{NDF}$ : 4203572.3/41

# reg\_asym\_sam4\_mean vs Slug, Sign Corrected



Right In:  $-16.459 \pm 93.285$   $\chi^2/\text{NDF}: 13.4/16$

Left Out:  $370.992 \pm 64.192$   $\chi^2/\text{NDF}: 20.2/21$

Right Out:  $236.984 \pm 88.937$   $\chi^2/\text{NDF}: 10.3/18$

Left In:  $275.780 \pm 66.295$   $\chi^2/\text{NDF}: 22.1/19$

Left:  $324.920 \pm 46.116$   $\chi^2/\text{NDF}: 43.3/41$

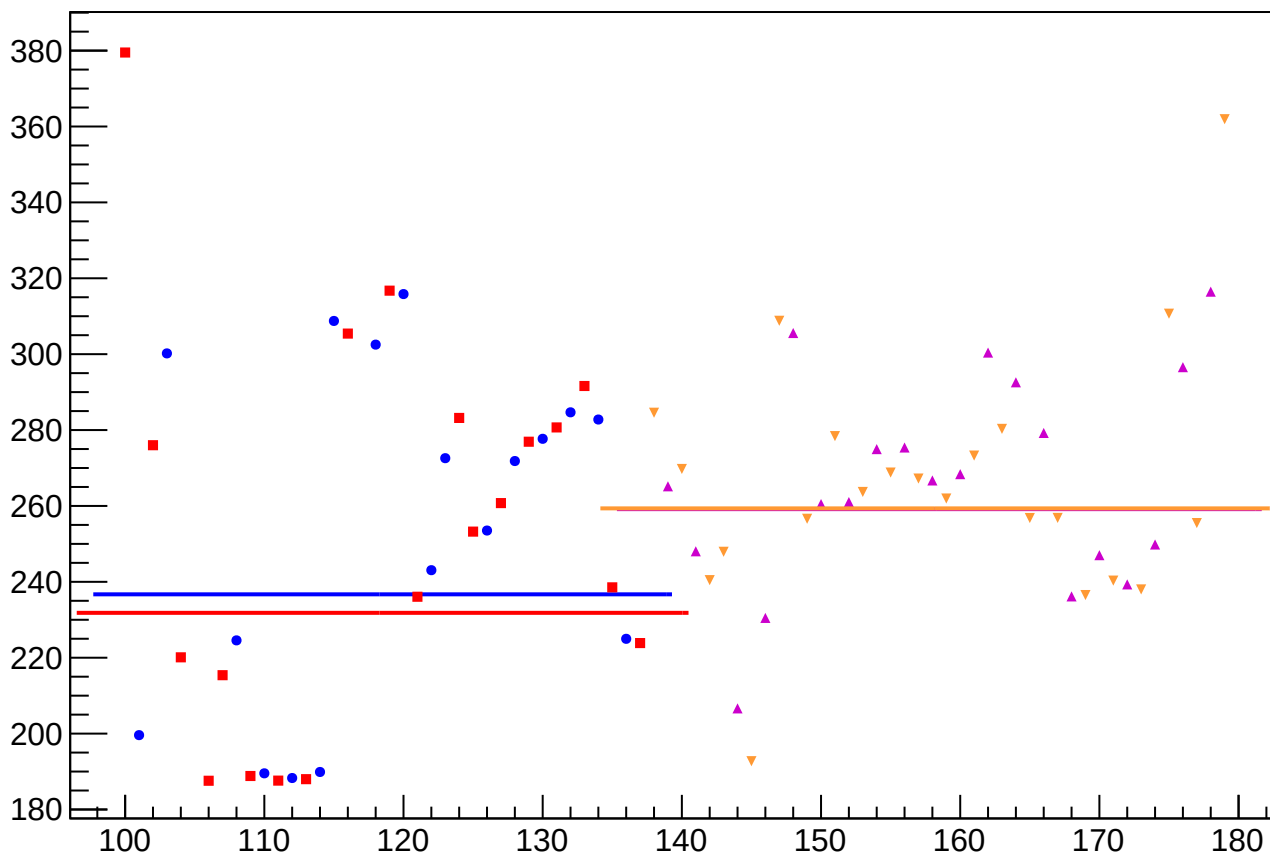
Right:  $116.305 \pm 64.370$   $\chi^2/\text{NDF}: 27.6/35$

In:  $177.712 \pm 54.038$   $\chi^2/\text{NDF}: 42.0/36$

Out:  $325.092 \pm 52.050$   $\chi^2/\text{NDF}: 32.0/40$

All:  $254.164 \pm 37.488$   $\chi^2/\text{NDF}: 77.9/77$

# reg\_asym\_sam4\_rms vs Slug, Sign Corrected



Right In: 236.706 $\pm$ 0.066  $\chi^2$ /NDF: 390344.9/16

Left Out: 259.358 $\pm$ 0.045  $\chi^2$ /NDF: 476575.2/21

Right Out: 231.828 $\pm$ 0.063  $\chi^2$ /NDF: 443276.3/18

Left In: 259.155 $\pm$ 0.047  $\chi^2$ /NDF: 342781.8/19

Left: 259.260 $\pm$ 0.033  $\chi^2$ /NDF: 819366.7/41

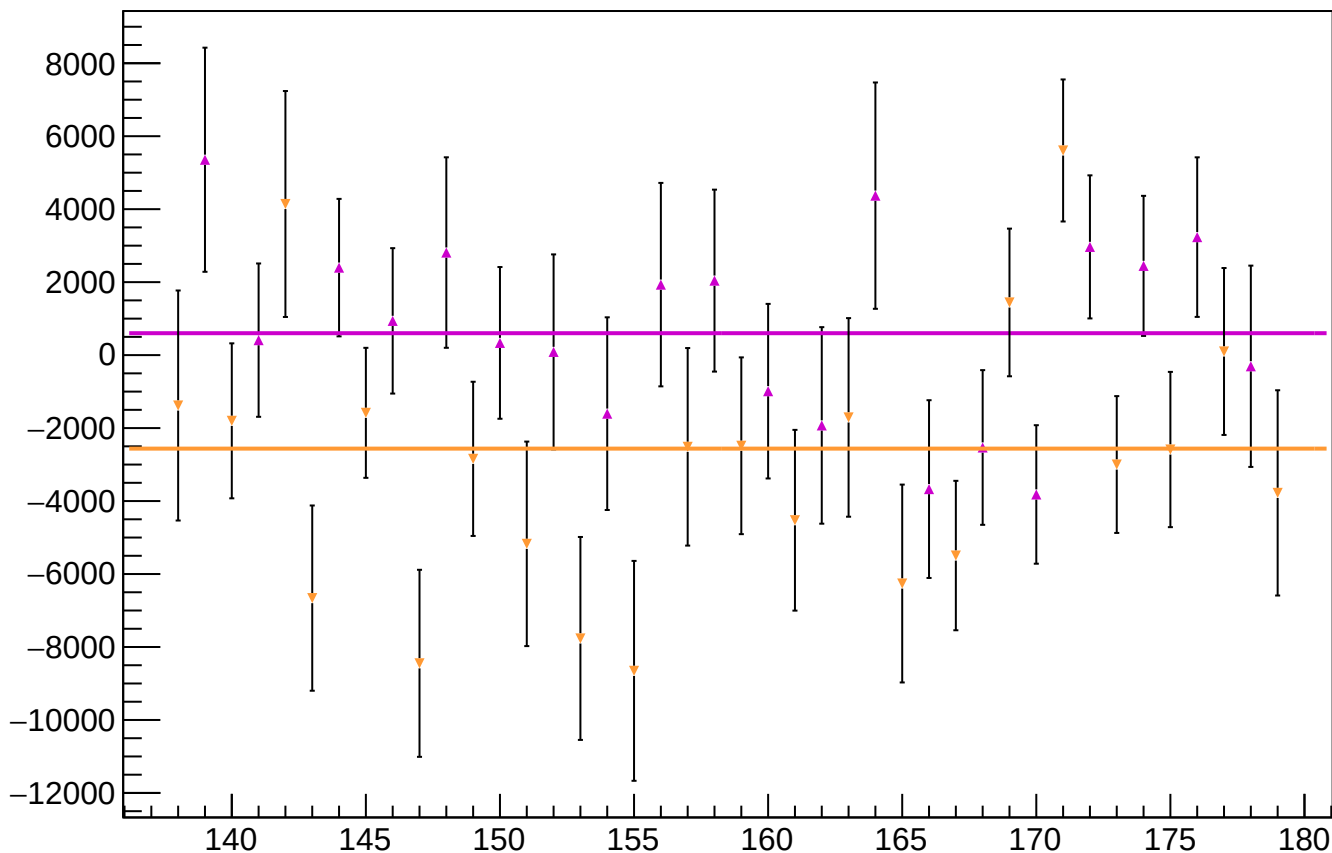
Right: 234.151 $\pm$ 0.046  $\chi^2$ /NDF: 836486.0/35

In: 251.622 $\pm$ 0.038  $\chi^2$ /NDF: 810085.8/36

Out: 249.929 $\pm$ 0.037  $\chi^2$ /NDF: 1045849.9/40

All: 250.744 $\pm$ 0.027  $\chi^2$ /NDF: 1856954.2/77

asym\_sam4\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -2562.674+/-503.153  $\chi^2/\text{NDF}$ :49.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 600.682+/-514.739  $\chi^2/\text{NDF}$ :22.8/19

Left: -1016.997+/-359.810  $\chi^2/\text{NDF}$ : 91.5/41

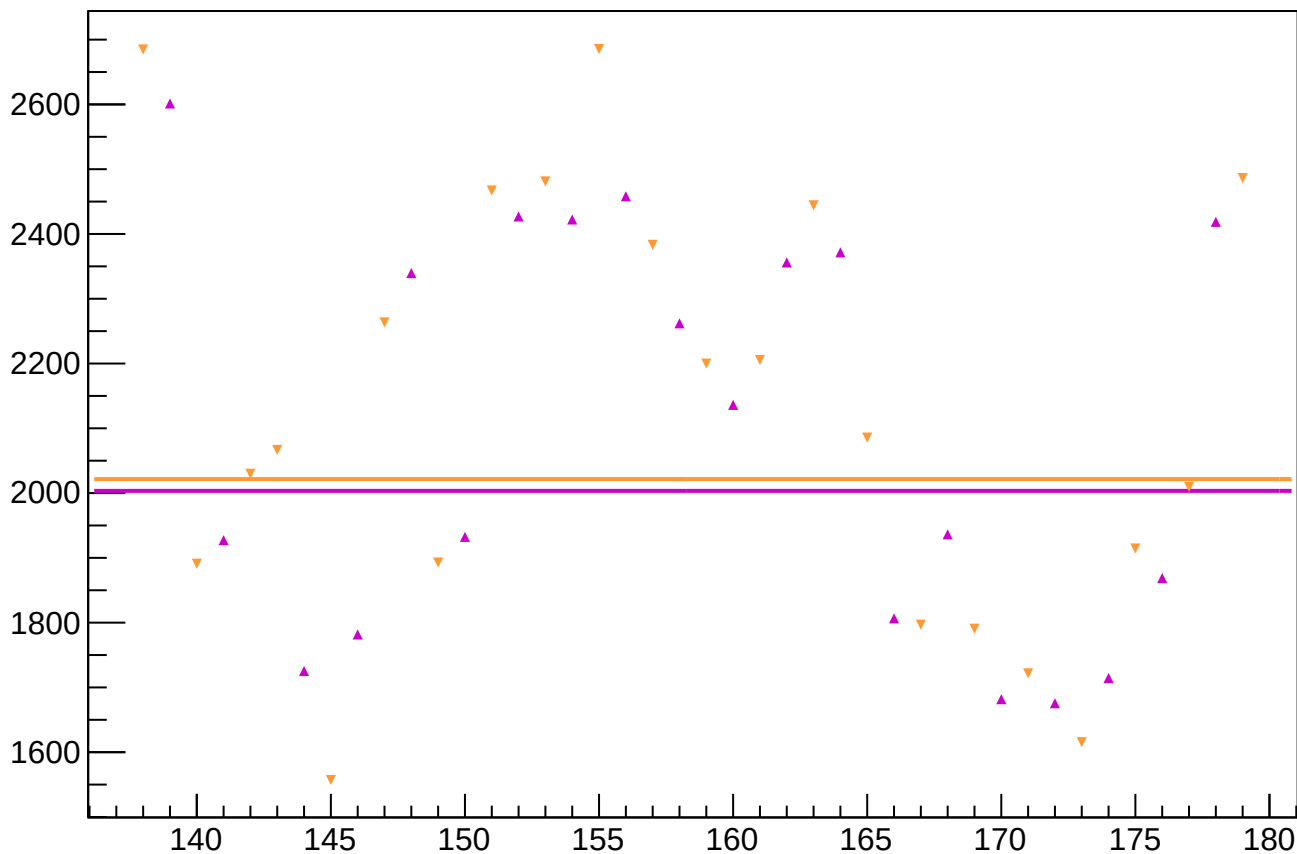
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 600.682+/-514.739  $\chi^2/\text{NDF}$ :22.8/19

Out: -2562.674+/-503.153  $\chi^2/\text{NDF}$ :49.4/21

All: -1016.997+/-359.810  $\chi^2/\text{NDF}$ : 91.5/41

# asym\_sam4\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 2021.615+/-0.356  $\chi^2/\text{NDF}$ :818200.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 2003.422+/-0.364  $\chi^2/\text{NDF}$ :652837.9/19

Left: 2012.726+/-0.254  $\chi^2/\text{NDF}$ : 1472316.2/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

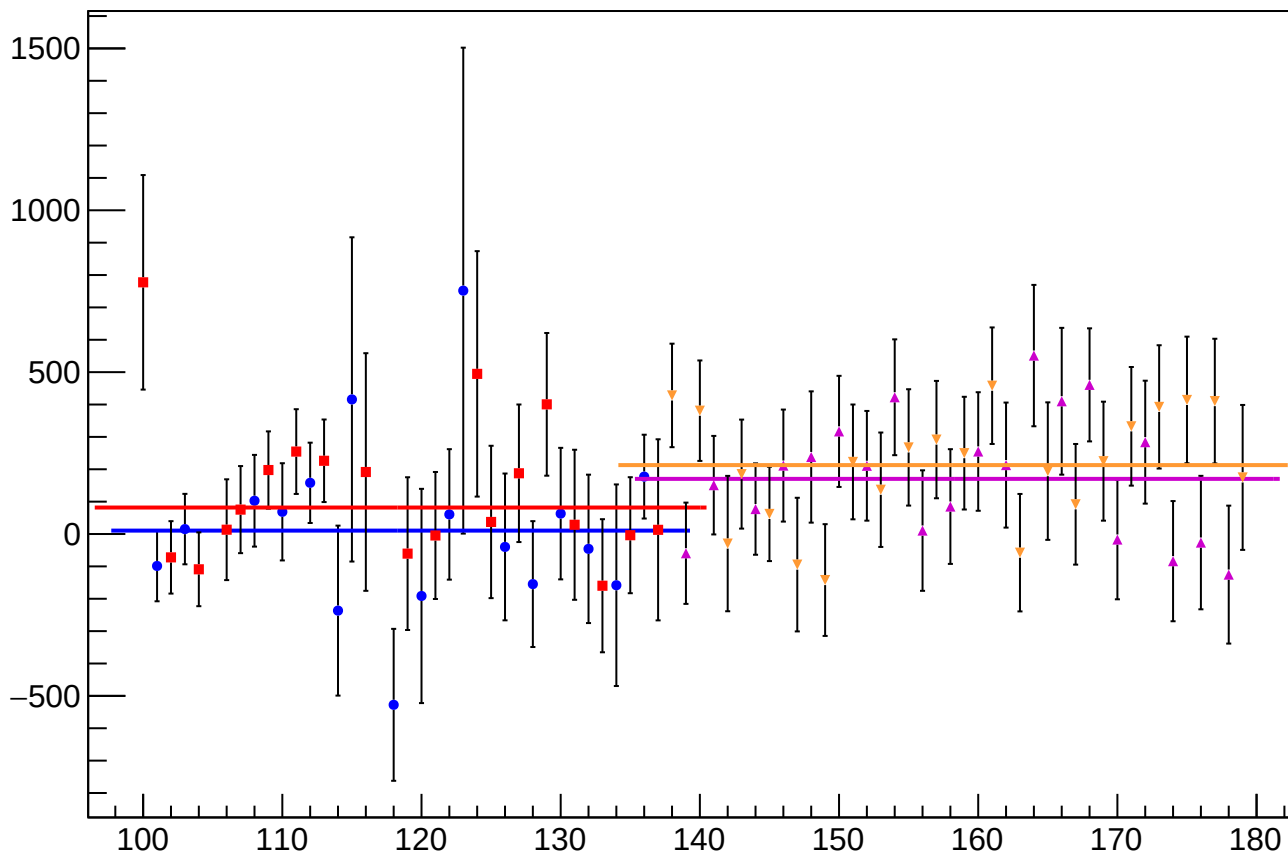
In: 2003.422+/-0.364  $\chi^2/\text{NDF}$ :652837.9/19

Out: 2021.615+/-0.356  $\chi^2/\text{NDF}$ :818200.7/21

All: 2012.726+/-0.254  $\chi^2/\text{NDF}$ : 1472316.2/41



# reg\_asym\_sam5\_mean vs Slug, Sign Corrected



Right In: 10.530+/-42.294  $\chi^2/\text{NDF}$ : 14.1/16

Left Out: 212.884+/-38.535  $\chi^2/\text{NDF}$ :20.4/21

Right Out: 81.802+/-38.985  $\chi^2/\text{NDF}$ : 19.2/18

Left In: 170.335+/-40.348  $\chi^2/\text{NDF}$ :19.8/19

Left: 192.587+/-27.867  $\chi^2/\text{NDF}$ : 40.8/41

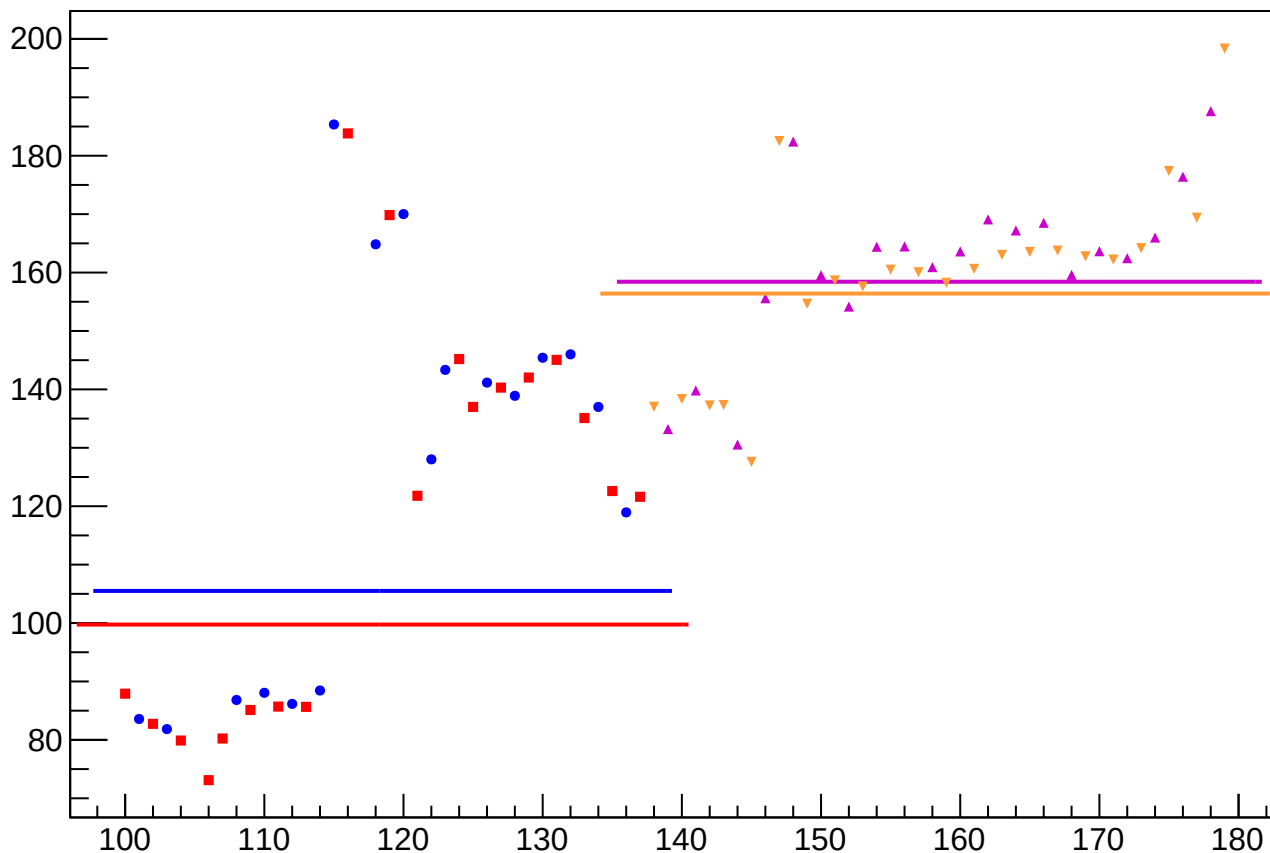
Right: 49.063+/-28.665  $\chi^2/\text{NDF}$ : 34.8/35

In: 94.194+/-29.194  $\chi^2/\text{NDF}$ :41.3/36

Out: 148.104+/-27.406  $\chi^2/\text{NDF}$ :45.3/40

All: 122.851+/-19.981  $\chi^2/\text{NDF}$ : 88.4/77

# reg\_asym\_sam5\_rms vs Slug, Sign Corrected



Right In: 105.503 $\pm$ 0.030  $\chi^2$ /NDF: 869022.6/16

Left Out: 156.405 $\pm$ 0.027  $\chi^2$ /NDF: 331041.9/21

Right Out: 99.744 $\pm$ 0.028  $\chi^2$ /NDF: 1000097.3/18

Left In: 158.428 $\pm$ 0.029  $\chi^2$ /NDF: 268142.1/19

Left: 157.370 $\pm$ 0.020  $\chi^2$ /NDF: 601811.9/41

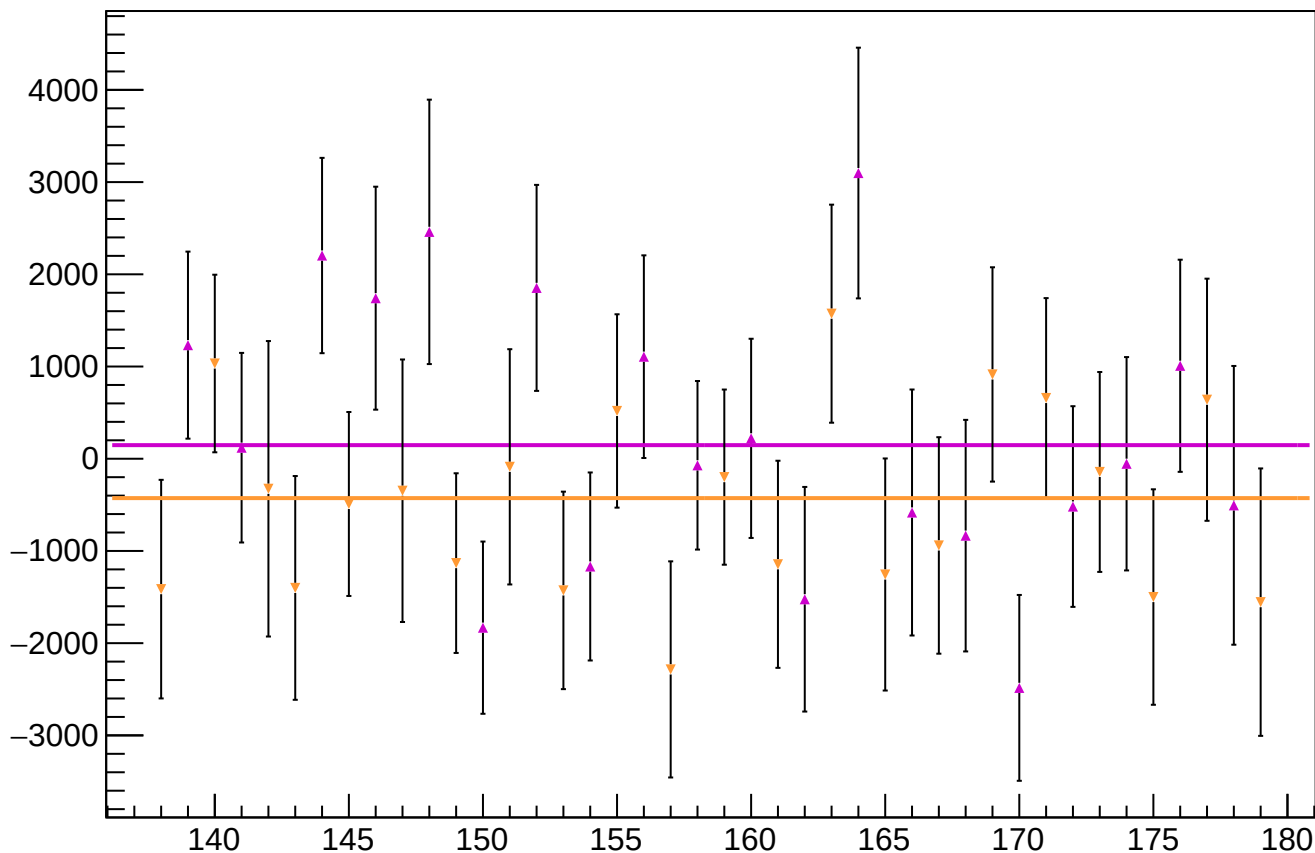
Right: 102.389 $\pm$ 0.020  $\chi^2$ /NDF: 1889165.6/35

In: 133.211 $\pm$ 0.021  $\chi^2$ /NDF: 2776742.4/36

Out: 128.404 $\pm$ 0.019  $\chi^2$ /NDF: 3468086.6/40

All: 130.655 $\pm$ 0.014  $\chi^2$ /NDF: 6273652.6/77

asym\_sam5\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -427.033+/-244.398  $\chi^2/\text{NDF}$ :16.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 147.448+/-250.349  $\chi^2/\text{NDF}$ :34.0/19

Left: -146.702+/-174.882  $\chi^2/\text{NDF}$ : 53.6/41

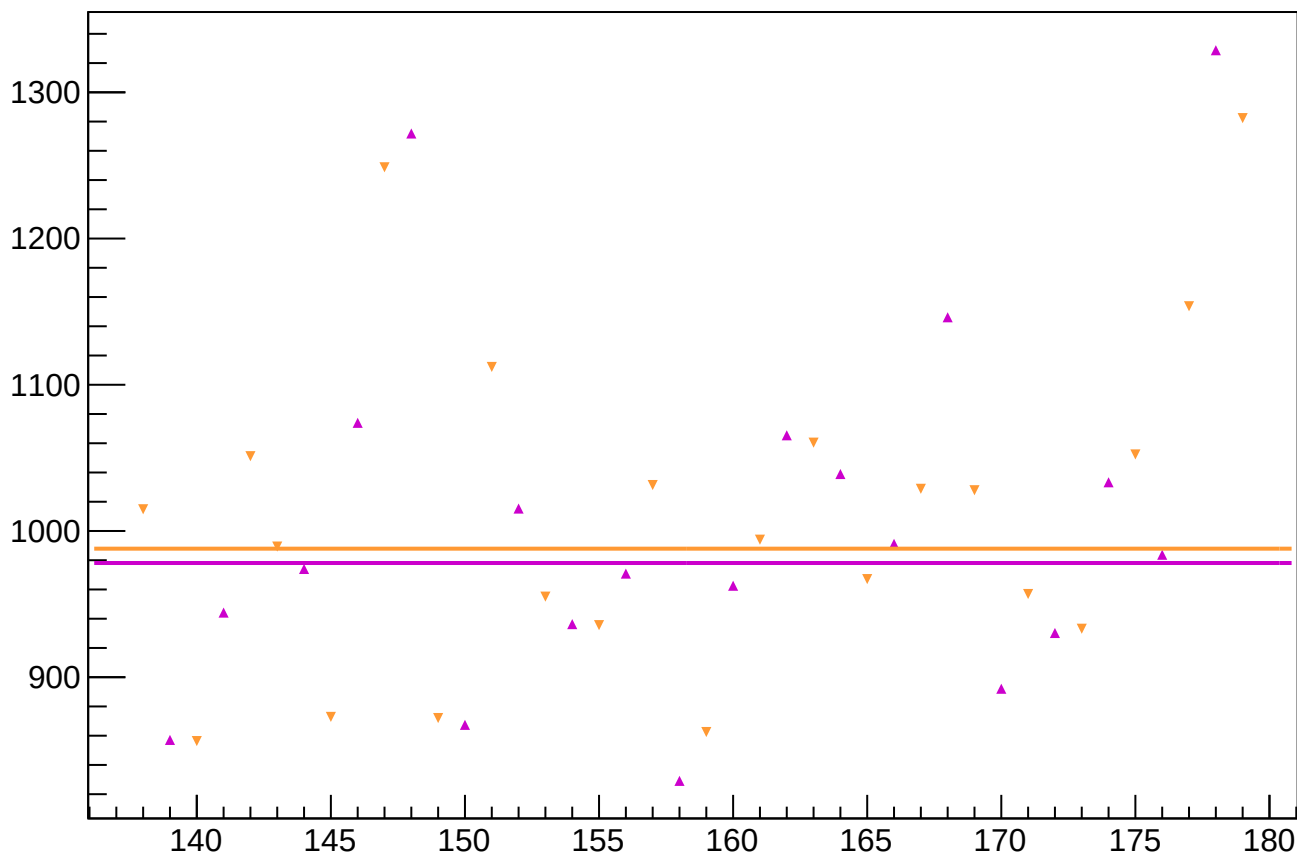
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 147.448+/-250.349  $\chi^2/\text{NDF}$ :34.0/19

Out: -427.033+/-244.398  $\chi^2/\text{NDF}$ :16.9/21

All: -146.702+/-174.882  $\chi^2/\text{NDF}$ : 53.6/41

asym\_sam5\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 987.910+/-0.173  $\chi^2/\text{NDF}$ : 367086.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 978.101+/-0.177  $\chi^2/\text{NDF}$ : 395530.6/19

Left: 983.123+/-0.124  $\chi^2/\text{NDF}$ : 764189.2/41

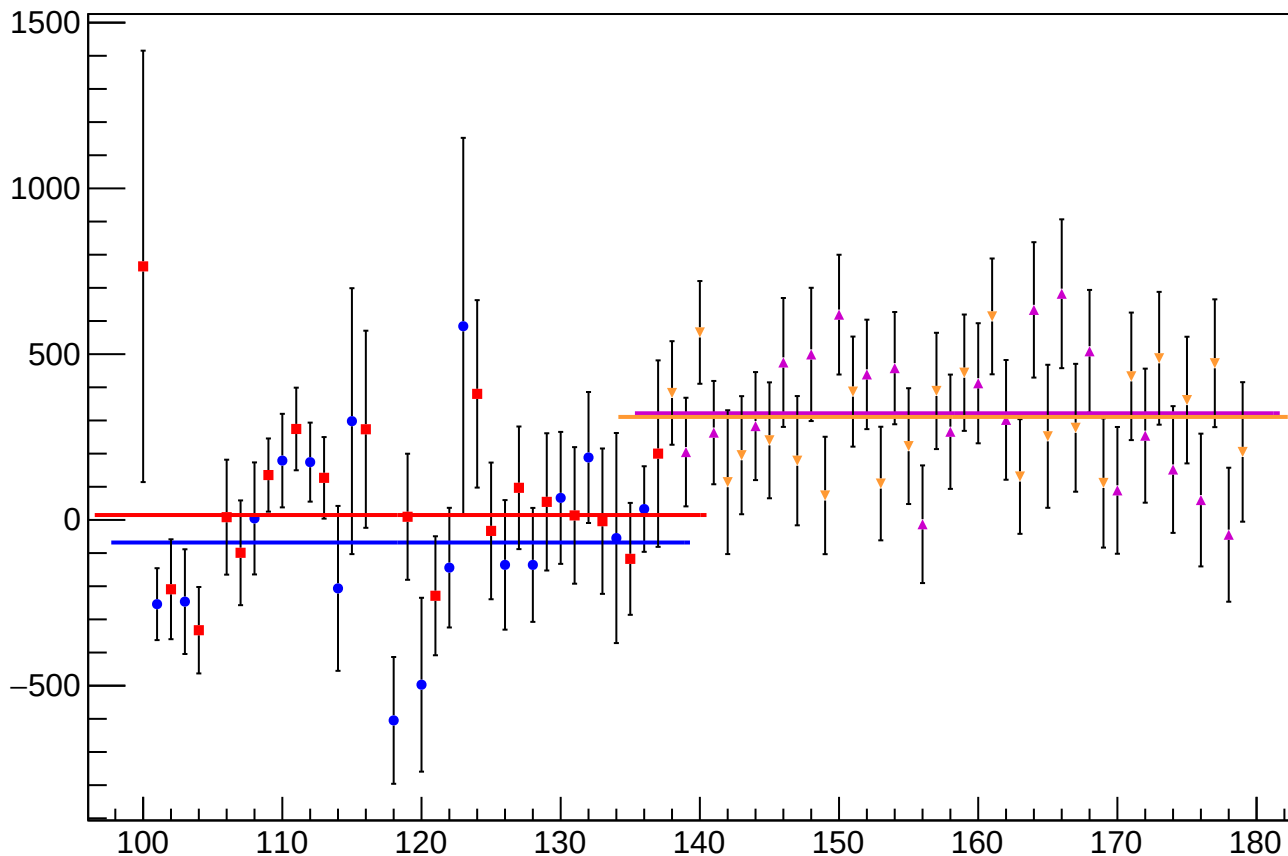
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 978.101+/-0.177  $\chi^2/\text{NDF}$ : 395530.6/19

Out: 987.910+/-0.173  $\chi^2/\text{NDF}$ : 367086.6/21

All: 983.123+/-0.124  $\chi^2/\text{NDF}$ : 764189.2/41

# reg\_asym\_sam6\_mean vs Slug, Sign Corrected



Right In:  $-68.111 \pm 42.265$   $\chi^2/\text{NDF}: 27.8/16$

Left Out:  $310.678 \pm 38.802$   $\chi^2/\text{NDF}: 16.6/21$

Right Out:  $14.800 \pm 39.467$   $\chi^2/\text{NDF}: 23.1/18$

Left In:  $321.692 \pm 40.901$   $\chi^2/\text{NDF}: 23.2/19$

Left:  $315.895 \pm 28.150$   $\chi^2/\text{NDF}: 39.9/41$

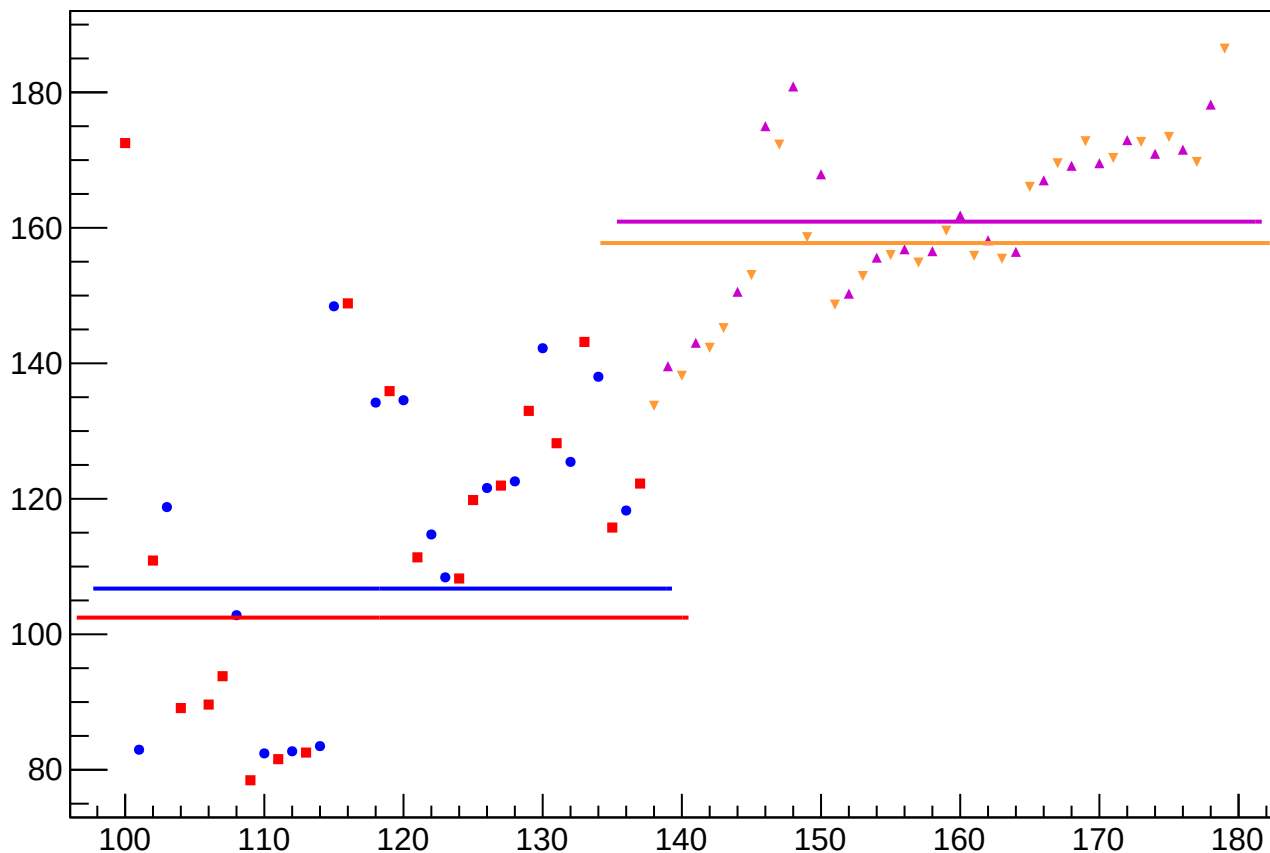
Right:  $-23.820 \pm 28.846$   $\chi^2/\text{NDF}: 53.0/35$

In:  $133.182 \pm 29.392$   $\chi^2/\text{NDF}: 94.9/36$

Out:  $165.251 \pm 27.669$   $\chi^2/\text{NDF}: 68.4/40$

All:  $150.184 \pm 20.147$   $\chi^2/\text{NDF}: 163.9/77$

# reg\_asym\_sam6\_rms vs Slug, Sign Corrected



Right In: 106.749 $\pm$ 0.030  $\chi^2$ /NDF: 501742.8/16

Left Out: 157.759 $\pm$ 0.027  $\chi^2$ /NDF:221413.9/21

Right Out: 102.467 $\pm$ 0.028  $\chi^2$ /NDF: 589344.0/18

Left In: 160.914 $\pm$ 0.029  $\chi^2$ /NDF:157979.5/19

Left: 159.253 $\pm$ 0.020  $\chi^2$ /NDF: 385655.9/41

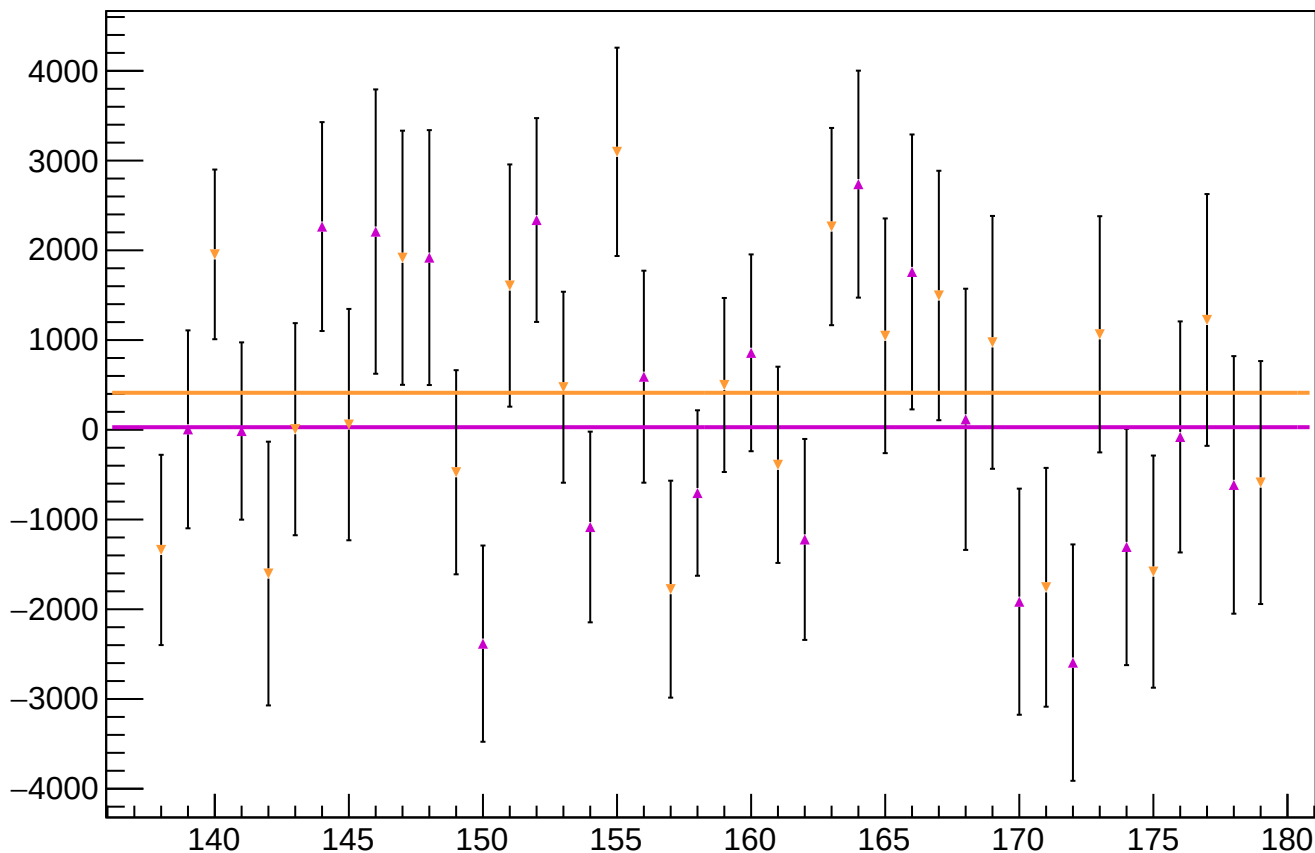
Right: 104.462 $\pm$ 0.020  $\chi^2$ /NDF: 1102055.3/35

In: 134.720 $\pm$ 0.021  $\chi^2$ /NDF:2355889.3/36

Out: 130.582 $\pm$ 0.020  $\chi^2$ /NDF:2806821.4/40

All: 132.526 $\pm$ 0.014  $\chi^2$ /NDF: 5183720.5/77

asym\_sam6\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 412.430+/-257.808  $\chi^2/\text{NDF}$ :29.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 28.929+/-268.286  $\chi^2/\text{NDF}$ :33.6/19

Left: 228.315+/-185.891  $\chi^2/\text{NDF}$ : 63.8/41

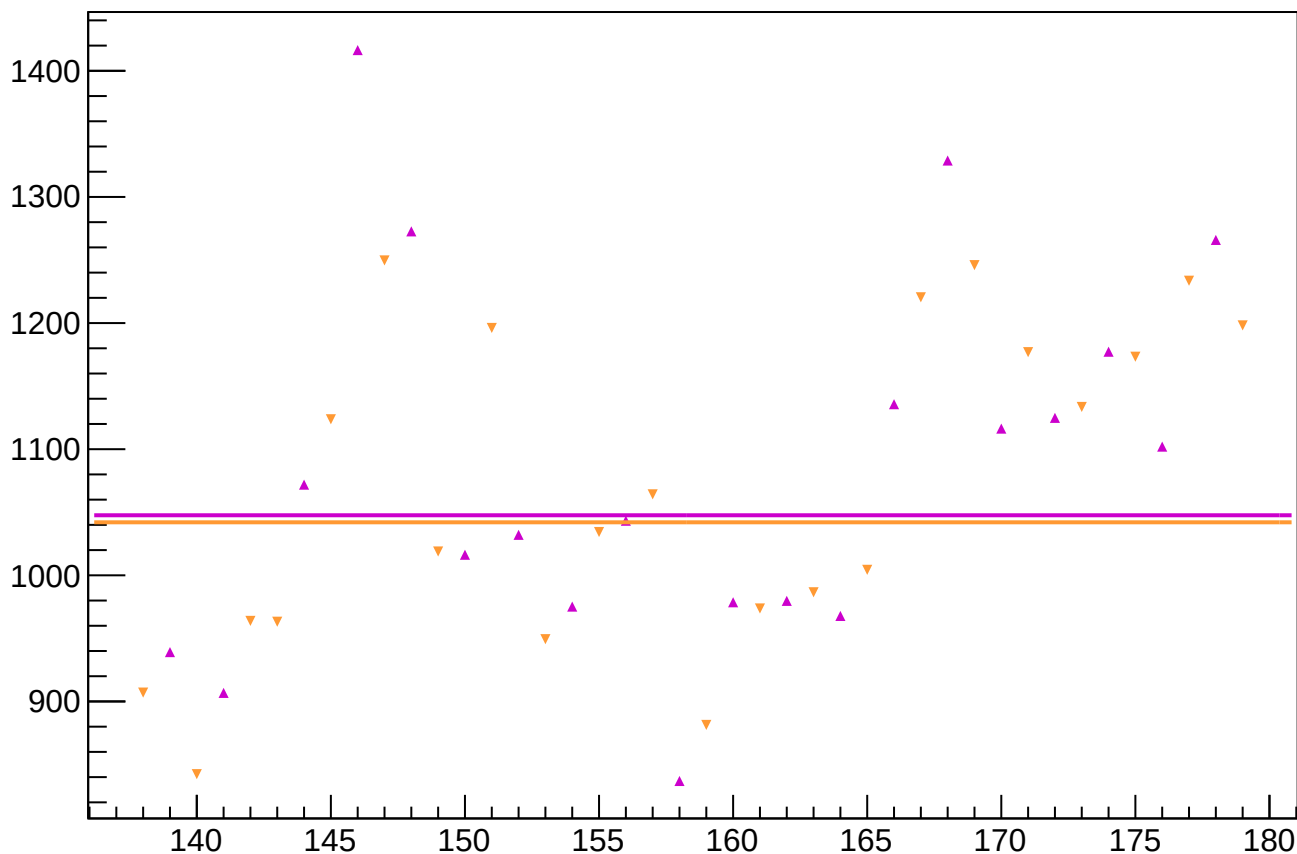
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 28.929+/-268.286  $\chi^2/\text{NDF}$ :33.6/19

Out: 412.430+/-257.808  $\chi^2/\text{NDF}$ :29.2/21

All: 228.315+/-185.891  $\chi^2/\text{NDF}$ : 63.8/41

asym\_sam6\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1042.030+/-0.182  $\chi^2/\text{NDF}$ : 489038.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 1047.618+/-0.190  $\chi^2/\text{NDF}$ : 521806.5/19

Left: 1044.713+/-0.131  $\chi^2/\text{NDF}$ : 1011296.0/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

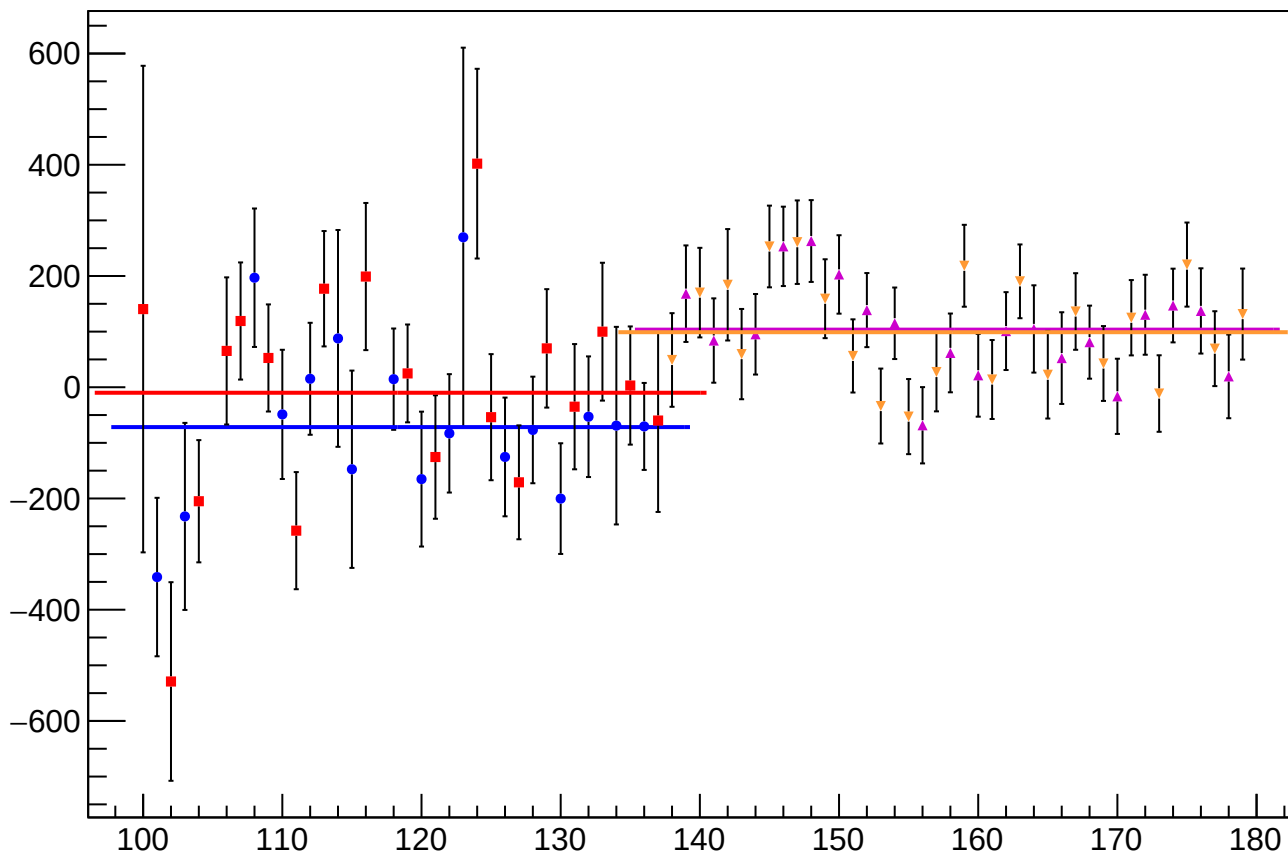
In: 1047.618+/-0.190  $\chi^2/\text{NDF}$ : 521806.5/19

Out: 1042.030+/-0.182  $\chi^2/\text{NDF}$ : 489038.4/21

All: 1044.713+/-0.131  $\chi^2/\text{NDF}$ : 1011296.0/41



# reg\_asym\_sam7\_mean vs Slug, Sign Corrected



Right In:  $-71.669 \pm 28.358$   $\chi^2/\text{NDF}: 15.2/16$

Left Out:  $98.955 \pm 15.511$   $\chi^2/\text{NDF}: 35.8/21$

Right Out:  $-9.917 \pm 26.816$   $\chi^2/\text{NDF}: 36.5/18$

Left In:  $103.551 \pm 16.071$   $\chi^2/\text{NDF}: 25.5/19$

Left:  $101.171 \pm 11.161$   $\chi^2/\text{NDF}: 61.4/41$

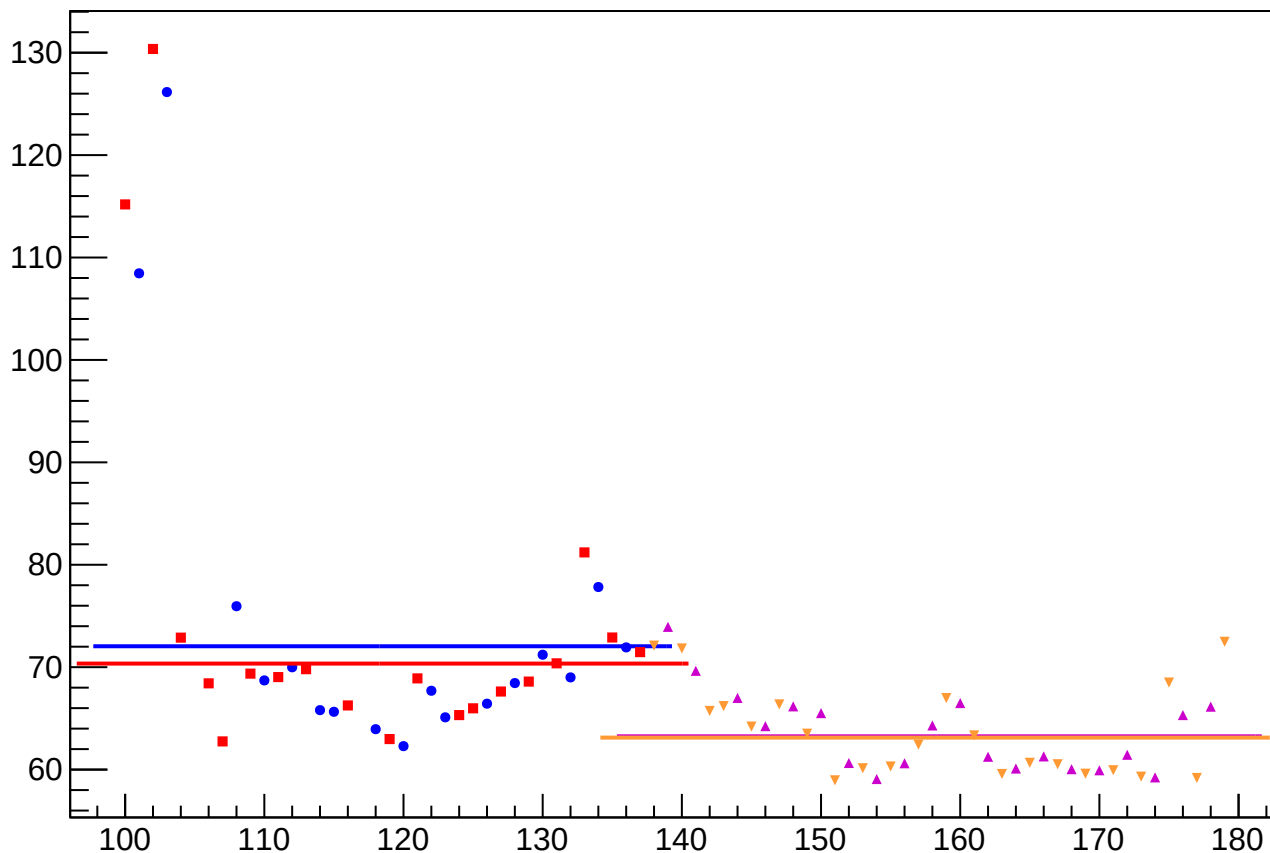
Right:  $-39.068 \pm 19.484$   $\chi^2/\text{NDF}: 54.2/35$

In:  $60.957 \pm 13.982$   $\chi^2/\text{NDF}: 69.7/36$

Out:  $71.662 \pm 13.427$   $\chi^2/\text{NDF}: 84.6/40$

All:  $66.526 \pm 9.684$   $\chi^2/\text{NDF}: 154.6/77$

# reg\_asym\_sam7\_rms vs Slug, Sign Corrected



Right In: 72.042 $\pm$ 0.020  $\chi^2$ /NDF: 391971.7/16

Left Out: 63.123 $\pm$ 0.011  $\chi^2$ /NDF: 145438.5/21

Right Out: 70.351 $\pm$ 0.019  $\chi^2$ /NDF: 299005.5/18

Left In: 63.251 $\pm$ 0.011  $\chi^2$ /NDF: 102784.2/19

Left: 63.185 $\pm$ 0.008  $\chi^2$ /NDF: 248288.7/41

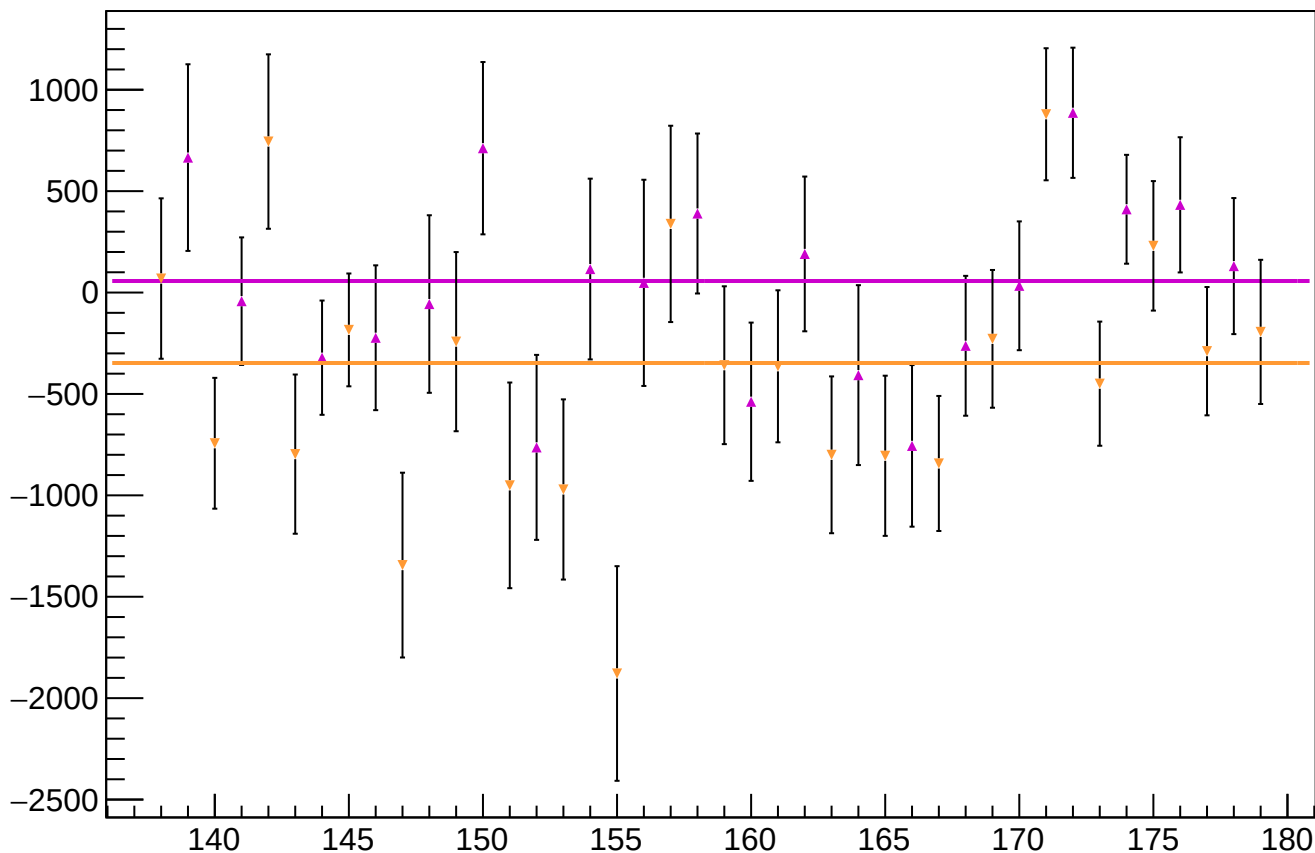
Right: 71.149 $\pm$ 0.014  $\chi^2$ /NDF: 694733.5/35

In: 65.388 $\pm$ 0.010  $\chi^2$ /NDF: 640231.5/36

Out: 64.935 $\pm$ 0.009  $\chi^2$ /NDF: 553315.3/40

All: 65.153 $\pm$ 0.007  $\chi^2$ /NDF: 1194640.6/77

asym\_sam7\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -347.362 $\pm$ 79.082  $\chi^2$ /NDF:52.2/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: 56.932 $\pm$ 81.432  $\chi^2$ /NDF:29.0/19

Left: -151.131 $\pm$ 56.732  $\chi^2$ /NDF: 93.8/41

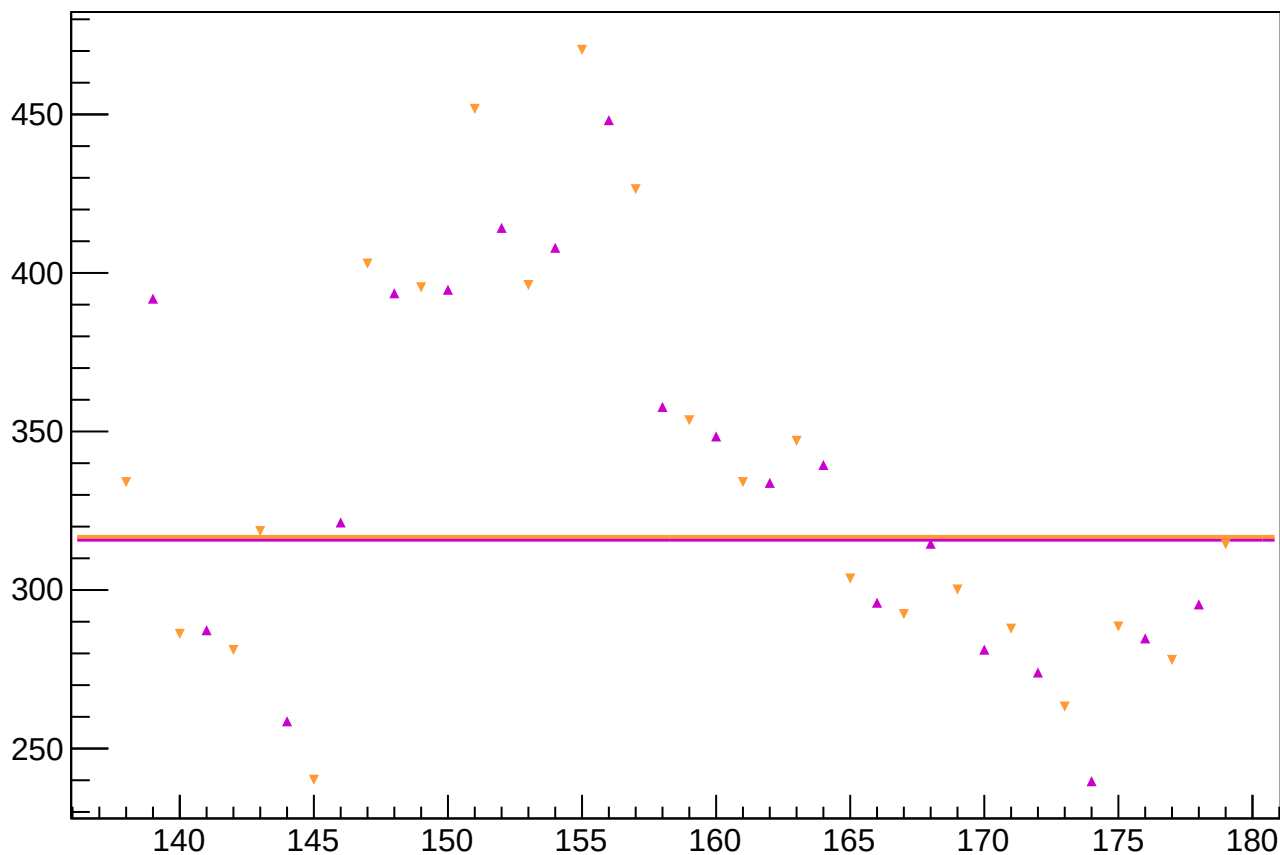
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: 56.932 $\pm$ 81.432  $\chi^2$ /NDF:29.0/19

Out: -347.362 $\pm$ 79.082  $\chi^2$ /NDF:52.2/21

All: -151.131 $\pm$ 56.732  $\chi^2$ /NDF: 93.8/41

asym\_sam7\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 316.758+/-0.056  $\chi^2/\text{NDF}$ : 974056.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 315.891+/-0.058  $\chi^2/\text{NDF}$ : 895382.9/19

Left: 316.337+/-0.040  $\chi^2/\text{NDF}$ : 1869555.9/41

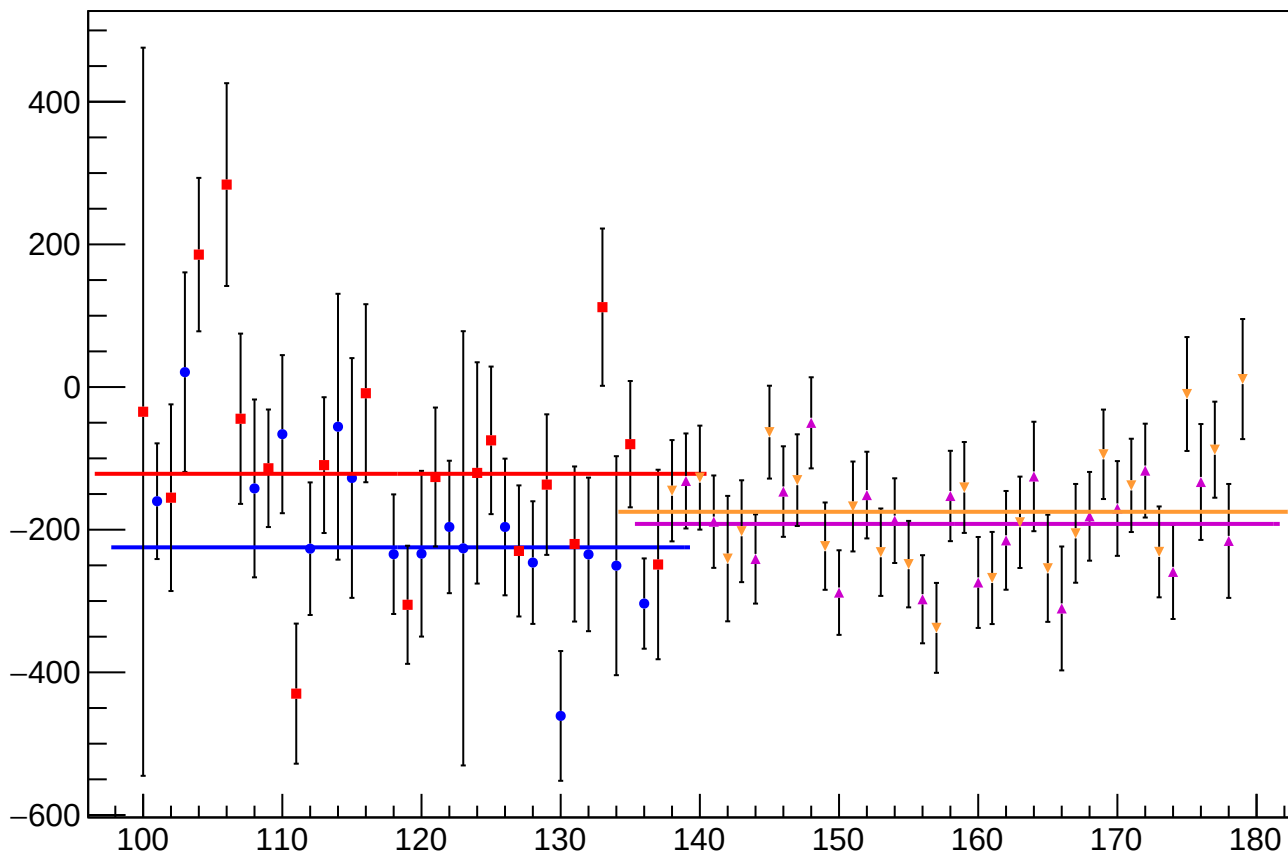
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 315.891+/-0.058  $\chi^2/\text{NDF}$ : 895382.9/19

Out: 316.758+/-0.056  $\chi^2/\text{NDF}$ : 974056.2/21

All: 316.337+/-0.040  $\chi^2/\text{NDF}$ : 1869555.9/41

# reg\_asym\_sam8\_mean vs Slug, Sign Corrected



Right In:  $-224.727 \pm 24.880$   $\chi^2/\text{NDF}: 16.0/16$

Left Out:  $-174.897 \pm 14.333$   $\chi^2/\text{NDF}: 31.6/21$

Right Out:  $-121.633 \pm 24.599$   $\chi^2/\text{NDF}: 40.5/18$

Left In:  $-191.884 \pm 14.787$   $\chi^2/\text{NDF}: 20.7/19$

Left:  $-183.126 \pm 10.292$   $\chi^2/\text{NDF}: 53.0/41$

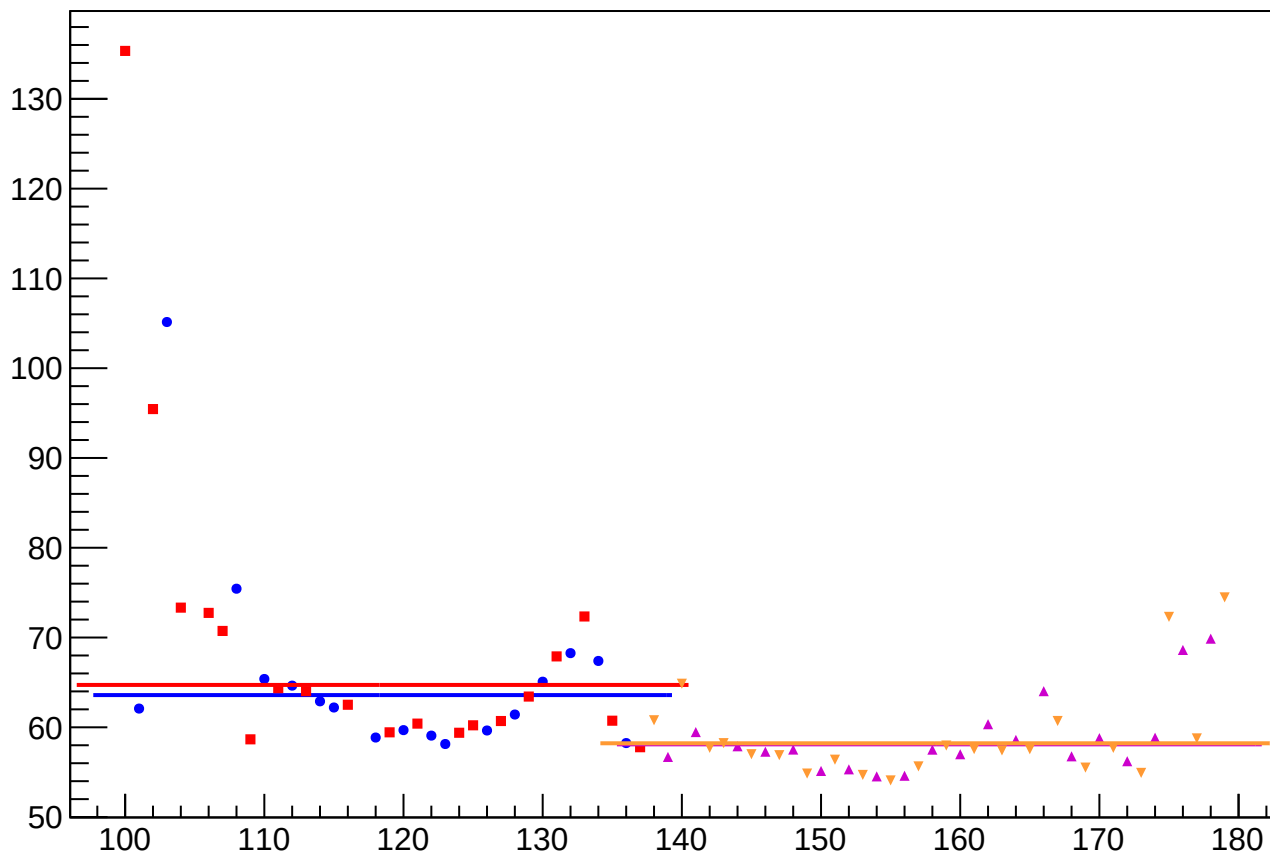
Right:  $-172.594 \pm 17.493$   $\chi^2/\text{NDF}: 65.1/35$

In:  $-200.457 \pm 12.712$   $\chi^2/\text{NDF}: 38.0/36$

Out:  $-161.397 \pm 12.384$   $\chi^2/\text{NDF}: 75.6/40$

All:  $-180.418 \pm 8.870$   $\chi^2/\text{NDF}: 118.4/77$

# reg\_asym\_sam8\_rms vs Slug, Sign Corrected



Right In: 63.589 $\pm$ 0.018  $\chi^2$ /NDF: 234601.0/16

Left Out: 58.221 $\pm$ 0.010  $\chi^2$ /NDF:197142.0/21

Right Out: 64.720 $\pm$ 0.017  $\chi^2$ /NDF: 227506.4/18

Left In: 58.101 $\pm$ 0.010  $\chi^2$ /NDF:117344.2/19

Left: 58.163 $\pm$ 0.007  $\chi^2$ /NDF: 314554.3/41

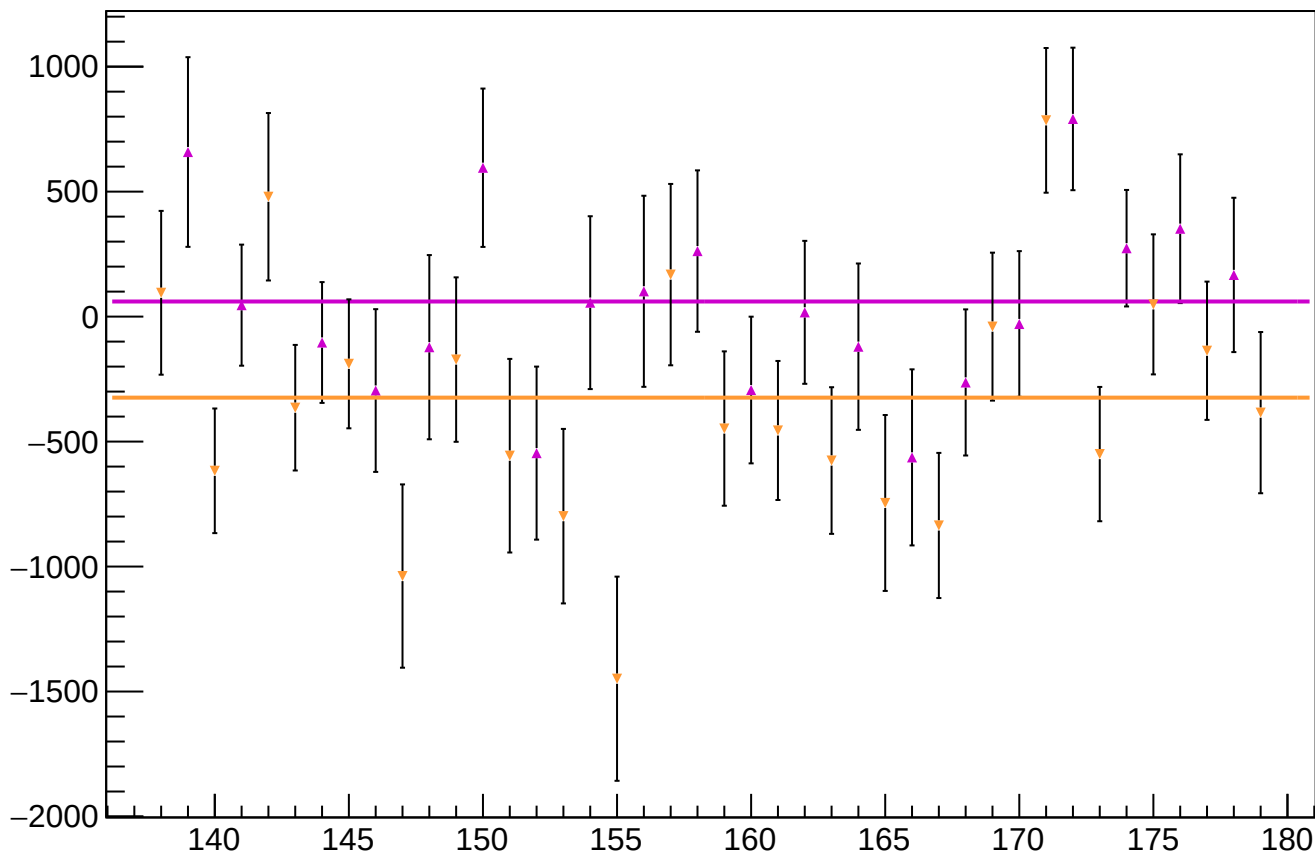
Right: 64.161 $\pm$ 0.012  $\chi^2$ /NDF: 464197.3/35

In: 59.533 $\pm$ 0.009  $\chi^2$ /NDF:423860.4/36

Out: 59.868 $\pm$ 0.009  $\chi^2$ /NDF:528871.5/40

All: 59.705 $\pm$ 0.006  $\chi^2$ /NDF: 953443.6/77

asym\_sam8\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -324.190+/-64.830  $\chi^2/\text{NDF}$ :48.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 60.422+/-67.738  $\chi^2/\text{NDF}$ :25.4/19

Left: -140.318+/-46.836  $\chi^2/\text{NDF}$ : 91.2/41

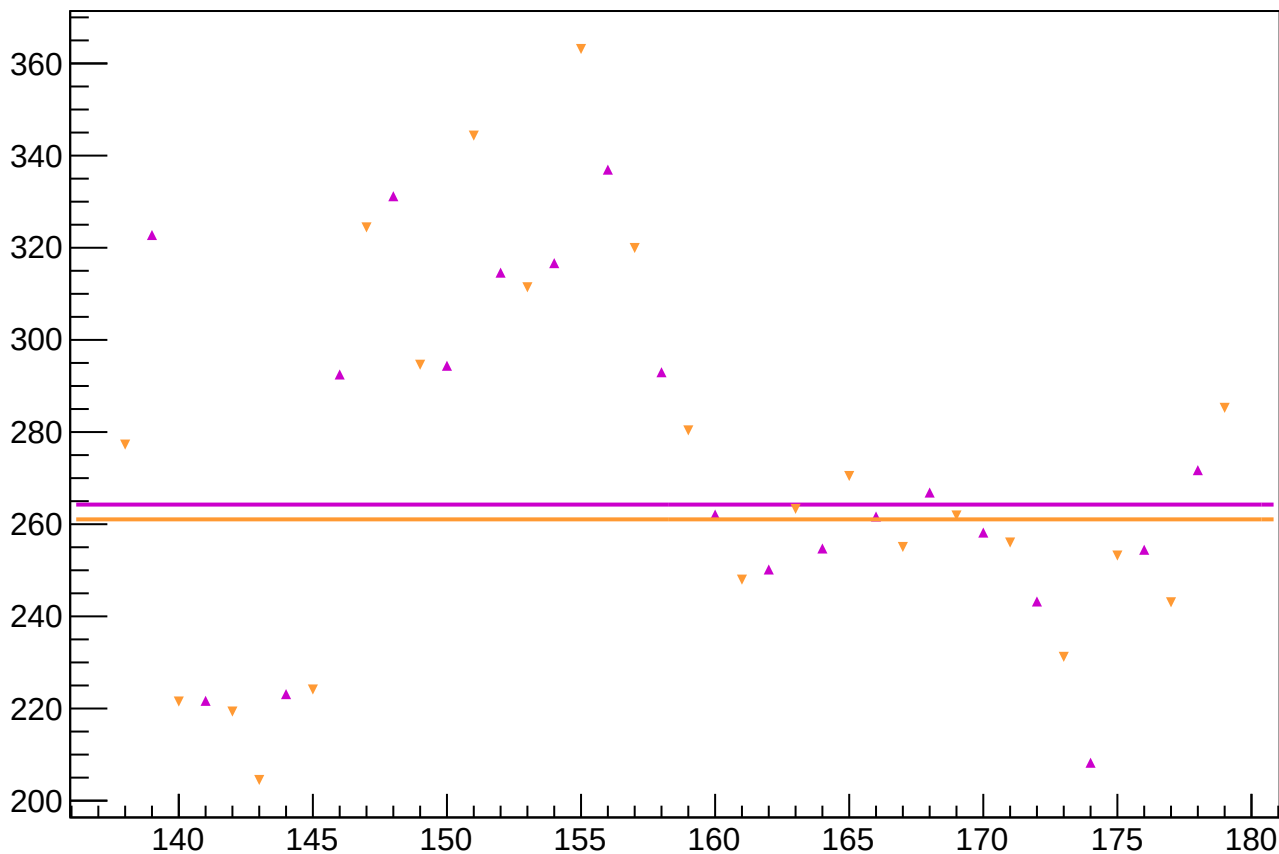
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 60.422+/-67.738  $\chi^2/\text{NDF}$ :25.4/19

Out: -324.190+/-64.830  $\chi^2/\text{NDF}$ :48.9/21

All: -140.318+/-46.836  $\chi^2/\text{NDF}$ : 91.2/41

# asym\_sam8\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 261.051+/-0.046  $\chi^2/\text{NDF}$ : 682115.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 264.260+/-0.048  $\chi^2/\text{NDF}$ : 580380.6/19

Left: 262.585+/-0.033  $\chi^2/\text{NDF}$ : 1264837.8/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

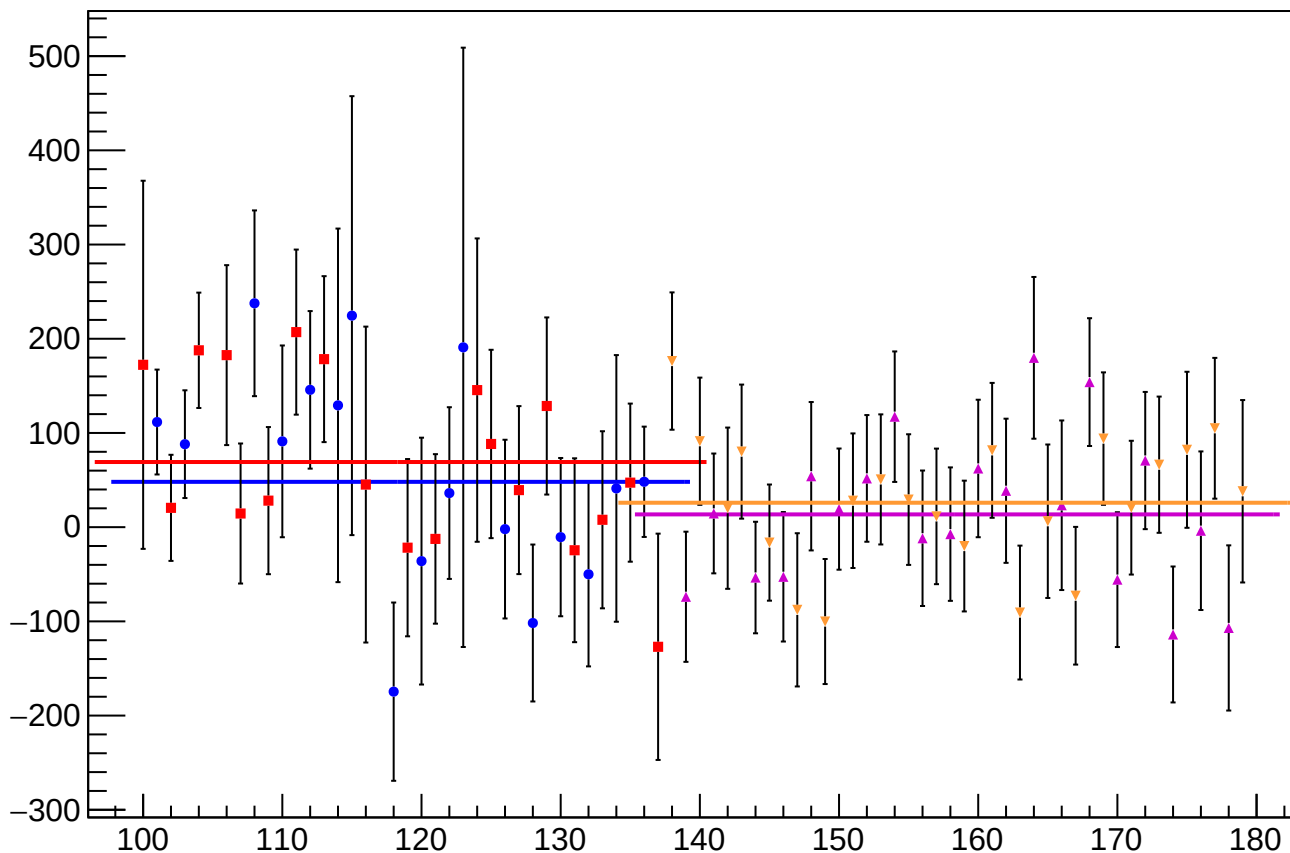
In: 264.260+/-0.048  $\chi^2/\text{NDF}$ : 580380.6/19

Out: 261.051+/-0.046  $\chi^2/\text{NDF}$ : 682115.5/21

All: 262.585+/-0.033  $\chi^2/\text{NDF}$ : 1264837.8/41



reg\_asym\_sam\_15\_avg\_mean vs Slug, Sign Corrected



Right In: 48.109 $\pm$ 21.510  $\chi^2$ /NDF: 19.0/16

Left Out: 25.932 $\pm$ 15.519  $\chi^2$ /NDF:20.5/21

Right Out: 69.156 $\pm$ 20.407  $\chi^2$ /NDF: 17.7/18

Left In: 13.555 $\pm$ 16.092  $\chi^2$ /NDF:22.1/19

Left: 19.968 $\pm$ 11.171  $\chi^2$ /NDF: 42.8/41

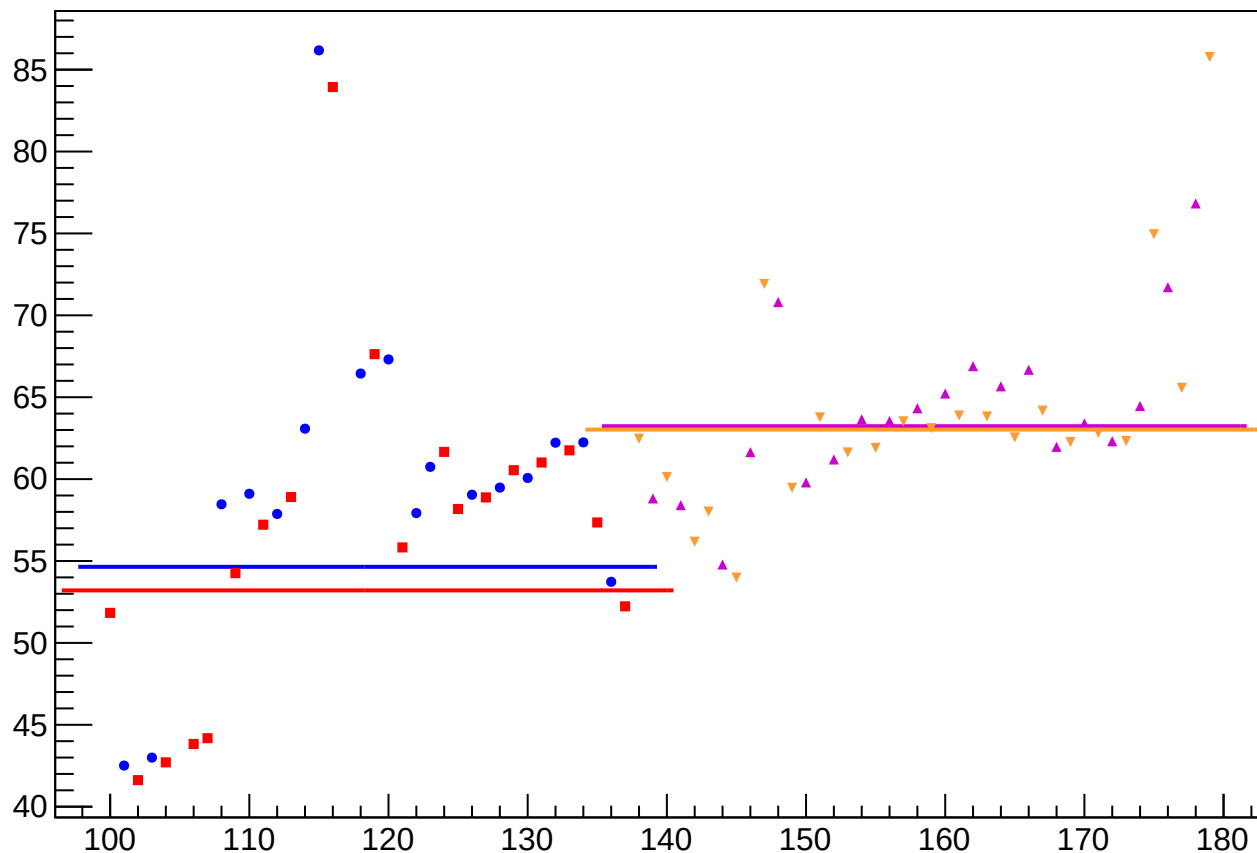
Right: 59.186 $\pm$ 14.805  $\chi^2$ /NDF: 37.1/35

In: 25.955 $\pm$ 12.885  $\chi^2$ /NDF:42.7/36

Out: 41.770 $\pm$ 12.353  $\chi^2$ /NDF:40.9/40

All: 34.196 $\pm$ 8.917  $\chi^2$ /NDF: 84.4/77

# reg\_asym\_sam\_15\_avg\_rms vs Slug, Sign Corrected



Right In: 54.645 $\pm$ 0.015  $\chi^2$ /NDF: 319300.2/16

Left Out: 63.023 $\pm$ 0.011  $\chi^2$ /NDF: 256533.5/21

Right Out: 53.207 $\pm$ 0.014  $\chi^2$ /NDF: 386295.2/18

Left In: 63.231 $\pm$ 0.011  $\chi^2$ /NDF: 168672.9/19

Left: 63.123 $\pm$ 0.008  $\chi^2$ /NDF: 425378.0/41

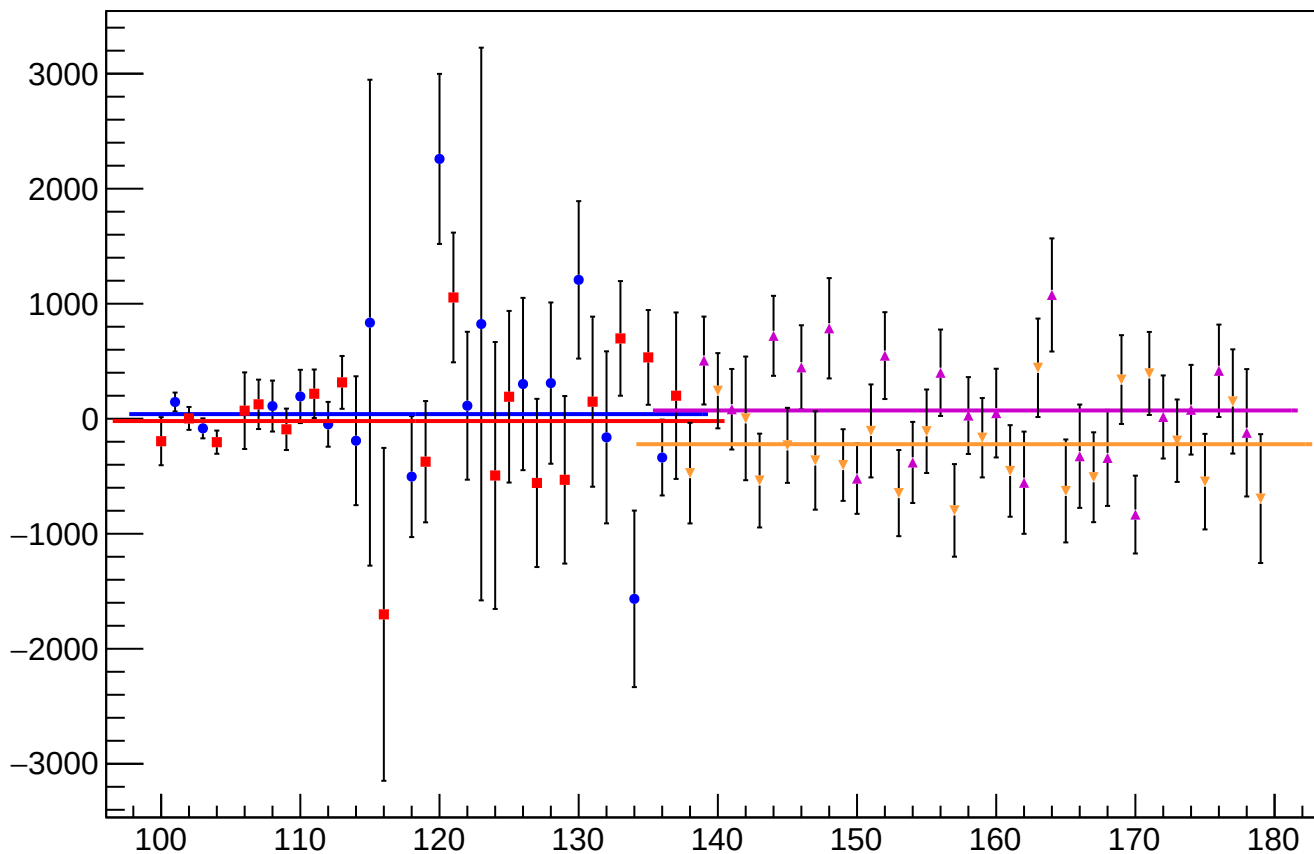
Right: 53.888 $\pm$ 0.010  $\chi^2$ /NDF: 710299.5/35

In: 60.150 $\pm$ 0.009  $\chi^2$ /NDF: 692268.7/36

Out: 59.426 $\pm$ 0.009  $\chi^2$ /NDF: 936046.5/40

All: 59.773 $\pm$ 0.006  $\chi^2$ /NDF: 1631598.3/77

asym\_sam\_15\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 40.207 $\pm$ 51.542  $\chi^2$ /NDF: 23.9/16

Left Out: -221.328 $\pm$ 83.344  $\chi^2$ /NDF:18.3/21

Right Out: -20.232 $\pm$ 53.274  $\chi^2$ /NDF: 18.9/18

Left In: 71.894 $\pm$ 85.486  $\chi^2$ /NDF:32.2/19

Left: -78.437 $\pm$ 59.676  $\chi^2$ /NDF: 56.5/41

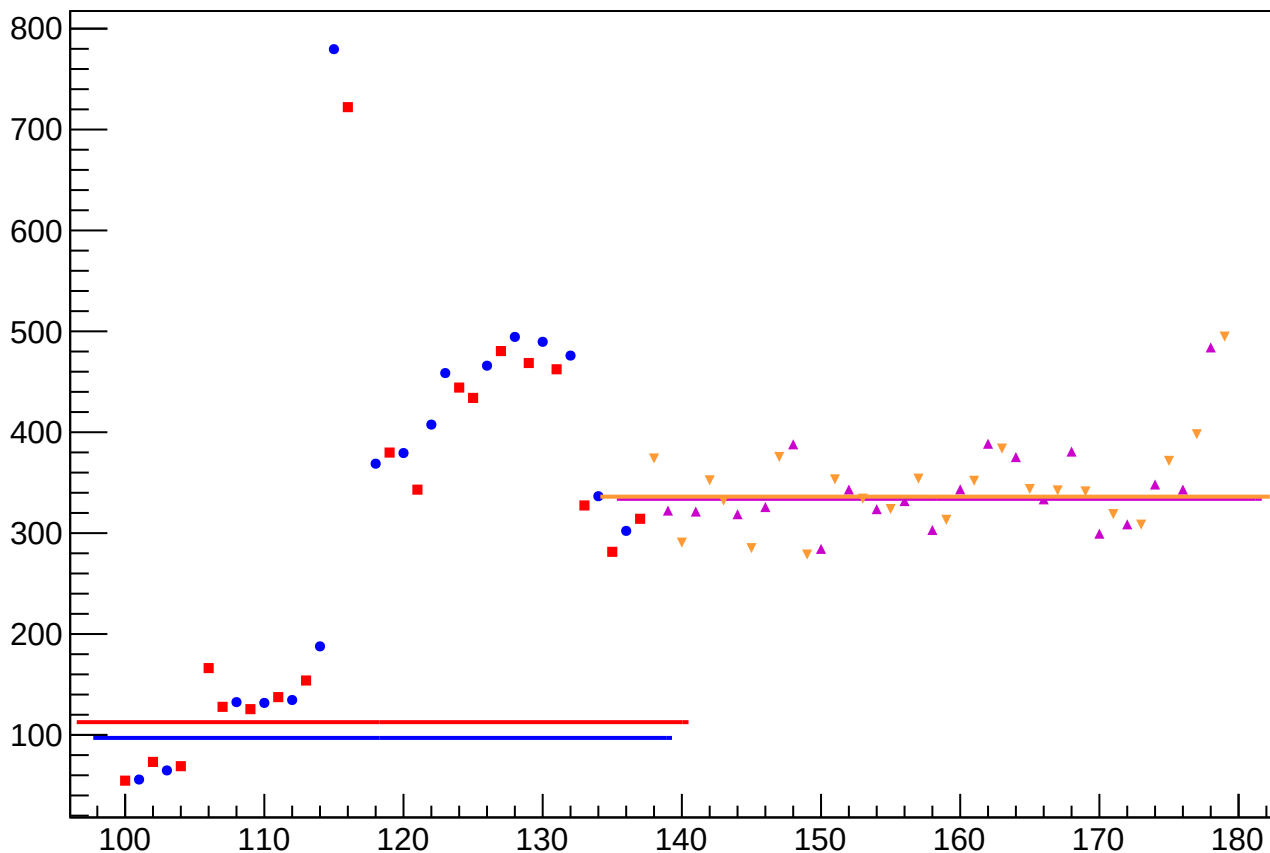
Right: 10.986 $\pm$ 37.043  $\chi^2$ /NDF: 43.4/35

In: 48.655 $\pm$ 44.140  $\chi^2$ /NDF:56.2/36

Out: -78.564 $\pm$ 44.887  $\chi^2$ /NDF:41.3/40

All: -13.886 $\pm$ 31.473  $\chi^2$ /NDF: 101.6/77

asym\_sam\_15\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 97.039+/-0.036  $\chi^2/\text{NDF}$ : 5819709.2/16

Left Out: 336.134+/-0.059  $\chi^2/\text{NDF}$ : 466494.2/21

Right Out: 112.653+/-0.038  $\chi^2/\text{NDF}$ : 5036306.5/18

Left In: 333.992+/-0.060  $\chi^2/\text{NDF}$ : 364388.3/19

Left: 335.090+/-0.042  $\chi^2/\text{NDF}$ : 831526.6/41

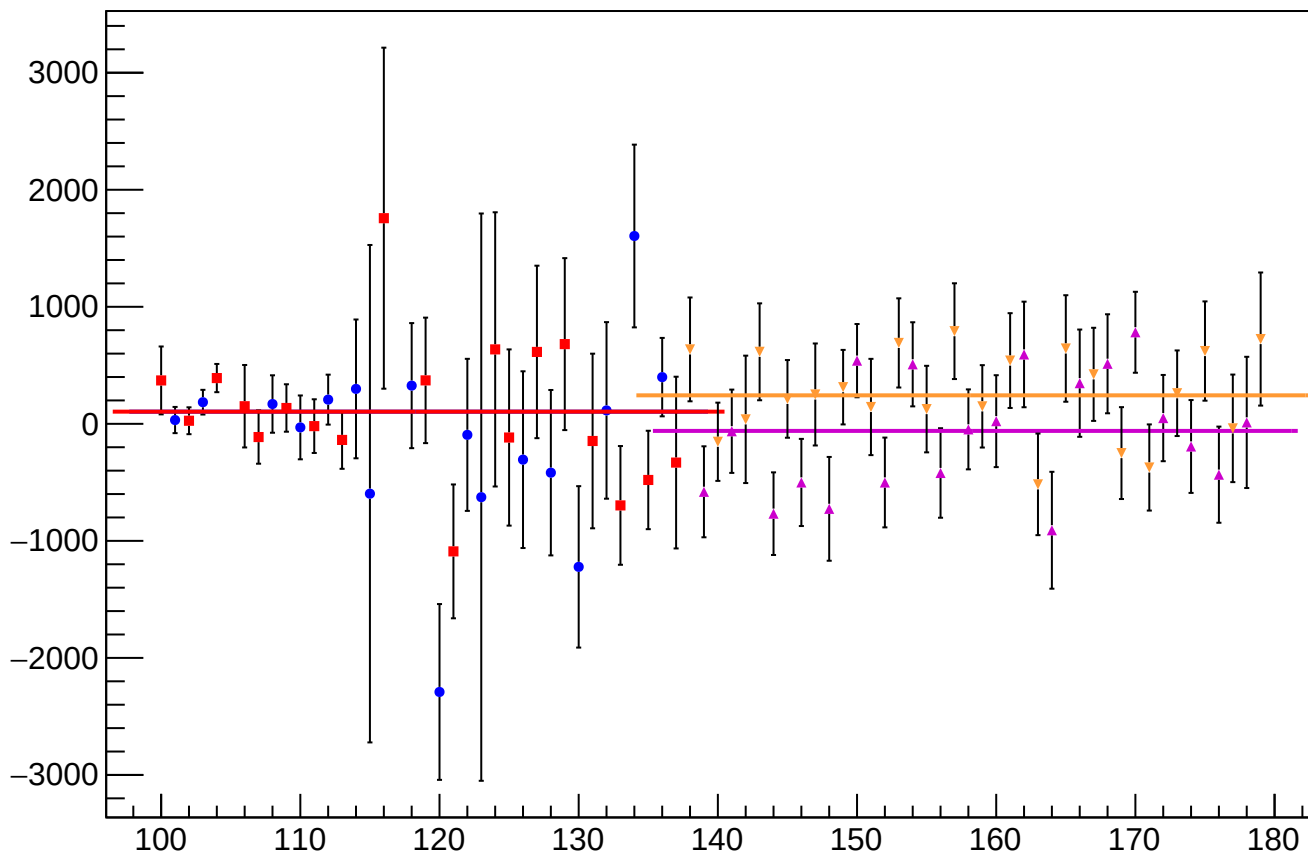
Right: 104.588+/-0.026  $\chi^2/\text{NDF}$ : 10944761.2/35

In: 160.212+/-0.031  $\chi^2/\text{NDF}$ : 17453416.1/36

Out: 177.478+/-0.032  $\chi^2/\text{NDF}$ : 15711692.8/40

All: 168.700+/-0.022  $\chi^2/\text{NDF}$ : 33315552.1/77

asym\_sam\_15\_avg\_mean vs Slug, Sign Corrected



Right In: 104.001 $\pm$ 63.156  $\chi^2$ /NDF: 21.3/16

Left Out: 243.512 $\pm$ 84.848  $\chi^2$ /NDF:17.5/21

Right Out: 104.140 $\pm$ 60.857  $\chi^2$ /NDF: 21.3/18

Left In: -60.432 $\pm$ 87.061  $\chi^2$ /NDF:32.5/19

Left: 95.452 $\pm$ 60.764  $\chi^2$ /NDF: 56.2/41

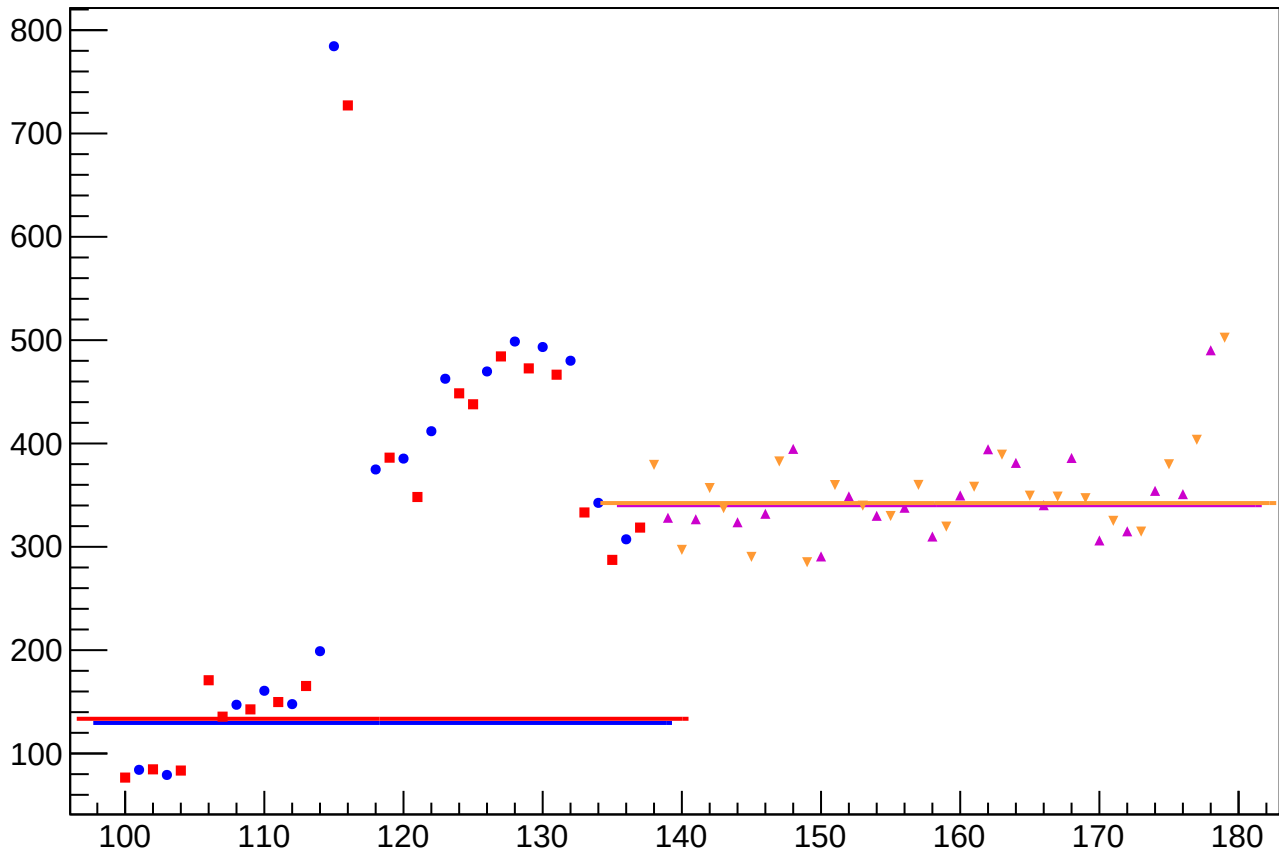
Right: 104.073 $\pm$ 43.823  $\chi^2$ /NDF: 42.6/35

In: 47.305 $\pm$ 51.122  $\chi^2$ /NDF:56.1/36

Out: 151.484 $\pm$ 49.452  $\chi^2$ /NDF:40.6/40

All: 101.123 $\pm$ 35.543  $\chi^2$ /NDF: 98.9/77

# asym\_sam\_15\_avg\_rms vs Slug, Sign Corrected



Right In: 129.552 $\pm$ 0.045  $\chi^2$ /NDF: 4772450.4/16

Left Out: 342.350 $\pm$ 0.060  $\chi^2$ /NDF: 454306.6/21

Right Out: 133.593 $\pm$ 0.043  $\chi^2$ /NDF: 4366252.1/18

Left In: 340.274 $\pm$ 0.062  $\chi^2$ /NDF: 351510.5/19

Left: 341.339 $\pm$ 0.043  $\chi^2$ /NDF: 806400.2/41

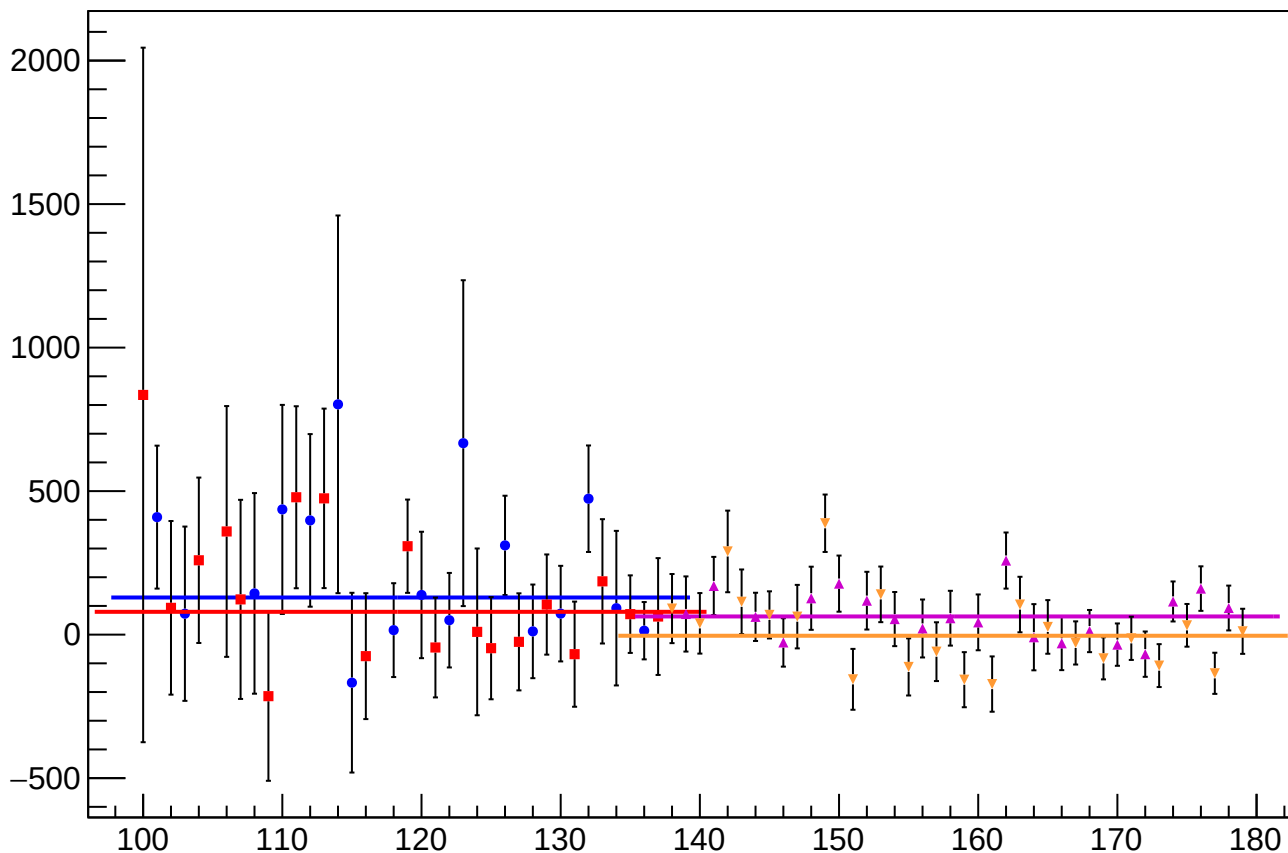
Right: 131.647 $\pm$ 0.031  $\chi^2$ /NDF: 9142947.8/35

In: 202.209 $\pm$ 0.036  $\chi^2$ /NDF: 12800841.2/36

Out: 204.506 $\pm$ 0.035  $\chi^2$ /NDF: 12814859.4/40

All: 203.396 $\pm$ 0.025  $\chi^2$ /NDF: 25617787.4/77

# reg\_asym\_sam\_26\_avg\_mean vs Slug, Sign Corrected



Right In: 129.398 $\pm$ 49.122  $\chi^2$ /NDF: 12.9/16

Left Out: -3.886 $\pm$ 19.236  $\chi^2$ /NDF:42.2/21

Right Out: 79.483 $\pm$ 49.886  $\chi^2$ /NDF: 10.2/18

Left In: 63.338 $\pm$ 19.961  $\chi^2$ /NDF:17.1/19

Left: 28.485 $\pm$ 13.851  $\chi^2$ /NDF: 65.2/41

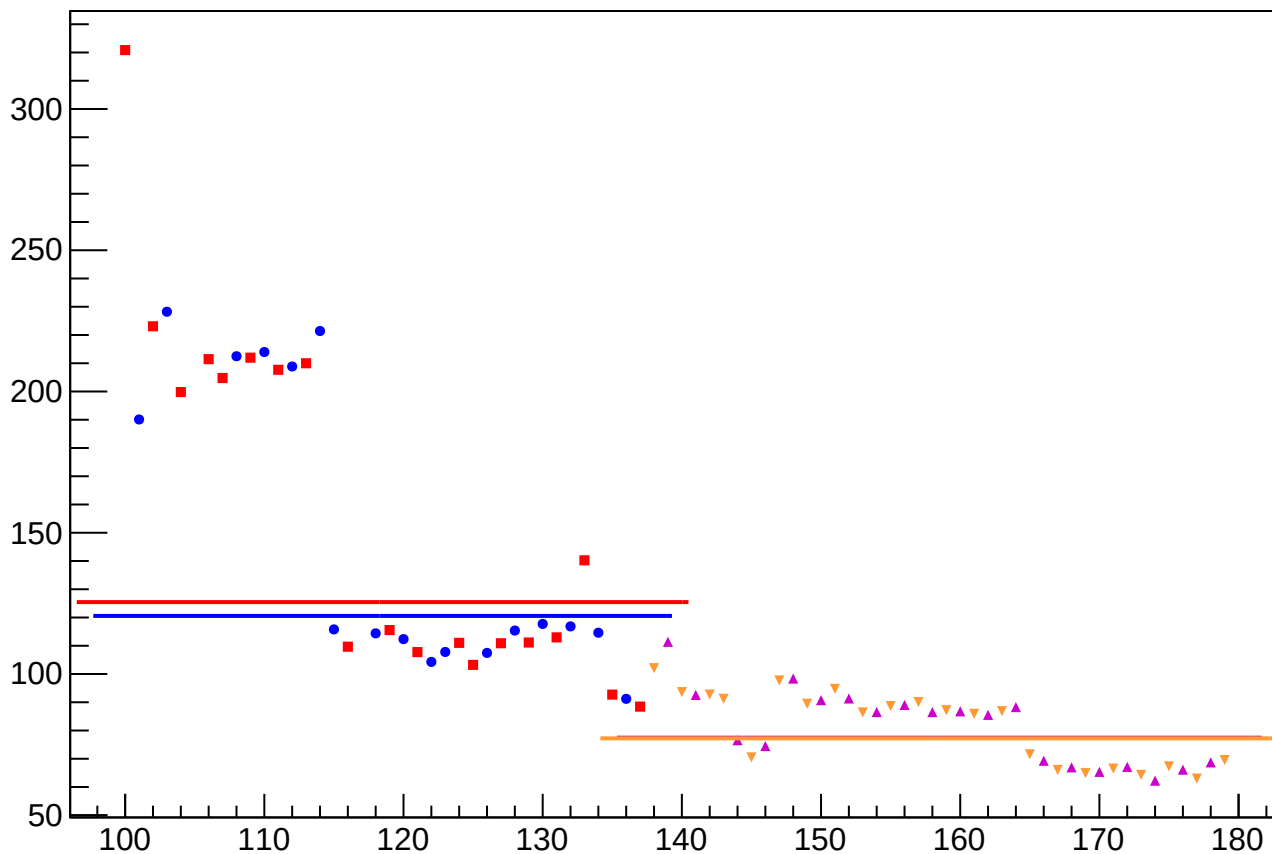
Right: 104.826 $\pm$ 35.001  $\chi^2$ /NDF: 23.7/35

In: 72.700 $\pm$ 18.492  $\chi^2$ /NDF:31.6/36

Out: 6.906 $\pm$ 17.948  $\chi^2$ /NDF:54.9/40

All: 38.821 $\pm$ 12.879  $\chi^2$ /NDF: 93.0/77

reg\_asym\_sam\_26\_avg\_rms vs Slug, Sign Corrected



Right In: 120.565 $\pm$ 0.035  $\chi^2$ /NDF: 1112076.4/16

Left Out: 77.226 $\pm$ 0.014  $\chi^2$ /NDF: 829484.0/21

Right Out: 125.458 $\pm$ 0.035  $\chi^2$ /NDF: 1333754.6/18

Left In: 77.460 $\pm$ 0.014  $\chi^2$ /NDF: 748785.1/19

Left: 77.338 $\pm$ 0.010  $\chi^2$ /NDF: 1578411.4/41

Right: 122.974 $\pm$ 0.025  $\chi^2$ /NDF: 2455600.4/35

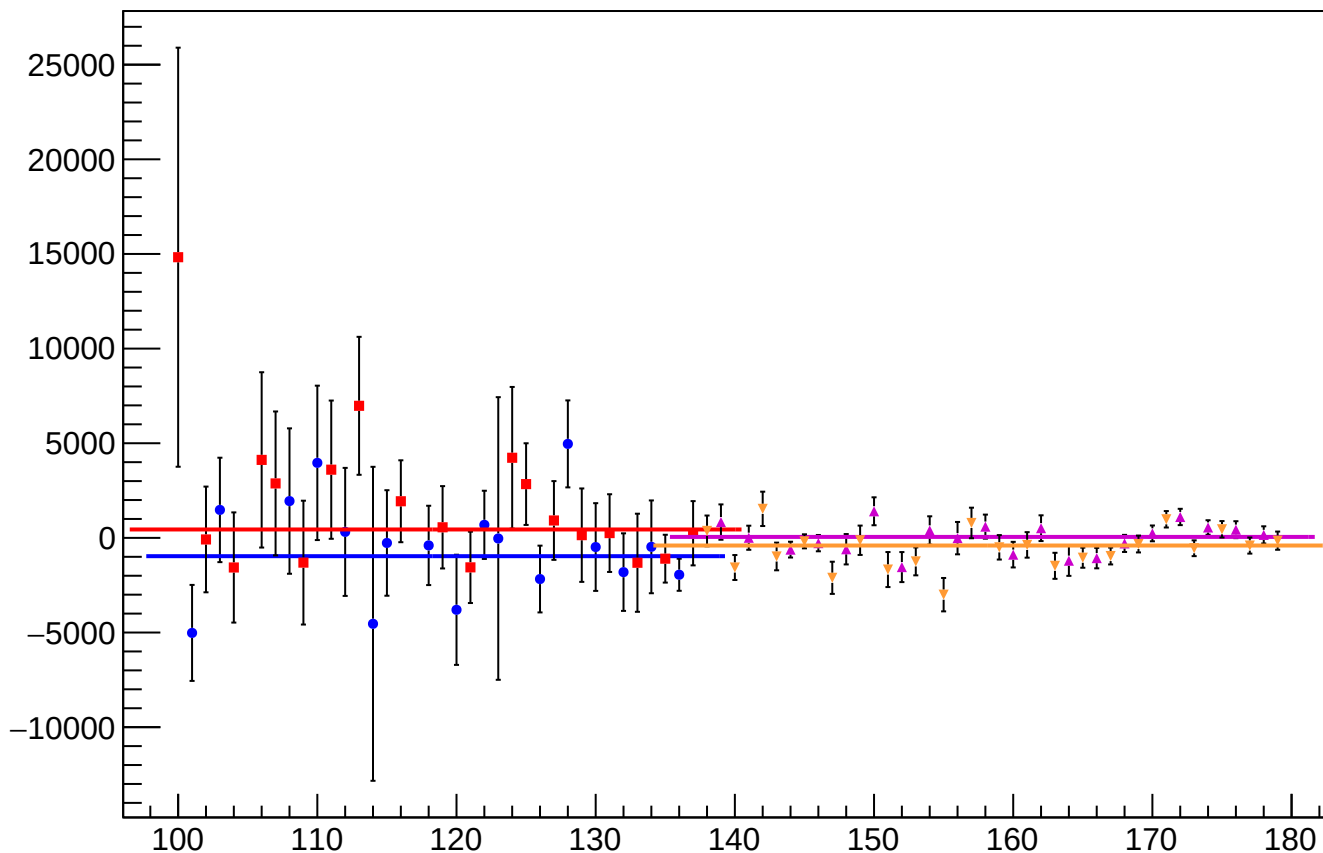
In: 83.568 $\pm$ 0.013  $\chi^2$ /NDF: 3182703.7/36

Out: 83.469 $\pm$ 0.013  $\chi^2$ /NDF: 3790863.2/40

All: 83.517 $\pm$ 0.009  $\chi^2$ /NDF: 6973596.5/77



asym\_sam\_26\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -966.587 $\pm$ 512.340  $\chi^2/\text{NDF}$ : 16.4/16

Left Out: -403.358 $\pm$ 119.862  $\chi^2/\text{NDF}$ : 47.7/21

Right Out: 444.406 $\pm$ 545.370  $\chi^2/\text{NDF}$ : 13.4/18

Left In: 51.275 $\pm$ 121.793  $\chi^2/\text{NDF}$ : 31.3/19

Left: -179.674 $\pm$ 85.430  $\chi^2/\text{NDF}$ : 86.1/41

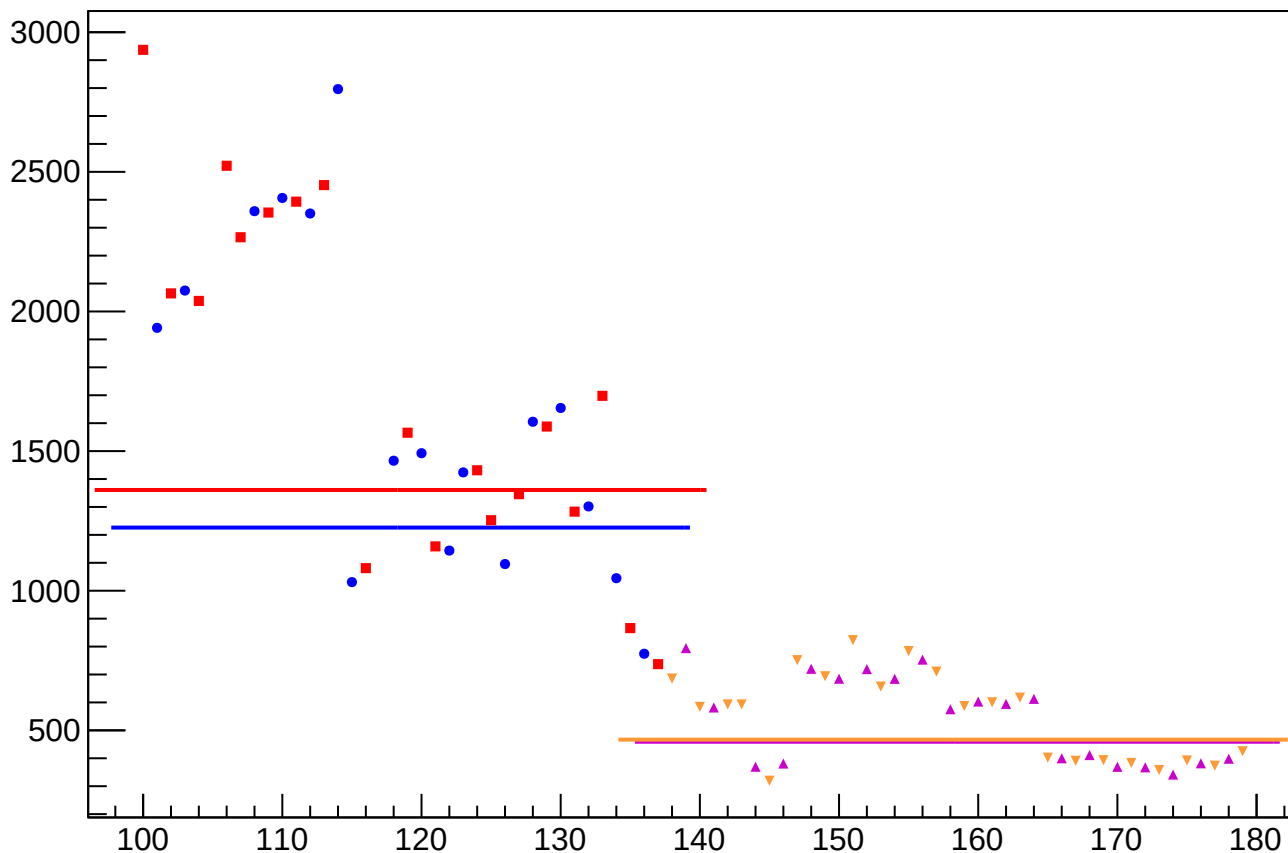
Right: -305.110 $\pm$ 373.410  $\chi^2/\text{NDF}$ : 33.3/35

In: -3.168 $\pm$ 118.491  $\chi^2/\text{NDF}$ : 51.4/36

Out: -364.295 $\pm$ 117.068  $\chi^2/\text{NDF}$ : 63.4/40

All: -185.913 $\pm$ 83.278  $\chi^2/\text{NDF}$ : 119.5/77

asym\_sam\_26\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 1226.135+/-0.362  $\chi^2/\text{NDF}$ : 1756323.1/16

Left Out: 466.737+/-0.085  $\chi^2/\text{NDF}$ : 2652664.8/21

Right Out: 1360.770+/-0.386  $\chi^2/\text{NDF}$ : 1749074.9/18

Left In: 459.207+/-0.086  $\chi^2/\text{NDF}$ : 2346764.6/19

Left: 463.032+/-0.060  $\chi^2/\text{NDF}$ : 5003313.6/41

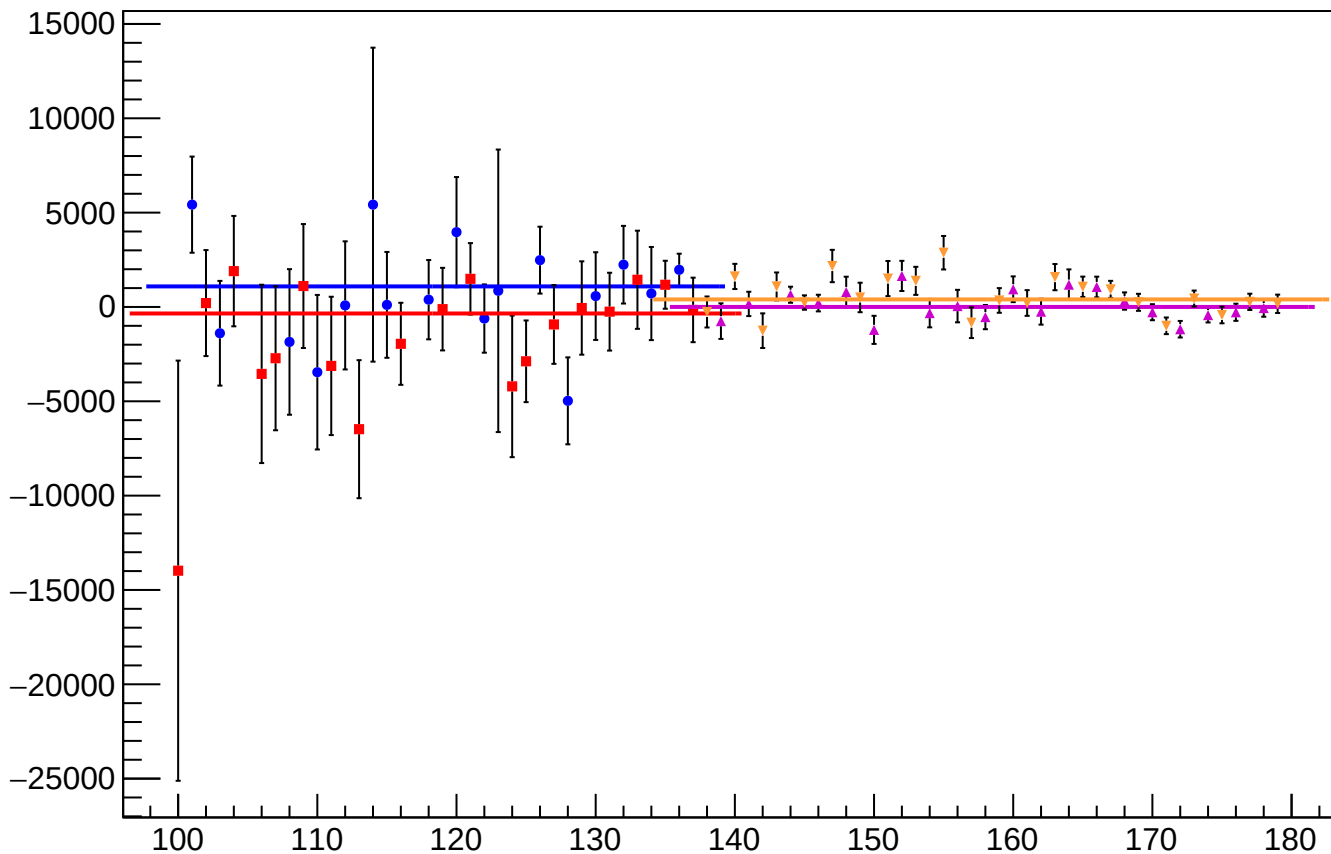
Right: 1289.252+/-0.264  $\chi^2/\text{NDF}$ : 3570145.2/35

In: 500.228+/-0.084  $\chi^2/\text{NDF}$ : 8344874.2/36

Out: 507.933+/-0.083  $\chi^2/\text{NDF}$ : 9528779.0/40

All: 504.127+/-0.059  $\chi^2/\text{NDF}$ : 17877932.1/77

# asym\_sam\_26\_avg\_mean vs Slug, Sign Corrected



Right In: 1089.066+/-515.272  $\chi^2/\text{NDF}$ : 16.9/16

Left Out: 399.984+/-121.582  $\chi^2/\text{NDF}$ :45.8/21

Right Out: -345.640+/-548.191  $\chi^2/\text{NDF}$ : 12.5/18

Left In: 1.183+/-123.627  $\chi^2/\text{NDF}$ :29.6/19

Left: 203.909+/-86.685  $\chi^2/\text{NDF}$ : 80.7/41

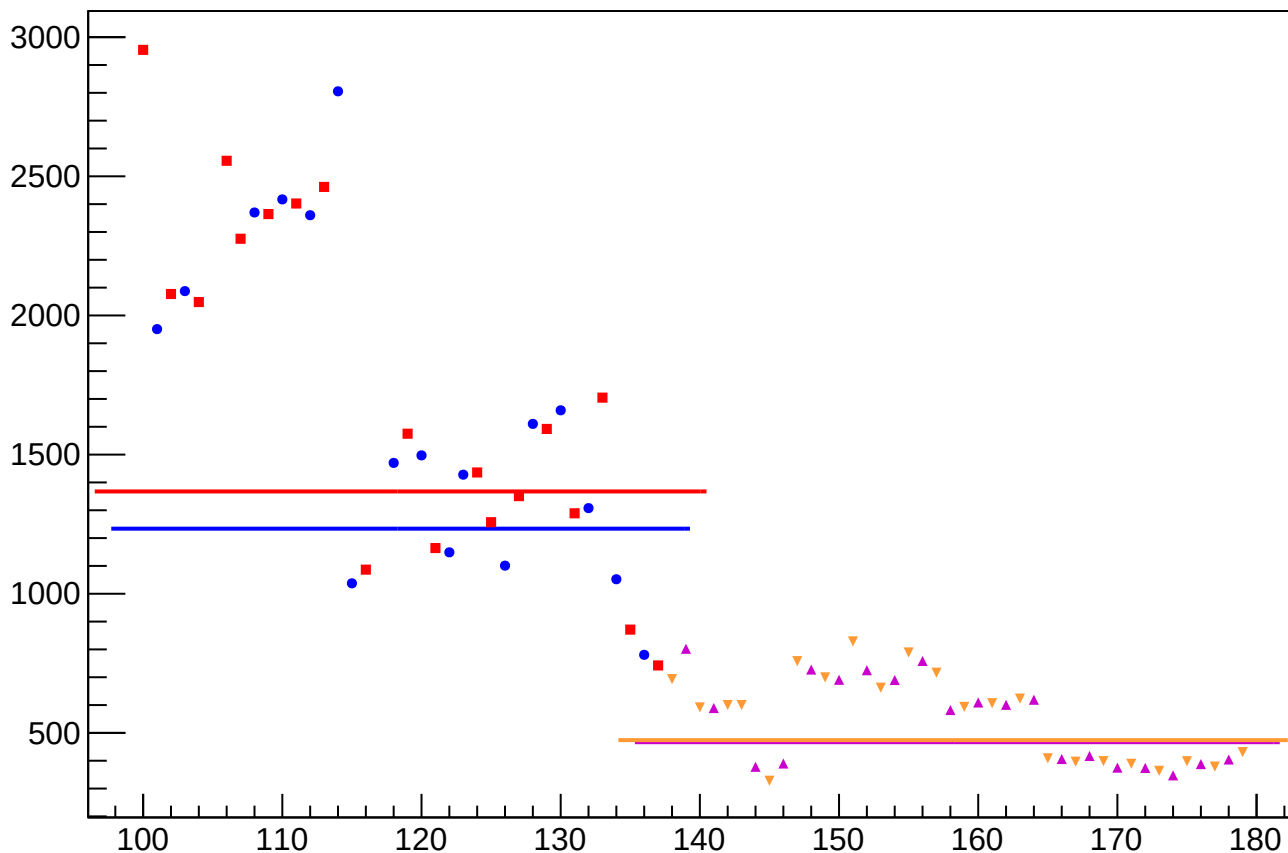
Right: 416.082+/-375.451  $\chi^2/\text{NDF}$ : 33.1/35

In: 60.397+/-120.215  $\chi^2/\text{NDF}$ :50.8/36

Out: 365.027+/-118.697  $\chi^2/\text{NDF}$ :60.0/40

All: 214.647+/-84.463  $\chi^2/\text{NDF}$ : 114.1/77

# asym\_sam\_26\_avg\_rms vs Slug, Sign Corrected



Right In: 1233.863+/-0.364  $\chi^2/\text{NDF}$ : 1744048.5/16

Left Out: 473.980+/-0.086  $\chi^2/\text{NDF}$ : 2587742.8/21

Right Out: 1367.609+/-0.388  $\chi^2/\text{NDF}$ : 1744594.4/18

Left In: 466.636+/-0.087  $\chi^2/\text{NDF}$ : 2290154.1/19

Left: 470.369+/-0.061  $\chi^2/\text{NDF}$ : 4881484.9/41

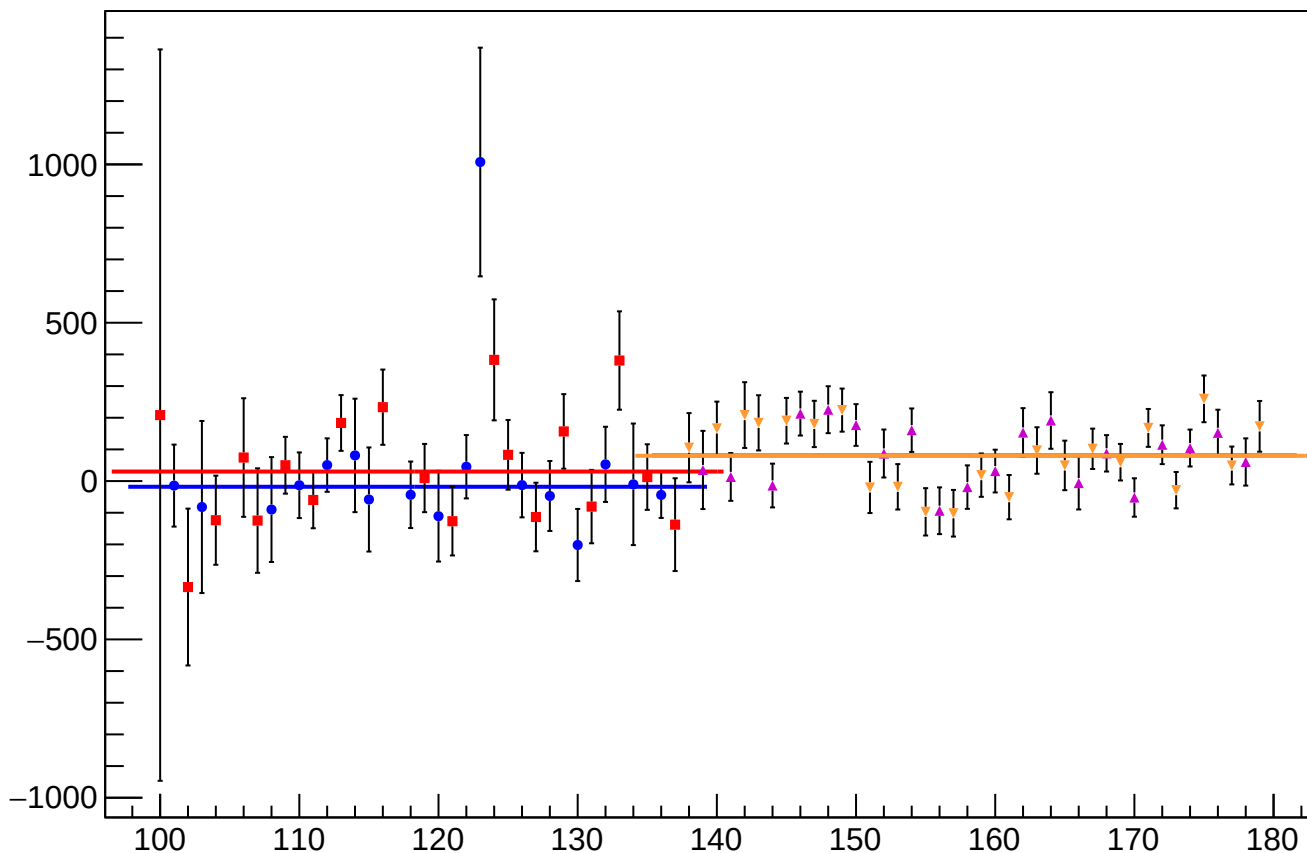
Right: 1296.600+/-0.265  $\chi^2/\text{NDF}$ : 3551849.9/35

In: 508.396+/-0.085  $\chi^2/\text{NDF}$ : 8226942.3/36

Out: 515.876+/-0.084  $\chi^2/\text{NDF}$ : 9397887.2/40

All: 512.184+/-0.060  $\chi^2/\text{NDF}$ : 17628750.0/77

# reg\_asym\_sam\_37\_avg\_mean vs Slug, Sign Corrected



Right In:  $-17.972 \pm 28.848$   $\chi^2/\text{NDF}: 13.4/16$

Left Out:  $79.892 \pm 15.307$   $\chi^2/\text{NDF}: 45.9/21$

Right Out:  $30.070 \pm 27.976$   $\chi^2/\text{NDF}: 27.4/18$

Left In:  $80.956 \pm 15.783$   $\chi^2/\text{NDF}: 31.8/19$

Left:  $80.408 \pm 10.988$   $\chi^2/\text{NDF}: 77.7/41$

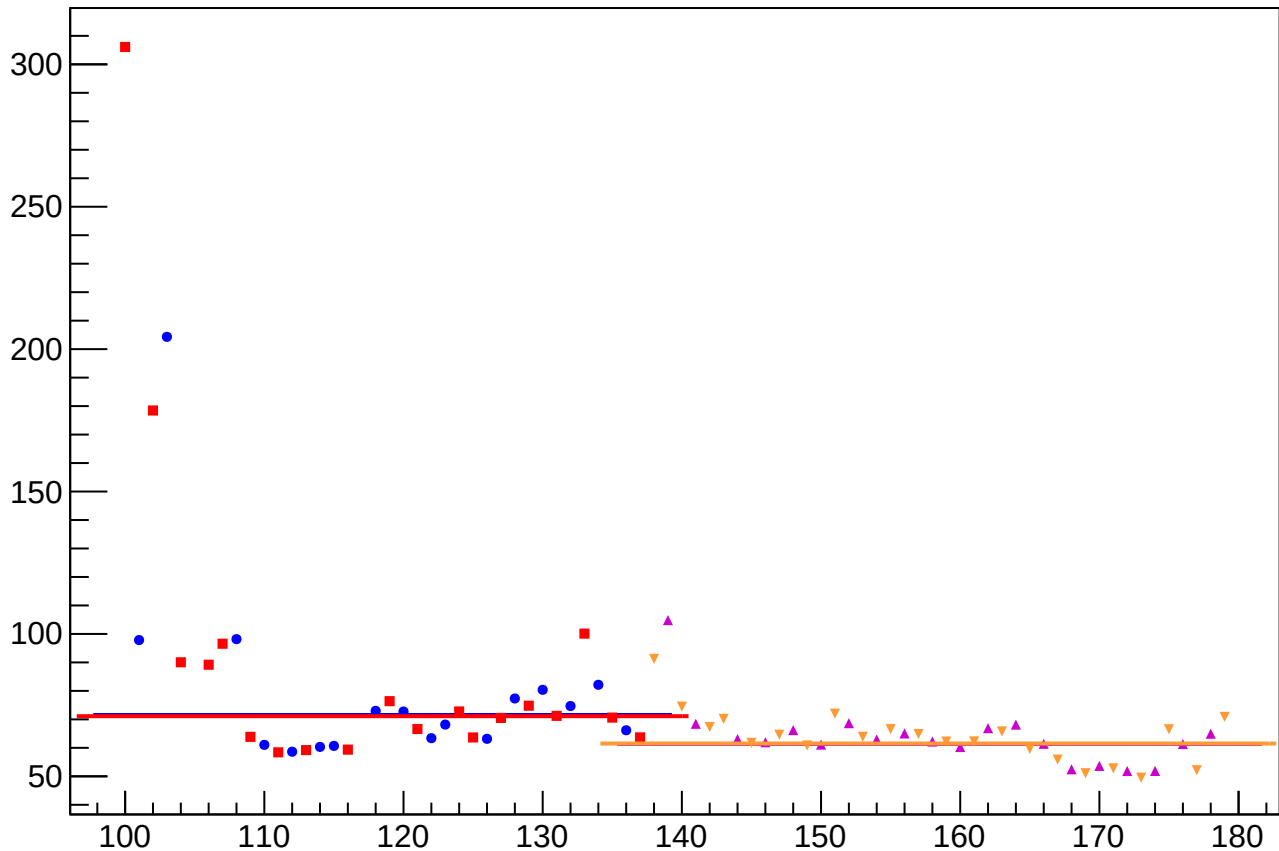
Right:  $6.786 \pm 20.083$   $\chi^2/\text{NDF}: 42.2/35$

In:  $58.165 \pm 13.846$   $\chi^2/\text{NDF}: 54.3/36$

Out:  $68.414 \pm 13.428$   $\chi^2/\text{NDF}: 75.7/40$

All:  $63.447 \pm 9.640$   $\chi^2/\text{NDF}: 130.3/77$

reg\_asym\_sam\_37\_avg\_rms vs Slug, Sign Corrected



Right In: 71.536 $\pm$ 0.020  $\chi^2$ /NDF: 758961.6/16

Left Out: 61.517 $\pm$ 0.011  $\chi^2$ /NDF: 577917.8/21

Right Out: 71.115 $\pm$ 0.020  $\chi^2$ /NDF: 765159.2/18

Left In: 61.360 $\pm$ 0.011  $\chi^2$ /NDF: 508724.2/19

Left: 61.441 $\pm$ 0.008  $\chi^2$ /NDF: 1086743.9/41

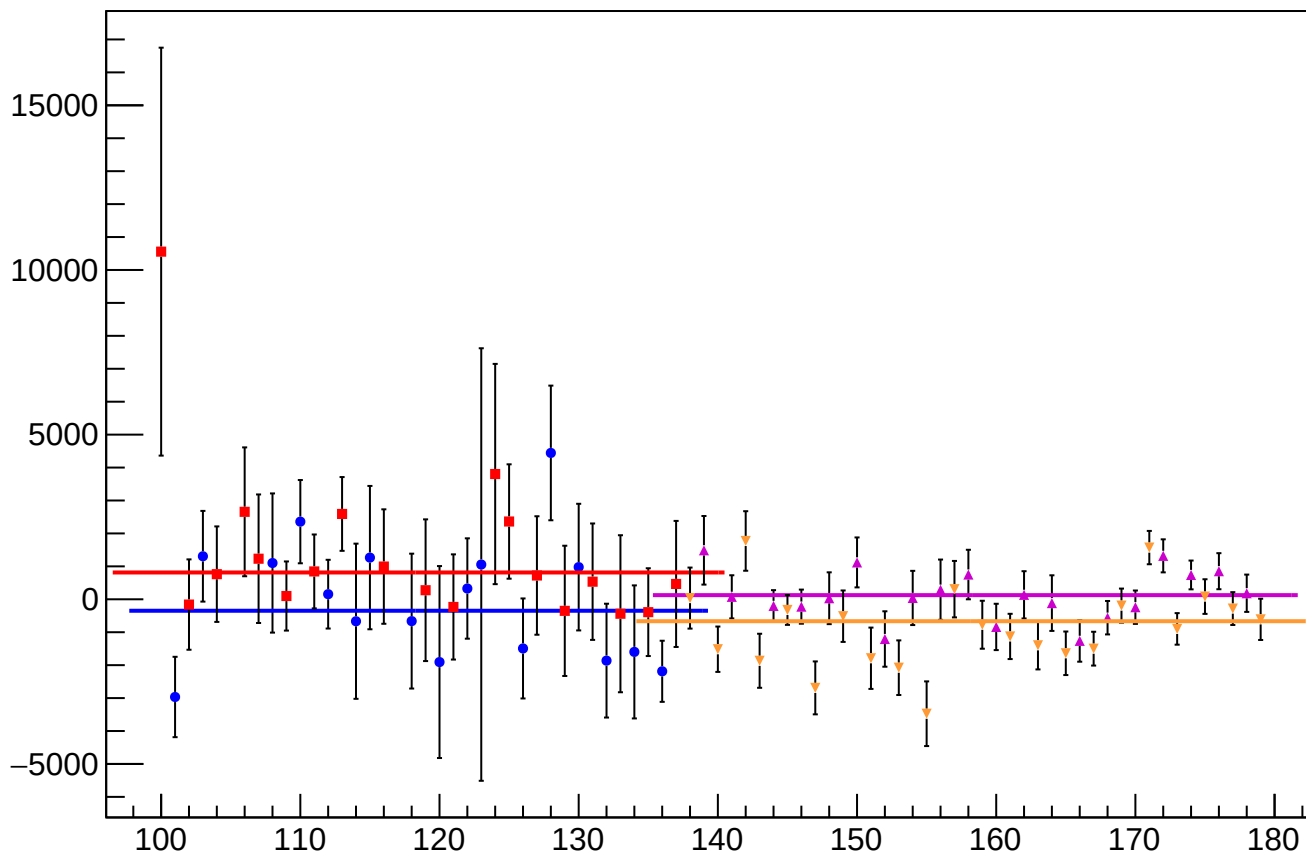
Right: 71.319 $\pm$ 0.014  $\chi^2$ /NDF: 1524340.2/35

In: 63.704 $\pm$ 0.010  $\chi^2$ /NDF: 1459220.8/36

Out: 63.728 $\pm$ 0.009  $\chi^2$ /NDF: 1524259.7/40

All: 63.716 $\pm$ 0.007  $\chi^2$ /NDF: 2983483.6/77

asym\_sam\_37\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -347.939+/-381.994  $\chi^2/\text{NDF}$ : 24.1/16

Left Out: -665.448+/-137.097  $\chi^2/\text{NDF}$ : 61.8/21

Right Out: 814.154+/-369.807  $\chi^2/\text{NDF}$ : 10.5/18

Left In: 126.148+/-138.869  $\chi^2/\text{NDF}$ : 26.1/19

Left: -274.732+/-97.563  $\chi^2/\text{NDF}$ : 104.4/41

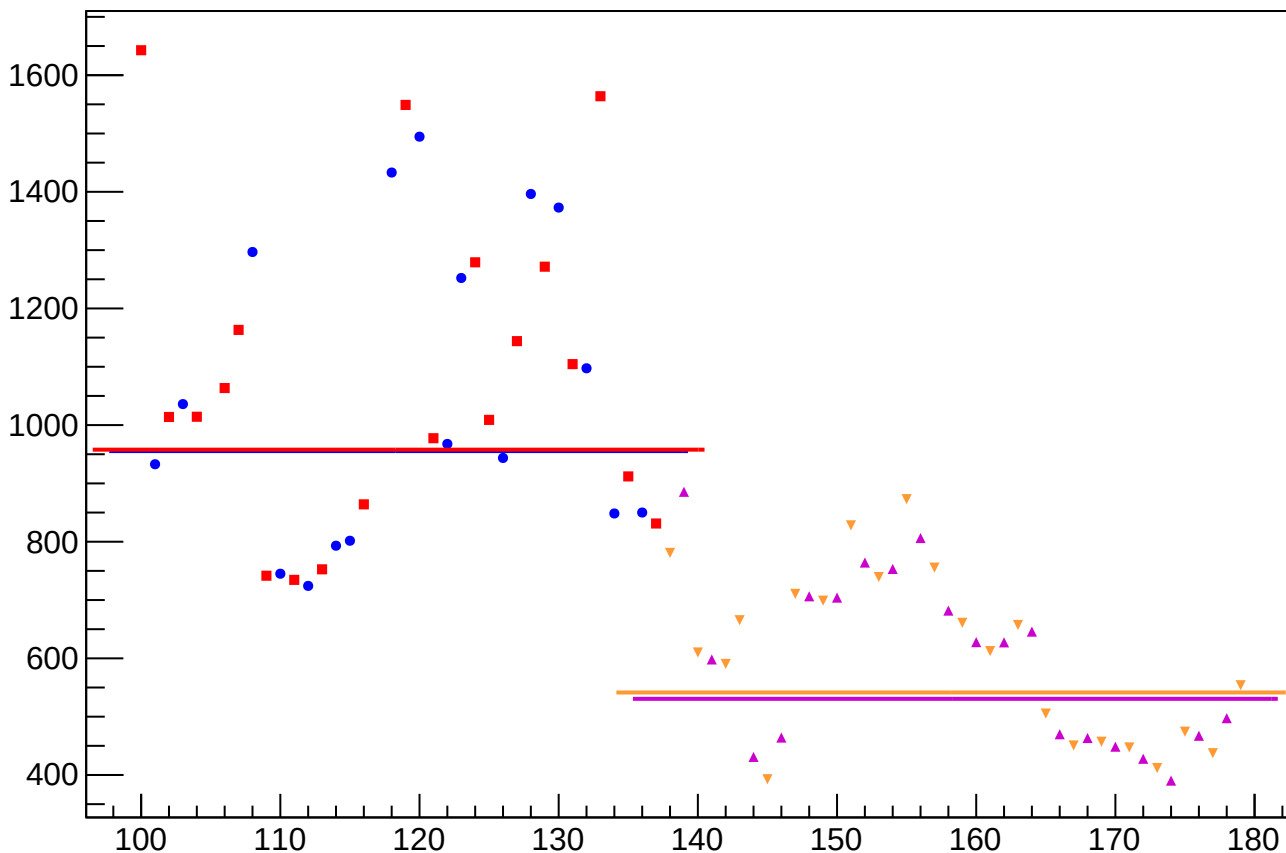
Right: 251.940+/-265.697  $\chi^2/\text{NDF}$ : 39.3/35

In: 70.806+/-130.512  $\chi^2/\text{NDF}$ : 51.6/36

Out: -486.665+/-128.548  $\chi^2/\text{NDF}$ : 86.4/40

All: -212.156+/-91.584  $\chi^2/\text{NDF}$ : 147.2/77

asym\_sam\_37\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 955.425+/-0.270  $\chi^2/\text{NDF}$ : 646512.4/16

Left Out: 541.486+/-0.097  $\chi^2/\text{NDF}$ : 1829845.7/21

Right Out: 957.849+/-0.261  $\chi^2/\text{NDF}$ : 693081.8/18

Left In: 530.601+/-0.098  $\chi^2/\text{NDF}$ : 1682249.2/19

Left: 536.113+/-0.069  $\chi^2/\text{NDF}$ : 3518317.8/41

Right: 956.676+/-0.188  $\chi^2/\text{NDF}$ : 1339635.8/35

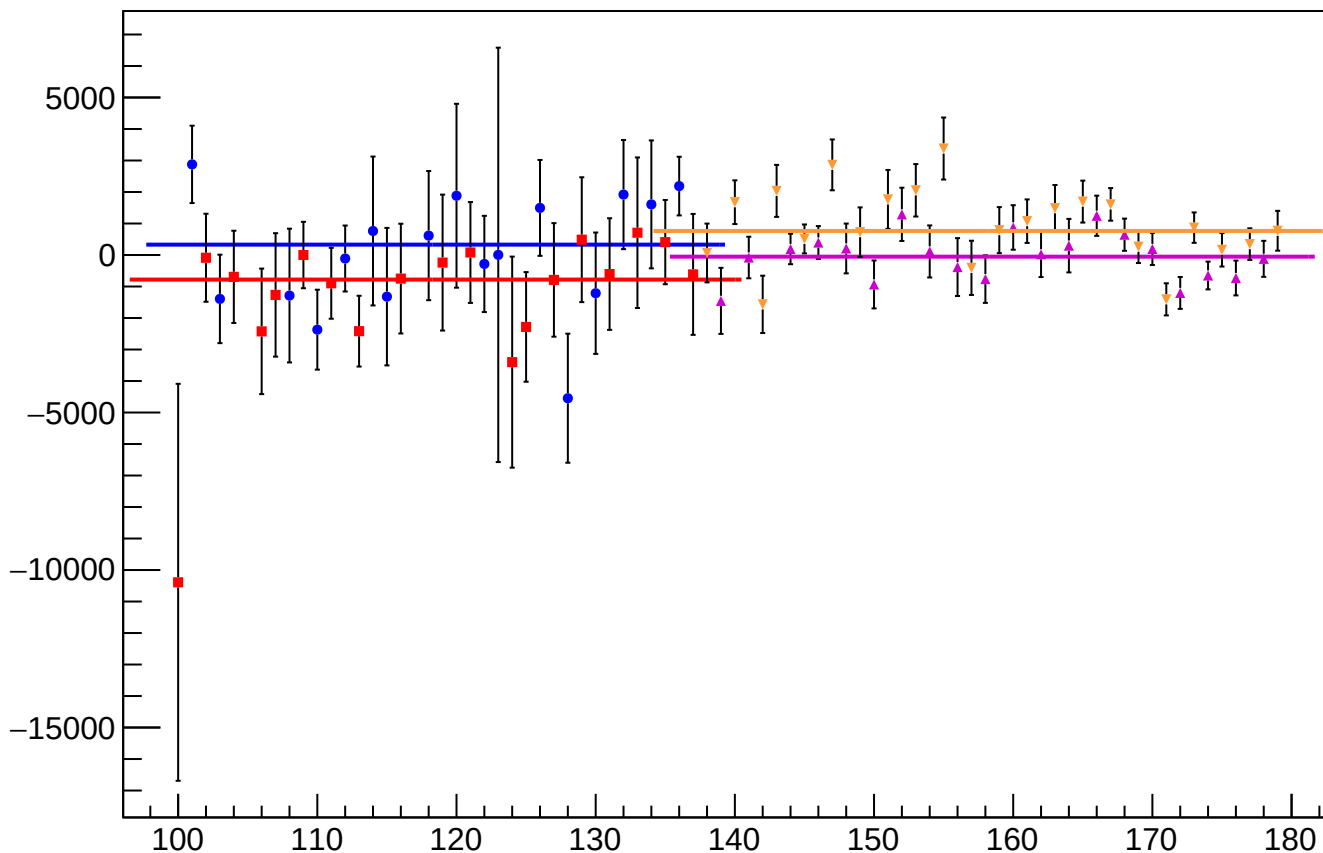
In: 580.192+/-0.092  $\chi^2/\text{NDF}$ : 4513649.1/36

Out: 591.796+/-0.091  $\chi^2/\text{NDF}$ : 4751849.6/40

All: 586.082+/-0.065  $\chi^2/\text{NDF}$ : 9273523.9/77



# asym\_sam\_37\_avg\_mean vs Slug, Sign Corrected



Right In: 329.164 $\pm$ 383.728  $\chi^2$ /NDF: 24.3/16

Left Out: 763.850 $\pm$ 138.081  $\chi^2$ /NDF:57.6/21

Right Out: -779.623 $\pm$ 371.673  $\chi^2$ /NDF: 9.3/18

Left In: -52.440 $\pm$ 139.908  $\chi^2$ /NDF:24.5/19

Left: 361.068 $\pm$ 98.278  $\chi^2$ /NDF: 99.3/41

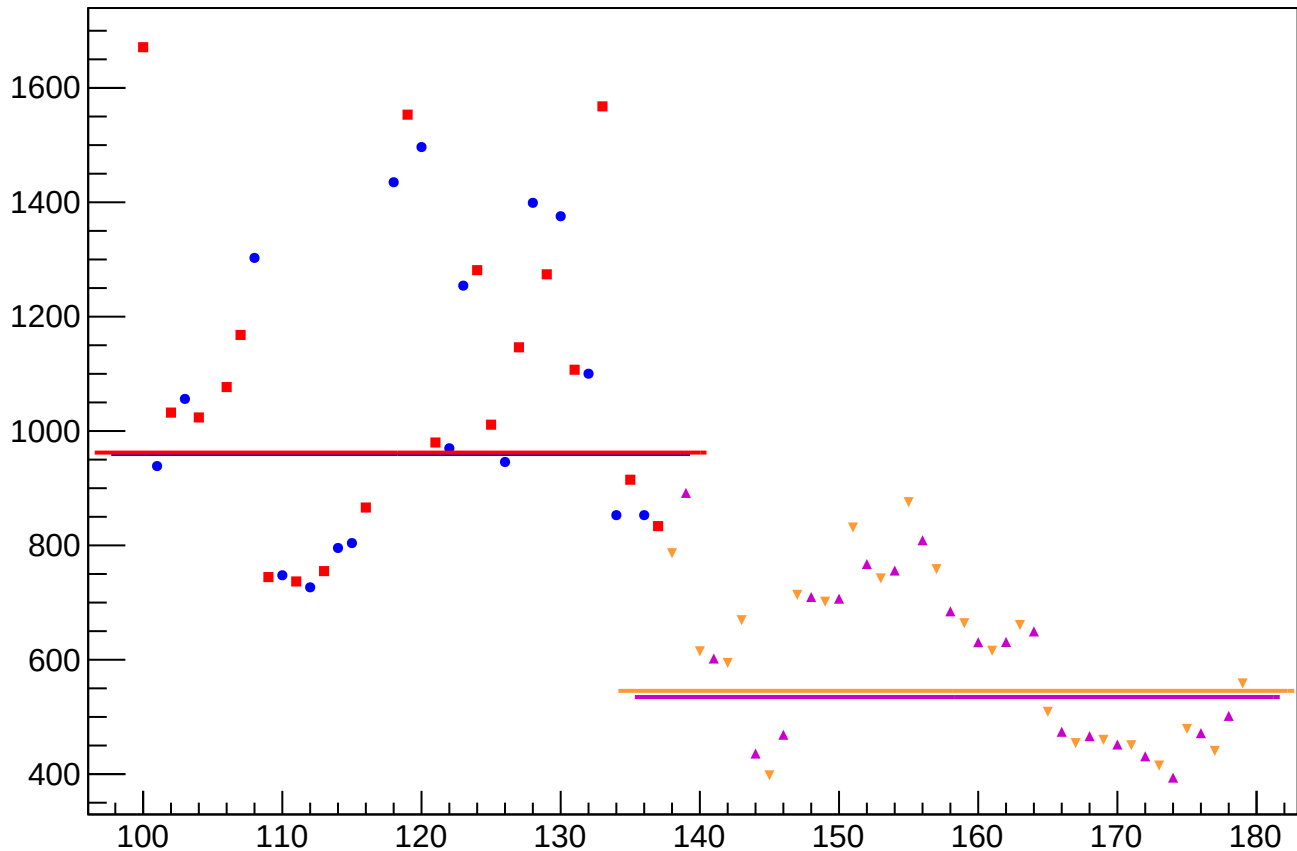
Right: -242.920 $\pm$ 266.973  $\chi^2$ /NDF: 37.9/35

In: -7.664 $\pm$ 131.443  $\chi^2$ /NDF:49.6/36

Out: 576.654 $\pm$ 129.437  $\chi^2$ /NDF:82.1/40

All: 288.988 $\pm$ 92.227  $\chi^2$ /NDF: 141.7/77

# asym\_sam\_37\_avg\_rms vs Slug, Sign Corrected



Right In: 959.770 $\pm$ 0.271  $\chi^2$ /NDF: 646727.9/16

Left Out: 545.607 $\pm$ 0.098  $\chi^2$ /NDF:1802563.9/21

Right Out: 962.314 $\pm$ 0.263  $\chi^2$ /NDF: 695757.2/18

Left In: 534.812 $\pm$ 0.099  $\chi^2$ /NDF:1656803.1/19

Left: 540.280 $\pm$ 0.069  $\chi^2$ /NDF: 3465399.0/41

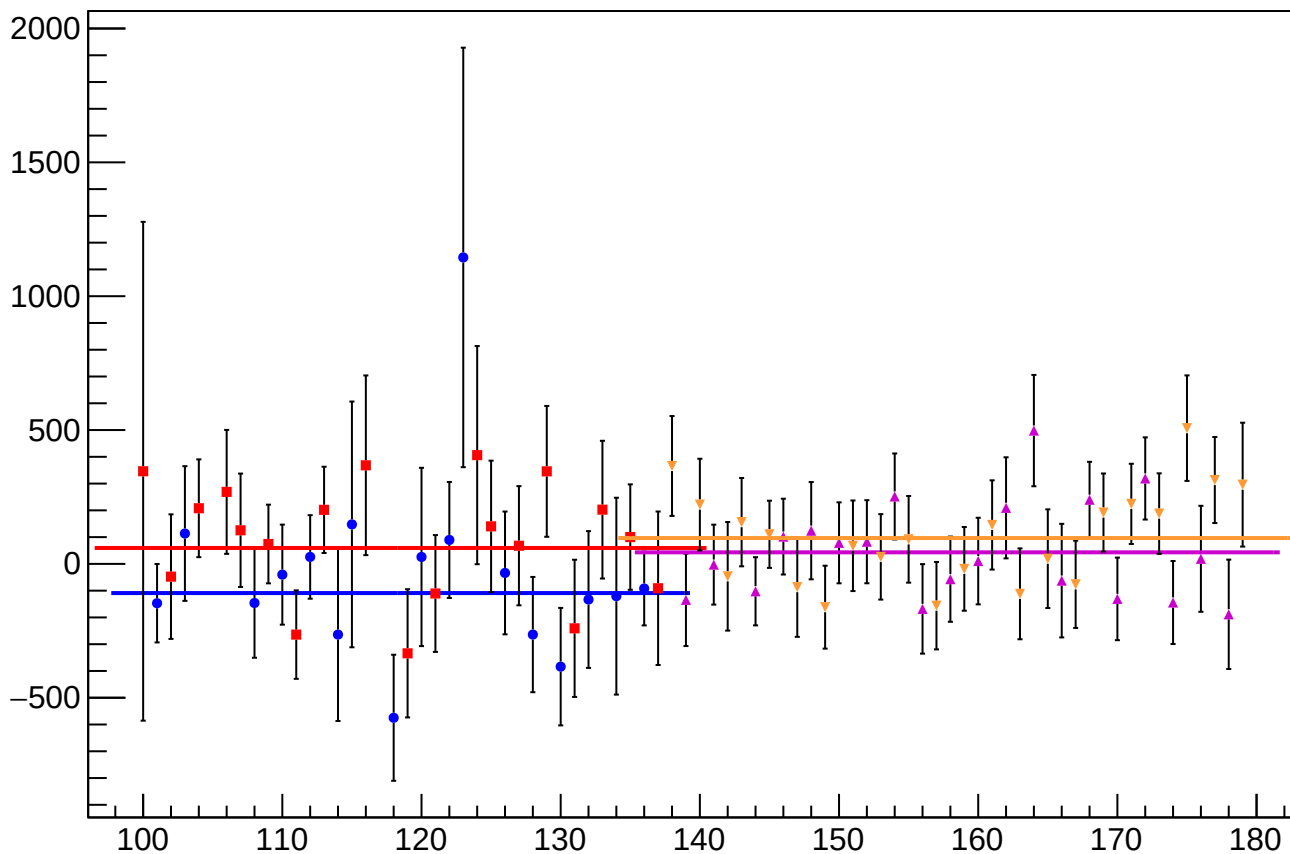
Right: 961.083 $\pm$ 0.189  $\chi^2$ /NDF: 1342530.4/35

In: 584.674 $\pm$ 0.093  $\chi^2$ /NDF:4468601.1/36

Out: 596.146 $\pm$ 0.092  $\chi^2$ /NDF:4707439.6/40

All: 590.498 $\pm$ 0.065  $\chi^2$ /NDF: 9183774.7/77

reg\_asym\_sam\_48\_avg\_mean vs Slug, Sign Corrected



Right In:  $-108.977 \pm 52.923$   $\chi^2/\text{NDF}$ : 12.0/16

Left Out:  $96.563 \pm 35.235$   $\chi^2/\text{NDF}$ : 21.5/21

Right Out:  $59.475 \pm 50.822$   $\chi^2/\text{NDF}$ : 14.9/18

Left In:  $43.157 \pm 36.357$   $\chi^2/\text{NDF}$ : 21.7/19

Left:  $70.697 \pm 25.302$   $\chi^2/\text{NDF}$ : 44.3/41

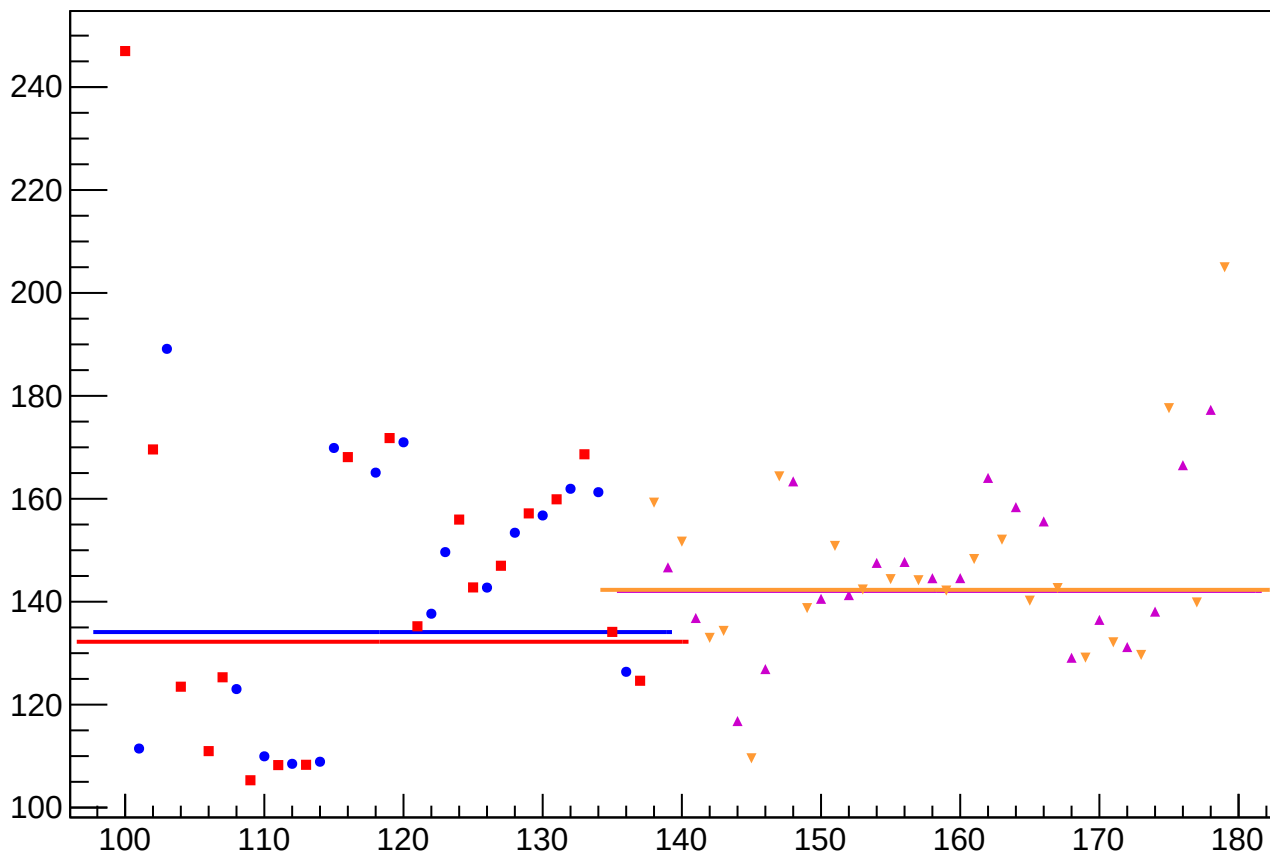
Right:  $-21.341 \pm 36.657$   $\chi^2/\text{NDF}$ : 32.2/35

In:  $-5.620 \pm 29.967$   $\chi^2/\text{NDF}$ : 39.3/36

Out:  $84.523 \pm 28.956$   $\chi^2/\text{NDF}$ : 36.7/40

All:  $40.997 \pm 20.823$   $\chi^2/\text{NDF}$ : 80.7/77

reg\_asym\_sam\_48\_avg\_rms vs Slug, Sign Corrected



Right In: 134.103 $\pm$ 0.037  $\chi^2$ /NDF: 402581.2/16

Left Out: 142.305 $\pm$ 0.025  $\chi^2$ /NDF: 462949.2/21

Right Out: 132.219 $\pm$ 0.036  $\chi^2$ /NDF: 441738.5/18

Left In: 142.094 $\pm$ 0.026  $\chi^2$ /NDF: 307121.9/19

Left: 142.203 $\pm$ 0.018  $\chi^2$ /NDF: 770106.1/41

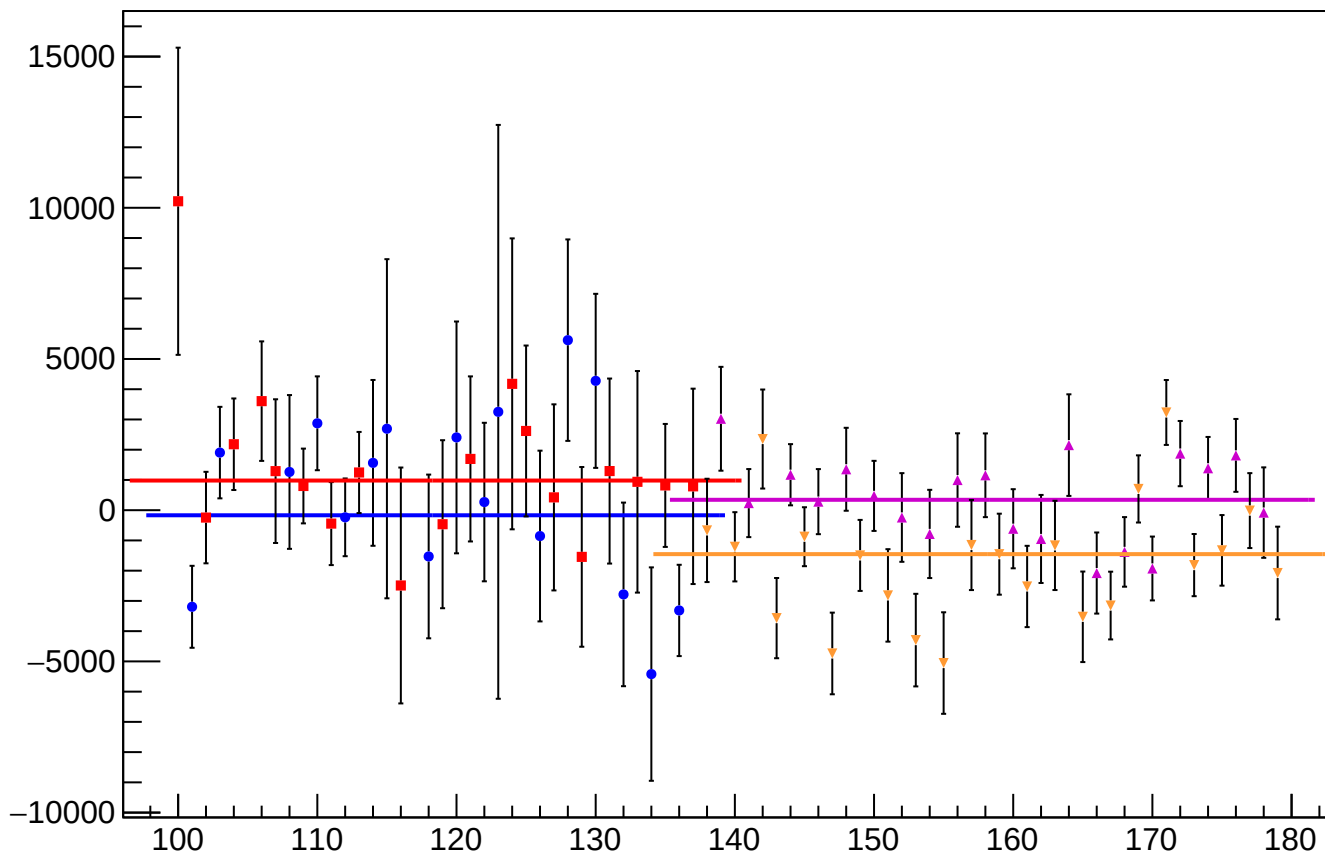
Right: 133.123 $\pm$ 0.026  $\chi^2$ /NDF: 845638.9/35

In: 139.532 $\pm$ 0.021  $\chi^2$ /NDF: 740676.2/36

Out: 139.031 $\pm$ 0.020  $\chi^2$ /NDF: 957893.0/40

All: 139.273 $\pm$ 0.015  $\chi^2$ /NDF: 1698858.0/77

asym\_sam\_48\_avg\_correction\_mean vs Slug, Sign Corrected



Right In:  $-168.237 \pm 523.672$   $\chi^2/\text{NDF}: 25.3/16$

Left Out:  $-1453.035 \pm 274.370$   $\chi^2/\text{NDF}: 52.7/21$

Right Out:  $980.517 \pm 480.968$   $\chi^2/\text{NDF}: 10.2/18$

Left In:  $343.582 \pm 280.951$   $\chi^2/\text{NDF}: 22.2/19$

Left:  $-576.013 \pm 196.294$   $\chi^2/\text{NDF}: 95.8/41$

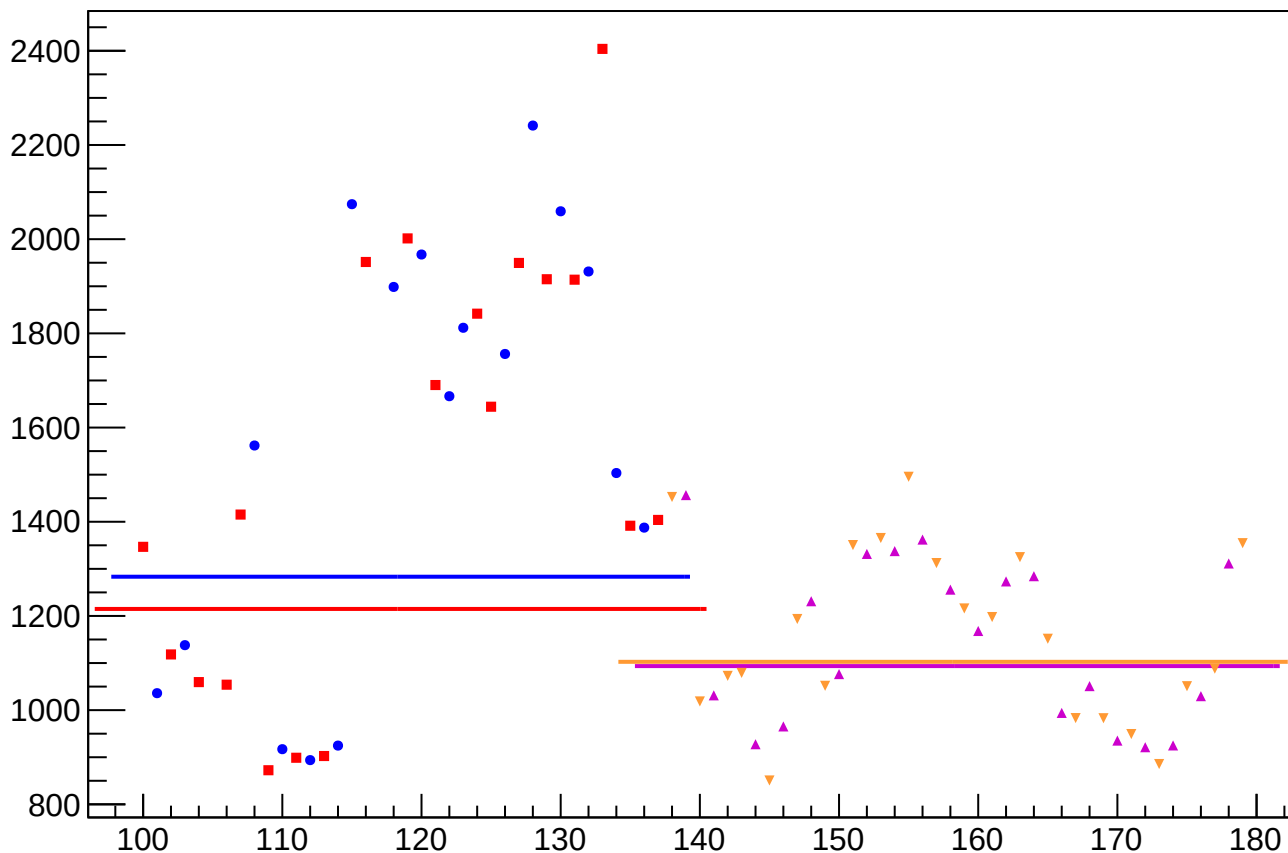
Right:  $454.882 \pm 354.232$   $\chi^2/\text{NDF}: 38.1/35$

In:  $229.189 \pm 247.571$   $\chi^2/\text{NDF}: 48.2/36$

Out:  $-855.547 \pm 238.320$   $\chi^2/\text{NDF}: 82.2/40$

All:  $-333.824 \pm 171.695$   $\chi^2/\text{NDF}: 140.4/77$

asym\_sam\_48\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 1283.318 $\pm$ 0.370  $\chi^2$ /NDF: 1169431.5/16

Left Out: 1102.596 $\pm$ 0.194  $\chi^2$ /NDF: 809351.7/21

Right Out: 1214.883 $\pm$ 0.340  $\chi^2$ /NDF: 1360860.3/18

Left In: 1093.529 $\pm$ 0.199  $\chi^2$ /NDF: 668465.9/19

Left: 1098.170 $\pm$ 0.139  $\chi^2$ /NDF: 1478883.9/41

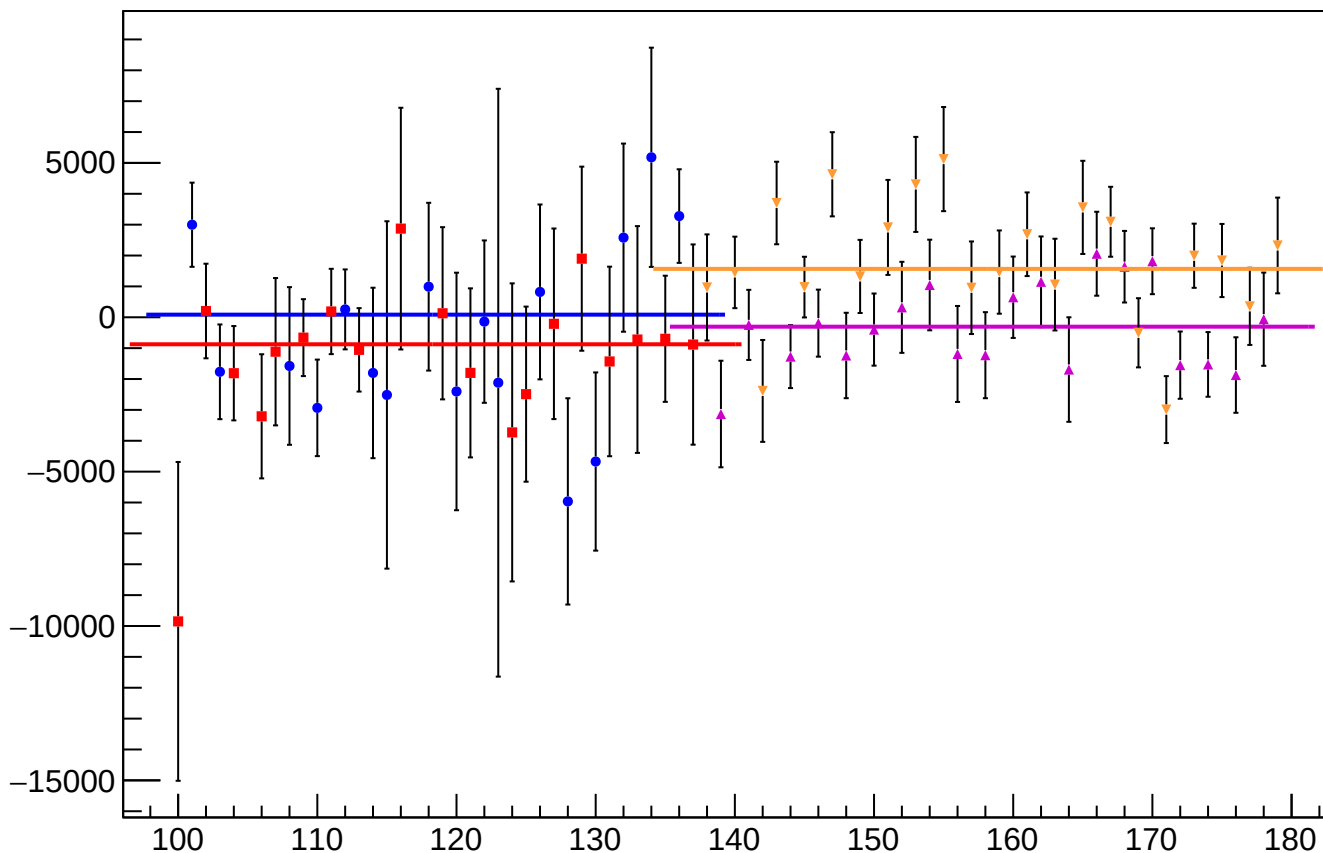
Right: 1246.197 $\pm$ 0.250  $\chi^2$ /NDF: 2548819.1/35

In: 1135.947 $\pm$ 0.175  $\chi^2$ /NDF: 2041880.5/36

Out: 1130.165 $\pm$ 0.169  $\chi^2$ /NDF: 2252455.4/40

All: 1132.946 $\pm$ 0.121  $\chi^2$ /NDF: 4294902.1/77

asym\_sam\_48\_avg\_mean vs Slug, Sign Corrected



Right In:  $85.077 \pm 527.082$   $\chi^2/\text{NDF}: 24.7/16$

Left Out:  $1567.824 \pm 276.841$   $\chi^2/\text{NDF}: 49.3/21$

Right Out:  $-874.592 \pm 484.647$   $\chi^2/\text{NDF}: 8.7/18$

Left In:  $-304.785 \pm 283.508$   $\chi^2/\text{NDF}: 22.1/19$

Left:  $653.797 \pm 198.071$   $\chi^2/\text{NDF}: 93.8/41$

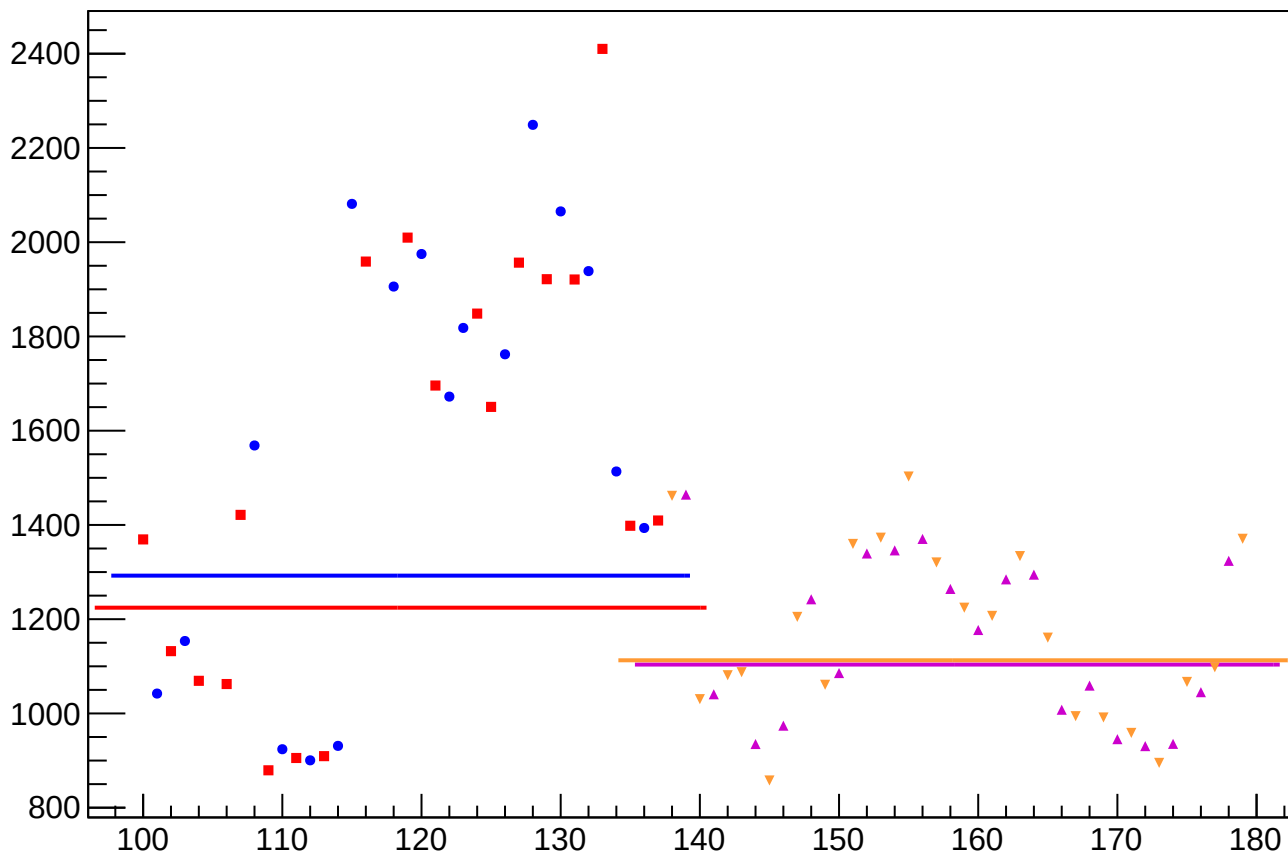
Right:  $-434.939 \pm 356.757$   $\chi^2/\text{NDF}: 35.2/35$

In:  $-217.302 \pm 249.681$   $\chi^2/\text{NDF}: 47.3/36$

Out:  $966.940 \pm 240.387$   $\chi^2/\text{NDF}: 77.1/40$

All:  $397.271 \pm 173.172$   $\chi^2/\text{NDF}: 136.0/77$

# asym\_sam\_48\_avg\_rms vs Slug, Sign Corrected



Right In: 1292.426 $\pm$ 0.373  $\chi^2$ /NDF: 1156576.0/16

Left Out: 1112.791 $\pm$ 0.196  $\chi^2$ /NDF: 797509.9/21

Right Out: 1224.429 $\pm$ 0.343  $\chi^2$ /NDF: 1345748.2/18

Left In: 1103.731 $\pm$ 0.200  $\chi^2$ /NDF: 656167.1/19

Left: 1108.369 $\pm$ 0.140  $\chi^2$ /NDF: 1454722.7/41

Right: 1255.580 $\pm$ 0.252  $\chi^2$ /NDF: 2520360.3/35

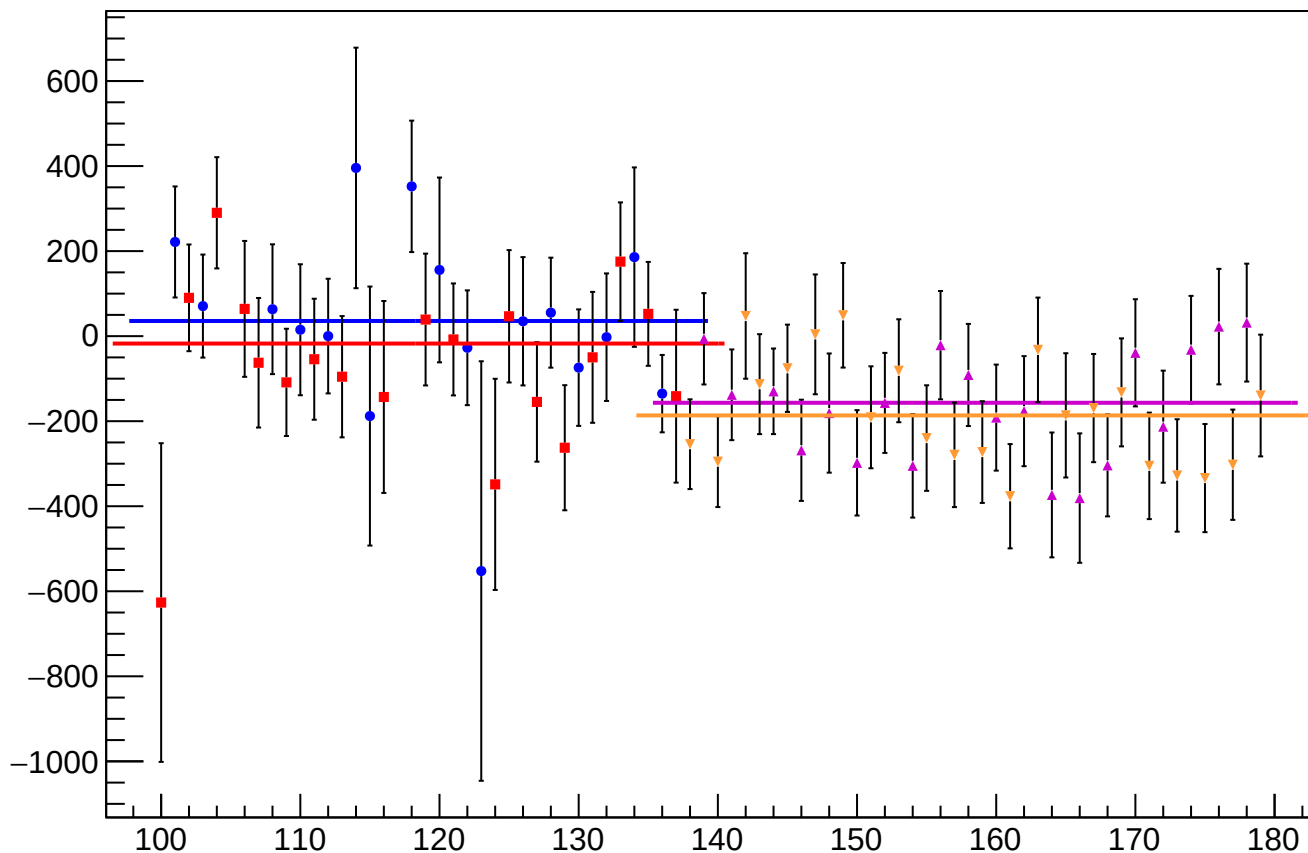
In: 1146.073 $\pm$ 0.177  $\chi^2$ /NDF: 2011551.2/36

Out: 1140.256 $\pm$ 0.170  $\chi^2$ /NDF: 2223271.5/40

All: 1143.054 $\pm$ 0.122  $\chi^2$ /NDF: 4235386.0/77



reg\_asym\_sam\_15\_dd\_mean vs Slug, Sign Corrected



Right In: 35.679+/-36.350  $\chi^2/\text{NDF}$ : 15.3/16

Left Out: -186.429+/-26.351  $\chi^2/\text{NDF}$ :21.5/21

Right Out: -17.418+/-34.691  $\chi^2/\text{NDF}$ : 18.9/18

Left In: -156.716+/-27.708  $\chi^2/\text{NDF}$ :18.8/19

Left: -172.318+/-19.094  $\chi^2/\text{NDF}$ : 40.9/41

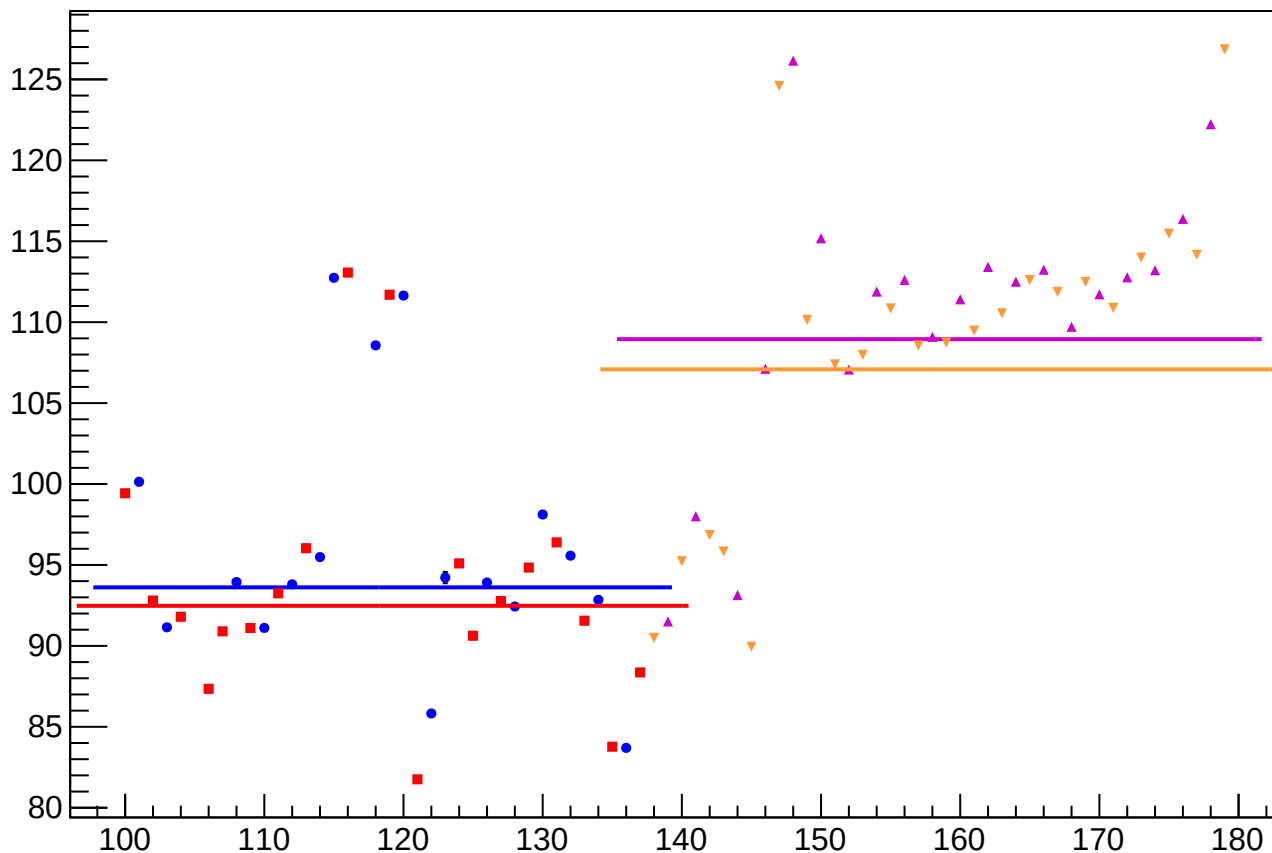
Right: 7.891+/-25.096  $\chi^2/\text{NDF}$ : 35.3/35

In: -86.012+/-22.036  $\chi^2/\text{NDF}$ :51.8/36

Out: -124.593+/-20.984  $\chi^2/\text{NDF}$ :55.5/40

All: -106.246+/-15.196  $\chi^2/\text{NDF}$ : 108.8/77

reg\_asym\_sam\_15\_dd\_rms vs Slug, Sign Corrected



Right In: 93.616+/-0.026  $\chi^2/\text{NDF}$ : 79928.5/16

Left Out: 107.087+/-0.019  $\chi^2/\text{NDF}$ : 264313.1/21

Right Out: 92.477+/-0.025  $\chi^2/\text{NDF}$ : 78591.0/18

Left In: 108.951+/-0.020  $\chi^2/\text{NDF}$ : 197325.8/19

Left: 107.972+/-0.014  $\chi^2/\text{NDF}$ : 466392.0/41

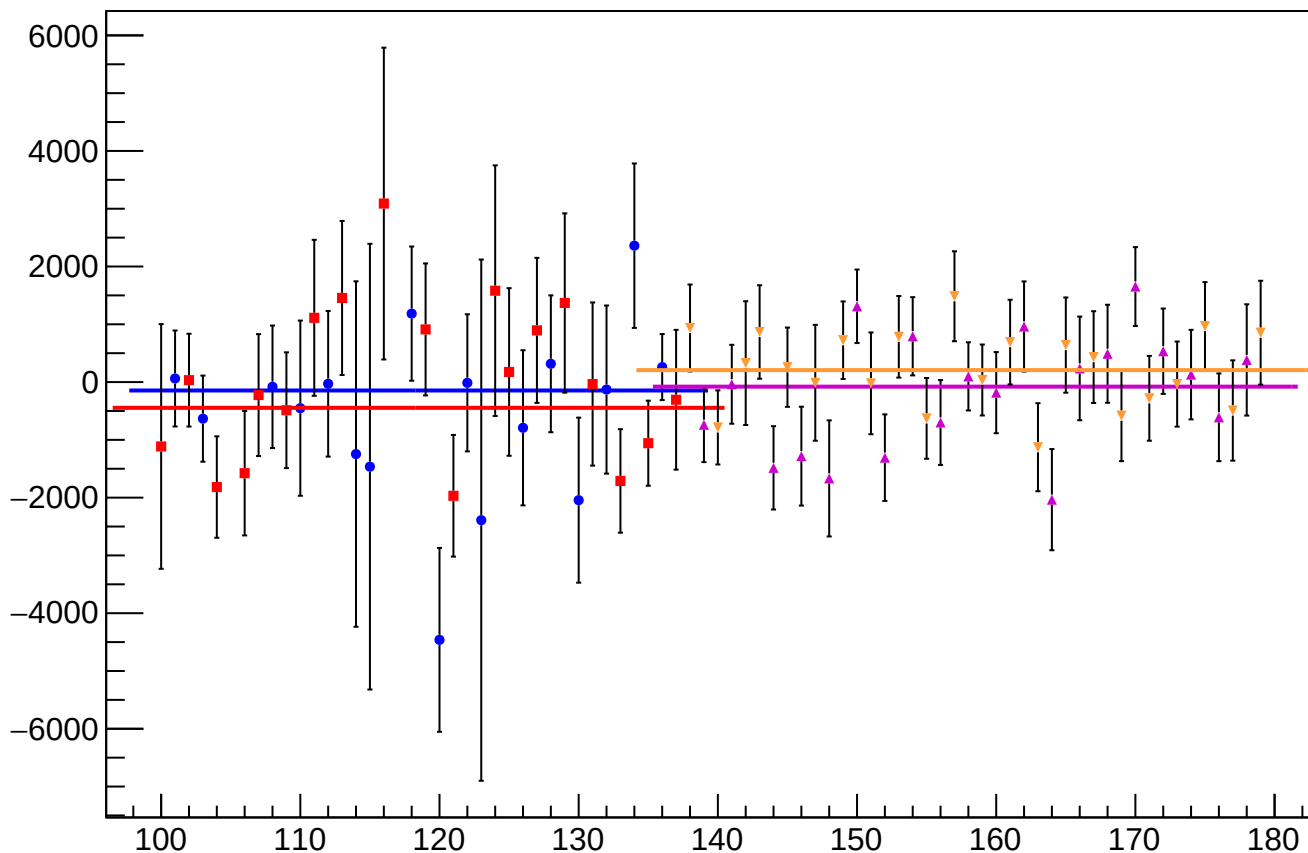
Right: 93.020+/-0.018  $\chi^2/\text{NDF}$ : 159546.8/35

In: 103.315+/-0.016  $\chi^2/\text{NDF}$ : 502389.1/36

Out: 101.742+/-0.015  $\chi^2/\text{NDF}$ : 567839.1/40

All: 102.490+/-0.011  $\chi^2/\text{NDF}$ : 1075578.5/77

asym\_sam\_15\_dd\_correction\_mean vs Slug, Sign Corrected



Right In:  $-145.464 \pm 276.629$   $\chi^2/\text{NDF}: 15.5/16$

Left Out:  $207.001 \pm 162.573$   $\chi^2/\text{NDF}: 17.2/21$

Right Out:  $-445.575 \pm 260.276$   $\chi^2/\text{NDF}: 19.0/18$

Left In:  $-78.932 \pm 166.539$   $\chi^2/\text{NDF}: 34.6/19$

Left:  $67.479 \pm 116.333$   $\chi^2/\text{NDF}: 53.2/41$

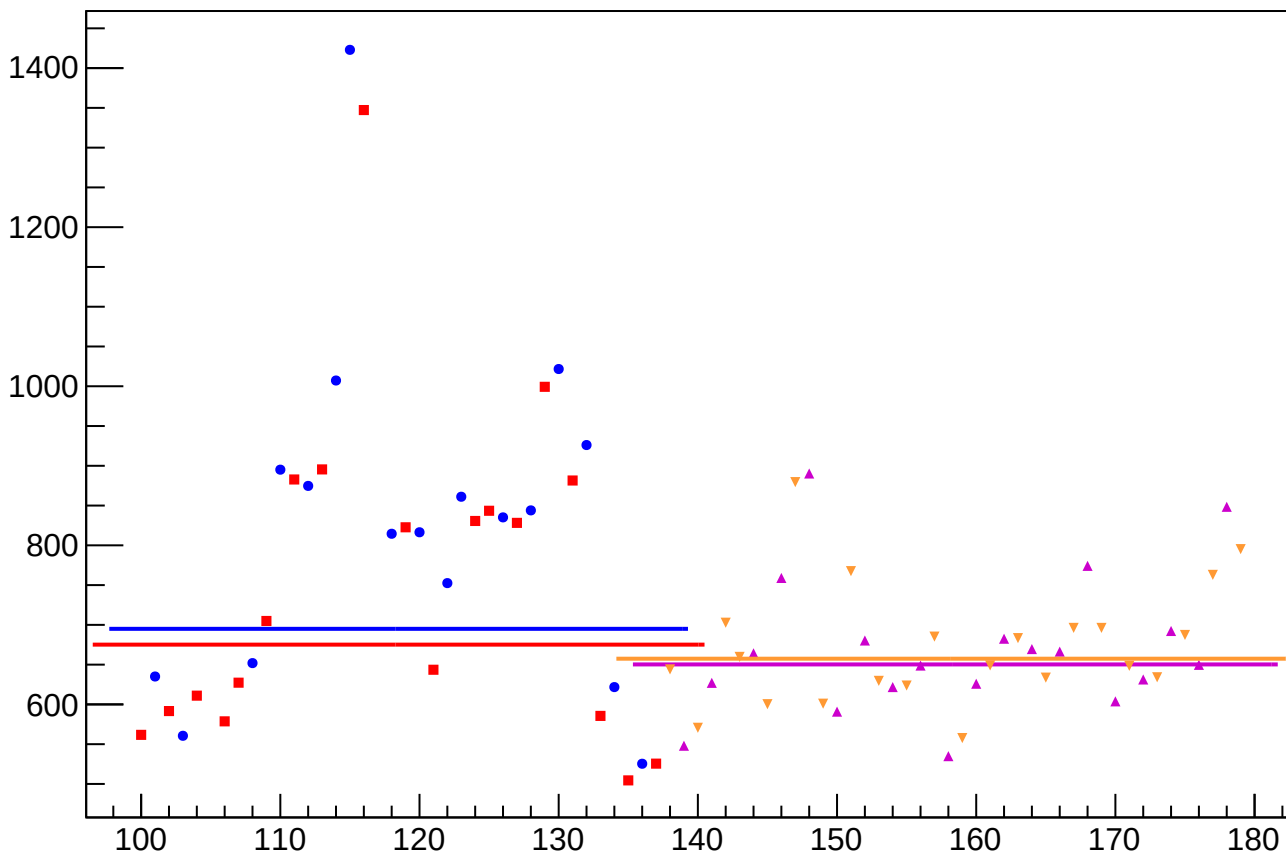
Right:  $-304.652 \pm 189.560$   $\chi^2/\text{NDF}: 35.1/35$

In:  $-96.631 \pm 142.678$   $\chi^2/\text{NDF}: 50.1/36$

Out:  $23.853 \pm 137.885$   $\chi^2/\text{NDF}: 40.7/40$

All:  $-34.332 \pm 99.151$   $\chi^2/\text{NDF}: 91.1/77$

asym\_sam\_15\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 695.014 $\pm$ 0.196  $\chi^2$ /NDF: 677713.0/16

Left Out: 657.466 $\pm$ 0.115  $\chi^2$ /NDF: 357121.1/21

Right Out: 675.151 $\pm$ 0.184  $\chi^2$ /NDF: 676394.1/18

Left In: 650.259 $\pm$ 0.118  $\chi^2$ /NDF: 451499.6/19

Left: 653.949 $\pm$ 0.082  $\chi^2$ /NDF: 810538.1/41

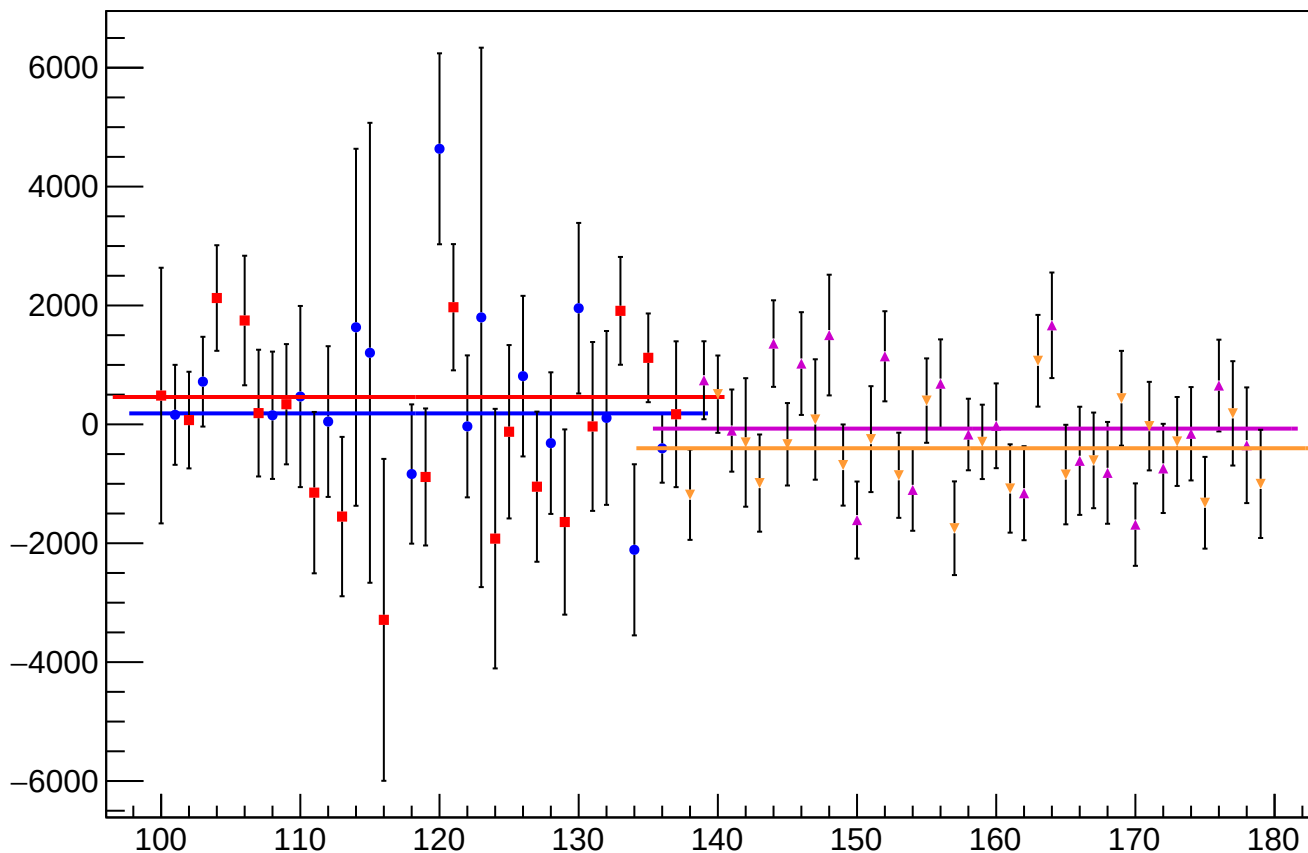
Right: 684.478 $\pm$ 0.134  $\chi^2$ /NDF: 1359576.7/35

In: 662.165 $\pm$ 0.101  $\chi^2$ /NDF: 1167635.4/36

Out: 662.429 $\pm$ 0.097  $\chi^2$ /NDF: 1040157.4/40

All: 662.302 $\pm$ 0.070  $\chi^2$ /NDF: 2207796.3/77

asym\_sam\_15\_dd\_mean vs Slug, Sign Corrected



Right In: 184.518 $\pm$ 279.390  $\chi^2$ /NDF: 14.9/16

Left Out: -401.619 $\pm$ 164.822  $\chi^2$ /NDF:17.1/21

Right Out: 460.174 $\pm$ 262.960  $\chi^2$ /NDF: 22.3/18

Left In: -71.481 $\pm$ 168.978  $\chi^2$ /NDF:34.9/19

Left: -240.660 $\pm$ 117.989  $\chi^2$ /NDF: 54.0/41

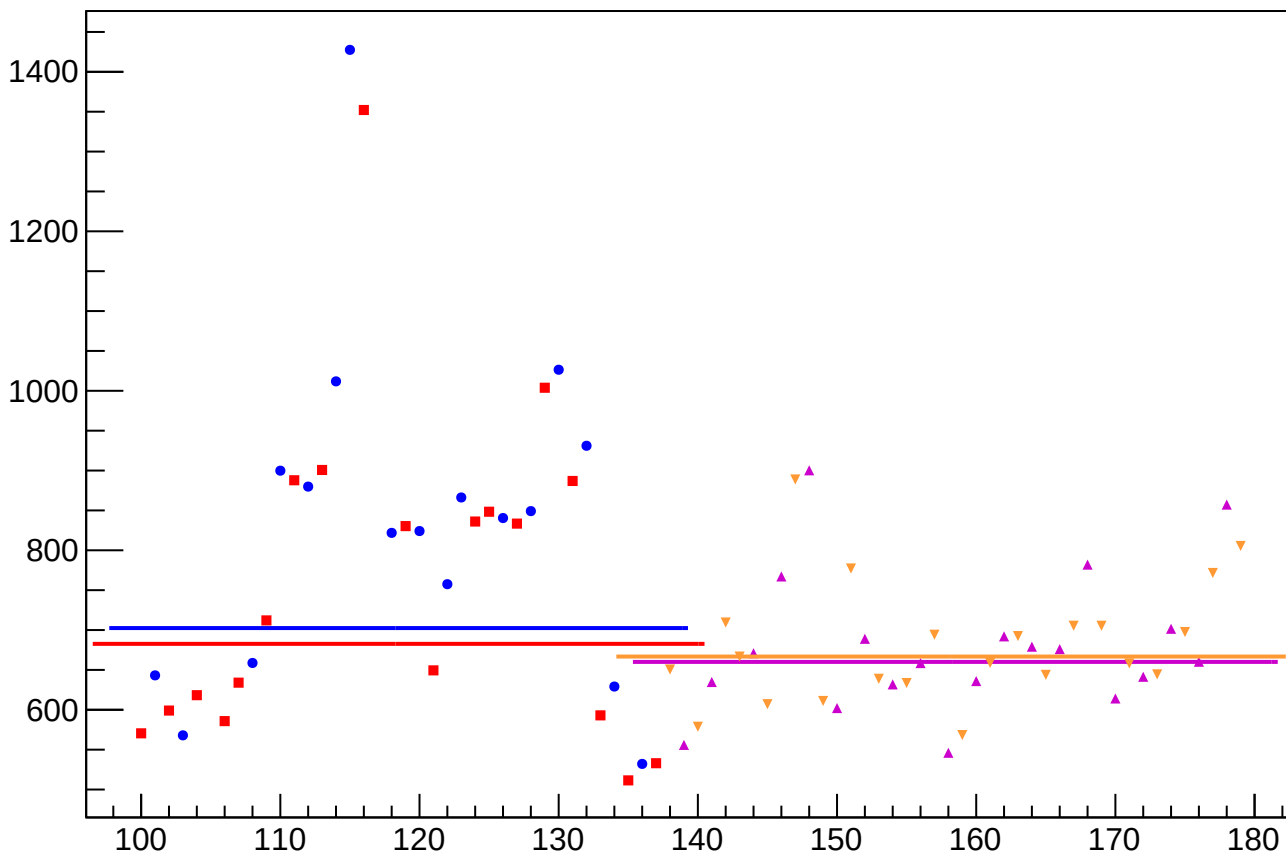
Right: 330.689 $\pm$ 191.486  $\chi^2$ /NDF: 37.7/35

In: -2.918 $\pm$ 144.590  $\chi^2$ /NDF:50.5/36

Out: -158.543 $\pm$ 139.656  $\chi^2$ /NDF:47.1/40

All: -83.431 $\pm$ 100.451  $\chi^2$ /NDF: 98.2/77

# asym\_sam\_15\_dd\_rms vs Slug, Sign Corrected



Right In: 702.469 $\pm$ 0.198  $\chi^2$ /NDF: 660525.4/16

Left Out: 666.761 $\pm$ 0.117  $\chi^2$ /NDF: 348426.0/21

Right Out: 682.662 $\pm$ 0.186  $\chi^2$ /NDF: 659521.7/18

Left In: 660.038 $\pm$ 0.119  $\chi^2$ /NDF: 435527.3/19

Left: 663.483 $\pm$ 0.083  $\chi^2$ /NDF: 785575.5/41

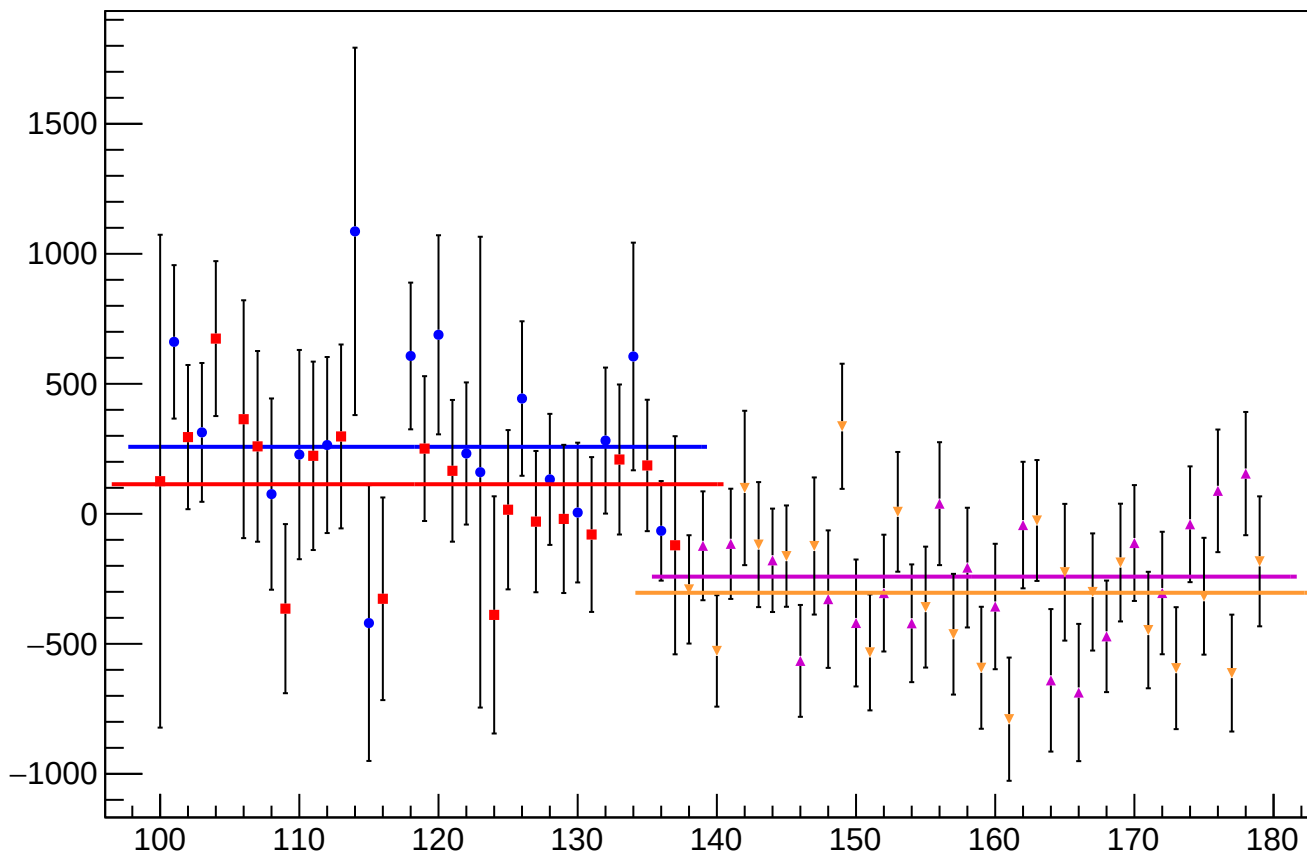
Right: 691.966 $\pm$ 0.135  $\chi^2$ /NDF: 1325377.5/35

In: 671.402 $\pm$ 0.102  $\chi^2$ /NDF: 1129826.6/36

Out: 671.246 $\pm$ 0.099  $\chi^2$ /NDF: 1013197.9/40

All: 671.321 $\pm$ 0.071  $\chi^2$ /NDF: 2143025.7/77

reg\_asym\_sam\_26\_dd\_mean vs Slug, Sign Corrected



Right In: 257.721 $\pm$ 75.931  $\chi^2$ /NDF: 13.0/16

Left Out: -303.627 $\pm$ 49.428  $\chi^2$ /NDF:26.6/21

Right Out: 113.851 $\pm$ 74.211  $\chi^2$ /NDF: 11.2/18

Left In: -241.552 $\pm$ 51.520  $\chi^2$ /NDF:18.8/19

Left: -273.875 $\pm$ 35.667  $\chi^2$ /NDF: 46.1/41

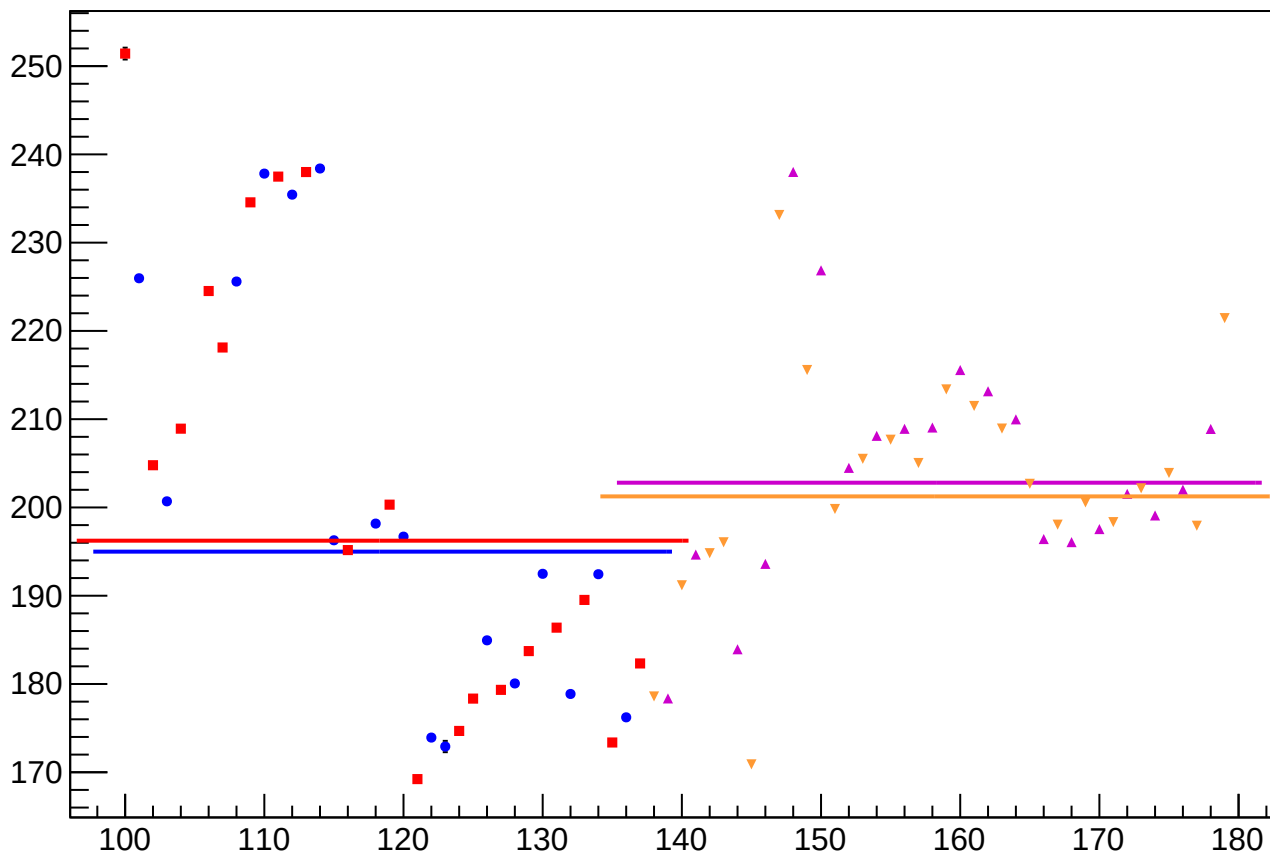
Right: 184.138 $\pm$ 53.073  $\chi^2$ /NDF: 26.1/35

In: -84.160 $\pm$ 42.633  $\chi^2$ /NDF:61.4/36

Out: -175.338 $\pm$ 41.138  $\chi^2$ /NDF:59.7/40

All: -131.375 $\pm$ 29.603  $\chi^2$ /NDF: 123.5/77

# reg\_asym\_sam\_26\_dd\_rms vs Slug, Sign Corrected



Right In: 194.994 $\pm$ 0.054  $\chi^2/\text{NDF}$ : 144271.1/16

Left Out: 201.253 $\pm$ 0.035  $\chi^2/\text{NDF}$ : 143522.0/21

Right Out: 196.235 $\pm$ 0.052  $\chi^2/\text{NDF}$ : 173491.6/18

Left In: 202.803 $\pm$ 0.036  $\chi^2/\text{NDF}$ : 127571.1/19

Left: 201.996 $\pm$ 0.025  $\chi^2/\text{NDF}$ : 272036.3/41

Right: 195.629 $\pm$ 0.038  $\chi^2/\text{NDF}$ : 318035.8/35

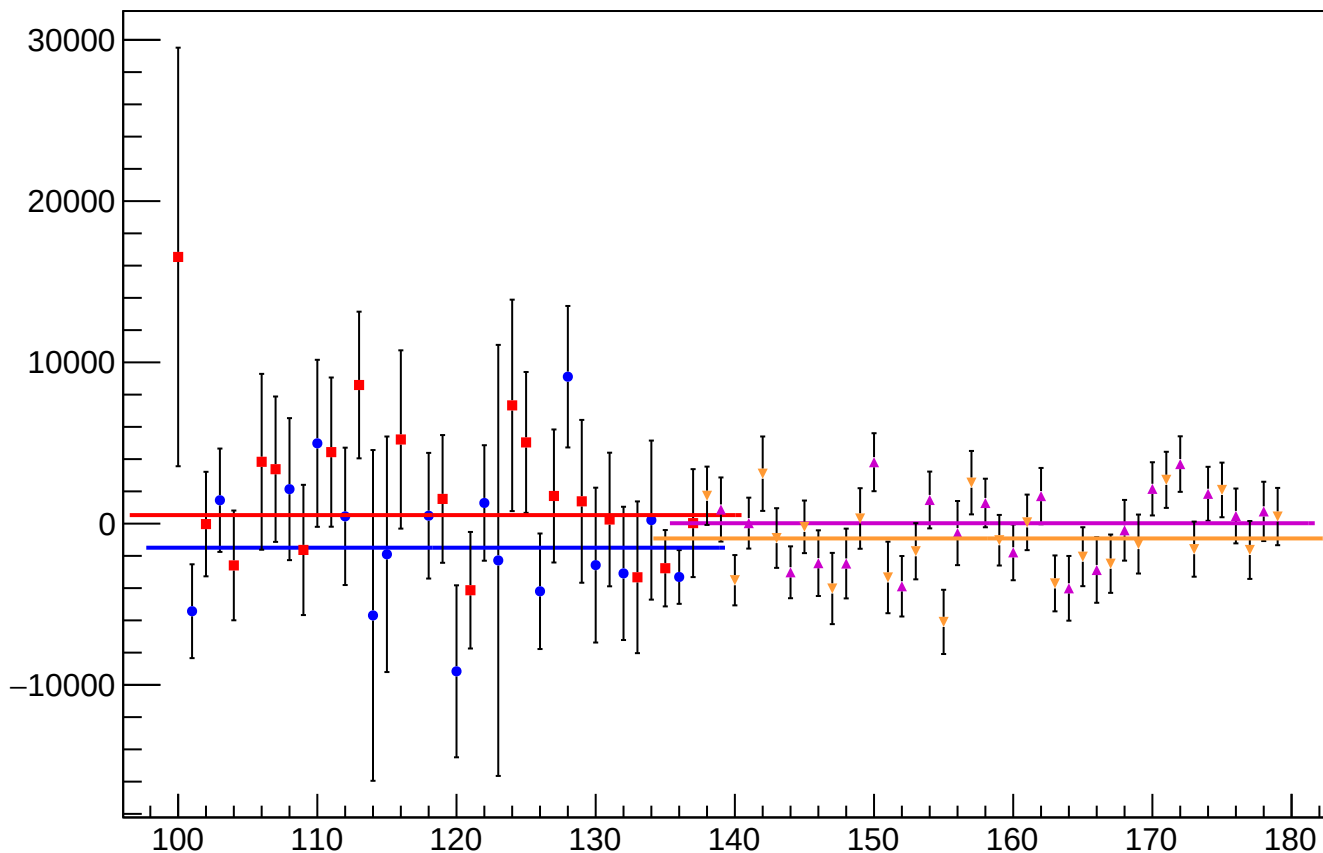
In: 200.342 $\pm$ 0.030  $\chi^2/\text{NDF}$ : 286327.6/36

Out: 199.711 $\pm$ 0.029  $\chi^2/\text{NDF}$ : 323348.0/40

All: 200.015 $\pm$ 0.021  $\chi^2/\text{NDF}$ : 609902.3/77



asym\_sam\_26\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -1493.280 $\pm$ 910.834  $\chi^2$ /NDF: 16.1/16

Left Out: -918.981 $\pm$ 385.393  $\chi^2$ /NDF:34.3/21

Right Out: 528.758 $\pm$ 934.718  $\chi^2$ /NDF: 14.6/18

Left In: 24.686 $\pm$ 400.210  $\chi^2$ /NDF:32.6/19

Left: -464.939 $\pm$ 277.604  $\chi^2$ /NDF: 69.7/41

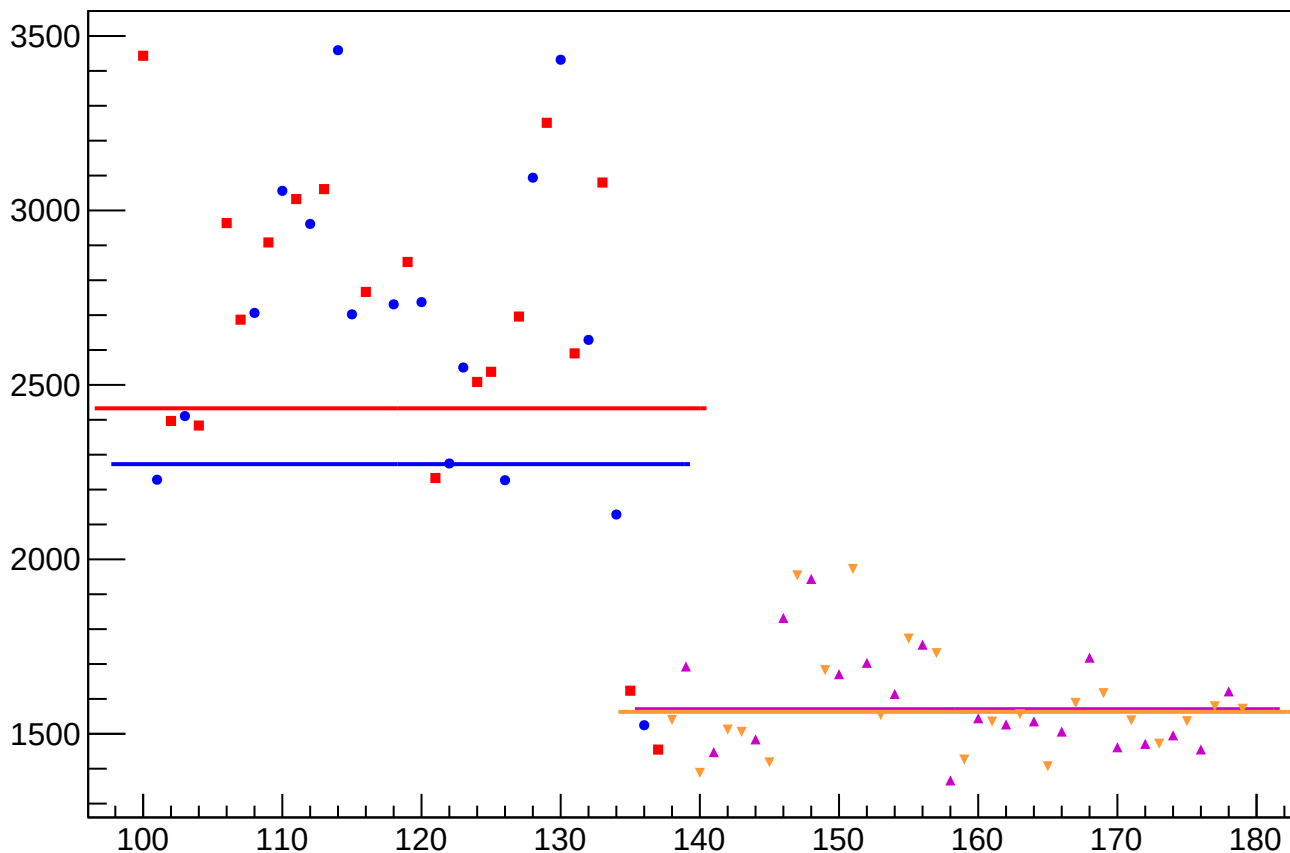
Right: -508.424 $\pm$ 652.337  $\chi^2$ /NDF: 33.2/35

In: -220.952 $\pm$ 366.401  $\chi^2$ /NDF:51.1/36

Out: -708.626 $\pm$ 356.296  $\chi^2$ /NDF:51.0/40

All: -471.607 $\pm$ 255.437  $\chi^2$ /NDF: 102.9/77

asym\_sam\_26\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 2272.883+/-0.644  $\chi^2/\text{NDF}$ : 805650.3/16

Left Out: 1562.907+/-0.273  $\chi^2/\text{NDF}$ : 259186.4/21

Right Out: 2432.950+/-0.661  $\chi^2/\text{NDF}$ : 680783.9/18

Left In: 1570.587+/-0.283  $\chi^2/\text{NDF}$ : 236344.4/19

Left: 1566.602+/-0.196  $\chi^2/\text{NDF}$ : 495912.9/41

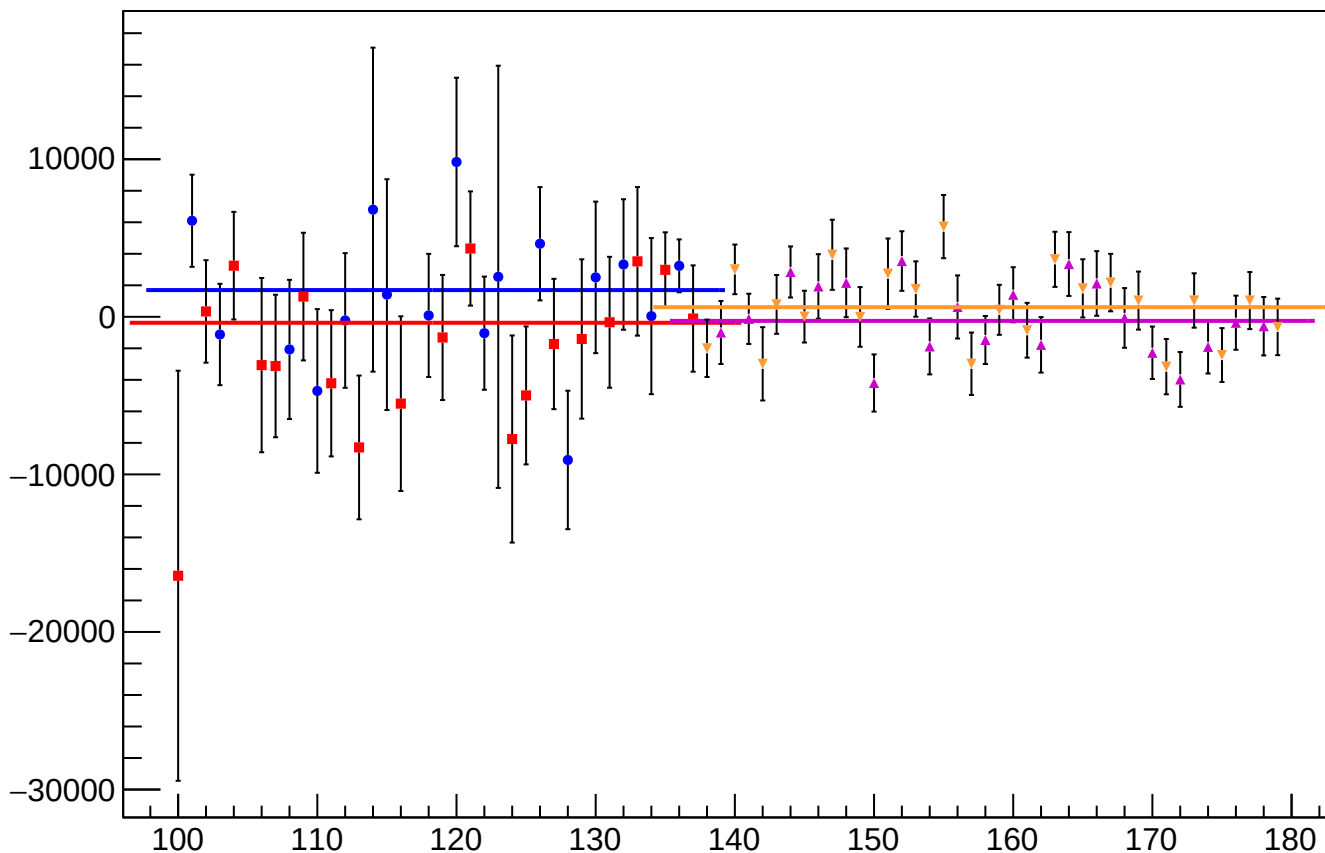
Right: 2350.846+/-0.461  $\chi^2/\text{NDF}$ : 1516518.2/35

In: 1684.233+/-0.259  $\chi^2/\text{NDF}$ : 2038614.4/36

Out: 1689.323+/-0.252  $\chi^2/\text{NDF}$ : 2421002.4/40

All: 1686.849+/-0.181  $\chi^2/\text{NDF}$ : 4459815.2/77

# asym\_sam\_26\_dd\_mean vs Slug, Sign Corrected



Right In: 1695.956 $\pm$ 914.855  $\chi^2/\text{NDF}$ : 16.6/16

Left Out: 612.147 $\pm$ 388.693  $\chi^2/\text{NDF}$ :33.7/21

Right Out: -377.629 $\pm$ 938.528  $\chi^2/\text{NDF}$ : 15.0/18

Left In: -257.714 $\pm$ 403.672  $\chi^2/\text{NDF}$ :29.8/19

Left: 193.655 $\pm$ 279.993  $\chi^2/\text{NDF}$ : 65.9/41

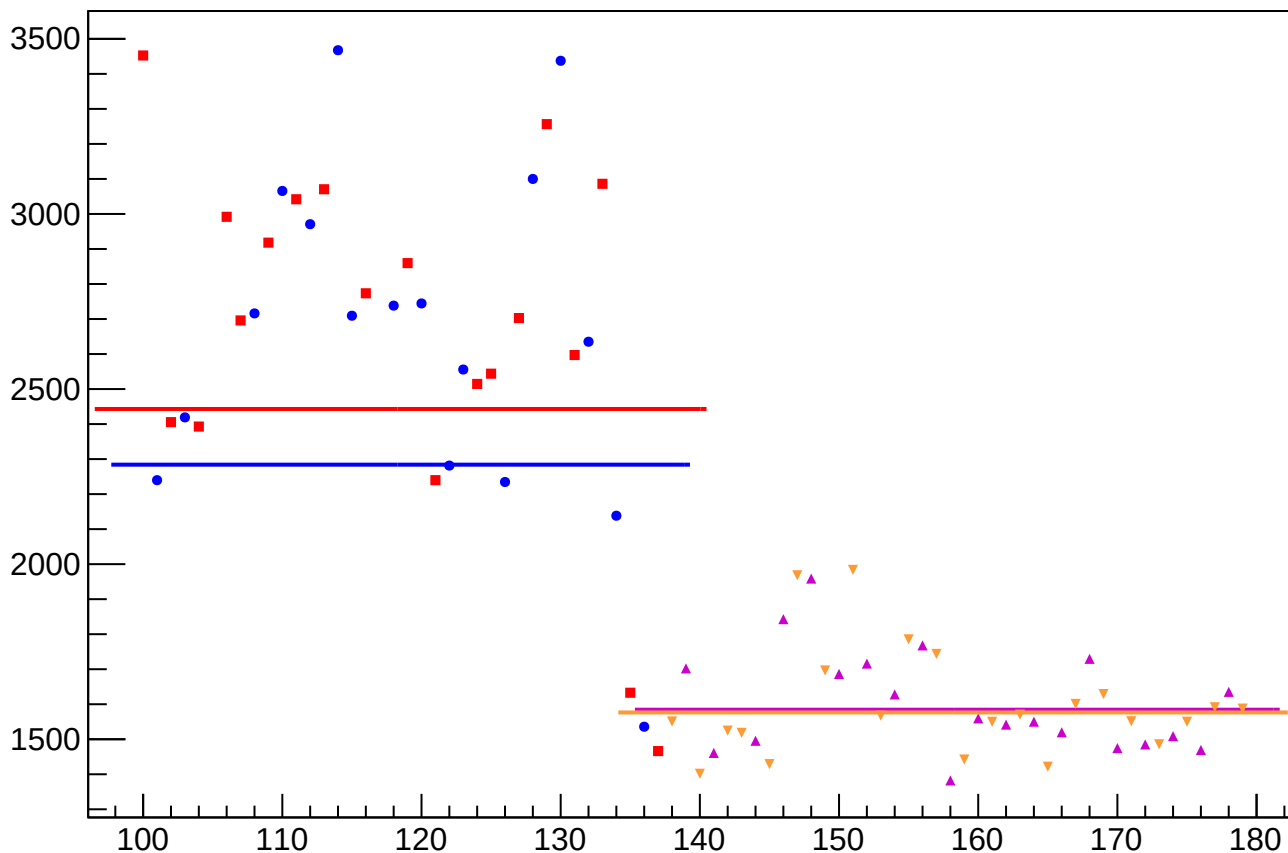
Right: 685.645 $\pm$ 655.109  $\chi^2/\text{NDF}$ : 34.1/35

In: 60.667 $\pm$ 369.318  $\chi^2/\text{NDF}$ :50.2/36

Out: 467.235 $\pm$ 359.113  $\chi^2/\text{NDF}$ :49.6/40

All: 269.645 $\pm$ 257.463  $\chi^2/\text{NDF}$ : 100.5/77

# asym\_sam\_26\_dd\_rms vs Slug, Sign Corrected



Right In: 2284.104+/-0.647  $\chi^2/\text{NDF}$ : 793993.4/16

Left Out: 1576.519+/-0.275  $\chi^2/\text{NDF}$ : 254225.0/21

Right Out: 2443.124+/-0.664  $\chi^2/\text{NDF}$ : 672899.9/18

Left In: 1584.405+/-0.285  $\chi^2/\text{NDF}$ : 230544.0/19

Left: 1580.313+/-0.198  $\chi^2/\text{NDF}$ : 485165.1/41

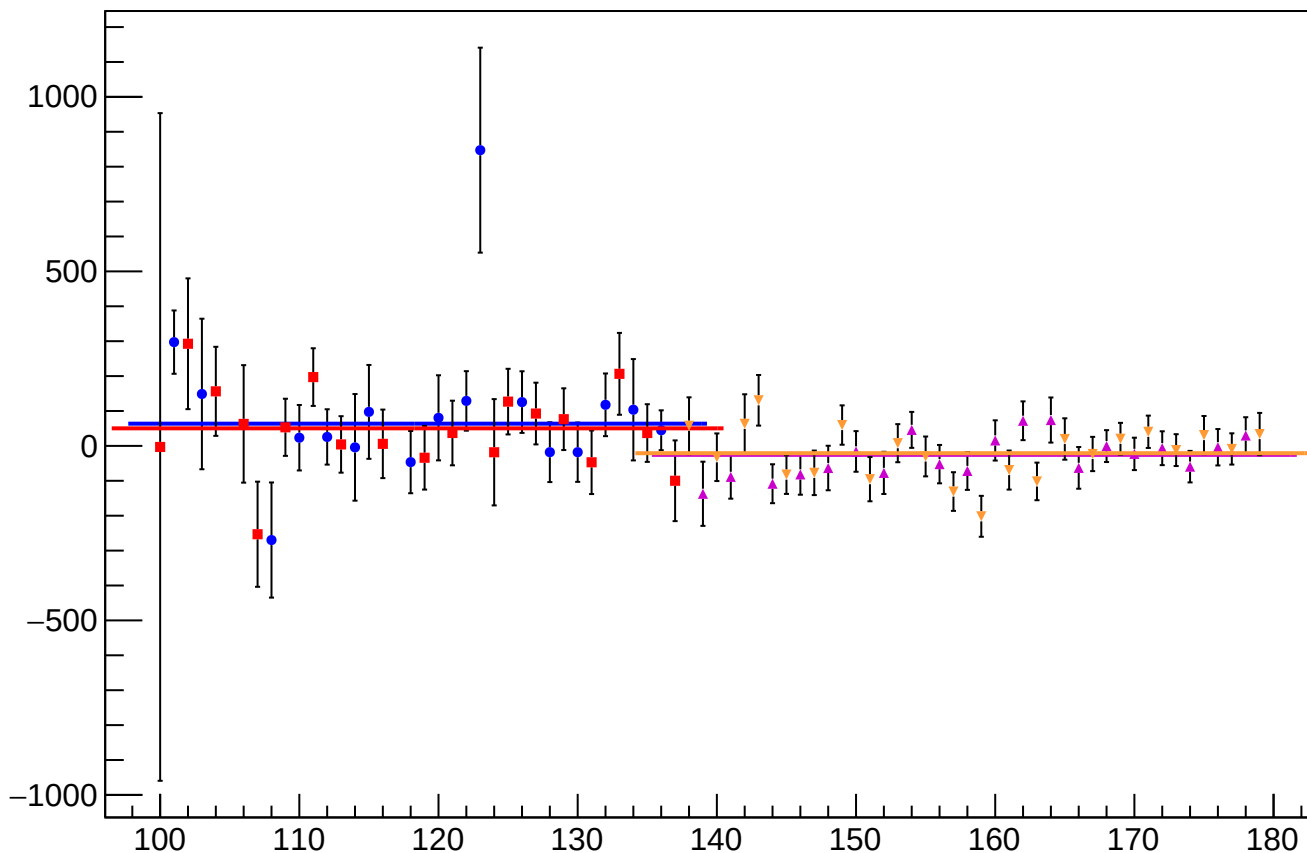
Right: 2361.583+/-0.463  $\chi^2/\text{NDF}$ : 1496334.9/35

In: 1698.432+/-0.261  $\chi^2/\text{NDF}$ : 2003779.7/36

Out: 1703.398+/-0.254  $\chi^2/\text{NDF}$ : 2382675.3/40

All: 1700.985+/-0.182  $\chi^2/\text{NDF}$ : 4386640.8/77

reg\_asym\_sam\_37\_dd\_mean vs Slug, Sign Corrected



Right In: 63.666 $\pm$ 23.743  $\chi^2$ /NDF: 23.7/16

Left Out: -20.960 $\pm$ 11.965  $\chi^2$ /NDF:33.4/21

Right Out: 50.278 $\pm$ 23.661  $\chi^2$ /NDF: 16.8/18

Left In: -25.650 $\pm$ 12.319  $\chi^2$ /NDF:18.3/19

Left: -23.237 $\pm$ 8.583  $\chi^2$ /NDF: 51.7/41

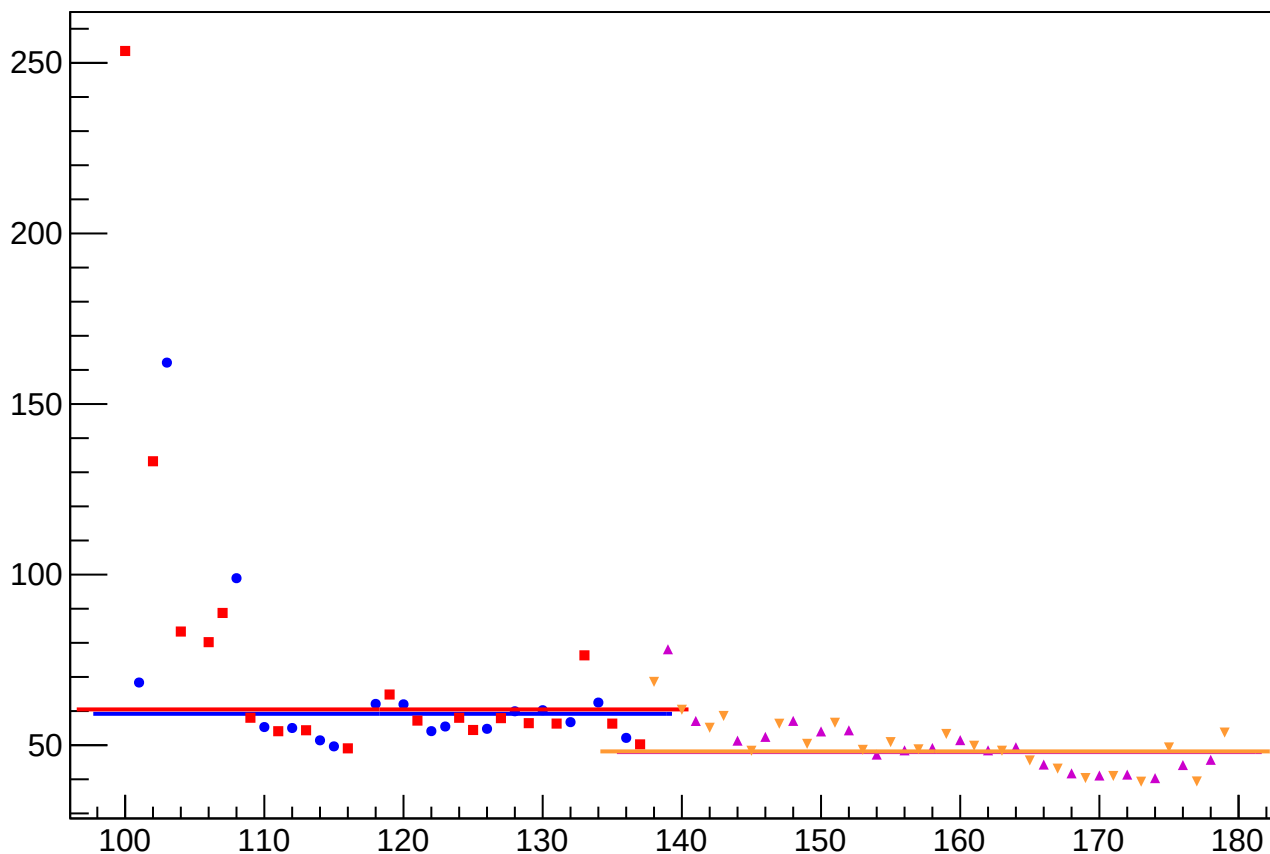
Right: 56.949 $\pm$ 16.760  $\chi^2$ /NDF: 40.6/35

In: -6.705 $\pm$ 10.935  $\chi^2$ /NDF:53.1/36

Out: -6.453 $\pm$ 10.677  $\chi^2$ /NDF:57.4/40

All: -6.576 $\pm$ 7.639  $\chi^2$ /NDF: 110.5/77

reg\_asym\_sam\_37\_dd\_rms vs Slug, Sign Corrected



Right In: 59.200 $\pm$ 0.017  $\chi^2$ /NDF: 665472.4/16

Left Out: 48.177 $\pm$ 0.008  $\chi^2$ /NDF: 639042.3/21

Right Out: 60.483 $\pm$ 0.017  $\chi^2$ /NDF: 680059.5/18

Left In: 47.976 $\pm$ 0.009  $\chi^2$ /NDF: 568794.7/19

Left: 48.079 $\pm$ 0.006  $\chi^2$ /NDF: 1208112.0/41

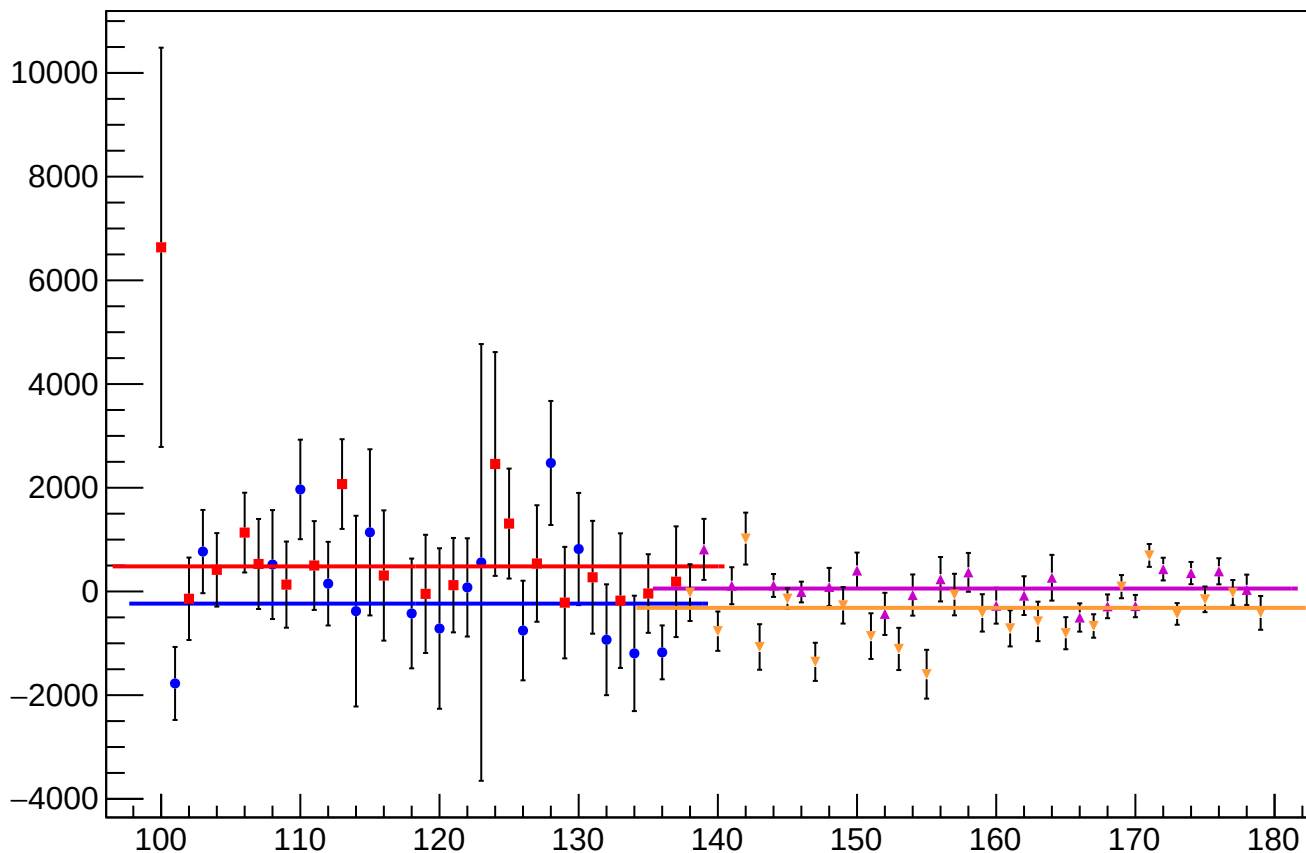
Right: 59.844 $\pm$ 0.012  $\chi^2$ /NDF: 1348461.0/35

In: 50.357 $\pm$ 0.008  $\chi^2$ /NDF: 1586470.6/36

Out: 50.683 $\pm$ 0.008  $\chi^2$ /NDF: 1749943.0/40

All: 50.524 $\pm$ 0.005  $\chi^2$ /NDF: 3337325.8/77

# asym\_sam\_37\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -234.492 $\pm$ 233.880  $\chi^2/\text{NDF}$ : 24.2/16

Left Out: -316.307 $\pm$ 64.374  $\chi^2/\text{NDF}$ : 67.1/21

Right Out: 483.305 $\pm$ 222.314  $\chi^2/\text{NDF}$ : 10.6/18

Left In: 56.214 $\pm$ 64.294  $\chi^2/\text{NDF}$ : 22.1/19

Left: -129.814 $\pm$ 45.491  $\chi^2/\text{NDF}$ : 106.0/41

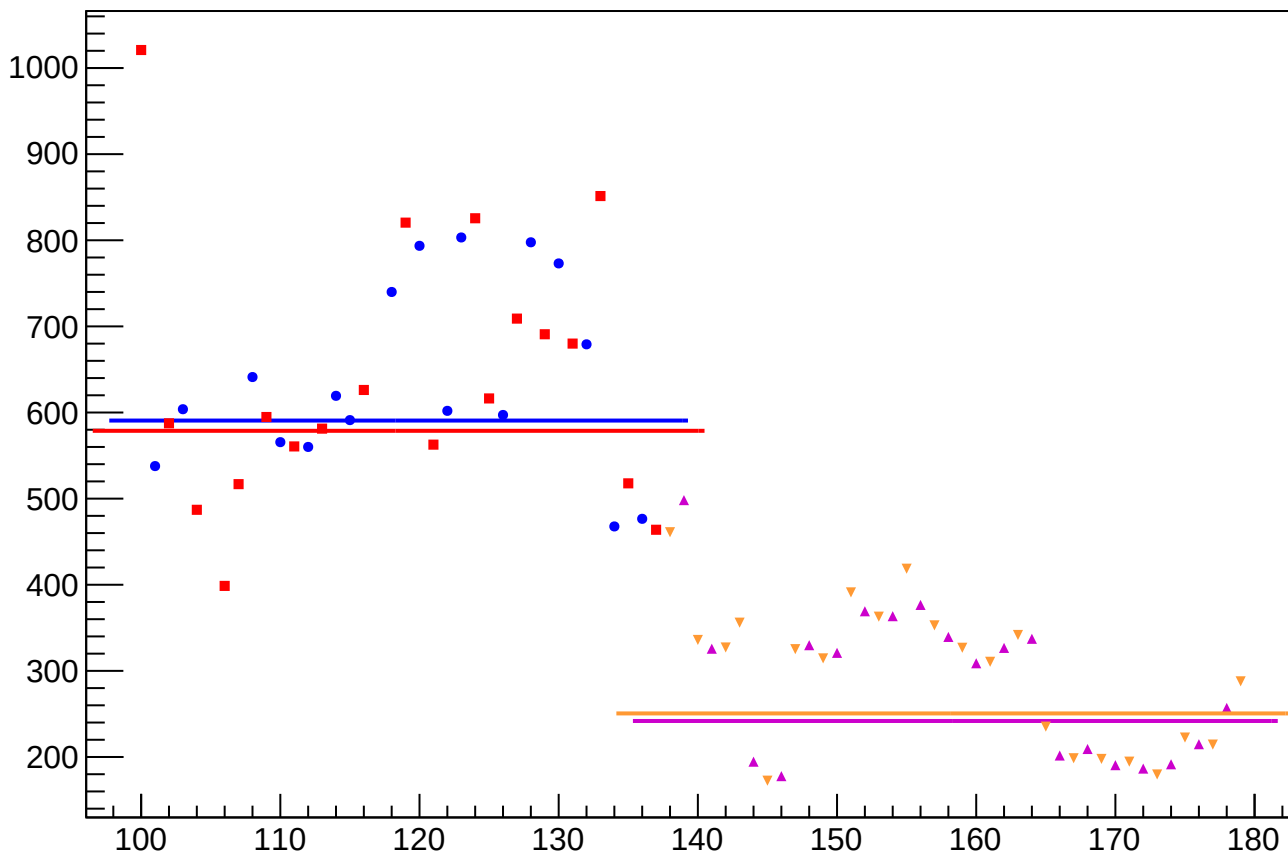
Right: 142.594 $\pm$ 161.133  $\chi^2/\text{NDF}$ : 39.7/35

In: 35.789 $\pm$ 61.994  $\chi^2/\text{NDF}$ : 47.7/36

Out: -254.449 $\pm$ 61.834  $\chi^2/\text{NDF}$ : 89.6/40

All: -109.705 $\pm$ 43.780  $\chi^2/\text{NDF}$ : 148.3/77

asym\_sam\_37\_dd\_correction\_rms vs Slug, Sign Corrected



Right In:  $590.659 \pm 0.165$   $\chi^2/\text{NDF}: 352080.1/16$

Left Out:  $250.587 \pm 0.046$   $\chi^2/\text{NDF}: 2700268.9/21$

Right Out:  $578.753 \pm 0.157$   $\chi^2/\text{NDF}: 493962.7/18$

Left In:  $241.814 \pm 0.045$   $\chi^2/\text{NDF}: 2460877.7/19$

Left:  $246.195 \pm 0.032$   $\chi^2/\text{NDF}: 5179742.7/41$

Right:  $584.404 \pm 0.114$   $\chi^2/\text{NDF}: 848765.8/35$

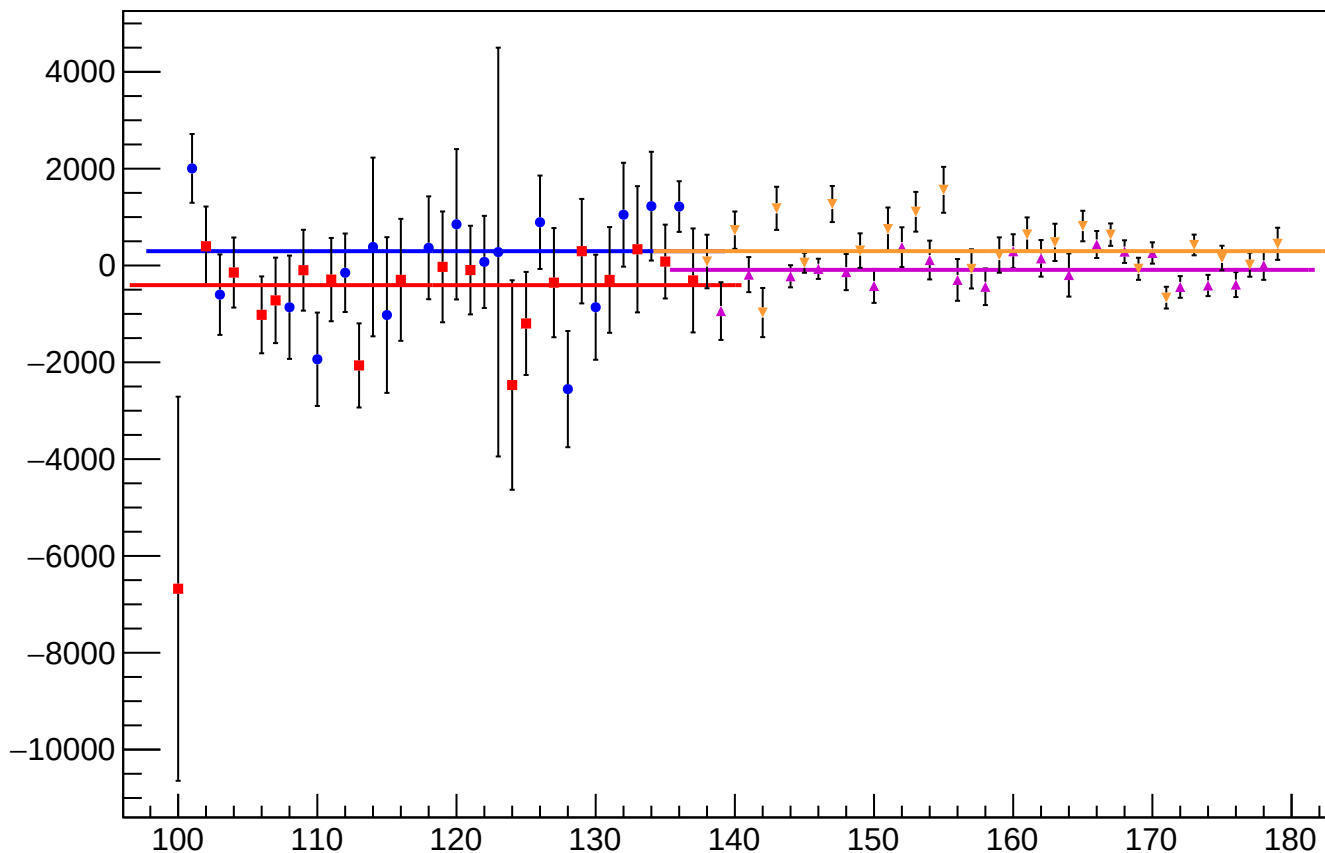
In:  $266.324 \pm 0.044$   $\chi^2/\text{NDF}: 6949827.6/36$

Out:  $275.974 \pm 0.044$   $\chi^2/\text{NDF}: 7215071.7/40$

All:  $271.161 \pm 0.031$   $\chi^2/\text{NDF}: 14189192.8/77$



# asym\_sam\_37\_dd\_mean vs Slug, Sign Corrected



Right In: 295.401 $\pm$ 235.860  $\chi^2/\text{NDF}$ : 26.1/16

Left Out: 296.619 $\pm$ 65.685  $\chi^2/\text{NDF}$ : 61.7/21

Right Out: -406.158 $\pm$ 224.855  $\chi^2/\text{NDF}$ : 11.0/18

Left In: -90.008 $\pm$ 65.744  $\chi^2/\text{NDF}$ : 22.4/19

Left: 103.480 $\pm$ 46.467  $\chi^2/\text{NDF}$ : 101.5/41

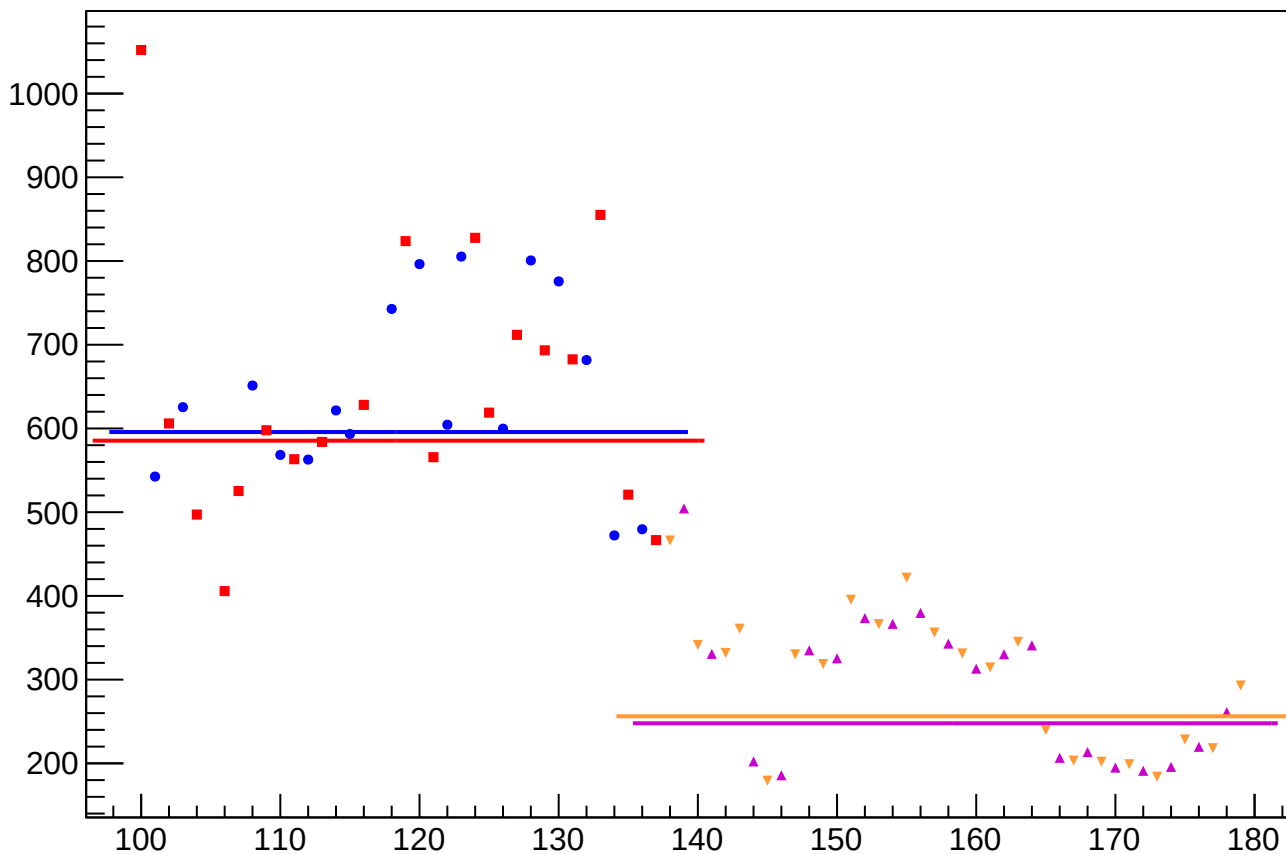
Right: -72.128 $\pm$ 162.748  $\chi^2/\text{NDF}$ : 41.7/35

In: -62.222 $\pm$ 63.330  $\chi^2/\text{NDF}$ : 51.0/36

Out: 241.363 $\pm$ 63.050  $\chi^2/\text{NDF}$ : 81.7/40

All: 90.244 $\pm$ 44.682  $\chi^2/\text{NDF}$ : 144.3/77

# asym\_sam\_37\_dd\_rms vs Slug, Sign Corrected



Right In: 595.734 $\pm$ 0.167  $\chi^2$ /NDF: 350058.2/16

Left Out: 256.198 $\pm$ 0.046  $\chi^2$ /NDF:2587019.1/21

Right Out: 585.421 $\pm$ 0.159  $\chi^2$ /NDF: 474472.3/18

Left In: 247.874 $\pm$ 0.046  $\chi^2$ /NDF:2338295.3/19

Left: 252.040 $\pm$ 0.033  $\chi^2$ /NDF: 4941360.0/41

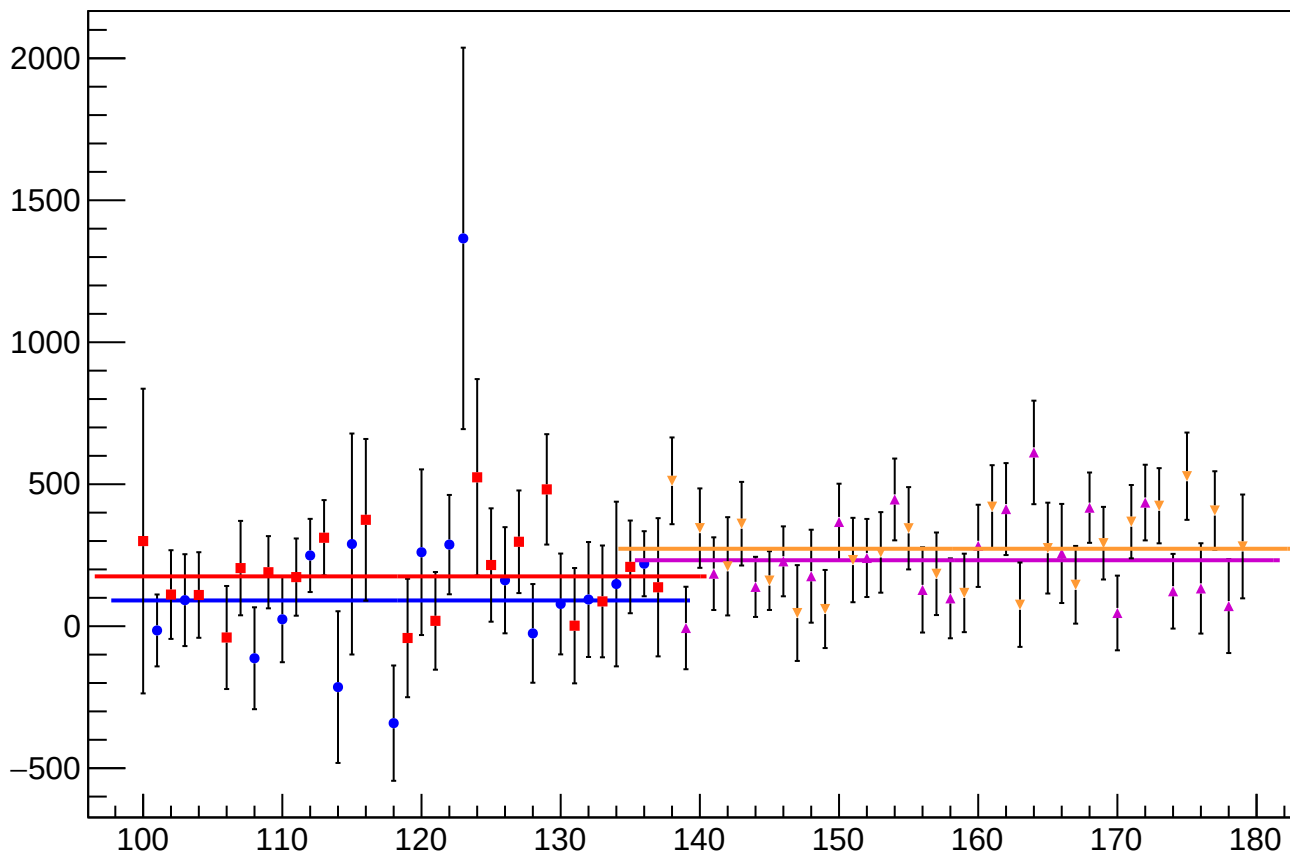
Right: 590.331 $\pm$ 0.115  $\chi^2$ /NDF: 826533.5/35

In: 272.953 $\pm$ 0.045  $\chi^2$ /NDF:6725091.9/36

Out: 282.084 $\pm$ 0.045  $\chi^2$ /NDF:7011902.2/40

All: 277.539 $\pm$ 0.032  $\chi^2$ /NDF: 13757871.1/77

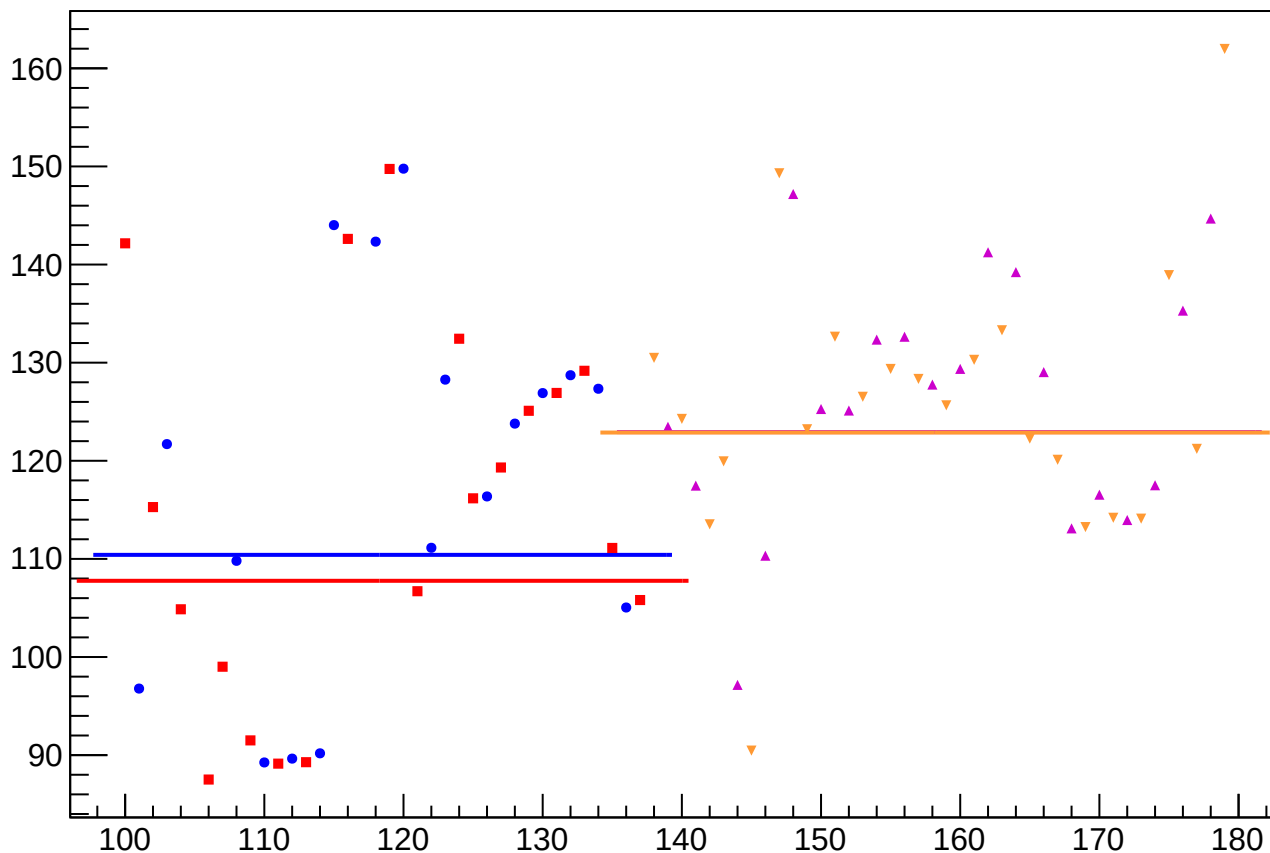
# reg\_asym\_sam\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 90.711+/-43.312  $\chi^2/\text{NDF}$ : 16.9/16  
 Left Out: 272.759+/-30.365  $\chi^2/\text{NDF}$ :19.8/21  
 Right Out: 175.485+/-41.101  $\chi^2/\text{NDF}$ : 10.3/18  
 Left In: 232.306+/-31.403  $\chi^2/\text{NDF}$ :22.6/19

Left: 253.212+/-21.829  $\chi^2/\text{NDF}$ : 43.3/41  
 Right: 135.317+/-29.814  $\chi^2/\text{NDF}$ : 29.2/35  
 In: 183.519+/-25.424  $\chi^2/\text{NDF}$ :46.6/36  
 Out: 238.412+/-24.423  $\chi^2/\text{NDF}$ :33.7/40  
 All: 212.068+/-17.613  $\chi^2/\text{NDF}$ : 82.7/77

reg\_asym\_sam\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 110.411 $\pm$ 0.031  $\chi^2$ /NDF: 296425.4/16

Left Out: 122.878 $\pm$ 0.021  $\chi^2$ /NDF: 433377.6/21

Right Out: 107.768 $\pm$ 0.029  $\chi^2$ /NDF: 344441.4/18

Left In: 122.925 $\pm$ 0.022  $\chi^2$ /NDF: 331942.0/19

Left: 122.901 $\pm$ 0.015  $\chi^2$ /NDF: 765321.9/41

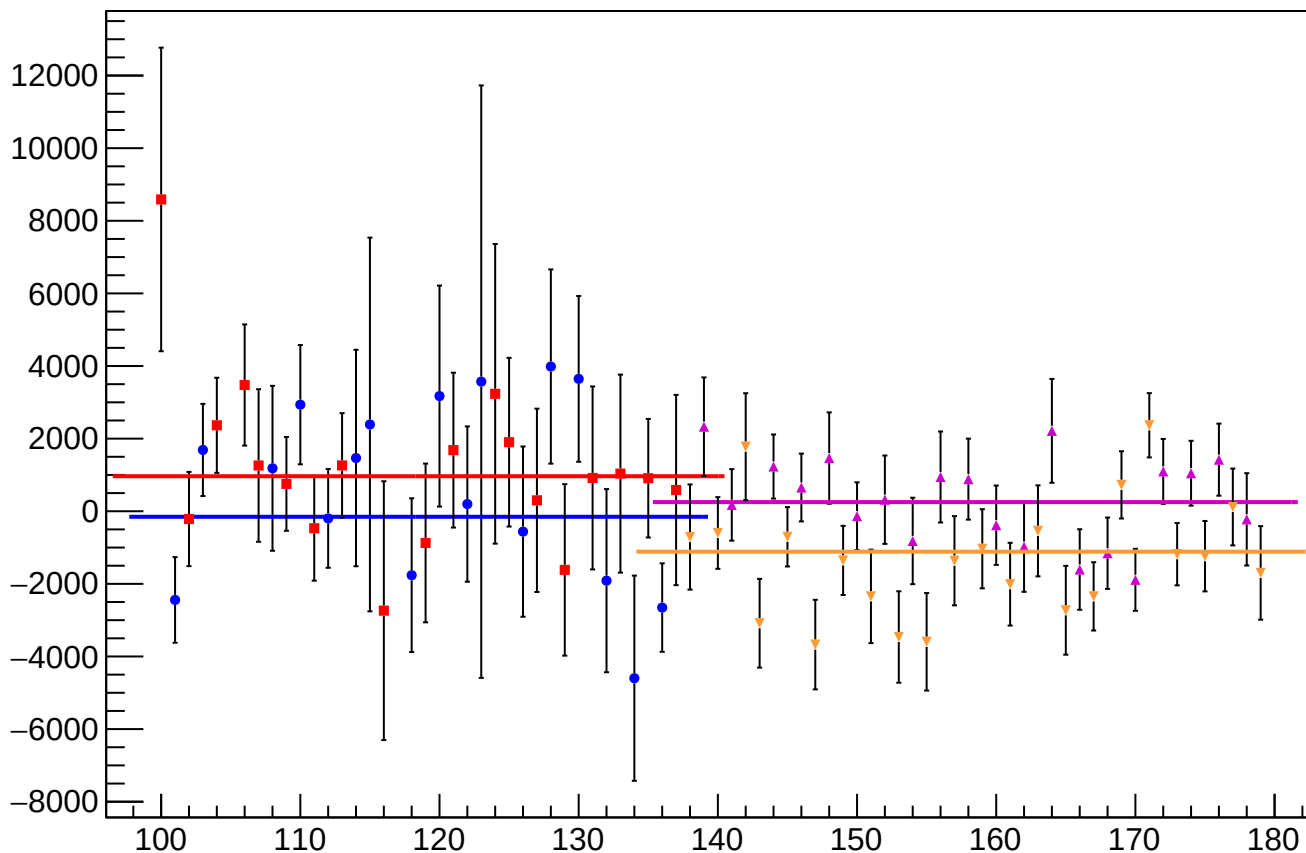
Right: 109.020 $\pm$ 0.021  $\chi^2$ /NDF: 644787.1/35

In: 118.614 $\pm$ 0.018  $\chi^2$ /NDF: 737800.0/36

Out: 117.543 $\pm$ 0.017  $\chi^2$ /NDF: 952693.4/40

All: 118.057 $\pm$ 0.012  $\chi^2$ /NDF: 1692338.7/77

asym\_sam\_48\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -152.403 $\pm$ 464.753  $\chi^2$ /NDF: 24.7/16

Left Out: -1112.807 $\pm$ 230.968  $\chi^2$ /NDF:44.5/21

Right Out: 964.716 $\pm$ 435.111  $\chi^2$ /NDF: 12.3/18

Left In: 252.336 $\pm$ 236.074  $\chi^2$ /NDF:23.9/19

Left: -445.160 $\pm$ 165.095  $\chi^2$ /NDF: 85.5/41

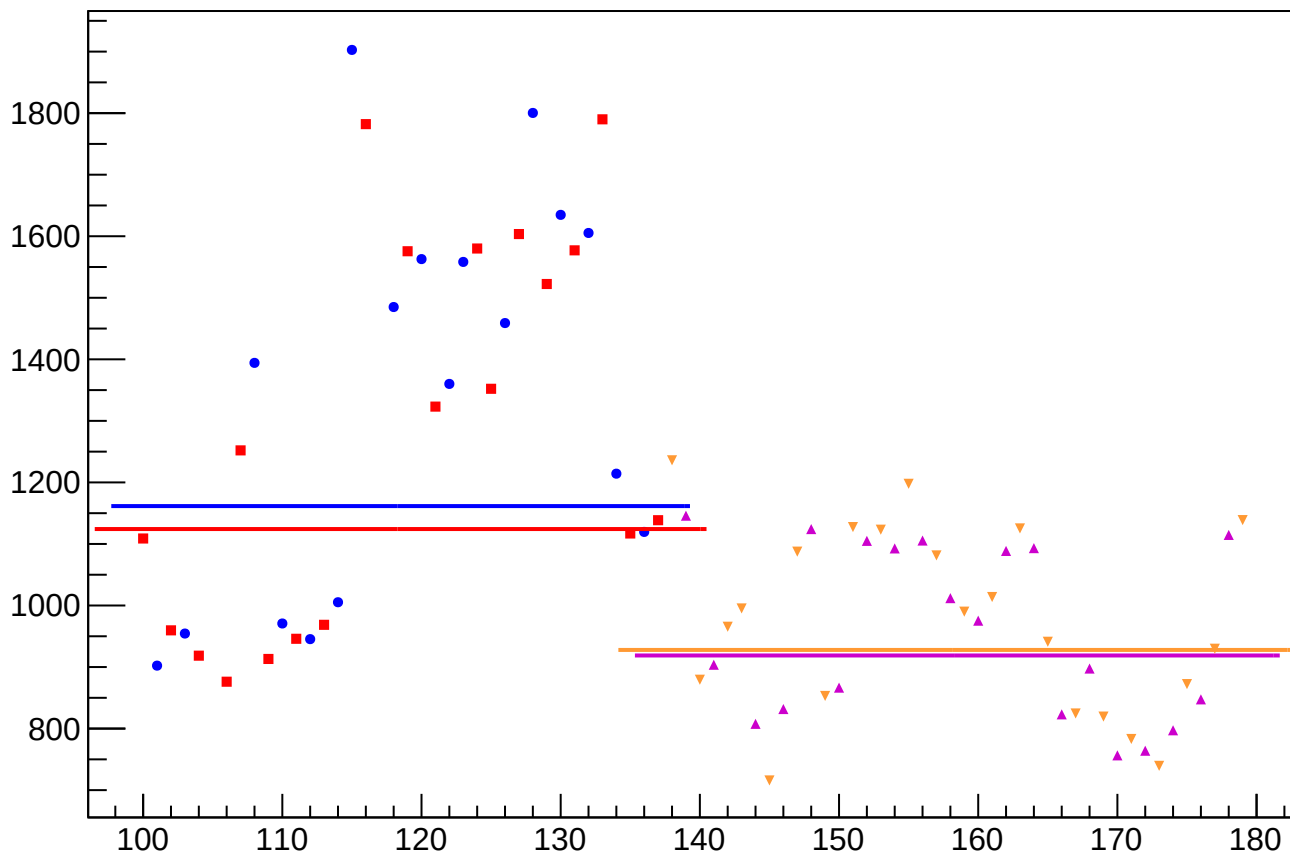
Right: 442.914 $\pm$ 317.632  $\chi^2$ /NDF: 40.0/35

In: 169.324 $\pm$ 210.477  $\chi^2$ /NDF:49.1/36

Out: -656.102 $\pm$ 204.007  $\chi^2$ /NDF:74.6/40

All: -256.270 $\pm$ 146.489  $\chi^2$ /NDF: 131.7/77

asym\_sam\_48\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 1161.530 $\pm$ 0.329  $\chi^2$ /NDF: 695906.9/16

Left Out: 927.800 $\pm$ 0.163  $\chi^2$ /NDF: 820498.2/21

Right Out: 1124.235 $\pm$ 0.308  $\chi^2$ /NDF: 767790.0/18

Left In: 918.797 $\pm$ 0.167  $\chi^2$ /NDF: 628432.7/19

Left: 923.397 $\pm$ 0.117  $\chi^2$ /NDF: 1450417.4/41

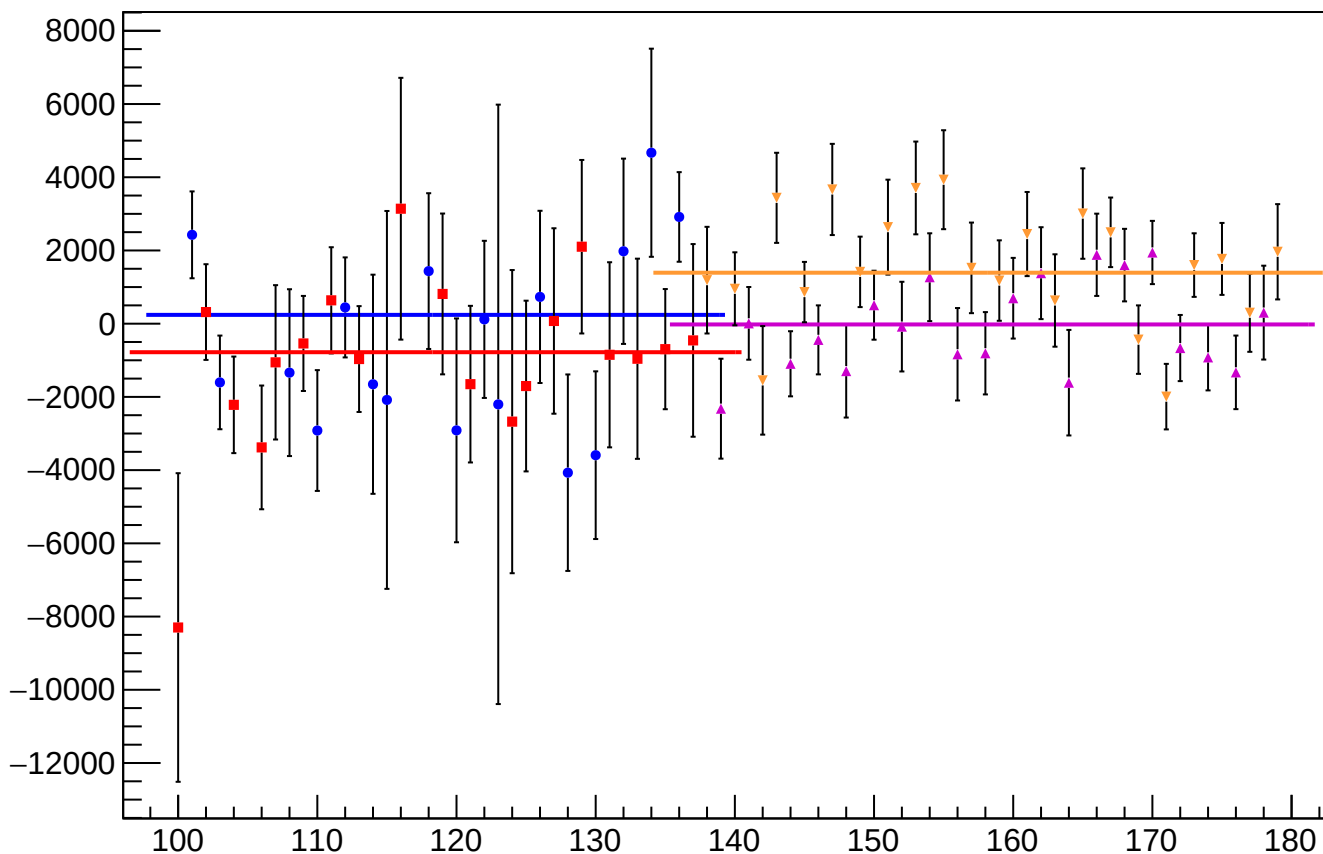
Right: 1141.655 $\pm$ 0.225  $\chi^2$ /NDF: 1470560.5/35

In: 968.581 $\pm$ 0.149  $\chi^2$ /NDF: 1758009.2/36

Out: 970.983 $\pm$ 0.144  $\chi^2$ /NDF: 1906306.0/40

All: 969.820 $\pm$ 0.104  $\chi^2$ /NDF: 3664449.5/77

# asym\_sam\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 240.732 $\pm$ 467.036  $\chi^2$ /NDF: 24.8/16

Left Out: 1392.449 $\pm$ 233.094  $\chi^2$ /NDF:42.3/21

Right Out: -779.192 $\pm$ 437.487  $\chi^2$ /NDF: 12.3/18

Left In: -20.869 $\pm$ 238.289  $\chi^2$ /NDF:24.8/19

Left: 701.364 $\pm$ 166.628  $\chi^2$ /NDF: 85.1/41

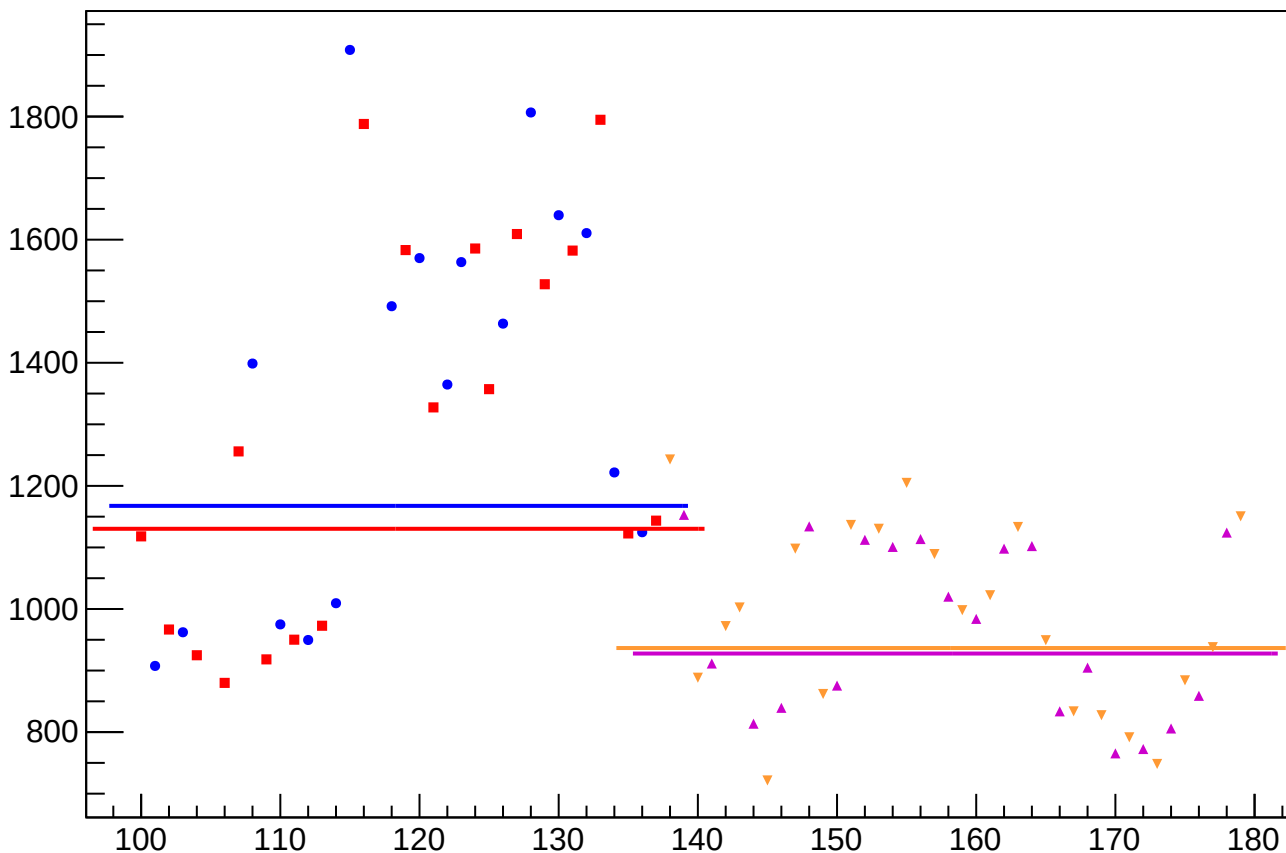
Right: -302.513 $\pm$ 319.286  $\chi^2$ /NDF: 39.7/35

In: 33.165 $\pm$ 212.257  $\chi^2$ /NDF:49.8/36

Out: 912.279 $\pm$ 205.716  $\chi^2$ /NDF:73.9/40

All: 486.476 $\pm$ 147.722  $\chi^2$ /NDF: 132.5/77

# asym\_sam\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 1167.539 $\pm$ 0.330  $\chi^2$ /NDF: 690485.6/16

Left Out: 936.585 $\pm$ 0.165  $\chi^2$ /NDF: 808675.1/21

Right Out: 1130.301 $\pm$ 0.309  $\chi^2$ /NDF: 761503.6/18

Left In: 927.632 $\pm$ 0.168  $\chi^2$ /NDF: 617325.8/19

Left: 932.207 $\pm$ 0.118  $\chi^2$ /NDF: 1427443.4/41

Right: 1147.705 $\pm$ 0.226  $\chi^2$ /NDF: 1458761.3/35

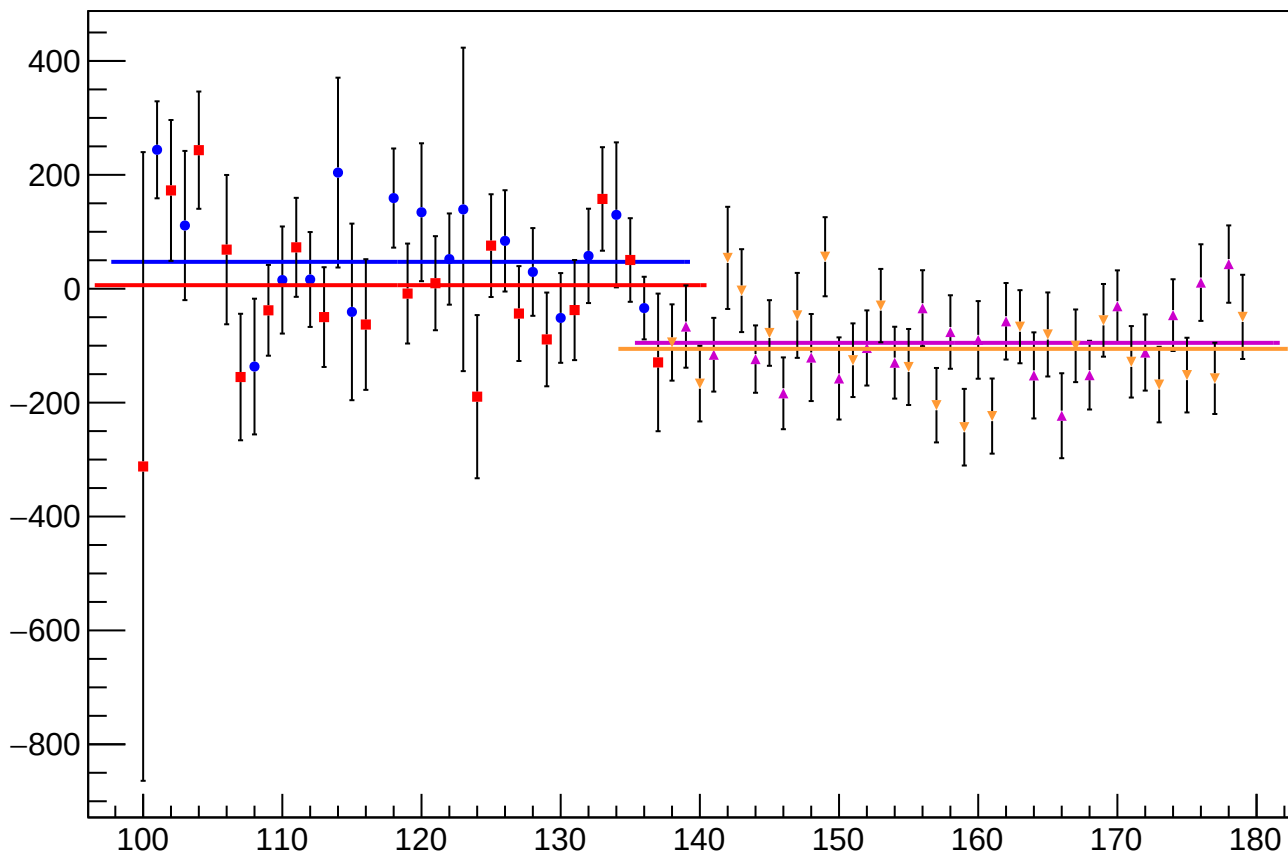
In: 977.185 $\pm$ 0.150  $\chi^2$ /NDF: 1726538.9/36

Out: 979.417 $\pm$ 0.145  $\chi^2$ /NDF: 1875605.1/40

All: 978.336 $\pm$ 0.104  $\chi^2$ /NDF: 3602258.1/77



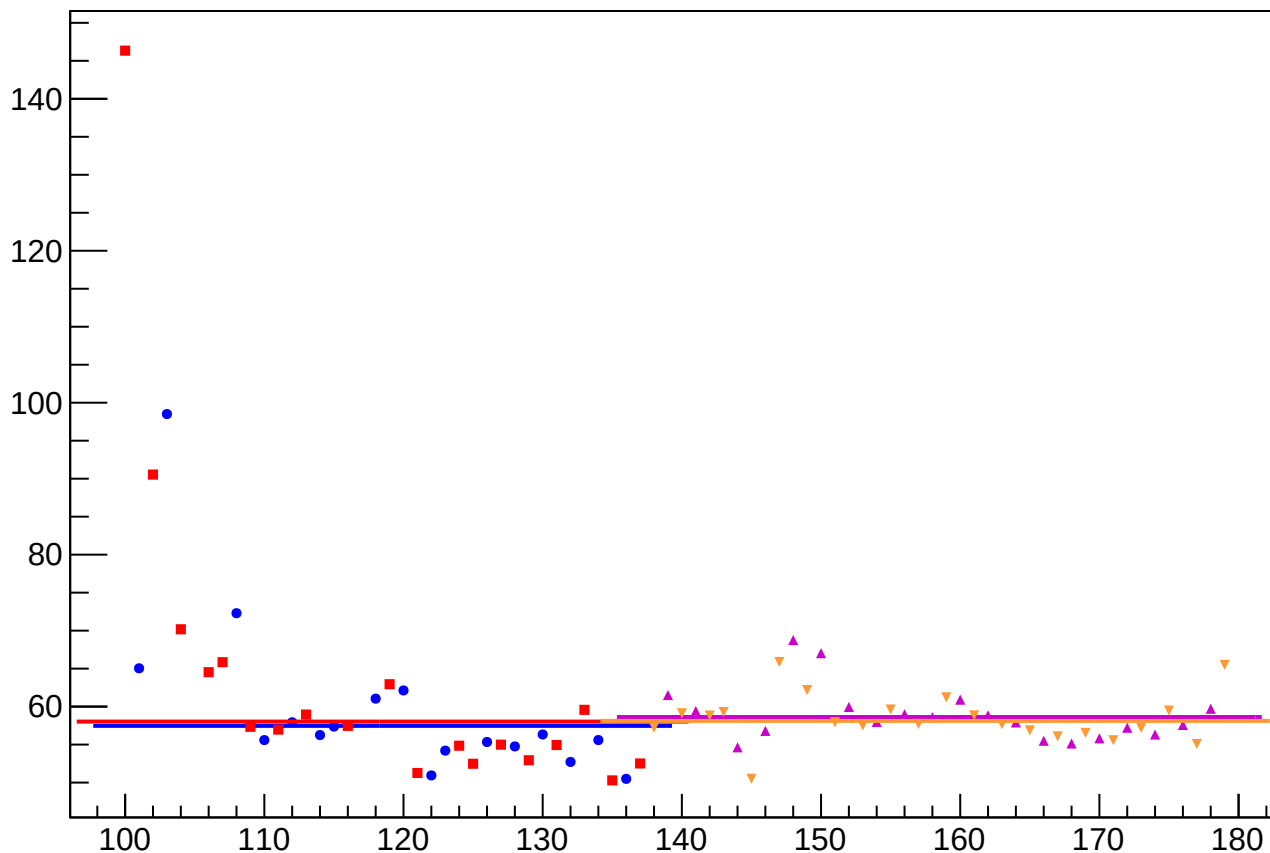
reg\_asym\_sam\_13\_57\_dd\_mean vs Slug, Sign Corrected



Right In:  $47.220 \pm 22.565$   $\chi^2/\text{NDF}: 16.1/16$   
 Left Out:  $-105.577 \pm 14.272$   $\chi^2/\text{NDF}: 27.6/21$   
 Right Out:  $6.246 \pm 22.128$   $\chi^2/\text{NDF}: 20.3/18$   
 Left In:  $-95.016 \pm 14.894$   $\chi^2/\text{NDF}: 17.6/19$

Left:  $-100.522 \pm 10.305$   $\chi^2/\text{NDF}: 45.5/41$   
 Right:  $26.333 \pm 15.799$   $\chi^2/\text{NDF}: 38.1/35$   
 In:  $-51.852 \pm 12.430$   $\chi^2/\text{NDF}: 61.4/36$   
 Out:  $-72.725 \pm 11.994$   $\chi^2/\text{NDF}: 65.9/40$   
 All:  $-62.661 \pm 8.631$   $\chi^2/\text{NDF}: 128.7/77$

reg\_asym\_sam\_13\_57\_dd\_rms vs Slug, Sign Corrected



Right In: 57.465 $\pm$ 0.016  $\chi^2$ /NDF: 307156.4/16

Left Out: 58.116 $\pm$ 0.010  $\chi^2$ /NDF: 103673.4/21

Right Out: 58.027 $\pm$ 0.016  $\chi^2$ /NDF: 300788.2/18

Left In: 58.632 $\pm$ 0.011  $\chi^2$ /NDF: 98775.0/19

Left: 58.363 $\pm$ 0.007  $\chi^2$ /NDF: 203695.4/41

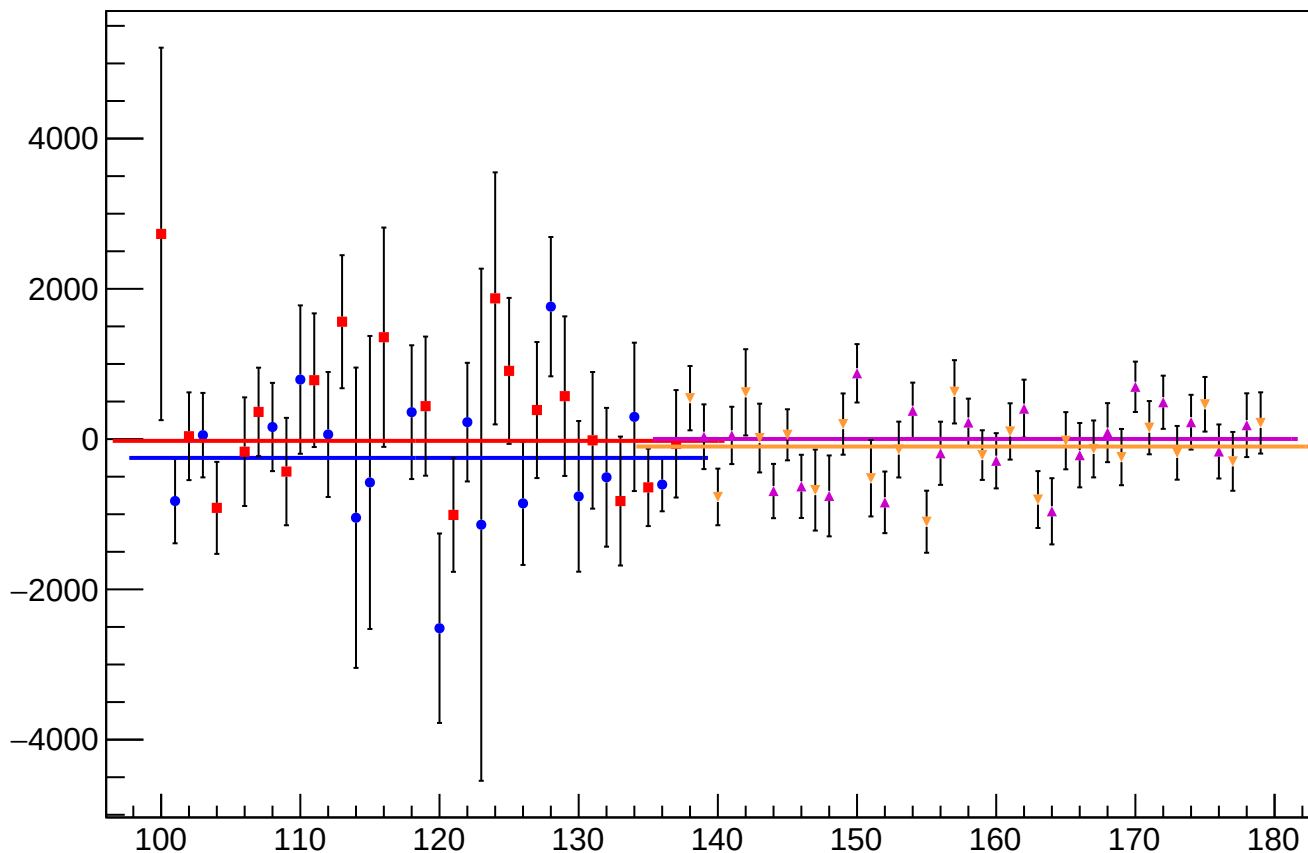
Right: 57.752 $\pm$ 0.011  $\chi^2$ /NDF: 608576.3/35

In: 58.278 $\pm$ 0.009  $\chi^2$ /NDF: 409652.1/36

Out: 58.090 $\pm$ 0.008  $\chi^2$ /NDF: 404484.6/40

All: 58.181 $\pm$ 0.006  $\chi^2$ /NDF: 814372.3/77

asym\_sam\_13\_57\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -250.140 $\pm$ 184.092  $\chi^2$ /NDF: 14.3/16

Left Out: -99.113 $\pm$ 84.151  $\chi^2$ /NDF:26.4/21

Right Out: -23.314 $\pm$ 181.834  $\chi^2$ /NDF: 16.1/18

Left In: 1.711 $\pm$ 86.656  $\chi^2$ /NDF:32.7/19

Left: -50.179 $\pm$ 60.370  $\chi^2$ /NDF: 59.8/41

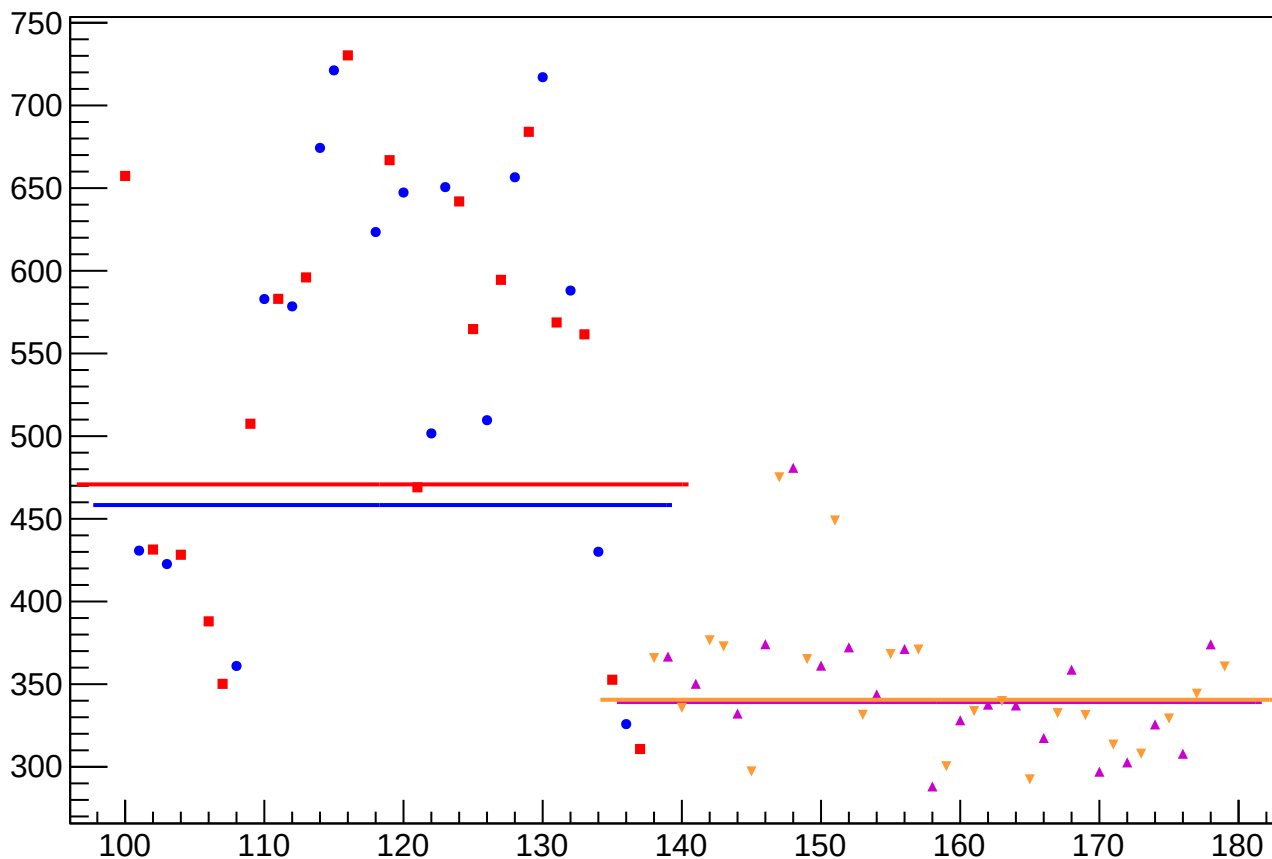
Right: -135.327 $\pm$ 129.367  $\chi^2$ /NDF: 31.1/35

In: -43.972 $\pm$ 78.404  $\chi^2$ /NDF:48.5/36

Out: -85.742 $\pm$ 76.369  $\chi^2$ /NDF:42.6/40

All: -65.406 $\pm$ 54.707  $\chi^2$ /NDF: 91.2/77

asym\_sam\_13\_57\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 458.324+/-0.130  $\chi^2/\text{NDF}$ : 877201.7/16

Left Out: 340.573+/-0.060  $\chi^2/\text{NDF}$ : 400713.6/21

Right Out: 470.827+/-0.129  $\chi^2/\text{NDF}$ : 778635.2/18

Left In: 339.187+/-0.061  $\chi^2/\text{NDF}$ : 342119.1/19

Left: 339.900+/-0.043  $\chi^2/\text{NDF}$ : 743096.0/41

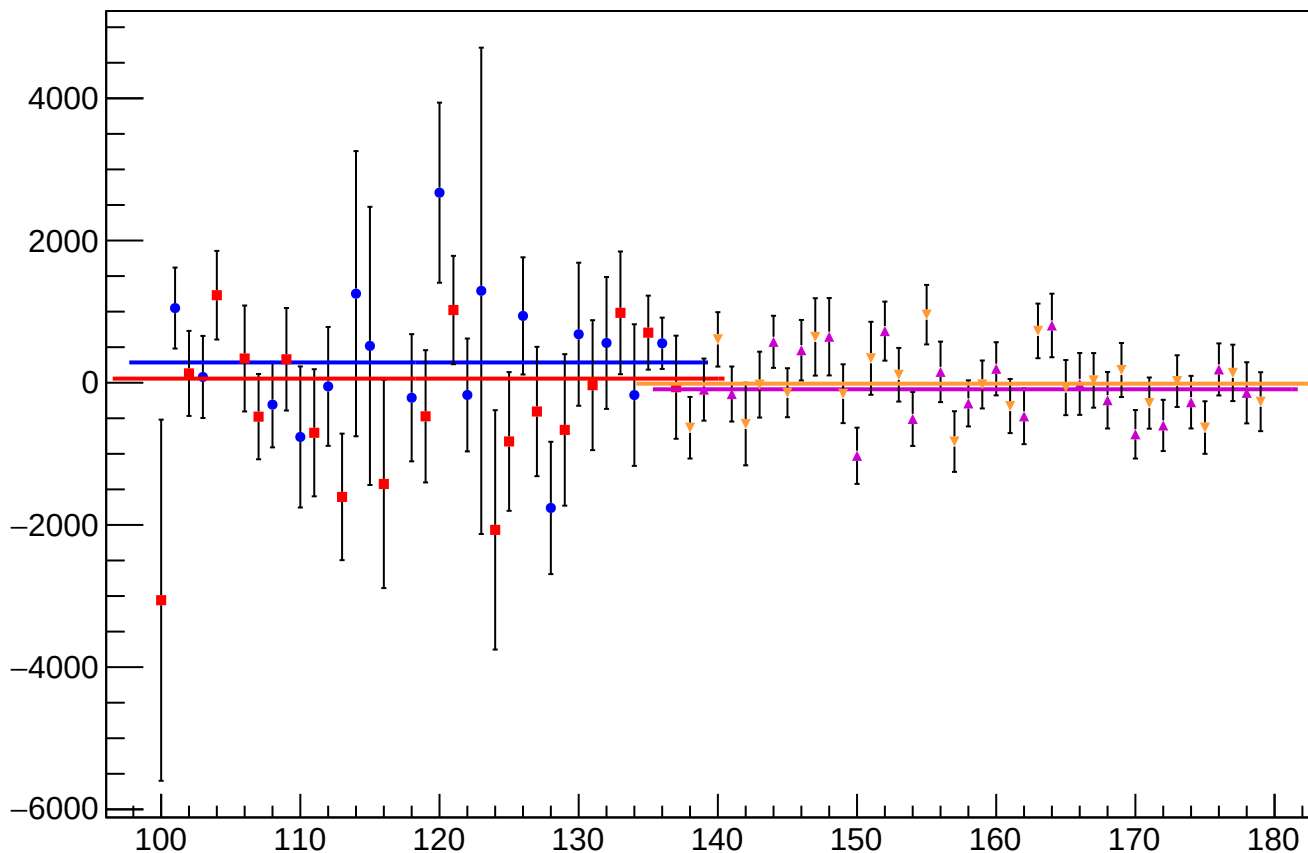
Right: 464.653+/-0.091  $\chi^2/\text{NDF}$ : 1660506.8/35

In: 360.797+/-0.055  $\chi^2/\text{NDF}$ : 1905017.4/36

Out: 363.549+/-0.054  $\chi^2/\text{NDF}$ : 2024591.6/40

All: 362.209+/-0.039  $\chi^2/\text{NDF}$ : 3930873.4/77

# asym\_sam\_13\_57\_dd\_mean vs Slug, Sign Corrected



Right In:  $285.349 \pm 186.262$   $\chi^2/\text{NDF}: 15.2/16$

Left Out:  $-13.171 \pm 85.413$   $\chi^2/\text{NDF}: 25.6/21$

Right Out:  $58.001 \pm 184.074$   $\chi^2/\text{NDF}: 19.2/18$

Left In:  $-92.117 \pm 87.981$   $\chi^2/\text{NDF}: 30.3/19$

Left:  $-51.475 \pm 61.284$   $\chi^2/\text{NDF}: 56.3/41$

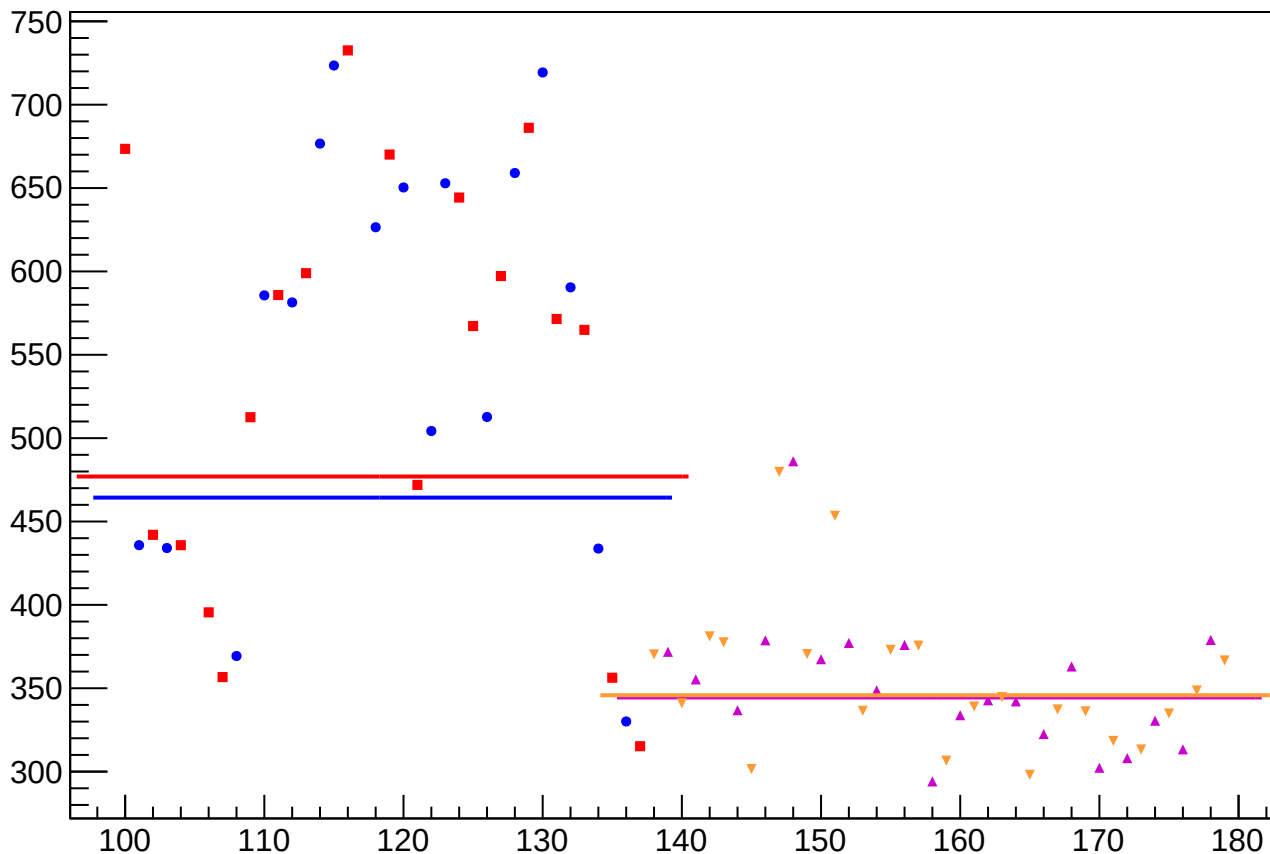
Right:  $170.332 \pm 130.927$   $\chi^2/\text{NDF}: 35.1/35$

In:  $-23.261 \pm 79.553$   $\chi^2/\text{NDF}: 48.8/36$

Out:  $-0.562 \pm 77.479$   $\chi^2/\text{NDF}: 44.9/40$

All:  $-11.612 \pm 55.504$   $\chi^2/\text{NDF}: 93.7/77$

asym\_sam\_13\_57\_dd\_rms vs Slug, Sign Corrected



Right In: 464.341 $\pm$ 0.132  $\chi^2$ /NDF: 845900.9/16

Left Out: 345.791 $\pm$ 0.060  $\chi^2$ /NDF: 387089.0/21

Right Out: 476.989 $\pm$ 0.130  $\chi^2$ /NDF: 749331.1/18

Left In: 344.473 $\pm$ 0.062  $\chi^2$ /NDF: 329703.4/19

Left: 345.151 $\pm$ 0.043  $\chi^2$ /NDF: 717023.6/41

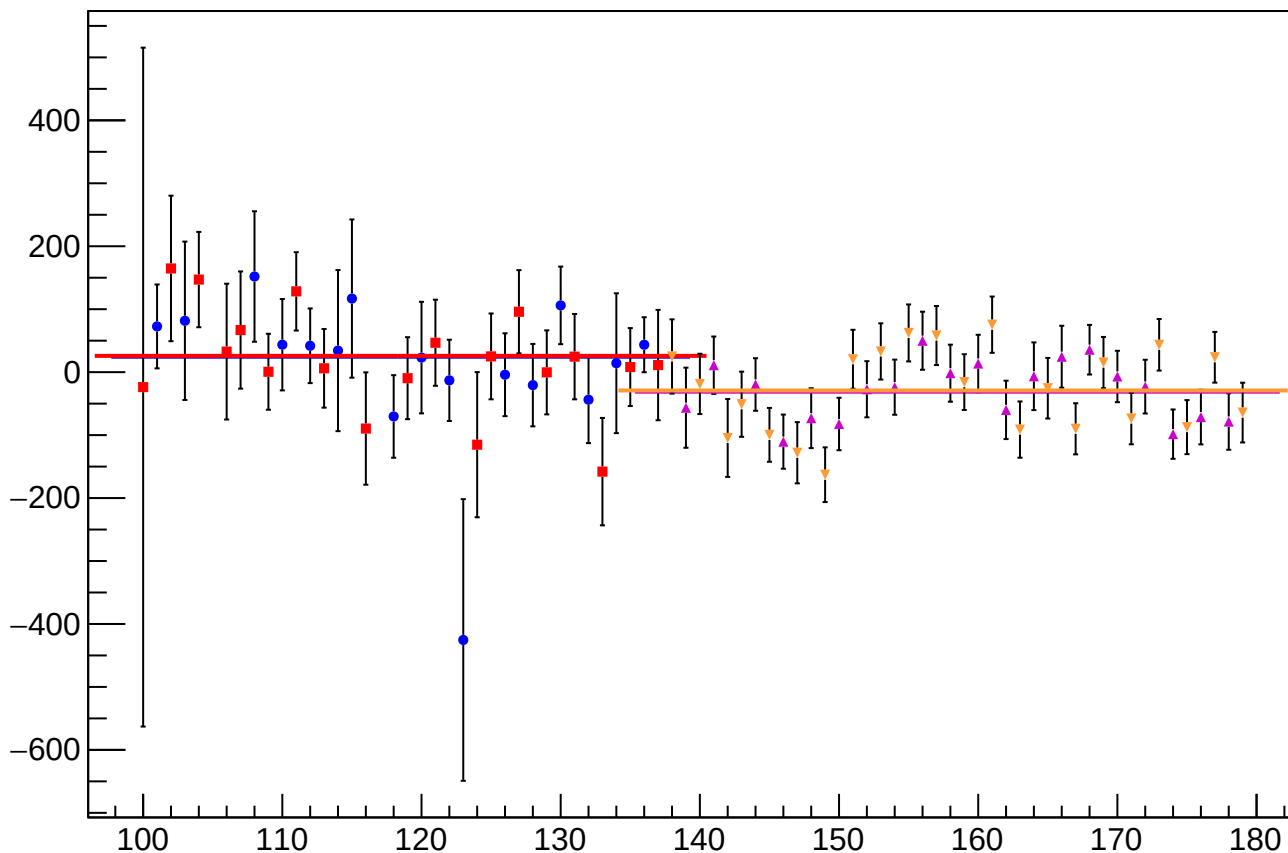
Right: 470.740 $\pm$ 0.093  $\chi^2$ /NDF: 1599897.5/35

In: 366.338 $\pm$ 0.056  $\chi^2$ /NDF: 1852813.8/36

Out: 369.035 $\pm$ 0.055  $\chi^2$ /NDF: 1972434.1/40

All: 367.722 $\pm$ 0.039  $\chi^2$ /NDF: 3826427.0/77

reg\_asym\_sam\_15\_37\_dd\_mean vs Slug, Sign Corrected



Right In: 24.584 $\pm$ 17.839  $\chi^2$ /NDF: 13.0/16

Left Out: -29.079 $\pm$ 9.665  $\chi^2$ /NDF:48.8/21

Right Out: 25.884 $\pm$ 17.386  $\chi^2$ /NDF: 16.8/18

Left In: -31.035 $\pm$ 9.989  $\chi^2$ /NDF:21.4/19

Left: -30.025 $\pm$ 6.946  $\chi^2$ /NDF: 70.2/41

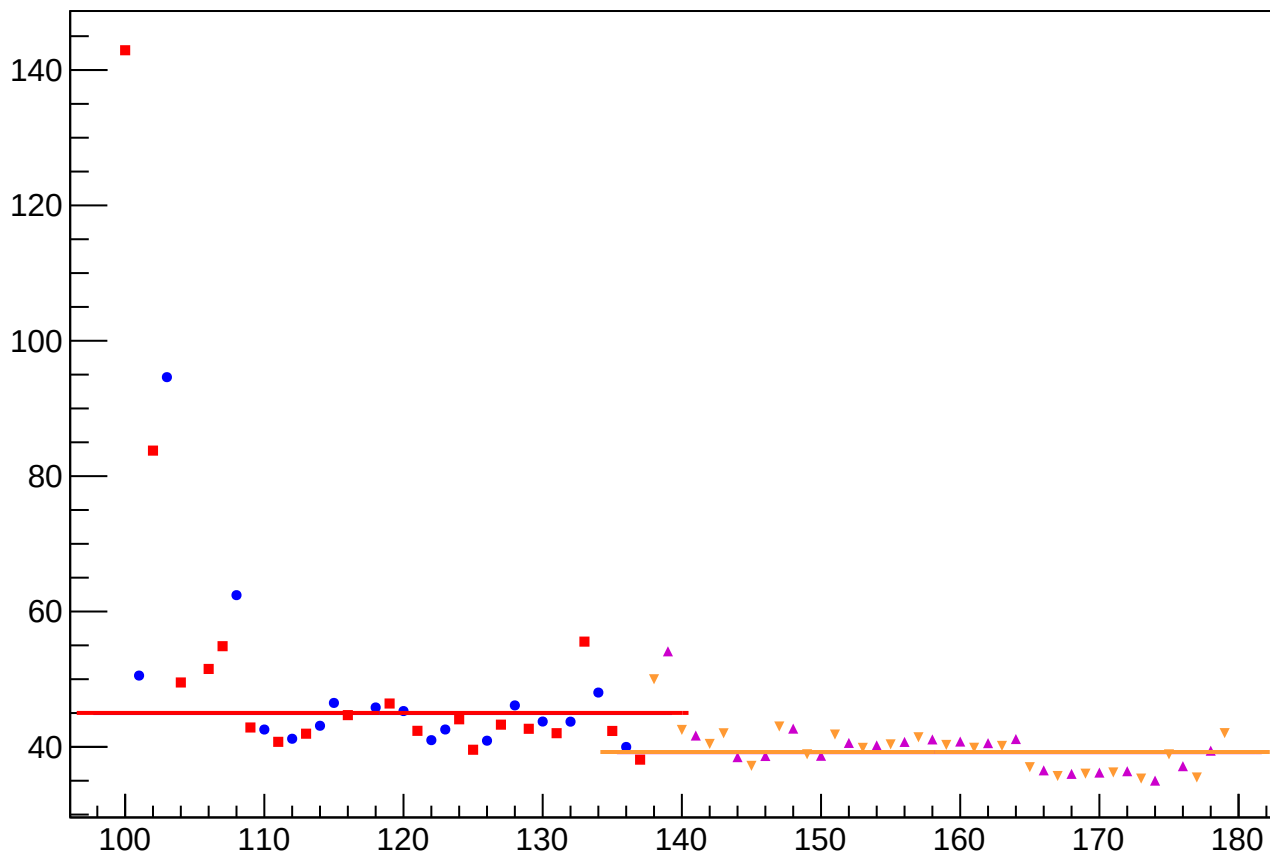
Right: 25.251 $\pm$ 12.451  $\chi^2$ /NDF: 29.8/35

In: -17.758 $\pm$ 8.716  $\chi^2$ /NDF:41.8/36

Out: -16.104 $\pm$ 8.448  $\chi^2$ /NDF:73.3/40

All: -16.905 $\pm$ 6.066  $\chi^2$ /NDF: 115.0/77

reg\_asym\_sam\_15\_37\_dd\_rms vs Slug, Sign Corrected



Right In: 45.001 $\pm$ 0.013  $\chi^2$ /NDF: 438352.8/16

Left Out: 39.244 $\pm$ 0.007  $\chi^2$ /NDF:198813.4/21

Right Out: 45.017 $\pm$ 0.012  $\chi^2$ /NDF: 415509.0/18

Left In: 39.220 $\pm$ 0.007  $\chi^2$ /NDF:209083.7/19

Left: 39.232 $\pm$ 0.005  $\chi^2$ /NDF: 407902.8/41

Right: 45.009 $\pm$ 0.009  $\chi^2$ /NDF: 853862.6/35

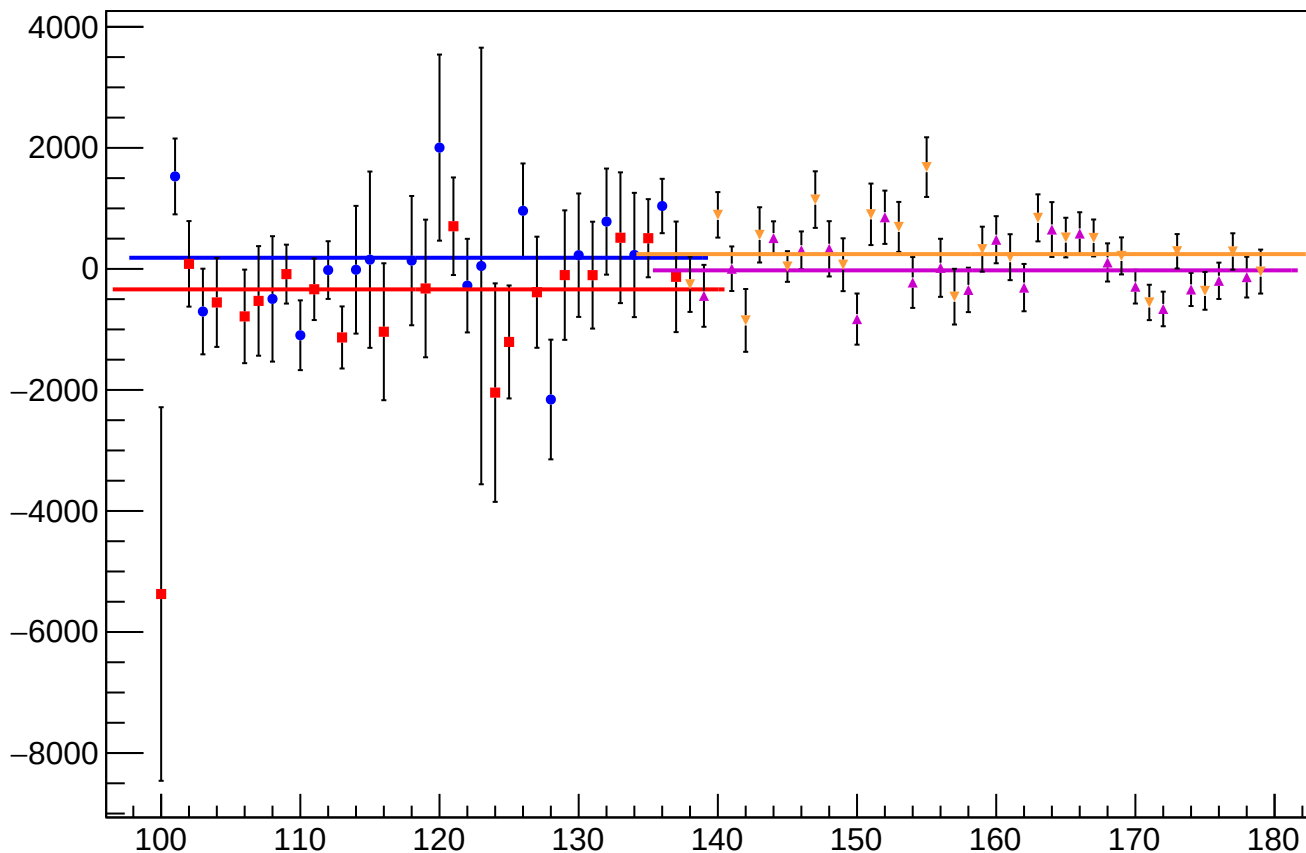
In: 40.600 $\pm$ 0.006  $\chi^2$ /NDF:807338.7/36

Out: 40.607 $\pm$ 0.006  $\chi^2$ /NDF:782805.6/40

All: 40.603 $\pm$ 0.004  $\chi^2$ /NDF: 1590144.9/77



asym\_sam\_15\_37\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 184.184+/-188.558  $\chi^2/\text{NDF}$ : 24.2/16

Left Out: 244.494+/-76.927  $\chi^2/\text{NDF}$ : 43.2/21

Right Out: -338.329+/-179.381  $\chi^2/\text{NDF}$ : 12.5/18

Left In: -23.940+/-78.546  $\chi^2/\text{NDF}$ : 30.1/19

Left: 113.073+/-54.959  $\chi^2/\text{NDF}$ : 79.2/41

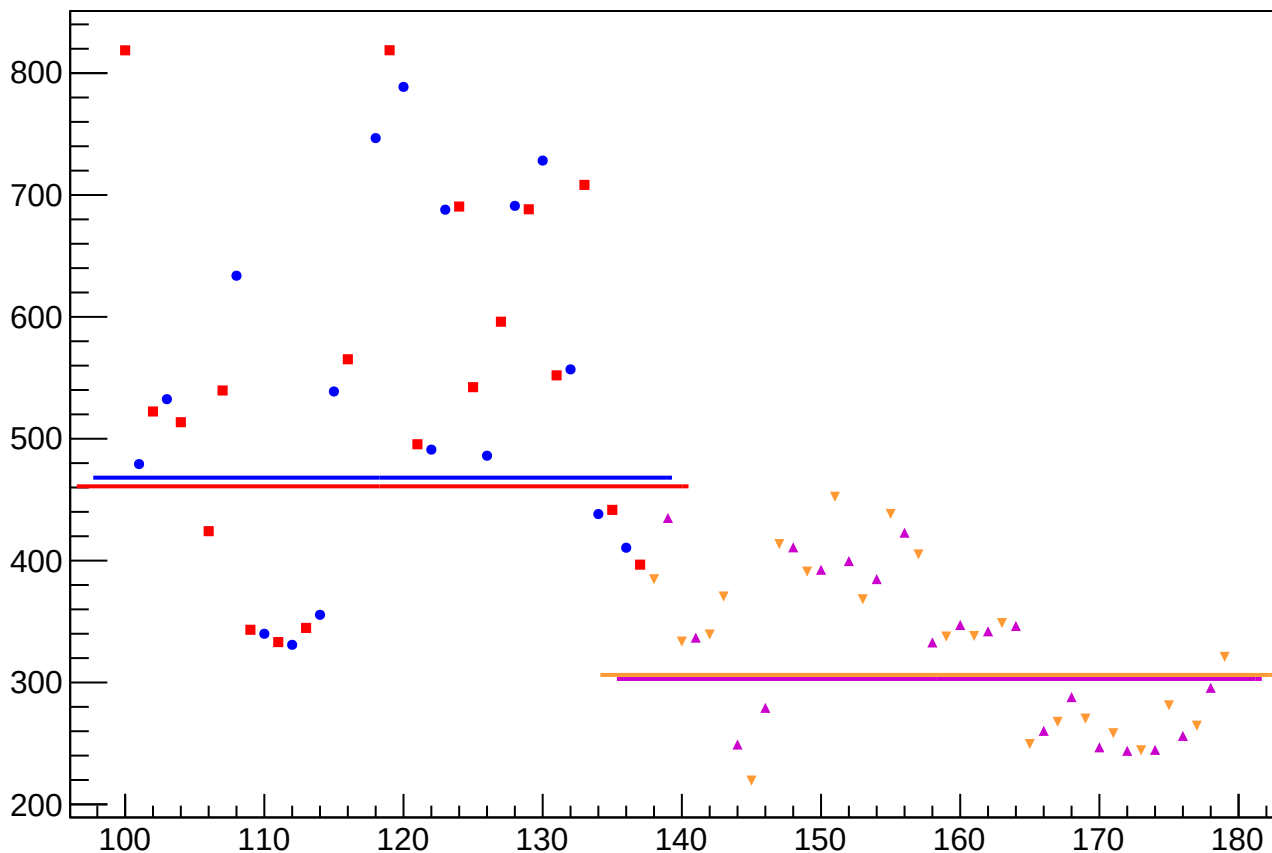
Right: -90.096+/-129.965  $\chi^2/\text{NDF}$ : 40.7/35

In: 6.835+/-72.507  $\chi^2/\text{NDF}$ : 55.3/36

Out: 153.959+/-70.700  $\chi^2/\text{NDF}$ : 64.6/40

All: 82.253+/-50.619  $\chi^2/\text{NDF}$ : 122.0/77

asym\_sam\_15\_37\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 468.071 $\pm$ 0.133  $\chi^2/\text{NDF}$ : 880319.3/16

Left Out: 306.207 $\pm$ 0.054  $\chi^2/\text{NDF}$ :1354370.8/21

Right Out: 460.939 $\pm$ 0.127  $\chi^2/\text{NDF}$ : 955028.5/18

Left In: 302.890 $\pm$ 0.056  $\chi^2/\text{NDF}$ :1154520.9/19

Left: 304.583 $\pm$ 0.039  $\chi^2/\text{NDF}$ : 2510712.6/41

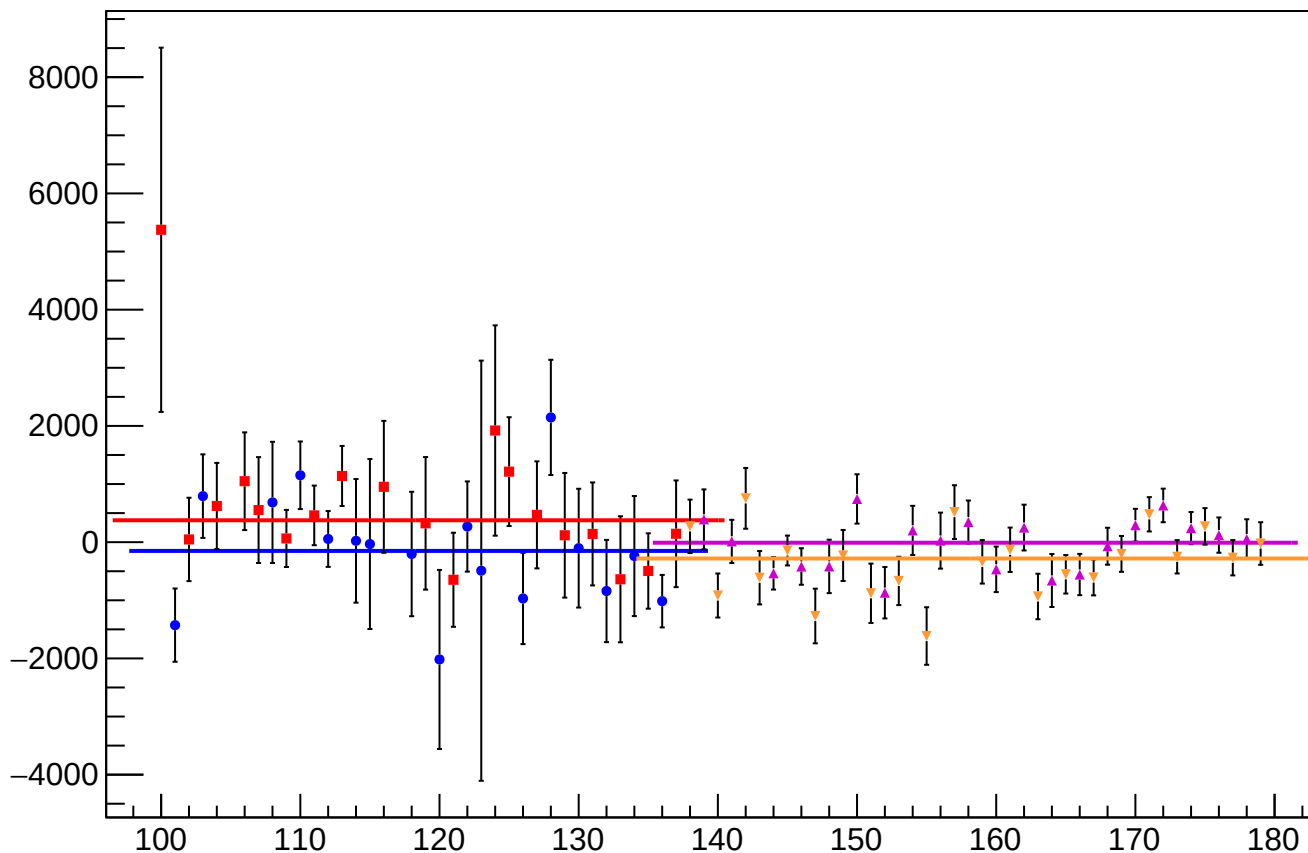
Right: 464.328 $\pm$ 0.092  $\chi^2/\text{NDF}$ : 1836849.7/35

In: 327.315 $\pm$ 0.051  $\chi^2/\text{NDF}$ :3342726.6/36

Out: 330.243 $\pm$ 0.050  $\chi^2/\text{NDF}$ :3566349.9/40

All: 328.816 $\pm$ 0.036  $\chi^2/\text{NDF}$ : 6910749.0/77

# asym\_sam\_15\_37\_dd\_mean vs Slug, Sign Corrected



Right In: -150.305+/-189.729  $\chi^2/\text{NDF}$ : 24.2/16

Left Out: -280.805+/-77.597  $\chi^2/\text{NDF}$ : 41.0/21

Right Out: 376.554+/-181.258  $\chi^2/\text{NDF}$ : 12.4/18

Left In: -9.468+/-79.244  $\chi^2/\text{NDF}$ : 28.1/19

Left: -147.985+/-55.442  $\chi^2/\text{NDF}$ : 75.0/41

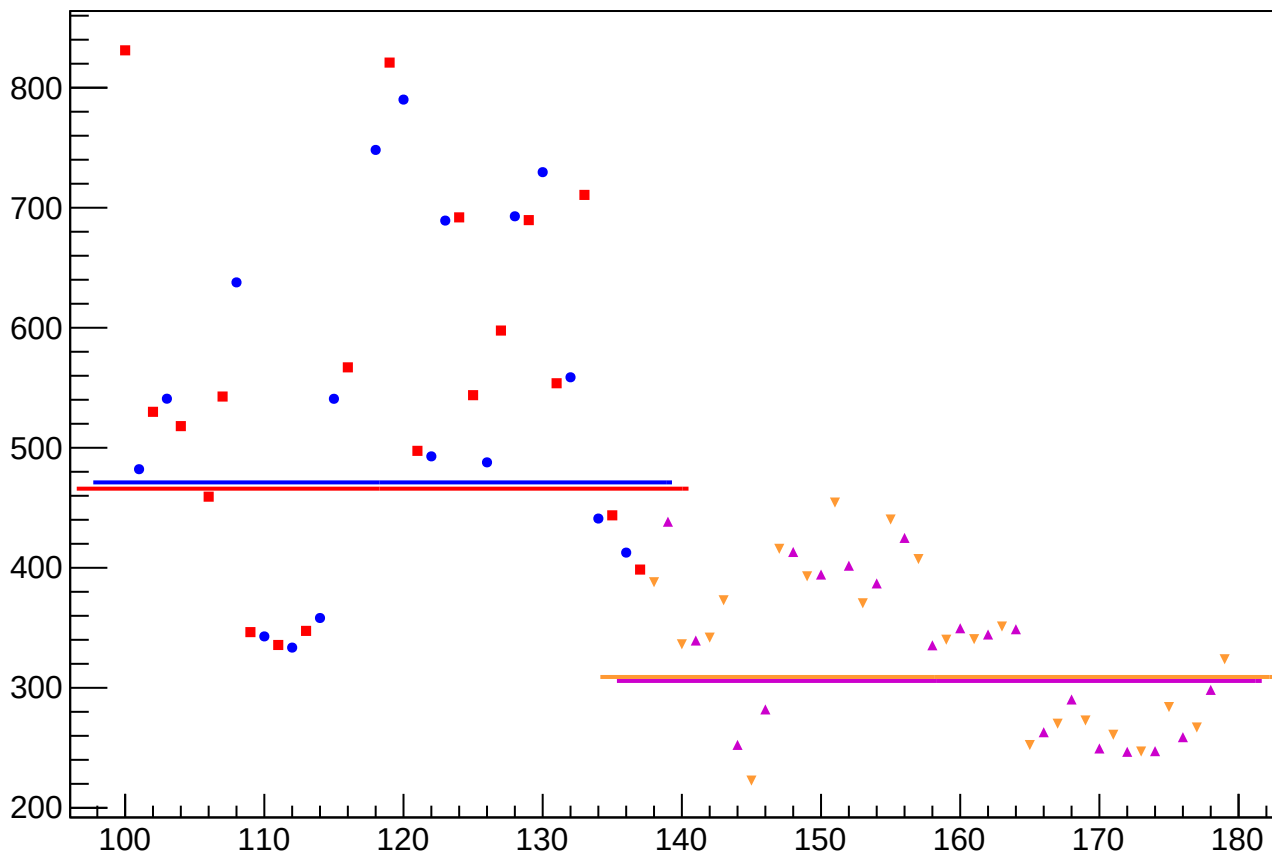
Right: 125.150+/-131.061  $\chi^2/\text{NDF}$ : 40.7/35

In: -30.387+/-73.122  $\chi^2/\text{NDF}$ : 52.8/36

Out: -178.989+/-71.335  $\chi^2/\text{NDF}$ : 64.5/40

All: -106.526+/-51.062  $\chi^2/\text{NDF}$ : 119.4/77

# asym\_sam\_15\_37\_dd\_rms vs Slug, Sign Corrected



Right In: 471.156+/-0.134     $\chi^2/\text{NDF}$ : 871832.5/16

Left Out: 309.039+/-0.055     $\chi^2/\text{NDF}$ :1324299.0/21

Right Out: 465.935+/-0.128     $\chi^2/\text{NDF}$ : 940521.6/18

Left In: 305.731+/-0.056     $\chi^2/\text{NDF}$ :1129833.4/19

Left: 307.420+/-0.039     $\chi^2/\text{NDF}$ : 2455911.7/41

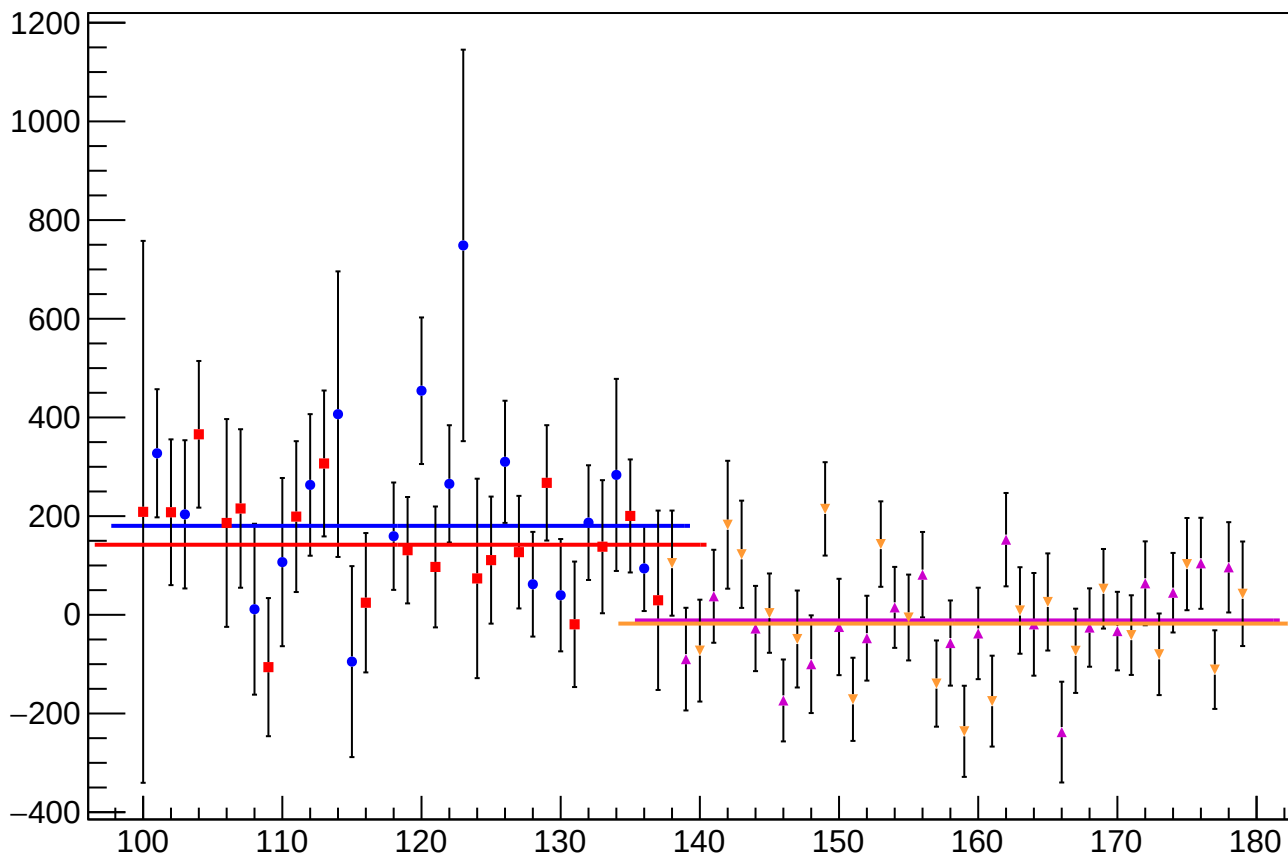
Right: 468.427+/-0.093     $\chi^2/\text{NDF}$ : 1813145.9/35

In: 330.302+/-0.052     $\chi^2/\text{NDF}$ :3296256.7/36

Out: 333.340+/-0.050     $\chi^2/\text{NDF}$ :3531243.5/40

All: 331.859+/-0.036     $\chi^2/\text{NDF}$ : 6829268.8/77

reg\_asym\_sam\_24\_68\_dd\_mean vs Slug, Sign Corrected



Right In:  $180.326 \pm 32.769$   $\chi^2/\text{NDF}: 16.6/16$

Left Out:  $-17.772 \pm 19.412$   $\chi^2/\text{NDF}: 34.6/21$

Right Out:  $142.040 \pm 32.338$   $\chi^2/\text{NDF}: 11.7/18$

Left In:  $-11.380 \pm 19.982$   $\chi^2/\text{NDF}: 19.5/19$

Left:  $-14.668 \pm 13.924$   $\chi^2/\text{NDF}: 54.2/41$

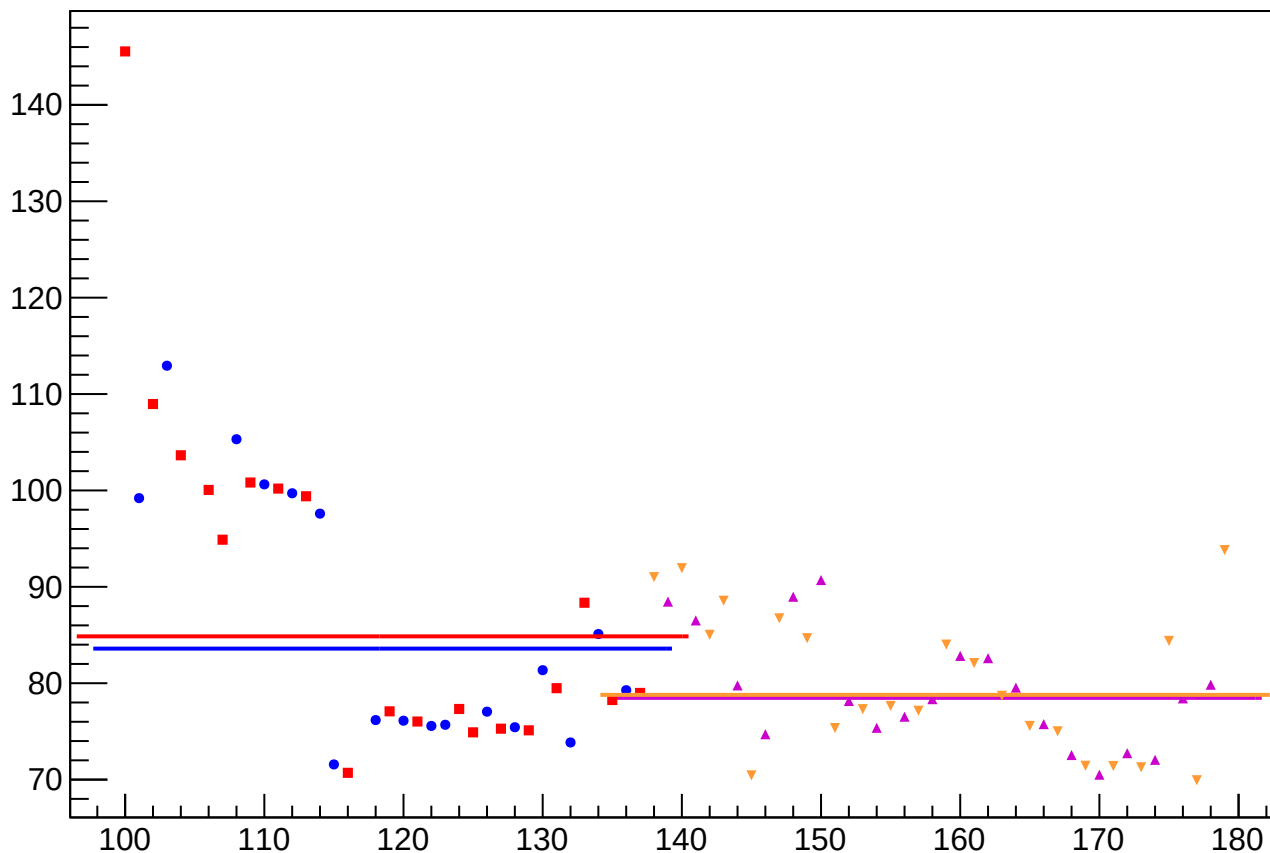
Right:  $160.930 \pm 23.017$   $\chi^2/\text{NDF}: 28.9/35$

In:  $40.584 \pm 17.061$   $\chi^2/\text{NDF}: 61.1/36$

Out:  $24.561 \pm 16.643$   $\chi^2/\text{NDF}: 64.2/40$

All:  $32.374 \pm 11.913$   $\chi^2/\text{NDF}: 125.7/77$

reg\_asym\_sam\_24\_68\_dd\_rms vs Slug, Sign Corrected



Right In: 83.591 $\pm$ 0.023  $\chi^2$ /NDF: 255921.7/16

Left Out: 78.791 $\pm$ 0.014  $\chi^2$ /NDF: 263881.0/21

Right Out: 84.861 $\pm$ 0.023  $\chi^2$ /NDF: 290606.5/18

Left In: 78.482 $\pm$ 0.014  $\chi^2$ /NDF: 158573.2/19

Left: 78.641 $\pm$ 0.010  $\chi^2$ /NDF: 422701.6/41

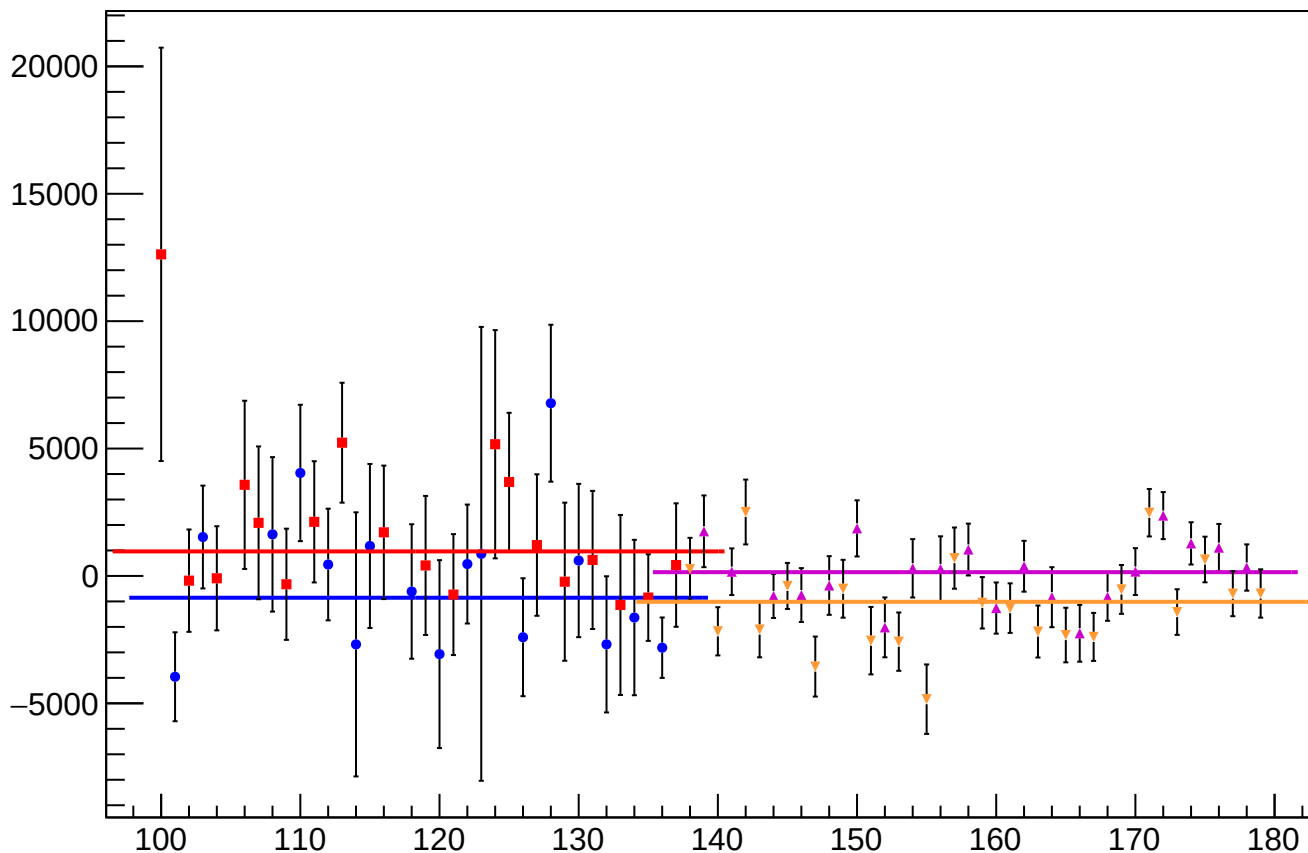
Right: 84.234 $\pm$ 0.016  $\chi^2$ /NDF: 548050.9/35

In: 79.866 $\pm$ 0.012  $\chi^2$ /NDF: 449934.9/36

Out: 80.399 $\pm$ 0.012  $\chi^2$ /NDF: 606282.6/40

All: 80.139 $\pm$ 0.008  $\chi^2$ /NDF: 1057216.8/77

asym\_sam\_24\_68\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: -855.308+/-583.290  $\chi^2/\text{NDF}$ : 20.3/16

Left Out: -1014.882+/-220.039  $\chi^2/\text{NDF}$ : 52.9/21

Right Out: 962.932+/-589.071  $\chi^2/\text{NDF}$ : 11.5/18

Left In: 148.142+/-227.051  $\chi^2/\text{NDF}$ : 27.2/19

Left: -451.606+/-158.012  $\chi^2/\text{NDF}$ : 93.6/41

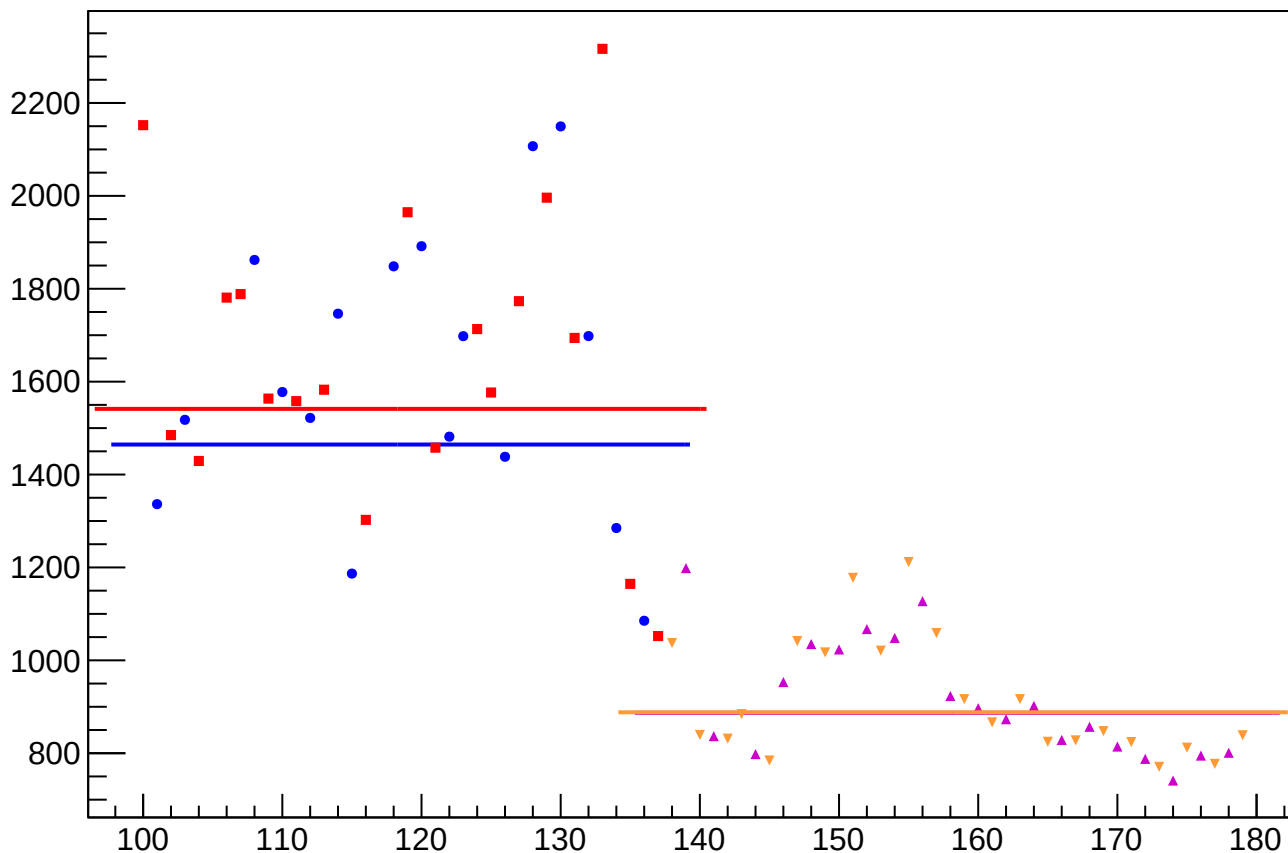
Right: 44.847+/-414.477  $\chi^2/\text{NDF}$ : 36.6/35

In: 16.104+/-211.586  $\chi^2/\text{NDF}$ : 50.0/36

Out: -772.710+/-206.128  $\chi^2/\text{NDF}$ : 74.4/40

All: -388.608+/-147.646  $\chi^2/\text{NDF}$ : 131.5/77

asym\_sam\_24\_68\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 1464.636+/-0.412  $\chi^2/\text{NDF}$ : 560863.4/16

Left Out: 888.137+/-0.156  $\chi^2/\text{NDF}$ : 518655.5/21

Right Out: 1541.388+/-0.417  $\chi^2/\text{NDF}$ : 453710.5/18

Left In: 886.961+/-0.161  $\chi^2/\text{NDF}$ : 499803.8/19

Left: 887.568+/-0.112  $\chi^2/\text{NDF}$ : 1018486.9/41

Right: 1502.634+/-0.293  $\chi^2/\text{NDF}$ : 1031717.7/35

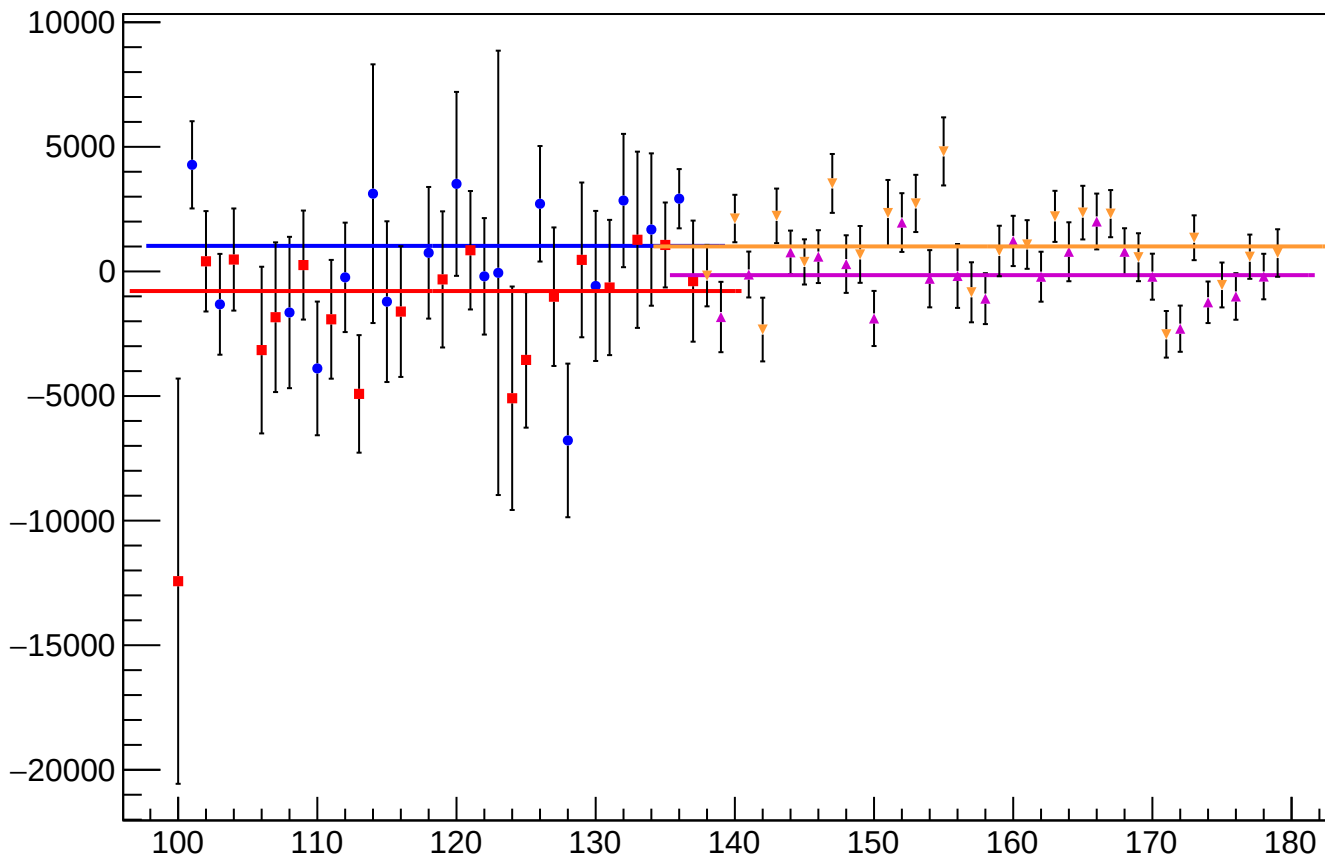
In: 962.974+/-0.150  $\chi^2/\text{NDF}$ : 2764219.7/36

Out: 968.124+/-0.146  $\chi^2/\text{NDF}$ : 3130752.1/40

All: 965.616+/-0.104  $\chi^2/\text{NDF}$ : 5895579.8/77



asym\_sam\_24\_68\_dd\_mean vs Slug, Sign Corrected



Right In: 1025.527+/-584.500  $\chi^2/\text{NDF}$ : 20.9/16

Left Out: 1003.593+/-220.976  $\chi^2/\text{NDF}$ : 51.6/21

Right Out: -787.007+/-590.388  $\chi^2/\text{NDF}$ : 11.2/18

Left In: -149.126+/-227.999  $\chi^2/\text{NDF}$ : 24.8/19

Left: 445.260+/-158.678  $\chi^2/\text{NDF}$ : 89.6/41

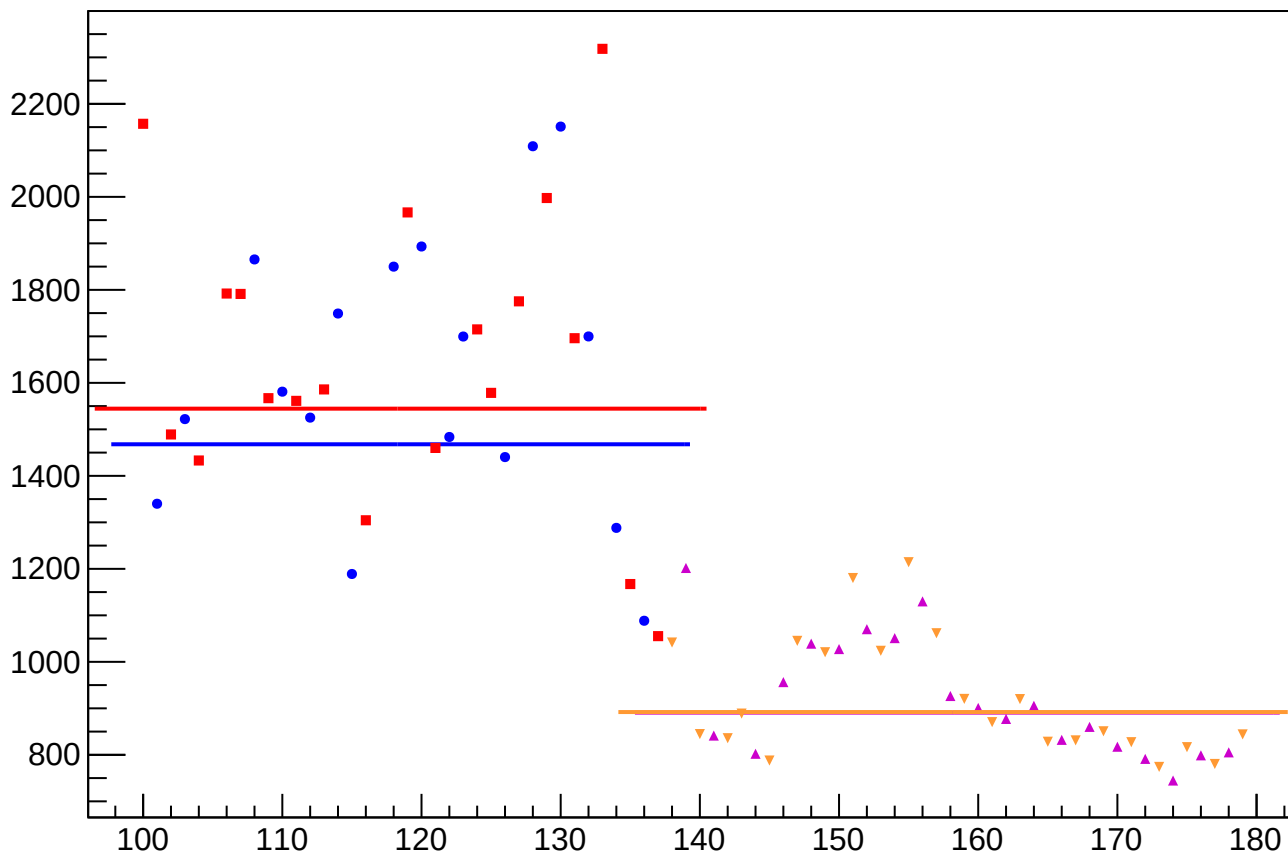
Right: 128.343+/-415.370  $\chi^2/\text{NDF}$ : 36.9/35

In: 6.003+/-212.411  $\chi^2/\text{NDF}$ : 49.3/36

Out: 783.567+/-206.955  $\chi^2/\text{NDF}$ : 70.9/40

All: 404.900+/-148.231  $\chi^2/\text{NDF}$ : 127.0/77

# asym\_sam\_24\_68\_dd\_rms vs Slug, Sign Corrected



Right In: 1467.905 +/- 0.413  $\chi^2/\text{NDF}$ : 557458.9/16

Left Out: 892.028 +/- 0.156  $\chi^2/\text{NDF}$ : 513285.4/21

Right Out: 1544.513 +/- 0.417  $\chi^2/\text{NDF}$ : 451805.9/18

Left In: 890.765 +/- 0.161  $\chi^2/\text{NDF}$ : 494434.5/19

Left: 891.416 +/- 0.112  $\chi^2/\text{NDF}$ : 1007751.6/41

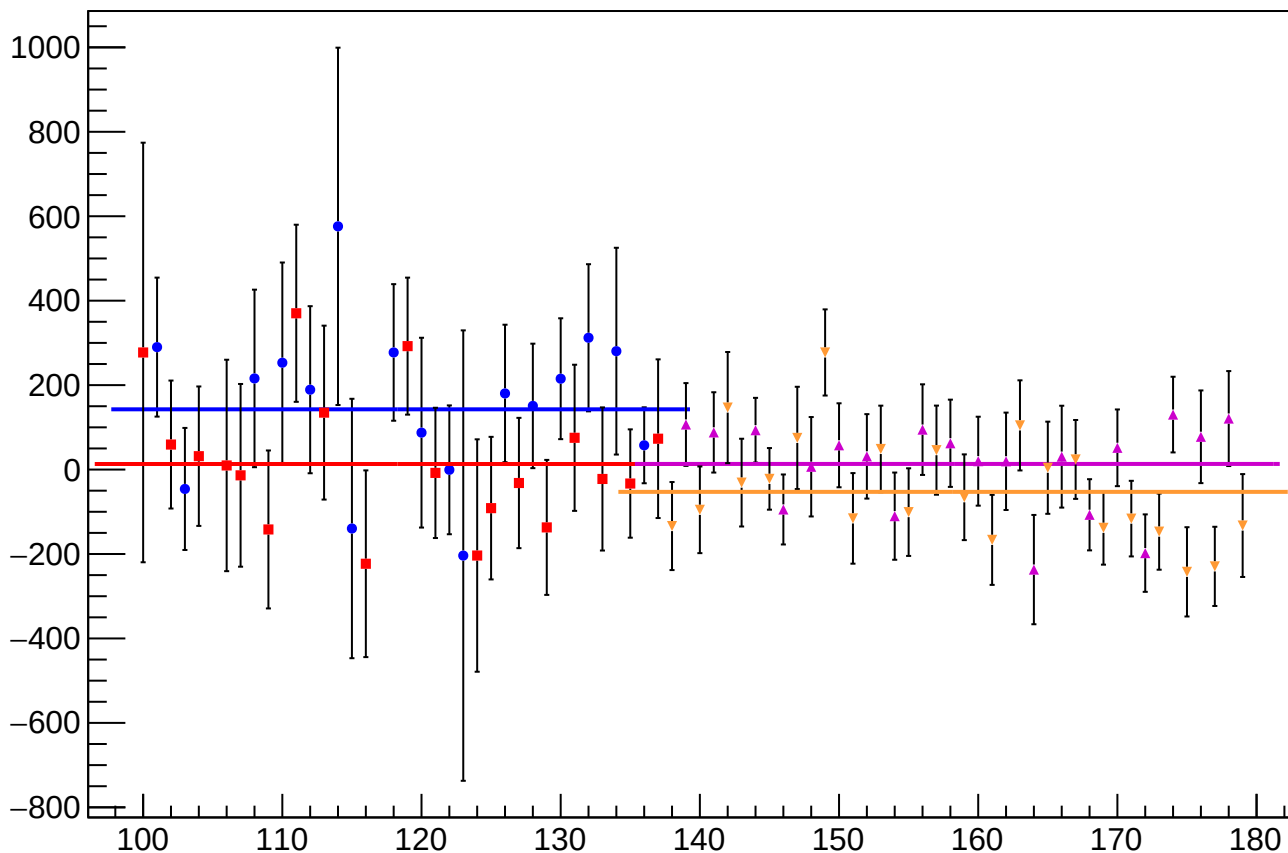
Right: 1505.825 +/- 0.294  $\chi^2/\text{NDF}$ : 1026270.9/35

In: 966.984 +/- 0.150  $\chi^2/\text{NDF}$ : 2744330.1/36

Out: 972.204 +/- 0.146  $\chi^2/\text{NDF}$ : 3107768.3/40

All: 969.662 +/- 0.105  $\chi^2/\text{NDF}$ : 5852718.1/77

reg\_asym\_sam\_26\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 142.683 $\pm$ 41.625  $\chi^2$ /NDF: 9.3/16

Left Out: -52.808 $\pm$ 21.444  $\chi^2$ /NDF:31.3/21

Right Out: 13.177 $\pm$ 41.396  $\chi^2$ /NDF: 10.8/18

Left In: 13.322 $\pm$ 22.146  $\chi^2$ /NDF:21.0/19

Left: -20.808 $\pm$ 15.405  $\chi^2$ /NDF: 56.9/41

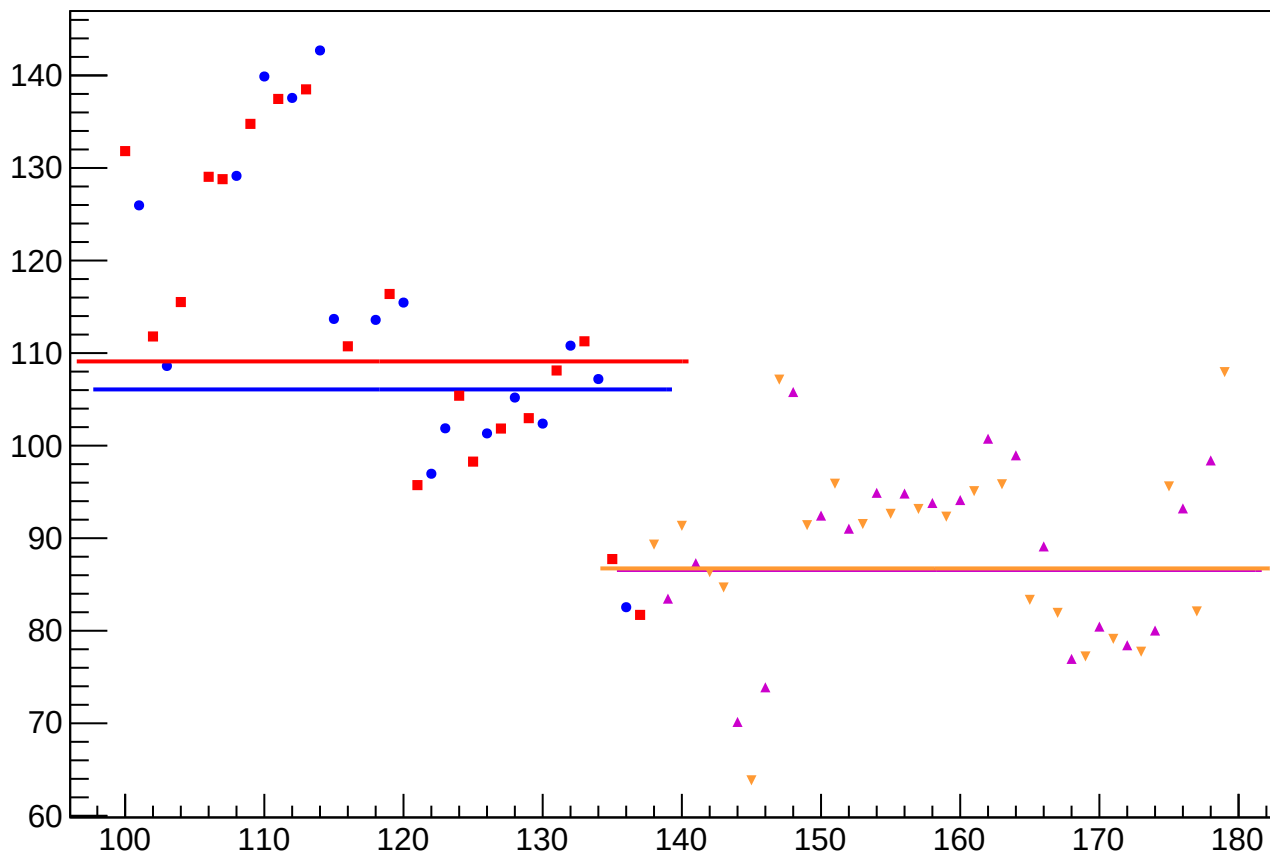
Right: 77.572 $\pm$ 29.352  $\chi^2$ /NDF: 25.0/35

In: 41.861 $\pm$ 19.551  $\chi^2$ /NDF:37.9/36

Out: -38.847 $\pm$ 19.041  $\chi^2$ /NDF:44.1/40

All: 0.440 $\pm$ 13.641  $\chi^2$ /NDF: 90.7/77

reg\_asym\_sam\_26\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 106.074 $\pm$ 0.029  $\chi^2$ /NDF: 317907.9/16

Left Out: 86.735 $\pm$ 0.015  $\chi^2$ /NDF:474324.5/21

Right Out: 109.100 $\pm$ 0.029  $\chi^2$ /NDF: 285394.8/18

Left In: 86.566 $\pm$ 0.016  $\chi^2$ /NDF:390408.0/19

Left: 86.654 $\pm$ 0.011  $\chi^2$ /NDF: 864792.7/41

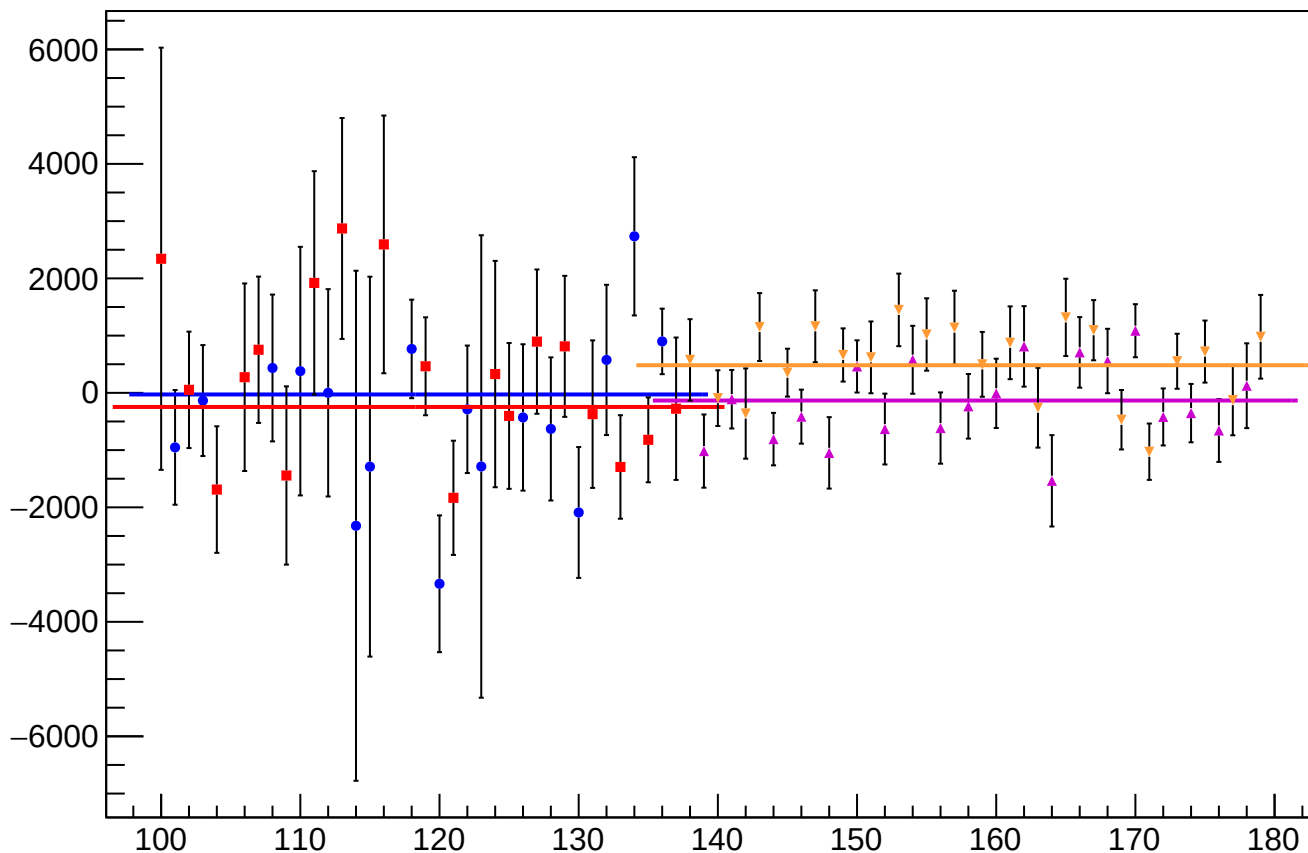
Right: 107.595 $\pm$ 0.021  $\chi^2$ /NDF: 608619.1/35

In: 90.870 $\pm$ 0.014  $\chi^2$ /NDF:1050663.2/36

Out: 91.467 $\pm$ 0.013  $\chi^2$ /NDF:1219987.6/40

All: 91.176 $\pm$ 0.010  $\chi^2$ /NDF: 2271608.8/77

asym\_sam\_26\_48\_dd\_correction\_mean vs Slug, Sign Corrected



Right In:  $-27.969 \pm 283.741$   $\chi^2/\text{NDF}$ : 20.5/16

Left Out:  $482.683 \pm 122.160$   $\chi^2/\text{NDF}$ : 28.2/21

Right Out:  $-246.386 \pm 279.451$   $\chi^2/\text{NDF}$ : 15.9/18

Left In:  $-133.987 \pm 125.144$   $\chi^2/\text{NDF}$ : 27.8/19

Left:  $181.786 \pm 87.416$   $\chi^2/\text{NDF}$ : 68.4/41

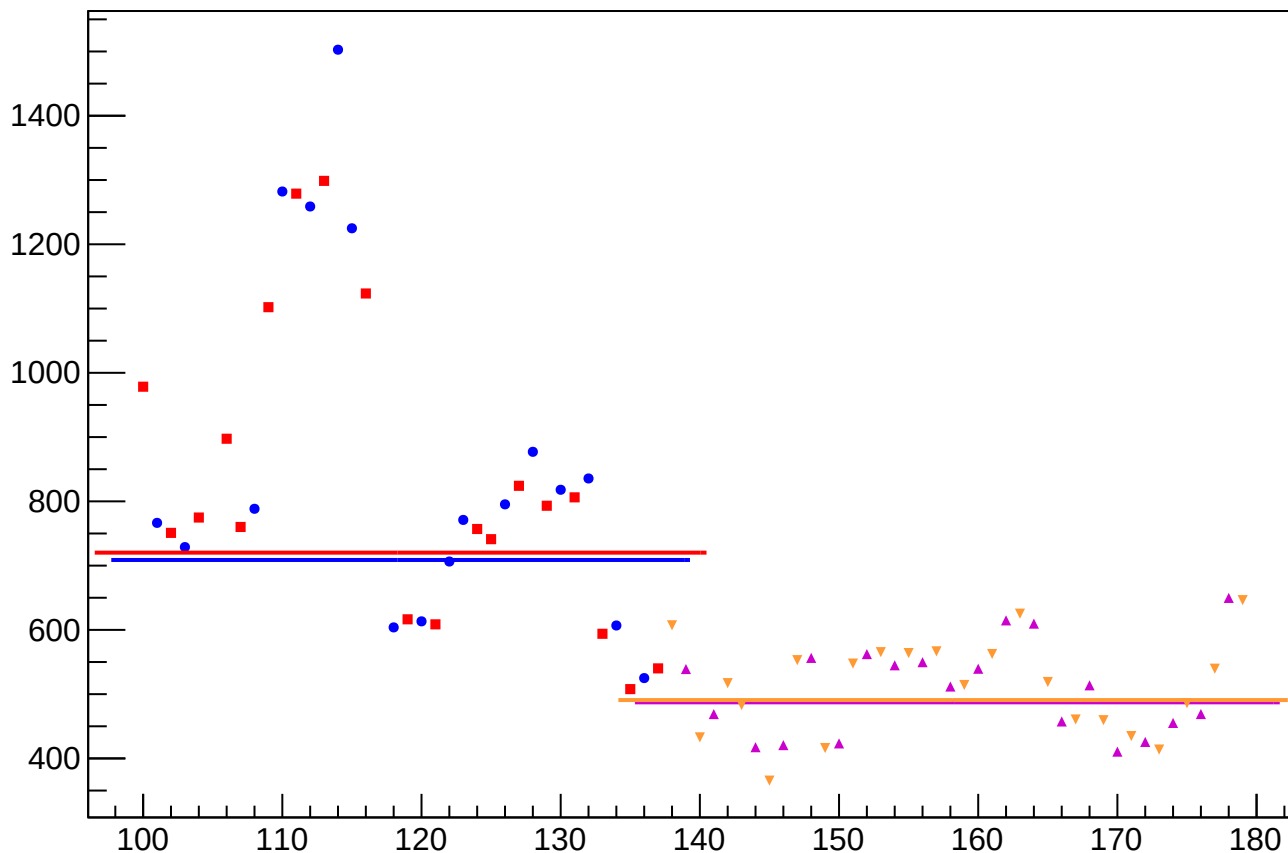
Right:  $-138.842 \pm 199.101$   $\chi^2/\text{NDF}$ : 36.7/35

In:  $-116.723 \pm 114.502$   $\chi^2/\text{NDF}$ : 48.4/36

Out:  $365.714 \pm 111.933$   $\chi^2/\text{NDF}$ : 49.8/40

All:  $129.968 \pm 80.041$   $\chi^2/\text{NDF}$ : 107.3/77

asym\_sam\_26\_48\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 708.784 $\pm$ 0.201  $\chi^2$ /NDF: 793538.1/16

Left Out: 490.807 $\pm$ 0.086  $\chi^2$ /NDF: 734534.6/21

Right Out: 720.201 $\pm$ 0.198  $\chi^2$ /NDF: 899934.4/18

Left In: 487.258 $\pm$ 0.088  $\chi^2$ /NDF: 566554.7/19

Left: 489.075 $\pm$ 0.062  $\chi^2$ /NDF: 1301912.7/41

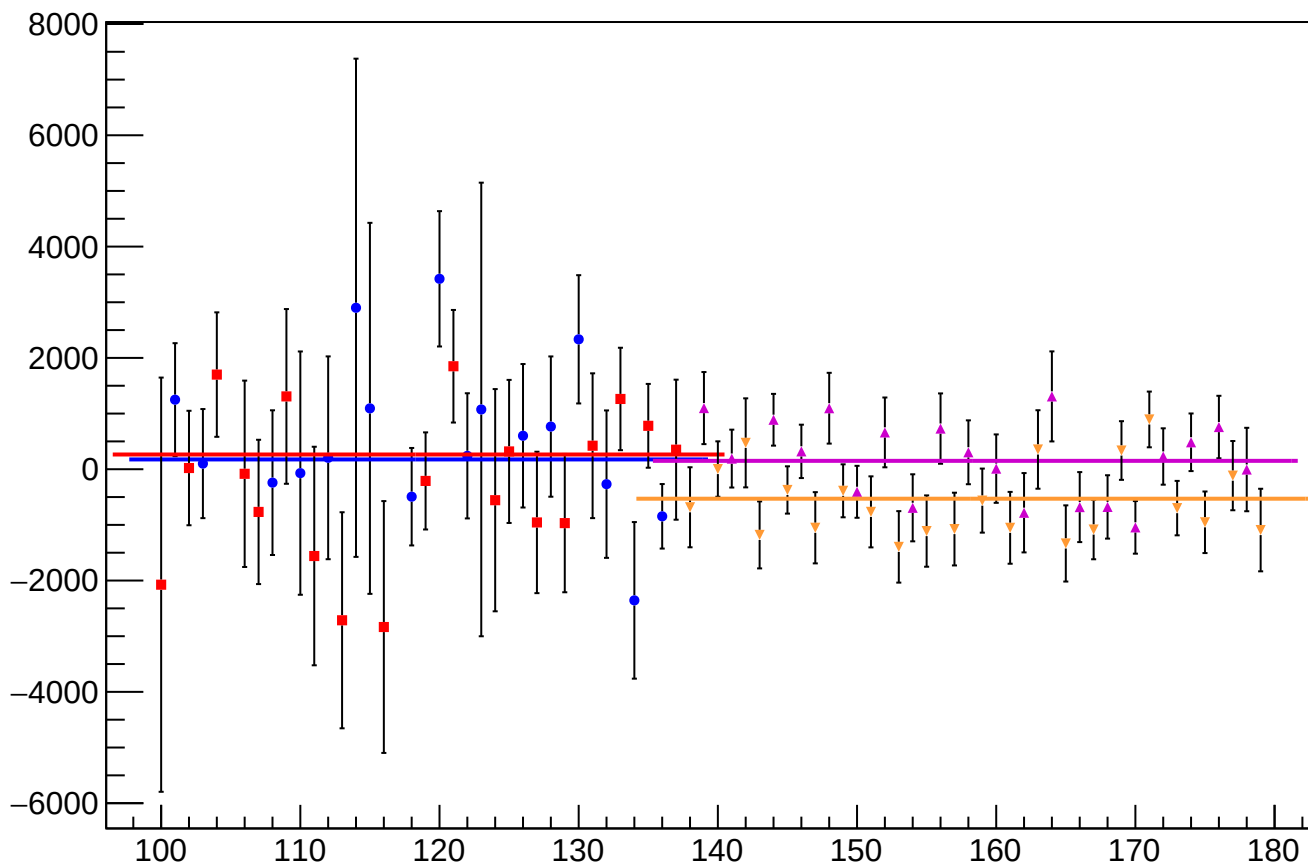
Right: 714.580 $\pm$ 0.141  $\chi^2$ /NDF: 1695116.1/35

In: 523.333 $\pm$ 0.081  $\chi^2$ /NDF: 2380654.0/36

Out: 527.610 $\pm$ 0.079  $\chi^2$ /NDF: 2765925.9/40

All: 525.520 $\pm$ 0.057  $\chi^2$ /NDF: 5148006.7/77

asym\_sam\_26\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 175.854+/-287.218  $\chi^2/\text{NDF}$ : 19.7/16

Left Out: -529.651+/-124.166  $\chi^2/\text{NDF}$ : 25.5/21

Right Out: 264.622+/-283.074  $\chi^2/\text{NDF}$ : 14.8/18

Left In: 150.572+/-127.212  $\chi^2/\text{NDF}$ : 27.7/19

Left: -197.781+/-88.856  $\chi^2/\text{NDF}$ : 67.8/41

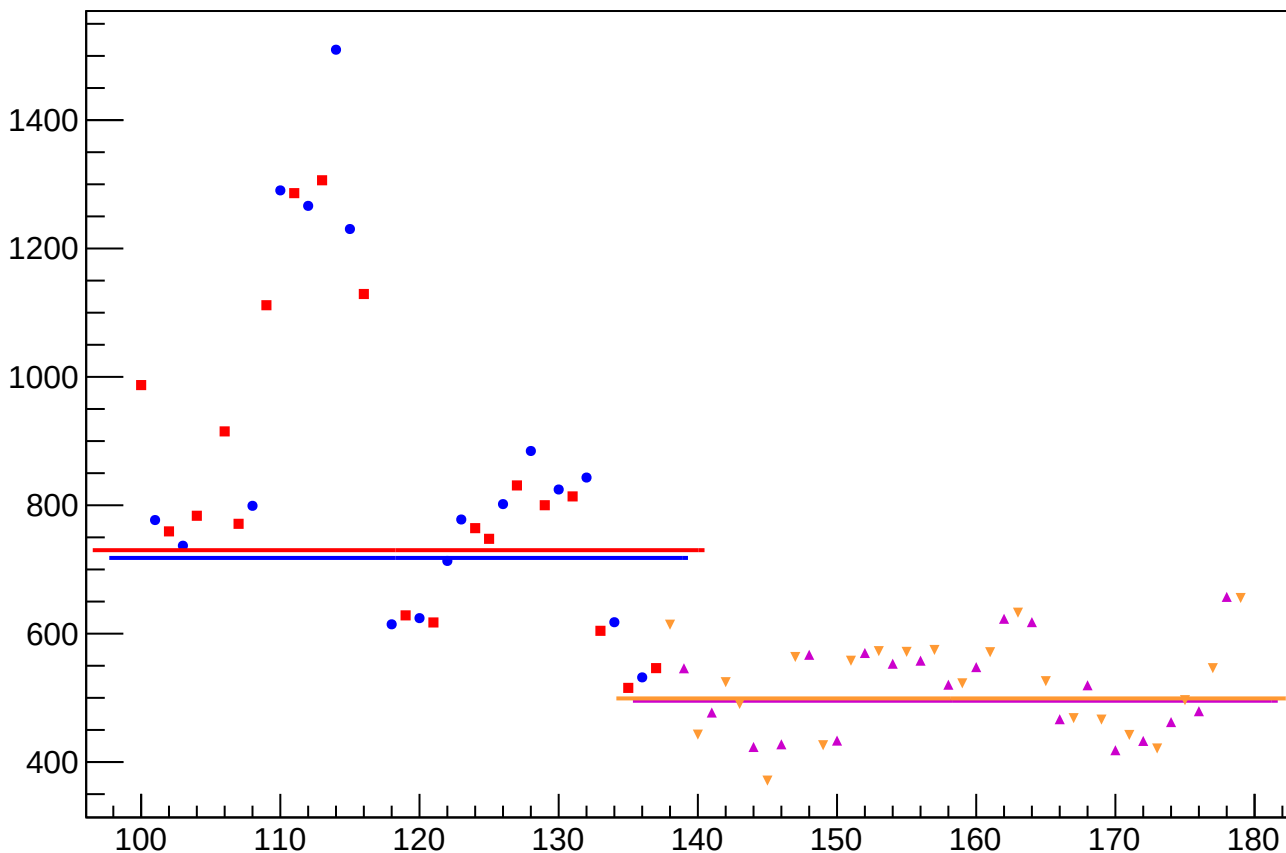
Right: 220.883+/-201.613  $\chi^2/\text{NDF}$ : 34.6/35

In: 154.718+/-116.314  $\chi^2/\text{NDF}$ : 47.4/36

Out: -401.491+/-113.708  $\chi^2/\text{NDF}$ : 46.9/40

All: -129.687+/-81.309  $\chi^2/\text{NDF}$ : 106.1/77

asym\_sam\_26\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 717.973 $\pm$ 0.203  $\chi^2$ /NDF: 778580.1/16

Left Out: 499.102 $\pm$ 0.088  $\chi^2$ /NDF: 718279.0/21

Right Out: 730.040 $\pm$ 0.200  $\chi^2$ /NDF: 881842.0/18

Left In: 495.486 $\pm$ 0.090  $\chi^2$ /NDF: 552607.2/19

Left: 497.338 $\pm$ 0.063  $\chi^2$ /NDF: 1271714.0/41

Right: 724.094 $\pm$ 0.143  $\chi^2$ /NDF: 1662212.8/35

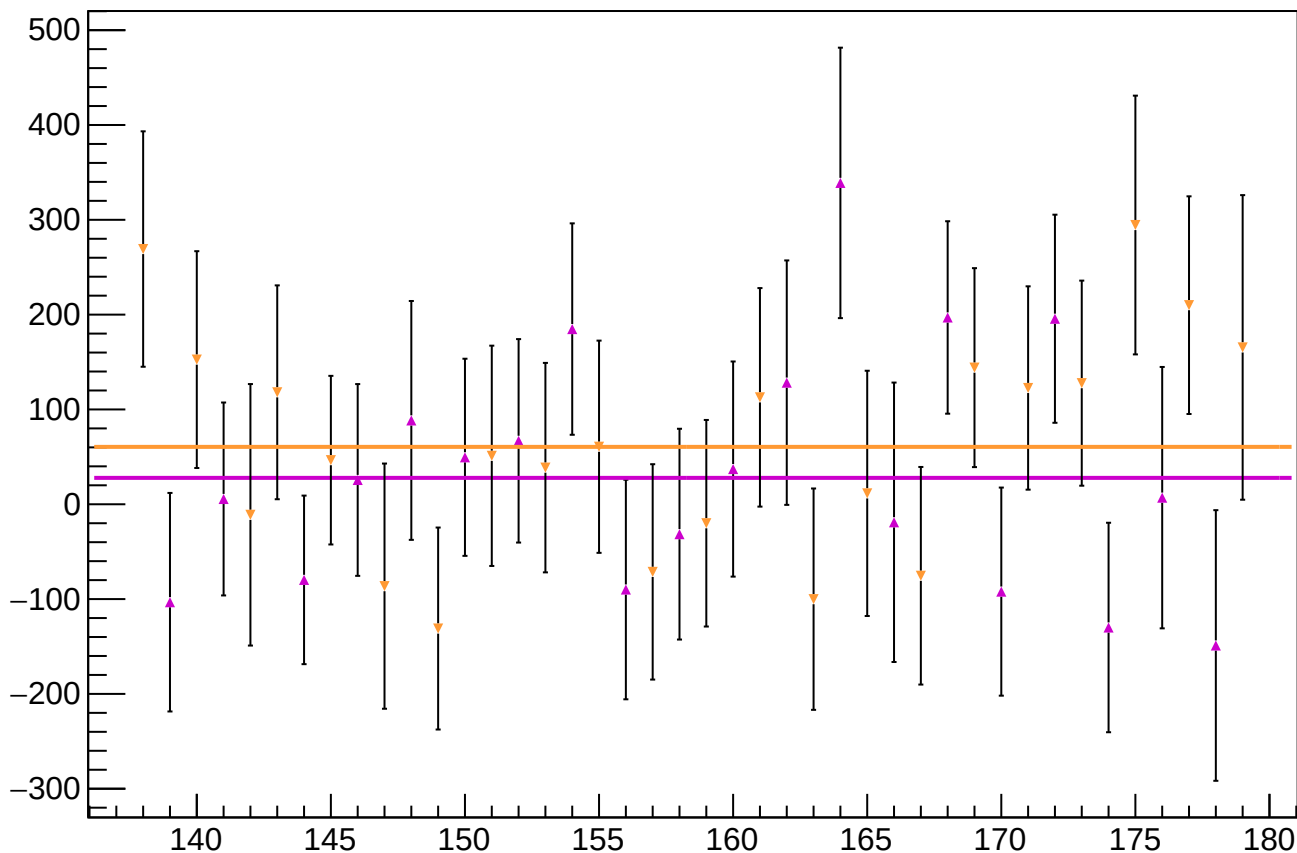
In: 531.973 $\pm$ 0.082  $\chi^2$ /NDF: 2334471.6/36

Out: 536.365 $\pm$ 0.080  $\chi^2$ /NDF: 2716464.9/40

All: 534.219 $\pm$ 0.057  $\chi^2$ /NDF: 5052394.6/77



reg\_asym\_sam\_1548\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 60.530+/-24.538  $\chi^2/\text{NDF}$ :20.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 27.839+/-25.362  $\chi^2/\text{NDF}$ :21.9/19

Left: 44.724+/-17.635  $\chi^2/\text{NDF}$ : 43.3/41

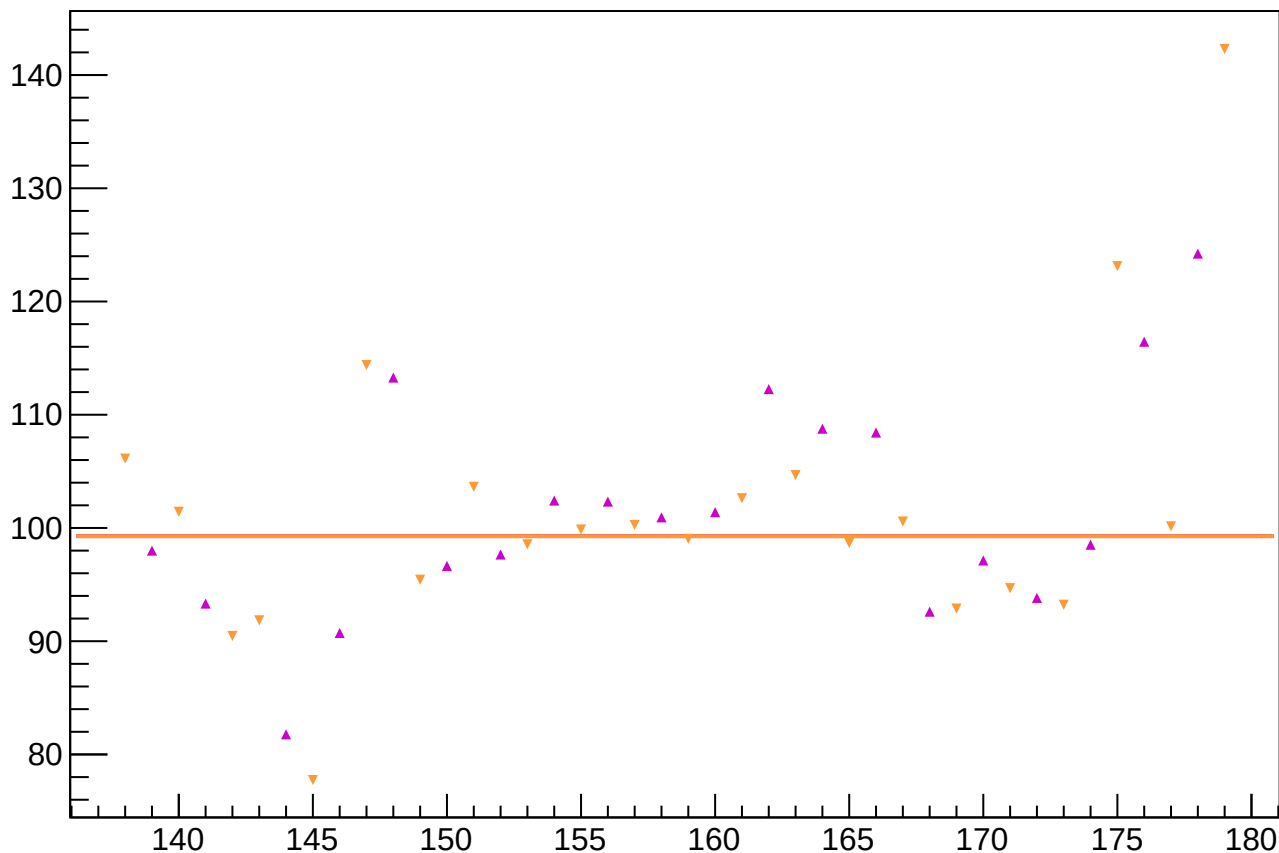
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 27.839+/-25.362  $\chi^2/\text{NDF}$ :21.9/19

Out: 60.530+/-24.538  $\chi^2/\text{NDF}$ :20.6/21

All: 44.724+/-17.635  $\chi^2/\text{NDF}$ : 43.3/41

reg\_asym\_sam\_1548\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 99.274+/-0.017  $\chi^2/\text{NDF}$ :402416.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 99.287+/-0.018  $\chi^2/\text{NDF}$ :273002.5/19

Left: 99.280+/-0.012  $\chi^2/\text{NDF}$ : 675419.5/41

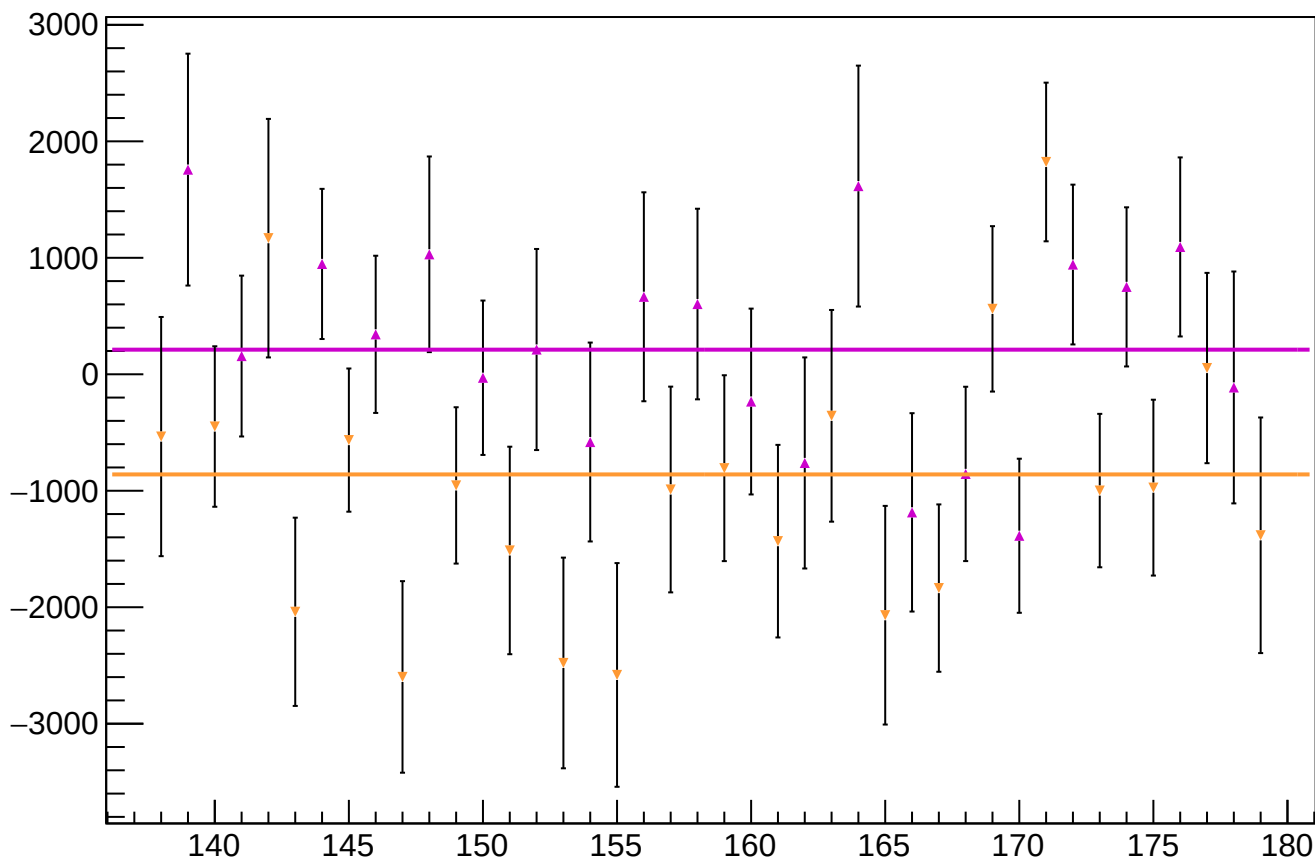
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 99.287+/-0.018  $\chi^2/\text{NDF}$ :273002.5/19

Out: 99.274+/-0.017  $\chi^2/\text{NDF}$ :402416.8/21

All: 99.280+/-0.012  $\chi^2/\text{NDF}$ : 675419.5/41

asym\_sam\_1548\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -859.736+/-169.695  $\chi^2/\text{NDF}$ : 43.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 211.340+/-174.083  $\chi^2/\text{NDF}$ : 23.2/19

Left: -337.867+/-121.514  $\chi^2/\text{NDF}$ : 86.2/41

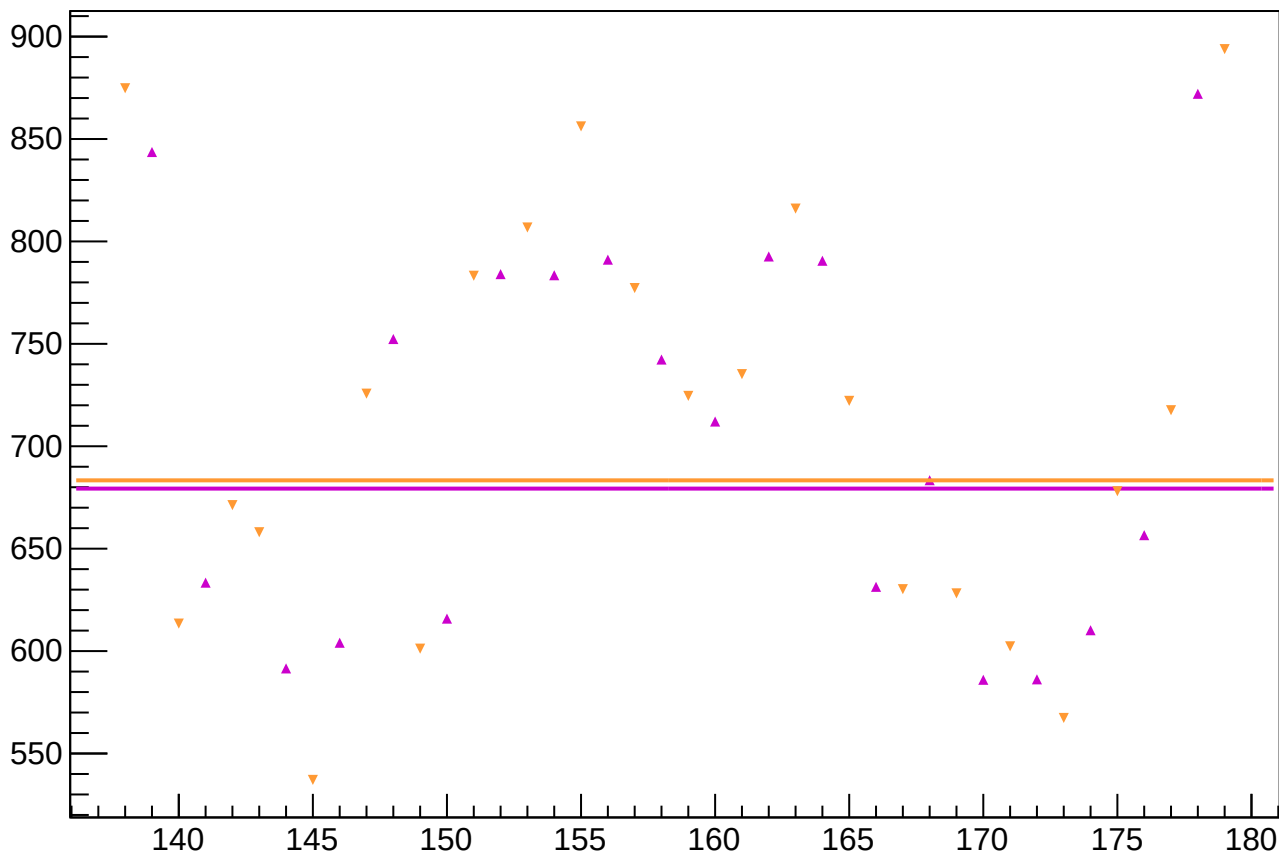
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 211.340+/-174.083  $\chi^2/\text{NDF}$ : 23.2/19

Out: -859.736+/-169.695  $\chi^2/\text{NDF}$ : 43.6/21

All: -337.867+/-121.514  $\chi^2/\text{NDF}$ : 86.2/41

asym\_sam\_1548\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 683.358+/-0.120  $\chi^2/\text{NDF}$ : 653467.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 679.326+/-0.123  $\chi^2/\text{NDF}$ : 498974.9/19

Left: 681.393+/-0.086  $\chi^2/\text{NDF}$ : 1152992.3/41

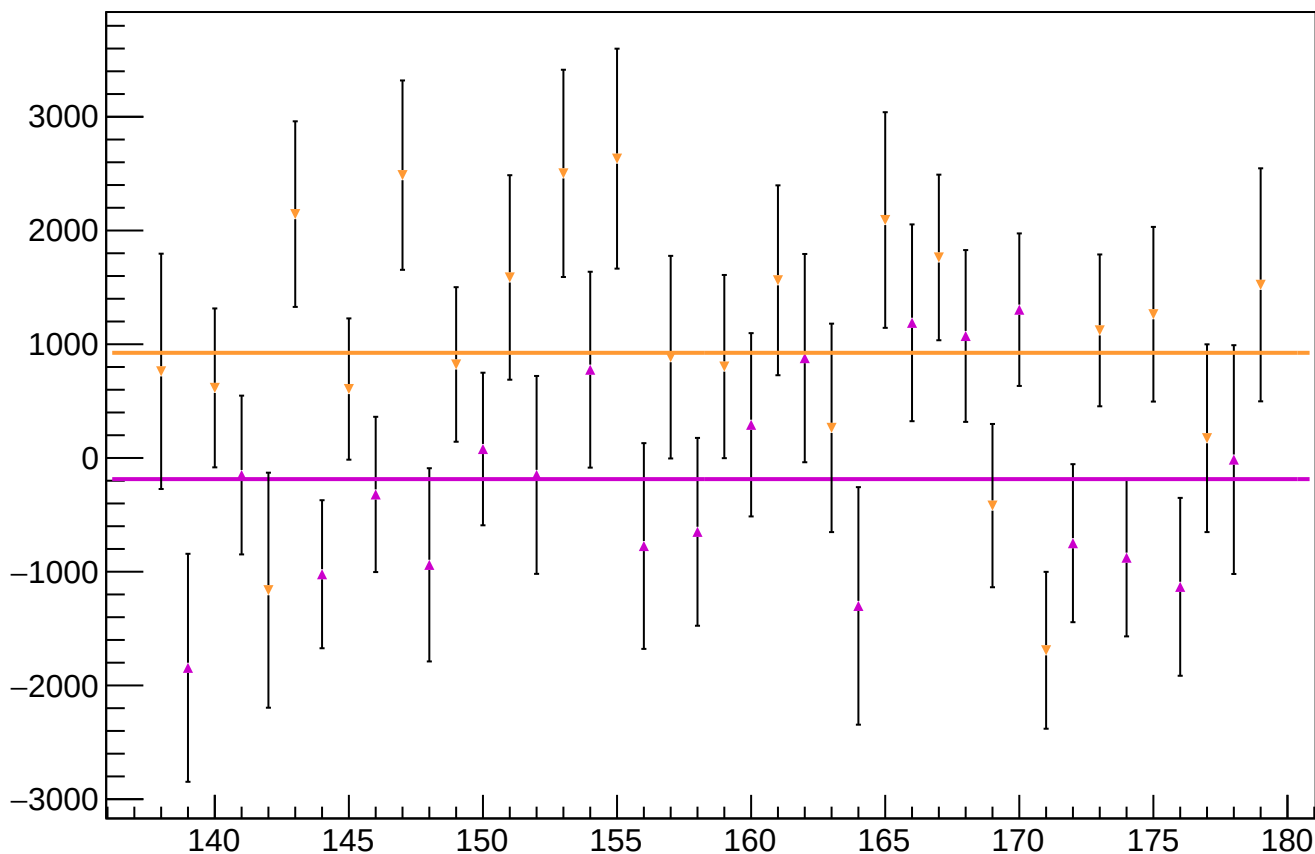
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 679.326+/-0.123  $\chi^2/\text{NDF}$ : 498974.9/19

Out: 683.358+/-0.120  $\chi^2/\text{NDF}$ : 653467.3/21

All: 681.393+/-0.086  $\chi^2/\text{NDF}$ : 1152992.3/41

asym\_sam\_1548\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 924.680+/-171.596  $\chi^2/\text{NDF}$ :40.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -185.832+/-176.049  $\chi^2/\text{NDF}$ :23.6/19

Left: 383.648+/-122.881  $\chi^2/\text{NDF}$ : 84.3/41

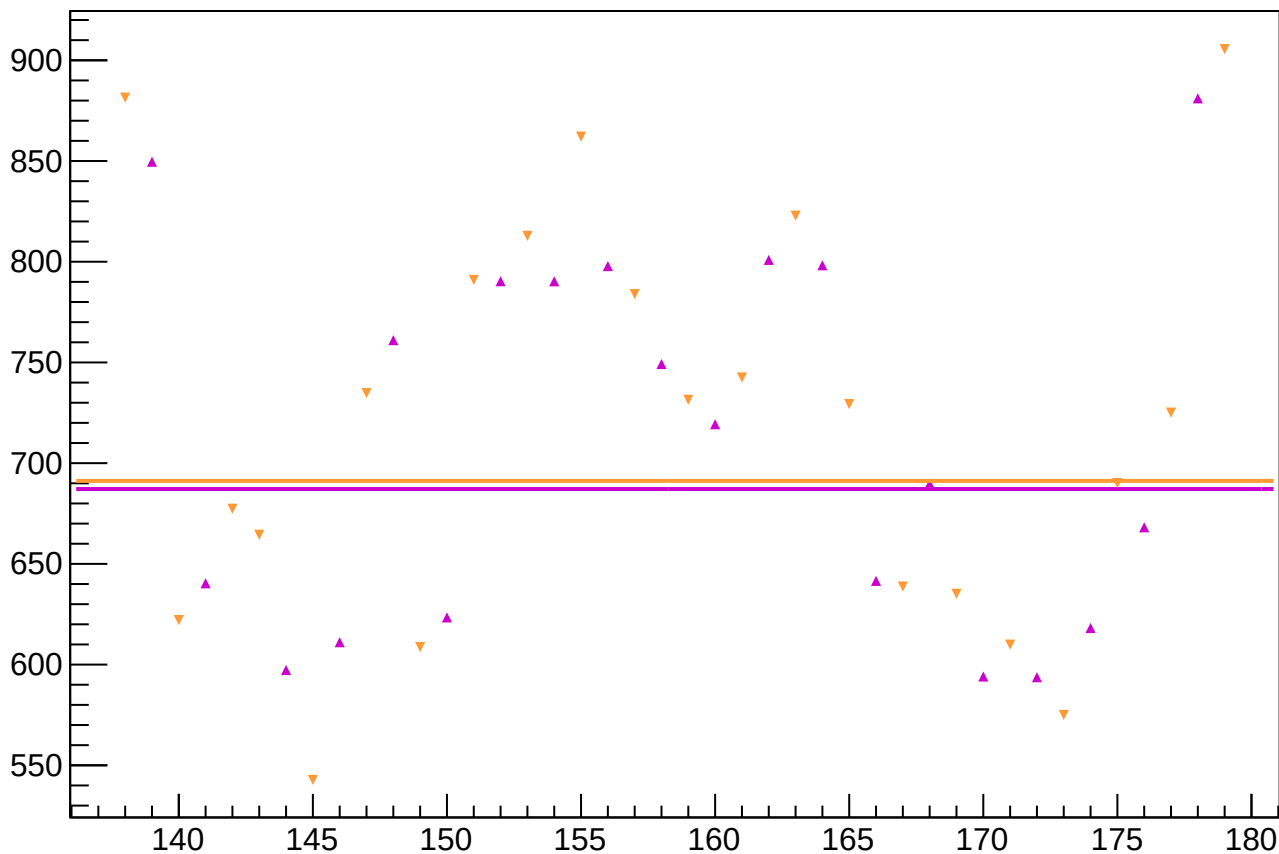
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -185.832+/-176.049  $\chi^2/\text{NDF}$ :23.6/19

Out: 924.680+/-171.596  $\chi^2/\text{NDF}$ :40.3/21

All: 383.648+/-122.881  $\chi^2/\text{NDF}$ : 84.3/41

# asym\_sam\_1548\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 691.196+/-0.121  $\chi^2/\text{NDF}$ :642258.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 687.154+/-0.124  $\chi^2/\text{NDF}$ :488103.6/19

Left: 689.227+/-0.087  $\chi^2/\text{NDF}$ : 1130902.1/41

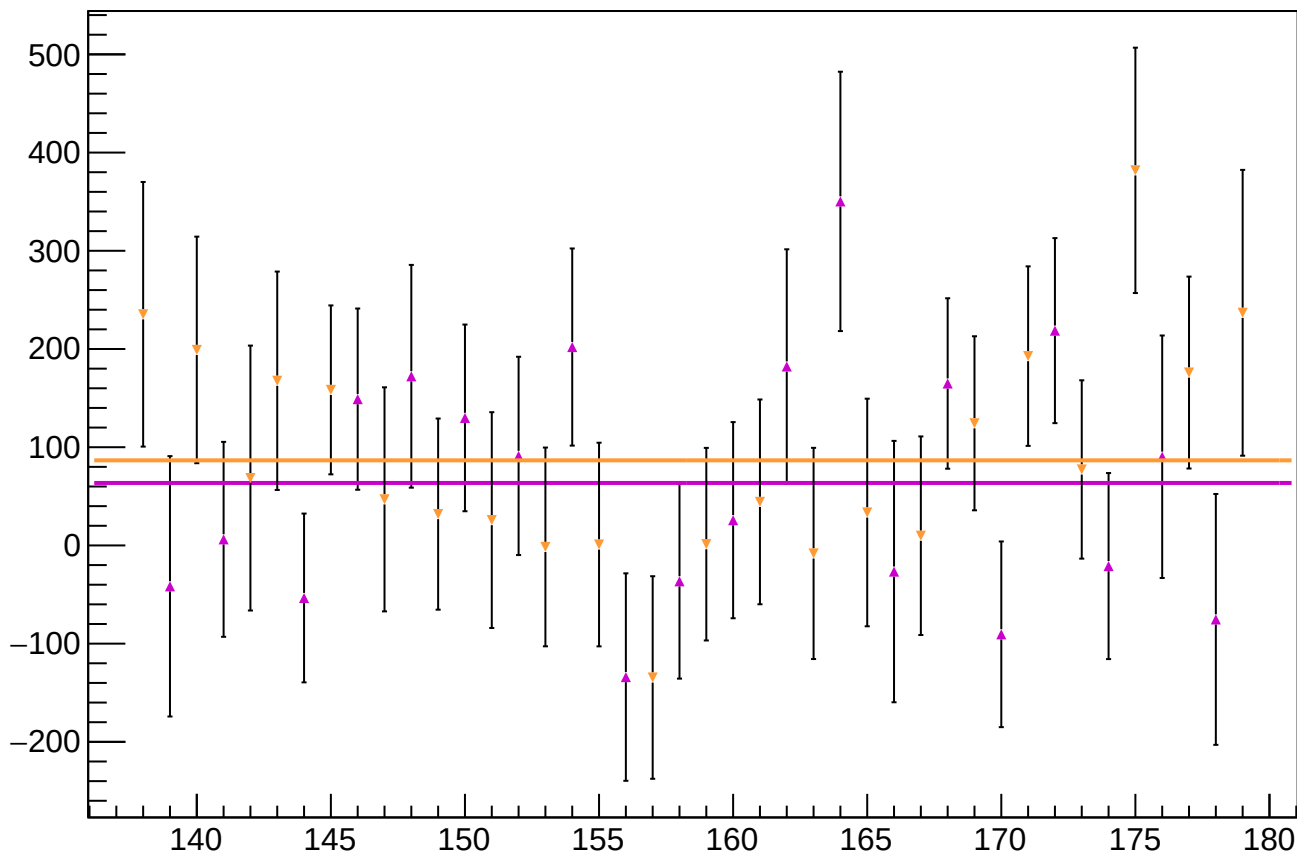
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 687.154+/-0.124  $\chi^2/\text{NDF}$ :488103.6/19

Out: 691.196+/-0.121  $\chi^2/\text{NDF}$ :642258.0/21

All: 689.227+/-0.087  $\chi^2/\text{NDF}$ : 1130902.1/41

reg\_asym\_sam\_3748\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 86.627+/-22.413  $\chi^2/\text{NDF}$ : 21.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 63.618+/-23.133  $\chi^2/\text{NDF}$ : 26.6/19

Left: 75.486+/-16.097  $\chi^2/\text{NDF}$ : 48.9/41

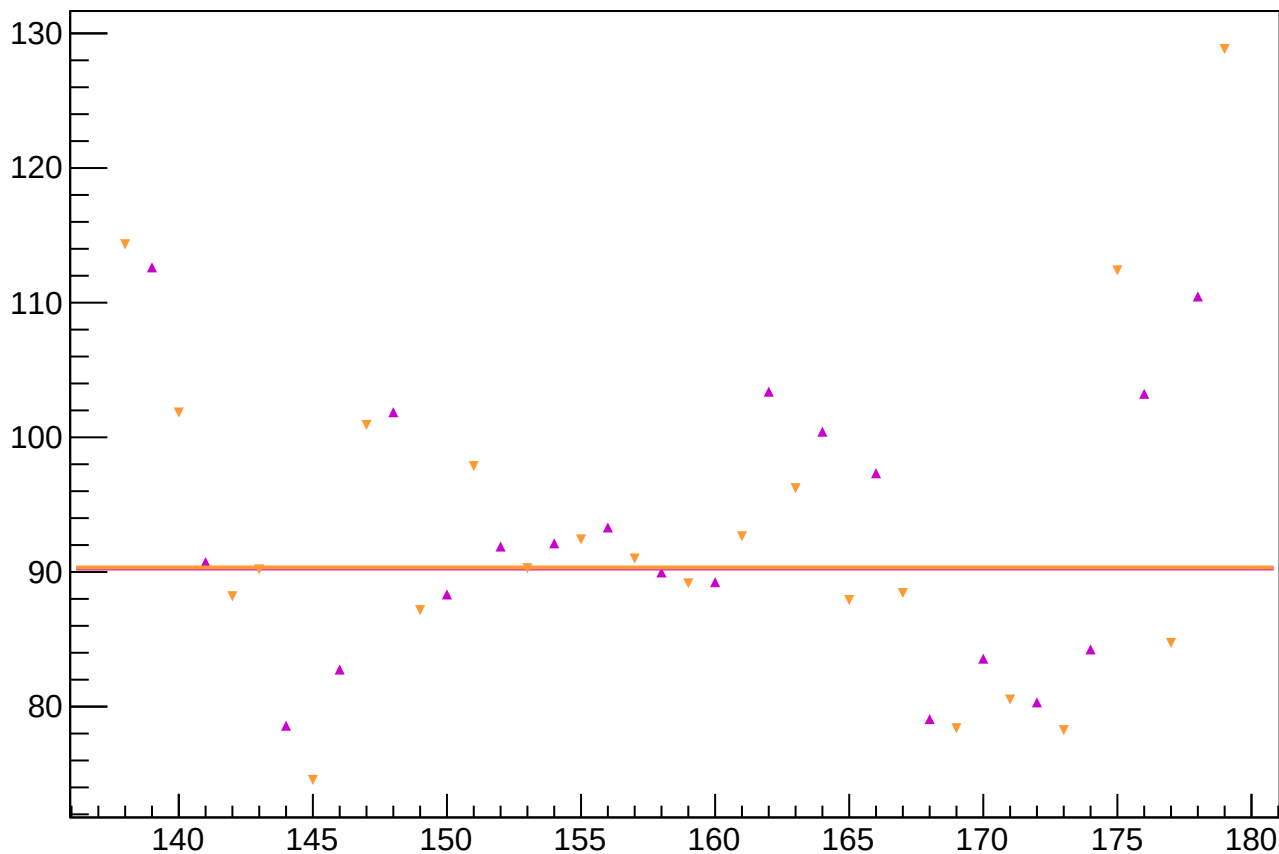
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 63.618+/-23.133  $\chi^2/\text{NDF}$ : 26.6/19

Out: 86.627+/-22.413  $\chi^2/\text{NDF}$ : 21.7/21

All: 75.486+/-16.097  $\chi^2/\text{NDF}$ : 48.9/41

reg\_asym\_sam\_3748\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 90.330+/-0.016  $\chi^2/\text{NDF}$ :493530.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 90.263+/-0.016  $\chi^2/\text{NDF}$ :319427.7/19

Left: 90.298+/-0.011  $\chi^2/\text{NDF}$ : 812967.4/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

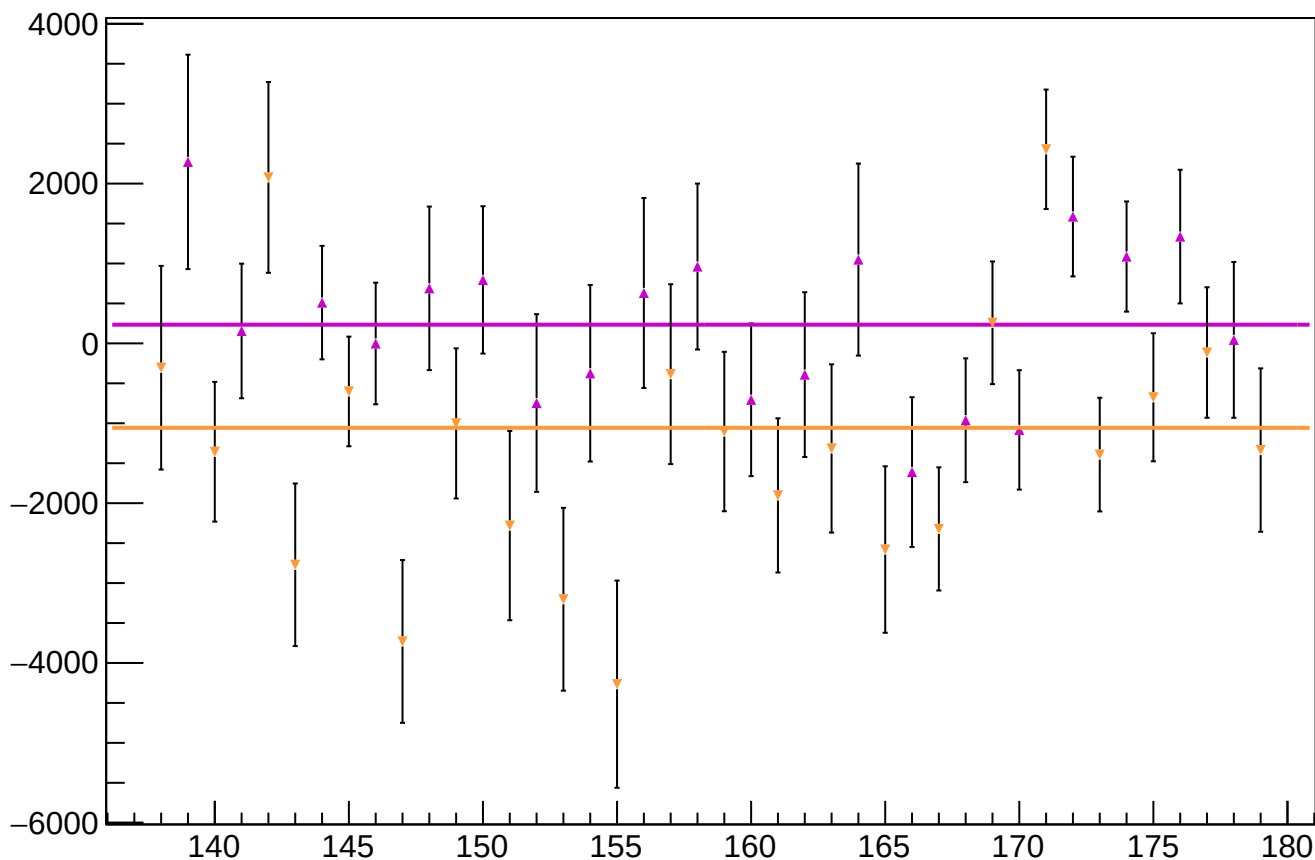
In: 90.263+/-0.016  $\chi^2/\text{NDF}$ :319427.7/19

Out: 90.330+/-0.016  $\chi^2/\text{NDF}$ :493530.9/21

All: 90.298+/-0.011  $\chi^2/\text{NDF}$ : 812967.4/41



asym\_sam\_3748\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -1056.718+/-197.141  $\chi^2/\text{NDF}$ : 60.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 234.074+/-200.968  $\chi^2/\text{NDF}$ : 22.5/19

Left: -423.729+/-140.733  $\chi^2/\text{NDF}$ : 104.3/41

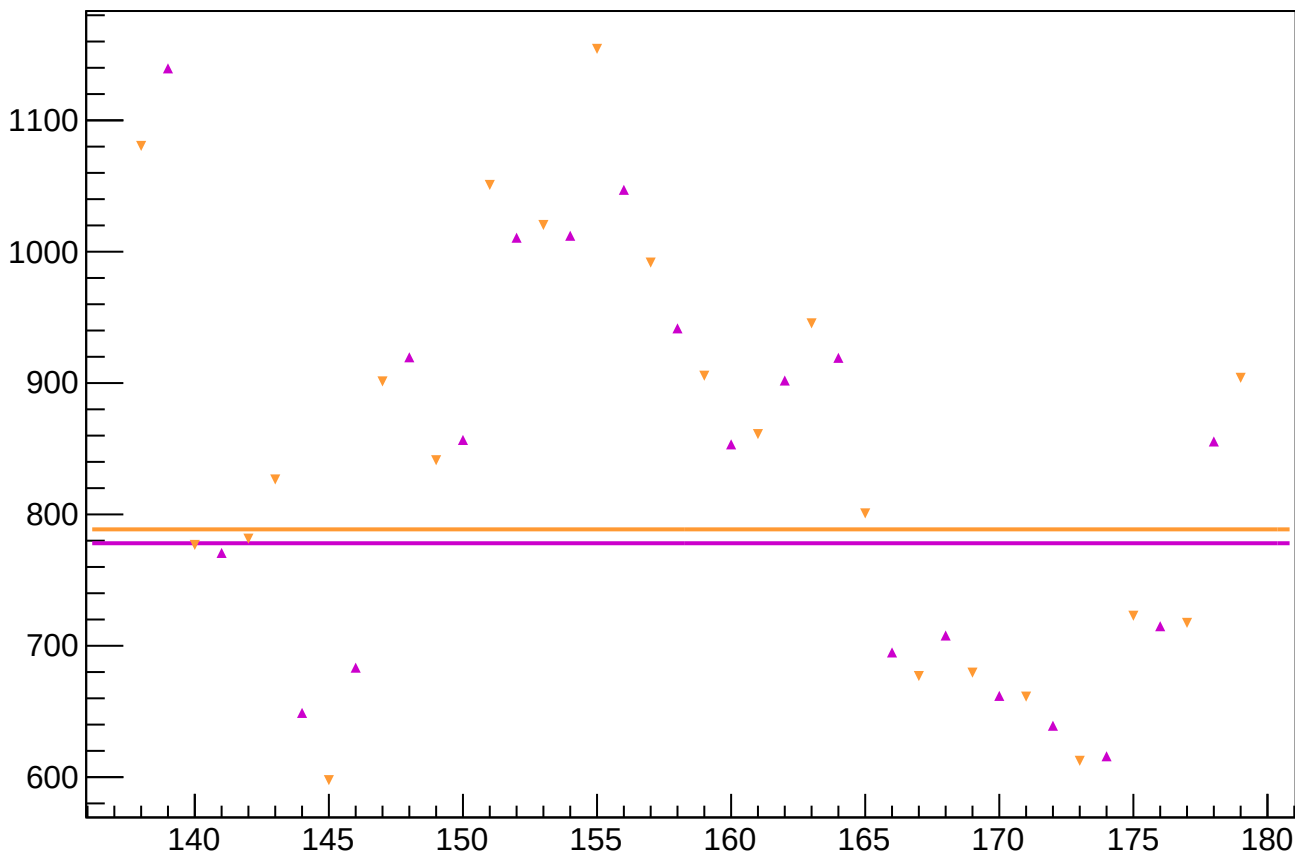
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 234.074+/-200.968  $\chi^2/\text{NDF}$ : 22.5/19

Out: -1056.718+/-197.141  $\chi^2/\text{NDF}$ : 60.8/21

All: -423.729+/-140.733  $\chi^2/\text{NDF}$ : 104.3/41

asym\_sam\_3748\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 788.626+/-0.139  $\chi^2/\text{NDF}$ :1098537.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 778.059+/-0.142  $\chi^2/\text{NDF}$ :977606.1/19

Left: 783.444+/-0.100  $\chi^2/\text{NDF}$ : 2078961.7/41

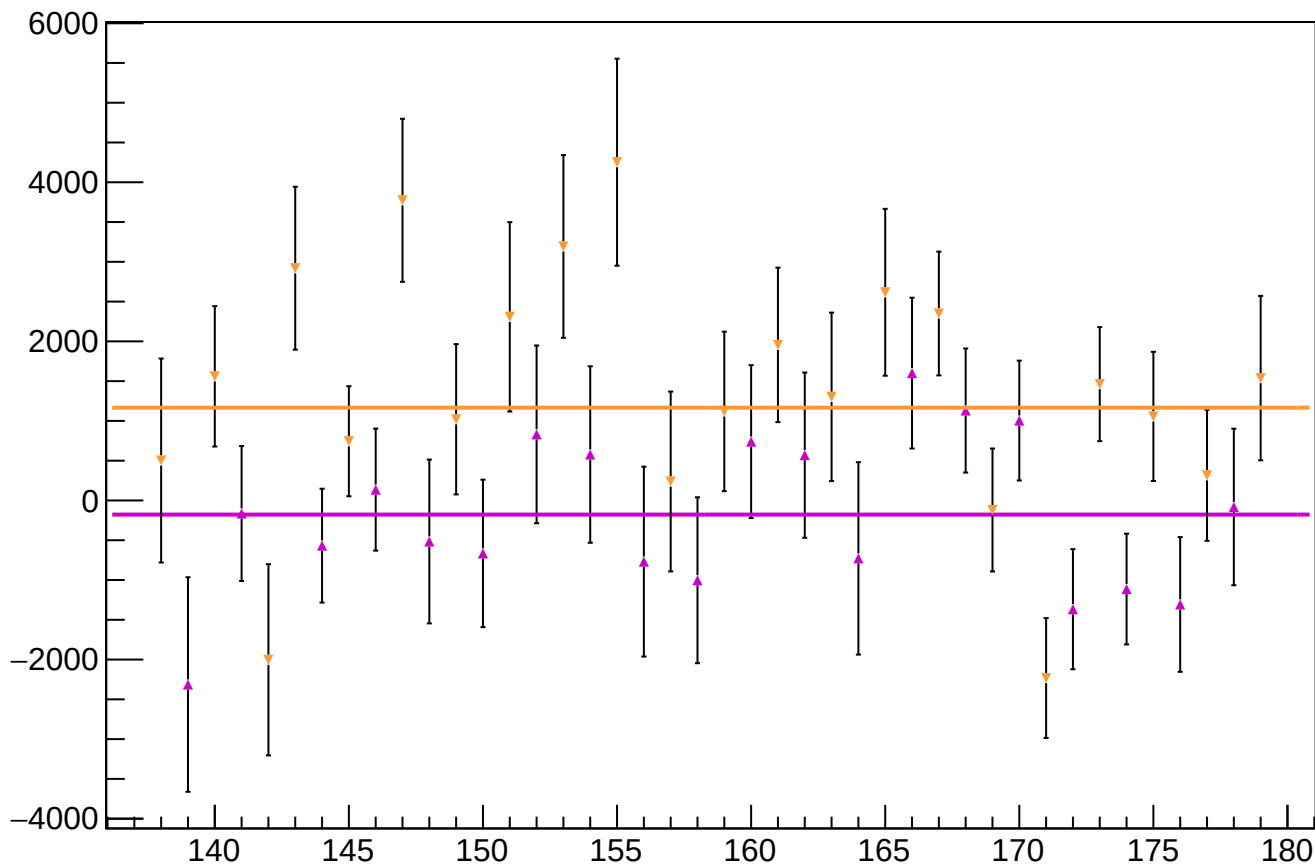
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 778.059+/-0.142  $\chi^2/\text{NDF}$ :977606.1/19

Out: 788.626+/-0.139  $\chi^2/\text{NDF}$ :1098537.5/21

All: 783.444+/-0.100  $\chi^2/\text{NDF}$ : 2078961.7/41

asym\_sam\_3748\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 1166.534+/-198.570  $\chi^2/\text{NDF}$ :57.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -177.384+/-202.455  $\chi^2/\text{NDF}$ :22.0/19

Left: 507.593+/-141.764  $\chi^2/\text{NDF}$ : 101.4/41

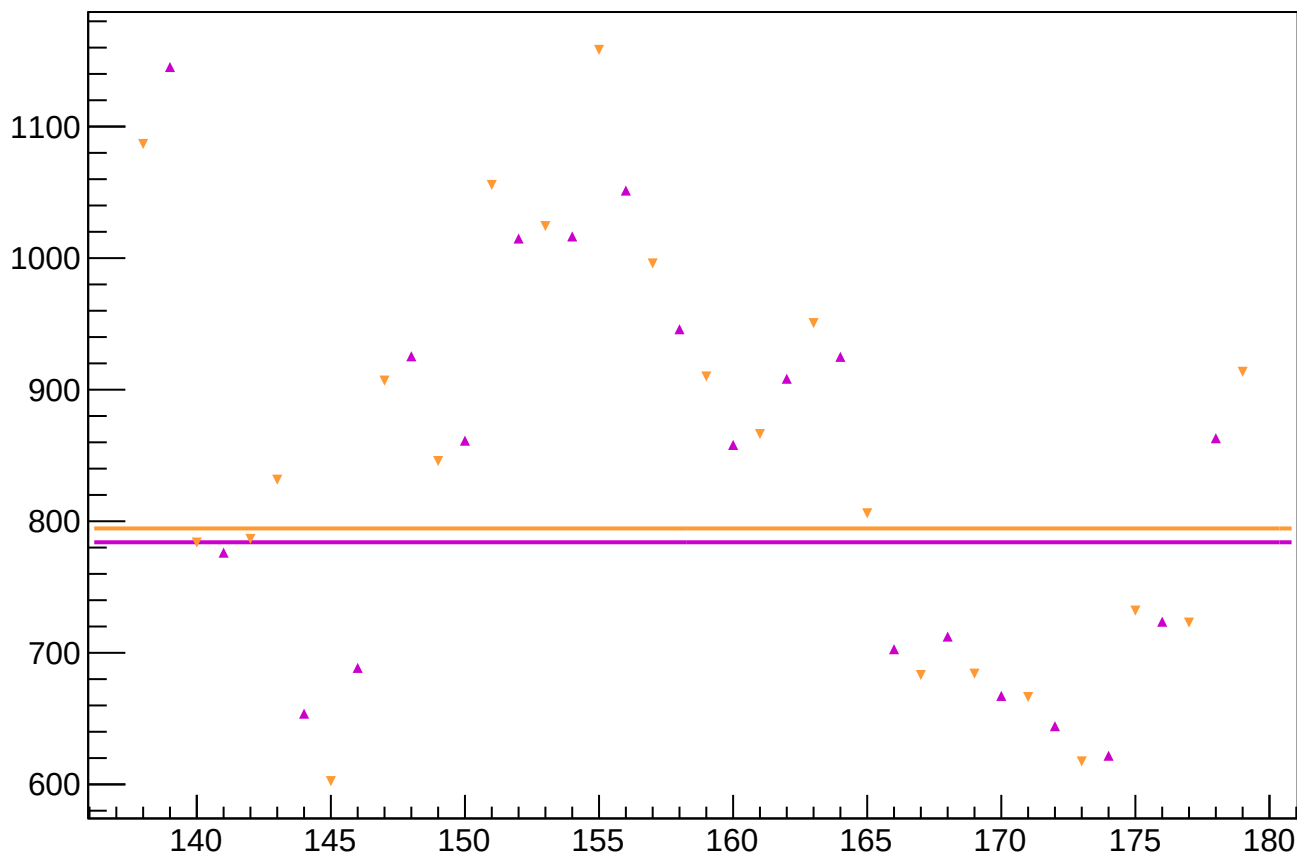
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -177.384+/-202.455  $\chi^2/\text{NDF}$ :22.0/19

Out: 1166.534+/-198.570  $\chi^2/\text{NDF}$ :57.0/21

All: 507.593+/-141.764  $\chi^2/\text{NDF}$ : 101.4/41

asym\_sam\_3748\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 794.543+/-0.140  $\chi^2/\text{NDF}$ :1083615.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 784.023+/-0.143  $\chi^2/\text{NDF}$ :962025.8/19

Left: 789.385+/-0.100  $\chi^2/\text{NDF}$ : 2048394.1/41

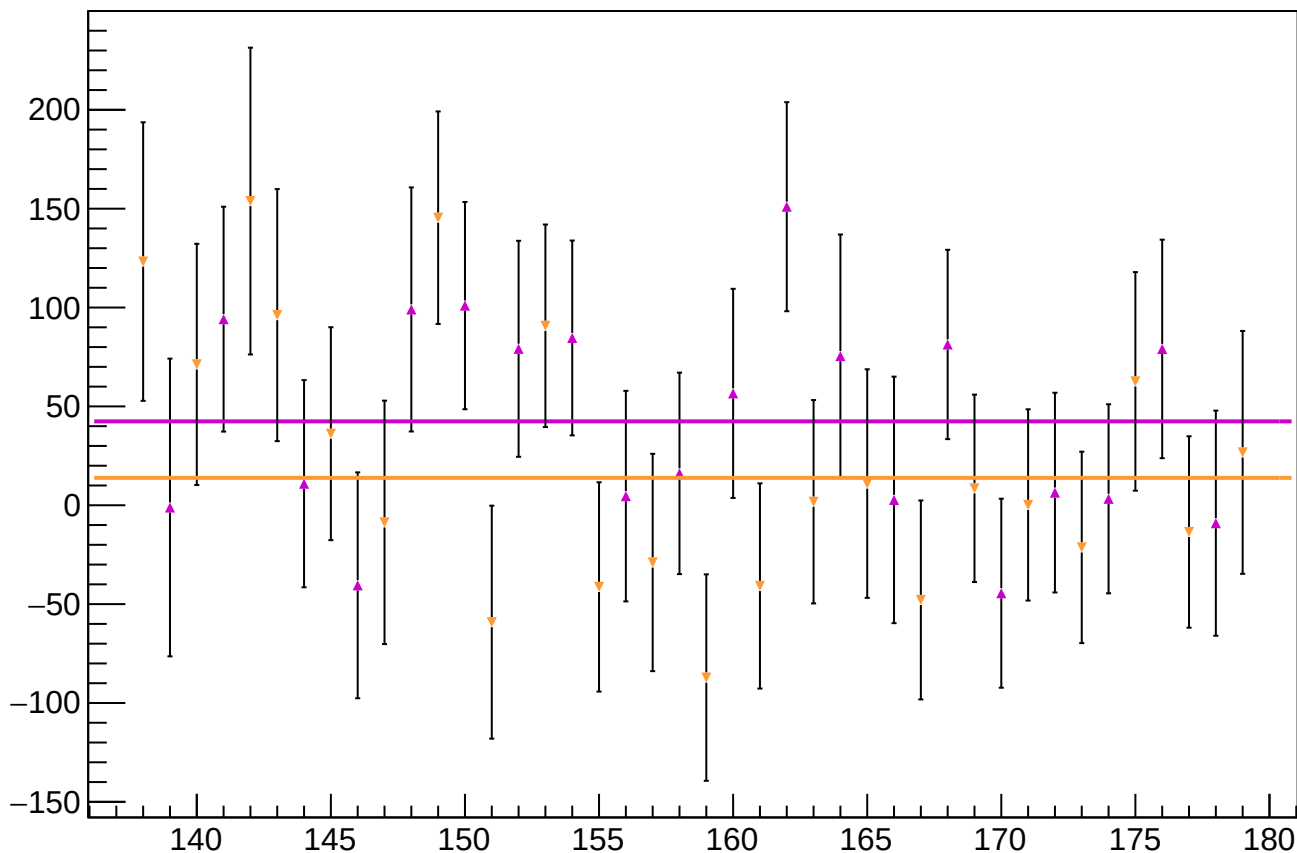
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 784.023+/-0.143  $\chi^2/\text{NDF}$ :962025.8/19

Out: 794.543+/-0.140  $\chi^2/\text{NDF}$ :1083615.6/21

All: 789.385+/-0.100  $\chi^2/\text{NDF}$ : 2048394.1/41

reg\_asym\_sam\_1526\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 13.866+/-11.685  $\chi^2/\text{NDF}$ :28.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 42.427+/-12.087  $\chi^2/\text{NDF}$ :19.1/19

Left: 27.663+/-8.401  $\chi^2/\text{NDF}$ : 50.1/41

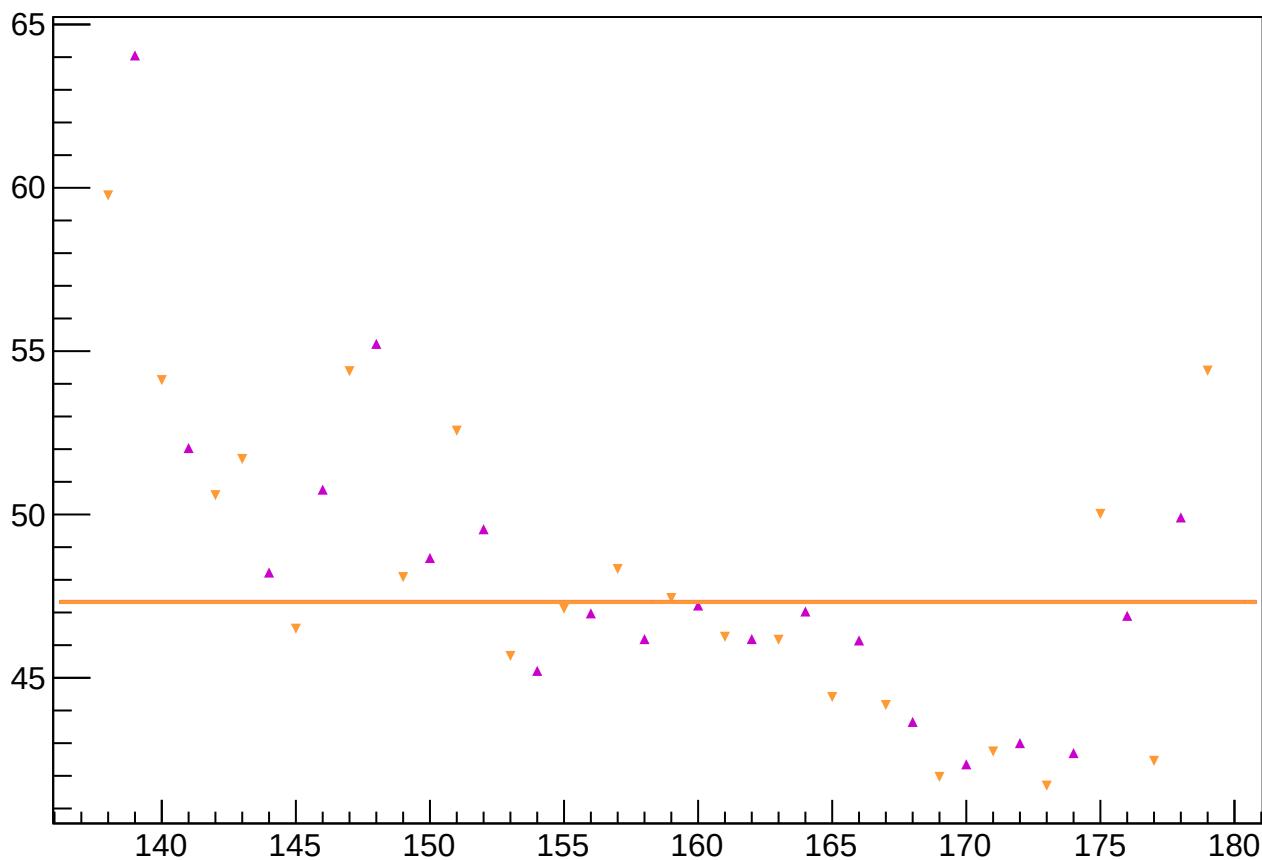
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 42.427+/-12.087  $\chi^2/\text{NDF}$ :19.1/19

Out: 13.866+/-11.685  $\chi^2/\text{NDF}$ :28.2/21

All: 27.663+/-8.401  $\chi^2/\text{NDF}$ : 50.1/41

reg\_asym\_sam\_1526\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 47.319+/-0.008  $\chi^2/\text{NDF}$ :282809.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 47.324+/-0.009  $\chi^2/\text{NDF}$ :235159.2/19

Left: 47.321+/-0.006  $\chi^2/\text{NDF}$ : 517969.1/41

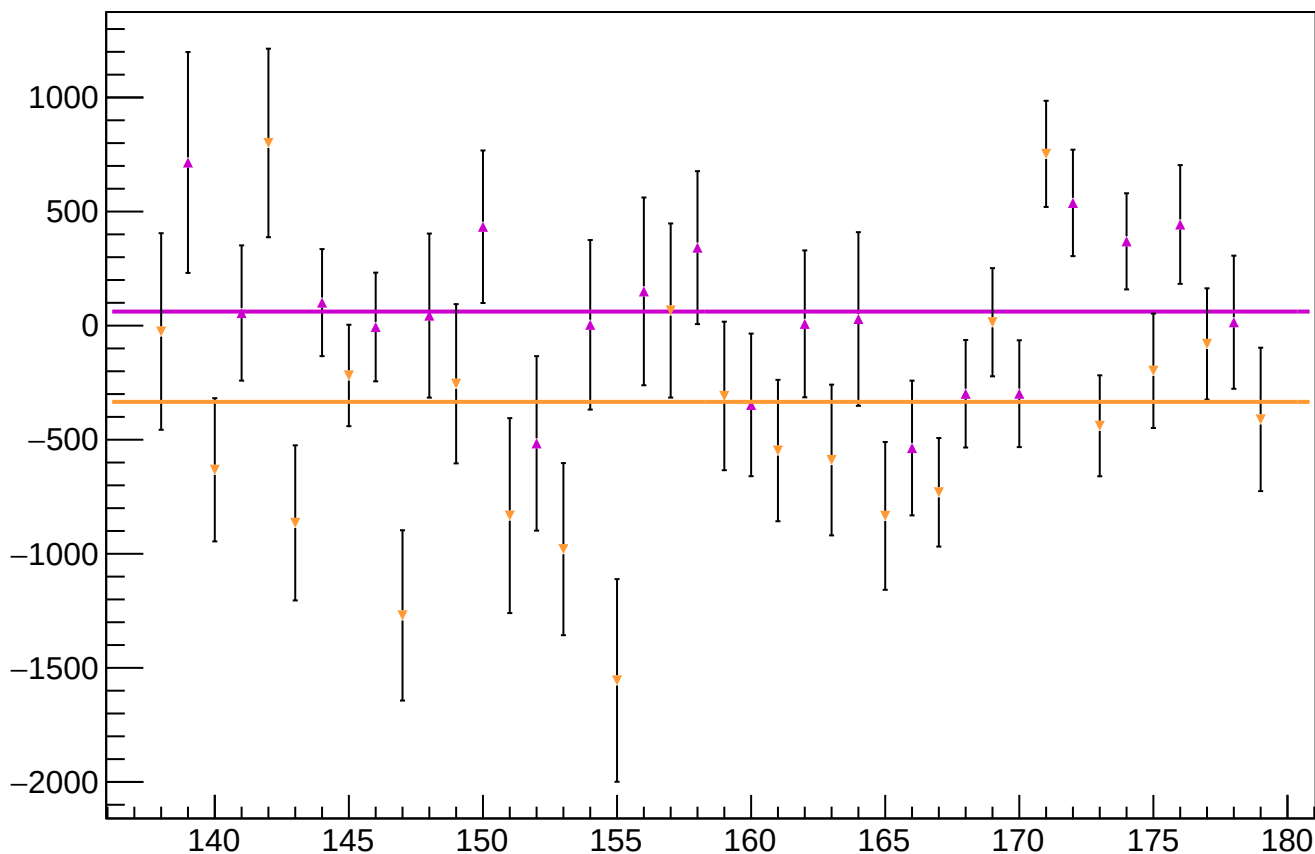
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 47.324+/-0.009  $\chi^2/\text{NDF}$ :235159.2/19

Out: 47.319+/-0.008  $\chi^2/\text{NDF}$ :282809.7/21

All: 47.321+/-0.006  $\chi^2/\text{NDF}$ : 517969.1/41

asym\_sam\_1526\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -334.126+/-63.772  $\chi^2/\text{NDF}$ :62.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 61.633+/-64.689  $\chi^2/\text{NDF}$ :25.3/19

Left: -139.070+/-45.415  $\chi^2/\text{NDF}$ : 107.1/41

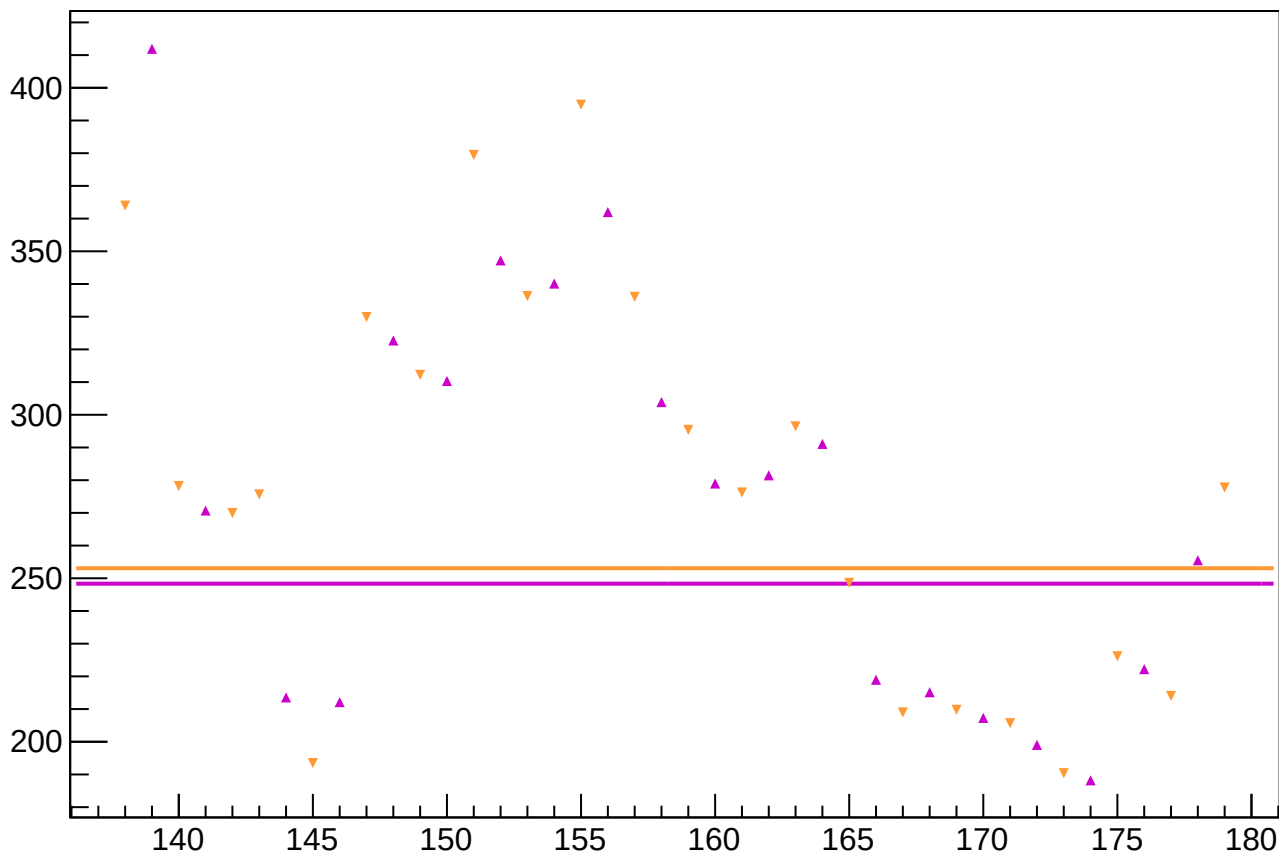
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 61.633+/-64.689  $\chi^2/\text{NDF}$ :25.3/19

Out: -334.126+/-63.772  $\chi^2/\text{NDF}$ :62.8/21

All: -139.070+/-45.415  $\chi^2/\text{NDF}$ : 107.1/41

asym\_sam\_1526\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 253.067+/-0.045  $\chi^2/\text{NDF}$ :1559666.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 248.349+/-0.046  $\chi^2/\text{NDF}$ :1407839.4/19

Left: 250.741+/-0.032  $\chi^2/\text{NDF}$ : 2972900.6/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

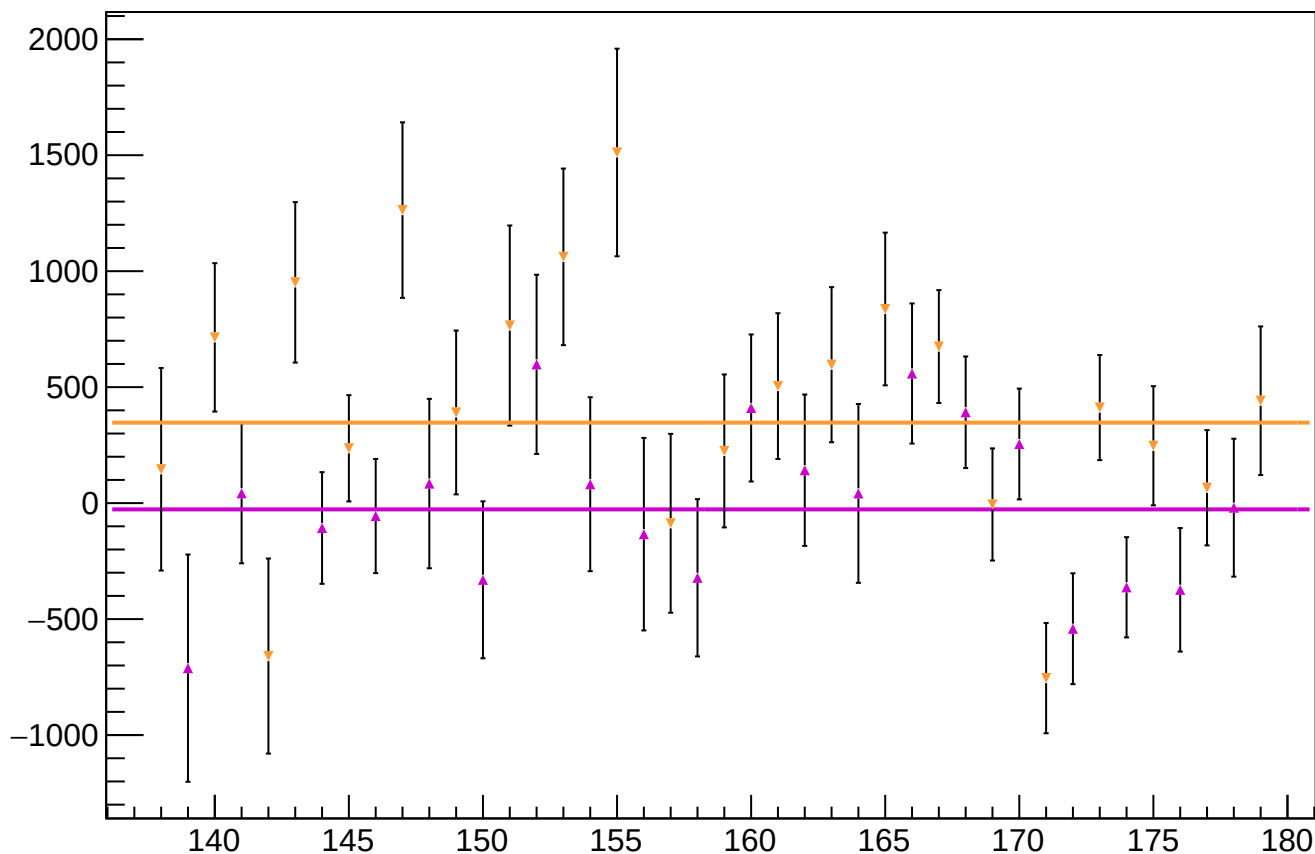
In: 248.349+/-0.046  $\chi^2/\text{NDF}$ :1407839.4/19

Out: 253.067+/-0.045  $\chi^2/\text{NDF}$ :1559666.5/21

All: 250.741+/-0.032  $\chi^2/\text{NDF}$ : 2972900.6/41



asym\_sam\_1526\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 346.999+/-64.978  $\chi^2/\text{NDF}$ :59.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -27.061+/-65.989  $\chi^2/\text{NDF}$ :25.7/19

Left: 162.856+/-46.300  $\chi^2/\text{NDF}$ : 101.1/41

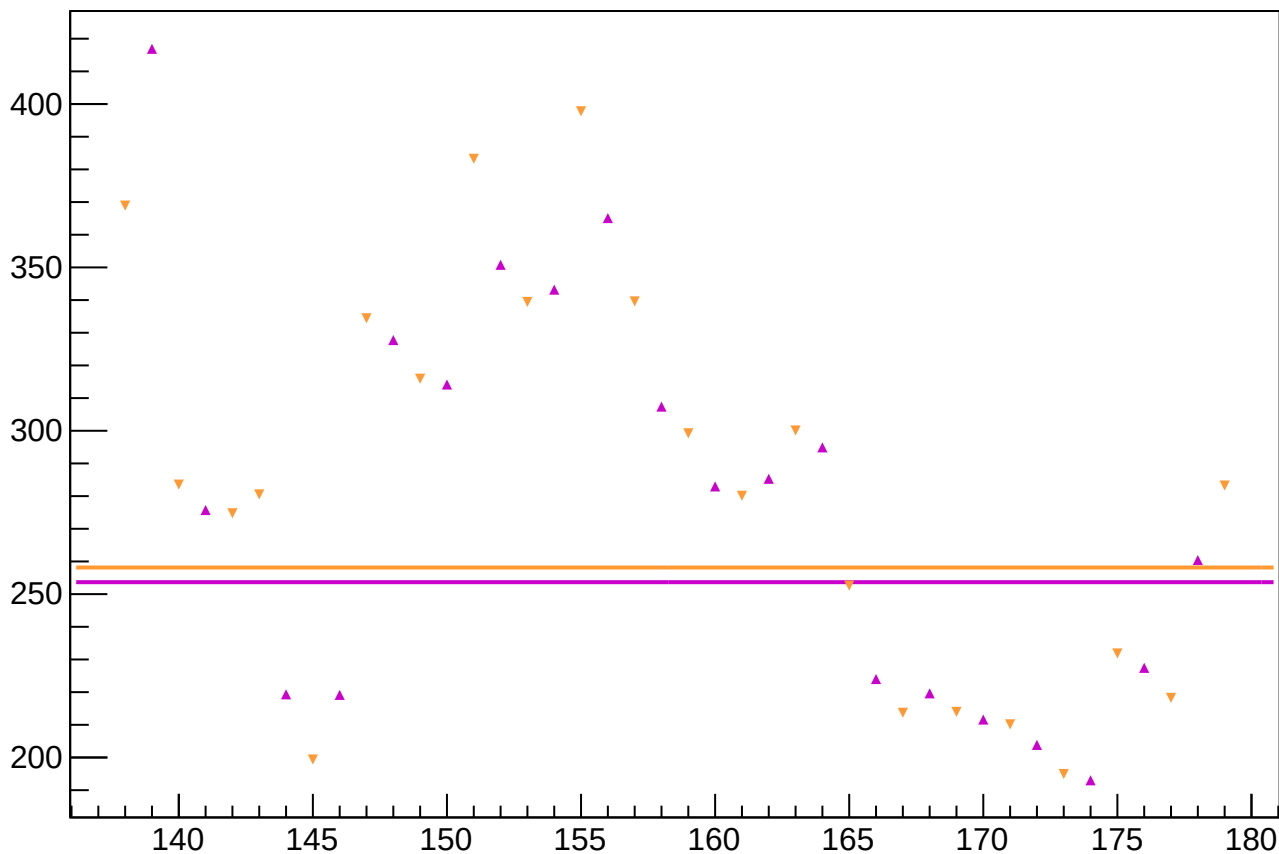
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -27.061+/-65.989  $\chi^2/\text{NDF}$ :25.7/19

Out: 346.999+/-64.978  $\chi^2/\text{NDF}$ :59.1/21

All: 162.856+/-46.300  $\chi^2/\text{NDF}$ : 101.1/41

asym\_sam\_1526\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 258.149+/-0.046  $\chi^2/\text{NDF}$ :1491020.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 253.658+/-0.047  $\chi^2/\text{NDF}$ :1338818.8/19

Left: 255.939+/-0.033  $\chi^2/\text{NDF}$ : 2834542.7/41

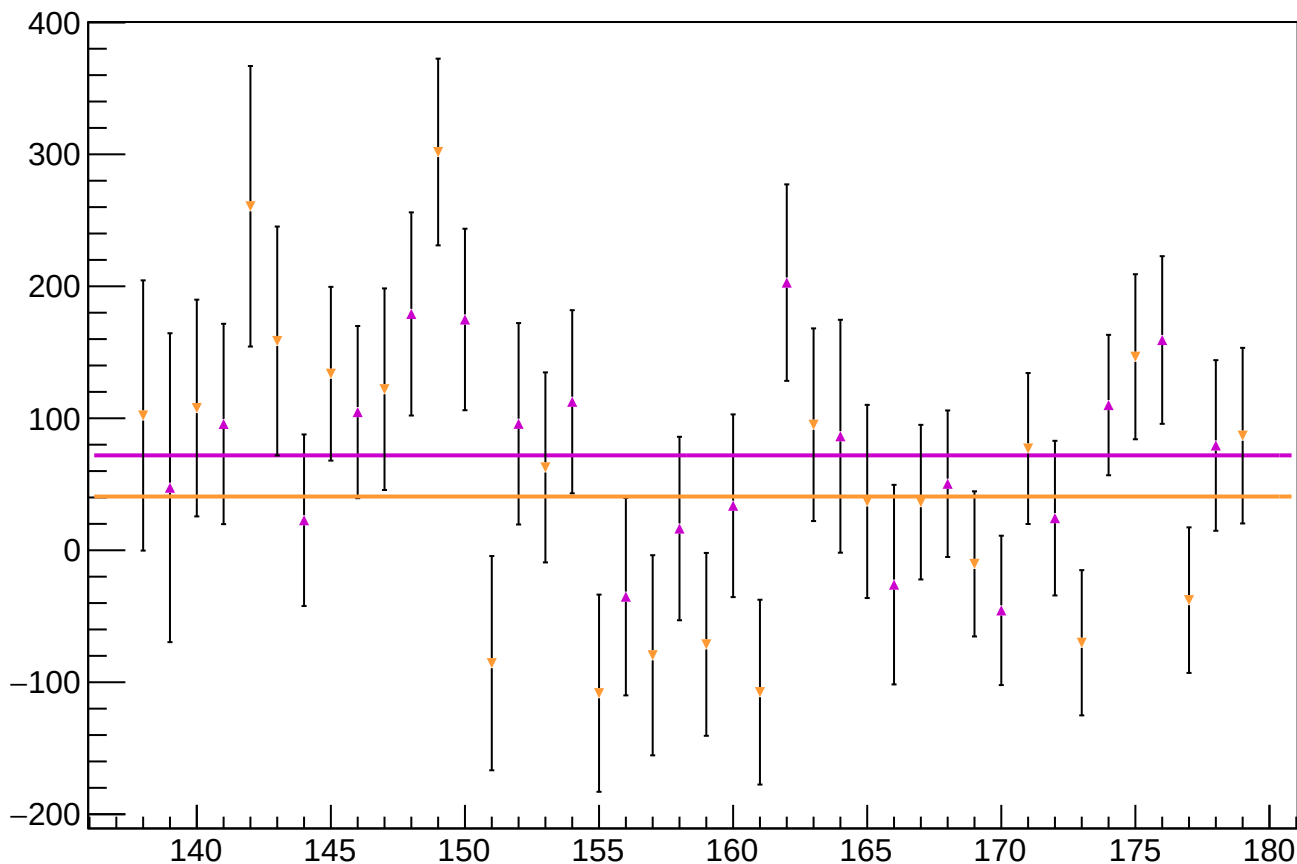
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 253.658+/-0.047  $\chi^2/\text{NDF}$ :1338818.8/19

Out: 258.149+/-0.046  $\chi^2/\text{NDF}$ :1491020.7/21

All: 255.939+/-0.033  $\chi^2/\text{NDF}$ : 2834542.7/41

reg\_asym\_sam\_3726\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 40.734+/-14.711  $\chi^2/\text{NDF}$ :51.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 71.913+/-15.206  $\chi^2/\text{NDF}$ :20.9/19

Left: 55.808+/-10.573  $\chi^2/\text{NDF}$ : 74.4/41

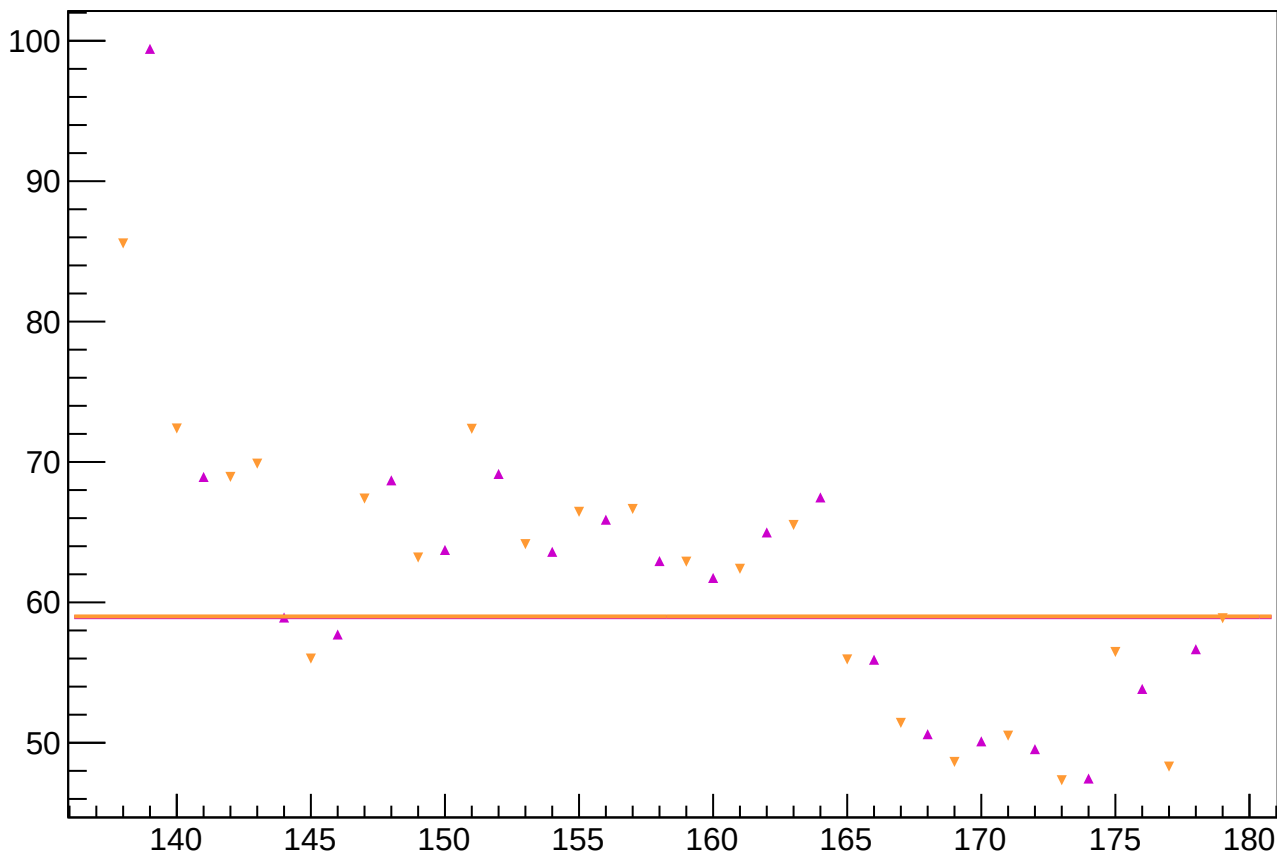
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 71.913+/-15.206  $\chi^2/\text{NDF}$ :20.9/19

Out: 40.734+/-14.711  $\chi^2/\text{NDF}$ :51.3/21

All: 55.808+/-10.573  $\chi^2/\text{NDF}$ : 74.4/41

reg\_asym\_sam\_3726\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 58.998+/-0.010  $\chi^2/\text{NDF}$ : 724507.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 58.947+/-0.011  $\chi^2/\text{NDF}$ : 677573.6/19

Left: 58.973+/-0.007  $\chi^2/\text{NDF}$ : 1402092.1/41

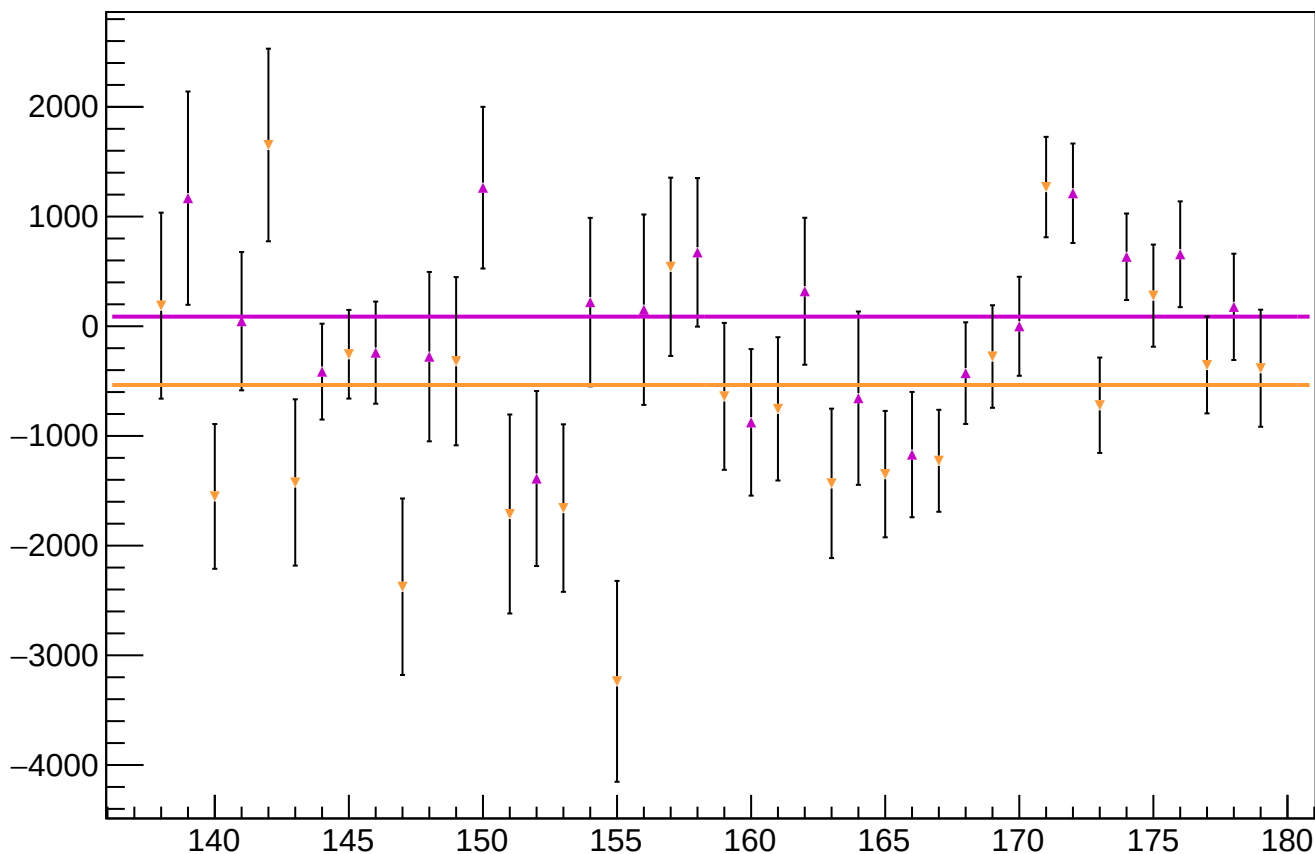
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 58.947+/-0.011  $\chi^2/\text{NDF}$ : 677573.6/19

Out: 58.998+/-0.010  $\chi^2/\text{NDF}$ : 724507.0/21

All: 58.973+/-0.007  $\chi^2/\text{NDF}$ : 1402092.1/41

asym\_sam\_3726\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -535.573+/-125.008  $\chi^2/\text{NDF}$ :56.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 87.710+/-126.730  $\chi^2/\text{NDF}$ :28.7/19

Left: -228.194+/-88.997  $\chi^2/\text{NDF}$ : 97.2/41

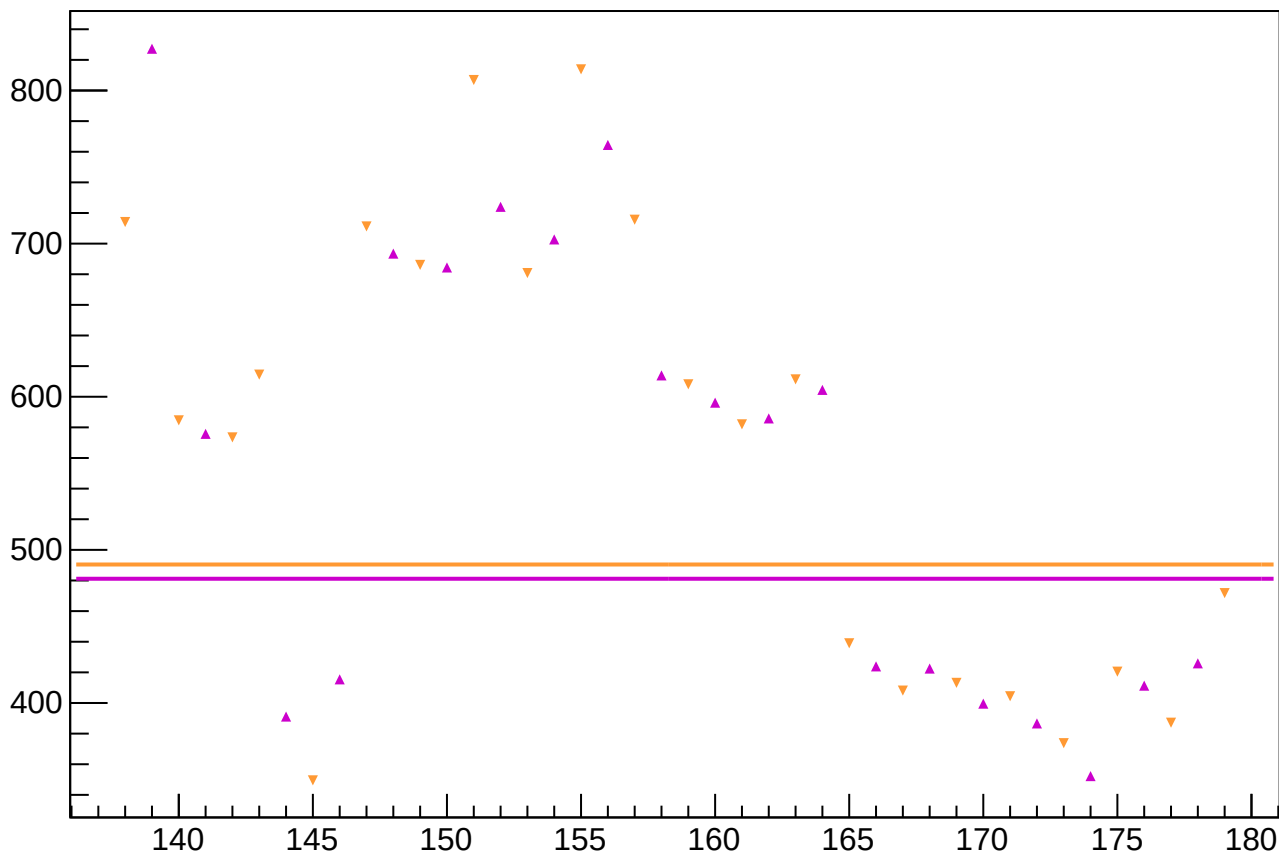
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 87.710+/-126.730  $\chi^2/\text{NDF}$ :28.7/19

Out: -535.573+/-125.008  $\chi^2/\text{NDF}$ :56.2/21

All: -228.194+/-88.997  $\chi^2/\text{NDF}$ : 97.2/41

asym\_sam\_3726\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 490.444+/-0.088  $\chi^2/\text{NDF}$ :2215360.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 481.138+/-0.090  $\chi^2/\text{NDF}$ :2010998.0/19

Left: 485.855+/-0.063  $\chi^2/\text{NDF}$ : 4231825.4/41

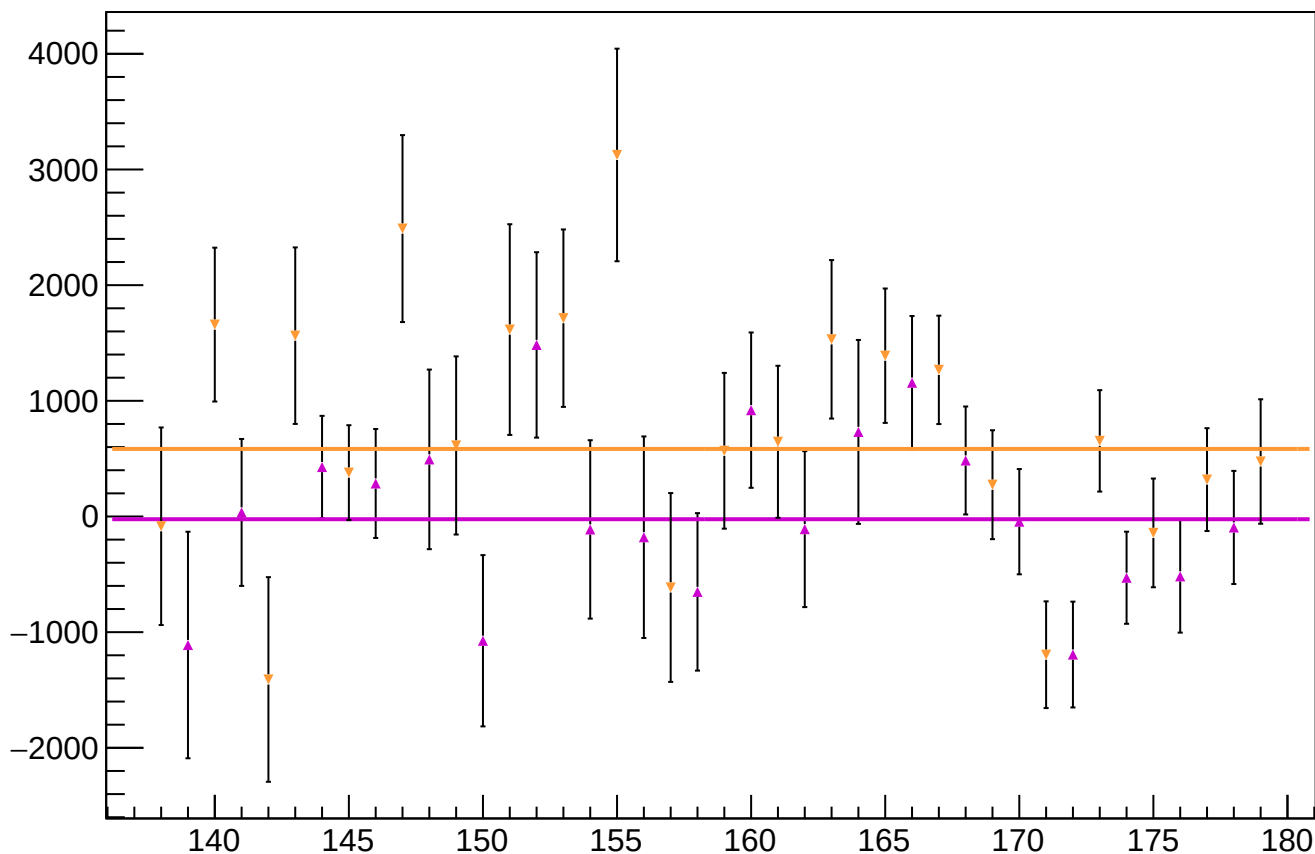
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 481.138+/-0.090  $\chi^2/\text{NDF}$ :2010998.0/19

Out: 490.444+/-0.088  $\chi^2/\text{NDF}$ :2215360.7/21

All: 485.855+/-0.063  $\chi^2/\text{NDF}$ : 4231825.4/41

# asym\_sam\_3726\_avg\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 584.182+/-125.980  $\chi^2/\text{NDF}$ :53.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -23.584+/-127.766  $\chi^2/\text{NDF}$ :27.1/19

Left: 284.577+/-89.706  $\chi^2/\text{NDF}$ : 91.7/41

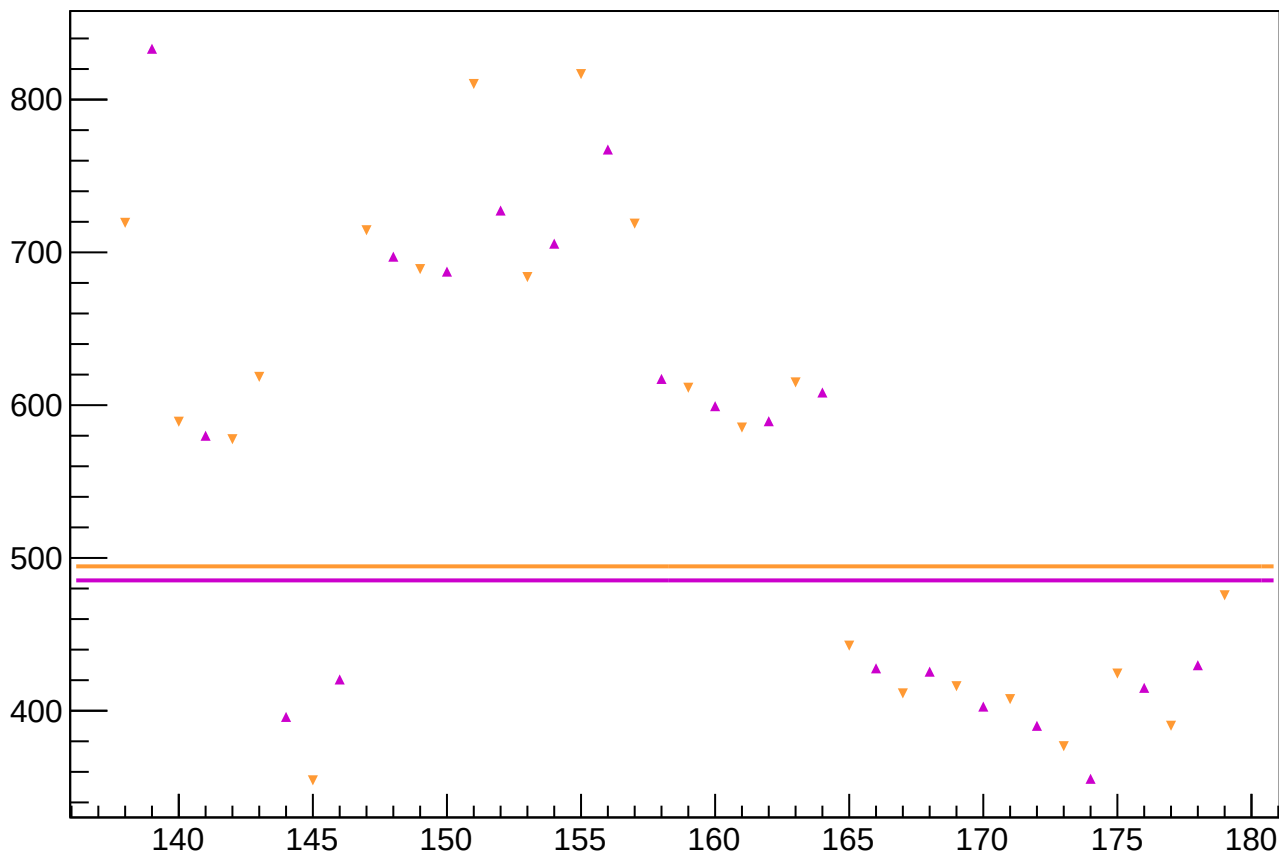
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -23.584+/-127.766  $\chi^2/\text{NDF}$ :27.1/19

Out: 584.182+/-125.980  $\chi^2/\text{NDF}$ :53.1/21

All: 284.577+/-89.706  $\chi^2/\text{NDF}$ : 91.7/41

# asym\_sam\_3726\_avg\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 494.501+/-0.089  $\chi^2/\text{NDF}$ :2184767.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 485.315+/-0.090  $\chi^2/\text{NDF}$ :1983414.1/19

Left: 489.973+/-0.063  $\chi^2/\text{NDF}$ : 4173423.6/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

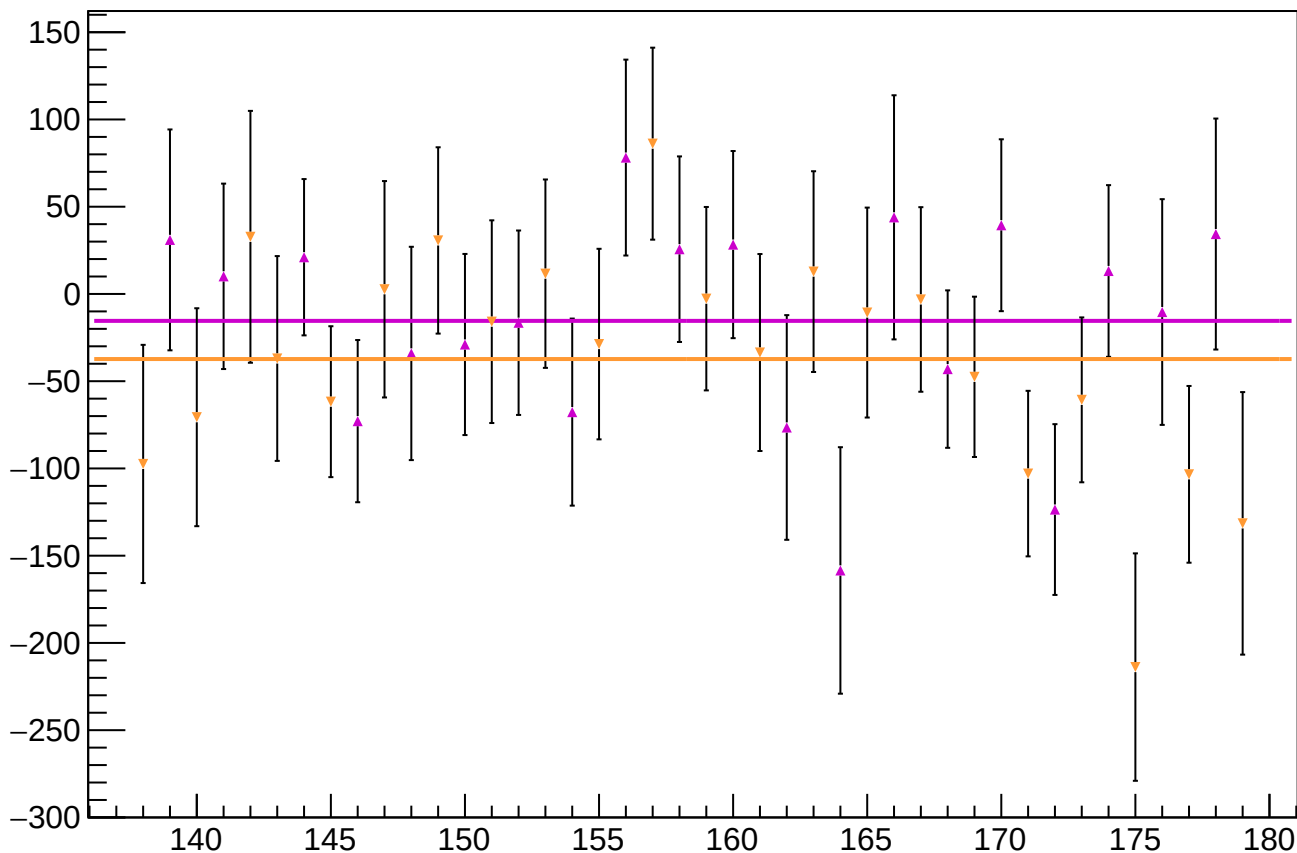
In: 485.315+/-0.090  $\chi^2/\text{NDF}$ :1983414.1/19

Out: 494.501+/-0.089  $\chi^2/\text{NDF}$ :2184767.2/21

All: 489.973+/-0.063  $\chi^2/\text{NDF}$ : 4173423.6/41



reg\_asym\_sam\_15\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -37.301+/-11.798  $\chi^2/\text{NDF}$ :25.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -15.426+/-12.148  $\chi^2/\text{NDF}$ :21.2/19

Left: -26.683+/-8.463  $\chi^2/\text{NDF}$ : 47.9/41

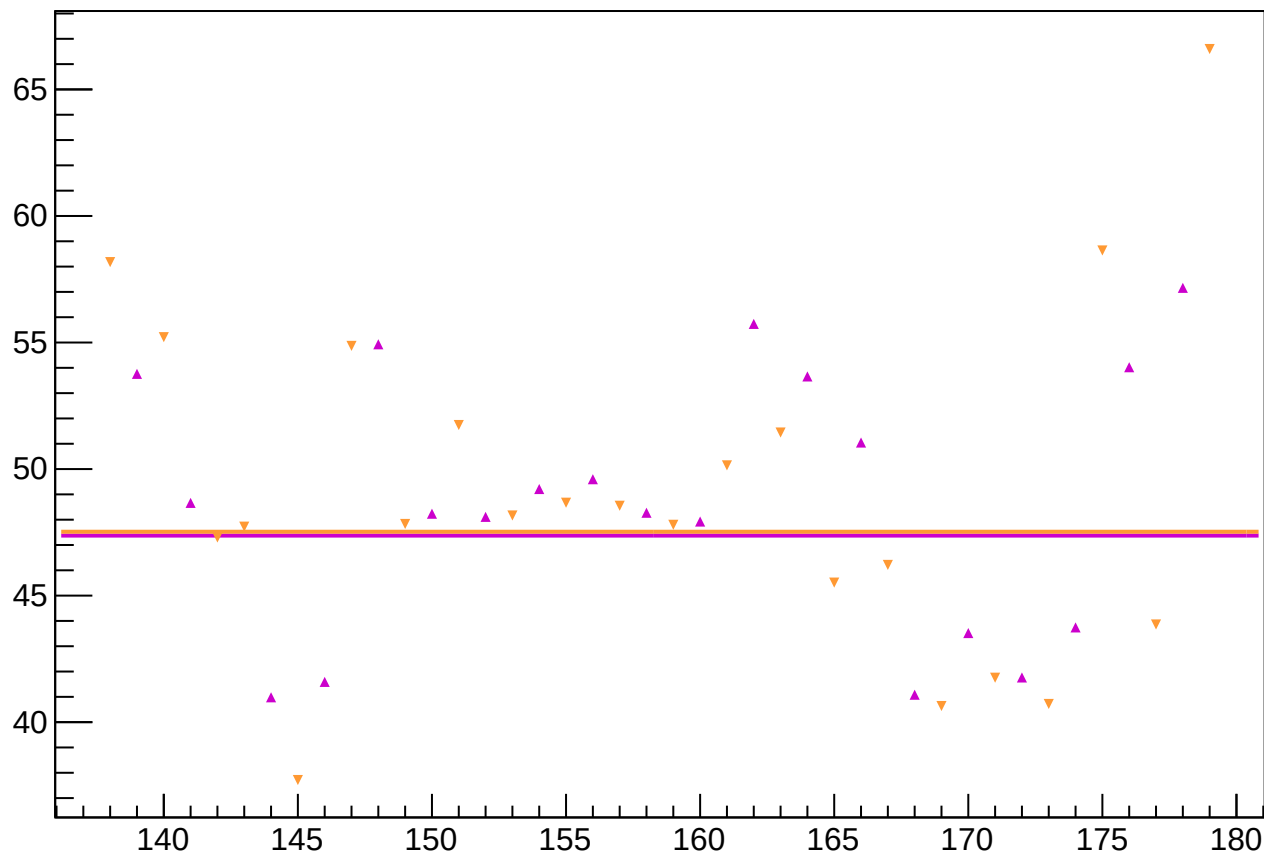
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -15.426+/-12.148  $\chi^2/\text{NDF}$ :21.2/19

Out: -37.301+/-11.798  $\chi^2/\text{NDF}$ :25.0/21

All: -26.683+/-8.463  $\chi^2/\text{NDF}$ : 47.9/41

reg\_asym\_sam\_15\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 47.524+/-0.008  $\chi^2/\text{NDF}$ : 552807.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 47.372+/-0.009  $\chi^2/\text{NDF}$ : 339249.2/19

Left: 47.450+/-0.006  $\chi^2/\text{NDF}$ : 892218.8/41

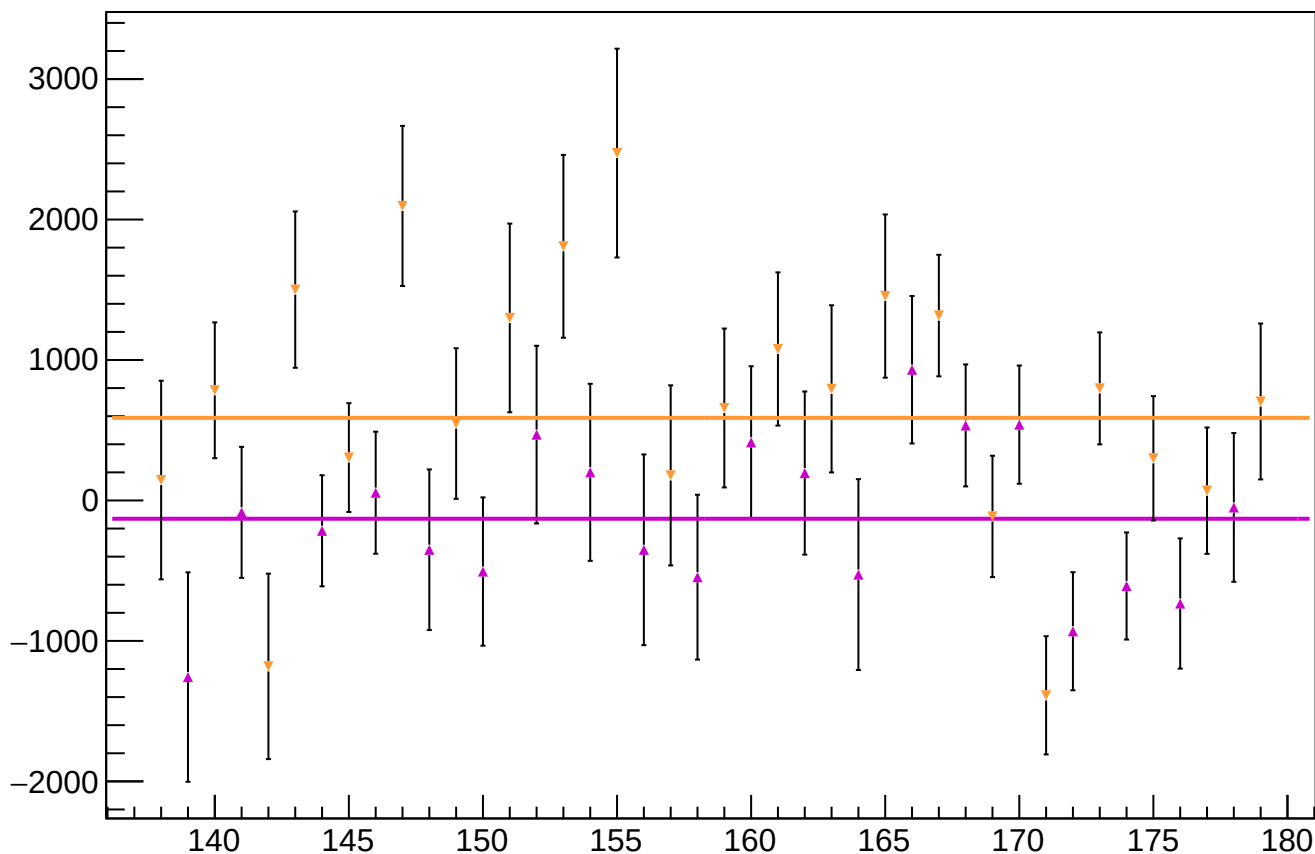
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 47.372+/-0.009  $\chi^2/\text{NDF}$ : 339249.2/19

Out: 47.524+/-0.008  $\chi^2/\text{NDF}$ : 552807.6/21

All: 47.450+/-0.006  $\chi^2/\text{NDF}$ : 892218.8/41

asym\_sam\_15\_48\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 588.124+/-110.397  $\chi^2/\text{NDF}$ :62.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -130.217+/-112.724  $\chi^2/\text{NDF}$ :22.5/19

Left: 236.443+/-78.872  $\chi^2/\text{NDF}$ : 105.5/41

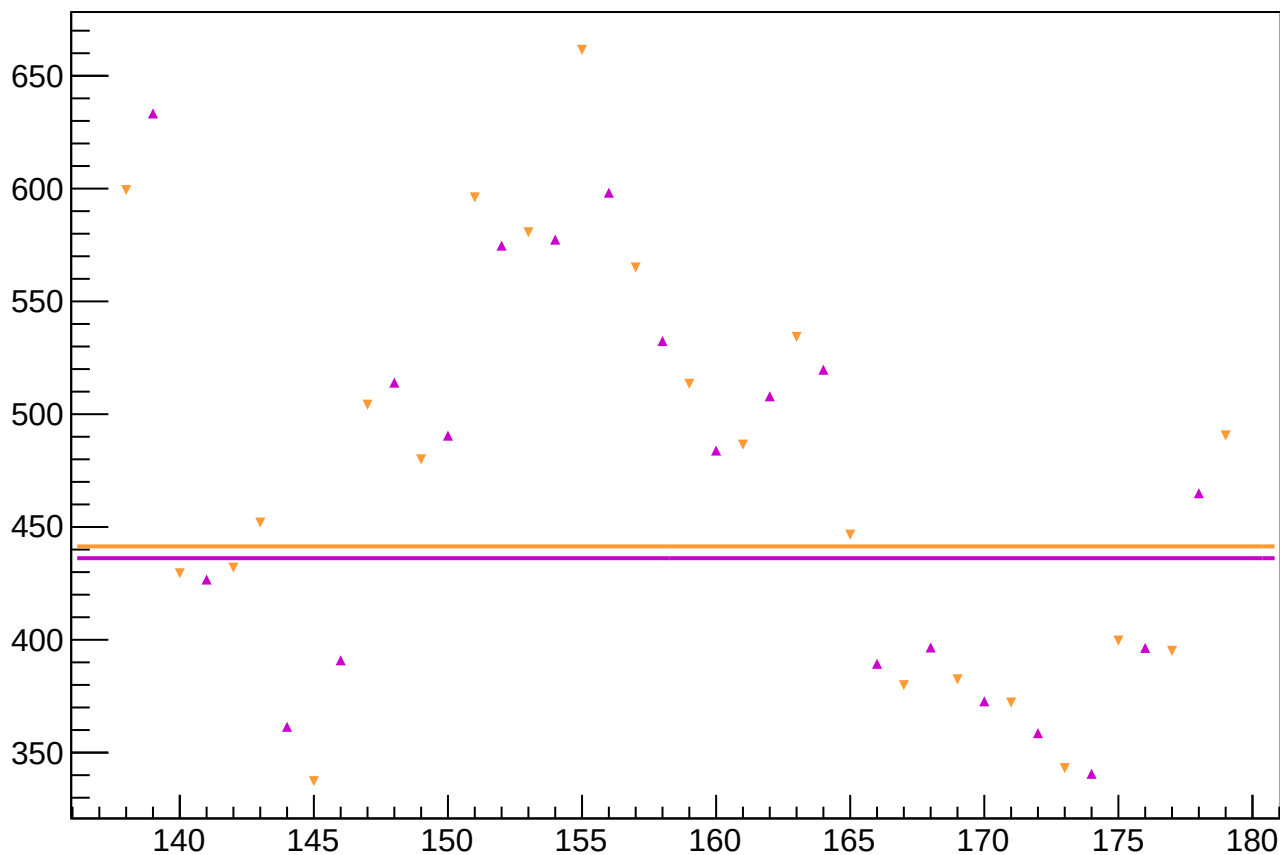
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -130.217+/-112.724  $\chi^2/\text{NDF}$ :22.5/19

Out: 588.124+/-110.397  $\chi^2/\text{NDF}$ :62.2/21

All: 236.443+/-78.872  $\chi^2/\text{NDF}$ : 105.5/41

asym\_sam\_15\_48\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 441.411+/-0.078  $\chi^2/\text{NDF}$ :1131496.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 436.167+/-0.080  $\chi^2/\text{NDF}$ :1024622.0/19

Left: 438.844+/-0.056  $\chi^2/\text{NDF}$ : 2158327.8/41

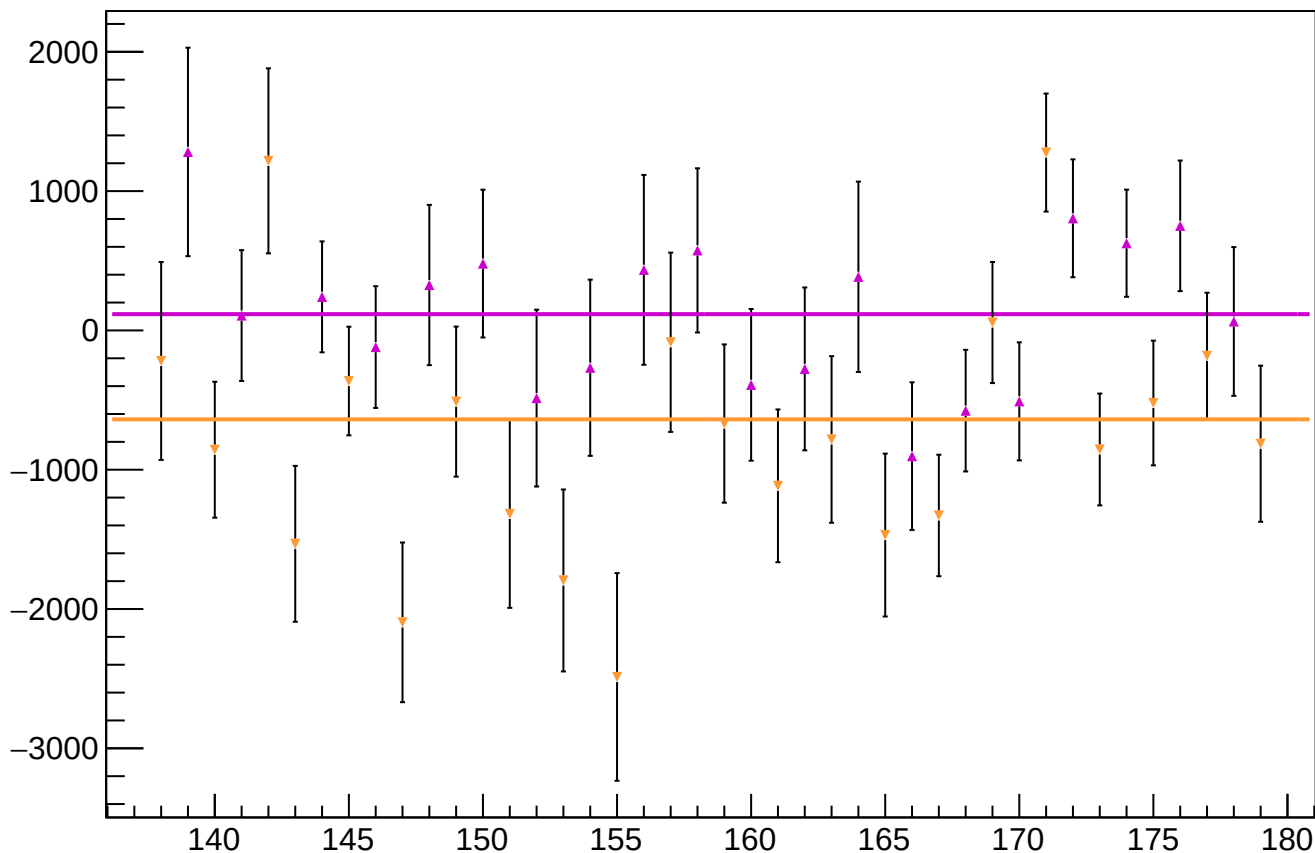
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 436.167+/-0.080  $\chi^2/\text{NDF}$ :1024622.0/19

Out: 441.411+/-0.078  $\chi^2/\text{NDF}$ :1131496.4/21

All: 438.844+/-0.056  $\chi^2/\text{NDF}$ : 2158327.8/41

asym\_sam\_15\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -638.425+/-111.109  $\chi^2/\text{NDF}$ :58.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 116.715+/-113.463  $\chi^2/\text{NDF}$ :21.6/19

Left: -268.771+/-79.385  $\chi^2/\text{NDF}$ : 103.0/41

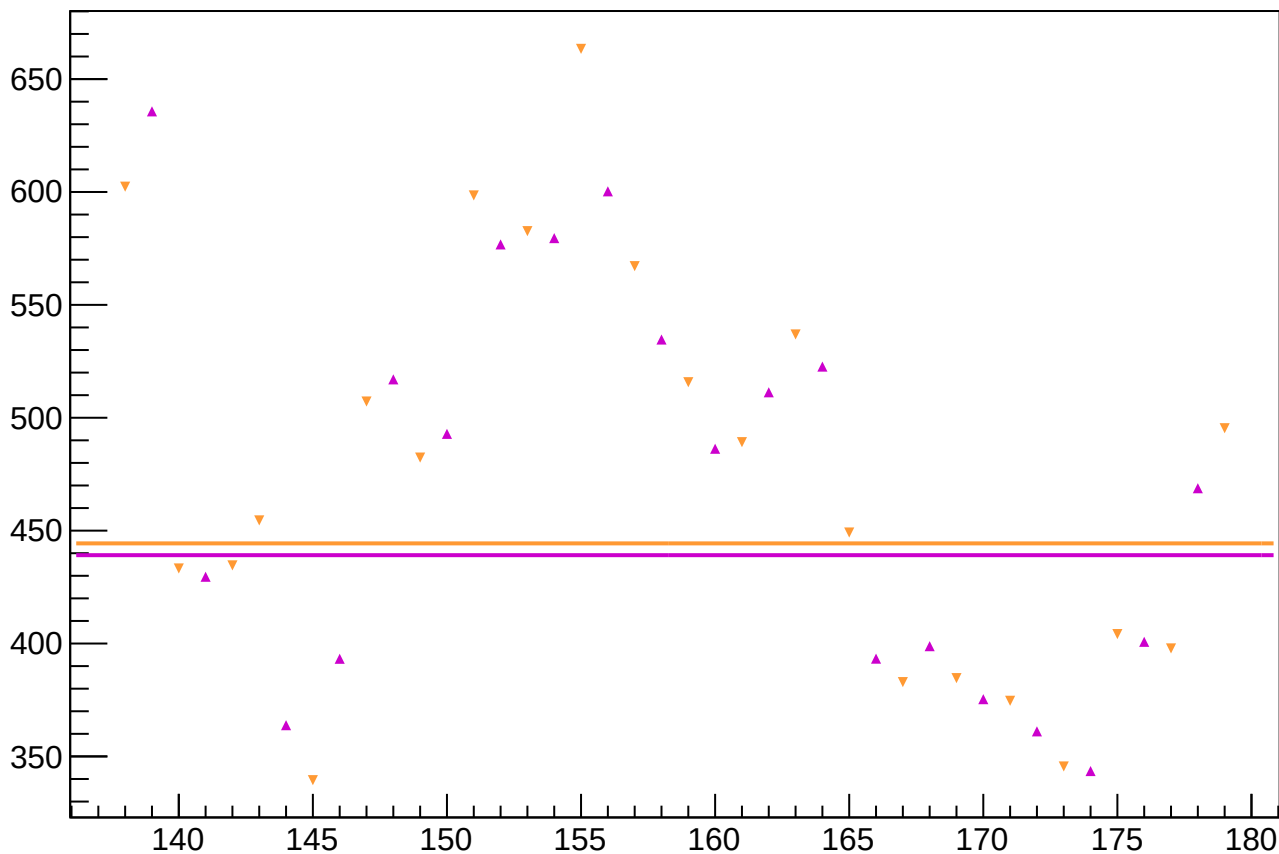
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 116.715+/-113.463  $\chi^2/\text{NDF}$ :21.6/19

Out: -638.425+/-111.109  $\chi^2/\text{NDF}$ :58.8/21

All: -268.771+/-79.385  $\chi^2/\text{NDF}$ : 103.0/41

asym\_sam\_15\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 444.356+/-0.079  $\chi^2/\text{NDF}$ :1118950.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 439.133+/-0.080  $\chi^2/\text{NDF}$ :1010518.5/19

Left: 441.799+/-0.056  $\chi^2/\text{NDF}$ : 2131632.0/41

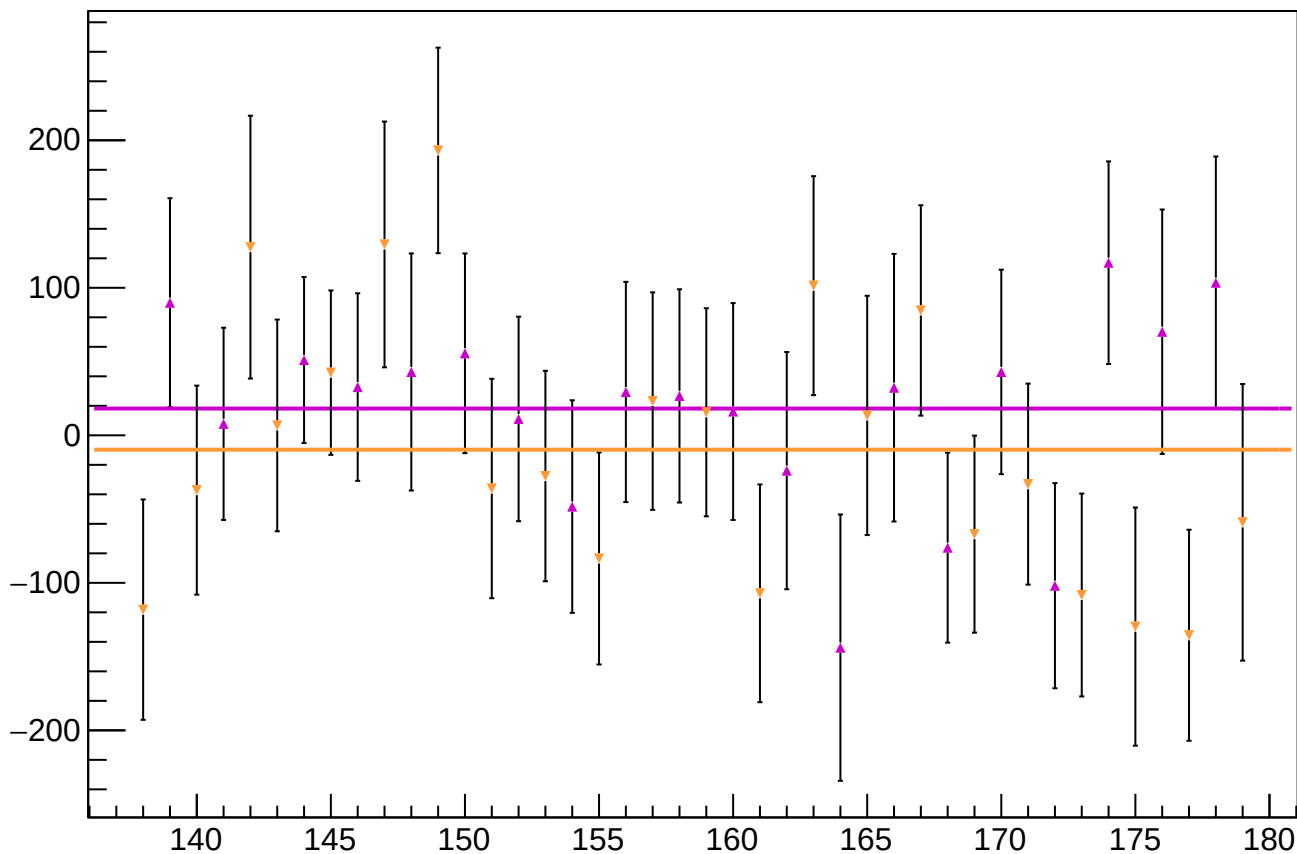
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 439.133+/-0.080  $\chi^2/\text{NDF}$ :1010518.5/19

Out: 444.356+/-0.079  $\chi^2/\text{NDF}$ :1118950.6/21

All: 441.799+/-0.056  $\chi^2/\text{NDF}$ : 2131632.0/41

reg\_asym\_sam\_37\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -9.729+/-15.515  $\chi^2/\text{NDF}$ :32.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 18.154+/-16.059  $\chi^2/\text{NDF}$ :15.0/19

Left: 3.733+/-11.158  $\chi^2/\text{NDF}$ : 49.3/41

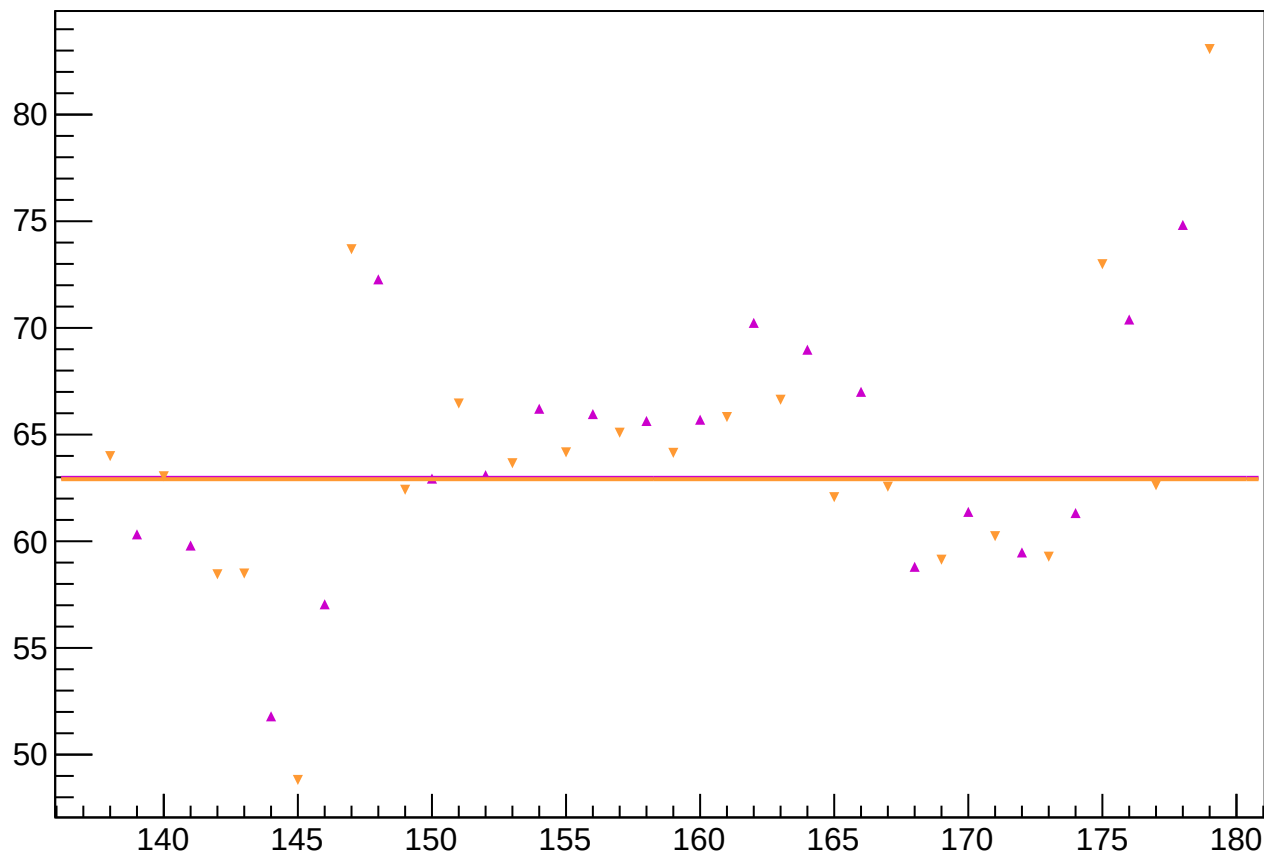
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 18.154+/-16.059  $\chi^2/\text{NDF}$ :15.0/19

Out: -9.729+/-15.515  $\chi^2/\text{NDF}$ :32.7/21

All: 3.733+/-11.158  $\chi^2/\text{NDF}$ : 49.3/41

reg\_asym\_sam\_37\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 62.909+/-0.011  $\chi^2/\text{NDF}$ : 329493.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 62.973+/-0.011  $\chi^2/\text{NDF}$ : 242746.8/19

Left: 62.940+/-0.008  $\chi^2/\text{NDF}$ : 572256.6/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

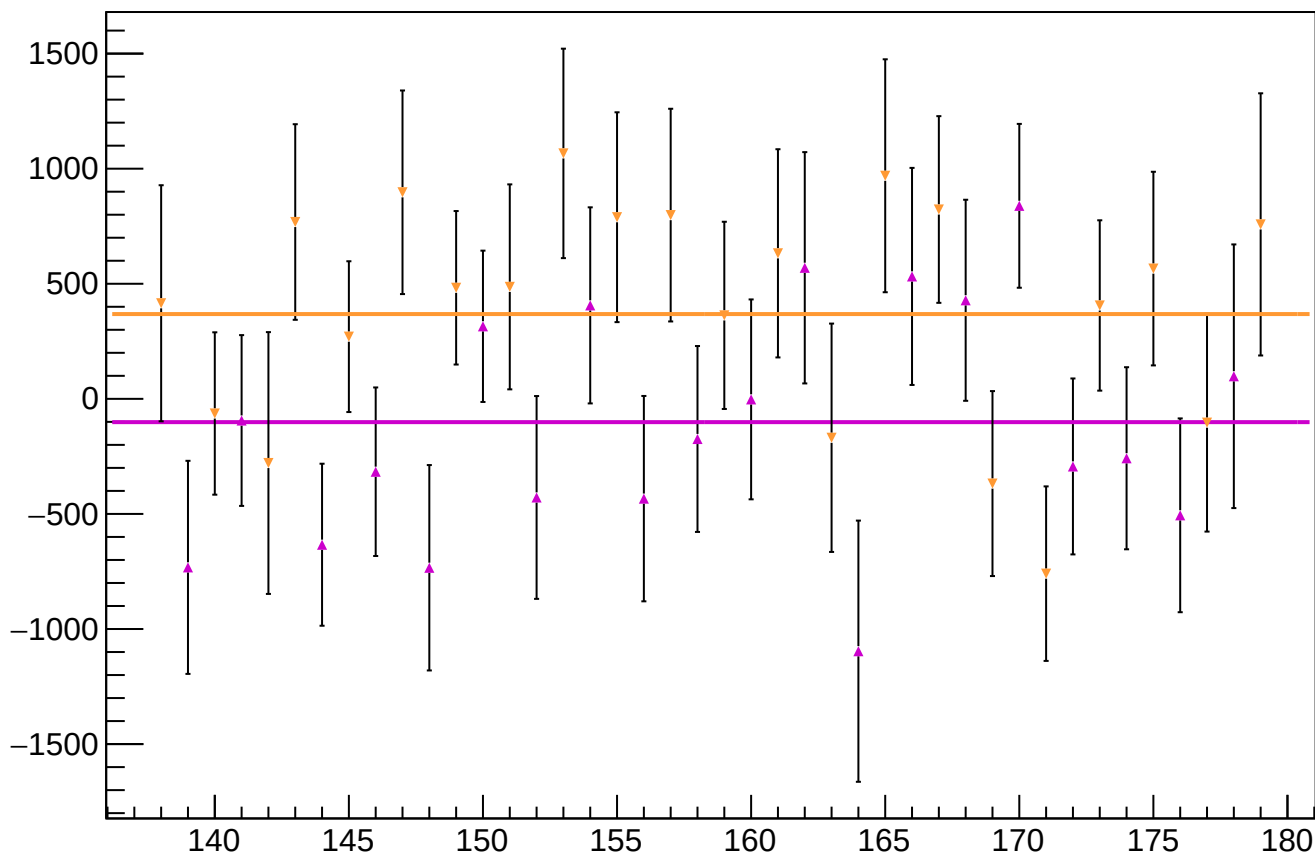
In: 62.973+/-0.011  $\chi^2/\text{NDF}$ : 242746.8/19

Out: 62.909+/-0.011  $\chi^2/\text{NDF}$ : 329493.6/21

All: 62.940+/-0.008  $\chi^2/\text{NDF}$ : 572256.6/41



asym\_sam\_37\_48\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 368.362+/-90.575  $\chi^2/\text{NDF}$ :27.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -101.193+/-93.055  $\chi^2/\text{NDF}$ :27.3/19

Left: 139.927+/-64.905  $\chi^2/\text{NDF}$ : 67.9/41

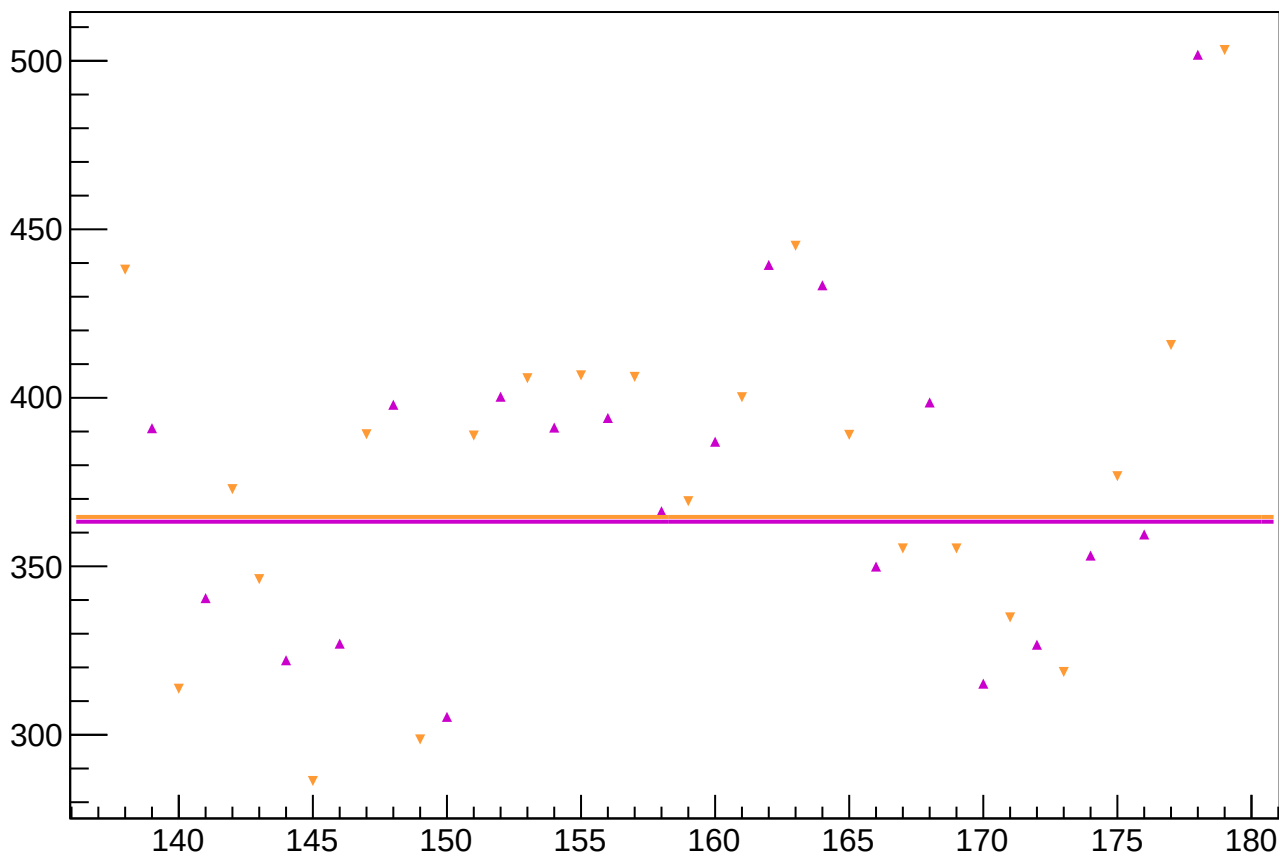
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -101.193+/-93.055  $\chi^2/\text{NDF}$ :27.3/19

Out: 368.362+/-90.575  $\chi^2/\text{NDF}$ :27.6/21

All: 139.927+/-64.905  $\chi^2/\text{NDF}$ : 67.9/41

asym\_sam\_37\_48\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 364.652+/-0.064  $\chi^2/\text{NDF}$ : 599826.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 363.236+/-0.066  $\chi^2/\text{NDF}$ : 438526.2/19

Left: 363.963+/-0.046  $\chi^2/\text{NDF}$ : 1038590.9/41

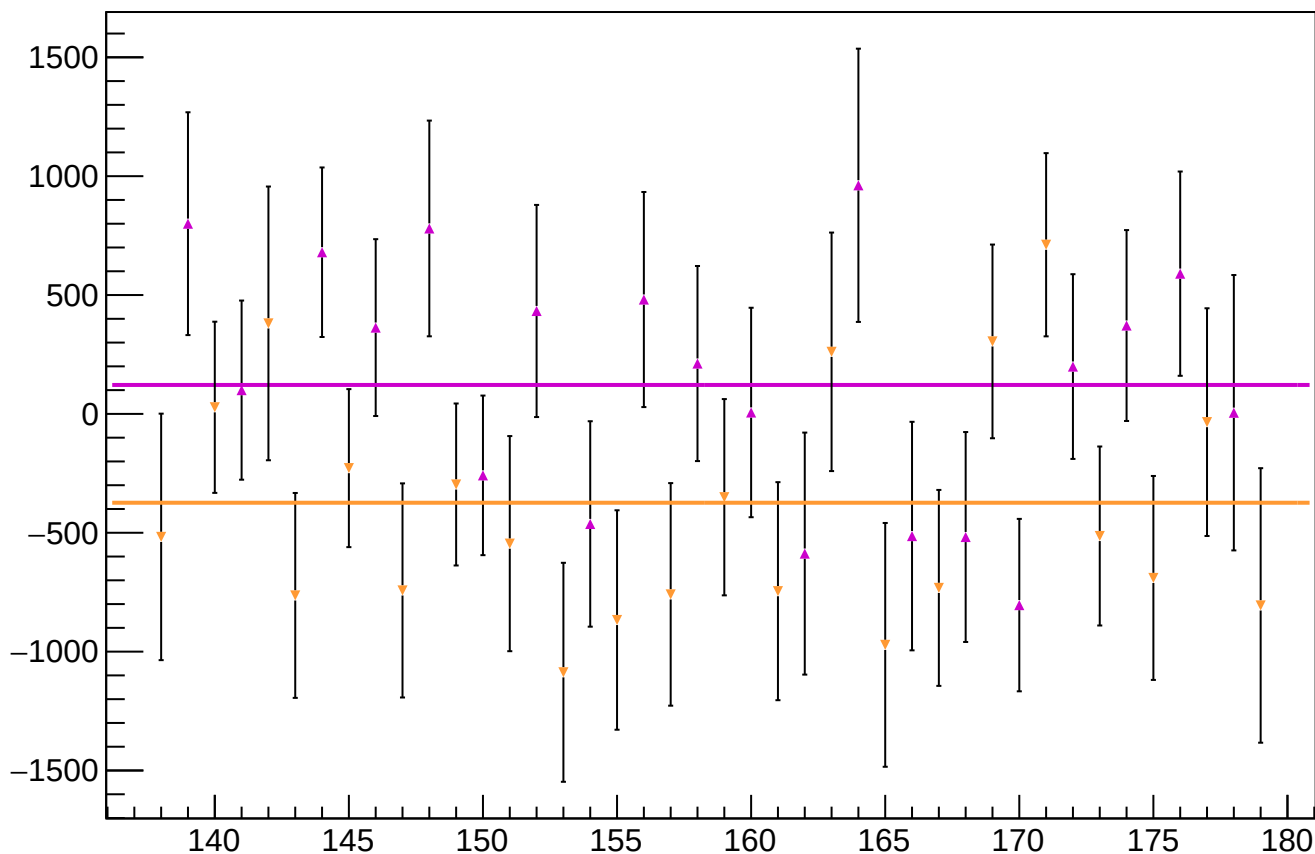
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 363.236+/-0.066  $\chi^2/\text{NDF}$ : 438526.2/19

Out: 364.652+/-0.064  $\chi^2/\text{NDF}$ : 599826.9/21

All: 363.963+/-0.046  $\chi^2/\text{NDF}$ : 1038590.9/41

asym\_sam\_37\_48\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -373.677+/-91.985  $\chi^2/\text{NDF}$ :26.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 121.769+/-94.511  $\chi^2/\text{NDF}$ :27.5/19

Left: -132.663+/-65.918  $\chi^2/\text{NDF}$ : 67.6/41

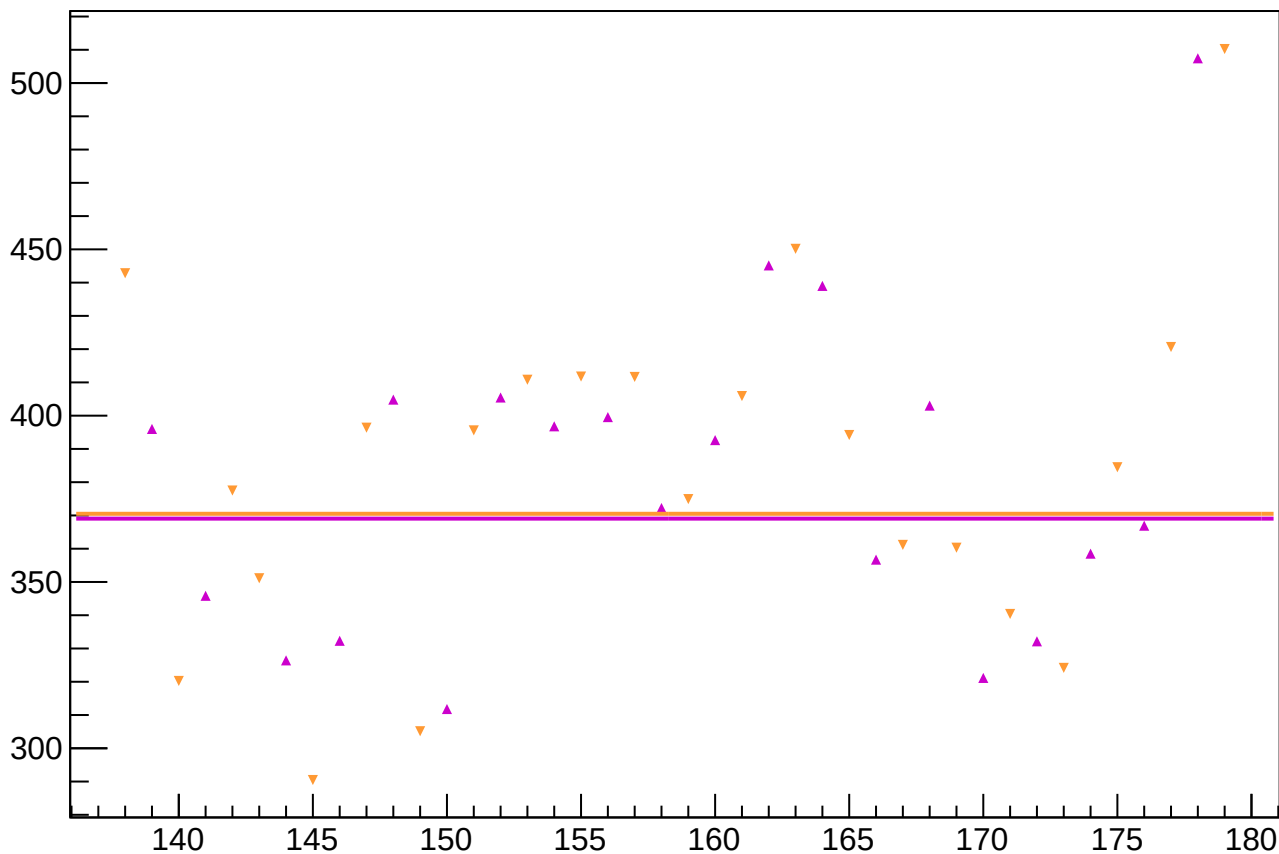
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 121.769+/-94.511  $\chi^2/\text{NDF}$ :27.5/19

Out: -373.677+/-91.985  $\chi^2/\text{NDF}$ :26.0/21

All: -132.663+/-65.918  $\chi^2/\text{NDF}$ : 67.6/41

asym\_sam\_37\_48\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 370.500+/-0.065  $\chi^2/\text{NDF}$ : 584188.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 369.044+/-0.067  $\chi^2/\text{NDF}$ : 425472.3/19

Left: 369.792+/-0.047  $\chi^2/\text{NDF}$ : 1009904.2/41

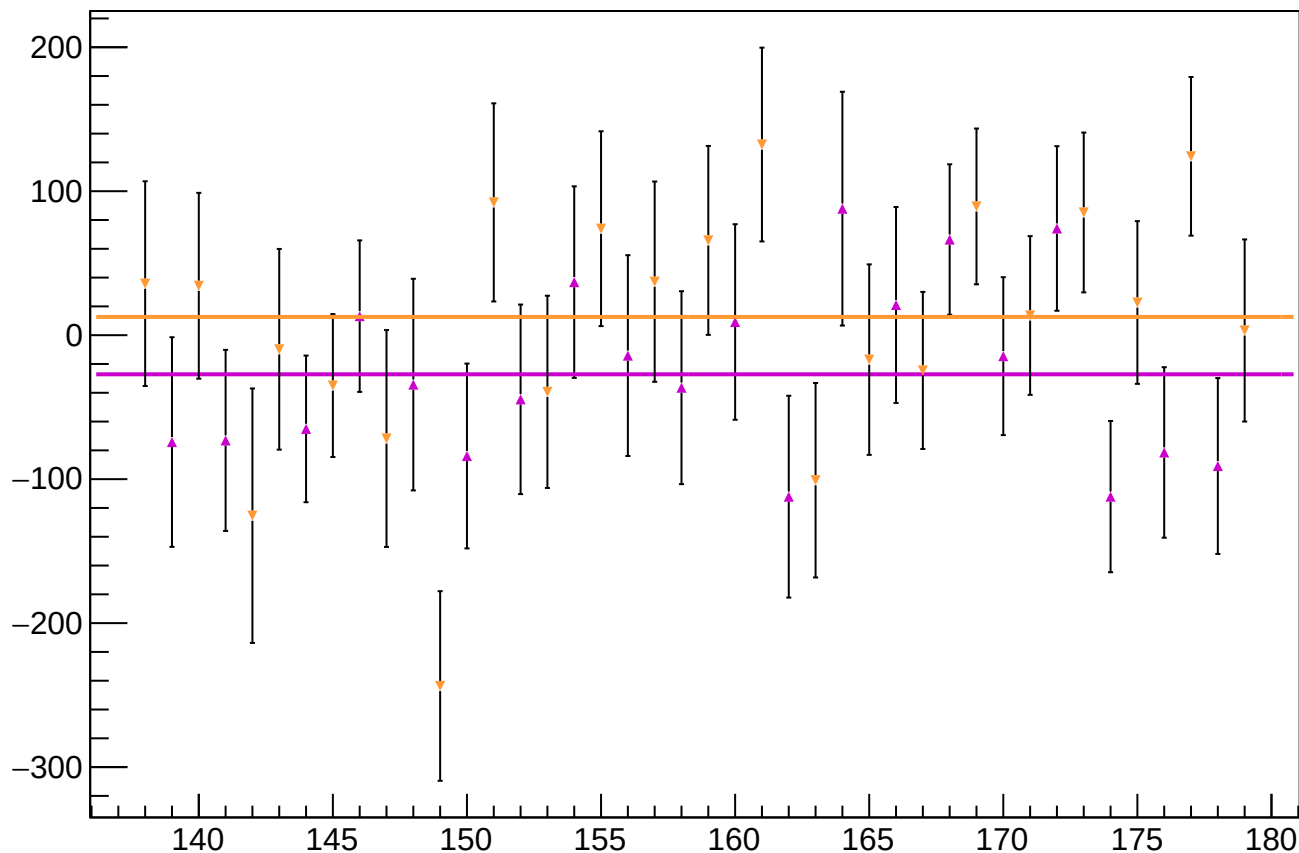
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 369.044+/-0.067  $\chi^2/\text{NDF}$ : 425472.3/19

Out: 370.500+/-0.065  $\chi^2/\text{NDF}$ : 584188.3/21

All: 369.792+/-0.047  $\chi^2/\text{NDF}$ : 1009904.2/41

reg\_asym\_sam\_15\_26\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 12.678+/-13.398  $\chi^2/\text{NDF}$ :38.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -27.174+/-13.854  $\chi^2/\text{NDF}$ :19.1/19

Left: -6.581+/-9.631  $\chi^2/\text{NDF}$ : 61.6/41

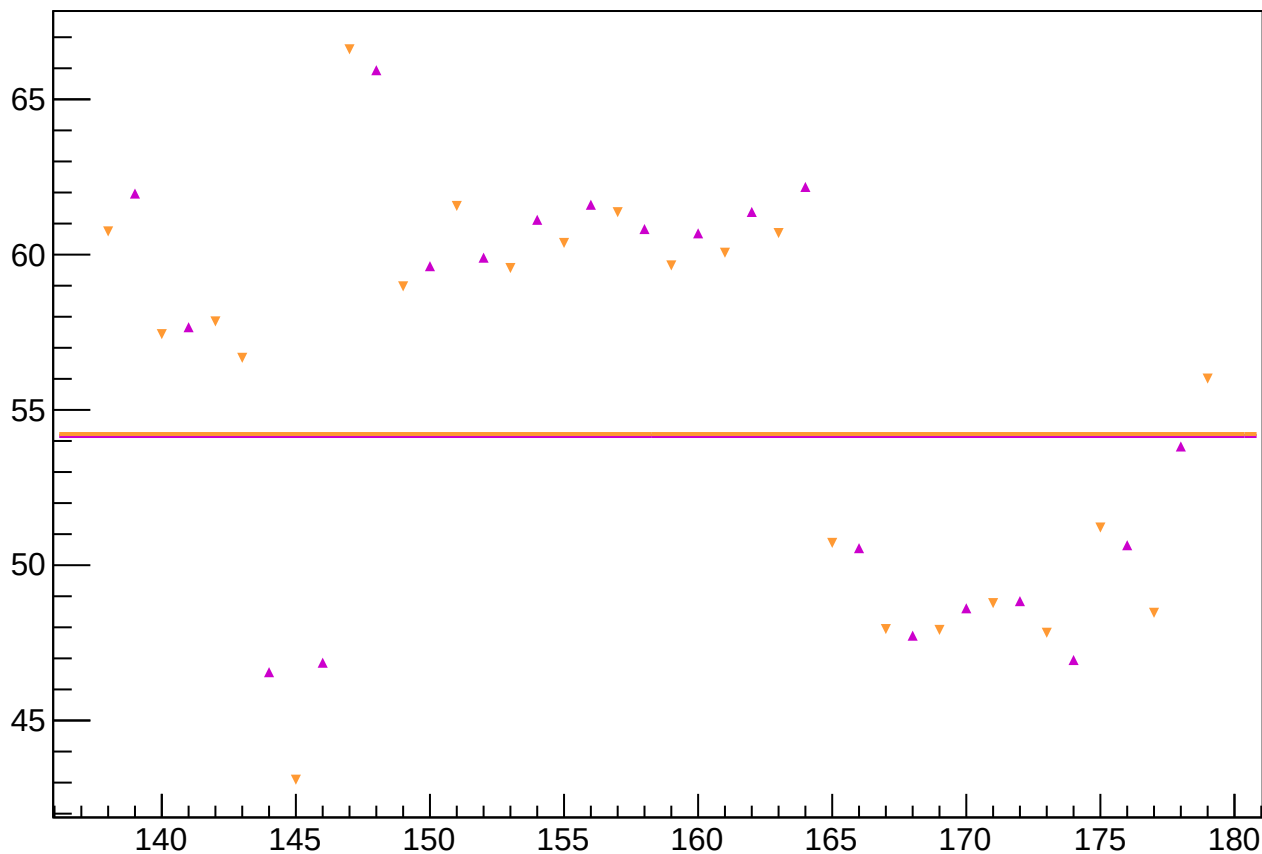
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -27.174+/-13.854  $\chi^2/\text{NDF}$ :19.1/19

Out: 12.678+/-13.398  $\chi^2/\text{NDF}$ :38.2/21

All: -6.581+/-9.631  $\chi^2/\text{NDF}$ : 61.6/41

reg\_asym\_sam\_15\_26\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 54.224+/-0.009  $\chi^2/\text{NDF}$ :447629.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 54.160+/-0.010  $\chi^2/\text{NDF}$ :435552.7/19

Left: 54.193+/-0.007  $\chi^2/\text{NDF}$ : 883203.9/41

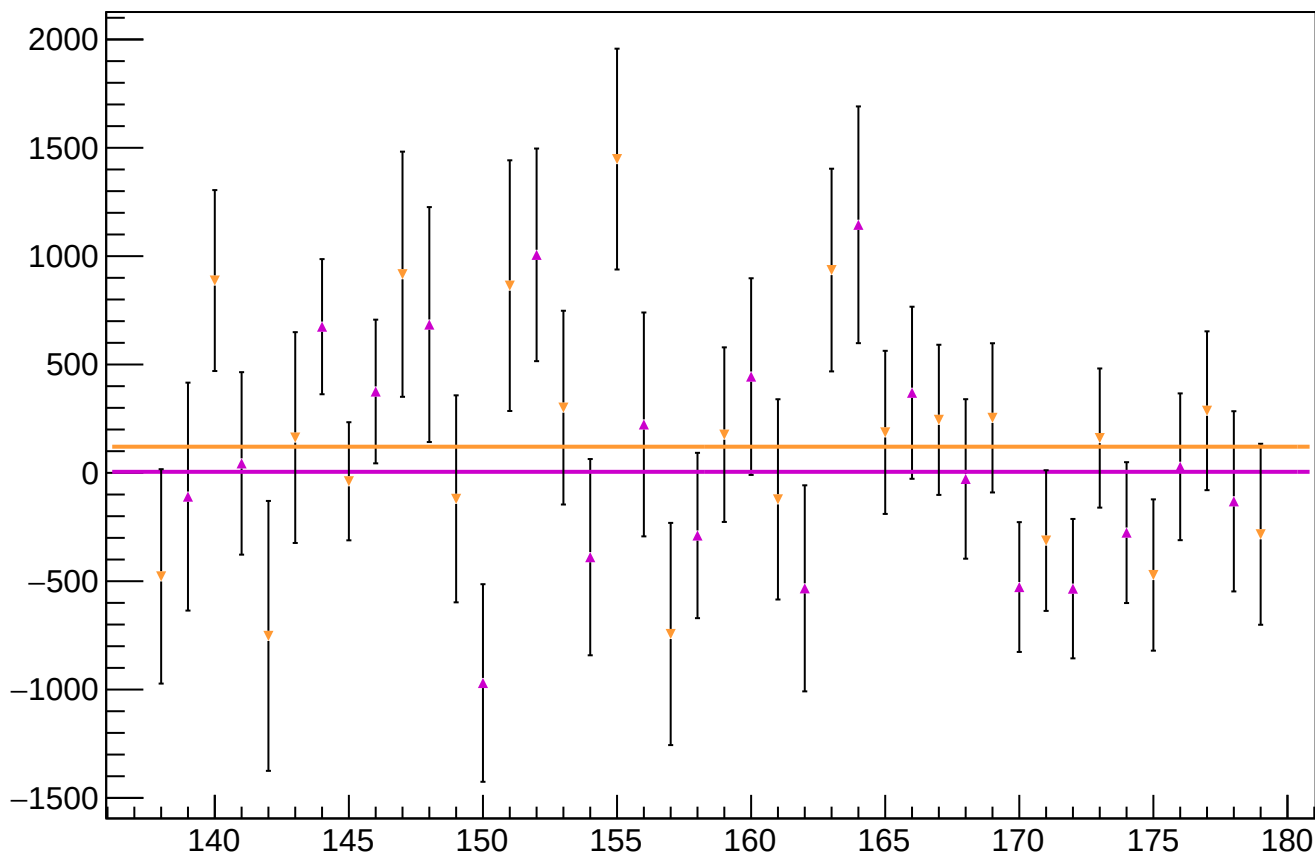
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 54.160+/-0.010  $\chi^2/\text{NDF}$ :435552.7/19

Out: 54.224+/-0.009  $\chi^2/\text{NDF}$ :447629.0/21

All: 54.193+/-0.007  $\chi^2/\text{NDF}$ : 883203.9/41

asym\_sam\_15\_26\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 120.704+/-86.687  $\chi^2/\text{NDF}$ :30.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 4.773+/-88.510  $\chi^2/\text{NDF}$ :32.0/19

Left: 63.945+/-61.931  $\chi^2/\text{NDF}$ : 63.2/41

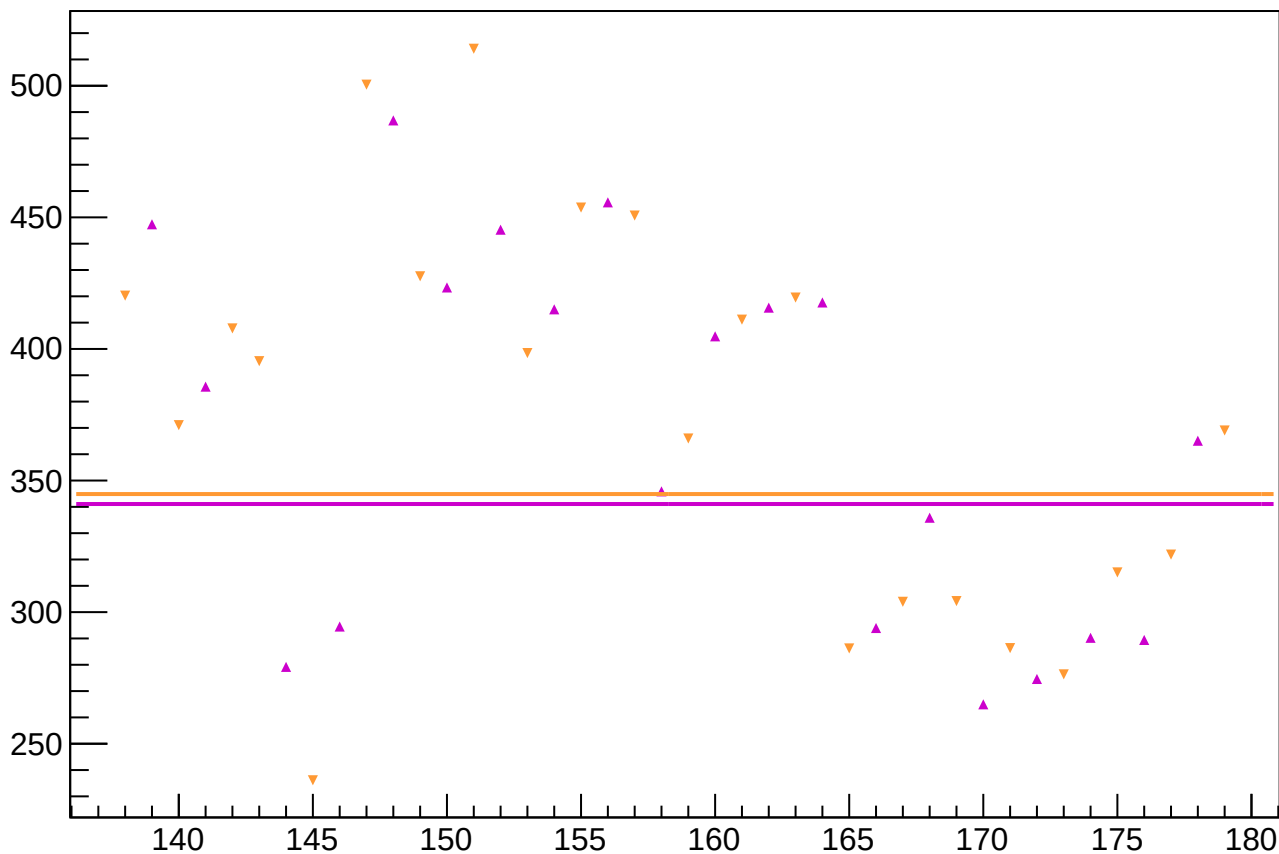
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 4.773+/-88.510  $\chi^2/\text{NDF}$ :32.0/19

Out: 120.704+/-86.687  $\chi^2/\text{NDF}$ :30.3/21

All: 63.945+/-61.931  $\chi^2/\text{NDF}$ : 63.2/41

asym\_sam\_15\_26\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 344.867+/-0.061  $\chi^2/\text{NDF}$ :1389686.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 341.079+/-0.063  $\chi^2/\text{NDF}$ :1147798.2/19

Left: 343.013+/-0.044  $\chi^2/\text{NDF}$ : 2539354.2/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

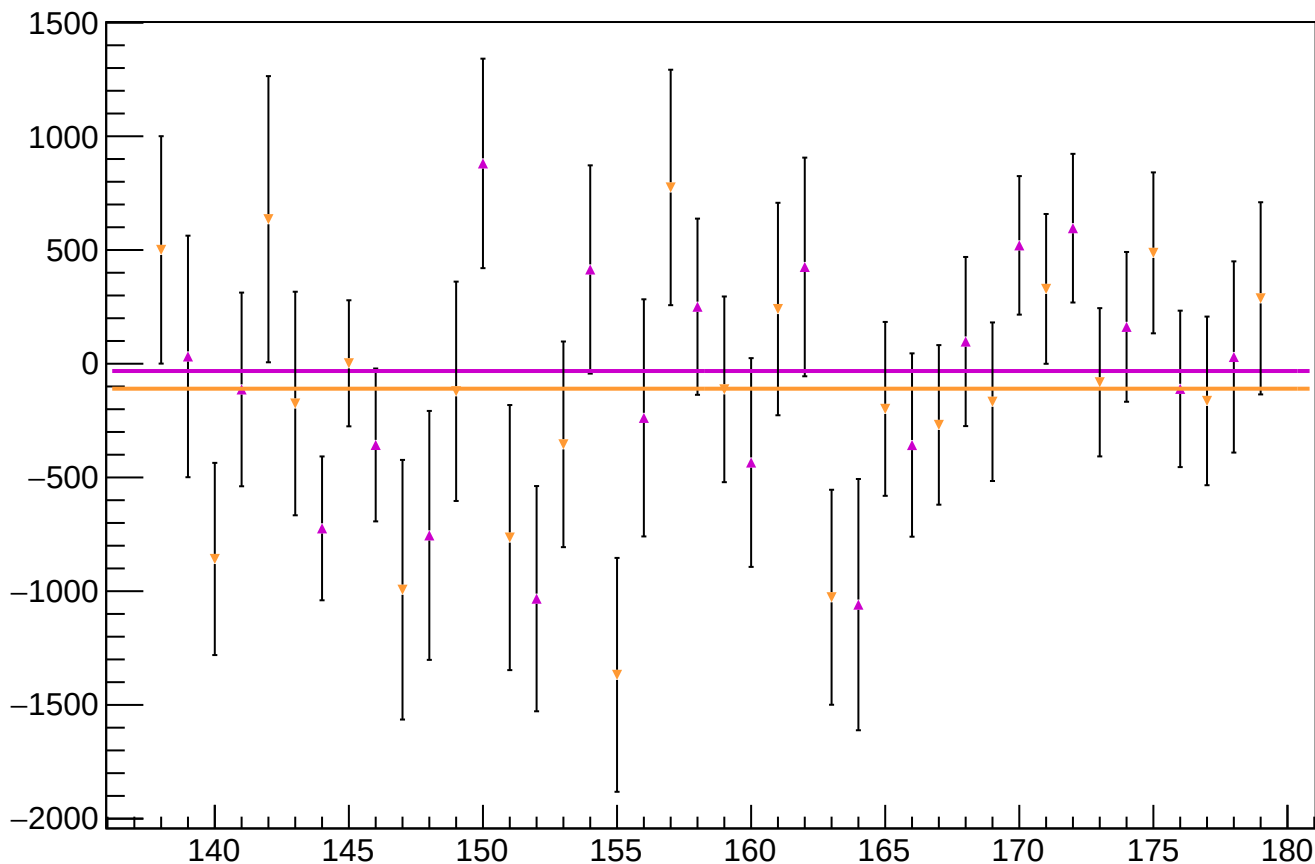
In: 341.079+/-0.063  $\chi^2/\text{NDF}$ :1147798.2/19

Out: 344.867+/-0.061  $\chi^2/\text{NDF}$ :1389686.9/21

All: 343.013+/-0.044  $\chi^2/\text{NDF}$ : 2539354.2/41



asym\_sam\_15\_26\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -109.747+/-87.774  $\chi^2/\text{NDF}$ :29.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -32.033+/-89.655  $\chi^2/\text{NDF}$ :30.5/19

Left: -71.713+/-62.720  $\chi^2/\text{NDF}$ : 60.1/41

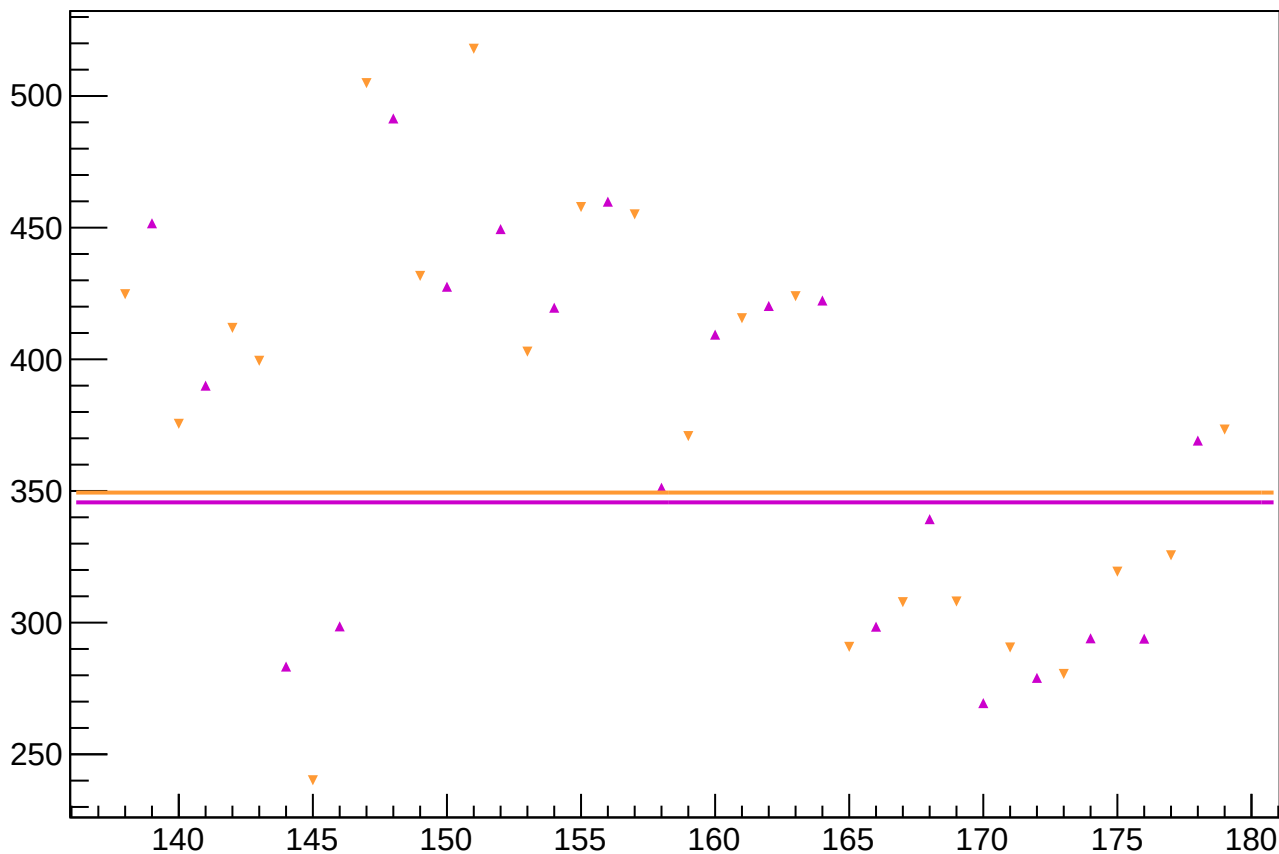
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -32.033+/-89.655  $\chi^2/\text{NDF}$ :30.5/19

Out: -109.747+/-87.774  $\chi^2/\text{NDF}$ :29.2/21

All: -71.713+/-62.720  $\chi^2/\text{NDF}$ : 60.1/41

asym\_sam\_15\_26\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 349.395+/-0.062  $\chi^2/\text{NDF}$ :1360009.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 345.674+/-0.063  $\chi^2/\text{NDF}$ :1122562.2/19

Left: 347.574+/-0.044  $\chi^2/\text{NDF}$ : 2484330.7/41

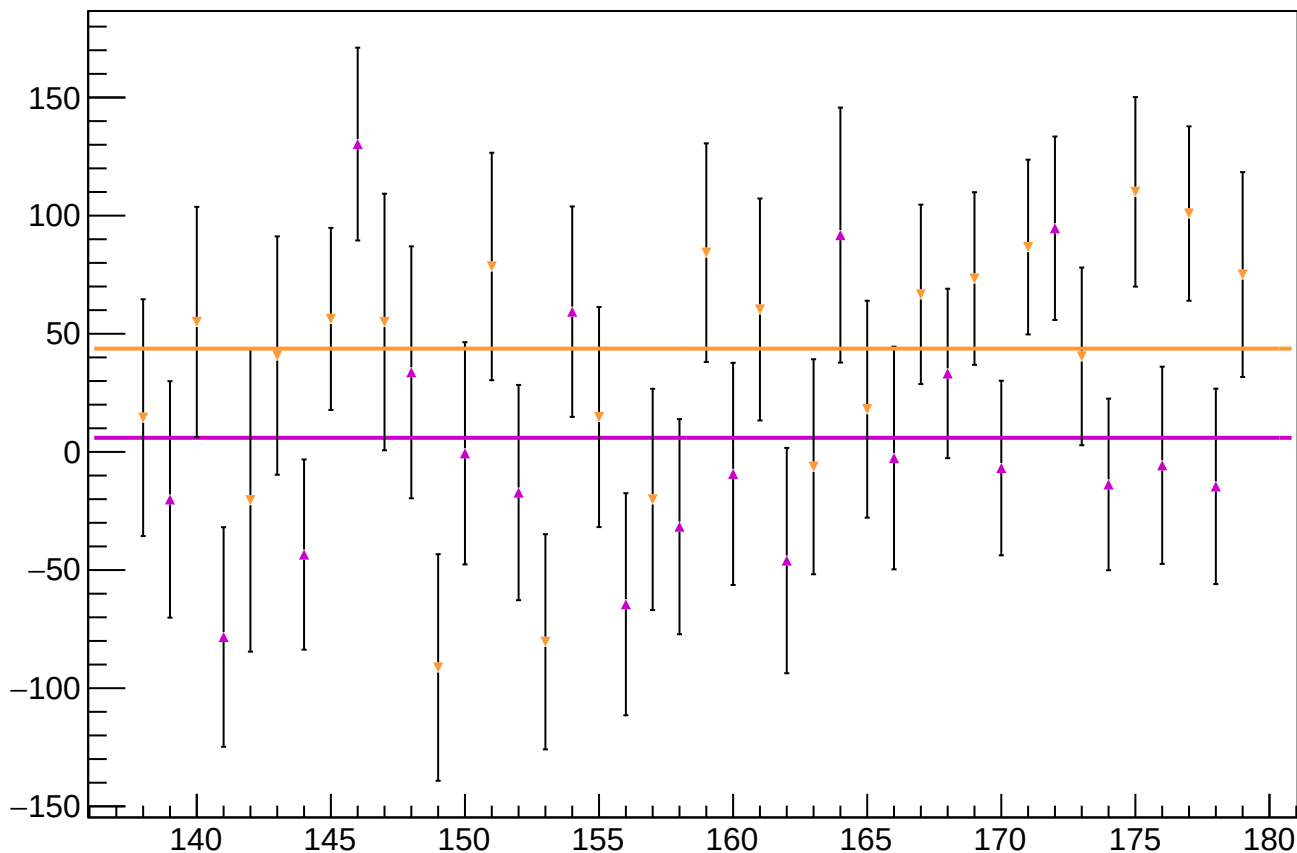
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 345.674+/-0.063  $\chi^2/\text{NDF}$ :1122562.2/19

Out: 349.395+/-0.062  $\chi^2/\text{NDF}$ :1360009.5/21

All: 347.574+/-0.044  $\chi^2/\text{NDF}$ : 2484330.7/41

reg\_asym\_sam\_37\_26\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: 43.718 $\pm$ 9.373  $\chi^2$ /NDF:30.1/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: 5.973 $\pm$ 9.720  $\chi^2$ /NDF:29.7/19

Left: 25.532 $\pm$ 6.747  $\chi^2$ /NDF: 67.6/41

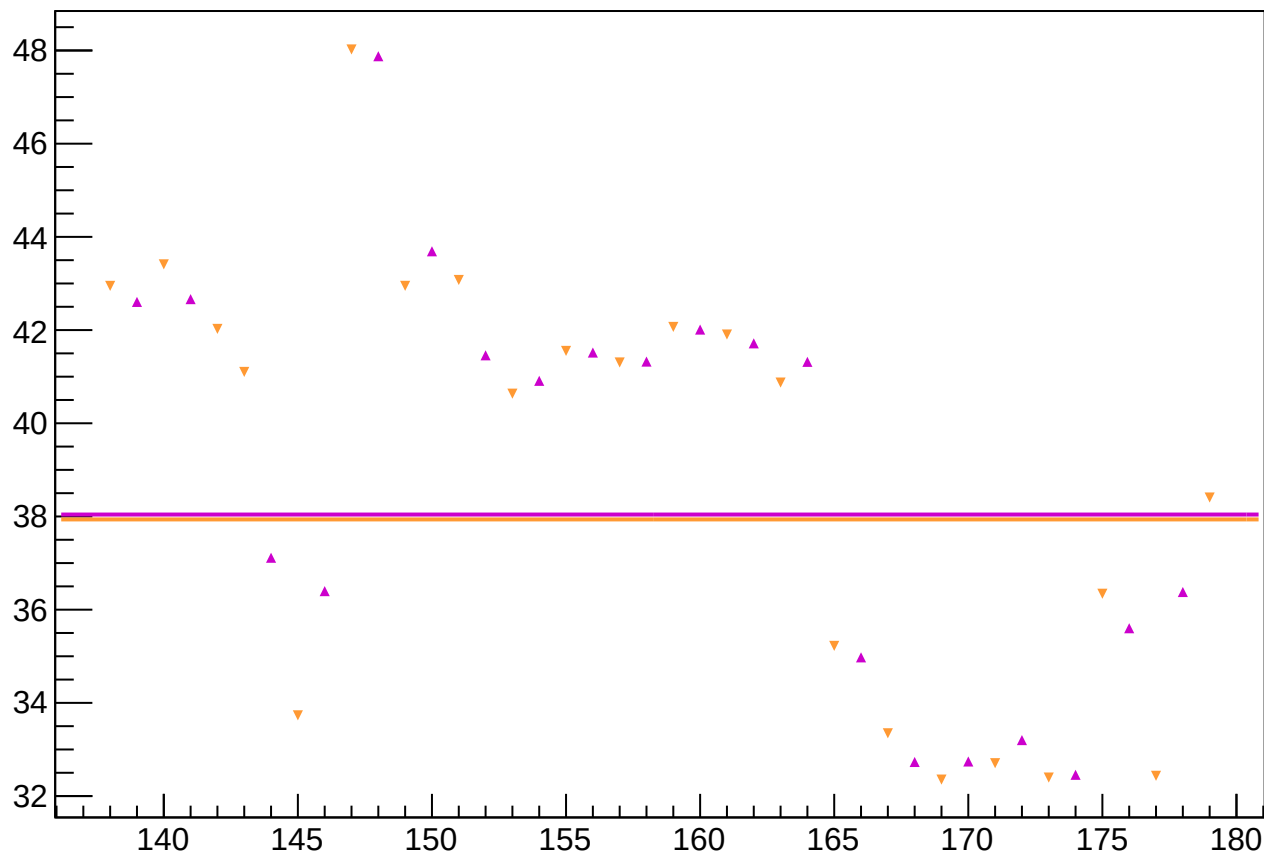
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: 5.973 $\pm$ 9.720  $\chi^2$ /NDF:29.7/19

Out: 43.718 $\pm$ 9.373  $\chi^2$ /NDF:30.1/21

All: 25.532 $\pm$ 6.747  $\chi^2$ /NDF: 67.6/41

reg\_asym\_sam\_37\_26\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 37.937+/-0.007  $\chi^2/\text{NDF}$ :480917.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 38.041+/-0.007  $\chi^2/\text{NDF}$ :394015.4/19

Left: 37.987+/-0.005  $\chi^2/\text{NDF}$ : 875053.5/41

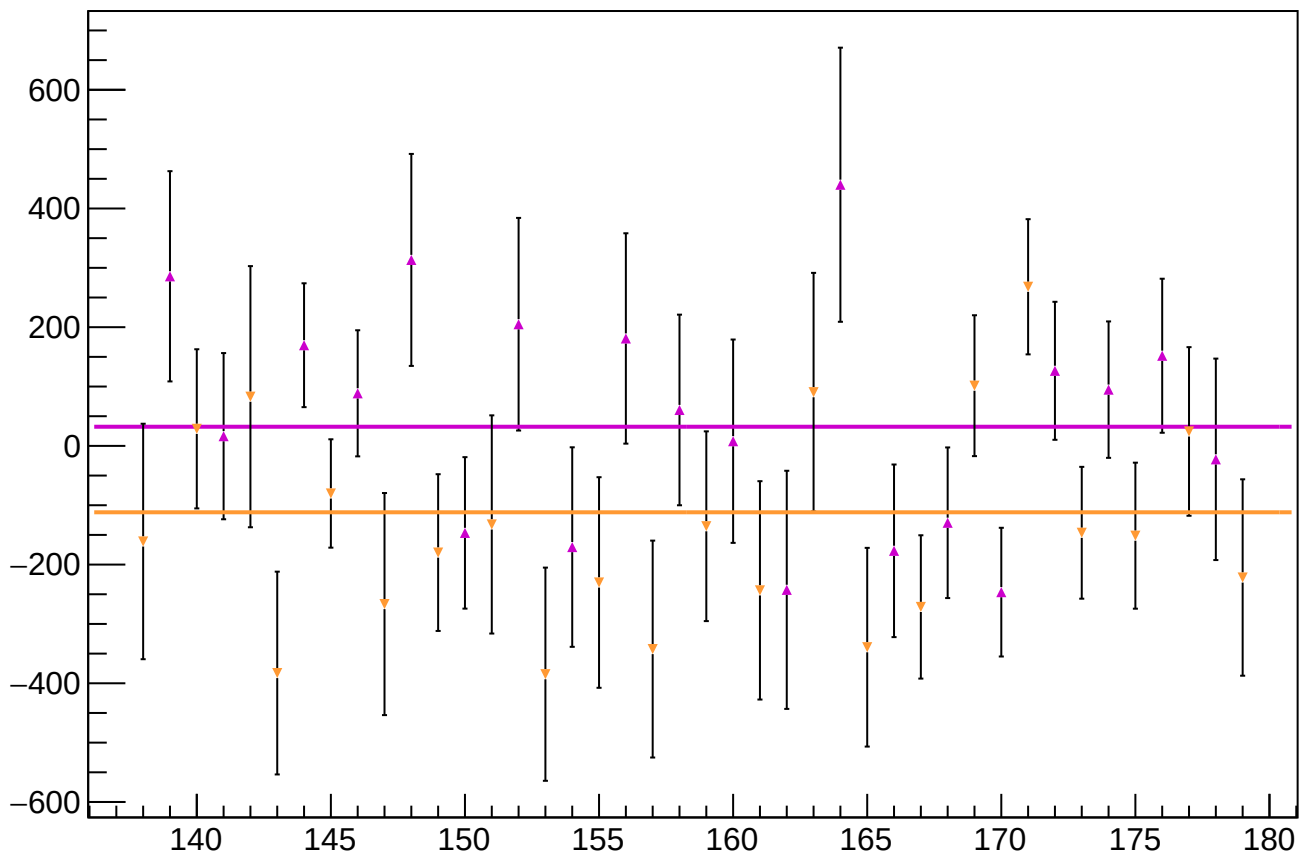
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 38.041+/-0.007  $\chi^2/\text{NDF}$ :394015.4/19

Out: 37.937+/-0.007  $\chi^2/\text{NDF}$ :480917.9/21

All: 37.987+/-0.005  $\chi^2/\text{NDF}$ : 875053.5/41

asym\_sam\_37\_26\_dd\_correction\_mean vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -111.883+/-30.963  $\chi^2/\text{NDF}$ :30.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 32.269+/-31.480  $\chi^2/\text{NDF}$ :28.9/19

Left: -41.001+/-22.075  $\chi^2/\text{NDF}$ : 70.4/41

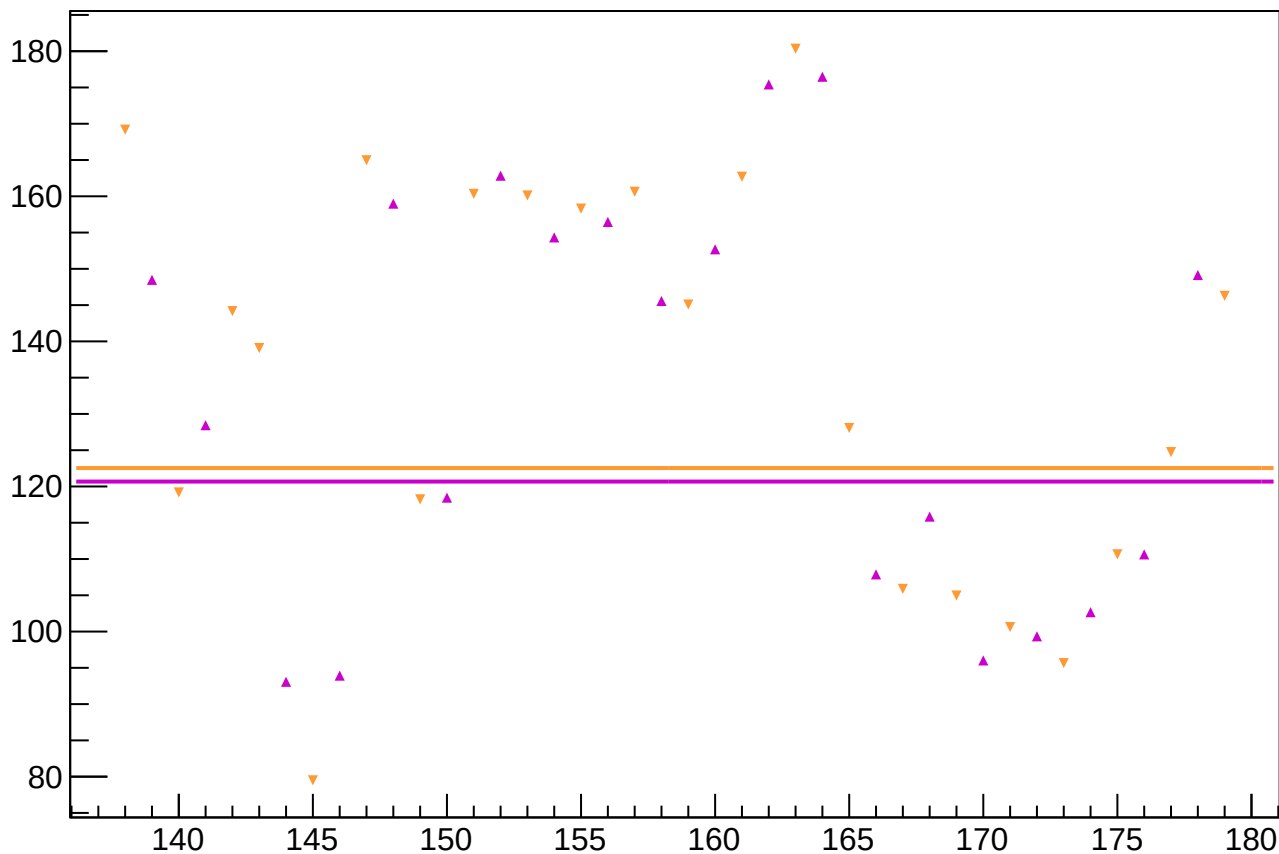
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 32.269+/-31.480  $\chi^2/\text{NDF}$ :28.9/19

Out: -111.883+/-30.963  $\chi^2/\text{NDF}$ :30.9/21

All: -41.001+/-22.075  $\chi^2/\text{NDF}$ : 70.4/41

asym\_sam\_37\_26\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 122.540+/-0.022  $\chi^2/\text{NDF}$ :1675779.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 120.675+/-0.022  $\chi^2/\text{NDF}$ :1377395.3/19

Left: 121.623+/-0.016  $\chi^2/\text{NDF}$ : 3056743.5/41

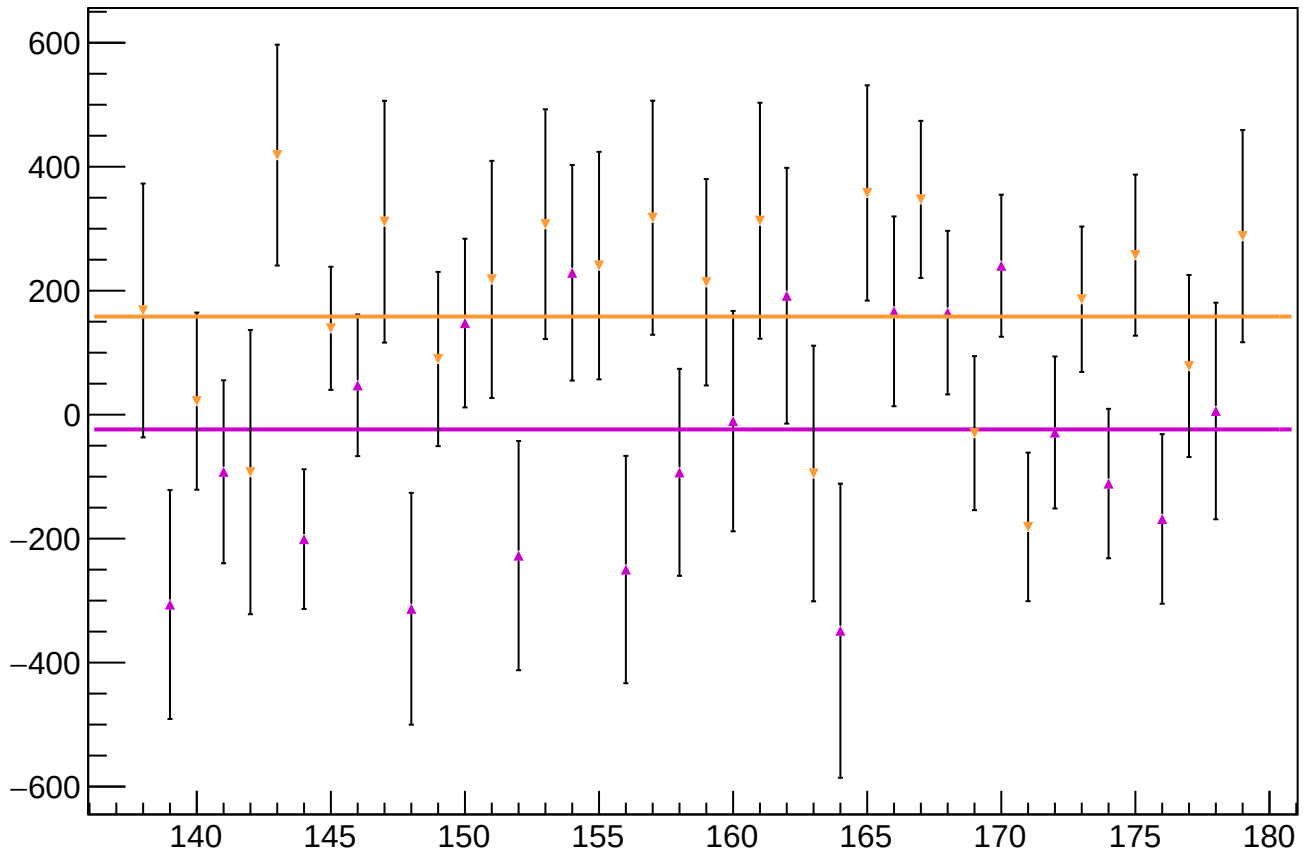
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 120.675+/-0.022  $\chi^2/\text{NDF}$ :1377395.3/19

Out: 122.540+/-0.022  $\chi^2/\text{NDF}$ :1675779.5/21

All: 121.623+/-0.016  $\chi^2/\text{NDF}$ : 3056743.5/41

# asym\_sam\_37\_26\_dd\_mean vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: 158.273 $\pm$ 32.526  $\chi^2$ /NDF:24.4/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: -23.812 $\pm$ 33.118  $\chi^2$ /NDF:27.9/19

Left: 68.871 $\pm$ 23.206  $\chi^2$ /NDF: 67.8/41

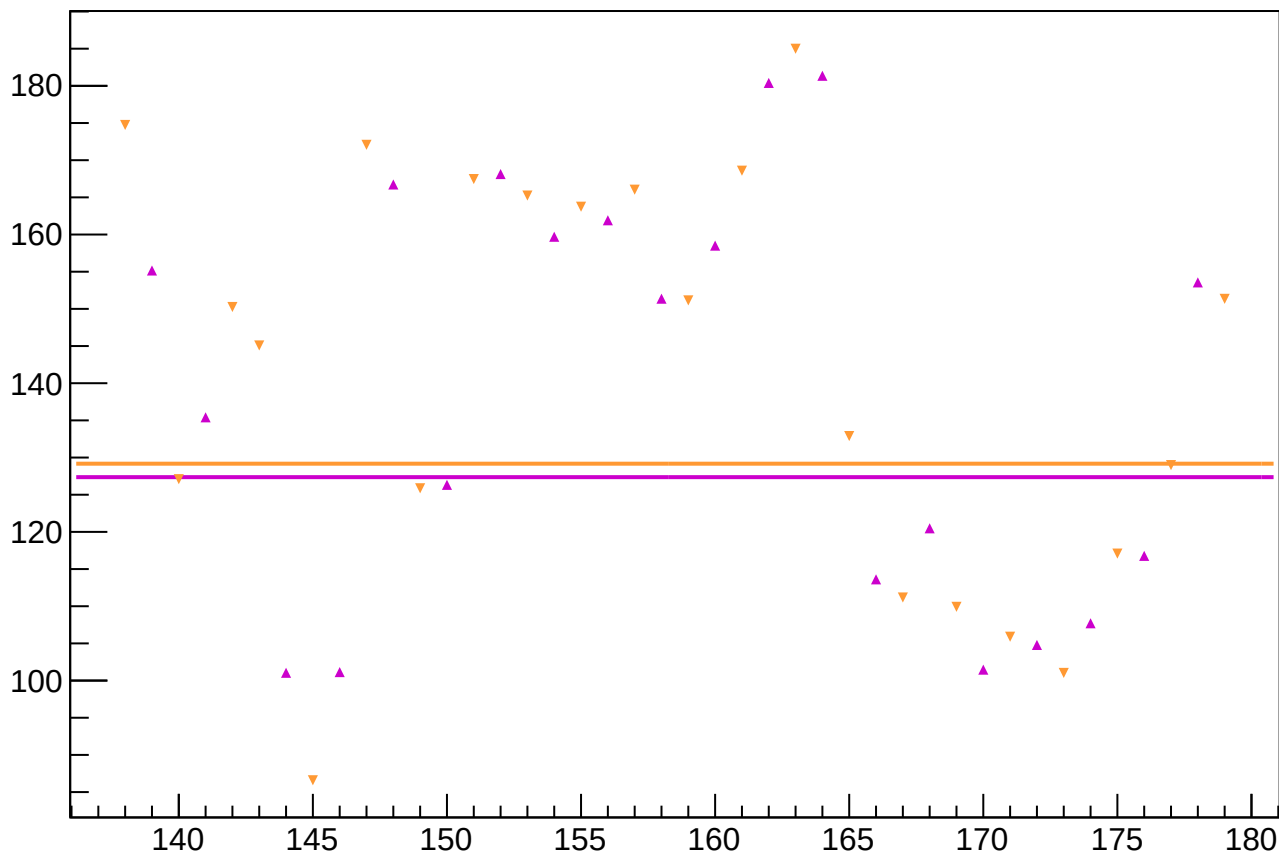
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -23.812 $\pm$ 33.118  $\chi^2$ /NDF:27.9/19

Out: 158.273 $\pm$ 32.526  $\chi^2$ /NDF:24.4/21

All: 68.871 $\pm$ 23.206  $\chi^2$ /NDF: 67.8/41

# asym\_sam\_37\_26\_dd\_rms vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 129.175+/-0.023  $\chi^2/\text{NDF}$ :1498688.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 127.363+/-0.023  $\chi^2/\text{NDF}$ :1231869.5/19

Left: 128.285+/-0.016  $\chi^2/\text{NDF}$ : 2733603.0/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

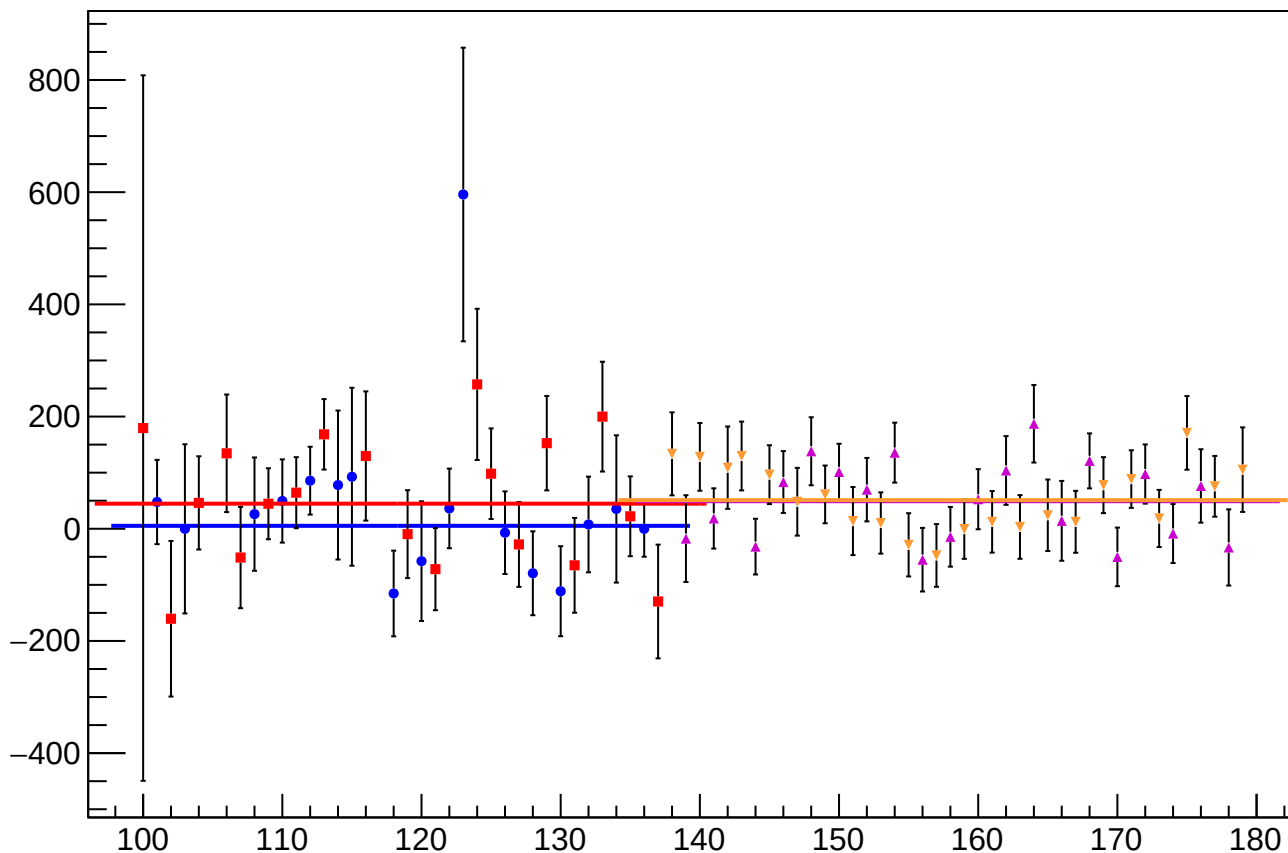
In: 127.363+/-0.023  $\chi^2/\text{NDF}$ :1231869.5/19

Out: 129.175+/-0.023  $\chi^2/\text{NDF}$ :1498688.0/21

All: 128.285+/-0.016  $\chi^2/\text{NDF}$ : 2733603.0/41



reg\_asym\_sam\_1357\_avg\_mean vs Slug, Sign Corrected



Right In: 5.220 $\pm$ 20.150  $\chi^2$ /NDF: 14.7/16

Left Out: 51.010 $\pm$ 12.258  $\chi^2$ /NDF:20.1/21

Right Out: 44.715 $\pm$ 19.410  $\chi^2$ /NDF: 24.4/18

Left In: 49.101 $\pm$ 12.681  $\chi^2$ /NDF:29.4/19

Left: 50.088 $\pm$ 8.813  $\chi^2$ /NDF: 49.5/41

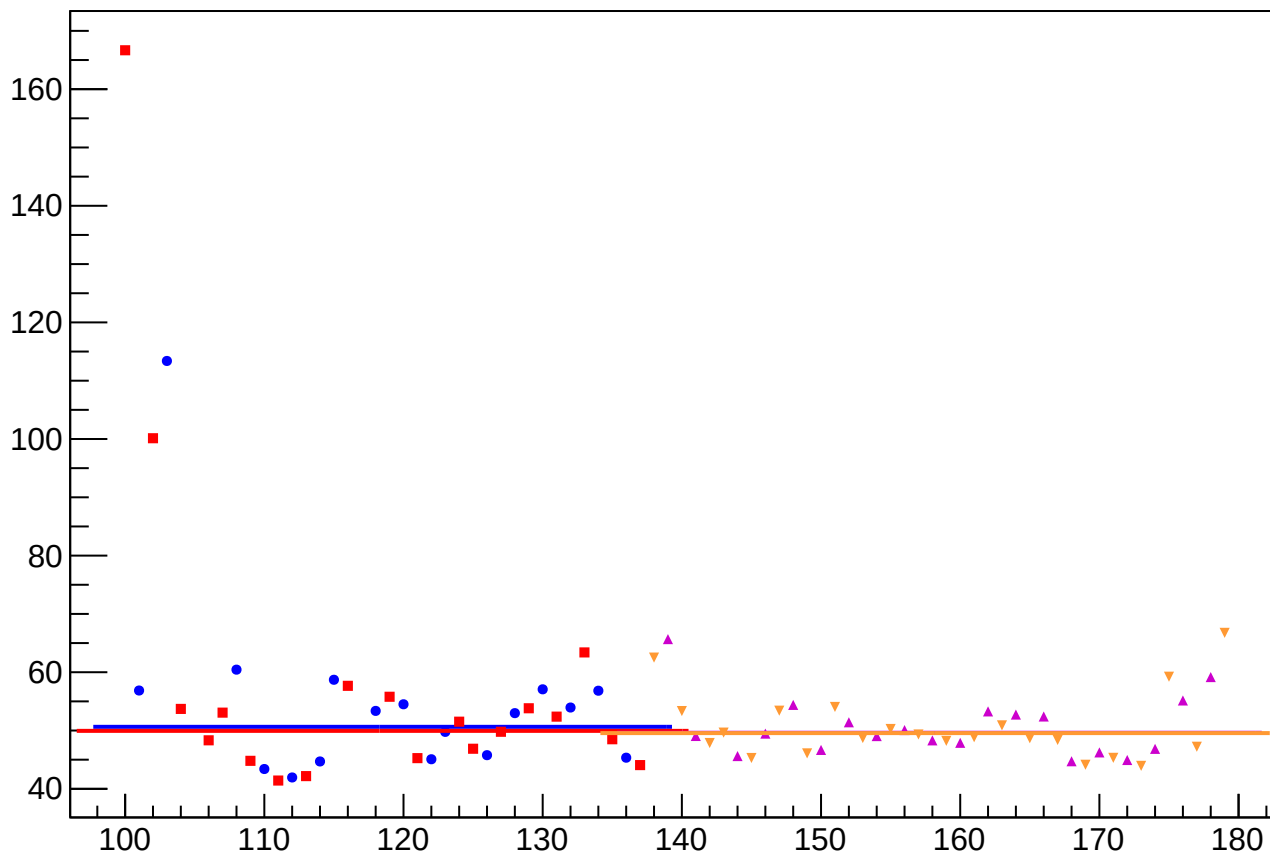
Right: 25.706 $\pm$ 13.979  $\chi^2$ /NDF: 41.1/35

In: 36.653 $\pm$ 10.732  $\chi^2$ /NDF:47.5/36

Out: 49.216 $\pm$ 10.364  $\chi^2$ /NDF:44.6/40

All: 43.153 $\pm$ 7.455  $\chi^2$ /NDF: 92.8/77

reg\_asym\_sam\_1357\_avg\_rms vs Slug, Sign Corrected



Right In: 50.635 $\pm$ 0.014  $\chi^2$ /NDF: 519687.1/16

Left Out: 49.559 $\pm$ 0.009  $\chi^2$ /NDF: 329415.5/21

Right Out: 49.943 $\pm$ 0.014  $\chi^2$ /NDF: 500488.8/18

Left In: 49.618 $\pm$ 0.009  $\chi^2$ /NDF: 242035.6/19

Left: 49.588 $\pm$ 0.006  $\chi^2$ /NDF: 571473.7/41

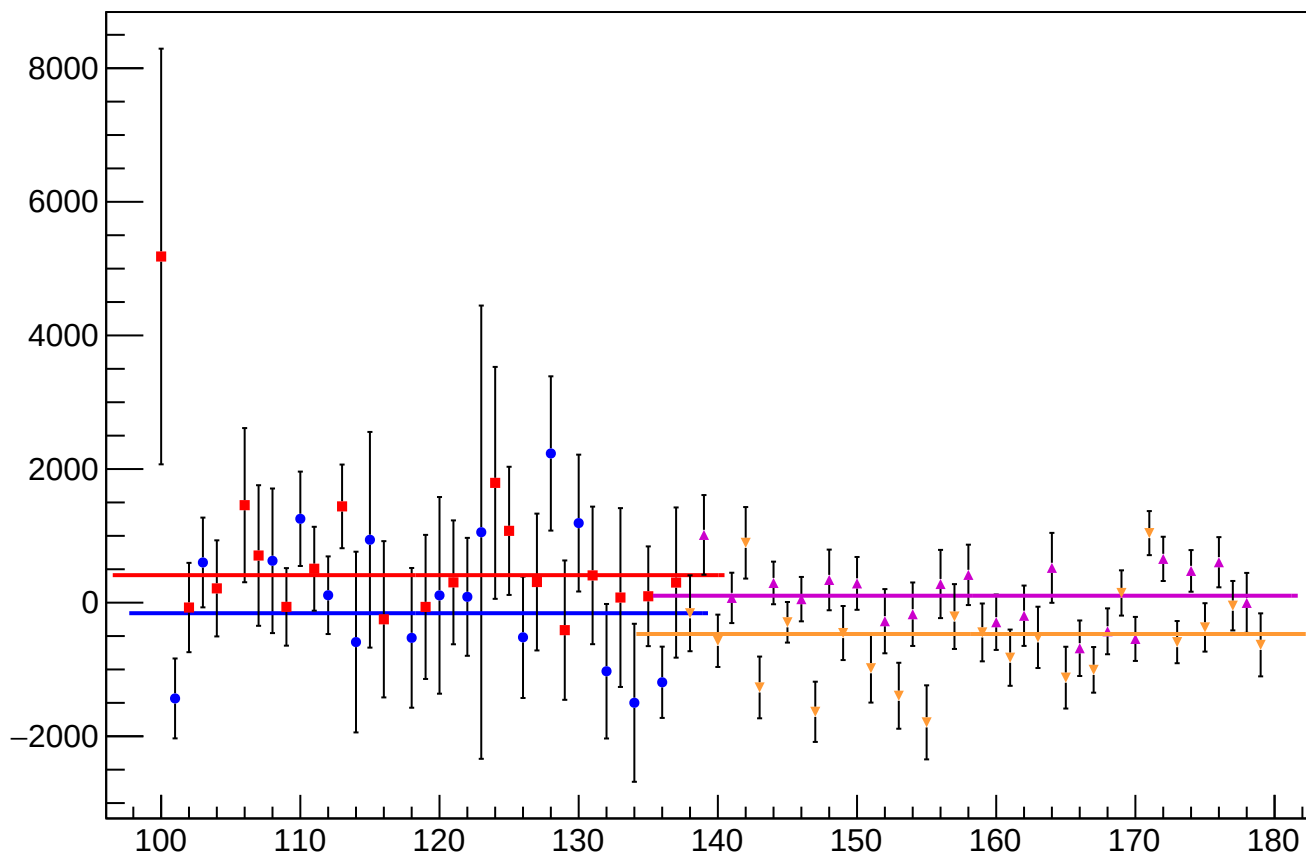
Right: 50.276 $\pm$ 0.010  $\chi^2$ /NDF: 1021399.4/35

In: 49.907 $\pm$ 0.008  $\chi^2$ /NDF: 765368.2/36

Out: 49.668 $\pm$ 0.007  $\chi^2$ /NDF: 830463.0/40

All: 49.783 $\pm$ 0.005  $\chi^2$ /NDF: 1596341.1/77

asym\_sam\_1357\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -158.001 $\pm$ 210.181  $\chi^2$ /NDF: 23.5/16

Left Out: -469.106 $\pm$ 87.249  $\chi^2$ /NDF:58.5/21

Right Out: 411.611 $\pm$ 203.633  $\chi^2$ /NDF: 9.8/18

Left In: 103.815 $\pm$ 88.807  $\chi^2$ /NDF:22.6/19

Left: -187.715 $\pm$ 62.238  $\chi^2$ /NDF: 102.3/41

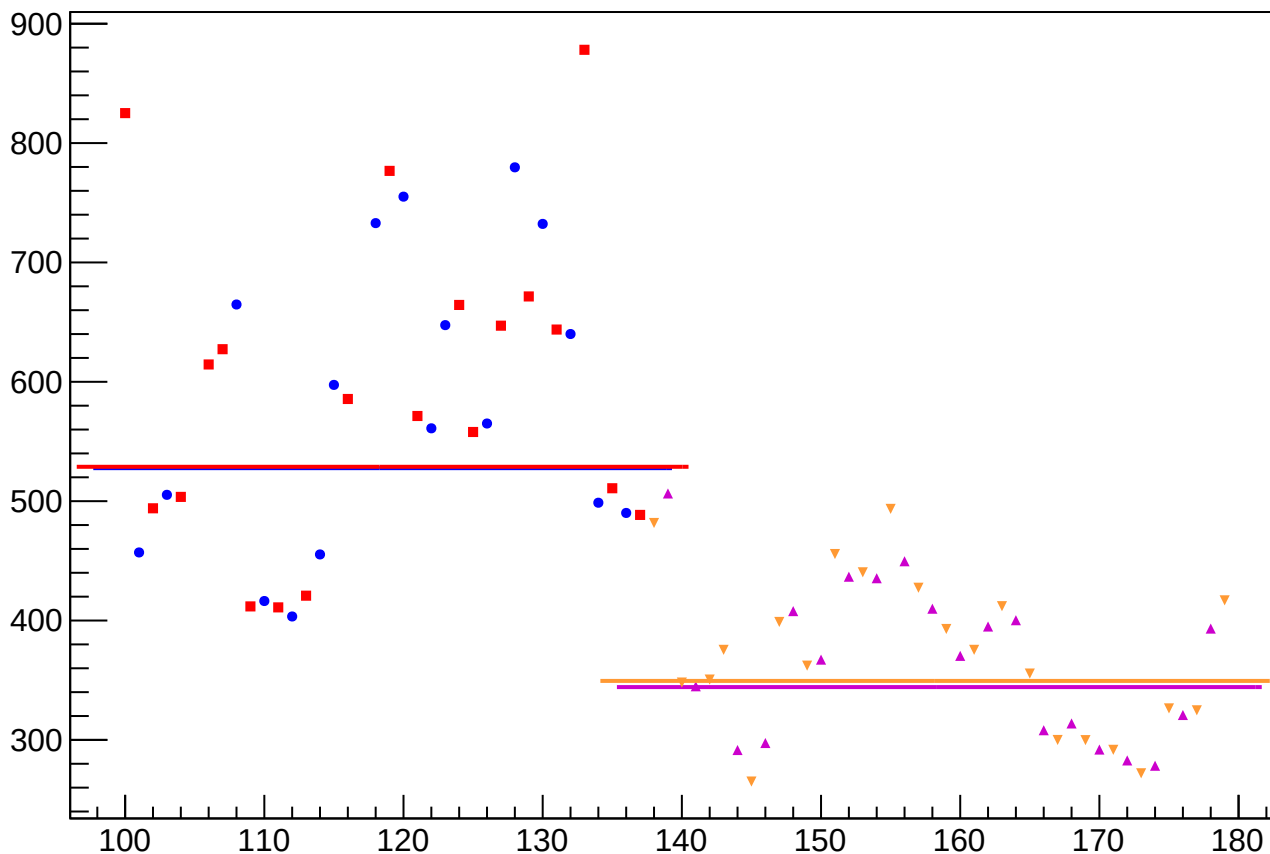
Right: 135.816 $\pm$ 146.251  $\chi^2$ /NDF: 37.0/35

In: 64.154 $\pm$ 81.805  $\chi^2$ /NDF:47.4/36

Out: -332.501 $\pm$ 80.198  $\chi^2$ /NDF:84.0/40

All: -138.108 $\pm$ 57.268  $\chi^2$ /NDF: 143.4/77

asym\_sam\_1357\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 527.663+/-0.149  $\chi^2/\text{NDF}$ : 557423.6/16

Left Out: 349.417+/-0.062  $\chi^2/\text{NDF}$ : 1024681.5/21

Right Out: 528.806+/-0.144  $\chi^2/\text{NDF}$ : 623364.6/18

Left In: 344.239+/-0.063  $\chi^2/\text{NDF}$ : 891025.8/19

Left: 346.874+/-0.044  $\chi^2/\text{NDF}$ : 1919166.3/41

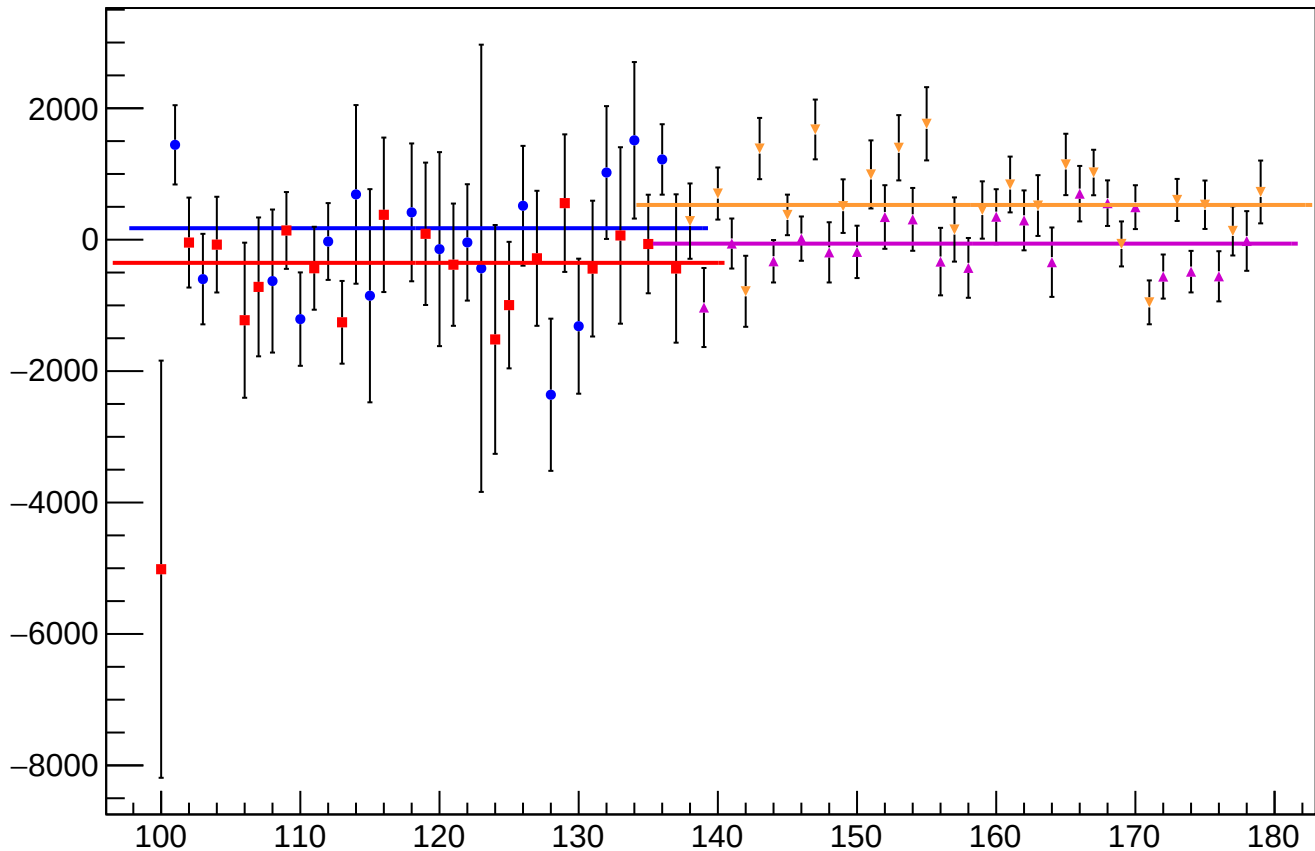
Right: 528.253+/-0.103  $\chi^2/\text{NDF}$ : 1180818.7/35

In: 372.025+/-0.058  $\chi^2/\text{NDF}$ : 2740899.0/36

Out: 377.241+/-0.057  $\chi^2/\text{NDF}$ : 2959424.8/40

All: 374.685+/-0.040  $\chi^2/\text{NDF}$ : 5704469.9/77

asym\_sam\_1357\_avg\_mean vs Slug, Sign Corrected



Right In: 174.605 $\pm$ 211.662  $\chi^2$ /NDF: 23.7/16

Left Out: 528.562 $\pm$ 88.200  $\chi^2$ /NDF:54.1/21

Right Out: -352.570 $\pm$ 205.204  $\chi^2$ /NDF: 8.4/18

Left In: -60.231 $\pm$ 89.802  $\chi^2$ /NDF:22.5/19

Left: 239.462 $\pm$ 62.925  $\chi^2$ /NDF: 98.5/41

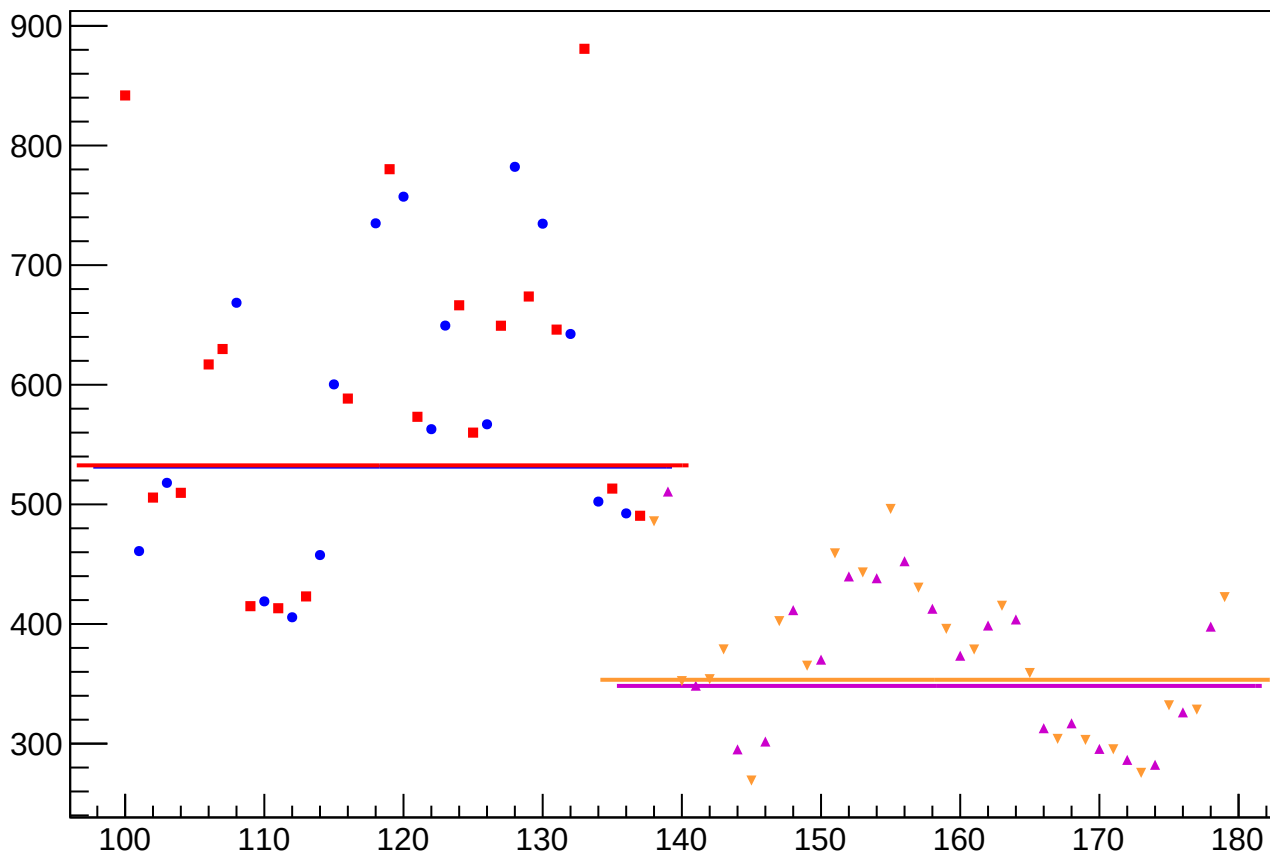
Right: -97.148 $\pm$ 147.331  $\chi^2$ /NDF: 35.3/35

In: -24.408 $\pm$ 82.669  $\chi^2$ /NDF:47.3/36

Out: 391.162 $\pm$ 81.032  $\chi^2$ /NDF:78.1/40

All: 187.532 $\pm$ 57.868  $\chi^2$ /NDF: 138.2/77

asym\_sam\_1357\_avg\_rms vs Slug, Sign Corrected



Right In: 531.554 $\pm$ 0.150  $\chi^2$ /NDF: 550087.6/16

Left Out: 353.376 $\pm$ 0.062  $\chi^2$ /NDF: 998651.1/21

Right Out: 532.620 $\pm$ 0.145  $\chi^2$ /NDF: 615746.2/18

Left In: 348.244 $\pm$ 0.063  $\chi^2$ /NDF: 866781.3/19

Left: 350.856 $\pm$ 0.044  $\chi^2$ /NDF: 1868757.5/41

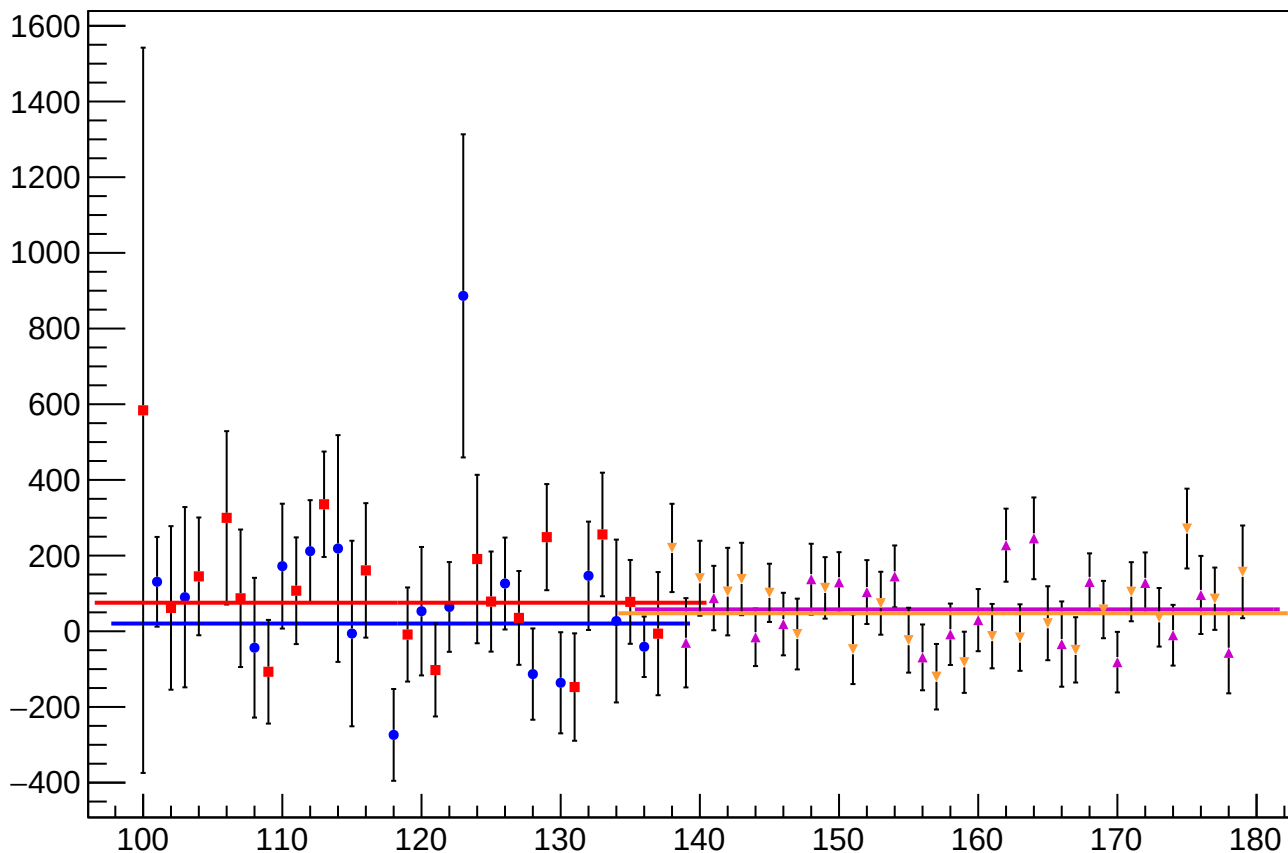
Right: 532.104 $\pm$ 0.104  $\chi^2$ /NDF: 1165860.0/35

In: 376.207 $\pm$ 0.058  $\chi^2$ /NDF: 2688126.7/36

Out: 381.327 $\pm$ 0.057  $\chi^2$ /NDF: 2902426.8/40

All: 378.818 $\pm$ 0.041  $\chi^2$ /NDF: 5594465.5/77

reg\_asym\_sam\_2468\_avg\_mean vs Slug, Sign Corrected



Right In: 20.441 $\pm$ 34.583  $\chi^2$ /NDF: 19.3/16

Left Out: 47.591 $\pm$ 18.915  $\chi^2$ /NDF:22.4/21

Right Out: 75.454 $\pm$ 34.698  $\chi^2$ /NDF: 15.4/18

Left In: 57.866 $\pm$ 19.548  $\chi^2$ /NDF:21.2/19

Left: 52.560 $\pm$ 13.593  $\chi^2$ /NDF: 43.7/41

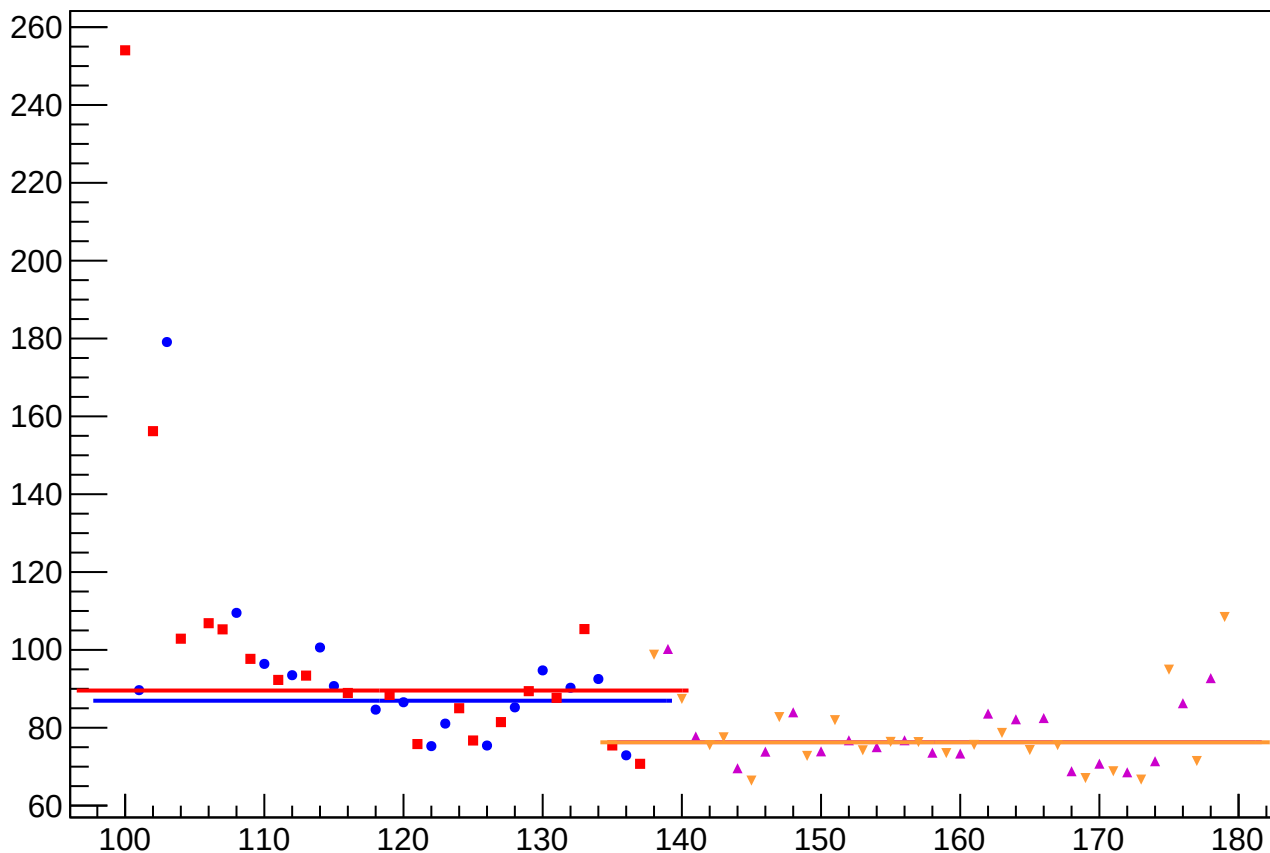
Right: 47.856 $\pm$ 24.495  $\chi^2$ /NDF: 35.9/35

In: 48.804 $\pm$ 17.017  $\chi^2$ /NDF:41.4/36

Out: 53.974 $\pm$ 16.608  $\chi^2$ /NDF:38.2/40

All: 51.452 $\pm$ 11.886  $\chi^2$ /NDF: 79.7/77

reg\_asym\_sam\_2468\_avg\_rms vs Slug, Sign Corrected



Right In: 86.943 $\pm$ 0.024  $\chi^2$ /NDF: 455809.4/16

Left Out: 76.259 $\pm$ 0.013  $\chi^2$ /NDF: 445871.5/21

Right Out: 89.561 $\pm$ 0.025  $\chi^2$ /NDF: 431229.7/18

Left In: 76.310 $\pm$ 0.014  $\chi^2$ /NDF: 265225.4/19

Left: 76.284 $\pm$ 0.010  $\chi^2$ /NDF: 711103.8/41

Right: 88.247 $\pm$ 0.017  $\chi^2$ /NDF: 892752.0/35

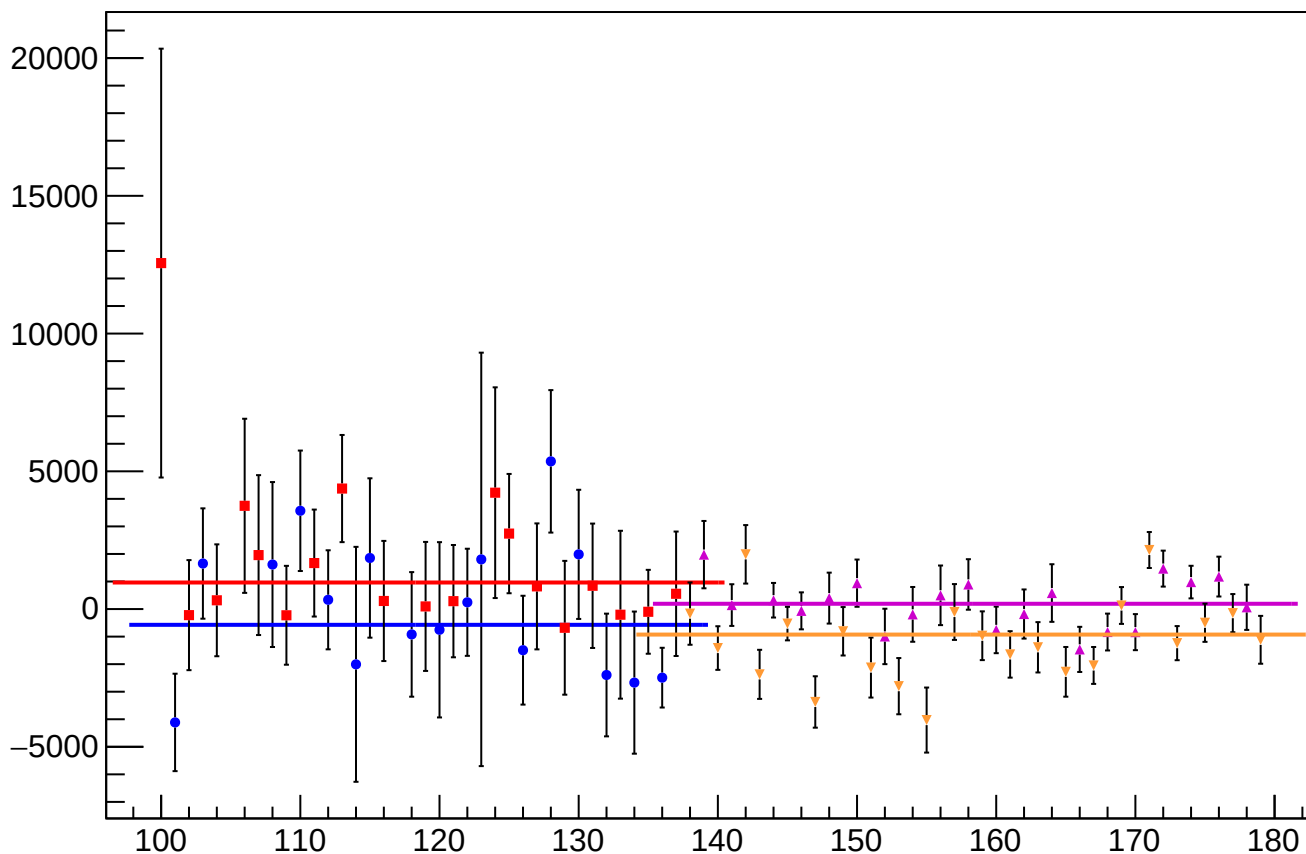
In: 78.884 $\pm$ 0.012  $\chi^2$ /NDF: 864317.6/36

Out: 79.306 $\pm$ 0.012  $\chi^2$ /NDF: 1103696.9/40

All: 79.100 $\pm$ 0.008  $\chi^2$ /NDF: 1968644.0/77



asym\_sam\_2468\_avg\_correction\_mean vs Slug, Sign Corrected



Right In: -572.342 $\pm$ 517.020  $\chi^2$ /NDF: 21.9/16

Left Out: -926.053 $\pm$ 173.586  $\chi^2$ /NDF: 63.0/21

Right Out: 963.846 $\pm$ 514.621  $\chi^2$ /NDF: 10.1/18

Left In: 191.867 $\pm$ 176.827  $\chi^2$ /NDF: 23.3/19

Left: -377.430 $\pm$ 123.874  $\chi^2$ /NDF: 106.7/41

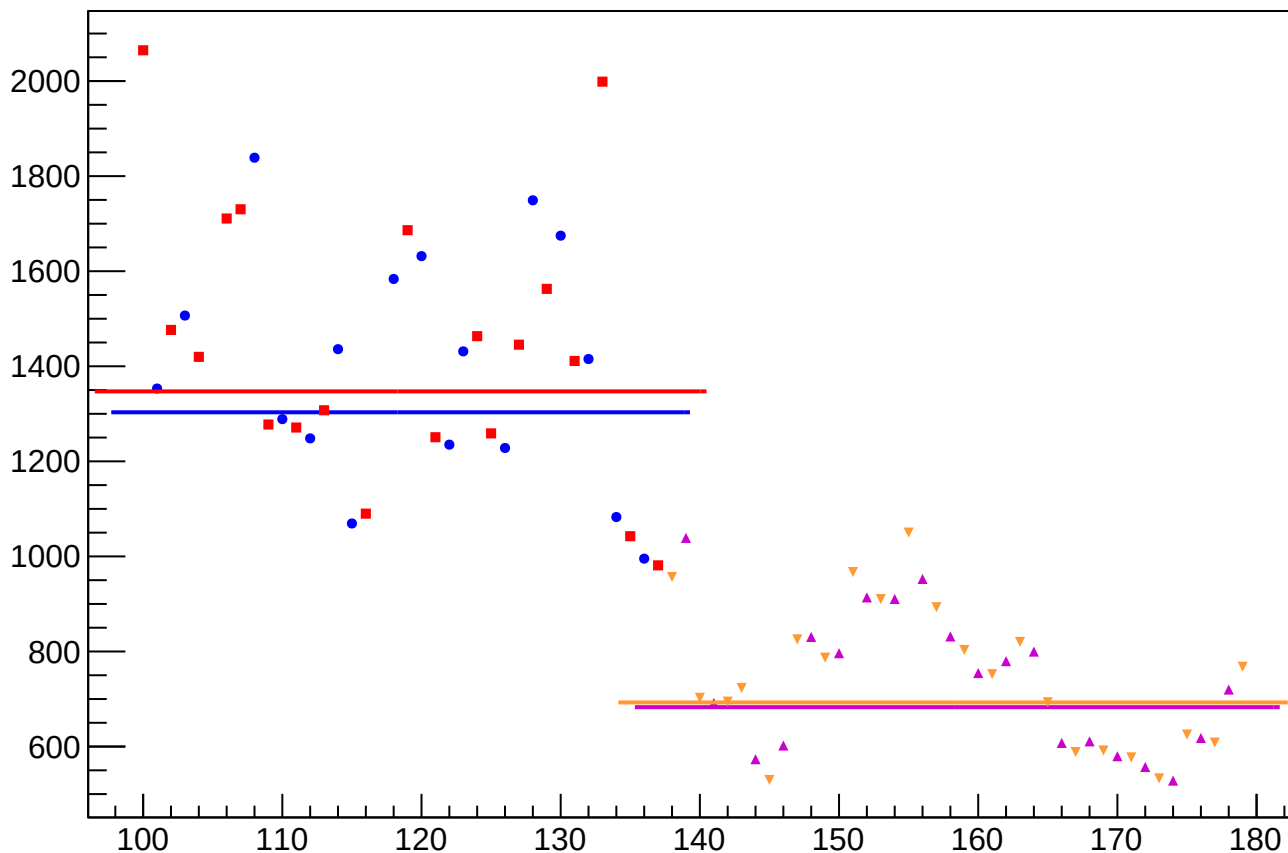
Right: 199.325 $\pm$ 364.737  $\chi^2$ /NDF: 36.4/35

In: 111.837 $\pm$ 167.312  $\chi^2$ /NDF: 47.1/36

Out: -732.991 $\pm$ 164.481  $\chi^2$ /NDF: 85.2/40

All: -317.784 $\pm$ 117.294  $\chi^2$ /NDF: 145.3/77

asym\_sam\_2468\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 1303.201+/-0.366  $\chi^2/\text{NDF}$ : 451961.9/16

Left Out: 692.839+/-0.123  $\chi^2/\text{NDF}$ : 1231250.4/21

Right Out: 1347.177+/-0.364  $\chi^2/\text{NDF}$ : 420774.0/18

Left In: 682.899+/-0.125  $\chi^2/\text{NDF}$ : 1116904.6/19

Left: 687.961+/-0.088  $\chi^2/\text{NDF}$ : 2351373.9/41

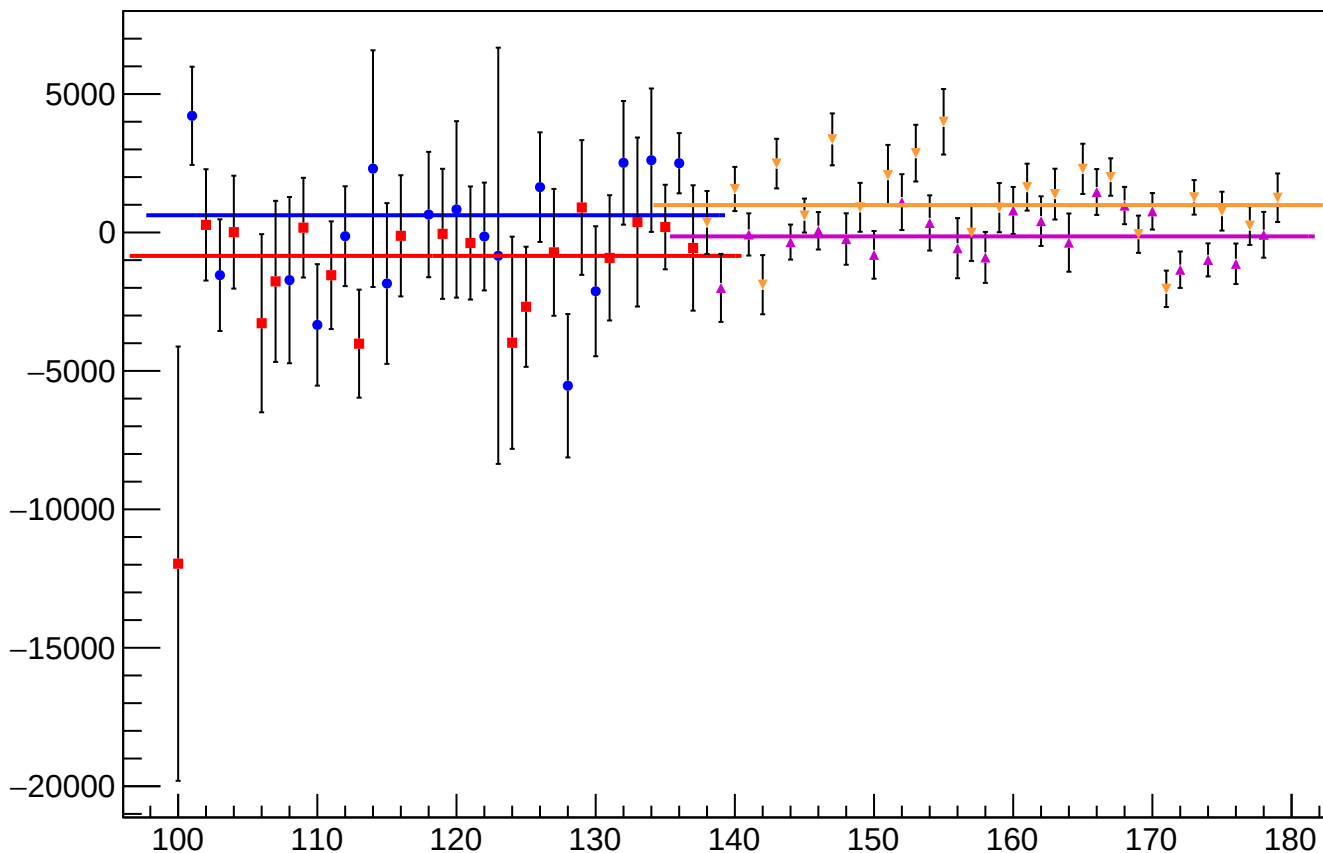
Right: 1325.291+/-0.258  $\chi^2/\text{NDF}$ : 880004.2/35

In: 747.858+/-0.118  $\chi^2/\text{NDF}$ : 4146253.3/36

Out: 759.683+/-0.116  $\chi^2/\text{NDF}$ : 4555112.3/40

All: 753.871+/-0.083  $\chi^2/\text{NDF}$ : 8706445.9/77

asym\_sam\_2468\_avg\_mean vs Slug, Sign Corrected



Right In: 622.411 $\pm$ 518.496  $\chi^2$ /NDF: 22.0/16

Left Out: 991.143 $\pm$ 174.776  $\chi^2$ /NDF:59.7/21

Right Out: -846.021 $\pm$ 516.325  $\chi^2$ /NDF: 9.1/18

Left In: -142.084 $\pm$ 178.076  $\chi^2$ /NDF:22.9/19

Left: 435.126 $\pm$ 124.736  $\chi^2$ /NDF: 103.2/41

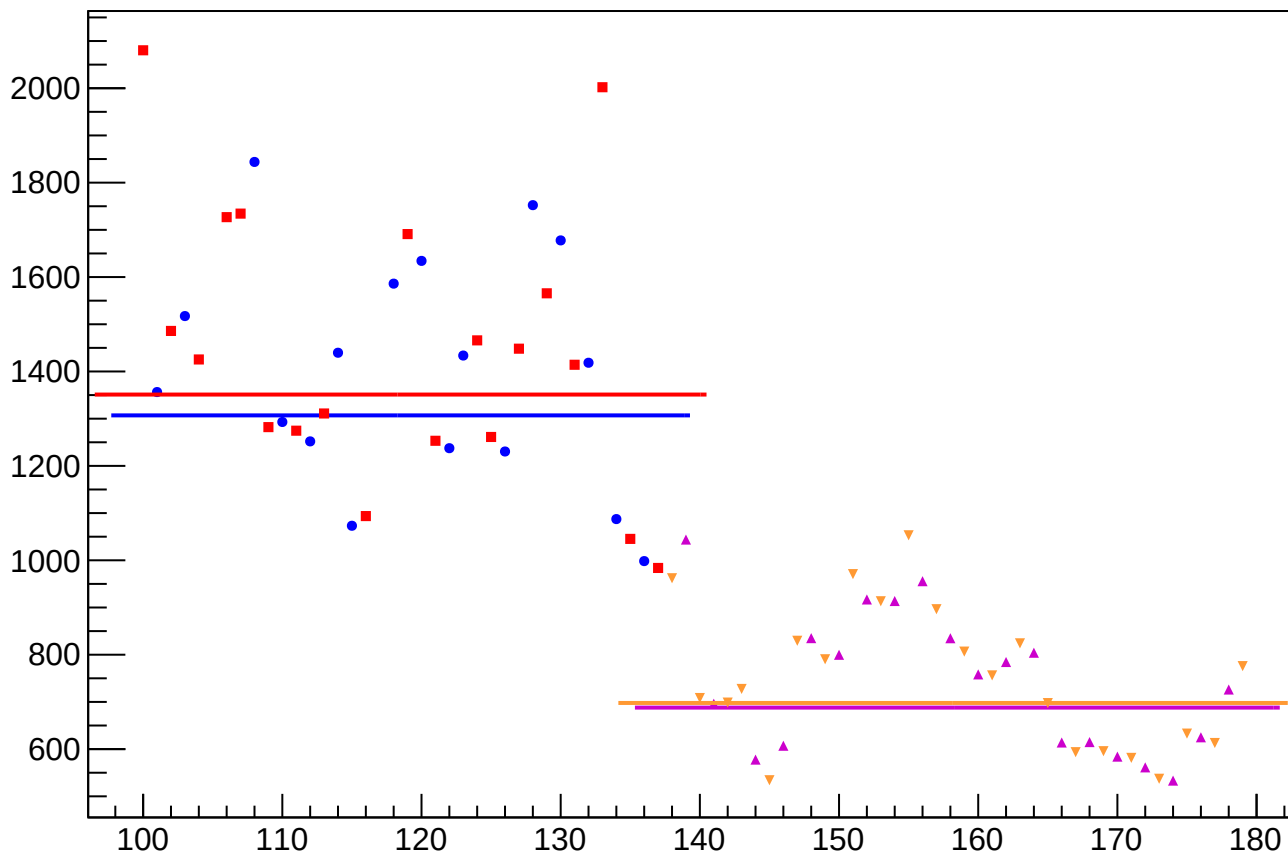
Right: -114.886 $\pm$ 365.862  $\chi^2$ /NDF: 35.1/35

In: -61.422 $\pm$ 168.420  $\chi^2$ /NDF:46.8/36

Out: 802.277 $\pm$ 165.549  $\chi^2$ /NDF:80.1/40

All: 377.851 $\pm$ 118.063  $\chi^2$ /NDF: 140.3/77

# asym\_sam\_2468\_avg\_rms vs Slug, Sign Corrected



Right In: 1306.980+/-0.367  $\chi^2/\text{NDF}$ : 451191.7/16

Left Out: 697.800+/-0.124  $\chi^2/\text{NDF}$ : 1212608.0/21

Right Out: 1351.096+/-0.365  $\chi^2/\text{NDF}$ : 421804.6/18

Left In: 687.948+/-0.126  $\chi^2/\text{NDF}$ : 1097329.3/19

Left: 692.966+/-0.088  $\chi^2/\text{NDF}$ : 2313055.5/41

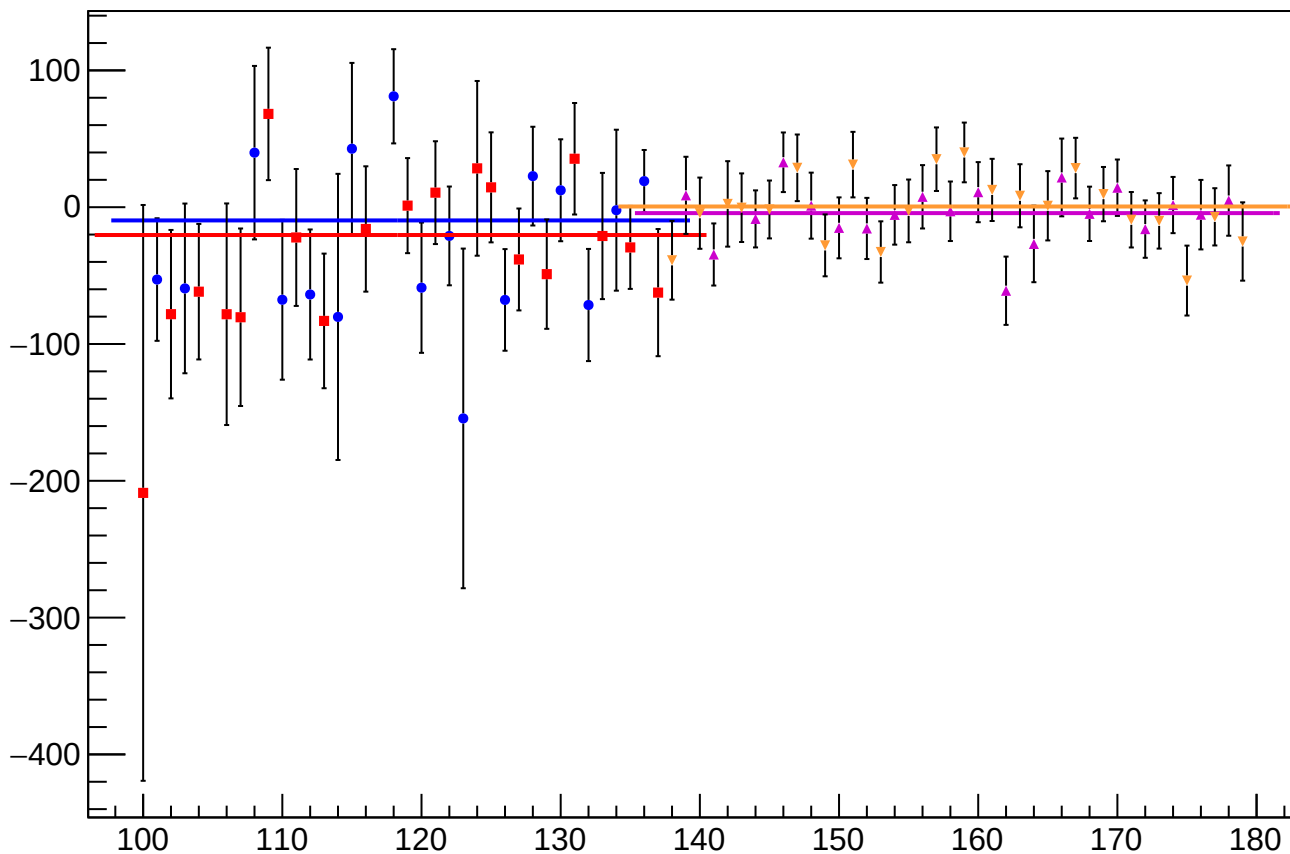
Right: 1329.131+/-0.259  $\chi^2/\text{NDF}$ : 880266.0/35

In: 753.262+/-0.119  $\chi^2/\text{NDF}$ : 4098530.2/36

Out: 764.961+/-0.117  $\chi^2/\text{NDF}$ : 4507126.3/40

All: 759.212+/-0.083  $\chi^2/\text{NDF}$ : 8610564.4/77

reg\_asym\_sam\_1357\_2468\_dd\_mean vs Slug, Sign Corrected



Right In:  $-9.669 \pm 10.408$   $\chi^2/\text{NDF}: 22.6/16$

Left Out:  $0.510 \pm 4.962$   $\chi^2/\text{NDF}: 22.3/21$

Right Out:  $-20.335 \pm 10.444$   $\chi^2/\text{NDF}: 14.7/18$

Left In:  $-4.327 \pm 5.116$   $\chi^2/\text{NDF}: 14.2/19$

Left:  $-1.834 \pm 3.562$   $\chi^2/\text{NDF}: 37.0/41$

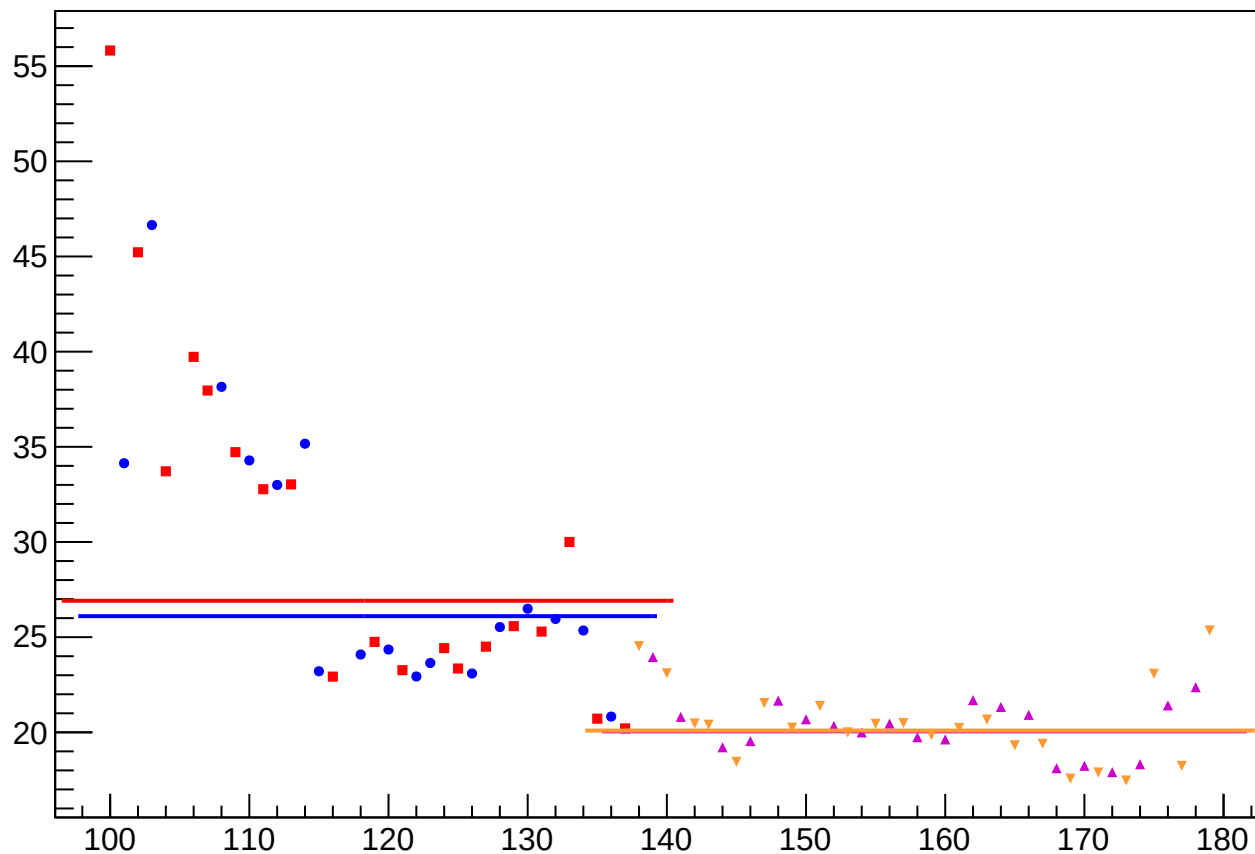
Right:  $-14.983 \pm 7.372$   $\chi^2/\text{NDF}: 37.7/35$

In:  $-5.366 \pm 4.591$   $\chi^2/\text{NDF}: 37.0/36$

Out:  $-3.328 \pm 4.482$   $\chi^2/\text{NDF}: 40.2/40$

All:  $-4.323 \pm 3.207$   $\chi^2/\text{NDF}: 77.3/77$

reg\_asym\_sam\_1357\_2468\_dd\_rms vs Slug, Sign Corrected



Right In: 26.103 $\pm$ 0.007  $\chi^2$ /NDF: 604038.5/16

Left Out: 20.094 $\pm$ 0.004  $\chi^2$ /NDF:306369.0/21

Right Out: 26.914 $\pm$ 0.007  $\chi^2$ /NDF: 678970.2/18

Left In: 20.052 $\pm$ 0.004  $\chi^2$ /NDF:163787.3/19

Left: 20.073 $\pm$ 0.003  $\chi^2$ /NDF: 470224.8/41

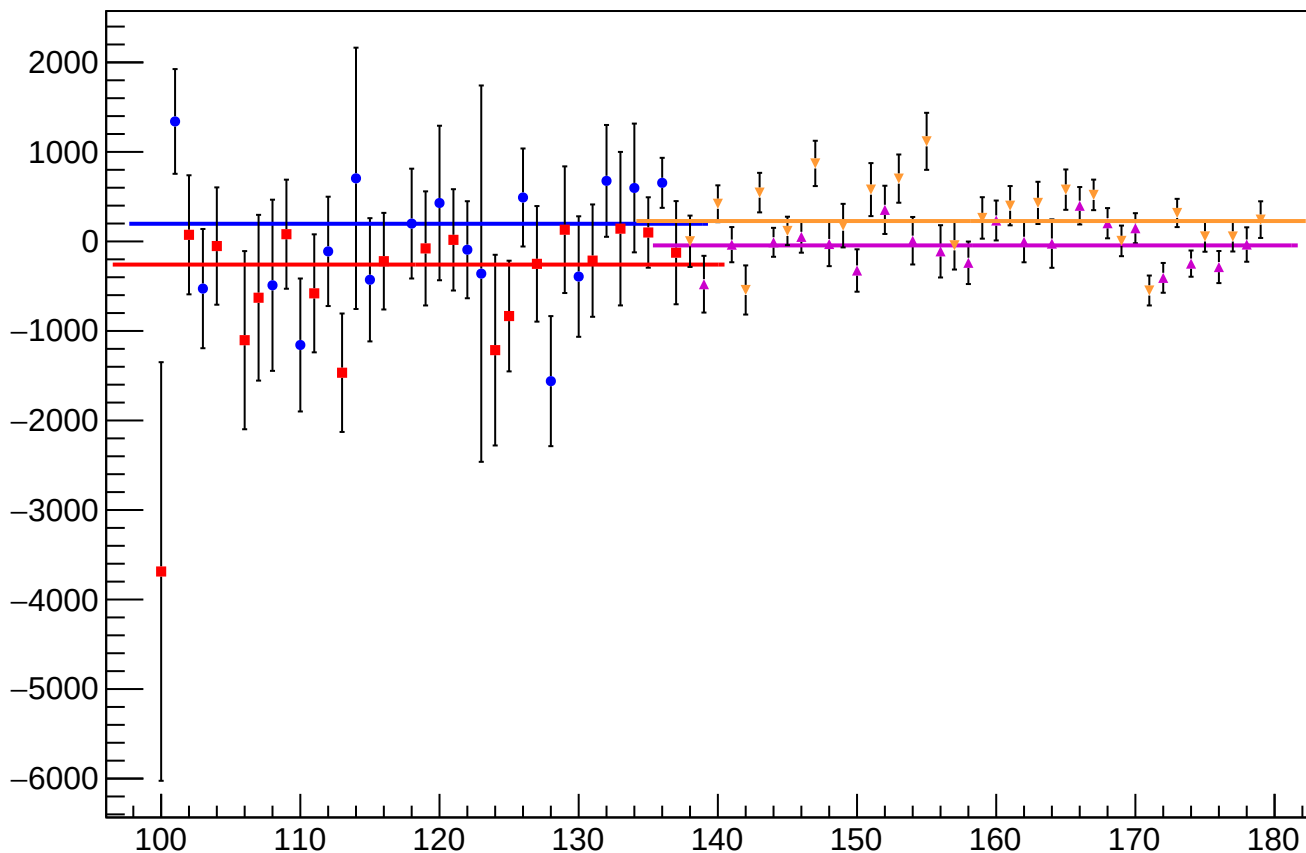
Right: 26.507 $\pm$ 0.005  $\chi^2$ /NDF: 1289062.8/35

In: 21.229 $\pm$ 0.003  $\chi^2$ /NDF:1312260.5/36

Out: 21.349 $\pm$ 0.003  $\chi^2$ /NDF:1681216.8/40

All: 21.291 $\pm$ 0.002  $\chi^2$ /NDF: 2994179.6/77

asym\_sam\_1357\_2468\_dd\_correction\_mean vs Slug, Sign Corrected



Right In:  $197.327 \pm 147.883$   $\chi^2/\text{NDF}: 21.0/16$

Left Out:  $227.765 \pm 44.476$   $\chi^2/\text{NDF}: 64.1/21$

Right Out:  $-258.537 \pm 149.867$   $\chi^2/\text{NDF}: 10.7/18$

Left In:  $-44.409 \pm 45.410$   $\chi^2/\text{NDF}: 24.6/19$

Left:  $94.507 \pm 31.774$   $\chi^2/\text{NDF}: 107.0/41$

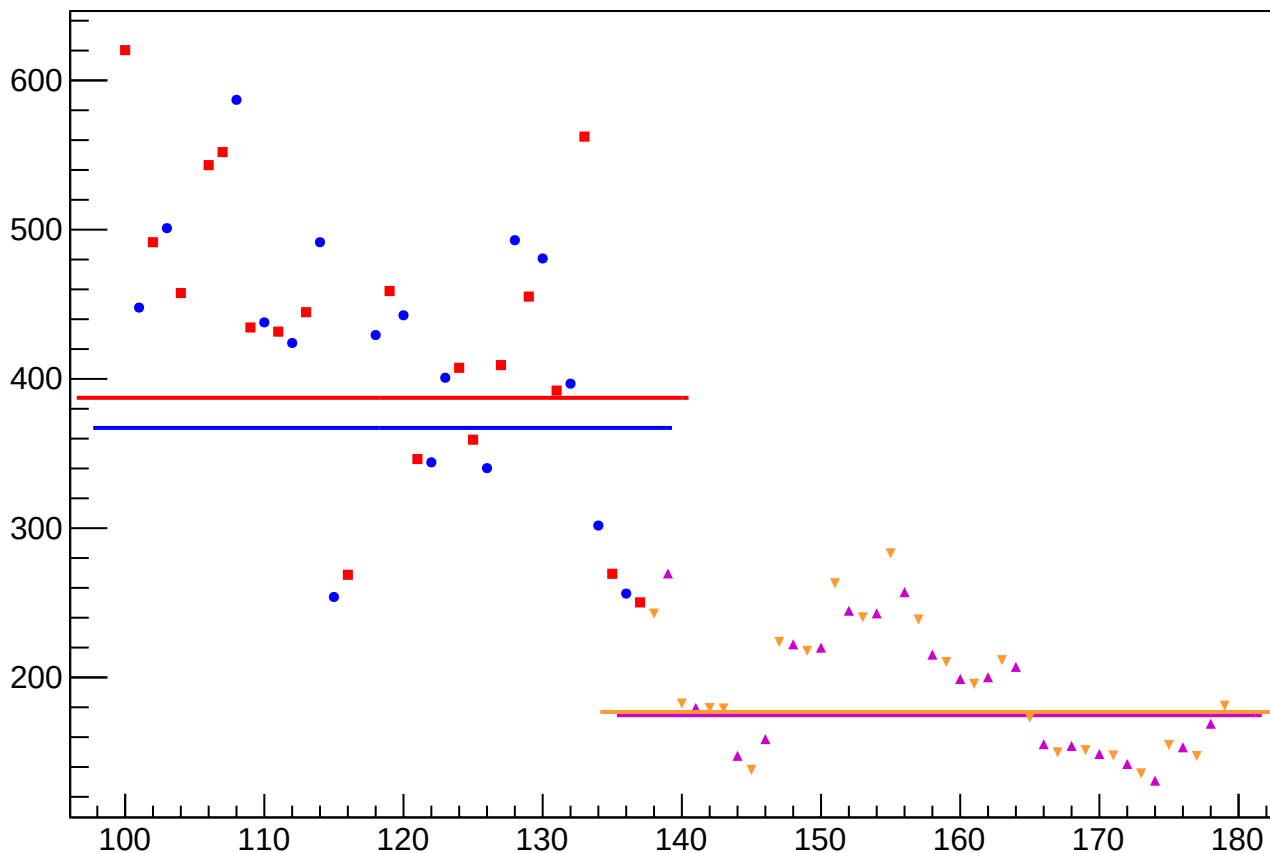
Right:  $-27.568 \pm 105.264$   $\chi^2/\text{NDF}: 36.3/35$

In:  $-23.579 \pm 43.410$   $\chi^2/\text{NDF}: 48.0/36$

Out:  $188.401 \pm 42.638$   $\chi^2/\text{NDF}: 84.5/40$

All:  $84.312 \pm 30.419$   $\chi^2/\text{NDF}: 144.6/77$

asym\_sam\_1357\_2468\_dd\_correction\_rms vs Slug, Sign Corrected



Right In: 367.180+/-0.105  $\chi^2/\text{NDF}$ : 827148.2/16

Left Out: 176.877+/-0.031  $\chi^2/\text{NDF}$ :1448253.0/21

Right Out: 387.344+/-0.106  $\chi^2/\text{NDF}$ : 774562.4/18

Left In: 174.709+/-0.032  $\chi^2/\text{NDF}$ :1344863.5/19

Left: 175.816+/-0.022  $\chi^2/\text{NDF}$ : 2795442.6/41

Right: 377.128+/-0.074  $\chi^2/\text{NDF}$ : 1620053.1/35

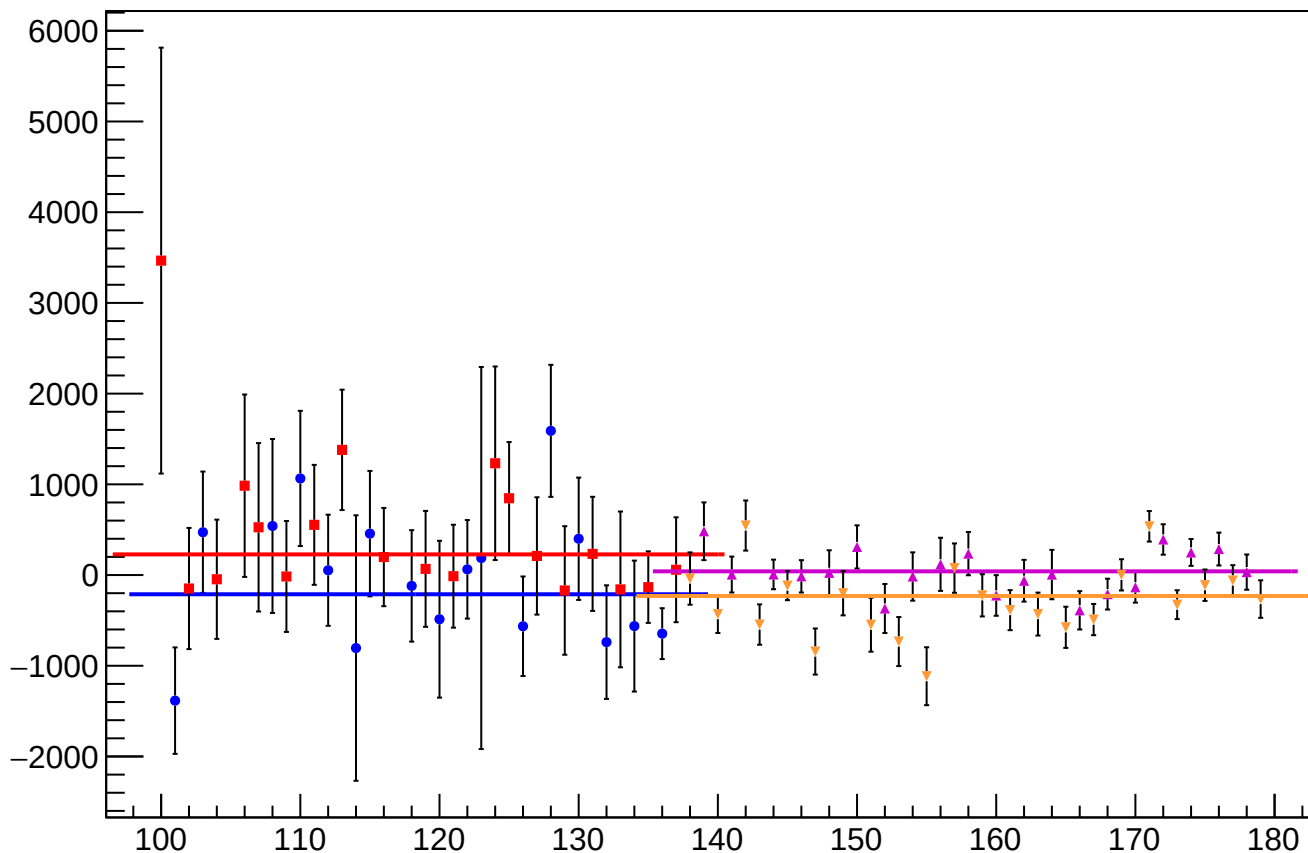
In: 191.294+/-0.031  $\chi^2/\text{NDF}$ :5267930.2/36

Out: 193.913+/-0.030  $\chi^2/\text{NDF}$ :5847979.0/40

All: 192.627+/-0.022  $\chi^2/\text{NDF}$ : 11119614.9/77



asym\_sam\_1357\_2468\_dd\_mean vs Slug, Sign Corrected



Right In: -211.859+/-148.316  $\chi^2/\text{NDF}$ : 21.0/16

Left Out: -230.618+/-44.793  $\chi^2/\text{NDF}$ : 61.5/21

Right Out: 227.831+/-150.317  $\chi^2/\text{NDF}$ : 10.1/18

Left In: 40.750+/-45.742  $\chi^2/\text{NDF}$ : 23.7/19

Left: -97.778+/-32.004  $\chi^2/\text{NDF}$ : 103.1/41

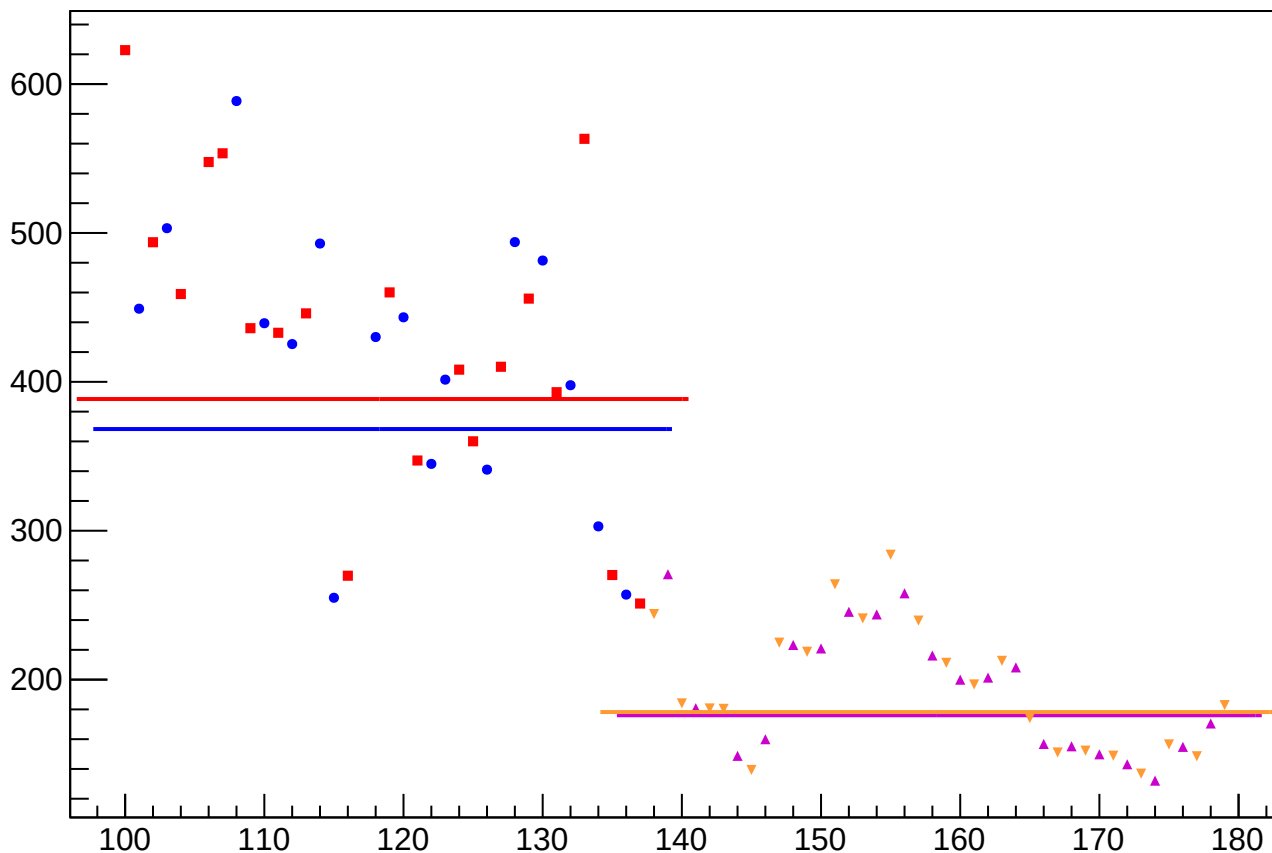
Right: 5.040+/-105.575  $\chi^2/\text{NDF}$ : 35.4/35

In: 18.810+/-43.711  $\chi^2/\text{NDF}$ : 47.4/36

Out: -193.228+/-42.928  $\chi^2/\text{NDF}$ : 80.1/40

All: -89.125+/-30.628  $\chi^2/\text{NDF}$ : 139.4/77

asym\_sam\_1357\_2468\_dd\_rms vs Slug, Sign Corrected



Right In: 368.302 $\pm$ 0.105  $\chi^2$ /NDF: 824619.2/16

Left Out: 178.212 $\pm$ 0.032  $\chi^2$ /NDF: 1424867.9/21

Right Out: 388.472 $\pm$ 0.106  $\chi^2$ /NDF: 774717.2/18

Left In: 176.063 $\pm$ 0.032  $\chi^2$ /NDF: 1320425.4/19

Left: 177.160 $\pm$ 0.023  $\chi^2$ /NDF: 2747546.4/41

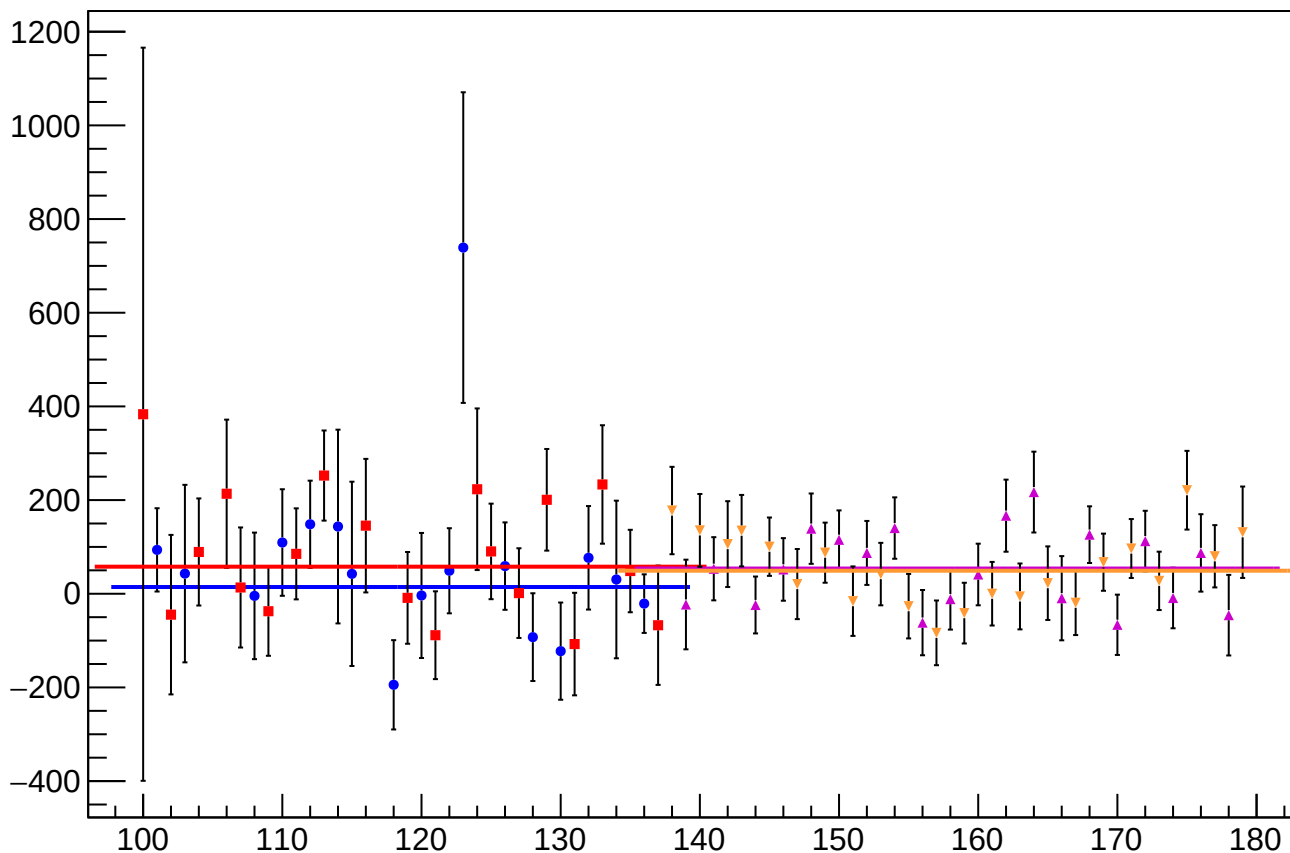
Right: 378.252 $\pm$ 0.075  $\chi^2$ /NDF: 1617584.5/35

In: 192.760 $\pm$ 0.031  $\chi^2$ /NDF: 5213179.4/36

Out: 195.360 $\pm$ 0.030  $\chi^2$ /NDF: 5793628.5/40

All: 194.084 $\pm$ 0.022  $\chi^2$ /NDF: 11010410.5/77

reg\_asym\_sam\_12345678\_avg\_mean vs Slug, Sign Corrected



Right In: 14.385+/-26.334  $\chi^2/\text{NDF}$ : 17.7/16

Left Out: 49.176+/-15.146  $\chi^2/\text{NDF}$ :21.7/21

Right Out: 57.795+/-26.121  $\chi^2/\text{NDF}$ : 18.4/18

Left In: 53.858+/-15.661  $\chi^2/\text{NDF}$ :24.7/19

Left: 51.439+/-10.888  $\chi^2/\text{NDF}$ : 46.4/41

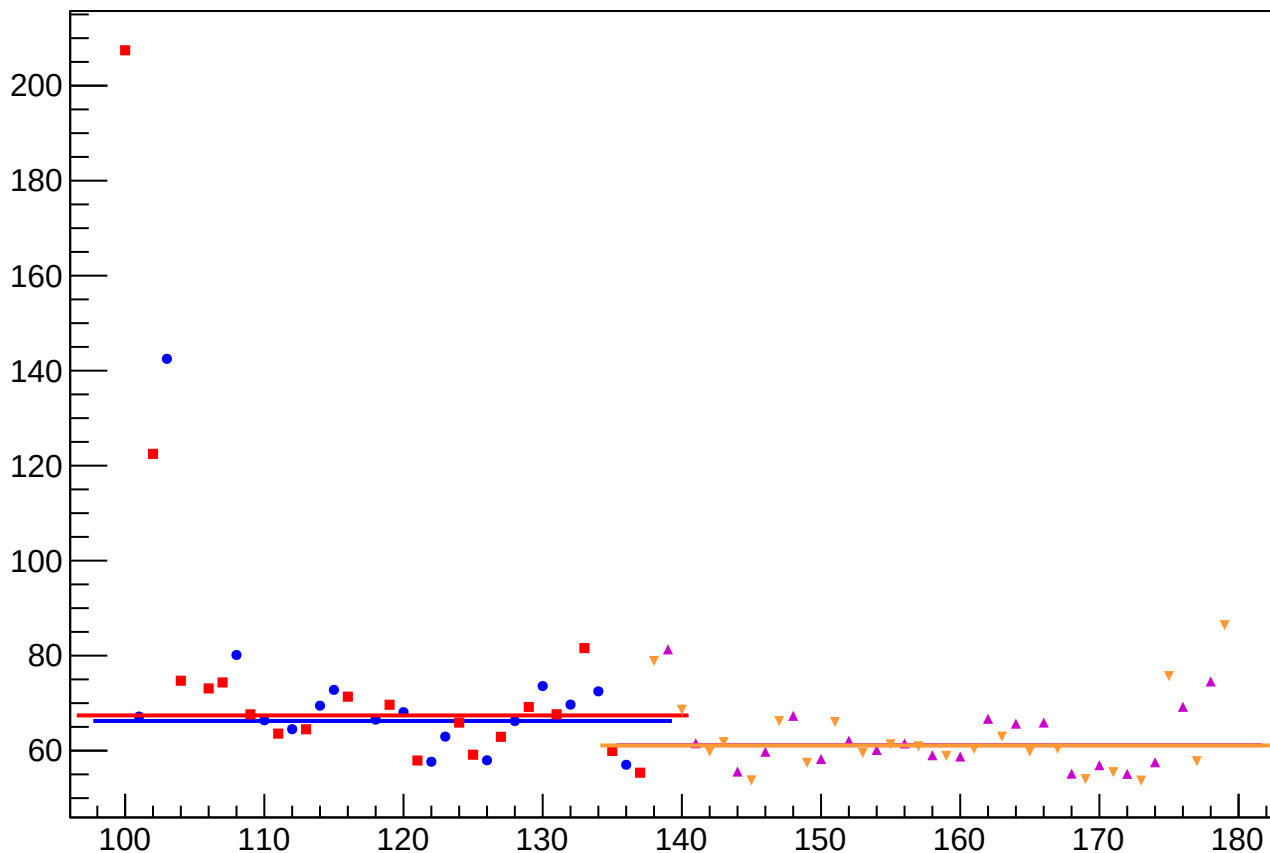
Right: 36.266+/-18.545  $\chi^2/\text{NDF}$ : 37.5/35

In: 43.544+/-13.461  $\chi^2/\text{NDF}$ :44.0/36

Out: 51.345+/-13.103  $\chi^2/\text{NDF}$ :40.2/40

All: 47.550+/-9.389  $\chi^2/\text{NDF}$ : 84.4/77

reg\_asym\_sam\_12345678\_avg\_rms vs Slug, Sign Corrected



Right In: 66.247 $\pm$ 0.019  $\chi^2$ /NDF: 440944.2/16

Left Out: 61.093 $\pm$ 0.011  $\chi^2$ /NDF: 421667.8/21

Right Out: 67.415 $\pm$ 0.018  $\chi^2$ /NDF: 393608.5/18

Left In: 61.157 $\pm$ 0.011  $\chi^2$ /NDF: 270941.7/19

Left: 61.124 $\pm$ 0.008  $\chi^2$ /NDF: 692626.9/41

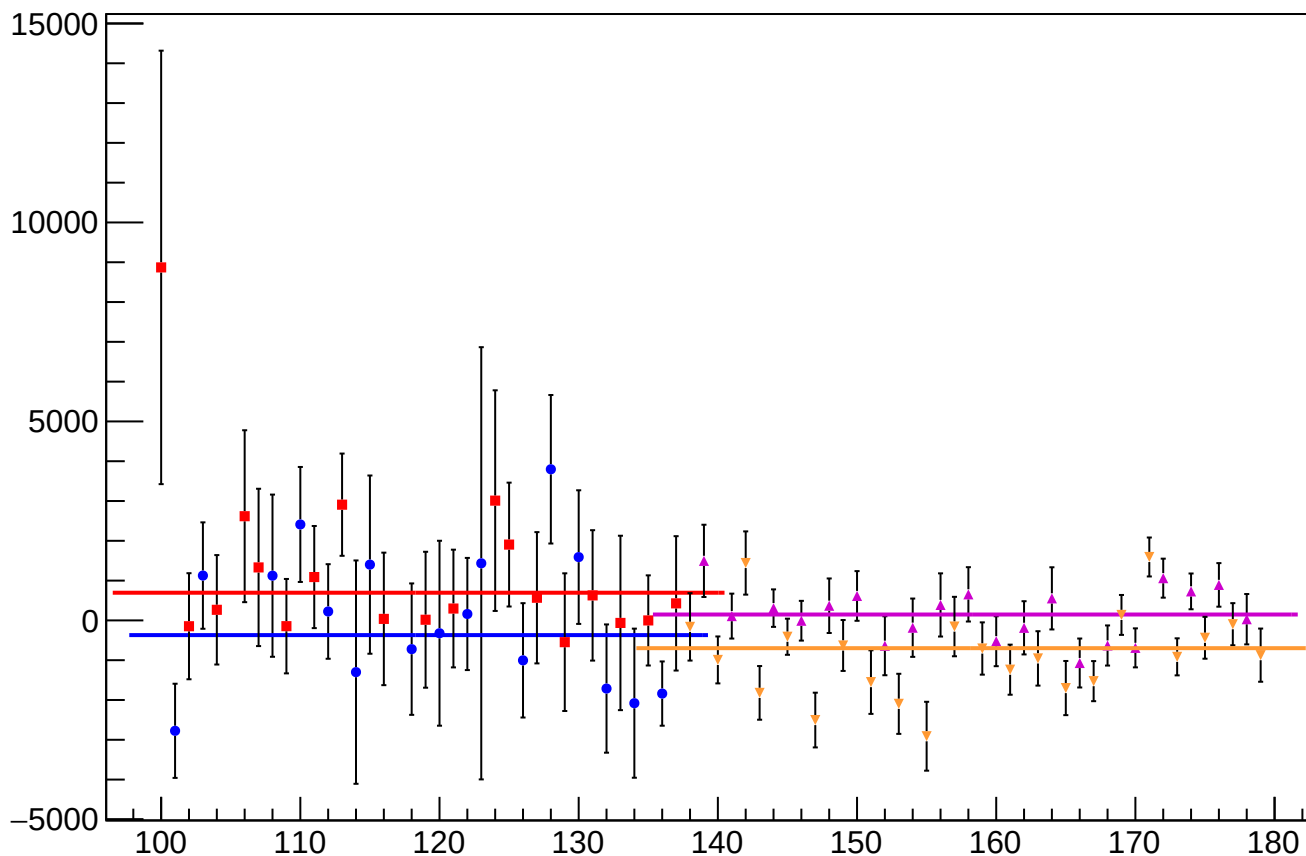
Right: 66.836 $\pm$ 0.013  $\chi^2$ /NDF: 836536.0/35

In: 62.487 $\pm$ 0.010  $\chi^2$ /NDF: 767079.1/36

Out: 62.684 $\pm$ 0.009  $\chi^2$ /NDF: 902954.0/40

All: 62.588 $\pm$ 0.007  $\chi^2$ /NDF: 1670252.3/77

asym\_sam\_12345678\_avg\_correction\_mean vs Slug, Sign Corrected



Right In:  $-369.546 \pm 366.432$   $\chi^2/\text{NDF}: 22.3/16$

Left Out:  $-697.930 \pm 129.982$   $\chi^2/\text{NDF}: 61.9/21$

Right Out:  $695.425 \pm 361.887$   $\chi^2/\text{NDF}: 9.9/18$

Left In:  $147.885 \pm 132.353$   $\chi^2/\text{NDF}: 23.0/19$

Left:  $-282.666 \pm 92.738$   $\chi^2/\text{NDF}: 105.7/41$

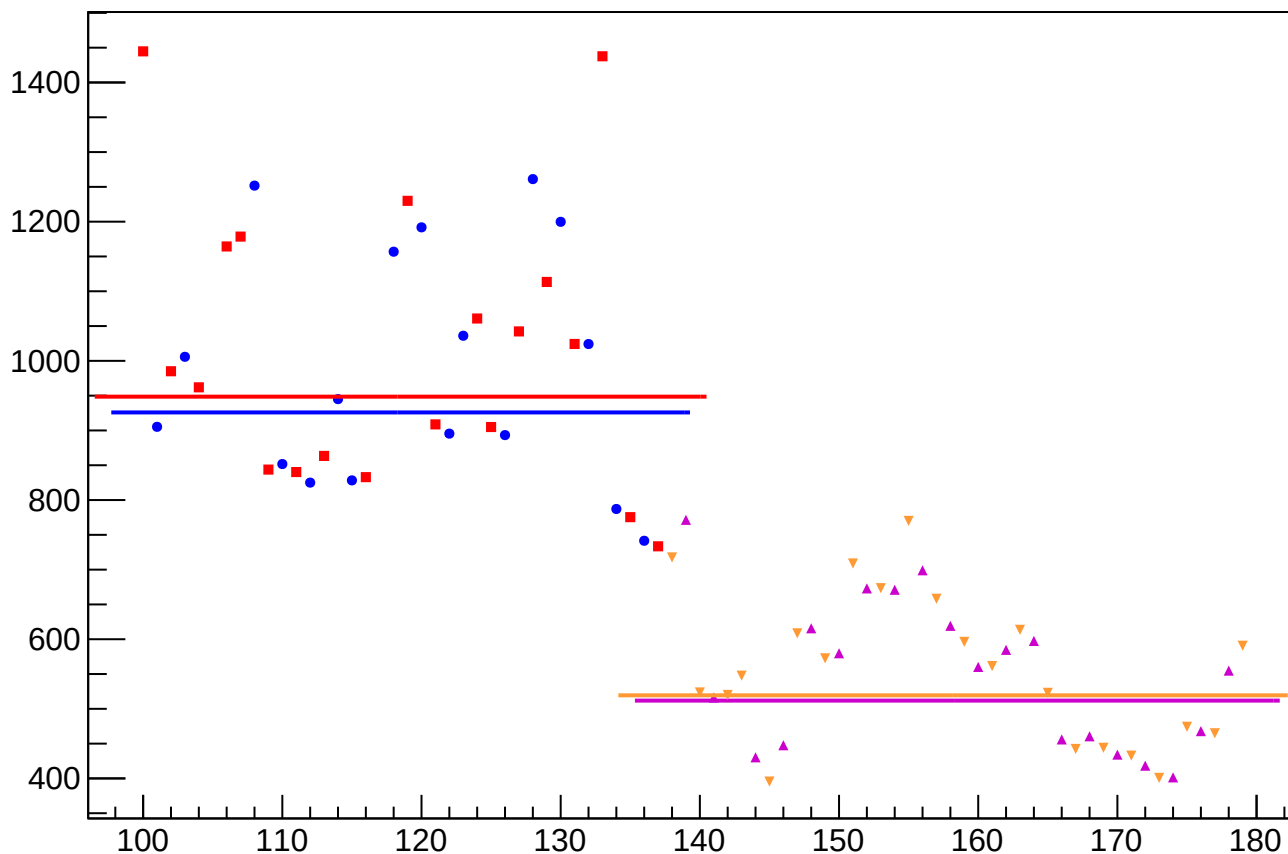
Right:  $169.586 \pm 257.485$   $\chi^2/\text{NDF}: 36.5/35$

In:  $88.171 \pm 124.482$   $\chi^2/\text{NDF}: 47.0/36$

Out:  $-538.714 \pm 122.331$   $\chi^2/\text{NDF}: 85.0/40$

All:  $-230.735 \pm 87.252$   $\chi^2/\text{NDF}: 144.9/77$

asym\_sam\_12345678\_avg\_correction\_rms vs Slug, Sign Corrected



Right In: 925.885+/-0.259  $\chi^2/\text{NDF}$ : 391084.5/16

Left Out: 519.420+/-0.092  $\chi^2/\text{NDF}$ :1159424.4/21

Right Out: 948.553+/-0.256  $\chi^2/\text{NDF}$ : 381931.9/18

Left In: 511.802+/-0.094  $\chi^2/\text{NDF}$ :1038952.4/19

Left: 515.680+/-0.066  $\chi^2/\text{NDF}$ : 2201750.0/41

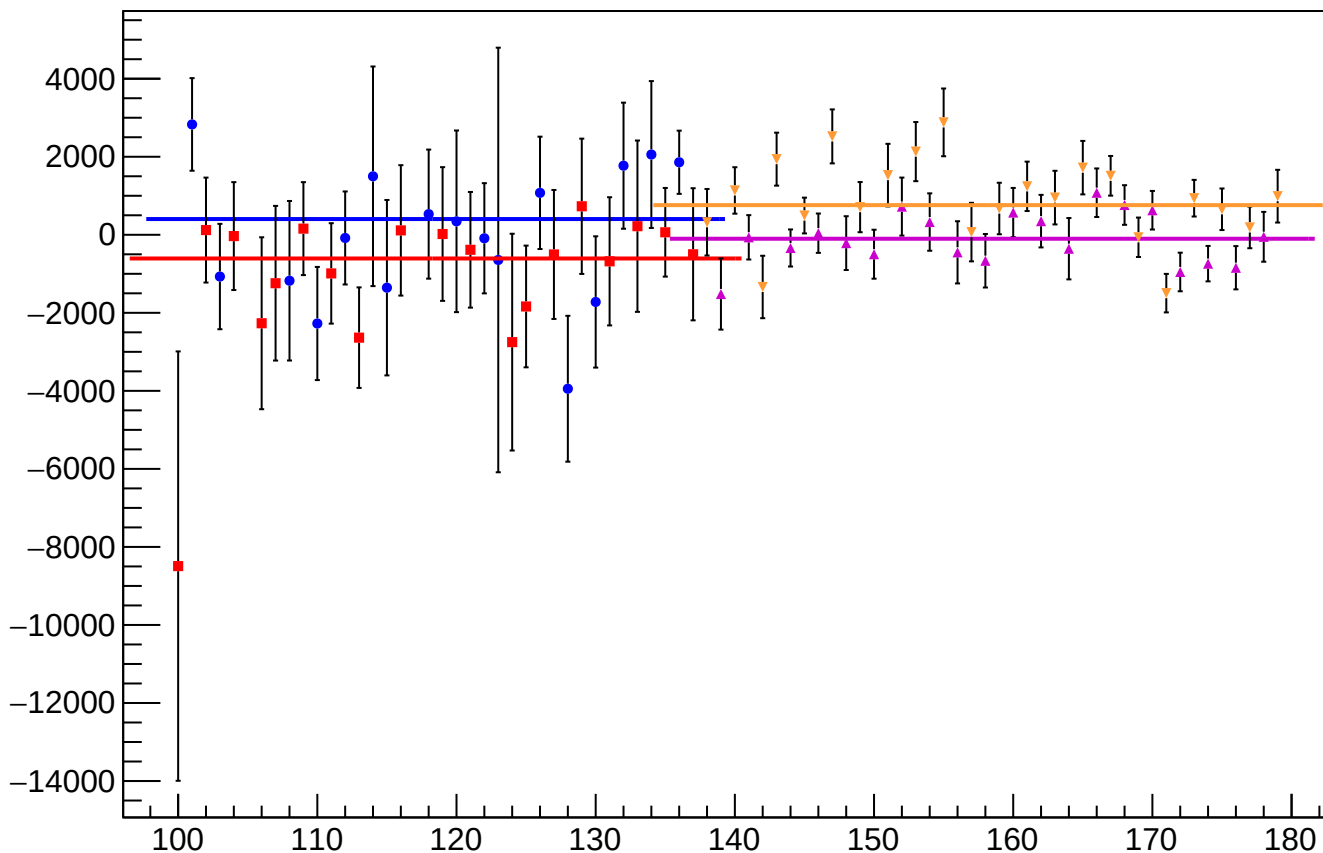
Right: 937.360+/-0.182  $\chi^2/\text{NDF}$ : 776890.8/35

In: 559.589+/-0.088  $\chi^2/\text{NDF}$ :3689272.3/36

Out: 568.456+/-0.087  $\chi^2/\text{NDF}$ :4032326.4/40

All: 564.100+/-0.062  $\chi^2/\text{NDF}$ : 7726761.4/77

asym\_sam\_12345678\_avg\_mean vs Slug, Sign Corrected



Right In: 403.591+/-367.686  $\chi^2/\text{NDF}$ : 22.4/16

Left Out: 760.211+/-130.988  $\chi^2/\text{NDF}$ : 58.2/21

Right Out: -607.276+/-363.327  $\chi^2/\text{NDF}$ : 8.8/18

Left In: -101.323+/-133.409  $\chi^2/\text{NDF}$ : 22.7/19

Left: 337.330+/-93.467  $\chi^2/\text{NDF}$ : 102.2/41

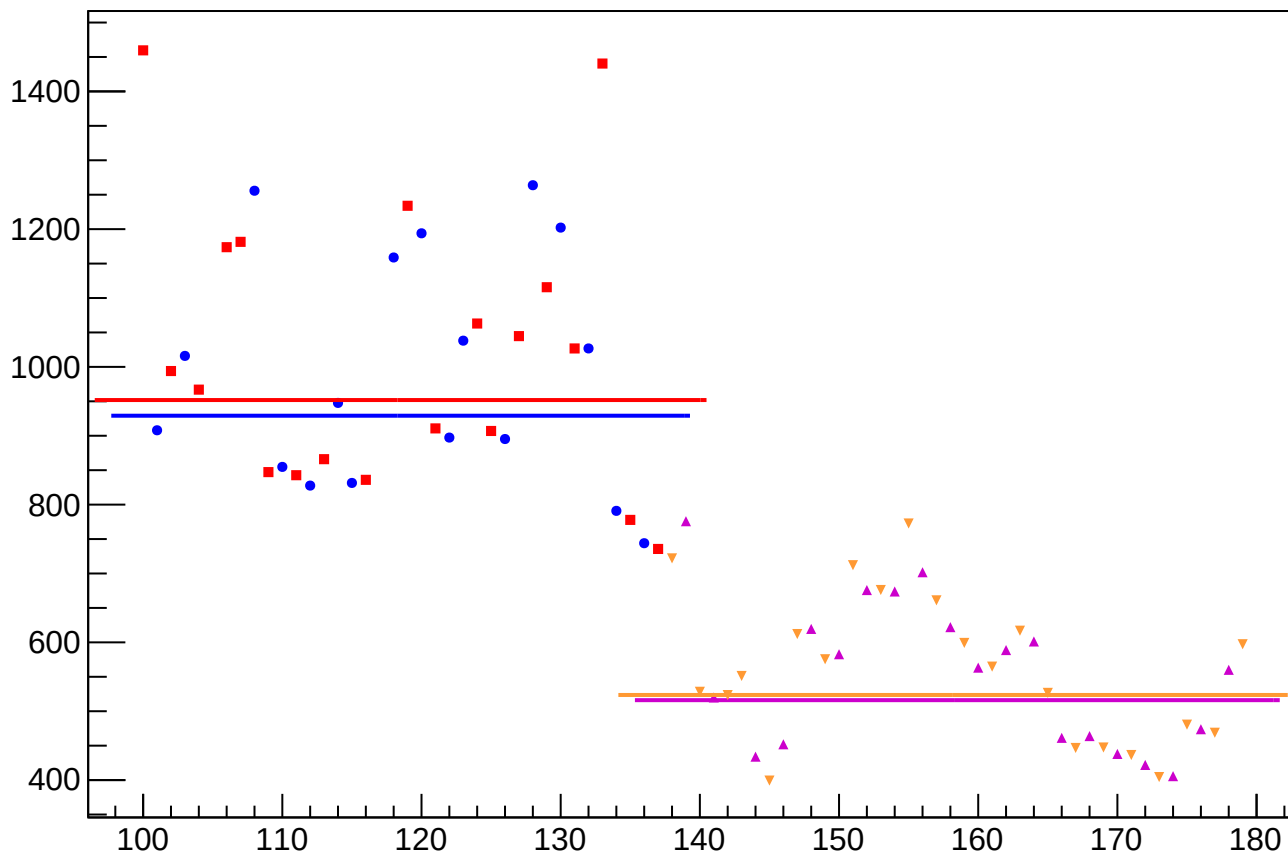
Right: -107.869+/-258.438  $\chi^2/\text{NDF}$ : 35.1/35

In: -42.585+/-125.409  $\chi^2/\text{NDF}$ : 46.8/36

Out: 602.913+/-123.225  $\chi^2/\text{NDF}$ : 79.6/40

All: 285.834+/-87.895  $\chi^2/\text{NDF}$ : 139.8/77

asym\_sam\_12345678\_avg\_rms vs Slug, Sign Corrected



Right In: 929.096 $\pm$ 0.260  $\chi^2$ /NDF: 390292.1/16

Left Out: 523.610 $\pm$ 0.093  $\chi^2$ /NDF: 1139366.8/21

Right Out: 951.847 $\pm$ 0.257  $\chi^2$ /NDF: 382219.3/18

Left In: 516.061 $\pm$ 0.094  $\chi^2$ /NDF: 1018514.1/19

Left: 519.904 $\pm$ 0.066  $\chi^2$ /NDF: 2161141.3/41

Right: 940.607 $\pm$ 0.183  $\chi^2$ /NDF: 776385.5/35

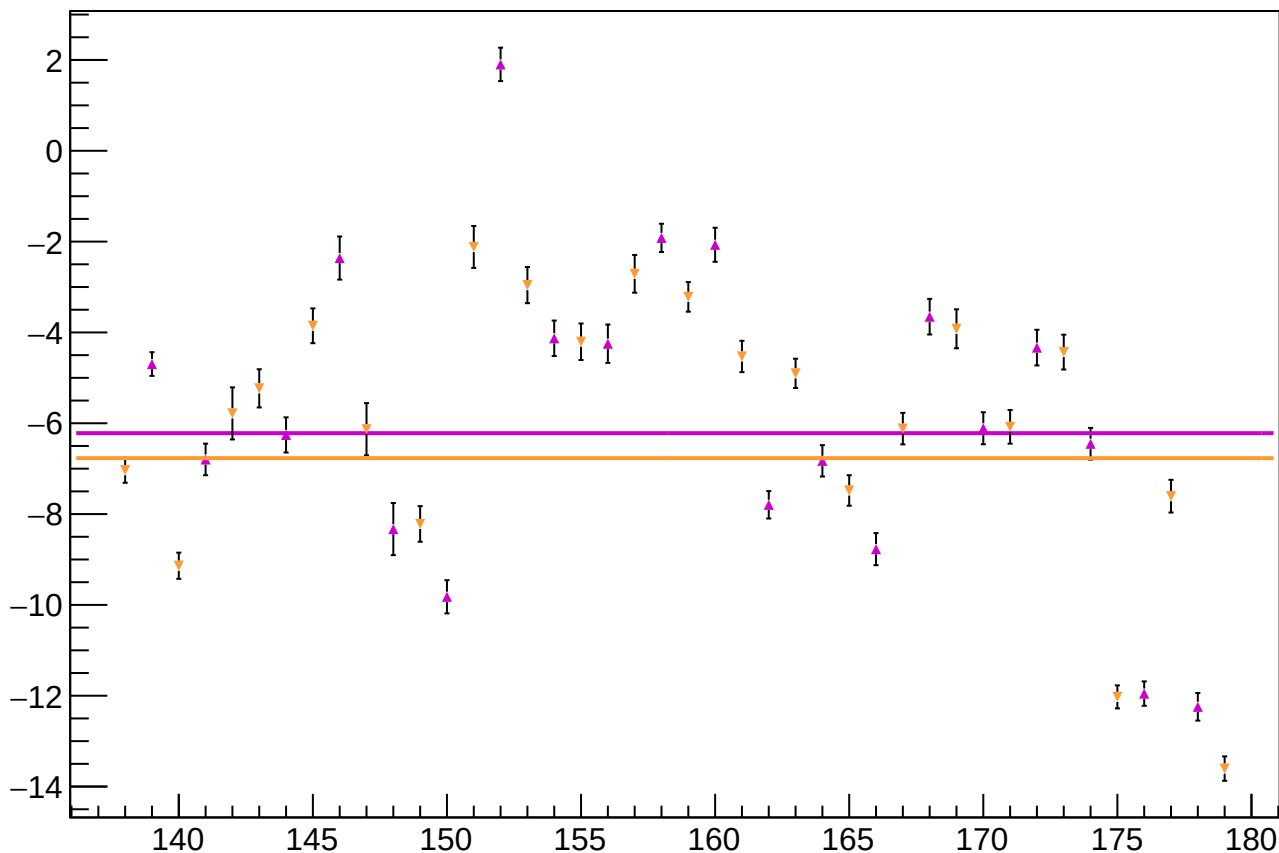
In: 564.111 $\pm$ 0.089  $\chi^2$ /NDF: 3638986.2/36

Out: 572.869 $\pm$ 0.087  $\chi^2$ /NDF: 3980436.0/40

All: 568.566 $\pm$ 0.062  $\chi^2$ /NDF: 7624384.9/77



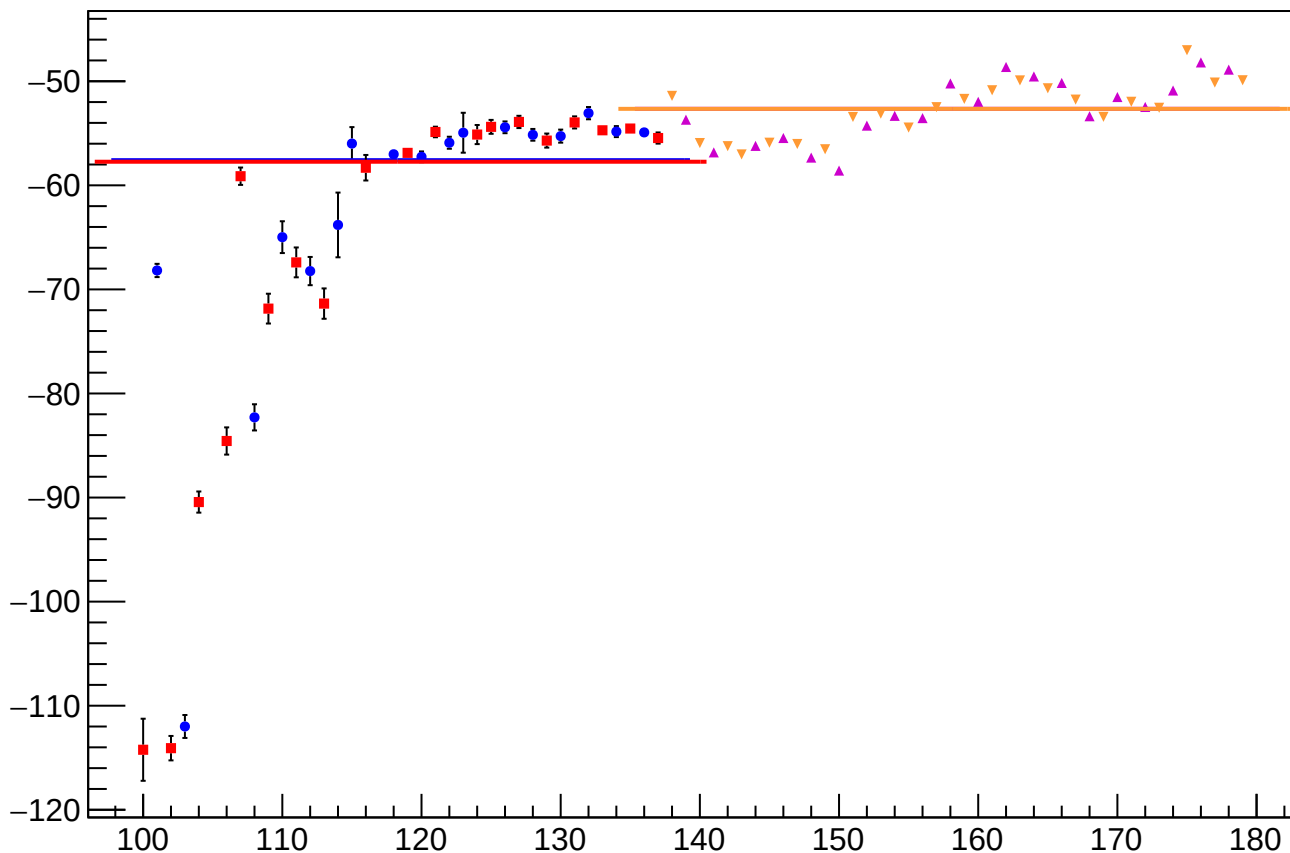
reg\_asym\_sam1\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -6.768 $\pm$ 0.076  $\chi^2/\text{NDF}$ :1856.6/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -6.218 $\pm$ 0.078  $\chi^2/\text{NDF}$ :2061.6/19

Left: -6.503 $\pm$ 0.054  $\chi^2/\text{NDF}$ : 3943.7/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -6.218 $\pm$ 0.078  $\chi^2/\text{NDF}$ :2061.6/19  
 Out: -6.768 $\pm$ 0.076  $\chi^2/\text{NDF}$ :1856.6/21  
 All: -6.503 $\pm$ 0.054  $\chi^2/\text{NDF}$ : 3943.7/41

reg\_asym\_sam1\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-57.581 \pm 0.143$   $\chi^2/\text{NDF}$ : 3455.5/16

Left Out:  $-52.651 \pm 0.059$   $\chi^2/\text{NDF}$ : 2034.0/21

Right Out:  $-57.732 \pm 0.143$   $\chi^2/\text{NDF}$ : 4698.5/18

Left In:  $-52.649 \pm 0.062$   $\chi^2/\text{NDF}$ : 2545.2/19

Left:  $-52.650 \pm 0.043$   $\chi^2/\text{NDF}$ : 4579.2/41

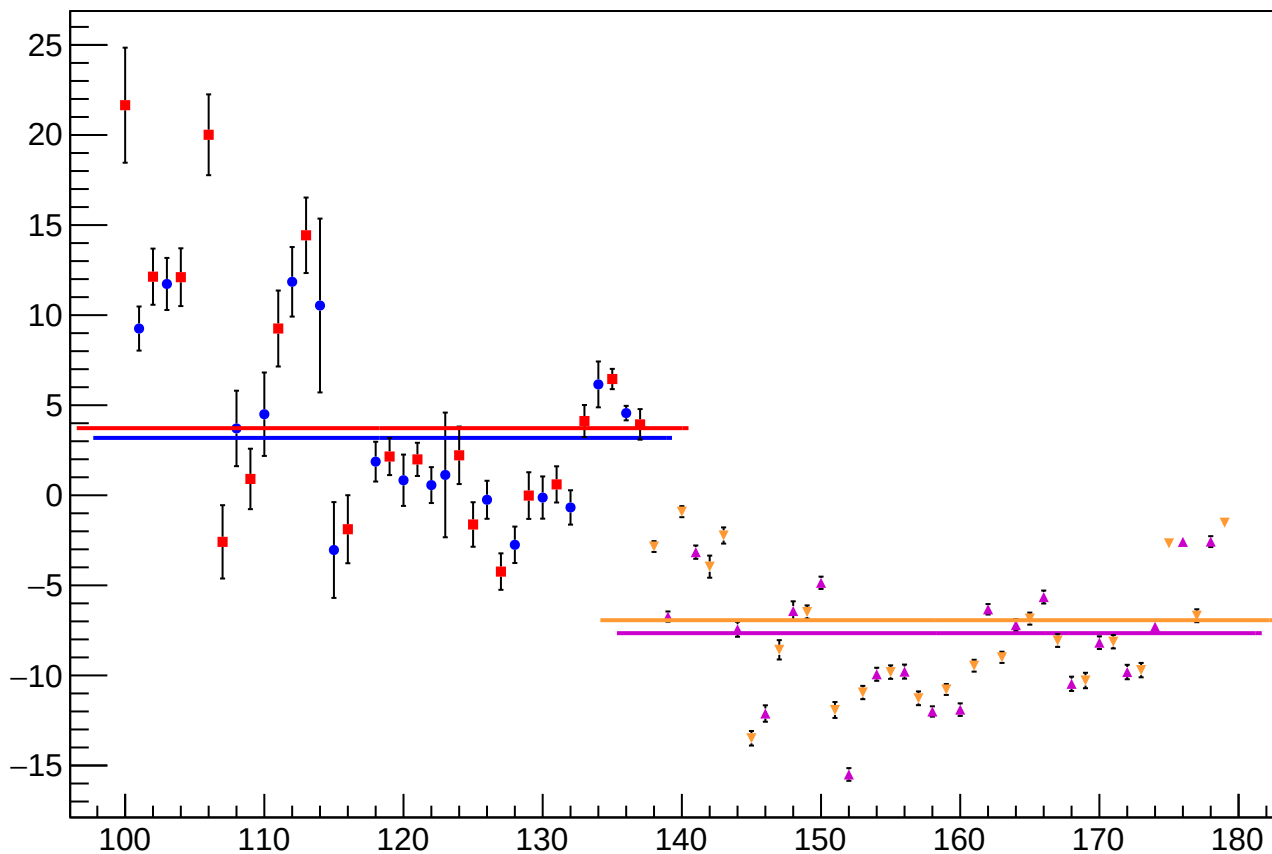
Right:  $-57.657 \pm 0.101$   $\chi^2/\text{NDF}$ : 8154.5/35

In:  $-53.430 \pm 0.057$   $\chi^2/\text{NDF}$ : 7001.0/36

Out:  $-53.389 \pm 0.054$   $\chi^2/\text{NDF}$ : 7812.2/40

All:  $-53.409 \pm 0.039$   $\chi^2/\text{NDF}$ : 14813.5/77

reg\_asym\_sam1\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $3.185 \pm 0.259$   $\chi^2/\text{NDF}: 185.8/16$

Left Out:  $-6.935 \pm 0.075$   $\chi^2/\text{NDF}: 2508.7/21$

Right Out:  $3.726 \pm 0.268$   $\chi^2/\text{NDF}: 324.1/18$

Left In:  $-7.654 \pm 0.078$   $\chi^2/\text{NDF}: 2052.0/19$

Left:  $-7.283 \pm 0.054$   $\chi^2/\text{NDF}: 4605.0/41$

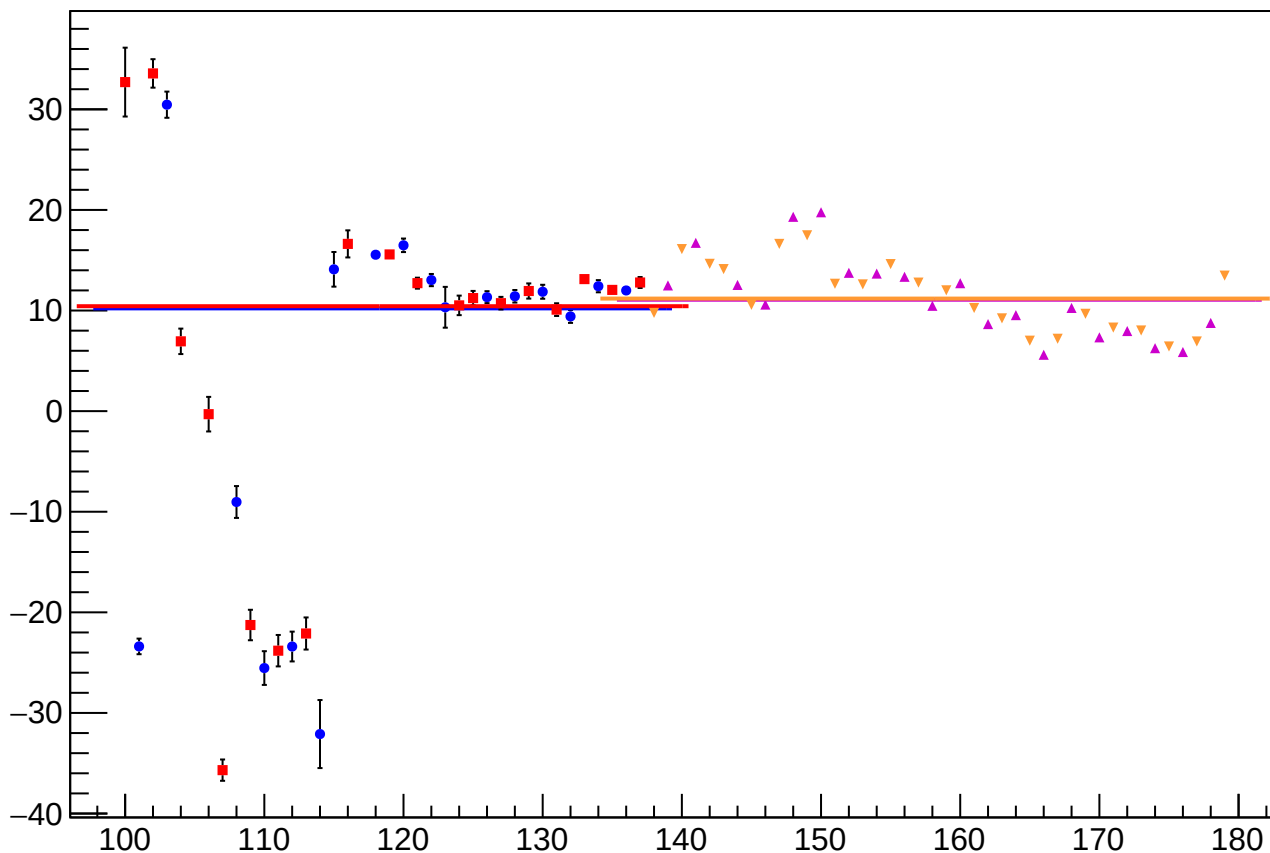
Right:  $3.447 \pm 0.186$   $\chi^2/\text{NDF}: 512.0/35$

In:  $-6.761 \pm 0.074$   $\chi^2/\text{NDF}: 3845.0/36$

Out:  $-6.154 \pm 0.072$   $\chi^2/\text{NDF}: 4304.3/40$

All:  $-6.450 \pm 0.052$   $\chi^2/\text{NDF}: 8183.7/77$

reg\_asym\_sam1\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 10.215+/-0.158  $\chi^2/\text{NDF}$ : 3692.6/16

Left Out: 11.188+/-0.066  $\chi^2/\text{NDF}$ : 2437.3/21

Right Out: 10.430+/-0.160  $\chi^2/\text{NDF}$ : 3826.9/18

Left In: 11.076+/-0.069  $\chi^2/\text{NDF}$ : 3239.4/19

Left: 11.134+/-0.048  $\chi^2/\text{NDF}$ : 5678.0/41

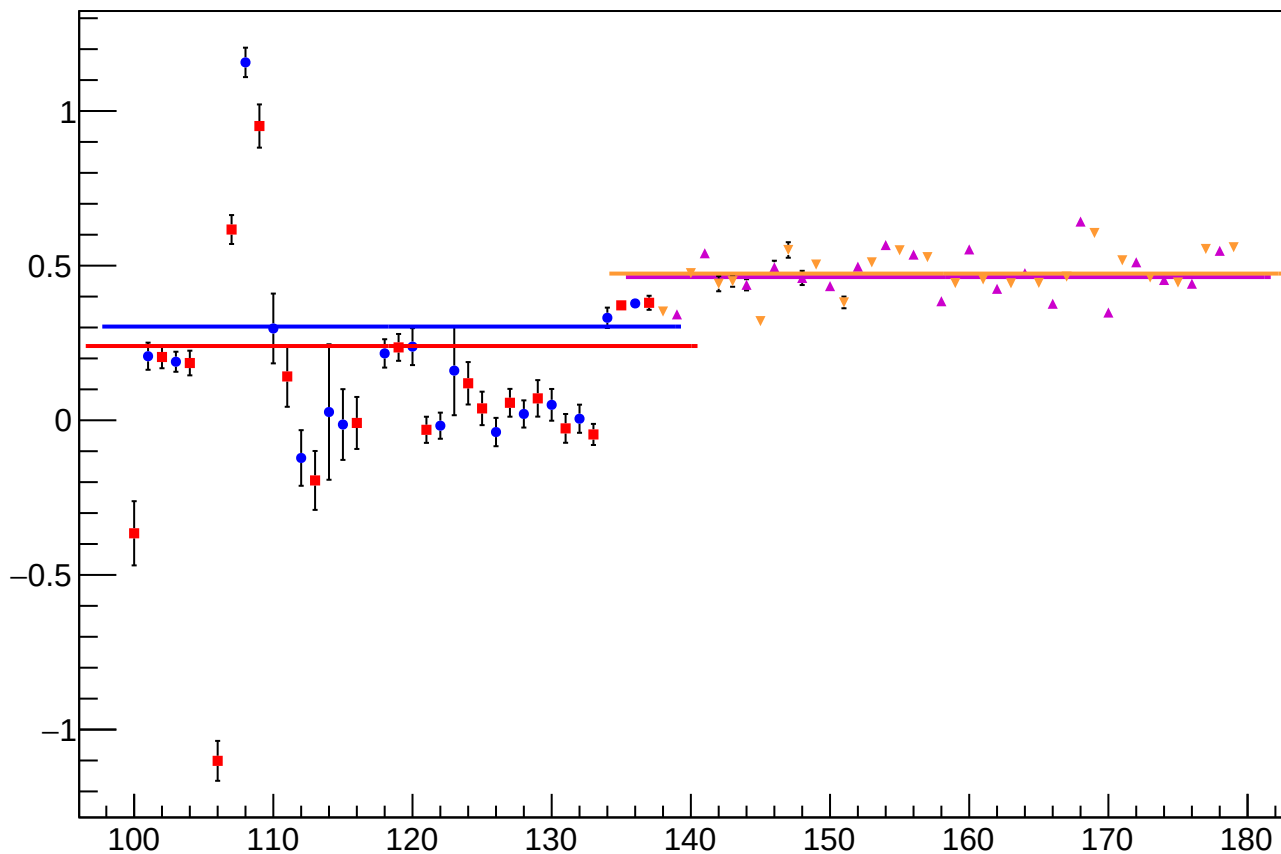
Right: 10.321+/-0.112  $\chi^2/\text{NDF}$ : 7520.5/35

In: 10.938+/-0.063  $\chi^2/\text{NDF}$ : 6956.9/36

Out: 11.077+/-0.061  $\chi^2/\text{NDF}$ : 6283.4/40

All: 11.010+/-0.044  $\chi^2/\text{NDF}$ : 13242.8/77

reg\_asym\_sam1\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.303+/-0.008  $\chi^2/\text{NDF}$ : 646.3/16

Left Out: 0.474+/-0.003  $\chi^2/\text{NDF}$ : 495.7/21

Right Out: 0.240+/-0.009  $\chi^2/\text{NDF}$ : 984.4/18

Left In: 0.463+/-0.003  $\chi^2/\text{NDF}$ : 707.7/19

Left: 0.469+/-0.002  $\chi^2/\text{NDF}$ : 1210.4/41

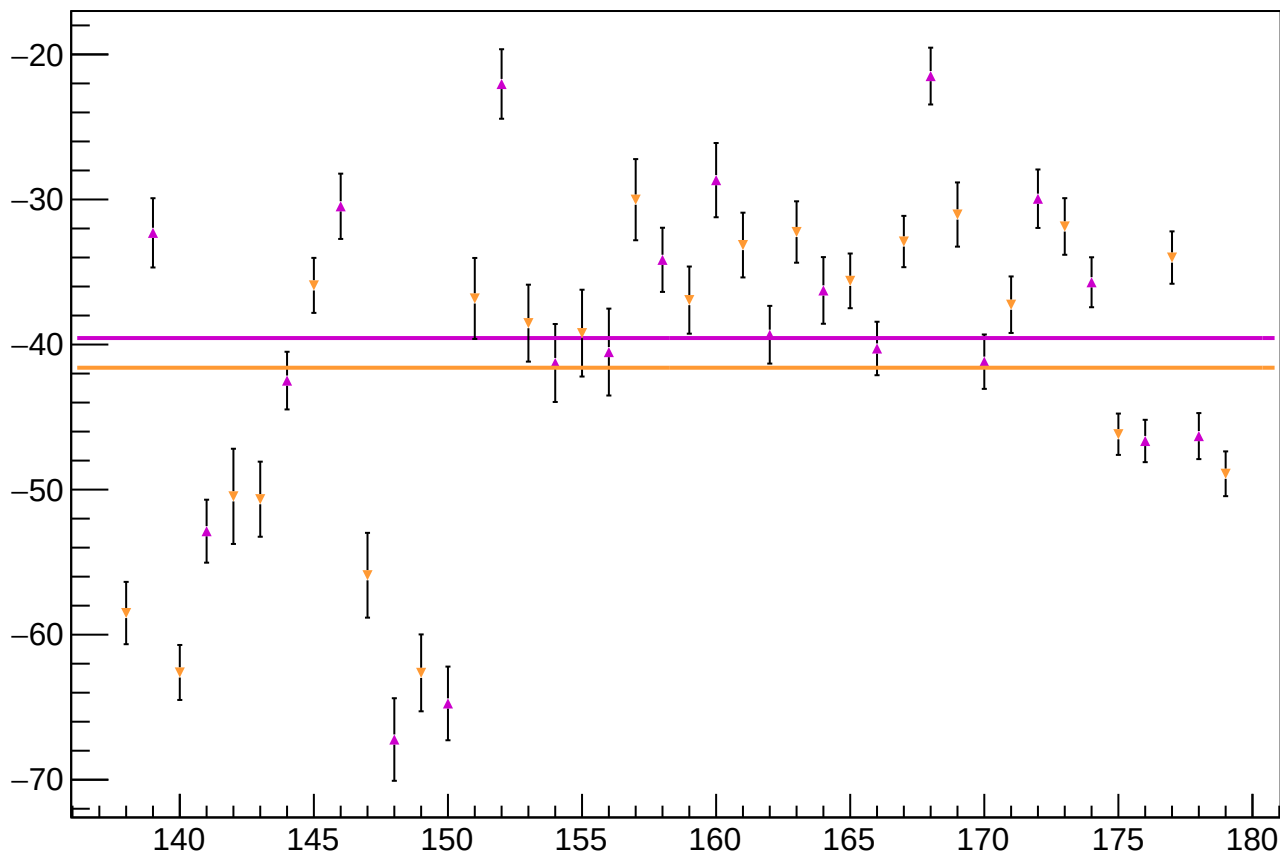
Right: 0.273+/-0.006  $\chi^2/\text{NDF}$ : 1658.9/35

In: 0.444+/-0.003  $\chi^2/\text{NDF}$ : 1688.1/36

Out: 0.449+/-0.003  $\chi^2/\text{NDF}$ : 2152.6/40

All: 0.446+/-0.002  $\chi^2/\text{NDF}$ : 3842.2/77

reg\_asym\_sam2\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -41.598+/-0.450  $\chi^2/\text{NDF}$ :497.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -39.552+/-0.465  $\chi^2/\text{NDF}$ :493.7/19

Left: -40.609+/-0.323  $\chi^2/\text{NDF}$ : 1001.4/41

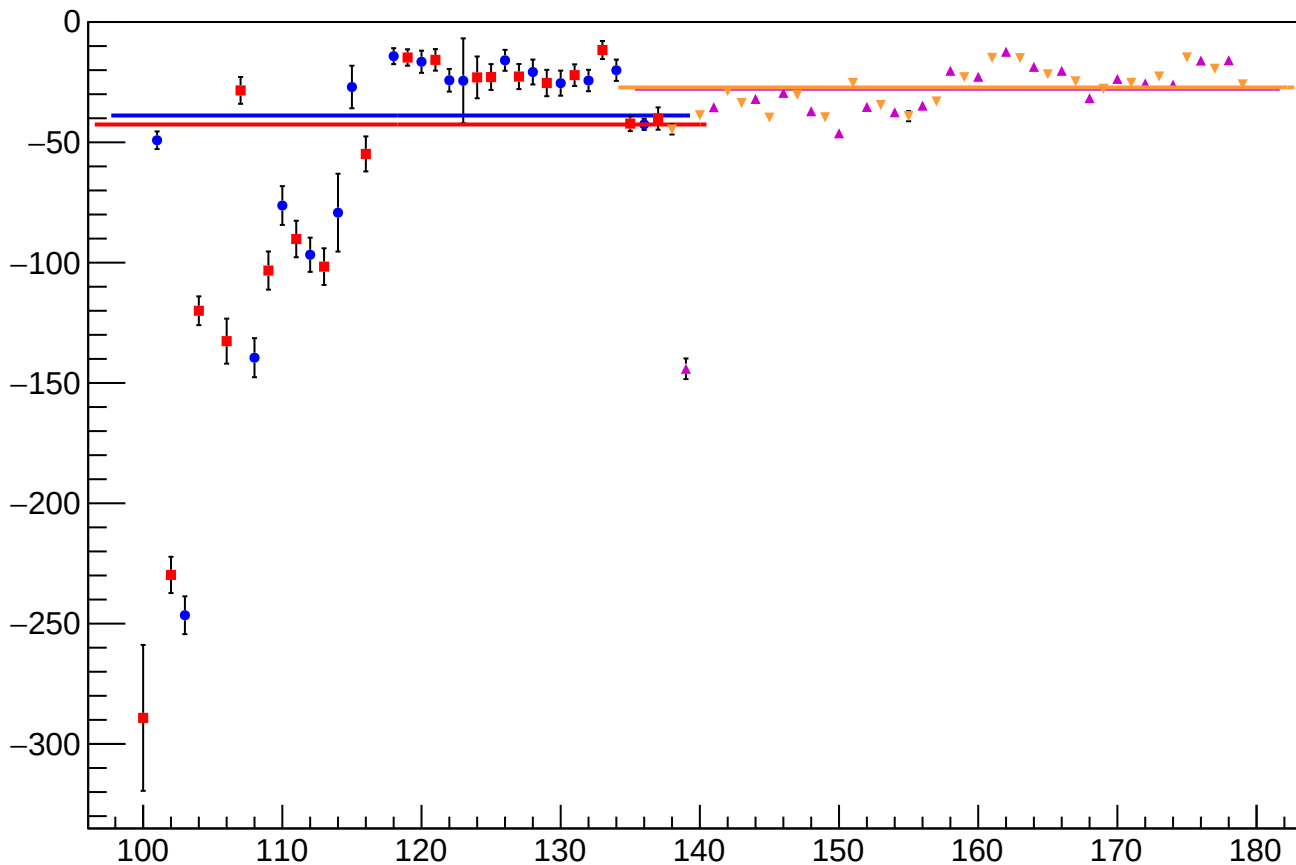
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -39.552+/-0.465  $\chi^2/\text{NDF}$ :493.7/19

Out: -41.598+/-0.450  $\chi^2/\text{NDF}$ :497.7/21

All: -40.609+/-0.323  $\chi^2/\text{NDF}$ : 1001.4/41

reg\_asym\_sam2\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-38.844 \pm 1.148$   $\chi^2/\text{NDF}: 1121.9/16$

Left Out:  $-27.195 \pm 0.344$   $\chi^2/\text{NDF}: 583.7/21$

Right Out:  $-42.586 \pm 1.210$   $\chi^2/\text{NDF}: 1345.7/18$

Left In:  $-27.699 \pm 0.359$   $\chi^2/\text{NDF}: 1323.7/19$

Left:  $-27.437 \pm 0.248$   $\chi^2/\text{NDF}: 1908.5/41$

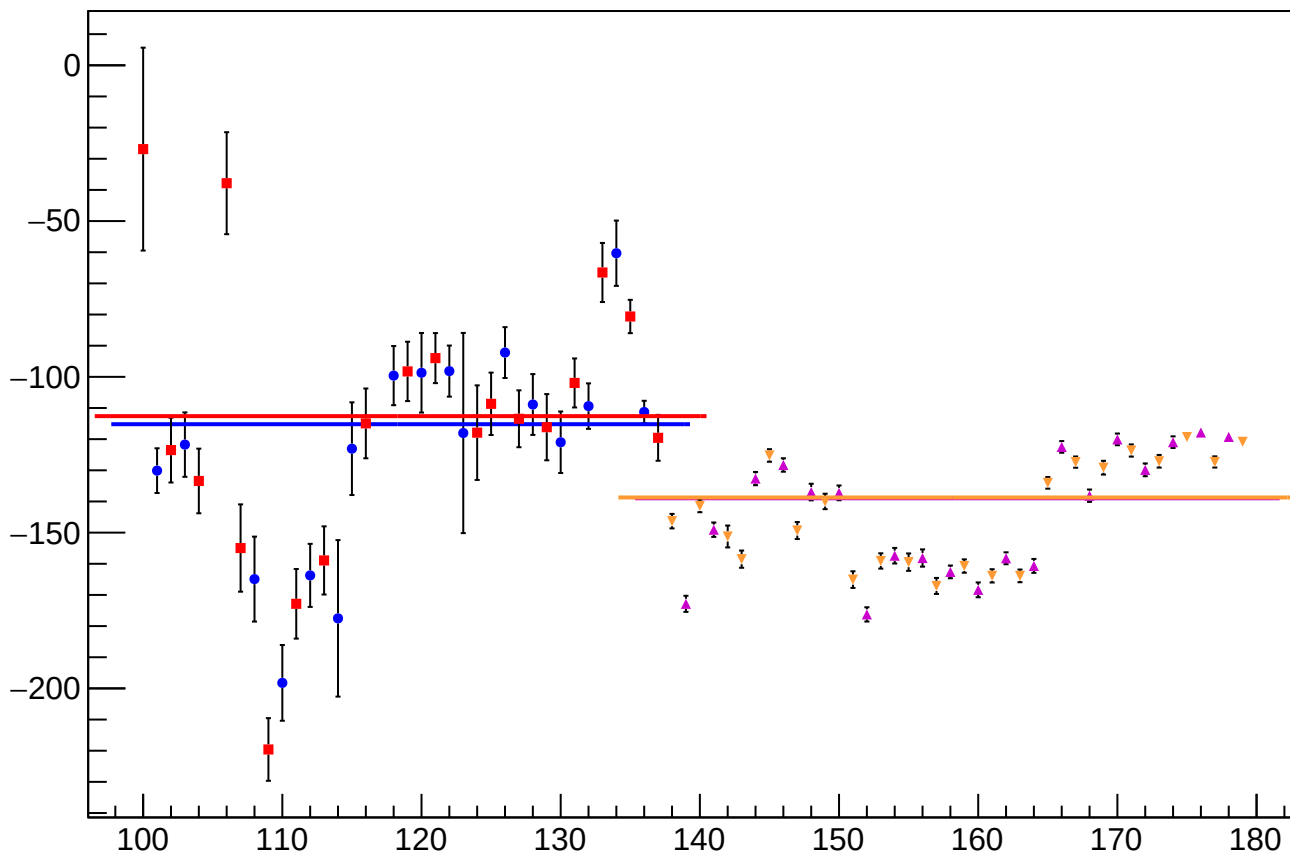
Right:  $-40.617 \pm 0.833$   $\chi^2/\text{NDF}: 2472.6/35$

In:  $-28.689 \pm 0.342$   $\chi^2/\text{NDF}: 2531.5/36$

Out:  $-28.348 \pm 0.331$   $\chi^2/\text{NDF}: 2079.0/40$

All:  $-28.513 \pm 0.238$   $\chi^2/\text{NDF}: 4611.0/77$

reg\_asym\_sam2\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-115.199 \pm 2.081$   $\chi^2/\text{NDF}: 140.8/16$

Left Out:  $-138.719 \pm 0.448$   $\chi^2/\text{NDF}: 1395.9/21$

Right Out:  $-112.611 \pm 2.209$   $\chi^2/\text{NDF}: 272.4/18$

Left In:  $-138.977 \pm 0.462$   $\chi^2/\text{NDF}: 1734.4/19$

Left:  $-138.844 \pm 0.322$   $\chi^2/\text{NDF}: 3130.5/41$

Right:  $-113.982 \pm 1.515$   $\chi^2/\text{NDF}: 413.9/35$

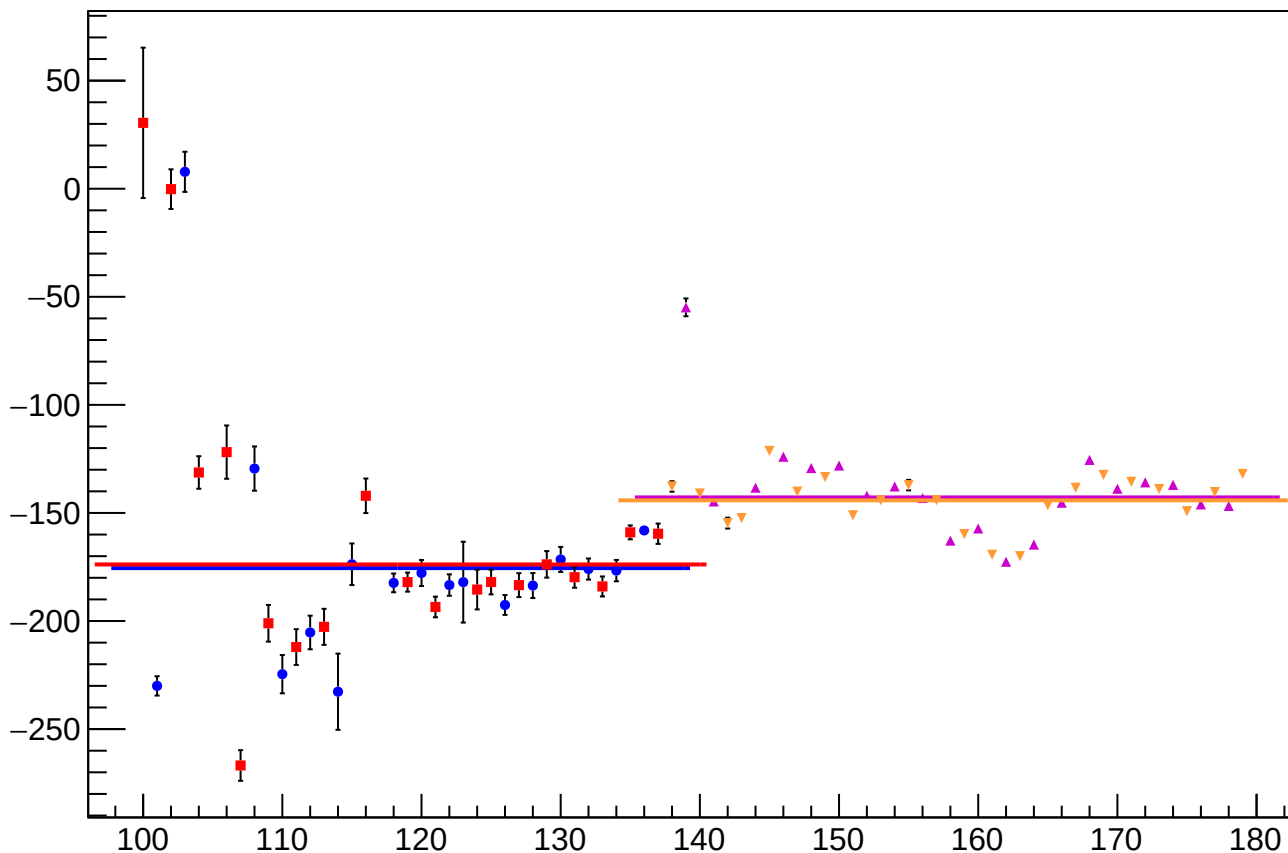
In:  $-137.861 \pm 0.451$   $\chi^2/\text{NDF}: 1999.6/36$

Out:  $-137.687 \pm 0.439$   $\chi^2/\text{NDF}: 1802.5/40$

All:  $-137.772 \pm 0.315$   $\chi^2/\text{NDF}: 3802.1/77$



reg\_asym\_sam2\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: -175.521+/-1.277  $\chi^2/\text{NDF}$ : 692.3/16

Left Out: -144.171+/-0.389  $\chi^2/\text{NDF}$ : 984.8/21

Right Out: -173.830+/-1.357  $\chi^2/\text{NDF}$ : 737.9/18

Left In: -142.826+/-0.404  $\chi^2/\text{NDF}$ : 1477.0/19

Left: -143.524+/-0.280  $\chi^2/\text{NDF}$ : 2467.6/41

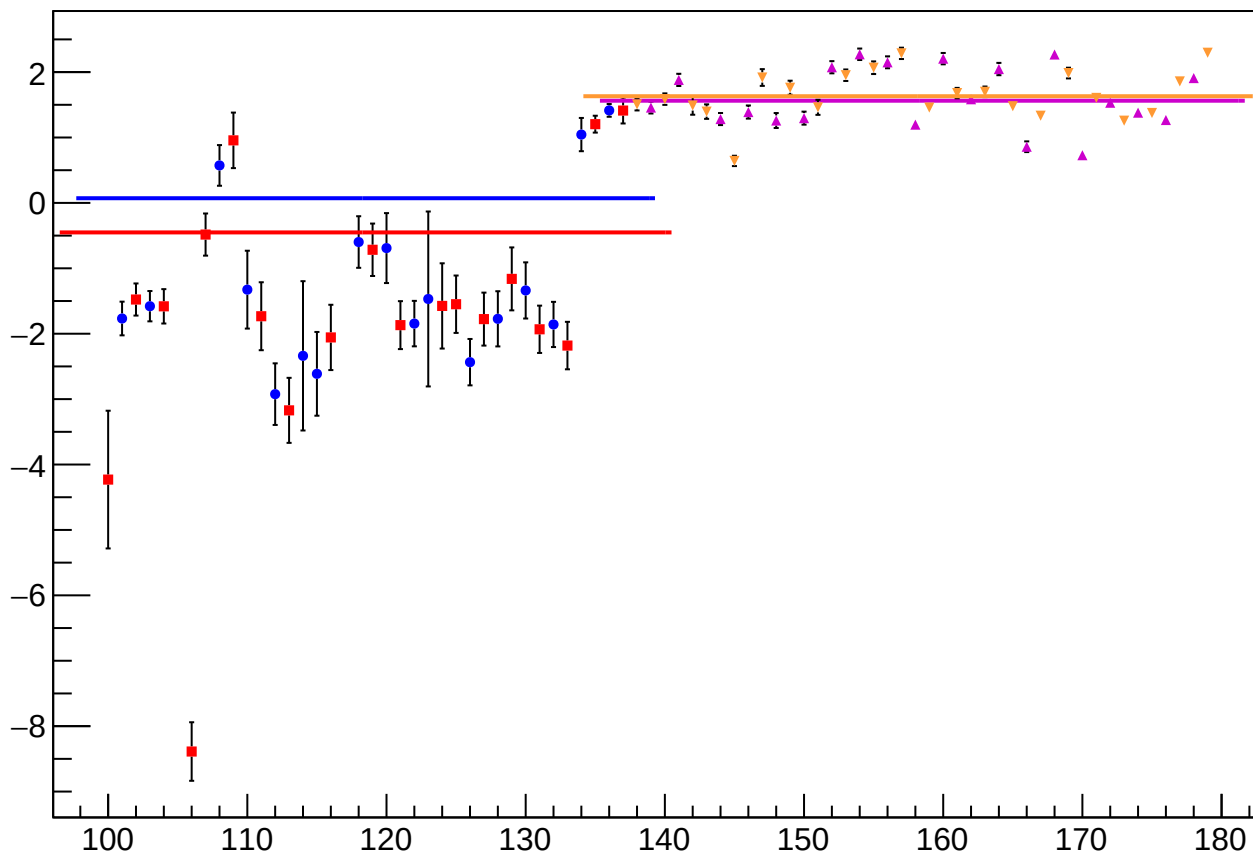
Right: -174.726+/-0.930  $\chi^2/\text{NDF}$ : 1431.0/35

In: -145.796+/-0.385  $\chi^2/\text{NDF}$ : 2765.2/36

Out: -146.422+/-0.374  $\chi^2/\text{NDF}$ : 2164.4/40

All: -146.118+/-0.268  $\chi^2/\text{NDF}$ : 4931.0/77

reg\_asym\_sam2\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.072 \pm 0.067$   $\chi^2/\text{NDF}: 525.2/16$

Left Out:  $1.631 \pm 0.018$   $\chi^2/\text{NDF}: 448.5/21$

Right Out:  $-0.451 \pm 0.071$   $\chi^2/\text{NDF}: 751.3/18$

Left In:  $1.562 \pm 0.018$   $\chi^2/\text{NDF}: 644.4/19$

Left:  $1.598 \pm 0.013$   $\chi^2/\text{NDF}: 1100.1/41$

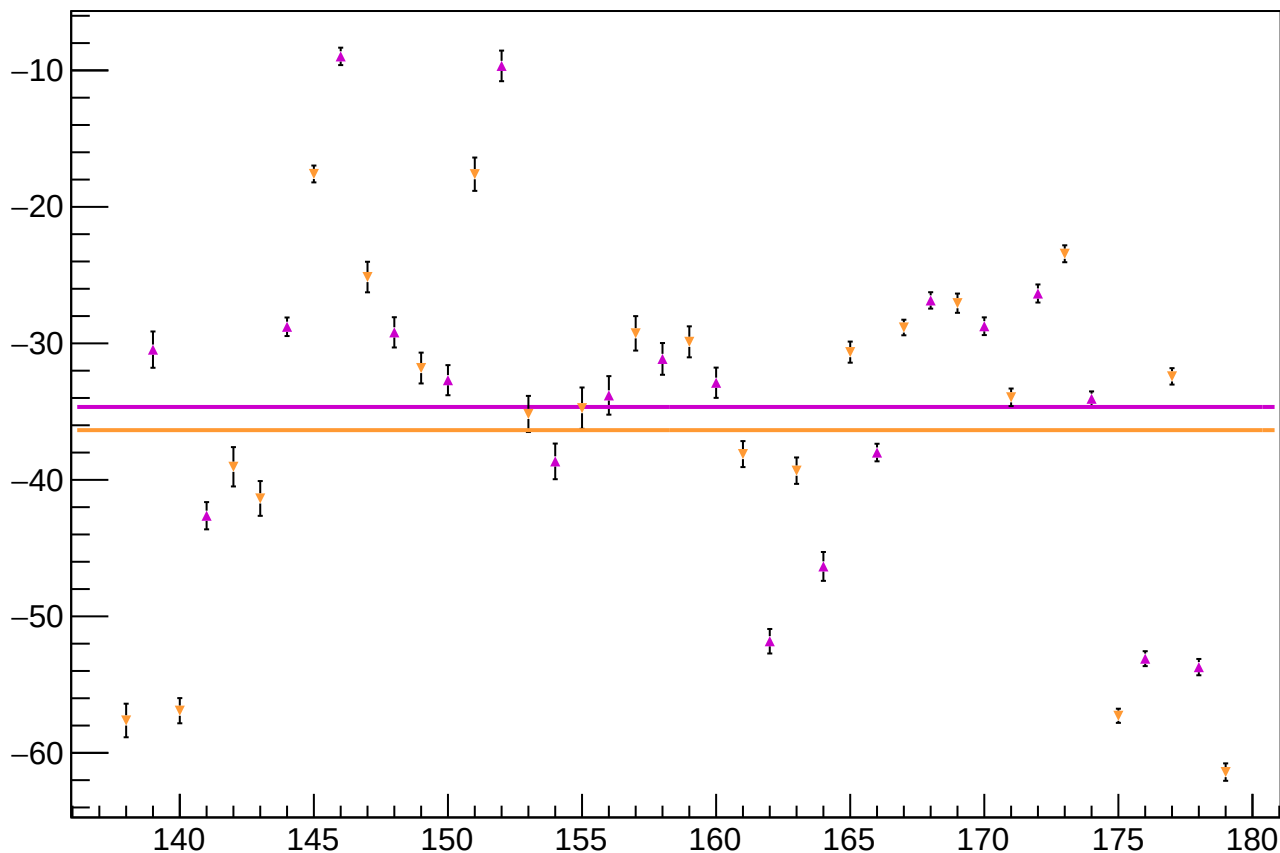
Right:  $-0.174 \pm 0.049$   $\chi^2/\text{NDF}: 1305.0/35$

In:  $1.460 \pm 0.018$   $\chi^2/\text{NDF}: 1628.6/36$

Out:  $1.508 \pm 0.017$   $\chi^2/\text{NDF}: 2001.7/40$

All:  $1.484 \pm 0.012$   $\chi^2/\text{NDF}: 3634.2/77$

reg\_asym\_sam3\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -36.357+/-0.174  $\chi^2/\text{NDF}$ :6229.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -34.658+/-0.174  $\chi^2/\text{NDF}$ :5393.4/19

Left: -35.511+/-0.123  $\chi^2/\text{NDF}$ : 11670.6/41

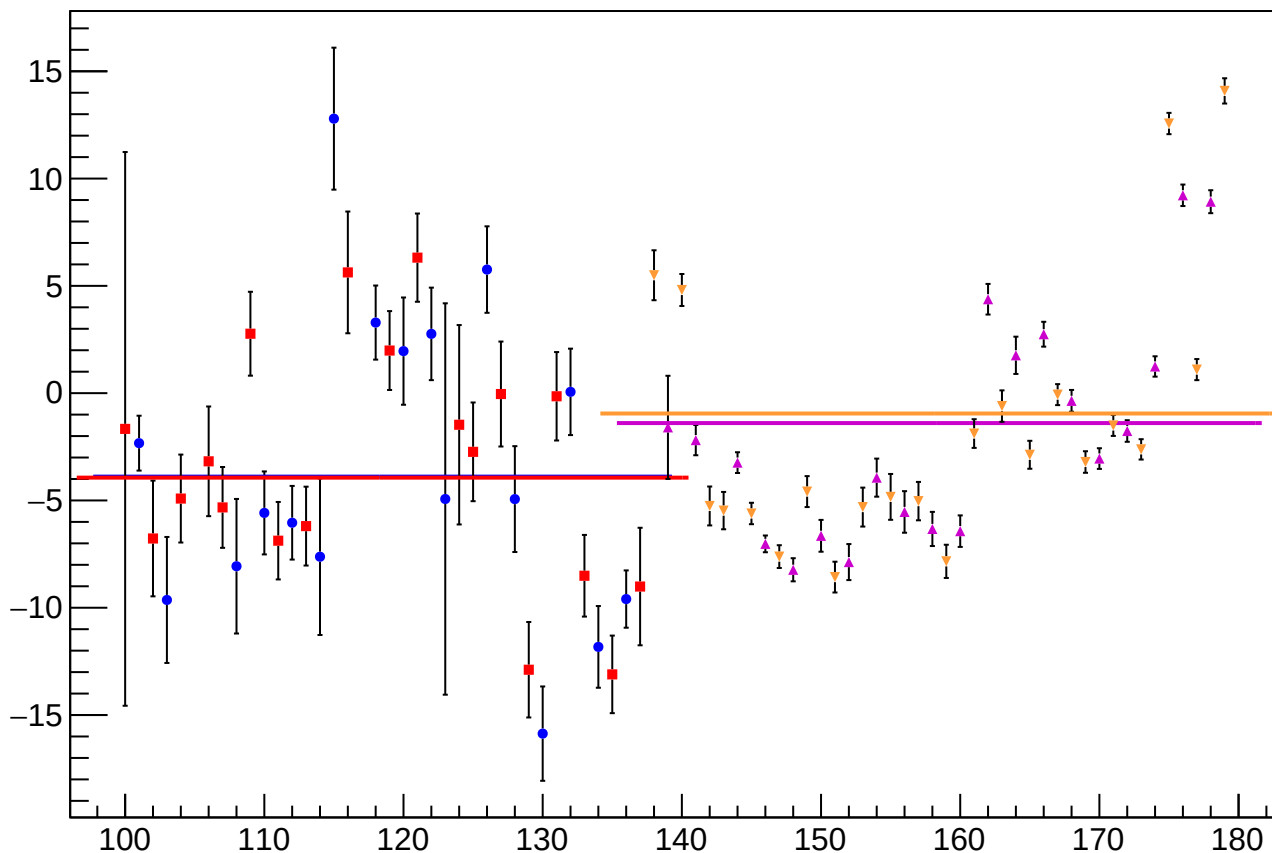
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -34.658+/-0.174  $\chi^2/\text{NDF}$ :5393.4/19

Out: -36.357+/-0.174  $\chi^2/\text{NDF}$ :6229.6/21

All: -35.511+/-0.123  $\chi^2/\text{NDF}$ : 11670.6/41

reg\_asym\_sam3\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-3.890 \pm 0.498$   $\chi^2/\text{NDF}$ : 160.5/16

Left Out:  $-0.948 \pm 0.134$   $\chi^2/\text{NDF}$ : 2118.5/21

Right Out:  $-3.937 \pm 0.507$   $\chi^2/\text{NDF}$ : 122.2/18

Left In:  $-1.394 \pm 0.134$   $\chi^2/\text{NDF}$ : 1605.4/19

Left:  $-1.171 \pm 0.095$   $\chi^2/\text{NDF}$ : 3729.5/41

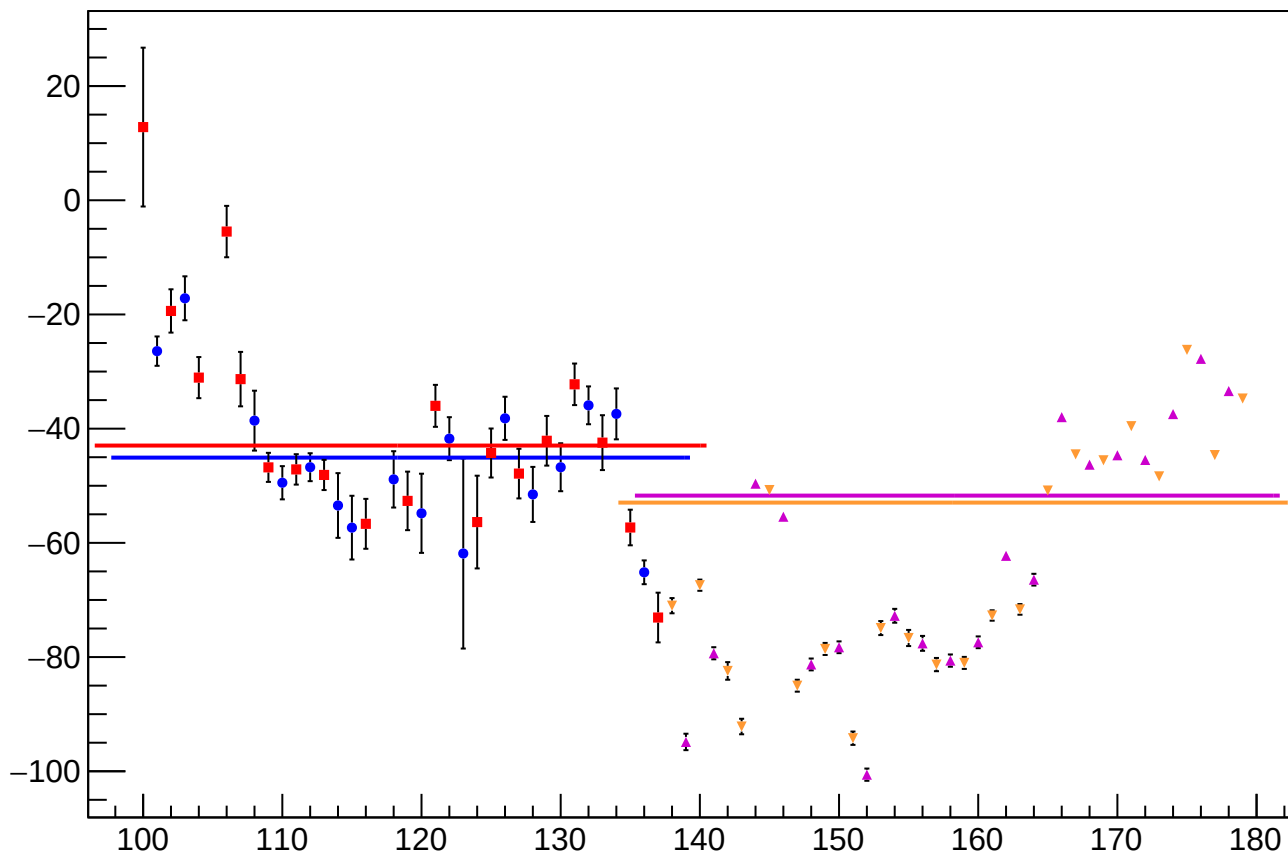
Right:  $-3.913 \pm 0.355$   $\chi^2/\text{NDF}$ : 282.6/35

In:  $-1.562 \pm 0.129$   $\chi^2/\text{NDF}$ : 1789.3/36

Out:  $-1.143 \pm 0.129$   $\chi^2/\text{NDF}$ : 2273.1/40

All:  $-1.353 \pm 0.091$   $\chi^2/\text{NDF}$ : 4067.7/77

reg\_asym\_sam3\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-45.070 \pm 0.883$   $\chi^2/\text{NDF}$ : 229.7/16

Left Out:  $-52.948 \pm 0.174$   $\chi^2/\text{NDF}$ : 11641.7/21

Right Out:  $-42.959 \pm 0.878$   $\chi^2/\text{NDF}$ : 248.3/18

Left In:  $-51.724 \pm 0.175$   $\chi^2/\text{NDF}$ : 11790.3/19

Left:  $-52.338 \pm 0.123$   $\chi^2/\text{NDF}$ : 23456.6/41

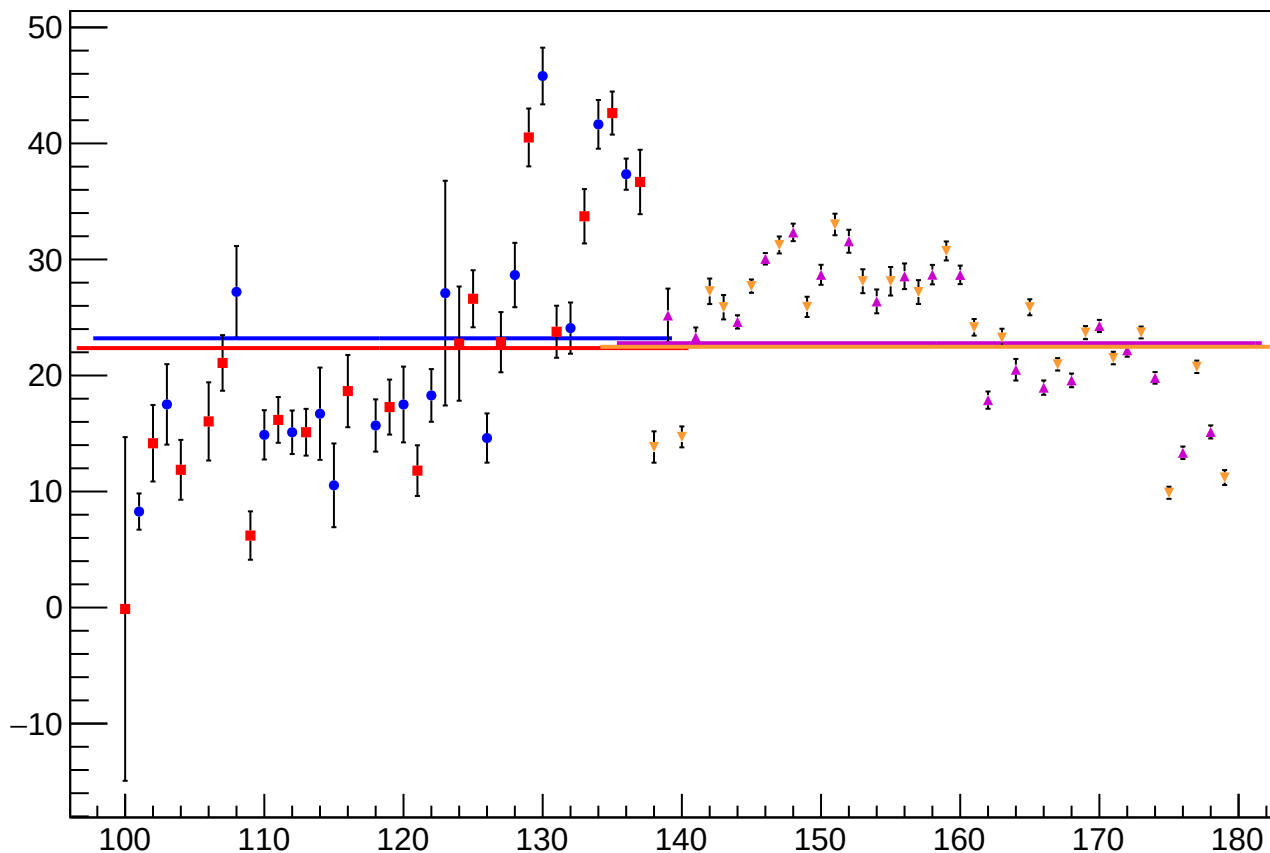
Right:  $-44.008 \pm 0.623$   $\chi^2/\text{NDF}$ : 480.9/35

In:  $-51.474 \pm 0.171$   $\chi^2/\text{NDF}$ : 12074.6/36

Out:  $-52.570 \pm 0.171$   $\chi^2/\text{NDF}$ : 12014.6/40

All:  $-52.024 \pm 0.121$   $\chi^2/\text{NDF}$ : 24109.8/77

reg\_asym\_sam3\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 23.205 $\pm$ 0.559  $\chi^2$ /NDF: 457.3/16

Left Out: 22.472 $\pm$ 0.151  $\chi^2$ /NDF:1639.9/21

Right Out: 22.361 $\pm$ 0.573  $\chi^2$ /NDF: 366.9/18

Left In: 22.782 $\pm$ 0.152  $\chi^2$ /NDF:1311.0/19

Left: 22.626 $\pm$ 0.107  $\chi^2$ /NDF: 2953.0/41

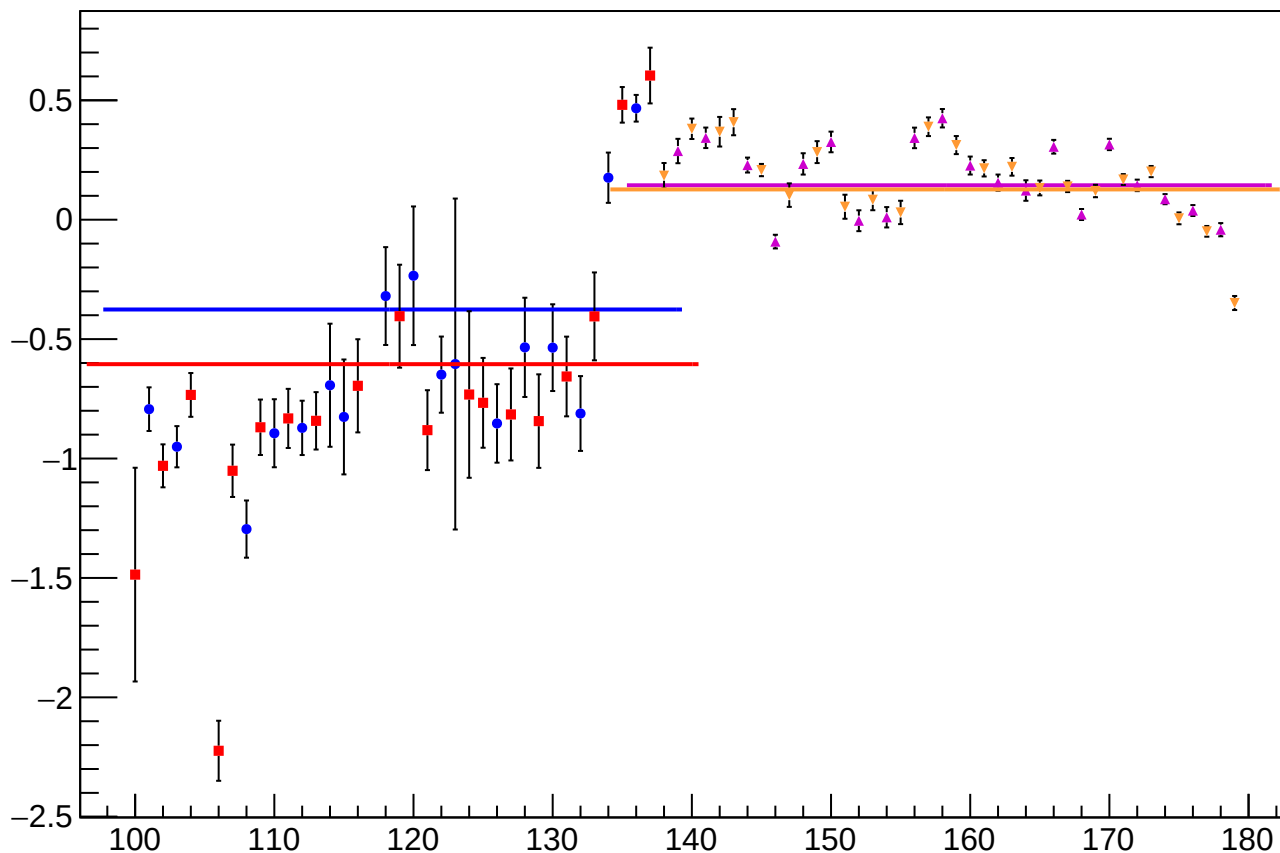
Right: 22.793 $\pm$ 0.400  $\chi^2$ /NDF: 825.2/35

In: 22.811 $\pm$ 0.146  $\chi^2$ /NDF:1768.8/36

Out: 22.465 $\pm$ 0.146  $\chi^2$ /NDF:2006.8/40

All: 22.637 $\pm$ 0.103  $\chi^2$ /NDF: 3778.4/77

reg\_asym\_sam3\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.376 \pm 0.030$   $\chi^2/\text{NDF}: 437.3/16$

Left Out:  $0.127 \pm 0.007$   $\chi^2/\text{NDF}: 549.2/21$

Right Out:  $-0.605 \pm 0.030$   $\chi^2/\text{NDF}: 551.1/18$

Left In:  $0.144 \pm 0.007$   $\chi^2/\text{NDF}: 412.2/19$

Left:  $0.135 \pm 0.005$   $\chi^2/\text{NDF}: 964.5/41$

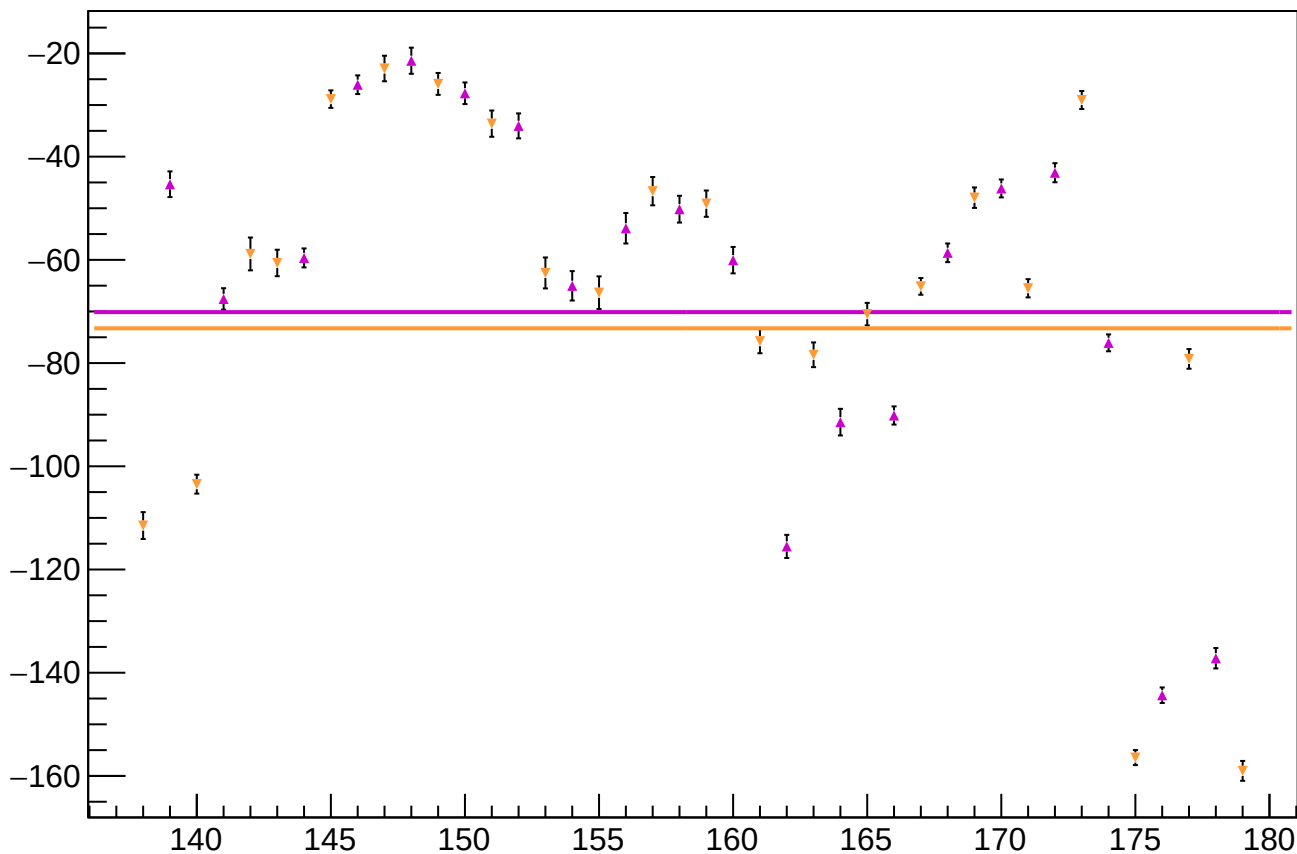
Right:  $-0.490 \pm 0.021$   $\chi^2/\text{NDF}: 1017.2/35$

In:  $0.118 \pm 0.007$   $\chi^2/\text{NDF}: 1132.5/36$

Out:  $0.090 \pm 0.007$   $\chi^2/\text{NDF}: 1657.3/40$

All:  $0.104 \pm 0.005$   $\chi^2/\text{NDF}: 2797.8/77$

reg\_asym\_sam4\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -73.265+/-0.449  $\chi^2/\text{NDF}$ : 8697.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -70.125+/-0.458  $\chi^2/\text{NDF}$ : 6486.5/19

Left: -71.726+/-0.321  $\chi^2/\text{NDF}$ : 15207.7/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

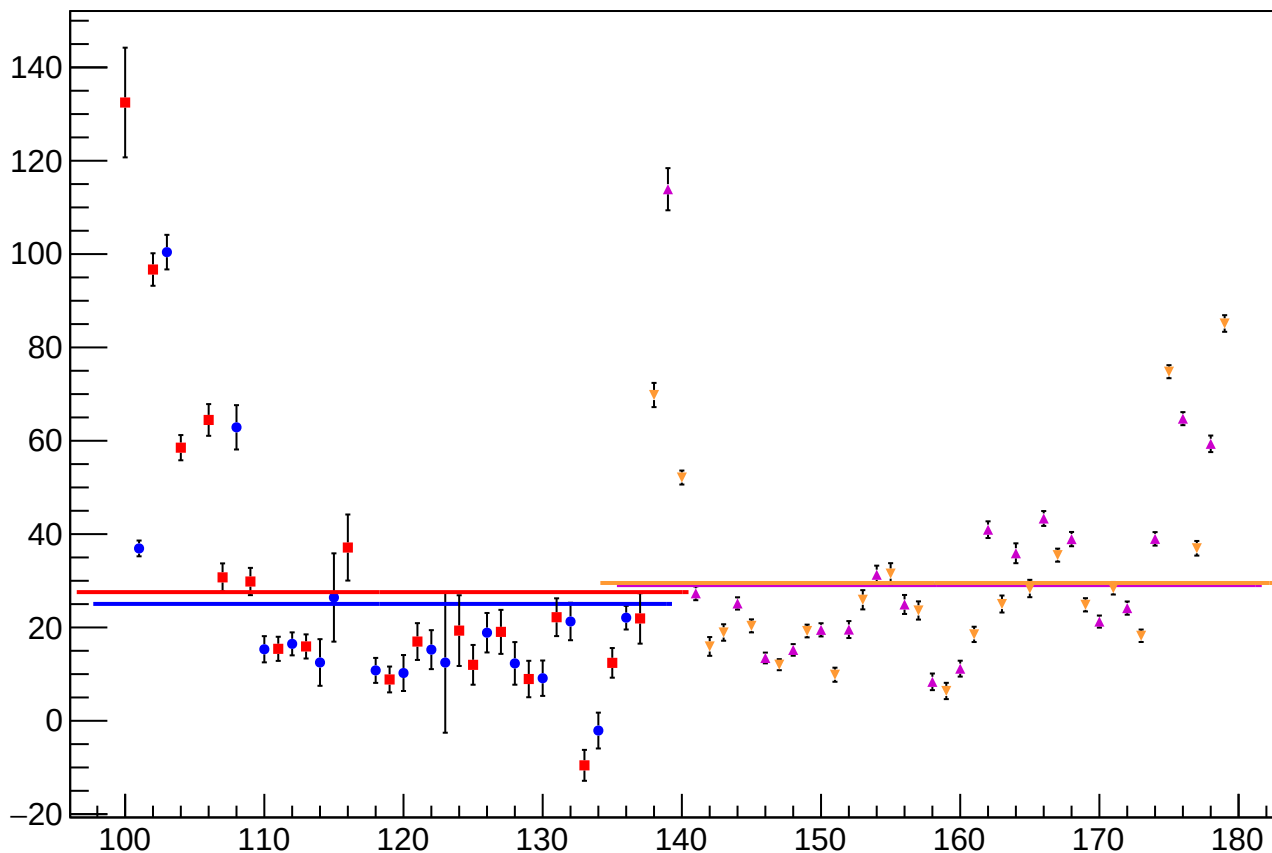
In: -70.125+/-0.458  $\chi^2/\text{NDF}$ : 6486.5/19

Out: -73.265+/-0.449  $\chi^2/\text{NDF}$ : 8697.3/21

All: -71.726+/-0.321  $\chi^2/\text{NDF}$ : 15207.7/41



reg\_asym\_sam4\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 25.045 $\pm$ 0.806  $\chi^2$ /NDF: 686.4/16

Left Out: 29.531 $\pm$ 0.339  $\chi^2$ /NDF:3424.7/21

Right Out: 27.573 $\pm$ 0.810  $\chi^2$ /NDF: 1012.8/18

Left In: 29.075 $\pm$ 0.349  $\chi^2$ /NDF:2207.6/19

Left: 29.310 $\pm$ 0.243  $\chi^2$ /NDF: 5633.1/41

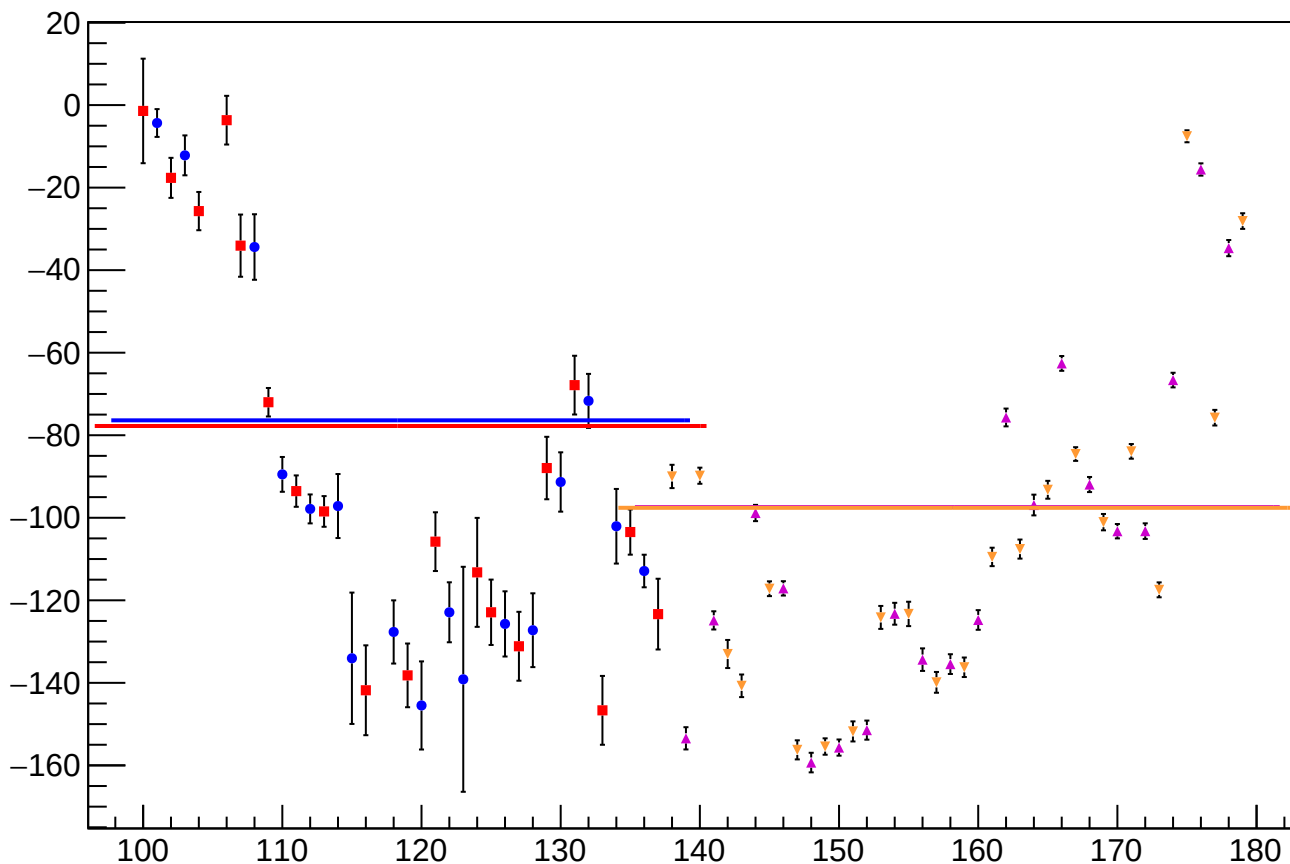
Right: 26.303 $\pm$ 0.571  $\chi^2$ /NDF: 1704.1/35

In: 28.439 $\pm$ 0.320  $\chi^2$ /NDF:2915.1/36

Out: 29.239 $\pm$ 0.313  $\chi^2$ /NDF:4442.4/40

All: 28.849 $\pm$ 0.224  $\chi^2$ /NDF: 7360.7/77

reg\_asym\_sam4\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-76.392 \pm 1.416$   $\chi^2/\text{NDF}: 1031.9/16$

Left Out:  $-97.584 \pm 0.448$   $\chi^2/\text{NDF}: 8798.5/21$

Right Out:  $-77.761 \pm 1.353$   $\chi^2/\text{NDF}: 872.7/18$

Left In:  $-97.411 \pm 0.456$   $\chi^2/\text{NDF}: 8335.5/19$

Left:  $-97.499 \pm 0.320$   $\chi^2/\text{NDF}: 17134.1/41$

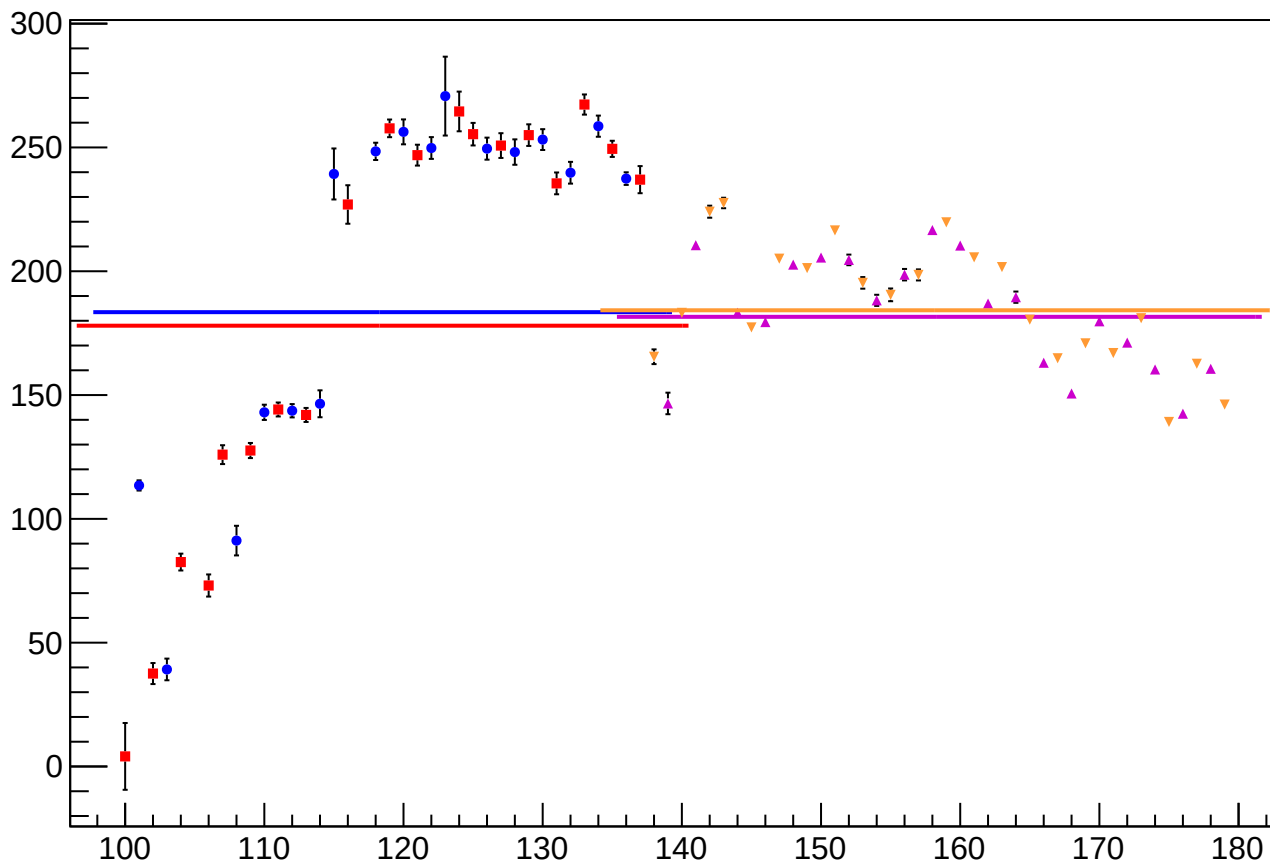
Right:  $-77.108 \pm 0.978$   $\chi^2/\text{NDF}: 1905.1/35$

In:  $-95.434 \pm 0.434$   $\chi^2/\text{NDF}: 9567.0/36$

Out:  $-95.623 \pm 0.425$   $\chi^2/\text{NDF}: 9864.6/40$

All:  $-95.531 \pm 0.304$   $\chi^2/\text{NDF}: 19431.8/77$

reg\_asym\_sam4\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 183.478 $\pm$ 0.919  $\chi^2$ /NDF: 5331.4/16

Left Out: 184.235 $\pm$ 0.386  $\chi^2$ /NDF:3823.3/21

Right Out: 178.011 $\pm$ 0.924  $\chi^2$ /NDF: 6345.7/18

Left In: 181.593 $\pm$ 0.396  $\chi^2$ /NDF:2948.4/19

Left: 182.950 $\pm$ 0.276  $\chi^2$ /NDF: 6794.5/41

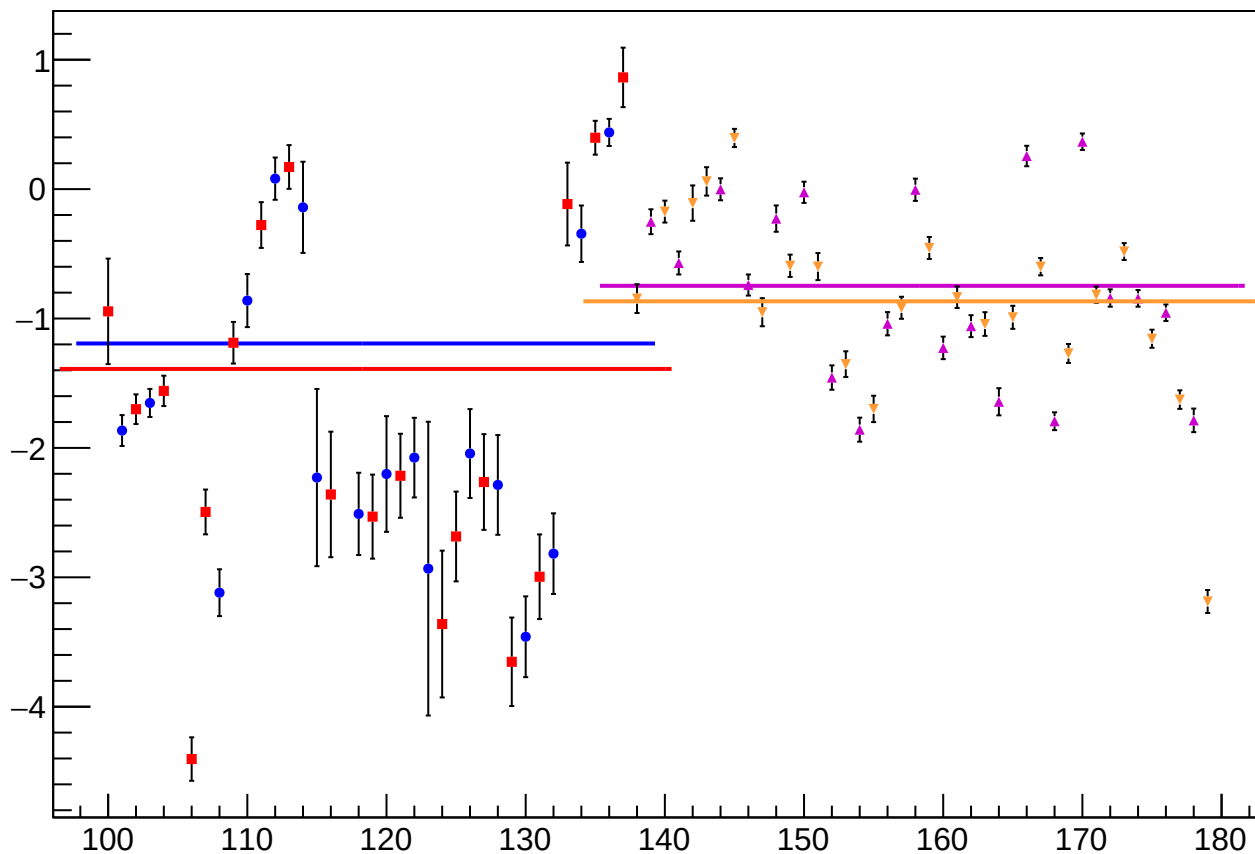
Right: 180.761 $\pm$ 0.651  $\chi^2$ /NDF: 11694.8/35

In: 181.889 $\pm$ 0.364  $\chi^2$ /NDF:8283.3/36

Out: 183.312 $\pm$ 0.356  $\chi^2$ /NDF:10207.7/40

All: 182.616 $\pm$ 0.254  $\chi^2$ /NDF: 18498.8/77

reg\_asym\_sam4\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-1.193 \pm 0.048$   $\chi^2/\text{NDF}$ : 621.7/16

Left Out:  $-0.867 \pm 0.018$   $\chi^2/\text{NDF}$ : 1523.1/21

Right Out:  $-1.390 \pm 0.046$   $\chi^2/\text{NDF}$ : 920.6/18

Left In:  $-0.747 \pm 0.018$   $\chi^2/\text{NDF}$ : 1457.4/19

Left:  $-0.808 \pm 0.013$   $\chi^2/\text{NDF}$ : 3002.9/41

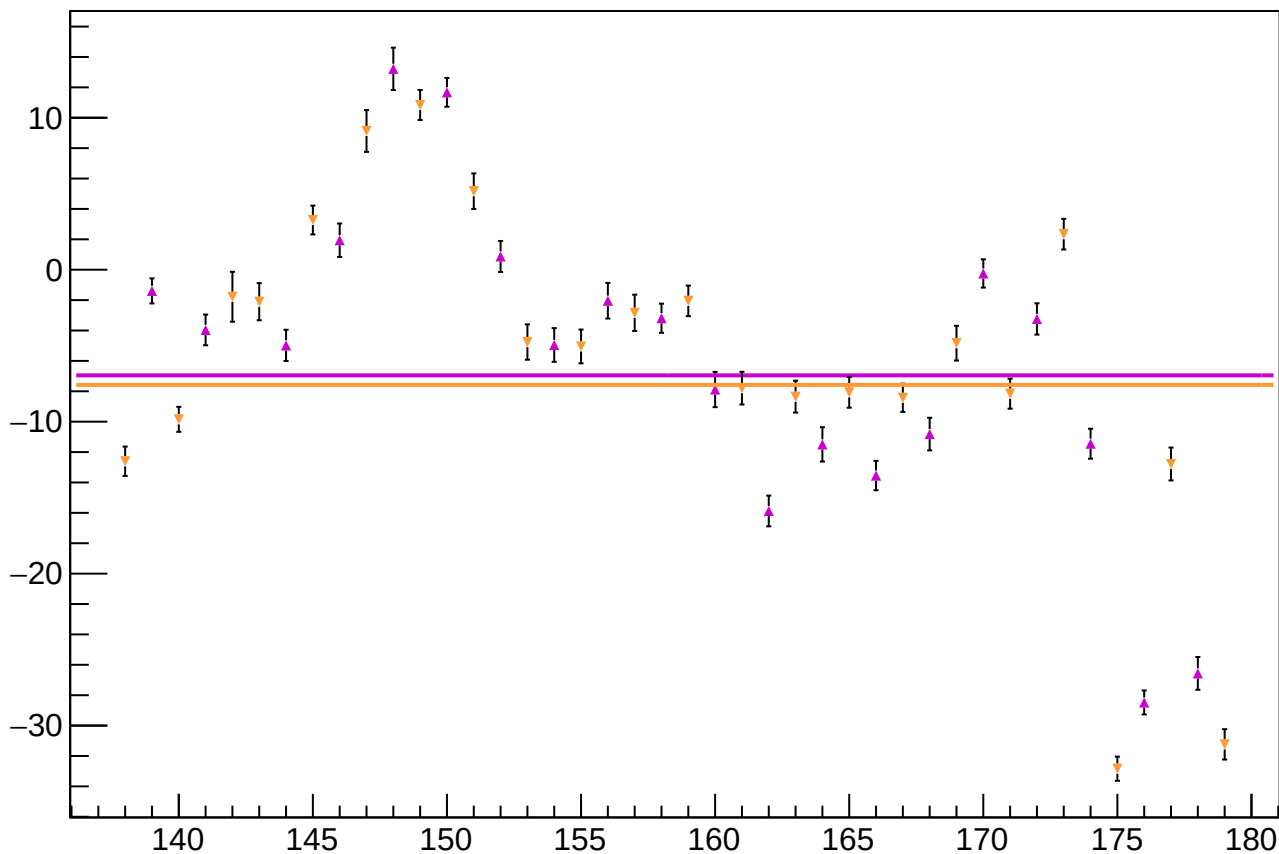
Right:  $-1.296 \pm 0.033$   $\chi^2/\text{NDF}$ : 1551.0/35

In:  $-0.802 \pm 0.017$   $\chi^2/\text{NDF}$ : 2154.2/36

Out:  $-0.935 \pm 0.017$   $\chi^2/\text{NDF}$ : 2556.7/40

All:  $-0.870 \pm 0.012$   $\chi^2/\text{NDF}$ : 4742.5/77

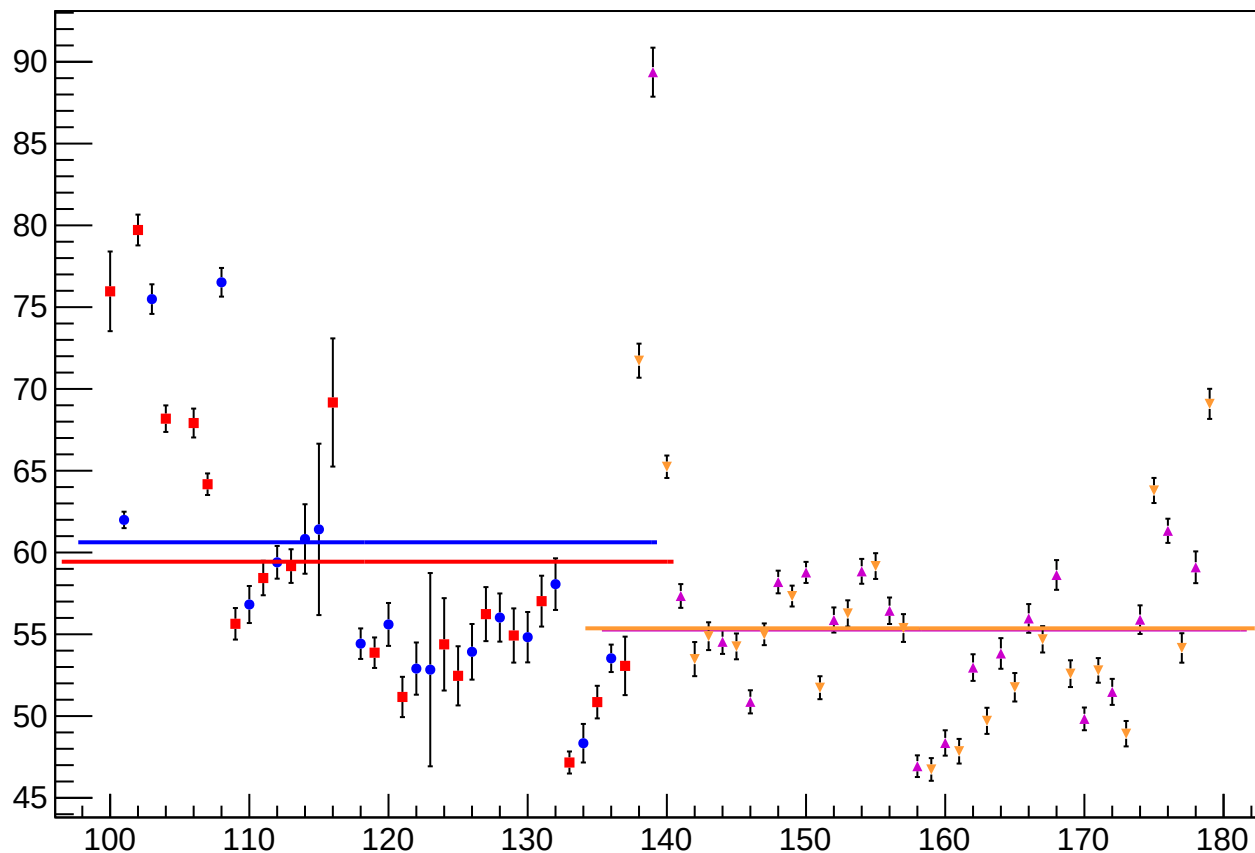
reg\_asym\_sam5\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -7.580+/-0.222  $\chi^2/\text{NDF}$ :2569.5/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -6.952+/-0.227  $\chi^2/\text{NDF}$ :2129.0/19

Left: -7.273+/-0.159  $\chi^2/\text{NDF}$ : 4702.4/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -6.952+/-0.227  $\chi^2/\text{NDF}$ :2129.0/19  
 Out: -7.580+/-0.222  $\chi^2/\text{NDF}$ :2569.5/21  
 All: -7.273+/-0.159  $\chi^2/\text{NDF}$ : 4702.4/41

reg\_asym\_sam5\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 60.625 $\pm$ 0.263  $\chi^2$ /NDF: 924.6/16

Left Out: 55.364 $\pm$ 0.168  $\chi^2$ /NDF:1279.6/21

Right Out: 59.438 $\pm$ 0.248  $\chi^2$ /NDF: 1323.4/18

Left In: 55.290 $\pm$ 0.175  $\chi^2$ /NDF:1067.5/19

Left: 55.329 $\pm$ 0.121  $\chi^2$ /NDF: 2347.2/41

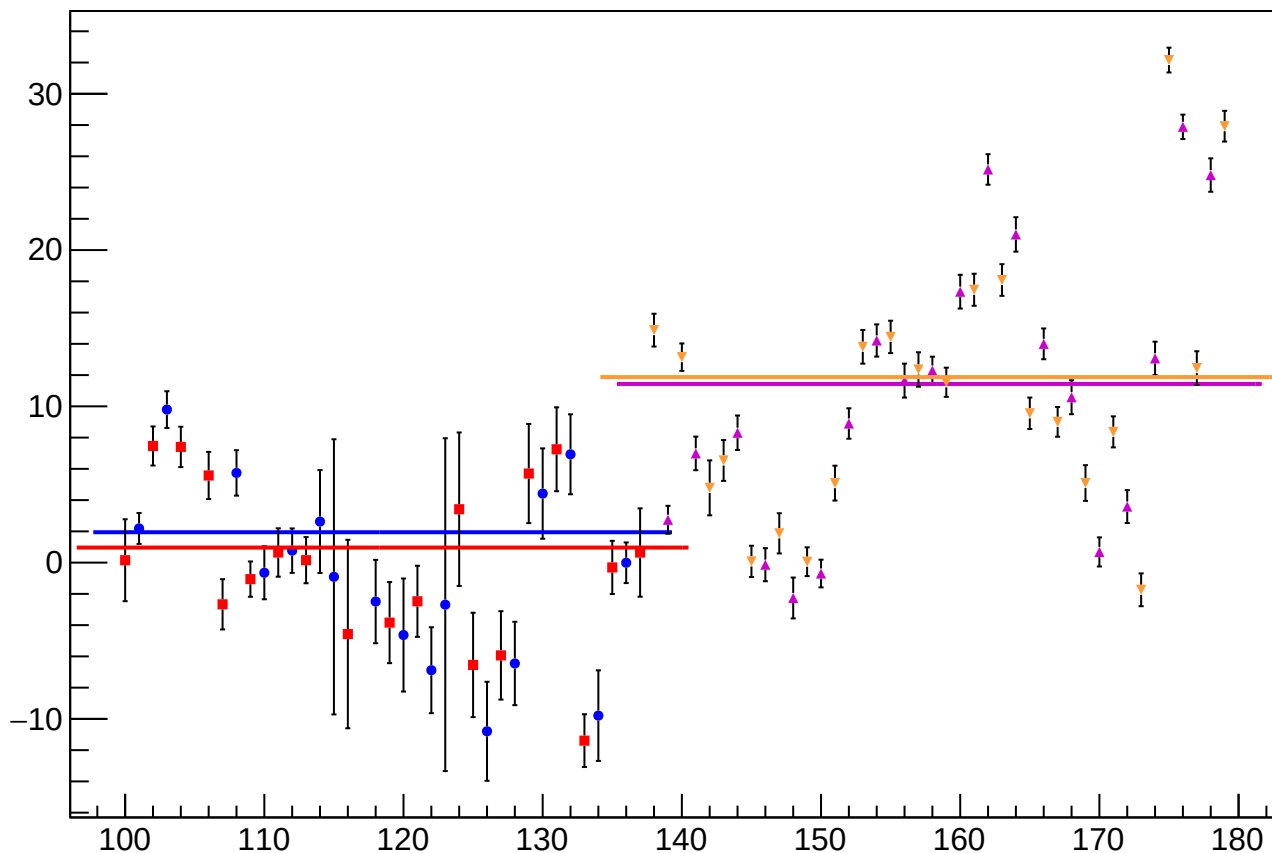
Right: 59.996 $\pm$ 0.180  $\chi^2$ /NDF: 2258.7/35

In: 56.930 $\pm$ 0.146  $\chi^2$ /NDF:2277.0/36

Out: 56.644 $\pm$ 0.139  $\chi^2$ /NDF:2788.3/40

All: 56.780 $\pm$ 0.101  $\chi^2$ /NDF: 5067.3/77

reg\_asym\_sam5\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $1.945 \pm 0.459$   $\chi^2/\text{NDF}$ : 120.6/16

Left Out:  $11.873 \pm 0.220$   $\chi^2/\text{NDF}$ : 1671.4/21

Right Out:  $0.964 \pm 0.424$   $\chi^2/\text{NDF}$ : 149.5/18

Left In:  $11.433 \pm 0.224$   $\chi^2/\text{NDF}$ : 1653.5/19

Left:  $11.657 \pm 0.157$   $\chi^2/\text{NDF}$ : 3326.9/41

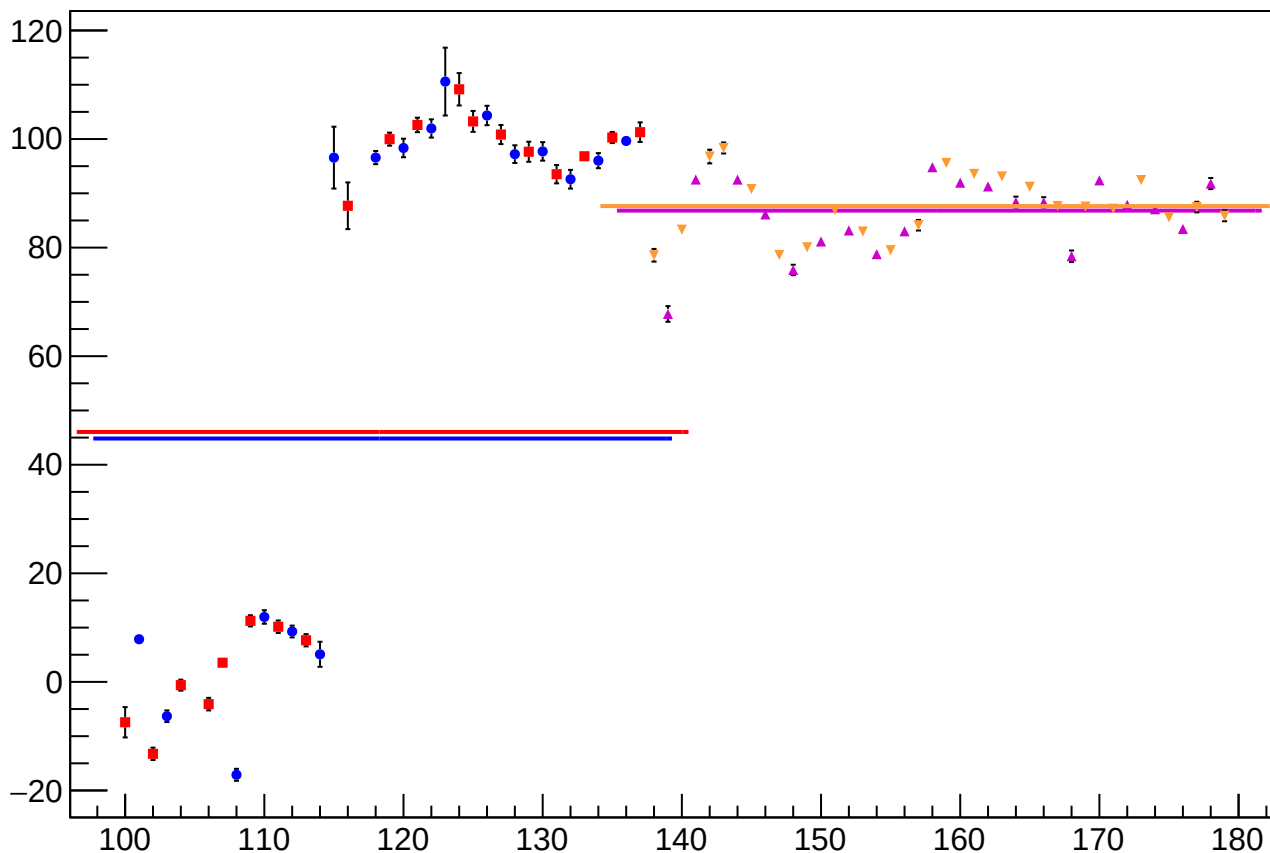
Right:  $1.416 \pm 0.312$   $\chi^2/\text{NDF}$ : 272.6/35

In:  $9.602 \pm 0.202$   $\chi^2/\text{NDF}$ : 2119.2/36

Out:  $9.562 \pm 0.195$   $\chi^2/\text{NDF}$ : 2341.7/40

All:  $9.581 \pm 0.140$   $\chi^2/\text{NDF}$ : 4461.0/77

reg\_asym\_sam5\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 44.829 $\pm$ 0.305     $\chi^2$ /NDF: 24763.1/16

Left Out: 87.647 $\pm$ 0.190     $\chi^2$ /NDF:854.4/21

Right Out: 46.040 $\pm$ 0.289     $\chi^2$ /NDF: 28263.4/18

Left In: 86.814 $\pm$ 0.197     $\chi^2$ /NDF:929.4/19

Left: 87.245 $\pm$ 0.137     $\chi^2$ /NDF: 1793.0/41

Right: 45.465 $\pm$ 0.210     $\chi^2$ /NDF: 53034.8/35

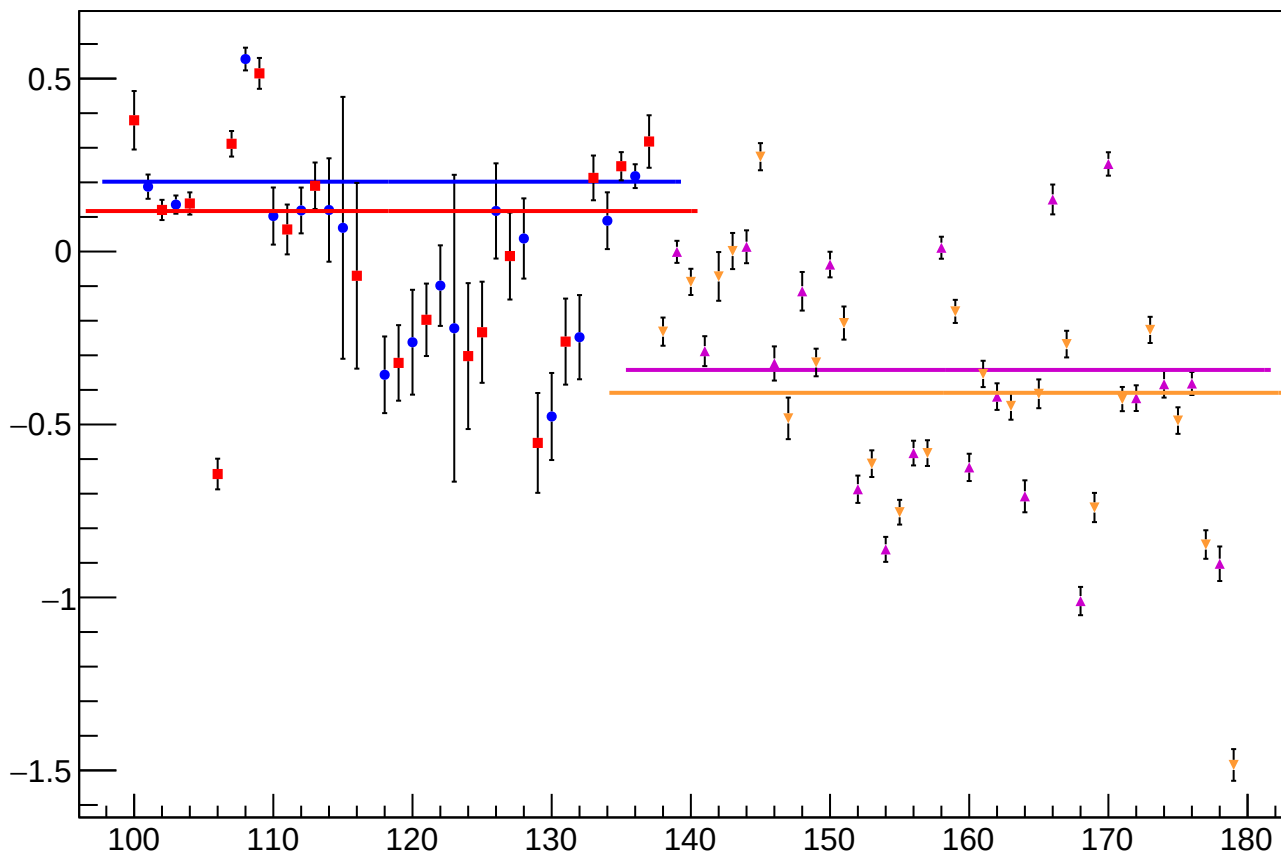
In: 74.414 $\pm$ 0.166     $\chi^2$ /NDF:39075.4/36

Out: 75.099 $\pm$ 0.159     $\chi^2$ /NDF:43546.4/40

All: 74.770 $\pm$ 0.115     $\chi^2$ /NDF: 82630.7/77



reg\_asym\_sam5\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.202 \pm 0.014$   $\chi^2/\text{NDF}$ : 216.0/16

Left Out:  $-0.408 \pm 0.009$   $\chi^2/\text{NDF}$ : 1464.5/21

Right Out:  $0.117 \pm 0.013$   $\chi^2/\text{NDF}$ : 499.6/18

Left In:  $-0.342 \pm 0.009$   $\chi^2/\text{NDF}$ : 1665.7/19

Left:  $-0.376 \pm 0.006$   $\chi^2/\text{NDF}$ : 3159.1/41

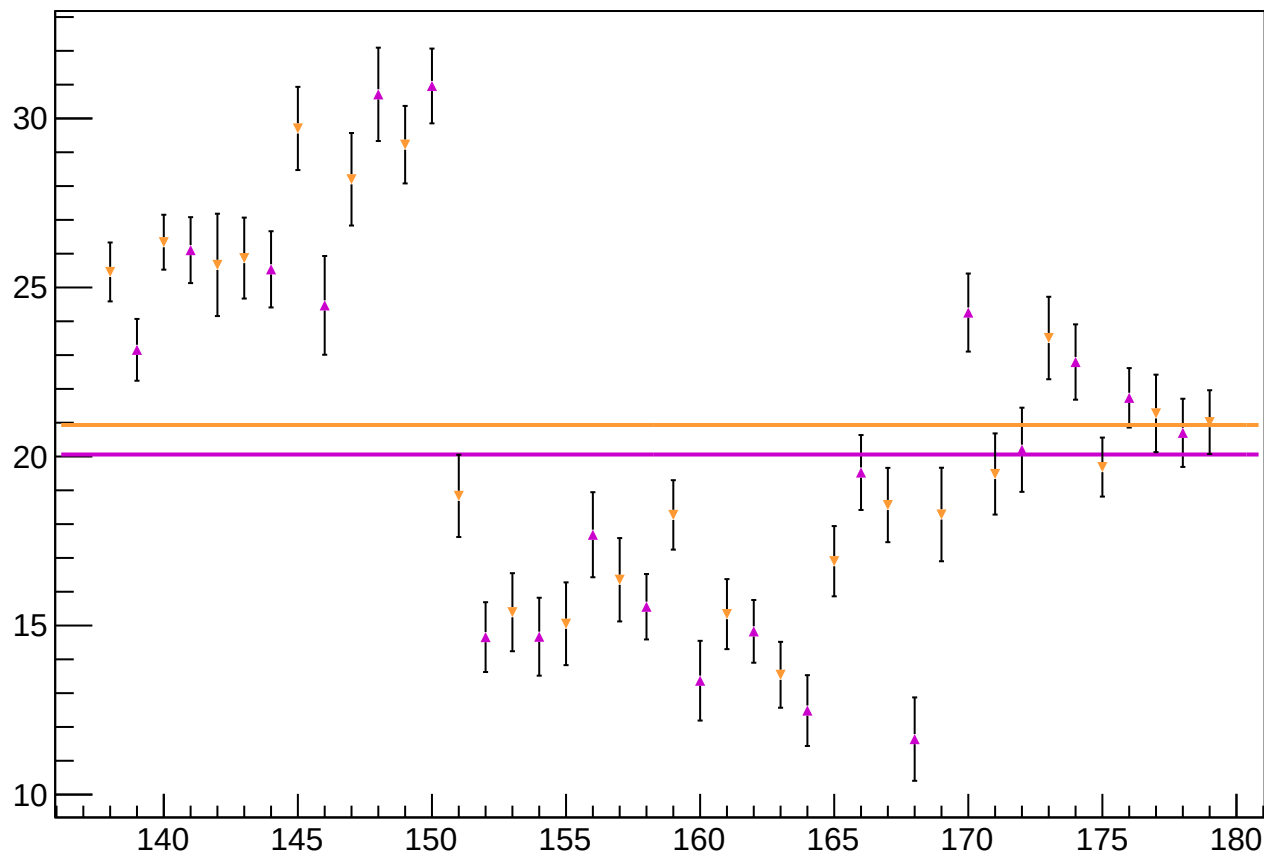
Right:  $0.156 \pm 0.010$   $\chi^2/\text{NDF}$ : 735.2/35

In:  $-0.190 \pm 0.007$   $\chi^2/\text{NDF}$ : 2963.2/36

Out:  $-0.247 \pm 0.007$   $\chi^2/\text{NDF}$ : 3091.7/40

All:  $-0.220 \pm 0.005$   $\chi^2/\text{NDF}$ : 6085.1/77

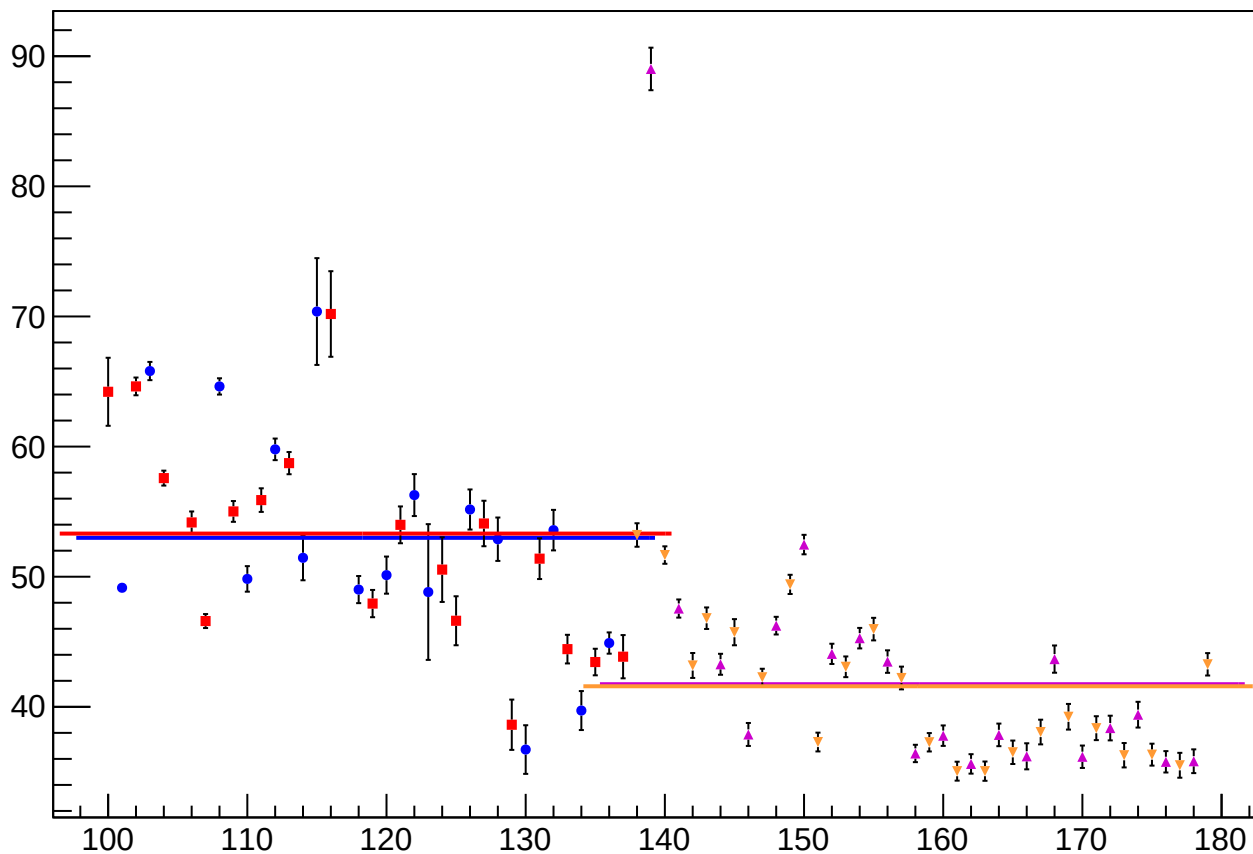
reg\_asym\_sam6\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 20.933 $\pm$ 0.233  $\chi^2$ /NDF:417.1/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 20.059 $\pm$ 0.243  $\chi^2$ /NDF:500.2/19

Left: 20.514 $\pm$ 0.168  $\chi^2$ /NDF: 924.1/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 20.059 $\pm$ 0.243  $\chi^2$ /NDF:500.2/19  
 Out: 20.933 $\pm$ 0.233  $\chi^2$ /NDF:417.1/21  
 All: 20.514 $\pm$ 0.168  $\chi^2$ /NDF: 924.1/41

reg\_asym\_sam6\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 52.989 $\pm$ 0.211  $\chi^2$ /NDF: 1198.0/16

Left Out: 41.581 $\pm$ 0.175  $\chi^2$ /NDF:1003.9/21

Right Out: 53.315 $\pm$ 0.227  $\chi^2$ /NDF: 875.6/18

Left In: 41.740 $\pm$ 0.186  $\chi^2$ /NDF:1576.8/19

Left: 41.656 $\pm$ 0.128  $\chi^2$ /NDF: 2581.1/41

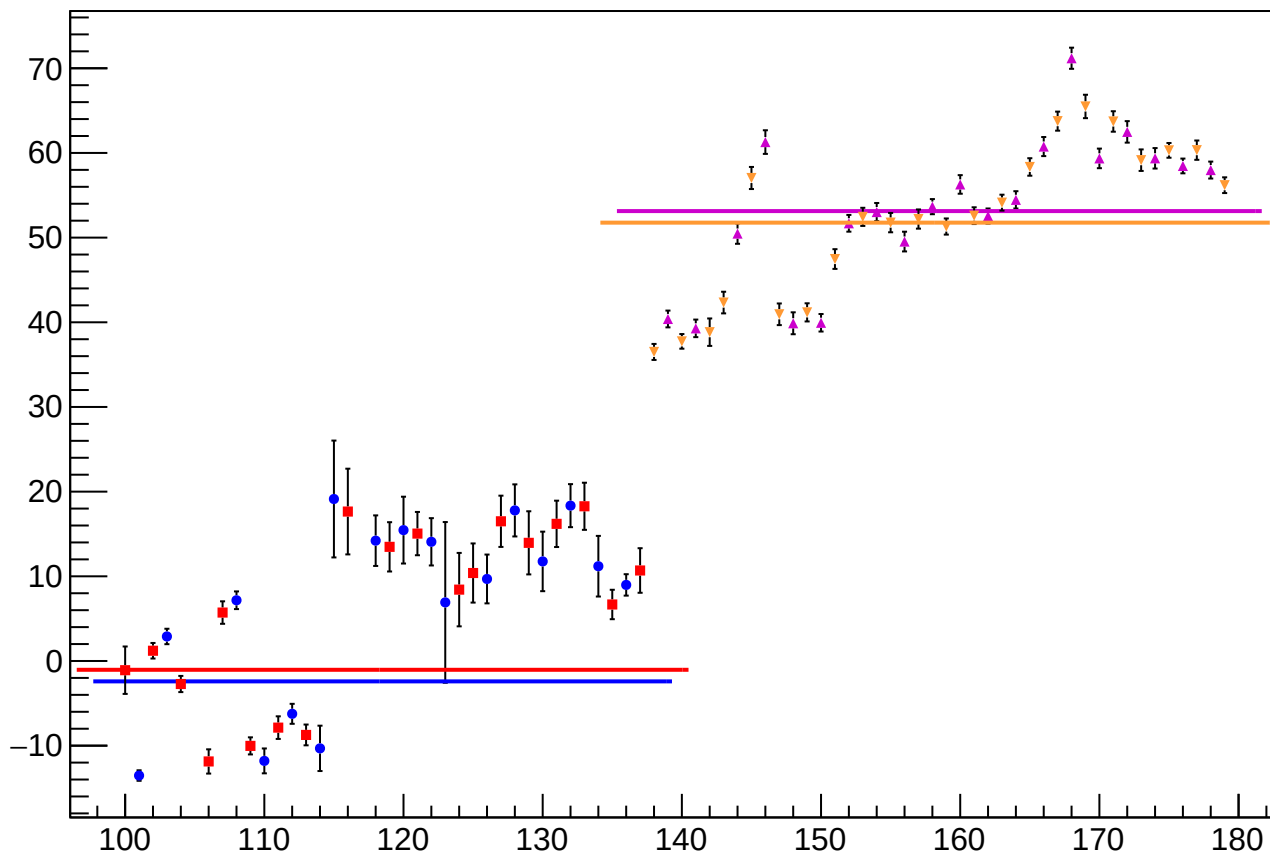
Right: 53.140 $\pm$ 0.154  $\chi^2$ /NDF: 2074.7/35

In: 46.665 $\pm$ 0.140  $\chi^2$ /NDF:4374.5/36

Out: 45.970 $\pm$ 0.139  $\chi^2$ /NDF:3556.0/40

All: 46.315 $\pm$ 0.098  $\chi^2$ /NDF: 7943.0/77

reg\_asym\_sam6\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-2.409 \pm 0.364$   $\chi^2/\text{NDF}: 834.6/16$

Left Out:  $51.768 \pm 0.231$   $\chi^2/\text{NDF}: 1408.5/21$

Right Out:  $-1.040 \pm 0.377$   $\chi^2/\text{NDF}: 507.5/18$

Left In:  $53.133 \pm 0.240$   $\chi^2/\text{NDF}: 1097.9/19$

Left:  $52.425 \pm 0.166$   $\chi^2/\text{NDF}: 2523.2/41$

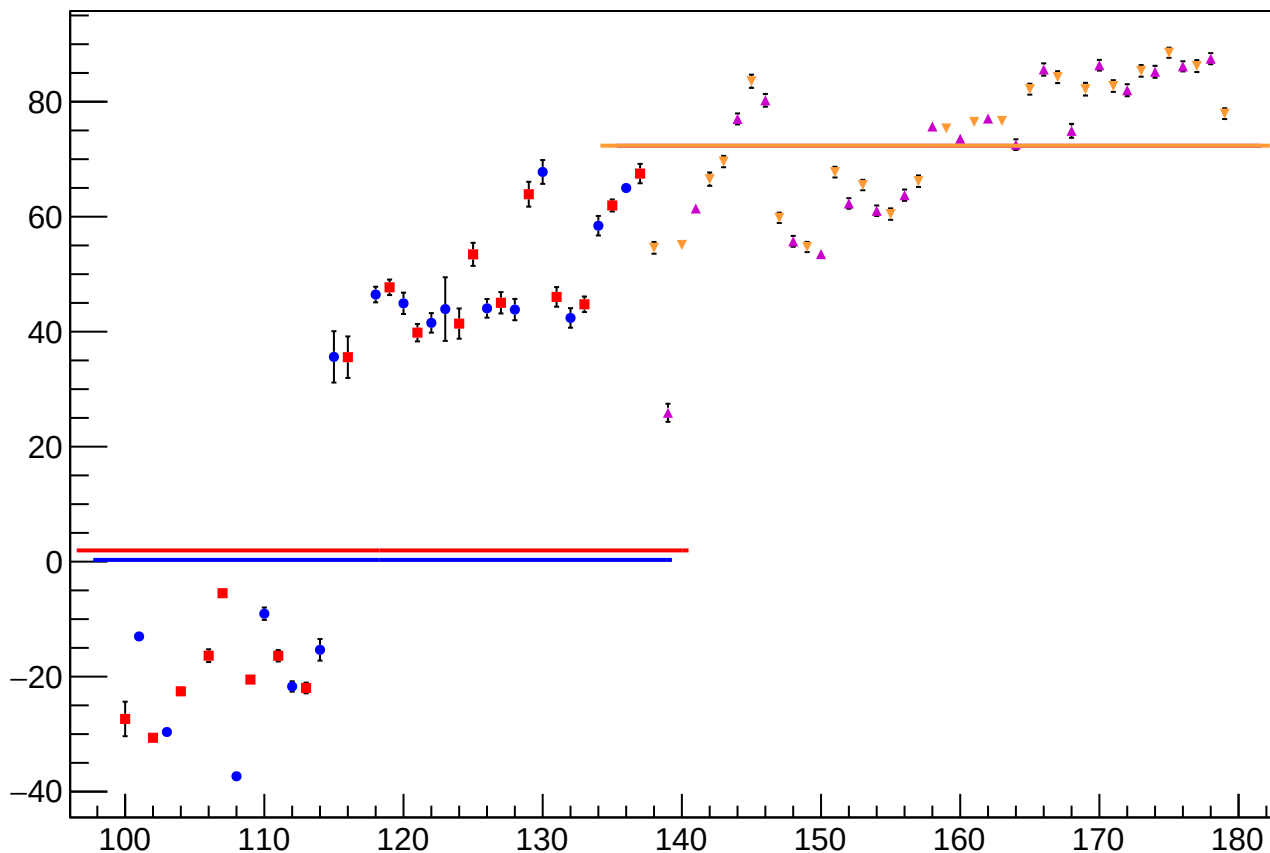
Right:  $-1.748 \pm 0.262$   $\chi^2/\text{NDF}: 1349.0/35$

In:  $36.356 \pm 0.200$   $\chi^2/\text{NDF}: 18154.3/36$

Out:  $37.350 \pm 0.197$   $\chi^2/\text{NDF}: 16175.1/40$

All:  $36.861 \pm 0.140$   $\chi^2/\text{NDF}: 34342.0/77$

reg\_asym\_sam6\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.300+/-0.247  $\chi^2/\text{NDF}$ : 18259.2/16

Left Out: 72.356+/-0.199  $\chi^2/\text{NDF}$ :2945.1/21

Right Out: 1.952+/-0.267  $\chi^2/\text{NDF}$ : 15450.6/18

Left In: 72.329+/-0.210  $\chi^2/\text{NDF}$ :3425.8/19

Left: 72.343+/-0.144  $\chi^2/\text{NDF}$ : 6371.0/41

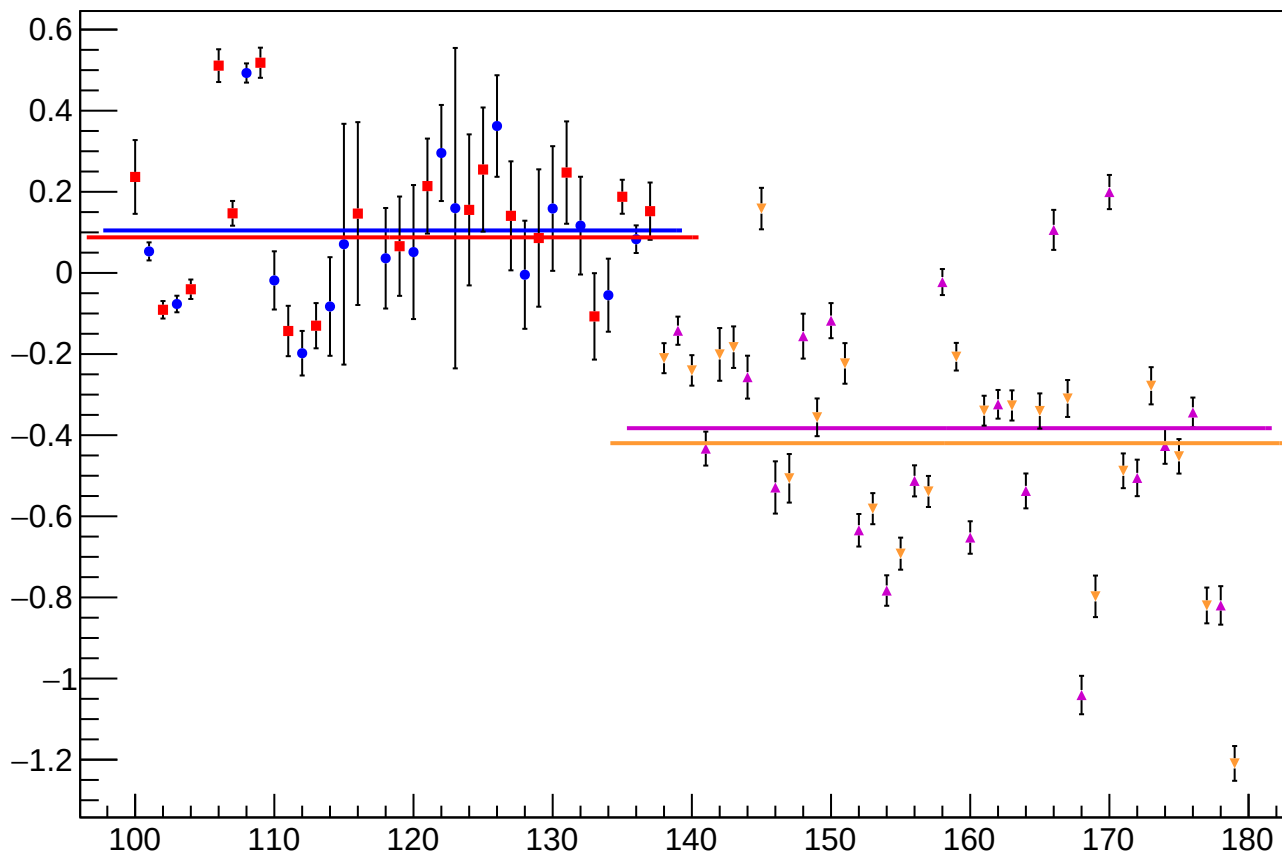
Right: 1.065+/-0.181  $\chi^2/\text{NDF}$ : 33730.4/35

In: 42.223+/-0.160  $\chi^2/\text{NDF}$ :71014.1/36

Out: 47.100+/-0.160  $\chi^2/\text{NDF}$ :63106.4/40

All: 44.665+/-0.113  $\chi^2/\text{NDF}$ : 134585.9/77

reg\_asym\_sam6\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.105 \pm 0.011$   $\chi^2/\text{NDF}: 400.8/16$

Left Out:  $-0.420 \pm 0.009$   $\chi^2/\text{NDF}: 857.8/21$

Right Out:  $0.088 \pm 0.011$   $\chi^2/\text{NDF}: 390.9/18$

Left In:  $-0.383 \pm 0.009$   $\chi^2/\text{NDF}: 1042.0/19$

Left:  $-0.402 \pm 0.007$   $\chi^2/\text{NDF}: 1907.8/41$

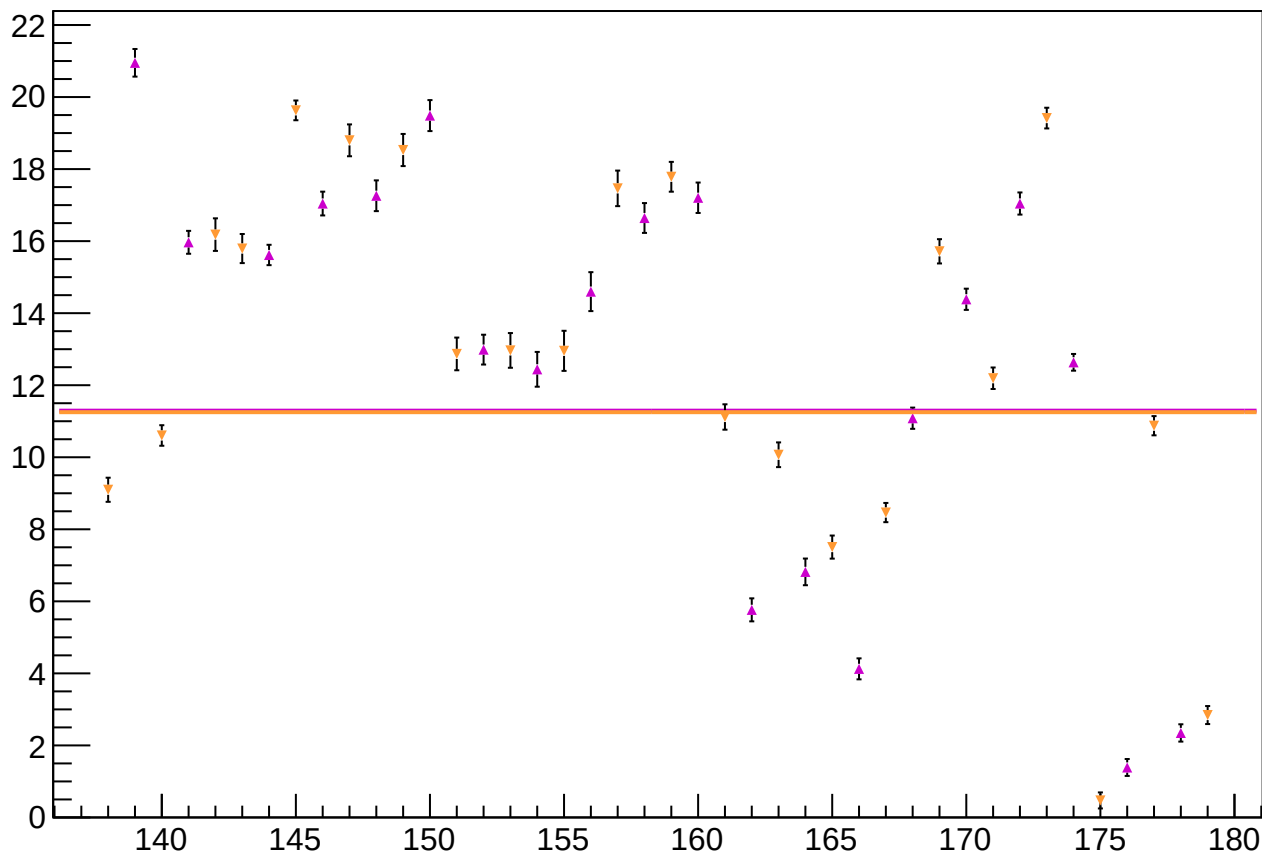
Right:  $0.096 \pm 0.008$   $\chi^2/\text{NDF}: 792.8/35$

In:  $-0.179 \pm 0.007$   $\chi^2/\text{NDF}: 2577.7/36$

Out:  $-0.212 \pm 0.007$   $\chi^2/\text{NDF}: 2504.5/40$

All:  $-0.196 \pm 0.005$   $\chi^2/\text{NDF}: 5093.3/77$

reg\_asym\_sam7\_diff\_bpm1X\_slope vs Slug, Sign Corrected

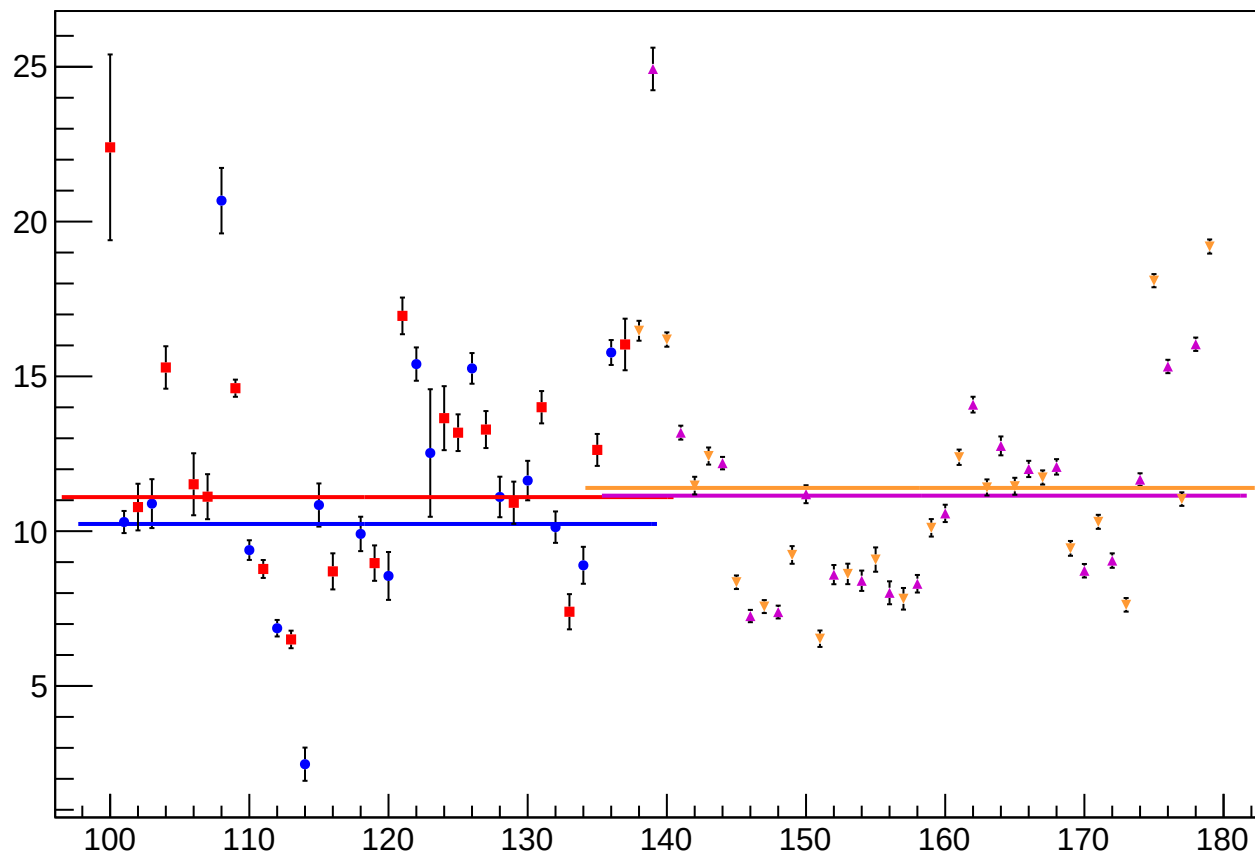


Right In: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 11.252+/-0.071     $\chi^2/\text{NDF}$ : 6958.9/21  
 Right Out: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 11.293+/-0.072     $\chi^2/\text{NDF}$ : 7075.4/19

Left: 11.272+/-0.051     $\chi^2/\text{NDF}$ : 14034.5/41  
 Right: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0  
 In: 11.293+/-0.072     $\chi^2/\text{NDF}$ : 7075.4/19  
 Out: 11.252+/-0.071     $\chi^2/\text{NDF}$ : 6958.9/21

All: 11.272+/-0.051     $\chi^2/\text{NDF}$ : 14034.5/41

reg\_asym\_sam7\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 10.232 $\pm$ 0.119  $\chi^2$ /NDF: 876.7/16

Left Out: 11.397 $\pm$ 0.054  $\chi^2$ /NDF:4401.9/21

Right Out: 11.100 $\pm$ 0.116  $\chi^2$ /NDF: 817.8/18

Left In: 11.147 $\pm$ 0.056  $\chi^2$ /NDF:2814.3/19

Left: 11.276 $\pm$ 0.039  $\chi^2$ /NDF: 7226.6/41

Right: 10.677 $\pm$ 0.083  $\chi^2$ /NDF: 1721.6/35

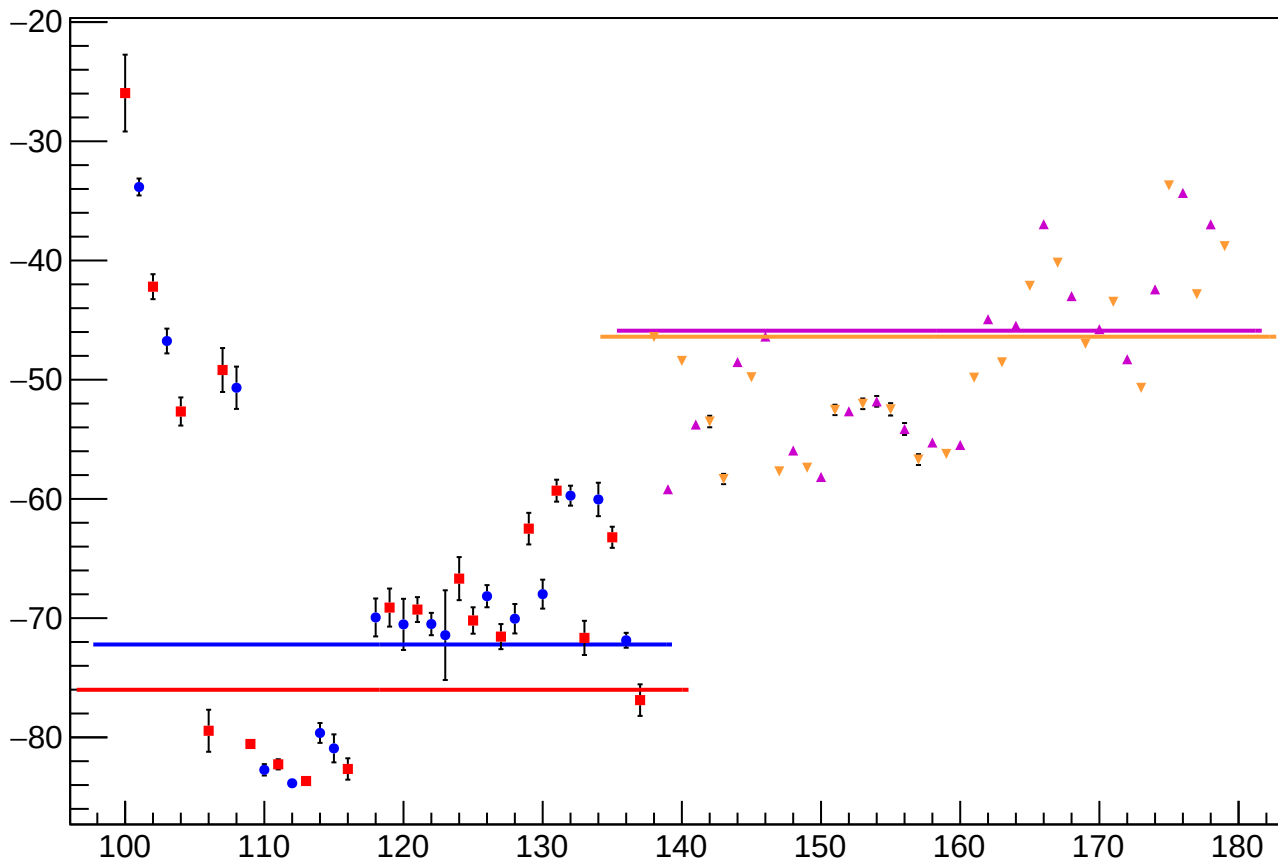
In: 10.983 $\pm$ 0.051  $\chi^2$ /NDF:3739.2/36

Out: 11.344 $\pm$ 0.049  $\chi^2$ /NDF:5225.1/40

All: 11.169 $\pm$ 0.035  $\chi^2$ /NDF: 8990.6/77



reg\_asym\_sam7\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-72.211 \pm 0.198$   $\chi^2/\text{NDF}$ : 5566.2/16

Left Out:  $-46.393 \pm 0.071$   $\chi^2/\text{NDF}$ : 9785.1/21

Right Out:  $-76.009 \pm 0.181$   $\chi^2/\text{NDF}$ : 3463.3/18

Left In:  $-45.888 \pm 0.072$   $\chi^2/\text{NDF}$ : 10266.1/19

Left:  $-46.147 \pm 0.051$   $\chi^2/\text{NDF}$ : 20076.1/41

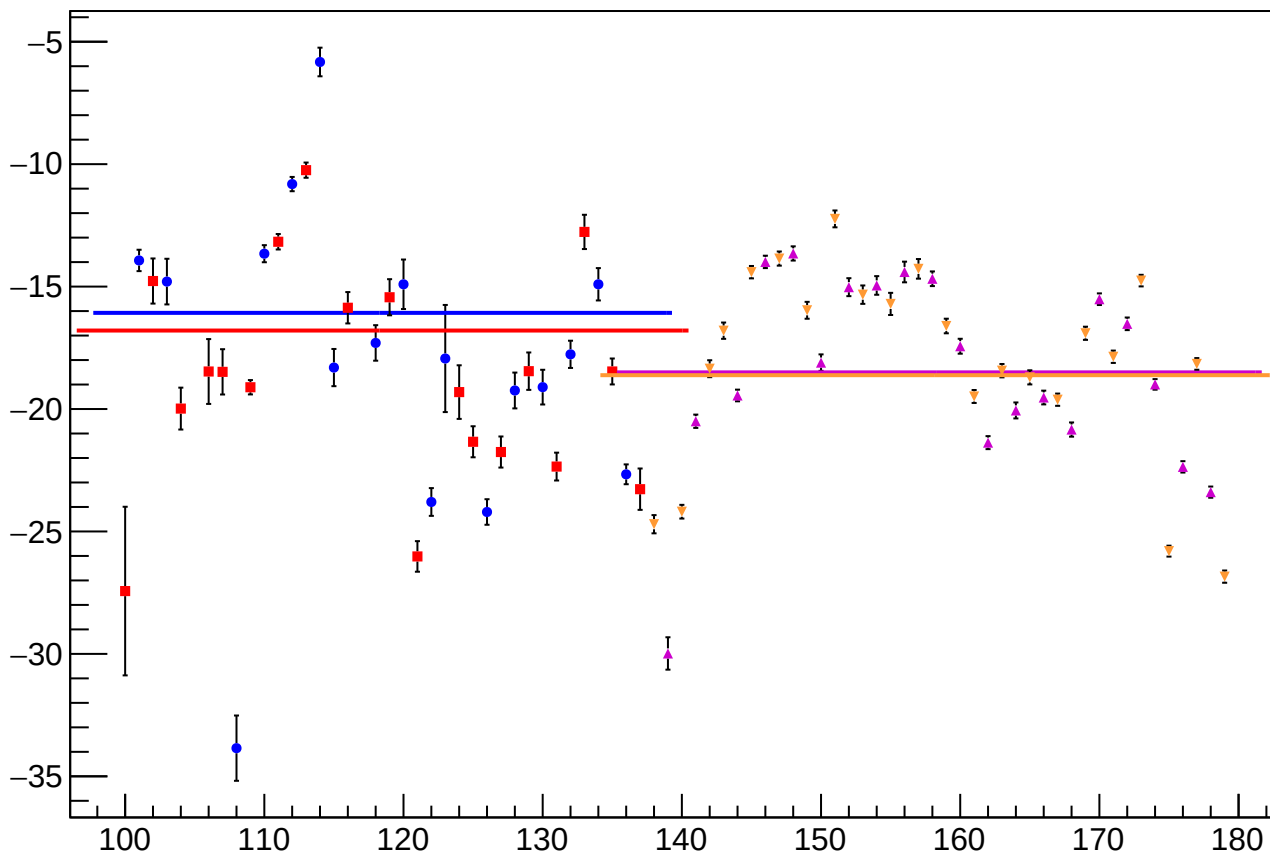
Right:  $-74.280 \pm 0.134$   $\chi^2/\text{NDF}$ : 9230.0/35

In:  $-48.992 \pm 0.068$   $\chi^2/\text{NDF}$ : 31423.6/36

Out:  $-50.315 \pm 0.066$   $\chi^2/\text{NDF}$ : 36479.8/40

All:  $-49.675 \pm 0.047$   $\chi^2/\text{NDF}$ : 68098.5/77

reg\_asym\_sam7\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-16.073 \pm 0.133$   $\chi^2/\text{NDF}$ : 1640.5/16

Left Out:  $-18.618 \pm 0.061$   $\chi^2/\text{NDF}$ : 4384.3/21

Right Out:  $-16.795 \pm 0.128$   $\chi^2/\text{NDF}$ : 1216.0/18

Left In:  $-18.503 \pm 0.063$   $\chi^2/\text{NDF}$ : 2591.8/19

Left:  $-18.562 \pm 0.044$   $\chi^2/\text{NDF}$ : 6977.8/41

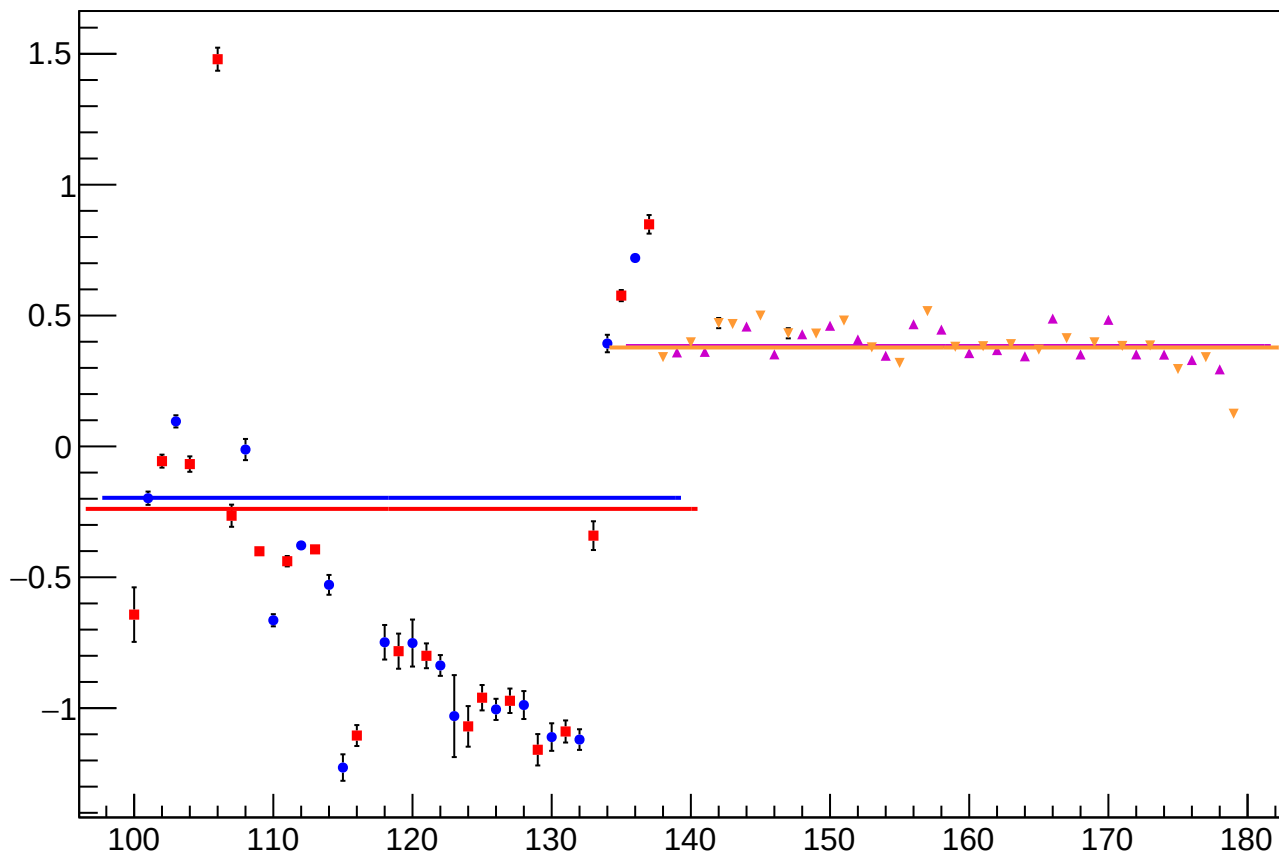
Right:  $-16.446 \pm 0.092$   $\chi^2/\text{NDF}$ : 2871.9/35

In:  $-18.055 \pm 0.057$   $\chi^2/\text{NDF}$ : 4506.6/36

Out:  $-18.280 \pm 0.055$   $\chi^2/\text{NDF}$ : 5765.2/40

All:  $-18.171 \pm 0.040$   $\chi^2/\text{NDF}$ : 10279.9/77

reg\_asym\_sam7\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.196 \pm 0.008$   $\chi^2/\text{NDF}$ : 6323.5/16

Left Out:  $0.378 \pm 0.003$   $\chi^2/\text{NDF}$ : 890.7/21

Right Out:  $-0.239 \pm 0.007$   $\chi^2/\text{NDF}$ : 6188.6/18

Left In:  $0.384 \pm 0.003$   $\chi^2/\text{NDF}$ : 409.1/19

Left:  $0.381 \pm 0.002$   $\chi^2/\text{NDF}$ : 1301.7/41

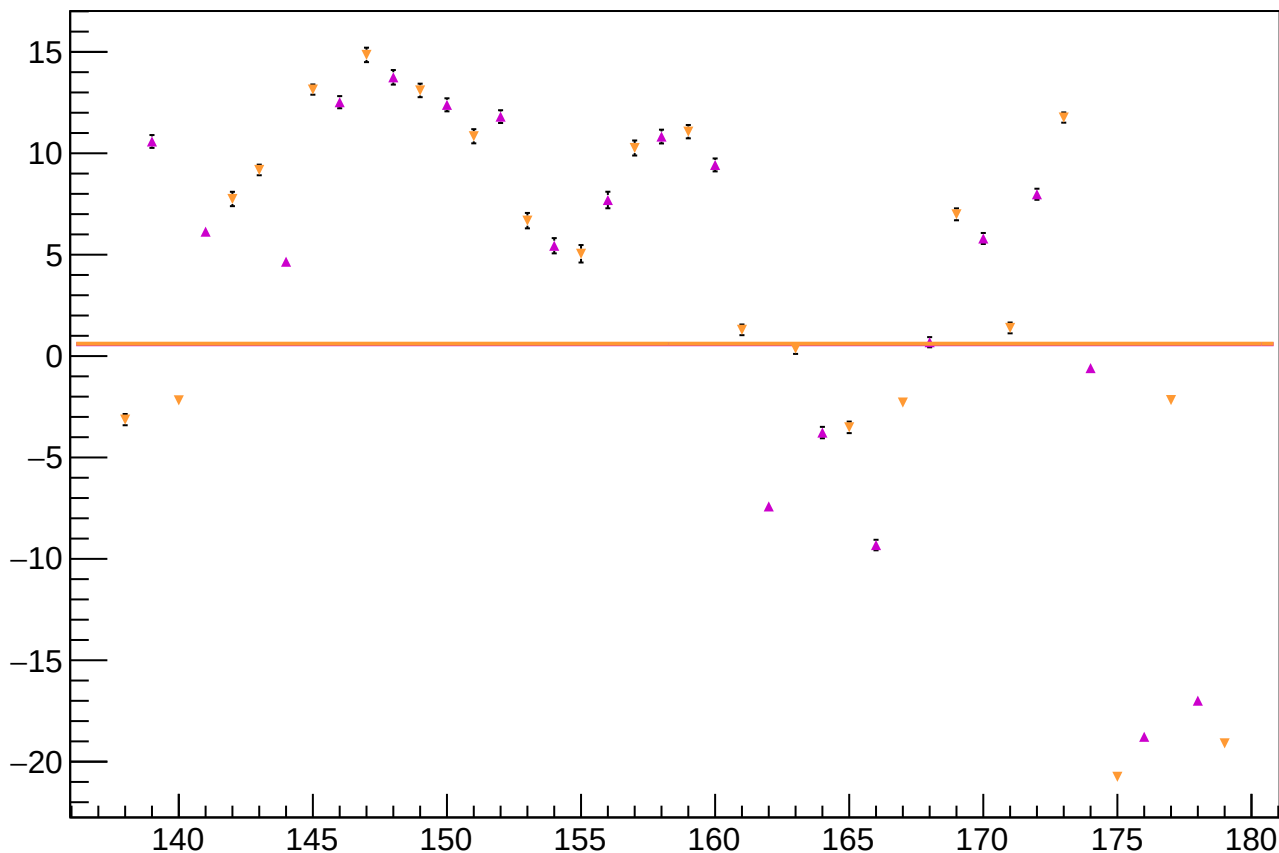
Right:  $-0.219 \pm 0.005$   $\chi^2/\text{NDF}$ : 12528.7/35

In:  $0.310 \pm 0.003$   $\chi^2/\text{NDF}$ : 11890.0/36

Out:  $0.295 \pm 0.003$   $\chi^2/\text{NDF}$ : 13468.4/40

All:  $0.302 \pm 0.002$   $\chi^2/\text{NDF}$ : 25373.3/77

reg\_asym\_sam8\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 0.610+/-0.059  $\chi^2/\text{NDF}$ :32264.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 0.585+/-0.061  $\chi^2/\text{NDF}$ :27867.8/19

Left: 0.598+/-0.042  $\chi^2/\text{NDF}$ : 60132.7/41

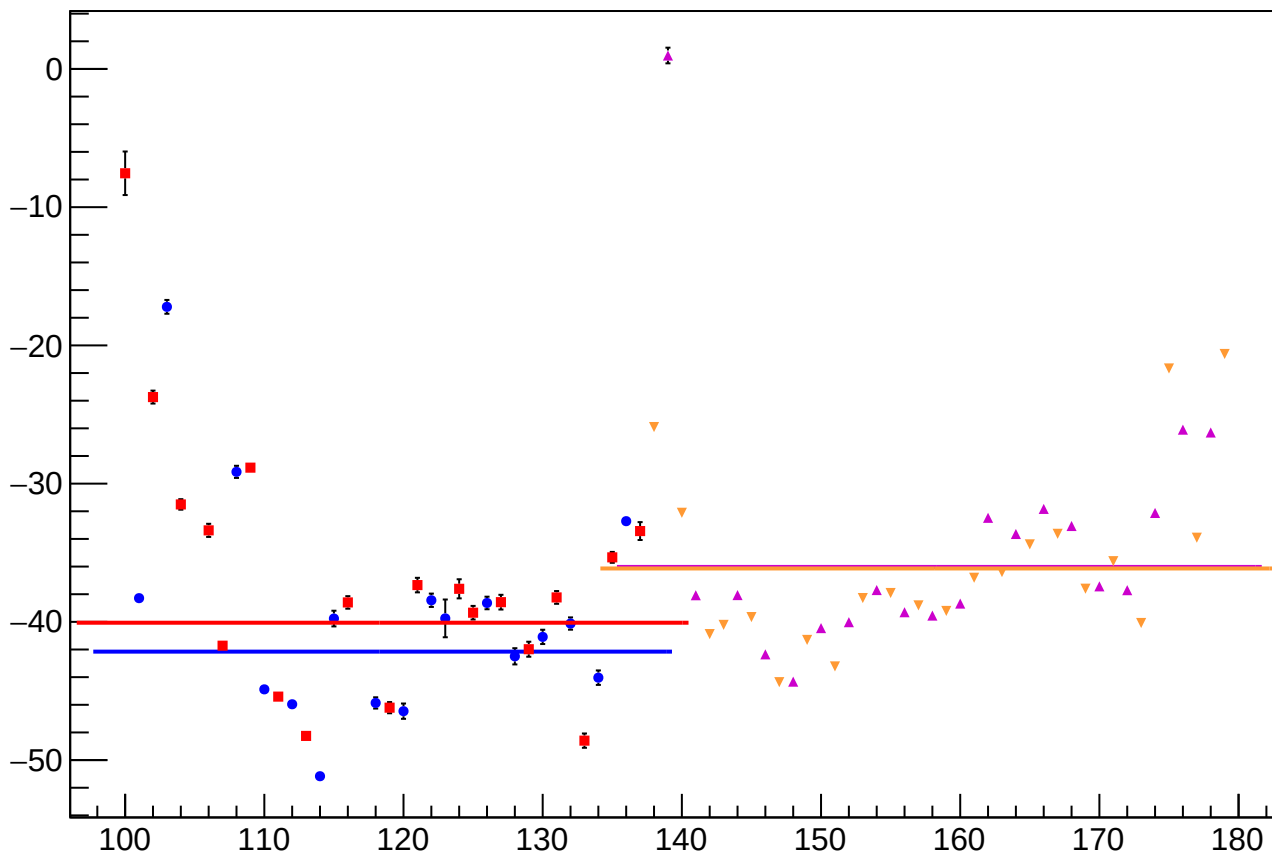
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 0.585+/-0.061  $\chi^2/\text{NDF}$ :27867.8/19

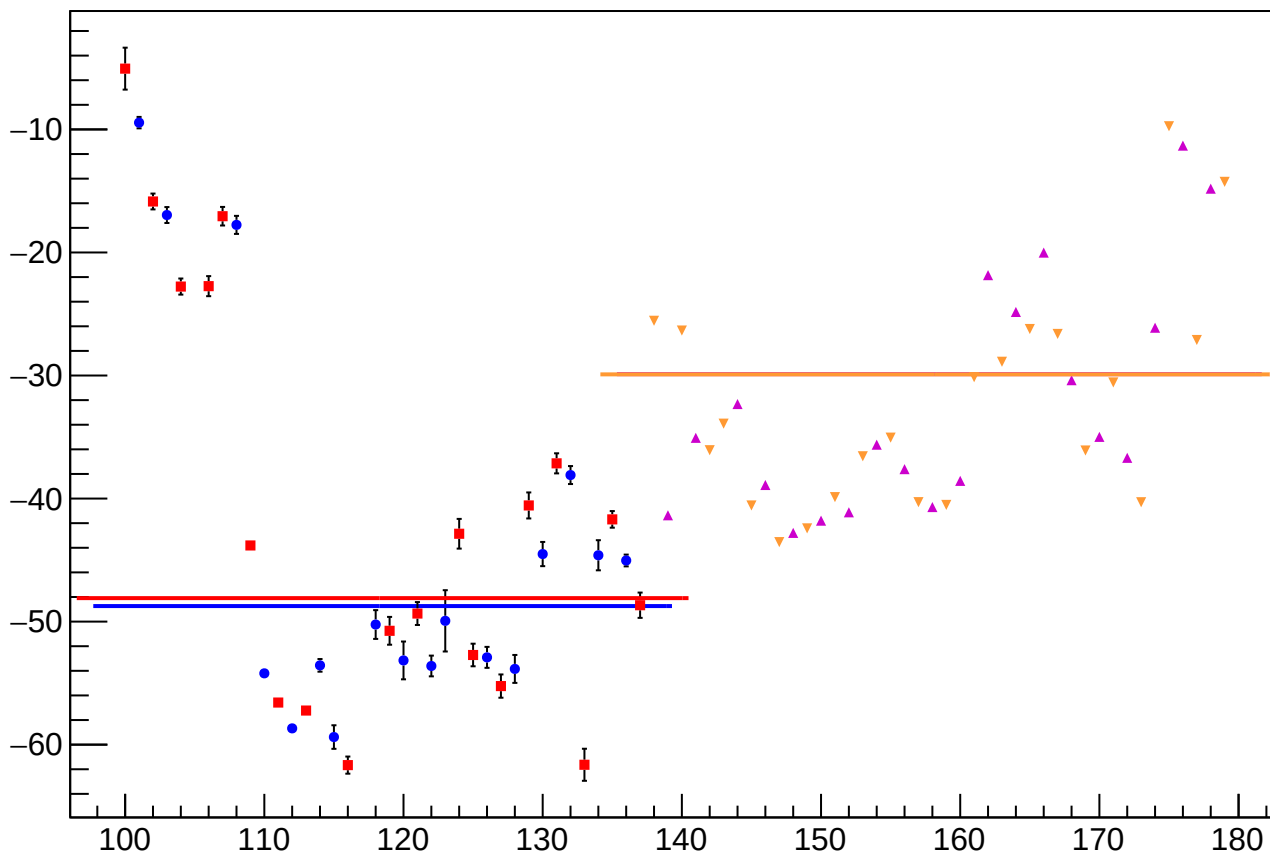
Out: 0.610+/-0.059  $\chi^2/\text{NDF}$ :32264.8/21

All: 0.598+/-0.042  $\chi^2/\text{NDF}$ : 60132.7/41

reg\_asym\_sam8\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



reg\_asym\_sam8\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-48.737 \pm 0.125$   $\chi^2/\text{NDF}: 14658.1/16$

Left Out:  $-29.907 \pm 0.059$   $\chi^2/\text{NDF}: 27034.9/21$

Right Out:  $-48.092 \pm 0.107$   $\chi^2/\text{NDF}: 11733.2/18$

Left In:  $-29.888 \pm 0.061$   $\chi^2/\text{NDF}: 26283.6/19$

Left:  $-29.898 \pm 0.042$   $\chi^2/\text{NDF}: 53318.5/41$

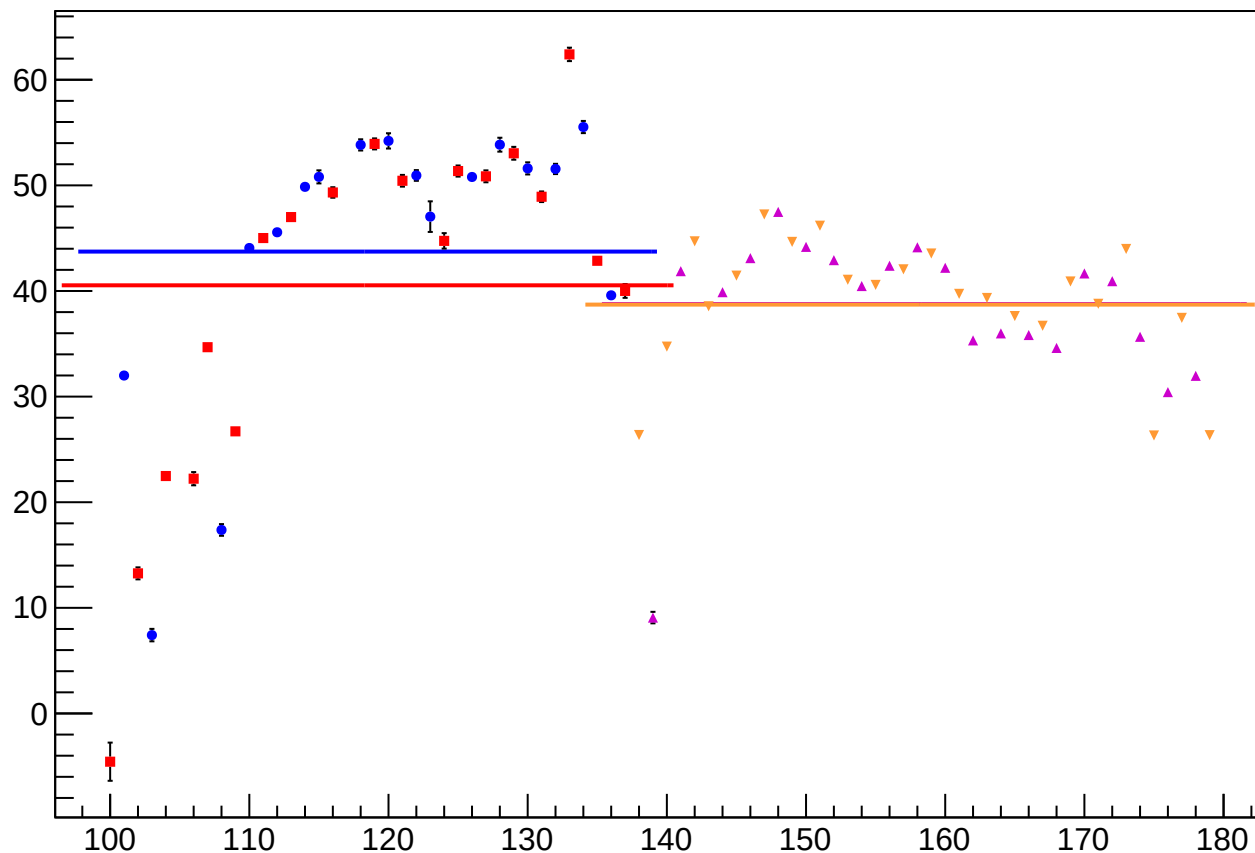
Right:  $-48.367 \pm 0.081$   $\chi^2/\text{NDF}: 26406.8/35$

In:  $-33.534 \pm 0.055$   $\chi^2/\text{NDF}: 59410.2/36$

Out:  $-34.117 \pm 0.052$   $\chi^2/\text{NDF}: 60866.8/40$

All:  $-33.843 \pm 0.038$   $\chi^2/\text{NDF}: 120337.0/77$

reg\_asym\_sam8\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Left:  $38.738 \pm 0.037$   $\chi^2/\text{NDF}: 23846.5/41$

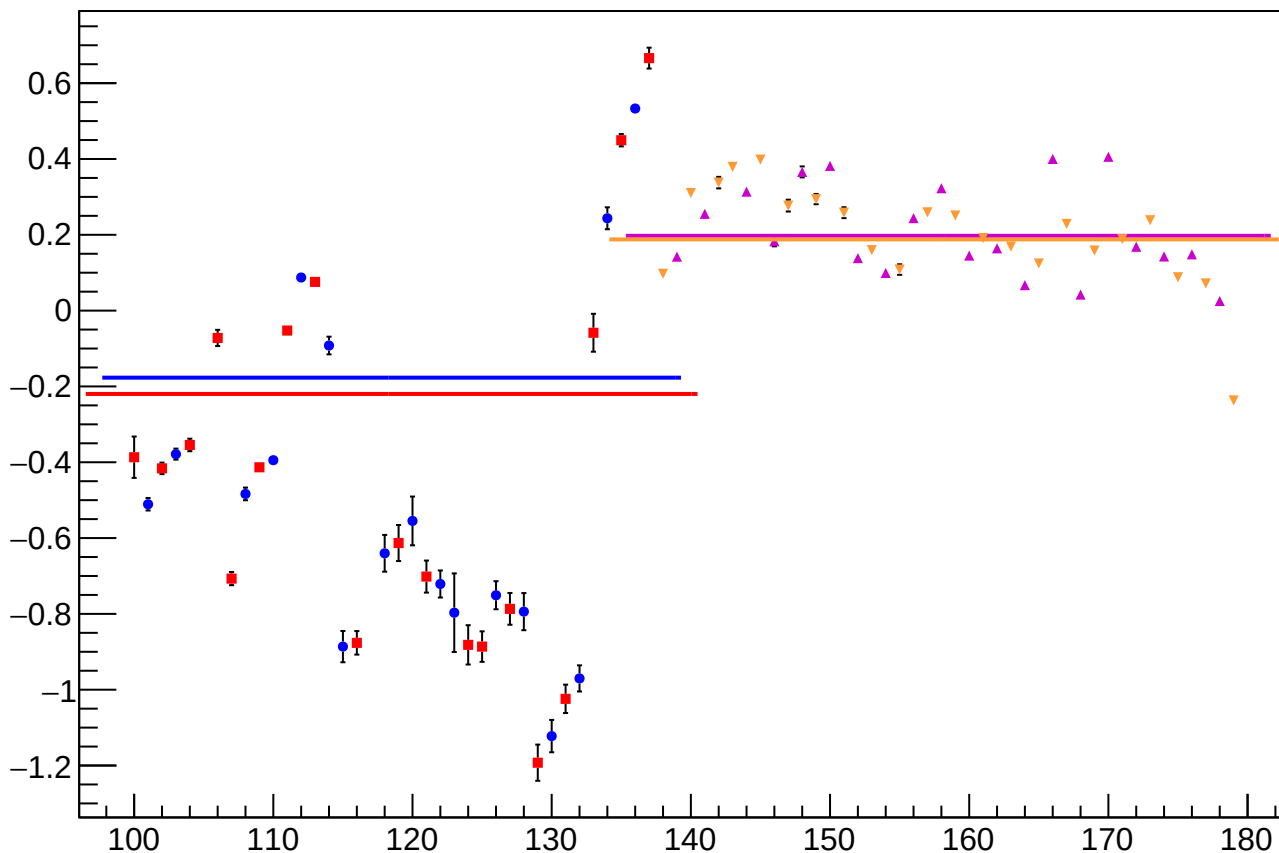
Right:  $42.007 \pm 0.059$   $\chi^2/\text{NDF}: 28898.9/35$

In:  $40.115 \pm 0.045$   $\chi^2/\text{NDF}: 23284.4/36$

Out:  $39.231 \pm 0.043$   $\chi^2/\text{NDF}: 31481.7/40$

All:  $39.648 \pm 0.031$   $\chi^2/\text{NDF}: 54967.6/77$

reg\_asym\_sam8\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.177 \pm 0.005$   $\chi^2/\text{NDF}$ : 7364.7/16

Left Out:  $0.188 \pm 0.002$   $\chi^2/\text{NDF}$ : 3240.0/21

Right Out:  $-0.220 \pm 0.004$   $\chi^2/\text{NDF}$ : 7430.4/18

Left In:  $0.197 \pm 0.002$   $\chi^2/\text{NDF}$ : 2256.8/19

Left:  $0.192 \pm 0.002$   $\chi^2/\text{NDF}$ : 5504.9/41

Right:  $-0.201 \pm 0.003$   $\chi^2/\text{NDF}$ : 14839.1/35

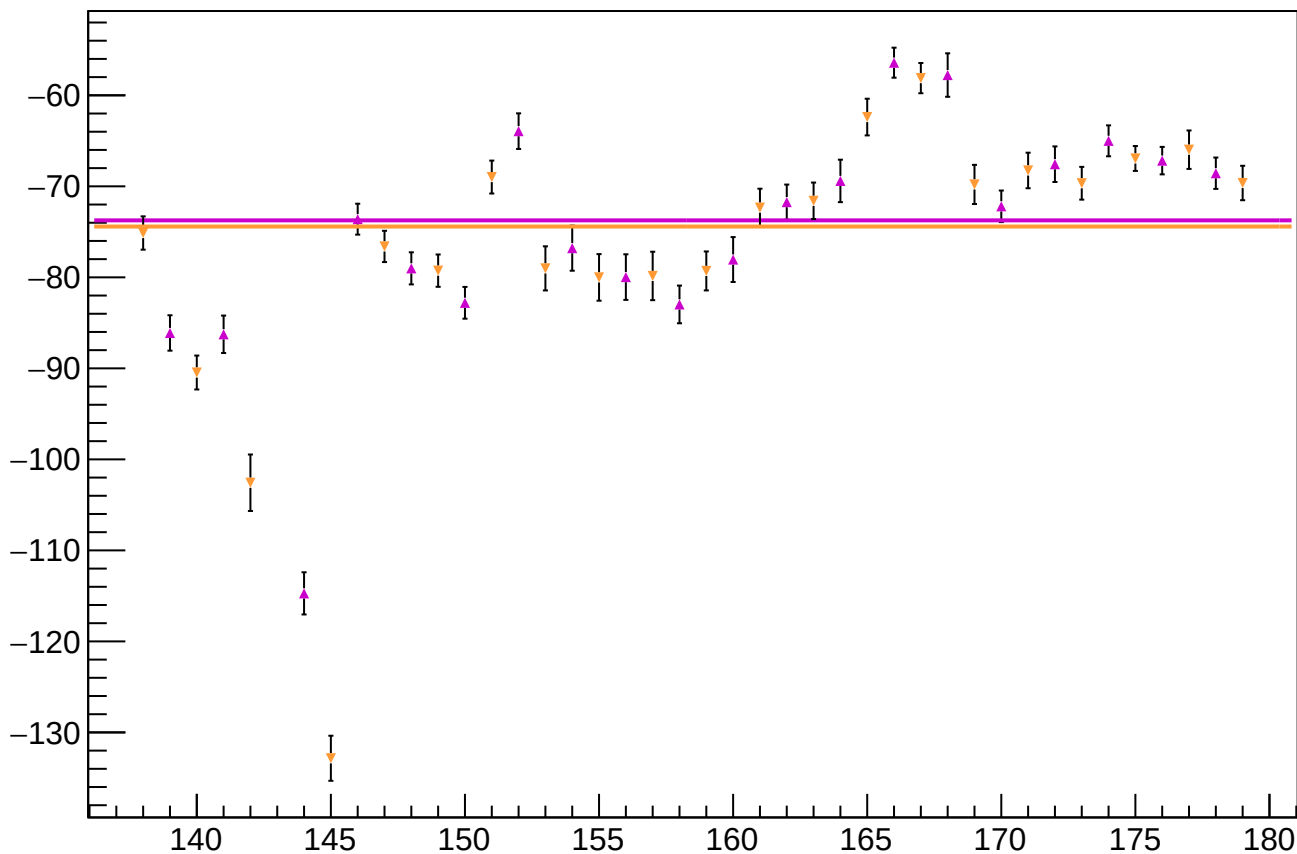
In:  $0.123 \pm 0.002$   $\chi^2/\text{NDF}$ : 14407.7/36

Out:  $0.095 \pm 0.002$   $\chi^2/\text{NDF}$ : 17591.5/40

All:  $0.108 \pm 0.001$   $\chi^2/\text{NDF}$ : 32088.5/77



reg\_asym\_usl\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -74.418+/-0.430  $\chi^2/\text{NDF}$ :958.2/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -73.738+/-0.431  $\chi^2/\text{NDF}$ :706.4/19

Left: -74.079+/-0.304  $\chi^2/\text{NDF}$ : 1665.8/40

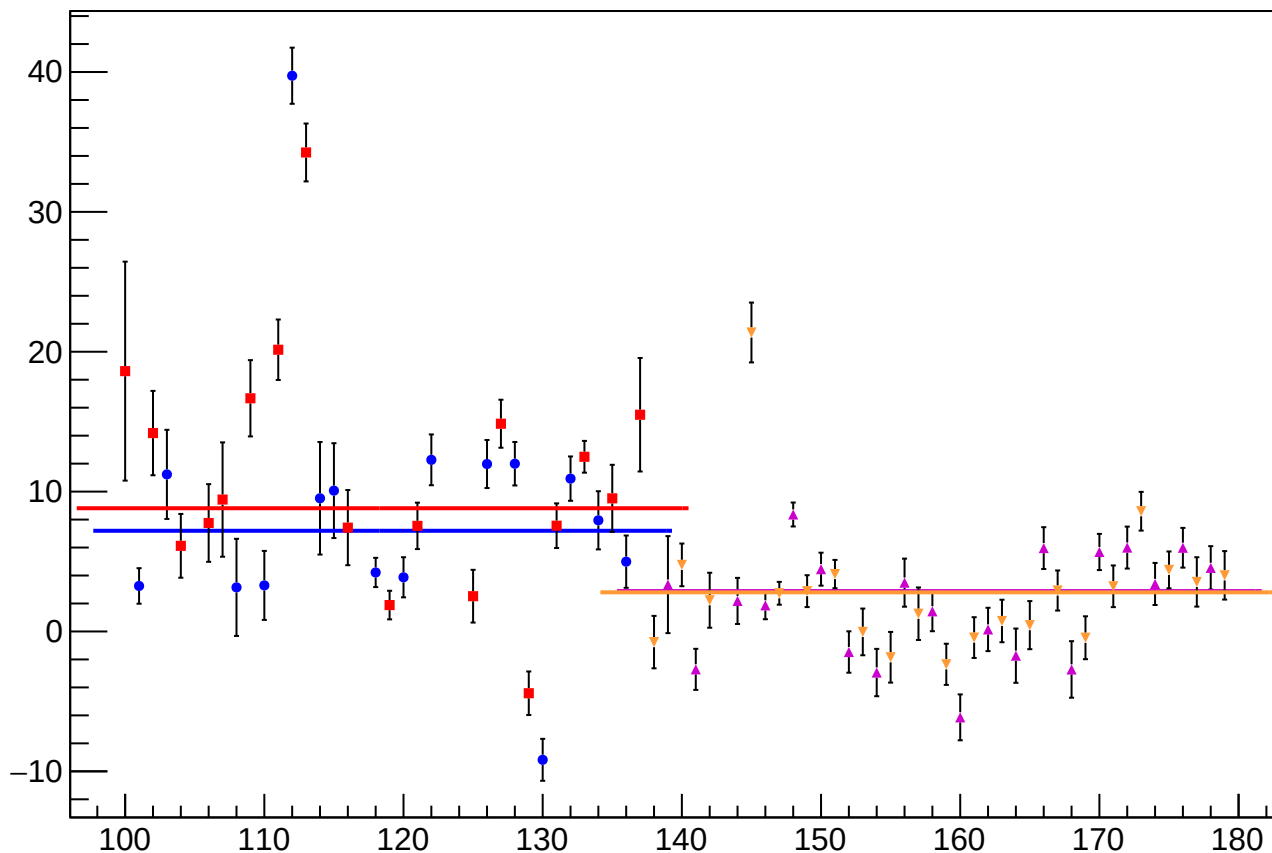
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -73.738+/-0.431  $\chi^2/\text{NDF}$ :706.4/19

Out: -74.418+/-0.430  $\chi^2/\text{NDF}$ :958.2/20

All: -74.079+/-0.304  $\chi^2/\text{NDF}$ : 1665.8/40

reg\_asym\_usl\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $7.199 \pm 0.440$   $\chi^2/\text{NDF}$ : 443.8/15

Left Out:  $2.798 \pm 0.313$   $\chi^2/\text{NDF}$ : 137.6/20

Right Out:  $8.810 \pm 0.448$   $\chi^2/\text{NDF}$ : 349.7/17

Left In:  $2.887 \pm 0.320$   $\chi^2/\text{NDF}$ : 146.1/19

Left:  $2.841 \pm 0.224$   $\chi^2/\text{NDF}$ : 283.8/40

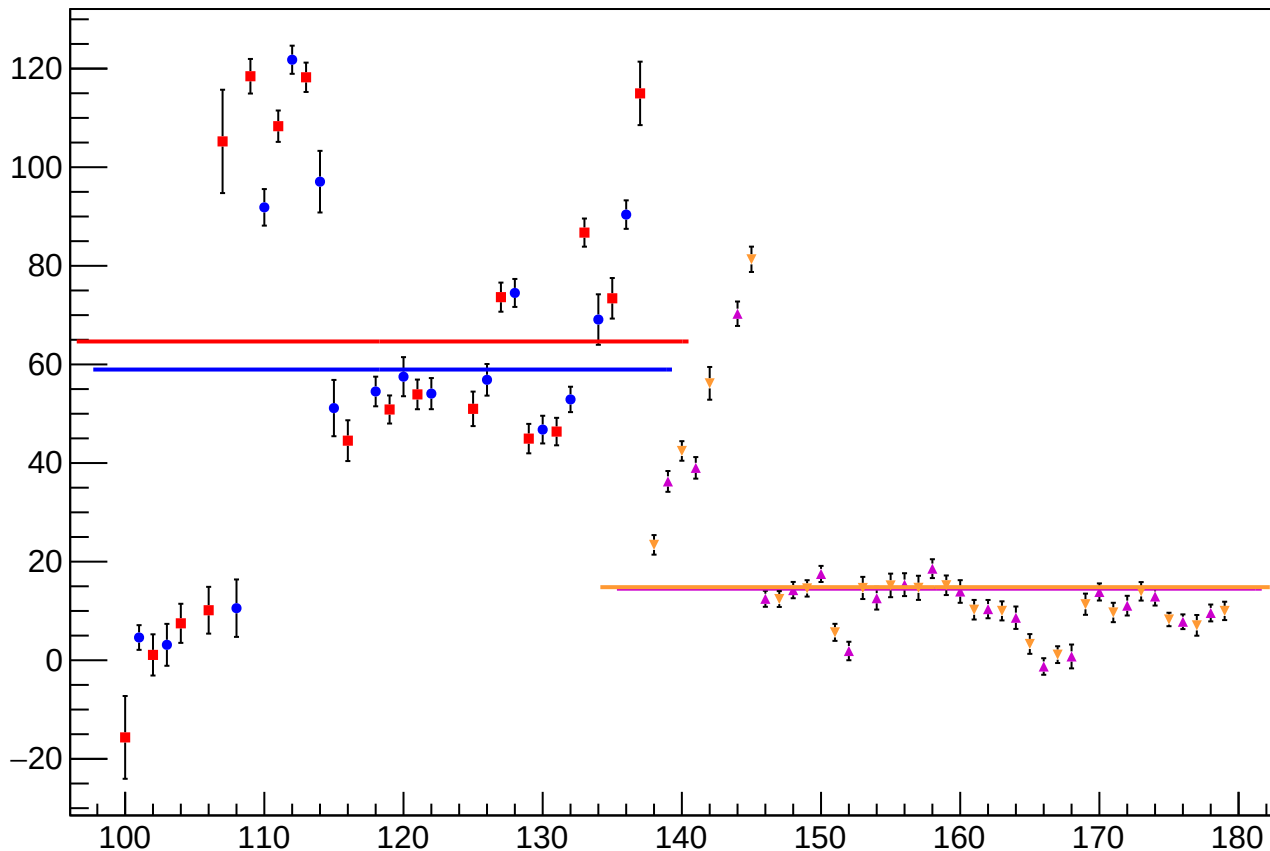
Right:  $7.990 \pm 0.314$   $\chi^2/\text{NDF}$ : 800.1/33

In:  $4.378 \pm 0.258$   $\chi^2/\text{NDF}$ : 652.9/35

Out:  $4.771 \pm 0.257$   $\chi^2/\text{NDF}$ : 608.4/38

All:  $4.576 \pm 0.182$   $\chi^2/\text{NDF}$ : 1262.4/74

# reg\_asym\_usl\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 58.962 $\pm$ 0.837  $\chi^2$ /NDF: 1496.5/15

Left Out: 14.825 $\pm$ 0.424  $\chi^2$ /NDF:1230.4/20

Right Out: 64.655 $\pm$ 0.840  $\chi^2$ /NDF: 1721.8/17

Left In: 14.517 $\pm$ 0.426  $\chi^2$ /NDF:958.6/19

Left: 14.672 $\pm$ 0.301  $\chi^2$ /NDF: 2189.3/40

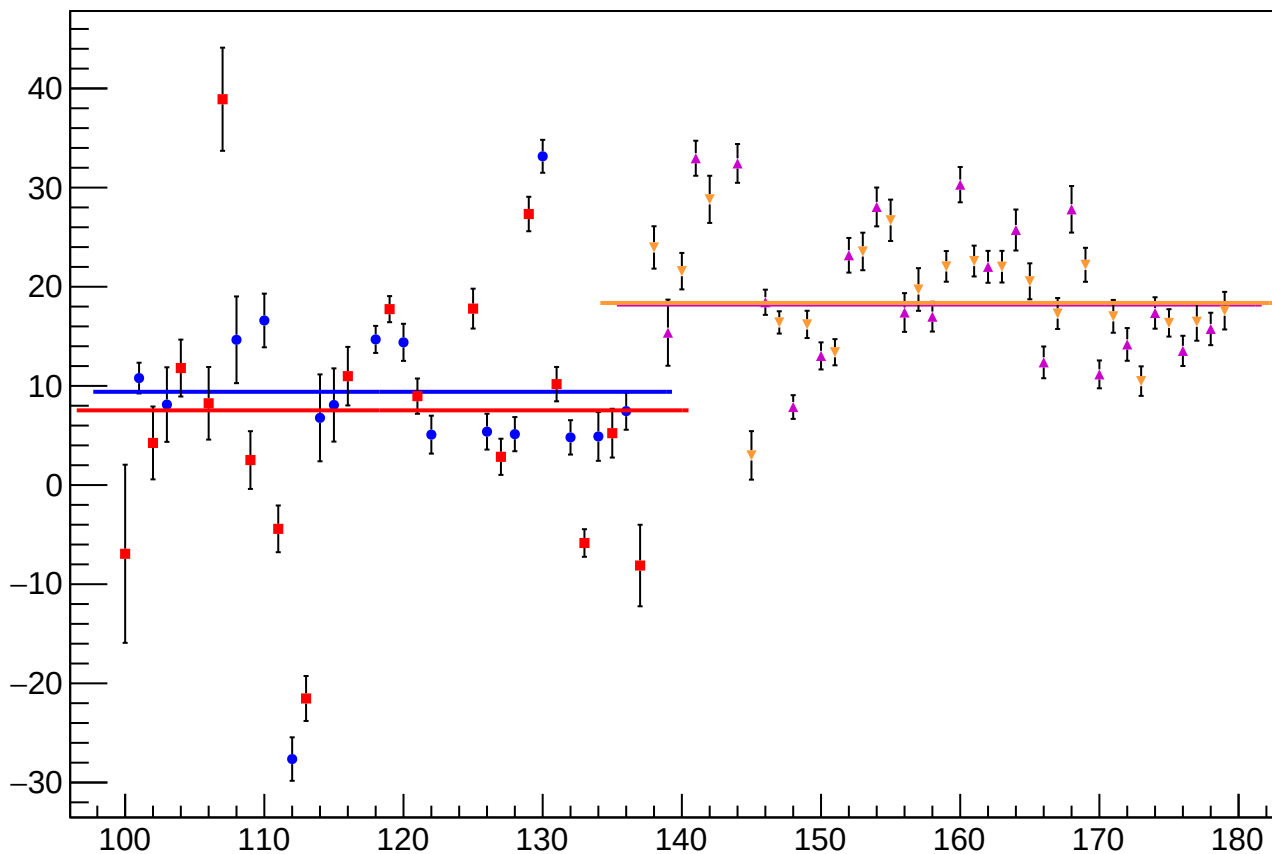
Right: 61.798 $\pm$ 0.593  $\chi^2$ /NDF: 3241.4/33

In: 23.656 $\pm$ 0.380  $\chi^2$ /NDF:4695.2/35

Out: 24.951 $\pm$ 0.379  $\chi^2$ /NDF:5755.9/38

All: 24.305 $\pm$ 0.268  $\chi^2$ /NDF: 10457.0/74

# reg\_asym\_usl\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $9.405 \pm 0.507$   $\chi^2/\text{NDF}: 549.5/15$

Left Out:  $18.365 \pm 0.362$   $\chi^2/\text{NDF}: 169.6/20$

Right Out:  $7.533 \pm 0.515$   $\chi^2/\text{NDF}: 569.8/17$

Left In:  $18.202 \pm 0.367$   $\chi^2/\text{NDF}: 384.7/19$

Left:  $18.285 \pm 0.258$   $\chi^2/\text{NDF}: 554.4/40$

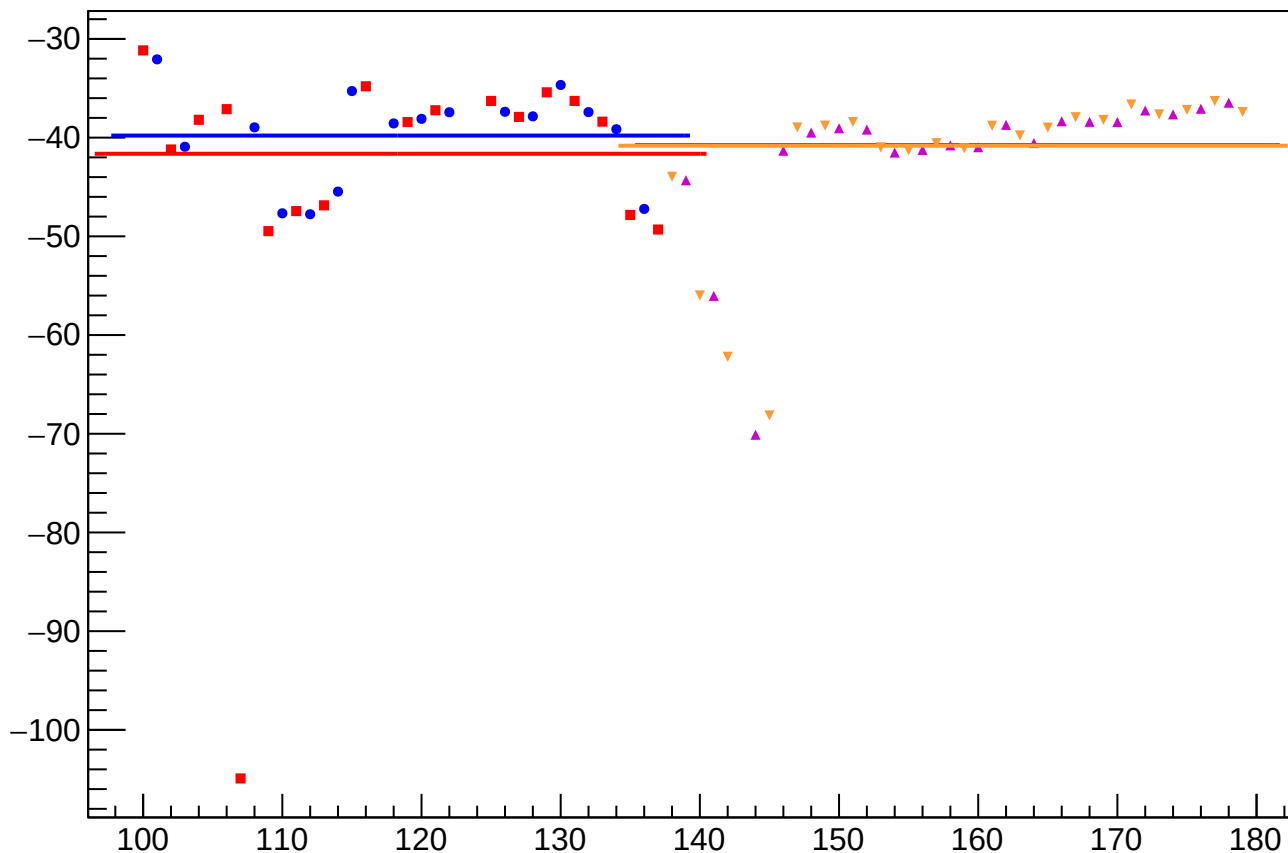
Right:  $8.484 \pm 0.361$   $\chi^2/\text{NDF}: 1126.0/33$

In:  $15.170 \pm 0.297$   $\chi^2/\text{NDF}: 1131.8/35$

Out:  $14.787 \pm 0.296$   $\chi^2/\text{NDF}: 1035.8/38$

All:  $14.977 \pm 0.210$   $\chi^2/\text{NDF}: 2168.4/74$

reg\_asym\_usl\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -39.791 $\pm$ 0.031  $\chi^2$ /NDF: 26138.6/15

Left Out: -40.819 $\pm$ 0.017  $\chi^2$ /NDF:150243.3/20

Right Out: -41.635 $\pm$ 0.031  $\chi^2$ /NDF: 94393.1/17

Left In: -40.746 $\pm$ 0.017  $\chi^2$ /NDF:120864.3/19

Left: -40.783 $\pm$ 0.012  $\chi^2$ /NDF: 271116.9/40

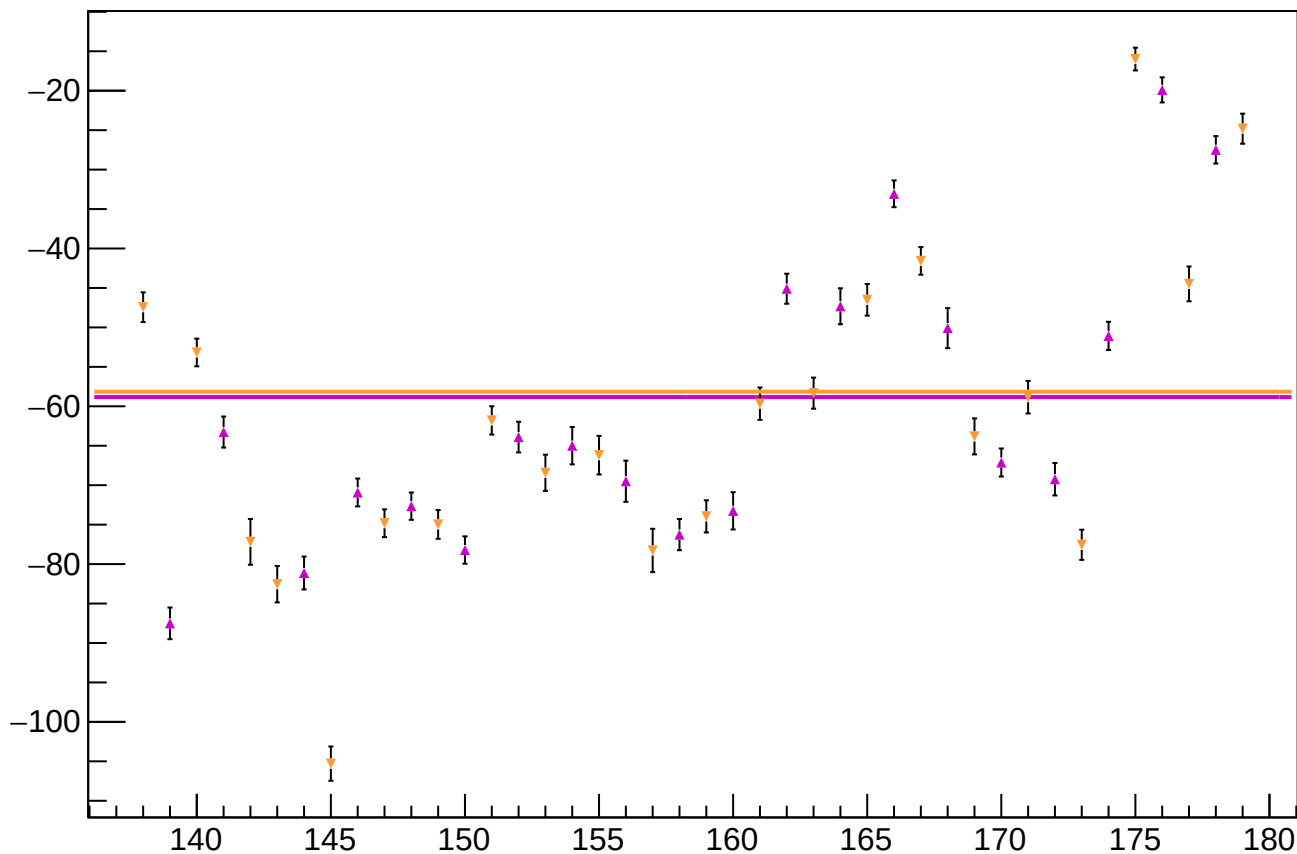
Right: -40.714 $\pm$ 0.022  $\chi^2$ /NDF: 122277.1/33

In: -40.529 $\pm$ 0.015  $\chi^2$ /NDF:147725.6/35

Out: -41.007 $\pm$ 0.015  $\chi^2$ /NDF:245163.2/38

All: -40.767 $\pm$ 0.011  $\chi^2$ /NDF: 393401.5/74

reg\_asym\_usr\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -58.146+/-0.426  $\chi^2/\text{NDF}$ :2420.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -58.829+/-0.434  $\chi^2/\text{NDF}$ :2014.6/19

Left: -58.481+/-0.304  $\chi^2/\text{NDF}$ : 4436.0/41

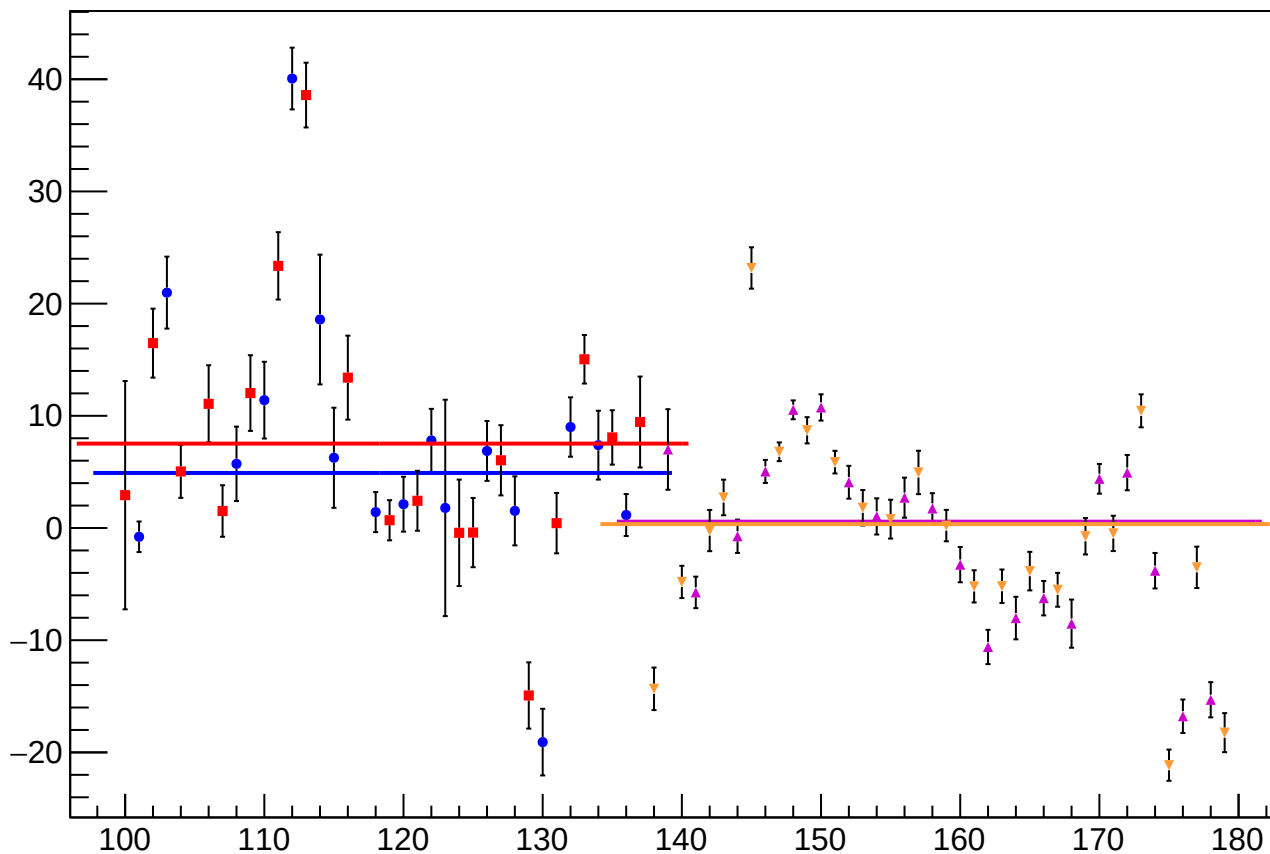
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -58.829+/-0.434  $\chi^2/\text{NDF}$ :2014.6/19

Out: -58.146+/-0.426  $\chi^2/\text{NDF}$ :2420.1/21

All: -58.481+/-0.304  $\chi^2/\text{NDF}$ : 4436.0/41

reg\_asym\_usr\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 4.907 $\pm$ 0.628  $\chi^2/\text{NDF}$ : 295.4/16

Left Out: 0.347 $\pm$ 0.308  $\chi^2/\text{NDF}$ :830.7/21

Right Out: 7.523 $\pm$ 0.651  $\chi^2/\text{NDF}$ : 270.6/18

Left In: 0.564 $\pm$ 0.319  $\chi^2/\text{NDF}$ :646.2/19

Left: 0.452 $\pm$ 0.222  $\chi^2/\text{NDF}$ : 1477.1/41

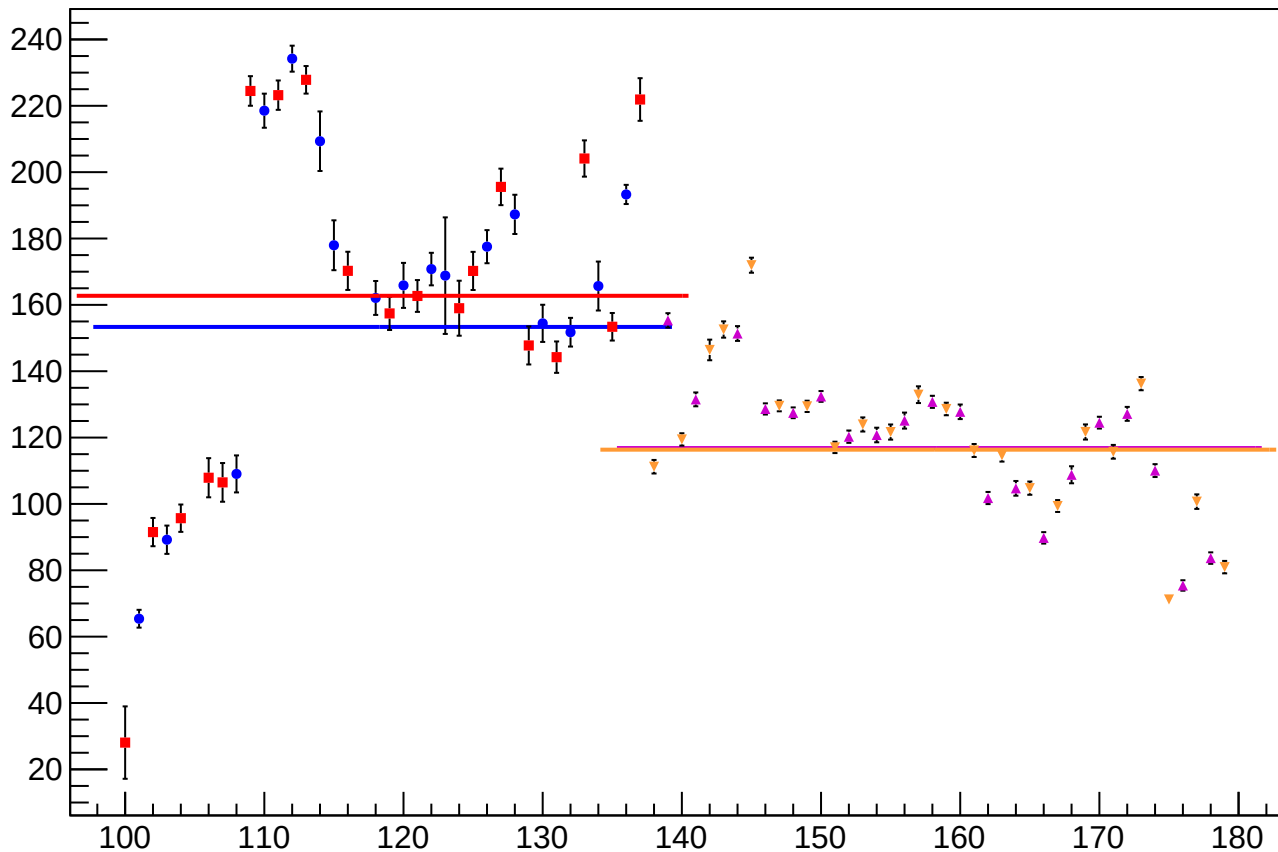
Right: 6.168 $\pm$ 0.452  $\chi^2/\text{NDF}$ : 574.4/35

In: 1.456 $\pm$ 0.285  $\chi^2/\text{NDF}$ :979.7/36

Out: 1.664 $\pm$ 0.279  $\chi^2/\text{NDF}$ :1200.6/40

All: 1.562 $\pm$ 0.199  $\chi^2/\text{NDF}$ : 2180.6/77

# reg\_asym\_usr\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 153.350 $\pm$ 1.150  $\chi^2$ /NDF: 2268.3/16

Left Out: 116.354 $\pm$ 0.421  $\chi^2$ /NDF:2764.4/21

Right Out: 162.734 $\pm$ 1.177  $\chi^2$ /NDF: 1708.8/18

Left In: 116.851 $\pm$ 0.428  $\chi^2$ /NDF:2356.3/19

Left: 116.599 $\pm$ 0.300  $\chi^2$ /NDF: 5121.4/41

Right: 157.935 $\pm$ 0.823  $\chi^2$ /NDF: 4009.6/35

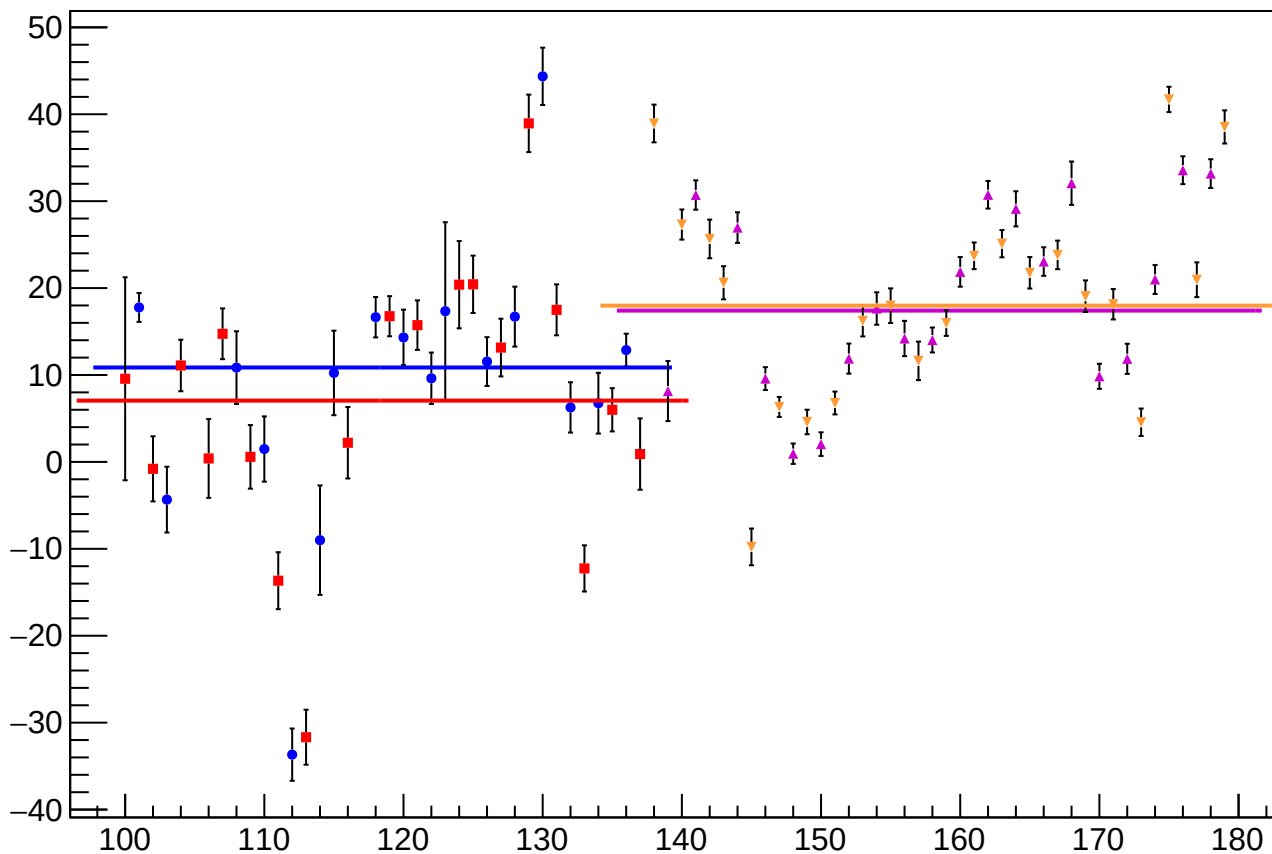
In: 121.289 $\pm$ 0.401  $\chi^2$ /NDF:5509.1/36

Out: 121.616 $\pm$ 0.396  $\chi^2$ /NDF:5850.1/40

All: 121.455 $\pm$ 0.282  $\chi^2$ /NDF: 11359.5/77



# reg\_asym\_usr\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 10.864 $\pm$ 0.719  $\chi^2$ /NDF: 387.9/16

Left Out: 17.984 $\pm$ 0.357  $\chi^2$ /NDF:1092.4/21

Right Out: 7.052 $\pm$ 0.748  $\chi^2$ /NDF: 424.7/18

Left In: 17.409 $\pm$ 0.368  $\chi^2$ /NDF:868.7/19

Left: 17.705 $\pm$ 0.256  $\chi^2$ /NDF: 1962.3/41

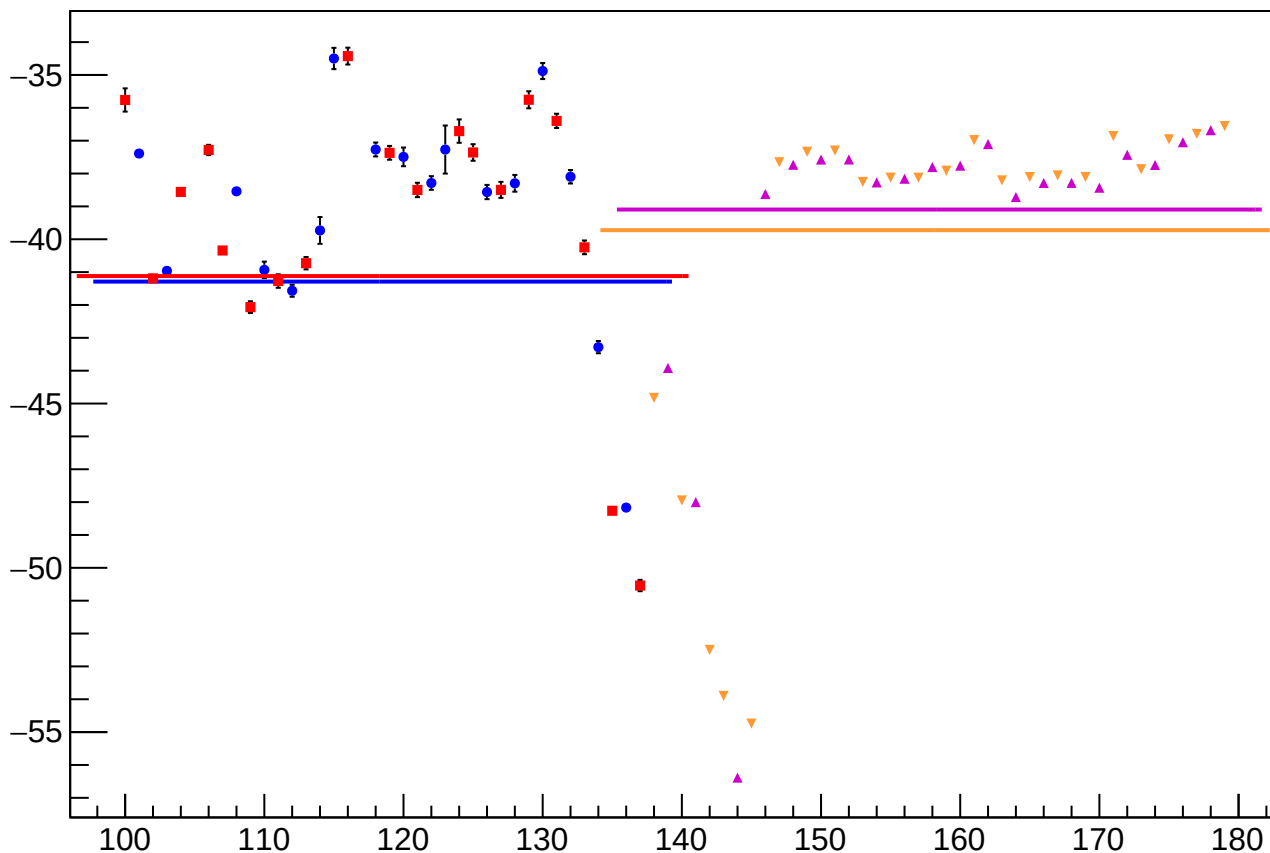
Right: 9.031 $\pm$ 0.518  $\chi^2$ /NDF: 826.1/35

In: 16.054 $\pm$ 0.327  $\chi^2$ /NDF:1322.2/36

Out: 15.954 $\pm$ 0.322  $\chi^2$ /NDF:1691.2/40

All: 16.003 $\pm$ 0.230  $\chi^2$ /NDF: 3013.5/77

reg\_asym\_usr\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-41.289 \pm 0.039$   $\chi^2/\text{NDF}: 12509.1/16$

Left Out:  $-39.723 \pm 0.017$   $\chi^2/\text{NDF}: 87288.7/21$

Right Out:  $-41.120 \pm 0.039$   $\chi^2/\text{NDF}: 12110.6/18$

Left In:  $-39.096 \pm 0.017$   $\chi^2/\text{NDF}: 52369.9/19$

Left:  $-39.412 \pm 0.012$   $\chi^2/\text{NDF}: 140340.6/41$

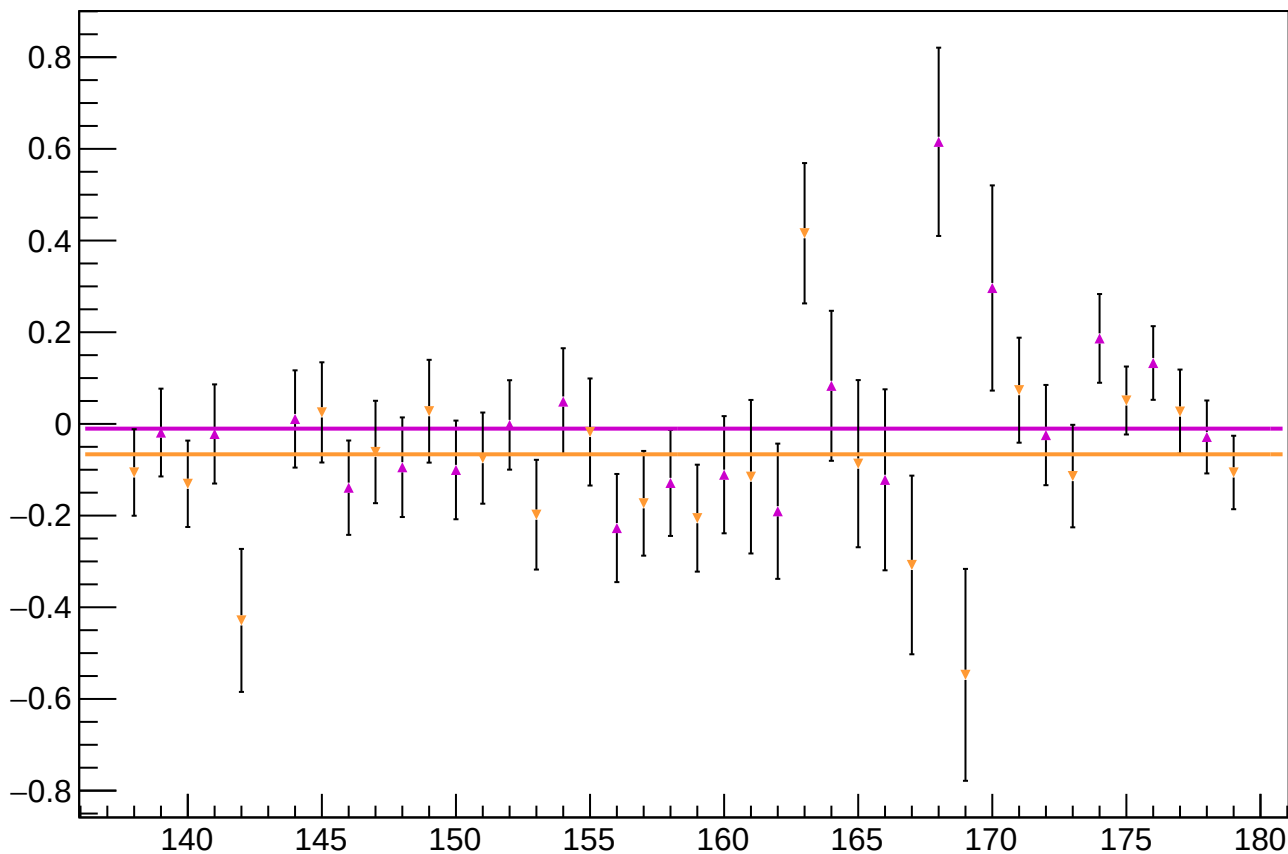
Right:  $-41.205 \pm 0.027$   $\chi^2/\text{NDF}: 24629.1/35$

In:  $-39.454 \pm 0.016$   $\chi^2/\text{NDF}: 67577.9/36$

Out:  $-39.947 \pm 0.015$   $\chi^2/\text{NDF}: 100495.7/40$

All:  $-39.702 \pm 0.011$   $\chi^2/\text{NDF}: 168576.9/77$

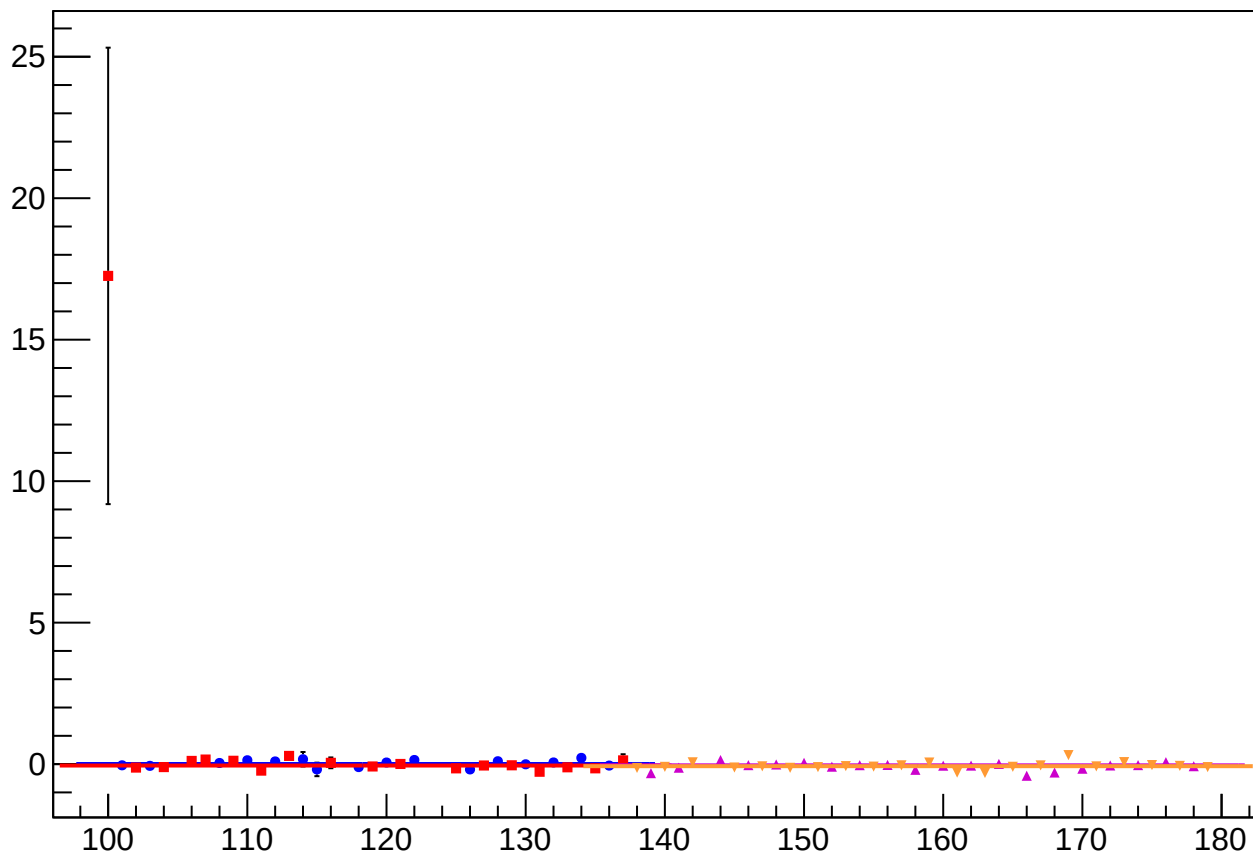
reg\_asym\_dsl\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -0.066 $\pm$ 0.024  $\chi^2$ /NDF:32.5/20  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -0.010 $\pm$ 0.025  $\chi^2$ /NDF:28.9/19

Left: -0.039 $\pm$ 0.018  $\chi^2$ /NDF: 63.9/40  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: -0.010 $\pm$ 0.025  $\chi^2$ /NDF:28.9/19  
 Out: -0.066 $\pm$ 0.024  $\chi^2$ /NDF:32.5/20  
 All: -0.039 $\pm$ 0.018  $\chi^2$ /NDF: 63.9/40

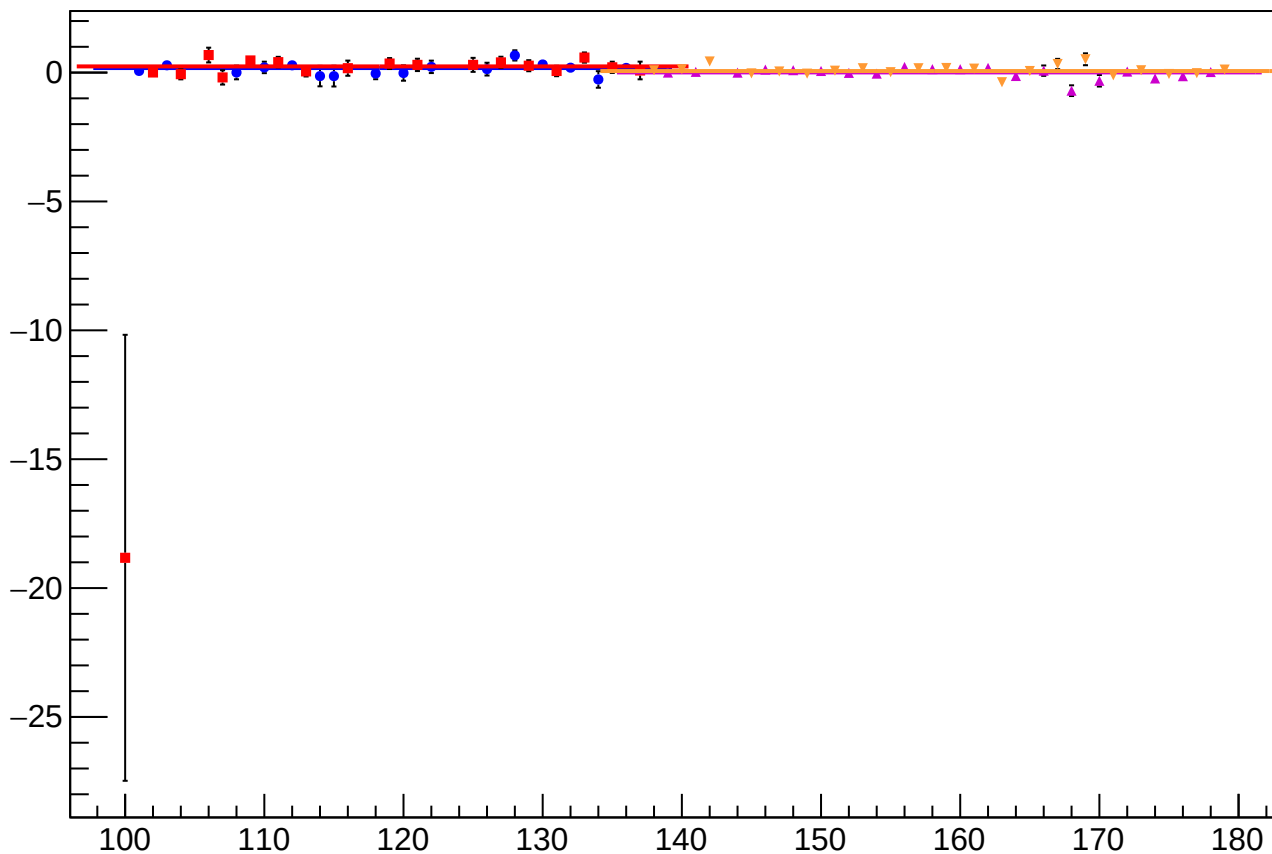
reg\_asym\_dsl\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $0.003 \pm 0.029$   $\chi^2/\text{NDF}: 12.4/15$   
 Left Out:  $-0.073 \pm 0.018$   $\chi^2/\text{NDF}: 23.2/20$   
 Right Out:  $-0.050 \pm 0.029$   $\chi^2/\text{NDF}: 25.6/17$   
 Left In:  $-0.043 \pm 0.019$   $\chi^2/\text{NDF}: 25.5/19$

Left:  $-0.059 \pm 0.013$   $\chi^2/\text{NDF}: 50.0/40$   
 Right:  $-0.023 \pm 0.020$   $\chi^2/\text{NDF}: 39.7/33$   
 In:  $-0.029 \pm 0.016$   $\chi^2/\text{NDF}: 39.8/35$   
 Out:  $-0.067 \pm 0.015$   $\chi^2/\text{NDF}: 49.2/38$   
 All:  $-0.048 \pm 0.011$   $\chi^2/\text{NDF}: 91.9/74$

reg\_asym\_dsl\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.176 $\pm$ 0.053  $\chi^2$ /NDF: 13.0/15

Left Out: 0.059 $\pm$ 0.024  $\chi^2$ /NDF:31.1/20

Right Out: 0.240 $\pm$ 0.054  $\chi^2$ /NDF: 21.6/17

Left In: 0.007 $\pm$ 0.025  $\chi^2$ /NDF:33.5/19

Left: 0.033 $\pm$ 0.017  $\chi^2$ /NDF: 66.9/40

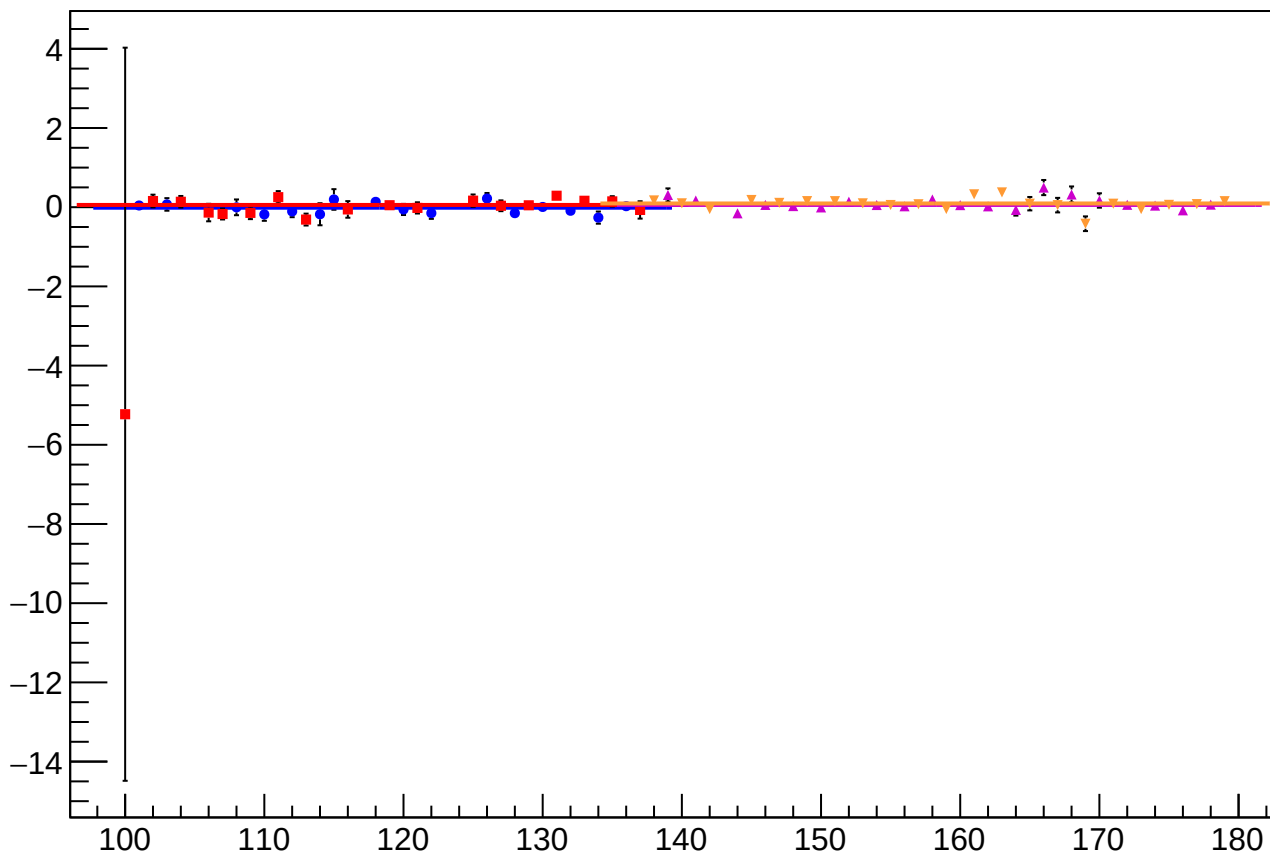
Right: 0.207 $\pm$ 0.038  $\chi^2$ /NDF: 35.3/33

In: 0.037 $\pm$ 0.022  $\chi^2$ /NDF:54.9/35

Out: 0.089 $\pm$ 0.022  $\chi^2$ /NDF:62.0/38

All: 0.064 $\pm$ 0.016  $\chi^2$ /NDF: 119.7/74

reg\_asym\_dsl\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-0.013 \pm 0.033$   $\chi^2/\text{NDF}$ : 13.6/15

Left Out:  $0.094 \pm 0.021$   $\chi^2/\text{NDF}$ : 26.0/20

Right Out:  $0.057 \pm 0.034$   $\chi^2/\text{NDF}$ : 20.3/17

Left In:  $0.057 \pm 0.022$   $\chi^2/\text{NDF}$ : 24.8/19

Left:  $0.076 \pm 0.015$   $\chi^2/\text{NDF}$ : 52.3/40

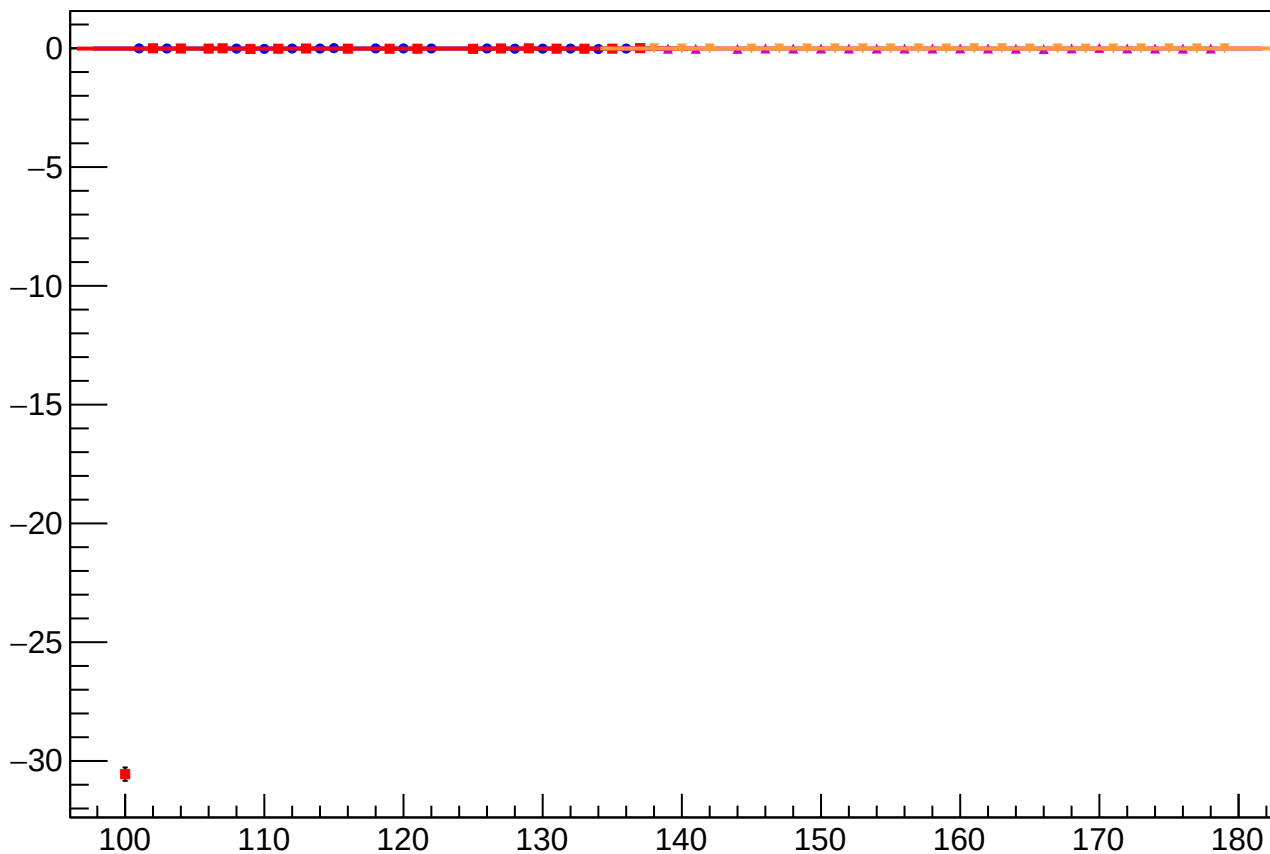
Right:  $0.021 \pm 0.024$   $\chi^2/\text{NDF}$ : 36.2/33

In:  $0.036 \pm 0.018$   $\chi^2/\text{NDF}$ : 41.7/35

Out:  $0.084 \pm 0.018$   $\chi^2/\text{NDF}$ : 47.2/38

All:  $0.060 \pm 0.013$   $\chi^2/\text{NDF}$ : 92.4/74

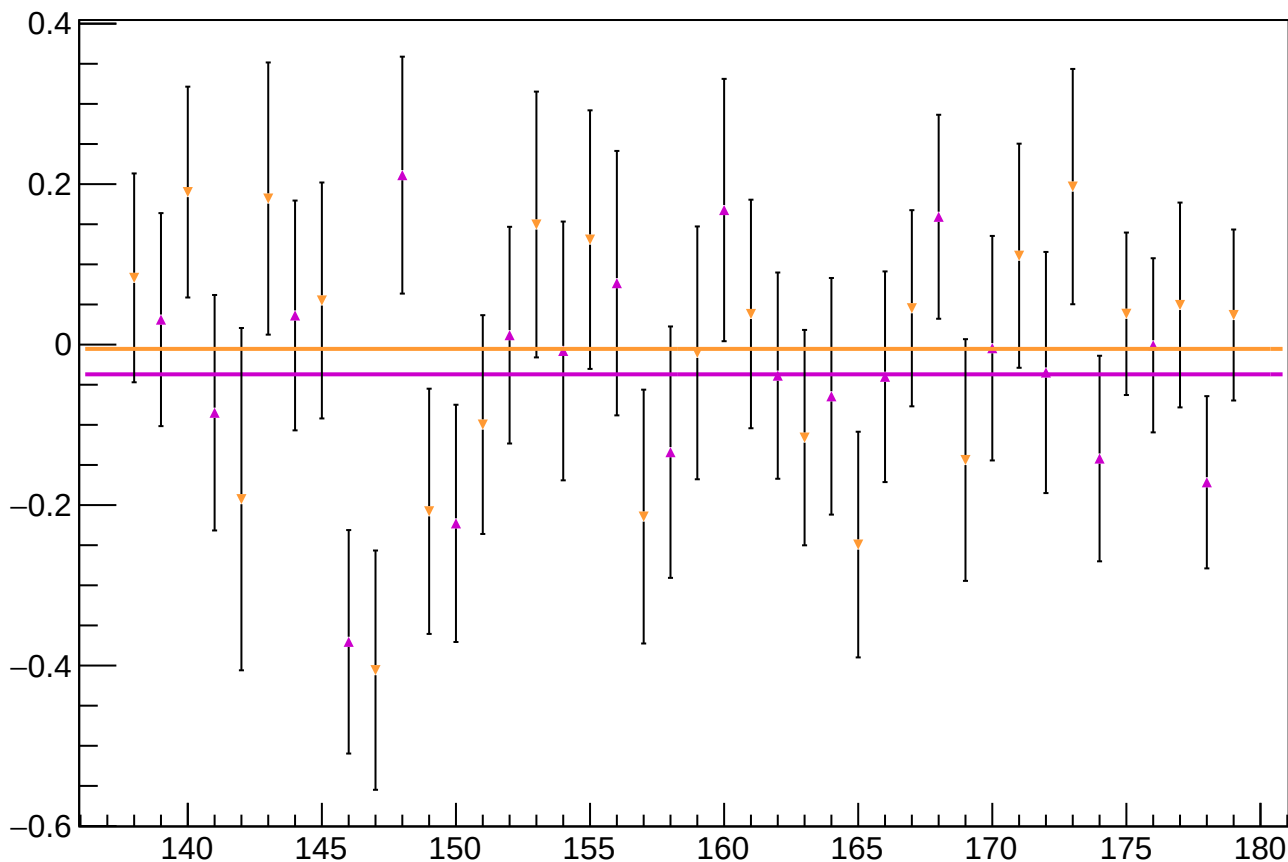
reg\_asym\_dsl\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.012 \pm 0.002$   $\chi^2/\text{NDF}$ : 12.8/15  
 Left Out:  $-0.008 \pm 0.001$   $\chi^2/\text{NDF}$ : 15.9/20  
 Right Out:  $-0.012 \pm 0.002$   $\chi^2/\text{NDF}$ : 11891.4/17  
 Left In:  $-0.010 \pm 0.001$   $\chi^2/\text{NDF}$ : 30.8/19

Left:  $-0.009 \pm 0.001$   $\chi^2/\text{NDF}$ : 48.2/40  
 Right:  $-0.012 \pm 0.001$   $\chi^2/\text{NDF}$ : 11904.1/33  
 In:  $-0.010 \pm 0.001$   $\chi^2/\text{NDF}$ : 44.6/35  
 Out:  $-0.009 \pm 0.001$   $\chi^2/\text{NDF}$ : 11911.1/38  
 All:  $-0.010 \pm 0.001$   $\chi^2/\text{NDF}$ : 11956.9/74

reg\_asym\_dsr\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -0.005 $\pm$ 0.030  $\chi^2$ /NDF:25.5/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: -0.037 $\pm$ 0.031  $\chi^2$ /NDF:18.2/19

Left: -0.021 $\pm$ 0.021  $\chi^2$ /NDF: 44.3/41

Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

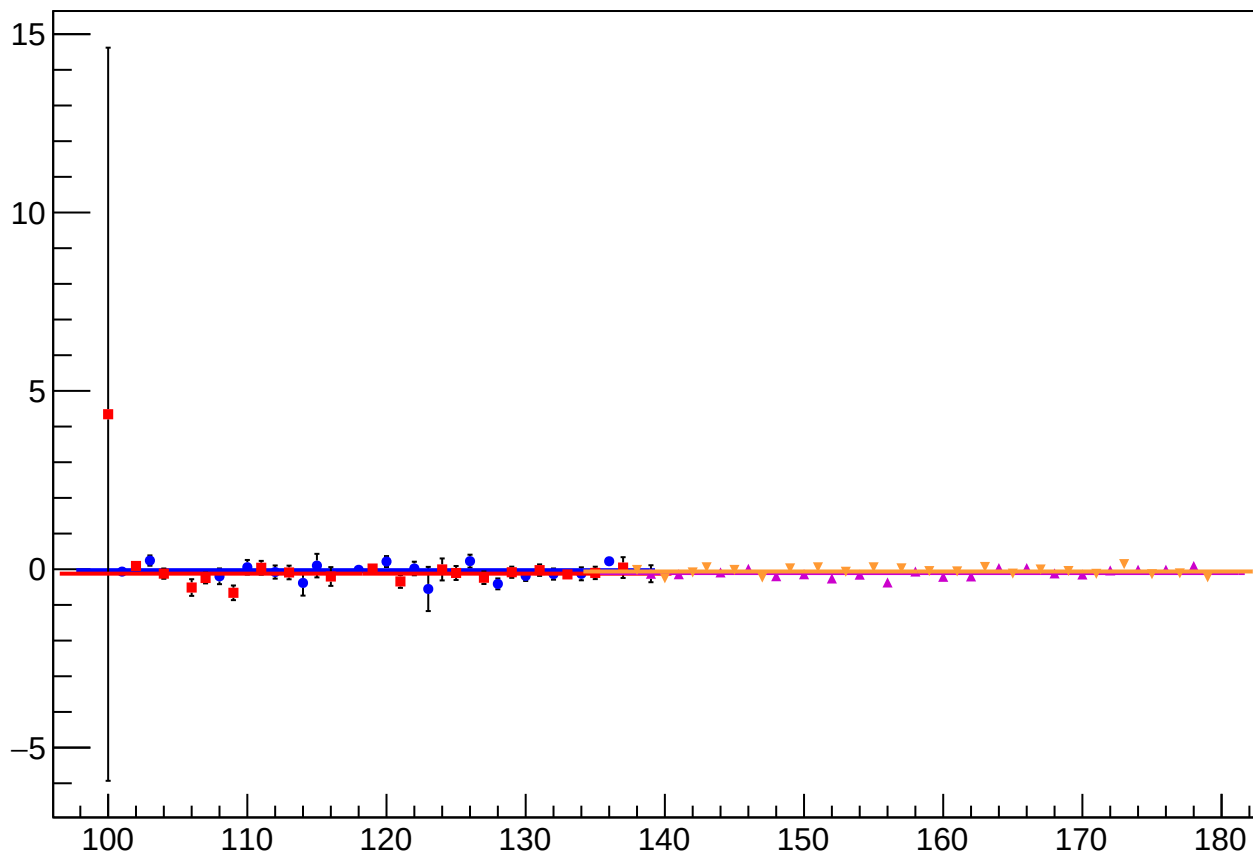
In: -0.037 $\pm$ 0.031  $\chi^2$ /NDF:18.2/19

Out: -0.005 $\pm$ 0.030  $\chi^2$ /NDF:25.5/21

All: -0.021 $\pm$ 0.021  $\chi^2$ /NDF: 44.3/41



reg\_asym\_dsr\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-0.026 \pm 0.037$   $\chi^2/\text{NDF}$ : 22.7/16

Left Out:  $-0.063 \pm 0.022$   $\chi^2/\text{NDF}$ : 24.2/21

Right Out:  $-0.124 \pm 0.039$   $\chi^2/\text{NDF}$ : 18.3/18

Left In:  $-0.107 \pm 0.023$   $\chi^2/\text{NDF}$ : 22.2/19

Left:  $-0.084 \pm 0.016$   $\chi^2/\text{NDF}$ : 48.3/41

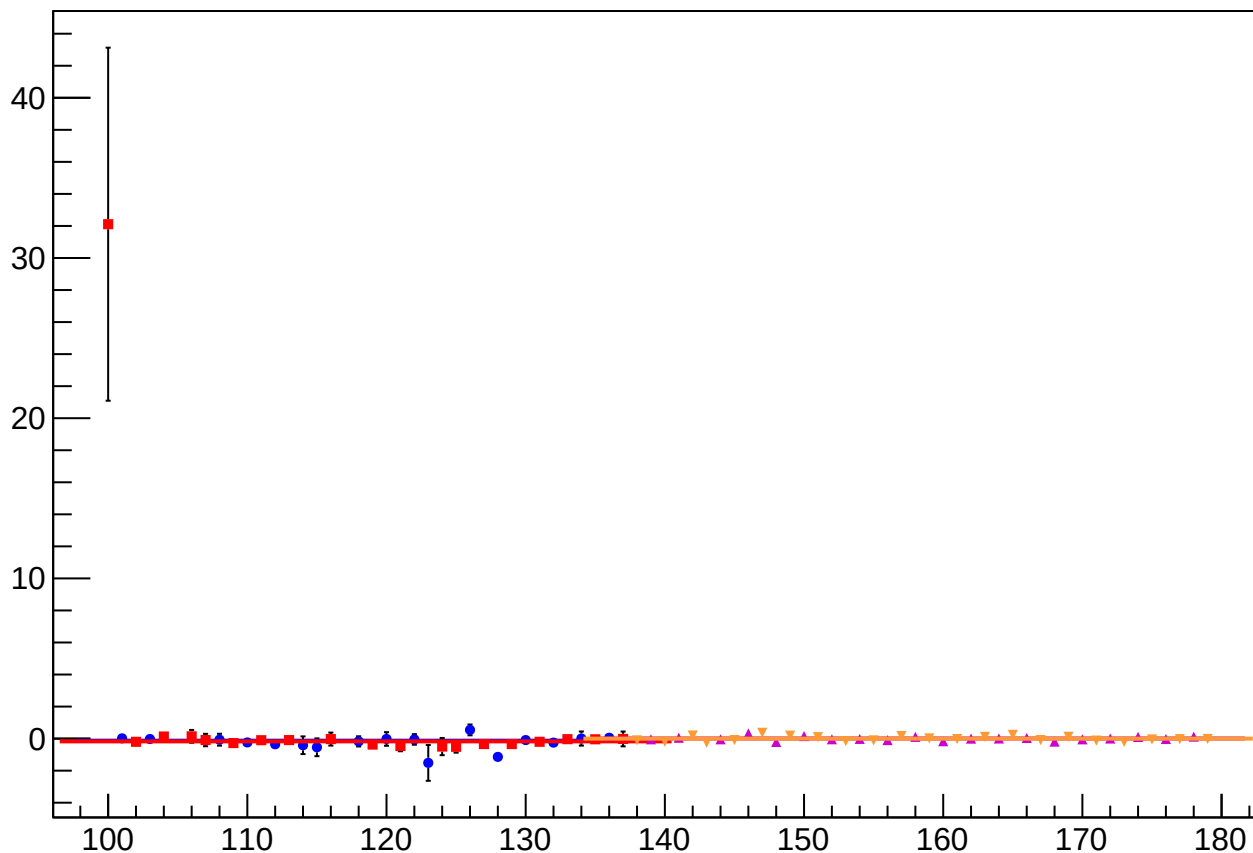
Right:  $-0.072 \pm 0.027$   $\chi^2/\text{NDF}$ : 44.3/35

In:  $-0.084 \pm 0.020$   $\chi^2/\text{NDF}$ : 48.4/36

Out:  $-0.077 \pm 0.019$   $\chi^2/\text{NDF}$ : 44.3/40

All:  $-0.080 \pm 0.014$   $\chi^2/\text{NDF}$ : 92.7/77

reg\_asym\_dsr\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-0.129 \pm 0.067$   $\chi^2/\text{NDF}$ : 23.1/16

Left Out:  $-0.001 \pm 0.029$   $\chi^2/\text{NDF}$ : 24.9/21

Right Out:  $-0.172 \pm 0.071$   $\chi^2/\text{NDF}$ : 14.9/18

Left In:  $0.008 \pm 0.030$   $\chi^2/\text{NDF}$ : 16.1/19

Left:  $0.004 \pm 0.021$   $\chi^2/\text{NDF}$ : 41.1/41

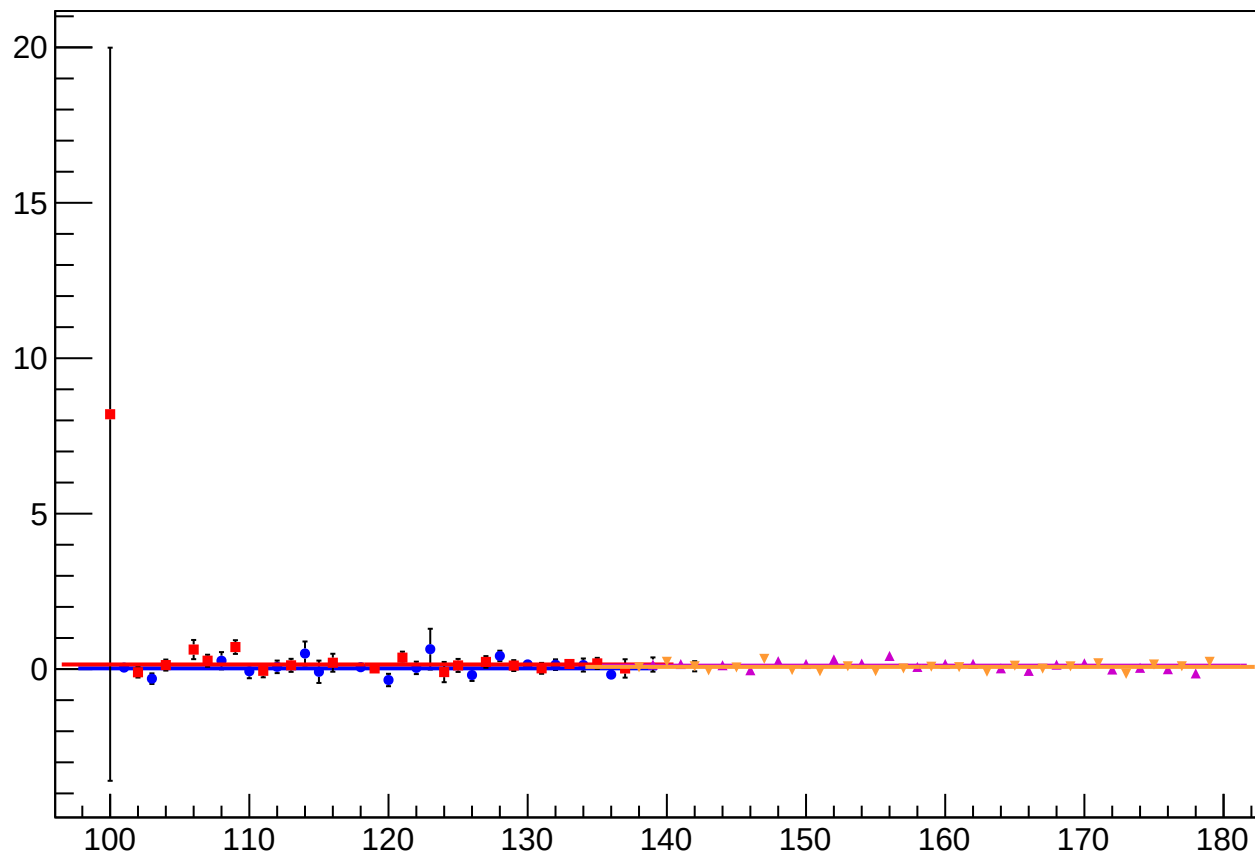
Right:  $-0.150 \pm 0.049$   $\chi^2/\text{NDF}$ : 38.2/35

In:  $-0.015 \pm 0.028$   $\chi^2/\text{NDF}$ : 42.7/36

Out:  $-0.026 \pm 0.027$   $\chi^2/\text{NDF}$ : 44.8/40

All:  $-0.021 \pm 0.019$   $\chi^2/\text{NDF}$ : 87.6/77

reg\_asym\_dsr\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.023+/-0.043  $\chi^2/\text{NDF}$ : 21.3/16

Left Out: 0.071+/-0.025  $\chi^2/\text{NDF}$ :23.0/21

Right Out: 0.148+/-0.045  $\chi^2/\text{NDF}$ : 16.6/18

Left In: 0.110+/-0.027  $\chi^2/\text{NDF}$ :24.9/19

Left: 0.089+/-0.018  $\chi^2/\text{NDF}$ : 49.1/41

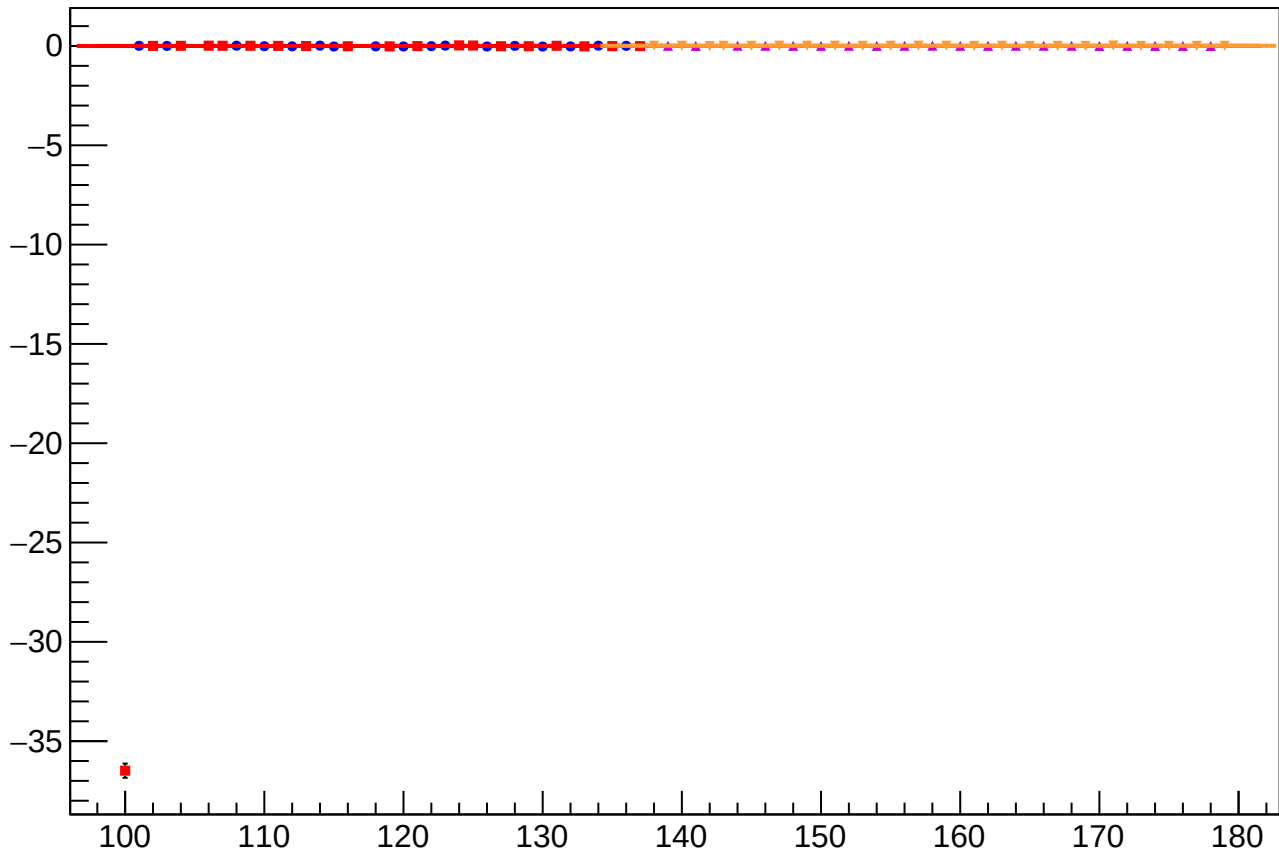
Right: 0.082+/-0.031  $\chi^2/\text{NDF}$ : 41.9/35

In: 0.085+/-0.023  $\chi^2/\text{NDF}$ :49.2/36

Out: 0.089+/-0.022  $\chi^2/\text{NDF}$ :41.8/40

All: 0.087+/-0.016  $\chi^2/\text{NDF}$ : 91.1/77

reg\_asym\_dsr\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.001 $\pm$ 0.002  $\chi^2$ /NDF: 30.6/16

Left Out: 0.009 $\pm$ 0.001  $\chi^2$ /NDF:19.8/21

Right Out: 0.001 $\pm$ 0.002  $\chi^2$ /NDF: 10449.1/18

Left In: 0.009 $\pm$ 0.001  $\chi^2$ /NDF:14.4/19

Left: 0.009 $\pm$ 0.001  $\chi^2$ /NDF: 34.2/41

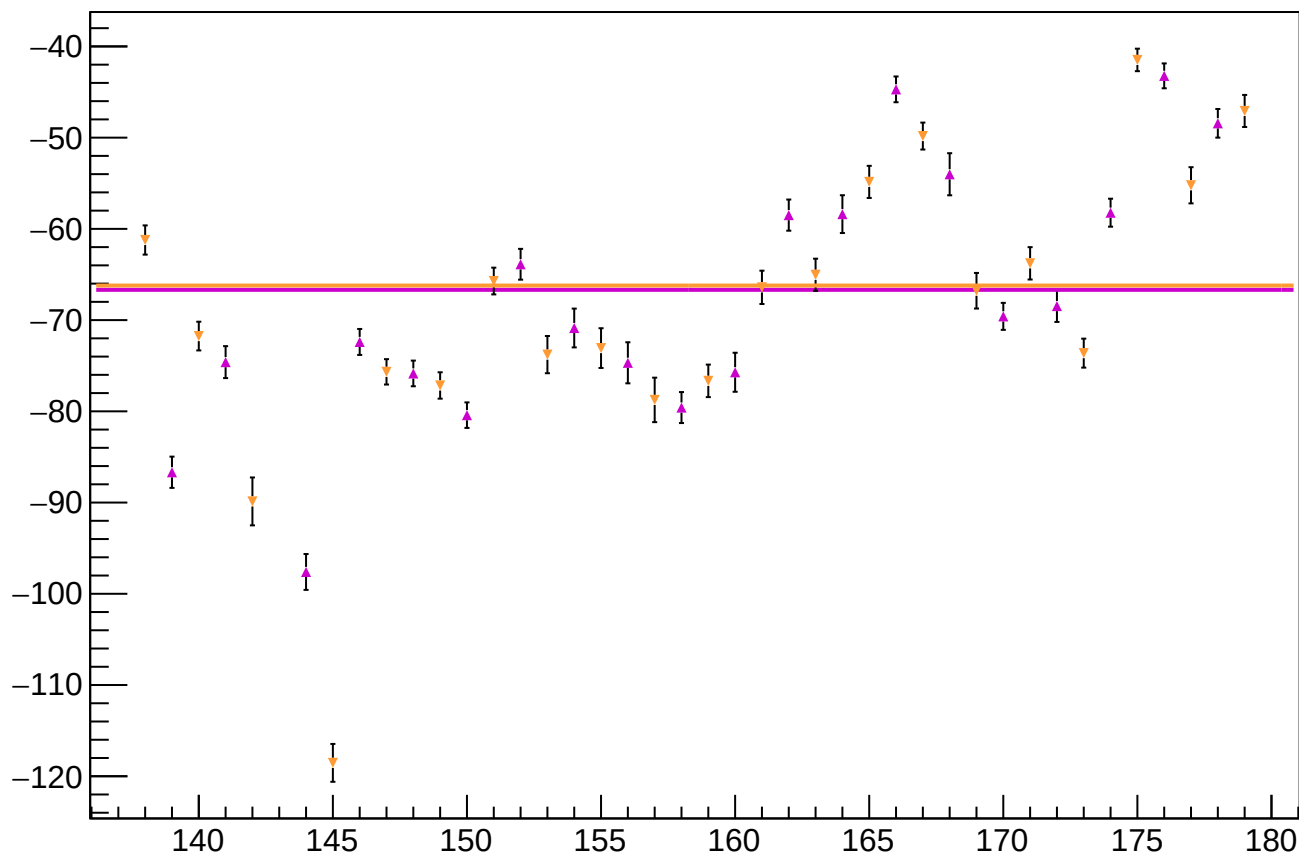
Right: 0.001 $\pm$ 0.002  $\chi^2$ /NDF: 10479.7/35

In: 0.007 $\pm$ 0.001  $\chi^2$ /NDF:54.3/36

Out: 0.007 $\pm$ 0.001  $\chi^2$ /NDF:10479.0/40

All: 0.007 $\pm$ 0.001  $\chi^2$ /NDF: 10533.2/77

reg\_asym\_us\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -66.210+/-0.373  $\chi^2$ /NDF:1667.4/20

Right Out: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

Left In: -66.682+/-0.373  $\chi^2$ /NDF:1431.8/19

Left: -66.446+/-0.264  $\chi^2$ /NDF: 3100.0/40

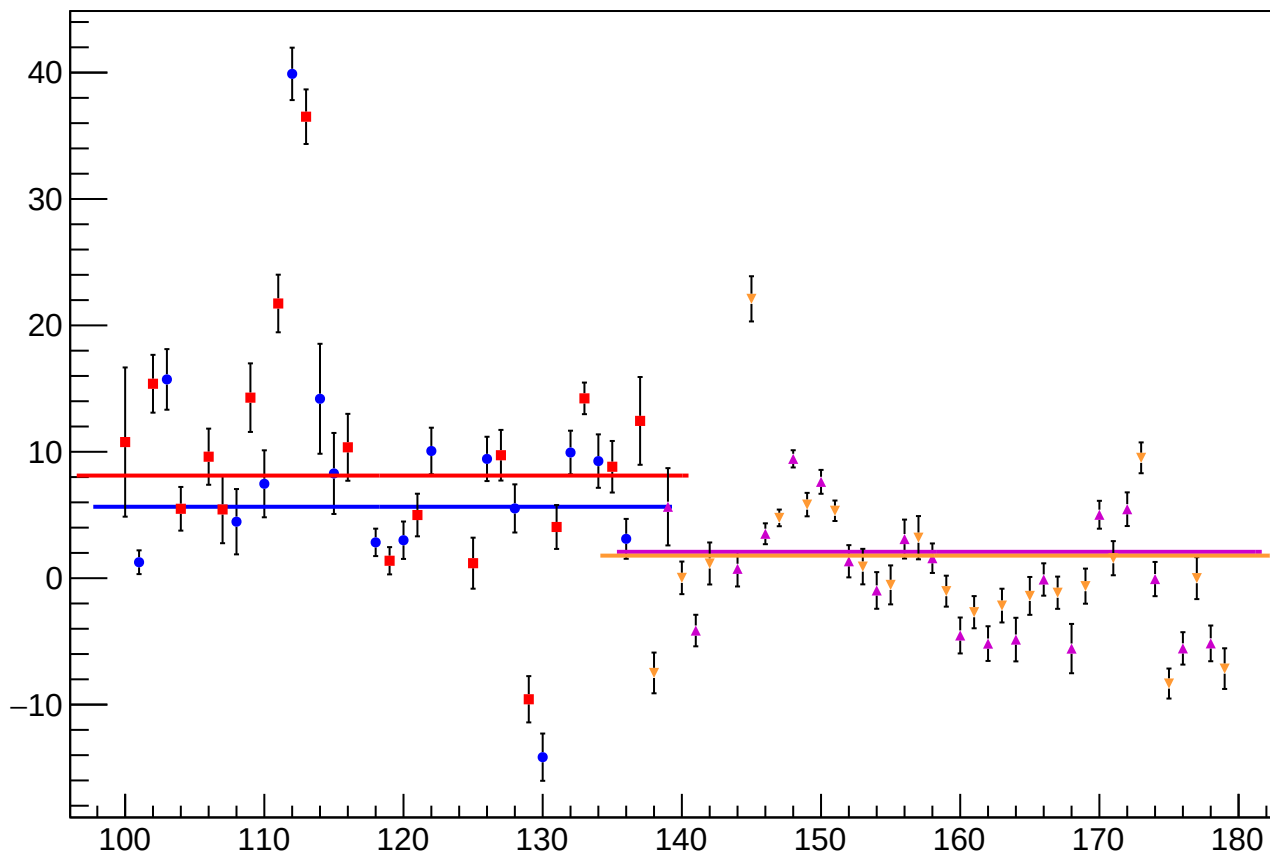
Right: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

In: -66.682+/-0.373  $\chi^2$ /NDF:1431.8/19

Out: -66.210+/-0.373  $\chi^2$ /NDF:1667.4/20

All: -66.446+/-0.264  $\chi^2$ /NDF: 3100.0/40

reg\_asym\_us\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 5.651+/-0.429  $\chi^2/\text{NDF}$ : 461.9/15

Left Out: 1.786+/-0.267  $\chi^2/\text{NDF}$ : 410.4/20

Right Out: 8.119+/-0.453  $\chi^2/\text{NDF}$ : 407.9/17

Left In: 2.086+/-0.272  $\chi^2/\text{NDF}$ : 348.2/19

Left: 1.933+/-0.191  $\chi^2/\text{NDF}$ : 759.3/40

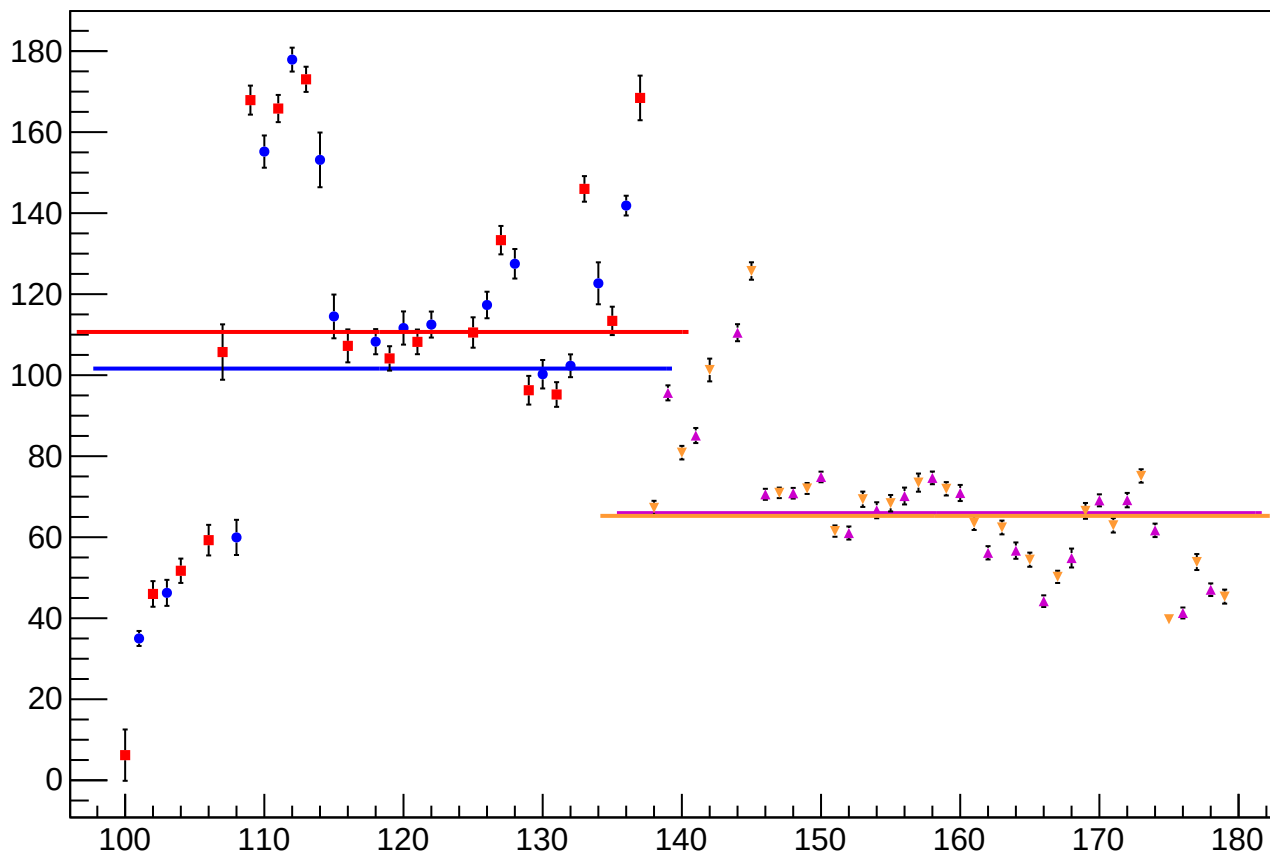
Right: 6.819+/-0.311  $\chi^2/\text{NDF}$ : 885.4/33

In: 3.108+/-0.230  $\chi^2/\text{NDF}$ : 859.4/35

Out: 3.421+/-0.230  $\chi^2/\text{NDF}$ : 963.6/38

All: 3.264+/-0.163  $\chi^2/\text{NDF}$ : 1823.9/74

reg\_asym\_us\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 101.630 $\pm$ 0.812  $\chi^2$ /NDF: 2980.2/15

Left Out: 65.269 $\pm$ 0.368  $\chi^2$ /NDF:1902.5/20

Right Out: 110.669 $\pm$ 0.836  $\chi^2$ /NDF: 2514.0/17

Left In: 65.945 $\pm$ 0.367  $\chi^2$ /NDF:1735.6/19

Left: 65.607 $\pm$ 0.260  $\chi^2$ /NDF: 3639.8/40

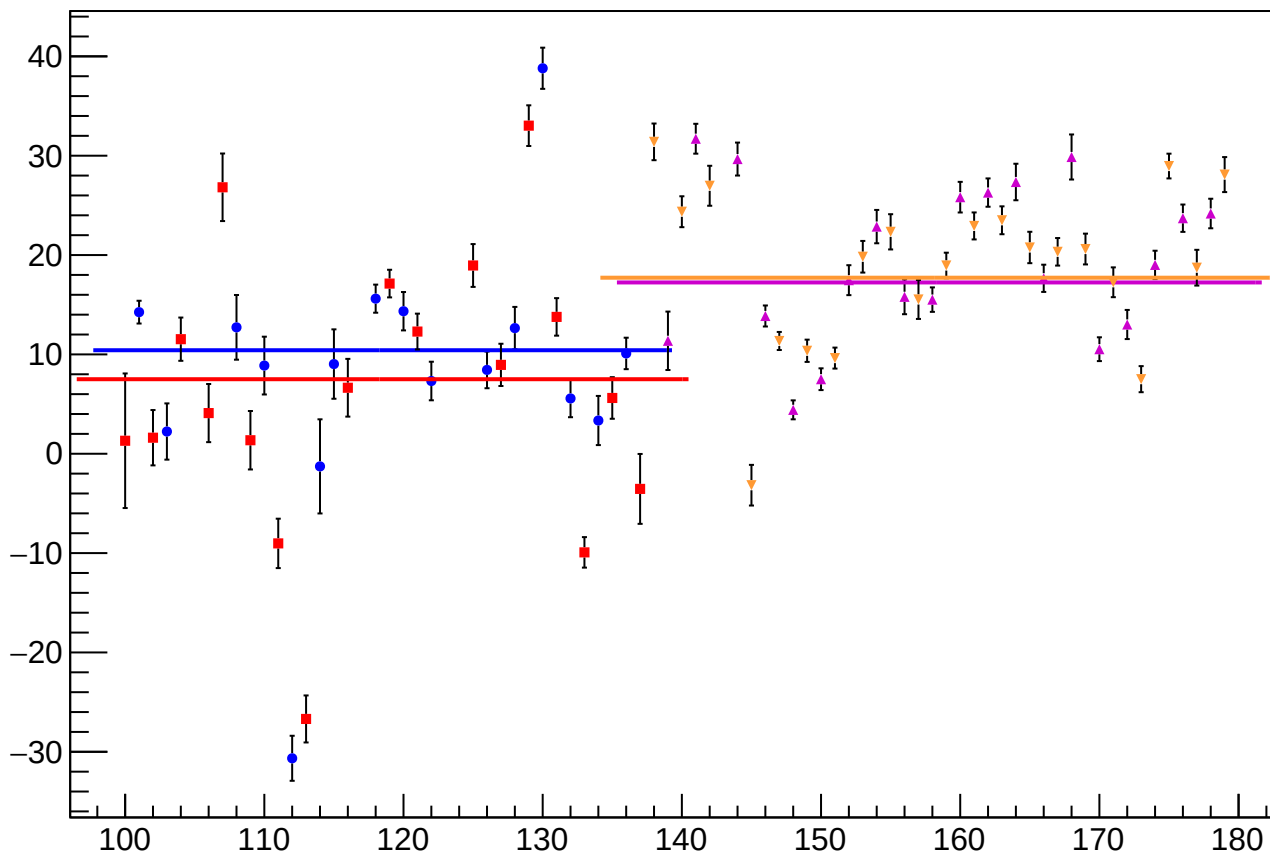
Right: 106.018 $\pm$ 0.583  $\chi^2$ /NDF: 5554.3/33

In: 72.008 $\pm$ 0.335  $\chi^2$ /NDF:6318.8/35

Out: 72.624 $\pm$ 0.337  $\chi^2$ /NDF:6887.3/38

All: 72.314 $\pm$ 0.237  $\chi^2$ /NDF: 13207.8/74

reg\_asym\_us\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 10.420 $\pm$ 0.497  $\chi^2$ /NDF: 579.7/15

Left Out: 17.720 $\pm$ 0.311  $\chi^2$ /NDF: 579.6/20

Right Out: 7.502 $\pm$ 0.523  $\chi^2$ /NDF: 689.4/17

Left In: 17.242 $\pm$ 0.315  $\chi^2$ /NDF: 654.5/19

Left: 17.484 $\pm$ 0.221  $\chi^2$ /NDF: 1235.2/40

Right: 9.035 $\pm$ 0.360  $\chi^2$ /NDF: 1285.5/33

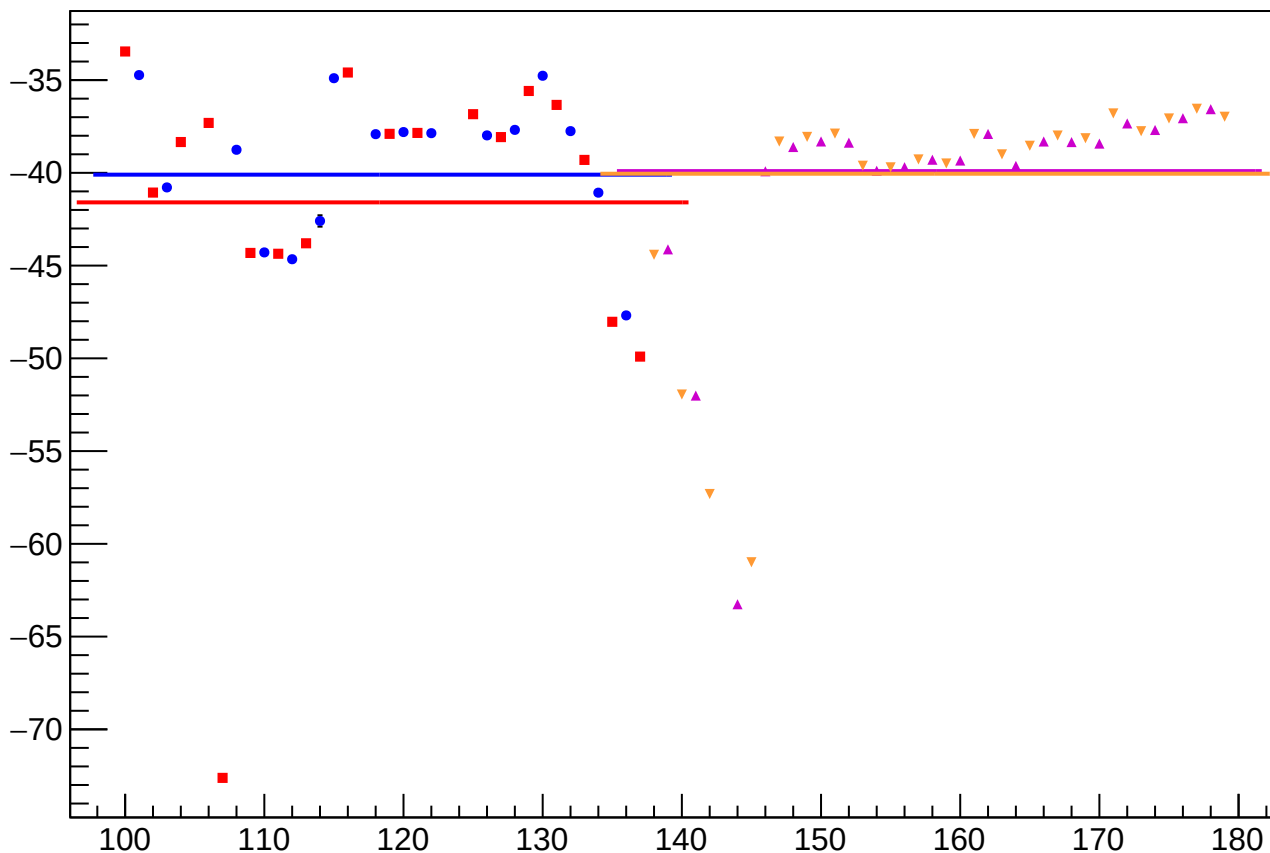
In: 15.292 $\pm$ 0.266  $\chi^2$ /NDF: 1368.6/35

Out: 15.057 $\pm$ 0.267  $\chi^2$ /NDF: 1551.0/38

All: 15.175 $\pm$ 0.188  $\chi^2$ /NDF: 2920.0/74



reg\_asym\_us\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-40.098 \pm 0.028$   $\chi^2/\text{NDF}$ : 25073.4/15

Left Out:  $-40.048 \pm 0.015$   $\chi^2/\text{NDF}$ : 131191.5/20

Right Out:  $-41.592 \pm 0.029$   $\chi^2/\text{NDF}$ : 61677.7/17

Left In:  $-39.907 \pm 0.015$   $\chi^2/\text{NDF}$ : 106160.4/19

Left:  $-39.977 \pm 0.010$   $\chi^2/\text{NDF}$ : 237397.9/40

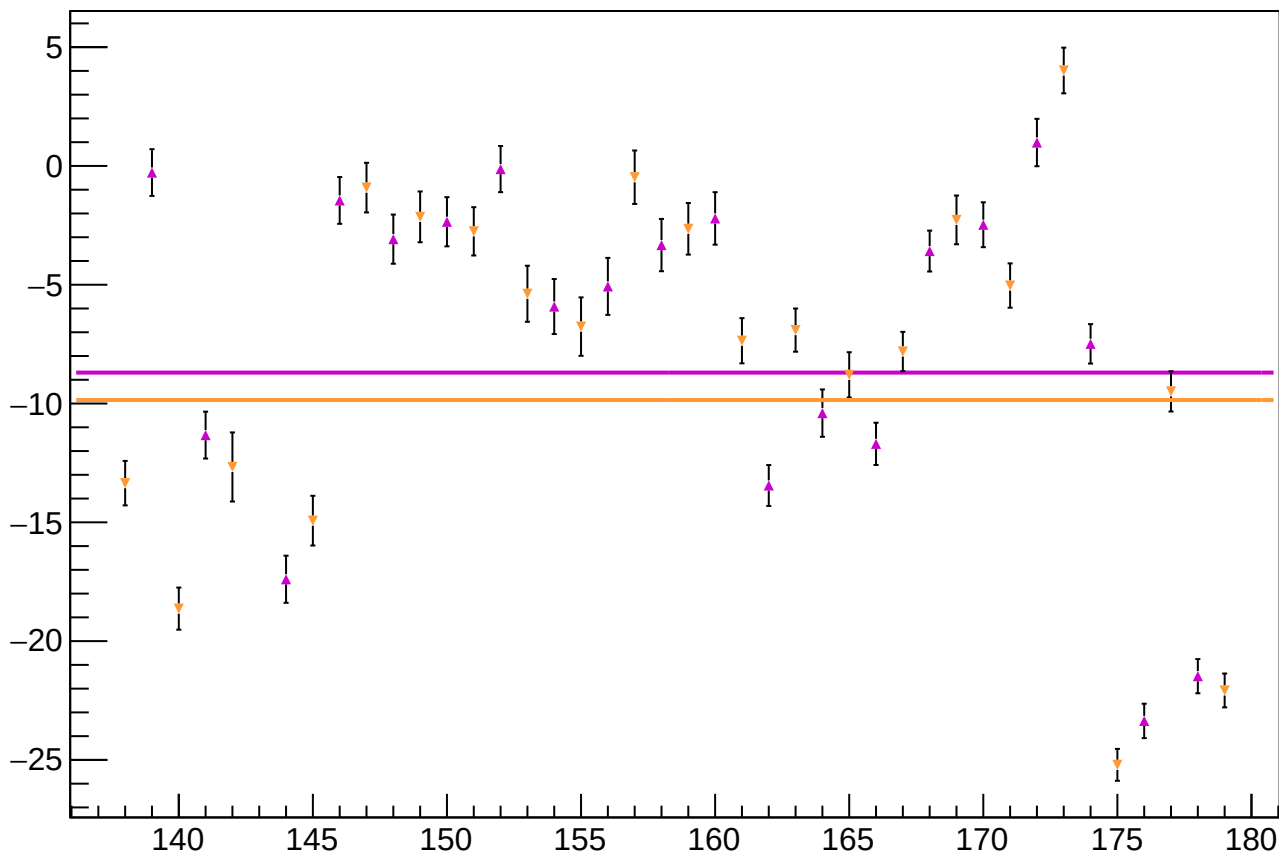
Right:  $-40.838 \pm 0.020$   $\chi^2/\text{NDF}$ : 88129.3/33

In:  $-39.947 \pm 0.013$   $\chi^2/\text{NDF}$ : 131269.8/35

Out:  $-40.375 \pm 0.013$   $\chi^2/\text{NDF}$ : 195167.5/38

All:  $-40.159 \pm 0.009$   $\chi^2/\text{NDF}$ : 326970.8/74

reg\_asym\_us\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



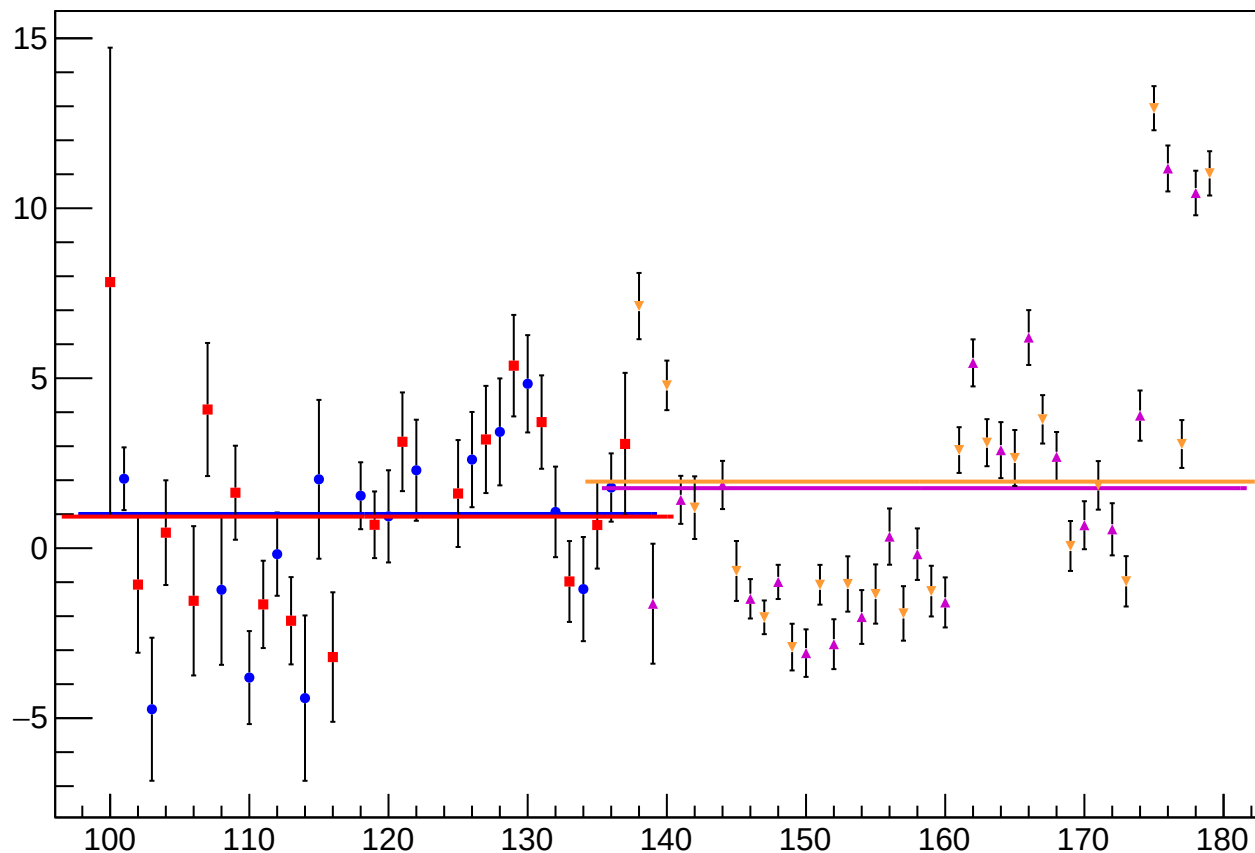
Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -9.853 $\pm$ 0.208  $\chi^2$ /NDF:1580.2/20  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -8.698 $\pm$ 0.211  $\chi^2$ /NDF:1375.0/19

Left: -9.284 $\pm$ 0.148  $\chi^2$ /NDF: 2970.5/40  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -8.698 $\pm$ 0.211  $\chi^2$ /NDF:1375.0/19  
 Out: -9.853 $\pm$ 0.208  $\chi^2$ /NDF:1580.2/20

All: -9.284 $\pm$ 0.148  $\chi^2$ /NDF: 2970.5/40

reg\_asym\_us\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 1.006 $\pm$ 0.342  $\chi^2$ /NDF: 42.7/15

Left Out: 1.959 $\pm$ 0.157  $\chi^2$ /NDF:782.0/20

Right Out: 0.929 $\pm$ 0.353  $\chi^2$ /NDF: 41.9/17

Left In: 1.766 $\pm$ 0.161  $\chi^2$ /NDF:650.4/19

Left: 1.865 $\pm$ 0.112  $\chi^2$ /NDF: 1433.1/40

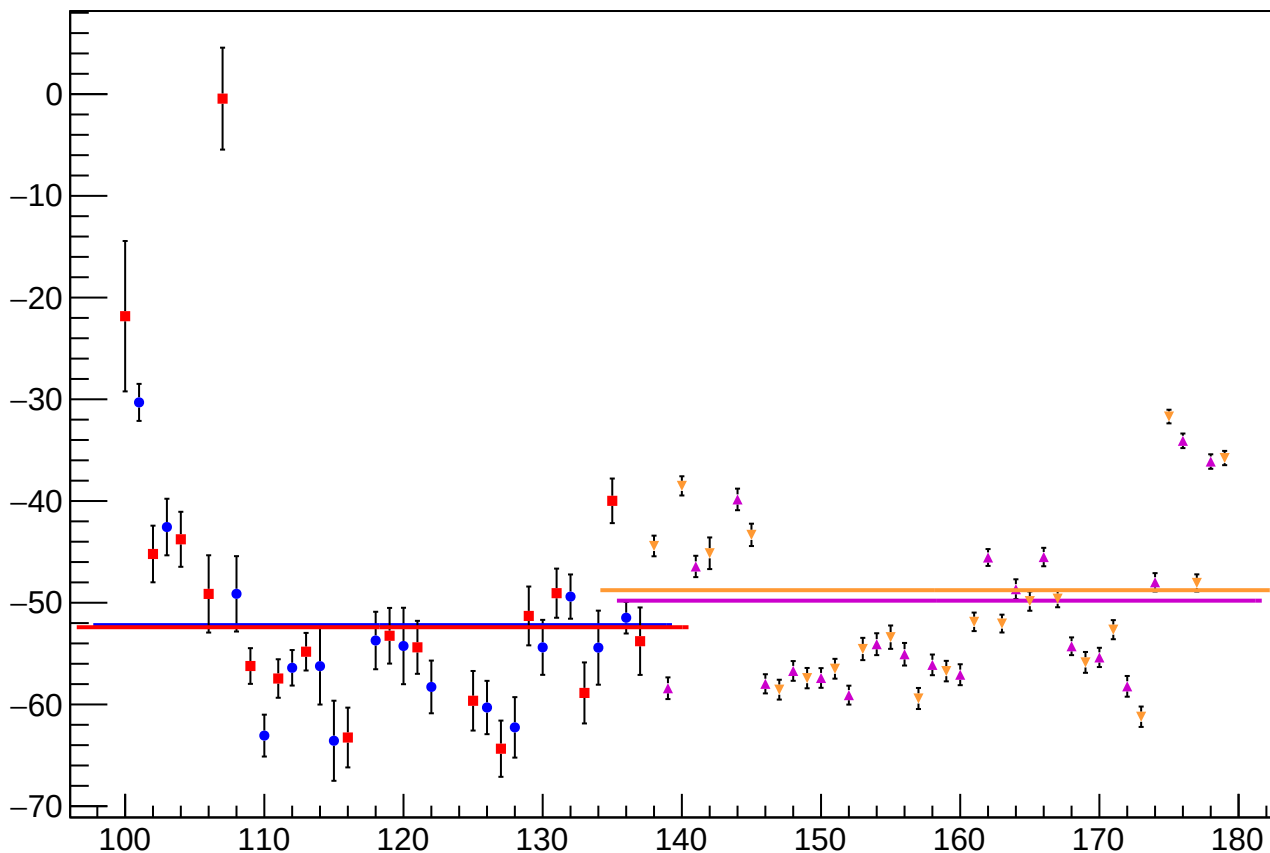
Right: 0.969 $\pm$ 0.246  $\chi^2$ /NDF: 84.6/33

In: 1.628 $\pm$ 0.145  $\chi^2$ /NDF:697.2/35

Out: 1.790 $\pm$ 0.143  $\chi^2$ /NDF:830.9/38

All: 1.710 $\pm$ 0.102  $\chi^2$ /NDF: 1528.8/74

reg\_asym\_us\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: -52.200 $\pm$ 0.615  $\chi^2$ /NDF: 230.6/15

Left Out: -48.767 $\pm$ 0.205  $\chi^2$ /NDF:1855.7/20

Right Out: -52.407 $\pm$ 0.616  $\chi^2$ /NDF: 233.9/17

Left In: -49.796 $\pm$ 0.209  $\chi^2$ /NDF:1609.4/19

Left: -49.273 $\pm$ 0.146  $\chi^2$ /NDF: 3477.5/40

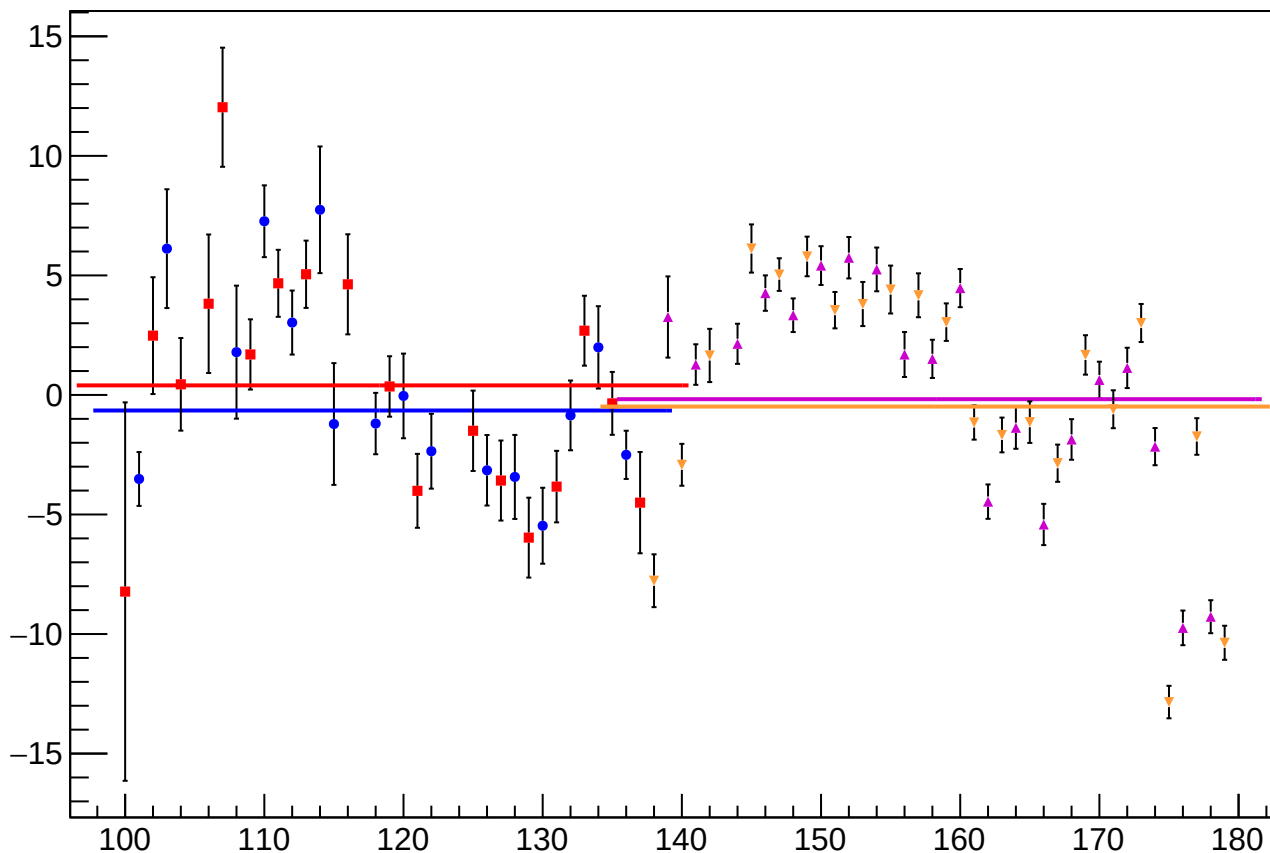
Right: -52.303 $\pm$ 0.435  $\chi^2$ /NDF: 464.6/33

In: -50.045 $\pm$ 0.198  $\chi^2$ /NDF:1853.7/35

Out: -49.131 $\pm$ 0.195  $\chi^2$ /NDF:2121.1/38

All: -49.581 $\pm$ 0.139  $\chi^2$ /NDF: 3985.6/74

reg\_asym\_us\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-0.651 \pm 0.387$   $\chi^2/\text{NDF}$ : 81.9/15

Left Out:  $-0.486 \pm 0.178$   $\chi^2/\text{NDF}$ : 905.9/20

Right Out:  $0.400 \pm 0.399$   $\chi^2/\text{NDF}$ : 95.9/17

Left In:  $-0.177 \pm 0.182$   $\chi^2/\text{NDF}$ : 683.2/19

Left:  $-0.335 \pm 0.127$   $\chi^2/\text{NDF}$ : 1590.5/40

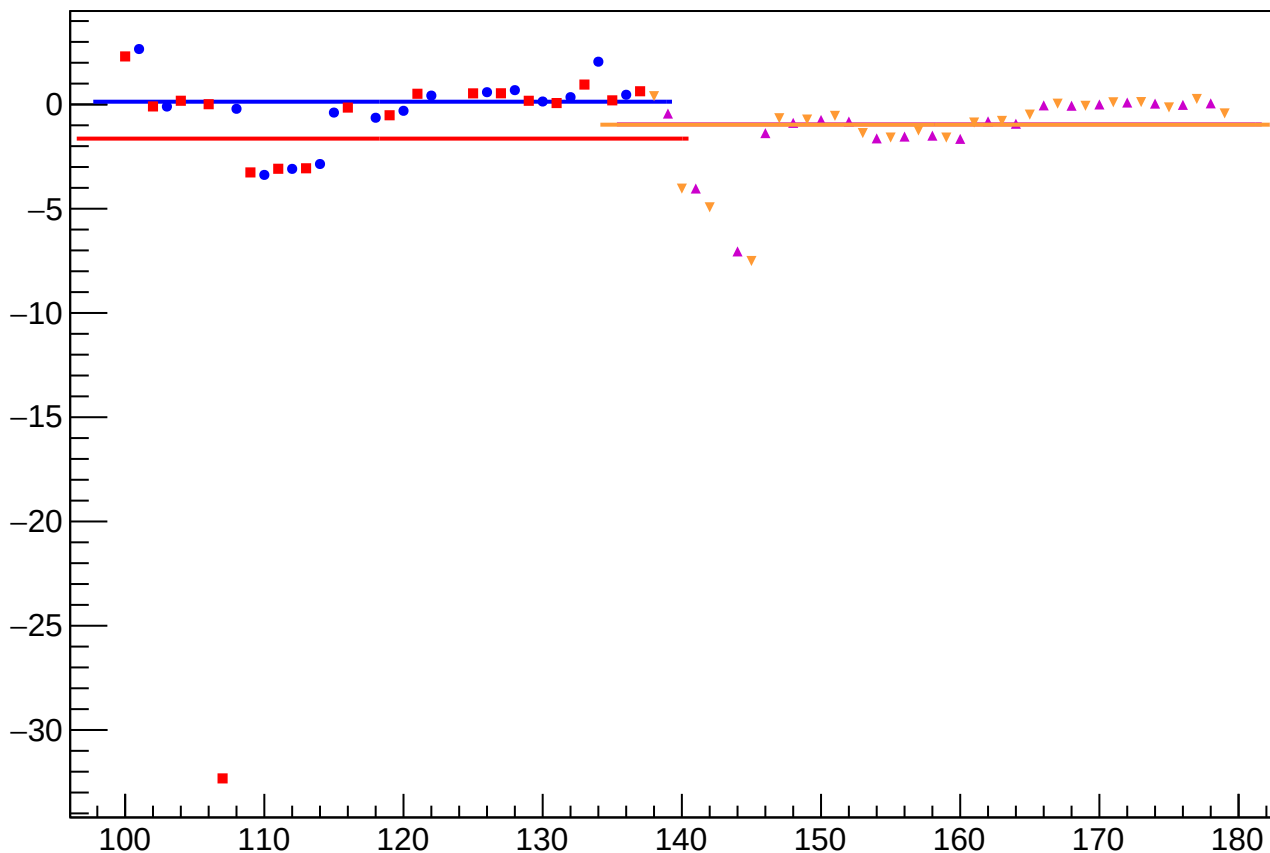
Right:  $-0.142 \pm 0.278$   $\chi^2/\text{NDF}$ : 181.4/33

In:  $-0.263 \pm 0.165$   $\chi^2/\text{NDF}$ : 766.3/35

Out:  $-0.339 \pm 0.163$   $\chi^2/\text{NDF}$ : 1005.9/38

All:  $-0.302 \pm 0.116$   $\chi^2/\text{NDF}$ : 1772.3/74

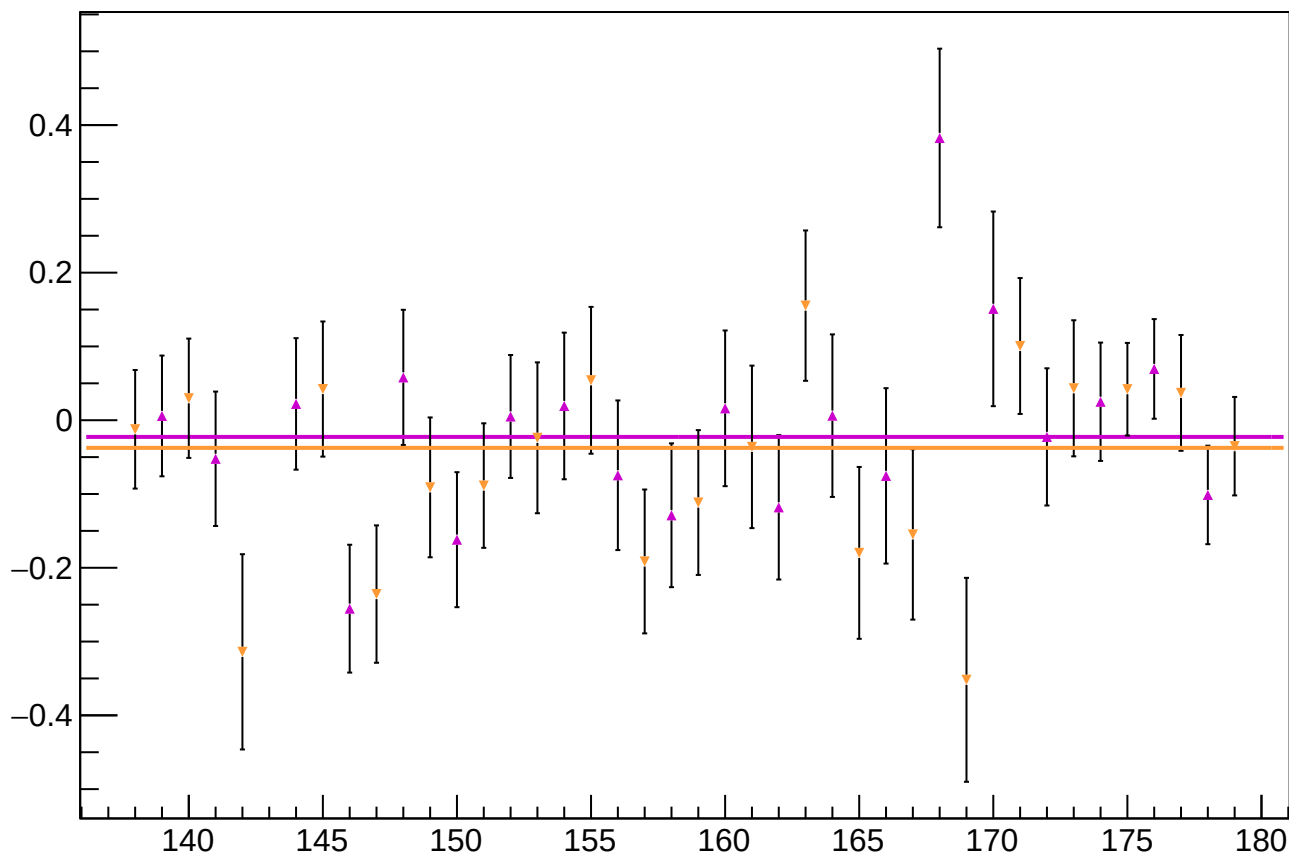
reg\_asym\_us\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.132 \pm 0.022$   $\chi^2/\text{NDF}: 5247.5/15$   
 Left Out:  $-0.970 \pm 0.008$   $\chi^2/\text{NDF}: 40542.4/20$   
 Right Out:  $-1.638 \pm 0.022$   $\chi^2/\text{NDF}: 77848.3/17$   
 Left In:  $-0.955 \pm 0.008$   $\chi^2/\text{NDF}: 29654.9/19$

Left:  $-0.962 \pm 0.006$   $\chi^2/\text{NDF}: 70199.1/40$   
 Right:  $-0.742 \pm 0.015$   $\chi^2/\text{NDF}: 86422.1/33$   
 In:  $-0.815 \pm 0.008$   $\chi^2/\text{NDF}: 37116.5/35$   
 Out:  $-1.053 \pm 0.008$   $\chi^2/\text{NDF}: 119210.9/38$   
 All:  $-0.935 \pm 0.005$   $\chi^2/\text{NDF}: 156802.0/74$

reg\_asym\_ds\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -0.037 $\pm$ 0.020  $\chi^2$ /NDF:31.9/20

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: -0.023 $\pm$ 0.020  $\chi^2$ /NDF:30.4/19

Left: -0.030 $\pm$ 0.014  $\chi^2$ /NDF: 62.6/40

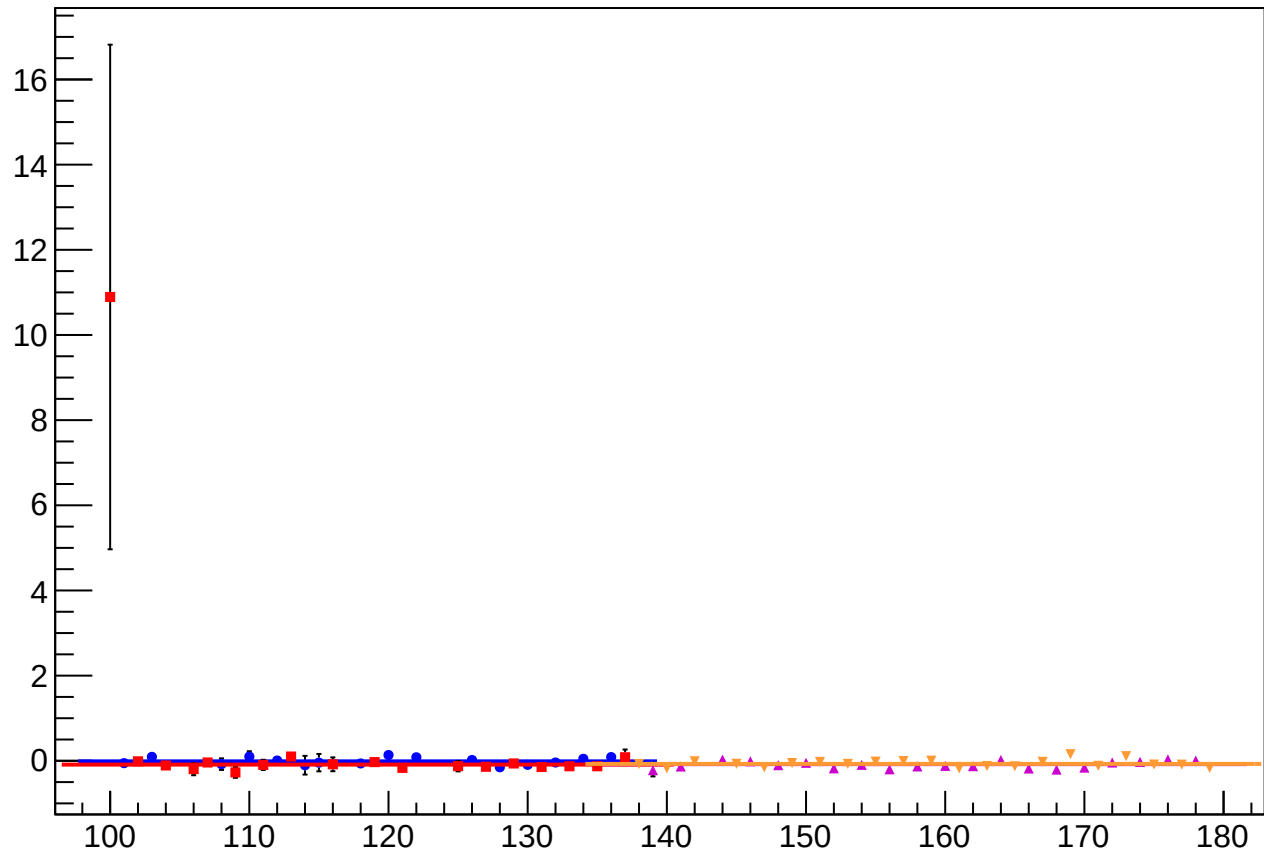
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -0.023 $\pm$ 0.020  $\chi^2$ /NDF:30.4/19

Out: -0.037 $\pm$ 0.020  $\chi^2$ /NDF:31.9/20

All: -0.030 $\pm$ 0.014  $\chi^2$ /NDF: 62.6/40

reg\_asym\_ds\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-0.013 \pm 0.023$   $\chi^2/\text{NDF}$ : 11.7/15

Left Out:  $-0.073 \pm 0.015$   $\chi^2/\text{NDF}$ : 27.8/20

Right Out:  $-0.089 \pm 0.025$   $\chi^2/\text{NDF}$ : 13.0/17

Left In:  $-0.078 \pm 0.015$   $\chi^2/\text{NDF}$ : 23.7/19

Left:  $-0.076 \pm 0.011$   $\chi^2/\text{NDF}$ : 51.5/40

Right:  $-0.049 \pm 0.017$   $\chi^2/\text{NDF}$ : 29.6/33

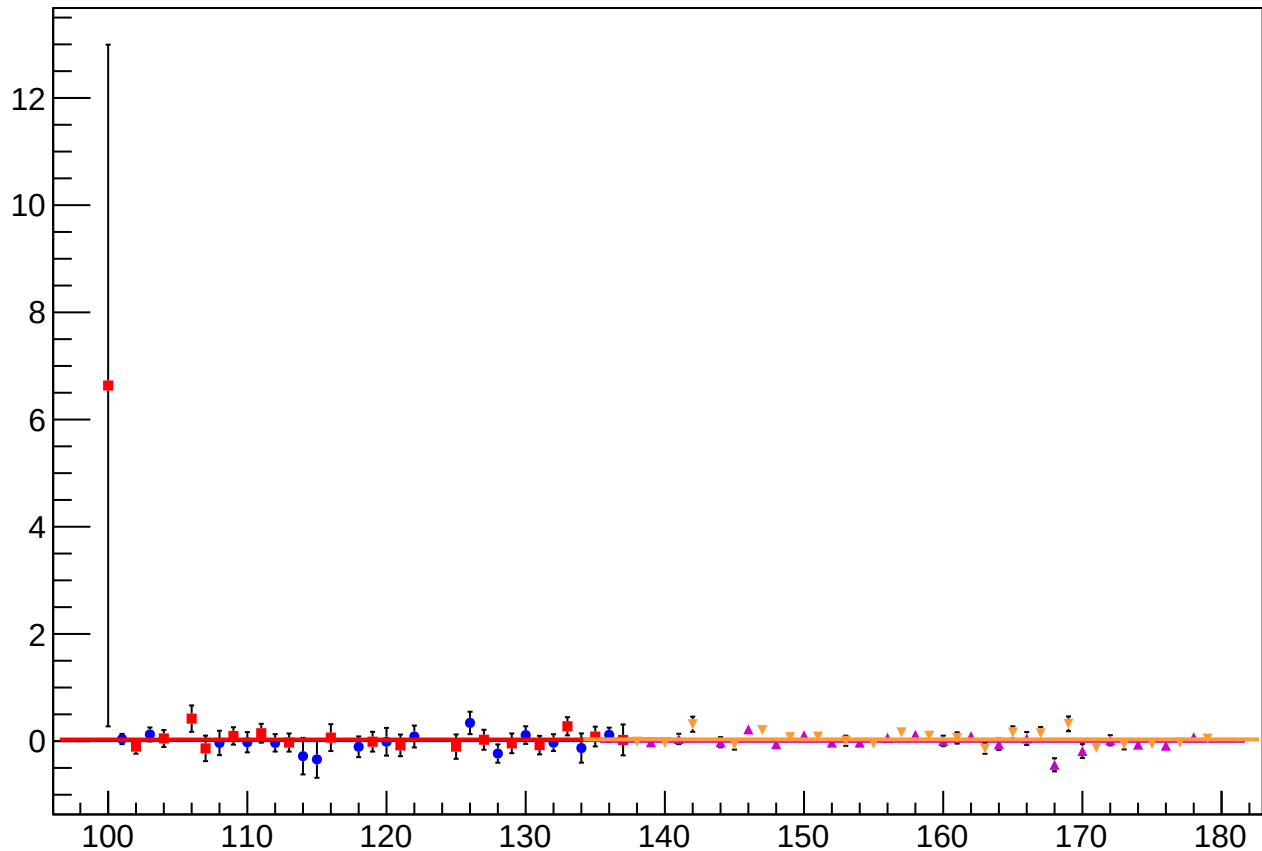
In:  $-0.059 \pm 0.013$   $\chi^2/\text{NDF}$ : 40.8/35

Out:  $-0.077 \pm 0.013$   $\chi^2/\text{NDF}$ : 41.1/38

All:  $-0.068 \pm 0.009$   $\chi^2/\text{NDF}$ : 82.9/74



reg\_asym\_ds\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.020+/-0.043  $\chi^2/\text{NDF}$ : 9.1/15

Left Out: 0.033+/-0.020  $\chi^2/\text{NDF}$ : 29.5/20

Right Out: 0.030+/-0.045  $\chi^2/\text{NDF}$ : 9.2/17

Left In: 0.006+/-0.020  $\chi^2/\text{NDF}$ : 31.6/19

Left: 0.019+/-0.014  $\chi^2/\text{NDF}$ : 62.0/40

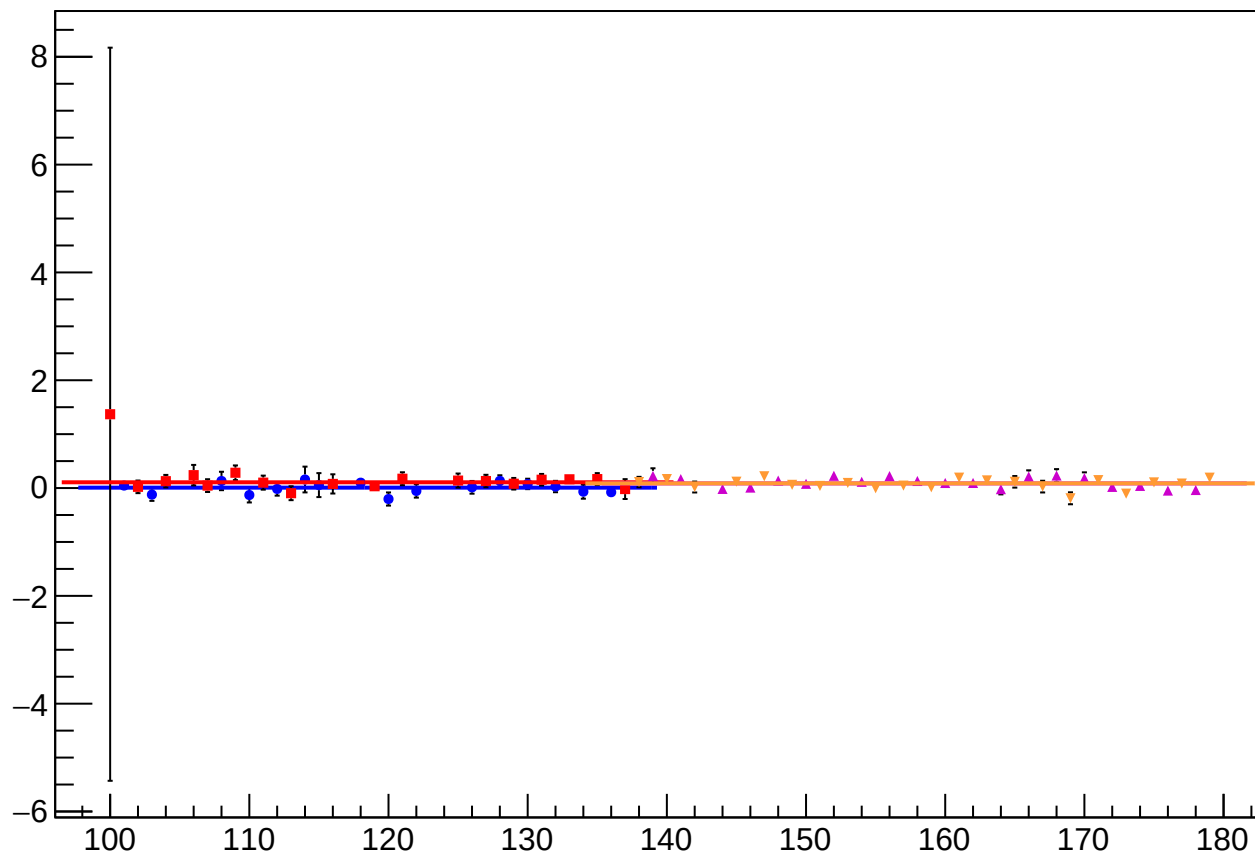
Right: 0.025+/-0.031  $\chi^2/\text{NDF}$ : 18.3/33

In: 0.008+/-0.018  $\chi^2/\text{NDF}$ : 40.7/35

Out: 0.032+/-0.018  $\chi^2/\text{NDF}$ : 38.7/38

All: 0.020+/-0.013  $\chi^2/\text{NDF}$ : 80.3/74

reg\_asym\_ds\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.007 $\pm$ 0.027  $\chi^2$ /NDF: 11.3/15

Left Out: 0.087 $\pm$ 0.017  $\chi^2$ /NDF: 27.7/20

Right Out: 0.107 $\pm$ 0.029  $\chi^2$ /NDF: 8.2/17

Left In: 0.086 $\pm$ 0.018  $\chi^2$ /NDF: 26.4/19

Left: 0.086 $\pm$ 0.012  $\chi^2$ /NDF: 54.1/40

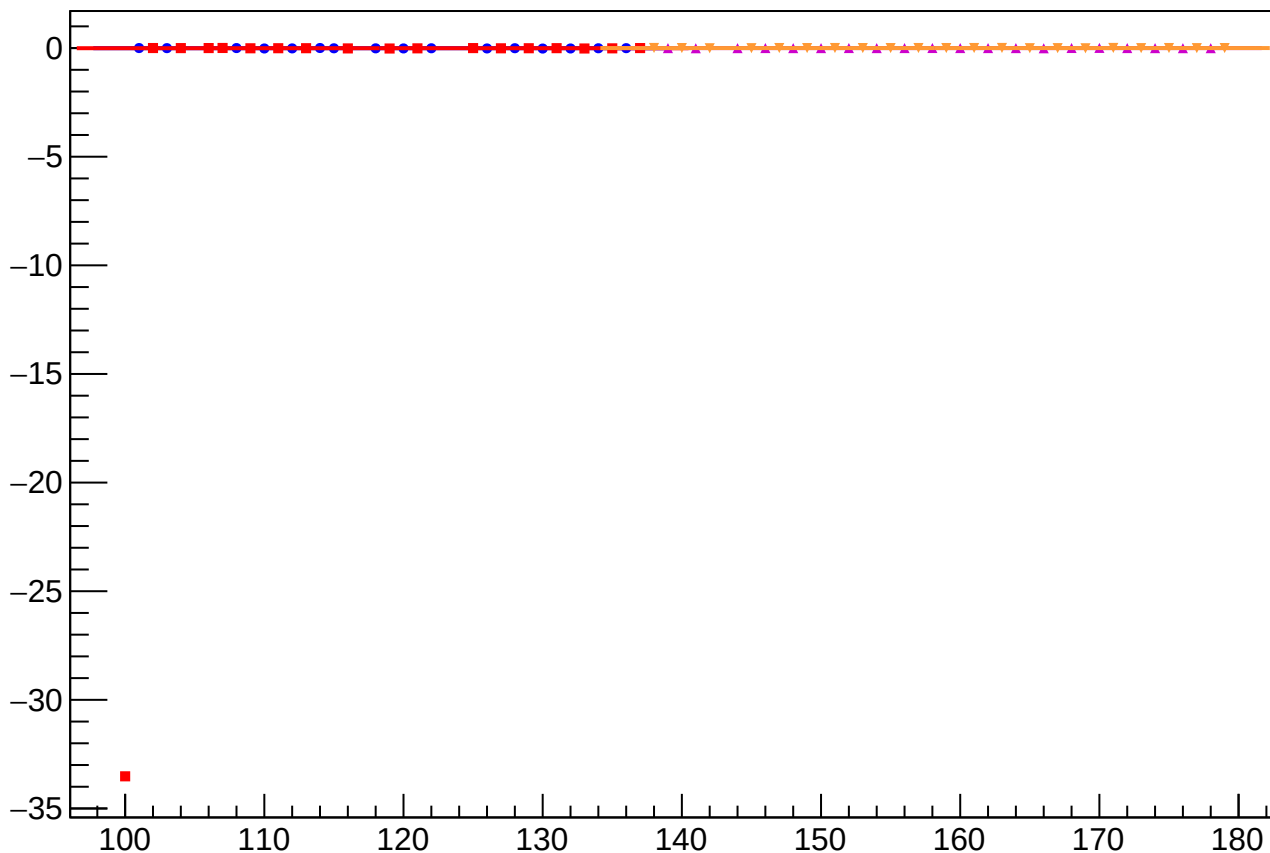
Right: 0.054 $\pm$ 0.020  $\chi^2$ /NDF: 25.8/33

In: 0.063 $\pm$ 0.015  $\chi^2$ /NDF: 43.6/35

Out: 0.092 $\pm$ 0.015  $\chi^2$ /NDF: 36.2/38

All: 0.077 $\pm$ 0.010  $\chi^2$ /NDF: 81.8/74

reg\_asym\_ds\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.005 \pm 0.001$   $\chi^2/\text{NDF}$ : 21.8/15

Left Out:  $0.001 \pm 0.001$   $\chi^2/\text{NDF}$ : 20.3/20

Right Out:  $-0.006 \pm 0.001$   $\chi^2/\text{NDF}$ : 26508.7/17

Left In:  $-0.000 \pm 0.001$   $\chi^2/\text{NDF}$ : 18.5/19

Left:  $0.000 \pm 0.001$   $\chi^2/\text{NDF}$ : 39.6/40

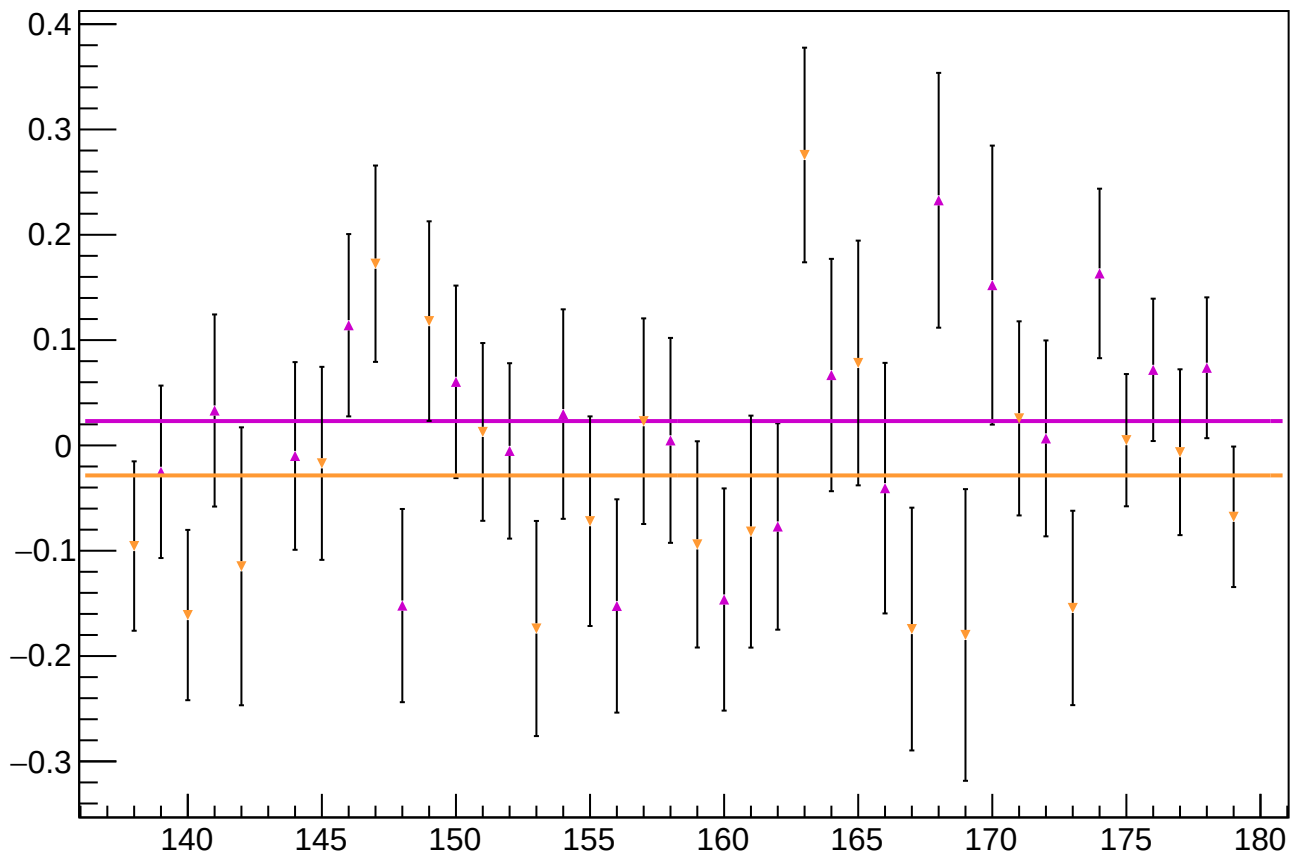
Right:  $-0.006 \pm 0.001$   $\chi^2/\text{NDF}$ : 26530.6/33

In:  $-0.001 \pm 0.001$   $\chi^2/\text{NDF}$ : 49.7/35

Out:  $-0.001 \pm 0.001$   $\chi^2/\text{NDF}$ : 26545.0/38

All:  $-0.001 \pm 0.000$   $\chi^2/\text{NDF}$ : 26595.2/74

reg\_asym\_ds\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -0.028 $\pm$ 0.020  $\chi^2$ /NDF:29.8/20

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: 0.023 $\pm$ 0.020  $\chi^2$ /NDF:20.8/19

Left: -0.003 $\pm$ 0.014  $\chi^2$ /NDF: 53.8/40

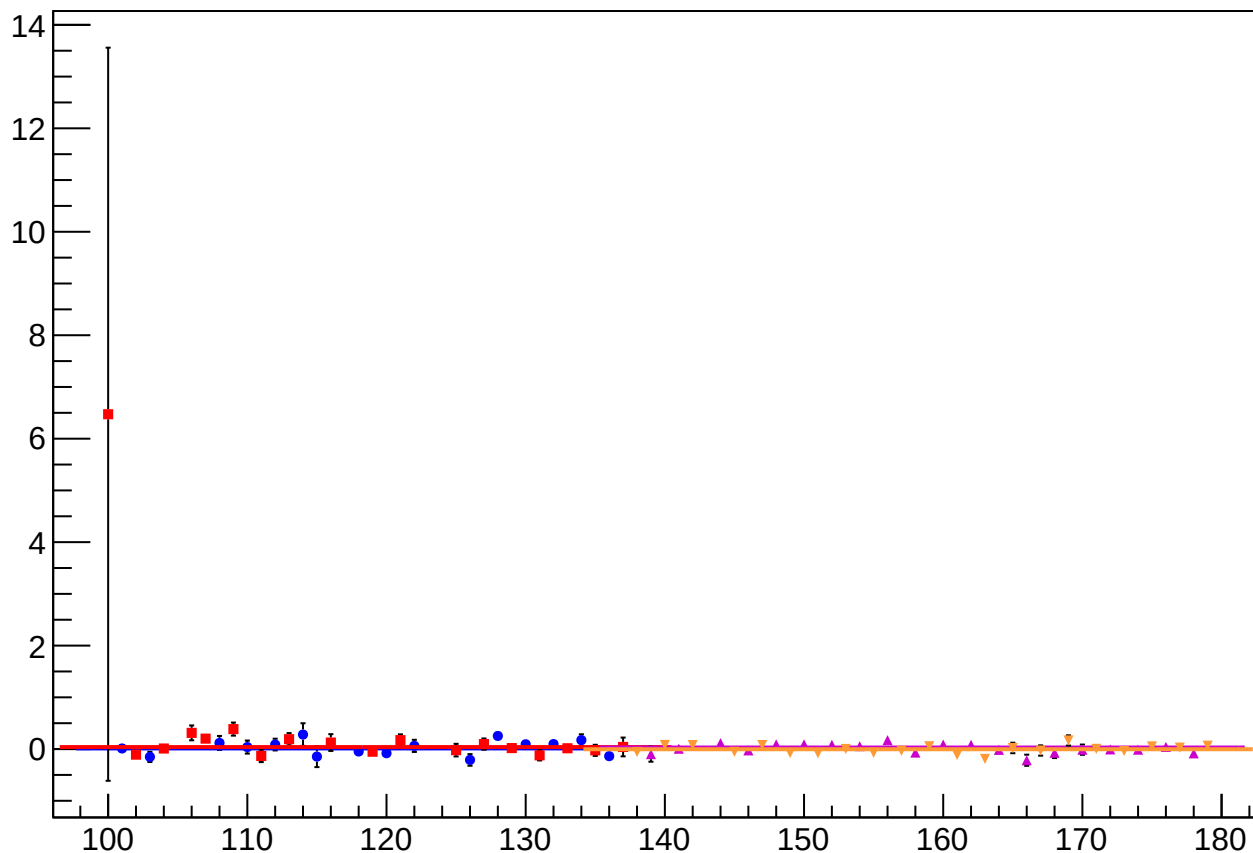
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: 0.023 $\pm$ 0.020  $\chi^2$ /NDF:20.8/19

Out: -0.028 $\pm$ 0.020  $\chi^2$ /NDF:29.8/20

All: -0.003 $\pm$ 0.014  $\chi^2$ /NDF: 53.8/40

reg\_asym\_ds\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.012 $\pm$ 0.023  $\chi^2$ /NDF: 25.0/15

Left Out: -0.003 $\pm$ 0.015  $\chi^2$ /NDF:25.9/20

Right Out: 0.038 $\pm$ 0.025  $\chi^2$ /NDF: 28.4/17

Left In: 0.030 $\pm$ 0.015  $\chi^2$ /NDF:25.6/19

Left: 0.013 $\pm$ 0.011  $\chi^2$ /NDF: 53.9/40

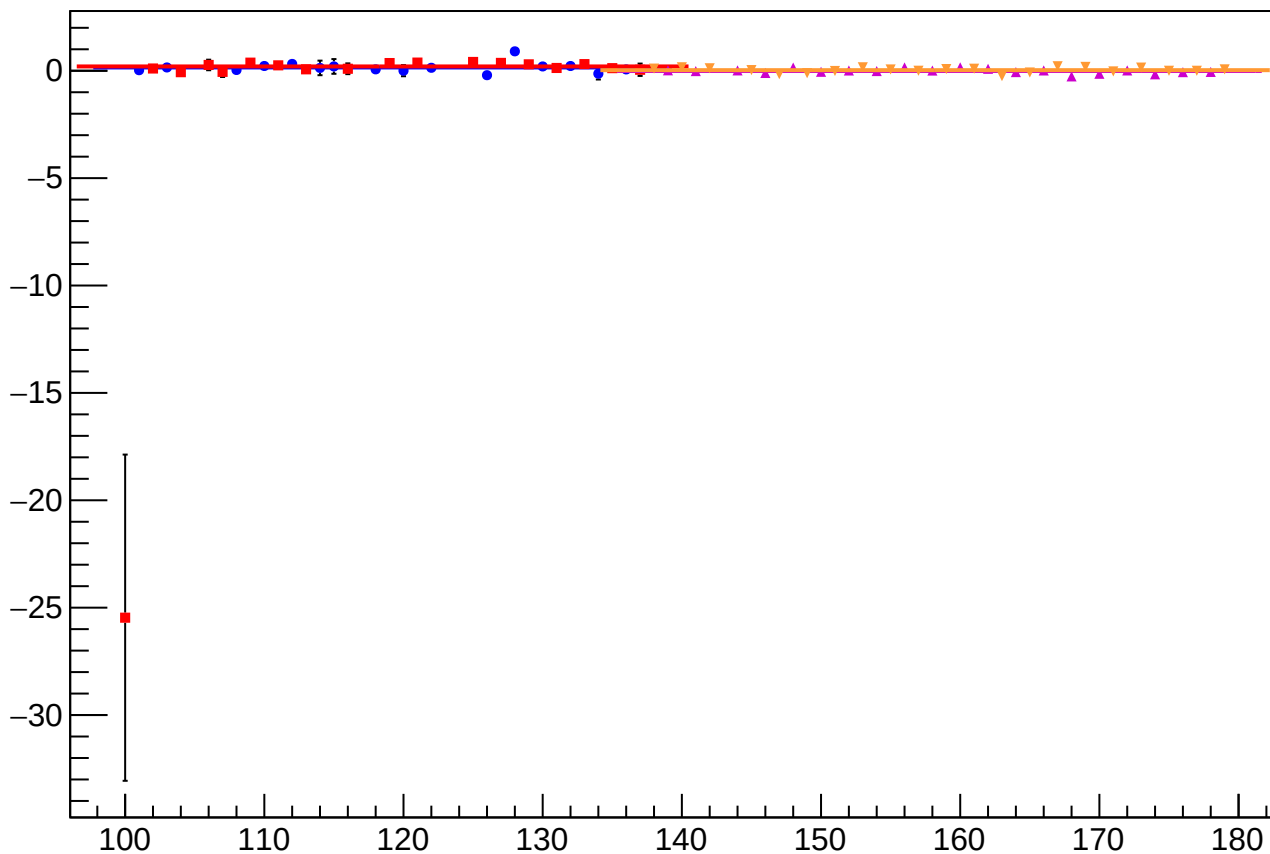
Right: 0.025 $\pm$ 0.017  $\chi^2$ /NDF: 54.0/33

In: 0.024 $\pm$ 0.013  $\chi^2$ /NDF:51.0/35

Out: 0.008 $\pm$ 0.013  $\chi^2$ /NDF:56.4/38

All: 0.016 $\pm$ 0.009  $\chi^2$ /NDF: 108.2/74

reg\_asym\_ds\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.154 $\pm$ 0.043  $\chi^2$ /NDF: 27.9/15

Left Out: 0.027 $\pm$ 0.020  $\chi^2$ /NDF:28.8/20

Right Out: 0.201 $\pm$ 0.045  $\chi^2$ /NDF: 22.6/17

Left In: -0.011 $\pm$ 0.020  $\chi^2$ /NDF:22.3/19

Left: 0.008 $\pm$ 0.014  $\chi^2$ /NDF: 53.0/40

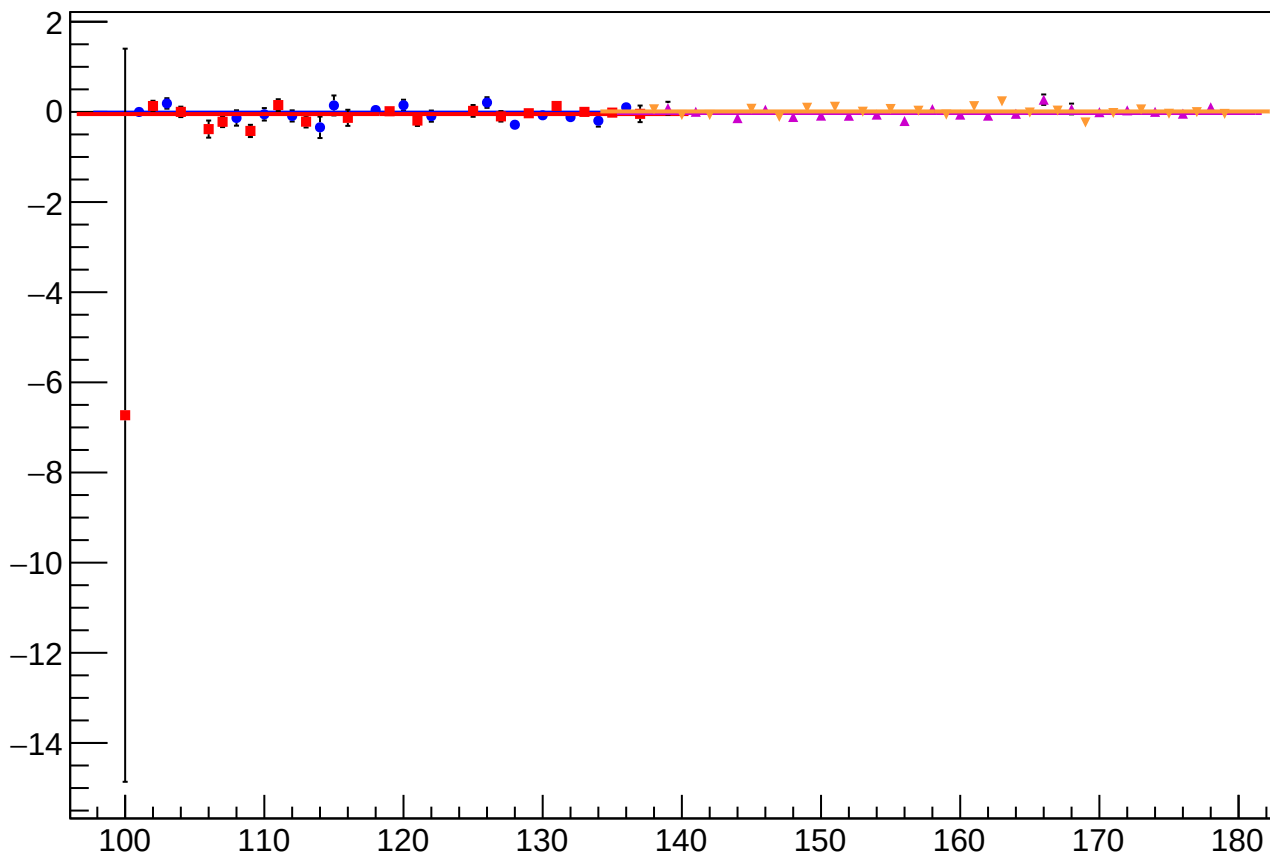
Right: 0.177 $\pm$ 0.031  $\chi^2$ /NDF: 51.1/33

In: 0.018 $\pm$ 0.018  $\chi^2$ /NDF:62.4/35

Out: 0.055 $\pm$ 0.018  $\chi^2$ /NDF:63.9/38

All: 0.037 $\pm$ 0.013  $\chi^2$ /NDF: 128.4/74

reg\_asym\_ds\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-0.016 \pm 0.027$   $\chi^2/\text{NDF}: 24.3/15$

Left Out:  $0.010 \pm 0.017$   $\chi^2/\text{NDF}: 27.9/20$

Right Out:  $-0.048 \pm 0.029$   $\chi^2/\text{NDF}: 25.9/17$

Left In:  $-0.024 \pm 0.018$   $\chi^2/\text{NDF}: 26.7/19$

Left:  $-0.006 \pm 0.012$   $\chi^2/\text{NDF}: 56.5/40$

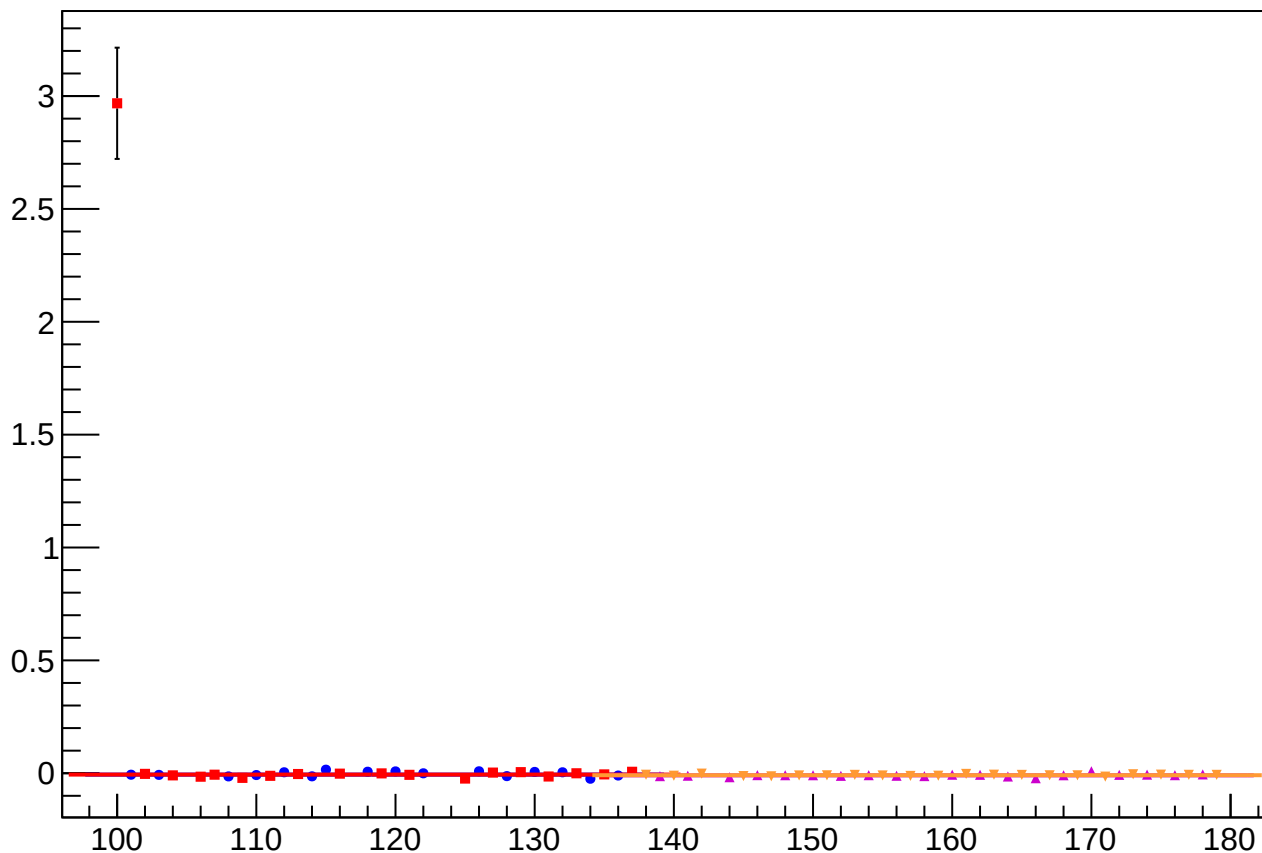
Right:  $-0.031 \pm 0.020$   $\chi^2/\text{NDF}: 51.0/33$

In:  $-0.022 \pm 0.015$   $\chi^2/\text{NDF}: 51.1/35$

Out:  $-0.005 \pm 0.015$   $\chi^2/\text{NDF}: 56.9/38$

All:  $-0.013 \pm 0.010$   $\chi^2/\text{NDF}: 108.7/74$

reg\_asym\_ds\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -0.006+/-0.001  $\chi^2/\text{NDF}$ : 27.3/15

Left Out: -0.009+/-0.001  $\chi^2/\text{NDF}$ :15.8/20

Right Out: -0.006+/-0.001  $\chi^2/\text{NDF}$ : 165.9/17

Left In: -0.009+/-0.001  $\chi^2/\text{NDF}$ :32.6/19

Left: -0.009+/-0.001  $\chi^2/\text{NDF}$ : 48.5/40

Right: -0.006+/-0.001  $\chi^2/\text{NDF}$ : 193.3/33

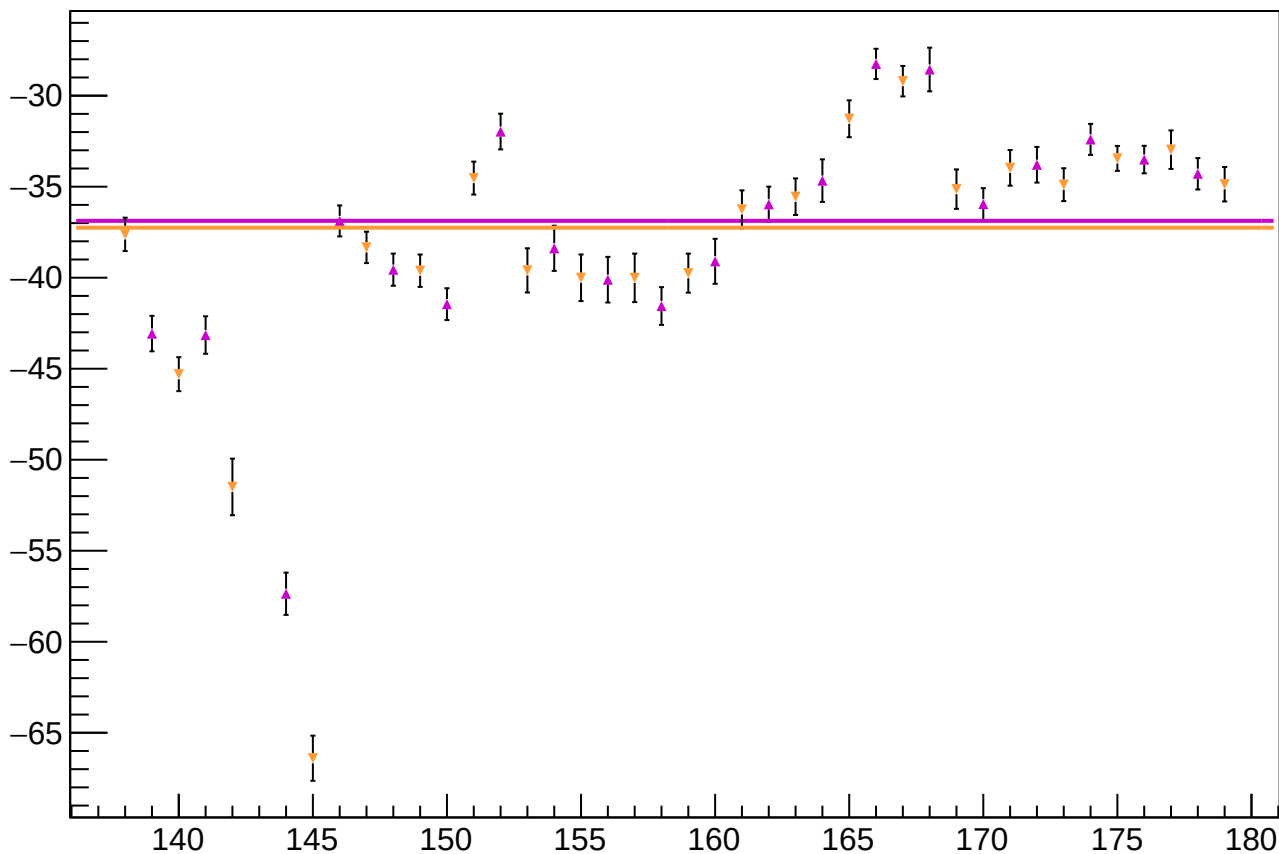
In: -0.009+/-0.001  $\chi^2/\text{NDF}$ :63.5/35

Out: -0.008+/-0.001  $\chi^2/\text{NDF}$ :184.5/38

All: -0.008+/-0.000  $\chi^2/\text{NDF}$ : 248.2/74



reg\_asym\_left\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -37.251 $\pm$ 0.216  $\chi^2$ /NDF:954.1/20

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: -36.877 $\pm$ 0.216  $\chi^2$ /NDF:710.0/19

Left: -37.065 $\pm$ 0.153  $\chi^2$ /NDF: 1665.6/40

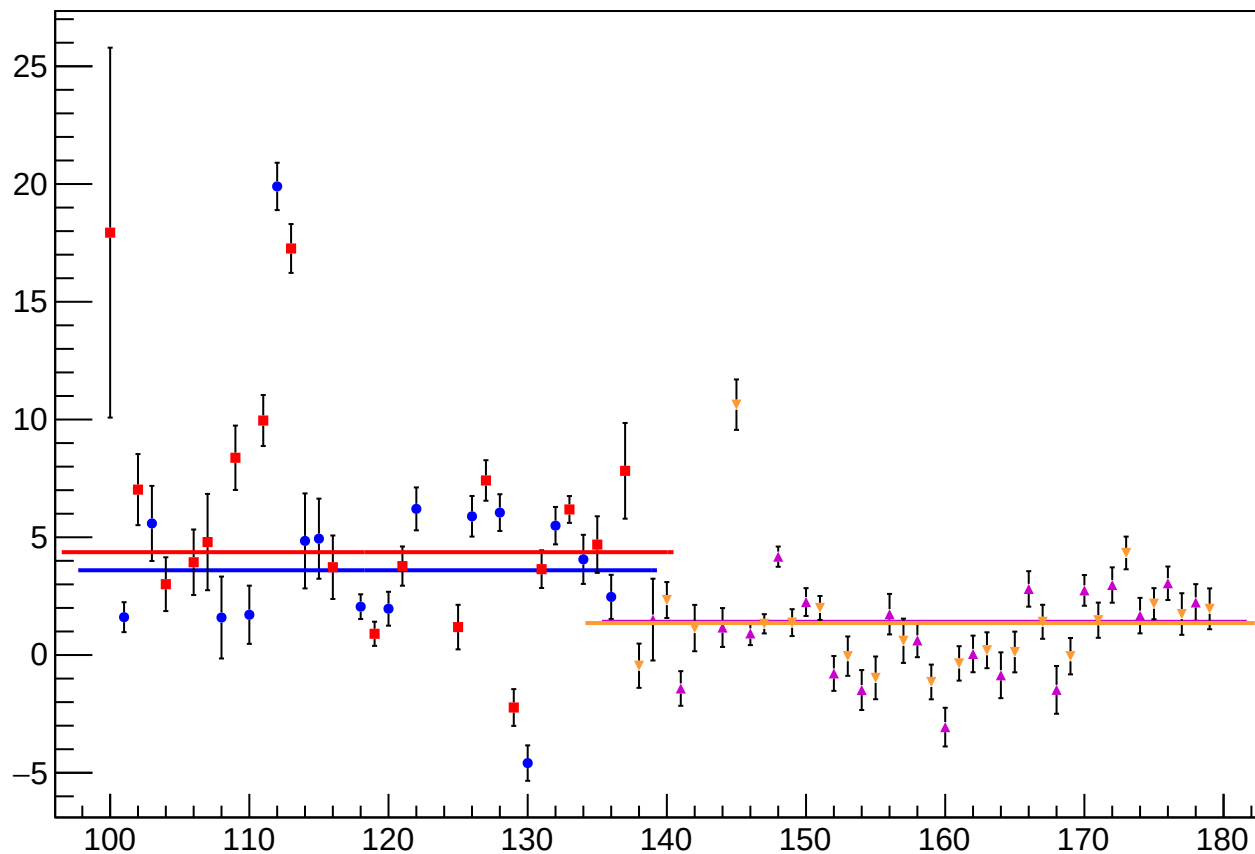
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -36.877 $\pm$ 0.216  $\chi^2$ /NDF:710.0/19

Out: -37.251 $\pm$ 0.216  $\chi^2$ /NDF:954.1/20

All: -37.065 $\pm$ 0.153  $\chi^2$ /NDF: 1665.6/40

reg\_asym\_left\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 3.599 $\pm$ 0.220  $\chi^2$ /NDF: 443.4/15

Left Out: 1.358 $\pm$ 0.157  $\chi^2$ /NDF:137.3/20

Right Out: 4.367 $\pm$ 0.225  $\chi^2$ /NDF: 353.1/17

Left In: 1.412 $\pm$ 0.160  $\chi^2$ /NDF:146.0/19

Left: 1.385 $\pm$ 0.112  $\chi^2$ /NDF: 283.3/40

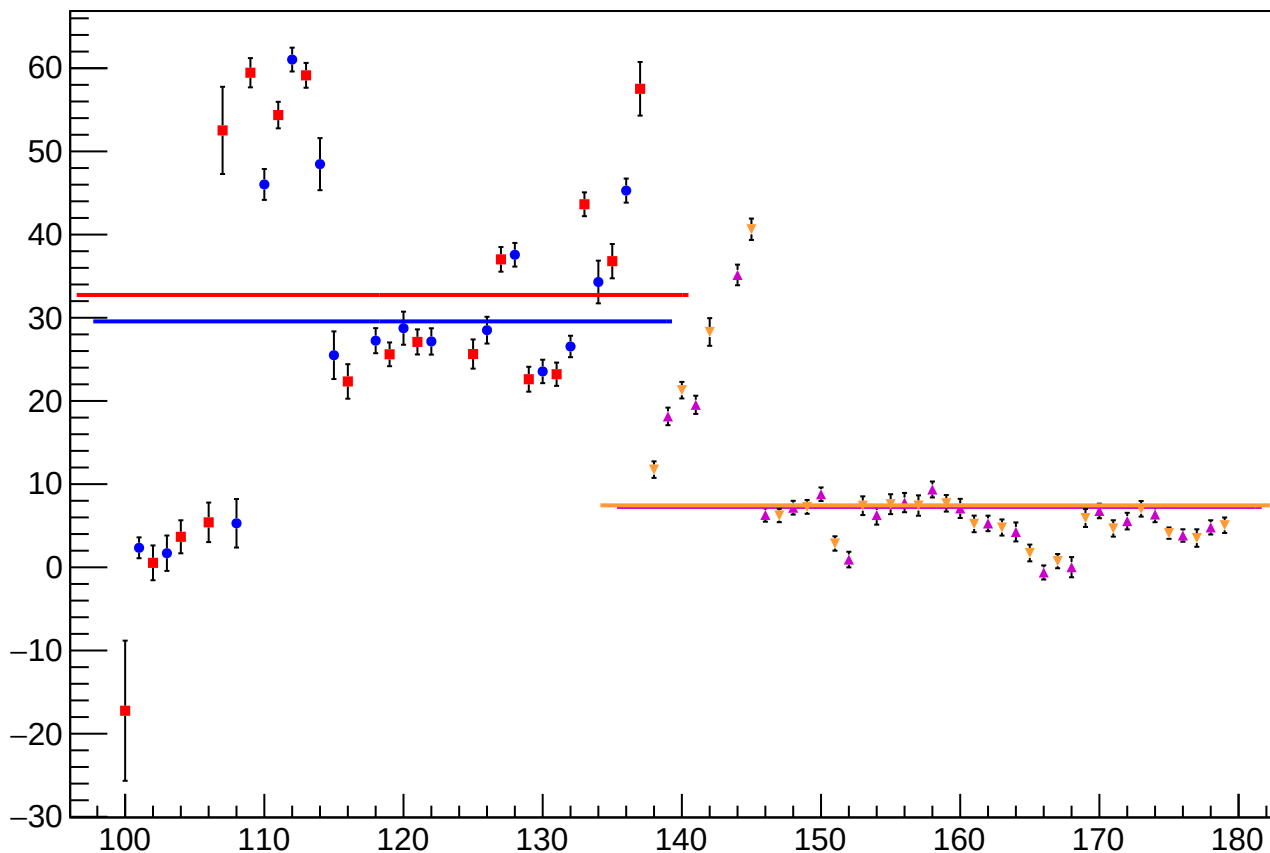
Right: 3.975 $\pm$ 0.157  $\chi^2$ /NDF: 802.5/33

In: 2.168 $\pm$ 0.130  $\chi^2$ /NDF:653.8/35

Out: 2.344 $\pm$ 0.129  $\chi^2$ /NDF:610.8/38

All: 2.257 $\pm$ 0.091  $\chi^2$ /NDF: 1265.6/74

reg\_asym\_left\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 29.564 $\pm$ 0.420  $\chi^2$ /NDF: 1494.6/15

Left Out: 7.453 $\pm$ 0.213  $\chi^2$ /NDF:1227.0/20

Right Out: 32.741 $\pm$ 0.423  $\chi^2$ /NDF: 1663.3/17

Left In: 7.261 $\pm$ 0.214  $\chi^2$ /NDF:960.0/19

Left: 7.357 $\pm$ 0.151  $\chi^2$ /NDF: 2187.4/40

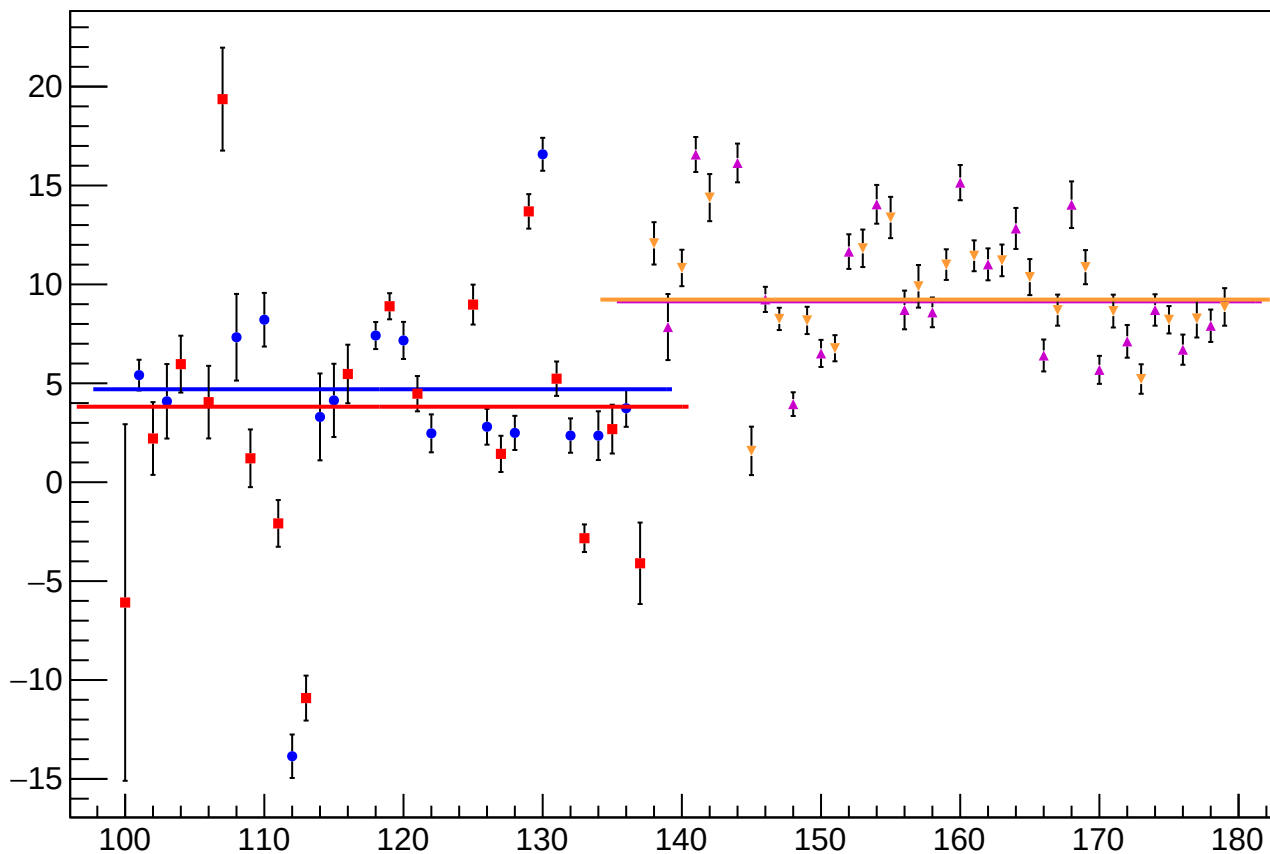
Right: 31.140 $\pm$ 0.298  $\chi^2$ /NDF: 3186.3/33

In: 11.849 $\pm$ 0.190  $\chi^2$ /NDF:4699.3/35

Out: 12.561 $\pm$ 0.190  $\chi^2$ /NDF:5745.9/38

All: 12.205 $\pm$ 0.134  $\chi^2$ /NDF: 10452.1/74

reg\_asym\_left\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 4.699 $\pm$ 0.254  $\chi^2$ /NDF: 548.9/15

Left Out: 9.232 $\pm$ 0.181  $\chi^2$ /NDF:168.5/20

Right Out: 3.817 $\pm$ 0.258  $\chi^2$ /NDF: 567.6/17

Left In: 9.144 $\pm$ 0.184  $\chi^2$ /NDF:380.8/19

Left: 9.189 $\pm$ 0.129  $\chi^2$ /NDF: 549.4/40

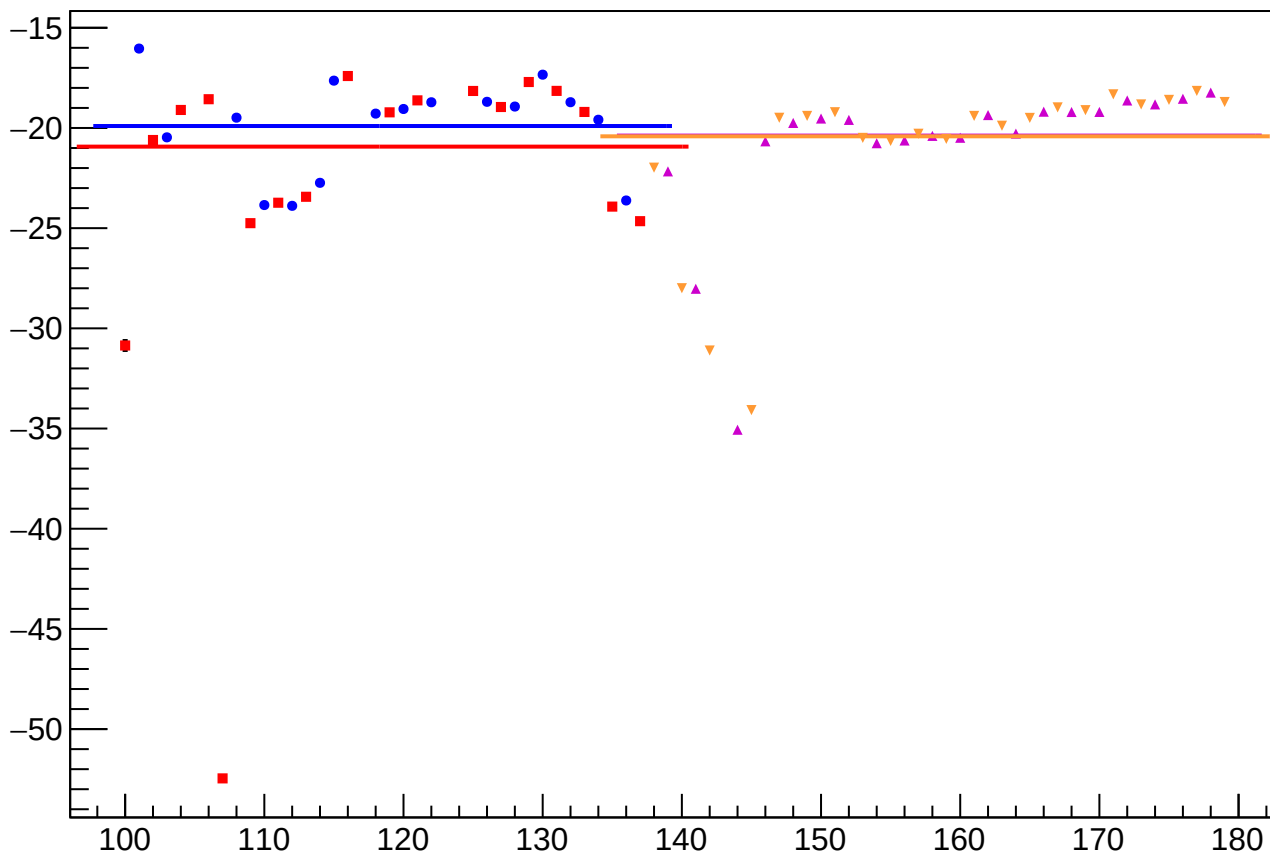
Right: 4.265 $\pm$ 0.181  $\chi^2$ /NDF: 1122.4/33

In: 7.611 $\pm$ 0.149  $\chi^2$ /NDF:1130.4/35

Out: 7.446 $\pm$ 0.148  $\chi^2$ /NDF:1030.3/38

All: 7.528 $\pm$ 0.105  $\chi^2$ /NDF: 2161.3/74

reg\_asym\_left\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-19.902 \pm 0.016$   $\chi^2/\text{NDF}$ : 26054.0/15

Left Out:  $-20.417 \pm 0.009$   $\chi^2/\text{NDF}$ : 149832.2/20

Right Out:  $-20.931 \pm 0.016$   $\chi^2/\text{NDF}$ : 94008.3/17

Left In:  $-20.380 \pm 0.009$   $\chi^2/\text{NDF}$ : 120588.5/19

Left:  $-20.398 \pm 0.006$   $\chi^2/\text{NDF}$ : 270429.8/40

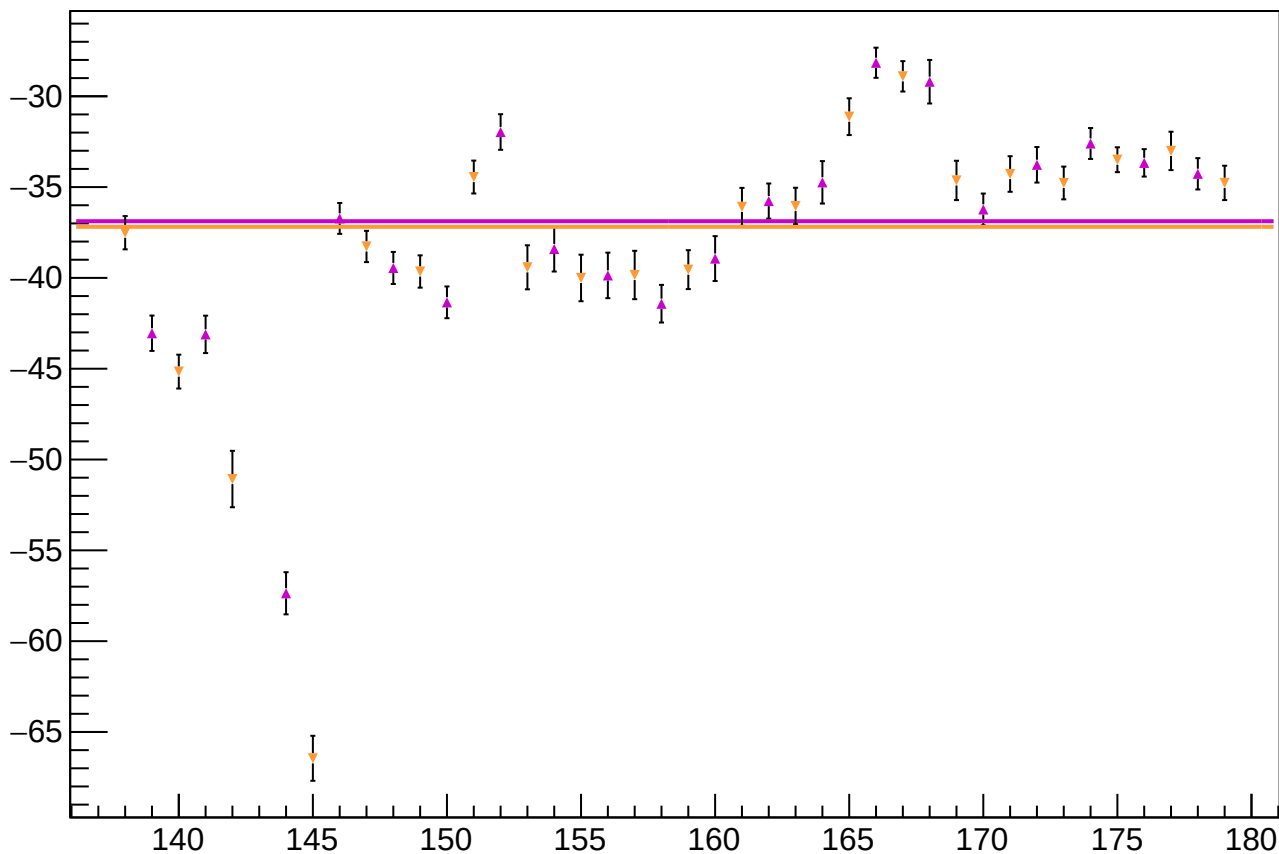
Right:  $-20.414 \pm 0.011$   $\chi^2/\text{NDF}$ : 122212.6/33

In:  $-20.271 \pm 0.007$   $\chi^2/\text{NDF}$ : 147362.8/35

Out:  $-20.534 \pm 0.008$   $\chi^2/\text{NDF}$ : 244666.7/38

All:  $-20.402 \pm 0.005$   $\chi^2/\text{NDF}$ : 392644.1/74

reg\_asym\_left\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



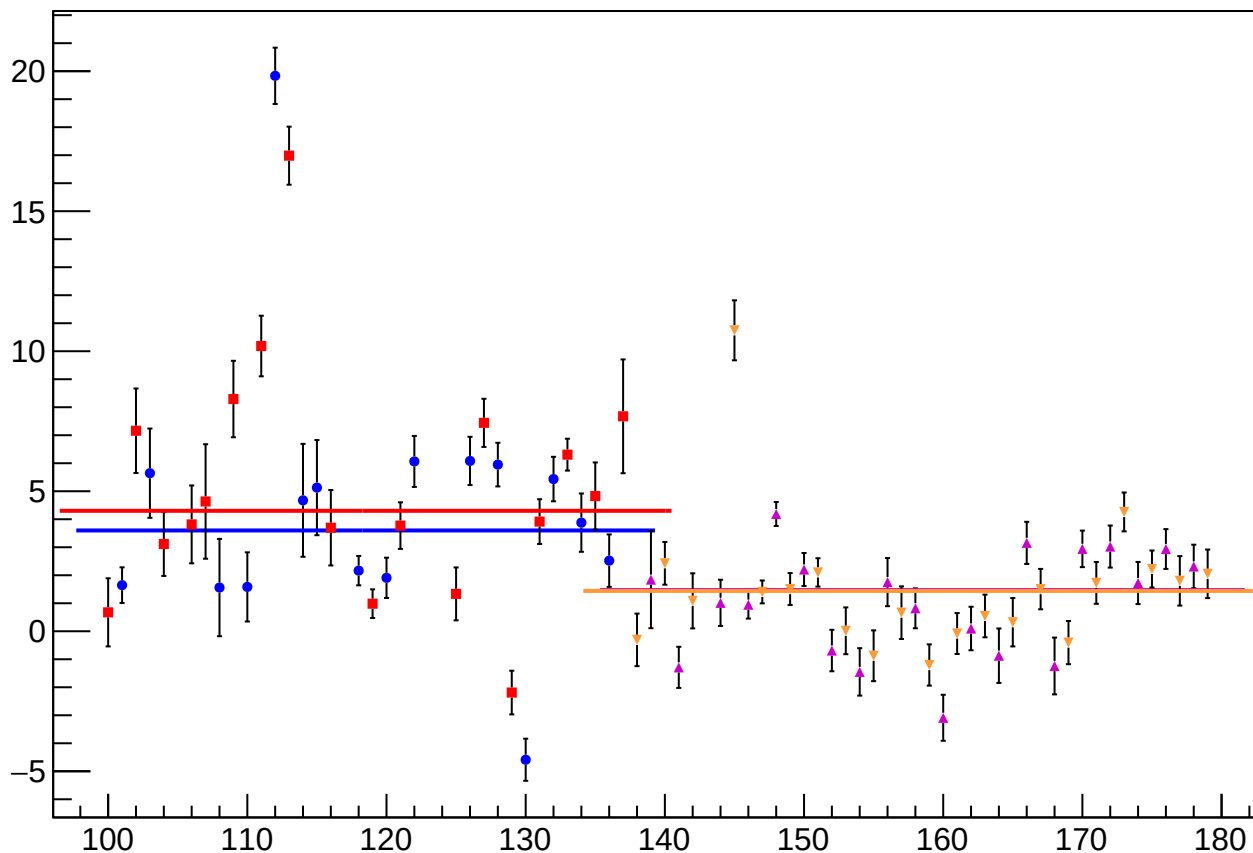
Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -37.186 $\pm$ 0.215  $\chi^2$ /NDF:955.9/20  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -36.879 $\pm$ 0.216  $\chi^2$ /NDF:696.9/19

Left: -37.033 $\pm$ 0.153  $\chi^2$ /NDF: 1653.9/40  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -36.879 $\pm$ 0.216  $\chi^2$ /NDF:696.9/19  
 Out: -37.186 $\pm$ 0.215  $\chi^2$ /NDF:955.9/20

All: -37.033 $\pm$ 0.153  $\chi^2$ /NDF: 1653.9/40

reg\_asym\_left\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 3.599 $\pm$ 0.220  $\chi^2$ /NDF: 440.3/15

Left Out: 1.440 $\pm$ 0.157  $\chi^2$ /NDF:137.4/20

Right Out: 4.301 $\pm$ 0.221  $\chi^2$ /NDF: 352.1/17

Left In: 1.470 $\pm$ 0.160  $\chi^2$ /NDF:145.4/19

Left: 1.455 $\pm$ 0.112  $\chi^2$ /NDF: 282.9/40

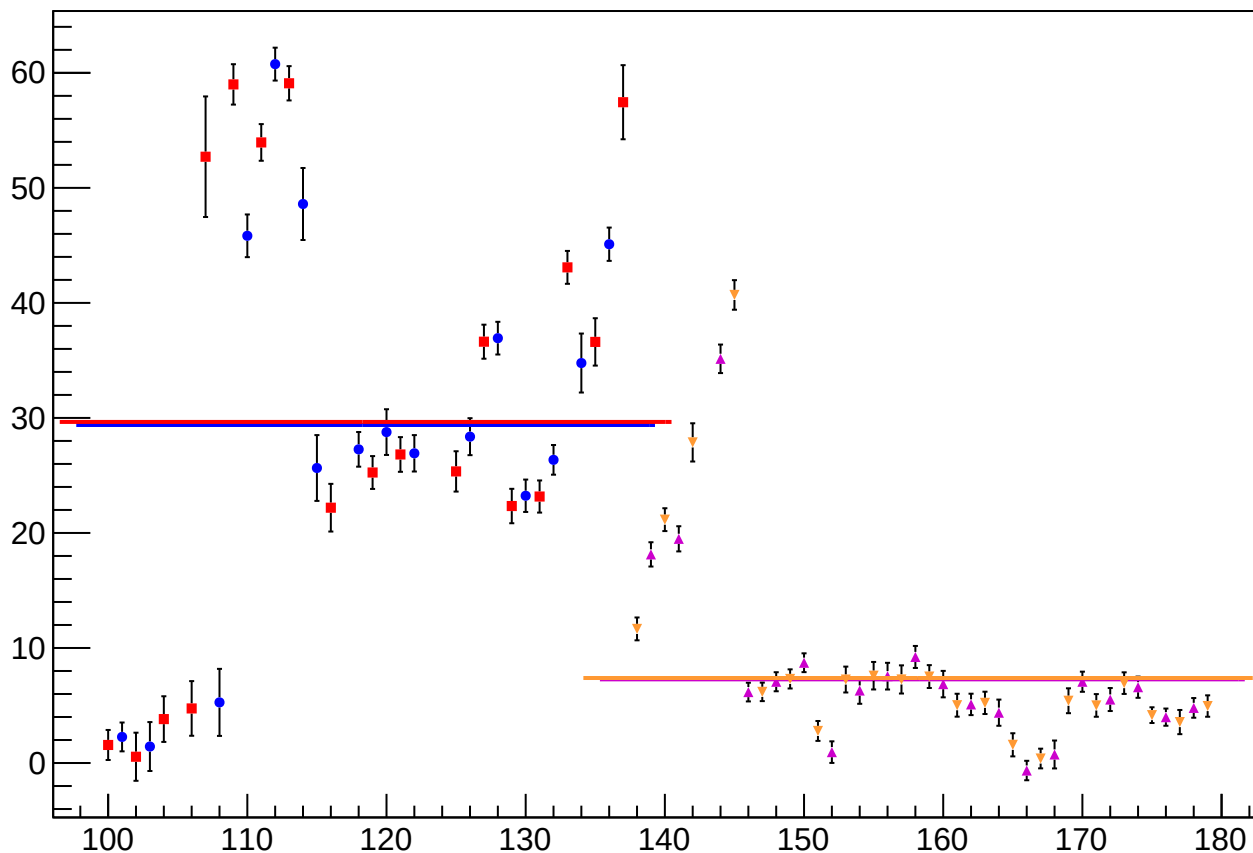
Right: 3.949 $\pm$ 0.156  $\chi^2$ /NDF: 797.4/33

In: 2.207 $\pm$ 0.129  $\chi^2$ /NDF:646.8/35

Out: 2.398 $\pm$ 0.128  $\chi^2$ /NDF:601.0/38

All: 2.304 $\pm$ 0.091  $\chi^2$ /NDF: 1248.9/74

reg\_asym\_left\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 29.387 $\pm$ 0.419  $\chi^2$ /NDF: 1488.6/15

Left Out: 7.390 $\pm$ 0.213  $\chi^2$ /NDF:1227.1/20

Right Out: 29.652 $\pm$ 0.402  $\chi^2$ /NDF: 2131.0/17

Left In: 7.272 $\pm$ 0.213  $\chi^2$ /NDF:951.1/19

Left: 7.331 $\pm$ 0.151  $\chi^2$ /NDF: 2178.3/40

Right: 29.525 $\pm$ 0.290  $\chi^2$ /NDF: 3619.8/33

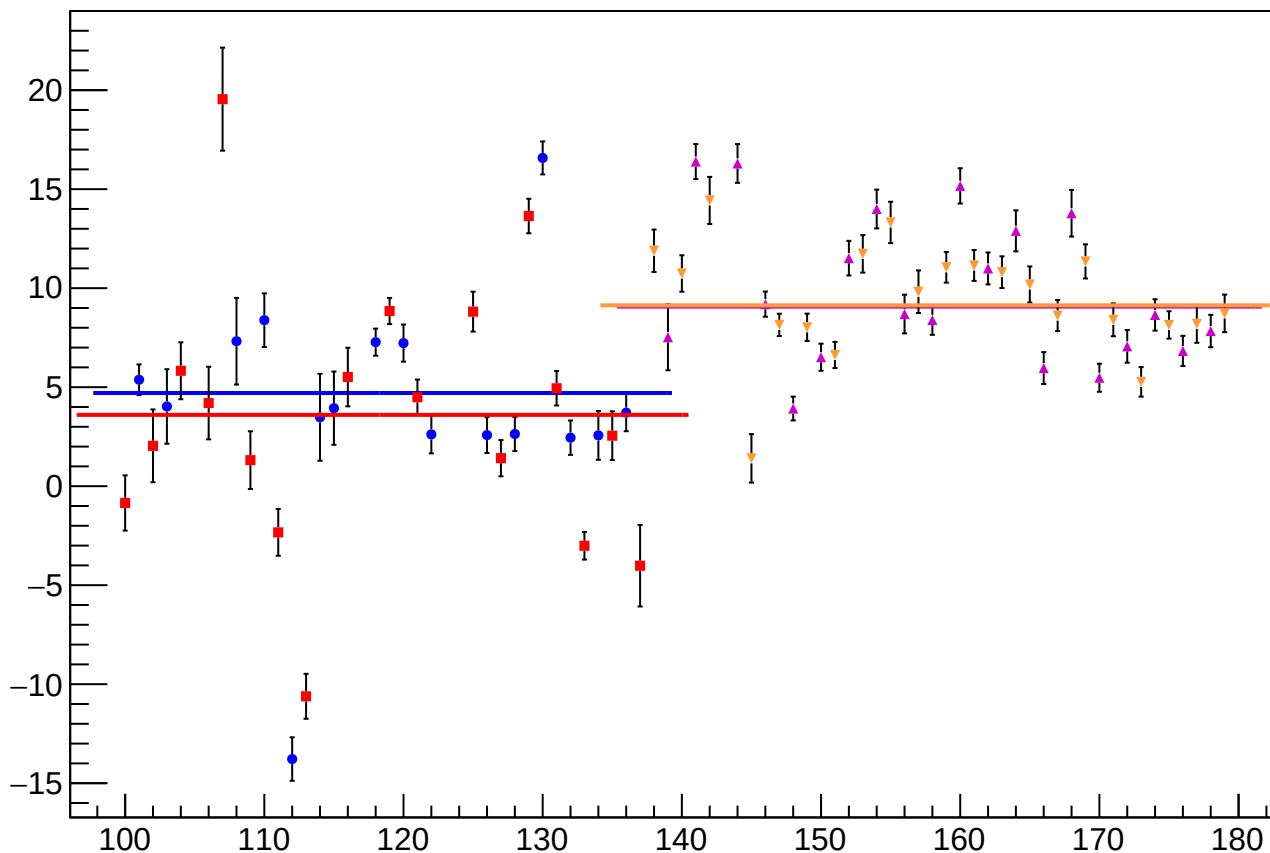
In: 11.822 $\pm$ 0.190  $\chi^2$ /NDF:4649.7/35

Out: 12.247 $\pm$ 0.188  $\chi^2$ /NDF:5751.6/38

All: 12.037 $\pm$ 0.134  $\chi^2$ /NDF: 10403.8/74



reg\_asym\_left\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $4.706 \pm 0.254$   $\chi^2/\text{NDF}: 545.2/15$

Left Out:  $9.134 \pm 0.181$   $\chi^2/\text{NDF}: 169.9/20$

Right Out:  $3.601 \pm 0.254$   $\chi^2/\text{NDF}: 573.4/17$

Left In:  $9.068 \pm 0.184$   $\chi^2/\text{NDF}: 385.8/19$

Left:  $9.102 \pm 0.129$   $\chi^2/\text{NDF}: 555.8/40$

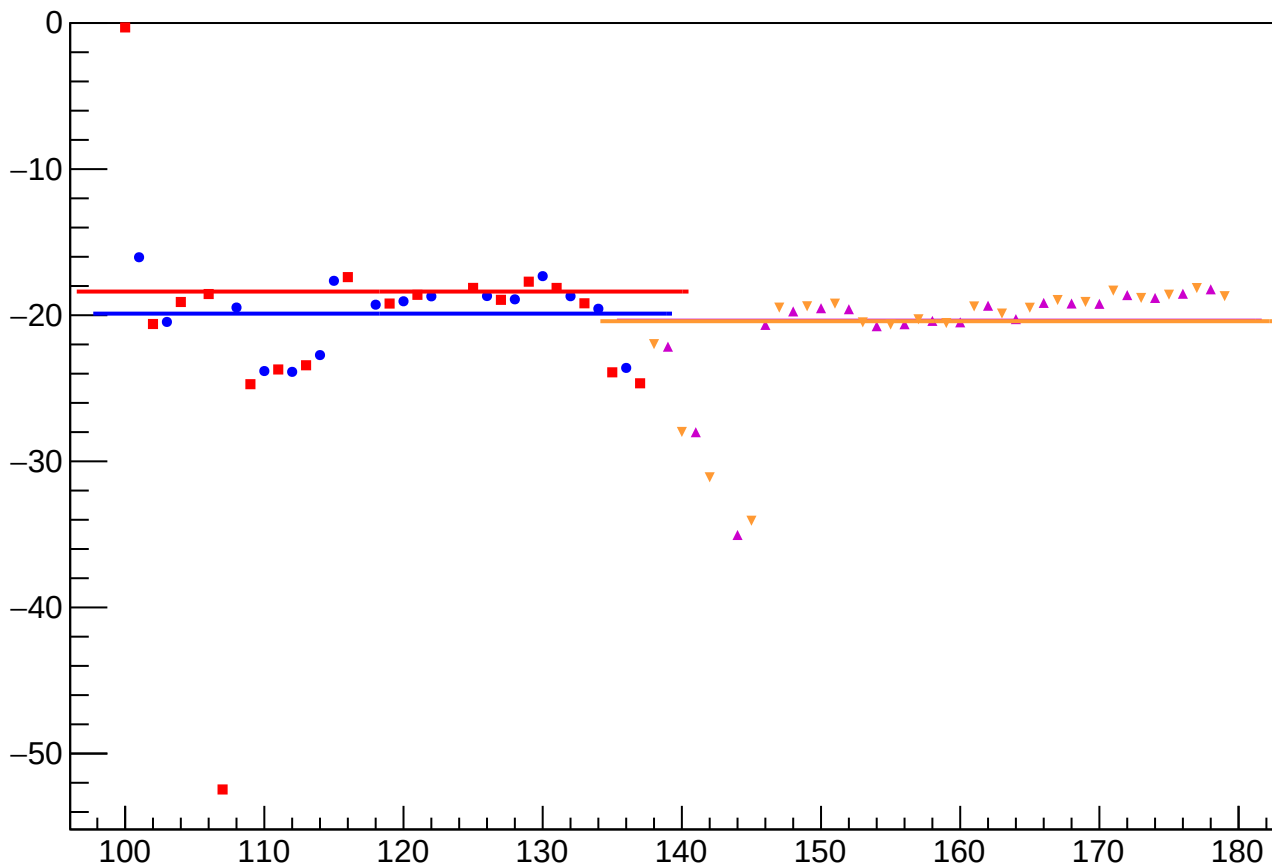
Right:  $4.154 \pm 0.180$   $\chi^2/\text{NDF}: 1128.1/33$

In:  $7.564 \pm 0.149$   $\chi^2/\text{NDF}: 1124.4/35$

Out:  $7.269 \pm 0.148$   $\chi^2/\text{NDF}: 1057.8/38$

All:  $7.415 \pm 0.105$   $\chi^2/\text{NDF}: 2184.2/74$

reg\_asym\_left\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-19.890 \pm 0.016$   $\chi^2/\text{NDF}: 26044.4/15$

Left Out:  $-20.409 \pm 0.009$   $\chi^2/\text{NDF}: 149922.9/20$

Right Out:  $-18.380 \pm 0.015$   $\chi^2/\text{NDF}: 300999.4/17$

Left In:  $-20.372 \pm 0.009$   $\chi^2/\text{NDF}: 120504.6/19$

Left:  $-20.390 \pm 0.006$   $\chi^2/\text{NDF}: 270437.0/40$

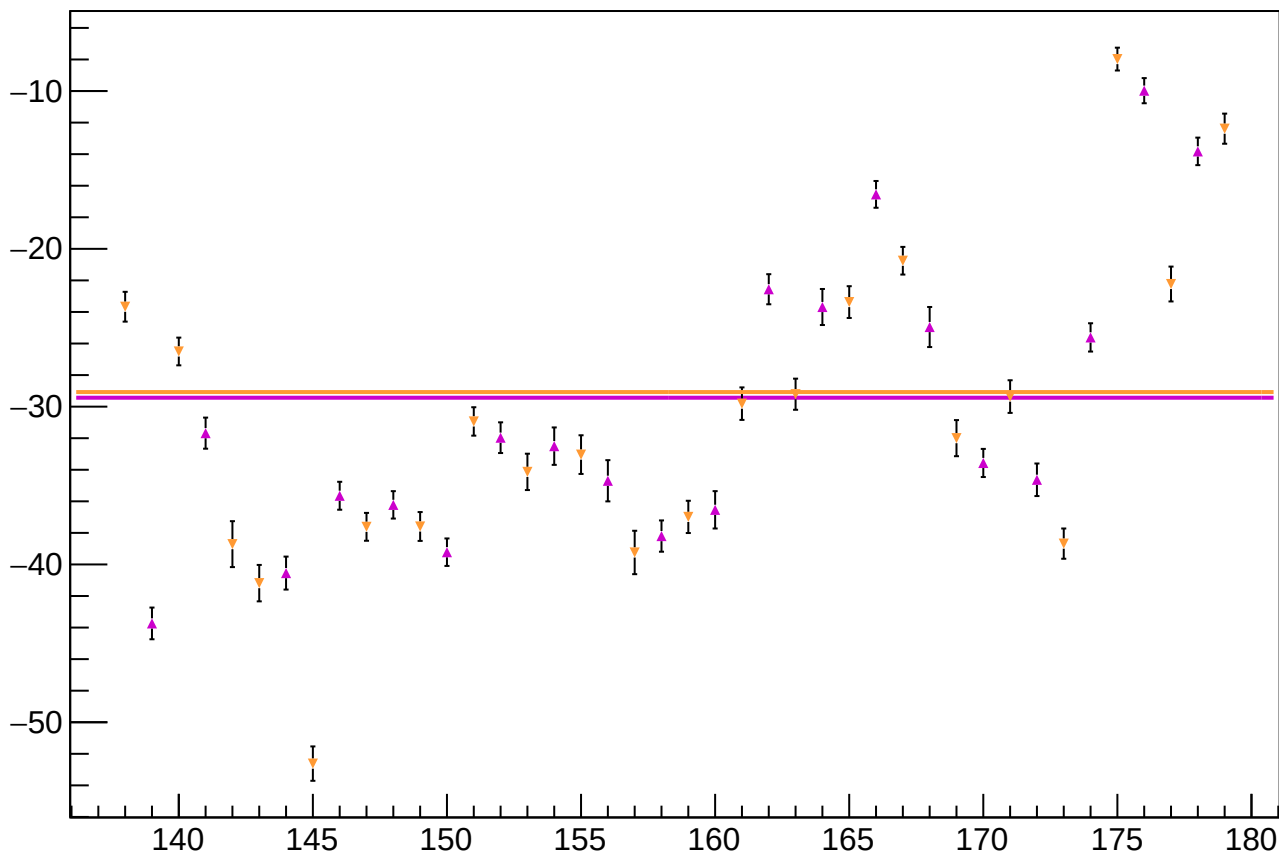
Right:  $-19.091 \pm 0.011$   $\chi^2/\text{NDF}: 331979.2/33$

In:  $-20.262 \pm 0.007$   $\chi^2/\text{NDF}: 147280.3/35$

Out:  $-19.899 \pm 0.007$   $\chi^2/\text{NDF}: 465092.5/38$

All:  $-20.079 \pm 0.005$   $\chi^2/\text{NDF}: 613563.9/74$

reg\_asym\_right\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -29.076+/-0.213  $\chi^2/\text{NDF}$ :2416.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -29.434+/-0.217  $\chi^2/\text{NDF}$ :2003.6/19

Left: -29.252+/-0.152  $\chi^2/\text{NDF}$ : 4421.2/41

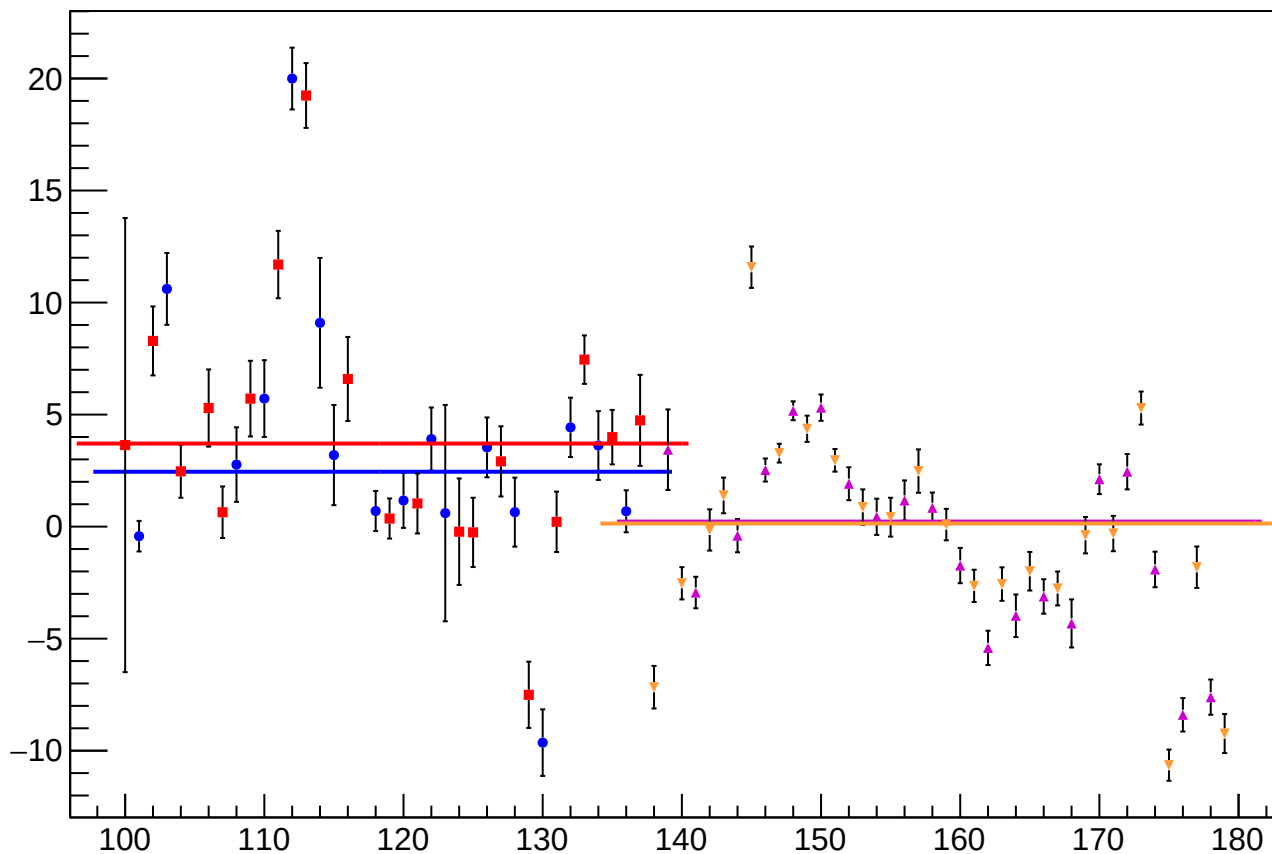
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -29.434+/-0.217  $\chi^2/\text{NDF}$ :2003.6/19

Out: -29.076+/-0.213  $\chi^2/\text{NDF}$ :2416.3/21

All: -29.252+/-0.152  $\chi^2/\text{NDF}$ : 4421.2/41

reg\_asym\_right\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 2.449+/-0.314  $\chi^2/\text{NDF}$ : 295.3/16

Left Out: 0.139+/-0.155  $\chi^2/\text{NDF}$ : 832.9/21

Right Out: 3.707+/-0.326  $\chi^2/\text{NDF}$ : 269.4/18

Left In: 0.225+/-0.160  $\chi^2/\text{NDF}$ : 636.6/19

Left: 0.181+/-0.111  $\chi^2/\text{NDF}$ : 1469.7/41

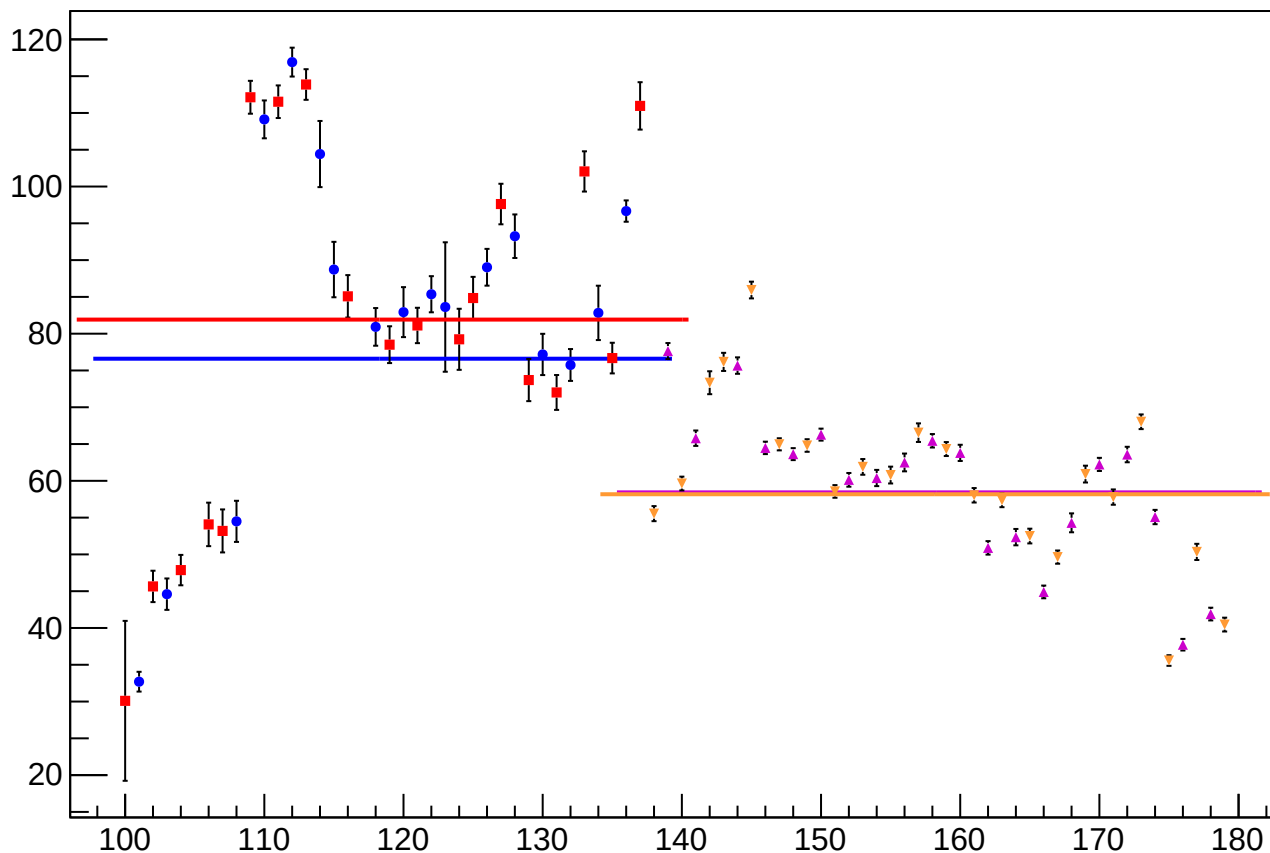
Right: 3.055+/-0.226  $\chi^2/\text{NDF}$ : 572.4/35

In: 0.682+/-0.143  $\chi^2/\text{NDF}$ : 971.7/36

Out: 0.793+/-0.140  $\chi^2/\text{NDF}$ : 1199.9/40

All: 0.739+/-0.100  $\chi^2/\text{NDF}$ : 2171.9/77

reg\_asym\_right\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 76.598 $\pm$ 0.576  $\chi^2$ /NDF: 2255.1/16

Left Out: 58.177 $\pm$ 0.211  $\chi^2$ /NDF:2755.7/21

Right Out: 81.916 $\pm$ 0.592  $\chi^2$ /NDF: 1570.7/18

Left In: 58.432 $\pm$ 0.214  $\chi^2$ /NDF:2344.7/19

Left: 58.303 $\pm$ 0.150  $\chi^2$ /NDF: 5101.2/41

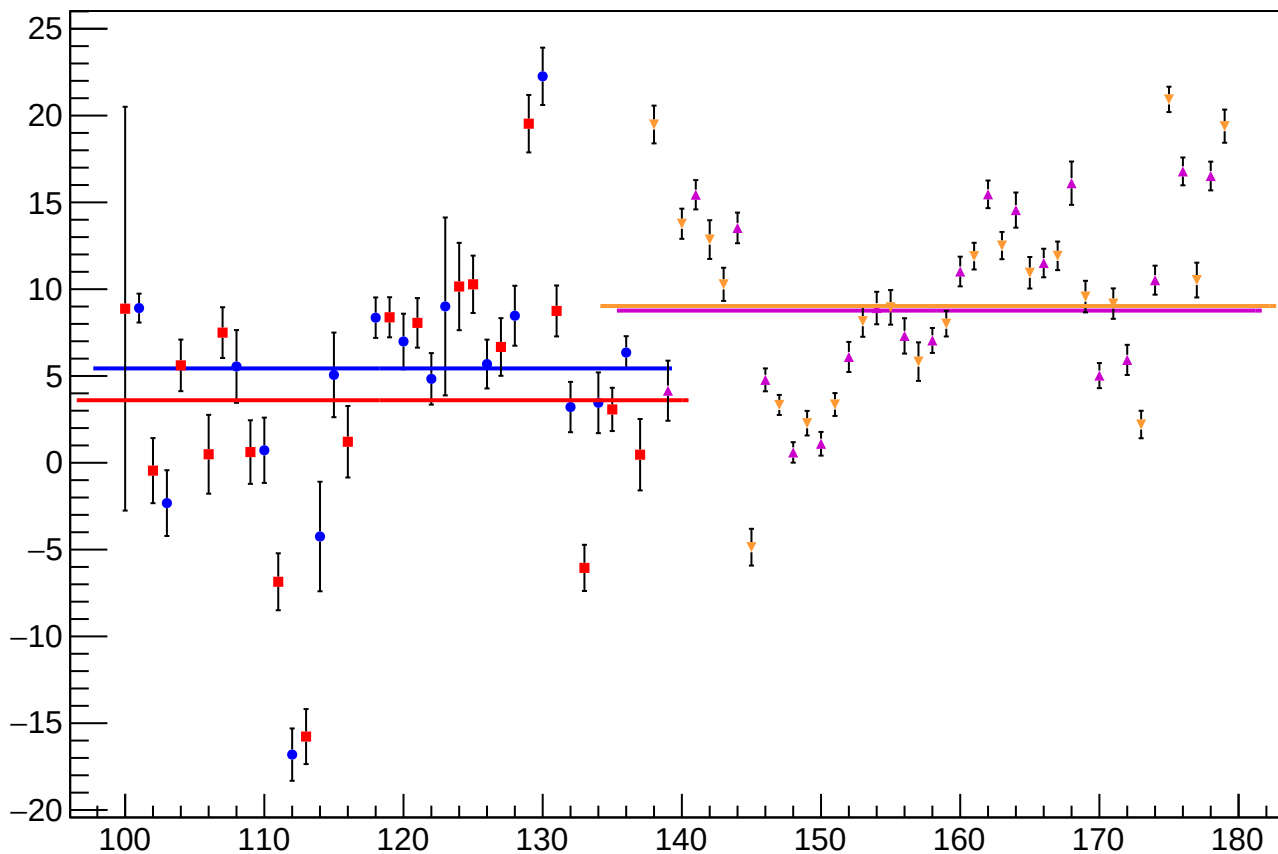
Right: 79.184 $\pm$ 0.413  $\chi^2$ /NDF: 3867.3/35

In: 60.643 $\pm$ 0.201  $\chi^2$ /NDF:5473.2/36

Out: 60.853 $\pm$ 0.199  $\chi^2$ /NDF:5752.9/40

All: 60.749 $\pm$ 0.141  $\chi^2$ /NDF: 11226.7/77

reg\_asym\_right\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 5.436 $\pm$ 0.360  $\chi^2$ /NDF: 387.2/16

Left Out: 9.032 $\pm$ 0.179  $\chi^2$ /NDF:1091.9/21

Right Out: 3.602 $\pm$ 0.375  $\chi^2$ /NDF: 423.3/18

Left In: 8.766 $\pm$ 0.184  $\chi^2$ /NDF:856.6/19

Left: 8.903 $\pm$ 0.128  $\chi^2$ /NDF: 1949.6/41

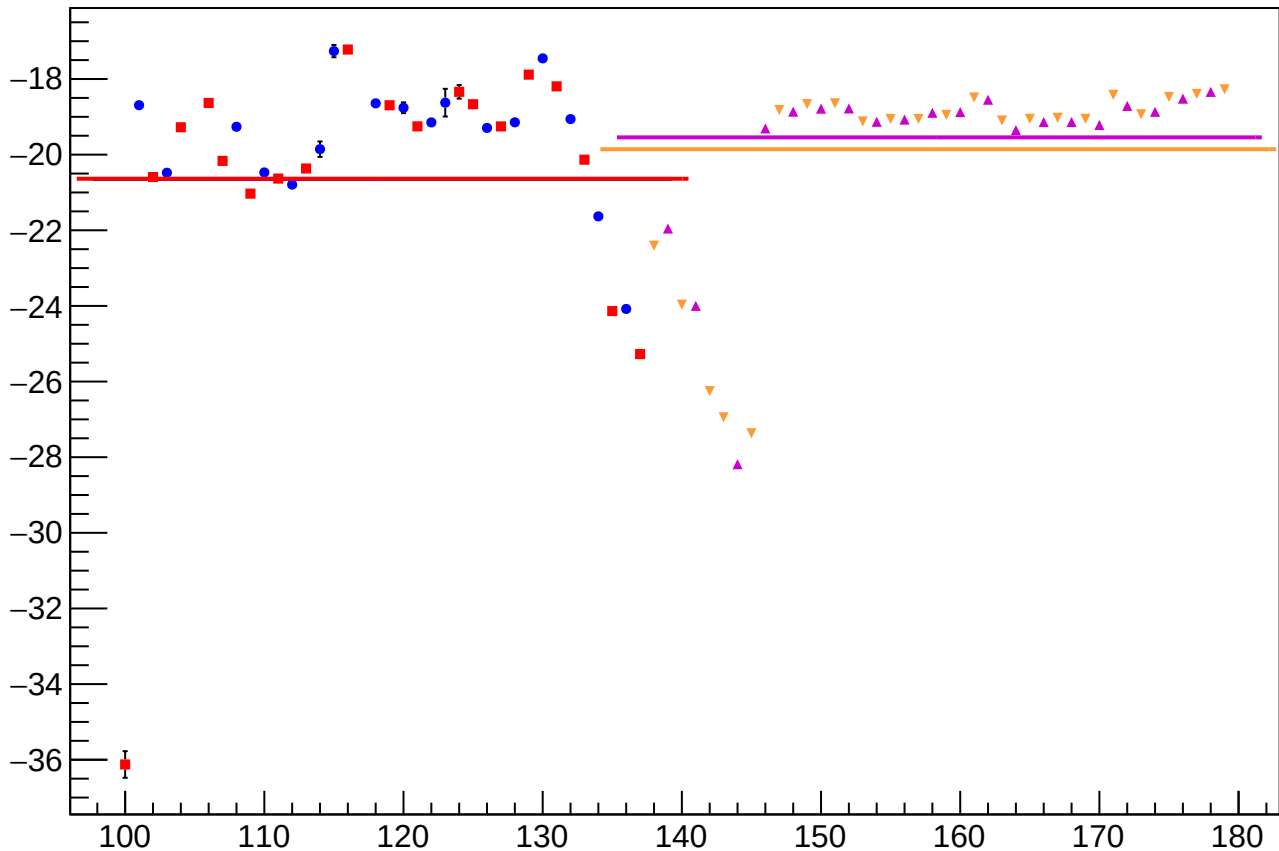
Right: 4.556 $\pm$ 0.260  $\chi^2$ /NDF: 823.0/35

In: 8.076 $\pm$ 0.164  $\chi^2$ /NDF:1311.5/36

Out: 8.025 $\pm$ 0.161  $\chi^2$ /NDF:1685.9/40

All: 8.050 $\pm$ 0.115  $\chi^2$ /NDF: 2997.5/77

reg\_asym\_right\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -20.642 $\pm$ 0.019  $\chi^2$ /NDF: 12431.5/16

Left Out: -19.857 $\pm$ 0.008  $\chi^2$ /NDF: 86925.5/21

Right Out: -20.638 $\pm$ 0.019  $\chi^2$ /NDF: 13783.4/18

Left In: -19.543 $\pm$ 0.009  $\chi^2$ /NDF: 52135.1/19

Left: -19.702 $\pm$ 0.006  $\chi^2$ /NDF: 139739.7/41

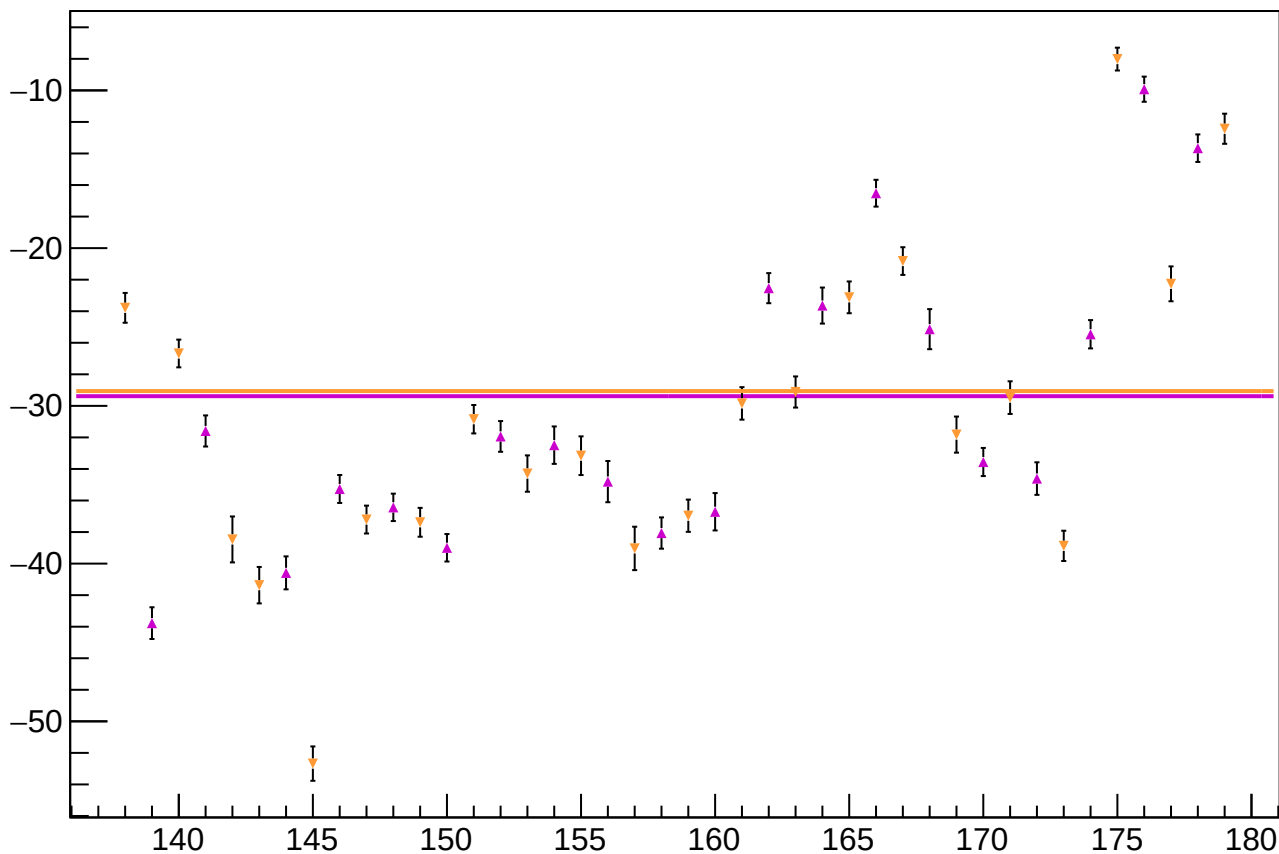
Right: -20.640 $\pm$ 0.014  $\chi^2$ /NDF: 26214.9/35

In: -19.723 $\pm$ 0.008  $\chi^2$ /NDF: 67266.6/36

Out: -19.982 $\pm$ 0.008  $\chi^2$ /NDF: 102063.5/40

All: -19.853 $\pm$ 0.006  $\chi^2$ /NDF: 169880.3/77

reg\_asym\_right\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



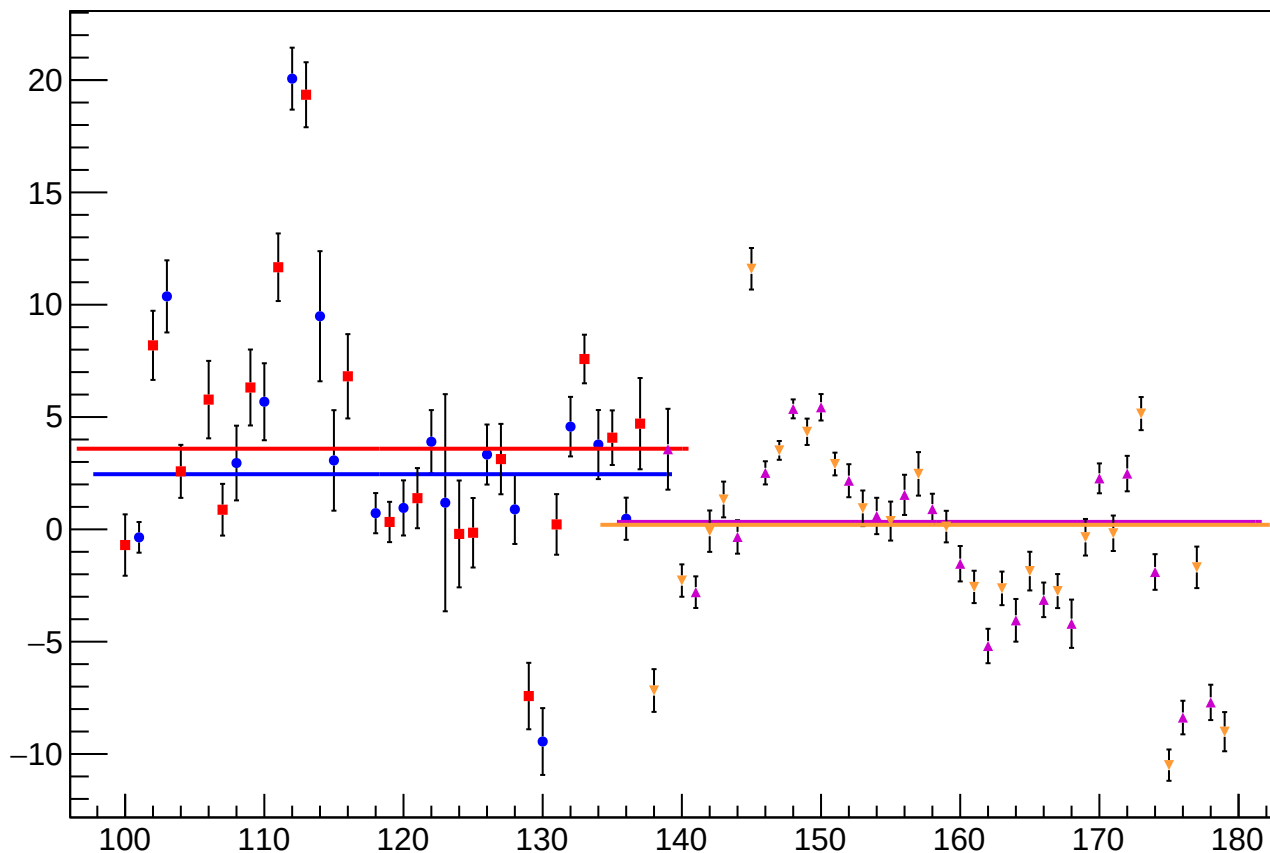
Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -29.063+/-0.213  $\chi^2/\text{NDF}$ :2400.6/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -29.387+/-0.218  $\chi^2/\text{NDF}$ :2005.7/19

Left: -29.222+/-0.152  $\chi^2/\text{NDF}$ : 4407.4/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -29.387+/-0.218  $\chi^2/\text{NDF}$ :2005.7/19  
 Out: -29.063+/-0.213  $\chi^2/\text{NDF}$ :2400.6/21

All: -29.222+/-0.152  $\chi^2/\text{NDF}$ : 4407.4/41



reg\_asym\_right\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 2.455 $\pm$ 0.315  $\chi^2$ /NDF: 293.5/16

Left Out: 0.203 $\pm$ 0.155  $\chi^2$ /NDF:820.5/21

Right Out: 3.590 $\pm$ 0.318  $\chi^2$ /NDF: 279.8/18

Left In: 0.332 $\pm$ 0.160  $\chi^2$ /NDF:648.9/19

Left: 0.265 $\pm$ 0.111  $\chi^2$ /NDF: 1469.8/41

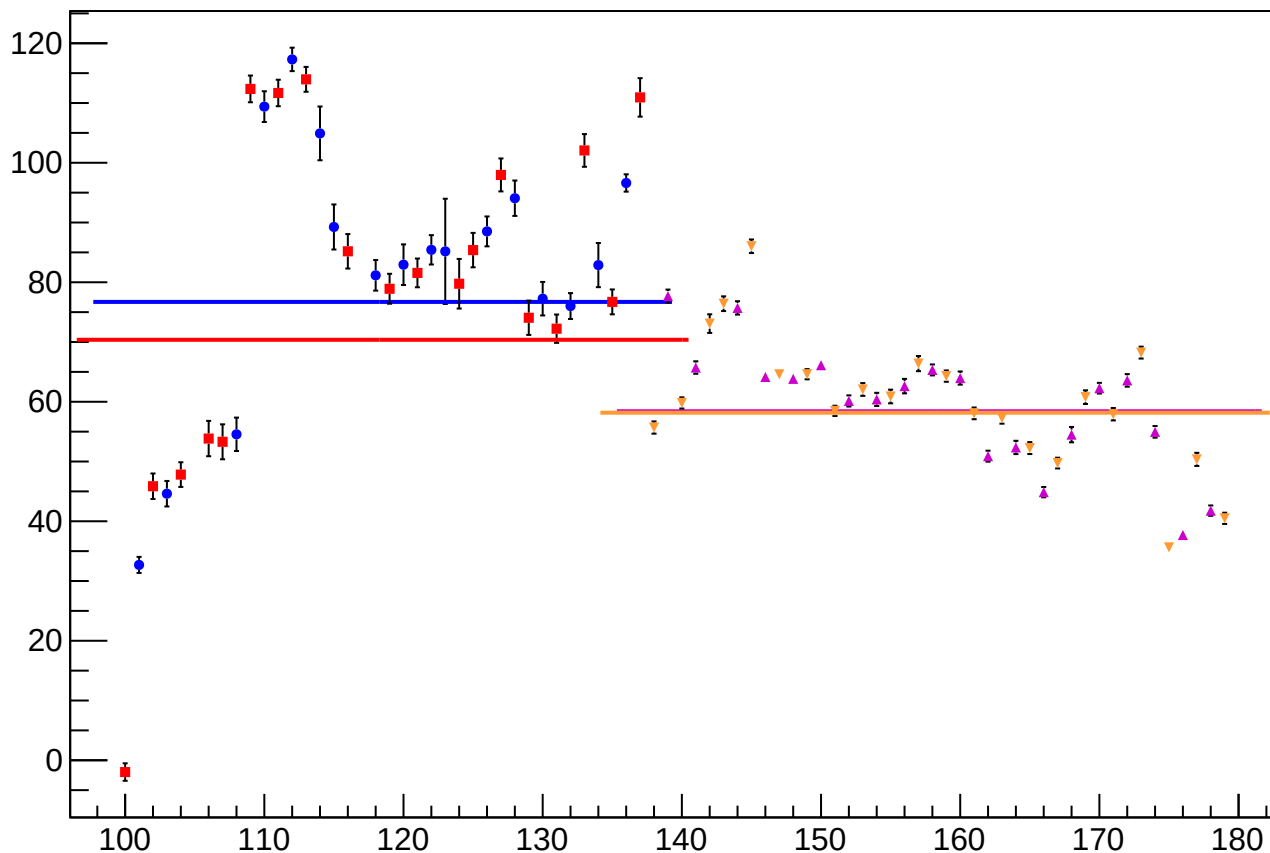
Right: 3.017 $\pm$ 0.224  $\chi^2$ /NDF: 579.8/35

In: 0.768 $\pm$ 0.143  $\chi^2$ /NDF:978.6/36

Out: 0.851 $\pm$ 0.139  $\chi^2$ /NDF:1192.2/40

All: 0.811 $\pm$ 0.100  $\chi^2$ /NDF: 2171.0/77

reg\_asym\_right\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 76.713 $\pm$ 0.576  $\chi^2$ /NDF: 2266.6/16

Left Out: 58.169 $\pm$ 0.211  $\chi^2$ /NDF:2747.1/21

Right Out: 70.376 $\pm$ 0.550  $\chi^2$ /NDF: 4390.7/18

Left In: 58.413 $\pm$ 0.215  $\chi^2$ /NDF:2345.0/19

Left: 58.289 $\pm$ 0.151  $\chi^2$ /NDF: 5092.7/41

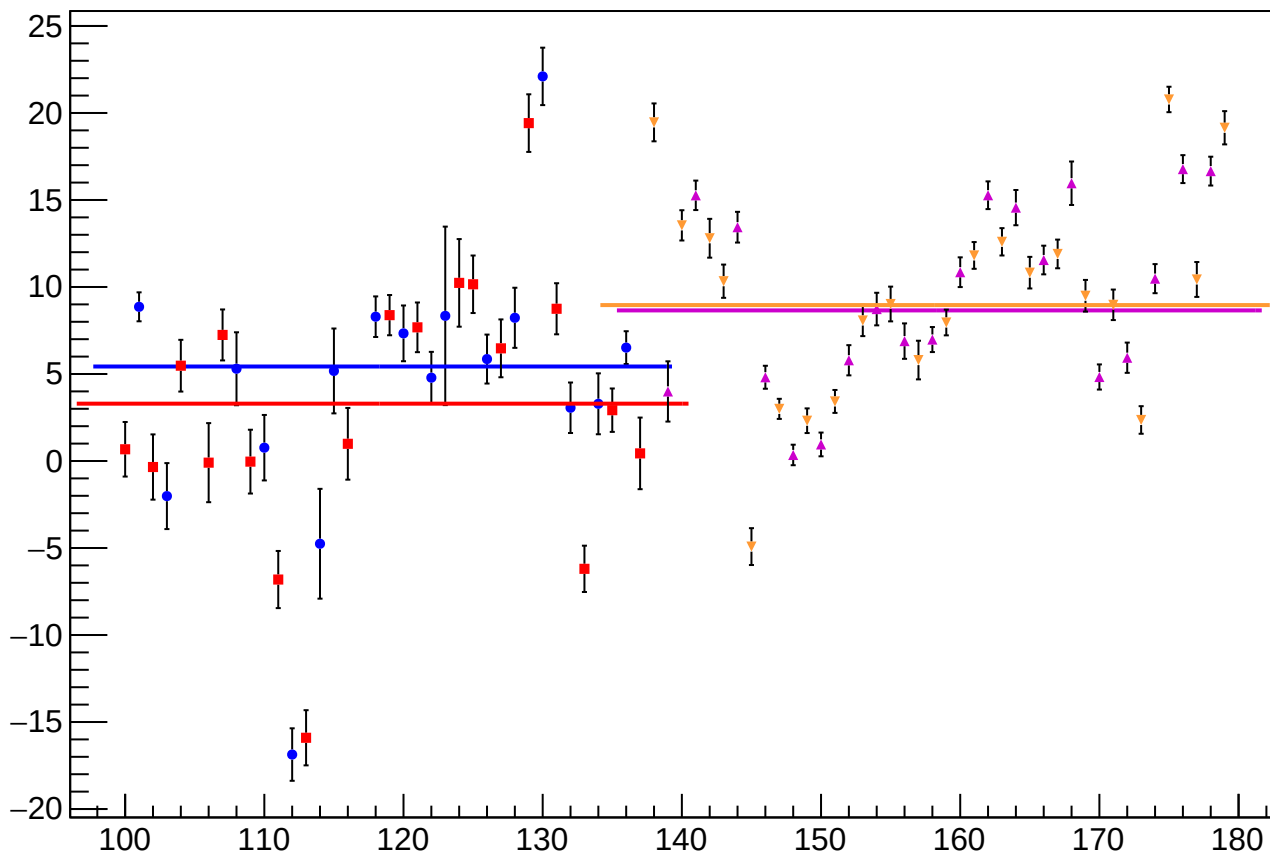
Right: 73.396 $\pm$ 0.398  $\chi^2$ /NDF: 6720.6/35

In: 60.641 $\pm$ 0.201  $\chi^2$ /NDF:5497.1/36

Out: 59.737 $\pm$ 0.197  $\chi^2$ /NDF:7567.2/40

All: 60.180 $\pm$ 0.141  $\chi^2$ /NDF: 13074.6/77

reg\_asym\_right\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 5.430 $\pm$ 0.361  $\chi^2$ /NDF: 385.9/16

Left Out: 8.960 $\pm$ 0.179  $\chi^2$ /NDF:1081.8/21

Right Out: 3.295 $\pm$ 0.365  $\chi^2$ /NDF: 426.1/18

Left In: 8.654 $\pm$ 0.184  $\chi^2$ /NDF:871.1/19

Left: 8.812 $\pm$ 0.128  $\chi^2$ /NDF: 1954.4/41

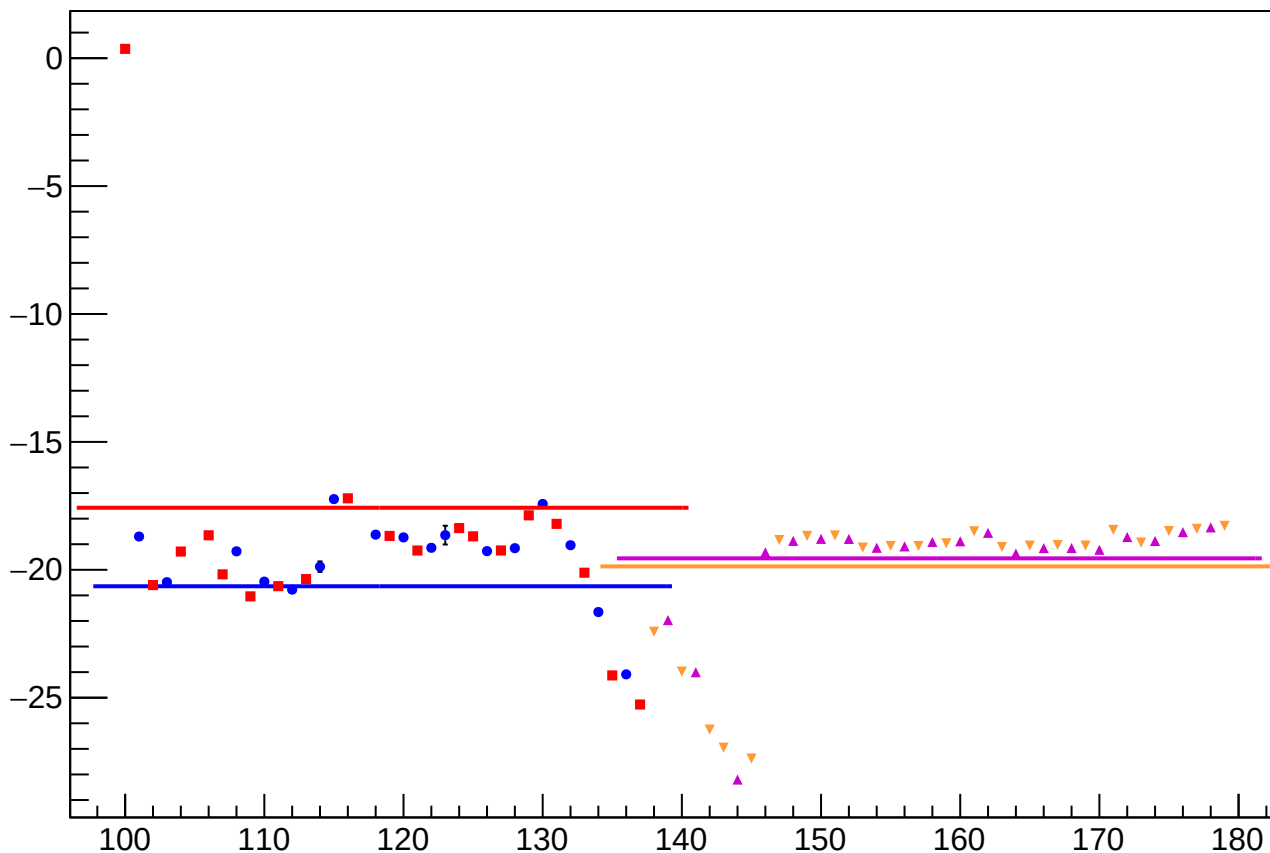
Right: 4.376 $\pm$ 0.257  $\chi^2$ /NDF: 829.3/35

In: 7.986 $\pm$ 0.164  $\chi^2$ /NDF:1320.4/36

Out: 7.862 $\pm$ 0.161  $\chi^2$ /NDF:1702.0/40

All: 7.923 $\pm$ 0.115  $\chi^2$ /NDF: 3022.7/77

reg\_asym\_right\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -20.643 $\pm$ 0.019  $\chi^2$ /NDF: 12468.6/16

Left Out: -19.866 $\pm$ 0.008  $\chi^2$ /NDF: 86784.1/21

Right Out: -17.574 $\pm$ 0.018  $\chi^2$ /NDF: 178327.0/18

Left In: -19.553 $\pm$ 0.009  $\chi^2$ /NDF: 52088.6/19

Left: -19.711 $\pm$ 0.006  $\chi^2$ /NDF: 139548.3/41

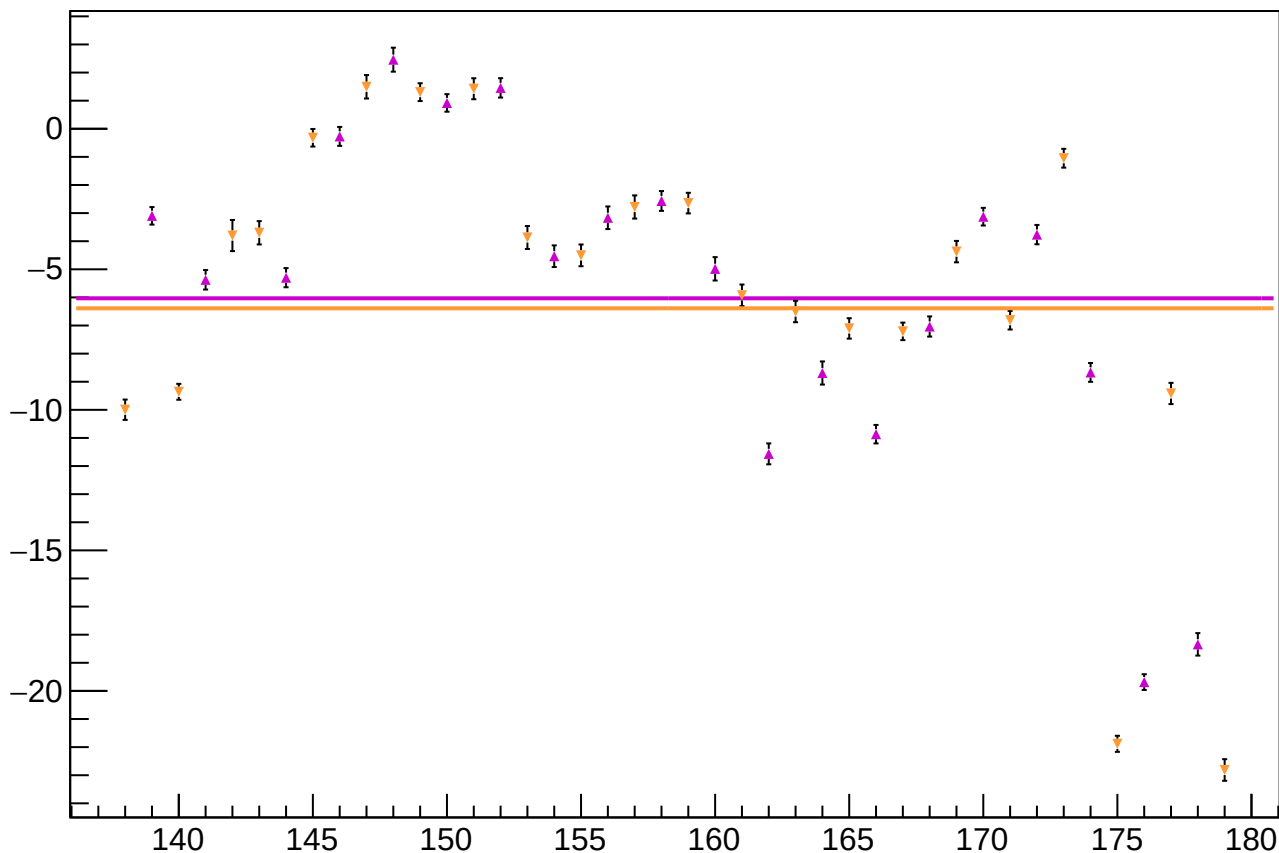
Right: -19.001 $\pm$ 0.013  $\chi^2$ /NDF: 204262.7/35

In: -19.731 $\pm$ 0.008  $\chi^2$ /NDF: 67214.5/36

Out: -19.451 $\pm$ 0.008  $\chi^2$ /NDF: 278338.7/40

All: -19.588 $\pm$ 0.005  $\chi^2$ /NDF: 346206.5/77

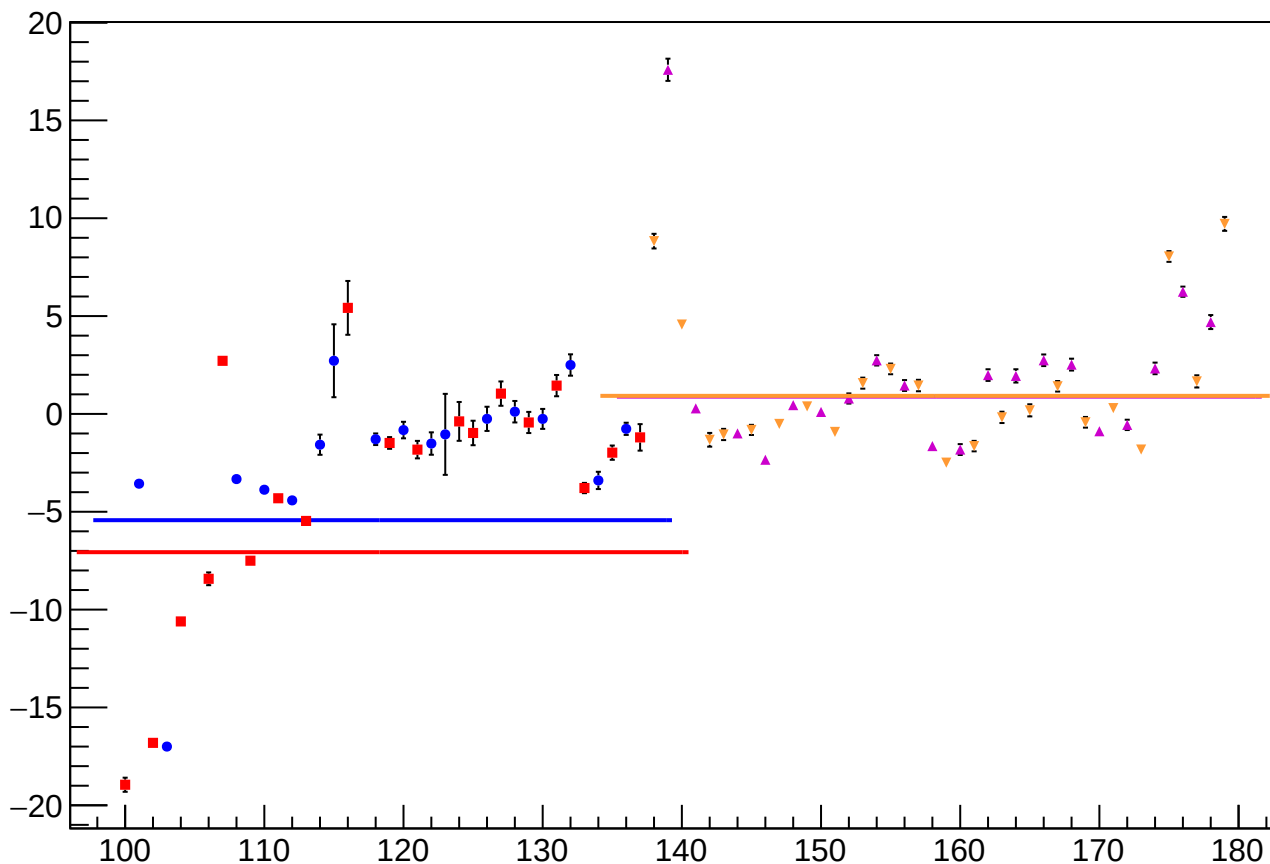
reg\_asym\_sam\_15\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -6.386+/-0.077  $\chi^2/\text{NDF}$ : 7399.4/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -6.032+/-0.078  $\chi^2/\text{NDF}$ : 5931.4/19

Left: -6.213+/-0.055  $\chi^2/\text{NDF}$ : 13341.4/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -6.032+/-0.078  $\chi^2/\text{NDF}$ : 5931.4/19  
 Out: -6.386+/-0.077  $\chi^2/\text{NDF}$ : 7399.4/21  
 All: -6.213+/-0.055  $\chi^2/\text{NDF}$ : 13341.4/41

reg\_asym\_sam\_15\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: -5.431 $\pm$ 0.055  $\chi^2$ /NDF: 9233.8/16

Left Out: 0.923 $\pm$ 0.057  $\chi^2$ /NDF:2708.1/21

Right Out: -7.066 $\pm$ 0.059  $\chi^2$ /NDF: 12306.6/18

Left In: 0.884 $\pm$ 0.059  $\chi^2$ /NDF:2174.3/19

Left: 0.904 $\pm$ 0.041  $\chi^2$ /NDF: 4882.6/41

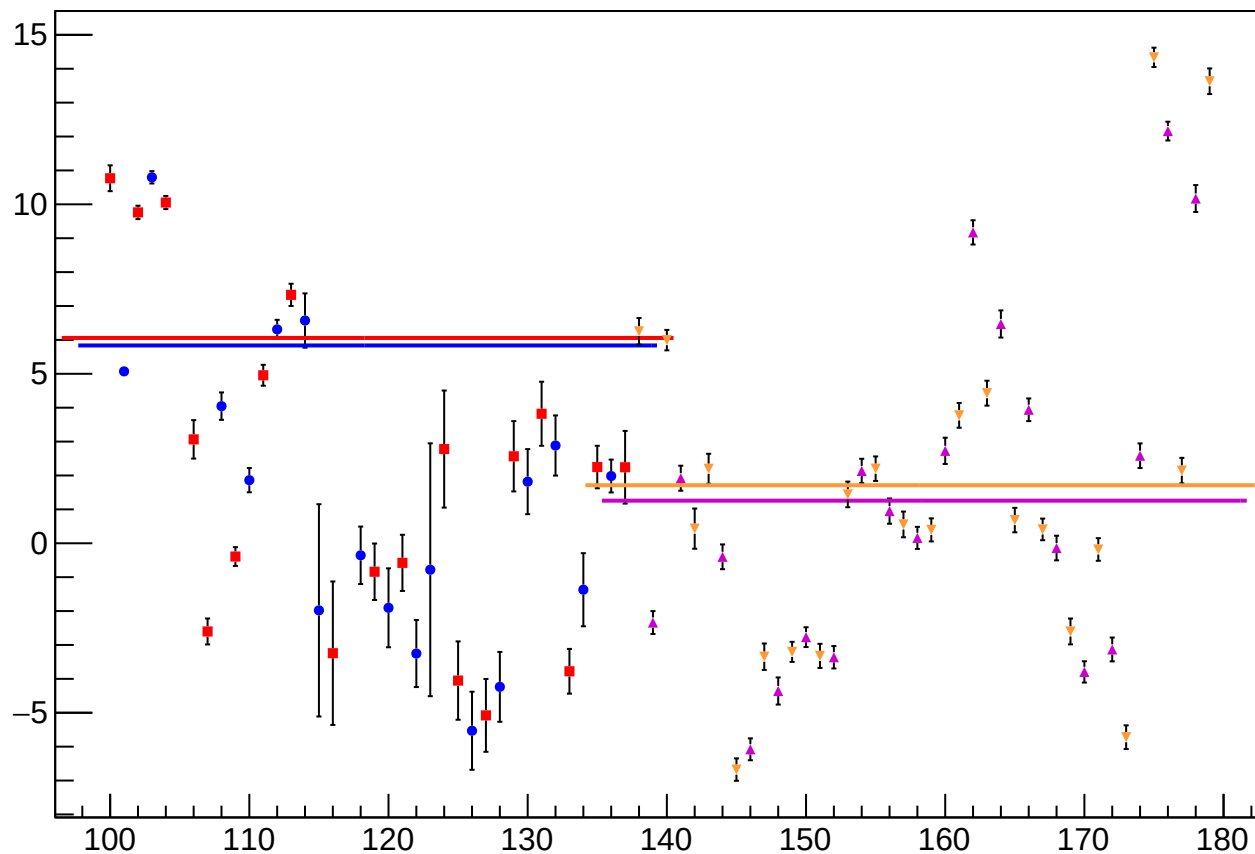
Right: -6.189 $\pm$ 0.040  $\chi^2$ /NDF: 21952.0/35

In: -2.524 $\pm$ 0.040  $\chi^2$ /NDF:17504.7/36

Out: -2.930 $\pm$ 0.041  $\chi^2$ /NDF:24497.4/40

All: -2.724 $\pm$ 0.029  $\chi^2$ /NDF: 42051.9/77

reg\_asym\_sam\_15\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $5.836 \pm 0.090$   $\chi^2/\text{NDF}: 1440.9/16$

Left Out:  $1.713 \pm 0.076$   $\chi^2/\text{NDF}: 5326.9/21$

Right Out:  $6.057 \pm 0.093$   $\chi^2/\text{NDF}: 2668.9/18$

Left In:  $1.257 \pm 0.077$   $\chi^2/\text{NDF}: 4489.0/19$

Left:  $1.489 \pm 0.054$   $\chi^2/\text{NDF}: 9833.6/41$

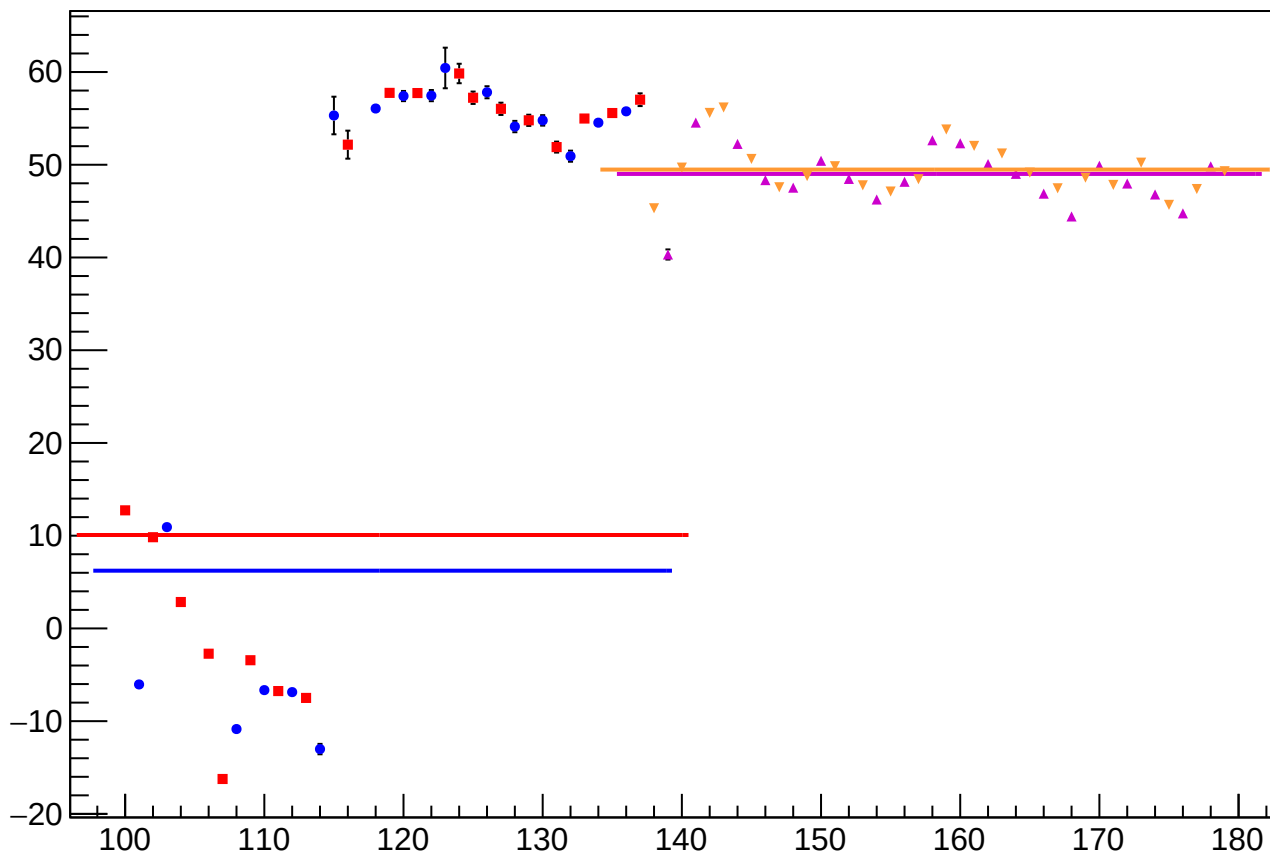
Right:  $5.942 \pm 0.065$   $\chi^2/\text{NDF}: 4112.7/35$

In:  $3.211 \pm 0.059$   $\chi^2/\text{NDF}: 7425.5/36$

Out:  $3.443 \pm 0.059$   $\chi^2/\text{NDF}: 9299.9/40$

All:  $3.326 \pm 0.042$   $\chi^2/\text{NDF}: 16733.2/77$

reg\_asym\_sam\_15\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $6.226 \pm 0.065$   $\chi^2/\text{NDF}: 120955.1/16$

Left Out:  $49.480 \pm 0.065$   $\chi^2/\text{NDF}: 1538.2/21$

Right Out:  $10.075 \pm 0.070$   $\chi^2/\text{NDF}: 122049.3/18$

Left In:  $49.009 \pm 0.067$   $\chi^2/\text{NDF}: 1738.9/19$

Left:  $49.253 \pm 0.047$   $\chi^2/\text{NDF}: 3302.3/41$

Right:  $8.011 \pm 0.047$   $\chi^2/\text{NDF}: 244638.0/35$

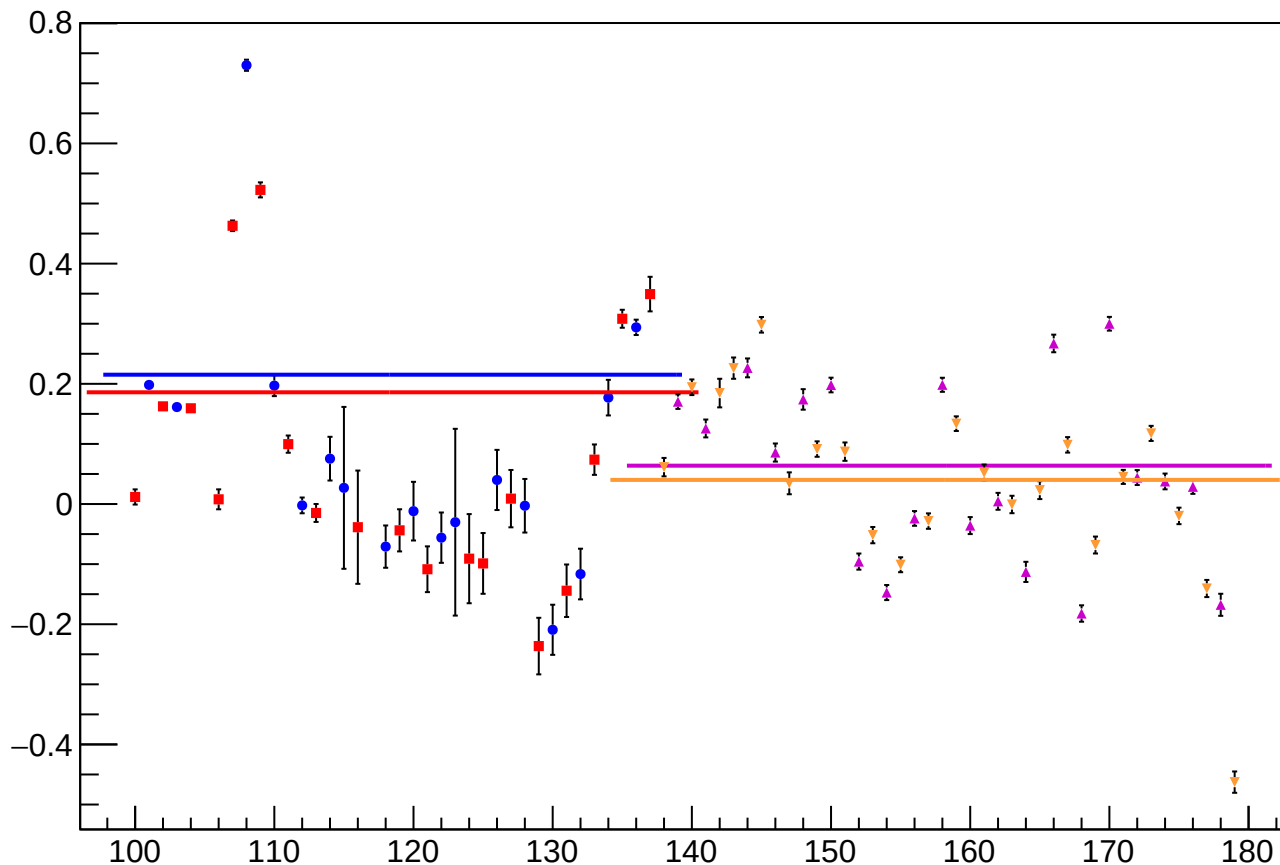
In:  $26.791 \pm 0.047$   $\chi^2/\text{NDF}: 332038.1/36$

Out:  $31.134 \pm 0.048$   $\chi^2/\text{NDF}: 294216.2/40$

All:  $28.923 \pm 0.033$   $\chi^2/\text{NDF}: 630494.4/77$



reg\_asym\_sam\_15\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.215 $\pm$ 0.003  $\chi^2$ /NDF: 3925.9/16

Left Out: 0.040 $\pm$ 0.003  $\chi^2$ /NDF:2083.0/21

Right Out: 0.186 $\pm$ 0.003  $\chi^2$ /NDF: 2718.1/18

Left In: 0.064 $\pm$ 0.003  $\chi^2$ /NDF:2272.3/19

Left: 0.052 $\pm$ 0.002  $\chi^2$ /NDF: 4386.3/41

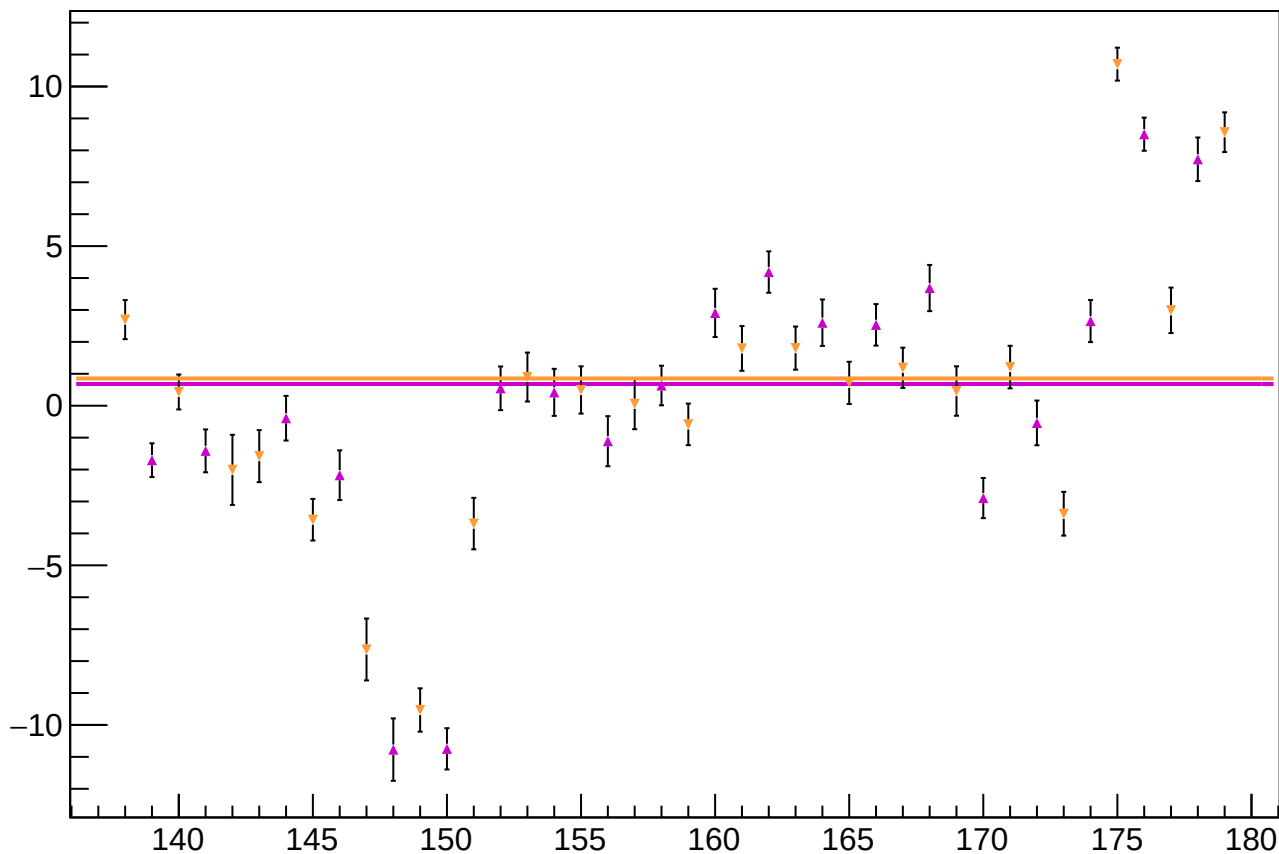
Right: 0.200 $\pm$ 0.002  $\chi^2$ /NDF: 6701.6/35

In: 0.146 $\pm$ 0.002  $\chi^2$ /NDF:7562.4/36

Out: 0.121 $\pm$ 0.002  $\chi^2$ /NDF:6115.9/40

All: 0.133 $\pm$ 0.001  $\chi^2$ /NDF: 13756.9/77

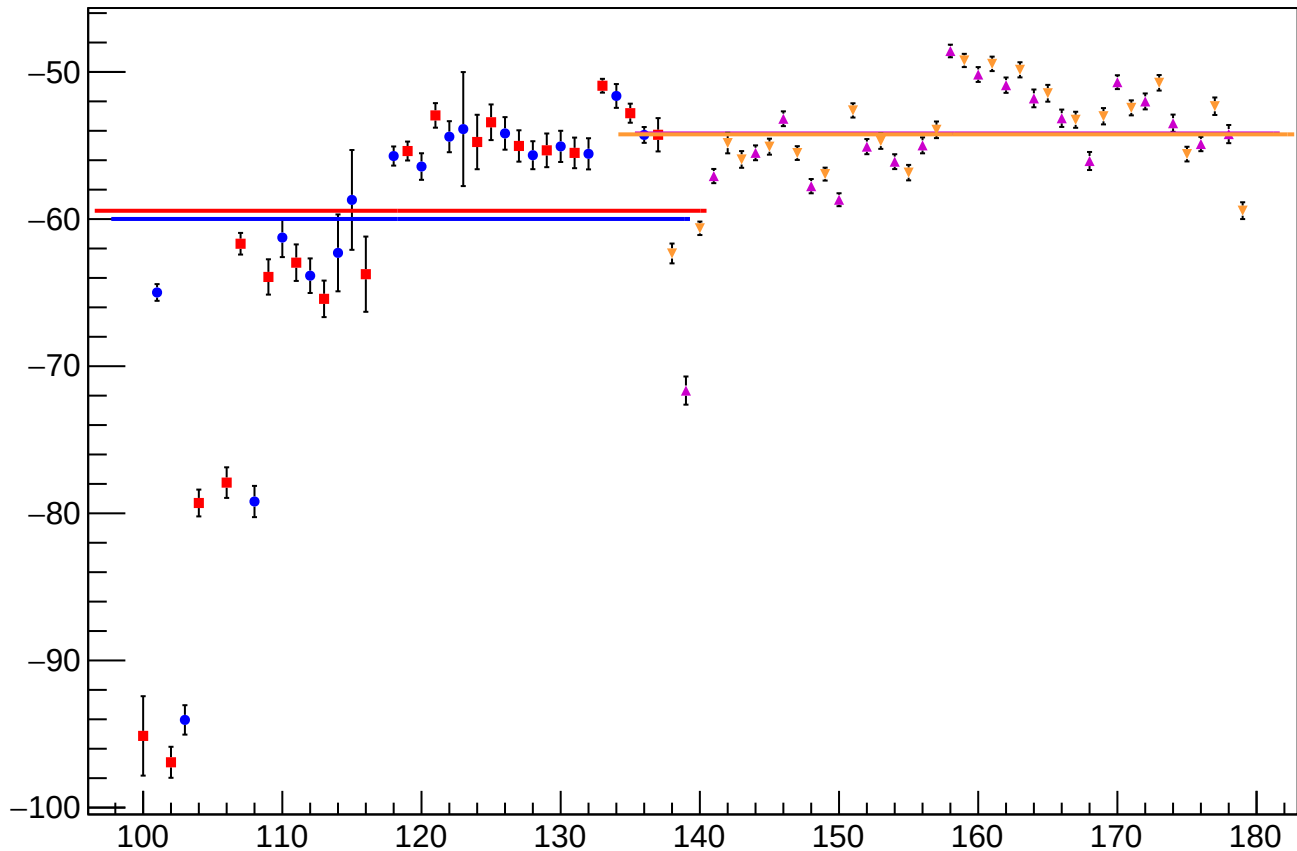
reg\_asym\_sam\_15\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.854 $\pm$ 0.147  $\chi^2$ /NDF:989.4/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.680 $\pm$ 0.150  $\chi^2$ /NDF:949.5/19

Left: 0.769 $\pm$ 0.105  $\chi^2$ /NDF: 1939.5/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 0.680 $\pm$ 0.150  $\chi^2$ /NDF:949.5/19  
 Out: 0.854 $\pm$ 0.147  $\chi^2$ /NDF:989.4/21  
 All: 0.769 $\pm$ 0.105  $\chi^2$ /NDF: 1939.5/41

reg\_asym\_sam\_15\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-59.992 \pm 0.225$   $\chi^2/\text{NDF}$ : 1972.9/16

Left Out:  $-54.241 \pm 0.112$   $\chi^2/\text{NDF}$ : 914.0/21

Right Out:  $-59.435 \pm 0.212$   $\chi^2/\text{NDF}$ : 2917.9/18

Left In:  $-54.179 \pm 0.117$   $\chi^2/\text{NDF}$ : 934.6/19

Left:  $-54.212 \pm 0.081$   $\chi^2/\text{NDF}$ : 1848.8/41

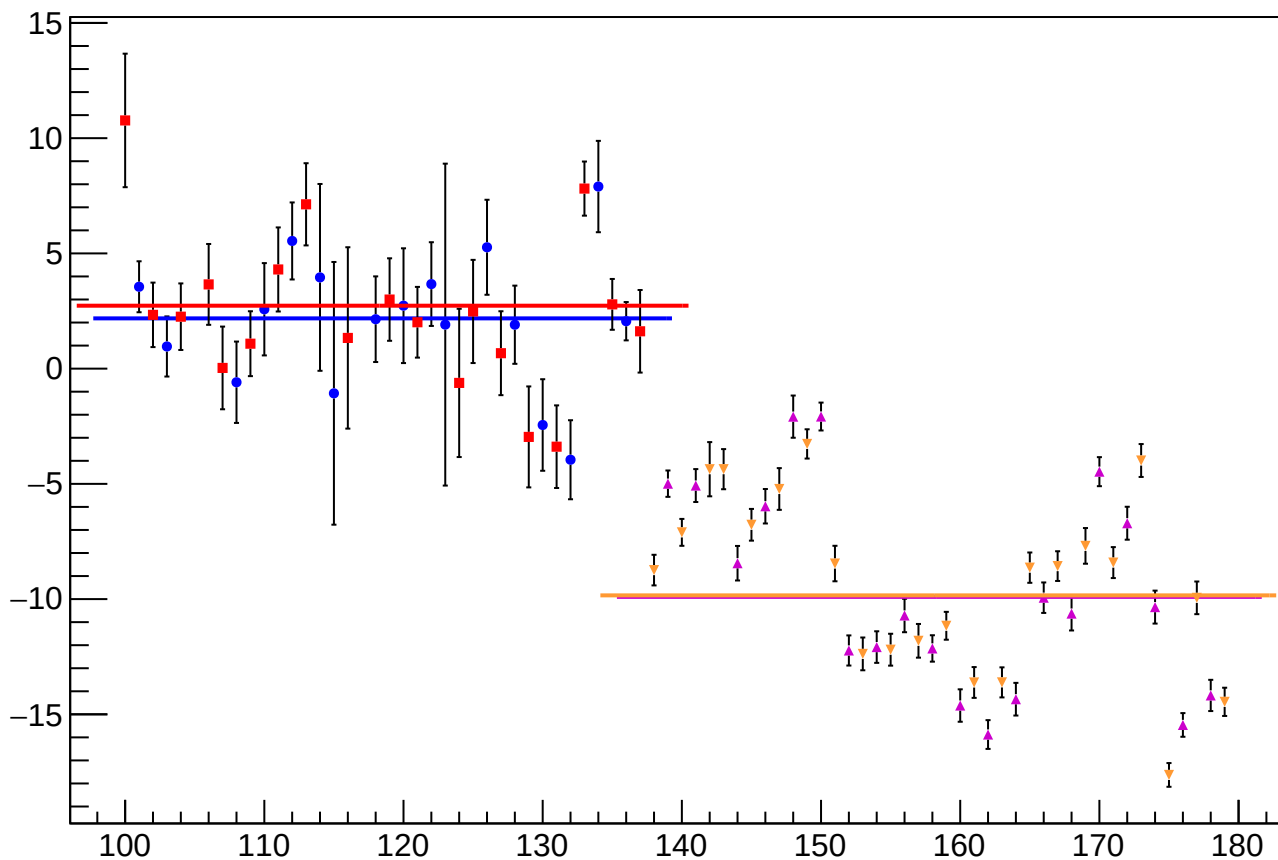
Right:  $-59.697 \pm 0.154$   $\chi^2/\text{NDF}$ : 4894.0/35

In:  $-55.421 \pm 0.104$   $\chi^2/\text{NDF}$ : 3432.5/36

Out:  $-55.376 \pm 0.099$   $\chi^2/\text{NDF}$ : 4301.3/40

All:  $-55.397 \pm 0.072$   $\chi^2/\text{NDF}$ : 7733.9/77

reg\_asym\_sam\_15\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $2.181 \pm 0.406$   $\chi^2/\text{NDF}: 39.0/16$   
 Left Out:  $-9.838 \pm 0.146$   $\chi^2/\text{NDF}: 716.2/21$   
 Right Out:  $2.731 \pm 0.388$   $\chi^2/\text{NDF}: 58.9/18$   
 Left In:  $-9.904 \pm 0.149$   $\chi^2/\text{NDF}: 858.9/19$

Left:  $-9.870 \pm 0.104$   $\chi^2/\text{NDF}: 1575.2/41$   
 Right:  $2.468 \pm 0.280$   $\chi^2/\text{NDF}: 98.9/35$   
 In:  $-8.468 \pm 0.140$   $\chi^2/\text{NDF}: 1680.0/36$   
 Out:  $-8.282 \pm 0.137$   $\chi^2/\text{NDF}: 1694.7/40$   
 All:  $-8.373 \pm 0.098$   $\chi^2/\text{NDF}: 3375.6/77$

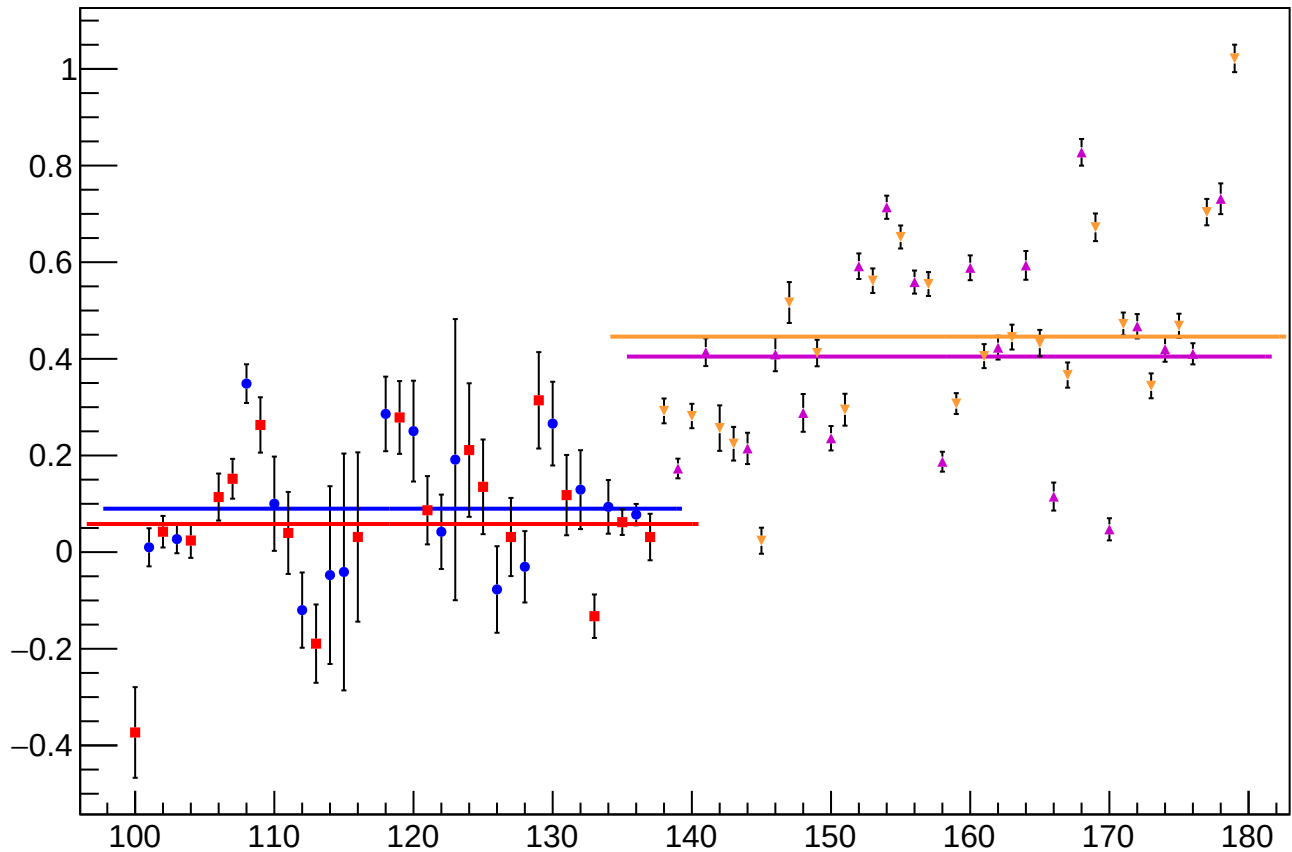
reg\_asym\_sam\_15\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-32.682 \pm 0.256$   $\chi^2/\text{NDF}: 4646.9/16$   
 Left Out:  $-38.213 \pm 0.127$   $\chi^2/\text{NDF}: 873.7/21$   
 Right Out:  $-32.523 \pm 0.244$   $\chi^2/\text{NDF}: 6045.3/18$   
 Left In:  $-37.855 \pm 0.131$   $\chi^2/\text{NDF}: 1031.8/19$

Left:  $-38.041 \pm 0.091$   $\chi^2/\text{NDF}: 1909.3/41$   
 Right:  $-32.599 \pm 0.177$   $\chi^2/\text{NDF}: 10692.4/35$   
 In:  $-36.774 \pm 0.117$   $\chi^2/\text{NDF}: 6002.2/36$   
 Out:  $-37.006 \pm 0.112$   $\chi^2/\text{NDF}: 7347.5/40$   
 All:  $-36.894 \pm 0.081$   $\chi^2/\text{NDF}: 13351.7/77$

reg\_asym\_sam\_15\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.090 \pm 0.013$   $\chi^2/\text{NDF}: 78.8/16$

Left Out:  $0.446 \pm 0.006$   $\chi^2/\text{NDF}: 1153.2/21$

Right Out:  $0.058 \pm 0.012$   $\chi^2/\text{NDF}: 87.1/18$

Left In:  $0.405 \pm 0.006$   $\chi^2/\text{NDF}: 1368.4/19$

Left:  $0.426 \pm 0.004$   $\chi^2/\text{NDF}: 2547.2/41$

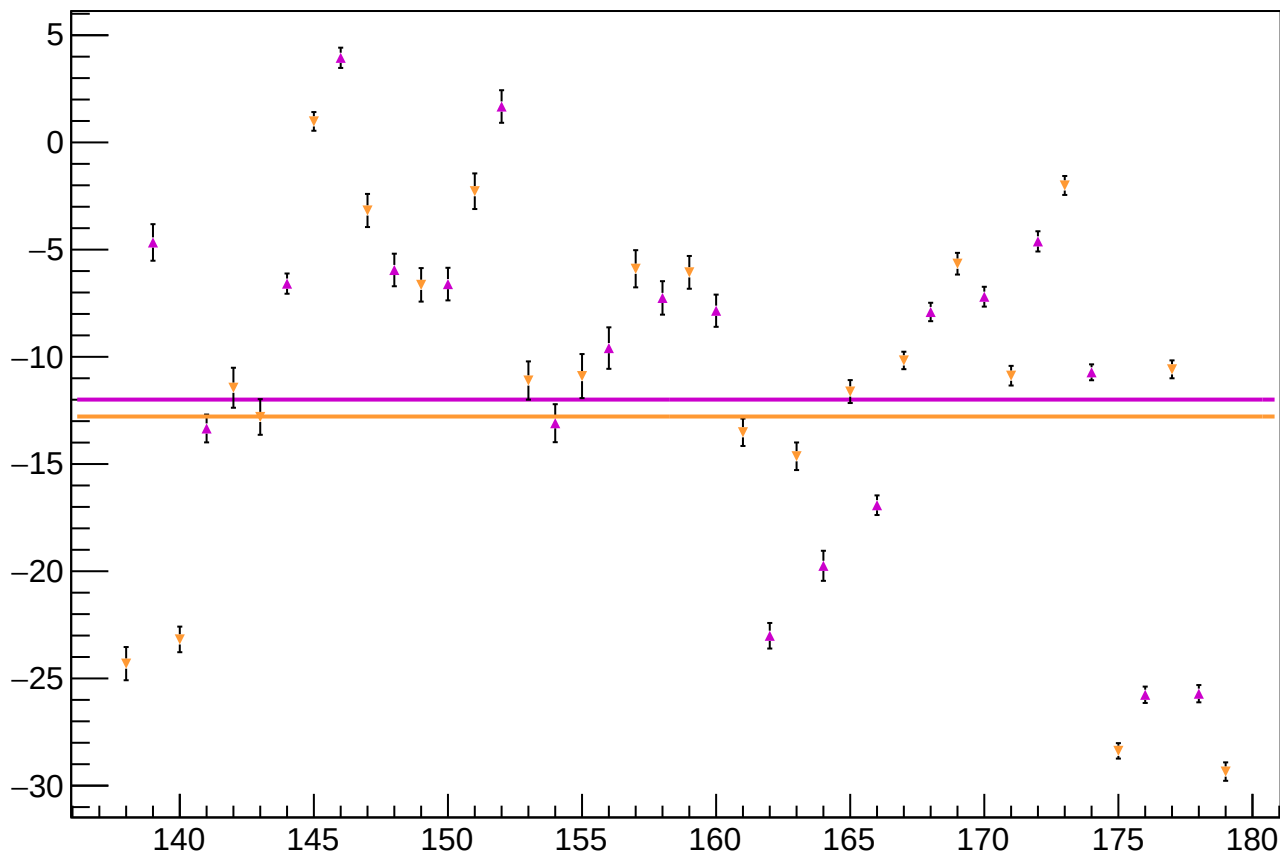
Right:  $0.073 \pm 0.009$   $\chi^2/\text{NDF}: 169.1/35$

In:  $0.351 \pm 0.005$   $\chi^2/\text{NDF}: 1952.7/36$

Out:  $0.375 \pm 0.005$   $\chi^2/\text{NDF}: 2070.3/40$

All:  $0.363 \pm 0.004$   $\chi^2/\text{NDF}: 4034.0/77$

reg\_asym\_sam\_37\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -12.784 $\pm$ 0.120  $\chi^2/\text{NDF}$ :6299.0/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -11.994 $\pm$ 0.121  $\chi^2/\text{NDF}$ :5353.8/19

Left: -12.393 $\pm$ 0.085  $\chi^2/\text{NDF}$ : 11674.3/41

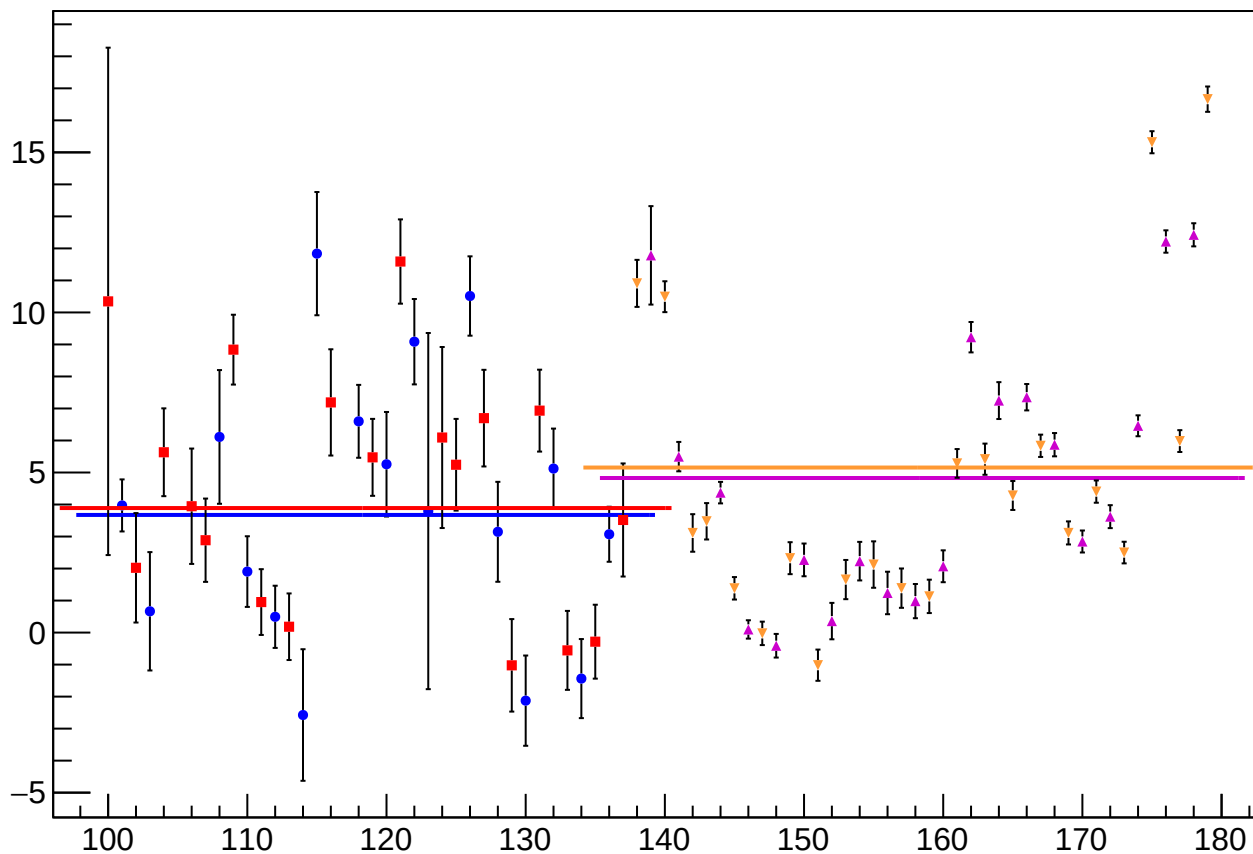
Right: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -11.994 $\pm$ 0.121  $\chi^2/\text{NDF}$ :5353.8/19

Out: -12.784 $\pm$ 0.120  $\chi^2/\text{NDF}$ :6299.0/21

All: -12.393 $\pm$ 0.085  $\chi^2/\text{NDF}$ : 11674.3/41

reg\_asym\_sam\_37\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $3.675 \pm 0.310$   $\chi^2/\text{NDF}$ : 135.2/16

Left Out:  $5.155 \pm 0.092$   $\chi^2/\text{NDF}$ : 2688.3/21

Right Out:  $3.890 \pm 0.316$   $\chi^2/\text{NDF}$ : 133.7/18

Left In:  $4.828 \pm 0.093$   $\chi^2/\text{NDF}$ : 1822.9/19

Left:  $4.993 \pm 0.066$   $\chi^2/\text{NDF}$ : 4517.5/41

Right:  $3.780 \pm 0.221$   $\chi^2/\text{NDF}$ : 269.1/35

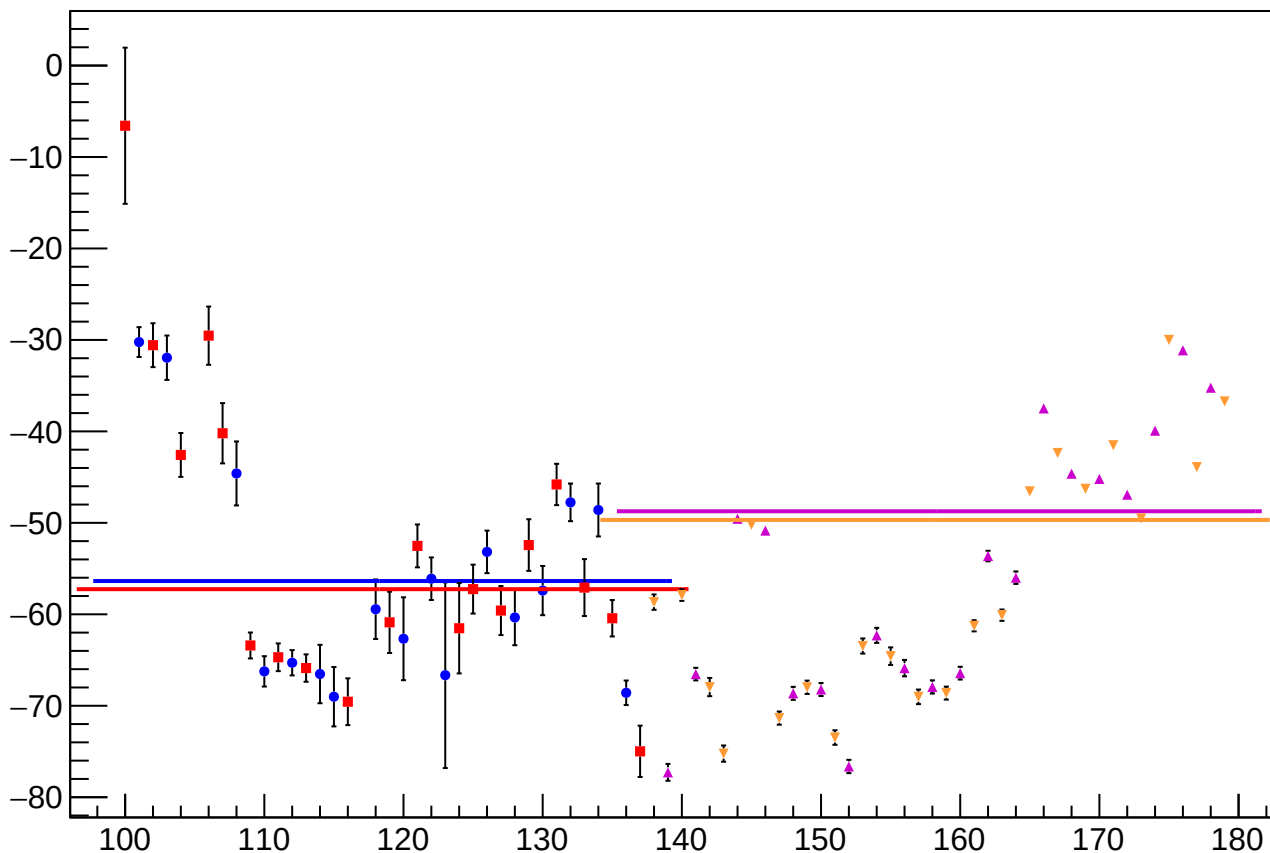
In:  $4.733 \pm 0.089$   $\chi^2/\text{NDF}$ : 1970.8/36

Out:  $5.056 \pm 0.089$   $\chi^2/\text{NDF}$ : 2836.8/40

All:  $4.896 \pm 0.063$   $\chi^2/\text{NDF}$ : 4814.2/77



reg\_asym\_sam\_37\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-56.362 \pm 0.543$   $\chi^2/\text{NDF}$ : 587.2/16

Left Out:  $-49.679 \pm 0.120$   $\chi^2/\text{NDF}$ : 11125.2/21

Right Out:  $-57.252 \pm 0.536$   $\chi^2/\text{NDF}$ : 476.0/18

Left In:  $-48.736 \pm 0.121$   $\chi^2/\text{NDF}$ : 11361.6/19

Left:  $-49.211 \pm 0.085$   $\chi^2/\text{NDF}$ : 22517.3/41

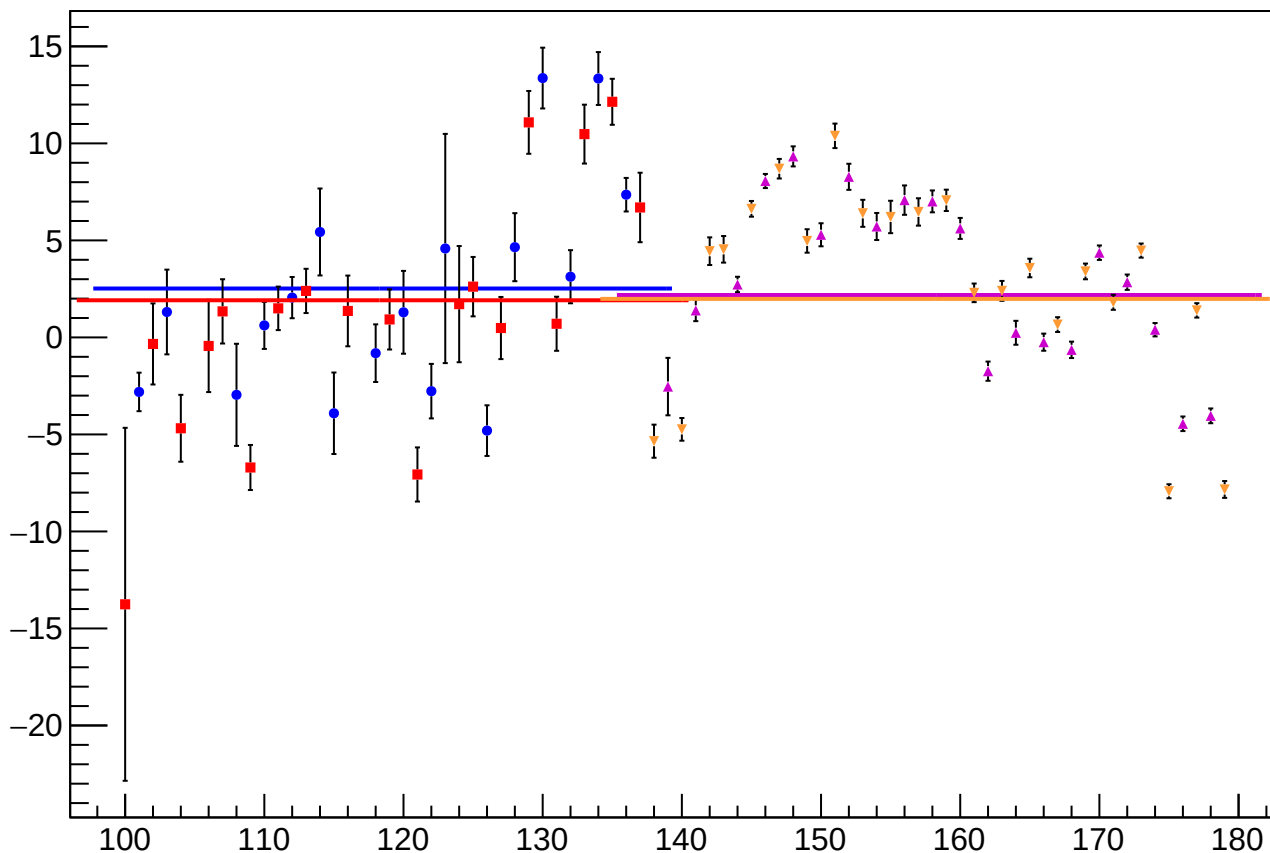
Right:  $-56.813 \pm 0.382$   $\chi^2/\text{NDF}$ : 1064.6/35

In:  $-49.097 \pm 0.118$   $\chi^2/\text{NDF}$ : 12136.6/36

Out:  $-50.041 \pm 0.117$   $\chi^2/\text{NDF}$ : 11791.2/40

All:  $-49.574 \pm 0.083$   $\chi^2/\text{NDF}$ : 23959.8/77

reg\_asym\_sam\_37\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $2.520 \pm 0.347$   $\chi^2/\text{NDF}$ : 242.3/16

Left Out:  $1.985 \pm 0.104$   $\chi^2/\text{NDF}$ : 2283.4/21

Right Out:  $1.914 \pm 0.355$   $\chi^2/\text{NDF}$ : 264.5/18

Left In:  $2.185 \pm 0.105$   $\chi^2/\text{NDF}$ : 1546.9/19

Left:  $2.084 \pm 0.074$   $\chi^2/\text{NDF}$ : 3832.1/41

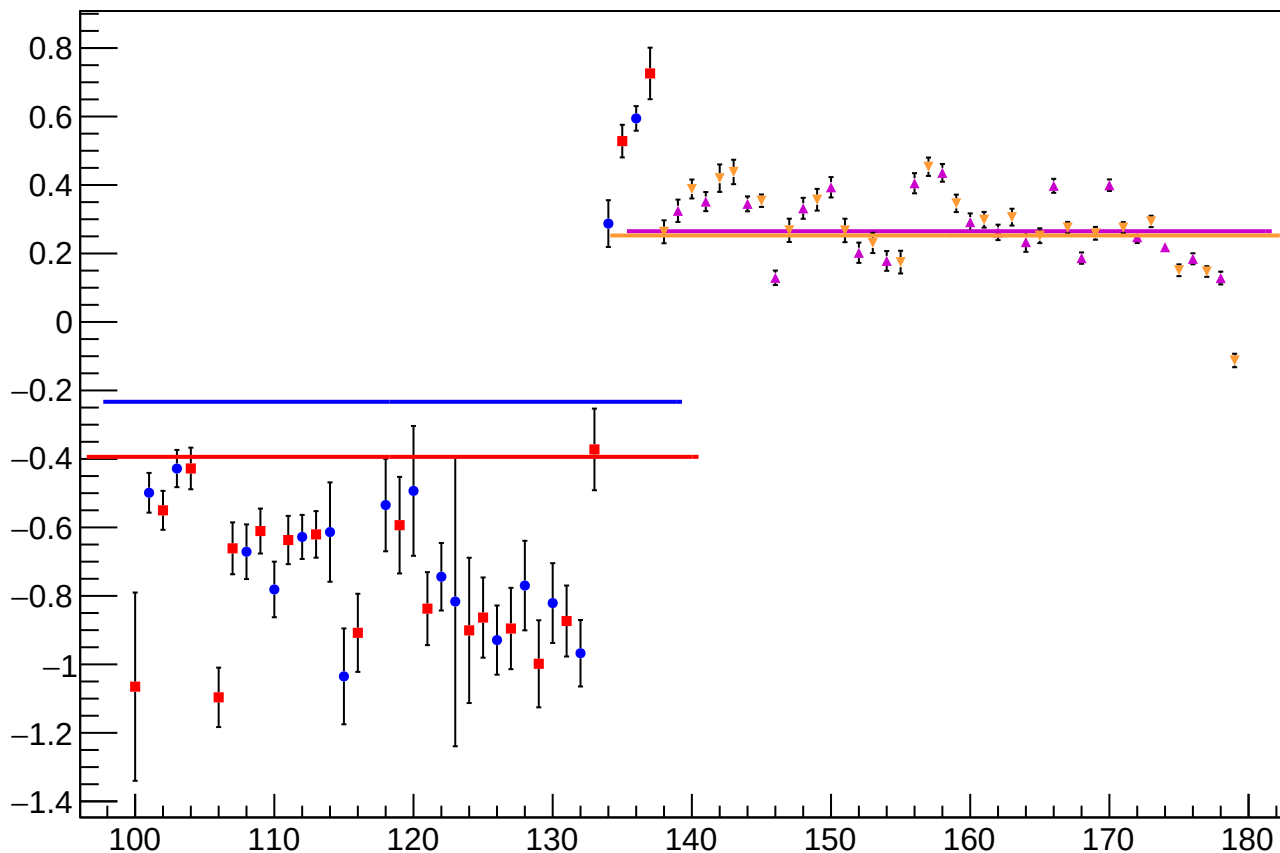
Right:  $2.224 \pm 0.248$   $\chi^2/\text{NDF}$ : 508.4/35

In:  $2.213 \pm 0.101$   $\chi^2/\text{NDF}$ : 1790.1/36

Out:  $1.980 \pm 0.100$   $\chi^2/\text{NDF}$ : 2548.0/40

All:  $2.095 \pm 0.071$   $\chi^2/\text{NDF}$ : 4340.8/77

reg\_asym\_sam\_37\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.233 \pm 0.019$   $\chi^2/\text{NDF}$ : 956.8/16

Left Out:  $0.253 \pm 0.005$   $\chi^2/\text{NDF}$ : 626.4/21

Right Out:  $-0.394 \pm 0.019$   $\chi^2/\text{NDF}$ : 845.2/18

Left In:  $0.265 \pm 0.005$   $\chi^2/\text{NDF}$ : 390.2/19

Left:  $0.259 \pm 0.003$   $\chi^2/\text{NDF}$ : 1020.0/41

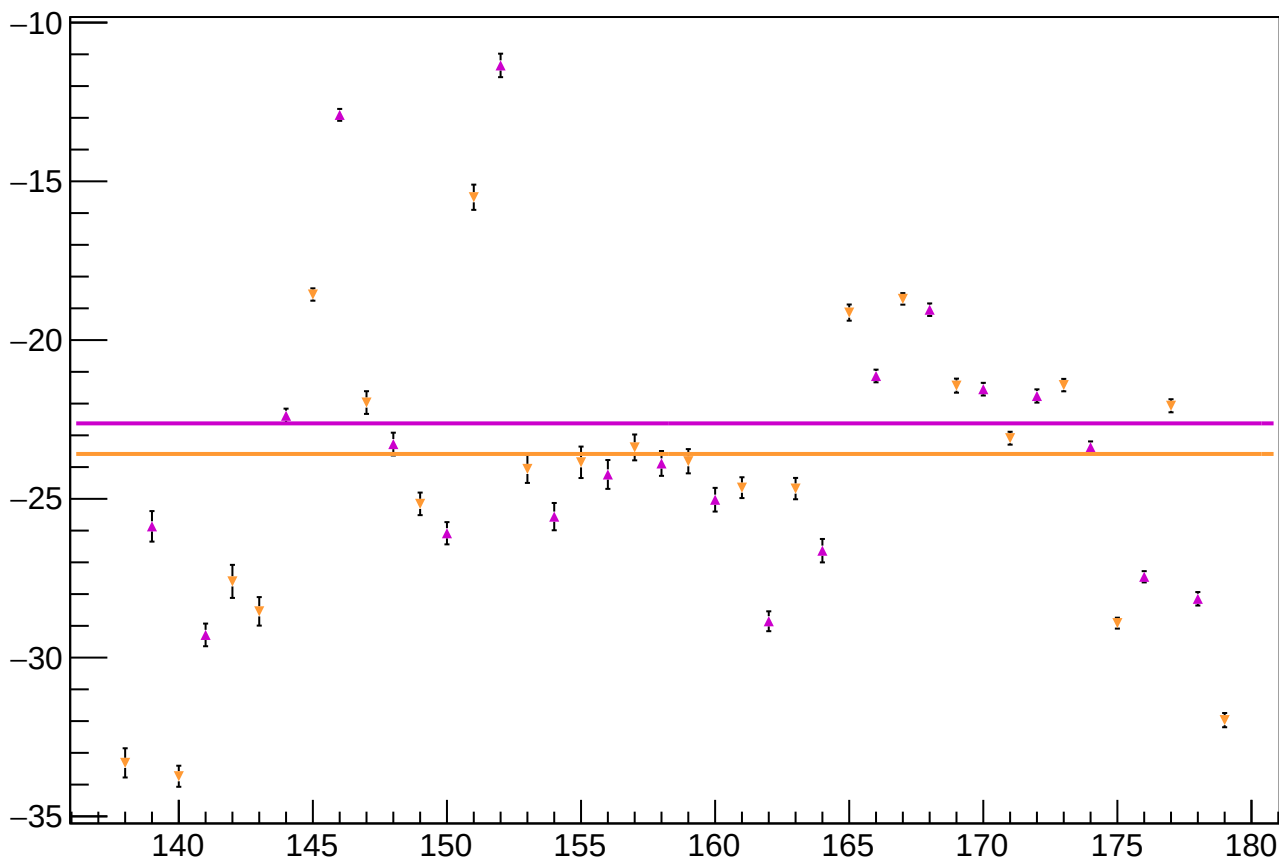
Right:  $-0.313 \pm 0.013$   $\chi^2/\text{NDF}$ : 1838.0/35

In:  $0.234 \pm 0.005$   $\chi^2/\text{NDF}$ : 1998.9/36

Out:  $0.214 \pm 0.005$   $\chi^2/\text{NDF}$ : 2561.8/40

All:  $0.224 \pm 0.003$   $\chi^2/\text{NDF}$ : 4570.4/77

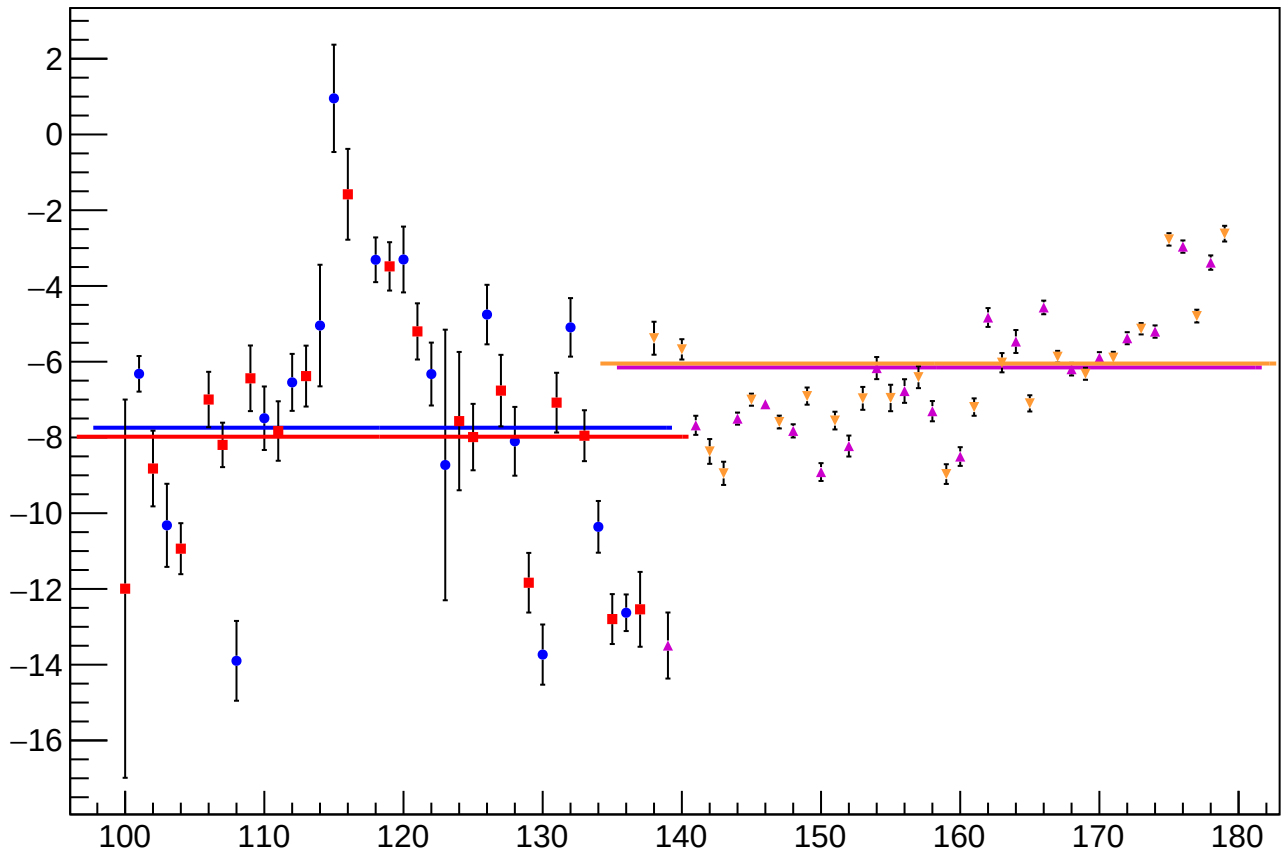
reg\_asym\_sam\_37\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -23.586+/-0.057  $\chi^2/\text{NDF}$ : 6369.8/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -22.623+/-0.057  $\chi^2/\text{NDF}$ : 6604.2/19

Left: -23.103+/-0.040  $\chi^2/\text{NDF}$ : 13115.9/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -22.623+/-0.057  $\chi^2/\text{NDF}$ : 6604.2/19  
 Out: -23.586+/-0.057  $\chi^2/\text{NDF}$ : 6369.8/21  
 All: -23.103+/-0.040  $\chi^2/\text{NDF}$ : 13115.9/41

reg\_asym\_sam\_37\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-7.743 \pm 0.187$   $\chi^2/\text{NDF}$ : 377.5/16

Left Out:  $-6.048 \pm 0.044$   $\chi^2/\text{NDF}$ : 1280.0/21

Right Out:  $-7.981 \pm 0.186$   $\chi^2/\text{NDF}$ : 223.5/18

Left In:  $-6.151 \pm 0.044$   $\chi^2/\text{NDF}$ : 1415.4/19

Left:  $-6.100 \pm 0.031$   $\chi^2/\text{NDF}$ : 2698.2/41

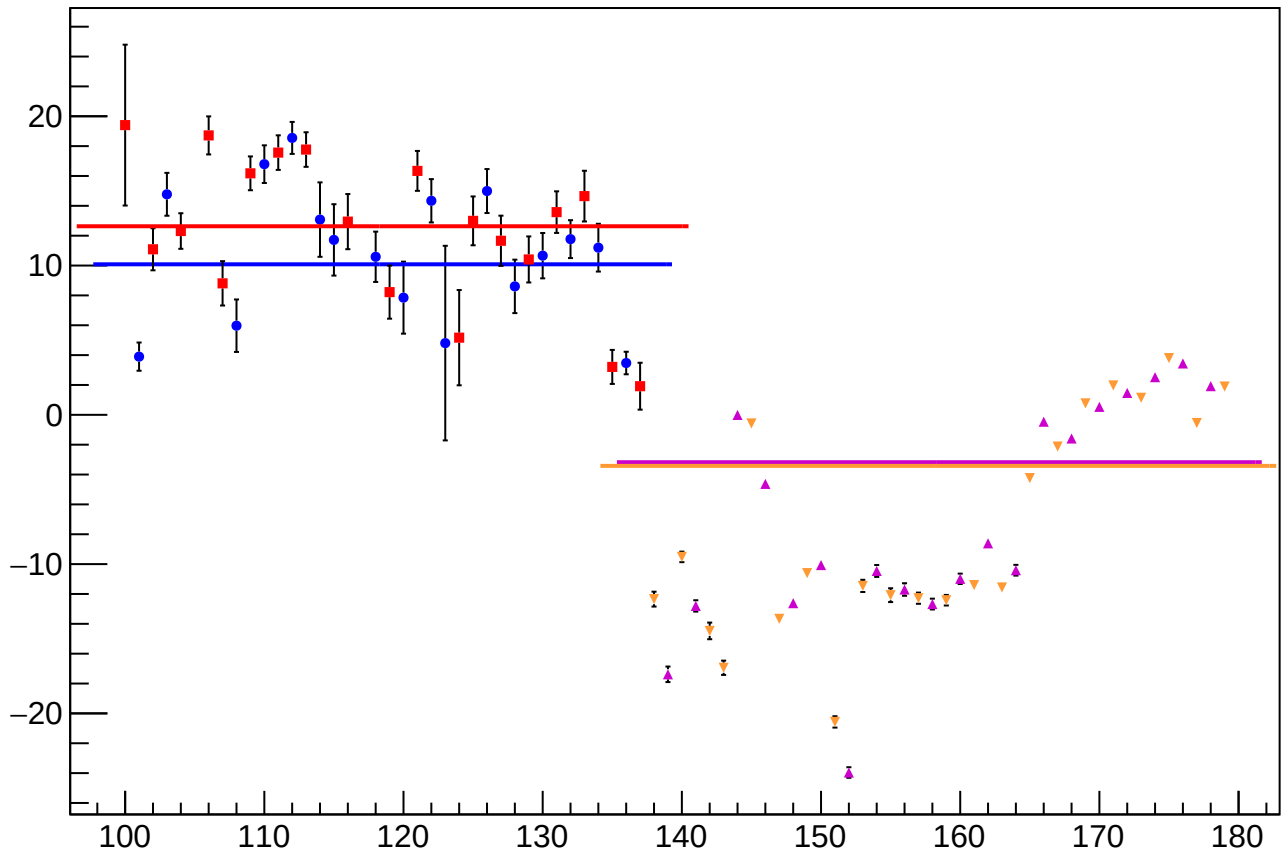
Right:  $-7.863 \pm 0.132$   $\chi^2/\text{NDF}$ : 601.9/35

In:  $-6.233 \pm 0.042$   $\chi^2/\text{NDF}$ : 1861.6/36

Out:  $-6.151 \pm 0.043$   $\chi^2/\text{NDF}$ : 1605.9/40

All:  $-6.192 \pm 0.030$   $\chi^2/\text{NDF}$ : 3469.4/77

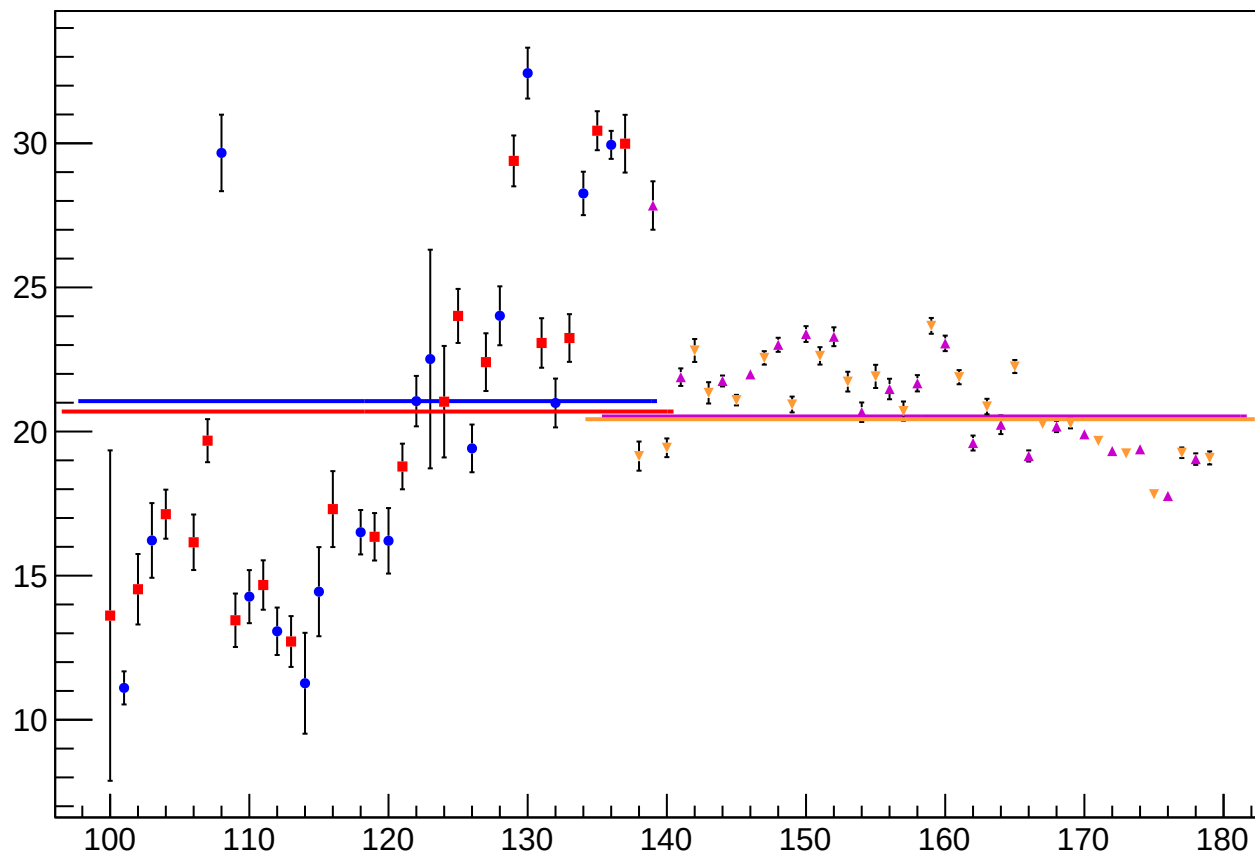
reg\_asym\_sam\_37\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $10.083 \pm 0.338$   $\chi^2/\text{NDF}: 252.7/16$   
 Left Out:  $-3.420 \pm 0.057$   $\chi^2/\text{NDF}: 12808.6/21$   
 Right Out:  $12.632 \pm 0.333$   $\chi^2/\text{NDF}: 218.6/18$   
 Left In:  $-3.174 \pm 0.057$   $\chi^2/\text{NDF}: 12845.3/19$

Left:  $-3.296 \pm 0.040$   $\chi^2/\text{NDF}: 25663.1/41$   
 Right:  $11.377 \pm 0.237$   $\chi^2/\text{NDF}: 500.1/35$   
 In:  $-2.807 \pm 0.056$   $\chi^2/\text{NDF}: 14594.4/36$   
 Out:  $-2.957 \pm 0.056$   $\chi^2/\text{NDF}: 15288.3/40$   
 All:  $-2.882 \pm 0.040$   $\chi^2/\text{NDF}: 29886.2/77$

reg\_asym\_sam\_37\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 21.055 $\pm$ 0.211  $\chi^2$ /NDF: 1211.8/16

Left Out: 20.427 $\pm$ 0.050  $\chi^2$ /NDF:857.1/21

Right Out: 20.694 $\pm$ 0.213  $\chi^2$ /NDF: 724.1/18

Left In: 20.523 $\pm$ 0.049  $\chi^2$ /NDF:1110.6/19

Left: 20.475 $\pm$ 0.035  $\chi^2$ /NDF: 1969.5/41

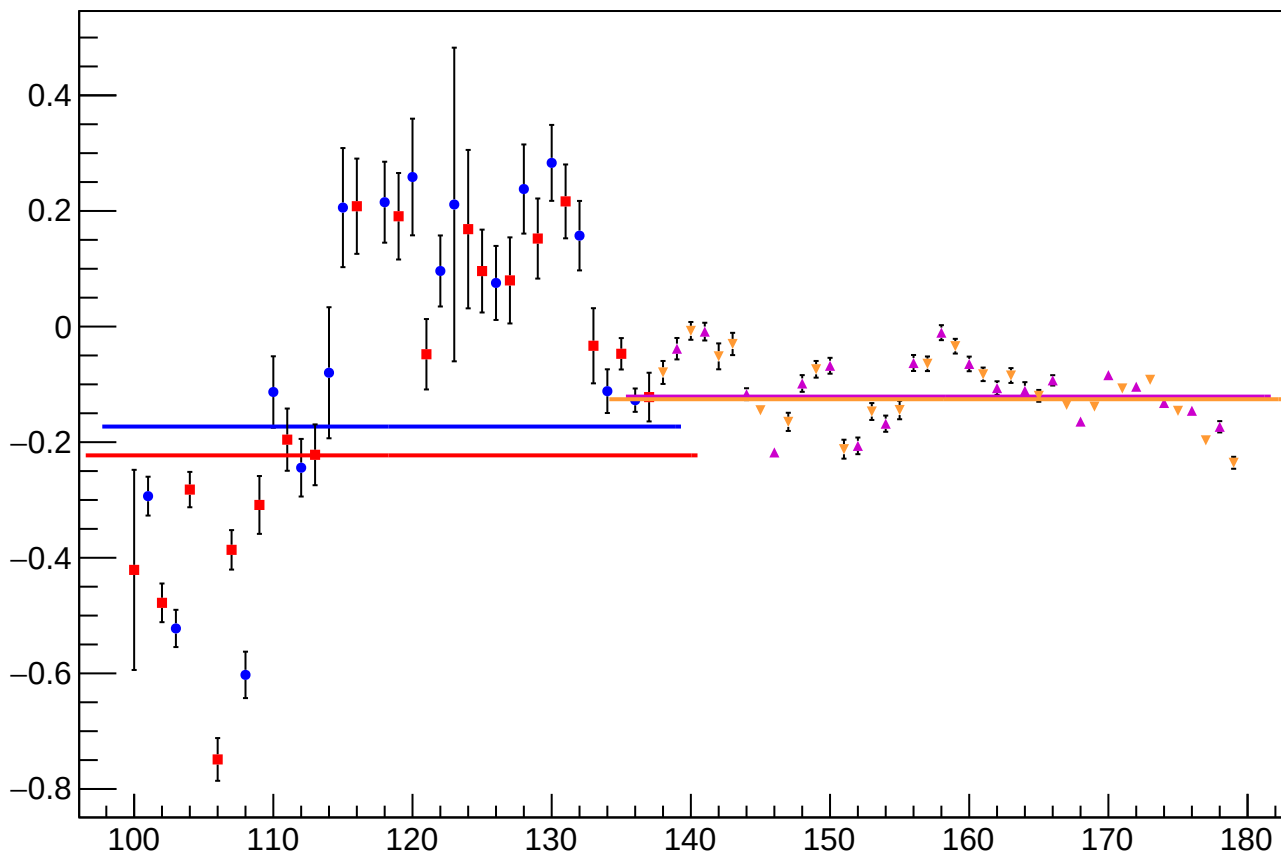
Right: 20.876 $\pm$ 0.150  $\chi^2$ /NDF: 1937.3/35

In: 20.550 $\pm$ 0.048  $\chi^2$ /NDF:2328.4/36

Out: 20.441 $\pm$ 0.048  $\chi^2$ /NDF:1582.7/40

All: 20.496 $\pm$ 0.034  $\chi^2$ /NDF: 3913.7/77

reg\_asym\_sam\_37\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.173 \pm 0.011$   $\chi^2/\text{NDF}$ : 461.8/16

Left Out:  $-0.126 \pm 0.002$   $\chi^2/\text{NDF}$ : 490.6/21

Right Out:  $-0.223 \pm 0.011$   $\chi^2/\text{NDF}$ : 535.1/18

Left In:  $-0.121 \pm 0.002$   $\chi^2/\text{NDF}$ : 495.7/19

Left:  $-0.123 \pm 0.002$   $\chi^2/\text{NDF}$ : 988.3/41

Right:  $-0.198 \pm 0.008$   $\chi^2/\text{NDF}$ : 1007.1/35

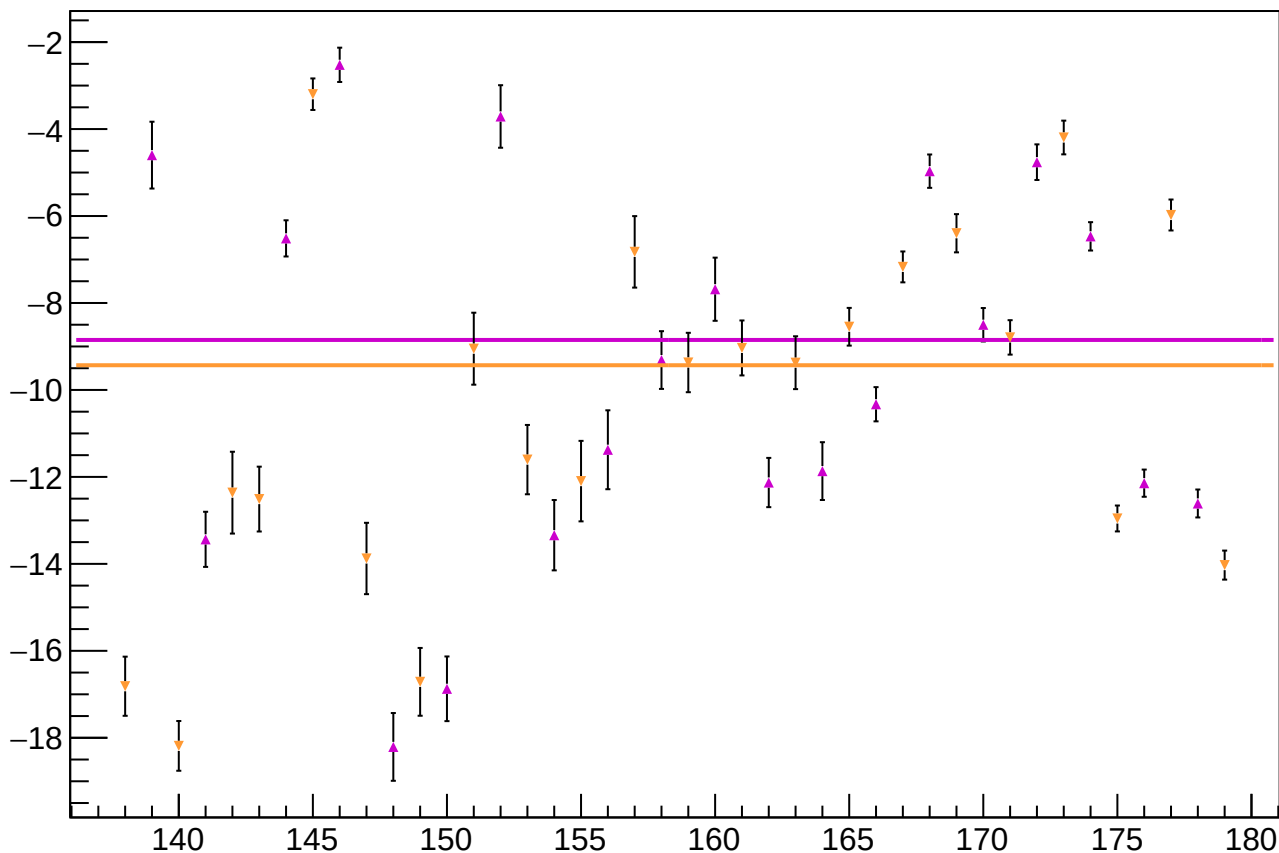
In:  $-0.123 \pm 0.002$   $\chi^2/\text{NDF}$ : 978.0/36

Out:  $-0.130 \pm 0.002$   $\chi^2/\text{NDF}$ : 1101.1/40

All:  $-0.126 \pm 0.002$   $\chi^2/\text{NDF}$ : 2083.3/77



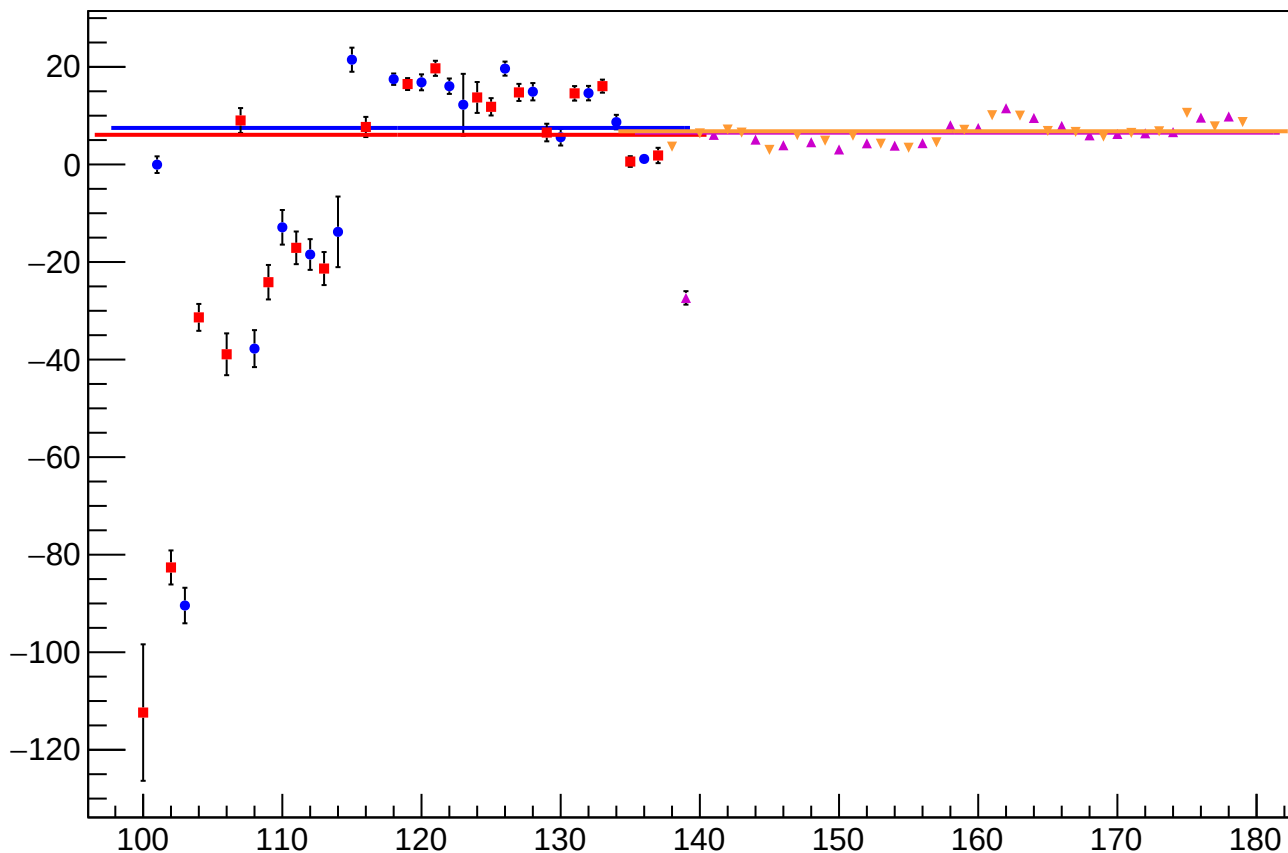
reg\_asym\_sam\_26\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -9.432 $\pm$ 0.105  $\chi^2$ /NDF:1518.4/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -8.850 $\pm$ 0.106  $\chi^2$ /NDF:1297.5/19

Left: -9.144 $\pm$ 0.074  $\chi^2$ /NDF: 2831.1/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: -8.850 $\pm$ 0.106  $\chi^2$ /NDF:1297.5/19  
 Out: -9.432 $\pm$ 0.105  $\chi^2$ /NDF:1518.4/21  
 All: -9.144 $\pm$ 0.074  $\chi^2$ /NDF: 2831.1/41

reg\_asym\_sam\_26\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $7.488 \pm 0.407$   $\chi^2/\text{NDF}: 1340.5/16$

Left Out:  $6.805 \pm 0.082$   $\chi^2/\text{NDF}: 630.1/21$

Right Out:  $6.078 \pm 0.434$   $\chi^2/\text{NDF}: 1512.1/18$

Left In:  $6.519 \pm 0.083$   $\chi^2/\text{NDF}: 1291.5/19$

Left:  $6.663 \pm 0.058$   $\chi^2/\text{NDF}: 1927.7/41$

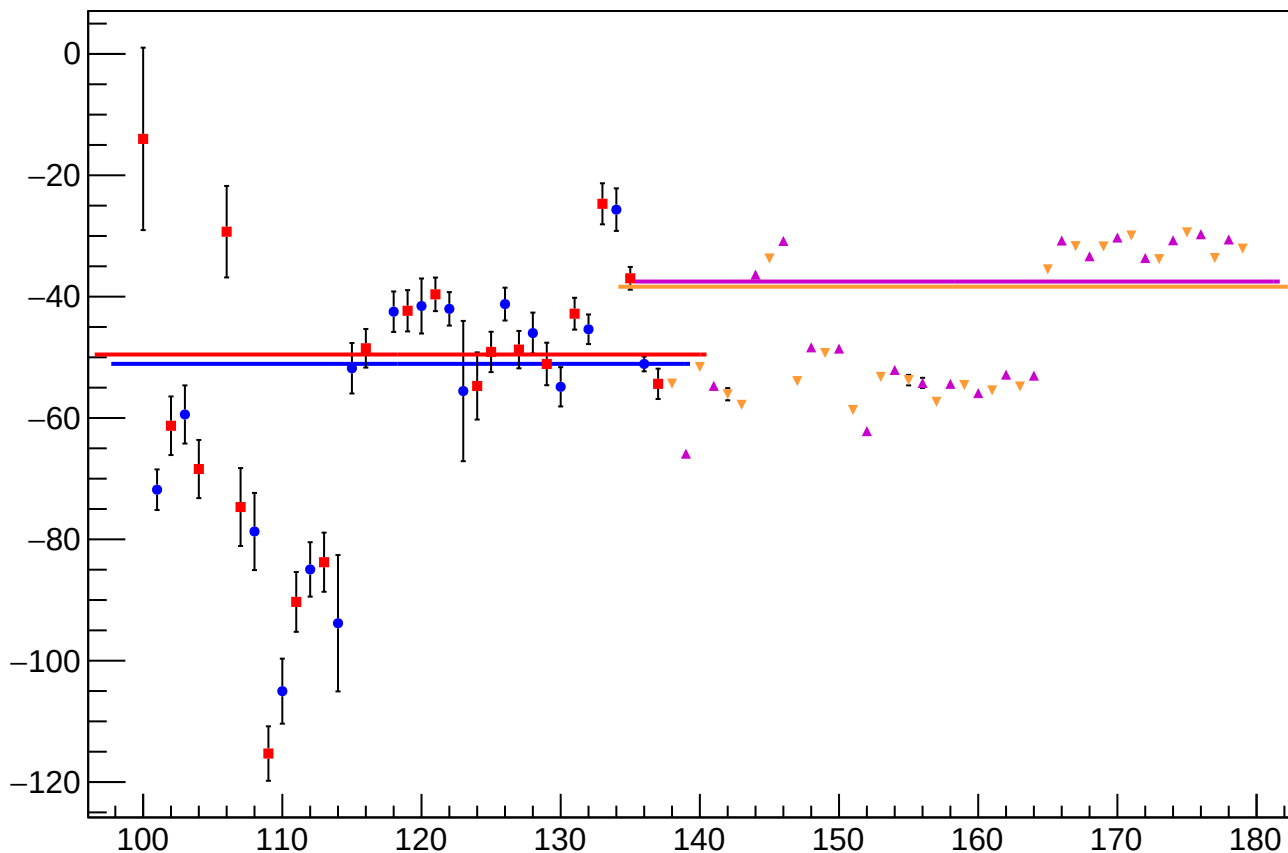
Right:  $6.829 \pm 0.297$   $\chi^2/\text{NDF}: 2858.2/35$

In:  $6.557 \pm 0.081$   $\chi^2/\text{NDF}: 2637.5/36$

Out:  $6.780 \pm 0.080$   $\chi^2/\text{NDF}: 2144.9/40$

All:  $6.669 \pm 0.057$   $\chi^2/\text{NDF}: 4786.2/77$

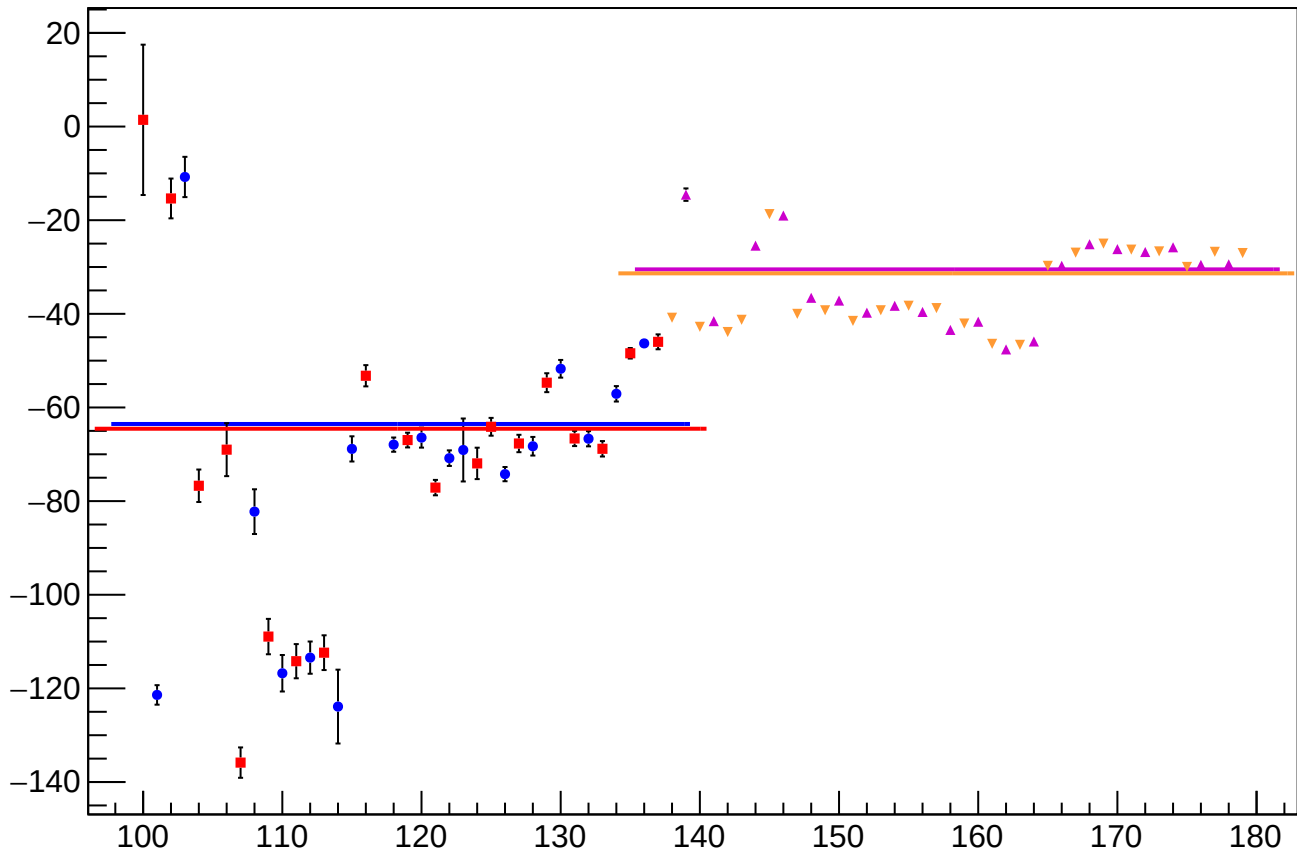
reg\_asym\_sam\_26\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-51.077 \pm 0.741$   $\chi^2/\text{NDF}$ : 330.2/16  
 Left Out:  $-38.365 \pm 0.105$   $\chi^2/\text{NDF}$ : 9508.1/21  
 Right Out:  $-49.537 \pm 0.798$   $\chi^2/\text{NDF}$ : 509.6/18  
 Left In:  $-37.510 \pm 0.106$   $\chi^2/\text{NDF}$ : 9839.7/19

Left:  $-37.942 \pm 0.075$   $\chi^2/\text{NDF}$ : 19380.7/41  
 Right:  $-50.365 \pm 0.543$   $\chi^2/\text{NDF}$ : 841.8/35  
 In:  $-37.782 \pm 0.105$   $\chi^2/\text{NDF}$ : 10498.5/36  
 Out:  $-38.554 \pm 0.104$   $\chi^2/\text{NDF}$ : 10210.2/40  
 All:  $-38.171 \pm 0.074$   $\chi^2/\text{NDF}$ : 20736.0/77

reg\_asym\_sam\_26\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-63.525 \pm 0.449$   $\chi^2/\text{NDF}$ : 2010.9/16

Left Out:  $-31.356 \pm 0.092$   $\chi^2/\text{NDF}$ : 7483.0/21

Right Out:  $-64.540 \pm 0.483$   $\chi^2/\text{NDF}$ : 1603.1/18

Left In:  $-30.507 \pm 0.093$   $\chi^2/\text{NDF}$ : 6868.3/19

Left:  $-30.938 \pm 0.065$   $\chi^2/\text{NDF}$ : 14393.6/41

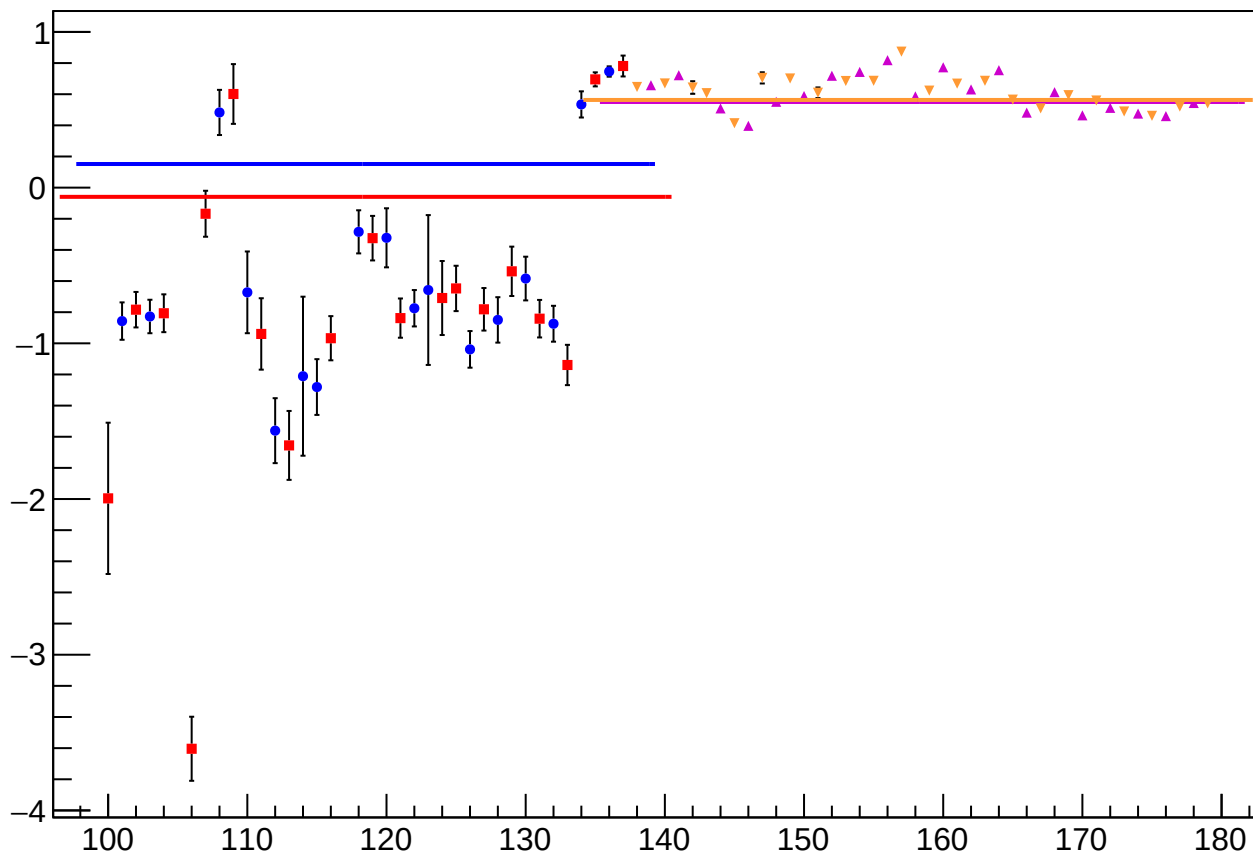
Right:  $-63.995 \pm 0.329$   $\chi^2/\text{NDF}$ : 3616.4/35

In:  $-31.864 \pm 0.091$   $\chi^2/\text{NDF}$ : 14072.4/36

Out:  $-32.506 \pm 0.090$   $\chi^2/\text{NDF}$ : 13643.5/40

All:  $-32.188 \pm 0.064$   $\chi^2/\text{NDF}$ : 27741.1/77

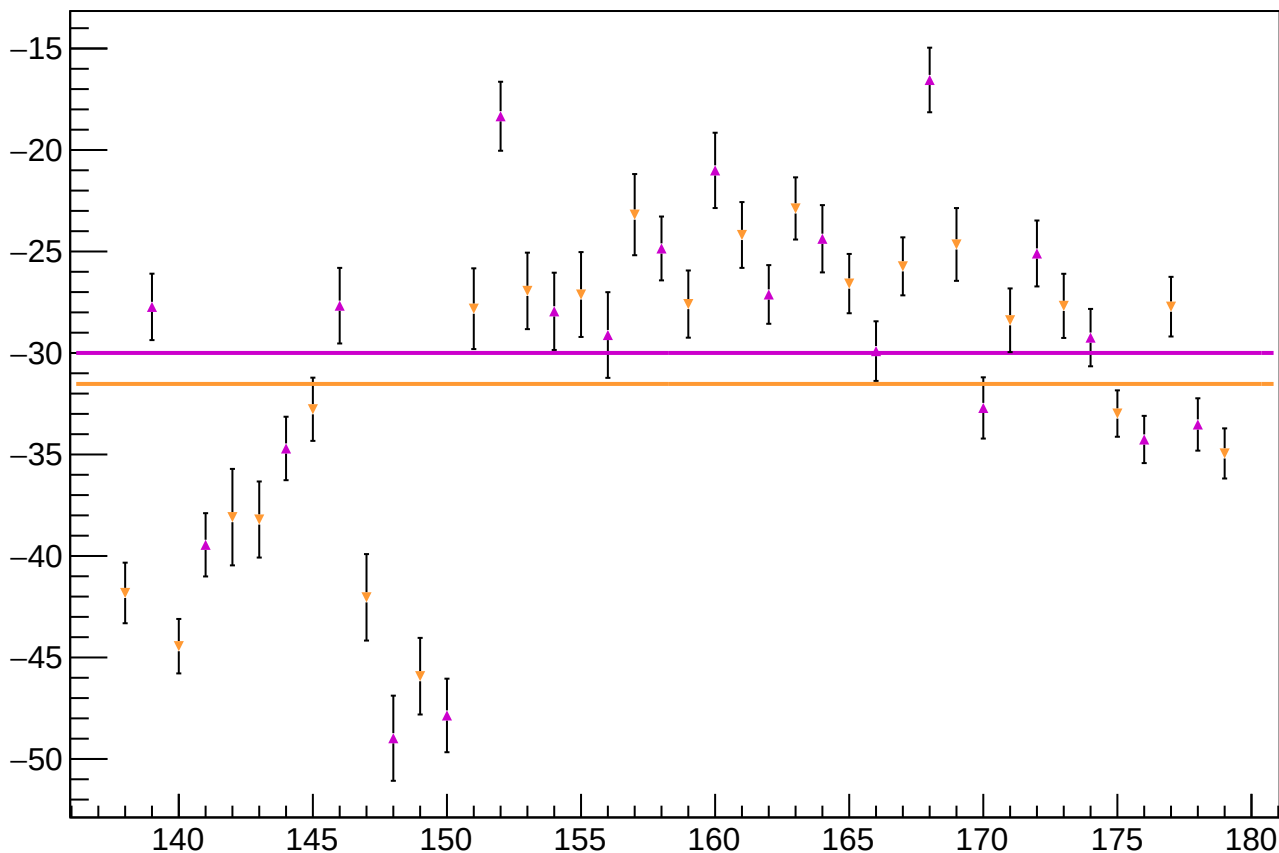
reg\_asym\_sam\_26\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.152 \pm 0.024$   $\chi^2/\text{NDF}: 987.4/16$   
 Left Out:  $0.563 \pm 0.004$   $\chi^2/\text{NDF}: 510.6/21$   
 Right Out:  $-0.059 \pm 0.026$   $\chi^2/\text{NDF}: 1161.9/18$   
 Left In:  $0.550 \pm 0.004$   $\chi^2/\text{NDF}: 630.5/19$

Left:  $0.557 \pm 0.003$   $\chi^2/\text{NDF}: 1145.9/41$   
 Right:  $0.056 \pm 0.018$   $\chi^2/\text{NDF}: 2184.3/35$   
 In:  $0.538 \pm 0.004$   $\chi^2/\text{NDF}: 1884.3/36$   
 Out:  $0.548 \pm 0.004$   $\chi^2/\text{NDF}: 2218.8/40$   
 All:  $0.543 \pm 0.003$   $\chi^2/\text{NDF}: 4105.8/77$

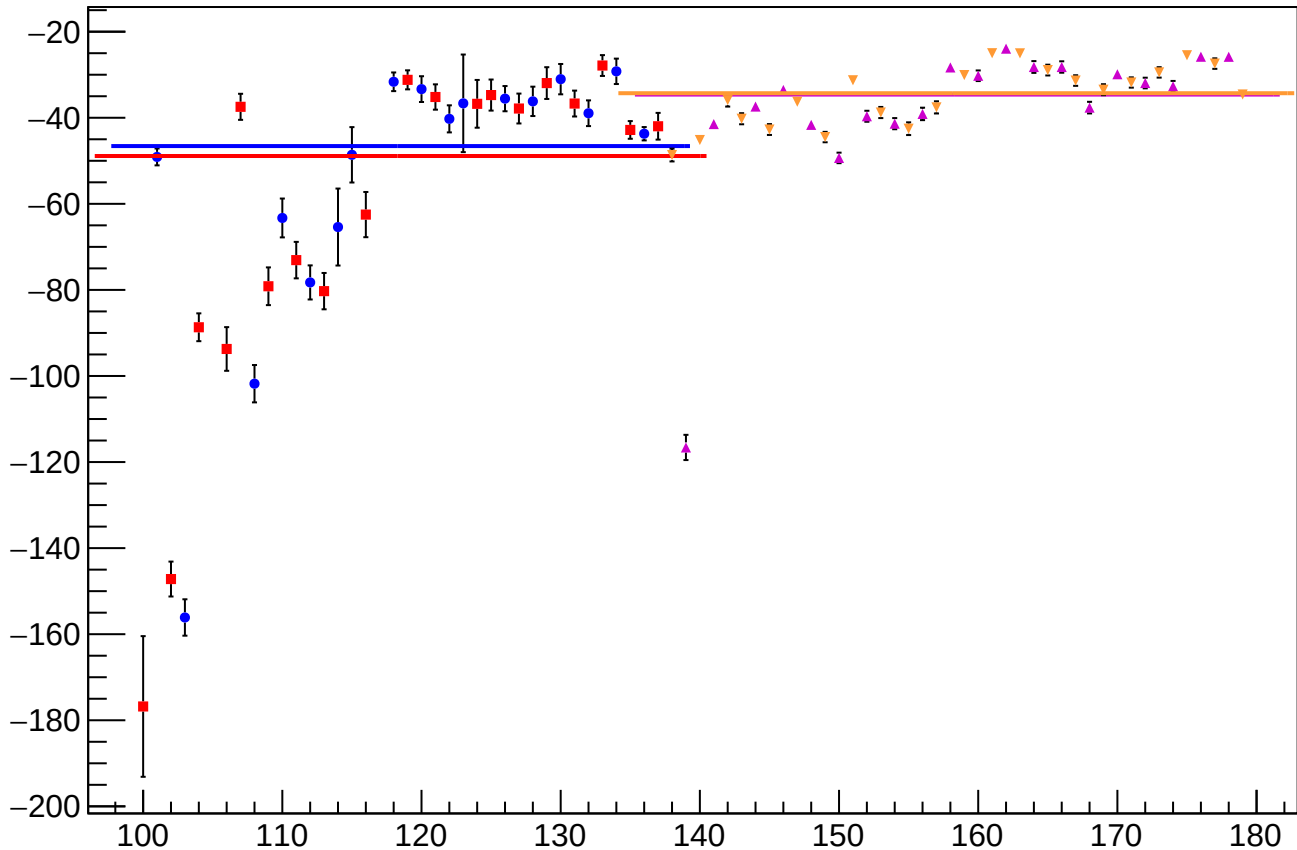
reg\_asym\_sam\_26\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -31.524+/-0.342  $\chi^2$ /NDF:401.6/21  
 Right Out: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -29.997+/-0.355  $\chi^2$ /NDF:431.4/19

Left: -30.789+/-0.247  $\chi^2$ /NDF: 842.6/41  
 Right: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0  
 In: -29.997+/-0.355  $\chi^2$ /NDF:431.4/19  
 Out: -31.524+/-0.342  $\chi^2$ /NDF:401.6/21  
 All: -30.789+/-0.247  $\chi^2$ /NDF: 842.6/41

reg\_asym\_sam\_26\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-46.579 \pm 0.730$   $\chi^2/\text{NDF}: 1076.4/16$

Left Out:  $-34.296 \pm 0.260$   $\chi^2/\text{NDF}: 673.3/21$

Right Out:  $-48.888 \pm 0.763$   $\chi^2/\text{NDF}: 1277.5/18$

Left In:  $-34.612 \pm 0.273$   $\chi^2/\text{NDF}: 1401.6/19$

Left:  $-34.446 \pm 0.189$   $\chi^2/\text{NDF}: 2075.6/41$

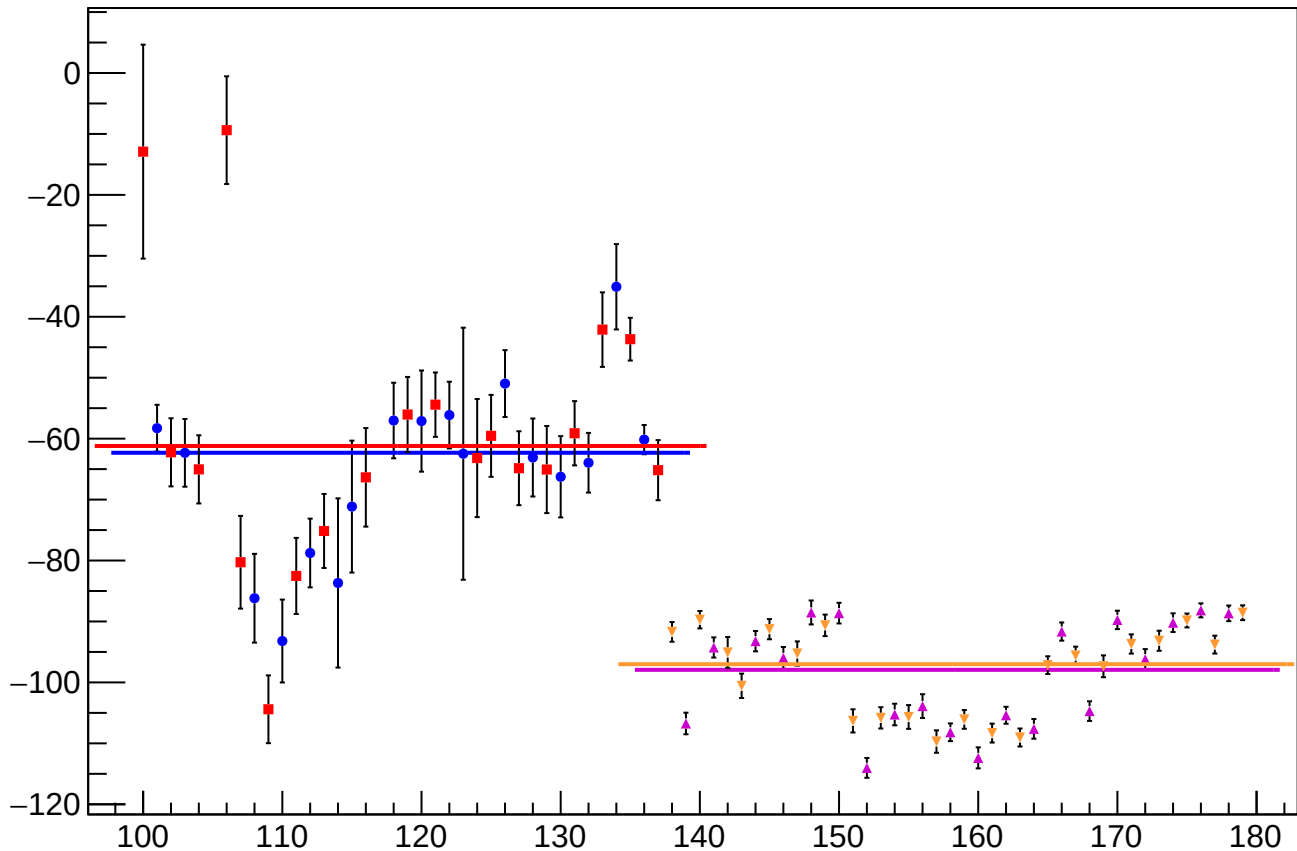
Right:  $-47.681 \pm 0.527$   $\chi^2/\text{NDF}: 2358.7/35$

In:  $-36.084 \pm 0.256$   $\chi^2/\text{NDF}: 2713.9/36$

Out:  $-35.816 \pm 0.246$   $\chi^2/\text{NDF}: 2278.0/40$

All:  $-35.945 \pm 0.178$   $\chi^2/\text{NDF}: 4992.5/77$

reg\_asym\_sam\_26\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected

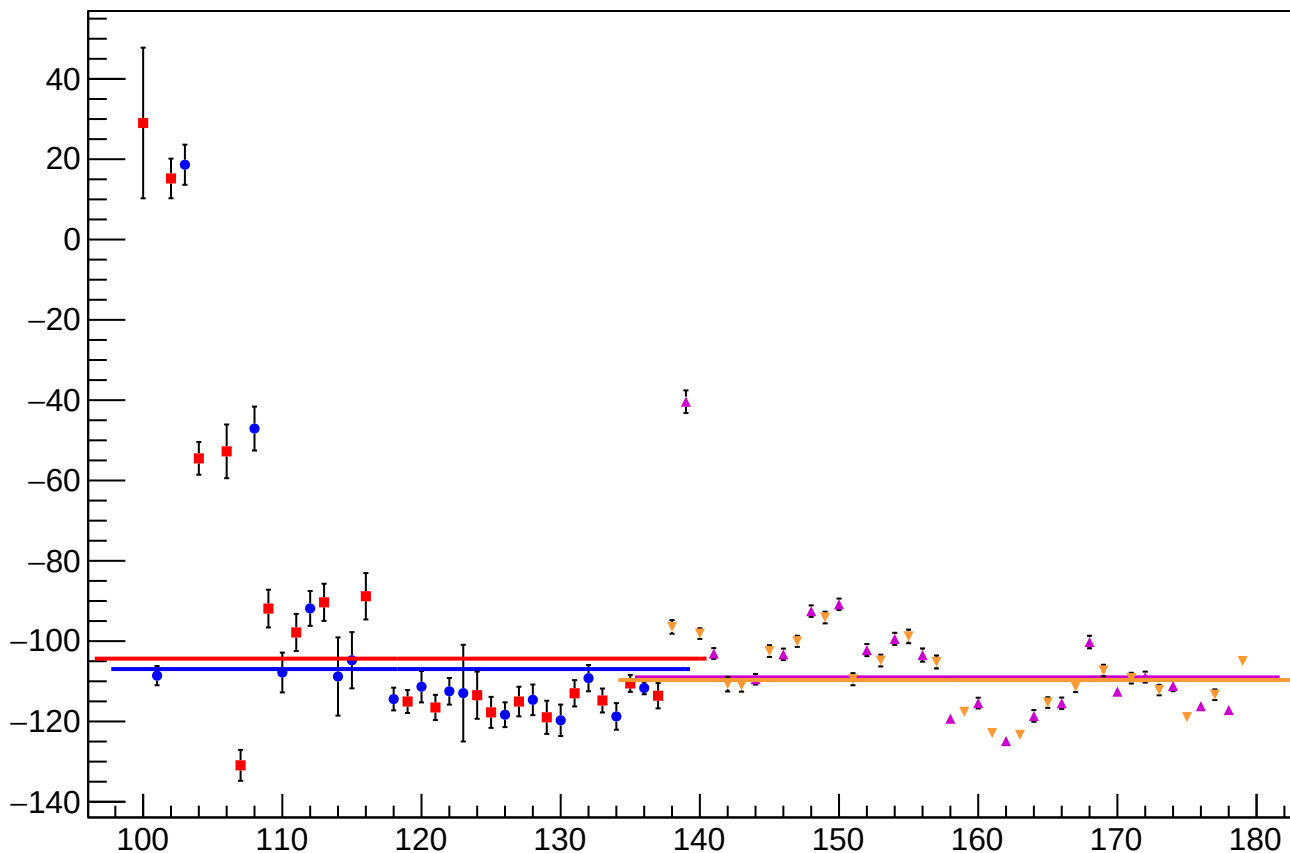


Right In:  $-62.315 \pm 1.316$   $\chi^2/\text{NDF}$ : 67.1/16  
 Left Out:  $-97.009 \pm 0.341$   $\chi^2/\text{NDF}$ : 440.8/21  
 Right Out:  $-61.203 \pm 1.381$   $\chi^2/\text{NDF}$ : 165.0/18  
 Left In:  $-97.937 \pm 0.352$   $\chi^2/\text{NDF}$ : 616.3/19

Left:  $-97.458 \pm 0.245$   $\chi^2/\text{NDF}$ : 1060.7/41  
 Right:  $-61.786 \pm 0.953$   $\chi^2/\text{NDF}$ : 232.5/35  
 In:  $-95.553 \pm 0.340$   $\chi^2/\text{NDF}$ : 1367.5/36  
 Out:  $-94.954 \pm 0.331$   $\chi^2/\text{NDF}$ : 1239.5/40  
 All:  $-95.245 \pm 0.237$   $\chi^2/\text{NDF}$ : 2608.6/77



reg\_asym\_sam\_26\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-106.954 \pm 0.817$   $\chi^2/\text{NDF}: 827.2/16$

Left Out:  $-109.685 \pm 0.295$   $\chi^2/\text{NDF}: 782.0/21$

Right Out:  $-104.356 \pm 0.861$   $\chi^2/\text{NDF}: 1021.0/18$

Left In:  $-109.013 \pm 0.308$   $\chi^2/\text{NDF}: 1464.6/19$

Left:  $-109.363 \pm 0.213$   $\chi^2/\text{NDF}: 2249.2/41$

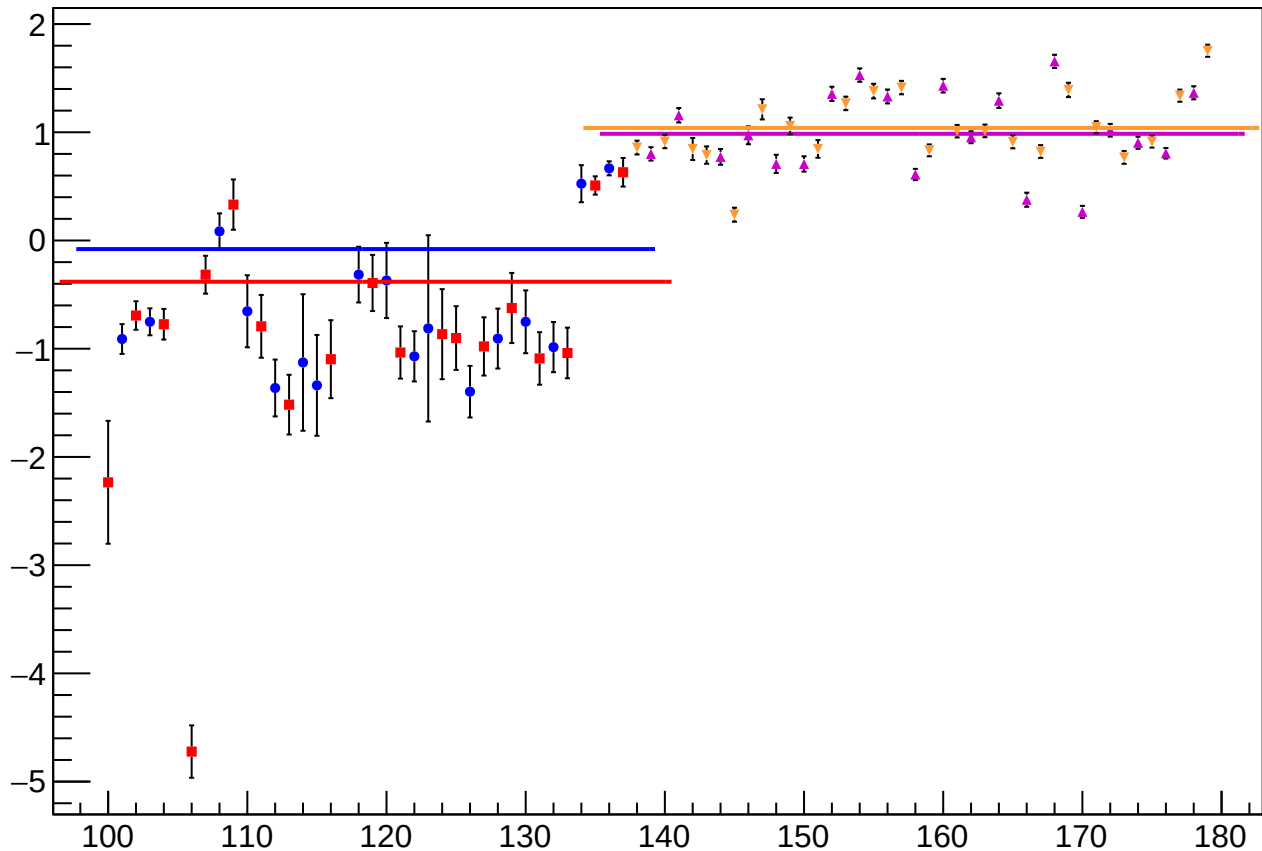
Right:  $-105.723 \pm 0.593$   $\chi^2/\text{NDF}: 1853.0/35$

In:  $-108.757 \pm 0.288$   $\chi^2/\text{NDF}: 2297.4/36$

Out:  $-109.126 \pm 0.279$   $\chi^2/\text{NDF}: 1837.3/40$

All:  $-108.947 \pm 0.200$   $\chi^2/\text{NDF}: 4135.6/77$

reg\_asym\_sam\_26\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.079 \pm 0.042$   $\chi^2/\text{NDF}$ : 328.5/16

Left Out:  $1.040 \pm 0.014$   $\chi^2/\text{NDF}$ : 538.5/21

Right Out:  $-0.381 \pm 0.044$   $\chi^2/\text{NDF}$ : 580.5/18

Left In:  $0.986 \pm 0.014$   $\chi^2/\text{NDF}$ : 741.9/19

Left:  $1.013 \pm 0.010$   $\chi^2/\text{NDF}$ : 1288.2/41

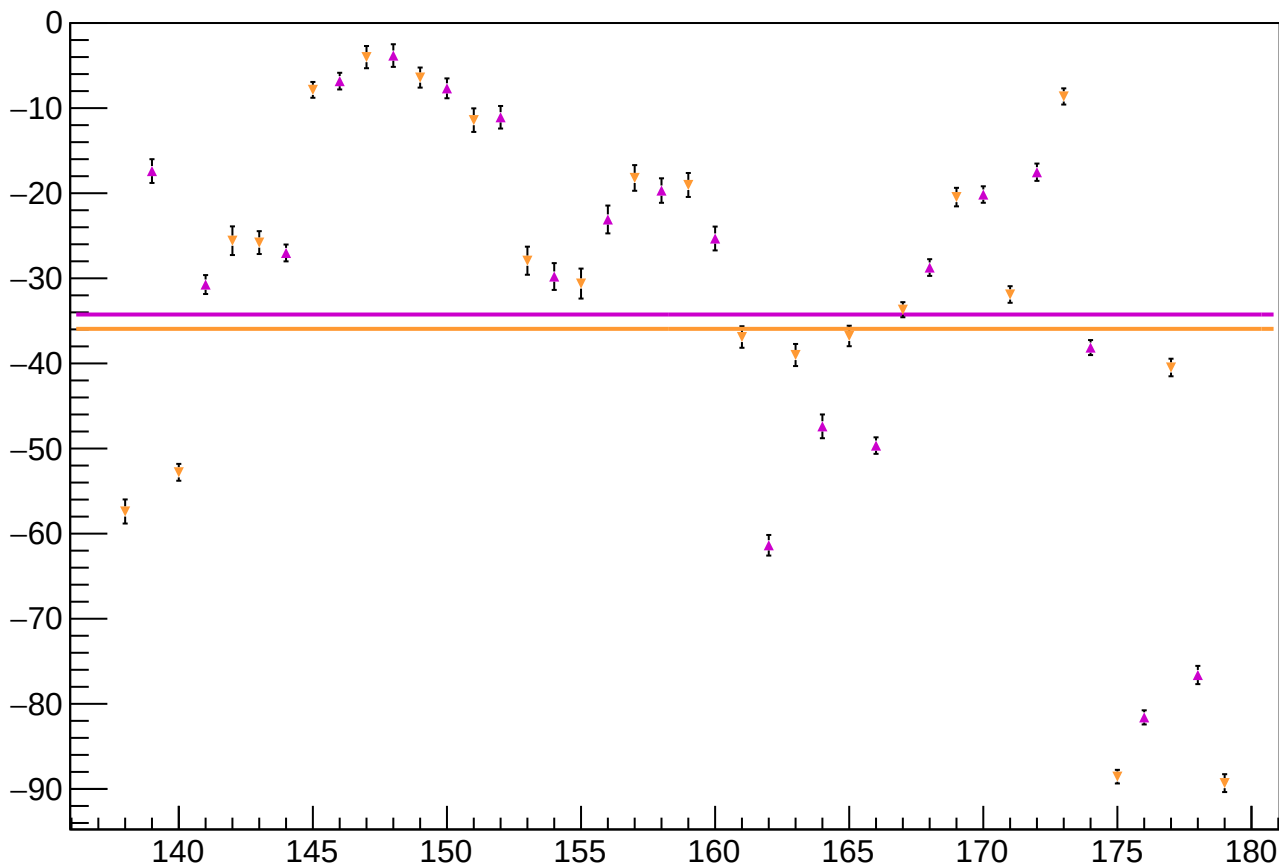
Right:  $-0.224 \pm 0.030$   $\chi^2/\text{NDF}$ : 933.5/35

In:  $0.882 \pm 0.013$   $\chi^2/\text{NDF}$ : 1643.7/36

Out:  $0.916 \pm 0.013$   $\chi^2/\text{NDF}$ : 2071.0/40

All:  $0.900 \pm 0.009$   $\chi^2/\text{NDF}$ : 3718.1/77

reg\_asym\_sam\_48\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -35.937+/-0.245  $\chi^2/\text{NDF}$ :11365.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -34.253+/-0.250  $\chi^2/\text{NDF}$ :8715.7/19

Left: -35.112+/-0.175  $\chi^2/\text{NDF}$ : 20104.2/41

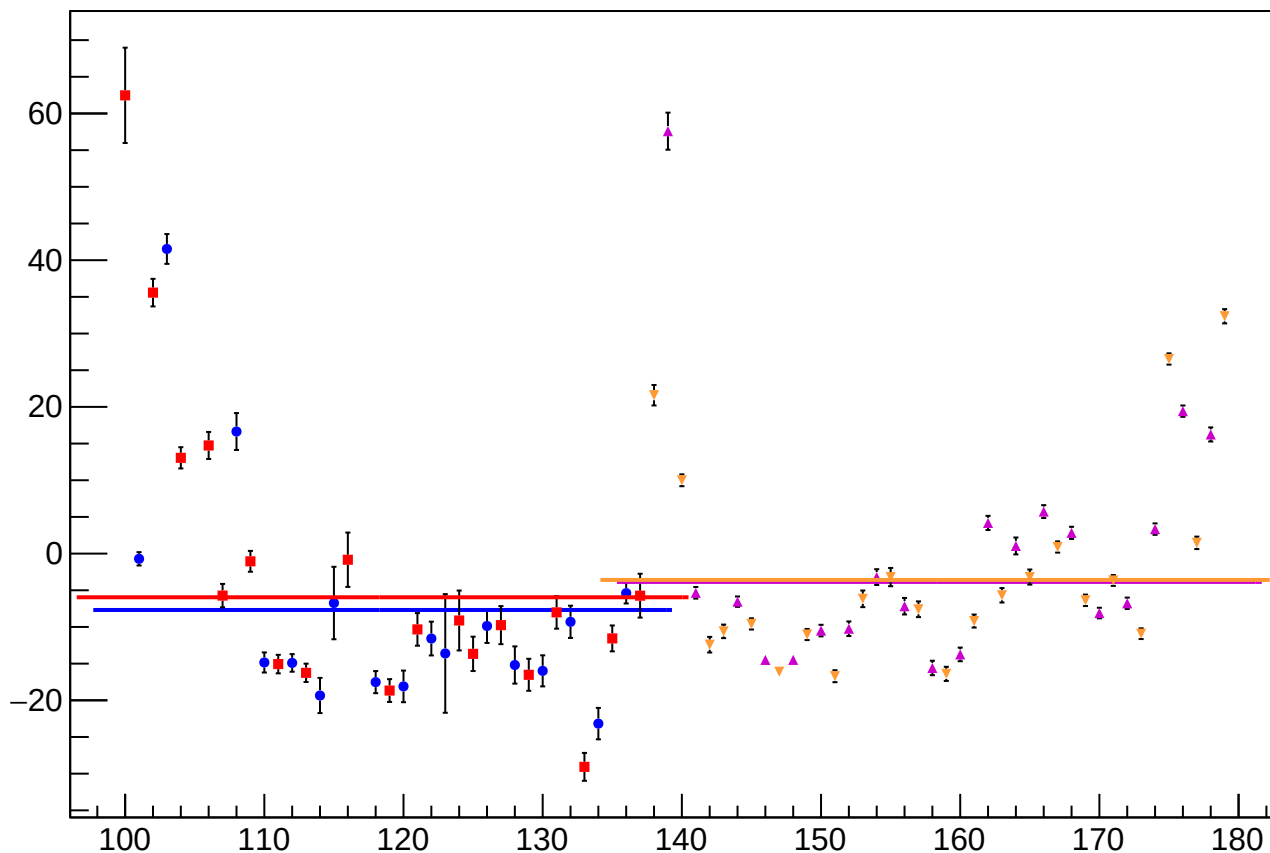
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -34.253+/-0.250  $\chi^2/\text{NDF}$ :8715.7/19

Out: -35.937+/-0.245  $\chi^2/\text{NDF}$ :11365.4/21

All: -35.112+/-0.175  $\chi^2/\text{NDF}$ : 20104.2/41

reg\_asym\_sam\_48\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-7.686 \pm 0.430$   $\chi^2/\text{NDF}$ : 975.9/16

Left Out:  $-3.589 \pm 0.184$   $\chi^2/\text{NDF}$ : 4885.9/21

Right Out:  $-5.953 \pm 0.429$   $\chi^2/\text{NDF}$ : 1298.1/18

Left In:  $-3.859 \pm 0.190$   $\chi^2/\text{NDF}$ : 3301.3/19

Left:  $-3.720 \pm 0.132$   $\chi^2/\text{NDF}$ : 8188.3/41

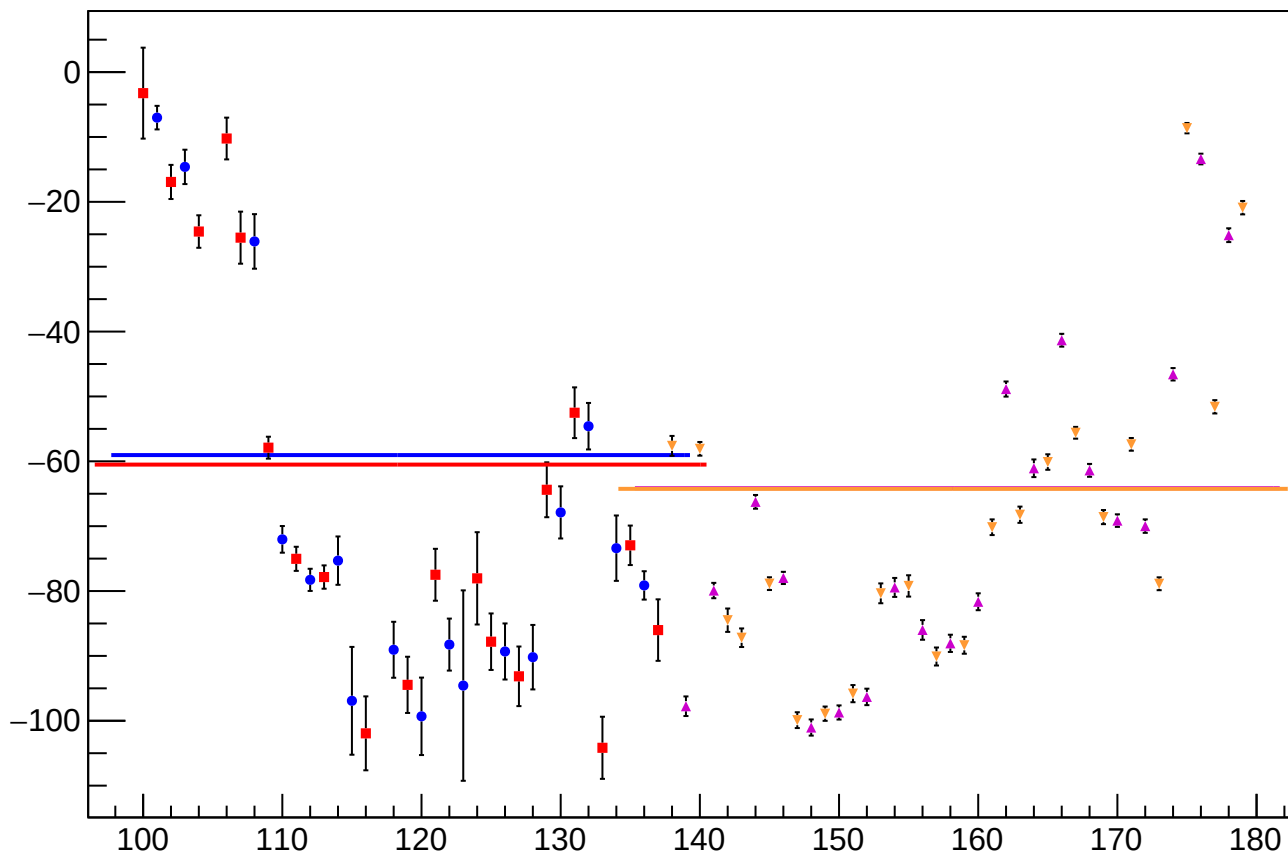
Right:  $-6.817 \pm 0.304$   $\chi^2/\text{NDF}$ : 2282.2/35

In:  $-4.483 \pm 0.174$   $\chi^2/\text{NDF}$ : 4343.6/36

Out:  $-3.957 \pm 0.169$   $\chi^2/\text{NDF}$ : 6209.6/40

All:  $-4.214 \pm 0.121$   $\chi^2/\text{NDF}$ : 10557.9/77

reg\_asym\_sam\_48\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-59.039 \pm 0.746$   $\chi^2/\text{NDF}$ : 1709.5/16

Left Out:  $-64.245 \pm 0.245$   $\chi^2/\text{NDF}$ : 11100.7/21

Right Out:  $-60.507 \pm 0.704$   $\chi^2/\text{NDF}$ : 1384.8/18

Left In:  $-64.146 \pm 0.249$   $\chi^2/\text{NDF}$ : 10492.4/19

Left:  $-64.196 \pm 0.175$   $\chi^2/\text{NDF}$ : 21593.2/41

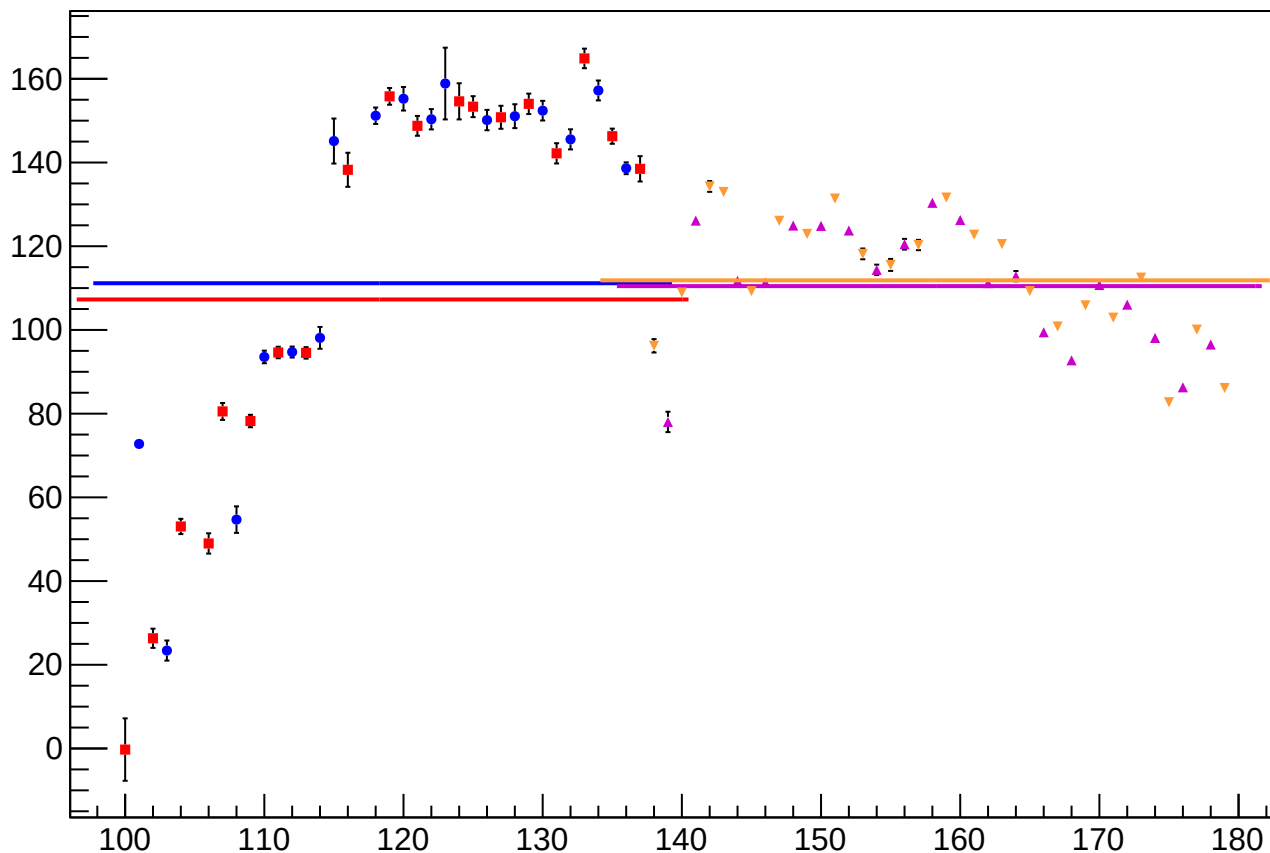
Right:  $-59.815 \pm 0.512$   $\chi^2/\text{NDF}$ : 3096.4/35

In:  $-63.632 \pm 0.236$   $\chi^2/\text{NDF}$ : 12244.1/36

Out:  $-63.842 \pm 0.231$   $\chi^2/\text{NDF}$ : 12510.6/40

All:  $-63.739 \pm 0.165$   $\chi^2/\text{NDF}$ : 24755.2/77

reg\_asym\_sam\_48\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $111.160 \pm 0.489$   $\chi^2/\text{NDF}: 5877.6/16$

Left Out:  $111.852 \pm 0.210$   $\chi^2/\text{NDF}: 4599.8/21$

Right Out:  $107.283 \pm 0.488$   $\chi^2/\text{NDF}: 7055.1/18$

Left In:  $110.470 \pm 0.216$   $\chi^2/\text{NDF}: 3533.8/19$

Left:  $111.180 \pm 0.151$   $\chi^2/\text{NDF}: 8154.7/41$

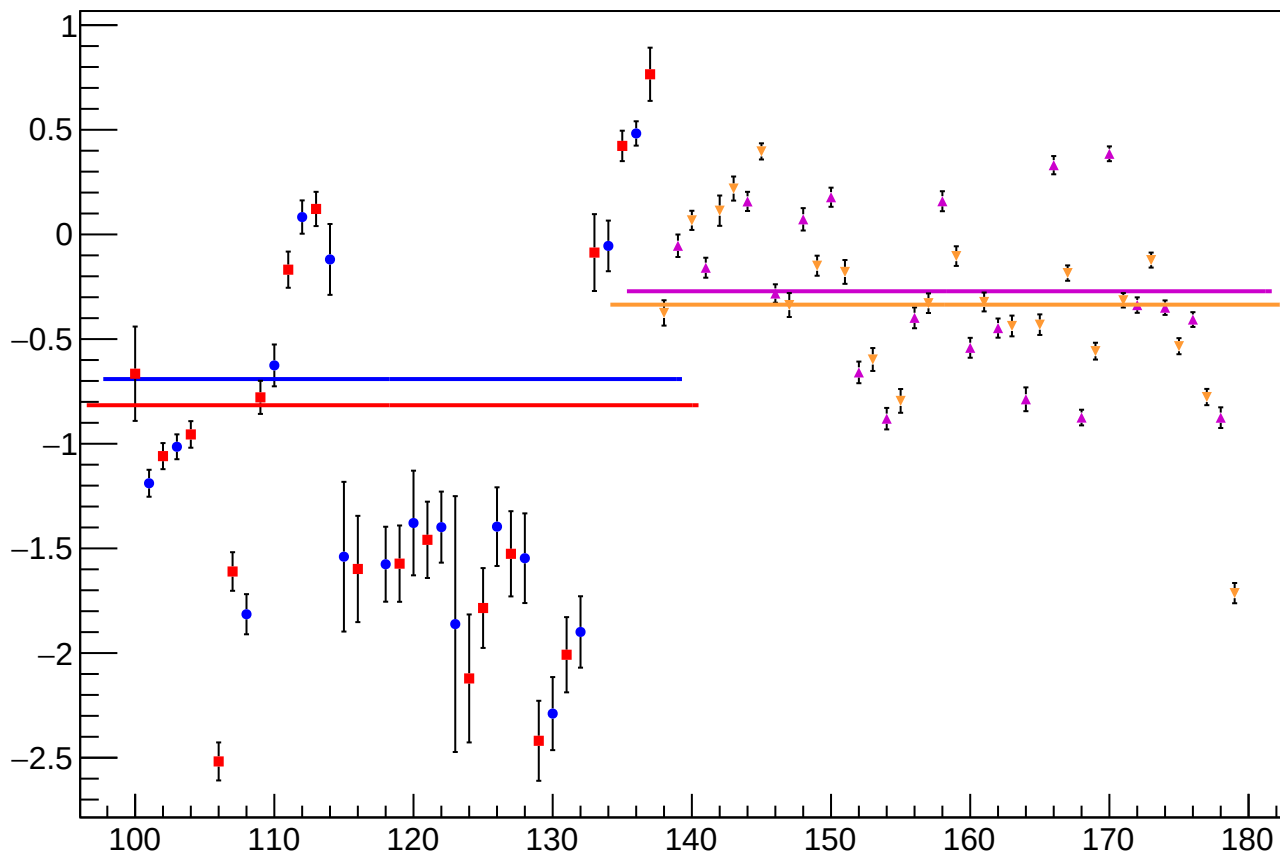
Right:  $109.217 \pm 0.345$   $\chi^2/\text{NDF}: 12964.2/35$

In:  $110.582 \pm 0.198$   $\chi^2/\text{NDF}: 9413.1/36$

Out:  $111.137 \pm 0.193$   $\chi^2/\text{NDF}: 11728.9/40$

All:  $110.866 \pm 0.138$   $\chi^2/\text{NDF}: 21146.0/77$

reg\_asym\_sam\_48\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.691 \pm 0.026$   $\chi^2/\text{NDF}$ : 990.9/16

Left Out:  $-0.335 \pm 0.010$   $\chi^2/\text{NDF}$ : 1762.4/21

Right Out:  $-0.816 \pm 0.024$   $\chi^2/\text{NDF}$ : 1304.4/18

Left In:  $-0.271 \pm 0.010$   $\chi^2/\text{NDF}$ : 1630.7/19

Left:  $-0.304 \pm 0.007$   $\chi^2/\text{NDF}$ : 3414.5/41

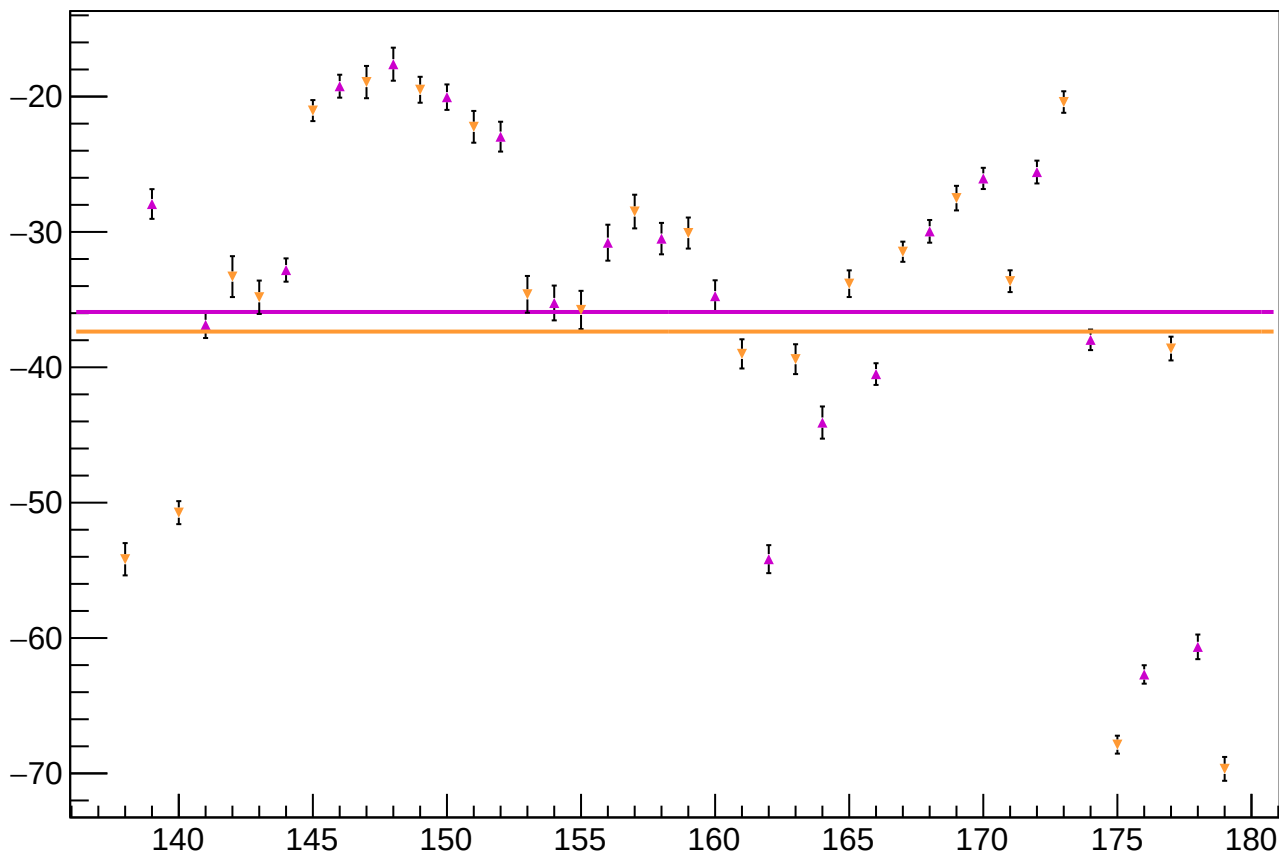
Right:  $-0.757 \pm 0.018$   $\chi^2/\text{NDF}$ : 2307.7/35

In:  $-0.325 \pm 0.009$   $\chi^2/\text{NDF}$ : 2851.9/36

Out:  $-0.401 \pm 0.009$   $\chi^2/\text{NDF}$ : 3402.3/40

All:  $-0.364 \pm 0.006$   $\chi^2/\text{NDF}$ : 6289.3/77

reg\_asym\_sam\_48\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected

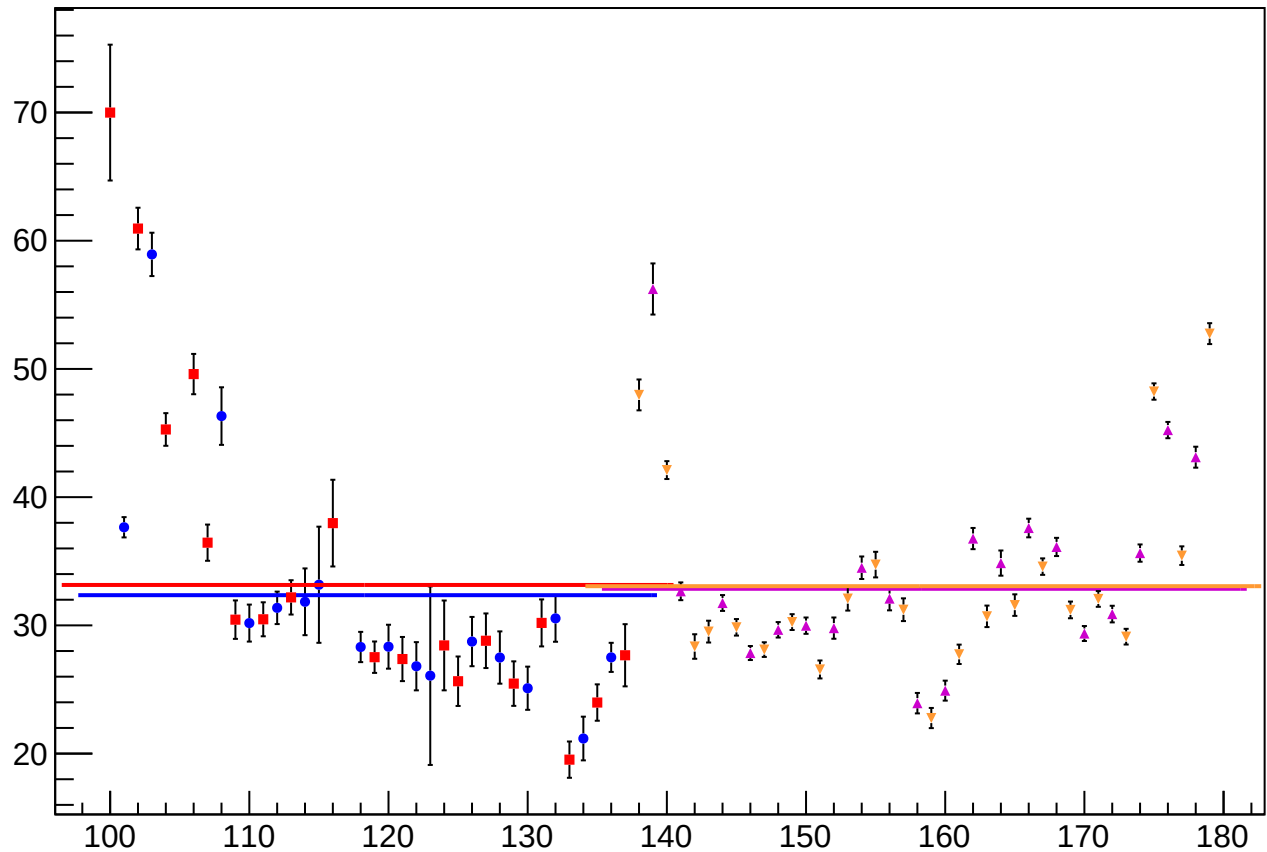


Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -37.361+/-0.206  $\chi^2/\text{NDF}$ :5892.9/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -35.914+/-0.210  $\chi^2/\text{NDF}$ :4183.7/19

Left: -36.651+/-0.147  $\chi^2/\text{NDF}$ : 10100.7/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -35.914+/-0.210  $\chi^2/\text{NDF}$ :4183.7/19  
 Out: -37.361+/-0.206  $\chi^2/\text{NDF}$ :5892.9/21  
 All: -36.651+/-0.147  $\chi^2/\text{NDF}$ : 10100.7/41



reg\_asym\_sam\_48\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 32.355+/-0.375  $\chi^2/\text{NDF}$ : 450.5/16

Left Out: 33.056+/-0.156  $\chi^2/\text{NDF}$ : 2028.7/21

Right Out: 33.152+/-0.379  $\chi^2/\text{NDF}$ : 772.0/18

Left In: 32.853+/-0.161  $\chi^2/\text{NDF}$ : 1210.2/19

Left: 32.958+/-0.112  $\chi^2/\text{NDF}$ : 3239.7/41

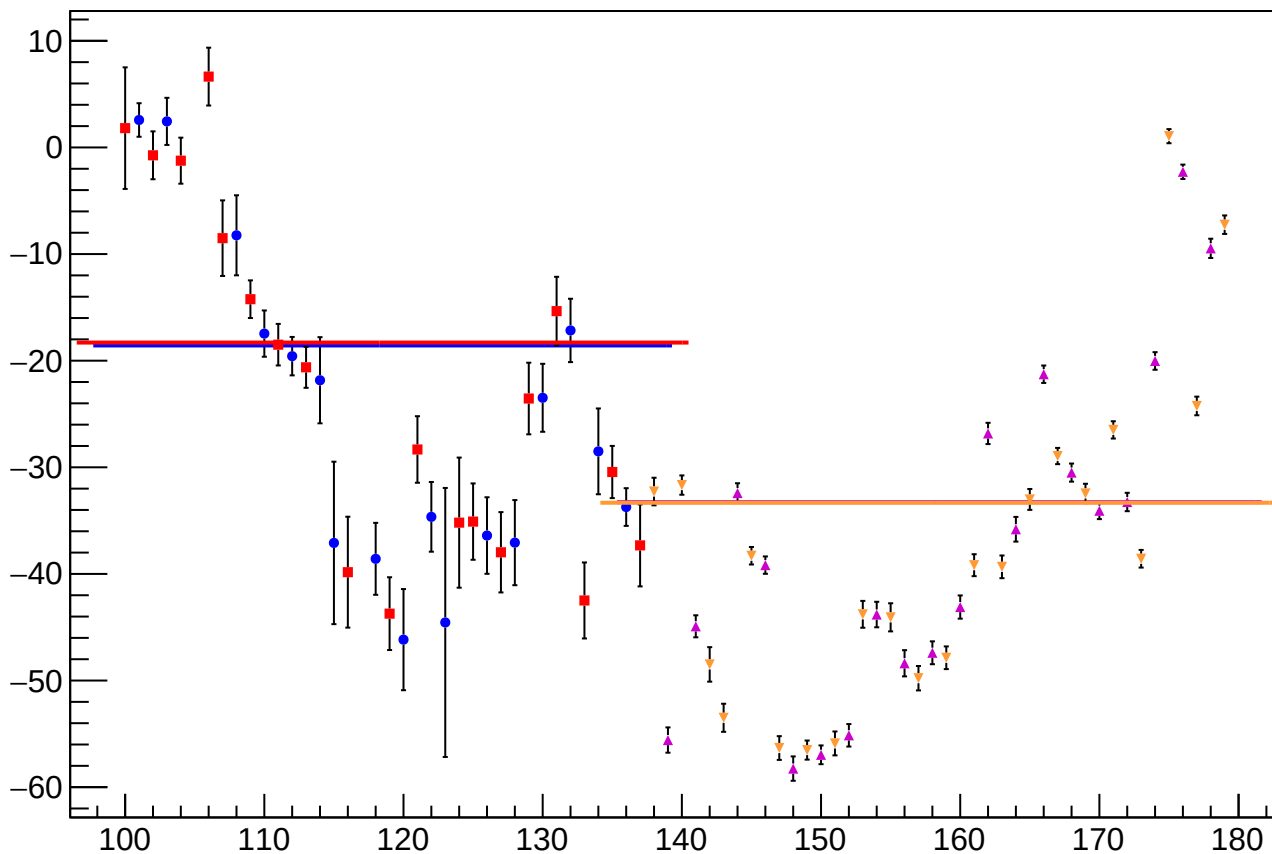
Right: 32.750+/-0.267  $\chi^2/\text{NDF}$ : 1224.7/35

In: 32.776+/-0.148  $\chi^2/\text{NDF}$ : 1662.2/36

Out: 33.070+/-0.144  $\chi^2/\text{NDF}$ : 2800.7/40

All: 32.927+/-0.103  $\chi^2/\text{NDF}$ : 4464.9/77

reg\_asym\_sam\_48\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-18.572 \pm 0.667$   $\chi^2/\text{NDF}: 511.5/16$

Left Out:  $-33.323 \pm 0.206$   $\chi^2/\text{NDF}: 6311.7/21$

Right Out:  $-18.300 \pm 0.644$   $\chi^2/\text{NDF}: 473.4/18$

Left In:  $-33.268 \pm 0.209$   $\chi^2/\text{NDF}: 5990.7/19$

Left:  $-33.296 \pm 0.147$   $\chi^2/\text{NDF}: 12302.4/41$

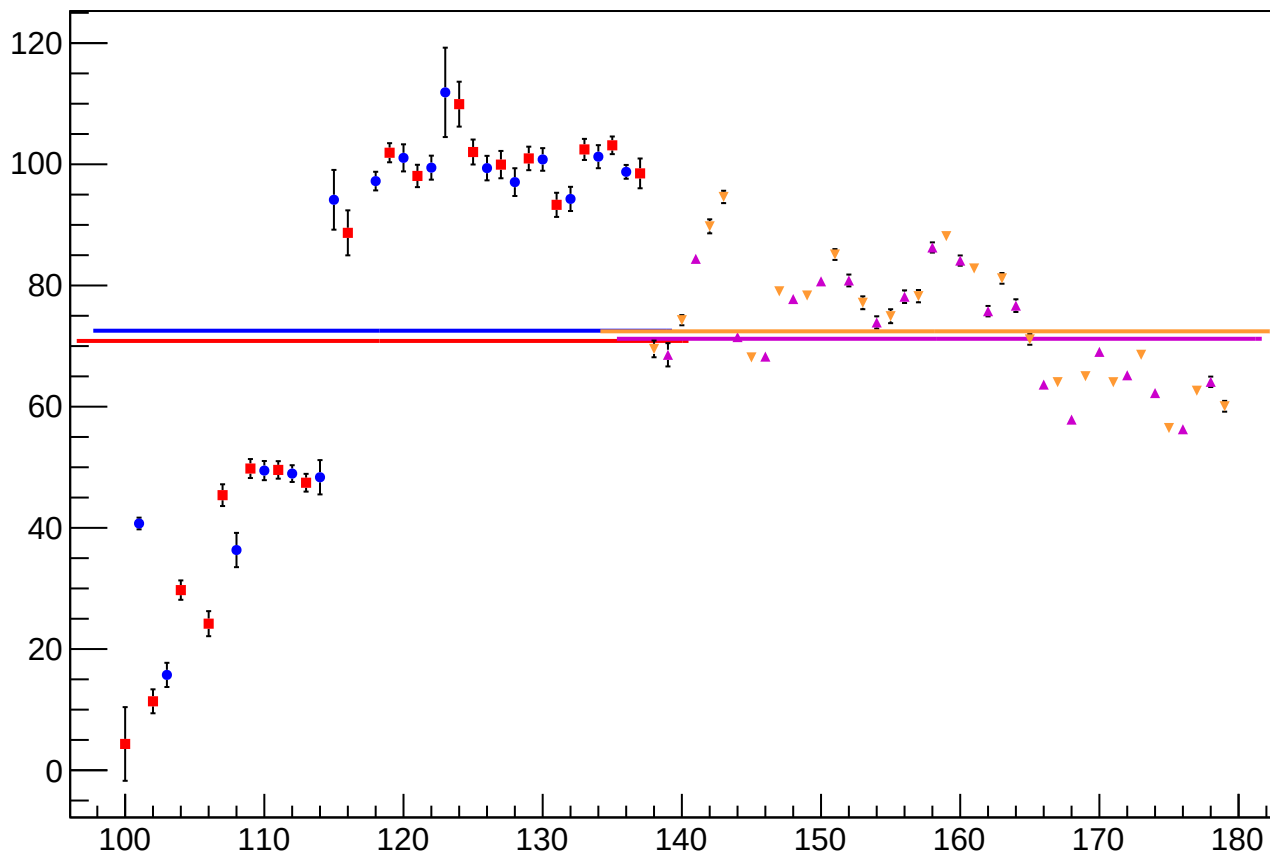
Right:  $-18.431 \pm 0.463$   $\chi^2/\text{NDF}: 984.9/35$

In:  $-31.955 \pm 0.200$   $\chi^2/\text{NDF}: 6943.6/36$

Out:  $-31.933 \pm 0.196$   $\chi^2/\text{NDF}: 7279.2/40$

All:  $-31.944 \pm 0.140$   $\chi^2/\text{NDF}: 14222.8/77$

reg\_asym\_sam\_48\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 72.537 $\pm$ 0.428  $\chi^2$ /NDF: 4684.1/16

Left Out: 72.436 $\pm$ 0.177  $\chi^2$ /NDF:3104.5/21

Right Out: 70.849 $\pm$ 0.433  $\chi^2$ /NDF: 5500.2/18

Left In: 71.204 $\pm$ 0.182  $\chi^2$ /NDF:2402.7/19

Left: 71.837 $\pm$ 0.127  $\chi^2$ /NDF: 5530.7/41

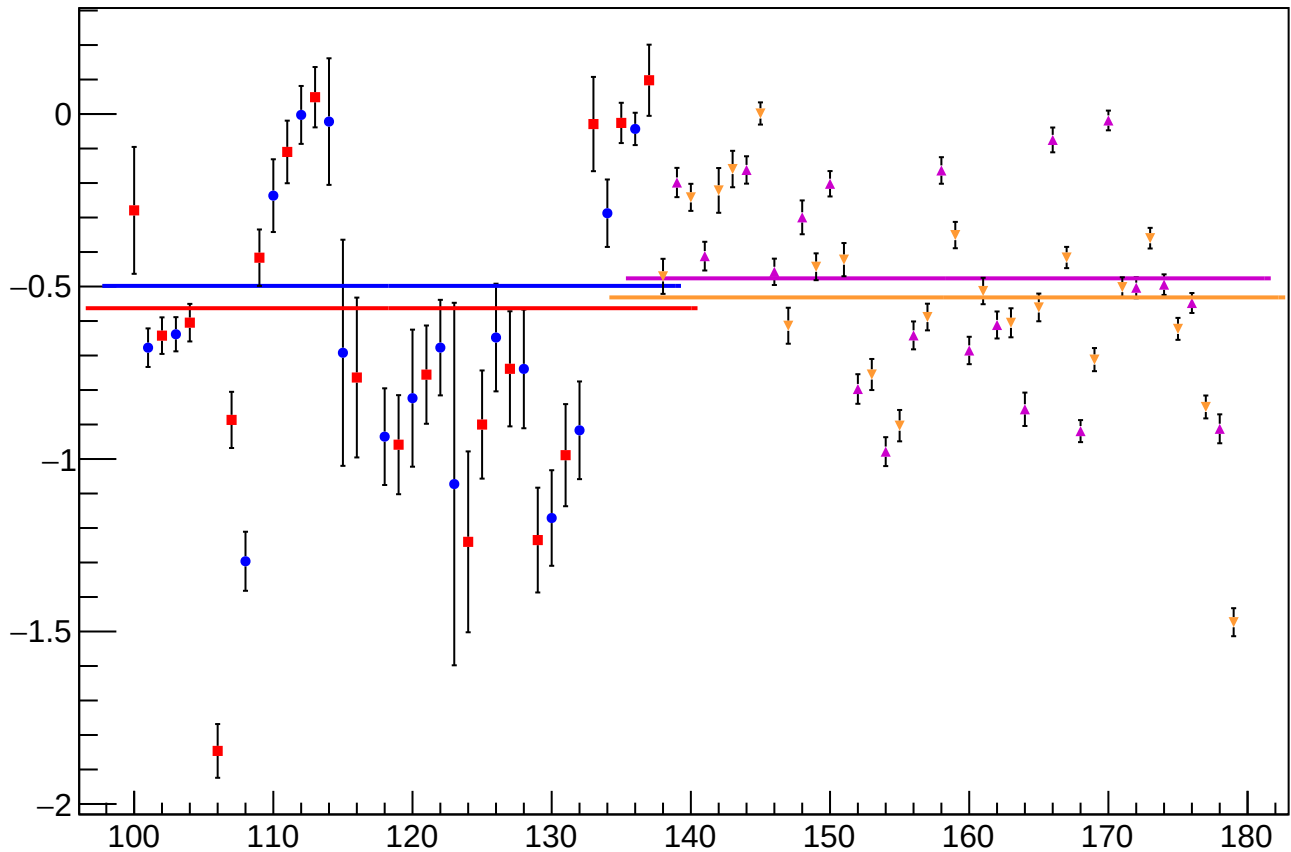
Right: 71.702 $\pm$ 0.305  $\chi^2$ /NDF: 10192.0/35

In: 71.408 $\pm$ 0.168  $\chi^2$ /NDF:7095.0/36

Out: 72.208 $\pm$ 0.164  $\chi^2$ /NDF:8616.2/40

All: 71.817 $\pm$ 0.117  $\chi^2$ /NDF: 15722.9/77

reg\_asym\_sam\_48\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.498 \pm 0.022$   $\chi^2/\text{NDF}$ : 302.8/16

Left Out:  $-0.532 \pm 0.008$   $\chi^2/\text{NDF}$ : 1250.4/21

Right Out:  $-0.563 \pm 0.021$   $\chi^2/\text{NDF}$ : 560.8/18

Left In:  $-0.476 \pm 0.008$   $\chi^2/\text{NDF}$ : 1248.4/19

Left:  $-0.504 \pm 0.006$   $\chi^2/\text{NDF}$ : 2521.5/41

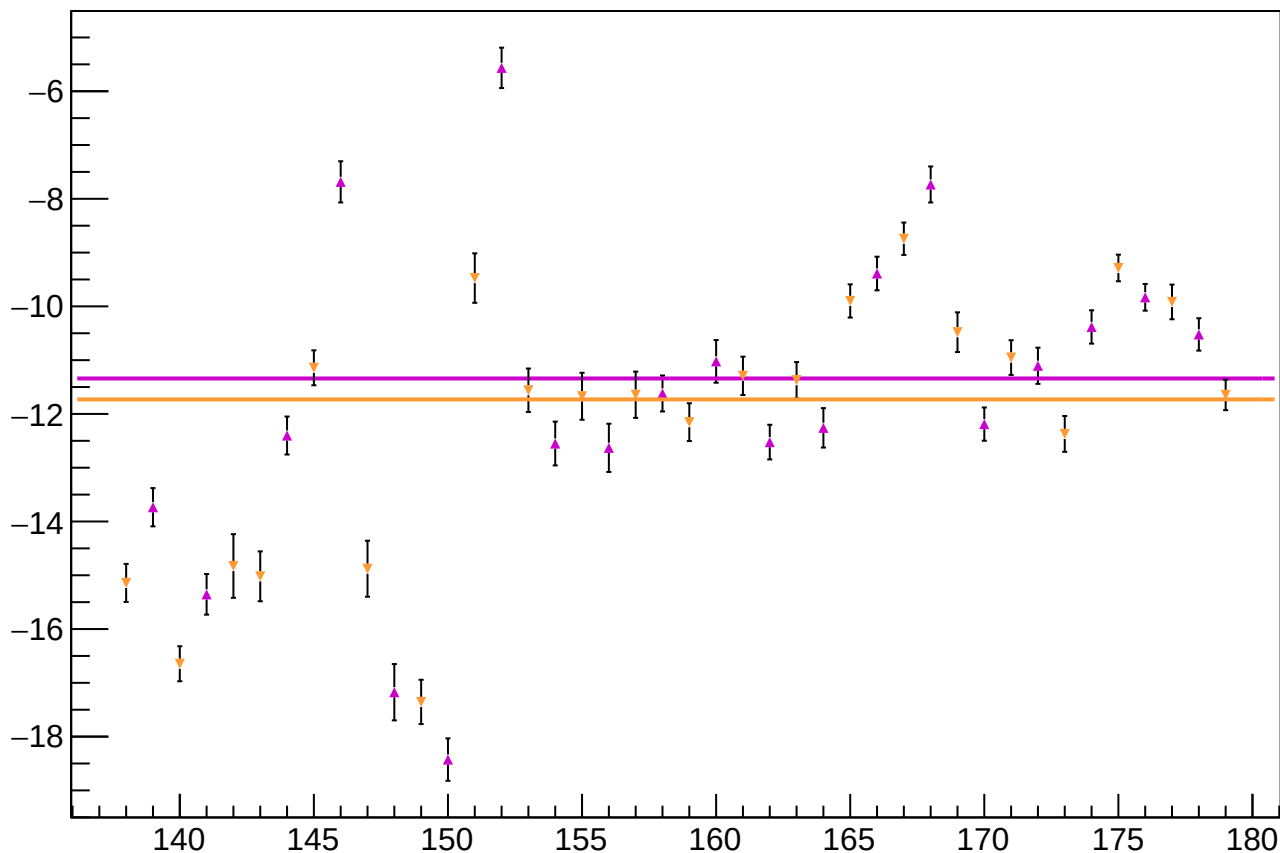
Right:  $-0.532 \pm 0.015$   $\chi^2/\text{NDF}$ : 867.9/35

In:  $-0.479 \pm 0.008$   $\chi^2/\text{NDF}$ : 1552.0/36

Out:  $-0.536 \pm 0.008$   $\chi^2/\text{NDF}$ : 1813.1/40

All:  $-0.508 \pm 0.005$   $\chi^2/\text{NDF}$ : 3392.2/77

reg\_asym\_sam\_13\_57\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -11.730+/-0.075  $\chi^2/\text{NDF}$ : 937.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -11.341+/-0.078  $\chi^2/\text{NDF}$ : 1196.5/19

Left: -11.541+/-0.054  $\chi^2/\text{NDF}$ : 2146.8/41

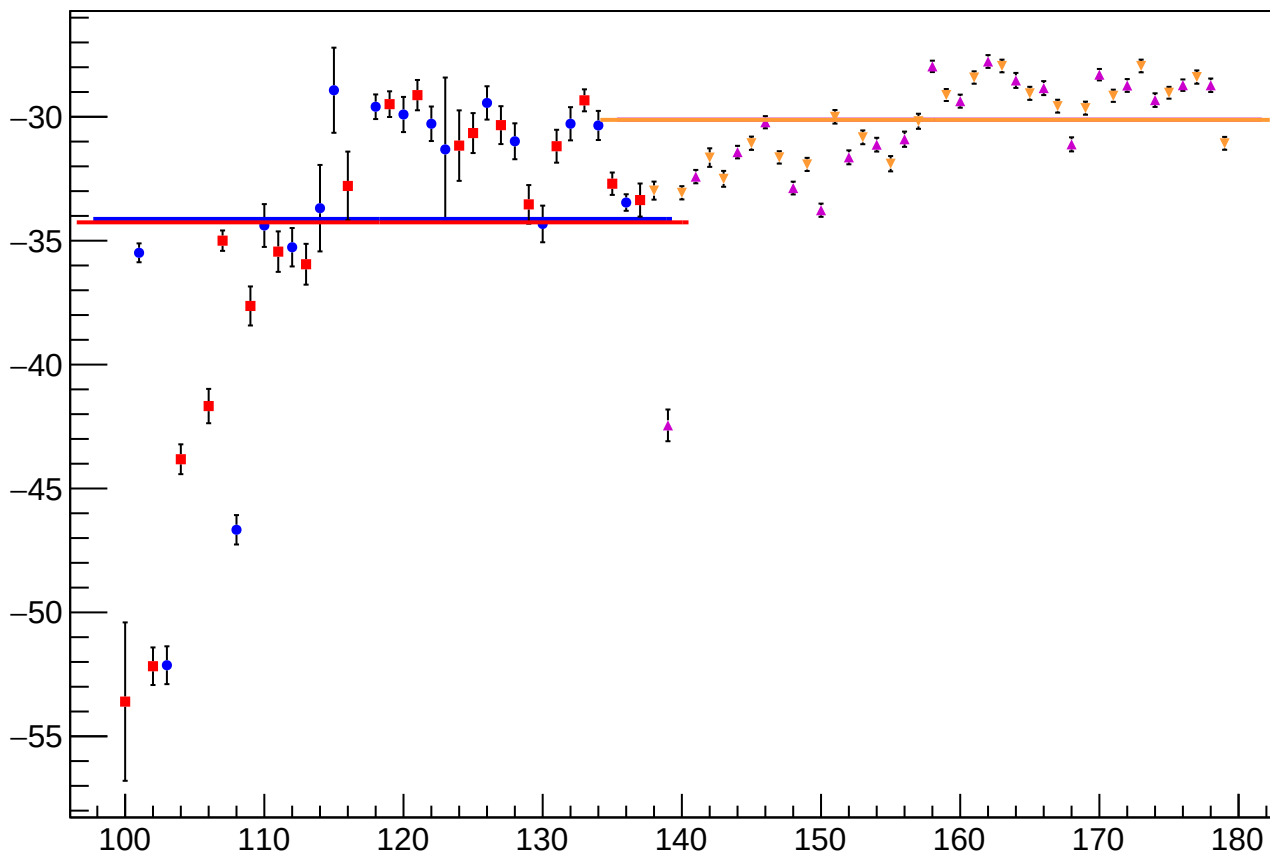
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -11.341+/-0.078  $\chi^2/\text{NDF}$ : 1196.5/19

Out: -11.730+/-0.075  $\chi^2/\text{NDF}$ : 937.3/21

All: -11.541+/-0.054  $\chi^2/\text{NDF}$ : 2146.8/41

reg\_asym\_sam\_13\_57\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-34.122 \pm 0.152$   $\chi^2/\text{NDF}$ : 1322.4/16

Left Out:  $-30.124 \pm 0.058$   $\chi^2/\text{NDF}$ : 711.7/21

Right Out:  $-34.260 \pm 0.151$   $\chi^2/\text{NDF}$ : 1354.9/18

Left In:  $-30.115 \pm 0.060$   $\chi^2/\text{NDF}$ : 1218.8/19

Left:  $-30.120 \pm 0.042$   $\chi^2/\text{NDF}$ : 1930.5/41

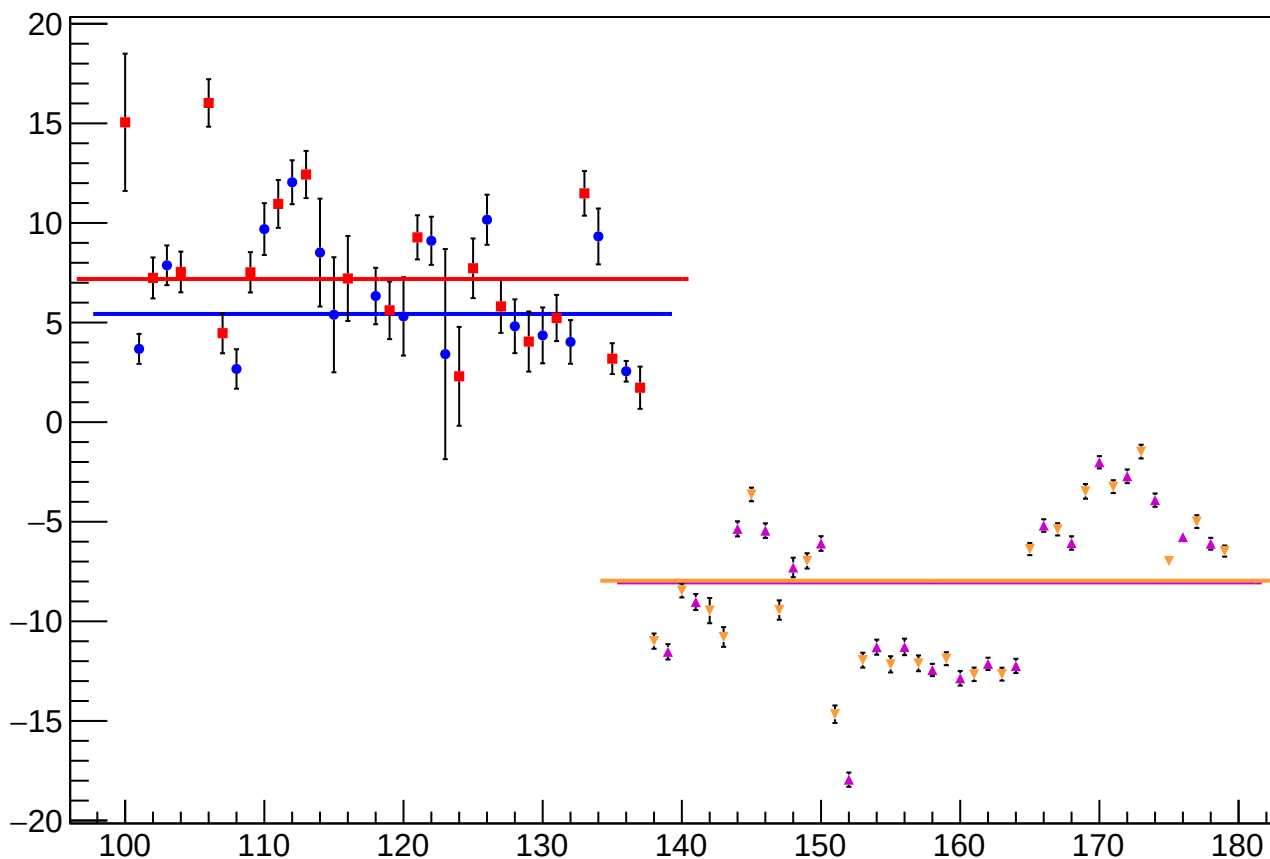
Right:  $-34.191 \pm 0.107$   $\chi^2/\text{NDF}$ : 2677.8/35

In:  $-30.660 \pm 0.056$   $\chi^2/\text{NDF}$ : 3143.2/36

Out:  $-30.653 \pm 0.054$   $\chi^2/\text{NDF}$ : 2722.3/40

All:  $-30.656 \pm 0.039$   $\chi^2/\text{NDF}$ : 5865.5/77

reg\_asym\_sam\_13\_57\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 5.431 $\pm$ 0.270  $\chi^2$ /NDF: 132.0/16

Left Out: -7.959 $\pm$ 0.075  $\chi^2$ /NDF:2317.7/21

Right Out: 7.185 $\pm$ 0.274  $\chi^2$ /NDF: 182.1/18

Left In: -8.045 $\pm$ 0.077  $\chi^2$ /NDF:2811.5/19

Left: -8.001 $\pm$ 0.054  $\chi^2$ /NDF: 5129.8/41

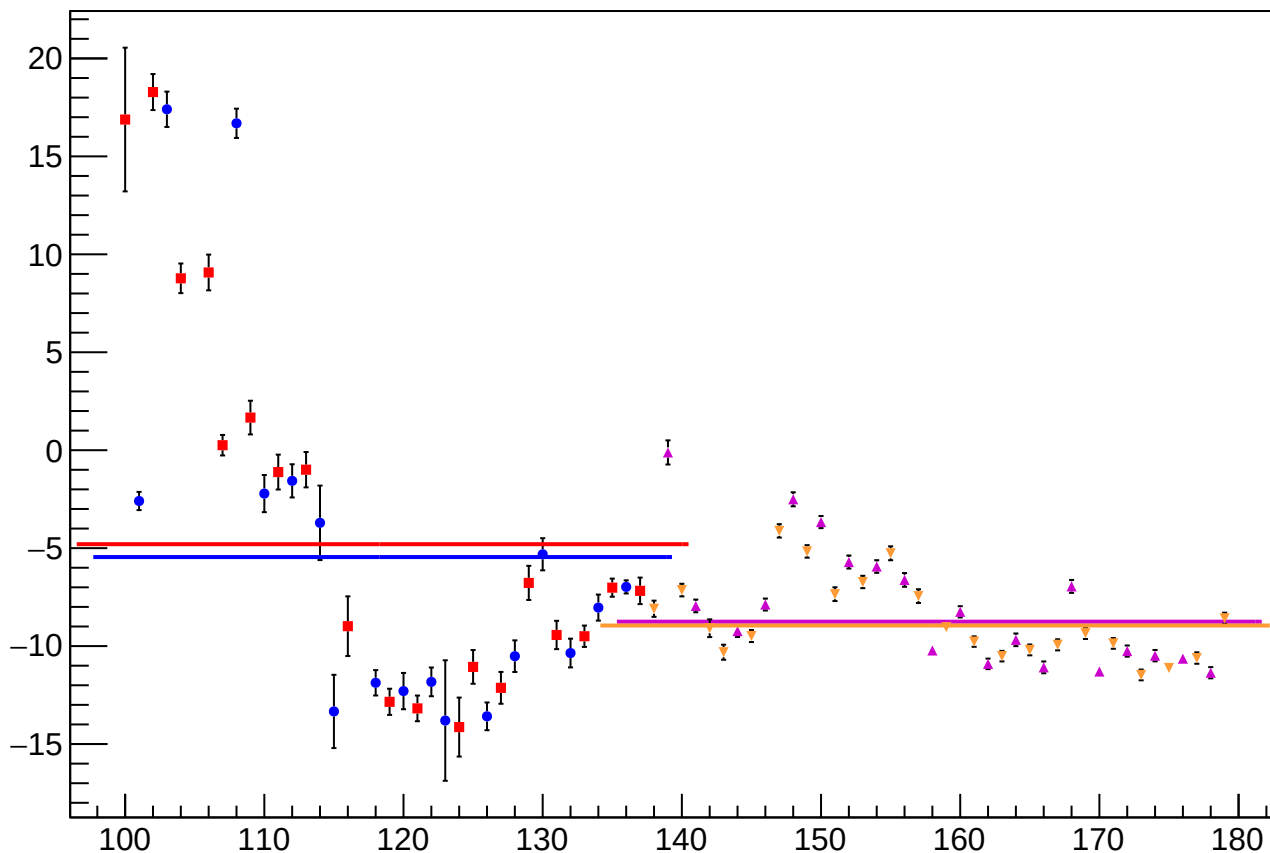
Right: 6.295 $\pm$ 0.193  $\chi^2$ /NDF: 334.8/35

In: -7.039 $\pm$ 0.074  $\chi^2$ /NDF:5241.8/36

Out: -6.911 $\pm$ 0.072  $\chi^2$ /NDF:5334.1/40

All: -6.974 $\pm$ 0.052  $\chi^2$ /NDF: 10577.4/77

reg\_asym\_sam\_13\_57\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-5.455 \pm 0.171$   $\chi^2/\text{NDF}$ : 2096.5/16

Left Out:  $-8.950 \pm 0.065$   $\chi^2/\text{NDF}$ : 867.9/21

Right Out:  $-4.798 \pm 0.173$   $\chi^2/\text{NDF}$ : 2047.4/18

Left In:  $-8.754 \pm 0.067$   $\chi^2/\text{NDF}$ : 1494.6/19

Left:  $-8.855 \pm 0.047$   $\chi^2/\text{NDF}$ : 2366.9/41

Right:  $-5.131 \pm 0.122$   $\chi^2/\text{NDF}$ : 4151.2/35

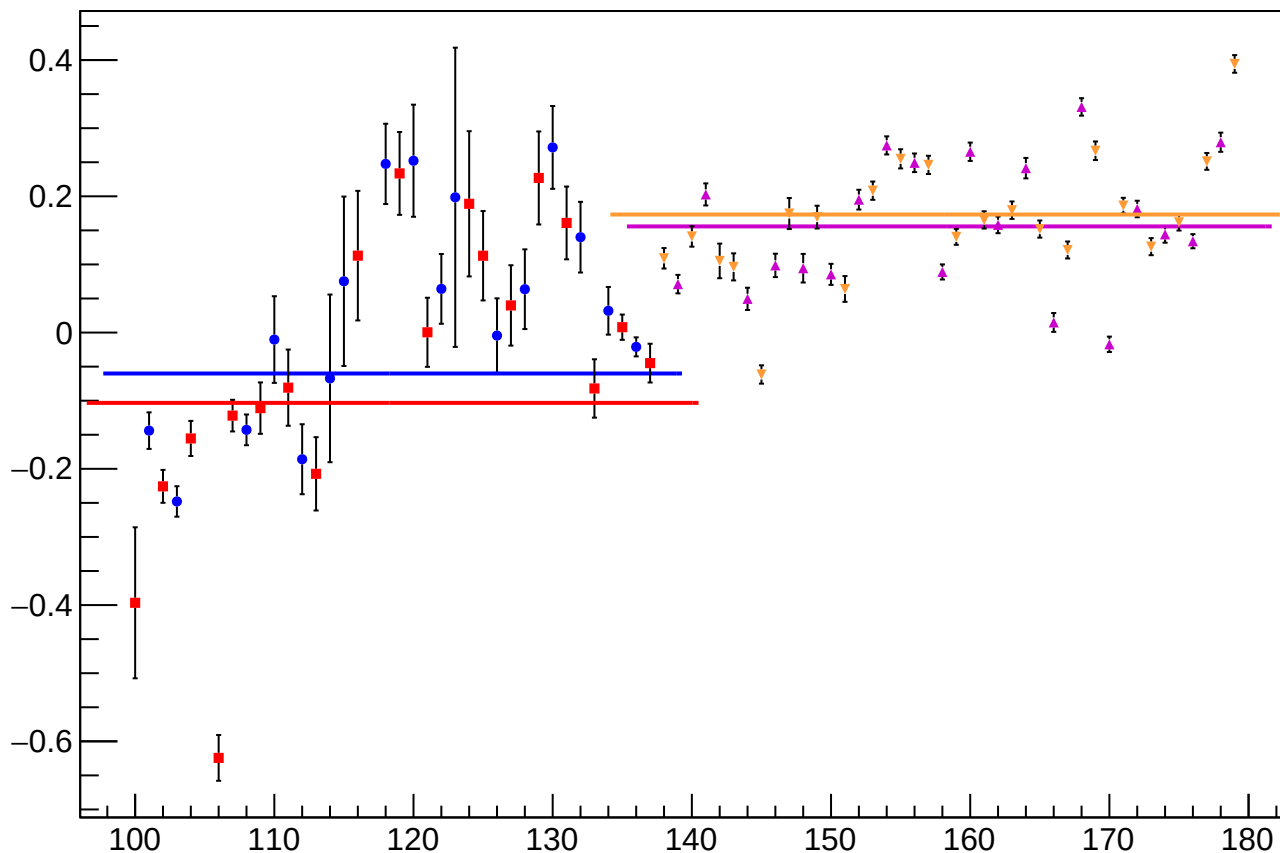
In:  $-8.310 \pm 0.063$   $\chi^2/\text{NDF}$ : 3913.9/36

Out:  $-8.436 \pm 0.061$   $\chi^2/\text{NDF}$ : 3420.4/40

All:  $-8.375 \pm 0.044$   $\chi^2/\text{NDF}$ : 7336.3/77



reg\_asym\_sam\_13\_57\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.060 \pm 0.008$   $\chi^2/\text{NDF}$ : 215.5/16

Left Out:  $0.173 \pm 0.003$   $\chi^2/\text{NDF}$ : 877.5/21

Right Out:  $-0.103 \pm 0.008$   $\chi^2/\text{NDF}$ : 434.3/18

Left In:  $0.156 \pm 0.003$   $\chi^2/\text{NDF}$ : 1012.6/19

Left:  $0.165 \pm 0.002$   $\chi^2/\text{NDF}$ : 1907.3/41

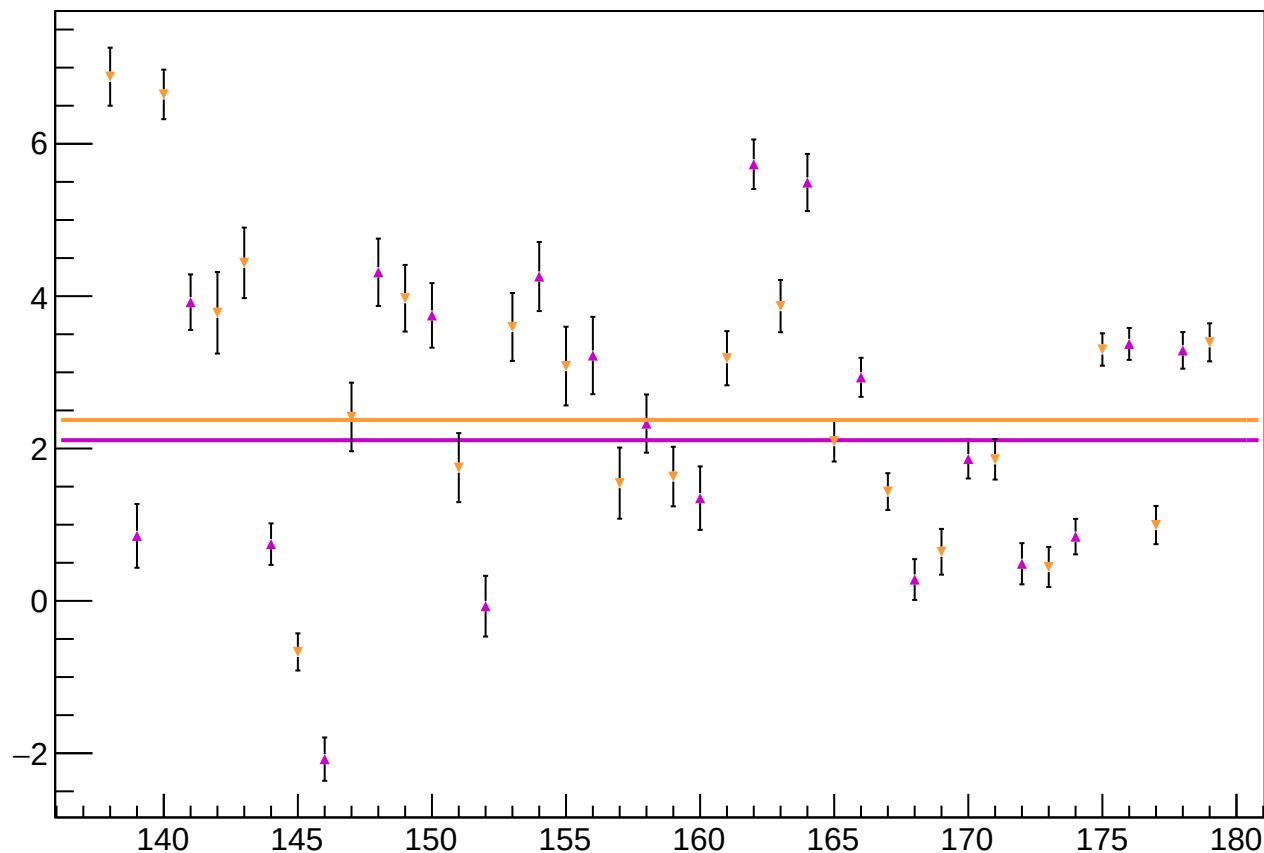
Right:  $-0.082 \pm 0.006$   $\chi^2/\text{NDF}$ : 662.9/35

In:  $0.131 \pm 0.003$   $\chi^2/\text{NDF}$ : 1813.0/36

Out:  $0.143 \pm 0.003$   $\chi^2/\text{NDF}$ : 2268.0/40

All:  $0.137 \pm 0.002$   $\chi^2/\text{NDF}$ : 4089.7/77

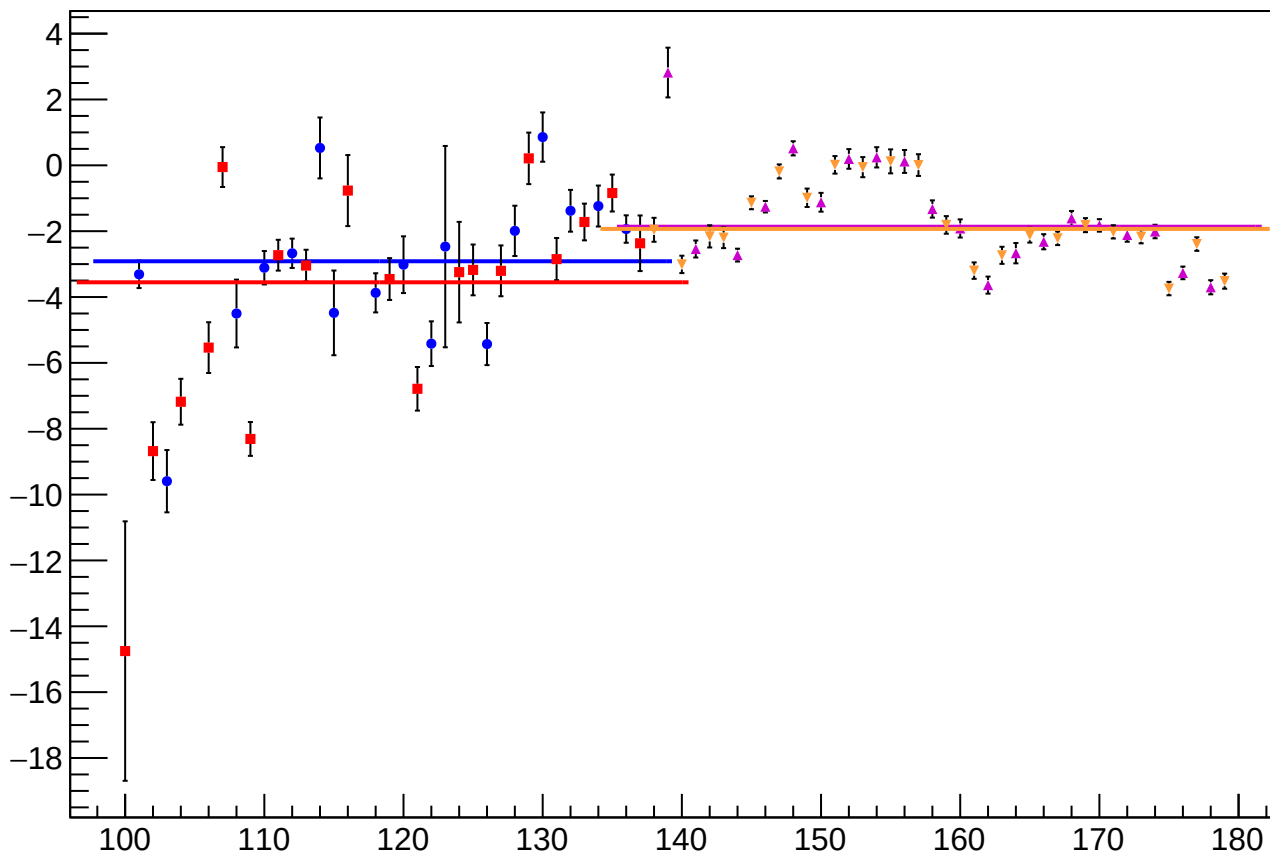
reg\_asym\_sam\_15\_37\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 2.375+/-0.068  $\chi^2/\text{NDF}$ :723.7/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 2.110+/-0.069  $\chi^2/\text{NDF}$ :765.2/19

Left: 2.245+/-0.048  $\chi^2/\text{NDF}$ : 1496.4/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 2.110+/-0.069  $\chi^2/\text{NDF}$ :765.2/19  
 Out: 2.375+/-0.068  $\chi^2/\text{NDF}$ :723.7/21  
 All: 2.245+/-0.048  $\chi^2/\text{NDF}$ : 1496.4/41

reg\_asym\_sam\_15\_37\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-2.914 \pm 0.155$   $\chi^2/\text{NDF}$ : 146.1/16

Left Out:  $-1.931 \pm 0.052$   $\chi^2/\text{NDF}$ : 441.9/21

Right Out:  $-3.553 \pm 0.155$   $\chi^2/\text{NDF}$ : 290.9/18

Left In:  $-1.864 \pm 0.053$   $\chi^2/\text{NDF}$ : 524.5/19

Left:  $-1.899 \pm 0.037$   $\chi^2/\text{NDF}$ : 967.2/41

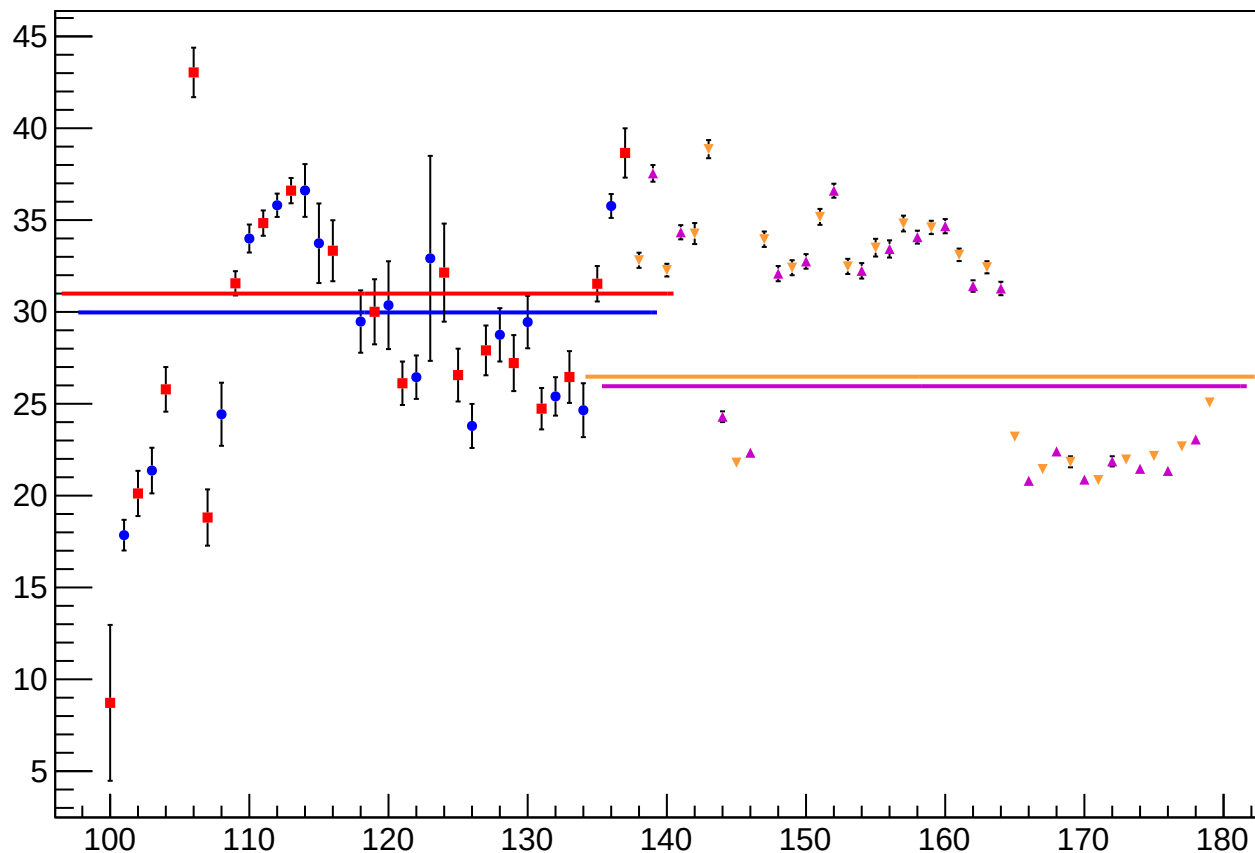
Right:  $-3.234 \pm 0.109$   $\chi^2/\text{NDF}$ : 445.5/35

In:  $-1.975 \pm 0.050$   $\chi^2/\text{NDF}$ : 711.7/36

Out:  $-2.097 \pm 0.049$   $\chi^2/\text{NDF}$ : 831.5/40

All:  $-2.037 \pm 0.035$   $\chi^2/\text{NDF}$ : 1546.3/77

reg\_asym\_sam\_15\_37\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 29.972 $\pm$ 0.267  $\chi^2$ /NDF: 554.3/16

Left Out: 26.476 $\pm$ 0.068  $\chi^2$ /NDF: 6782.6/21

Right Out: 30.999 $\pm$ 0.260  $\chi^2$ /NDF: 479.5/18

Left In: 25.956 $\pm$ 0.069  $\chi^2$ /NDF: 6779.0/19

Left: 26.220 $\pm$ 0.048  $\chi^2$ /NDF: 13590.6/41

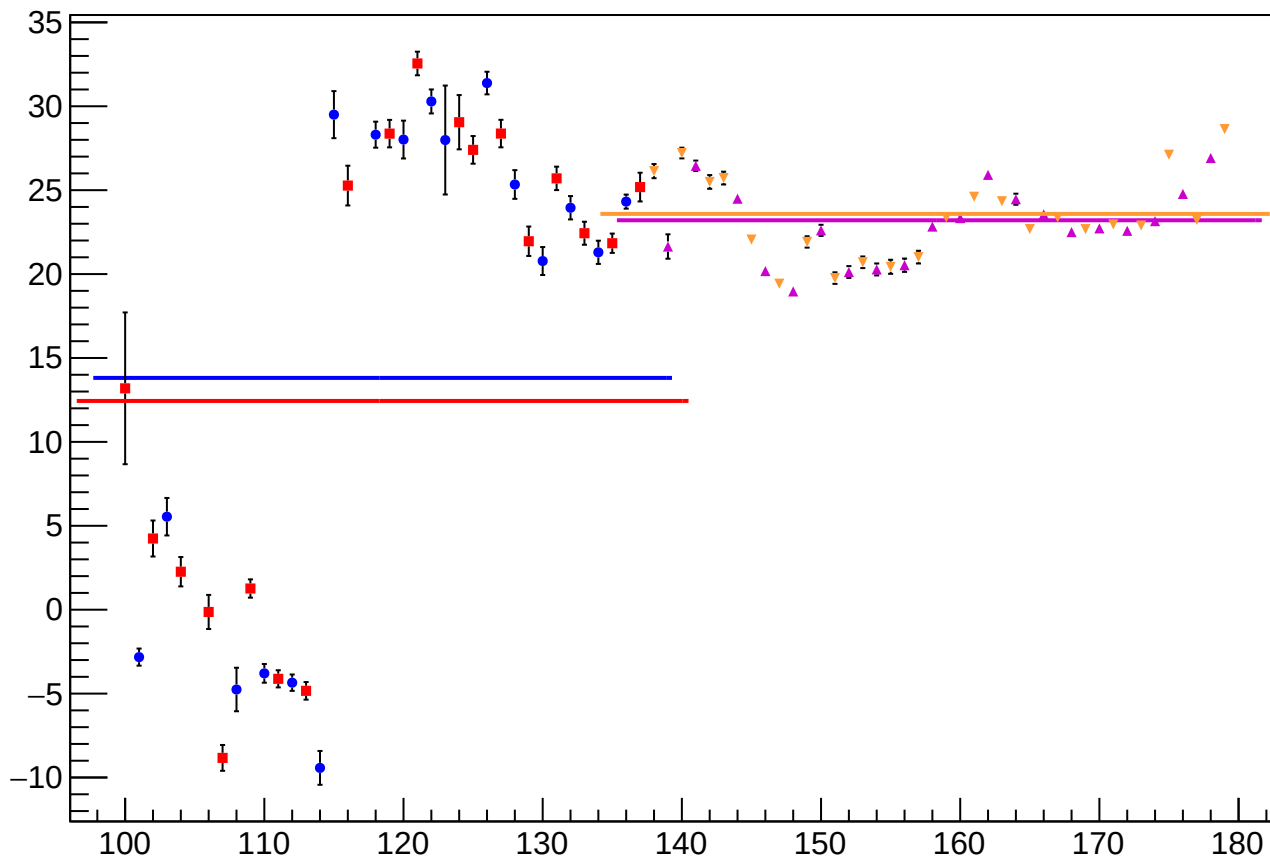
Right: 30.500 $\pm$ 0.186  $\chi^2$ /NDF: 1041.4/35

In: 26.205 $\pm$ 0.067  $\chi^2$ /NDF: 7545.2/36

Out: 26.764 $\pm$ 0.066  $\chi^2$ /NDF: 7545.2/40

All: 26.489 $\pm$ 0.047  $\chi^2$ /NDF: 15126.1/77

reg\_asym\_sam\_15\_37\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 13.813 $\pm$ 0.173  $\chi^2$ /NDF: 7318.6/16

Left Out: 23.587 $\pm$ 0.059  $\chi^2$ /NDF:1532.7/21

Right Out: 12.440 $\pm$ 0.174  $\chi^2$ /NDF: 6970.3/18

Left In: 23.207 $\pm$ 0.060  $\chi^2$ /NDF:1190.6/19

Left: 23.401 $\pm$ 0.042  $\chi^2$ /NDF: 2743.9/41

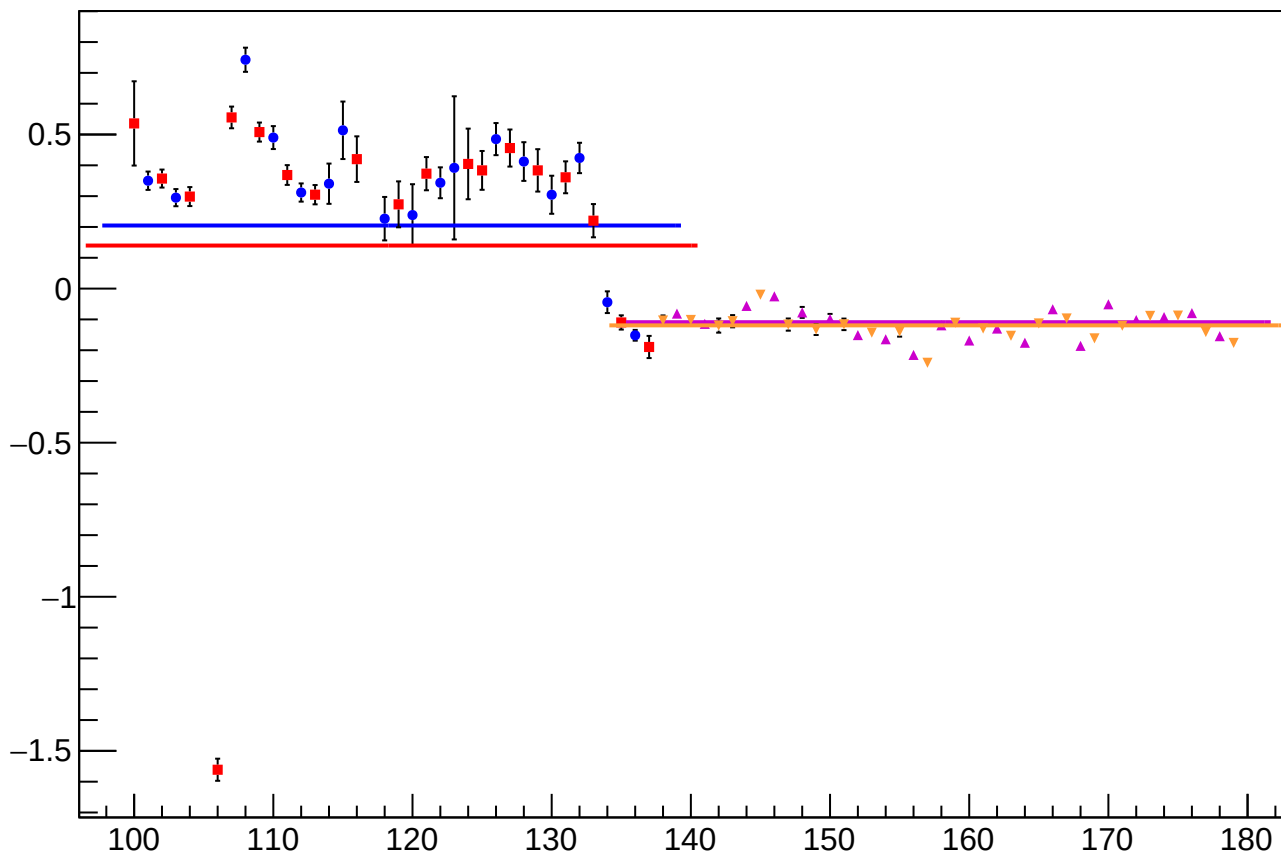
Right: 13.131 $\pm$ 0.122  $\chi^2$ /NDF: 14320.3/35

In: 22.200 $\pm$ 0.057  $\chi^2$ /NDF:11151.5/36

Out: 22.447 $\pm$ 0.056  $\chi^2$ /NDF:12199.0/40

All: 22.326 $\pm$ 0.040  $\chi^2$ /NDF: 23360.2/77

reg\_asym\_sam\_15\_37\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.205 \pm 0.009$   $\chi^2/\text{NDF}: 845.8/16$

Left Out:  $-0.119 \pm 0.003$   $\chi^2/\text{NDF}: 249.8/21$

Right Out:  $0.140 \pm 0.009$   $\chi^2/\text{NDF}: 3014.2/18$

Left In:  $-0.109 \pm 0.003$   $\chi^2/\text{NDF}: 317.0/19$

Left:  $-0.114 \pm 0.002$   $\chi^2/\text{NDF}: 574.0/41$

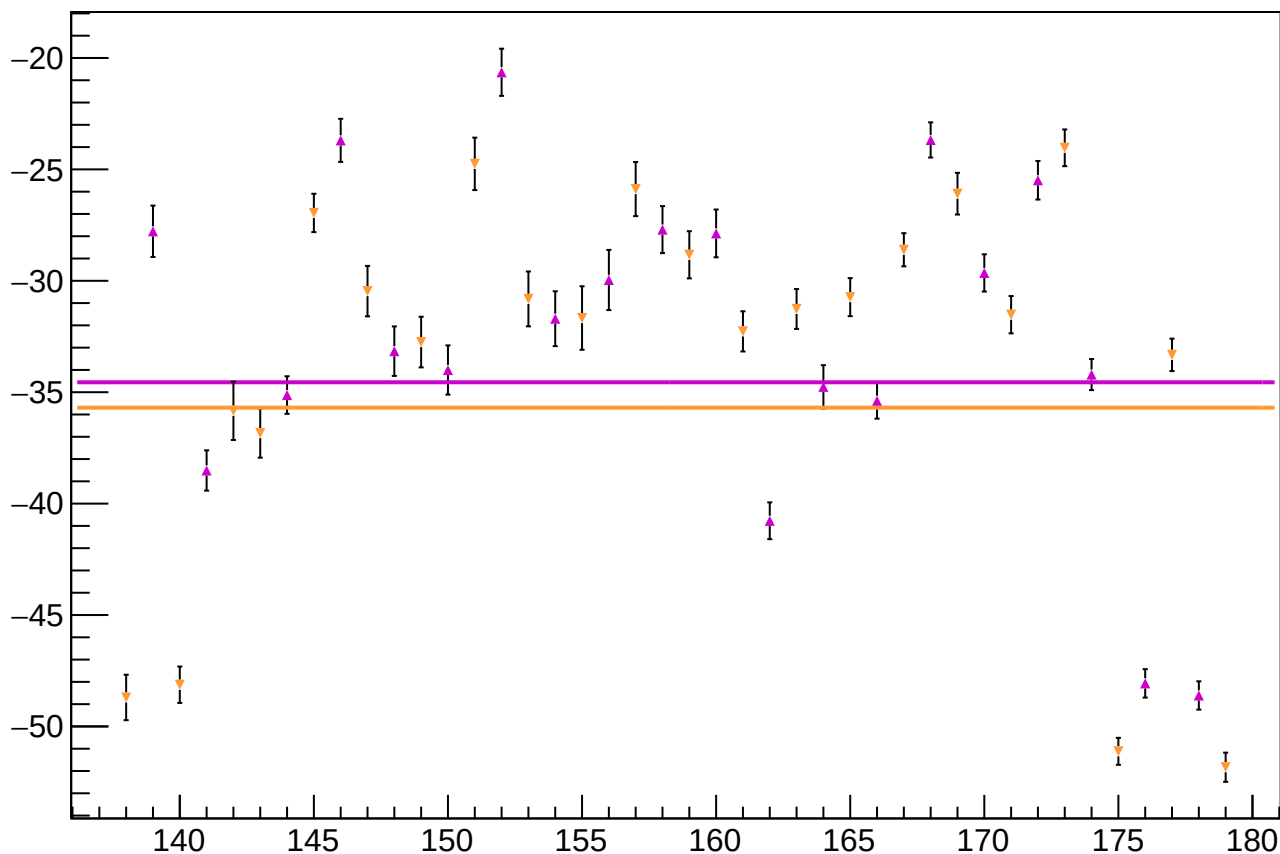
Right:  $0.172 \pm 0.007$   $\chi^2/\text{NDF}: 3884.5/35$

In:  $-0.085 \pm 0.003$   $\chi^2/\text{NDF}: 2195.7/36$

Out:  $-0.099 \pm 0.003$   $\chi^2/\text{NDF}: 3992.7/40$

All:  $-0.092 \pm 0.002$   $\chi^2/\text{NDF}: 6203.6/77$

reg\_asym\_sam\_24\_68\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected

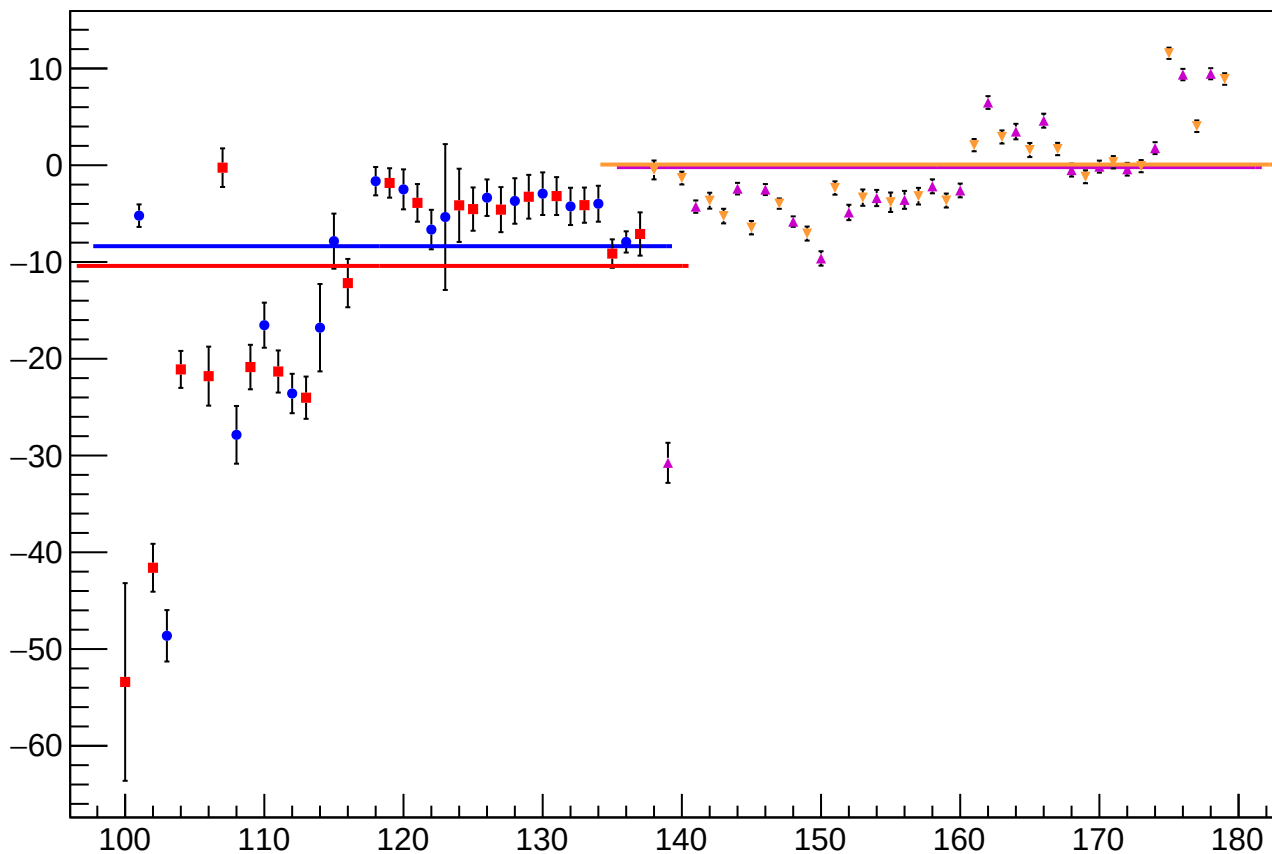


Right In: 0.000+/-0.000  $\chi^2/NDF$ : 0.0/0  
 Left Out: -35.693+/-0.193  $\chi^2/NDF$ :2506.9/21  
 Right Out: 0.000+/-0.000  $\chi^2/NDF$ : 0.0/0  
 Left In: -34.555+/-0.198  $\chi^2/NDF$ :1782.6/19

Left: -35.140+/-0.138  $\chi^2/NDF$ : 4306.3/41  
 Right: 0.000+/-0.000  $\chi^2/NDF$ : 0.0/0  
 In: -34.555+/-0.198  $\chi^2/NDF$ :1782.6/19  
 Out: -35.693+/-0.193  $\chi^2/NDF$ :2506.9/21

All: -35.140+/-0.138  $\chi^2/NDF$ : 4306.3/41

reg\_asym\_sam\_24\_68\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-8.367 \pm 0.466$   $\chi^2/\text{NDF}: 408.8/16$

Left Out:  $0.072 \pm 0.147$   $\chi^2/\text{NDF}: 1096.1/21$

Right Out:  $-10.405 \pm 0.491$   $\chi^2/\text{NDF}: 430.3/18$

Left In:  $-0.195 \pm 0.152$   $\chi^2/\text{NDF}: 1365.9/19$

Left:  $-0.056 \pm 0.106$   $\chi^2/\text{NDF}: 2463.5/41$

Right:  $-9.333 \pm 0.338$   $\chi^2/\text{NDF}: 848.2/35$

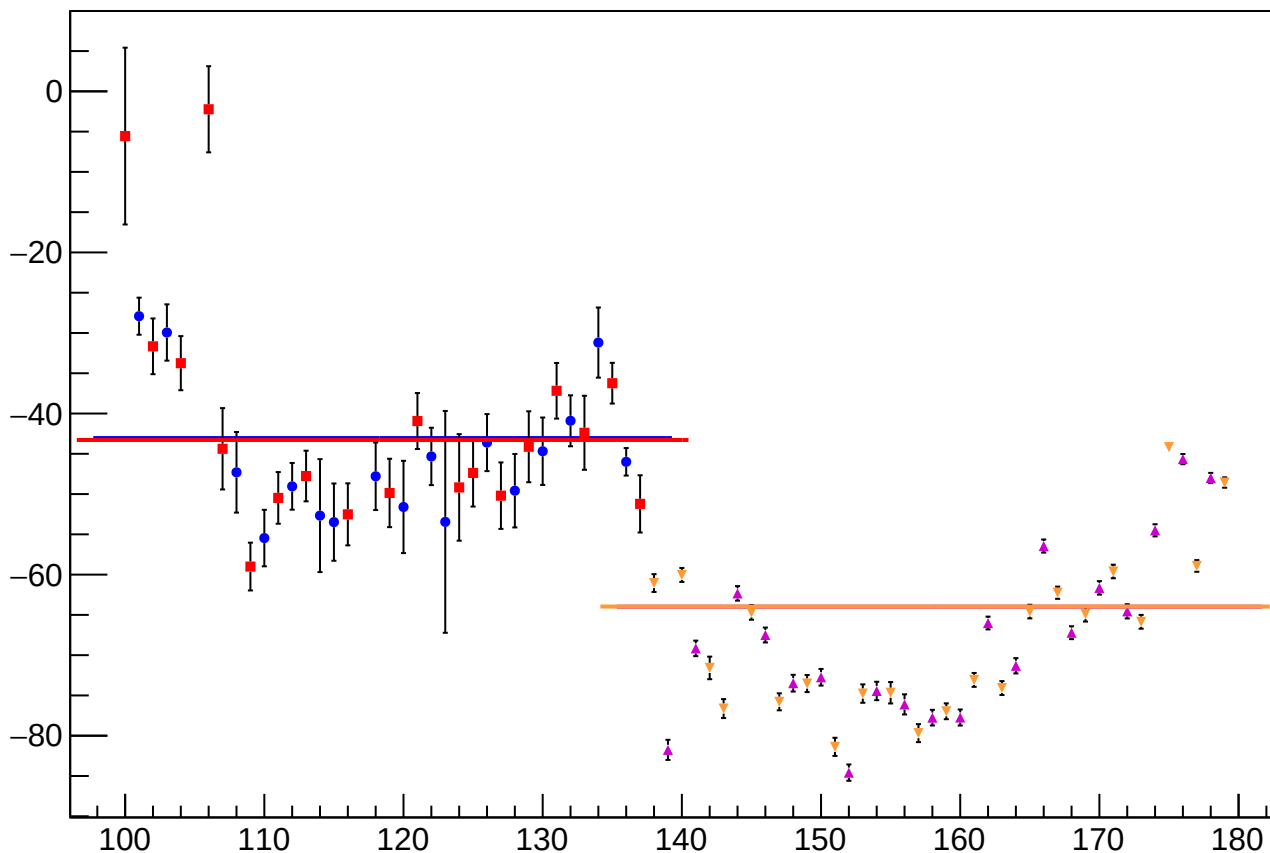
In:  $-0.980 \pm 0.144$   $\chi^2/\text{NDF}: 2052.7/36$

Out:  $-0.785 \pm 0.141$   $\chi^2/\text{NDF}: 1944.4/40$

All:  $-0.880 \pm 0.101$   $\chi^2/\text{NDF}: 3998.0/77$



reg\_asym\_sam\_24\_68\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



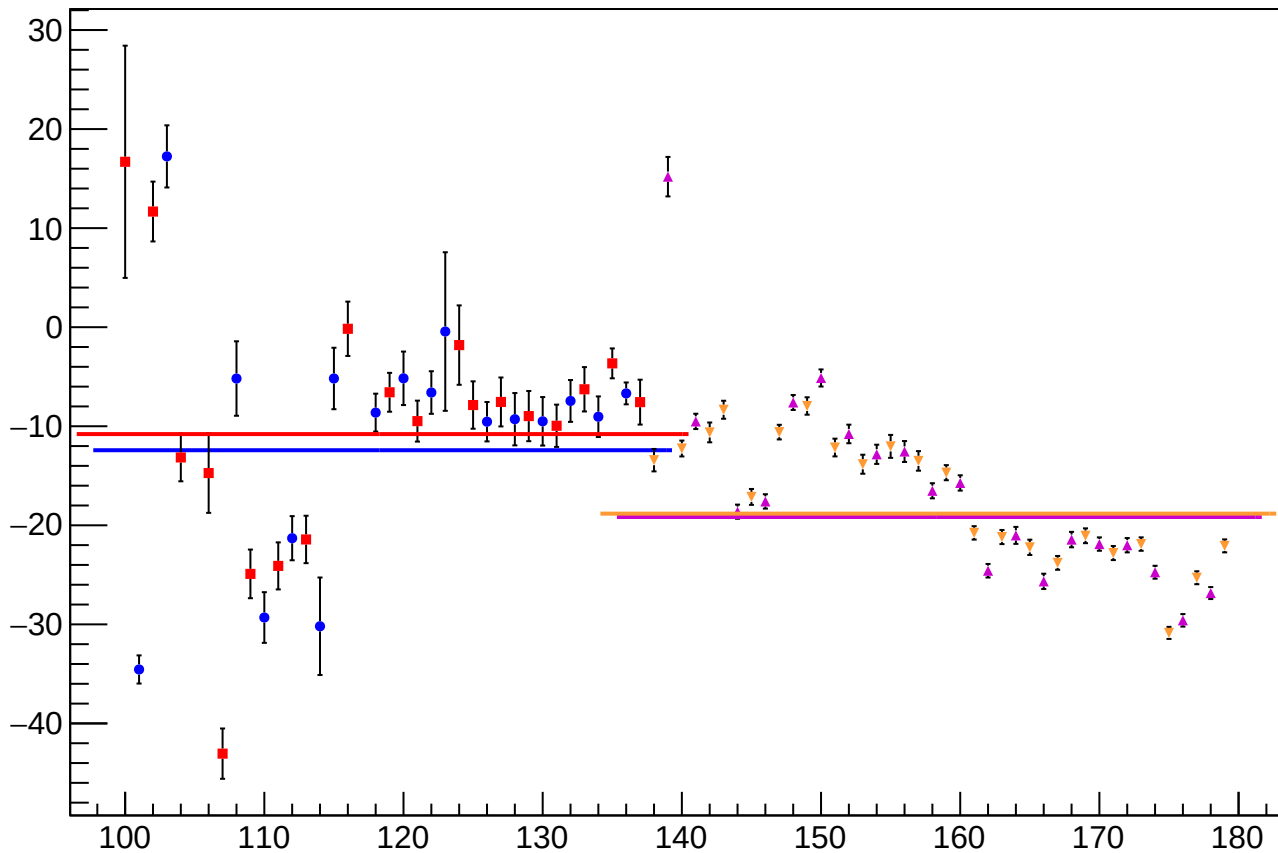
Right In:  $-43.047 \pm 0.837$   $\chi^2/\text{NDF}: 99.0/16$   
 Left Out:  $-63.964 \pm 0.192$   $\chi^2/\text{NDF}: 3120.9/21$   
 Right Out:  $-43.282 \pm 0.867$   $\chi^2/\text{NDF}: 154.4/18$   
 Left In:  $-63.981 \pm 0.197$   $\chi^2/\text{NDF}: 3203.2/19$

Left:  $-63.972 \pm 0.138$   $\chi^2/\text{NDF}: 6324.1/41$   
 Right:  $-43.161 \pm 0.602$   $\chi^2/\text{NDF}: 253.4/35$

In:  $-62.878 \pm 0.192$   $\chi^2/\text{NDF}: 3894.4/36$   
 Out:  $-62.995 \pm 0.188$   $\chi^2/\text{NDF}: 3817.4/40$

All:  $-62.938 \pm 0.134$   $\chi^2/\text{NDF}: 7712.0/77$

reg\_asym\_sam\_24\_68\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-12.421 \pm 0.523$   $\chi^2/\text{NDF}: 474.4/16$

Left Out:  $-18.822 \pm 0.166$   $\chi^2/\text{NDF}: 1409.9/21$

Right Out:  $-10.791 \pm 0.554$   $\chi^2/\text{NDF}: 365.8/18$

Left In:  $-19.160 \pm 0.172$   $\chi^2/\text{NDF}: 1835.2/19$

Left:  $-18.985 \pm 0.119$   $\chi^2/\text{NDF}: 3247.1/41$

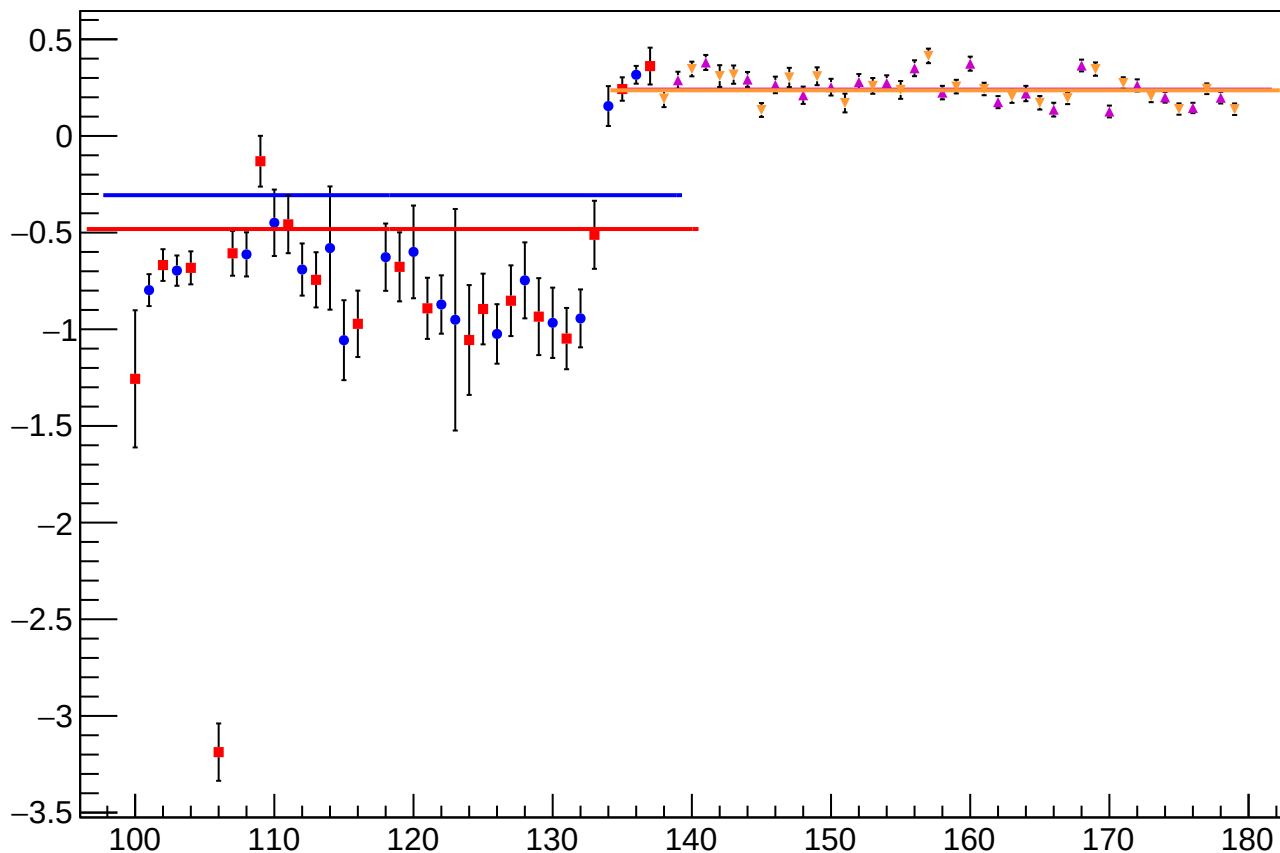
Right:  $-11.652 \pm 0.380$   $\chi^2/\text{NDF}: 844.7/35$

In:  $-18.503 \pm 0.163$   $\chi^2/\text{NDF}: 2459.4/36$

Out:  $-18.159 \pm 0.159$   $\chi^2/\text{NDF}: 1968.7/40$

All:  $-18.327 \pm 0.114$   $\chi^2/\text{NDF}: 4430.3/77$

reg\_asym\_sam\_24\_68\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.306 \pm 0.028$   $\chi^2/\text{NDF}$ : 371.7/16

Left Out:  $0.236 \pm 0.008$   $\chi^2/\text{NDF}$ : 91.5/21

Right Out:  $-0.481 \pm 0.029$   $\chi^2/\text{NDF}$ : 628.3/18

Left In:  $0.240 \pm 0.008$   $\chi^2/\text{NDF}$ : 100.0/19

Left:  $0.238 \pm 0.005$   $\chi^2/\text{NDF}$ : 191.6/41

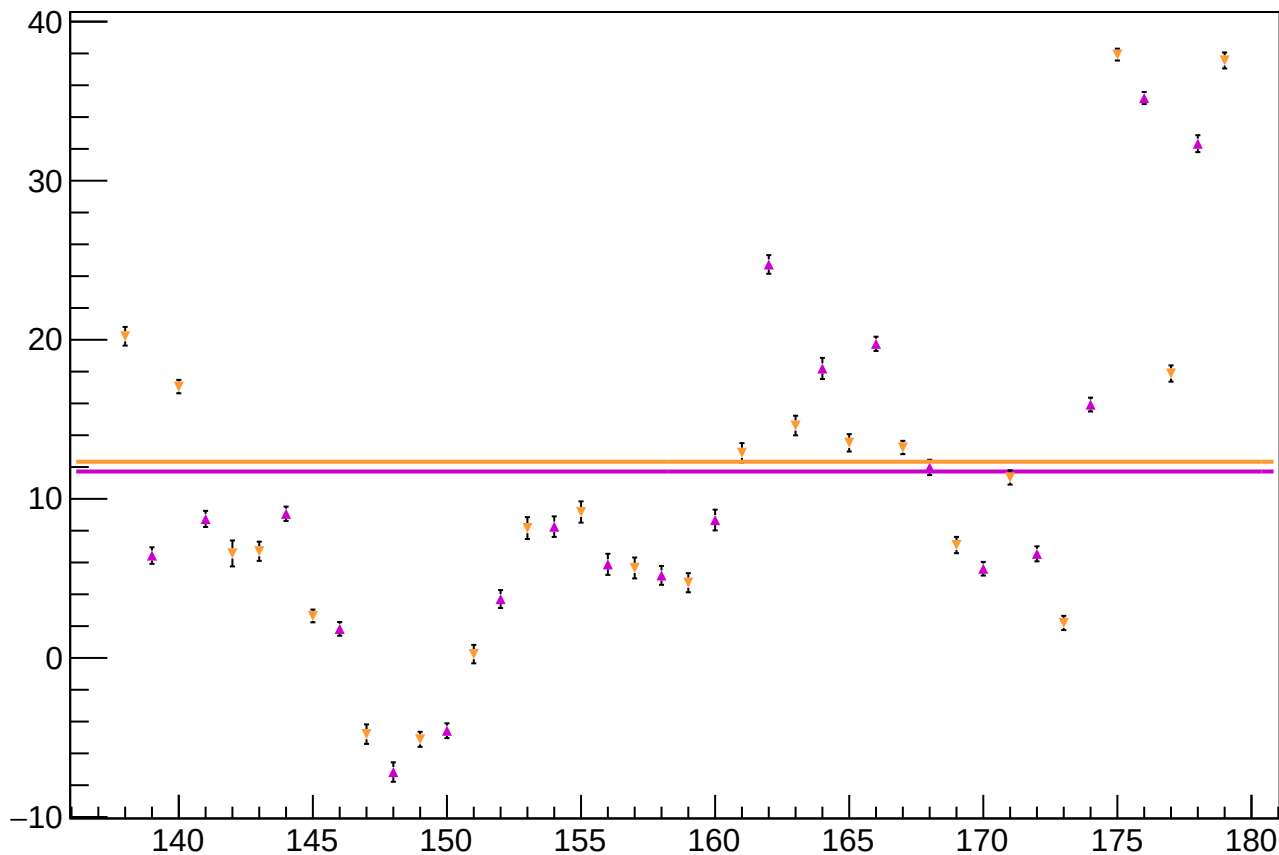
Right:  $-0.391 \pm 0.020$   $\chi^2/\text{NDF}$ : 1019.4/35

In:  $0.199 \pm 0.008$   $\chi^2/\text{NDF}$ : 834.4/36

Out:  $0.188 \pm 0.007$   $\chi^2/\text{NDF}$ : 1306.8/40

All:  $0.193 \pm 0.005$   $\chi^2/\text{NDF}$ : 2142.2/77

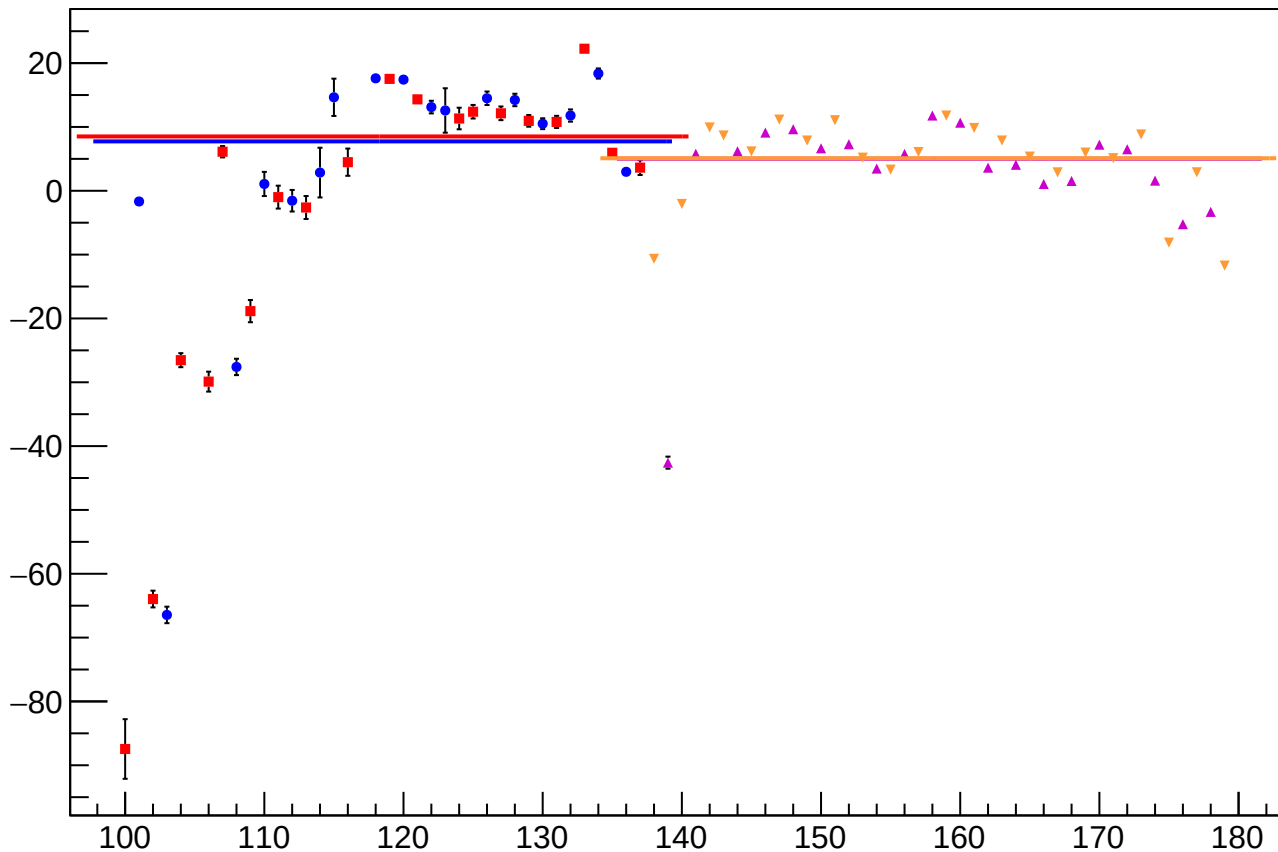
reg\_asym\_sam\_26\_48\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 12.335+/-0.111  $\chi^2/\text{NDF}$ :11921.1/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 11.719+/-0.113  $\chi^2/\text{NDF}$ :9989.2/19

Left: 12.033+/-0.079  $\chi^2/\text{NDF}$ : 21925.4/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 11.719+/-0.113  $\chi^2/\text{NDF}$ :9989.2/19  
 Out: 12.335+/-0.111  $\chi^2/\text{NDF}$ :11921.1/21  
 All: 12.033+/-0.079  $\chi^2/\text{NDF}$ : 21925.4/41

reg\_asym\_sam\_26\_48\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $7.737 \pm 0.218$   $\chi^2/\text{NDF}: 5300.6/16$

Left Out:  $5.095 \pm 0.083$   $\chi^2/\text{NDF}: 5398.6/21$

Right Out:  $8.514 \pm 0.213$   $\chi^2/\text{NDF}: 6719.4/18$

Left In:  $5.026 \pm 0.086$   $\chi^2/\text{NDF}: 4991.4/19$

Left:  $5.062 \pm 0.060$   $\chi^2/\text{NDF}: 10390.3/41$

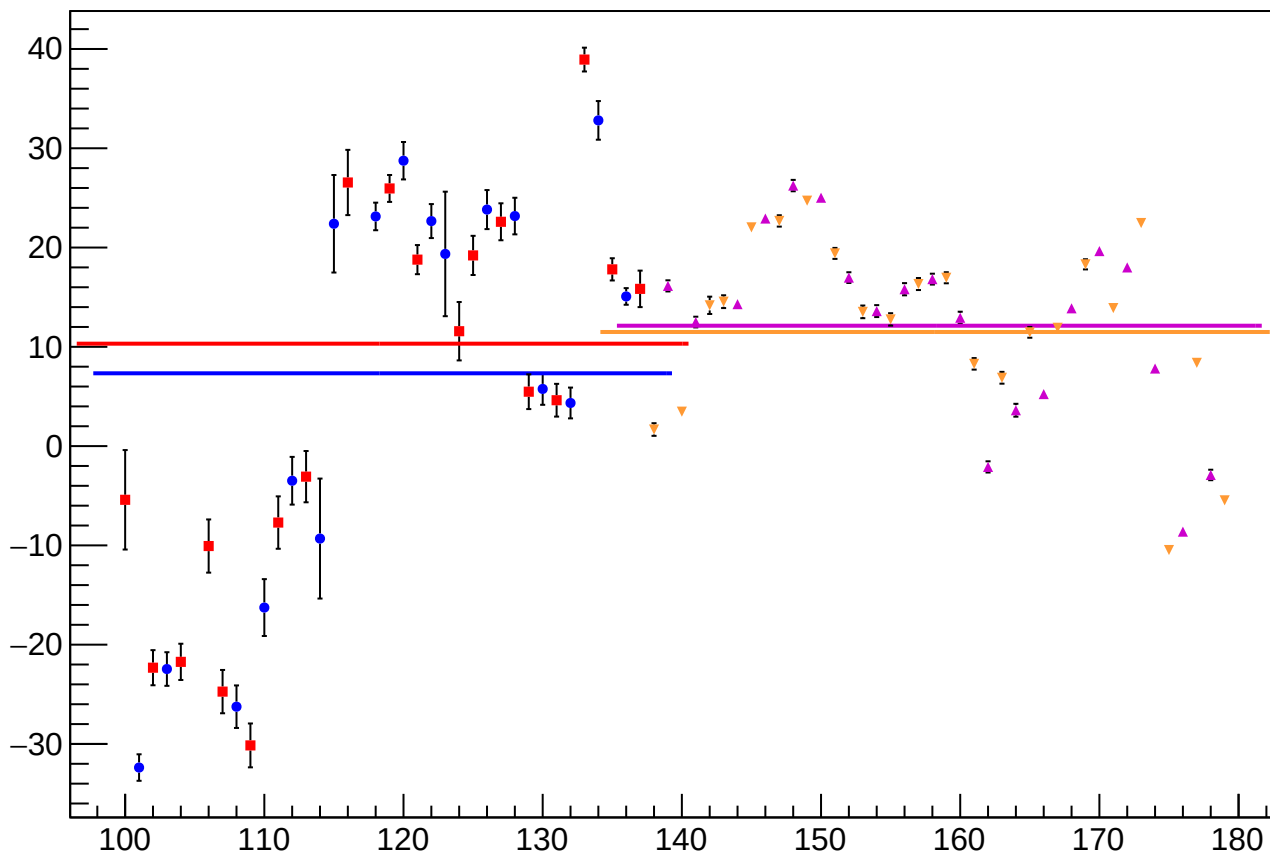
Right:  $8.134 \pm 0.152$   $\chi^2/\text{NDF}: 12026.5/35$

In:  $5.391 \pm 0.080$   $\chi^2/\text{NDF}: 10425.7/36$

Out:  $5.547 \pm 0.077$   $\chi^2/\text{NDF}: 12341.1/40$

All:  $5.471 \pm 0.056$   $\chi^2/\text{NDF}: 22768.8/77$

reg\_asym\_sam\_26\_48\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 7.333 $\pm$ 0.419  $\chi^2$ /NDF: 2293.1/16

Left Out: 11.495 $\pm$ 0.110  $\chi^2$ /NDF:8397.6/21

Right Out: 10.317 $\pm$ 0.417  $\chi^2$ /NDF: 2281.5/18

Left In: 12.127 $\pm$ 0.112  $\chi^2$ /NDF:7882.0/19

Left: 11.805 $\pm$ 0.079  $\chi^2$ /NDF: 16295.7/41

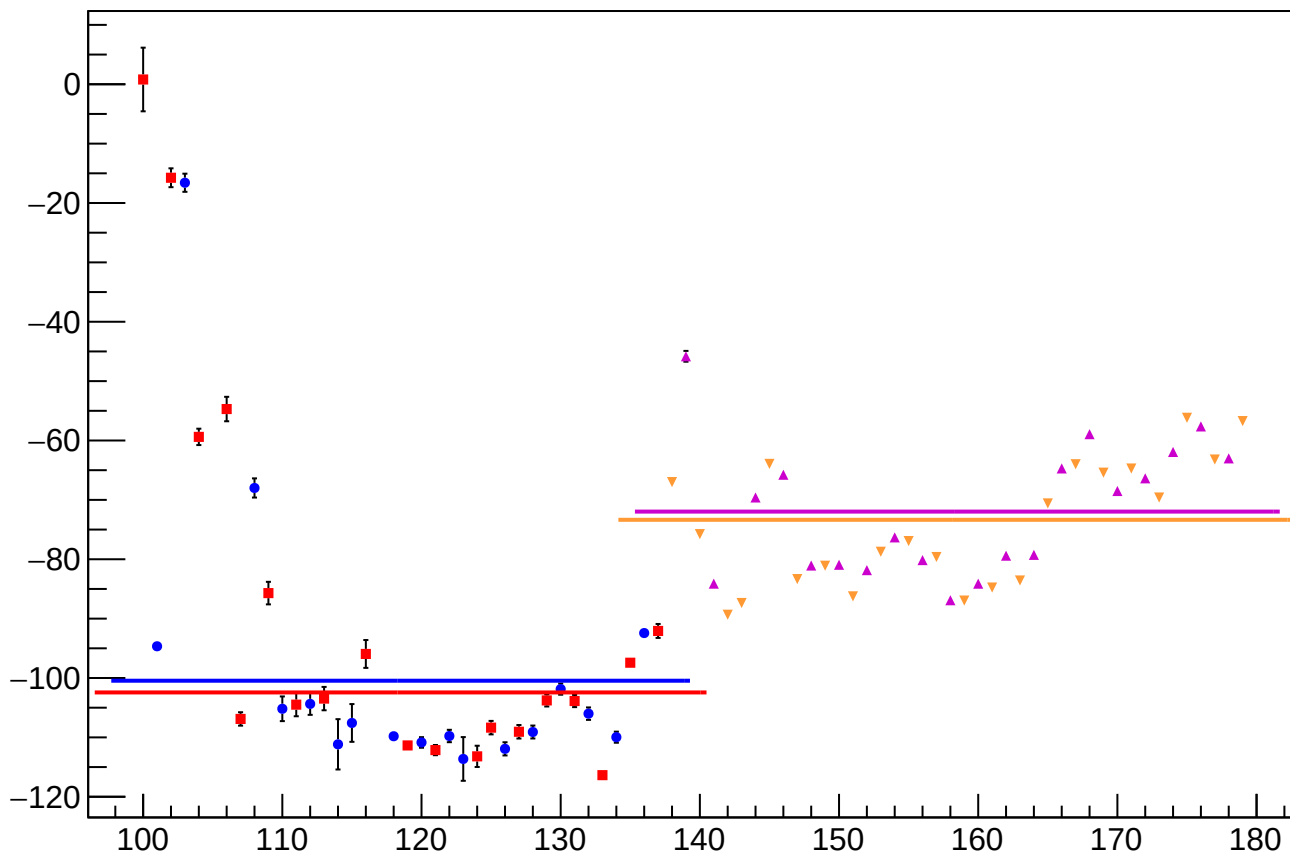
Right: 8.831 $\pm$ 0.295  $\chi^2$ /NDF: 4600.2/35

In: 11.805 $\pm$ 0.108  $\chi^2$ /NDF:10297.5/36

Out: 11.418 $\pm$ 0.107  $\chi^2$ /NDF:10686.6/40

All: 11.608 $\pm$ 0.076  $\chi^2$ /NDF: 20990.5/77

reg\_asym\_sam\_26\_48\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-100.457 \pm 0.251$   $\chi^2/\text{NDF}$ : 4461.1/16

Left Out:  $-73.356 \pm 0.095$   $\chi^2/\text{NDF}$ : 11644.5/21

Right Out:  $-102.431 \pm 0.246$   $\chi^2/\text{NDF}$ : 6094.3/18

Left In:  $-71.973 \pm 0.098$   $\chi^2/\text{NDF}$ : 9682.3/19

Left:  $-72.684 \pm 0.068$   $\chi^2/\text{NDF}$ : 21429.7/41

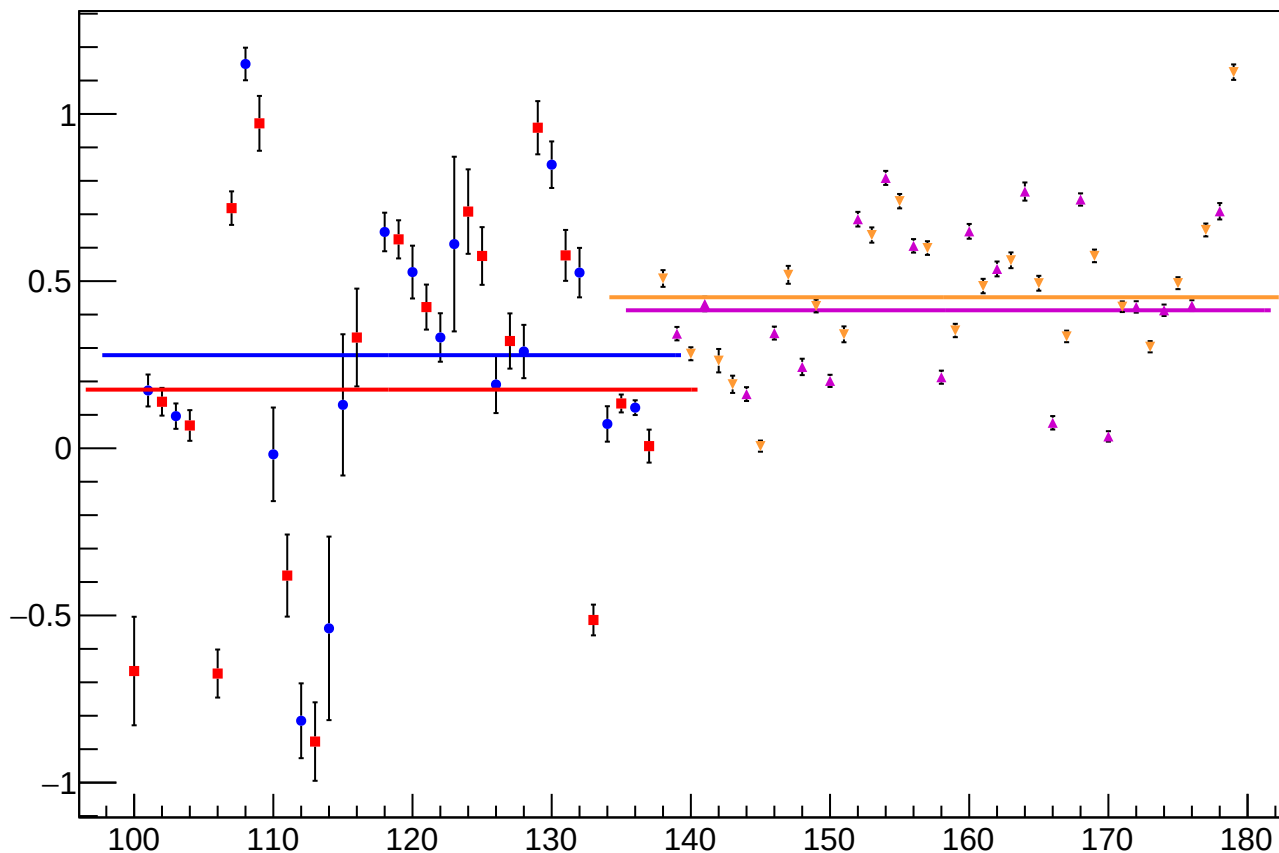
Right:  $-101.462 \pm 0.176$   $\chi^2/\text{NDF}$ : 10586.9/35

In:  $-75.729 \pm 0.091$   $\chi^2/\text{NDF}$ : 25346.3/36

Out:  $-77.118 \pm 0.089$   $\chi^2/\text{NDF}$ : 29875.2/40

All:  $-76.442 \pm 0.063$   $\chi^2/\text{NDF}$ : 55341.0/77

reg\_asym\_sam\_26\_48\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.279 \pm 0.014$   $\chi^2/\text{NDF}$ : 653.9/16

Left Out:  $0.452 \pm 0.004$   $\chi^2/\text{NDF}$ : 2432.9/21

Right Out:  $0.175 \pm 0.013$   $\chi^2/\text{NDF}$ : 967.7/18

Left In:  $0.413 \pm 0.004$   $\chi^2/\text{NDF}$ : 2705.5/19

Left:  $0.433 \pm 0.003$   $\chi^2/\text{NDF}$ : 5177.7/41

Right:  $0.227 \pm 0.010$   $\chi^2/\text{NDF}$ : 1650.8/35

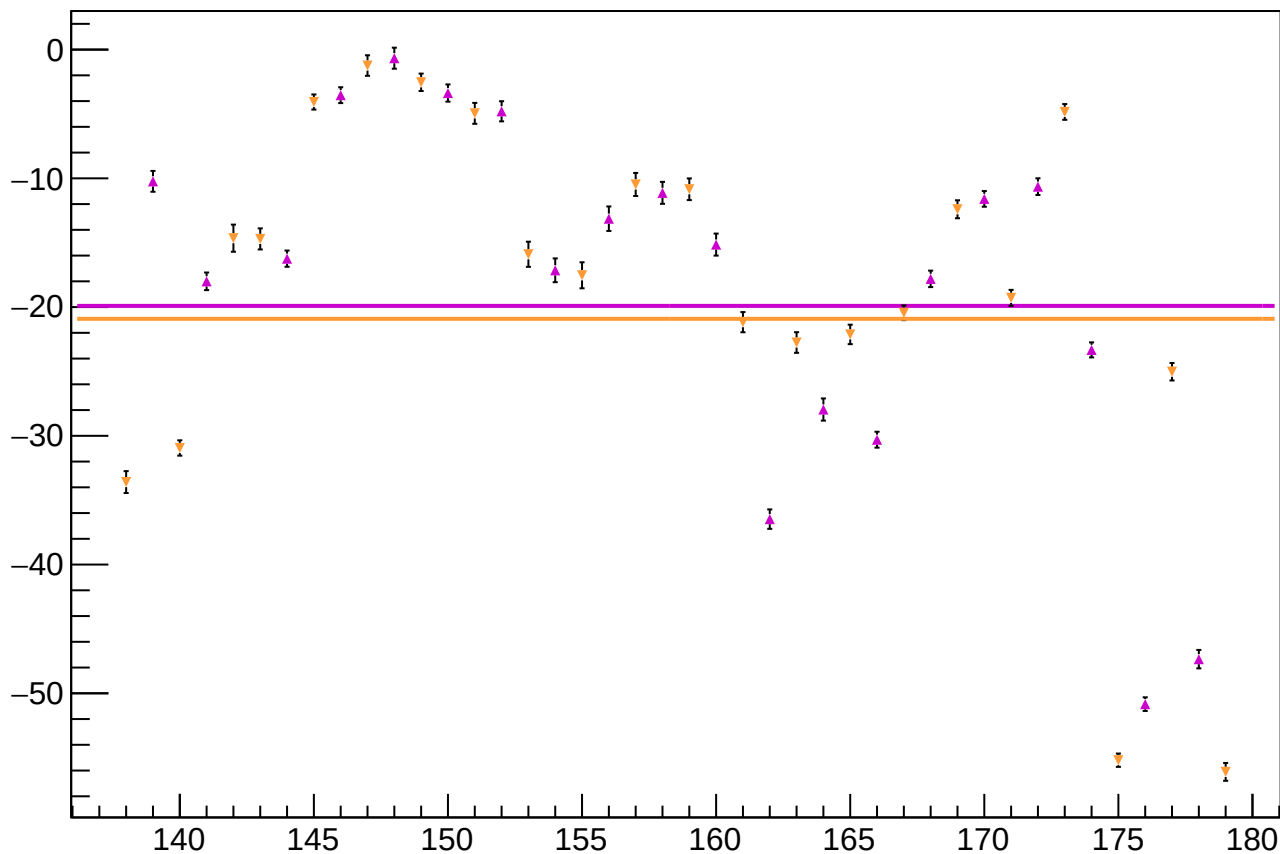
In:  $0.400 \pm 0.004$   $\chi^2/\text{NDF}$ : 3448.5/36

Out:  $0.425 \pm 0.004$   $\chi^2/\text{NDF}$ : 3780.9/40

All:  $0.413 \pm 0.003$   $\chi^2/\text{NDF}$ : 7248.2/77



reg\_asym\_sam\_1548\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -20.911+/-0.153  $\chi^2/\text{NDF}$ :11315.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -19.907+/-0.156  $\chi^2/\text{NDF}$ :8778.4/19

Left: -20.420+/-0.109  $\chi^2/\text{NDF}$ : 20114.6/41

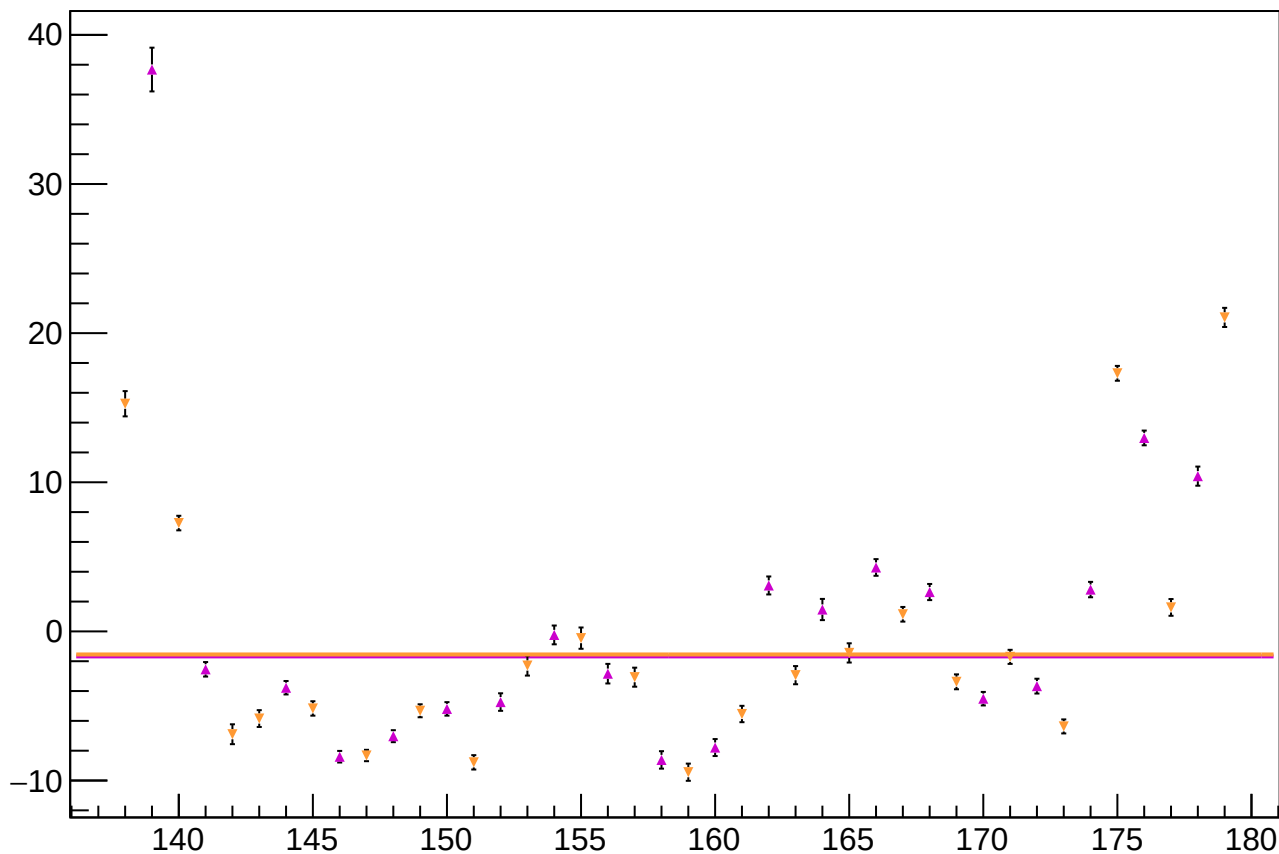
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -19.907+/-0.156  $\chi^2/\text{NDF}$ :8778.4/19

Out: -20.911+/-0.153  $\chi^2/\text{NDF}$ :11315.1/21

All: -20.420+/-0.109  $\chi^2/\text{NDF}$ : 20114.6/41

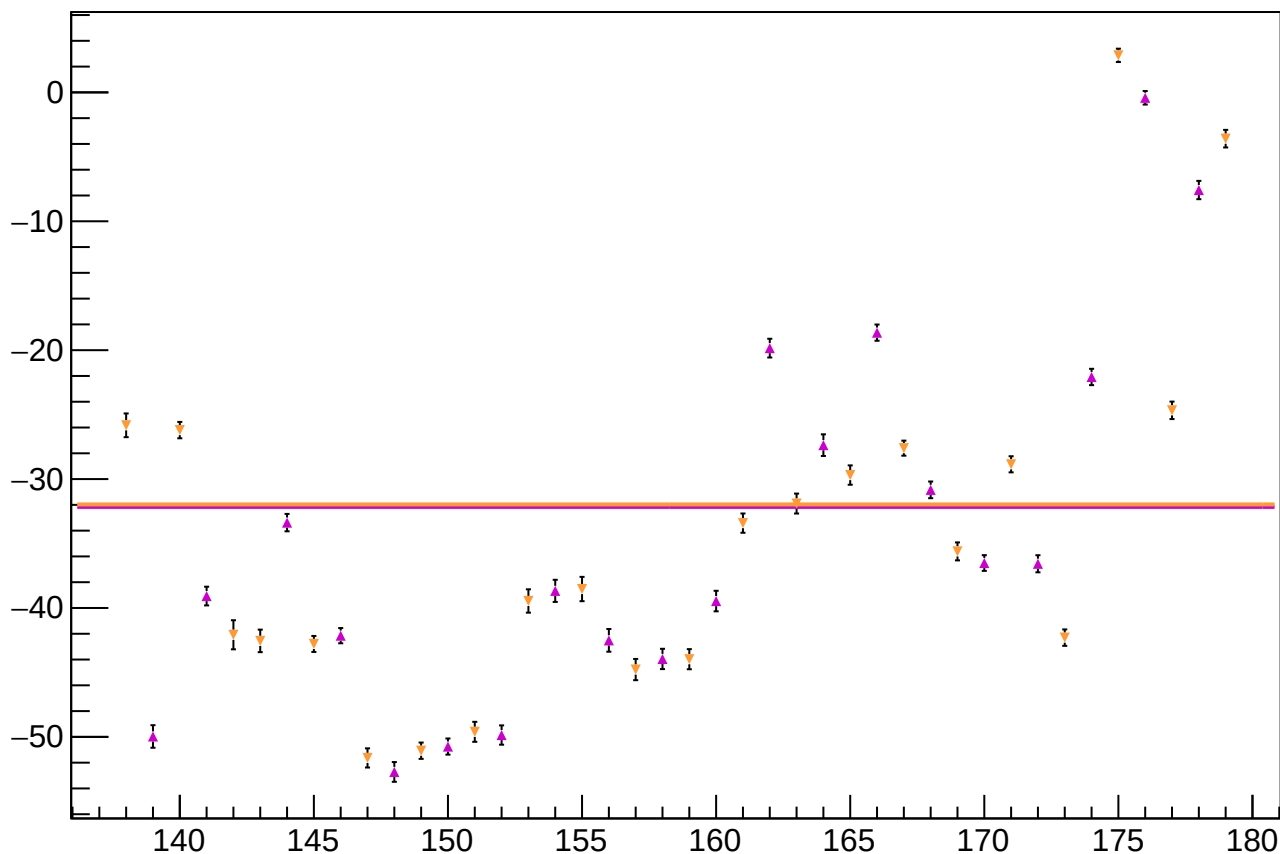
reg\_asym\_sam\_1548\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -1.547+/-0.114  $\chi^2/\text{NDF}$ : 4623.7/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -1.676+/-0.118  $\chi^2/\text{NDF}$ : 3195.7/19

Left: -1.609+/-0.082  $\chi^2/\text{NDF}$ : 7820.1/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -1.676+/-0.118  $\chi^2/\text{NDF}$ : 3195.7/19  
 Out: -1.547+/-0.114  $\chi^2/\text{NDF}$ : 4623.7/21  
 All: -1.609+/-0.082  $\chi^2/\text{NDF}$ : 7820.1/41

reg\_asym\_sam\_1548\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -31.969+/-0.152  $\chi^2/\text{NDF}$ :10125.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -32.156+/-0.155  $\chi^2/\text{NDF}$ :9436.1/19

Left: -32.061+/-0.109  $\chi^2/\text{NDF}$ : 19562.7/41

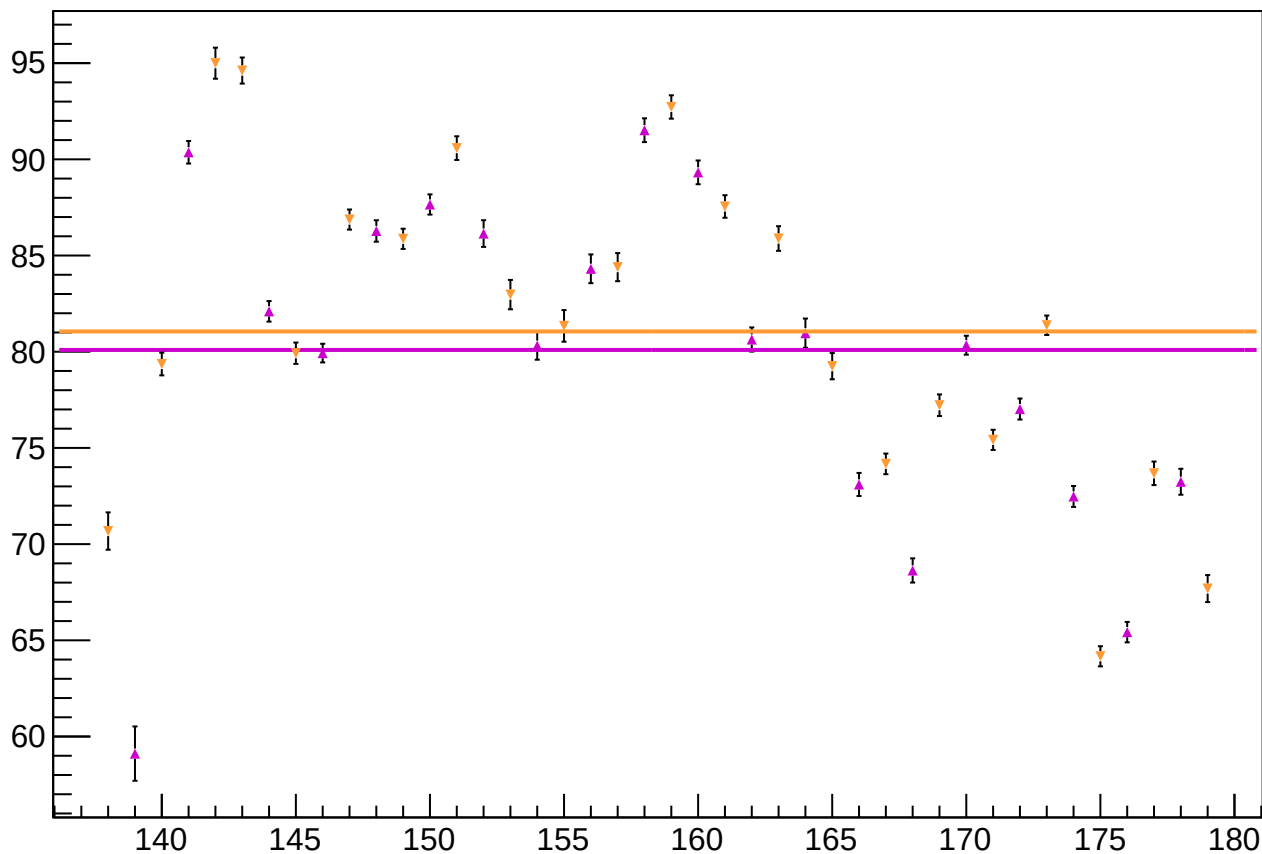
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -32.156+/-0.155  $\chi^2/\text{NDF}$ :9436.1/19

Out: -31.969+/-0.152  $\chi^2/\text{NDF}$ :10125.9/21

All: -32.061+/-0.109  $\chi^2/\text{NDF}$ : 19562.7/41

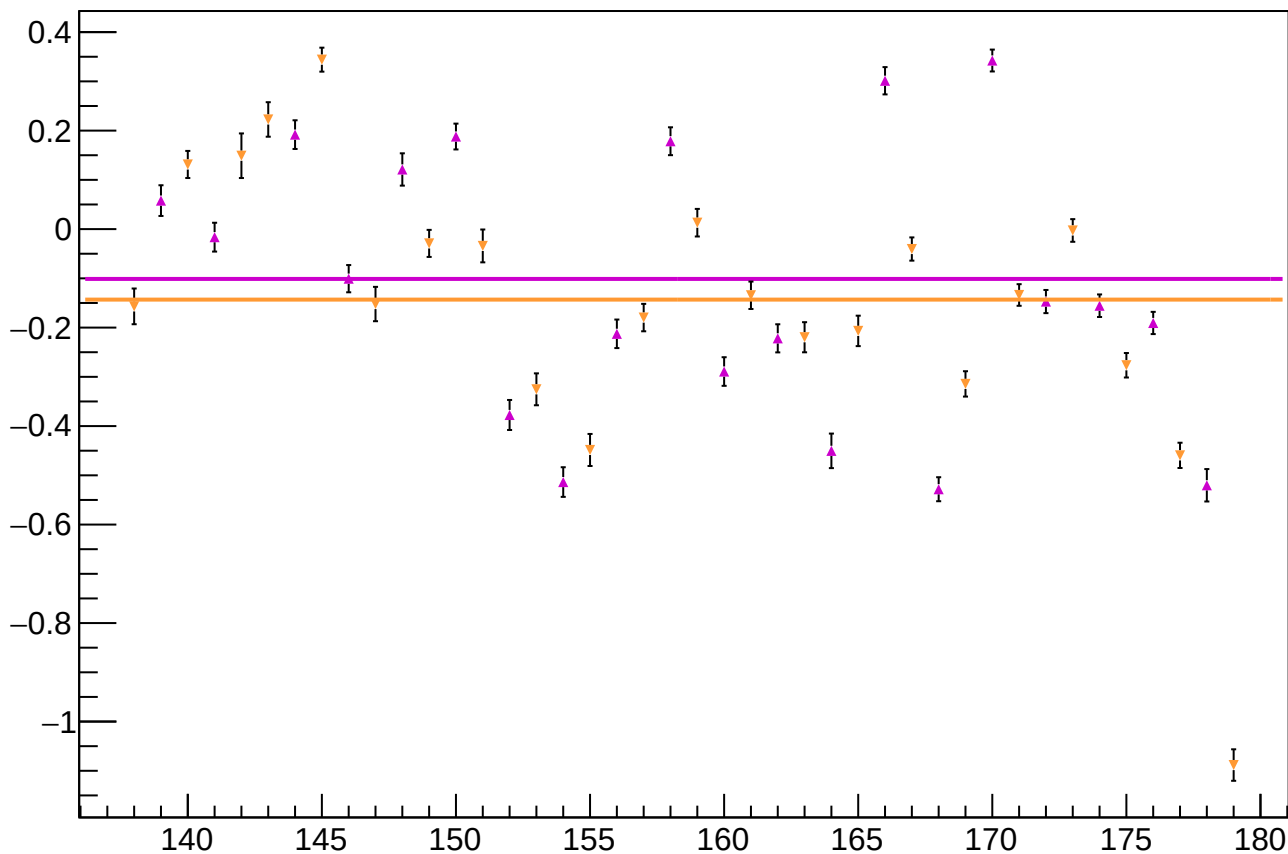
reg\_asym\_sam\_1548\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 81.053+/-0.131  $\chi^2/\text{NDF}$ :3731.0/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 80.093+/-0.135  $\chi^2/\text{NDF}$ :3111.1/19

Left: 80.588+/-0.094  $\chi^2/\text{NDF}$ : 6868.3/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 80.093+/-0.135  $\chi^2/\text{NDF}$ :3111.1/19  
 Out: 81.053+/-0.131  $\chi^2/\text{NDF}$ :3731.0/21  
 All: 80.588+/-0.094  $\chi^2/\text{NDF}$ : 6868.3/41

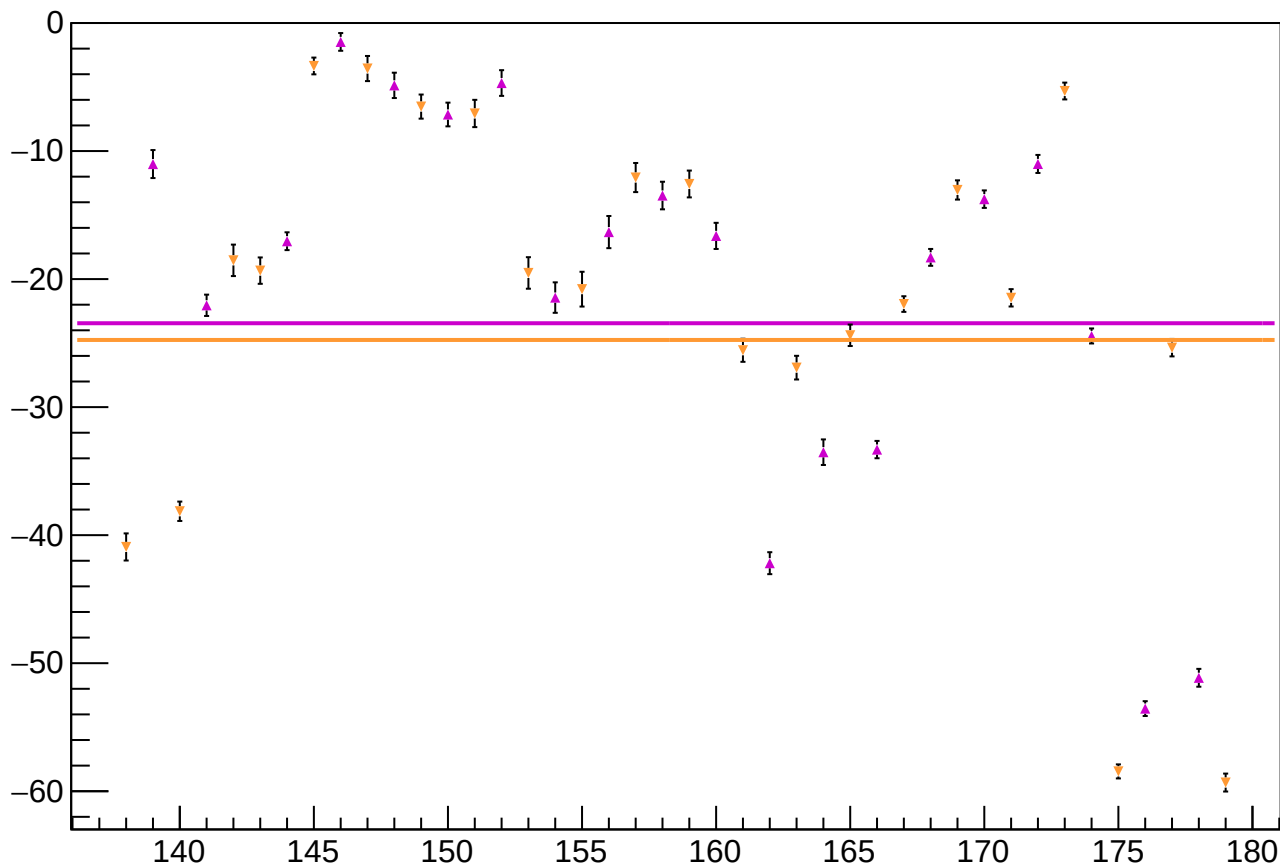
reg\_asym\_sam\_1548\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -0.143 $\pm$ 0.006  $\chi^2$ /NDF:1997.1/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -0.101 $\pm$ 0.006  $\chi^2$ /NDF:1948.4/19

Left: -0.123 $\pm$ 0.004  $\chi^2$ /NDF: 3969.2/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: -0.101 $\pm$ 0.006  $\chi^2$ /NDF:1948.4/19  
 Out: -0.143 $\pm$ 0.006  $\chi^2$ /NDF:1997.1/21  
 All: -0.123 $\pm$ 0.004  $\chi^2$ /NDF: 3969.2/41

reg\_asym\_sam\_3748\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -24.754+/-0.175  $\chi^2/\text{NDF}$ :10443.7/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -23.448+/-0.178  $\chi^2/\text{NDF}$ :8054.1/19

Left: -24.112+/-0.124  $\chi^2/\text{NDF}$ : 18525.3/41

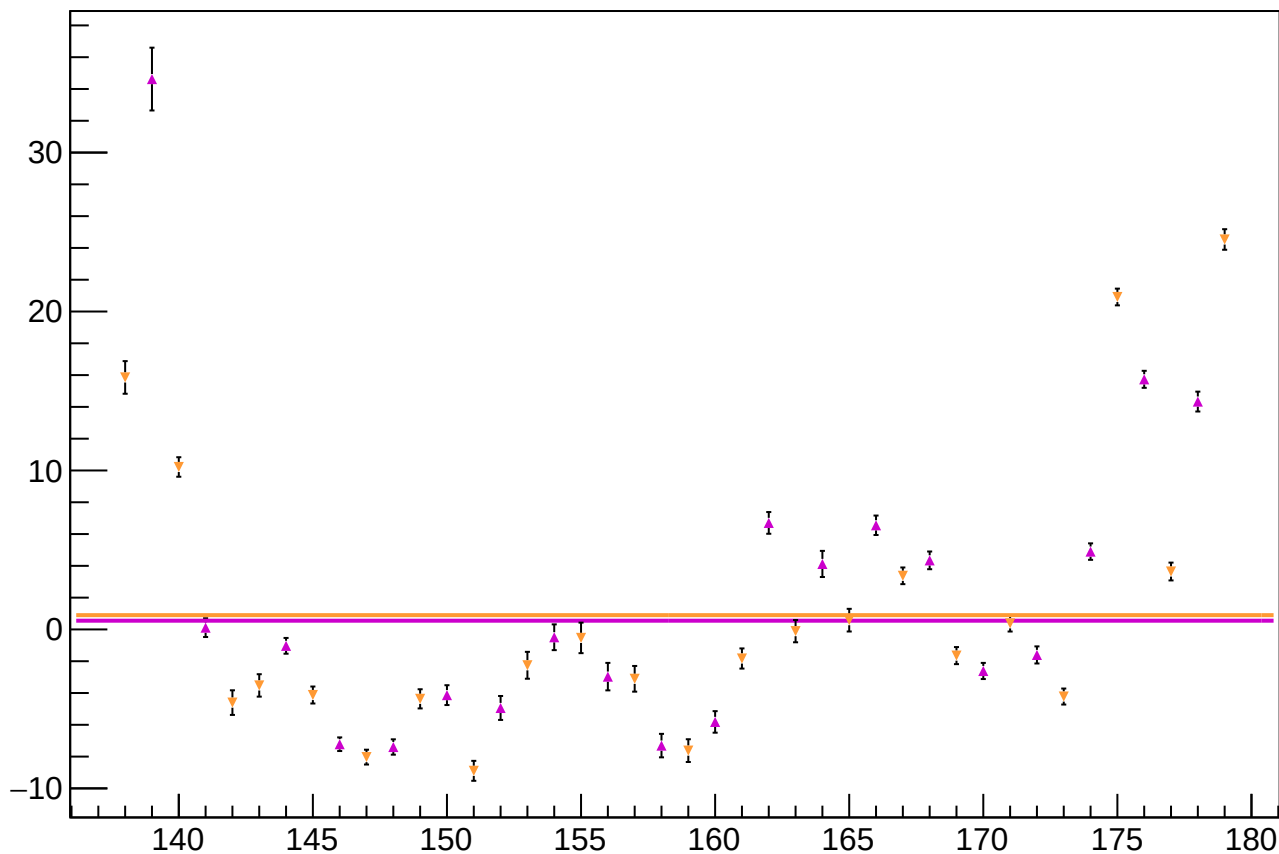
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -23.448+/-0.178  $\chi^2/\text{NDF}$ :8054.1/19

Out: -24.754+/-0.175  $\chi^2/\text{NDF}$ :10443.7/21

All: -24.112+/-0.124  $\chi^2/\text{NDF}$ : 18525.3/41

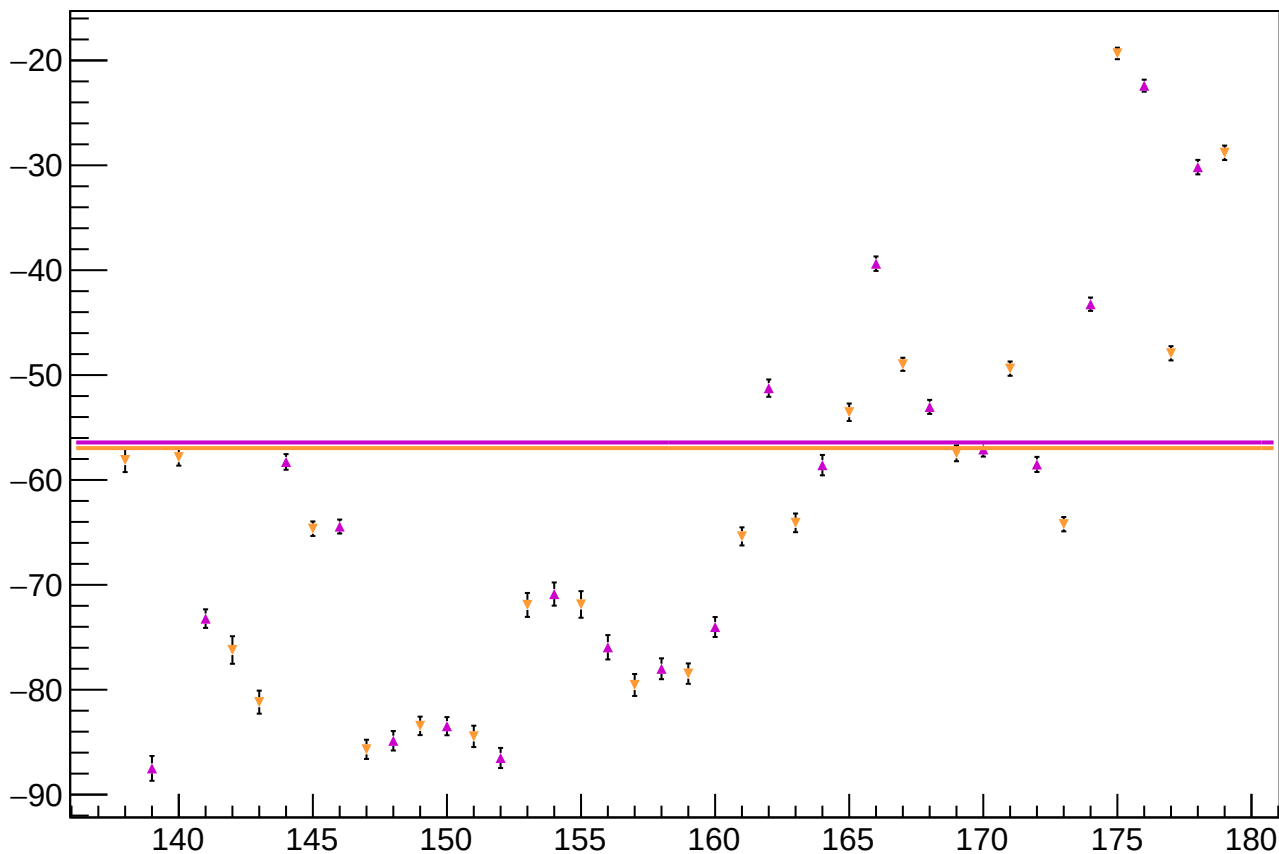
reg\_asym\_sam\_3748\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.898 $\pm$ 0.132  $\chi^2$ /NDF:4460.9/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.549 $\pm$ 0.135  $\chi^2$ /NDF:2896.0/19

Left: 0.727 $\pm$ 0.095  $\chi^2$ /NDF: 7360.4/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 0.549 $\pm$ 0.135  $\chi^2$ /NDF:2896.0/19  
 Out: 0.898 $\pm$ 0.132  $\chi^2$ /NDF:4460.9/21  
 All: 0.727 $\pm$ 0.095  $\chi^2$ /NDF: 7360.4/41

reg\_asym\_sam\_3748\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -56.964+/-0.175  $\chi^2/\text{NDF}$ :11803.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -56.425+/-0.177  $\chi^2/\text{NDF}$ :11448.0/19

Left: -56.699+/-0.124  $\chi^2/\text{NDF}$ : 23256.4/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

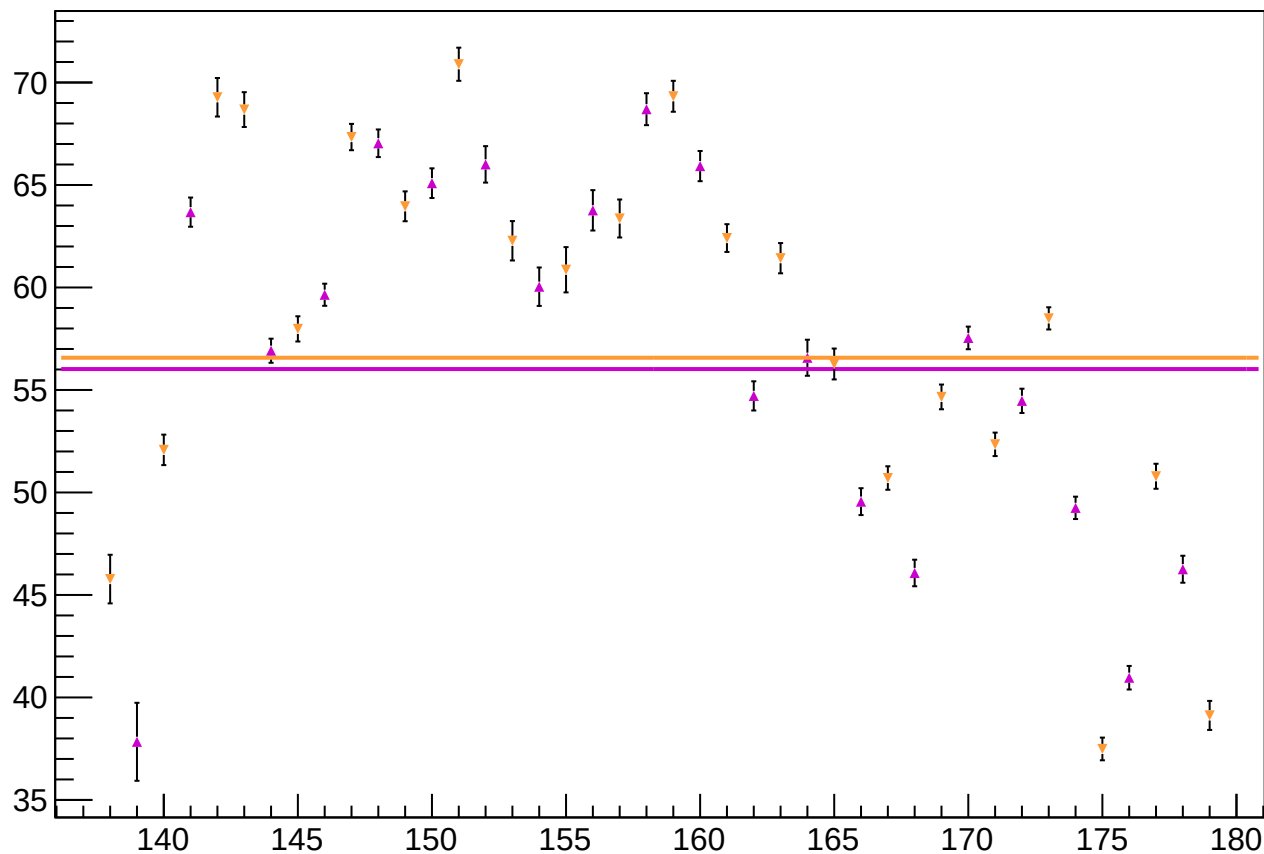
In: -56.425+/-0.177  $\chi^2/\text{NDF}$ :11448.0/19

Out: -56.964+/-0.175  $\chi^2/\text{NDF}$ :11803.8/21

All: -56.699+/-0.124  $\chi^2/\text{NDF}$ : 23256.4/41



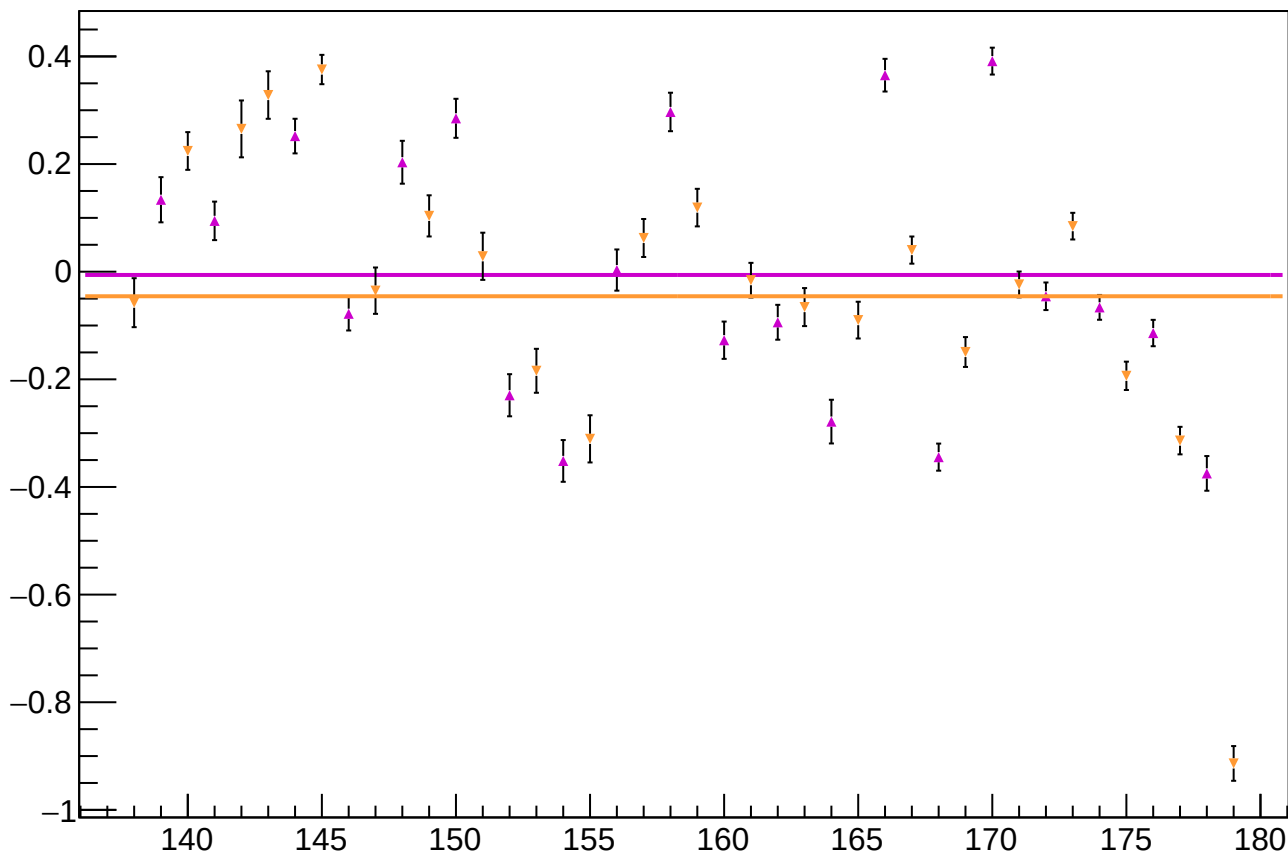
reg\_asym\_sam\_3748\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 56.573 $\pm$ 0.150  $\chi^2$ /NDF:3783.8/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 56.021 $\pm$ 0.154  $\chi^2$ /NDF:2741.7/19

Left: 56.303 $\pm$ 0.107  $\chi^2$ /NDF: 6532.1/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 56.021 $\pm$ 0.154  $\chi^2$ /NDF:2741.7/19  
 Out: 56.573 $\pm$ 0.150  $\chi^2$ /NDF:3783.8/21  
 All: 56.303 $\pm$ 0.107  $\chi^2$ /NDF: 6532.1/41

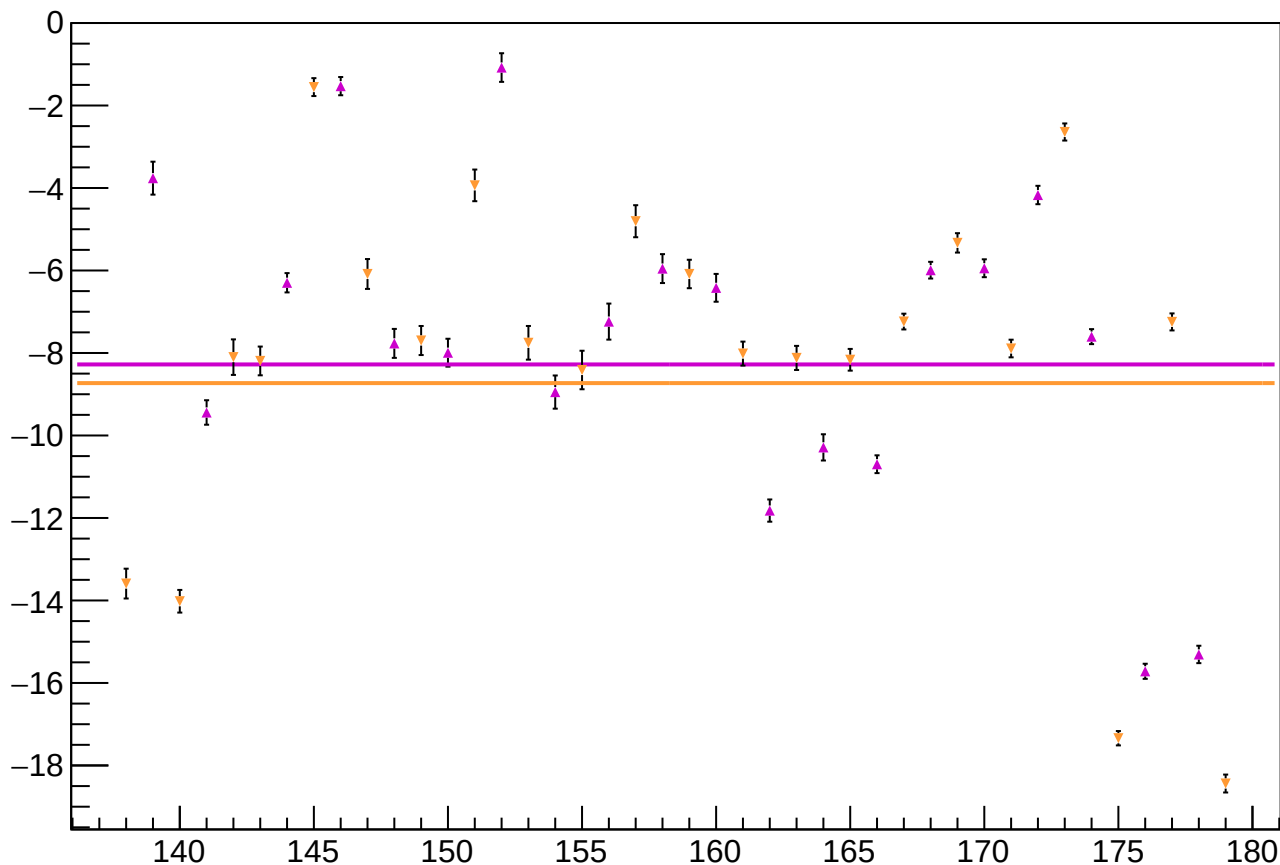
reg\_asym\_sam\_3748\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -0.046+/-0.007  $\chi^2/\text{NDF}$ :1424.9/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -0.006+/-0.007  $\chi^2/\text{NDF}$ :1172.0/19

Left: -0.026+/-0.005  $\chi^2/\text{NDF}$ : 2612.9/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -0.006+/-0.007  $\chi^2/\text{NDF}$ :1172.0/19  
 Out: -0.046+/-0.007  $\chi^2/\text{NDF}$ :1424.9/21  
 All: -0.026+/-0.005  $\chi^2/\text{NDF}$ : 2612.9/41

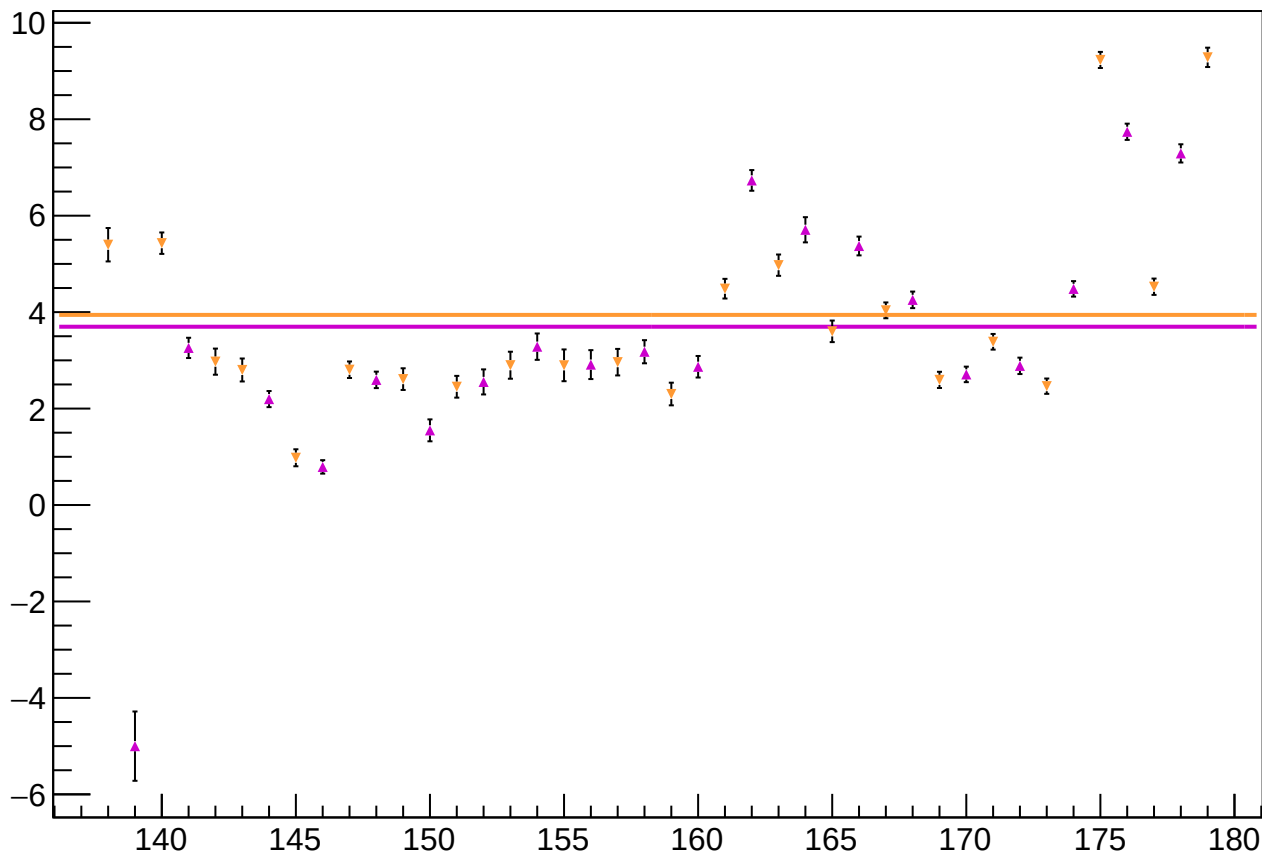
reg\_asym\_sam\_1526\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -8.730 $\pm$ 0.057  $\chi^2$ /NDF:7694.5/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -8.278 $\pm$ 0.057  $\chi^2$ /NDF:5362.6/19

Left: -8.506 $\pm$ 0.040  $\chi^2$ /NDF: 13088.6/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: -8.278 $\pm$ 0.057  $\chi^2$ /NDF:5362.6/19  
 Out: -8.730 $\pm$ 0.057  $\chi^2$ /NDF:7694.5/21  
 All: -8.506 $\pm$ 0.040  $\chi^2$ /NDF: 13088.6/41

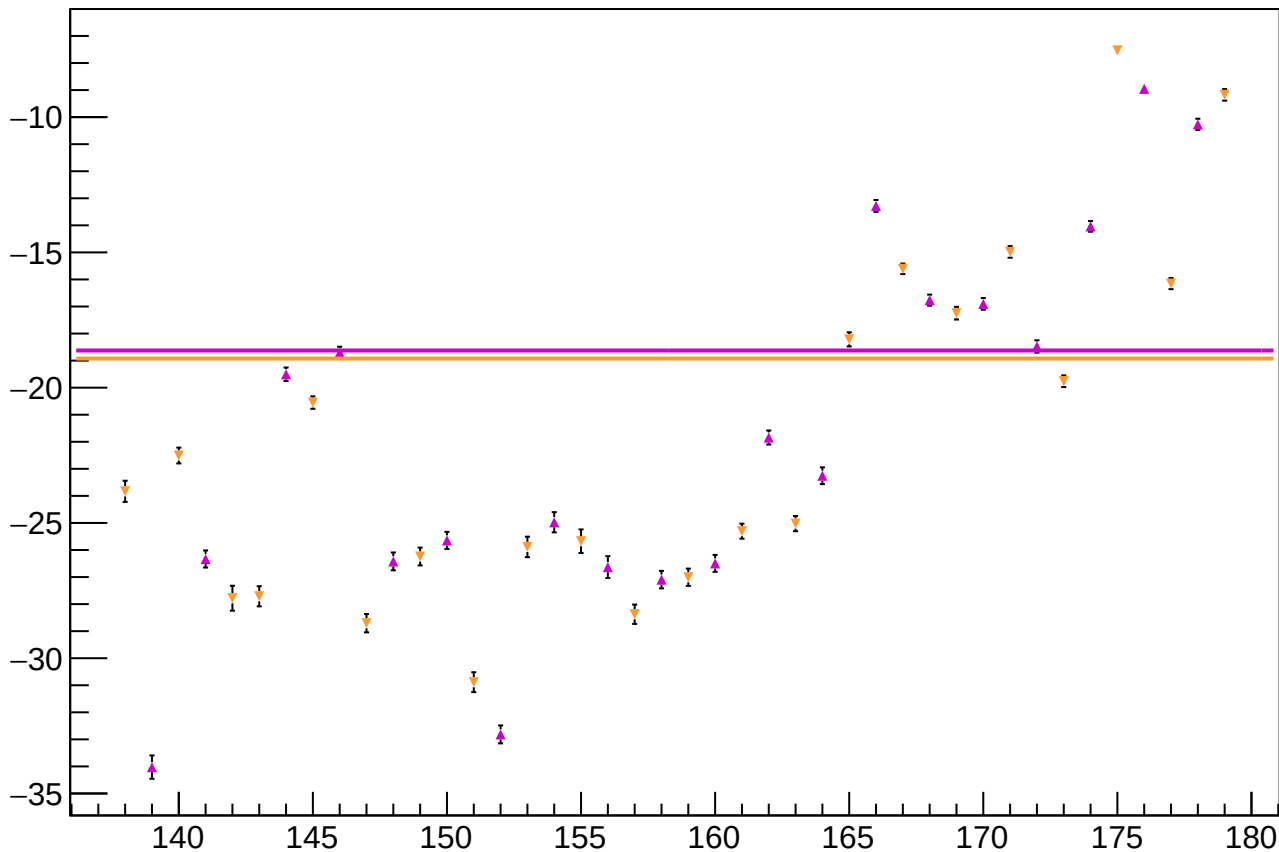
reg\_asym\_sam\_1526\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 3.943+/-0.043     $\chi^2/\text{NDF}$ :2508.2/21  
 Right Out: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 3.697+/-0.044     $\chi^2/\text{NDF}$ :2210.0/19

Left: 3.822+/-0.031     $\chi^2/\text{NDF}$ : 4733.9/41  
 Right: 0.000+/-0.000     $\chi^2/\text{NDF}$ : 0.0/0  
 In: 3.697+/-0.044     $\chi^2/\text{NDF}$ :2210.0/19  
 Out: 3.943+/-0.043     $\chi^2/\text{NDF}$ :2508.2/21  
 All: 3.822+/-0.031     $\chi^2/\text{NDF}$ : 4733.9/41

reg\_asym\_sam\_1526\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -18.925+/-0.057  $\chi^2/\text{NDF}$ :13806.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -18.626+/-0.057  $\chi^2/\text{NDF}$ :12847.8/19

Left: -18.777+/-0.040  $\chi^2/\text{NDF}$ : 26668.2/41

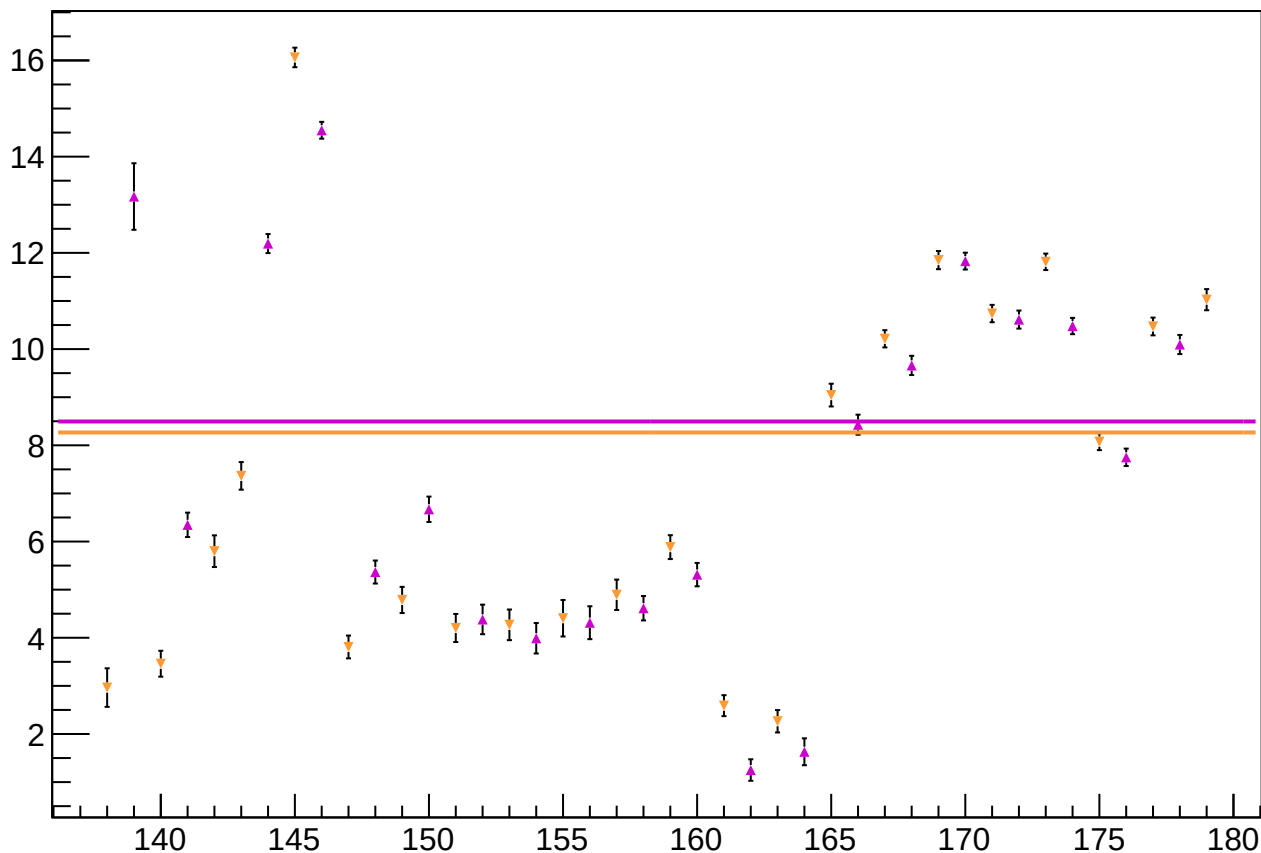
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -18.626+/-0.057  $\chi^2/\text{NDF}$ :12847.8/19

Out: -18.925+/-0.057  $\chi^2/\text{NDF}$ :13806.8/21

All: -18.777+/-0.040  $\chi^2/\text{NDF}$ : 26668.2/41

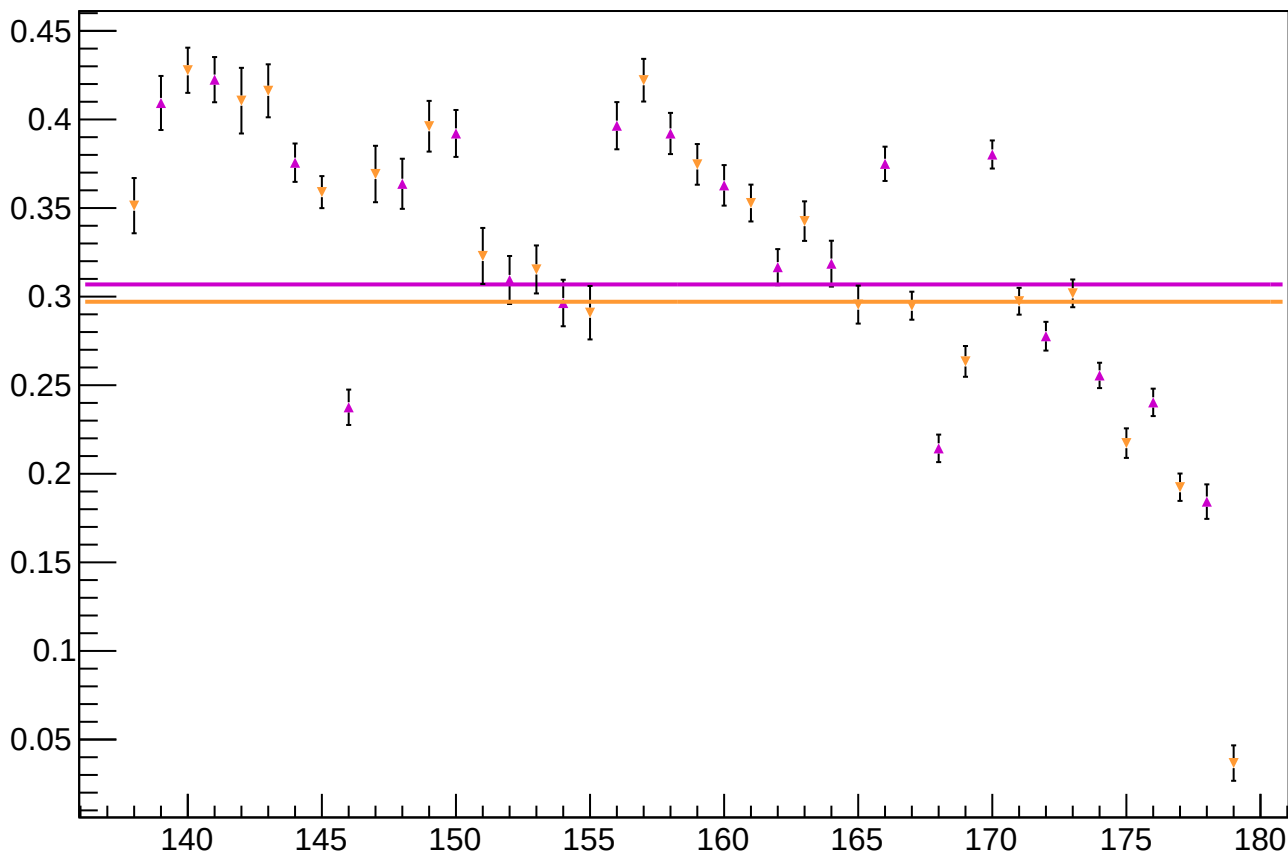
reg\_asym\_sam\_1526\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 8.267+/-0.049  $\chi^2/\text{NDF}$ :5963.9/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 8.495+/-0.050  $\chi^2/\text{NDF}$ :5217.9/19

Left: 8.379+/-0.035  $\chi^2/\text{NDF}$ : 11192.4/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 8.495+/-0.050  $\chi^2/\text{NDF}$ :5217.9/19  
 Out: 8.267+/-0.049  $\chi^2/\text{NDF}$ :5963.9/21  
 All: 8.379+/-0.035  $\chi^2/\text{NDF}$ : 11192.4/41

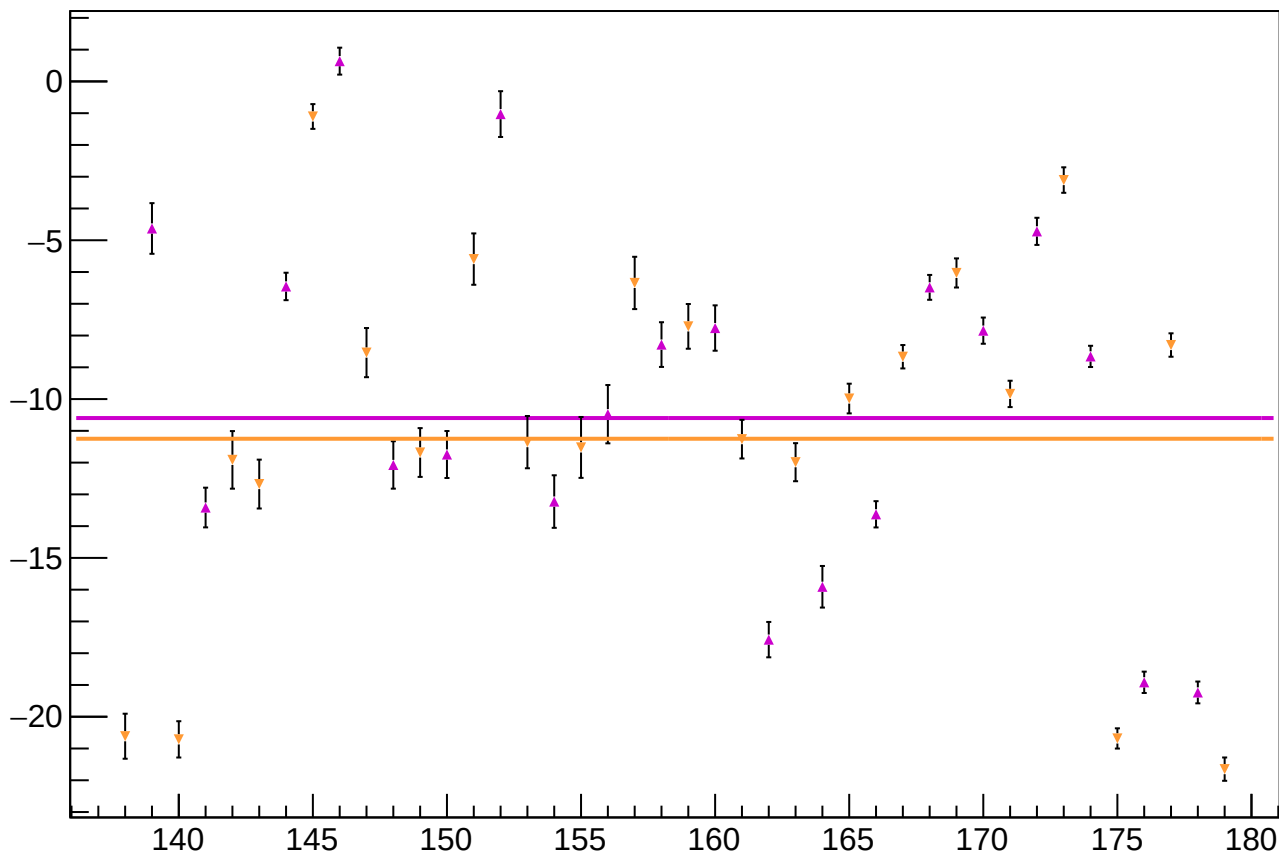
reg\_asym\_sam\_1526\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.297 $\pm$ 0.002  $\chi^2$ /NDF:1505.1/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.307 $\pm$ 0.002  $\chi^2$ /NDF:972.2/19

Left: 0.302 $\pm$ 0.002  $\chi^2$ /NDF: 2486.6/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 0.307 $\pm$ 0.002  $\chi^2$ /NDF:972.2/19  
 Out: 0.297 $\pm$ 0.002  $\chi^2$ /NDF:1505.1/21  
 All: 0.302 $\pm$ 0.002  $\chi^2$ /NDF: 2486.6/41

reg\_asym\_sam\_3726\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

Left Out:  $-11.249 \pm 0.109$   $\chi^2/\text{NDF}$ : 3606.4/21

Right Out:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

Left In:  $-10.597 \pm 0.110$   $\chi^2/\text{NDF}$ : 2989.4/19

Left:  $-10.926 \pm 0.077$   $\chi^2/\text{NDF}$ : 6613.5/41

Right:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

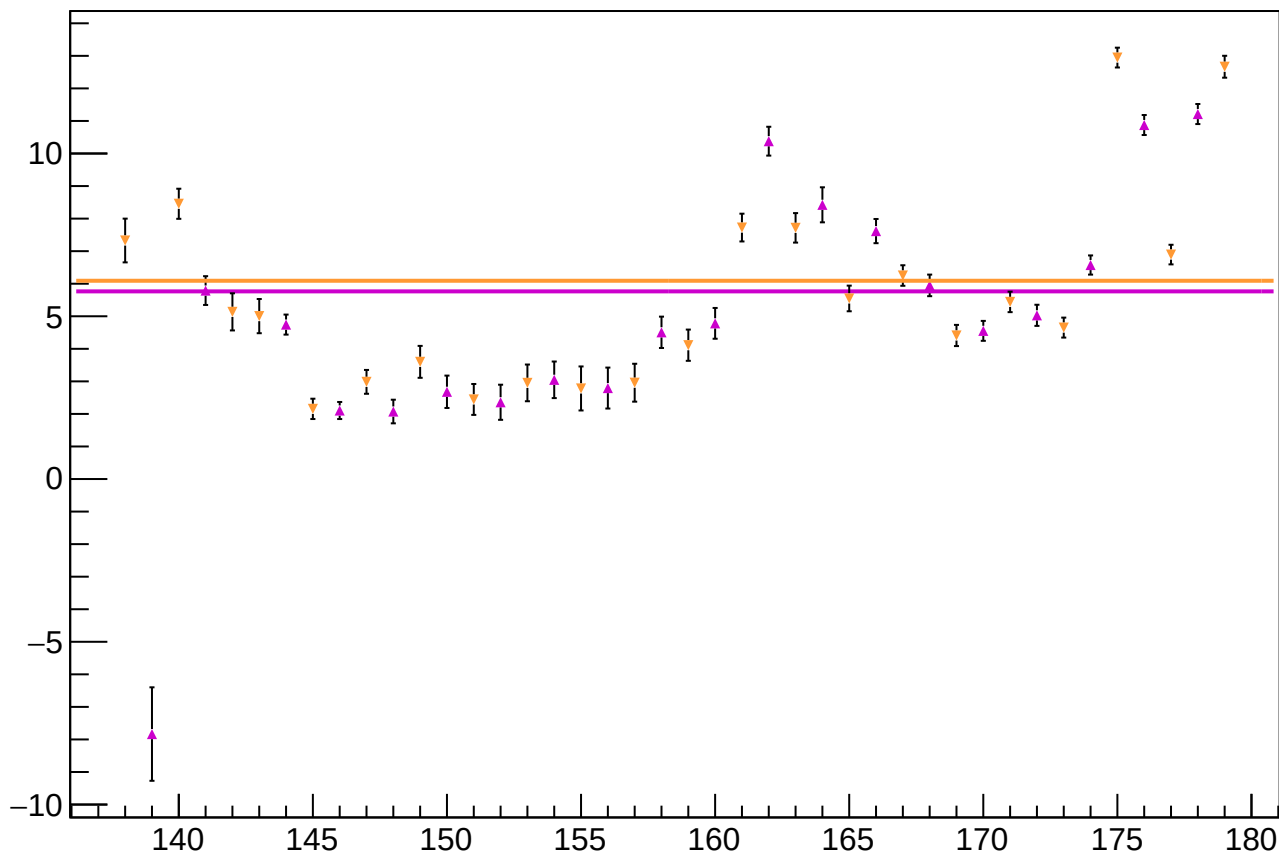
In:  $-10.597 \pm 0.110$   $\chi^2/\text{NDF}$ : 2989.4/19

Out:  $-11.249 \pm 0.109$   $\chi^2/\text{NDF}$ : 3606.4/21

All:  $-10.926 \pm 0.077$   $\chi^2/\text{NDF}$ : 6613.5/41



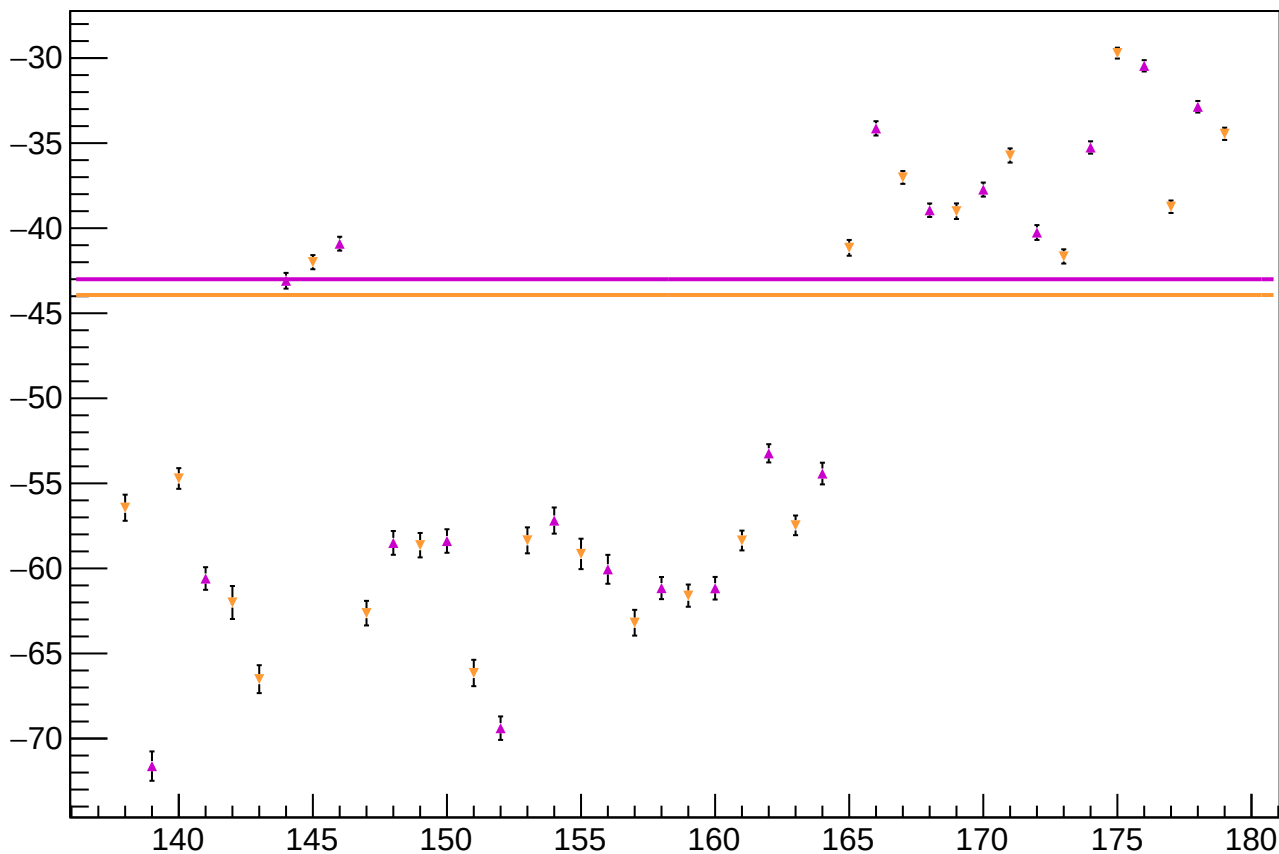
reg\_asym\_sam\_3726\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 6.091+/-0.084  $\chi^2/\text{NDF}$ :1431.4/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 5.765+/-0.085  $\chi^2/\text{NDF}$ :1310.4/19

Left: 5.929+/-0.060  $\chi^2/\text{NDF}$ : 2749.2/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 5.765+/-0.085  $\chi^2/\text{NDF}$ :1310.4/19  
 Out: 6.091+/-0.084  $\chi^2/\text{NDF}$ :1431.4/21  
 All: 5.929+/-0.060  $\chi^2/\text{NDF}$ : 2749.2/41

reg\_asym\_sam\_3726\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -43.928+/-0.109  $\chi^2/\text{NDF}$ :10575.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -43.002+/-0.110  $\chi^2/\text{NDF}$ :10747.0/19

Left: -43.469+/-0.077  $\chi^2/\text{NDF}$ : 21358.6/41

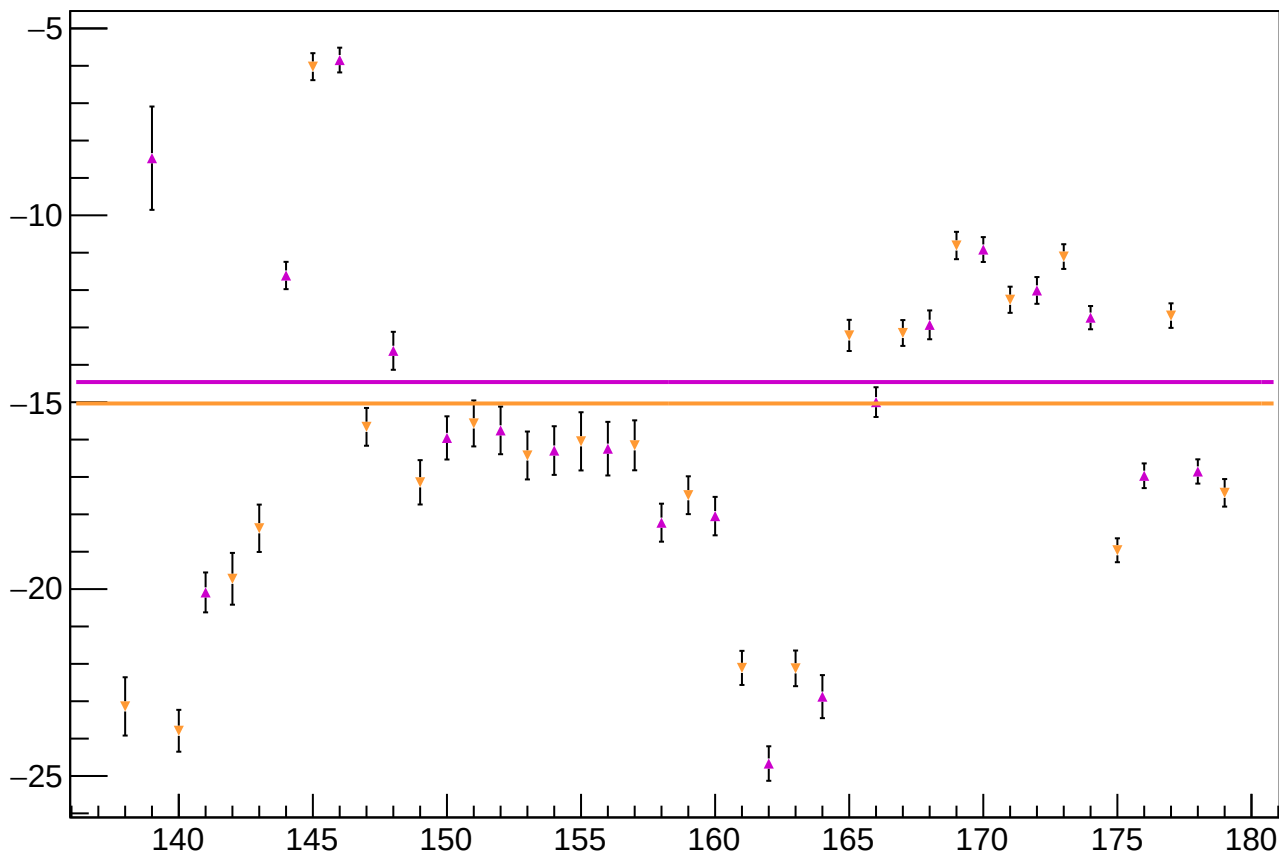
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -43.002+/-0.110  $\chi^2/\text{NDF}$ :10747.0/19

Out: -43.928+/-0.109  $\chi^2/\text{NDF}$ :10575.8/21

All: -43.469+/-0.077  $\chi^2/\text{NDF}$ : 21358.6/41

reg\_asym\_sam\_3726\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -15.034+/-0.095  $\chi^2/\text{NDF}$ :2189.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -14.461+/-0.096  $\chi^2/\text{NDF}$ :2021.1/19

Left: -14.751+/-0.067  $\chi^2/\text{NDF}$ : 4228.4/41

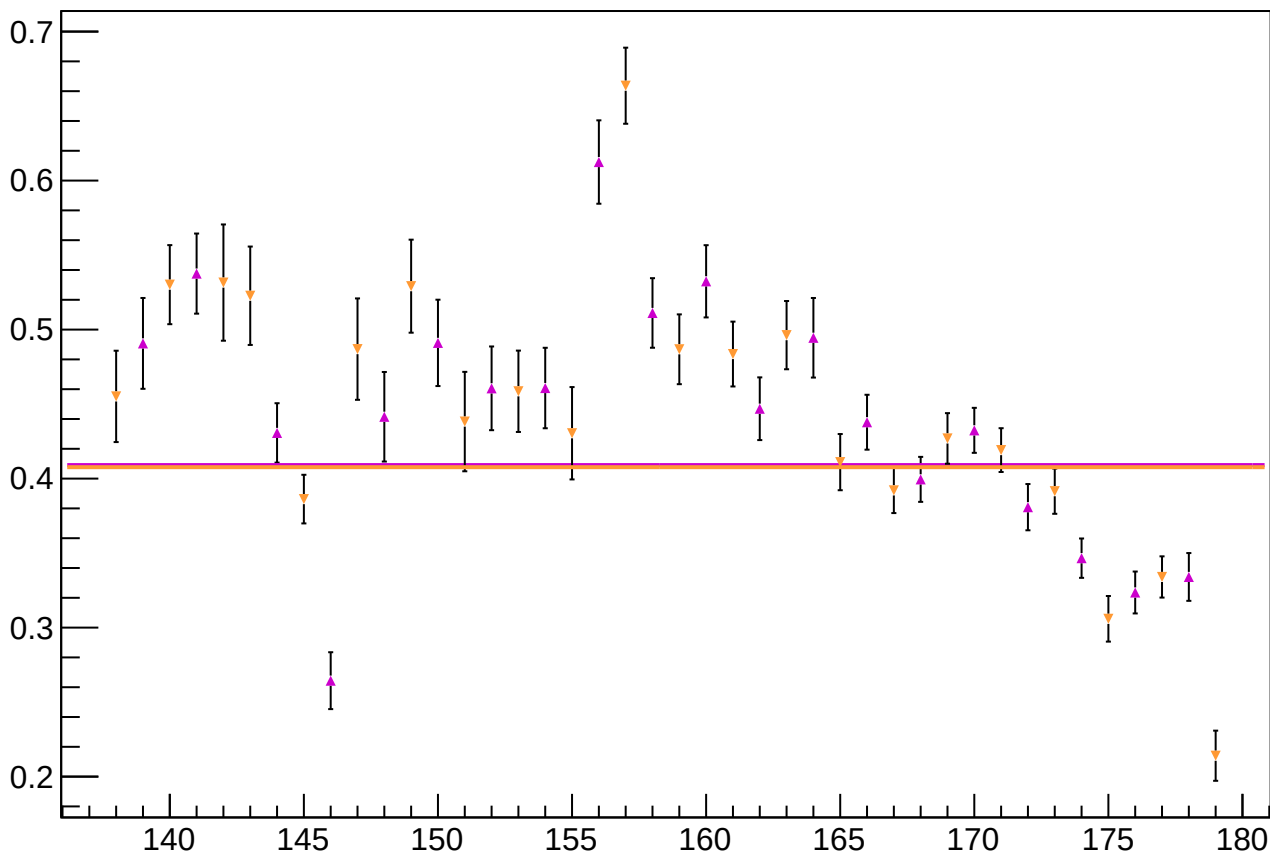
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -14.461+/-0.096  $\chi^2/\text{NDF}$ :2021.1/19

Out: -15.034+/-0.095  $\chi^2/\text{NDF}$ :2189.2/21

All: -14.751+/-0.067  $\chi^2/\text{NDF}$ : 4228.4/41

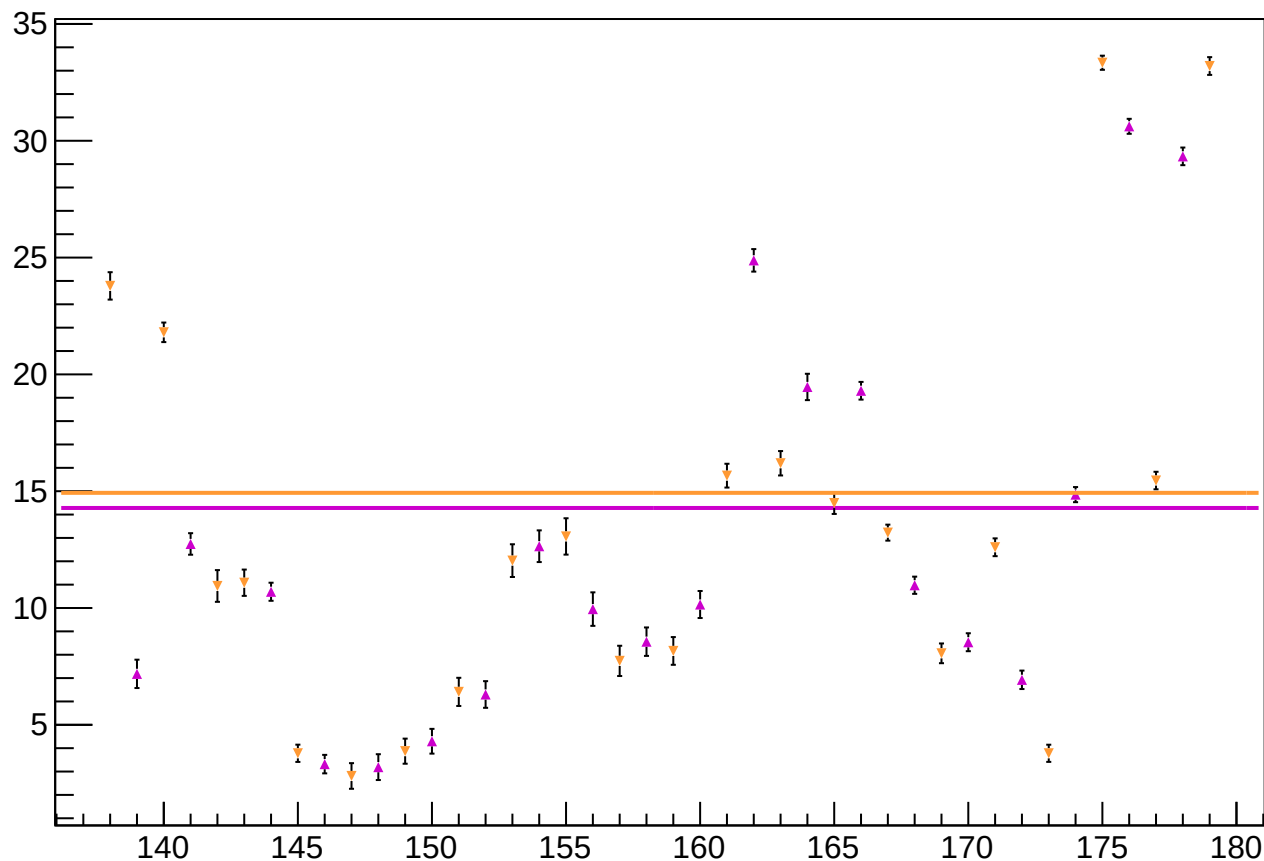
reg\_asym\_sam\_3726\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 0.408+/-0.004  $\chi^2/\text{NDF}$ :421.2/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 0.409+/-0.004  $\chi^2/\text{NDF}$ :306.0/19

Left: 0.408+/-0.003  $\chi^2/\text{NDF}$ : 727.3/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 0.409+/-0.004  $\chi^2/\text{NDF}$ :306.0/19  
 Out: 0.408+/-0.004  $\chi^2/\text{NDF}$ :421.2/21  
 All: 0.408+/-0.003  $\chi^2/\text{NDF}$ : 727.3/41

reg\_asym\_sam\_15\_48\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: 14.930 $\pm$ 0.097  $\chi^2$ /NDF:10140.8/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: 14.282 $\pm$ 0.099  $\chi^2$ /NDF:7726.0/19

Left: 14.612 $\pm$ 0.070  $\chi^2$ /NDF: 17888.4/41

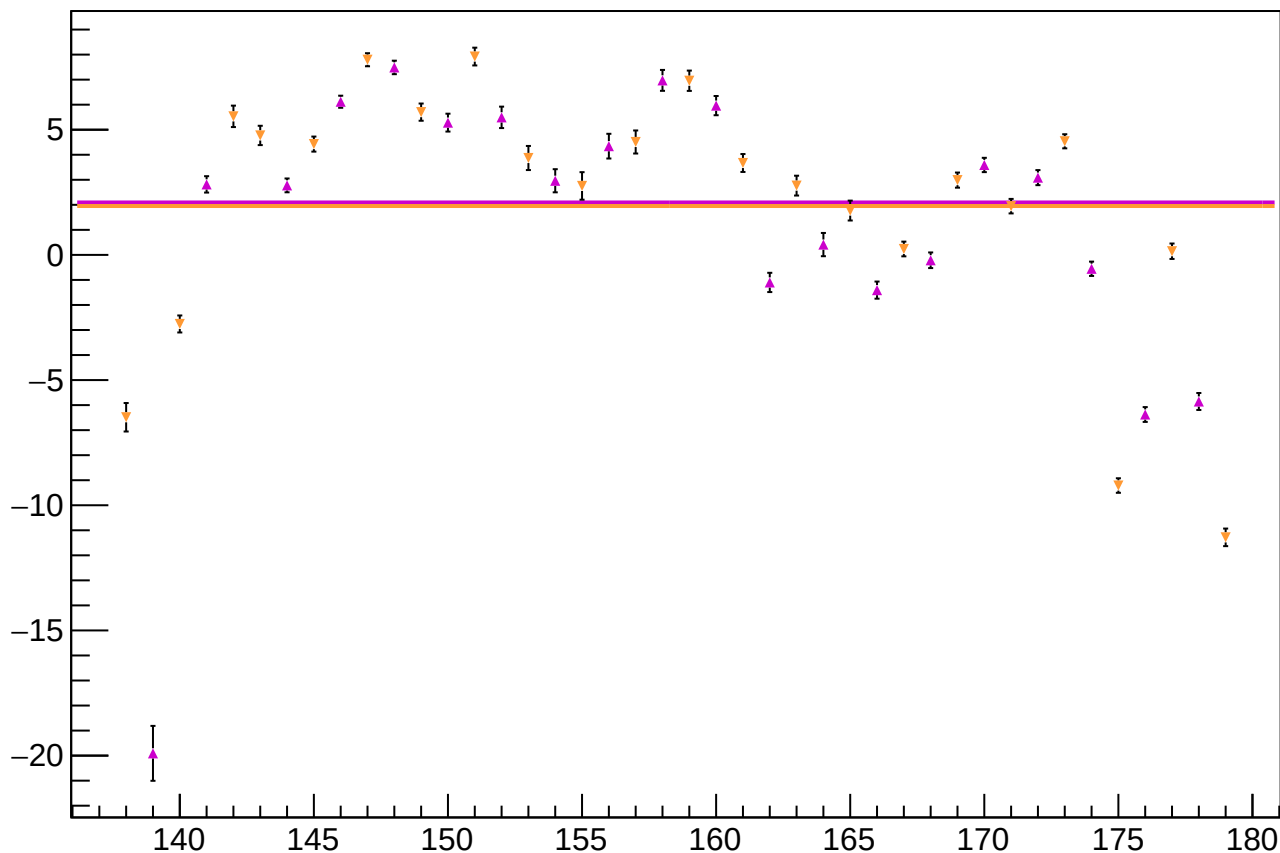
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: 14.282 $\pm$ 0.099  $\chi^2$ /NDF:7726.0/19

Out: 14.930 $\pm$ 0.097  $\chi^2$ /NDF:10140.8/21

All: 14.612 $\pm$ 0.070  $\chi^2$ /NDF: 17888.4/41

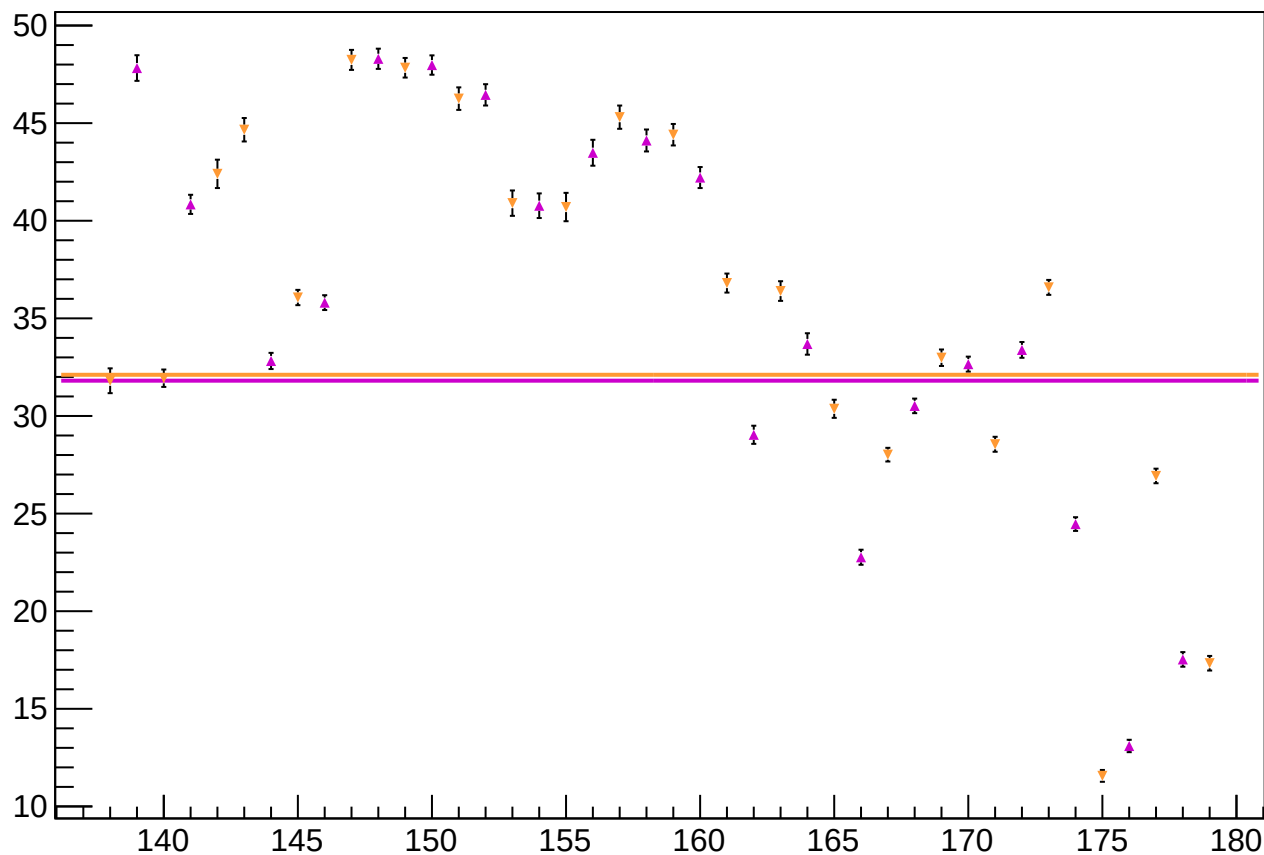
reg\_asym\_sam\_15\_48\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 1.953 $\pm$ 0.074  $\chi^2$ /NDF:4799.9/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 2.094 $\pm$ 0.076  $\chi^2$ /NDF:3231.7/19

Left: 2.022 $\pm$ 0.053  $\chi^2$ /NDF: 8033.3/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 2.094 $\pm$ 0.076  $\chi^2$ /NDF:3231.7/19  
 Out: 1.953 $\pm$ 0.074  $\chi^2$ /NDF:4799.9/21  
 All: 2.022 $\pm$ 0.053  $\chi^2$ /NDF: 8033.3/41

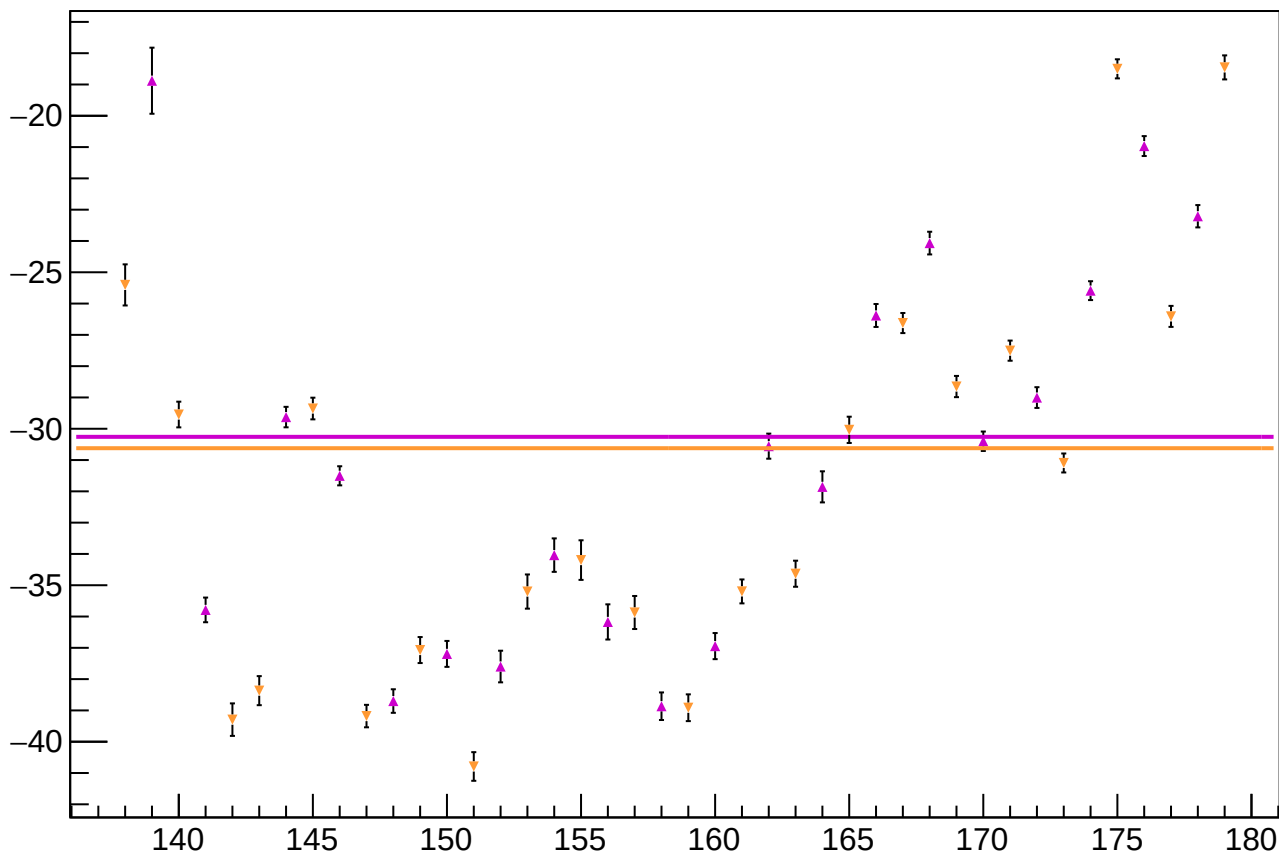
reg\_asym\_sam\_15\_48\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 32.110+/-0.097  $\chi^2/\text{NDF}$ :11504.4/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 31.808+/-0.099  $\chi^2/\text{NDF}$ :11210.5/19

Left: 31.962+/-0.070  $\chi^2/\text{NDF}$ : 22719.6/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 31.808+/-0.099  $\chi^2/\text{NDF}$ :11210.5/19  
 Out: 32.110+/-0.097  $\chi^2/\text{NDF}$ :11504.4/21  
 All: 31.962+/-0.070  $\chi^2/\text{NDF}$ : 22719.6/41

reg\_asym\_sam\_15\_48\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -30.621+/-0.084  $\chi^2/\text{NDF}$ : 5783.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -30.258+/-0.086  $\chi^2/\text{NDF}$ : 4039.7/19

Left: -30.444+/-0.060  $\chi^2/\text{NDF}$ : 9832.0/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

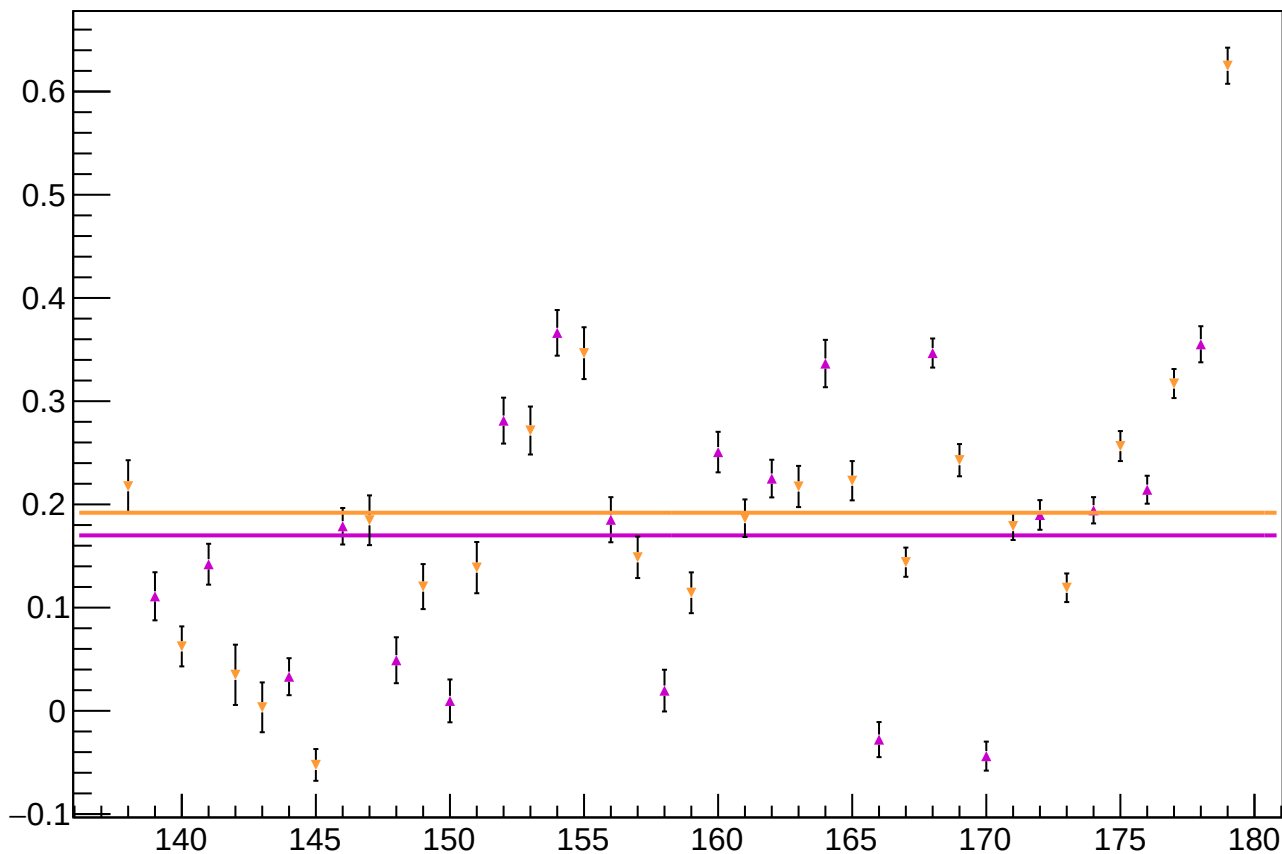
In: -30.258+/-0.086  $\chi^2/\text{NDF}$ : 4039.7/19

Out: -30.621+/-0.084  $\chi^2/\text{NDF}$ : 5783.2/21

All: -30.444+/-0.060  $\chi^2/\text{NDF}$ : 9832.0/41



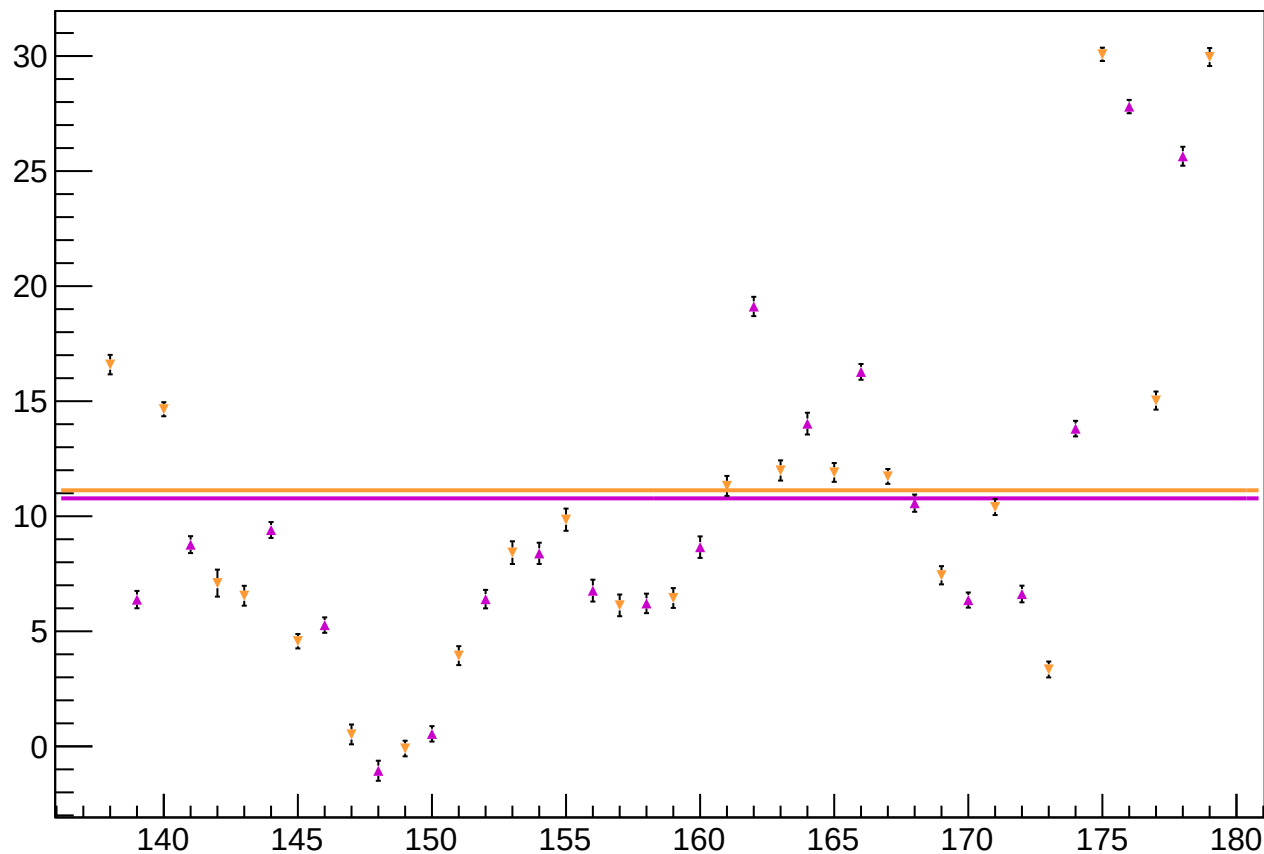
reg\_asym\_sam\_15\_48\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.192 $\pm$ 0.004  $\chi^2$ /NDF:1239.6/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.170 $\pm$ 0.004  $\chi^2$ /NDF:1047.2/19

Left: 0.181 $\pm$ 0.003  $\chi^2$ /NDF: 2302.5/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 0.170 $\pm$ 0.004  $\chi^2$ /NDF:1047.2/19  
 Out: 0.192 $\pm$ 0.004  $\chi^2$ /NDF:1239.6/21  
 All: 0.181 $\pm$ 0.003  $\chi^2$ /NDF: 2302.5/41

reg\_asym\_sam\_37\_48\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 11.127+/-0.082  $\chi^2/\text{NDF}$ :10499.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 10.777+/-0.084  $\chi^2/\text{NDF}$ :8303.4/19

Left: 10.956+/-0.059  $\chi^2/\text{NDF}$ : 18811.7/41

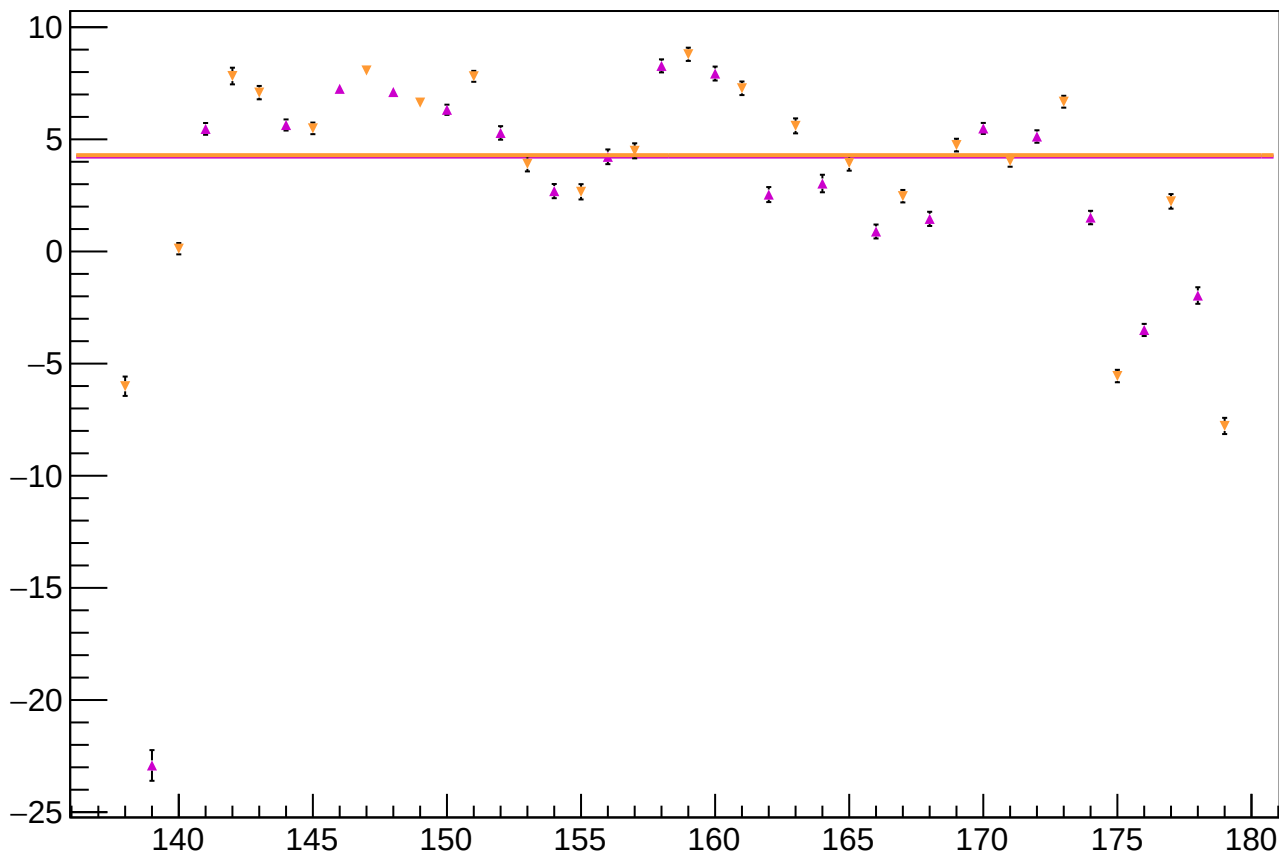
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 10.777+/-0.084  $\chi^2/\text{NDF}$ :8303.4/19

Out: 11.127+/-0.082  $\chi^2/\text{NDF}$ :10499.5/21

All: 10.956+/-0.059  $\chi^2/\text{NDF}$ : 18811.7/41

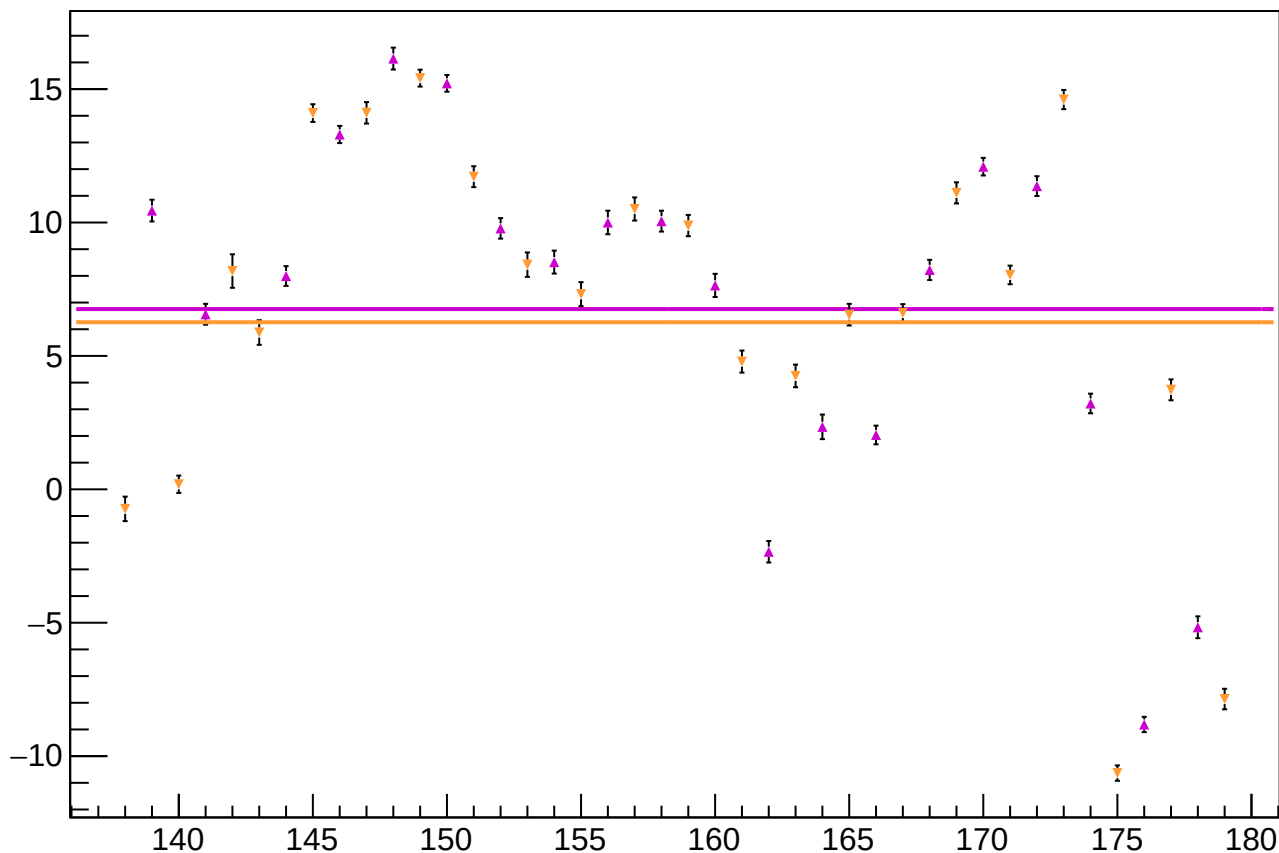
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 4.294+/-0.061  $\chi^2/\text{NDF}$ :4604.7/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 4.231+/-0.064  $\chi^2/\text{NDF}$ :3900.4/19

Left: 4.264+/-0.044  $\chi^2/\text{NDF}$ : 8505.6/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 4.231+/-0.064  $\chi^2/\text{NDF}$ :3900.4/19  
 Out: 4.294+/-0.061  $\chi^2/\text{NDF}$ :4604.7/21  
 All: 4.264+/-0.044  $\chi^2/\text{NDF}$ : 8505.6/41

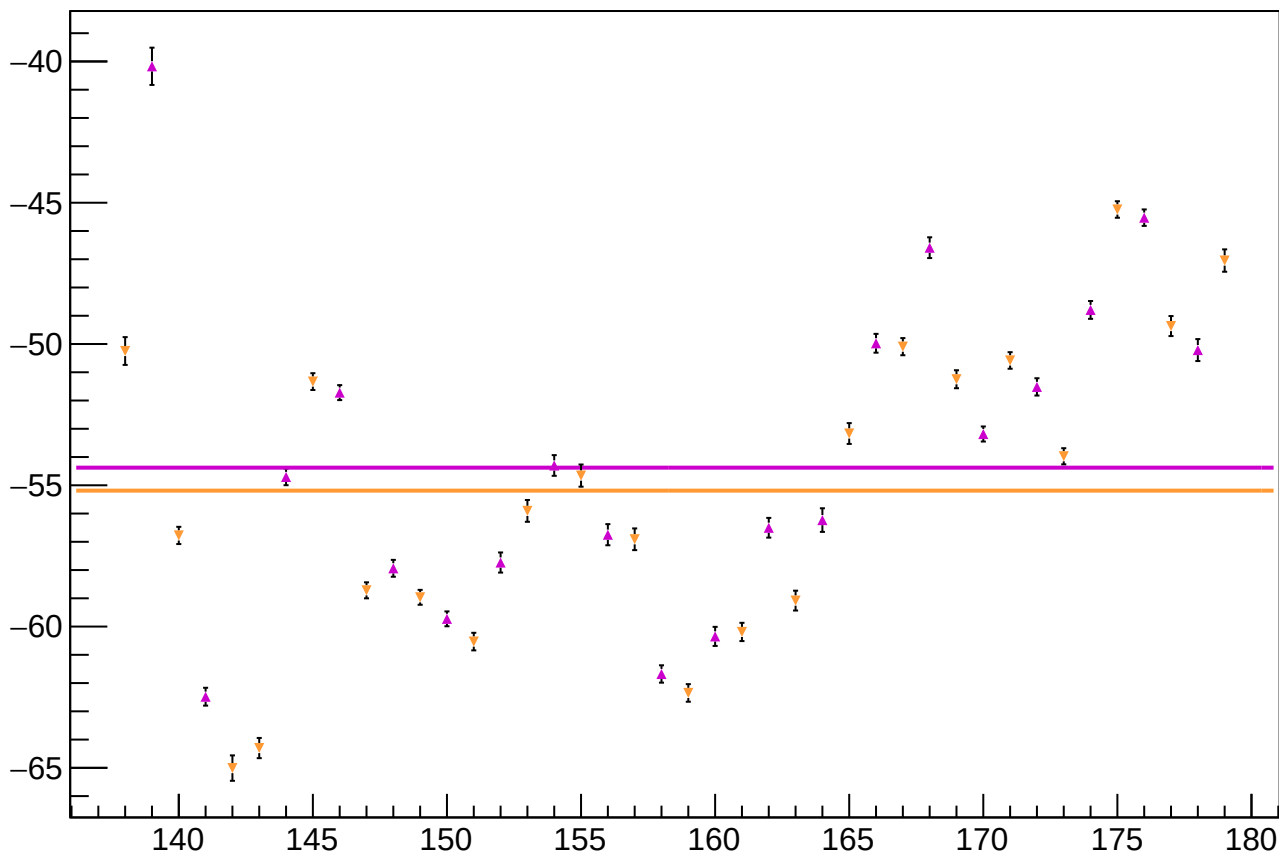
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 6.263 $\pm$ 0.082  $\chi^2$ /NDF:8326.0/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 6.755 $\pm$ 0.084  $\chi^2$ /NDF:7059.6/19

Left: 6.504 $\pm$ 0.059  $\chi^2$ /NDF: 15403.3/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 6.755 $\pm$ 0.084  $\chi^2$ /NDF:7059.6/19  
 Out: 6.263 $\pm$ 0.082  $\chi^2$ /NDF:8326.0/21  
 All: 6.504 $\pm$ 0.059  $\chi^2$ /NDF: 15403.3/41

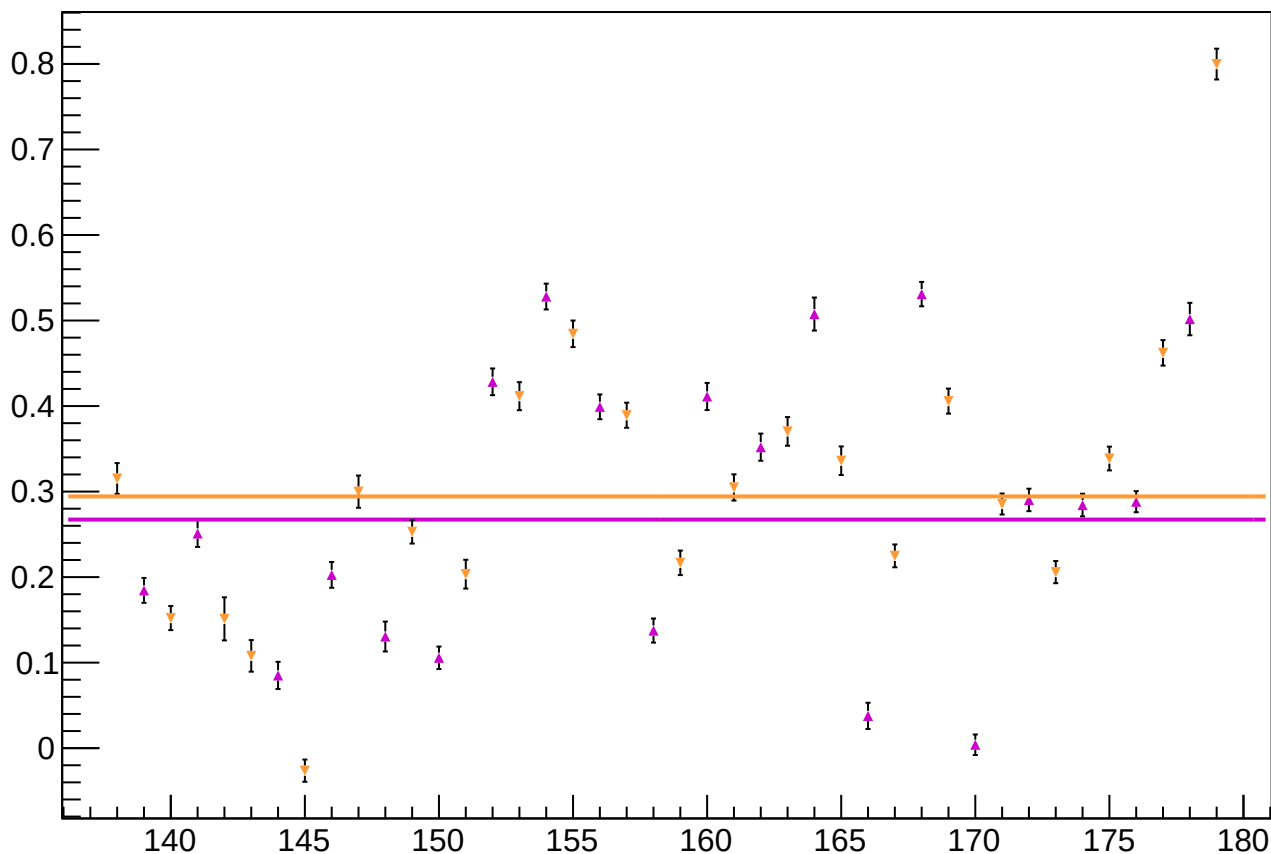
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -55.189+/-0.070  $\chi^2/\text{NDF}$ : 5577.6/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -54.376+/-0.073  $\chi^2/\text{NDF}$ : 4923.9/19

Left: -54.796+/-0.051  $\chi^2/\text{NDF}$ : 10566.1/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -54.376+/-0.073  $\chi^2/\text{NDF}$ : 4923.9/19  
 Out: -55.189+/-0.070  $\chi^2/\text{NDF}$ : 5577.6/21  
 All: -54.796+/-0.051  $\chi^2/\text{NDF}$ : 10566.1/41

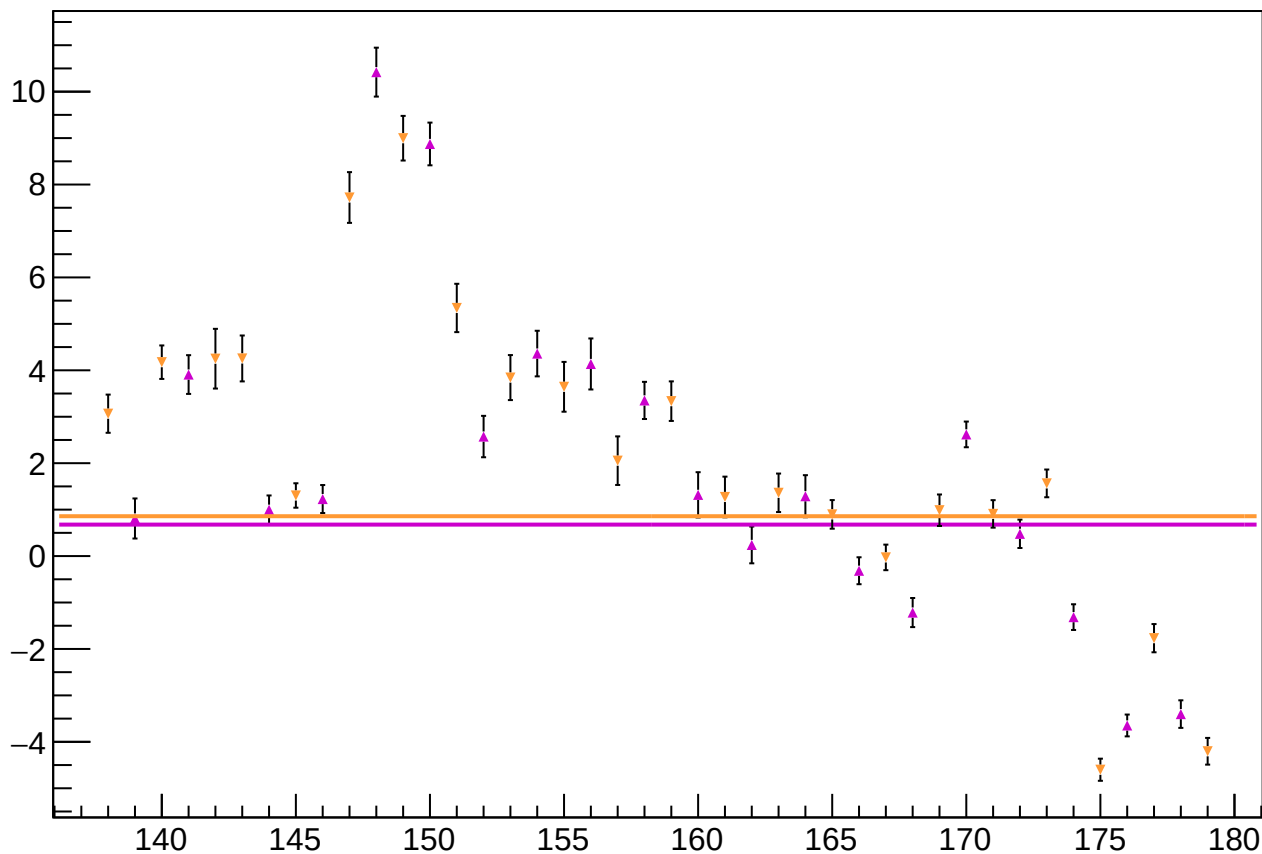
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 0.294+/-0.003  $\chi^2/\text{NDF}$ :2239.5/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 0.267+/-0.003  $\chi^2/\text{NDF}$ :2441.8/19

Left: 0.281+/-0.002  $\chi^2/\text{NDF}$ : 4715.6/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 0.267+/-0.003  $\chi^2/\text{NDF}$ :2441.8/19  
 Out: 0.294+/-0.003  $\chi^2/\text{NDF}$ :2239.5/21  
 All: 0.281+/-0.002  $\chi^2/\text{NDF}$ : 4715.6/41

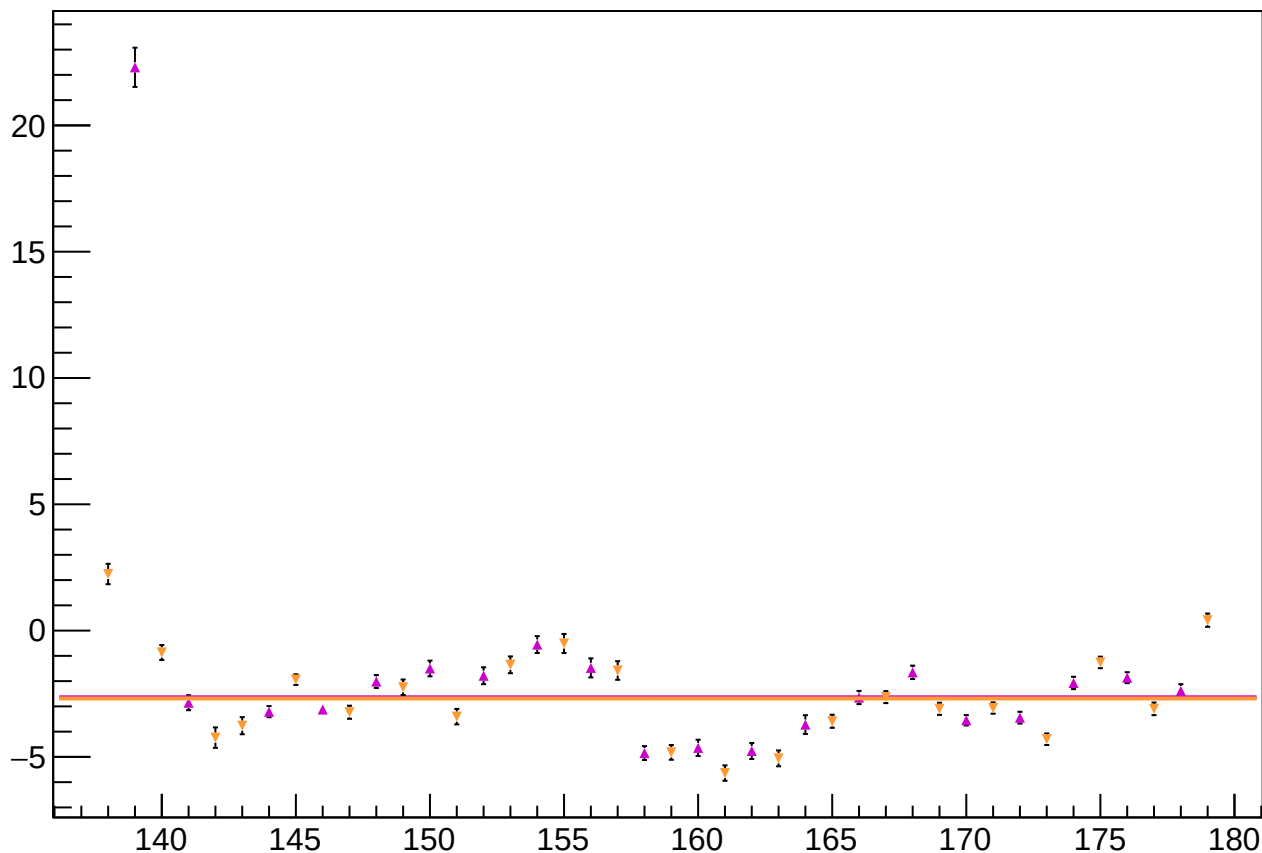
reg\_asym\_sam\_15\_26\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 0.858+/-0.077  $\chi^2/\text{NDF}$ :1741.9/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 0.677+/-0.078  $\chi^2/\text{NDF}$ :1565.3/19

Left: 0.769+/-0.055  $\chi^2/\text{NDF}$ : 3309.9/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 0.677+/-0.078  $\chi^2/\text{NDF}$ :1565.3/19  
 Out: 0.858+/-0.077  $\chi^2/\text{NDF}$ :1741.9/21  
 All: 0.769+/-0.055  $\chi^2/\text{NDF}$ : 3309.9/41

reg\_asym\_sam\_15\_26\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected

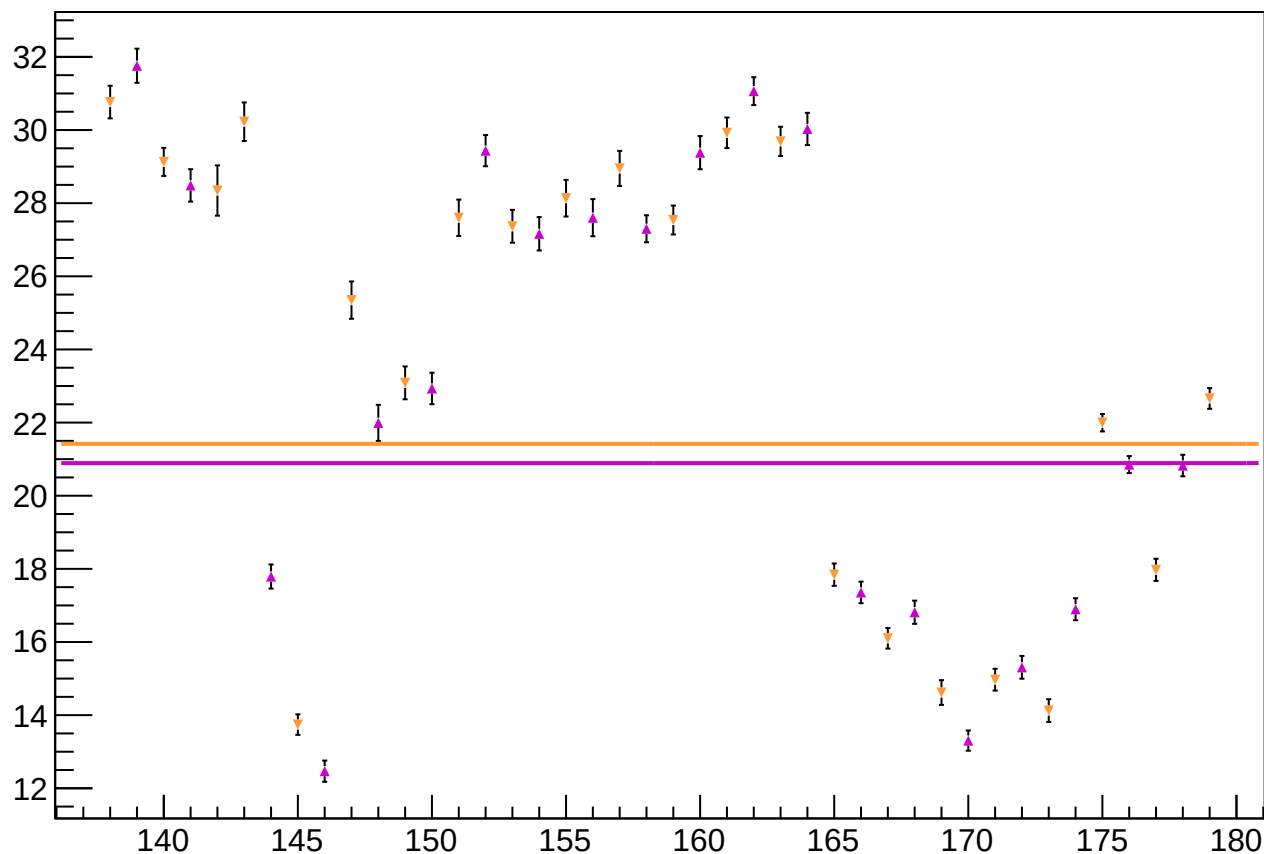


Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -2.687+/-0.059  $\chi^2/\text{NDF}$ : 744.7/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -2.641+/-0.060  $\chi^2/\text{NDF}$ : 1338.9/19

Left: -2.664+/-0.042  $\chi^2/\text{NDF}$ : 2083.8/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -2.641+/-0.060  $\chi^2/\text{NDF}$ : 1338.9/19  
 Out: -2.687+/-0.059  $\chi^2/\text{NDF}$ : 744.7/21  
 All: -2.664+/-0.042  $\chi^2/\text{NDF}$ : 2083.8/41



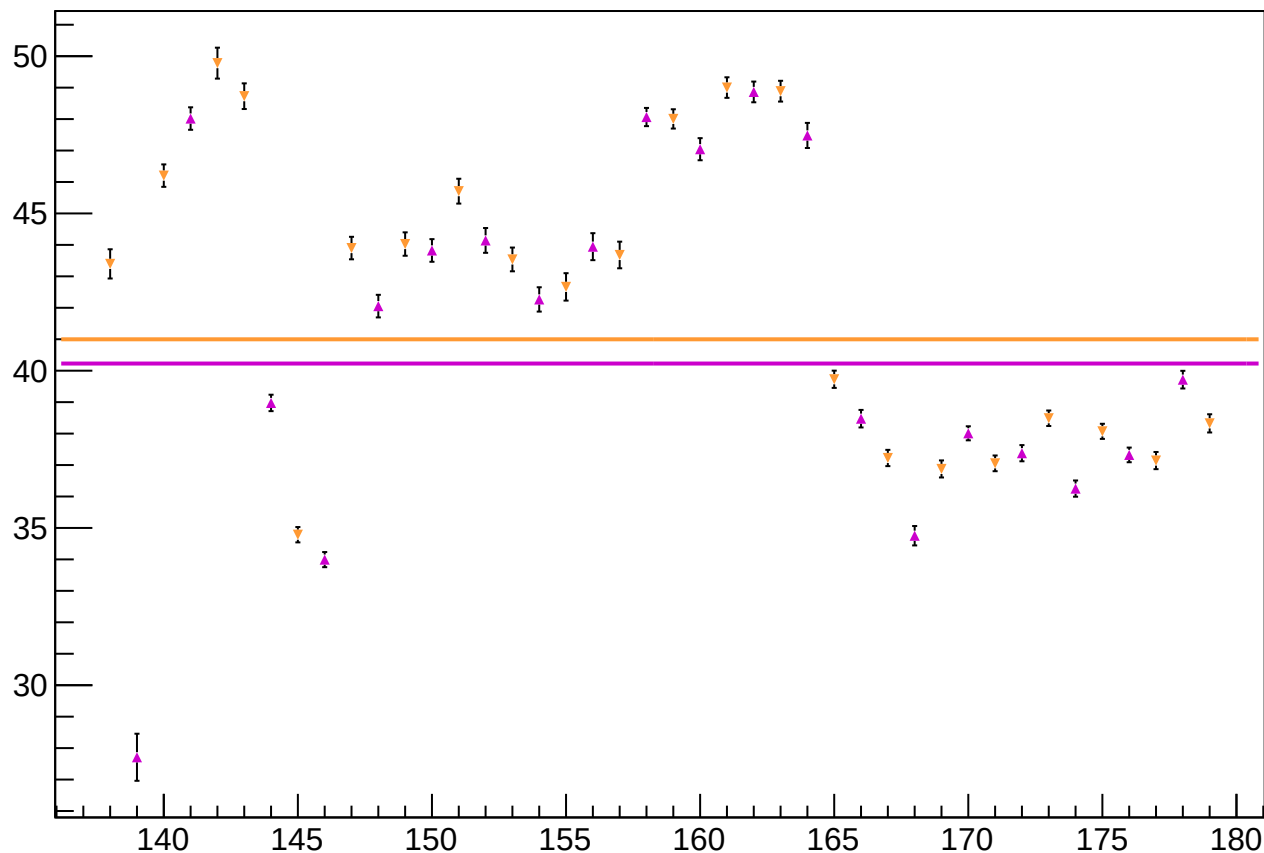
reg\_asym\_sam\_15\_26\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 21.419+/-0.077  $\chi^2/\text{NDF}$ :5950.9/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 20.892+/-0.078  $\chi^2/\text{NDF}$ :5909.0/19

Left: 21.159+/-0.055  $\chi^2/\text{NDF}$ : 11883.1/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 20.892+/-0.078  $\chi^2/\text{NDF}$ :5909.0/19  
 Out: 21.419+/-0.077  $\chi^2/\text{NDF}$ :5950.9/21  
 All: 21.159+/-0.055  $\chi^2/\text{NDF}$ : 11883.1/41

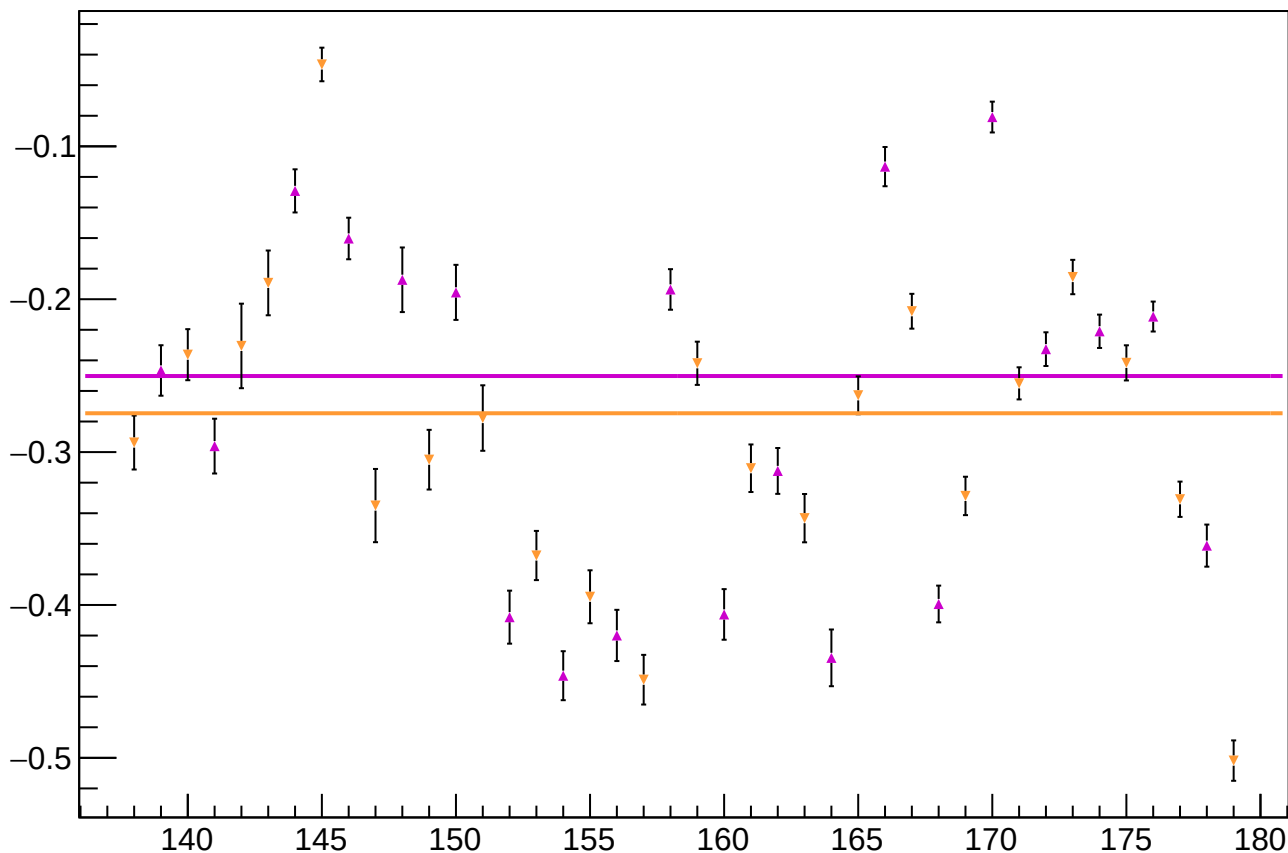
reg\_asym\_sam\_15\_26\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 40.998+/-0.067  $\chi^2/\text{NDF}$ :4882.1/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 40.227+/-0.068  $\chi^2/\text{NDF}$ :4875.1/19

Left: 40.621+/-0.048  $\chi^2/\text{NDF}$ : 9822.6/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 40.227+/-0.068  $\chi^2/\text{NDF}$ :4875.1/19  
 Out: 40.998+/-0.067  $\chi^2/\text{NDF}$ :4882.1/21  
 All: 40.621+/-0.048  $\chi^2/\text{NDF}$ : 9822.6/41

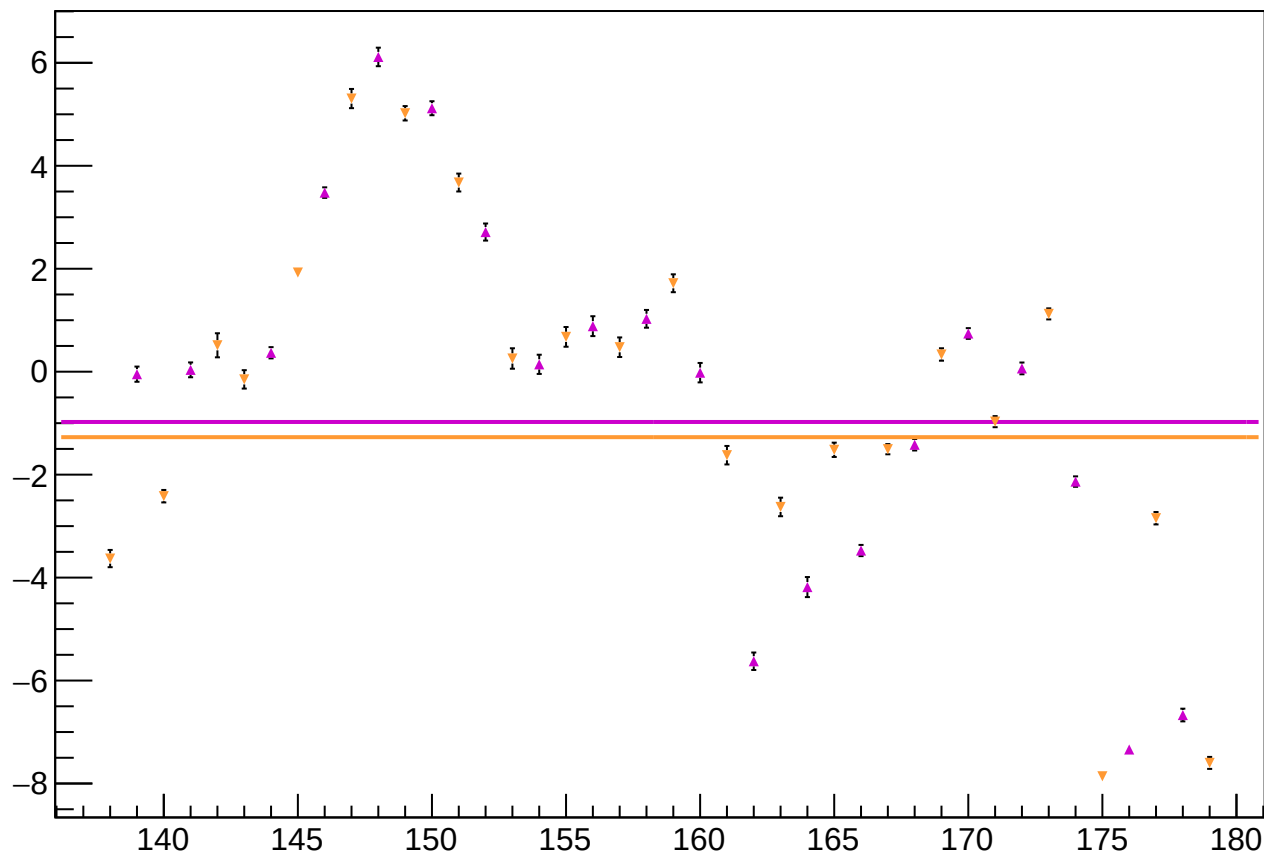
reg\_asym\_sam\_15\_26\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -0.275 $\pm$ 0.003  $\chi^2$ /NDF:1139.3/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -0.250 $\pm$ 0.003  $\chi^2$ /NDF:1341.0/19

Left: -0.263 $\pm$ 0.002  $\chi^2$ /NDF: 2511.8/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: -0.250 $\pm$ 0.003  $\chi^2$ /NDF:1341.0/19  
 Out: -0.275 $\pm$ 0.003  $\chi^2$ /NDF:1139.3/21  
 All: -0.263 $\pm$ 0.002  $\chi^2$ /NDF: 2511.8/41

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected

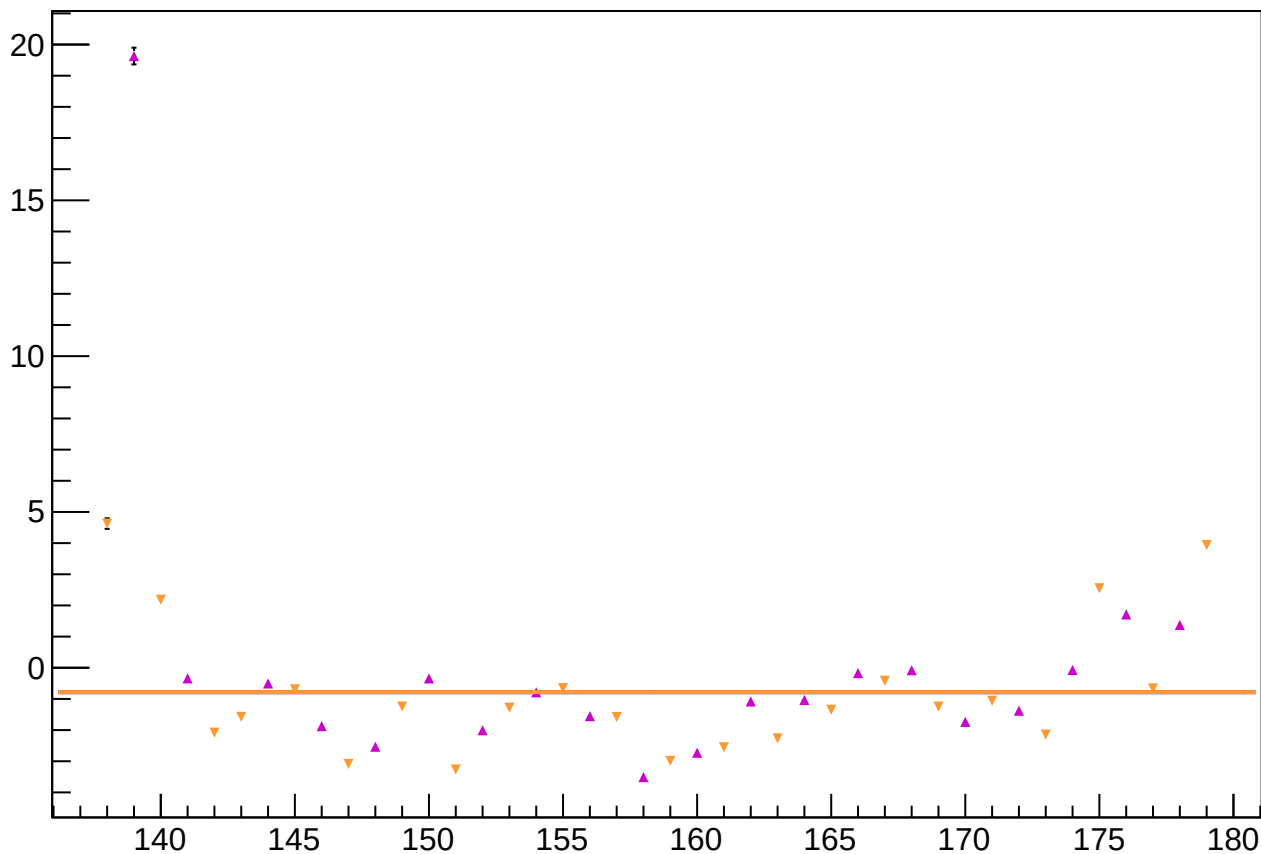


Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -1.272+/-0.029  $\chi^2/\text{NDF}$ :15703.6/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -0.977+/-0.029  $\chi^2/\text{NDF}$ :15423.6/19

Left: -1.127+/-0.020  $\chi^2/\text{NDF}$ : 31179.6/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -0.977+/-0.029  $\chi^2/\text{NDF}$ :15423.6/19  
 Out: -1.272+/-0.029  $\chi^2/\text{NDF}$ :15703.6/21

All: -1.127+/-0.020  $\chi^2/\text{NDF}$ : 31179.6/41

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected

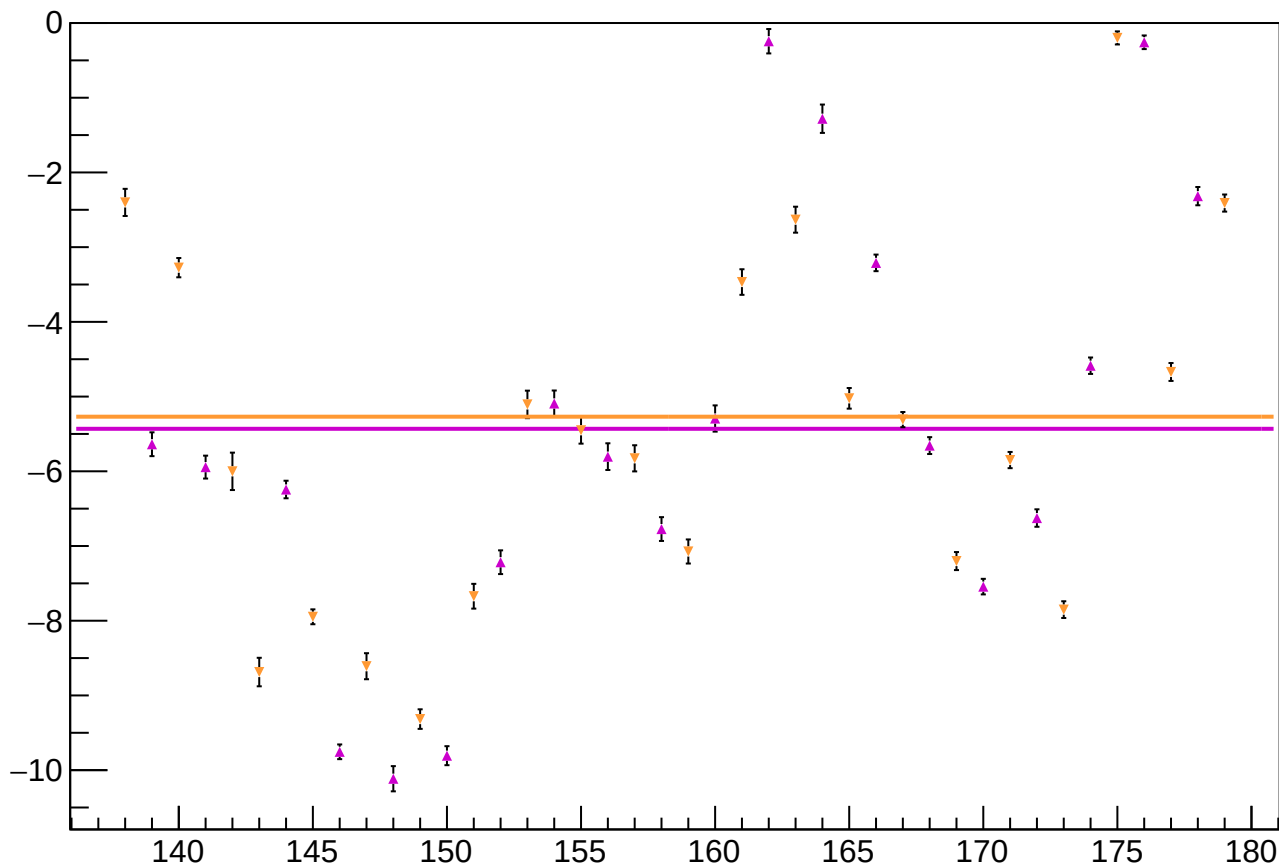


Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -0.783+/-0.022  $\chi^2/\text{NDF}$ : 7865.2/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -0.786+/-0.022  $\chi^2/\text{NDF}$ : 8944.0/19

Left: -0.784+/-0.016  $\chi^2/\text{NDF}$ : 16809.3/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -0.786+/-0.022  $\chi^2/\text{NDF}$ : 8944.0/19  
 Out: -0.783+/-0.022  $\chi^2/\text{NDF}$ : 7865.2/21

All: -0.784+/-0.016  $\chi^2/\text{NDF}$ : 16809.3/41

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



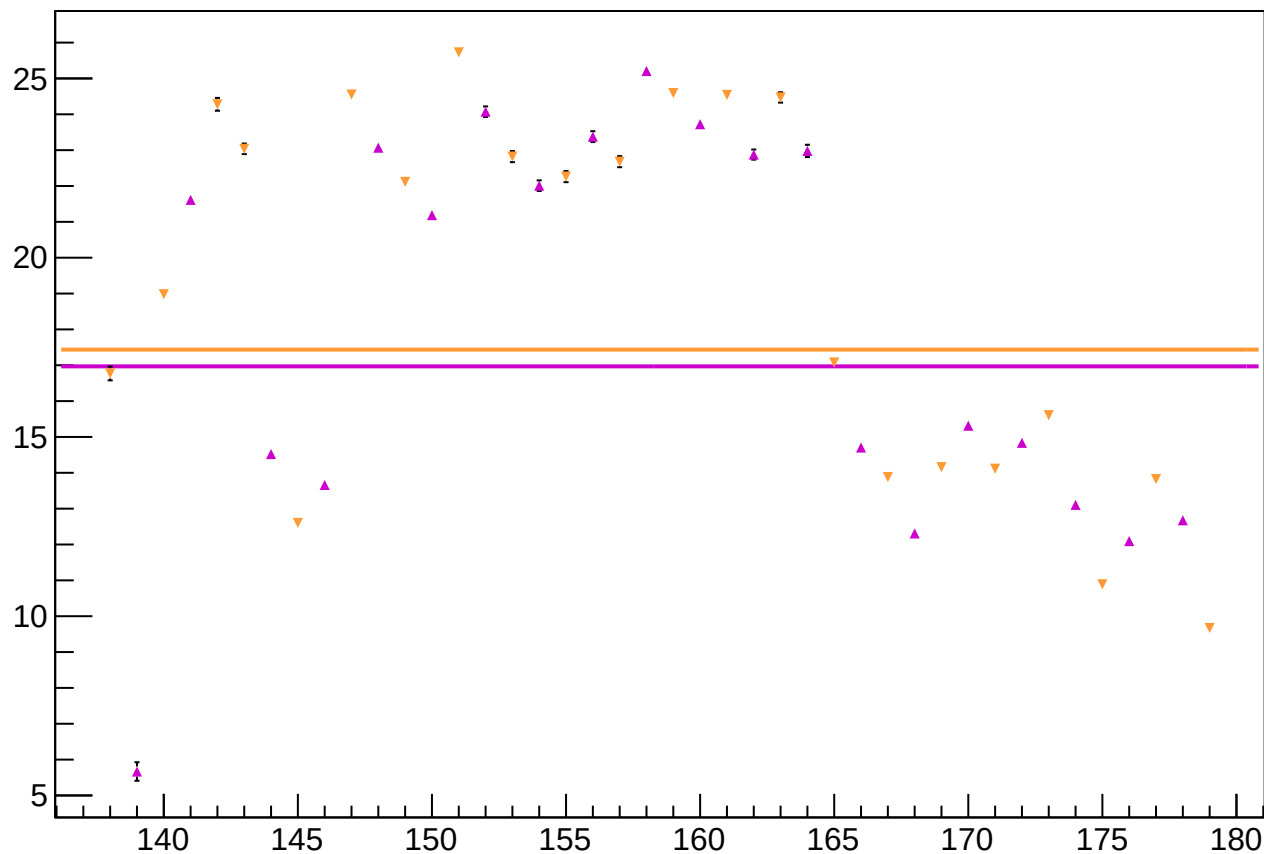
Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -5.269 $\pm$ 0.029  $\chi^2$ /NDF:8375.6/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -5.431 $\pm$ 0.029  $\chi^2$ /NDF:10475.9/19

Left: -5.349 $\pm$ 0.020  $\chi^2$ /NDF: 18867.3/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -5.431 $\pm$ 0.029  $\chi^2$ /NDF:10475.9/19  
 Out: -5.269 $\pm$ 0.029  $\chi^2$ /NDF:8375.6/21

All: -5.349 $\pm$ 0.020  $\chi^2$ /NDF: 18867.3/41

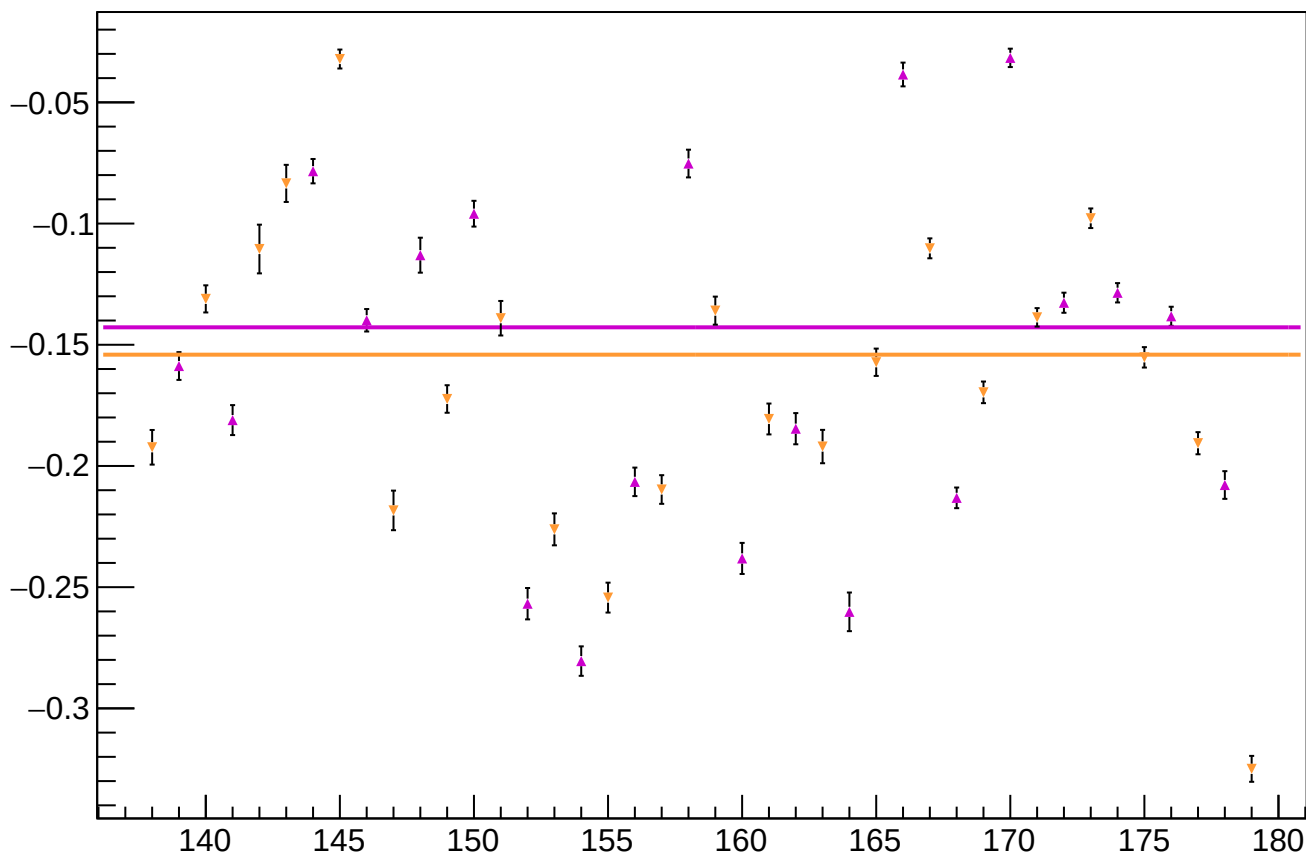
reg\_asym\_sam\_37\_26\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 17.436+/-0.025  $\chi^2/\text{NDF}$ :42369.6/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 16.969+/-0.025  $\chi^2/\text{NDF}$ :33612.2/19

Left: 17.207+/-0.018  $\chi^2/\text{NDF}$ : 76154.9/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 16.969+/-0.025  $\chi^2/\text{NDF}$ :33612.2/19  
 Out: 17.436+/-0.025  $\chi^2/\text{NDF}$ :42369.6/21  
 All: 17.207+/-0.018  $\chi^2/\text{NDF}$ : 76154.9/41

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected

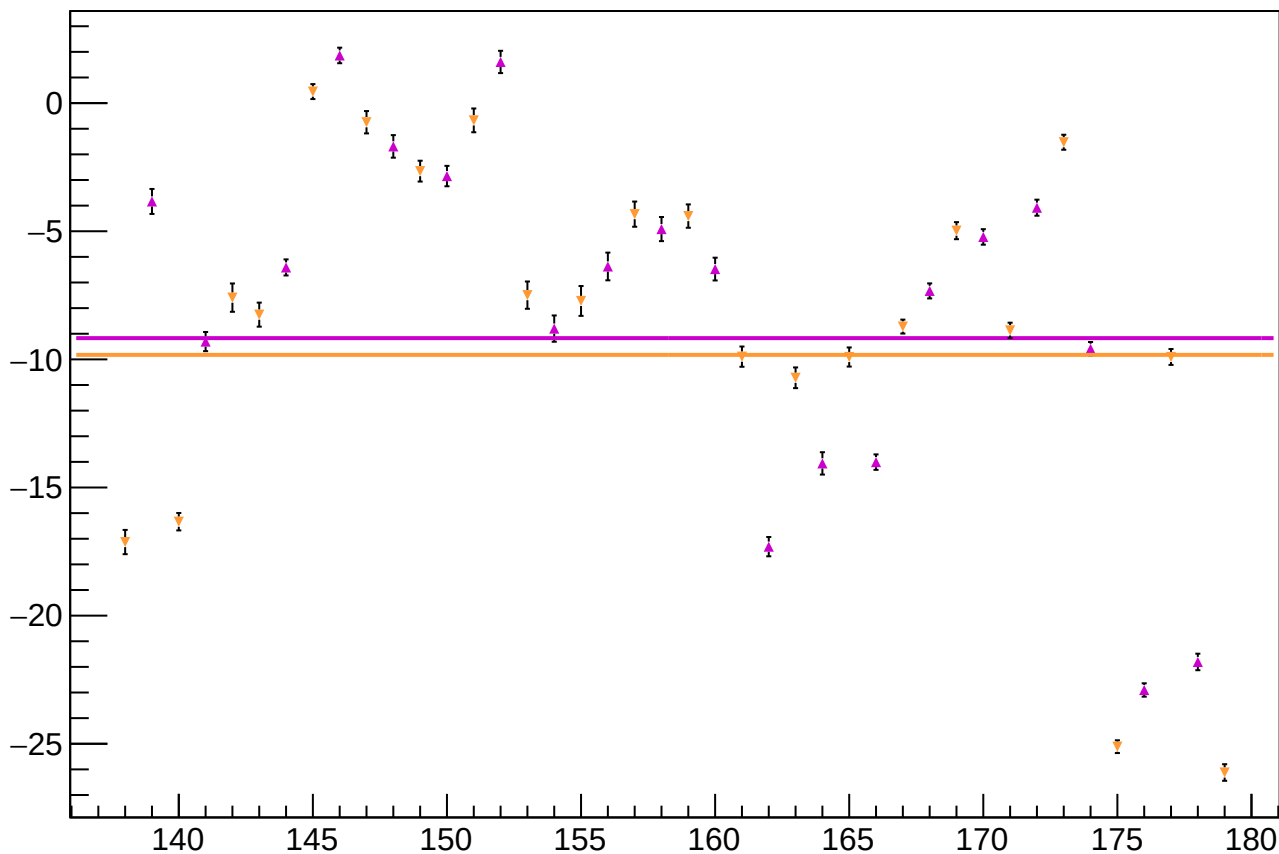


Right In:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$   
 Left Out:  $-0.154 \pm 0.001$   $\chi^2/\text{NDF}: 3152.2/21$   
 Right Out:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$   
 Left In:  $-0.143 \pm 0.001$   $\chi^2/\text{NDF}: 3600.4/19$

Left:  $-0.149 \pm 0.001$   $\chi^2/\text{NDF}: 6801.2/41$   
 Right:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$   
 In:  $-0.143 \pm 0.001$   $\chi^2/\text{NDF}: 3600.4/19$   
 Out:  $-0.154 \pm 0.001$   $\chi^2/\text{NDF}: 3152.2/21$   
 All:  $-0.149 \pm 0.001$   $\chi^2/\text{NDF}: 6801.2/41$



reg\_asym\_sam\_1357\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -9.824 $\pm$ 0.078  $\chi^2$ /NDF:10645.5/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -9.171 $\pm$ 0.079  $\chi^2$ /NDF:8448.5/19

Left: -9.502 $\pm$ 0.055  $\chi^2$ /NDF: 19128.6/41

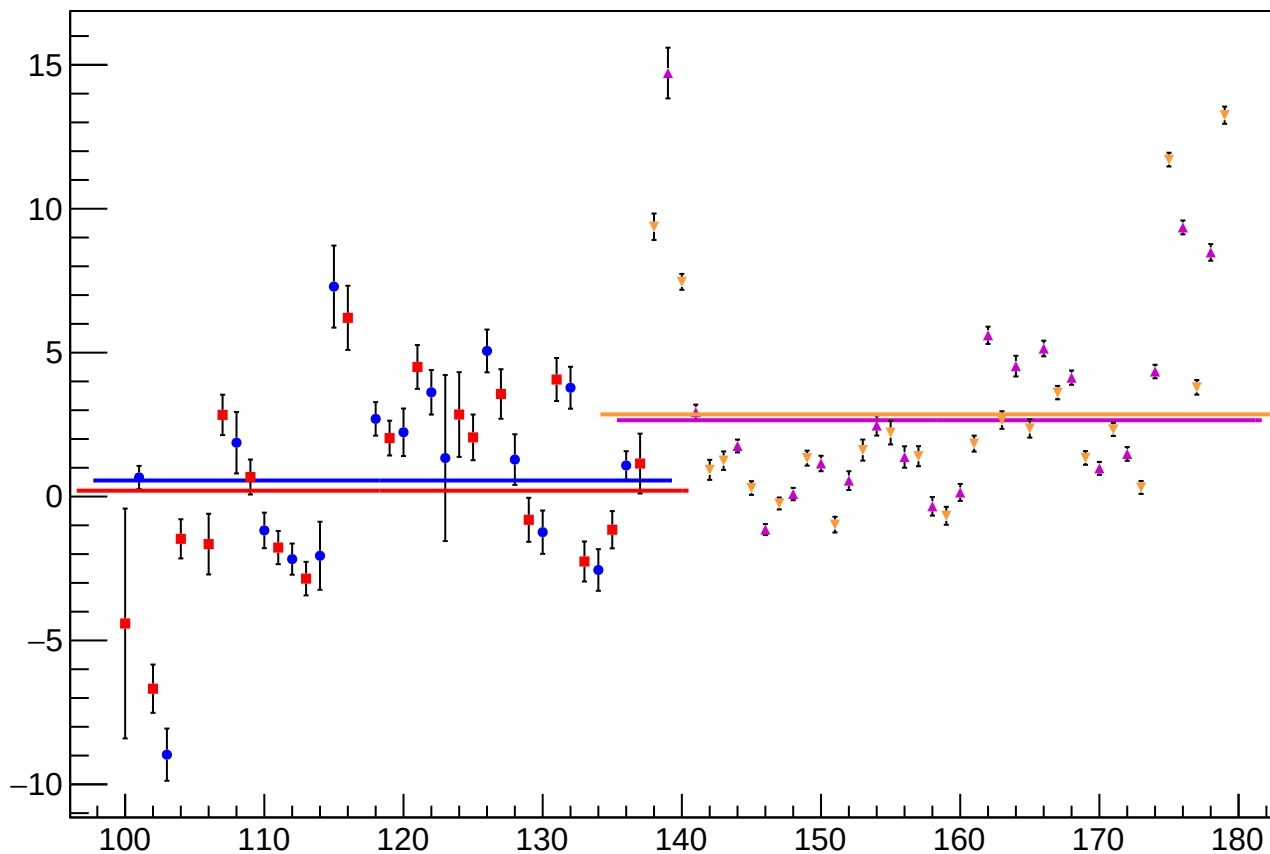
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -9.171 $\pm$ 0.079  $\chi^2$ /NDF:8448.5/19

Out: -9.824 $\pm$ 0.078  $\chi^2$ /NDF:10645.5/21

All: -9.502 $\pm$ 0.055  $\chi^2$ /NDF: 19128.6/41

reg\_asym\_sam\_1357\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $0.558 \pm 0.170$   $\chi^2/\text{NDF}$ : 287.9/16

Left Out:  $2.855 \pm 0.059$   $\chi^2/\text{NDF}$ : 4051.9/21

Right Out:  $0.204 \pm 0.175$   $\chi^2/\text{NDF}$ : 272.1/18

Left In:  $2.651 \pm 0.060$   $\chi^2/\text{NDF}$ : 2537.4/19

Left:  $2.755 \pm 0.042$   $\chi^2/\text{NDF}$ : 6595.1/41

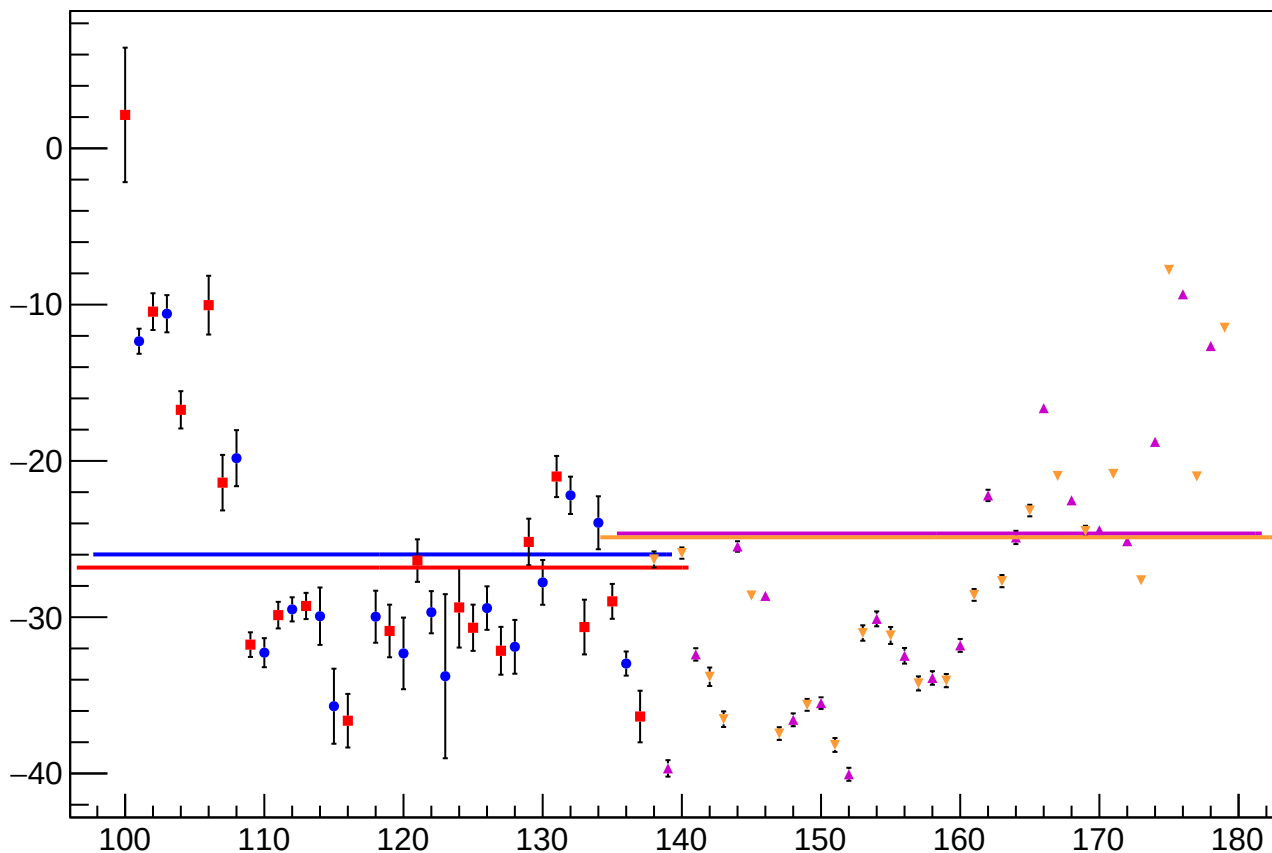
Right:  $0.386 \pm 0.122$   $\chi^2/\text{NDF}$ : 562.1/35

In:  $2.420 \pm 0.057$   $\chi^2/\text{NDF}$ : 2959.9/36

Out:  $2.585 \pm 0.056$   $\chi^2/\text{NDF}$ : 4531.0/40

All:  $2.504 \pm 0.040$   $\chi^2/\text{NDF}$ : 7495.2/77

reg\_asym\_sam\_1357\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-25.984 \pm 0.300$   $\chi^2/\text{NDF}$ : 691.5/16

Left Out:  $-24.888 \pm 0.078$   $\chi^2/\text{NDF}$ : 12015.3/21

Right Out:  $-26.825 \pm 0.298$   $\chi^2/\text{NDF}$ : 581.6/18

Left In:  $-24.648 \pm 0.079$   $\chi^2/\text{NDF}$ : 11670.7/19

Left:  $-24.770 \pm 0.055$   $\chi^2/\text{NDF}$ : 23690.7/41

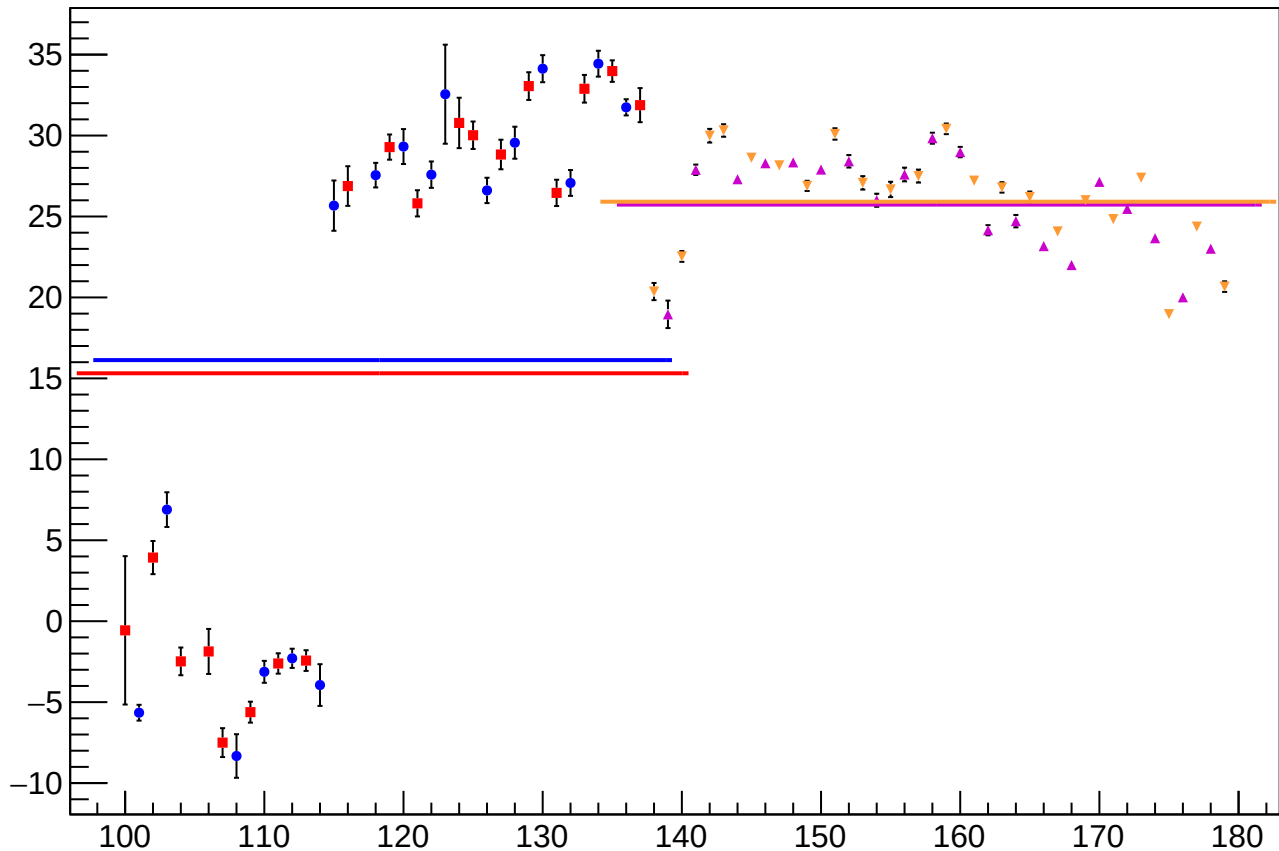
Right:  $-26.408 \pm 0.211$   $\chi^2/\text{NDF}$ : 1277.0/35

In:  $-24.734 \pm 0.076$   $\chi^2/\text{NDF}$ : 12380.7/36

Out:  $-25.012 \pm 0.075$   $\chi^2/\text{NDF}$ : 12636.5/40

All:  $-24.875 \pm 0.054$   $\chi^2/\text{NDF}$ : 25024.0/77

reg\_asym\_sam\_1357\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 16.129+/-0.192  $\chi^2/\text{NDF}$ : 7572.5/16

Left Out: 25.913+/-0.067  $\chi^2/\text{NDF}$ : 2144.8/21

Right Out: 15.315+/-0.197  $\chi^2/\text{NDF}$ : 7278.1/18

Left In: 25.735+/-0.068  $\chi^2/\text{NDF}$ : 1647.6/19

Left: 25.826+/-0.048  $\chi^2/\text{NDF}$ : 3795.8/41

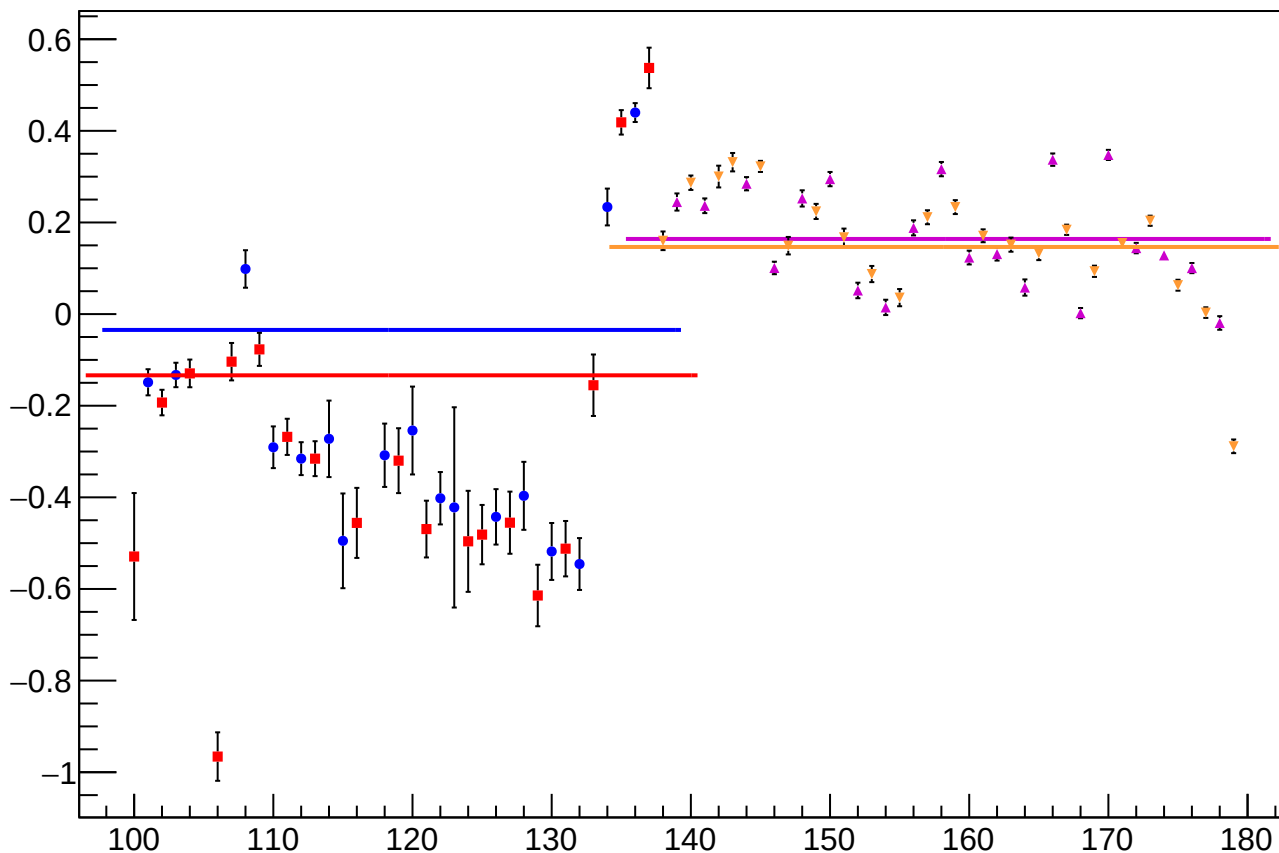
Right: 15.732+/-0.138  $\chi^2/\text{NDF}$ : 14859.4/35

In: 24.659+/-0.064  $\chi^2/\text{NDF}$ : 11441.8/36

Out: 24.821+/-0.063  $\chi^2/\text{NDF}$ : 12018.3/40

All: 24.742+/-0.045  $\chi^2/\text{NDF}$ : 23463.4/77

reg\_asym\_sam\_1357\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.035 \pm 0.010$   $\chi^2/\text{NDF}$ : 1011.6/16

Left Out:  $0.147 \pm 0.003$   $\chi^2/\text{NDF}$ : 1649.5/21

Right Out:  $-0.134 \pm 0.010$   $\chi^2/\text{NDF}$ : 1161.9/18

Left In:  $0.164 \pm 0.003$   $\chi^2/\text{NDF}$ : 1341.9/19

Left:  $0.155 \pm 0.002$   $\chi^2/\text{NDF}$ : 3007.3/41

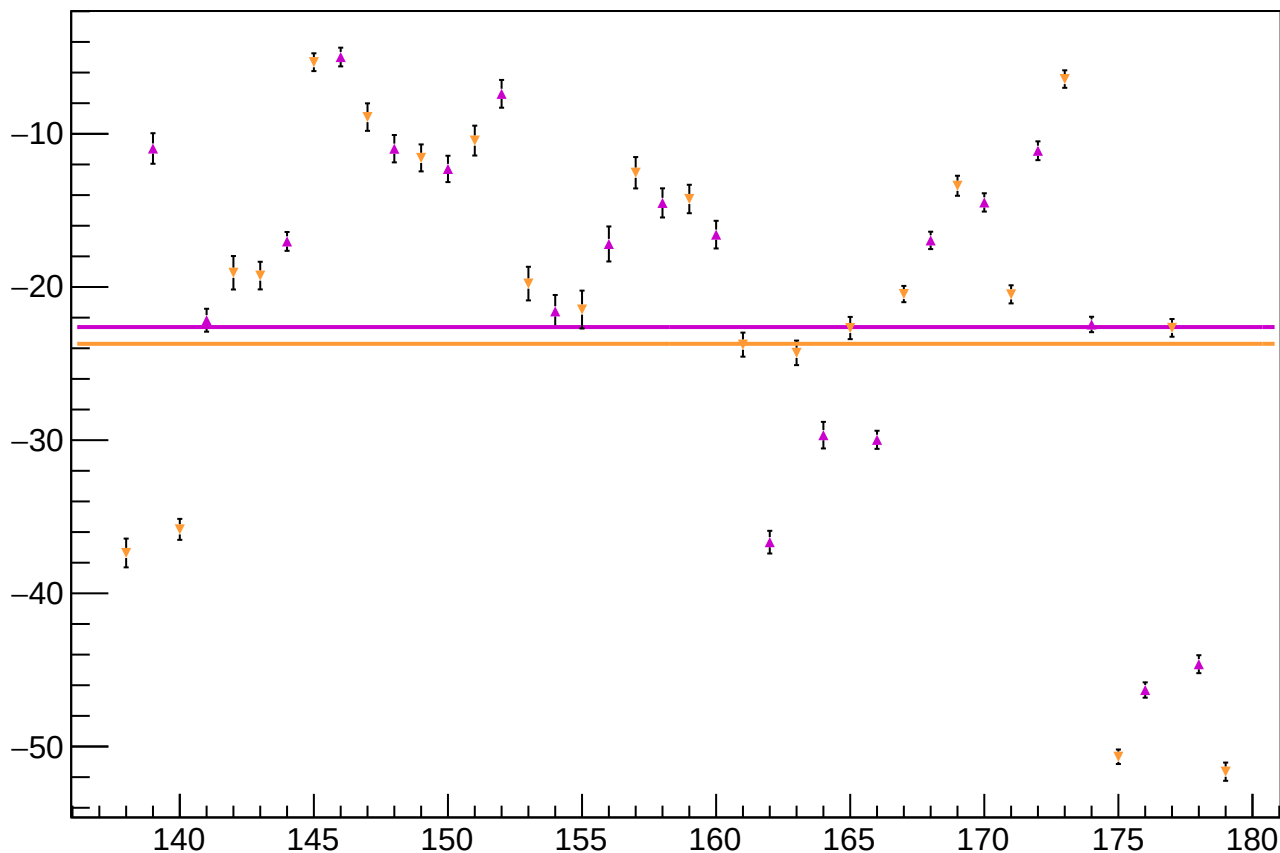
Right:  $-0.084 \pm 0.007$   $\chi^2/\text{NDF}$ : 2219.2/35

In:  $0.147 \pm 0.003$   $\chi^2/\text{NDF}$ : 2692.0/36

Out:  $0.124 \pm 0.003$   $\chi^2/\text{NDF}$ : 3481.5/40

All:  $0.135 \pm 0.002$   $\chi^2/\text{NDF}$ : 6205.0/77

reg\_asym\_sam\_2468\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -23.709+/-0.153  $\chi^2/\text{NDF}$ : 9120.4/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -22.615+/-0.156  $\chi^2/\text{NDF}$ : 6655.9/19

Left: -23.170+/-0.109  $\chi^2/\text{NDF}$ : 15801.4/41

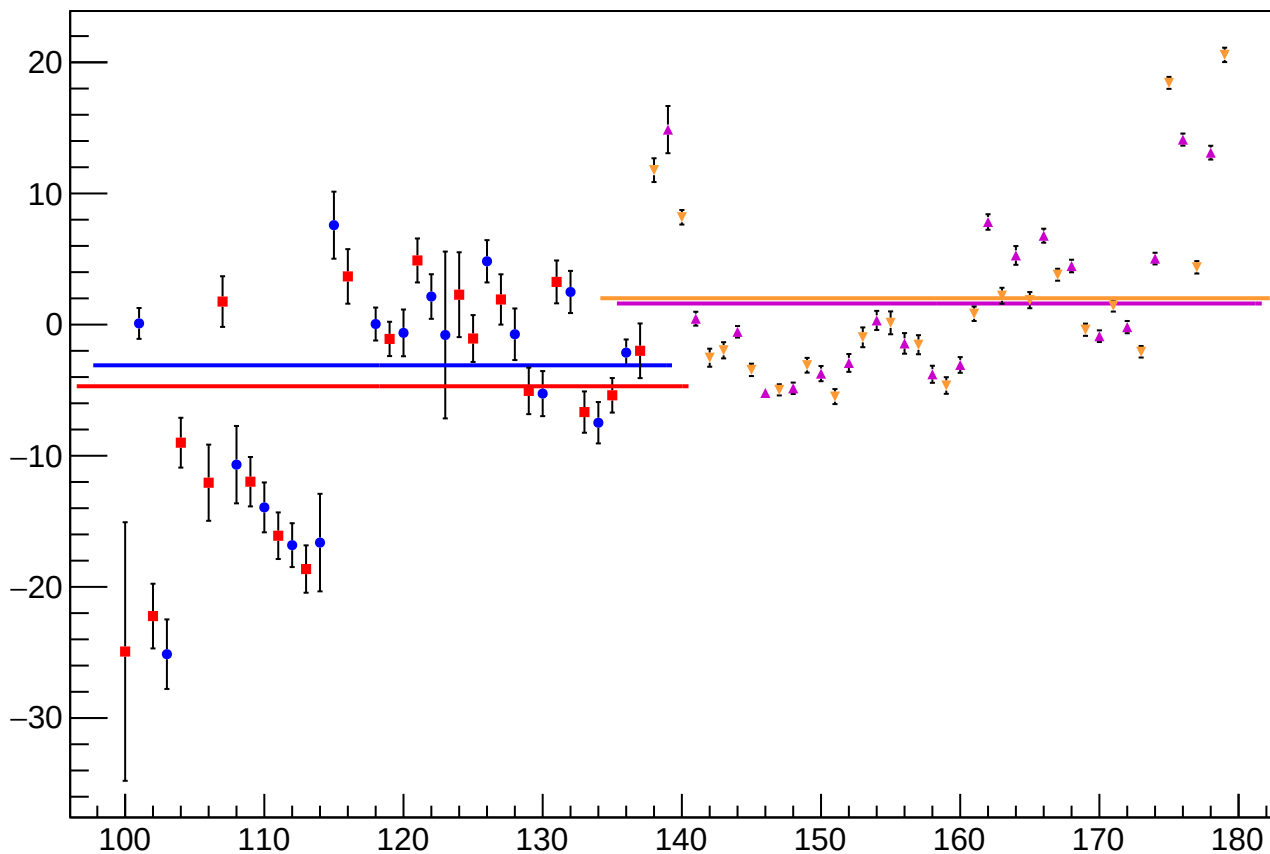
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -22.615+/-0.156  $\chi^2/\text{NDF}$ : 6655.9/19

Out: -23.709+/-0.153  $\chi^2/\text{NDF}$ : 9120.4/21

All: -23.170+/-0.109  $\chi^2/\text{NDF}$ : 15801.4/41

reg\_asym\_sam\_2468\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-3.104 \pm 0.411$   $\chi^2/\text{NDF}$ : 279.1/16

Left Out:  $2.012 \pm 0.117$   $\chi^2/\text{NDF}$ : 3736.7/21

Right Out:  $-4.701 \pm 0.427$   $\chi^2/\text{NDF}$ : 297.6/18

Left In:  $1.610 \pm 0.119$   $\chi^2/\text{NDF}$ : 2490.4/19

Left:  $1.815 \pm 0.083$   $\chi^2/\text{NDF}$ : 6232.9/41

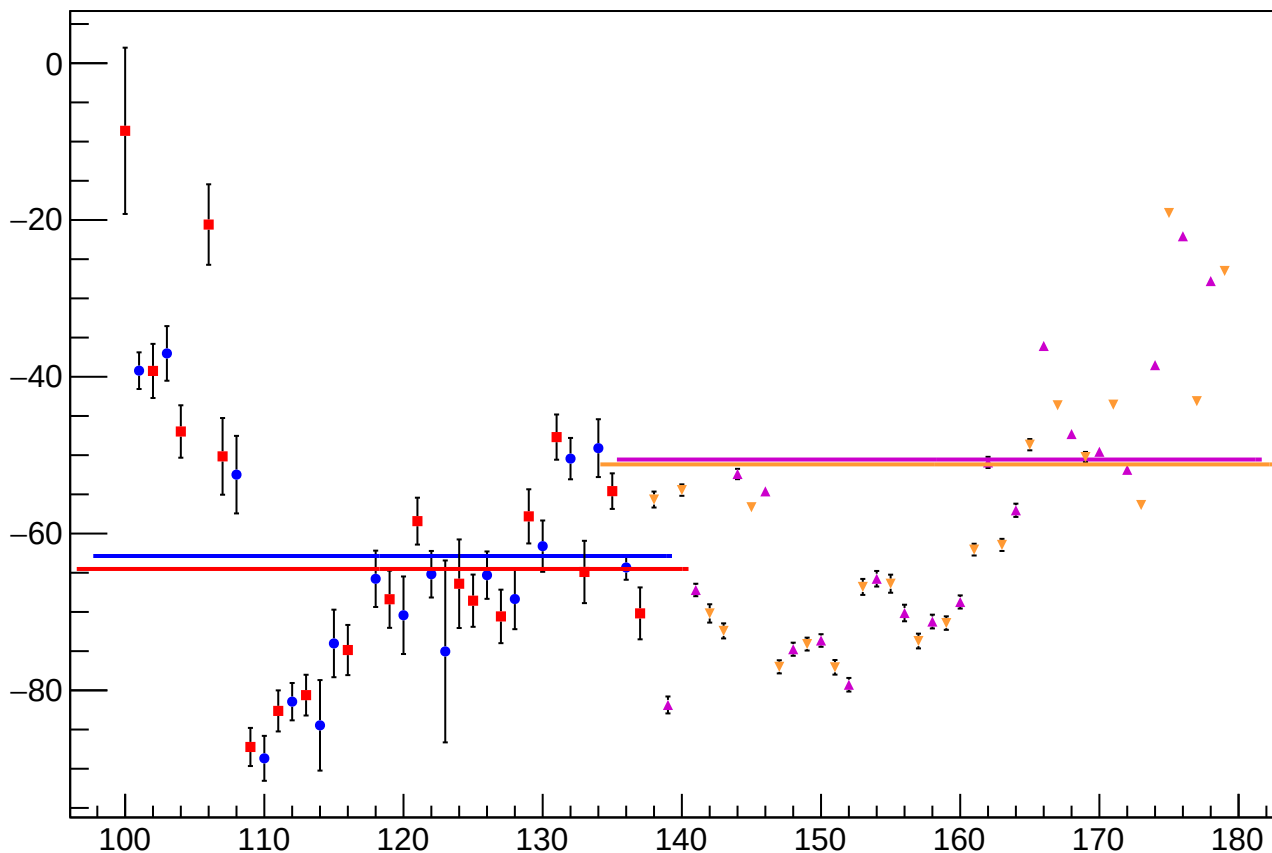
Right:  $-3.873 \pm 0.296$   $\chi^2/\text{NDF}$ : 584.0/35

In:  $1.247 \pm 0.114$   $\chi^2/\text{NDF}$ : 2890.9/36

Out:  $1.545 \pm 0.112$   $\chi^2/\text{NDF}$ : 4264.8/40

All:  $1.398 \pm 0.080$   $\chi^2/\text{NDF}$ : 7159.2/77

reg\_asym\_sam\_2468\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-62.863 \pm 0.741$   $\chi^2/\text{NDF}$ : 368.7/16

Left Out:  $-51.178 \pm 0.153$   $\chi^2/\text{NDF}$ : 12246.5/21

Right Out:  $-64.517 \pm 0.752$   $\chi^2/\text{NDF}$ : 444.3/18

Left In:  $-50.556 \pm 0.155$   $\chi^2/\text{NDF}$ : 11679.8/19

Left:  $-50.872 \pm 0.109$   $\chi^2/\text{NDF}$ : 23934.4/41

Right:  $-63.677 \pm 0.528$   $\chi^2/\text{NDF}$ : 815.4/35

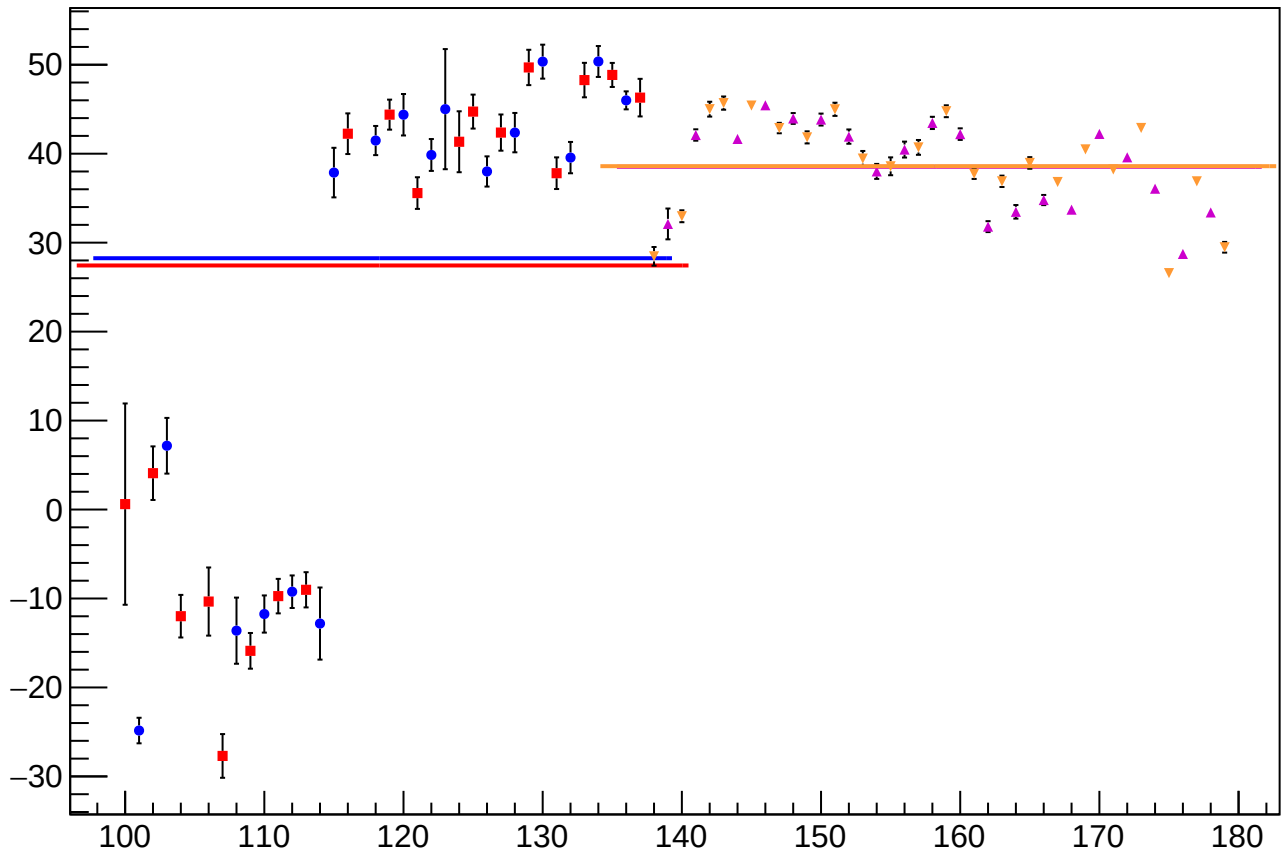
In:  $-51.075 \pm 0.152$   $\chi^2/\text{NDF}$ : 12312.9/36

Out:  $-51.710 \pm 0.150$   $\chi^2/\text{NDF}$ : 12993.0/40

All:  $-51.397 \pm 0.107$   $\chi^2/\text{NDF}$ : 25314.8/77



reg\_asym\_sam\_2468\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 28.250 $\pm$ 0.460  $\chi^2$ /NDF: 3319.5/16

Left Out: 38.596 $\pm$ 0.132  $\chi^2$ /NDF:1704.7/21

Right Out: 27.435 $\pm$ 0.479  $\chi^2$ /NDF: 3032.4/18

Left In: 38.527 $\pm$ 0.135  $\chi^2$ /NDF:1386.8/19

Left: 38.562 $\pm$ 0.094  $\chi^2$ /NDF: 3091.7/41

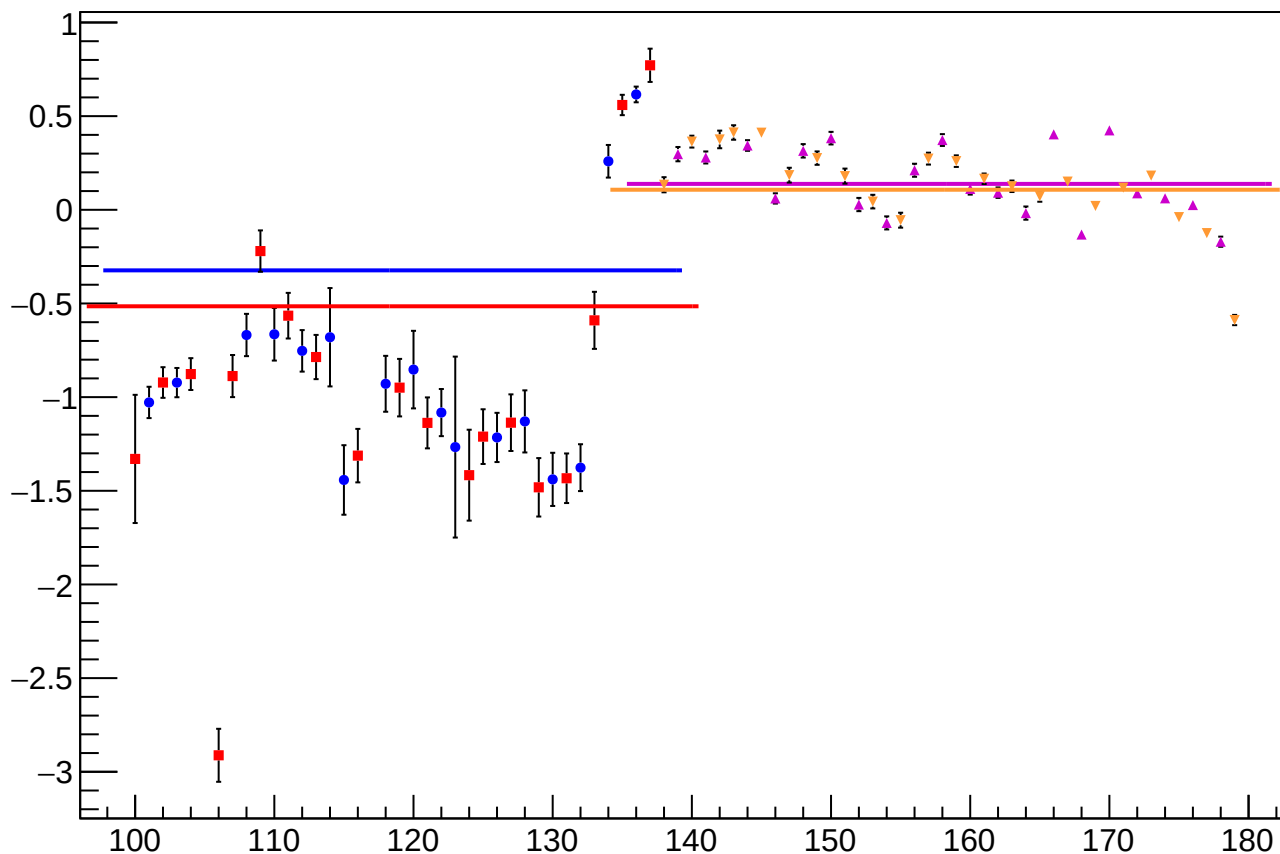
Right: 27.859 $\pm$ 0.332  $\chi^2$ /NDF: 6353.5/35

In: 37.715 $\pm$ 0.129  $\chi^2$ /NDF:5165.8/36

Out: 37.807 $\pm$ 0.127  $\chi^2$ /NDF:5242.2/40

All: 37.762 $\pm$ 0.091  $\chi^2$ /NDF: 10408.3/77

reg\_asym\_sam\_2468\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.323 \pm 0.025$   $\chi^2/\text{NDF}$ : 1010.8/16

Left Out:  $0.107 \pm 0.006$   $\chi^2/\text{NDF}$ : 1254.9/21

Right Out:  $-0.515 \pm 0.026$   $\chi^2/\text{NDF}$ : 1160.9/18

Left In:  $0.138 \pm 0.006$   $\chi^2/\text{NDF}$ : 903.8/19

Left:  $0.123 \pm 0.004$   $\chi^2/\text{NDF}$ : 2171.6/41

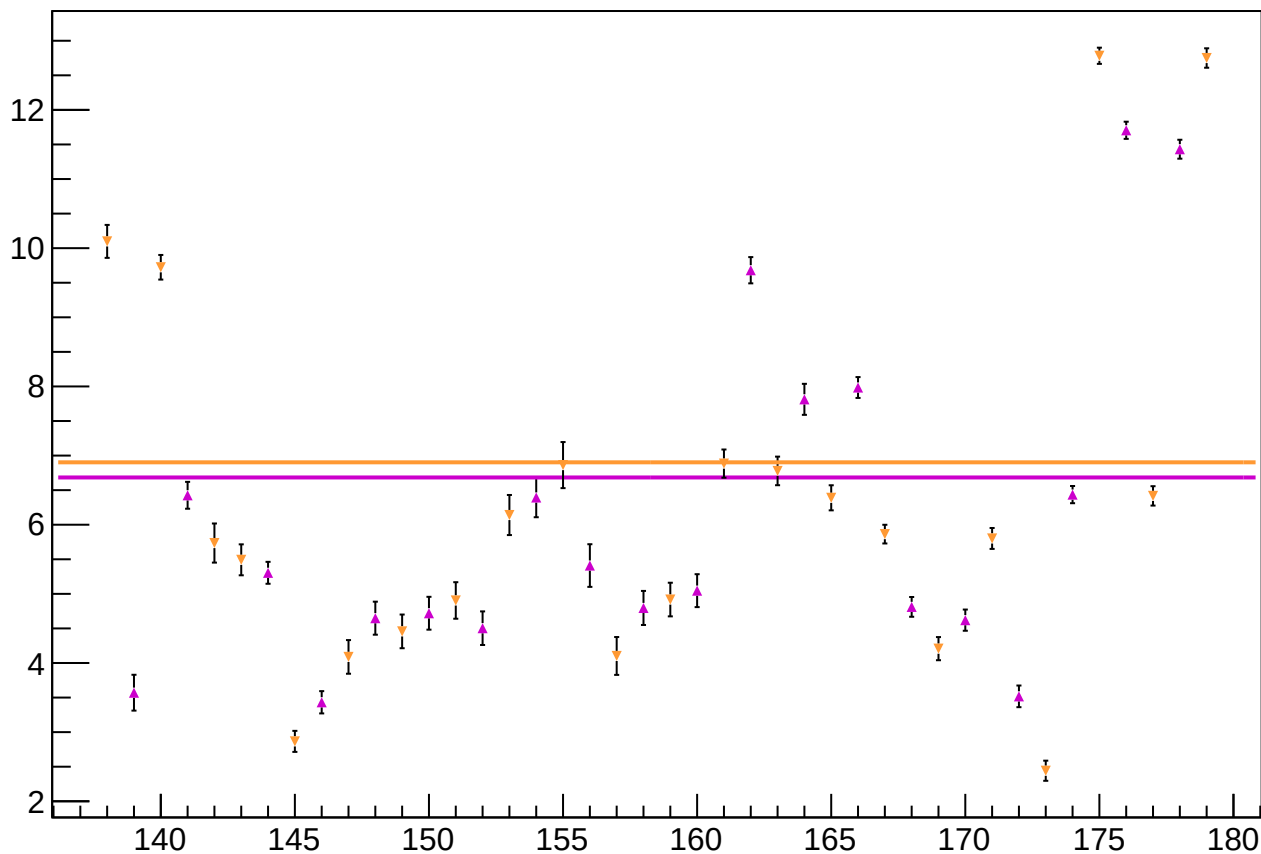
Right:  $-0.416 \pm 0.018$   $\chi^2/\text{NDF}$ : 2200.2/35

In:  $0.112 \pm 0.006$   $\chi^2/\text{NDF}$ : 2237.0/36

Out:  $0.074 \pm 0.006$   $\chi^2/\text{NDF}$ : 2968.4/40

All:  $0.093 \pm 0.004$   $\chi^2/\text{NDF}$ : 5225.1/77

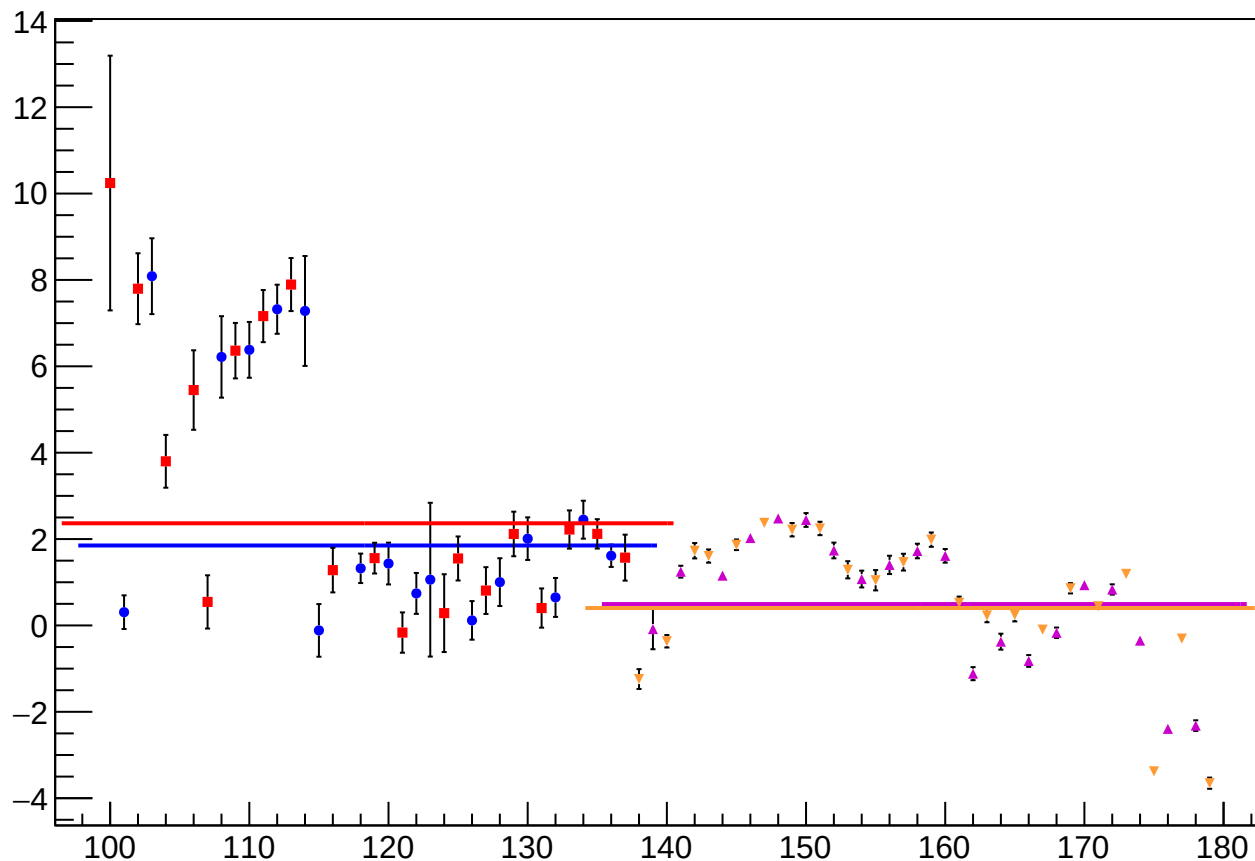
reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2/NDF$ : 0.0/0  
 Left Out: 6.902 $\pm$ 0.039  $\chi^2/NDF$ :7242.4/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2/NDF$ : 0.0/0  
 Left In: 6.683 $\pm$ 0.040  $\chi^2/NDF$ :4927.9/19

Left: 6.795 $\pm$ 0.028  $\chi^2/NDF$ : 12185.8/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2/NDF$ : 0.0/0  
 In: 6.683 $\pm$ 0.040  $\chi^2/NDF$ :4927.9/19  
 Out: 6.902 $\pm$ 0.039  $\chi^2/NDF$ :7242.4/21  
 All: 6.795 $\pm$ 0.028  $\chi^2/NDF$ : 12185.8/41

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 1.851+/-0.117  $\chi^2/\text{NDF}$ : 294.2/16

Left Out: 0.403+/-0.030  $\chi^2/\text{NDF}$ :3294.7/21

Right Out: 2.365+/-0.123  $\chi^2/\text{NDF}$ : 336.2/18

Left In: 0.495+/-0.030  $\chi^2/\text{NDF}$ :2429.4/19

Left: 0.448+/-0.021  $\chi^2/\text{NDF}$ : 5728.8/41

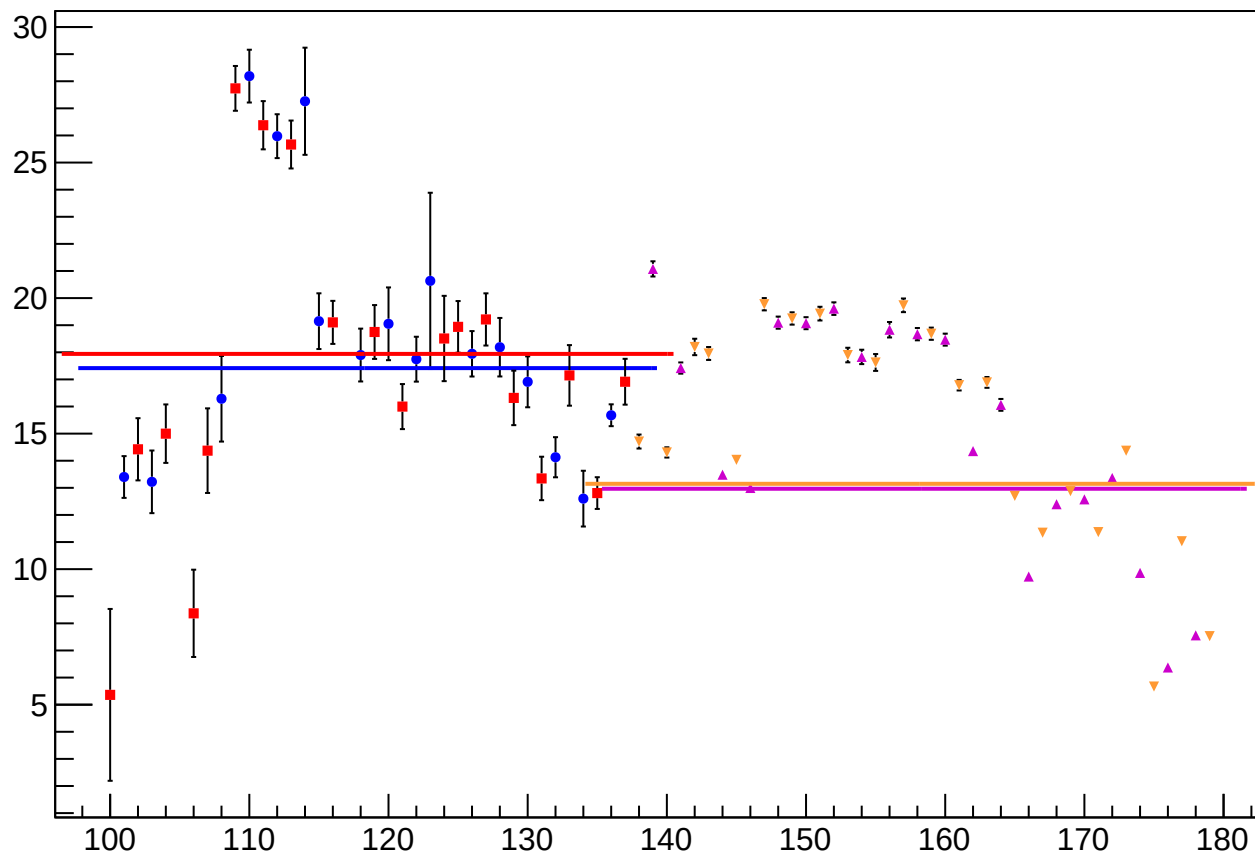
Right: 2.097+/-0.085  $\chi^2/\text{NDF}$ : 639.6/35

In: 0.581+/-0.030  $\chi^2/\text{NDF}$ :2849.0/36

Out: 0.513+/-0.029  $\chi^2/\text{NDF}$ :3872.9/40

All: 0.547+/-0.021  $\chi^2/\text{NDF}$ : 6724.6/77

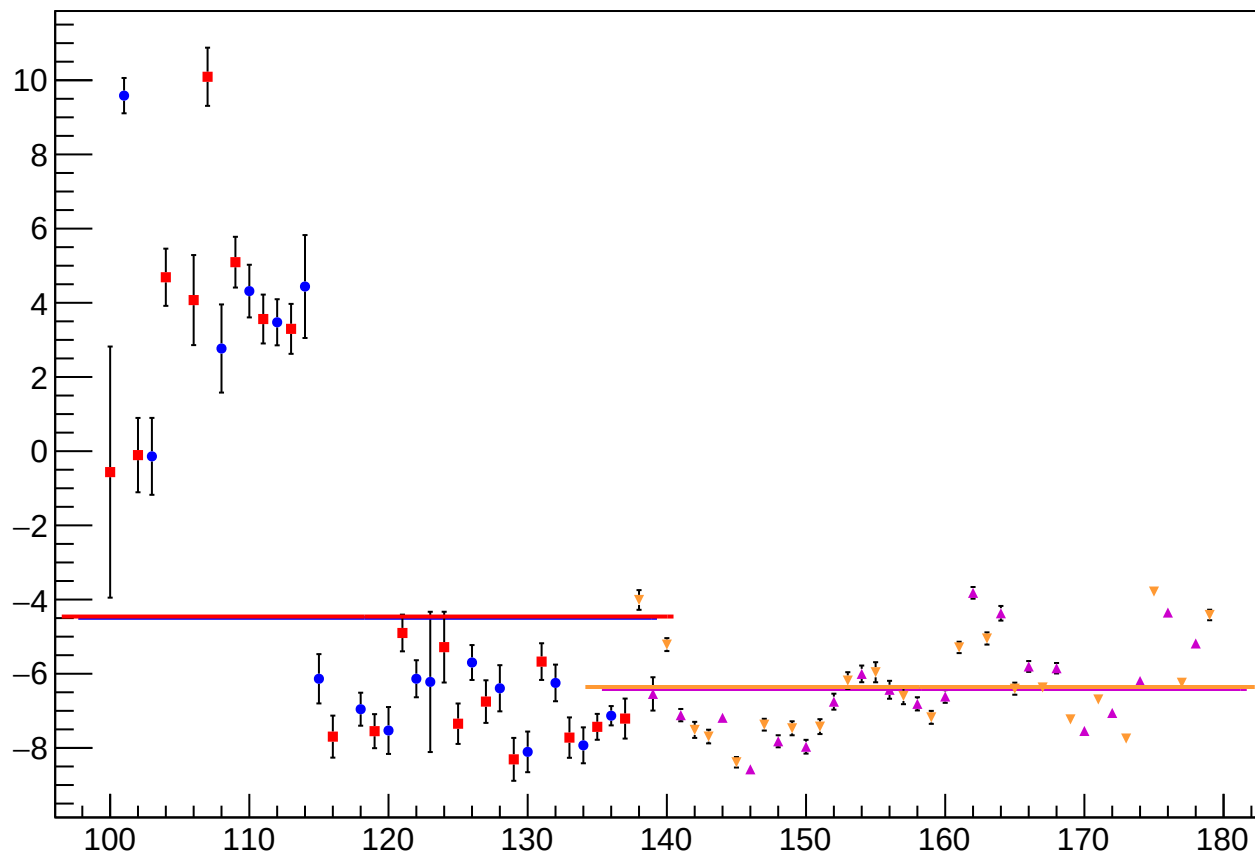
reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 17.417 $\pm$ 0.213  $\chi^2$ /NDF: 367.0/16  
 Left Out: 13.149 $\pm$ 0.039  $\chi^2$ /NDF:11792.1/21  
 Right Out: 17.941 $\pm$ 0.219  $\chi^2$ /NDF: 505.6/18  
 Left In: 12.966 $\pm$ 0.040  $\chi^2$ /NDF:11356.6/19

Left: 13.059 $\pm$ 0.028  $\chi^2$ /NDF: 23159.5/41  
 Right: 17.671 $\pm$ 0.153  $\chi^2$ /NDF: 875.6/35  
 In: 13.116 $\pm$ 0.039  $\chi^2$ /NDF:12147.1/36  
 Out: 13.296 $\pm$ 0.038  $\chi^2$ /NDF:12761.3/40  
 All: 13.207 $\pm$ 0.027  $\chi^2$ /NDF: 24919.3/77

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-4.491 \pm 0.130$   $\chi^2/\text{NDF}$ : 1585.4/16

Left Out:  $-6.357 \pm 0.034$   $\chi^2/\text{NDF}$ : 1495.0/21

Right Out:  $-4.458 \pm 0.137$   $\chi^2/\text{NDF}$ : 1338.9/18

Left In:  $-6.411 \pm 0.035$   $\chi^2/\text{NDF}$ : 1405.6/19

Left:  $-6.384 \pm 0.024$   $\chi^2/\text{NDF}$ : 2901.8/41

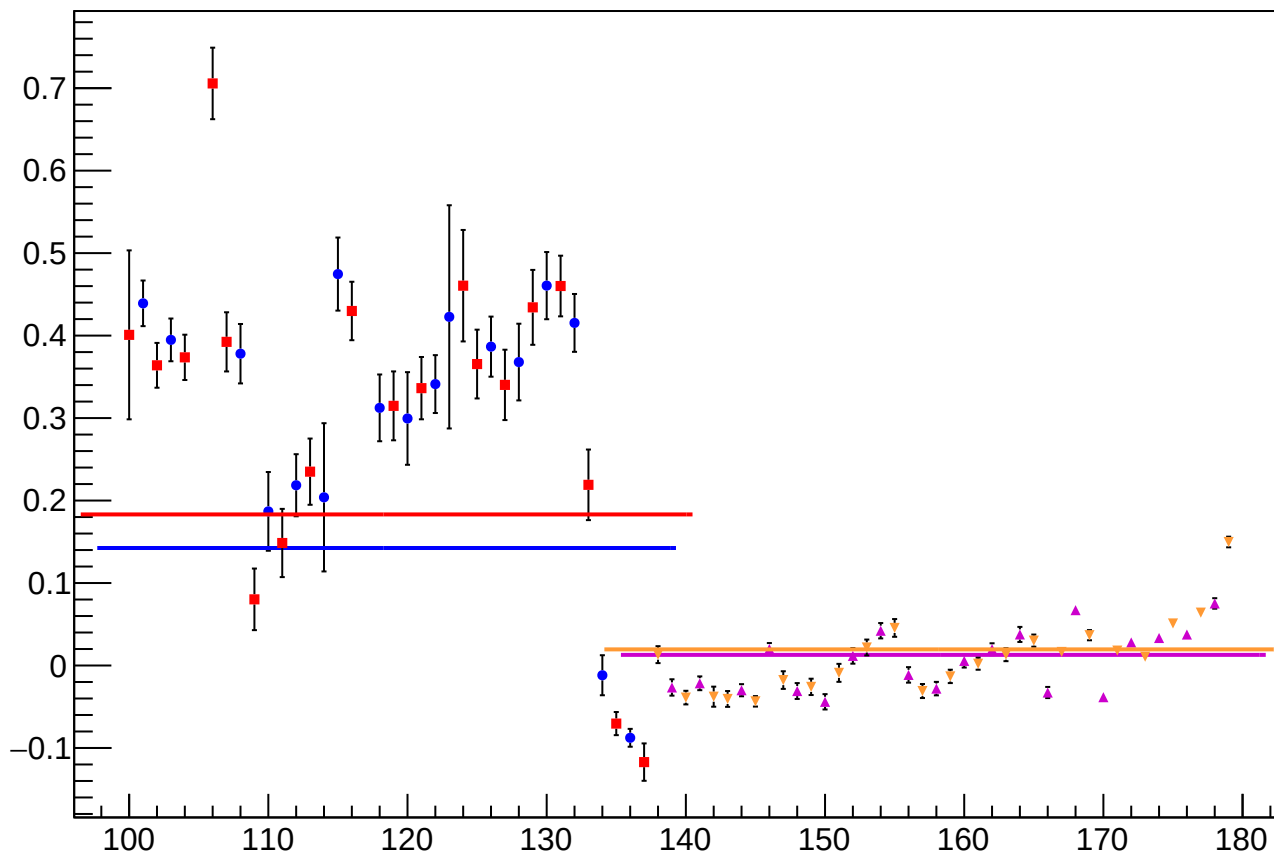
Right:  $-4.476 \pm 0.094$   $\chi^2/\text{NDF}$ : 2924.4/35

In:  $-6.285 \pm 0.033$   $\chi^2/\text{NDF}$ : 3193.4/36

Out:  $-6.249 \pm 0.033$   $\chi^2/\text{NDF}$ : 3015.1/40

All:  $-6.267 \pm 0.023$   $\chi^2/\text{NDF}$ : 6209.1/77

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.142 \pm 0.007$   $\chi^2/\text{NDF}$ : 1058.8/16

Left Out:  $0.020 \pm 0.002$   $\chi^2/\text{NDF}$ : 836.3/21

Right Out:  $0.183 \pm 0.007$   $\chi^2/\text{NDF}$ : 1000.9/18

Left In:  $0.013 \pm 0.002$   $\chi^2/\text{NDF}$ : 546.2/19

Left:  $0.016 \pm 0.001$   $\chi^2/\text{NDF}$ : 1391.5/41

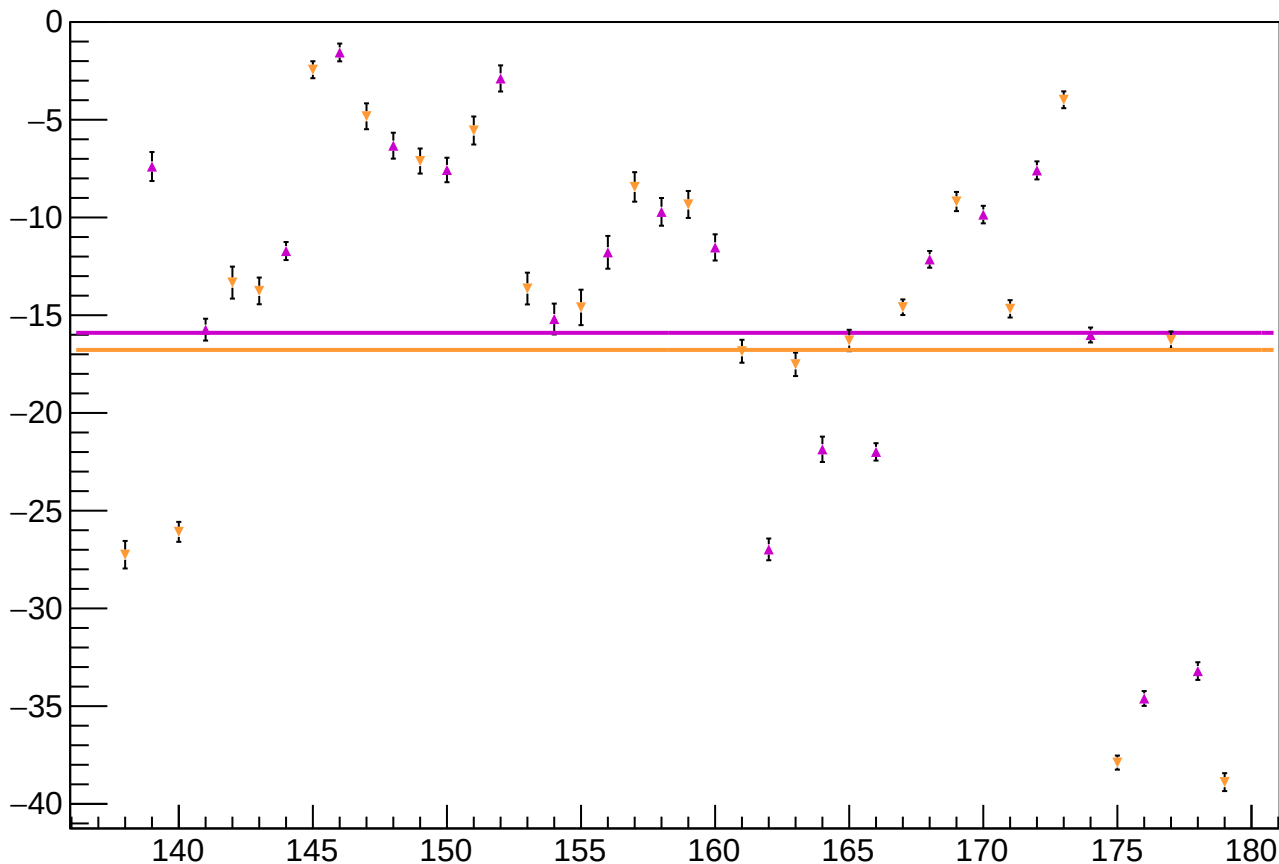
Right:  $0.162 \pm 0.005$   $\chi^2/\text{NDF}$ : 2075.4/35

In:  $0.019 \pm 0.002$   $\chi^2/\text{NDF}$ : 1924.9/36

Out:  $0.026 \pm 0.002$   $\chi^2/\text{NDF}$ : 2304.5/40

All:  $0.023 \pm 0.001$   $\chi^2/\text{NDF}$ : 4241.0/77

reg\_asym\_sam\_12345678\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -16.774 $\pm$ 0.115  $\chi^2$ /NDF:9679.7/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: -15.901 $\pm$ 0.117  $\chi^2$ /NDF:7260.5/19

Left: -16.344 $\pm$ 0.082  $\chi^2$ /NDF: 16968.7/41

Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

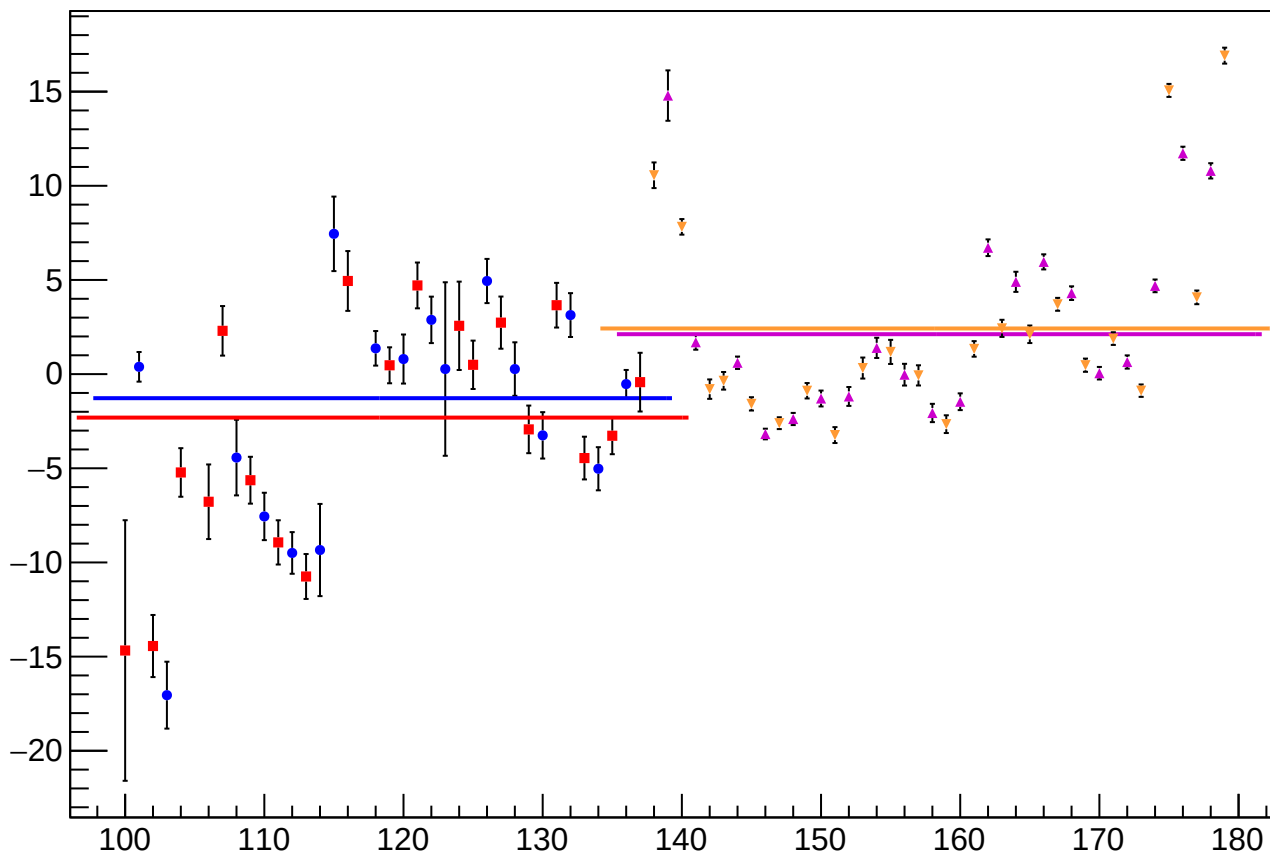
In: -15.901 $\pm$ 0.117  $\chi^2$ /NDF:7260.5/19

Out: -16.774 $\pm$ 0.115  $\chi^2$ /NDF:9679.7/21

All: -16.344 $\pm$ 0.082  $\chi^2$ /NDF: 16968.7/41



reg\_asym\_sam\_12345678\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: -1.278 $\pm$ 0.292  $\chi^2$ /NDF: 276.5/16

Left Out: 2.423 $\pm$ 0.087  $\chi^2$ /NDF:3856.4/21

Right Out: -2.309 $\pm$ 0.302  $\chi^2$ /NDF: 285.3/18

Left In: 2.120 $\pm$ 0.089  $\chi^2$ /NDF:2505.3/19

Left: 2.275 $\pm$ 0.062  $\chi^2$ /NDF: 6367.6/41

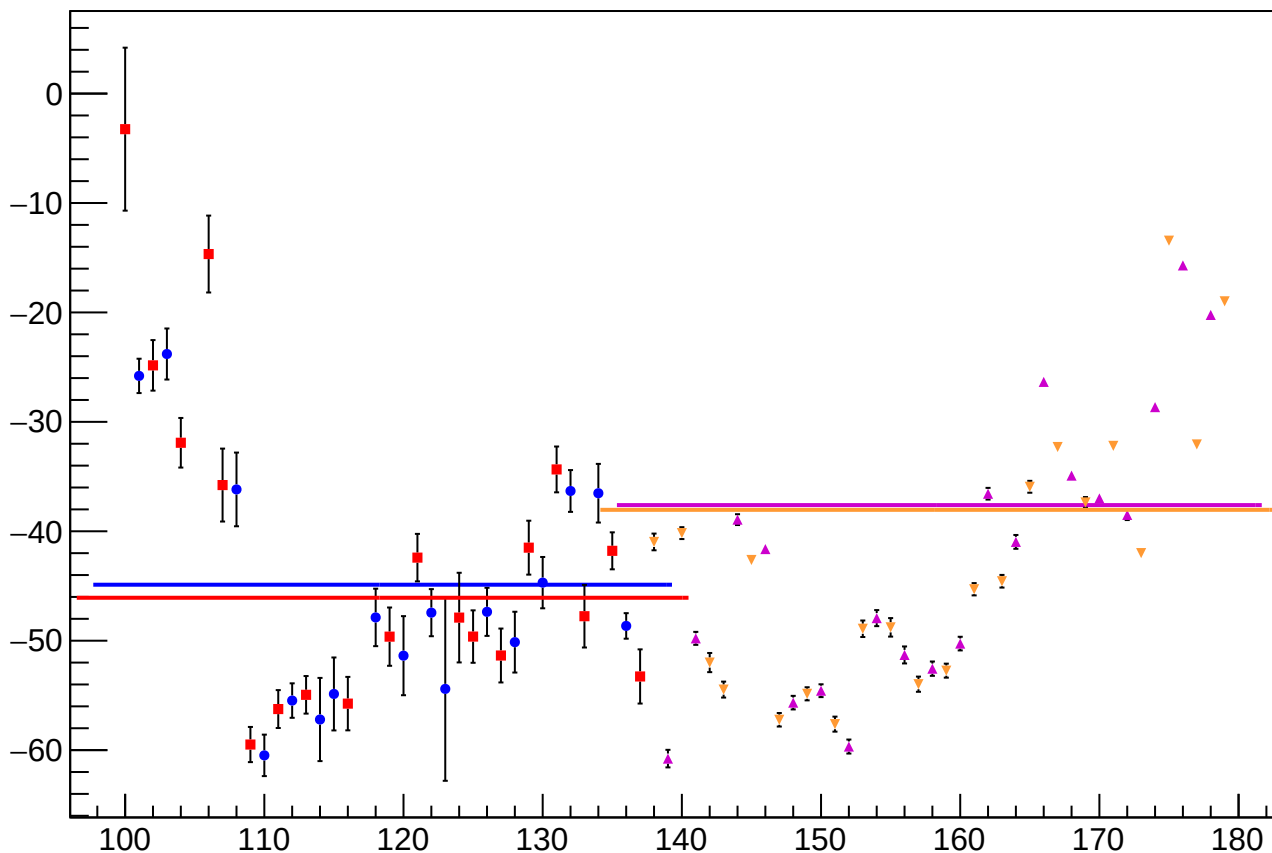
Right: -1.776 $\pm$ 0.210  $\chi^2$ /NDF: 567.8/35

In: 1.831 $\pm$ 0.085  $\chi^2$ /NDF:2905.4/36

Out: 2.059 $\pm$ 0.084  $\chi^2$ /NDF:4367.8/40

All: 1.947 $\pm$ 0.060  $\chi^2$ /NDF: 7276.8/77

reg\_asym\_sam\_12345678\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-44.883 \pm 0.524$   $\chi^2/\text{NDF}$ : 421.0/16

Left Out:  $-38.040 \pm 0.115$   $\chi^2/\text{NDF}$ : 12244.5/21

Right Out:  $-46.075 \pm 0.529$   $\chi^2/\text{NDF}$ : 454.3/18

Left In:  $-37.606 \pm 0.117$   $\chi^2/\text{NDF}$ : 11712.8/19

Left:  $-37.826 \pm 0.082$   $\chi^2/\text{NDF}$ : 23964.3/41

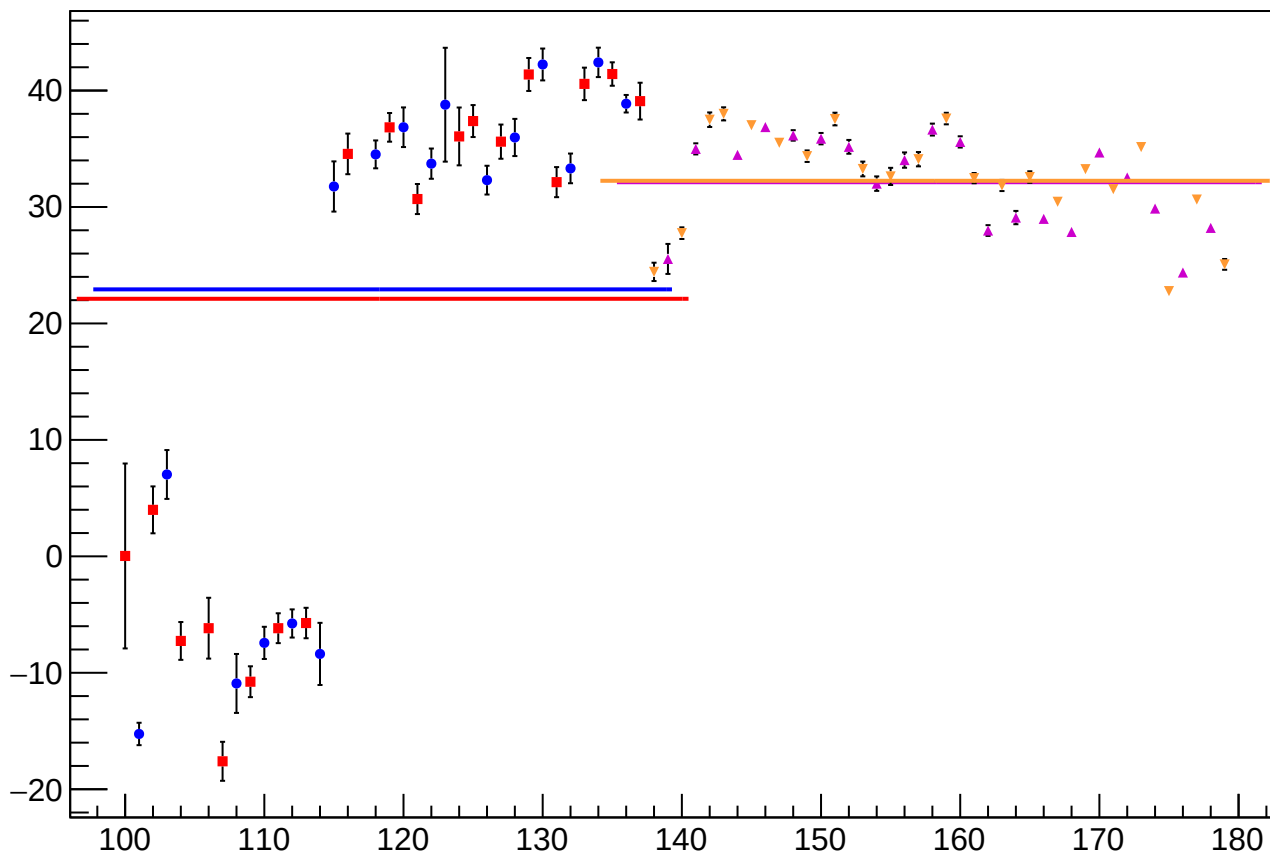
Right:  $-45.474 \pm 0.372$   $\chi^2/\text{NDF}$ : 877.8/35

In:  $-37.949 \pm 0.114$   $\chi^2/\text{NDF}$ : 12317.3/36

Out:  $-38.403 \pm 0.112$   $\chi^2/\text{NDF}$ : 12919.4/40

All:  $-38.179 \pm 0.080$   $\chi^2/\text{NDF}$ : 25244.7/77

reg\_asym\_sam\_12345678\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 22.926 $\pm$ 0.328  $\chi^2$ /NDF: 4330.2/16

Left Out: 32.250 $\pm$ 0.099  $\chi^2$ /NDF:1826.7/21

Right Out: 22.117 $\pm$ 0.340  $\chi^2$ /NDF: 4033.4/18

Left In: 32.127 $\pm$ 0.101  $\chi^2$ /NDF:1441.8/19

Left: 32.190 $\pm$ 0.071  $\chi^2$ /NDF: 3269.3/41

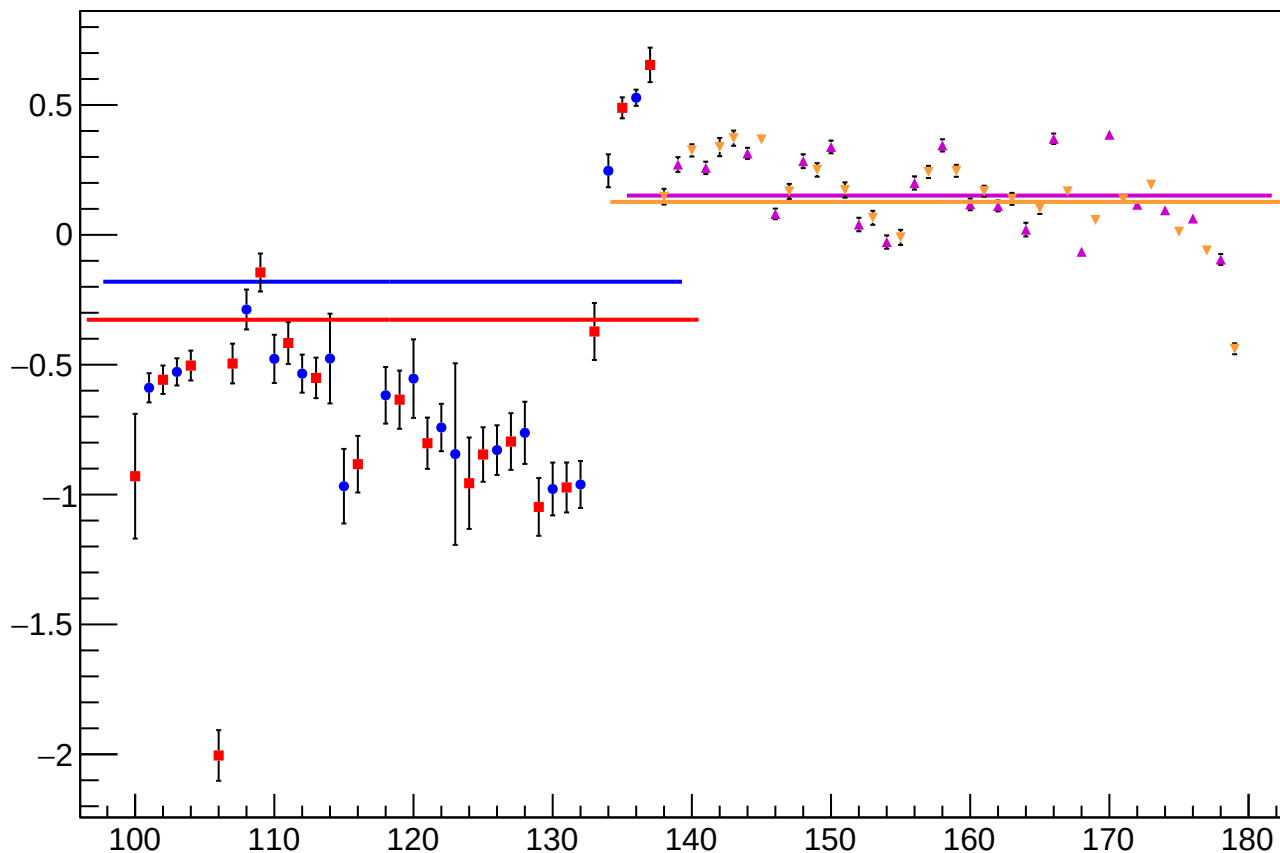
Right: 22.536 $\pm$ 0.236  $\chi^2$ /NDF: 8366.6/35

In: 31.329 $\pm$ 0.097  $\chi^2$ /NDF:6490.4/36

Out: 31.458 $\pm$ 0.095  $\chi^2$ /NDF:6679.2/40

All: 31.394 $\pm$ 0.068  $\chi^2$ /NDF: 13170.5/77

reg\_asym\_sam\_12345678\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-0.180 \pm 0.018$   $\chi^2/\text{NDF}$ : 995.7/16

Left Out:  $0.127 \pm 0.005$   $\chi^2/\text{NDF}$ : 1392.6/21

Right Out:  $-0.327 \pm 0.018$   $\chi^2/\text{NDF}$ : 1175.6/18

Left In:  $0.151 \pm 0.005$   $\chi^2/\text{NDF}$ : 1044.2/19

Left:  $0.139 \pm 0.003$   $\chi^2/\text{NDF}$ : 2450.8/41

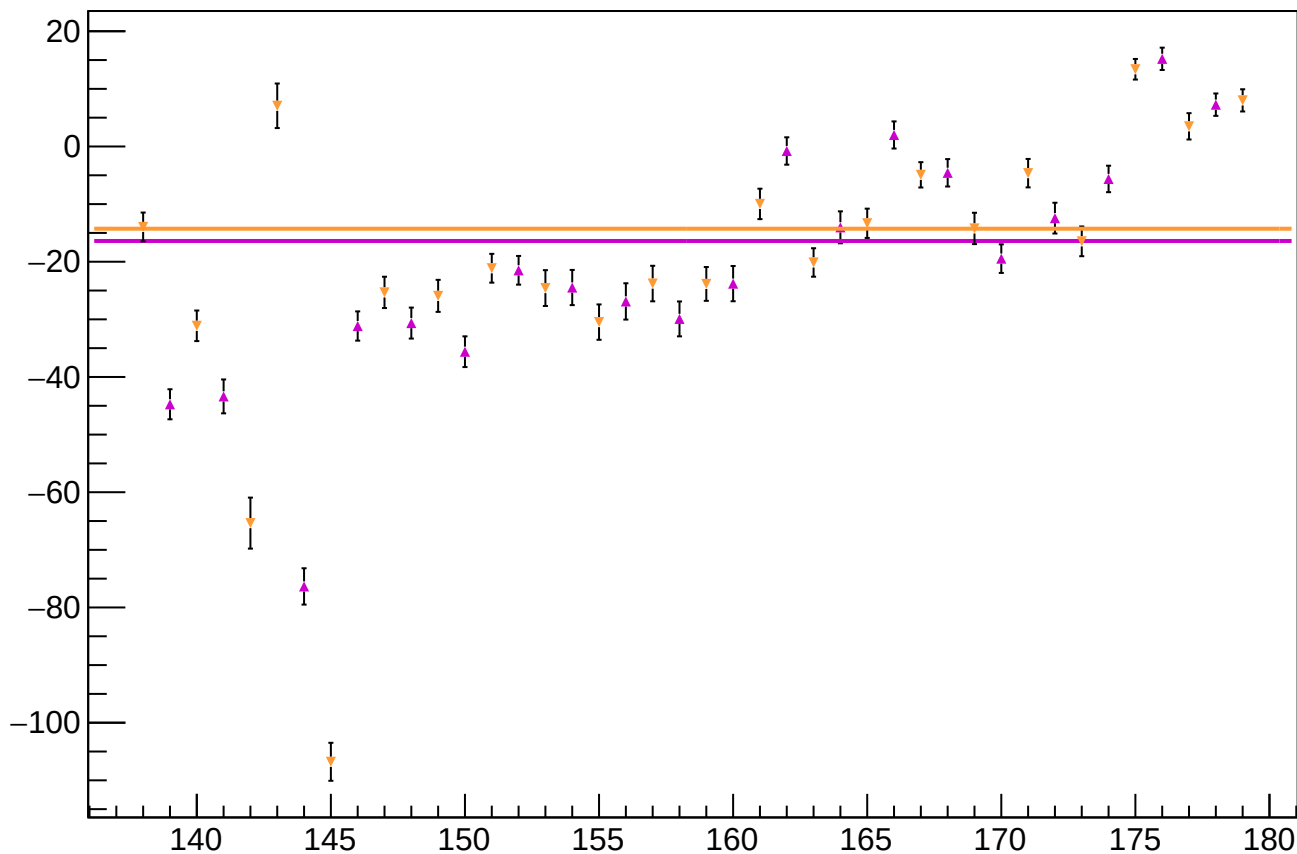
Right:  $-0.252 \pm 0.013$   $\chi^2/\text{NDF}$ : 2204.4/35

In:  $0.130 \pm 0.004$   $\chi^2/\text{NDF}$ : 2366.2/36

Out:  $0.100 \pm 0.004$   $\chi^2/\text{NDF}$ : 3152.9/40

All:  $0.115 \pm 0.003$   $\chi^2/\text{NDF}$ : 5542.0/77

# reg\_asym\_atl1\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

Left Out:  $-14.267 \pm 0.554$   $\chi^2/\text{NDF}: 1568.4/21$

Right Out:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

Left In:  $-16.399 \pm 0.571$   $\chi^2/\text{NDF}: 1296.2/19$

Left:  $-15.301 \pm 0.397$   $\chi^2/\text{NDF}: 2871.9/41$

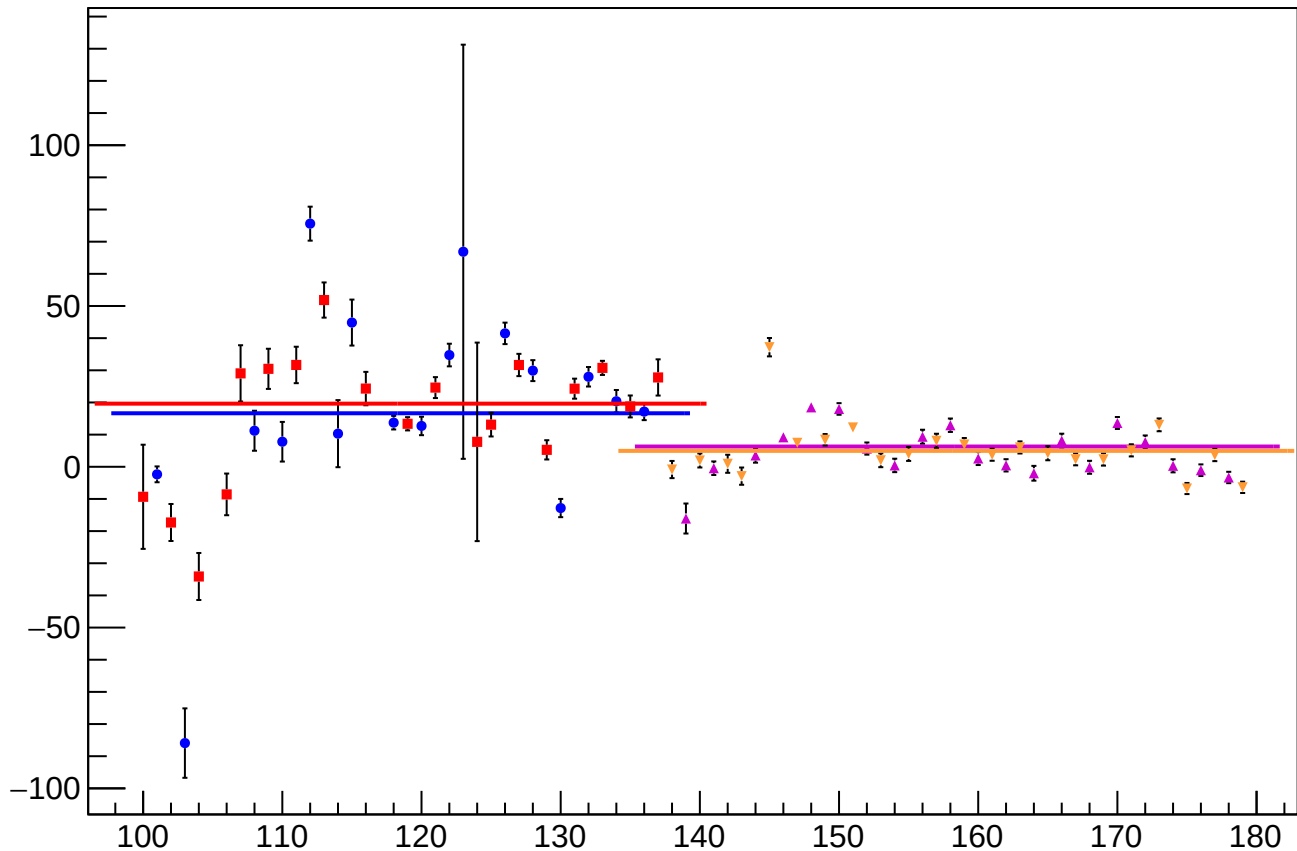
Right:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

In:  $-16.399 \pm 0.571$   $\chi^2/\text{NDF}: 1296.2/19$

Out:  $-14.267 \pm 0.554$   $\chi^2/\text{NDF}: 1568.4/21$

All:  $-15.301 \pm 0.397$   $\chi^2/\text{NDF}: 2871.9/41$

reg\_asym\_atl1\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 16.641 $\pm$ 0.859  $\chi^2$ /NDF: 518.9/16

Left Out: 4.948 $\pm$ 0.415  $\chi^2$ /NDF: 292.0/21

Right Out: 19.632 $\pm$ 0.896  $\chi^2$ /NDF: 241.7/18

Left In: 6.302 $\pm$ 0.433  $\chi^2$ /NDF: 294.9/19

Left: 5.596 $\pm$ 0.300  $\chi^2$ /NDF: 592.0/41

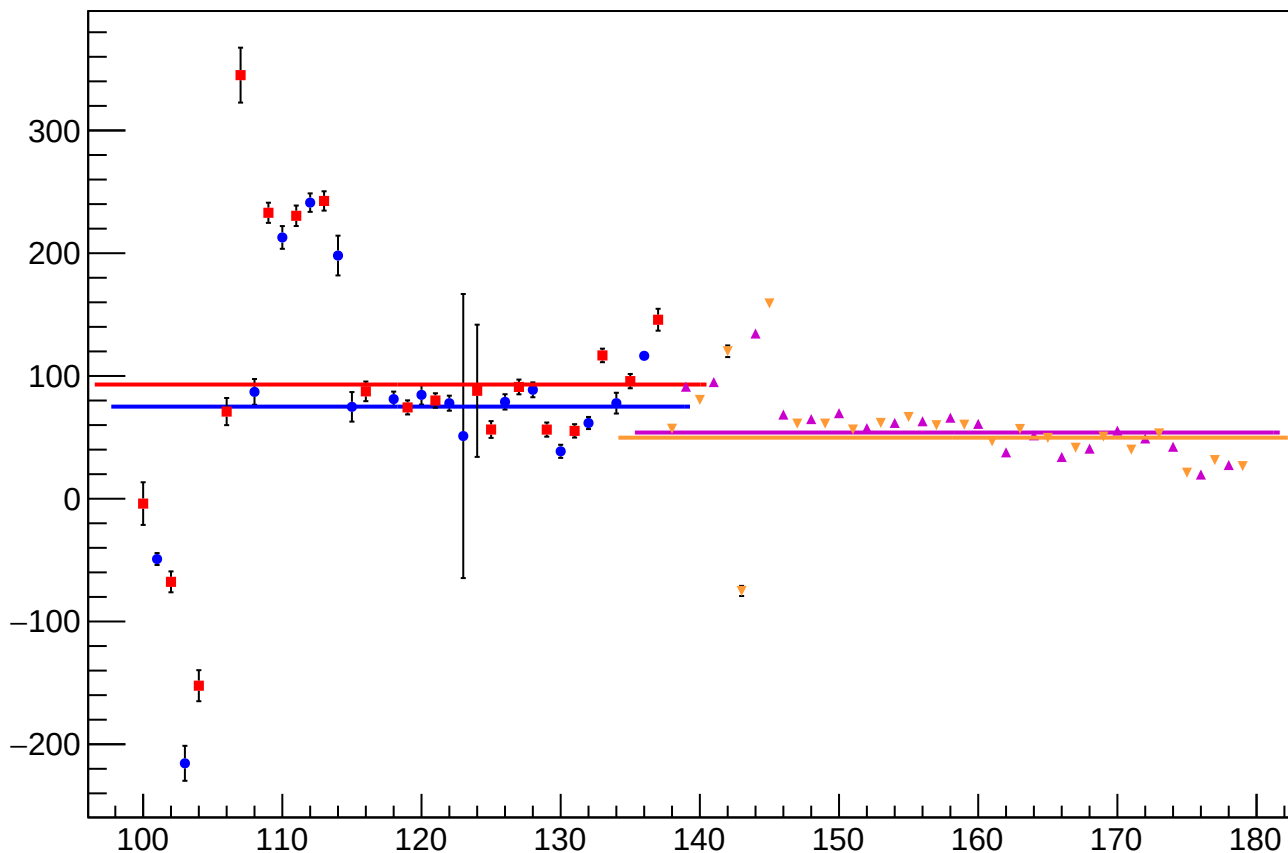
Right: 18.072 $\pm$ 0.620  $\chi^2$ /NDF: 766.4/35

In: 8.401 $\pm$ 0.387  $\chi^2$ /NDF: 929.4/36

Out: 7.539 $\pm$ 0.376  $\chi^2$ /NDF: 754.7/40

All: 7.958 $\pm$ 0.270  $\chi^2$ /NDF: 1686.7/77

reg\_asym\_atl1\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 75.032 $\pm$ 1.647  $\chi^2$ /NDF: 1999.7/16

Left Out: 49.738 $\pm$ 0.547  $\chi^2$ /NDF: 2919.9/21

Right Out: 93.028 $\pm$ 1.711  $\chi^2$ /NDF: 2003.6/18

Left In: 53.926 $\pm$ 0.564  $\chi^2$ /NDF: 1741.9/19

Left: 51.770 $\pm$ 0.393  $\chi^2$ /NDF: 4690.2/41

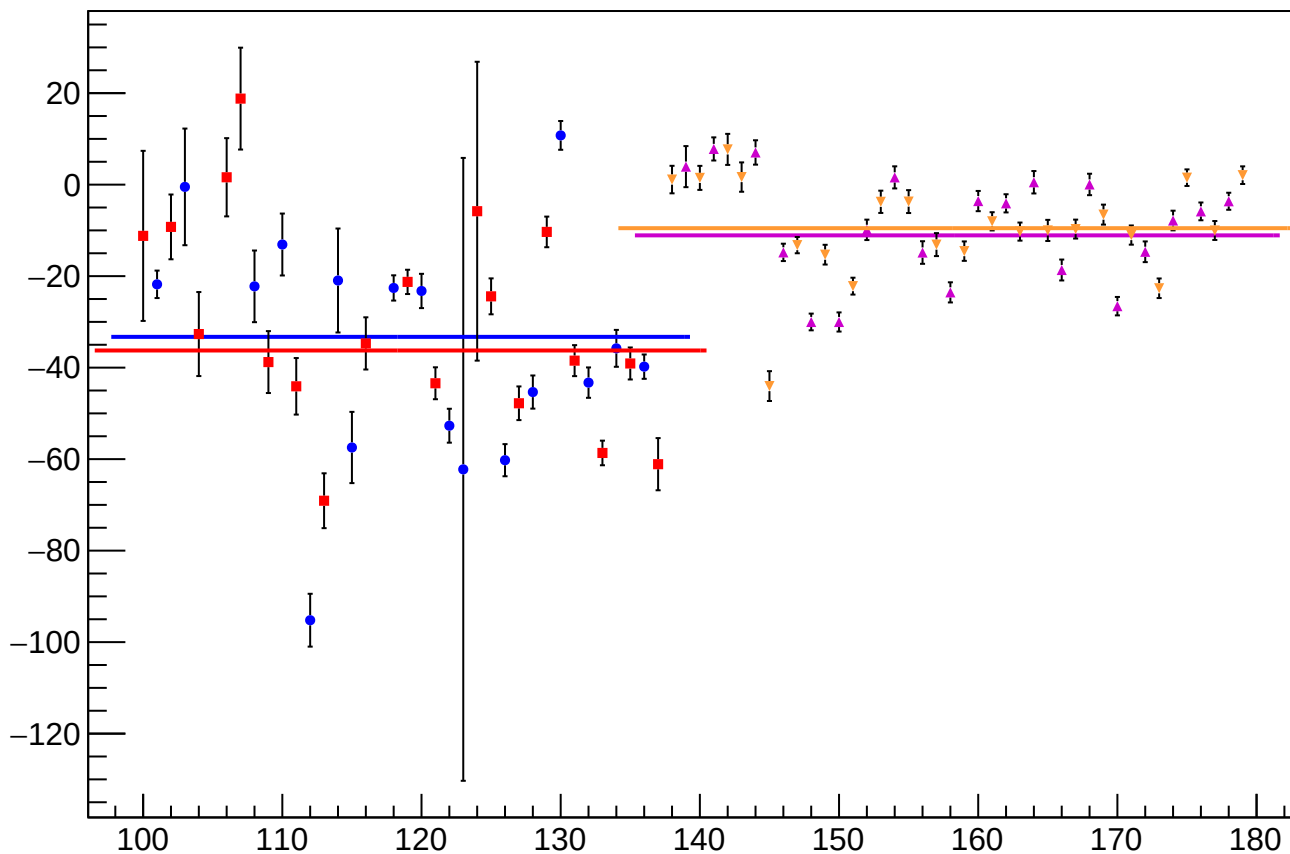
Right: 83.683 $\pm$ 1.187  $\chi^2$ /NDF: 4060.7/35

In: 56.141 $\pm$ 0.533  $\chi^2$ /NDF: 3888.7/36

Out: 53.757 $\pm$ 0.521  $\chi^2$ /NDF: 5503.9/40

All: 54.922 $\pm$ 0.373  $\chi^2$ /NDF: 9402.9/77

reg\_asym\_atl1\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-33.272 \pm 0.982$   $\chi^2/\text{NDF}$ : 489.4/16

Left Out:  $-9.517 \pm 0.474$   $\chi^2/\text{NDF}$ : 371.4/21

Right Out:  $-36.251 \pm 1.024$   $\chi^2/\text{NDF}$ : 297.6/18

Left In:  $-11.087 \pm 0.494$   $\chi^2/\text{NDF}$ : 535.5/19

Left:  $-10.269 \pm 0.342$   $\chi^2/\text{NDF}$ : 912.2/41

Right:  $-34.699 \pm 0.709$   $\chi^2/\text{NDF}$ : 791.4/35

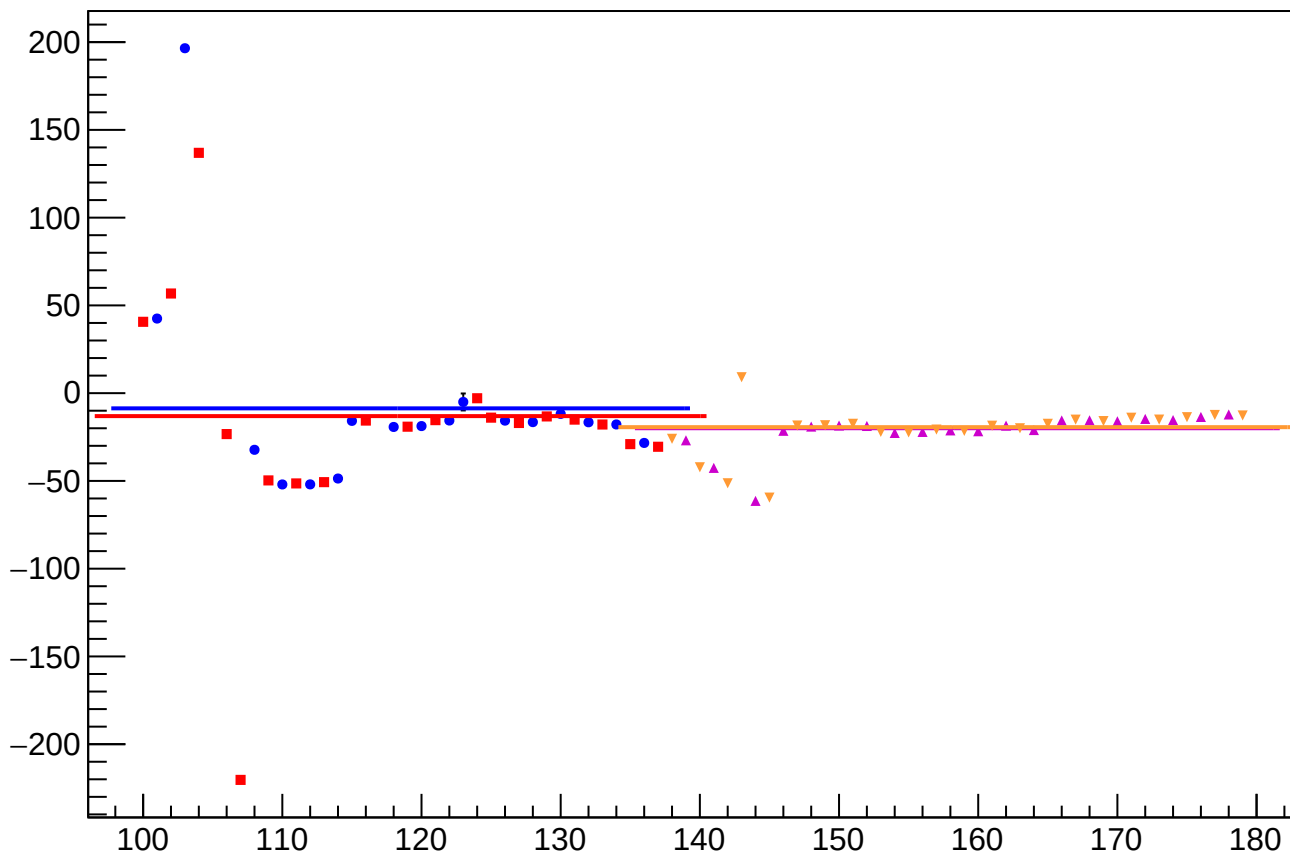
In:  $-15.562 \pm 0.441$   $\chi^2/\text{NDF}$ : 1432.4/36

Out:  $-14.227 \pm 0.430$   $\chi^2/\text{NDF}$ : 1230.6/40

All:  $-14.877 \pm 0.308$   $\chi^2/\text{NDF}$ : 2667.7/77



reg\_asym\_atl1\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-8.657 \pm 0.059$   $\chi^2/\text{NDF}$ : 575742.7/16

Left Out:  $-19.375 \pm 0.022$   $\chi^2/\text{NDF}$ : 213465.0/21

Right Out:  $-13.077 \pm 0.062$   $\chi^2/\text{NDF}$ : 558318.9/18

Left In:  $-19.983 \pm 0.022$   $\chi^2/\text{NDF}$ : 143375.6/19

Left:  $-19.672 \pm 0.016$   $\chi^2/\text{NDF}$ : 357219.6/41

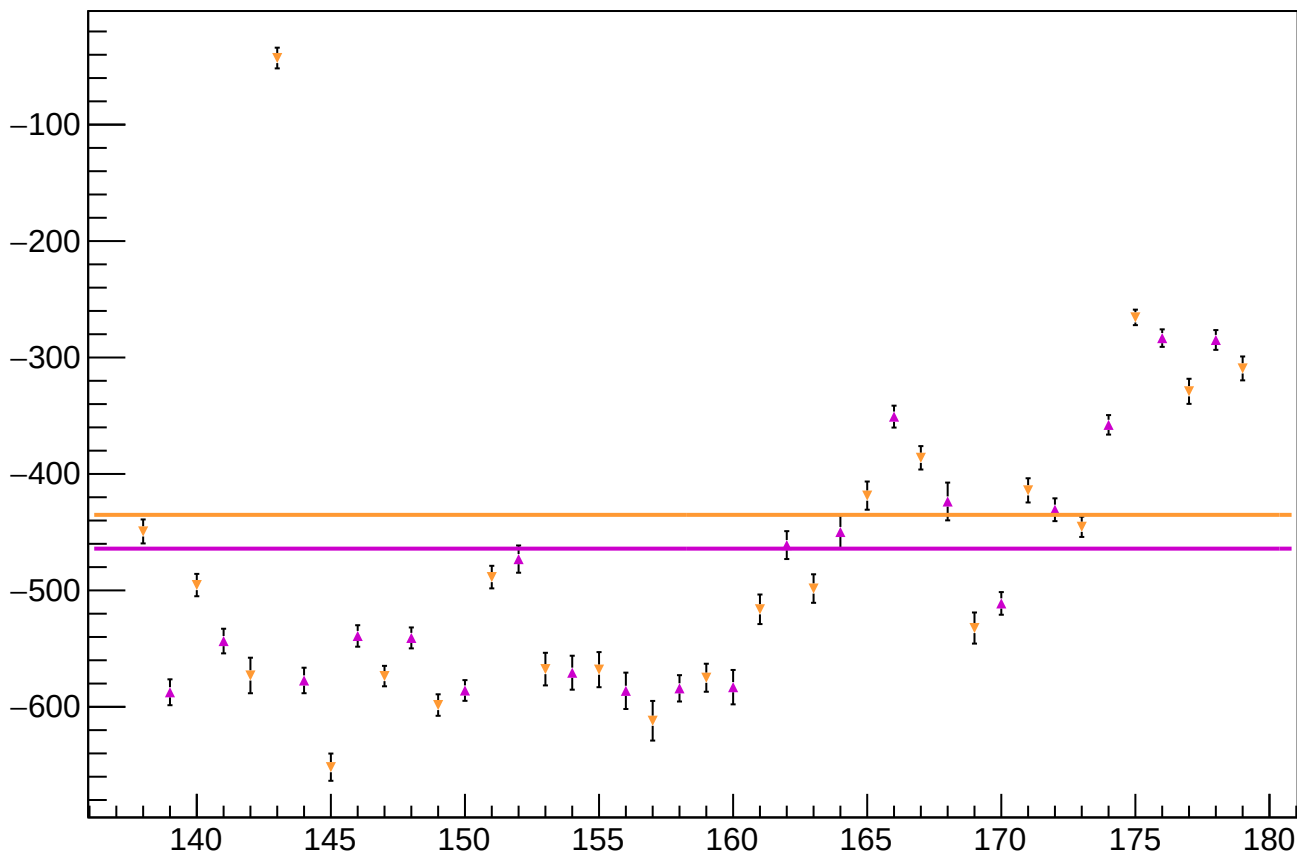
Right:  $-10.767 \pm 0.043$   $\chi^2/\text{NDF}$ : 1136731.7/35

In:  $-18.566 \pm 0.021$   $\chi^2/\text{NDF}$ : 751267.1/36

Out:  $-18.675 \pm 0.021$   $\chi^2/\text{NDF}$ : 781007.2/40

All:  $-18.621 \pm 0.015$   $\chi^2/\text{NDF}$ : 1532288.2/77

reg\_asym\_atl2\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -435.120 $\pm$ 2.247  $\chi^2/\text{NDF}$ :4460.3/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -464.130 $\pm$ 2.329  $\chi^2/\text{NDF}$ :2277.0/19

Left: -449.106 $\pm$ 1.617  $\chi^2/\text{NDF}$ : 6817.7/41

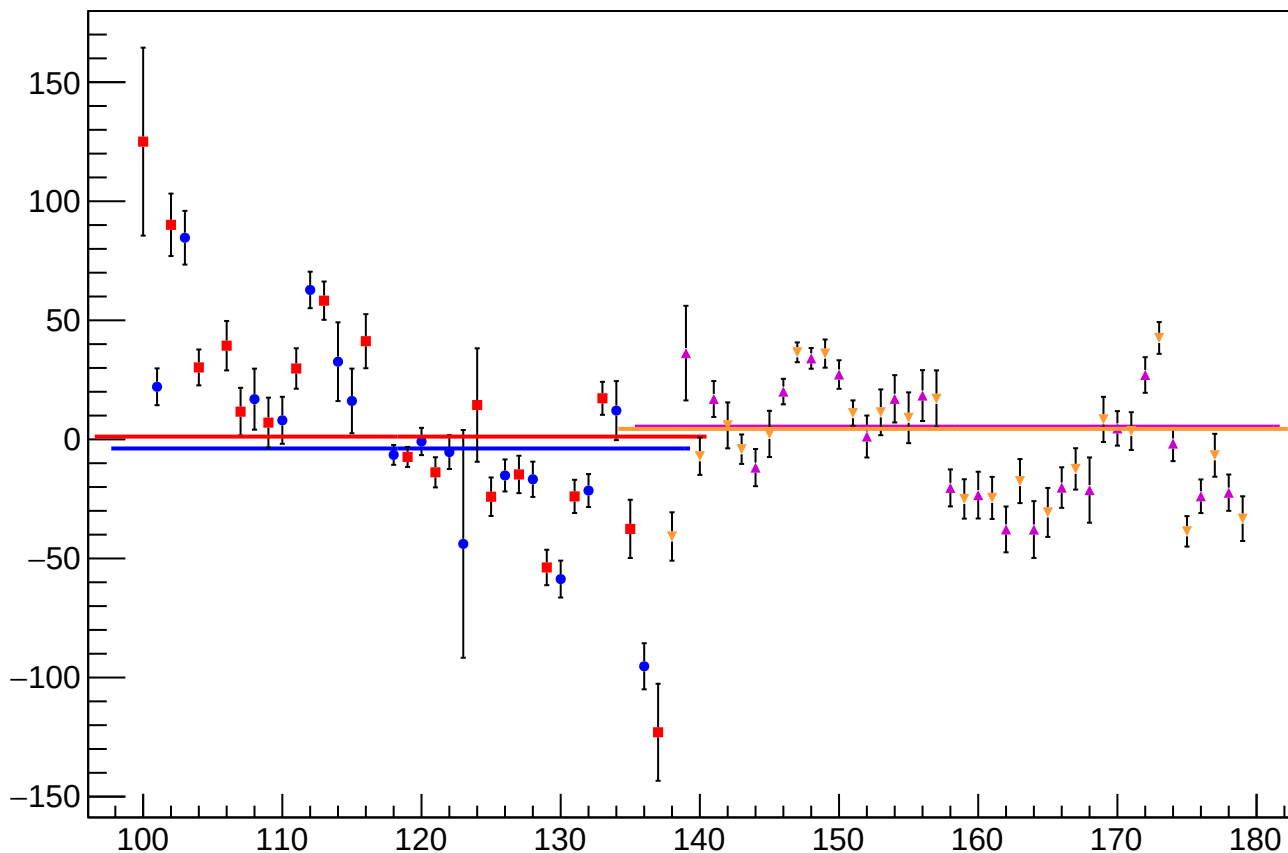
Right: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -464.130 $\pm$ 2.329  $\chi^2/\text{NDF}$ :2277.0/19

Out: -435.120 $\pm$ 2.247  $\chi^2/\text{NDF}$ :4460.3/21

All: -449.106 $\pm$ 1.617  $\chi^2/\text{NDF}$ : 6817.7/41

reg\_asym\_atl2\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-3.815 \pm 1.923$   $\chi^2/\text{NDF}$ : 314.3/16

Left Out:  $4.422 \pm 1.620$   $\chi^2/\text{NDF}$ : 255.8/21

Right Out:  $1.175 \pm 1.914$   $\chi^2/\text{NDF}$ : 303.9/18

Left In:  $5.359 \pm 1.714$   $\chi^2/\text{NDF}$ : 182.4/19

Left:  $4.864 \pm 1.178$   $\chi^2/\text{NDF}$ : 438.3/41

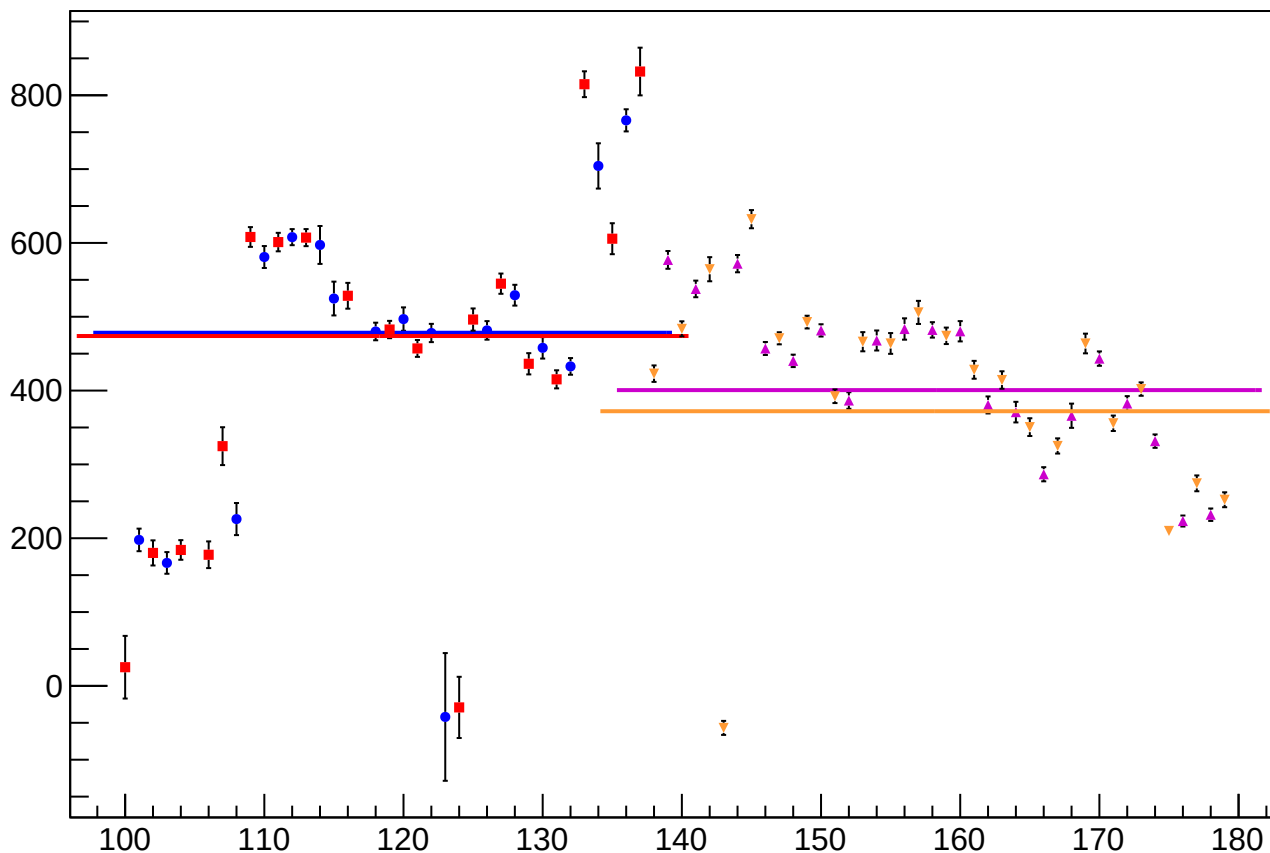
Right:  $-1.308 \pm 1.356$   $\chi^2/\text{NDF}$ : 621.6/35

In:  $1.296 \pm 1.280$   $\chi^2/\text{NDF}$ : 509.4/36

Out:  $3.066 \pm 1.237$   $\chi^2/\text{NDF}$ : 561.3/40

All:  $2.212 \pm 0.889$   $\chi^2/\text{NDF}$ : 1071.6/77

reg\_asym\_atl2\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 478.334+/-3.662  $\chi^2/\text{NDF}$ : 1628.8/16

Left Out: 372.037+/-2.233  $\chi^2/\text{NDF}$ : 4301.0/21

Right Out: 473.902+/-3.531  $\chi^2/\text{NDF}$ : 2285.0/18

Left In: 400.635+/-2.305  $\chi^2/\text{NDF}$ : 2090.2/19

Left: 385.881+/-1.604  $\chi^2/\text{NDF}$ : 6470.5/41

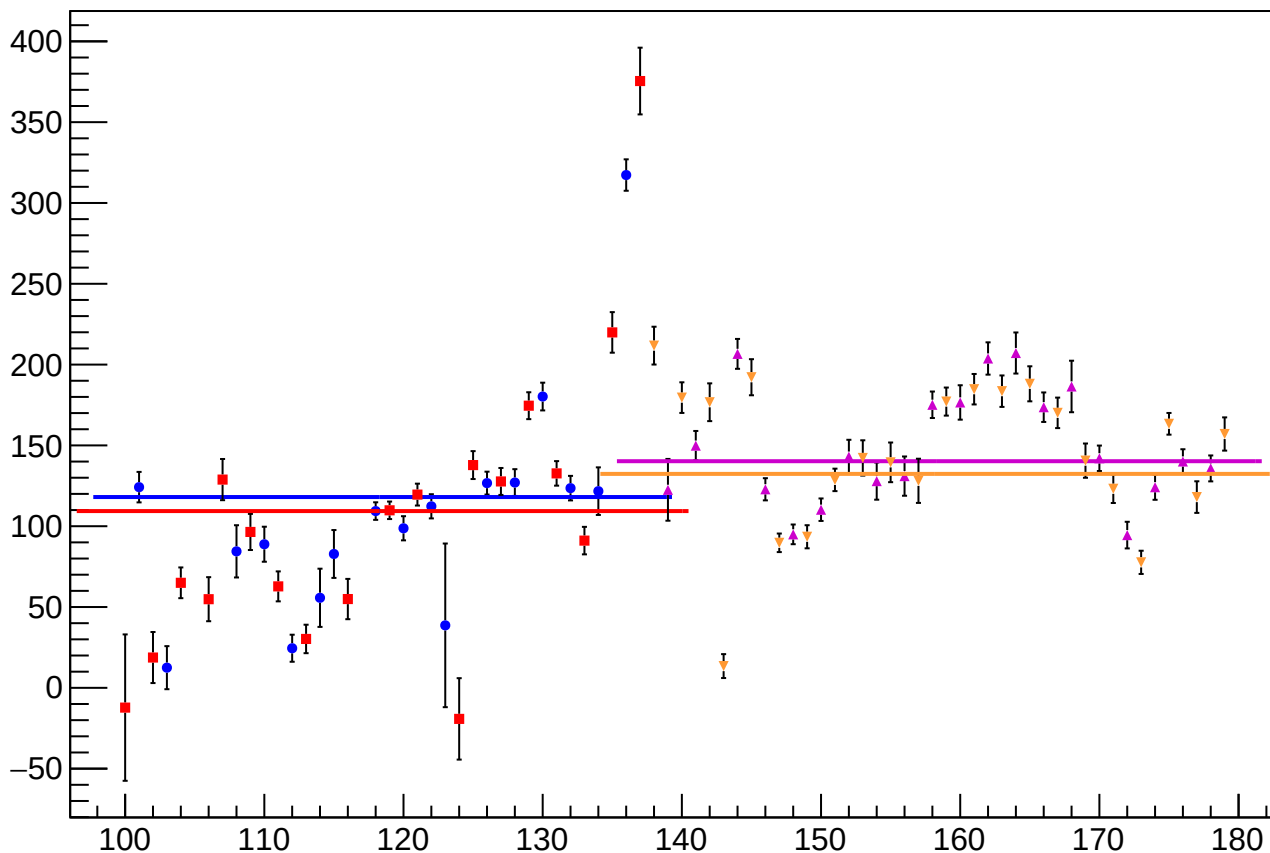
Right: 476.038+/-2.542  $\chi^2/\text{NDF}$ : 3914.6/35

In: 422.686+/-1.951  $\chi^2/\text{NDF}$ : 4041.4/36

Out: 401.137+/-1.887  $\chi^2/\text{NDF}$ : 7180.5/40

All: 411.554+/-1.356  $\chi^2/\text{NDF}$ : 11284.9/77

reg\_asym\_atl2\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 118.055 $\pm$ 2.225  $\chi^2$ /NDF: 705.3/16

Left Out: 132.371 $\pm$ 1.886  $\chi^2$ /NDF:675.3/21

Right Out: 109.367 $\pm$ 2.205  $\chi^2$ /NDF: 569.8/18

Left In: 140.224 $\pm$ 1.980  $\chi^2$ /NDF:290.8/19

Left: 136.107 $\pm$ 1.365  $\chi^2$ /NDF: 974.4/41

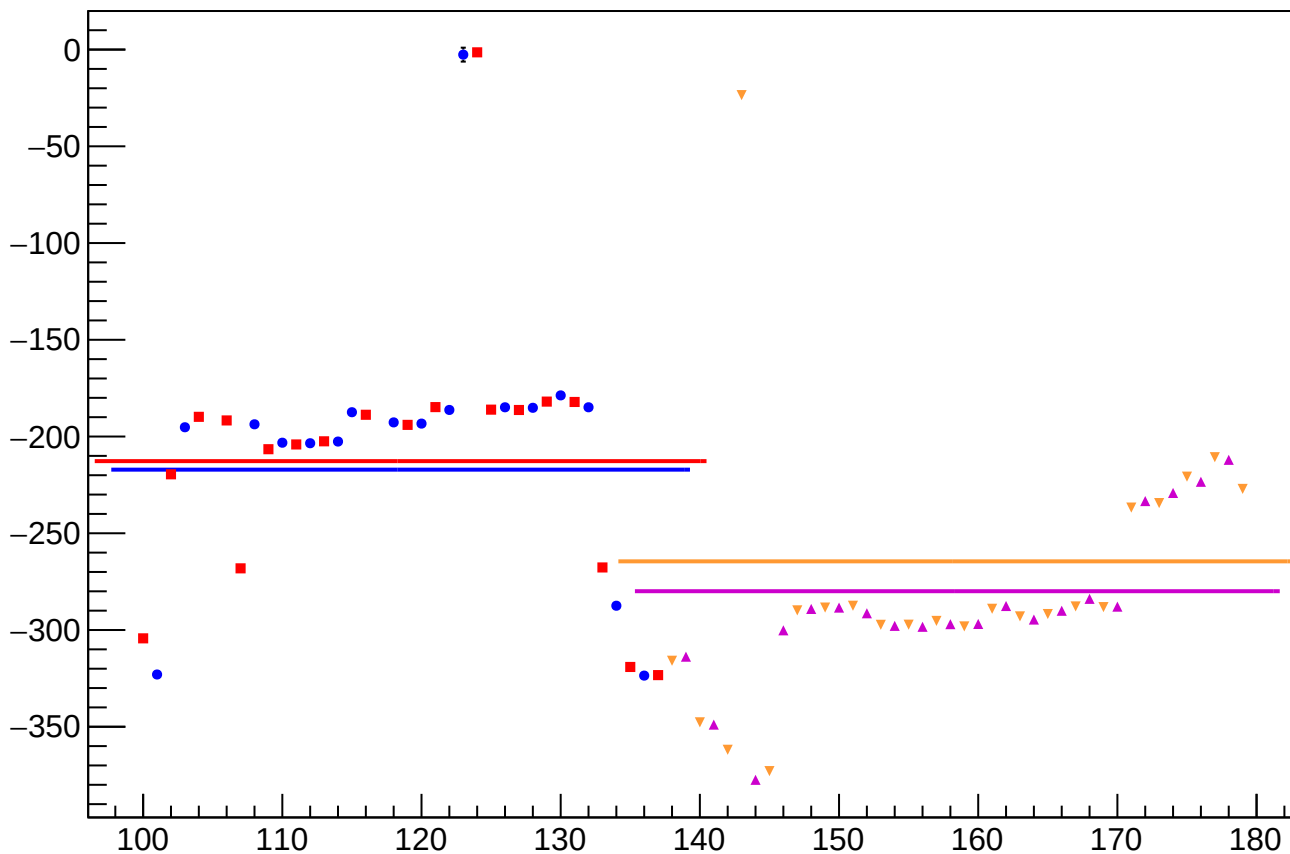
Right: 113.671 $\pm$ 1.566  $\chi^2$ /NDF: 1282.8/35

In: 130.431 $\pm$ 1.479  $\chi^2$ /NDF:1051.5/36

Out: 122.652 $\pm$ 1.433  $\chi^2$ /NDF:1308.0/40

All: 126.419 $\pm$ 1.029  $\chi^2$ /NDF: 2373.8/77

reg\_asym\_atl2\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-217.120 \pm 0.137$   $\chi^2/\text{NDF}: 146559.7/16$

Left Out:  $-264.513 \pm 0.091$   $\chi^2/\text{NDF}: 623592.8/21$

Right Out:  $-212.715 \pm 0.130$   $\chi^2/\text{NDF}: 115566.2/18$

Left In:  $-279.945 \pm 0.093$   $\chi^2/\text{NDF}: 176180.1/19$

Left:  $-272.057 \pm 0.065$   $\chi^2/\text{NDF}: 813965.2/41$

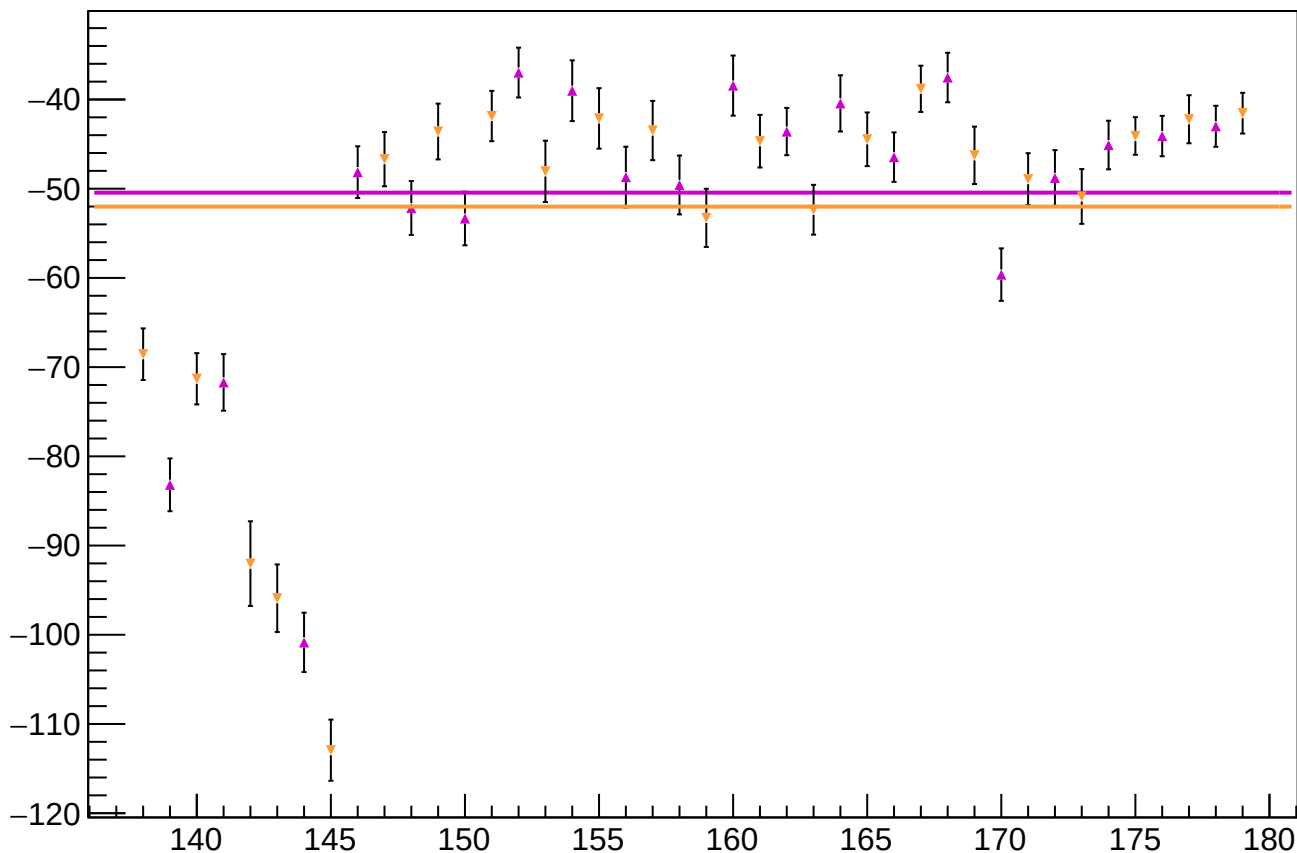
Right:  $-214.812 \pm 0.094$   $\chi^2/\text{NDF}: 262670.9/35$

In:  $-260.156 \pm 0.077$   $\chi^2/\text{NDF}: 467688.9/36$

Out:  $-247.618 \pm 0.074$   $\chi^2/\text{NDF}: 845842.7/40$

All:  $-253.696 \pm 0.053$   $\chi^2/\text{NDF}: 1327318.7/77$

reg\_asym\_atr1\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -52.006+/-0.631  $\chi^2/\text{NDF}$ : 729.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -50.441+/-0.650  $\chi^2/\text{NDF}$ : 519.2/19

Left: -51.247+/-0.453  $\chi^2/\text{NDF}$ : 1251.9/41

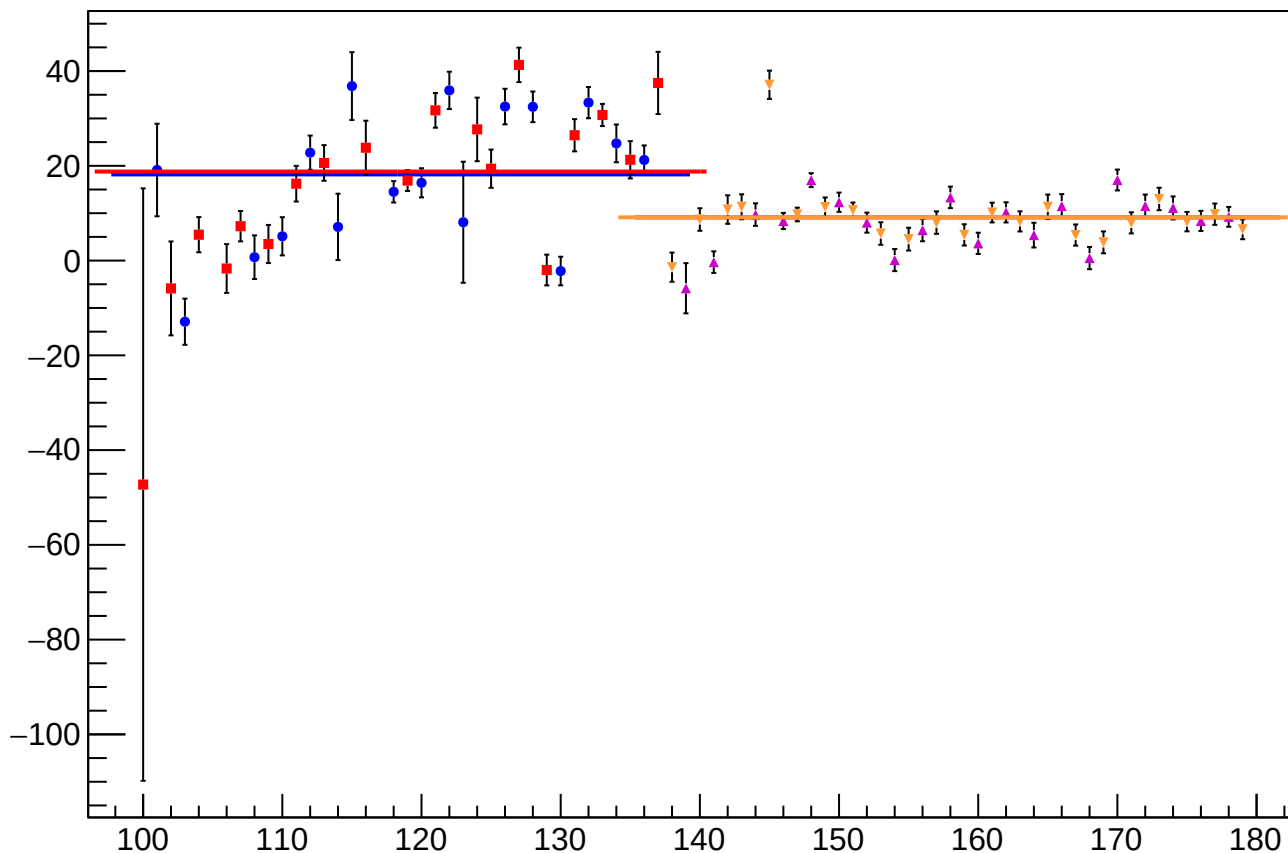
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -50.441+/-0.650  $\chi^2/\text{NDF}$ : 519.2/19

Out: -52.006+/-0.631  $\chi^2/\text{NDF}$ : 729.8/21

All: -51.247+/-0.453  $\chi^2/\text{NDF}$ : 1251.9/41

reg\_asym\_atr1\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $18.188 \pm 0.917$   $\chi^2/\text{NDF}$ : 204.9/16

Left Out:  $9.123 \pm 0.470$   $\chi^2/\text{NDF}$ : 125.6/21

Right Out:  $18.791 \pm 0.863$   $\chi^2/\text{NDF}$ : 198.8/18

Left In:  $9.114 \pm 0.492$   $\chi^2/\text{NDF}$ : 113.7/19

Left:  $9.119 \pm 0.340$   $\chi^2/\text{NDF}$ : 239.2/41

Right:  $18.508 \pm 0.628$   $\chi^2/\text{NDF}$ : 403.9/35

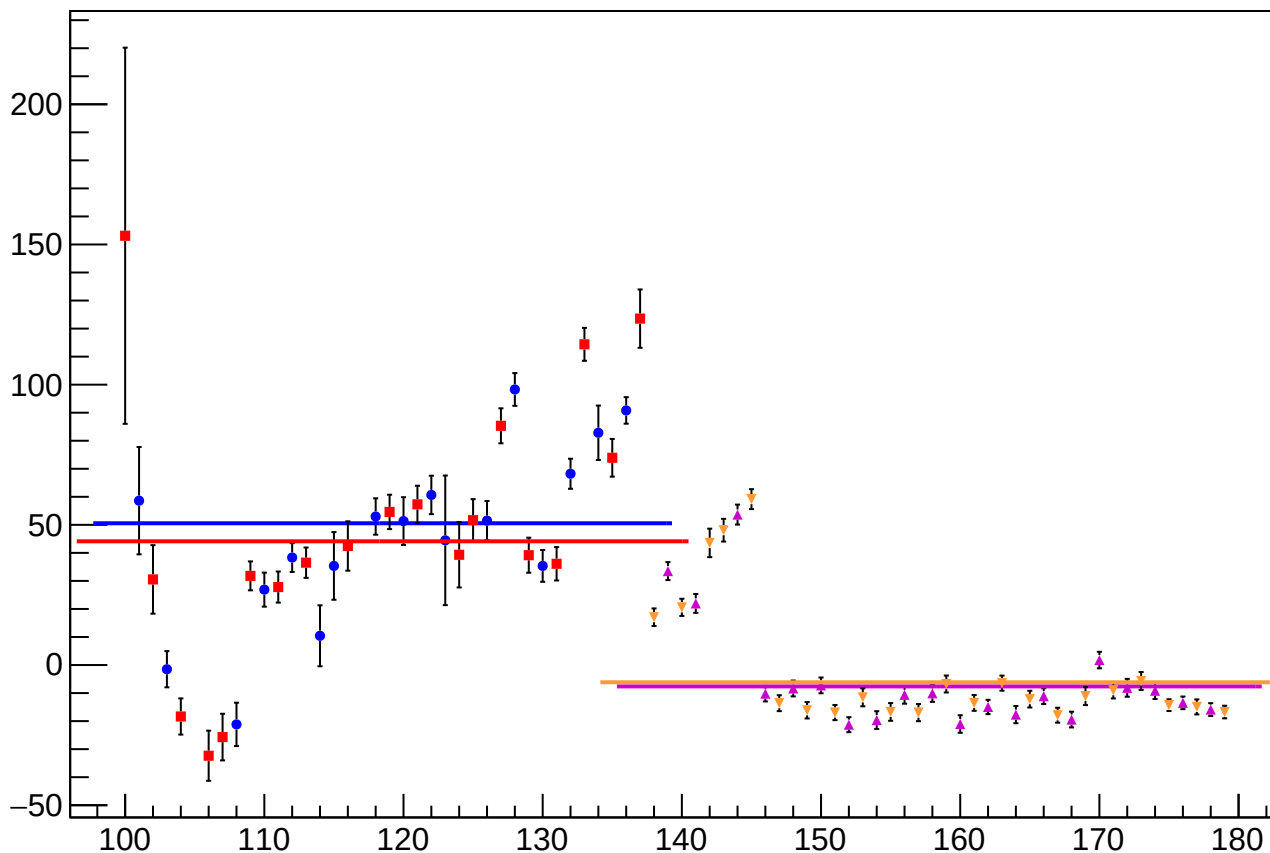
In:  $11.140 \pm 0.433$   $\chi^2/\text{NDF}$ : 394.6/36

Out:  $11.336 \pm 0.413$   $\chi^2/\text{NDF}$ : 421.2/40

All:  $11.243 \pm 0.299$   $\chi^2/\text{NDF}$ : 815.8/77



reg\_asym\_atr1\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 50.565+/-1.678  $\chi^2/\text{NDF}$ : 357.9/16

Left Out: -6.153+/-0.624  $\chi^2/\text{NDF}$ : 885.6/21

Right Out: 44.132+/-1.603  $\chi^2/\text{NDF}$ : 532.5/18

Left In: -7.623+/-0.642  $\chi^2/\text{NDF}$ : 668.1/19

Left: -6.867+/-0.447  $\chi^2/\text{NDF}$ : 1556.4/41

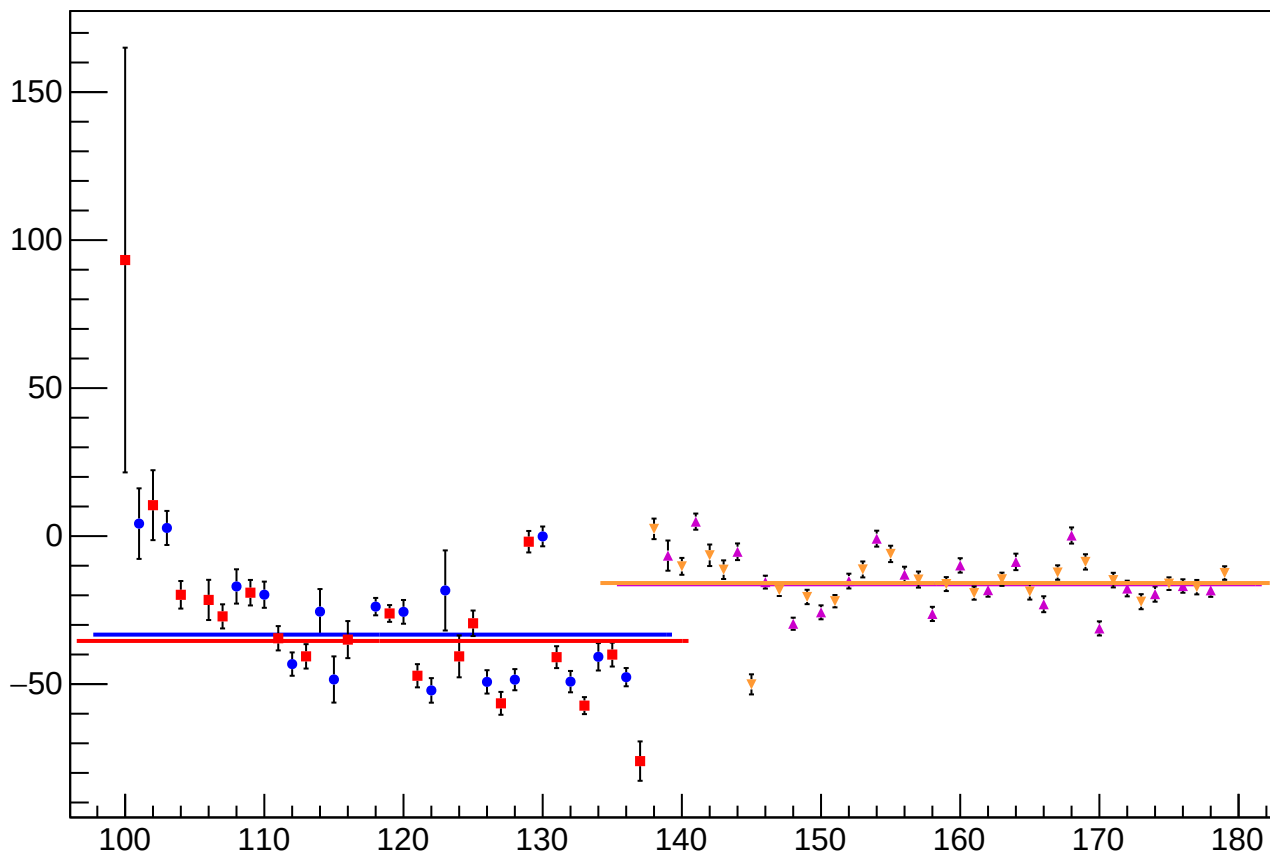
Right: 47.201+/-1.159  $\chi^2/\text{NDF}$ : 898.2/35

In: -0.190+/-0.600  $\chi^2/\text{NDF}$ : 2075.5/36

Out: 0.464+/-0.581  $\chi^2/\text{NDF}$ : 2273.3/40

All: 0.147+/-0.417  $\chi^2/\text{NDF}$ : 4349.3/77

reg\_asym\_atr1\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-33.281 \pm 1.043$   $\chi^2/\text{NDF}$ : 290.1/16

Left Out:  $-15.851 \pm 0.538$   $\chi^2/\text{NDF}$ : 193.9/21

Right Out:  $-35.417 \pm 0.991$   $\chi^2/\text{NDF}$ : 289.7/18

Left In:  $-16.282 \pm 0.561$   $\chi^2/\text{NDF}$ : 289.0/19

Left:  $-16.057 \pm 0.388$   $\chi^2/\text{NDF}$ : 483.2/41

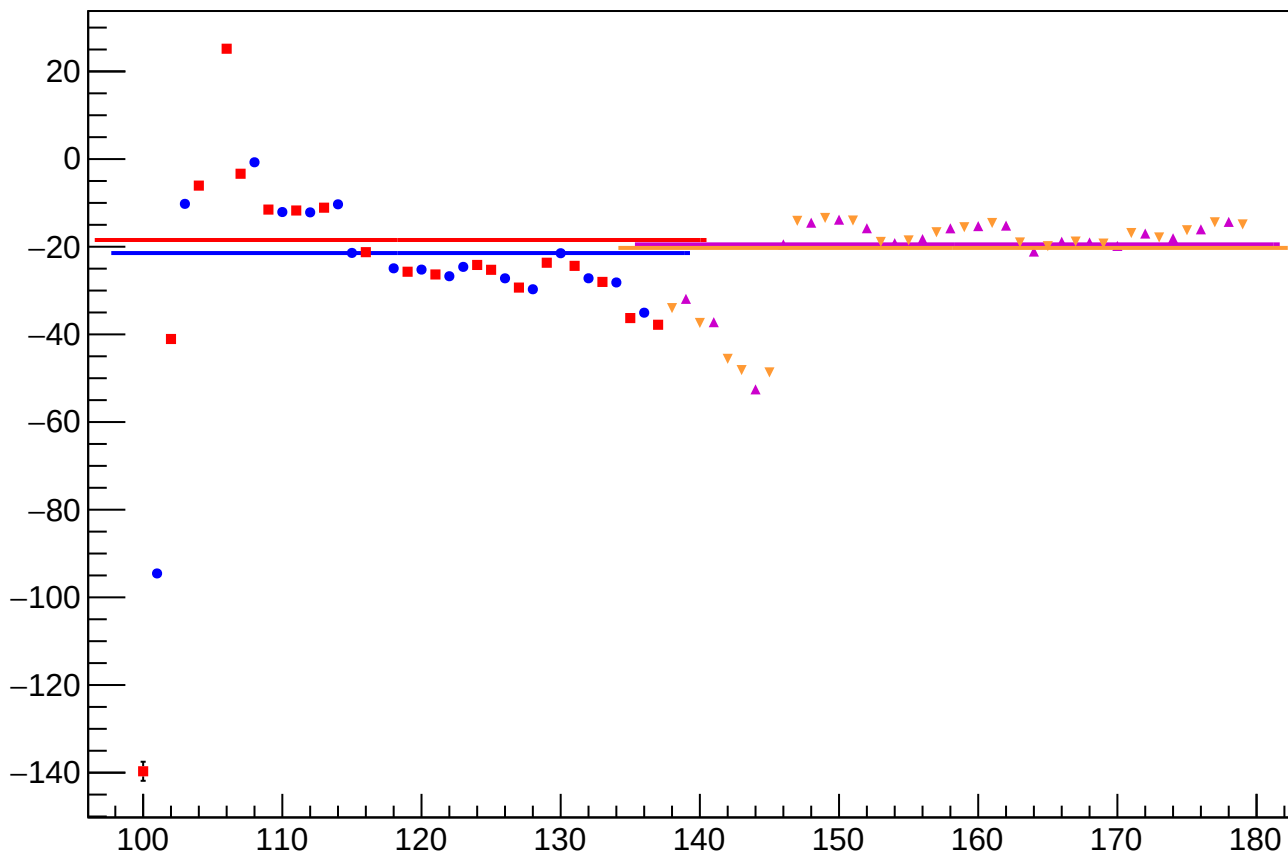
Right:  $-34.404 \pm 0.719$   $\chi^2/\text{NDF}$ : 582.0/35

In:  $-20.090 \pm 0.494$   $\chi^2/\text{NDF}$ : 785.0/36

Out:  $-20.302 \pm 0.473$   $\chi^2/\text{NDF}$ : 784.6/40

All:  $-20.201 \pm 0.342$   $\chi^2/\text{NDF}$ : 1569.7/77

reg\_asym\_atr1\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-21.442 \pm 0.059$   $\chi^2/\text{NDF}$ : 48968.5/16

Left Out:  $-20.269 \pm 0.025$   $\chi^2/\text{NDF}$ : 138646.6/21

Right Out:  $-18.463 \pm 0.057$   $\chi^2/\text{NDF}$ : 80470.6/18

Left In:  $-19.460 \pm 0.025$   $\chi^2/\text{NDF}$ : 88356.0/19

Left:  $-19.873 \pm 0.018$   $\chi^2/\text{NDF}$ : 227520.0/41

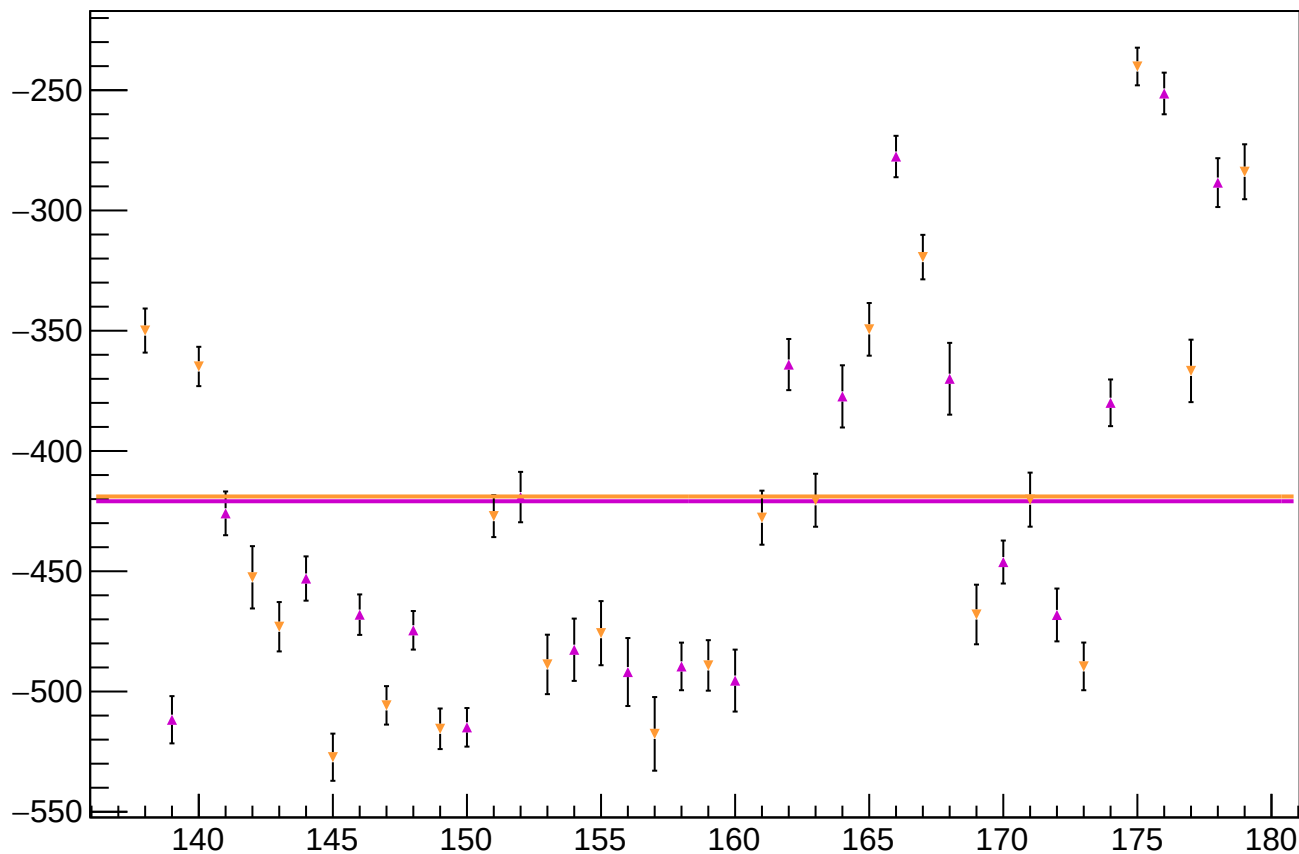
Right:  $-19.914 \pm 0.041$   $\chi^2/\text{NDF}$ : 130751.2/35

In:  $-19.771 \pm 0.023$   $\chi^2/\text{NDF}$ : 138278.7/36

Out:  $-19.984 \pm 0.023$   $\chi^2/\text{NDF}$ : 219950.8/40

All:  $-19.880 \pm 0.016$   $\chi^2/\text{NDF}$ : 358272.0/77

reg\_asym\_atr2\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -418.906+/-2.173  $\chi^2/\text{NDF}$ :1544.0/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -420.901+/-2.219  $\chi^2/\text{NDF}$ :1368.3/19

Left: -419.882+/-1.552  $\chi^2/\text{NDF}$ : 2912.7/41

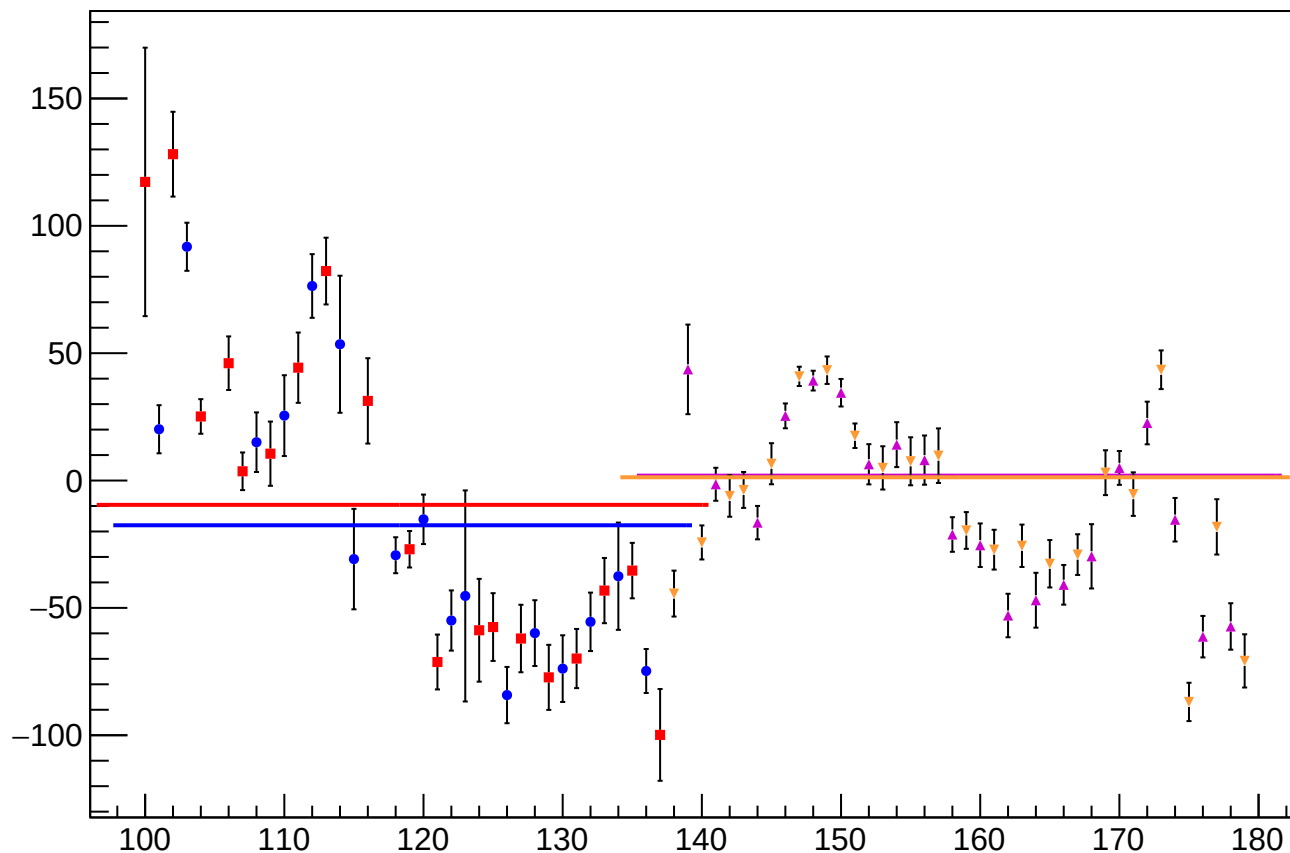
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -420.901+/-2.219  $\chi^2/\text{NDF}$ :1368.3/19

Out: -418.906+/-2.173  $\chi^2/\text{NDF}$ :1544.0/21

All: -419.882+/-1.552  $\chi^2/\text{NDF}$ : 2912.7/41

reg\_asym\_atr2\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-17.564 \pm 2.820$   $\chi^2/\text{NDF}$ : 363.7/16

Left Out:  $1.279 \pm 1.538$   $\chi^2/\text{NDF}$ : 504.4/21

Right Out:  $-9.547 \pm 2.609$   $\chi^2/\text{NDF}$ : 370.3/18

Left In:  $1.920 \pm 1.600$   $\chi^2/\text{NDF}$ : 401.2/19

Left:  $1.587 \pm 1.109$   $\chi^2/\text{NDF}$ : 905.7/41

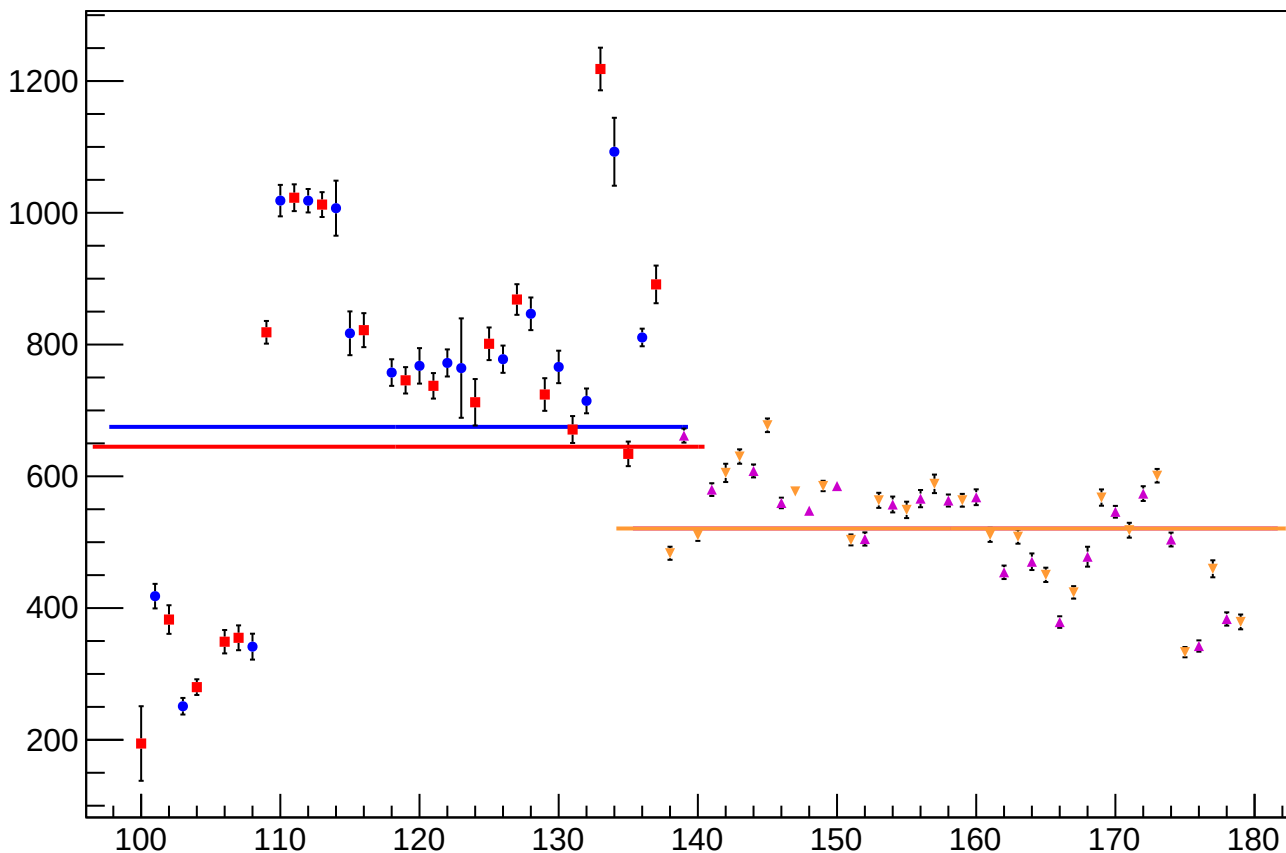
Right:  $-13.243 \pm 1.915$   $\chi^2/\text{NDF}$ : 738.4/35

In:  $-2.825 \pm 1.392$   $\chi^2/\text{NDF}$ : 801.1/36

Out:  $-1.514 \pm 1.325$   $\chi^2/\text{NDF}$ : 887.4/40

All:  $-2.137 \pm 0.960$   $\chi^2/\text{NDF}$ : 1689.0/77

reg\_asym\_atr2\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 675.045 $\pm$ 5.067  $\chi^2$ /NDF: 2584.3/16

Left Out: 520.792 $\pm$ 2.154  $\chi^2$ /NDF:1553.2/21

Right Out: 644.915 $\pm$ 4.761  $\chi^2$ /NDF: 3122.2/18

Left In: 520.840 $\pm$ 2.189  $\chi^2$ /NDF:1443.8/19

Left: 520.816 $\pm$ 1.535  $\chi^2$ /NDF: 2997.0/41

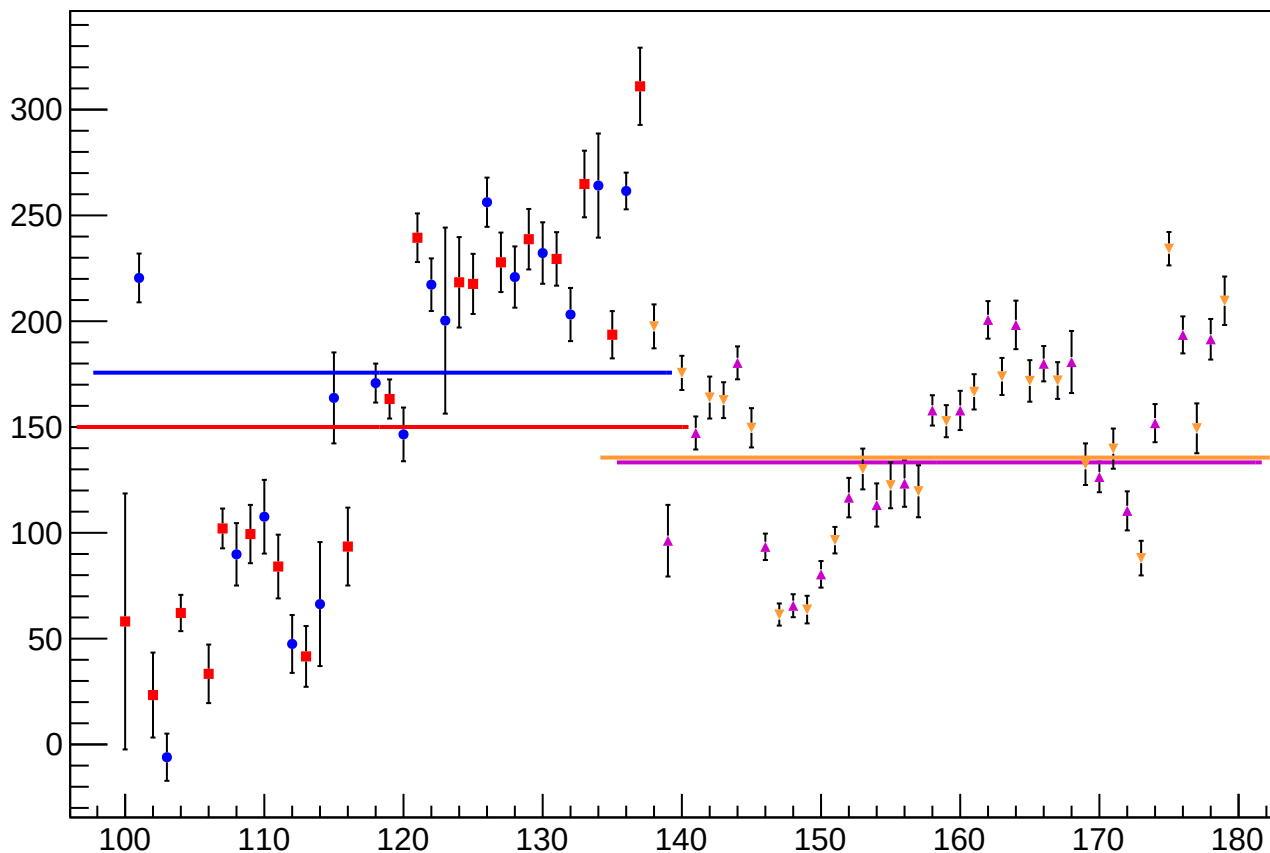
Right: 659.042 $\pm$ 3.470  $\chi^2$ /NDF: 5725.3/35

In: 545.099 $\pm$ 2.010  $\chi^2$ /NDF:4808.5/36

Out: 541.876 $\pm$ 1.962  $\chi^2$ /NDF:5239.6/40

All: 543.449 $\pm$ 1.404  $\chi^2$ /NDF: 10049.3/77

reg\_asym\_atr2\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 175.686 $\pm$ 3.239  $\chi^2$ /NDF: 637.9/16

Left Out: 135.563 $\pm$ 1.803  $\chi^2$ /NDF:748.7/21

Right Out: 150.017 $\pm$ 3.042  $\chi^2$ /NDF: 693.8/18

Left In: 133.279 $\pm$ 1.863  $\chi^2$ /NDF:565.2/19

Left: 134.458 $\pm$ 1.296  $\chi^2$ /NDF: 1314.7/41

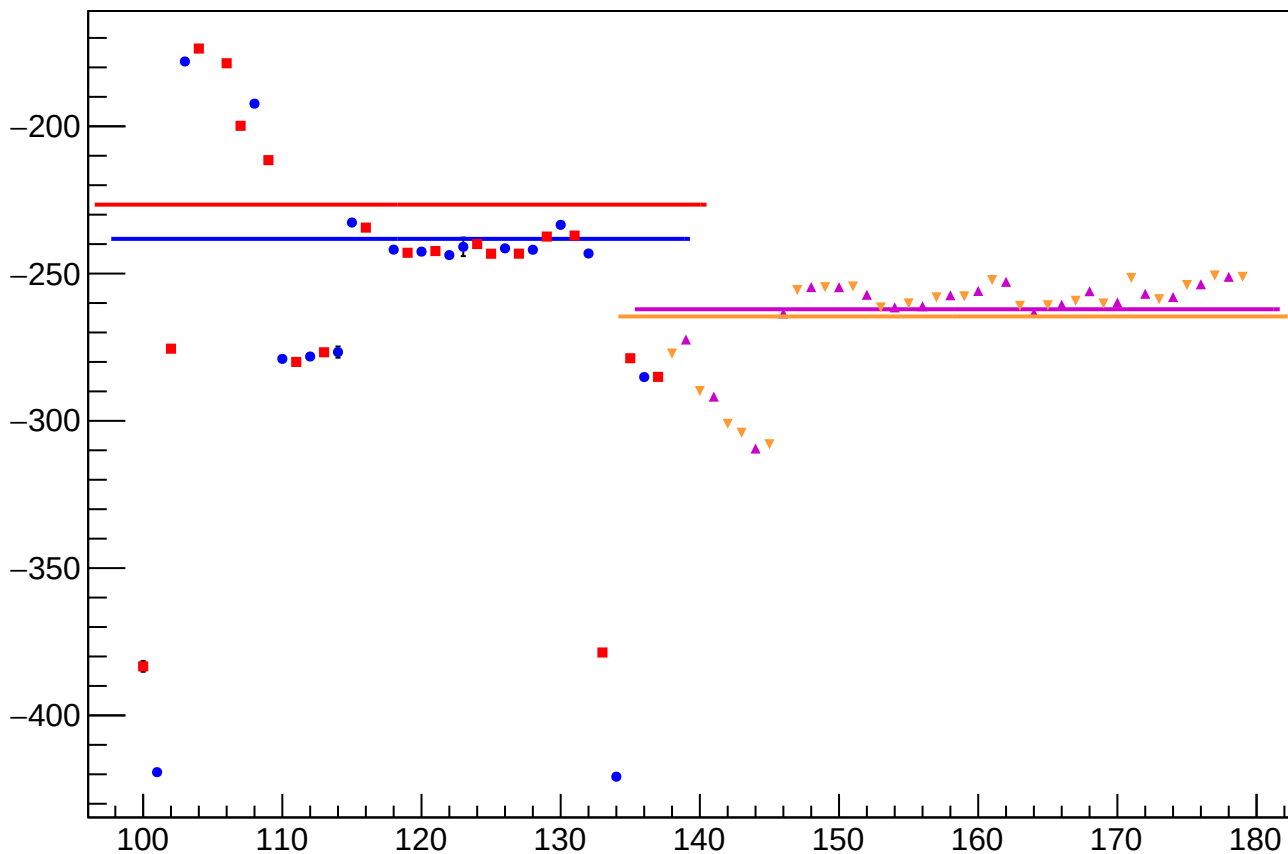
Right: 162.048 $\pm$ 2.217  $\chi^2$ /NDF: 1365.0/35

In: 143.820 $\pm$ 1.615  $\chi^2$ /NDF:1331.9/36

Out: 139.321 $\pm$ 1.551  $\chi^2$ /NDF:1459.2/40

All: 141.480 $\pm$ 1.119  $\chi^2$ /NDF: 2795.2/77

reg\_asym\_atr2\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -238.217+/-0.160  $\chi^2$ /NDF: 167120.0/16

Left Out: -264.564+/-0.087  $\chi^2$ /NDF:37011.0/21

Right Out: -226.597+/-0.151  $\chi^2$ /NDF: 102562.3/18

Left In: -262.115+/-0.088  $\chi^2$ /NDF:22275.7/19

Left: -263.349+/-0.062  $\chi^2$ /NDF: 59679.7/41

Right: -232.063+/-0.110  $\chi^2$ /NDF: 272459.7/35

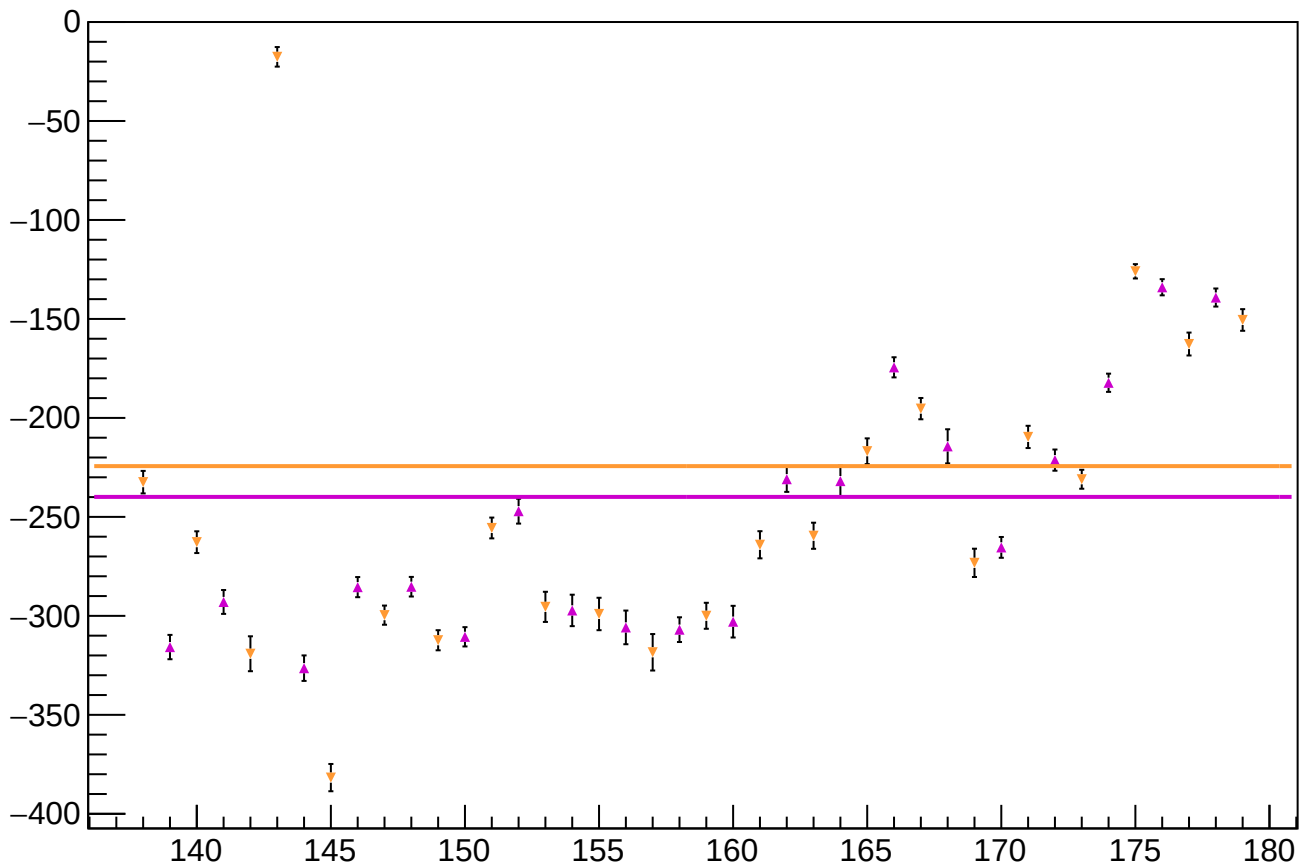
In: -256.622+/-0.077  $\chi^2$ /NDF:206480.1/36

Out: -255.121+/-0.075  $\chi^2$ /NDF:186926.7/40

All: -255.857+/-0.054  $\chi^2$ /NDF: 393601.0/77



reg\_asym\_atl\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -224.356+/-1.230  $\chi^2/\text{NDF}$ :4601.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -239.902+/-1.275  $\chi^2/\text{NDF}$ :2604.2/19

Left: -231.852+/-0.885  $\chi^2/\text{NDF}$ : 7282.3/41

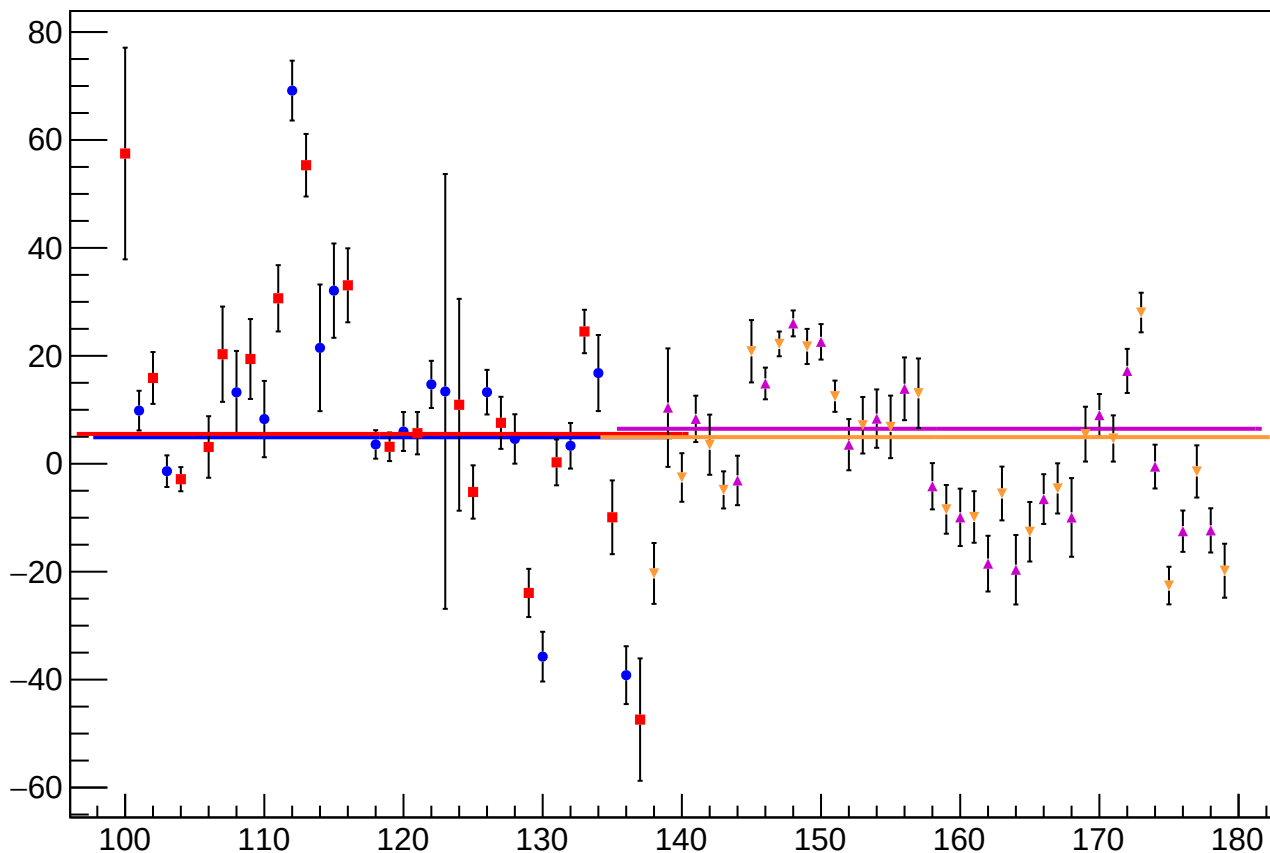
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -239.902+/-1.275  $\chi^2/\text{NDF}$ :2604.2/19

Out: -224.356+/-1.230  $\chi^2/\text{NDF}$ :4601.1/21

All: -231.852+/-0.885  $\chi^2/\text{NDF}$ : 7282.3/41

reg\_asym\_atl\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $4.905 \pm 1.105$   $\chi^2/\text{NDF}$ : 311.7/16

Left Out:  $4.935 \pm 0.889$   $\chi^2/\text{NDF}$ : 295.7/21

Right Out:  $5.530 \pm 1.069$   $\chi^2/\text{NDF}$ : 238.9/18

Left In:  $6.482 \pm 0.940$   $\chi^2/\text{NDF}$ : 229.8/19

Left:  $5.665 \pm 0.646$   $\chi^2/\text{NDF}$ : 527.0/41

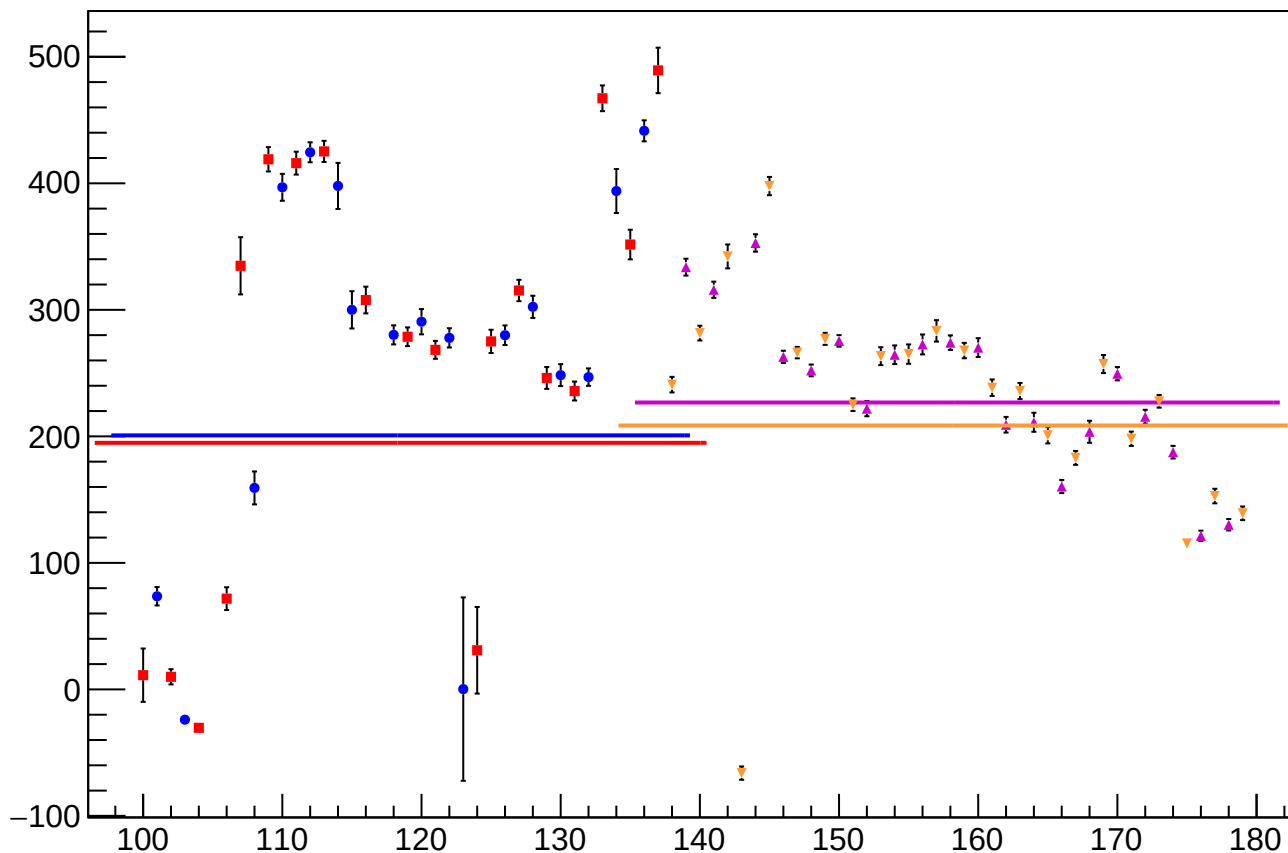
Right:  $5.228 \pm 0.768$   $\chi^2/\text{NDF}$ : 550.7/35

In:  $5.820 \pm 0.716$   $\chi^2/\text{NDF}$ : 542.6/36

Out:  $5.178 \pm 0.683$   $\chi^2/\text{NDF}$ : 534.8/40

All:  $5.484 \pm 0.494$   $\chi^2/\text{NDF}$ : 1077.9/77

reg\_asym\_atl\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 200.773 $\pm$ 1.983  $\chi^2$ /NDF: 6733.0/16

Left Out: 208.602 $\pm$ 1.222  $\chi^2$ /NDF: 5496.6/21

Right Out: 194.892 $\pm$ 1.924  $\chi^2$ /NDF: 8247.1/18

Left In: 226.758 $\pm$ 1.261  $\chi^2$ /NDF: 2549.2/19

Left: 217.389 $\pm$ 0.877  $\chi^2$ /NDF: 8152.7/41

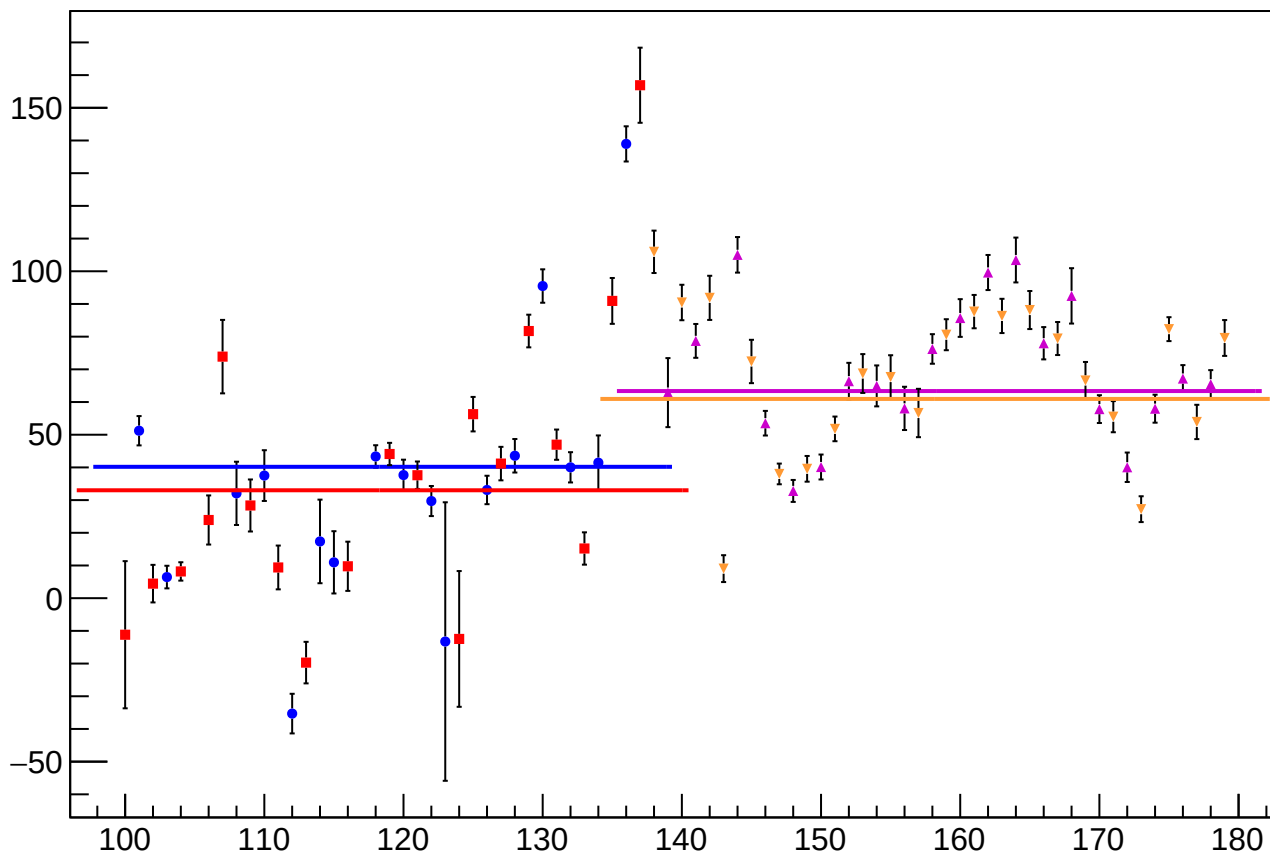
Right: 197.743 $\pm$ 1.381  $\chi^2$ /NDF: 14984.6/35

In: 219.274 $\pm$ 1.064  $\chi^2$ /NDF: 9404.4/36

Out: 204.663 $\pm$ 1.031  $\chi^2$ /NDF: 13779.9/40

All: 211.738 $\pm$ 0.741  $\chi^2$ /NDF: 23281.5/77

reg\_asym\_atl\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 40.185 $\pm$ 1.283  $\chi^2$ /NDF: 734.6/16

Left Out: 60.949 $\pm$ 1.033  $\chi^2$ /NDF: 578.3/21

Right Out: 33.006 $\pm$ 1.250  $\chi^2$ /NDF: 552.7/18

Left In: 63.359 $\pm$ 1.085  $\chi^2$ /NDF: 349.8/19

Left: 62.095 $\pm$ 0.748  $\chi^2$ /NDF: 930.7/41

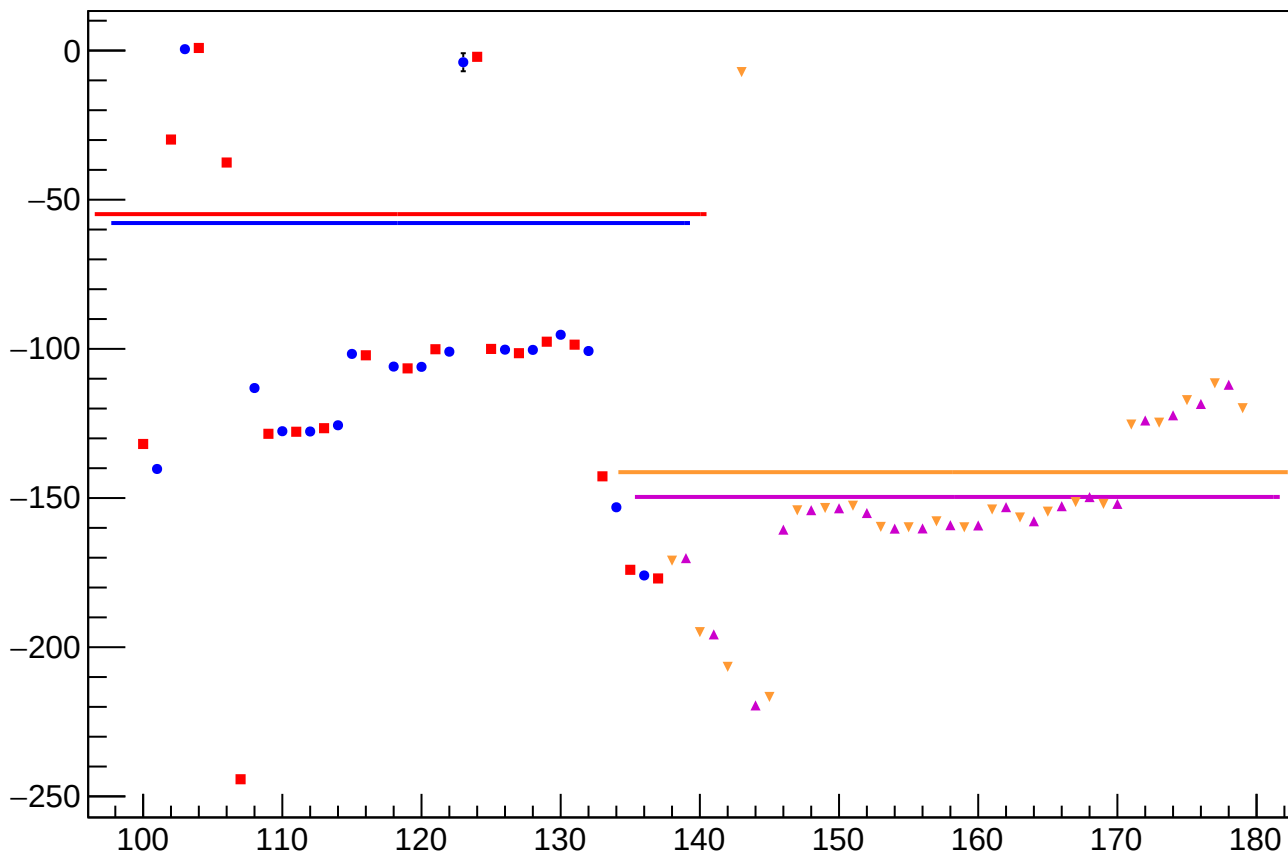
Right: 36.503 $\pm$ 0.896  $\chi^2$ /NDF: 1303.3/35

In: 53.702 $\pm$ 0.828  $\chi^2$ /NDF: 1274.7/36

Out: 49.615 $\pm$ 0.796  $\chi^2$ /NDF: 1427.8/40

All: 51.578 $\pm$ 0.574  $\chi^2$ /NDF: 2715.2/77

reg\_asym\_atl\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -57.821+/-0.062  $\chi^2/\text{NDF}$ : 1101296.2/16

Left Out: -141.325+/-0.050  $\chi^2/\text{NDF}$ : 662481.2/21

Right Out: -54.833+/-0.060  $\chi^2/\text{NDF}$ : 1000741.7/18

Left In: -149.631+/-0.051  $\chi^2/\text{NDF}$ : 204726.9/19

Left: -145.384+/-0.035  $\chi^2/\text{NDF}$ : 880955.6/41

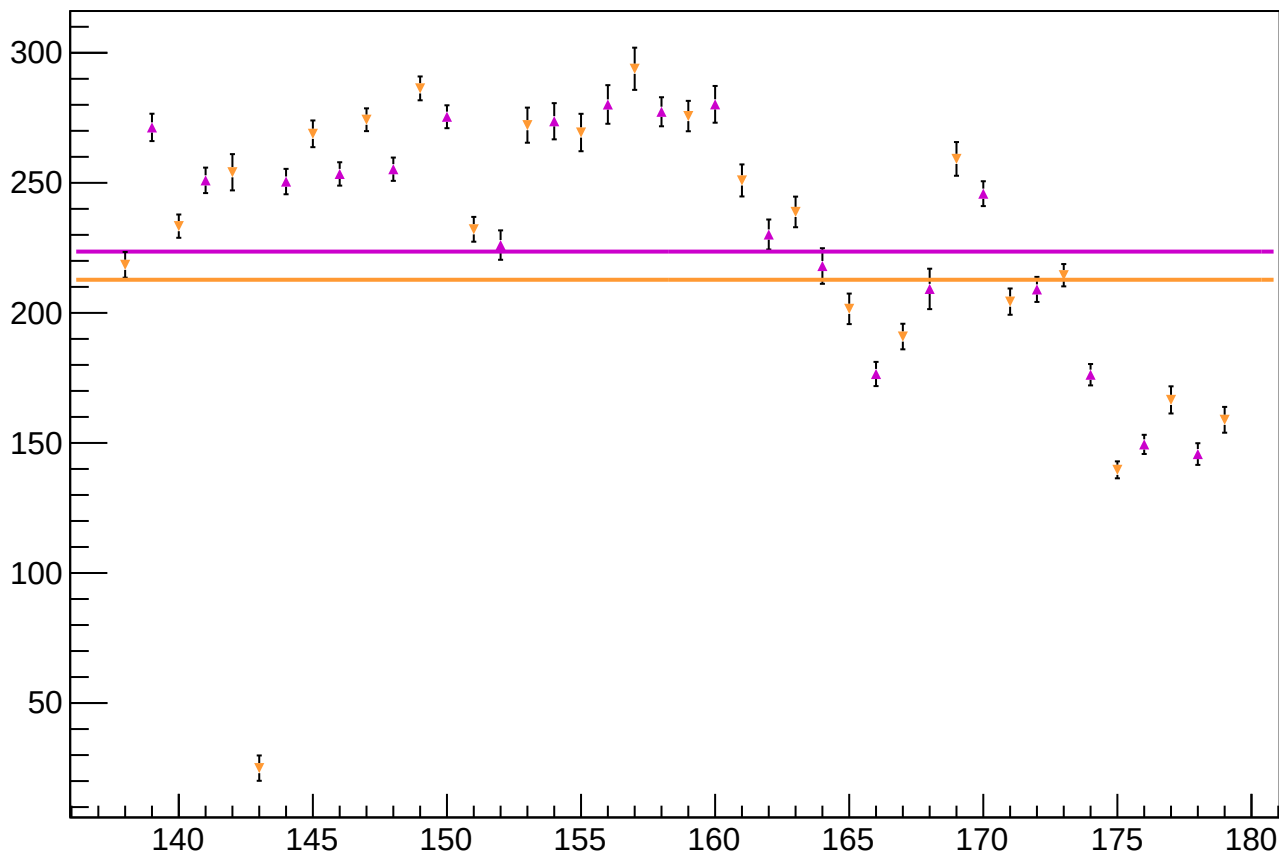
Right: -56.289+/-0.043  $\chi^2/\text{NDF}$ : 2103236.7/35

In: -112.729+/-0.039  $\chi^2/\text{NDF}$ : 2626450.7/36

Out: -106.443+/-0.038  $\chi^2/\text{NDF}$ : 2893619.4/40

All: -109.511+/-0.027  $\chi^2/\text{NDF}$ : 5533255.7/77

reg\_asym\_atl\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

Left Out: 212.741+/-1.094  $\chi^2$ /NDF:3325.2/21

Right Out: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

Left In: 223.570+/-1.129  $\chi^2$ /NDF:1668.9/19

Left: 217.986+/-0.786  $\chi^2$ /NDF: 5041.5/41

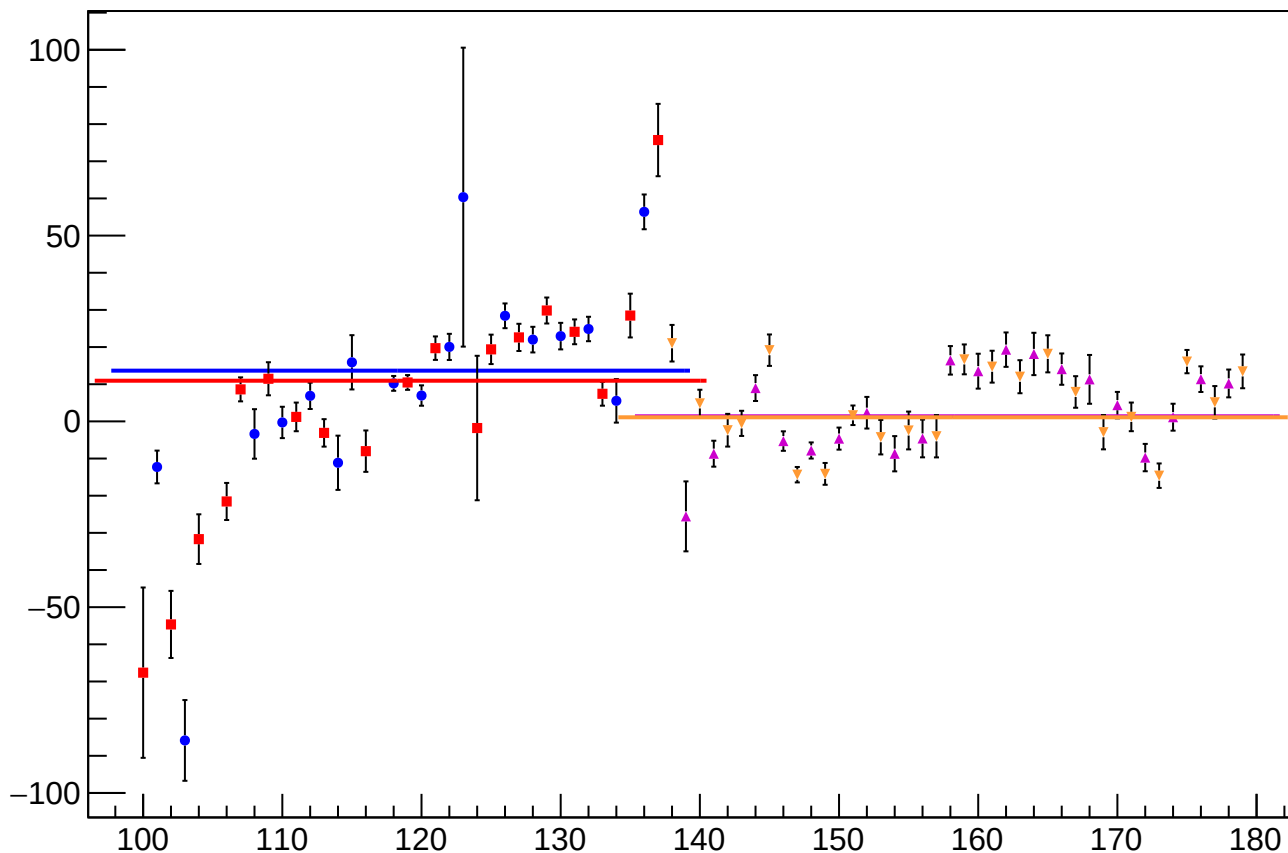
Right: 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

In: 223.570+/-1.129  $\chi^2$ /NDF:1668.9/19

Out: 212.741+/-1.094  $\chi^2$ /NDF:3325.2/21

All: 217.986+/-0.786  $\chi^2$ /NDF: 5041.5/41

reg\_asym\_atl\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $13.652 \pm 0.936$   $\chi^2/\text{NDF}$ : 294.0/16

Left Out:  $1.100 \pm 0.793$   $\chi^2/\text{NDF}$ : 221.5/21

Right Out:  $10.944 \pm 0.913$   $\chi^2/\text{NDF}$ : 302.5/18

Left In:  $1.376 \pm 0.833$   $\chi^2/\text{NDF}$ : 136.7/19

Left:  $1.231 \pm 0.575$   $\chi^2/\text{NDF}$ : 358.2/41

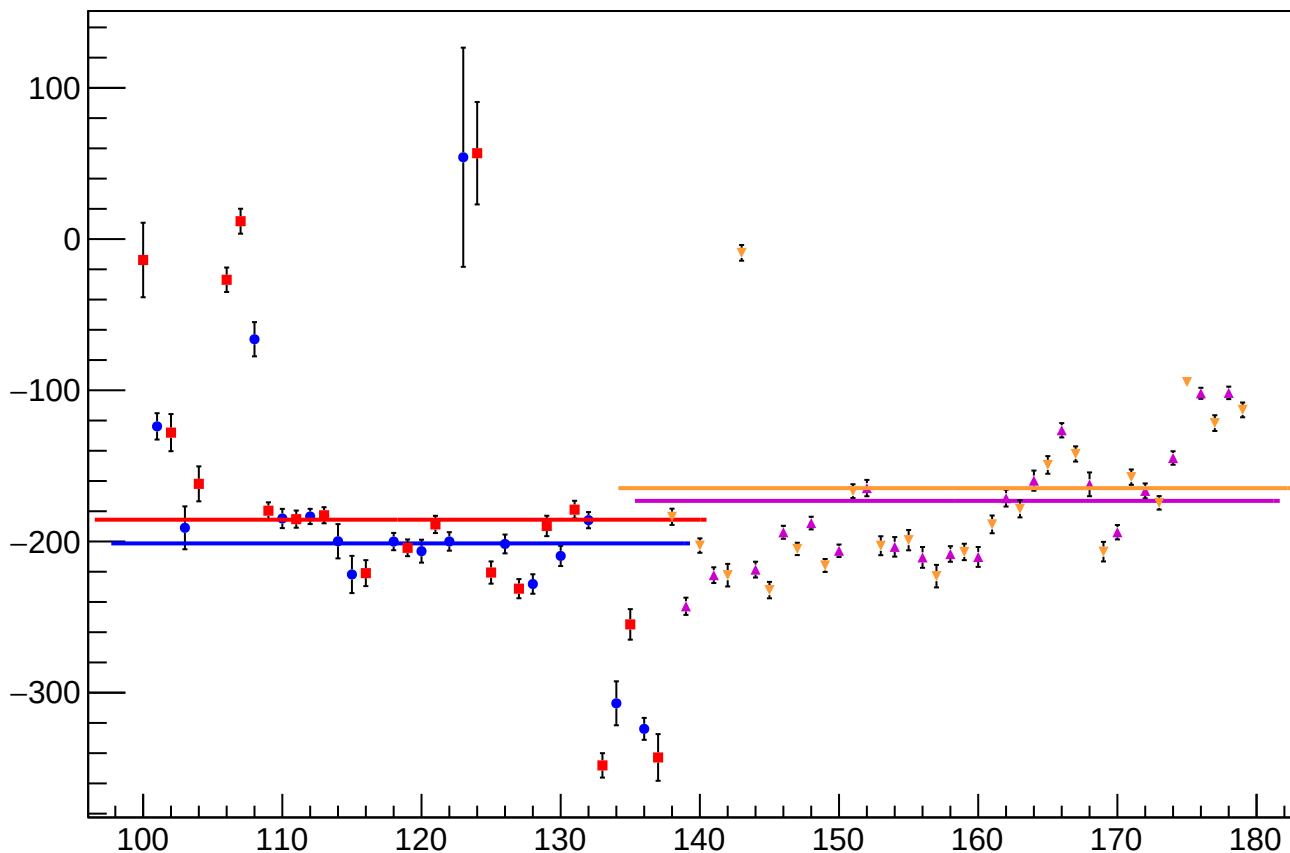
Right:  $12.264 \pm 0.654$   $\chi^2/\text{NDF}$ : 600.9/35

In:  $6.803 \pm 0.623$   $\chi^2/\text{NDF}$ : 526.6/36

Out:  $5.332 \pm 0.599$   $\chi^2/\text{NDF}$ : 590.3/40

All:  $6.039 \pm 0.432$   $\chi^2/\text{NDF}$ : 1119.8/77

reg\_asym\_atl\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-201.266 \pm 1.795$   $\chi^2/\text{NDF}$ : 623.4/16

Left Out:  $-164.716 \pm 1.088$   $\chi^2/\text{NDF}$ : 2353.7/21

Right Out:  $-185.593 \pm 1.699$   $\chi^2/\text{NDF}$ : 1746.0/18

Left In:  $-173.142 \pm 1.119$   $\chi^2/\text{NDF}$ : 1389.8/19

Left:  $-168.811 \pm 0.780$   $\chi^2/\text{NDF}$ : 3772.6/41

Right:  $-192.999 \pm 1.234$   $\chi^2/\text{NDF}$ : 2409.6/35

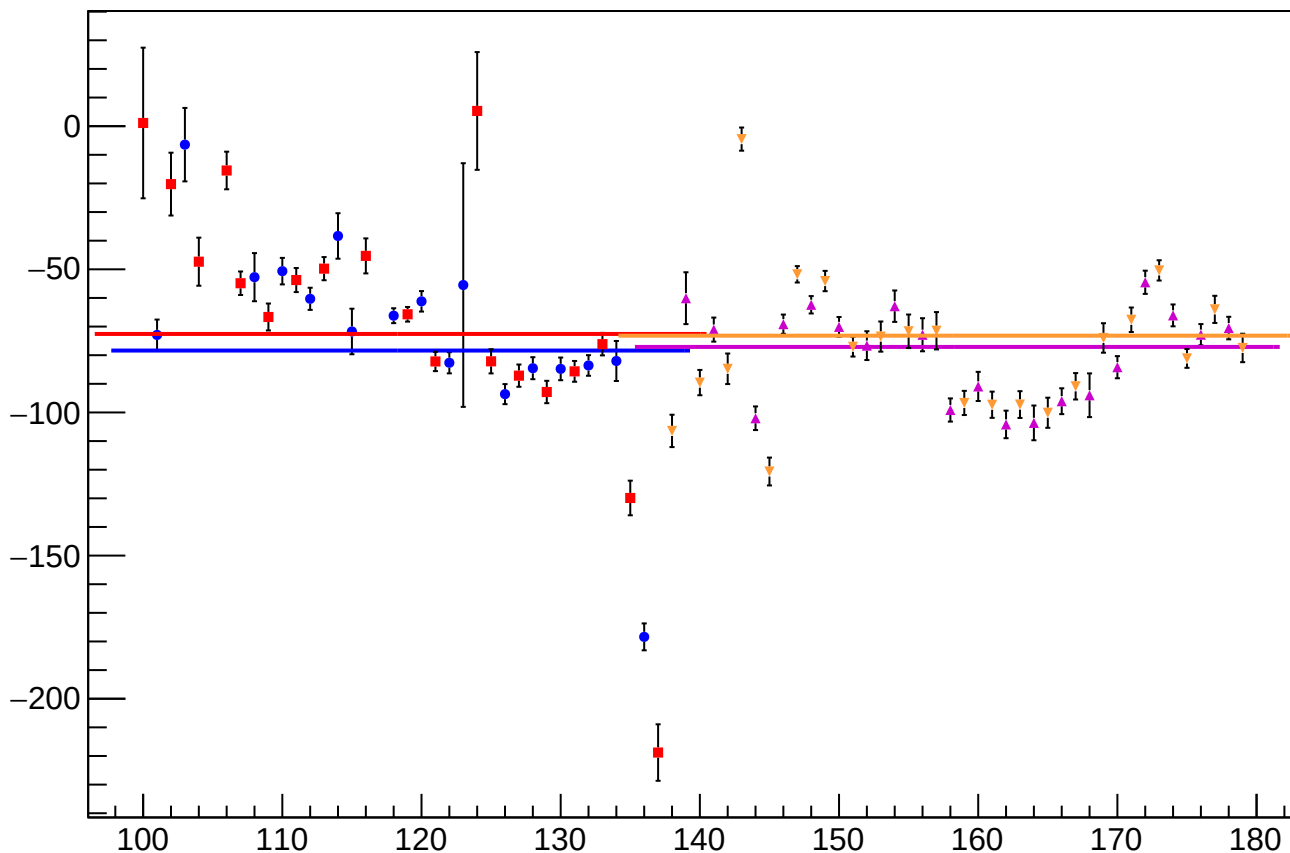
In:  $-181.008 \pm 0.950$   $\chi^2/\text{NDF}$ : 2190.0/36

Out:  $-170.786 \pm 0.916$   $\chi^2/\text{NDF}$ : 4206.8/40

All:  $-175.715 \pm 0.659$   $\chi^2/\text{NDF}$ : 6456.8/77



reg\_asym\_atl\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-78.376 \pm 1.081$   $\chi^2/\text{NDF}$ : 651.4/16

Left Out:  $-73.180 \pm 0.921$   $\chi^2/\text{NDF}$ : 702.4/21

Right Out:  $-72.577 \pm 1.052$   $\chi^2/\text{NDF}$ : 605.8/18

Left In:  $-77.109 \pm 0.962$   $\chi^2/\text{NDF}$ : 239.6/19

Left:  $-75.060 \pm 0.665$   $\chi^2/\text{NDF}$ : 950.7/41

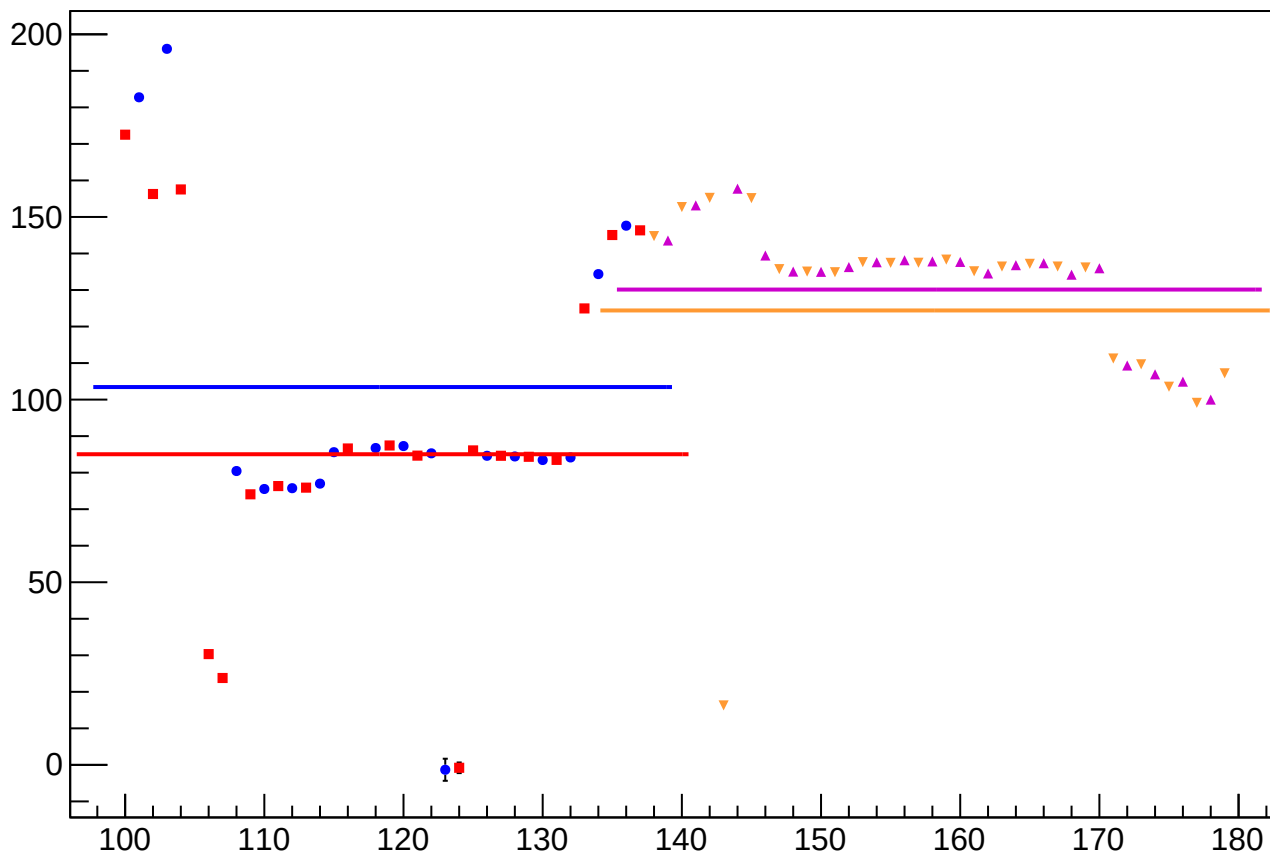
Right:  $-75.395 \pm 0.754$   $\chi^2/\text{NDF}$ : 1272.0/35

In:  $-77.669 \pm 0.719$   $\chi^2/\text{NDF}$ : 891.8/36

Out:  $-72.918 \pm 0.693$   $\chi^2/\text{NDF}$ : 1308.4/40

All:  $-75.207 \pm 0.499$   $\chi^2/\text{NDF}$ : 2222.8/77

reg\_asym\_atl\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $103.436 \pm 0.071$   $\chi^2/\text{NDF}$ : 272785.6/16

Left Out:  $124.404 \pm 0.044$   $\chi^2/\text{NDF}$ : 419568.1/21

Right Out:  $85.043 \pm 0.064$   $\chi^2/\text{NDF}$ : 422343.0/18

Left In:  $130.124 \pm 0.045$   $\chi^2/\text{NDF}$ : 126264.4/19

Left:  $127.210 \pm 0.031$   $\chi^2/\text{NDF}$ : 554100.1/41

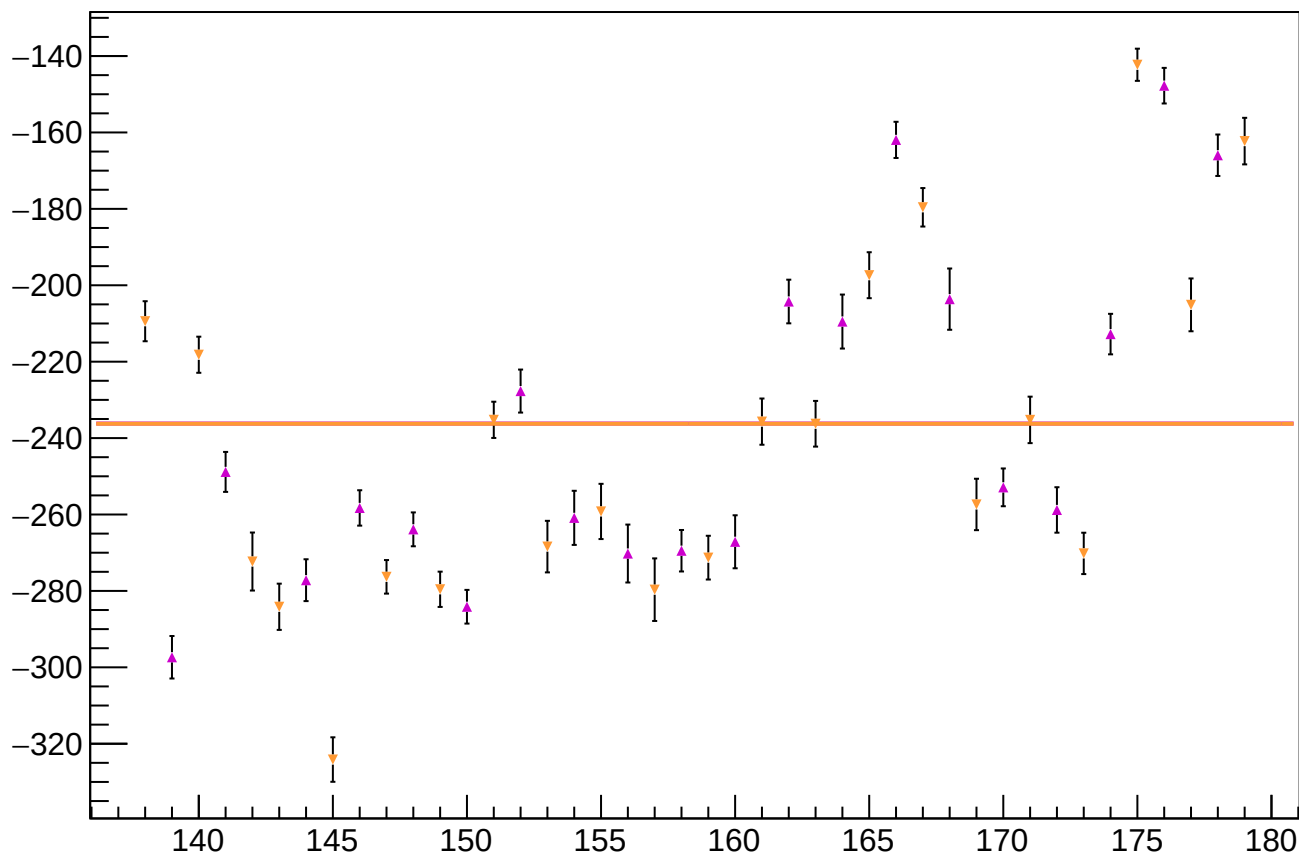
Right:  $93.267 \pm 0.047$   $\chi^2/\text{NDF}$ : 732362.9/35

In:  $122.482 \pm 0.038$   $\chi^2/\text{NDF}$ : 500226.6/36

Out:  $111.678 \pm 0.036$   $\chi^2/\text{NDF}$ : 1099961.6/40

All:  $116.835 \pm 0.026$   $\chi^2/\text{NDF}$ : 1642602.7/77

reg\_asym\_atr\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -236.243+/-1.200  $\chi^2/\text{NDF}$ :1506.5/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -236.193+/-1.221  $\chi^2/\text{NDF}$ :1336.2/19

Left: -236.218+/-0.856  $\chi^2/\text{NDF}$ : 2842.7/41

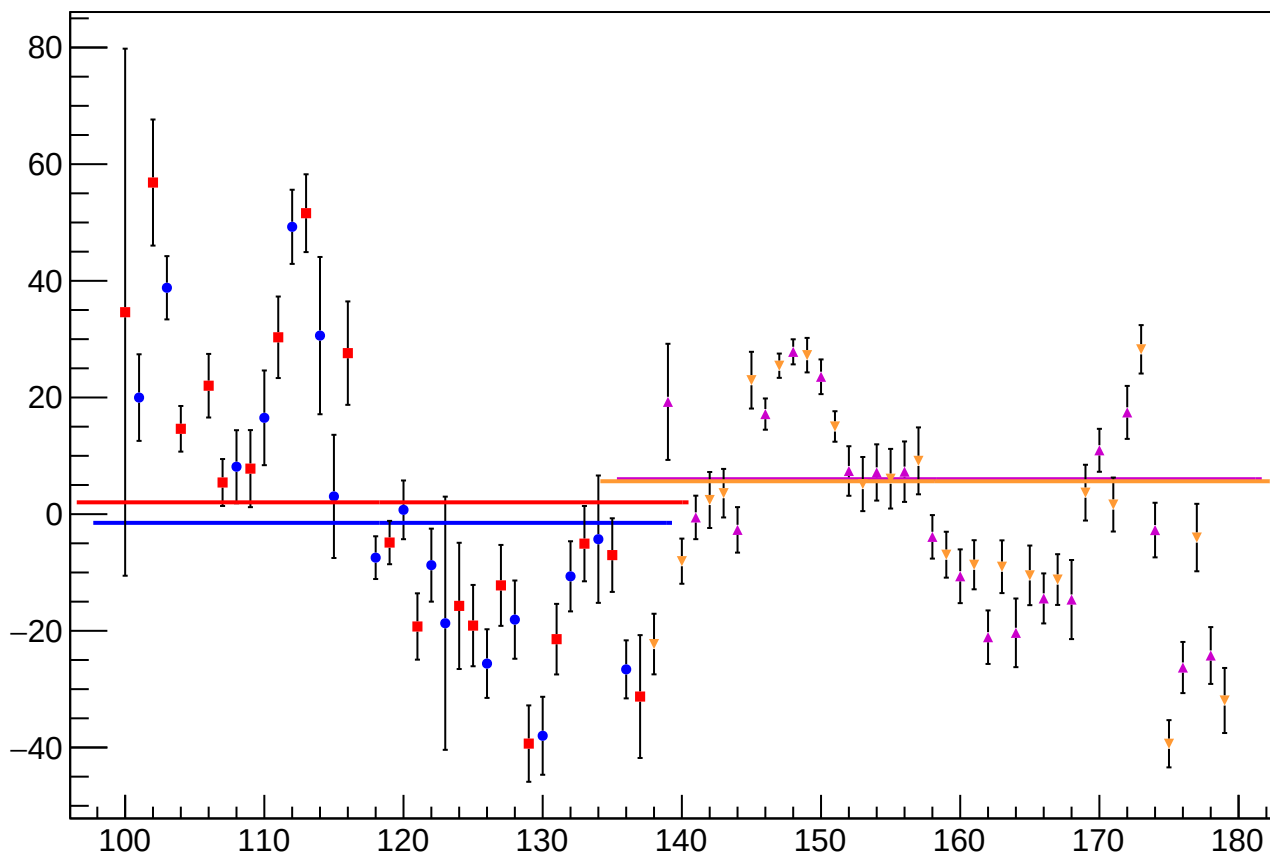
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -236.193+/-1.221  $\chi^2/\text{NDF}$ :1336.2/19

Out: -236.243+/-1.200  $\chi^2/\text{NDF}$ :1506.5/21

All: -236.218+/-0.856  $\chi^2/\text{NDF}$ : 2842.7/41

reg\_asym\_atr\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-1.490 \pm 1.536$   $\chi^2/\text{NDF}$ : 226.0/16

Left Out:  $5.641 \pm 0.849$   $\chi^2/\text{NDF}$ : 471.7/21

Right Out:  $2.028 \pm 1.400$   $\chi^2/\text{NDF}$ : 233.3/18

Left In:  $5.995 \pm 0.882$   $\chi^2/\text{NDF}$ : 376.7/19

Left:  $5.811 \pm 0.612$   $\chi^2/\text{NDF}$ : 848.4/41

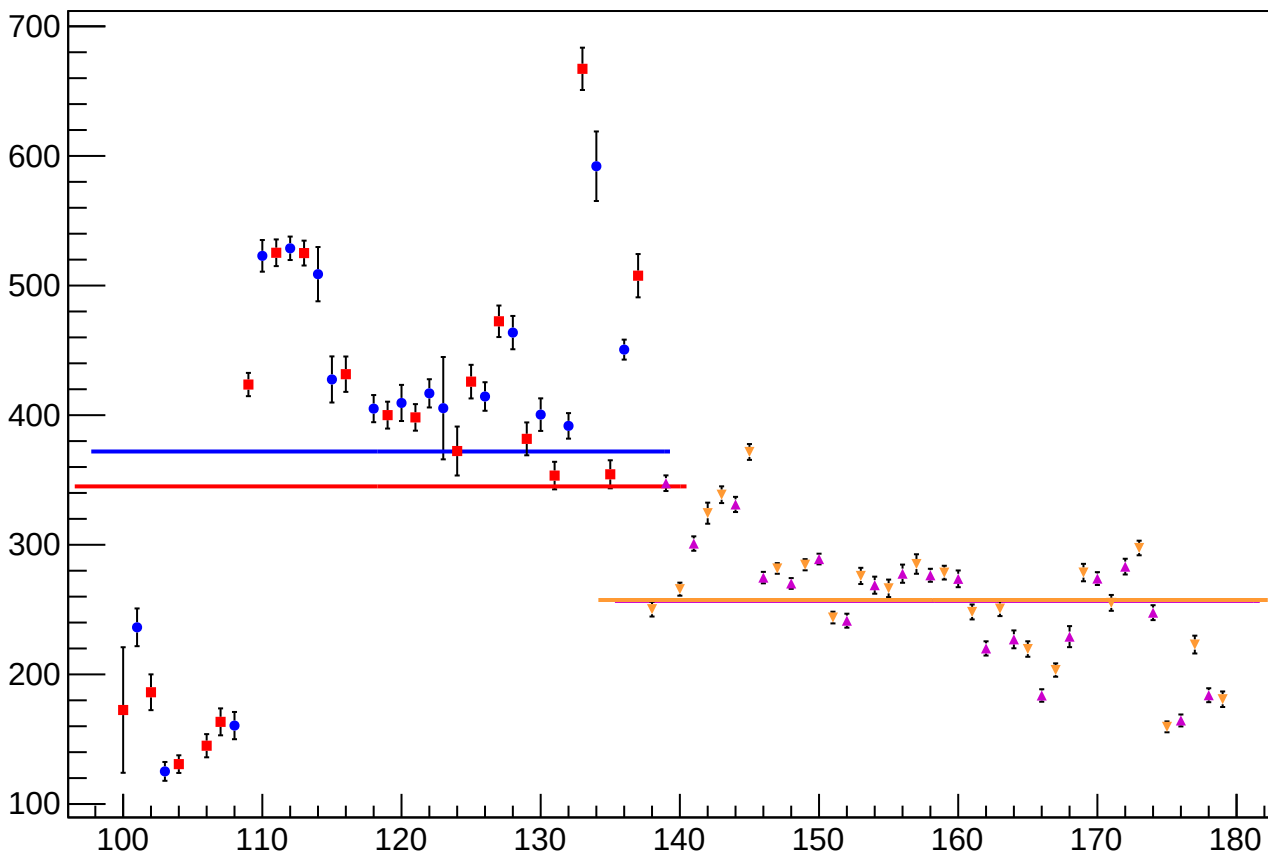
Right:  $0.432 \pm 1.035$   $\chi^2/\text{NDF}$ : 462.1/35

In:  $4.140 \pm 0.765$   $\chi^2/\text{NDF}$ : 620.5/36

Out:  $4.669 \pm 0.726$   $\chi^2/\text{NDF}$ : 709.8/40

All:  $4.418 \pm 0.527$   $\chi^2/\text{NDF}$ : 1330.5/77

reg\_asym\_atr\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 371.975 $\pm$ 2.778  $\chi^2$ /NDF: 2432.6/16

Left Out: 257.395 $\pm$ 1.186  $\chi^2$ /NDF:1648.3/21

Right Out: 345.043 $\pm$ 2.562  $\chi^2$ /NDF: 3415.2/18

Left In: 256.669 $\pm$ 1.203  $\chi^2$ /NDF:1503.0/19

Left: 257.038 $\pm$ 0.845  $\chi^2$ /NDF: 3151.4/41

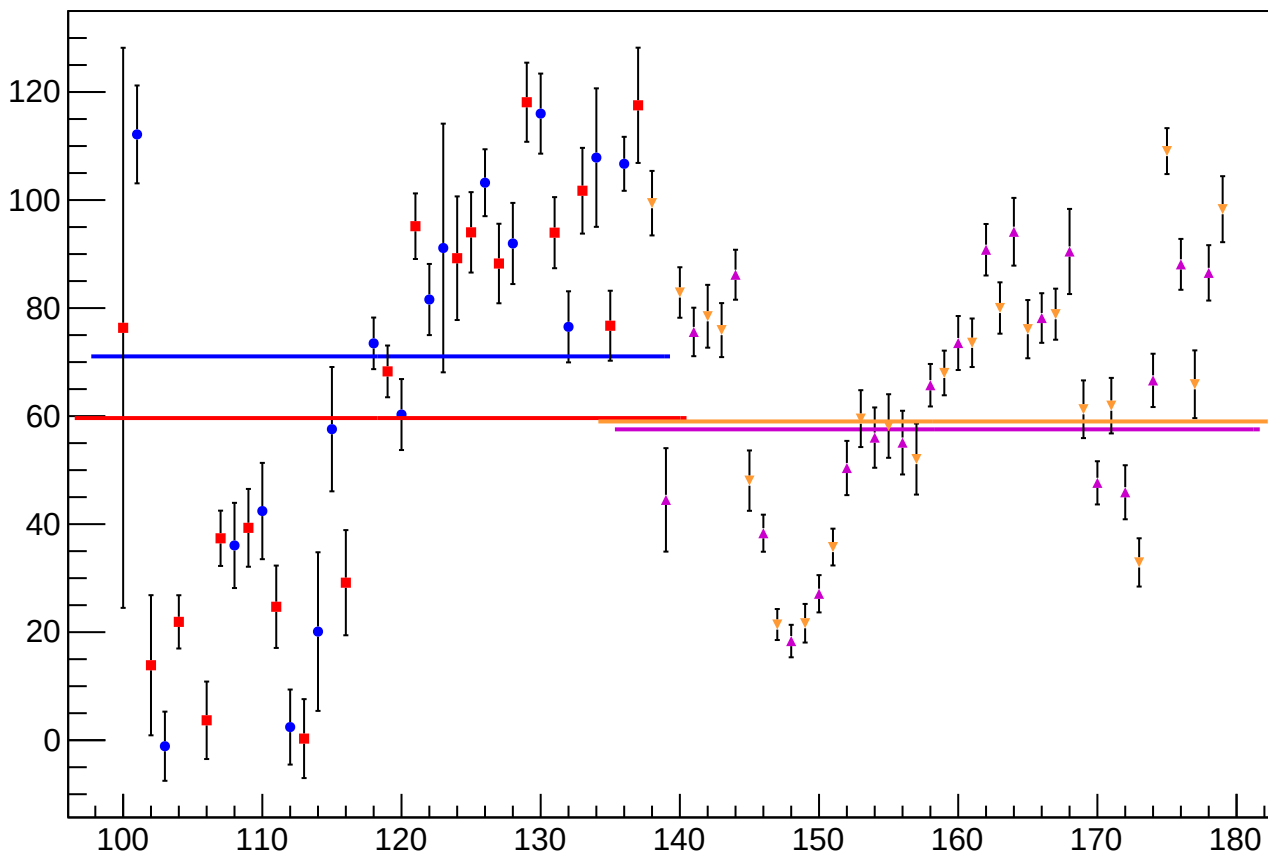
Right: 357.423 $\pm$ 1.883  $\chi^2$ /NDF: 5898.6/35

In: 274.894 $\pm$ 1.104  $\chi^2$ /NDF:5386.4/36

Out: 272.868 $\pm$ 1.076  $\chi^2$ /NDF:6027.1/40

All: 273.855 $\pm$ 0.771  $\chi^2$ /NDF: 11415.3/77

reg\_asym\_atr\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 71.056 $\pm$ 1.764  $\chi^2$ /NDF: 426.2/16

Left Out: 59.010 $\pm$ 0.994  $\chi^2$ /NDF: 705.2/21

Right Out: 59.637 $\pm$ 1.631  $\chi^2$ /NDF: 491.6/18

Left In: 57.548 $\pm$ 1.025  $\chi^2$ /NDF: 561.4/19

Left: 58.301 $\pm$ 0.714  $\chi^2$ /NDF: 1267.7/41

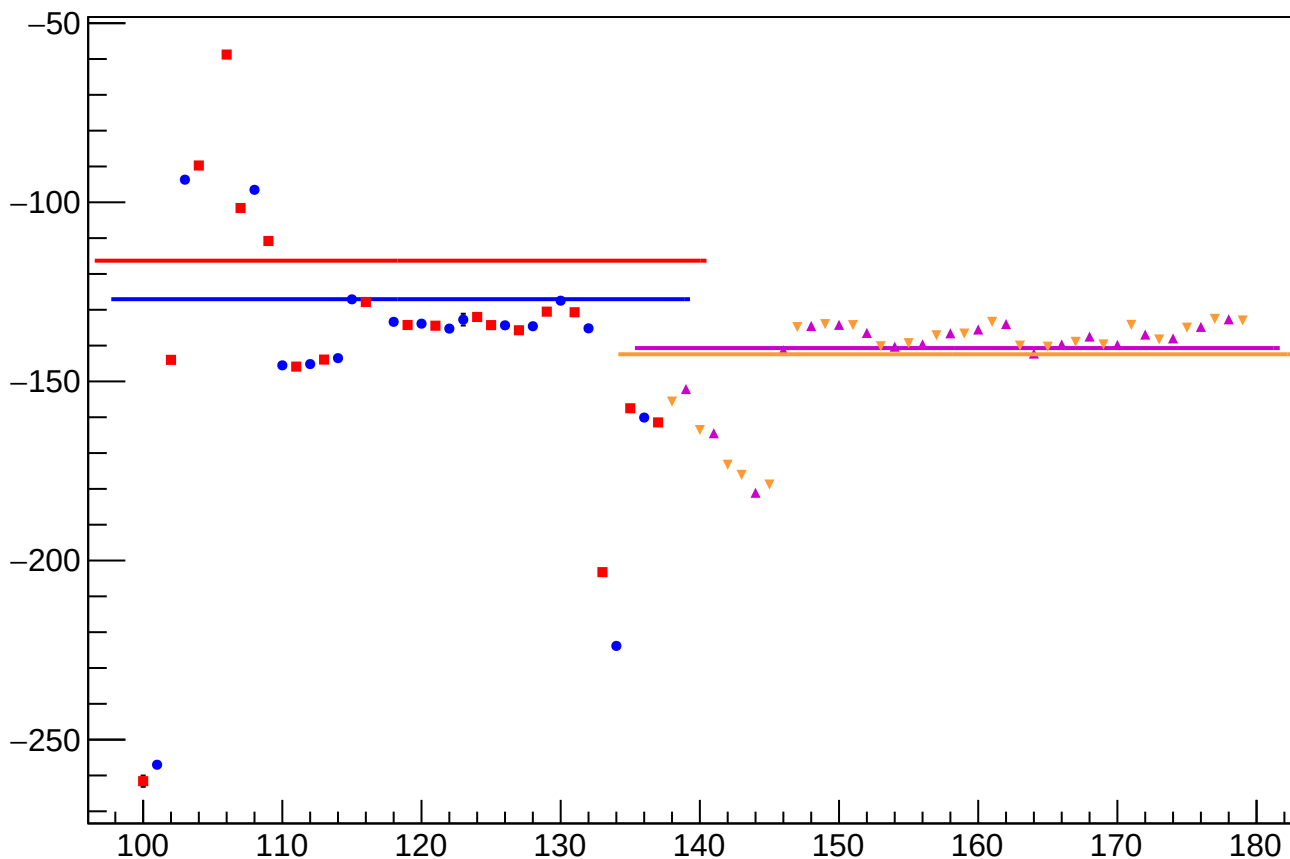
Right: 64.900 $\pm$ 1.198  $\chi^2$ /NDF: 940.4/35

In: 60.958 $\pm$ 0.886  $\chi^2$ /NDF: 1031.5/36

Out: 59.180 $\pm$ 0.849  $\chi^2$ /NDF: 1197.0/40

All: 60.031 $\pm$ 0.613  $\chi^2$ /NDF: 2230.5/77

reg\_asym\_atr\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-127.049 \pm 0.090$   $\chi^2/\text{NDF}: 167014.4/16$

Left Out:  $-142.425 \pm 0.048$   $\chi^2/\text{NDF}: 76037.0/21$

Right Out:  $-116.295 \pm 0.083$   $\chi^2/\text{NDF}: 167109.1/18$

Left In:  $-140.689 \pm 0.048$   $\chi^2/\text{NDF}: 46303.5/19$

Left:  $-141.562 \pm 0.034$   $\chi^2/\text{NDF}: 122994.0/41$

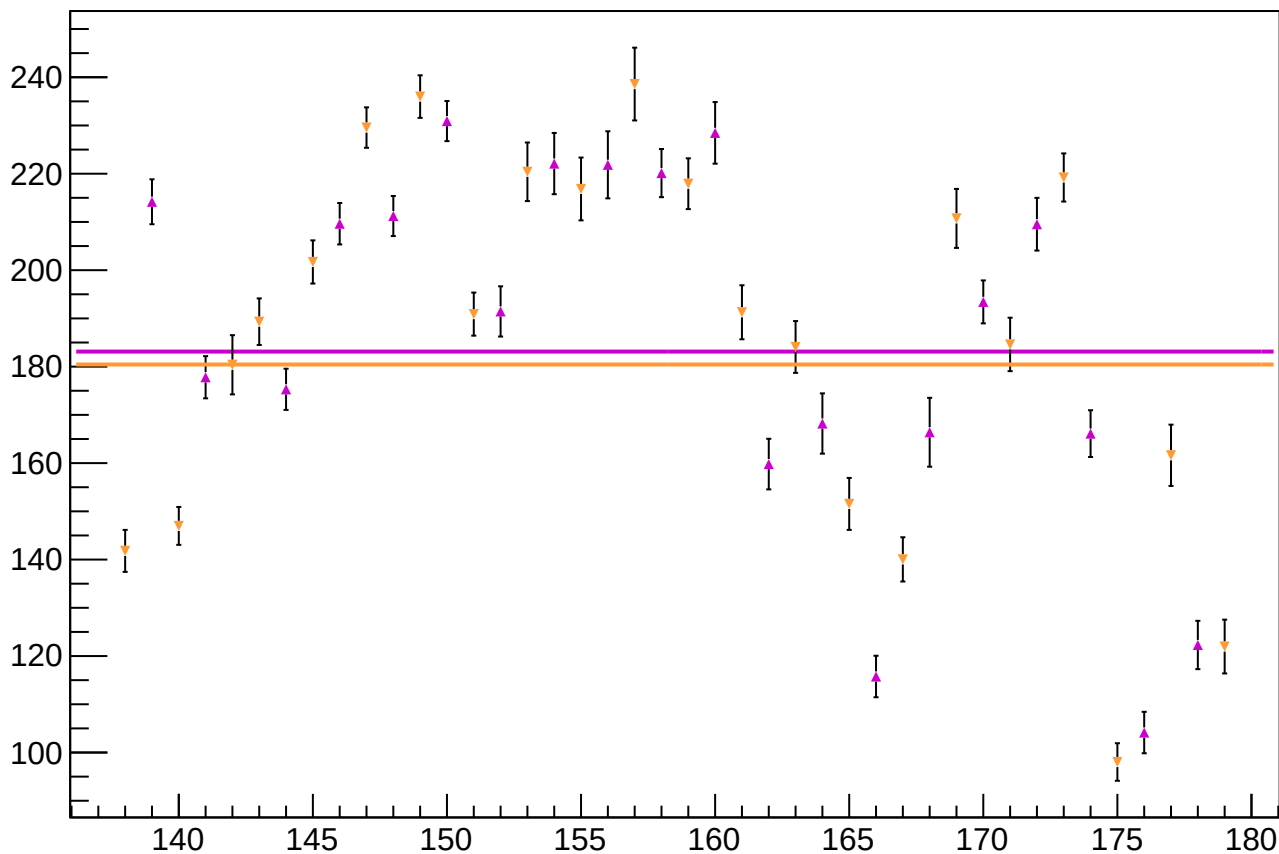
Right:  $-121.250 \pm 0.061$   $\chi^2/\text{NDF}: 341860.6/35$

In:  $-137.641 \pm 0.042$   $\chi^2/\text{NDF}: 231242.4/36$

Out:  $-135.895 \pm 0.041$   $\chi^2/\text{NDF}: 317515.4/40$

All:  $-136.748 \pm 0.030$   $\chi^2/\text{NDF}: 549623.5/77$

# reg\_asym\_atr\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 180.443+/-1.072  $\chi^2/\text{NDF}$ :1425.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 183.123+/-1.100  $\chi^2/\text{NDF}$ :1244.5/19

Left: 181.748+/-0.768  $\chi^2/\text{NDF}$ : 2673.3/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

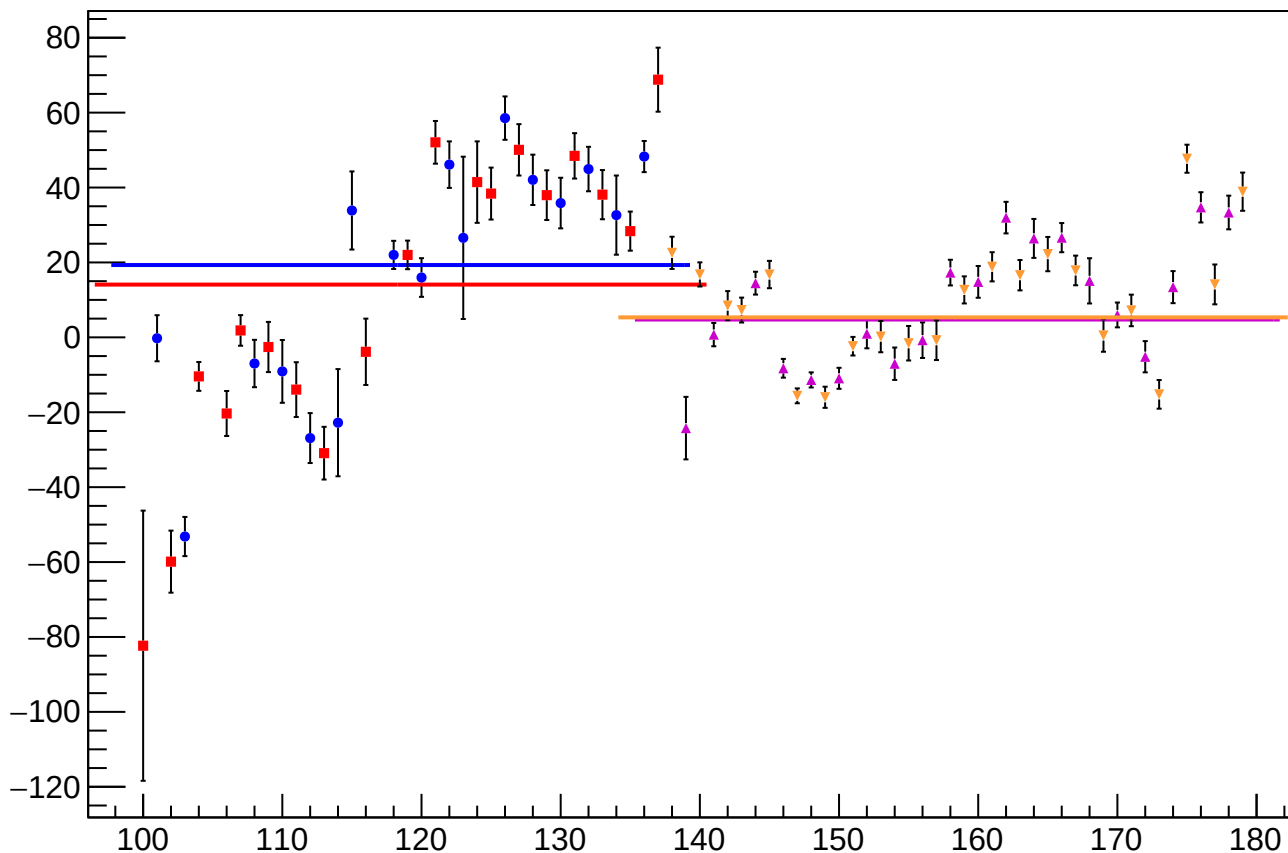
In: 183.123+/-1.100  $\chi^2/\text{NDF}$ :1244.5/19

Out: 180.443+/-1.072  $\chi^2/\text{NDF}$ :1425.8/21

All: 181.748+/-0.768  $\chi^2/\text{NDF}$ : 2673.3/41



reg\_asym\_atr\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 19.308+/-1.500  $\chi^2/\text{NDF}$ : 441.3/16

Left Out: 5.331+/-0.767  $\chi^2/\text{NDF}$ : 474.2/21

Right Out: 14.083+/-1.390  $\chi^2/\text{NDF}$ : 436.9/18

Left In: 4.757+/-0.800  $\chi^2/\text{NDF}$ : 373.5/19

Left: 5.056+/-0.554  $\chi^2/\text{NDF}$ : 848.0/41

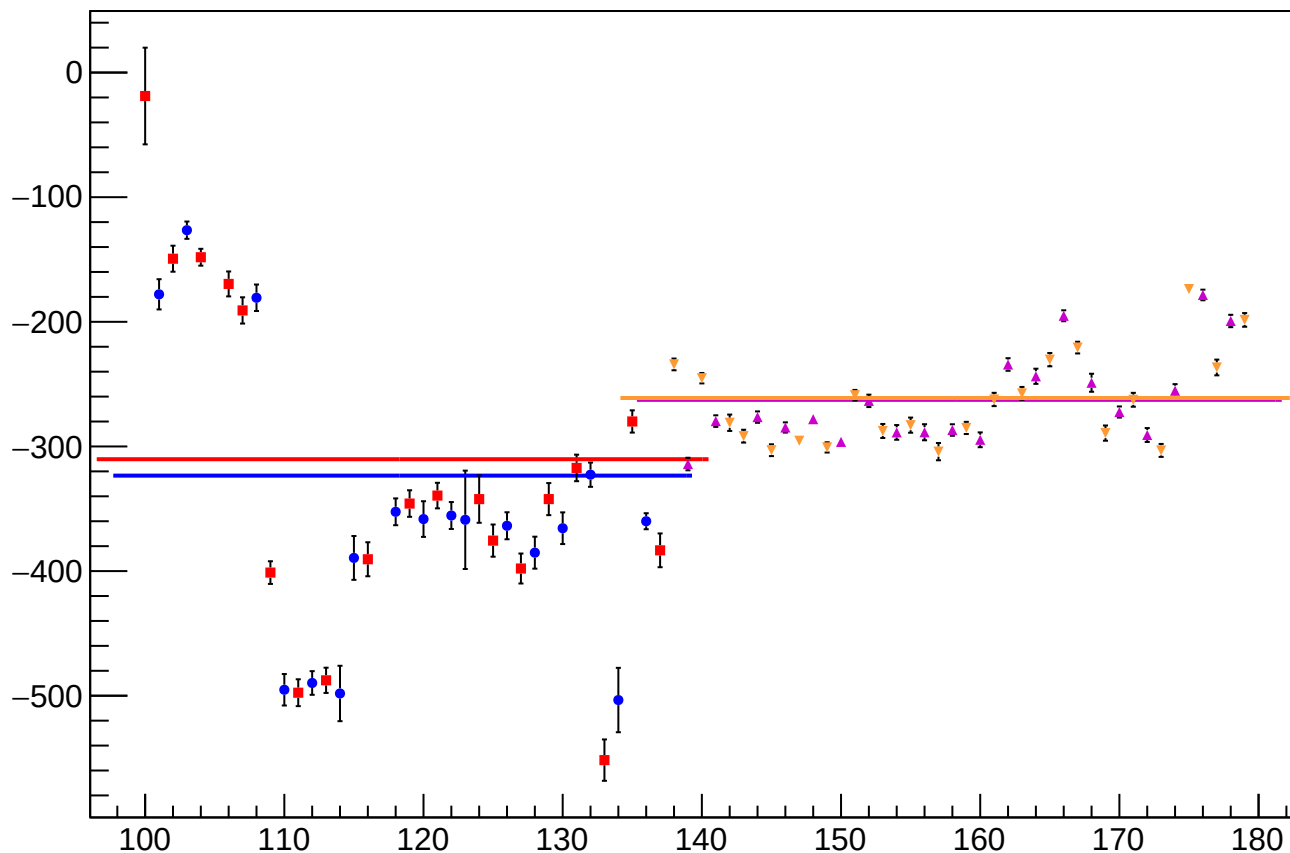
Right: 16.496+/-1.020  $\chi^2/\text{NDF}$ : 884.7/35

In: 7.981+/-0.706  $\chi^2/\text{NDF}$ : 888.0/36

Out: 7.373+/-0.671  $\chi^2/\text{NDF}$ : 941.5/40

All: 7.661+/-0.487  $\chi^2/\text{NDF}$ : 1829.9/77

reg\_asym\_atr\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: -323.402 $\pm$ 2.684  $\chi^2$ /NDF: 1849.6/16

Left Out: -261.128 $\pm$ 1.065  $\chi^2$ /NDF:1281.4/21

Right Out: -310.236 $\pm$ 2.523  $\chi^2$ /NDF: 2298.8/18

Left In: -262.620 $\pm$ 1.088  $\chi^2$ /NDF:1207.8/19

Left: -261.859 $\pm$ 0.761  $\chi^2$ /NDF: 2490.2/41

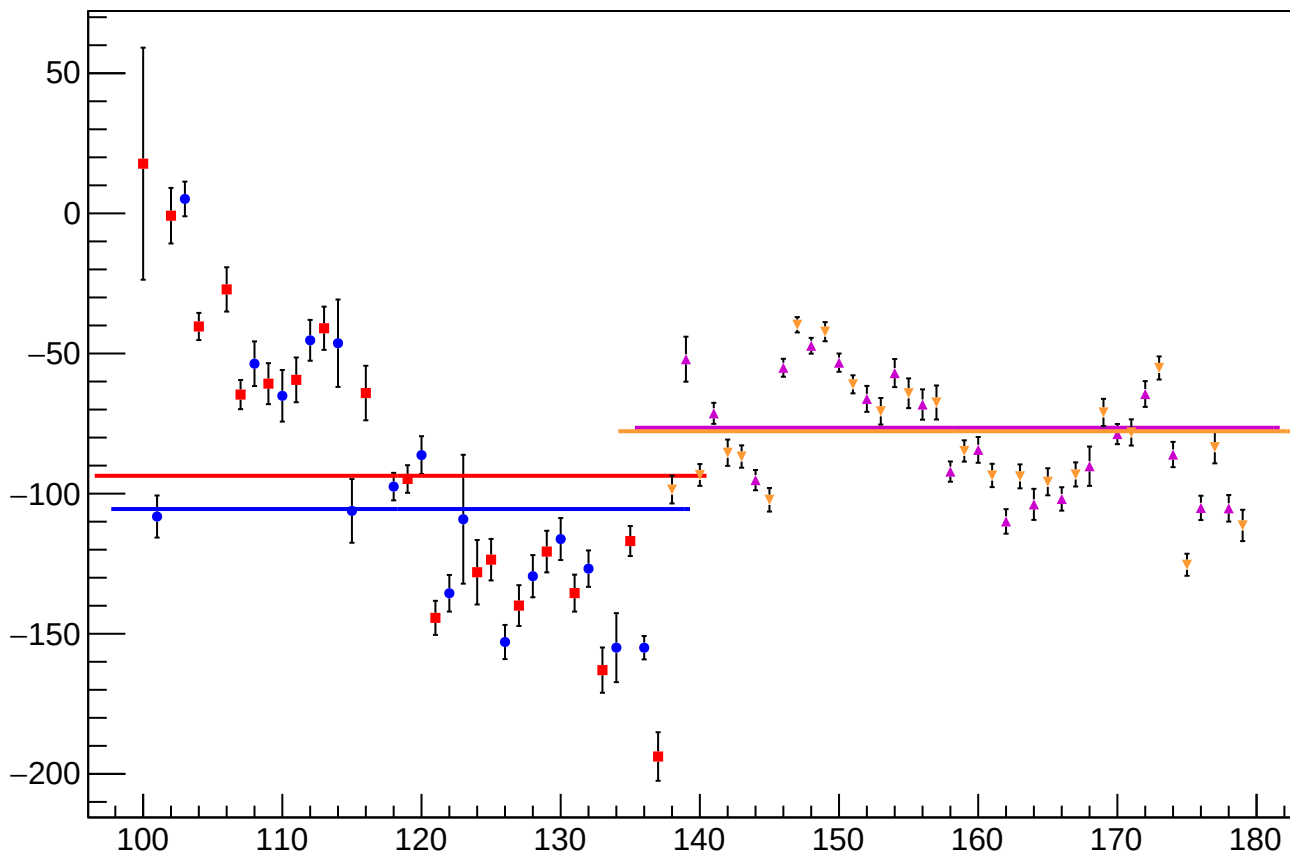
Right: -316.413 $\pm$ 1.838  $\chi^2$ /NDF: 4161.2/35

In: -271.197 $\pm$ 1.008  $\chi^2$ /NDF:3497.9/36

Out: -268.559 $\pm$ 0.982  $\chi^2$ /NDF:3901.6/40

All: -269.842 $\pm$ 0.703  $\chi^2$ /NDF: 7403.1/77

reg\_asym\_atr\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-105.496 \pm 1.712$   $\chi^2/\text{NDF}$ : 737.3/16

Left Out:  $-77.733 \pm 0.896$   $\chi^2/\text{NDF}$ : 689.7/21

Right Out:  $-93.637 \pm 1.610$   $\chi^2/\text{NDF}$ : 827.1/18

Left In:  $-76.496 \pm 0.929$   $\chi^2/\text{NDF}$ : 500.6/19

Left:  $-77.137 \pm 0.645$   $\chi^2/\text{NDF}$ : 1191.3/41

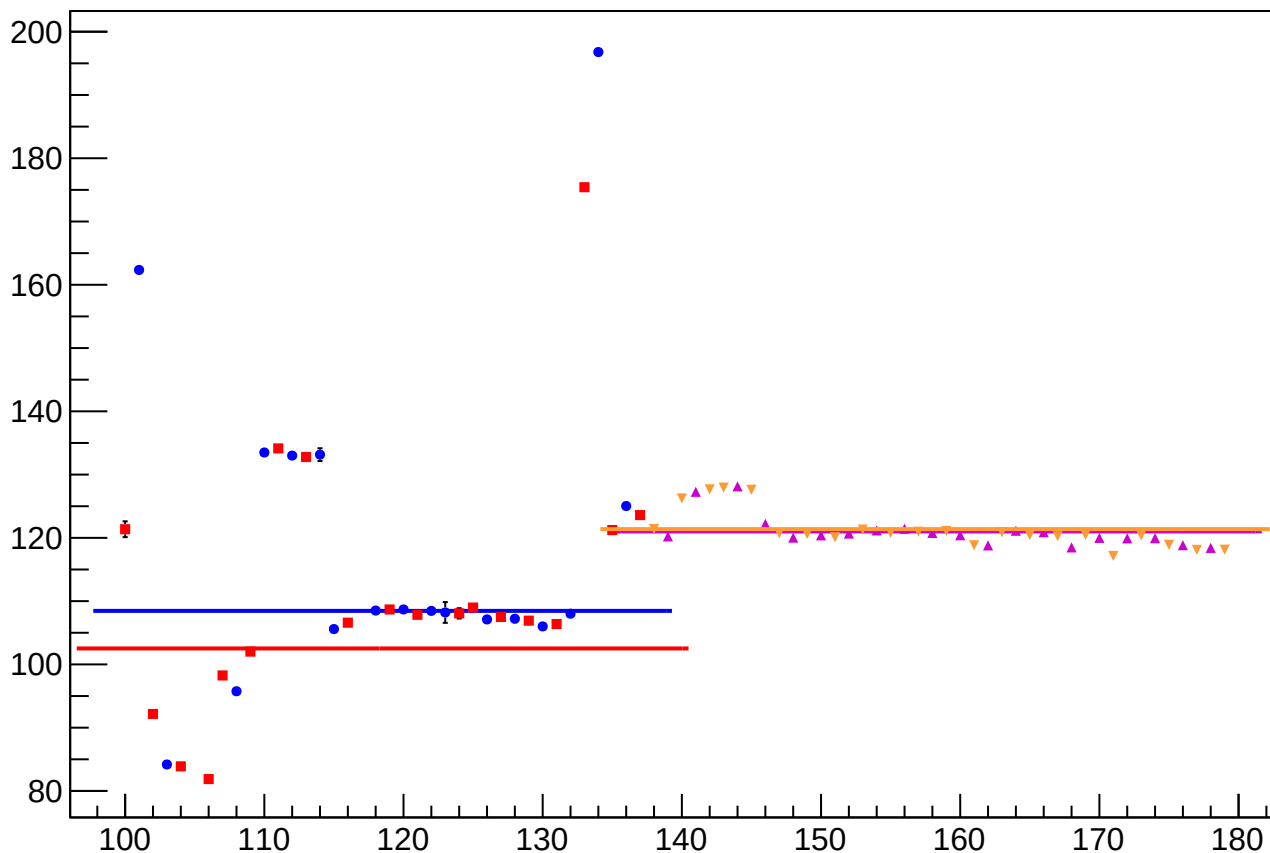
Right:  $-99.203 \pm 1.173$   $\chi^2/\text{NDF}$ : 1589.9/35

In:  $-83.093 \pm 0.817$   $\chi^2/\text{NDF}$ : 1459.6/36

Out:  $-81.491 \pm 0.783$   $\chi^2/\text{NDF}$ : 1591.3/40

All:  $-82.258 \pm 0.565$   $\chi^2/\text{NDF}$ : 3052.9/77

reg\_asym\_atr\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 108.460+/-0.085  $\chi^2/\text{NDF}$ : 73301.9/16

Left Out: 121.383+/-0.043  $\chi^2/\text{NDF}$ : 4712.4/21

Right Out: 102.521+/-0.080  $\chi^2/\text{NDF}$ : 52992.1/18

Left In: 121.014+/-0.043  $\chi^2/\text{NDF}$ : 3067.8/19

Left: 121.201+/-0.031  $\chi^2/\text{NDF}$ : 7816.8/41

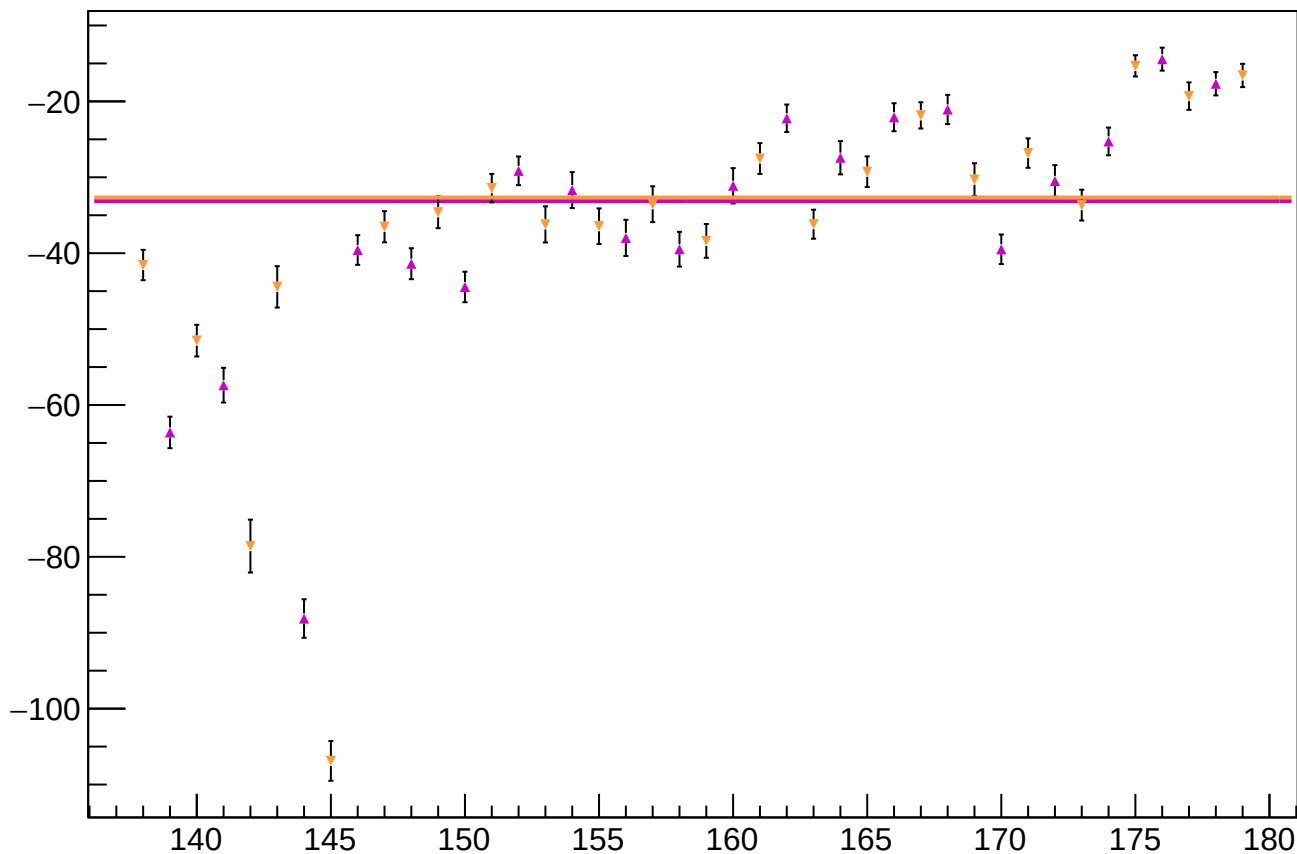
Right: 105.294+/-0.058  $\chi^2/\text{NDF}$ : 128896.1/35

In: 118.409+/-0.039  $\chi^2/\text{NDF}$ : 93657.6/36

Out: 117.127+/-0.038  $\chi^2/\text{NDF}$ : 101239.9/40

All: 117.753+/-0.027  $\chi^2/\text{NDF}$ : 195459.3/77

reg\_asym\_at1\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -32.663+/-0.431  $\chi^2/\text{NDF}$ :1494.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -33.137+/-0.444  $\chi^2/\text{NDF}$ :1276.9/19

Left: -32.893+/-0.309  $\chi^2/\text{NDF}$ : 2771.7/41

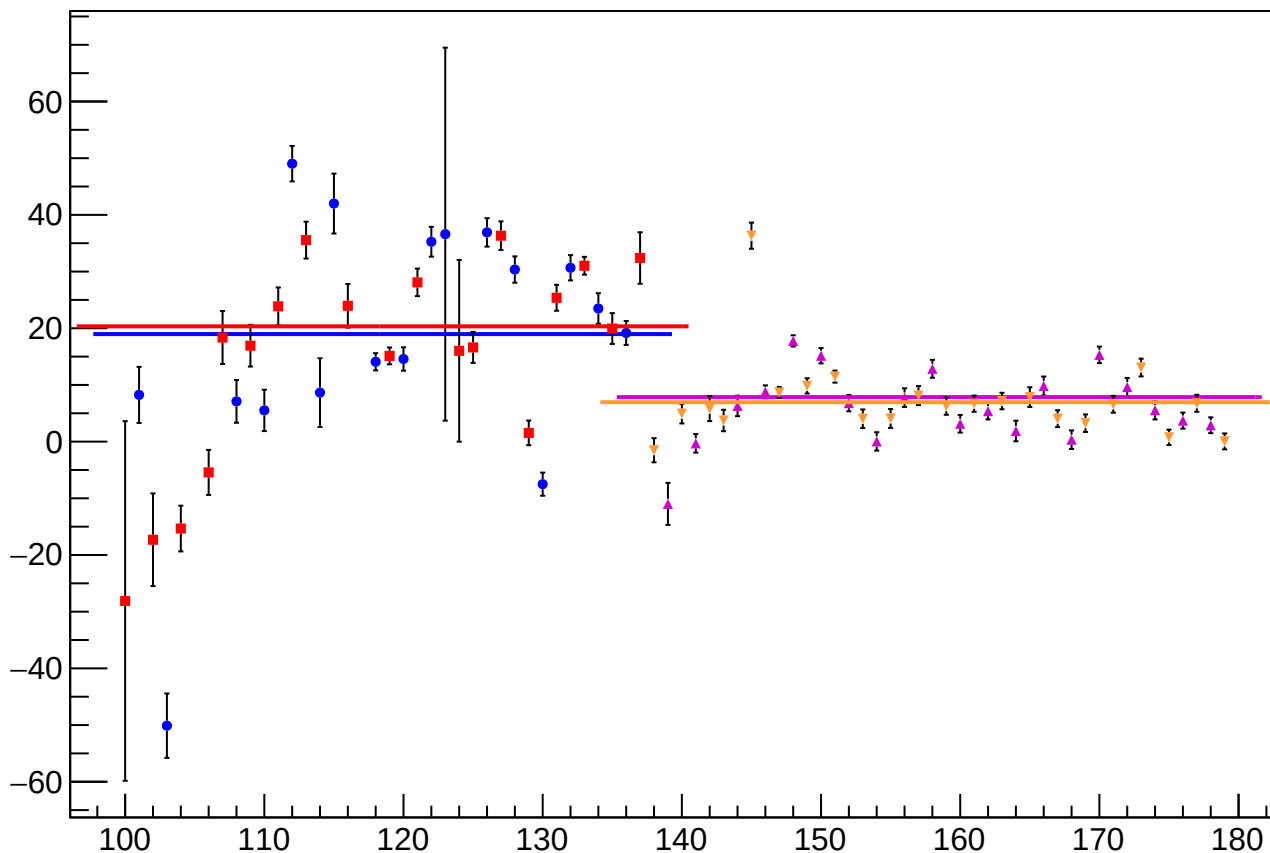
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -33.137+/-0.444  $\chi^2/\text{NDF}$ :1276.9/19

Out: -32.663+/-0.431  $\chi^2/\text{NDF}$ :1494.2/21

All: -32.893+/-0.309  $\chi^2/\text{NDF}$ : 2771.7/41

reg\_asym\_at1\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $18.970 \pm 0.653$   $\chi^2/\text{NDF}: 618.4/16$

Left Out:  $6.952 \pm 0.320$   $\chi^2/\text{NDF}: 284.9/21$

Right Out:  $20.338 \pm 0.642$   $\chi^2/\text{NDF}: 366.4/18$

Left In:  $7.850 \pm 0.336$   $\chi^2/\text{NDF}: 310.4/19$

Left:  $7.381 \pm 0.232$   $\chi^2/\text{NDF}: 599.0/41$

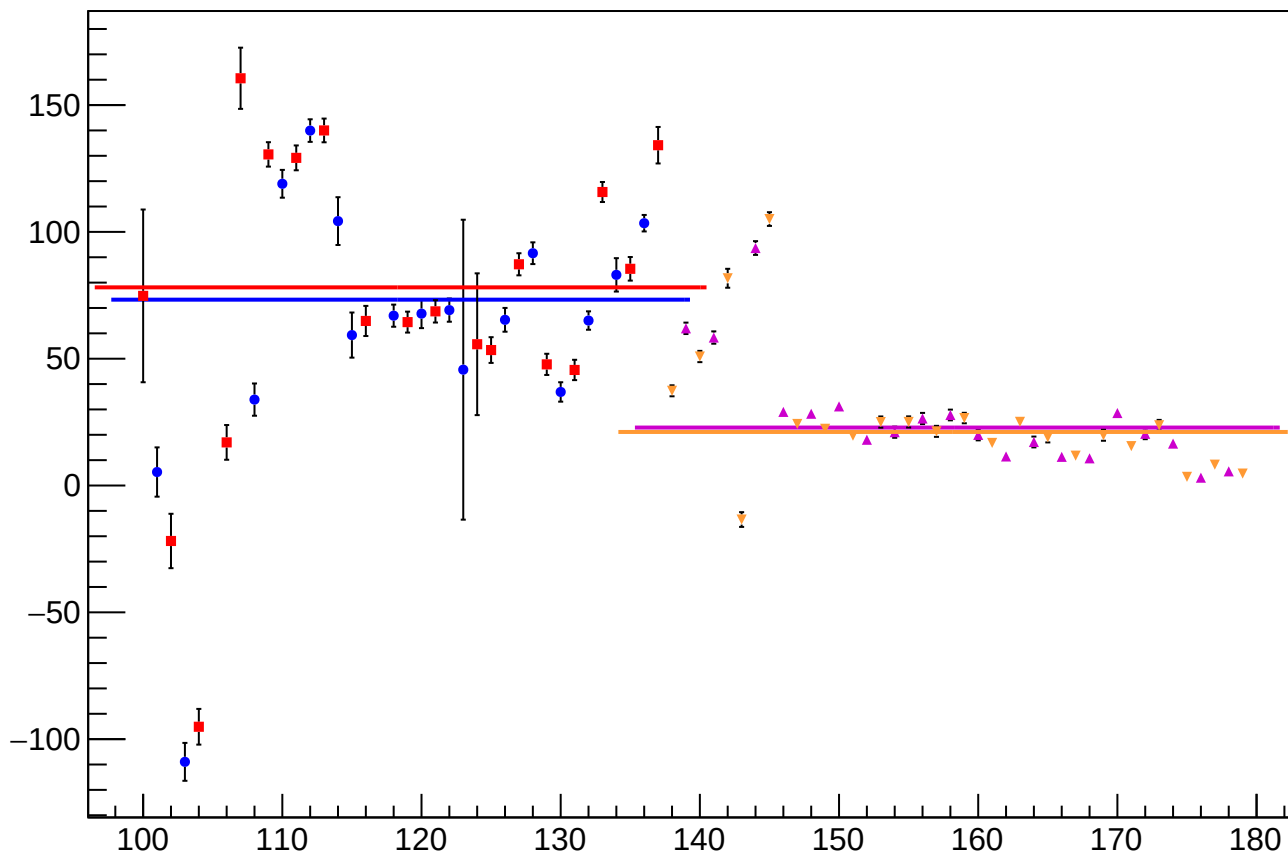
Right:  $19.666 \pm 0.458$   $\chi^2/\text{NDF}: 987.0/35$

In:  $10.173 \pm 0.298$   $\chi^2/\text{NDF}: 1158.2/36$

Out:  $9.620 \pm 0.287$   $\chi^2/\text{NDF}: 999.2/40$

All:  $9.886 \pm 0.207$   $\chi^2/\text{NDF}: 2159.1/77$

reg\_asym\_at1\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 73.278 $\pm$ 1.236  $\chi^2$ /NDF: 1198.6/16

Left Out: 21.117 $\pm$ 0.425  $\chi^2$ /NDF:2000.2/21

Right Out: 78.130 $\pm$ 1.223  $\chi^2$ /NDF: 1543.3/18

Left In: 22.852 $\pm$ 0.438  $\chi^2$ /NDF:1701.1/19

Left: 21.959 $\pm$ 0.305  $\chi^2$ /NDF: 3709.4/41

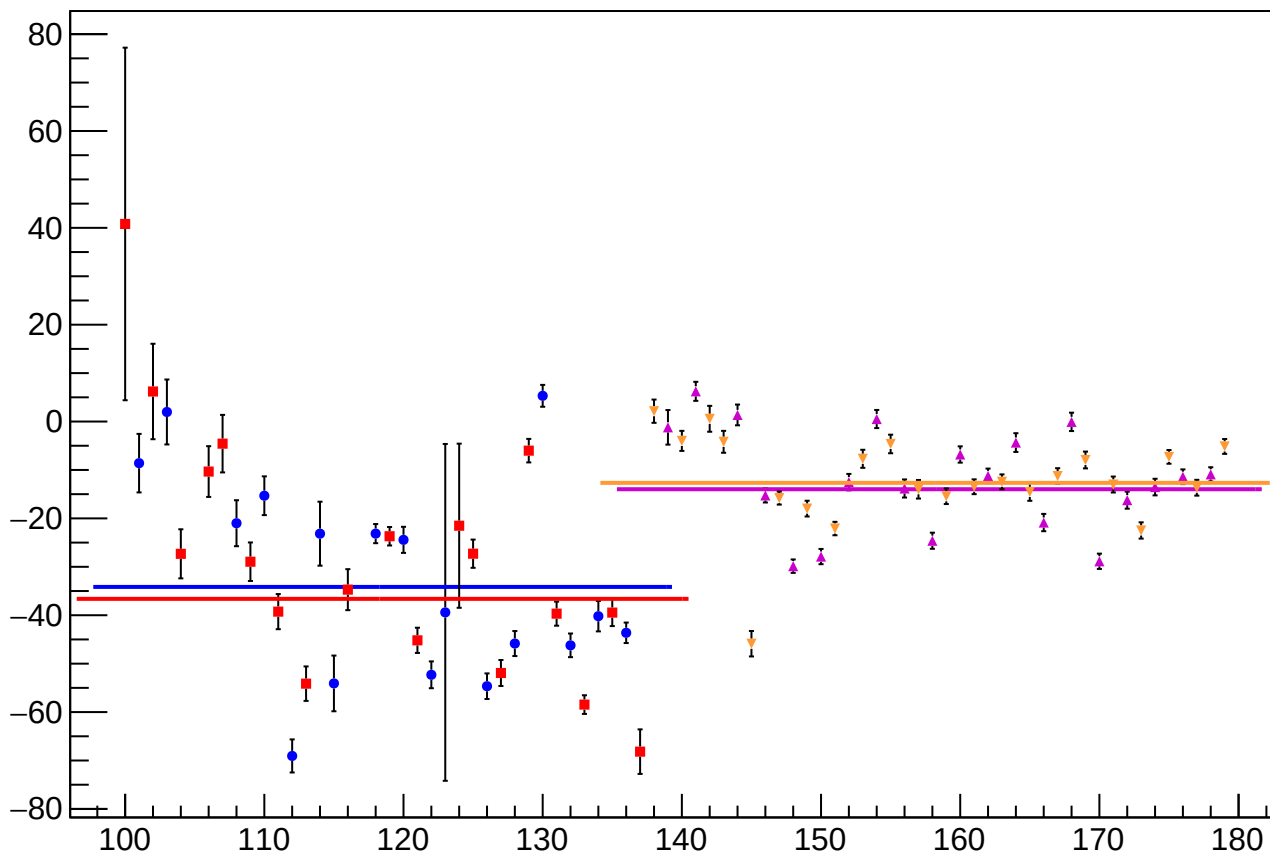
Right: 75.732 $\pm$ 0.869  $\chi^2$ /NDF: 2749.7/35

In: 28.478 $\pm$ 0.413  $\chi^2$ /NDF:4377.4/36

Out: 27.268 $\pm$ 0.402  $\chi^2$ /NDF:5483.7/40

All: 27.856 $\pm$ 0.288  $\chi^2$ /NDF: 9865.5/77

reg\_asym\_at1\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-34.153 \pm 0.745$   $\chi^2/\text{NDF}$ : 717.5/16

Left Out:  $-12.662 \pm 0.367$   $\chi^2/\text{NDF}$ : 426.5/21

Right Out:  $-36.618 \pm 0.736$   $\chi^2/\text{NDF}$ : 547.0/18

Left In:  $-13.979 \pm 0.383$   $\chi^2/\text{NDF}$ : 693.4/19

Left:  $-13.292 \pm 0.265$   $\chi^2/\text{NDF}$ : 1126.1/41

Right:  $-35.401 \pm 0.523$   $\chi^2/\text{NDF}$ : 1270.0/35

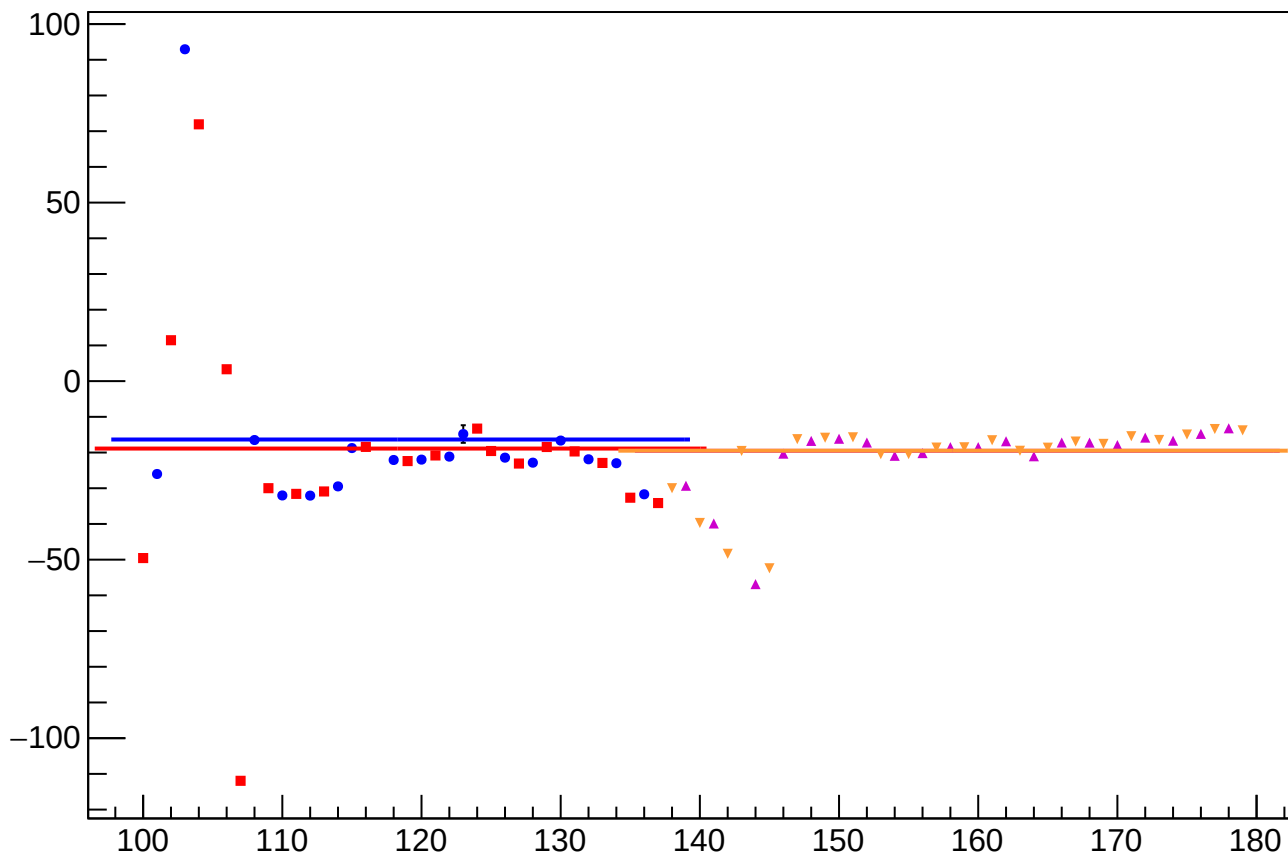
In:  $-18.191 \pm 0.340$   $\chi^2/\text{NDF}$ : 1991.3/36

Out:  $-17.426 \pm 0.328$   $\chi^2/\text{NDF}$ : 1822.8/40

All:  $-17.795 \pm 0.236$   $\chi^2/\text{NDF}$ : 3816.7/77



reg\_asym\_at1\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-16.349 \pm 0.045$   $\chi^2/\text{NDF}: 474192.3/16$

Left Out:  $-19.482 \pm 0.017$   $\chi^2/\text{NDF}: 224397.5/21$

Right Out:  $-18.886 \pm 0.045$   $\chi^2/\text{NDF}: 433793.7/18$

Left In:  $-19.533 \pm 0.017$   $\chi^2/\text{NDF}: 182706.8/19$

Left:  $-19.507 \pm 0.012$   $\chi^2/\text{NDF}: 407108.7/41$

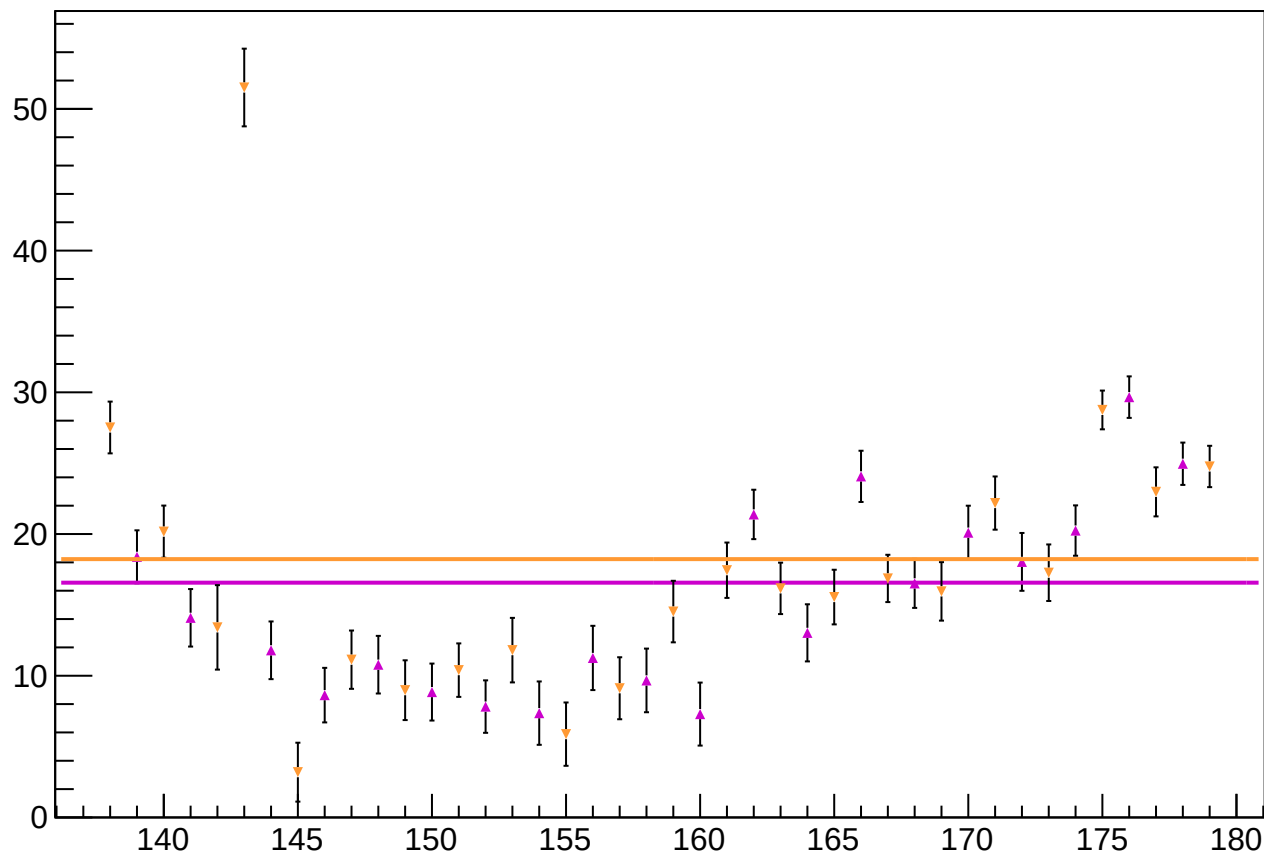
Right:  $-17.599 \pm 0.032$   $\chi^2/\text{NDF}: 909577.8/35$

In:  $-19.115 \pm 0.016$   $\chi^2/\text{NDF}: 661317.6/36$

Out:  $-19.409 \pm 0.016$   $\chi^2/\text{NDF}: 658343.2/40$

All:  $-19.264 \pm 0.011$   $\chi^2/\text{NDF}: 1319829.4/77$

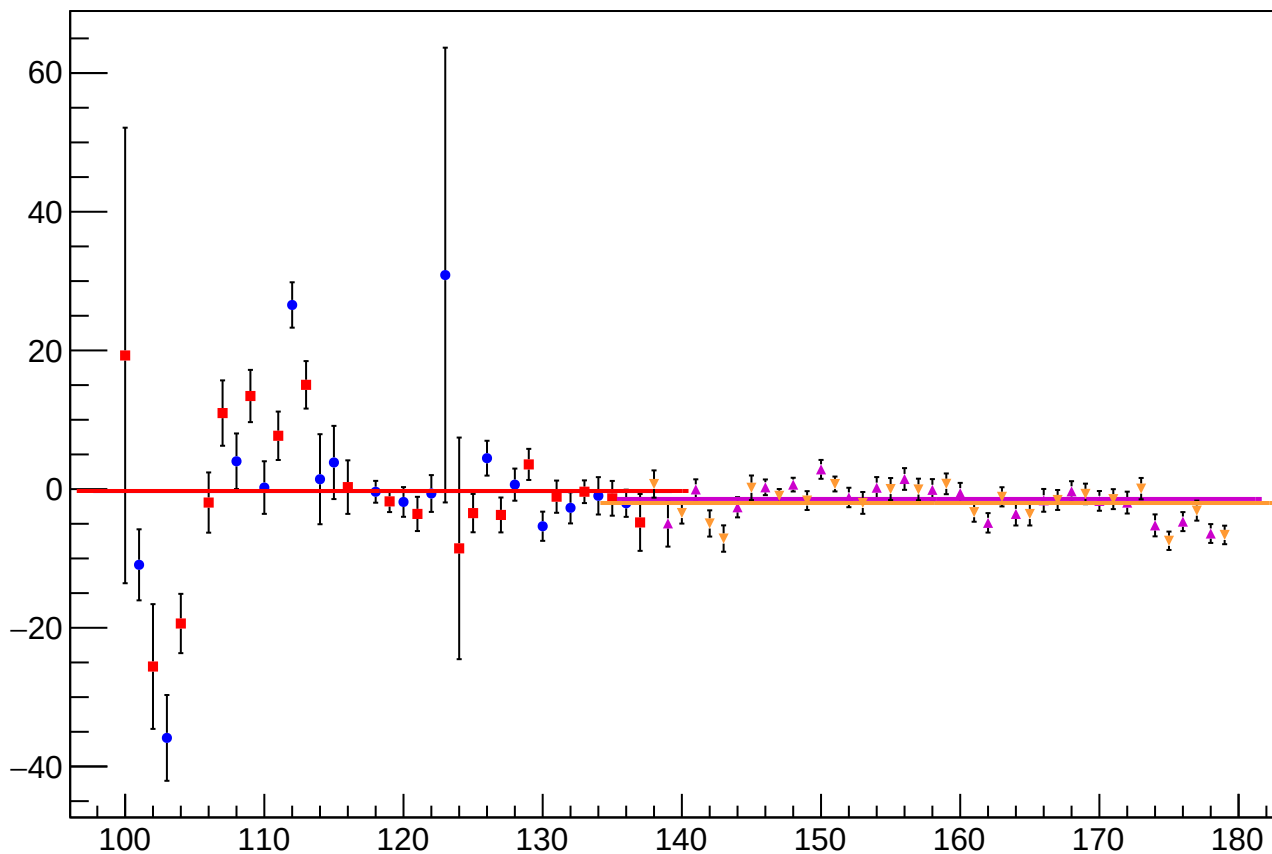
reg\_asym\_at1\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 18.229 $\pm$ 0.411  $\chi^2/\text{NDF}$ :433.2/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 16.568 $\pm$ 0.423  $\chi^2/\text{NDF}$ :267.1/19

Left: 17.424 $\pm$ 0.295  $\chi^2/\text{NDF}$ : 708.2/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: 16.568 $\pm$ 0.423  $\chi^2/\text{NDF}$ :267.1/19  
 Out: 18.229 $\pm$ 0.411  $\chi^2/\text{NDF}$ :433.2/21  
 All: 17.424 $\pm$ 0.295  $\chi^2/\text{NDF}$ : 708.2/41

reg\_asym\_at1\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-0.280 \pm 0.662$   $\chi^2/\text{NDF}$ : 119.5/16

Left Out:  $-2.004 \pm 0.308$   $\chi^2/\text{NDF}$ : 62.8/21

Right Out:  $-0.270 \pm 0.656$   $\chi^2/\text{NDF}$ : 83.2/18

Left In:  $-1.419 \pm 0.322$   $\chi^2/\text{NDF}$ : 58.0/19

Left:  $-1.724 \pm 0.222$   $\chi^2/\text{NDF}$ : 122.6/41

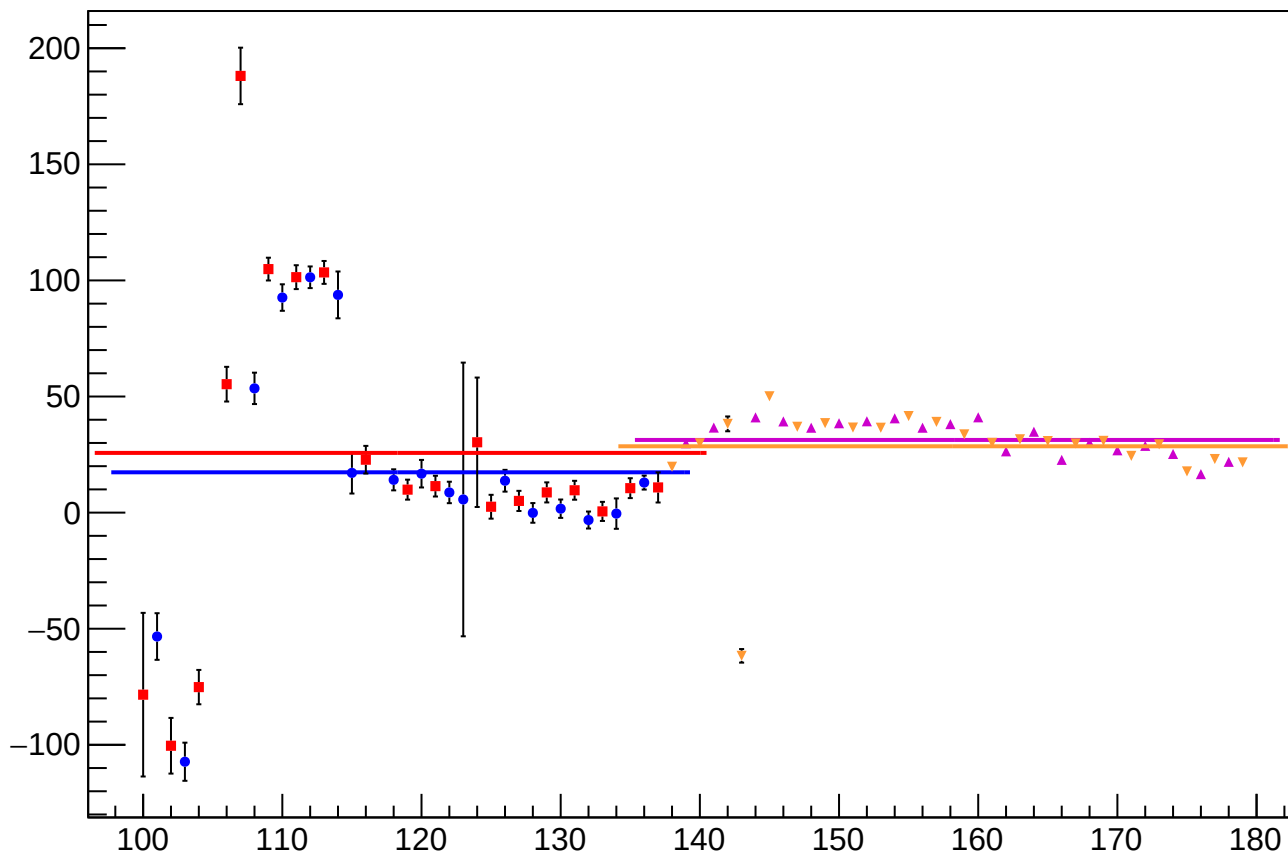
Right:  $-0.275 \pm 0.466$   $\chi^2/\text{NDF}$ : 202.7/35

In:  $-1.202 \pm 0.289$   $\chi^2/\text{NDF}$ : 179.9/36

Out:  $-1.691 \pm 0.279$   $\chi^2/\text{NDF}$ : 151.7/40

All:  $-1.455 \pm 0.201$   $\chi^2/\text{NDF}$ : 333.1/77

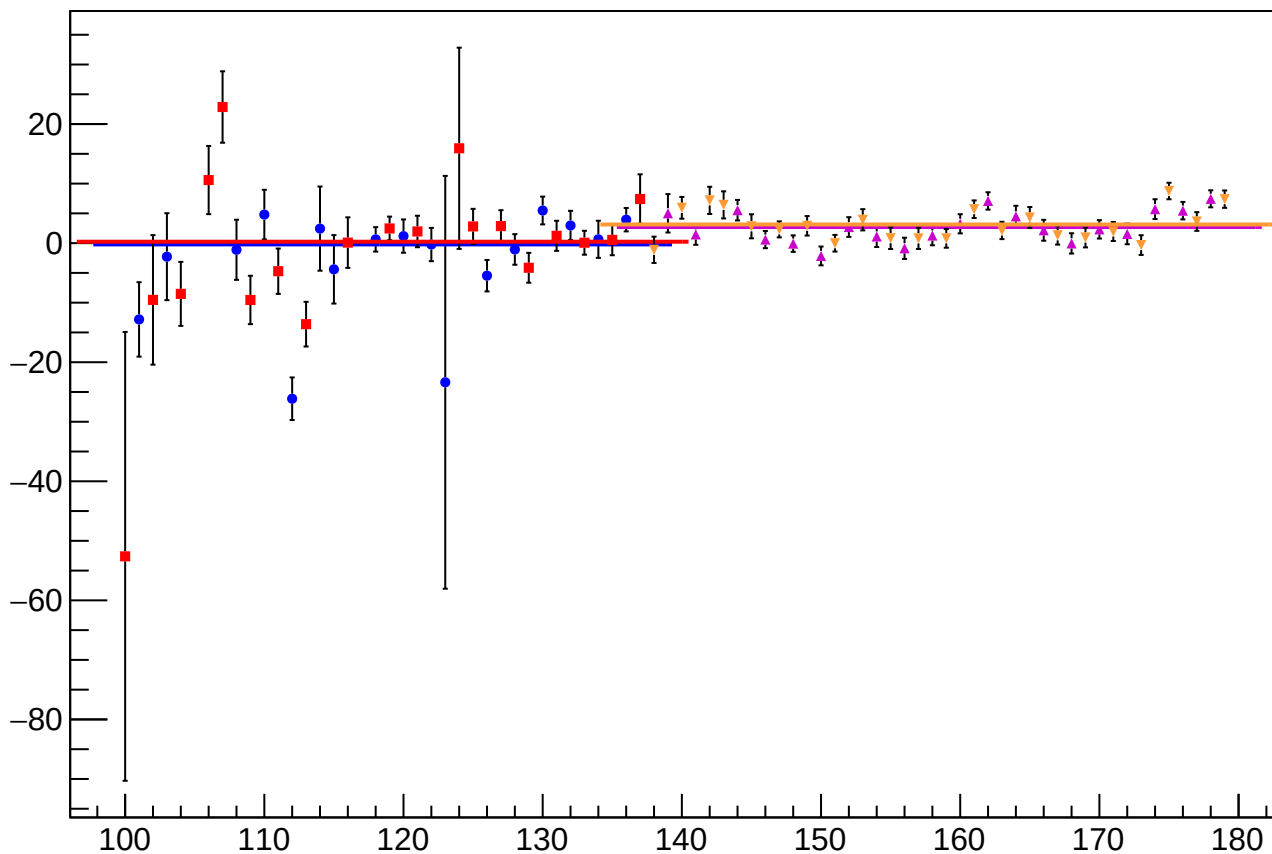
reg\_asym\_at1\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 17.361+/-1.247  $\chi^2/\text{NDF}$ : 943.0/16  
 Left Out: 28.568+/-0.406  $\chi^2/\text{NDF}$ :1337.7/21  
 Right Out: 25.717+/-1.243  $\chi^2/\text{NDF}$ : 1378.8/18  
 Left In: 31.296+/-0.419  $\chi^2/\text{NDF}$ :341.7/19

Left: 29.892+/-0.292  $\chi^2/\text{NDF}$ : 1701.2/41  
 Right: 21.552+/-0.880  $\chi^2/\text{NDF}$ : 2344.4/35  
 In: 29.885+/-0.397  $\chi^2/\text{NDF}$ :1397.0/36  
 Out: 28.293+/-0.386  $\chi^2/\text{NDF}$ :2721.2/40  
 All: 29.067+/-0.277  $\chi^2/\text{NDF}$ : 4126.5/77

reg\_asym\_at1\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-0.211 \pm 0.752$   $\chi^2/\text{NDF}$ : 75.9/16

Left Out:  $3.133 \pm 0.352$   $\chi^2/\text{NDF}$ : 59.5/21

Right Out:  $0.239 \pm 0.748$   $\chi^2/\text{NDF}$ : 54.5/18

Left In:  $2.707 \pm 0.366$   $\chi^2/\text{NDF}$ : 56.1/19

Left:  $2.929 \pm 0.254$   $\chi^2/\text{NDF}$ : 116.3/41

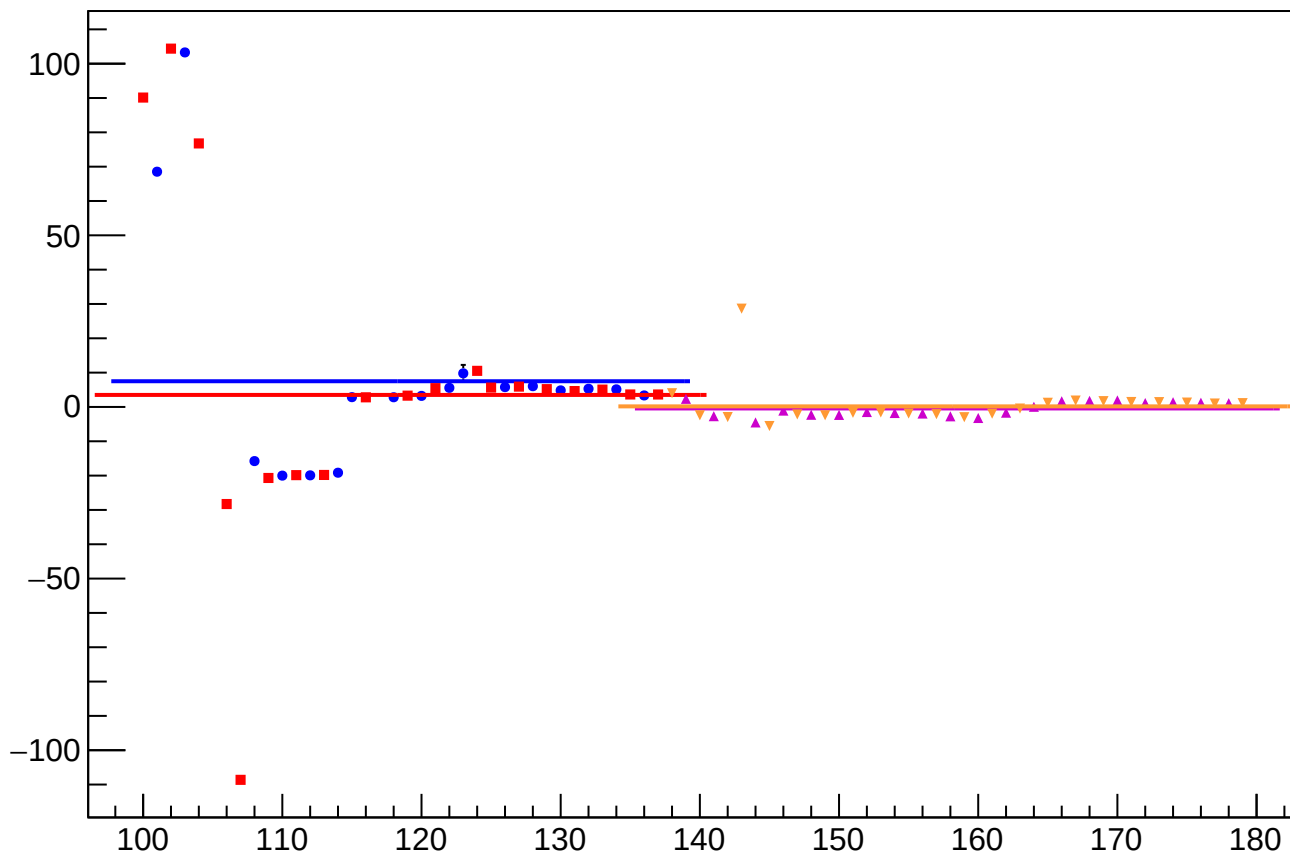
Right:  $0.015 \pm 0.530$   $\chi^2/\text{NDF}$ : 130.6/35

In:  $2.147 \pm 0.329$   $\chi^2/\text{NDF}$ : 144.2/36

Out:  $2.610 \pm 0.318$   $\chi^2/\text{NDF}$ : 126.2/40

All:  $2.386 \pm 0.229$   $\chi^2/\text{NDF}$ : 271.4/77

reg\_asym\_at1\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $7.492 \pm 0.045$   $\chi^2/\text{NDF}: 355979.0/16$

Left Out:  $0.168 \pm 0.016$   $\chi^2/\text{NDF}: 77627.5/21$

Right Out:  $3.504 \pm 0.046$   $\chi^2/\text{NDF}: 510579.4/18$

Left In:  $-0.438 \pm 0.017$   $\chi^2/\text{NDF}: 14129.4/19$

Left:  $-0.128 \pm 0.012$   $\chi^2/\text{NDF}: 92444.1/41$

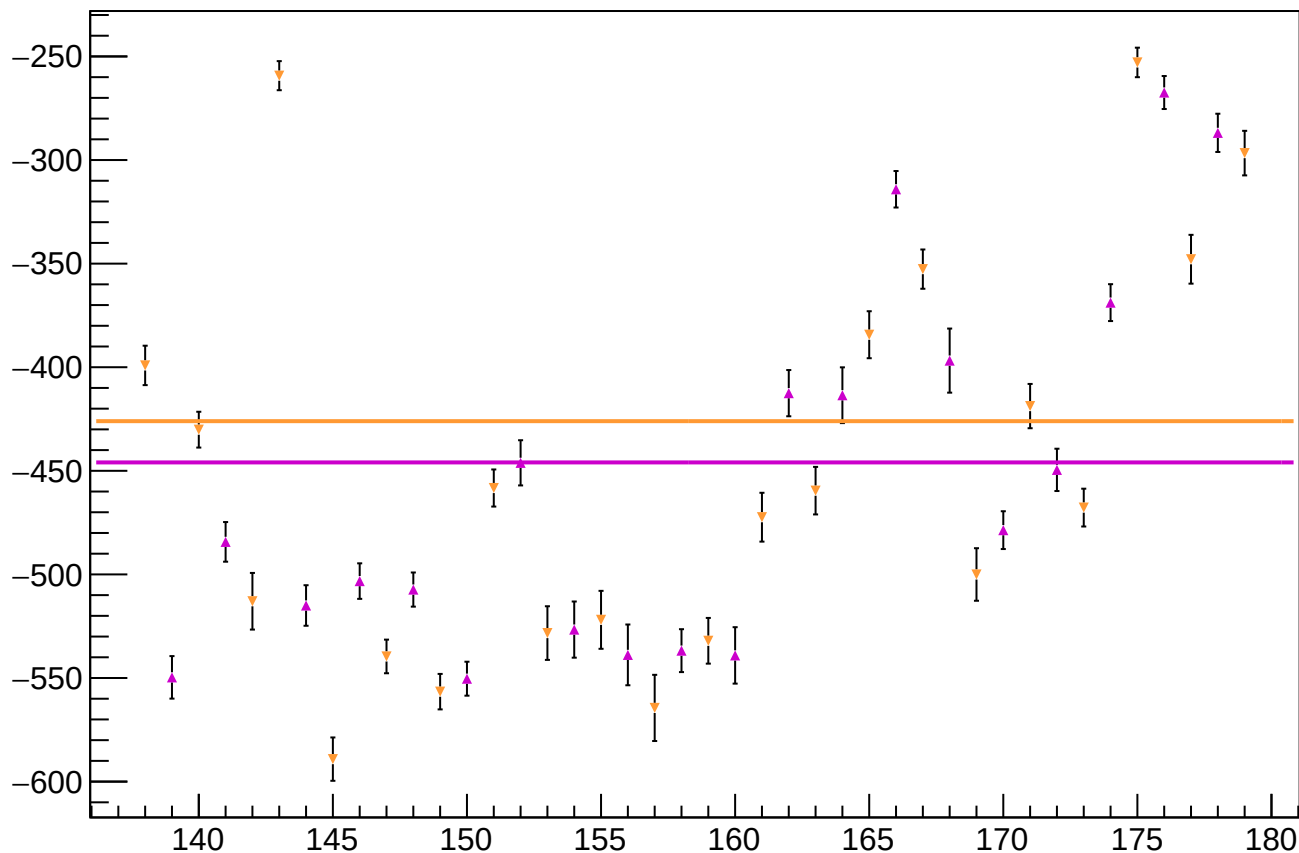
Right:  $5.541 \pm 0.032$   $\chi^2/\text{NDF}: 870462.8/35$

In:  $0.520 \pm 0.016$   $\chi^2/\text{NDF}: 397863.4/36$

Out:  $0.541 \pm 0.015$   $\chi^2/\text{NDF}: 592954.0/40$

All:  $0.531 \pm 0.011$   $\chi^2/\text{NDF}: 990818.4/77$

reg\_asym\_at2\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -426.033+/-2.132  $\chi^2/\text{NDF}$ :2506.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -445.947+/-2.238  $\chi^2/\text{NDF}$ :1767.0/19

Left: -435.509+/-1.544  $\chi^2/\text{NDF}$ : 4315.4/41

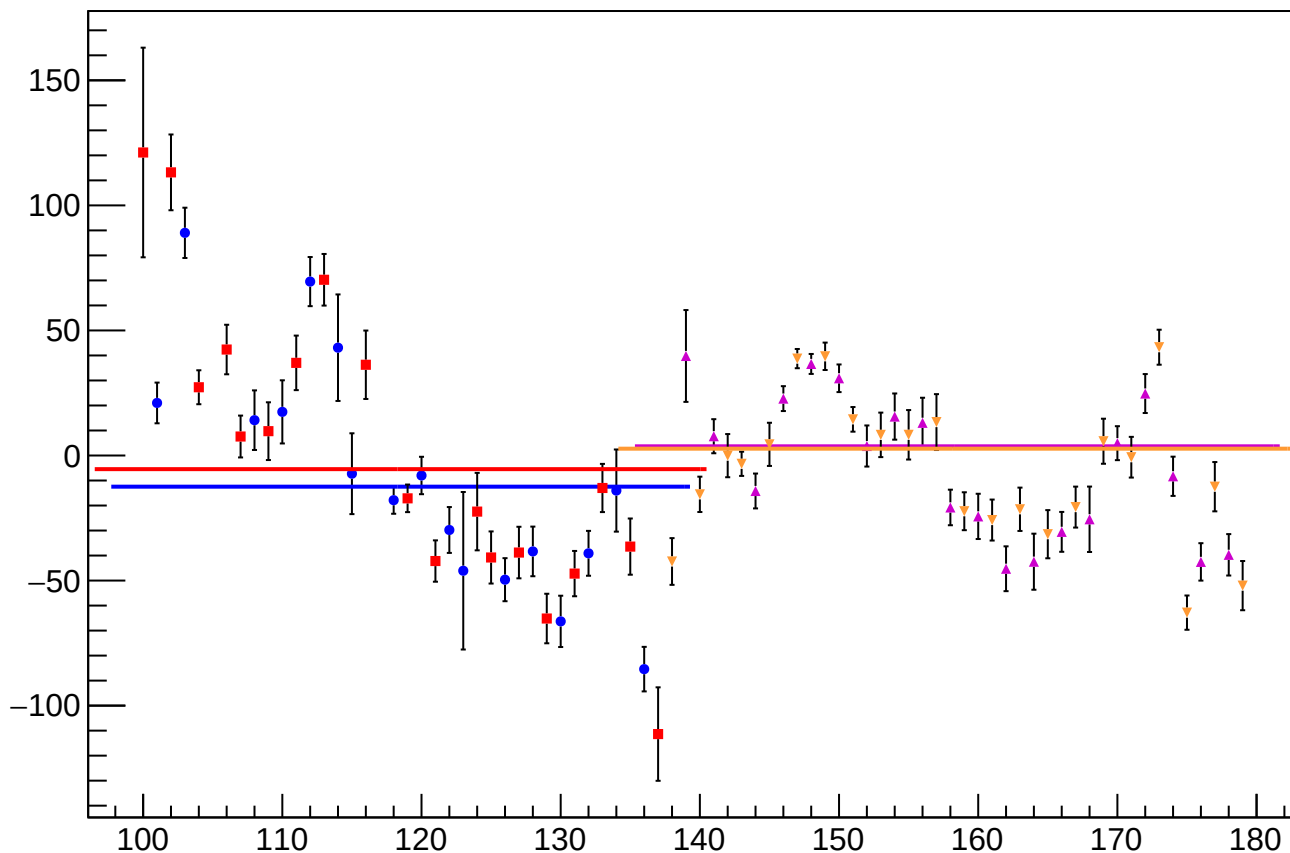
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -445.947+/-2.238  $\chi^2/\text{NDF}$ :1767.0/19

Out: -426.033+/-2.132  $\chi^2/\text{NDF}$ :2506.9/21

All: -435.509+/-1.544  $\chi^2/\text{NDF}$ : 4315.4/41

reg\_asym\_at2\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-12.458 \pm 2.349$   $\chi^2/\text{NDF}$ : 341.1/16

Left Out:  $2.730 \pm 1.516$   $\chi^2/\text{NDF}$ : 382.6/21

Right Out:  $-5.453 \pm 2.259$   $\chi^2/\text{NDF}$ : 345.0/18

Left In:  $3.677 \pm 1.625$   $\chi^2/\text{NDF}$ : 287.3/19

Left:  $3.171 \pm 1.109$   $\chi^2/\text{NDF}$ : 670.1/41

Right:  $-8.819 \pm 1.628$   $\chi^2/\text{NDF}$ : 690.7/35

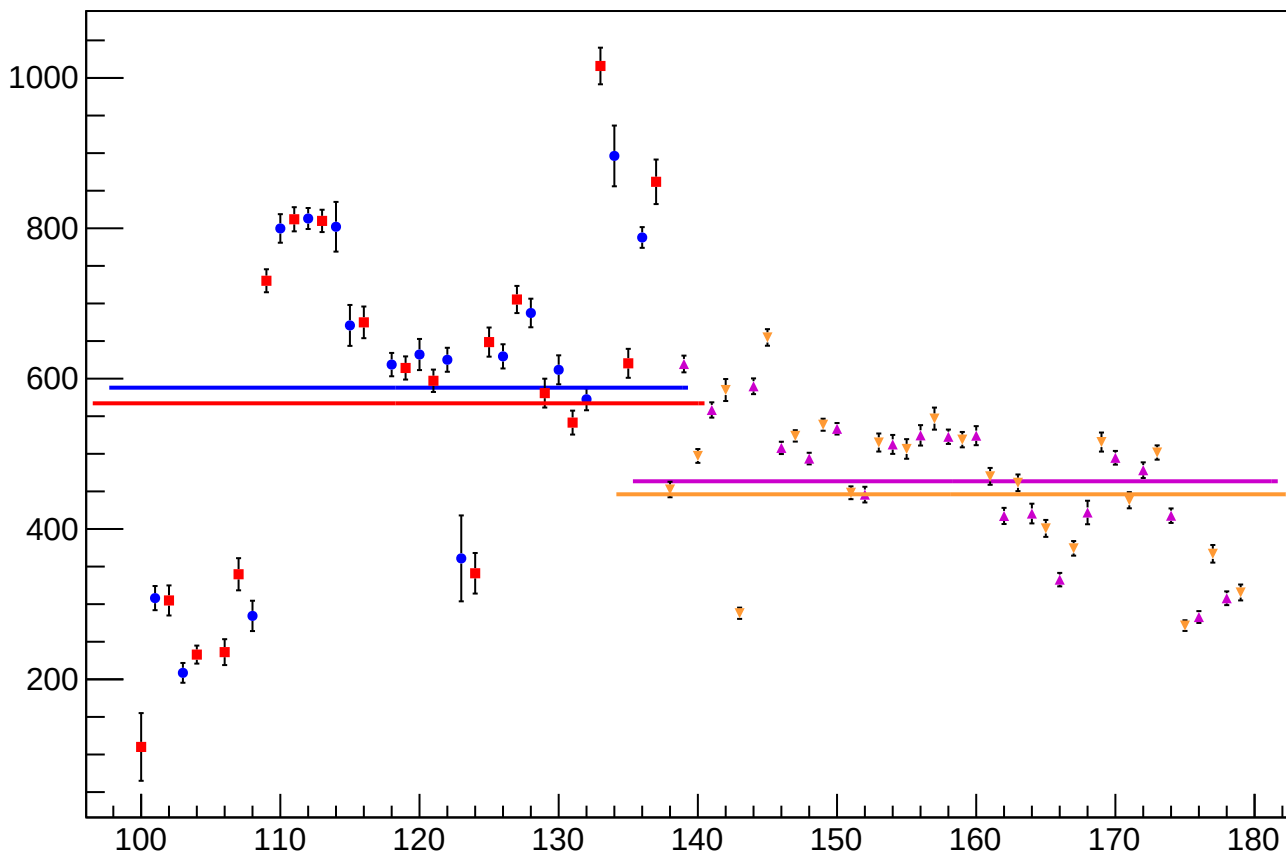
In:  $-1.548 \pm 1.337$   $\chi^2/\text{NDF}$ : 660.3/36

Out:  $0.189 \pm 1.259$   $\chi^2/\text{NDF}$ : 736.6/40

All:  $-0.628 \pm 0.916$   $\chi^2/\text{NDF}$ : 1397.8/77



reg\_asym\_at2\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 587.994 $\pm$ 4.353  $\chi^2/\text{NDF}$ : 2129.6/16

Left Out: 446.158 $\pm$ 2.121  $\chi^2/\text{NDF}$ : 2259.7/21

Right Out: 567.179 $\pm$ 4.136  $\chi^2/\text{NDF}$ : 2783.2/18

Left In: 463.471 $\pm$ 2.211  $\chi^2/\text{NDF}$ : 1756.2/19

Left: 454.457 $\pm$ 1.531  $\chi^2/\text{NDF}$ : 4047.9/41

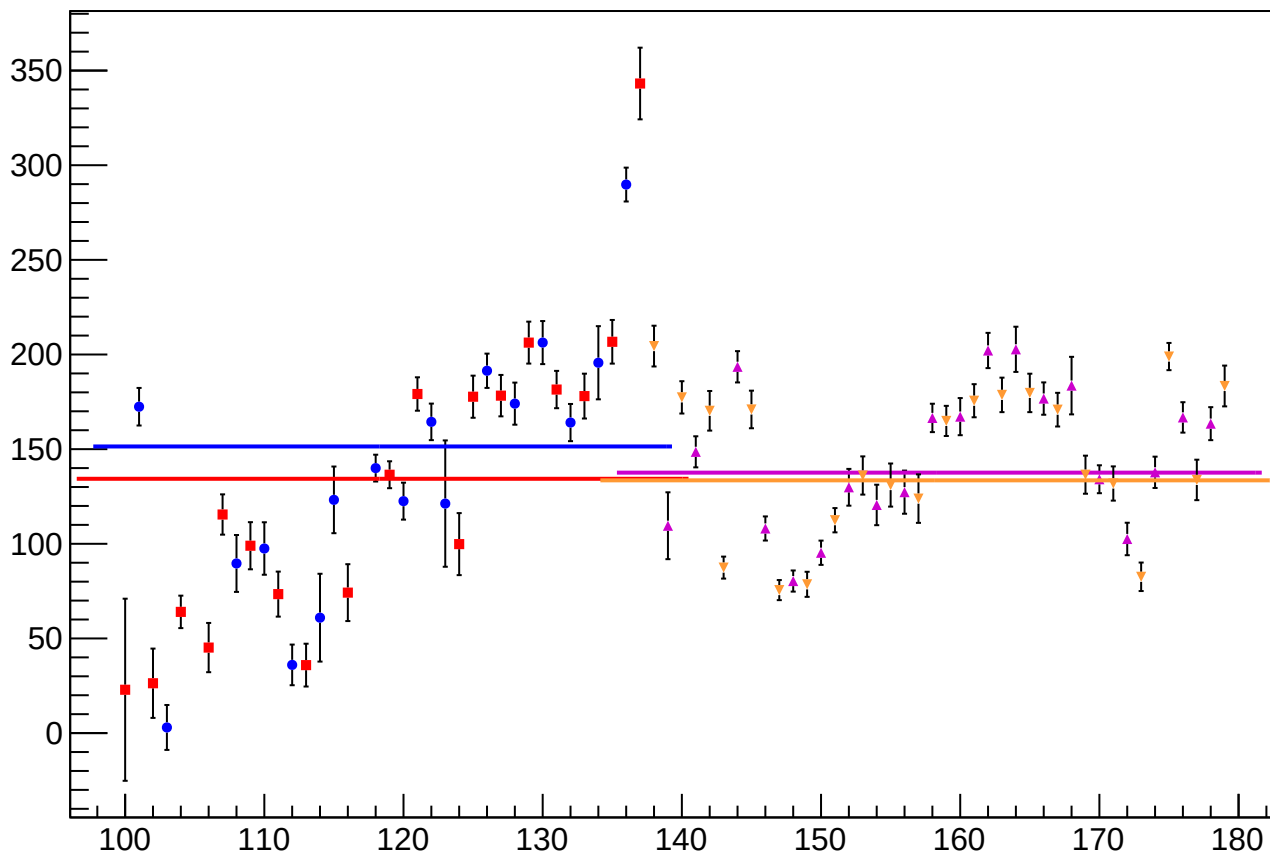
Right: 577.056 $\pm$ 2.998  $\chi^2/\text{NDF}$ : 4924.8/35

In: 489.009 $\pm$ 1.971  $\chi^2/\text{NDF}$ : 4536.4/36

Out: 471.364 $\pm$ 1.888  $\chi^2/\text{NDF}$ : 5720.8/40

All: 479.804 $\pm$ 1.363  $\chi^2/\text{NDF}$ : 10299.0/77

reg\_asym\_at2\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 151.421 $\pm$ 2.709  $\chi^2$ /NDF: 633.3/16

Left Out: 133.526 $\pm$ 1.775  $\chi^2$ /NDF:610.6/21

Right Out: 134.346 $\pm$ 2.616  $\chi^2$ /NDF: 584.9/18

Left In: 137.594 $\pm$ 1.887  $\chi^2$ /NDF:395.1/19

Left: 135.436 $\pm$ 1.293  $\chi^2$ /NDF: 1008.2/41

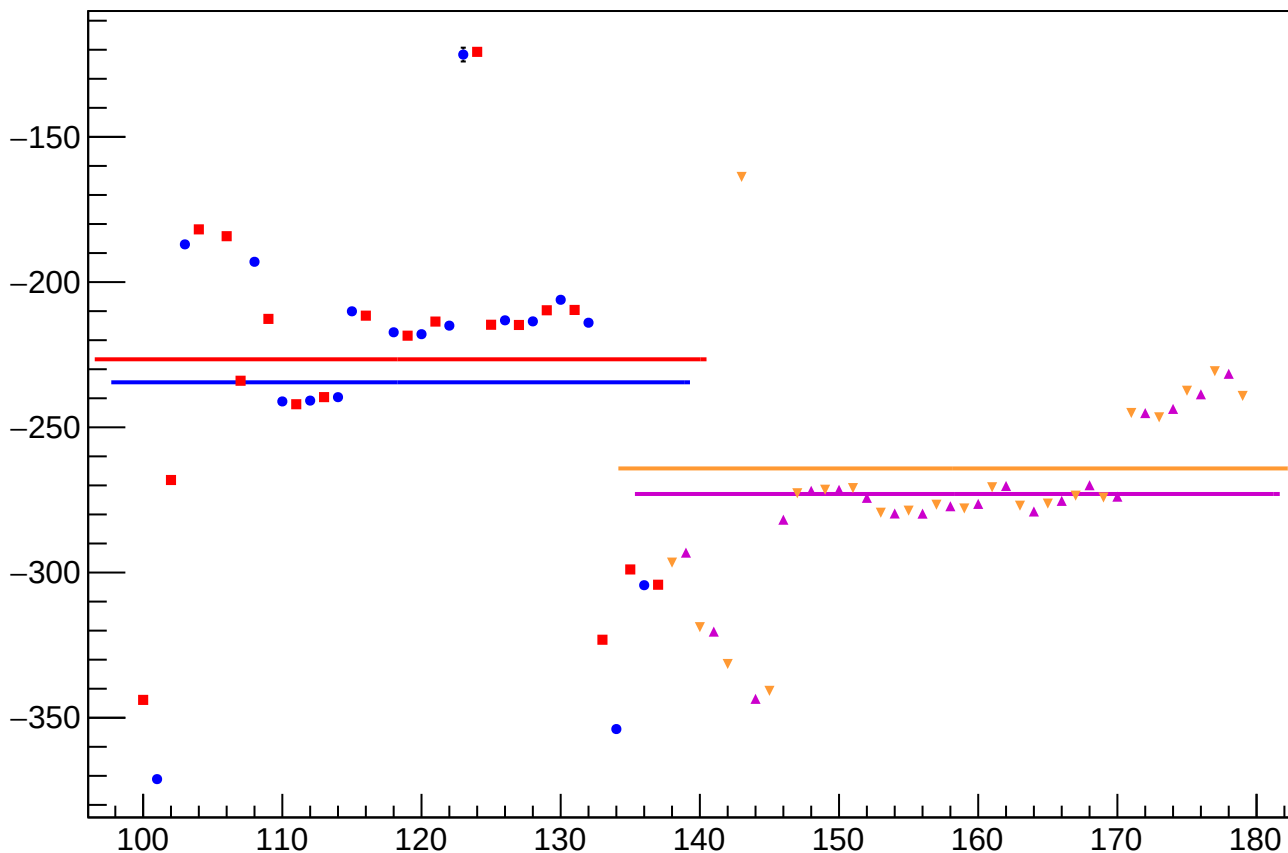
Right: 142.583 $\pm$ 1.882  $\chi^2$ /NDF: 1238.7/35

In: 142.111 $\pm$ 1.548  $\chi^2$ /NDF:1045.9/36

Out: 133.784 $\pm$ 1.469  $\chi^2$ /NDF:1195.6/40

All: 137.728 $\pm$ 1.066  $\chi^2$ /NDF: 2256.7/77

reg\_asym\_at2\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -234.501+/-0.149  $\chi^2/\text{NDF}$ : 145046.5/16

Left Out: -264.158+/-0.086  $\chi^2/\text{NDF}$ :207735.5/21

Right Out: -226.581+/-0.141  $\chi^2/\text{NDF}$ : 98968.8/18

Left In: -272.951+/-0.089  $\chi^2/\text{NDF}$ :72113.5/19

Left: -268.414+/-0.062  $\chi^2/\text{NDF}$ : 284920.2/41

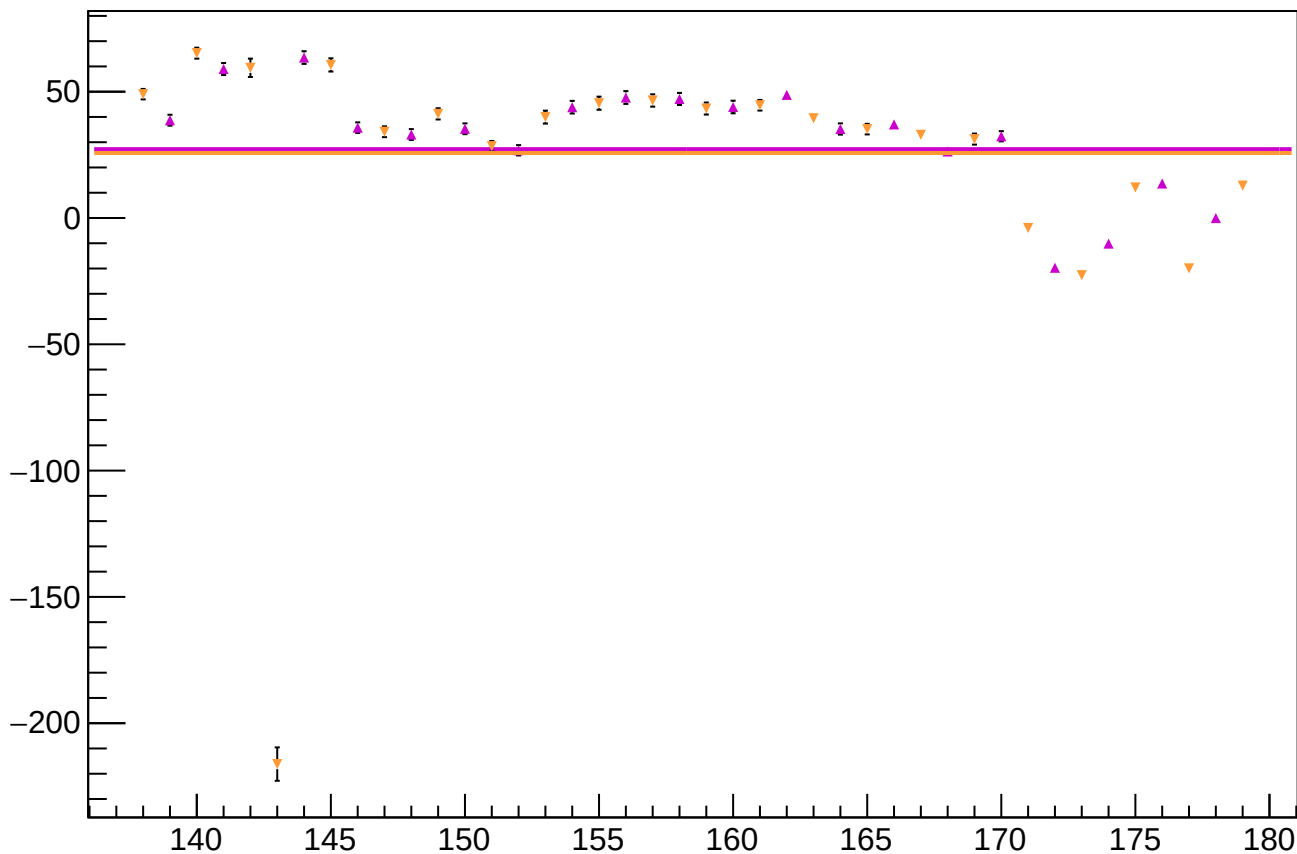
Right: -230.333+/-0.103  $\chi^2/\text{NDF}$ : 245501.4/35

In: -262.893+/-0.076  $\chi^2/\text{NDF}$ :266314.3/36

Out: -254.029+/-0.073  $\chi^2/\text{NDF}$ :358285.7/40

All: -258.295+/-0.053  $\chi^2/\text{NDF}$ : 631615.0/77

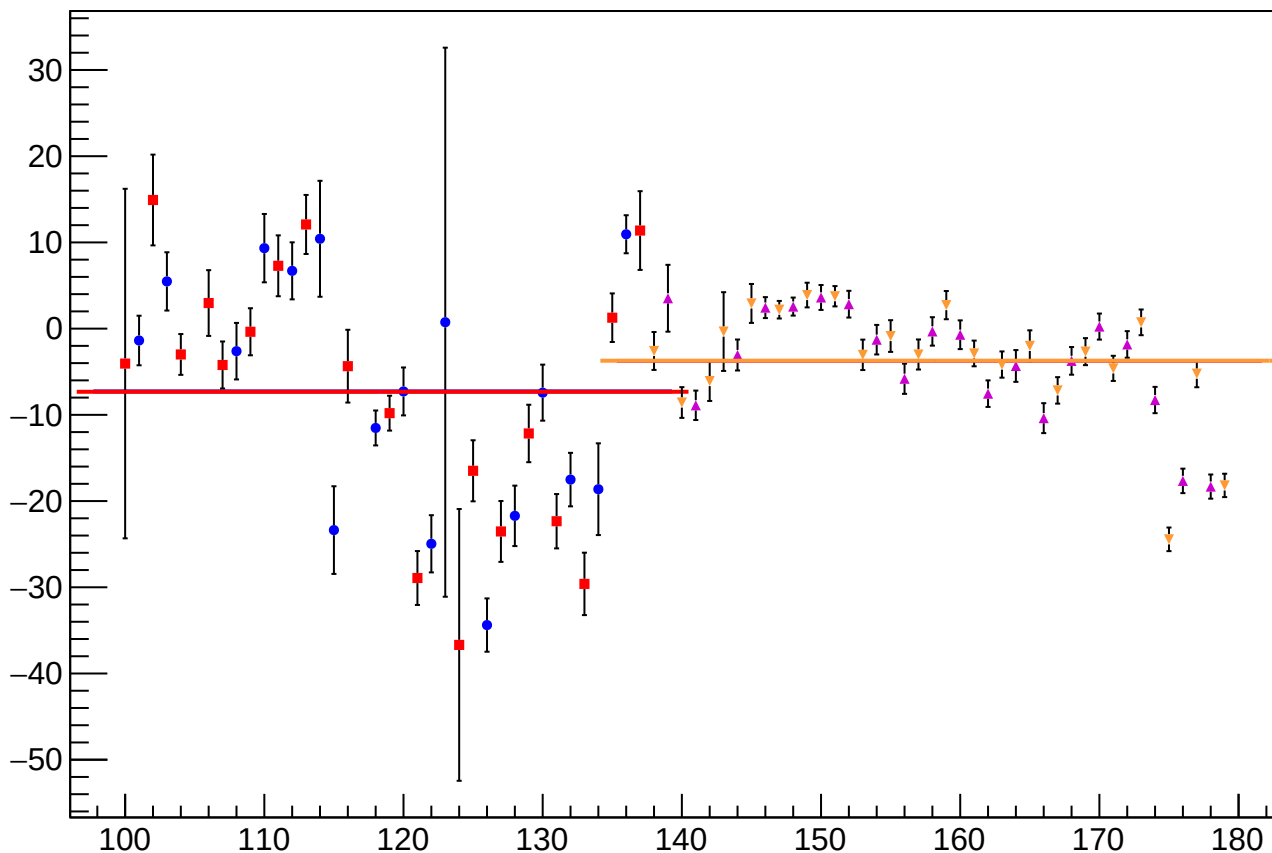
reg\_asym\_at2\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 25.722 $\pm$ 0.448  $\chi^2$ /NDF:4131.8/21  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 27.248 $\pm$ 0.456  $\chi^2$ /NDF:2263.8/19

Left: 26.472 $\pm$ 0.319  $\chi^2$ /NDF: 6401.3/41  
 Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 In: 27.248 $\pm$ 0.456  $\chi^2$ /NDF:2263.8/19  
 Out: 25.722 $\pm$ 0.448  $\chi^2$ /NDF:4131.8/21  
 All: 26.472 $\pm$ 0.319  $\chi^2$ /NDF: 6401.3/41

reg\_asym\_at2\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-7.284 \pm 0.789$   $\chi^2/\text{NDF}$ : 283.2/16

Left Out:  $-3.722 \pm 0.336$   $\chi^2/\text{NDF}$ : 498.3/21

Right Out:  $-7.323 \pm 0.761$   $\chi^2/\text{NDF}$ : 255.3/18

Left In:  $-3.750 \pm 0.346$   $\chi^2/\text{NDF}$ : 372.5/19

Left:  $-3.736 \pm 0.241$   $\chi^2/\text{NDF}$ : 870.8/41

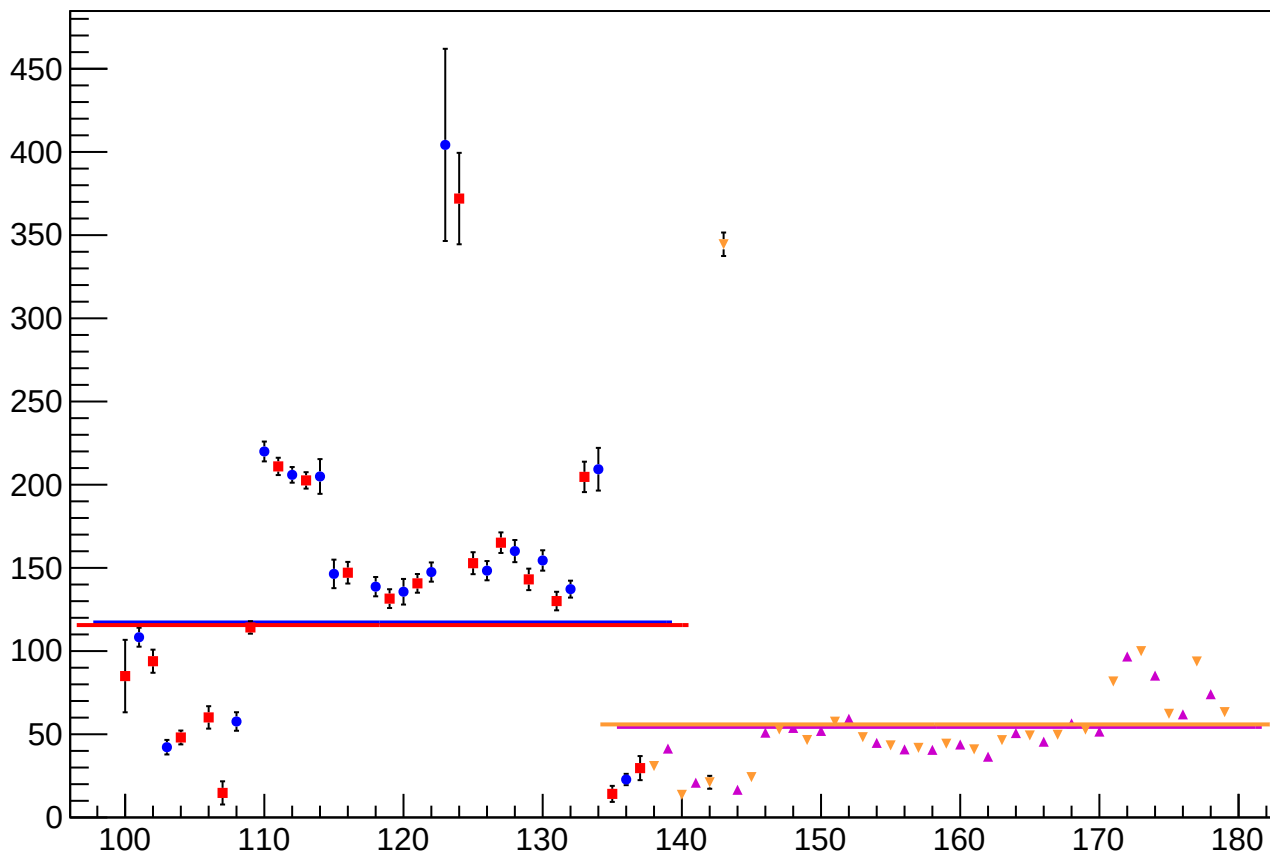
Right:  $-7.304 \pm 0.548$   $\chi^2/\text{NDF}$ : 538.5/35

In:  $-4.322 \pm 0.317$   $\chi^2/\text{NDF}$ : 672.6/36

Out:  $-4.309 \pm 0.307$   $\chi^2/\text{NDF}$ : 772.3/40

All:  $-4.315 \pm 0.221$   $\chi^2/\text{NDF}$ : 1444.9/77

reg\_asym\_at2\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 117.187 $\pm$ 1.416  $\chi^2$ /NDF: 2161.0/16

Left Out: 55.924 $\pm$ 0.442  $\chi^2$ /NDF:3685.9/21

Right Out: 115.632 $\pm$ 1.361  $\chi^2$ /NDF: 2137.6/18

Left In: 54.447 $\pm$ 0.451  $\chi^2$ /NDF:1538.3/19

Left: 55.200 $\pm$ 0.316  $\chi^2$ /NDF: 5229.7/41

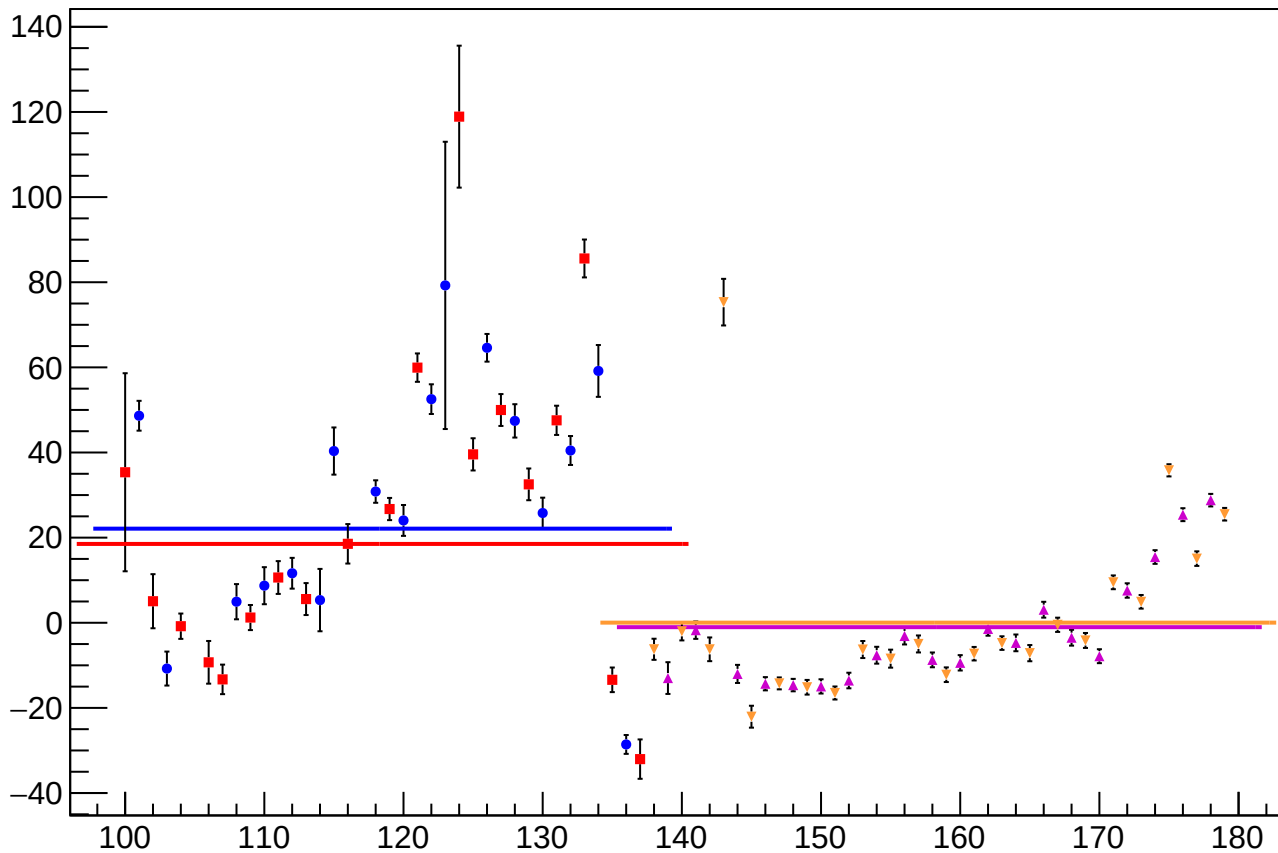
Right: 116.378 $\pm$ 0.981  $\chi^2$ /NDF: 4299.2/35

In: 60.213 $\pm$ 0.429  $\chi^2$ /NDF:5481.2/36

Out: 61.623 $\pm$ 0.420  $\chi^2$ /NDF:7564.4/40

All: 60.933 $\pm$ 0.300  $\chi^2$ /NDF: 13051.0/77

# reg\_asym\_at2\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 22.110 $\pm$ 0.898  $\chi^2$ /NDF: 1070.3/16

Left Out: 0.033 $\pm$ 0.383  $\chi^2$ /NDF:1743.1/21

Right Out: 18.521 $\pm$ 0.871  $\chi^2$ /NDF: 1068.6/18

Left In: -1.035 $\pm$ 0.394  $\chi^2$ /NDF:1234.6/19

Left: -0.486 $\pm$ 0.275  $\chi^2$ /NDF: 2981.5/41

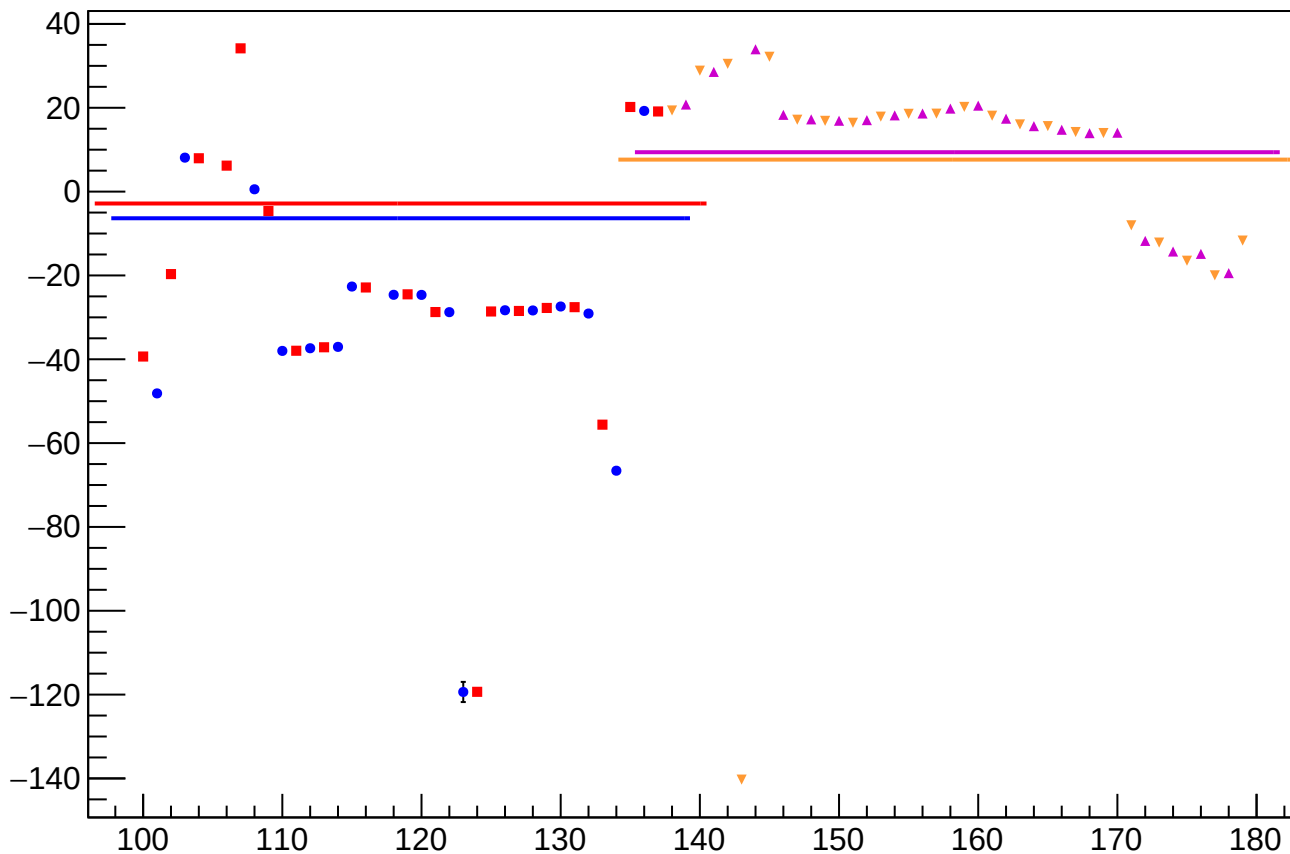
Right: 20.261 $\pm$ 0.625  $\chi^2$ /NDF: 2147.1/35

In: 2.702 $\pm$ 0.361  $\chi^2$ /NDF:2861.7/36

Out: 3.026 $\pm$ 0.351  $\chi^2$ /NDF:3189.2/40

All: 2.869 $\pm$ 0.251  $\chi^2$ /NDF: 6051.3/77

reg\_asym\_at2\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -6.360 $\pm$ 0.046  $\chi^2/\text{NDF}$ : 264750.9/16

Left Out: 7.634 $\pm$ 0.018  $\chi^2/\text{NDF}$ :1049258.1/21

Right Out: -2.837 $\pm$ 0.046  $\chi^2/\text{NDF}$ : 265573.0/18

Left In: 9.401 $\pm$ 0.018  $\chi^2/\text{NDF}$ :726857.5/19

Left: 8.508 $\pm$ 0.013  $\chi^2/\text{NDF}$ : 1781061.9/41

Right: -4.577 $\pm$ 0.033  $\chi^2/\text{NDF}$ : 533252.4/35

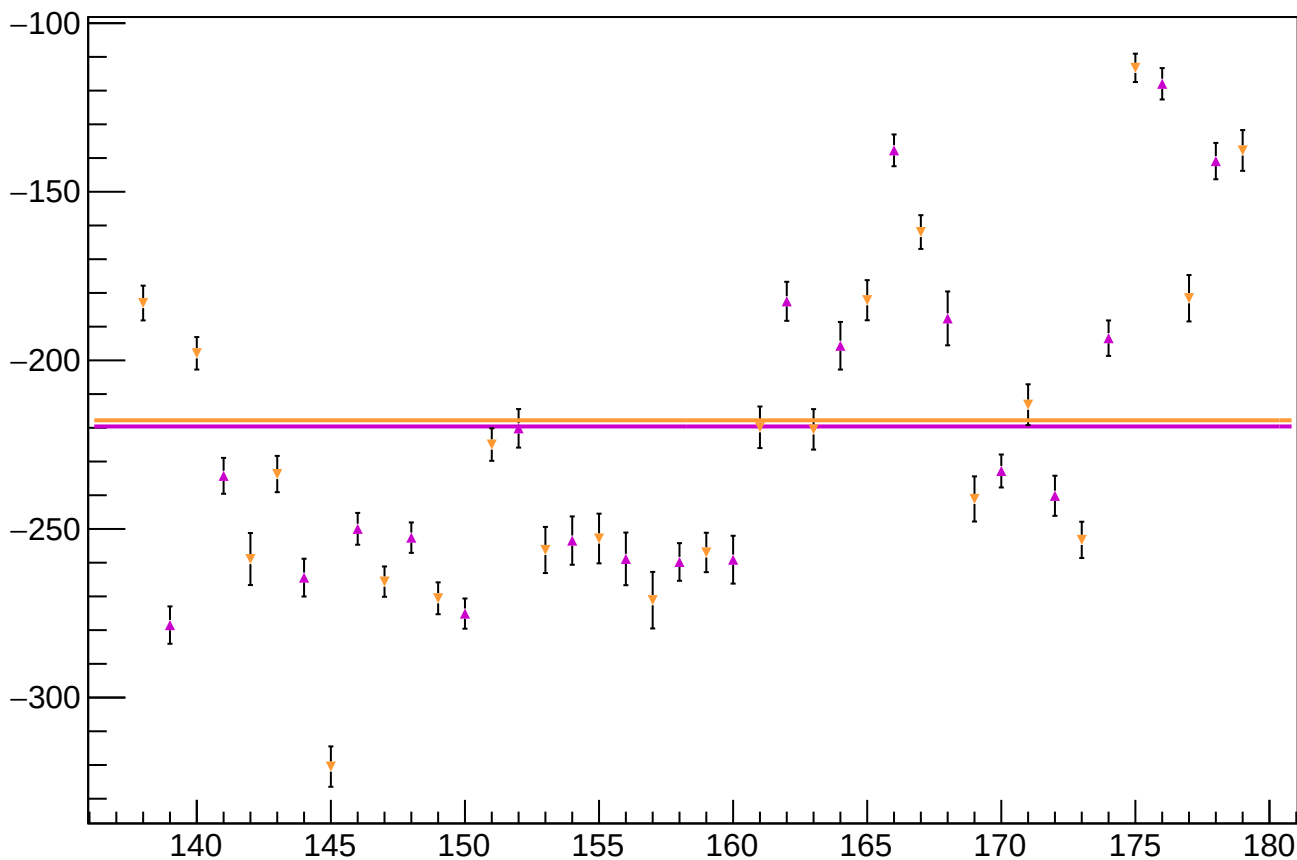
In: 7.361 $\pm$ 0.017  $\chi^2/\text{NDF}$ :1092428.3/36

Out: 6.275 $\pm$ 0.016  $\chi^2/\text{NDF}$ :1360429.1/40

All: 6.812 $\pm$ 0.012  $\chi^2/\text{NDF}$ : 2455004.1/77



reg\_asym\_atl1r2\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -217.779+/-1.202  $\chi^2/\text{NDF}$ :1810.4/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -219.603+/-1.231  $\chi^2/\text{NDF}$ :1668.5/19

Left: -218.669+/-0.860  $\chi^2/\text{NDF}$ : 3480.0/41

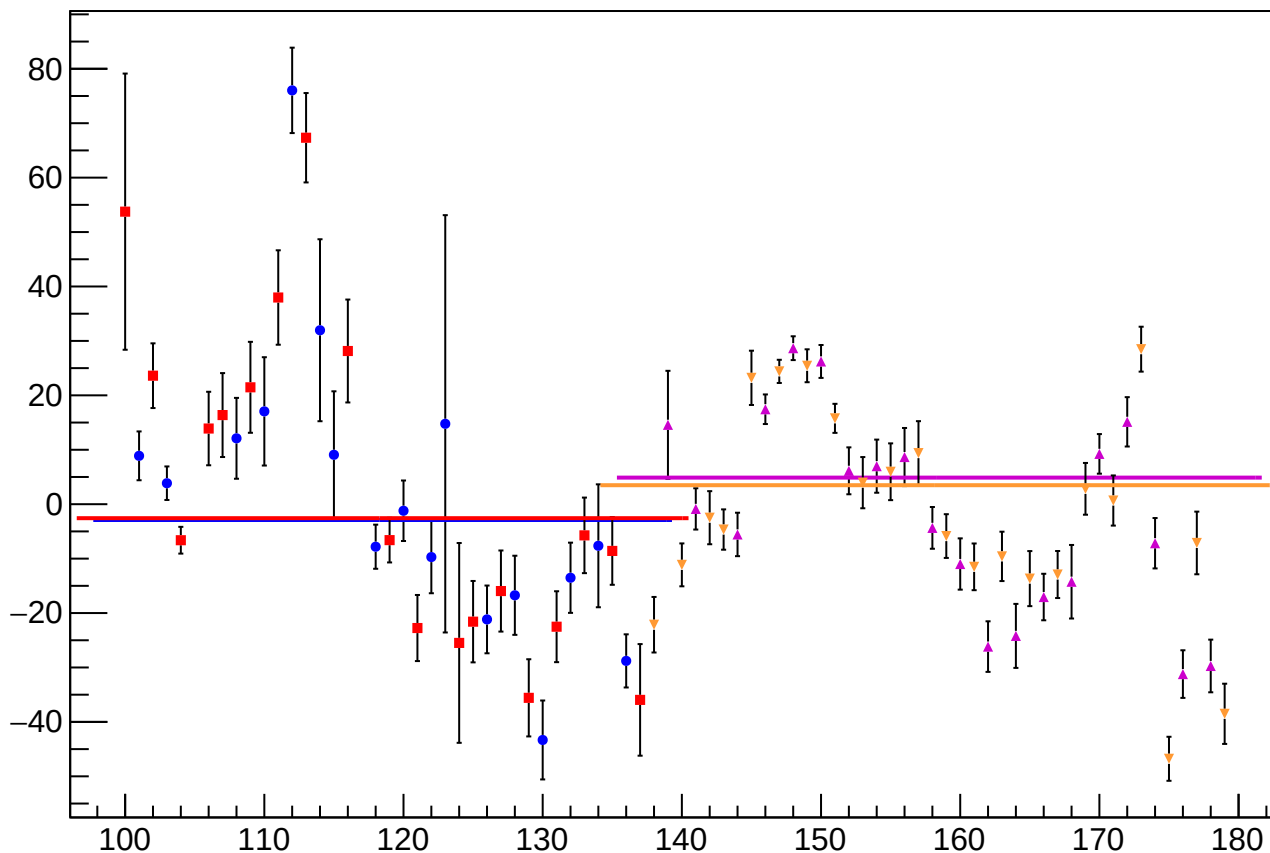
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -219.603+/-1.231  $\chi^2/\text{NDF}$ :1668.5/19

Out: -217.779+/-1.202  $\chi^2/\text{NDF}$ :1810.4/21

All: -218.669+/-0.860  $\chi^2/\text{NDF}$ : 3480.0/41

reg\_asym\_atl1r2\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-2.901 \pm 1.467$   $\chi^2/\text{NDF}$ : 203.6/16

Left Out:  $3.489 \pm 0.854$   $\chi^2/\text{NDF}$ : 536.9/21

Right Out:  $-2.570 \pm 1.396$   $\chi^2/\text{NDF}$ : 218.2/18

Left In:  $4.883 \pm 0.892$   $\chi^2/\text{NDF}$ : 453.6/19

Left:  $4.156 \pm 0.617$   $\chi^2/\text{NDF}$ : 991.9/41

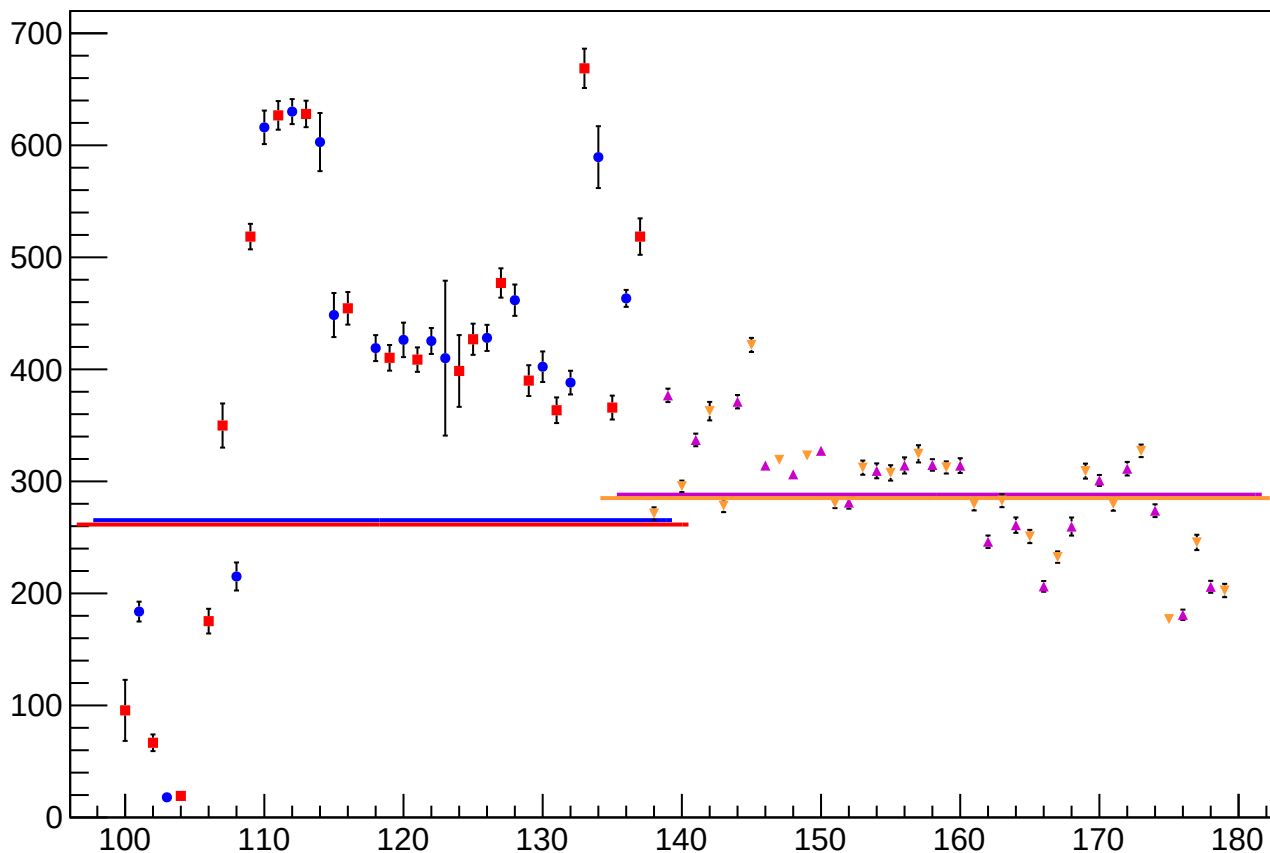
Right:  $-2.728 \pm 1.011$   $\chi^2/\text{NDF}$ : 421.8/35

In:  $2.784 \pm 0.762$   $\chi^2/\text{NDF}$ : 677.8/36

Out:  $1.839 \pm 0.729$   $\chi^2/\text{NDF}$ : 768.9/40

All:  $2.291 \pm 0.527$   $\chi^2/\text{NDF}$ : 1447.4/77

reg\_asym\_atl1r2\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 265.369+/-2.488  $\chi^2/\text{NDF}$ : 7633.8/16

Left Out: 285.076+/-1.191  $\chi^2/\text{NDF}$ :1892.4/21

Right Out: 261.465+/-2.458  $\chi^2/\text{NDF}$ : 8204.3/18

Left In: 288.161+/-1.214  $\chi^2/\text{NDF}$ :1872.5/19

Left: 286.588+/-0.850  $\chi^2/\text{NDF}$ : 3768.1/41

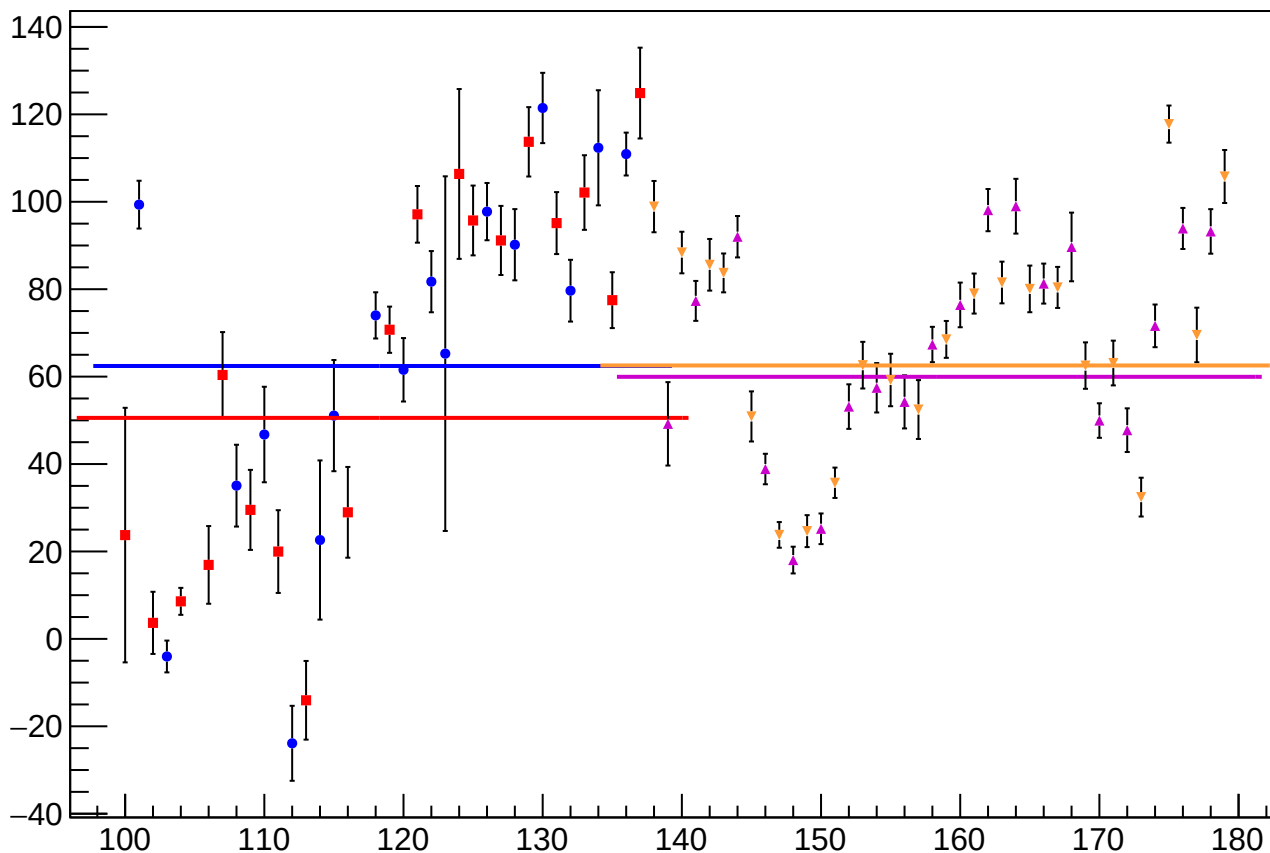
Right: 263.393+/-1.749  $\chi^2/\text{NDF}$ : 15839.3/35

In: 283.777+/-1.091  $\chi^2/\text{NDF}$ :9574.0/36

Out: 280.588+/-1.072  $\chi^2/\text{NDF}$ :10171.4/40

All: 282.153+/-0.765  $\chi^2/\text{NDF}$ : 19749.8/77

reg\_asym\_atl1r2\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 62.434+/-1.694  $\chi^2/\text{NDF}$ : 721.8/16

Left Out: 62.552+/-0.999  $\chi^2/\text{NDF}$ : 776.9/21

Right Out: 50.560+/-1.642  $\chi^2/\text{NDF}$ : 657.4/18

Left In: 59.957+/-1.036  $\chi^2/\text{NDF}$ : 650.9/19

Left: 61.301+/-0.719  $\chi^2/\text{NDF}$ : 1431.1/41

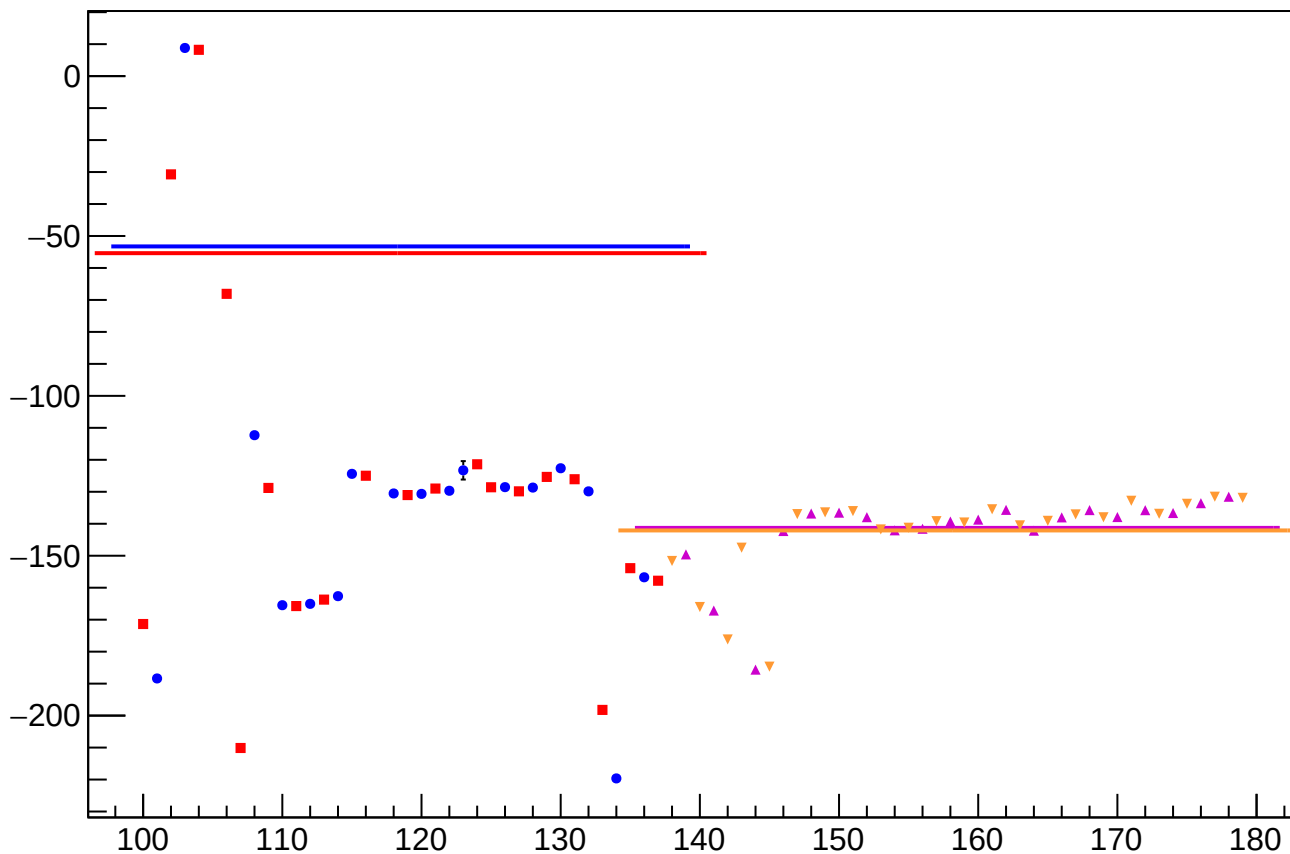
Right: 56.313+/-1.179  $\chi^2/\text{NDF}$ : 1404.5/35

In: 60.631+/-0.884  $\chi^2/\text{NDF}$ : 1374.3/36

Out: 59.313+/-0.853  $\chi^2/\text{NDF}$ : 1473.2/40

All: 59.949+/-0.614  $\chi^2/\text{NDF}$ : 2848.7/77

reg\_asym\_atl1r2\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $-53.264 \pm 0.070$   $\chi^2/\text{NDF}: 1225492.9/16$

Left Out:  $-142.090 \pm 0.048$   $\chi^2/\text{NDF}: 65535.1/21$

Right Out:  $-55.373 \pm 0.072$   $\chi^2/\text{NDF}: 967027.2/18$

Left In:  $-141.295 \pm 0.049$   $\chi^2/\text{NDF}: 50226.7/19$

Left:  $-141.697 \pm 0.034$   $\chi^2/\text{NDF}: 115897.1/41$

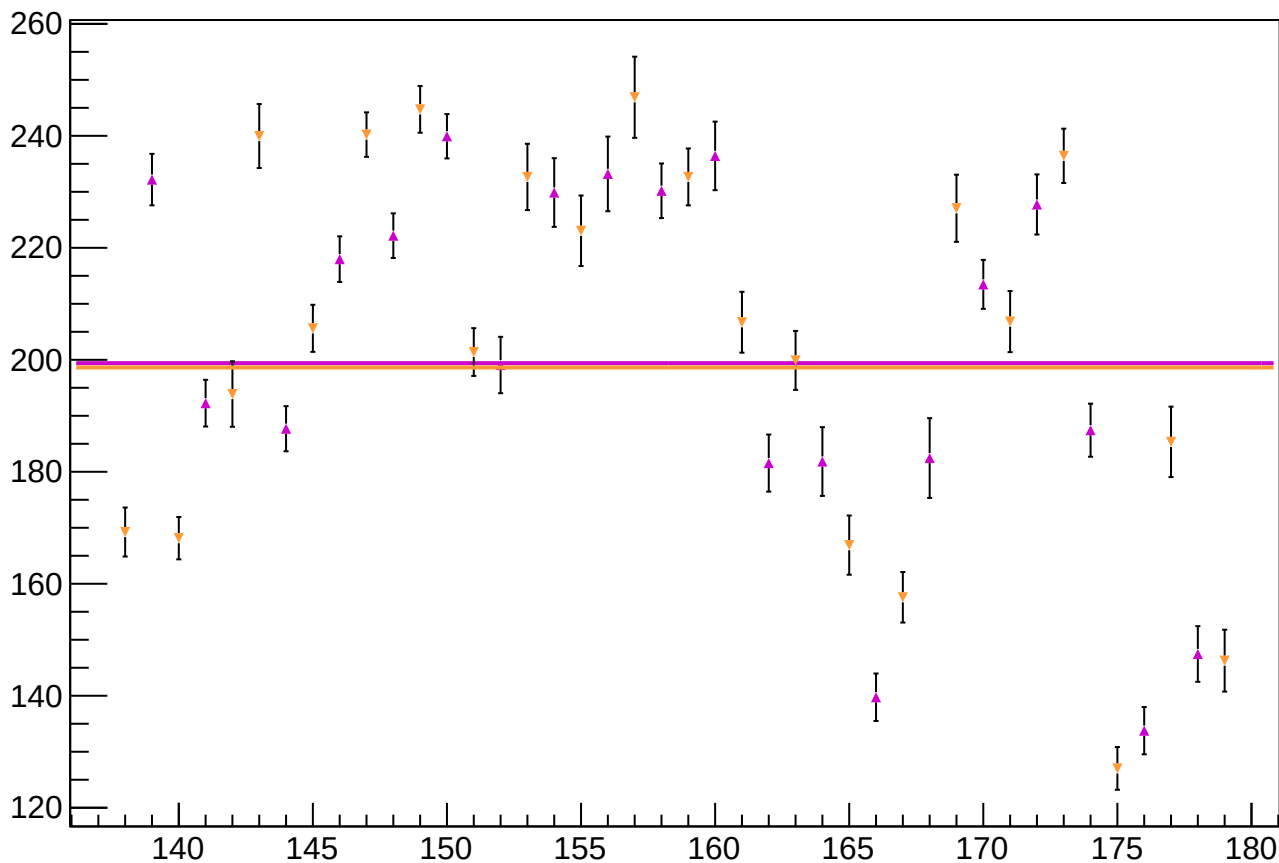
Right:  $-54.295 \pm 0.050$   $\chi^2/\text{NDF}: 2192958.9/35$

In:  $-112.899 \pm 0.040$   $\chi^2/\text{NDF}: 2334601.5/36$

Out:  $-115.326 \pm 0.040$   $\chi^2/\text{NDF}: 2036827.1/40$

All:  $-114.113 \pm 0.028$   $\chi^2/\text{NDF}: 4373271.3/77$

reg\_asym\_atl1r2\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 198.625+/-1.047  $\chi^2/\text{NDF}$ :1187.8/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 199.398+/-1.067  $\chi^2/\text{NDF}$ :966.9/19

Left: 199.004+/-0.747  $\chi^2/\text{NDF}$ : 2155.0/41

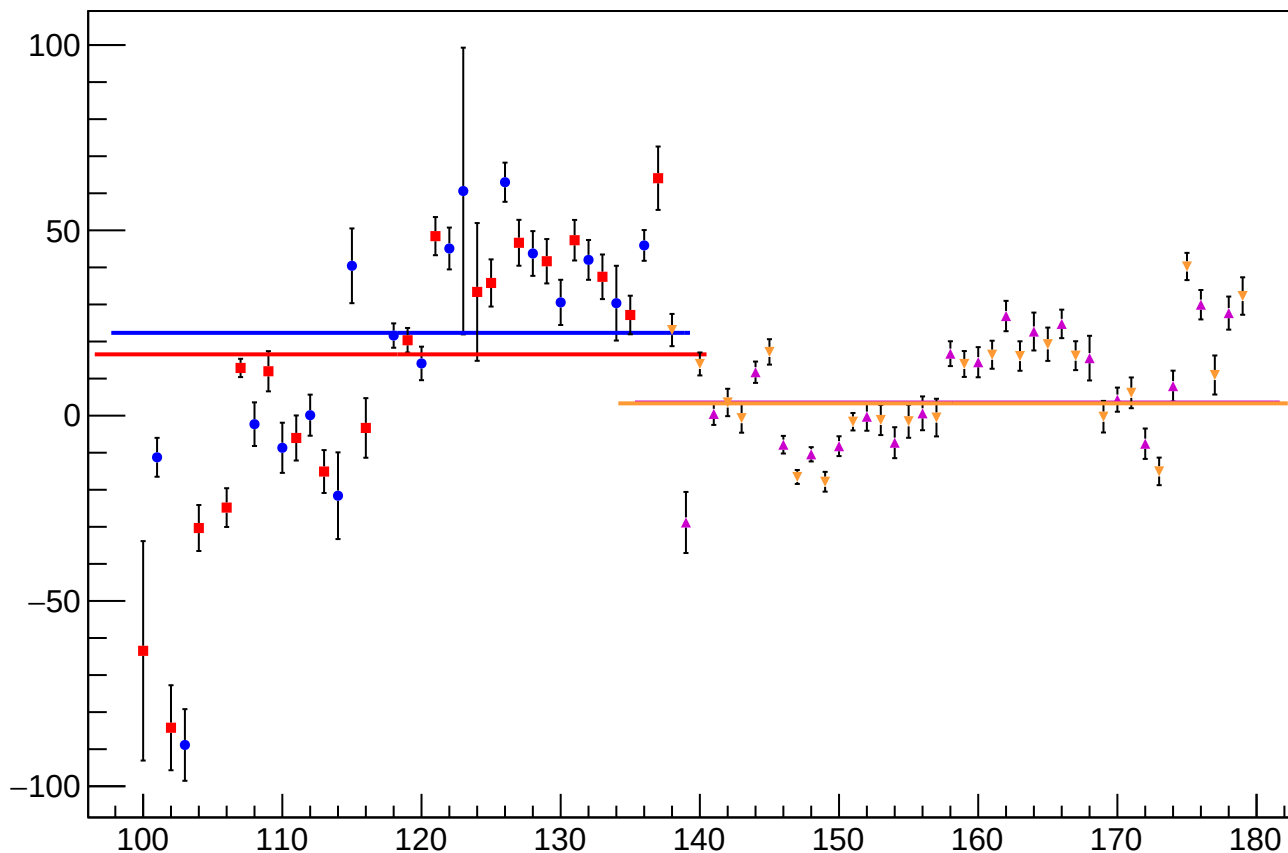
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 199.398+/-1.067  $\chi^2/\text{NDF}$ :966.9/19

Out: 198.625+/-1.047  $\chi^2/\text{NDF}$ :1187.8/21

All: 199.004+/-0.747  $\chi^2/\text{NDF}$ : 2155.0/41

reg\_asym\_atl1r2\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $22.342 \pm 1.395$   $\chi^2/\text{NDF}$ : 385.8/16

Left Out:  $3.313 \pm 0.746$   $\chi^2/\text{NDF}$ : 447.8/21

Right Out:  $16.537 \pm 1.227$   $\chi^2/\text{NDF}$ : 426.6/18

Left In:  $3.540 \pm 0.772$   $\chi^2/\text{NDF}$ : 312.9/19

Left:  $3.422 \pm 0.537$   $\chi^2/\text{NDF}$ : 760.8/41

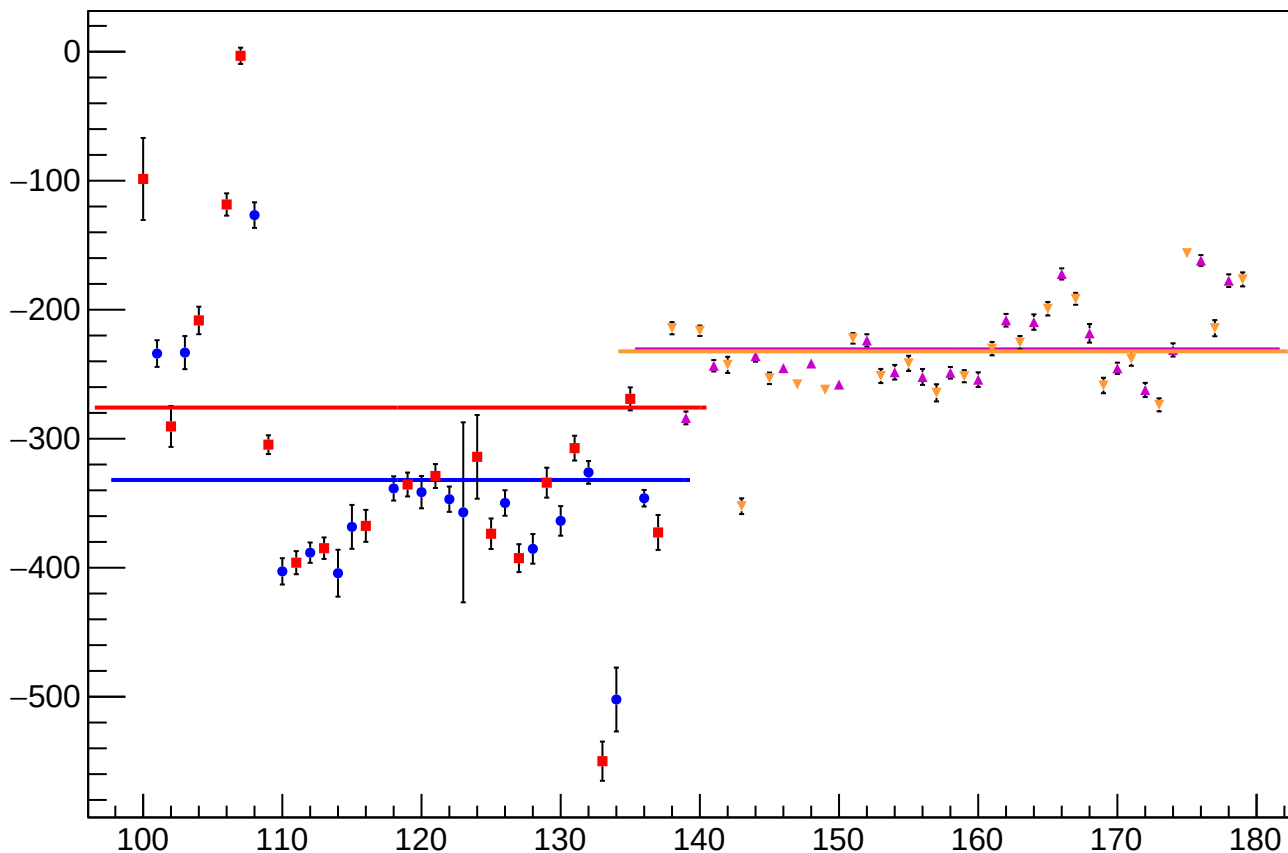
Right:  $19.069 \pm 0.922$   $\chi^2/\text{NDF}$ : 822.2/35

In:  $7.951 \pm 0.676$   $\chi^2/\text{NDF}$ : 837.8/36

Out:  $6.881 \pm 0.638$   $\chi^2/\text{NDF}$ : 959.2/40

All:  $7.385 \pm 0.464$   $\chi^2/\text{NDF}$ : 1798.2/77

reg\_asym\_atl1r2\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: -331.989 $\pm$ 2.580  $\chi^2$ /NDF: 785.0/16

Left Out: -232.273 $\pm$ 1.040  $\chi^2$ /NDF:1328.2/21

Right Out: -275.842 $\pm$ 2.325  $\chi^2$ /NDF: 3362.2/18

Left In: -230.755 $\pm$ 1.054  $\chi^2$ /NDF:909.9/19

Left: -231.525 $\pm$ 0.740  $\chi^2$ /NDF: 2239.1/41

Right: -300.997 $\pm$ 1.727  $\chi^2$ /NDF: 4408.6/35

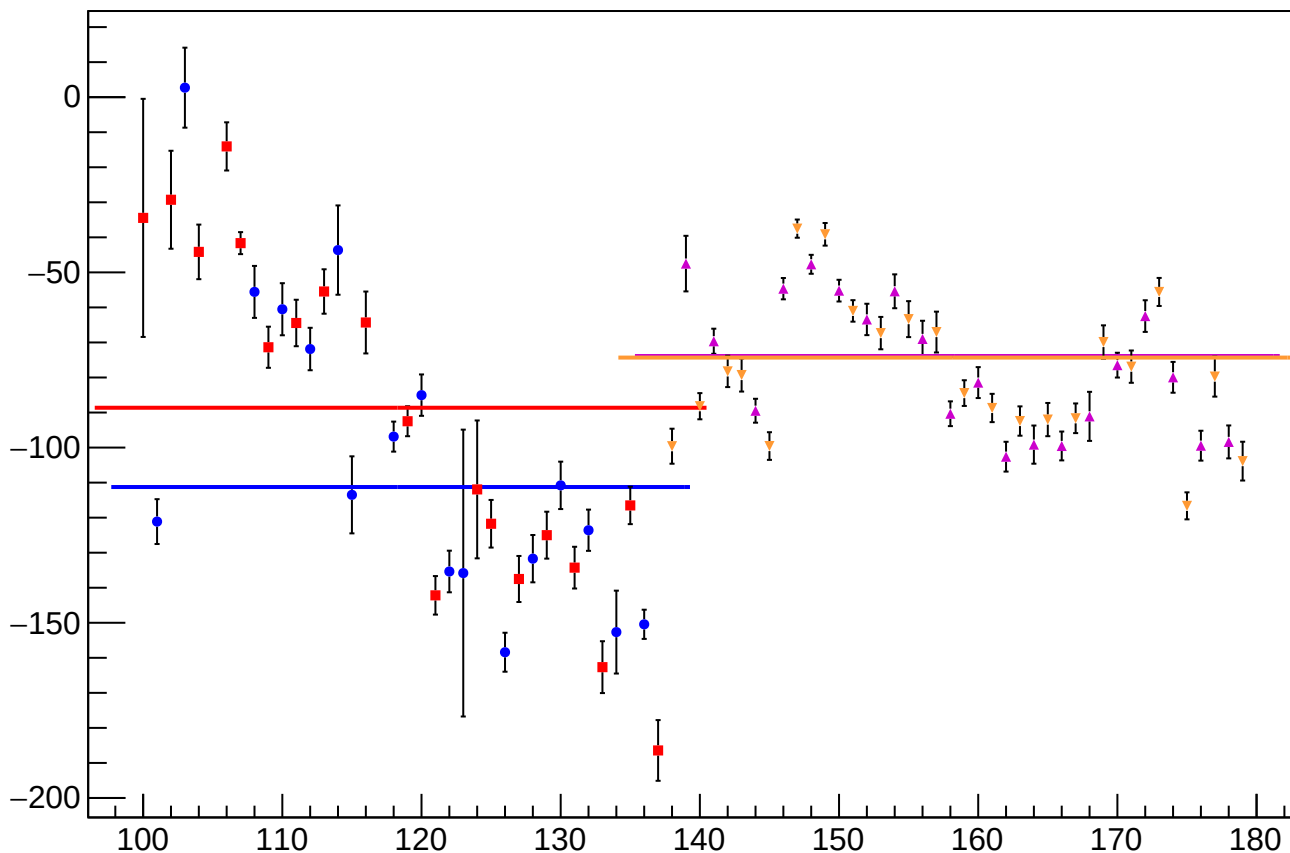
In: -245.239 $\pm$ 0.976  $\chi^2$ /NDF:3013.9/36

Out: -239.536 $\pm$ 0.949  $\chi^2$ /NDF:4983.1/40

All: -242.308 $\pm$ 0.680  $\chi^2$ /NDF: 8014.6/77



reg\_asym\_atl1r2\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-111.257 \pm 1.597$   $\chi^2/\text{NDF}$ : 509.6/16

Left Out:  $-74.317 \pm 0.873$   $\chi^2/\text{NDF}$ : 671.7/21

Right Out:  $-88.633 \pm 1.433$   $\chi^2/\text{NDF}$ : 971.0/18

Left In:  $-73.864 \pm 0.898$   $\chi^2/\text{NDF}$ : 433.2/19

Left:  $-74.097 \pm 0.626$   $\chi^2/\text{NDF}$ : 1105.0/41

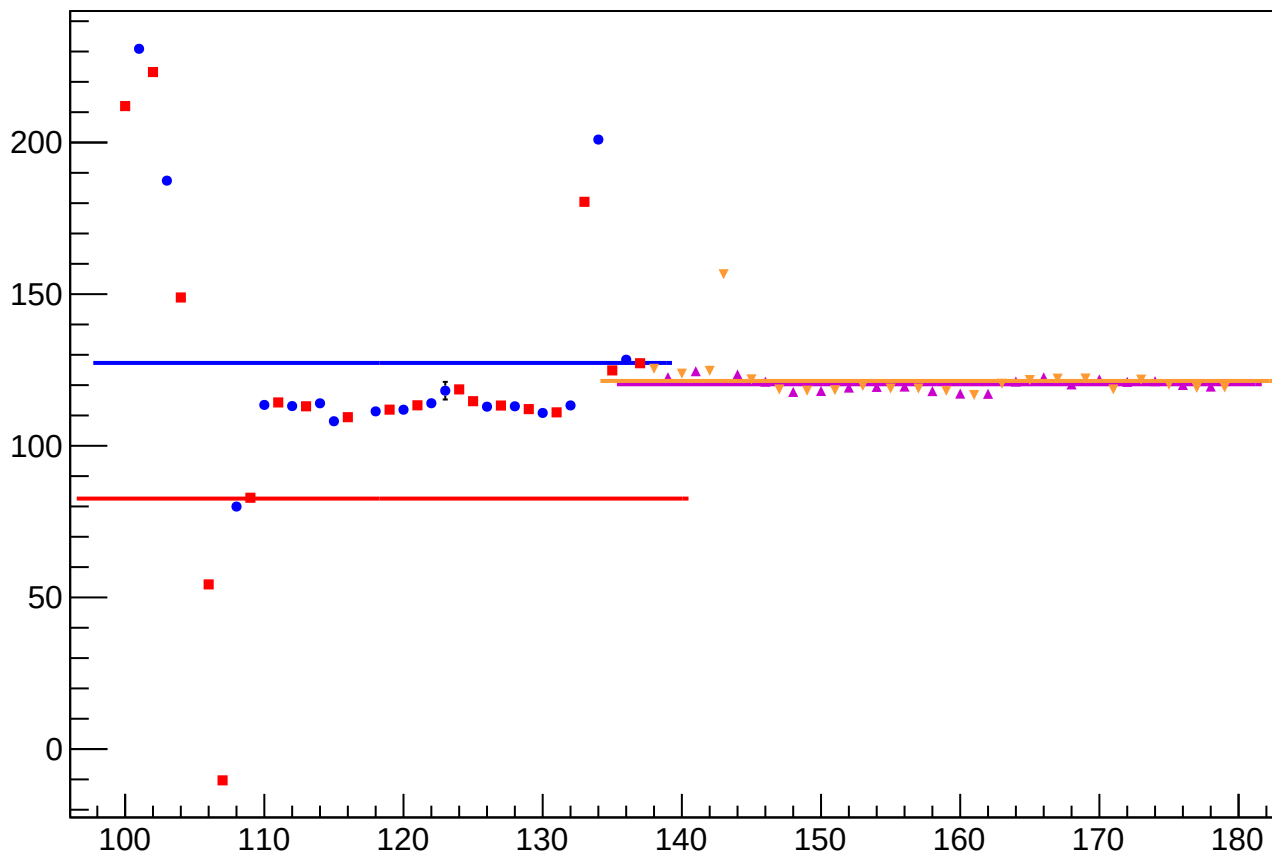
Right:  $-98.723 \pm 1.067$   $\chi^2/\text{NDF}$ : 1591.7/35

In:  $-82.848 \pm 0.783$   $\chi^2/\text{NDF}$ : 1359.2/36

Out:  $-78.191 \pm 0.745$   $\chi^2/\text{NDF}$ : 1715.4/40

All:  $-80.405 \pm 0.540$   $\chi^2/\text{NDF}$ : 3093.2/77

reg\_asym\_atl1r2\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 127.323+/-0.089  $\chi^2/\text{NDF}$ : 187776.4/16

Left Out: 121.385+/-0.042  $\chi^2/\text{NDF}$ : 24163.8/21

Right Out: 82.595+/-0.075  $\chi^2/\text{NDF}$ : 765022.5/18

Left In: 120.283+/-0.042  $\chi^2/\text{NDF}$ : 2575.3/19

Left: 120.837+/-0.030  $\chi^2/\text{NDF}$ : 27082.8/41

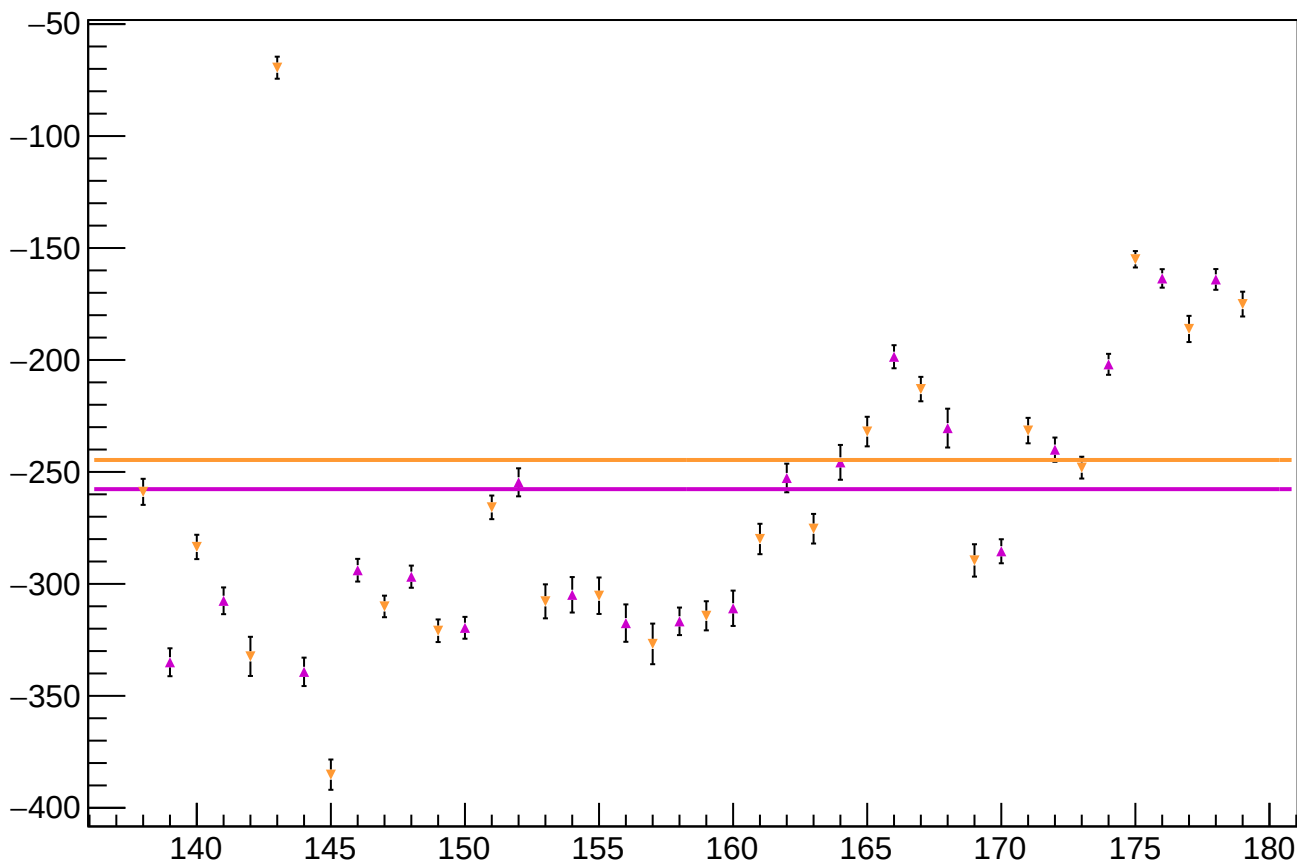
Right: 101.169+/-0.058  $\chi^2/\text{NDF}$ : 1099026.8/35

In: 121.563+/-0.038  $\chi^2/\text{NDF}$ : 195420.1/36

Out: 112.222+/-0.037  $\chi^2/\text{NDF}$ : 991469.9/40

All: 116.704+/-0.026  $\chi^2/\text{NDF}$ : 1218090.1/77

reg\_asym\_atr1l2\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -244.657+/-1.235  $\chi^2/\text{NDF}$ :3591.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -257.684+/-1.280  $\chi^2/\text{NDF}$ :2139.3/19

Left: -250.938+/-0.889  $\chi^2/\text{NDF}$ : 5784.8/41

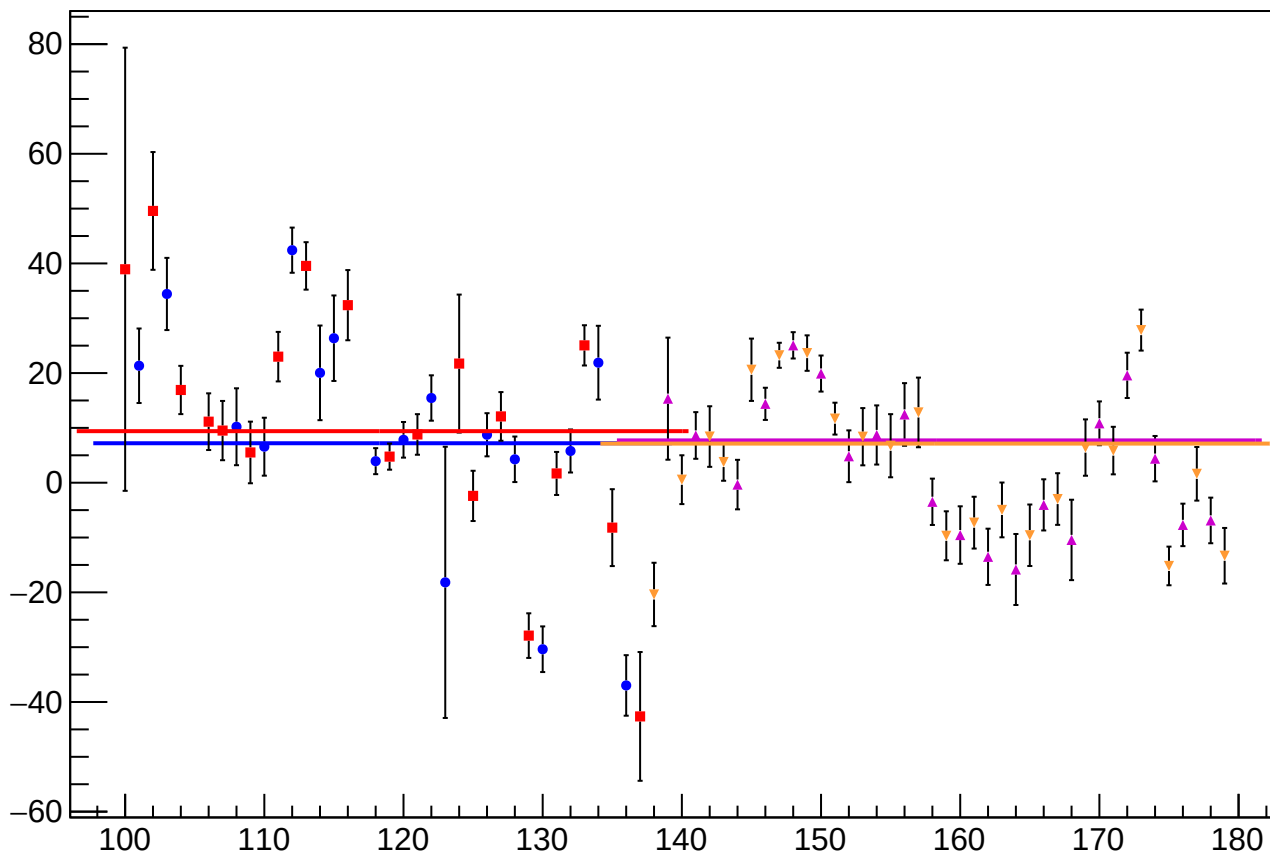
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -257.684+/-1.280  $\chi^2/\text{NDF}$ :2139.3/19

Out: -244.657+/-1.235  $\chi^2/\text{NDF}$ :3591.9/21

All: -250.938+/-0.889  $\chi^2/\text{NDF}$ : 5784.8/41

reg\_asym\_atr1l2\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 7.199 $\pm$ 1.103  $\chi^2$ /NDF: 260.9/16

Left Out: 7.135 $\pm$ 0.890  $\chi^2$ /NDF:241.9/21

Right Out: 9.403 $\pm$ 1.071  $\chi^2$ /NDF: 232.2/18

Left In: 7.716 $\pm$ 0.942  $\chi^2$ /NDF:174.2/19

Left: 7.409 $\pm$ 0.647  $\chi^2$ /NDF: 416.3/41

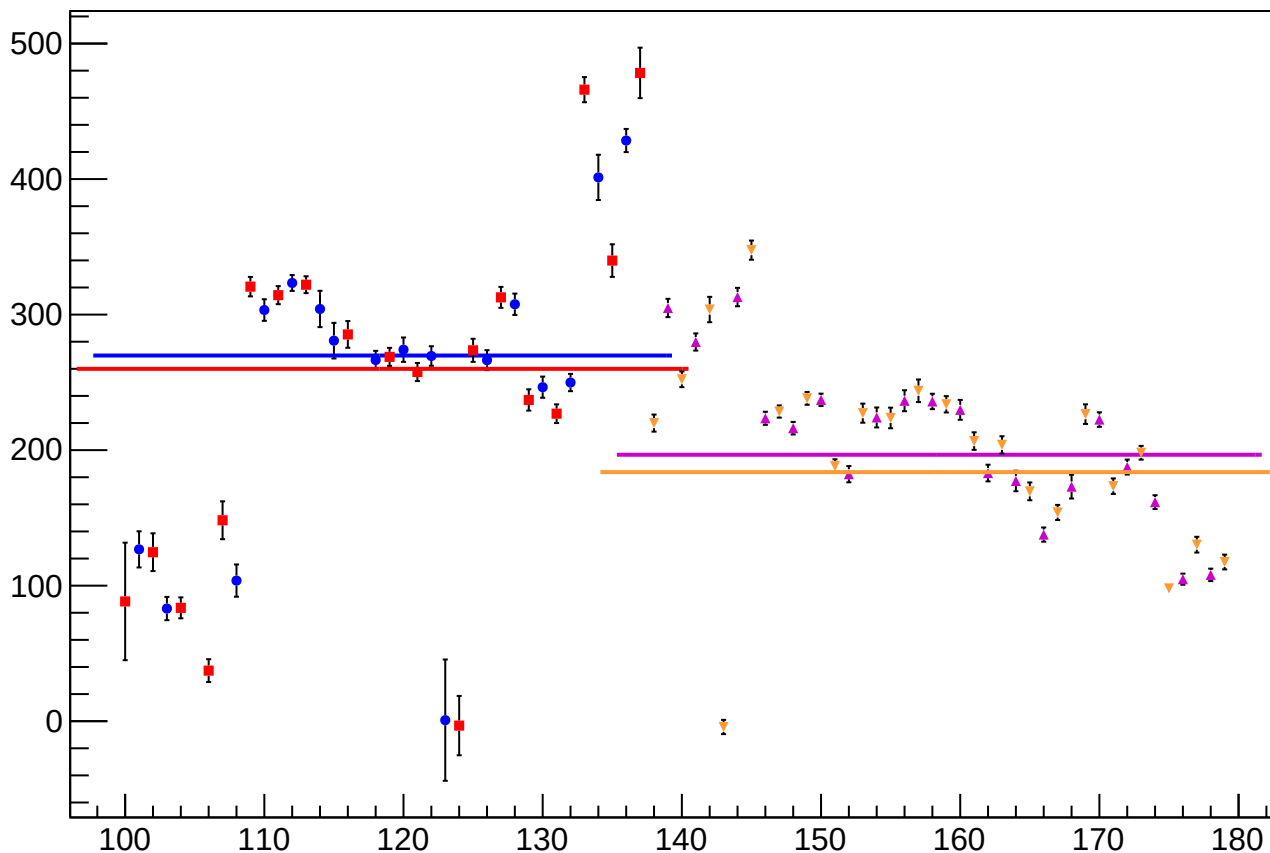
Right: 8.333 $\pm$ 0.768  $\chi^2$ /NDF: 495.1/35

In: 7.498 $\pm$ 0.716  $\chi^2$ /NDF:435.2/36

Out: 8.061 $\pm$ 0.685  $\chi^2$ /NDF:476.7/40

All: 7.792 $\pm$ 0.495  $\chi^2$ /NDF: 912.2/77

reg\_asym\_atr1l2\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 269.806 $\pm$ 2.089  $\chi^2$ /NDF: 1374.1/16

Left Out: 183.781 $\pm$ 1.225  $\chi^2$ /NDF:3456.0/21

Right Out: 259.980 $\pm$ 1.977  $\chi^2$ /NDF: 2538.6/18

Left In: 196.594 $\pm$ 1.265  $\chi^2$ /NDF:2058.4/19

Left: 189.982 $\pm$ 0.880  $\chi^2$ /NDF: 5567.3/41

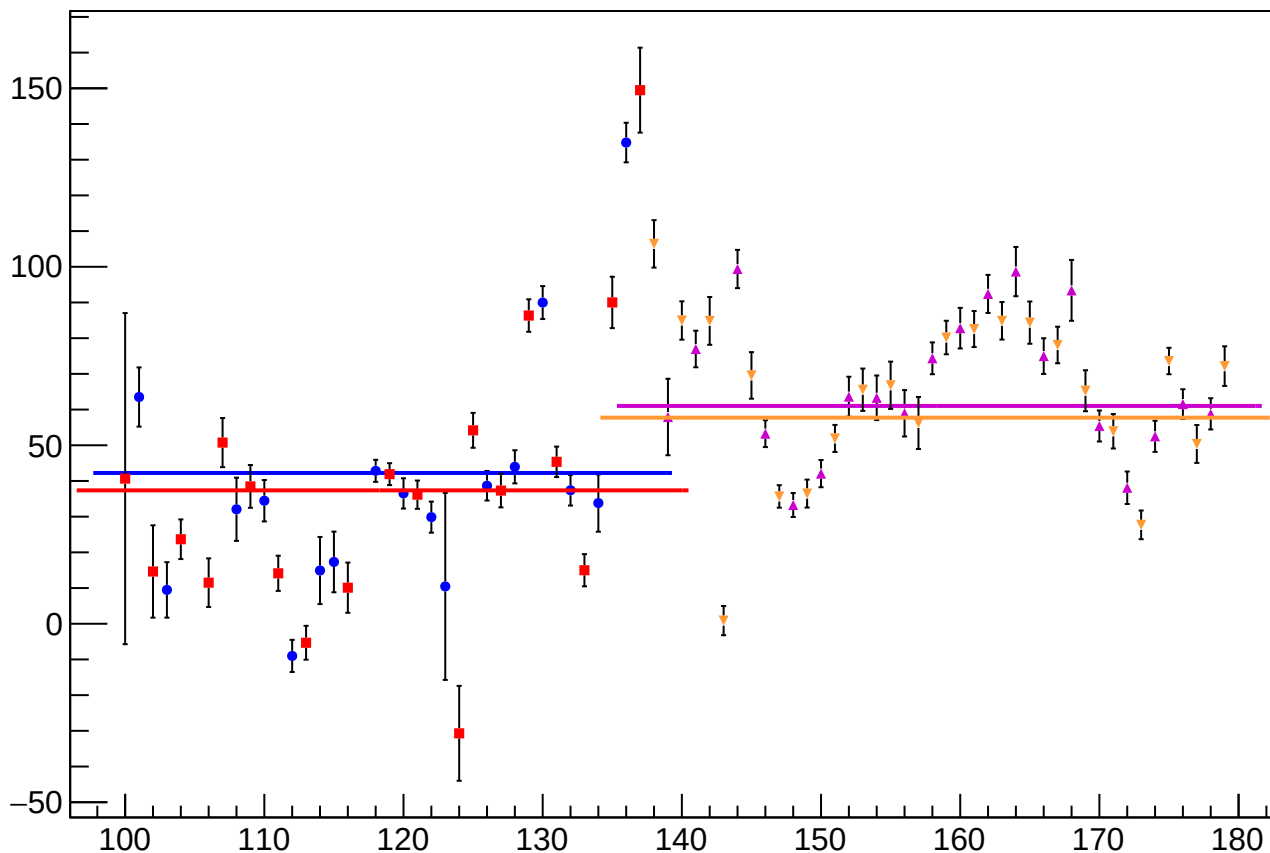
Right: 264.622 $\pm$ 1.436  $\chi^2$ /NDF: 3924.4/35

In: 216.244 $\pm$ 1.082  $\chi^2$ /NDF:4331.0/36

Out: 204.933 $\pm$ 1.042  $\chi^2$ /NDF:7067.9/40

All: 210.371 $\pm$ 0.750  $\chi^2$ /NDF: 11455.6/77

reg\_asym\_atr1l2\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 42.242 $\pm$ 1.274  $\chi^2$ /NDF: 574.4/16

Left Out: 57.735 $\pm$ 1.035  $\chi^2$ /NDF: 572.0/21

Right Out: 37.367 $\pm$ 1.235  $\chi^2$ /NDF: 472.3/18

Left In: 61.022 $\pm$ 1.087  $\chi^2$ /NDF: 300.2/19

Left: 59.298 $\pm$ 0.750  $\chi^2$ /NDF: 877.0/41

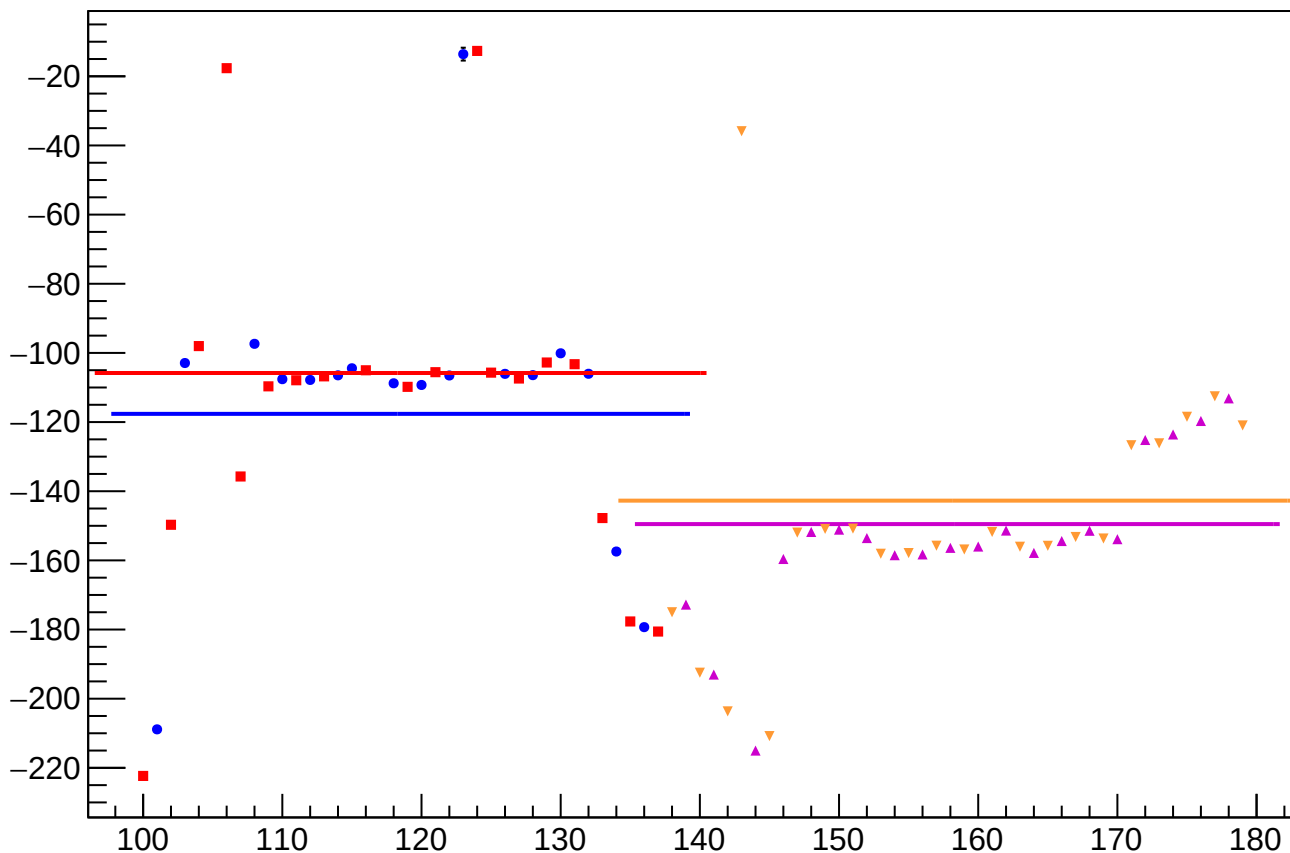
Right: 39.728 $\pm$ 0.886  $\chi^2$ /NDF: 1054.2/35

In: 53.106 $\pm$ 0.827  $\chi^2$ /NDF: 1000.4/36

Out: 49.324 $\pm$ 0.793  $\chi^2$ /NDF: 1204.1/40

All: 51.137 $\pm$ 0.572  $\chi^2$ /NDF: 2215.3/77

reg\_asym\_atr1l2\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -117.625+/-0.079  $\chi^2/\text{NDF}$ : 141872.3/16

Left Out: -142.723+/-0.050  $\chi^2/\text{NDF}$ : 485157.5/21

Right Out: -105.807+/-0.073  $\chi^2/\text{NDF}$ : 323108.1/18

Left In: -149.504+/-0.051  $\chi^2/\text{NDF}$ : 184543.4/19

Left: -146.036+/-0.036  $\chi^2/\text{NDF}$ : 678809.2/41

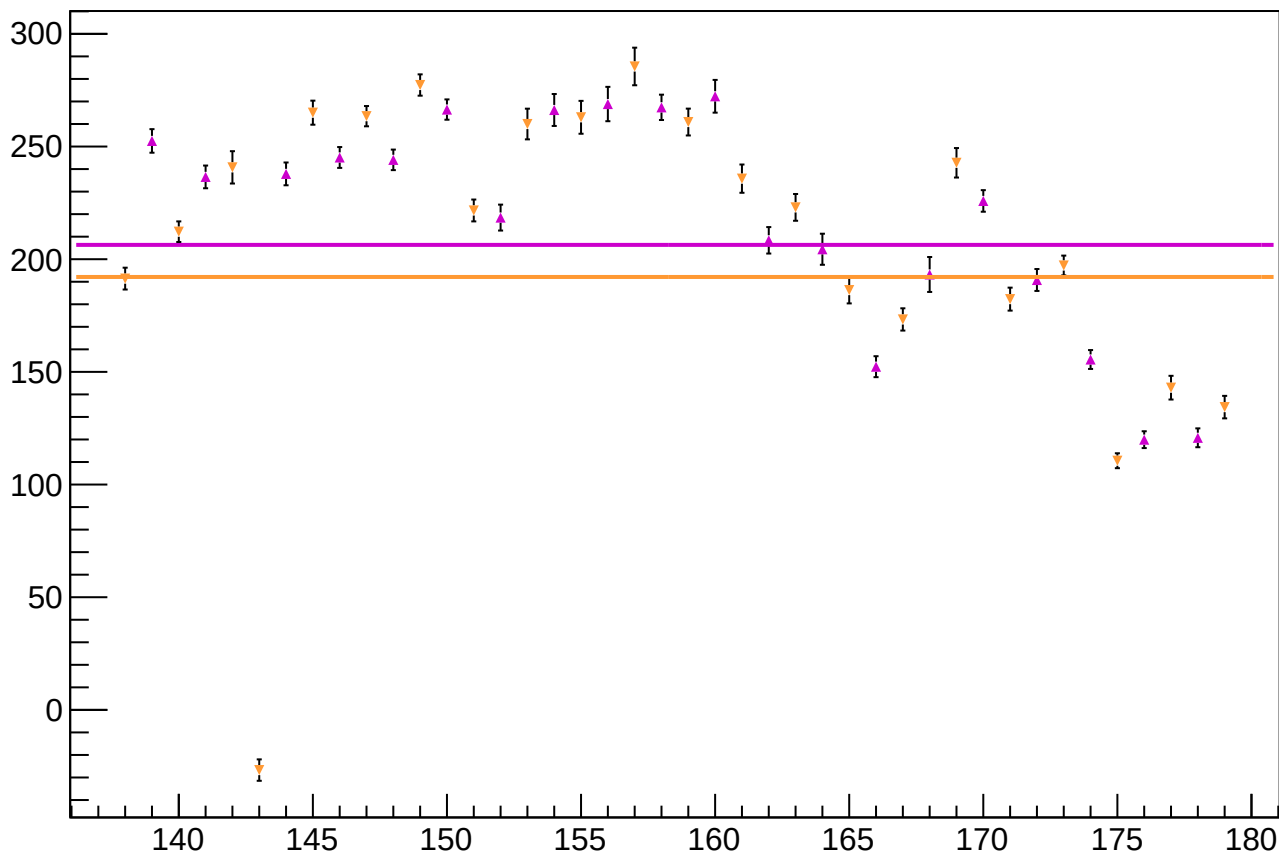
Right: -111.270+/-0.053  $\chi^2/\text{NDF}$ : 477157.6/35

In: -140.096+/-0.043  $\chi^2/\text{NDF}$ : 442583.5/36

Out: -131.000+/-0.041  $\chi^2/\text{NDF}$ : 983680.3/40

All: -135.371+/-0.030  $\chi^2/\text{NDF}$ : 1449880.2/77

reg\_asym\_atr1l2\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 192.119+/-1.109  $\chi^2/\text{NDF}$ :4419.1/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 206.356+/-1.146  $\chi^2/\text{NDF}$ :2080.0/19

Left: 199.005+/-0.797  $\chi^2/\text{NDF}$ : 6578.8/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

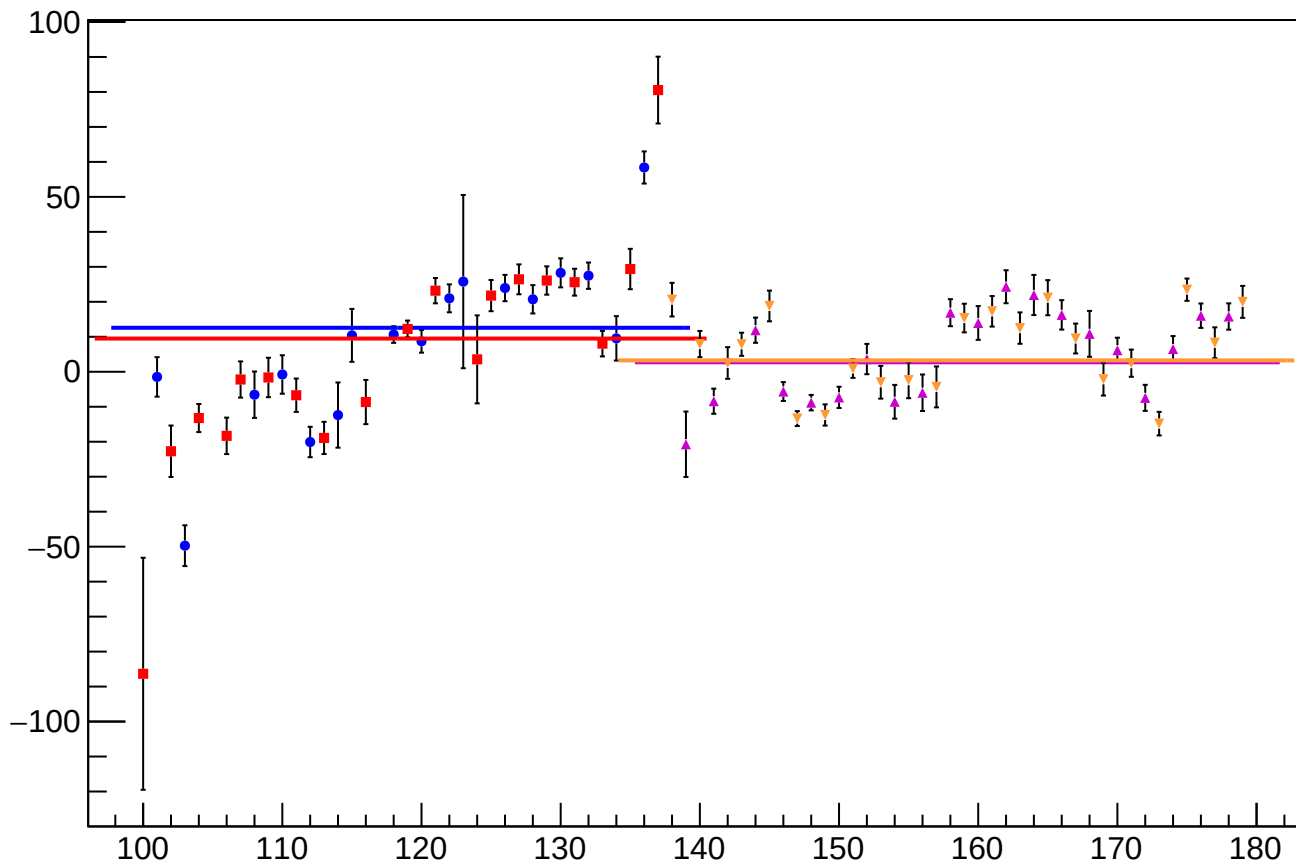
In: 206.356+/-1.146  $\chi^2/\text{NDF}$ :2080.0/19

Out: 192.119+/-1.109  $\chi^2/\text{NDF}$ :4419.1/21

All: 199.005+/-0.797  $\chi^2/\text{NDF}$ : 6578.8/41



reg\_asym\_atr1l2\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 12.574+/-1.074  $\chi^2/\text{NDF}$ : 348.0/16

Left Out: 3.255+/-0.805  $\chi^2/\text{NDF}$ : 245.3/21

Right Out: 9.493+/-1.047  $\chi^2/\text{NDF}$ : 295.8/18

Left In: 2.709+/-0.848  $\chi^2/\text{NDF}$ : 177.5/19

Left: 2.996+/-0.584  $\chi^2/\text{NDF}$ : 423.1/41

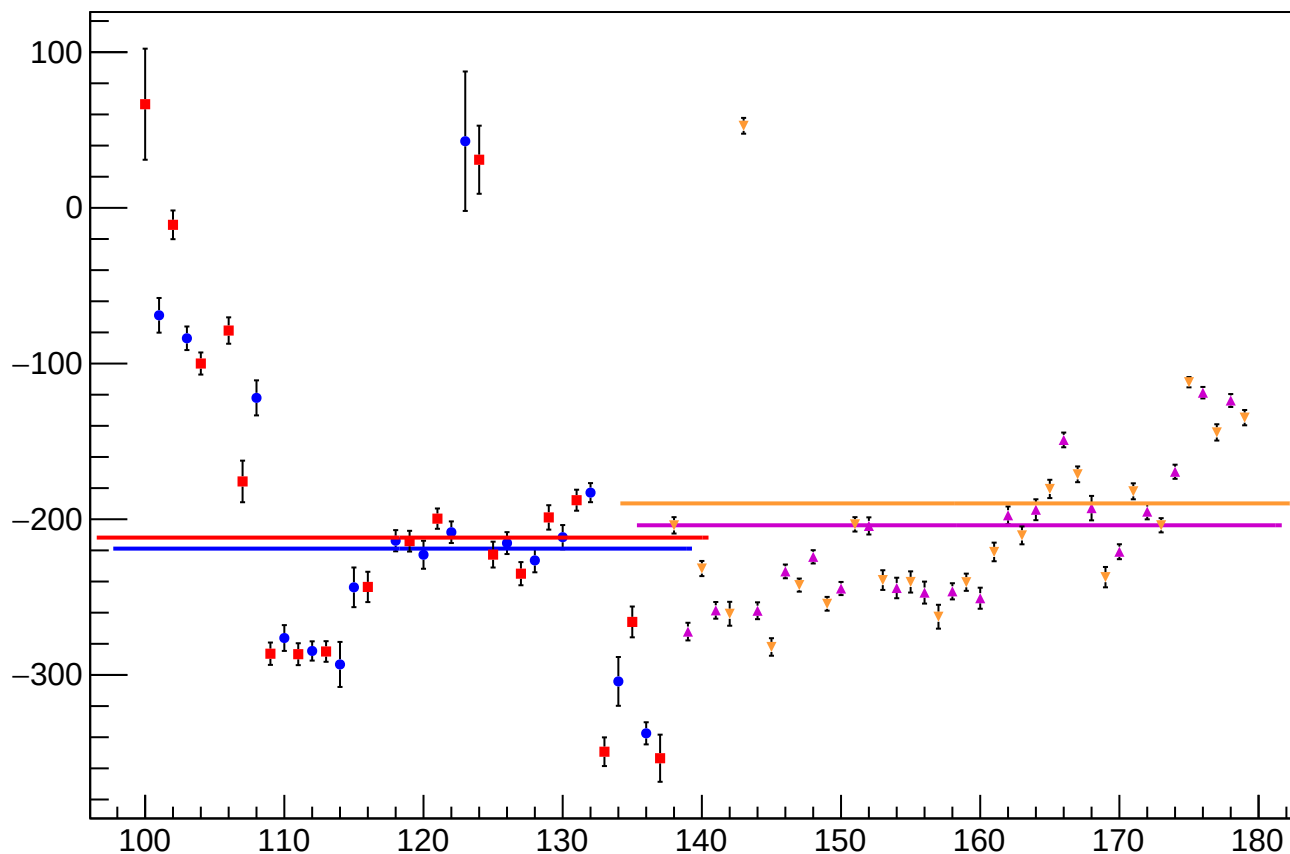
Right: 10.995+/-0.750  $\chi^2/\text{NDF}$ : 648.0/35

In: 6.498+/-0.666  $\chi^2/\text{NDF}$ : 577.5/36

Out: 5.572+/-0.638  $\chi^2/\text{NDF}$ : 563.4/40

All: 6.016+/-0.461  $\chi^2/\text{NDF}$ : 1141.9/77

reg\_asym\_atr1l2\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-218.855 \pm 2.023$   $\chi^2/\text{NDF}: 1146.6/16$

Left Out:  $-189.823 \pm 1.103$   $\chi^2/\text{NDF}: 4260.2/21$

Right Out:  $-211.780 \pm 1.924$   $\chi^2/\text{NDF}: 1885.2/18$

Left In:  $-203.871 \pm 1.136$   $\chi^2/\text{NDF}: 1818.7/19$

Left:  $-196.643 \pm 0.791$   $\chi^2/\text{NDF}: 6157.6/41$

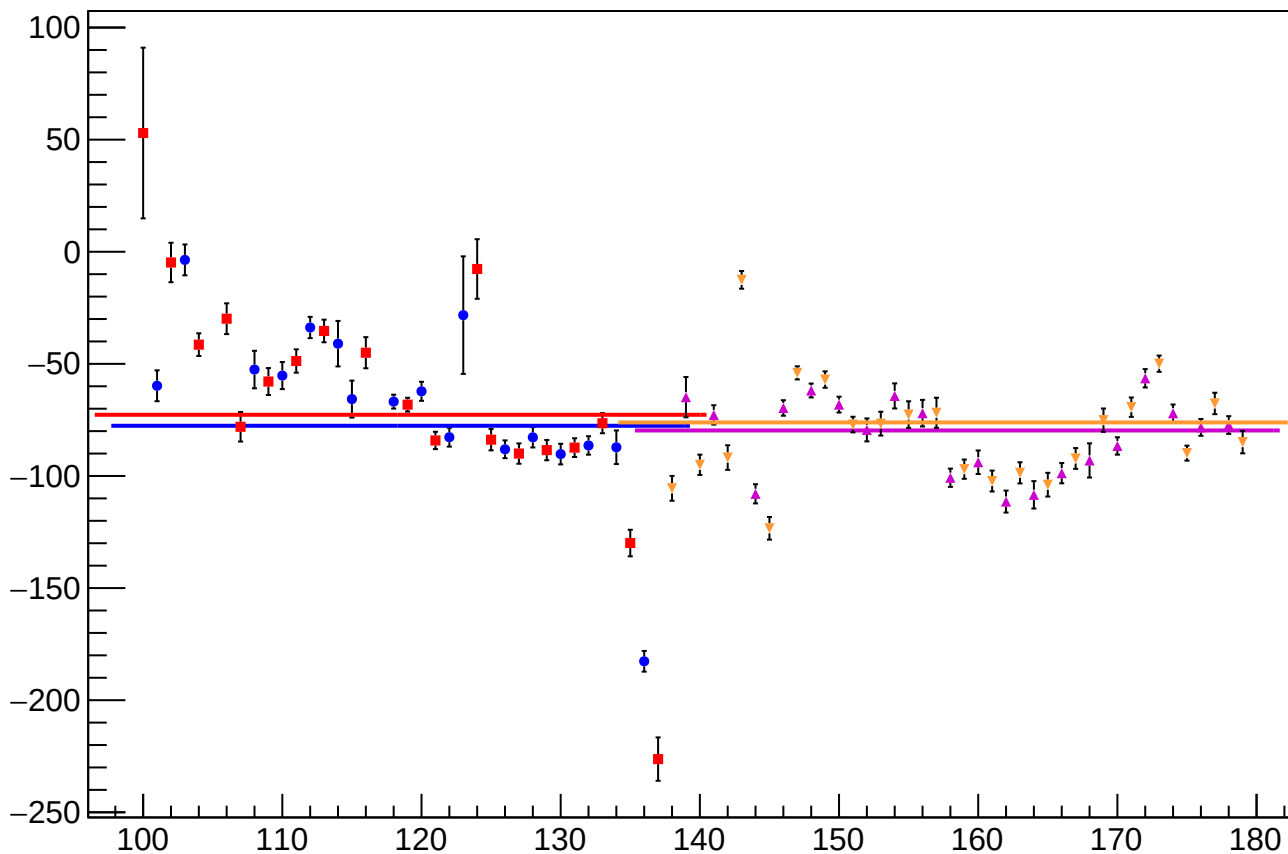
Right:  $-215.141 \pm 1.394$   $\chi^2/\text{NDF}: 3038.2/35$

In:  $-207.462 \pm 0.990$   $\chi^2/\text{NDF}: 3007.0/36$

Out:  $-195.256 \pm 0.957$   $\chi^2/\text{NDF}: 6243.4/40$

All:  $-201.151 \pm 0.688$   $\chi^2/\text{NDF}: 9329.0/77$

reg\_asym\_atr1l2\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-77.612 \pm 1.236$   $\chi^2/\text{NDF}$ : 815.9/16

Left Out:  $-76.118 \pm 0.935$   $\chi^2/\text{NDF}$ : 679.9/21

Right Out:  $-72.710 \pm 1.206$   $\chi^2/\text{NDF}$ : 671.4/18

Left In:  $-79.699 \pm 0.978$   $\chi^2/\text{NDF}$ : 269.4/19

Left:  $-77.828 \pm 0.676$   $\chi^2/\text{NDF}$ : 956.3/41

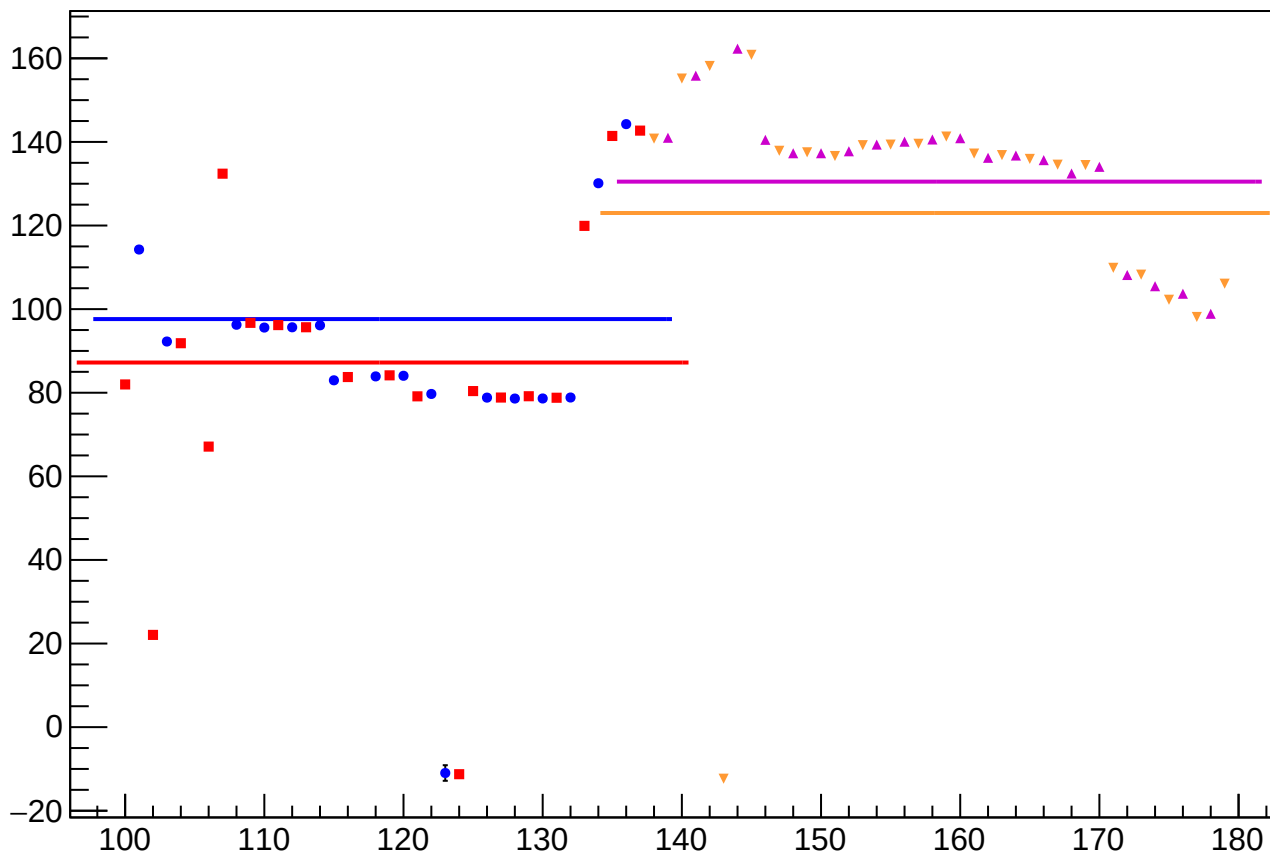
Right:  $-75.100 \pm 0.863$   $\chi^2/\text{NDF}$ : 1495.4/35

In:  $-78.896 \pm 0.767$   $\chi^2/\text{NDF}$ : 1087.0/36

Out:  $-74.839 \pm 0.739$   $\chi^2/\text{NDF}$ : 1356.3/40

All:  $-76.792 \pm 0.532$   $\chi^2/\text{NDF}$ : 2457.9/77

reg\_asym\_atr1l2\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 97.620+/-0.074  $\chi^2/\text{NDF}$ : 94045.2/16

Left Out: 122.997+/-0.045  $\chi^2/\text{NDF}$ : 620925.7/21

Right Out: 87.226+/-0.068  $\chi^2/\text{NDF}$ : 220850.5/18

Left In: 130.499+/-0.046  $\chi^2/\text{NDF}$ : 141806.4/19

Left: 126.674+/-0.032  $\chi^2/\text{NDF}$ : 776555.2/41

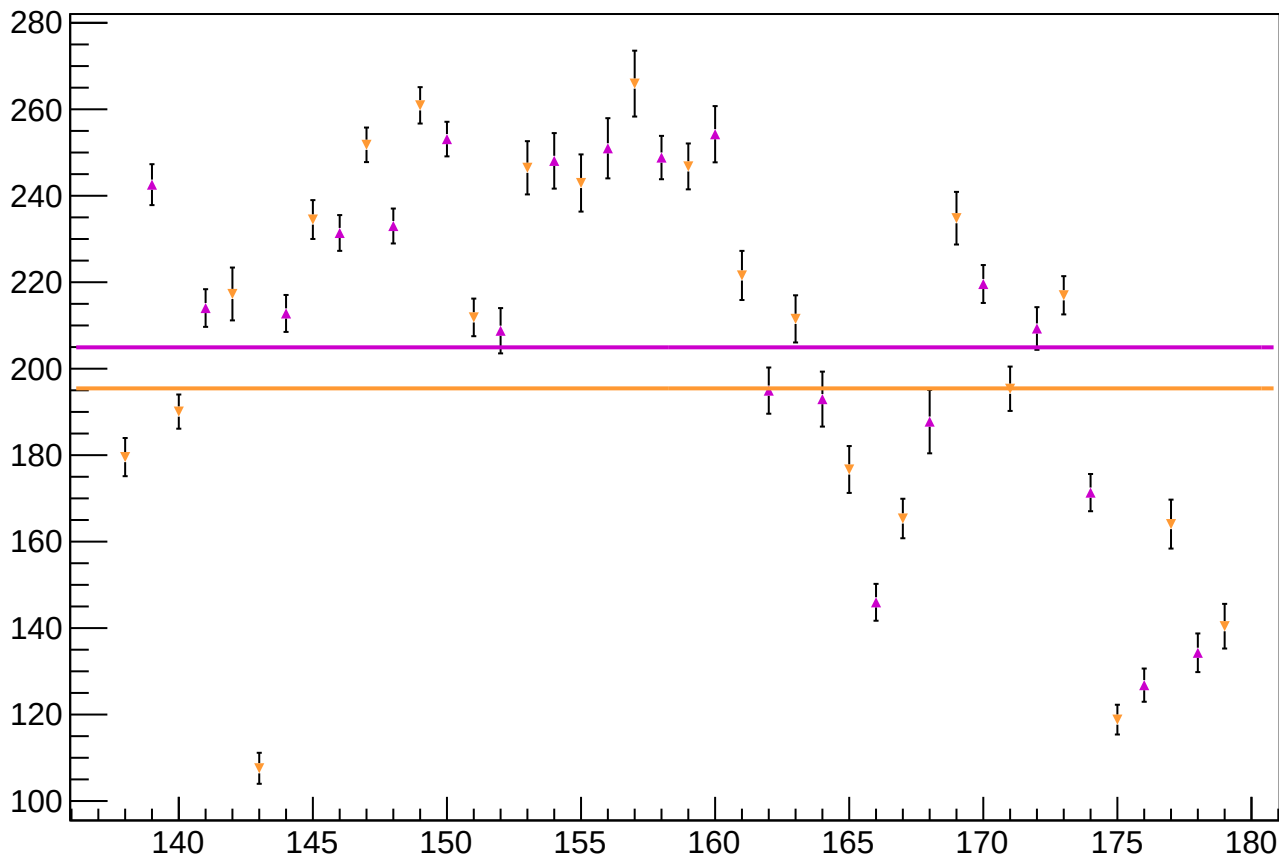
Right: 92.025+/-0.050  $\chi^2/\text{NDF}$ : 325598.1/35

In: 121.409+/-0.039  $\chi^2/\text{NDF}$ : 379809.4/36

Out: 112.274+/-0.037  $\chi^2/\text{NDF}$ : 1034027.7/40

All: 116.676+/-0.027  $\chi^2/\text{NDF}$ : 1442619.3/77

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 195.446+/-1.021  $\chi^2/\text{NDF}$ :2248.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 204.940+/-1.068  $\chi^2/\text{NDF}$ :1468.5/19

Left: 199.982+/-0.738  $\chi^2/\text{NDF}$ : 3758.0/41

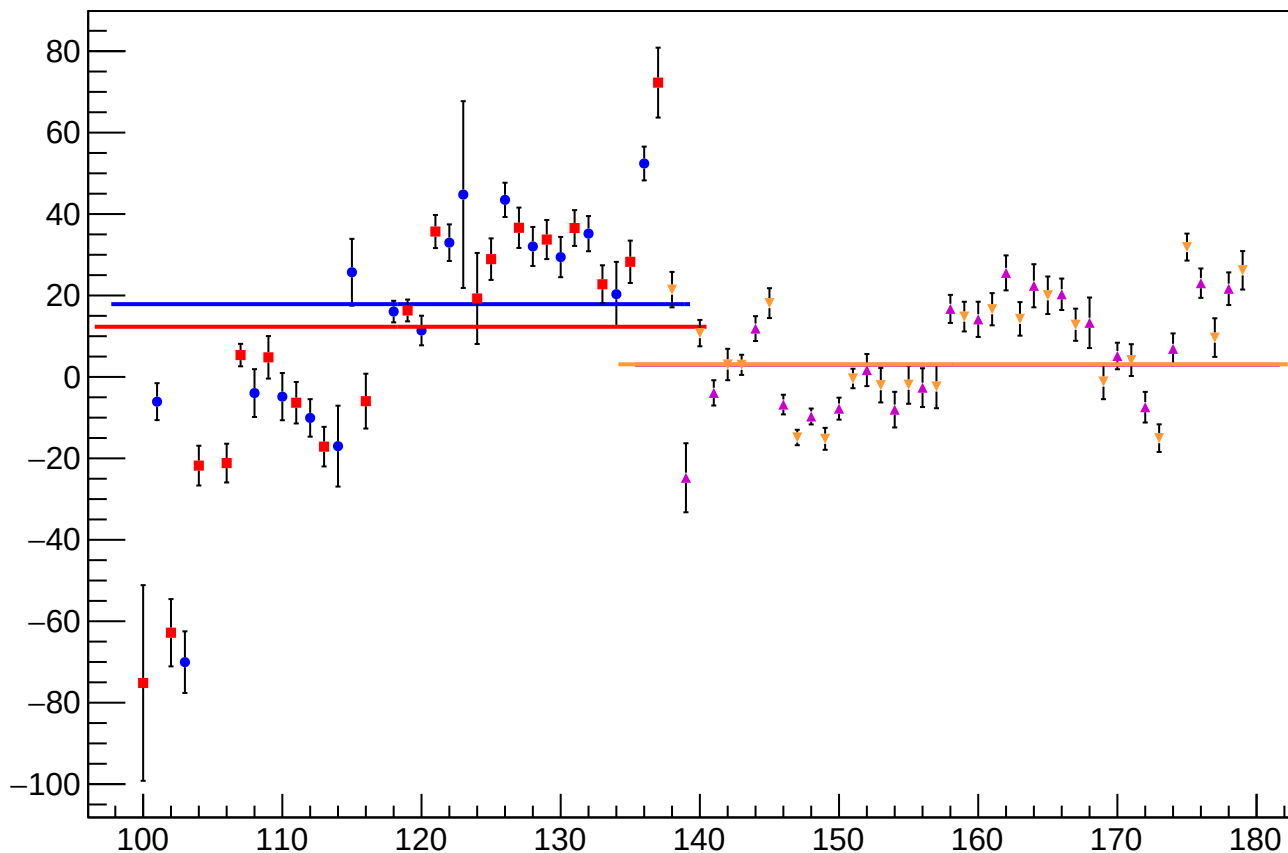
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 204.940+/-1.068  $\chi^2/\text{NDF}$ :1468.5/19

Out: 195.446+/-1.021  $\chi^2/\text{NDF}$ :2248.3/21

All: 199.982+/-0.738  $\chi^2/\text{NDF}$ : 3758.0/41

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $17.872 \pm 1.166$   $\chi^2/\text{NDF}$ : 395.3/16

Left Out:  $3.095 \pm 0.730$   $\chi^2/\text{NDF}$ : 362.0/21

Right Out:  $12.317 \pm 1.083$   $\chi^2/\text{NDF}$ : 444.0/18

Left In:  $2.991 \pm 0.779$   $\chi^2/\text{NDF}$ : 254.6/19

Left:  $3.046 \pm 0.533$   $\chi^2/\text{NDF}$ : 616.6/41

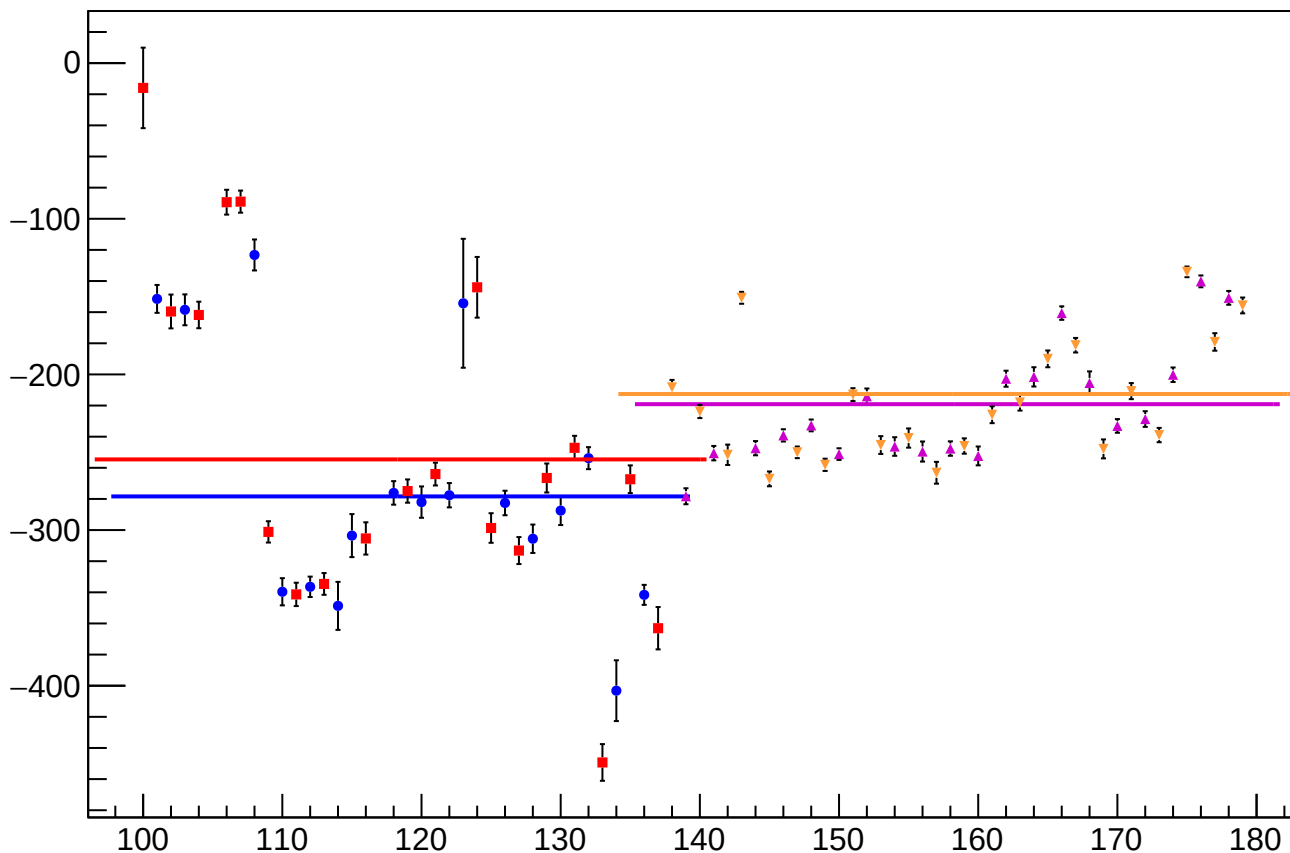
Right:  $14.891 \pm 0.794$   $\chi^2/\text{NDF}$ : 851.6/35

In:  $7.582 \pm 0.648$   $\chi^2/\text{NDF}$ : 762.6/36

Out:  $5.975 \pm 0.605$   $\chi^2/\text{NDF}$ : 855.9/40

All:  $6.725 \pm 0.442$   $\chi^2/\text{NDF}$ : 1621.8/77

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-278.380 \pm 2.185$   $\chi^2/\text{NDF}$ : 910.6/16

Left Out:  $-212.605 \pm 1.018$   $\chi^2/\text{NDF}$ : 1640.3/21

Right Out:  $-254.603 \pm 2.020$   $\chi^2/\text{NDF}$ : 2037.5/18

Left In:  $-219.123 \pm 1.057$   $\chi^2/\text{NDF}$ : 1342.6/19

Left:  $-215.741 \pm 0.733$   $\chi^2/\text{NDF}$ : 3002.6/41

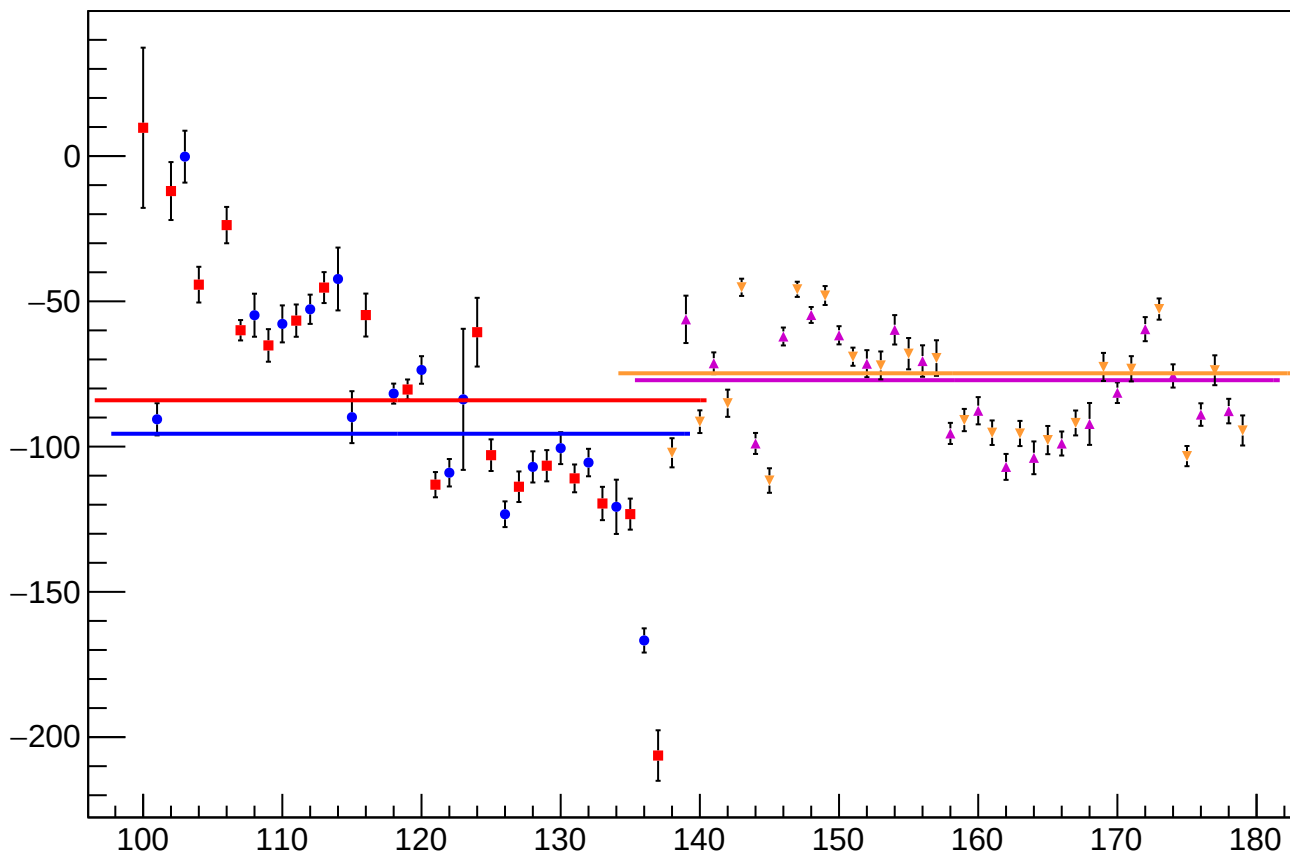
Right:  $-265.560 \pm 1.483$   $\chi^2/\text{NDF}$ : 3011.9/35

In:  $-230.358 \pm 0.951$   $\chi^2/\text{NDF}$ : 2849.3/36

Out:  $-221.107 \pm 0.909$   $\chi^2/\text{NDF}$ : 4022.6/40

All:  $-225.521 \pm 0.657$   $\chi^2/\text{NDF}$ : 6921.3/77

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-95.576 \pm 1.340$   $\chi^2/\text{NDF}$ : 671.2/16

Left Out:  $-74.767 \pm 0.854$   $\chi^2/\text{NDF}$ : 645.8/21

Right Out:  $-84.062 \pm 1.257$   $\chi^2/\text{NDF}$ : 783.2/18

Left In:  $-77.147 \pm 0.903$   $\chi^2/\text{NDF}$ : 340.2/19

Left:  $-75.890 \pm 0.620$   $\chi^2/\text{NDF}$ : 989.7/41

Right:  $-89.449 \pm 0.917$   $\chi^2/\text{NDF}$ : 1493.7/35

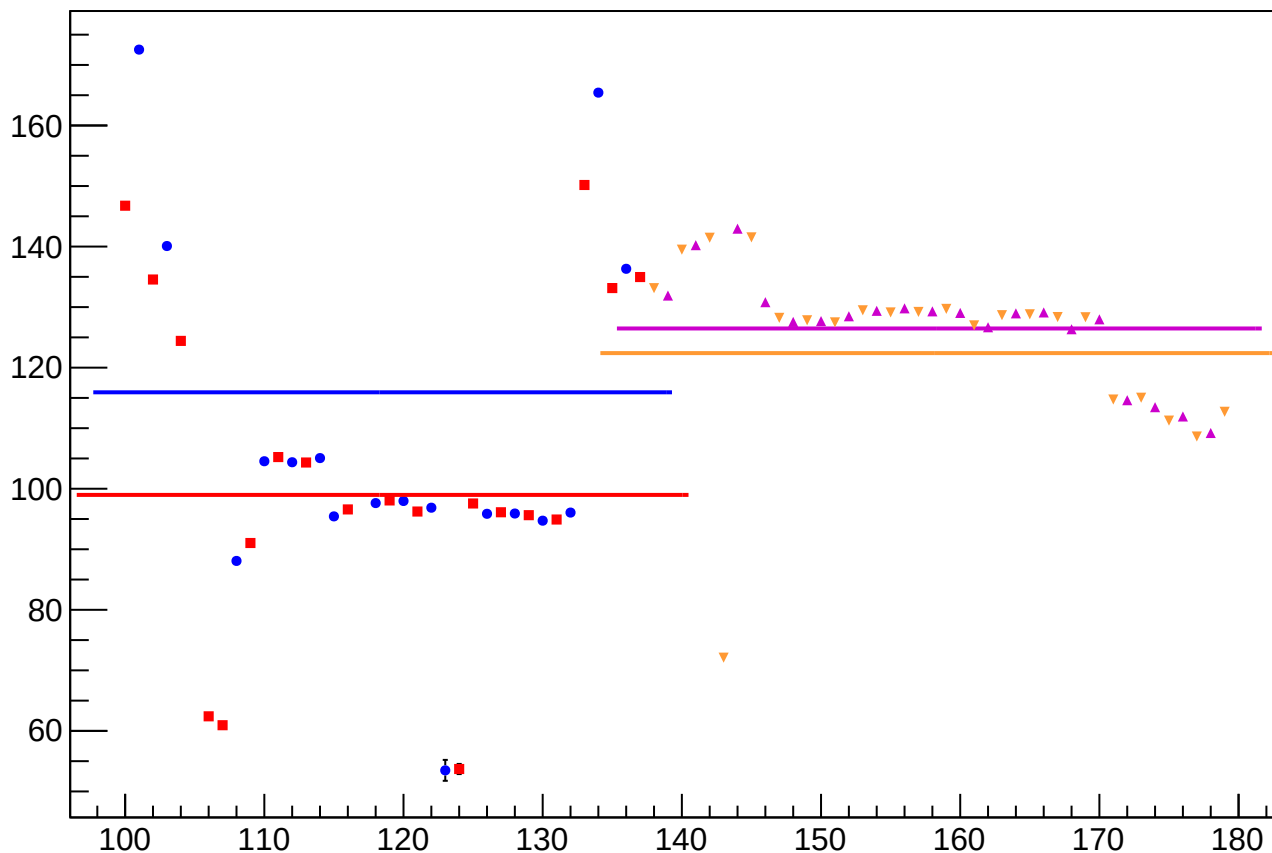
In:  $-82.902 \pm 0.749$   $\chi^2/\text{NDF}$ : 1141.5/36

Out:  $-77.702 \pm 0.706$   $\chi^2/\text{NDF}$ : 1466.4/40

All:  $-80.149 \pm 0.514$   $\chi^2/\text{NDF}$ : 2633.4/77



reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 115.927 $\pm$ 0.078  $\chi^2$ /NDF: 105791.4/16

Left Out: 122.403 $\pm$ 0.041  $\chi^2$ /NDF:160277.6/21

Right Out: 98.981 $\pm$ 0.069  $\chi^2$ /NDF: 172974.2/18

Left In: 126.470 $\pm$ 0.042  $\chi^2$ /NDF:39272.8/19

Left: 124.377 $\pm$ 0.030  $\chi^2$ /NDF: 204292.8/41

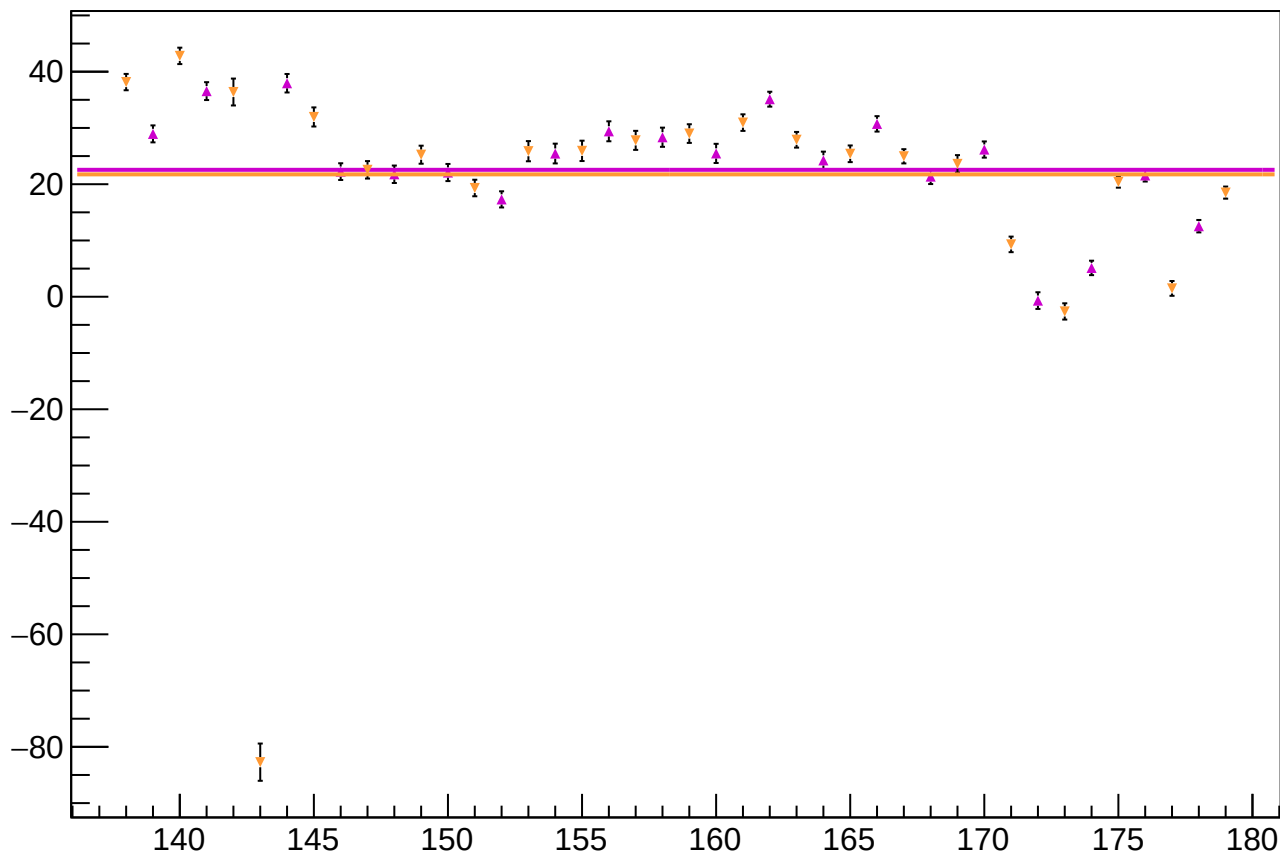
Right: 106.321 $\pm$ 0.052  $\chi^2$ /NDF: 305233.1/35

In: 124.088 $\pm$ 0.037  $\chi^2$ /NDF:159055.1/36

Out: 116.199 $\pm$ 0.035  $\chi^2$ /NDF:419072.2/40

All: 119.927 $\pm$ 0.026  $\chi^2$ /NDF: 601754.3/77

reg\_asym\_atl\_dd\_atr\_dd\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: 21.750+/-0.316  $\chi^2/\text{NDF}$ :2141.2/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: 22.559+/-0.323  $\chi^2/\text{NDF}$ :875.5/19

Left: 22.146+/-0.226  $\chi^2/\text{NDF}$ : 3019.9/41

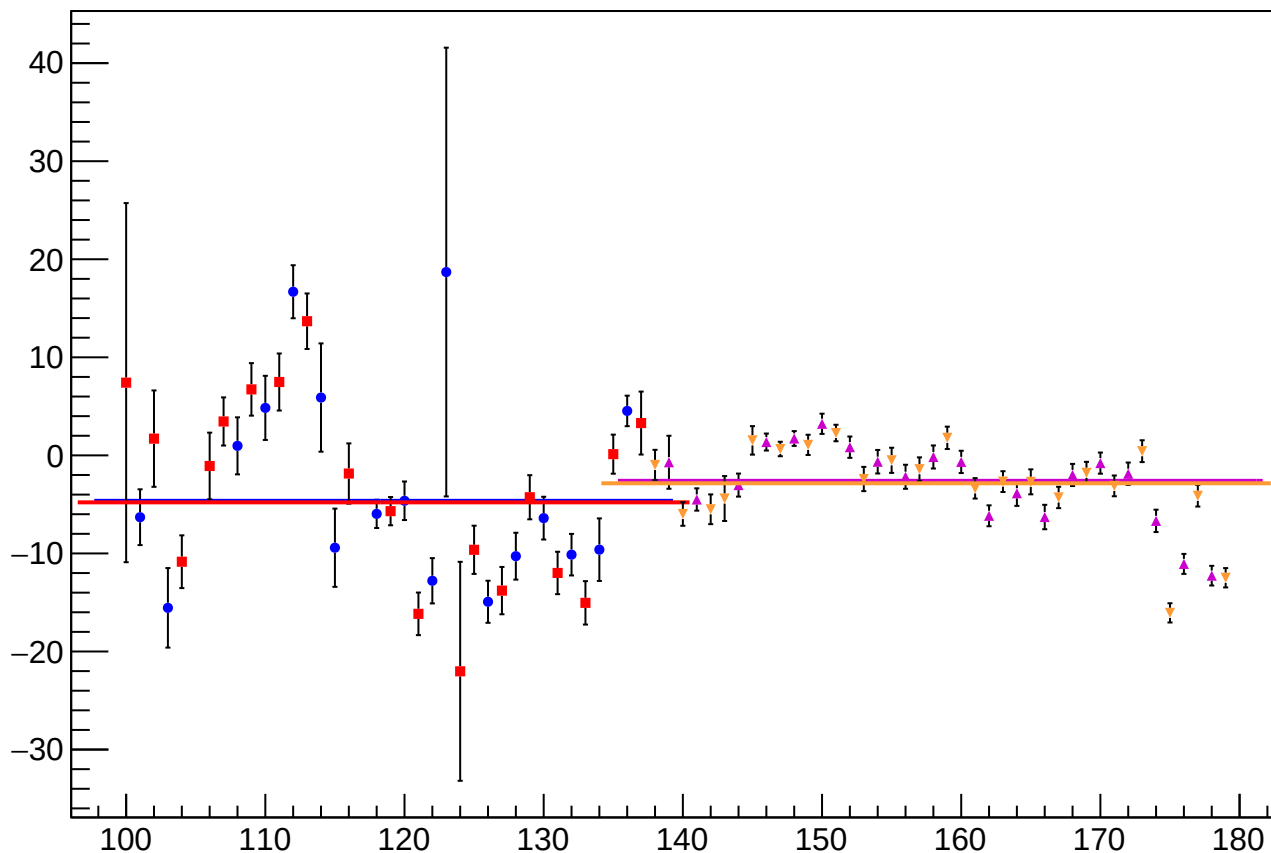
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: 22.559+/-0.323  $\chi^2/\text{NDF}$ :875.5/19

Out: 21.750+/-0.316  $\chi^2/\text{NDF}$ :2141.2/21

All: 22.146+/-0.226  $\chi^2/\text{NDF}$ : 3019.9/41

reg\_asym\_atl\_dd\_atr\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $-4.637 \pm 0.588$   $\chi^2/\text{NDF}$ : 174.4/16

Left Out:  $-2.847 \pm 0.237$   $\chi^2/\text{NDF}$ : 406.2/21

Right Out:  $-4.791 \pm 0.585$   $\chi^2/\text{NDF}$ : 192.5/18

Left In:  $-2.597 \pm 0.245$   $\chi^2/\text{NDF}$ : 308.3/19

Left:  $-2.726 \pm 0.170$   $\chi^2/\text{NDF}$ : 715.0/41

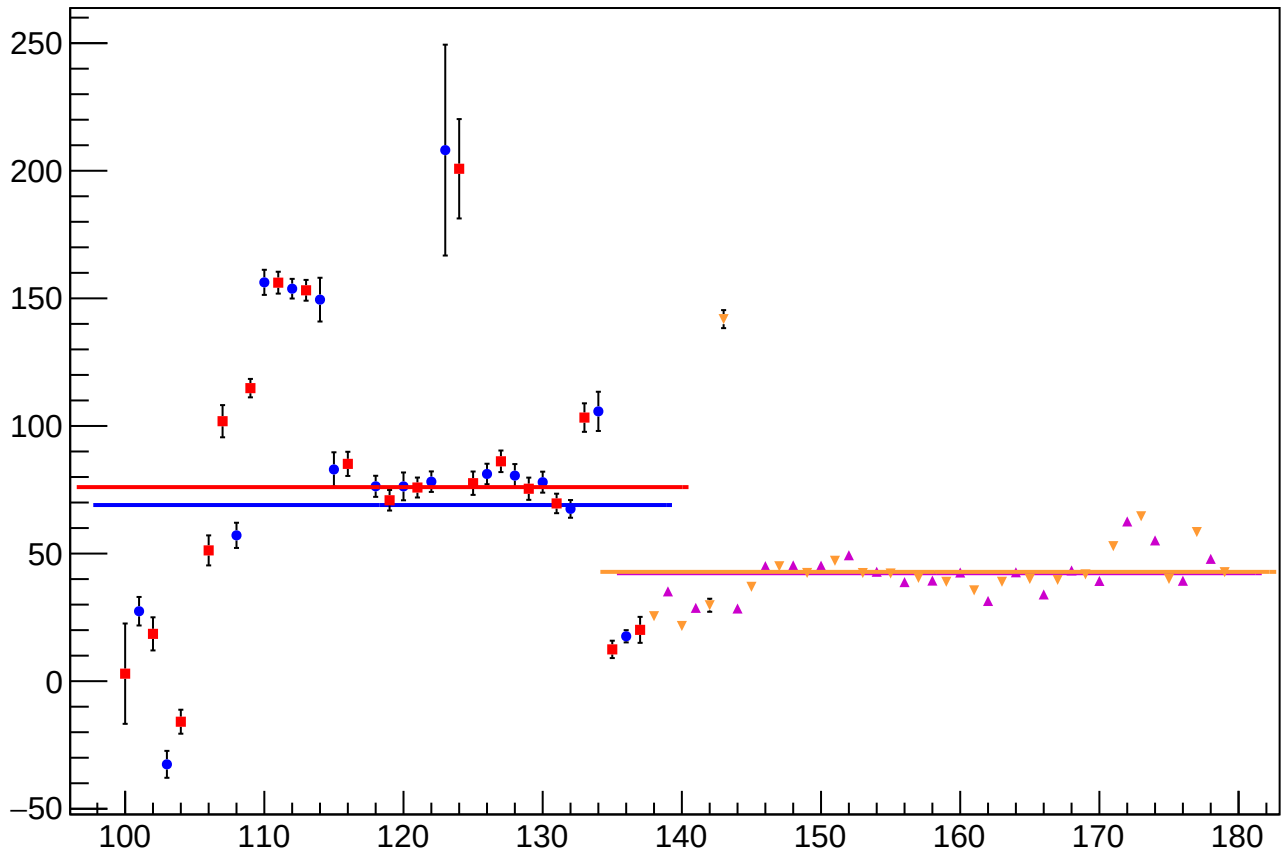
Right:  $-4.714 \pm 0.414$   $\chi^2/\text{NDF}$ : 367.0/35

In:  $-2.899 \pm 0.226$   $\chi^2/\text{NDF}$ : 493.0/36

Out:  $-3.121 \pm 0.220$   $\chi^2/\text{NDF}$ : 608.2/40

All:  $-3.014 \pm 0.158$   $\chi^2/\text{NDF}$ : 1101.7/77

reg\_asym\_atl\_dd\_atr\_dd\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 69.019 $\pm$ 1.083  $\chi^2/\text{NDF}$ : 1848.0/16

Left Out: 42.832 $\pm$ 0.312  $\chi^2/\text{NDF}$ :1606.6/21

Right Out: 76.041 $\pm$ 1.070  $\chi^2/\text{NDF}$ : 1881.9/18

Left In: 42.298 $\pm$ 0.319  $\chi^2/\text{NDF}$ :603.7/19

Left: 42.571 $\pm$ 0.223  $\chi^2/\text{NDF}$ : 2211.7/41

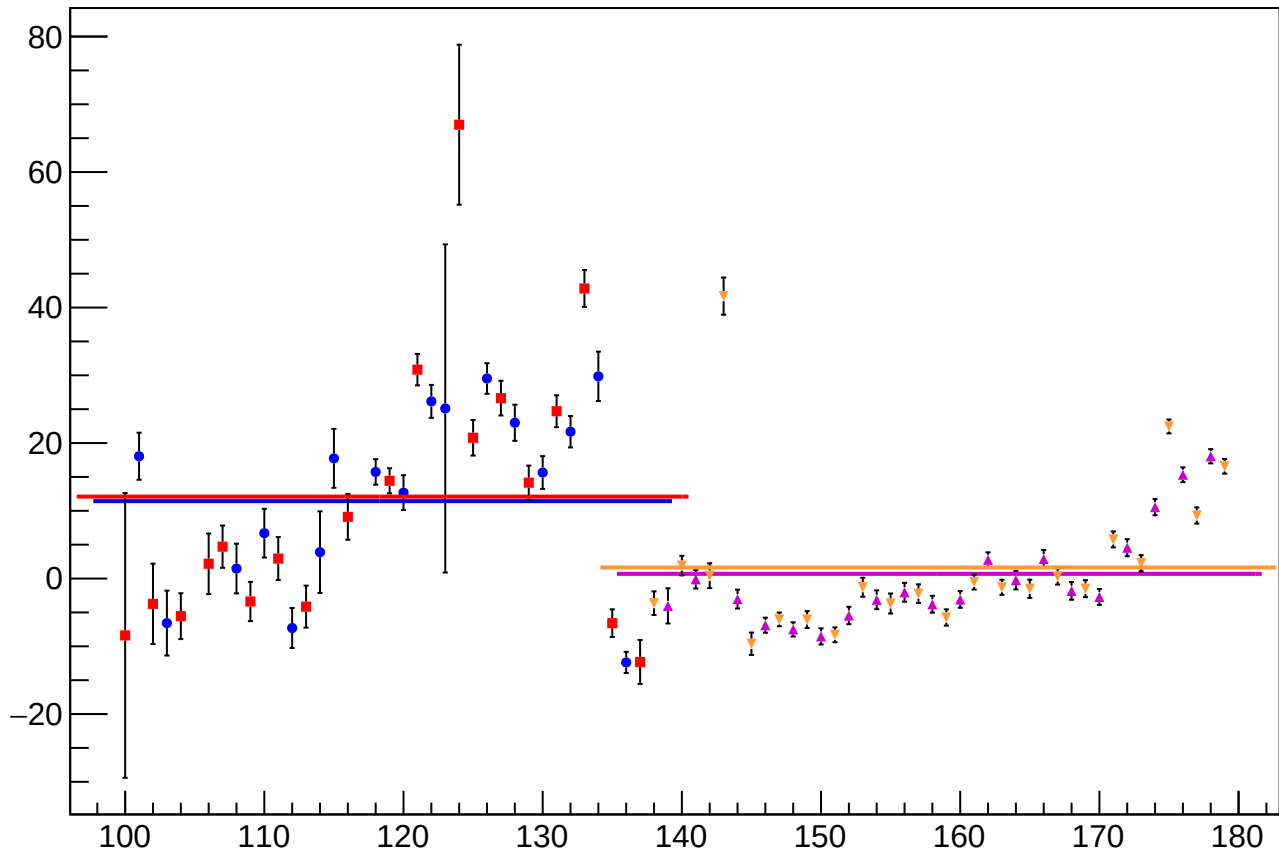
Right: 72.574 $\pm$ 0.761  $\chi^2/\text{NDF}$ : 3751.2/35

In: 44.430 $\pm$ 0.306  $\chi^2/\text{NDF}$ :3011.5/36

Out: 45.436 $\pm$ 0.300  $\chi^2/\text{NDF}$ :4376.4/40

All: 44.944 $\pm$ 0.214  $\chi^2/\text{NDF}$ : 7393.4/77

reg\_asym\_atl\_dd\_atr\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $11.428 \pm 0.665$   $\chi^2/\text{NDF}$ : 476.8/16

Left Out:  $1.645 \pm 0.270$   $\chi^2/\text{NDF}$ : 1189.9/21

Right Out:  $12.095 \pm 0.664$   $\chi^2/\text{NDF}$ : 539.1/18

Left In:  $0.695 \pm 0.279$   $\chi^2/\text{NDF}$ : 779.4/19

Left:  $1.185 \pm 0.194$   $\chi^2/\text{NDF}$ : 1975.3/41

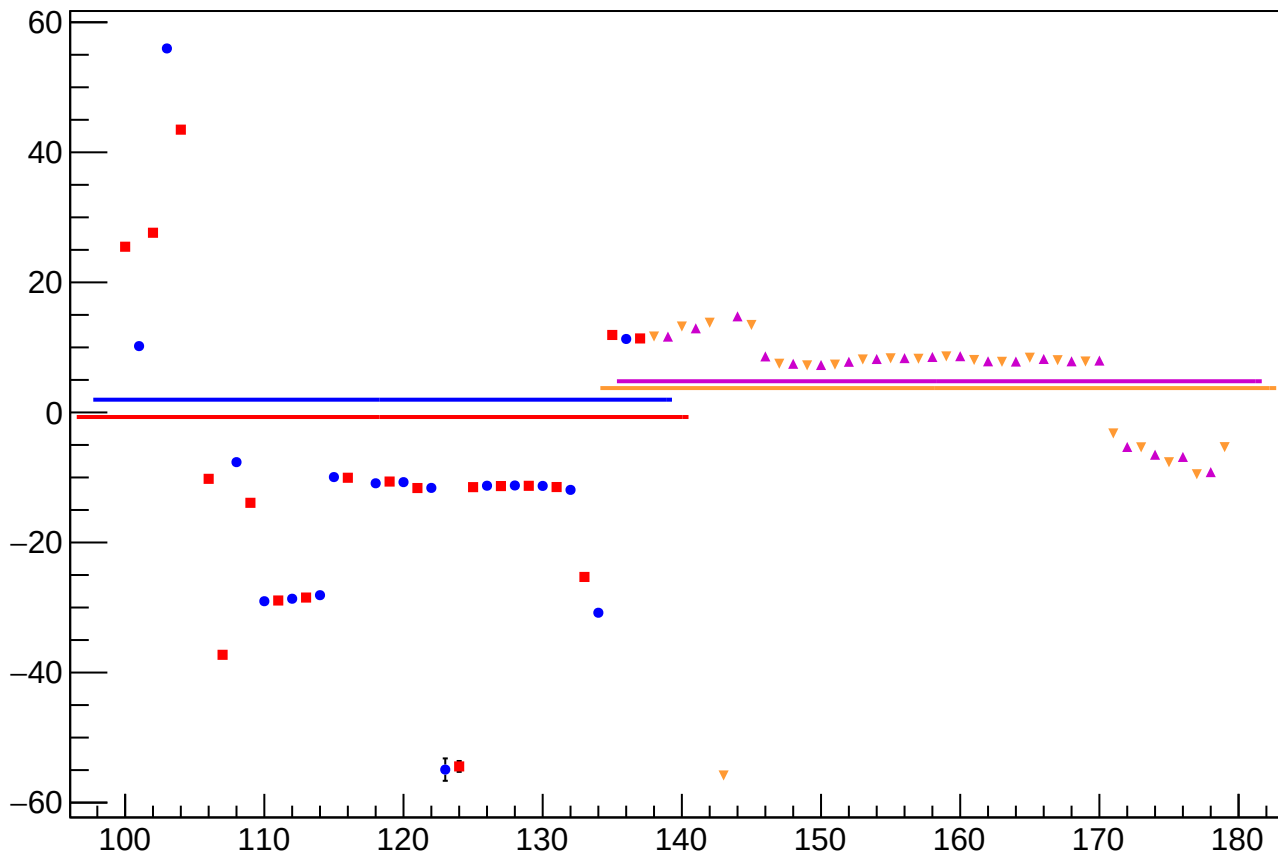
Right:  $11.762 \pm 0.470$   $\chi^2/\text{NDF}$ : 1016.4/35

In:  $2.299 \pm 0.257$   $\chi^2/\text{NDF}$ : 1477.4/36

Out:  $3.131 \pm 0.250$   $\chi^2/\text{NDF}$ : 1941.5/40

All:  $2.726 \pm 0.179$   $\chi^2/\text{NDF}$ : 3424.3/77

reg\_asym\_atl\_dd\_atr\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 1.960 $\pm$ 0.037  $\chi^2$ /NDF: 358457.0/16

Left Out: 3.745 $\pm$ 0.012  $\chi^2$ /NDF: 513719.9/21

Right Out: -0.704 $\pm$ 0.037  $\chi^2$ /NDF: 361168.6/18

Left In: 4.797 $\pm$ 0.013  $\chi^2$ /NDF: 309529.8/19

Left: 4.264 $\pm$ 0.009  $\chi^2$ /NDF: 826765.1/41

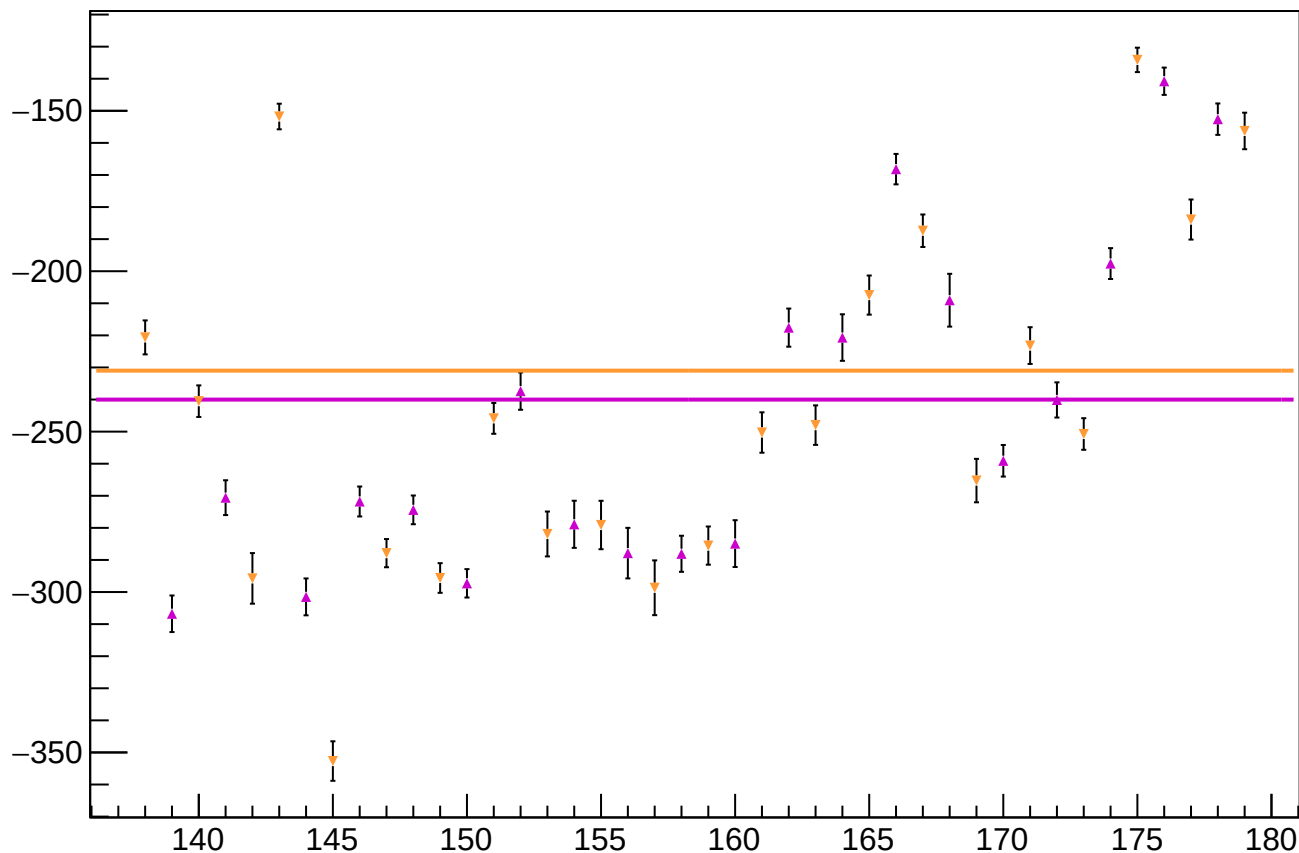
Right: 0.627 $\pm$ 0.026  $\chi^2$ /NDF: 722198.2/35

In: 4.503 $\pm$ 0.012  $\chi^2$ /NDF: 673215.1/36

Out: 3.295 $\pm$ 0.012  $\chi^2$ /NDF: 887801.0/40

All: 3.891 $\pm$ 0.008  $\chi^2$ /NDF: 1566180.3/77

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

Left Out:  $-230.989 \pm 1.162$   $\chi^2/\text{NDF}: 2497.9/21$

Right Out:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

Left In:  $-240.020 \pm 1.215$   $\chi^2/\text{NDF}: 1952.1/19$

Left:  $-235.305 \pm 0.840$   $\chi^2/\text{NDF}: 4478.8/41$

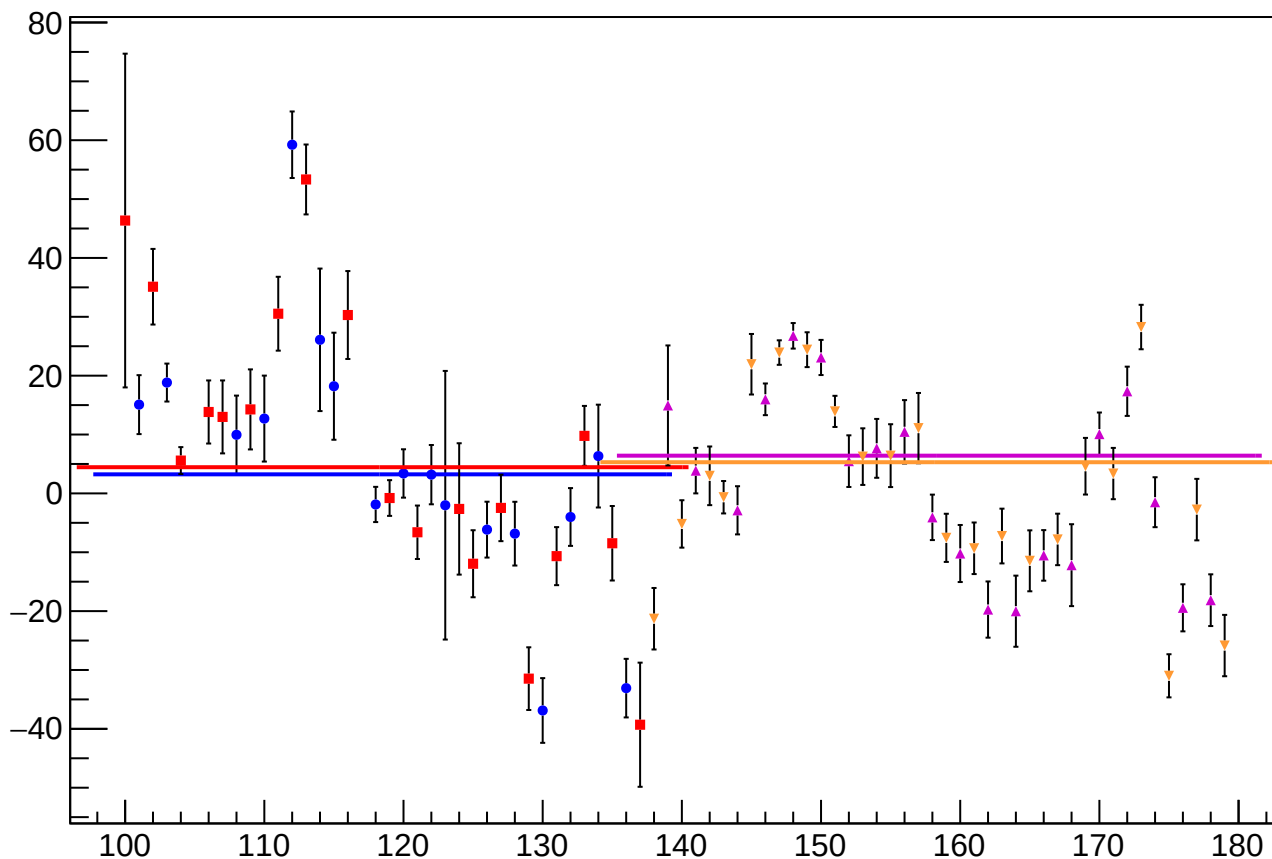
Right:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

In:  $-240.020 \pm 1.215$   $\chi^2/\text{NDF}: 1952.1/19$

Out:  $-230.989 \pm 1.162$   $\chi^2/\text{NDF}: 2497.9/21$

All:  $-235.305 \pm 0.840$   $\chi^2/\text{NDF}: 4478.8/41$

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $3.237 \pm 1.244$   $\chi^2/\text{NDF}$ : 255.3/16

Left Out:  $5.296 \pm 0.826$   $\chi^2/\text{NDF}$ : 402.6/21

Right Out:  $4.450 \pm 1.157$   $\chi^2/\text{NDF}$ : 225.8/18

Left In:  $6.409 \pm 0.883$   $\chi^2/\text{NDF}$ : 314.1/19

Left:  $5.816 \pm 0.603$   $\chi^2/\text{NDF}$ : 717.6/41

Right:  $3.887 \pm 0.847$   $\chi^2/\text{NDF}$ : 481.6/35

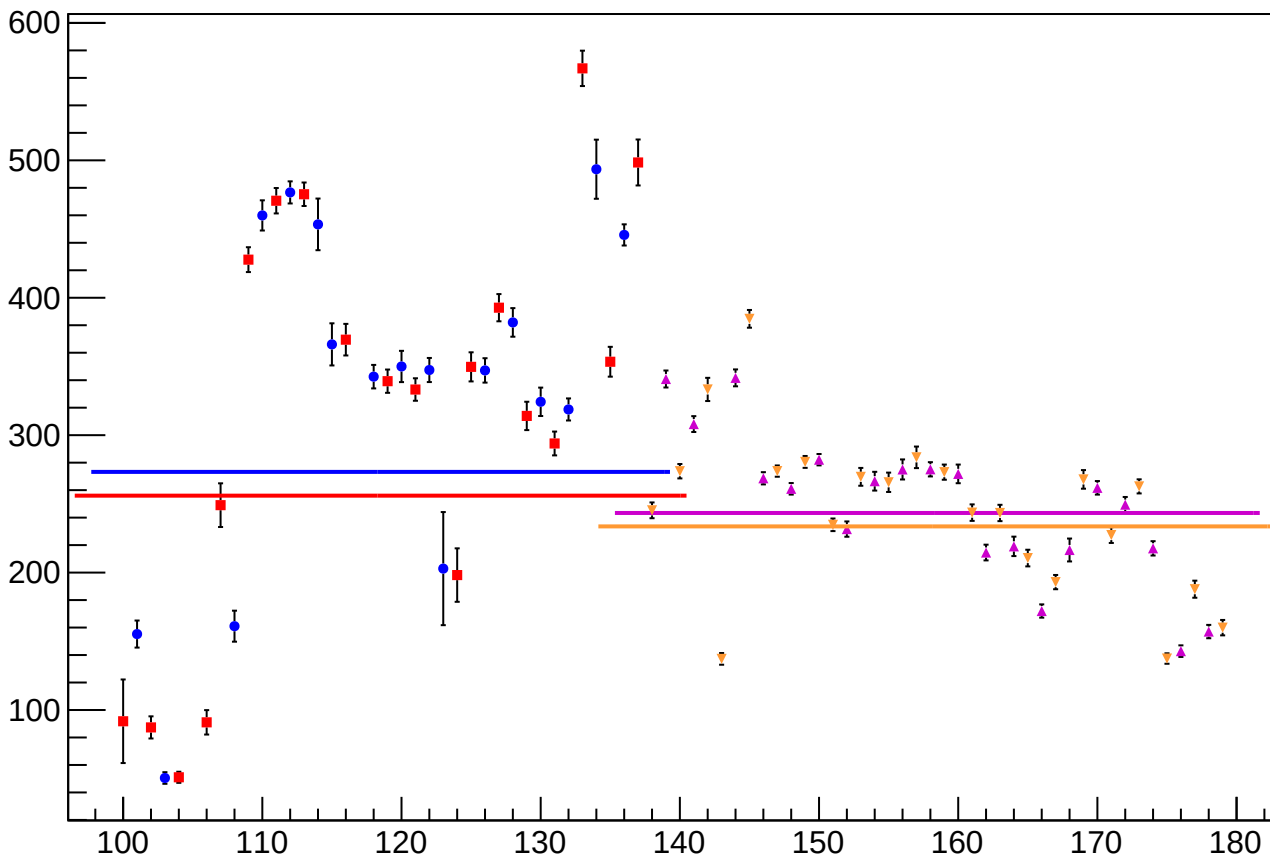
In:  $5.346 \pm 0.720$   $\chi^2/\text{NDF}$ : 573.7/36

Out:  $5.010 \pm 0.673$   $\chi^2/\text{NDF}$ : 628.8/40

All:  $5.167 \pm 0.491$   $\chi^2/\text{NDF}$ : 1202.6/77



reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: 273.276+/-2.205  $\chi^2/\text{NDF}$ : 5101.5/16

Left Out: 233.609+/-1.154  $\chi^2/\text{NDF}$ : 2626.3/21

Right Out: 255.985+/-2.080  $\chi^2/\text{NDF}$ : 6438.4/18

Left In: 243.383+/-1.199  $\chi^2/\text{NDF}$ : 2048.0/19

Left: 238.310+/-0.831  $\chi^2/\text{NDF}$ : 4708.8/41

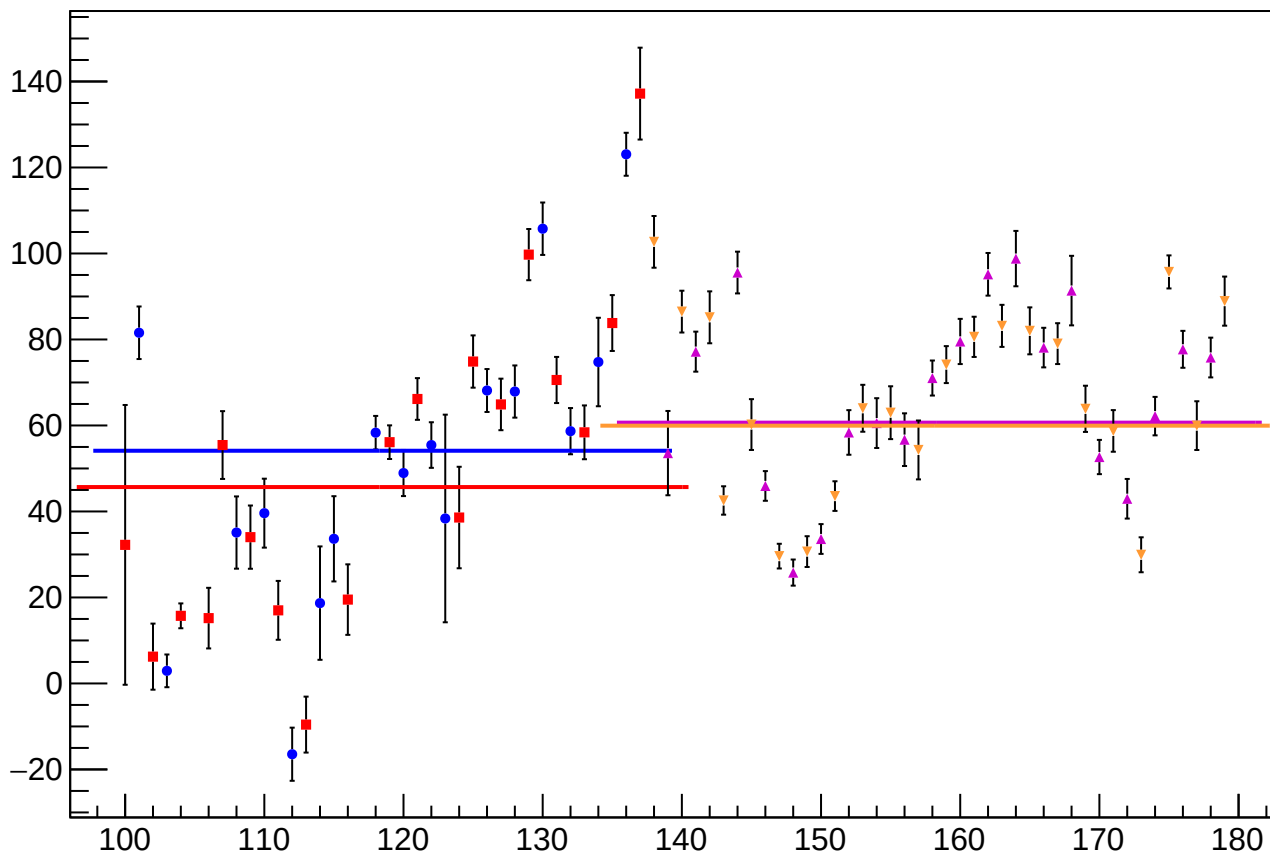
Right: 264.127+/-1.513  $\chi^2/\text{NDF}$ : 11572.5/35

In: 250.206+/-1.053  $\chi^2/\text{NDF}$ : 7291.4/36

Out: 238.876+/-1.009  $\chi^2/\text{NDF}$ : 9153.2/40

All: 244.299+/-0.729  $\chi^2/\text{NDF}$ : 16504.9/77

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In: 54.119 $\pm$ 1.438  $\chi^2$ /NDF: 633.9/16

Left Out: 59.952 $\pm$ 0.967  $\chi^2$ /NDF: 581.0/21

Right Out: 45.675 $\pm$ 1.357  $\chi^2$ /NDF: 531.0/18

Left In: 60.654 $\pm$ 1.024  $\chi^2$ /NDF: 453.6/19

Left: 60.283 $\pm$ 0.703  $\chi^2$ /NDF: 1034.9/41

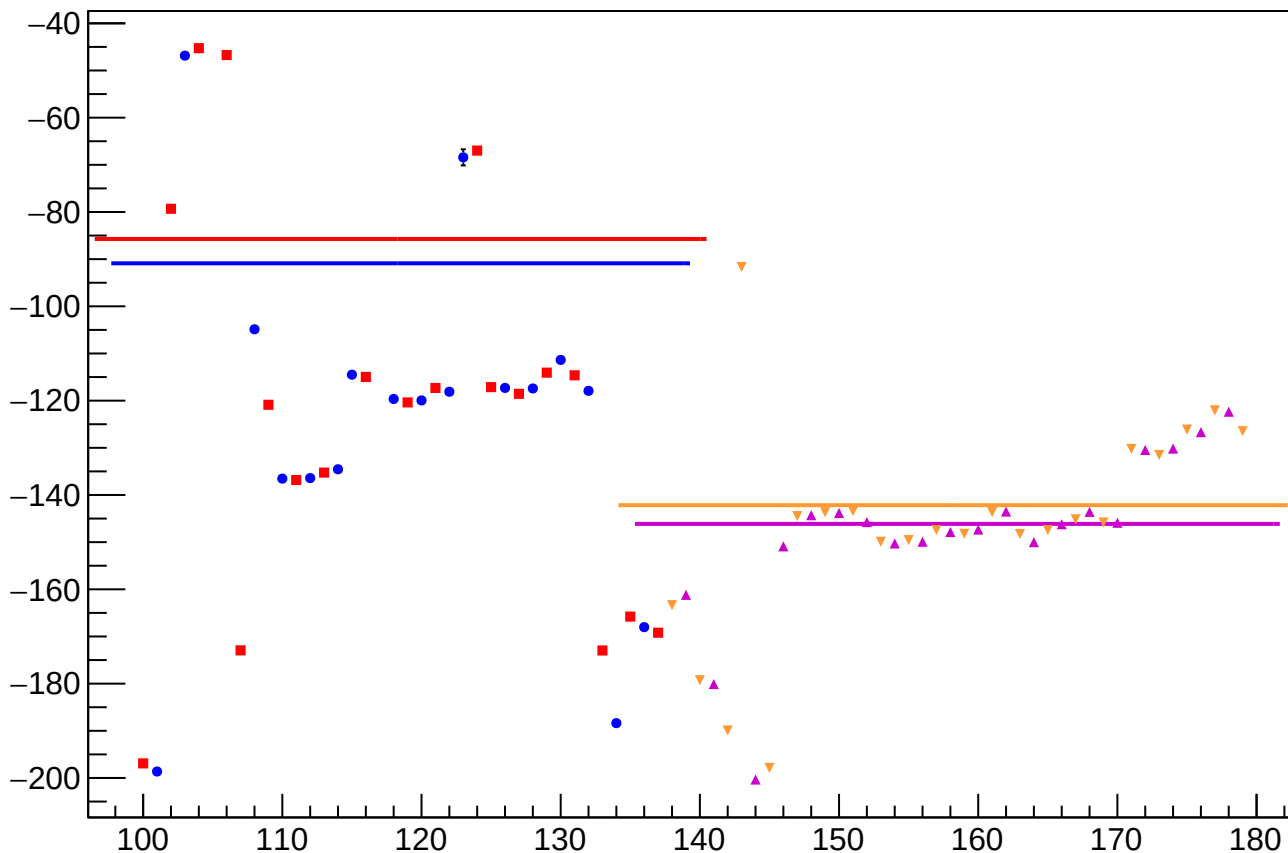
Right: 49.654 $\pm$ 0.987  $\chi^2$ /NDF: 1183.2/35

In: 58.454 $\pm$ 0.834  $\chi^2$ /NDF: 1101.2/36

Out: 55.145 $\pm$ 0.787  $\chi^2$ /NDF: 1185.4/40

All: 56.704 $\pm$ 0.573  $\chi^2$ /NDF: 2295.0/77

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: -90.881+/-0.068  $\chi^2/\text{NDF}$ : 533423.8/16

Left Out: -142.163+/-0.047  $\chi^2/\text{NDF}$ : 219595.4/21

Right Out: -85.722+/-0.065  $\chi^2/\text{NDF}$ : 494183.1/18

Left In: -146.132+/-0.048  $\chi^2/\text{NDF}$ : 102696.8/19

Left: -144.090+/-0.034  $\chi^2/\text{NDF}$ : 325796.0/41

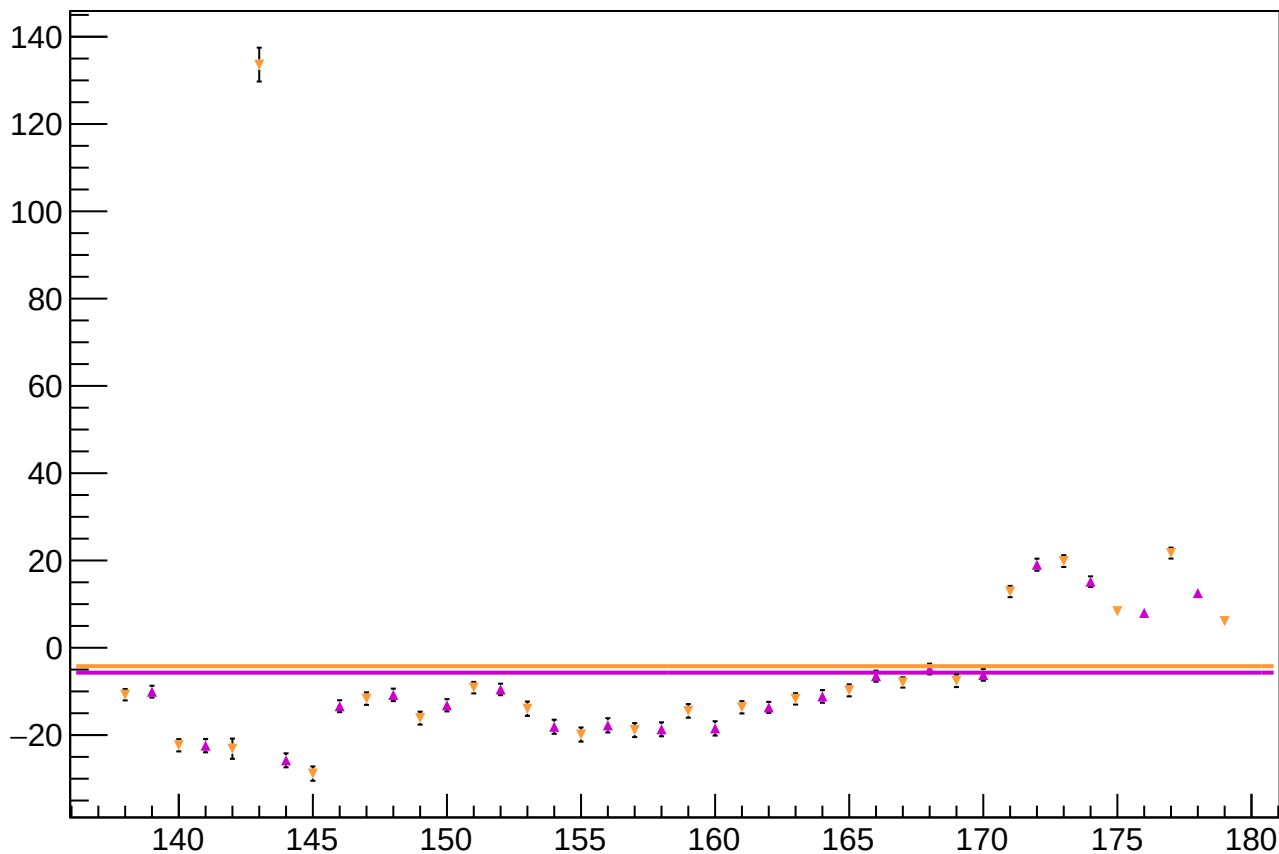
Right: -88.197+/-0.047  $\chi^2/\text{NDF}$ : 1030623.7/35

In: -127.621+/-0.039  $\chi^2/\text{NDF}$ : 1078316.2/36

Out: -122.960+/-0.038  $\chi^2/\text{NDF}$ : 1210223.7/40

All: -125.214+/-0.027  $\chi^2/\text{NDF}$ : 2295835.8/77

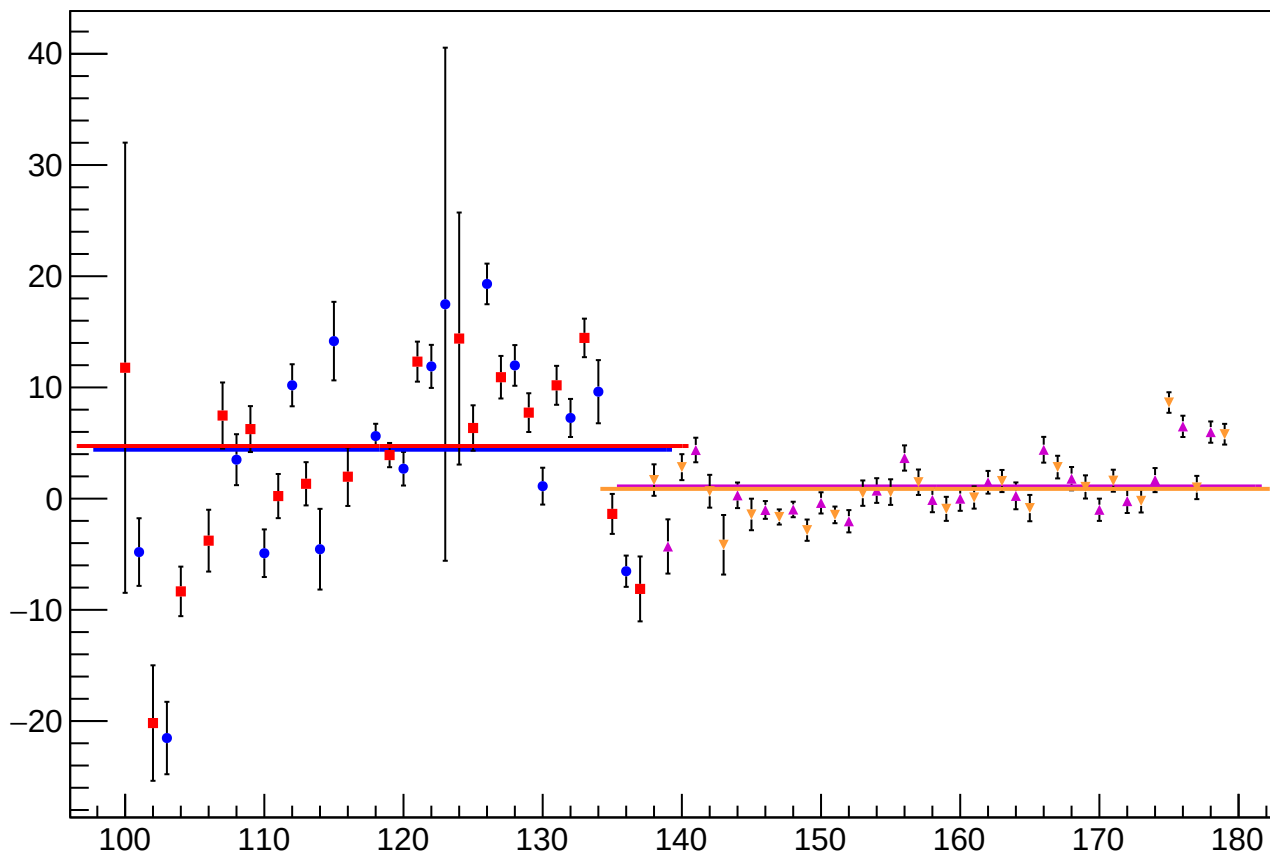
reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -4.218+/-0.296  $\chi^2/\text{NDF}$ : 3404.8/21  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -5.698+/-0.302  $\chi^2/\text{NDF}$ : 1747.8/19

Left: -4.942+/-0.212  $\chi^2/\text{NDF}$ : 5164.8/41  
 Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 In: -5.698+/-0.302  $\chi^2/\text{NDF}$ : 1747.8/19  
 Out: -4.218+/-0.296  $\chi^2/\text{NDF}$ : 3404.8/21  
 All: -4.942+/-0.212  $\chi^2/\text{NDF}$ : 5164.8/41

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $4.399 \pm 0.471$   $\chi^2/\text{NDF}$ : 286.8/16

Left Out:  $0.878 \pm 0.222$   $\chi^2/\text{NDF}$ : 158.0/21

Right Out:  $4.732 \pm 0.473$   $\chi^2/\text{NDF}$ : 182.9/18

Left In:  $1.095 \pm 0.230$   $\chi^2/\text{NDF}$ : 122.8/19

Left:  $0.983 \pm 0.160$   $\chi^2/\text{NDF}$ : 281.3/41

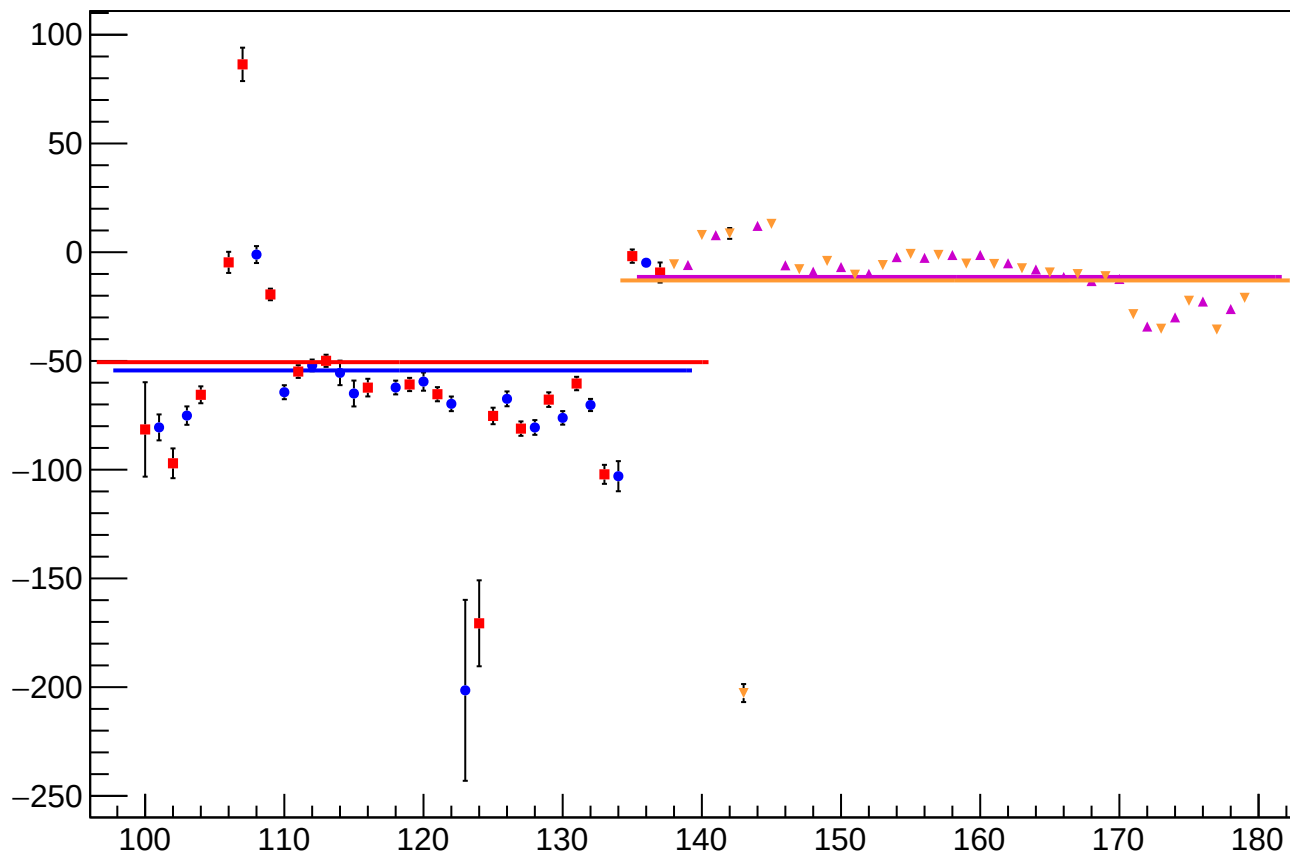
Right:  $4.565 \pm 0.334$   $\chi^2/\text{NDF}$ : 470.0/35

In:  $1.731 \pm 0.207$   $\chi^2/\text{NDF}$ : 449.4/36

Out:  $1.573 \pm 0.201$   $\chi^2/\text{NDF}$ : 395.3/40

All:  $1.650 \pm 0.144$   $\chi^2/\text{NDF}$ : 845.0/77

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In: -54.365 $\pm$ 0.868  $\chi^2$ /NDF: 1013.5/16

Left Out: -12.977 $\pm$ 0.293  $\chi^2$ /NDF: 3806.0/21

Right Out: -50.554 $\pm$ 0.858  $\chi^2$ /NDF: 1321.3/18

Left In: -11.374 $\pm$ 0.299  $\chi^2$ /NDF: 1347.8/19

Left: -12.193 $\pm$ 0.209  $\chi^2$ /NDF: 5168.5/41

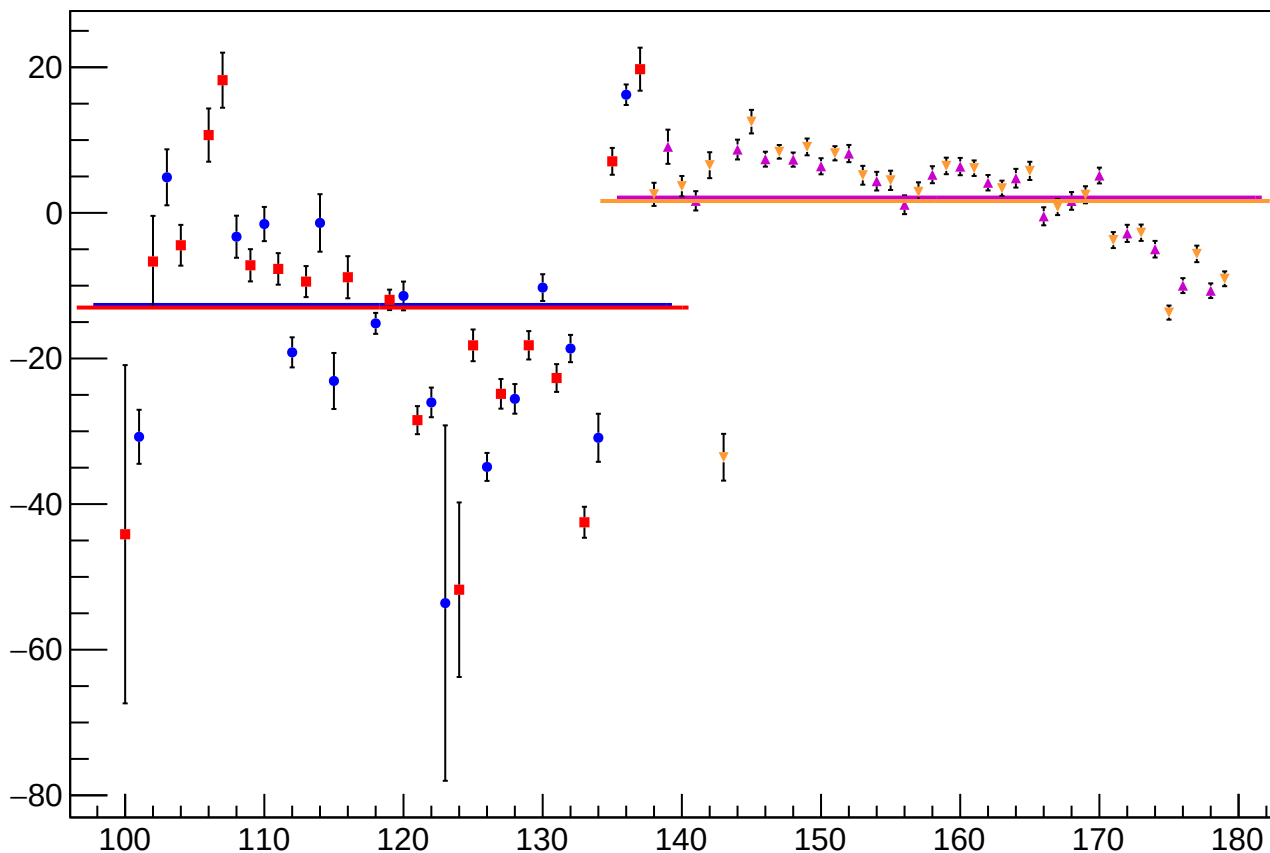
Right: -52.436 $\pm$ 0.610  $\chi^2$ /NDF: 2344.5/35

In: -15.933 $\pm$ 0.283  $\chi^2$ /NDF: 4553.0/36

Out: -16.893 $\pm$ 0.277  $\chi^2$ /NDF: 6847.5/40

All: -16.423 $\pm$ 0.198  $\chi^2$ /NDF: 11406.4/77

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-12.648 \pm 0.536$   $\chi^2/\text{NDF}$ : 788.4/16

Left Out:  $1.629 \pm 0.253$   $\chi^2/\text{NDF}$ : 818.8/21

Right Out:  $-13.005 \pm 0.538$   $\chi^2/\text{NDF}$ : 721.4/18

Left In:  $2.100 \pm 0.262$   $\chi^2/\text{NDF}$ : 528.8/19

Left:  $1.857 \pm 0.182$   $\chi^2/\text{NDF}$ : 1349.2/41

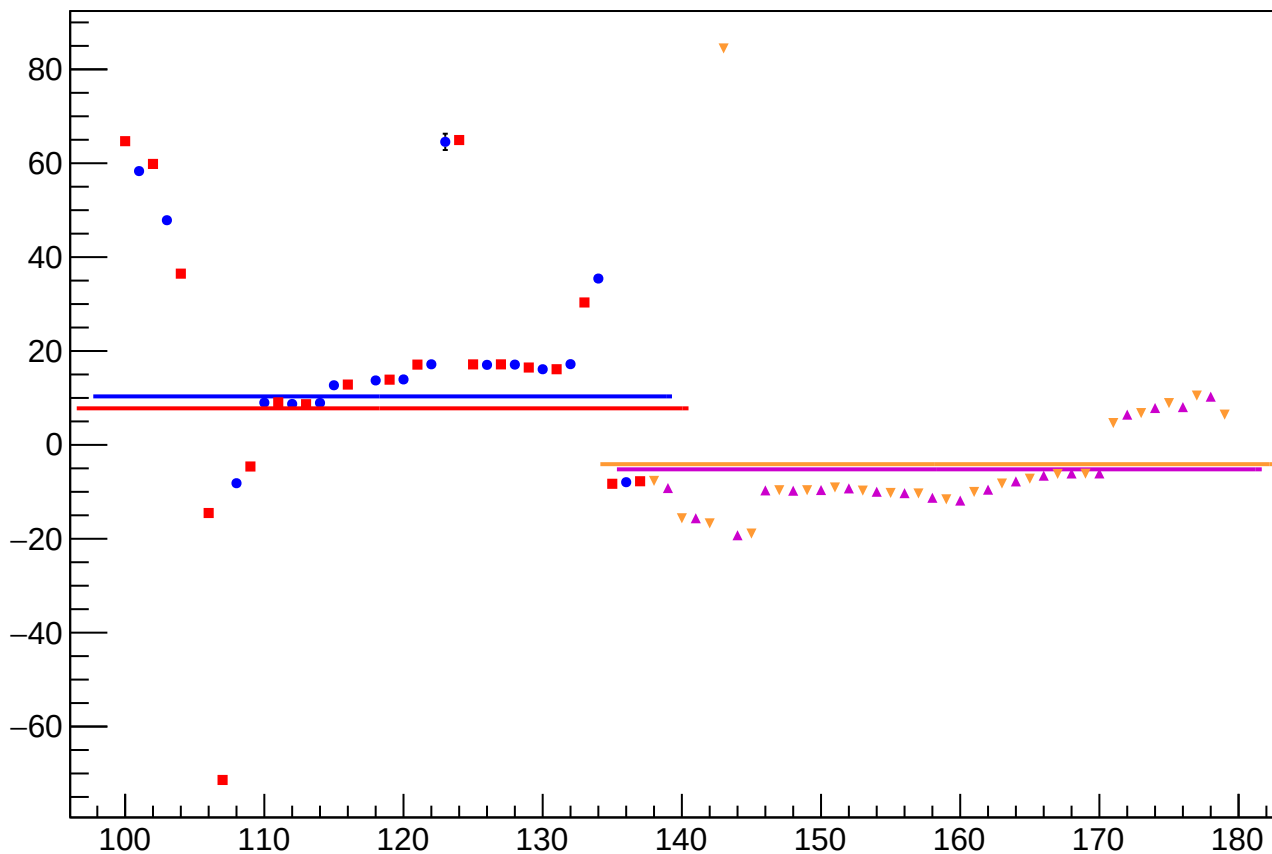
Right:  $-12.826 \pm 0.380$   $\chi^2/\text{NDF}$ : 1510.1/35

In:  $-0.740 \pm 0.235$   $\chi^2/\text{NDF}$ : 1927.9/36

Out:  $-1.032 \pm 0.229$   $\chi^2/\text{NDF}$ : 2146.6/40

All:  $-0.890 \pm 0.164$   $\chi^2/\text{NDF}$ : 4075.3/77

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 10.330+/-0.031  $\chi^2/\text{NDF}$ : 380857.1/16

Left Out: -4.108+/-0.012  $\chi^2/\text{NDF}$ : 800710.0/21

Right Out: 7.786+/-0.031  $\chi^2/\text{NDF}$ : 544119.7/18

Left In: -5.209+/-0.012  $\chi^2/\text{NDF}$ : 466366.4/19

Left: -4.651+/-0.008  $\chi^2/\text{NDF}$ : 1271468.8/41

Right: 9.084+/-0.022  $\chi^2/\text{NDF}$ : 928345.1/35

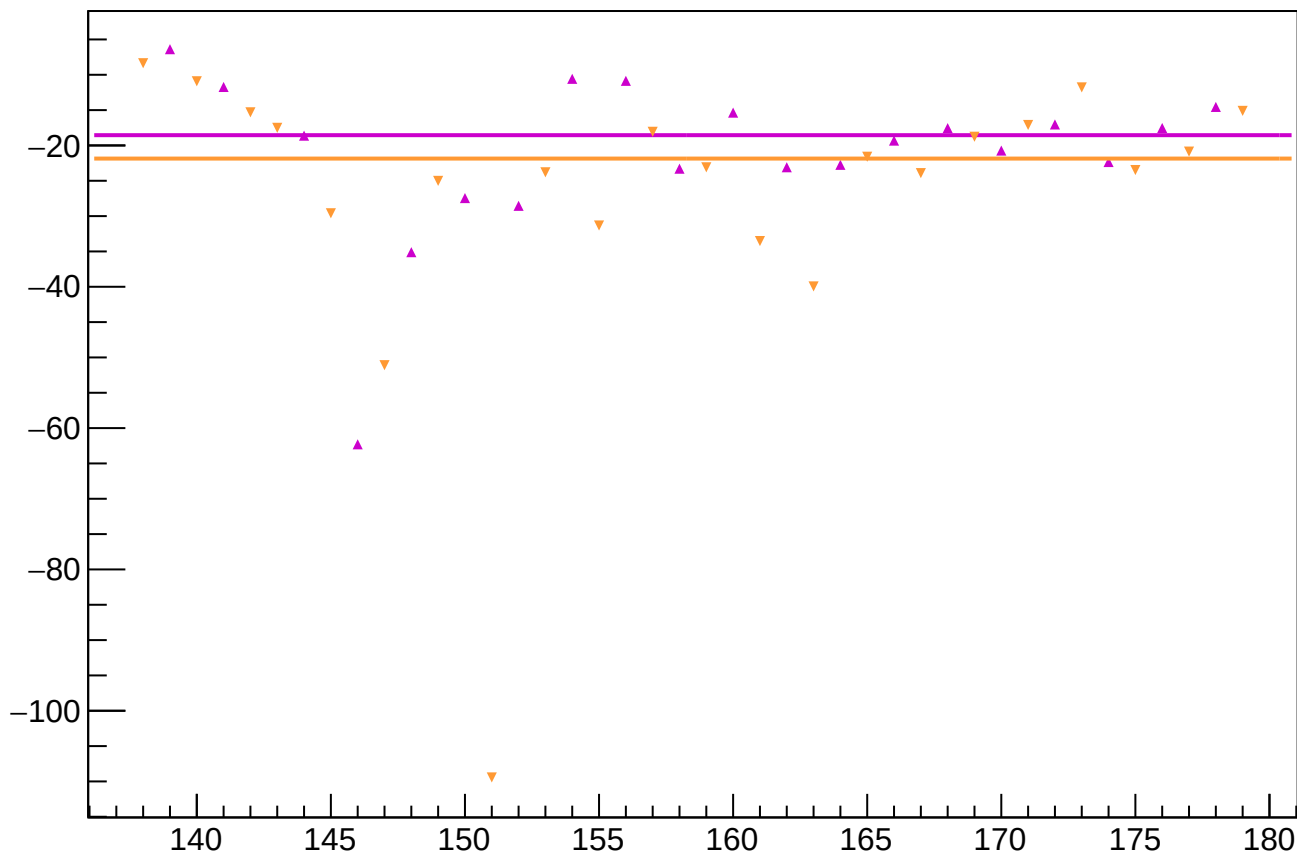
In: -3.197+/-0.011  $\chi^2/\text{NDF}$ : 1070597.6/36

Out: -2.657+/-0.011  $\chi^2/\text{NDF}$ : 1471582.8/40

All: -2.925+/-0.008  $\chi^2/\text{NDF}$ : 2543388.3/77



reg\_asym\_bcm\_an\_ds3\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -21.858+/-0.046  $\chi^2/\text{NDF}$ : 65190.3/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -18.547+/-0.044  $\chi^2/\text{NDF}$ : 38515.8/19

Left: -20.102+/-0.032  $\chi^2/\text{NDF}$ : 106414.3/41

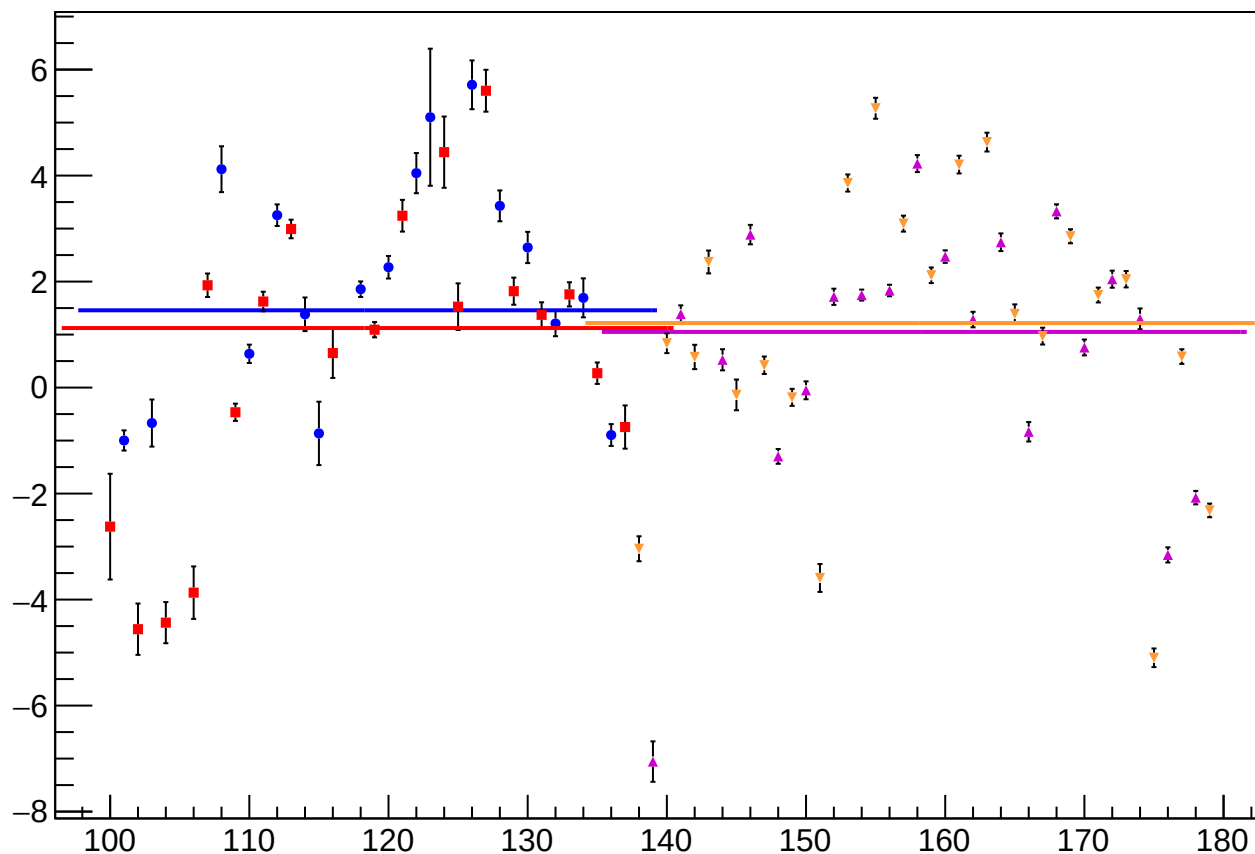
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -18.547+/-0.044  $\chi^2/\text{NDF}$ : 38515.8/19

Out: -21.858+/-0.046  $\chi^2/\text{NDF}$ : 65190.3/21

All: -20.102+/-0.032  $\chi^2/\text{NDF}$ : 106414.3/41

reg\_asym\_bcm\_an\_ds3\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 1.458 $\pm$ 0.062  $\chi^2/\text{NDF}$ : 698.2/16

Left Out: 1.217 $\pm$ 0.036  $\chi^2/\text{NDF}$ :4653.3/21

Right Out: 1.123 $\pm$ 0.058  $\chi^2/\text{NDF}$ : 947.4/18

Left In: 1.050 $\pm$ 0.033  $\chi^2/\text{NDF}$ :3558.5/19

Left: 1.127 $\pm$ 0.024  $\chi^2/\text{NDF}$ : 8223.5/41

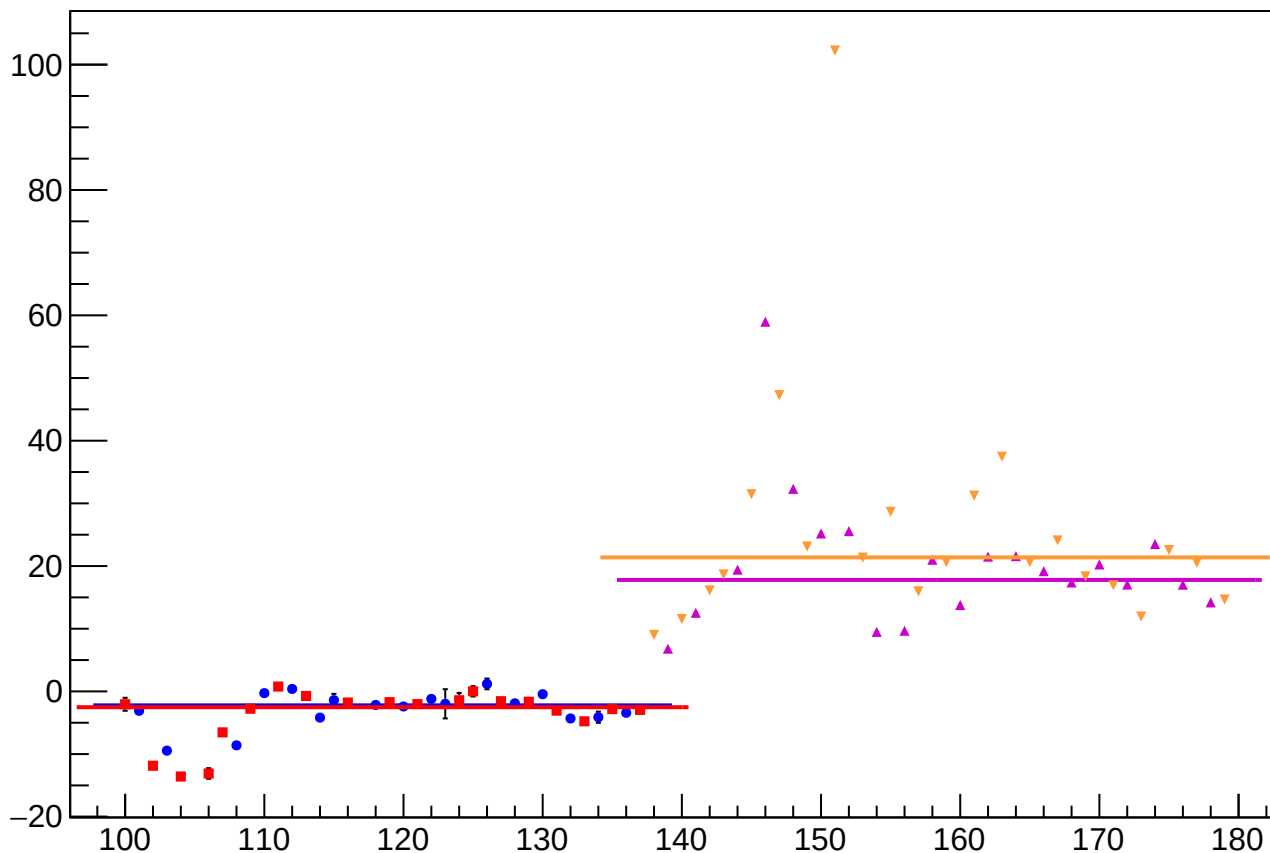
Right: 1.280 $\pm$ 0.042  $\chi^2/\text{NDF}$ : 1661.2/35

In: 1.141 $\pm$ 0.029  $\chi^2/\text{NDF}$ :4290.4/36

Out: 1.191 $\pm$ 0.031  $\chi^2/\text{NDF}$ :5602.6/40

All: 1.165 $\pm$ 0.021  $\chi^2/\text{NDF}$ : 9894.4/77

reg\_asym\_bcm\_an\_ds3\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-2.228 \pm 0.111$   $\chi^2/\text{NDF}$ : 460.4/16

Left Out:  $21.384 \pm 0.046$   $\chi^2/\text{NDF}$ : 58416.0/21

Right Out:  $-2.520 \pm 0.099$   $\chi^2/\text{NDF}$ : 904.0/18

Left In:  $17.787 \pm 0.043$   $\chi^2/\text{NDF}$ : 36596.5/19

Left:  $19.456 \pm 0.031$   $\chi^2/\text{NDF}$ : 98301.1/41

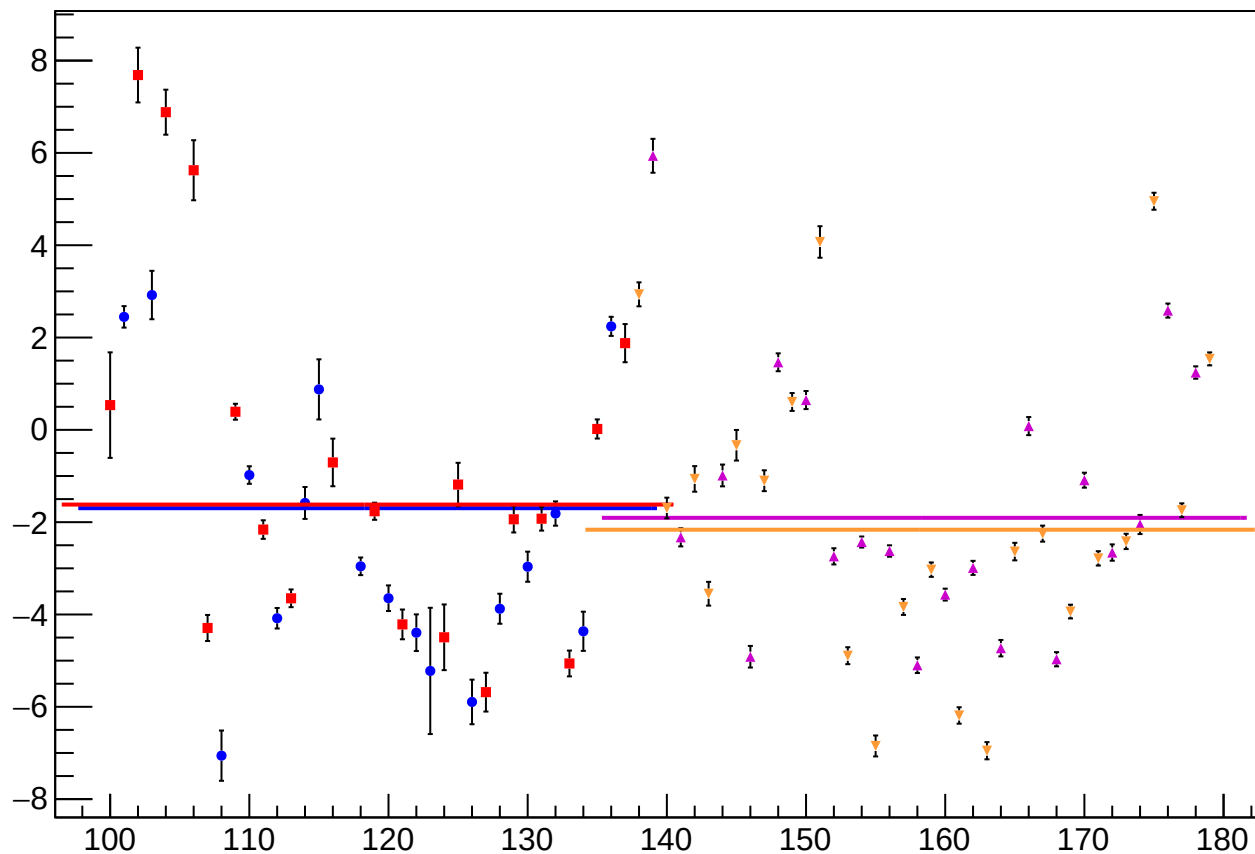
Right:  $-2.391 \pm 0.074$   $\chi^2/\text{NDF}$ : 1368.3/35

In:  $15.214 \pm 0.040$   $\chi^2/\text{NDF}$ : 65255.4/36

Out:  $17.151 \pm 0.042$   $\chi^2/\text{NDF}$ : 107317.3/40

All:  $16.141 \pm 0.029$   $\chi^2/\text{NDF}$ : 173700.5/77

reg\_asym\_bcm\_an\_ds3\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



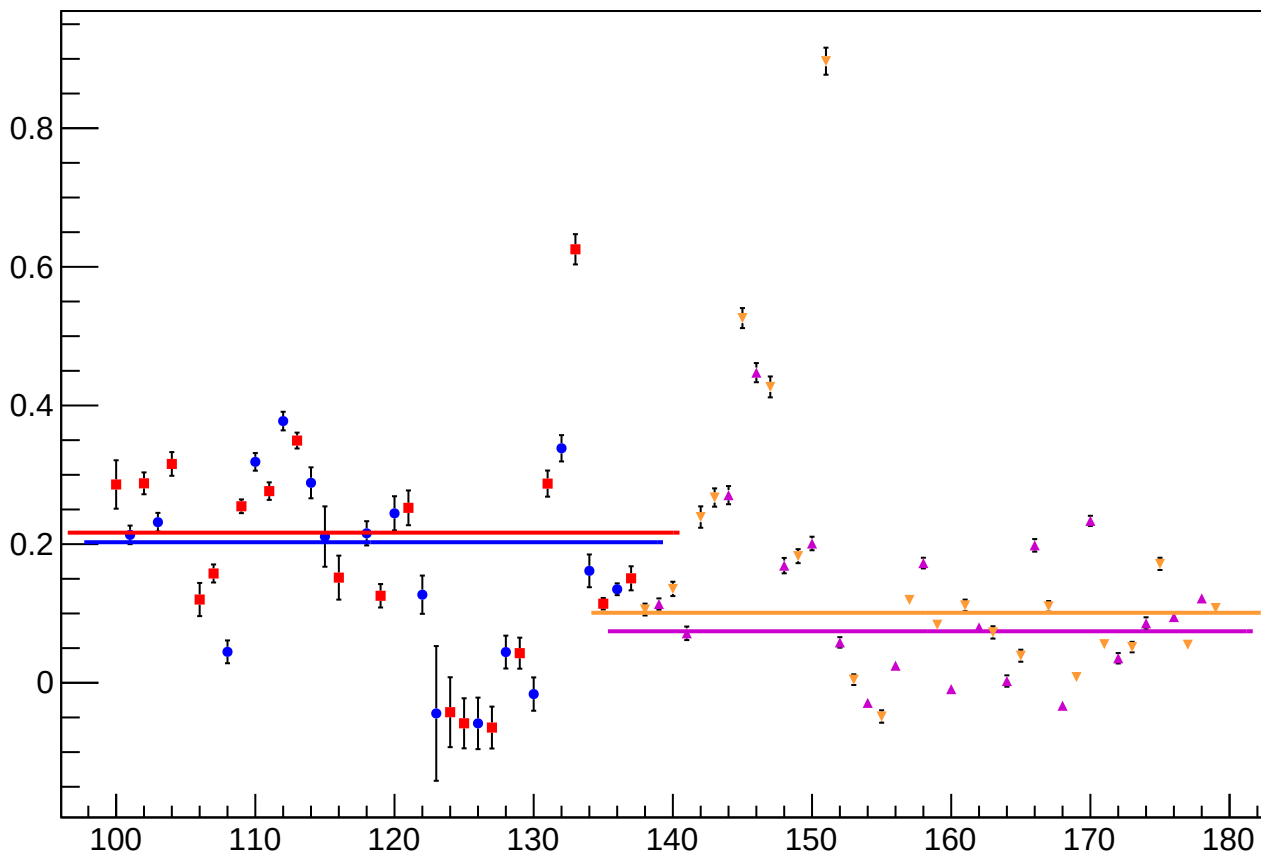
Right In:  $-1.697 \pm 0.071$   $\chi^2/\text{NDF}: 1319.4/16$   
 Left Out:  $-2.163 \pm 0.040$   $\chi^2/\text{NDF}: 5331.0/21$   
 Right Out:  $-1.618 \pm 0.066$   $\chi^2/\text{NDF}: 1489.2/18$   
 Left In:  $-1.906 \pm 0.037$   $\chi^2/\text{NDF}: 3972.3/19$

Left:  $-2.025 \pm 0.027$   $\chi^2/\text{NDF}: 9325.4/41$   
 Right:  $-1.655 \pm 0.048$   $\chi^2/\text{NDF}: 2809.3/35$

In:  $-1.861 \pm 0.033$   $\chi^2/\text{NDF}: 5298.4/36$   
 Out:  $-2.015 \pm 0.034$   $\chi^2/\text{NDF}: 6870.4/40$

All:  $-1.935 \pm 0.024$   $\chi^2/\text{NDF}: 12179.3/77$

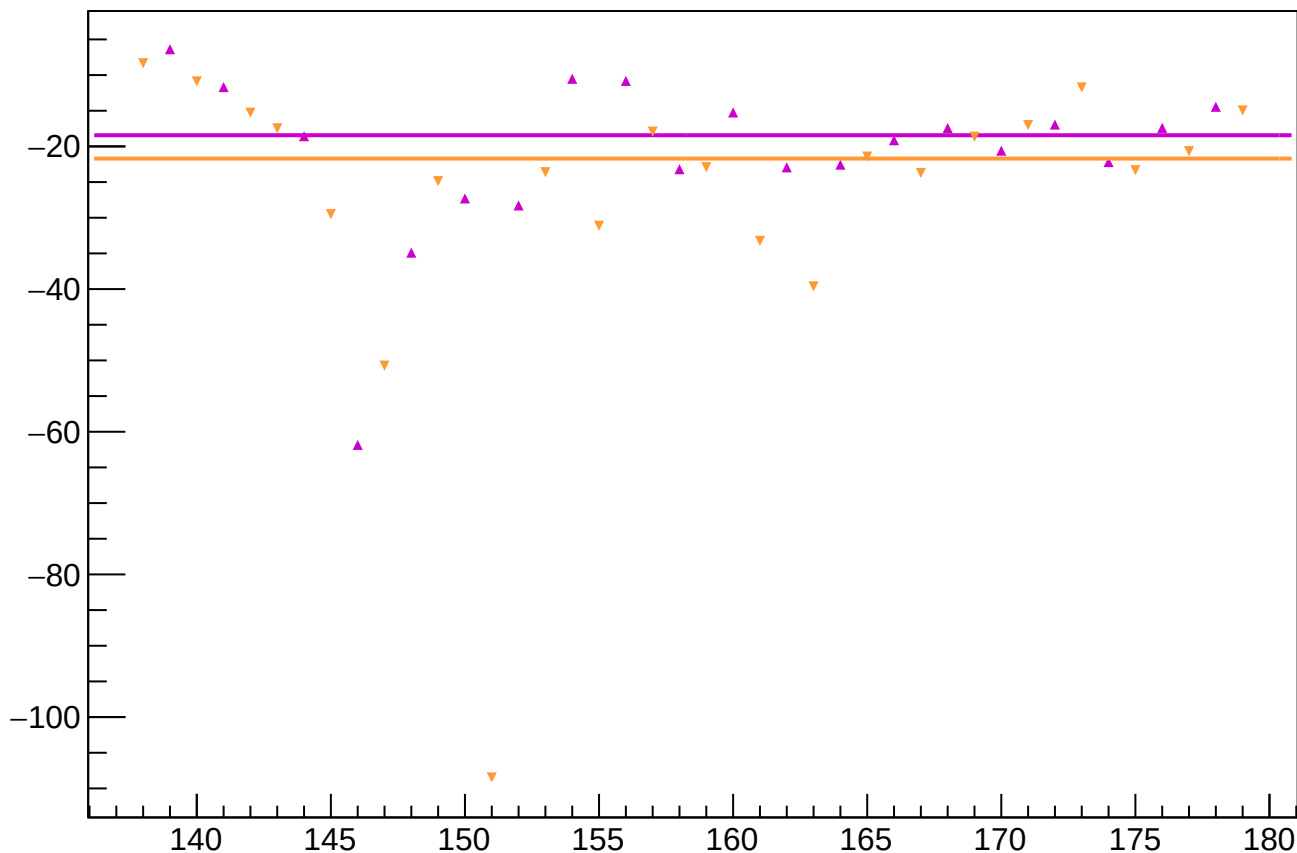
reg\_asym\_bcm\_an\_ds3\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.203 \pm 0.004$   $\chi^2/\text{NDF}: 676.5/16$   
 Left Out:  $0.101 \pm 0.002$   $\chi^2/\text{NDF}: 4219.1/21$   
 Right Out:  $0.217 \pm 0.004$   $\chi^2/\text{NDF}: 1064.4/18$   
 Left In:  $0.074 \pm 0.002$   $\chi^2/\text{NDF}: 3274.0/19$

Left:  $0.086 \pm 0.001$   $\chi^2/\text{NDF}: 7614.1/41$   
 Right:  $0.210 \pm 0.003$   $\chi^2/\text{NDF}: 1747.1/35$   
 In:  $0.091 \pm 0.002$   $\chi^2/\text{NDF}: 4779.8/36$   
 Out:  $0.123 \pm 0.002$   $\chi^2/\text{NDF}: 6073.0/40$   
 All:  $0.106 \pm 0.001$   $\chi^2/\text{NDF}: 11056.5/77$

reg\_asym\_bcm\_an\_ds\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -21.706+/-0.046  $\chi^2/\text{NDF}$ : 65054.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -18.432+/-0.043  $\chi^2/\text{NDF}$ : 38437.7/19

Left: -19.970+/-0.032  $\chi^2/\text{NDF}$ : 106176.2/41

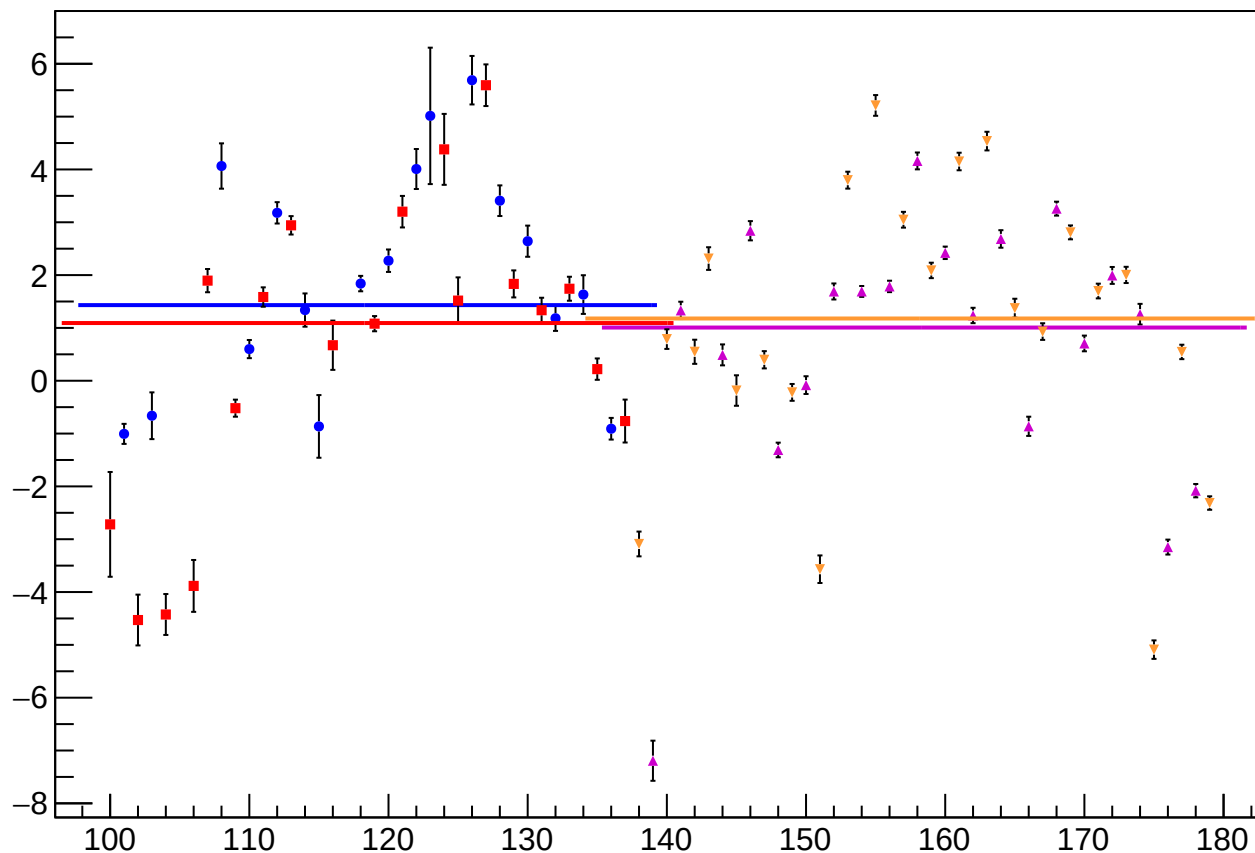
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -18.432+/-0.043  $\chi^2/\text{NDF}$ : 38437.7/19

Out: -21.706+/-0.046  $\chi^2/\text{NDF}$ : 65054.9/21

All: -19.970+/-0.032  $\chi^2/\text{NDF}$ : 106176.2/41

reg\_asym\_bcm\_an\_ds\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $1.432 \pm 0.062$   $\chi^2/\text{NDF}$ : 696.6/16

Left Out:  $1.178 \pm 0.036$   $\chi^2/\text{NDF}$ : 4648.7/21

Right Out:  $1.092 \pm 0.058$   $\chi^2/\text{NDF}$ : 953.2/18

Left In:  $1.007 \pm 0.033$   $\chi^2/\text{NDF}$ : 3553.8/19

Left:  $1.086 \pm 0.024$   $\chi^2/\text{NDF}$ : 8214.9/41

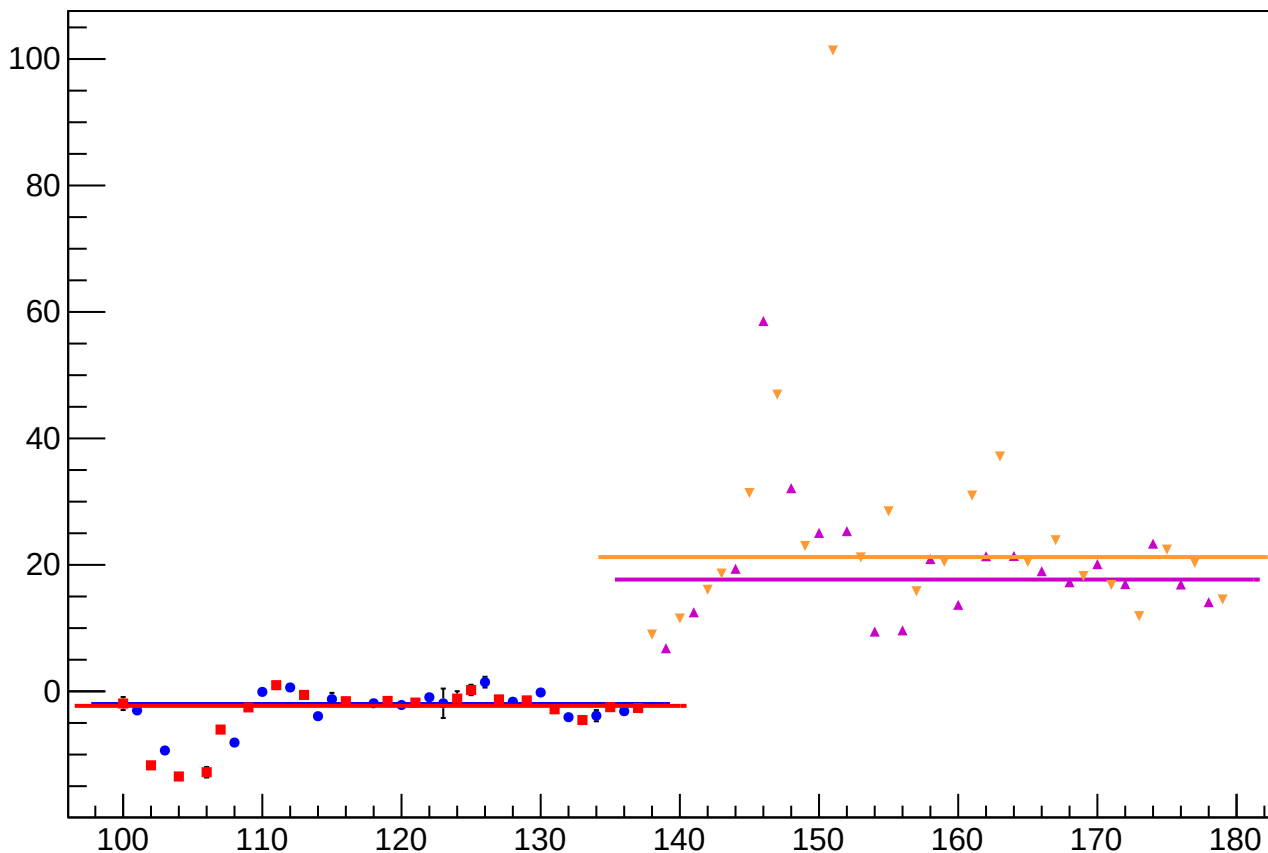
Right:  $1.251 \pm 0.042$   $\chi^2/\text{NDF}$ : 1665.8/35

In:  $1.102 \pm 0.029$   $\chi^2/\text{NDF}$ : 4287.2/36

Out:  $1.155 \pm 0.030$   $\chi^2/\text{NDF}$ : 5603.4/40

All:  $1.127 \pm 0.021$   $\chi^2/\text{NDF}$ : 9892.3/77

reg\_asym\_bcm\_an\_ds\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-2.005 \pm 0.111$   $\chi^2/\text{NDF}$ : 463.1/16

Left Out:  $21.233 \pm 0.046$   $\chi^2/\text{NDF}$ : 58316.8/21

Right Out:  $-2.295 \pm 0.098$   $\chi^2/\text{NDF}$ : 907.2/18

Left In:  $17.678 \pm 0.042$   $\chi^2/\text{NDF}$ : 36527.5/19

Left:  $19.329 \pm 0.031$   $\chi^2/\text{NDF}$ : 98102.7/41

Right:  $-2.167 \pm 0.074$   $\chi^2/\text{NDF}$ : 1374.2/35

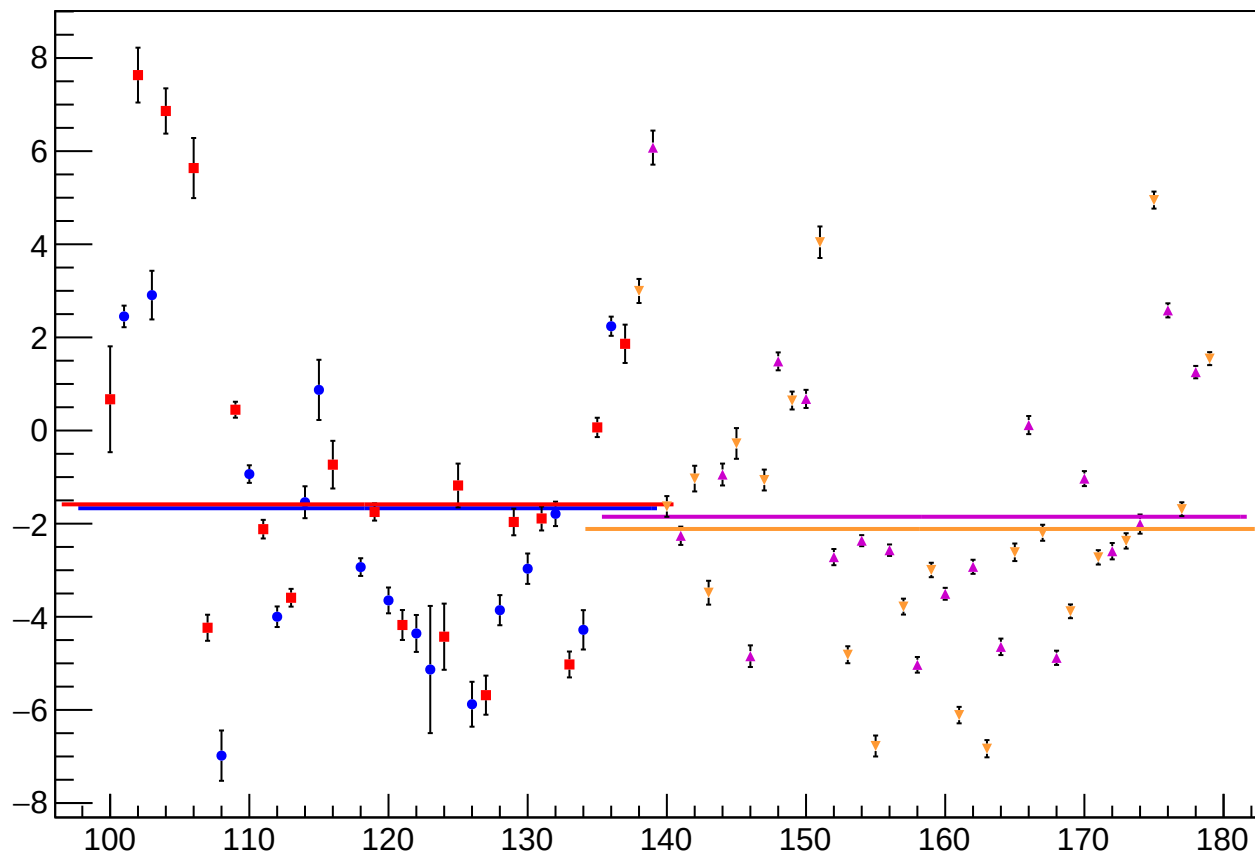
In:  $15.155 \pm 0.040$   $\chi^2/\text{NDF}$ : 64543.3/36

Out:  $17.080 \pm 0.041$   $\chi^2/\text{NDF}$ : 106249.2/40

All:  $16.076 \pm 0.029$   $\chi^2/\text{NDF}$ : 171921.3/77



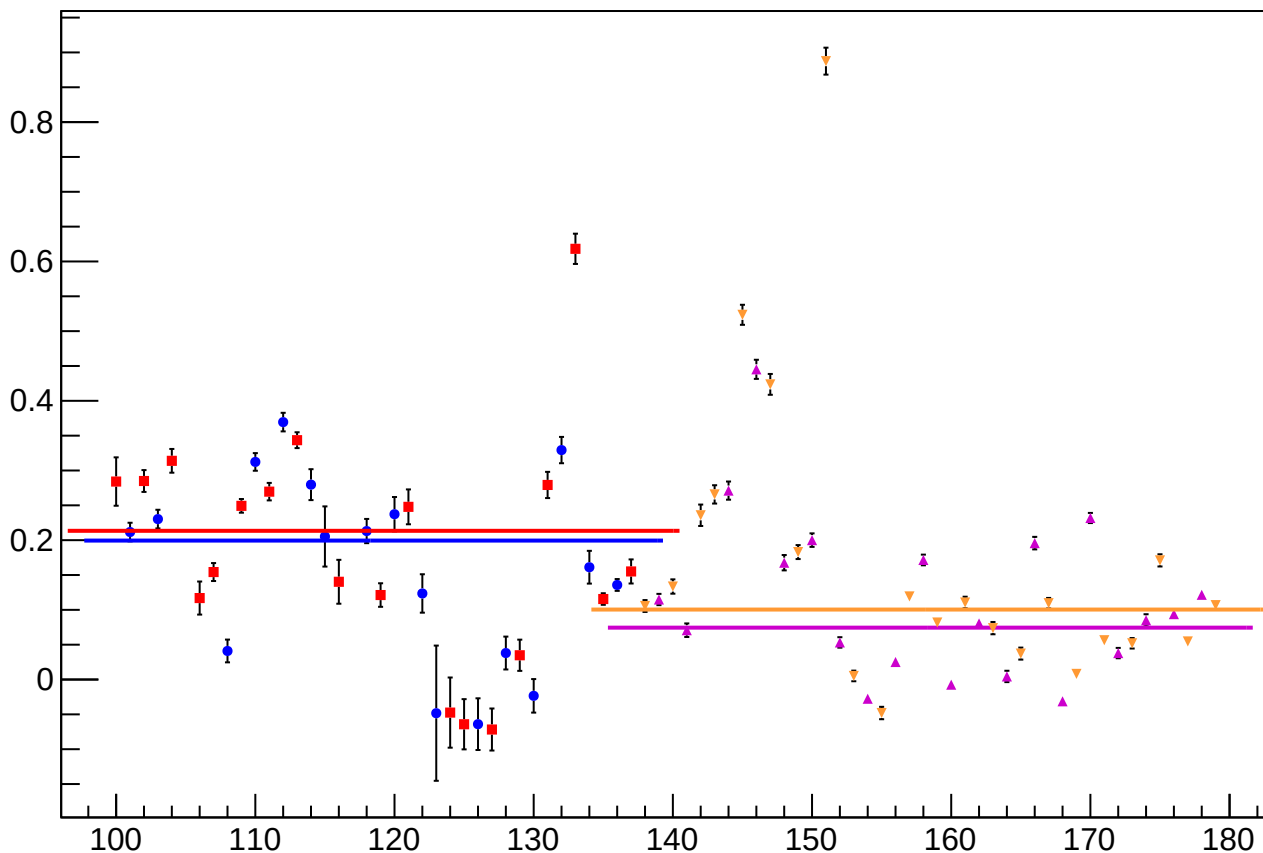
reg\_asym\_bcm\_an\_ds\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-1.669 \pm 0.071$   $\chi^2/\text{NDF}: 1314.9/16$   
 Left Out:  $-2.114 \pm 0.040$   $\chi^2/\text{NDF}: 5325.0/21$   
 Right Out:  $-1.585 \pm 0.065$   $\chi^2/\text{NDF}: 1494.7/18$   
 Left In:  $-1.852 \pm 0.037$   $\chi^2/\text{NDF}: 3966.2/19$

Left:  $-1.973 \pm 0.027$   $\chi^2/\text{NDF}: 9314.5/41$   
 Right:  $-1.624 \pm 0.048$   $\chi^2/\text{NDF}: 2810.4/35$   
 In:  $-1.812 \pm 0.033$   $\chi^2/\text{NDF}: 5286.4/36$   
 Out:  $-1.970 \pm 0.034$   $\chi^2/\text{NDF}: 6867.4/40$   
 All:  $-1.888 \pm 0.024$   $\chi^2/\text{NDF}: 12164.9/77$

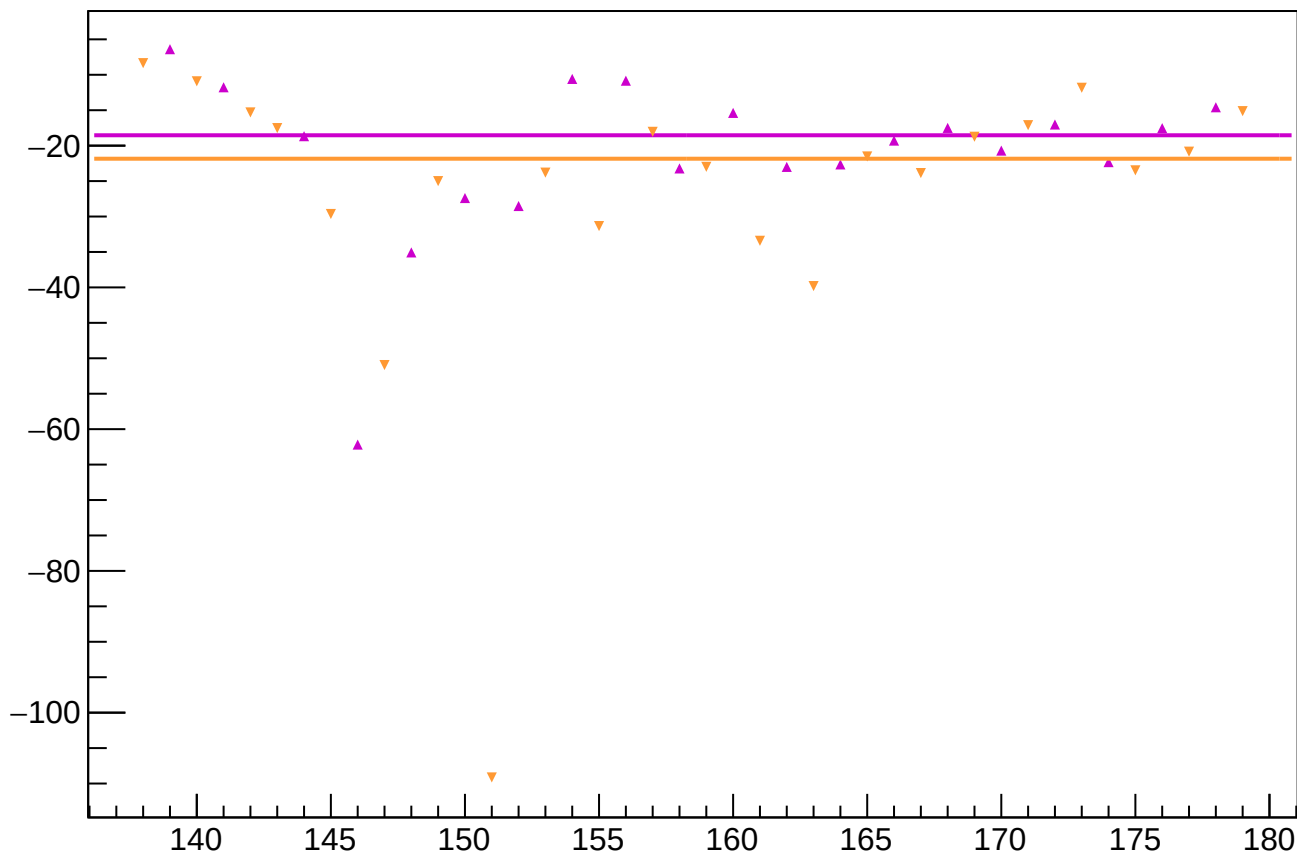
reg\_asym\_bcm\_an\_ds\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Left:  $0.086 \pm 0.001$   $\chi^2/\text{NDF}: 7574.0/41$   
 Right:  $0.207 \pm 0.003$   $\chi^2/\text{NDF}: 1716.7/35$   
 In:  $0.091 \pm 0.002$   $\chi^2/\text{NDF}: 4701.8/36$   
 Out:  $0.122 \pm 0.002$   $\chi^2/\text{NDF}: 6022.3/40$   
 All:  $0.106 \pm 0.001$   $\chi^2/\text{NDF}: 10920.5/77$

Right In:  $0.199 \pm 0.004$   $\chi^2/\text{NDF}: 662.1/16$   
 Left Out:  $0.100 \pm 0.002$   $\chi^2/\text{NDF}: 4211.1/21$   
 Right Out:  $0.213 \pm 0.004$   $\chi^2/\text{NDF}: 1048.2/18$   
 Left In:  $0.074 \pm 0.002$   $\chi^2/\text{NDF}: 3246.7/19$

reg\_asym\_bcm\_an\_us\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -21.843+/-0.046  $\chi^2/\text{NDF}$ : 65105.6/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -18.535+/-0.043  $\chi^2/\text{NDF}$ : 38475.8/19

Left: -20.088+/-0.032  $\chi^2/\text{NDF}$ : 106298.4/41

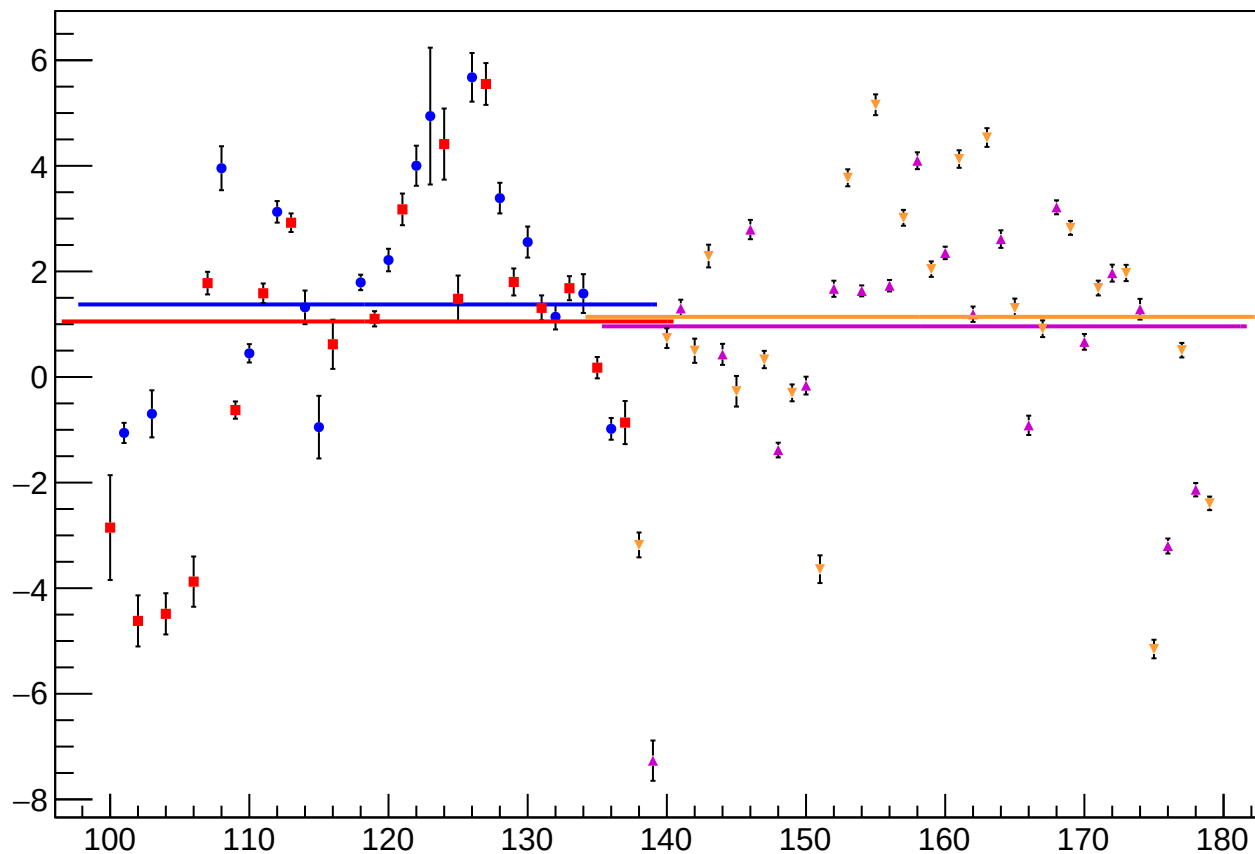
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

In: -18.535+/-0.043  $\chi^2/\text{NDF}$ : 38475.8/19

Out: -21.843+/-0.046  $\chi^2/\text{NDF}$ : 65105.6/21

All: -20.088+/-0.032  $\chi^2/\text{NDF}$ : 106298.4/41

reg\_asym\_bcm\_an\_us\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 1.375 $\pm$ 0.062  $\chi^2$ /NDF: 702.4/16

Left Out: 1.140 $\pm$ 0.036  $\chi^2$ /NDF: 4675.6/21

Right Out: 1.052 $\pm$ 0.058  $\chi^2$ /NDF: 964.0/18

Left In: 0.960 $\pm$ 0.033  $\chi^2$ /NDF: 3528.7/19

Left: 1.043 $\pm$ 0.024  $\chi^2$ /NDF: 8217.9/41

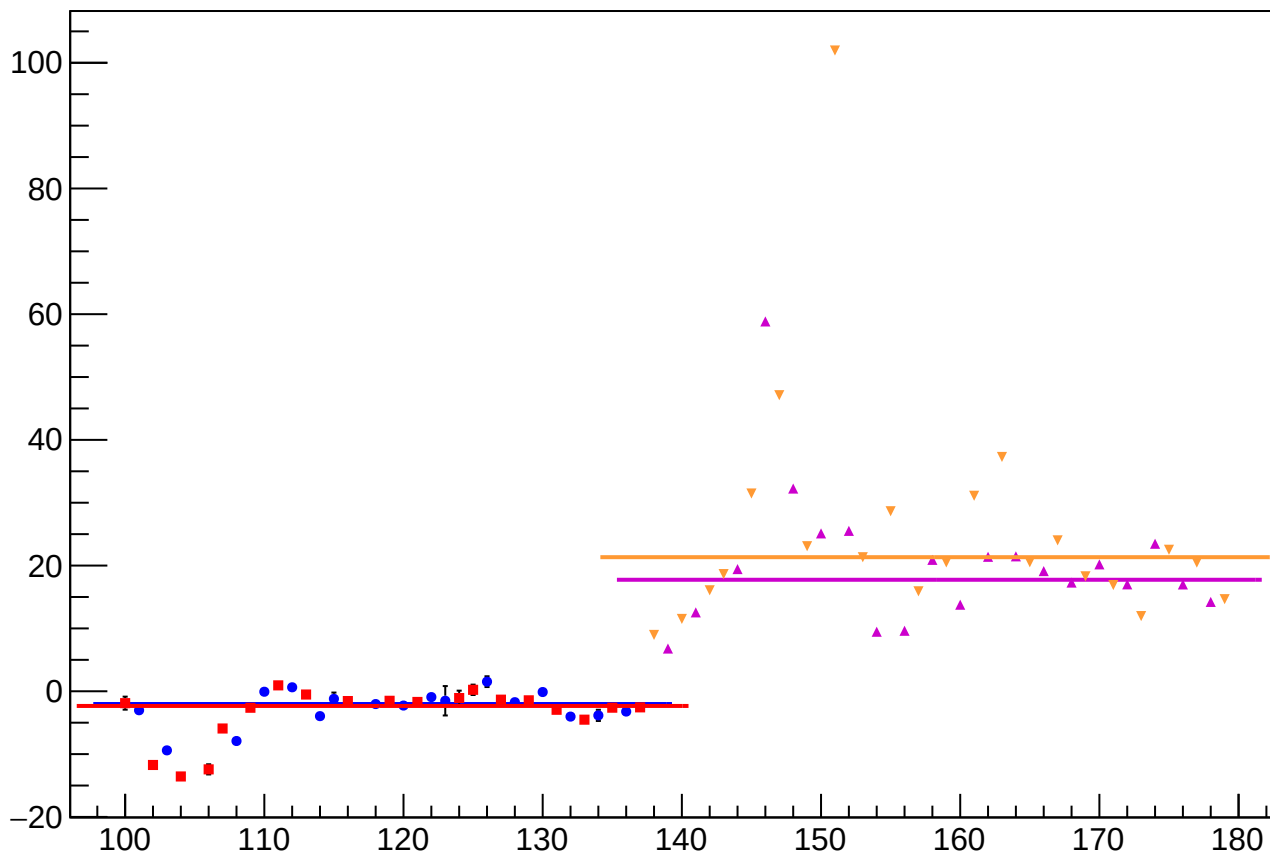
Right: 1.203 $\pm$ 0.042  $\chi^2$ /NDF: 1680.9/35

In: 1.052 $\pm$ 0.029  $\chi^2$ /NDF: 4266.0/36

Out: 1.116 $\pm$ 0.030  $\chi^2$ /NDF: 5641.3/40

All: 1.083 $\pm$ 0.021  $\chi^2$ /NDF: 9909.5/77

reg\_asym\_bcm\_an\_us\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-2.031 \pm 0.111$   $\chi^2/\text{NDF}$ : 463.2/16

Left Out:  $21.335 \pm 0.046$   $\chi^2/\text{NDF}$ : 58356.9/21

Right Out:  $-2.336 \pm 0.099$   $\chi^2/\text{NDF}$ : 902.0/18

Left In:  $17.742 \pm 0.043$   $\chi^2/\text{NDF}$ : 36579.8/19

Left:  $19.409 \pm 0.031$   $\chi^2/\text{NDF}$ : 98234.7/41

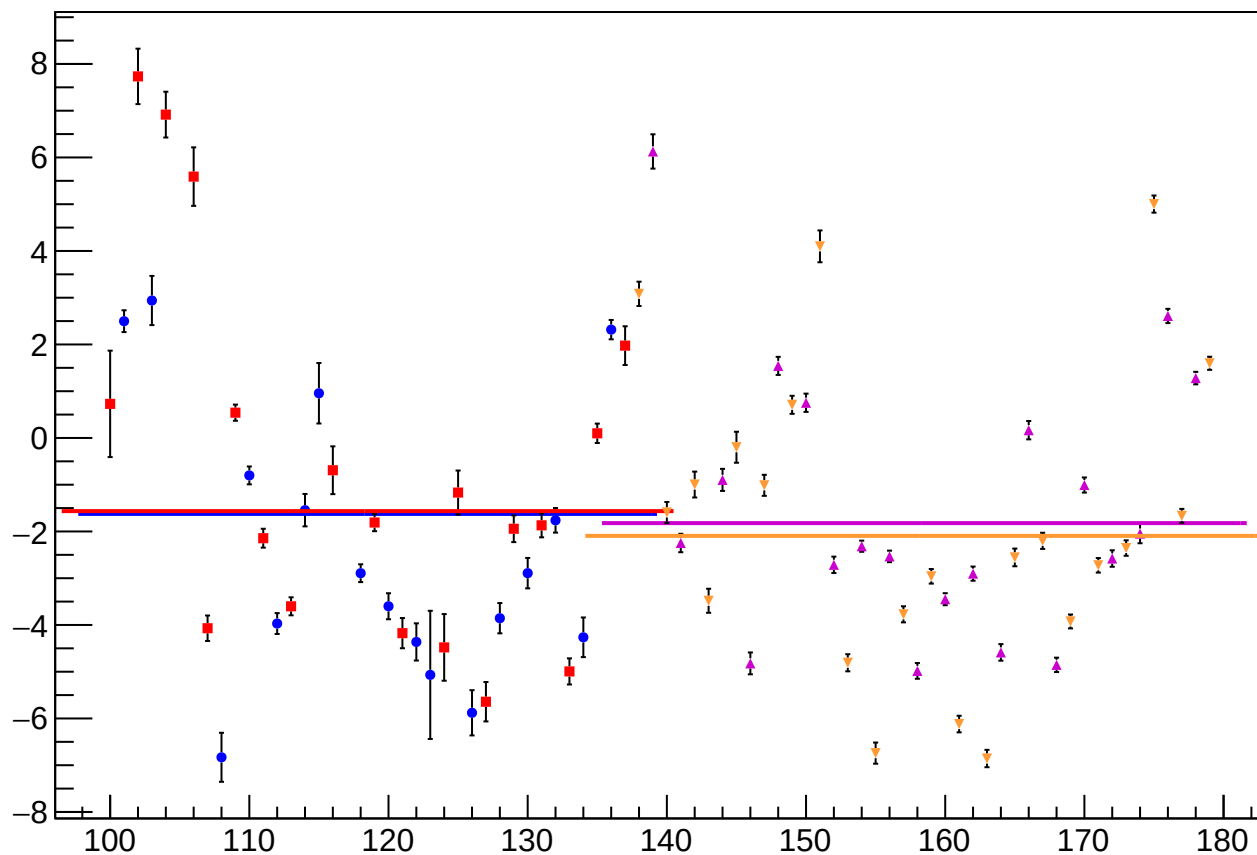
Right:  $-2.202 \pm 0.074$   $\chi^2/\text{NDF}$ : 1369.3/35

In:  $15.213 \pm 0.040$   $\chi^2/\text{NDF}$ : 64563.8/36

Out:  $17.158 \pm 0.042$   $\chi^2/\text{NDF}$ : 106396.1/40

All:  $16.143 \pm 0.029$   $\chi^2/\text{NDF}$ : 172102.3/77

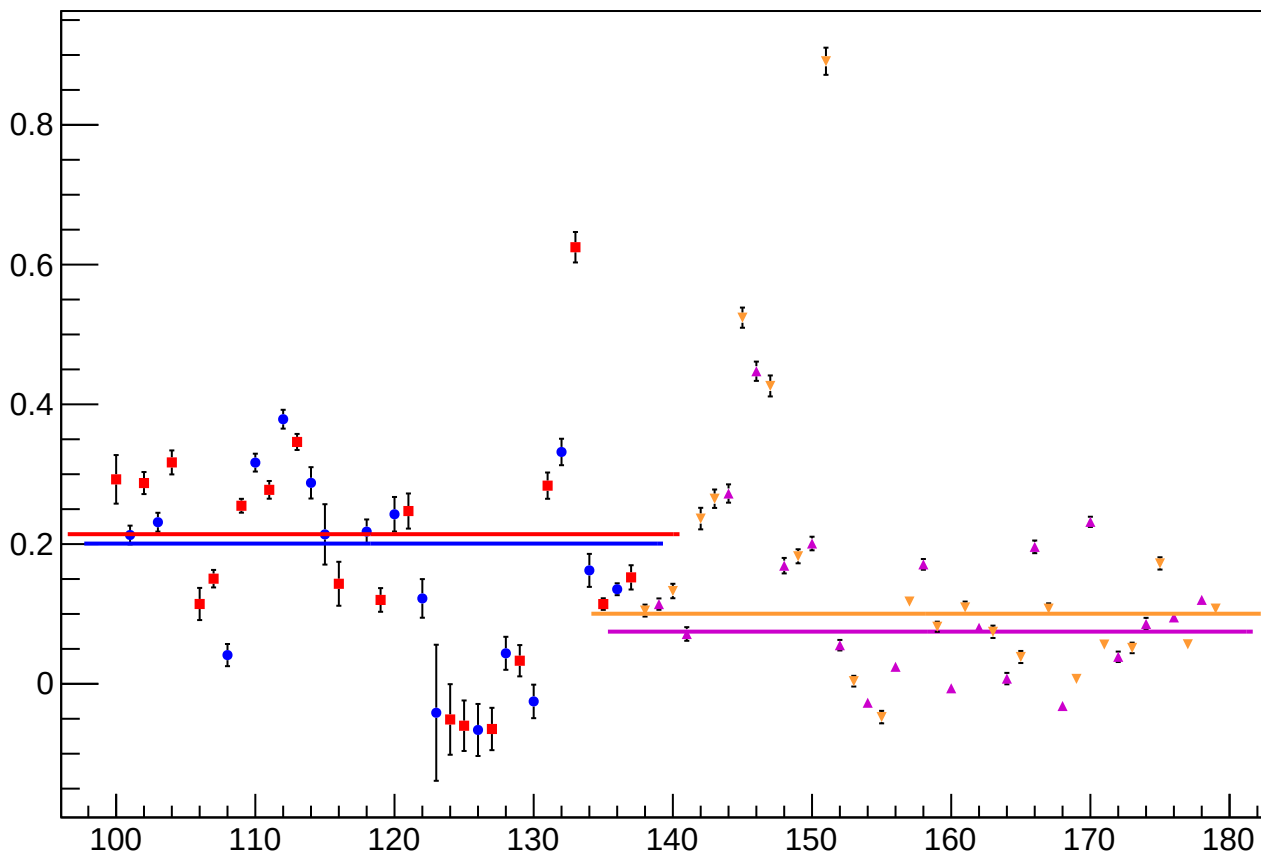
reg\_asym\_bcm\_an\_us\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-1.625 \pm 0.071$   $\chi^2/\text{NDF}$ : 1320.8/16  
 Left Out:  $-2.094 \pm 0.040$   $\chi^2/\text{NDF}$ : 5357.5/21  
 Right Out:  $-1.565 \pm 0.066$   $\chi^2/\text{NDF}$ : 1505.8/18  
 Left In:  $-1.821 \pm 0.037$   $\chi^2/\text{NDF}$ : 3933.0/19

Left:  $-1.948 \pm 0.027$   $\chi^2/\text{NDF}$ : 9315.3/41  
 Right:  $-1.592 \pm 0.048$   $\chi^2/\text{NDF}$ : 2826.9/35  
 In:  $-1.779 \pm 0.033$   $\chi^2/\text{NDF}$ : 5259.7/36  
 Out:  $-1.950 \pm 0.034$   $\chi^2/\text{NDF}$ : 6910.7/40  
 All:  $-1.862 \pm 0.024$   $\chi^2/\text{NDF}$ : 12183.4/77

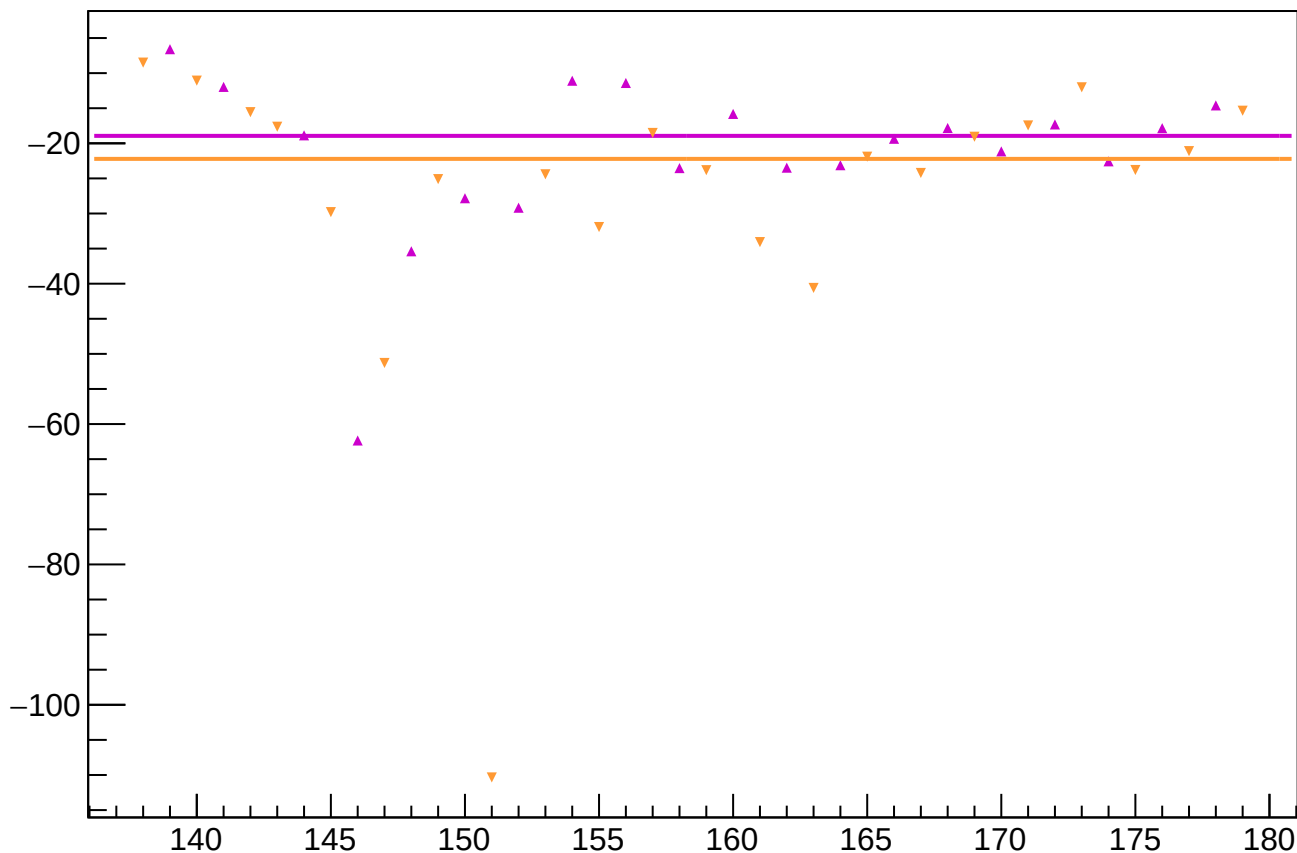
reg\_asym\_bcm\_an\_us\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.201 \pm 0.004$   $\chi^2/\text{NDF}: 690.6/16$   
 Left Out:  $0.100 \pm 0.002$   $\chi^2/\text{NDF}: 4195.8/21$   
 Right Out:  $0.214 \pm 0.004$   $\chi^2/\text{NDF}: 1080.4/18$   
 Left In:  $0.075 \pm 0.002$   $\chi^2/\text{NDF}: 3221.6/19$

Left:  $0.086 \pm 0.001$   $\chi^2/\text{NDF}: 7529.5/41$   
 Right:  $0.208 \pm 0.003$   $\chi^2/\text{NDF}: 1776.9/35$   
 In:  $0.091 \pm 0.002$   $\chi^2/\text{NDF}: 4712.7/36$   
 Out:  $0.122 \pm 0.002$   $\chi^2/\text{NDF}: 6046.8/40$   
 All:  $0.106 \pm 0.001$   $\chi^2/\text{NDF}: 10951.3/77$

reg\_asym\_bcm\_dg\_ds\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left Out: -22.217+/-0.047  $\chi^2/\text{NDF}$ :64992.9/21

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

Left In: -18.938+/-0.044  $\chi^2/\text{NDF}$ :37486.3/19

Left: -20.482+/-0.032  $\chi^2/\text{NDF}$ : 105038.4/41

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

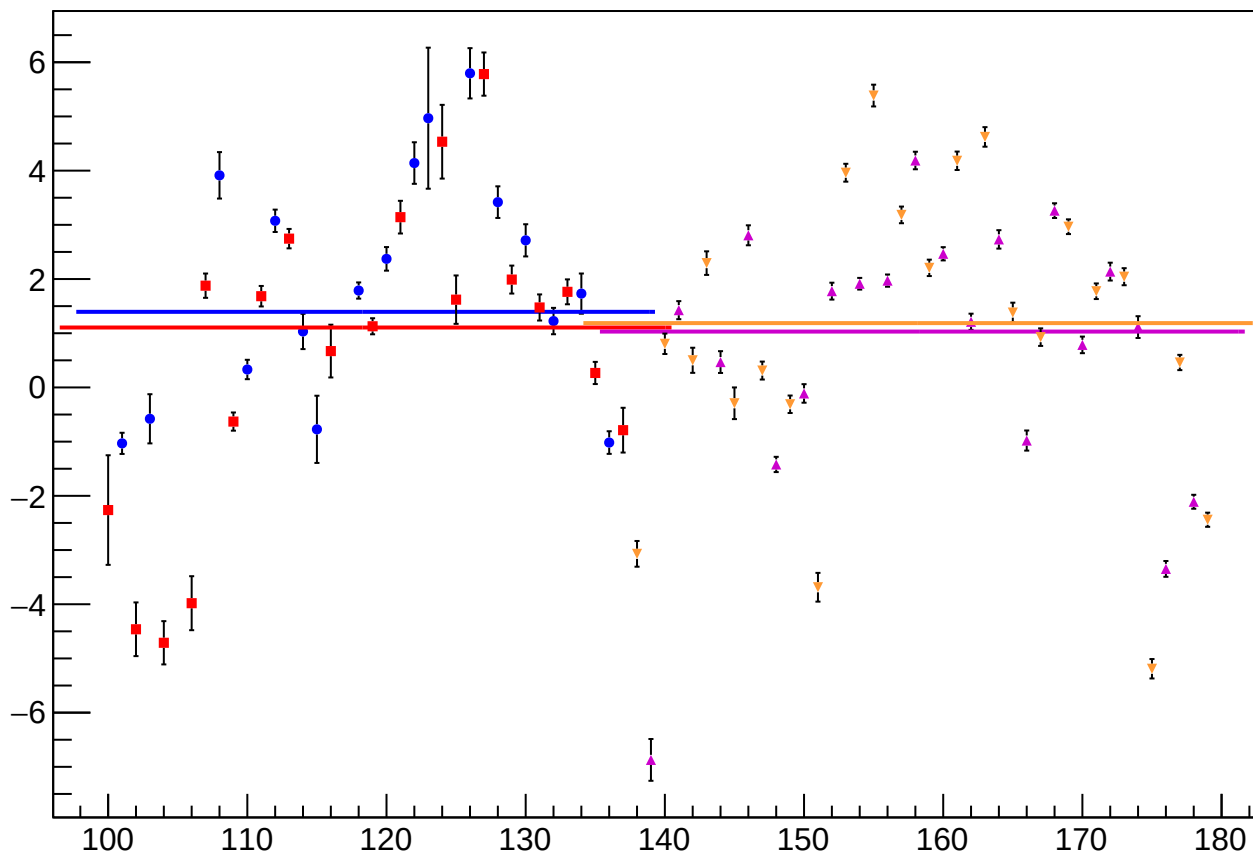
In: -18.938+/-0.044  $\chi^2/\text{NDF}$ :37486.3/19

Out: -22.217+/-0.047  $\chi^2/\text{NDF}$ :64992.9/21

All: -20.482+/-0.032  $\chi^2/\text{NDF}$ : 105038.4/41



reg\_asym\_bcm\_dg\_ds\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In: 1.395 $\pm$ 0.063  $\chi^2$ /NDF: 701.4/16

Left Out: 1.187 $\pm$ 0.037  $\chi^2$ /NDF: 4729.4/21

Right Out: 1.106 $\pm$ 0.059  $\chi^2$ /NDF: 937.0/18

Left In: 1.031 $\pm$ 0.034  $\chi^2$ /NDF: 3585.3/19

Left: 1.103 $\pm$ 0.025  $\chi^2$ /NDF: 8324.5/41

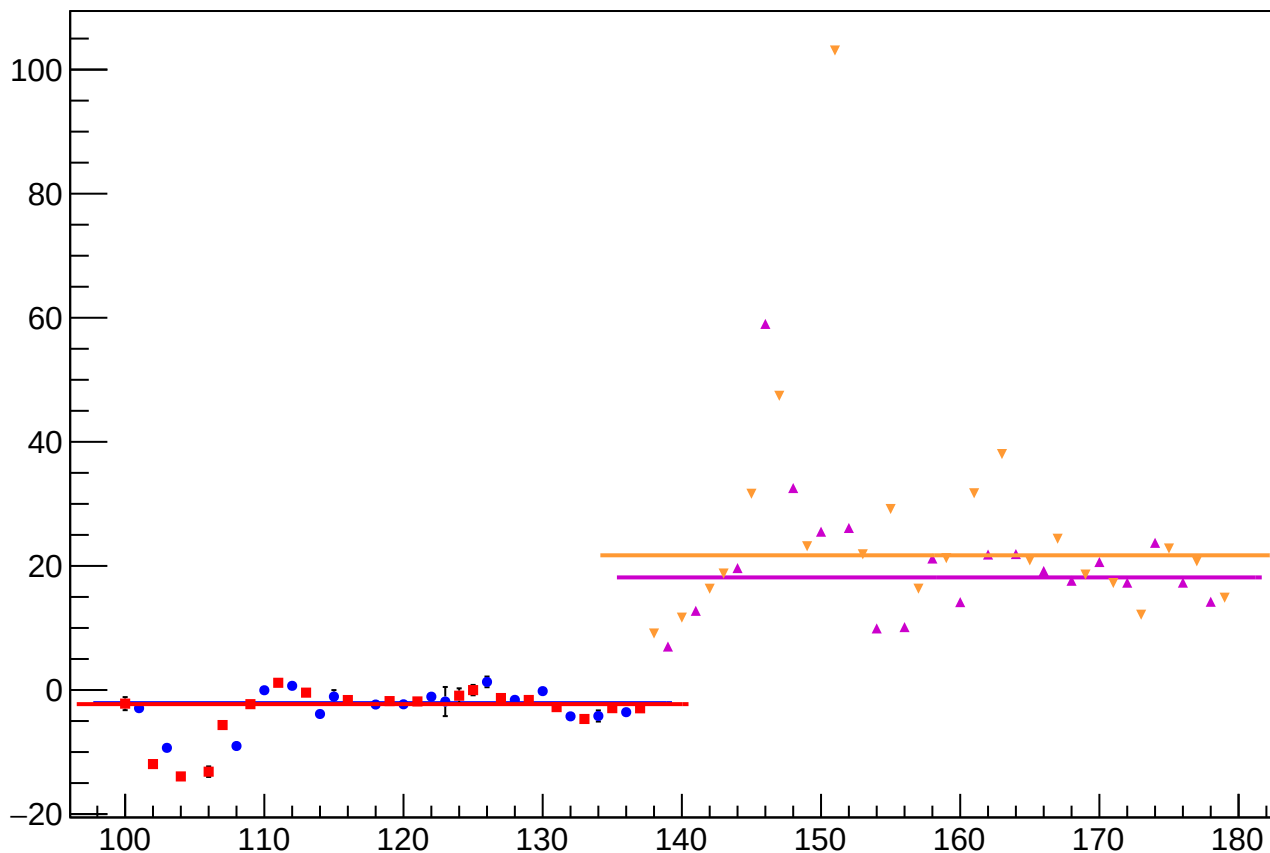
Right: 1.241 $\pm$ 0.043  $\chi^2$ /NDF: 1649.6/35

In: 1.112 $\pm$ 0.030  $\chi^2$ /NDF: 4312.7/36

Out: 1.165 $\pm$ 0.031  $\chi^2$ /NDF: 5667.7/40

All: 1.138 $\pm$ 0.022  $\chi^2$ /NDF: 9981.8/77

reg\_asym\_bcm\_dg\_ds\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-2.119 \pm 0.113$   $\chi^2/\text{NDF}$ : 486.3/16

Left Out:  $21.712 \pm 0.047$   $\chi^2/\text{NDF}$ : 58140.4/21

Right Out:  $-2.277 \pm 0.101$   $\chi^2/\text{NDF}$ : 919.4/18

Left In:  $18.148 \pm 0.044$   $\chi^2/\text{NDF}$ : 35429.3/19

Left:  $19.808 \pm 0.032$   $\chi^2/\text{NDF}$ : 96678.1/41

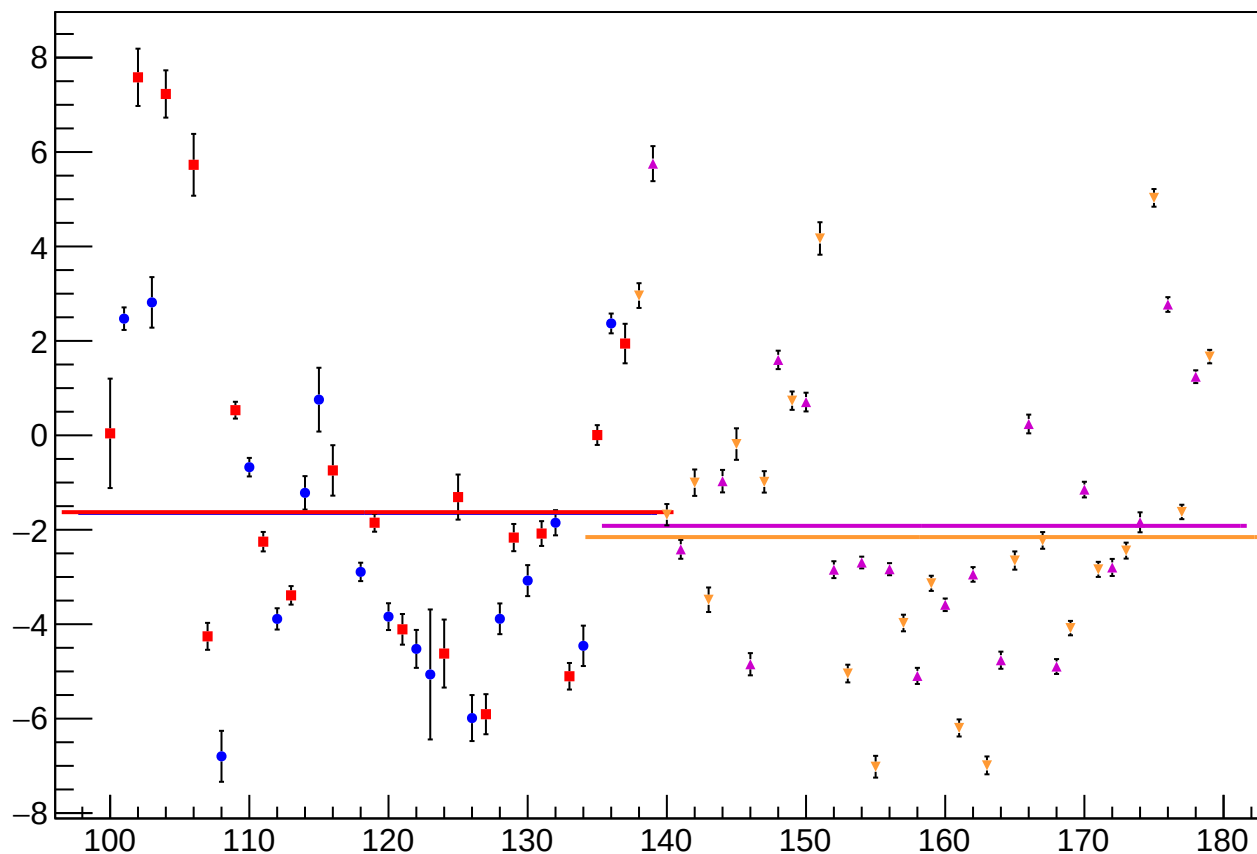
Right:  $-2.207 \pm 0.075$   $\chi^2/\text{NDF}$ : 1406.8/35

In:  $15.532 \pm 0.041$   $\chi^2/\text{NDF}$ : 63784.1/36

Out:  $17.486 \pm 0.042$   $\chi^2/\text{NDF}$ : 105500.0/40

All:  $16.469 \pm 0.029$   $\chi^2/\text{NDF}$ : 170389.3/77

reg\_asym\_bcm\_dg\_ds\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-1.643 \pm 0.072$   $\chi^2/\text{NDF}$ : 1310.1/16

Left Out:  $-2.155 \pm 0.041$   $\chi^2/\text{NDF}$ : 5414.5/21

Right Out:  $-1.627 \pm 0.067$   $\chi^2/\text{NDF}$ : 1468.1/18

Left In:  $-1.917 \pm 0.038$   $\chi^2/\text{NDF}$ : 3982.8/19

Left:  $-2.027 \pm 0.028$   $\chi^2/\text{NDF}$ : 9415.4/41

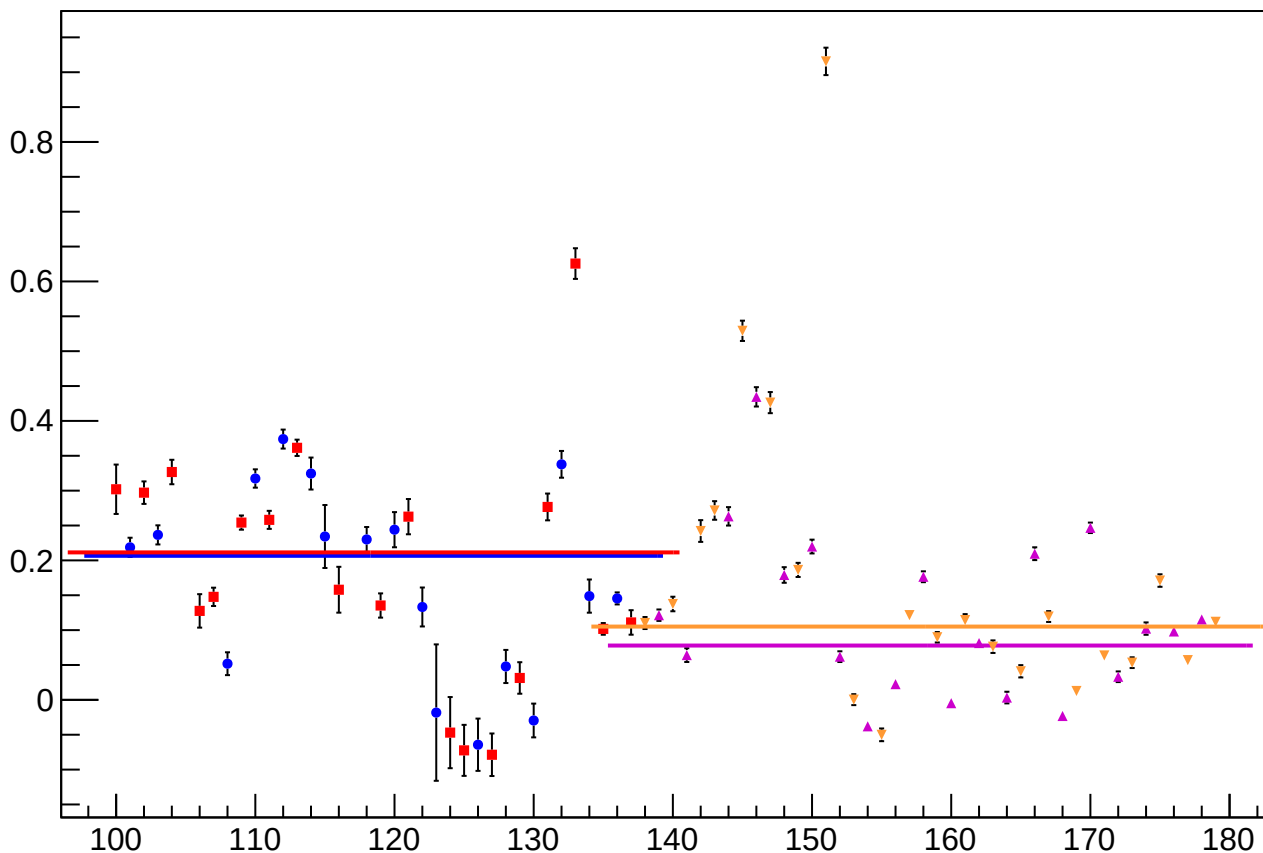
Right:  $-1.635 \pm 0.049$   $\chi^2/\text{NDF}$ : 2778.2/35

In:  $-1.858 \pm 0.034$   $\chi^2/\text{NDF}$ : 5304.1/36

Out:  $-2.011 \pm 0.035$   $\chi^2/\text{NDF}$ : 6927.8/40

All:  $-1.932 \pm 0.024$   $\chi^2/\text{NDF}$ : 12242.0/77

reg\_asym\_bcm\_dg\_ds\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In: 0.207 $\pm$ 0.004  $\chi^2$ /NDF: 655.0/16

Left Out: 0.105 $\pm$ 0.002  $\chi^2$ /NDF:4220.2/21

Right Out: 0.211 $\pm$ 0.004  $\chi^2$ /NDF: 1145.6/18

Left In: 0.078 $\pm$ 0.002  $\chi^2$ /NDF:3302.9/19

Left: 0.090 $\pm$ 0.001  $\chi^2$ /NDF: 7643.8/41

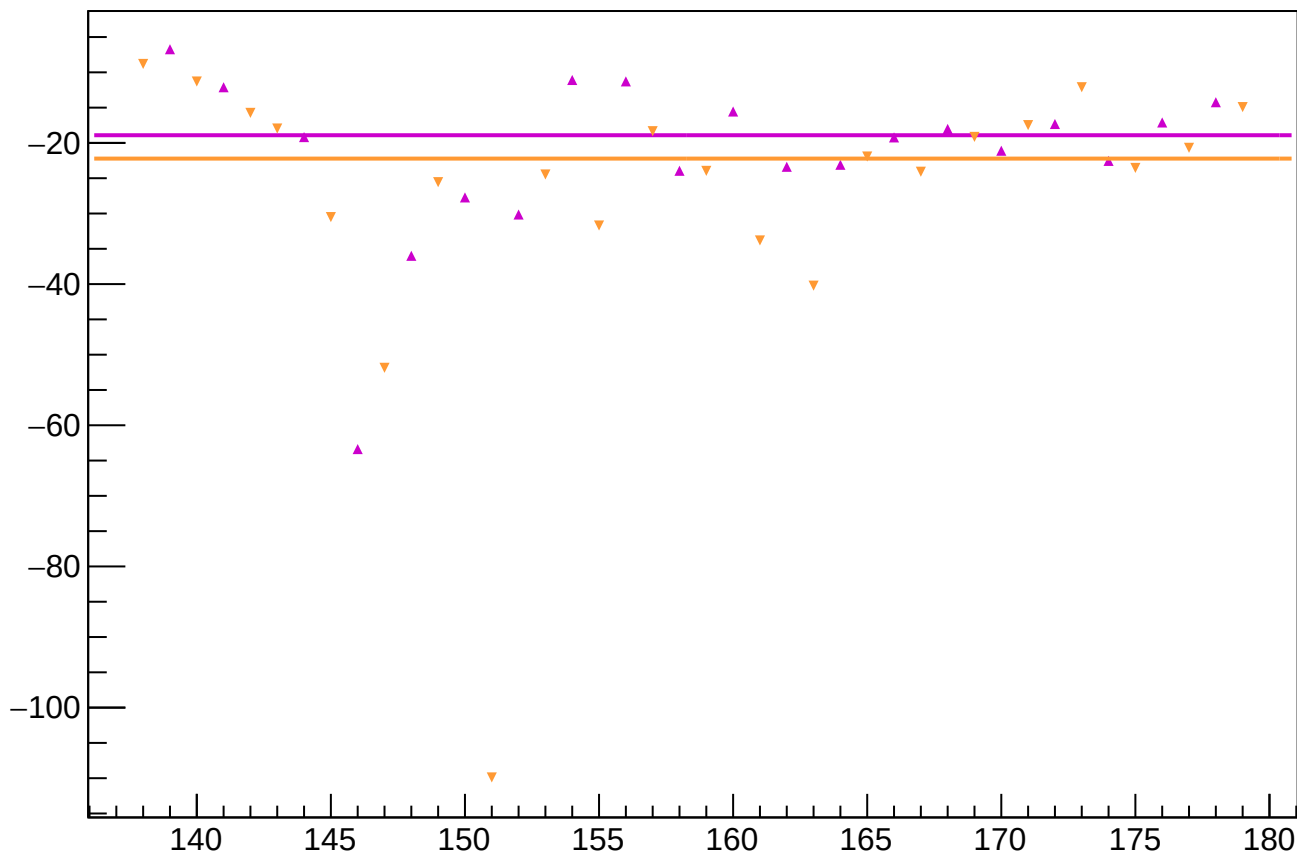
Right: 0.209 $\pm$ 0.003  $\chi^2$ /NDF: 1801.3/35

In: 0.095 $\pm$ 0.002  $\chi^2$ /NDF:4762.5/36

Out: 0.125 $\pm$ 0.002  $\chi^2$ /NDF:6011.5/40

All: 0.109 $\pm$ 0.001  $\chi^2$ /NDF: 10952.4/77

reg\_asym\_bcm\_dg\_us\_diff\_bpm1X\_slope vs Slug, Sign Corrected



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left Out: -22.220 $\pm$ 0.047  $\chi^2$ /NDF:64232.0/21

Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

Left In: -18.909 $\pm$ 0.045  $\chi^2$ /NDF:38124.9/19

Left: -20.469 $\pm$ 0.033  $\chi^2$ /NDF: 104934.4/41

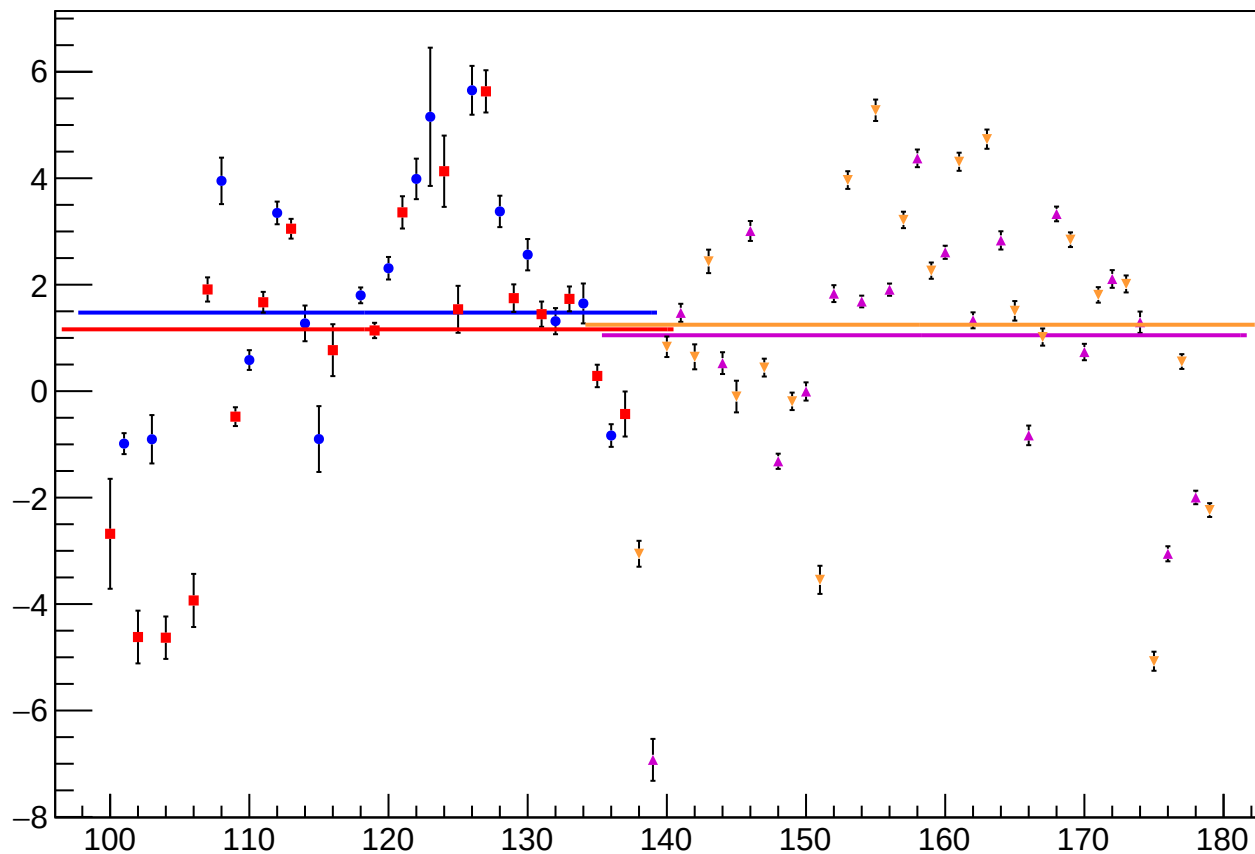
Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

In: -18.909 $\pm$ 0.045  $\chi^2$ /NDF:38124.9/19

Out: -22.220 $\pm$ 0.047  $\chi^2$ /NDF:64232.0/21

All: -20.469 $\pm$ 0.033  $\chi^2$ /NDF: 104934.4/41

reg\_asym\_bcm\_dg\_us\_diff\_bpm4aY\_slope vs Slug, Sign Corrected



Right In:  $1.476 \pm 0.064$   $\chi^2/\text{NDF}$ : 659.7/16

Left Out:  $1.248 \pm 0.037$   $\chi^2/\text{NDF}$ : 4540.2/21

Right Out:  $1.161 \pm 0.060$   $\chi^2/\text{NDF}$ : 917.9/18

Left In:  $1.050 \pm 0.034$   $\chi^2/\text{NDF}$ : 3469.2/19

Left:  $1.142 \pm 0.025$   $\chi^2/\text{NDF}$ : 8024.9/41

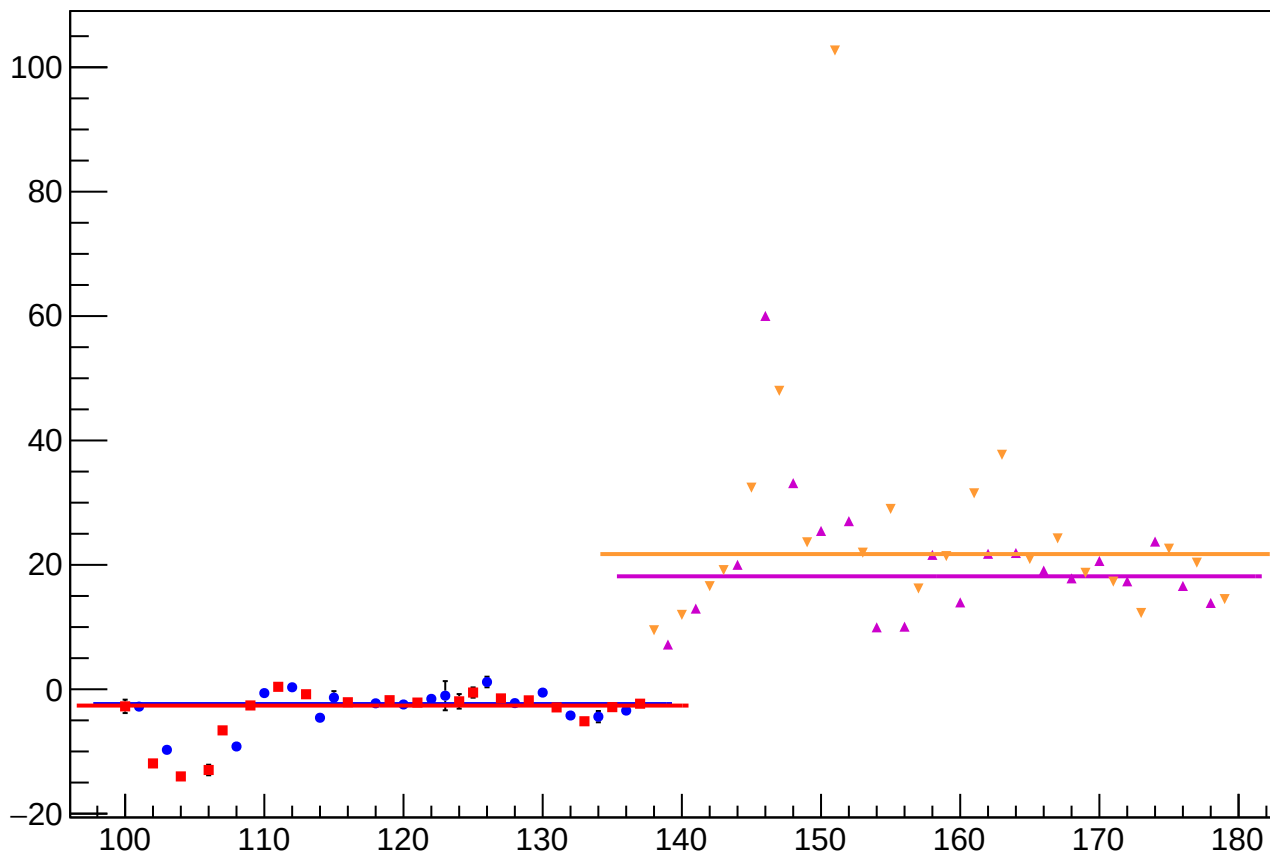
Right:  $1.309 \pm 0.044$   $\chi^2/\text{NDF}$ : 1590.5/35

In:  $1.146 \pm 0.030$   $\chi^2/\text{NDF}$ : 4163.6/36

Out:  $1.224 \pm 0.031$   $\chi^2/\text{NDF}$ : 5459.6/40

All:  $1.184 \pm 0.022$   $\chi^2/\text{NDF}$ : 9626.5/77

reg\_asym\_bcm\_dg\_us\_diff\_bpm4eX\_slope vs Slug, Sign Corrected



Right In:  $-2.380 \pm 0.115$   $\chi^2/\text{NDF}$ : 438.8/16

Left Out:  $21.736 \pm 0.047$   $\chi^2/\text{NDF}$ : 57609.4/21

Right Out:  $-2.623 \pm 0.103$   $\chi^2/\text{NDF}$ : 841.3/18

Left In:  $18.161 \pm 0.044$   $\chi^2/\text{NDF}$ : 36042.3/19

Left:  $19.828 \pm 0.032$   $\chi^2/\text{NDF}$ : 96744.7/41

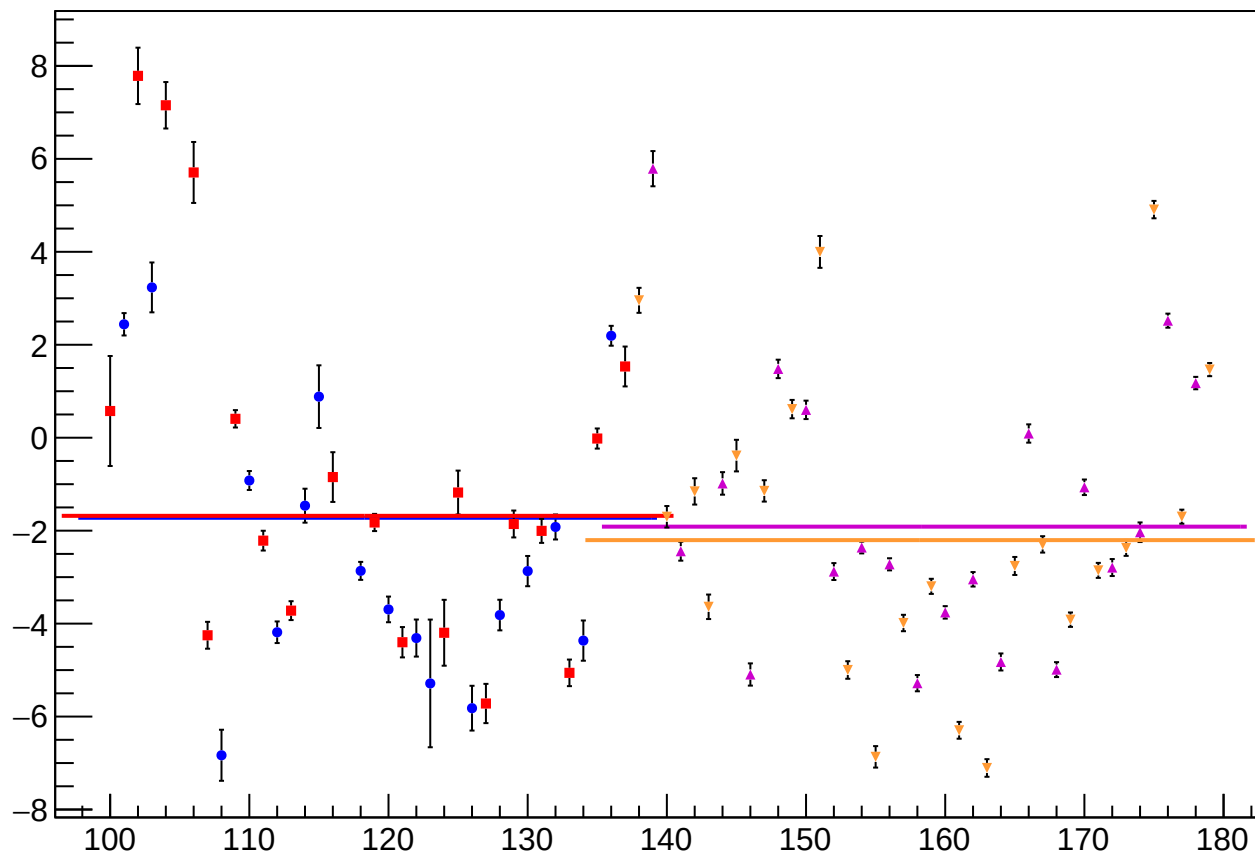
Right:  $-2.514 \pm 0.077$   $\chi^2/\text{NDF}$ : 1282.5/35

In:  $15.549 \pm 0.041$   $\chi^2/\text{NDF}$ : 64313.1/36

Out:  $17.560 \pm 0.043$   $\chi^2/\text{NDF}$ : 104560.8/40

All:  $16.513 \pm 0.030$   $\chi^2/\text{NDF}$ : 170025.8/77

reg\_asym\_bcm\_dg\_us\_diff\_bpm4eY\_slope vs Slug, Sign Corrected



Right In:  $-1.722 \pm 0.073$   $\chi^2/\text{NDF}: 1247.6/16$

Left Out:  $-2.204 \pm 0.041$   $\chi^2/\text{NDF}: 5213.7/21$

Right Out:  $-1.681 \pm 0.068$   $\chi^2/\text{NDF}: 1431.0/18$

Left In:  $-1.914 \pm 0.038$   $\chi^2/\text{NDF}: 3921.1/19$

Left:  $-2.049 \pm 0.028$   $\chi^2/\text{NDF}: 9161.3/41$

Right:  $-1.700 \pm 0.050$   $\chi^2/\text{NDF}: 2678.8/35$

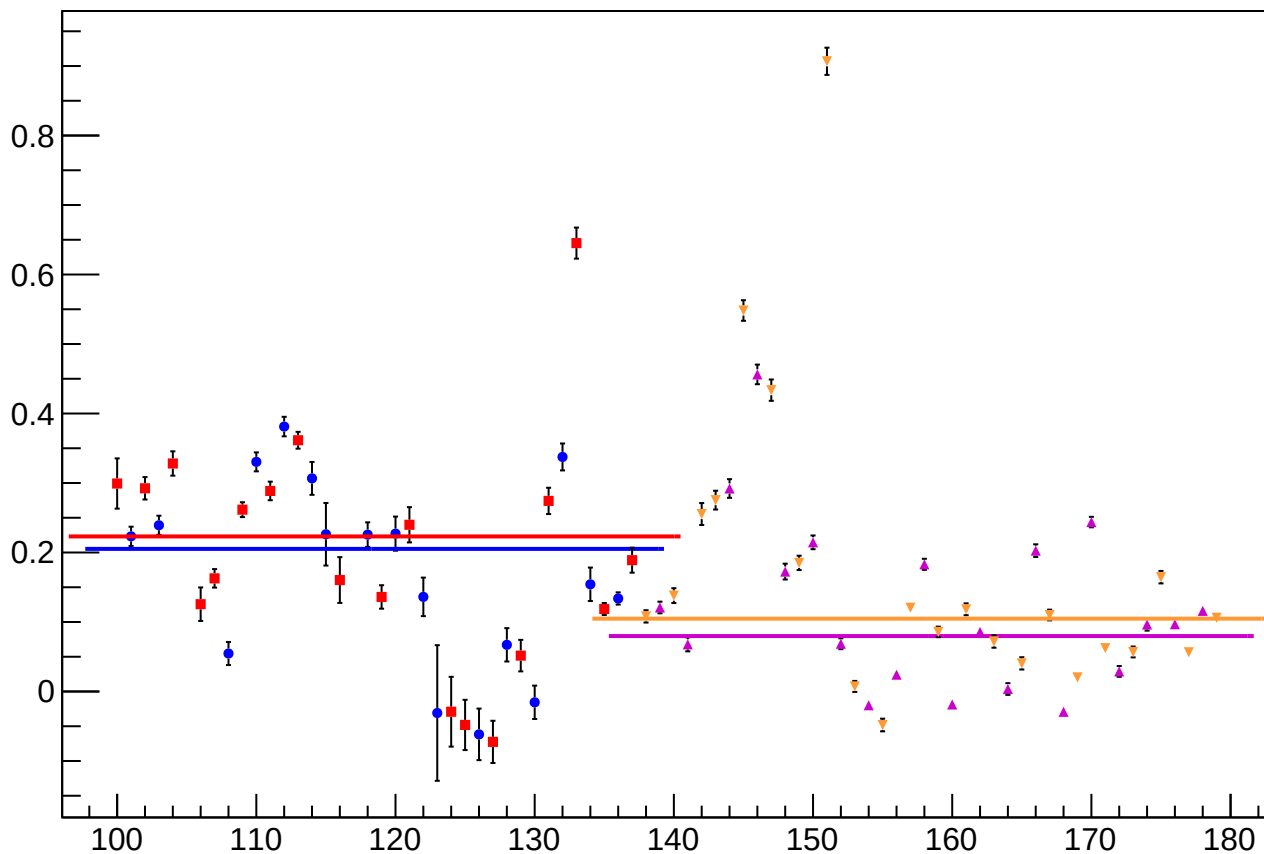
In:  $-1.872 \pm 0.034$   $\chi^2/\text{NDF}: 5174.1/36$

Out:  $-2.063 \pm 0.035$   $\chi^2/\text{NDF}: 6688.0/40$

All:  $-1.964 \pm 0.024$   $\chi^2/\text{NDF}: 11877.3/77$



reg\_asym\_bcm\_dg\_us\_diff\_bpm12X\_slope vs Slug, Sign Corrected



Right In:  $0.205 \pm 0.004$   $\chi^2/\text{NDF}$ : 650.7/16

Left Out:  $0.105 \pm 0.002$   $\chi^2/\text{NDF}$ : 4190.5/21

Right Out:  $0.223 \pm 0.004$   $\chi^2/\text{NDF}$ : 1040.5/18

Left In:  $0.080 \pm 0.002$   $\chi^2/\text{NDF}$ : 3269.2/19

Left:  $0.091 \pm 0.001$   $\chi^2/\text{NDF}$ : 7560.4/41

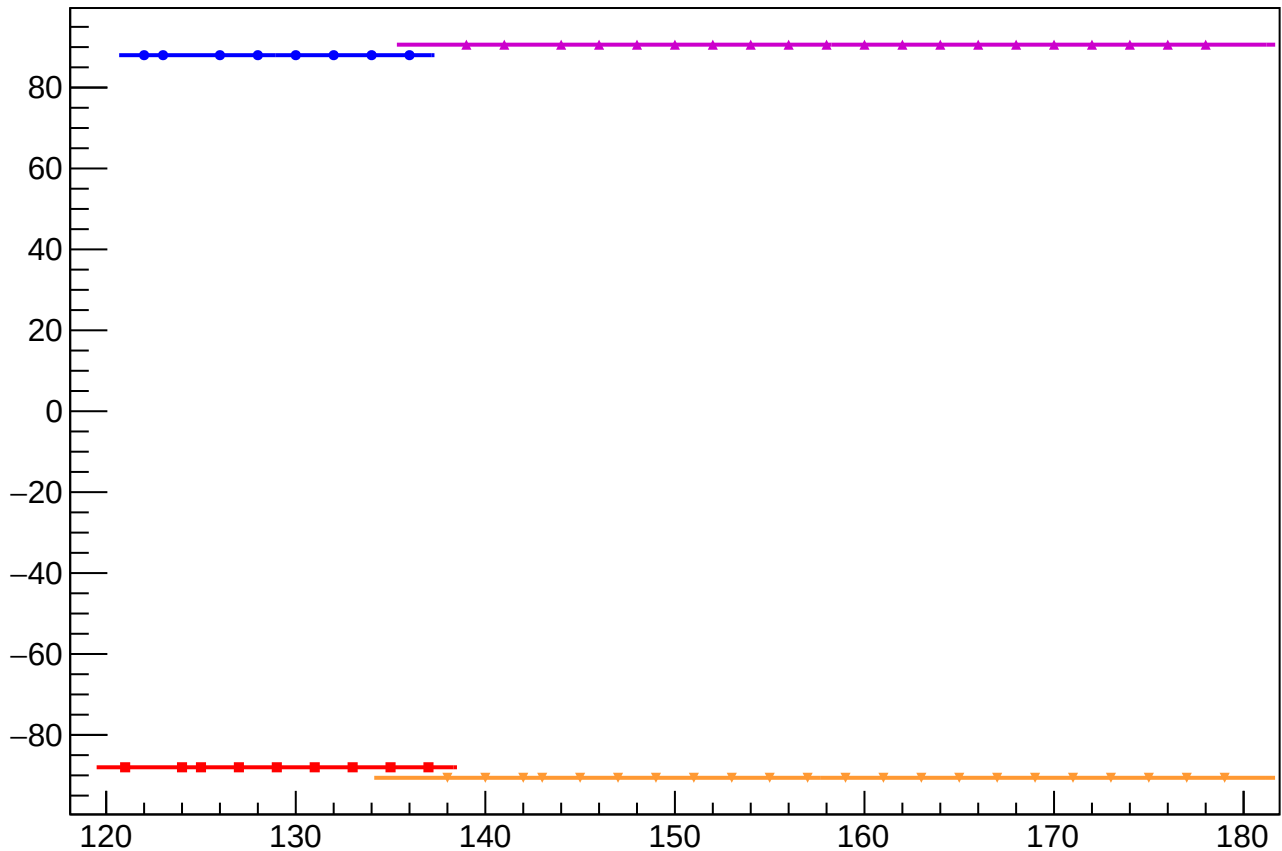
Right:  $0.215 \pm 0.003$   $\chi^2/\text{NDF}$ : 1700.9/35

In:  $0.097 \pm 0.002$   $\chi^2/\text{NDF}$ : 4665.1/36

Out:  $0.127 \pm 0.002$   $\chi^2/\text{NDF}$ : 6002.6/40

All:  $0.111 \pm 0.001$   $\chi^2/\text{NDF}$ : 10845.1/77

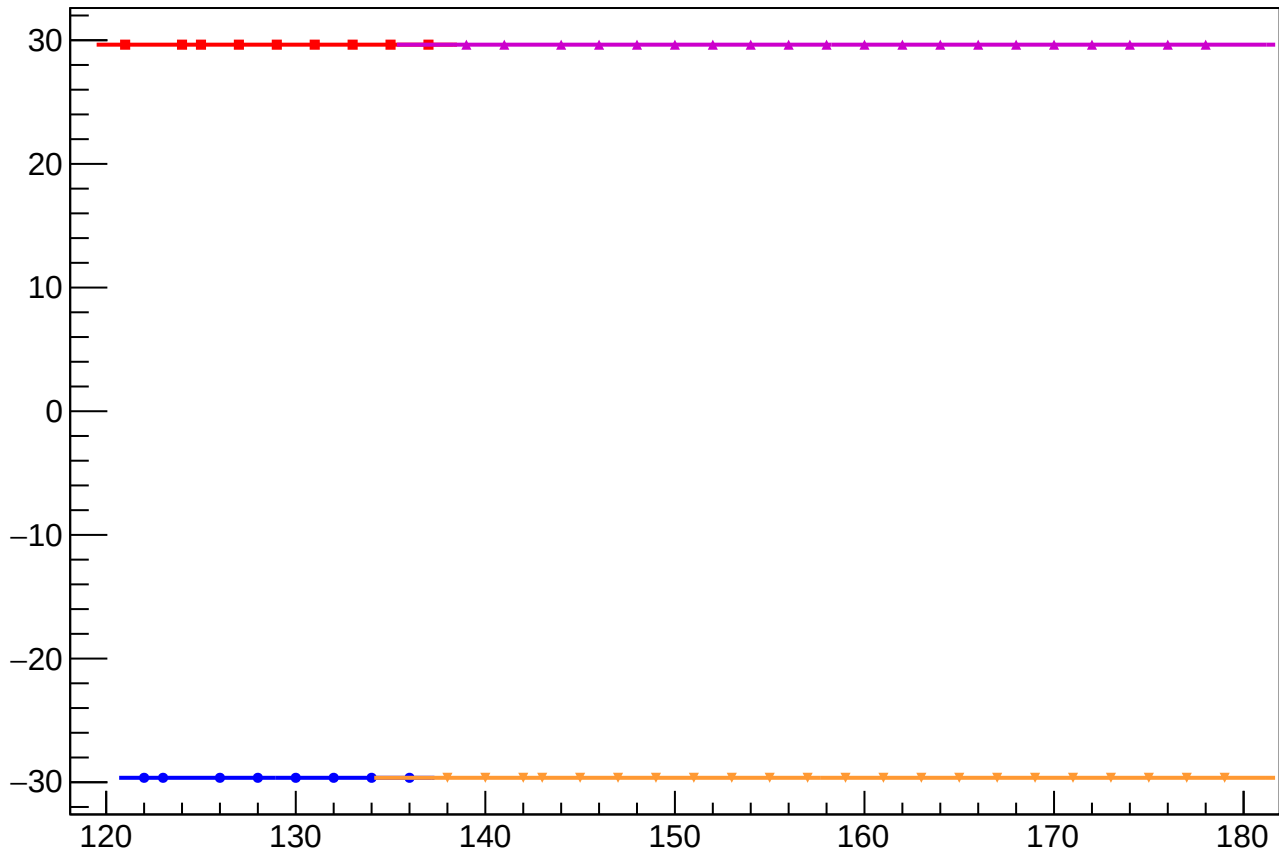
# VWienAngle\_mean vs Slug, Sign Corrected



Right In: 88.001+/-0.000  $\chi^2/\text{NDF}$ : 714089.5/7  
Left Out: -90.599+/-0.000  $\chi^2/\text{NDF}$ : 5440893.6/21  
Right Out: -88.001+/-0.000  $\chi^2/\text{NDF}$ : 109456.0/8  
Left In: 90.599+/-0.000  $\chi^2/\text{NDF}$ : 5394849.3/19

Left: -2.884+/-0.000  $\chi^2/\text{NDF}$ : 27305718532398620  
Right: 3.062+/-0.000  $\chi^2/\text{NDF}$ : 51126681569224617  
In: 90.144+/-0.000  $\chi^2/\text{NDF}$ : 190521224141484692  
Out: -90.192+/-0.000  $\chi^2/\text{NDF}$ : 1816768505964107  
All: -1.899+/-0.000  $\chi^2/\text{NDF}$ : 3243788570970

# HWienAngle\_mean vs Slug, Sign Corrected



Right In: -29.641 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 405045.4/7

Left Out: -29.641 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 236885.5/21

Right Out: 29.641 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 29358.2/8

Left In: 29.641 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 253887.0/19

Left: -0.944 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 29226779156797575

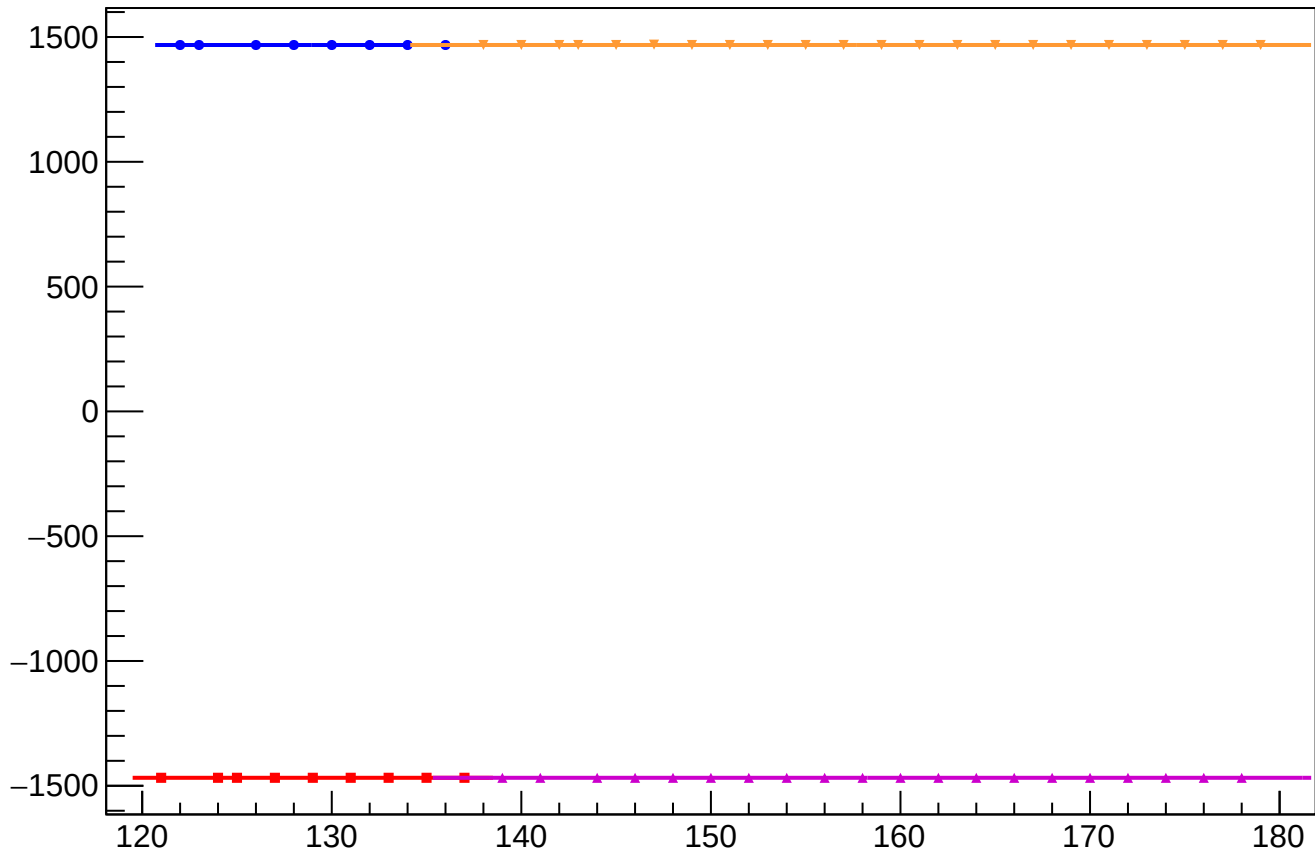
Right: -1.031 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 5800324943766944

In: 19.265 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 991524794085577681

Out: -20.357 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 9454962442606869

All: -0.958 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3502714666800

# psub\_pl\_pos\_mean vs Slug, Sign Corrected



Right In: 1467.979+/-0.000

$\chi^2/\text{NDF}$ : 436234375.5/7

Left Out: 1468.053+/-0.000

$\chi^2/\text{NDF}$ : 127431188714678663447589024694272.0/21

Right Out: -1467.979+/-0.000

$\chi^2/\text{NDF}$ : 83183350.3/8

Left In: -1467.993+/-0.000

$\chi^2/\text{NDF}$ : 138867493763648912938070179840.0/19

Left: 46.760+/-0.000  $\chi^2/\text{NDF}$ : 71691849222474732

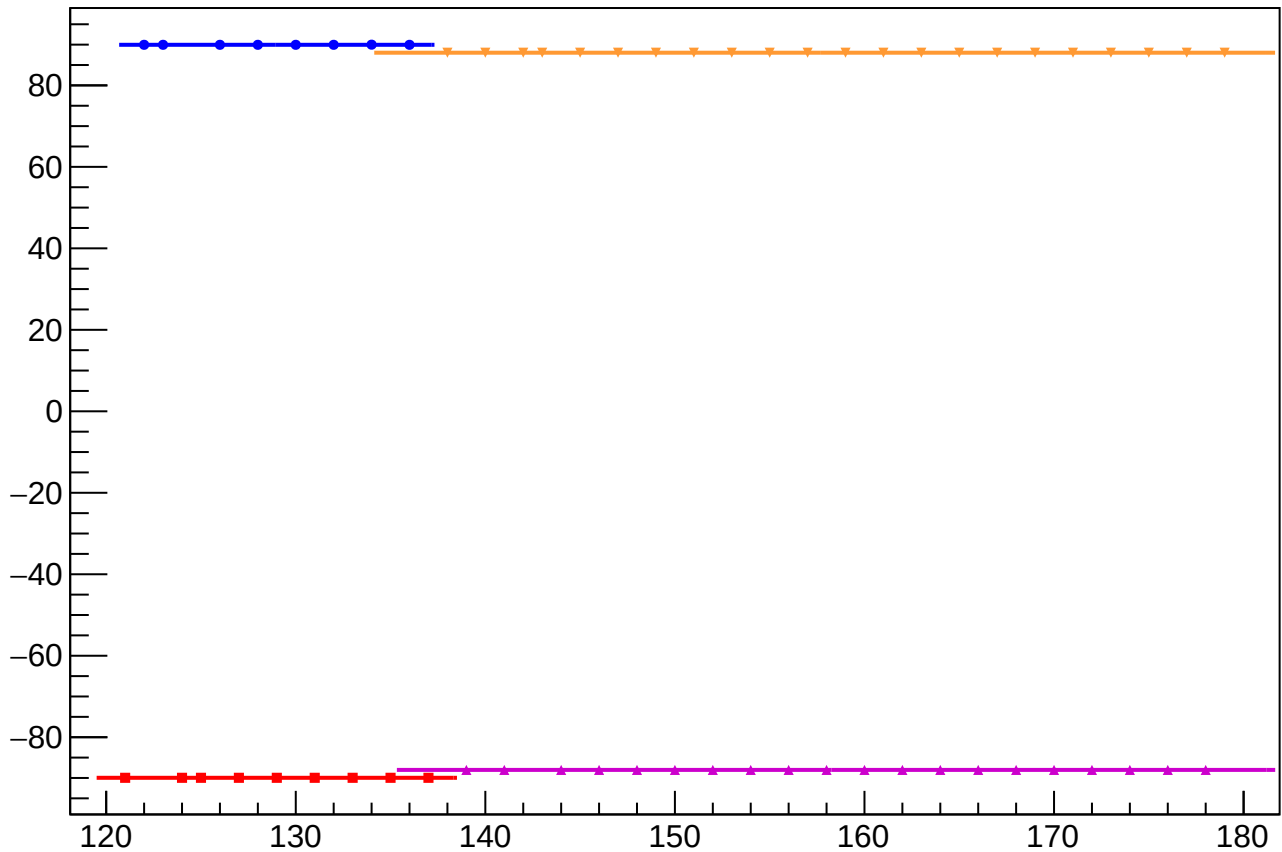
Right: 51.079+/-0.000  $\chi^2/\text{NDF}$ : 1422706063207371

In: -954.123+/-0.000  $\chi^2/\text{NDF}$ : 2432038784604120

Out: 1008.262+/-0.000  $\chi^2/\text{NDF}$ : 231923410847626

All: 47.475+/-0.000  $\chi^2/\text{NDF}$ : 8591901275554

# Phi\_FG\_mean vs Slug, Sign Corrected



Right In: 89.961+/-0.000

$\chi^2/\text{NDF}$ : 21528640598708602874349223936.0/7

Left: 2.802+/-0.000  $\chi^2/\text{NDF}$ : 257735132139043026

Right: 3.131+/-0.000  $\chi^2/\text{NDF}$ : 53429021948733419

Left Out: 88.021+/-0.000

$\chi^2/\text{NDF}$ : 4980047.3/21

Right Out: -89.959+/-0.000

$\chi^2/\text{NDF}$ : 331397.3/8

In: -56.869+/-0.000

$\chi^2/\text{NDF}$ : 89375584218199269

Out: 60.149+/-0.000

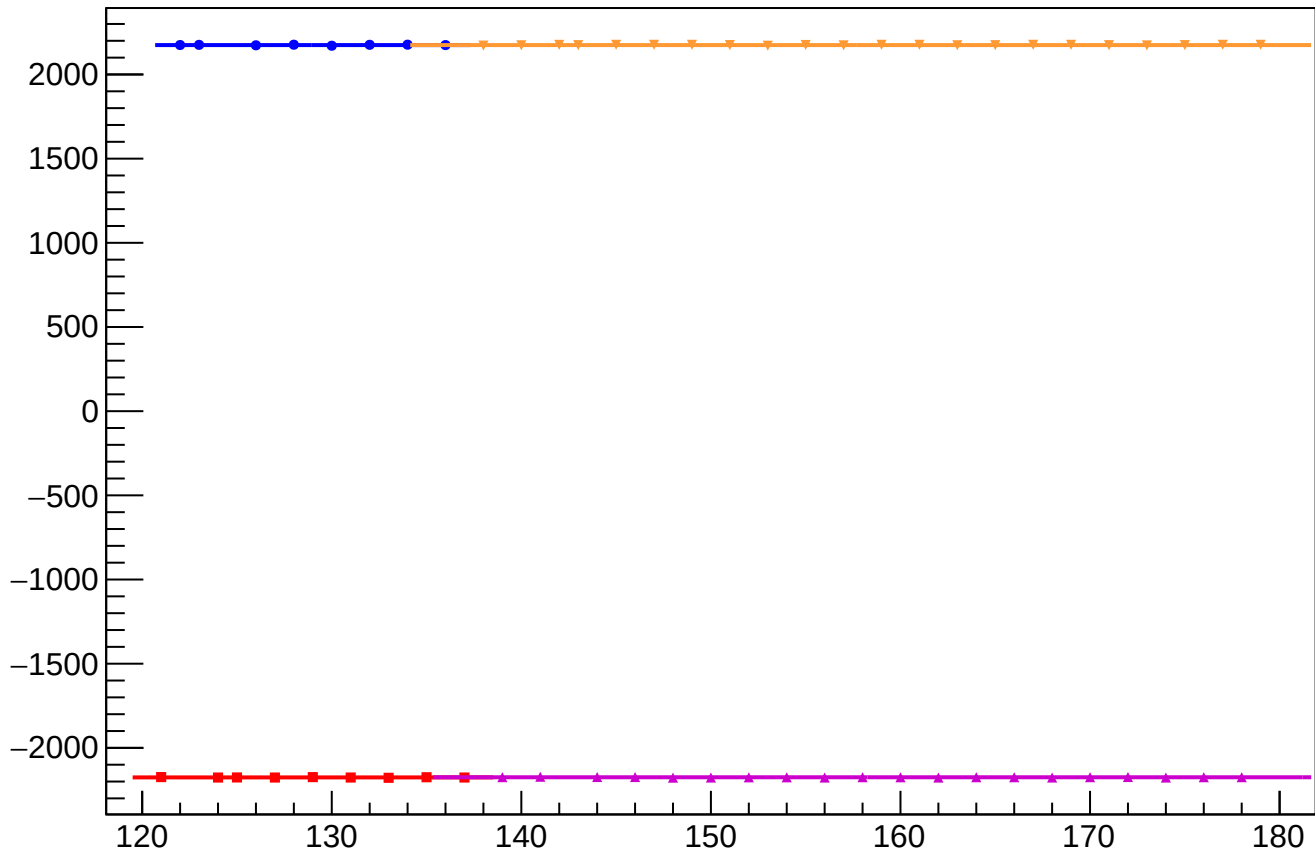
$\chi^2/\text{NDF}$ : 85224648444657658

Left In: -88.021+/-0.000

$\chi^2/\text{NDF}$ : 4990750.6/19

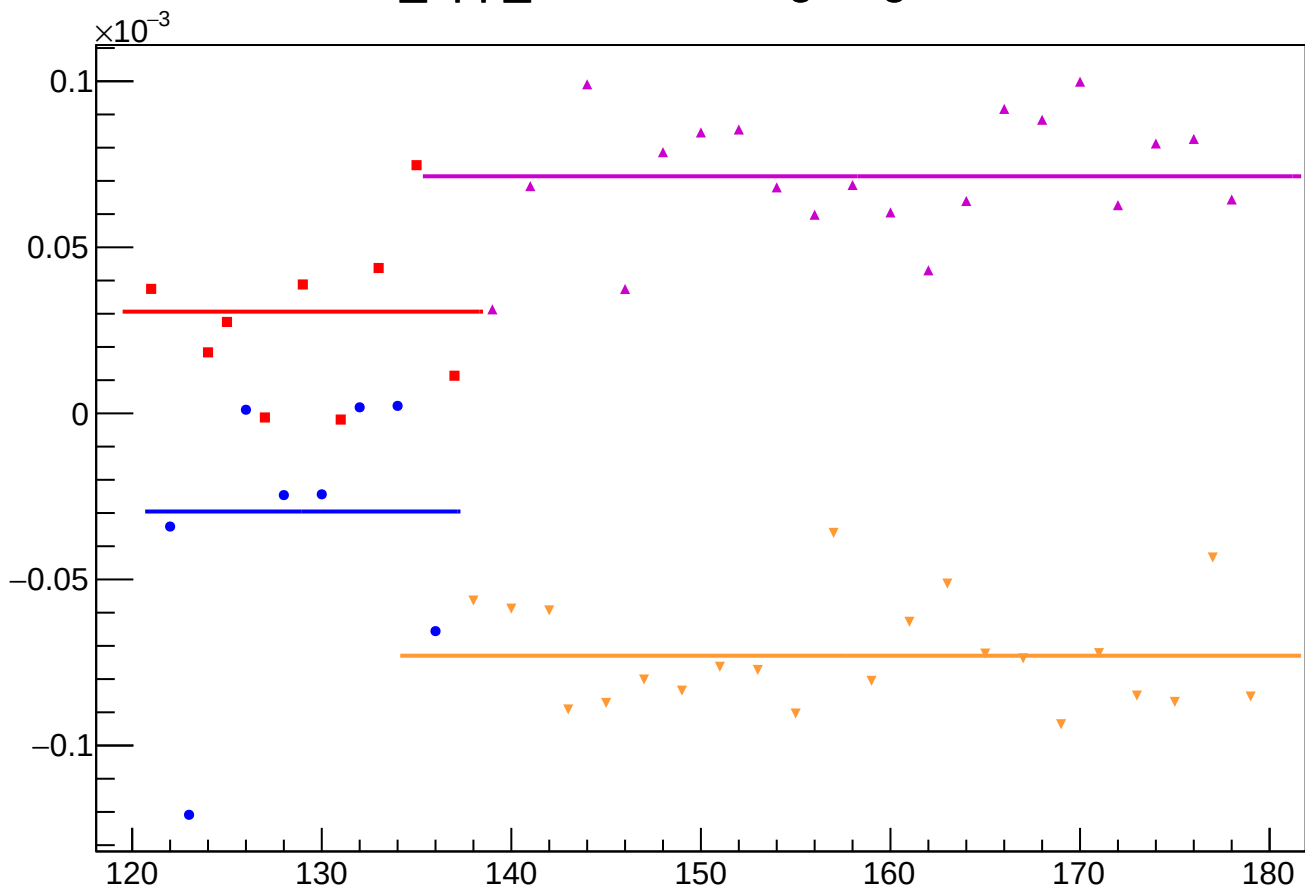
All: 2.856+/-0.000  $\chi^2/\text{NDF}$ : 31116475248645

# HALLA\_p\_mean vs Slug, Sign Corrected



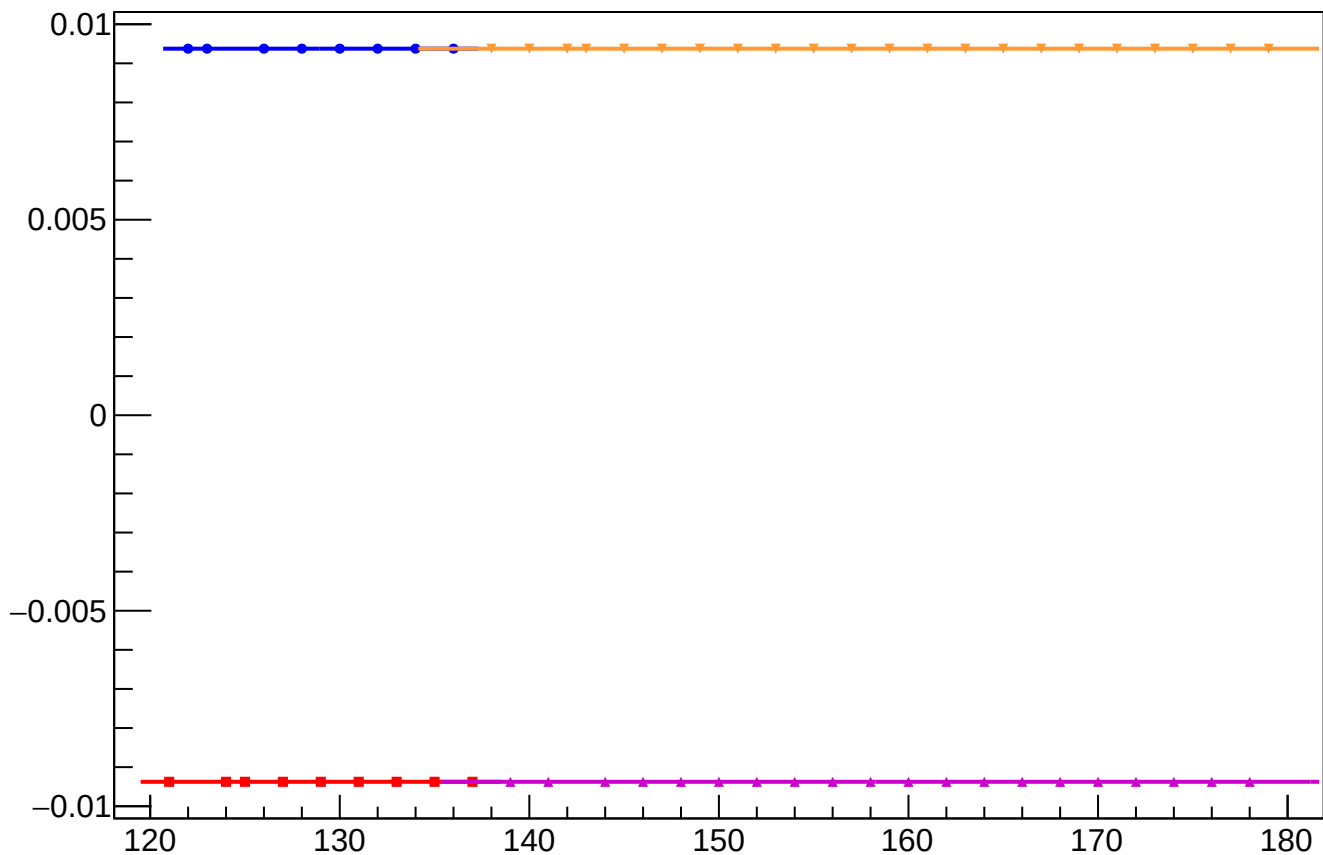
Right In: 2174.572 $\pm$ 0.000  $\chi^2$ /NDF: 1360264074026849381407550448074752.0/7  
 Left Out: 2174.619 $\pm$ 0.000  $\chi^2$ /NDF: 4645064836136046244522601249505280.0/21  
 Right Out: -2175.442 $\pm$ 0.000  $\chi^2$ /NDF: 610778445075790556034346524868608.0/8  
 Left In: -2174.591 $\pm$ 0.000  $\chi^2$ /NDF: 3055113595190365637949143727996928.0/19  
 All: 70.231 $\pm$ 0.000  $\chi^2$ /NDF: 1885450684373

# HALLA\_dpp\_mean vs Slug, Sign Corrected



Right In: -0.000+/-0.000  $\chi^2$ /NDF: 250161267307815387529216.0/7  
 Left Out: -0.000+/-0.000  $\chi^2$ /NDF: 427171675233828823105536.0/21  
 Right Out: 0.000+/-0.000  $\chi^2$ /NDF: 196732771178766734983168.0/8  
 Left In: 0.000+/-0.000  $\chi^2$ /NDF: 548270363729567045124096.0/19  
 All: -0.000+/-0.000  $\chi^2$ /NDF: 1935236877281

# MQ171LM\_mean vs Slug, Sign Corrected



Right In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/7

Left Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF:0.1/21

Right Out: -0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/8

Left In: -0.009 $\pm$ 0.000  $\chi^2$ /NDF:0.1/19

Left: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 29237922297297223

Right: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 58025364031769994

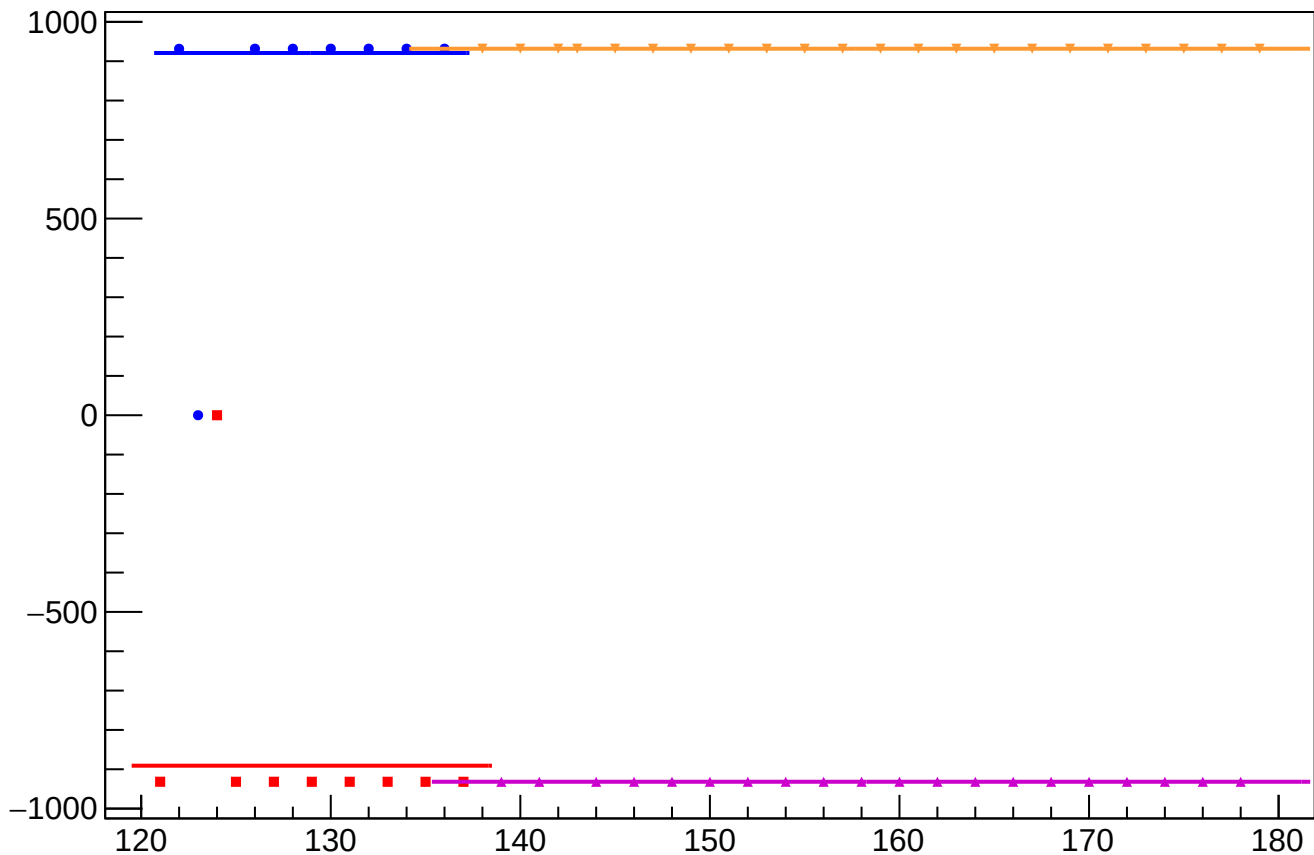
In: -0.006 $\pm$ 0.000  $\chi^2$ /NDF:991902827533262621

Out: 0.006 $\pm$ 0.000  $\chi^2$ /NDF:945856728645064360

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 35040501284139



# HacL\_Q2\_HP3458A\_IOUT\_mean vs Slug, Sign Corrected



Right In: 920.898 +/- 0.000

$\chi^2/NDF$ : 3432128841951899861299566212080992256.0/7

Left Out: 931.784 +/- 0.000

$\chi^2/NDF$ : 3876927876582121693779595362304.0/21

Right Out: -890.923 +/- 0.000

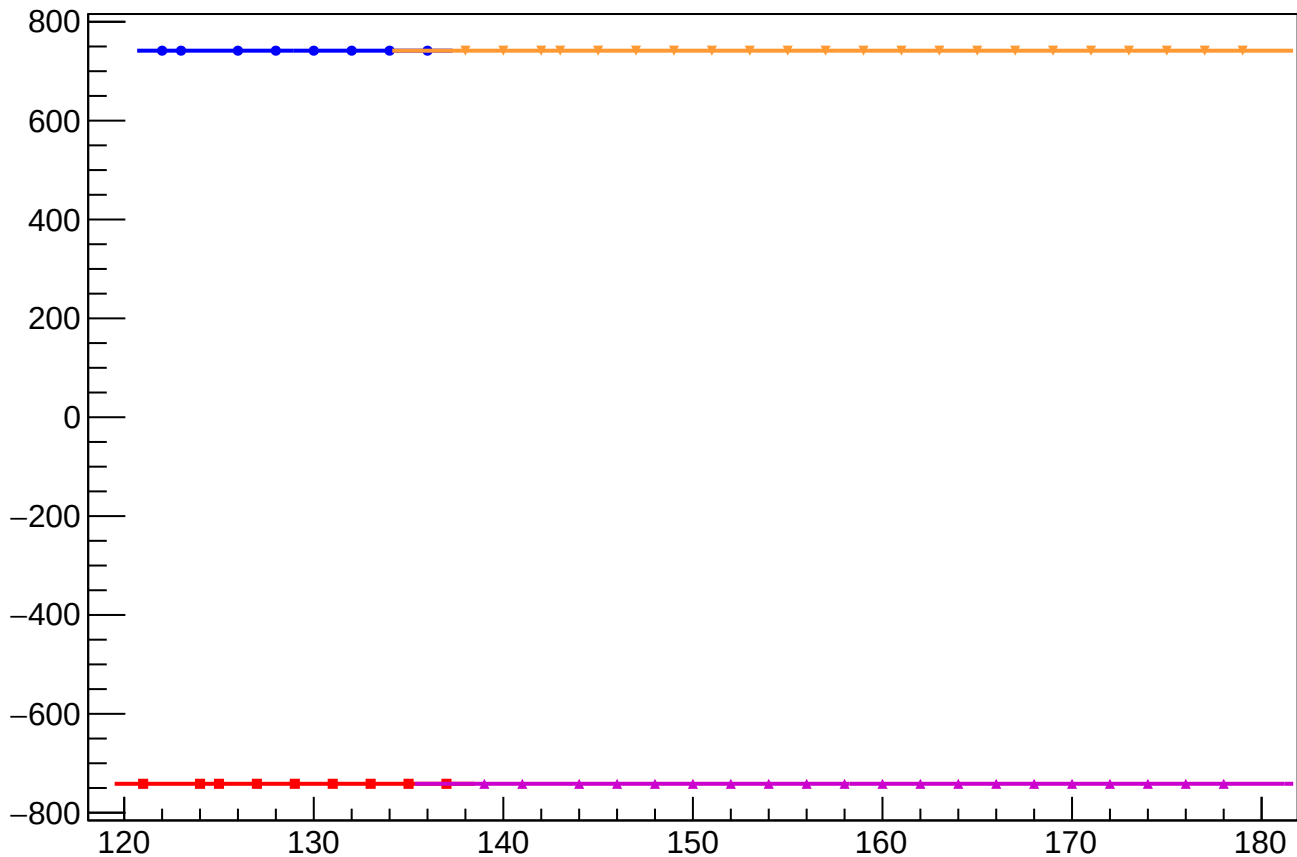
$\chi^2/NDF$ : 11621671430114409722932854398744788992.0/8

Left In: -931.778 +/- 0.000

$\chi^2/NDF$ : 3538163261954771301610444292096.0/19

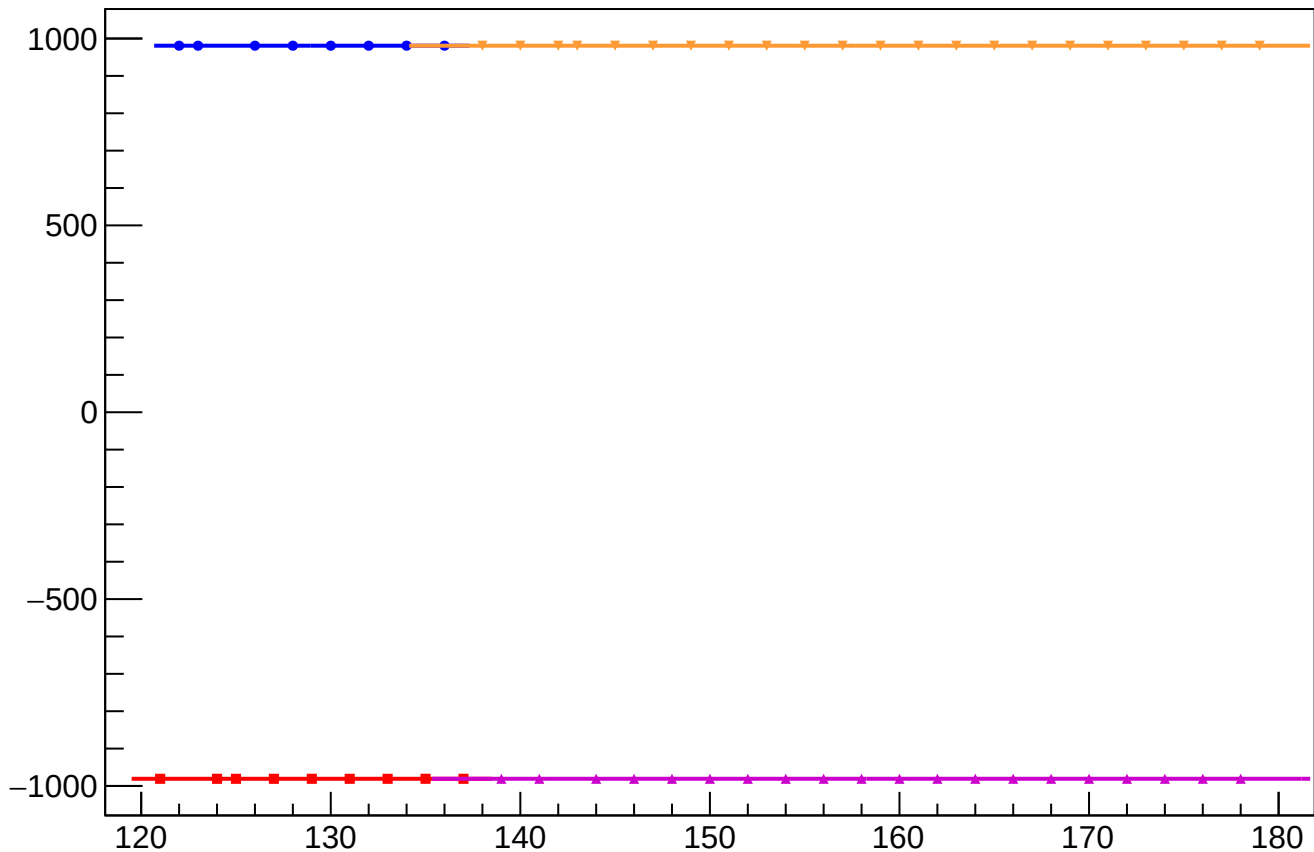
All: 32.454 +/- 0.000  $\chi^2/NDF$ : 3445247501450

# HacL\_D1\_HP3458A\_IOUT\_mean vs Slug, Sign Corrected



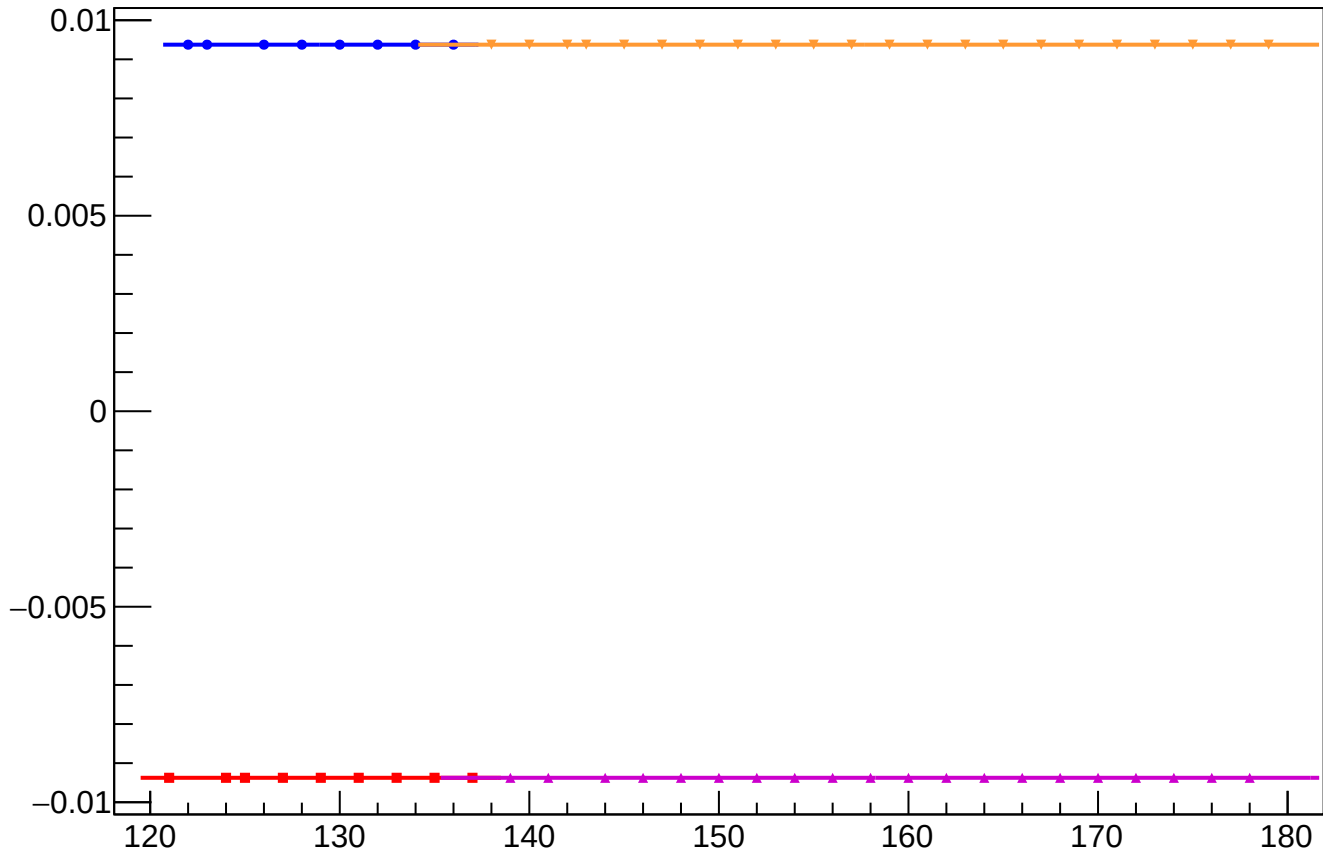
Right In: 741.528 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 18896144326732419810052800512.0/7  
 Left Out: 741.512 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 220317149371820181669837537280.0/21  
 Right Out: -741.529 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 16580353917842624420385914880.0/8  
 Left In: -741.511 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 193434454864830944902085869568.0/19  
 All: 23.968 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2192133553416

# HacL\_Q3\_HP3458A\_IOUT\_mean vs Slug, Sign Corrected



Left: 31.217 +/- 0.000  $\chi^2/\text{NDF}$ : 31999145055054804  
 Right: 34.132 +/- 0.000  $\chi^2/\text{NDF}$ : 6351195317188543  
 In: -637.443 +/- 0.000  $\chi^2/\text{NDF}$ : 1085642005656497  
 Out: 673.578 +/- 0.000  $\chi^2/\text{NDF}$ : 1035231100969057  
 All: 31.700 +/- 0.000  $\chi^2/\text{NDF}$ : 3835038723667

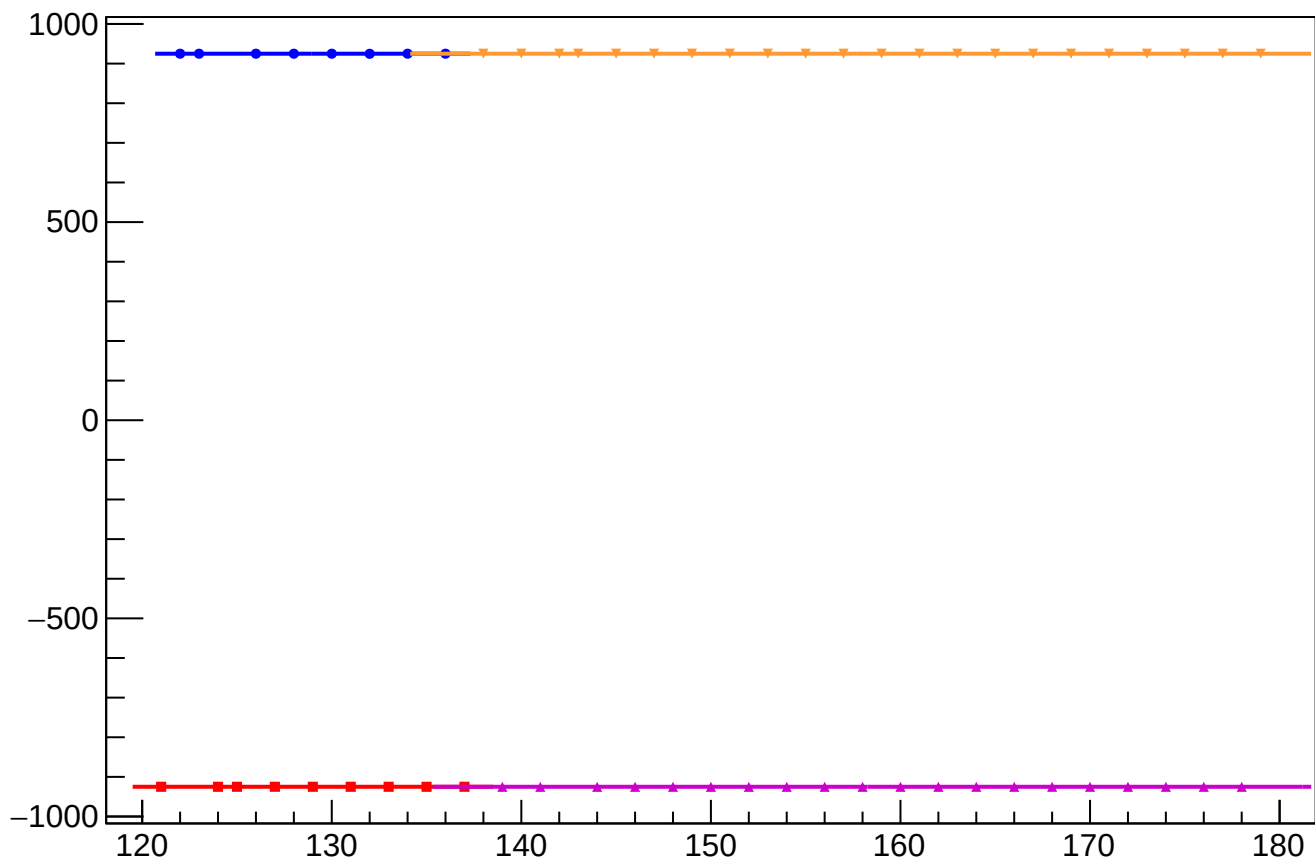
# MQ172RM\_mean vs Slug, Sign Corrected



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.0/7  
Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.1/21  
Right Out: -0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.0/8  
Left In: -0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.1/19

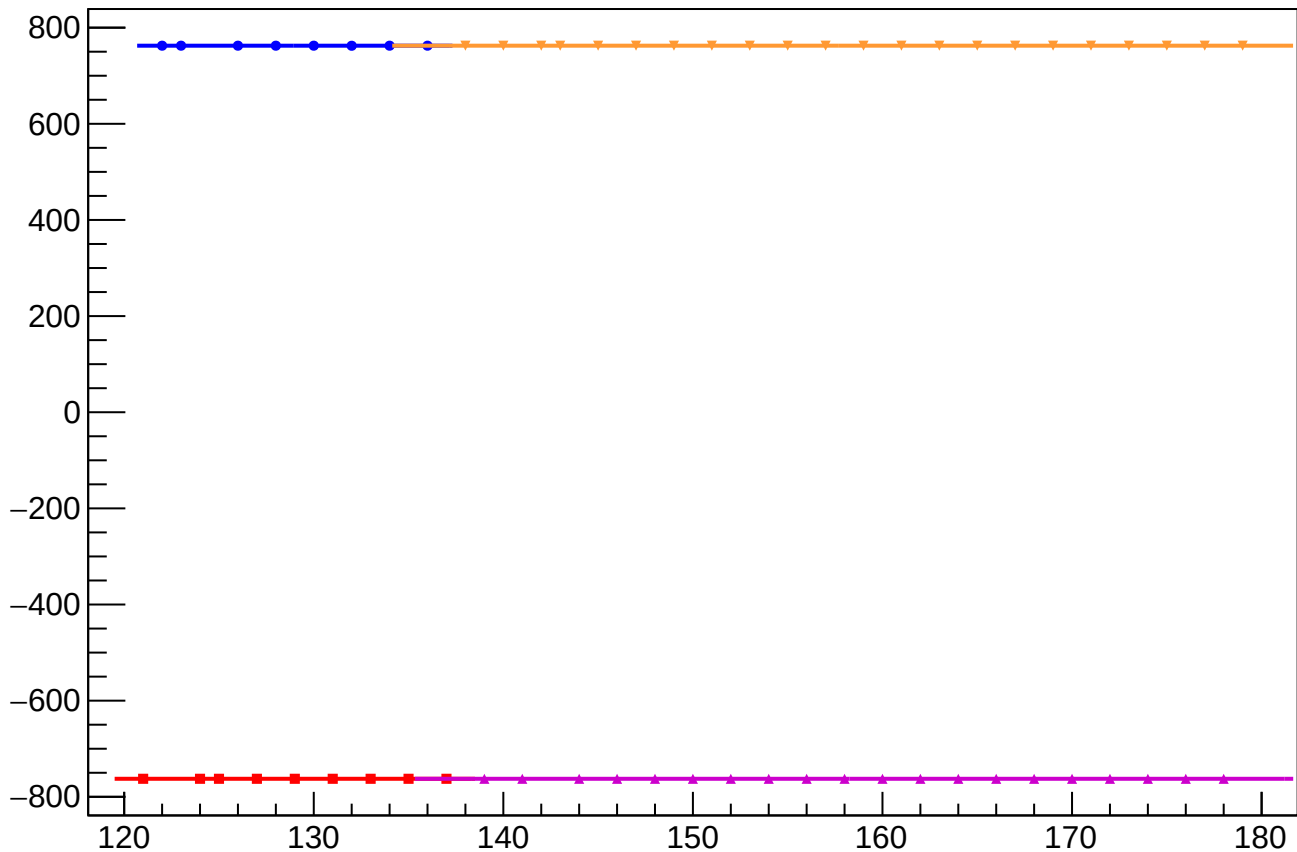
Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 292379222972972235  
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 58025364031769994  
In: -0.006+/-0.000  $\chi^2/\text{NDF}$ : 991902827533262621  
Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 945856728645064360  
All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 35040501284139

# HacR\_Q2\_HP3458A\_IOUT\_mean vs Slug, Sign Corrected



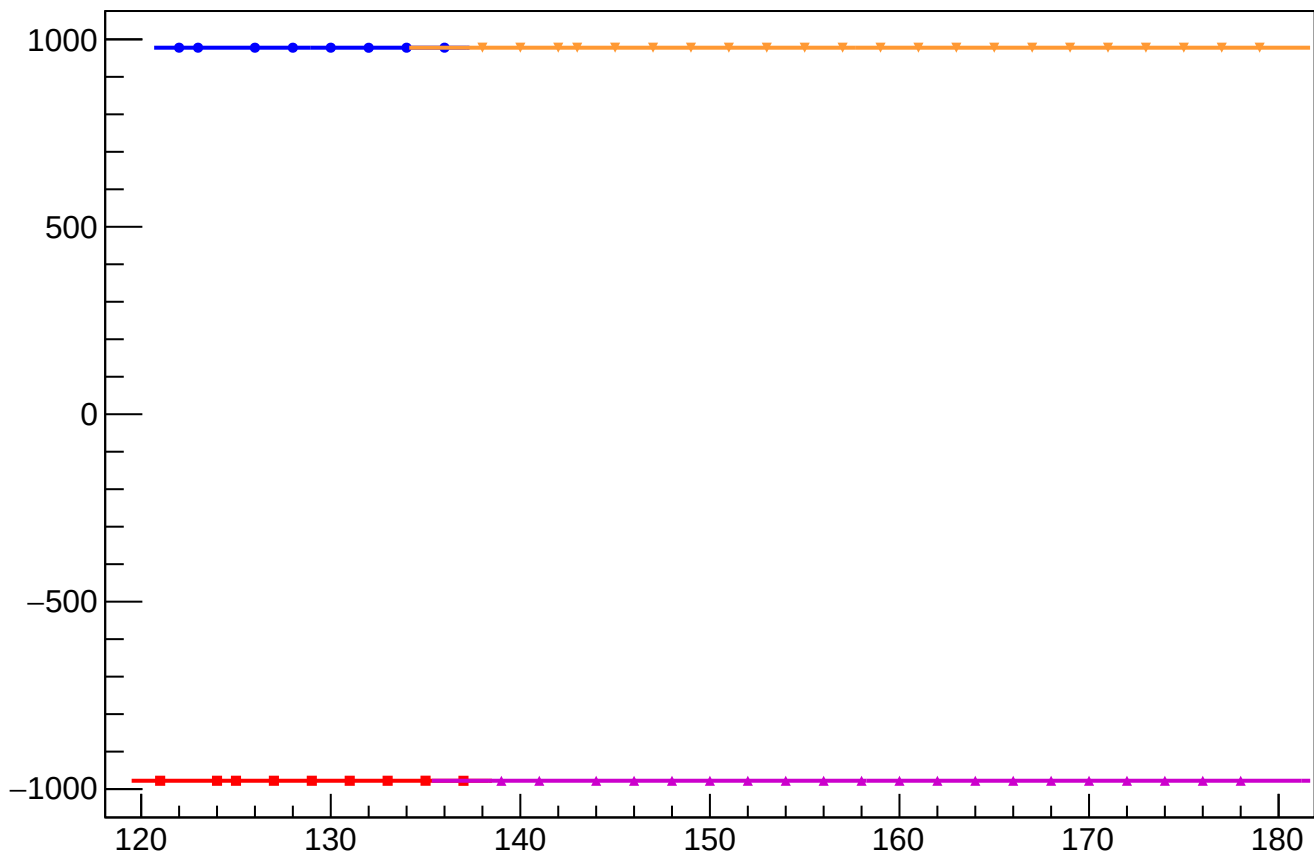
|                             |                                                           |                       |                                         |
|-----------------------------|-----------------------------------------------------------|-----------------------|-----------------------------------------|
| Right In: 924.939+/-0.000   | $\chi^2/\text{NDF}$ : 1401458495809517406218388242432.0/7 | Left: 29.443+/-0.000  | $\chi^2/\text{NDF}$ : 28462428114873568 |
| Left Out: 924.982+/-0.000   | $\chi^2/\text{NDF}$ : 916044550508673439454879285248.0/21 | Right: 32.175+/-0.000 | $\chi^2/\text{NDF}$ : 5648201825061875  |
| Right Out: -924.957+/-0.000 | $\chi^2/\text{NDF}$ : 71808709366506786060310151168.0/8   | In: -601.201+/-0.000  | $\chi^2/\text{NDF}$ : 9655491167164848  |
| Left In: -924.985+/-0.000   | $\chi^2/\text{NDF}$ : 726310988643277427264110723072.0/19 | Out: 635.277+/-0.000  | $\chi^2/\text{NDF}$ : 9207418590333009  |
|                             |                                                           | All: 29.895+/-0.000   | $\chi^2/\text{NDF}$ : 3411067112278     |

# HacR\_D1\_HP3458A\_IOUT\_mean vs Slug, Sign Corrected



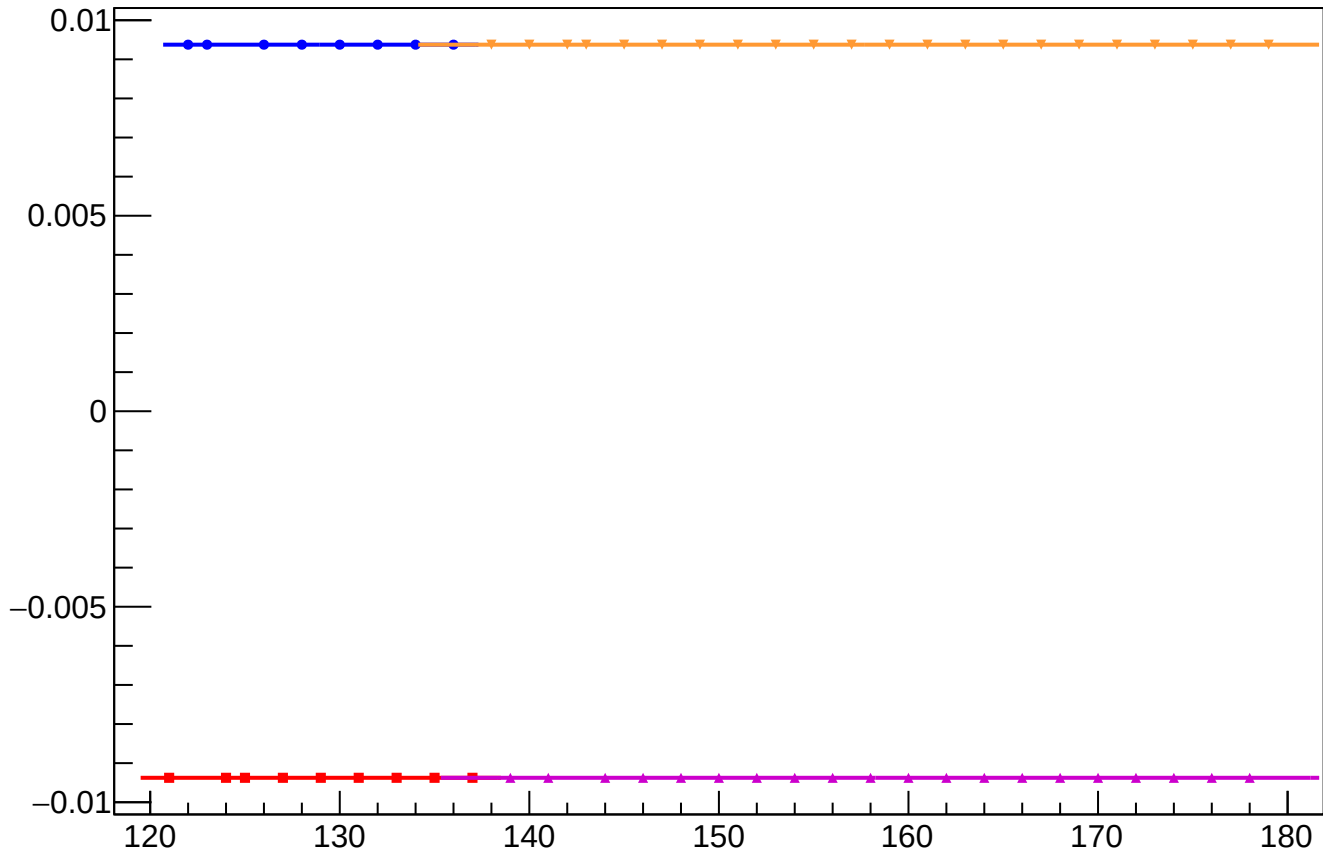
Right In: 762.484+/-0.000  $\chi^2/\text{NDF}$ : 784430761251084401798891438080.0/7  
 Left Out: 762.517+/-0.000  $\chi^2/\text{NDF}$ : 662692756617650889808163110912.0/21  
 Right Out: -762.501+/-0.000  $\chi^2/\text{NDF}$ : 469794702848036819563446272.0/8  
 Left In: -762.517+/-0.000  $\chi^2/\text{NDF}$ : 565236986045747004710974390272.0/19  
 All: 24.645+/-0.000  $\chi^2/\text{NDF}$ : 2318046078234

# HacR\_Q3\_HP3458A\_IOUT\_mean vs Slug, Sign Corrected



|                                 |                                                           |                           |                                        |
|---------------------------------|-----------------------------------------------------------|---------------------------|----------------------------------------|
| Right In: $977.741 \pm 0.000$   | $\chi^2/\text{NDF}: 1738104571804792841781326643200.0/7$  | Left: $31.125 \pm 0.000$  | $\chi^2/\text{NDF}: 31801449537120108$ |
| Left Out: $977.737 \pm 0.000$   | $\chi^2/\text{NDF}: 1148759389935792917773769768960.0/21$ | Right: $34.023 \pm 0.000$ | $\chi^2/\text{NDF}: 6311333196839596$  |
| Right Out: $-977.737 \pm 0.000$ | $\chi^2/\text{NDF}: 772313054358211830610902646784.0/8$   | In: $-635.476 \pm 0.000$  | $\chi^2/\text{NDF}: 1078874934344522$  |
| Left In: $-977.734 \pm 0.000$   | $\chi^2/\text{NDF}: 969345003058490328526117404672.0/19$  | Out: $671.504 \pm 0.000$  | $\chi^2/\text{NDF}: 1028790691079999$  |
|                                 | All: $31.605 \pm 0.000$                                   |                           | $\chi^2/\text{NDF}: 3811282906584$     |

# hesDipole\_current\_mean vs Slug, Sign Corrected



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.0/7

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.1/21

Right Out: -0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.0/8

Left In: -0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.1/19

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 29237922297297223

Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 58025364031769994

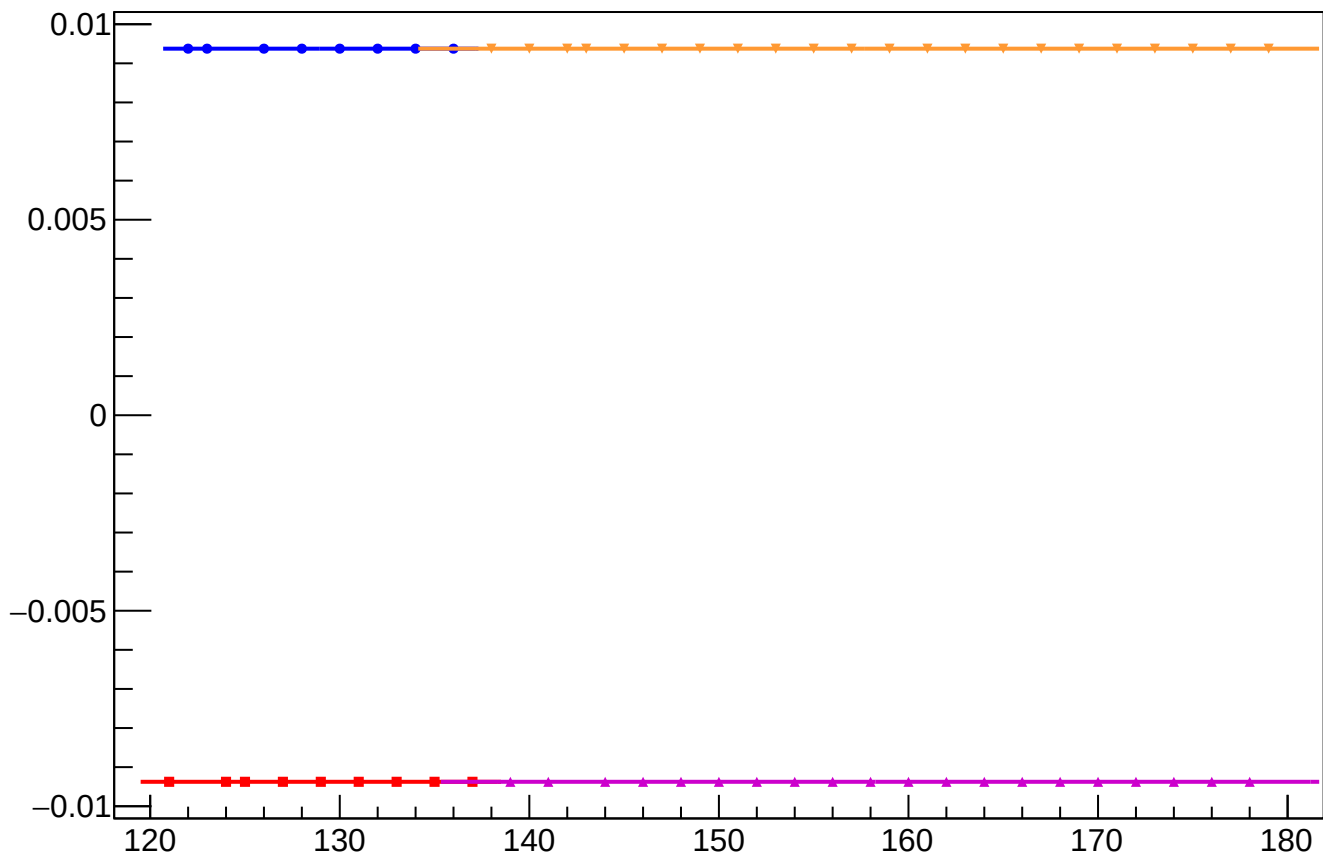
In: -0.006+/-0.000  $\chi^2/\text{NDF}$ : 991902827533262621

Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 945856728645064360

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 35040501284139



MSUPERBIGBITereadcalc\_mean vs Slug, Sign Corrected



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.0/7

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.1/21

Right Out: -0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.0/8

Left In: -0.009+/-0.000  $\chi^2/\text{NDF}$ : 0.1/19

Left: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 292379222972972235

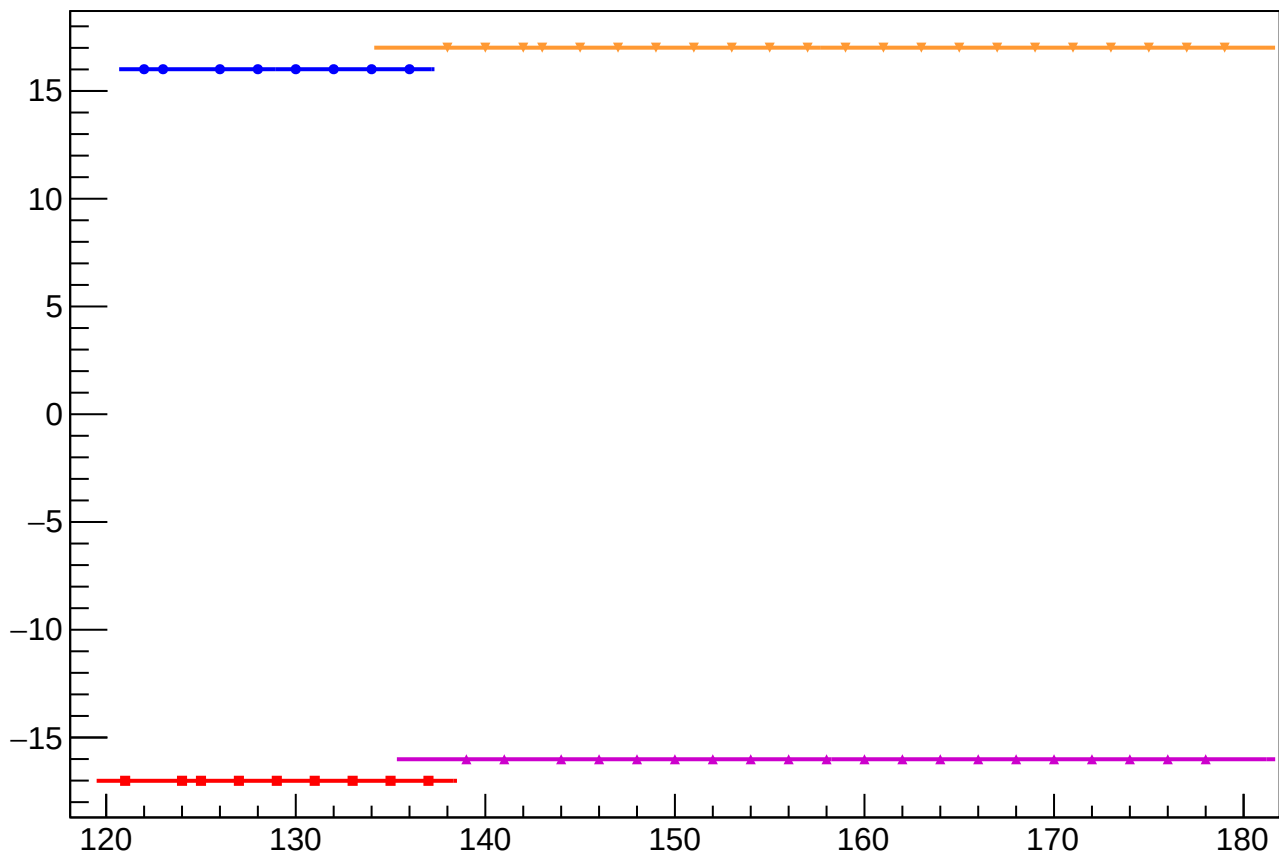
Right: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 58025364031769994

In: -0.006+/-0.000  $\chi^2/\text{NDF}$ : 991902827533262621

Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 945856728645064360

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 35040501284139

# IGL1I00DI24\_24M\_mean vs Slug, Sign Corrected



Right In: 16.009 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 30506.8/7

Left Out: 17.009 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 23769692244541927210352640.0/21

Right Out: -17.009 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 8333578329558812540796928.0/8

Left In: -16.009 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 127308383582123330633728.0/19

Left: 0.890 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 842550467850301495

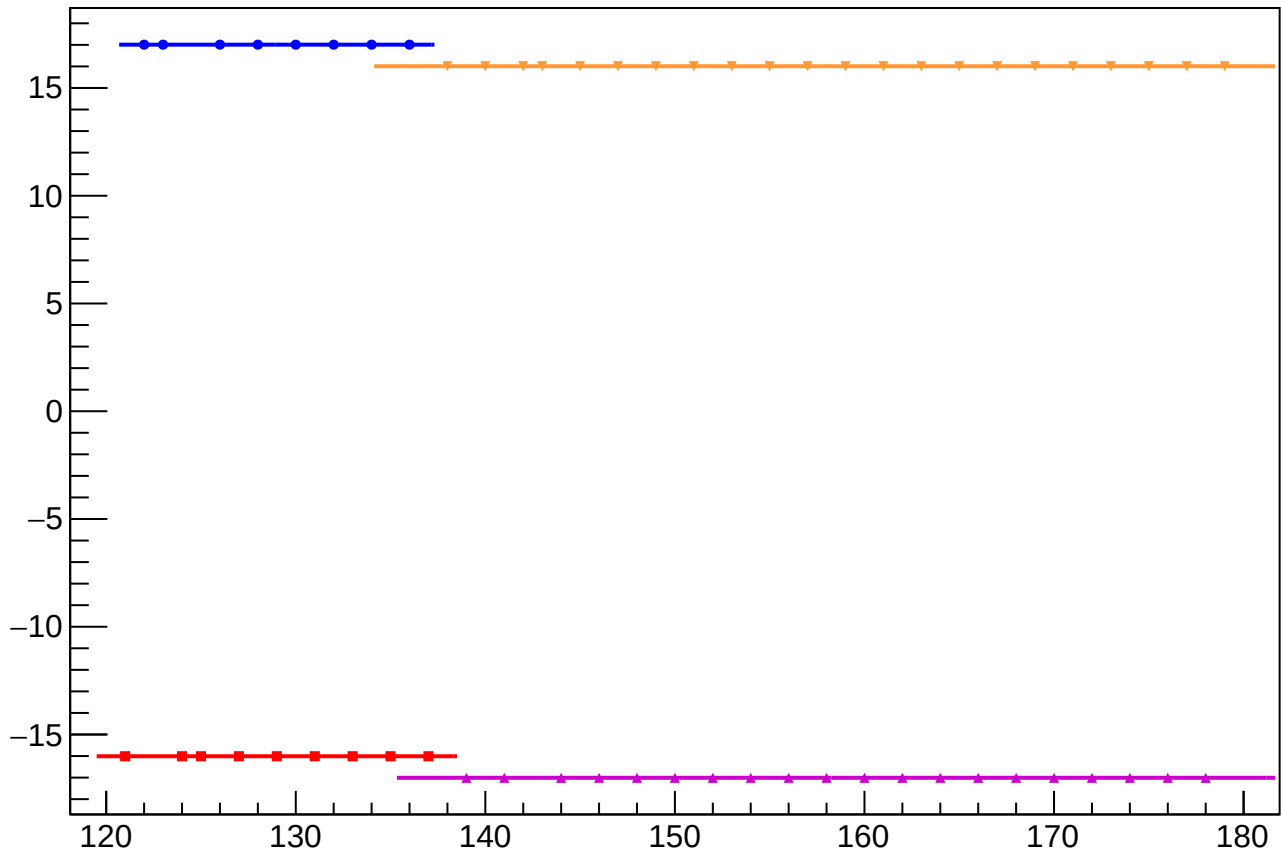
Right: -0.126 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1683539334964133

In: -10.468 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 26789952711652050

Out: 11.559 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 29349901422749413

All: 0.720 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 10114355998492

# IGL1I00OD16\_16\_mean vs Slug, Sign Corrected



Right In: 17.009+/-0.000  $\chi^2/\text{NDF}$ : 76109.3/7

Left Out: 16.009+/-0.000  $\chi^2/\text{NDF}$ : 86396.0/21

Right Out: -16.009+/-0.000  $\chi^2/\text{NDF}$ : 17859.8/8

Left In: -17.009+/-0.000  $\chi^2/\text{NDF}$ : 114366809047226814300160.0/19

Left: 0.096+/-0.000  $\chi^2/\text{NDF}$ : 890108750212918423

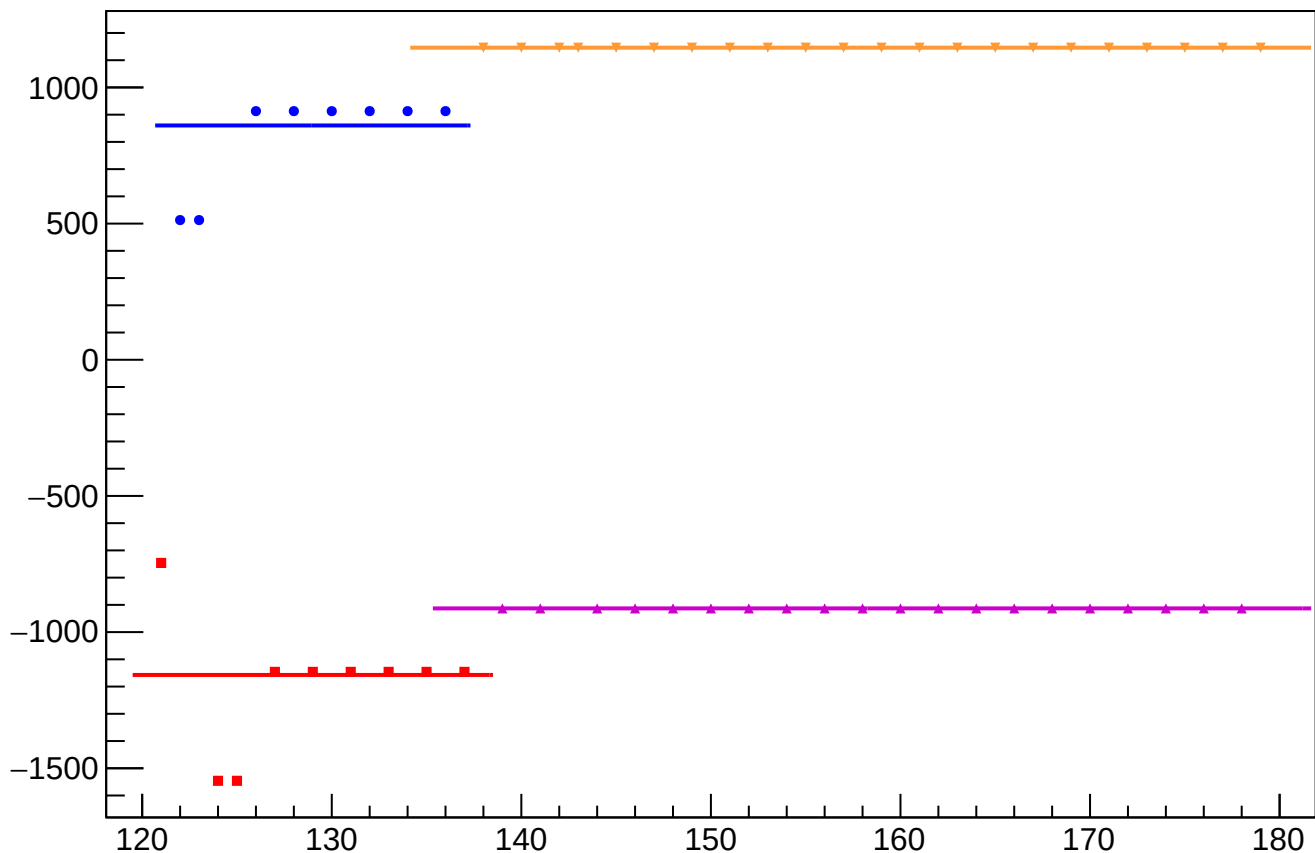
Right: 1.074+/-0.000  $\chi^2/\text{NDF}$ : 17994367493156690

In: -10.943+/-0.000  $\chi^2/\text{NDF}$ : 32521485066450343

Out: 10.935+/-0.000  $\chi^2/\text{NDF}$ : 27521307361125381

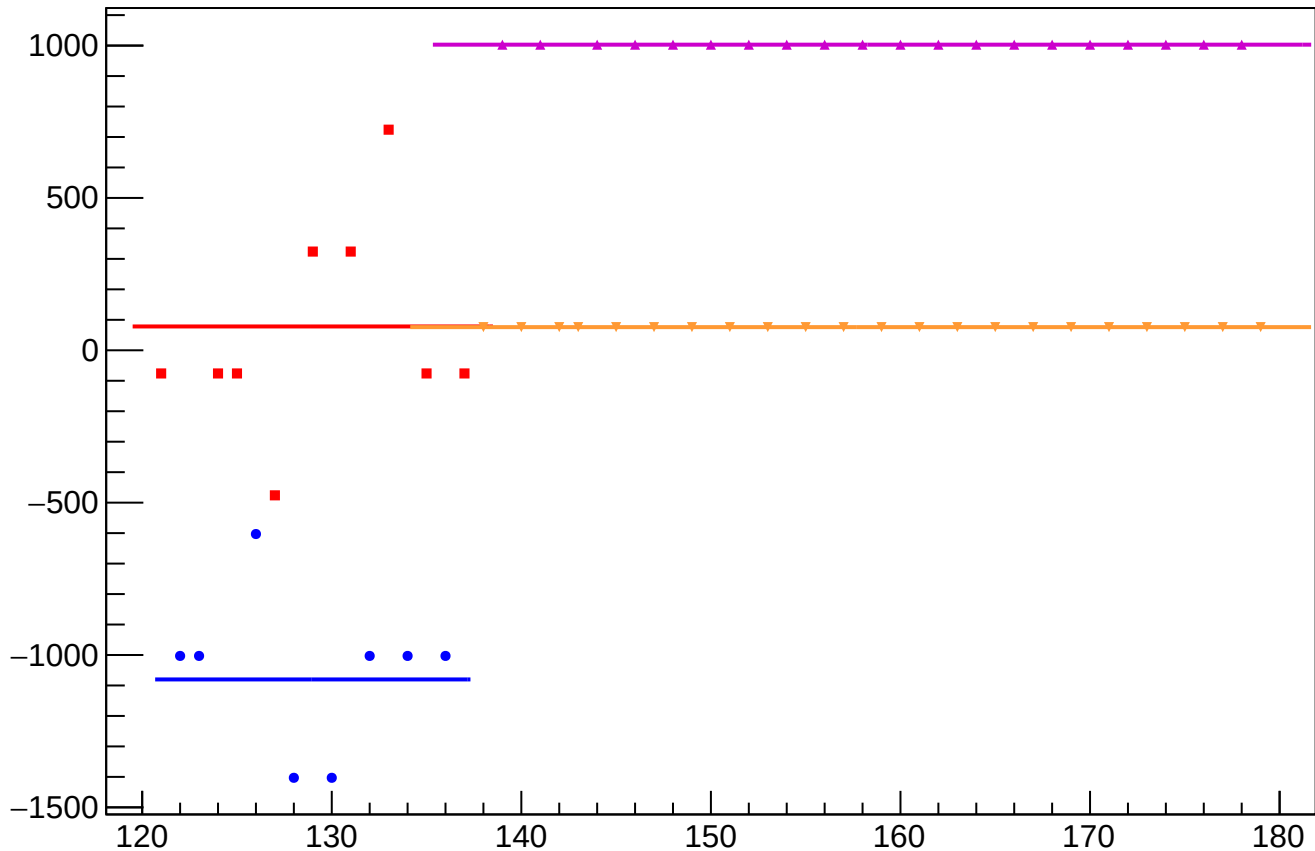
All: 0.260+/-0.000  $\chi^2/\text{NDF}$ : 10705791078824

# RTPAPOSUCNT\_mean vs Slug, Sign Corrected



Right In: 860.361+/-0.000  $\chi^2/\text{NDF}$ : 6252693455178703850651720460594577408.0/7  
 Left Out: 1146.011+/-0.000  $\chi^2/\text{NDF}$ : 5879278501333886966486269952.0/21  
 Right Out: -1157.295+/-0.000  $\chi^2/\text{NDF}$ : 13880040120623316310083946144856014848.0/8  
 Left In: -912.995+/-0.000  $\chi^2/\text{NDF}$ : 23718687129593346527112200192.0/19  
 All: 105.779+/-0.000  $\chi^2/\text{NDF}$ : 425589803156

# RTPAPOSVCNT\_mean vs Slug, Sign Corrected



Right In: -1080.182+/-0.000

$\chi^2/\text{NDF}$ : 21641787691490496475350584298794123264.0/7

Left Out: 76.011+/-0.000

$\chi^2/\text{NDF}$ : 10188144859878721982604247040.0/21

Right Out: 78.224+/-0.000

$\chi^2/\text{NDF}$ : 39611265375063350144036471826150326272.0/8

Left In: 1002.990+/-0.000

$\chi^2/\text{NDF}$ : 2354334773737381480217182208.0/19

All: 351.525+/-0.000  $\chi^2/\text{NDF}$ : 160065915660.0/47