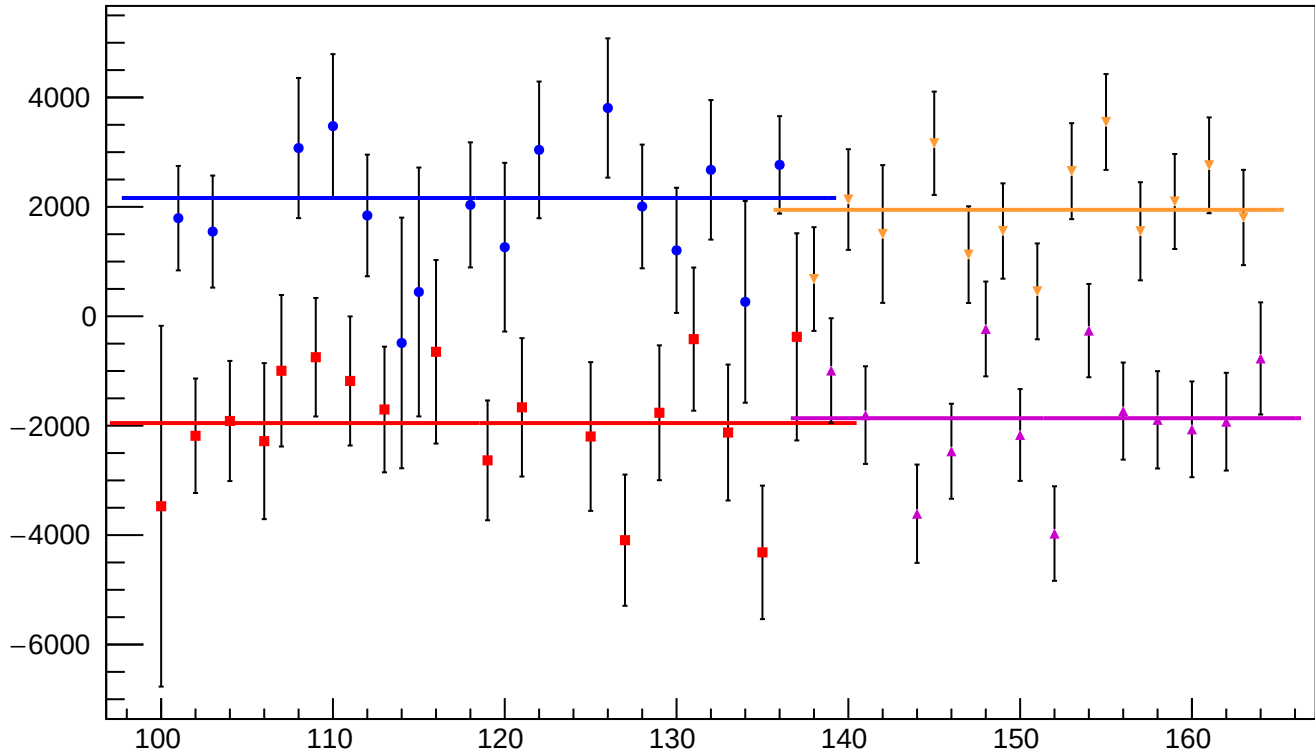


# reg\_asym\_us\_avg\_mean vs Slug



Right In: 2162.311+/-307.312

$\chi^2/\text{NDF}$ : 8.9/15

Left Out: 1945.990+/-252.049

$\chi^2/\text{NDF}$ : 12.7/12

Right Out: -1952.148+/-300.581

$\chi^2/\text{NDF}$ : 12.6/17

Left In: -1863.000+/-246.781

$\chi^2/\text{NDF}$ : 19.5/12

+ sign 2032.985+/-194.885

$\chi^2/\text{NDF}$ : 21.9/28

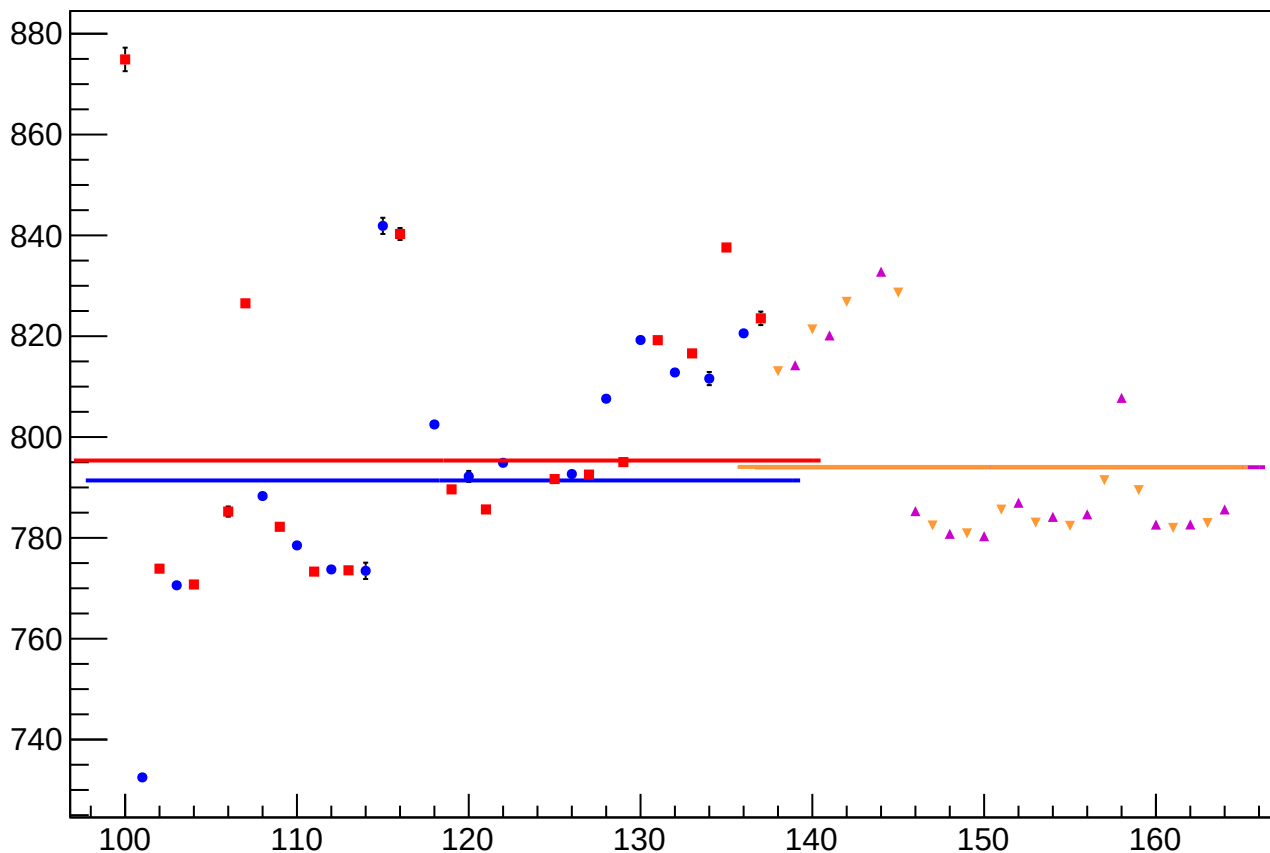
All: 24.719+/-136.313

$\chi^2/\text{NDF}$ : 261.9/59

- sign -1898.896+/-190.733

$\chi^2/\text{NDF}$ : 32.1/30

# reg\_asym\_us\_avg\_rms vs Slug



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

Left Out: 794.075 $\pm$ 0.178  $\chi^2$ /NDF: 9034.2/12

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

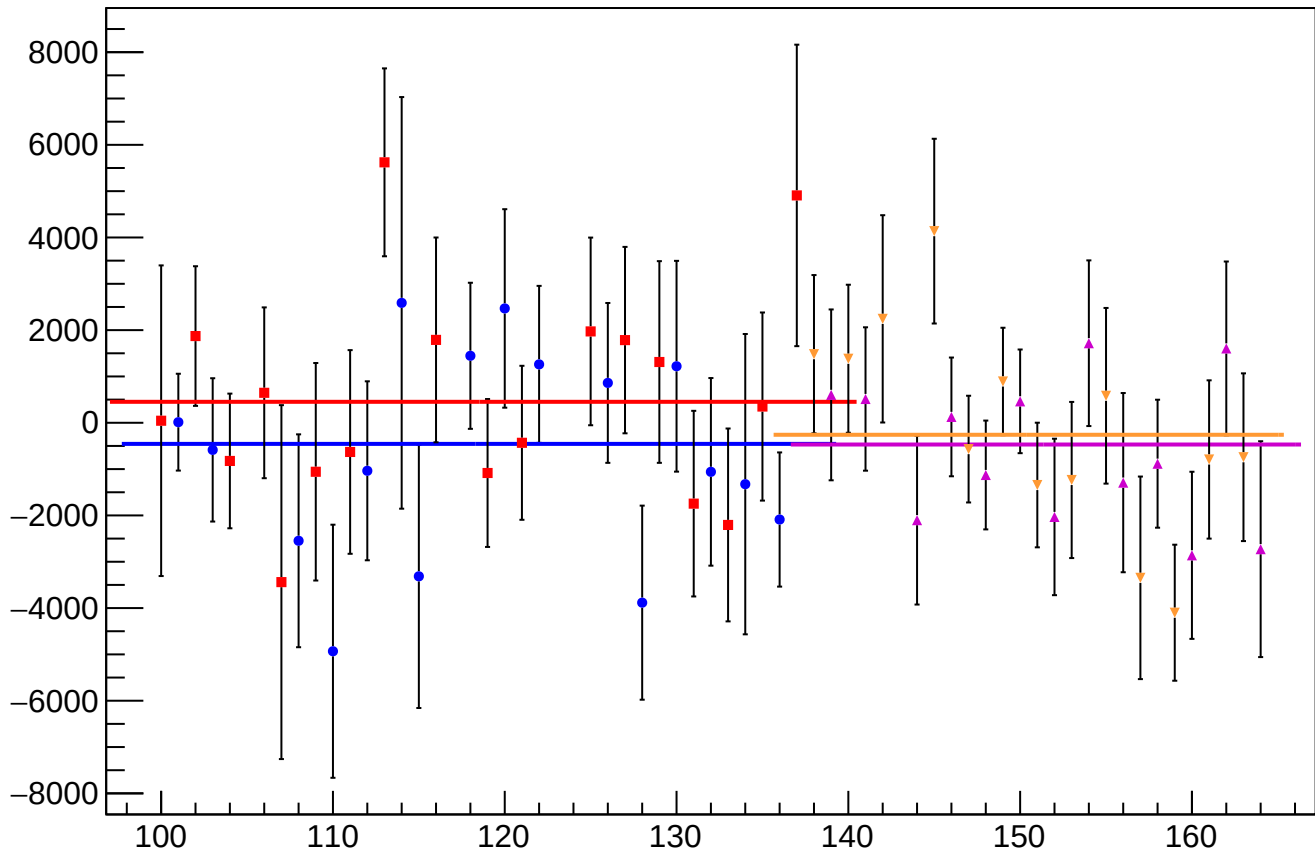
Left In: 794.014 $\pm$ 0.175  $\chi^2$ /NDF: 9426.4/12

+ sign 792.995 $\pm$ 0.138  $\chi^2$ /NDF: 24133.7/28

All: 793.789 $\pm$ 0.096  $\chi^2$ /NDF: 45208.3/59

- sign 794.550 $\pm$ 0.135  $\chi^2$ /NDF: 21009.6/30

# asym\_us\_avg\_correction\_mean vs Slug



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

Left Out: -258.938+/-439.085  $\chi^2/\text{NDF}$ : 19.5/12

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

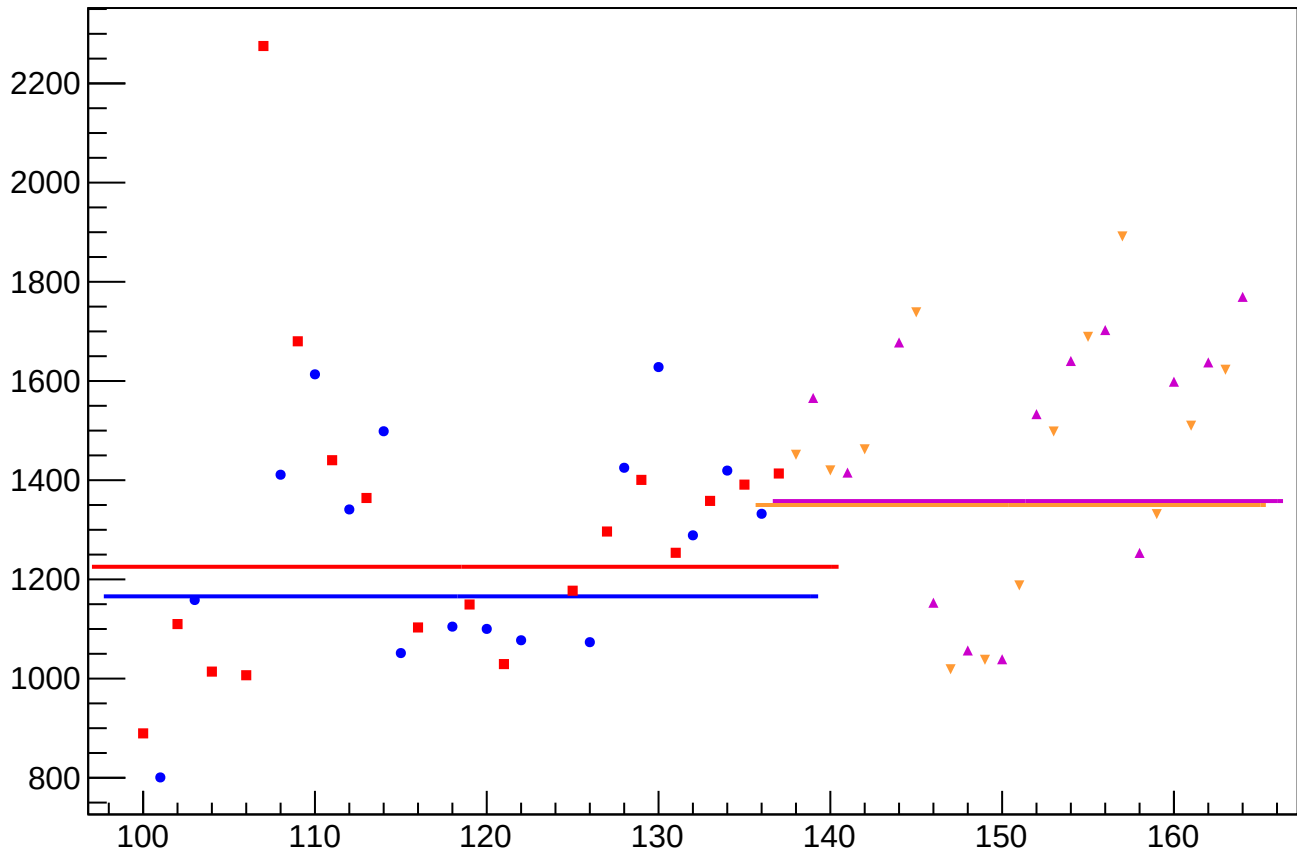
Left In: -469.272+/-431.313  $\chi^2/\text{NDF}$ : 9.3/12

+ sign -351.834+/-319.000  $\chi^2/\text{NDF}$ : 34.4/28

All: -200.989+/-225.437  $\chi^2/\text{NDF}$ : 63.6/59

- sign -50.491+/-318.632  $\chi^2/\text{NDF}$ : 28.7/30

# asym\_us\_avg\_correction\_rms vs Slug



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

Left Out: 1350.012 $\pm$ 0.310  $\chi^2$ /NDF: 696358.8/12

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

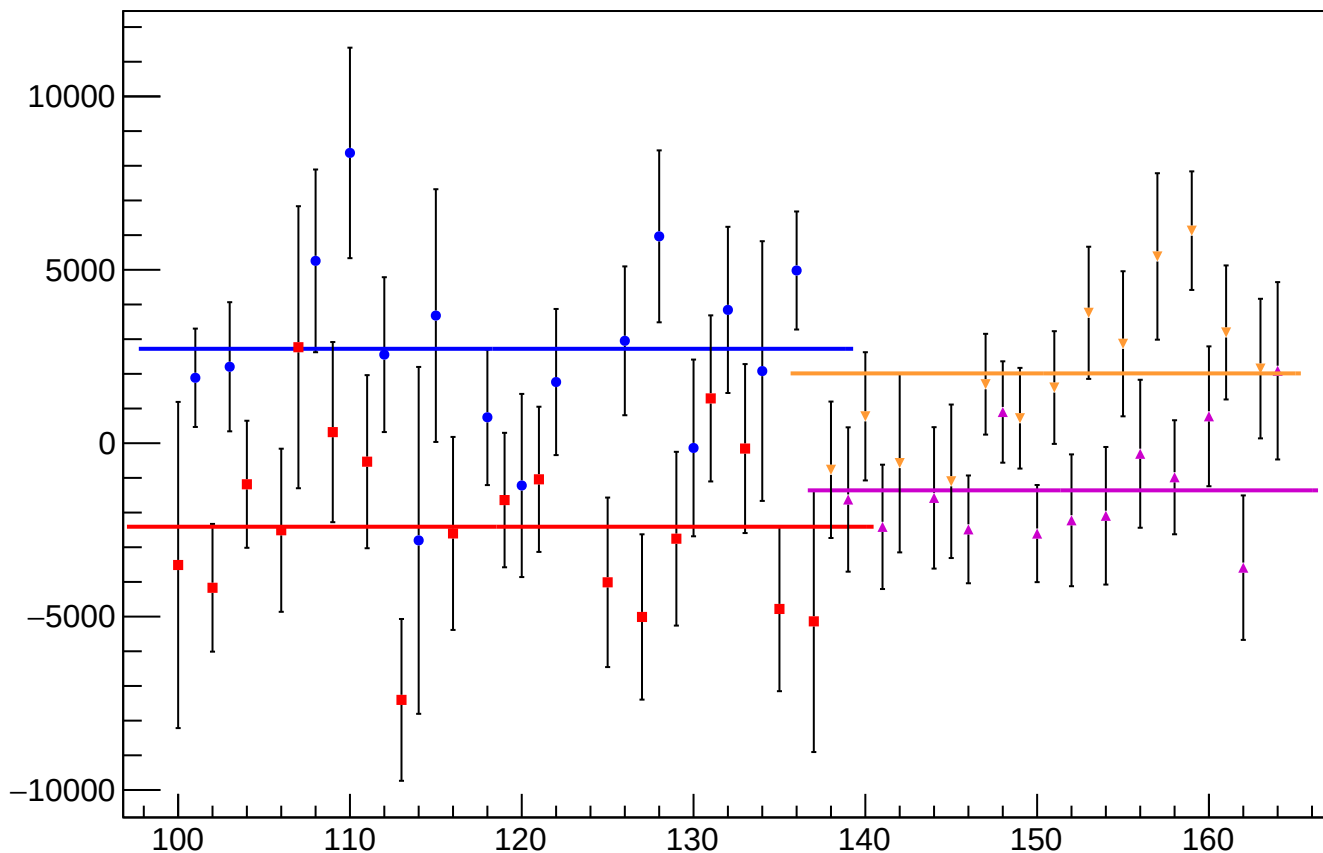
Left In: 1357.948 $\pm$ 0.305  $\chi^2$ /NDF: 723845.6/12

+ sign 1263.036 $\pm$ 0.226  $\chi^2$ /NDF: 1389357.7/28

All: 1280.418 $\pm$ 0.159  $\chi^2$ /NDF: 2651224.8/59

- sign 1297.760 $\pm$ 0.225  $\chi^2$ /NDF: 1250004.3/30

# asym\_us\_avg\_mean vs Slug



Right In: 2722.309 $\pm$ 567.154  $\chi^2$ /NDF: 14.6/15

Left Out: 2012.919 $\pm$ 515.244  $\chi^2$ /NDF: 15.5/12

Right Out: -2408.446 $\pm$ 568.977  $\chi^2$ /NDF: 16.3/17

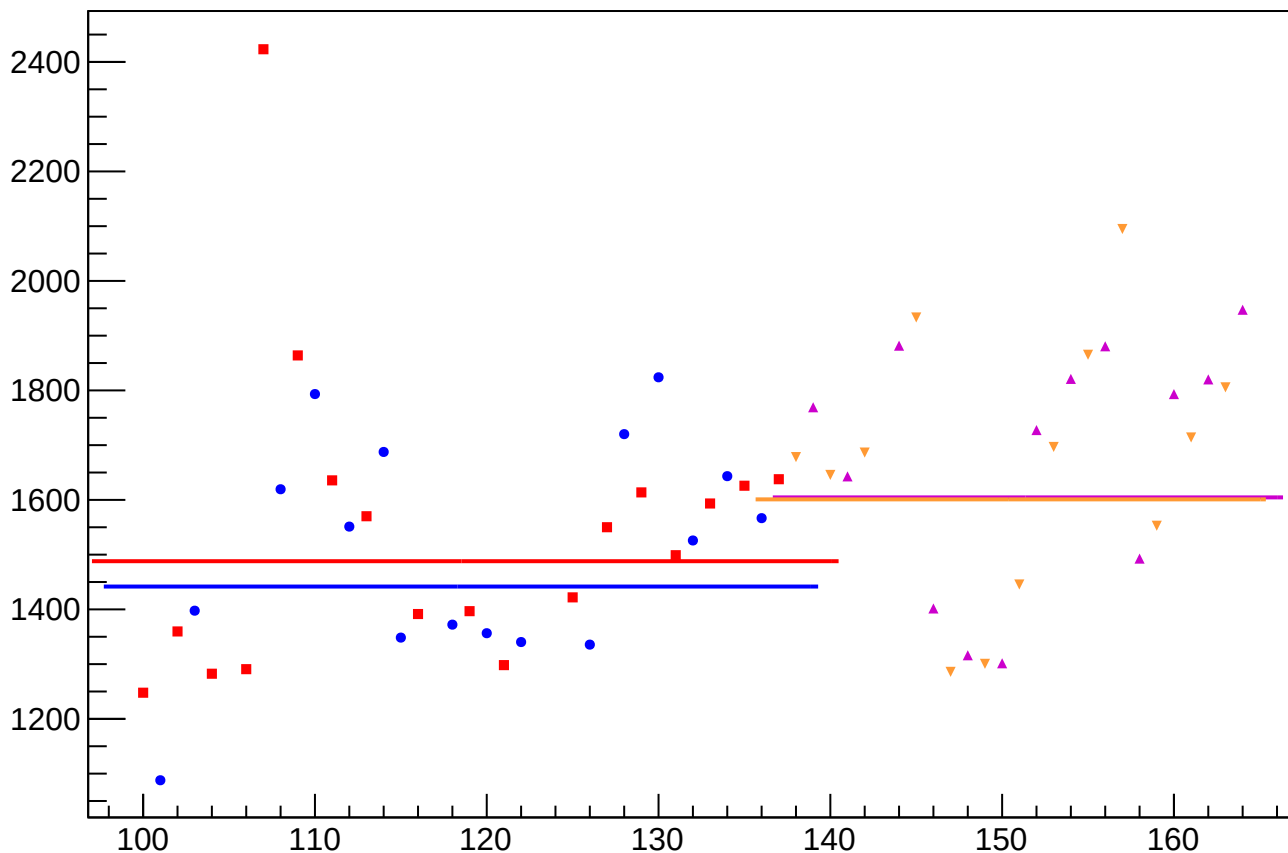
Left In: -1359.362 $\pm$ 504.814  $\chi^2$ /NDF: 8.8/12

+ sign 2333.671 $\pm$ 381.367  $\chi^2$ /NDF: 30.9/28

All: 235.567 $\pm$ 268.330  $\chi^2$ /NDF: 117.8/59

- sign -1821.440 $\pm$ 377.613  $\chi^2$ /NDF: 27.0/30

# asym\_us\_avg\_rms vs Slug



Right In: 1441.720+/-0.401  $\chi^2$ /NDF: 275902.8/15

Left Out: 1600.959+/-0.364  $\chi^2$ /NDF: 400231.1/12

Right Out: 1488.026+/-0.402  $\chi^2$ /NDF: 256140.4/17

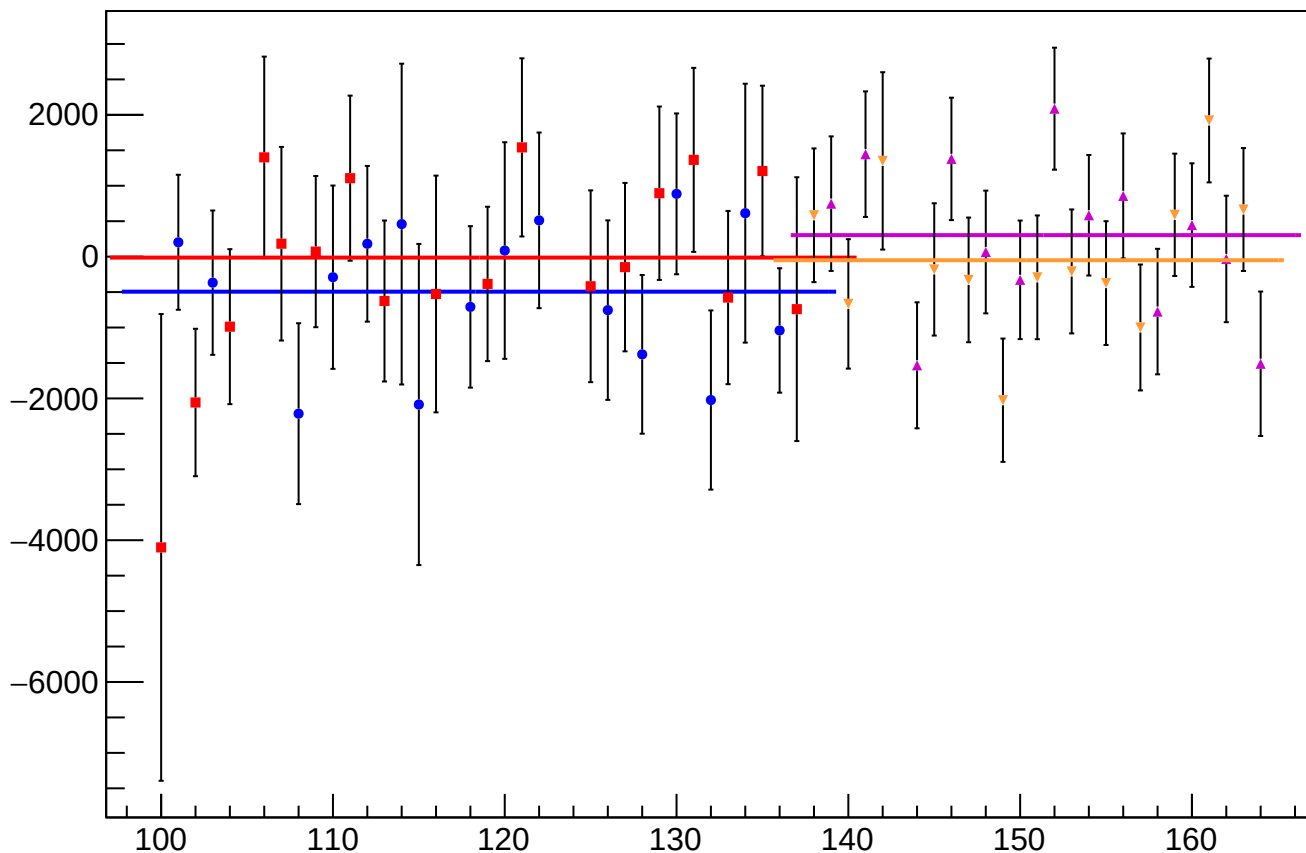
Left In: 1604.572+/-0.357  $\chi^2$ /NDF: 405711.1/12

+ sign 1528.959+/-0.270  $\chi^2$ /NDF: 762508.5/28

All: 1541.218+/-0.190  $\chi^2$ /NDF: 1475406.6/59

- sign 1553.238+/-0.267  $\chi^2$ /NDF: 708805.1/30

# reg\_asym\_us\_dd\_mean vs Slug



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

Left Out:  $-50.470 \pm 250.674$   $\chi^2/\text{NDF}$ : 15.2/12

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

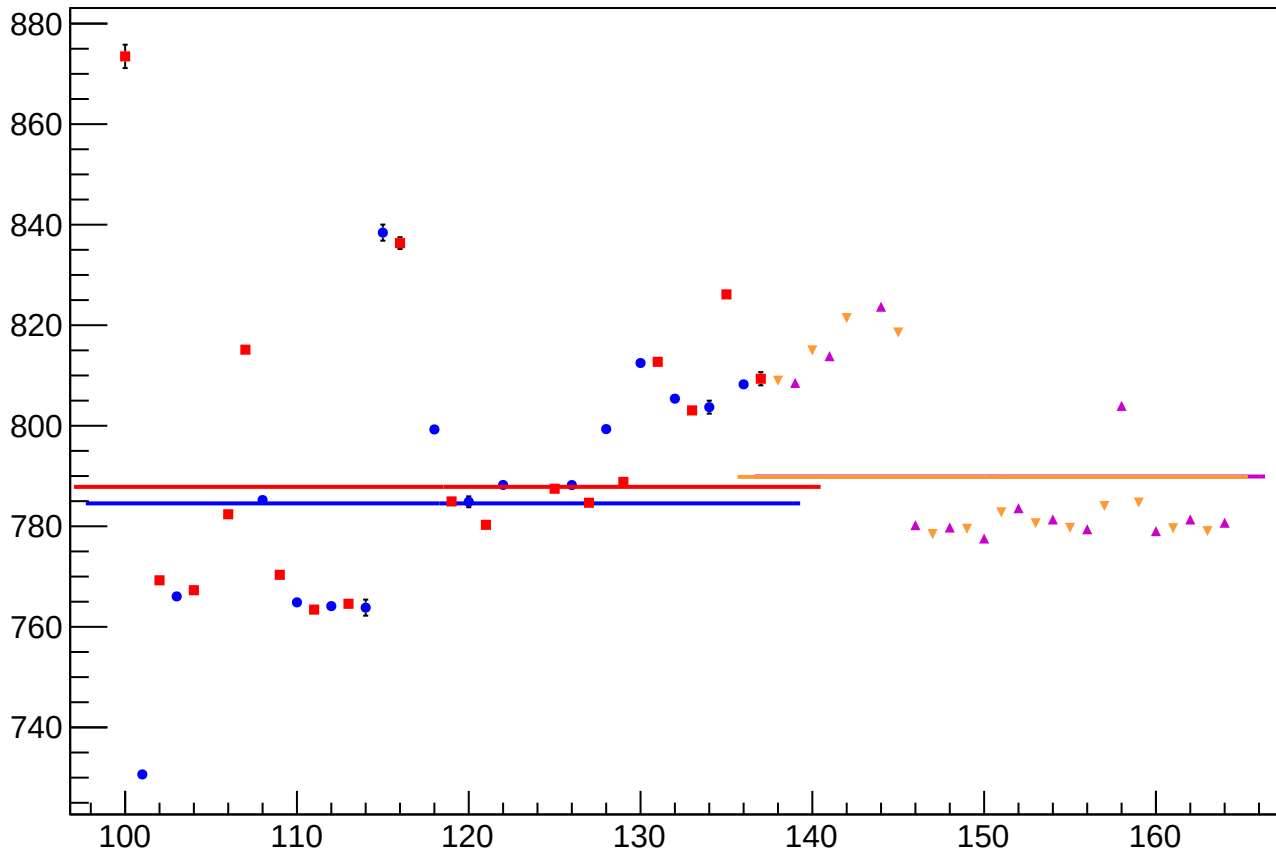
Left In:  $303.325 \pm 245.490$   $\chi^2/\text{NDF}$ : 18.0/12

+ sign  $-229.623 \pm 193.568$   $\chi^2/\text{NDF}$ : 25.1/28

All:  $-22.867 \pm 135.379$   $\chi^2/\text{NDF}$ : 59.3/59

- sign  $175.100 \pm 189.409$   $\chi^2/\text{NDF}$ : 32.0/30

# reg\_asym\_us\_dd\_rms vs Slug



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

Left Out:  $789.821 \pm 0.177$   $\chi^2/\text{NDF}: 7490.3/12$

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

Left In:  $789.906 \pm 0.174$   $\chi^2/\text{NDF}: 7834.2/12$

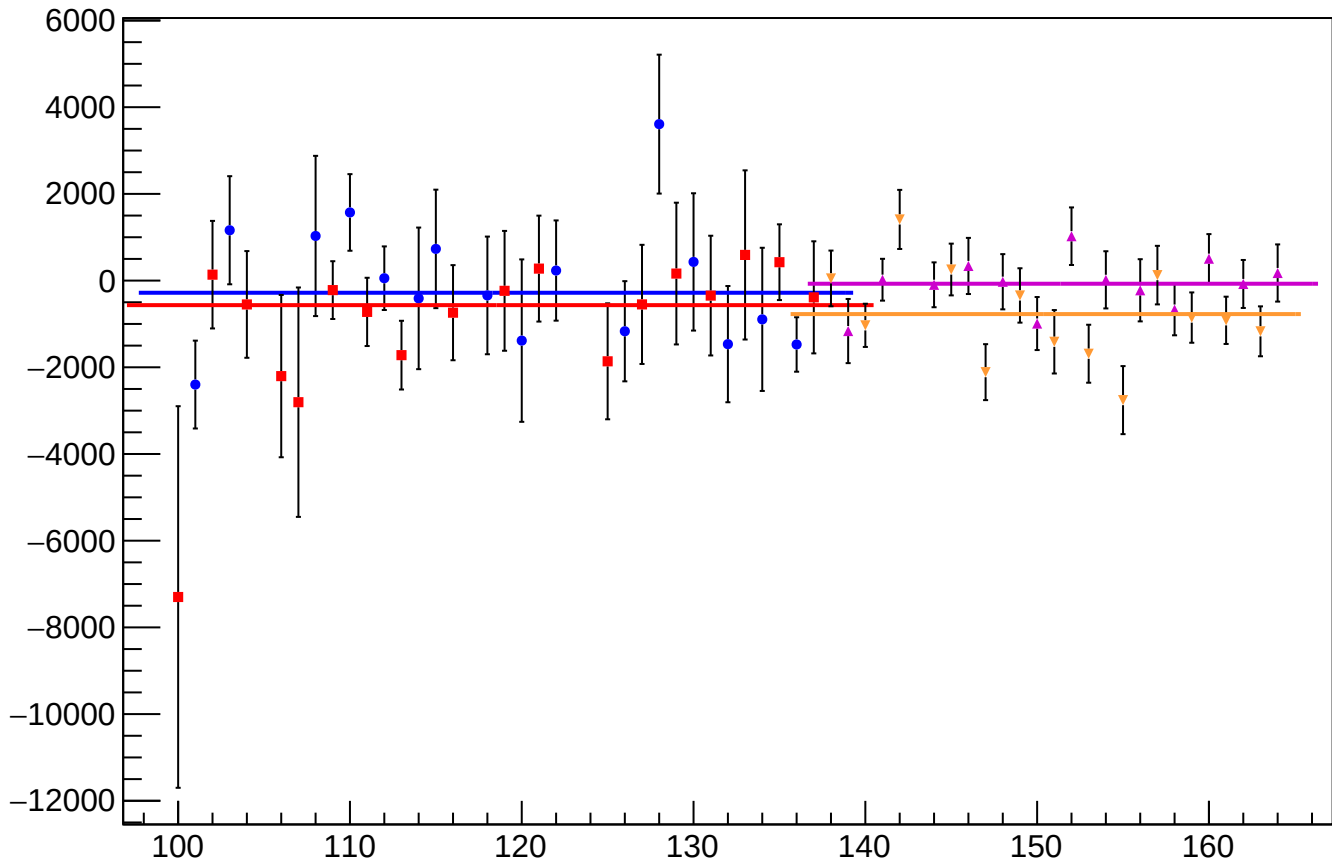
+ sign  $787.696 \pm 0.137$   $\chi^2/\text{NDF}: 21523.9/28$

All:  $788.399 \pm 0.096$   $\chi^2/\text{NDF}: 40375.8/59$

- sign  $789.071 \pm 0.134$   $\chi^2/\text{NDF}: 18800.3/30$



# asym\_us\_dd\_correction\_mean vs Slug



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

Left Out: -772.588+/-172.466  $\chi^2/\text{NDF}$ :31.3/12

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

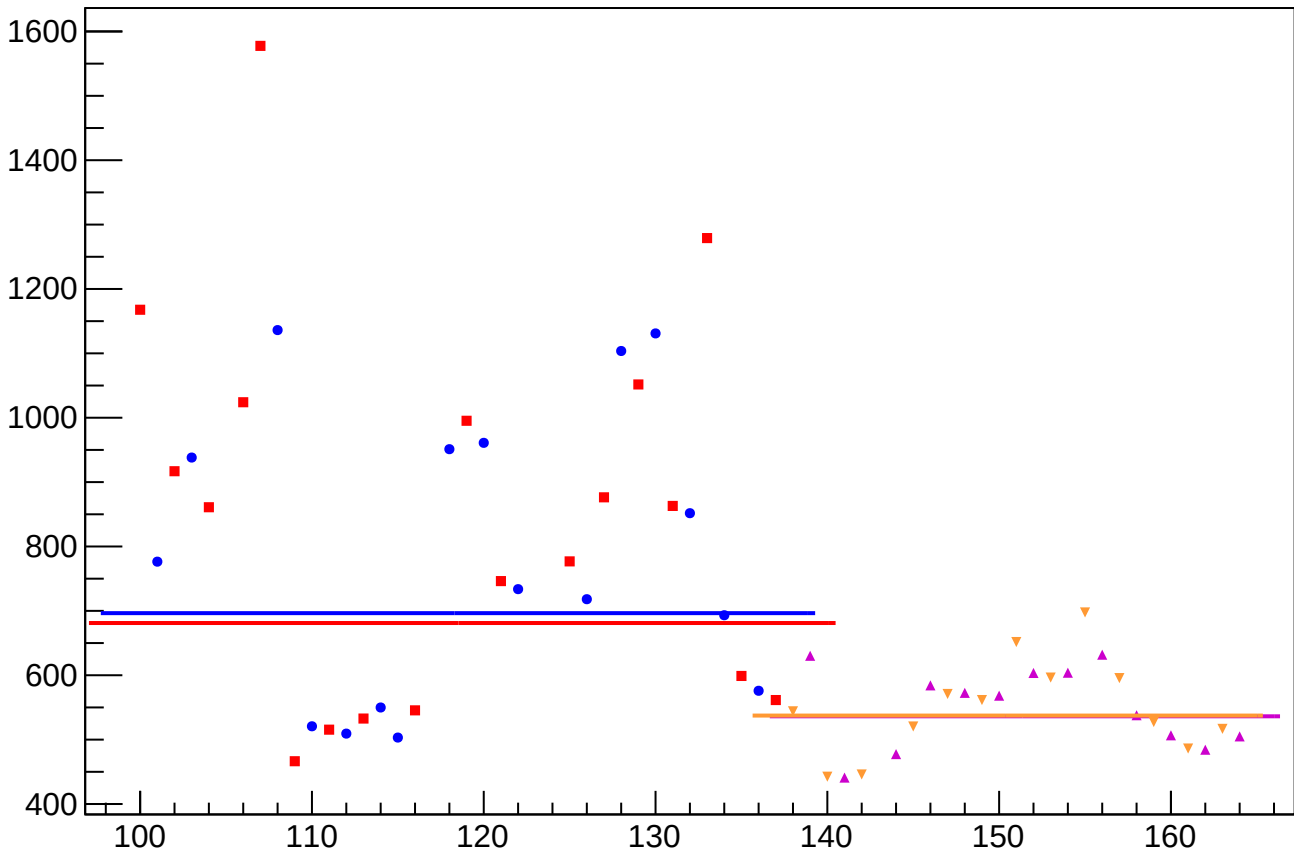
Left In: -72.557+/-168.060  $\chi^2/\text{NDF}$ :9.9/12

+ sign -639.015+/-147.202  $\chi^2/\text{NDF}$ : 56.6/28

All: -417.576+/-102.606  $\chi^2/\text{NDF}$ : 83.2/59

- sign -208.311+/-143.099  $\chi^2/\text{NDF}$ : 22.2/30

# asym\_us\_dd\_correction\_rms vs Slug



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

Left Out: 537.366+/-0.122  $\chi^2/\text{NDF}$ : 302056.6/12

+ sign 580.563+/-0.104  $\chi^2/\text{NDF}$ : 1723639.7/28

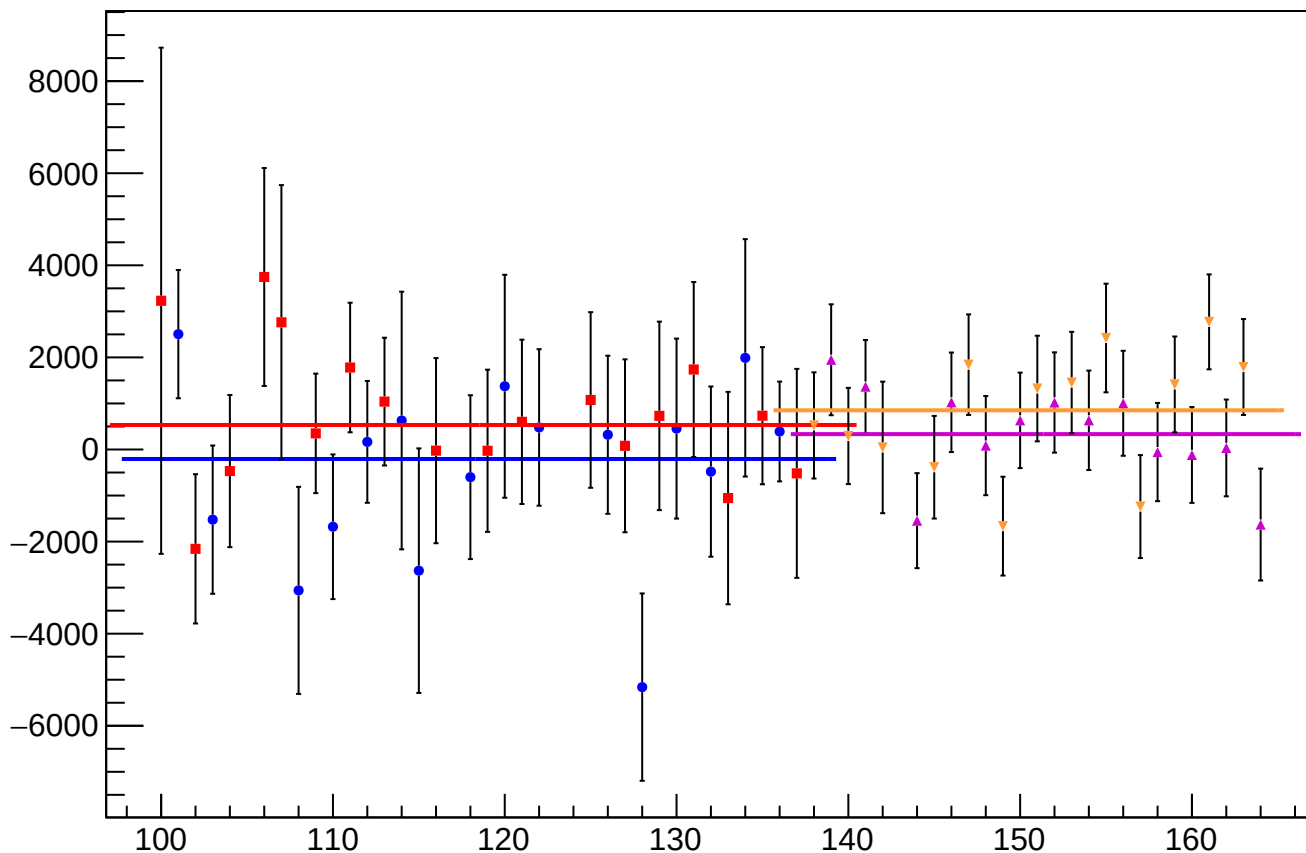
Right Out: 681.127+/-0.193  $\chi^2/\text{NDF}$ : 1352555.6/17

All: 578.252+/-0.073  $\chi^2/\text{NDF}$ : 3749728.7/59

- sign 576.068+/-0.101  $\chi^2/\text{NDF}$ : 2025130.4/30

Left In: 536.220+/-0.119  $\chi^2/\text{NDF}$ : 263693.0/12

# asym\_us\_dd\_mean vs Slug



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

Left Out:  $851.603 \pm 307.744$   $\chi^2/\text{NDF}$ : 18.5/12

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

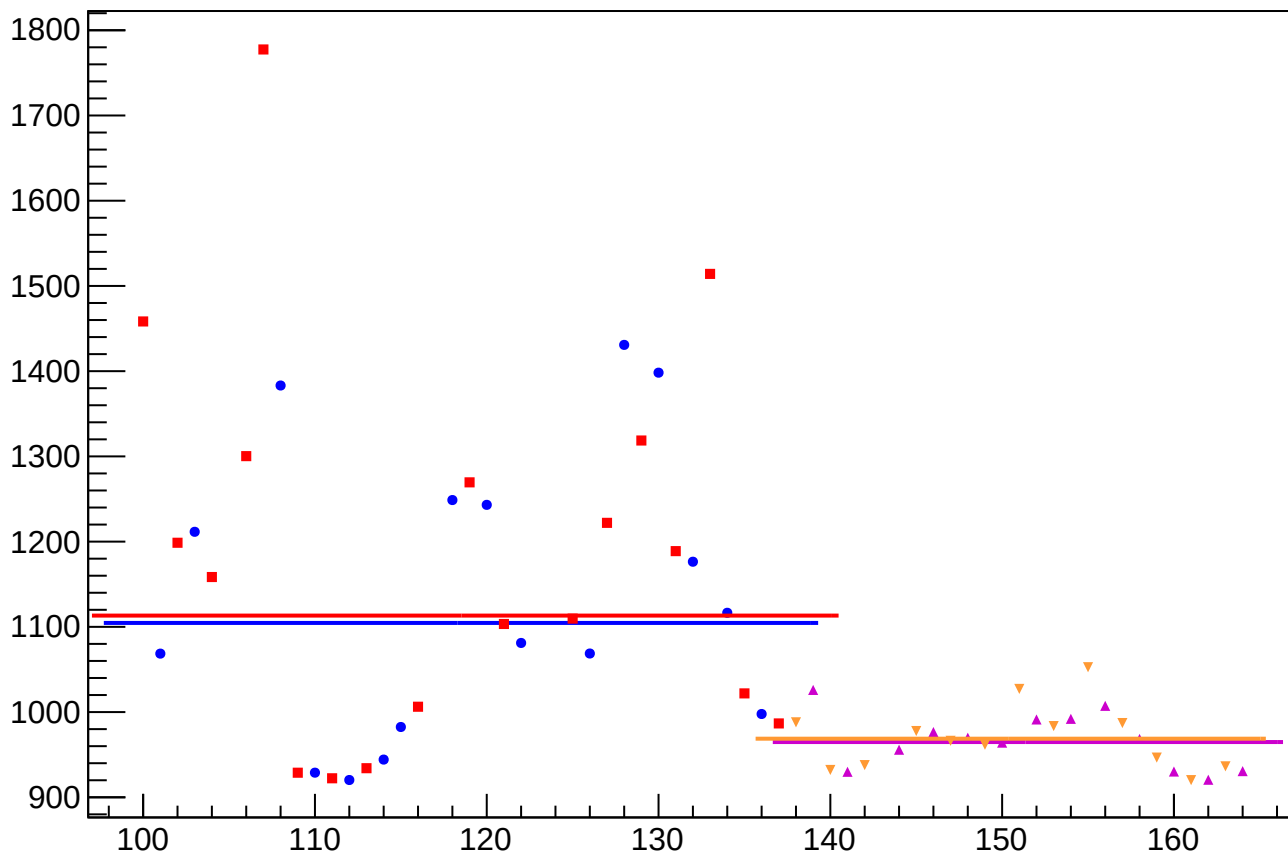
Left In:  $333.759 \pm 300.021$   $\chi^2/\text{NDF}$ : 10.5/12

+ sign  $497.378 \pm 250.994$   $\chi^2/\text{NDF}$ : 38.3/28

All:  $447.374 \pm 175.508$   $\chi^2/\text{NDF}$ : 57.2/59

- sign  $399.531 \pm 245.508$   $\chi^2/\text{NDF}$ : 18.8/30

# asym\_us\_dd\_rms vs Slug



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

Left Out: 968.772+/-0.218  $\chi^2/\text{NDF}$ : 27680.1/12

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

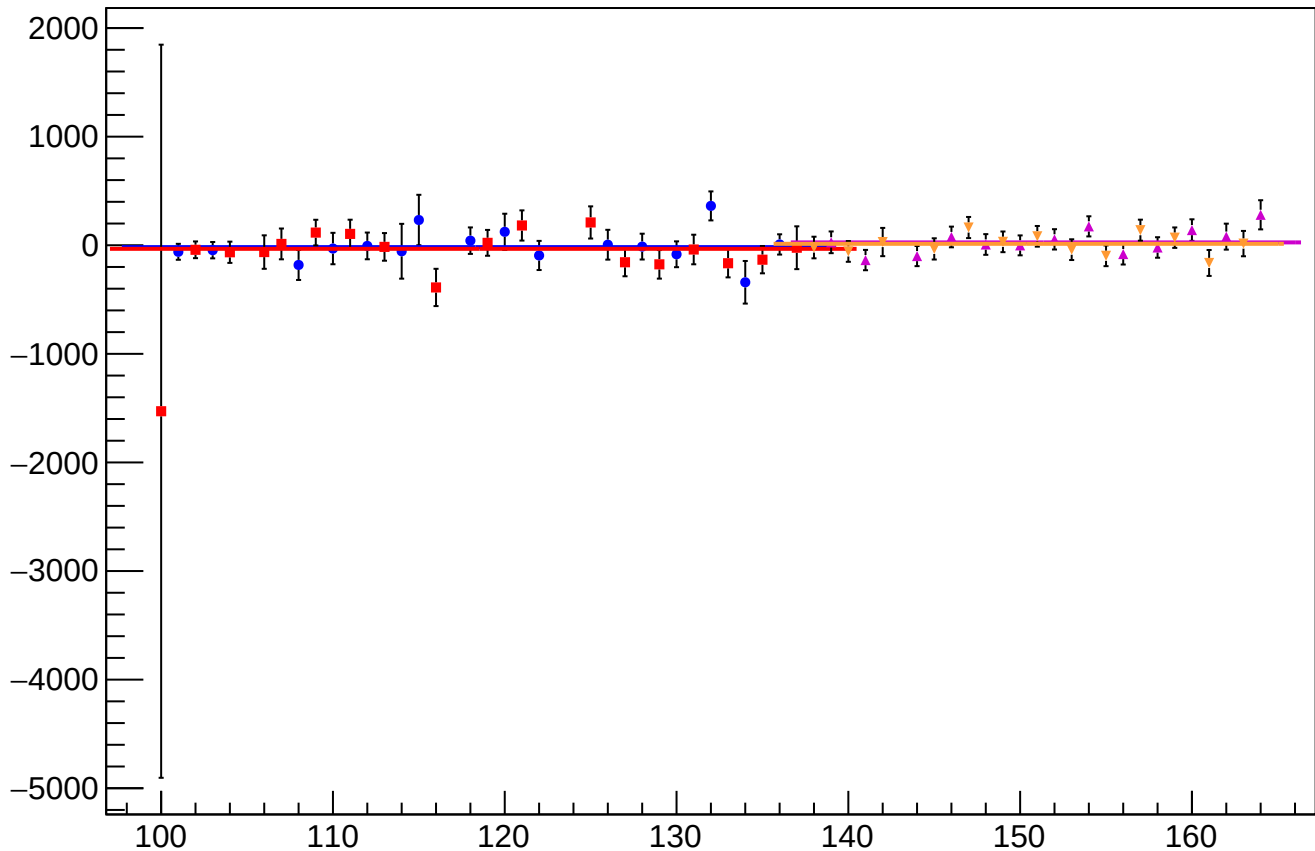
Left In: 964.835+/-0.212  $\chi^2/\text{NDF}$ : 20557.7/12

+ sign 1014.247+/-0.177  $\chi^2/\text{NDF}$ : 413606.9/28

All: 1014.048+/-0.124  $\chi^2/\text{NDF}$ : 958768.1/59

- sign 1013.857+/-0.174  $\chi^2/\text{NDF}$ : 545158.7/30

# reg\_asym\_ds\_avg\_mean vs Slug



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

Left Out:  $13.204 \pm 27.915$   $\chi^2/\text{NDF}$ : 9.7/12

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

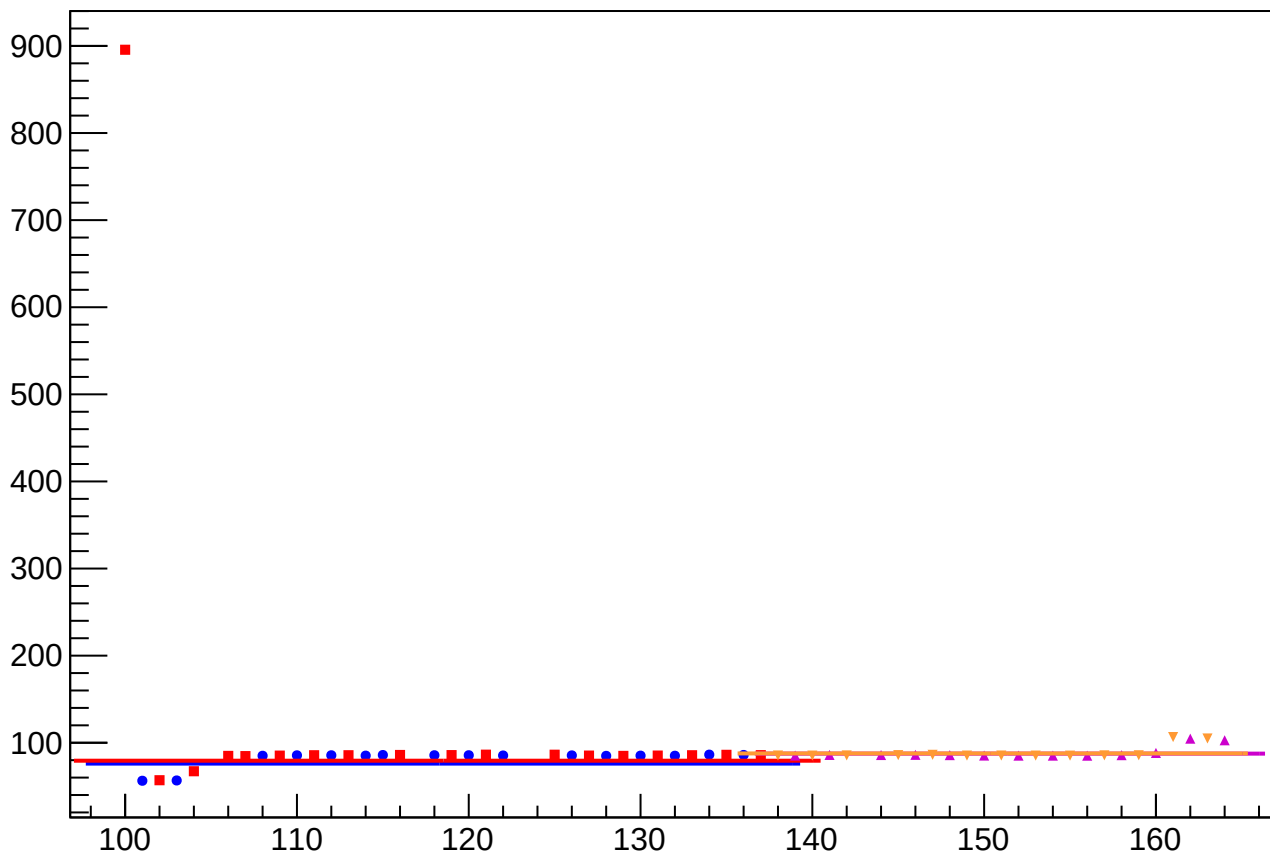
Left In:  $26.234 \pm 27.251$   $\chi^2/\text{NDF}$ : 14.5/12

+ sign  $-0.928 \pm 20.432$   $\chi^2/\text{NDF}$ : 25.9/28

All:  $-0.494 \pm 14.403$   $\chi^2/\text{NDF}$ : 59.0/59

- sign  $-0.065 \pm 20.306$   $\chi^2/\text{NDF}$ : 33.1/30

# reg\_asym\_ds\_avg\_rms vs Slug



Right In: 76.079 $\pm$ 0.021  $\chi^2$ /NDF: 409170.8/15

Left Out: 87.733 $\pm$ 0.020  $\chi^2$ /NDF: 104700.0/12

Right Out: 79.390 $\pm$ 0.022  $\chi^2$ /NDF: 378526.1/17

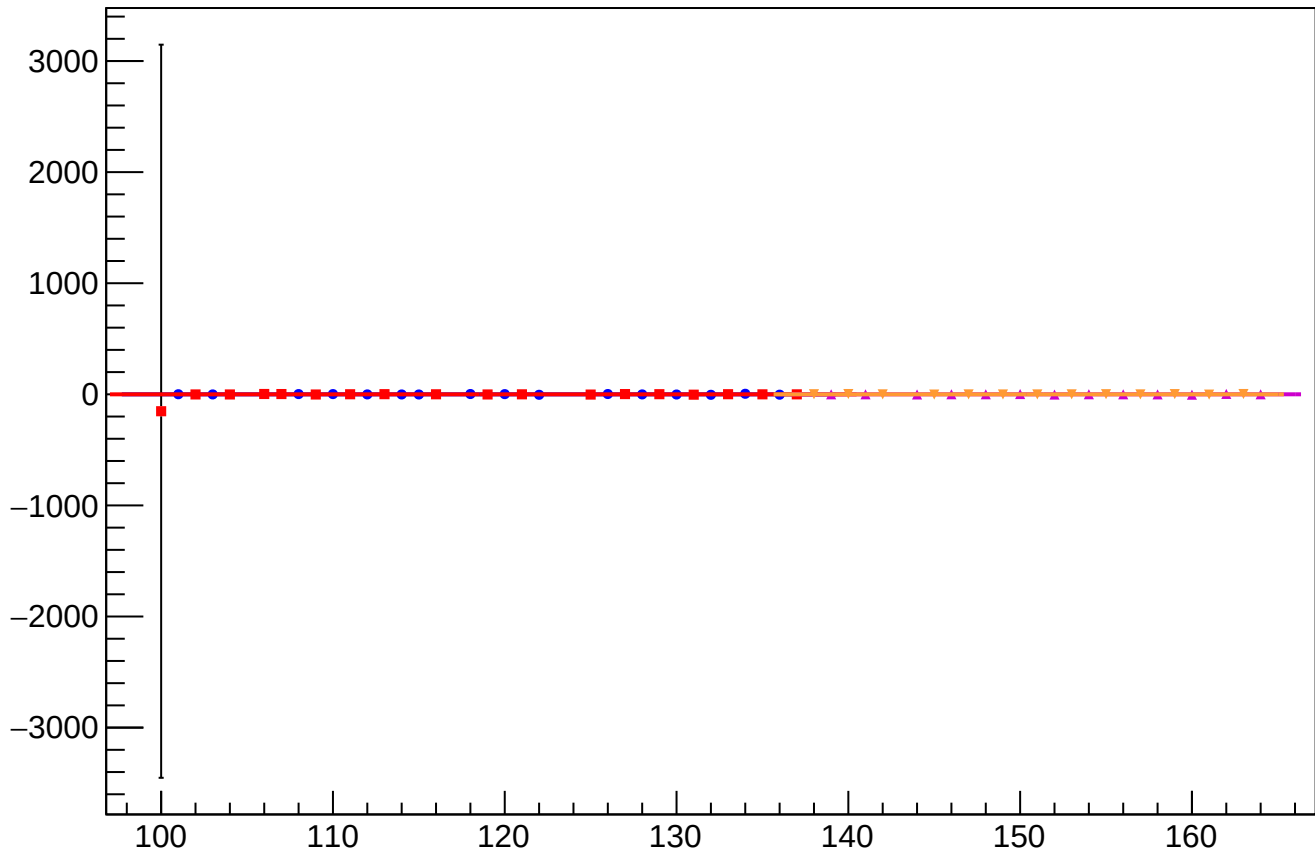
Left In: 87.506 $\pm$ 0.019  $\chi^2$ /NDF: 76171.6/12

+ sign 82.323 $\pm$ 0.014  $\chi^2$ /NDF: 675689.3/28

All: 83.114 $\pm$ 0.010  $\chi^2$ /NDF: 1215262.7/59

- sign 83.896 $\pm$ 0.014  $\chi^2$ /NDF: 533606.9/30

# asym\_ds\_avg\_correction\_mean vs Slug



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

Left Out:  $-0.127 \pm 0.469$   $\chi^2/\text{NDF}$ : 10.0/12

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

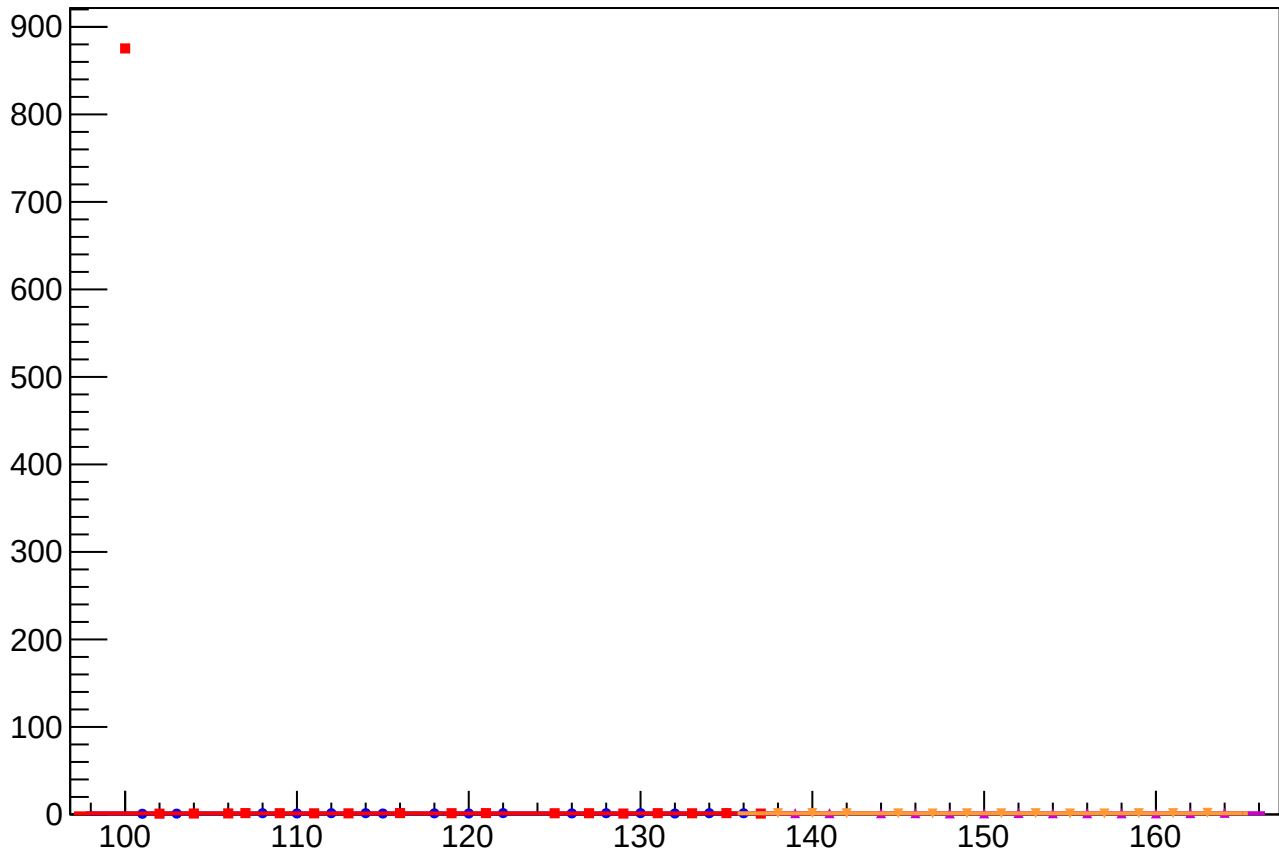
Left In:  $0.172 \pm 0.480$   $\chi^2/\text{NDF}$ : 13.3/12

+ sign  $-0.199 \pm 0.342$   $\chi^2/\text{NDF}$ : 31.2/28

All:  $-0.075 \pm 0.246$   $\chi^2/\text{NDF}$ : 53.9/59

- sign  $0.057 \pm 0.353$   $\chi^2/\text{NDF}$ : 22.4/30

# asym\_ds\_avg\_correction\_rms vs Slug



Right In: 1.152 $\pm$ 0.000  $\chi^2$ /NDF: 514348.9/15

Left Out: 1.319 $\pm$ 0.000  $\chi^2$ /NDF:311400.7/12

Right Out: 1.247 $\pm$ 0.000  $\chi^2$ /NDF: 517130.7/17

Left In: 1.415 $\pm$ 0.000  $\chi^2$ /NDF:171619.7/12

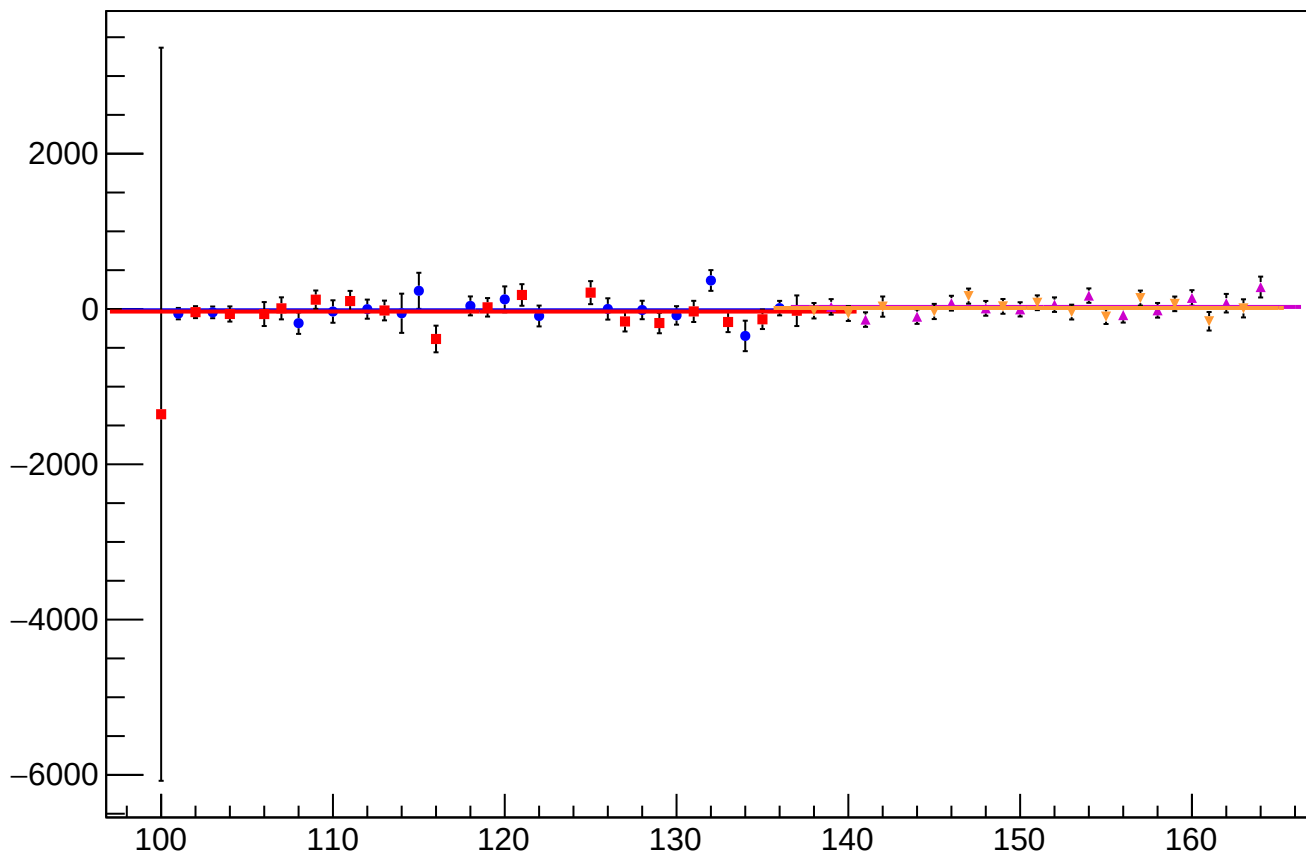
+ sign 1.241 $\pm$ 0.000  $\chi^2$ /NDF: 943969.6/28

All: 1.288 $\pm$ 0.000  $\chi^2$ /NDF: 1822685.0/59

- sign 1.338 $\pm$ 0.000  $\chi^2$ /NDF: 801513.9/30



# asym\_ds\_avg\_mean vs Slug



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

Left Out:  $13.085 \pm 27.922$   $\chi^2/\text{NDF}$ : 9.7/12

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

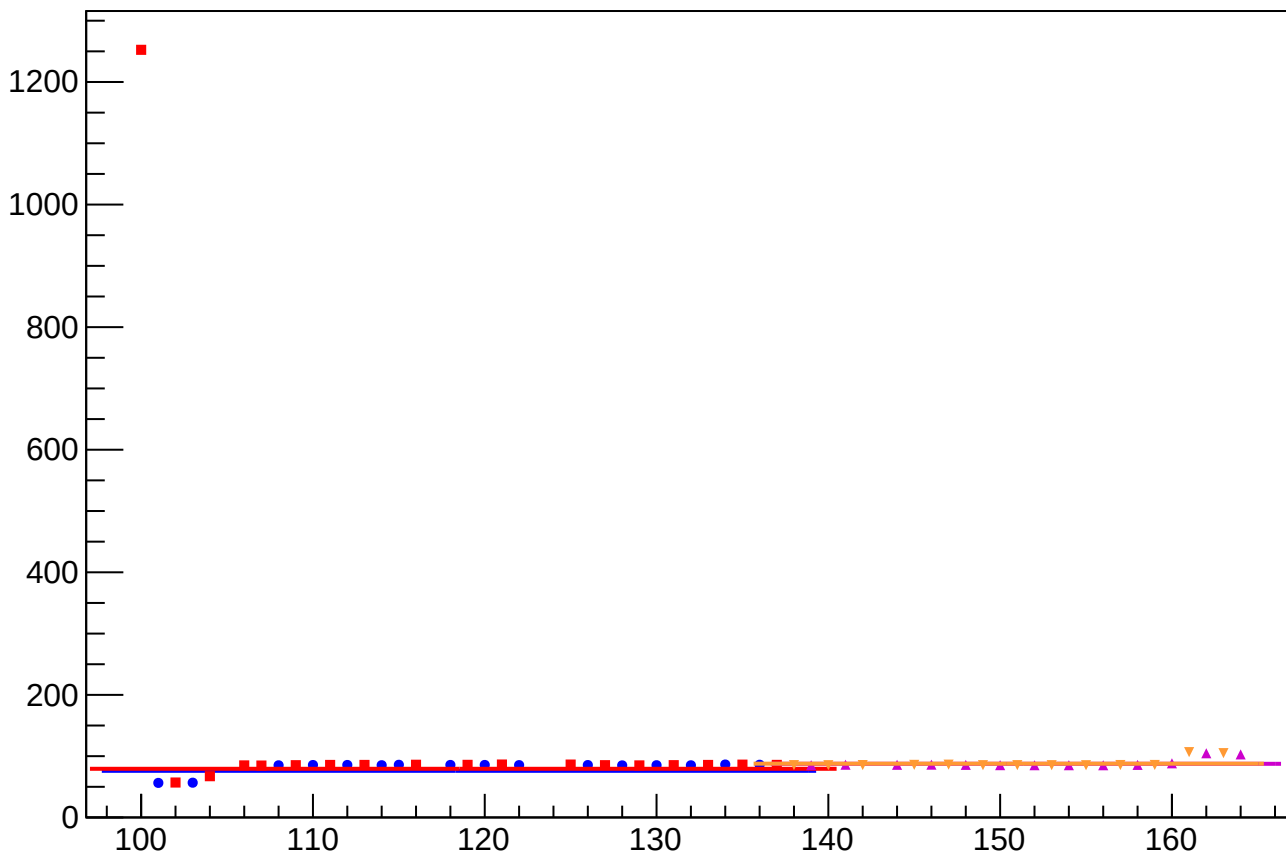
Left In:  $26.595 \pm 27.259$   $\chi^2/\text{NDF}$ : 14.4/12

+ sign  $-0.562 \pm 20.438$   $\chi^2/\text{NDF}$ : 26.1/28

All:  $-0.261 \pm 14.407$   $\chi^2/\text{NDF}$ : 59.1/59

- sign  $0.037 \pm 20.311$   $\chi^2/\text{NDF}$ : 33.1/30

# asym\_ds\_avg\_rms vs Slug



Right In: 76.099 $\pm$ 0.021  $\chi^2$ /NDF: 409200.9/15

Left Out: 87.756 $\pm$ 0.020  $\chi^2$ /NDF: 104778.4/12

Right Out: 79.393 $\pm$ 0.022  $\chi^2$ /NDF: 385048.8/17

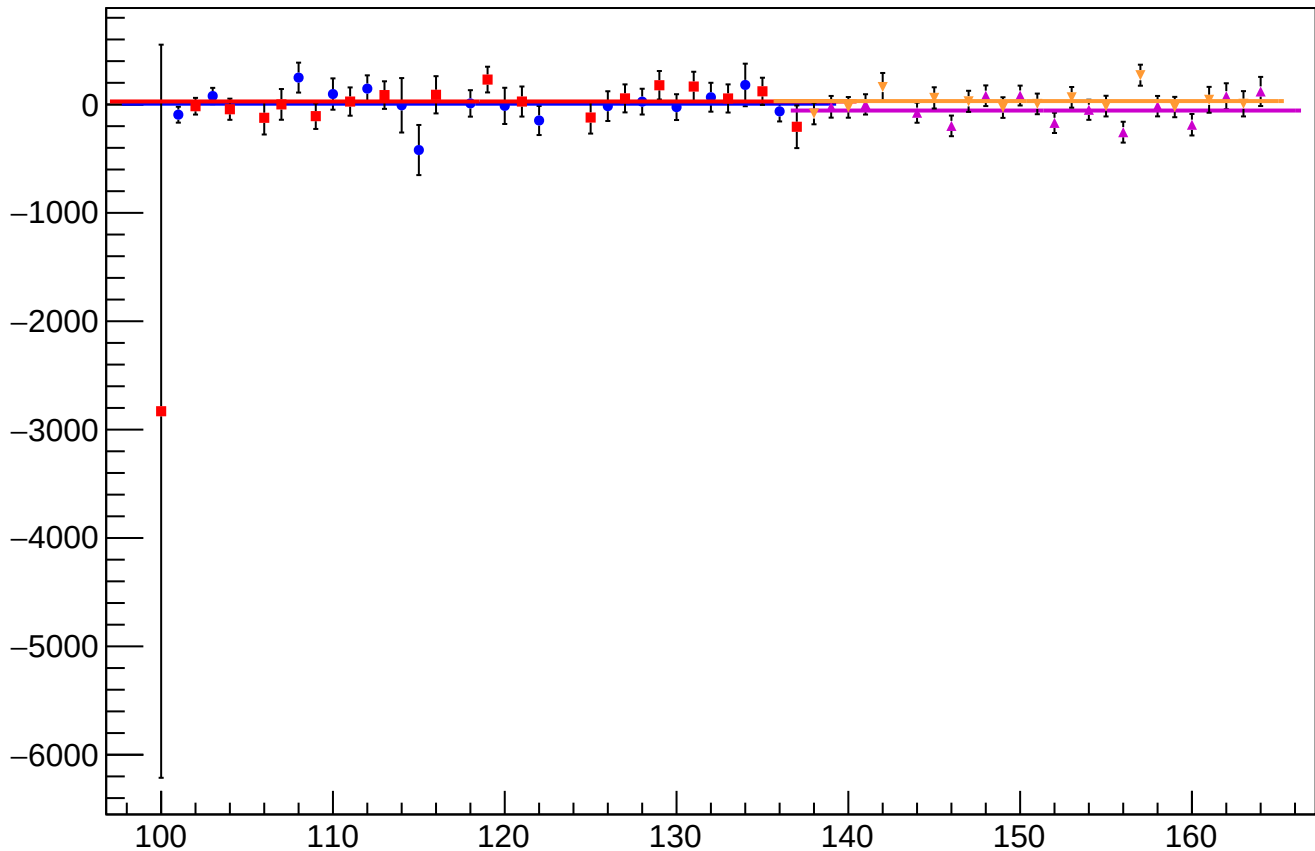
Left In: 87.530 $\pm$ 0.019  $\chi^2$ /NDF: 76195.5/12

+ sign 82.344 $\pm$ 0.014  $\chi^2$ /NDF: 675815.3/28

All: 83.133 $\pm$ 0.010  $\chi^2$ /NDF: 1222239.9/59

- sign 83.911 $\pm$ 0.014  $\chi^2$ /NDF: 540513.3/30

# reg\_asym\_ds\_dd\_mean vs Slug



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

Left Out:  $31.450 \pm 27.914$   $\chi^2/\text{NDF}$ : 10.1/12

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

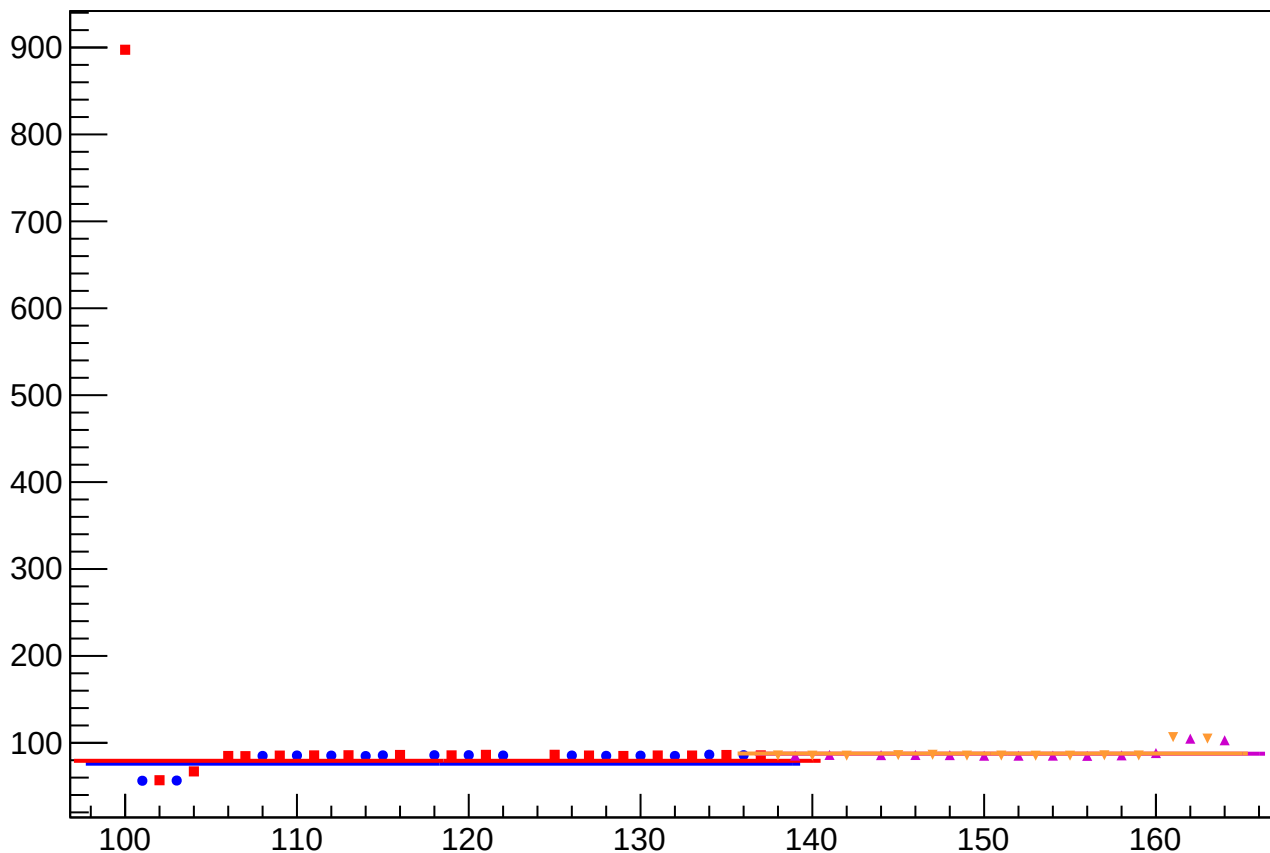
Left In:  $-55.820 \pm 27.250$   $\chi^2/\text{NDF}$ : 17.7/12

+ sign  $20.305 \pm 20.426$   $\chi^2/\text{NDF}$ : 24.4/28

All:  $0.757 \pm 14.399$   $\chi^2/\text{NDF}$ : 60.6/59

- sign  $-18.550 \pm 20.299$   $\chi^2/\text{NDF}$ : 34.4/30

# reg\_asym\_ds\_dd\_rms vs Slug



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

Left Out: 87.731 $\pm$ 0.020  $\chi^2$ /NDF: 104732.3/12

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

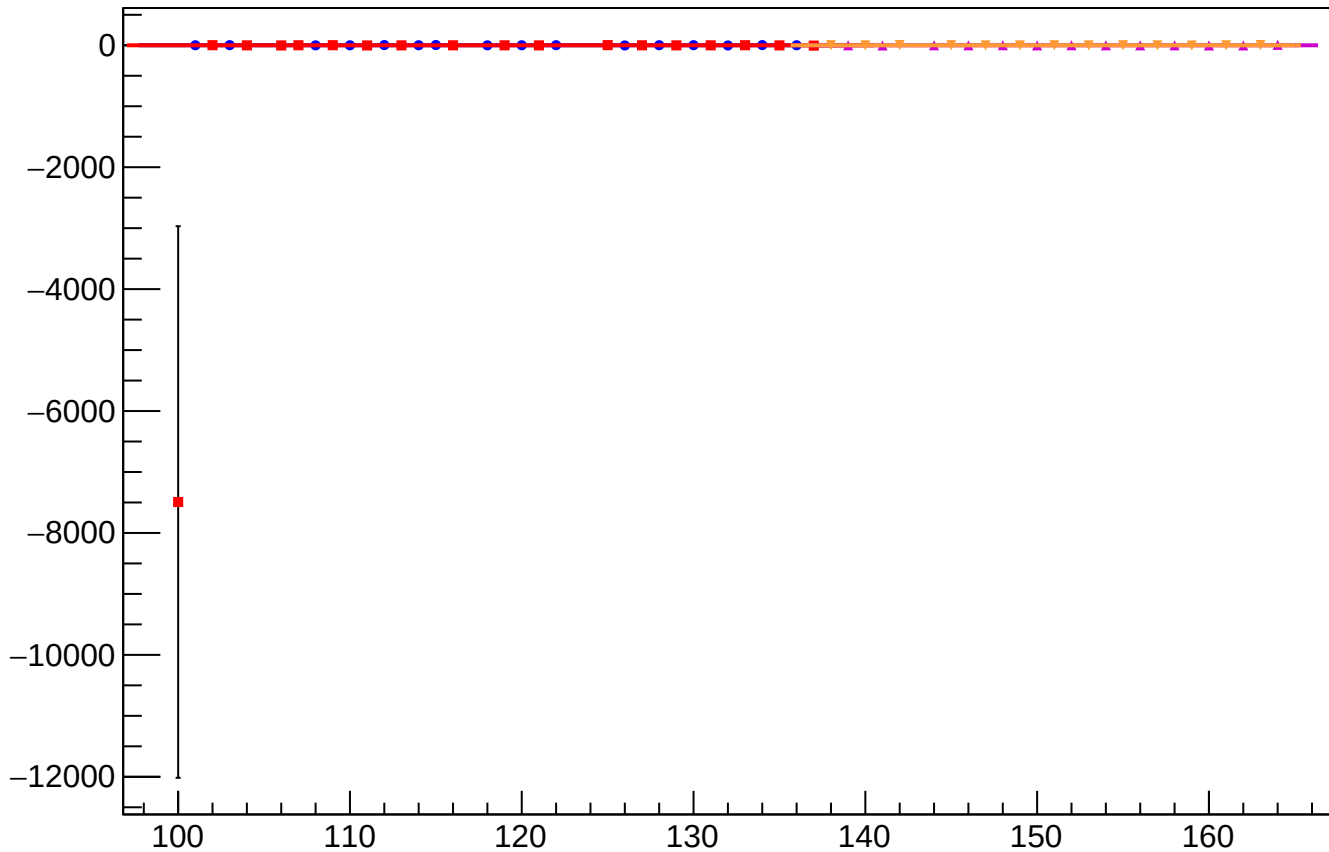
Left In: 87.499 $\pm$ 0.019  $\chi^2$ /NDF: 77102.8/12

+ sign 82.296 $\pm$ 0.014  $\chi^2$ /NDF: 676855.1/28

All: 83.087 $\pm$ 0.010  $\chi^2$ /NDF: 1218048.1/59

- sign 83.868 $\pm$ 0.014  $\chi^2$ /NDF: 535233.1/30

# asym\_ds\_dd\_correction\_mean vs Slug



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

Left Out:  $-0.452 \pm 0.484$   $\chi^2/\text{NDF}$ : 15.3/12

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

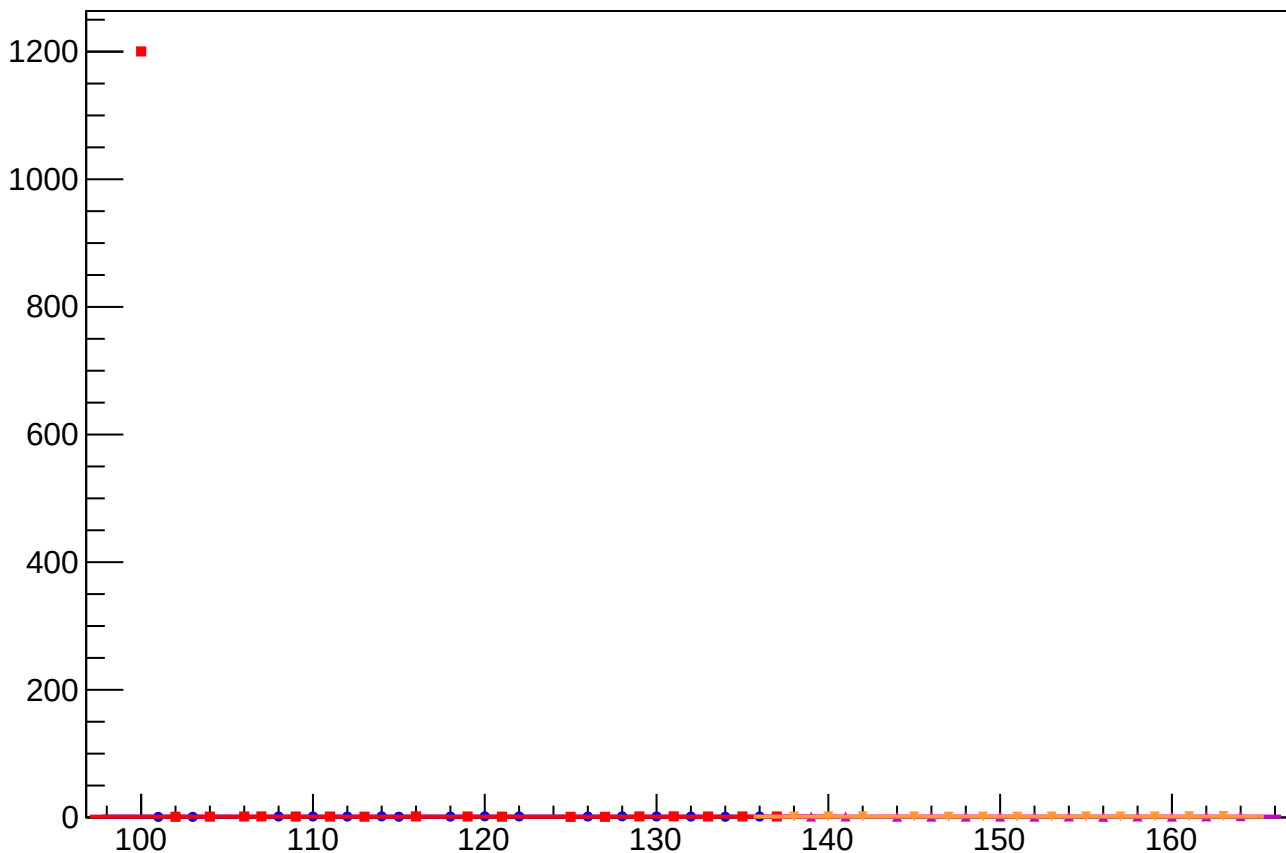
Left In:  $-0.159 \pm 0.478$   $\chi^2/\text{NDF}$ : 13.0/12

+ sign  $0.164 \pm 0.358$   $\chi^2/\text{NDF}$ : 30.9/28

All:  $-0.029 \pm 0.254$   $\chi^2/\text{NDF}$ : 57.1/59

- sign  $-0.226 \pm 0.360$   $\chi^2/\text{NDF}$ : 25.6/30

# asym\_ds\_dd\_correction\_rms vs Slug



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

Left Out: 1.379+/-0.000  $\chi^2/\text{NDF}$ : 515297.4/12

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

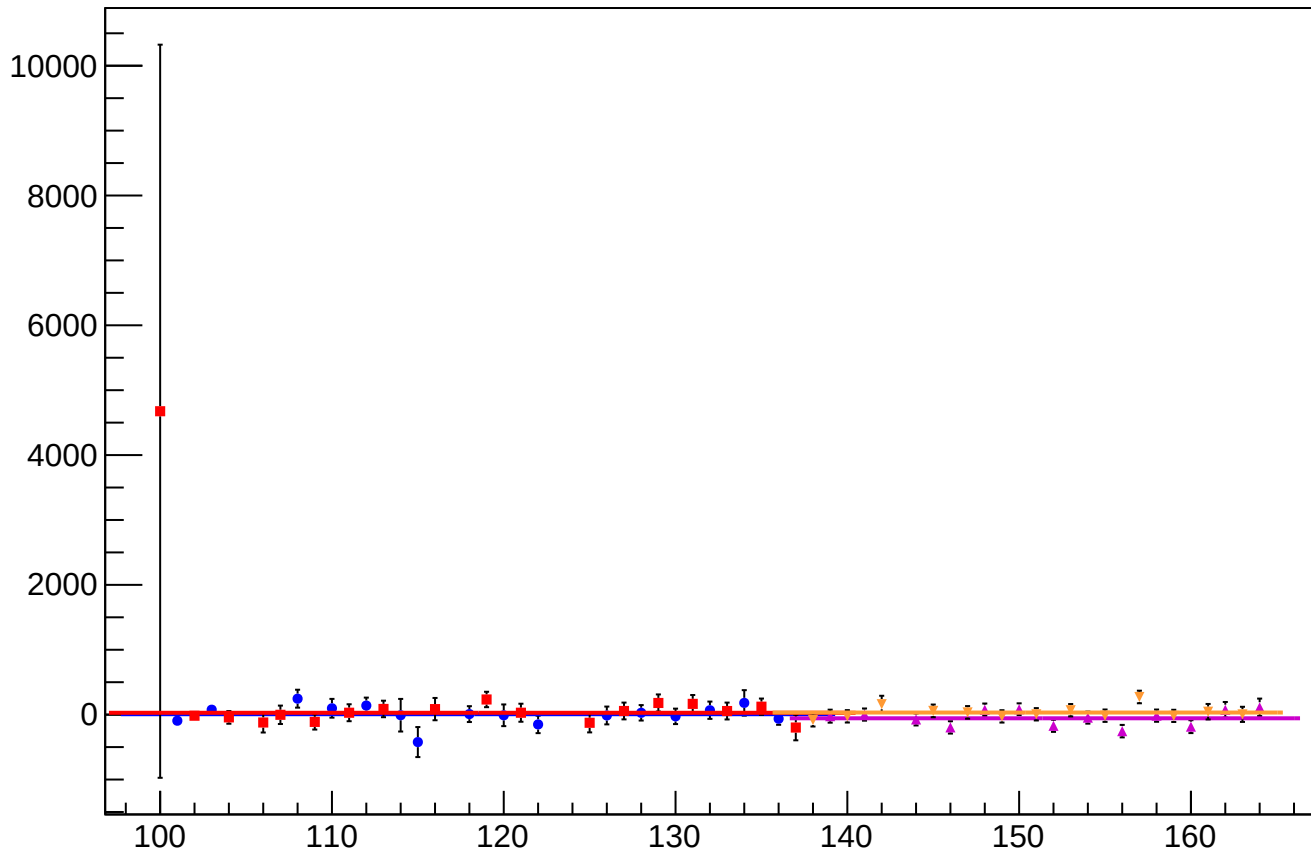
Left In: 1.397+/-0.000  $\chi^2/\text{NDF}$ : 331112.4/12

+ sign 1.315+/-0.000  $\chi^2/\text{NDF}$ : 1250212.8/28

All: 1.339+/-0.000  $\chi^2/\text{NDF}$ : 2144574.9/59

- sign 1.363+/-0.000  $\chi^2/\text{NDF}$ : 876712.7/30

# asym\_ds\_dd\_mean vs Slug



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

Left Out:  $32.519 \pm 27.922$   $\chi^2/\text{NDF}$ : 10.1/12

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

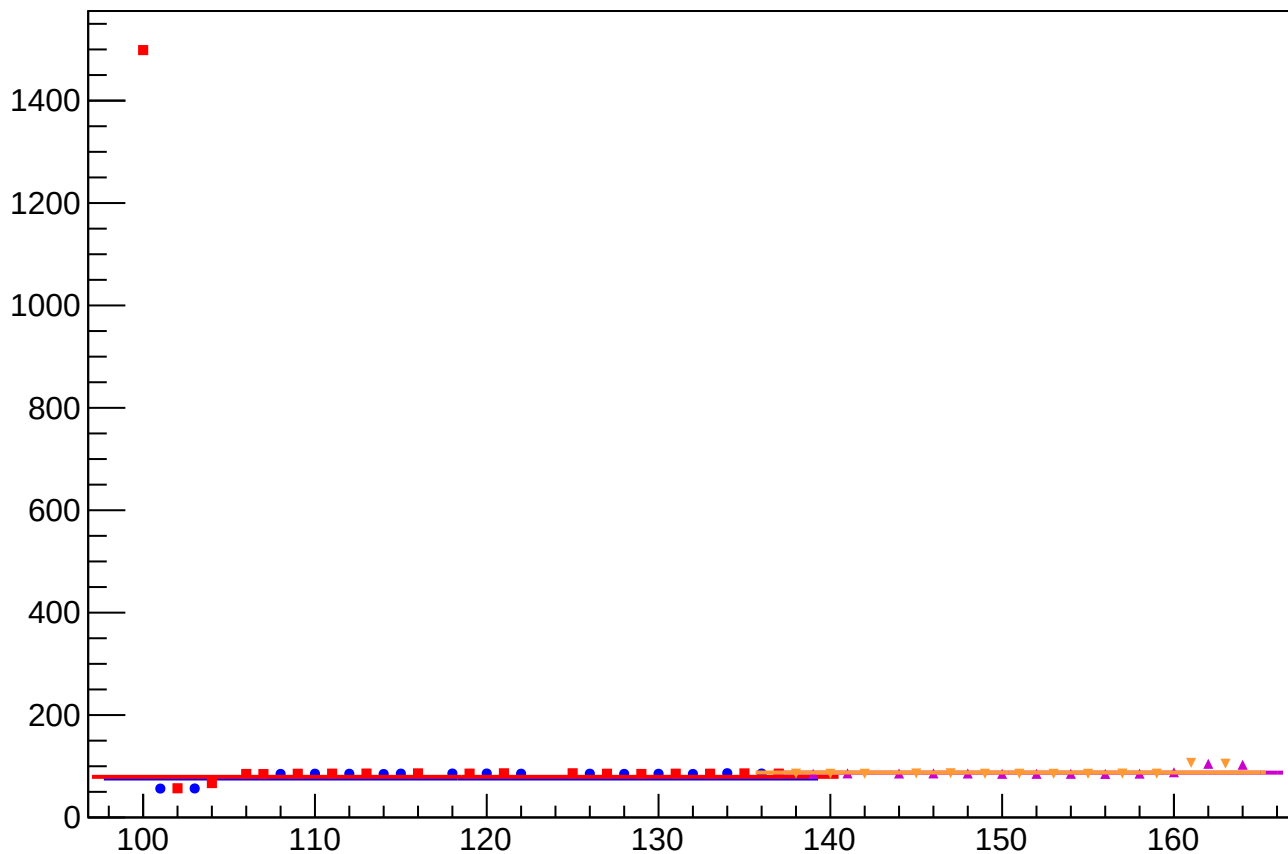
Left In:  $-56.170 \pm 27.258$   $\chi^2/\text{NDF}$ : 17.3/12

+ sign  $20.562 \pm 20.432$   $\chi^2/\text{NDF}$ : 24.3/28

All:  $0.928 \pm 14.403$   $\chi^2/\text{NDF}$ : 60.5/59

- sign  $-18.464 \pm 20.305$   $\chi^2/\text{NDF}$ : 34.3/30

# asym\_ds\_dd\_rms vs Slug



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

Left Out: 87.755 $\pm$ 0.020  $\chi^2$ /NDF: 104816.7/12

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

Left In: 87.523 $\pm$ 0.019  $\chi^2$ /NDF: 77154.8/12

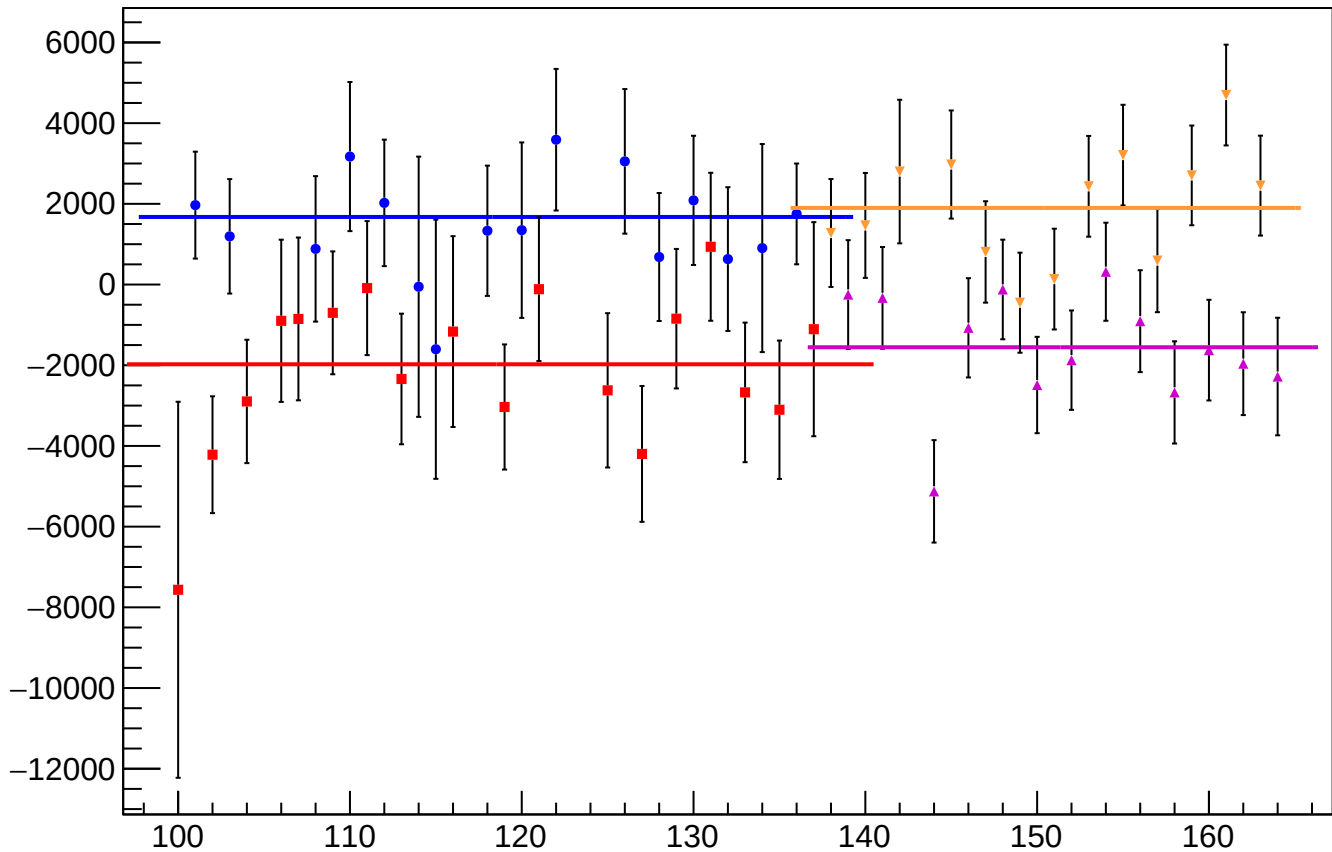
+ sign 82.318 $\pm$ 0.014  $\chi^2$ /NDF: 676981.3/28

All: 83.104 $\pm$ 0.010  $\chi^2$ /NDF: 1227901.2/59

- sign 83.880 $\pm$ 0.014  $\chi^2$ /NDF: 545039.8/30



# reg\_asym\_usl\_mean vs Slug



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

Left Out: 1899.026 $\pm$ 358.214  $\chi^2$ /NDF:15.5/12

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

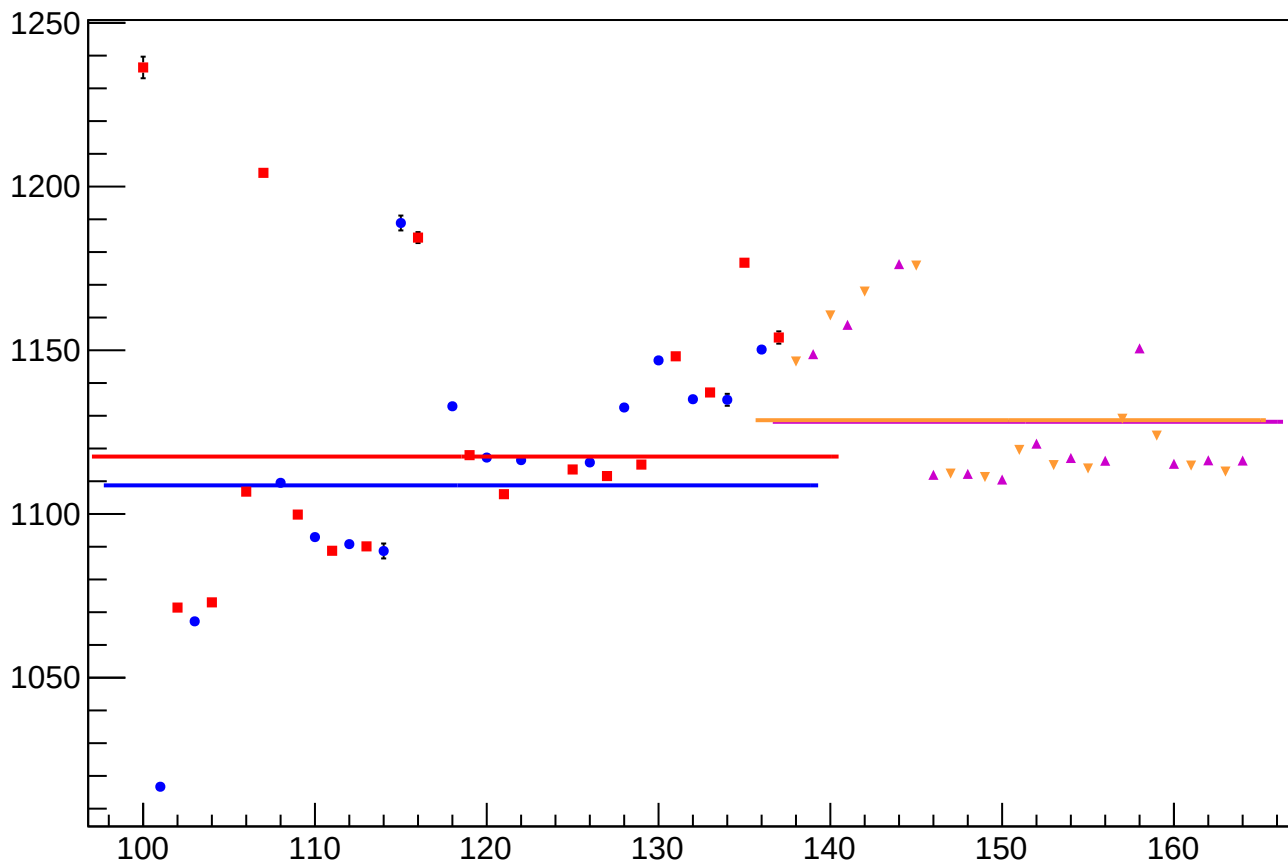
Left In: -1554.038 $\pm$ 350.611  $\chi^2$ /NDF:15.7/12

+ sign 1807.396 $\pm$ 275.381  $\chi^2$ /NDF: 20.8/28

All: 4.278 $\pm$ 192.715  $\chi^2$ /NDF: 135.2/59

- sign -1726.285 $\pm$ 269.784  $\chi^2$ /NDF: 30.4/30

# reg\_asym\_usl\_rms vs Slug



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

Left Out: 1128.644 $\pm$ 0.253  $\chi^2$ /NDF: 6981.5/12

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

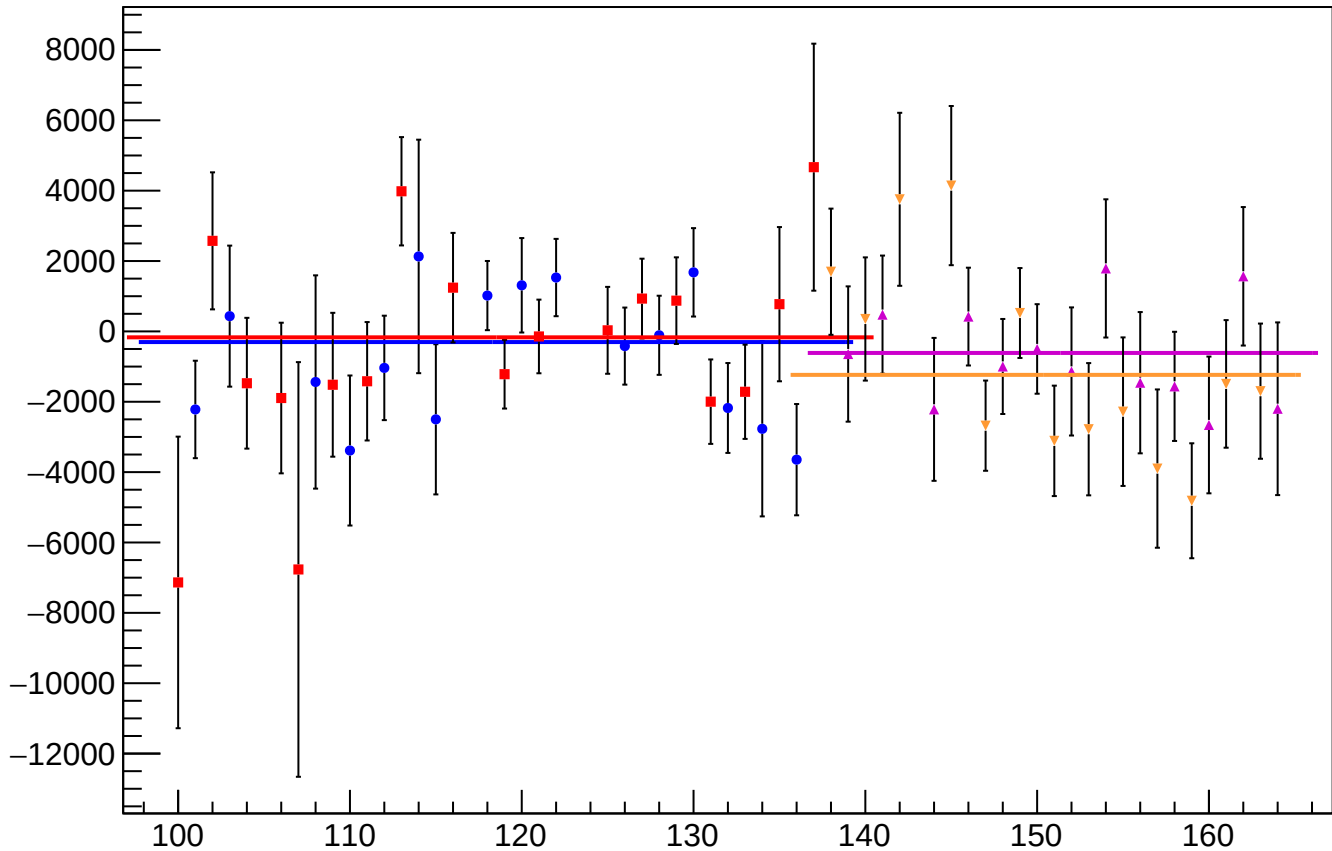
Left In: 1128.160 $\pm$ 0.248  $\chi^2$ /NDF: 7109.9/12

+ sign 1120.503 $\pm$ 0.195  $\chi^2$ /NDF: 27587.9/28

All: 1122.199 $\pm$ 0.136  $\chi^2$ /NDF: 51110.4/59

- sign 1123.828 $\pm$ 0.191  $\chi^2$ /NDF: 23373.8/30

# asym\_usl\_correction\_mean vs Slug



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

Left Out:  $-1235.576 \pm 483.417$   $\chi^2/\text{NDF}$ : 25.1/12

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

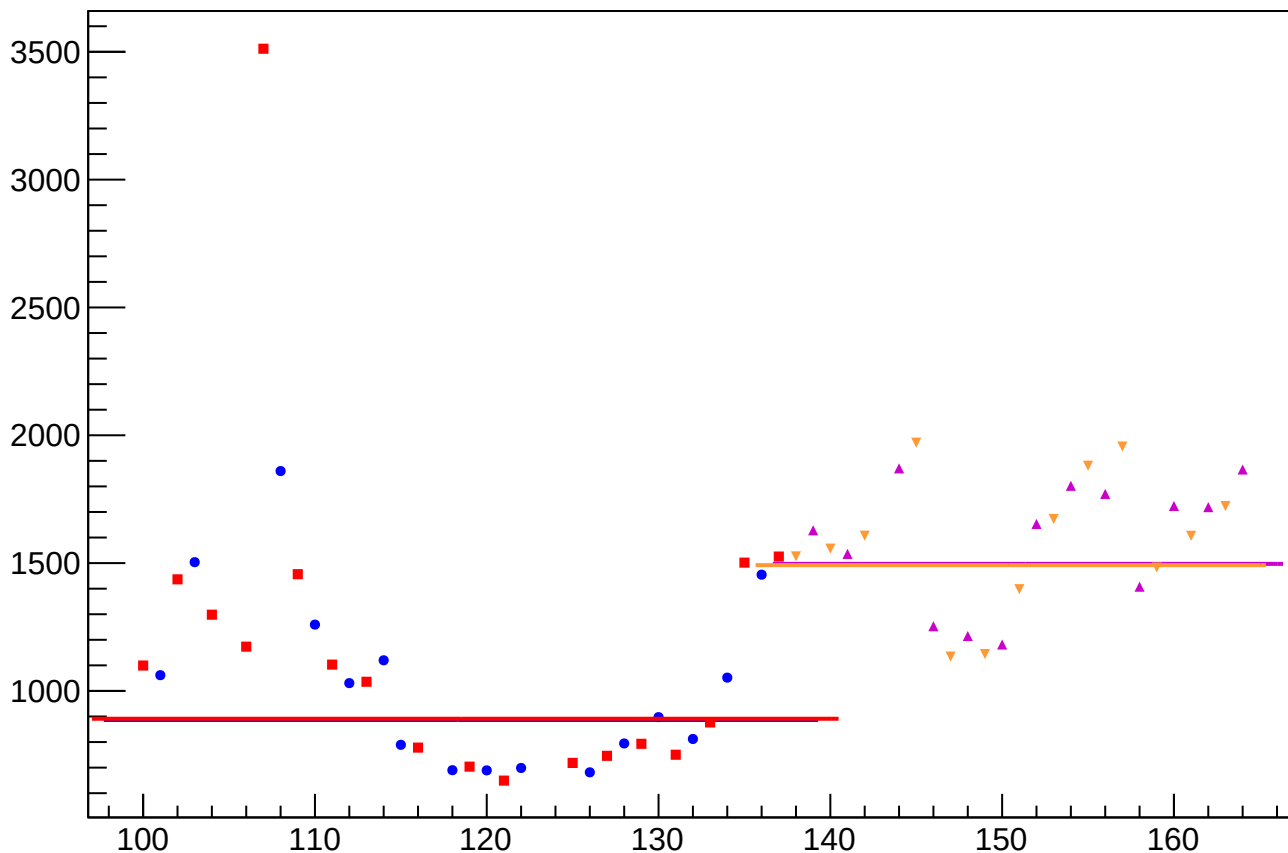
Left In:  $-612.526 \pm 473.290$   $\chi^2/\text{NDF}$ : 6.6/12

+ sign  $-635.982 \pm 288.768$   $\chi^2/\text{NDF}$ : 49.7/28

All:  $-480.425 \pm 202.708$   $\chi^2/\text{NDF}$ : 82.3/59

- sign  $-329.303 \pm 284.623$   $\chi^2/\text{NDF}$ : 32.0/30

# asym\_usl\_correction\_rms vs Slug



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

Left Out: 1491.917+/-0.342  $\chi^2/\text{NDF}$ : 616799.0/12

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

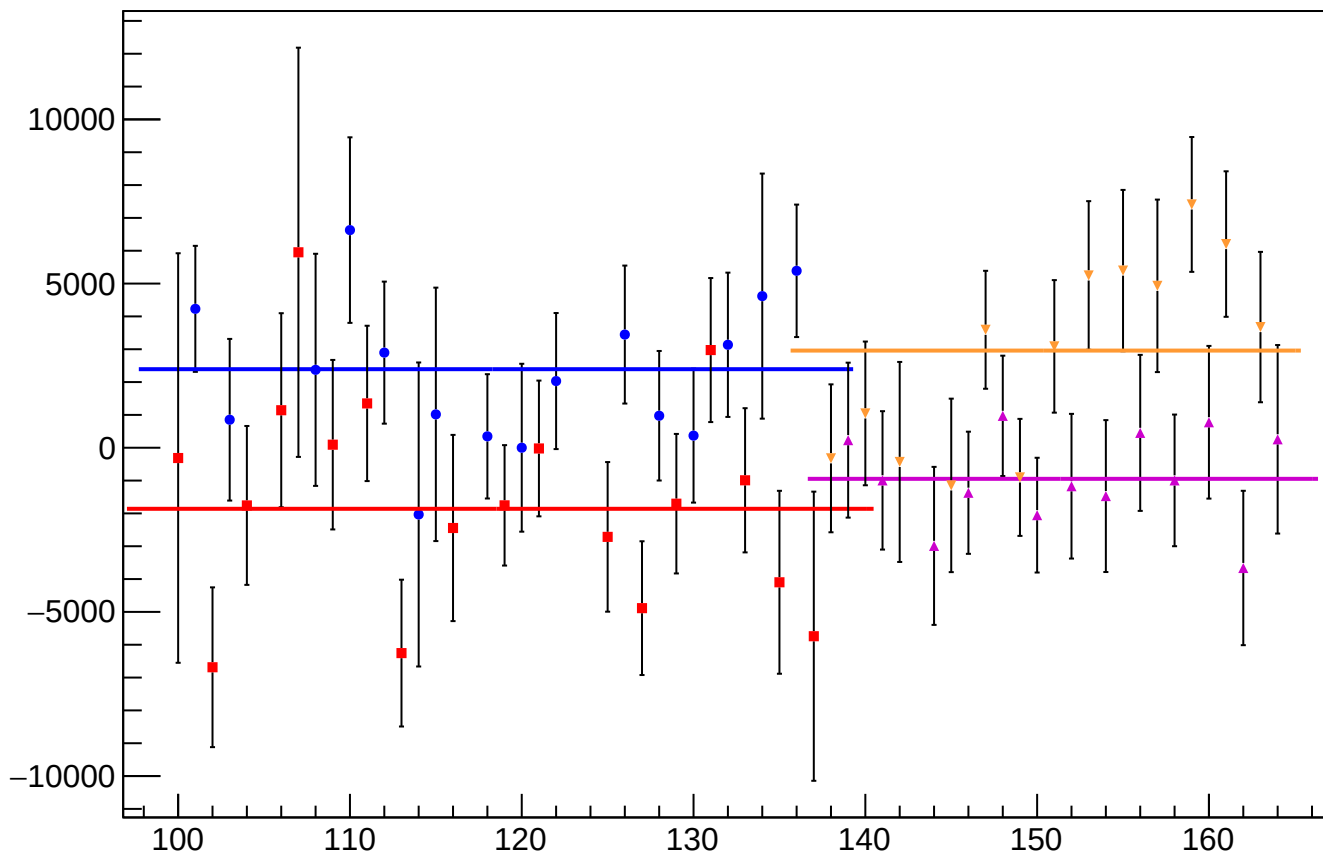
Left In: 1497.012+/-0.335  $\chi^2/\text{NDF}$ : 554355.6/12

+ sign 1102.650+/-0.204  $\chi^2/\text{NDF}$ : 3693939.9/28

All: 1106.524+/-0.143  $\chi^2/\text{NDF}$ : 7754980.0/59

- sign 1110.288+/-0.201  $\chi^2/\text{NDF}$ : 4060330.5/30

# asym\_usl\_mean vs Slug



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

Left Out:  $2959.407 \pm 612.619$   $\chi^2/\text{NDF}$ : 20.9/12

Right Out:  $-1859.867 \pm 583.119$   $\chi^2/\text{NDF}$ : 22.5/17

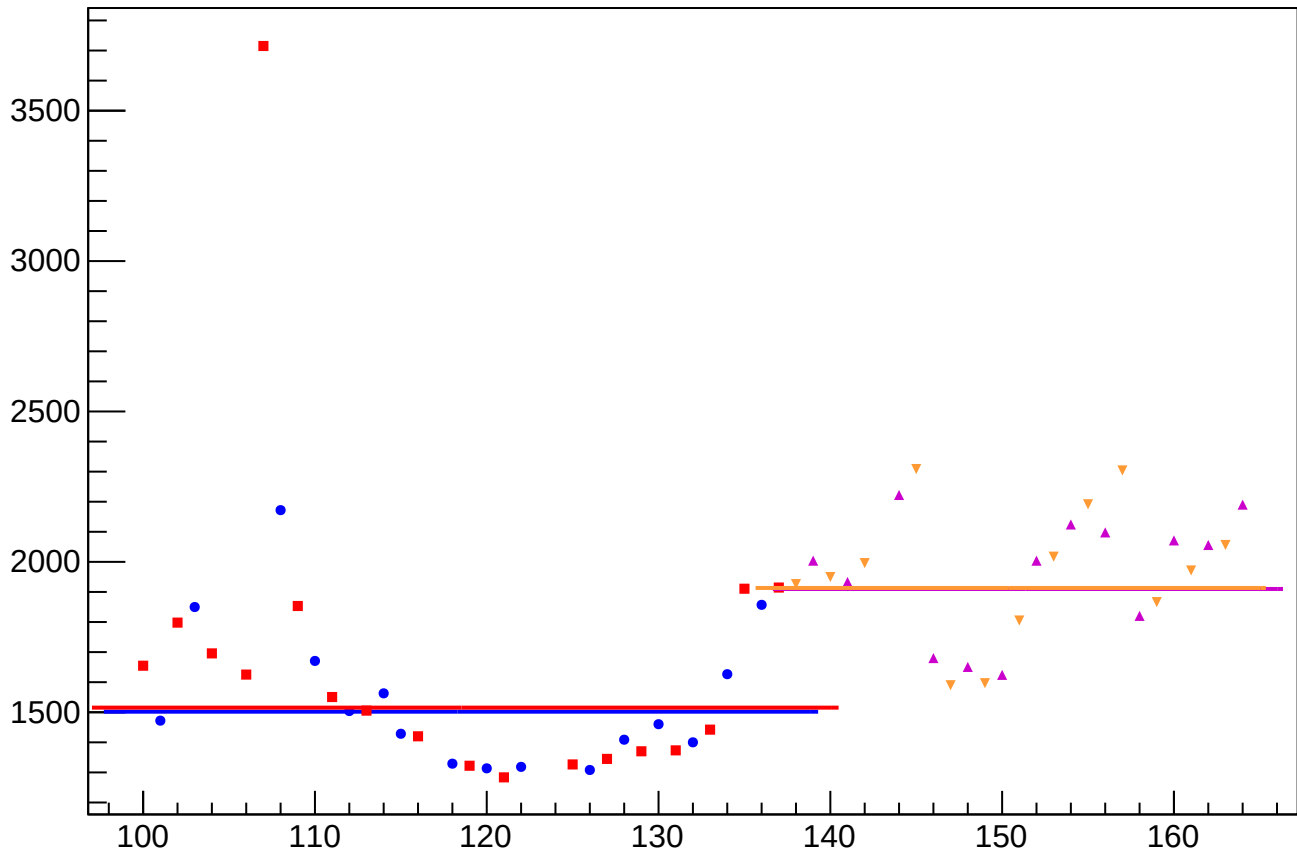
Left In:  $-947.270 \pm 597.899$   $\chi^2/\text{NDF}$ : 5.0/12

+ sign  $2664.750 \pm 424.587$   $\chi^2/\text{NDF}$ : 32.5/28

All:  $590.329 \pm 297.675$   $\chi^2/\text{NDF}$ : 108.1/59

- sign  $-1414.988 \pm 417.455$   $\chi^2/\text{NDF}$ : 28.7/30

# asym\_usl\_rms vs Slug



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

Left Out: 1913.287 $\pm$ 0.433  $\chi^2$ /NDF: 264906.1/12

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

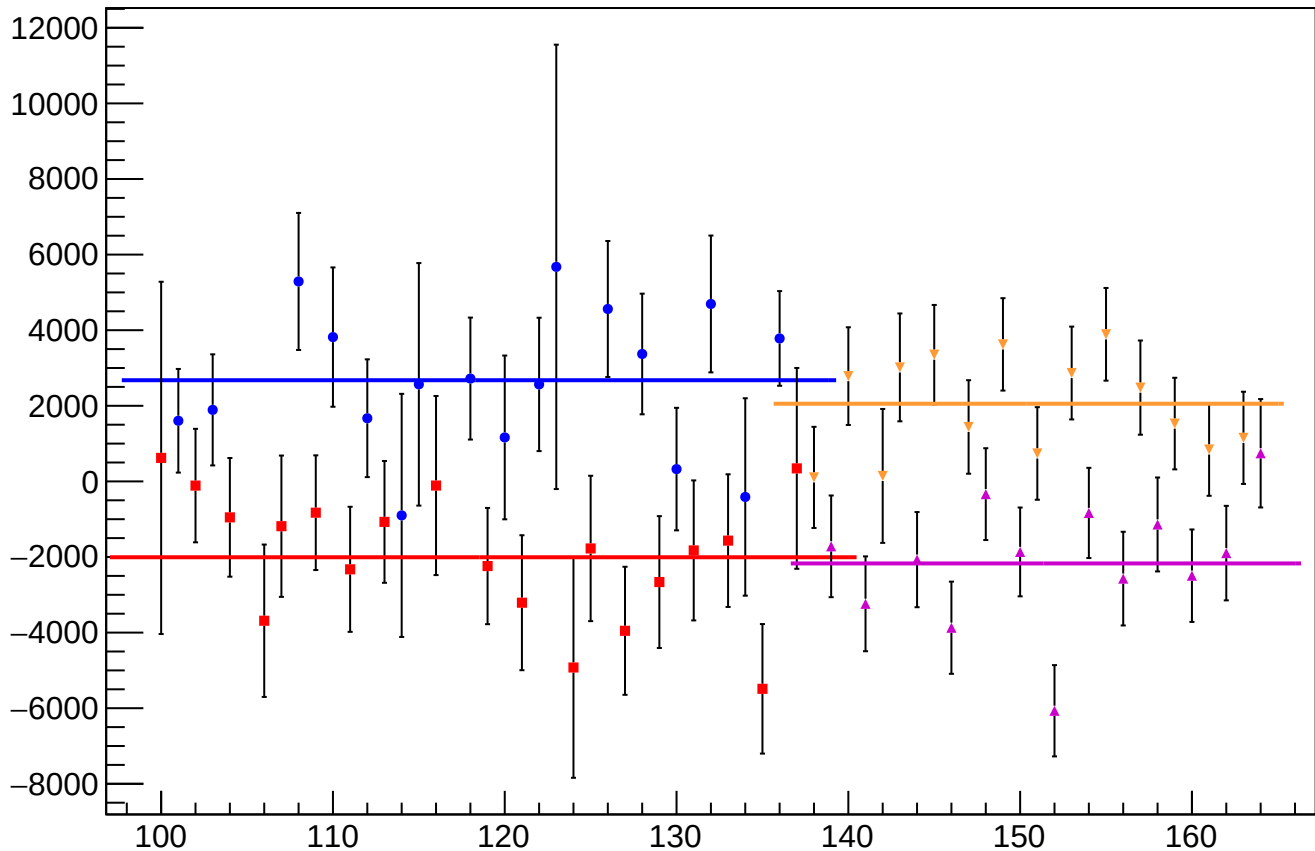
Left In: 1909.895 $\pm$ 0.423  $\chi^2$ /NDF: 234807.6/12

+ sign 1699.526 $\pm$ 0.300  $\chi^2$ /NDF: 988040.4/28

All: 1703.689 $\pm$ 0.210  $\chi^2$ /NDF: 2149205.2/59

- sign 1707.714 $\pm$ 0.295  $\chi^2$ /NDF: 1160786.7/30

# reg\_asym\_usr\_mean vs Slug



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

Left Out: 2054.624 $\pm$ 342.422  $\chi^2$ /NDF:12.6/13

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

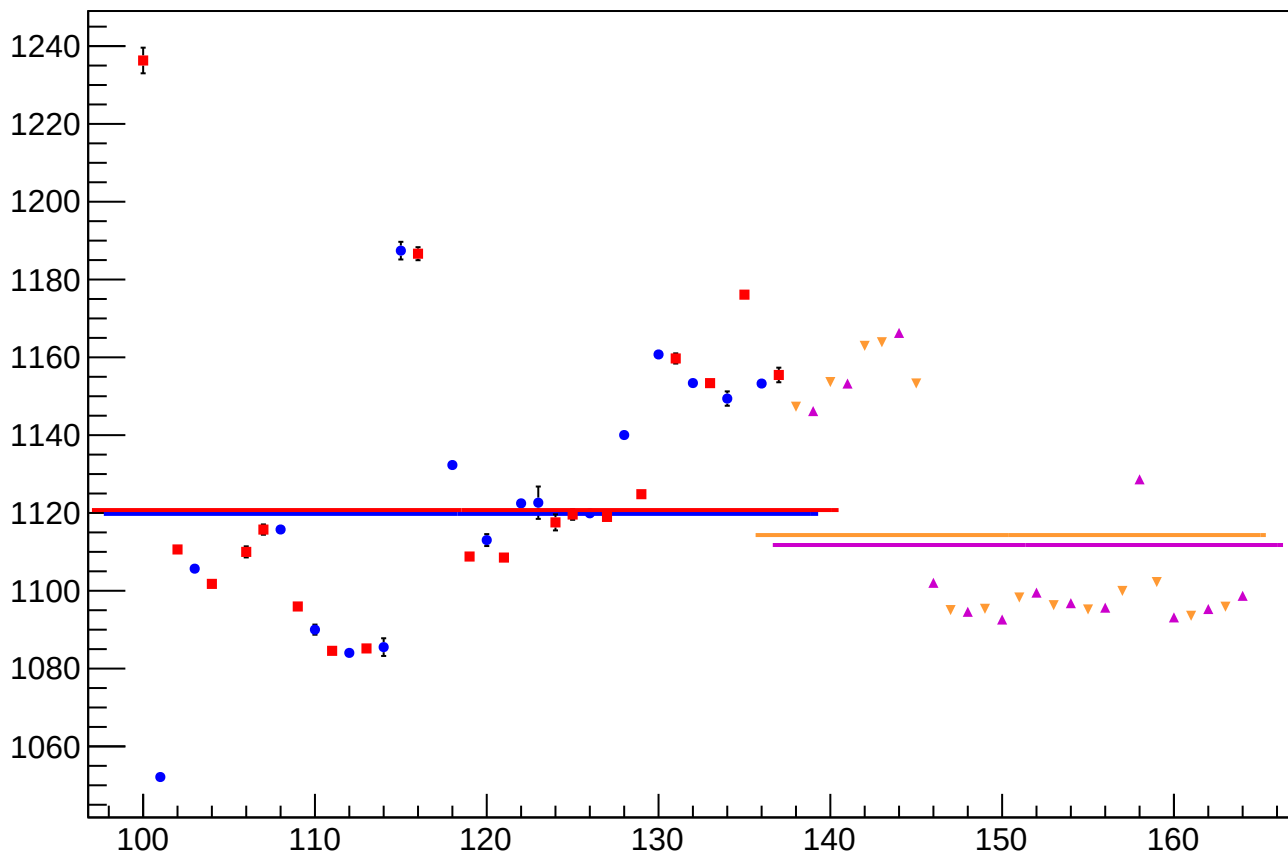
Left In: -2170.058 $\pm$ 345.544  $\chi^2$ /NDF:21.9/12

+ sign 2293.573 $\pm$ 268.725  $\chi^2$ /NDF: 26.4/30

All: 77.597 $\pm$ 189.271  $\chi^2$ /NDF: 196.1/62

- sign -2103.911 $\pm$ 266.627  $\chi^2$ /NDF: 34.7/31

# reg\_asym\_usr\_rms vs Slug



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

Left Out:  $1114.321 \pm 0.242$   $\chi^2/\text{NDF}$ : 12468.9/13

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

Left In:  $1111.764 \pm 0.244$   $\chi^2/\text{NDF}$ : 10508.3/12

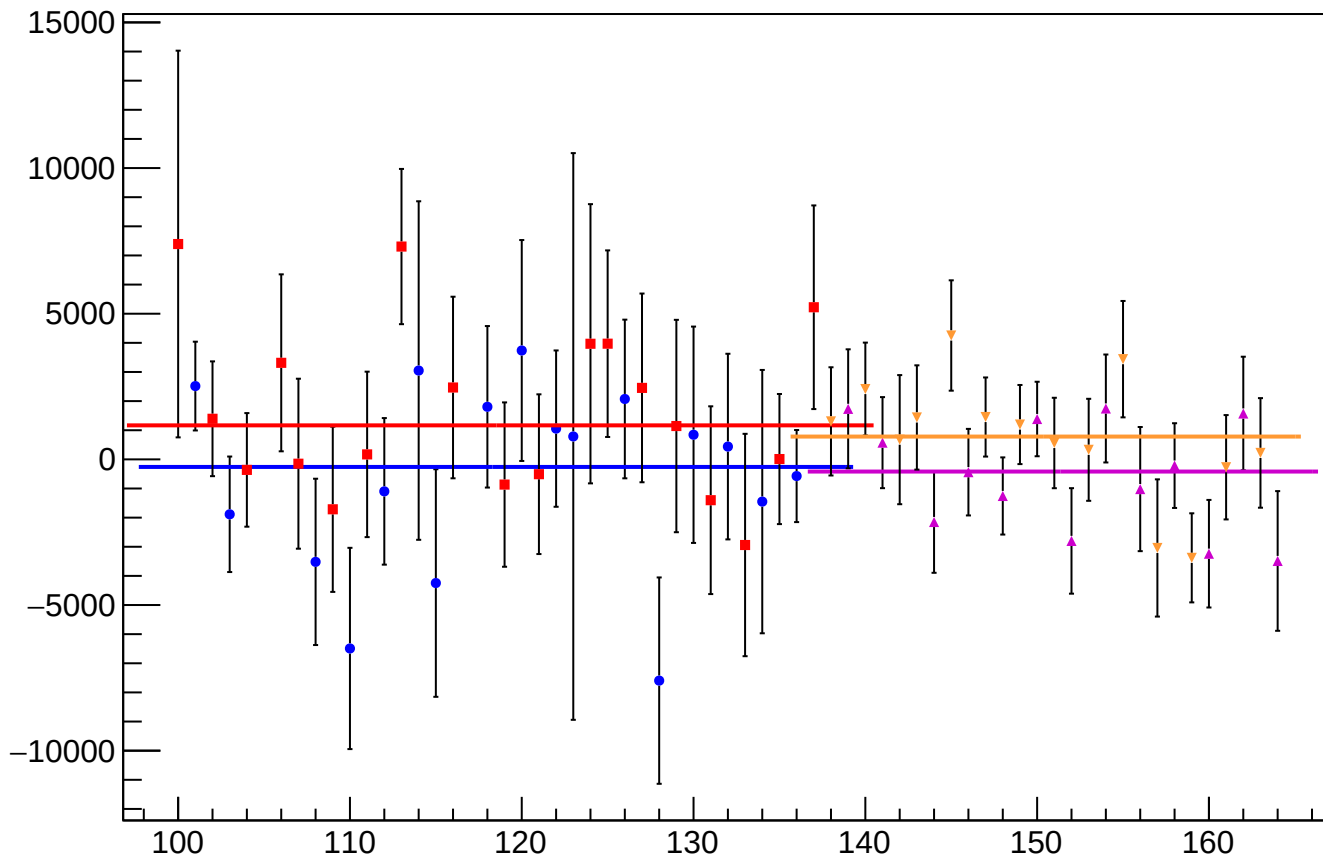
+ sign  $1116.411 \pm 0.190$   $\chi^2/\text{NDF}$ : 24539.7/30

All:  $1115.901 \pm 0.134$   $\chi^2/\text{NDF}$ : 45543.3/62

- sign  $1115.398 \pm 0.189$   $\chi^2/\text{NDF}$ : 20989.3/31



# asym\_usr\_correction\_mean vs Slug



Right In: -259.821+/-655.275  $\chi^2/\text{NDF}$ : 17.2/16

Left Out: 782.723+/-458.502  $\chi^2/\text{NDF}$ : 17.3/13

Right Out: 1167.598+/-662.428  $\chi^2/\text{NDF}$ : 14.4/18

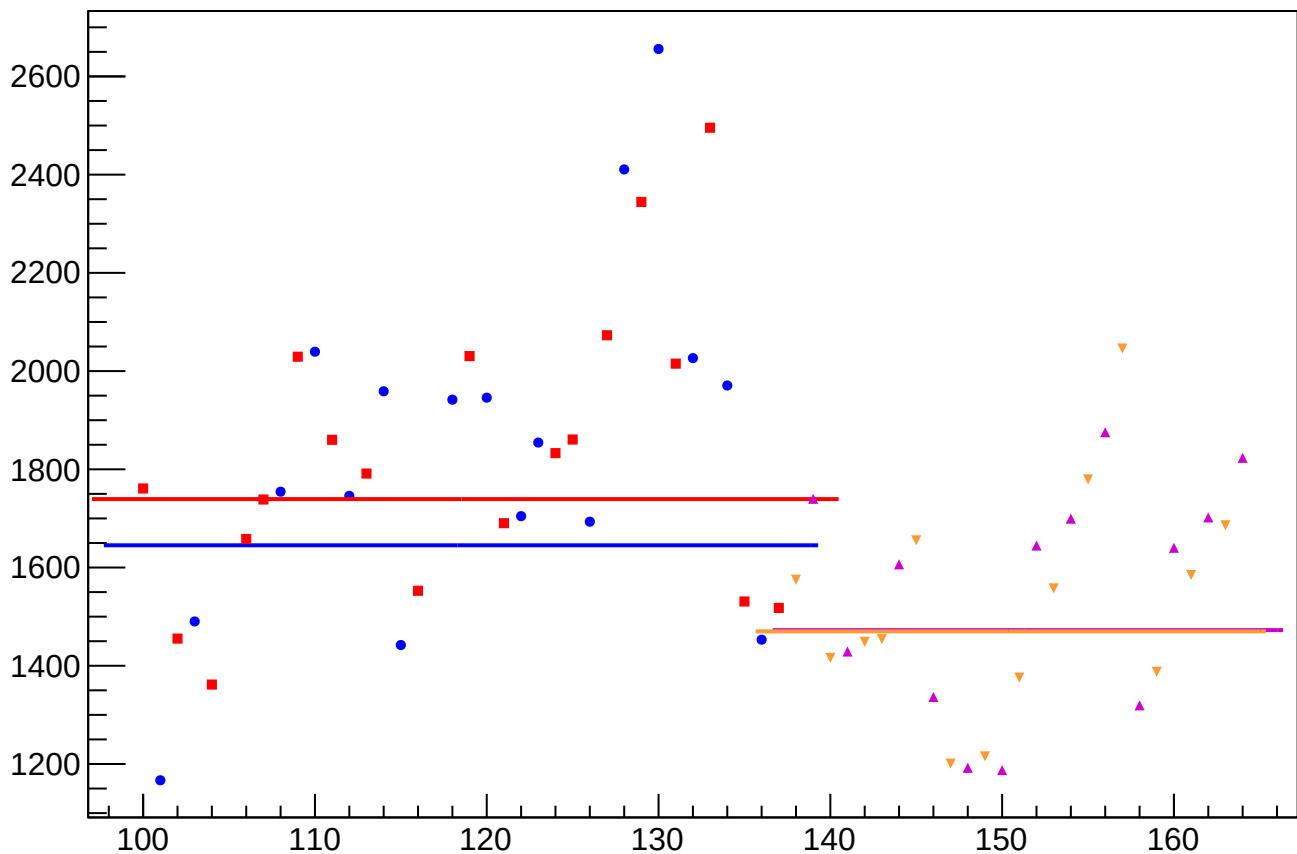
Left In: -418.224+/-464.633  $\chi^2/\text{NDF}$ : 13.1/12

+ sign 440.064+/-375.671  $\chi^2/\text{NDF}$ : 36.2/30

All: 274.474+/-267.292  $\chi^2/\text{NDF}$ : 68.0/62

- sign 104.697+/-380.390  $\chi^2/\text{NDF}$ : 31.4/31

# asym\_usr\_correction\_rms vs Slug



Right In: 1645.307+/-0.463  $\chi^2/\text{NDF}$ : 600915.2/16

Left Out: 1470.030+/-0.324  $\chi^2/\text{NDF}$ : 397442.5/13

Right Out: 1739.382+/-0.468  $\chi^2/\text{NDF}$ : 371012.9/18

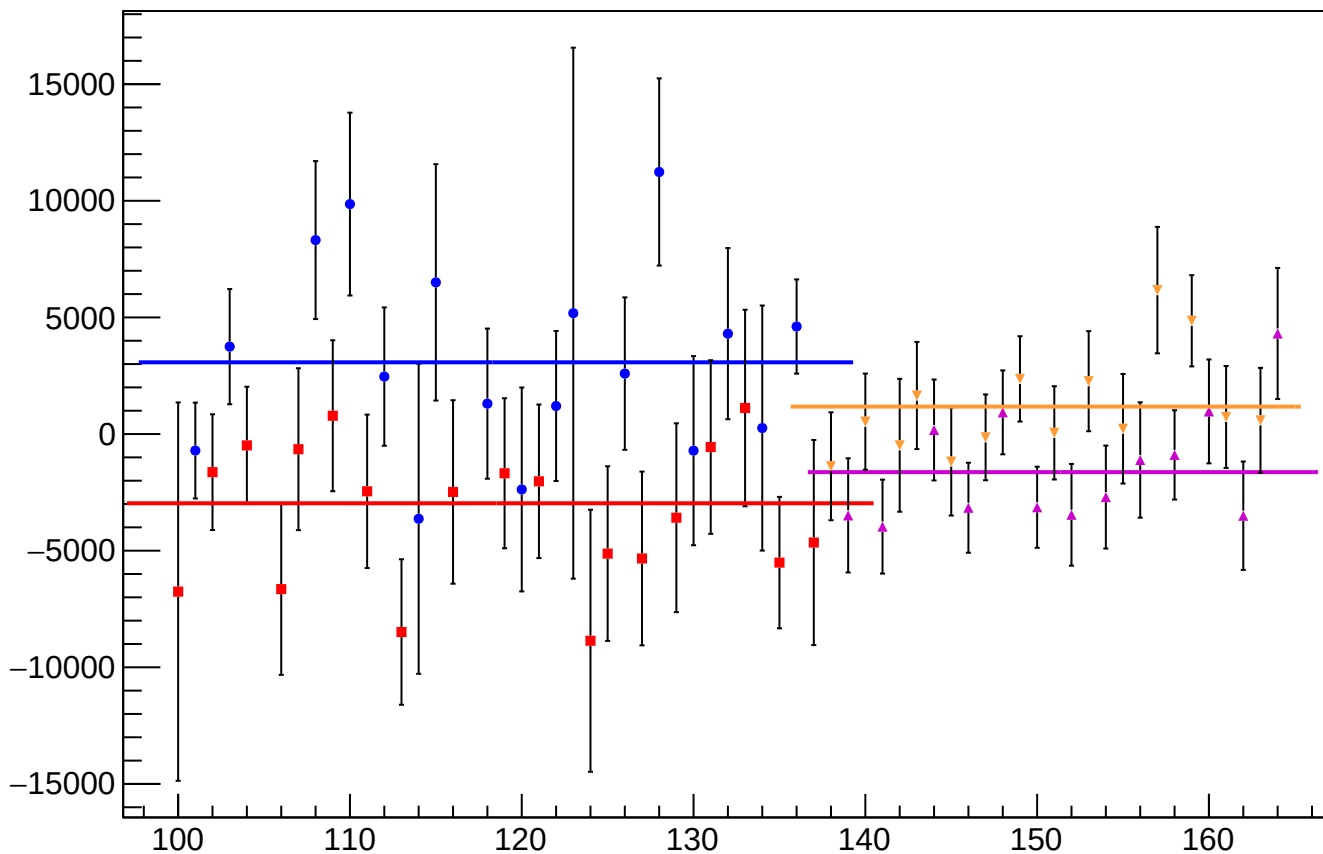
Left In: 1472.594+/-0.329  $\chi^2/\text{NDF}$ : 482206.0/12

+ sign 1527.639+/-0.266  $\chi^2/\text{NDF}$ : 1094422.1/30

All: 1543.897+/-0.189  $\chi^2/\text{NDF}$ : 2172659.5/62

- sign 1560.566+/-0.269  $\chi^2/\text{NDF}$ : 1070650.9/31

# asym\_usr\_mean vs Slug



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

Left Out: 1175.606 $\pm$ 580.244  $\chi^2$ /NDF: 11.5/13

Right Out: -2967.536 $\pm$ 795.639  $\chi^2$ /NDF: 11.9/18

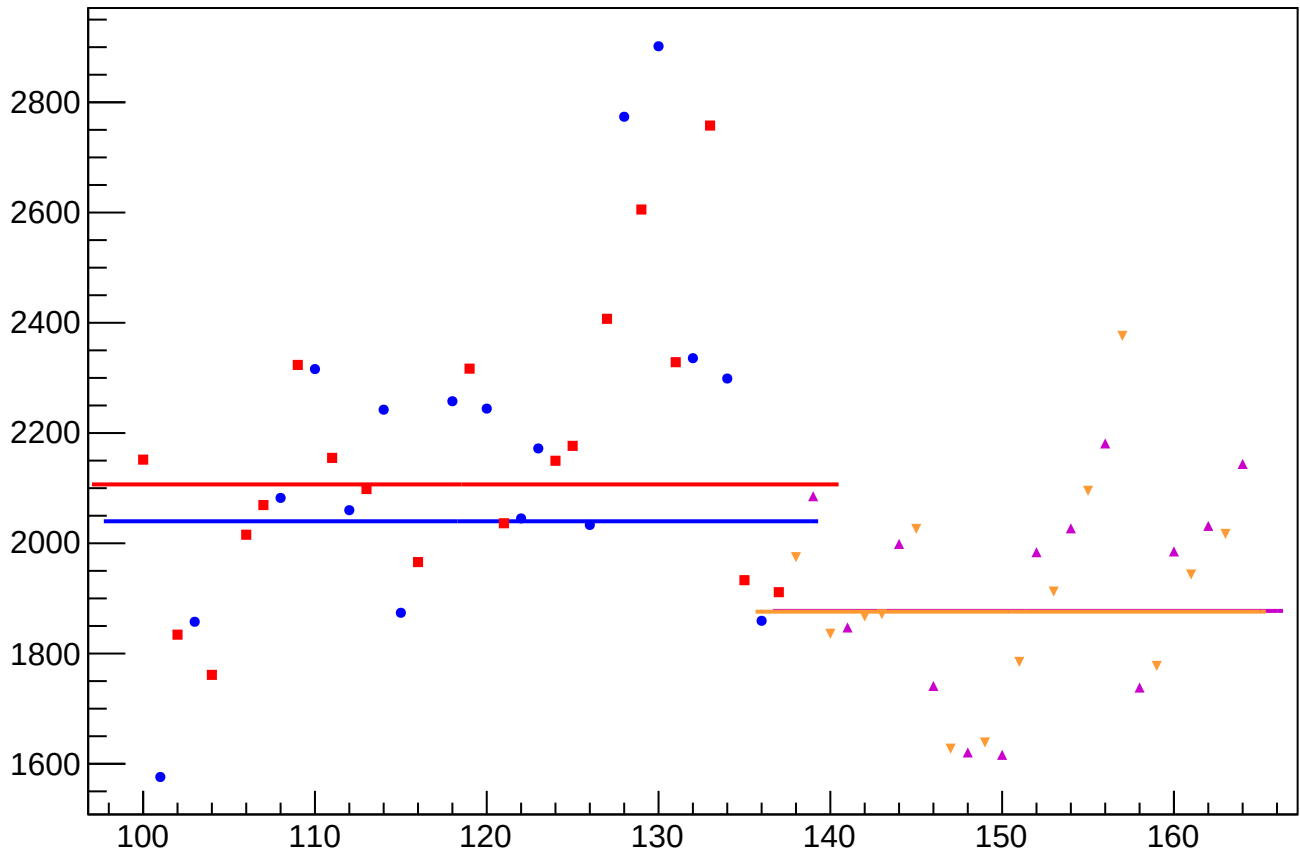
Left In: -1632.794 $\pm$ 587.149  $\chi^2$ /NDF: 13.6/12

+ sign 1828.098 $\pm$ 470.158  $\chi^2$ /NDF: 33.7/30

All: -128.147 $\pm$ 333.254  $\chi^2$ /NDF: 95.9/62

- sign -2103.392 $\pm$ 472.436  $\chi^2$ /NDF: 27.3/31

# asym\_usr\_rms vs Slug



Right In: 2039.942+/-0.567  $\chi^2/\text{NDF}$ : 331984.0/16

Left Out: 1875.979+/-0.410  $\chi^2/\text{NDF}$ :188261.7/13

Right Out: 2106.832+/-0.563  $\chi^2/\text{NDF}$ : 195448.9/18

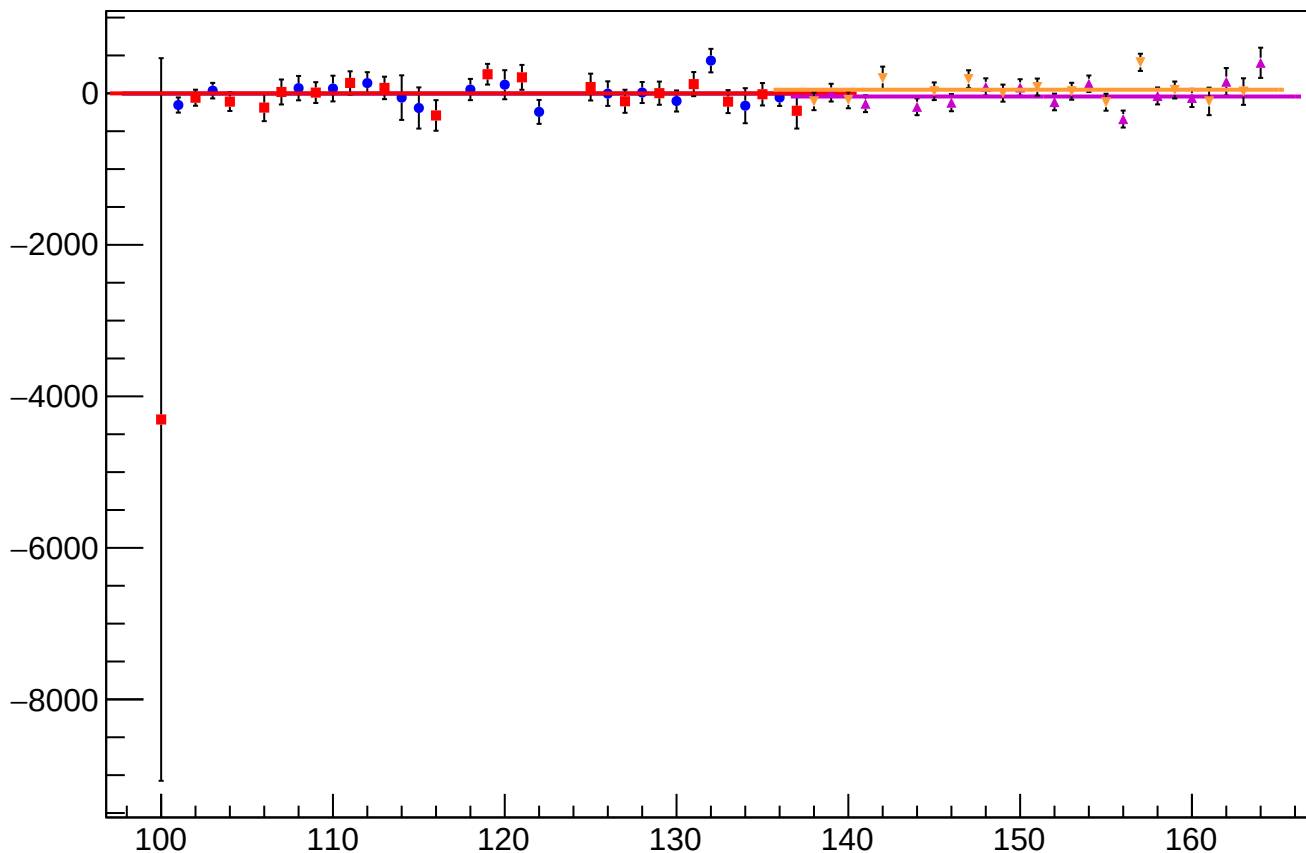
Left In: 1877.356+/-0.415  $\chi^2/\text{NDF}$ :203193.2/12

+ sign 1932.292+/-0.332  $\chi^2/\text{NDF}$ : 575094.9/30

All: 1945.215+/-0.236  $\chi^2/\text{NDF}$ : 1084485.3/62

- sign 1958.264+/-0.334  $\chi^2/\text{NDF}$ : 506353.6/31

# reg\_asym\_dsl\_mean vs Slug



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

Left Out:  $47.718 \pm 33.681$   $\chi^2/\text{NDF}$ : 18.9/12

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

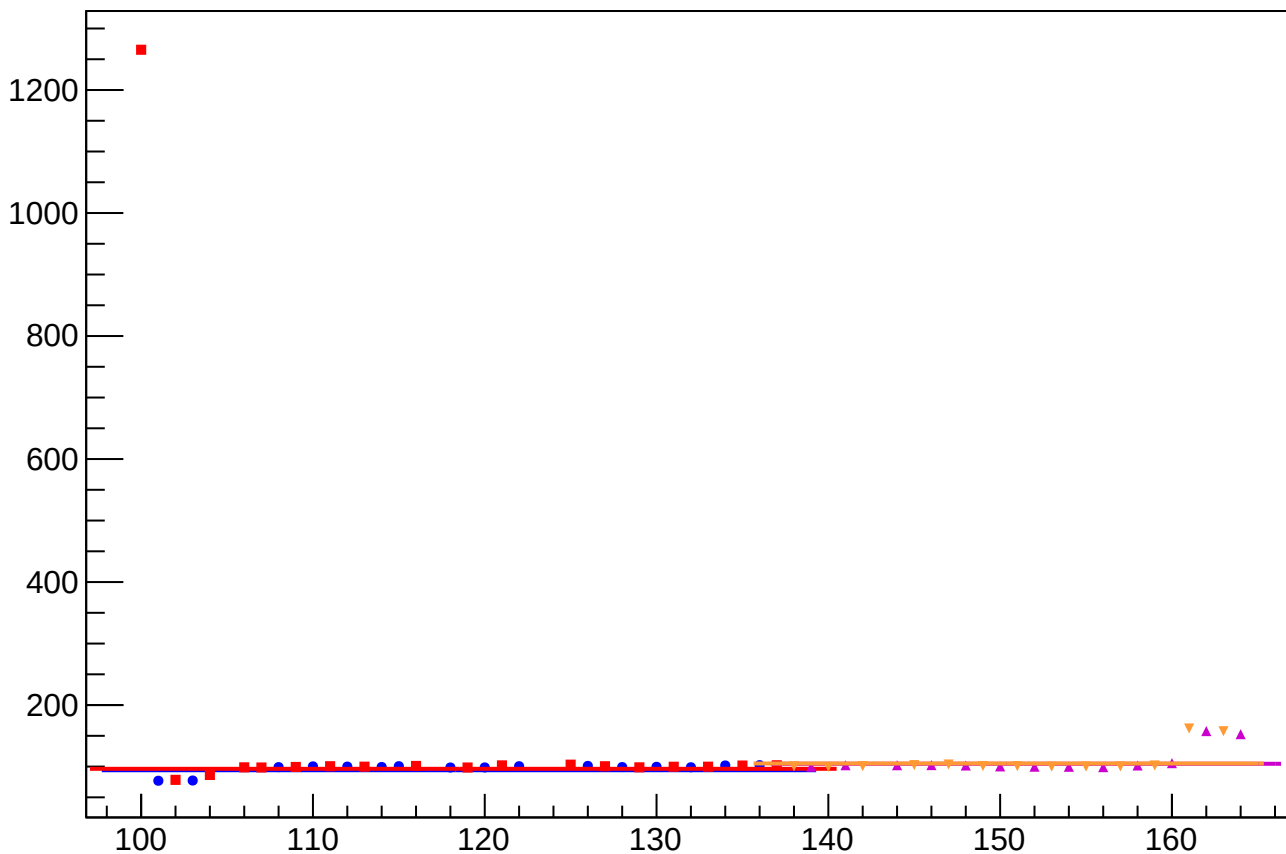
Left In:  $-41.988 \pm 32.781$   $\chi^2/\text{NDF}$ : 21.5/12

+ sign  $24.411 \pm 24.819$   $\chi^2/\text{NDF}$ : 36.1/28

All:  $0.059 \pm 17.417$   $\chi^2/\text{NDF}$ : 74.2/59

- sign  $-23.570 \pm 24.448$   $\chi^2/\text{NDF}$ : 36.2/30

# reg\_asym\_dsl\_rms vs Slug



Right In: 94.068 $\pm$ 0.026     $\chi^2$ /NDF: 152285.6/15

Left Out: 105.028 $\pm$ 0.024     $\chi^2$ /NDF: 405660.0/12

Right Out: 96.372 $\pm$ 0.026     $\chi^2$ /NDF: 209228.5/17

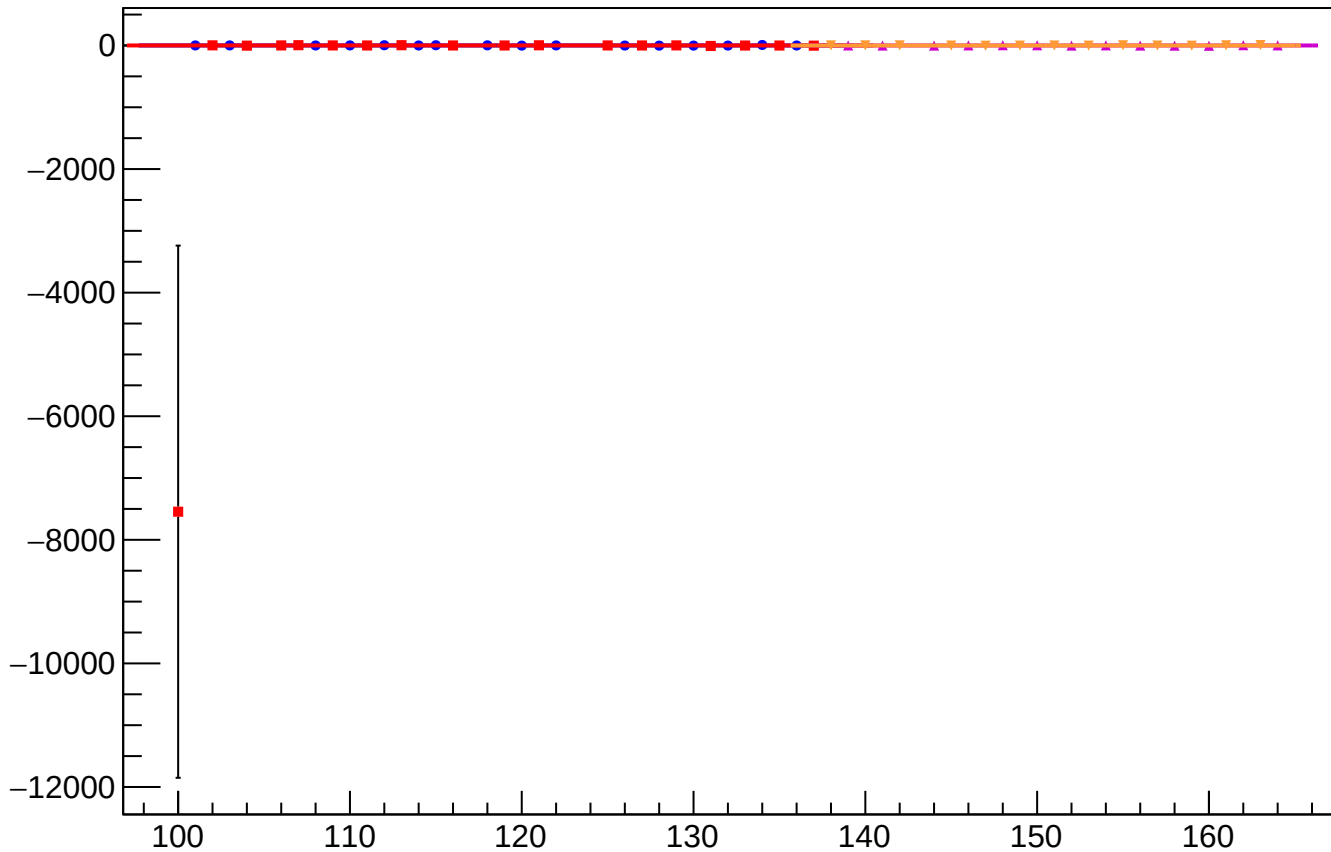
Left In: 104.546 $\pm$ 0.023     $\chi^2$ /NDF: 314248.7/12

+ sign 100.020 $\pm$ 0.018     $\chi^2$ /NDF: 654729.0/28

All: 100.476 $\pm$ 0.012     $\chi^2$ /NDF: 1234728.1/59

- sign 100.919 $\pm$ 0.017     $\chi^2$ /NDF: 578667.1/30

# asym\_dsl\_correction\_mean vs Slug



Right In: 0.426 $\pm$ 0.616  $\chi^2$ /NDF: 9.7/15

Left Out: -0.427 $\pm$ 0.583  $\chi^2$ /NDF: 19.0/12

Right Out: 0.313 $\pm$ 0.643  $\chi^2$ /NDF: 22.8/17

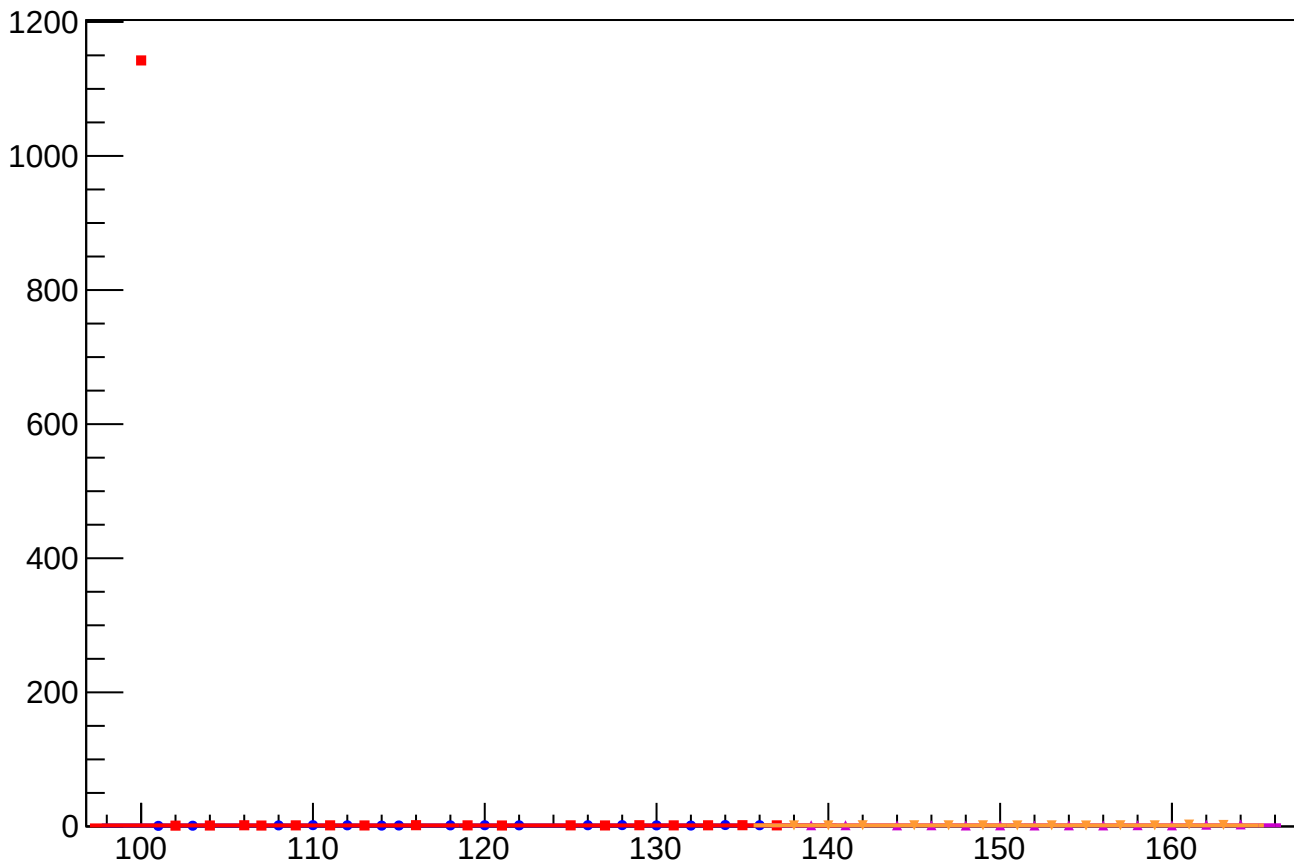
Left In: 0.028 $\pm$ 0.596  $\chi^2$ /NDF: 20.0/12

+ sign -0.024 $\pm$ 0.423  $\chi^2$ /NDF: 29.7/28

All: 0.065 $\pm$ 0.304  $\chi^2$ /NDF: 72.7/59

- sign 0.159 $\pm$ 0.437  $\chi^2$ /NDF: 42.9/30

# asym\_dsl\_correction\_rms vs Slug



Right In: 1.420 $\pm$ 0.000  $\chi^2$ /NDF: 730935.2/15

Left Out: 1.655 $\pm$ 0.000  $\chi^2$ /NDF: 339124.9/12

Right Out: 1.556 $\pm$ 0.000  $\chi^2$ /NDF: 315908.9/17

Left In: 1.758 $\pm$ 0.000  $\chi^2$ /NDF: 469520.4/12

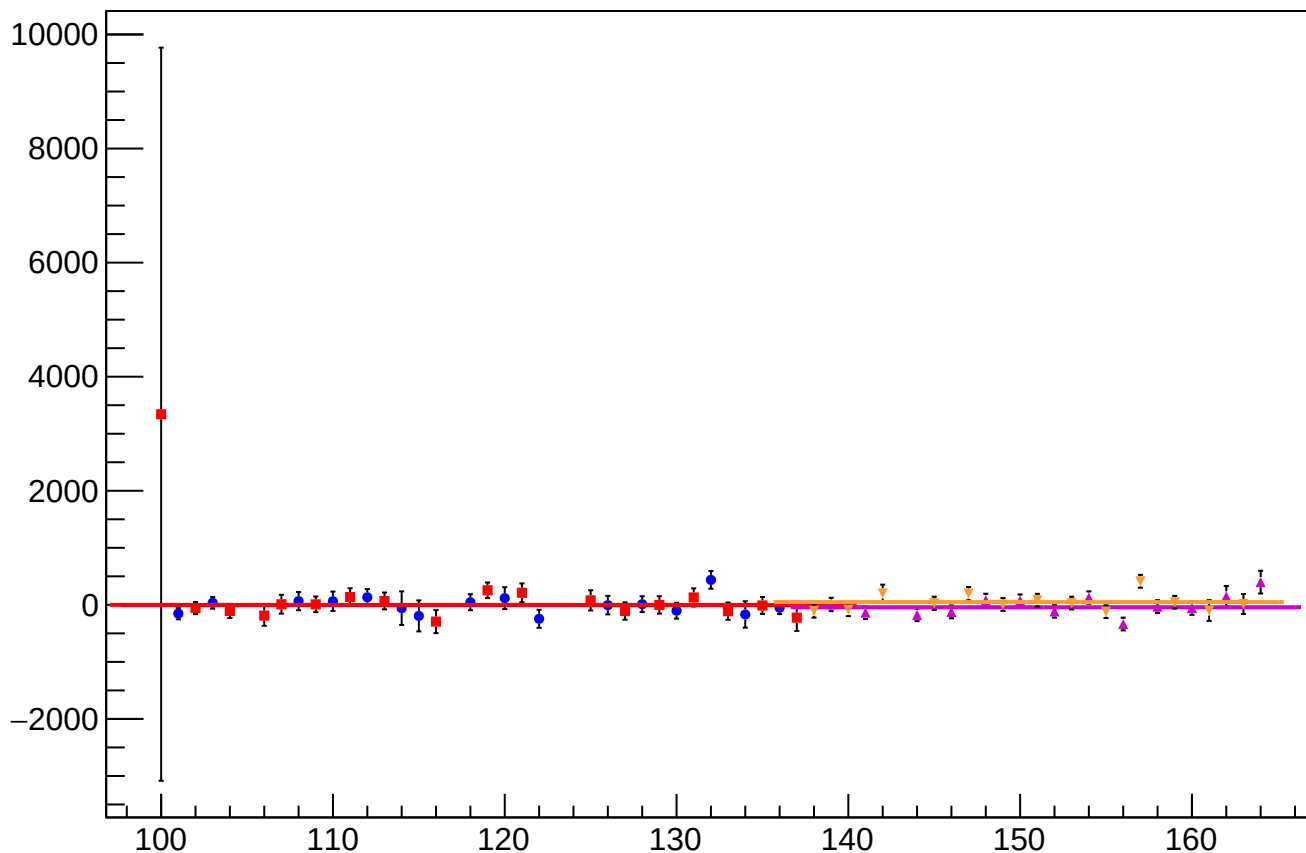
+ sign 1.544 $\pm$ 0.000  $\chi^2$ /NDF: 1224351.4/28

All: 1.602 $\pm$ 0.000  $\chi^2$ /NDF: 2194447.2/59

- sign 1.664 $\pm$ 0.000  $\chi^2$ /NDF: 891668.1/30



# asym\_dsl\_mean vs Slug



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

Left Out:  $48.748 \pm 33.690$   $\chi^2/\text{NDF}: 19.3/12$

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

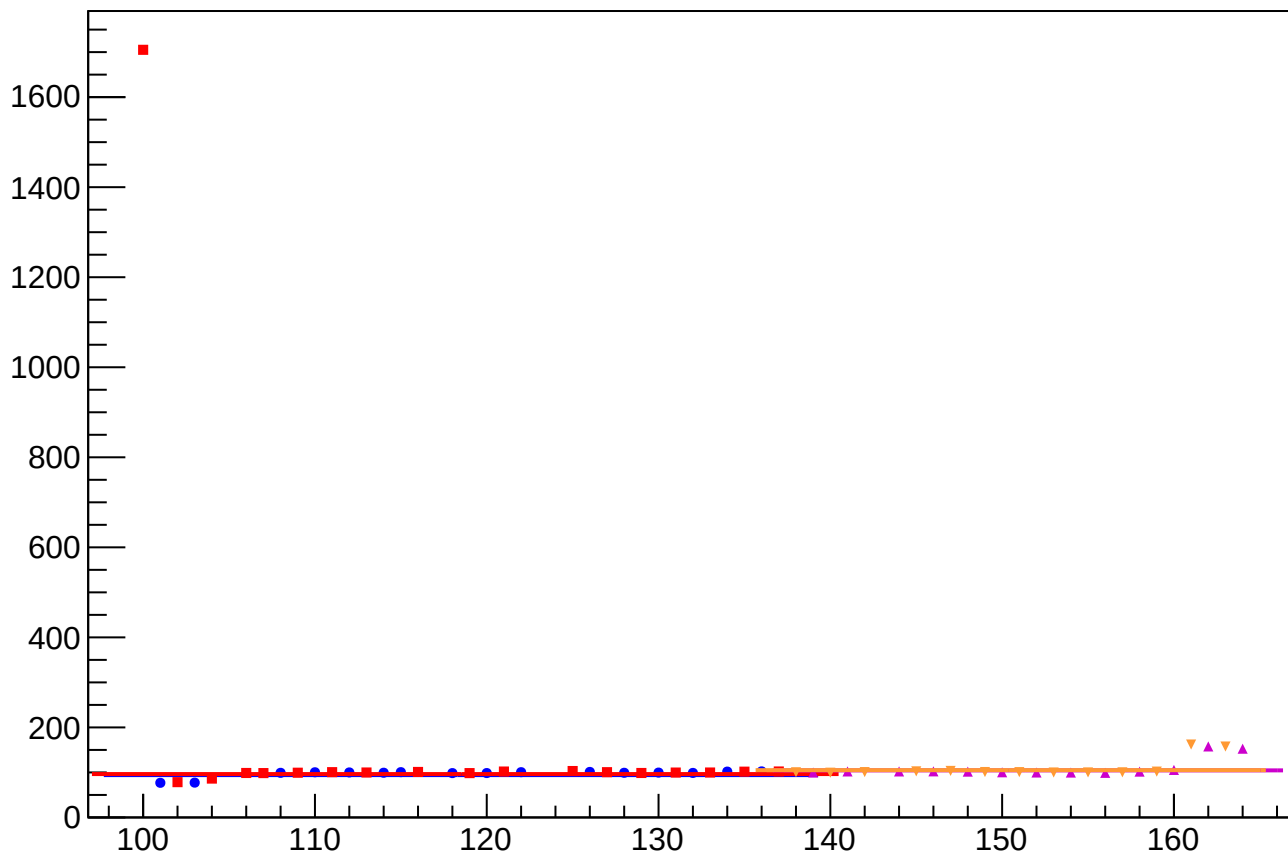
Left In:  $-41.830 \pm 32.790$   $\chi^2/\text{NDF}: 21.0/12$

+ sign  $25.054 \pm 24.826$   $\chi^2/\text{NDF}: 36.7/28$

All:  $0.491 \pm 17.422$   $\chi^2/\text{NDF}: 73.9/59$

- sign  $-23.342 \pm 24.455$   $\chi^2/\text{NDF}: 35.3/30$

# asym\_dsl\_rms vs Slug



Right In: 94.093+/-0.026  $\chi^2/\text{NDF}$ : 152305.3/15

Left Out: 105.056+/-0.024  $\chi^2/\text{NDF}$ : 405845.9/12

Right Out: 96.381+/-0.026  $\chi^2/\text{NDF}$ : 214362.3/17

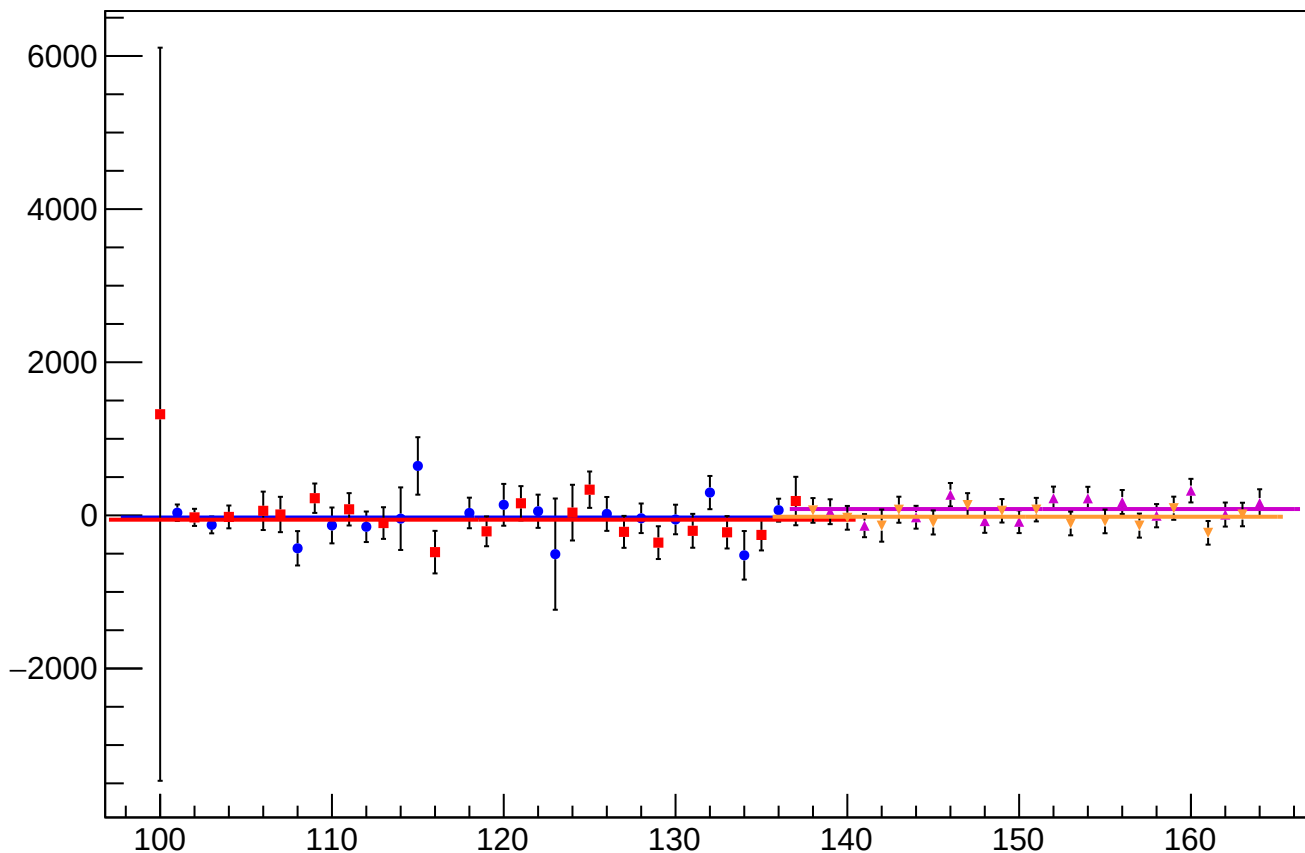
Left In: 104.575+/-0.023  $\chi^2/\text{NDF}$ : 314319.2/12

+ sign 100.046+/-0.018  $\chi^2/\text{NDF}$ : 654946.9/28

All: 100.499+/-0.012  $\chi^2/\text{NDF}$ : 1240370.2/59

- sign 100.939+/-0.017  $\chi^2/\text{NDF}$ : 584110.8/30

# reg\_asym\_dsr\_mean vs Slug



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

Left Out:  $-17.918 \pm 42.404$   $\chi^2/\text{NDF}$ : 6.1/13

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

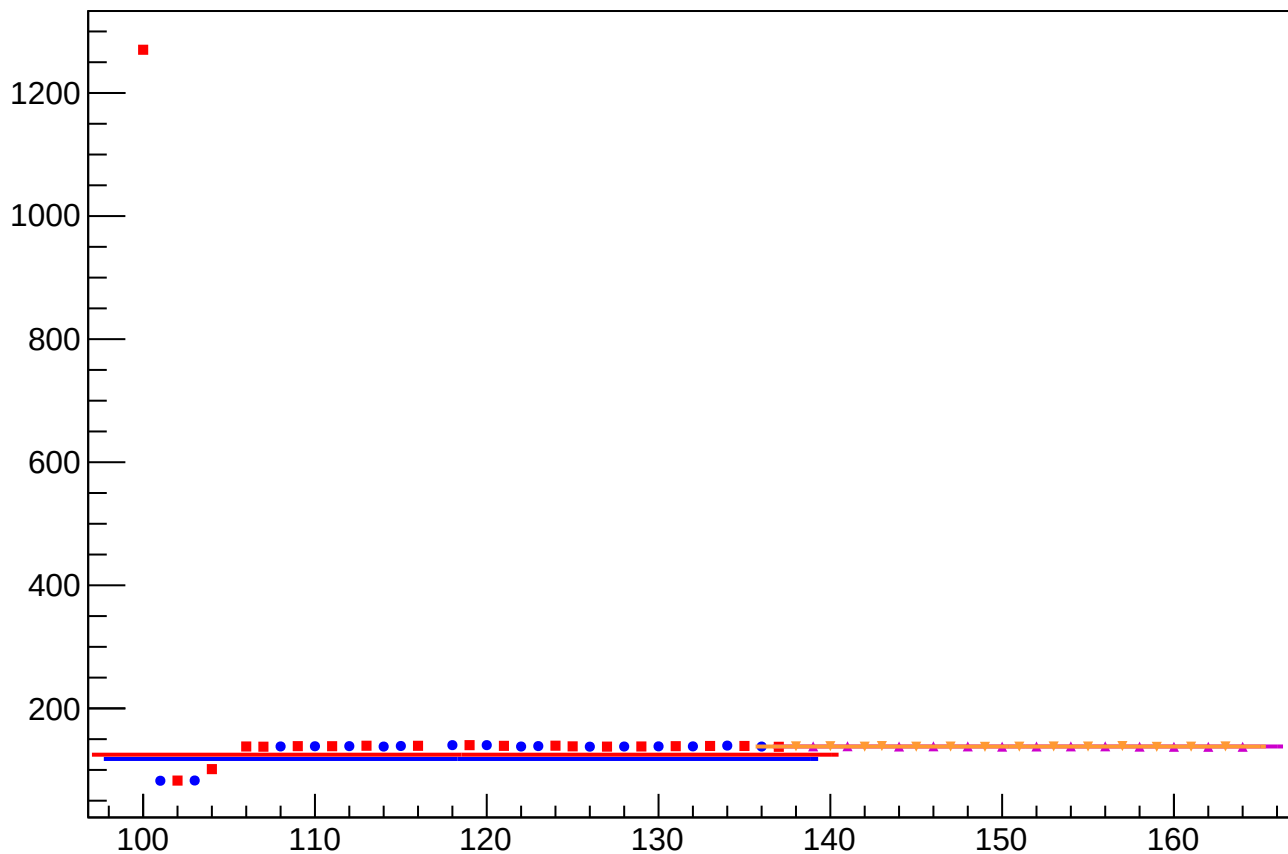
Left In:  $82.760 \pm 42.914$   $\chi^2/\text{NDF}$ : 11.7/12

+ sign  $-22.393 \pm 31.416$   $\chi^2/\text{NDF}$ : 20.4/30

All:  $-1.267 \pm 22.386$   $\chi^2/\text{NDF}$ : 52.6/62

- sign  $20.522 \pm 31.905$   $\chi^2/\text{NDF}$ : 31.3/31

# reg\_asym\_dsr\_rms vs Slug



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

Left Out:  $138.033 \pm 0.030$   $\chi^2/\text{NDF}$ : 172.6/13

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

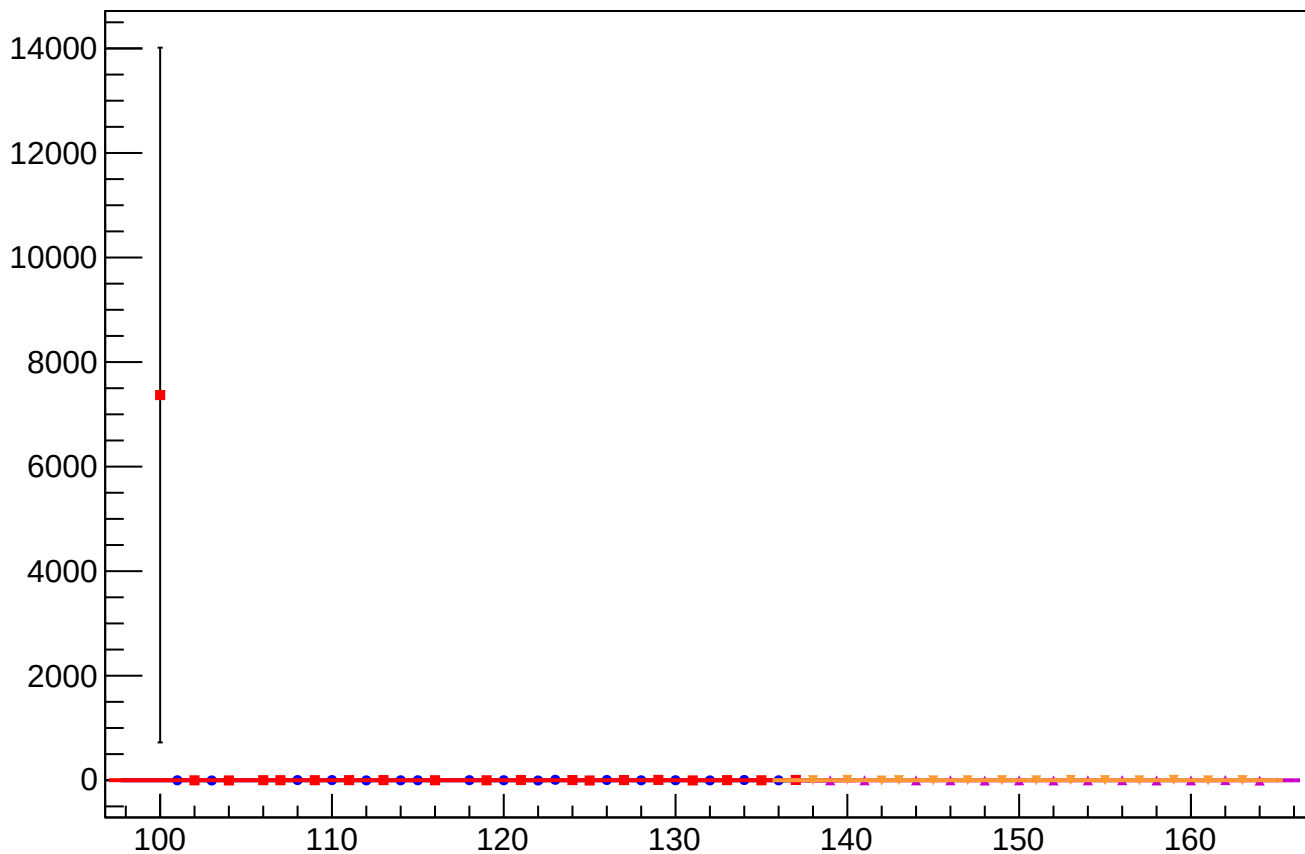
Left In:  $138.100 \pm 0.030$   $\chi^2/\text{NDF}$ : 104.1/12

+ sign  $128.913 \pm 0.022$   $\chi^2/\text{NDF}$ : 871844.6/30

All:  $130.499 \pm 0.016$   $\chi^2/\text{NDF}$ : 1538470.6/62

- sign  $132.135 \pm 0.023$   $\chi^2/\text{NDF}$ : 656266.9/31

# asym\_dsr\_correction\_mean vs Slug



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

Left Out:  $0.582 \pm 0.729$   $\chi^2/\text{NDF}$ : 19.6/13

Right Out:  $0.649 \pm 0.851$   $\chi^2/\text{NDF}$ : 13.7/18

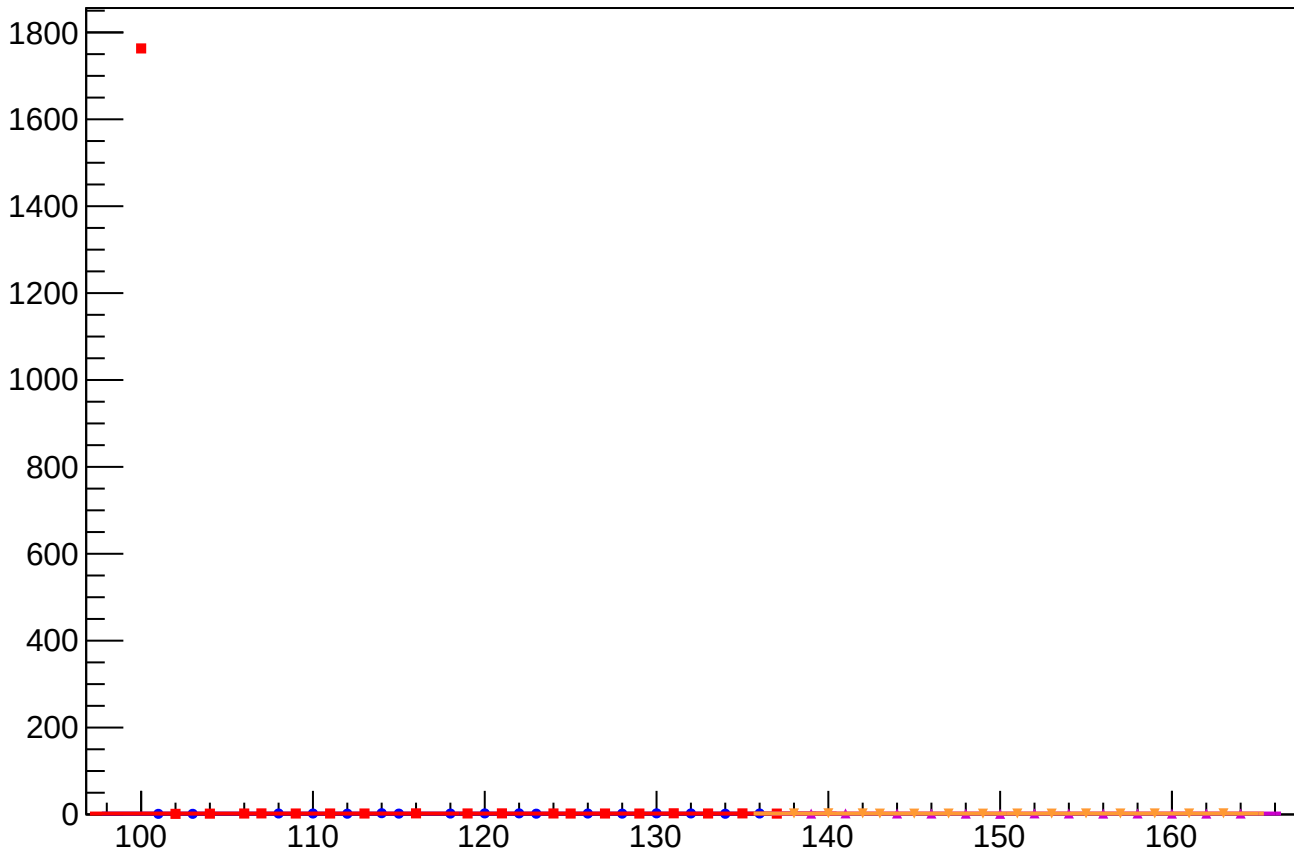
Left In:  $-1.206 \pm 0.724$   $\chi^2/\text{NDF}$ : 10.3/12

+ sign  $0.010 \pm 0.542$   $\chi^2/\text{NDF}$ : 33.6/30

All:  $-0.205 \pm 0.386$   $\chi^2/\text{NDF}$ : 60.6/62

- sign  $-0.428 \pm 0.551$   $\chi^2/\text{NDF}$ : 26.7/31

# asym\_dsr\_correction\_rms vs Slug



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

Left Out: 2.176 $\pm$ 0.001  $\chi^2$ /NDF: 209307.1/13

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

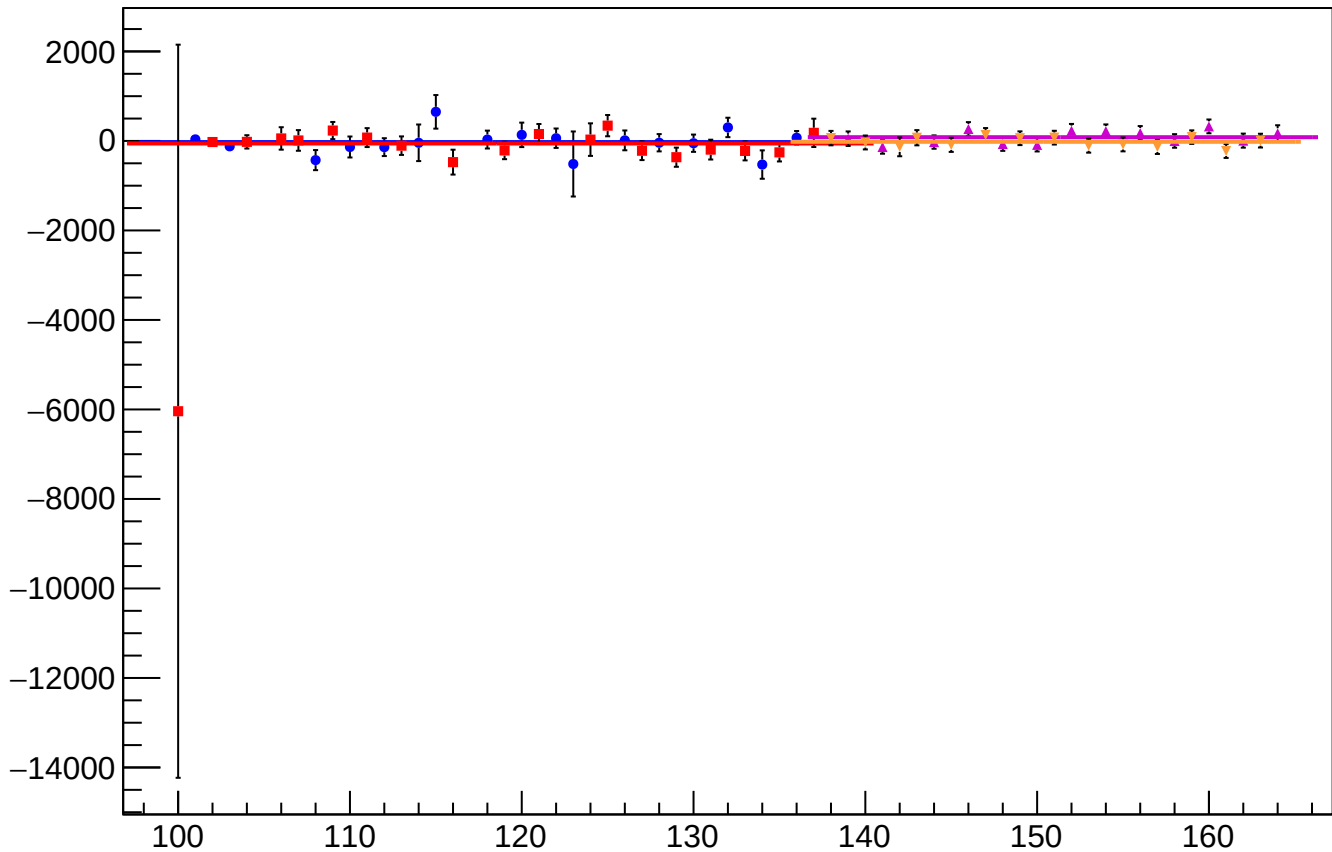
Left In: 2.086 $\pm$ 0.001  $\chi^2$ /NDF: 273182.1/12

+ sign 2.039 $\pm$ 0.000  $\chi^2$ /NDF: 860821.4/30

All: 2.058 $\pm$ 0.000  $\chi^2$ /NDF: 1665159.2/62

- sign 2.077 $\pm$ 0.000  $\chi^2$ /NDF: 799363.5/31

# asym\_dsr\_mean vs Slug



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

Left Out:  $-19.143 \pm 42.415$   $\chi^2/\text{NDF}$ : 5.9/13

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

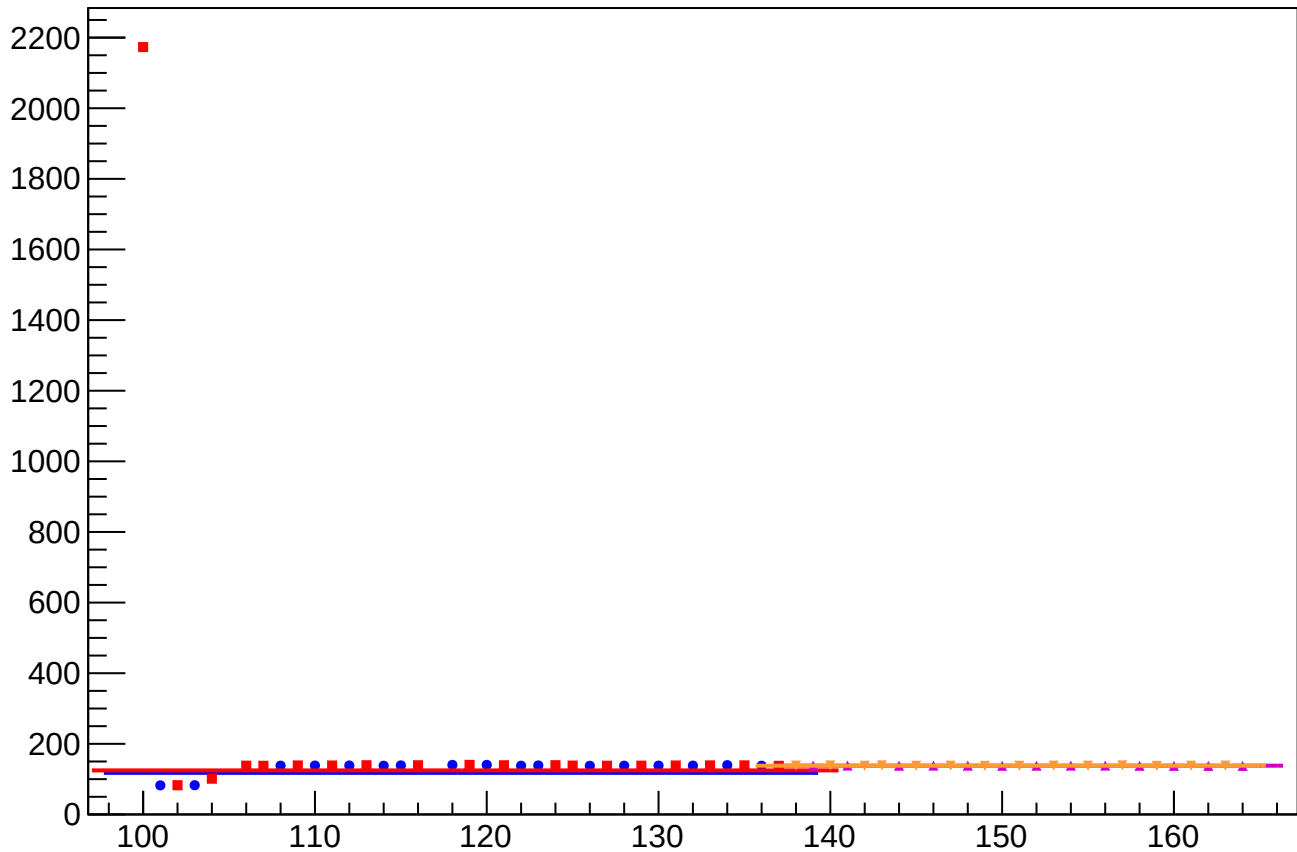
Left In:  $83.535 \pm 42.926$   $\chi^2/\text{NDF}$ : 11.7/12

+ sign  $-22.353 \pm 31.425$   $\chi^2/\text{NDF}$ : 20.3/30

All:  $-1.226 \pm 22.392$   $\chi^2/\text{NDF}$ : 53.2/62

- sign  $20.563 \pm 31.914$   $\chi^2/\text{NDF}$ : 32.0/31

# asym\_dsr\_rms vs Slug



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

Left Out: 138.069 $\pm$ 0.030  $\chi^2$ /NDF: 172.3/13

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

Left In: 138.138 $\pm$ 0.030  $\chi^2$ /NDF: 103.3/12

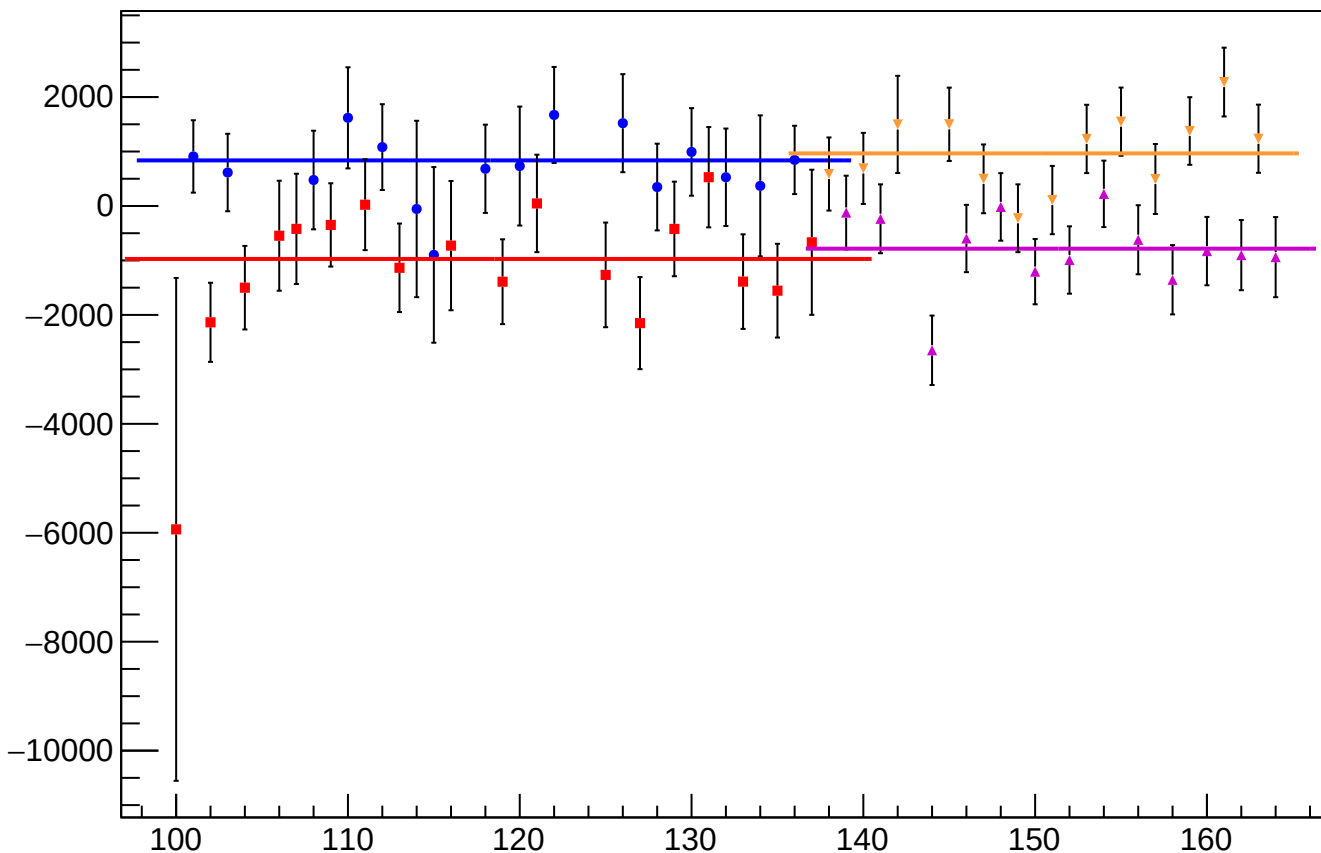
+ sign 128.947 $\pm$ 0.022  $\chi^2$ /NDF: 871864.9/30

All: 130.524 $\pm$ 0.016  $\chi^2$ /NDF: 1549524.5/62

- sign 132.151 $\pm$ 0.023  $\chi^2$ /NDF: 667423.8/31



# reg\_asym\_left\_avg\_mean vs Slug



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

Left Out: 965.610 $\pm$ 180.089  $\chi^2$ /NDF: 14.1/12

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

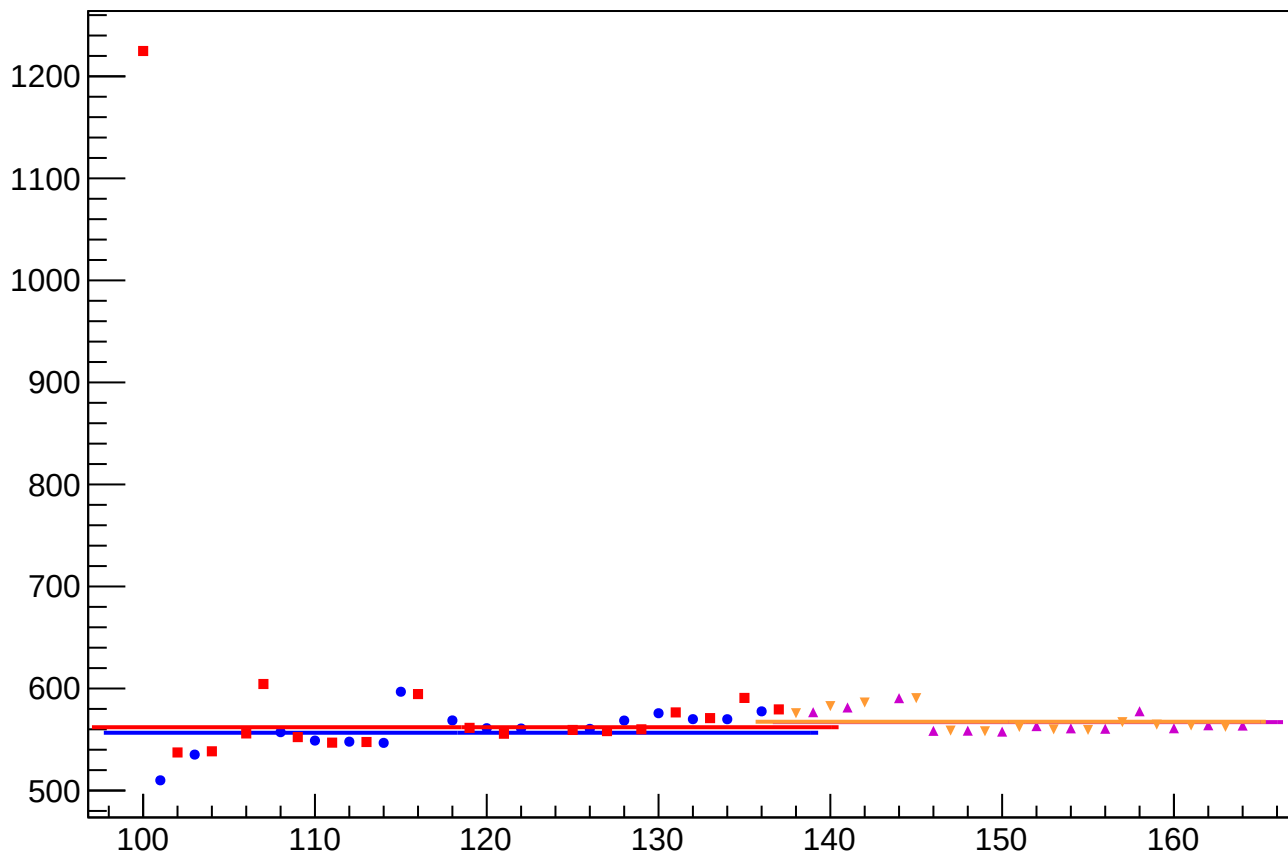
Left In: -783.592 $\pm$ 176.228  $\chi^2$ /NDF: 16.2/12

+ sign 912.942 $\pm$ 138.368  $\chi^2$ /NDF: 19.0/28

All: 9.088 $\pm$ 96.889  $\chi^2$ /NDF: 133.6/59

- sign -860.435 $\pm$ 135.714  $\chi^2$ /NDF: 30.9/30

# reg\_asym\_left\_avg\_rms vs Slug



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

Left Out: 567.423 $\pm$ 0.127  $\chi^2$ /NDF: 6469.2/12

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

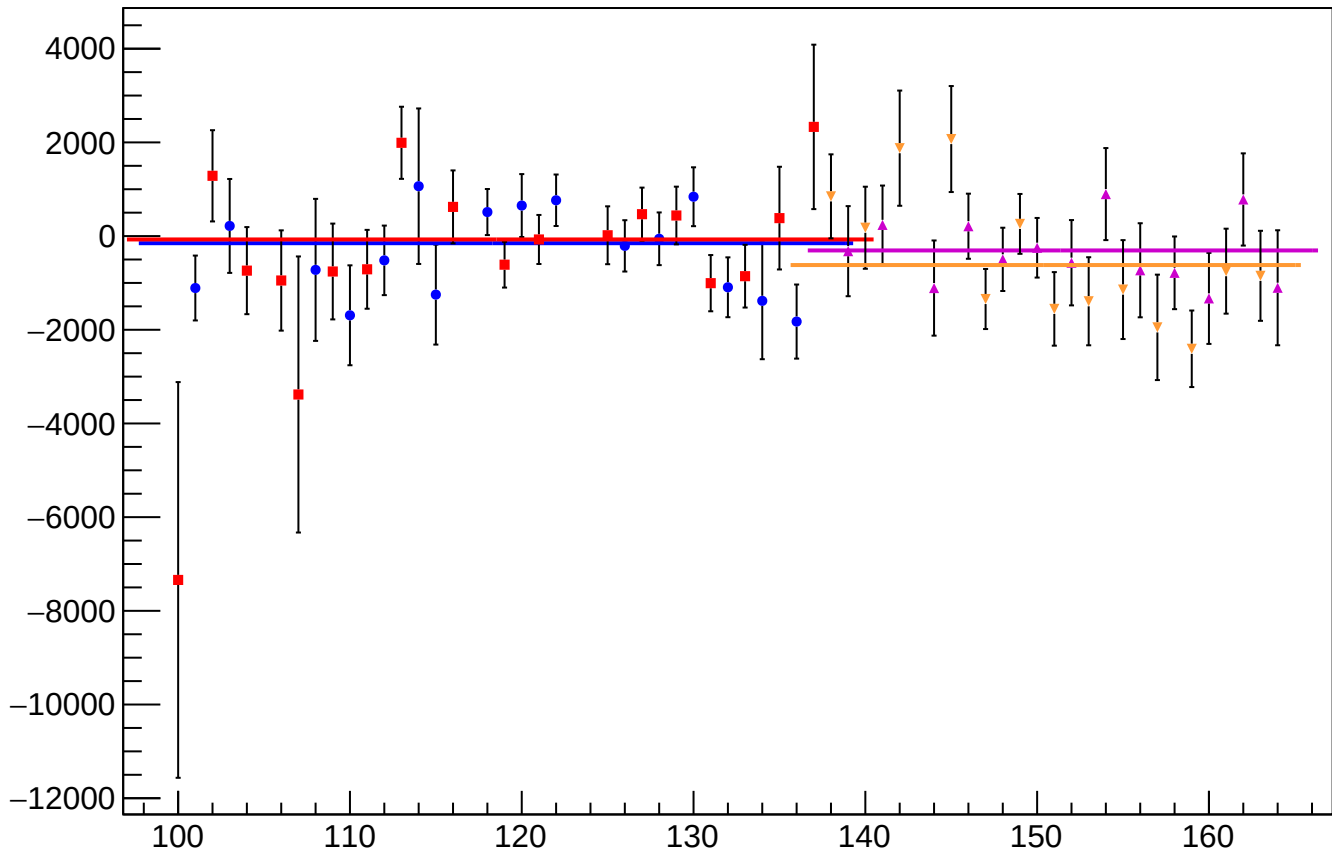
Left In: 567.053 $\pm$ 0.125  $\chi^2$ /NDF: 6707.7/12

+ sign 563.004 $\pm$ 0.098  $\chi^2$ /NDF: 27799.7/28

All: 564.030 $\pm$ 0.069  $\chi^2$ /NDF: 90954.7/59

- sign 565.016 $\pm$ 0.096  $\chi^2$ /NDF: 62939.4/30

# asym\_left\_avg\_correction\_mean vs Slug



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

Left Out: -618.203+/-241.763  $\chi^2/\text{NDF}$ : 25.0/12

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

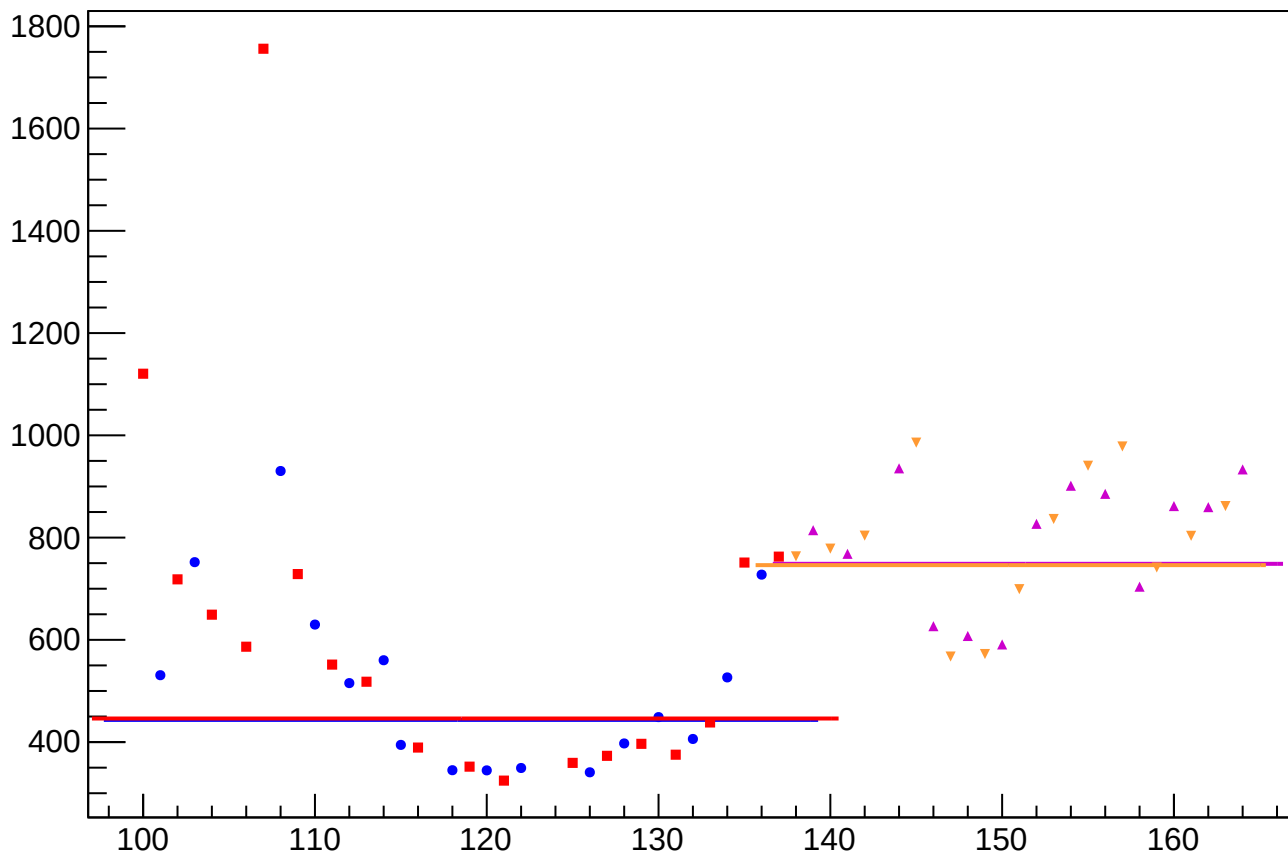
Left In: -306.484+/-236.702  $\chi^2/\text{NDF}$ : 6.6/12

+ sign -318.277+/-144.418  $\chi^2/\text{NDF}$ : 49.7/28

All: -236.595+/-101.471  $\chi^2/\text{NDF}$ : 82.6/59

- sign -156.954+/-142.602  $\chi^2/\text{NDF}$ : 32.2/30

# asym\_left\_avg\_correction\_rms vs Slug



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

Left Out:  $746.128 \pm 0.171$   $\chi^2/\text{NDF}$ : 616582.2/12

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

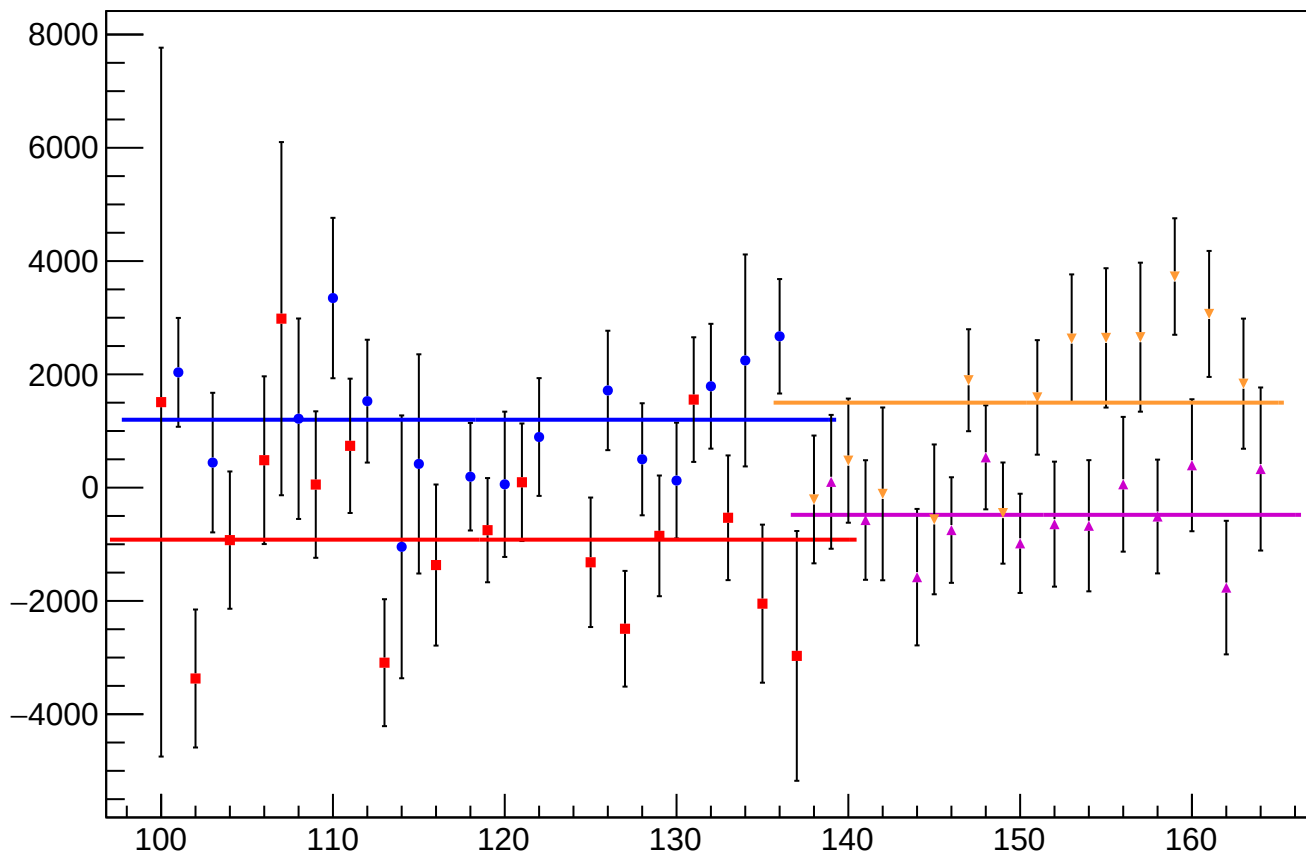
Left In:  $748.688 \pm 0.167$   $\chi^2/\text{NDF}$ : 554248.9/12

+ sign  $551.456 \pm 0.102$   $\chi^2/\text{NDF}$ : 3693713.4/28

All:  $553.734 \pm 0.072$   $\chi^2/\text{NDF}$ : 7790386.1/59

- sign  $555.955 \pm 0.101$   $\chi^2/\text{NDF}$ : 4095690.1/30

# asym\_left\_avg\_mean vs Slug



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

Left Out: 1500.428 $\pm$ 306.940  $\chi^2/\text{NDF}$ : 21.1/12

Right Out: -918.412 $\pm$ 293.294  $\chi^2/\text{NDF}$ : 23.2/17

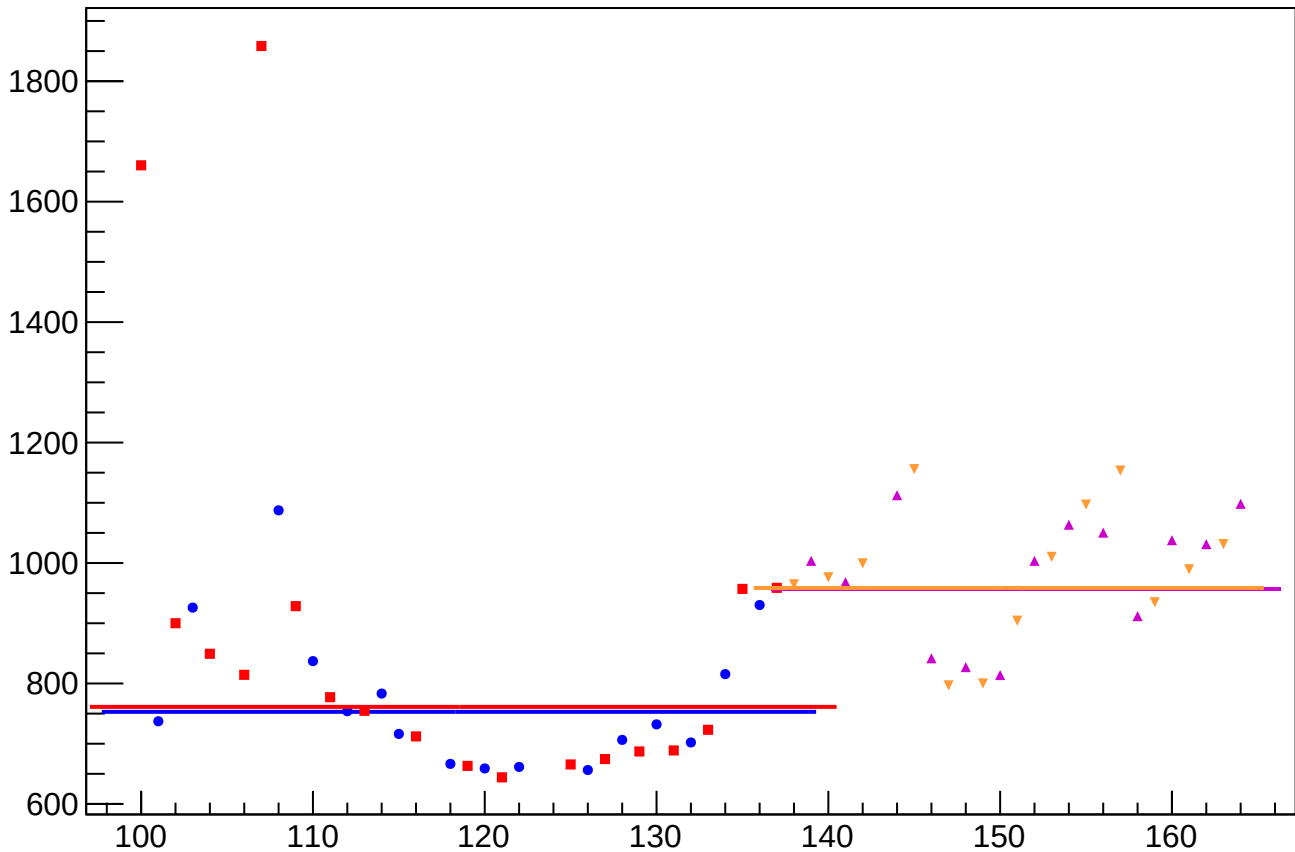
Left In: -480.110 $\pm$ 299.543  $\chi^2/\text{NDF}$ : 5.0/12

+ sign 1343.846 $\pm$ 212.783  $\chi^2/\text{NDF}$ : 32.8/28

All: 304.378 $\pm$ 149.310  $\chi^2/\text{NDF}$ : 109.1/59

- sign -703.880 $\pm$ 209.565  $\chi^2/\text{NDF}$ : 29.4/30

# asym\_left\_avg\_rms vs Slug



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

Left Out: 958.650 $\pm$ 0.217  $\chi^2$ /NDF: 263941.1/12

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

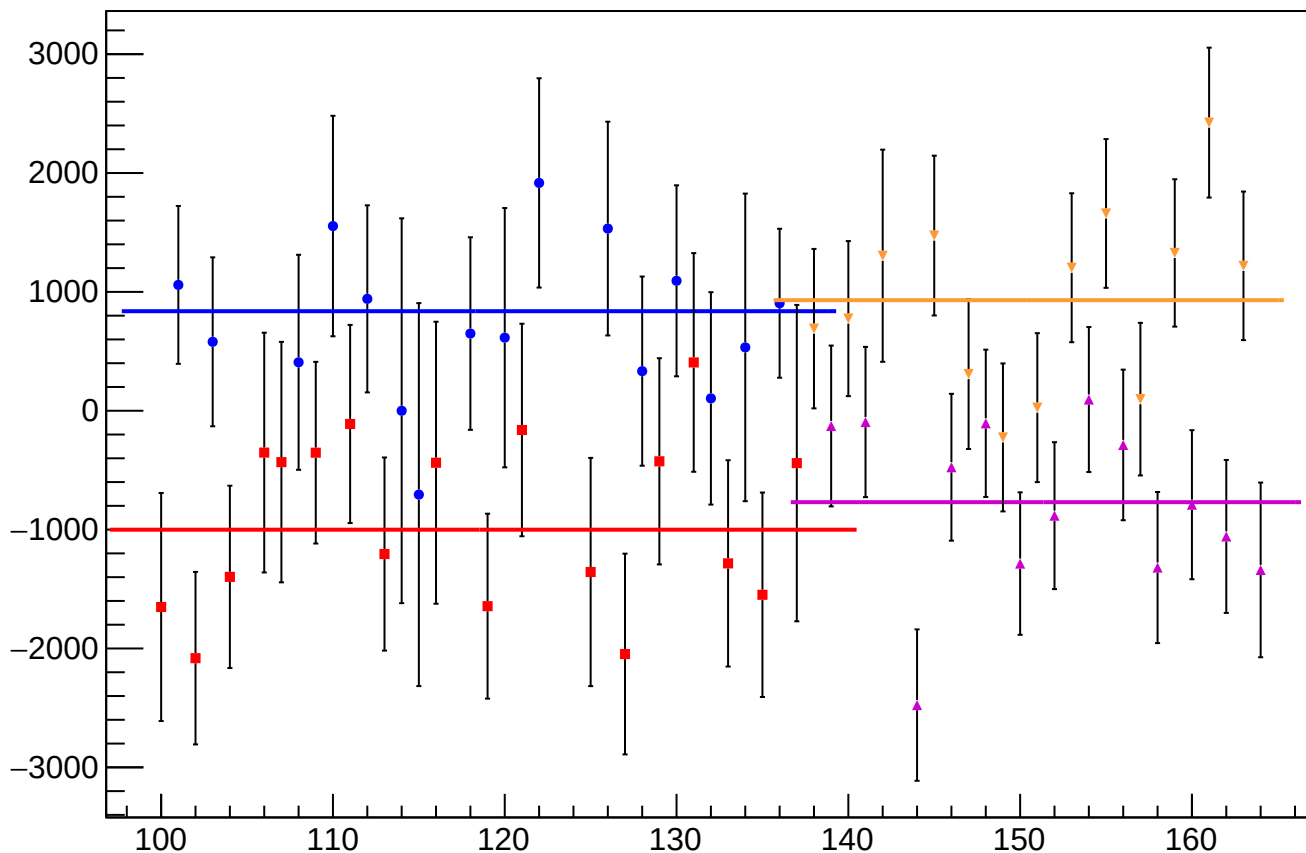
Left In: 956.871 $\pm$ 0.212  $\chi^2$ /NDF: 234273.3/12

+ sign 851.799 $\pm$ 0.150  $\chi^2$ /NDF: 983085.0/28

All: 854.416 $\pm$ 0.106  $\chi^2$ /NDF: 2170976.3/59

- sign 856.953 $\pm$ 0.148  $\chi^2$ /NDF: 1187295.7/30

# reg\_asym\_left\_dd\_mean vs Slug



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

Left Out: 930.290 $\pm$ 179.927  $\chi^2$ /NDF:17.0/12

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

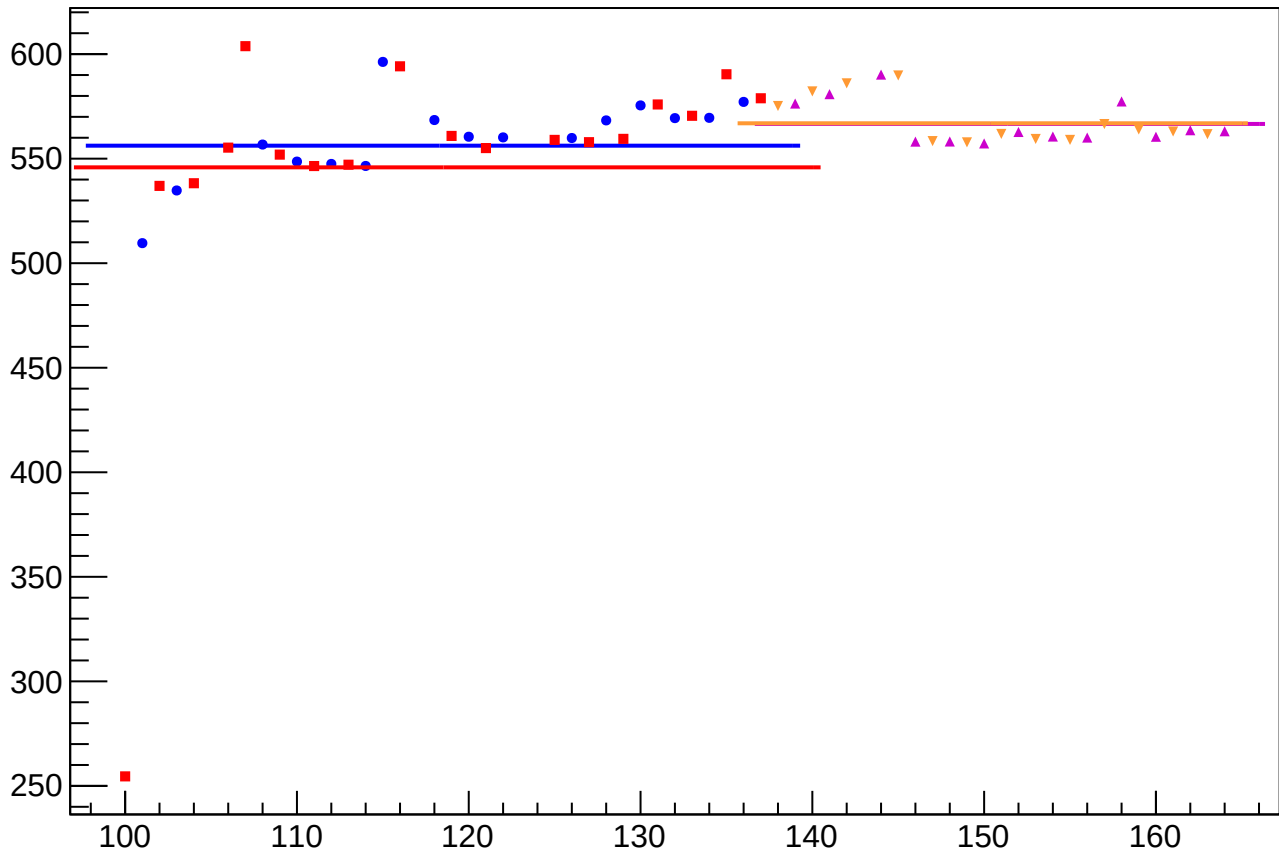
Left In: -769.104 $\pm$ 176.089  $\chi^2$ /NDF:15.5/12

+ sign 892.306 $\pm$ 138.251  $\chi^2$ /NDF: 22.8/28

All: -12.093 $\pm$ 96.341  $\chi^2$ /NDF: 134.7/59

- sign -865.895 $\pm$ 134.328  $\chi^2$ /NDF: 28.8/30

# reg\_asym\_left\_dd\_rms vs Slug



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

Left Out: 566.912 $\pm$ 0.127  $\chi^2$ /NDF: 6427.0/12

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

Left In: 566.608 $\pm$ 0.125  $\chi^2$ /NDF: 6740.6/12

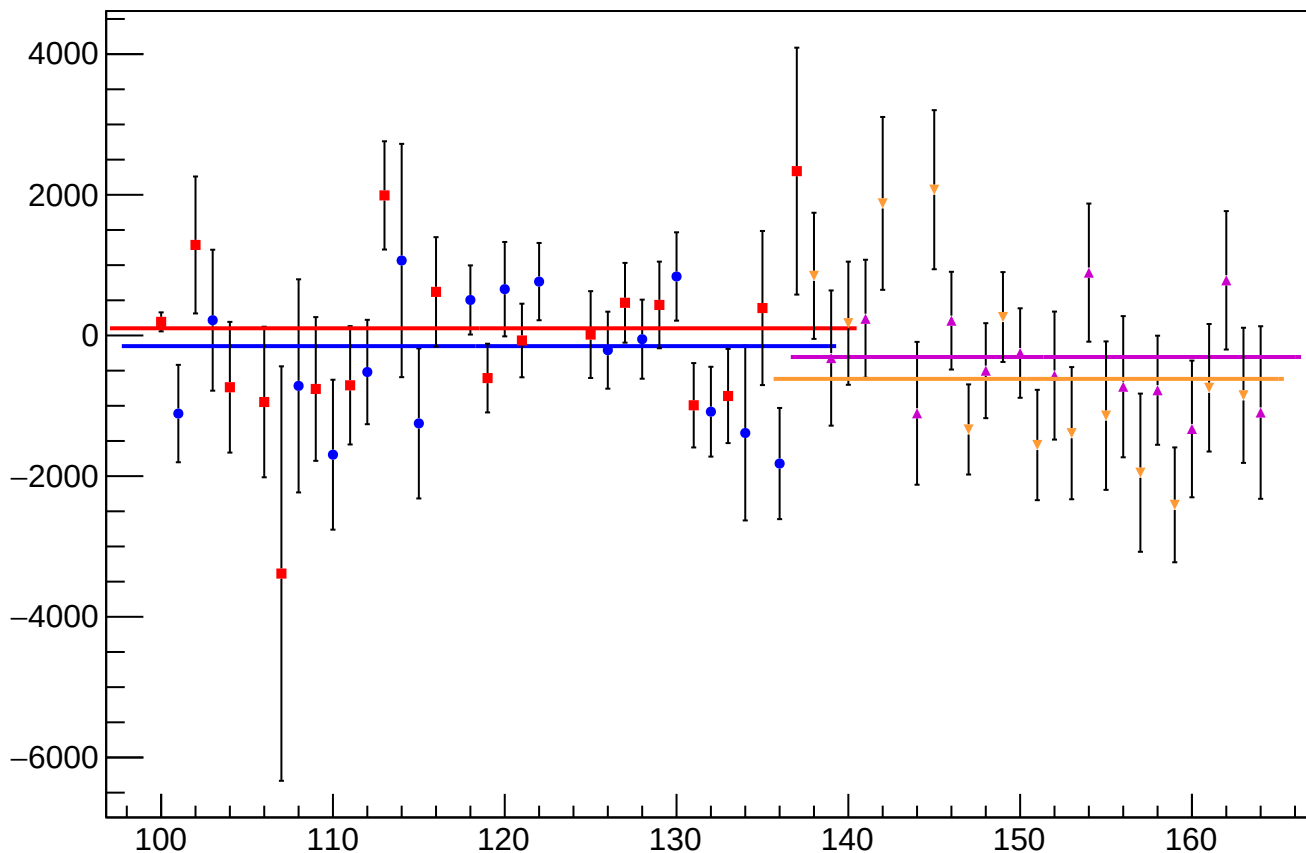
+ sign 562.529 $\pm$ 0.098  $\chi^2$ /NDF: 27742.6/28

All: 560.162 $\pm$ 0.068  $\chi^2$ /NDF: 254888.5/59

- sign 557.927 $\pm$ 0.095  $\chi^2$ /NDF: 226006.2/30



# asym\_left\_dd\_correction\_mean vs Slug



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

Left Out:  $-617.369 \pm 241.654$   $\chi^2/\text{NDF}$ : 25.1/12

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

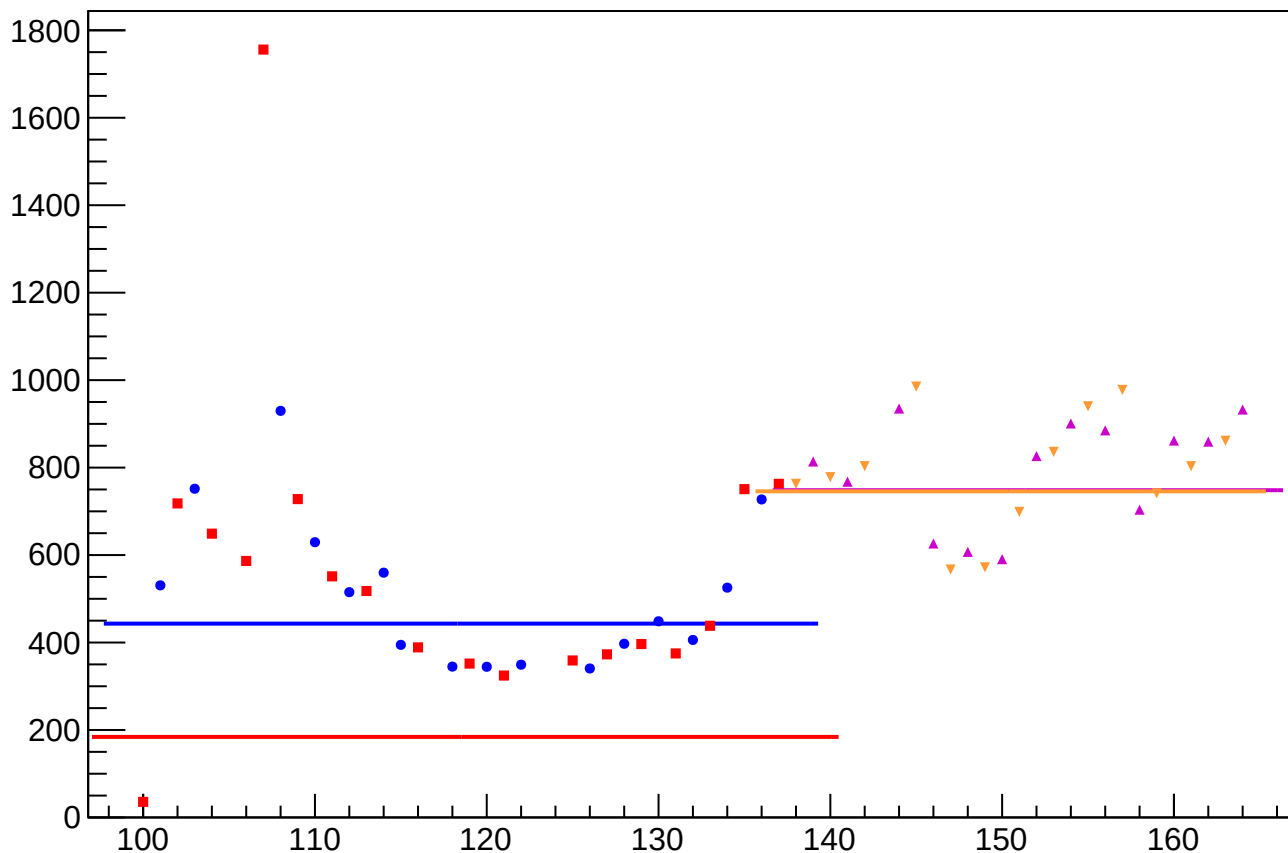
Left In:  $-306.045 \pm 236.588$   $\chi^2/\text{NDF}$ : 6.6/12

+ sign  $-317.703 \pm 144.350$   $\chi^2/\text{NDF}$ : 49.7/28

All:  $-78.361 \pm 81.095$   $\chi^2/\text{NDF}$ : 86.0/59

- sign  $32.015 \pm 98.027$   $\chi^2/\text{NDF}$ : 32.3/30

# asym\_left\_dd\_correction\_rms vs Slug



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

Left Out: 745.789+/-0.171  $\chi^2/\text{NDF}$ : 617014.4/12

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

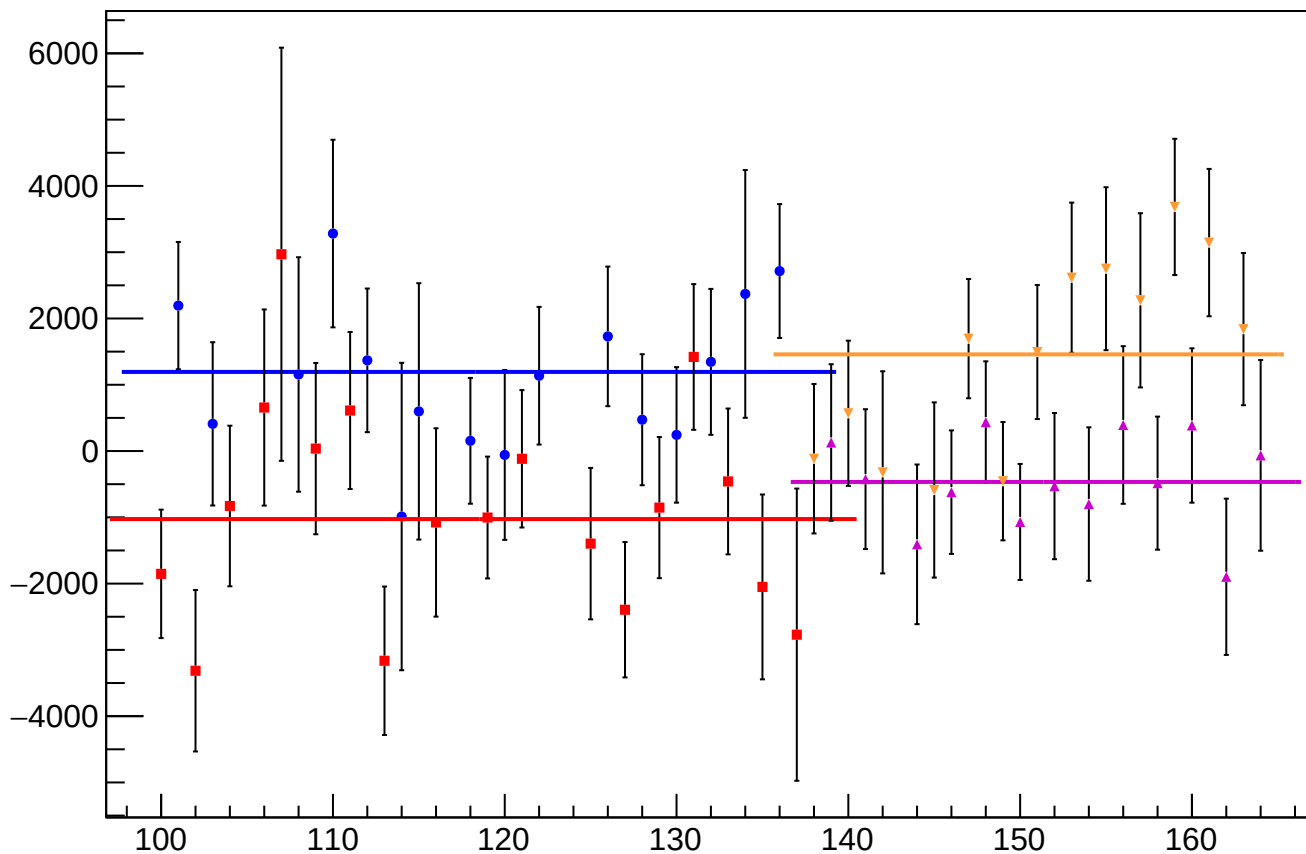
Left In: 748.324+/-0.167  $\chi^2/\text{NDF}$ : 554459.5/12

+ sign 551.195+/-0.102  $\chi^2/\text{NDF}$ : 3694154.1/28

All: 366.317+/-0.057  $\chi^2/\text{NDF}$ : 26540291.6/59

- sign 281.058+/-0.069  $\chi^2/\text{NDF}$ : 18052513.8/30

# asym\_left\_dd\_mean vs Slug



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

Left Out: 1458.509 $\pm$ 306.759  $\chi^2$ /NDF:20.7/12

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

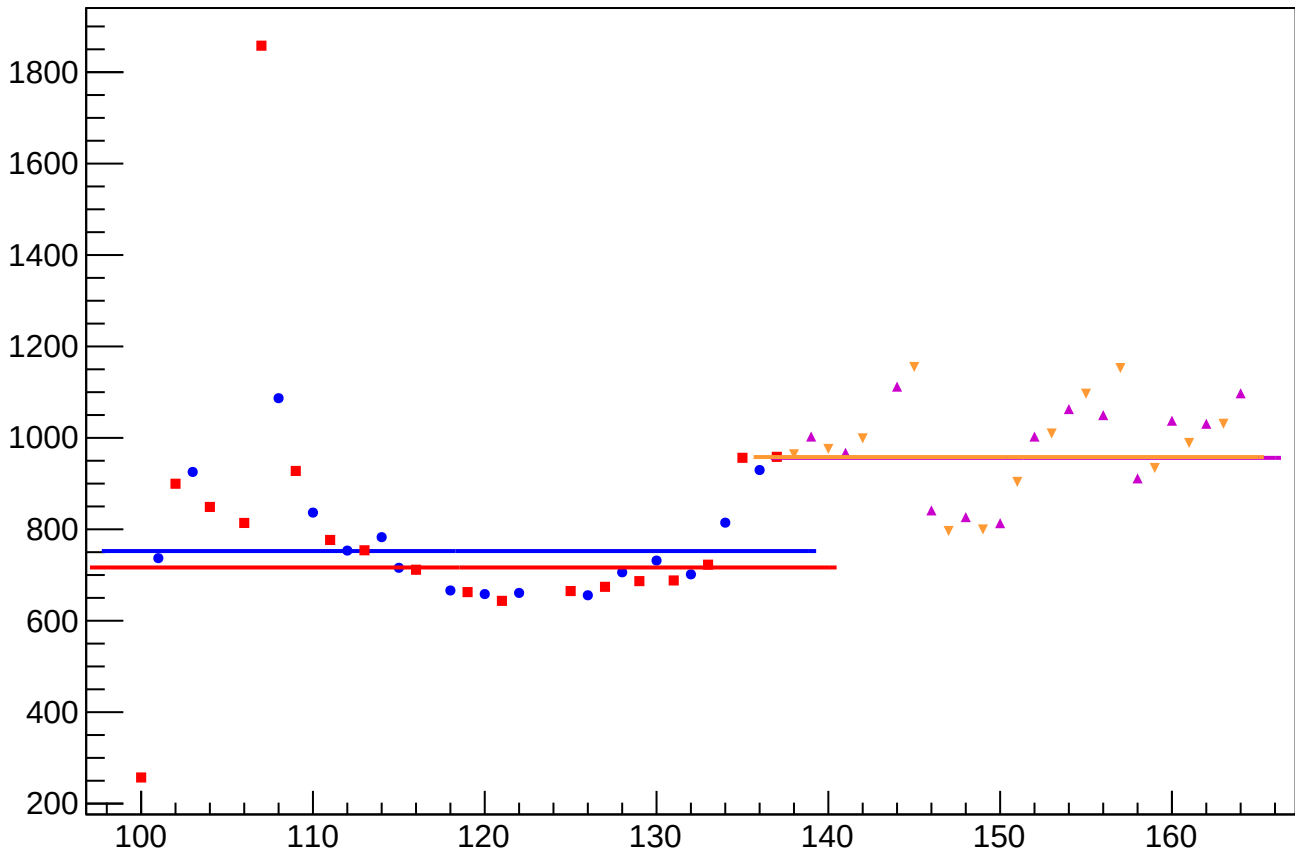
Left In: -466.069 $\pm$ 299.366  $\chi^2$ /NDF:5.0/12

+ sign 1321.030 $\pm$ 212.649  $\chi^2$ /NDF: 32.2/28

All: 239.400 $\pm$ 147.517  $\chi^2$ /NDF: 111.5/59

- sign -763.982 $\pm$ 204.813  $\chi^2$ /NDF: 29.4/30

# asym\_left\_dd\_rms vs Slug



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

Left Out: 958.089+/-0.217  $\chi^2/\text{NDF}$ : 263879.3/12

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

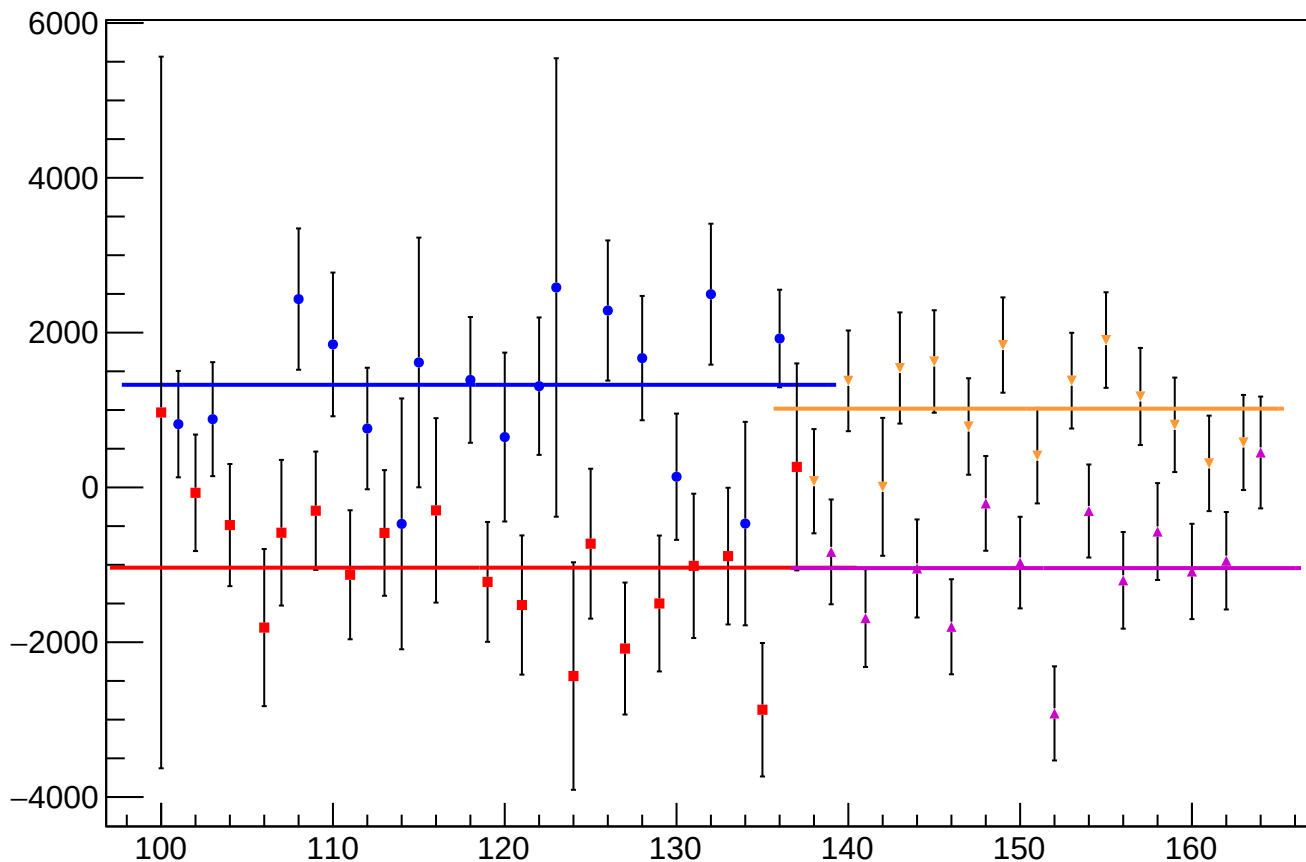
Left In: 956.302+/-0.212  $\chi^2/\text{NDF}$ : 234387.7/12

+ sign 851.257+/-0.150  $\chi^2/\text{NDF}$ : 983549.1/28

All: 839.584+/-0.104  $\chi^2/\text{NDF}$ : 2878993.3/59

- sign 828.756+/-0.145  $\chi^2/\text{NDF}$ : 1883827.7/30

# reg\_asym\_right\_avg\_mean vs Slug



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

Left Out: 1017.439 $\pm$ 172.437  $\chi^2$ /NDF:12.2/13

Right Out: -1037.028 $\pm$ 211.583  $\chi^2$ /NDF: 13.4/18

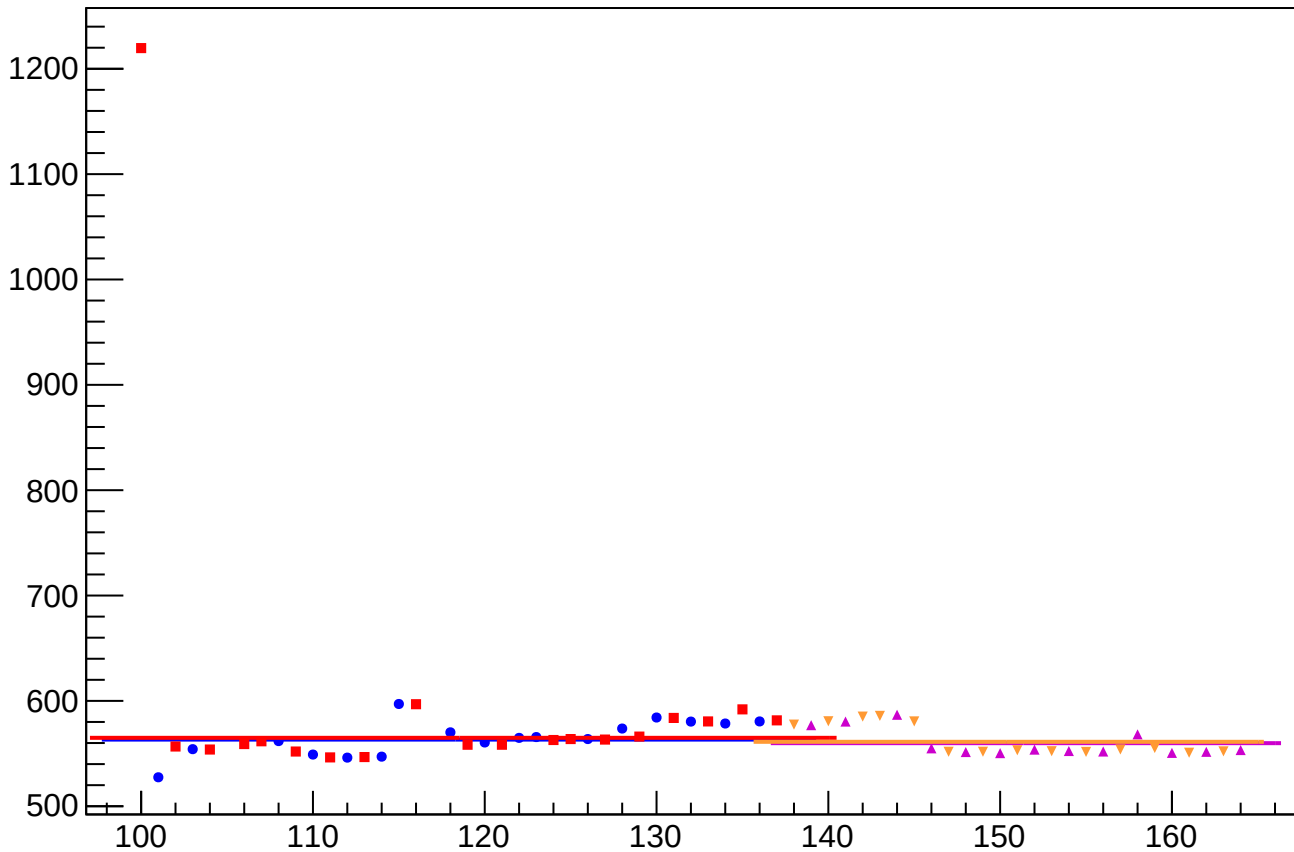
Left In: -1042.138 $\pm$ 174.010  $\chi^2$ /NDF:20.5/12

+ sign 1136.038 $\pm$ 135.268  $\chi^2$ /NDF: 26.3/30

All: 40.949 $\pm$ 95.339  $\chi^2$ /NDF: 190.5/62

- sign -1040.077 $\pm$ 134.397  $\chi^2$ /NDF: 33.9/31

# reg\_asym\_right\_avg\_rms vs Slug



Right In: 563.266 $\pm$ 0.154  $\chi^2$ /NDF: 12520.3/16

Left Out: 561.157 $\pm$ 0.122  $\chi^2$ /NDF:12096.6/13

Right Out: 564.944 $\pm$ 0.150  $\chi^2$ /NDF: 49295.9/18

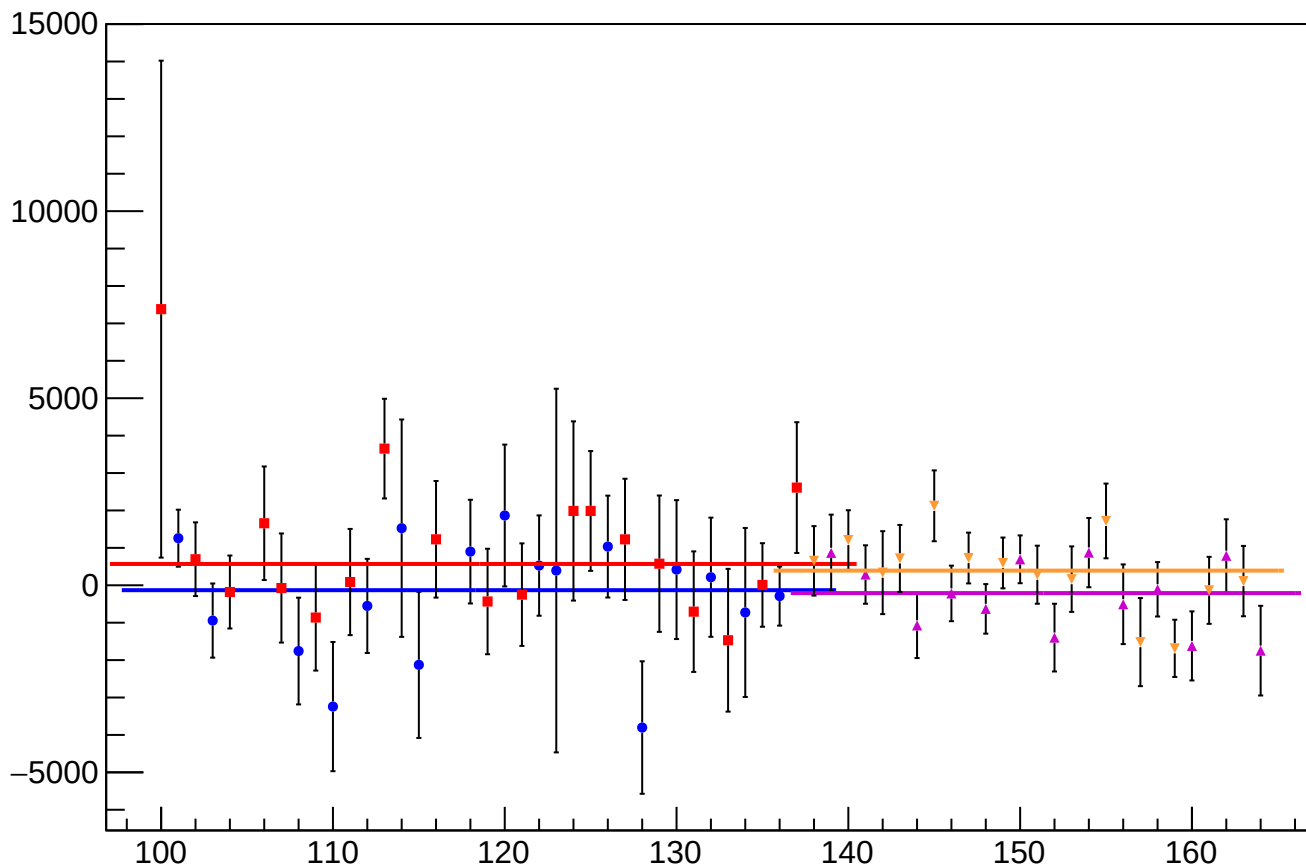
Left In: 559.869 $\pm$ 0.123  $\chi^2$ /NDF:10165.2/12

+ sign 561.968 $\pm$ 0.096  $\chi^2$ /NDF: 24731.9/30

All: 561.942 $\pm$ 0.067  $\chi^2$ /NDF: 84879.6/62

- sign 561.917 $\pm$ 0.095  $\chi^2$ /NDF: 60147.5/31

# asym\_right\_avg\_correction\_mean vs Slug



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

Left Out:  $392.054 \pm 229.209$   $\chi^2/\text{NDF}$ : 17.3/13

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

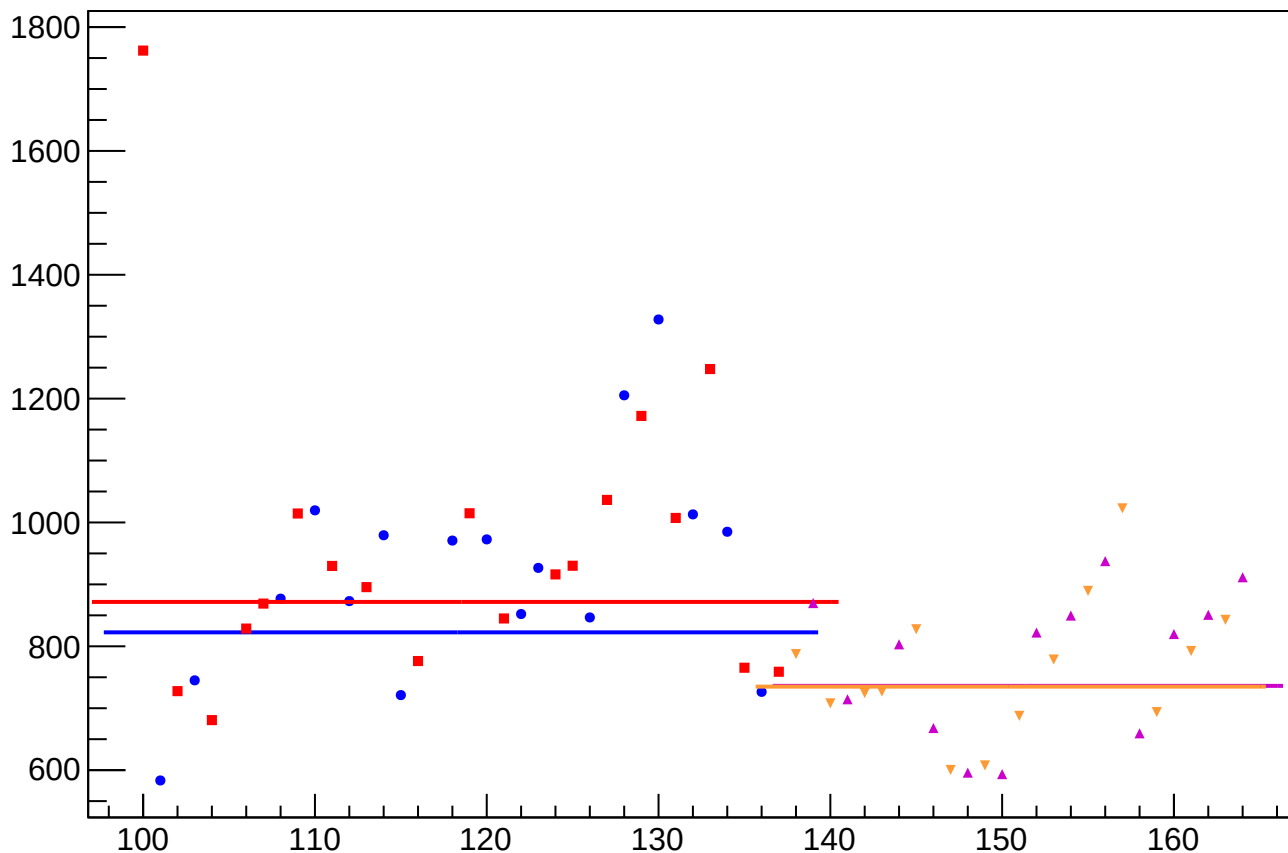
Left In:  $-208.919 \pm 232.261$   $\chi^2/\text{NDF}$ : 13.1/12

+ sign  $220.114 \pm 187.803$   $\chi^2/\text{NDF}$ : 36.2/30

All:  $134.524 \pm 133.702$   $\chi^2/\text{NDF}$ : 68.0/62

- sign  $46.561 \pm 190.389$   $\chi^2/\text{NDF}$ : 31.4/31

# asym\_right\_avg\_correction\_rms vs Slug



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

Left Out: 734.884+/-0.162  $\chi^2/\text{NDF}$ : 397366.9/13

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

Left In: 736.117+/-0.164  $\chi^2/\text{NDF}$ : 482352.0/12

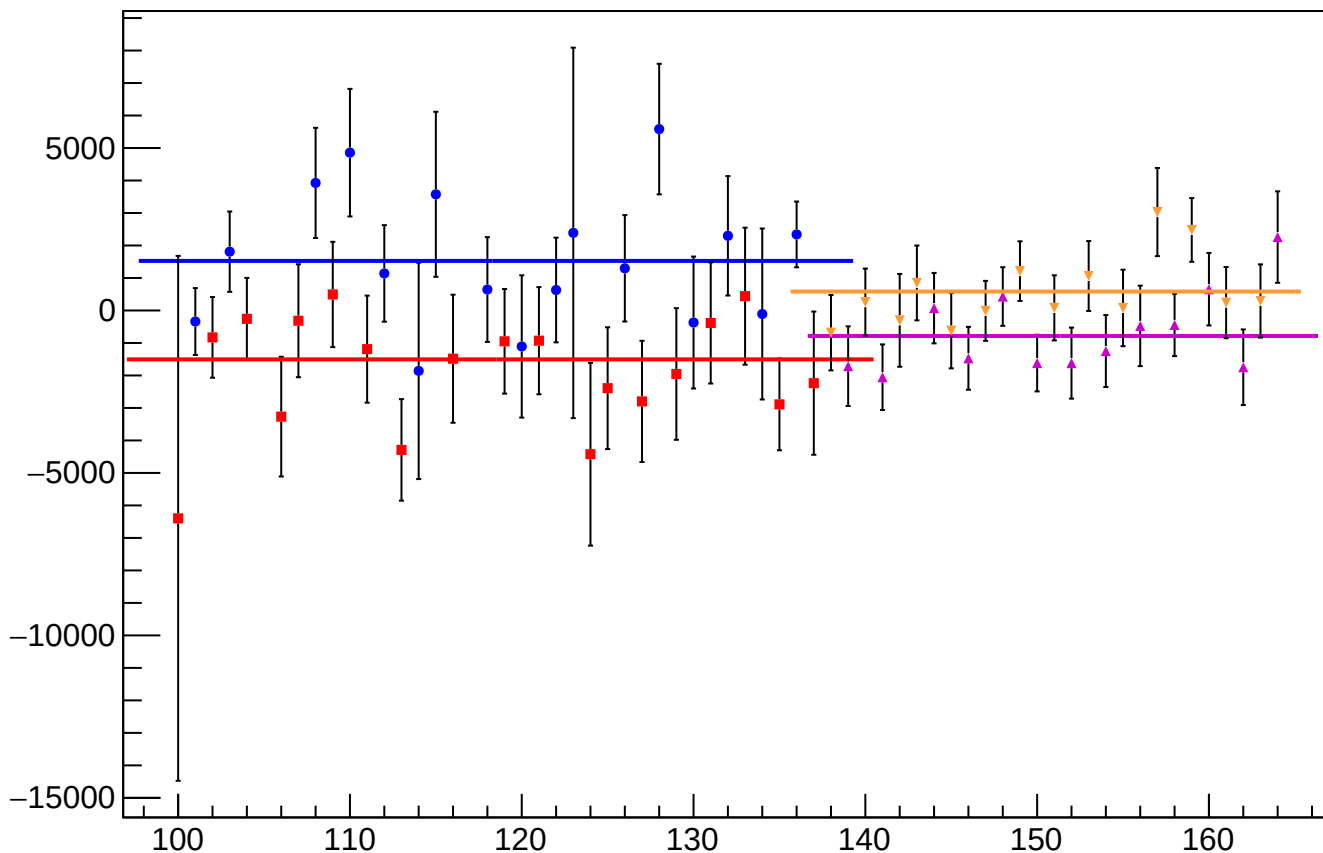
+ sign 763.689+/-0.133  $\chi^2/\text{NDF}$ : 1094428.4/30

All: 772.023+/-0.095  $\chi^2/\text{NDF}$ : 2215139.5/62

- sign 780.589+/-0.135  $\chi^2/\text{NDF}$ : 1112723.6/31



# asym\_right\_avg\_mean vs Slug



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

Left Out: 583.096 $\pm$ 290.852  $\chi^2/\text{NDF}$ : 11.5/13

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

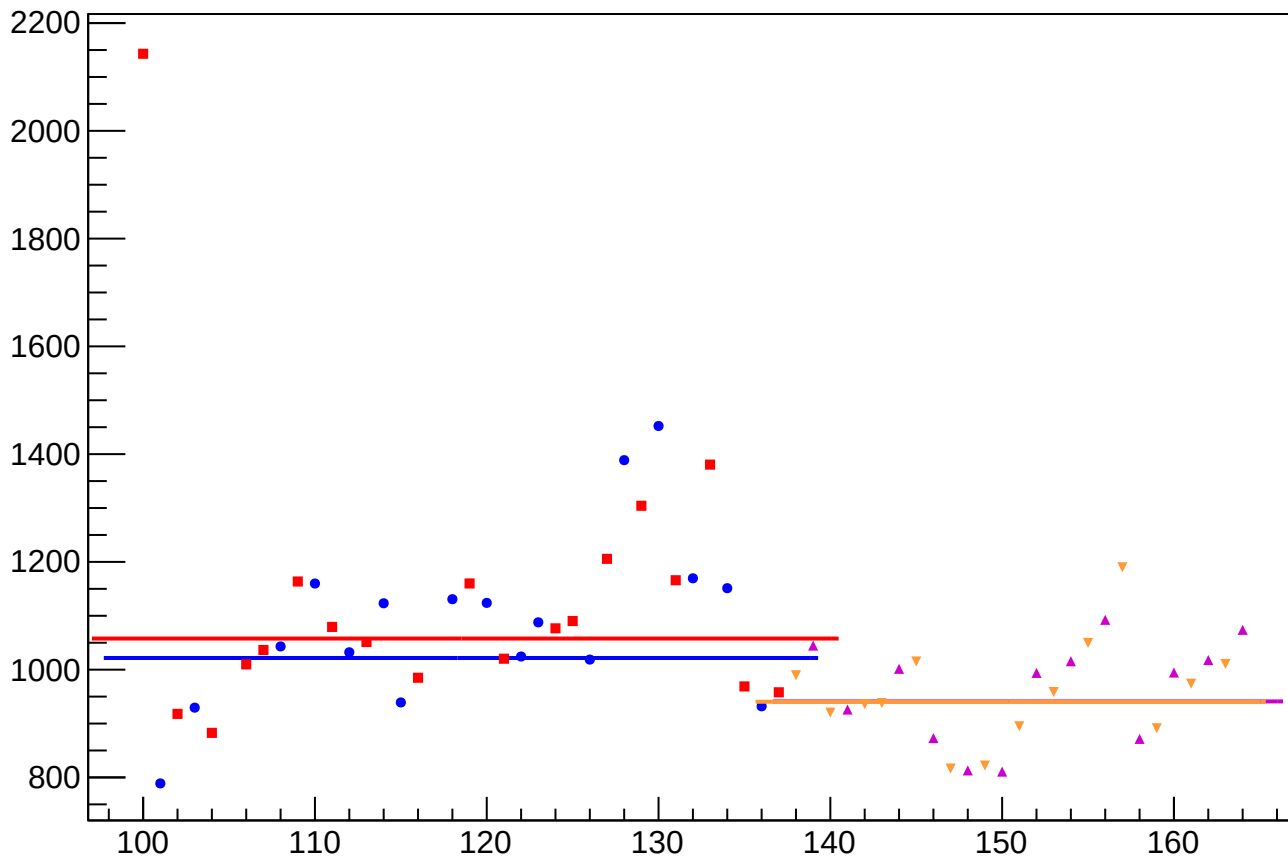
Left In: -784.512 $\pm$ 294.299  $\chi^2/\text{NDF}$ : 14.0/12

+ sign 907.129 $\pm$ 235.600  $\chi^2/\text{NDF}$ : 33.3/30

All: -59.197 $\pm$ 167.102  $\chi^2/\text{NDF}$ : 95.4/62

- sign -1037.383 $\pm$ 237.041  $\chi^2/\text{NDF}$ : 28.2/31

# asym\_right\_avg\_rms vs Slug



Right In: 1021.665+/-0.284  $\chi^2/\text{NDF}$ : 331949.3/16

Left Out: 940.418+/-0.206  $\chi^2/\text{NDF}$ :186369.5/13

Right Out: 1057.748+/-0.283  $\chi^2/\text{NDF}$ : 230944.1/18

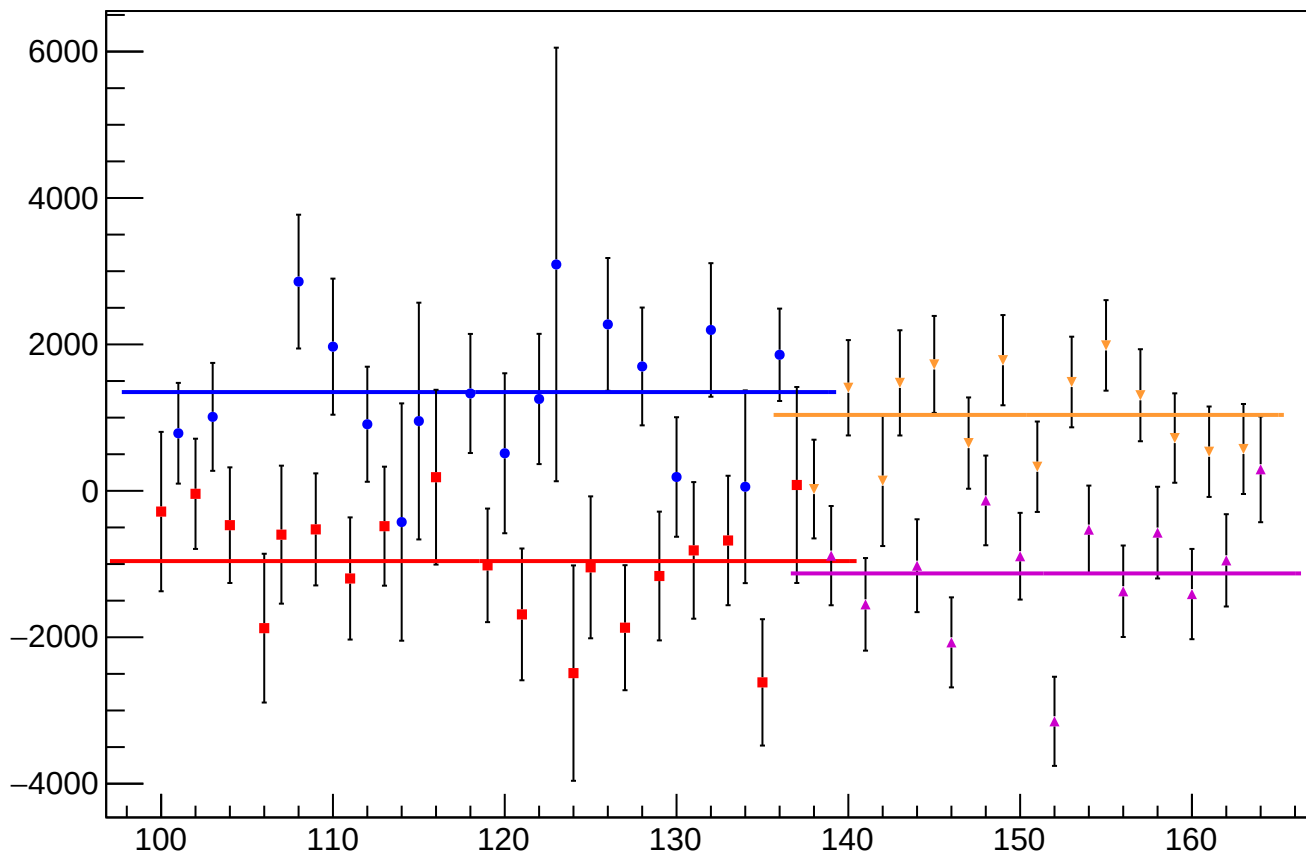
Left In: 941.059+/-0.208  $\chi^2/\text{NDF}$ :201024.8/12

+ sign 968.355+/-0.167  $\chi^2/\text{NDF}$ : 571979.9/30

All: 975.159+/-0.118  $\chi^2/\text{NDF}$ : 1117749.6/62

- sign 982.047+/-0.168  $\chi^2/\text{NDF}$ : 542412.8/31

# reg\_asym\_right\_dd\_mean vs Slug



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

Left Out: 1037.083 $\pm$ 172.609  $\chi^2$ /NDF:12.8/13

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

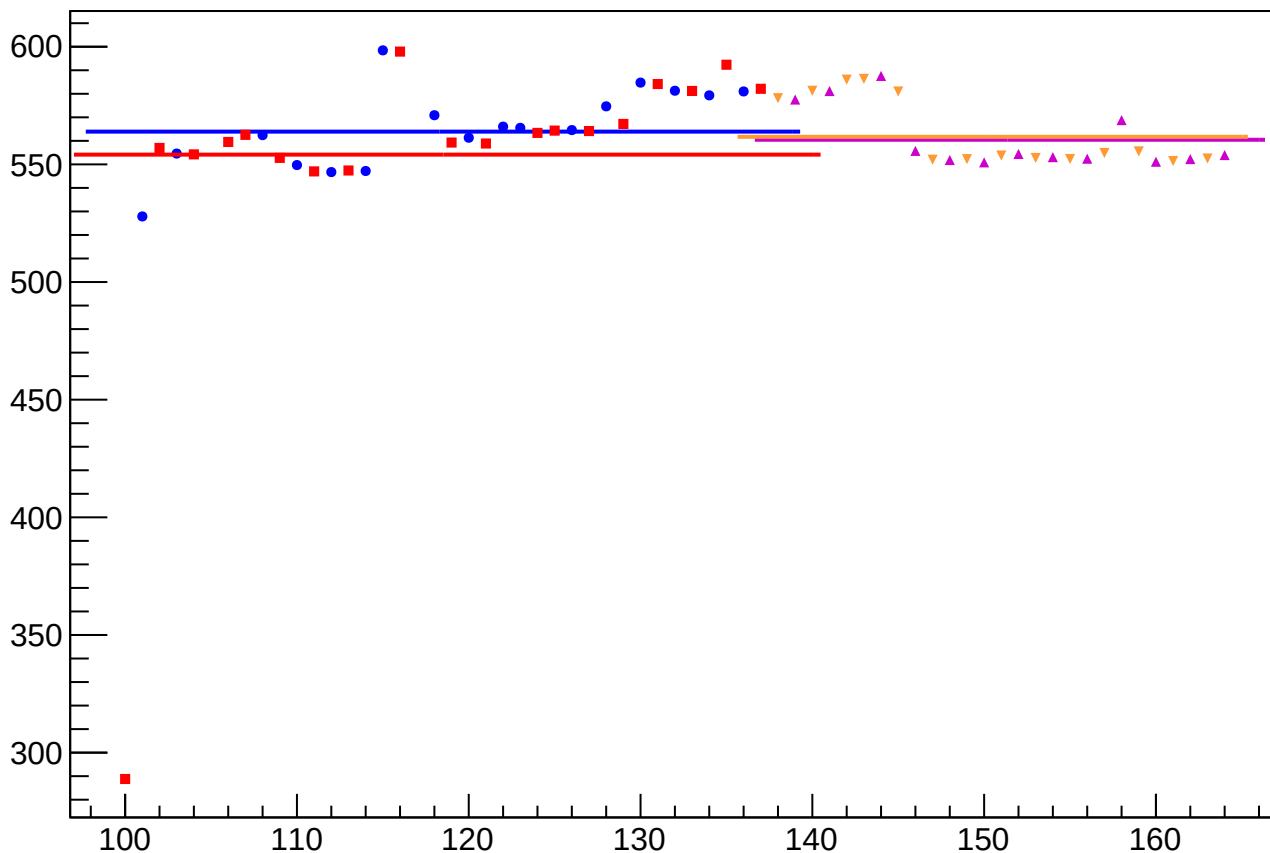
Left In: -1127.988 $\pm$ 174.195  $\chi^2$ /NDF:22.9/12

+ sign 1157.093 $\pm$ 135.412  $\chi^2$ /NDF: 26.3/30

All: 34.213 $\pm$ 95.098  $\chi^2$ /NDF: 197.5/62

- sign -1058.586 $\pm$ 133.586  $\chi^2$ /NDF: 35.5/31

# reg\_asym\_right\_dd\_rms vs Slug



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

Left Out:  $561.714 \pm 0.122$   $\chi^2/\text{NDF}$ : 12146.1/13

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

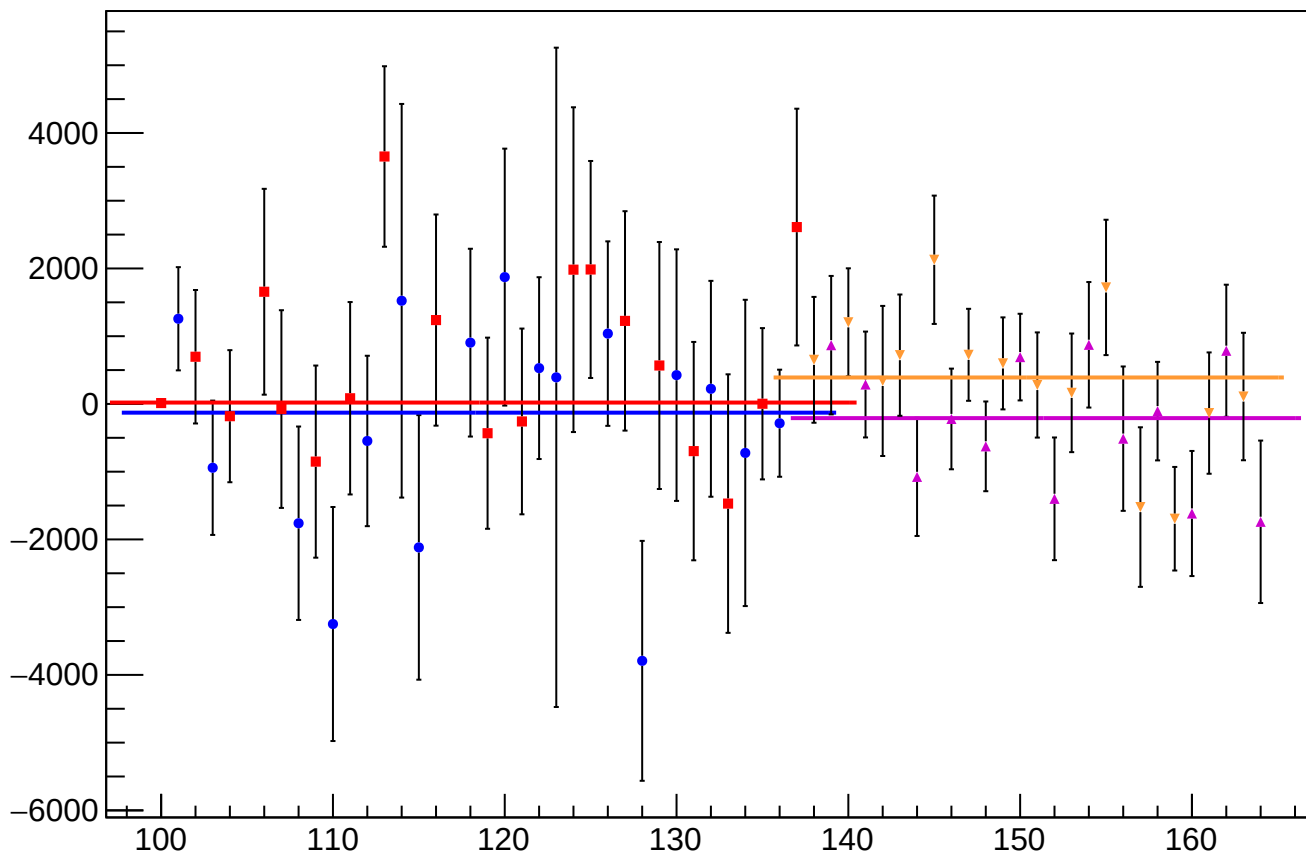
Left In:  $560.464 \pm 0.123$   $\chi^2/\text{NDF}$ : 10259.8/12

+ sign  $562.563 \pm 0.096$   $\chi^2/\text{NDF}$ : 24935.1/30

All:  $560.180 \pm 0.067$   $\chi^2/\text{NDF}$ : 169466.3/62

- sign  $557.861 \pm 0.094$   $\chi^2/\text{NDF}$ : 143309.2/31

# asym\_right\_dd\_correction\_mean vs Slug



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

Left Out:  $390.663 \pm 229.294$   $\chi^2/\text{NDF}$ : 17.3/13

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

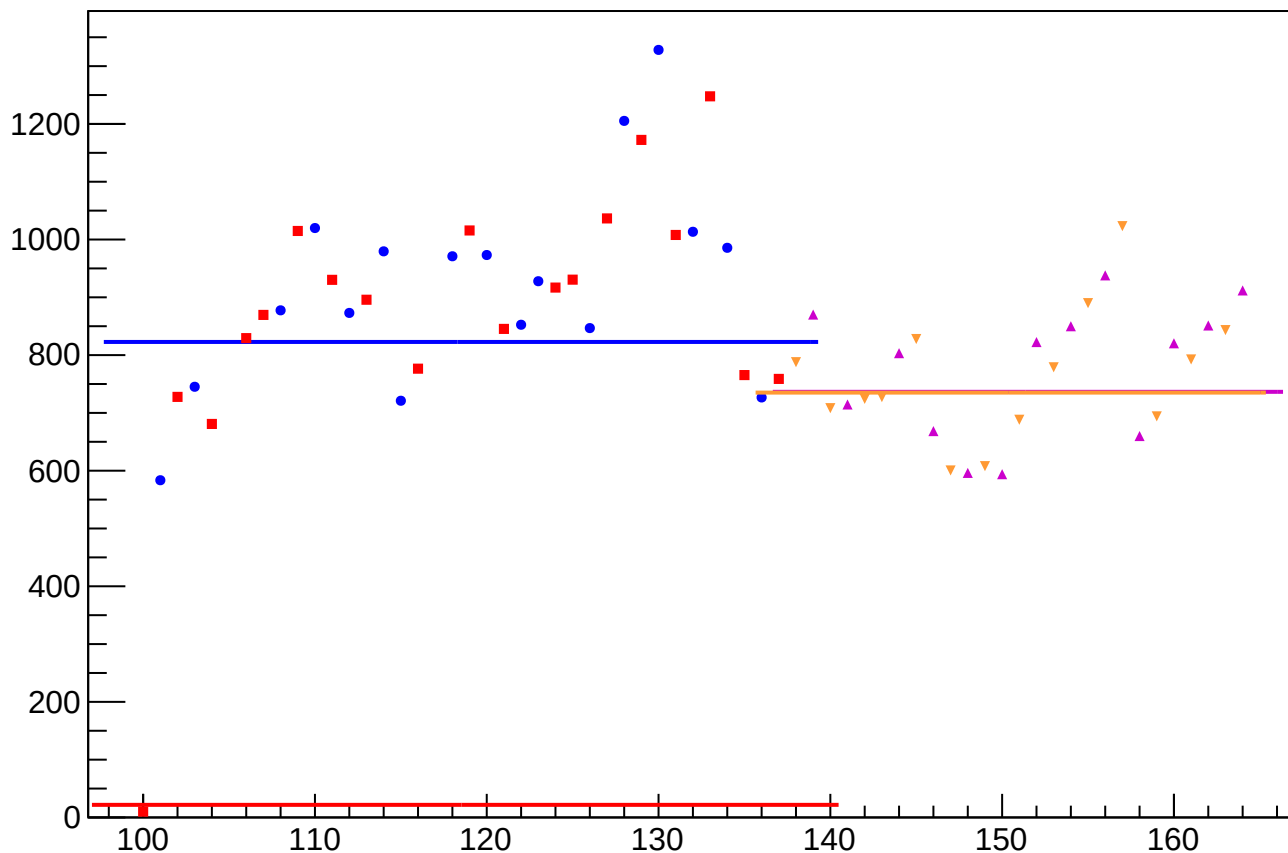
Left In:  $-209.304 \pm 232.372$   $\chi^2/\text{NDF}$ : 13.1/12

+ sign  $219.945 \pm 187.868$   $\chi^2/\text{NDF}$ : 36.2/30

All:  $22.368 \pm 37.639$   $\chi^2/\text{NDF}$ : 67.5/62

- sign  $14.106 \pm 38.418$   $\chi^2/\text{NDF}$ : 30.1/31

# asym\_right\_dd\_correction\_rms vs Slug



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

Left Out: 735.146 $\pm$ 0.162  $\chi^2$ /NDF: 397517.9/13

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

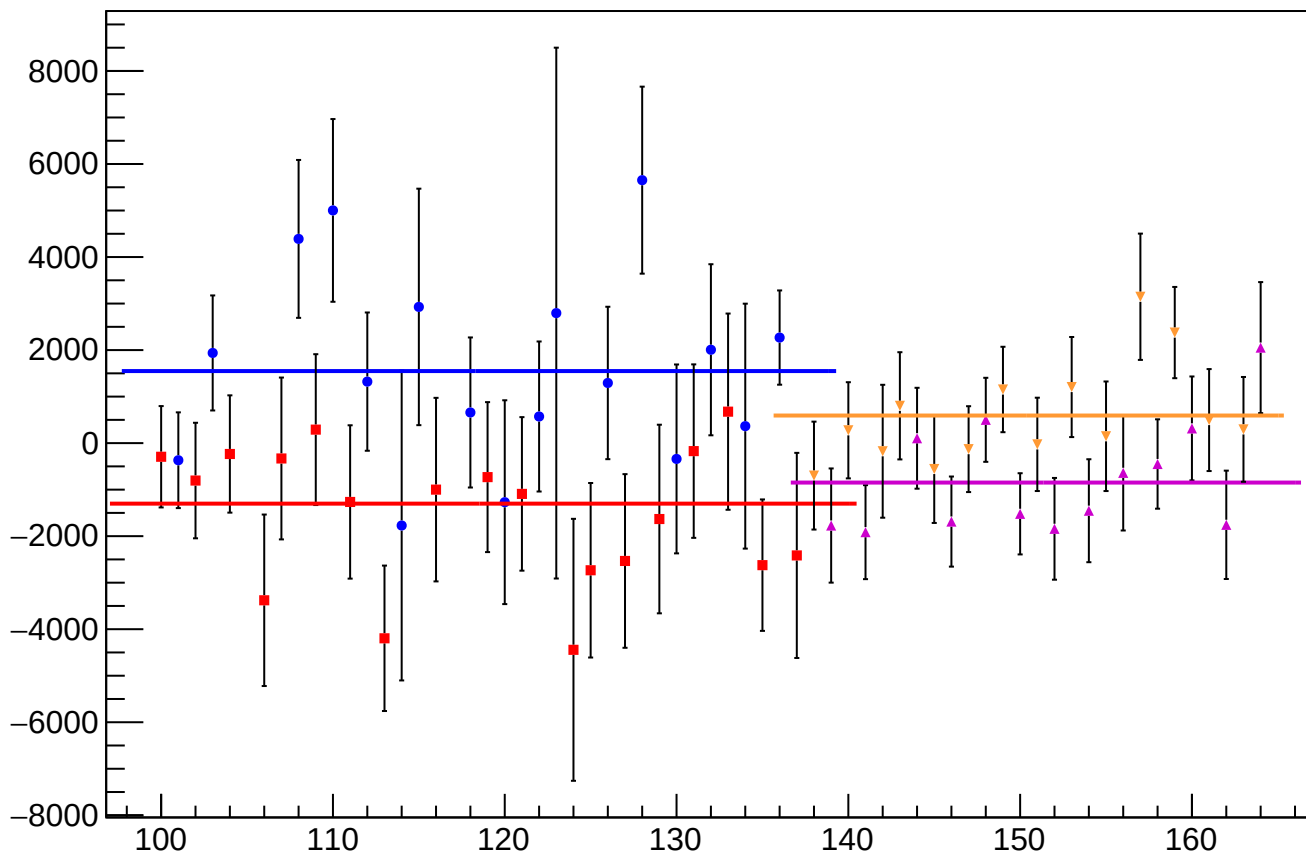
Left In: 736.477 $\pm$ 0.164  $\chi^2$ /NDF: 482058.3/12

+ sign 763.950 $\pm$ 0.133  $\chi^2$ /NDF: 1094414.6/30

All: 70.352 $\pm$ 0.027  $\chi^2$ /NDF: 61901418.7/62

- sign 41.347 $\pm$ 0.027  $\chi^2$ /NDF: 32406158.0/31

# asym\_right\_dd\_mean vs Slug



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

Left Out: 593.195 $\pm$ 291.020  $\chi^2/\text{NDF}$ : 11.4/13

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

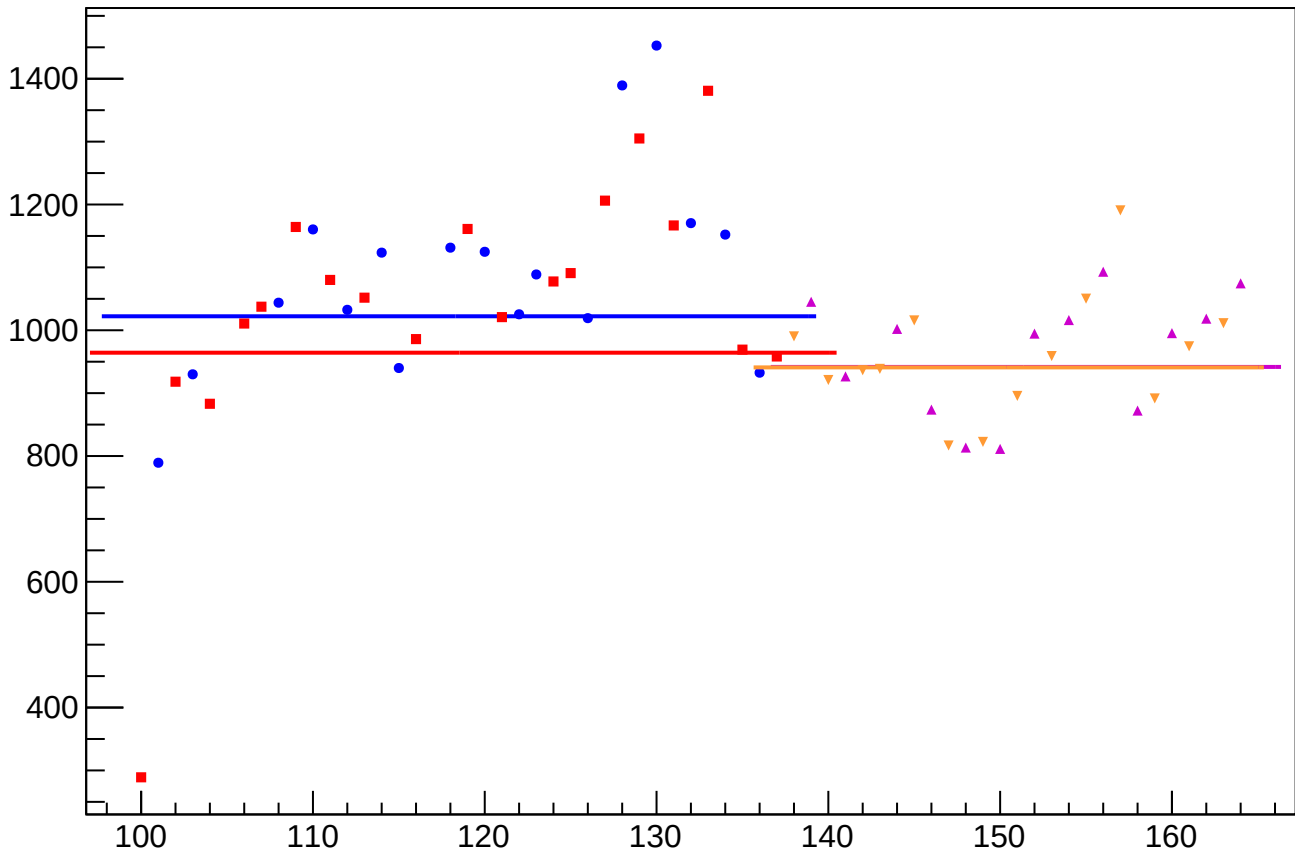
Left In: -847.942 $\pm$ 294.499  $\chi^2/\text{NDF}$ : 13.3/12

+ sign 921.810 $\pm$ 235.734  $\chi^2/\text{NDF}$ : 34.1/30

All: -65.270 $\pm$ 165.302  $\chi^2/\text{NDF}$ : 95.3/62

- sign -1020.157 $\pm$ 231.858  $\chi^2/\text{NDF}$ : 26.7/31

# asym\_right\_dd\_rms vs Slug



Right In: 1022.241+/-0.284  $\chi^2/\text{NDF}$ : 331865.9/16

Left Out: 940.952+/-0.206  $\chi^2/\text{NDF}$ :186515.1/13

+ sign 968.904+/-0.167  $\chi^2/\text{NDF}$ : 572038.1/30

Right Out: 964.330+/-0.266  $\chi^2/\text{NDF}$ : 1067281.2/18

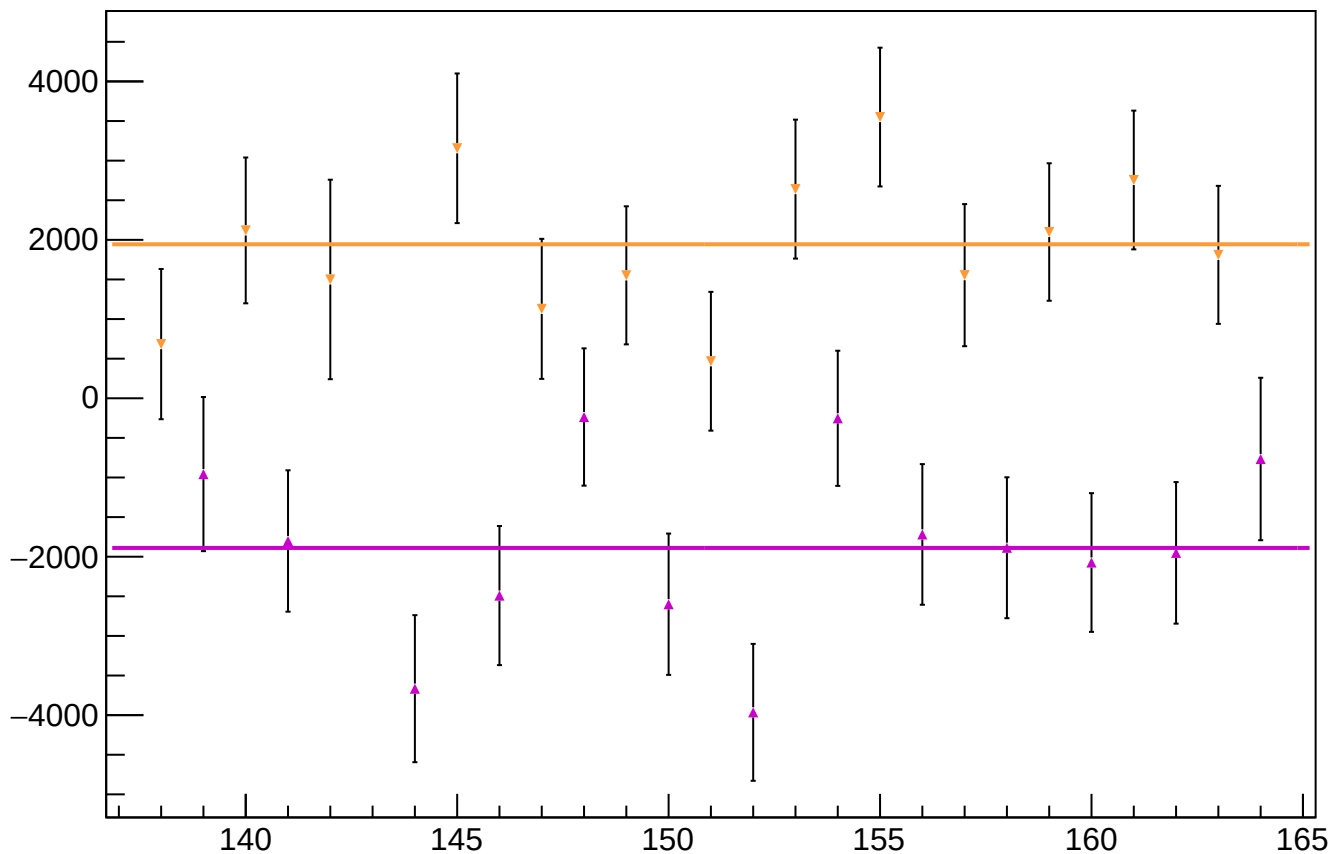
All: 959.450+/-0.117  $\chi^2/\text{NDF}$ : 1851022.6/62

- sign 950.304+/-0.164  $\chi^2/\text{NDF}$ : 1272656.1/31

Left In: 941.702+/-0.208  $\chi^2/\text{NDF}$ :200886.4/12



# cor\_asym\_us\_avg\_mean vs Slug



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

Left Out: 1944.133+/-252.061  $\chi^2/\text{NDF}$ : 12.6/12

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

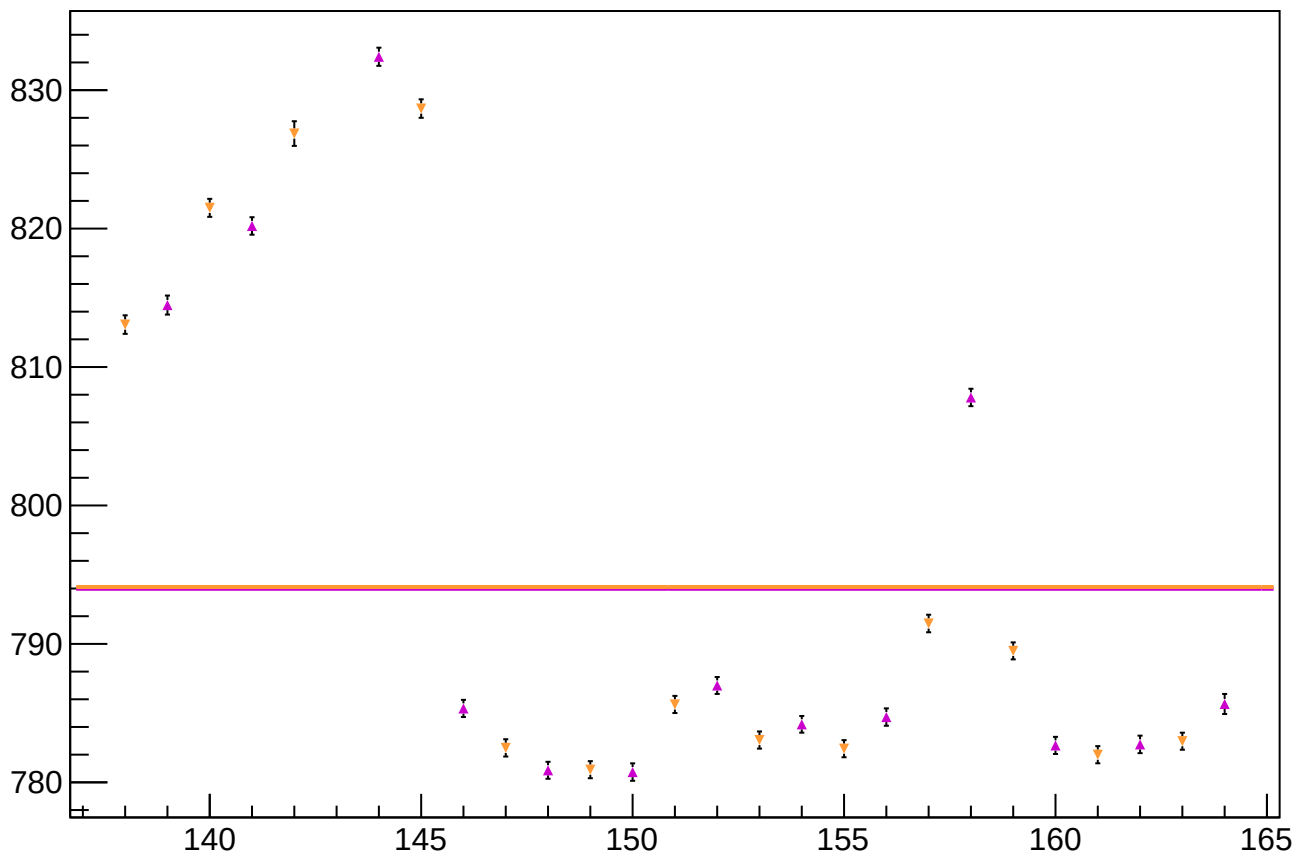
Left In: -1889.325+/-249.123  $\chi^2/\text{NDF}$ : 20.1/12

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

All: 4.930+/-177.186  $\chi^2/\text{NDF}$ : 149.6/25

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

# cor\_asym\_us\_avg\_rms vs Slug



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

Left Out: 794.112+/-0.178  $\chi^2/\text{NDF}$ : 9049.1/12

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

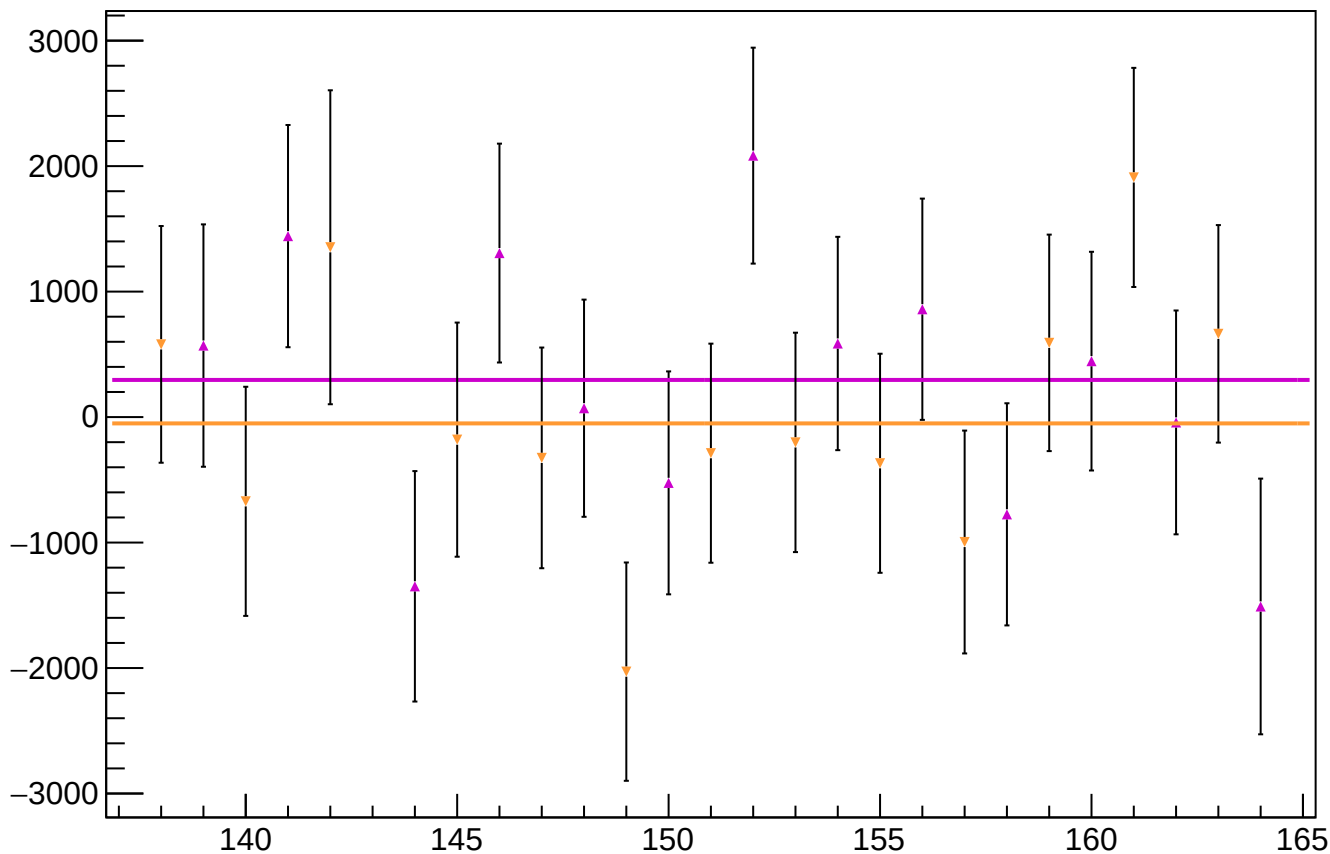
Left In: 793.982+/-0.176  $\chi^2/\text{NDF}$ : 9010.1/12

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

All: 794.046+/-0.125  $\chi^2/\text{NDF}$ : 18059.5/25

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

# cor\_asym\_us\_dd\_mean vs Slug



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

Left Out: -50.380 $\pm$ 250.680  $\chi^2$ /NDF:15.1/12

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

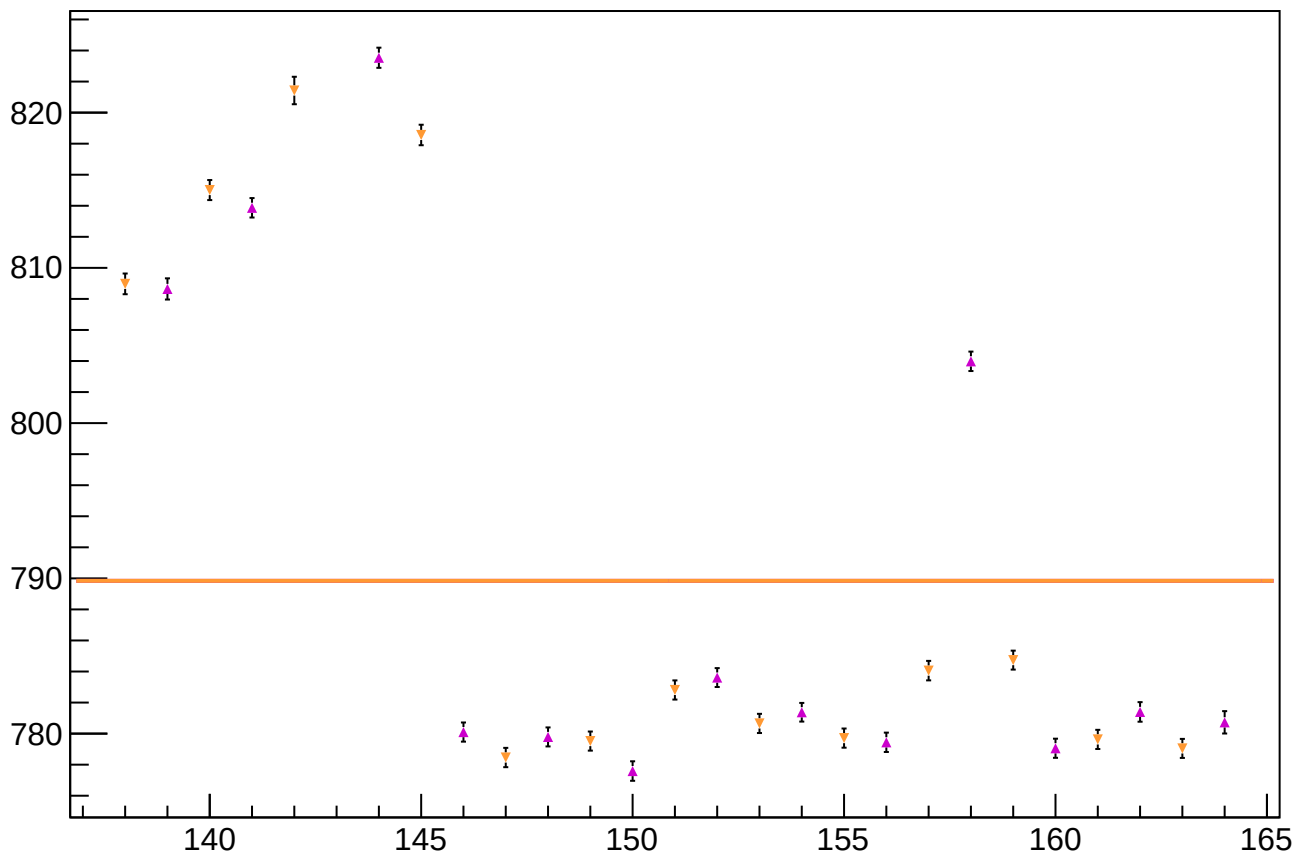
Left In: 296.055 $\pm$ 247.809  $\chi^2$ /NDF:16.8/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 124.833 $\pm$ 176.234  $\chi^2$ /NDF: 32.9/25

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# cor\_asym\_us\_dd\_rms vs Slug



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

Left Out: 789.841+/-0.177  $\chi^2/\text{NDF}$ : 7487.0/12

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

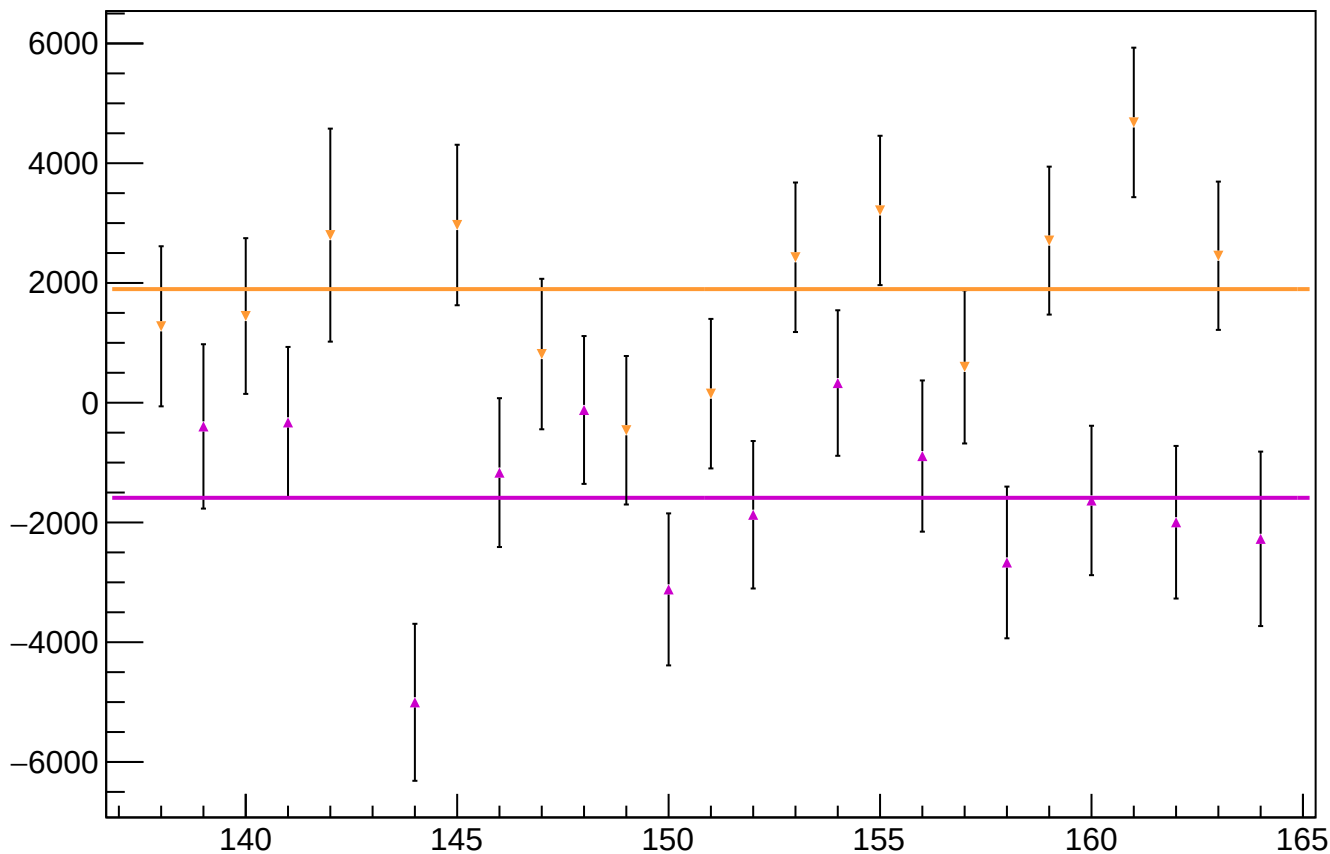
Left In: 789.838+/-0.175  $\chi^2/\text{NDF}$ : 7560.1/12

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

All: 789.840+/-0.125  $\chi^2/\text{NDF}$ : 15047.1/25

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

# cor\_asym\_usl\_mean vs Slug



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

Left Out: 1897.374+/-358.228  $\chi^2/\text{NDF}$ : 15.5/12

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

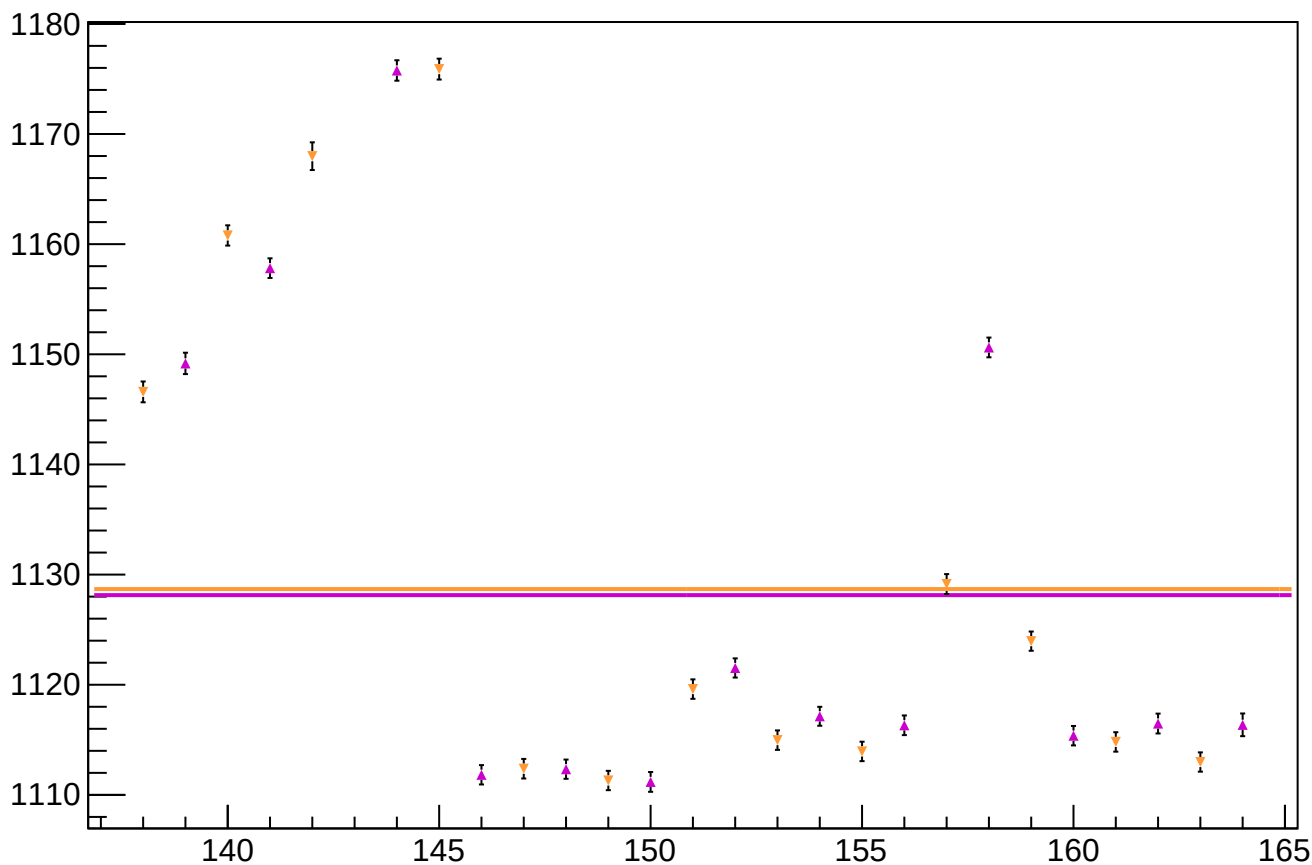
Left In: -1588.284+/-353.945  $\chi^2/\text{NDF}$ : 15.4/12

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

All: 133.583+/-251.777  $\chi^2/\text{NDF}$ : 78.8/25

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

# cor\_asym\_usl\_rms vs Slug



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

Left Out: 1128.687+/-0.253  $\chi^2/\text{NDF}$ : 6988.7/12

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

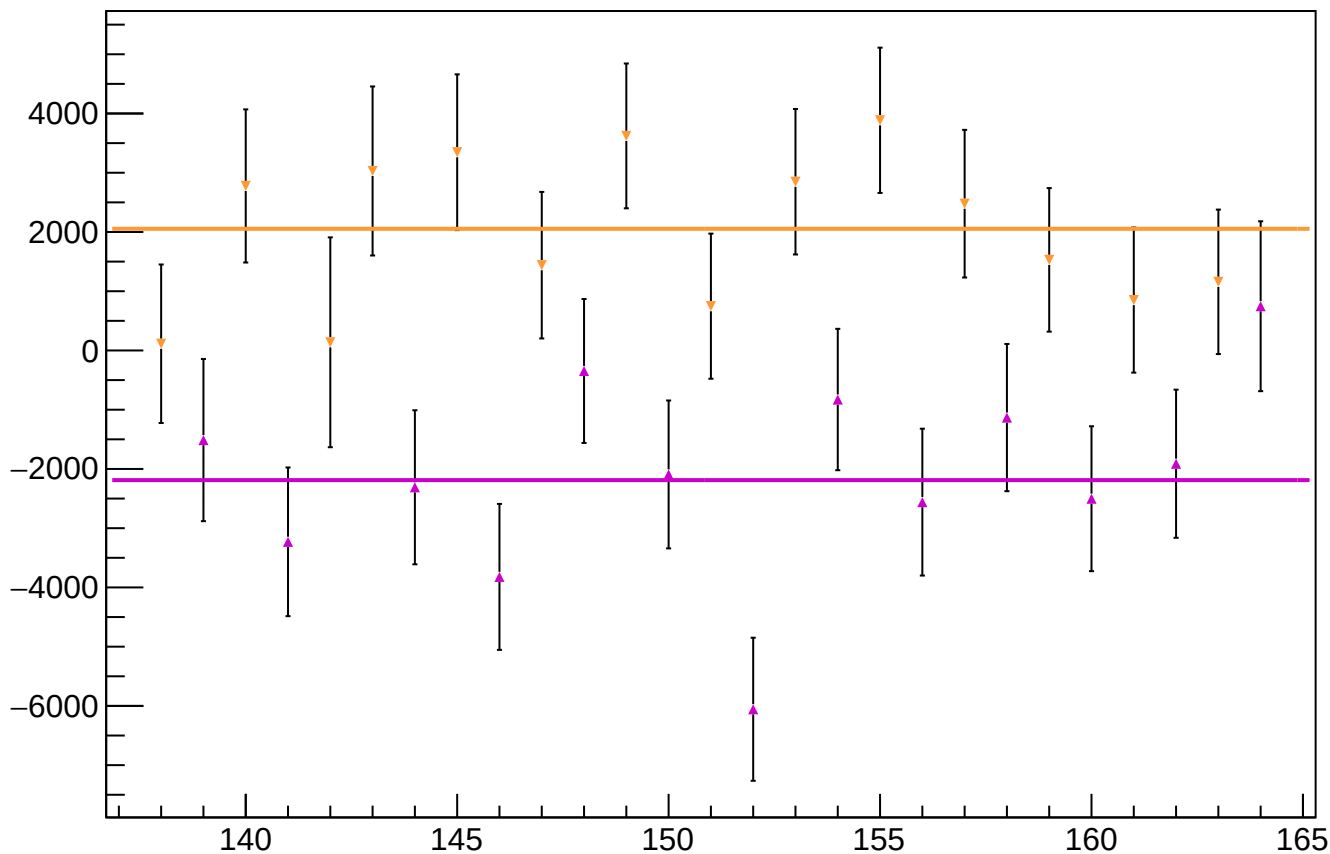
Left In: 1128.137+/-0.250  $\chi^2/\text{NDF}$ : 6782.8/12

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

All: 1128.408+/-0.178  $\chi^2/\text{NDF}$ : 13773.8/25

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

# cor\_asym\_usr\_mean vs Slug



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

Left Out: 2053.744+/-342.435  $\chi^2/\text{NDF}$ :12.5/13

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

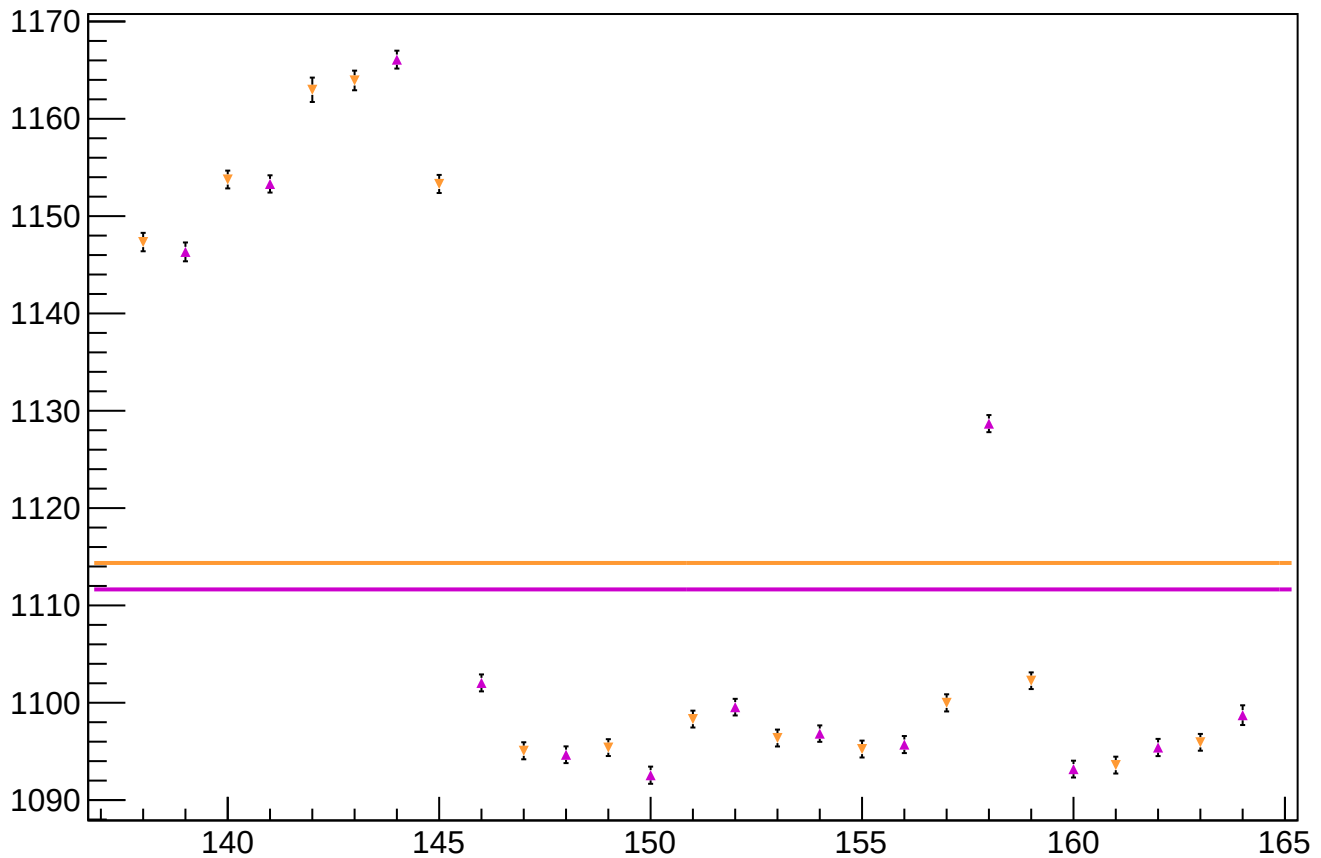
Left In: -2188.612+/-348.799  $\chi^2/\text{NDF}$ :21.7/12

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

All: -28.374+/-244.357  $\chi^2/\text{NDF}$ : 109.5/26

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

# cor\_asym\_usr\_rms vs Slug



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

Left Out: 1114.362+/-0.242  $\chi^2/\text{NDF}$ : 12474.8/13

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

Left In: 1111.644+/-0.247  $\chi^2/\text{NDF}$ : 10145.4/12

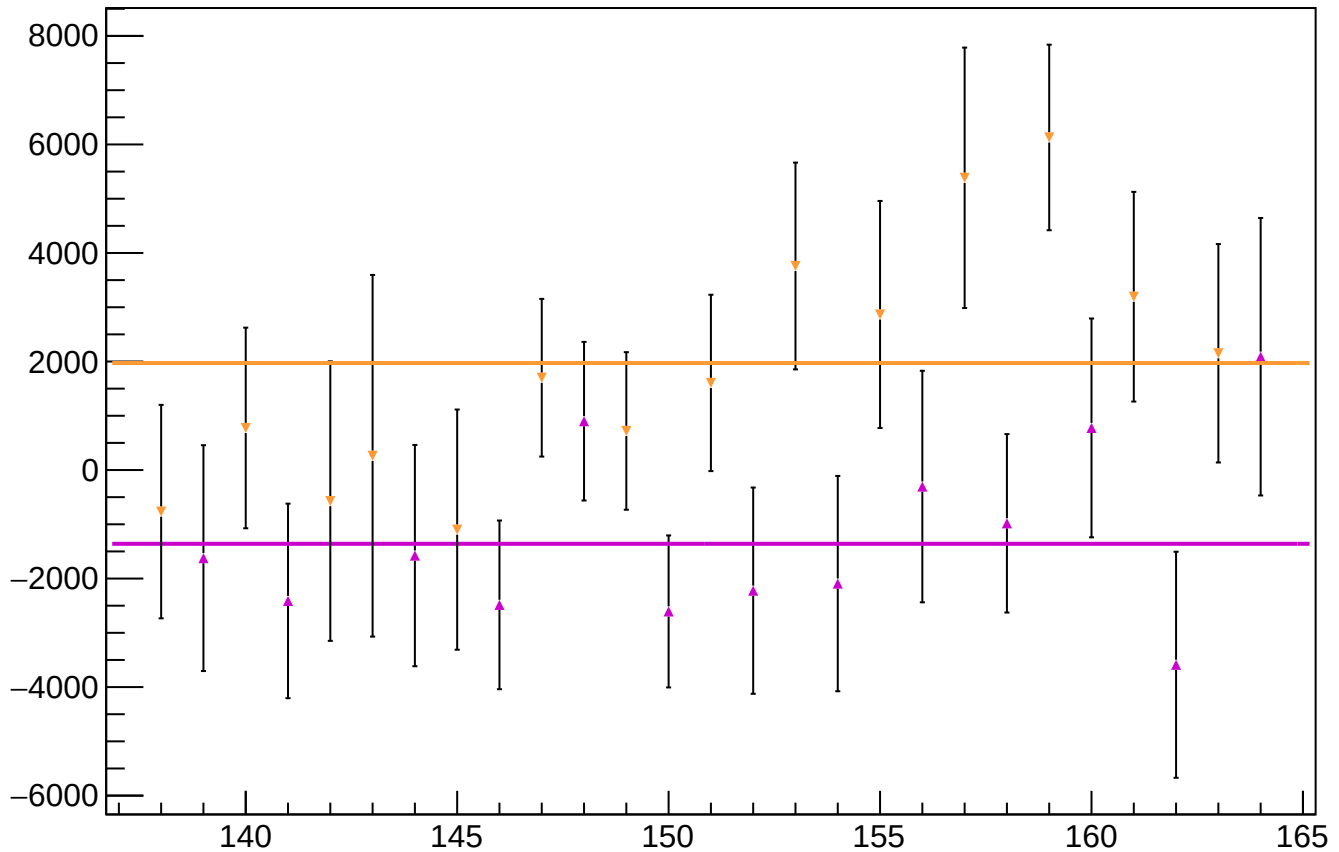
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 1113.028+/-0.173  $\chi^2/\text{NDF}$ : 22682.0/26

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



# asym\_us\_agg\_avg\_mean vs Slug



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

Left Out: 1972.057+/-509.193  $\chi^2/\text{NDF}$ : 15.8/13

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

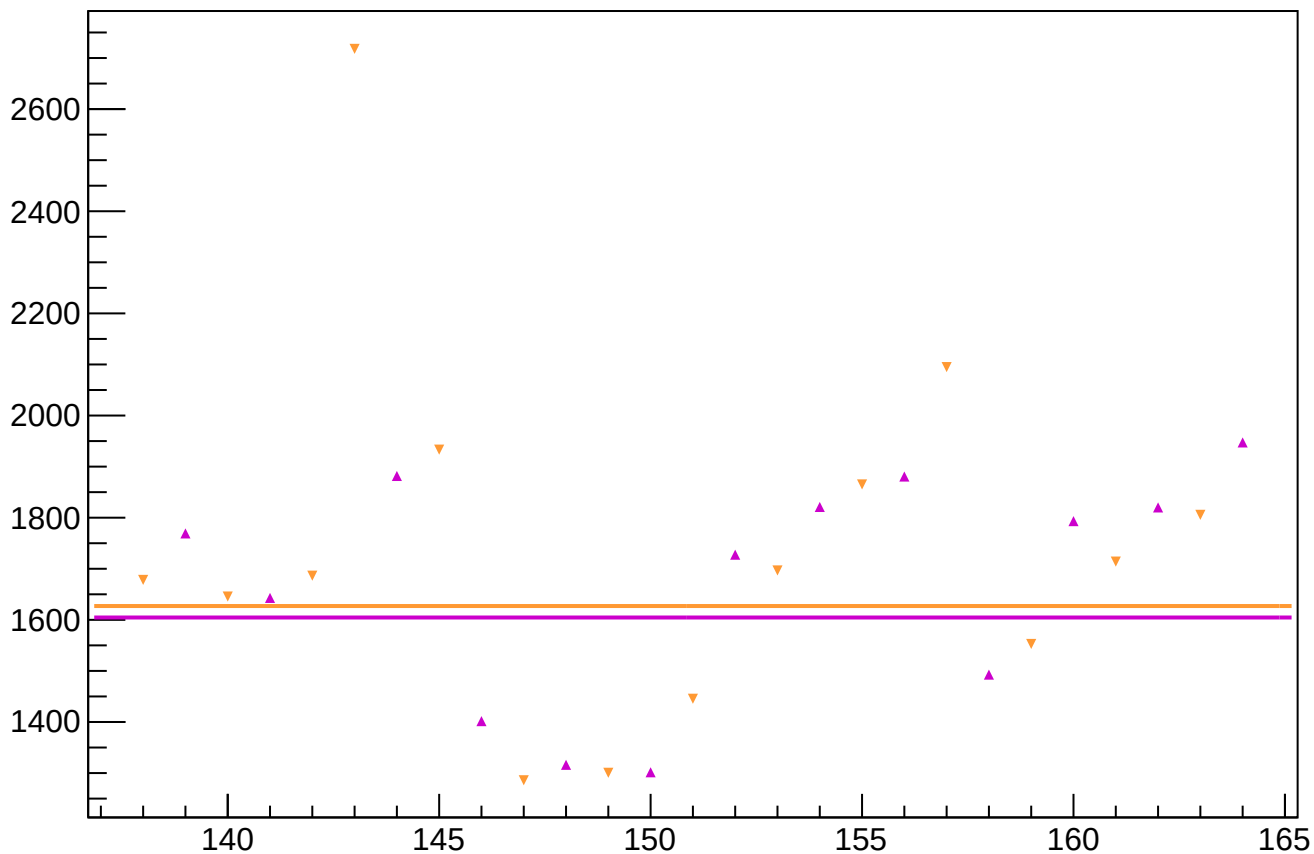
Left In: -1359.362+/-504.814  $\chi^2/\text{NDF}$ : 8.8/12

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

All: 291.959+/-358.496  $\chi^2/\text{NDF}$ : 46.1/26

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

# asym\_us\_agg\_avg\_rms vs Slug



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

Left Out: 1627.036+/-0.360  $\chi^2/\text{NDF}$ : 619662.5/13

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

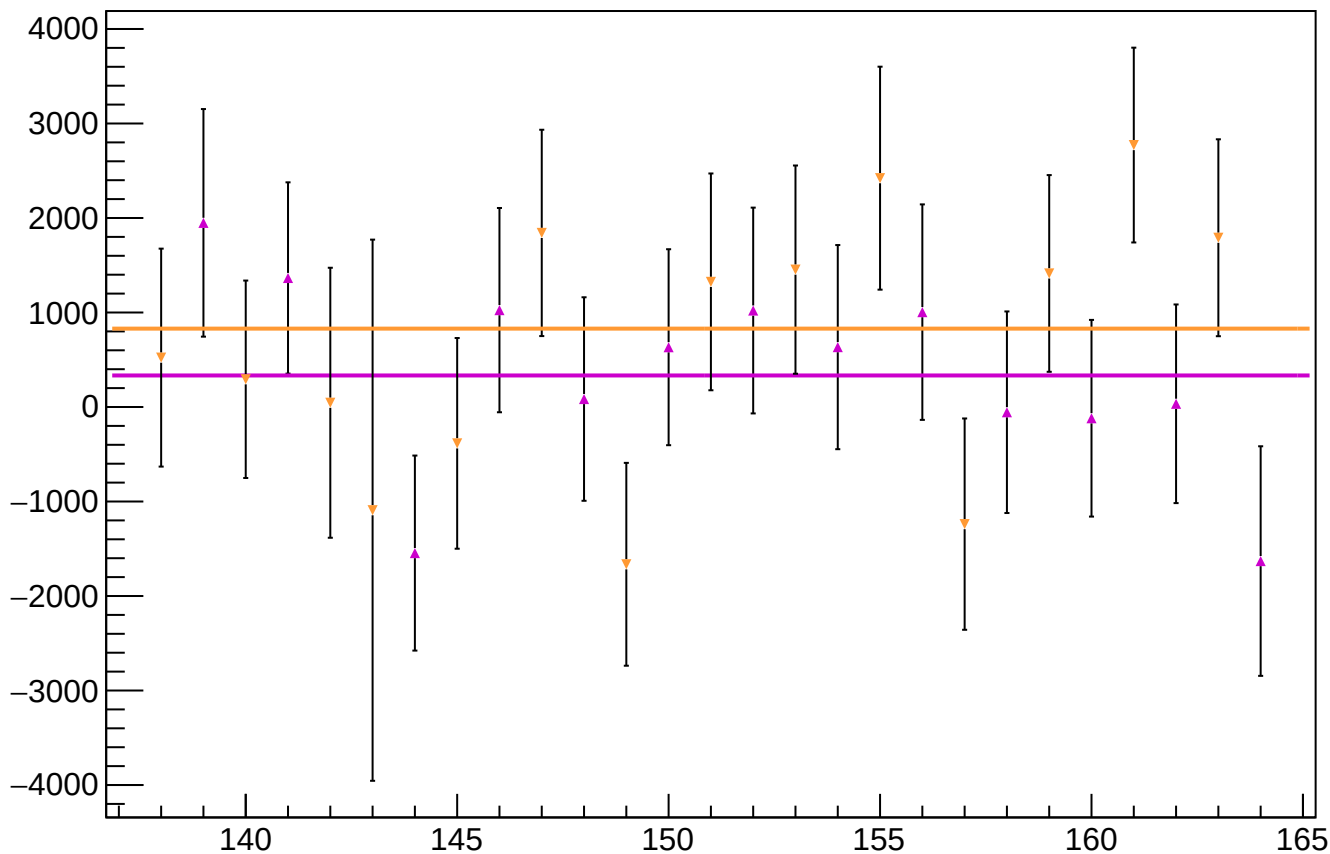
Left In: 1604.572+/-0.357  $\chi^2/\text{NDF}$ : 405711.1/12

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

All: 1615.707+/-0.253  $\chi^2/\text{NDF}$ : 1027336.8/20

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

# asym\_us\_agg\_dd\_mean vs Slug



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

Left Out: 829.406+/-305.982  $\chi^2/\text{NDF}$ : 19.0/13

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

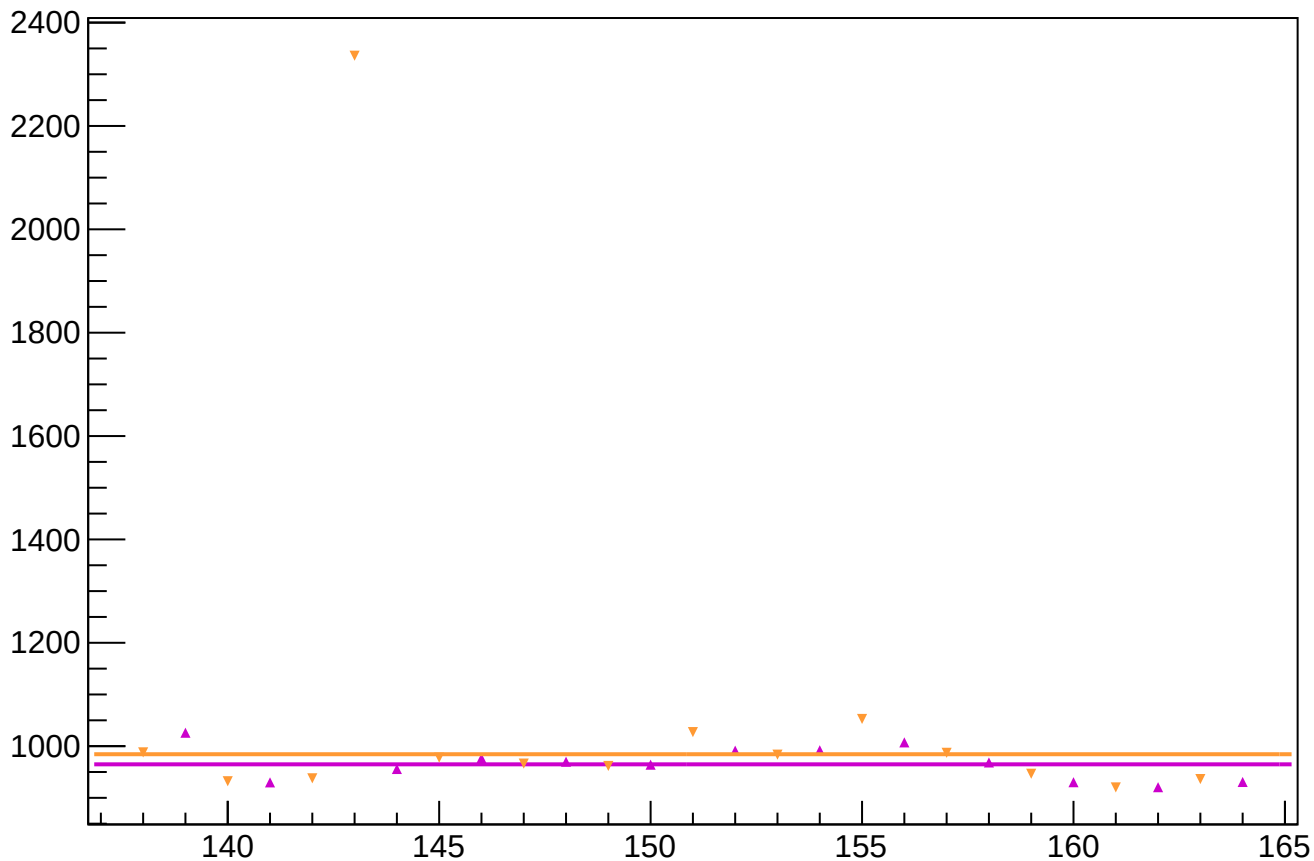
Left In: 333.759+/-300.021  $\chi^2/\text{NDF}$ : 10.5/12

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

All: 576.707+/-214.223  $\chi^2/\text{NDF}$ : 30.9/26

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

# asym\_us\_agg\_dd\_rms vs Slug



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

Left Out: 984.385+/-0.216  $\chi^2/\text{NDF}$ : 478446.5/13

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

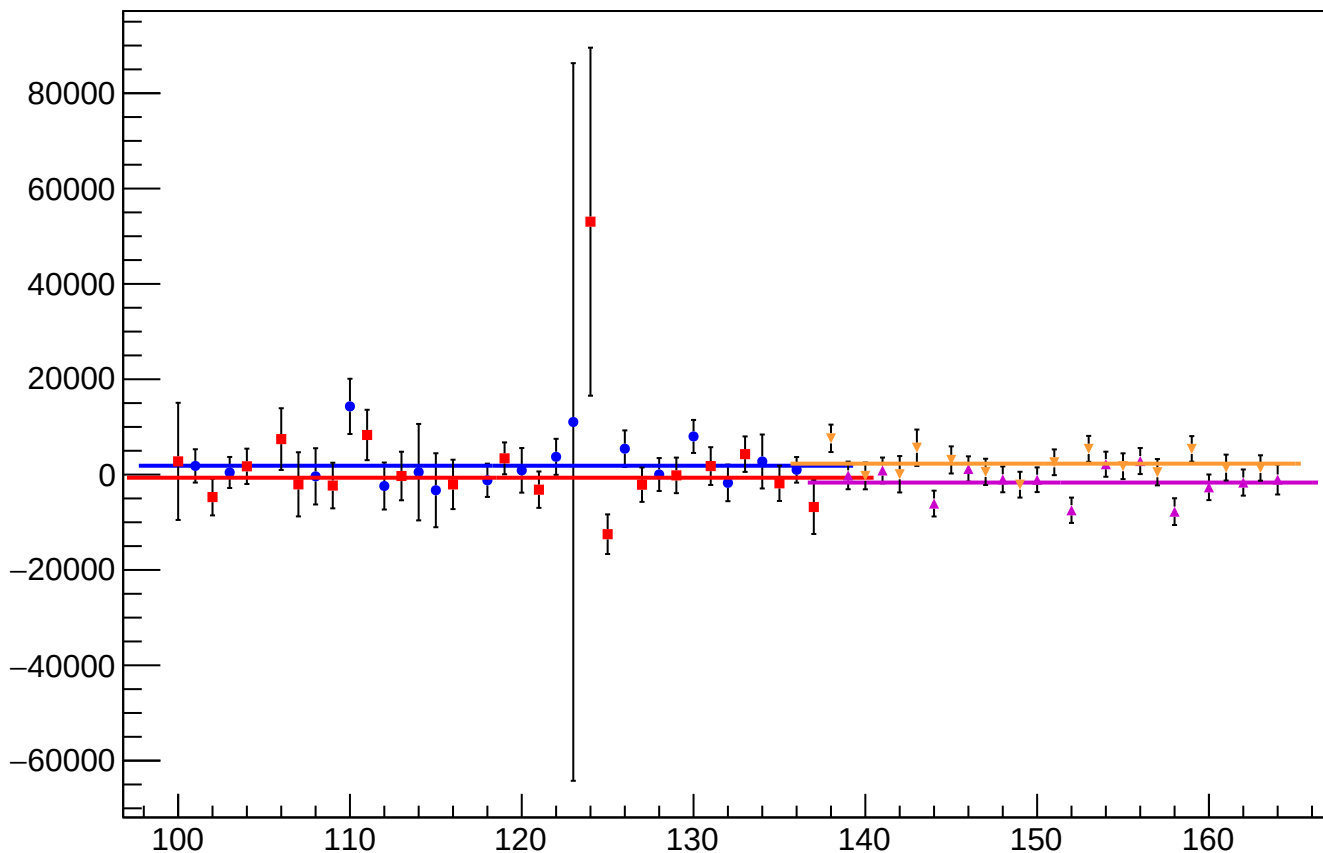
Left In: 964.835+/-0.212  $\chi^2/\text{NDF}$ : 20557.7/12

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

All: 974.418+/-0.151  $\chi^2/\text{NDF}$ : 503166.4/26

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

# reg\_asym\_atl1\_mean vs Slug



Right In:  $1859.767 \pm 1013.438$   $\chi^2/\text{NDF}$ : 12.5/16

Left Out:  $2296.274 \pm 759.617$   $\chi^2/\text{NDF}$ : 11.8/13

Right Out:  $-654.213 \pm 1023.772$   $\chi^2/\text{NDF}$ : 22.1/18

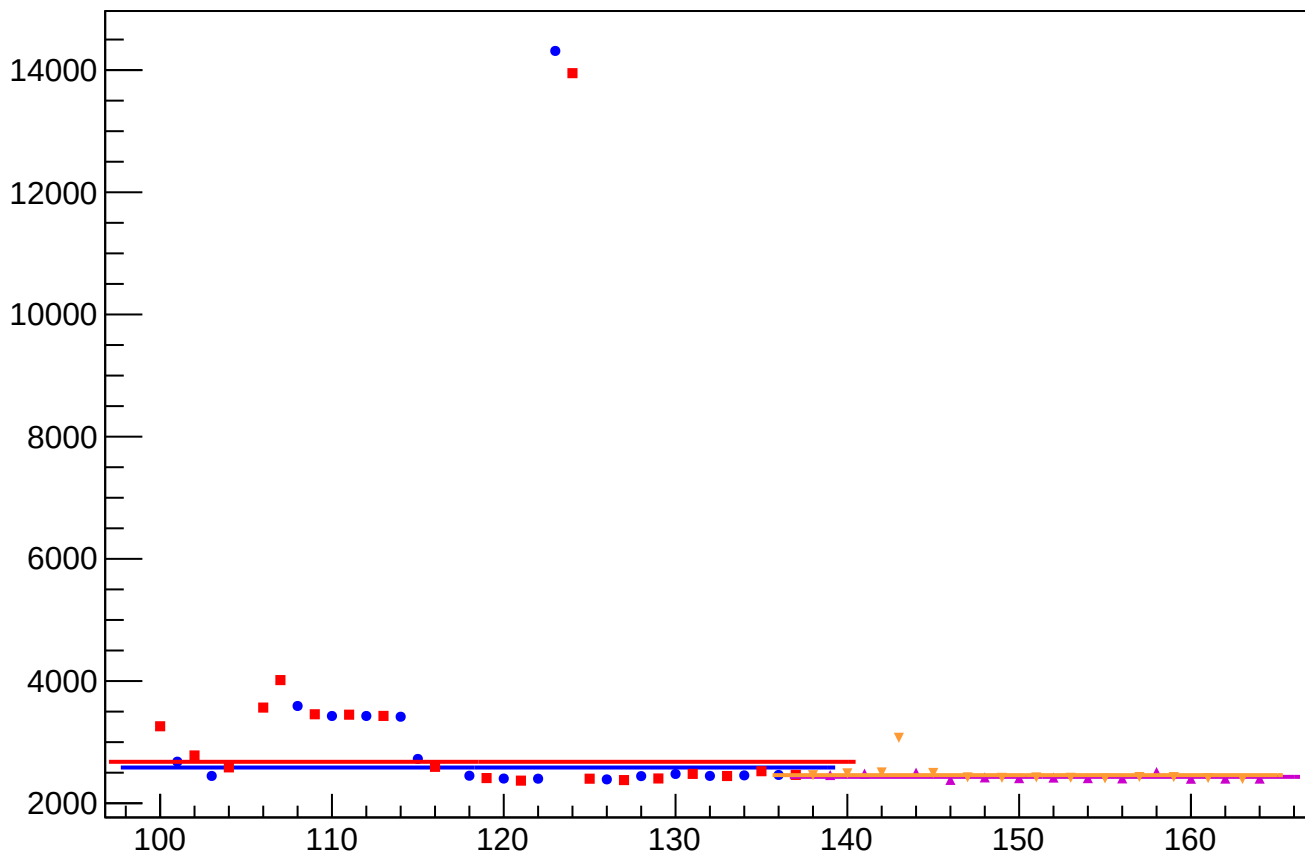
Left In:  $-1668.800 \pm 758.207$   $\chi^2/\text{NDF}$ : 19.6/12

+ sign  $2139.254 \pm 607.827$   $\chi^2/\text{NDF}$ : 24.4/30

All:  $419.100 \pm 430.320$   $\chi^2/\text{NDF}$ : 82.8/62

- sign  $-1309.424 \pm 609.304$   $\chi^2/\text{NDF}$ : 42.3/31

# reg\_asym\_atl1\_rms vs Slug



Right In:  $2584.819 \pm 0.717$   $\chi^2/\text{NDF}$ : 255710.5/16

Left Out:  $2459.903 \pm 0.537$   $\chi^2/\text{NDF}$ : 57213.8/13

Right Out:  $2678.229 \pm 0.724$   $\chi^2/\text{NDF}$ : 532096.9/18

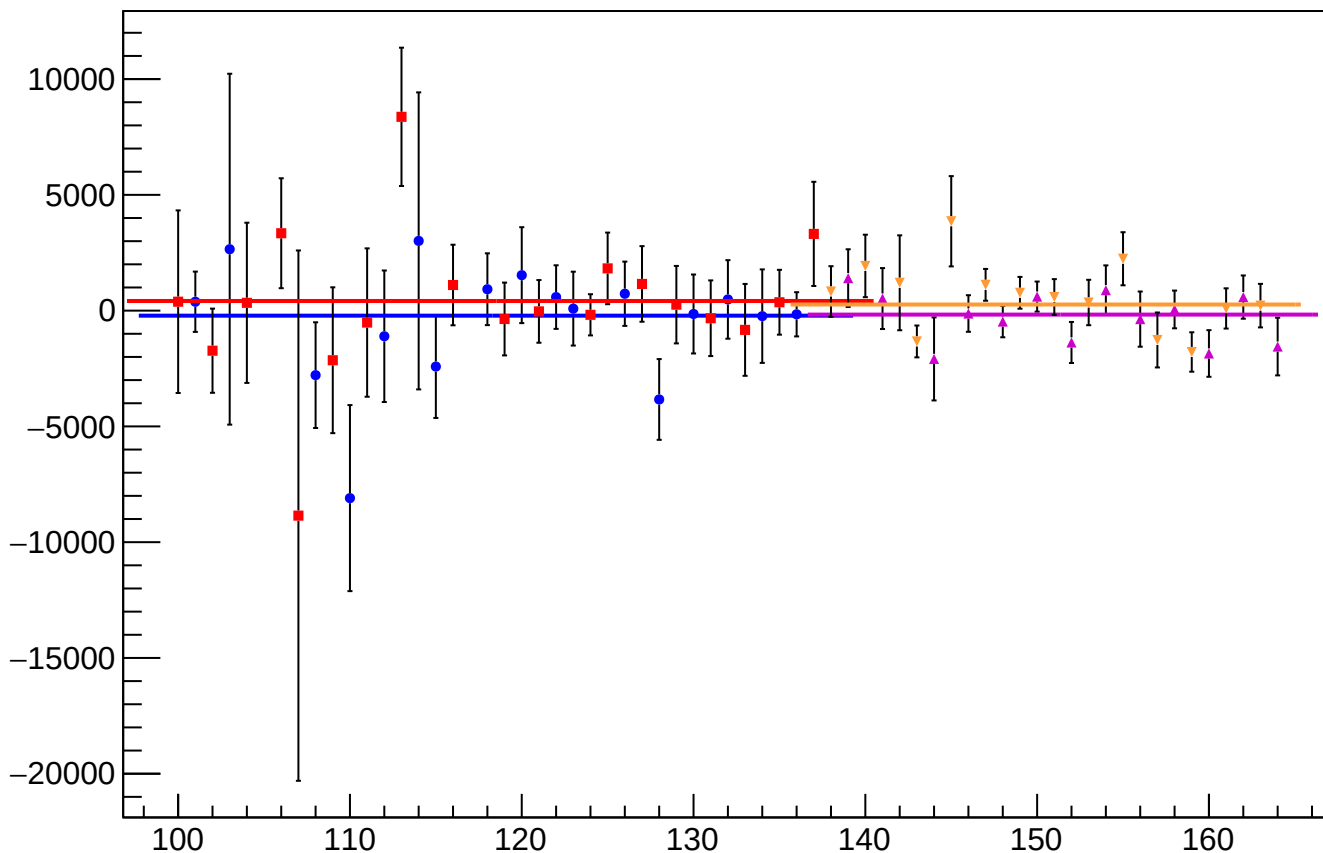
Left In:  $2431.918 \pm 0.536$   $\chi^2/\text{NDF}$ : 5739.6/12

+ sign  $2504.838 \pm 0.430$   $\chi^2/\text{NDF}$ : 332379.6/30

All:  $2511.983 \pm 0.304$   $\chi^2/\text{NDF}$ : 945532.5/62

- sign  $2519.164 \pm 0.431$   $\chi^2/\text{NDF}$ : 612598.8/31

# asym\_atl1\_correction\_mean vs Slug



Right In:  $-217.017 \pm 420.077$   $\chi^2/\text{NDF}$ : 13.4/16

Left Out:  $264.395 \pm 247.932$   $\chi^2/\text{NDF}$ : 23.5/13

Right Out:  $417.202 \pm 408.976$   $\chi^2/\text{NDF}$ : 15.7/18

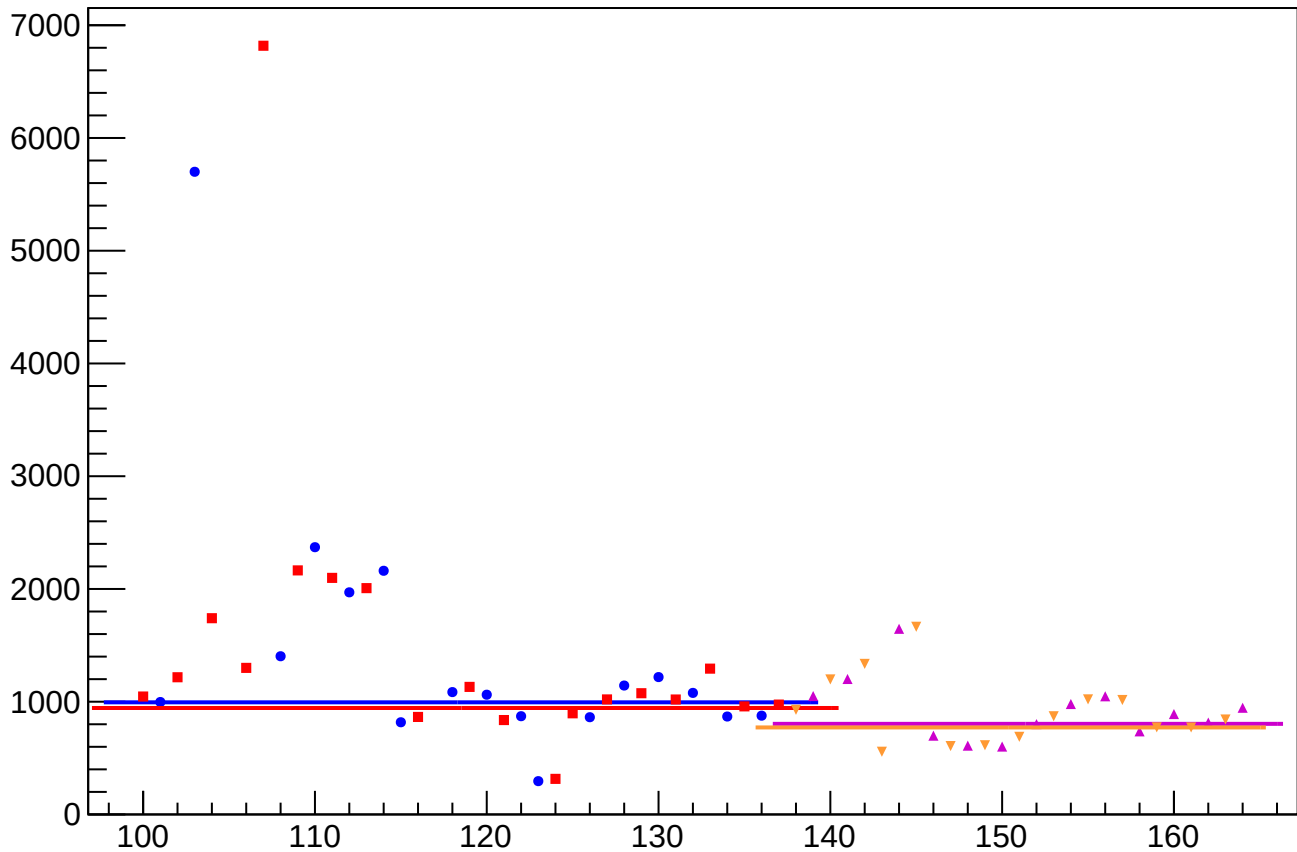
Left In:  $-171.228 \pm 259.898$   $\chi^2/\text{NDF}$ : 12.2/12

+ sign  $140.023 \pm 213.517$   $\chi^2/\text{NDF}$ : 37.9/30

All:  $70.948 \pm 153.001$   $\chi^2/\text{NDF}$ : 67.5/62

- sign  $-1.955 \pm 219.353$   $\chi^2/\text{NDF}$ : 29.4/31

# asym\_atl1\_correction\_rms vs Slug



Right In: 994.541+/-0.297  $\chi^2/\text{NDF}$ : 1904549.2/16

Left Out: 771.754+/-0.175  $\chi^2/\text{NDF}$ :1462768.0/13

Right Out: 944.286+/-0.289  $\chi^2/\text{NDF}$ : 2666007.0/18

Left In: 803.643+/-0.184  $\chi^2/\text{NDF}$ :1285628.1/12

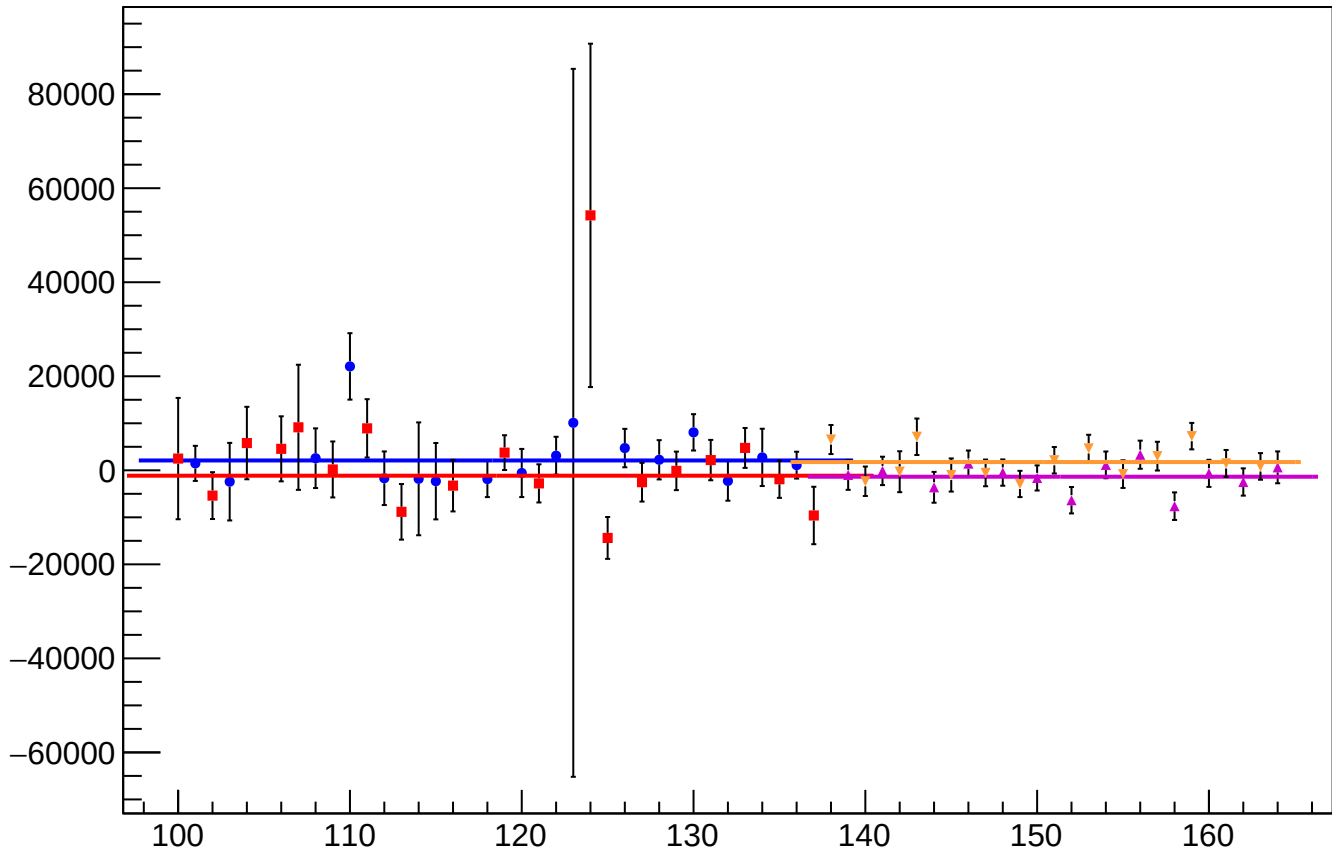
+ sign 829.310+/-0.151  $\chi^2/\text{NDF}$ : 3784524.9/30

All: 836.507+/-0.108  $\chi^2/\text{NDF}$ : 7909312.1/62

- sign 844.102+/-0.155  $\chi^2/\text{NDF}$ : 4120117.6/31



# asym\_atl1\_mean vs Slug



Right In: 2094.050+/-1160.426  $\chi^2/\text{NDF}$ : 14.6/16

Left Out: 1757.305+/-816.749  $\chi^2/\text{NDF}$ : 16.2/13

Right Out: -1147.788+/-1187.007  $\chi^2/\text{NDF}$ : 25.1/18

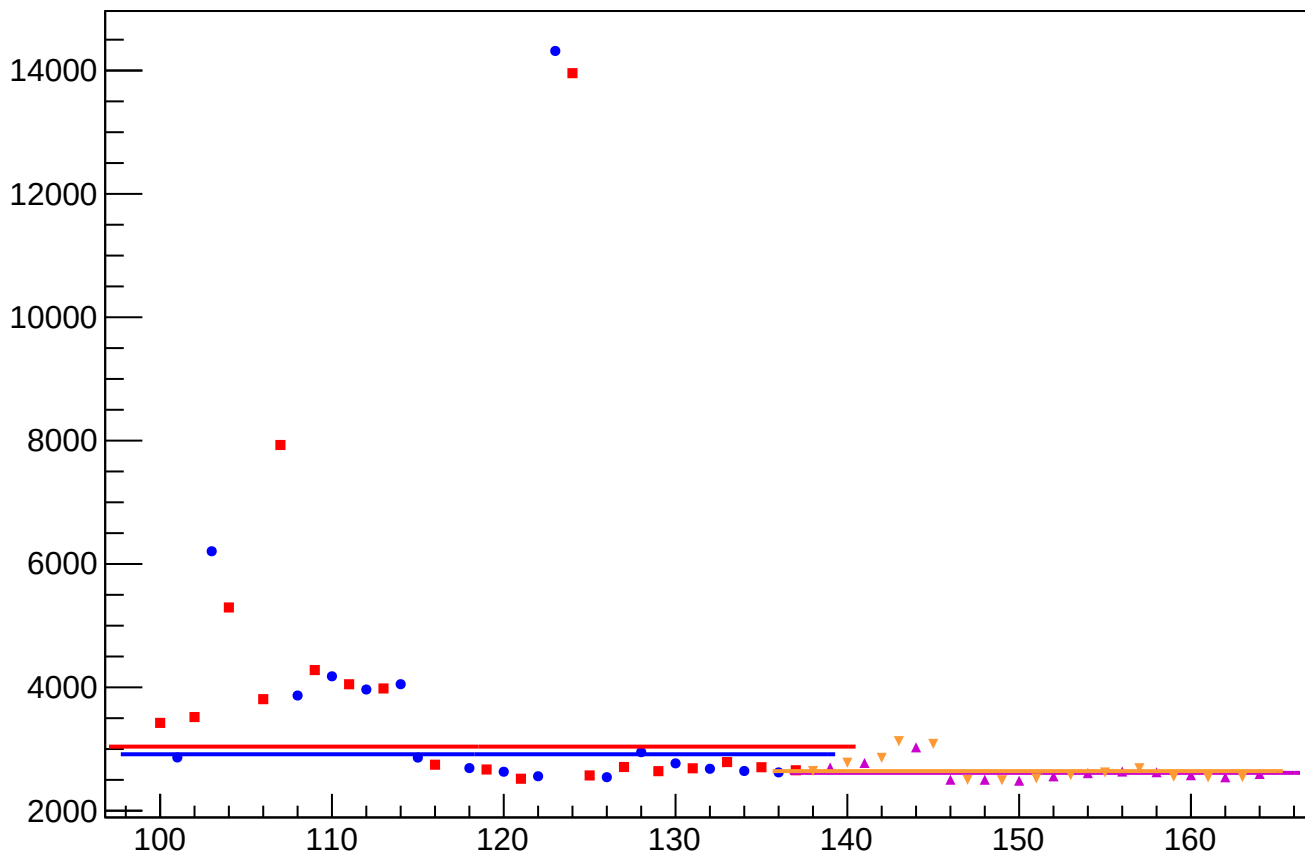
Left In: -1364.242+/-815.827  $\chi^2/\text{NDF}$ : 13.3/12

+ sign 1868.861+/-667.901  $\chi^2/\text{NDF}$ : 30.9/30

All: 297.507+/-473.839  $\chi^2/\text{NDF}$ : 80.5/62

- sign -1294.798+/-672.339  $\chi^2/\text{NDF}$ : 38.4/31

# asym\_atl1\_rms vs Slug



Right In: 2915.201+/-0.821  $\chi^2$ /NDF: 639136.4/16

Left Out: 2642.181+/-0.578  $\chi^2$ /NDF:94063.2/13

Right Out: 3039.139+/-0.839  $\chi^2$ /NDF: 1011383.0/18

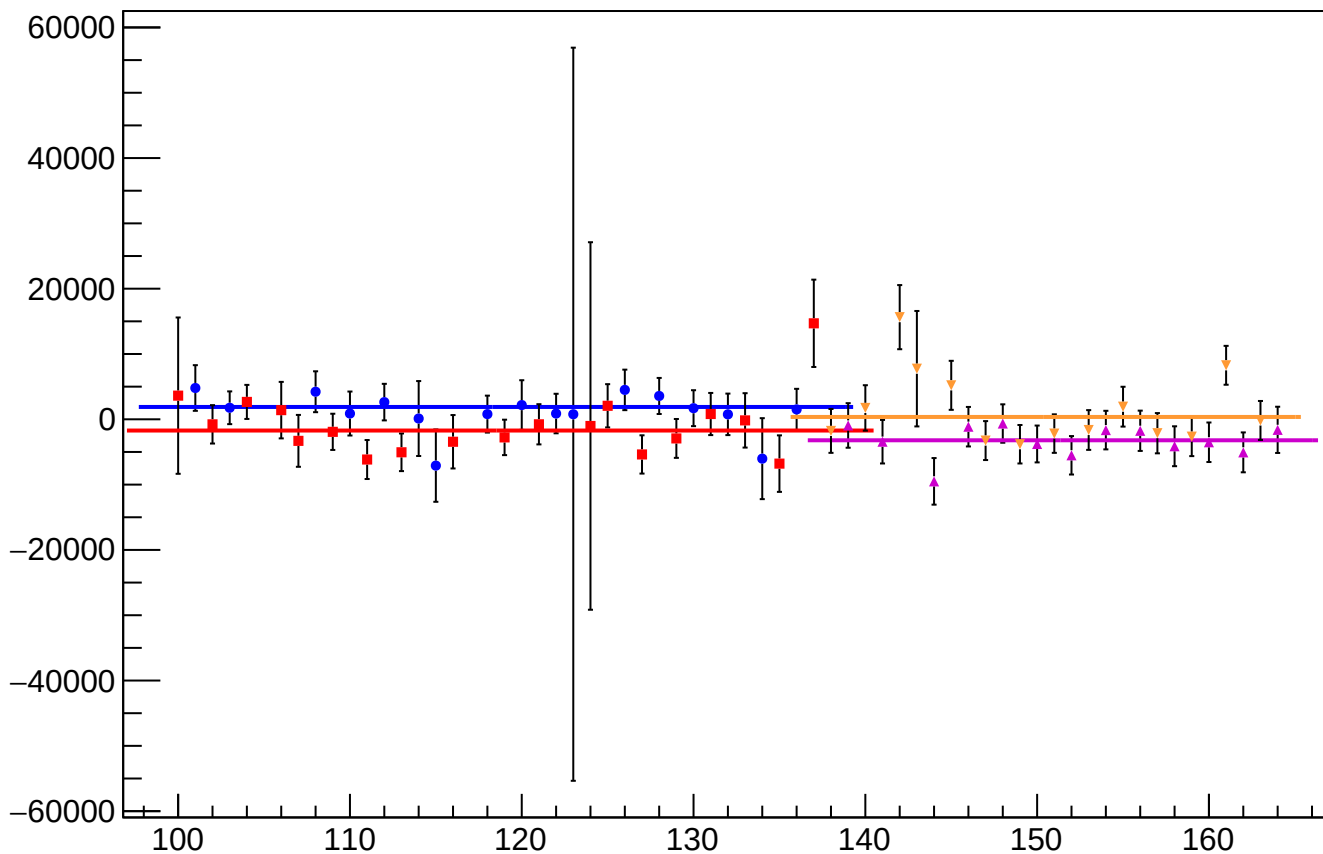
Left In: 2613.523+/-0.577  $\chi^2$ /NDF:52368.9/12

+ sign 2732.626+/-0.472  $\chi^2$ /NDF: 807233.7/30

All: 2741.291+/-0.335  $\chi^2$ /NDF: 2046301.7/62

- sign 2750.072+/-0.475  $\chi^2$ /NDF: 1238390.2/31

# reg\_asym\_atl2\_mean vs Slug



Right In: 1889.943 $\pm$ 811.431  $\chi^2$ /NDF: 7.3/16

Left Out: 359.841 $\pm$ 877.798  $\chi^2$ /NDF:26.3/13

Right Out: -1719.130 $\pm$ 790.110  $\chi^2$ /NDF: 19.0/18

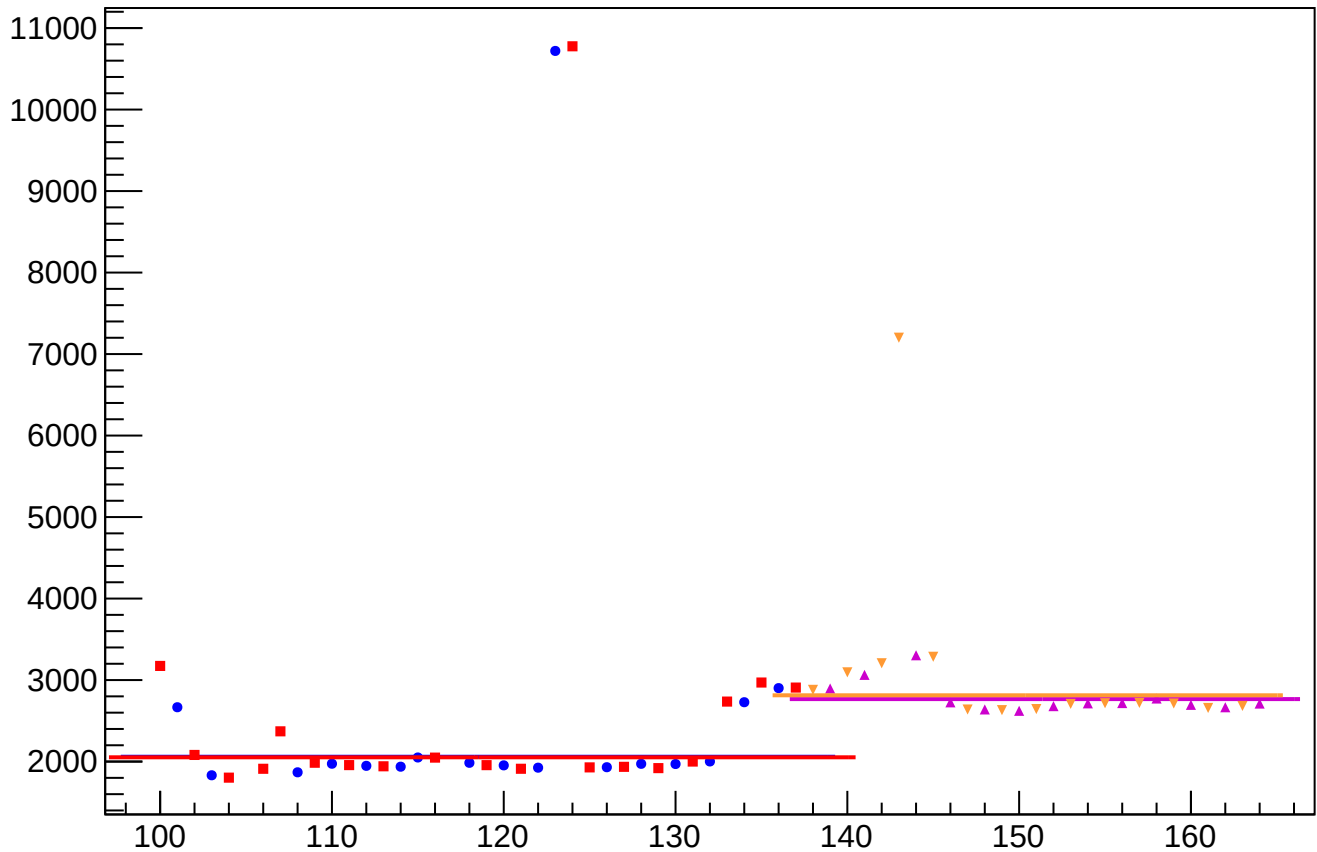
Left In: -3212.606 $\pm$ 862.607  $\chi^2$ /NDF:6.6/12

+ sign 1184.915 $\pm$ 595.851  $\chi^2$ /NDF: 35.2/30

All: -647.974 $\pm$ 416.581  $\chi^2$ /NDF: 80.9/62

- sign -2400.482 $\pm$ 582.639  $\chi^2$ /NDF: 27.2/31

# reg\_asym\_atl2\_rms vs Slug



Right In: 2058.963+/-0.574  $\chi^2/\text{NDF}$ : 318561.5/16

Left Out: 2813.122+/-0.621  $\chi^2/\text{NDF}$ : 590309.7/13

Right Out: 2052.260+/-0.559  $\chi^2/\text{NDF}$ : 443321.6/18

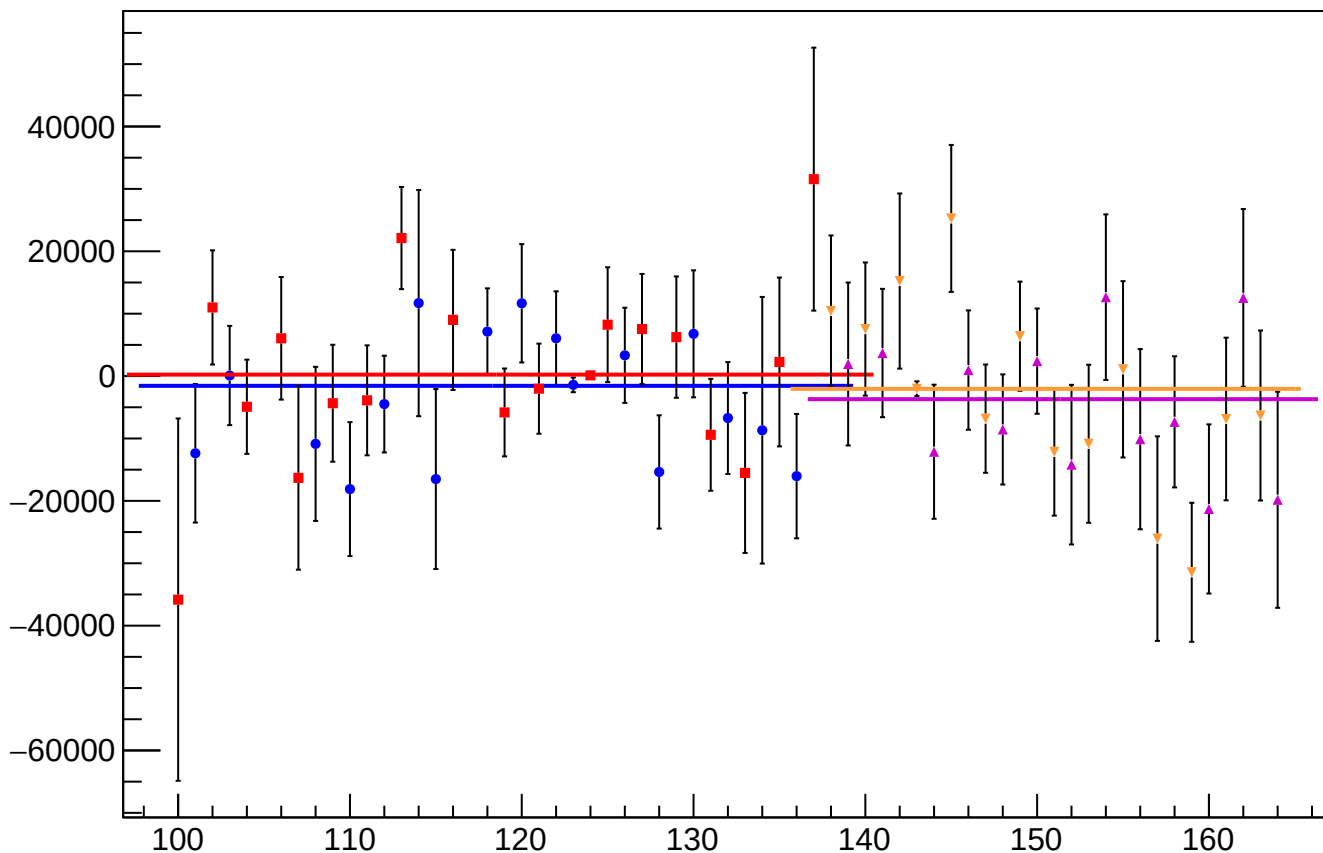
Left In: 2766.509+/-0.610  $\chi^2/\text{NDF}$ : 80090.9/12

+ sign 2406.459+/-0.421  $\chi^2/\text{NDF}$ : 1704918.8/30

All: 2391.967+/-0.295  $\chi^2/\text{NDF}$ : 2976285.7/62

- sign 2378.112+/-0.412  $\chi^2/\text{NDF}$ : 1269052.9/31

# asym\_atl2\_correction\_mean vs Slug



Right In: -1563.218 $\pm$ 1053.946  $\chi^2$ /NDF: 16.2/16

Left Out: -2043.481 $\pm$ 1108.994  $\chi^2$ /NDF:20.9/13

Right Out: 236.197 $\pm$ 695.167  $\chi^2$ /NDF: 20.8/18

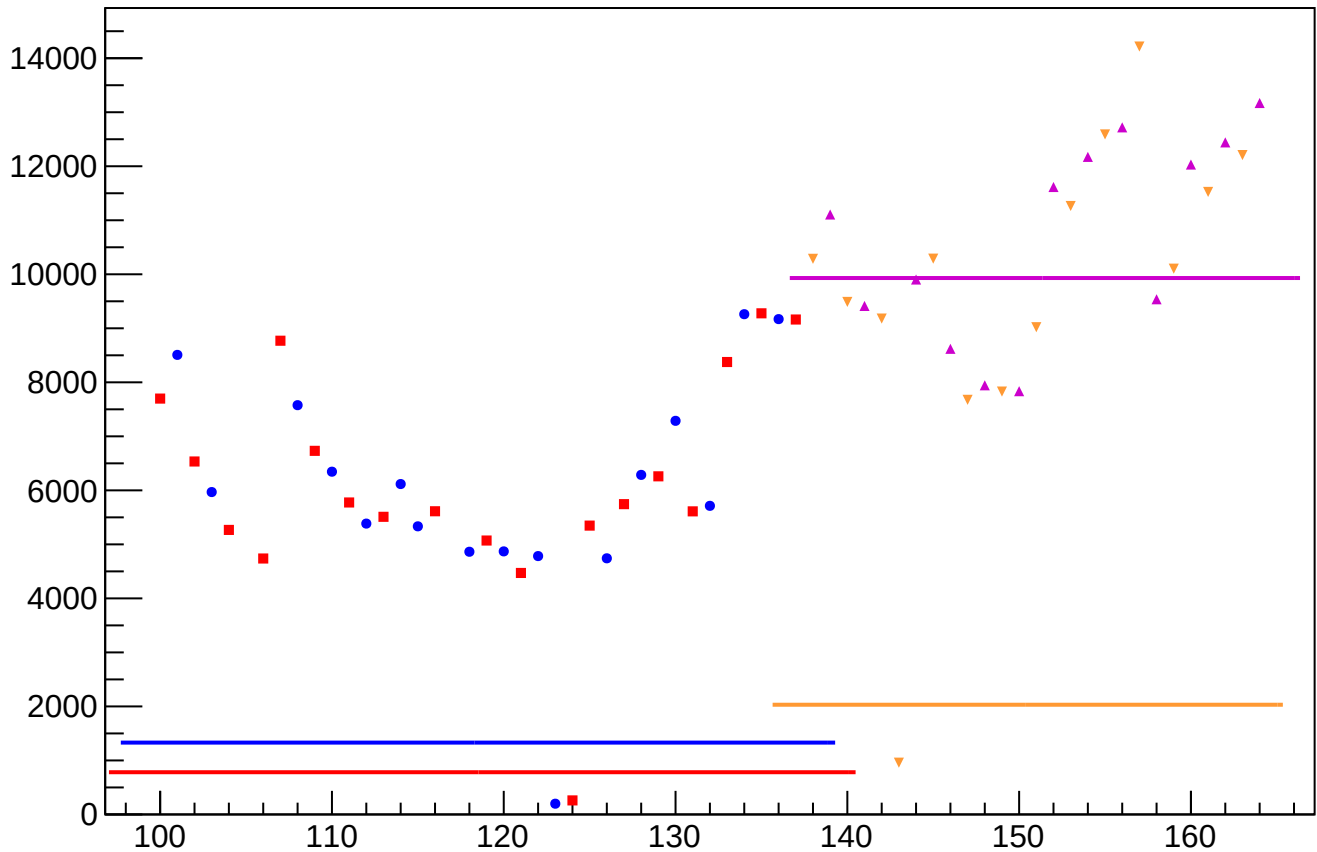
Left In: -3700.708 $\pm$ 3144.713  $\chi^2$ /NDF:8.7/12

+ sign -1791.134 $\pm$ 763.972  $\chi^2$ /NDF: 37.1/30

All: -760.679 $\pm$ 507.428  $\chi^2$ /NDF: 71.4/62

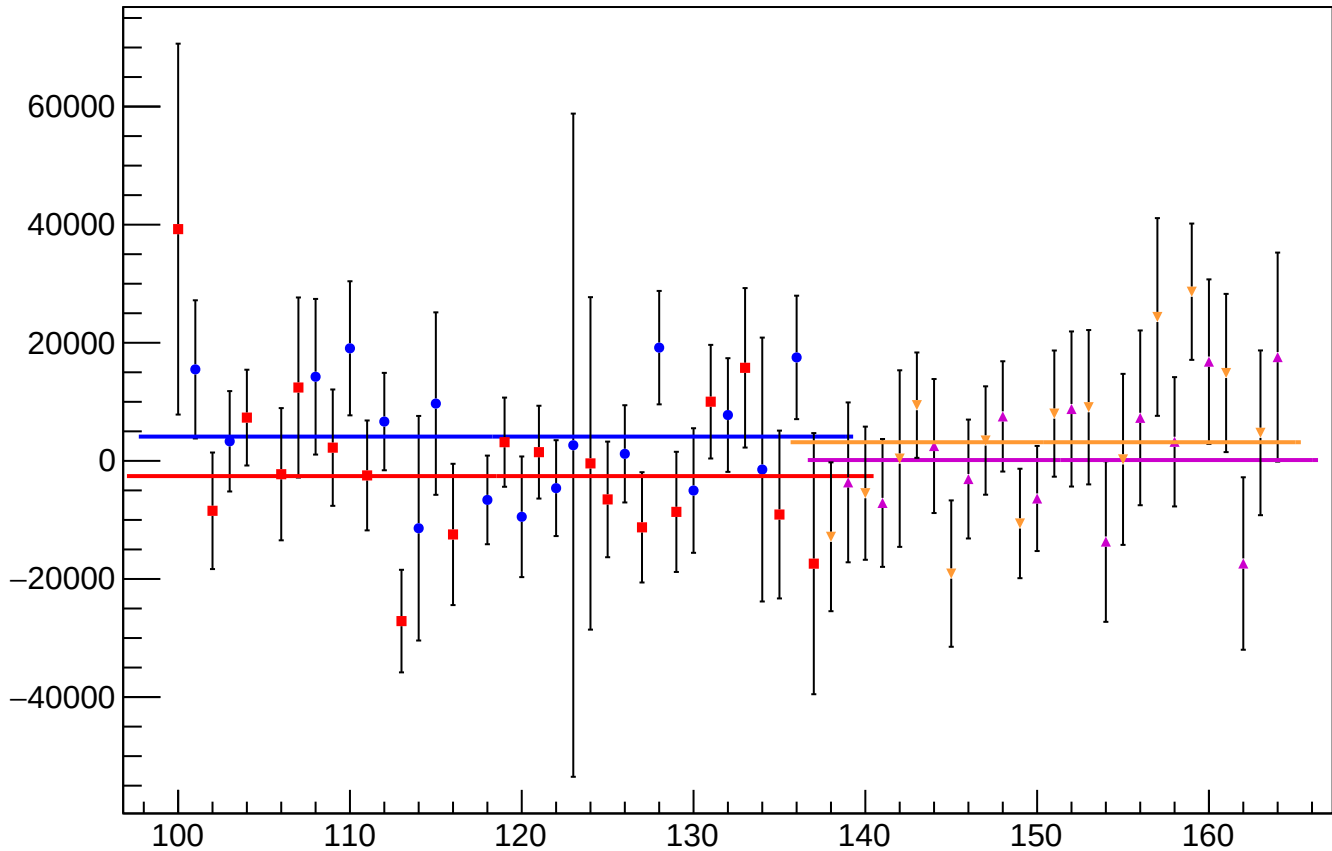
- sign 52.775 $\pm$ 678.780  $\chi^2$ /NDF: 31.0/31

# asym\_atl2\_correction\_rms vs Slug



Right In: 1330.250 +/- 0.745     $\chi^2/\text{NDF}$ : 10046828.9/16    + sign 1662.891 +/- 0.540     $\chi^2/\text{NDF}$ : 24693685.5/30  
 Left Out: 2031.187 +/- 0.784     $\chi^2/\text{NDF}$ : 14227051.0/13    All: 1408.733 +/- 0.359     $\chi^2/\text{NDF}$ : 53301664.3/6  
 Right Out: 781.848 +/- 0.492     $\chi^2/\text{NDF}$ : 11439893.7/18    - sign 1208.098 +/- 0.480     $\chi^2/\text{NDF}$ : 28211891.1/31  
 Left In: 9930.744 +/- 2.224     $\chi^2/\text{NDF}$ : 632686.4/12

# asym\_atl2\_mean vs Slug



Right In: 4111.784+/-2534.444  $\chi^2/\text{NDF}$ : 14.3/16

Left Out: 3157.873+/-3125.053  $\chi^2/\text{NDF}$ : 15.9/13

Right Out: -2577.719+/-2420.480  $\chi^2/\text{NDF}$ : 20.0/18

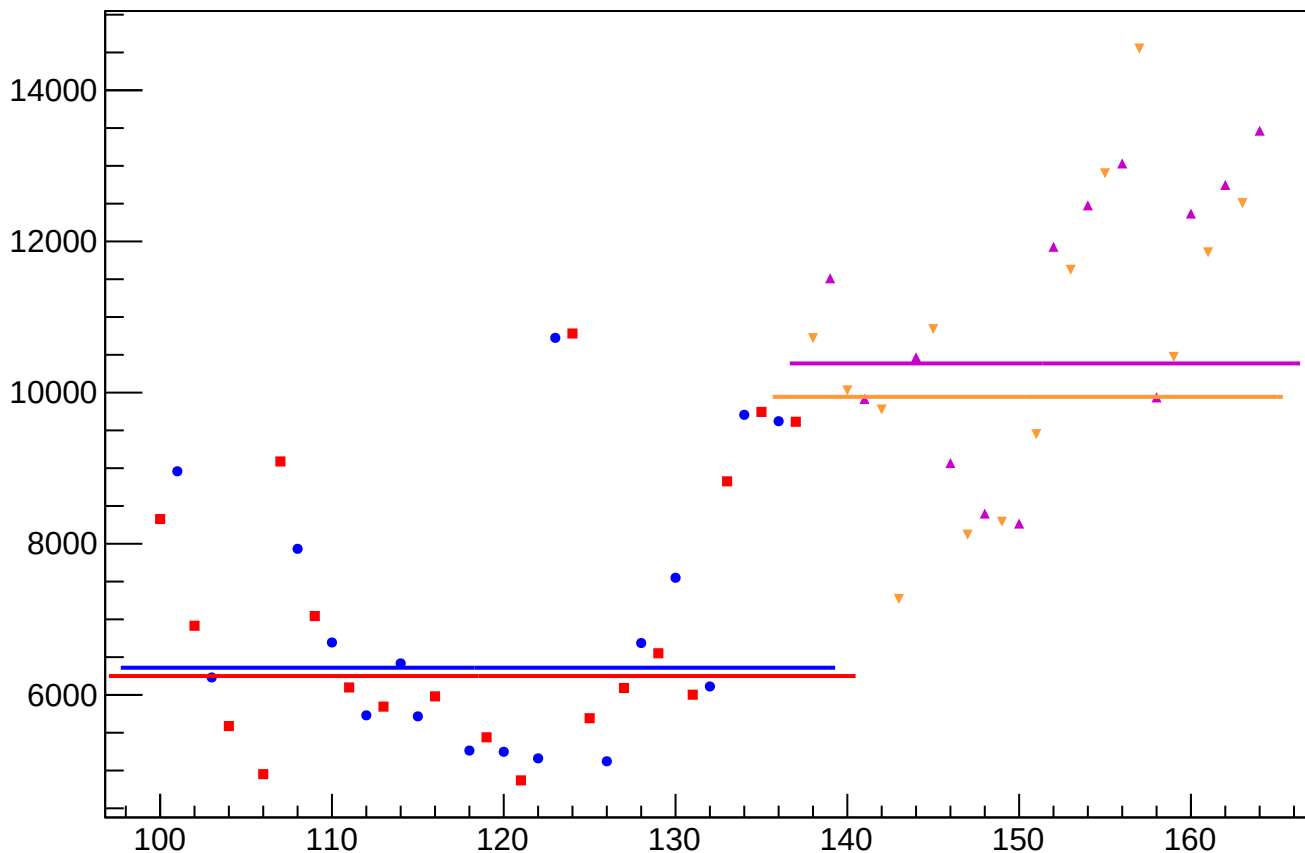
Left In: 140.083+/-3281.511  $\chi^2/\text{NDF}$ : 7.5/12

+ sign 3733.304+/-1968.454  $\chi^2/\text{NDF}$ : 30.3/30

All: 1028.530+/-1384.585  $\chi^2/\text{NDF}$ : 61.8/62

- sign -1620.071+/-1947.906  $\chi^2/\text{NDF}$ : 27.8/31

# asym\_atl2\_rms vs Slug



Right In: 6359.928+/-1.792  $\chi^2/\text{NDF}$ : 580471.0/16

Left Out: 9943.515+/-2.210  $\chi^2/\text{NDF}$ : 725463.1/13

Right Out: 6250.049+/-1.711  $\chi^2/\text{NDF}$ : 532966.2/18

Left In: 10385.809+/-2.320  $\chi^2/\text{NDF}$ : 551451.8/12

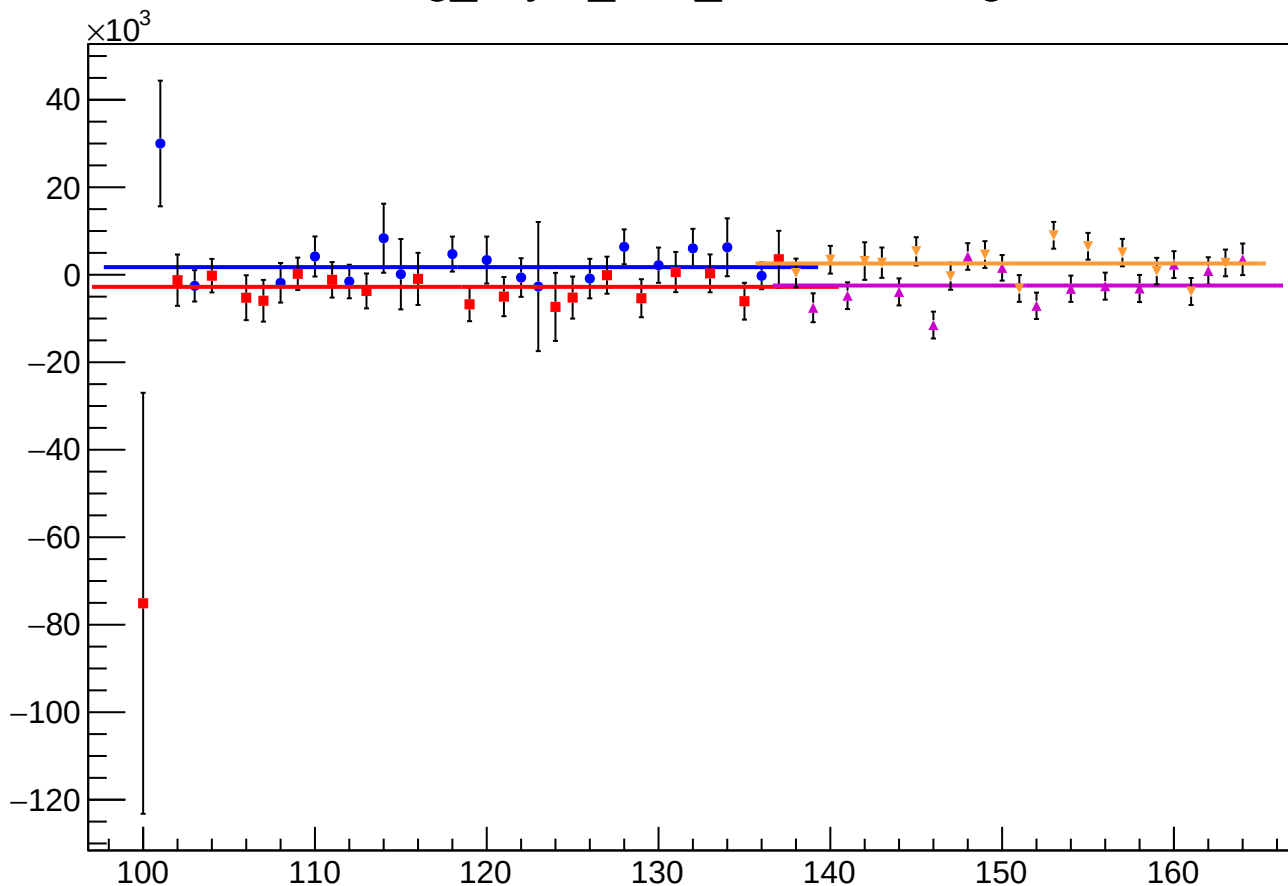
+ sign 7781.769+/-1.392  $\chi^2/\text{NDF}$ : 2892425.3/30

All: 7744.114+/-0.979  $\chi^2/\text{NDF}$ : 6035791.7/62

- sign 7707.244+/-1.377  $\chi^2/\text{NDF}$ : 3141917.9/31



# reg\_asym\_atr1\_mean vs Slug



Right In: 1746.001 $\pm$ 1128.522  $\chi^2$ /NDF: 12.2/16

Left Out: 2588.074 $\pm$ 850.962  $\chi^2$ /NDF:17.5/13

Right Out: -2763.863 $\pm$ 1071.947  $\chi^2$ /NDF: 9.7/18

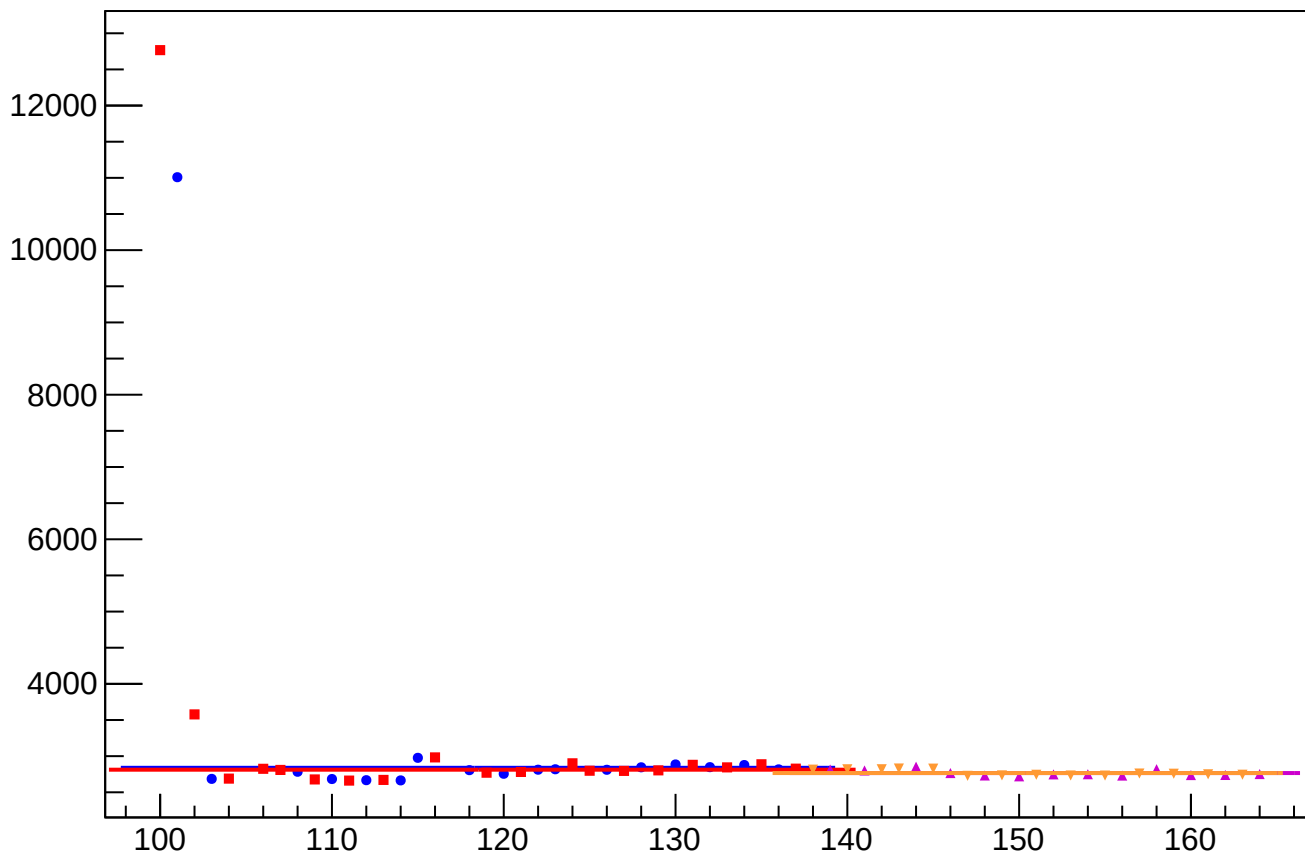
Left In: -2461.231 $\pm$ 861.065  $\chi^2$ /NDF:27.3/12

+ sign 2282.835 $\pm$ 679.446  $\chi^2$ /NDF: 30.0/30

All: -177.847 $\pm$ 477.537  $\chi^2$ /NDF: 93.0/62

- sign -2579.920 $\pm$ 671.306  $\chi^2$ /NDF: 37.0/31

# reg\_asym\_atr1\_rms vs Slug



Right In: 2838.737 $\pm$ 0.798  $\chi^2$ /NDF: 660209.3/16

Left Out: 2766.262 $\pm$ 0.602  $\chi^2$ /NDF: 3988.9/13

Right Out: 2812.627 $\pm$ 0.758  $\chi^2$ /NDF: 133064.0/18

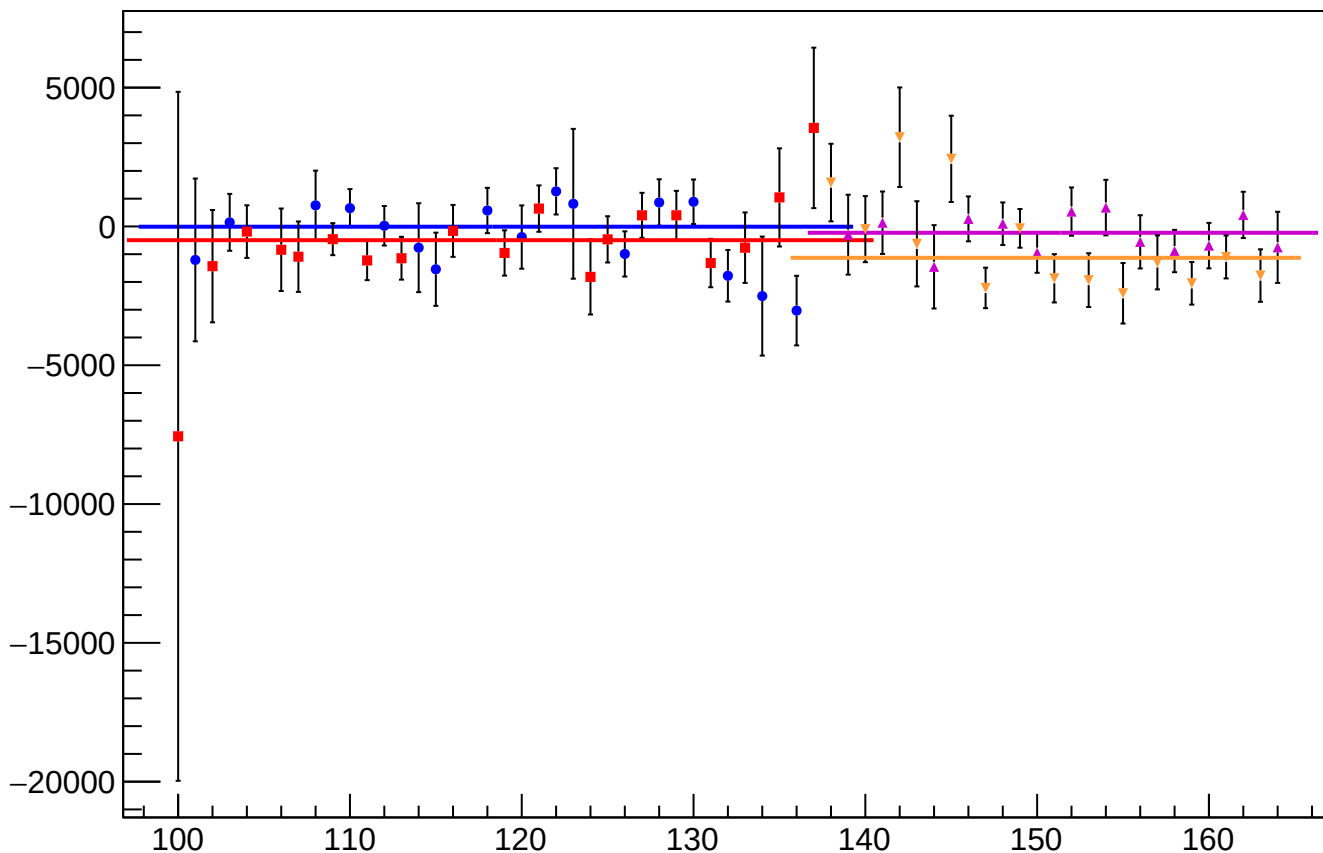
Left In: 2766.268 $\pm$ 0.609  $\chi^2$ /NDF: 4388.2/12

+ sign 2792.533 $\pm$ 0.480  $\chi^2$ /NDF: 669456.9/30

All: 2788.443 $\pm$ 0.338  $\chi^2$ /NDF: 809326.1/62

- sign 2784.449 $\pm$ 0.475  $\chi^2$ /NDF: 139725.9/31

# asym\_atr1\_correction\_mean vs Slug



Right In:  $-9.845 \pm 241.678$   $\chi^2/\text{NDF}$ : 20.7/16

Left Out:  $-1130.288 \pm 257.488$   $\chi^2/\text{NDF}$ : 25.0/13

Right Out:  $-495.250 \pm 221.487$   $\chi^2/\text{NDF}$ : 11.9/18

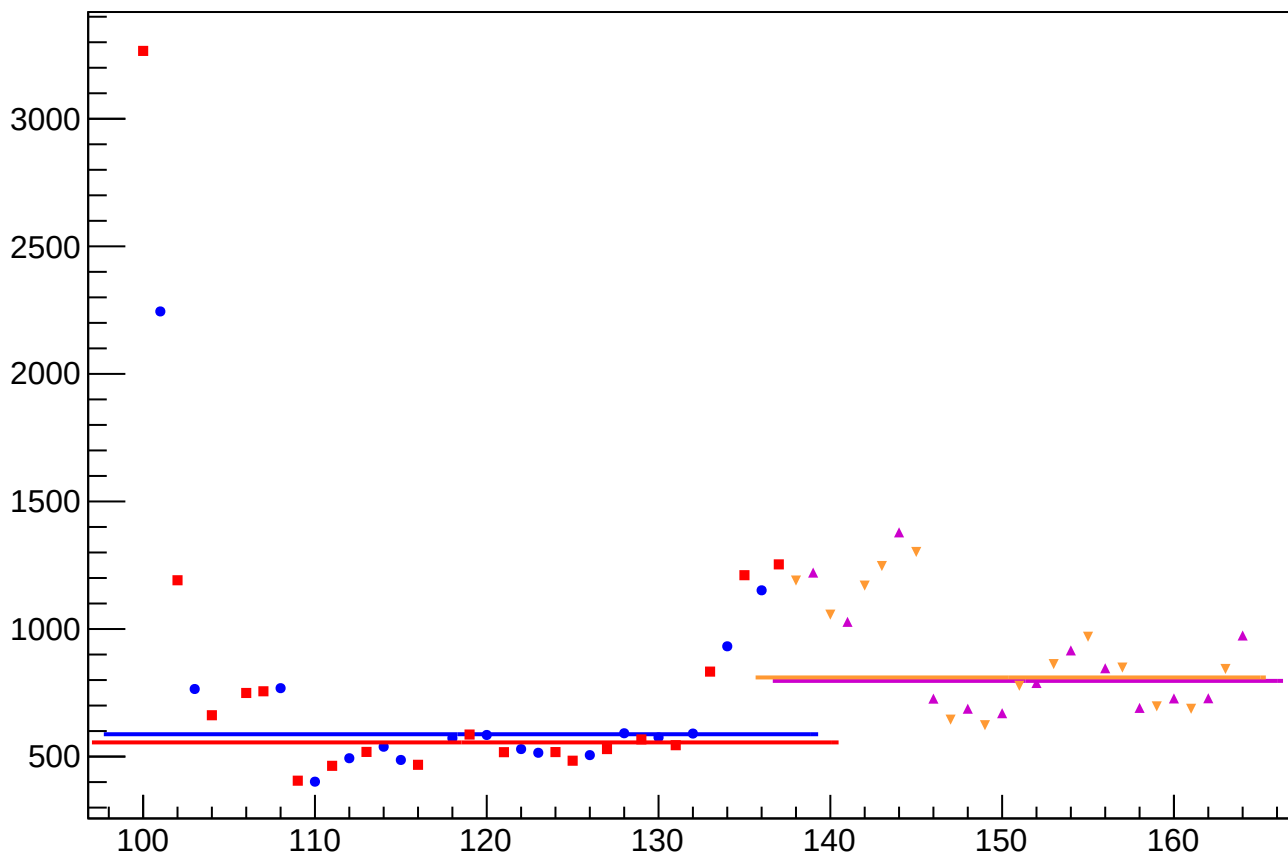
Left In:  $-228.530 \pm 253.694$   $\chi^2/\text{NDF}$ : 5.9/12

+ sign  $-534.614 \pm 176.217$   $\chi^2/\text{NDF}$ : 55.8/30

All:  $-453.027 \pm 121.156$   $\chi^2/\text{NDF}$ : 74.5/62

- sign  $-379.886 \pm 166.847$   $\chi^2/\text{NDF}$ : 18.4/31

# asym\_atr1\_correction\_rms vs Slug



Right In: 587.596+/-0.171  $\chi^2/\text{NDF}$ : 1425769.6/16

Left Out: 810.163+/-0.182  $\chi^2/\text{NDF}$ : 1074856.2/13

Right Out: 555.534+/-0.157  $\chi^2/\text{NDF}$ : 1106760.5/18

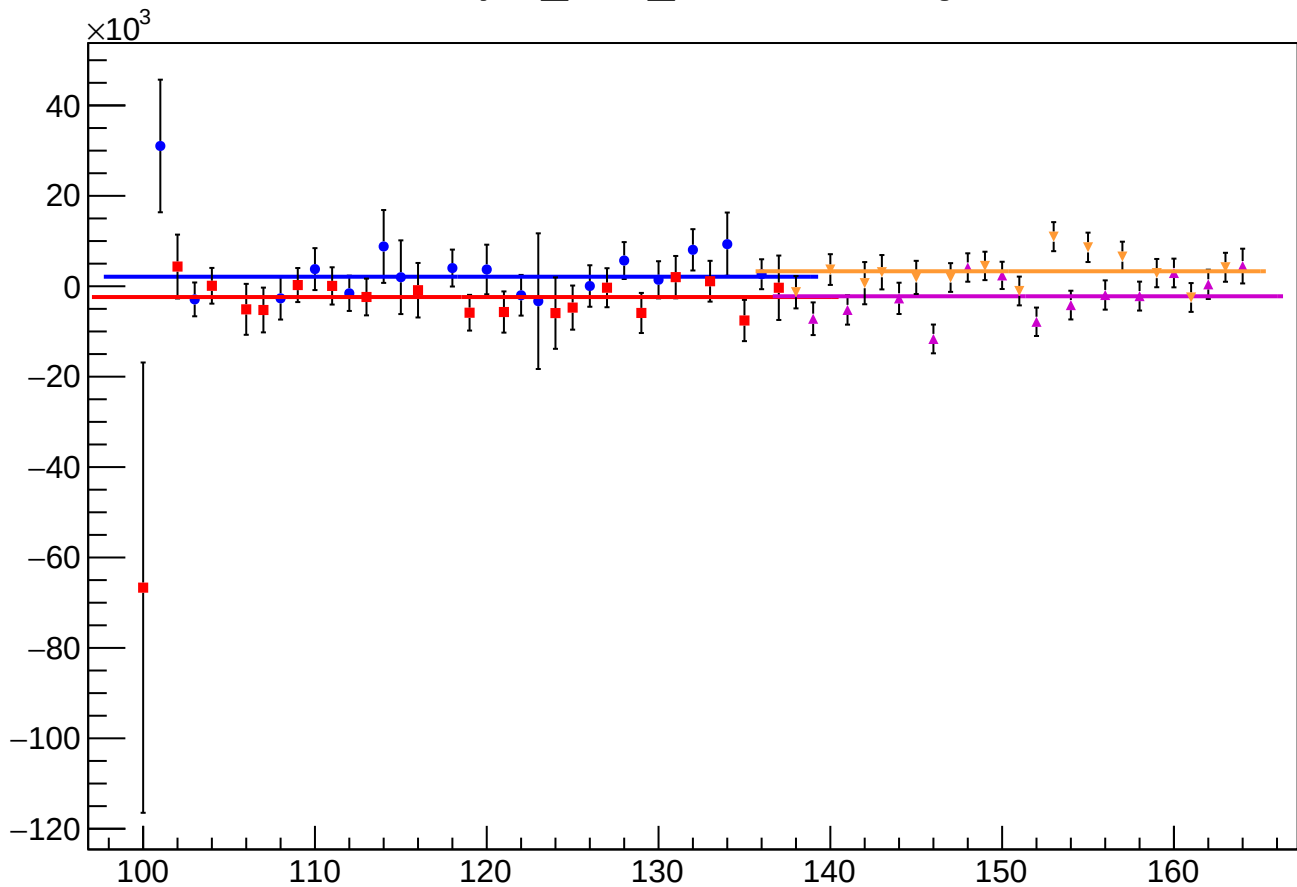
Left In: 796.697+/-0.179  $\chi^2/\text{NDF}$ : 814756.0/12

+ sign 691.837+/-0.125  $\chi^2/\text{NDF}$ : 3295054.5/30

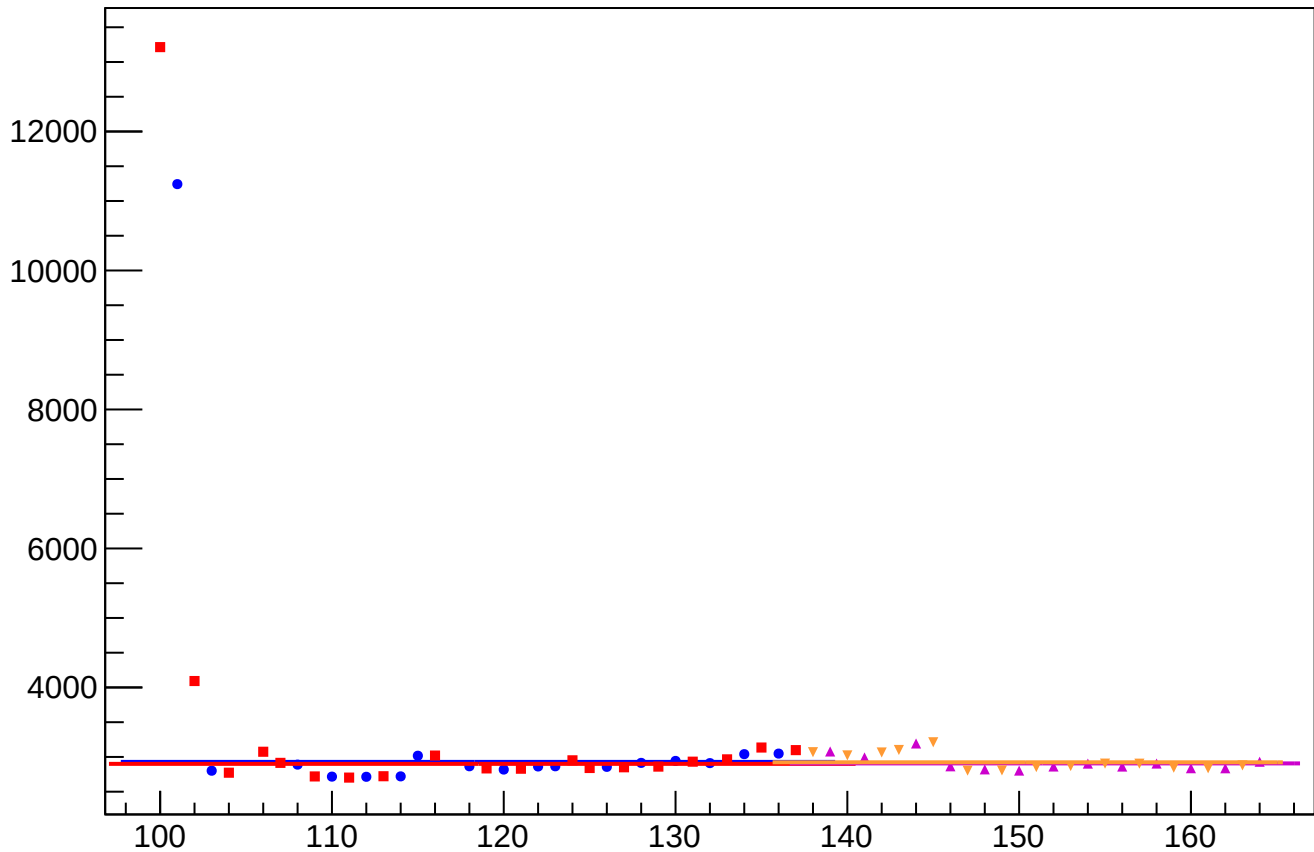
All: 674.968+/-0.086  $\chi^2/\text{NDF}$ : 6276924.4/62

- sign 659.845+/-0.118  $\chi^2/\text{NDF}$ : 2947109.4/31

# asym\_atr1\_mean vs Slug



# asym\_atr1\_rms vs Slug



Right In: 2928.700 $\pm$ 0.823  $\chi^2$ /NDF: 662362.9/16

Left Out: 2922.899 $\pm$ 0.636  $\chi^2$ /NDF: 33890.5/13

Right Out: 2900.472 $\pm$ 0.785  $\chi^2$ /NDF: 169720.6/18

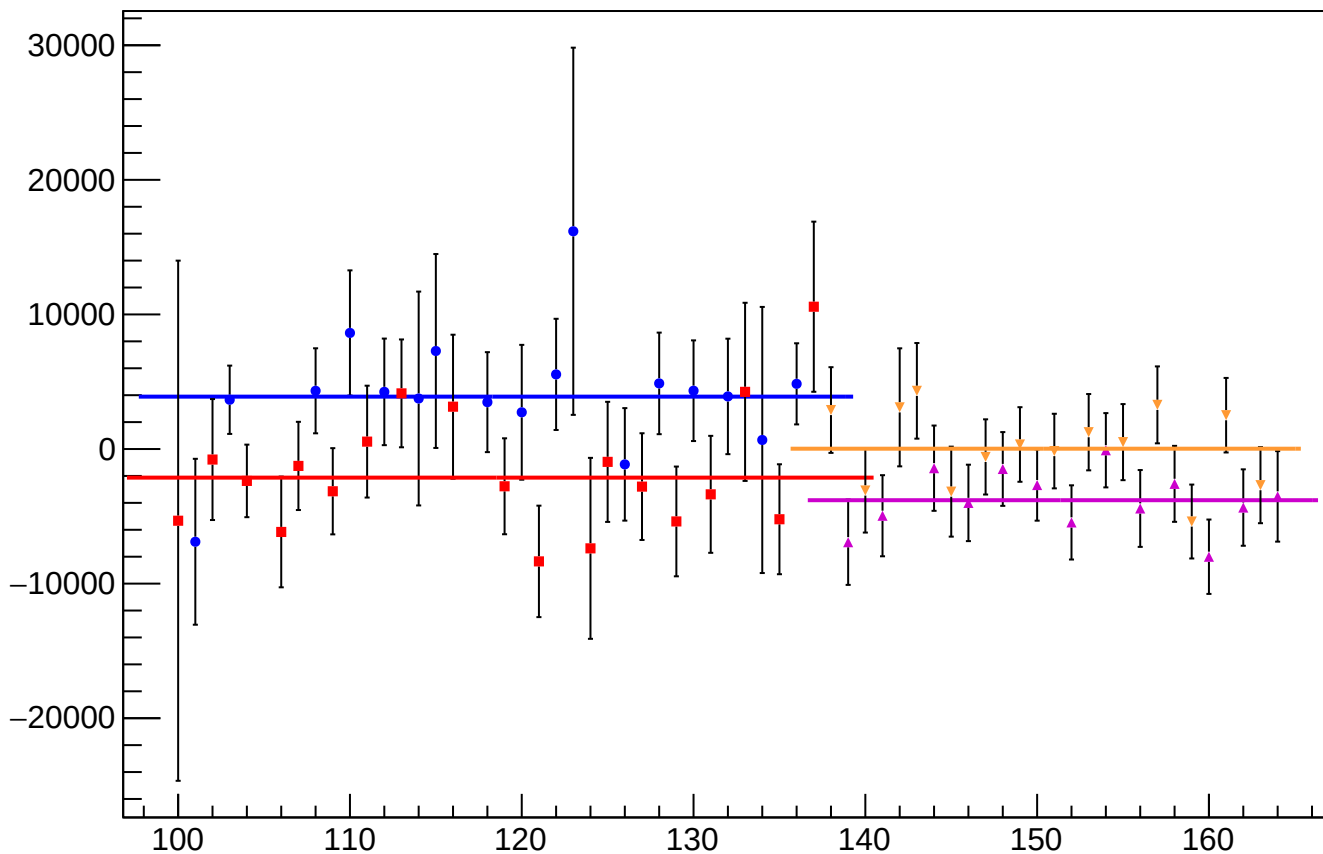
Left In: 2907.015 $\pm$ 0.640  $\chi^2$ /NDF: 26569.5/12

+ sign 2925.068 $\pm$ 0.503  $\chi^2$ /NDF: 696284.5/30

All: 2914.583 $\pm$ 0.353  $\chi^2$ /NDF: 893471.1/62

- sign 2904.402 $\pm$ 0.496  $\chi^2$ /NDF: 196331.9/31

# reg\_asym\_atr2\_mean vs Slug



Right In: 3892.504 $\pm$ 1011.718  $\chi^2$ /NDF: 7.1/16

Left Out: 24.126 $\pm$ 797.926  $\chi^2$ /NDF:11.9/13

Right Out: -2124.700 $\pm$ 958.418  $\chi^2$ /NDF: 14.3/18

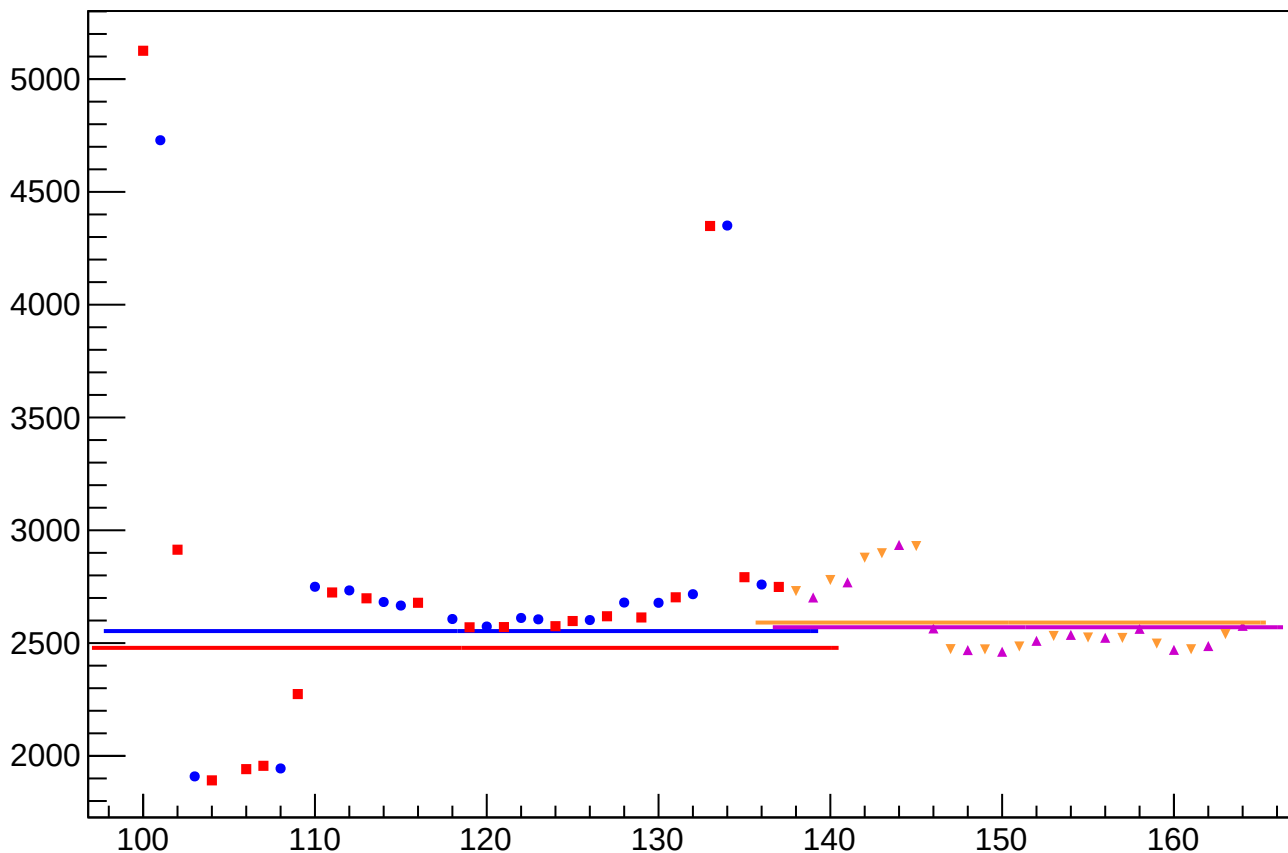
Left In: -3802.712 $\pm$ 799.667  $\chi^2$ /NDF:7.3/12

+ sign 1507.594 $\pm$ 626.519  $\chi^2$ /NDF: 28.0/30

All: -849.798 $\pm$ 438.527  $\chi^2$ /NDF: 79.2/62

- sign -3114.001 $\pm$ 614.011  $\chi^2$ /NDF: 23.5/31

# reg\_asym\_atr2\_rms vs Slug



Right In: 2553.280+/-0.715  $\chi^2/\text{NDF}$ : 545226.9/16

Left Out: 2591.049+/-0.564  $\chi^2/\text{NDF}$ : 75143.4/13

Right Out: 2478.860+/-0.678  $\chi^2/\text{NDF}$ : 449502.6/18

Left In: 2570.212+/-0.565  $\chi^2/\text{NDF}$ : 50964.4/12

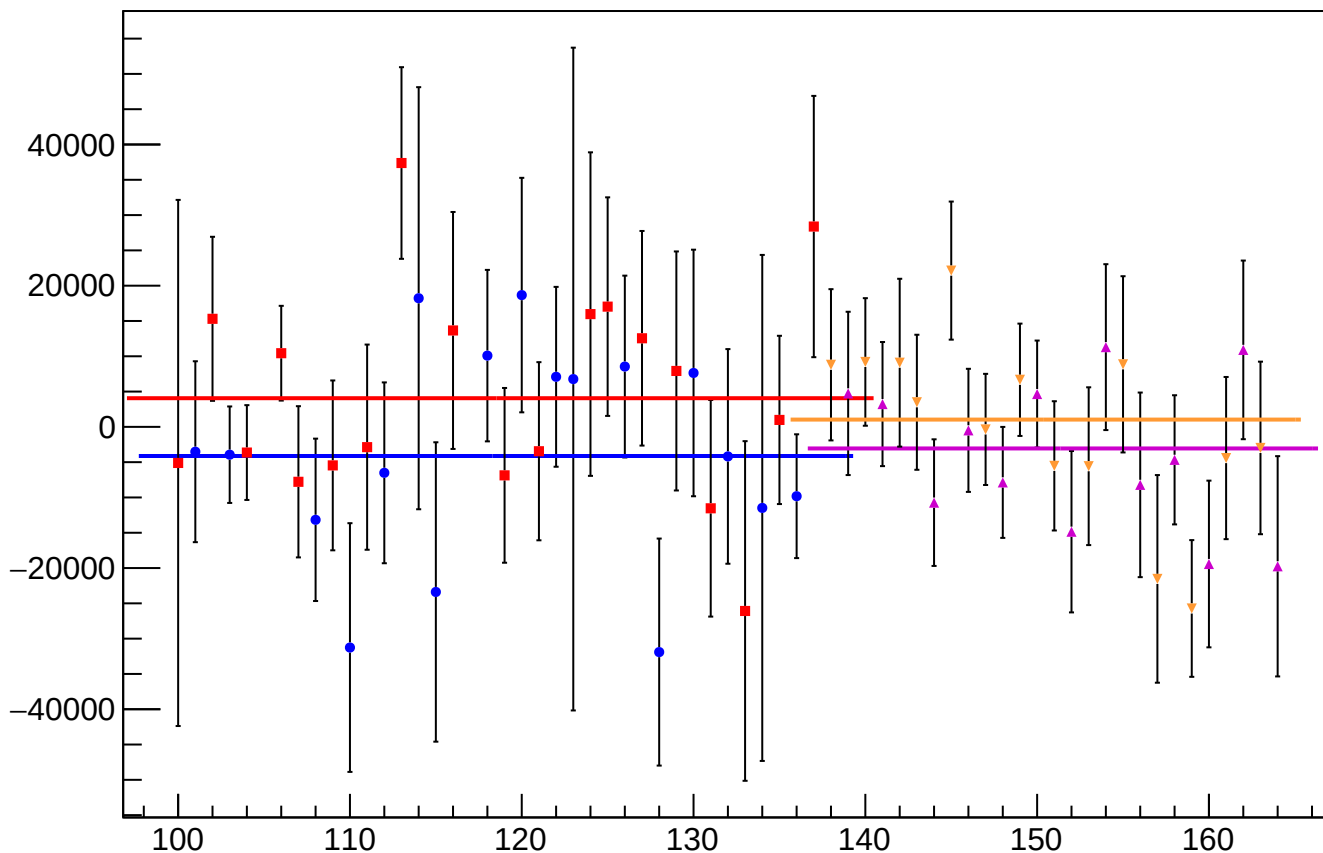
+ sign 2576.565+/-0.443  $\chi^2/\text{NDF}$ : 622088.7/30

All: 2554.199+/-0.310  $\chi^2/\text{NDF}$ : 1138264.8/62

- sign 2532.718+/-0.434  $\chi^2/\text{NDF}$ : 511179.4/31



# asym\_atr2\_correction\_mean vs Slug



Right In: -4126.319 $\pm$ 3227.044  $\chi^2/\text{NDF}$ : 13.4/16

Left Out: 1031.672 $\pm$ 2699.036  $\chi^2/\text{NDF}$ : 18.6/13

Right Out: 4060.328 $\pm$ 2834.326  $\chi^2/\text{NDF}$ : 18.5/18

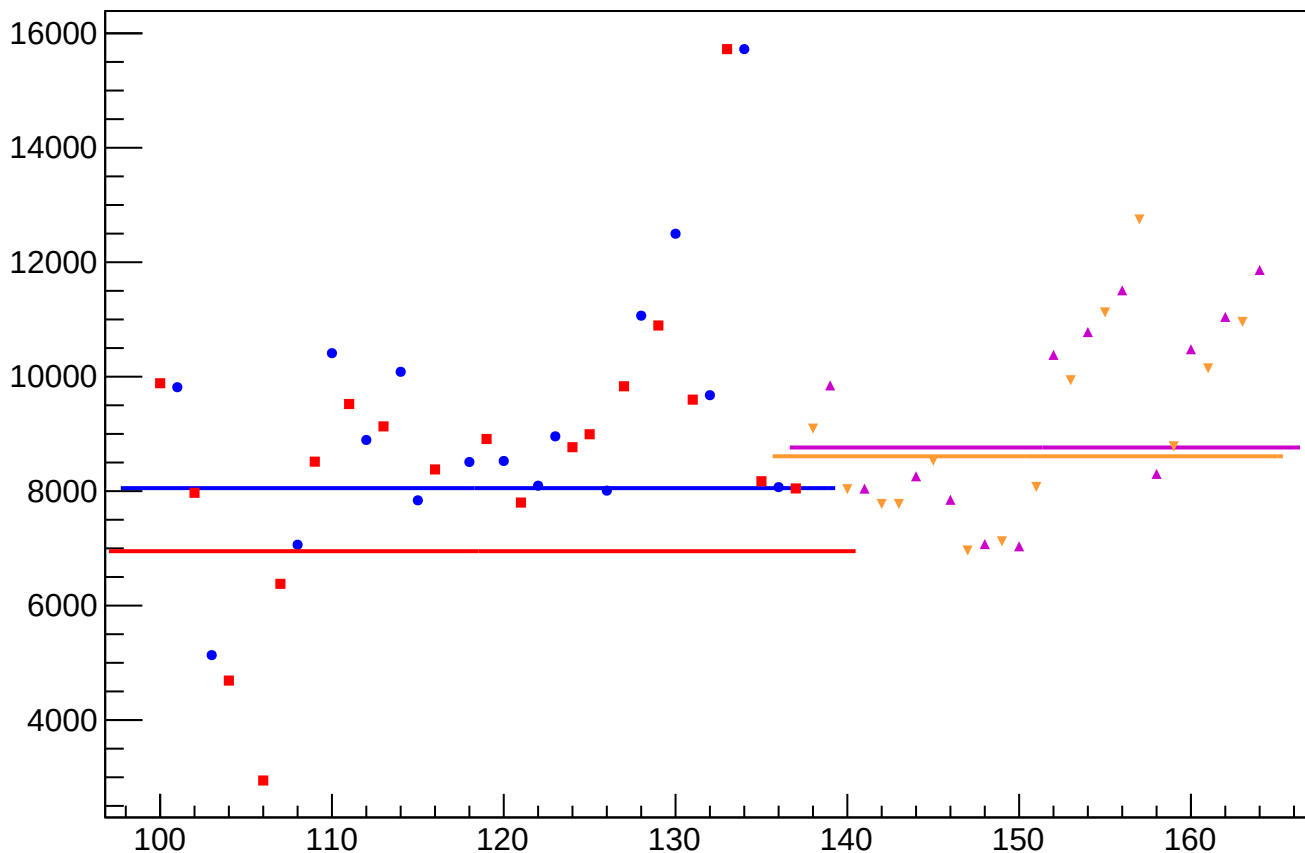
Left In: -3057.802 $\pm$ 2775.272  $\chi^2/\text{NDF}$ : 10.2/12

+ sign -1091.371 $\pm$ 2070.351  $\chi^2/\text{NDF}$ : 33.5/30

All: -299.811 $\pm$ 1432.064  $\chi^2/\text{NDF}$ : 65.7/62

- sign 426.336 $\pm$ 1982.963  $\chi^2/\text{NDF}$ : 31.9/31

# asym\_atr2\_correction\_rms vs Slug



Right In:  $8052.552 \pm 2.282$   $\chi^2/\text{NDF}: 790724.2/16$

Left Out:  $8609.063 \pm 1.909$   $\chi^2/\text{NDF}: 579419.8/13$

Right Out:  $6950.943 \pm 2.004$   $\chi^2/\text{NDF}: 1776578.9/18$

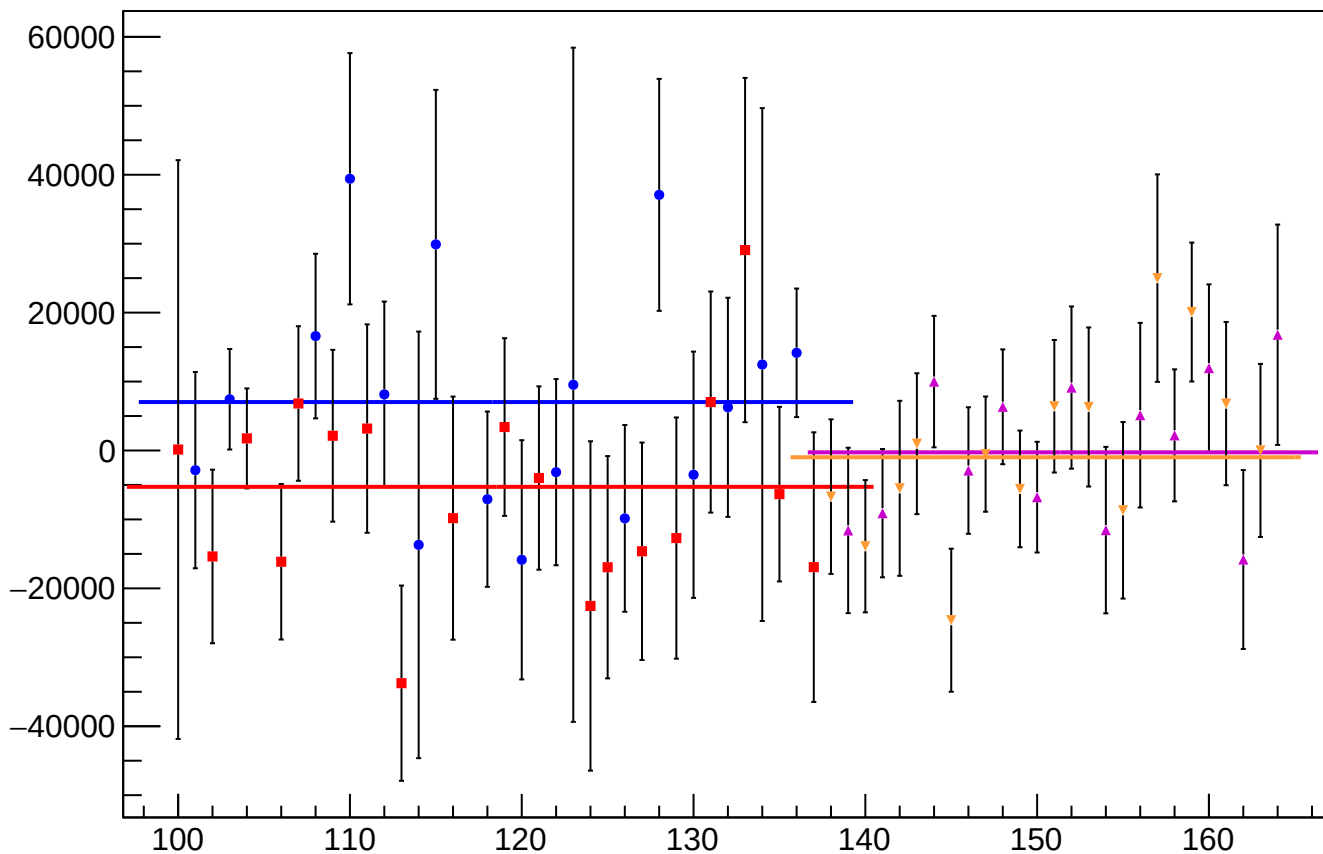
Left In:  $8762.870 \pm 1.962$   $\chi^2/\text{NDF}: 634077.4/12$

+ sign  $8380.002 \pm 1.464$   $\chi^2/\text{NDF}: 1405141.7/30$

All:  $8117.129 \pm 1.013$   $\chi^2/\text{NDF}: 4294901.3/62$

- sign  $7875.980 \pm 1.402$   $\chi^2/\text{NDF}: 2827938.5/31$

# asym\_atr2\_mean vs Slug



Right In: 7025.400+/-3409.490  $\chi^2/\text{NDF}$ : 15.0/16

Left Out: -981.495+/-2835.676  $\chi^2/\text{NDF}$ : 16.9/13

Right Out: -5271.793+/-3168.195  $\chi^2/\text{NDF}$ : 13.4/18

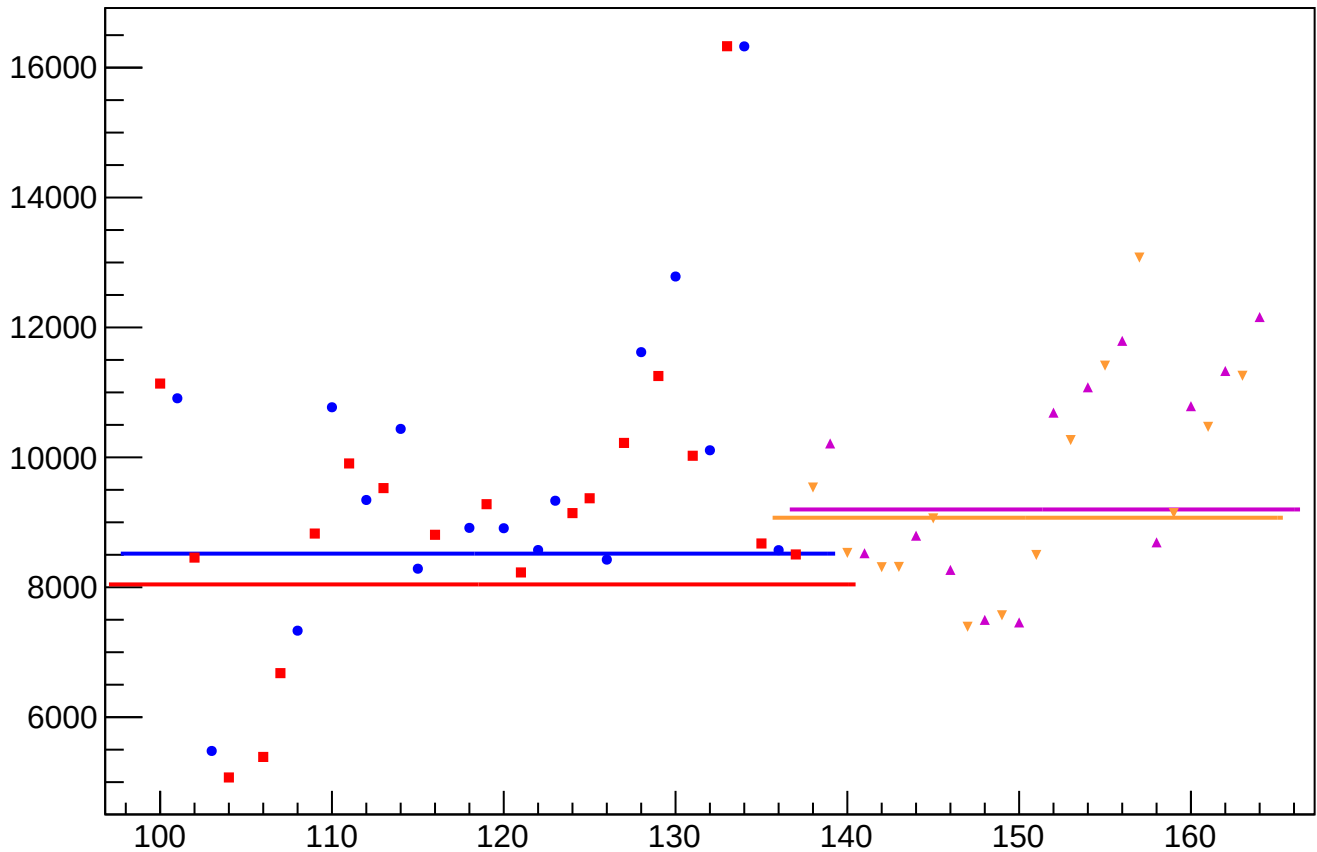
Left In: -268.412+/-2905.143  $\chi^2/\text{NDF}$ : 9.6/12

+ sign 2292.428+/-2180.176  $\chi^2/\text{NDF}$ : 35.1/30

All: -174.376+/-1527.656  $\chi^2/\text{NDF}$ : 62.0/62

- sign -2553.798+/-2141.214  $\chi^2/\text{NDF}$ : 24.3/31

# asym\_atr2\_rms vs Slug



Right In: 8517.886+/-2.411  $\chi^2/\text{NDF}$ : 763281.4/16

Left Out: 9070.595+/-2.005  $\chi^2/\text{NDF}$ : 497509.2/13

Right Out: 8043.998+/-2.240  $\chi^2/\text{NDF}$ : 952125.8/18

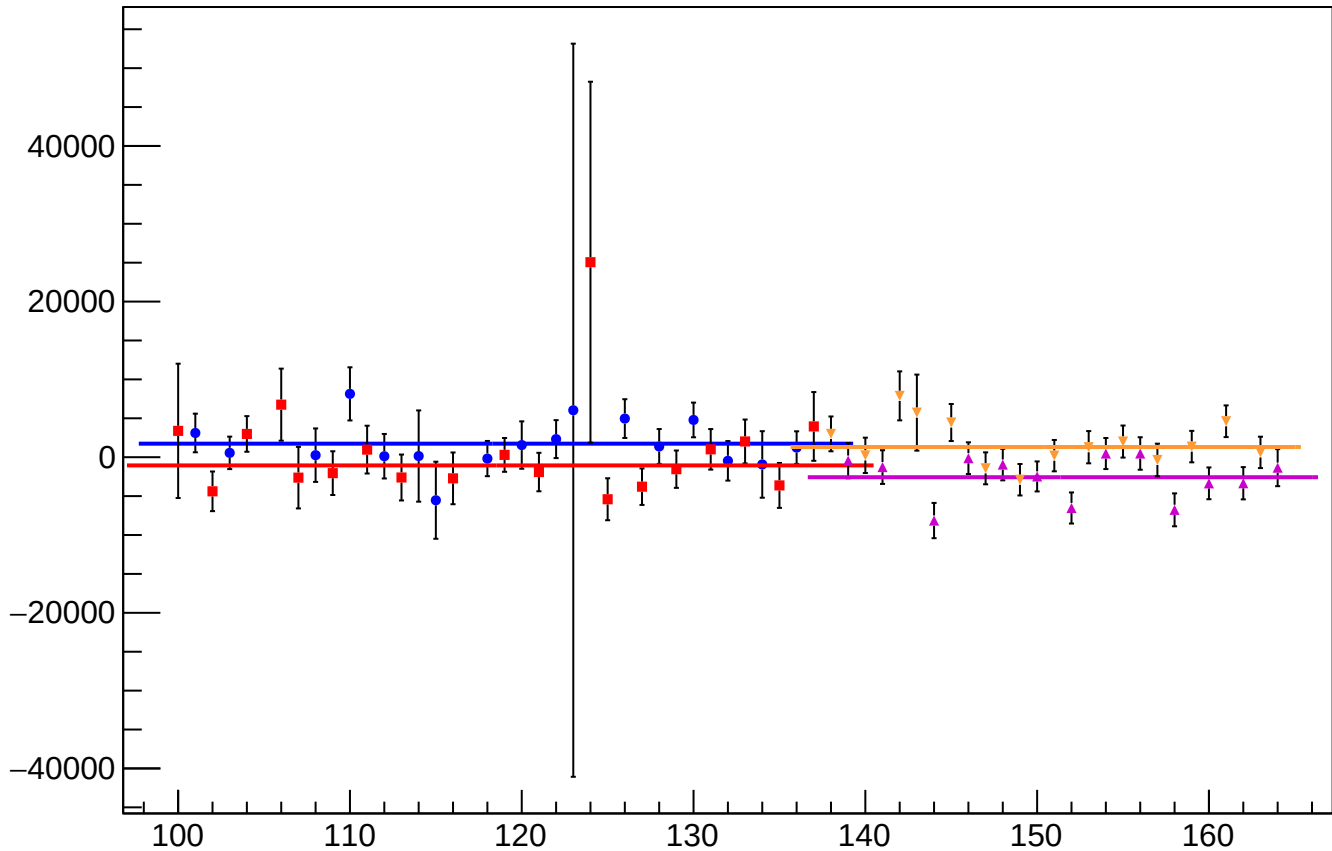
Left In: 9198.003+/-2.054  $\chi^2/\text{NDF}$ : 544500.8/12

+ sign 8844.599+/-1.542  $\chi^2/\text{NDF}$ : 1291858.6/30

All: 8756.167+/-1.080  $\chi^2/\text{NDF}$ : 2939102.4/62

- sign 8670.869+/-1.514  $\chi^2/\text{NDF}$ : 1640779.4/31

# reg\_asym\_atl\_avg\_mean vs Slug



Right In:  $1739.640 \pm 670.395$   $\chi^2/\text{NDF}$ : 12.4/16

Left Out:  $1310.145 \pm 590.338$   $\chi^2/\text{NDF}$ : 17.6/13

Right Out:  $-1055.584 \pm 670.984$   $\chi^2/\text{NDF}$ : 18.9/18

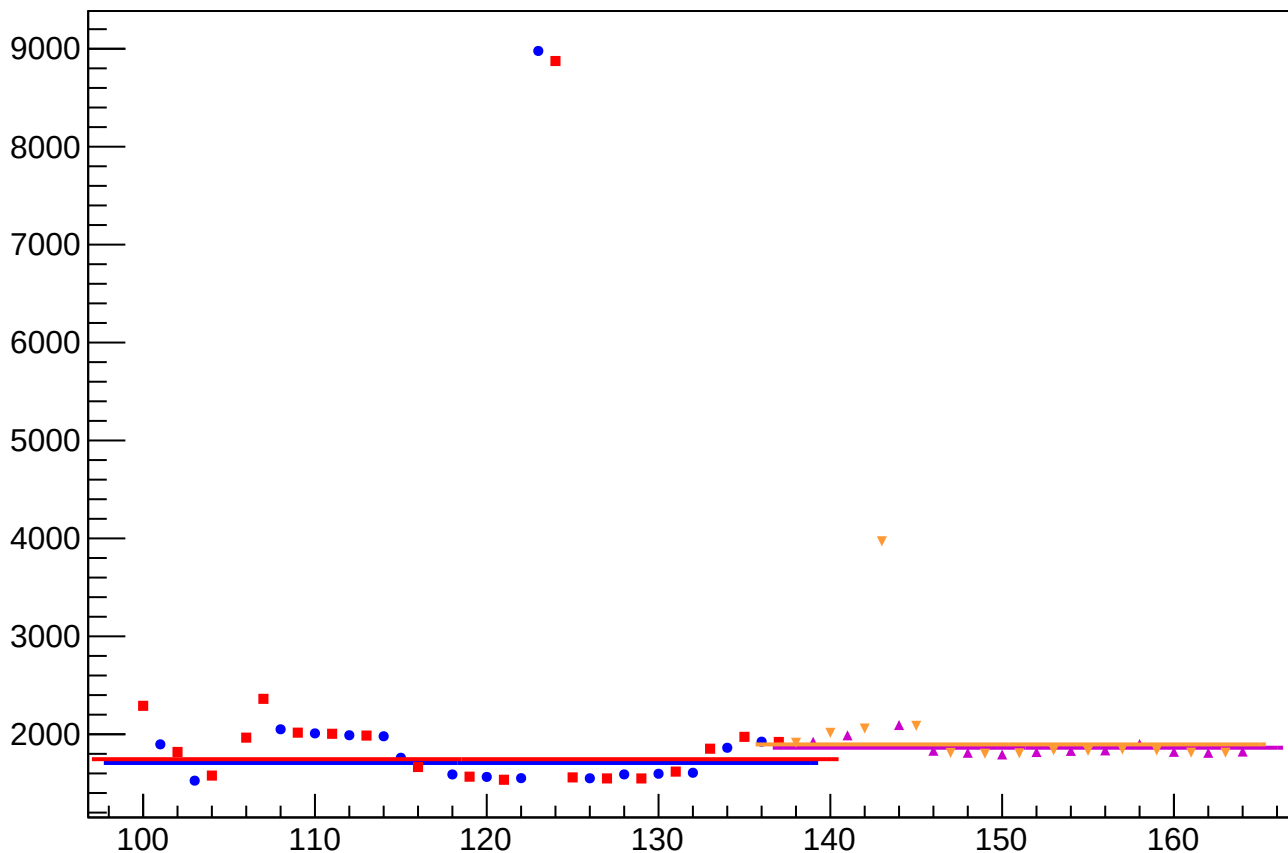
Left In:  $-2572.385 \pm 581.312$   $\chi^2/\text{NDF}$ : 22.2/12

+ sign  $1497.729 \pm 443.047$   $\chi^2/\text{NDF}$ : 30.3/30

All:  $-226.452 \pm 311.969$   $\chi^2/\text{NDF}$ : 104.3/62

- sign  $-1922.044 \pm 439.358$   $\chi^2/\text{NDF}$ : 44.0/31

# reg\_asym\_atl\_avg\_rms vs Slug



Right In: 1706.867+/-0.474  $\chi^2/\text{NDF}$ : 197555.1/16

Left Out: 1896.148+/-0.417  $\chi^2/\text{NDF}$ : 409434.7/13

Right Out: 1745.434+/-0.472  $\chi^2/\text{NDF}$ : 399811.9/18

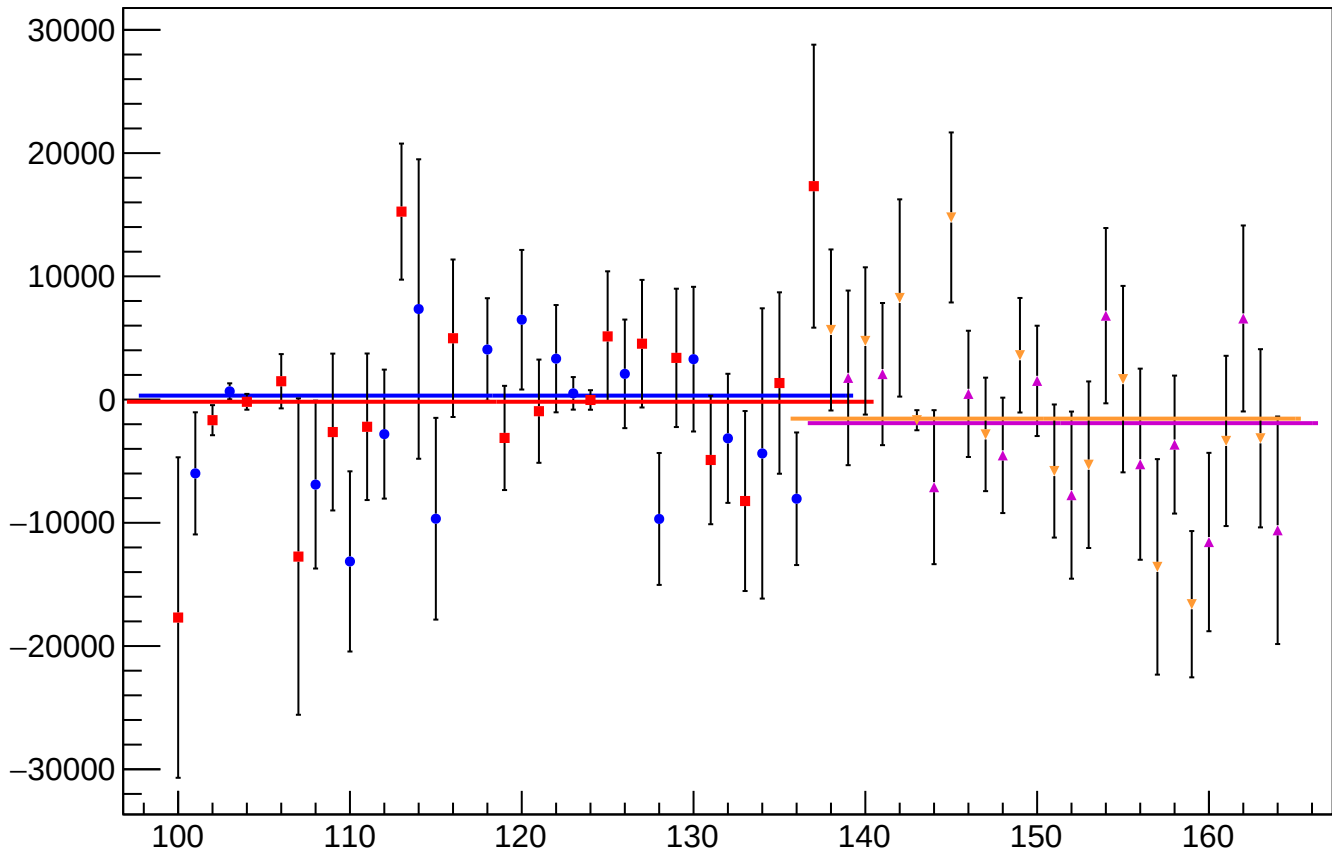
Left In: 1862.549+/-0.411  $\chi^2/\text{NDF}$ : 38604.9/12

+ sign 1813.478+/-0.313  $\chi^2/\text{NDF}$ : 696790.6/30

All: 1812.771+/-0.220  $\chi^2/\text{NDF}$ : 1170200.9/62

- sign 1812.079+/-0.310  $\chi^2/\text{NDF}$ : 473400.2/31

# asym\_atl\_avg\_correction\_mean vs Slug



Right In: 320.899 $\pm$ 540.384  $\chi^2$ /NDF: 18.0/16

Left Out: -1546.517 $\pm$ 736.542  $\chi^2$ /NDF:20.3/13

Right Out: -176.640 $\pm$ 433.552  $\chi^2$ /NDF: 20.8/18

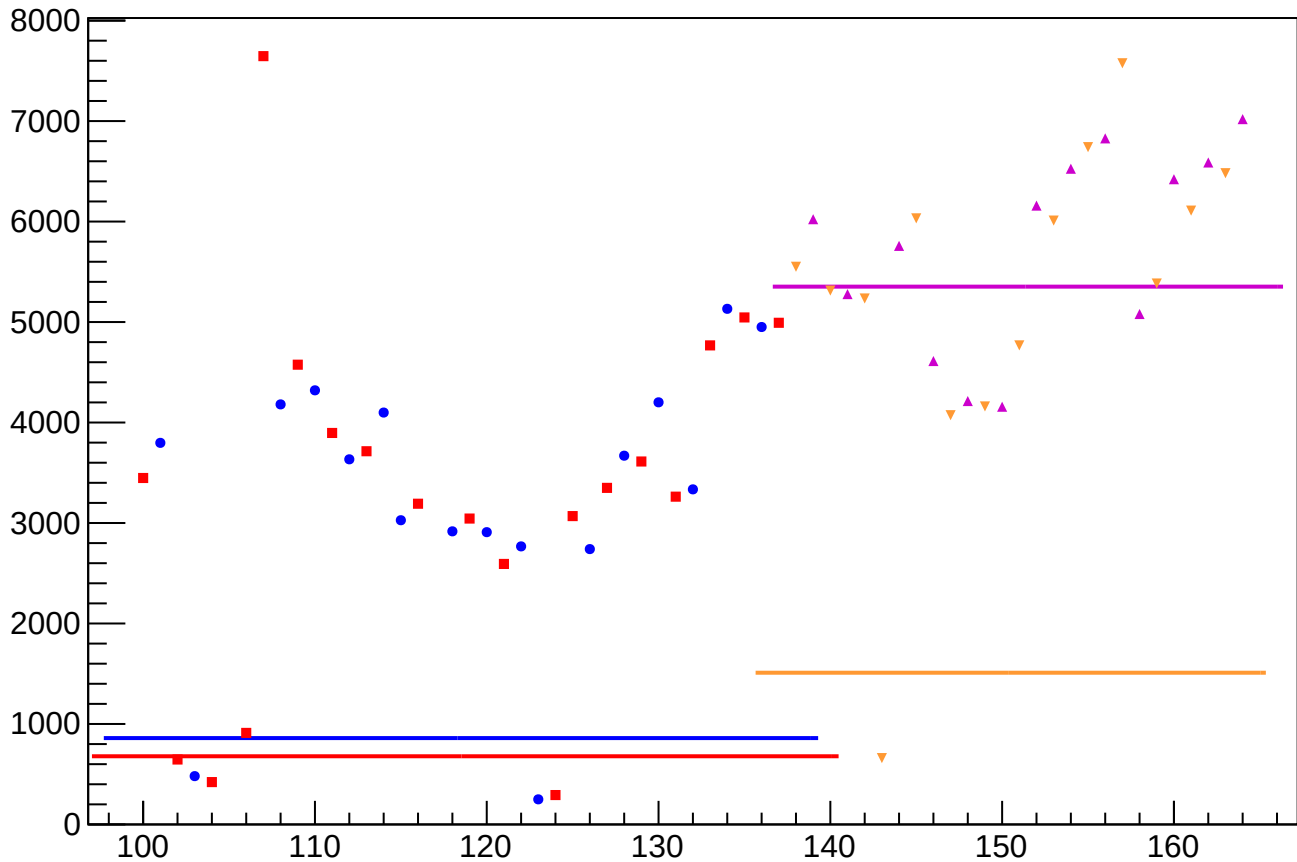
Left In: -1913.807 $\pm$ 1696.037  $\chi^2$ /NDF:9.0/12

+ sign -332.554 $\pm$ 435.697  $\chi^2$ /NDF: 42.5/30

All: -306.970 $\pm$ 302.399  $\chi^2$ /NDF: 73.2/62

- sign -283.192 $\pm$ 420.045  $\chi^2$ /NDF: 30.8/31

# asym\_atl\_avg\_correction\_rms vs Slug



Right In: 859.557+/-0.382  $\chi^2/\text{NDF}$ : 8143264.5/16

Left Out: 1510.070+/-0.521  $\chi^2/\text{NDF}$ :12528528.1/13

+ sign 1087.187+/-0.308  $\chi^2/\text{NDF}$ : 21685962.9/30

Right Out: 678.603+/-0.307  $\chi^2/\text{NDF}$ : 8384814.2/18

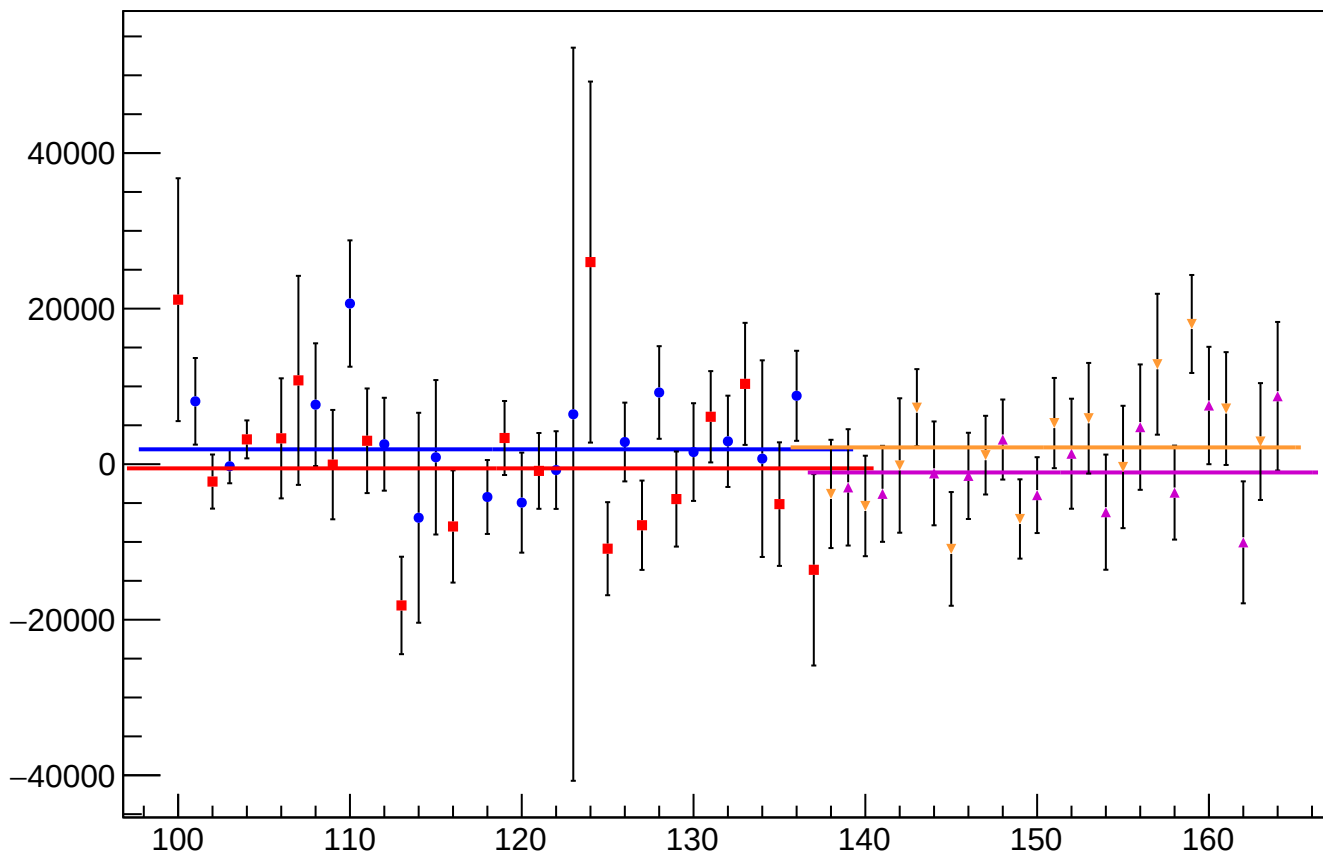
All: 1024.001+/-0.214  $\chi^2/\text{NDF}$ : 45059382.9/6

- sign 965.273+/-0.297  $\chi^2/\text{NDF}$ : 23292261.3/31

Left In: 5352.315+/-1.199  $\chi^2/\text{NDF}$ :651600.0/12



# asym\_atl\_avg\_mean vs Slug



Right In: 1909.348+/-1310.219  $\chi^2/\text{NDF}$ : 14.6/16

Left Out: 2157.233+/-1728.712  $\chi^2/\text{NDF}$ : 18.6/13

Right Out: -539.549+/-1285.817  $\chi^2/\text{NDF}$ : 26.4/18

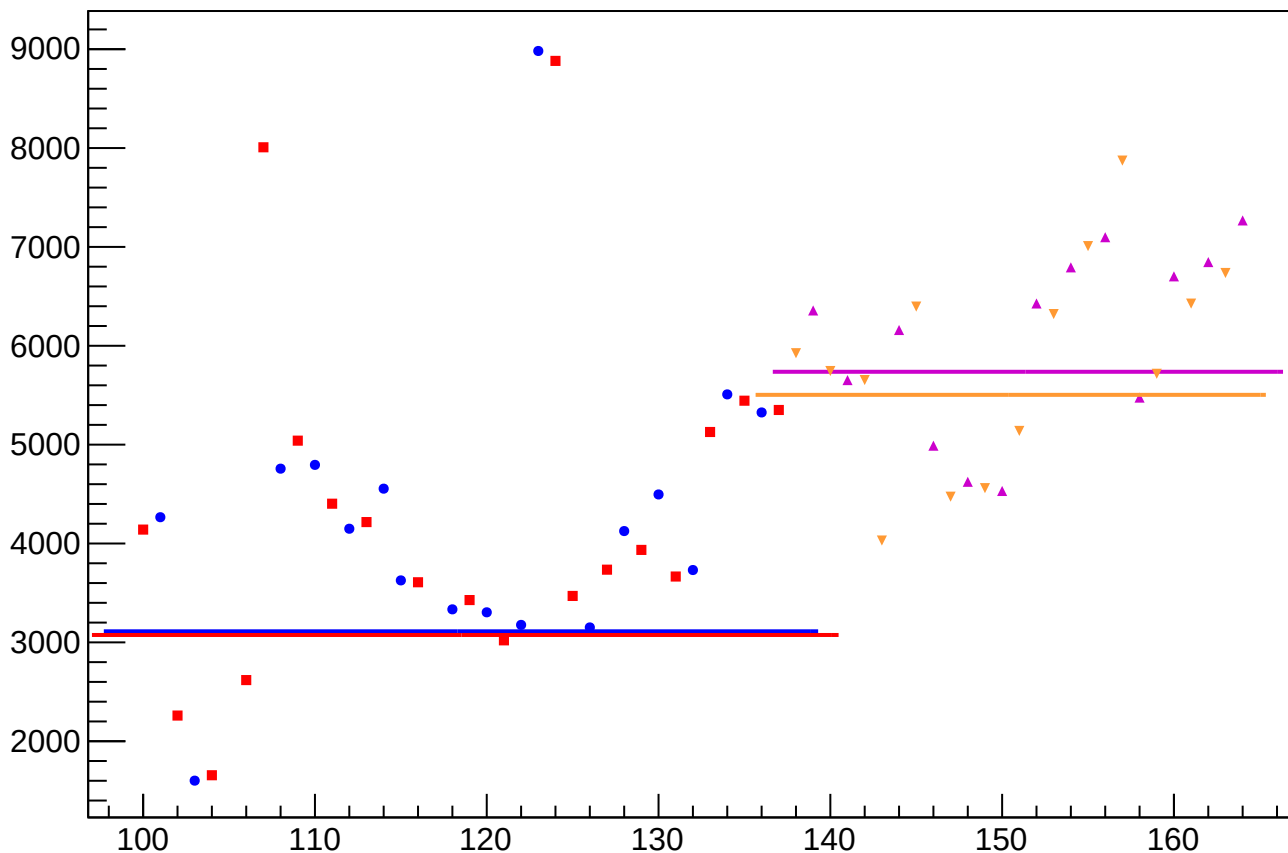
Left In: -1064.994+/-1811.714  $\chi^2/\text{NDF}$ : 6.3/12

+ sign 1999.789+/-1044.194  $\chi^2/\text{NDF}$ : 33.2/30

All: 647.792+/-739.899  $\chi^2/\text{NDF}$ : 69.3/62

- sign -715.561+/-1048.570  $\chi^2/\text{NDF}$ : 32.7/31

# asym\_atl\_avg\_rms vs Slug



Right In: 3111.825+/-0.926     $\chi^2/\text{NDF}$ : 1879558.6/16

Left Out: 5503.687+/-1.222     $\chi^2/\text{NDF}$ : 701269.9/13

Right Out: 3074.771+/-0.896     $\chi^2/\text{NDF}$ : 2005627.6/18

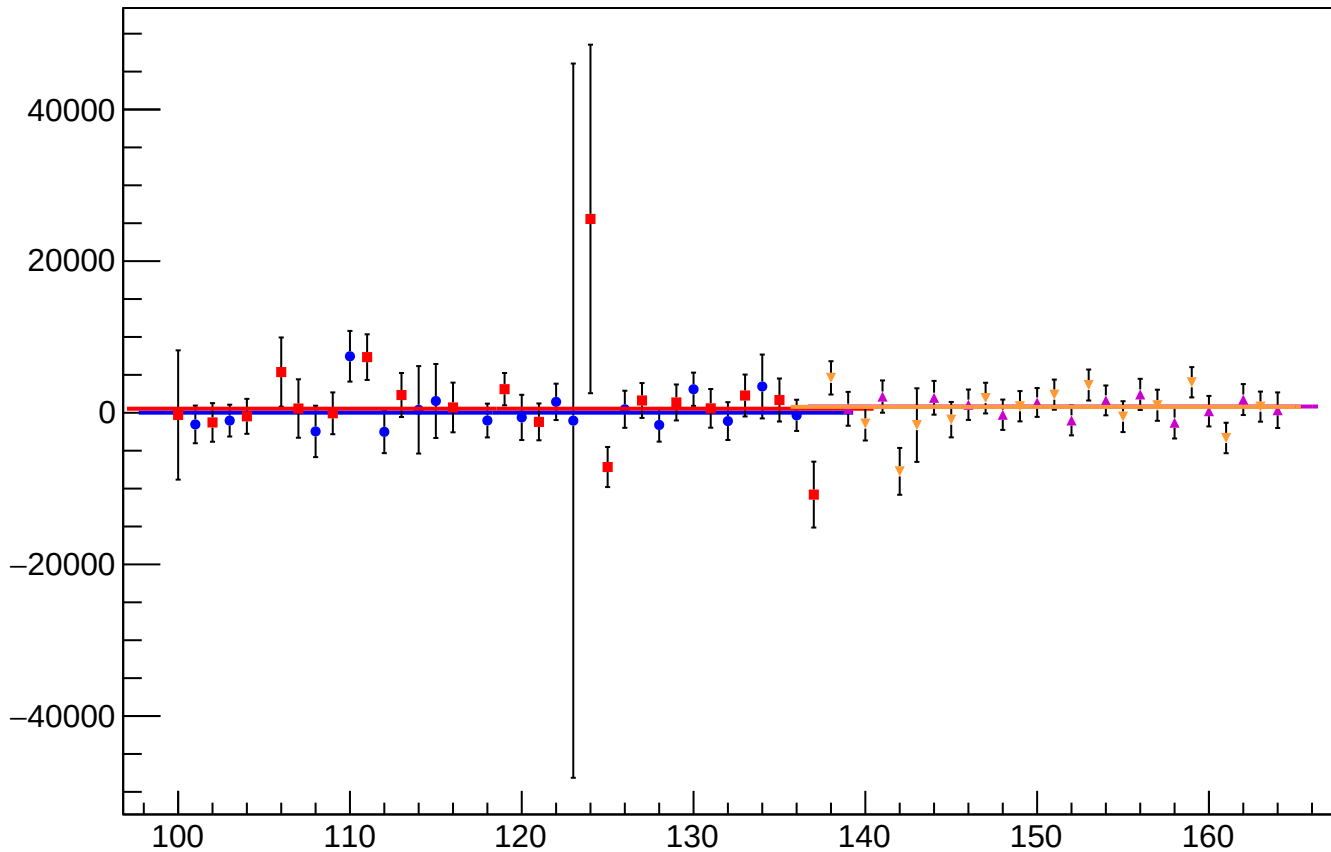
Left In: 5736.986+/-1.281     $\chi^2/\text{NDF}$ : 518841.7/12

+ sign 3984.496+/-0.738     $\chi^2/\text{NDF}$ : 5012658.5/30

All: 3966.826+/-0.521     $\chi^2/\text{NDF}$ : 10438097.8/6

- sign 3949.351+/-0.734     $\chi^2/\text{NDF}$ : 5424300.2/31

# reg\_asym\_atl\_dd\_mean vs Slug



Right In: 14.118 $\pm$ 661.101  $\chi^2$ /NDF: 11.1/16

Left Out: 776.321 $\pm$ 581.515  $\chi^2$ /NDF: 22.5/13

Right Out: 537.476 $\pm$ 661.143  $\chi^2$ /NDF: 26.7/18

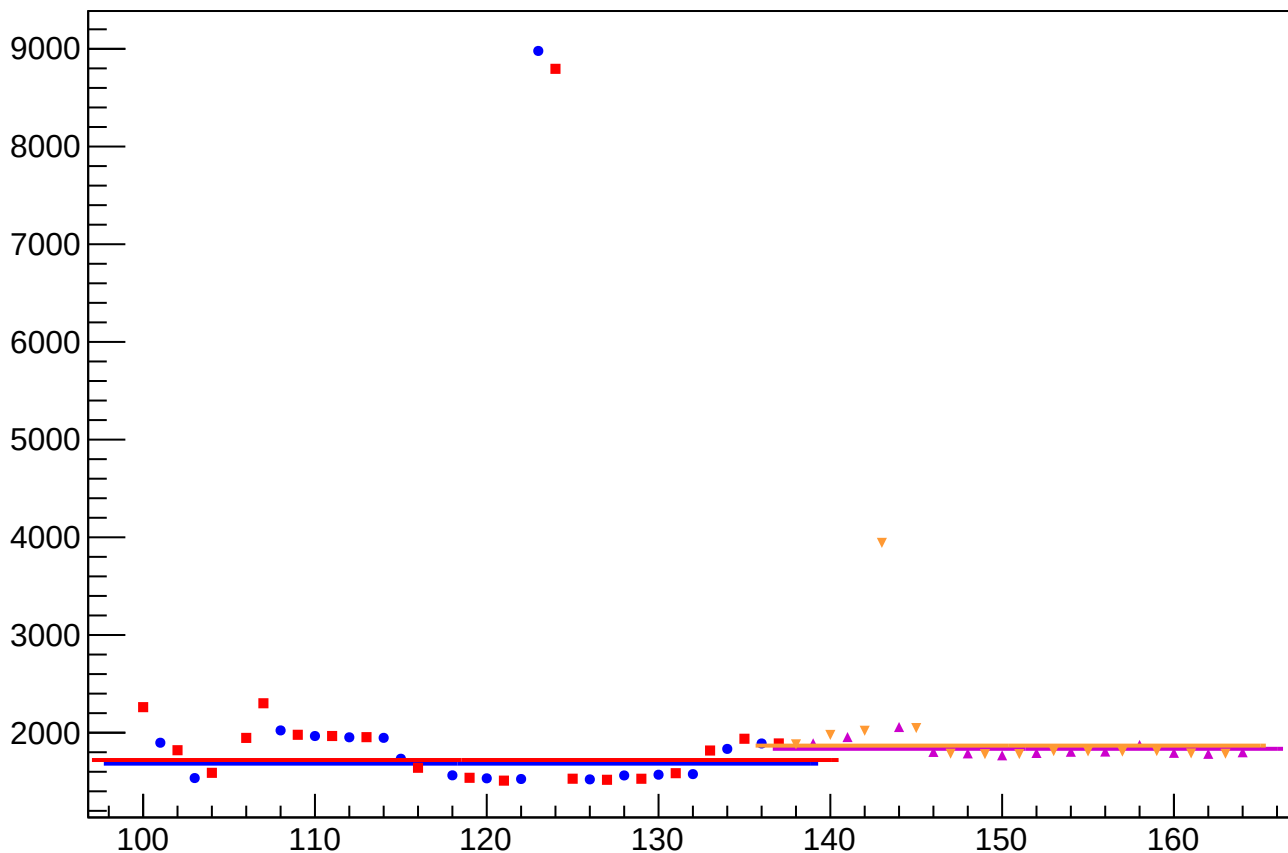
Left In: 825.514 $\pm$ 572.741  $\chi^2$ /NDF: 4.1/12

+ sign 443.837 $\pm$ 436.635  $\chi^2$ /NDF: 34.4/30

All: 574.042 $\pm$ 307.417  $\chi^2$ /NDF: 65.4/62

- sign 702.026 $\pm$ 432.895  $\chi^2$ /NDF: 30.9/31

# reg\_asym\_atl\_dd\_rms vs Slug



Right In: 1683.259+/-0.467  $\chi^2/\text{NDF}$ : 195893.7/16

Left Out: 1867.719+/-0.411  $\chi^2/\text{NDF}$ : 411455.0/13

Right Out: 1720.379+/-0.465  $\chi^2/\text{NDF}$ : 396099.9/18

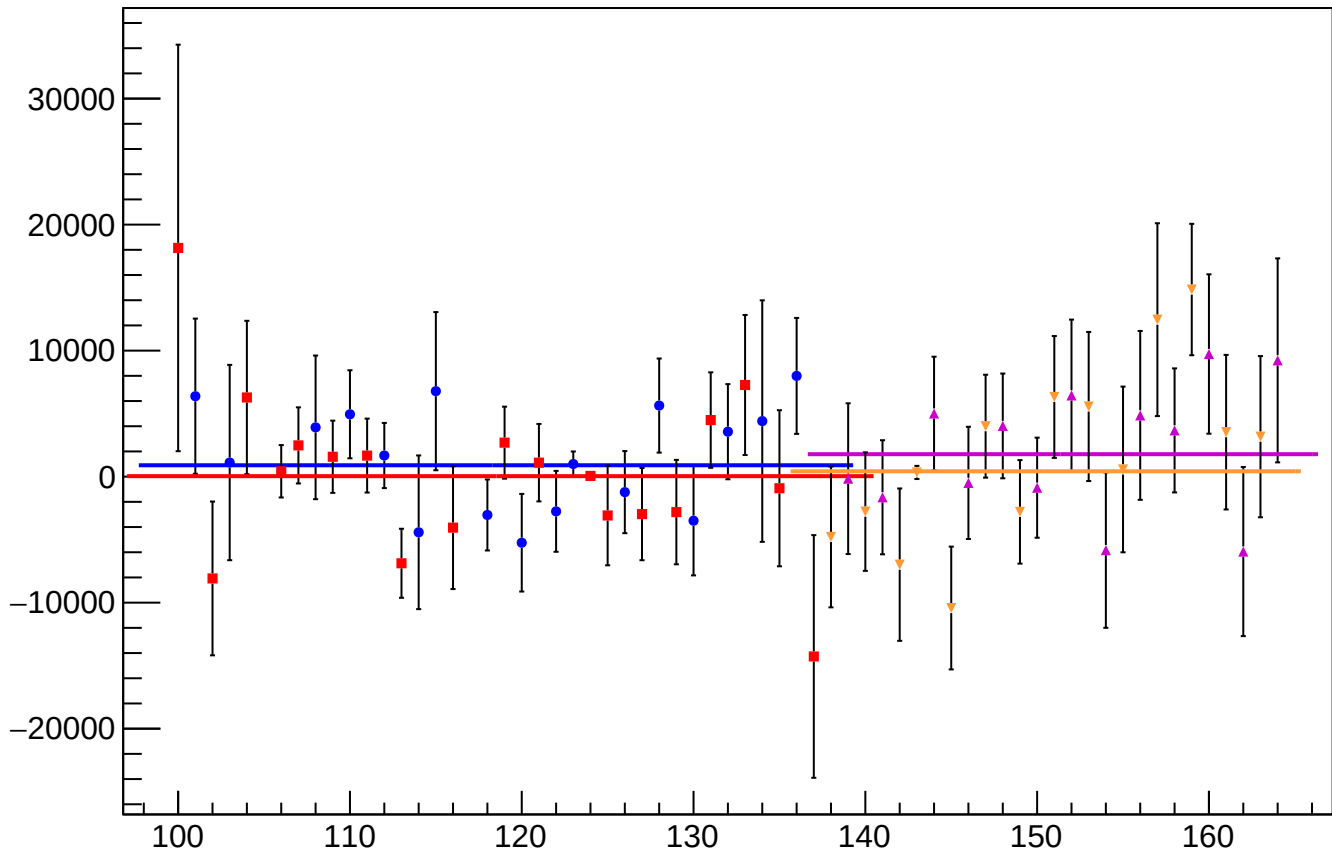
Left In: 1835.125+/-0.405  $\chi^2/\text{NDF}$ : 36837.7/12

+ sign 1787.255+/-0.309  $\chi^2/\text{NDF}$ : 695132.5/30

All: 1786.463+/-0.217  $\chi^2/\text{NDF}$ : 1162670.0/62

- sign 1785.687+/-0.306  $\chi^2/\text{NDF}$ : 467524.5/31

# asym\_atl\_dd\_correction\_mean vs Slug



Right In: 903.344+/-705.564  $\chi^2/\text{NDF}$ : 16.0/16

Left Out: 425.667+/-492.154  $\chi^2/\text{NDF}$ : 22.0/13

Right Out: 38.143+/-357.176  $\chi^2/\text{NDF}$ : 20.5/18

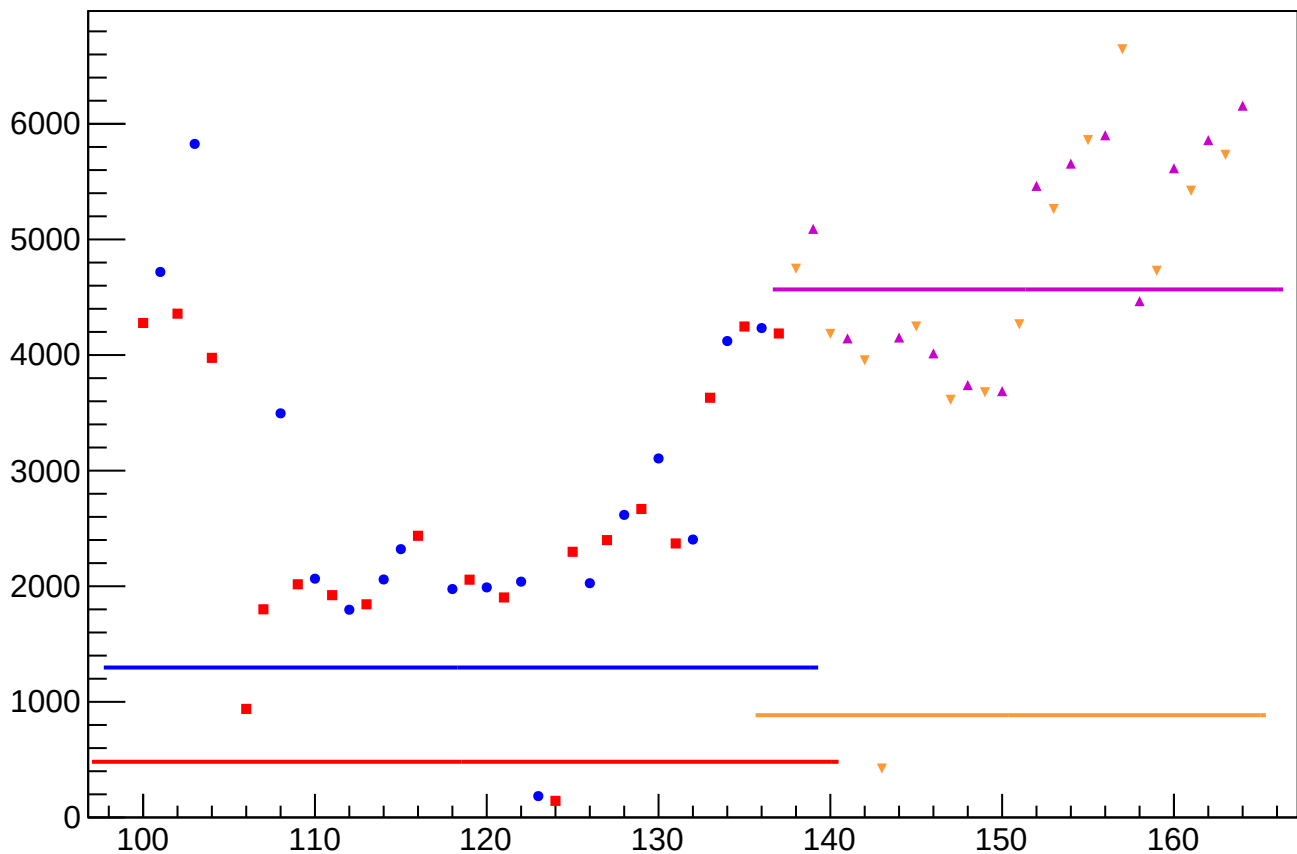
Left In: 1781.458+/-1446.825  $\chi^2/\text{NDF}$ : 8.4/12

+ sign 582.012+/-403.656  $\chi^2/\text{NDF}$ : 38.3/30

All: 326.702+/-263.035  $\chi^2/\text{NDF}$ : 69.3/62

- sign 138.285+/-346.766  $\chi^2/\text{NDF}$ : 30.3/31

# asym\_atl\_dd\_correction\_rms vs Slug



Right In: 1297.005+/-0.499  $\chi^2/\text{NDF}$ : 6509608.5/16

Left Out: 884.719+/-0.348  $\chi^2/\text{NDF}$ : 14467534.2/13

Right Out: 481.577+/-0.253  $\chi^2/\text{NDF}$ : 10144170.1/18

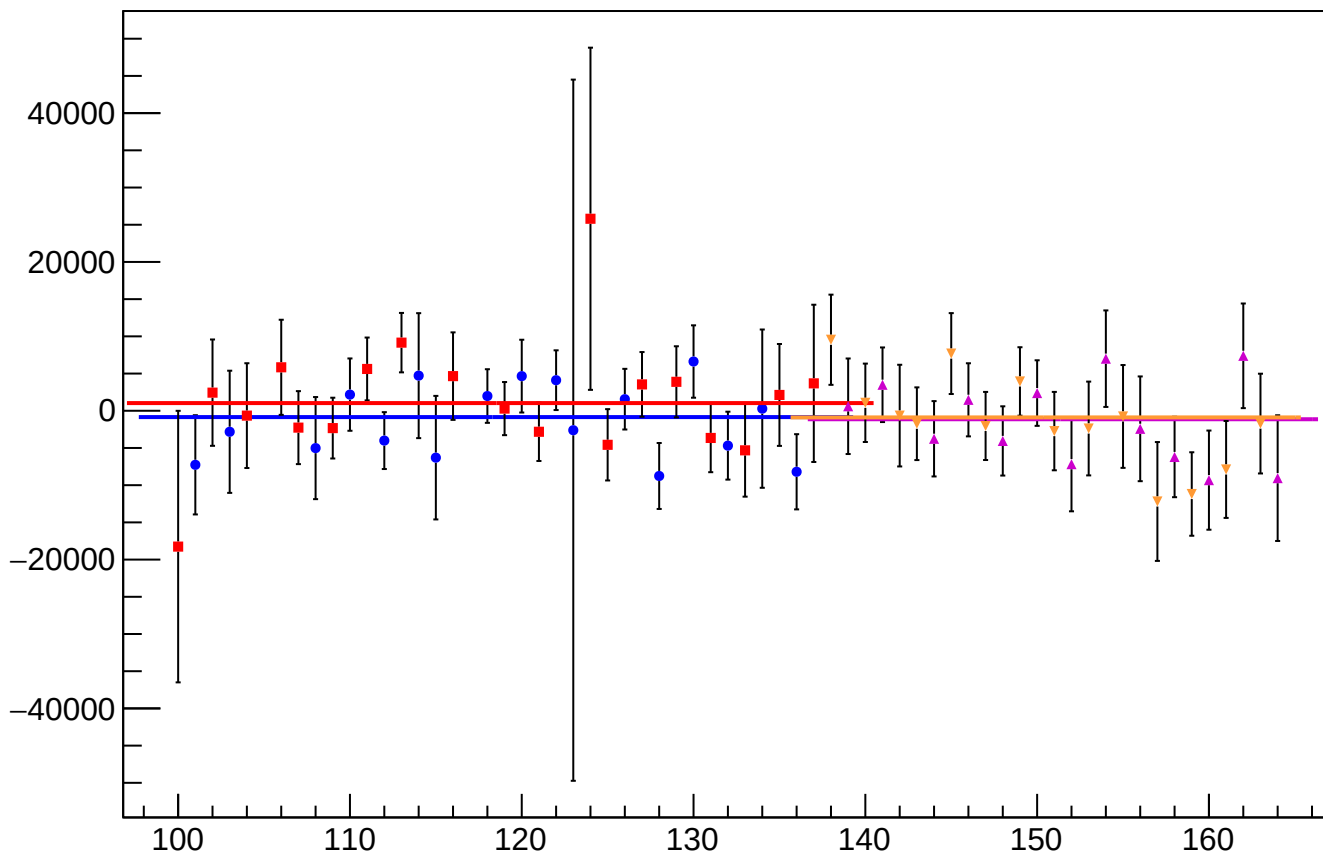
Left In: 4567.577+/-1.023  $\chi^2/\text{NDF}$ : 651110.2/12

+ sign 1019.661+/-0.285  $\chi^2/\text{NDF}$ : 21436522.6/30

All: 845.109+/-0.186  $\chi^2/\text{NDF}$ : 47916746.2/62

- sign 716.291+/-0.245  $\chi^2/\text{NDF}$ : 25830234.9/31

# asym\_atl\_dd\_mean vs Slug



Right In: -849.372 $\pm$ 1261.026  $\chi^2$ /NDF: 15.4/16

Left Out: -893.062 $\pm$ 1523.313  $\chi^2$ /NDF:13.5/13

Right Out: 1033.205 $\pm$ 1190.714  $\chi^2$ /NDF: 15.0/18

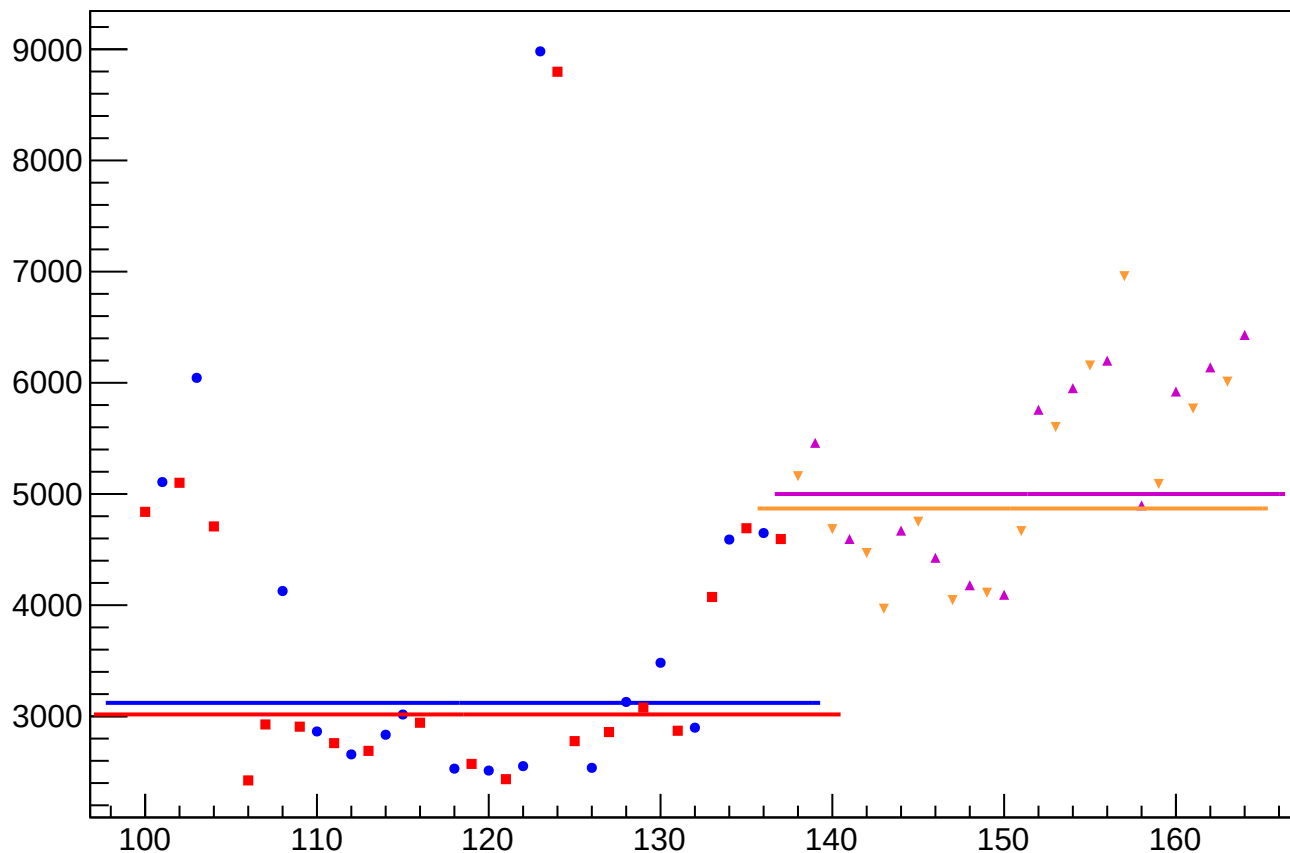
Left In: -1138.833 $\pm$ 1577.075  $\chi^2$ /NDF:9.8/12

+ sign -867.137 $\pm$ 971.376  $\chi^2$ /NDF: 28.9/30

All: -299.070 $\pm$ 679.285  $\chi^2$ /NDF: 55.6/62

- sign 244.590 $\pm$ 950.279  $\chi^2$ /NDF: 26.0/31

# asym\_atl\_dd\_rms vs Slug



Right In: 3121.417+/-0.892  $\chi^2/\text{NDF}$ : 945708.1/16

Left Out: 4869.719+/-1.077  $\chi^2/\text{NDF}$ : 537508.9/13

Right Out: 3017.215+/-0.831  $\chi^2/\text{NDF}$ : 791997.9/18

Left In: 4999.764+/-1.115  $\chi^2/\text{NDF}$ : 484506.1/12

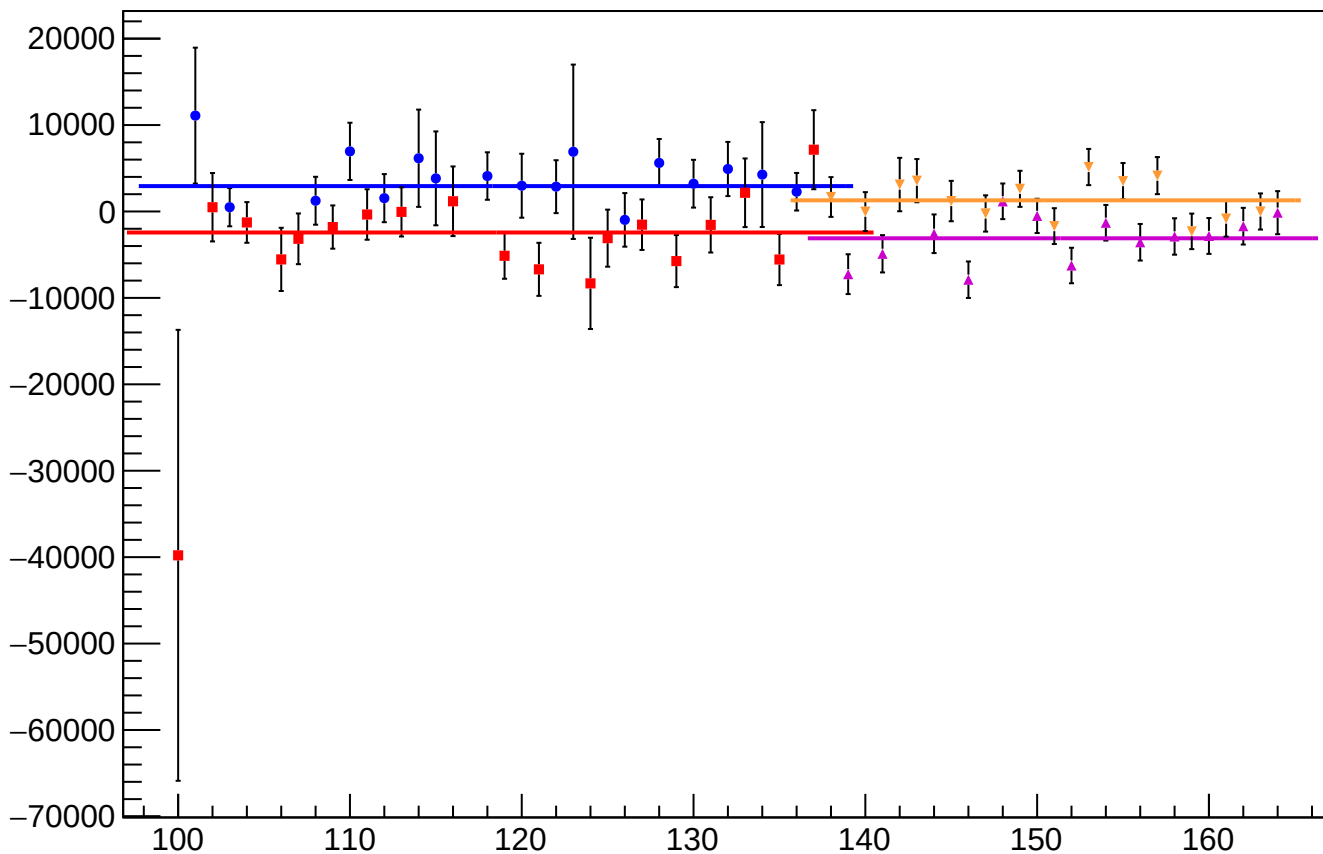
+ sign 3832.321+/-0.687  $\chi^2/\text{NDF}$ : 3046414.7/30

All: 3777.355+/-0.478  $\chi^2/\text{NDF}$ : 6366675.7/62

- sign 3725.588+/-0.667  $\chi^2/\text{NDF}$ : 3307825.9/31



# reg\_asym\_atr\_avg\_mean vs Slug



Right In: 2935.827 $\pm$ 775.365  $\chi^2$ /NDF: 8.2/16

Left Out: 1289.558 $\pm$ 588.195  $\chi^2$ /NDF:15.3/13

Right Out: -2432.756 $\pm$ 740.416  $\chi^2$ /NDF: 18.2/18

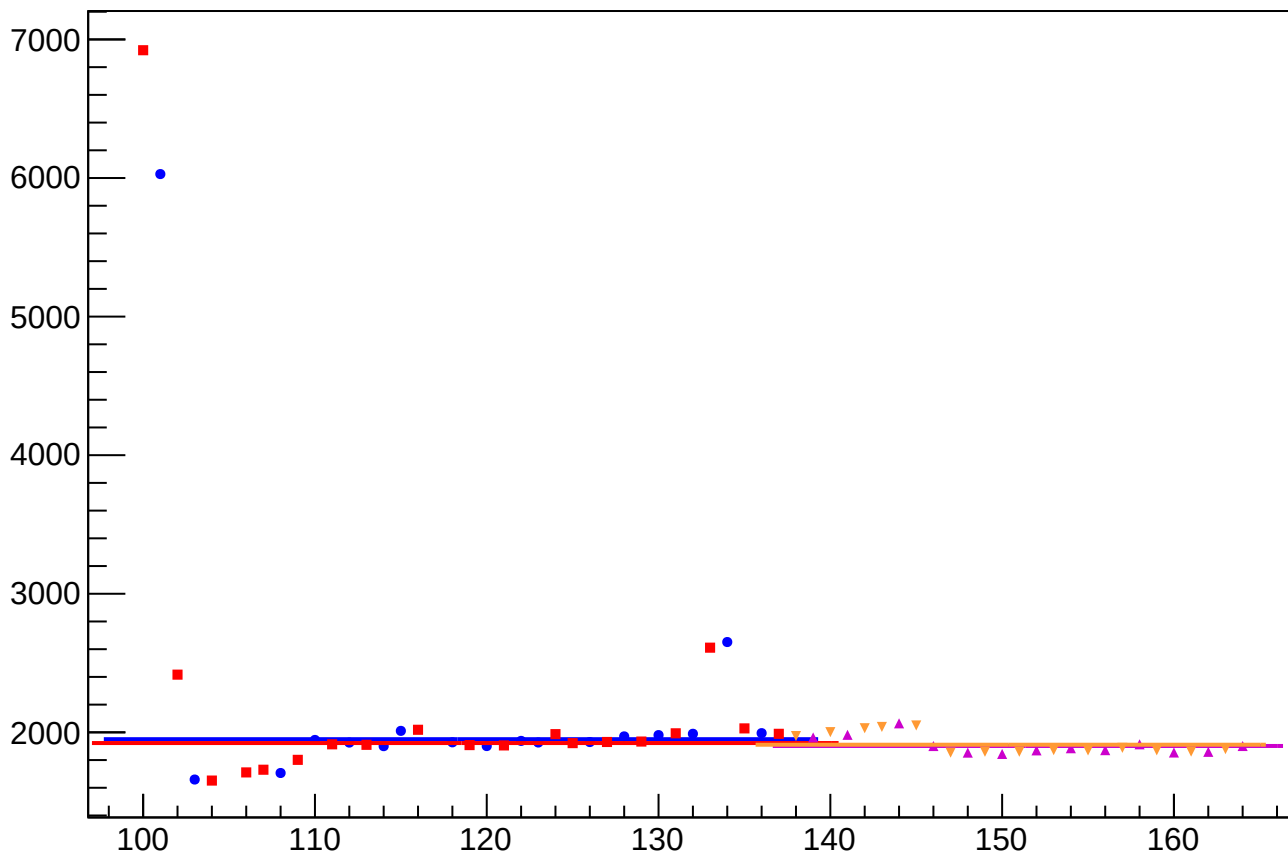
Left In: -3103.765 $\pm$ 591.936  $\chi^2$ /NDF:20.2/12

+ sign 1890.896 $\pm$ 468.614  $\chi^2$ /NDF: 26.3/30

All: -507.480 $\pm$ 329.121  $\chi^2$ /NDF: 116.9/62

- sign -2842.122 $\pm$ 462.345  $\chi^2$ /NDF: 38.9/31

# reg\_asym\_atr\_avg\_rms vs Slug



Right In: 1950.615 $\pm$ 0.548  $\chi^2$ /NDF: 617332.2/16

Left Out: 1910.667 $\pm$ 0.416  $\chi^2$ /NDF: 27971.1/13

Right Out: 1922.752 $\pm$ 0.522  $\chi^2$ /NDF: 217400.0/18

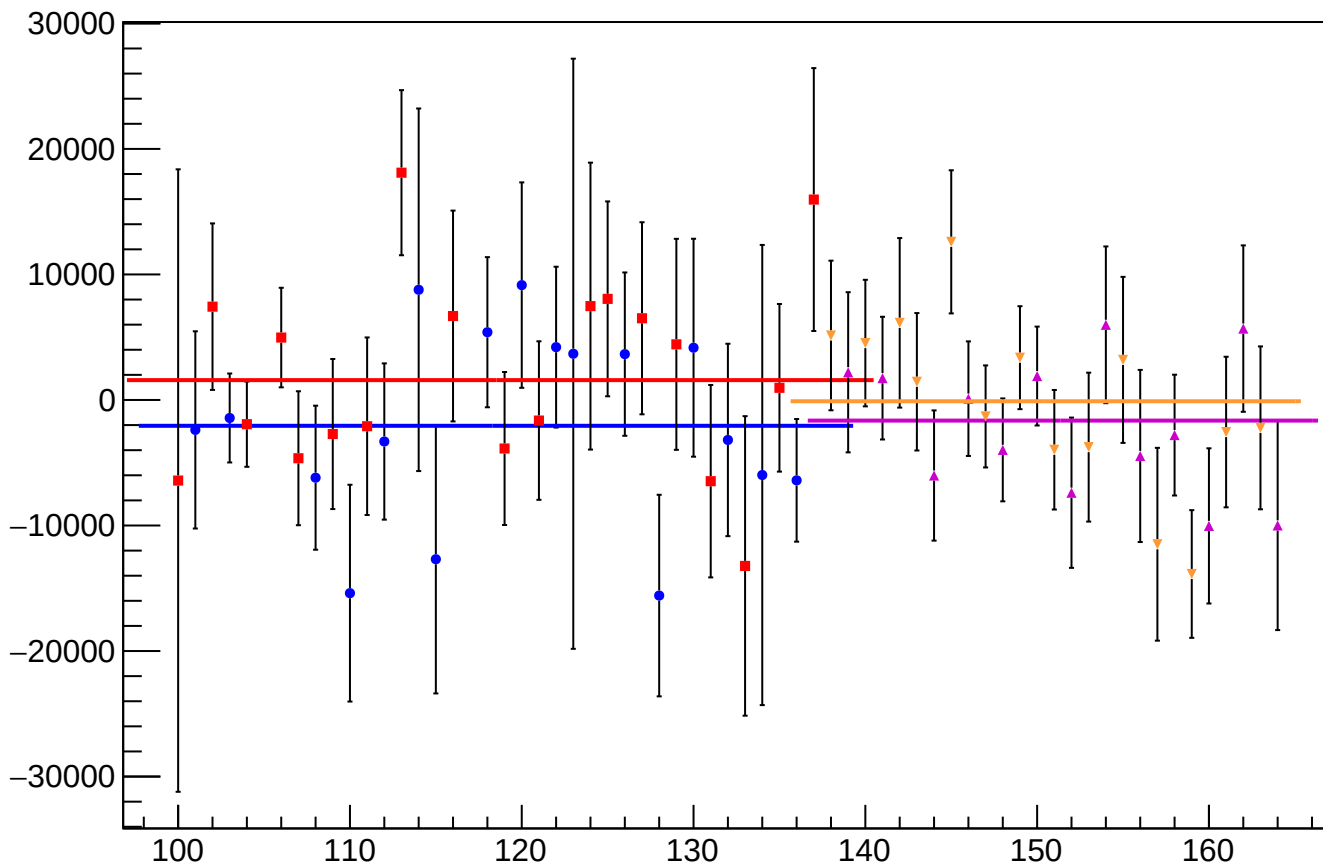
Left In: 1901.658 $\pm$ 0.419  $\chi^2$ /NDF: 20541.1/12

+ sign 1925.259 $\pm$ 0.331  $\chi^2$ /NDF: 648673.0/30

All: 1917.472 $\pm$ 0.233  $\chi^2$ /NDF: 888696.0/62

- sign 1909.906 $\pm$ 0.327  $\chi^2$ /NDF: 238934.2/31

# asym\_atr\_avg\_correction\_mean vs Slug



Right In: -2056.876 $\pm$ 1661.079  $\chi^2$ /NDF: 14.0/16

Left Out: -102.208 $\pm$ 1449.192  $\chi^2$ /NDF:19.4/13

Right Out: 1580.717 $\pm$ 1477.405  $\chi^2$ /NDF: 18.6/18

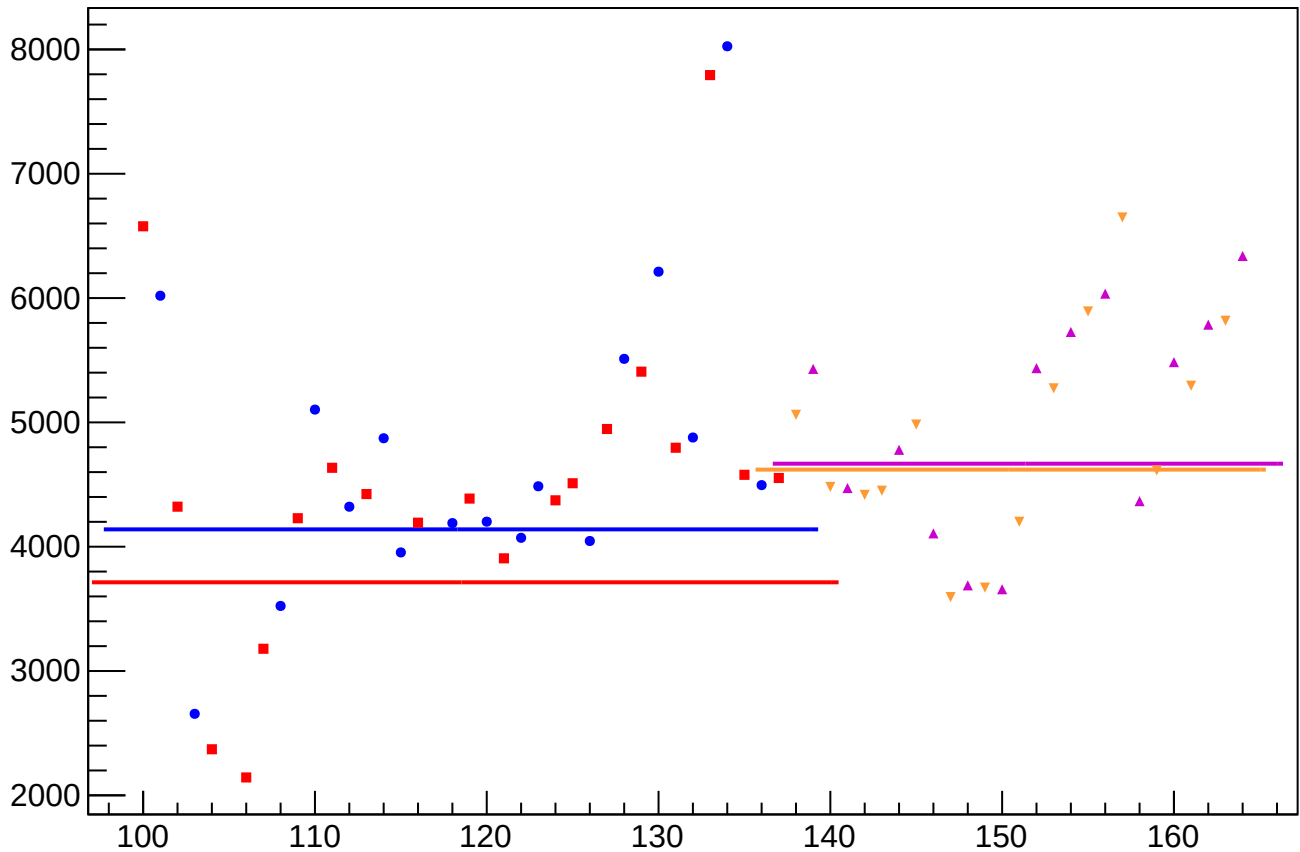
Left In: -1642.675 $\pm$ 1479.365  $\chi^2$ /NDF:9.5/12

+ sign -946.996 $\pm$ 1092.012  $\chi^2$ /NDF: 34.1/30

All: -467.895 $\pm$ 755.141  $\chi^2$ /NDF: 65.0/62

- sign -28.842 $\pm$ 1045.375  $\chi^2$ /NDF: 30.5/31

# asym\_atr\_avg\_correction\_rms vs Slug



Right In: 4139.394+/-1.175  $\chi^2/\text{NDF}$ : 813550.8/16

Left Out: 4620.055+/-1.025  $\chi^2/\text{NDF}$ : 605614.2/13

+ sign 4412.318+/-0.772  $\chi^2/\text{NDF}$ : 1514254.0/30

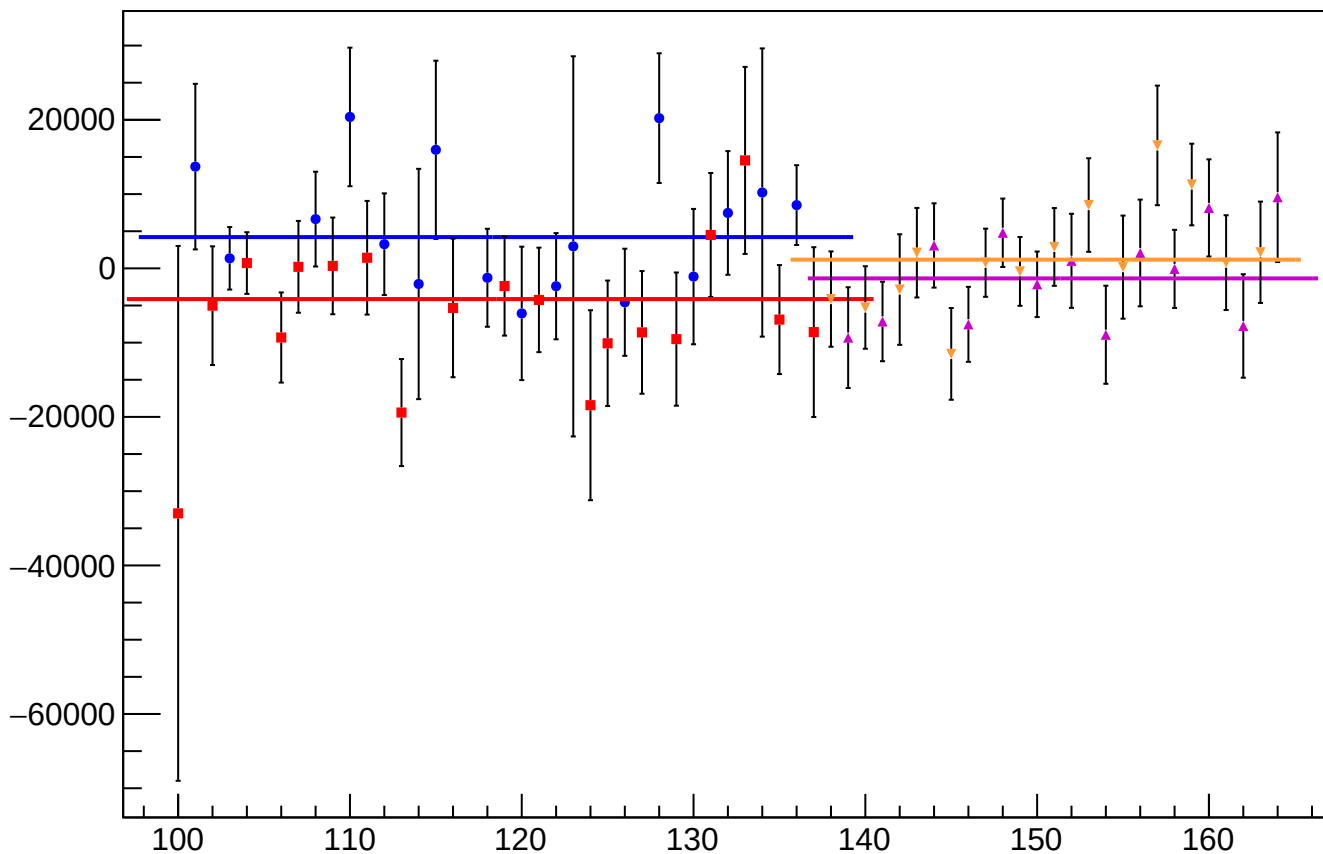
Right Out: 3713.526+/-1.045  $\chi^2/\text{NDF}$ : 1275828.5/18

All: 4296.328+/-0.534  $\chi^2/\text{NDF}$ : 3908600.8/62

- sign 4190.034+/-0.739  $\chi^2/\text{NDF}$ : 2351104.9/31

Left In: 4667.807+/-1.046  $\chi^2/\text{NDF}$ : 658620.6/12

# asym\_atr\_avg\_mean vs Slug



Right In: 4211.844+/-1871.304  $\chi^2/\text{NDF}$ : 14.4/16

Left Out: 1173.831+/-1582.172  $\chi^2/\text{NDF}$ : 15.2/13

Right Out: -4133.660+/-1725.341  $\chi^2/\text{NDF}$ : 14.8/18

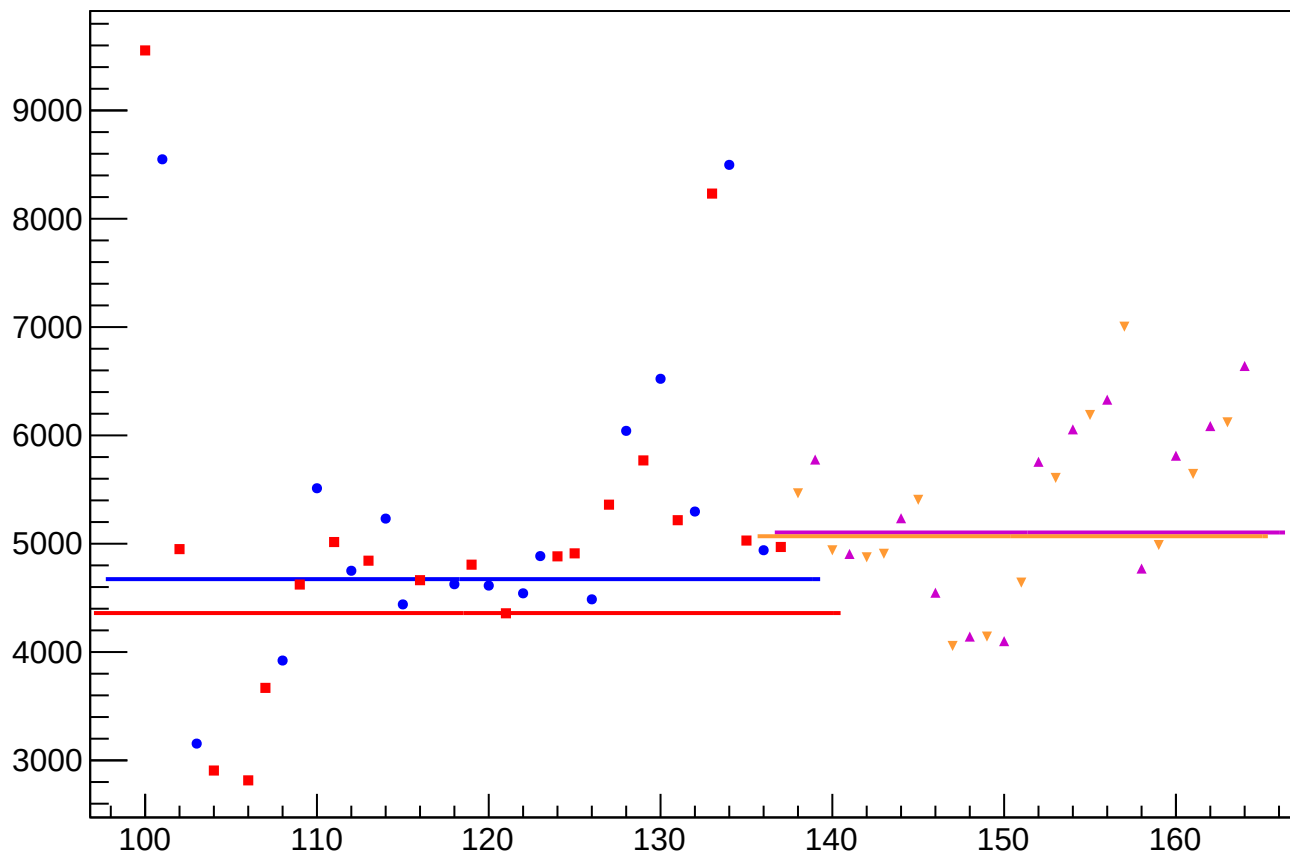
Left In: -1351.970+/-1609.840  $\chi^2/\text{NDF}$ : 12.7/12

+ sign 2440.259+/-1208.203  $\chi^2/\text{NDF}$ : 31.2/30

All: -169.606+/-843.096  $\chi^2/\text{NDF}$ : 69.2/62

- sign -2646.598+/-1177.045  $\chi^2/\text{NDF}$ : 28.9/31

# asym\_atr\_avg\_rms vs Slug



Right In:  $4673.046 \pm 1.323$   $\chi^2/\text{NDF}$ : 777321.1/16

Left Out:  $5069.078 \pm 1.119$   $\chi^2/\text{NDF}$ : 454404.5/13

Right Out:  $4359.833 \pm 1.213$   $\chi^2/\text{NDF}$ : 832191.0/18

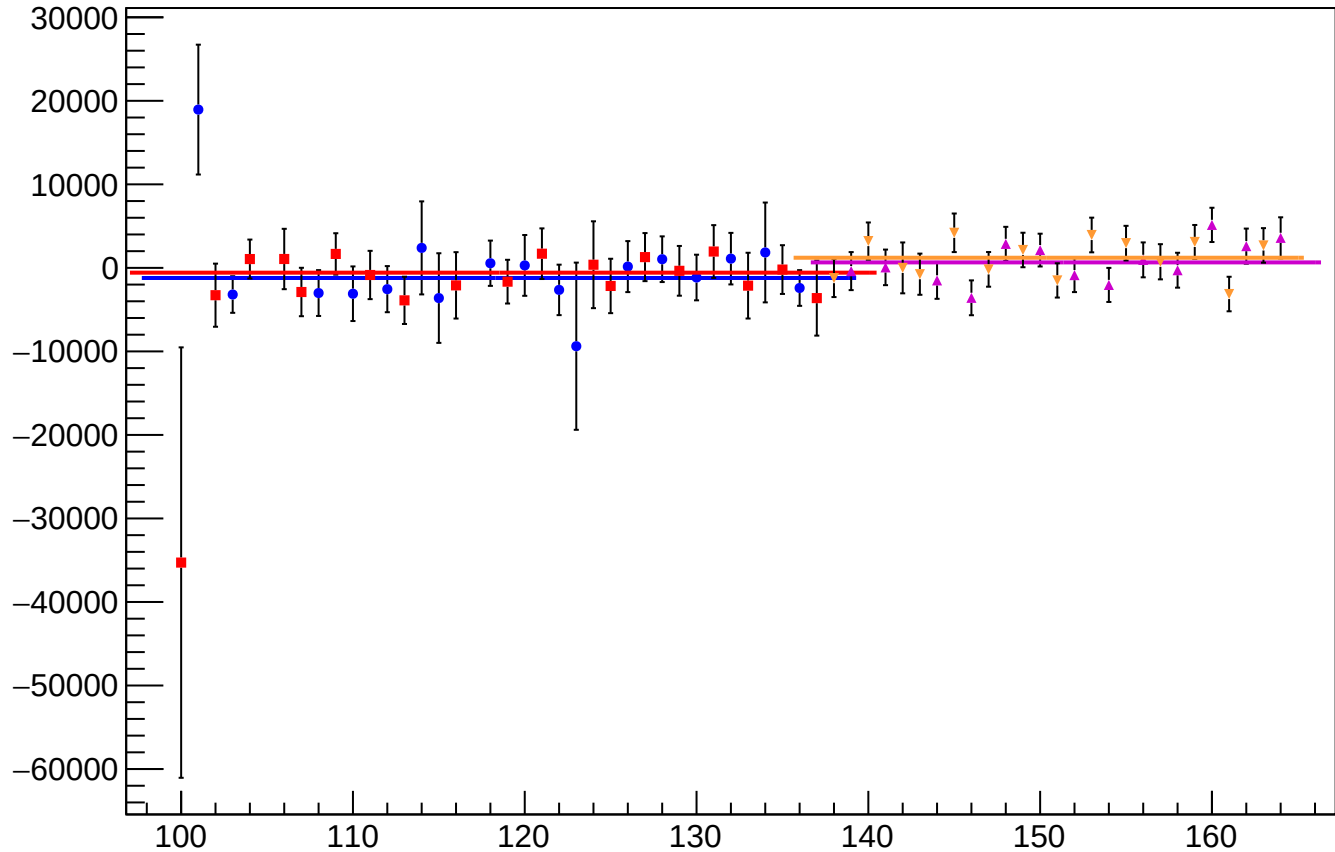
Left In:  $5103.664 \pm 1.138$   $\chi^2/\text{NDF}$ : 492523.5/12

+ sign  $4903.988 \pm 0.854$   $\chi^2/\text{NDF}$ : 1283962.3/30

All:  $4827.518 \pm 0.595$   $\chi^2/\text{NDF}$ : 2824205.7/62

- sign  $4755.333 \pm 0.830$   $\chi^2/\text{NDF}$ : 1524668.8/31

# reg\_asym\_atr\_dd\_mean vs Slug



Right In:  $-1211.176 \pm 765.294$   $\chi^2/\text{NDF}$ : 12.7/16

Left Out:  $1213.441 \pm 581.297$   $\chi^2/\text{NDF}$ : 15.1/13

Right Out:  $-573.457 \pm 730.668$   $\chi^2/\text{NDF}$ : 8.7/18

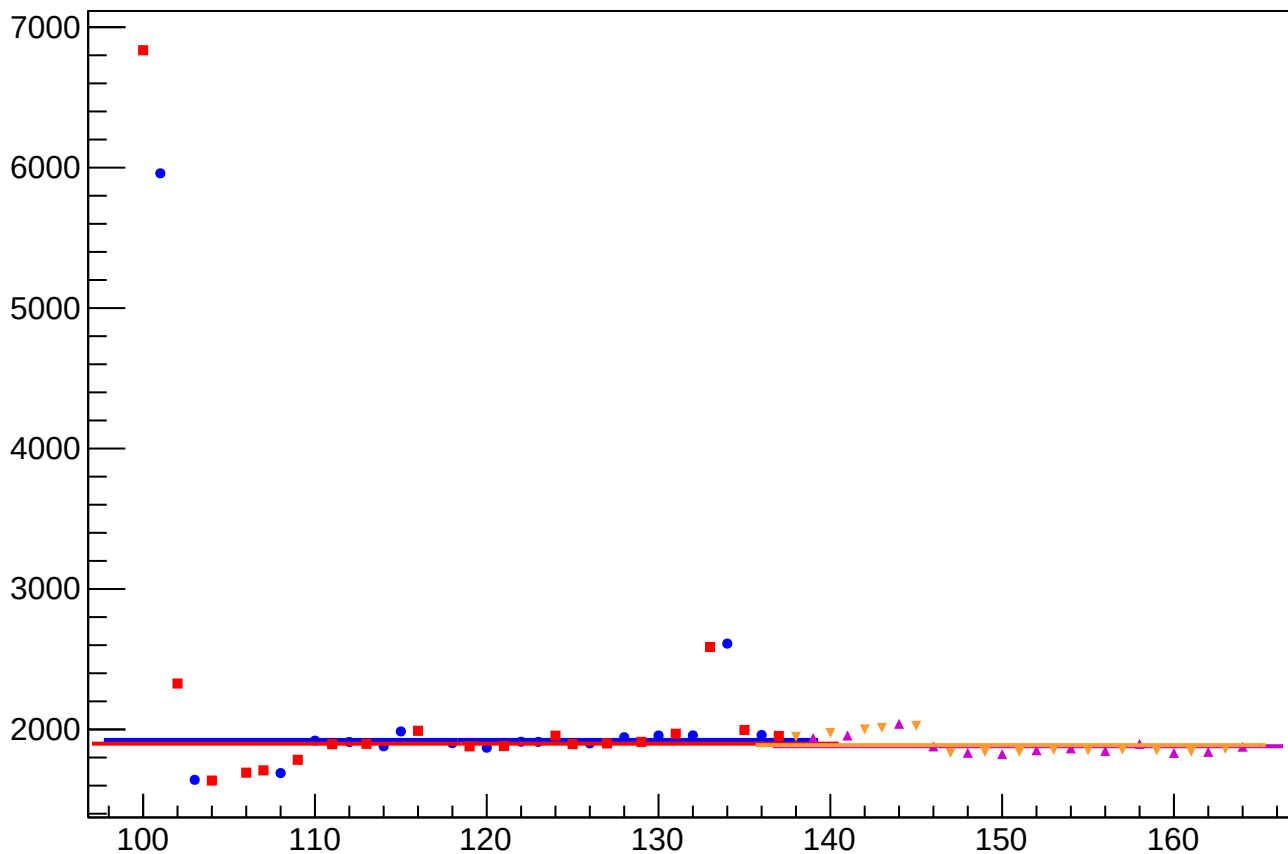
Left In:  $655.617 \pm 585.378$   $\chi^2/\text{NDF}$ : 16.7/12

+ sign  $326.358 \pm 462.902$   $\chi^2/\text{NDF}$ : 34.1/30

All:  $249.751 \pm 325.159$   $\chi^2/\text{NDF}$ : 61.3/62

- sign  $175.134 \pm 456.846$   $\chi^2/\text{NDF}$ : 27.2/31

# reg\_asym\_atr\_dd\_rms vs Slug



Right In: 1925.320 $\pm$ 0.541  $\chi^2$ /NDF: 615863.6/16

Left Out: 1888.357 $\pm$ 0.411  $\chi^2$ /NDF:26458.7/13

Right Out: 1898.854 $\pm$ 0.515  $\chi^2$ /NDF: 210875.1/18

Left In: 1880.618 $\pm$ 0.414  $\chi^2$ /NDF:19979.3/12

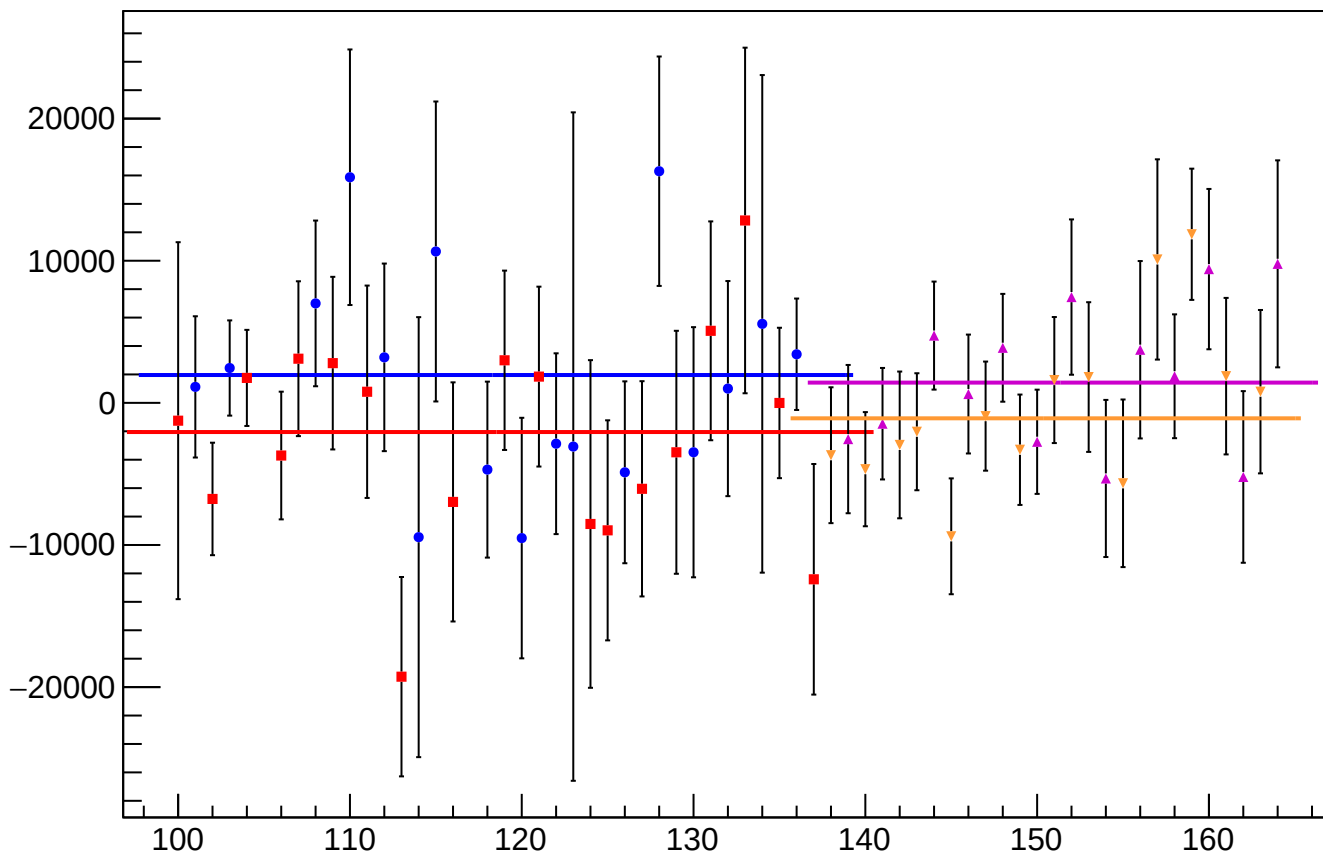
+ sign 1901.880 $\pm$ 0.327  $\chi^2$ /NDF: 645281.0/30

All: 1894.724 $\pm$ 0.230  $\chi^2$ /NDF: 877838.9/62

- sign 1887.767 $\pm$ 0.323  $\chi^2$ /NDF: 231615.3/31



# asym\_atr\_dd\_correction\_mean vs Slug



Right In: 1959.060 $\pm$ 1556.840  $\chi^2$ /NDF: 12.9/16

Left Out: -1087.634 $\pm$ 1247.345  $\chi^2$ /NDF: 17.8/13

Right Out: -2052.842 $\pm$ 1413.641  $\chi^2$ /NDF: 17.4/18

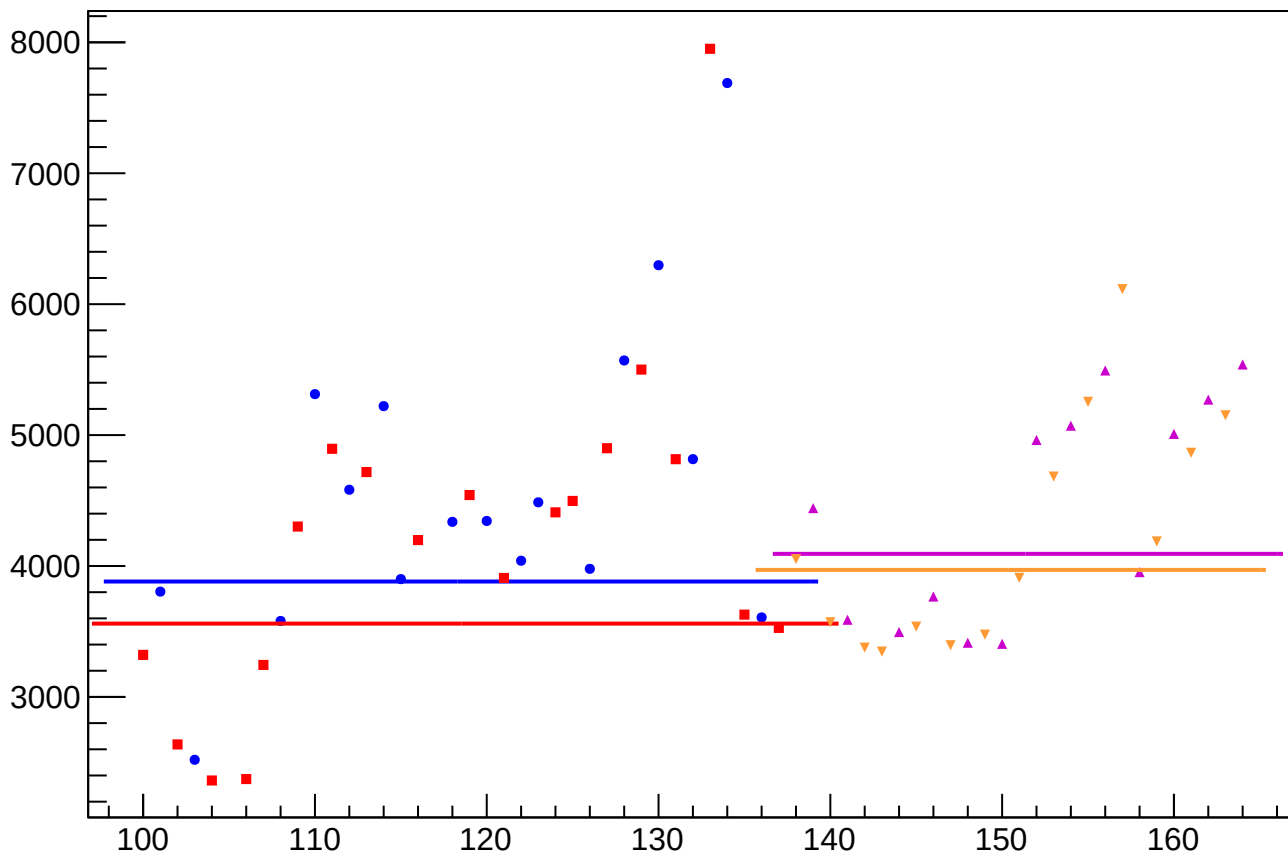
Left In: 1424.971 $\pm$ 1297.124  $\chi^2$ /NDF: 11.0/12

+ sign 103.499 $\pm$ 973.442  $\chi^2$ /NDF: 33.1/30

All: -33.072 $\pm$ 681.985  $\chi^2$ /NDF: 64.9/62

- sign -164.724 $\pm$ 955.747  $\chi^2$ /NDF: 31.7/31

# asym\_atr\_dd\_correction\_rms vs Slug



Right In: 3881.577+/-1.101  $\chi^2/\text{NDF}$ : 817466.6/16

Left Out: 3970.284+/-0.882  $\chi^2/\text{NDF}$ : 651600.9/13

Right Out: 3560.054+/-1.000  $\chi^2/\text{NDF}$ : 1241523.0/18

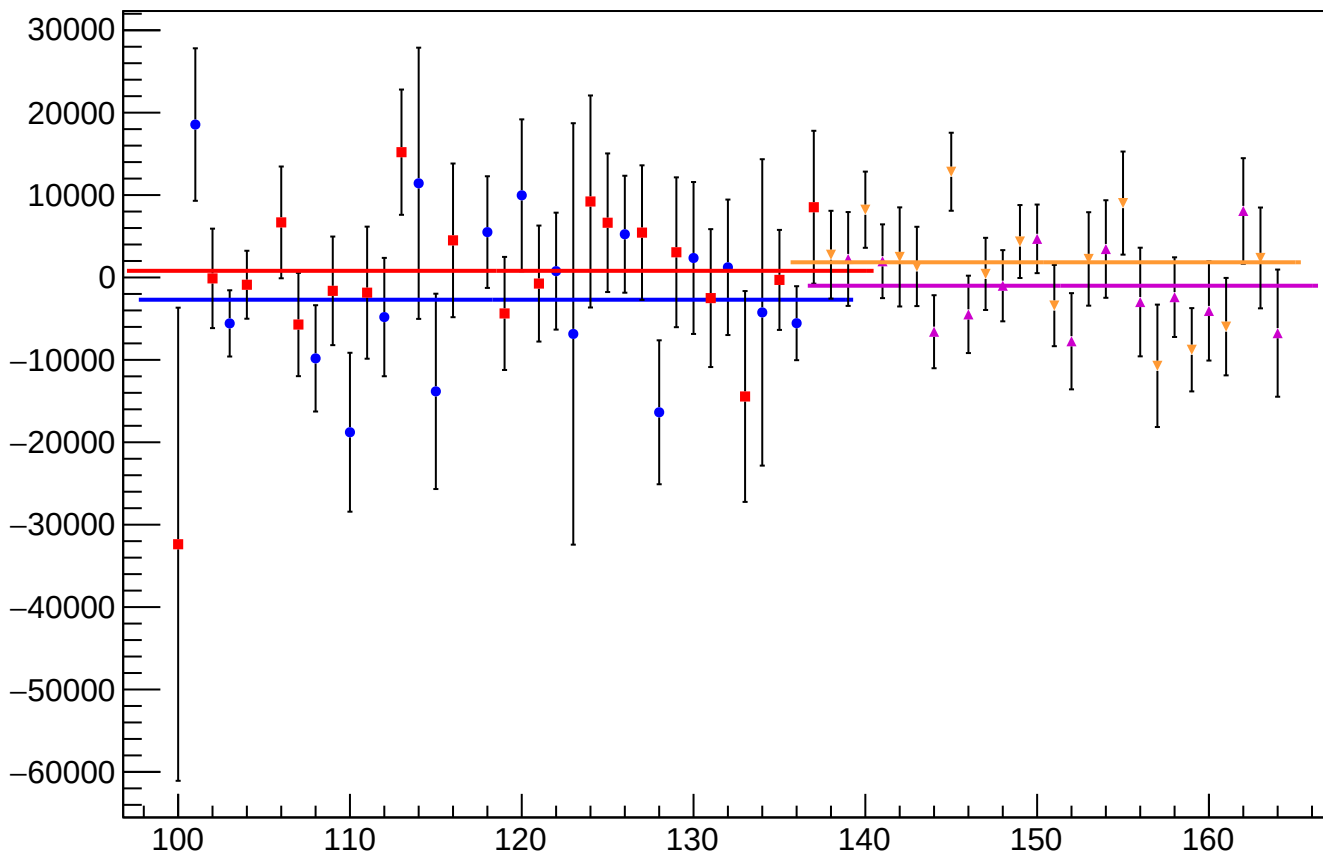
Left In: 4092.893+/-0.917  $\chi^2/\text{NDF}$ : 661719.2/12

+ sign 3935.603+/-0.688  $\chi^2/\text{NDF}$ : 1473022.1/30

All: 3891.678+/-0.482  $\chi^2/\text{NDF}$ : 3538527.3/62

- sign 3849.334+/-0.676  $\chi^2/\text{NDF}$ : 2057507.1/31

# asym\_atr\_dd\_mean vs Slug



Right In:  $-2700.702 \pm 1809.055$   $\chi^2/\text{NDF}$ : 19.8/16

Left Out:  $1842.277 \pm 1398.849$   $\chi^2/\text{NDF}$ : 19.3/13

Right Out:  $805.951 \pm 1690.353$   $\chi^2/\text{NDF}$ : 11.6/18

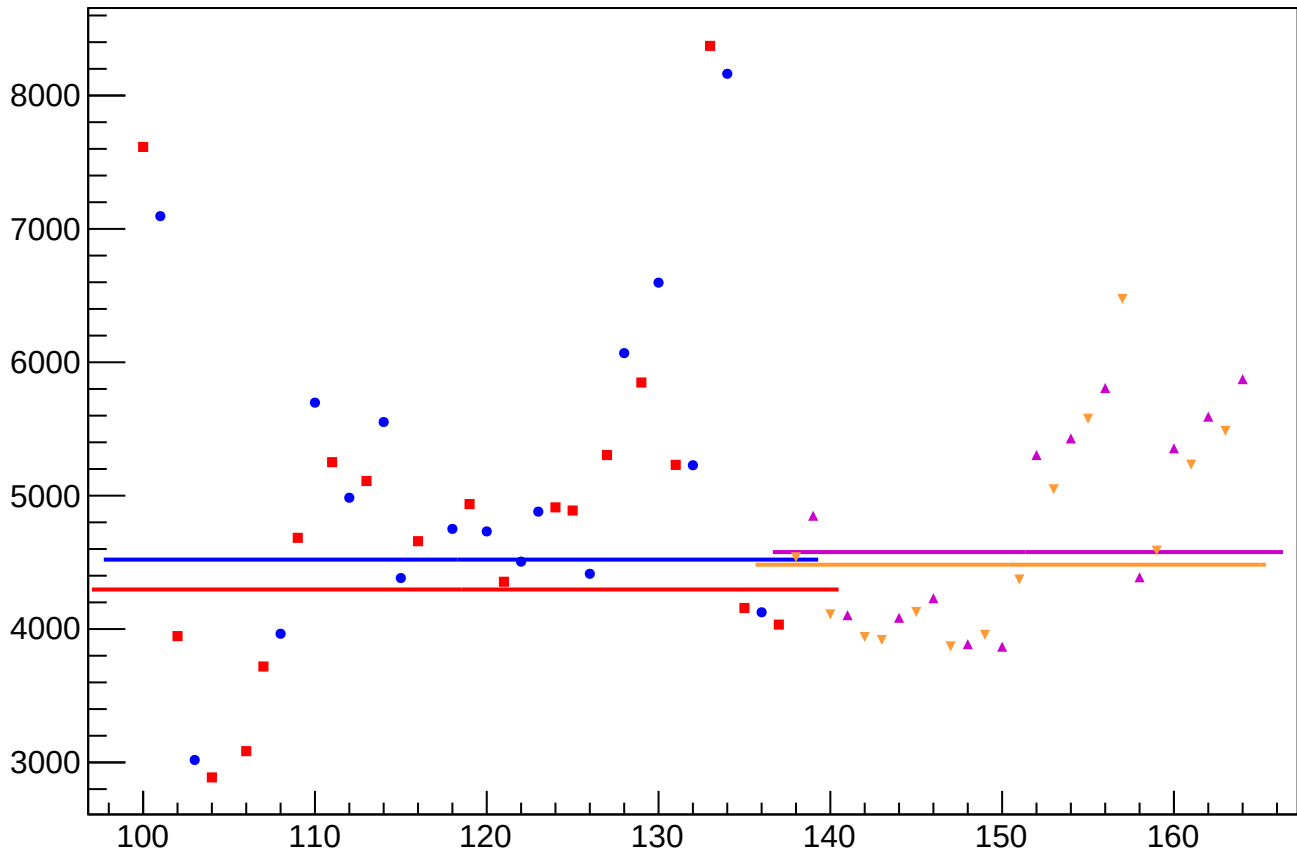
Left In:  $-1003.298 \pm 1442.153$   $\chi^2/\text{NDF}$ : 9.7/12

+ sign  $142.368 \pm 1106.609$   $\chi^2/\text{NDF}$ : 43.0/30

All:  $-51.034 \pm 779.113$   $\chi^2/\text{NDF}$ : 64.9/62

- sign  $-241.132 \pm 1097.117$   $\chi^2/\text{NDF}$ : 21.9/31

# asym\_atr\_dd\_rms vs Slug



Right In: 4520.685+/-1.279  $\chi^2/\text{NDF}$ : 770887.4/16

Left Out: 4482.536+/-0.989  $\chi^2/\text{NDF}$ : 448592.4/13

+ sign 4496.811+/-0.782  $\chi^2/\text{NDF}$ : 1220036.4/30

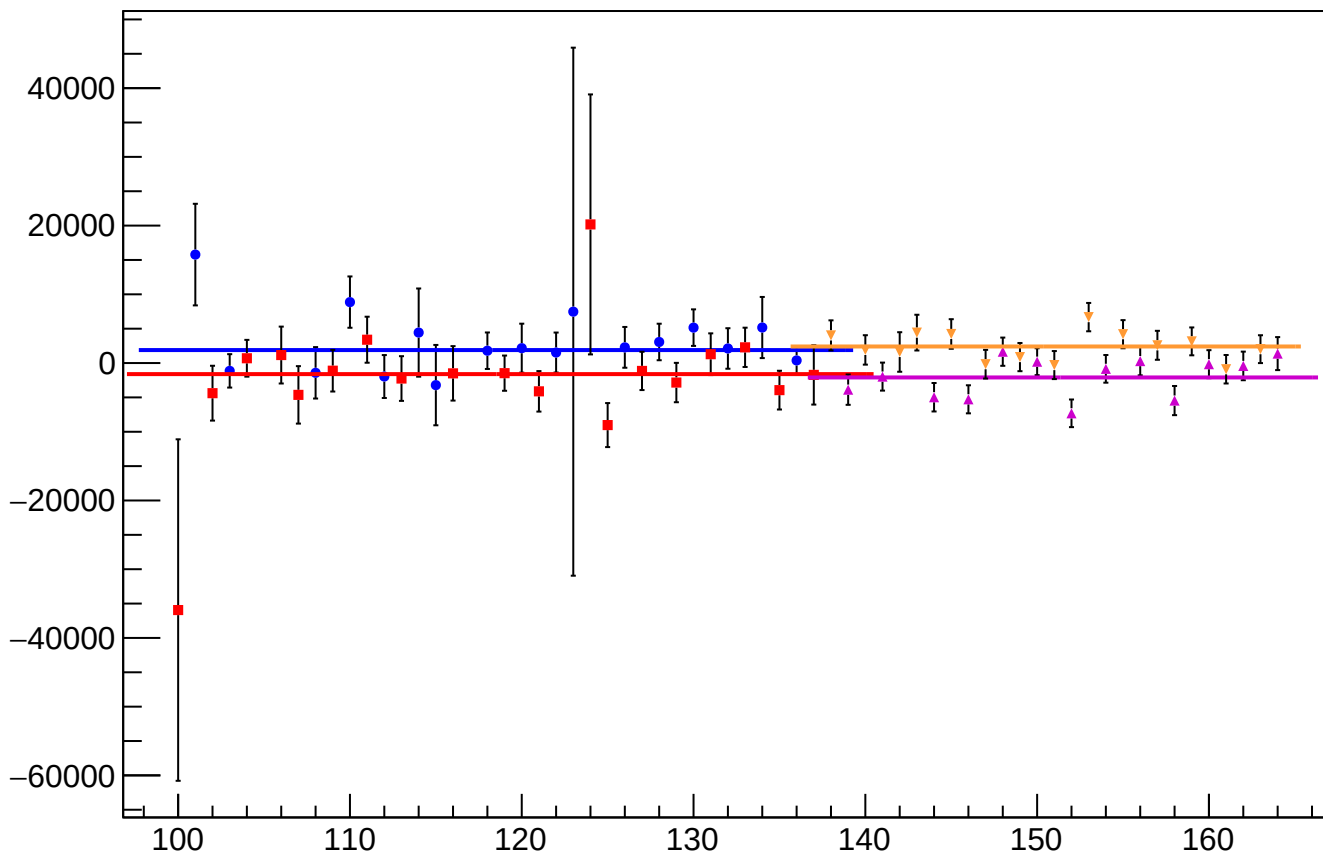
Right Out: 4296.527+/-1.189  $\chi^2/\text{NDF}$ : 771785.2/18

All: 4477.286+/-0.550  $\chi^2/\text{NDF}$ : 2482176.9/62

- sign 4458.185+/-0.774  $\chi^2/\text{NDF}$ : 1260908.9/31

Left In: 4577.172+/-1.020  $\chi^2/\text{NDF}$ : 457012.0/12

# reg\_asym\_at1\_avg\_mean vs Slug



Right In: 1887.915 $\pm$ 783.827  $\chi^2$ /NDF: 14.7/16

Left Out: 2409.351 $\pm$ 573.786  $\chi^2$ /NDF:13.6/13

Right Out: -1610.310 $\pm$ 765.843  $\chi^2$ /NDF: 17.5/18

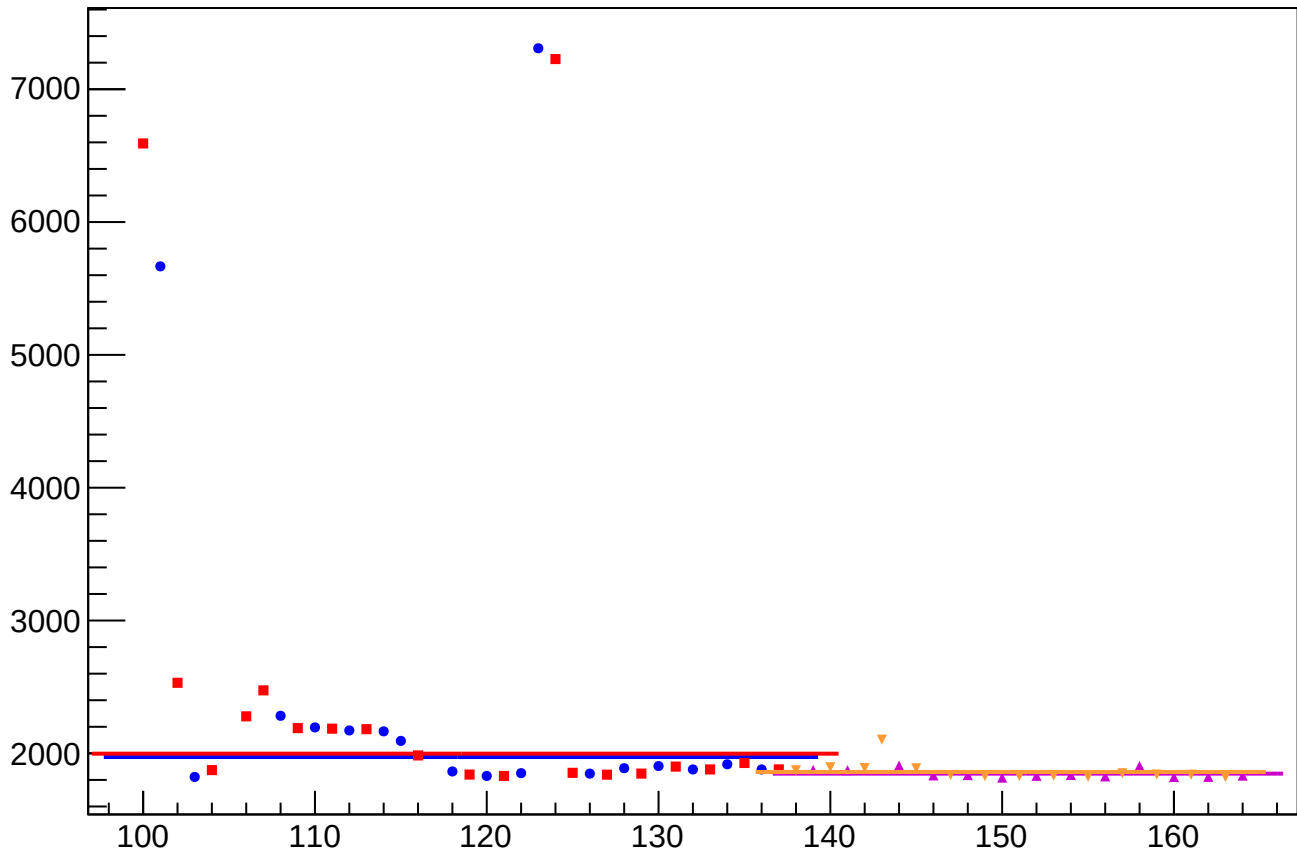
Left In: -2096.531 $\pm$ 576.178  $\chi^2$ /NDF:24.3/12

+ sign 2227.420 $\pm$ 462.991  $\chi^2$ /NDF: 28.6/30

All: 141.779 $\pm$ 326.473  $\chi^2$ /NDF: 111.0/62

- sign -1920.792 $\pm$ 460.423  $\chi^2$ /NDF: 42.1/31

# reg\_asym\_at1\_avg\_rms vs Slug



Right In: 1972.484+/-0.554  $\chi^2/\text{NDF}$ : 600869.6/16

Left Out: 1859.729+/-0.406  $\chi^2/\text{NDF}$ : 21916.7/13

Right Out: 1997.647+/-0.542  $\chi^2/\text{NDF}$ : 355572.5/18

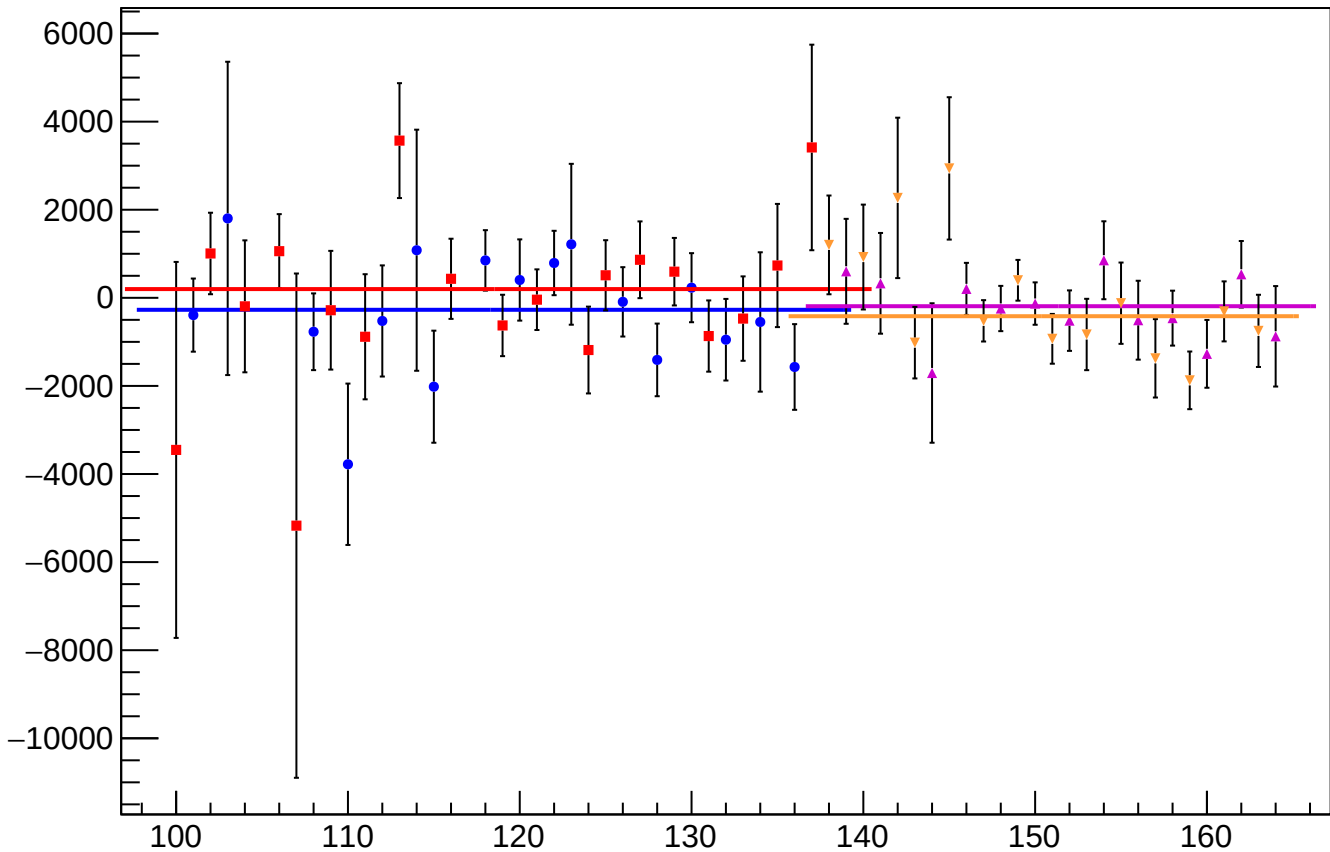
Left In: 1847.365+/-0.407  $\chi^2/\text{NDF}$ : 5577.8/12

+ sign 1899.070+/-0.327  $\chi^2/\text{NDF}$ : 649733.0/30

All: 1900.384+/-0.231  $\chi^2/\text{NDF}$ : 1060093.4/62

- sign 1901.683+/-0.326  $\chi^2/\text{NDF}$ : 410328.3/31

# asym\_at1\_avg\_correction\_mean vs Slug



Right In: -271.773 $\pm$ 240.214  $\chi^2/\text{NDF}$ : 17.2/16

Left Out: -417.479 $\pm$ 196.186  $\chi^2/\text{NDF}$ : 21.0/13

Right Out: 198.424 $\pm$ 229.035  $\chi^2/\text{NDF}$ : 19.7/18

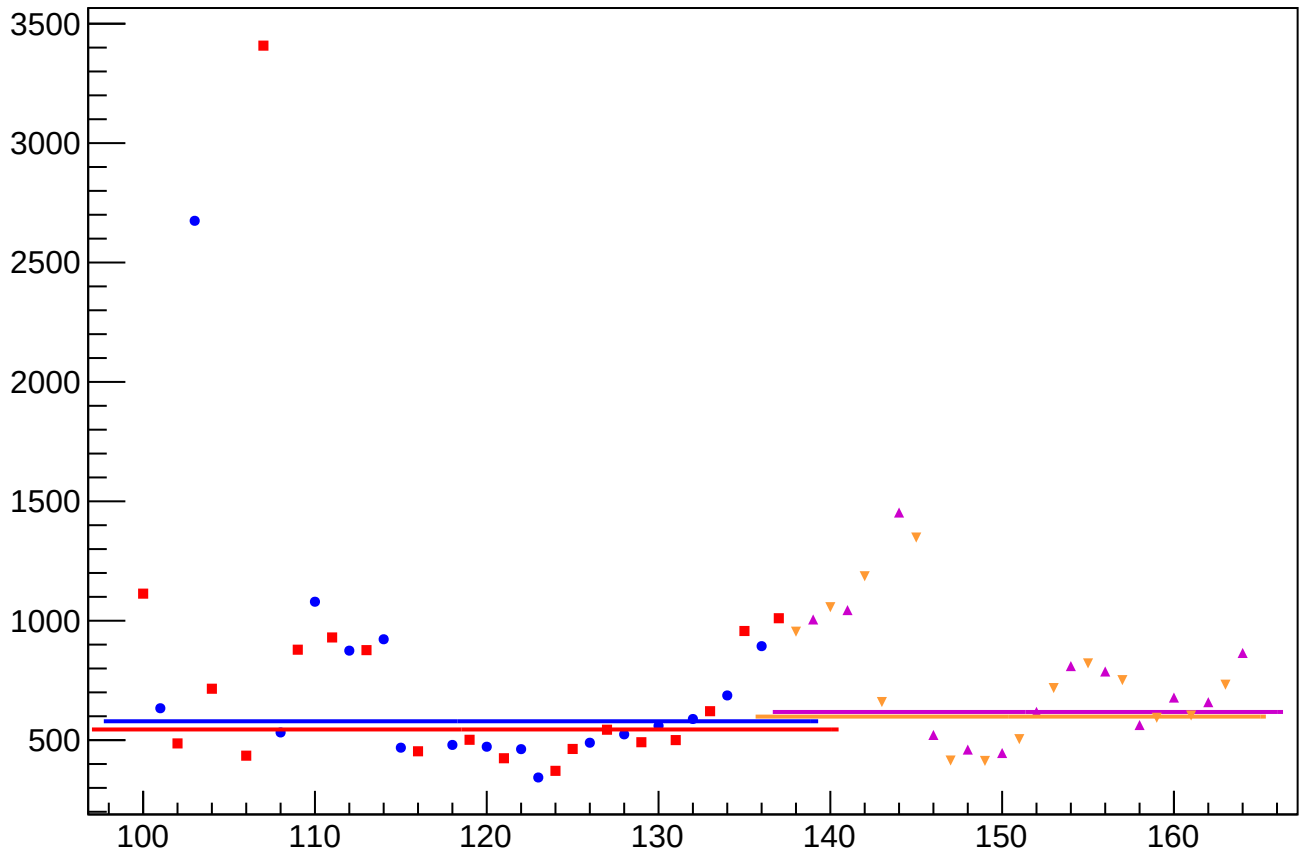
Left In: -190.412 $\pm$ 203.019  $\chi^2/\text{NDF}$ : 7.2/12

+ sign -359.178 $\pm$ 151.949  $\chi^2/\text{NDF}$ : 38.5/30

All: -189.224 $\pm$ 107.436  $\chi^2/\text{NDF}$ : 69.5/62

- sign -19.324 $\pm$ 151.925  $\chi^2/\text{NDF}$ : 28.6/31

# asym\_at1\_avg\_correction\_rms vs Slug



Right In: 579.010 $\pm$ 0.170  $\chi^2$ /NDF: 1422148.6/16

Left Out: 598.517 $\pm$ 0.139  $\chi^2$ /NDF: 2104983.2/13

Right Out: 544.674 $\pm$ 0.162  $\chi^2$ /NDF: 1457799.9/18

Left In: 617.964 $\pm$ 0.144  $\chi^2$ /NDF: 1835777.9/12

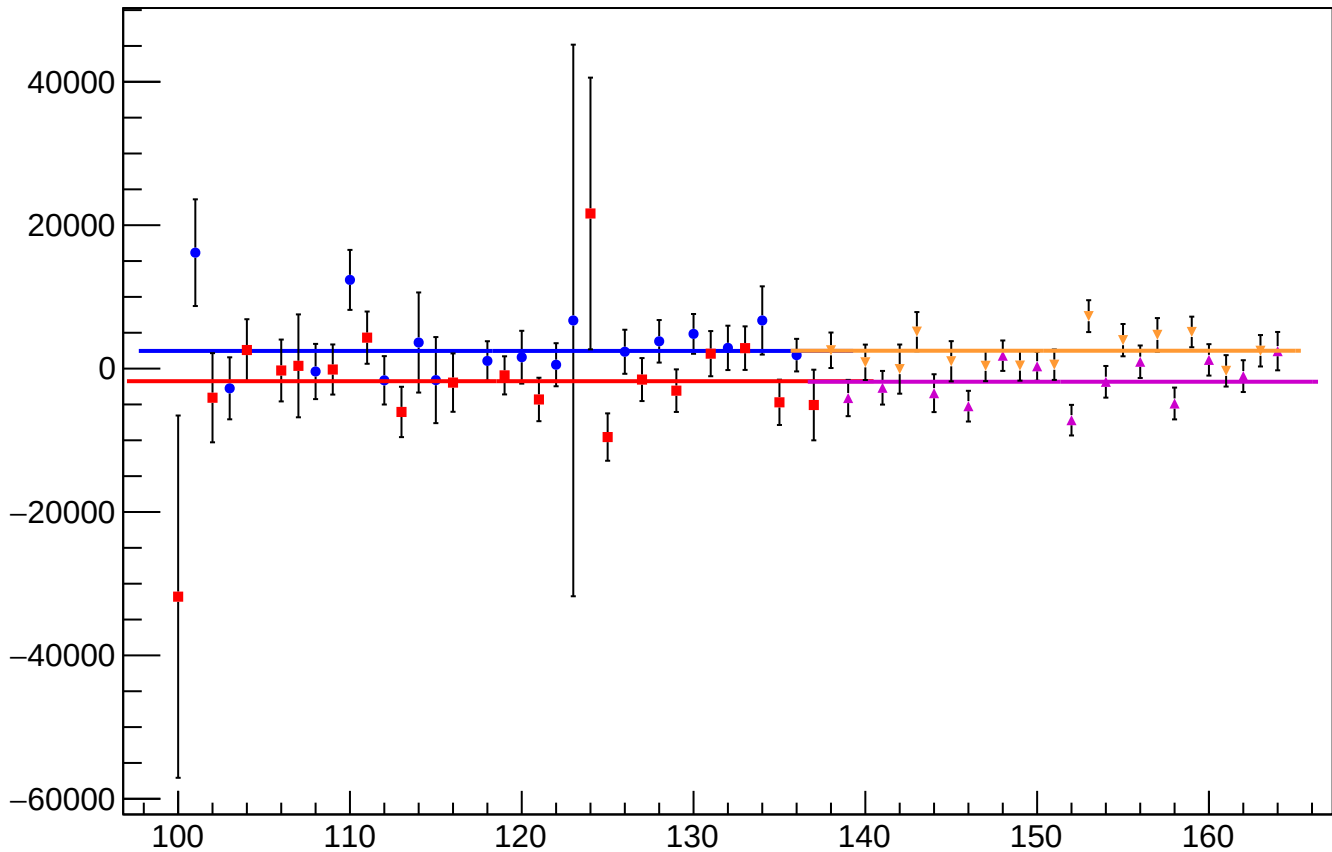
+ sign 590.712 $\pm$ 0.107  $\chi^2$ /NDF: 3535043.1/30

All: 588.214 $\pm$ 0.076  $\chi^2$ /NDF: 6944388.2/62

- sign 585.716 $\pm$ 0.107  $\chi^2$ /NDF: 3408264.1/31



# asym\_at1\_avg\_mean vs Slug



Right In: 2464.076 $\pm$ 863.197  $\chi^2$ /NDF: 15.5/16

Left Out: 2490.915 $\pm$ 625.339  $\chi^2$ /NDF:14.2/13

Right Out: -1756.788 $\pm$ 853.292  $\chi^2$ /NDF: 20.5/18

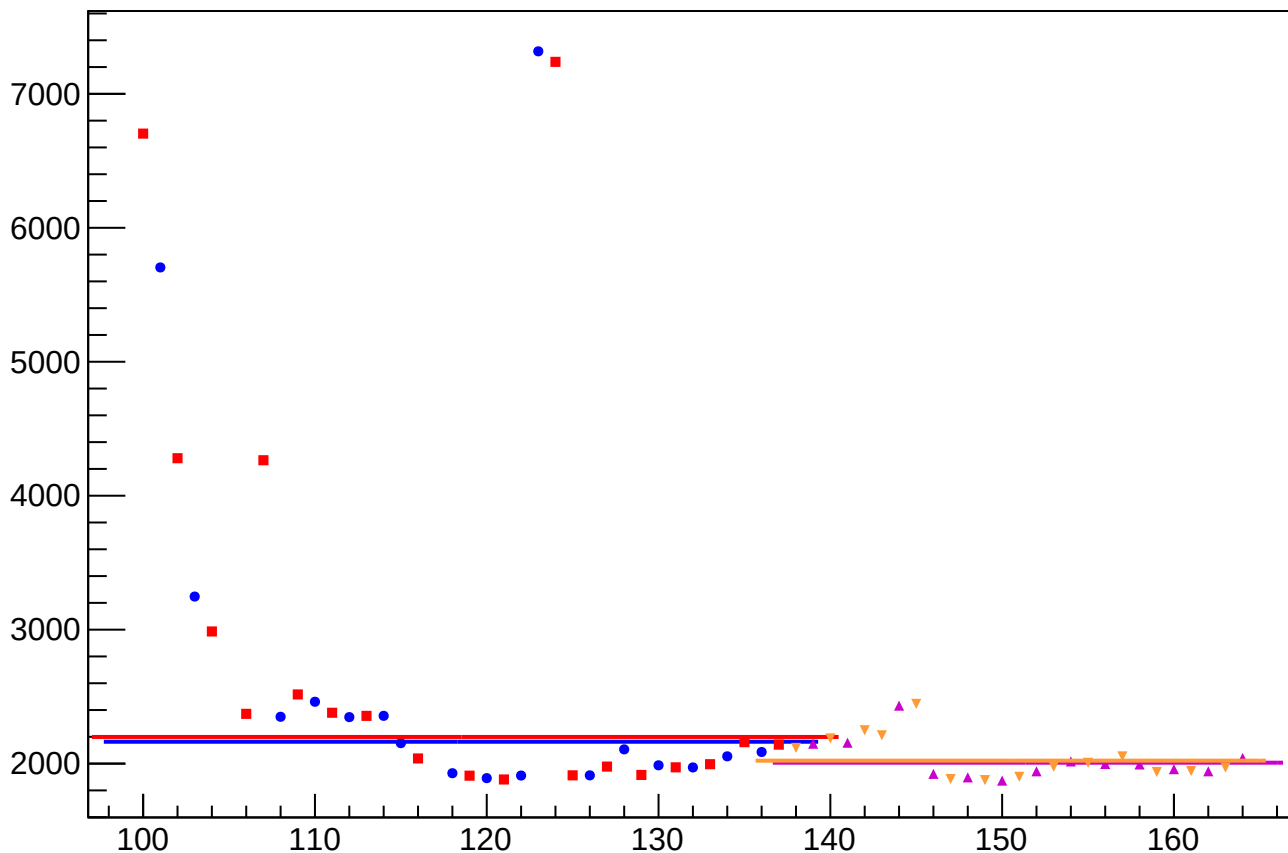
Left In: -1833.670 $\pm$ 627.213  $\chi^2$ /NDF:22.2/12

+ sign 2481.677 $\pm$ 506.415  $\chi^2$ /NDF: 29.7/30

All: 333.074 $\pm$ 357.721  $\chi^2$ /NDF: 108.3/62

- sign -1806.702 $\pm$ 505.373  $\chi^2$ /NDF: 42.7/31

# asym\_at1\_avg\_rms vs Slug



Right In: 2163.303+/-0.610  $\chi^2/\text{NDF}$ : 709584.4/16

Left Out: 2021.930+/-0.442  $\chi^2/\text{NDF}$ : 108276.5/13

Right Out: 2199.003+/-0.603  $\chi^2/\text{NDF}$ : 803297.2/18

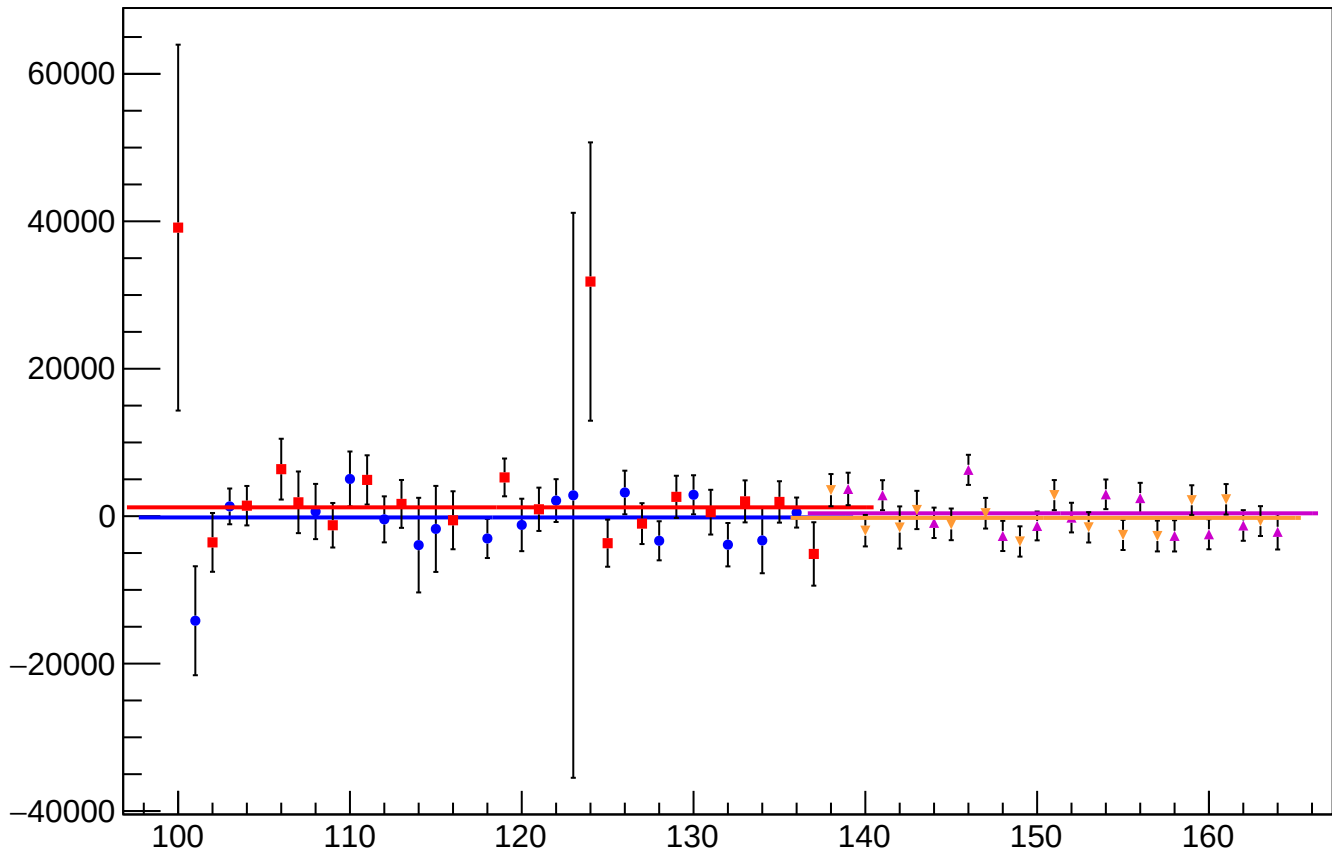
Left In: 2006.898+/-0.444  $\chi^2/\text{NDF}$ : 88531.0/12

+ sign 2070.588+/-0.358  $\chi^2/\text{NDF}$ : 853043.1/30

All: 2072.440+/-0.253  $\chi^2/\text{NDF}$ : 1810737.1/62

- sign 2074.284+/-0.357  $\chi^2/\text{NDF}$ : 957640.6/31

# reg\_asym\_at1\_dd\_mean vs Slug



Right In:  $-170.351 \pm 782.384$   $\chi^2/\text{NDF}$ : 14.5/16

Left Out:  $-234.574 \pm 572.621$   $\chi^2/\text{NDF}$ : 15.0/13

Right Out:  $1197.543 \pm 764.254$   $\chi^2/\text{NDF}$ : 18.2/18

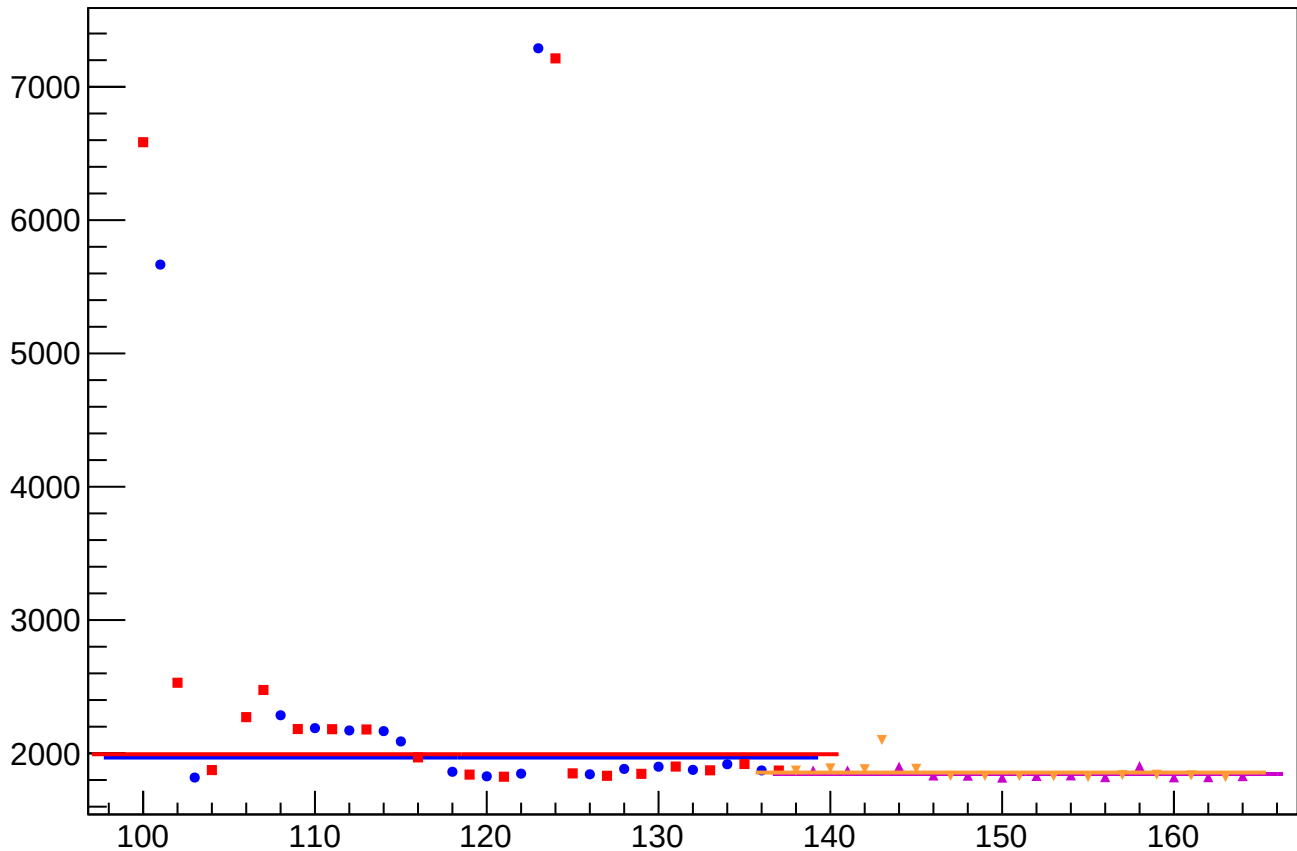
Left In:  $387.509 \pm 575.431$   $\chi^2/\text{NDF}$ : 23.9/12

+ sign  $-212.172 \pm 462.082$   $\chi^2/\text{NDF}$ : 29.5/30

All:  $236.513 \pm 325.895$   $\chi^2/\text{NDF}$ : 74.2/62

- sign  $680.579 \pm 459.697$   $\chi^2/\text{NDF}$ : 42.8/31

# reg\_asym\_at1\_dd\_rms vs Slug



Right In:  $1968.632 \pm 0.553$   $\chi^2/\text{NDF}$ : 602972.8/16

Left Out:  $1855.988 \pm 0.405$   $\chi^2/\text{NDF}$ : 21649.9/13

Right Out:  $1993.422 \pm 0.540$   $\chi^2/\text{NDF}$ : 356172.4/18

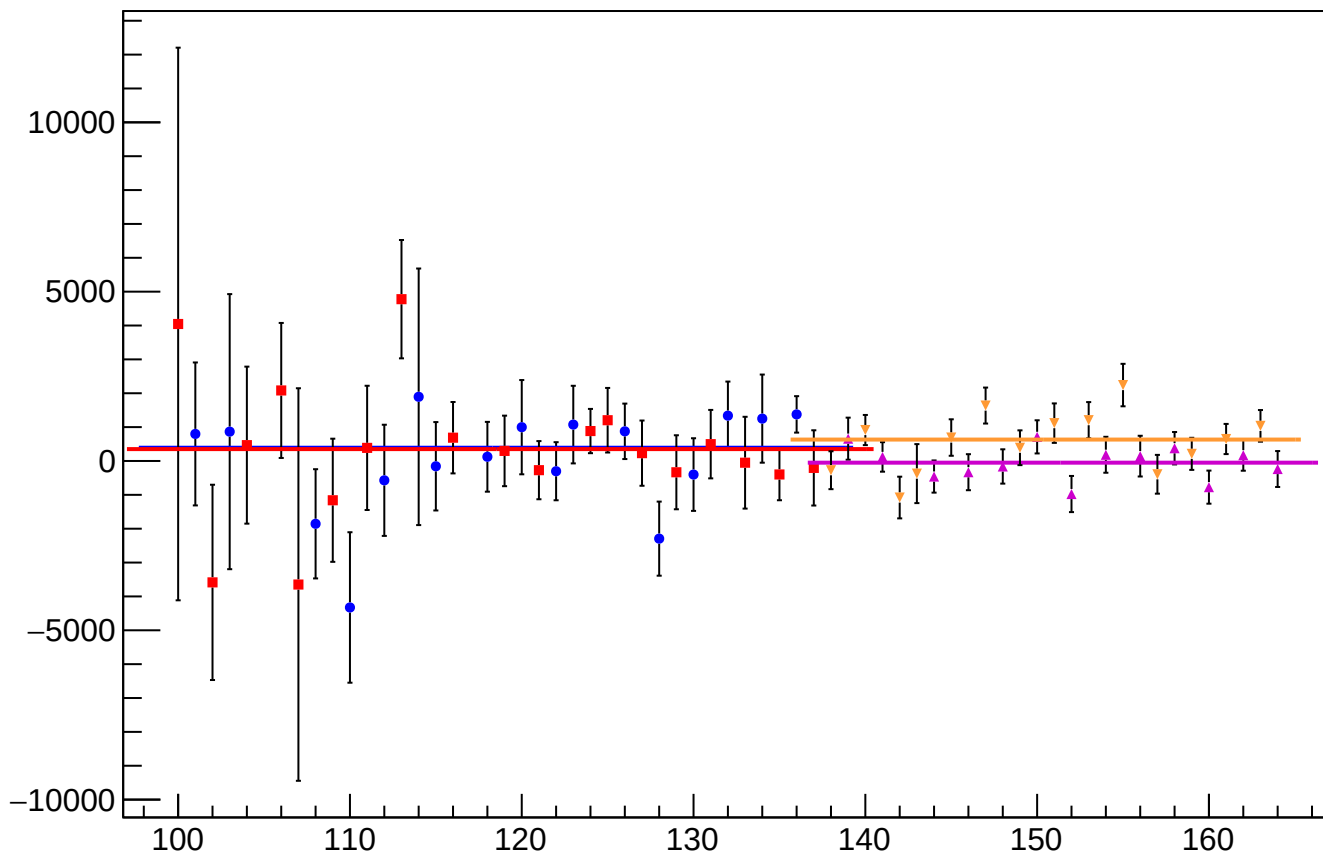
Left In:  $1844.982 \pm 0.407$   $\chi^2/\text{NDF}$ : 5207.9/12

+ sign  $1895.280 \pm 0.327$   $\chi^2/\text{NDF}$ : 651619.5/30

All:  $1896.993 \pm 0.230$   $\chi^2/\text{NDF}$ : 1061206.5/62

- sign  $1898.687 \pm 0.325$   $\chi^2/\text{NDF}$ : 409532.4/31

# asym\_at1\_dd\_correction\_mean vs Slug



Right In:  $390.923 \pm 270.128$   $\chi^2/\text{NDF}: 20.0/16$

Left Out:  $632.169 \pm 142.712$   $\chi^2/\text{NDF}: 29.1/13$

Right Out:  $350.642 \pm 266.097$   $\chi^2/\text{NDF}: 14.2/18$

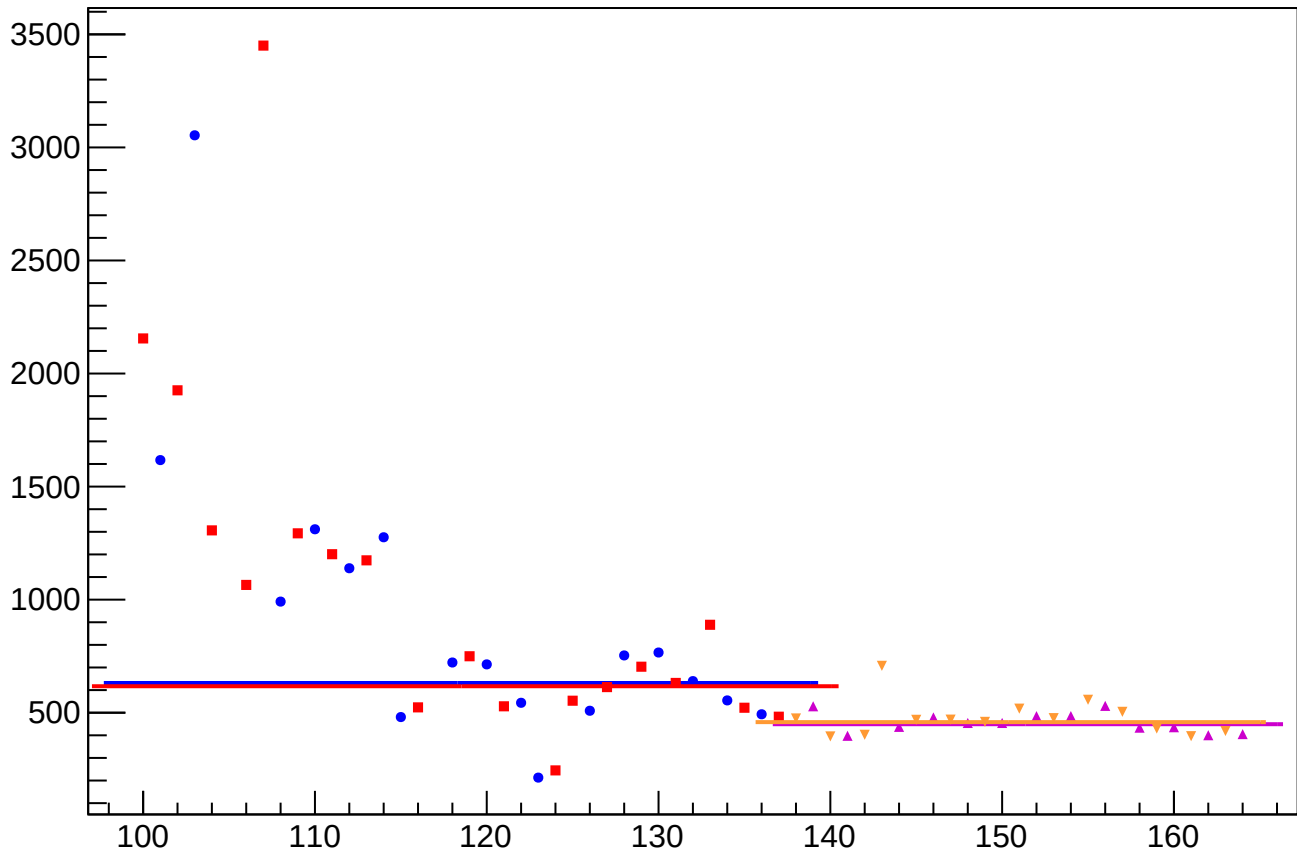
Left In:  $-50.129 \pm 140.584$   $\chi^2/\text{NDF}: 11.6/12$

+ sign  $579.527 \pm 126.184$   $\chi^2/\text{NDF}: 49.7/30$

All:  $304.353 \pm 88.553$   $\chi^2/\text{NDF}: 86.7/62$

- sign  $37.324 \pm 124.302$   $\chi^2/\text{NDF}: 27.6/31$

# asym\_at1\_dd\_correction\_rms vs Slug



Right In: 631.430 $\pm$ 0.191  $\chi^2$ /NDF: 2260692.7/16

Left Out: 458.343 $\pm$ 0.101  $\chi^2$ /NDF: 369427.9/13

Right Out: 617.035 $\pm$ 0.188  $\chi^2$ /NDF: 2802149.9/18

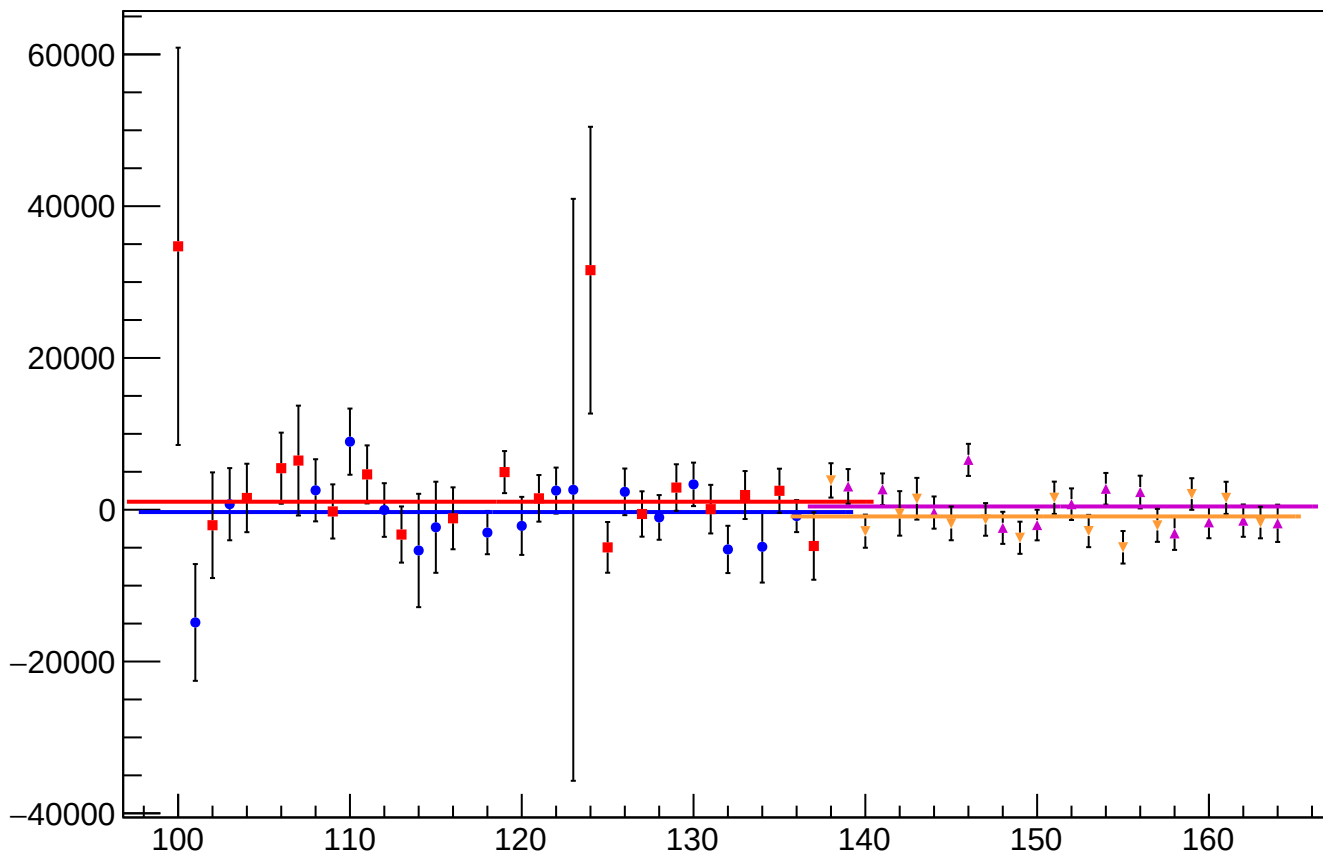
Left In: 449.154 $\pm$ 0.099  $\chi^2$ /NDF: 162671.4/12

+ sign 496.112 $\pm$ 0.089  $\chi^2$ /NDF: 3272080.6/30

All: 490.872 $\pm$ 0.063  $\chi^2$ /NDF: 6866060.7/62

- sign 485.788 $\pm$ 0.088  $\chi^2$ /NDF: 3587185.7/31

# asym\_at1\_dd\_mean vs Slug



Right In: -305.713+/-871.922  $\chi^2/\text{NDF}$ : 17.2/16

Left Out: -882.045+/-592.099  $\chi^2/\text{NDF}$ : 17.4/13

Right Out: 1056.856+/-867.445  $\chi^2/\text{NDF}$ : 16.6/18

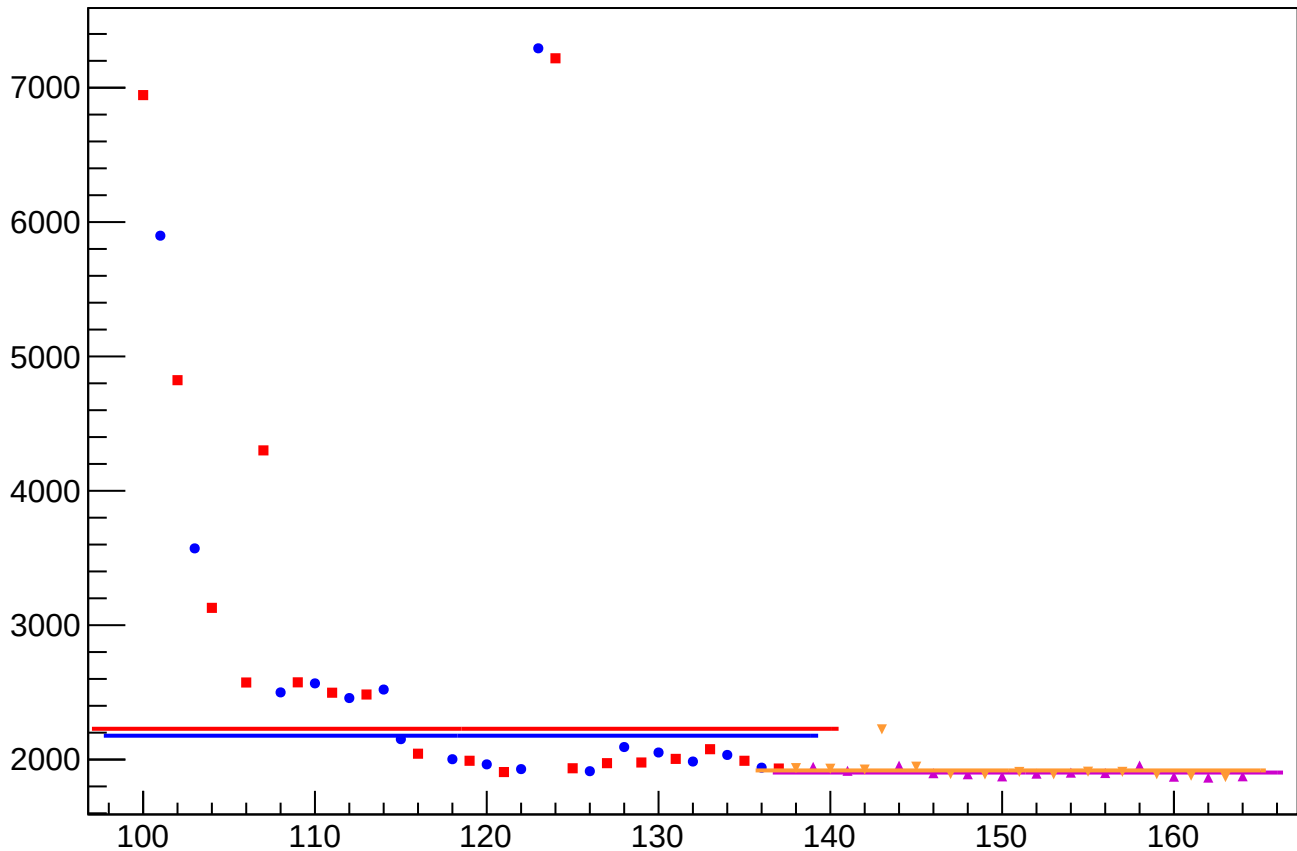
Left In: 430.664+/-593.546  $\chi^2/\text{NDF}$ : 21.6/12

+ sign -700.153+/-489.833  $\chi^2/\text{NDF}$ : 34.9/30

All: -34.923+/-346.370  $\chi^2/\text{NDF}$ : 77.2/62

- sign 630.351+/-489.850  $\chi^2/\text{NDF}$ : 38.6/31

# asym\_at1\_dd\_rms vs Slug



Right In: 2177.446 $\pm$ 0.617  $\chi^2$ /NDF: 802836.7/16

Left Out: 1919.042 $\pm$ 0.419  $\chi^2$ /NDF: 28691.9/13

Right Out: 2229.014 $\pm$ 0.613  $\chi^2$ /NDF: 895809.1/18

Left In: 1903.275 $\pm$ 0.420  $\chi^2$ /NDF: 4899.3/12

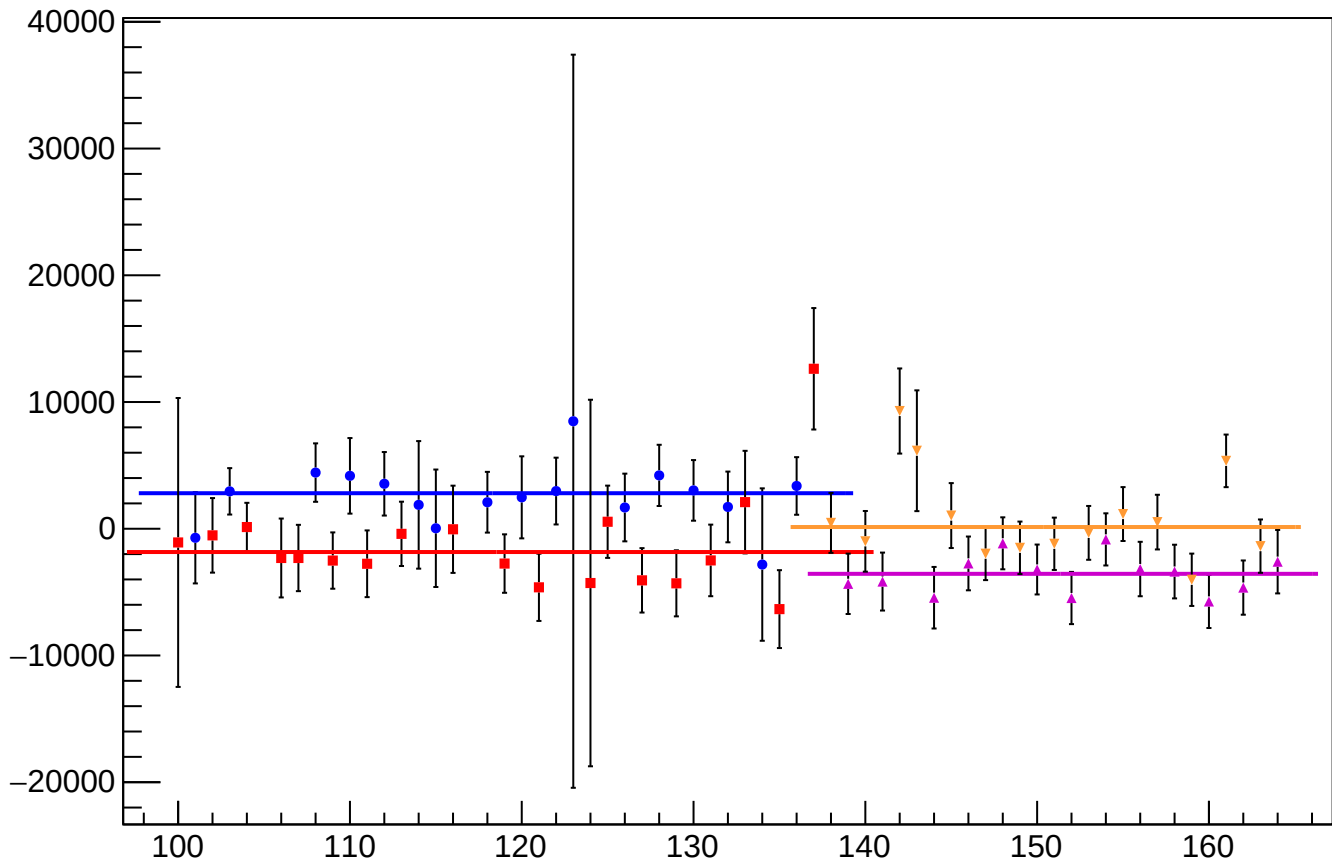
+ sign 2000.595 $\pm$ 0.346  $\chi^2$ /NDF: 951749.8/30

All: 2003.873 $\pm$ 0.245  $\chi^2$ /NDF: 2044726.7/62

- sign 2007.150 $\pm$ 0.346  $\chi^2$ /NDF: 1092797.8/31



# reg\_asym\_at2\_avg\_mean vs Slug



Right In: 2803.917 $\pm$ 678.548  $\chi^2$ /NDF: 3.9/16

Left Out: 135.870 $\pm$ 609.967  $\chi^2$ /NDF:22.7/13

Right Out: -1837.168 $\pm$ 655.307  $\chi^2$ /NDF: 18.0/18

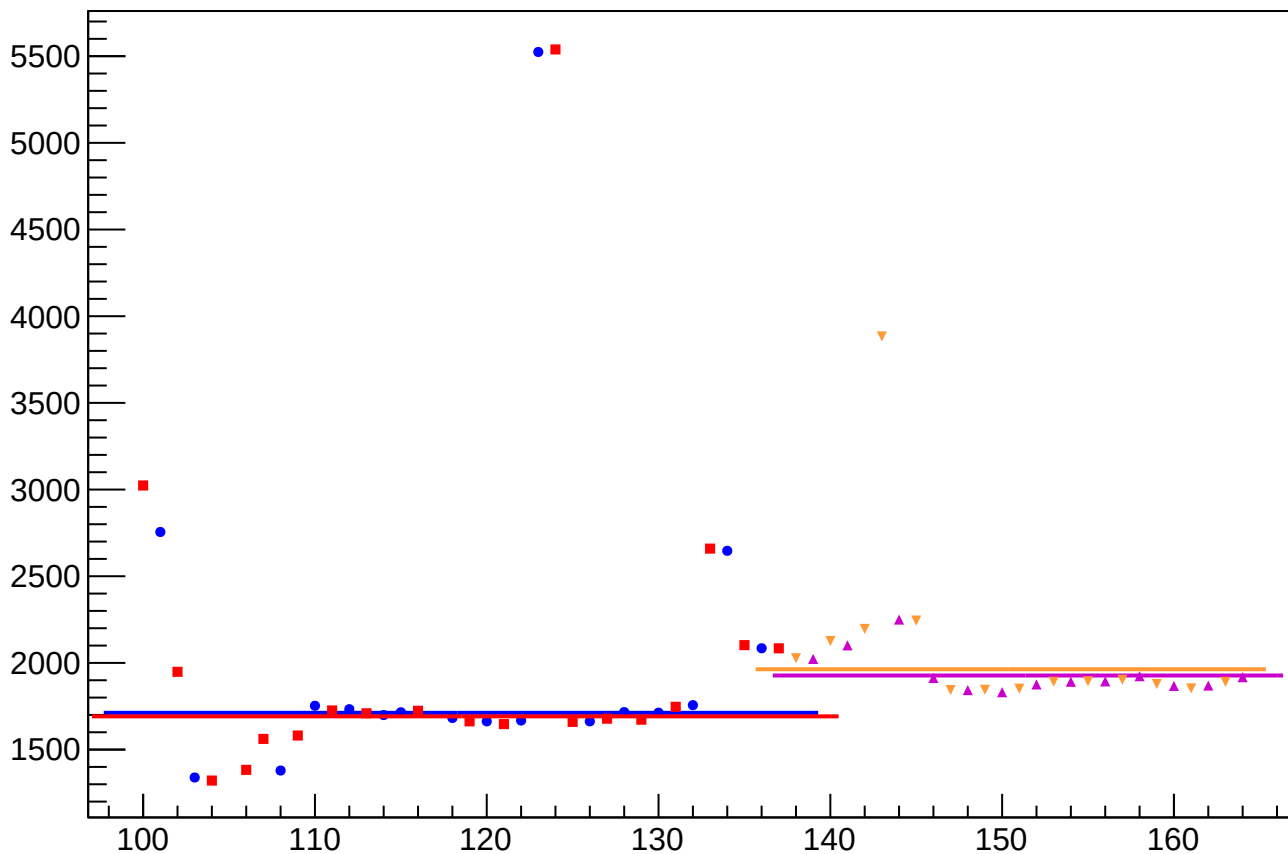
Left In: -3557.252 $\pm$ 600.526  $\chi^2$ /NDF:6.5/12

+ sign 1328.287 $\pm$ 453.626  $\chi^2$ /NDF: 35.1/30

All: -771.708 $\pm$ 316.842  $\chi^2$ /NDF: 105.2/62

- sign -2772.100 $\pm$ 442.738  $\chi^2$ /NDF: 28.3/31

# reg\_asym\_at2\_avg\_rms vs Slug



Right In: 1712.154+/-0.480  $\chi^2/\text{NDF}$ : 432478.4/16

Left Out: 1963.365+/-0.431  $\chi^2/\text{NDF}$ : 405493.3/13

Right Out: 1691.747+/-0.463  $\chi^2/\text{NDF}$ : 454922.1/18

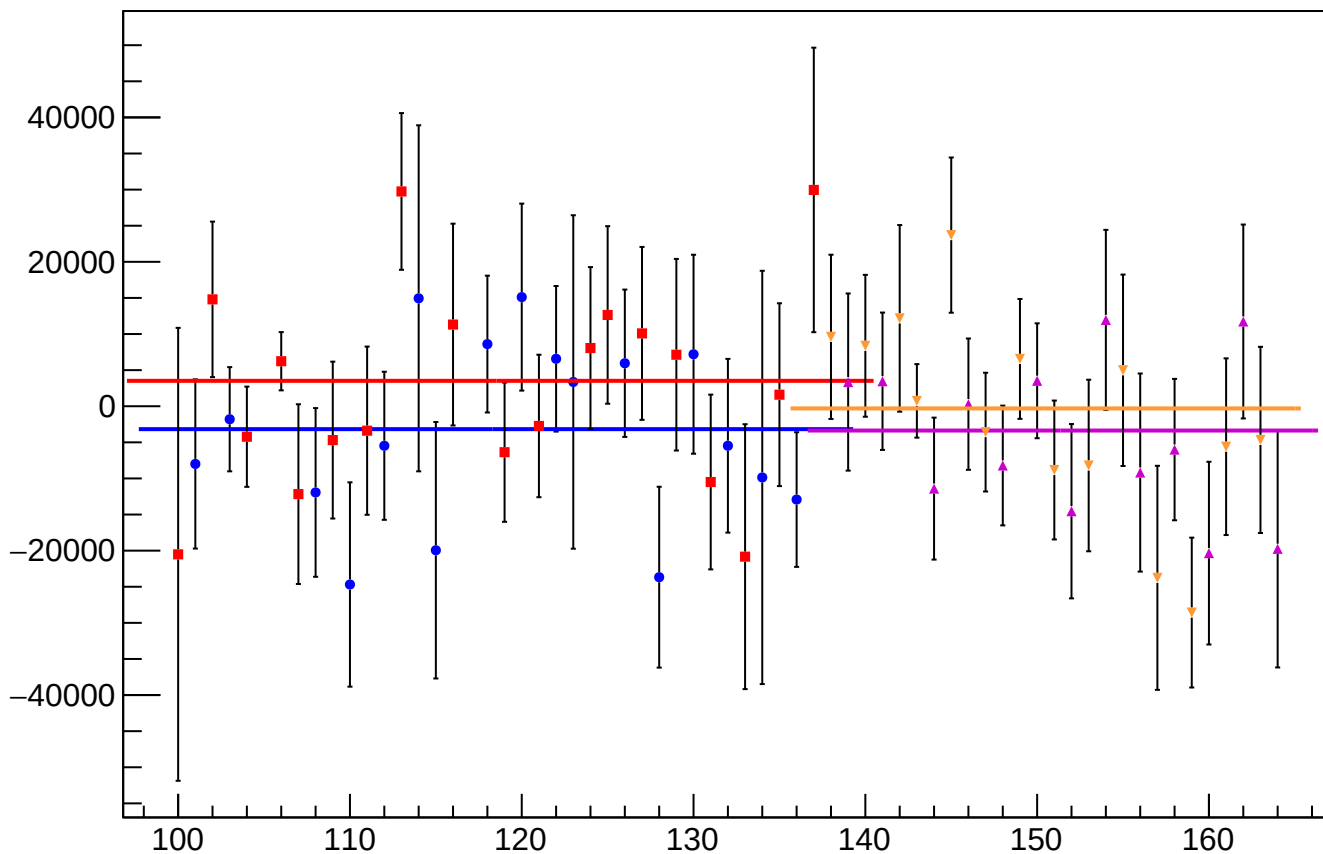
Left In: 1927.340+/-0.425  $\chi^2/\text{NDF}$ : 63880.8/12

+ sign 1851.092+/-0.321  $\chi^2/\text{NDF}$ : 989582.4/30

All: 1835.066+/-0.224  $\chi^2/\text{NDF}$ : 1653767.7/62

- sign 1819.800+/-0.313  $\chi^2/\text{NDF}$ : 659311.1/31

# asym\_at2\_avg\_correction\_mean vs Slug



Right In: -3173.245 $\pm$ 2851.982  $\chi^2$ /NDF: 14.4/16

Left Out: -301.067 $\pm$ 2579.082  $\chi^2$ /NDF:19.7/13

Right Out: 3520.105 $\pm$ 2266.532  $\chi^2$ /NDF: 19.5/18

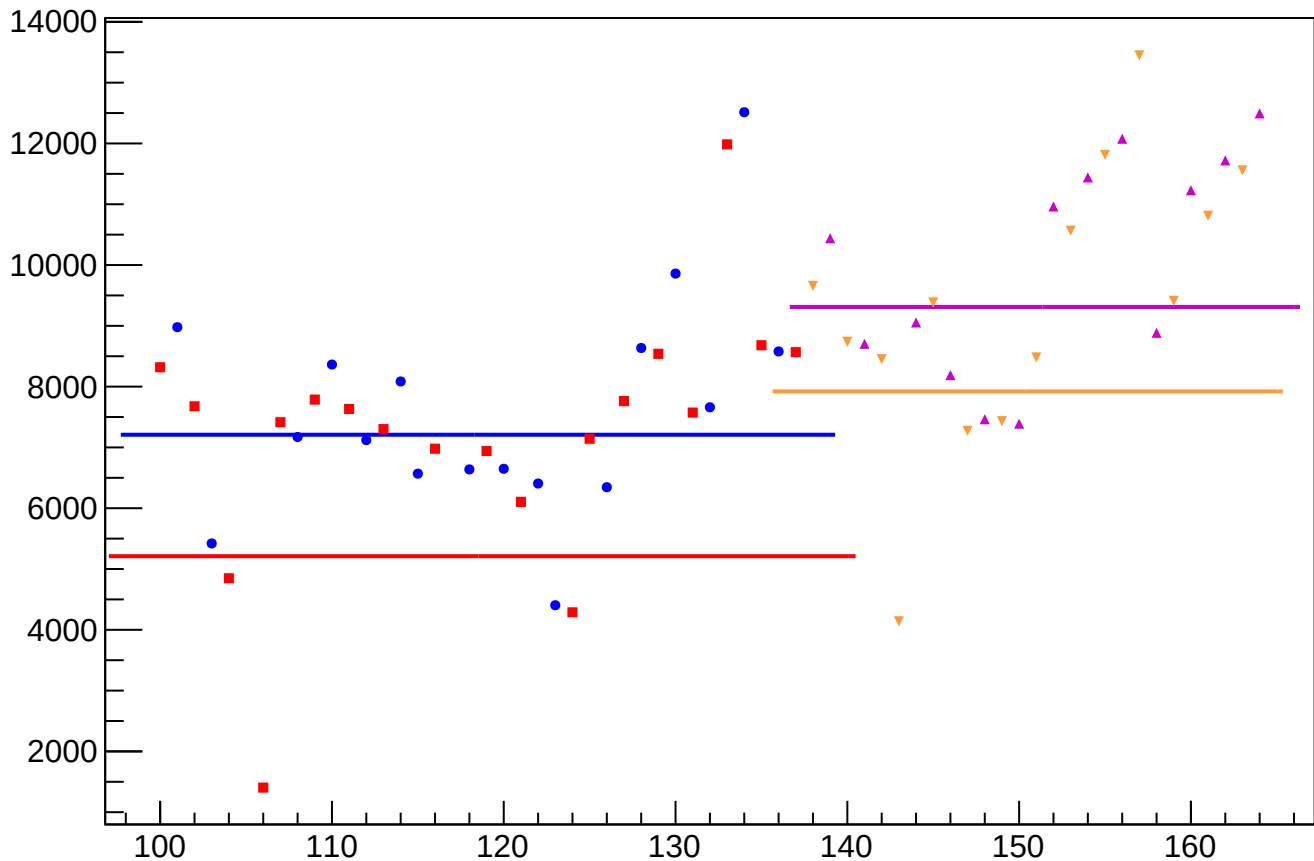
Left In: -3365.918 $\pm$ 2948.740  $\chi^2$ /NDF:9.4/12

+ sign -1593.198 $\pm$ 1912.909  $\chi^2$ /NDF: 34.7/30

All: -235.486 $\pm$ 1309.738  $\chi^2$ /NDF: 68.0/62

- sign 962.698 $\pm$ 1797.017  $\chi^2$ /NDF: 32.4/31

# asym\_at2\_avg\_correction\_rms vs Slug



Right In: 7208.567 $\pm$ 2.017  $\chi^2$ /NDF: 469302.0/16

Left Out: 7921.462 $\pm$ 1.824  $\chi^2$ /NDF: 2067160.5/13

Right Out: 5211.187 $\pm$ 1.603  $\chi^2$ /NDF: 3196870.2/18

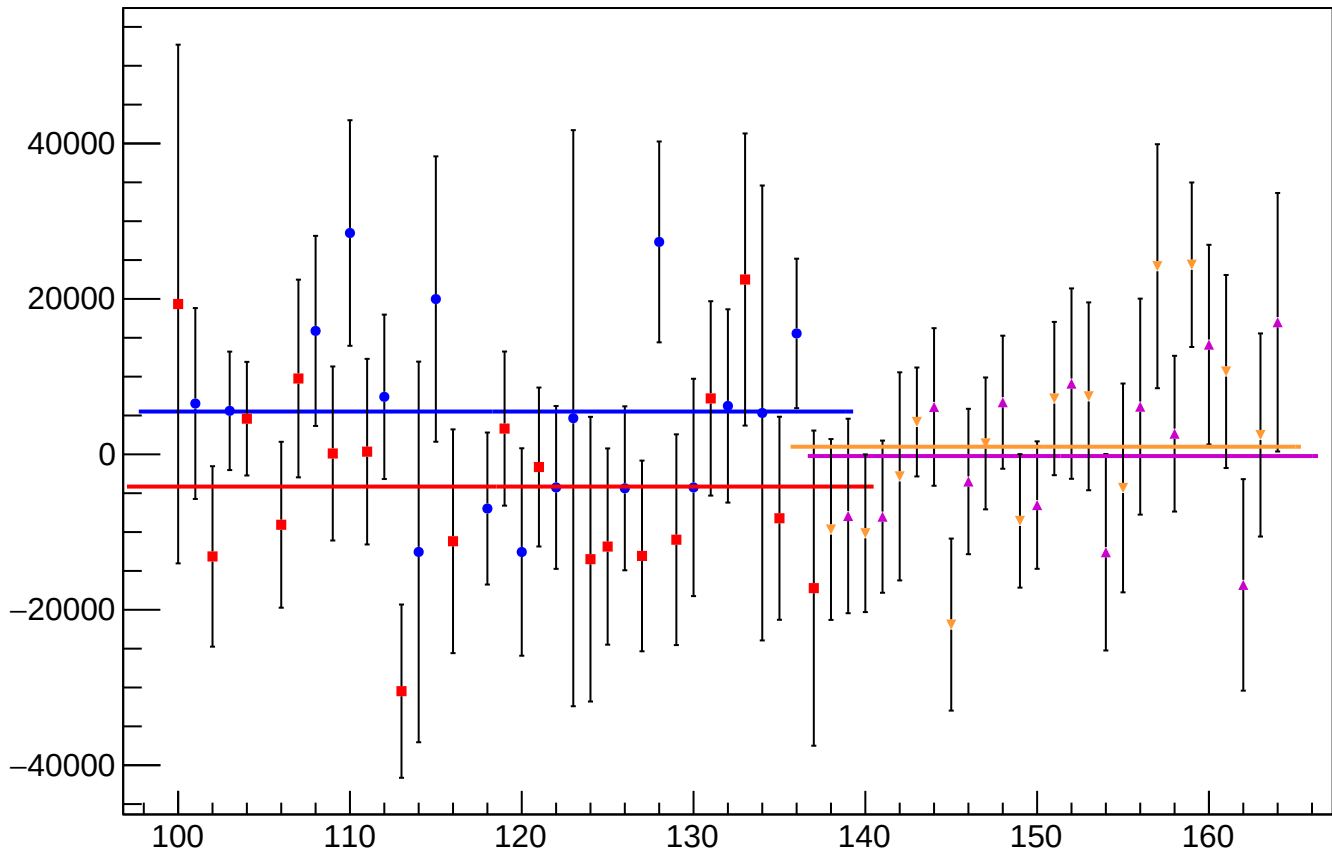
Left In: 9309.804 $\pm$ 2.085  $\chi^2$ /NDF: 639092.0/12

+ sign 7600.746 $\pm$ 1.353  $\chi^2$ /NDF: 2605208.3/30

All: 7139.992 $\pm$ 0.926  $\chi^2$ /NDF: 9088517.3/62

- sign 6733.376 $\pm$ 1.271  $\chi^2$ /NDF: 6264878.0/31

# asym\_at2\_avg\_mean vs Slug



Right In: 5509.395+/-2971.033  $\chi^2/\text{NDF}$ : 14.1/16

Left Out: 982.652+/-2809.890  $\chi^2/\text{NDF}$ :16.4/13

Right Out: -4146.067+/-2790.212  $\chi^2/\text{NDF}$ : 15.4/18

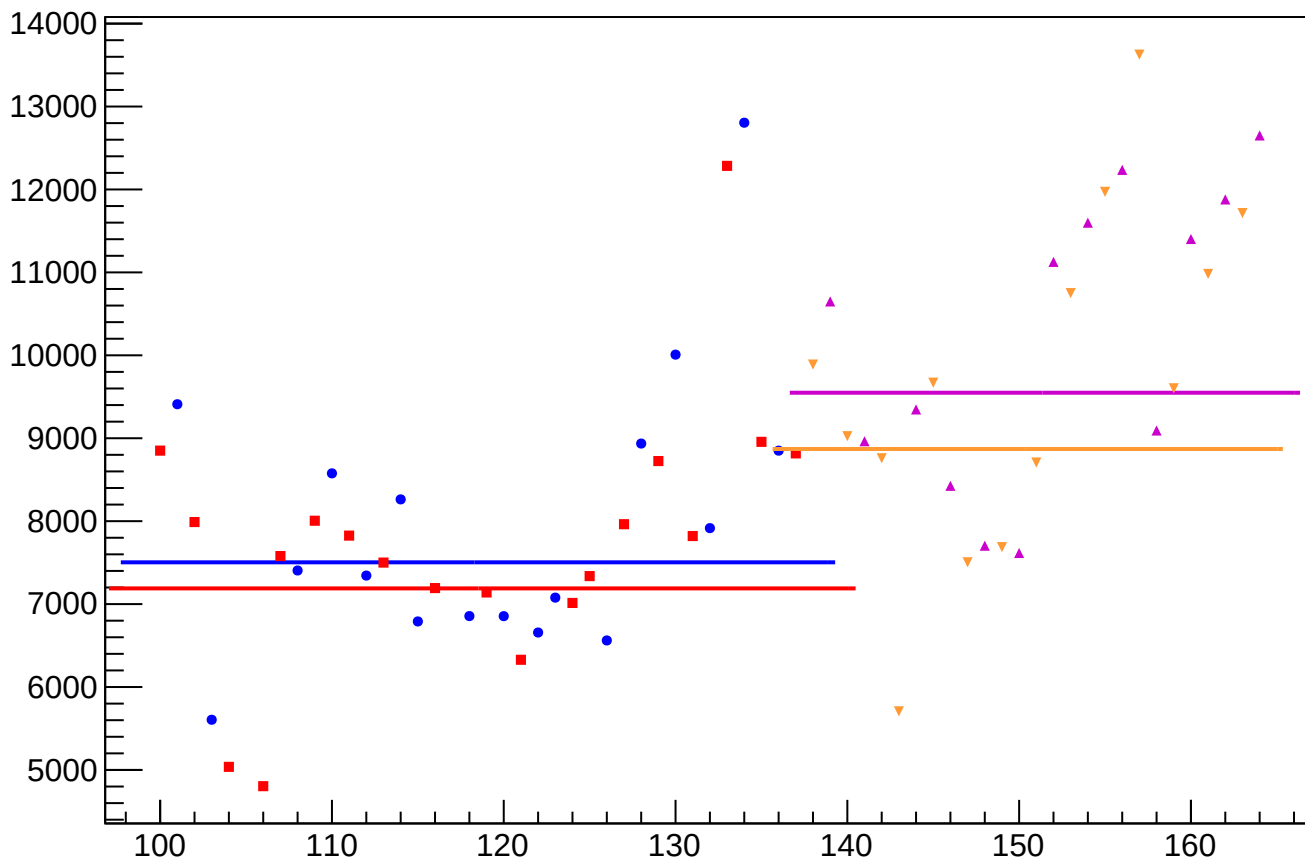
Left In: -218.753+/-3020.153  $\chi^2/\text{NDF}$ :8.4/12

+ sign 3119.938+/-2041.484  $\chi^2/\text{NDF}$ : 31.7/30

All: 401.806+/-1446.356  $\chi^2/\text{NDF}$ : 60.0/62

- sign -2337.587+/-2049.453  $\chi^2/\text{NDF}$ : 24.7/31

# asym\_at2\_avg\_rms vs Slug



Right In:  $7503.667 \pm 2.101$   $\chi^2/\text{NDF}$ : 427313.5/16

Left Out:  $8870.425 \pm 1.987$   $\chi^2/\text{NDF}$ : 1025118.2/13

Right Out:  $7189.231 \pm 1.973$   $\chi^2/\text{NDF}$ : 557703.4/18

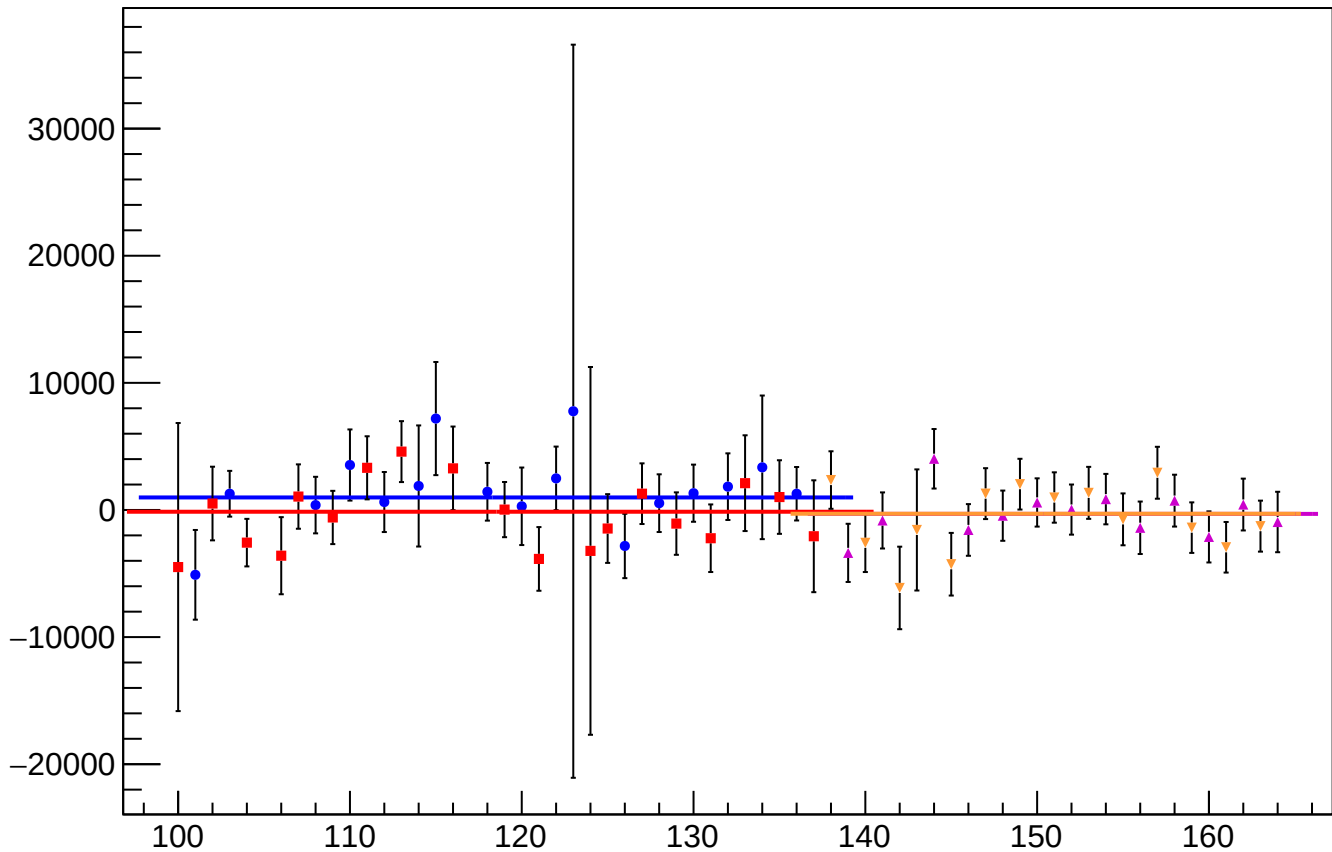
Left In:  $9548.737 \pm 2.136$   $\chi^2/\text{NDF}$ : 590892.0/12

+ sign  $8225.097 \pm 1.444$   $\chi^2/\text{NDF}$ : 1675852.5/30

All:  $8250.254 \pm 1.023$   $\chi^2/\text{NDF}$ : 3483726.4/62

- sign  $8275.604 \pm 1.449$   $\chi^2/\text{NDF}$ : 1807264.2/31

# reg\_asym\_at2\_dd\_mean vs Slug



Right In:  $985.452 \pm 644.630$   $\chi^2/\text{NDF}$ : 9.1/16

Left Out:  $-296.769 \pm 585.525$   $\chi^2/\text{NDF}$ : 16.1/13

Right Out:  $-138.627 \pm 623.555$   $\chi^2/\text{NDF}$ : 14.7/18

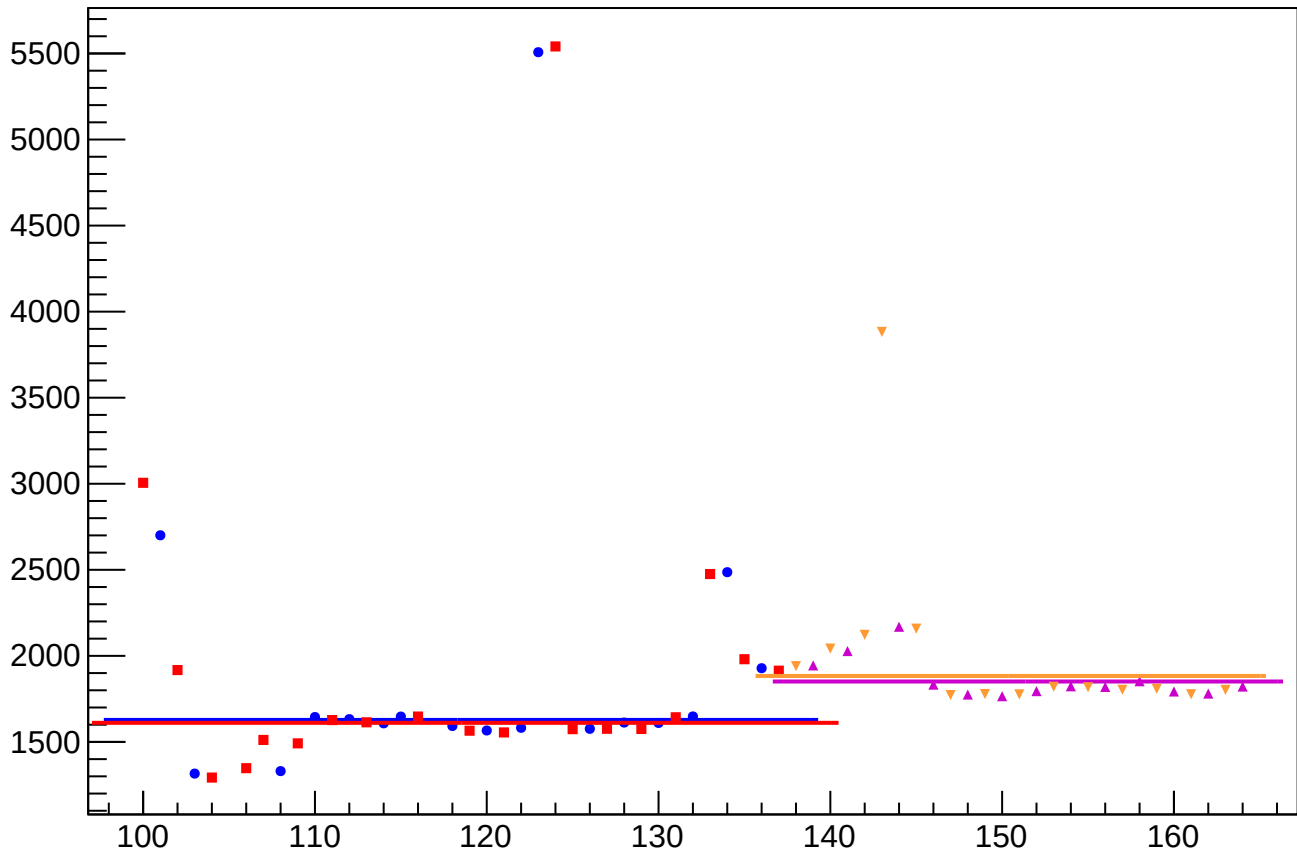
Left In:  $-308.455 \pm 576.791$   $\chi^2/\text{NDF}$ : 7.8/12

+ sign  $282.877 \pm 433.421$   $\chi^2/\text{NDF}$ : 27.4/30

All:  $20.378 \pm 302.878$   $\chi^2/\text{NDF}$ : 50.6/62

- sign  $-230.147 \pm 423.421$   $\chi^2/\text{NDF}$ : 22.5/31

# reg\_asym\_at2\_dd\_rms vs Slug



Right In: 1627.836+/-0.456  $\chi^2/\text{NDF}$ : 407106.6/16

Left Out: 1883.316+/-0.414  $\chi^2/\text{NDF}$ : 434998.8/13

Right Out: 1610.948+/-0.441  $\chi^2/\text{NDF}$ : 433960.8/18

Left In: 1851.017+/-0.408  $\chi^2/\text{NDF}$ : 67063.5/12

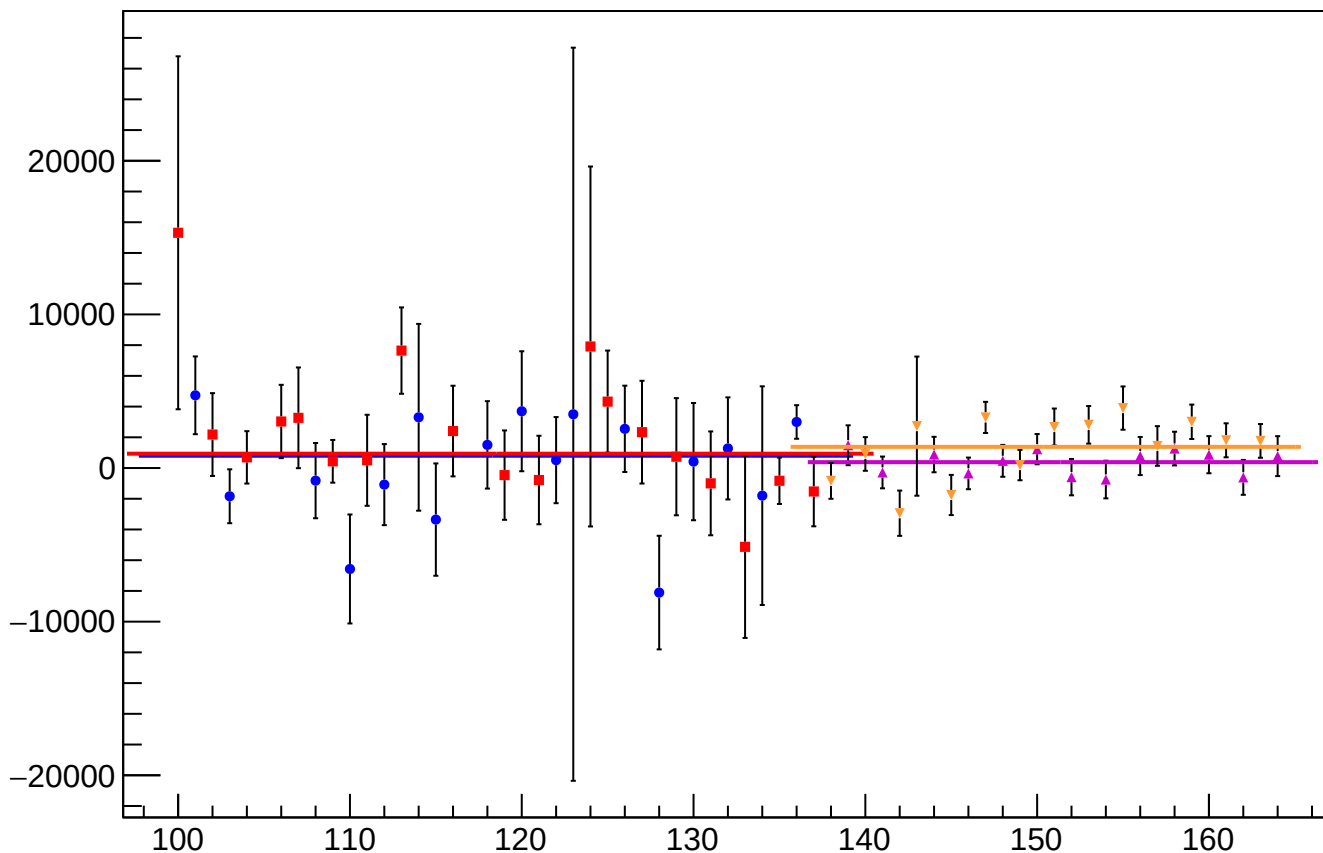
+ sign 1767.822+/-0.306  $\chi^2/\text{NDF}$ : 1014233.3/30

All: 1753.751+/-0.214  $\chi^2/\text{NDF}$ : 1679134.9/62

- sign 1740.321+/-0.299  $\chi^2/\text{NDF}$ : 660781.4/31



# asym\_at2\_dd\_correction\_mean vs Slug



Right In: 803.048 $\pm$ 631.676  $\chi^2/\text{NDF}$ : 22.4/16

Left Out: 1379.750 $\pm$ 323.325  $\chi^2/\text{NDF}$ : 31.3/13

Right Out: 933.645 $\pm$ 589.727  $\chi^2/\text{NDF}$ : 15.3/18

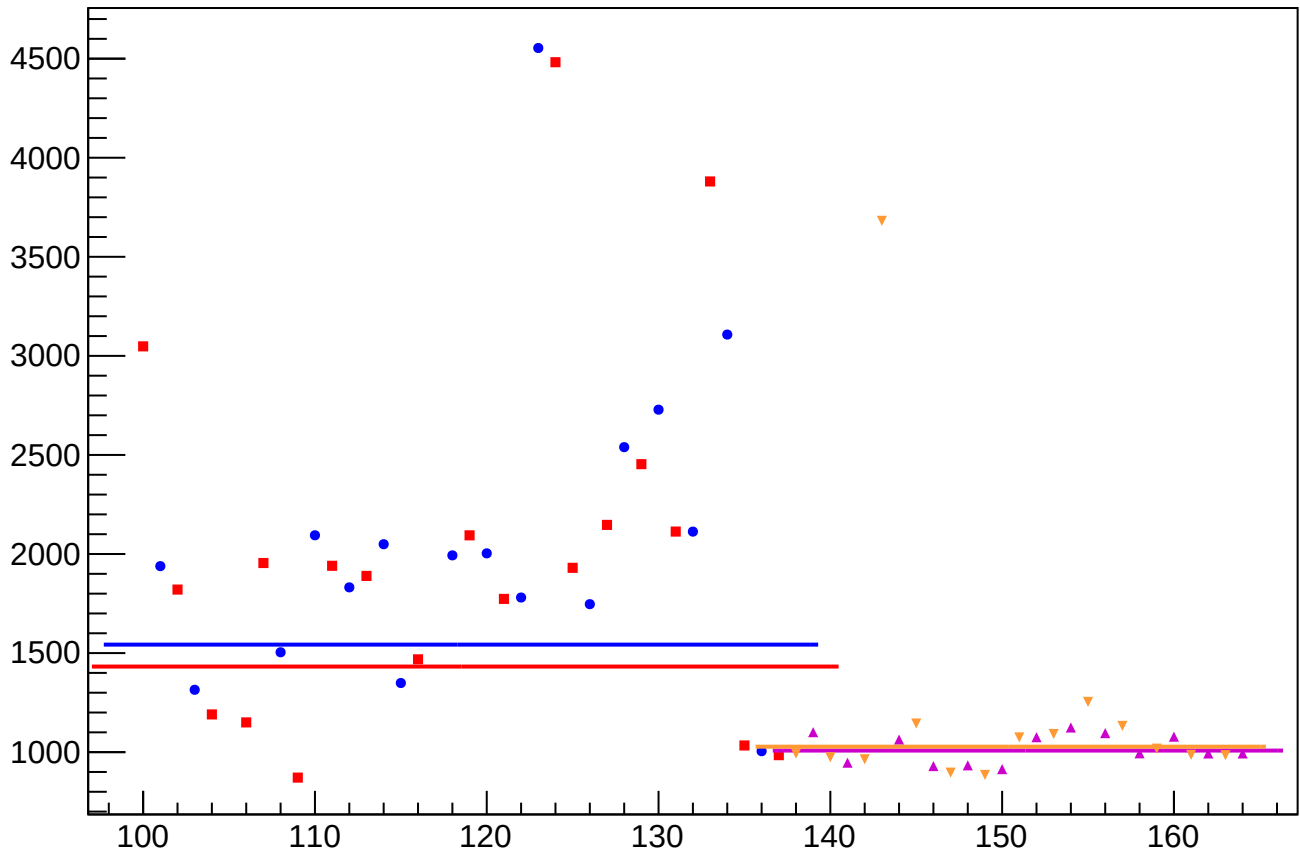
Left In: 383.123 $\pm$ 314.760  $\chi^2/\text{NDF}$ : 5.9/12

+ sign 1260.025 $\pm$ 287.813  $\chi^2/\text{NDF}$ : 54.4/30

All: 869.086 $\pm$ 199.837  $\chi^2/\text{NDF}$ : 79.8/62

- sign 505.183 $\pm$ 277.683  $\chi^2/\text{NDF}$ : 21.8/31

# asym\_at2\_dd\_correction\_rms vs Slug



Right In: 1542.705 $\pm$ 0.447  $\chi^2/\text{NDF}$ : 1287946.3/16

Left Out: 1027.622 $\pm$ 0.229  $\chi^2/\text{NDF}$ : 867144.9/13

+ sign 1134.554 $\pm$ 0.204  $\chi^2/\text{NDF}$ : 3208844.9/30

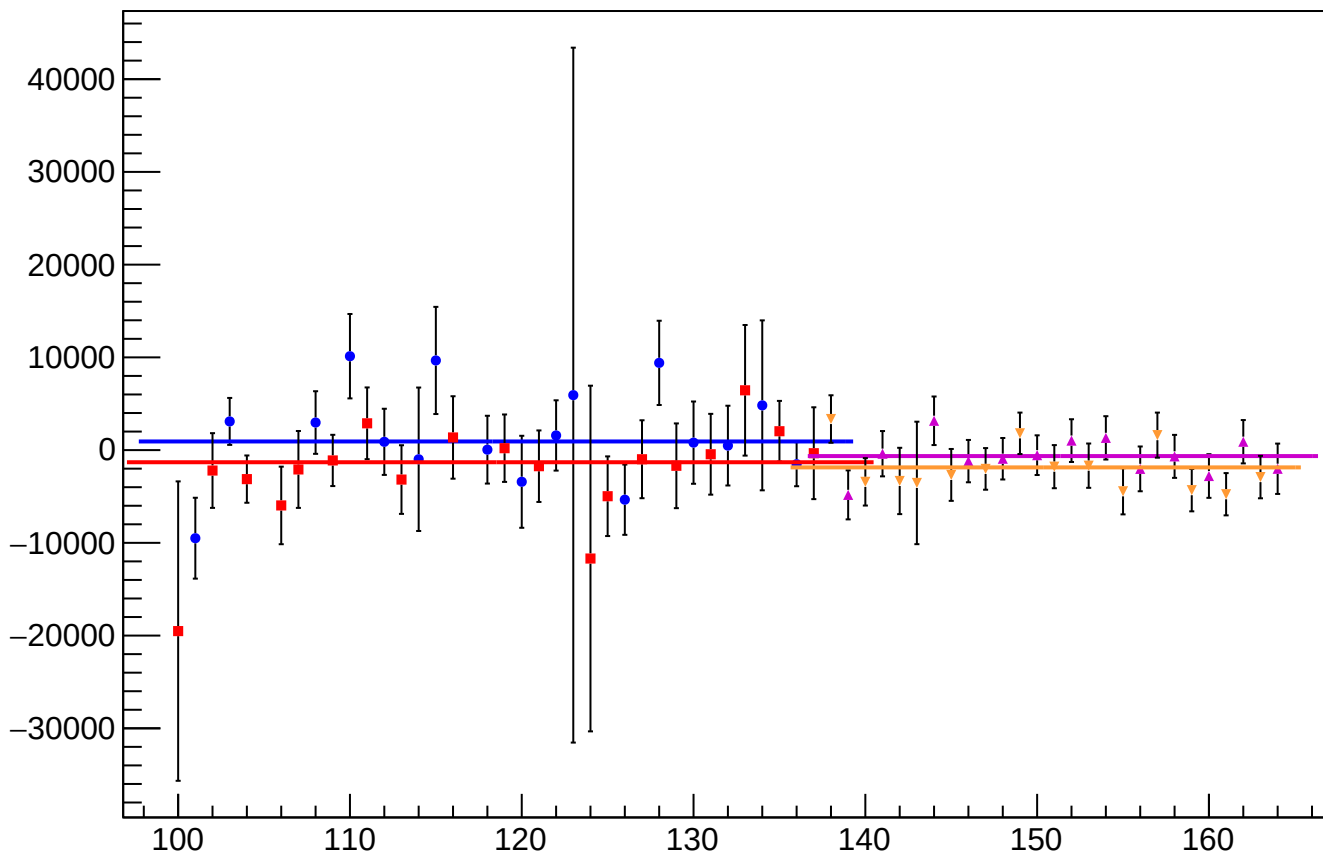
Right Out: 1432.013 $\pm$ 0.417  $\chi^2/\text{NDF}$ : 1823809.4/18

All: 1117.691 $\pm$ 0.141  $\chi^2/\text{NDF}$ : 5954738.0/62

Left In: 1007.977 $\pm$ 0.223  $\chi^2/\text{NDF}$ : 104056.7/12

- sign 1101.993 $\pm$ 0.196  $\chi^2/\text{NDF}$ : 2732635.2/31

# asym\_at2\_dd\_mean vs Slug



Right In:  $932.818 \pm 967.941$   $\chi^2/\text{NDF}$ : 21.6/16

Left Out:  $-1863.443 \pm 674.296$   $\chi^2/\text{NDF}$ : 13.7/13

Right Out:  $-1307.802 \pm 925.415$   $\chi^2/\text{NDF}$ : 8.5/18

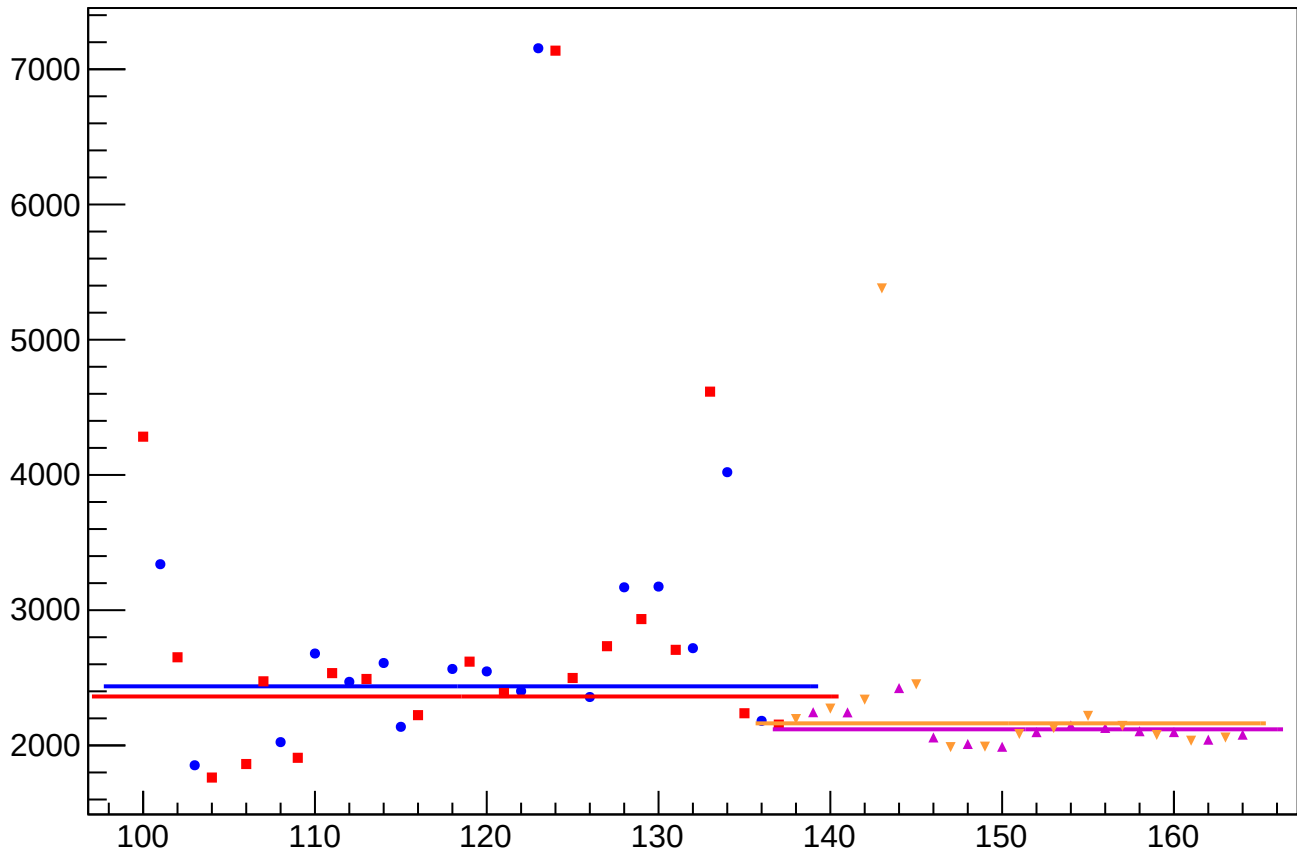
Left In:  $-643.419 \pm 660.069$   $\chi^2/\text{NDF}$ : 7.8/12

+ sign  $-949.816 \pm 553.279$   $\chi^2/\text{NDF}$ : 40.9/30

All:  $-907.432 \pm 385.483$   $\chi^2/\text{NDF}$ : 57.5/62

- sign  $-867.449 \pm 537.379$   $\chi^2/\text{NDF}$ : 16.6/31

# asym\_at2\_dd\_rms vs Slug



Right In: 2436.855+/-0.684  $\chi^2/\text{NDF}$ : 469030.2/16

Left Out: 2163.173+/-0.477  $\chi^2/\text{NDF}$ : 545894.4/13

Right Out: 2361.880+/-0.654  $\chi^2/\text{NDF}$ : 655847.5/18

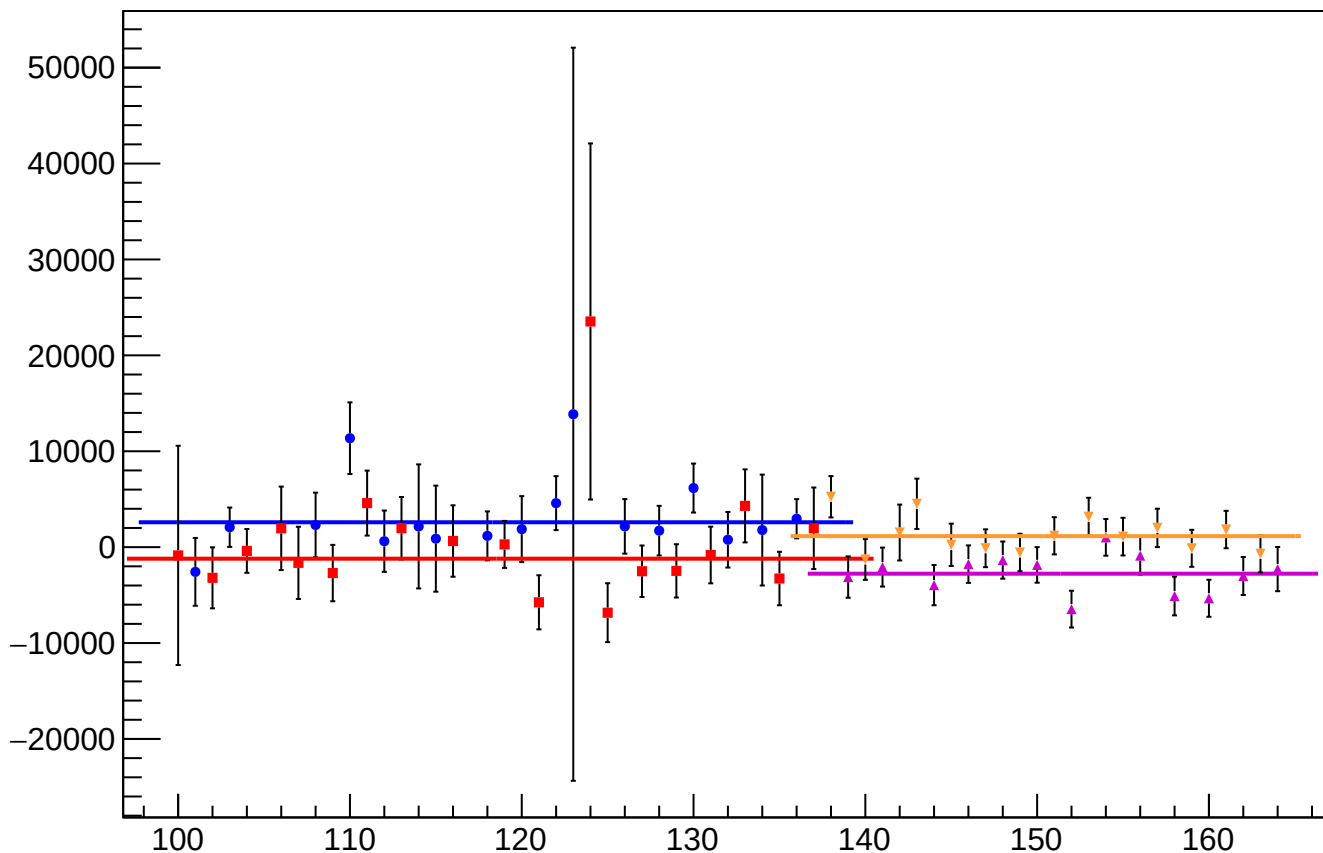
Left In: 2118.979+/-0.467  $\chi^2/\text{NDF}$ : 53626.6/12

+ sign 2252.594+/-0.391  $\chi^2/\text{NDF}$ : 1122574.9/30

All: 2225.986+/-0.273  $\chi^2/\text{NDF}$ : 1932365.4/62

- sign 2200.885+/-0.380  $\chi^2/\text{NDF}$ : 800801.6/31

# reg\_asym\_atl1r2\_avg\_mean vs Slug



Right In: 2594.684 $\pm$ 743.000  $\chi^2$ /NDF: 11.7/16

Left Out: 1148.769 $\pm$ 554.529  $\chi^2$ /NDF:10.6/13

Right Out: -1202.548 $\pm$ 739.618  $\chi^2$ /NDF: 17.2/18

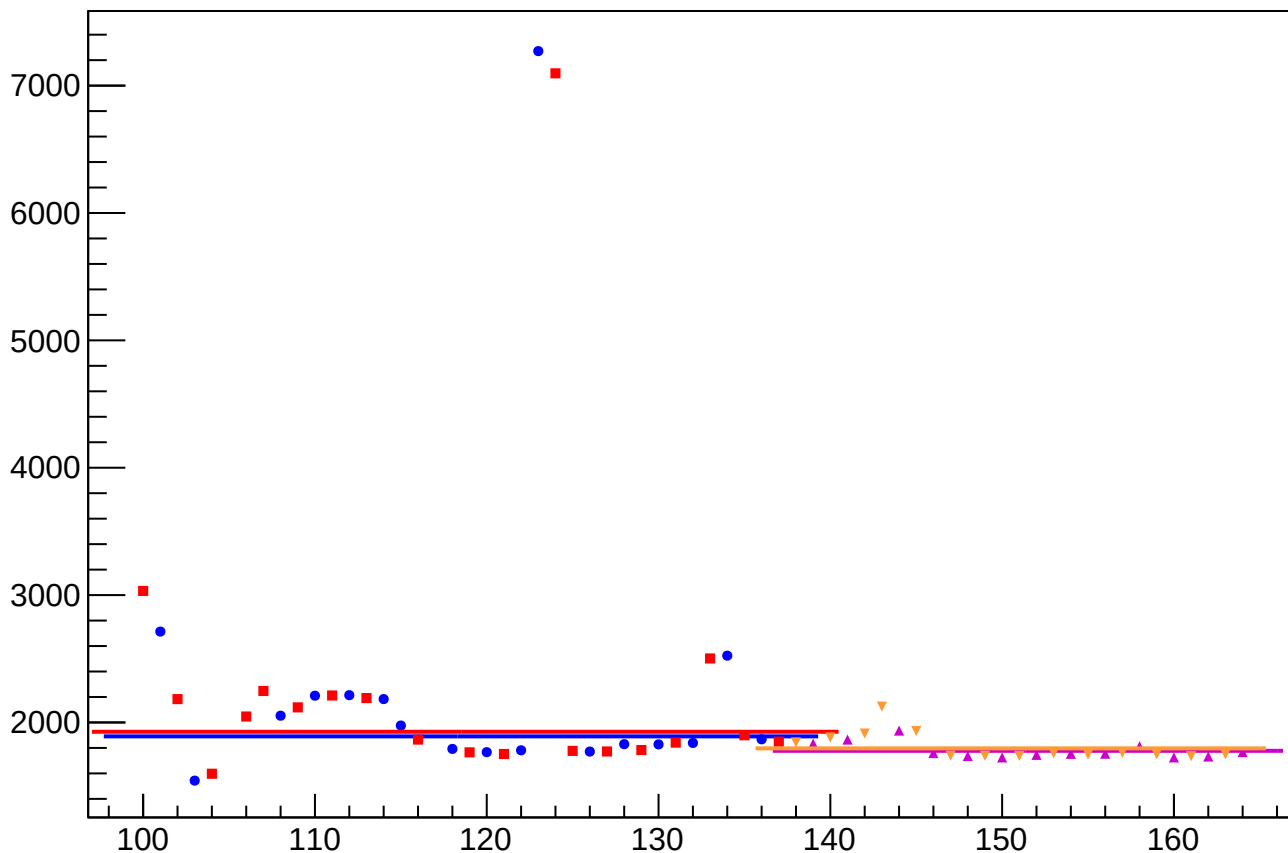
Left In: -2767.920 $\pm$ 553.939  $\chi^2$ /NDF:13.2/12

+ sign 1666.041 $\pm$ 444.403  $\chi^2$ /NDF: 24.7/30

All: -274.164 $\pm$ 313.876  $\chi^2$ /NDF: 96.0/62

- sign -2205.393 $\pm$ 443.374  $\chi^2$ /NDF: 33.3/31

# reg\_asym\_atl1r2\_avg\_rms vs Slug



Right In: 1890.721+/-0.525  $\chi^2/\text{NDF}$ : 288944.9/16

Left Out: 1796.535+/-0.392  $\chi^2/\text{NDF}$ : 58547.2/13

Right Out: 1926.949+/-0.522  $\chi^2/\text{NDF}$ : 362254.5/18

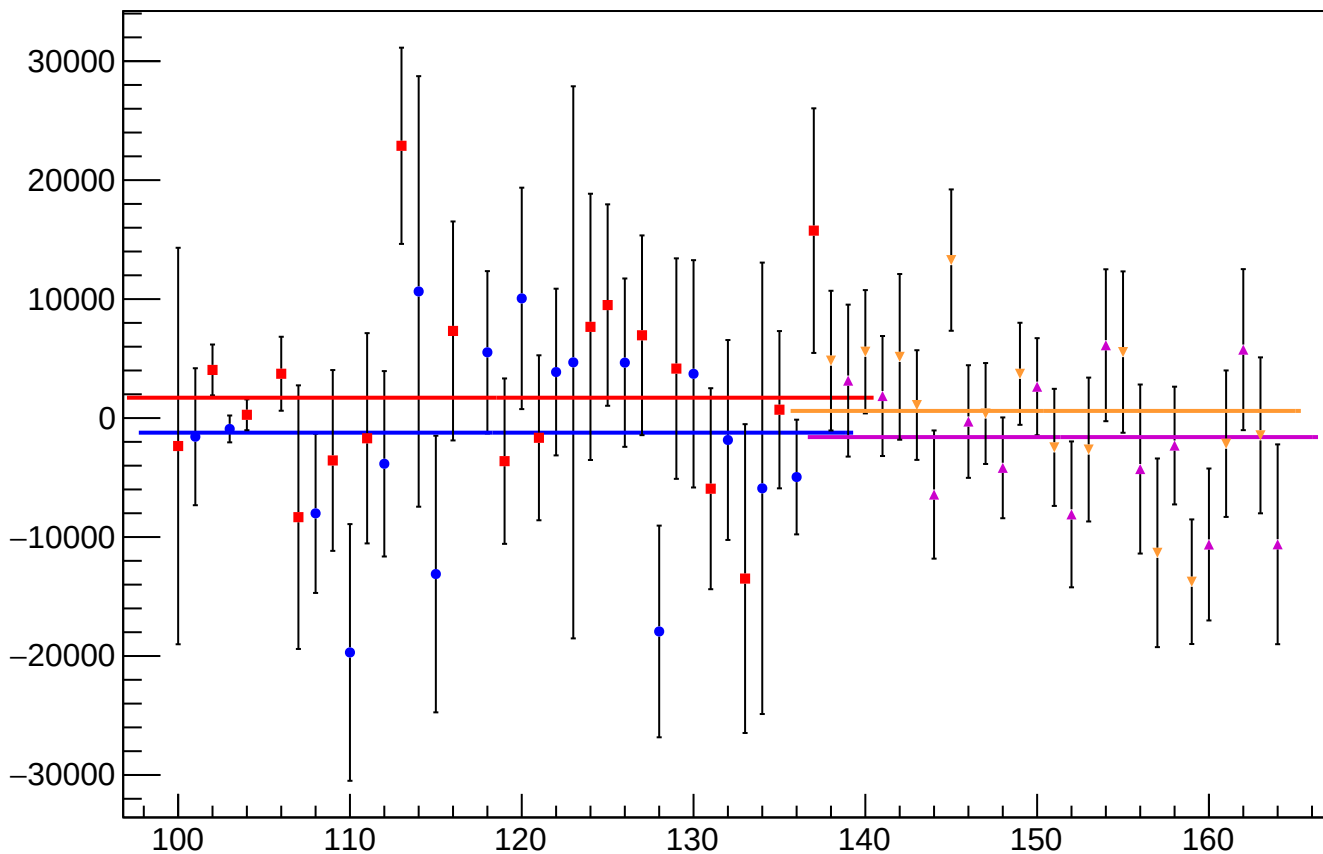
Left In: 1777.386+/-0.392  $\chi^2/\text{NDF}$ : 23526.7/12

+ sign 1830.230+/-0.314  $\chi^2/\text{NDF}$ : 368133.1/30

All: 1830.737+/-0.222  $\chi^2/\text{NDF}$ : 806419.2/62

- sign 1831.241+/-0.313  $\chi^2/\text{NDF}$ : 438280.8/31

# asym\_atl1r2\_avg\_correction\_mean vs Slug



Right In:  $-1226.915 \pm 984.603$   $\chi^2/\text{NDF}$ : 13.8/16

Left Out:  $601.122 \pm 1467.052$   $\chi^2/\text{NDF}$ : 18.2/13

Right Out:  $1711.747 \pm 941.580$   $\chi^2/\text{NDF}$ : 17.8/18

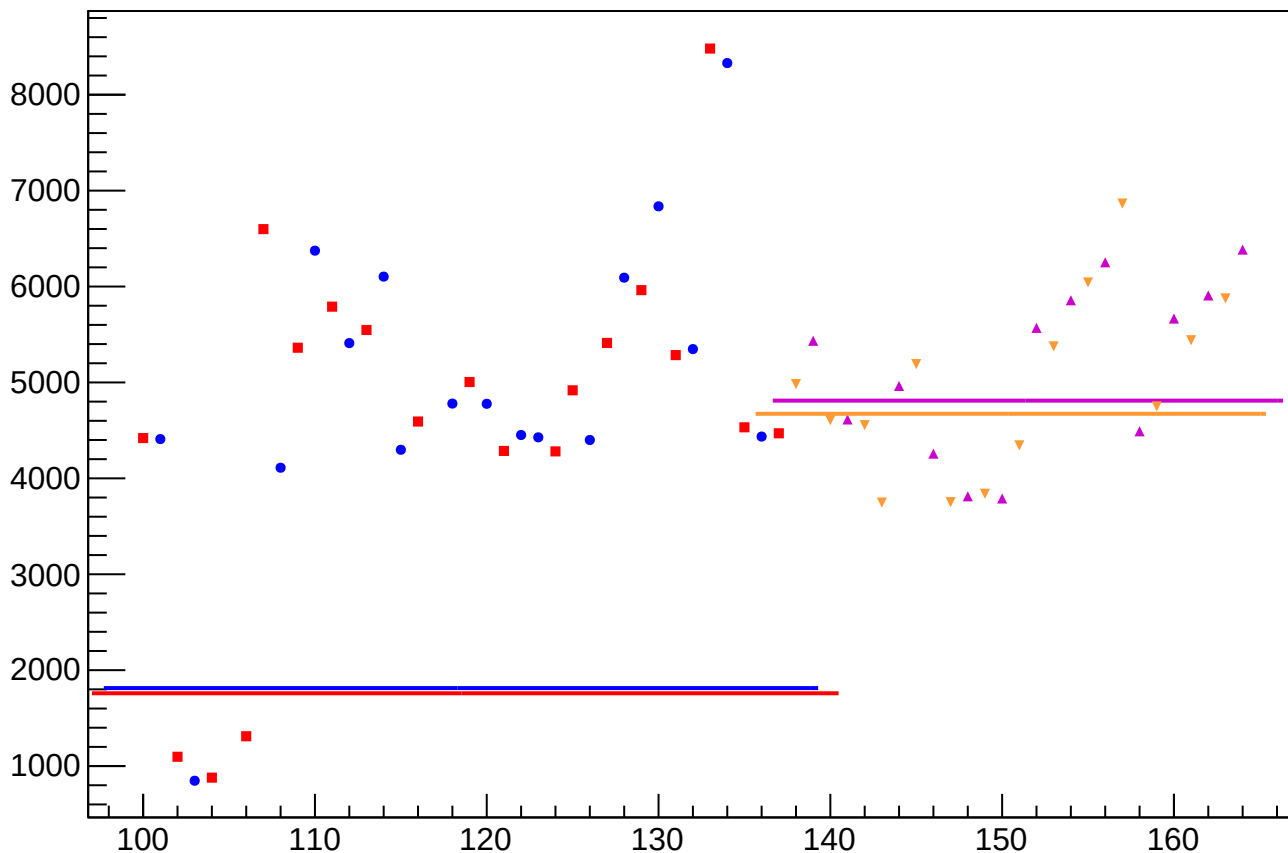
Left In:  $-1598.425 \pm 1523.204$   $\chi^2/\text{NDF}$ : 10.4/12

+ sign  $-659.216 \pm 817.546$   $\chi^2/\text{NDF}$ : 33.1/30

All:  $83.639 \pm 572.120$   $\chi^2/\text{NDF}$ : 66.4/62

- sign  $796.573 \pm 800.912$   $\chi^2/\text{NDF}$ : 31.7/31

# asym\_atl1r2\_avg\_correction\_rms vs Slug



Right In: 1813.195+/-0.696  $\chi^2/\text{NDF}$ : 6449038.4/16

Left Out: 4673.048+/-1.037  $\chi^2/\text{NDF}$ : 641702.4/13

Right Out: 1759.135+/-0.666  $\chi^2/\text{NDF}$ : 6313068.7/18

Left In: 4810.386+/-1.077  $\chi^2/\text{NDF}$ : 620959.1/12

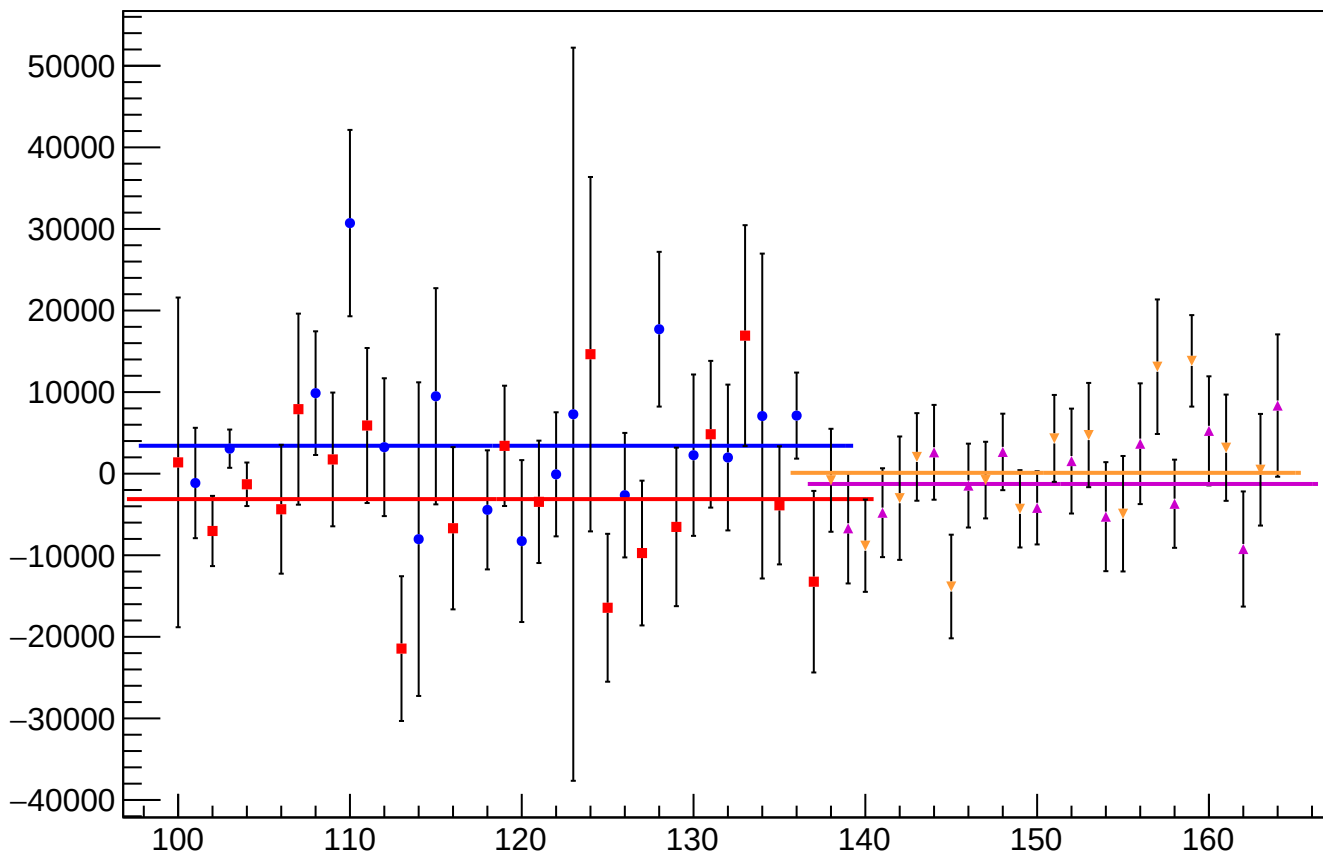
+ sign 2701.326+/-0.578  $\chi^2/\text{NDF}$ : 12330706.9/30

All: 2651.012+/-0.405  $\chi^2/\text{NDF}$ : 25086214.2/6

- sign 2602.725+/-0.566  $\chi^2/\text{NDF}$ : 12740662.2/31



# asym\_atl1r2\_avg\_mean vs Slug



Right In: 3421.264+/-1606.678  $\chi^2/\text{NDF}$ : 13.7/16

Left Out: 102.336+/-1592.559  $\chi^2/\text{NDF}$ : 18.9/13

Right Out: -3117.857+/-1605.930  $\chi^2/\text{NDF}$ : 16.0/18

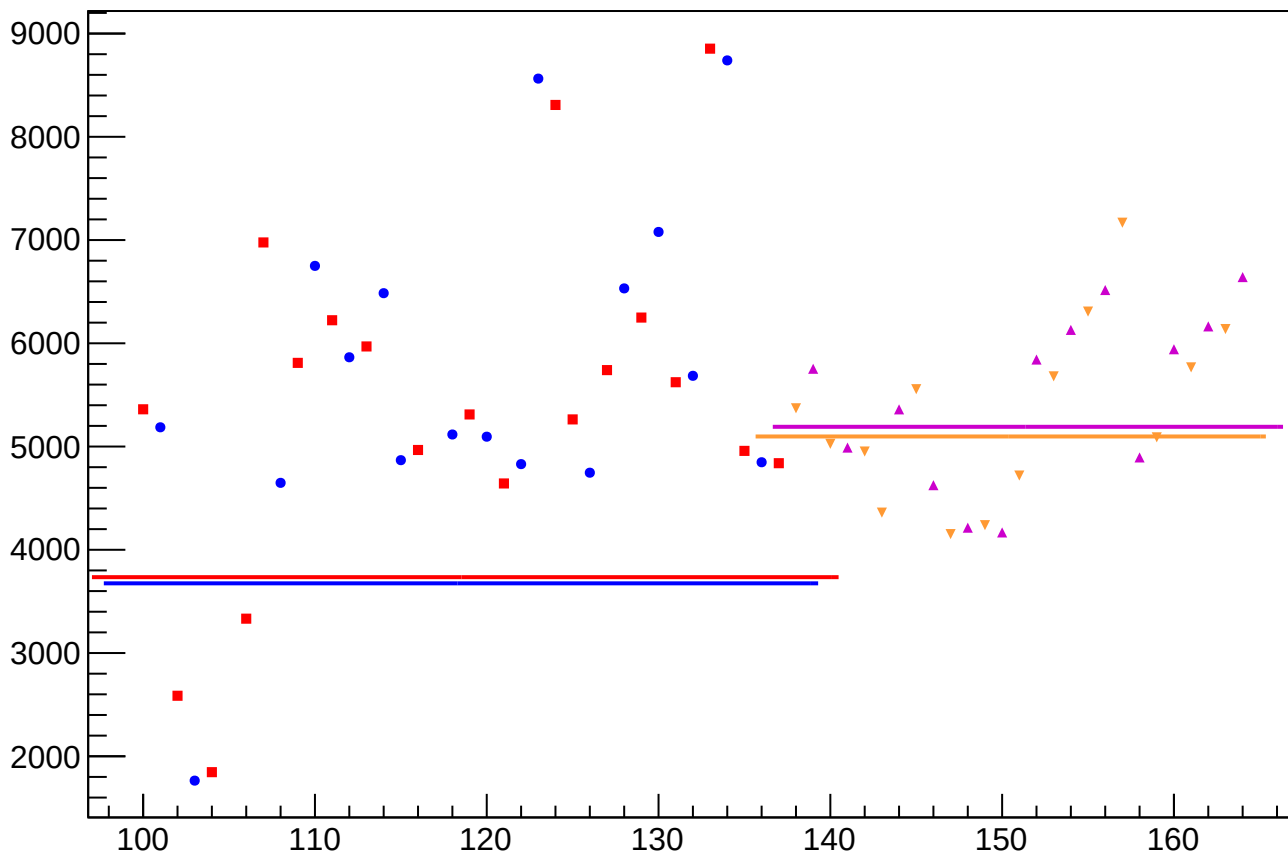
Left In: -1262.250+/-1637.637  $\chi^2/\text{NDF}$ : 7.3/12

+ sign 1747.154+/-1131.068  $\chi^2/\text{NDF}$ : 34.8/30

All: -203.531+/-805.224  $\chi^2/\text{NDF}$ : 64.7/62

- sign -2208.191+/-1146.610  $\chi^2/\text{NDF}$ : 23.9/31

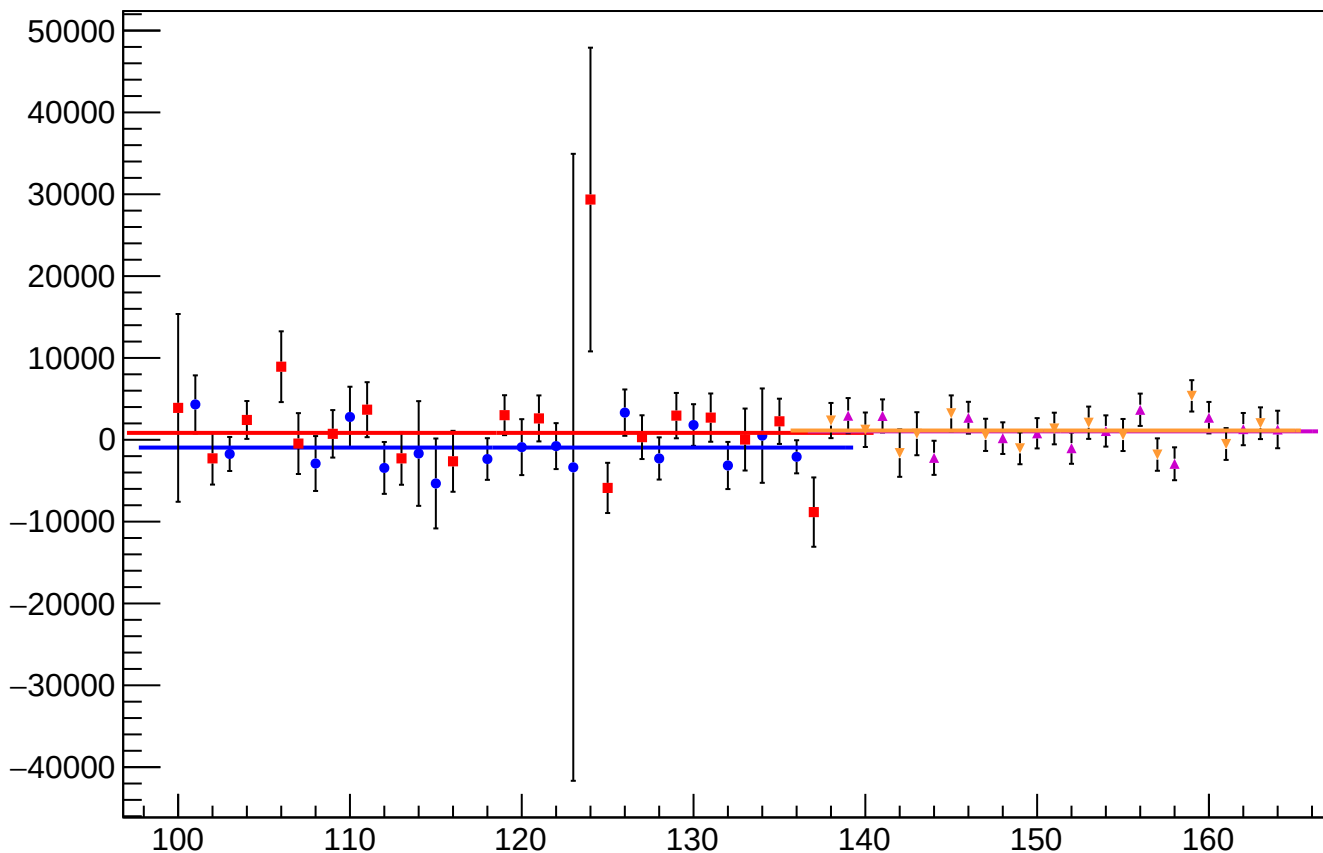
# asym\_atl1r2\_avg\_rms vs Slug



Right In:  $3675.003 \pm 1.136$   $\chi^2/\text{NDF}$ : 2775085.7/16  
 Left Out:  $5097.473 \pm 1.126$   $\chi^2/\text{NDF}$ : 478234.8/13  
 Right Out:  $3734.796 \pm 1.128$   $\chi^2/\text{NDF}$ : 2693929.0/18  
 Left In:  $5191.204 \pm 1.158$   $\chi^2/\text{NDF}$ : 481900.4/12

+ sign  $4392.516 \pm 0.800$   $\chi^2/\text{NDF}$ : 4044081.3/30  
 All:  $4417.952 \pm 0.568$   $\chi^2/\text{NDF}$ : 8033600.7/62  
 - sign  $4443.916 \pm 0.808$   $\chi^2/\text{NDF}$ : 3987475.4/31

# reg\_asym\_atl1r2\_dd\_mean vs Slug



Right In:  $-951.377 \pm 740.668$   $\chi^2/\text{NDF}$ : 10.0/16

Left Out:  $1131.753 \pm 552.183$   $\chi^2/\text{NDF}$ : 11.8/13

Right Out:  $843.515 \pm 737.527$   $\chi^2/\text{NDF}$ : 22.5/18

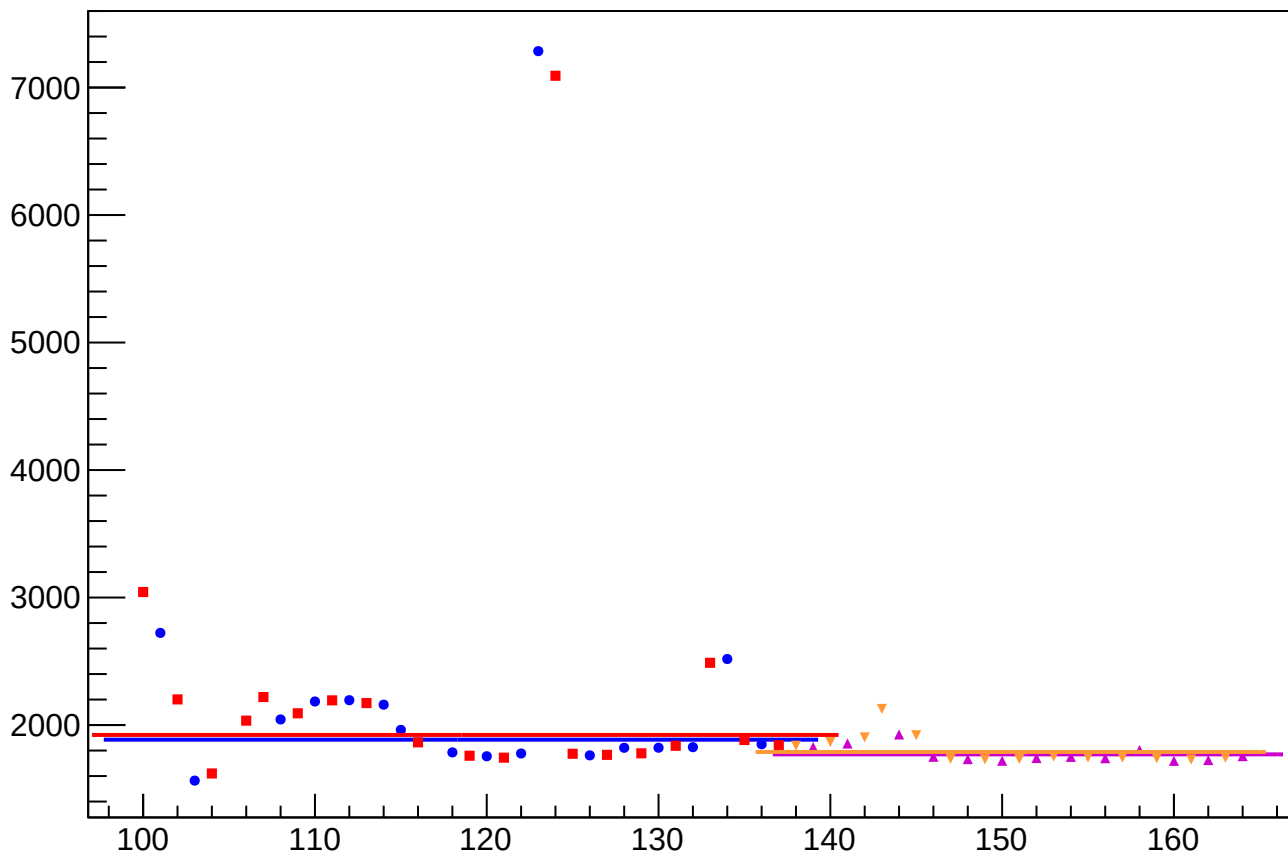
Left In:  $1028.905 \pm 551.644$   $\chi^2/\text{NDF}$ : 12.6/12

+ sign  $387.568 \pm 442.696$   $\chi^2/\text{NDF}$ : 26.9/30

All:  $675.600 \pm 312.697$   $\chi^2/\text{NDF}$ : 62.9/62

- sign  $962.397 \pm 441.746$   $\chi^2/\text{NDF}$ : 35.2/31

# reg\_asym\_atl1r2\_dd\_rms vs Slug



Right In:  $1885.360 \pm 0.524$   $\chi^2/\text{NDF}$ : 280429.0/16

Left Out:  $1788.980 \pm 0.390$   $\chi^2/\text{NDF}$ : 58901.3/13

Right Out:  $1922.538 \pm 0.521$   $\chi^2/\text{NDF}$ : 351512.1/18

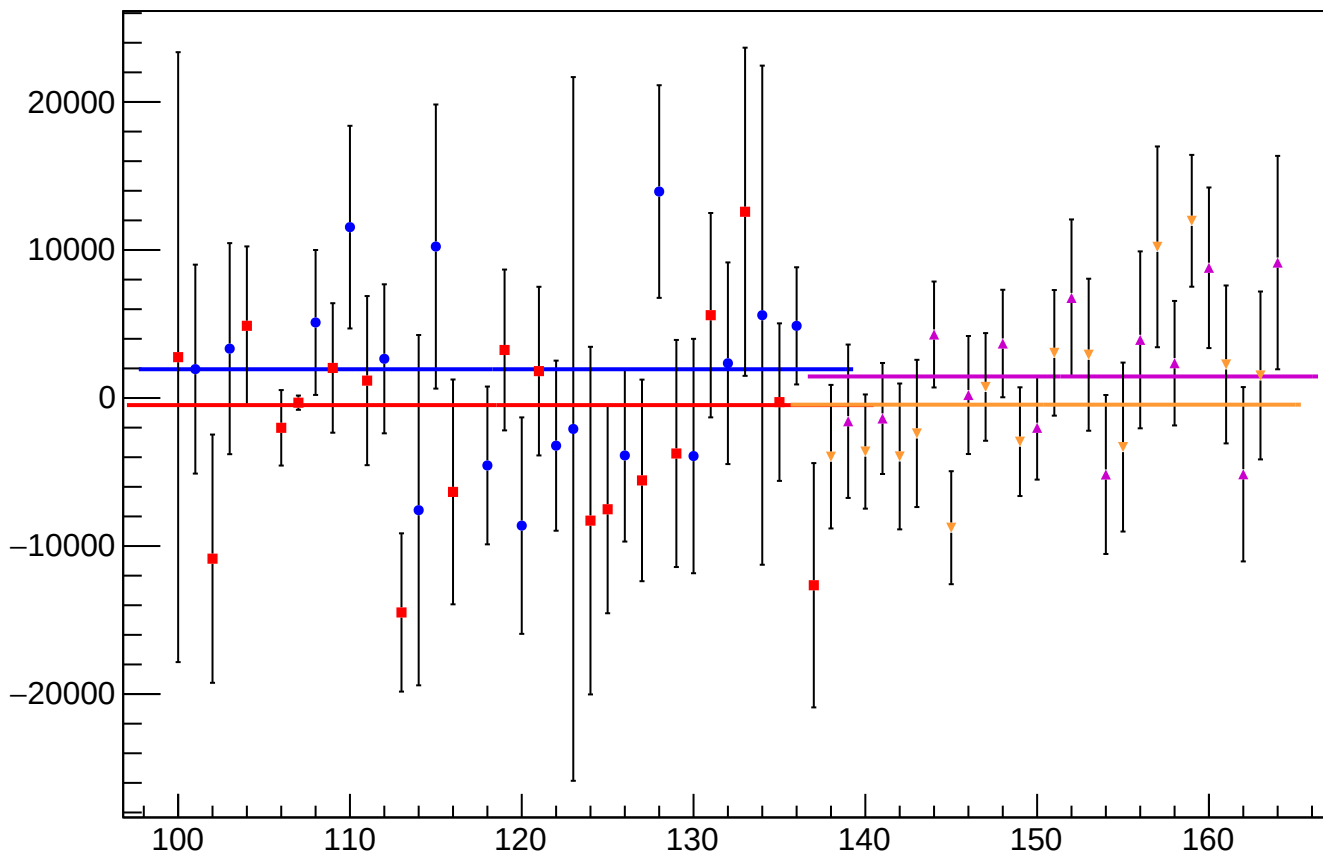
Left In:  $1770.054 \pm 0.390$   $\chi^2/\text{NDF}$ : 22780.5/12

+ sign  $1823.411 \pm 0.313$   $\chi^2/\text{NDF}$ : 361097.4/30

All:  $1824.141 \pm 0.221$   $\chi^2/\text{NDF}$ : 790332.2/62

- sign  $1824.867 \pm 0.312$   $\chi^2/\text{NDF}$ : 429224.0/31

# asym\_atl1r2\_dd\_correction\_mean vs Slug



Right In: 1943.178+/-1581.060  $\chi^2/\text{NDF}$ : 13.2/16

Left Out: -450.248+/-1219.570  $\chi^2/\text{NDF}$ : 19.2/13

Right Out: -478.828+/-453.684  $\chi^2/\text{NDF}$ : 18.1/18

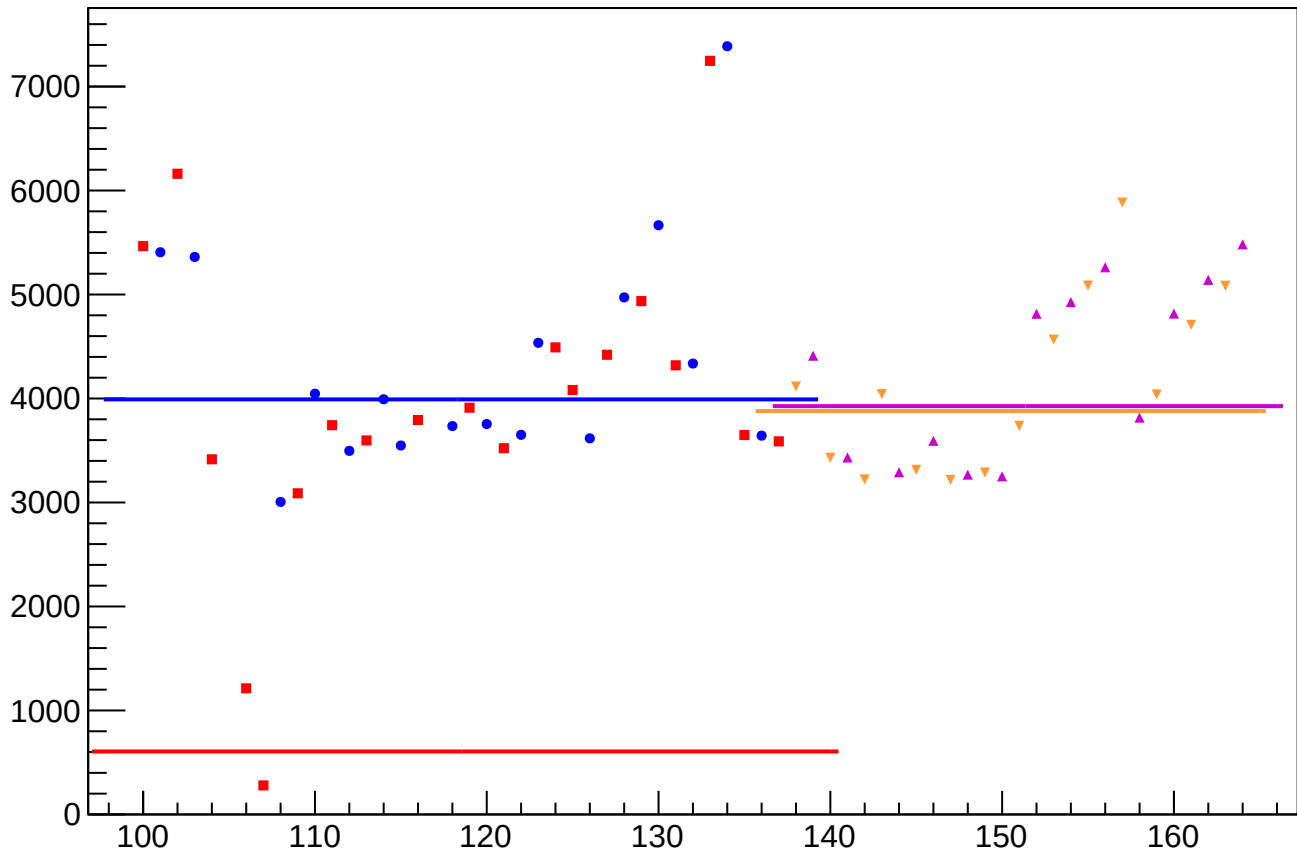
Left In: 1455.817+/-1246.470  $\chi^2/\text{NDF}$ : 10.0/12

+ sign 442.597+/-965.665  $\chi^2/\text{NDF}$ : 33.8/30

All: -139.130+/-390.007  $\chi^2/\text{NDF}$ : 64.4/62

- sign -252.512+/-426.323  $\chi^2/\text{NDF}$ : 30.2/31

# asym\_atl1r2\_dd\_correction\_rms vs Slug



Right In: 3991.416+/-1.118  $\chi^2/\text{NDF}$ : 510782.7/16

Left Out: 3879.320+/-0.862  $\chi^2/\text{NDF}$ : 675034.8/13

Right Out: 605.731+/-0.321  $\chi^2/\text{NDF}$ : 10246585.0/18

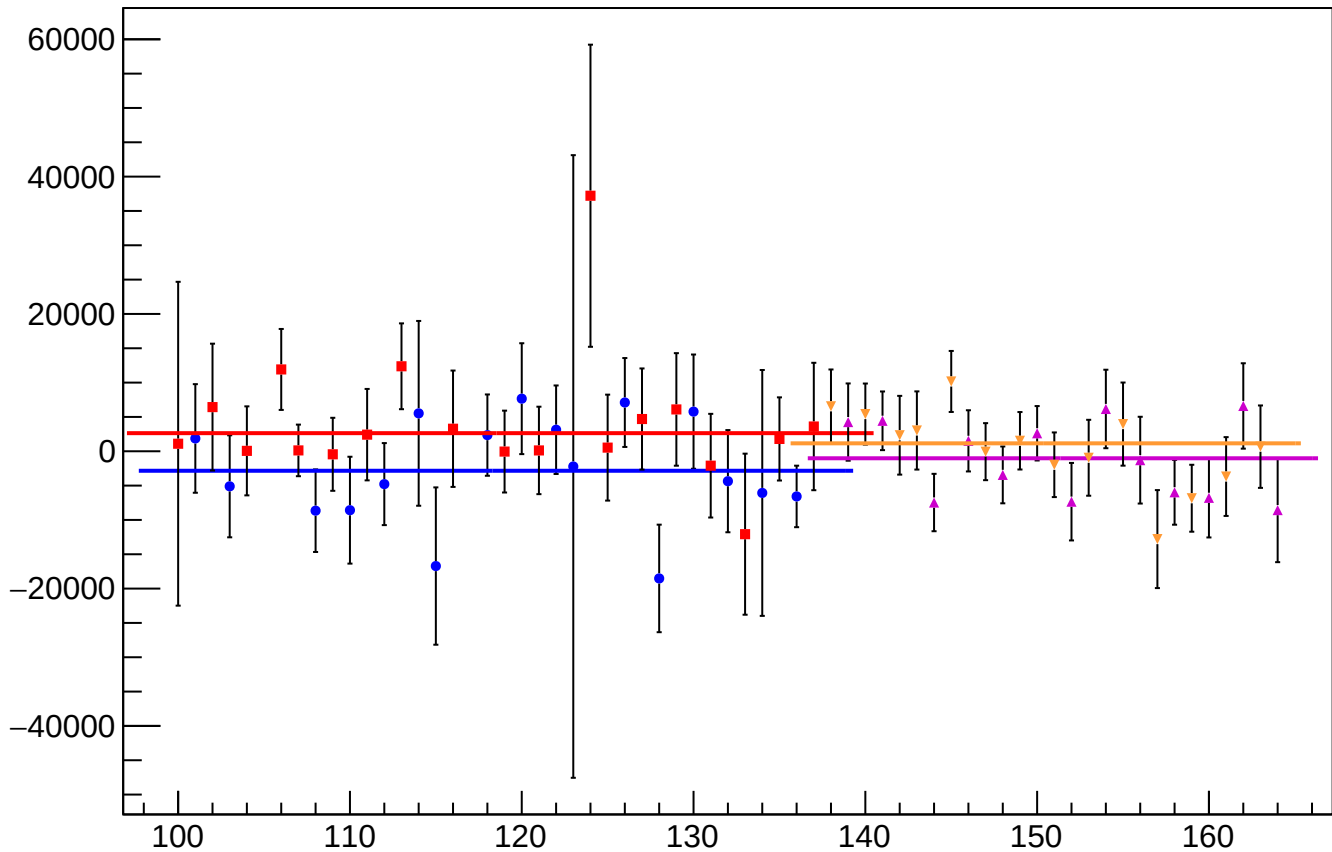
Left In: 3926.465+/-0.881  $\chi^2/\text{NDF}$ : 728549.6/12

+ sign 3921.136+/-0.683  $\chi^2/\text{NDF}$ : 1192120.7/30

All: 1471.618+/-0.276  $\chi^2/\text{NDF}$ : 40078696.5/6

- sign 994.193+/-0.301  $\chi^2/\text{NDF}$ : 23509561.9/31

# asym\_atl1r2\_dd\_mean vs Slug



Right In:  $-2839.599 \pm 1786.019$   $\chi^2/\text{NDF}$ : 15.4/16

Left Out:  $1155.281 \pm 1364.141$   $\chi^2/\text{NDF}$ : 14.3/13

Right Out:  $2637.071 \pm 1575.105$   $\chi^2/\text{NDF}$ : 11.2/18

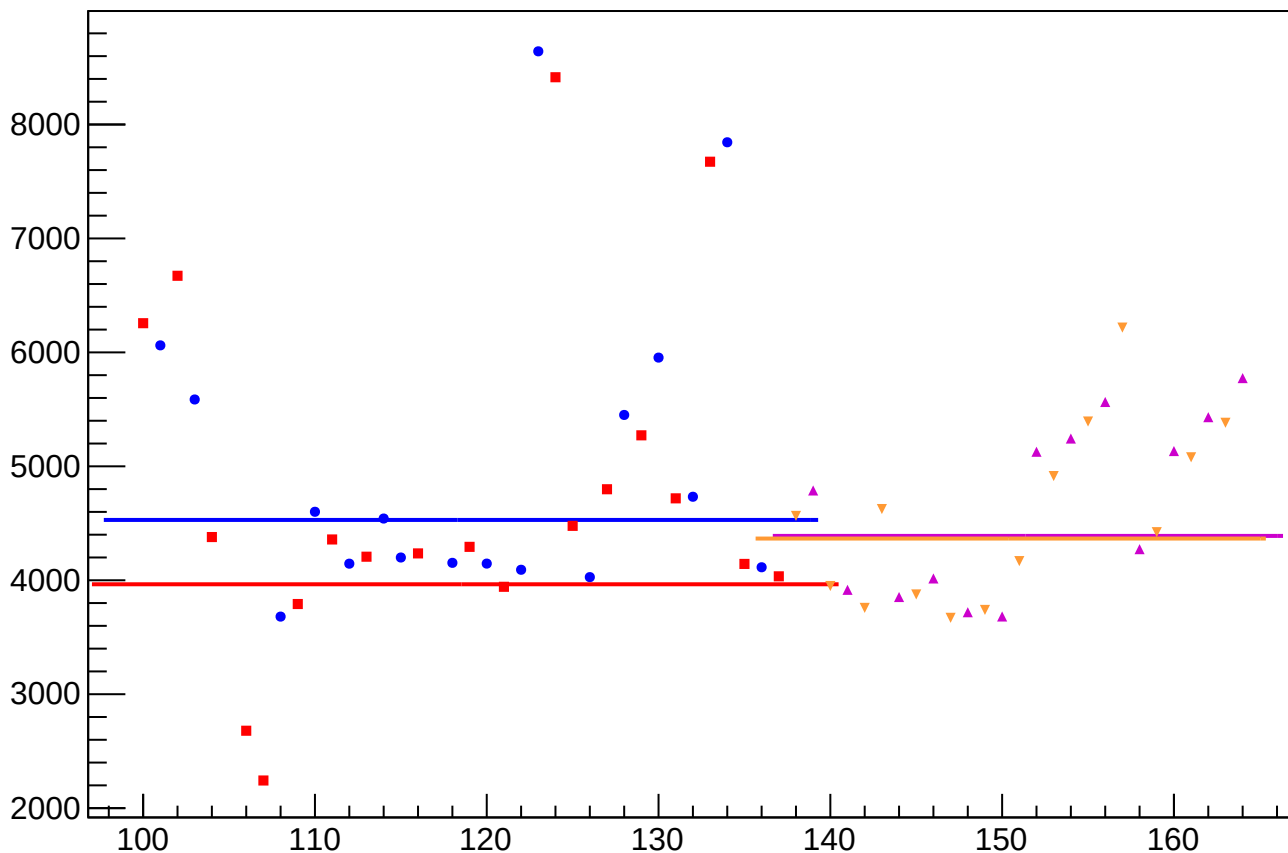
Left In:  $-1020.910 \pm 1385.047$   $\chi^2/\text{NDF}$ : 13.8/12

+ sign  $-316.580 \pm 1084.096$   $\chi^2/\text{NDF}$ : 32.9/30

All:  $147.236 \pm 750.540$   $\chi^2/\text{NDF}$ : 61.3/62

- sign  $574.183 \pm 1040.116$   $\chi^2/\text{NDF}$ : 28.1/31

# asym\_atl1r2\_dd\_rms vs Slug



Right In:  $4529.462 \pm 1.263$   $\chi^2/\text{NDF}$ : 389326.2/16

Left Out:  $4366.124 \pm 0.965$   $\chi^2/\text{NDF}$ : 476256.5/13

Right Out:  $3964.829 \pm 1.107$   $\chi^2/\text{NDF}$ : 1140409.6/18

Left In:  $4389.314 \pm 0.979$   $\chi^2/\text{NDF}$ : 503220.0/12

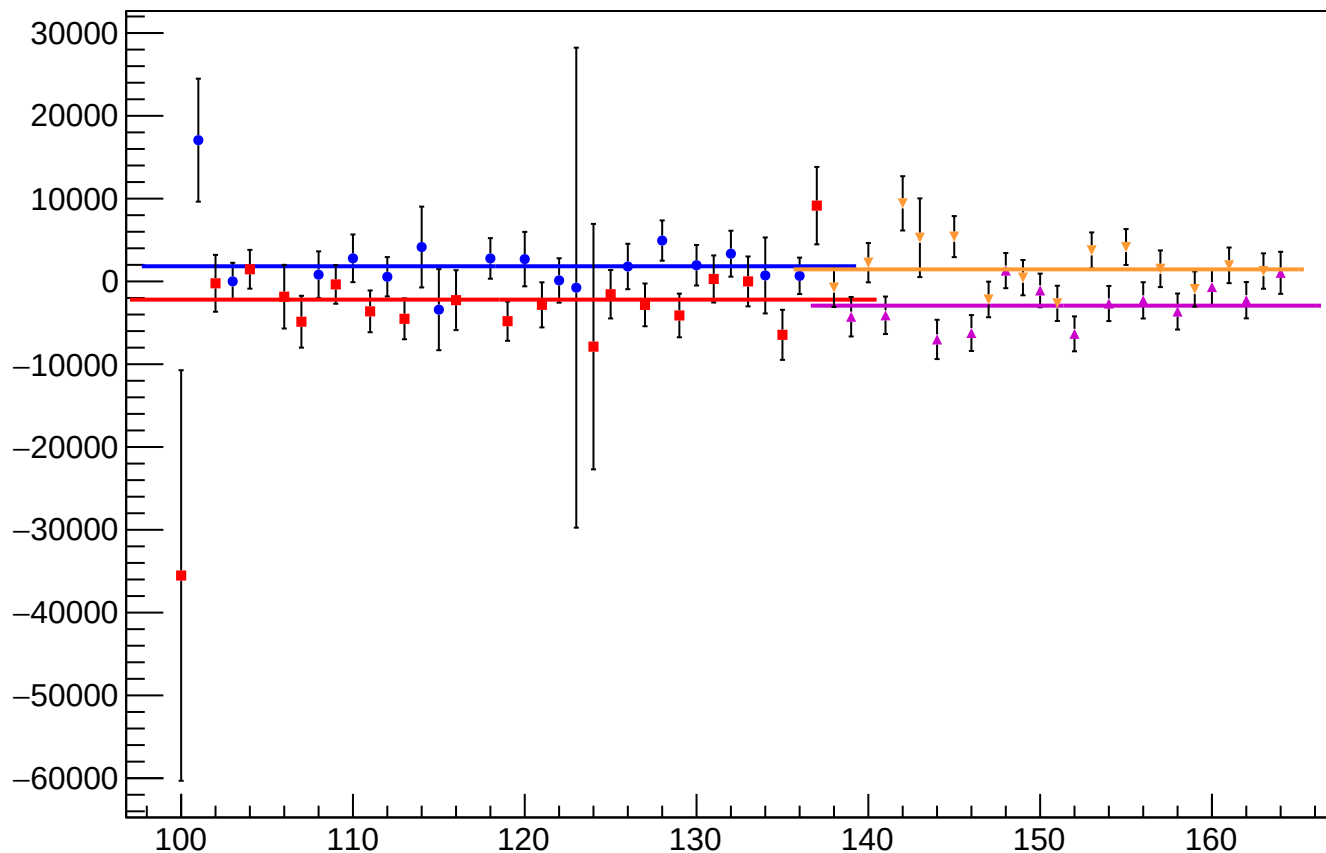
+ sign  $4426.303 \pm 0.767$   $\chi^2/\text{NDF}$ : 876147.2/30

All:  $4309.652 \pm 0.530$   $\chi^2/\text{NDF}$ : 2646638.7/62

- sign  $4202.874 \pm 0.733$   $\chi^2/\text{NDF}$ : 1726138.5/31



# reg\_asym\_atr1l2\_avg\_mean vs Slug



Right In: 1830.102+/-711.335  $\chi^2/\text{NDF}$ : 9.7/16

Left Out: 1456.198+/-619.988  $\chi^2/\text{NDF}$ : 20.9/13

Right Out: -2198.063+/-684.205  $\chi^2/\text{NDF}$ : 18.3/18

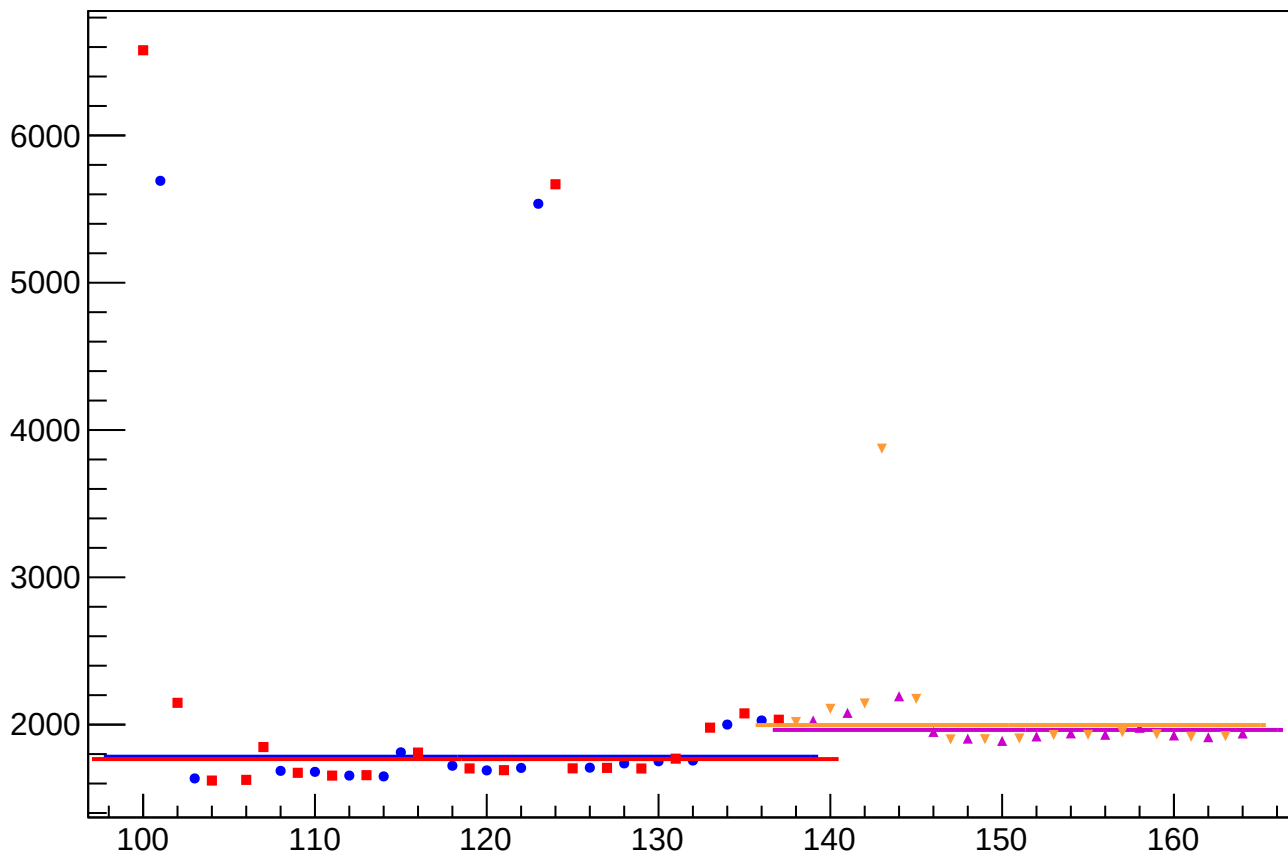
Left In: -2926.666+/-612.143  $\chi^2/\text{NDF}$ : 17.1/12

+ sign 1617.615+/-467.379  $\chi^2/\text{NDF}$ : 30.7/30

All: -543.604+/-326.466  $\chi^2/\text{NDF}$ : 108.5/62

- sign -2602.742+/-456.208  $\chi^2/\text{NDF}$ : 36.0/31

# reg\_asym\_atr1l2\_avg\_rms vs Slug



Right In:  $1782.137 \pm 0.503$   $\chi^2/\text{NDF}$ : 645188.8/16

Left Out:  $1997.157 \pm 0.438$   $\chi^2/\text{NDF}$ : 354002.5/13

Right Out:  $1765.967 \pm 0.480$   $\chi^2/\text{NDF}$ : 306798.2/18

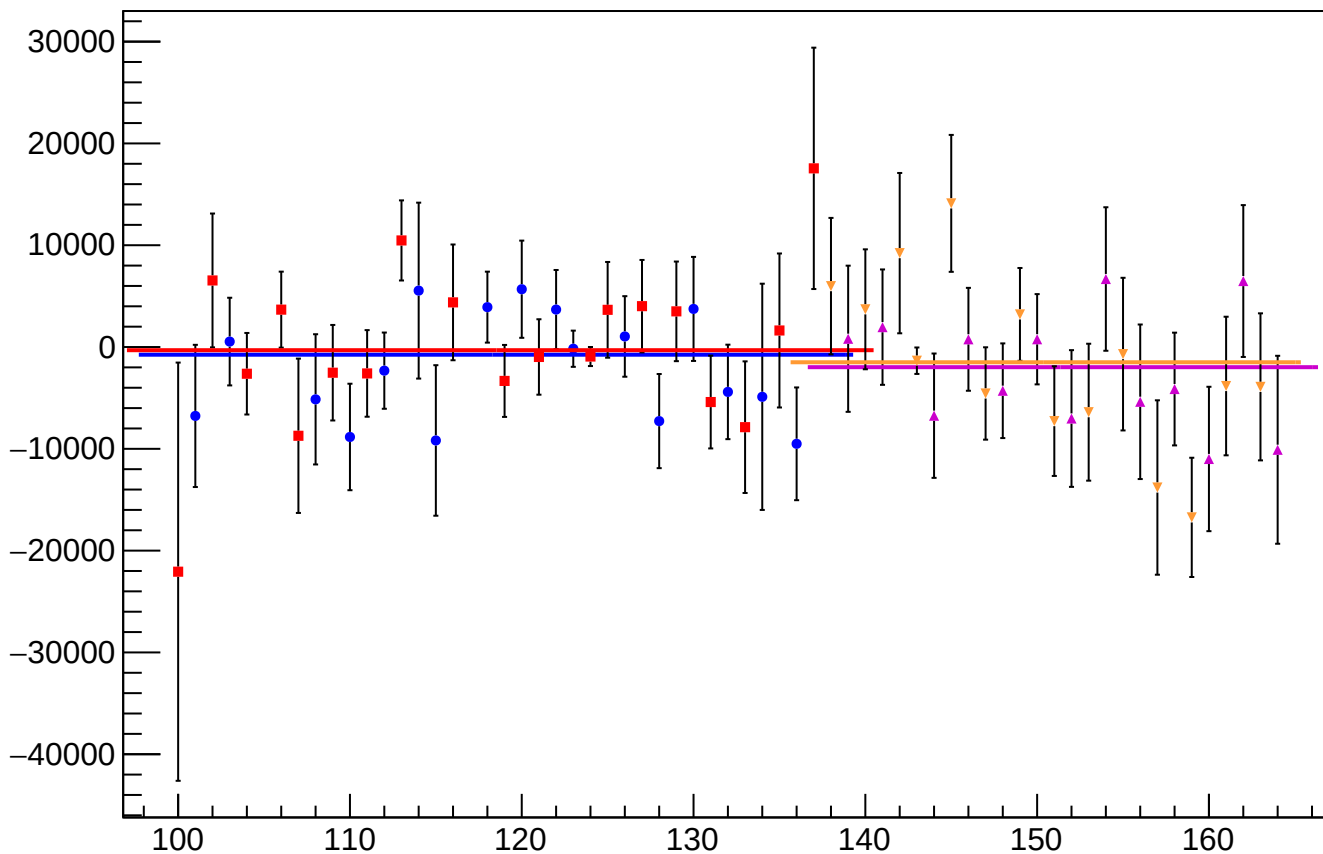
Left In:  $1963.896 \pm 0.433$   $\chi^2/\text{NDF}$ : 32988.8/12

+ sign  $1904.331 \pm 0.330$   $\chi^2/\text{NDF}$ : 1103042.5/30

All:  $1889.383 \pm 0.230$   $\chi^2/\text{NDF}$ : 1540482.4/62

- sign  $1875.228 \pm 0.322$   $\chi^2/\text{NDF}$ : 433456.8/31

# asym\_atr1l2\_avg\_correction\_mean vs Slug



Right In:  $-753.428 \pm 1008.523$   $\chi^2/\text{NDF}$ : 16.9/16

Left Out:  $-1496.662 \pm 1033.321$   $\chi^2/\text{NDF}$ : 21.6/13

Right Out:  $-311.405 \pm 725.132$   $\chi^2/\text{NDF}$ : 22.0/18

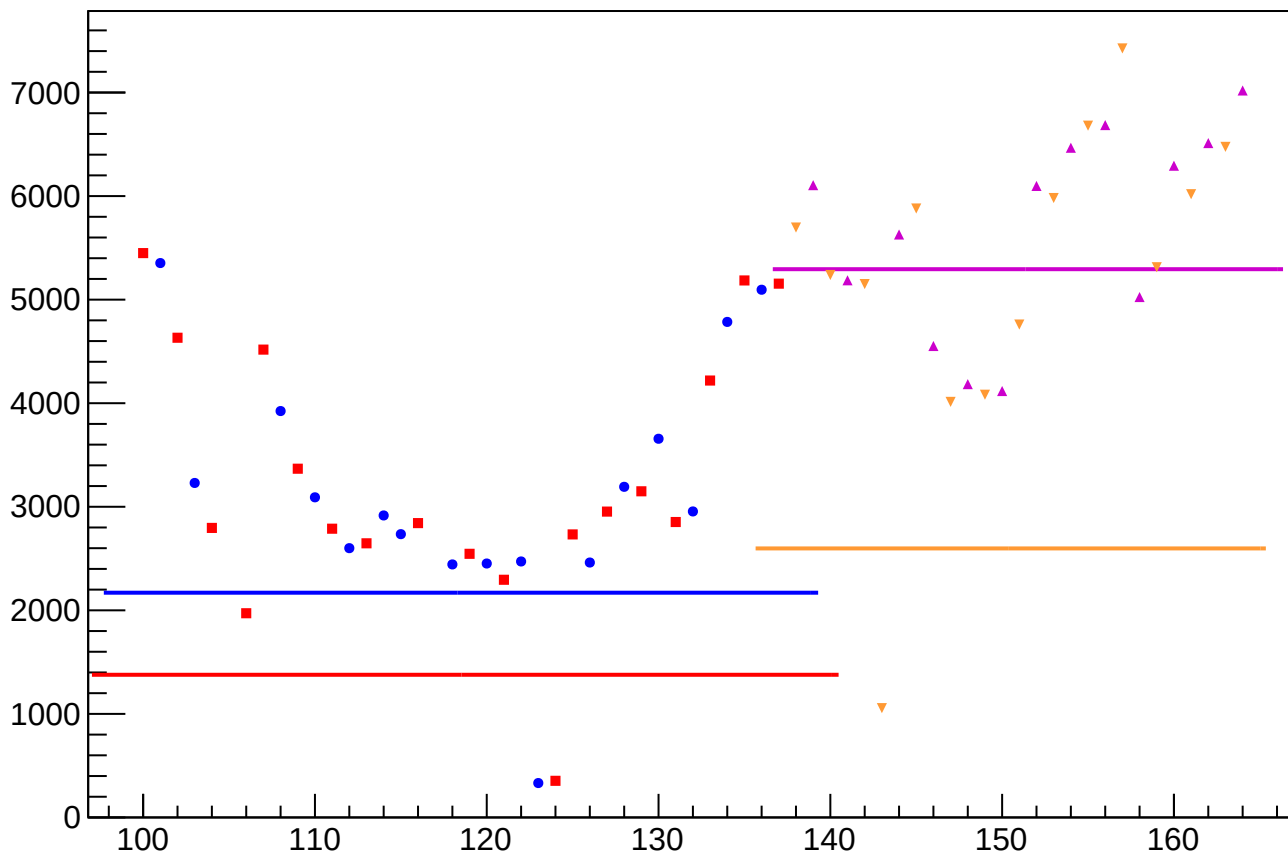
Left In:  $-1980.004 \pm 1677.214$   $\chi^2/\text{NDF}$ : 8.3/12

+ sign  $-1116.019 \pm 721.741$   $\chi^2/\text{NDF}$ : 38.8/30

All:  $-823.205 \pm 489.291$   $\chi^2/\text{NDF}$ : 70.2/62

- sign  $-574.182 \pm 665.589$   $\chi^2/\text{NDF}$ : 31.1/31

# asym\_atr1l2\_avg\_correction\_rms vs Slug



Right In: 2170.242 $\pm$ 0.713  $\chi^2$ /NDF: 3973725.5/16

Left Out: 2597.764 $\pm$ 0.731  $\chi^2$ /NDF: 8309516.4/13

Right Out: 1377.716 $\pm$ 0.513  $\chi^2$ /NDF: 6847297.6/18

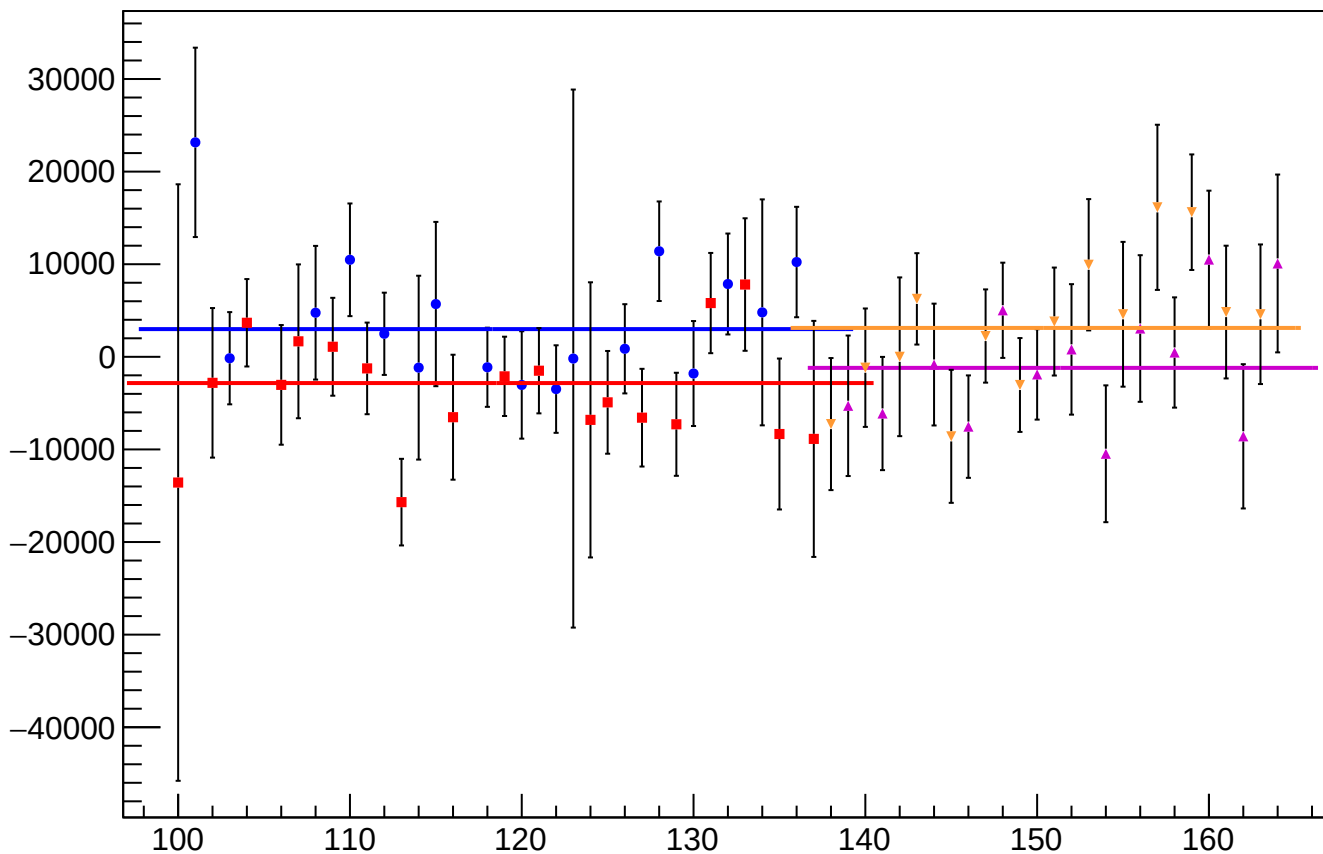
Left In: 5294.089 $\pm$ 1.186  $\chi^2$ /NDF: 648999.3/12

+ sign 2378.811 $\pm$ 0.510  $\chi^2$ /NDF: 12458576.3/30

All: 2171.115 $\pm$ 0.346  $\chi^2$ /NDF: 29448892.6/6

- sign 1994.480 $\pm$ 0.471  $\chi^2$ /NDF: 16683838.0/31

# asym\_atr1l2\_avg\_mean vs Slug



Right In: 2992.806 $\pm$ 1447.211  $\chi^2$ /NDF: 15.7/16

Left Out: 3120.053 $\pm$ 1721.031  $\chi^2$ /NDF:14.5/13

Right Out: -2833.408 $\pm$ 1379.110  $\chi^2$ /NDF: 17.7/18

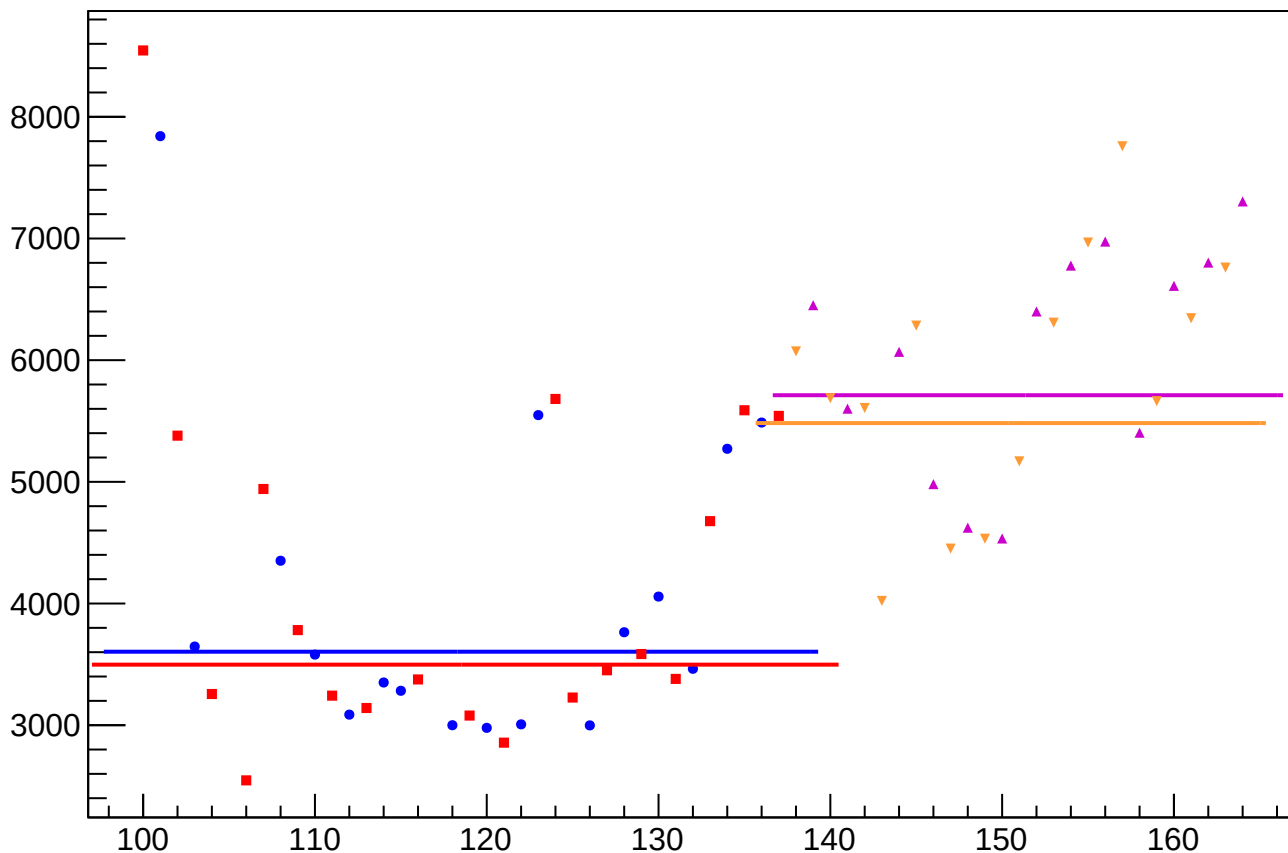
Left In: -1193.666 $\pm$ 1802.627  $\chi^2$ /NDF:10.5/12

+ sign 3045.514 $\pm$ 1107.647  $\chi^2$ /NDF: 30.2/30

All: 379.254 $\pm$ 778.830  $\chi^2$ /NDF: 70.4/62

- sign -2228.001 $\pm$ 1095.322  $\chi^2$ /NDF: 28.8/31

# asym\_atr1l2\_avg\_rms vs Slug



Right In:  $3603.930 \pm 1.023$   $\chi^2/\text{NDF}$ : 784674.5/16

Left Out:  $5482.941 \pm 1.217$   $\chi^2/\text{NDF}$ : 694088.2/13

Right Out:  $3497.586 \pm 0.962$   $\chi^2/\text{NDF}$ : 661898.6/18

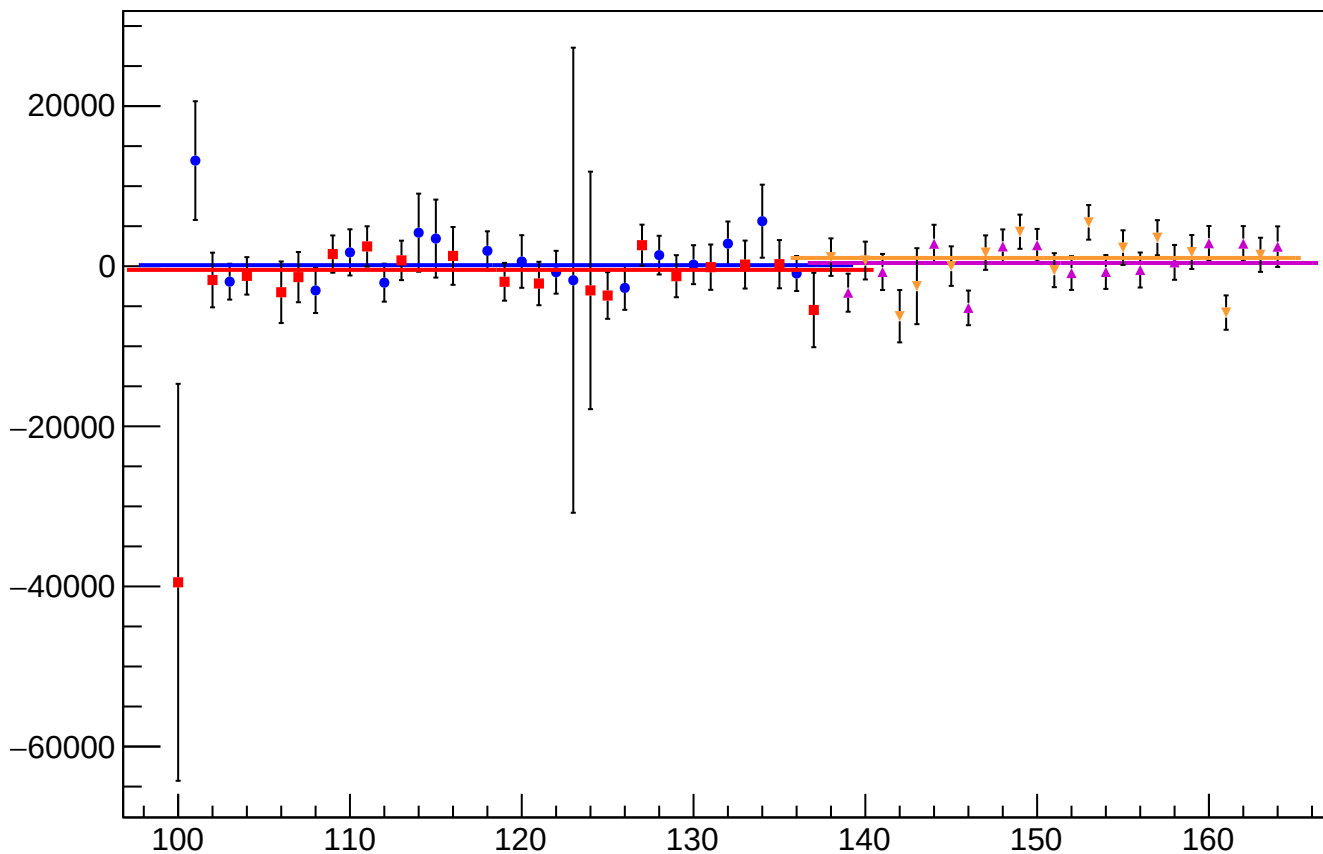
Left In:  $5711.945 \pm 1.275$   $\chi^2/\text{NDF}$ : 506830.0/12

+ sign  $4382.237 \pm 0.783$   $\chi^2/\text{NDF}$ : 2875298.9/30

All:  $4340.684 \pm 0.548$   $\chi^2/\text{NDF}$ : 5972853.7/62

- sign  $4300.765 \pm 0.768$   $\chi^2/\text{NDF}$ : 3092036.0/31

# reg\_asym\_atr1l2\_dd\_mean vs Slug



Right In: 130.913 $\pm$ 709.207  $\chi^2$ /NDF: 12.2/16

Left Out: 1033.364 $\pm$ 618.429  $\chi^2$ /NDF: 24.8/13

Right Out: -459.034 $\pm$ 681.841  $\chi^2$ /NDF: 10.7/18

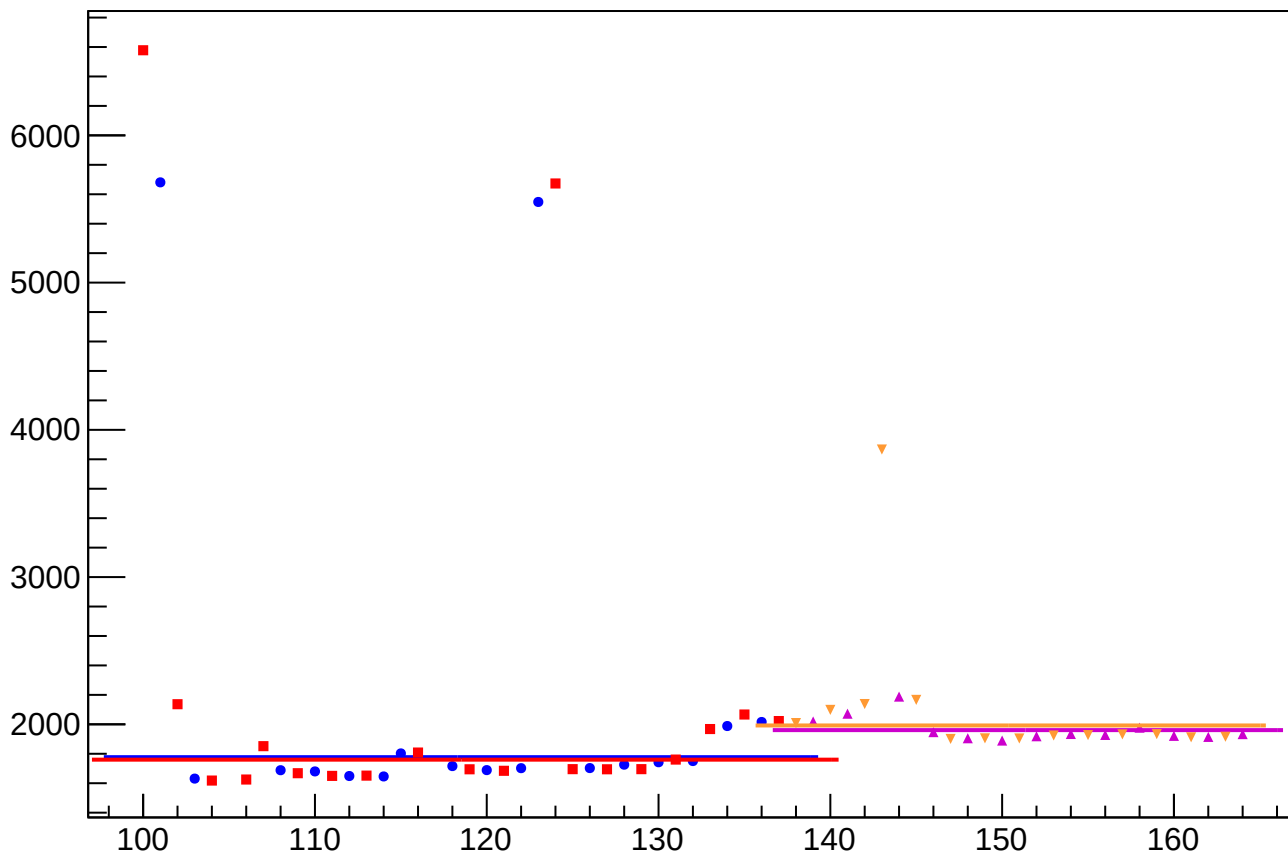
Left In: 404.125 $\pm$ 611.099  $\chi^2$ /NDF: 16.6/12

+ sign 643.557 $\pm$ 466.107  $\chi^2$ /NDF: 37.9/30

All: 324.122 $\pm$ 325.617  $\chi^2$ /NDF: 67.0/62

- sign 19.631 $\pm$ 455.074  $\chi^2$ /NDF: 28.2/31

# reg\_asym\_atr1l2\_dd\_rms vs Slug



Right In:  $1776.879 \pm 0.501$   $\chi^2/\text{NDF}$ : 643576.8/16

Left Out:  $1992.276 \pm 0.437$   $\chi^2/\text{NDF}$ : 352743.0/13

Right Out:  $1759.990 \pm 0.479$   $\chi^2/\text{NDF}$ : 306154.6/18

Left In:  $1960.633 \pm 0.432$   $\chi^2/\text{NDF}$ : 31883.2/12

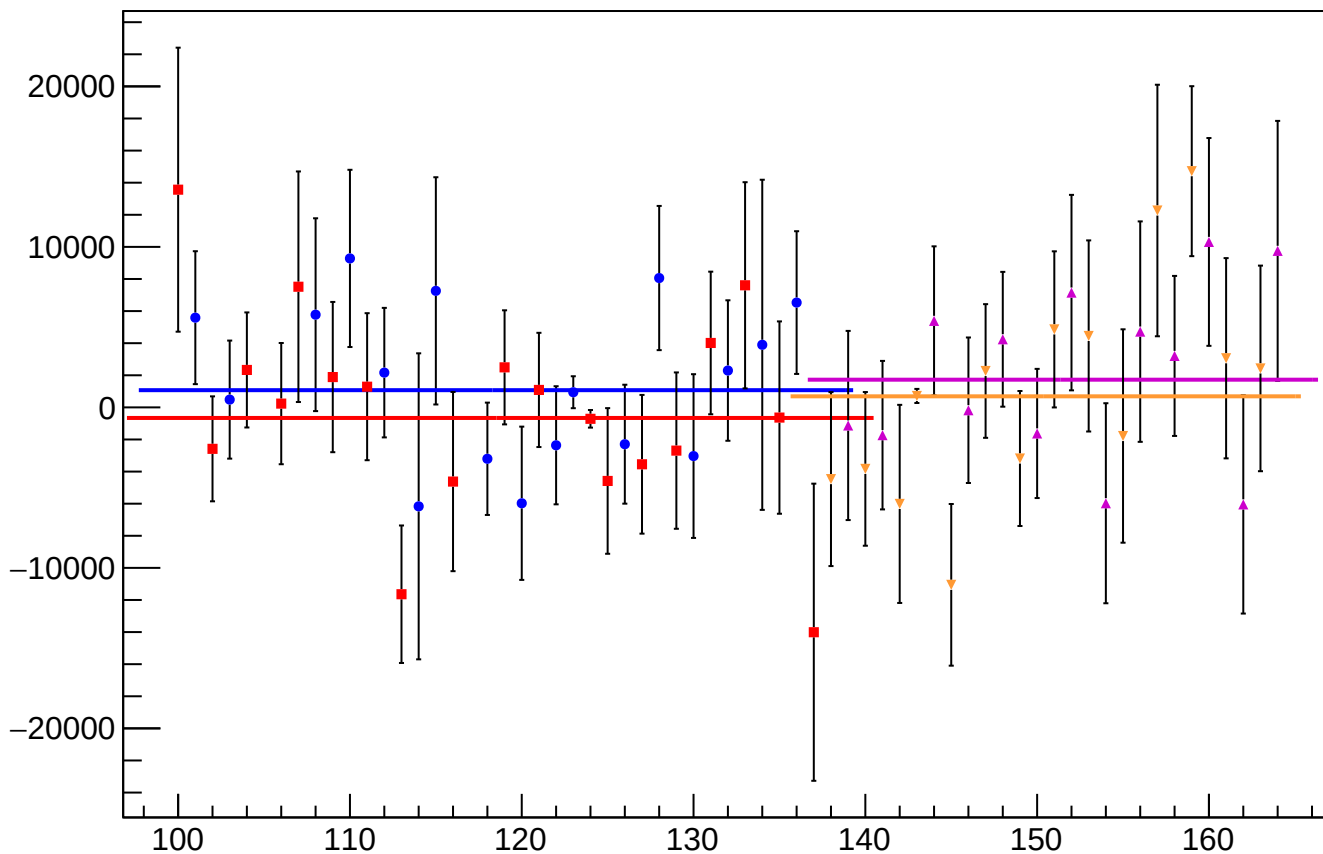
+ sign  $1899.237 \pm 0.330$   $\chi^2/\text{NDF}$ : 1101119.0/30

All:  $1884.521 \pm 0.230$   $\chi^2/\text{NDF}$ : 1539805.9/62

- sign  $1870.580 \pm 0.321$   $\chi^2/\text{NDF}$ : 434804.9/31



# asym\_atr1l2\_dd\_correction\_mean vs Slug



Right In: 1072.194+/-752.280  $\chi^2/\text{NDF}$ : 15.6/16

Left Out: 688.818+/-420.935  $\chi^2/\text{NDF}$ : 20.1/13

Right Out: -658.759+/-488.034  $\chi^2/\text{NDF}$ : 19.8/18

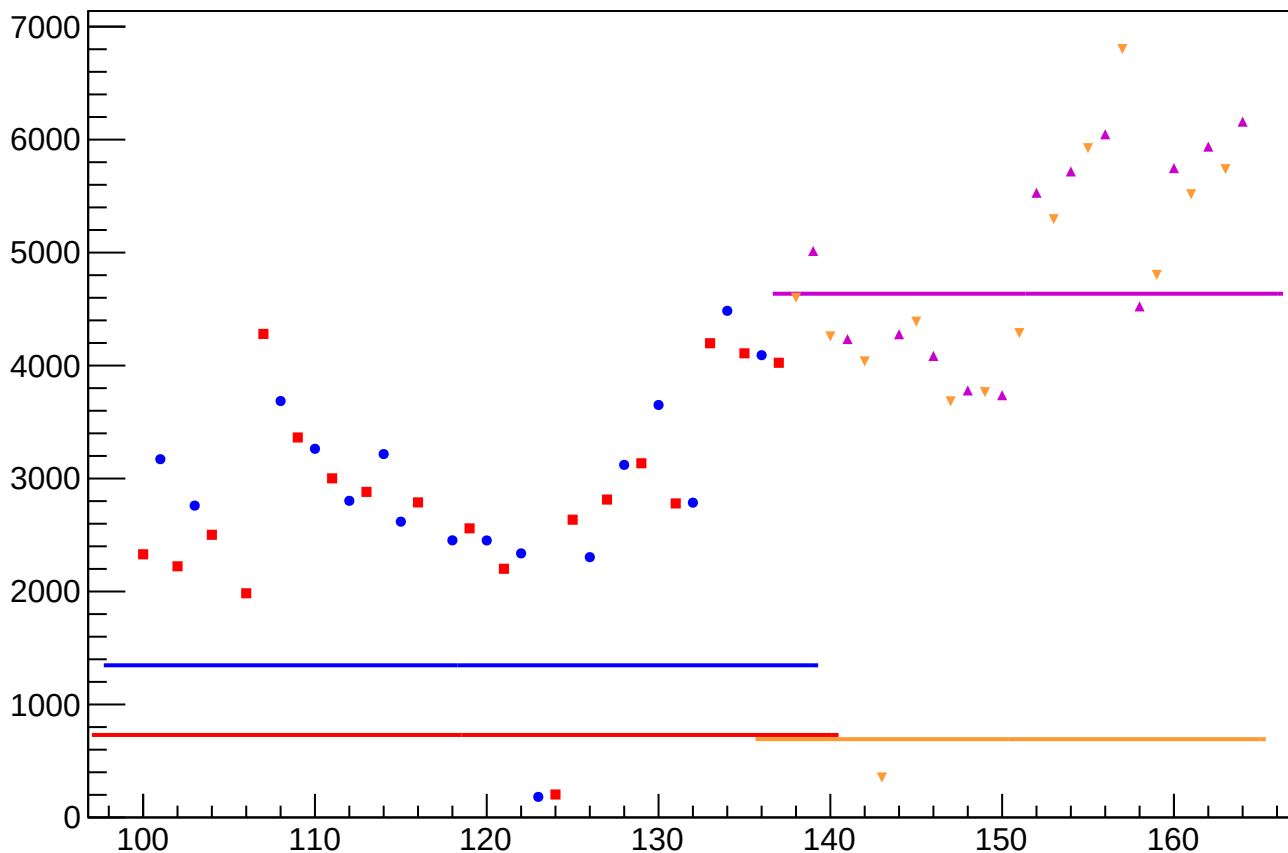
Left In: 1725.363+/-1468.285  $\chi^2/\text{NDF}$ : 9.3/12

+ sign 780.230+/-367.339  $\chi^2/\text{NDF}$ : 35.9/30

All: 316.122+/-287.799  $\chi^2/\text{NDF}$ : 71.4/62

- sign -421.568+/-463.121  $\chi^2/\text{NDF}$ : 31.4/31

# asym\_atr1l2\_dd\_correction\_rms vs Slug



Right In: 1346.836 $\pm$ 0.532  $\chi^2$ /NDF: 6839112.6/16

Left Out: 693.199 $\pm$ 0.298  $\chi^2$ /NDF:15486214.5/13

Right Out: 730.119 $\pm$ 0.345  $\chi^2$ /NDF: 9503127.2/18

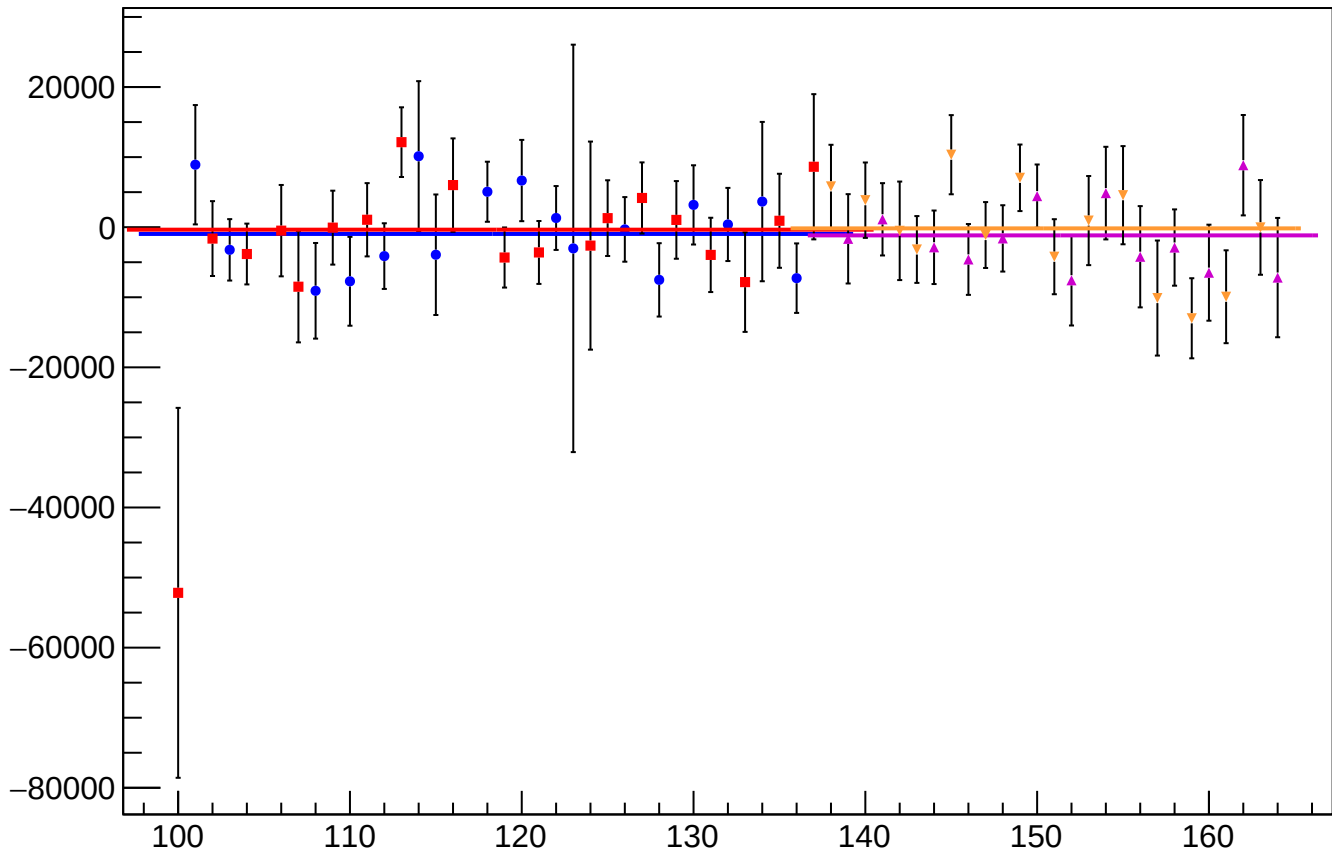
Left In: 4635.992 $\pm$ 1.038  $\chi^2$ /NDF:639383.9/12

+ sign 849.051 $\pm$ 0.260  $\chi^2$ /NDF: 23475199.8/30

All: 953.186 $\pm$ 0.204  $\chi^2$ /NDF: 46778770.1/62

- sign 1118.705 $\pm$ 0.327  $\chi^2$ /NDF: 22887375.1/31

# asym\_atr1l2\_dd\_mean vs Slug



Right In:  $-964.151 \pm 1395.626$   $\chi^2/\text{NDF}$ : 13.7/16

Left Out:  $-170.090 \pm 1546.308$   $\chi^2/\text{NDF}$ : 17.5/13

Right Out:  $-354.646 \pm 1329.760$   $\chi^2/\text{NDF}$ : 17.6/18

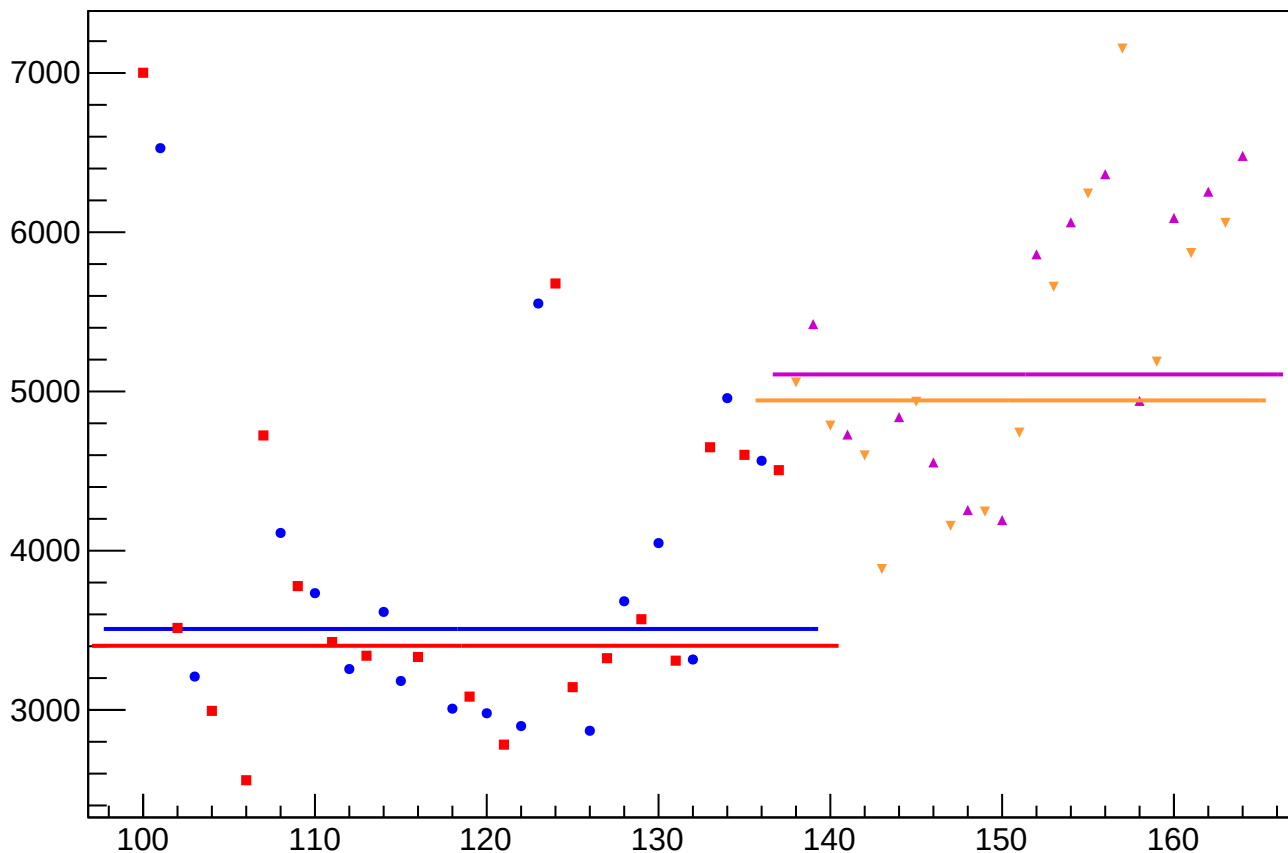
Left In:  $-1169.026 \pm 1609.933$   $\chi^2/\text{NDF}$ : 7.5/12

+ sign  $-607.685 \pm 1036.044$   $\chi^2/\text{NDF}$ : 31.4/30

All:  $-646.706 \pm 728.748$   $\chi^2/\text{NDF}$ : 56.7/62

- sign  $-684.919 \pm 1025.252$   $\chi^2/\text{NDF}$ : 25.2/31

# asym\_atr1l2\_dd\_rms vs Slug



Right In: 3508.483+/-0.987  $\chi^2/\text{NDF}$ : 562197.7/16

Left Out: 4943.870+/-1.093  $\chi^2/\text{NDF}$ : 544160.3/13

Right Out: 3402.883+/-0.928  $\chi^2/\text{NDF}$ : 428556.1/18

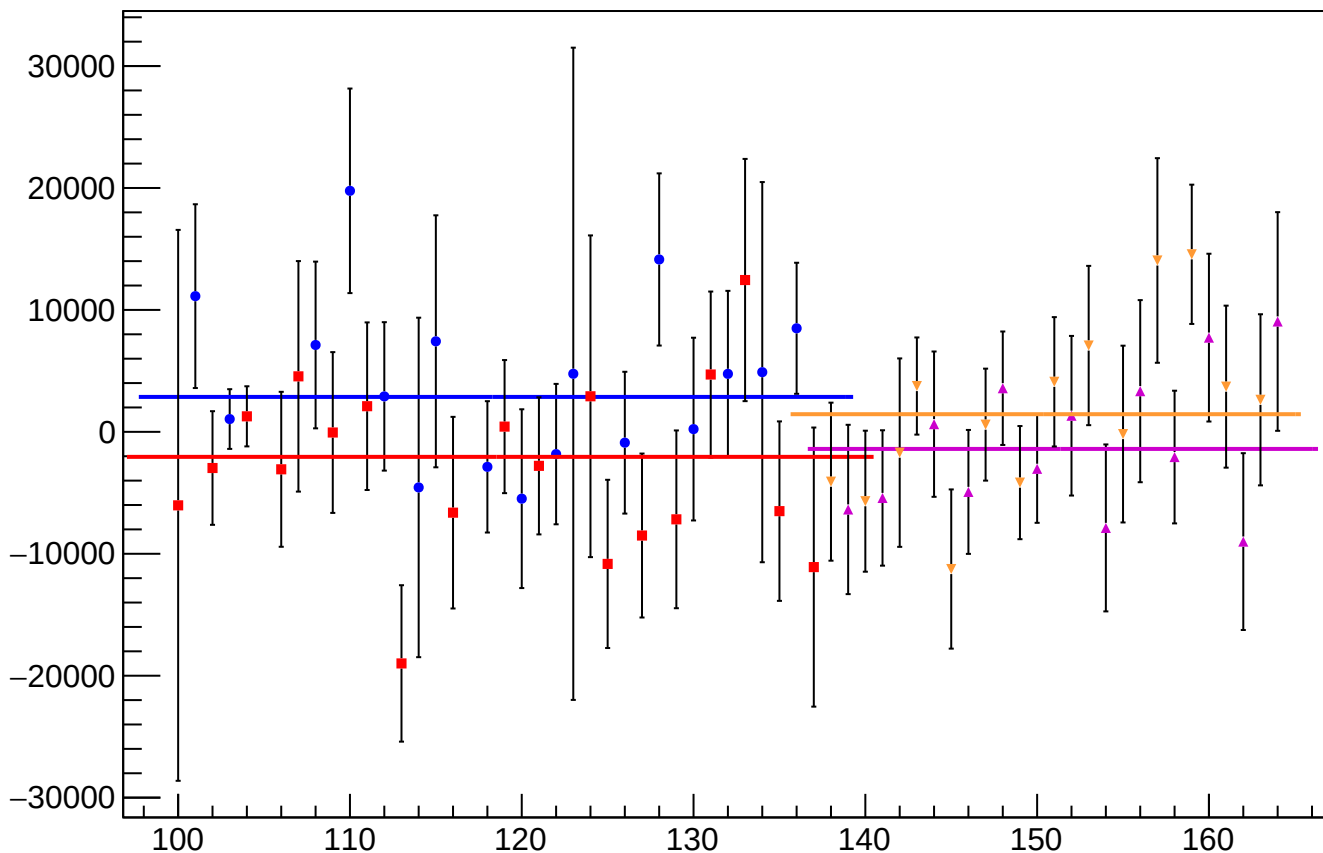
Left In: 5107.028+/-1.138  $\chi^2/\text{NDF}$ : 467746.0/12

+ sign 4152.846+/-0.733  $\chi^2/\text{NDF}$ : 2056079.9/30

All: 4117.450+/-0.513  $\chi^2/\text{NDF}$ : 4303123.3/62

- sign 4083.323+/-0.719  $\chi^2/\text{NDF}$ : 2242458.2/31

# reg\_asym\_atl\_avg\_atr\_avg\_avg\_mean vs Slug



Right In: 2864.770+/-1452.658  $\chi^2/\text{NDF}$ : 14.1/16

Left Out: 1447.619+/-1549.222  $\chi^2/\text{NDF}$ : 16.8/13

Right Out: -2051.211+/-1381.577  $\chi^2/\text{NDF}$ : 17.7/18

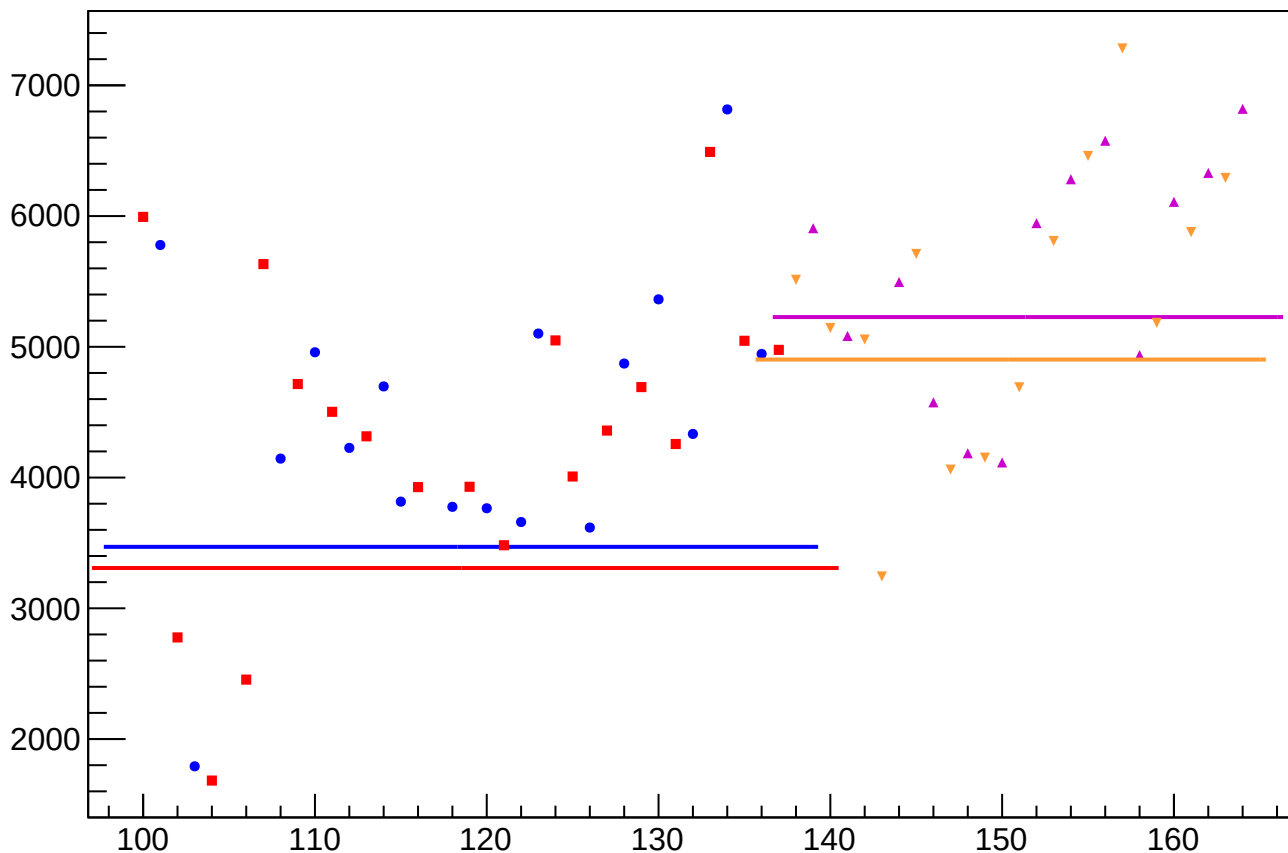
Left In: -1400.098+/-1652.559  $\chi^2/\text{NDF}$ : 8.6/12

+ sign 2201.734+/-1059.678  $\chi^2/\text{NDF}$ : 31.3/30

All: 209.711+/-749.403  $\chi^2/\text{NDF}$ : 64.7/62

- sign -1783.346+/-1059.953  $\chi^2/\text{NDF}$ : 26.4/31

reg\_asym\_atl\_avg\_atr\_avg\_avg\_rms vs Slug



Right In: 3470.042+/-1.027  $\chi^2/\text{NDF}$ : 1760860.6/16

Left Out: 4902.682+/-1.095  $\chi^2/\text{NDF}$ : 939996.1/13

Right Out: 3308.243+/-0.968  $\chi^2/\text{NDF}$ : 1910782.0/18

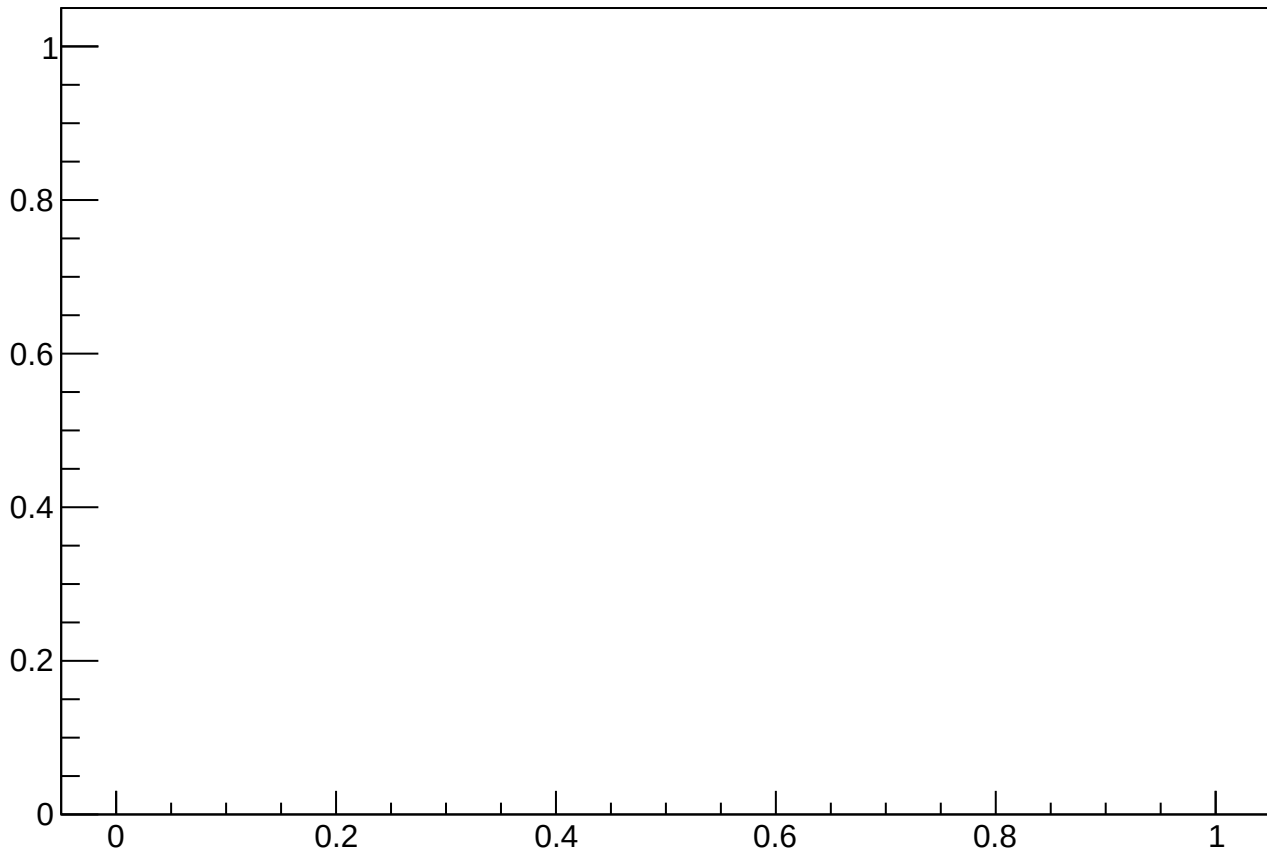
Left In: 5227.553+/-1.169  $\chi^2/\text{NDF}$ : 568322.7/12

+ sign 4140.307+/-0.749  $\chi^2/\text{NDF}$ : 3610996.2/30

All: 4114.683+/-0.528  $\chi^2/\text{NDF}$ : 7692324.0/62

- sign 4089.321+/-0.745  $\chi^2/\text{NDF}$ : 4079000.8/31

asym\_atl\_avg\_atr\_avg\_avg\_correction\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

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

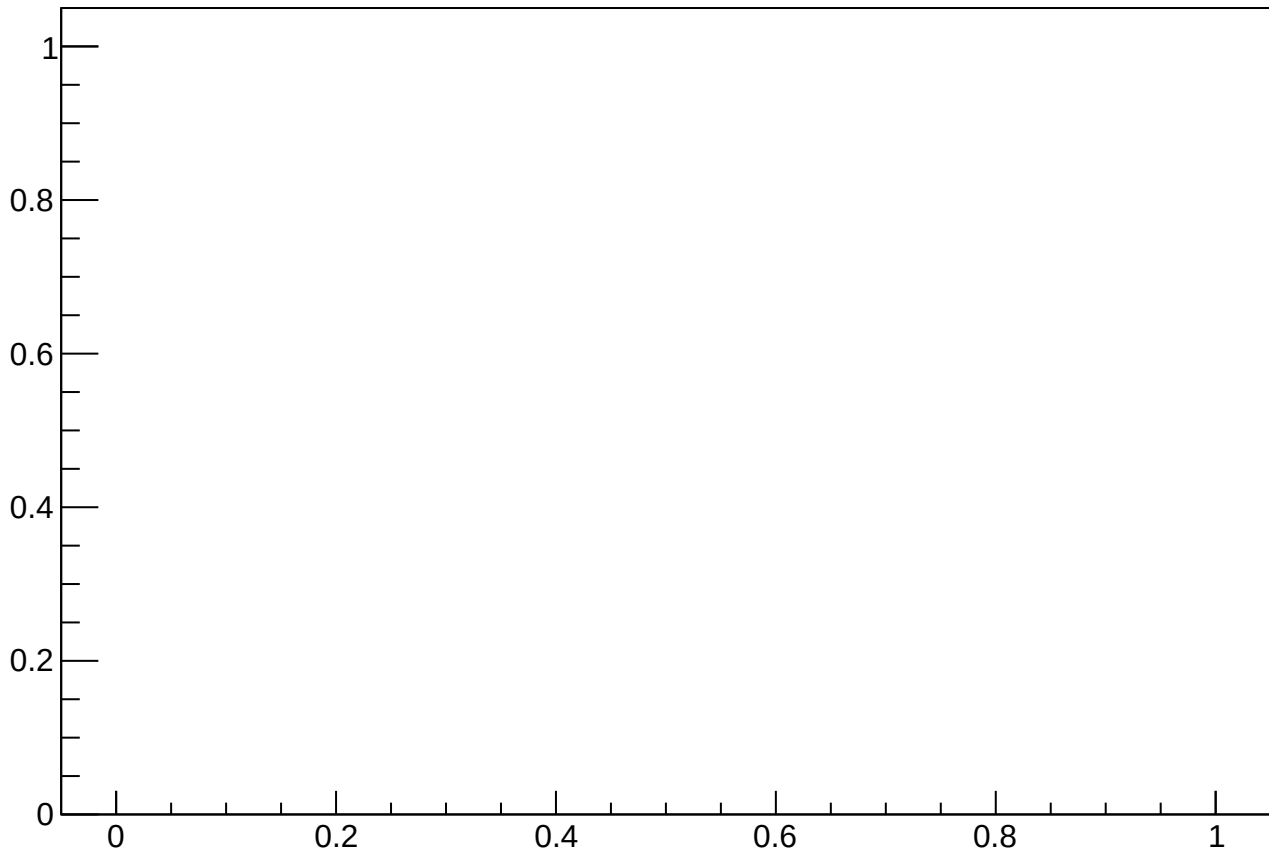
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

asym\_atl\_avg\_atr\_avg\_avg\_correction\_rms vs Slug



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

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

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

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

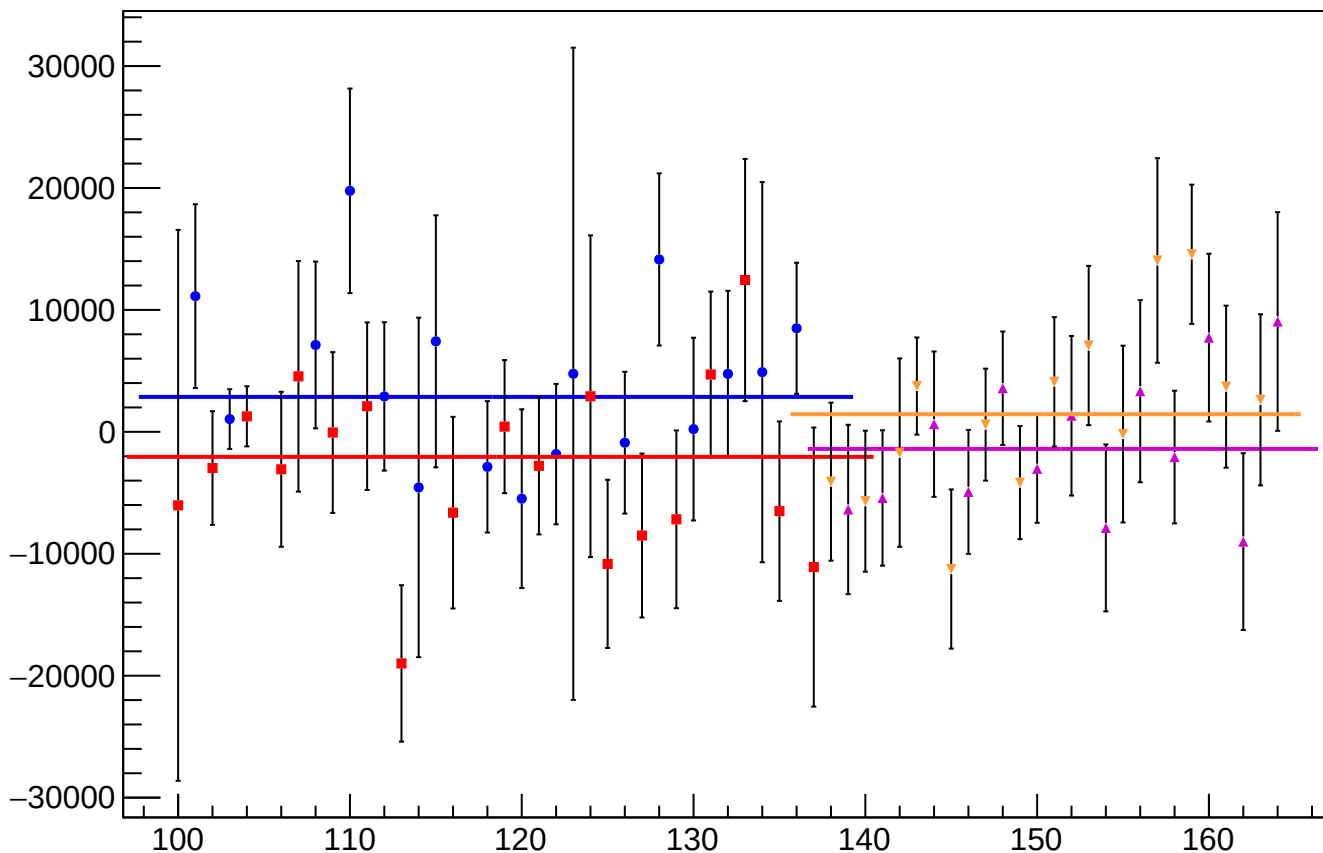
+ sign 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

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

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



# asym\_atl\_avg\_atr\_avg\_avg\_mean vs Slug



Right In: 2864.770 $\pm$ 1452.658     $\chi^2/\text{NDF}$ : 14.1/16

Left Out: 1447.619 $\pm$ 1549.222     $\chi^2/\text{NDF}$ : 16.8/13

Right Out: -2051.211 $\pm$ 1381.577     $\chi^2/\text{NDF}$ : 17.7/18

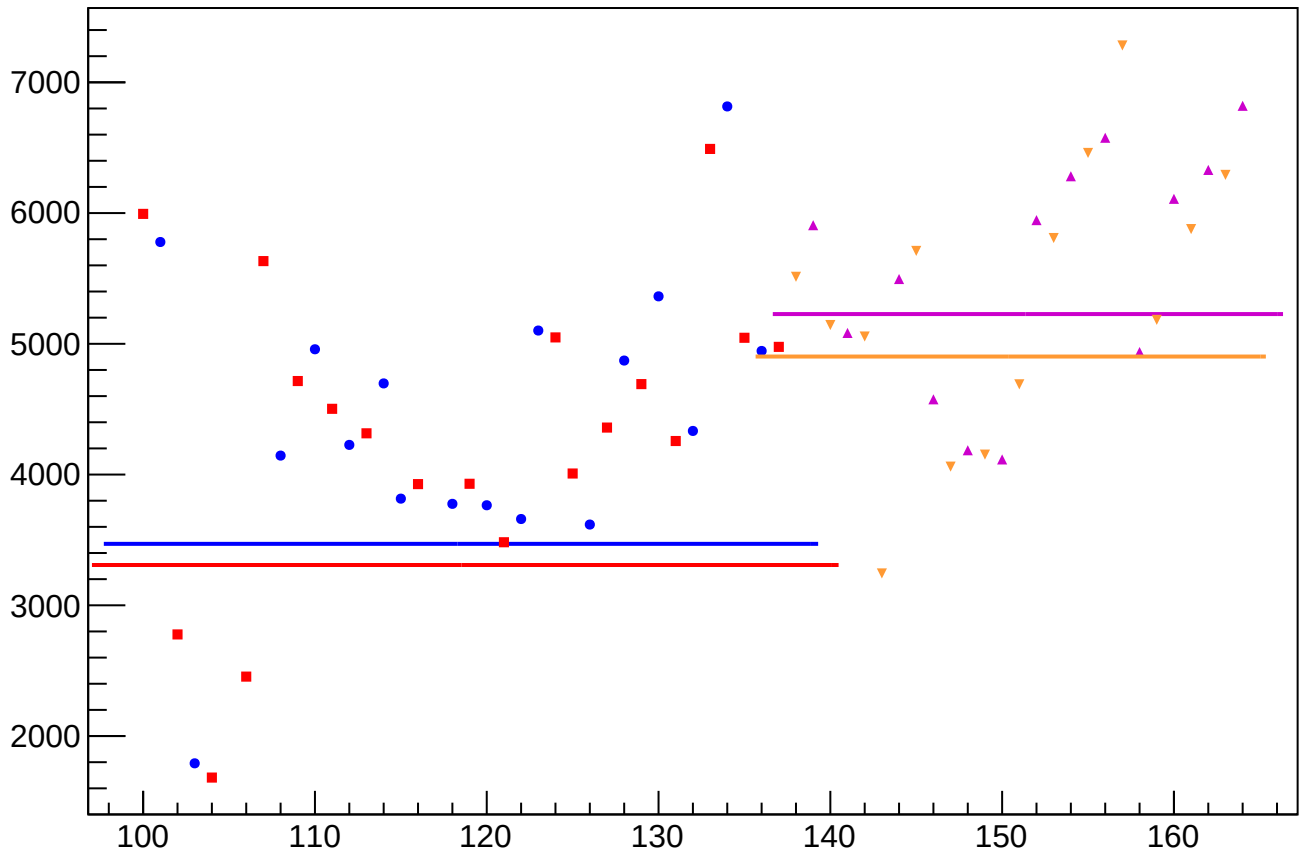
Left In: -1400.098 $\pm$ 1652.559     $\chi^2/\text{NDF}$ : 8.6/12

+ sign 2201.734 $\pm$ 1059.678     $\chi^2/\text{NDF}$ : 31.3/30

All: 209.711 $\pm$ 749.403     $\chi^2/\text{NDF}$ : 64.7/62

- sign -1783.346 $\pm$ 1059.953     $\chi^2/\text{NDF}$ : 26.4/31

# asym\_atl\_avg\_atr\_avg\_avg\_rms vs Slug



Right In: 3470.042+/-1.027  $\chi^2/\text{NDF}$ : 1760860.6/16

Left Out: 4902.682+/-1.095  $\chi^2/\text{NDF}$ : 939996.1/13

Right Out: 3308.243+/-0.968  $\chi^2/\text{NDF}$ : 1910782.0/18

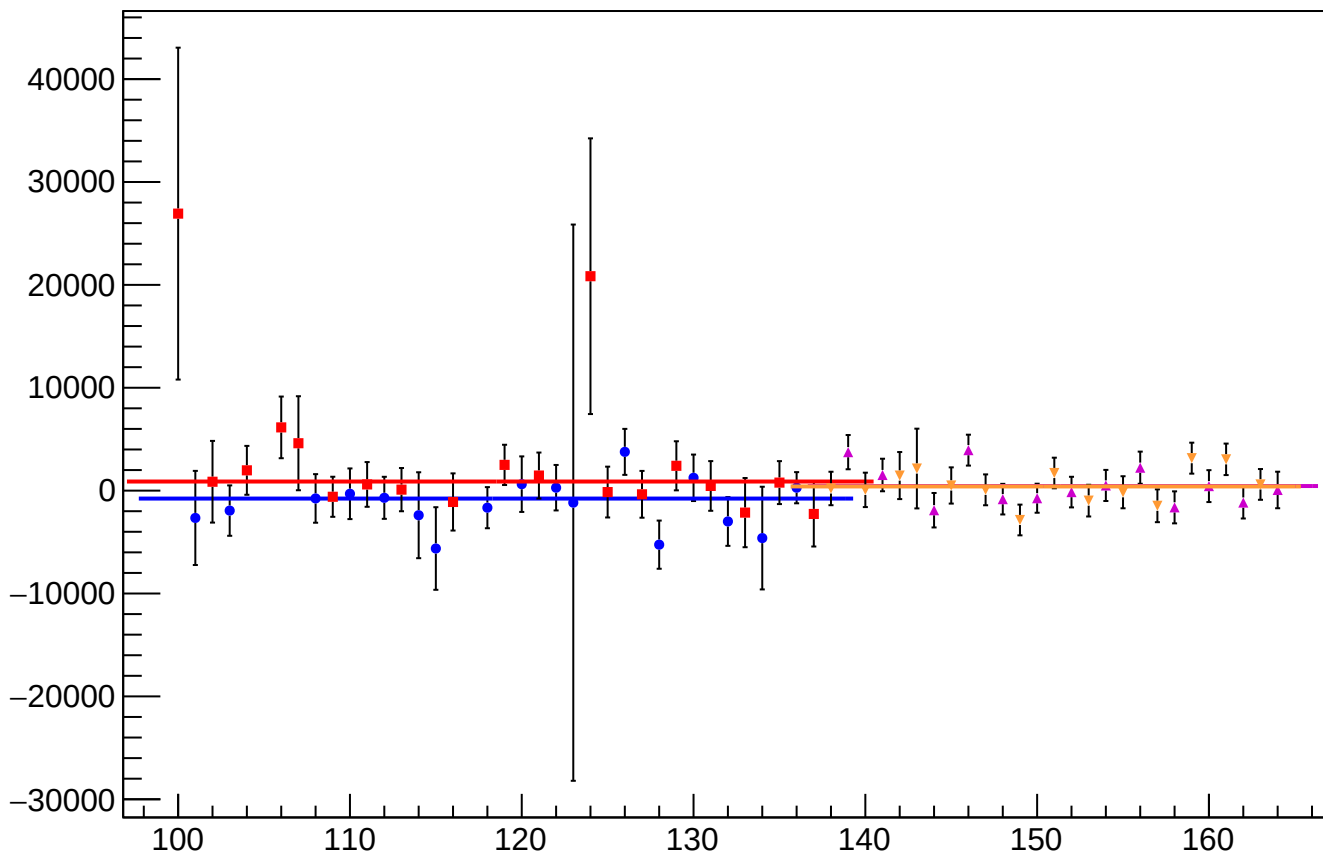
Left In: 5227.553+/-1.169  $\chi^2/\text{NDF}$ : 568322.7/12

+ sign 4140.307+/-0.749  $\chi^2/\text{NDF}$ : 3610996.2/30

All: 4114.683+/-0.528  $\chi^2/\text{NDF}$ : 7692324.0/62

- sign 4089.321+/-0.745  $\chi^2/\text{NDF}$ : 4079000.8/31

# reg\_asym\_atl\_avg\_atr\_avg\_dd\_mean vs Slug



Right In:  $-771.153 \pm 603.689$   $\chi^2/\text{NDF}: 13.3/16$

Left Out:  $409.364 \pm 438.450$   $\chi^2/\text{NDF}: 14.7/13$

Right Out:  $885.145 \pm 595.053$   $\chi^2/\text{NDF}: 13.5/18$

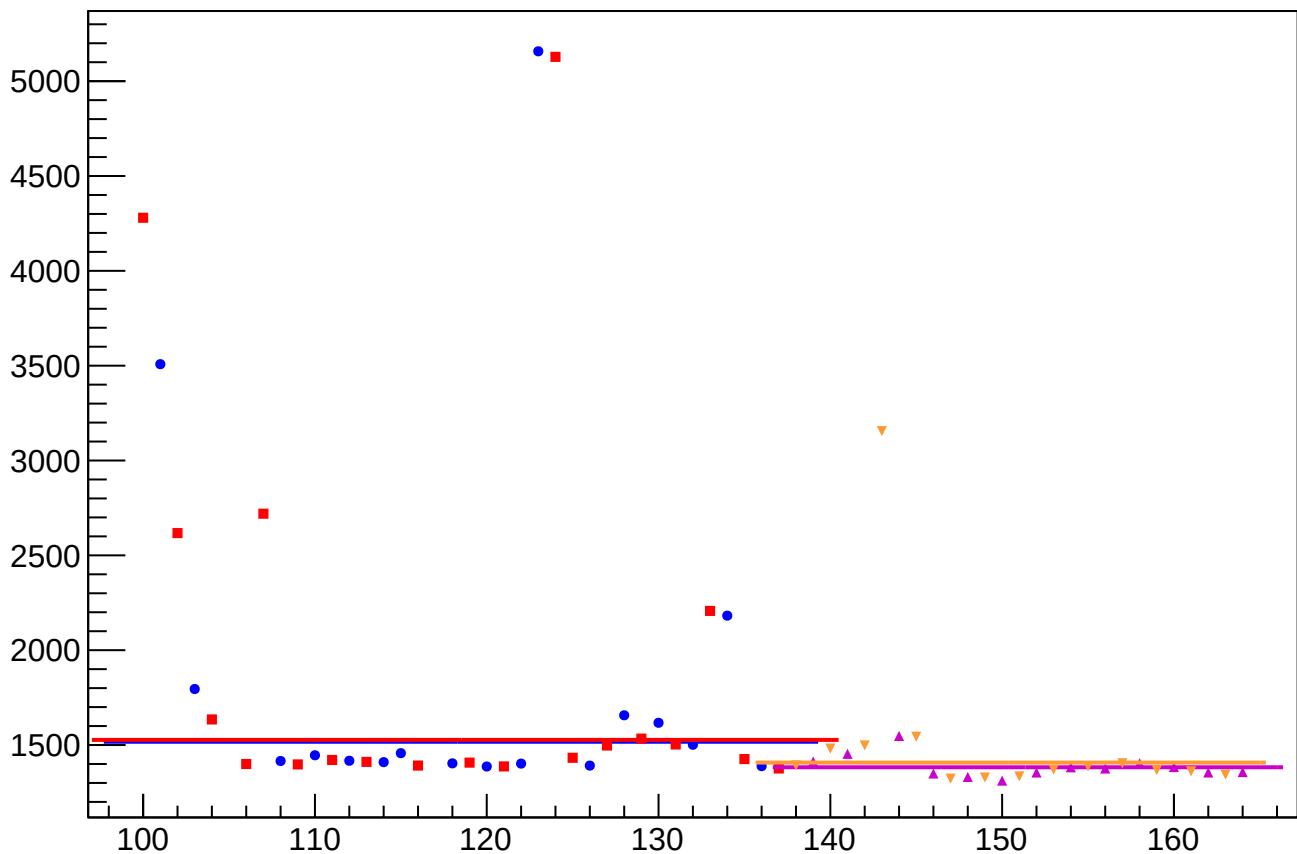
Left In:  $446.437 \pm 431.283$   $\chi^2/\text{NDF}: 17.5/12$

+ sign  $1.695 \pm 354.757$   $\chi^2/\text{NDF}: 30.5/30$

All:  $304.307 \pm 248.866$   $\chi^2/\text{NDF}: 63.3/62$

- sign  $597.525 \pm 349.208$   $\chi^2/\text{NDF}: 31.4/31$

# reg\_asym\_atl\_avg\_atr\_avg\_dd\_rms vs Slug



Right In: 1517.334+/-0.427  $\chi^2/\text{NDF}$ : 536662.7/16

Left Out: 1407.560+/-0.310  $\chi^2/\text{NDF}$ : 450877.6/13

Right Out: 1527.005+/-0.421  $\chi^2/\text{NDF}$ : 631684.2/18

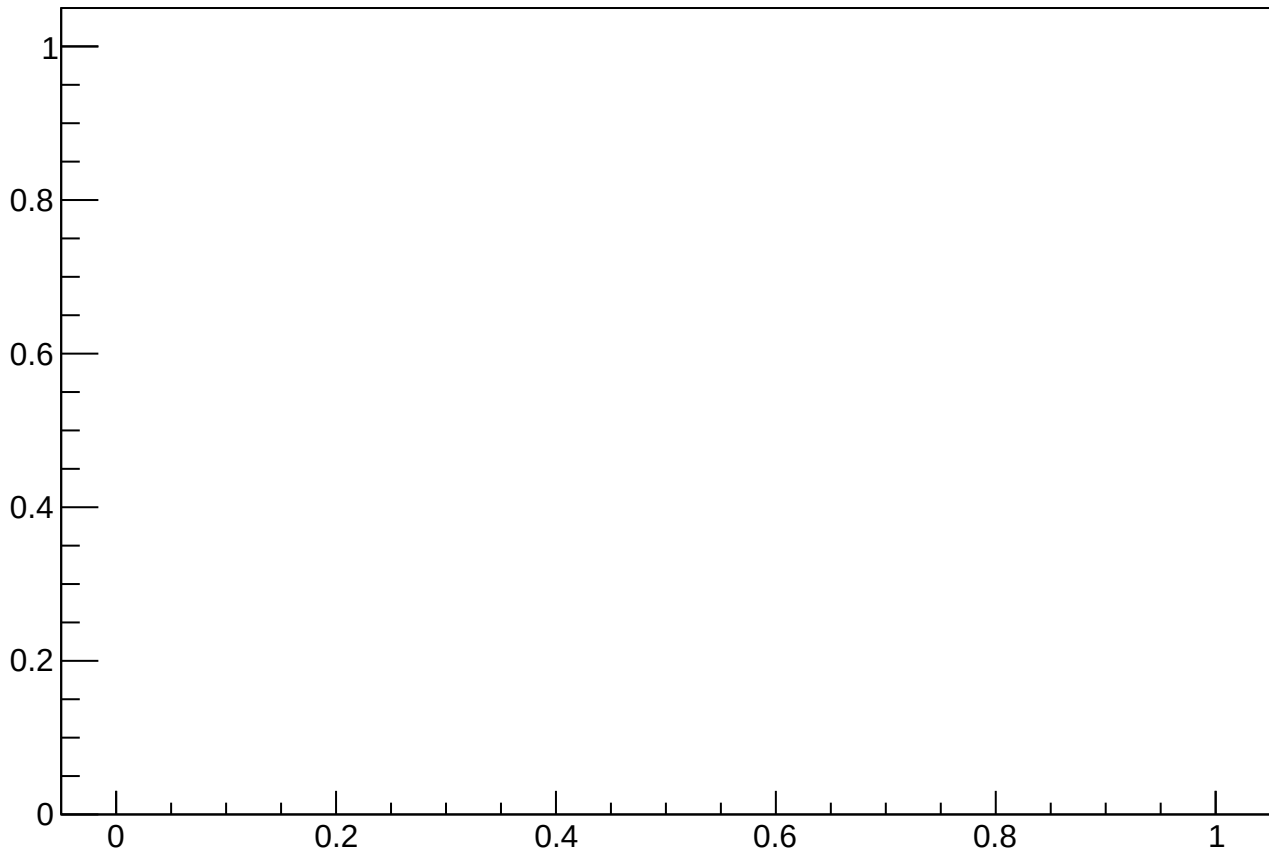
Left In: 1382.654+/-0.305  $\chi^2/\text{NDF}$ : 34489.1/12

+ sign 1445.468+/-0.251  $\chi^2/\text{NDF}$ : 1030834.6/30

All: 1438.815+/-0.176  $\chi^2/\text{NDF}$ : 1775555.9/62

- sign 1432.368+/-0.247  $\chi^2/\text{NDF}$ : 743336.1/31

asym\_atl\_avg\_atr\_avg\_dd\_correction\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

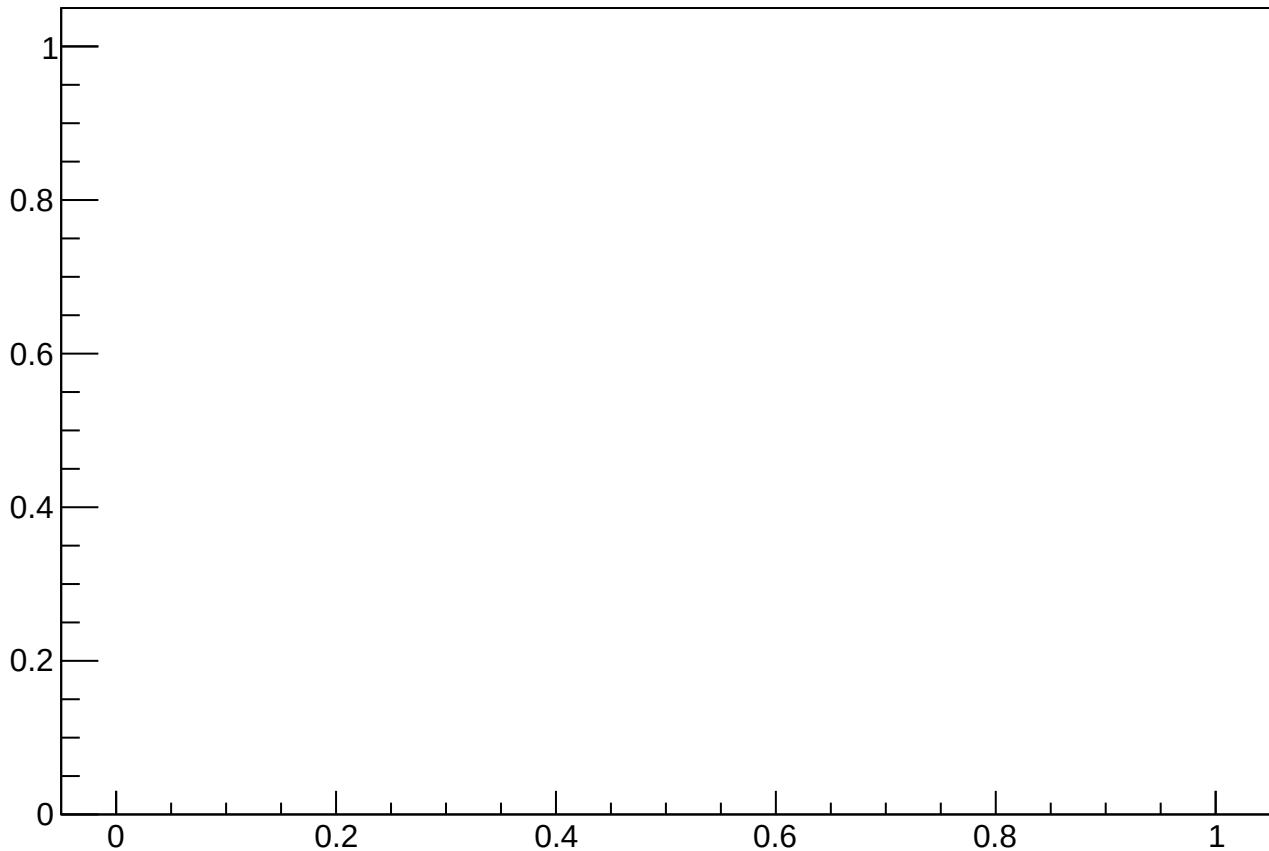
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

asym\_atl\_avg\_atr\_avg\_dd\_correction\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

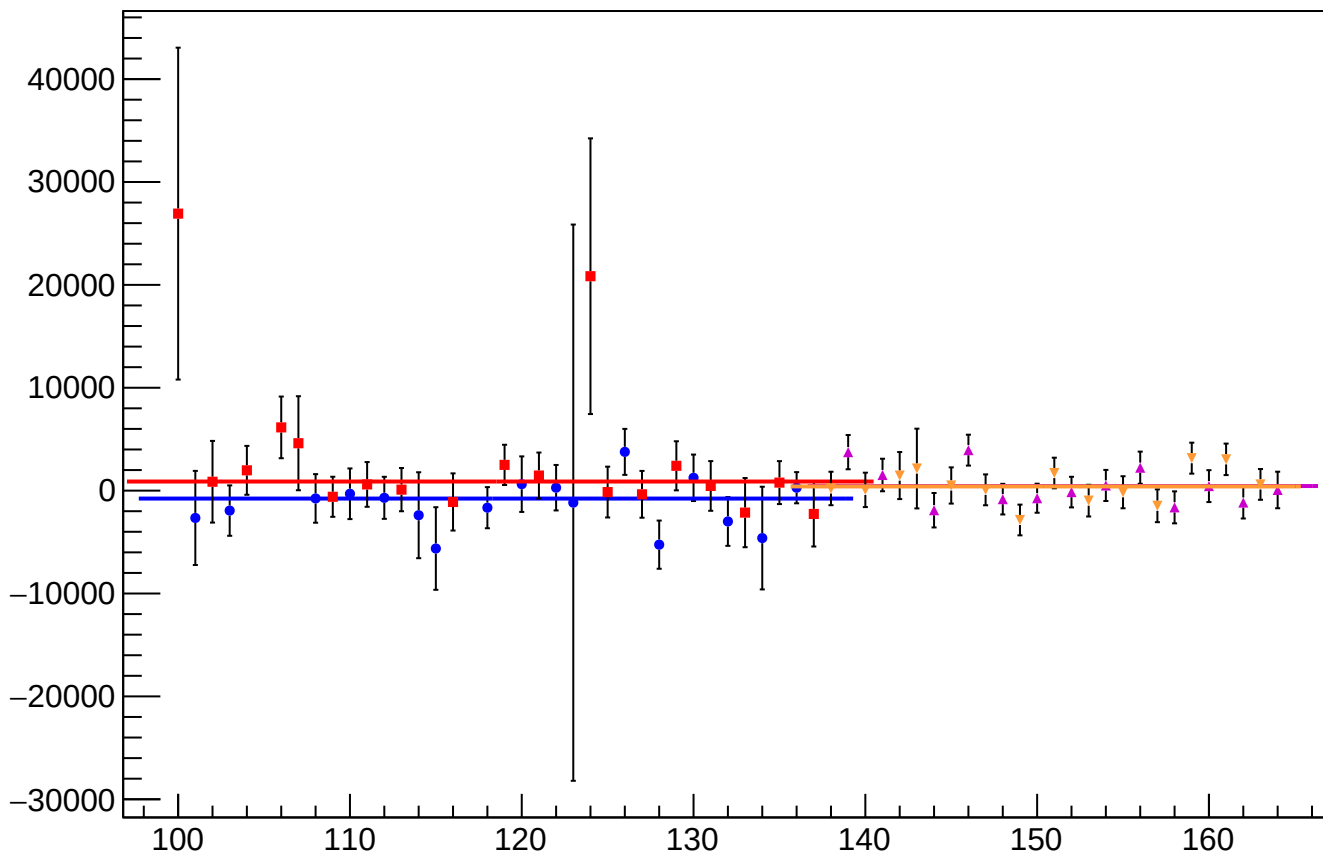
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

asym\_atl\_avg\_atr\_avg\_dd\_mean vs Slug



Right In: -771.153+/-603.689  $\chi^2/\text{NDF}$ : 13.3/16

Left Out: 409.364+/-438.450  $\chi^2/\text{NDF}$ : 14.7/13

Right Out: 885.145+/-595.053  $\chi^2/\text{NDF}$ : 13.5/18

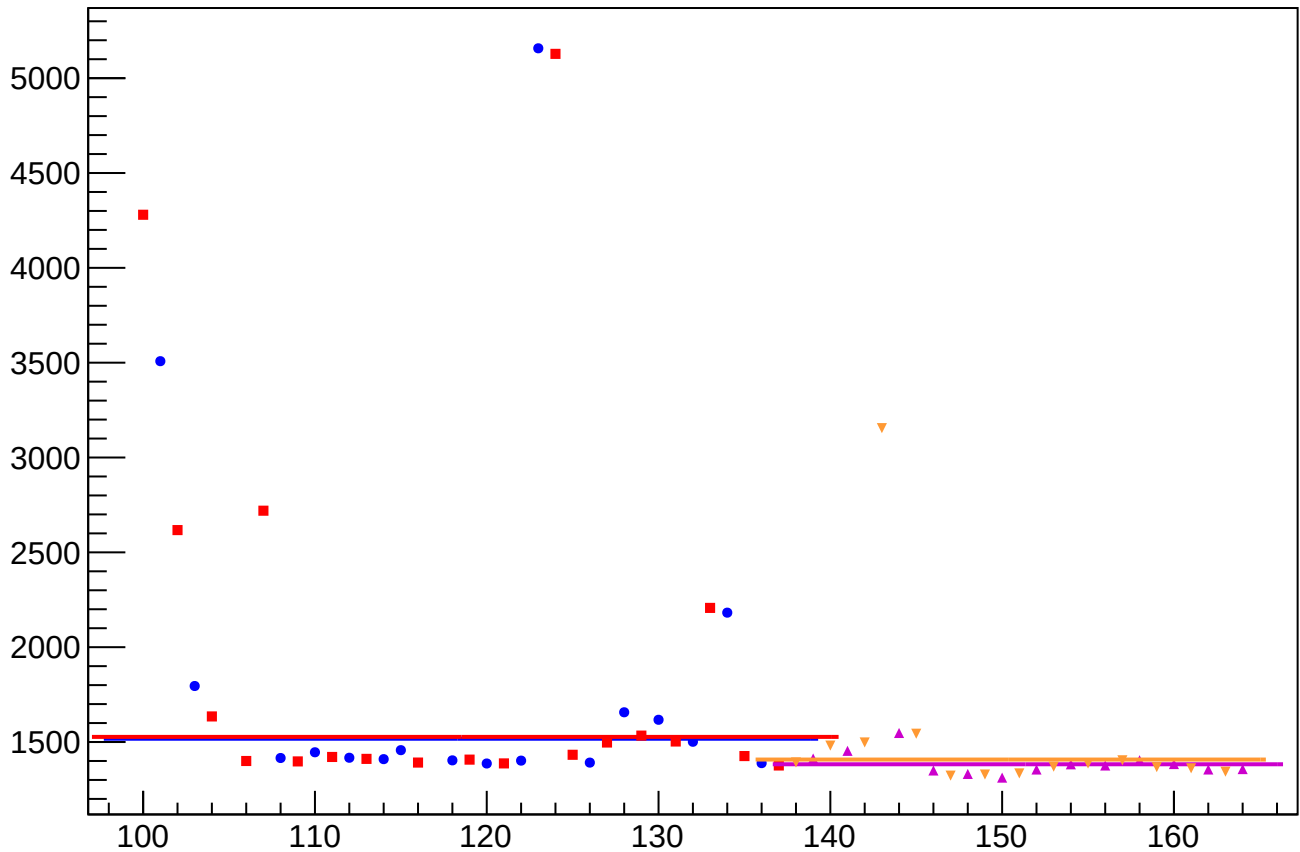
Left In: 446.437+/-431.283  $\chi^2/\text{NDF}$ : 17.5/12

+ sign 1.695+/-354.757  $\chi^2/\text{NDF}$ : 30.5/30

All: 304.307+/-248.866  $\chi^2/\text{NDF}$ : 63.3/62

- sign 597.525+/-349.208  $\chi^2/\text{NDF}$ : 31.4/31

# asym\_atl\_avg\_atr\_avg\_dd\_rms vs Slug



Right In: 1517.334+/-0.427  $\chi^2/\text{NDF}: 536662.7/16$

Left Out: 1407.560+/-0.310  $\chi^2/\text{NDF}: 450877.6/13$

Right Out: 1527.005+/-0.421  $\chi^2/\text{NDF}: 631684.2/18$

Left In: 1382.654+/-0.305  $\chi^2/\text{NDF}: 34489.1/12$

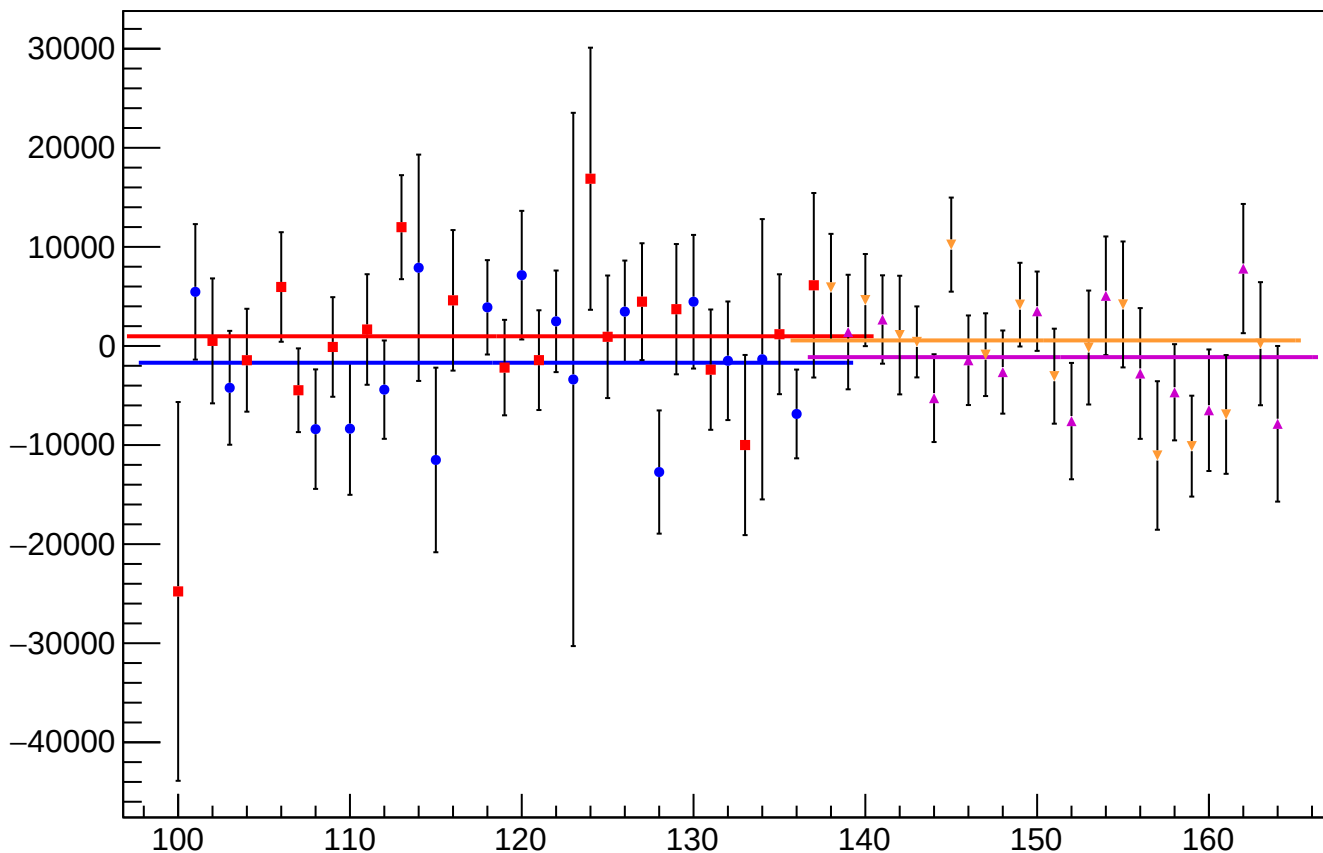
+ sign 1445.468+/-0.251  $\chi^2/\text{NDF}: 1030834.6/30$

All: 1438.815+/-0.176  $\chi^2/\text{NDF}: 1775555.9/62$

- sign 1432.368+/-0.247  $\chi^2/\text{NDF}: 743336.1/31$



# reg\_asym\_atl\_dd\_atr\_dd\_avg\_mean vs Slug



Right In: -1692.604+/-1512.935  $\chi^2/\text{NDF}$ : 15.8/16

Left Out: 560.438+/-1345.124  $\chi^2/\text{NDF}$ : 16.0/13

Right Out: 977.899+/-1378.874  $\chi^2/\text{NDF}$ : 13.9/18

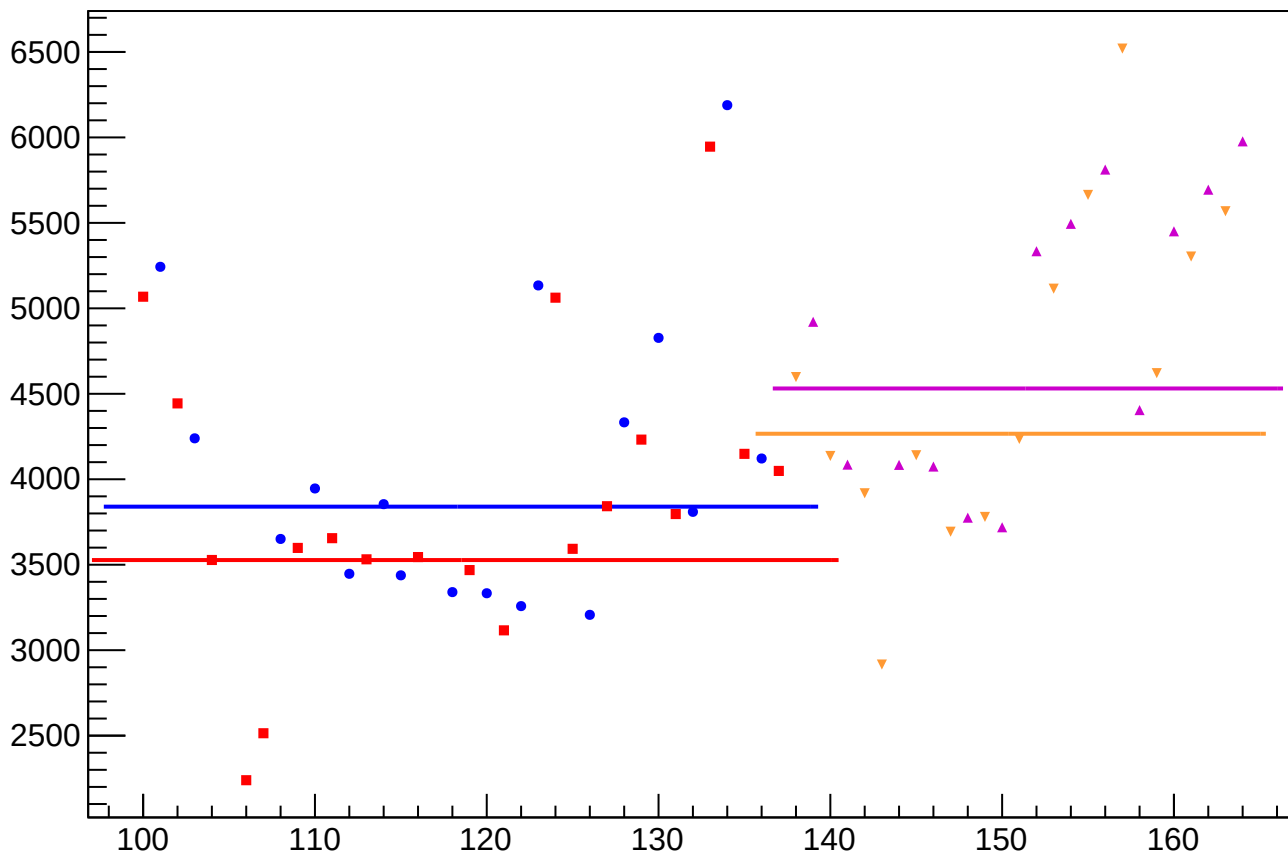
Left In: -1126.259+/-1431.723  $\chi^2/\text{NDF}$ : 9.5/12

+ sign -434.250+/-1005.262  $\chi^2/\text{NDF}$ : 33.1/30

All: -232.021+/-706.513  $\chi^2/\text{NDF}$ : 57.7/62

- sign -34.629+/-993.169  $\chi^2/\text{NDF}$ : 24.6/31

# reg\_asym\_atl\_dd\_atr\_dd\_avg\_rms vs Slug



Right In: 3839.751+/-1.070  $\chi^2/\text{NDF}$ : 325959.2/16

Left Out: 4266.314+/-0.951  $\chi^2/\text{NDF}$ : 844100.6/13

Right Out: 3527.320+/-0.966  $\chi^2/\text{NDF}$ : 554785.4/18

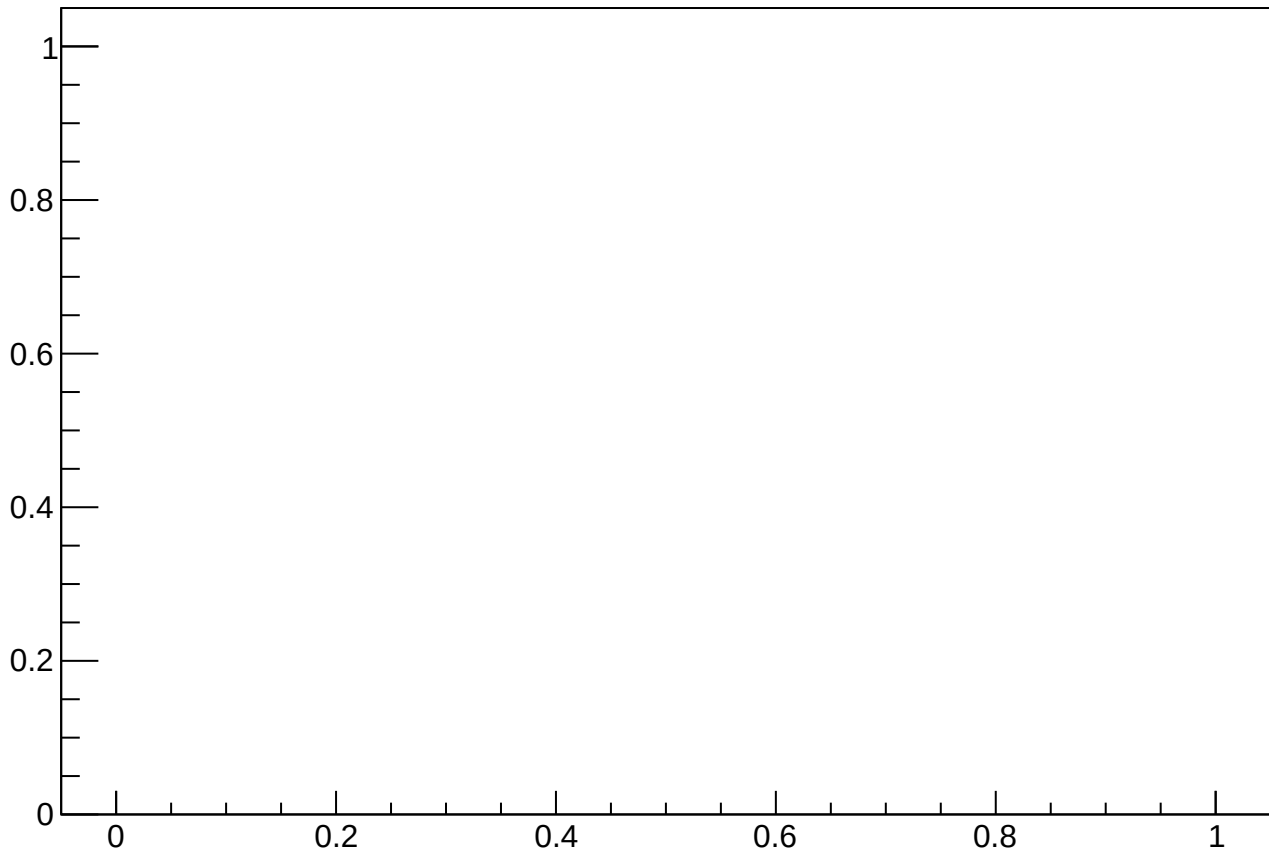
Left In: 4531.141+/-1.012  $\chi^2/\text{NDF}$ : 559191.9/12

+ sign 4077.987+/-0.711  $\chi^2/\text{NDF}$ : 1258857.7/30

All: 4041.279+/-0.498  $\chi^2/\text{NDF}$ : 2892622.2/62

- sign 4005.787+/-0.699  $\chi^2/\text{NDF}$ : 1628519.2/31

asym\_atl\_dd\_atr\_dd\_avg\_correction\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

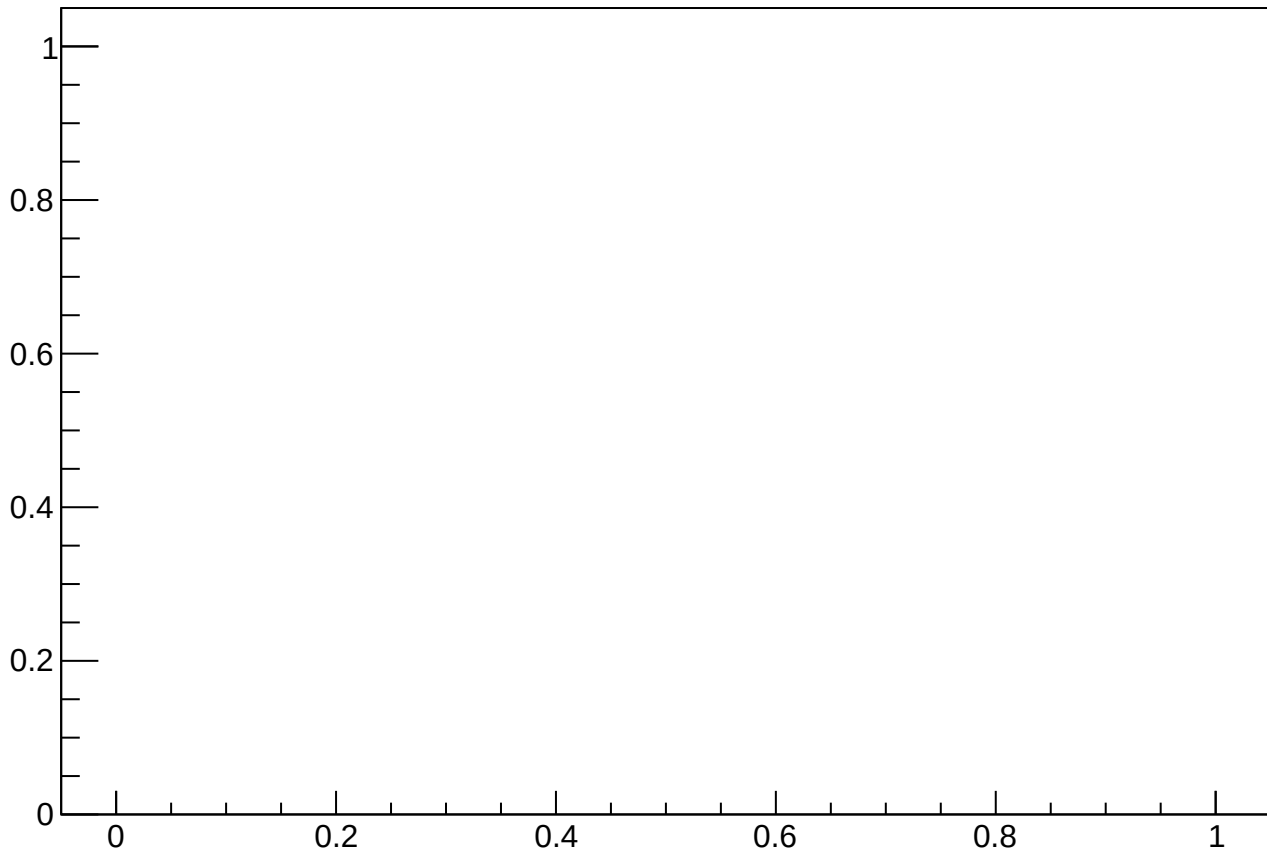
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# asym\_atl\_dd\_atr\_dd\_avg\_correction\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

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

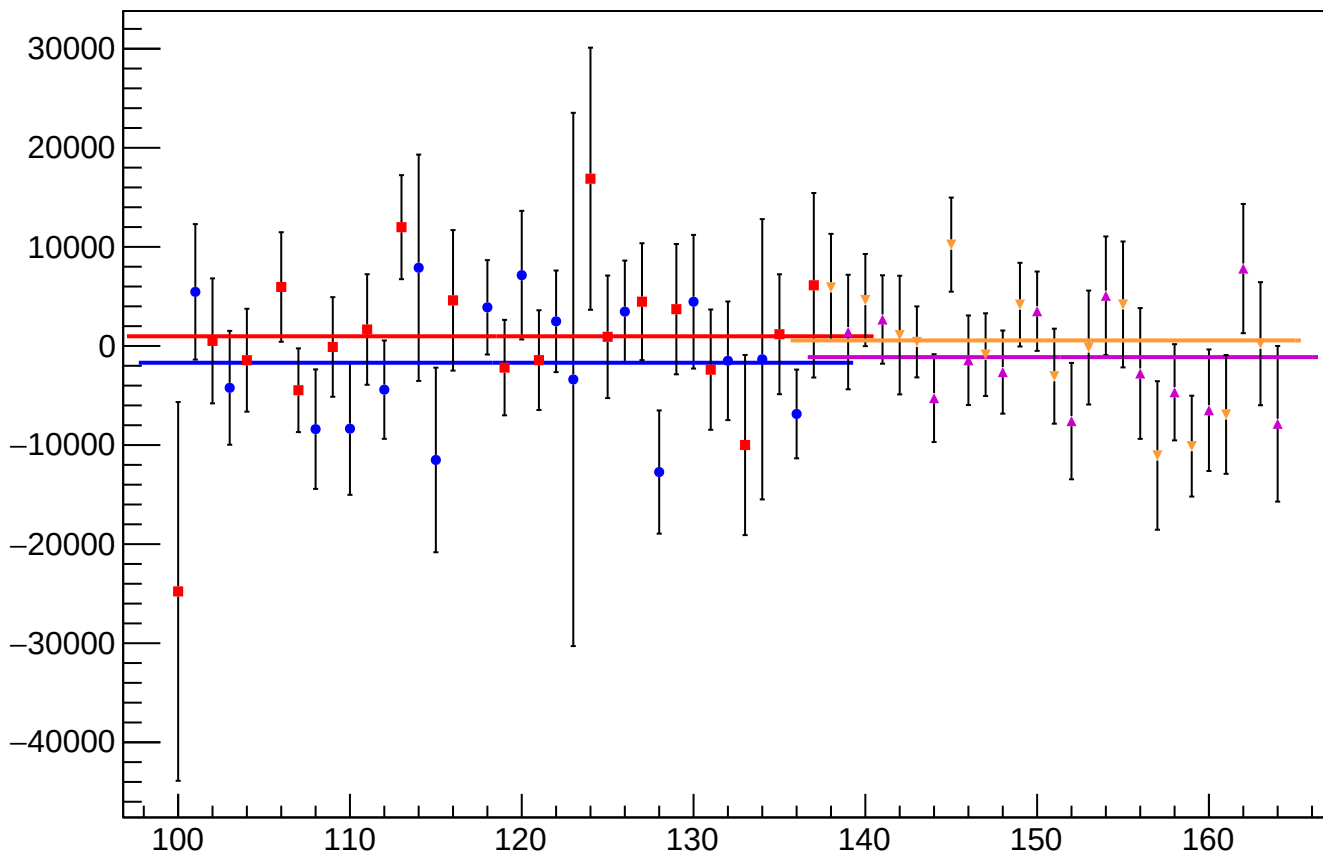
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# asym\_atl\_dd\_atr\_dd\_avg\_mean vs Slug



Right In: -1692.604 $\pm$ 1512.935  $\chi^2$ /NDF: 15.8/16

Left Out: 560.438 $\pm$ 1345.124  $\chi^2$ /NDF:16.0/13

Right Out: 977.899 $\pm$ 1378.874  $\chi^2$ /NDF: 13.9/18

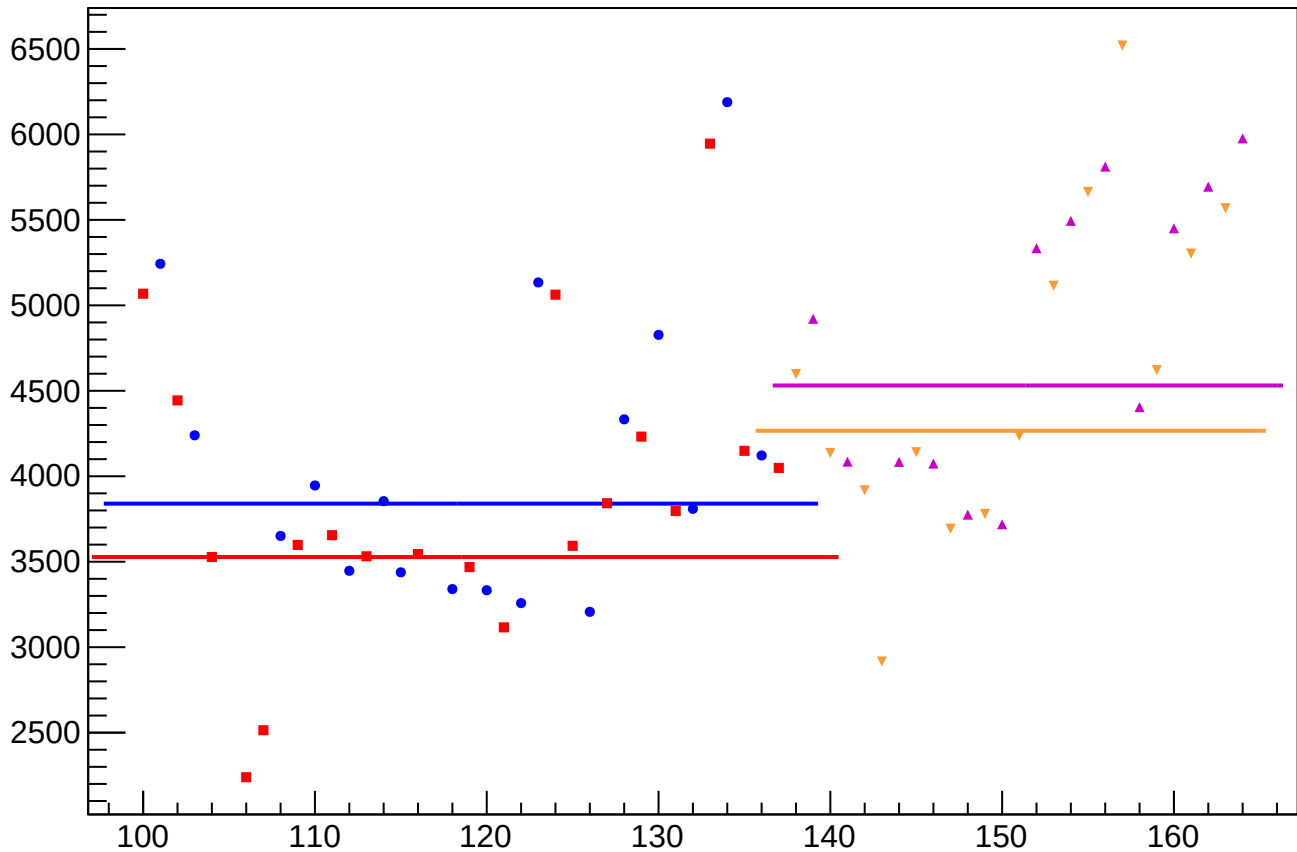
Left In: -1126.259 $\pm$ 1431.723  $\chi^2$ /NDF:9.5/12

+ sign -434.250 $\pm$ 1005.262  $\chi^2$ /NDF: 33.1/30

All: -232.021 $\pm$ 706.513  $\chi^2$ /NDF: 57.7/62

- sign -34.629 $\pm$ 993.169  $\chi^2$ /NDF: 24.6/31

# asym\_atl\_dd\_atr\_dd\_avg\_rms vs Slug



Right In: 3839.751+/-1.070  $\chi^2/\text{NDF}$ : 325959.2/16

Left Out: 4266.314+/-0.951  $\chi^2/\text{NDF}$ :844100.6/13

Right Out: 3527.320+/-0.966  $\chi^2/\text{NDF}$ : 554785.4/18

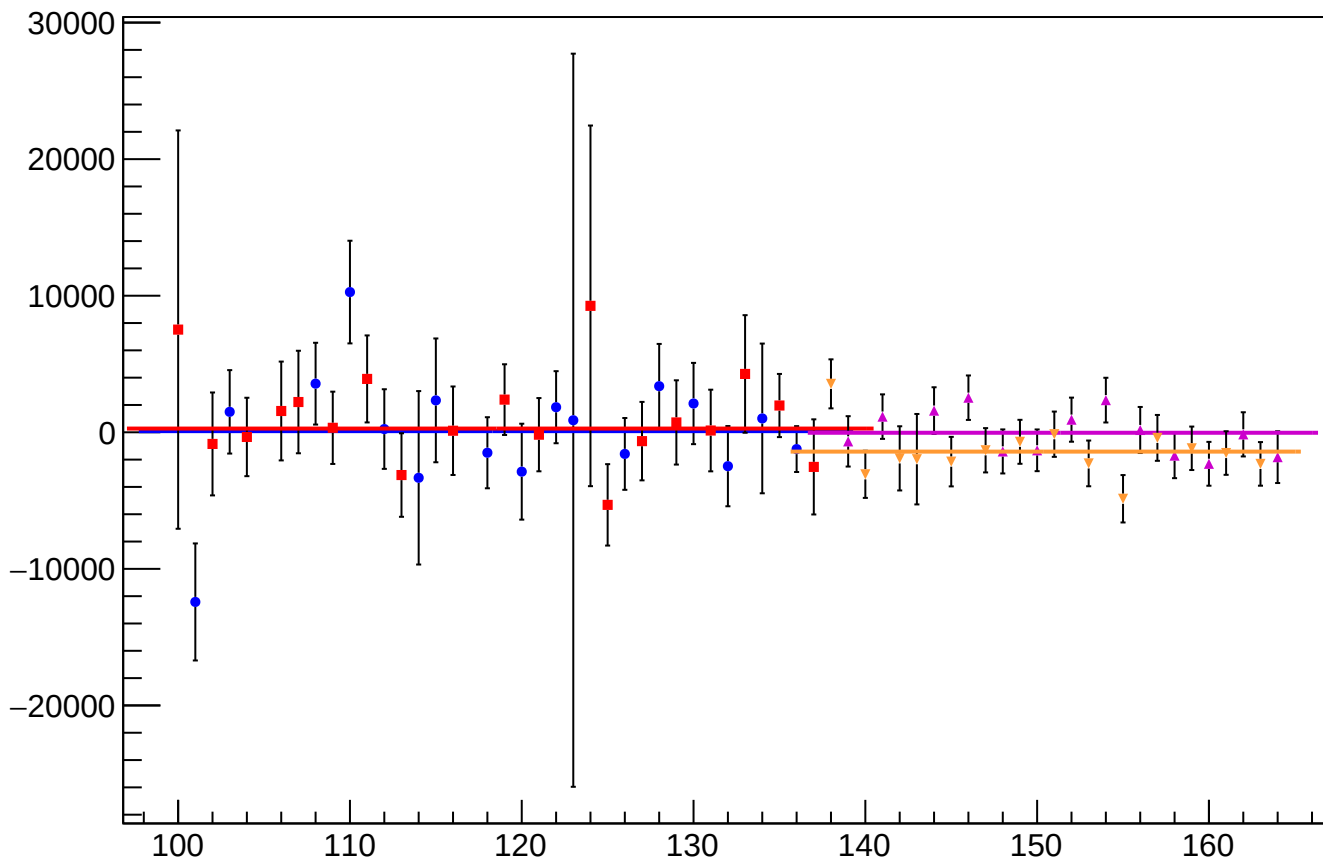
Left In: 4531.141+/-1.012  $\chi^2/\text{NDF}$ :559191.9/12

+ sign 4077.987+/-0.711  $\chi^2/\text{NDF}$ : 1258857.7/30

All: 4041.279+/-0.498  $\chi^2/\text{NDF}$ : 2892622.2/62

- sign 4005.787+/-0.699  $\chi^2/\text{NDF}$ : 1628519.2/31

# reg\_asym\_atl\_dd\_atr\_dd\_dd\_mean vs Slug



Right In: 83.860 $\pm$ 750.549  $\chi^2$ /NDF: 22.9/16

Left Out: -1414.370 $\pm$ 467.470  $\chi^2$ /NDF:14.5/13

Right Out: 272.707 $\pm$ 734.115  $\chi^2$ /NDF: 10.2/18

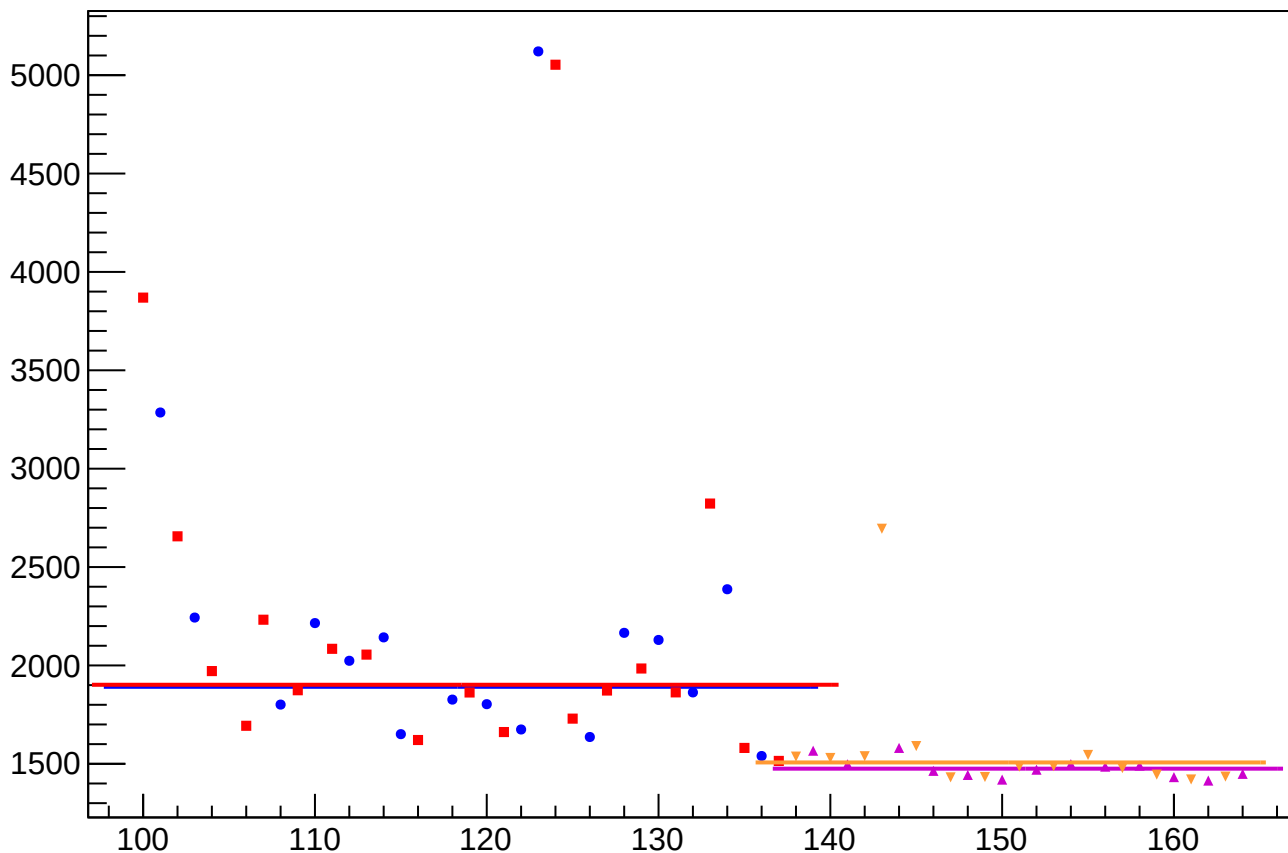
Left In: -34.763 $\pm$ 459.930  $\chi^2$ /NDF:11.9/12

+ sign -995.614 $\pm$ 396.799  $\chi^2$ /NDF: 40.3/30

All: -462.475 $\pm$ 278.055  $\chi^2$ /NDF: 66.0/62

- sign 51.905 $\pm$ 389.755  $\chi^2$ /NDF: 22.2/31

# reg\_asym\_atl\_dd\_atr\_dd\_dd\_rms vs Slug



Right In:  $1891.492 \pm 0.531$   $\chi^2/\text{NDF}: 464497.5/16$

Left Out:  $1506.951 \pm 0.331$   $\chi^2/\text{NDF}: 286540.1/13$

Right Out:  $1901.797 \pm 0.519$   $\chi^2/\text{NDF}: 460687.3/18$

Left In:  $1475.317 \pm 0.325$   $\chi^2/\text{NDF}: 21695.8/12$

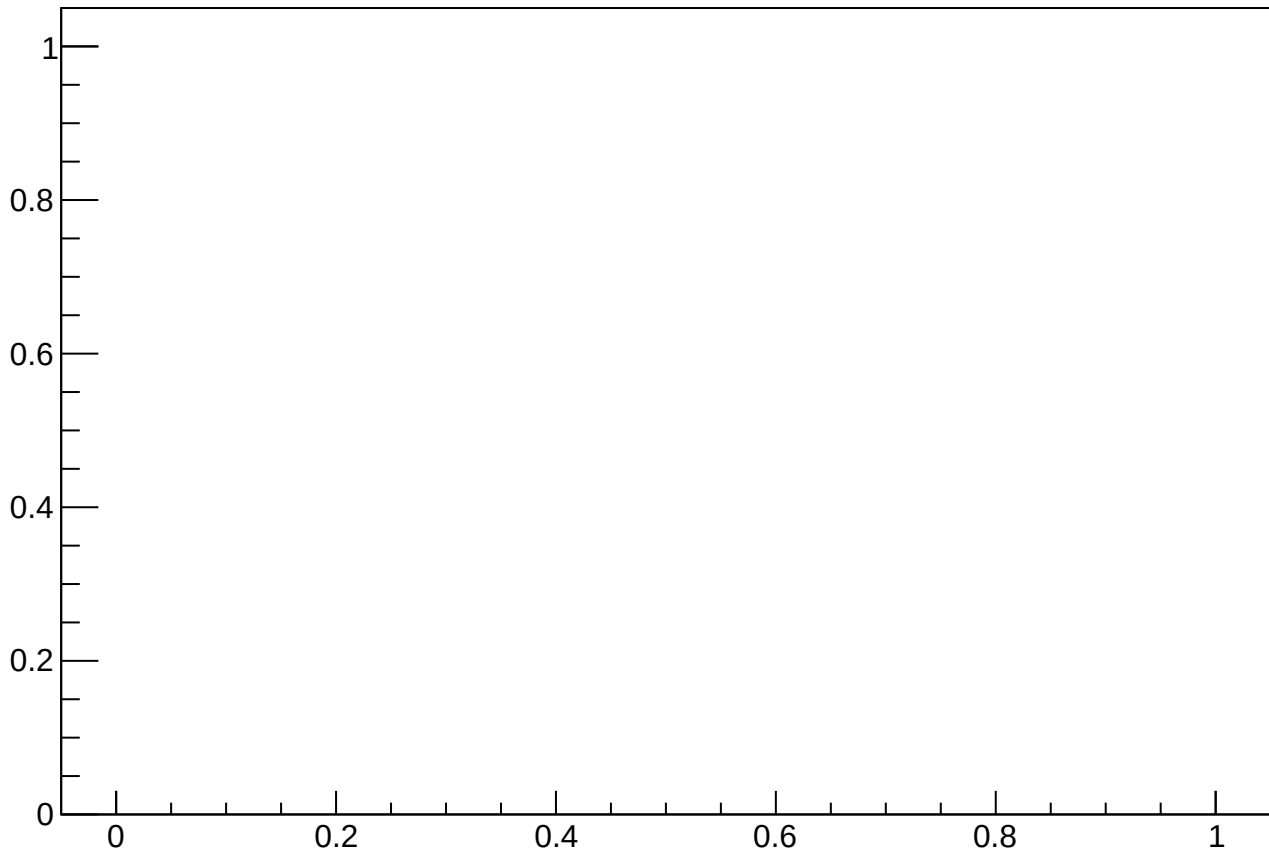
+ sign  $1614.431 \pm 0.281$   $\chi^2/\text{NDF}: 1129302.9/30$

All:  $1604.813 \pm 0.197$   $\chi^2/\text{NDF}: 2098734.5/62$

- sign  $1595.534 \pm 0.276$   $\chi^2/\text{NDF}: 967122.9/31$



asym\_atl\_dd\_atr\_dd\_dd\_correction\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

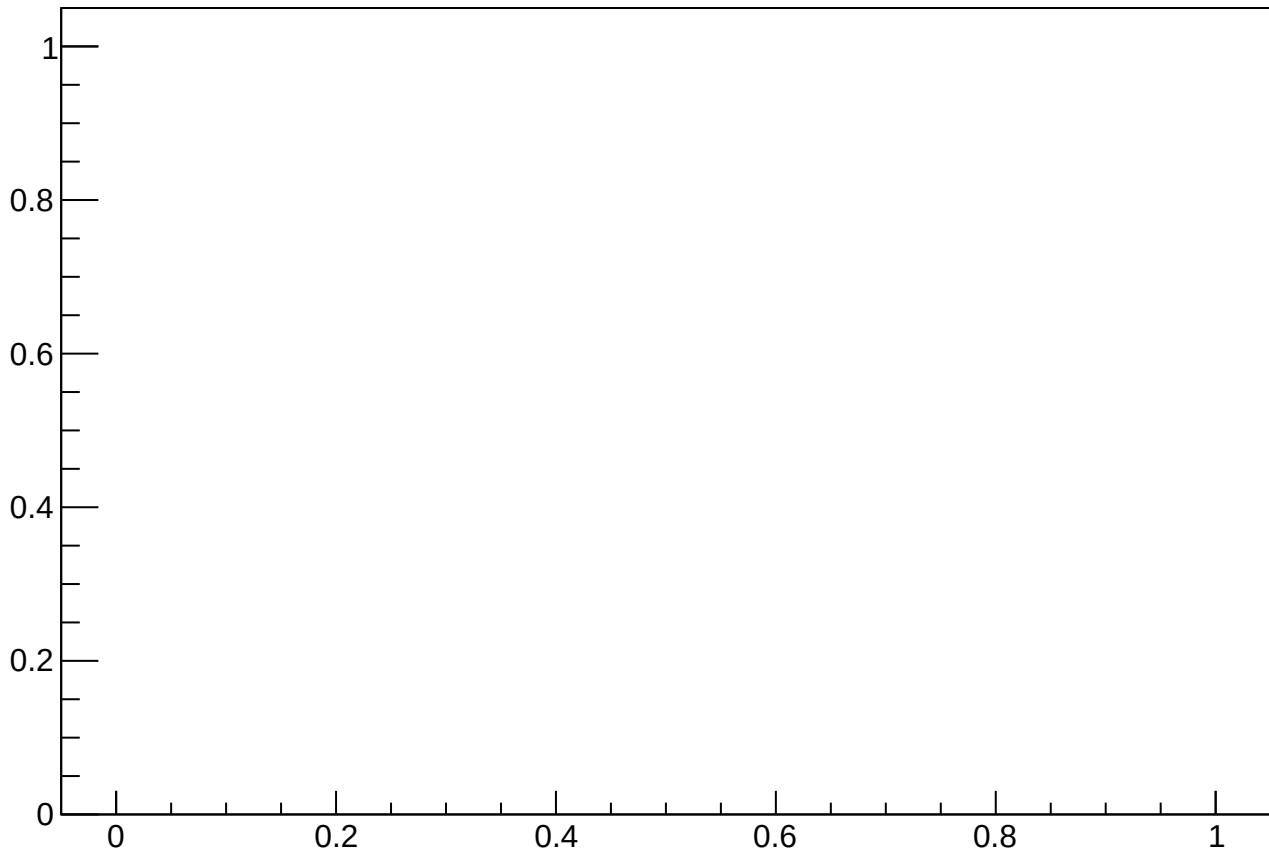
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# asym\_atl\_dd\_atr\_dd\_dd\_correction\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

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

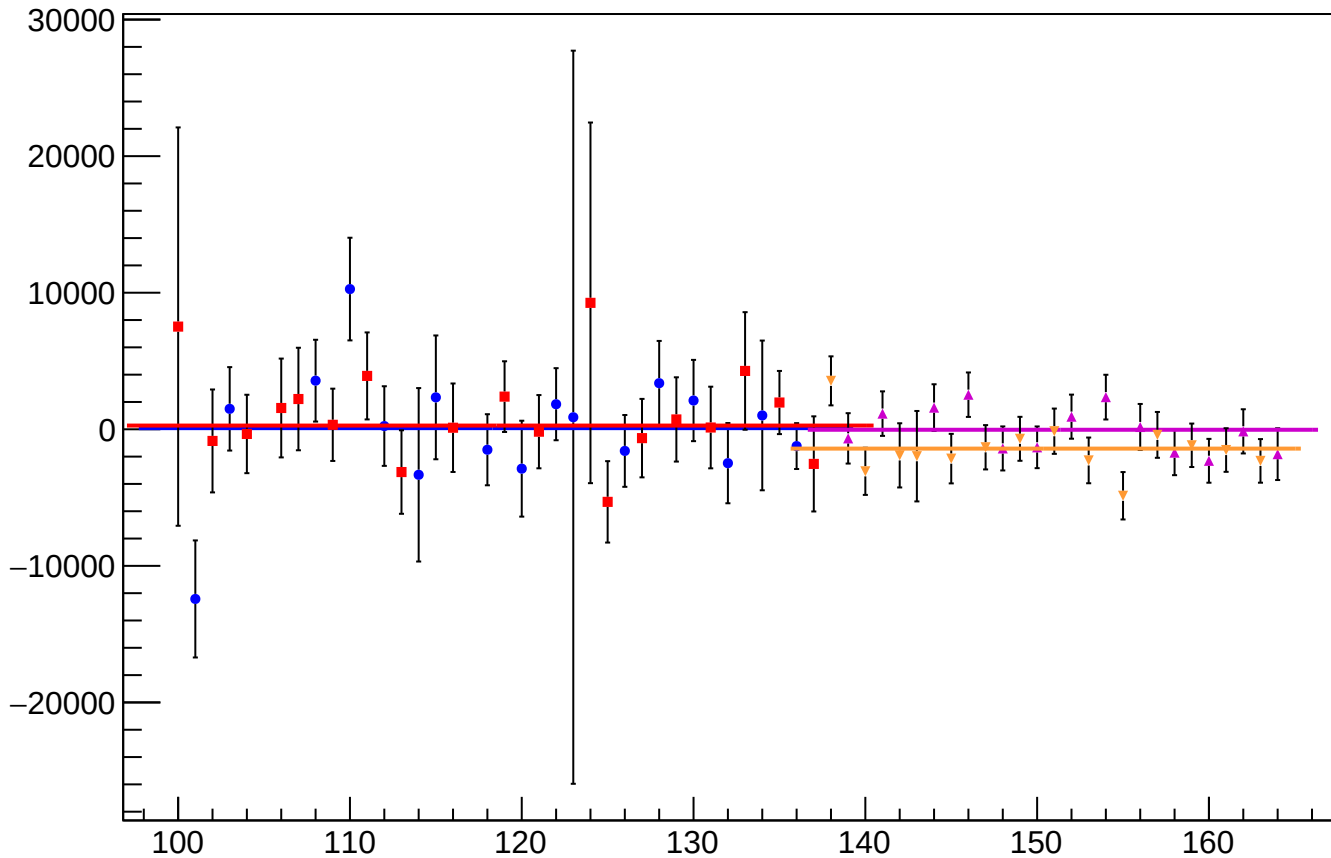
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# asym\_atl\_dd\_atr\_dd\_dd\_mean vs Slug



Right In: 83.860 $\pm$ 750.549  $\chi^2$ /NDF: 22.9/16

Left Out: -1414.370 $\pm$ 467.470  $\chi^2$ /NDF:14.5/13

Right Out: 272.707 $\pm$ 734.115  $\chi^2$ /NDF: 10.2/18

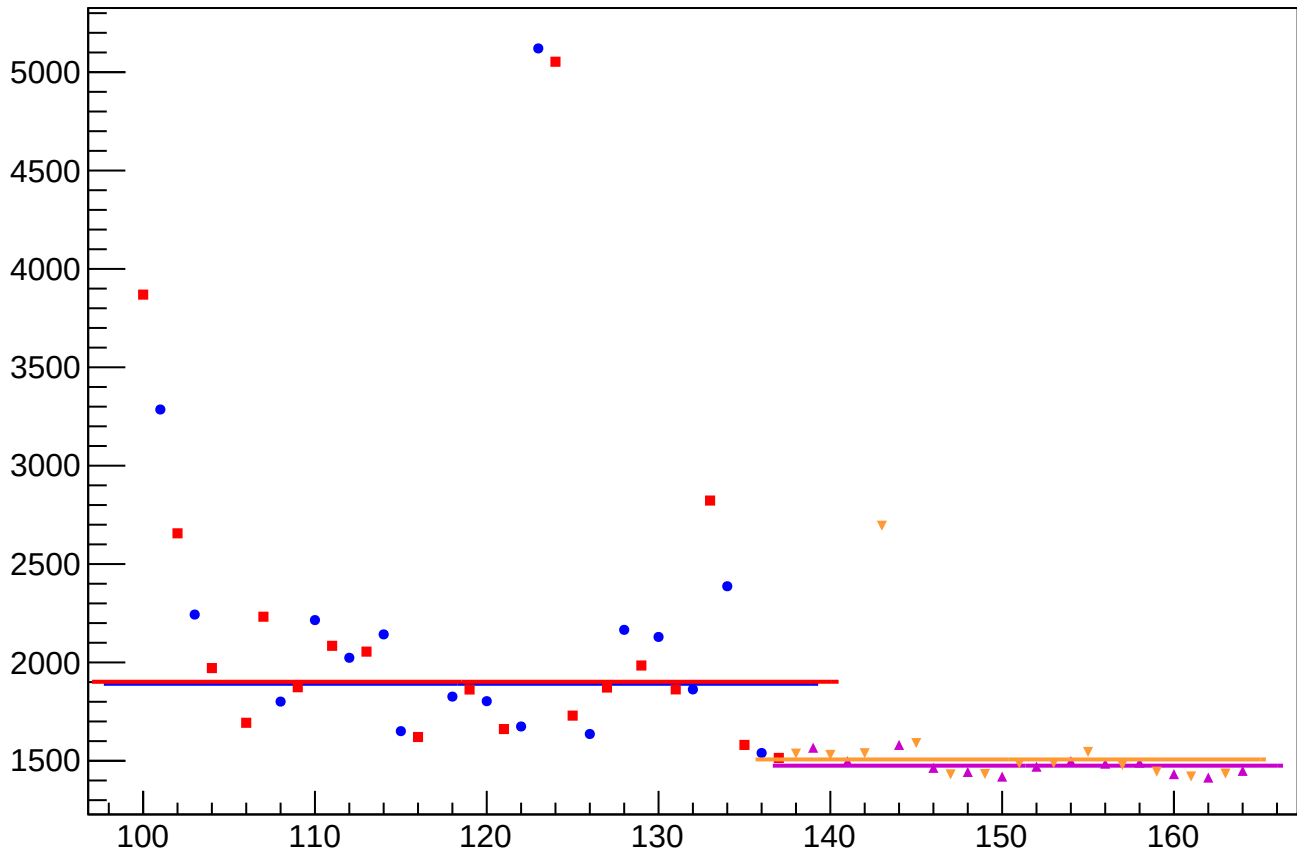
Left In: -34.763 $\pm$ 459.930  $\chi^2$ /NDF:11.9/12

+ sign -995.614 $\pm$ 396.799  $\chi^2$ /NDF: 40.3/30

All: -462.475 $\pm$ 278.055  $\chi^2$ /NDF: 66.0/62

- sign 51.905 $\pm$ 389.755  $\chi^2$ /NDF: 22.2/31

# asym\_atl\_dd\_atr\_dd\_dd\_rms vs Slug



Right In: 1891.492+/-0.531  $\chi^2/\text{NDF}$ : 464497.5/16

Left Out: 1506.951+/-0.331  $\chi^2/\text{NDF}$ : 286540.1/13

Right Out: 1901.797+/-0.519  $\chi^2/\text{NDF}$ : 460687.3/18

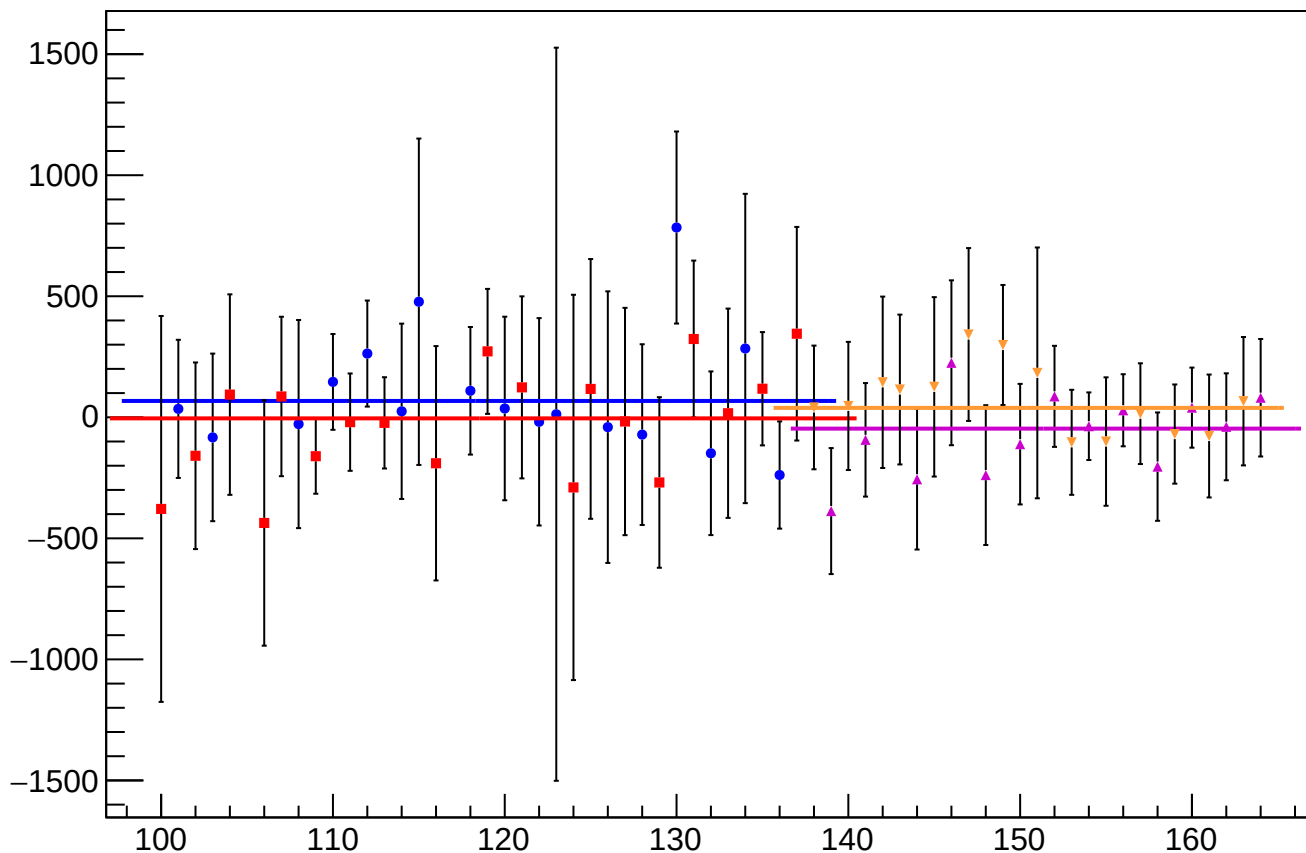
Left In: 1475.317+/-0.325  $\chi^2/\text{NDF}$ : 21695.8/12

+ sign 1614.431+/-0.281  $\chi^2/\text{NDF}$ : 1129302.9/30

All: 1604.813+/-0.197  $\chi^2/\text{NDF}$ : 2098734.5/62

- sign 1595.534+/-0.276  $\chi^2/\text{NDF}$ : 967122.9/31

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_avg\_mean vs Slug



Right In: 67.542+/-79.608  $\chi^2/\text{NDF}$ : 7.5/16

Left Out: 38.931+/-71.565  $\chi^2/\text{NDF}$ : 3.3/13

Right Out: -4.423+/-70.009  $\chi^2/\text{NDF}$ : 6.4/18

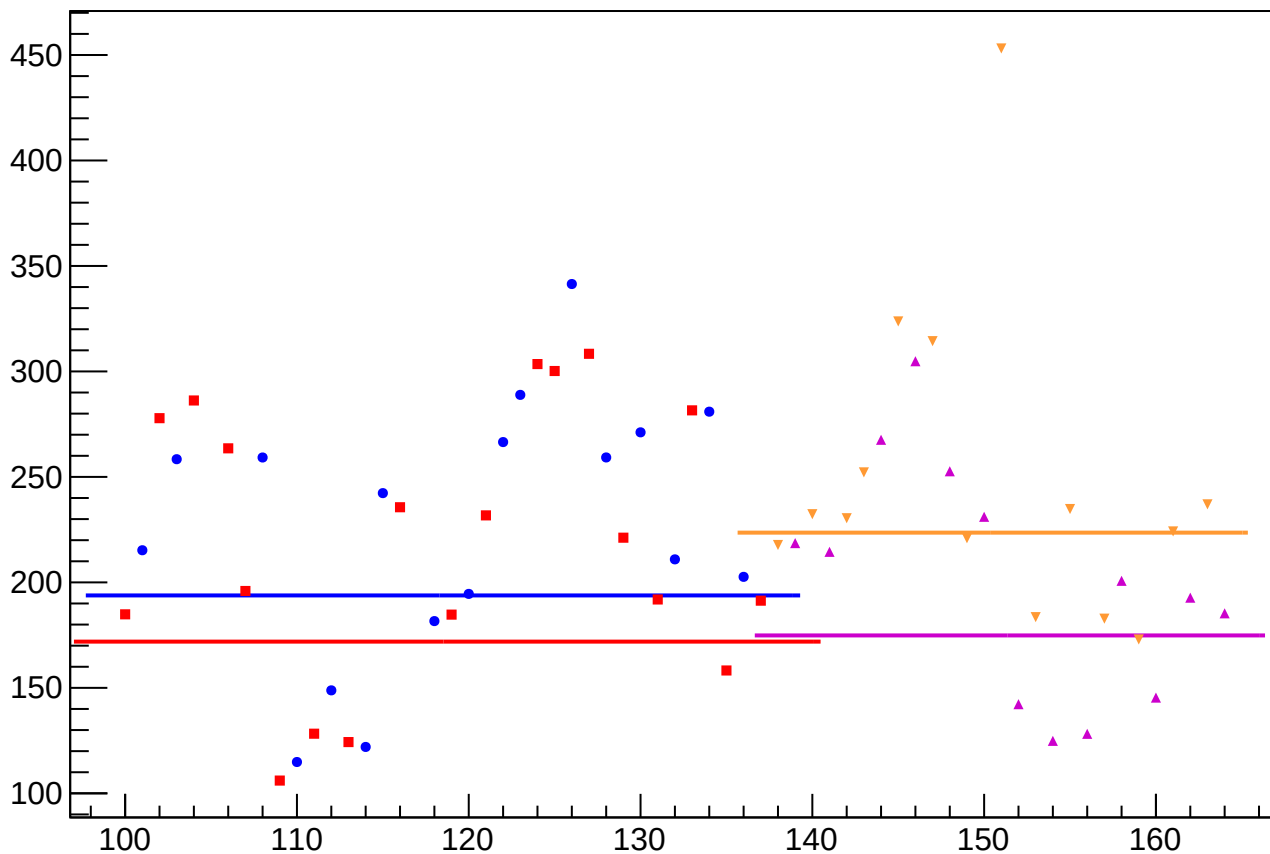
Left In: -46.792+/-58.235  $\chi^2/\text{NDF}$ : 5.1/12

+ sign 51.719+/-53.221  $\chi^2/\text{NDF}$ : 10.9/30

All: 4.177+/-34.260  $\chi^2/\text{NDF}$ : 24.0/62

- sign -29.465+/-44.771  $\chi^2/\text{NDF}$ : 11.7/31

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_avg\_rms vs Slug



Right In: 193.815 $\pm$ 0.056  $\chi^2$ /NDF: 1010325.5/16

Left Out: 223.583 $\pm$ 0.051  $\chi^2$ /NDF: 965117.1/13

Right Out: 171.920 $\pm$ 0.050  $\chi^2$ /NDF: 1577076.0/18

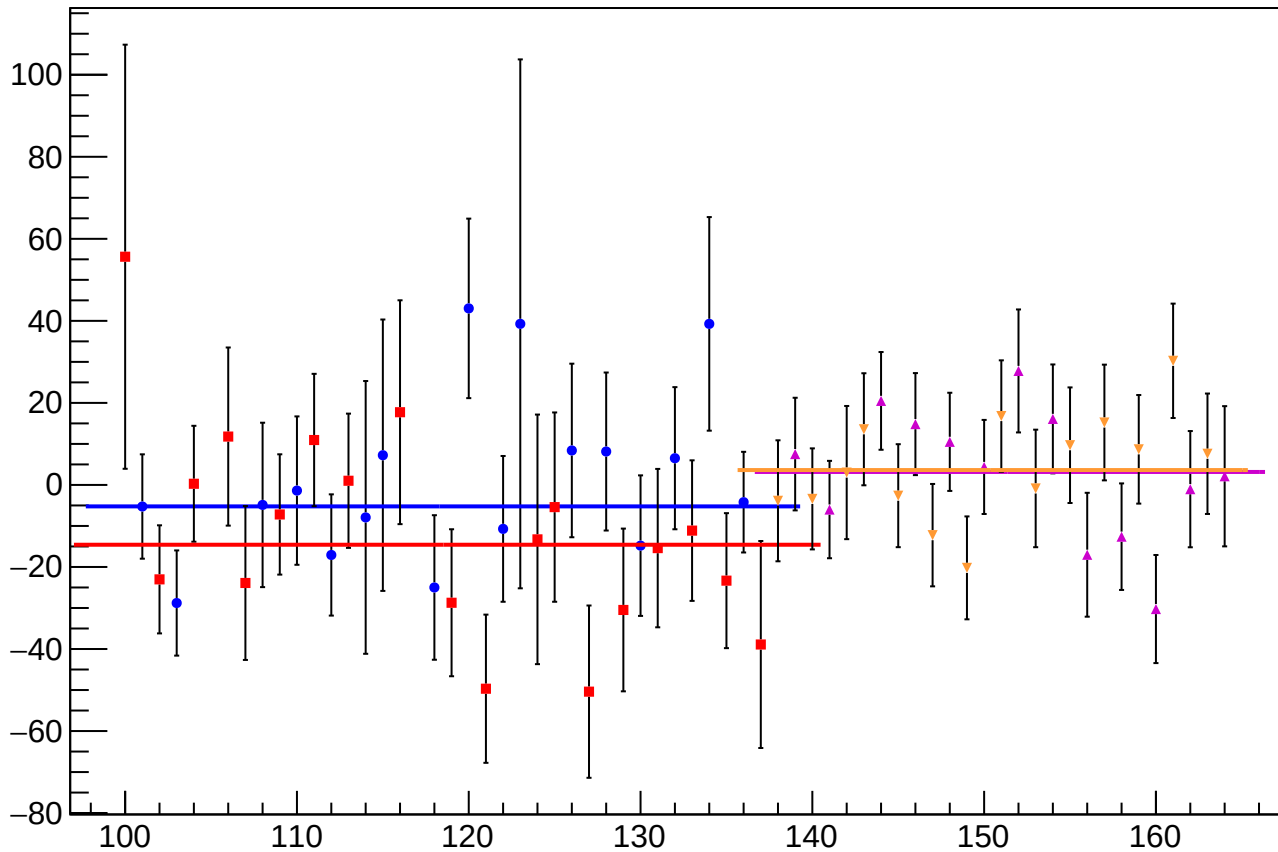
Left In: 174.854 $\pm$ 0.041  $\chi^2$ /NDF: 1464681.0/12

+ sign 210.278 $\pm$ 0.038  $\chi^2$ /NDF: 2130103.1/30

All: 188.831 $\pm$ 0.024  $\chi^2$ /NDF: 5728568.0/62

- sign 173.654 $\pm$ 0.032  $\chi^2$ /NDF: 3043832.7/31

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_dd\_mean vs Slug



Right In:  $-5.231 \pm 4.356$   $\chi^2/\text{NDF}$ : 15.5/16

Left Out:  $3.624 \pm 3.644$   $\chi^2/\text{NDF}$ : 12.4/13

Right Out:  $-14.579 \pm 4.265$   $\chi^2/\text{NDF}$ : 19.5/18

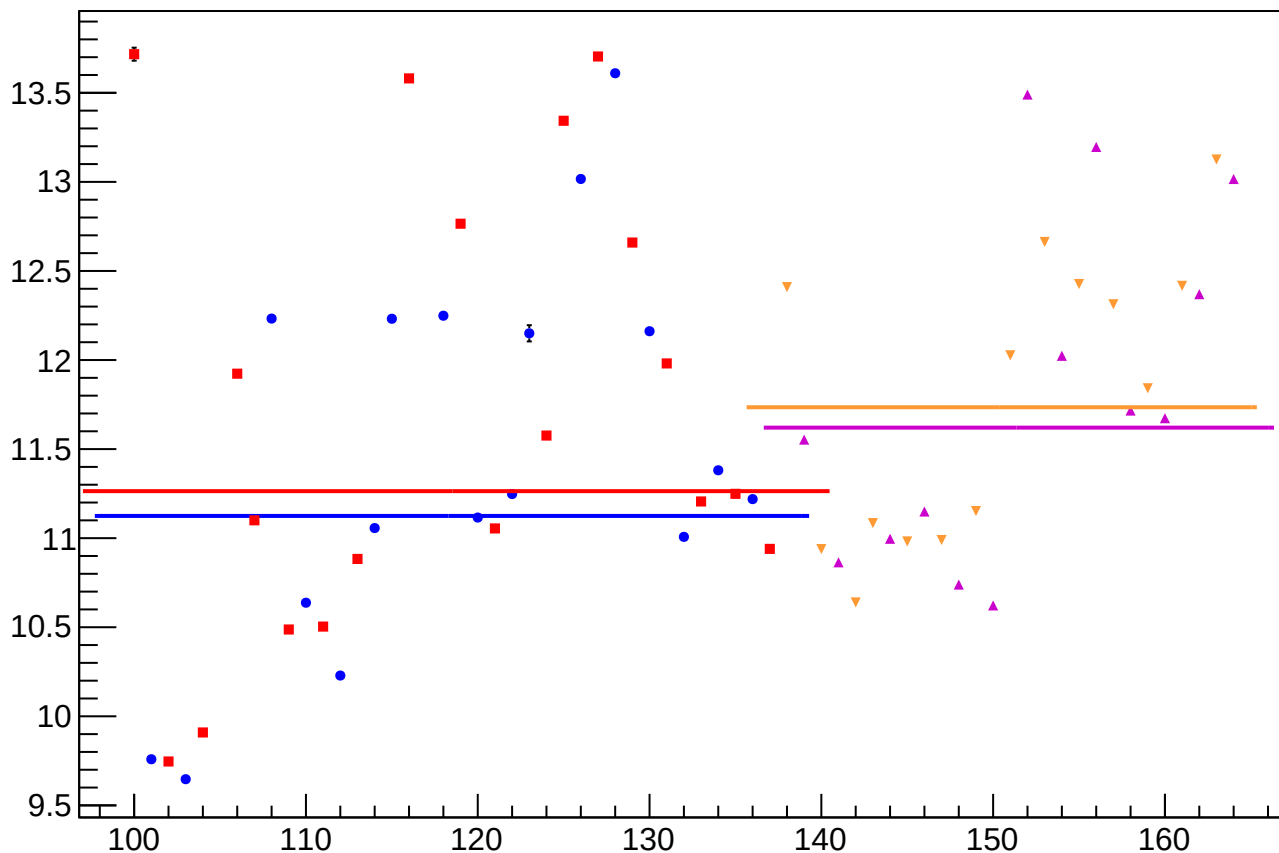
Left In:  $3.164 \pm 3.649$   $\chi^2/\text{NDF}$ : 17.5/12

+ sign  $-0.021 \pm 2.795$   $\chi^2/\text{NDF}$ : 30.3/30

All:  $-2.195 \pm 1.968$   $\chi^2/\text{NDF}$ : 78.5/62

- sign  $-4.335 \pm 2.773$   $\chi^2/\text{NDF}$ : 47.0/31

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_dd\_rms vs Slug



Right In: 11.125 $\pm$ 0.003  $\chi^2$ /NDF: 132520.1/16

Left Out: 11.735 $\pm$ 0.003  $\chi^2$ /NDF: 85186.4/13

Right Out: 11.264 $\pm$ 0.003  $\chi^2$ /NDF: 147733.2/18

Left In: 11.620 $\pm$ 0.003  $\chi^2$ /NDF: 116298.7/12

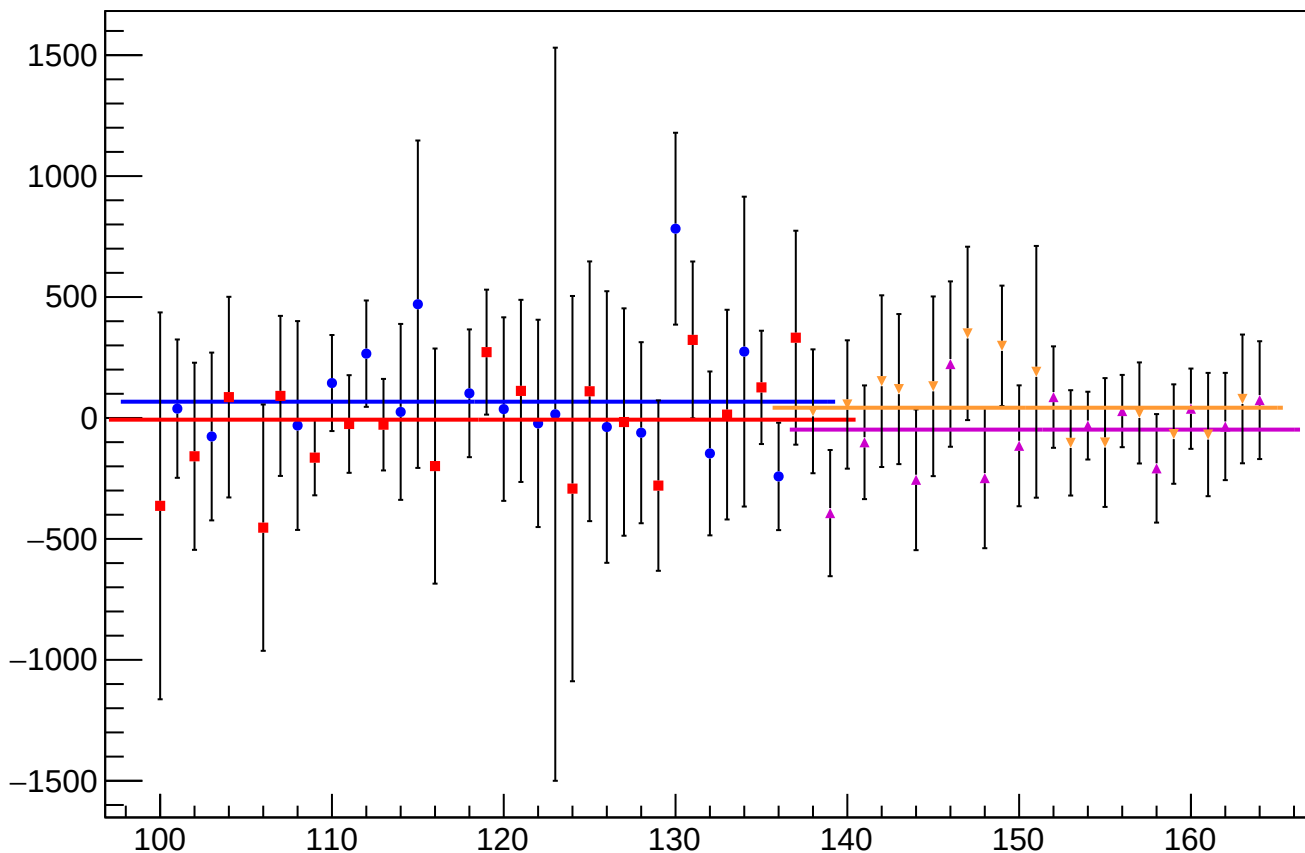
+ sign 11.484 $\pm$ 0.002  $\chi^2$ /NDF: 240786.6/30

All: 11.477 $\pm$ 0.001  $\chi^2$ /NDF: 512912.3/62

- sign 11.470 $\pm$ 0.002  $\chi^2$ /NDF: 272100.6/31



asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_avg\_mean vs Slug



Right In: 67.305+/-79.817  $\chi^2/\text{NDF}$ : 7.5/16

Left Out: 42.334+/-71.810  $\chi^2/\text{NDF}$ : 3.3/13

Right Out: -7.039+/-70.212  $\chi^2/\text{NDF}$ : 6.4/18

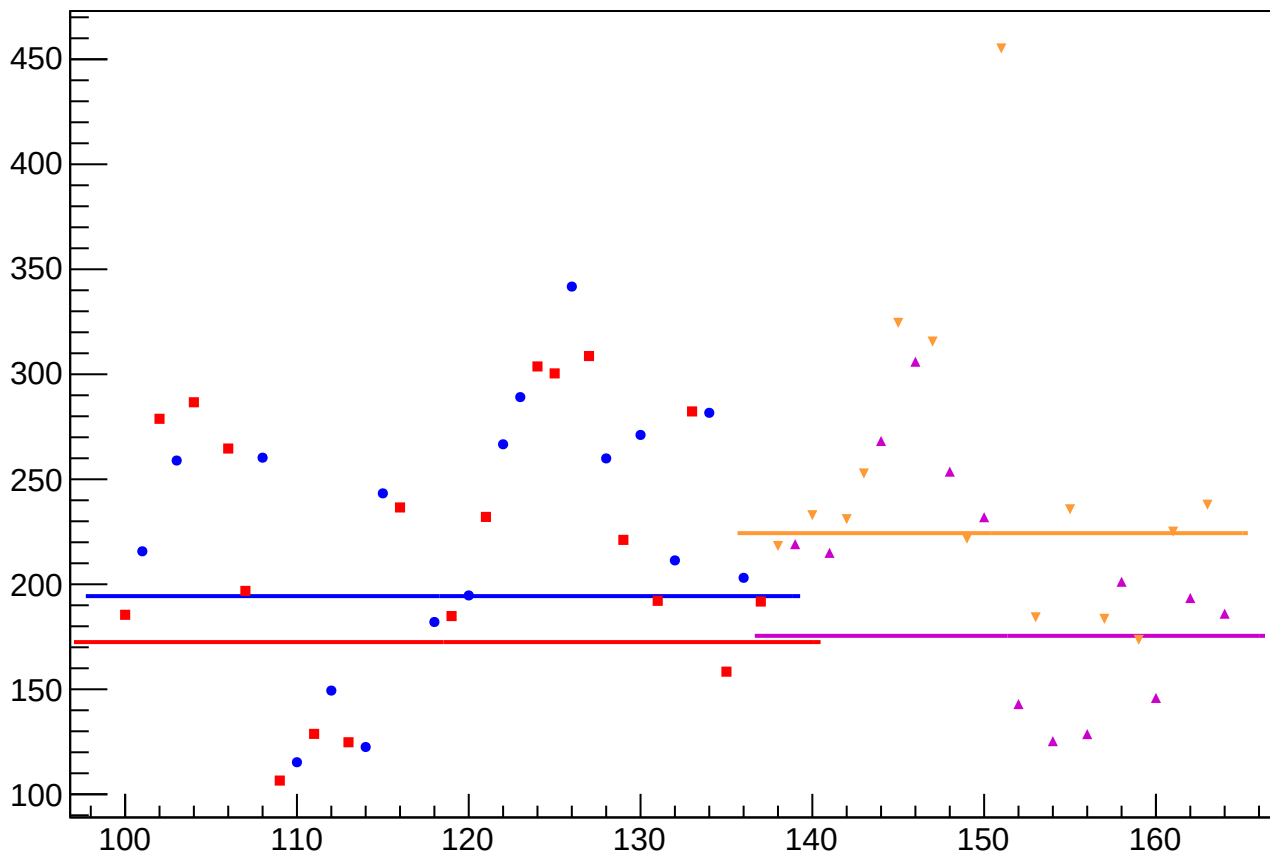
Left In: -48.127+/-58.431  $\chi^2/\text{NDF}$ : 5.2/12

+ sign 53.504+/-53.384  $\chi^2/\text{NDF}$ : 10.9/30

All: 3.839+/-34.368  $\chi^2/\text{NDF}$ : 24.2/62

- sign -31.315+/-44.913  $\chi^2/\text{NDF}$ : 11.9/31

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_avg\_rms vs Slug



Right In: 194.365 $\pm$ 0.056  $\chi^2$ /NDF: 1005234.4/16

Left Out: 224.349 $\pm$ 0.051  $\chi^2$ /NDF: 964468.9/13

Right Out: 172.471 $\pm$ 0.050  $\chi^2$ /NDF: 1569648.4/18

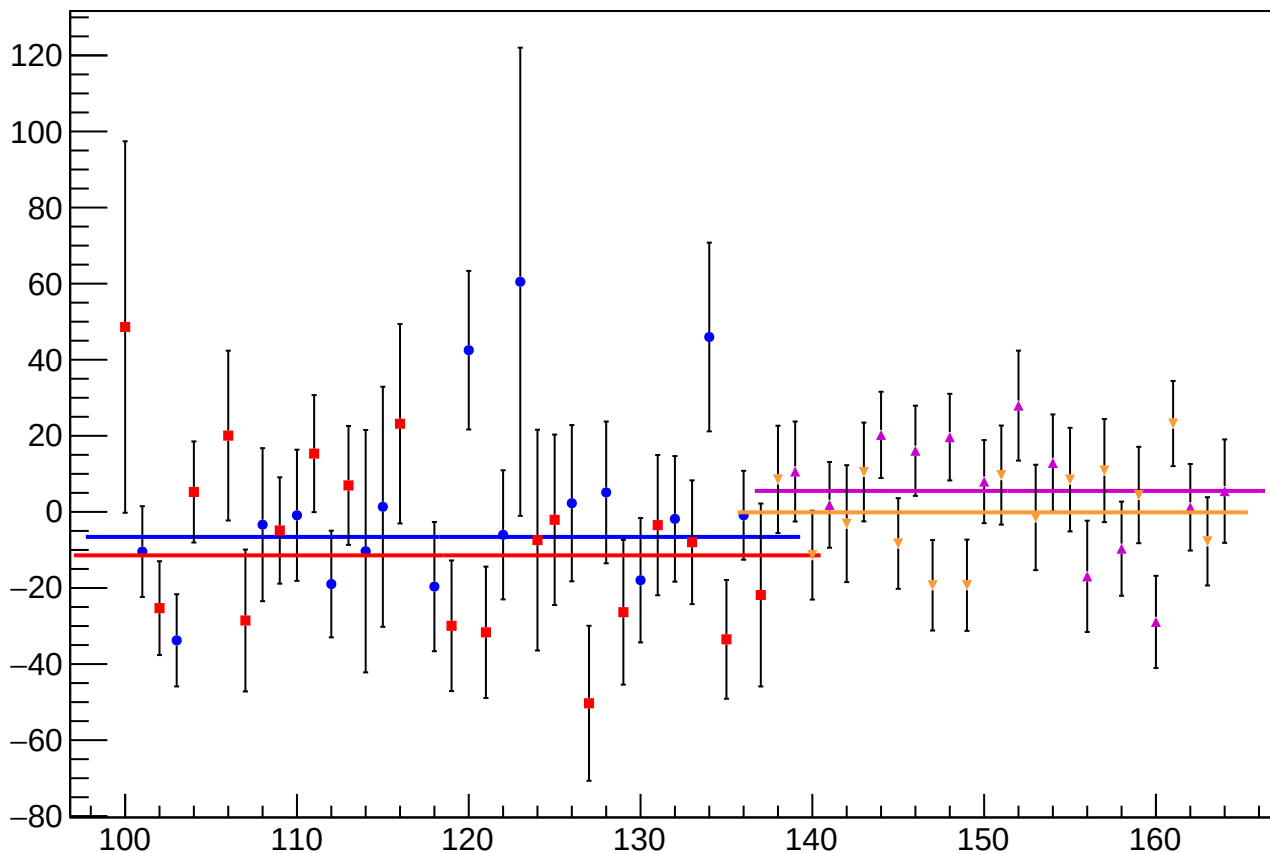
Left In: 175.452 $\pm$ 0.041  $\chi^2$ /NDF: 1462435.6/12

+ sign 210.936 $\pm$ 0.038  $\chi^2$ /NDF: 2125683.3/30

All: 189.444 $\pm$ 0.024  $\chi^2$ /NDF: 5713488.5/62

- sign 174.232 $\pm$ 0.032  $\chi^2$ /NDF: 3034212.8/31

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_dd\_mean vs Slug



Right In:  $-6.575 \pm 4.157$   $\chi^2/\text{NDF}$ : 19.3/16

Left Out:  $-0.119 \pm 3.387$   $\chi^2/\text{NDF}$ : 14.2/13

Right Out:  $-11.423 \pm 4.080$   $\chi^2/\text{NDF}$ : 23.0/18

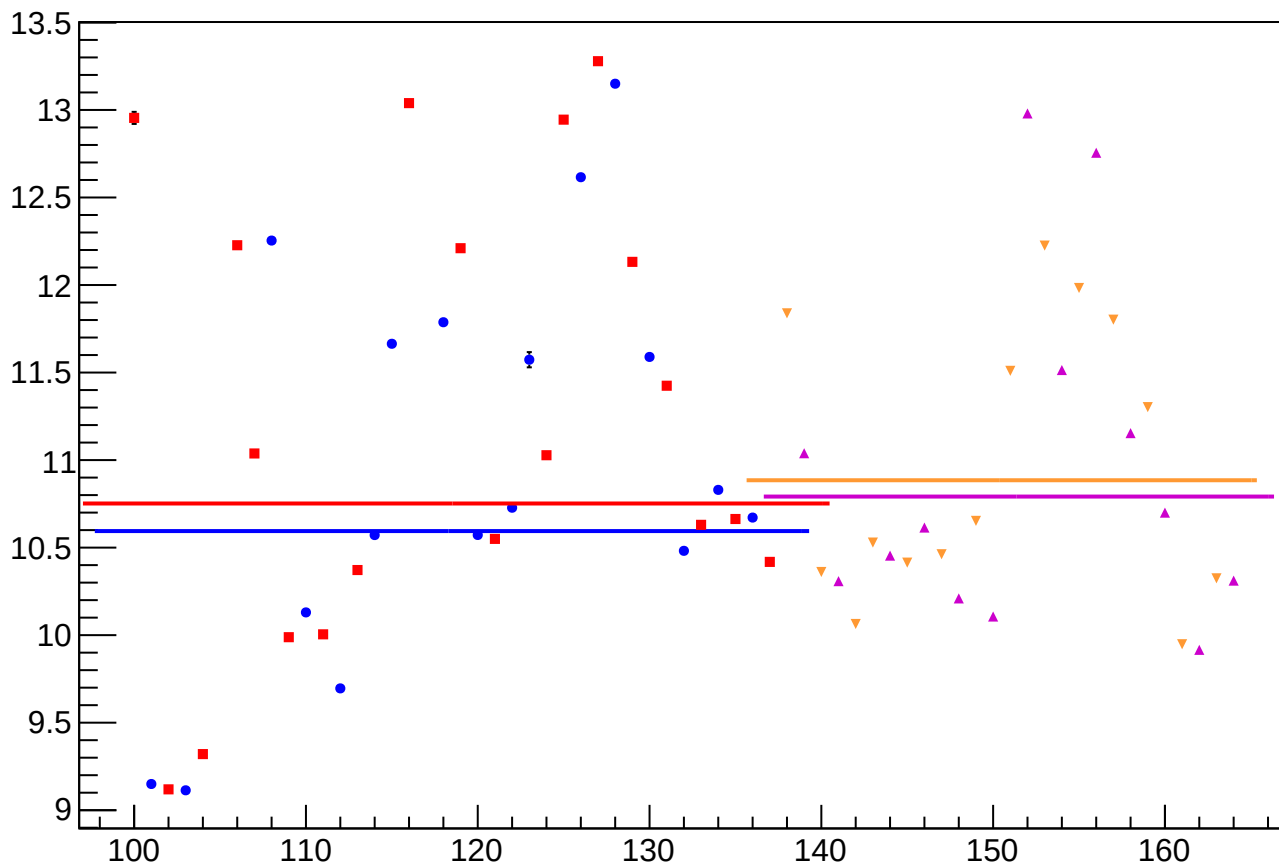
Left In:  $5.520 \pm 3.395$   $\chi^2/\text{NDF}$ : 19.1/12

+ sign  $-2.695 \pm 2.626$   $\chi^2/\text{NDF}$ : 35.0/30

All:  $-2.050 \pm 1.851$   $\chi^2/\text{NDF}$ : 87.4/62

- sign  $-1.413 \pm 2.610$   $\chi^2/\text{NDF}$ : 52.3/31

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_dd\_rms vs Slug



Right In: 10.594 $\pm$ 0.003  $\chi^2$ /NDF: 160059.2/16

Left Out: 10.885 $\pm$ 0.002  $\chi^2$ /NDF:93121.1/13

Right Out: 10.752 $\pm$ 0.003  $\chi^2$ /NDF: 177173.0/18

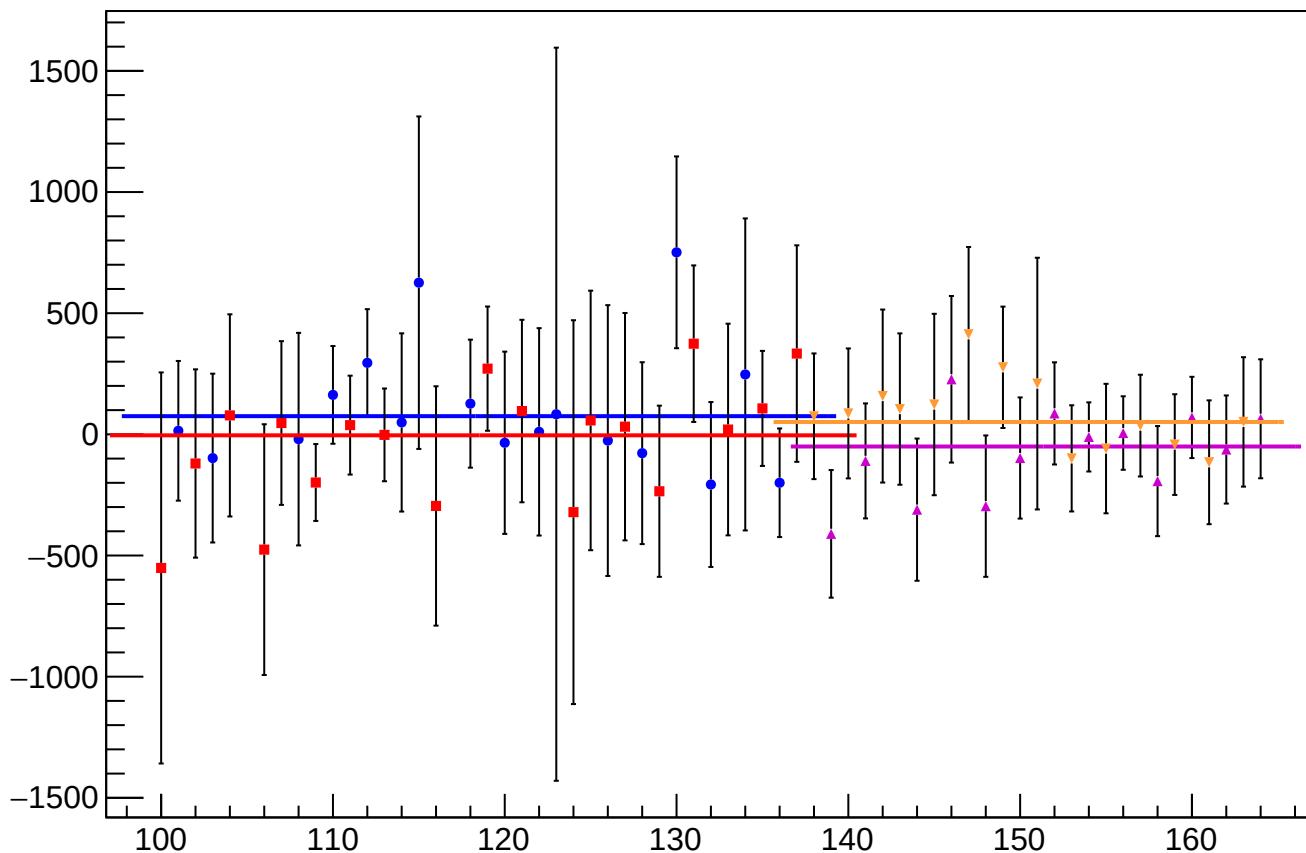
Left In: 10.792 $\pm$ 0.002  $\chi^2$ /NDF:124227.1/12

+ sign 10.769 $\pm$ 0.002  $\chi^2$ /NDF: 259043.7/30

All: 10.772 $\pm$ 0.001  $\chi^2$ /NDF: 560561.1/62

- sign 10.775 $\pm$ 0.002  $\chi^2$ /NDF: 301511.4/31

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_avg\_mean vs Slug



Right In: 75.086 $\pm$ 80.352  $\chi^2$ /NDF: 7.7/16

Left Out: 51.105 $\pm$ 72.286  $\chi^2$ /NDF: 3.4/13

Right Out: -3.999 $\pm$ 70.883  $\chi^2$ /NDF: 7.3/18

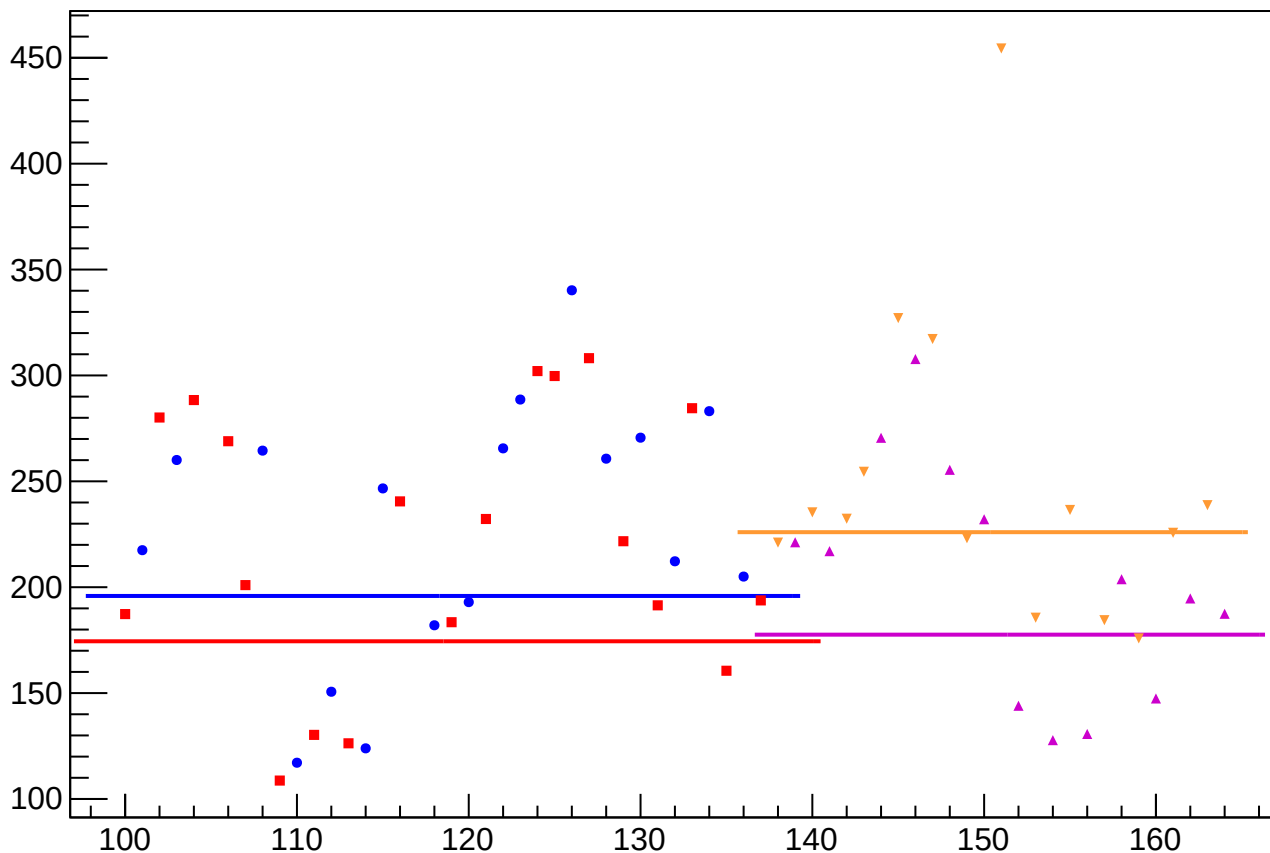
Left In: -50.162 $\pm$ 59.056  $\chi^2$ /NDF: 5.9/12

+ sign 61.831 $\pm$ 53.740  $\chi^2$ /NDF: 11.1/30

All: 7.490 $\pm$ 34.668  $\chi^2$ /NDF: 26.3/62

- sign -31.247 $\pm$ 45.372  $\chi^2$ /NDF: 13.5/31

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_avg\_rms vs Slug



Right In: 195.869+/-0.057  $\chi^2/\text{NDF}$ : 979247.4/16

Left Out: 225.989+/-0.051  $\chi^2/\text{NDF}$ : 952122.7/13

Right Out: 174.465+/-0.050  $\chi^2/\text{NDF}$ : 1528778.5/18

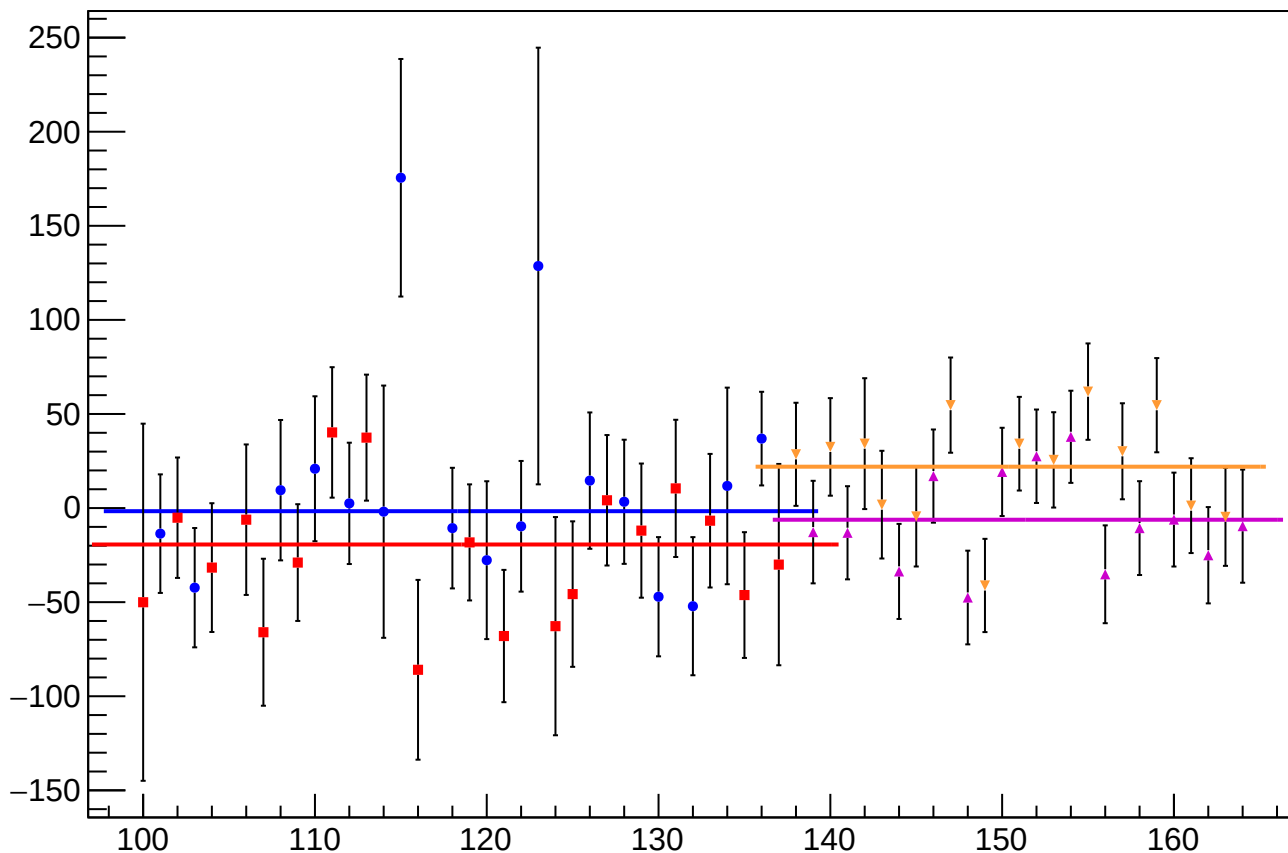
Left In: 177.591+/-0.042  $\chi^2/\text{NDF}$ : 1426683.9/12

+ sign 212.516+/-0.038  $\chi^2/\text{NDF}$ : 2086694.4/30

All: 191.378+/-0.025  $\chi^2/\text{NDF}$ : 5574450.4/62

- sign 176.311+/-0.032  $\chi^2/\text{NDF}$ : 2957758.5/31

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_dd\_mean vs Slug



Right In:  $-1.654 \pm 8.881$   $\chi^2/\text{NDF}$ : 18.5/16

Left Out:  $21.986 \pm 7.010$   $\chi^2/\text{NDF}$ : 16.2/13

Right Out:  $-19.357 \pm 8.556$   $\chi^2/\text{NDF}$ : 14.8/18

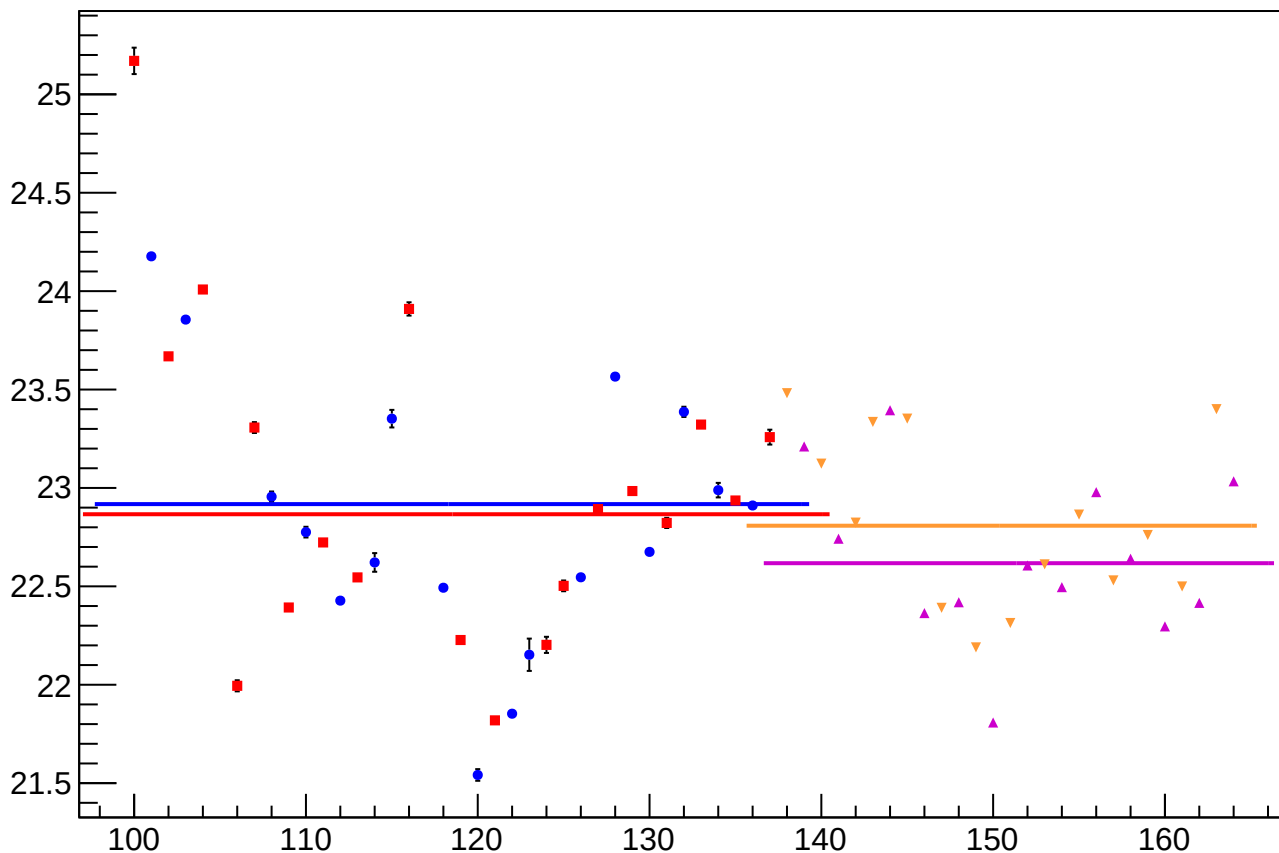
Left In:  $-6.203 \pm 7.031$   $\chi^2/\text{NDF}$ : 13.0/12

+ sign  $12.911 \pm 5.503$   $\chi^2/\text{NDF}$ : 39.1/30

All:  $0.545 \pm 3.866$   $\chi^2/\text{NDF}$ : 78.3/62

- sign  $-11.506 \pm 5.432$   $\chi^2/\text{NDF}$ : 29.2/31

# asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_dd\_rms vs Slug



Right In: 22.918 $\pm$ 0.006  $\chi^2$ /NDF: 11472.2/16

Left Out: 22.808 $\pm$ 0.005  $\chi^2$ /NDF: 7306.9/13

Right Out: 22.866 $\pm$ 0.006  $\chi^2$ /NDF: 11052.6/18

Left In: 22.618 $\pm$ 0.005  $\chi^2$ /NDF: 6886.8/12

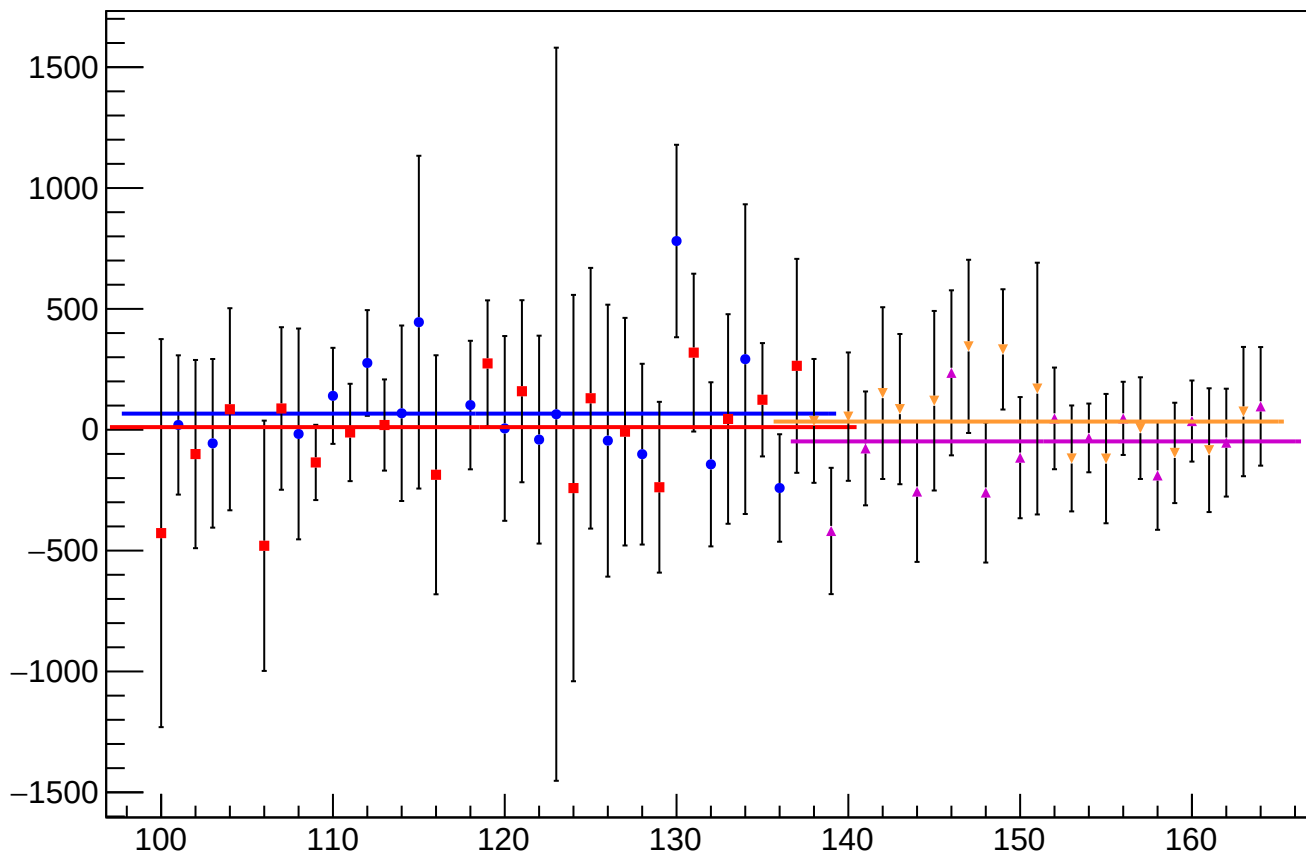
+ sign 22.850 $\pm$ 0.004  $\chi^2$ /NDF: 18967.3/30

All: 22.783 $\pm$ 0.003  $\chi^2$ /NDF: 38501.8/62

- sign 22.718 $\pm$ 0.004  $\chi^2$ /NDF: 18948.6/31



asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_avg\_mean vs Slug



Right In: 66.701 $\pm$ 79.995  $\chi^2$ /NDF: 7.5/16

Left Out: 33.871 $\pm$ 72.093  $\chi^2$ /NDF: 3.9/13

Right Out: 10.870 $\pm$ 70.386  $\chi^2$ /NDF: 5.7/18

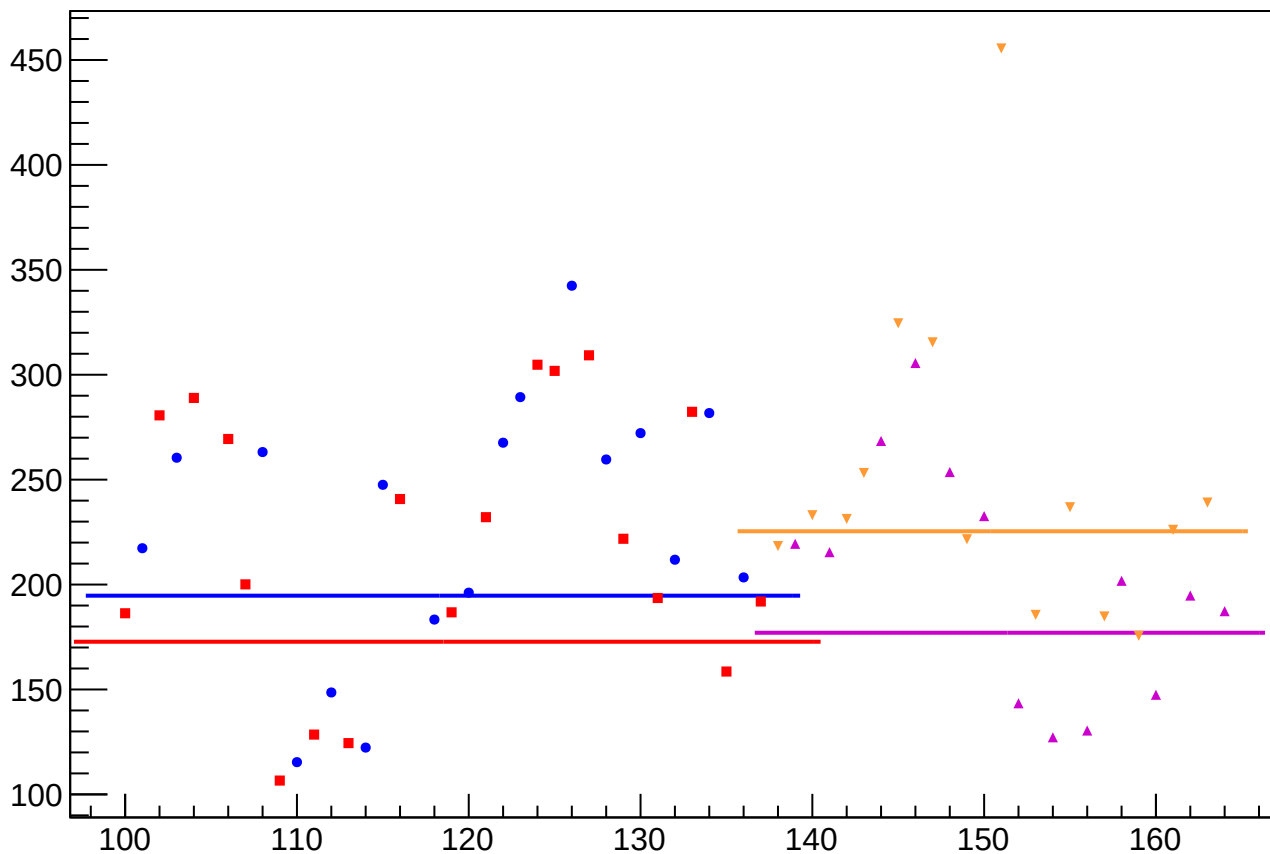
Left In: -48.262 $\pm$ 58.866  $\chi^2$ /NDF: 5.4/12

+ sign 48.585 $\pm$ 53.554  $\chi^2$ /NDF: 11.5/30

All: 6.205 $\pm$ 34.522  $\chi^2$ /NDF: 24.2/62

- sign -23.925 $\pm$ 45.156  $\chi^2$ /NDF: 11.5/31

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_avg\_rms vs Slug



Right In: 194.703 $\pm$ 0.057  $\chi^2$ /NDF: 1019872.4/16

Left Out: 225.403 $\pm$ 0.051  $\chi^2$ /NDF:944041.1/13

Right Out: 172.753 $\pm$ 0.050  $\chi^2$ /NDF: 1596944.9/18

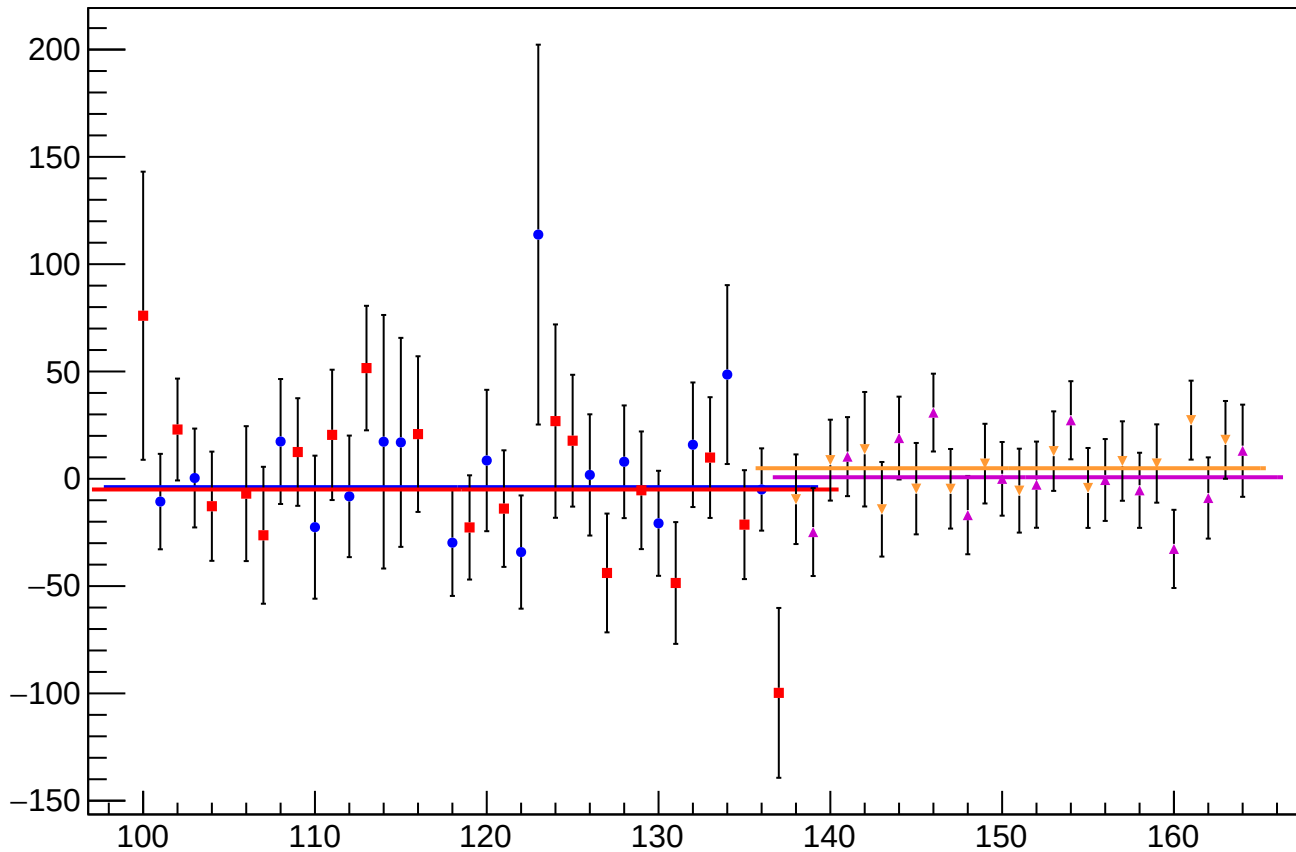
Left In: 177.032 $\pm$ 0.042  $\chi^2$ /NDF:1413271.3/12

+ sign 211.644 $\pm$ 0.038  $\chi^2$ /NDF: 2126463.8/30

All: 190.385 $\pm$ 0.024  $\chi^2$ /NDF: 5680244.0/62

- sign 175.271 $\pm$ 0.032  $\chi^2$ /NDF: 3014564.9/31

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_dd\_mean vs Slug



Right In:  $-3.894 \pm 6.915$   $\chi^2/\text{NDF}$ : 8.4/16

Left Out:  $4.924 \pm 5.205$   $\chi^2/\text{NDF}$ : 4.6/13

Right Out:  $-4.985 \pm 6.727$   $\chi^2/\text{NDF}$ : 21.3/18

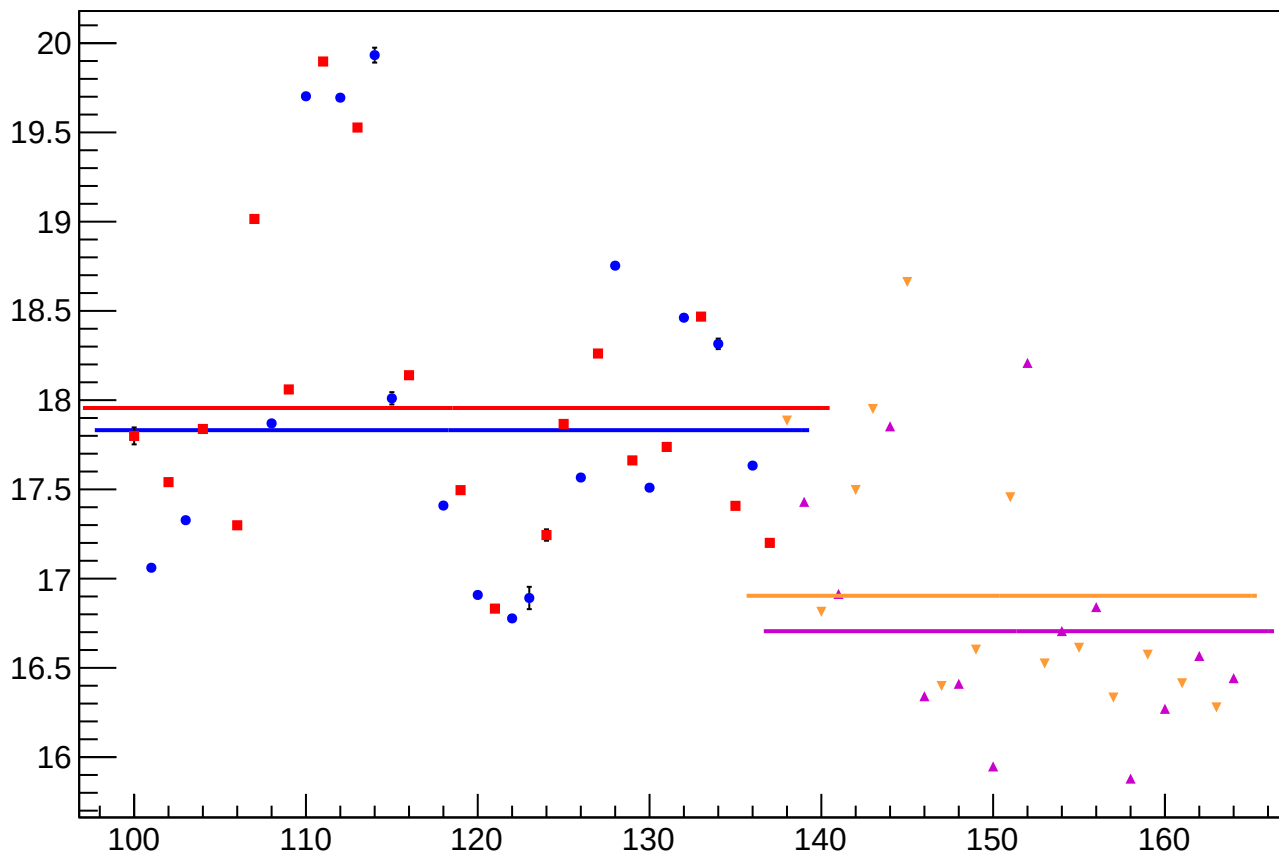
Left In:  $0.719 \pm 5.203$   $\chi^2/\text{NDF}$ : 12.7/12

+ sign  $1.735 \pm 4.158$   $\chi^2/\text{NDF}$ : 14.1/30

All:  $0.143 \pm 2.925$   $\chi^2/\text{NDF}$ : 48.8/62

- sign  $-1.416 \pm 4.115$   $\chi^2/\text{NDF}$ : 34.4/31

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_dd\_rms vs Slug



Right In: 17.832 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 30863.4/16

Left Out: 16.904 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 34887.3/13

Right Out: 17.956 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 25448.9/18

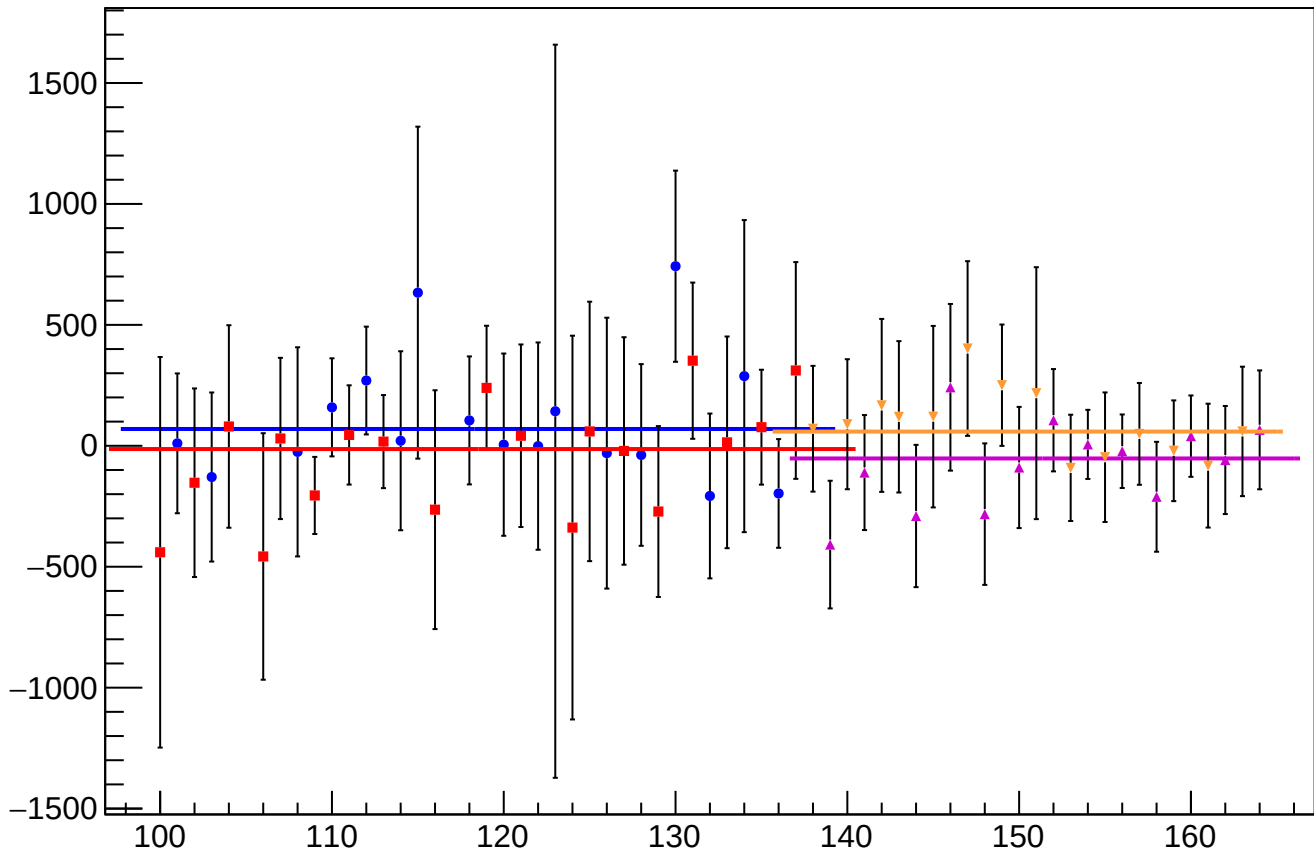
Left In: 16.706 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 32369.2/12

+ sign 17.240 $\pm$ 0.003  $\chi^2/\text{NDF}$ : 88730.0/30

All: 17.206 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 190044.3/62

- sign 17.174 $\pm$ 0.003  $\chi^2/\text{NDF}$ : 101060.2/31

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_avg\_mean vs Slug



Right In:  $69.511 \pm 80.550$   $\chi^2/\text{NDF}$ : 7.4/16

Left Out:  $58.810 \pm 72.450$   $\chi^2/\text{NDF}$ : 2.8/13

Right Out:  $-13.410 \pm 71.041$   $\chi^2/\text{NDF}$ : 6.7/18

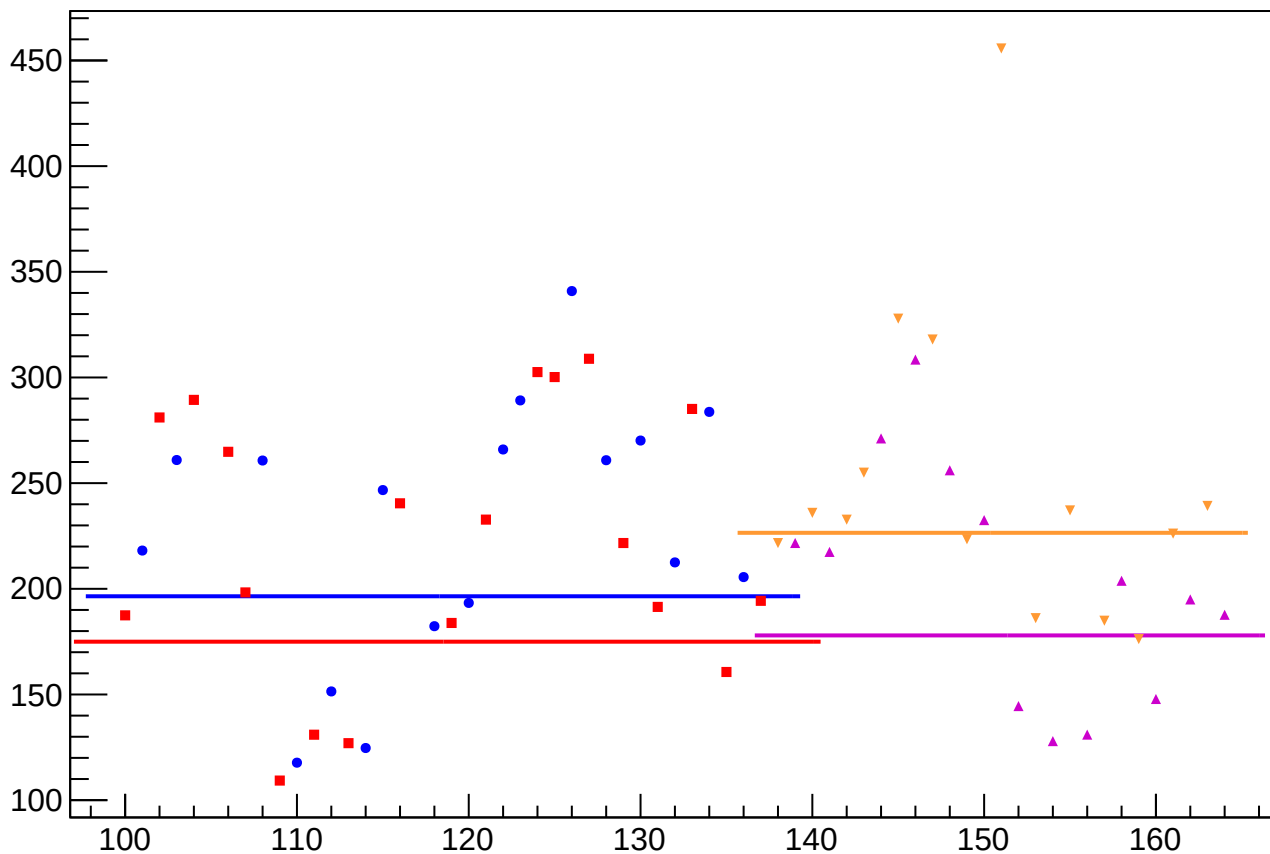
Left In:  $-52.359 \pm 59.175$   $\chi^2/\text{NDF}$ : 5.7/12

+ sign  $63.595 \pm 53.867$   $\chi^2/\text{NDF}$ : 10.2/30

All:  $5.200 \pm 34.745$   $\chi^2/\text{NDF}$ : 24.8/62

- sign  $-36.405 \pm 45.468$   $\chi^2/\text{NDF}$ : 12.6/31

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_avg\_rms vs Slug



Right In: 196.470 $\pm$ 0.057  $\chi^2$ /NDF: 964281.5/16

Left Out: 226.502 $\pm$ 0.051  $\chi^2$ /NDF: 952013.3/13

Right Out: 174.981 $\pm$ 0.050  $\chi^2$ /NDF: 1511102.3/18

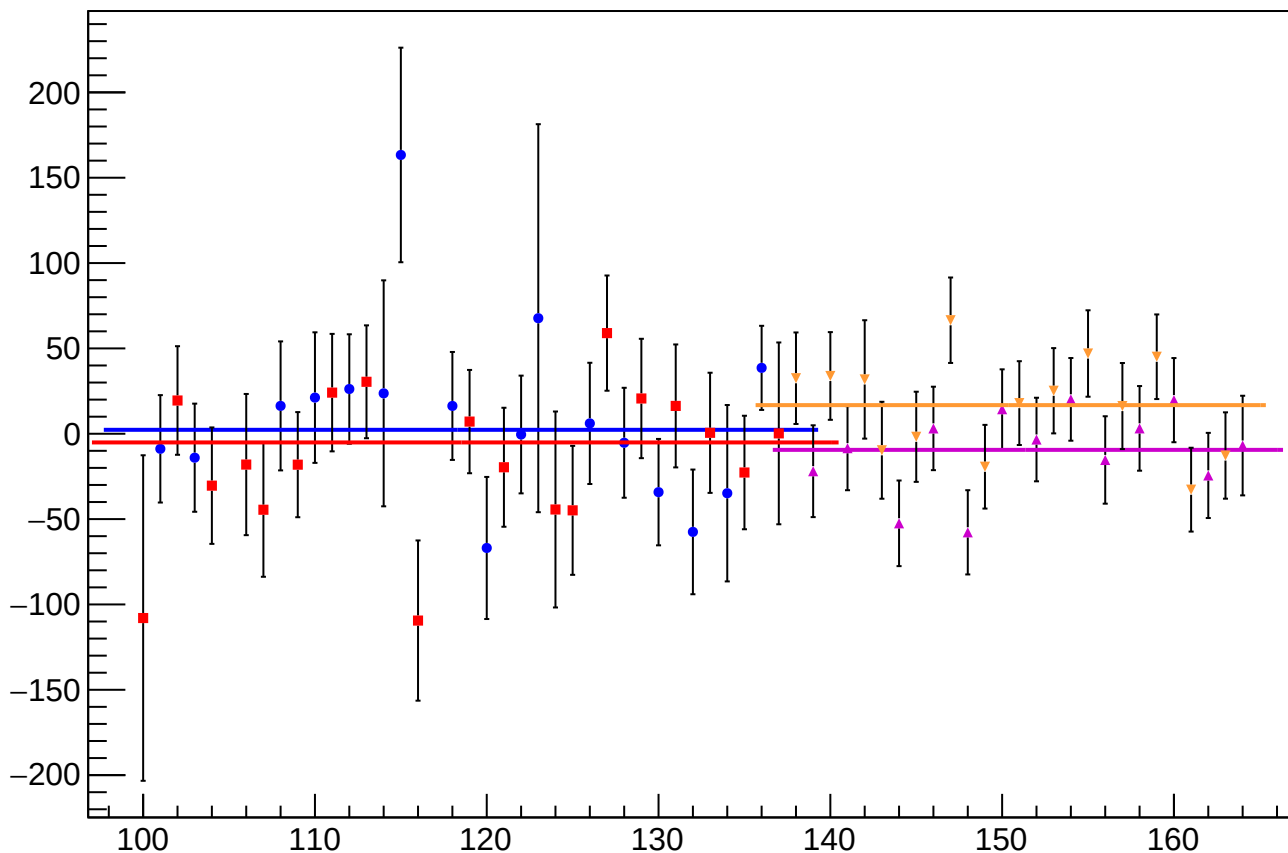
Left In: 177.948 $\pm$ 0.042  $\chi^2$ /NDF: 1425921.8/12

+ sign 213.072 $\pm$ 0.038  $\chi^2$ /NDF: 2069975.8/30

All: 191.852 $\pm$ 0.025  $\chi^2$ /NDF: 5540562.2/62

- sign 176.733 $\pm$ 0.032  $\chi^2$ /NDF: 2939084.2/31

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_dd\_mean vs Slug



Right In: 2.307 $\pm$ 8.805  $\chi^2/\text{NDF}$ : 18.1/16

Left Out: 16.771 $\pm$ 6.915  $\chi^2/\text{NDF}$ : 16.7/13

Right Out: -5.089 $\pm$ 8.479  $\chi^2/\text{NDF}$ : 17.1/18

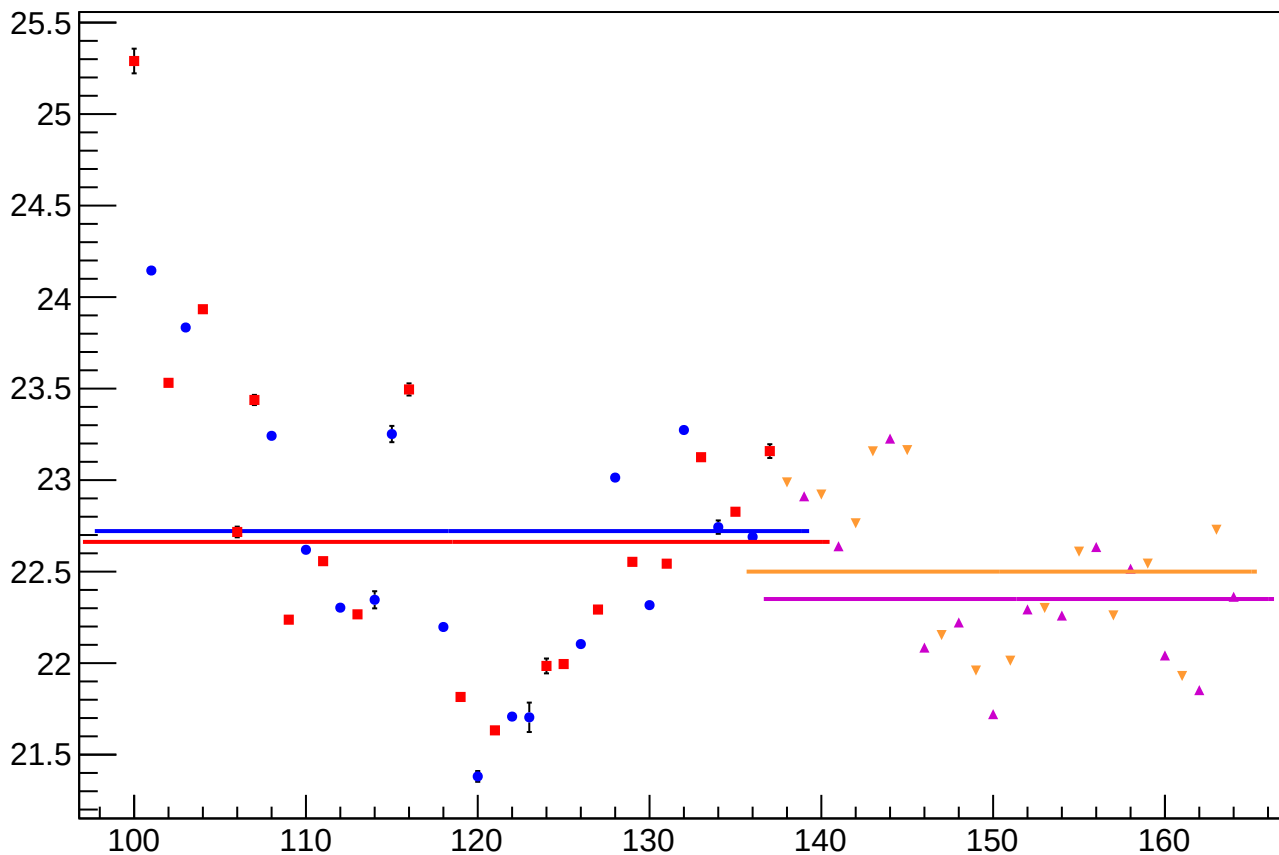
Left In: -9.437 $\pm$ 6.947  $\chi^2/\text{NDF}$ : 11.9/12

+ sign 11.253 $\pm$ 5.438  $\chi^2/\text{NDF}$ : 36.5/30

All: 1.669 $\pm$ 3.822  $\chi^2/\text{NDF}$ : 71.9/62

- sign -7.691 $\pm$ 5.374  $\chi^2/\text{NDF}$ : 29.2/31

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_dd\_rms vs Slug



Right In: 22.722 $\pm$ 0.006  $\chi^2$ /NDF: 13580.6/16

Left Out: 22.500 $\pm$ 0.005  $\chi^2$ /NDF: 7382.9/13

Right Out: 22.662 $\pm$ 0.006  $\chi^2$ /NDF: 12955.6/18

Left In: 22.350 $\pm$ 0.005  $\chi^2$ /NDF: 6812.0/12

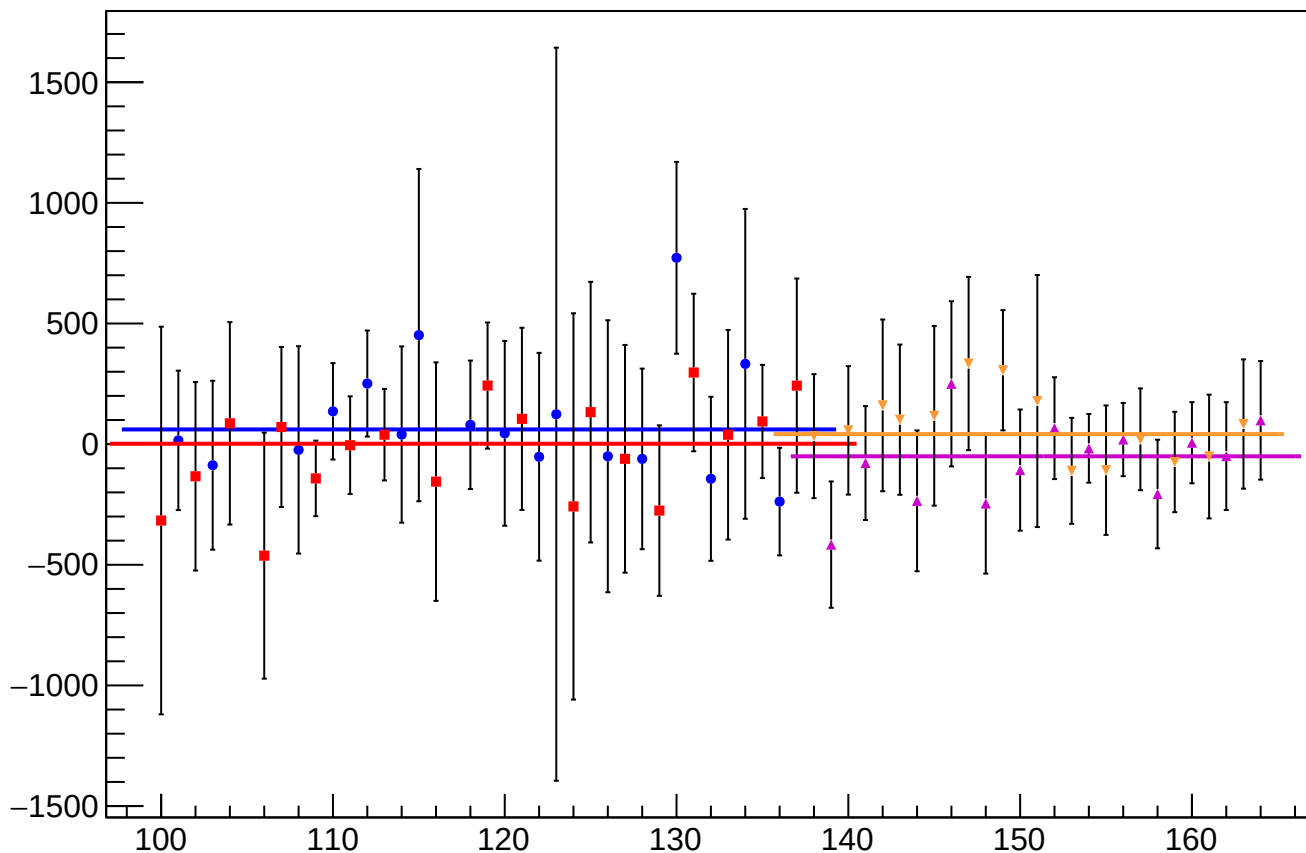
+ sign 22.585 $\pm$ 0.004  $\chi^2$ /NDF: 21745.9/30

All: 22.529 $\pm$ 0.003  $\chi^2$ /NDF: 43539.9/62

- sign 22.476 $\pm$ 0.004  $\chi^2$ /NDF: 21388.6/31



asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_avg\_mean vs Slug



Right In: 60.960 $\pm$ 80.197  $\chi^2$ /NDF: 7.2/16

Left Out: 41.656 $\pm$ 72.257  $\chi^2$ /NDF: 3.3/13

Right Out: 1.647 $\pm$ 70.549  $\chi^2$ /NDF: 5.2/18

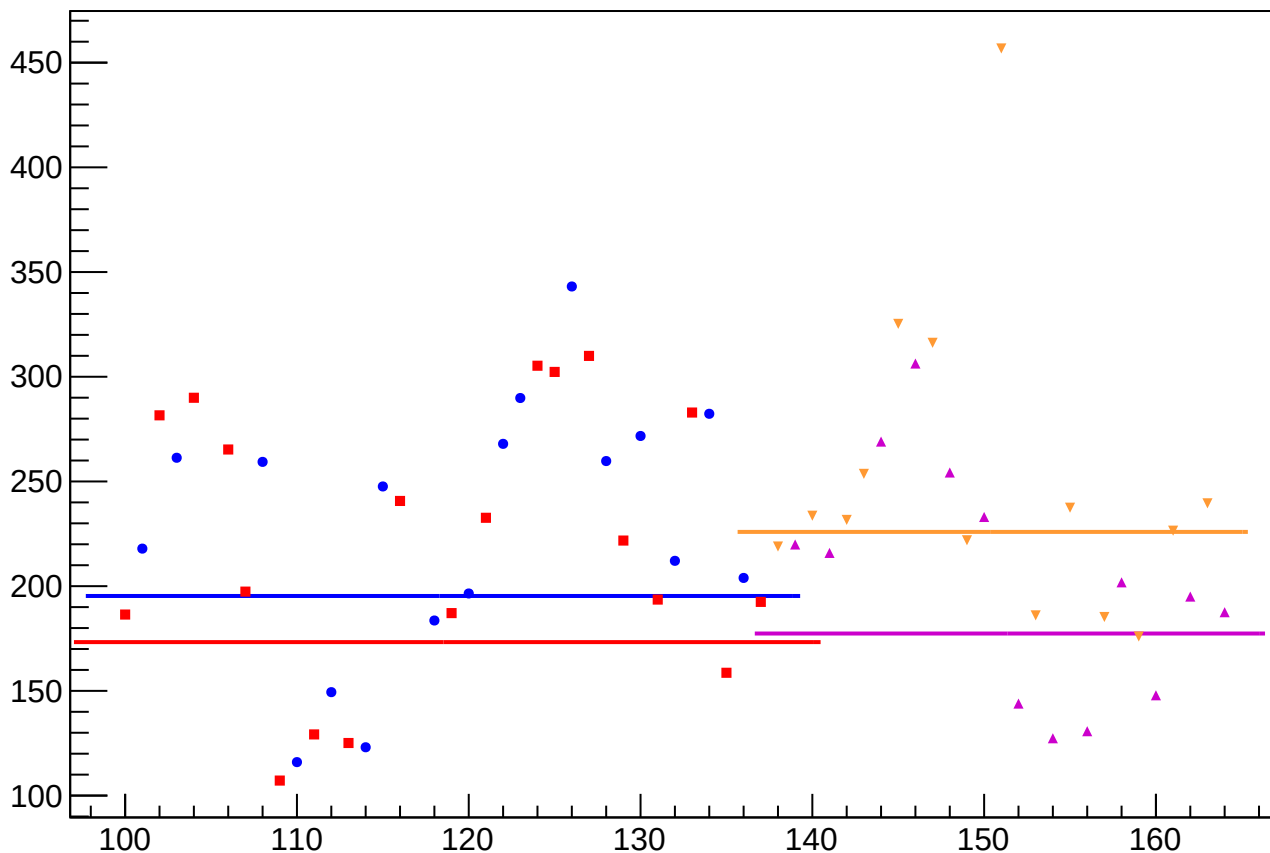
Left In: -50.397 $\pm$ 58.984  $\chi^2$ /NDF: 5.2/12

+ sign 50.305 $\pm$ 53.682  $\chi^2$ /NDF: 10.6/30

All: 3.953 $\pm$ 34.599  $\chi^2$ /NDF: 22.5/62

- sign -28.985 $\pm$ 45.252  $\chi^2$ /NDF: 10.7/31

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_avg\_rms vs Slug



Right In: 195.316 $\pm$ 0.057  $\chi^2$ /NDF: 1004211.5/16

Left Out: 225.915 $\pm$ 0.051  $\chi^2$ /NDF:943951.6/13

Right Out: 173.285 $\pm$ 0.050  $\chi^2$ /NDF: 1578382.8/18

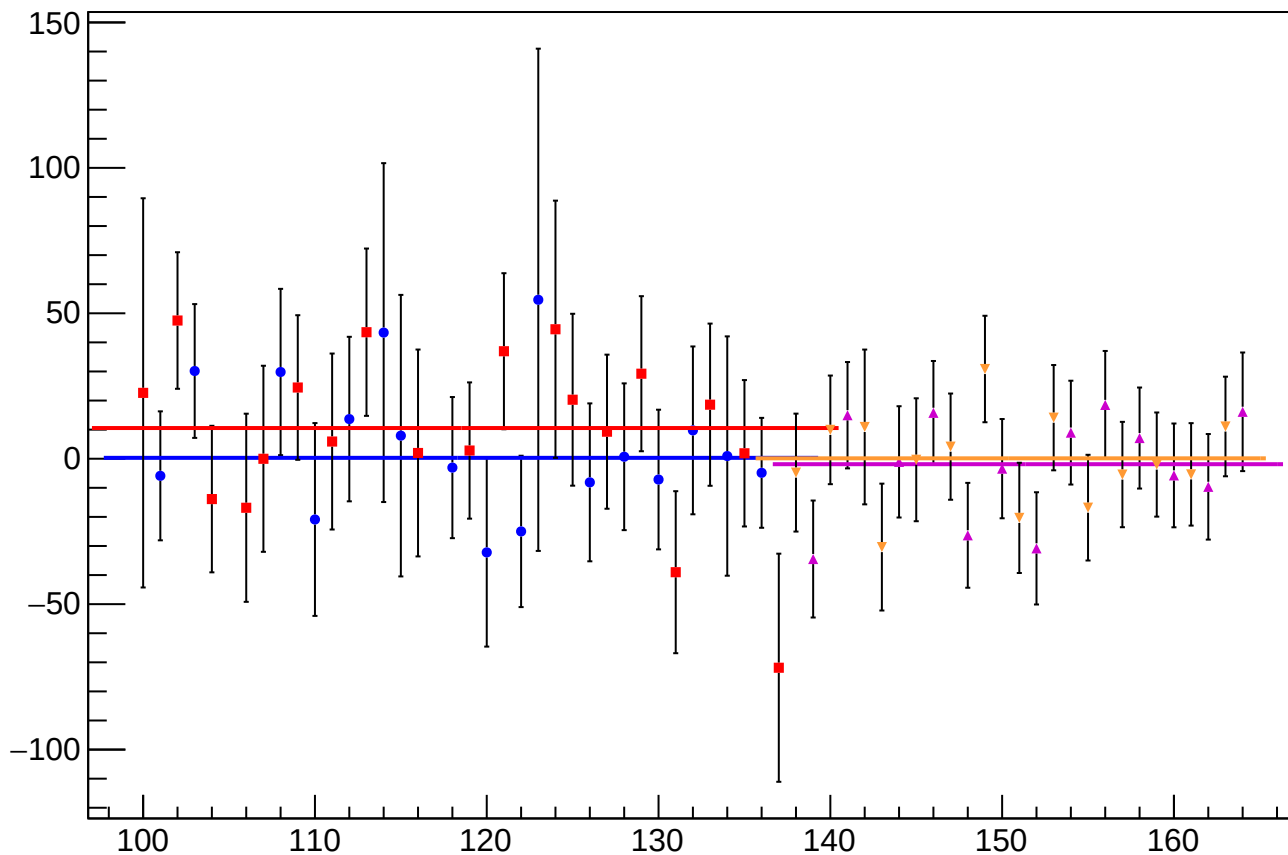
Left In: 177.388 $\pm$ 0.042  $\chi^2$ /NDF:1412591.2/12

+ sign 212.204 $\pm$ 0.038  $\chi^2$ /NDF: 2108864.0/30

All: 190.864 $\pm$ 0.024  $\chi^2$ /NDF: 5644486.3/62

- sign 175.700 $\pm$ 0.032  $\chi^2$ /NDF: 2994954.6/31

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_dd\_mean vs Slug



Right In:  $0.305 \pm 6.812$   $\chi^2/\text{NDF}$ : 6.8/16

Left Out:  $0.137 \pm 5.083$   $\chi^2/\text{NDF}$ : 8.6/13

Right Out:  $10.553 \pm 6.628$   $\chi^2/\text{NDF}$ : 16.0/18

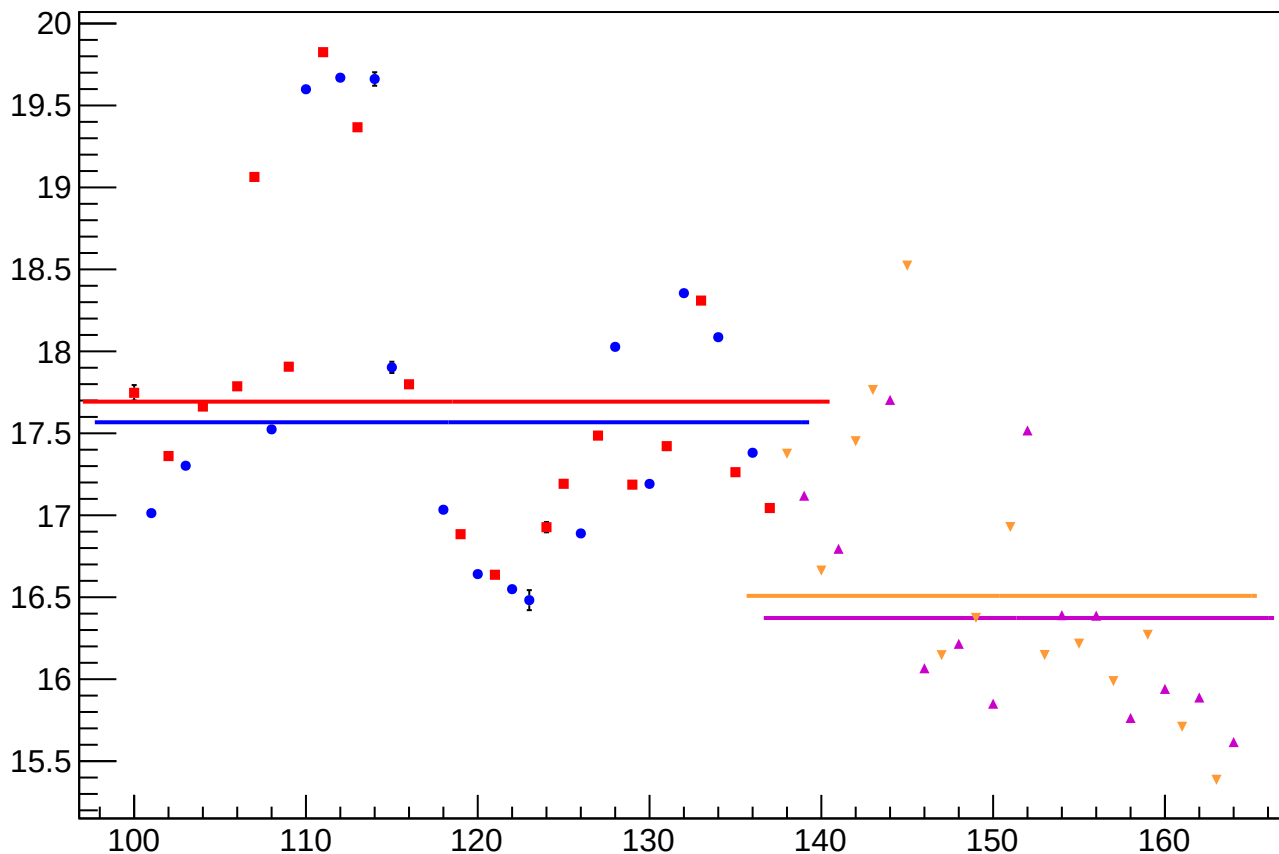
Left In:  $-1.881 \pm 5.097$   $\chi^2/\text{NDF}$ : 11.4/12

+ sign  $0.197 \pm 4.074$   $\chi^2/\text{NDF}$ : 15.3/30

All:  $1.479 \pm 2.869$   $\chi^2/\text{NDF}$ : 45.2/62

- sign  $2.740 \pm 4.041$   $\chi^2/\text{NDF}$ : 29.7/31

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_dd\_rms vs Slug



Right In:  $17.567 \pm 0.005$   $\chi^2/\text{NDF}$ : 33145.0/16

Left Out:  $16.508 \pm 0.004$   $\chi^2/\text{NDF}$ : 49005.6/13

Right Out:  $17.693 \pm 0.005$   $\chi^2/\text{NDF}$ : 30767.1/18

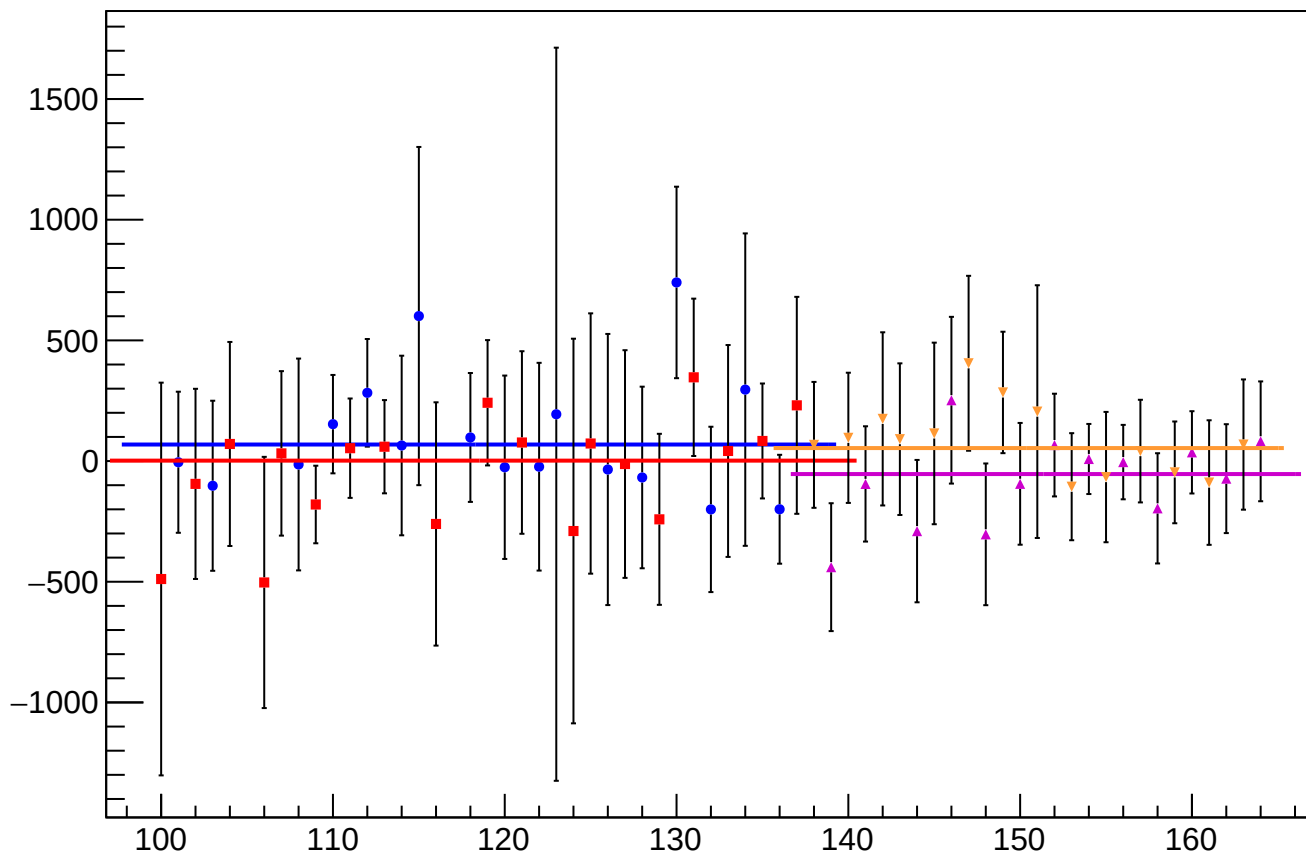
Left In:  $16.373 \pm 0.004$   $\chi^2/\text{NDF}$ : 30979.0/12

+ sign  $16.887 \pm 0.003$   $\chi^2/\text{NDF}$ : 113194.6/30

All:  $16.875 \pm 0.002$   $\chi^2/\text{NDF}$ : 224815.1/62

- sign  $16.864 \pm 0.003$   $\chi^2/\text{NDF}$ : 111587.5/31

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_avg\_mean vs Slug



Right In: 68.553 $\pm$ 81.018  $\chi^2$ /NDF: 7.3/16

Left Out: 53.839 $\pm$ 72.950  $\chi^2$ /NDF: 3.3/13

Right Out: 1.831 $\pm$ 71.538  $\chi^2$ /NDF: 6.1/18

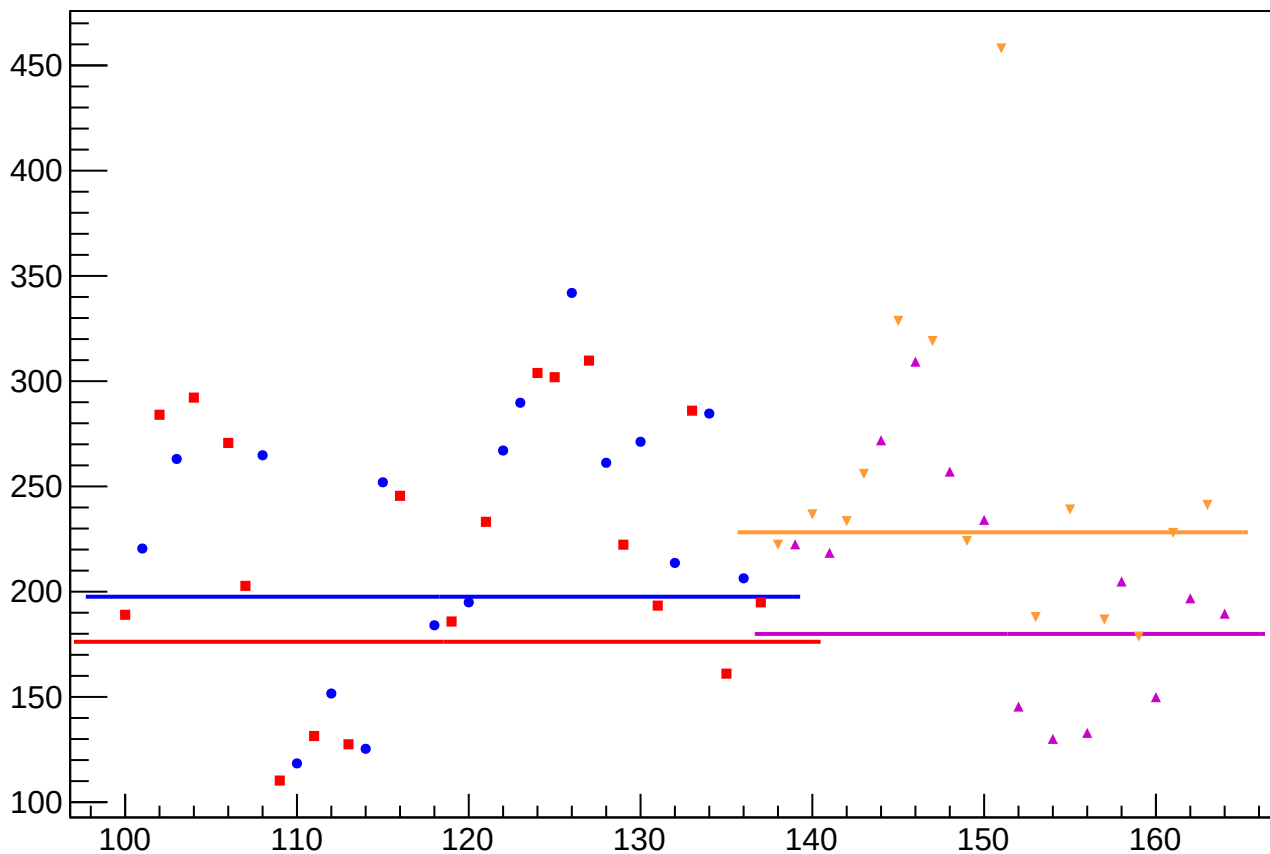
Left In: -53.825 $\pm$ 59.757  $\chi^2$ /NDF: 5.9/12

+ sign 60.427 $\pm$ 54.212  $\chi^2$ /NDF: 10.6/30

All: 7.166 $\pm$ 35.013  $\chi^2$ /NDF: 24.7/62

- sign -30.951 $\pm$ 45.862  $\chi^2$ /NDF: 12.4/31

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_avg\_rms vs Slug



Right In: 197.603 $\pm$ 0.057  $\chi^2$ /NDF: 968827.8/16

Left Out: 228.211 $\pm$ 0.052  $\chi^2$ /NDF: 933724.1/13

Right Out: 176.201 $\pm$ 0.051  $\chi^2$ /NDF: 1519832.7/18

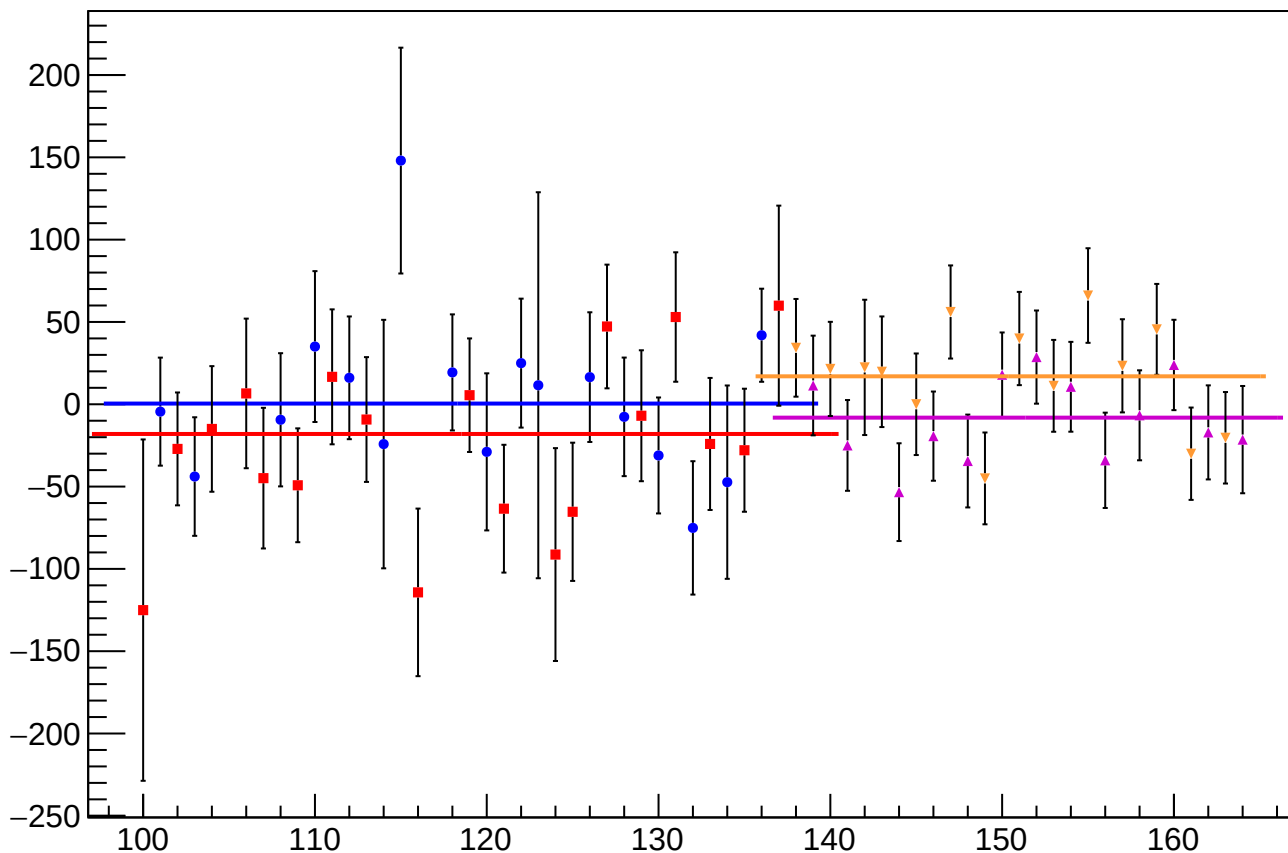
Left In: 179.933 $\pm$ 0.042  $\chi^2$ /NDF: 1383356.1/12

+ sign 214.507 $\pm$ 0.038  $\chi^2$ /NDF: 2060190.0/30

All: 193.461 $\pm$ 0.025  $\chi^2$ /NDF: 5483719.4/62

- sign 178.399 $\pm$ 0.032  $\chi^2$ /NDF: 2906393.8/31

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_dd\_mean vs Slug



Right In:  $0.427 \pm 9.884$   $\chi^2/\text{NDF}$ : 15.5/16

Left Out:  $16.981 \pm 7.834$   $\chi^2/\text{NDF}$ : 16.9/13

Right Out:  $-18.044 \pm 9.499$   $\chi^2/\text{NDF}$ : 19.5/18

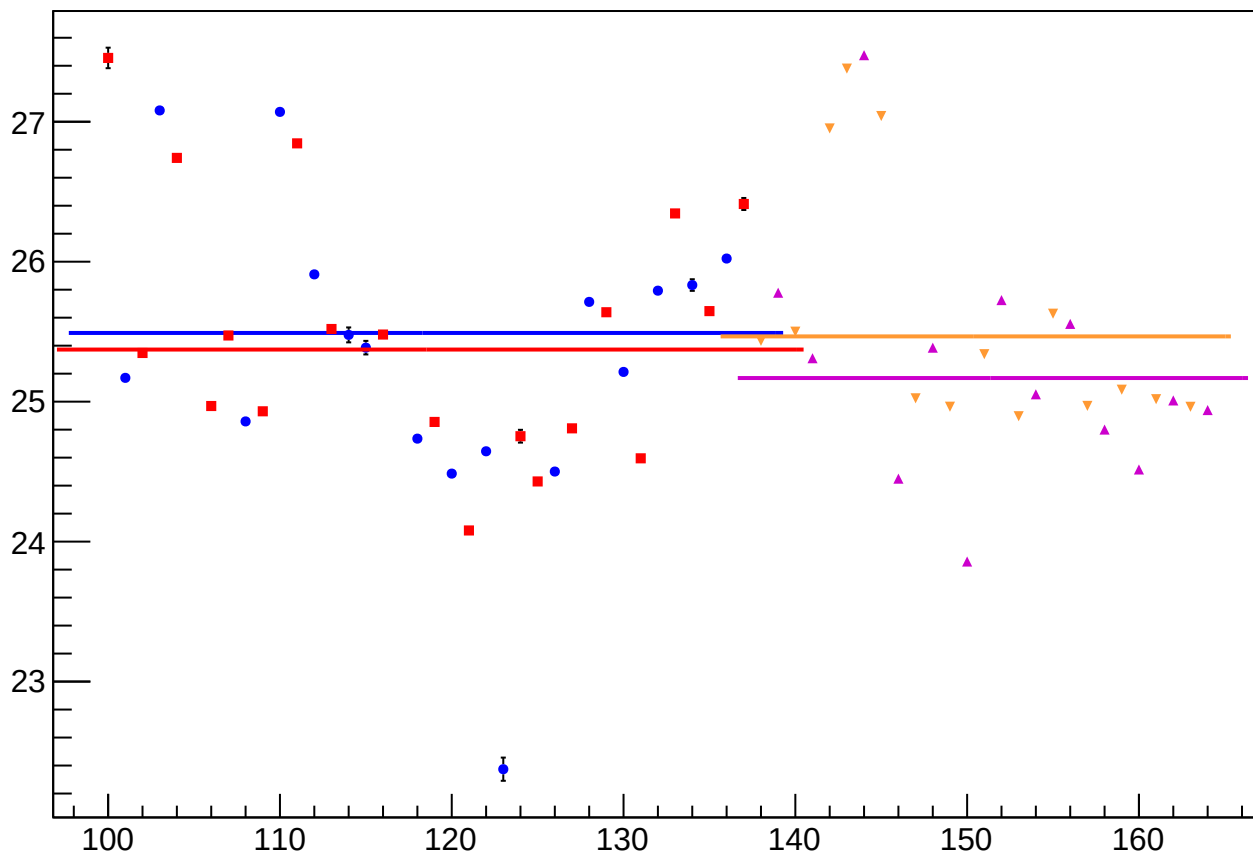
Left In:  $-8.128 \pm 7.833$   $\chi^2/\text{NDF}$ : 9.8/12

+ sign  $10.594 \pm 6.140$   $\chi^2/\text{NDF}$ : 34.1/30

All:  $-0.954 \pm 4.307$   $\chi^2/\text{NDF}$ : 70.9/62

- sign  $-12.142 \pm 6.043$   $\chi^2/\text{NDF}$ : 29.9/31

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_dd\_rms vs Slug



Right In: 25.491 $\pm$ 0.007  $\chi^2$ /NDF: 13713.0/16

Left Out: 25.466 $\pm$ 0.006  $\chi^2$ /NDF:18558.0/13

Right Out: 25.372 $\pm$ 0.007  $\chi^2$ /NDF: 13550.5/18

Left In: 25.169 $\pm$ 0.006  $\chi^2$ /NDF:22501.3/12

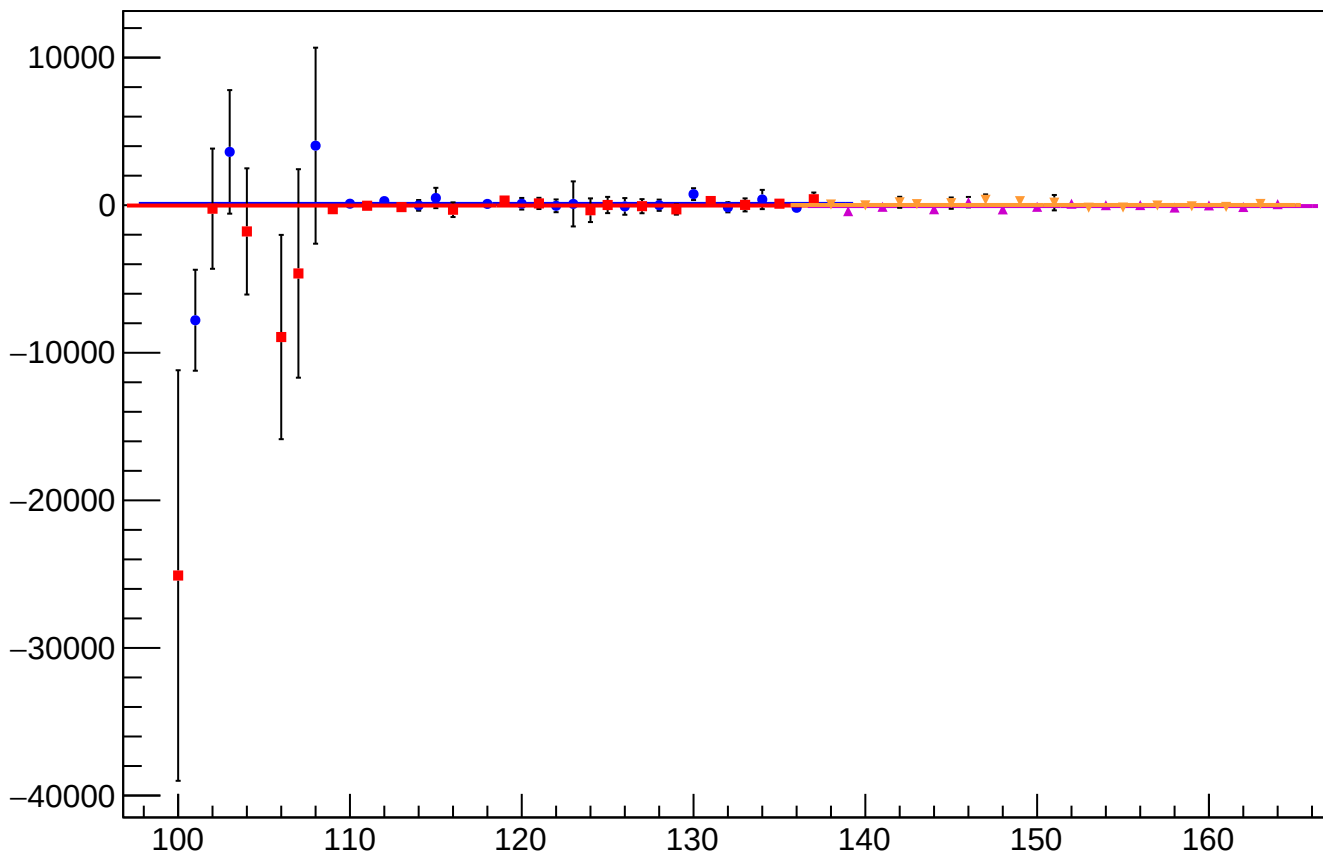
+ sign 25.476 $\pm$ 0.004  $\chi^2$ /NDF: 32278.7/30

All: 25.362 $\pm$ 0.003  $\chi^2$ /NDF: 70236.2/62

- sign 25.251 $\pm$ 0.004  $\chi^2$ /NDF: 36598.0/31



asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_avg\_mean vs Slug



Right In: 86.558 $\pm$ 88.423  $\chi^2$ /NDF: 12.5/16

Left Out: 15.121 $\pm$ 73.963  $\chi^2$ /NDF: 4.0/13

Right Out: -23.352 $\pm$ 80.948  $\chi^2$ /NDF: 11.9/18

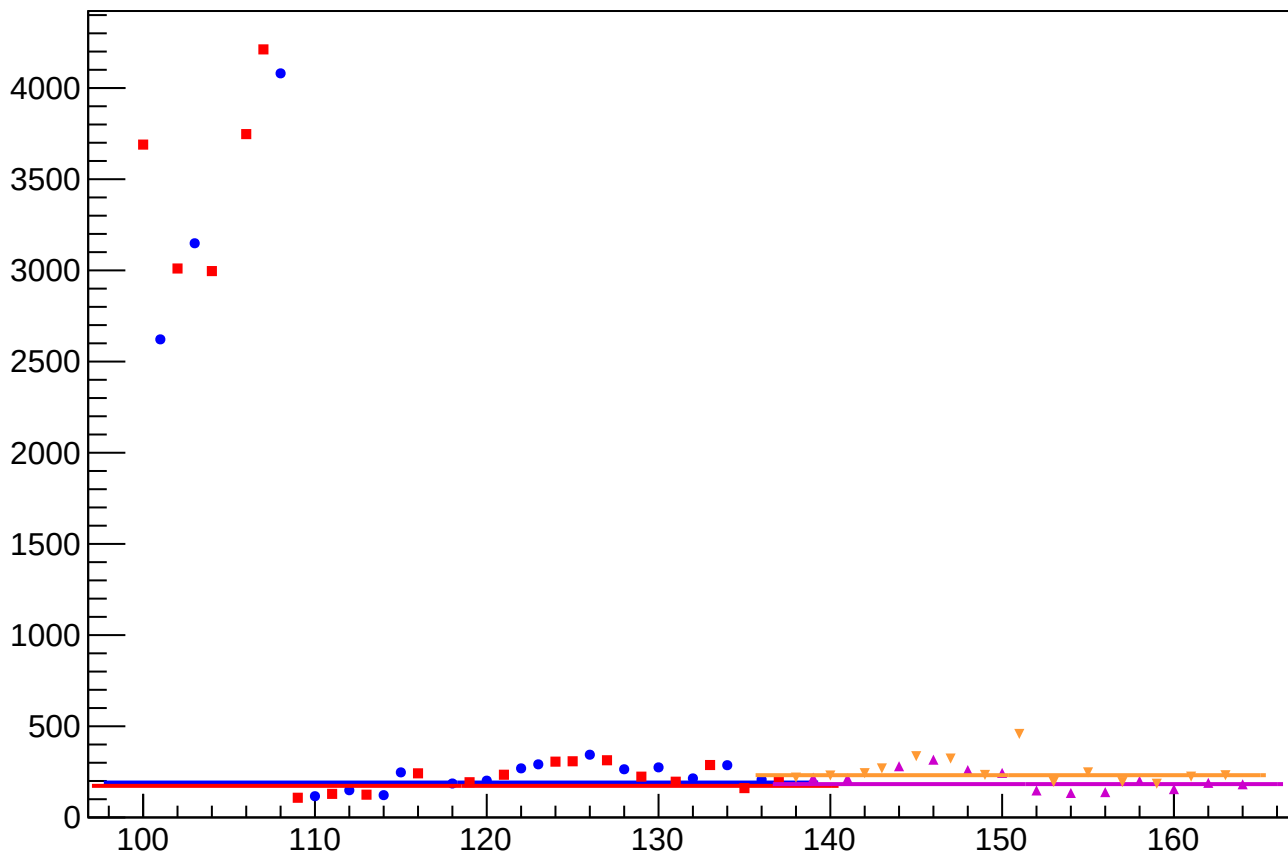
Left In: -59.876 $\pm$ 60.549  $\chi^2$ /NDF: 5.0/12

+ sign 44.528 $\pm$ 56.732  $\chi^2$ /NDF: 16.8/30

All: -8.235 $\pm$ 36.859  $\chi^2$ /NDF: 35.4/62

- sign -46.772 $\pm$ 48.486  $\chi^2$ /NDF: 17.0/31

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_avg\_rms vs Slug



Right In: 191.478+/-0.063  $\chi^2/\text{NDF}$ : 3573154.3/16

Left Out: 231.776+/-0.052  $\chi^2/\text{NDF}$ : 893371.9/13

Right Out: 173.297+/-0.057  $\chi^2/\text{NDF}$ : 4207424.0/18

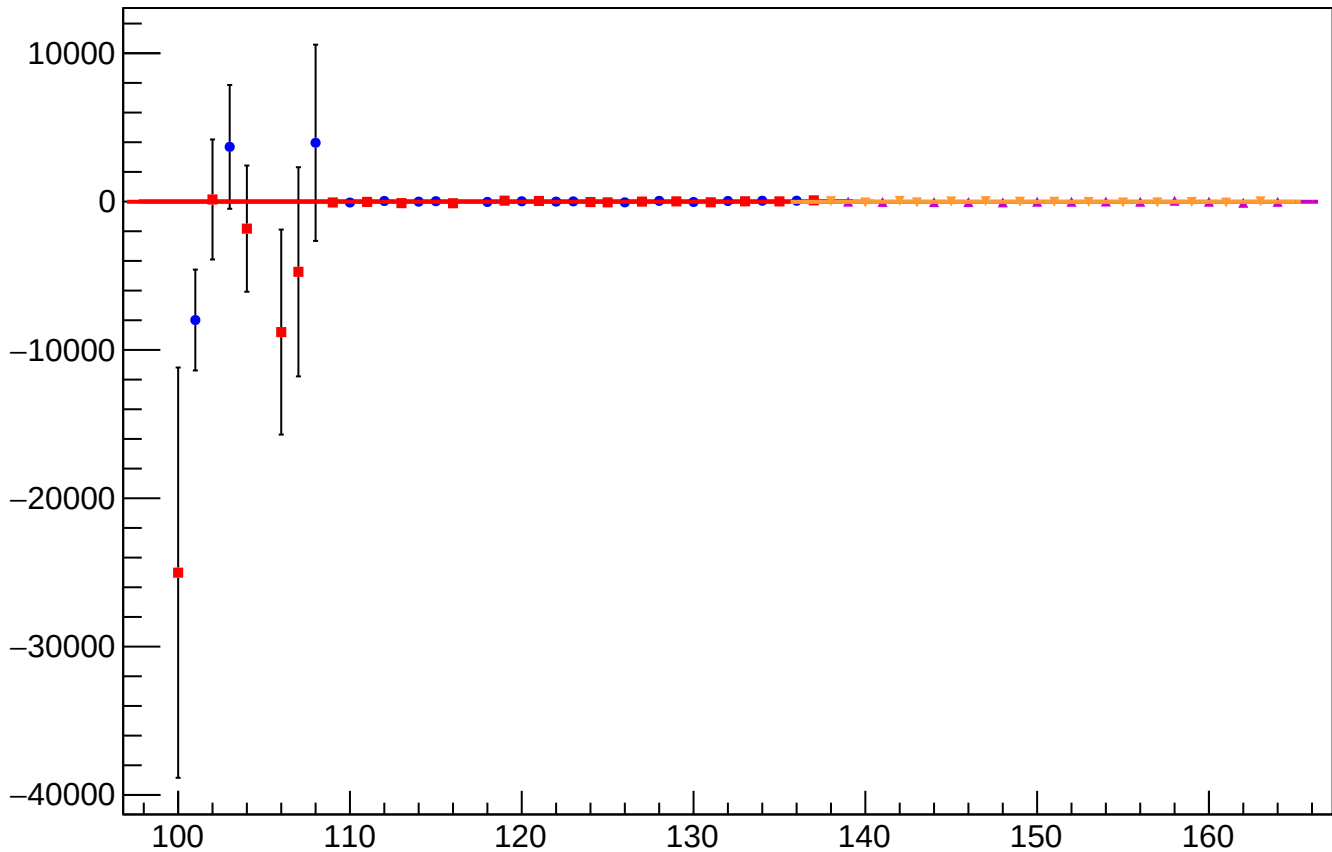
Left In: 182.884+/-0.043  $\chi^2/\text{NDF}$ : 1283722.5/12

+ sign 215.187+/-0.040  $\chi^2/\text{NDF}$ : 4710920.2/30

All: 194.531+/-0.026  $\chi^2/\text{NDF}$ : 10678820.2/62

- sign 179.444+/-0.034  $\chi^2/\text{NDF}$ : 5509131.9/31

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_dd\_mean vs Slug



Right In: 10.286+/-12.282  $\chi^2/\text{NDF}$ : 18.4/16

Left Out: -20.515+/-9.078  $\chi^2/\text{NDF}$ : 15.8/13

Right Out: -12.668+/-12.232  $\chi^2/\text{NDF}$ : 24.8/18

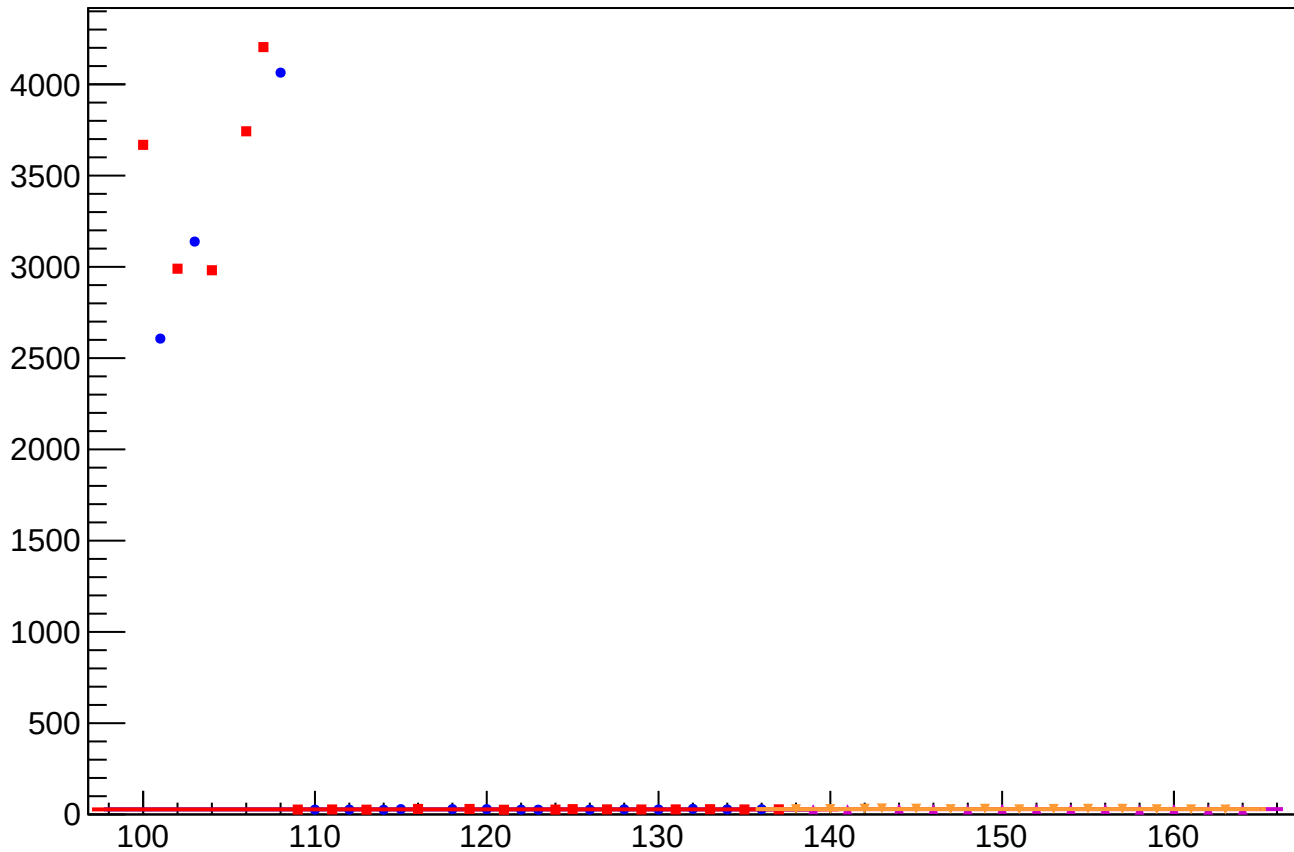
Left In: -13.560+/-9.111  $\chi^2/\text{NDF}$ : 13.7/12

+ sign -9.633+/-7.300  $\chi^2/\text{NDF}$ : 38.2/30

All: -11.436+/-5.164  $\chi^2/\text{NDF}$ : 76.9/62

- sign -13.242+/-7.307  $\chi^2/\text{NDF}$ : 38.5/31

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_dd\_rms vs Slug



Right In: 27.855+/-0.009  $\chi^2/\text{NDF}$ : 3027666.8/16

Left Out: 29.458+/-0.006  $\chi^2/\text{NDF}$ : 58753.9/13

Right Out: 27.695+/-0.009  $\chi^2/\text{NDF}$ : 3476852.9/18

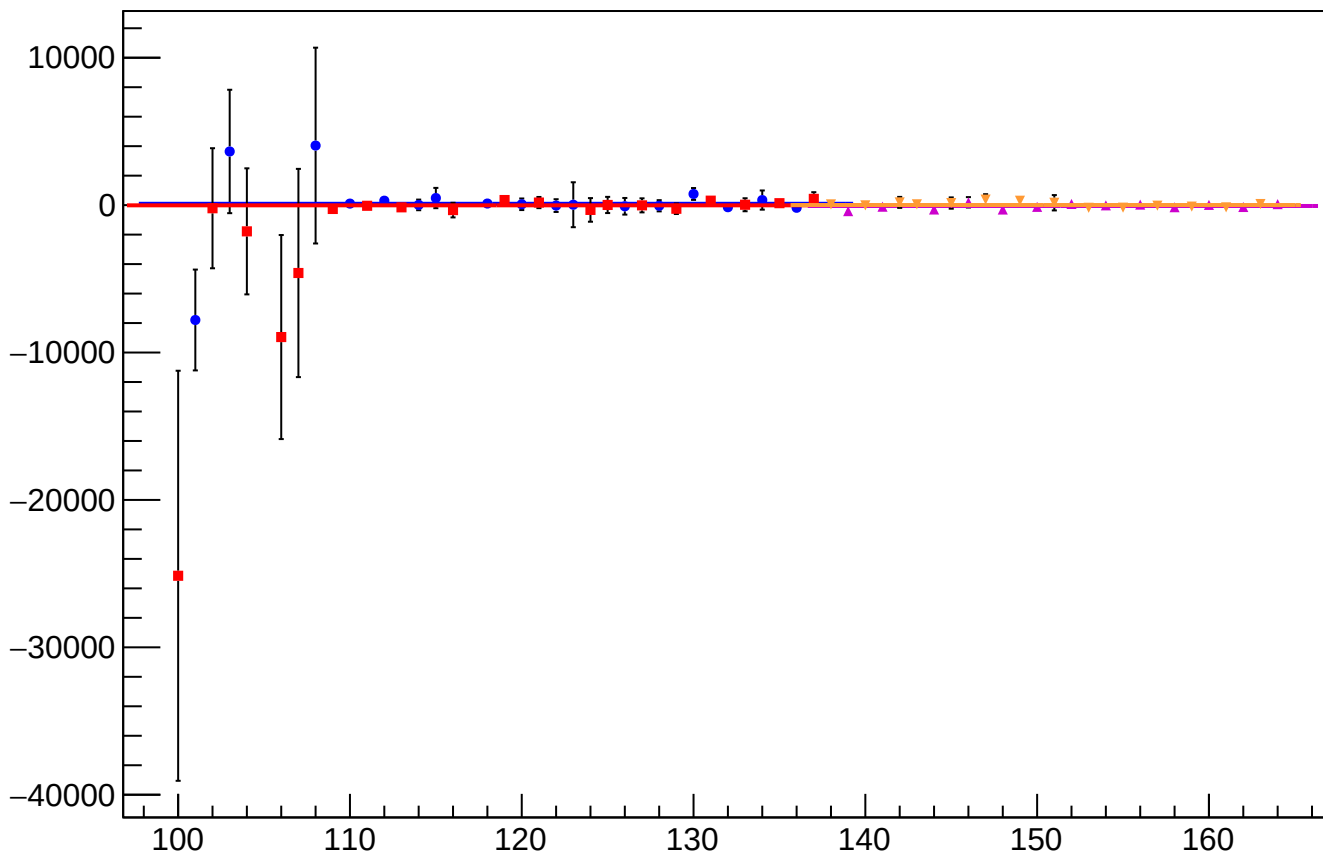
Left In: 29.190+/-0.006  $\chi^2/\text{NDF}$ : 93652.2/12

+ sign 28.891+/-0.005  $\chi^2/\text{NDF}$ : 3108455.5/30

All: 28.774+/-0.004  $\chi^2/\text{NDF}$ : 6699221.6/62

- sign 28.657+/-0.005  $\chi^2/\text{NDF}$ : 3589732.6/31

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_avg\_mean vs Slug



Right In: 90.773+/-88.149  $\chi^2/\text{NDF}$ : 12.8/16

Left Out: 7.101+/-73.800  $\chi^2/\text{NDF}$ : 4.6/13

Right Out: -13.341+/-80.686  $\chi^2/\text{NDF}$ : 12.7/18

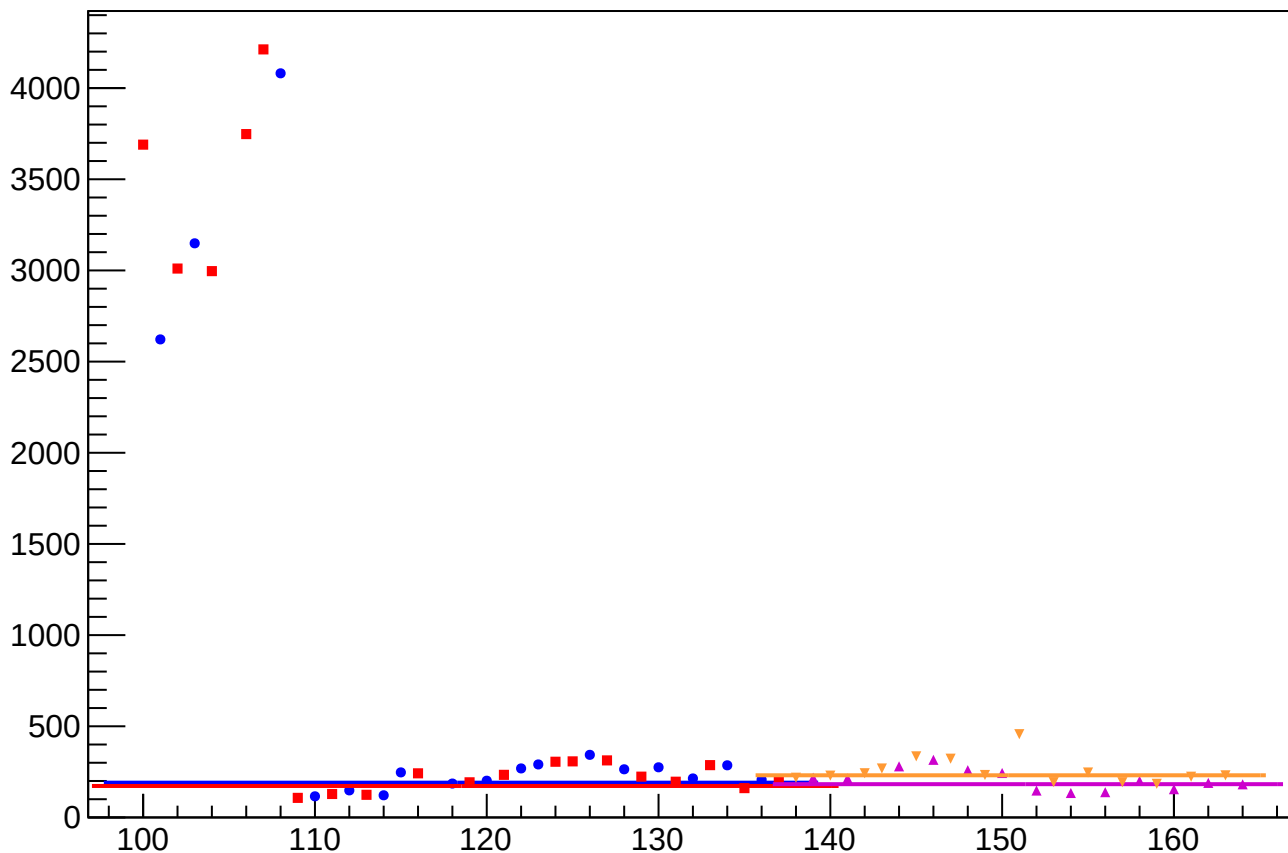
Left In: -58.008+/-60.433  $\chi^2/\text{NDF}$ : 5.2/12

+ sign 41.582+/-56.586  $\chi^2/\text{NDF}$ : 17.9/30

All: -6.687+/-36.768  $\chi^2/\text{NDF}$ : 37.2/62

- sign -41.956+/-48.370  $\chi^2/\text{NDF}$ : 18.1/31

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_avg\_rms vs Slug



Right In: 190.770+/-0.062  $\chi^2/\text{NDF}$ : 3585034.0/16

Left Out: 231.267+/-0.052  $\chi^2/\text{NDF}$ : 893373.2/13

Right Out: 172.629+/-0.057  $\chi^2/\text{NDF}$ : 4218625.1/18

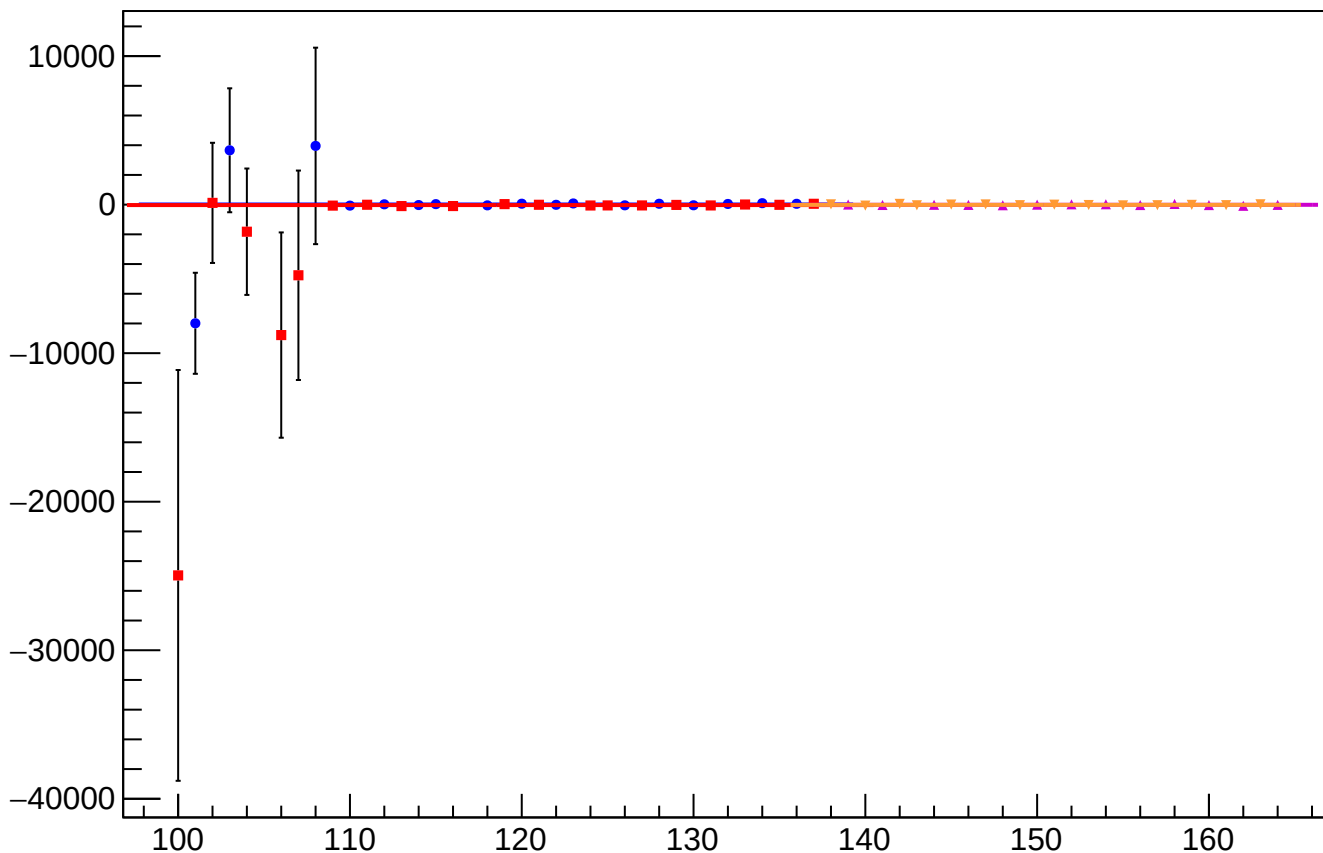
Left In: 182.535+/-0.043  $\chi^2/\text{NDF}$ : 1283957.3/12

+ sign 214.578+/-0.040  $\chi^2/\text{NDF}$ : 4726586.2/30

All: 194.007+/-0.026  $\chi^2/\text{NDF}$ : 10705954.5/62

- sign 178.975+/-0.034  $\chi^2/\text{NDF}$ : 5521894.5/31

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_dd\_mean vs Slug



Right In: 8.600 $\pm$ 12.368  $\chi^2/\text{NDF}$ : 23.2/16

Left Out: -14.981 $\pm$ 9.156  $\chi^2/\text{NDF}$ : 10.7/13

Right Out: -29.397 $\pm$ 12.333  $\chi^2/\text{NDF}$ : 16.8/18

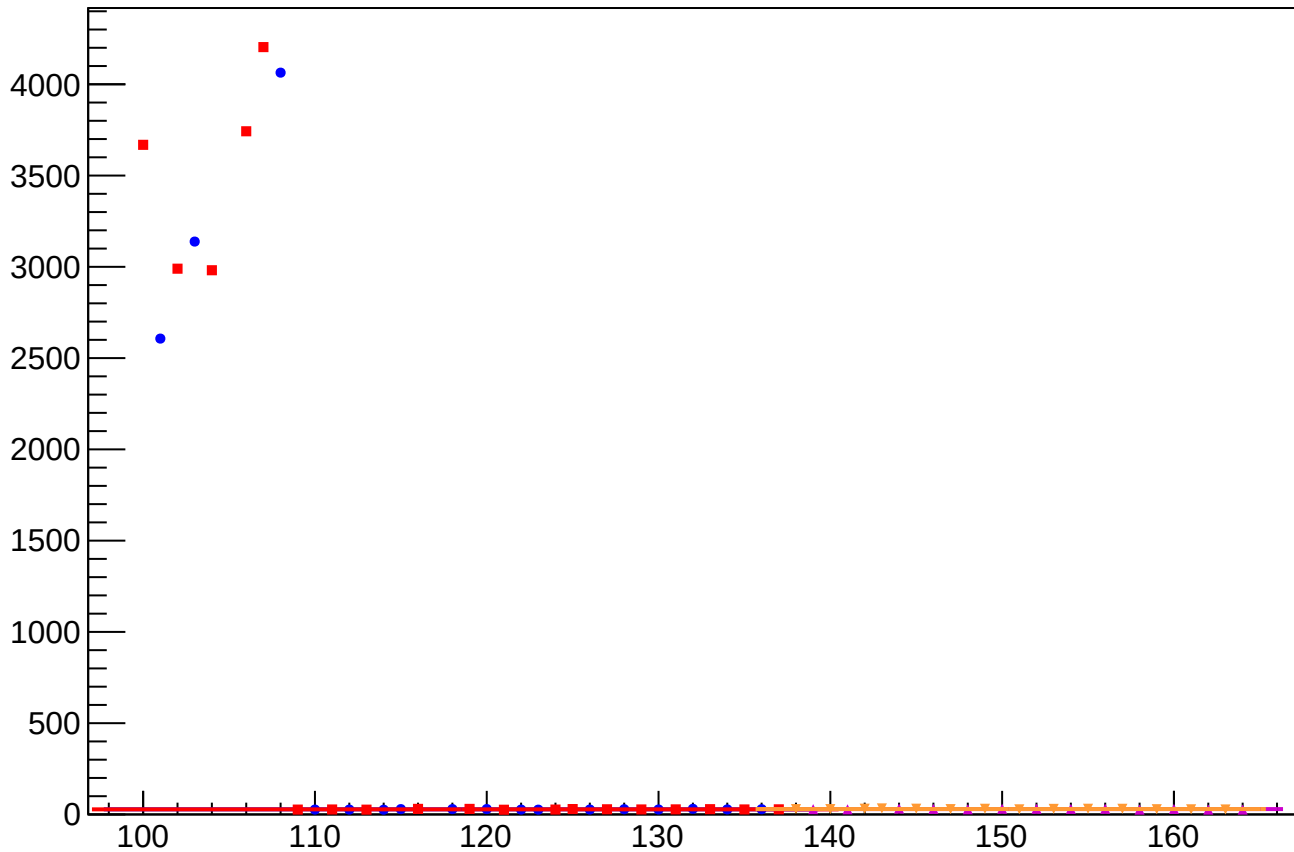
Left In: -11.310 $\pm$ 9.175  $\chi^2/\text{NDF}$ : 12.6/12

+ sign -6.633 $\pm$ 7.359  $\chi^2/\text{NDF}$ : 36.3/30

All: -12.191 $\pm$ 5.204  $\chi^2/\text{NDF}$ : 68.3/62

- sign -17.753 $\pm$ 7.361  $\chi^2/\text{NDF}$ : 30.8/31

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_dd\_rms vs Slug



Right In: 28.044+/-0.009  $\chi^2/\text{NDF}$ : 3027898.7/16

Left Out: 29.708+/-0.006  $\chi^2/\text{NDF}$ : 58812.7/13

Right Out: 27.918+/-0.009  $\chi^2/\text{NDF}$ : 3479690.8/18

Left In: 29.400+/-0.006  $\chi^2/\text{NDF}$ : 91679.6/12

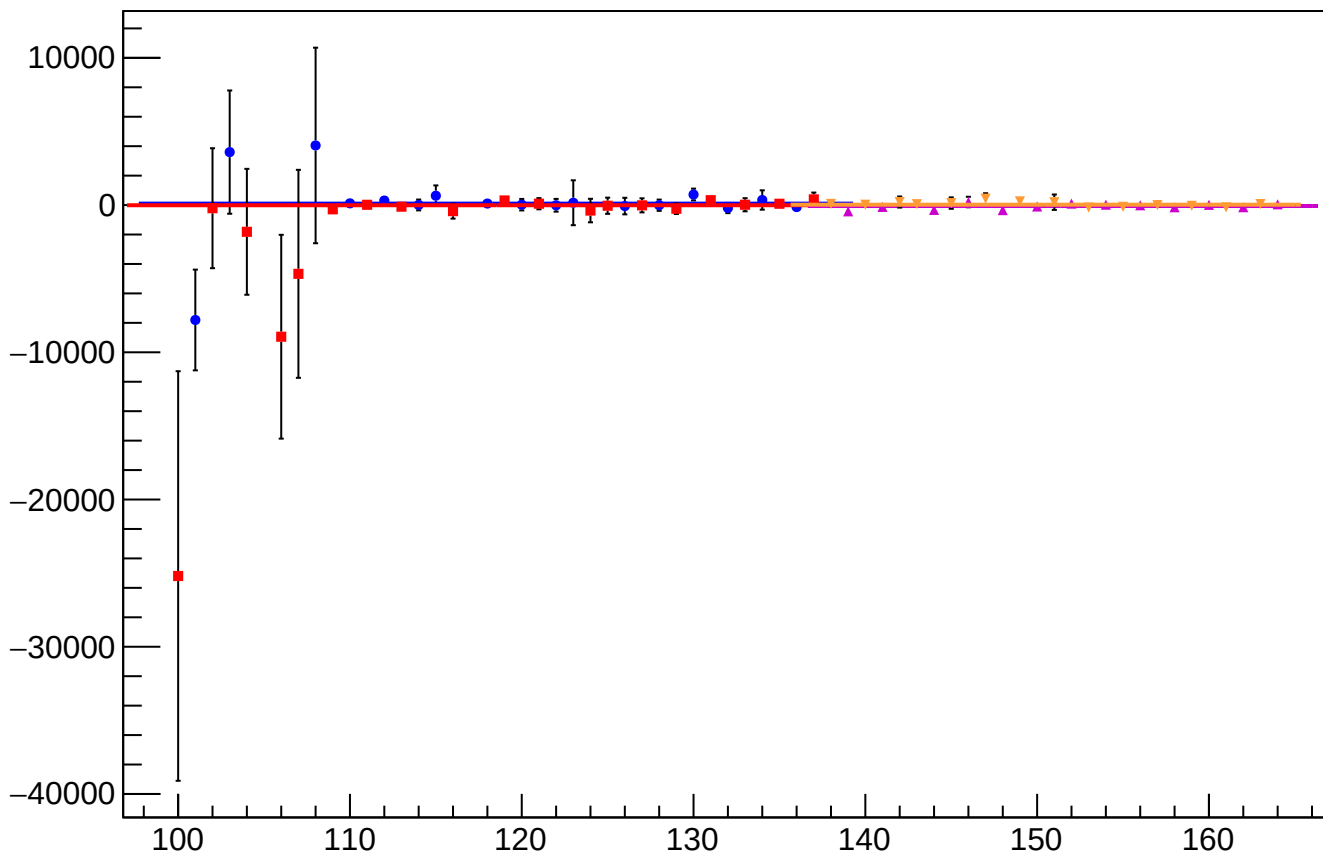
+ sign 29.119+/-0.005  $\chi^2/\text{NDF}$ : 3110109.8/30

All: 28.996+/-0.004  $\chi^2/\text{NDF}$ : 6701200.9/62

- sign 28.872+/-0.005  $\chi^2/\text{NDF}$ : 3589964.7/31



asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_avg\_mean vs Slug



Right In: 98.142 $\pm$ 89.203  $\chi^2$ /NDF: 12.5/16

Left Out: 26.742 $\pm$ 74.656  $\chi^2$ /NDF: 4.1/13

Right Out: -11.728 $\pm$ 81.772  $\chi^2$ /NDF: 12.3/18

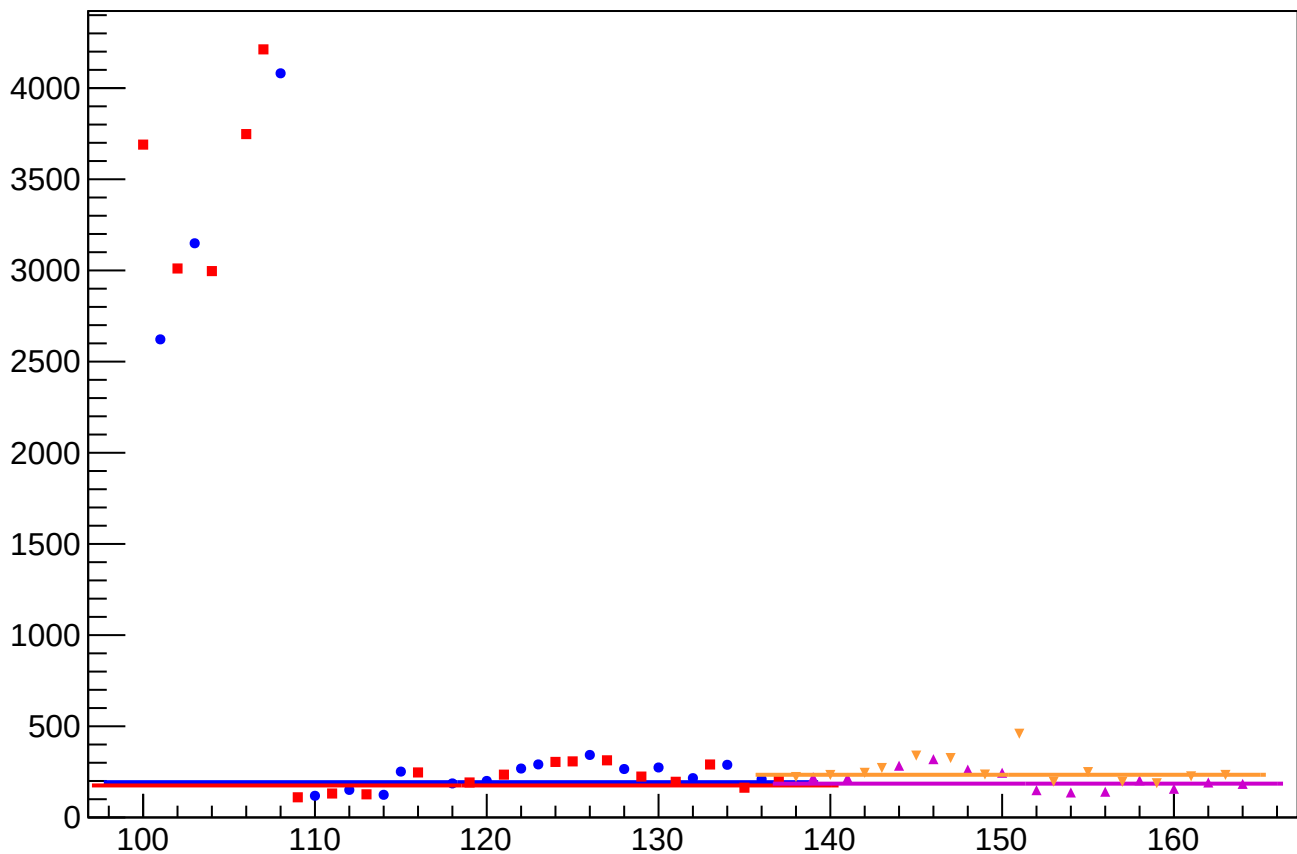
Left In: -63.796 $\pm$ 61.317  $\chi^2$ /NDF: 5.9/12

+ sign 56.153 $\pm$ 57.251  $\chi^2$ /NDF: 17.0/30

All: -2.206 $\pm$ 37.252  $\chi^2$ /NDF: 37.2/62

- sign -45.056 $\pm$ 49.057  $\chi^2$ /NDF: 18.4/31

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_avg\_rms vs Slug



Right In: 193.516+/-0.063  $\chi^2/\text{NDF}$ : 3536947.8/16

Left Out: 234.070+/-0.053  $\chi^2/\text{NDF}$ : 883895.4/13

Right Out: 175.509+/-0.058  $\chi^2/\text{NDF}$ : 4165575.9/18

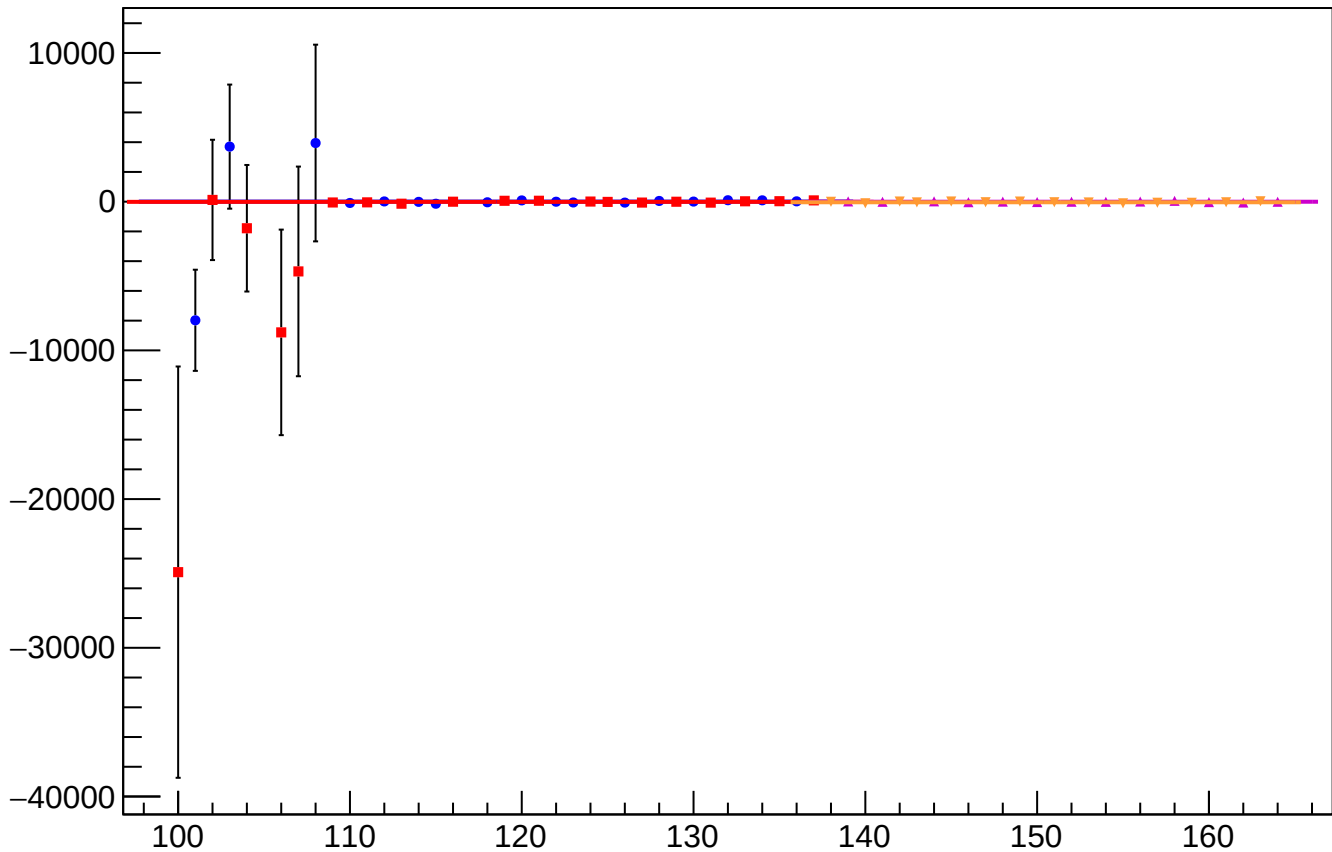
Left In: 185.410+/-0.043  $\chi^2/\text{NDF}$ : 1258368.4/12

+ sign 217.366+/-0.040  $\chi^2/\text{NDF}$ : 4663940.0/30

All: 196.885+/-0.026  $\chi^2/\text{NDF}$ : 10550537.8/62

- sign 181.847+/-0.035  $\chi^2/\text{NDF}$ : 5442710.7/31

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_dd\_mean vs Slug



Right In:  $5.565 \pm 15.052$   $\chi^2/\text{NDF}$ : 20.4/16

Left Out:  $-39.146 \pm 10.788$   $\chi^2/\text{NDF}$ : 15.2/13

Right Out:  $-12.158 \pm 14.952$   $\chi^2/\text{NDF}$ : 21.9/18

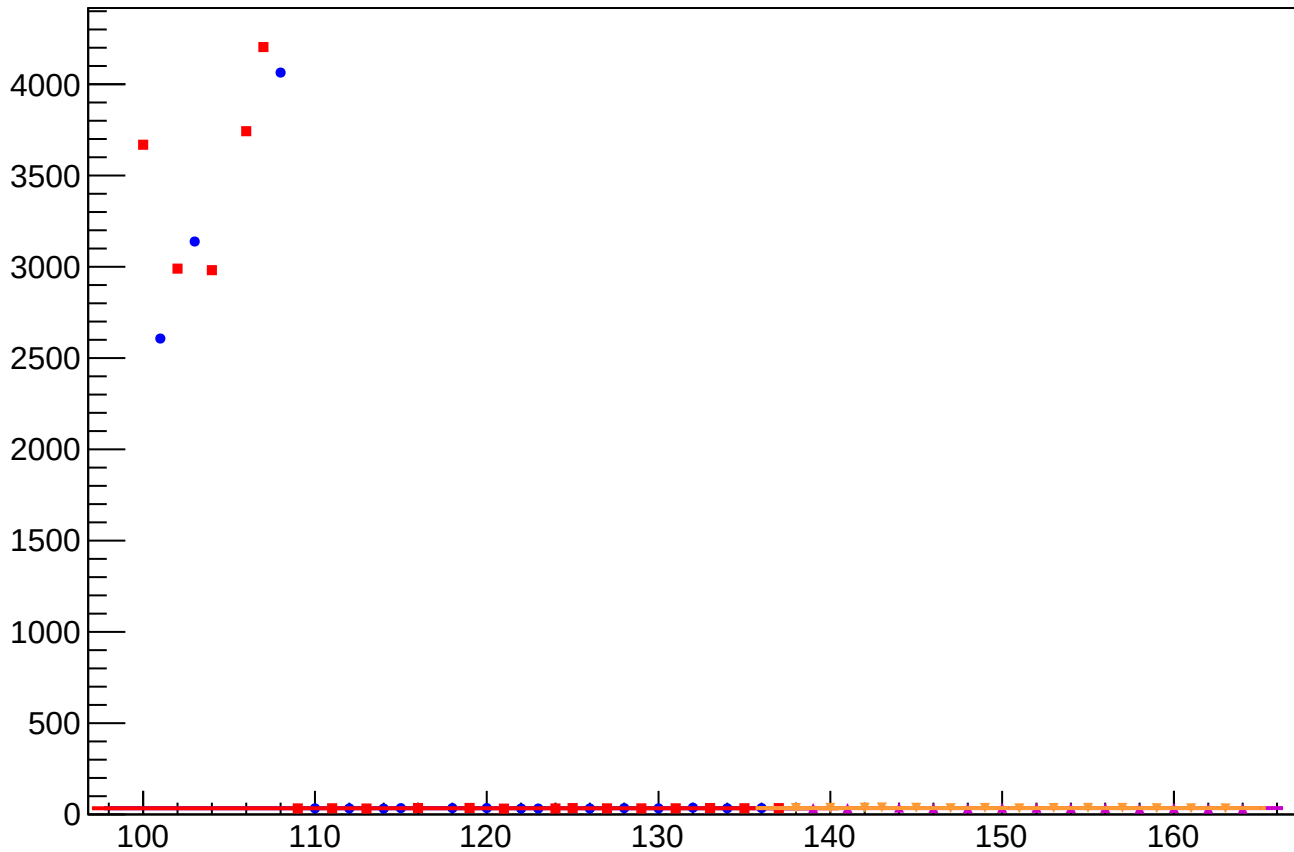
Left In:  $-3.865 \pm 10.863$   $\chi^2/\text{NDF}$ : 6.9/12

+ sign  $-23.973 \pm 8.768$   $\chi^2/\text{NDF}$ : 41.5/30

All:  $-15.371 \pm 6.207$   $\chi^2/\text{NDF}$ : 72.5/62

- sign  $-6.730 \pm 8.788$   $\chi^2/\text{NDF}$ : 29.1/31

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_dd\_rms vs Slug



Right In: 34.168 $\pm$ 0.011  $\chi^2$ /NDF: 3006512.8/16

Left Out: 35.053 $\pm$ 0.008  $\chi^2$ /NDF:32606.8/13

Right Out: 33.913 $\pm$ 0.011  $\chi^2$ /NDF: 3451912.6/18

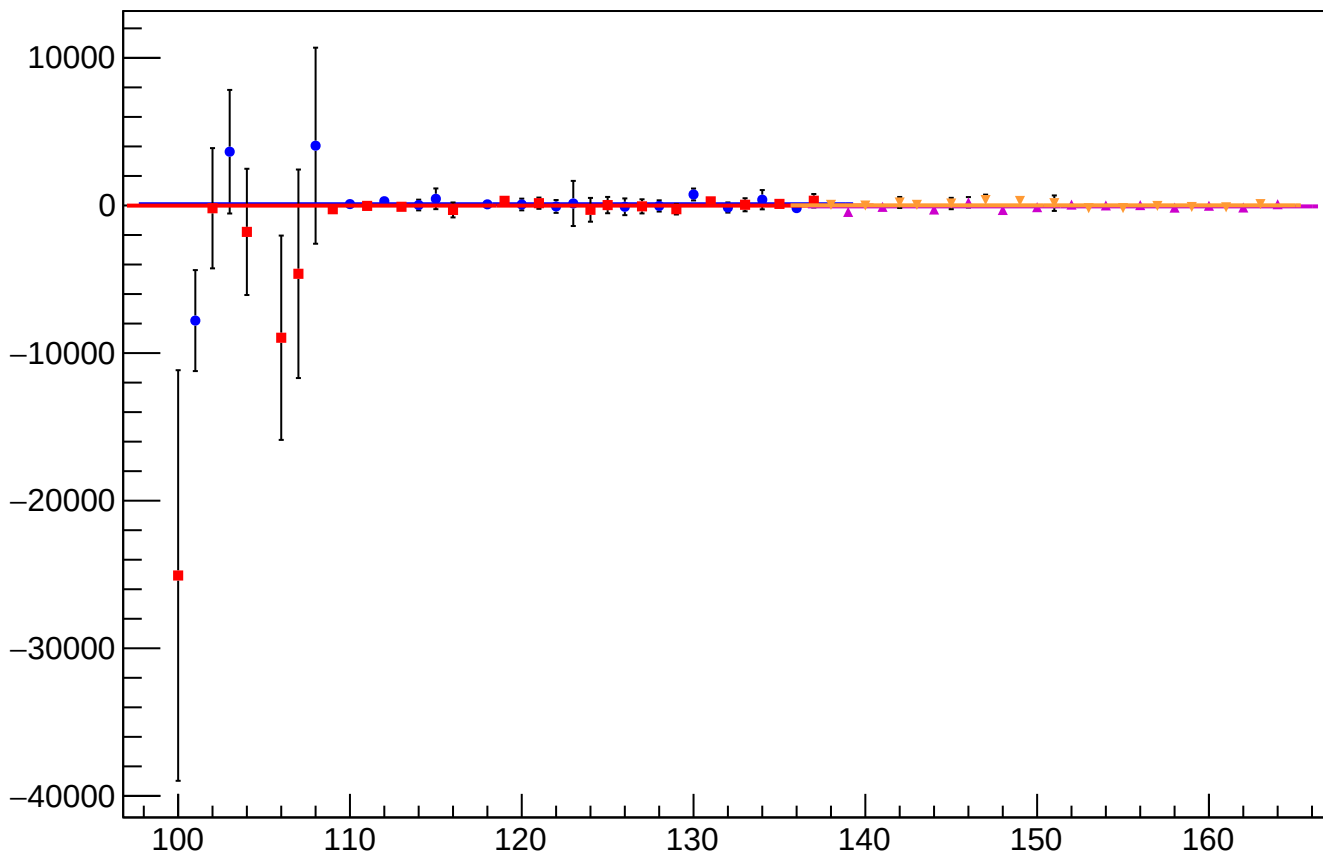
Left In: 34.876 $\pm$ 0.008  $\chi^2$ /NDF:43561.8/12

+ sign 34.752 $\pm$ 0.006  $\chi^2$ /NDF: 3043691.9/30

All: 34.648 $\pm$ 0.004  $\chi^2$ /NDF: 6545171.4/62

- sign 34.544 $\pm$ 0.006  $\chi^2$ /NDF: 3500912.8/31

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_mean vs Slug



Right In: 84.504+/-88.746  $\chi^2/\text{NDF}$ : 12.5/16

Left Out: 10.562+/-74.461  $\chi^2/\text{NDF}$ : 4.5/13

Right Out: -8.565+/-81.257  $\chi^2/\text{NDF}$ : 11.1/18

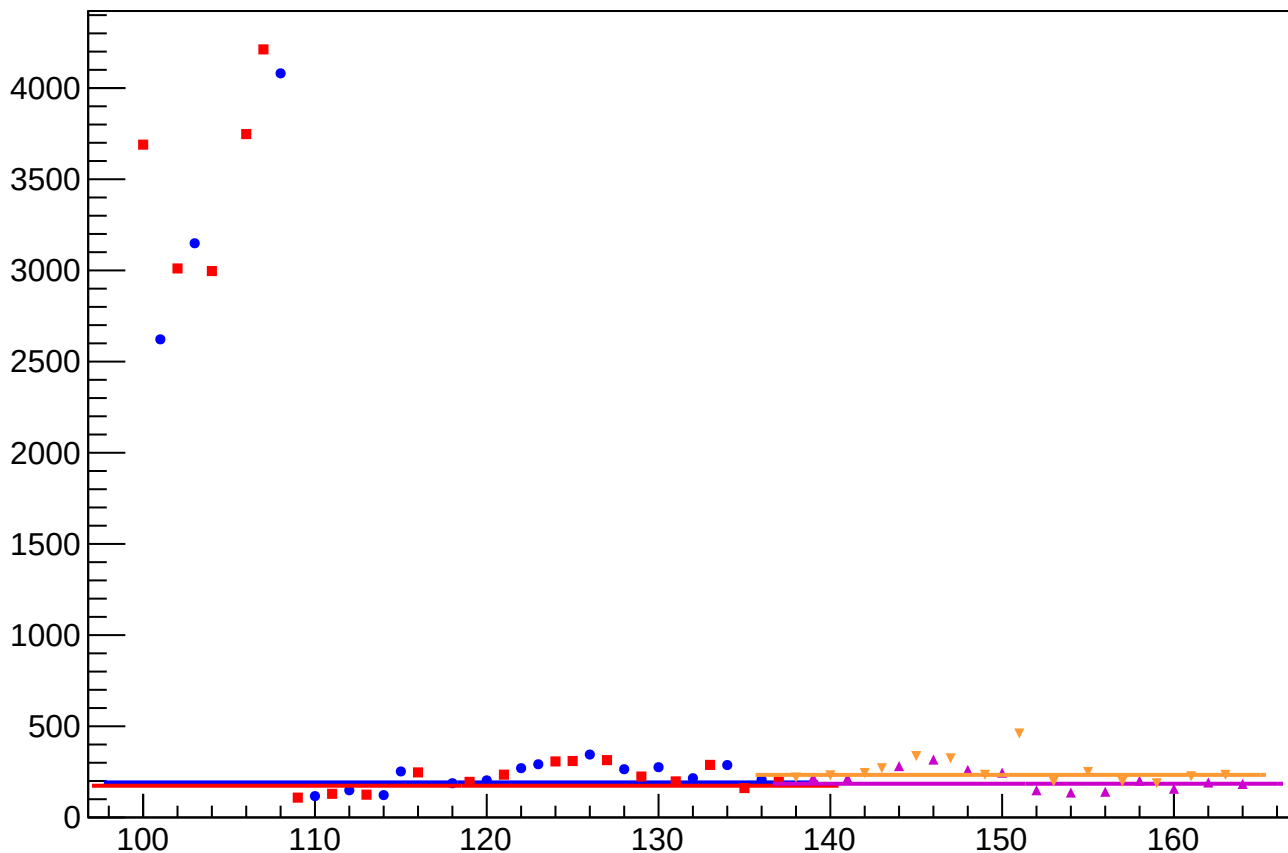
Left In: -61.592+/-61.132  $\chi^2/\text{NDF}$ : 5.3/12

+ sign 41.111+/-57.042  $\chi^2/\text{NDF}$ : 17.5/30

All: -7.082+/-37.104  $\chi^2/\text{NDF}$ : 35.4/62

- sign -42.426+/-48.851  $\chi^2/\text{NDF}$ : 16.7/31

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_rms vs Slug



Right In: 192.177+/-0.063  $\chi^2/\text{NDF}$ : 3574617.3/16

Left Out: 233.474+/-0.053  $\chi^2/\text{NDF}$ : 877026.6/13

Right Out: 173.961+/-0.057  $\chi^2/\text{NDF}$ : 4211616.2/18

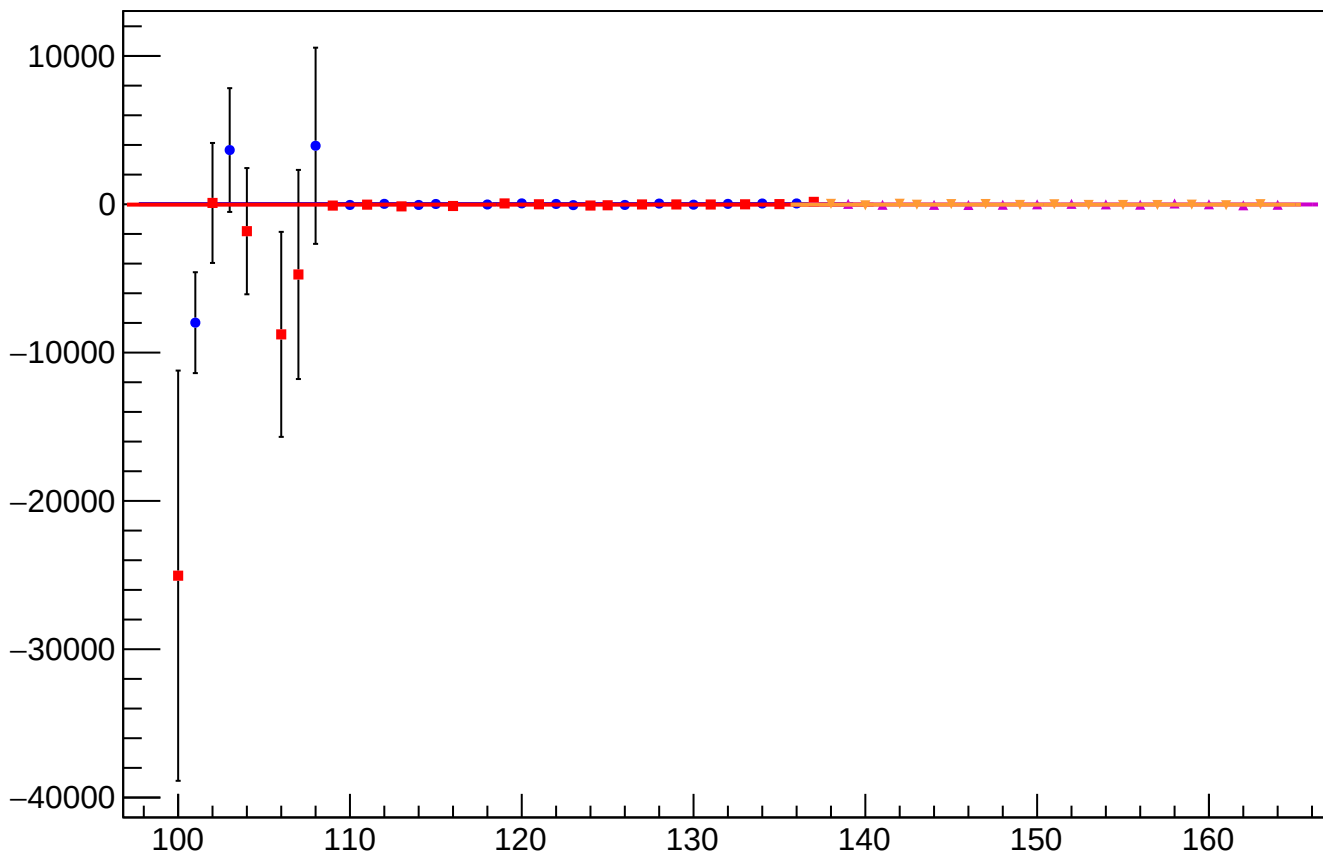
Left In: 184.872+/-0.043  $\chi^2/\text{NDF}$ : 1243722.3/12

+ sign 216.413+/-0.040  $\chi^2/\text{NDF}$ : 4705802.1/30

All: 195.942+/-0.026  $\chi^2/\text{NDF}$ : 10630650.9/62

- sign 180.928+/-0.035  $\chi^2/\text{NDF}$ : 5478368.8/31

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_mean vs Slug



Right In: 12.751+/-13.723  $\chi^2/\text{NDF}$ : 14.6/16

Left Out: -22.316+/-9.783  $\chi^2/\text{NDF}$ : 11.2/13

Right Out: -22.618+/-13.660  $\chi^2/\text{NDF}$ : 28.0/18

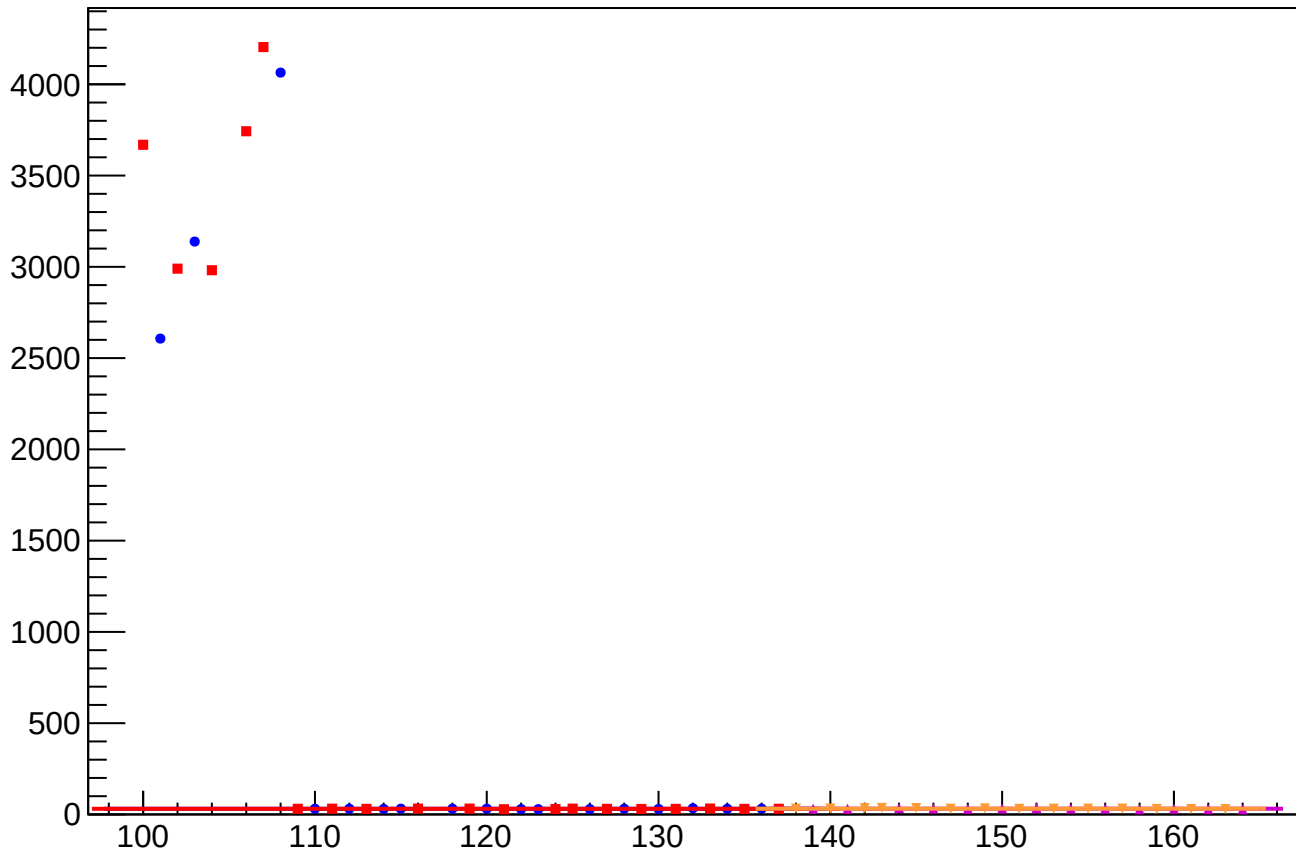
Left In: -12.195+/-9.830  $\chi^2/\text{NDF}$ : 12.2/12

+ sign -10.501+/-7.966  $\chi^2/\text{NDF}$ : 30.1/30

All: -13.122+/-5.637  $\chi^2/\text{NDF}$ : 70.9/62

- sign -15.751+/-7.979  $\chi^2/\text{NDF}$ : 40.6/31

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_rms vs Slug



Right In: 31.153+/-0.010  $\chi^2/\text{NDF}$ : 3014515.0/16

Left Out: 31.750+/-0.007  $\chi^2/\text{NDF}$ : 59380.5/13

Right Out: 30.963+/-0.010  $\chi^2/\text{NDF}$ : 3458924.5/18

Left In: 31.504+/-0.007  $\chi^2/\text{NDF}$ : 77600.8/12

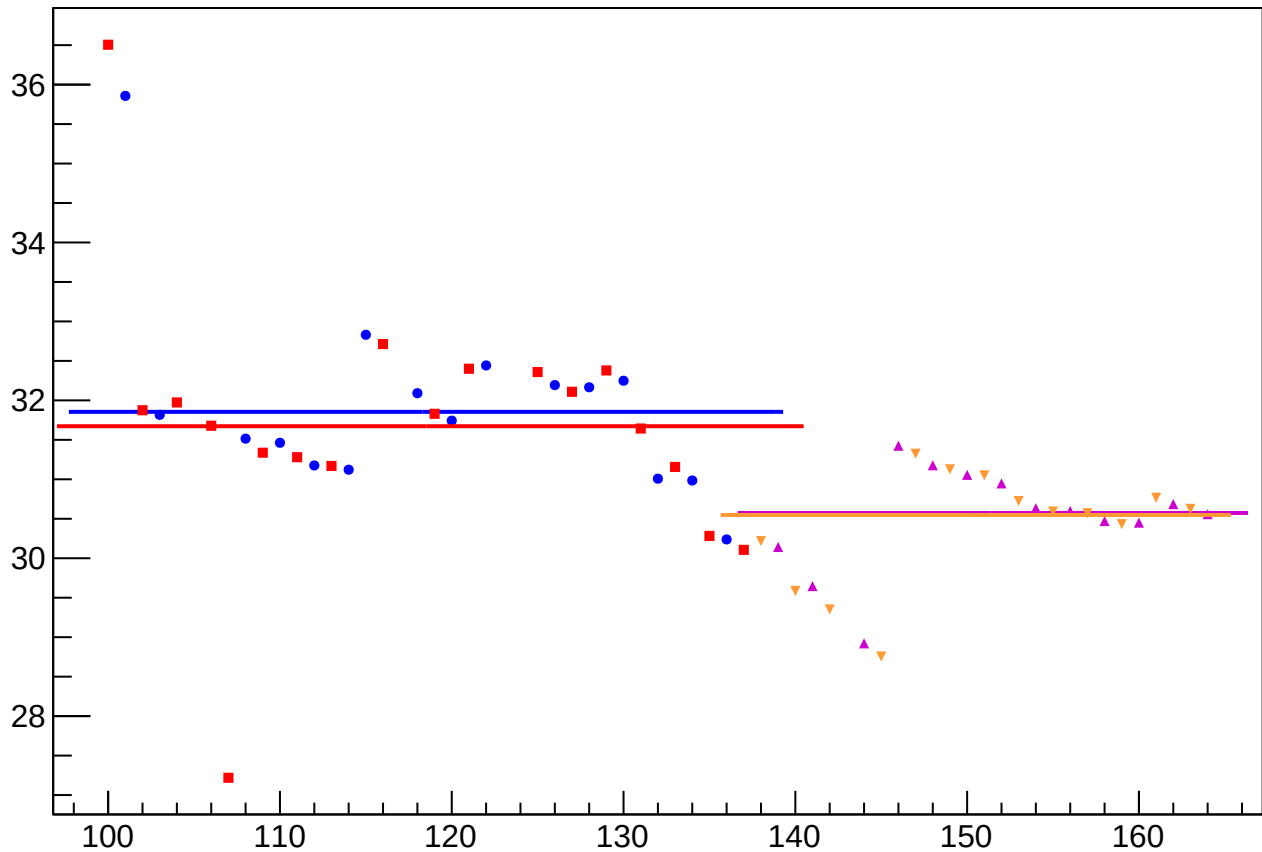
+ sign 31.549+/-0.006  $\chi^2/\text{NDF}$ : 3076401.9/30

All: 31.434+/-0.004  $\chi^2/\text{NDF}$ : 6615823.7/62

- sign 31.319+/-0.006  $\chi^2/\text{NDF}$ : 3538592.5/31



# yield\_usl\_mean vs Slug



Right In: 31.855+/-0.000  $\chi^2/\text{NDF}$ : 1570522165.5/15

Left Out: 30.548+/-0.000  $\chi^2/\text{NDF}$ : 596258141.4/12

Right Out: 31.672+/-0.000  $\chi^2/\text{NDF}$ : 917899841.8/17

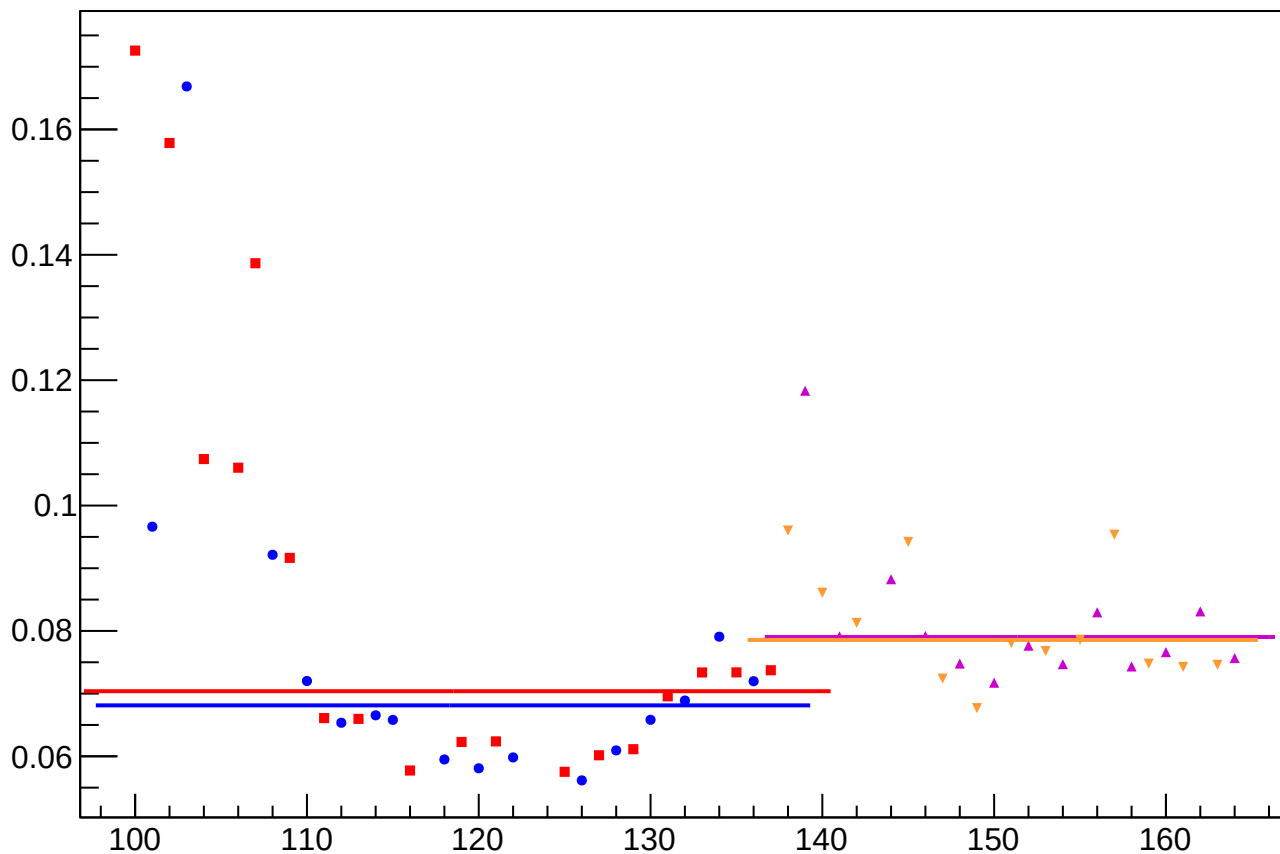
Left In: 30.574+/-0.000  $\chi^2/\text{NDF}$ : 565966416.7/12

+ sign 31.154+/-0.000  $\chi^2/\text{NDF}$ : 3304560784.5/28

All: 31.109+/-0.000  $\chi^2/\text{NDF}$ : 5599386510.5/5

- sign 31.063+/-0.000  $\chi^2/\text{NDF}$ : 2283551483.4/30

# yield\_usl\_rms vs Slug



Right In: 0.068 $\pm$ 0.000  $\chi^2$ /NDF: 629767.4/15

Left Out: 0.079 $\pm$ 0.000  $\chi^2$ /NDF:196627.6/12

Right Out: 0.070 $\pm$ 0.000  $\chi^2$ /NDF: 841320.1/17

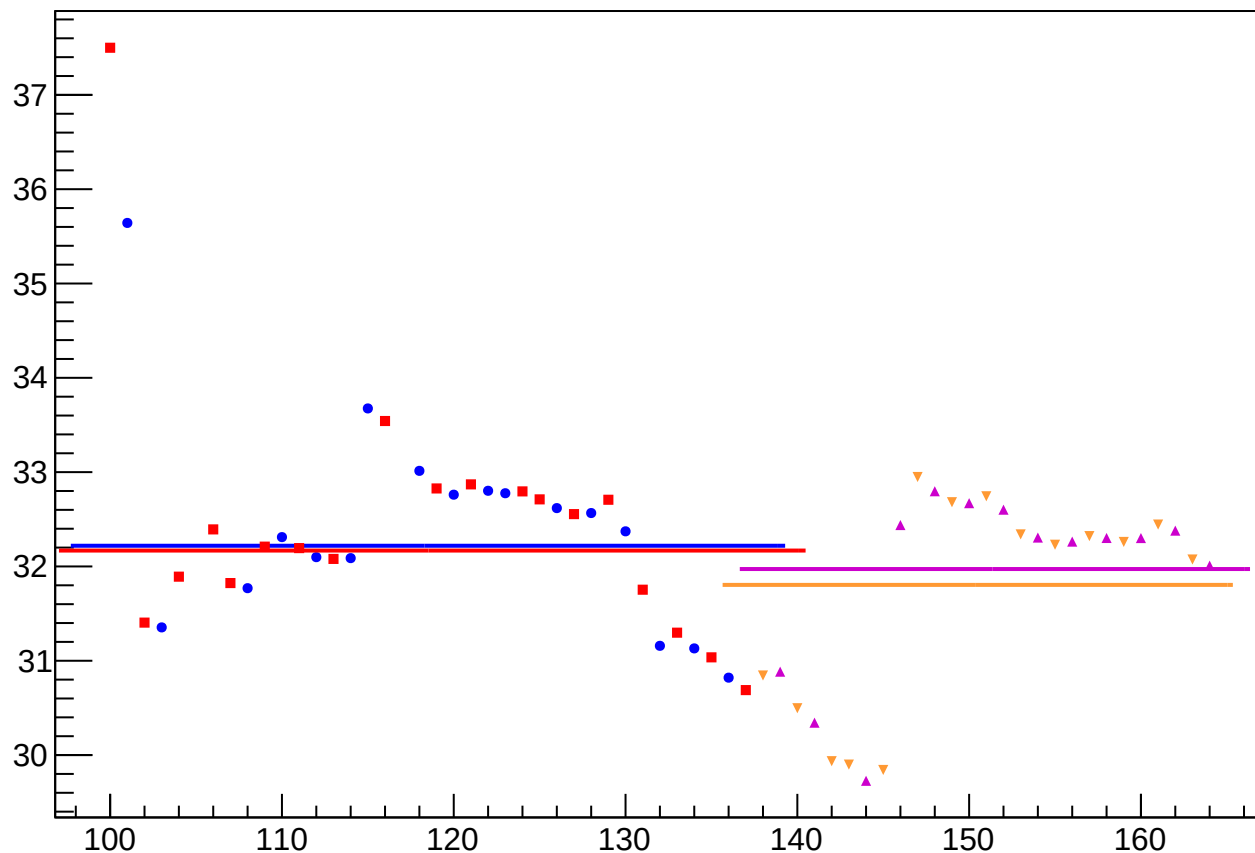
Left In: 0.079 $\pm$ 0.000  $\chi^2$ /NDF:213311.6/12

+ sign 0.074 $\pm$ 0.000  $\chi^2$ /NDF: 971715.1/28

All: 0.074 $\pm$ 0.000  $\chi^2$ /NDF: 2131053.7/59

- sign 0.075 $\pm$ 0.000  $\chi^2$ /NDF: 1153607.7/30

# yield\_usr\_mean vs Slug



Right In: 32.220+/-0.000  $\chi^2/\text{NDF}$ : 1013864543.3/16

Left Out: 31.804+/-0.000  $\chi^2/\text{NDF}$ : 1811830467.1/13

Right Out: 32.168+/-0.000  $\chi^2/\text{NDF}$ : 442298310.3/18

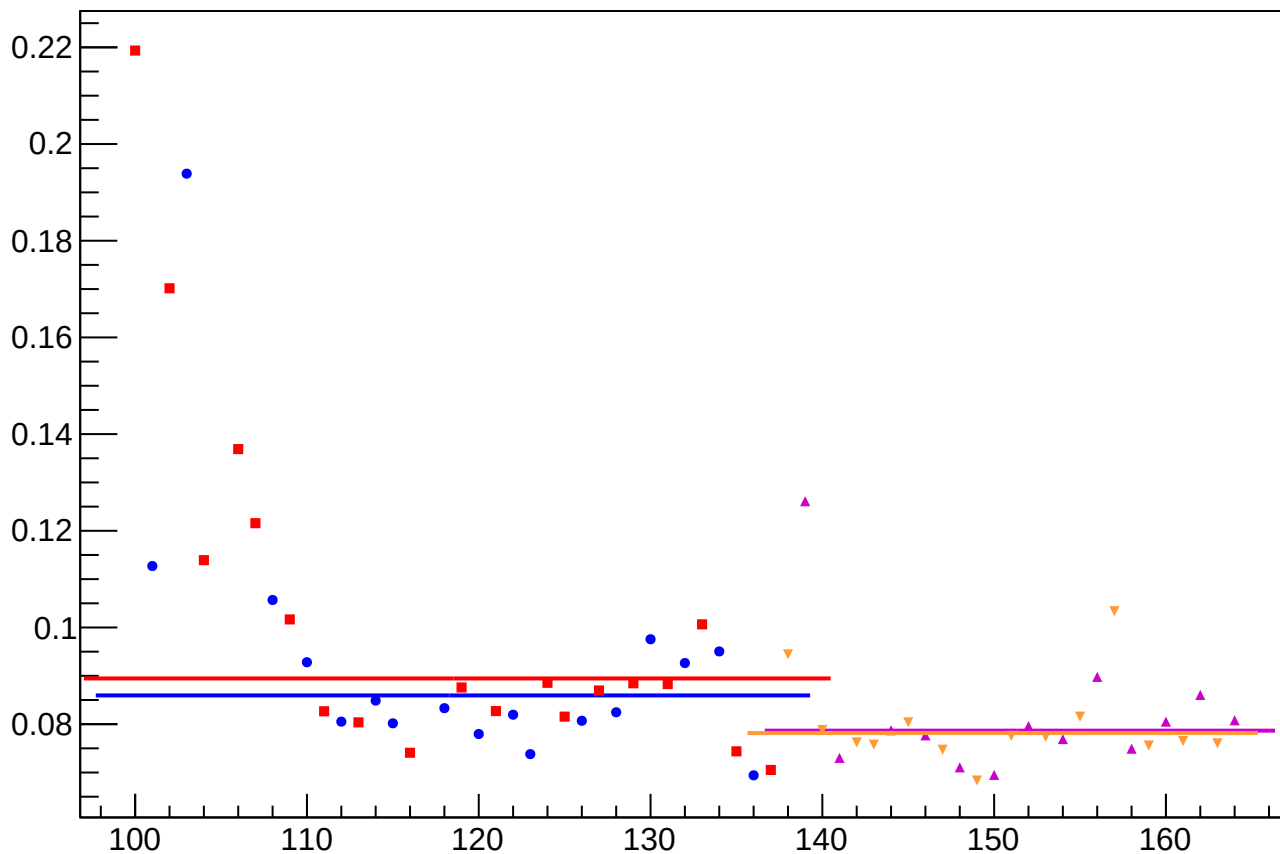
Left In: 31.973+/-0.000  $\chi^2/\text{NDF}$ : 1393958756.7/12

+ sign 31.943+/-0.000  $\chi^2/\text{NDF}$ : 2915595977.0/30

All: 31.990+/-0.000  $\chi^2/\text{NDF}$ : 4781836861.3/6

- sign 32.038+/-0.000  $\chi^2/\text{NDF}$ : 1855839097.1/31

# yield\_usr\_rms vs Slug



Right In: 0.086 $\pm$ 0.000  $\chi^2$ /NDF: 553280.3/16

Left Out: 0.078 $\pm$ 0.000  $\chi^2$ /NDF: 159795.6/13

Right Out: 0.089 $\pm$ 0.000  $\chi^2$ /NDF: 539869.9/18

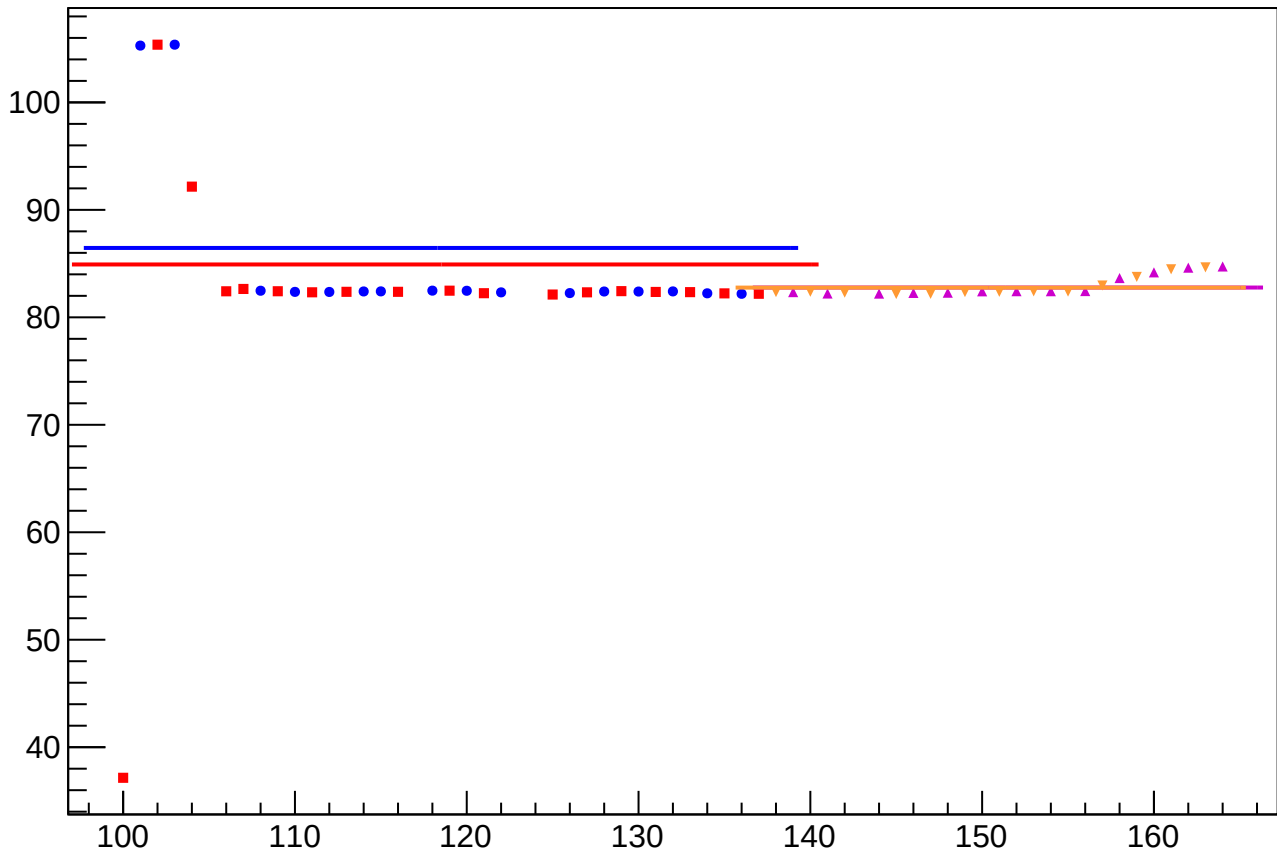
Left In: 0.079 $\pm$ 0.000  $\chi^2$ /NDF: 292003.4/12

+ sign 0.081 $\pm$ 0.000  $\chi^2$ /NDF: 776351.4/30

All: 0.082 $\pm$ 0.000  $\chi^2$ /NDF: 1732569.8/62

- sign 0.082 $\pm$ 0.000  $\chi^2$ /NDF: 950936.4/31

# yield\_dsl\_mean vs Slug



Right In: 86.457+/-0.000  $\chi^2/\text{NDF}$ : 291421048436.2/15

Left Out: 82.767+/-0.000  $\chi^2/\text{NDF}$ : 3224346193.2/12

Right Out: 84.920+/-0.000  $\chi^2/\text{NDF}$ : 172195187677.7/17

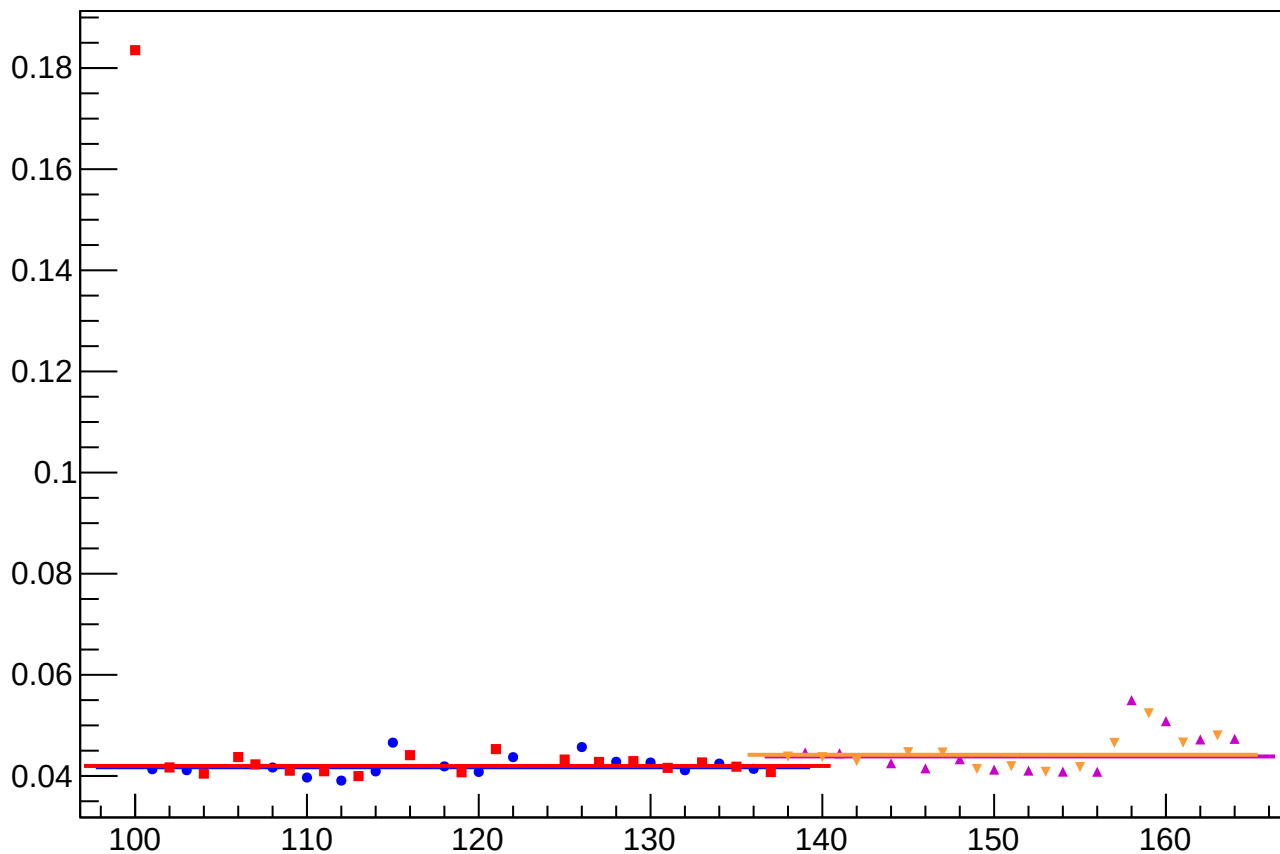
Left In: 82.772+/-0.000  $\chi^2/\text{NDF}$ : 3679690752.4/12

+ sign 84.363+/-0.000  $\chi^2/\text{NDF}$ : 323763663929.0/28

All: 84.018+/-0.000  $\chi^2/\text{NDF}$ : 511981666802.0

- sign 83.689+/-0.000  $\chi^2/\text{NDF}$ : 186193388392.1/30

# yield\_dsl\_rms vs Slug



Right In: 0.042+/-0.000  $\chi^2/\text{NDF}$ : 18887.0/15

Left Out: 0.044+/-0.000  $\chi^2/\text{NDF}$ :85604.1/12

Right Out: 0.042+/-0.000  $\chi^2/\text{NDF}$ : 96869.3/17

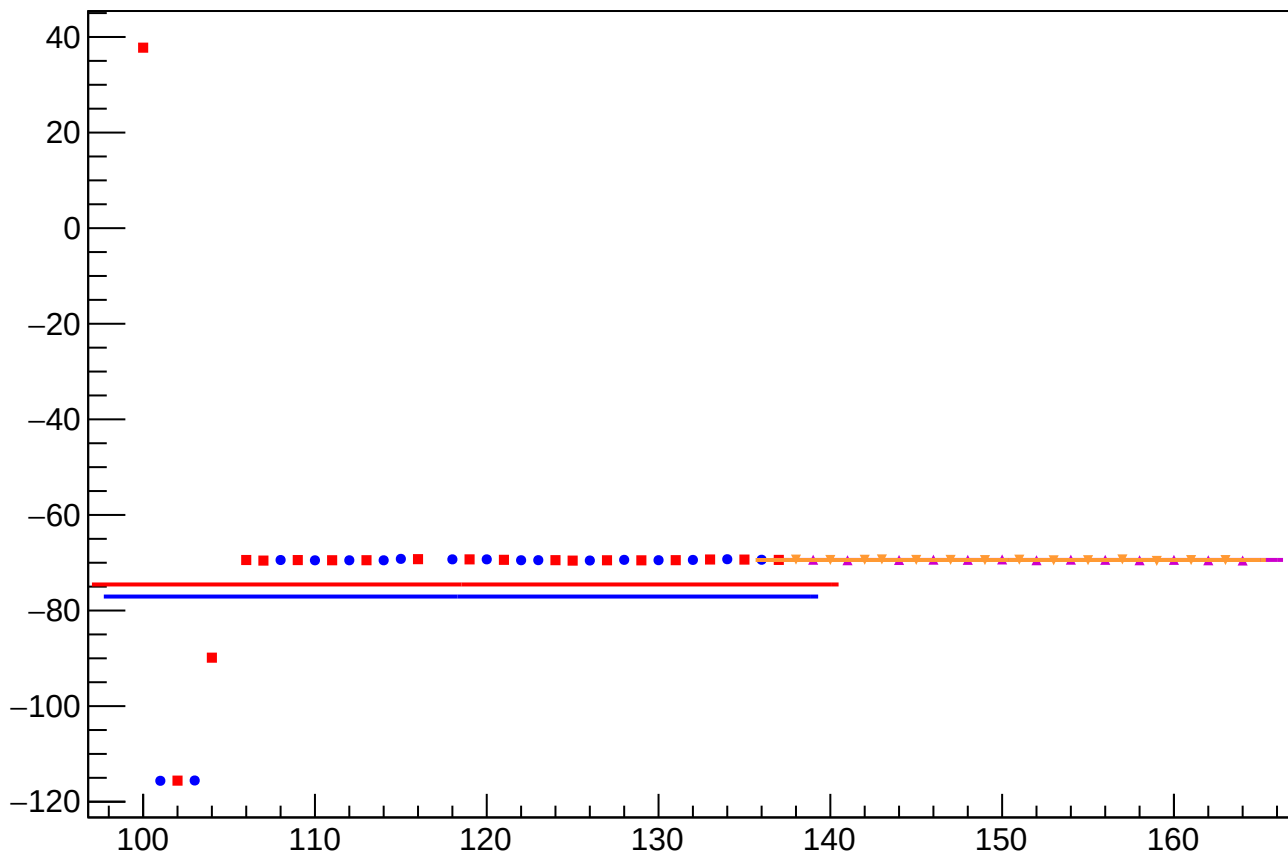
Left In: 0.044+/-0.000  $\chi^2/\text{NDF}$ :147338.0/12

+ sign 0.043+/-0.000  $\chi^2/\text{NDF}$ : 130410.6/28

All: 0.043+/-0.000  $\chi^2/\text{NDF}$ : 390449.0/59

- sign 0.043+/-0.000  $\chi^2/\text{NDF}$ : 259997.6/30

# yield\_dsr\_mean vs Slug



Right In: -77.074+/-0.000  $\chi^2/\text{NDF}$ : 565391865606.1/16

Left Out: -69.427+/-0.000  $\chi^2/\text{NDF}$ : 20430100.0/13

Right Out: -74.547+/-0.000  $\chi^2/\text{NDF}$ : 371890102737.4/18

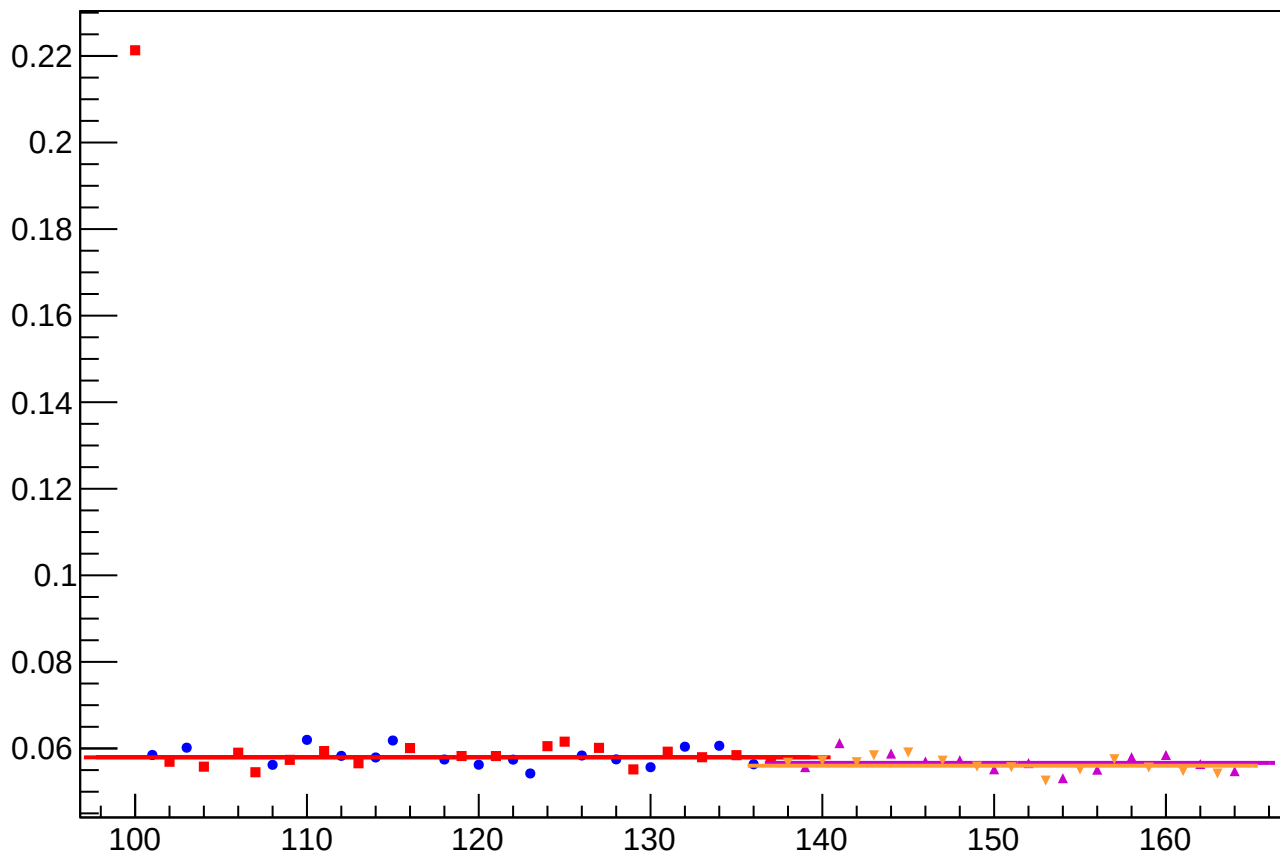
Left In: -69.411+/-0.000  $\chi^2/\text{NDF}$ : 11966171.9/12

+ sign -72.263+/-0.000  $\chi^2/\text{NDF}$ : 635864525586.4/3

All: -71.856+/-0.000  $\chi^2/\text{NDF}$ : 104199135256

- sign -71.448+/-0.000  $\chi^2/\text{NDF}$ : 404412160819.6/3

# yield\_dsr\_rms vs Slug



Right In: 0.058+/-0.000  $\chi^2/\text{NDF}$ : 12275.6/16

Left Out: 0.056+/-0.000  $\chi^2/\text{NDF}$ : 18390.7/13

Right Out: 0.058+/-0.000  $\chi^2/\text{NDF}$ : 86466.5/18

Left In: 0.057+/-0.000  $\chi^2/\text{NDF}$ : 25327.4/12

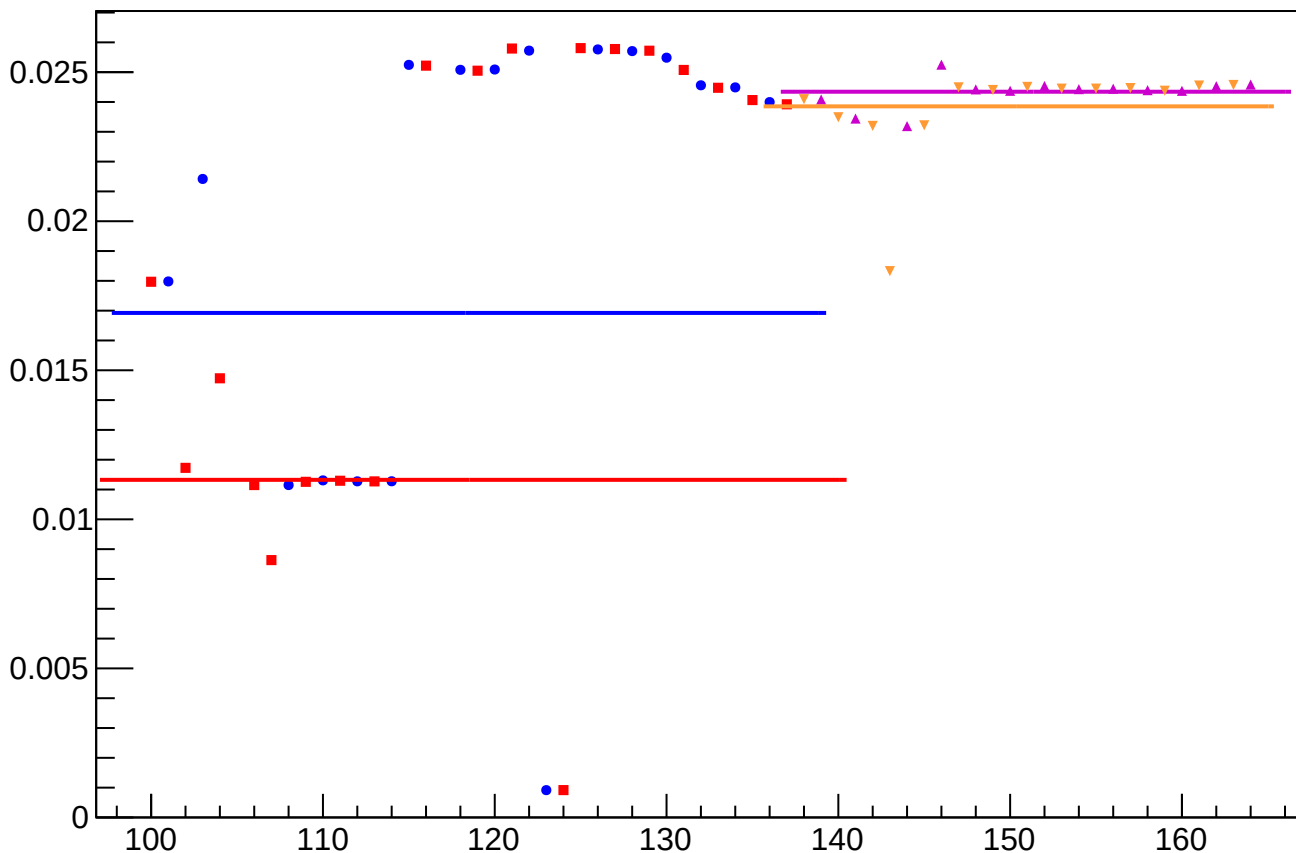
+ sign 0.057+/-0.000  $\chi^2/\text{NDF}$ : 39917.1/30

All: 0.057+/-0.000  $\chi^2/\text{NDF}$ : 156692.1/62

- sign 0.057+/-0.000  $\chi^2/\text{NDF}$ : 115812.2/31



# yield\_atl1\_mean vs Slug



Right In: 0.017 $\pm$ 0.000  $\chi^2$ /NDF: 126447785006.7/16

Left Out: 0.024 $\pm$ 0.000  $\chi^2$ /NDF: 5140591504.8/13

Right Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 234754769754.2/18

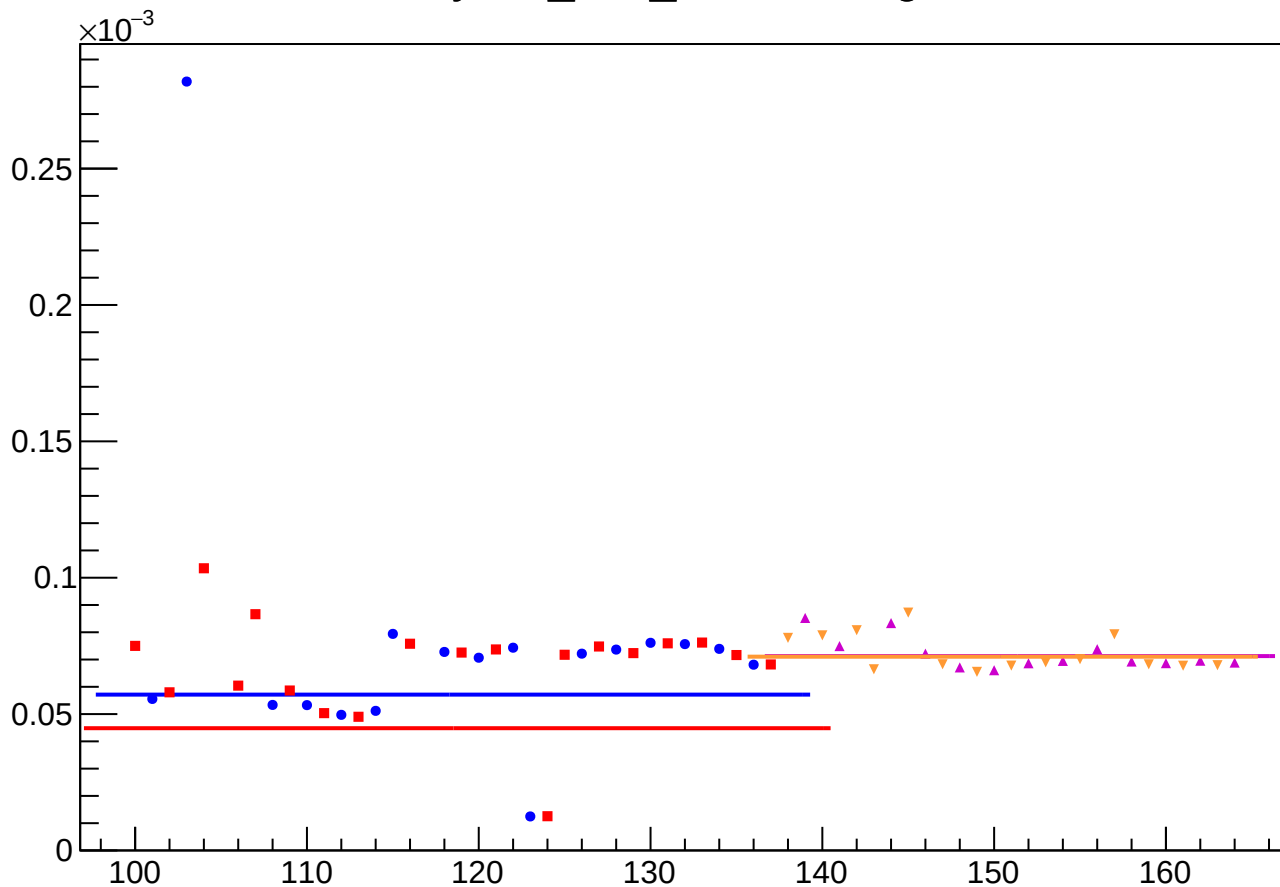
Left In: 0.024 $\pm$ 0.000  $\chi^2$ /NDF: 431024896.5/12

+ sign 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 175692427260.1/30

All: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 619570547869.8

- sign 0.017 $\pm$ 0.000  $\chi^2$ /NDF: 419450271001.1/31

# yield\_atl1\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2000446.9/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :139123.3/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 3592224.4/18

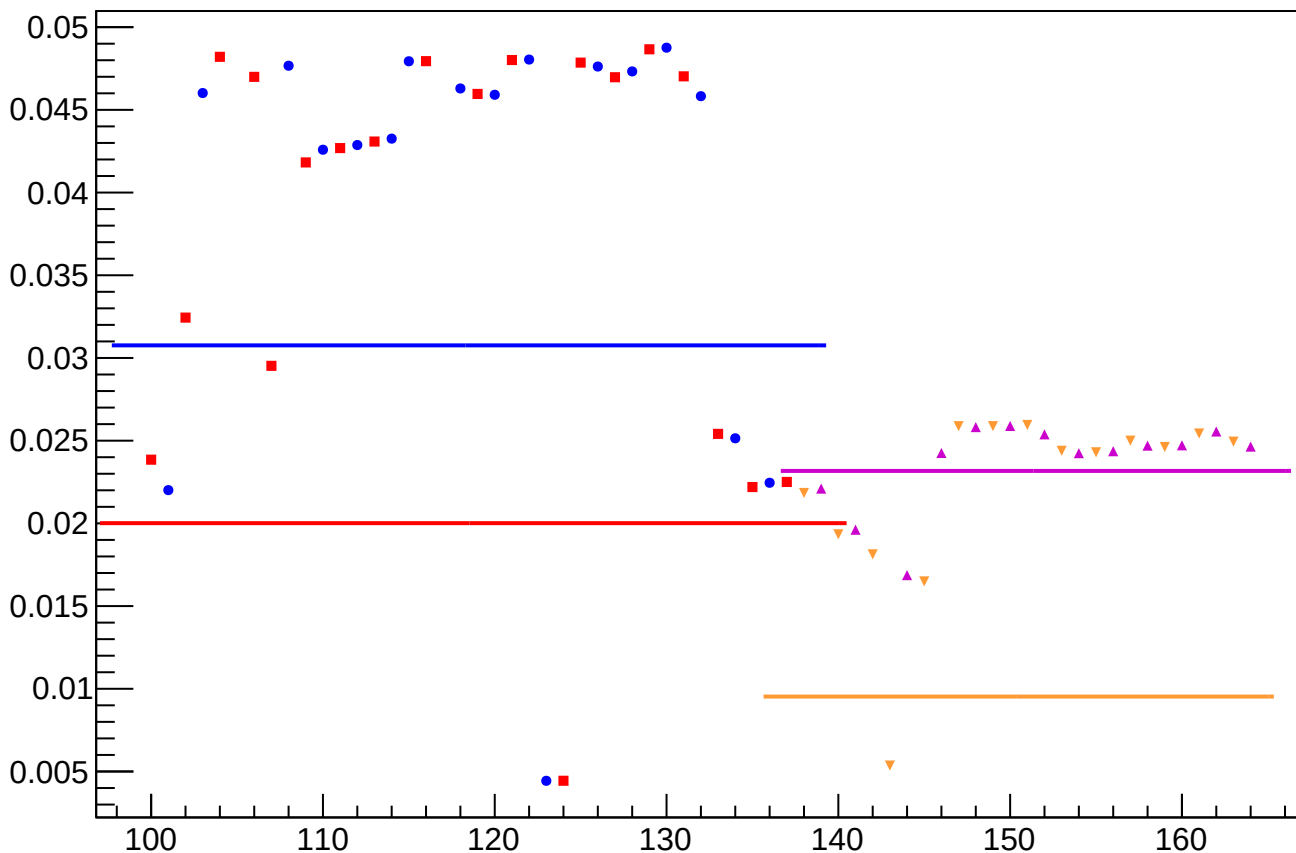
Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :105175.7/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2495338.2/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 7965906.6/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5217313.8/31

# yield\_atl2\_mean vs Slug



Right In: 0.031+/-0.000  $\chi^2/\text{NDF}$ : 21174738549.0/16

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 26848482391.8/13

Right Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 40011334157.0/18

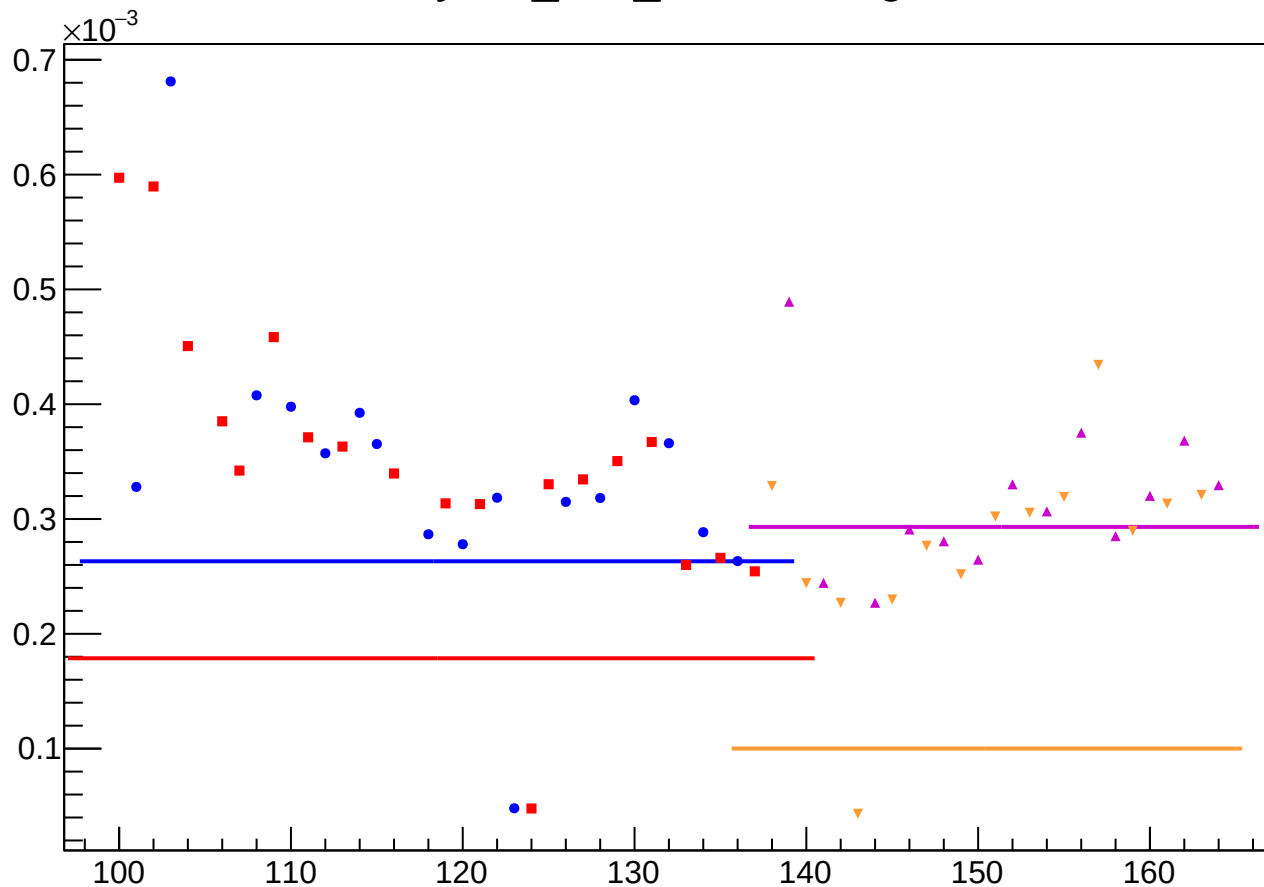
Left In: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 1047842427.9/12

+ sign 0.012+/-0.000  $\chi^2/\text{NDF}$ : 75652019335.4/30

All: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 130414837521.5

- sign 0.022+/-0.000  $\chi^2/\text{NDF}$ : 41617248220.1/31

# yield\_atl2\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2401048.9/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9916802.2/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5341022.6/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 609740.4/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 15579070.1/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 26896156.2/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 7416447.9/31

# yield\_atr1\_mean vs Slug



Right In: 0.030 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 97152184939.3/16

Left Out: 0.039 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 341686906.0/13

+ sign 0.035 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 119051135003.5/30

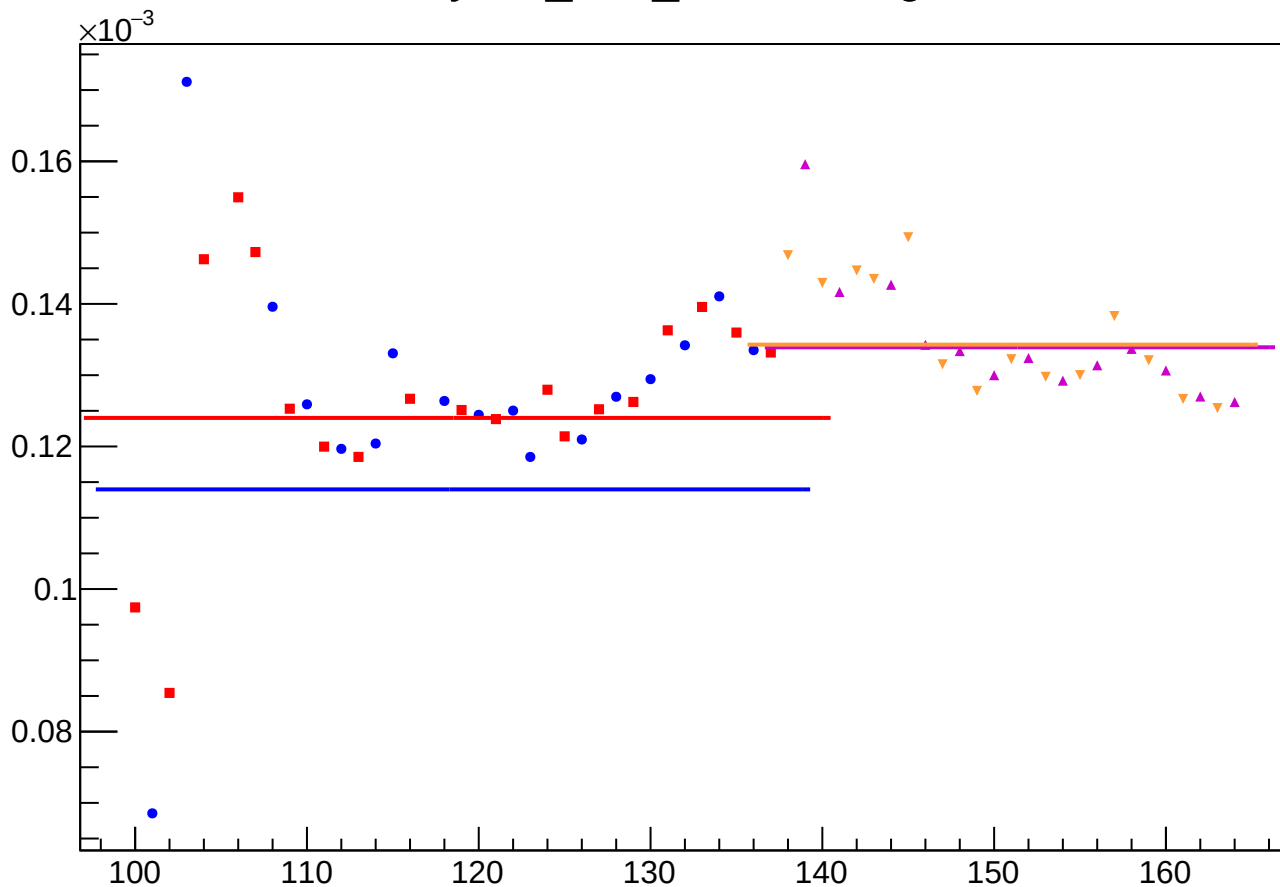
Right Out: 0.035 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 43669374279.3/18

All: 0.036 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 170407704327.3

Left In: 0.039 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 274735812.5/12

- sign 0.037 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 48717399869.2/31

# yield\_atr1\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 794542.9/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 64367.5/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 245154.5/18

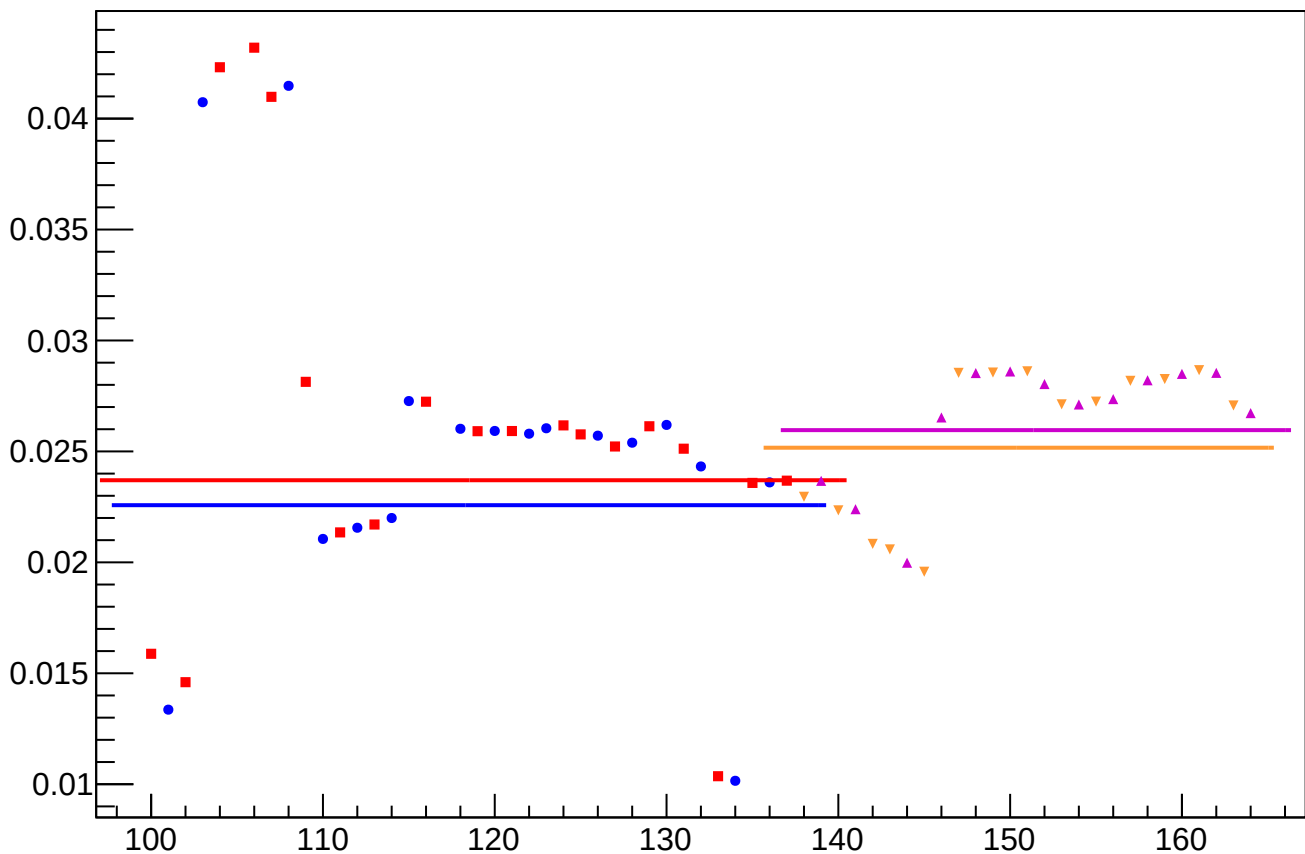
Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 62320.0/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1071669.7/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1447980.1/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 355463.9/31

# yield\_atr2\_mean vs Slug



Right In: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 4247774712.9/16

Left Out: 0.025+/-0.000  $\chi^2/\text{NDF}$ :1586150740.8/13

Right Out: 0.024+/-0.000  $\chi^2/\text{NDF}$ : 5651397656.1/18

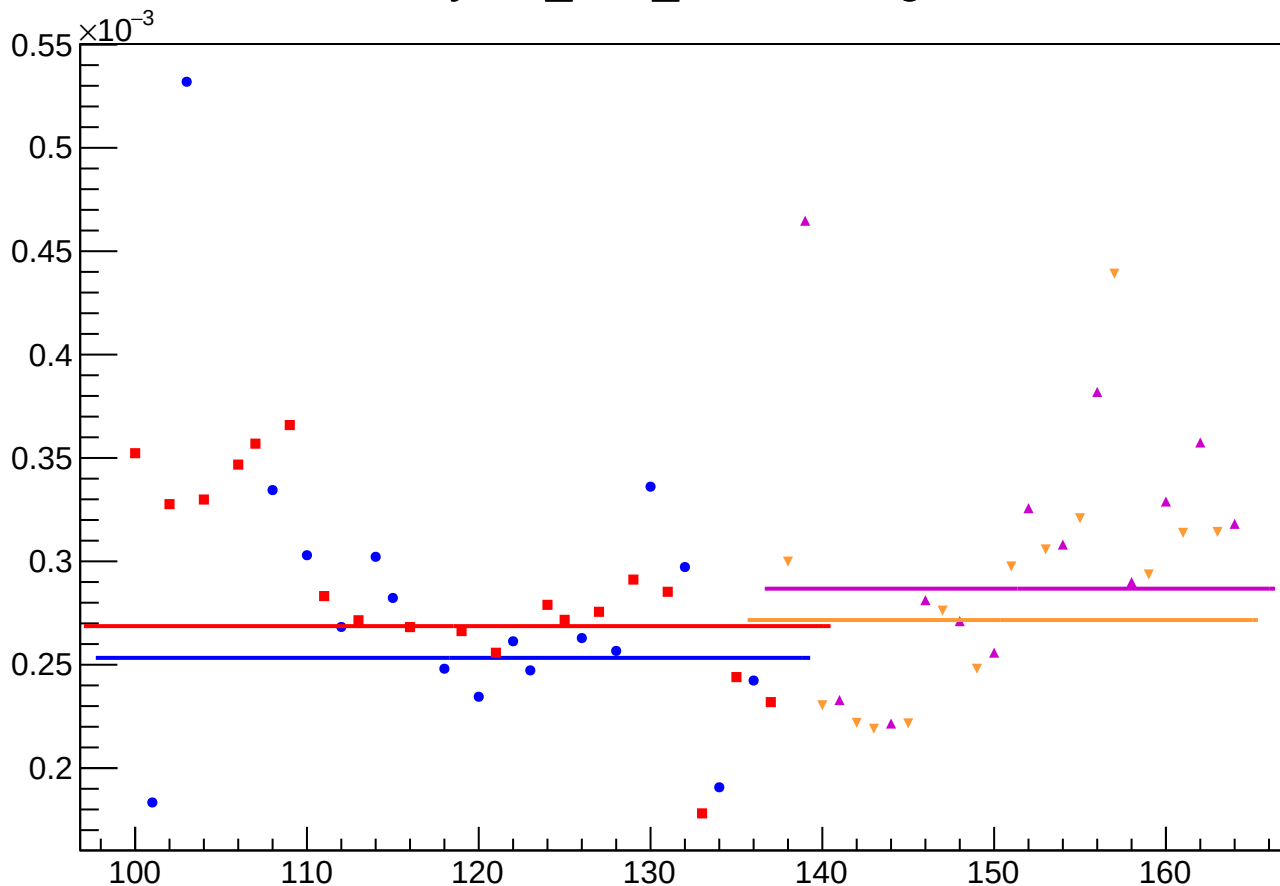
Left In: 0.026+/-0.000  $\chi^2/\text{NDF}$ :1101245046.4/12

+ sign 0.024+/-0.000  $\chi^2/\text{NDF}$ : 6184759117.0/30

All: 0.025+/-0.000  $\chi^2/\text{NDF}$ : 13268541250.4/6

- sign 0.025+/-0.000  $\chi^2/\text{NDF}$ : 6999563138.1/31

# yield\_atr2\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 629159.2/16

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 540595.7/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 428329.0/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 656560.7/12

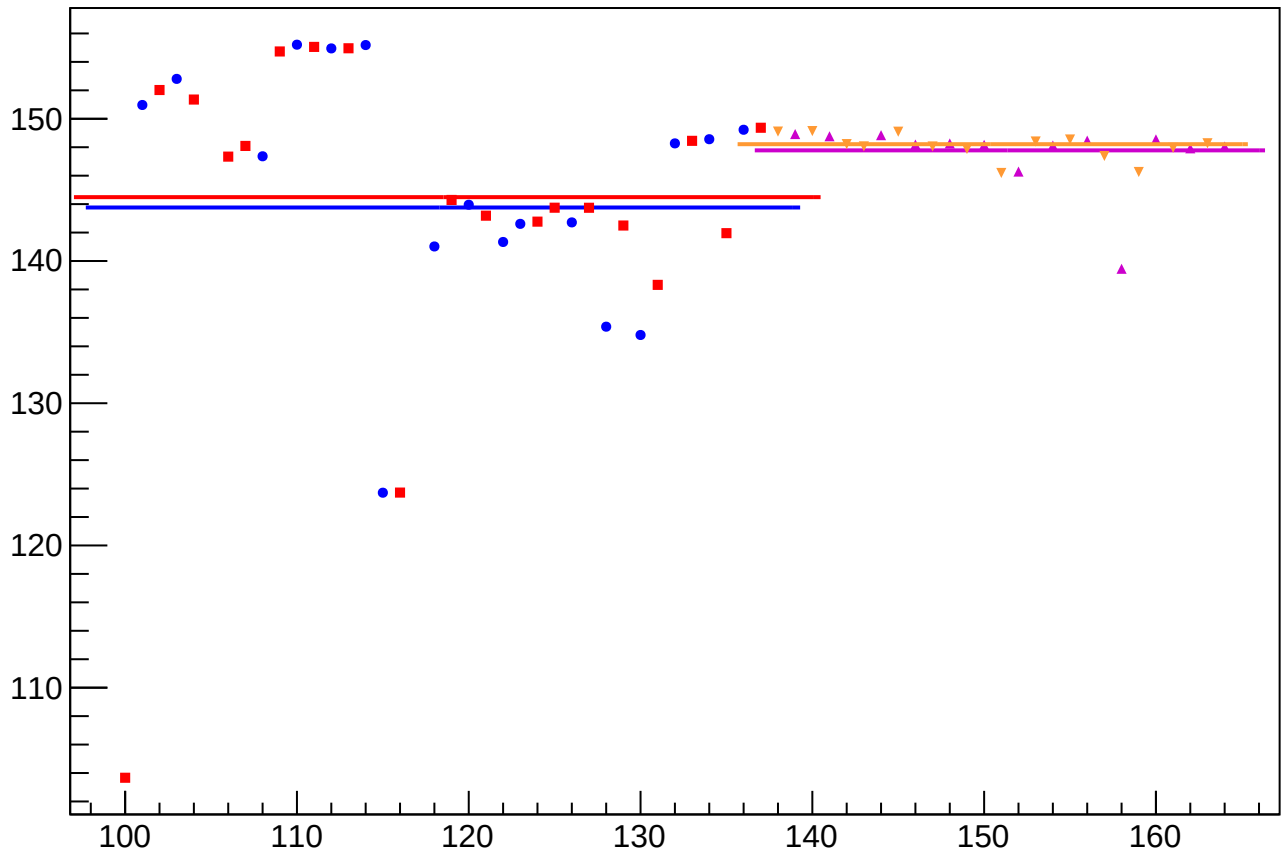
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1204760.2/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2367883.2/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1116653.7/31

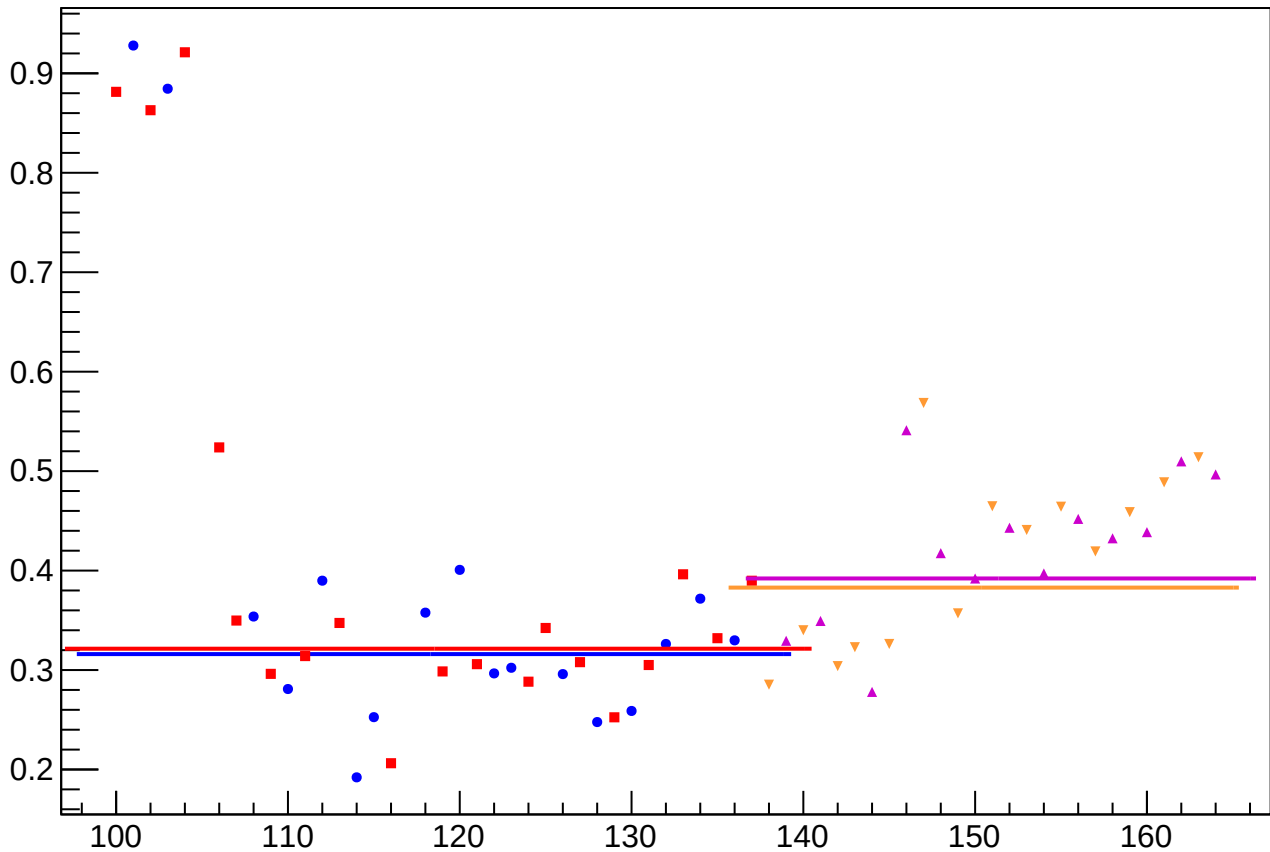


# yield\_bcm\_an\_ds\_mean vs Slug



Right In:  $143.763 \pm 0.000$   $\chi^2/\text{NDF}$ : 3534699505.1/16  
 Left Out:  $148.213 \pm 0.000$   $\chi^2/\text{NDF}$ : 50611457.0/13  
 Right Out:  $144.490 \pm 0.000$   $\chi^2/\text{NDF}$ : 4182548232.5/18  
 Left In:  $147.779 \pm 0.000$   $\chi^2/\text{NDF}$ : 321441427.5/12  
 All:  $146.199 \pm 0.000$   $\chi^2/\text{NDF}$ : 9009903655.6  
 + sign  $146.183 \pm 0.000$   $\chi^2/\text{NDF}$ : 4184260876.1/30  
 - sign  $146.215 \pm 0.000$   $\chi^2/\text{NDF}$ : 4825579909.8/31

# yield\_bcm\_an\_ds\_rms vs Slug



Right In:  $0.316 \pm 0.000$   $\chi^2/\text{NDF}$ : 1265921.5/16

Left Out:  $0.383 \pm 0.000$   $\chi^2/\text{NDF}$ : 849809.1/13

Right Out:  $0.321 \pm 0.000$   $\chi^2/\text{NDF}$ : 1219073.9/18

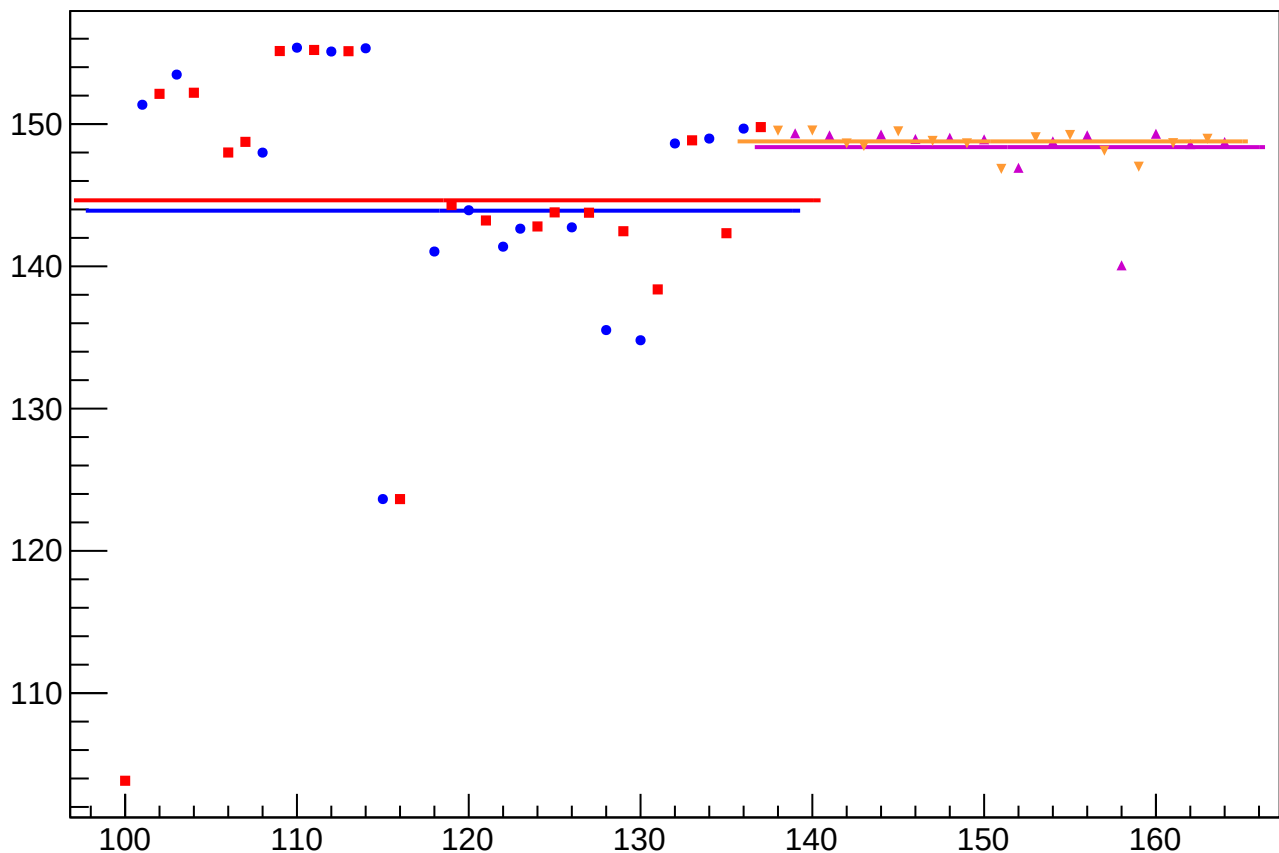
Left In:  $0.392 \pm 0.000$   $\chi^2/\text{NDF}$ : 689853.4/12

+ sign  $0.352 \pm 0.000$   $\chi^2/\text{NDF}$ : 2386147.8/30

All:  $0.355 \pm 0.000$   $\chi^2/\text{NDF}$ : 4596160.6/62

- sign  $0.359 \pm 0.000$   $\chi^2/\text{NDF}$ : 2205517.3/31

# yield\_bcm\_an\_ds3\_mean vs Slug



Right In: 143.912 $\pm$ 0.000  $\chi^2$ /NDF: 3587769790.2/16

Left Out: 148.783 $\pm$ 0.000  $\chi^2$ /NDF: 39807070.3/13

Right Out: 144.640 $\pm$ 0.000  $\chi^2$ /NDF: 4209610240.4/18

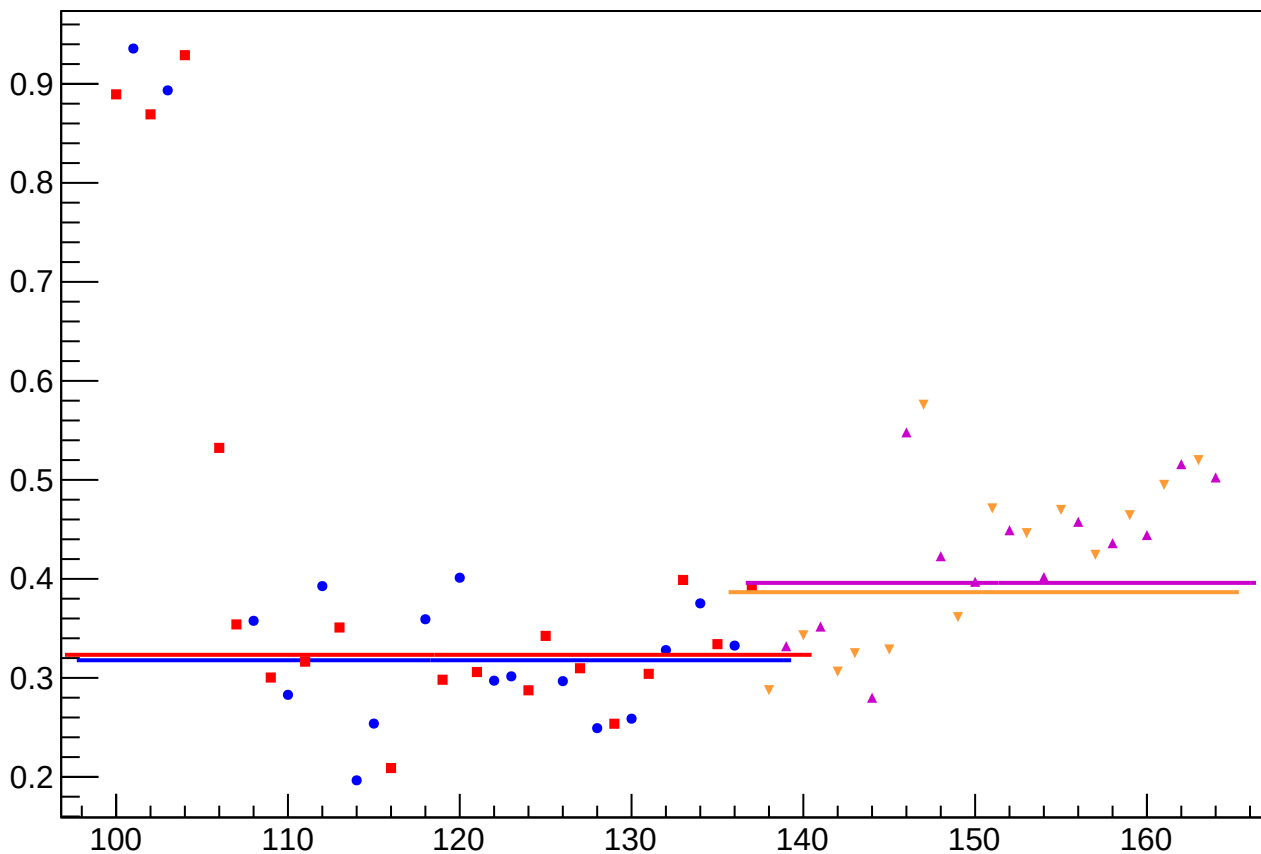
Left In: 148.380 $\pm$ 0.000  $\chi^2$ /NDF: 310774277.4/12

+ sign 146.550 $\pm$ 0.000  $\chi^2$ /NDF: 4334116257.0/30

All: 146.572 $\pm$ 0.000  $\chi^2$ /NDF: 9263647118.2

- sign 146.593 $\pm$ 0.000  $\chi^2$ /NDF: 4929420259.0/31

# yield\_bcm\_an\_ds3\_rms vs Slug



Right In:  $0.318 \pm 0.000$   $\chi^2/\text{NDF}$ : 1268257.9/16

Left Out:  $0.387 \pm 0.000$   $\chi^2/\text{NDF}$ : 866074.3/13

Right Out:  $0.323 \pm 0.000$   $\chi^2/\text{NDF}$ : 1222241.9/18

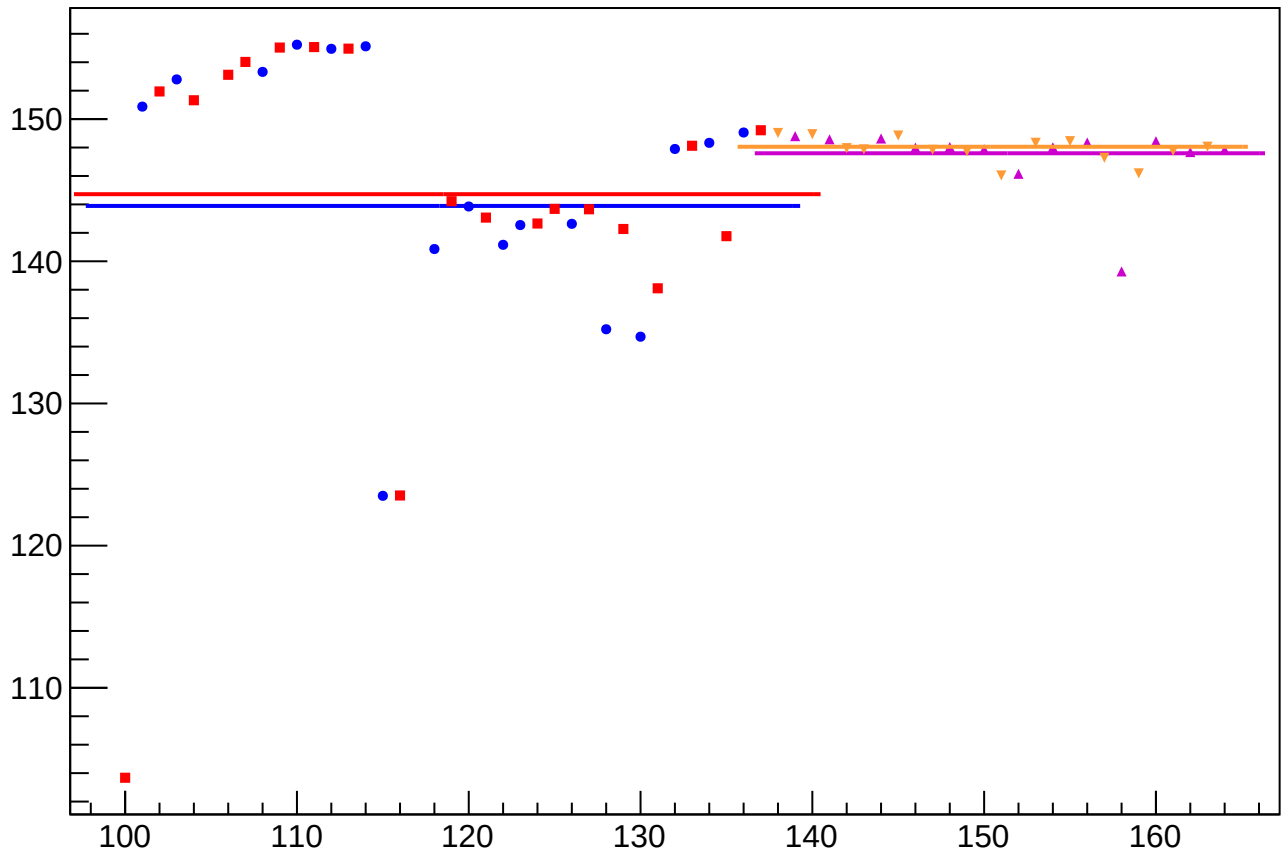
Left In:  $0.396 \pm 0.000$   $\chi^2/\text{NDF}$ : 704553.0/12

+ sign  $0.355 \pm 0.000$   $\chi^2/\text{NDF}$ : 2416078.2/30

All:  $0.358 \pm 0.000$   $\chi^2/\text{NDF}$ : 4656345.3/62

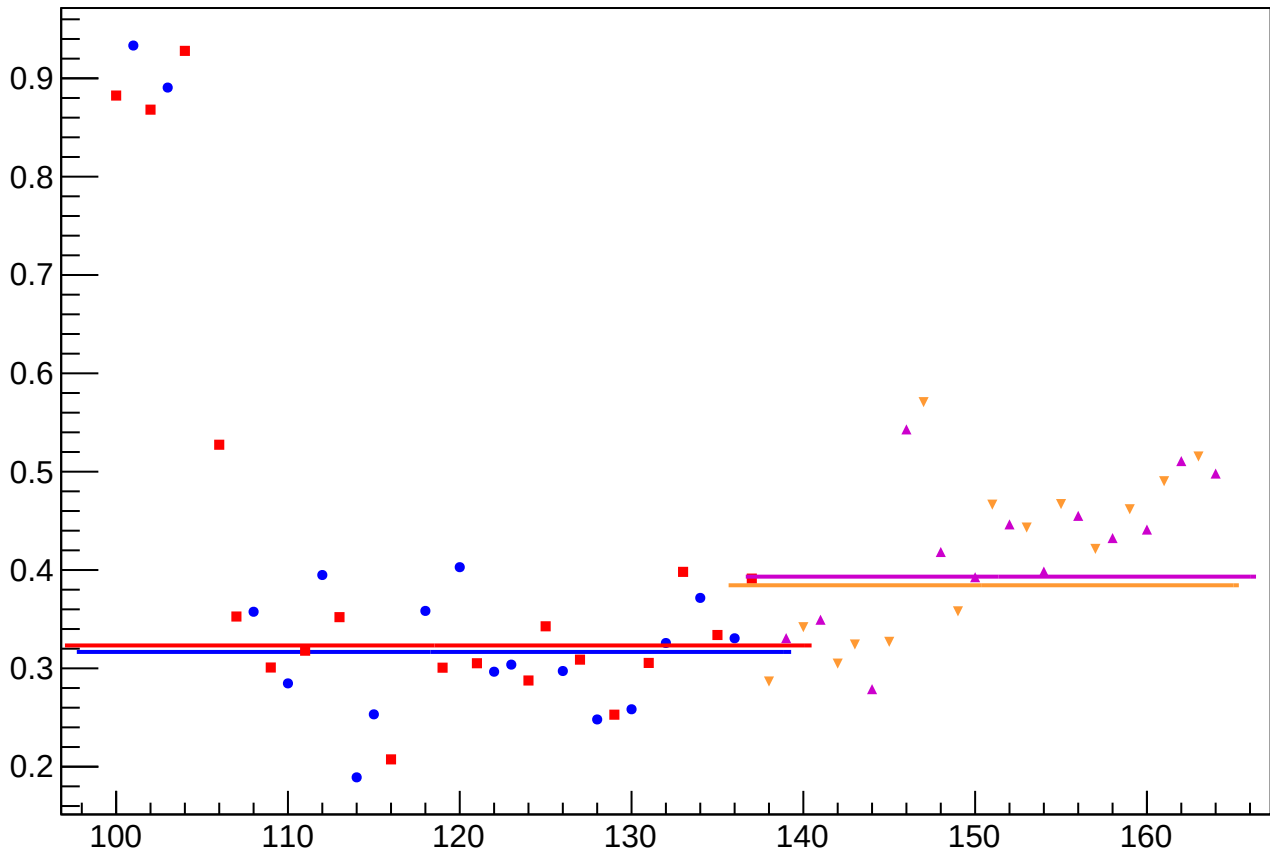
- sign  $0.361 \pm 0.000$   $\chi^2/\text{NDF}$ : 2235708.3/31

# yield\_bcm\_an\_us\_mean vs Slug



|                            |                                       |                        |                                       |
|----------------------------|---------------------------------------|------------------------|---------------------------------------|
| Right In: 143.893+/-0.000  | $\chi^2/\text{NDF}$ : 3752655677.2/16 | + sign 146.154+/-0.000 | $\chi^2/\text{NDF}$ : 4321454009.9/30 |
| Left Out: 148.054+/-0.000  | $\chi^2/\text{NDF}$ : 48936379.0/13   | All: 146.192+/-0.000   | $\chi^2/\text{NDF}$ : 9359067994.6    |
| Right Out: 144.719+/-0.000 | $\chi^2/\text{NDF}$ : 4473225884.5/18 | - sign 146.232+/-0.000 | $\chi^2/\text{NDF}$ : 5037245442.1/31 |
| Left In: 147.597+/-0.000   | $\chi^2/\text{NDF}$ : 319997257.4/12  |                        |                                       |

# yield\_bcm\_an\_us\_rms vs Slug



Right In:  $0.317 \pm 0.000$   $\chi^2/\text{NDF}$ : 1280358.6/16

Left Out:  $0.384 \pm 0.000$   $\chi^2/\text{NDF}$ : 851571.9/13

Right Out:  $0.323 \pm 0.000$   $\chi^2/\text{NDF}$ : 1222784.7/18

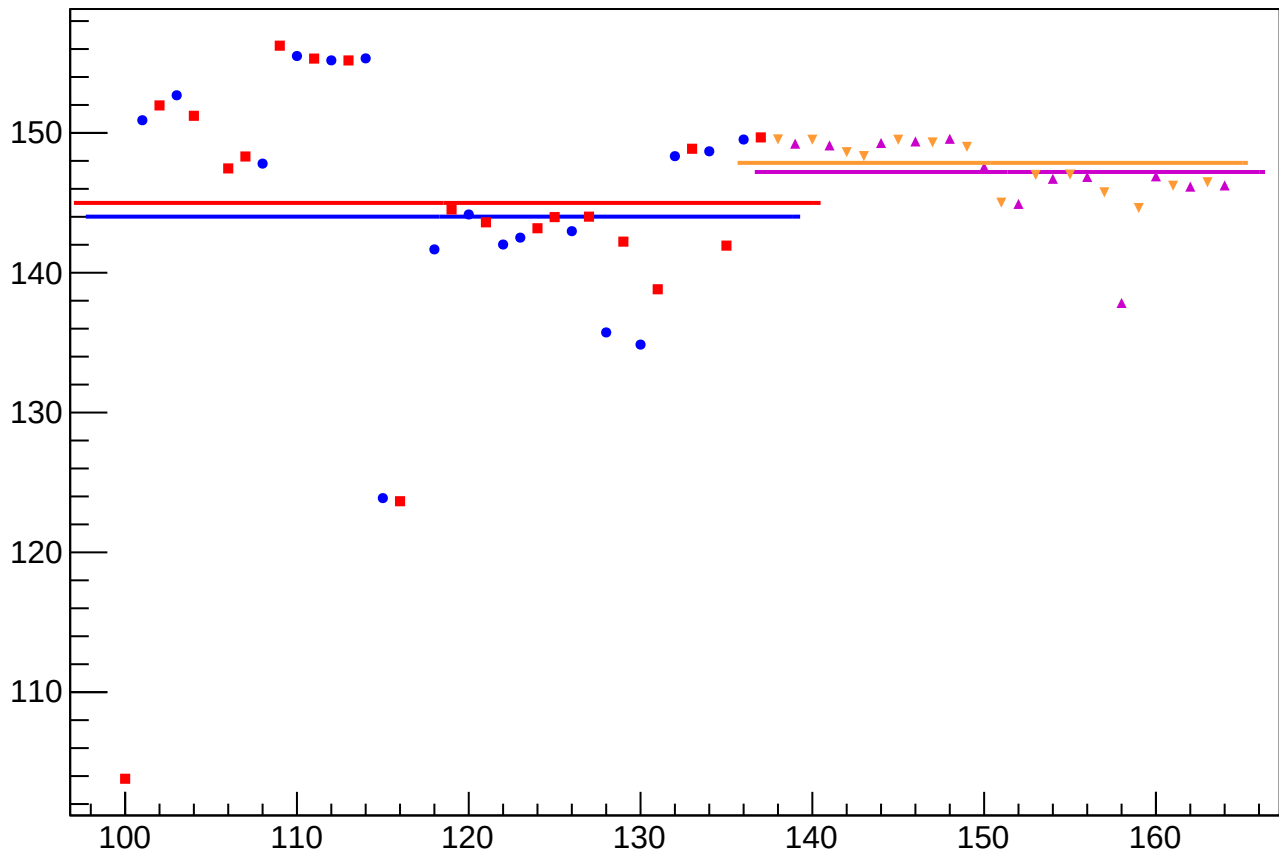
Left In:  $0.393 \pm 0.000$   $\chi^2/\text{NDF}$ : 692927.7/12

+ sign  $0.354 \pm 0.000$   $\chi^2/\text{NDF}$ : 2407836.3/30

All:  $0.357 \pm 0.000$   $\chi^2/\text{NDF}$ : 4617197.5/62

- sign  $0.360 \pm 0.000$   $\chi^2/\text{NDF}$ : 2204215.4/31

# yield\_bcm\_dg\_us\_mean vs Slug



Right In: 144.012 $\pm$ 0.000  $\chi^2$ /NDF: 3241696920.3/16

Left Out: 147.858 $\pm$ 0.000  $\chi^2$ /NDF: 171599984.9/13

Right Out: 144.994 $\pm$ 0.000  $\chi^2$ /NDF: 3852381452.1/18

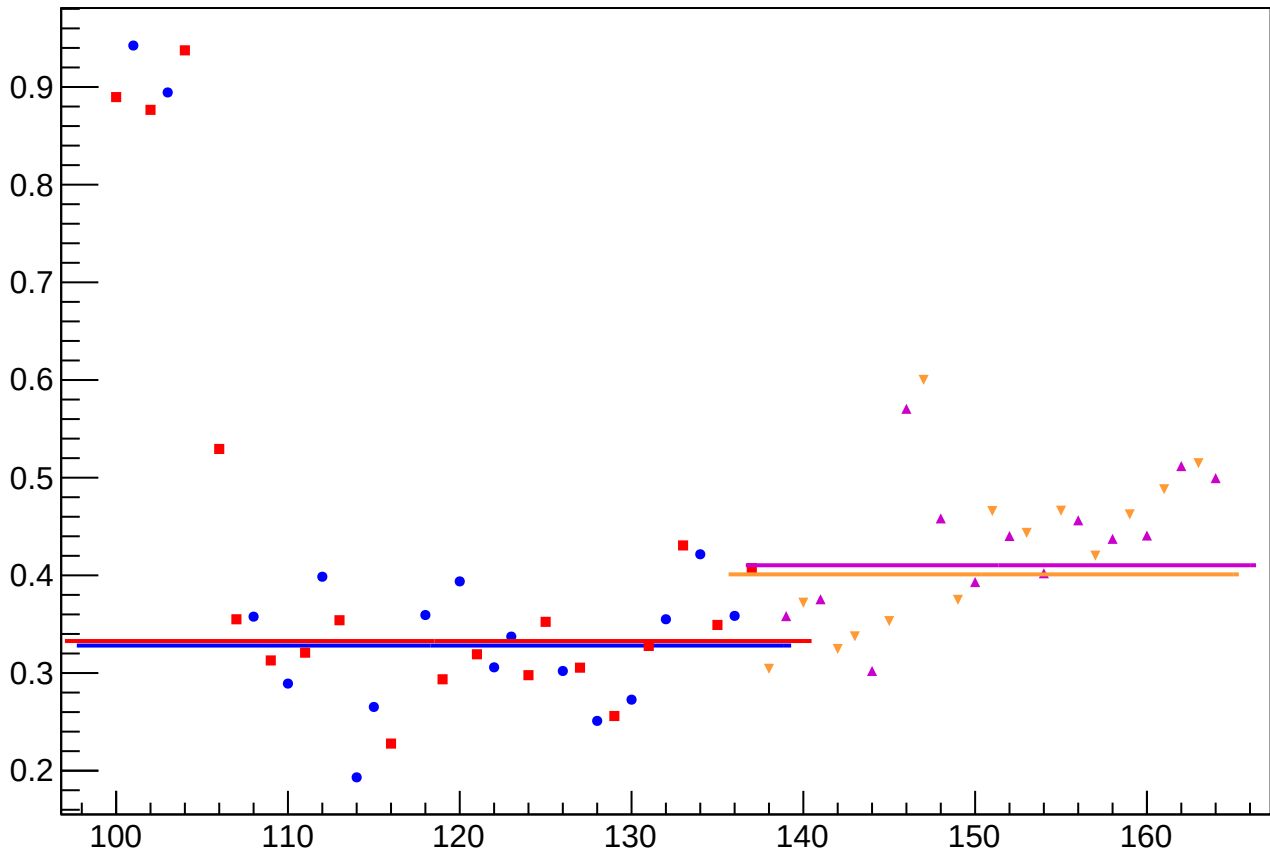
Left In: 147.206 $\pm$ 0.000  $\chi^2$ /NDF: 486330991.2/12

+ sign 146.097 $\pm$ 0.000  $\chi^2$ /NDF: 3824696957.8/30

All: 146.121 $\pm$ 0.000  $\chi^2$ /NDF: 8298269203.6

- sign 146.146 $\pm$ 0.000  $\chi^2$ /NDF: 4473434143.5/31

# yield\_bcm\_dg\_us\_rms vs Slug



Right In:  $0.328 \pm 0.000$   $\chi^2/\text{NDF}$ : 1265892.9/16

Left Out:  $0.401 \pm 0.000$   $\chi^2/\text{NDF}$ : 666544.8/13

Right Out:  $0.333 \pm 0.000$   $\chi^2/\text{NDF}$ : 1185129.6/18

Left In:  $0.410 \pm 0.000$   $\chi^2/\text{NDF}$ : 530145.8/12

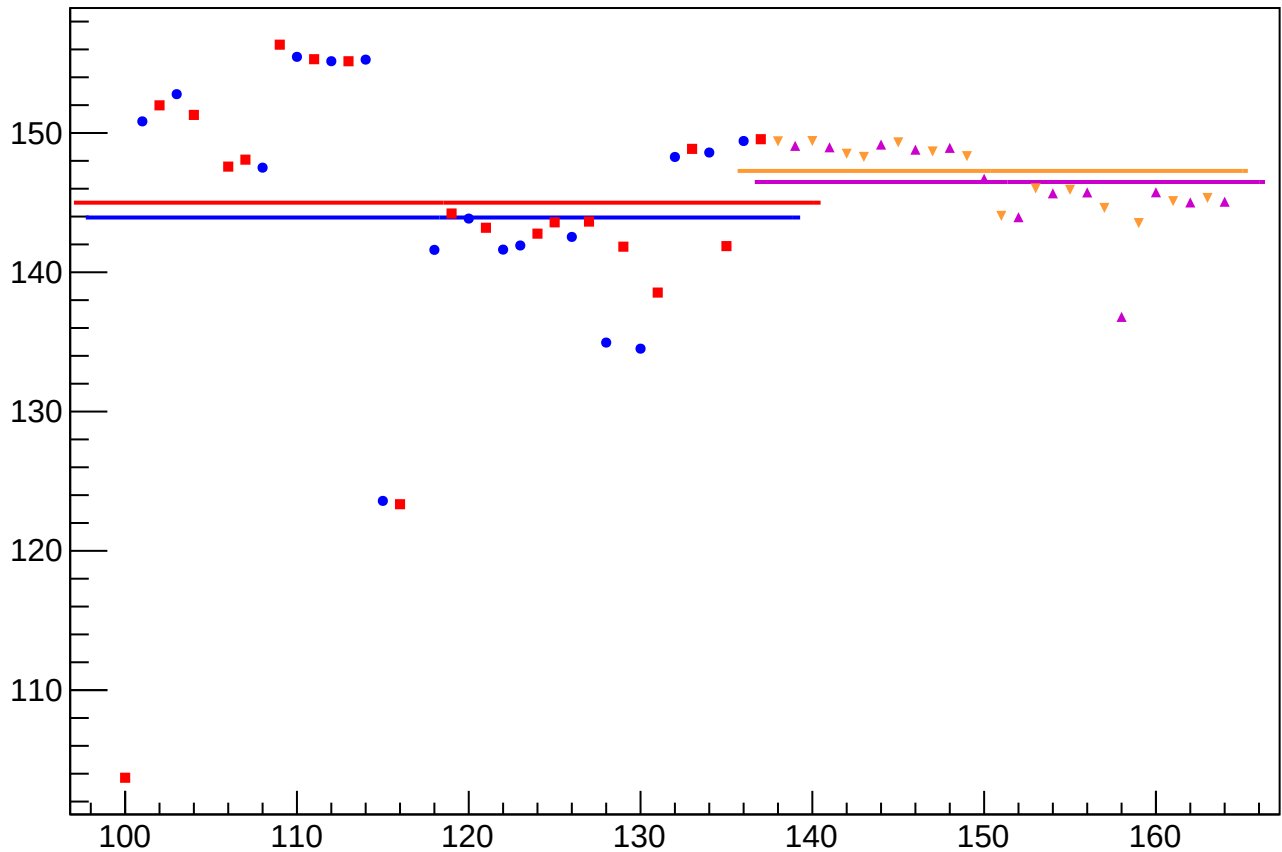
+ sign  $0.368 \pm 0.000$   $\chi^2/\text{NDF}$ : 2227866.8/30

All:  $0.370 \pm 0.000$   $\chi^2/\text{NDF}$ : 4277656.9/62

- sign  $0.373 \pm 0.000$   $\chi^2/\text{NDF}$ : 2046361.4/31

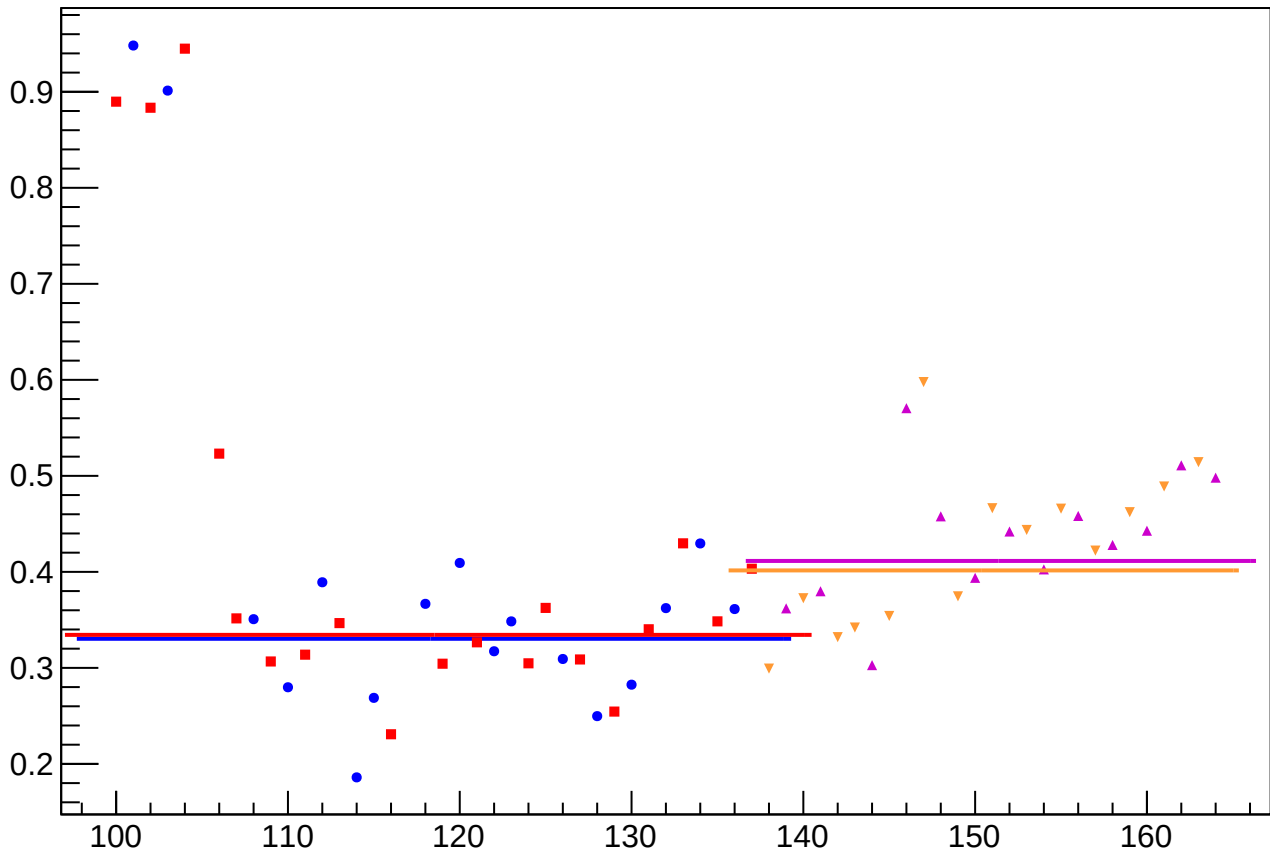


# yield\_bcm\_dg\_ds\_mean vs Slug



Right In:  $143.932 \pm 0.000$   $\chi^2/\text{NDF}$ : 3383012861.2/16  
 Left Out:  $147.278 \pm 0.000$   $\chi^2/\text{NDF}$ : 260774893.5/13  
 Right Out:  $144.998 \pm 0.000$   $\chi^2/\text{NDF}$ : 3932958476.0/18  
 Left In:  $146.481 \pm 0.000$   $\chi^2/\text{NDF}$ : 596548803.2/12  
 All:  $145.764 \pm 0.000$   $\chi^2/\text{NDF}$ : 8541152205.2  
 + sign  $145.756 \pm 0.000$   $\chi^2/\text{NDF}$ : 3951600034.4/30  
 - sign  $145.773 \pm 0.000$   $\chi^2/\text{NDF}$ : 4589536793.3/31

# yield\_bcm\_dg\_ds\_rms vs Slug



Right In:  $0.330 \pm 0.000$   $\chi^2/\text{NDF}$ : 1283955.7/16

Left Out:  $0.402 \pm 0.000$   $\chi^2/\text{NDF}$ : 665109.9/13

Right Out:  $0.334 \pm 0.000$   $\chi^2/\text{NDF}$ : 1174012.0/18

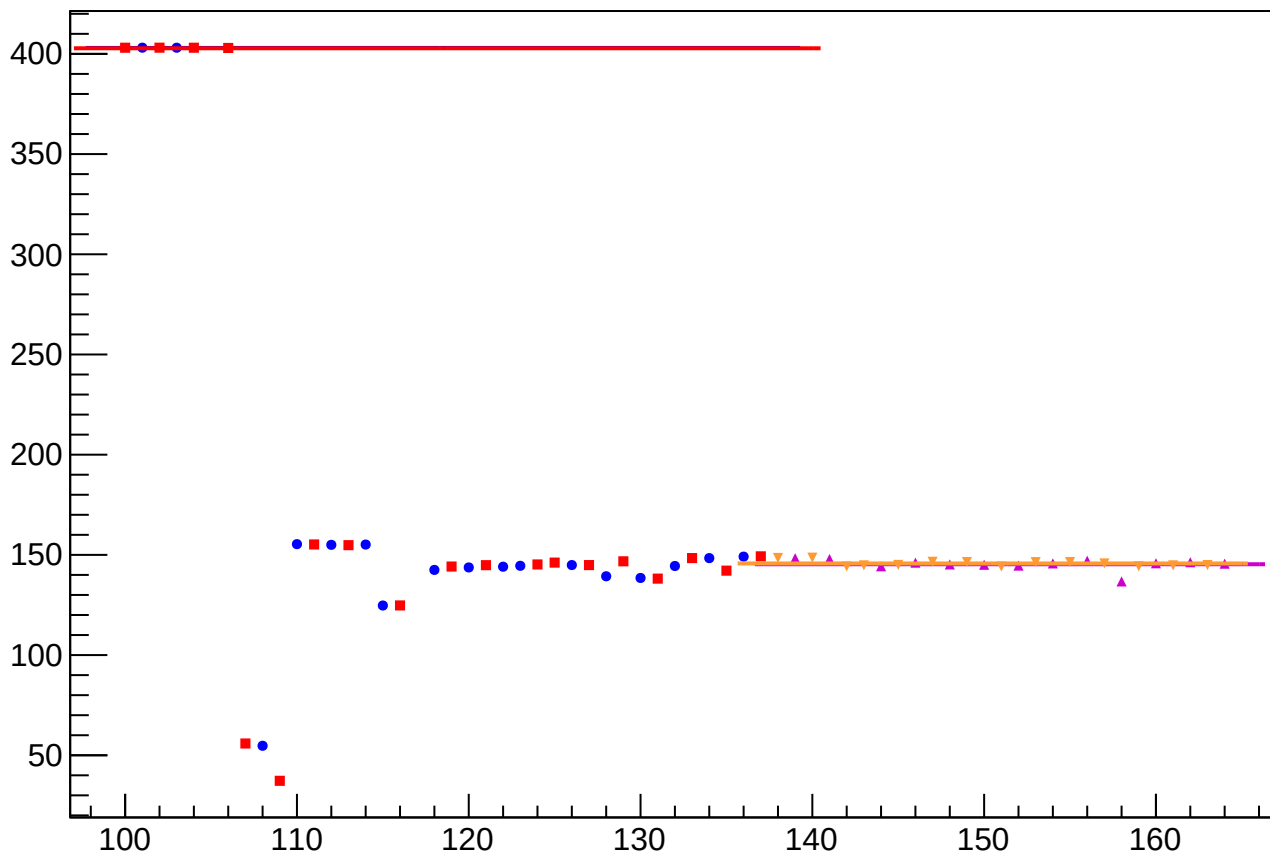
Left In:  $0.411 \pm 0.000$   $\chi^2/\text{NDF}$ : 513062.9/12

+ sign  $0.369 \pm 0.000$   $\chi^2/\text{NDF}$ : 2227997.7/30

All:  $0.372 \pm 0.000$   $\chi^2/\text{NDF}$ : 4241751.2/62

- sign  $0.375 \pm 0.000$   $\chi^2/\text{NDF}$ : 2010452.4/31

# yield\_cav4bQ\_mean vs Slug



Right In: 402.958 +/- 0.000  $\chi^2/\text{NDF}$ : 1094364588383.4/16

Left Out: 145.717 +/- 0.000  $\chi^2/\text{NDF}$ : 40320795.1/13

Right Out: 402.799 +/- 0.000  $\chi^2/\text{NDF}$ : 3102036567767.5/18

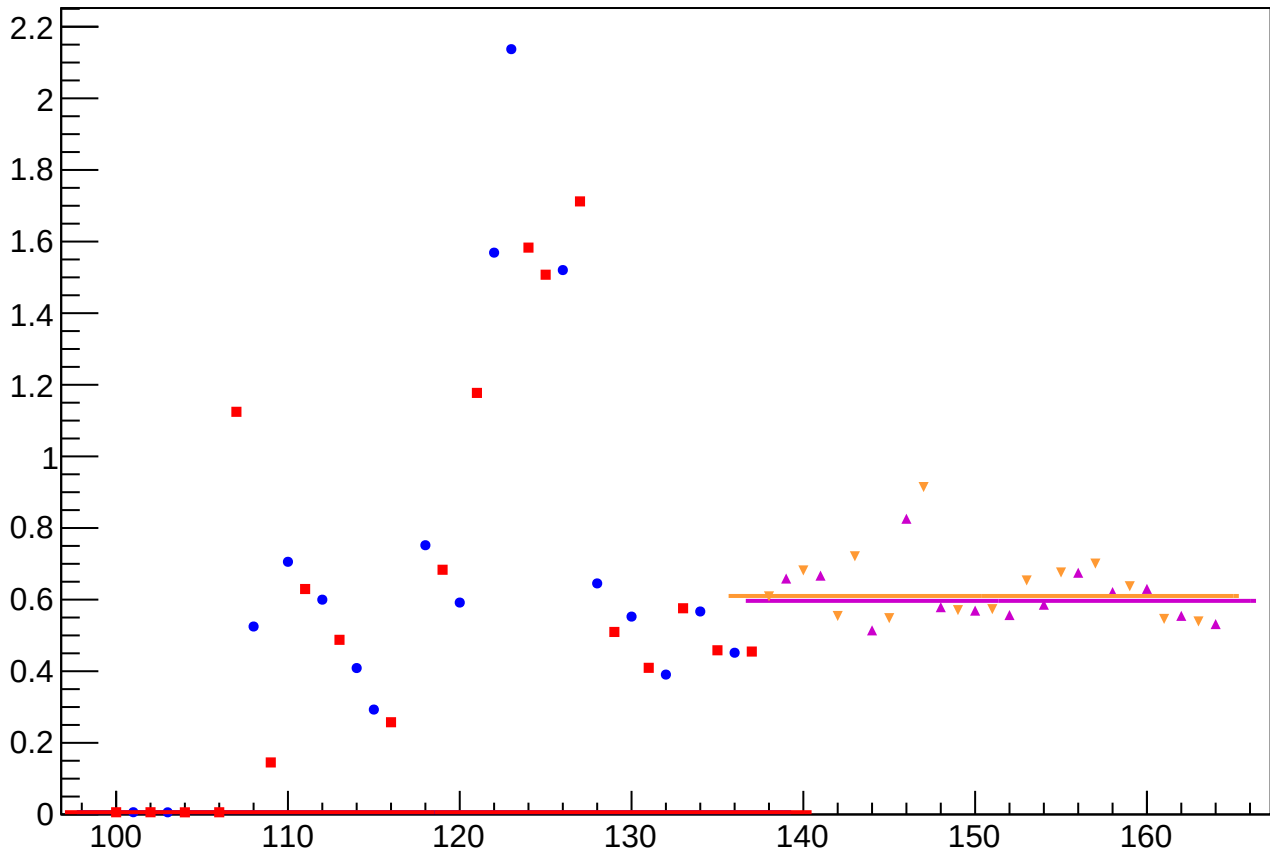
Left In: 145.326 +/- 0.000  $\chi^2/\text{NDF}$ : 129722791.8/12

+ sign 402.797 +/- 0.000  $\chi^2/\text{NDF}$ : 2383526003857.5

All: 402.720 +/- 0.000  $\chi^2/\text{NDF}$ : 682124370479

- sign 402.652 +/- 0.000  $\chi^2/\text{NDF}$ : 4437369776047.8

# yield\_cav4bQ\_rms vs Slug



Right In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 9079322.7/16

Left Out: 0.610+/-0.000  $\chi^2/\text{NDF}$ : 247479.5/13

Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 9193355.5/18

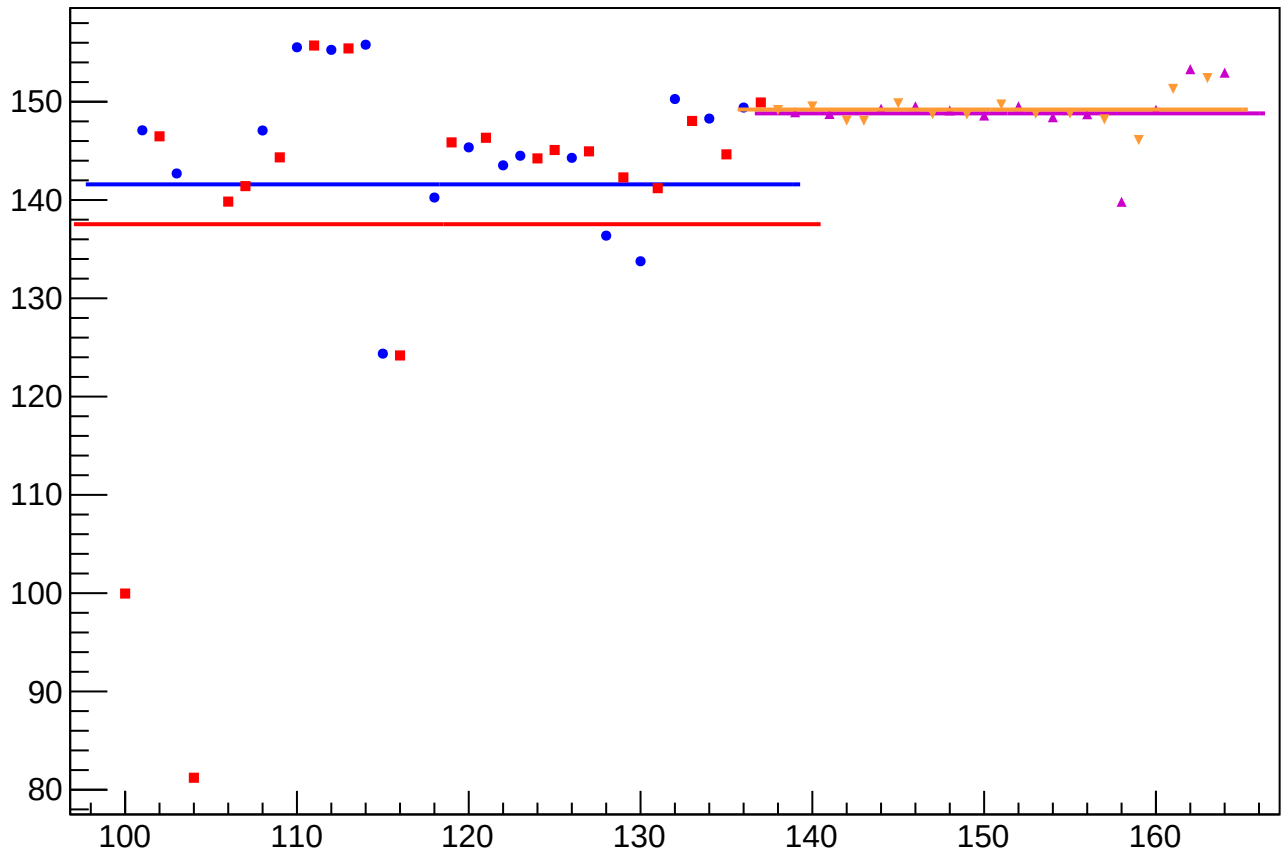
Left In: 0.597+/-0.000  $\chi^2/\text{NDF}$ : 186958.5/12

+ sign 0.007+/-0.000  $\chi^2/\text{NDF}$ : 23534809.5/30

All: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 46947117.9/62

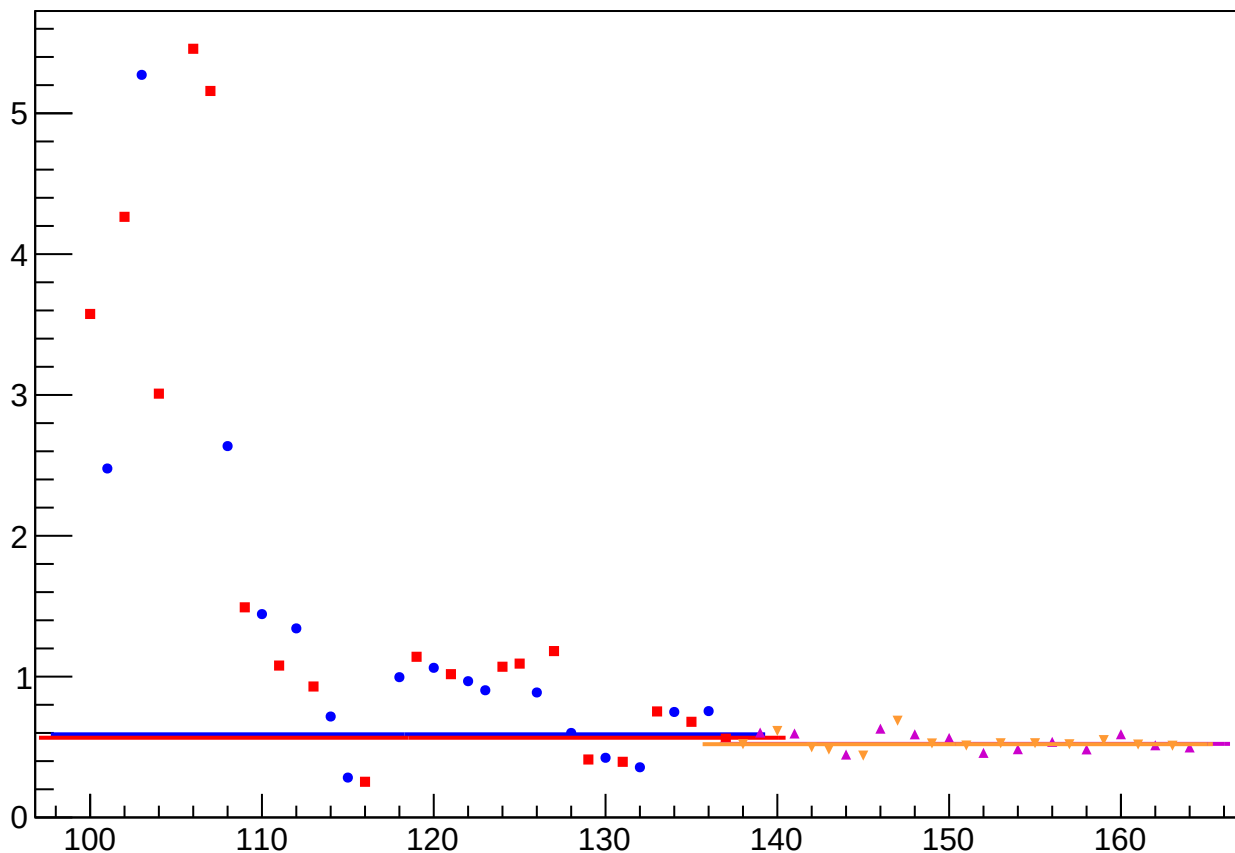
- sign 0.007+/-0.000  $\chi^2/\text{NDF}$ : 23412222.7/31

# yield\_cav4cQ\_mean vs Slug



|                                |                                |                            |                                |
|--------------------------------|--------------------------------|----------------------------|--------------------------------|
| Right In: 141.593 $\pm$ 0.000  | $\chi^2$ /NDF: 980101868.2/16  | + sign 147.466 $\pm$ 0.000 | $\chi^2$ /NDF: 1512724853.5/30 |
| Left Out: 149.205 $\pm$ 0.000  | $\chi^2$ /NDF: 81345741.1/13   | All: 146.776 $\pm$ 0.000   | $\chi^2$ /NDF: 4247705556.6    |
| Right Out: 137.539 $\pm$ 0.000 | $\chi^2$ /NDF: 1316096307.7/18 | - sign 146.081 $\pm$ 0.000 | $\chi^2$ /NDF: 2692752085.1/31 |
| Left In: 148.813 $\pm$ 0.000   | $\chi^2$ /NDF: 353701819.3/12  |                            |                                |

# yield\_cav4cQ\_rms vs Slug



Right In:  $0.590 \pm 0.000$   $\chi^2/\text{NDF}$ : 3491995.1/16

Left Out:  $0.520 \pm 0.000$   $\chi^2/\text{NDF}$ : 169011.6/13

Right Out:  $0.566 \pm 0.000$   $\chi^2/\text{NDF}$ : 4683596.4/18

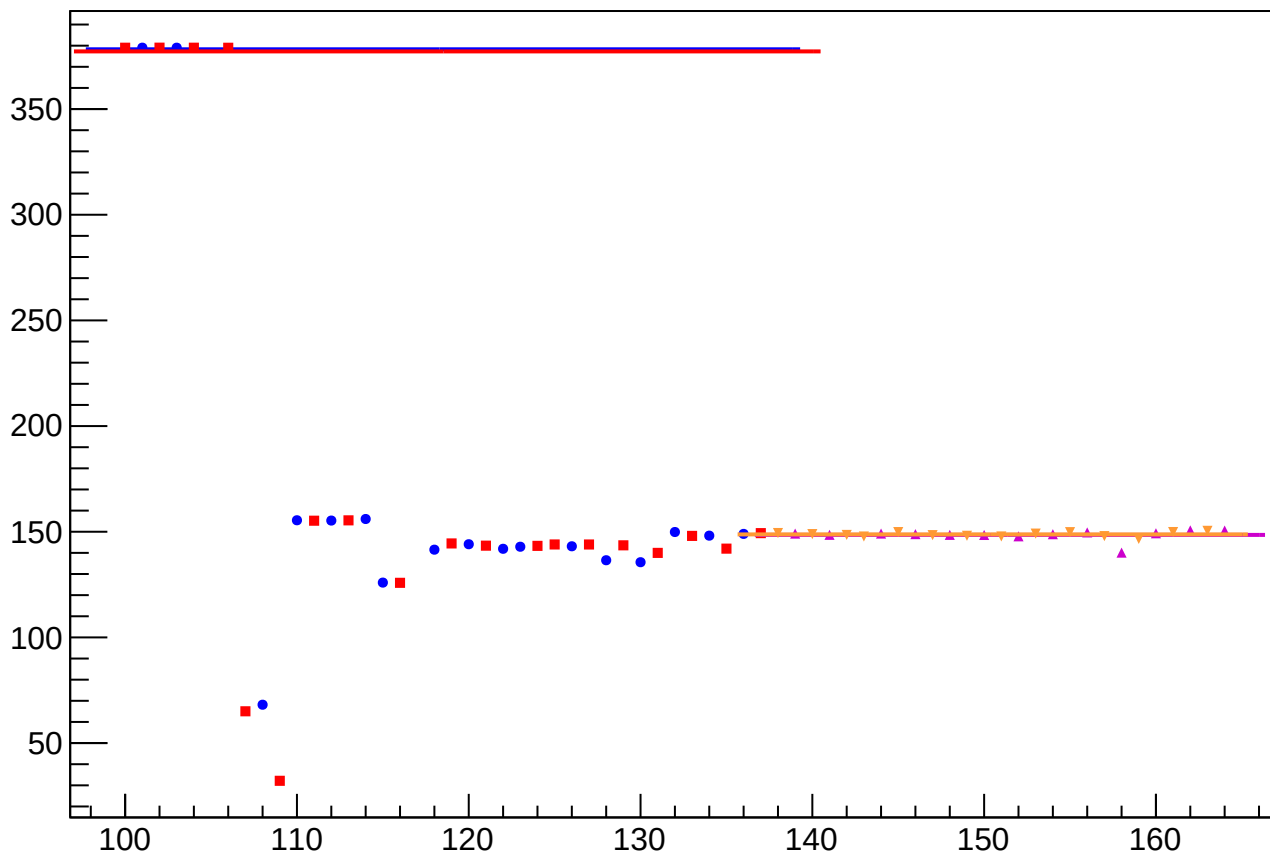
Left In:  $0.523 \pm 0.000$   $\chi^2/\text{NDF}$ : 222634.4/12

+ sign  $0.536 \pm 0.000$   $\chi^2/\text{NDF}$ : 3737408.0/30

All:  $0.535 \pm 0.000$   $\chi^2/\text{NDF}$ : 8674594.8/62

- sign  $0.533 \pm 0.000$   $\chi^2/\text{NDF}$ : 4936751.7/31

# yield\_cav4dQ\_mean vs Slug



Right In: 378.283+/-0.000  $\chi^2/\text{NDF}$ : 2508313421453.8/16

Left Out: 148.737+/-0.000  $\chi^2/\text{NDF}$ : 51857084.5/13

Right Out: 377.287+/-0.000  $\chi^2/\text{NDF}$ : 8286303106836.4/18

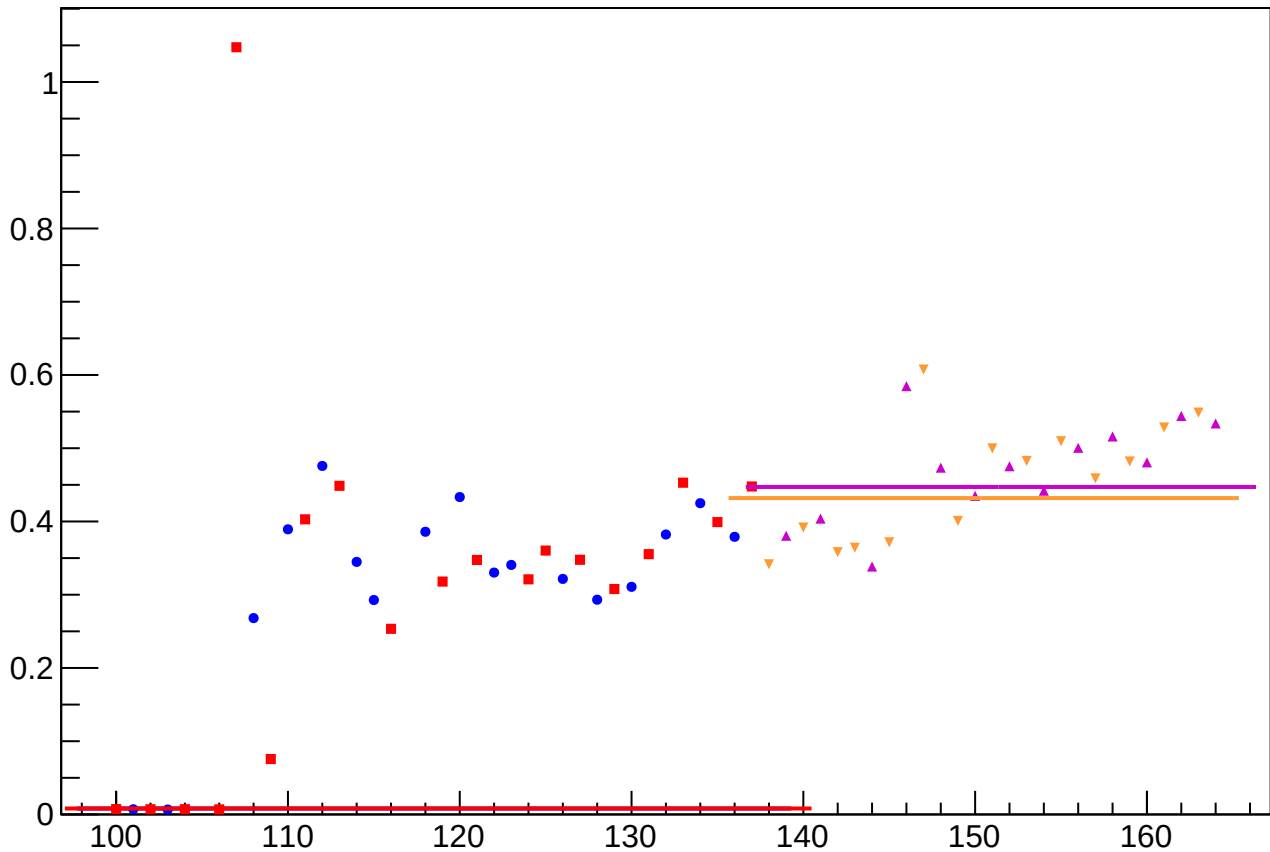
Left In: 148.502+/-0.000  $\chi^2/\text{NDF}$ : 232920809.0/12

+ sign 377.372+/-0.000  $\chi^2/\text{NDF}$ : 5291419471930.4

All: 376.936+/-0.000  $\chi^2/\text{NDF}$ : 16134153015

- sign 376.553+/-0.000  $\chi^2/\text{NDF}$ : 10837951179383.4

# yield\_cav4dQ\_rms vs Slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 9806719.4/16

Left Out: 0.432+/-0.000  $\chi^2/\text{NDF}$ : 593866.2/13

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 9522827.2/18

Left In: 0.447+/-0.000  $\chi^2/\text{NDF}$ : 465021.9/12

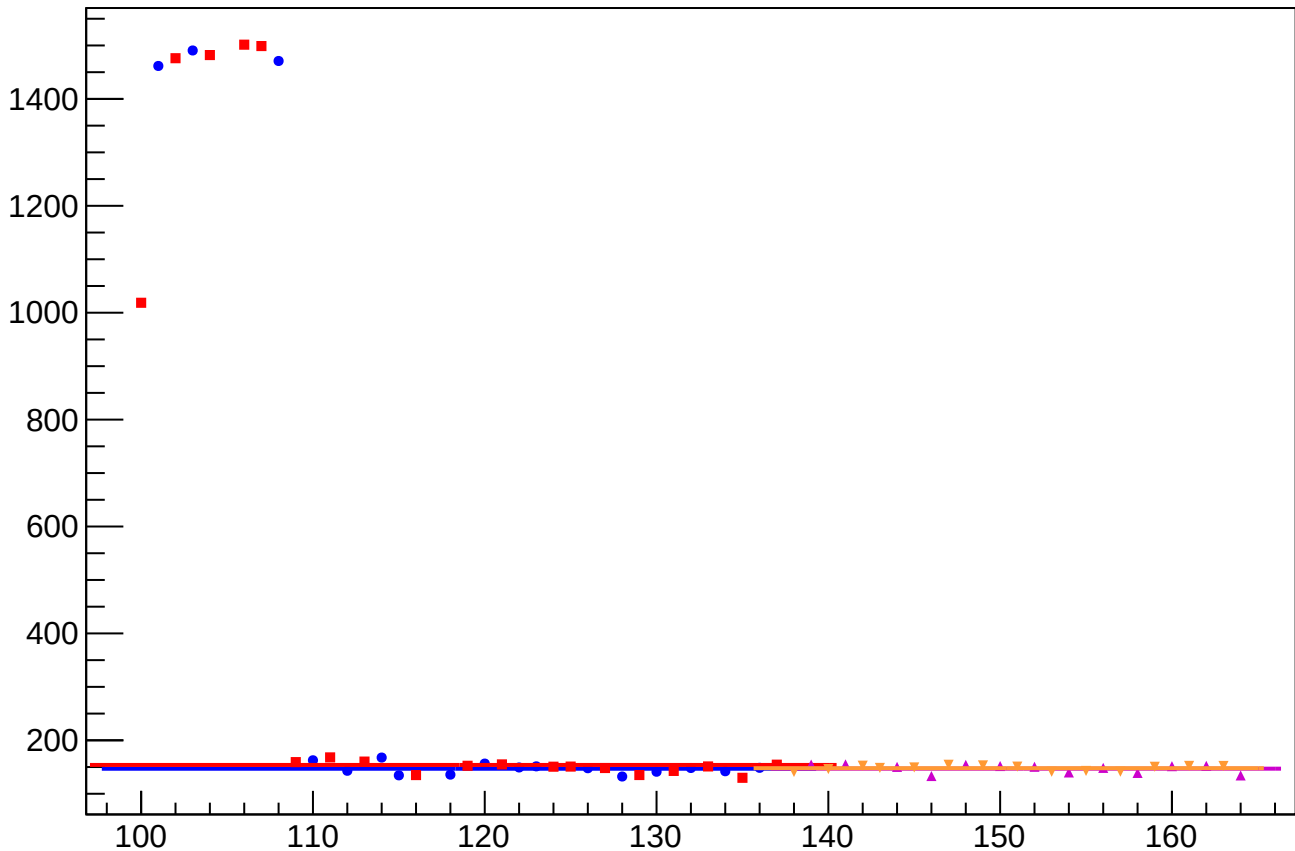
+ sign 0.010+/-0.000  $\chi^2/\text{NDF}$ : 29374269.9/30

All: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 58147347.2/62

- sign 0.010+/-0.000  $\chi^2/\text{NDF}$ : 28772210.8/31



# yield\_bcm0l02\_mean vs Slug



Right In:  $146.819 \pm 0.000$   $\chi^2/\text{NDF}$ : 24360774977.7/16

Left Out:  $147.828 \pm 0.000$   $\chi^2/\text{NDF}$ : 240009275.0/13

Right Out:  $153.901 \pm 0.000$   $\chi^2/\text{NDF}$ : 33737565970.8/18

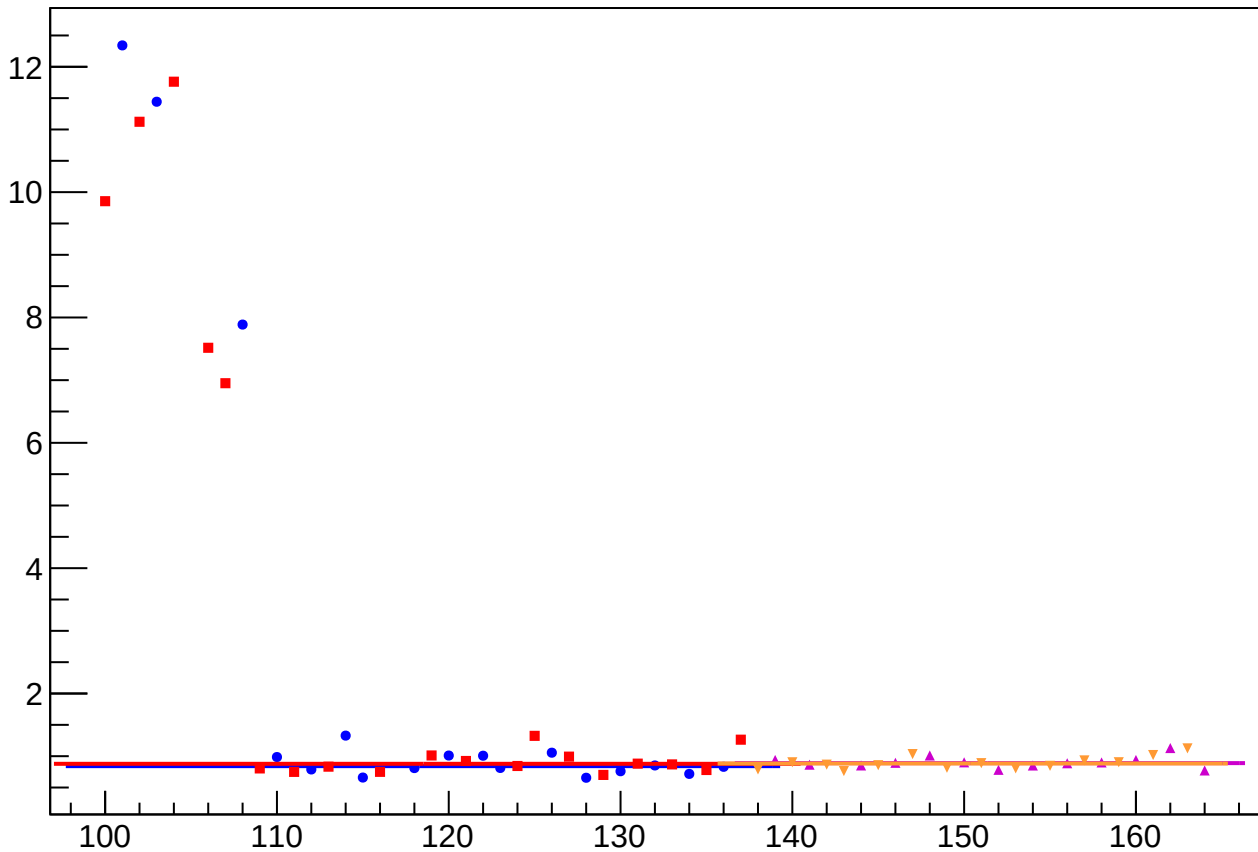
Left In:  $146.932 \pm 0.000$   $\chi^2/\text{NDF}$ : 594356132.7/12

+ sign  $147.491 \pm 0.000$   $\chi^2/\text{NDF}$ : 24604391894.6/30

All:  $148.376 \pm 0.000$   $\chi^2/\text{NDF}$ : 59132028398.0

- sign  $149.271 \pm 0.000$   $\chi^2/\text{NDF}$ : 34502550633.7/31

# yield\_bcm0l02\_rms vs Slug



Right In: 0.841 $\pm$ 0.000  $\chi^2$ /NDF: 2662395.1/16

Left Out: 0.883 $\pm$ 0.000  $\chi^2$ /NDF:183180.4/13

Right Out: 0.878 $\pm$ 0.000  $\chi^2$ /NDF: 2814626.6/18

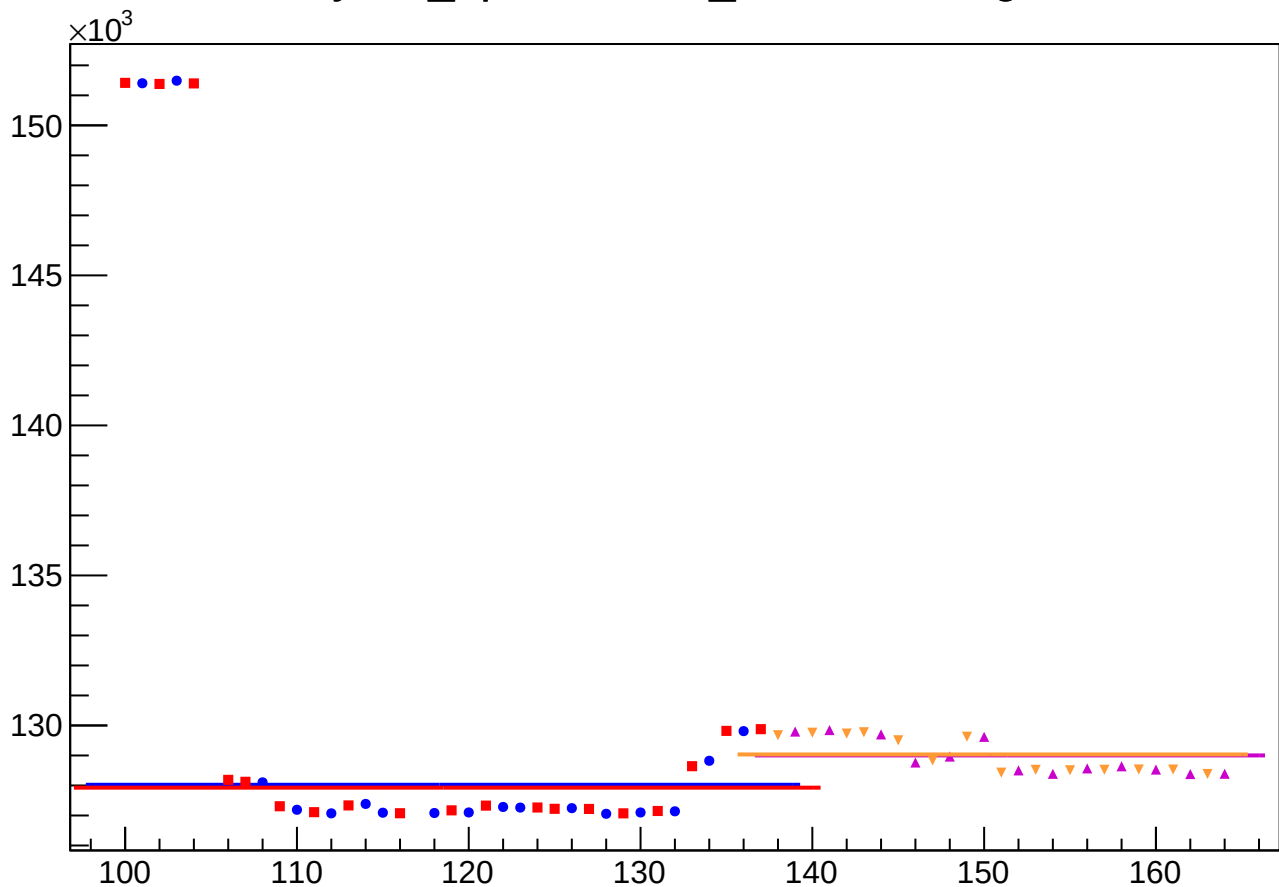
Left In: 0.889 $\pm$ 0.000  $\chi^2$ /NDF:140580.1/12

+ sign 0.869 $\pm$ 0.000  $\chi^2$ /NDF: 2858149.5/30

All: 0.877 $\pm$ 0.000  $\chi^2$ /NDF: 5818538.3/62

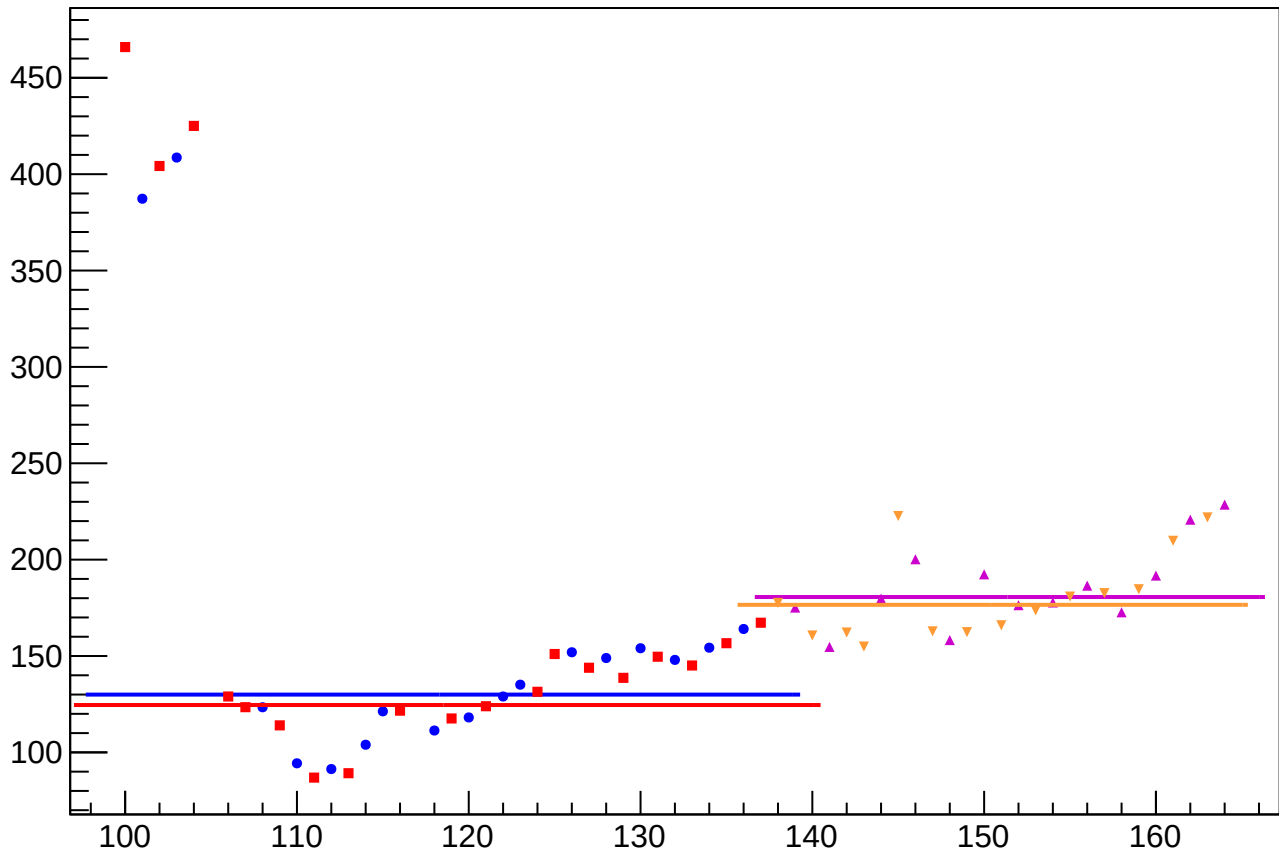
- sign 0.886 $\pm$ 0.000  $\chi^2$ /NDF: 2956080.7/31

# yield\_bpm2i01WS\_mean vs Slug



Right In: 128023.527 $\pm$ 0.055  $\chi^2$ /NDF: 4316540586.9/16  
 Left Out: 129033.648 $\pm$ 0.055  $\chi^2$ /NDF: 110450536.5/13  
 Right Out: 127927.471 $\pm$ 0.050  $\chi^2$ /NDF: 3767047216.9/18  
 Left In: 129001.719 $\pm$ 0.057  $\chi^2$ /NDF: 101701188.7/12  
 + sign 128524.670 $\pm$ 0.039  $\chi^2$ /NDF: 4597179895.6  
 All: 128460.706 $\pm$ 0.027  $\chi^2$ /NDF: 867131762  
 - sign 128400.052 $\pm$ 0.038  $\chi^2$ /NDF: 4068819222.4

# yield\_bpm2i01WS\_rms vs Slug



Right In: 129.980 $\pm$ 0.039  $\chi^2$ /NDF: 1485519.5/16

Left Out: 176.556 $\pm$ 0.039  $\chi^2$ /NDF: 256030.3/13

Right Out: 124.566 $\pm$ 0.036  $\chi^2$ /NDF: 1531273.9/18

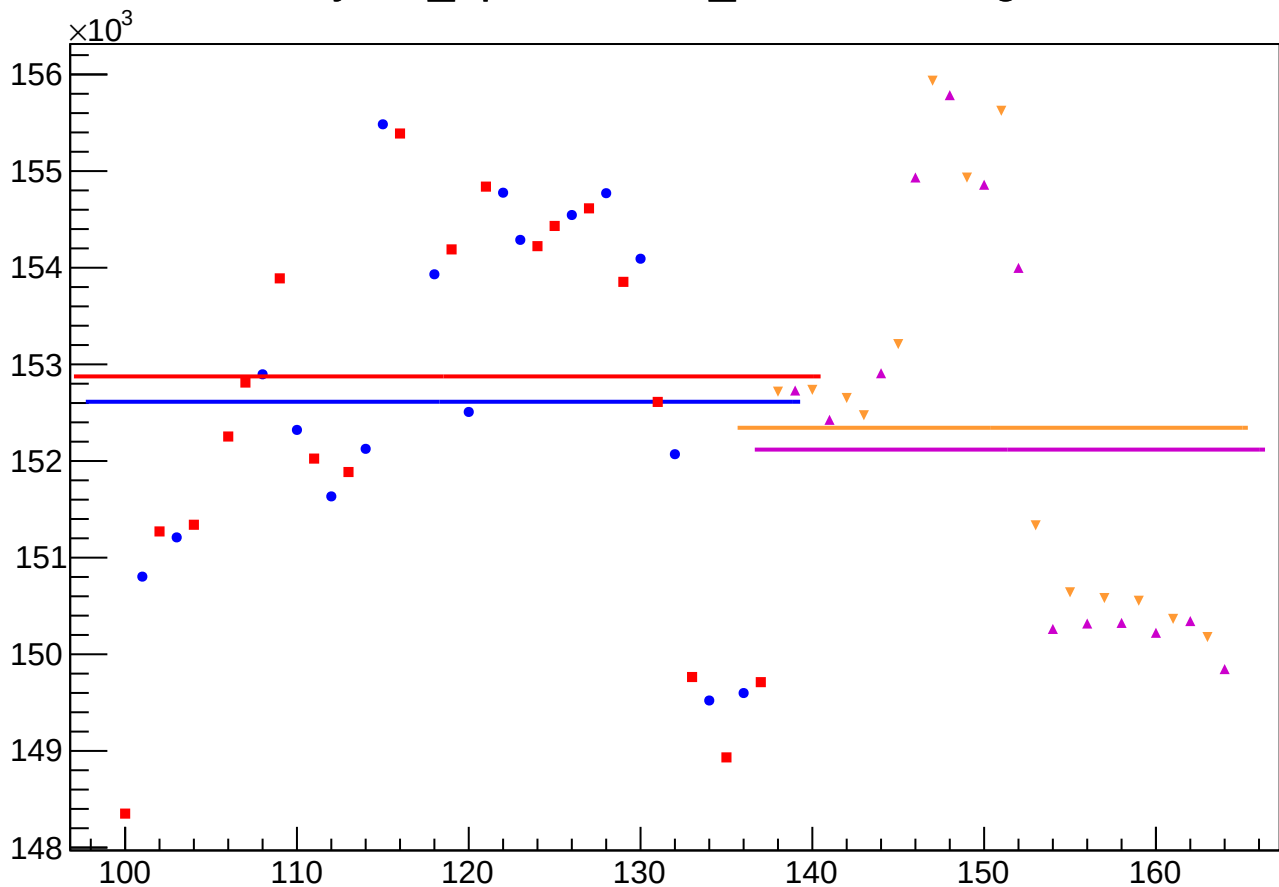
Left In: 180.609 $\pm$ 0.040  $\chi^2$ /NDF: 214436.9/12

+ sign 153.087 $\pm$ 0.027  $\chi^2$ /NDF: 2465236.9/30

All: 151.103 $\pm$ 0.019  $\chi^2$ /NDF: 5310246.5/62

- sign 149.221 $\pm$ 0.027  $\chi^2$ /NDF: 2834768.7/31

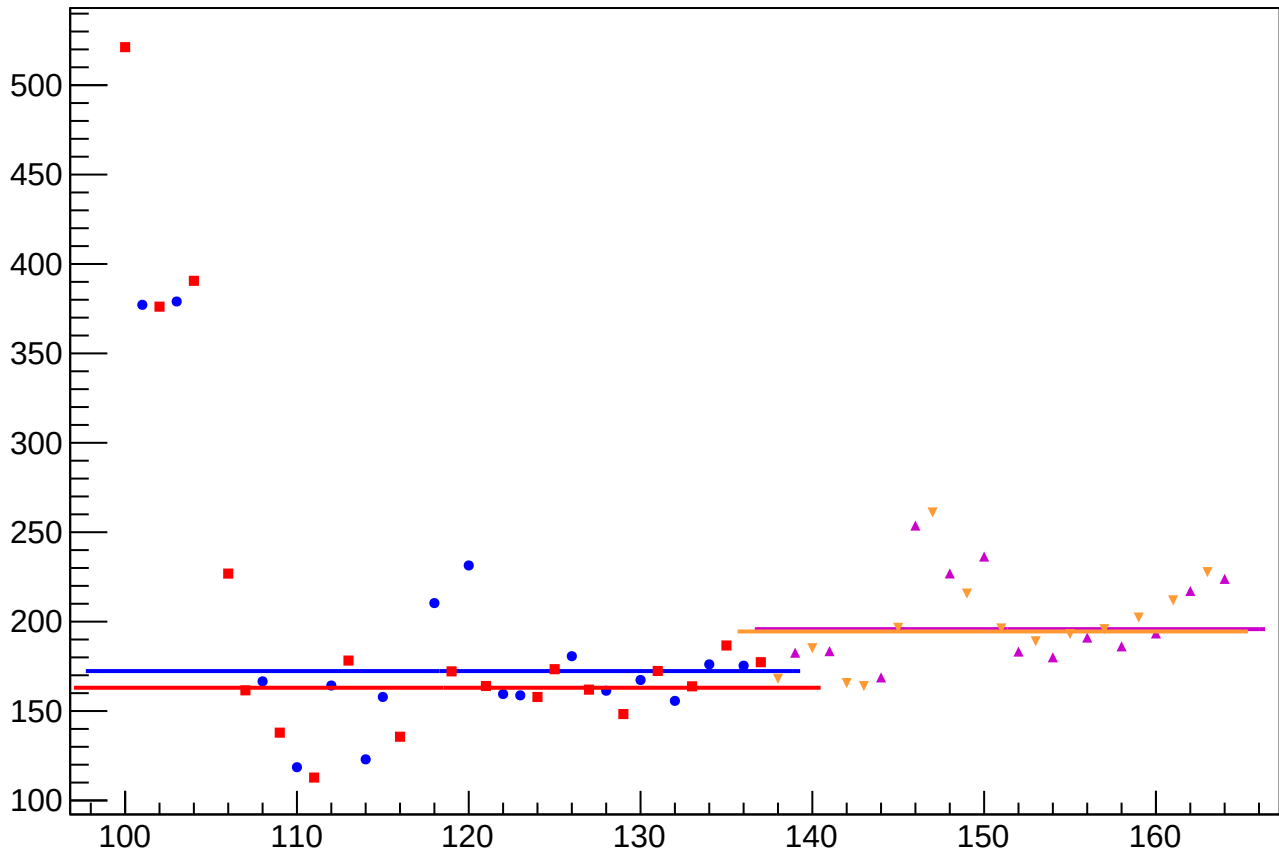
# yield\_bpm0i07WS\_mean vs Slug



Right In:  $152613.122 \pm 0.072$   $\chi^2/\text{NDF}: 623356098.4/16$   
 Left Out:  $152343.914 \pm 0.061$   $\chi^2/\text{NDF}: 856317216.7/13$   
 Right Out:  $152875.313 \pm 0.066$   $\chi^2/\text{NDF}: 716358700.9/18$   
 Left In:  $152118.026 \pm 0.062$   $\chi^2/\text{NDF}: 946370263.6/12$

+ sign  $152455.440 \pm 0.047$   $\chi^2/\text{NDF}: 1487801570.7$   
 All:  $152463.503 \pm 0.032$   $\chi^2/\text{NDF}: 322044130$   
 - sign  $152471.117 \pm 0.045$   $\chi^2/\text{NDF}: 1732581372.4$

# yield\_bpm0i07WS\_rms vs Slug



Right In: 172.351+/-0.051  $\chi^2/\text{NDF}$ : 921911.1/16

Left Out: 194.497+/-0.043  $\chi^2/\text{NDF}$ : 274831.7/13

Right Out: 163.029+/-0.047  $\chi^2/\text{NDF}$ : 1032736.0/18

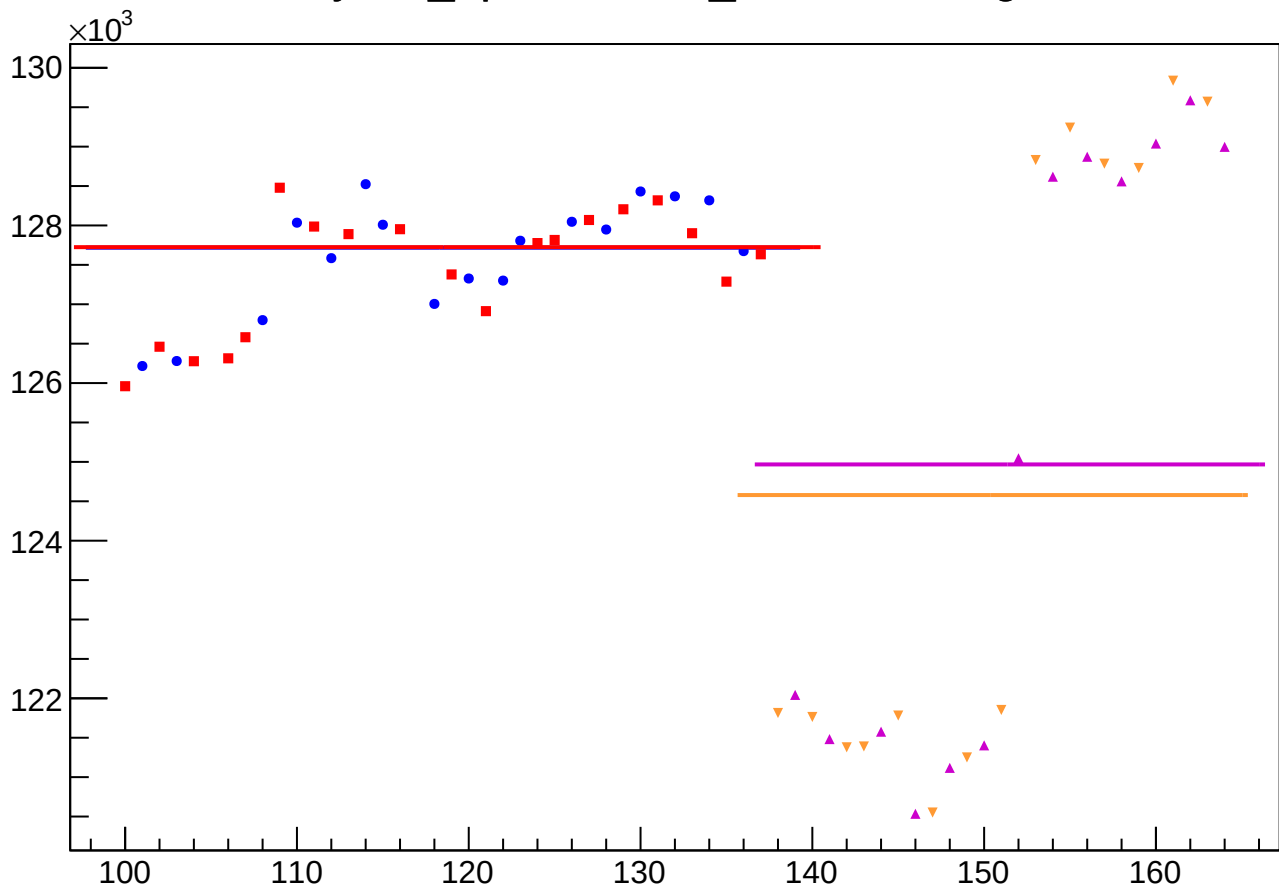
Left In: 195.803+/-0.044  $\chi^2/\text{NDF}$ : 278536.5/12

+ sign 185.323+/-0.033  $\chi^2/\text{NDF}$ : 1306757.6/30

All: 182.854+/-0.023  $\chi^2/\text{NDF}$ : 2890646.3/62

- sign 180.522+/-0.032  $\chi^2/\text{NDF}$ : 1572932.1/31

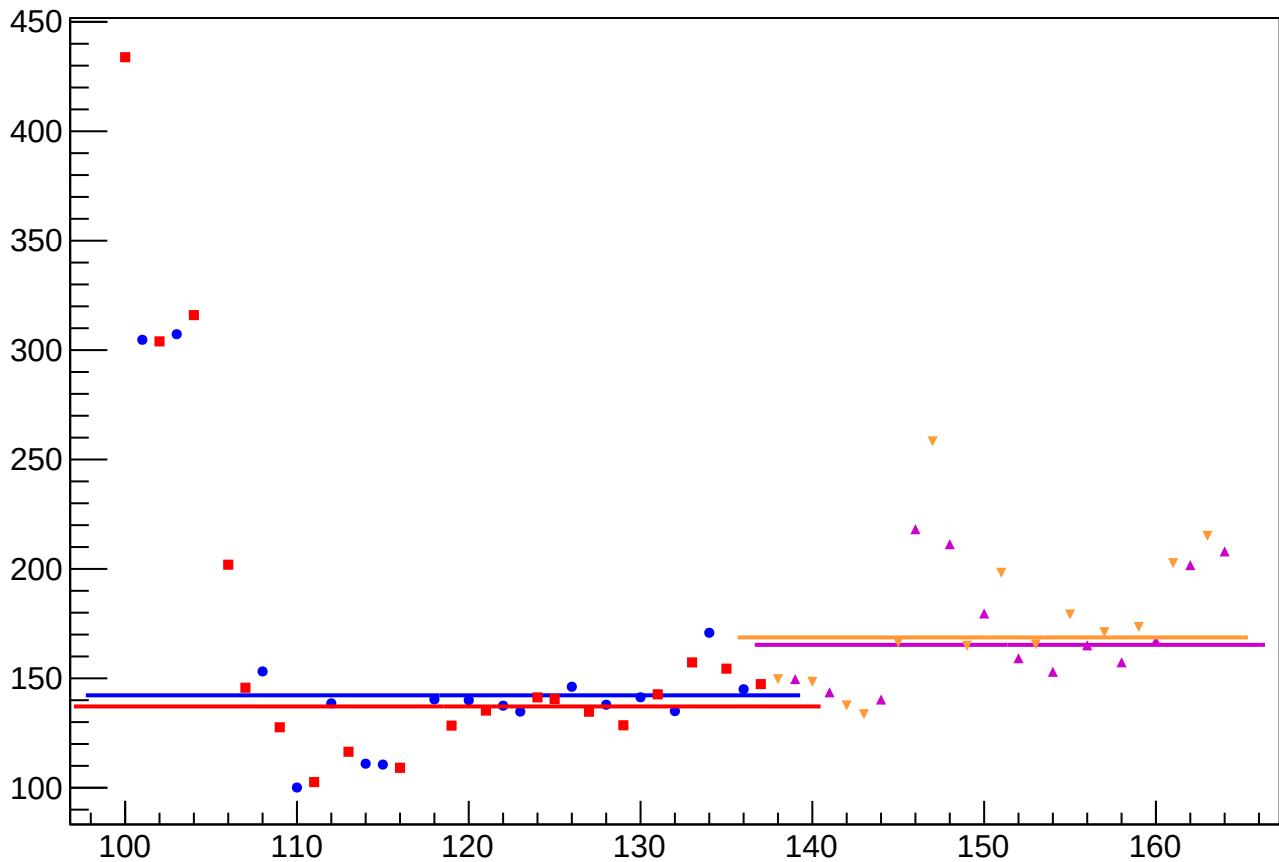
# yield\_bpm0l01WS\_mean vs Slug



Right In:  $127717.888 \pm 0.058$   $\chi^2/\text{NDF}: 95177660.2/16$   
 Left Out:  $124579.118 \pm 0.053$   $\chi^2/\text{NDF}: 4864419665.1/13$   
 Right Out:  $127724.519 \pm 0.055$   $\chi^2/\text{NDF}: 112550604.4/18$   
 Left In:  $124967.734 \pm 0.053$   $\chi^2/\text{NDF}: 4546469106.4/12$

+ sign  $126010.624 \pm 0.039$   $\chi^2/\text{NDF}: 6537038496.6$   
 All:  $126159.464 \pm 0.027$   $\chi^2/\text{NDF}: 125472810$   
 - sign  $126297.181 \pm 0.038$   $\chi^2/\text{NDF}: 5982713711.3/$

# yield\_bpm0l01WS\_rms vs Slug



Right In:  $142.240 \pm 0.041$   $\chi^2/\text{NDF}$ : 836415.1/16

Left Out:  $168.697 \pm 0.038$   $\chi^2/\text{NDF}$ : 528325.3/13

Right Out:  $137.151 \pm 0.039$   $\chi^2/\text{NDF}$ : 957730.8/18

Left In:  $165.306 \pm 0.037$   $\chi^2/\text{NDF}$ : 396652.5/12

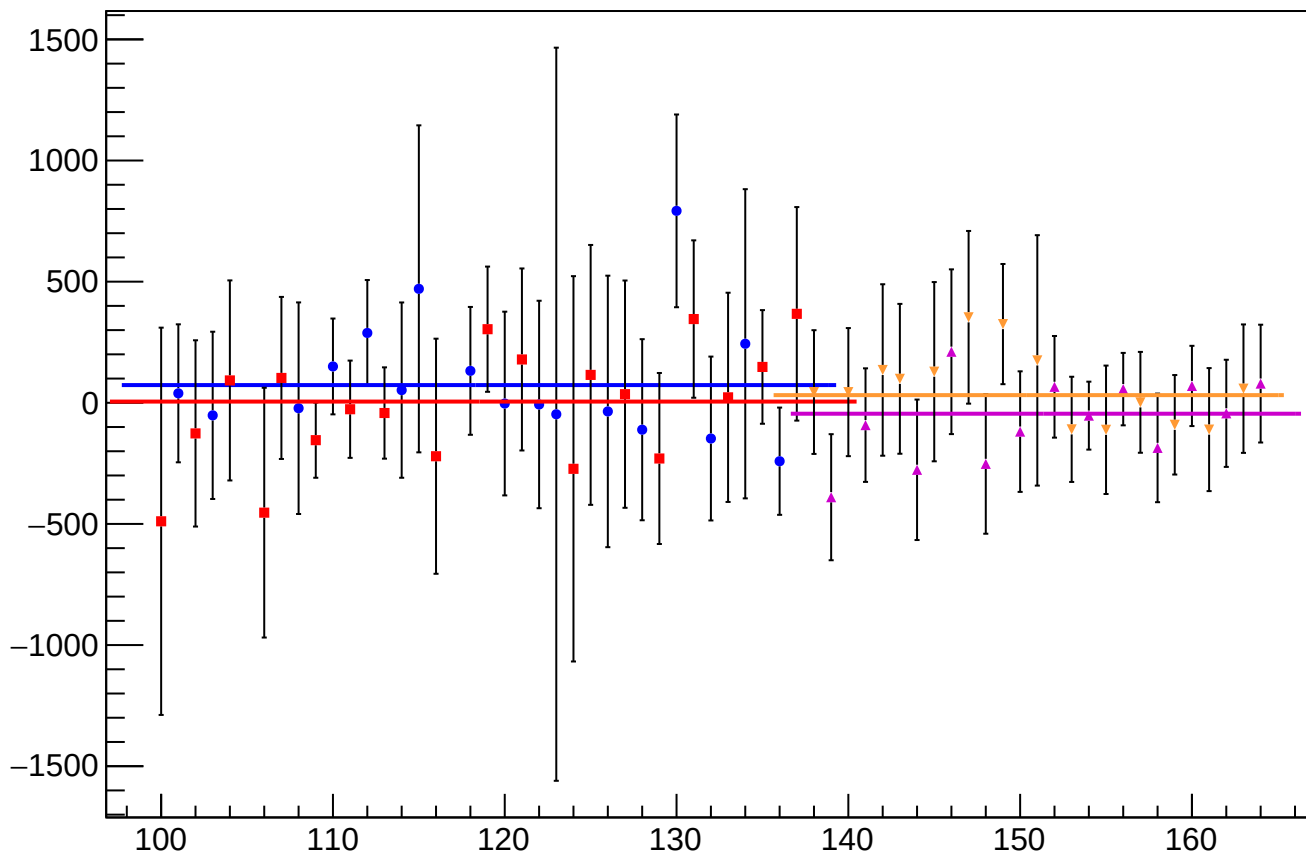
+ sign  $156.631 \pm 0.028$   $\chi^2/\text{NDF}$ : 1588890.5/30

All:  $154.085 \pm 0.019$   $\chi^2/\text{NDF}$ : 3235520.6/62

- sign  $151.729 \pm 0.027$   $\chi^2/\text{NDF}$ : 1630516.3/31



# asym\_bcm\_an\_ds\_mean vs Slug



Right In: 73.109+/-79.604  $\chi^2/\text{NDF}$ : 7.9/16

Left Out: 31.606+/-71.566  $\chi^2/\text{NDF}$ : 3.9/13

Right Out: 5.021+/-70.098  $\chi^2/\text{NDF}$ : 7.1/18

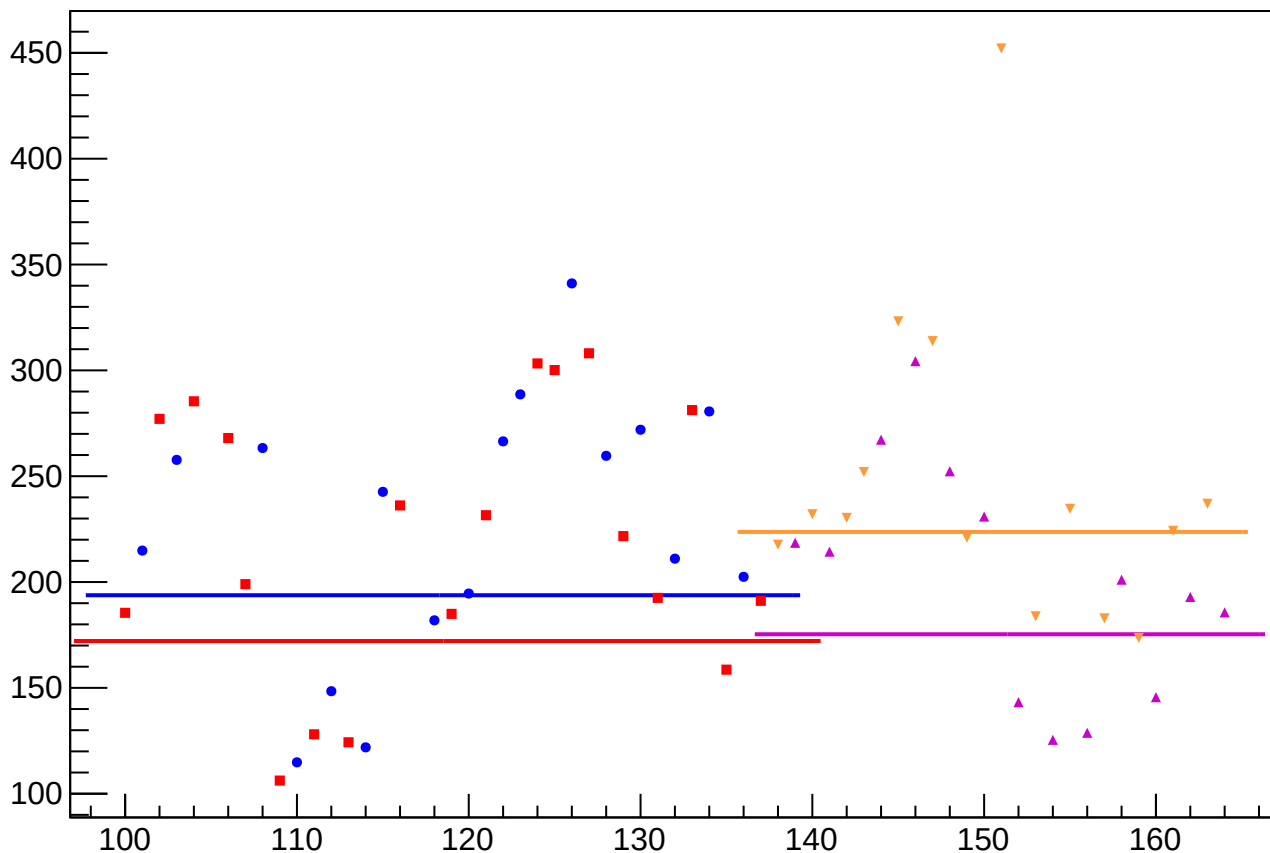
Left In: -45.101+/-58.347  $\chi^2/\text{NDF}$ : 5.5/12

+ sign 50.157+/-53.221  $\chi^2/\text{NDF}$ : 11.9/30

All: 6.447+/-34.294  $\chi^2/\text{NDF}$ : 25.9/62

- sign -24.588+/-44.845  $\chi^2/\text{NDF}$ : 12.9/31

# asym\_bcm\_an\_ds\_rms vs Slug



Right In: 193.773+/-0.056  $\chi^2/\text{NDF}$ : 1017081.7/16

Left Out: 223.677+/-0.051  $\chi^2/\text{NDF}$ : 955823.3/13

Right Out: 172.142+/-0.050  $\chi^2/\text{NDF}$ : 1580035.1/18

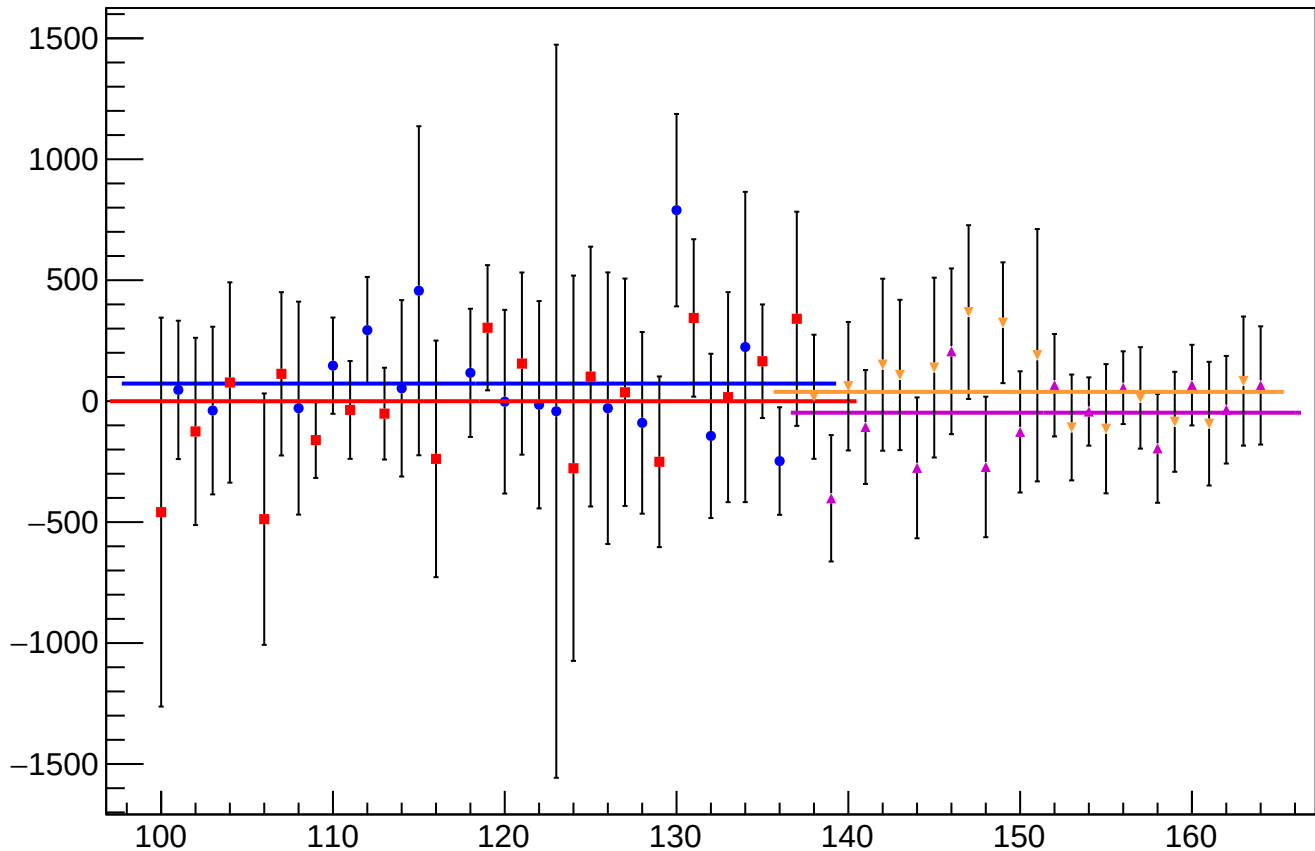
Left In: 175.330+/-0.041  $\chi^2/\text{NDF}$ : 1443203.9/12

+ sign 210.310+/-0.038  $\chi^2/\text{NDF}$ : 2128991.6/30

All: 189.091+/-0.024  $\chi^2/\text{NDF}$ : 5698322.5/62

- sign 174.025+/-0.032  $\chi^2/\text{NDF}$ : 3025683.3/31

# asym\_bcm\_an\_ds3\_mean vs Slug



Right In: 72.675+/-79.992  $\chi^2/\text{NDF}$ : 7.8/16

Left Out: 38.416+/-72.026  $\chi^2/\text{NDF}$ : 3.9/13

Right Out: -0.181+/-70.467  $\chi^2/\text{NDF}$ : 7.3/18

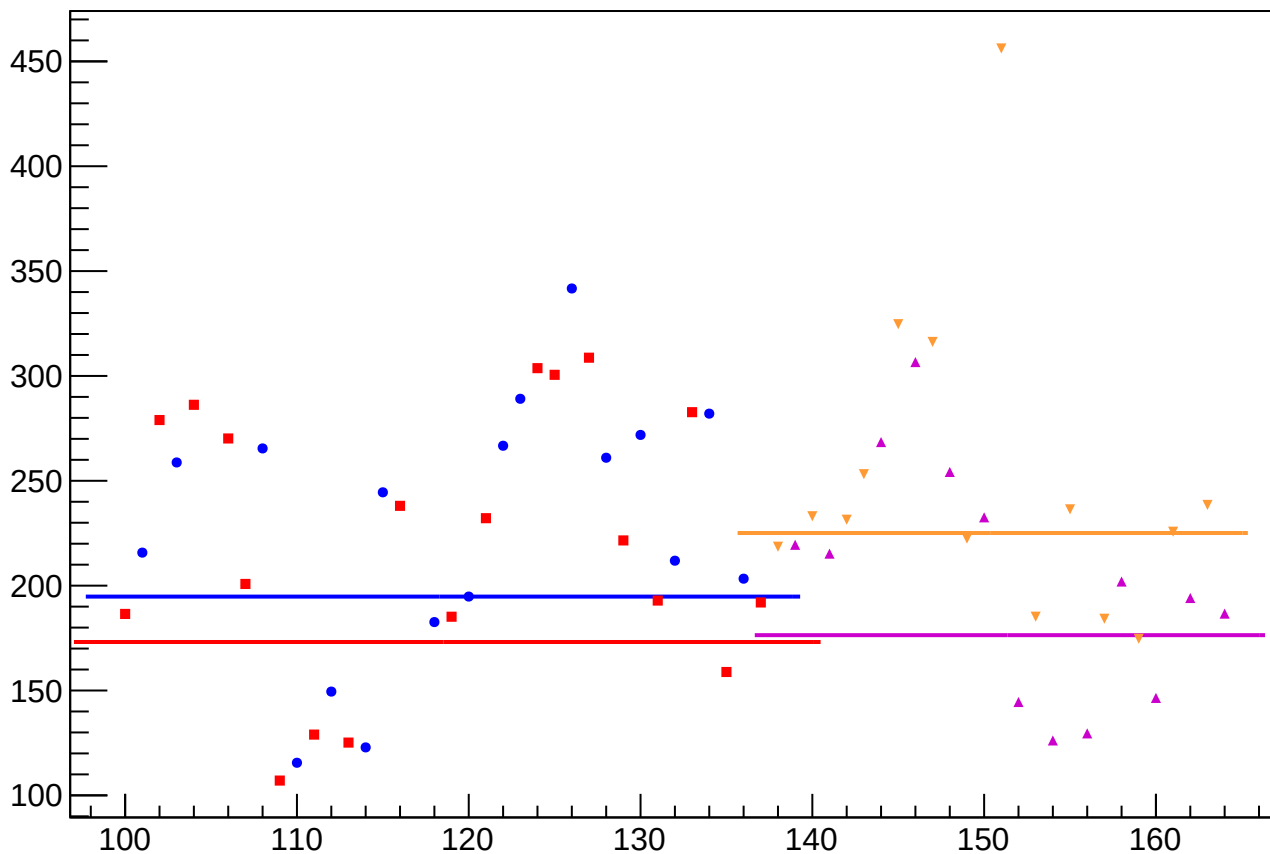
Left In: -47.721+/-58.699  $\chi^2/\text{NDF}$ : 5.6/12

+ sign 53.755+/-53.525  $\chi^2/\text{NDF}$ : 11.8/30

All: 5.801+/-34.490  $\chi^2/\text{NDF}$ : 26.3/62

- sign -28.247+/-45.101  $\chi^2/\text{NDF}$ : 13.2/31

# asym\_bcm\_an\_ds3\_rms vs Slug



Right In: 194.782 $\pm$ 0.057  $\chi^2$ /NDF: 1008292.8/16

Left Out: 225.106 $\pm$ 0.051  $\chi^2$ /NDF:955356.0/13

Right Out: 173.131 $\pm$ 0.050  $\chi^2$ /NDF: 1567556.0/18

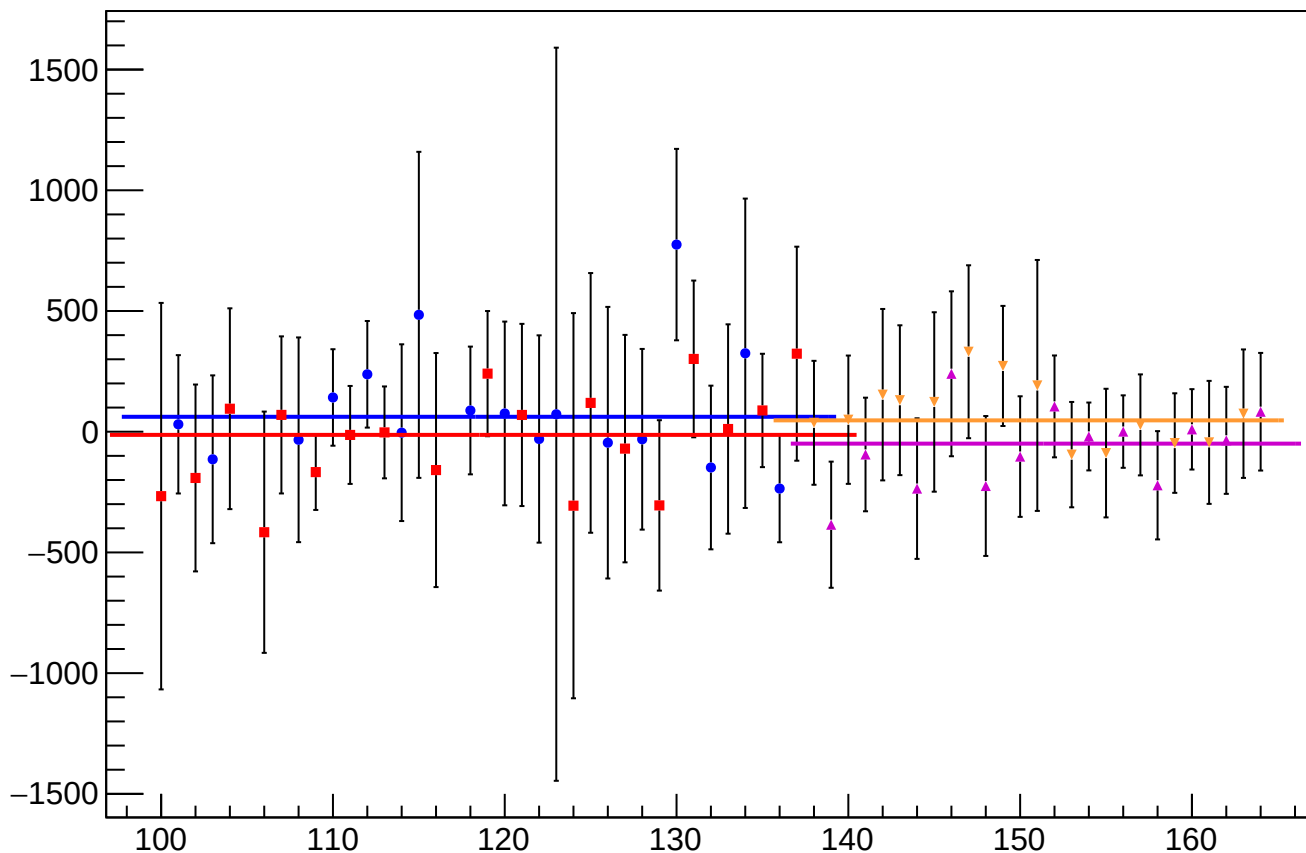
Left In: 176.389 $\pm$ 0.042  $\chi^2$ /NDF:1441070.9/12

+ sign 211.529 $\pm$ 0.038  $\chi^2$ /NDF: 2122378.7/30

All: 190.199 $\pm$ 0.024  $\chi^2$ /NDF: 5676639.6/62

- sign 175.055 $\pm$ 0.032  $\chi^2$ /NDF: 3011150.8/31

# asym\_bcm\_an\_us\_mean vs Slug



Right In:  $61.814 \pm 79.986$   $\chi^2/\text{NDF}$ : 7.3/16

Left Out:  $47.008 \pm 71.872$   $\chi^2/\text{NDF}$ : 2.8/13

Right Out:  $-13.101 \pm 70.391$   $\chi^2/\text{NDF}$ : 5.8/18

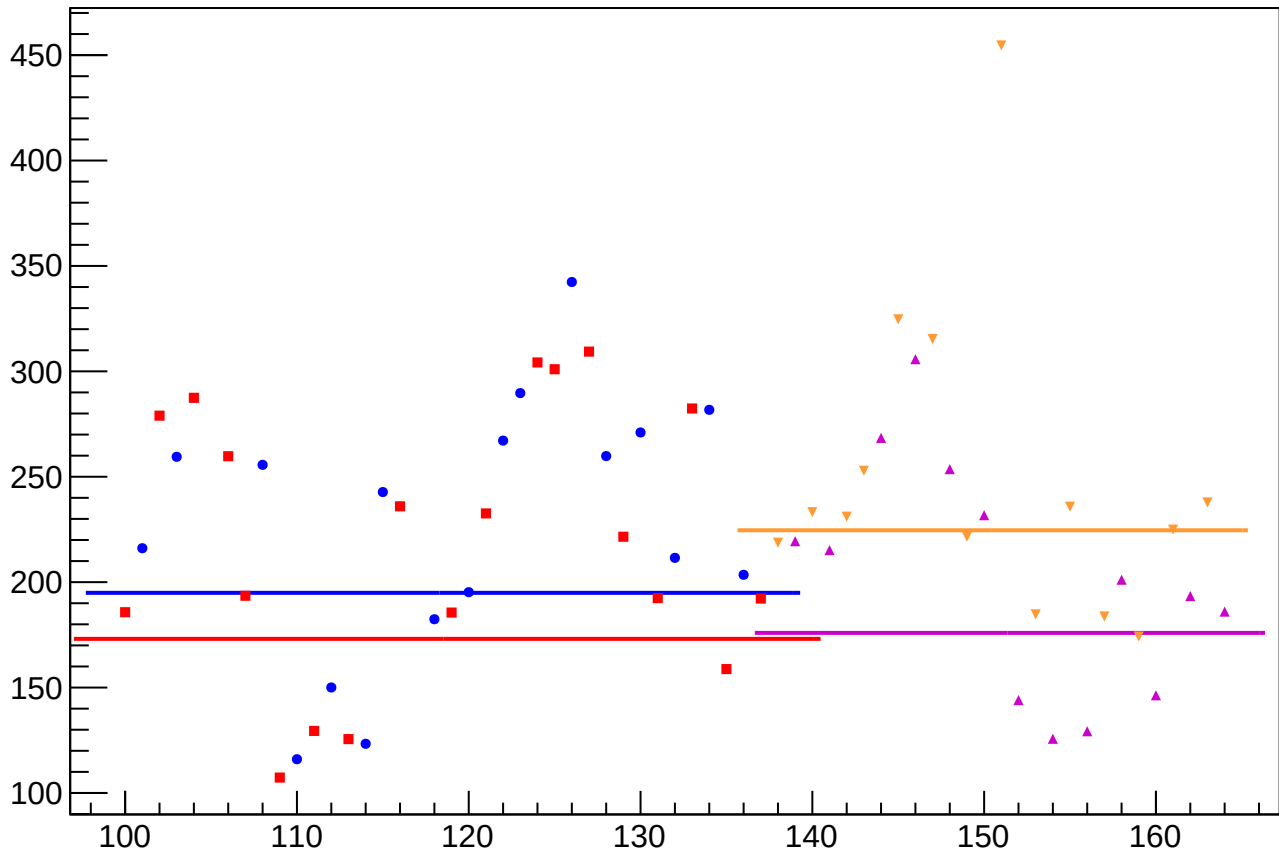
Left In:  $-49.383 \pm 58.554$   $\chi^2/\text{NDF}$ : 4.9/12

+ sign  $53.622 \pm 53.460$   $\chi^2/\text{NDF}$ : 10.1/30

All:  $2.033 \pm 34.434$   $\chi^2/\text{NDF}$ : 22.5/62

- sign  $-34.545 \pm 45.015$   $\chi^2/\text{NDF}$ : 10.9/31

# asym\_bcm\_an\_us\_rms vs Slug



Right In: 194.939+/-0.057  $\chi^2/\text{NDF}$ : 986629.1/16

Left Out: 224.617+/-0.051  $\chi^2/\text{NDF}$ : 956750.1/13

Right Out: 173.109+/-0.050  $\chi^2/\text{NDF}$ : 1544723.9/18

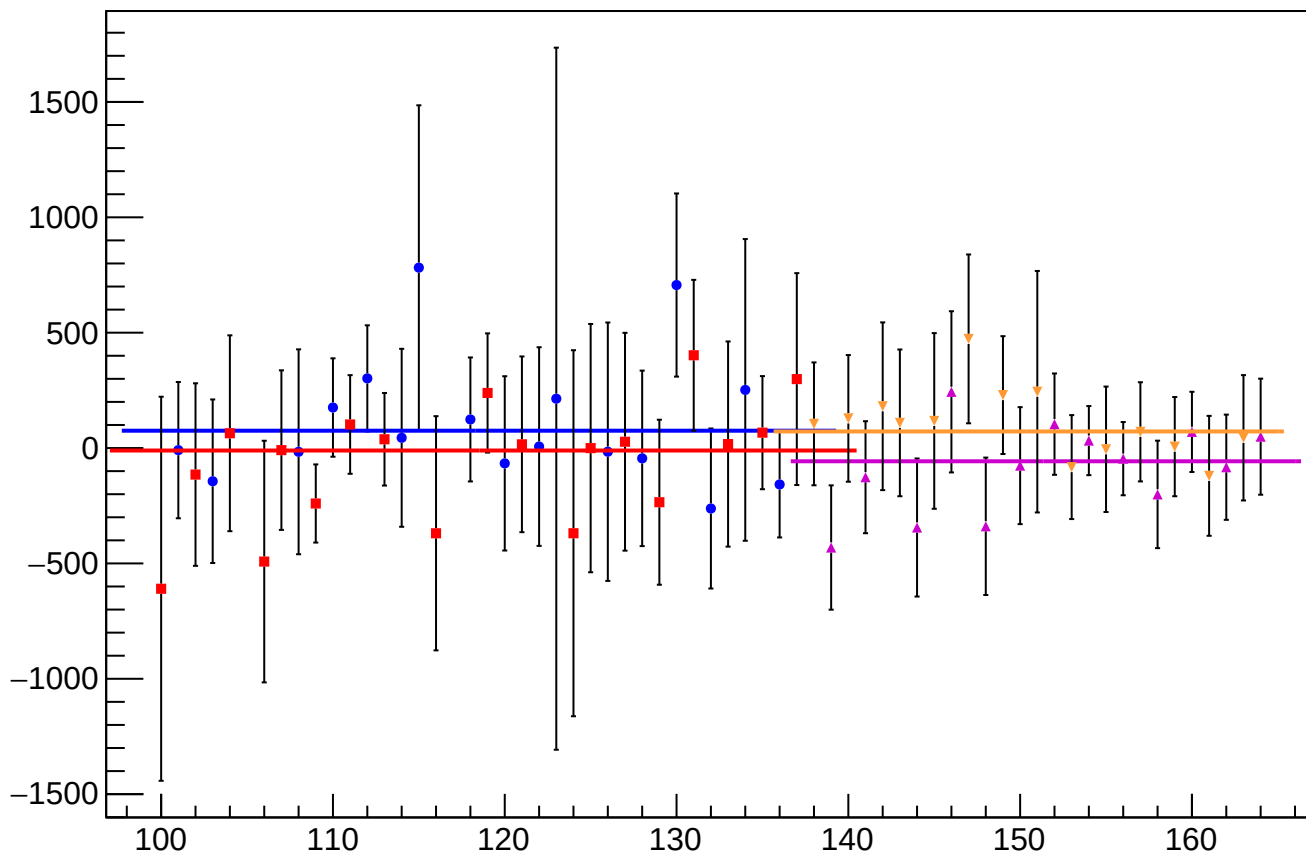
Left In: 175.939+/-0.041  $\chi^2/\text{NDF}$ : 1444387.9/12

+ sign 211.359+/-0.038  $\chi^2/\text{NDF}$ : 2095723.0/30

All: 189.957+/-0.024  $\chi^2/\text{NDF}$ : 5634591.9/62

- sign 174.781+/-0.032  $\chi^2/\text{NDF}$ : 2991022.2/31

# asym\_bcm\_dg\_us\_mean vs Slug



Right In: 75.207 $\pm$ 82.504  $\chi^2$ /NDF: 7.6/16

Left Out: 71.944 $\pm$ 73.902  $\chi^2$ /NDF: 3.1/13

Right Out: -10.674 $\pm$ 73.338  $\chi^2$ /NDF: 7.8/18

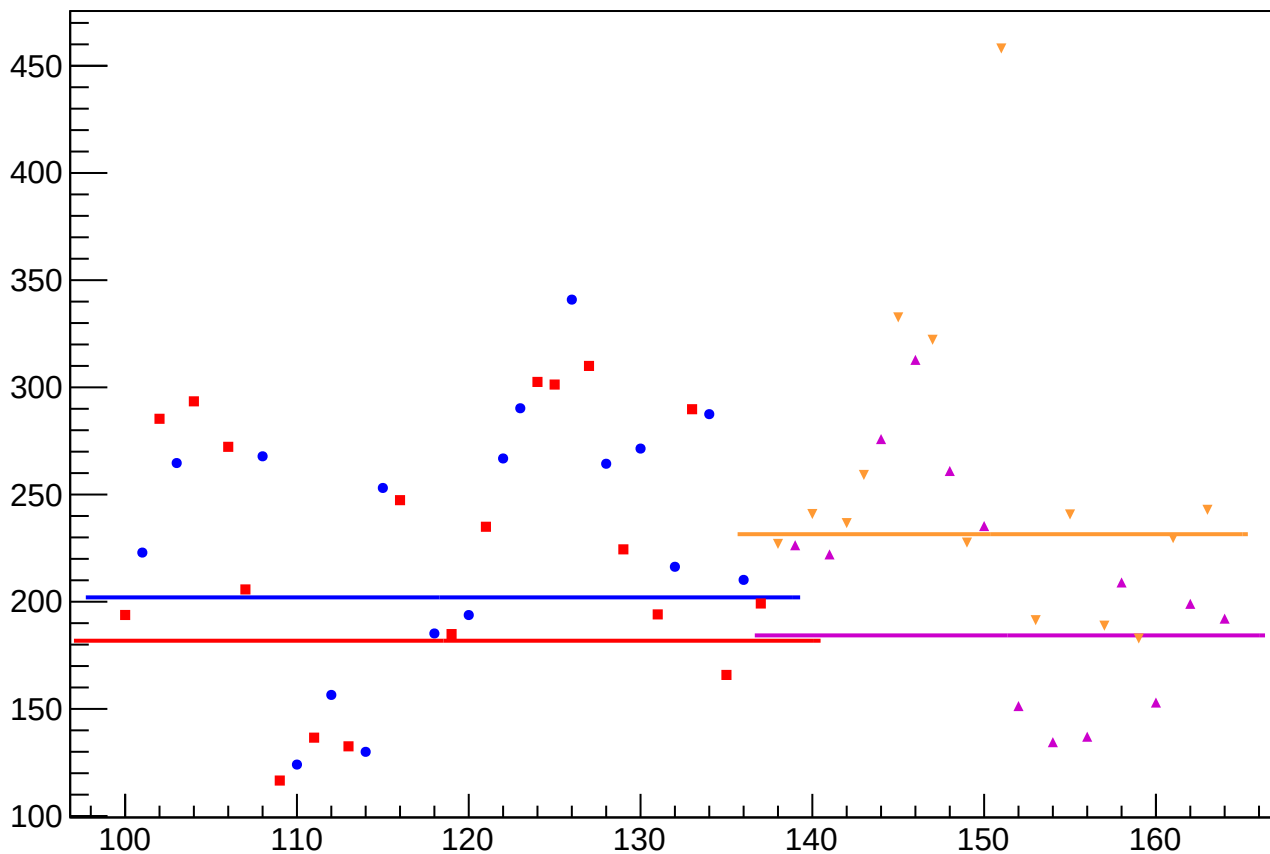
Left In: -57.267 $\pm$ 61.015  $\chi^2$ /NDF: 6.6/12

+ sign 73.396 $\pm$ 55.047  $\chi^2$ /NDF: 10.7/30

All: 8.737 $\pm$ 35.702  $\chi^2$ /NDF: 27.7/62

- sign -38.208 $\pm$ 46.905  $\chi^2$ /NDF: 14.7/31

# asym\_bcm\_dg\_us\_rms vs Slug



Right In: 202.029 $\pm$ 0.058  $\chi^2$ /NDF: 881608.7/16

Left Out: 231.504 $\pm$ 0.052  $\chi^2$ /NDF: 908479.6/13

Right Out: 181.811 $\pm$ 0.052  $\chi^2$ /NDF: 1377537.2/18

Left In: 184.295 $\pm$ 0.043  $\chi^2$ /NDF: 1310588.5/12

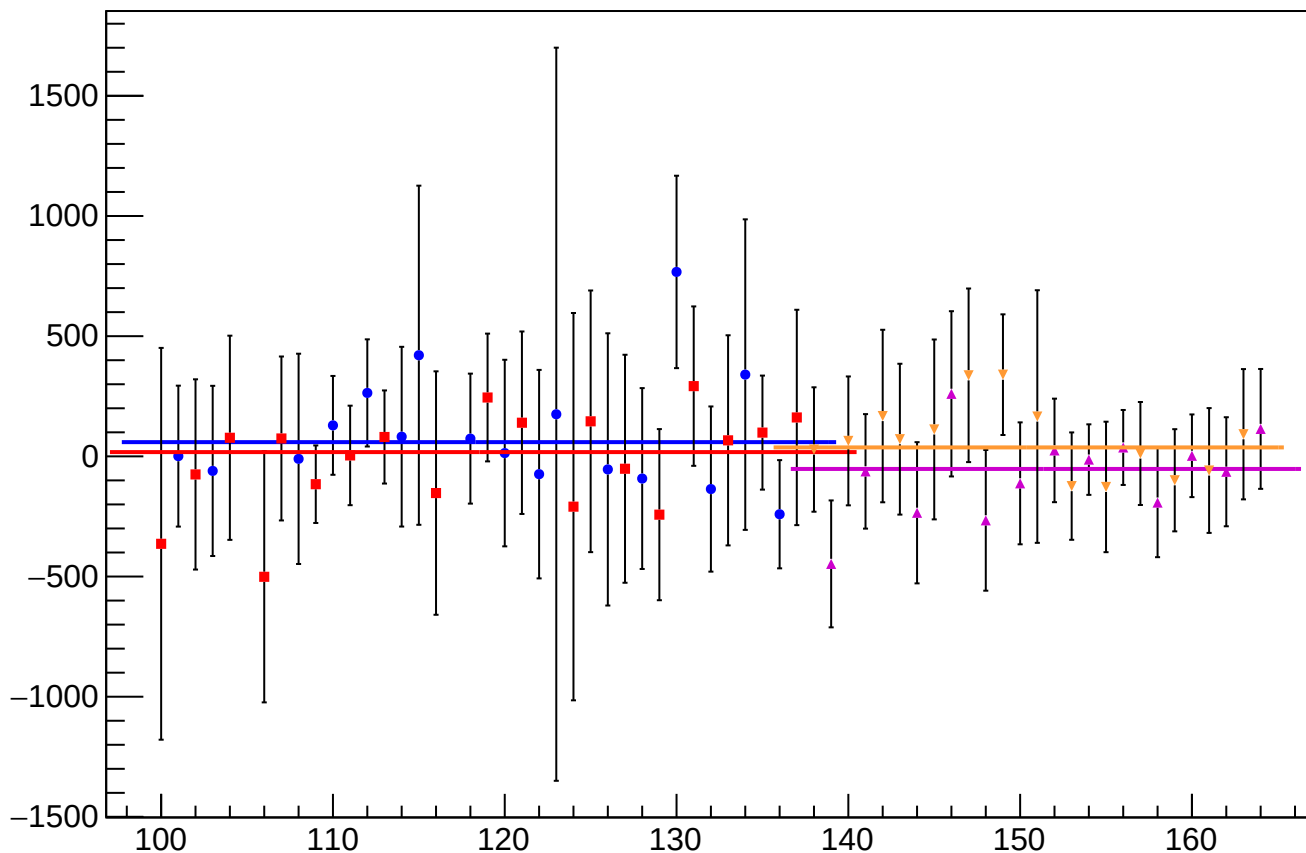
+ sign 218.383 $\pm$ 0.039  $\chi^2$ /NDF: 1931711.5/30

All: 198.045 $\pm$ 0.025  $\chi^2$ /NDF: 5092403.8/62

- sign 183.279 $\pm$ 0.033  $\chi^2$ /NDF: 2689480.9/31



# asym\_bcm\_dg\_ds\_mean vs Slug



Right In: 59.175 $\pm$ 81.417  $\chi^2$ /NDF: 7.1/16

Left Out: 37.211 $\pm$ 73.116  $\chi^2$ /NDF: 3.9/13

Right Out: 17.727 $\pm$ 71.900  $\chi^2$ /NDF: 4.7/18

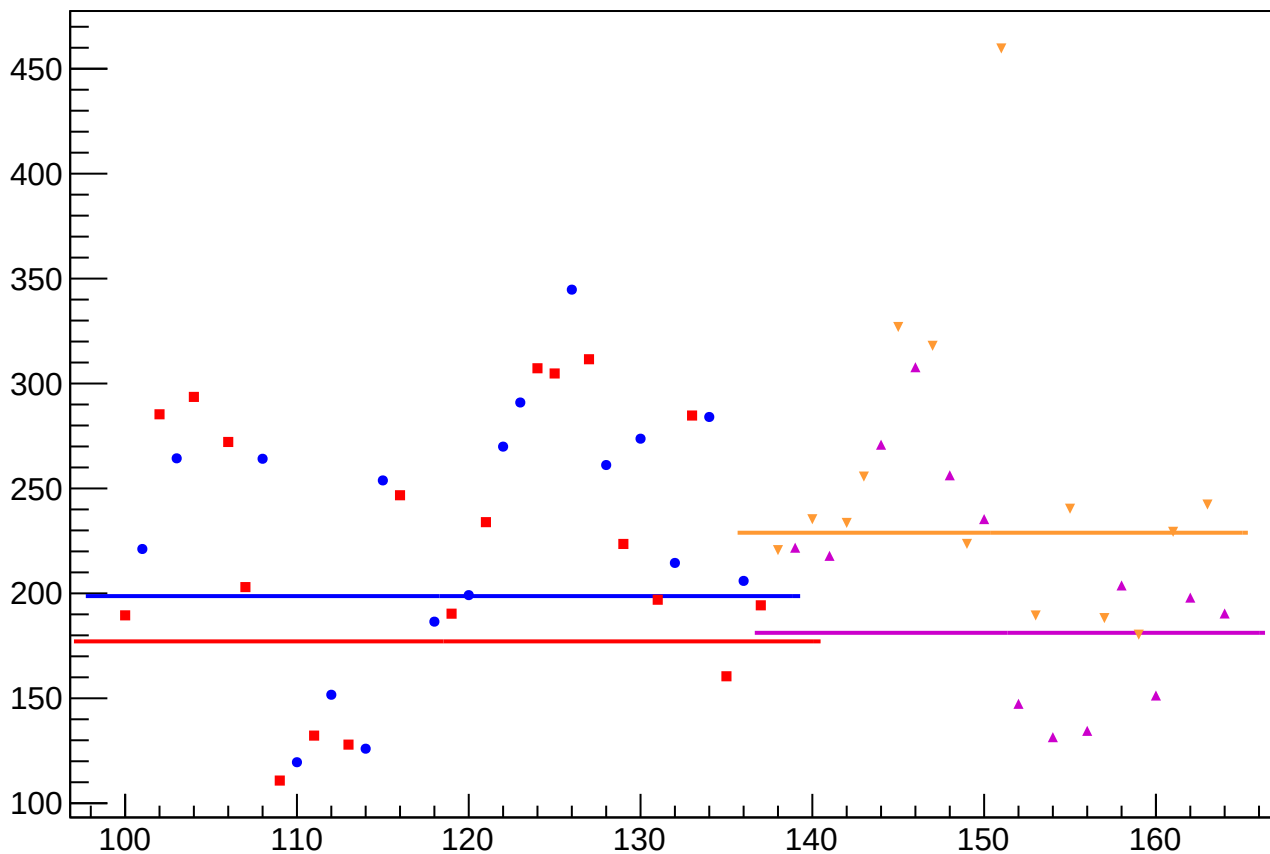
Left In: -52.381 $\pm$ 60.078  $\chi^2$ /NDF: 5.5/12

+ sign 47.016 $\pm$ 54.400  $\chi^2$ /NDF: 11.1/30

All: 5.943 $\pm$ 35.171  $\chi^2$ /NDF: 22.8/62

- sign -23.557 $\pm$ 46.102  $\chi^2$ /NDF: 10.7/31

# asym\_bcm\_dg\_ds\_rms vs Slug



Right In:  $198.704 \pm 0.058$   $\chi^2/\text{NDF}$ : 963394.4/16

Left Out:  $228.902 \pm 0.052$   $\chi^2/\text{NDF}$ : 910991.6/13

Right Out:  $177.125 \pm 0.051$   $\chi^2/\text{NDF}$ : 1524889.9/18

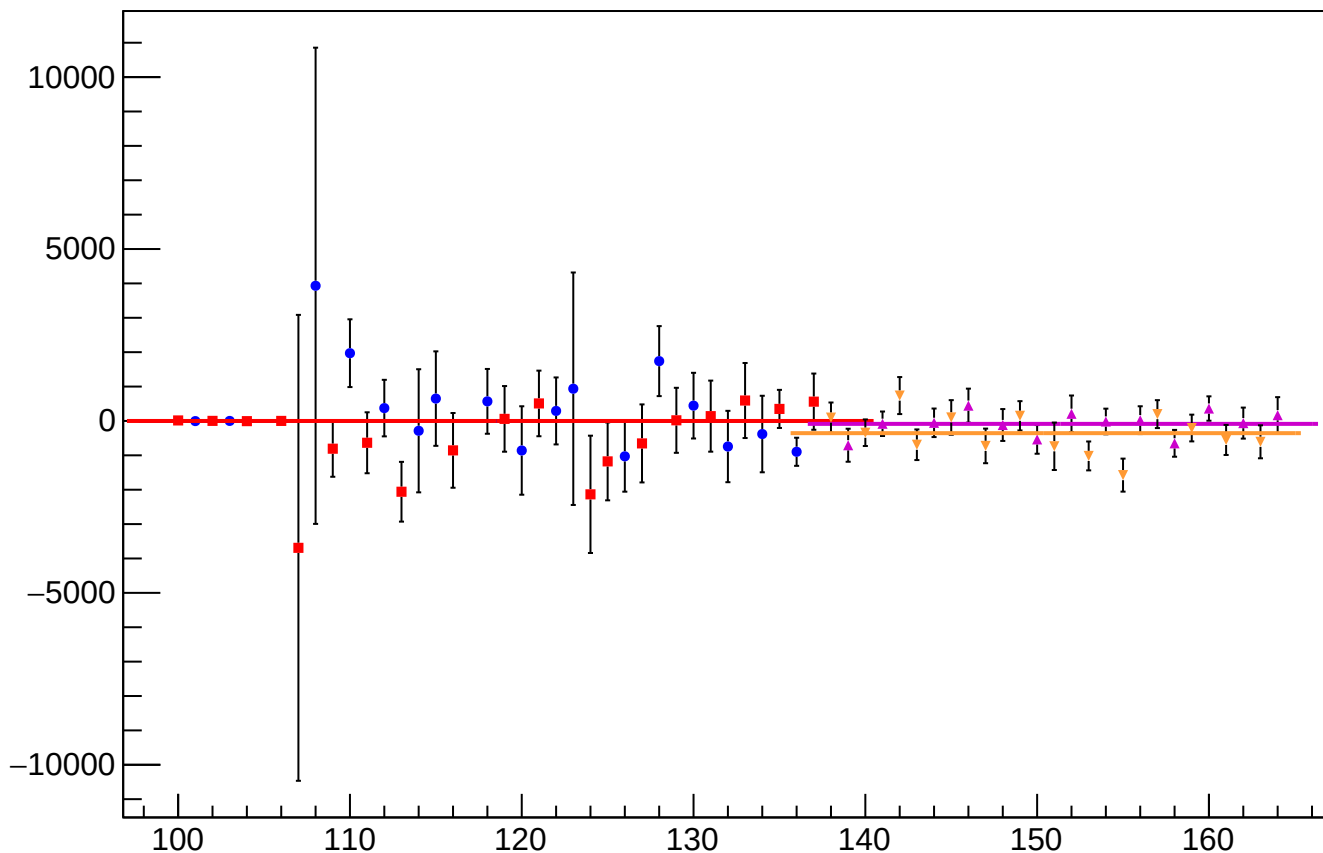
Left In:  $181.204 \pm 0.042$   $\chi^2/\text{NDF}$ : 1327058.2/12

+ sign  $215.420 \pm 0.038$   $\chi^2/\text{NDF}$ : 2026694.0/30

All:  $194.530 \pm 0.025$   $\chi^2/\text{NDF}$ : 5389172.5/62

- sign  $179.527 \pm 0.033$   $\chi^2/\text{NDF}$ : 2855738.6/31

# asym\_cav4bQ\_mean vs Slug



Right In:  $-1.529 \pm 2.251$   $\chi^2/\text{NDF}$ : 16.6/16

Left Out:  $-355.202 \pm 121.140$   $\chi^2/\text{NDF}$ : 20.3/13

Right Out:  $-0.731 \pm 2.111$   $\chi^2/\text{NDF}$ : 18.4/18

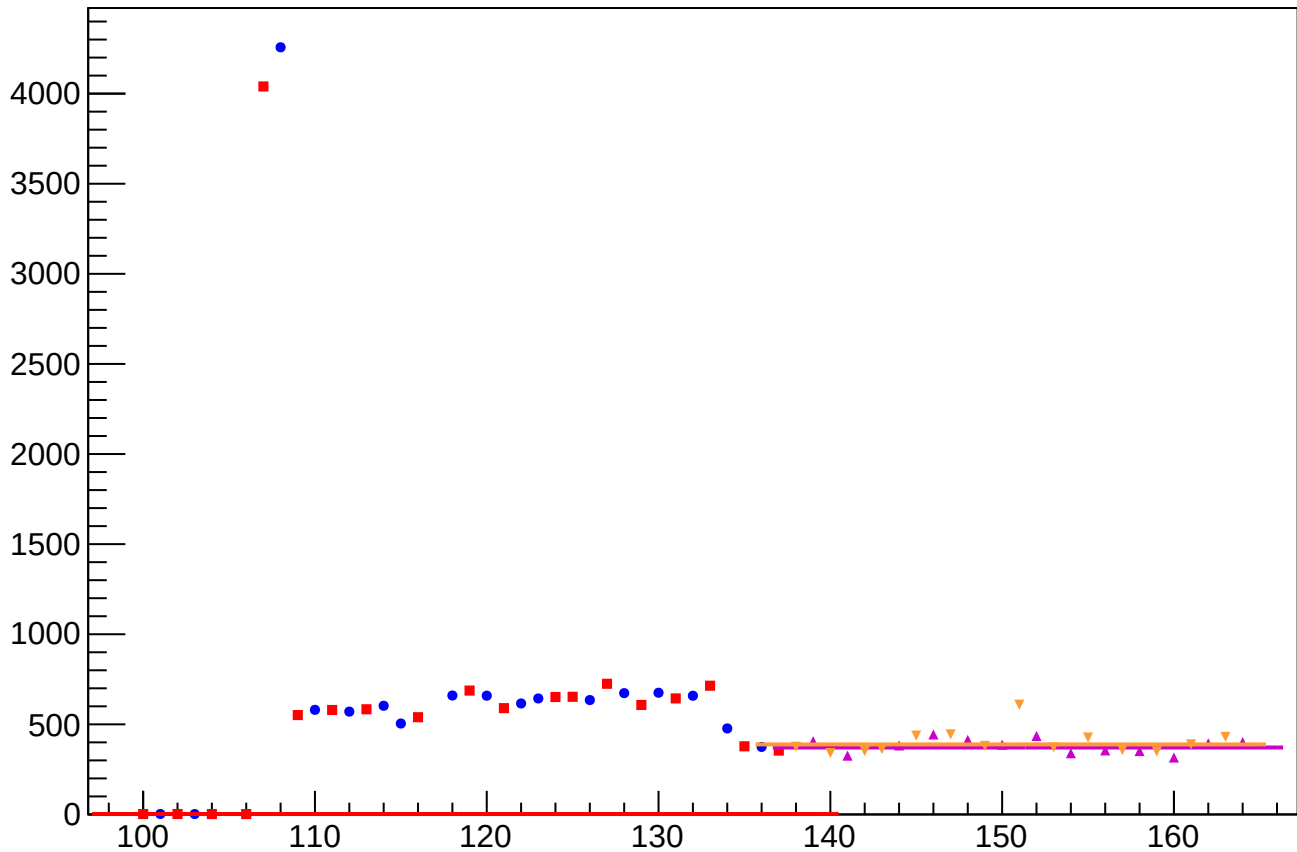
Left In:  $-85.230 \pm 117.488$   $\chi^2/\text{NDF}$ : 8.3/12

+ sign  $-1.651 \pm 2.251$   $\chi^2/\text{NDF}$ : 45.4/30

All:  $-1.176 \pm 1.540$   $\chi^2/\text{NDF}$ : 72.8/62

- sign  $-0.759 \pm 2.111$   $\chi^2/\text{NDF}$ : 27.2/31

# asym\_cav4bQ\_rms vs Slug



Right In: 2.456+/-0.002     $\chi^2/\text{NDF}$ : 10706347.4/16

Left Out: 388.645+/-0.086     $\chi^2/\text{NDF}$ : 359784.3/13

Right Out: 2.437+/-0.001     $\chi^2/\text{NDF}$ : 11140185.1/18

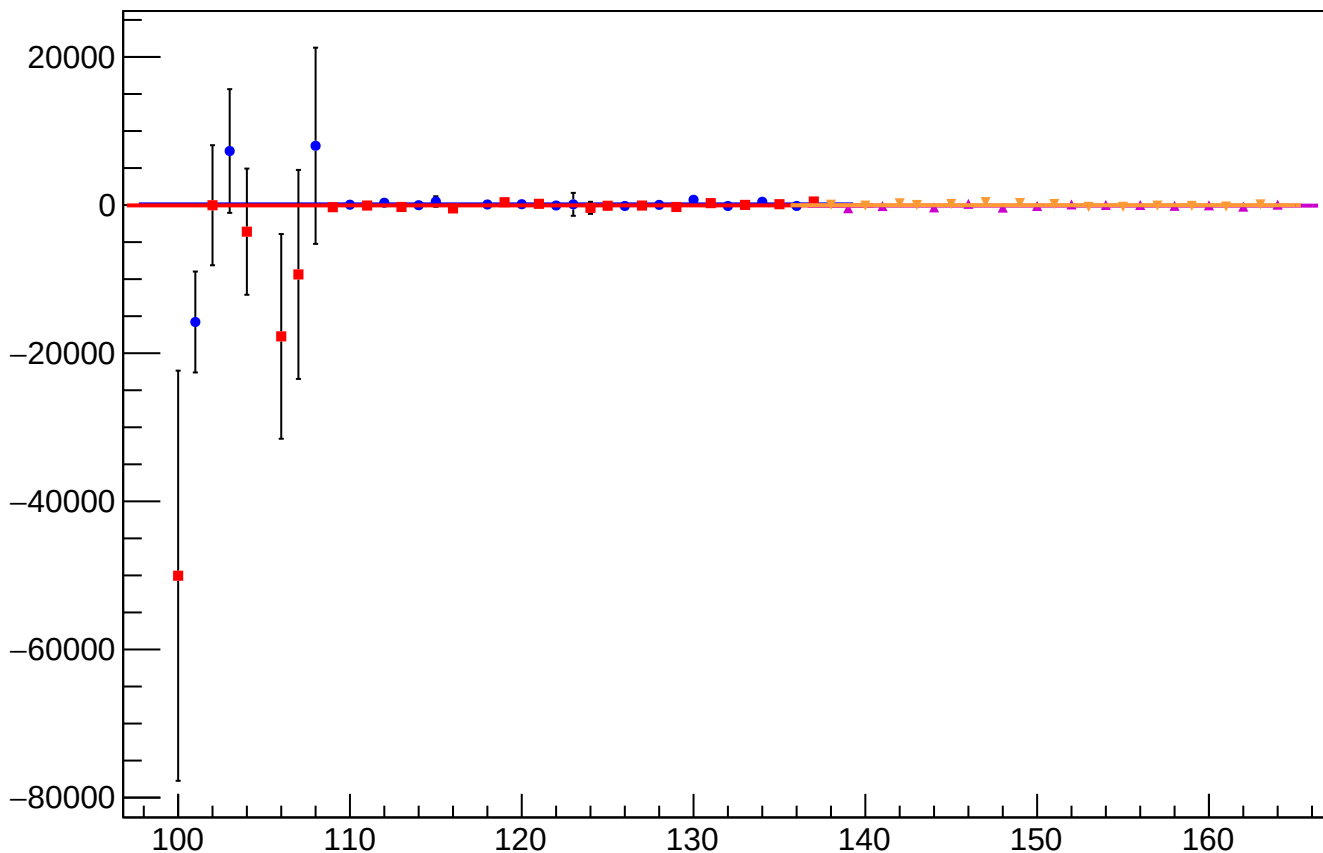
Left In: 371.543+/-0.083     $\chi^2/\text{NDF}$ : 219804.1/12

+ sign 2.589+/-0.002     $\chi^2/\text{NDF}$ : 31385253.4/30

All: 2.572+/-0.001     $\chi^2/\text{NDF}$ : 62479151.3/62

- sign 2.556+/-0.001     $\chi^2/\text{NDF}$ : 31093659.7/31

# asym\_cav4cQ\_mean vs Slug



Right In: 95.353+/-91.708     $\chi^2/\text{NDF}$ : 12.0/16

Left Out: -15.281+/-77.061     $\chi^2/\text{NDF}$ : 5.3/13

Right Out: -42.617+/-84.547     $\chi^2/\text{NDF}$ : 14.0/18

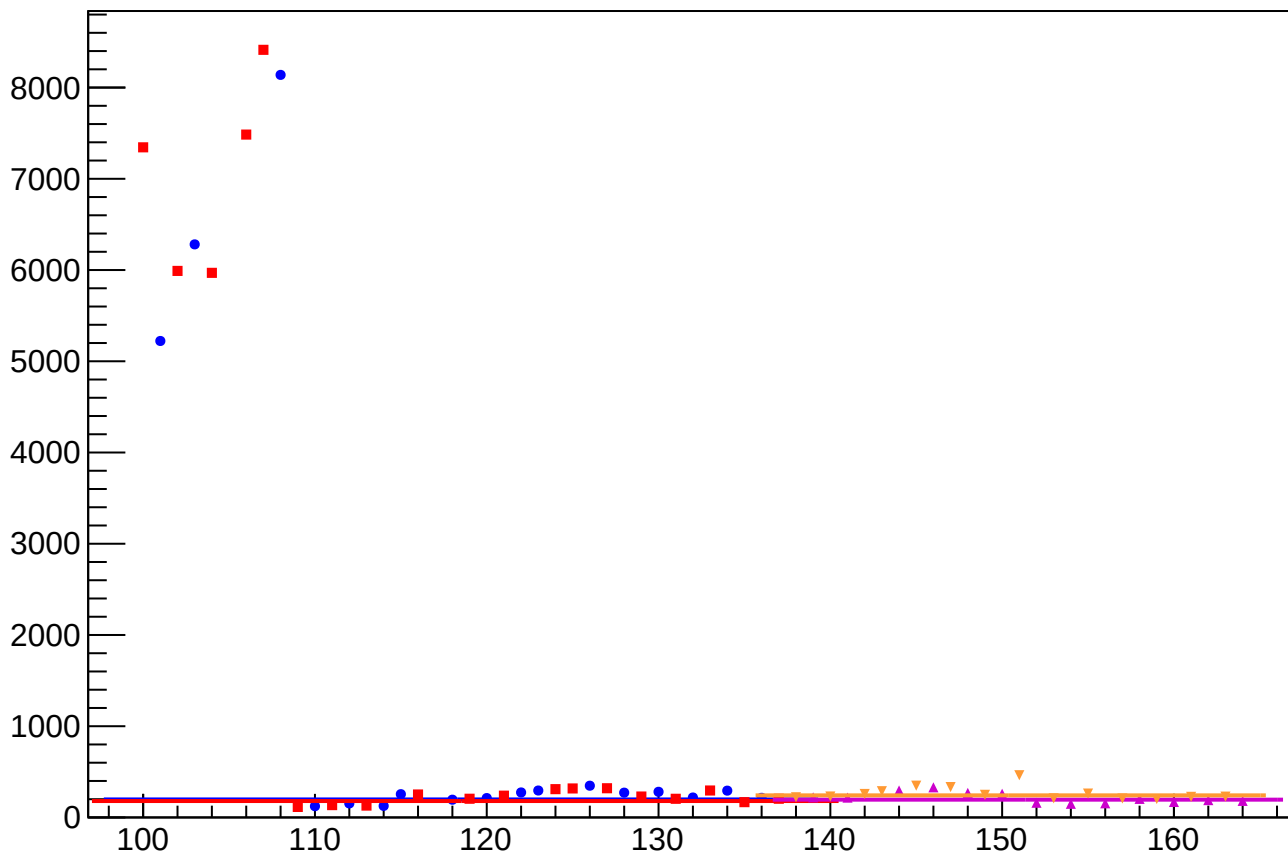
Left In: -74.630+/-64.053     $\chi^2/\text{NDF}$ : 5.4/12

+ sign 30.506+/-58.998     $\chi^2/\text{NDF}$ : 18.2/30

All: -22.935+/-38.607     $\chi^2/\text{NDF}$ : 39.1/62

- sign -62.956+/-51.055     $\chi^2/\text{NDF}$ : 19.5/31

# asym\_cav4cQ\_rms vs Slug



Right In: 197.422+/-0.065  $\chi^2/\text{NDF}$ : 3695848.3/16

Left Out: 242.272+/-0.054  $\chi^2/\text{NDF}$ :824545.4/13

Right Out: 179.983+/-0.060  $\chi^2/\text{NDF}$ : 4321404.4/18

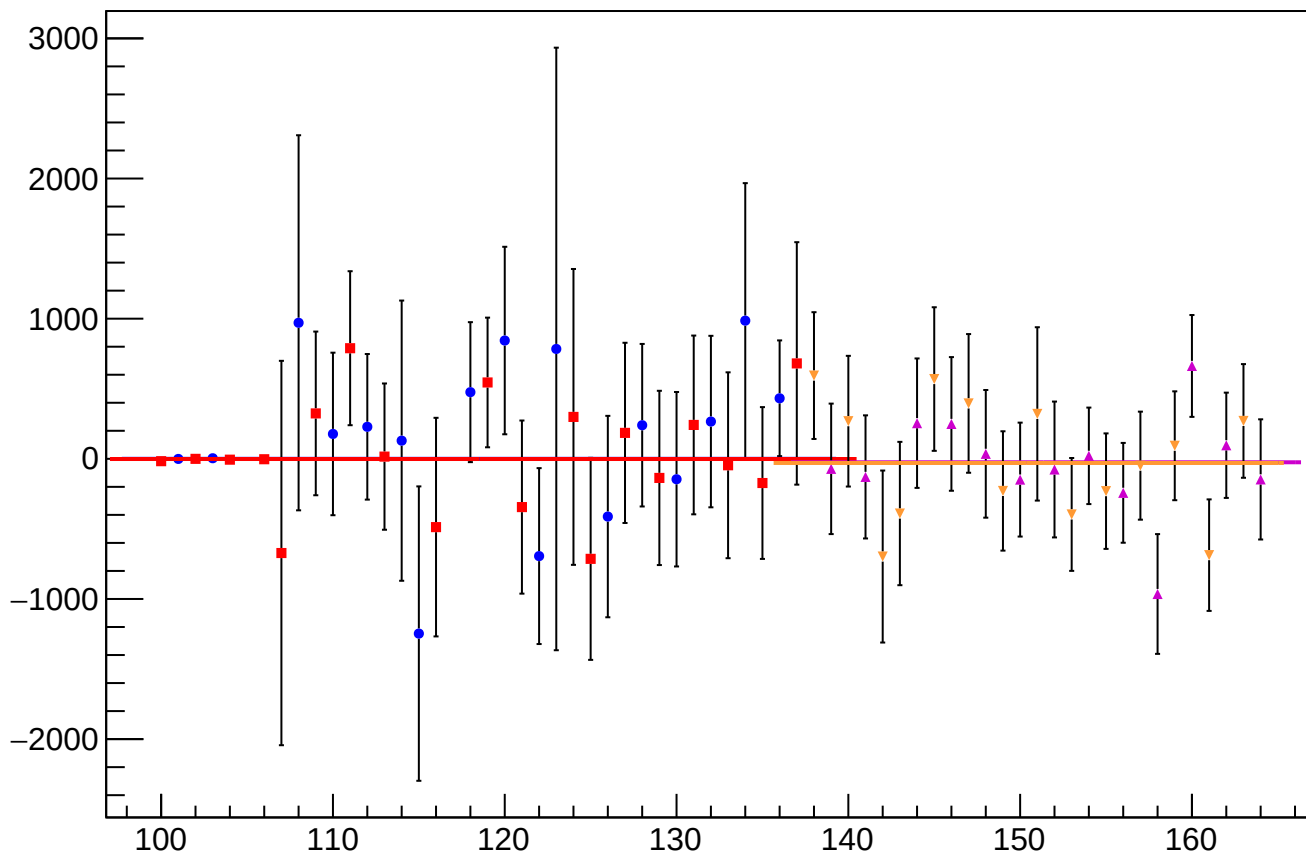
Left In: 194.995+/-0.045  $\chi^2/\text{NDF}$ :1060400.6/12

+ sign 223.710+/-0.042  $\chi^2/\text{NDF}$ : 4800773.1/30

All: 204.161+/-0.027  $\chi^2/\text{NDF}$ : 10606691.9/62

- sign 189.521+/-0.036  $\chi^2/\text{NDF}$ : 5421868.0/31

# asym\_cav4dQ\_mean vs Slug



Right In:  $-0.139 \pm 1.737$   $\chi^2/\text{NDF}$ : 9.8/16

Left Out:  $-29.560 \pm 119.686$   $\chi^2/\text{NDF}$ : 11.1/13

Right Out:  $-1.324 \pm 1.623$   $\chi^2/\text{NDF}$ : 9.5/18

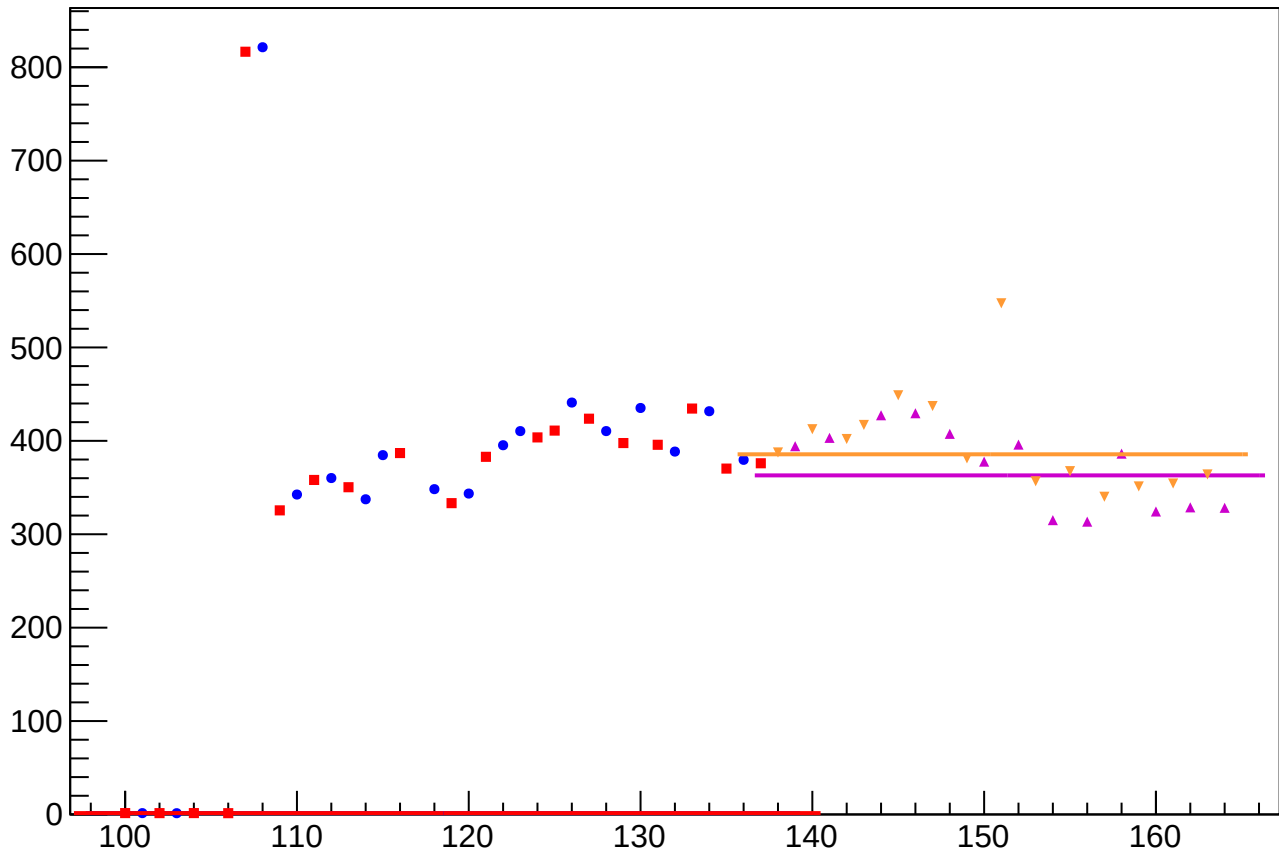
Left In:  $-24.656 \pm 114.769$   $\chi^2/\text{NDF}$ : 9.9/12

+ sign  $-0.145 \pm 1.736$   $\chi^2/\text{NDF}$ : 20.9/30

All:  $-0.777 \pm 1.185$   $\chi^2/\text{NDF}$ : 40.6/62

- sign  $-1.328 \pm 1.622$   $\chi^2/\text{NDF}$ : 19.4/31

# asym\_cav4dQ\_rms vs Slug



Right In: 1.452+/-0.001  $\chi^2/\text{NDF}$ : 10815892.9/16

Left Out: 385.602+/-0.085  $\chi^2/\text{NDF}$ : 280408.5/13

Right Out: 1.451+/-0.001  $\chi^2/\text{NDF}$ : 10873552.2/18

Left In: 363.024+/-0.081  $\chi^2/\text{NDF}$ : 270202.7/12

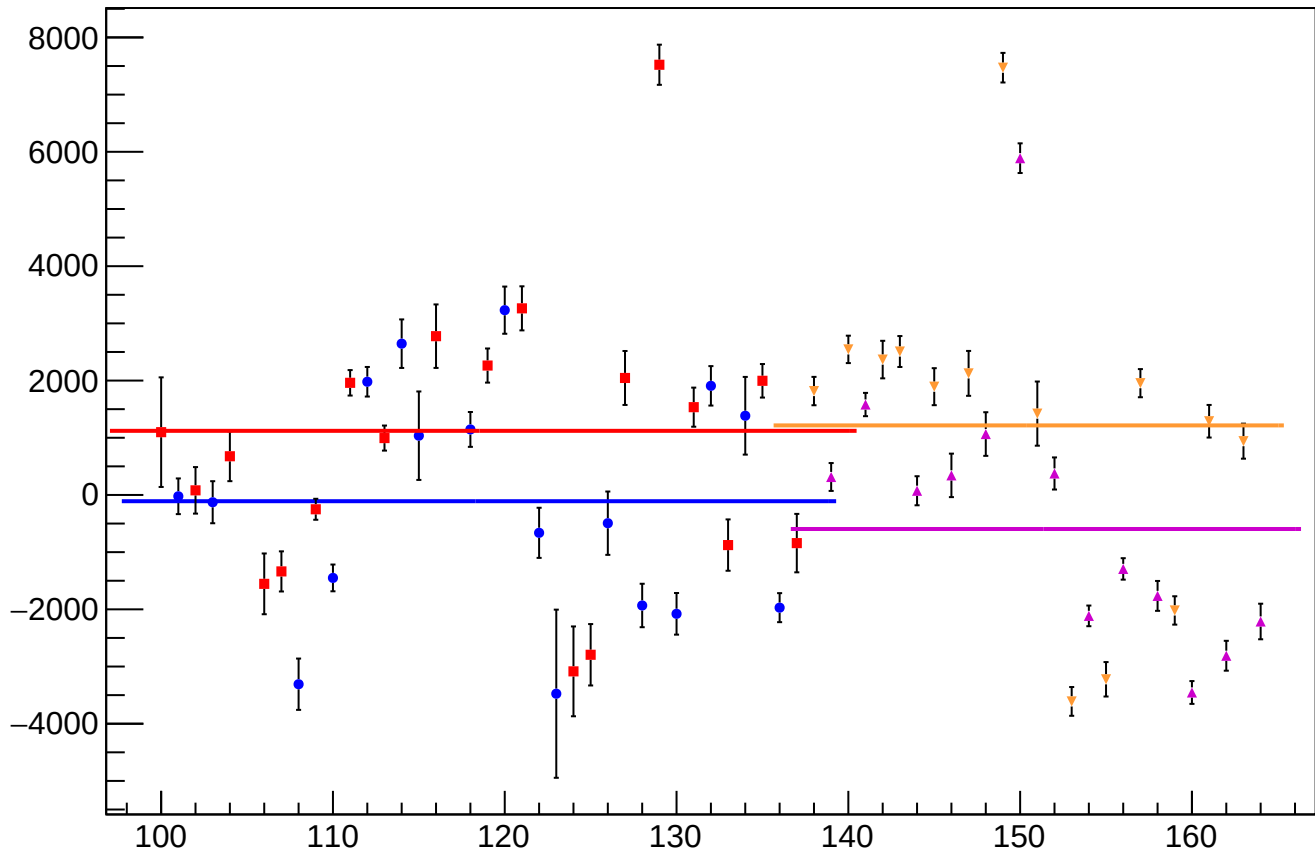
+ sign 1.533+/-0.001  $\chi^2/\text{NDF}$ : 31695512.0/30

All: 1.528+/-0.001  $\chi^2/\text{NDF}$ : 62686029.7/62

- sign 1.523+/-0.001  $\chi^2/\text{NDF}$ : 30990483.8/31



# asym\_bcm0l02\_mean vs Slug



Right In:  $-109.225 \pm 87.961$   $\chi^2/\text{NDF}$ : 428.3/16

Left Out:  $1216.136 \pm 75.954$   $\chi^2/\text{NDF}$ : 1431.6/13

Right Out:  $1121.203 \pm 78.396$   $\chi^2/\text{NDF}$ : 670.1/18

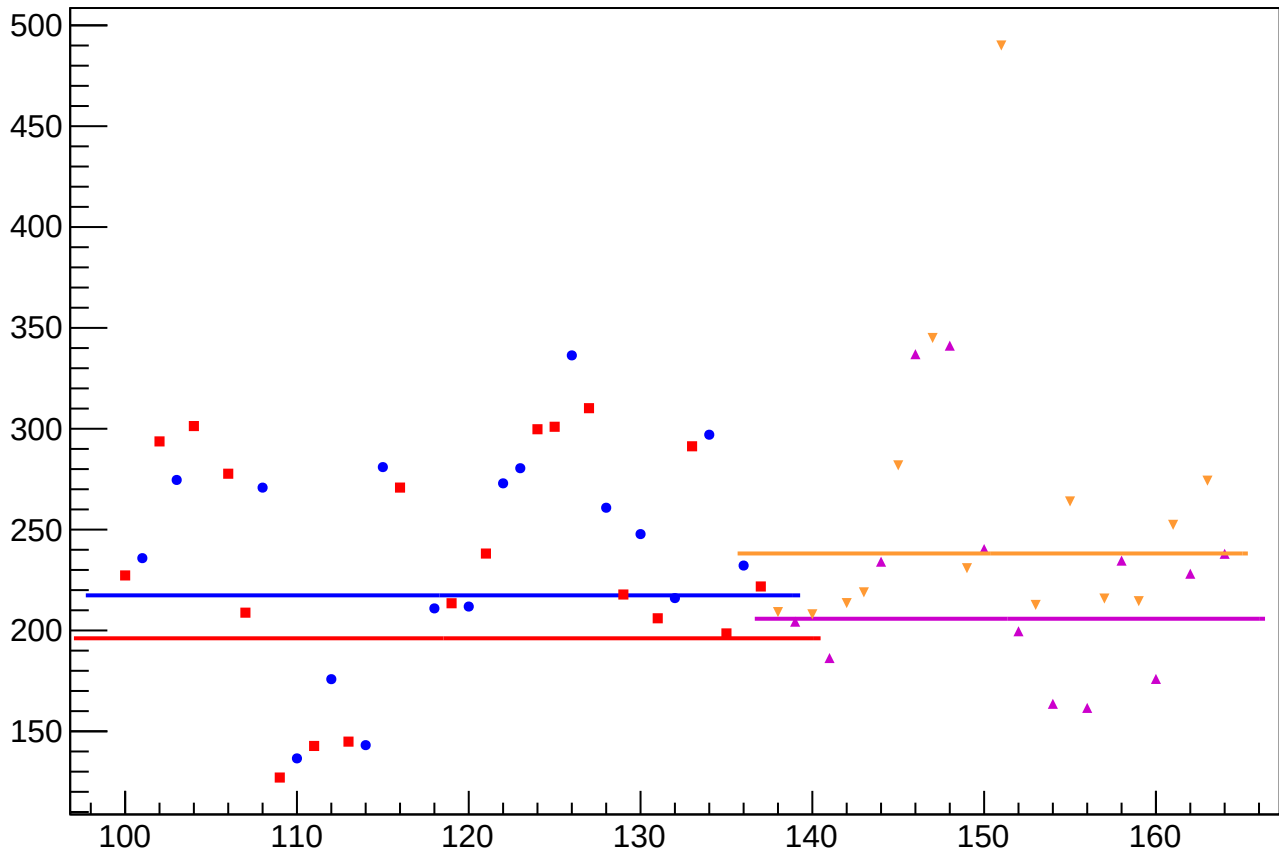
Left In:  $-595.211 \pm 67.163$   $\chi^2/\text{NDF}$ : 1205.7/12

+ sign  $650.027 \pm 57.488$   $\chi^2/\text{NDF}$ : 1990.0/30

All:  $359.791 \pm 38.153$   $\chi^2/\text{NDF}$ : 4187.8/62

- sign  $131.324 \pm 51.005$   $\chi^2/\text{NDF}$ : 2152.2/31

# asym\_bcm0l02\_rms vs Slug



Right In:  $217.403 \pm 0.062$   $\chi^2/\text{NDF}$ : 652632.9/16

Left Out:  $238.166 \pm 0.054$   $\chi^2/\text{NDF}$ : 772538.5/13

Right Out:  $196.112 \pm 0.055$   $\chi^2/\text{NDF}$ : 1190862.3/18

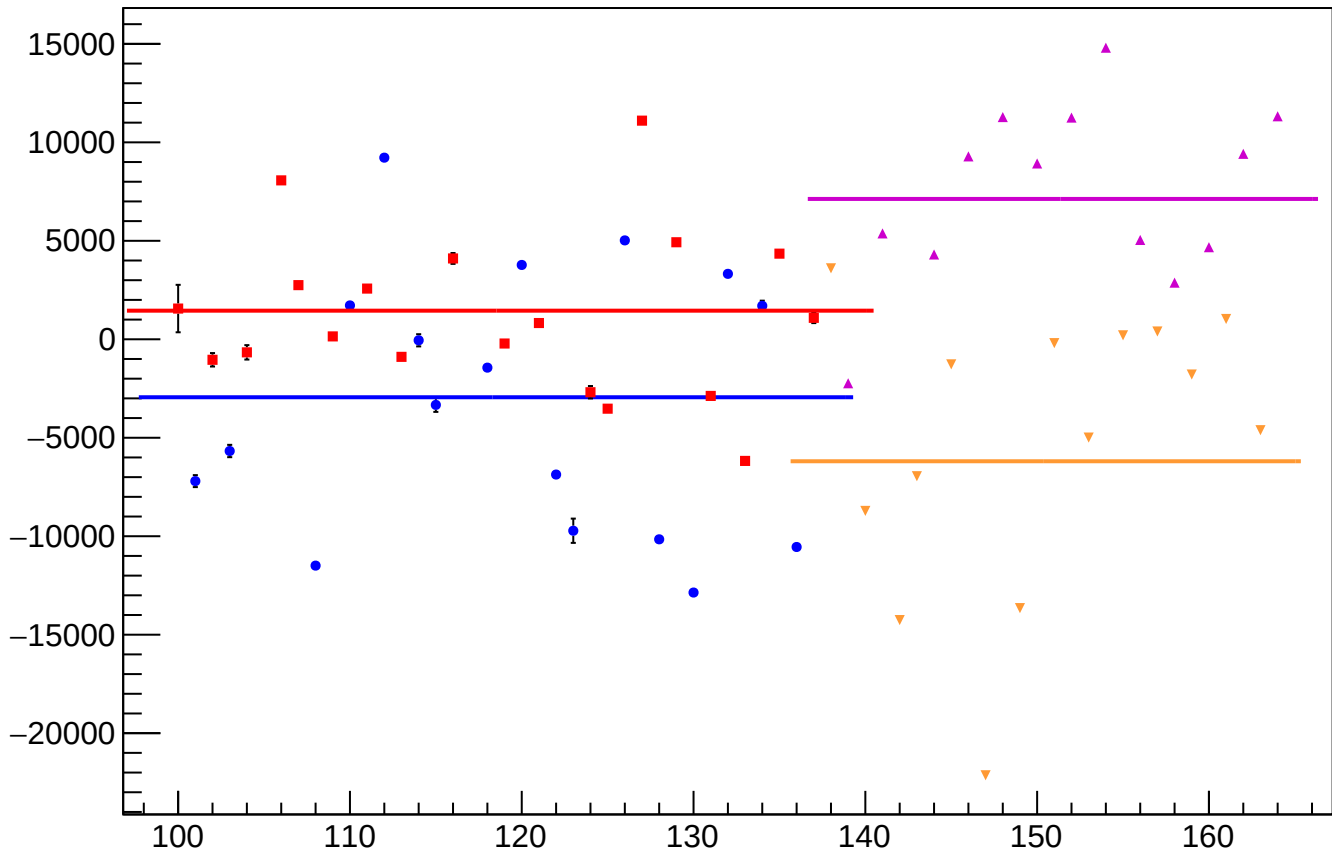
Left In:  $205.805 \pm 0.047$   $\chi^2/\text{NDF}$ : 894869.8/12

+ sign  $229.297 \pm 0.041$   $\chi^2/\text{NDF}$ : 1489011.3/30

All:  $213.857 \pm 0.027$   $\chi^2/\text{NDF}$ : 3850234.5/62

- sign  $201.702 \pm 0.036$   $\chi^2/\text{NDF}$ : 2103363.6/31

# asym\_bpm2i01WS\_mean vs Slug



Right In:  $-2943.123 \pm 48.612$   $\chi^2/\text{NDF}$ : 20909.8/16

Left Out:  $-6193.139 \pm 40.811$   $\chi^2/\text{NDF}$ : 34018.7/13

Right Out:  $1453.116 \pm 46.404$   $\chi^2/\text{NDF}$ : 7996.0/18

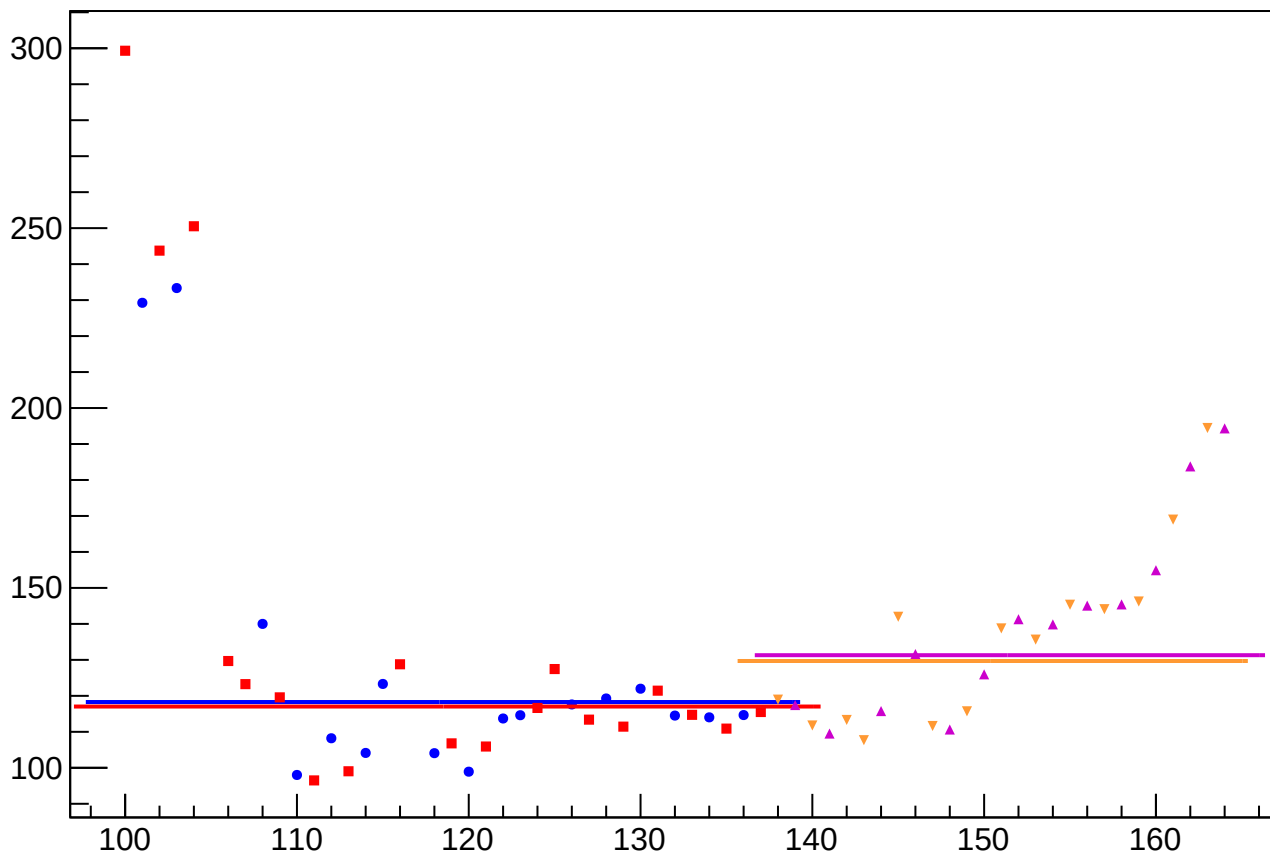
Left In:  $7126.330 \pm 41.765$   $\chi^2/\text{NDF}$ : 11178.8/12

+ sign  $-4849.534 \pm 31.256$   $\chi^2/\text{NDF}$ : 57550.3/30

All:  $-98.797 \pm 22.026$   $\chi^2/\text{NDF}$ : 130872.3/62

- sign  $4587.352 \pm 31.043$   $\chi^2/\text{NDF}$ : 27432.5/31

# asym\_bpm2i01WS\_rms vs Slug



Right In:  $118.286 \pm 0.034$   $\chi^2/\text{NDF}$ : 636918.0/16

Left Out:  $129.689 \pm 0.029$   $\chi^2/\text{NDF}$ : 523138.8/13

Right Out:  $117.031 \pm 0.033$   $\chi^2/\text{NDF}$ : 690861.5/18

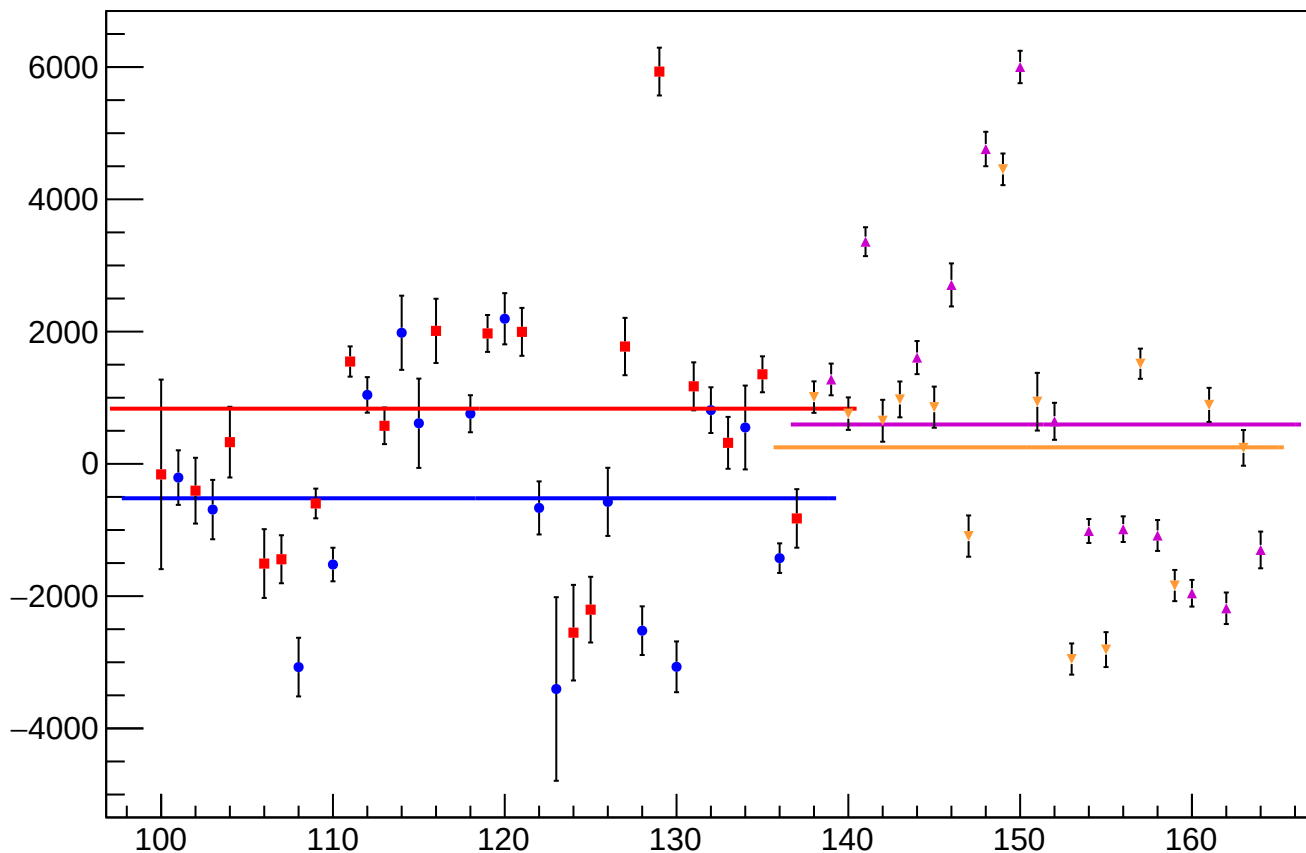
Left In:  $131.300 \pm 0.030$   $\chi^2/\text{NDF}$ : 499445.3/12

+ sign  $124.975 \pm 0.022$   $\chi^2/\text{NDF}$ : 1224611.3/30

All:  $124.944 \pm 0.016$   $\chi^2/\text{NDF}$ : 2519396.5/62

- sign  $124.914 \pm 0.022$   $\chi^2/\text{NDF}$ : 1294781.4/31

# asym\_bpm0i07WS\_mean vs Slug



Right In: -520.267 $\pm$ 89.241  $\chi^2$ /NDF: 288.1/16

Left Out: 250.353 $\pm$ 70.830  $\chi^2$ /NDF: 790.3/13

Right Out: 834.834 $\pm$ 82.273  $\chi^2$ /NDF: 434.7/18

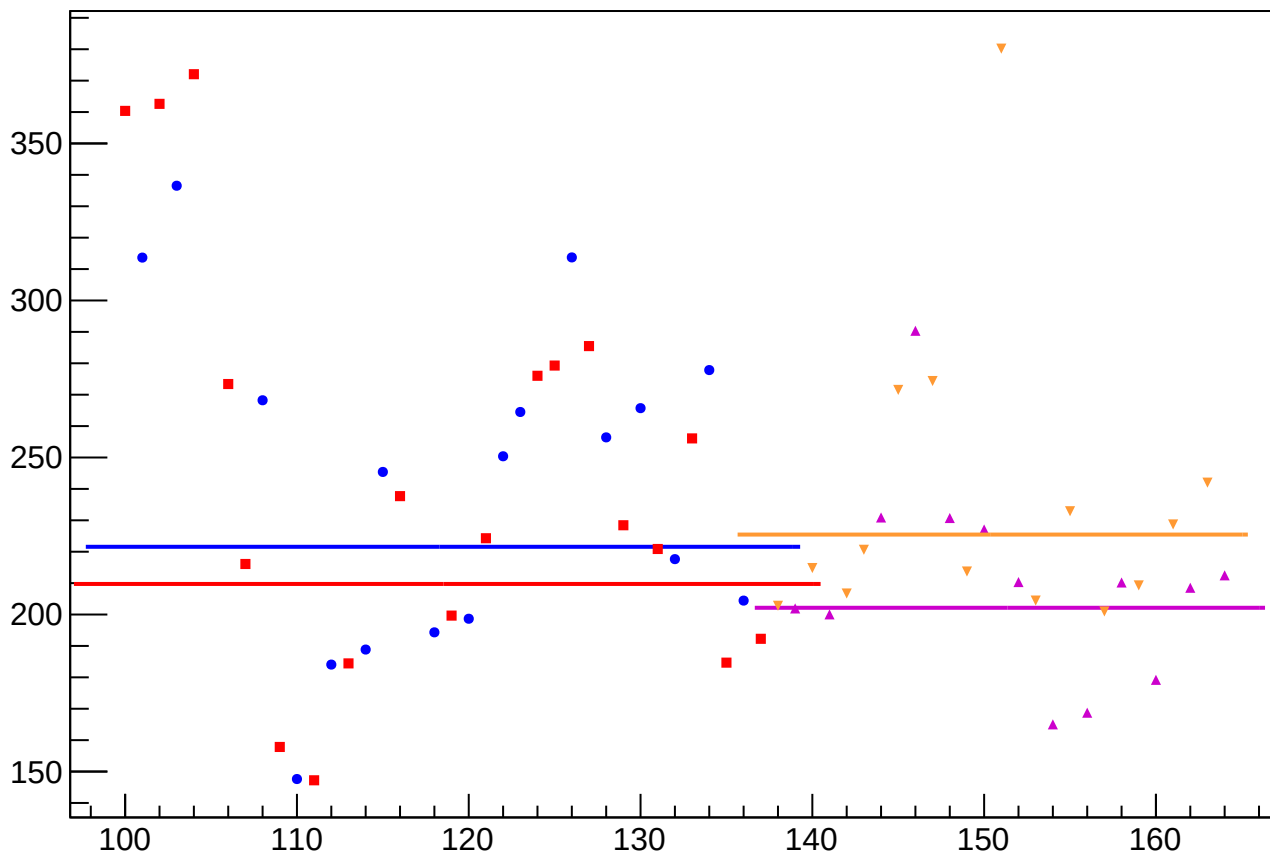
Left In: 595.577 $\pm$ 64.774  $\chi^2$ /NDF: 1508.5/12

+ sign -47.481 $\pm$ 55.479  $\chi^2$ /NDF: 1124.2/30

All: 351.435 $\pm$ 37.504  $\chi^2$ /NDF: 3167.8/62

- sign 687.130 $\pm$ 50.893  $\chi^2$ /NDF: 1948.4/31

# asym\_bpm0i07WS\_rms vs Slug



Right In: 221.570 $\pm$ 0.063  $\chi^2$ /NDF: 644941.4/16

Left Out: 225.461 $\pm$ 0.050  $\chi^2$ /NDF: 436587.2/13

Right Out: 209.736 $\pm$ 0.058  $\chi^2$ /NDF: 883922.1/18

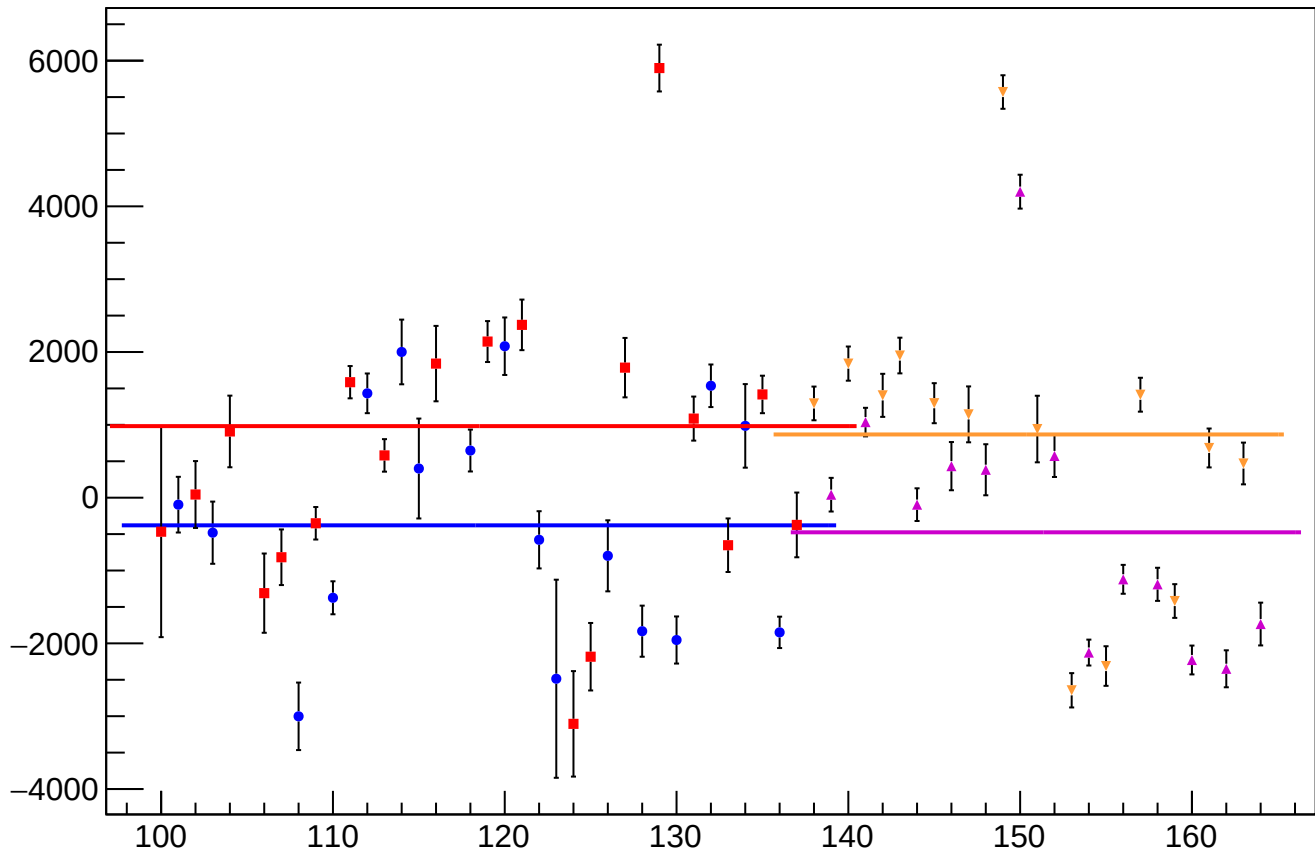
Left In: 202.149 $\pm$ 0.046  $\chi^2$ /NDF: 395527.4/12

+ sign 223.957 $\pm$ 0.039  $\chi^2$ /NDF: 1083861.5/30

All: 213.691 $\pm$ 0.027  $\chi^2$ /NDF: 2499922.4/62

- sign 205.052 $\pm$ 0.036  $\chi^2$ /NDF: 1289950.2/31

# asym\_bpm0l01WS\_mean vs Slug



Right In:  $-379.647 \pm 84.260$   $\chi^2/\text{NDF}$ : 317.2/16

Left Out:  $868.126 \pm 70.096$   $\chi^2/\text{NDF}$ : 927.7/13

Right Out:  $982.539 \pm 77.724$   $\chi^2/\text{NDF}$ : 476.3/18

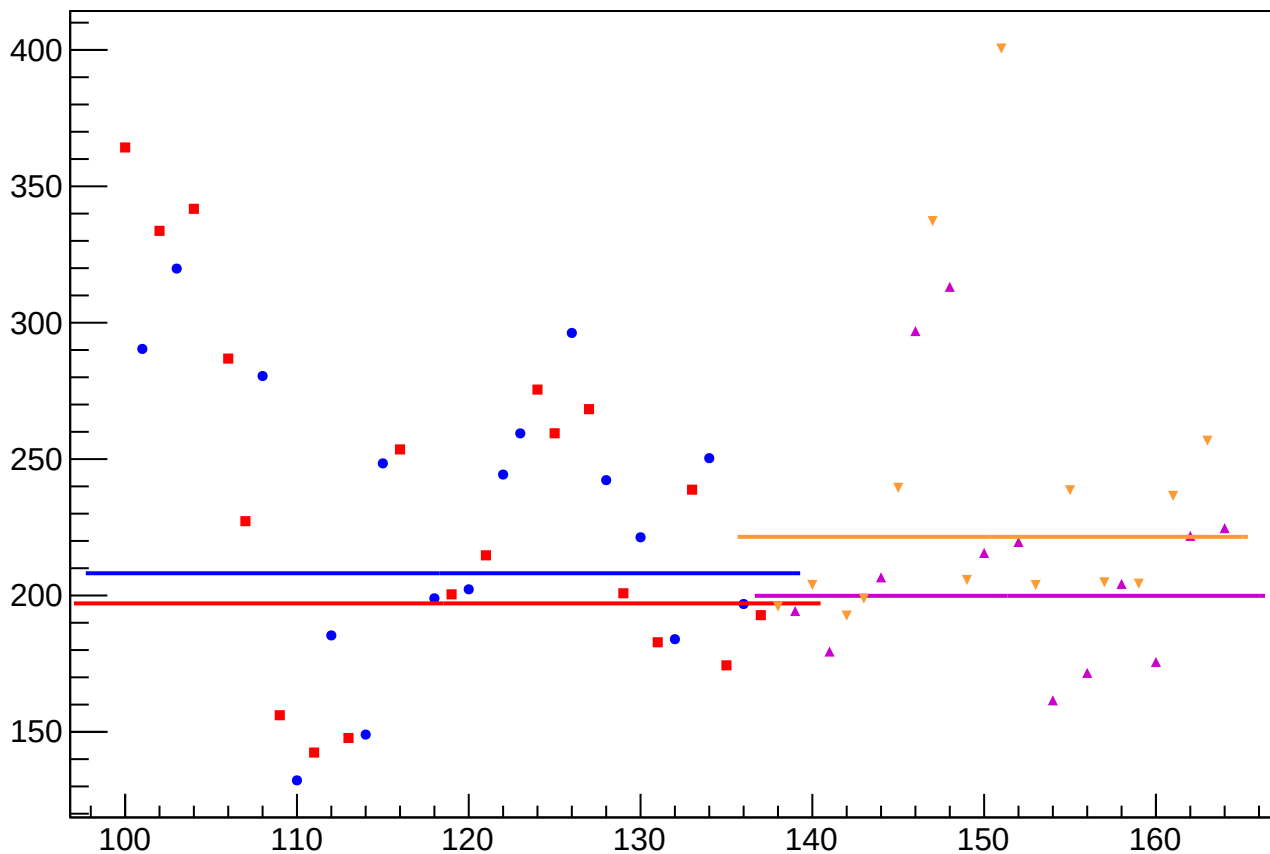
Left In:  $-475.411 \pm 64.376$   $\chi^2/\text{NDF}$ : 756.1/12

+ sign  $357.782 \pm 53.887$   $\chi^2/\text{NDF}$ : 1374.5/30

All:  $227.819 \pm 36.486$   $\chi^2/\text{NDF}$ : 2826.2/62

- sign  $117.808 \pm 49.579$   $\chi^2/\text{NDF}$ : 1441.0/31

# asym\_bpm0l01WS\_rms vs Slug



Right In: 208.151+/-0.060  $\chi^2/\text{NDF}$ : 699084.2/16

Left Out: 221.503+/-0.050  $\chi^2/\text{NDF}$ : 655704.2/13

Right Out: 197.103+/-0.055  $\chi^2/\text{NDF}$ : 926467.5/18

Left In: 199.885+/-0.046  $\chi^2/\text{NDF}$ : 617397.7/12

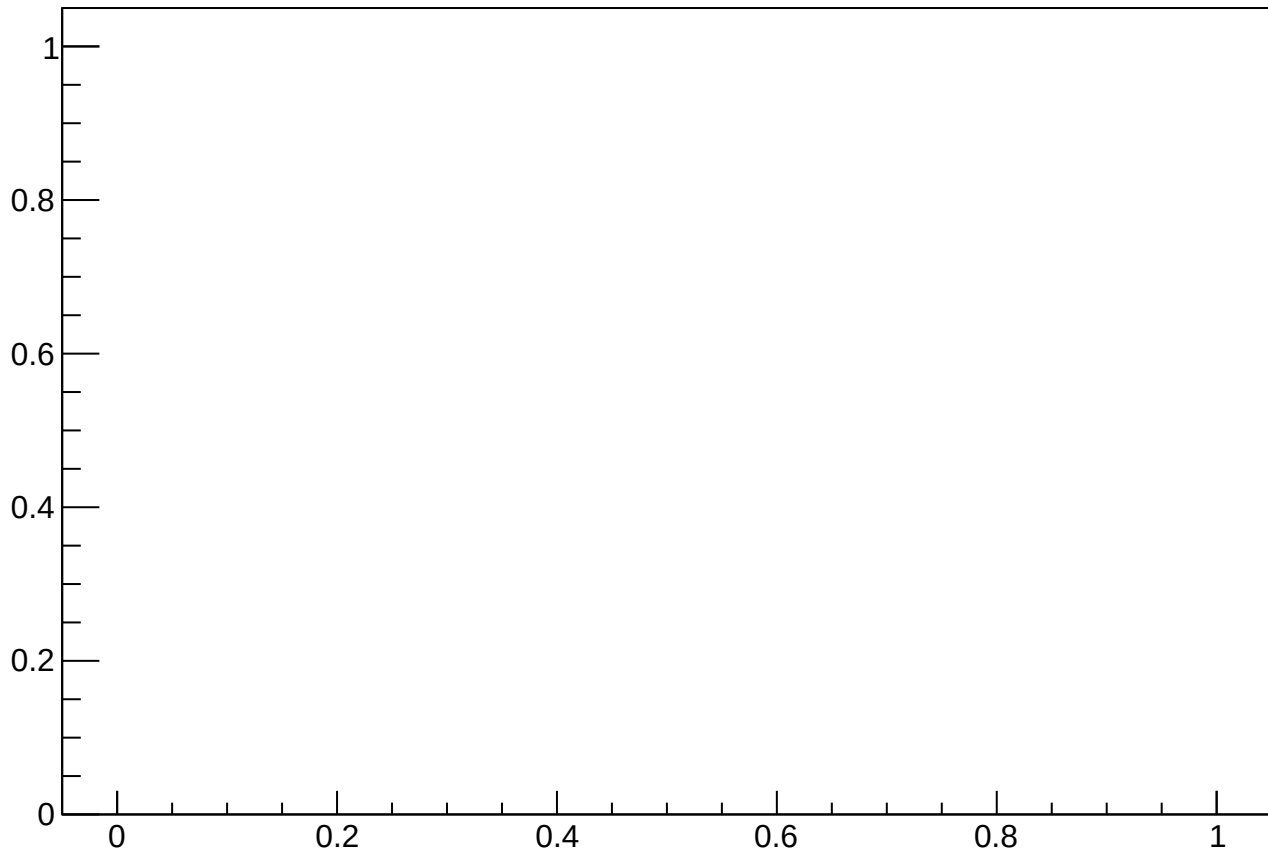
+ sign 216.042+/-0.038  $\chi^2/\text{NDF}$ : 1384470.2/30

All: 206.679+/-0.026  $\chi^2/\text{NDF}$ : 3041355.1/62

- sign 198.753+/-0.035  $\chi^2/\text{NDF}$ : 1545385.1/31



# bcm\_an\_us\_ds\_dd\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

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

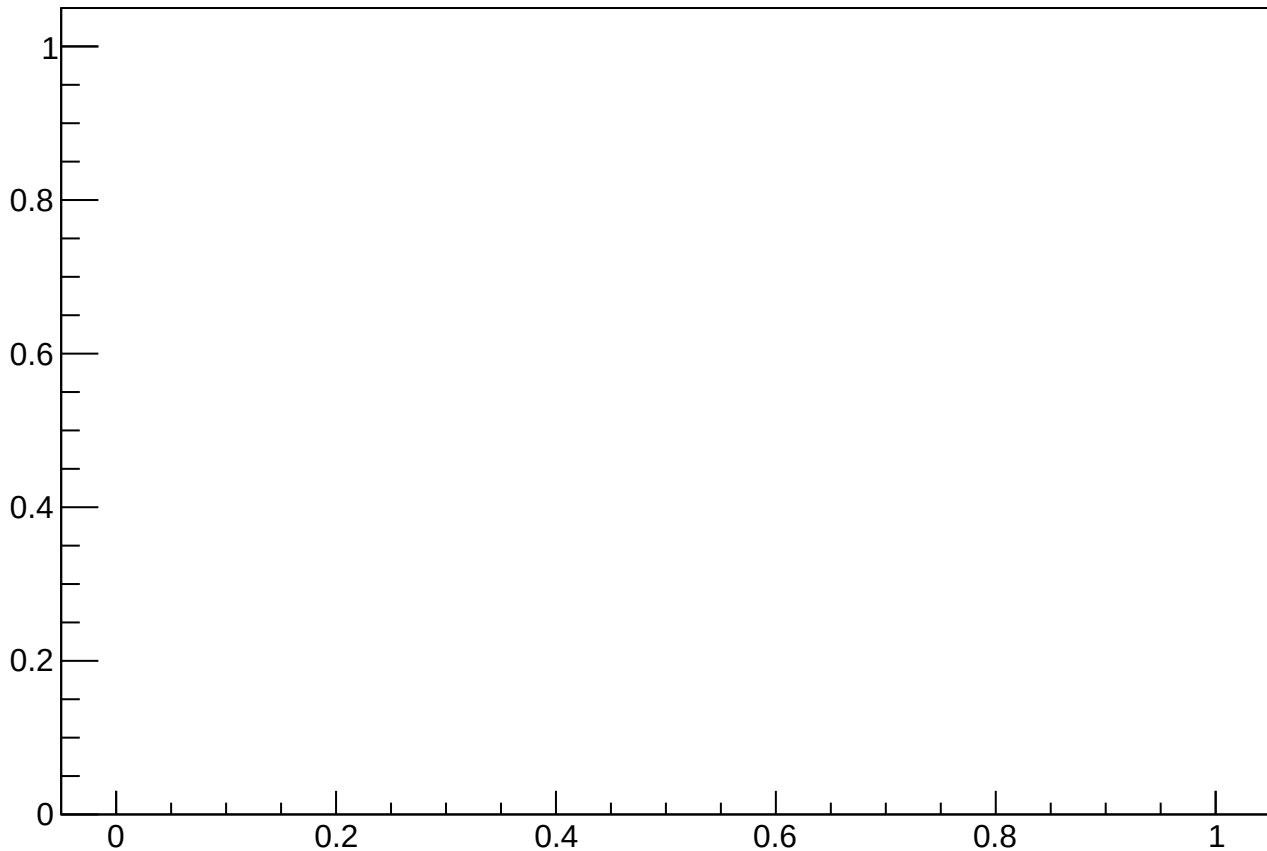
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF:0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_an\_us\_ds\_dd\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

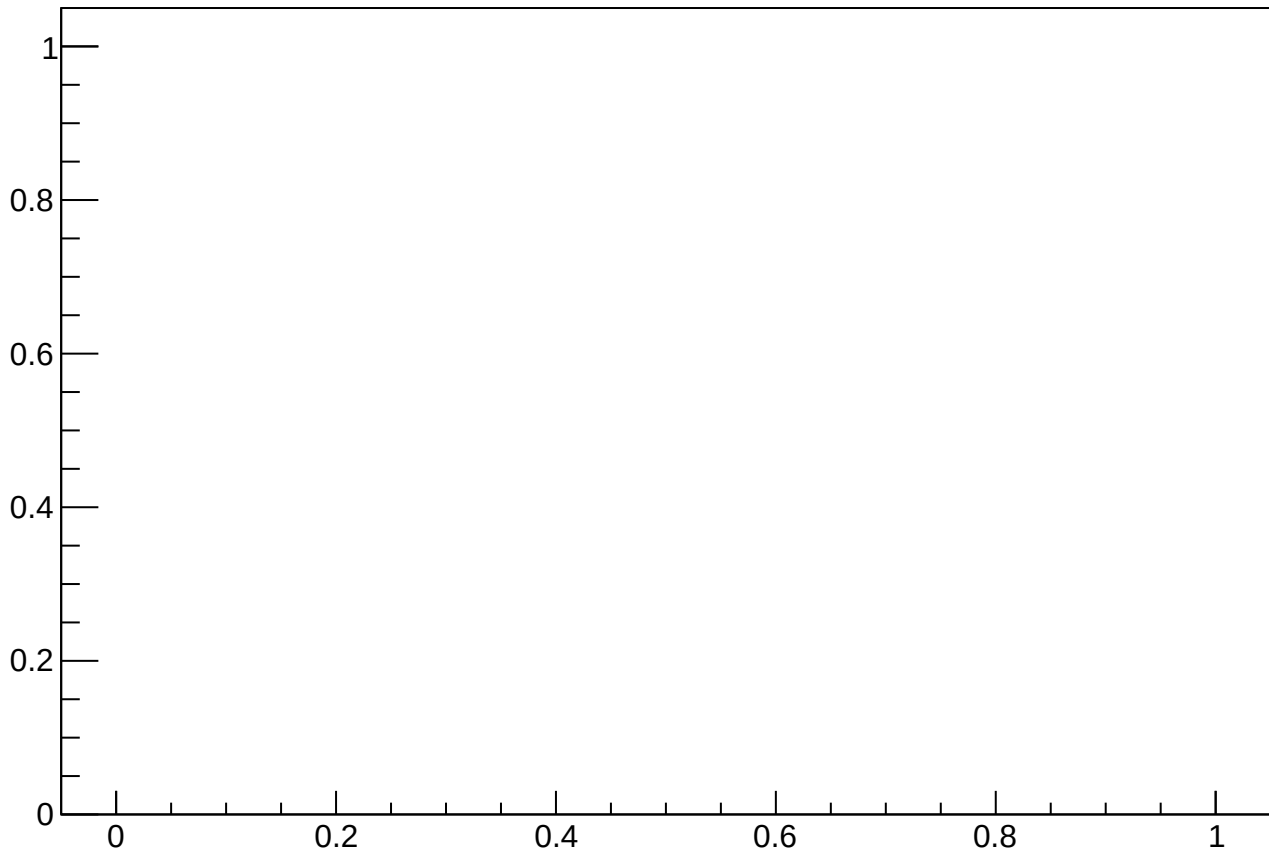
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_dg\_us\_dg\_ds\_dd\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

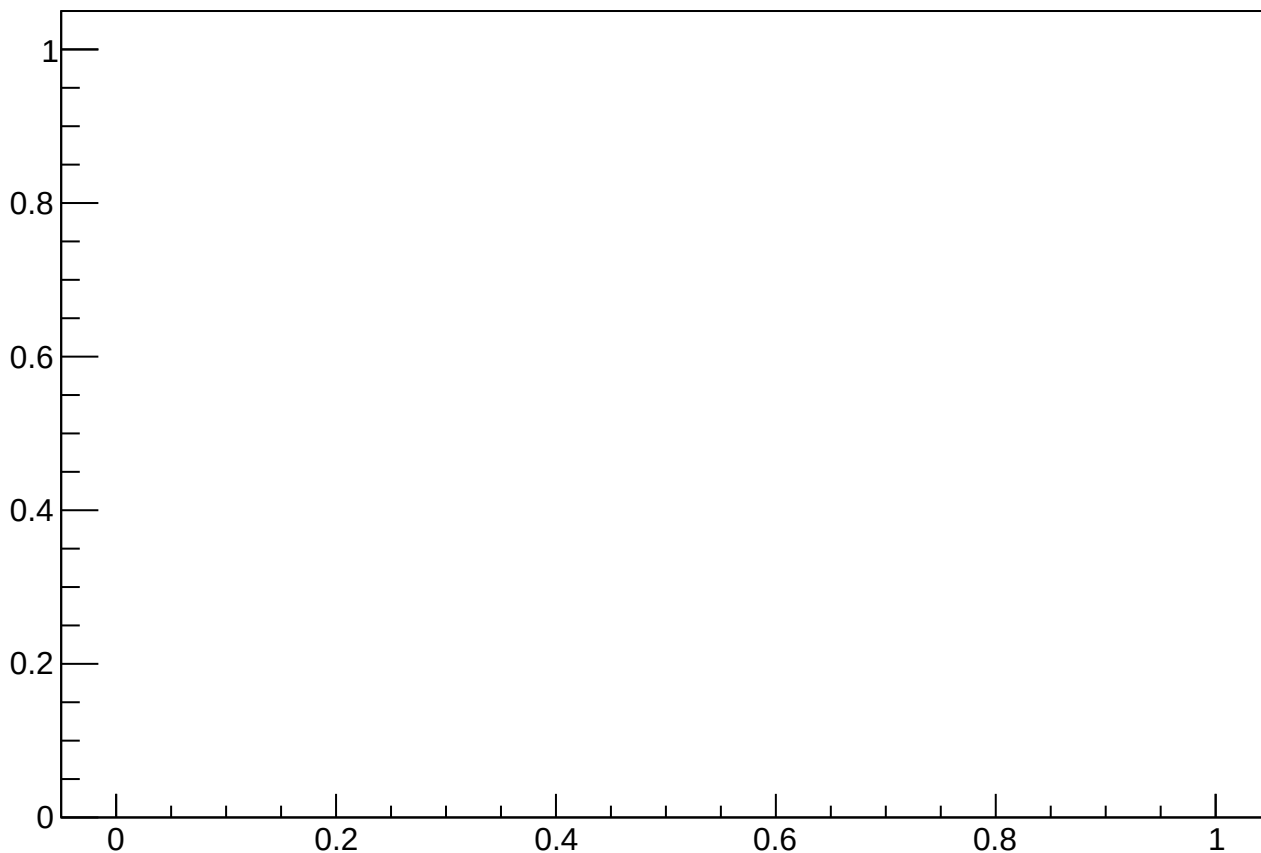
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_dg\_us\_dg\_ds\_dd\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

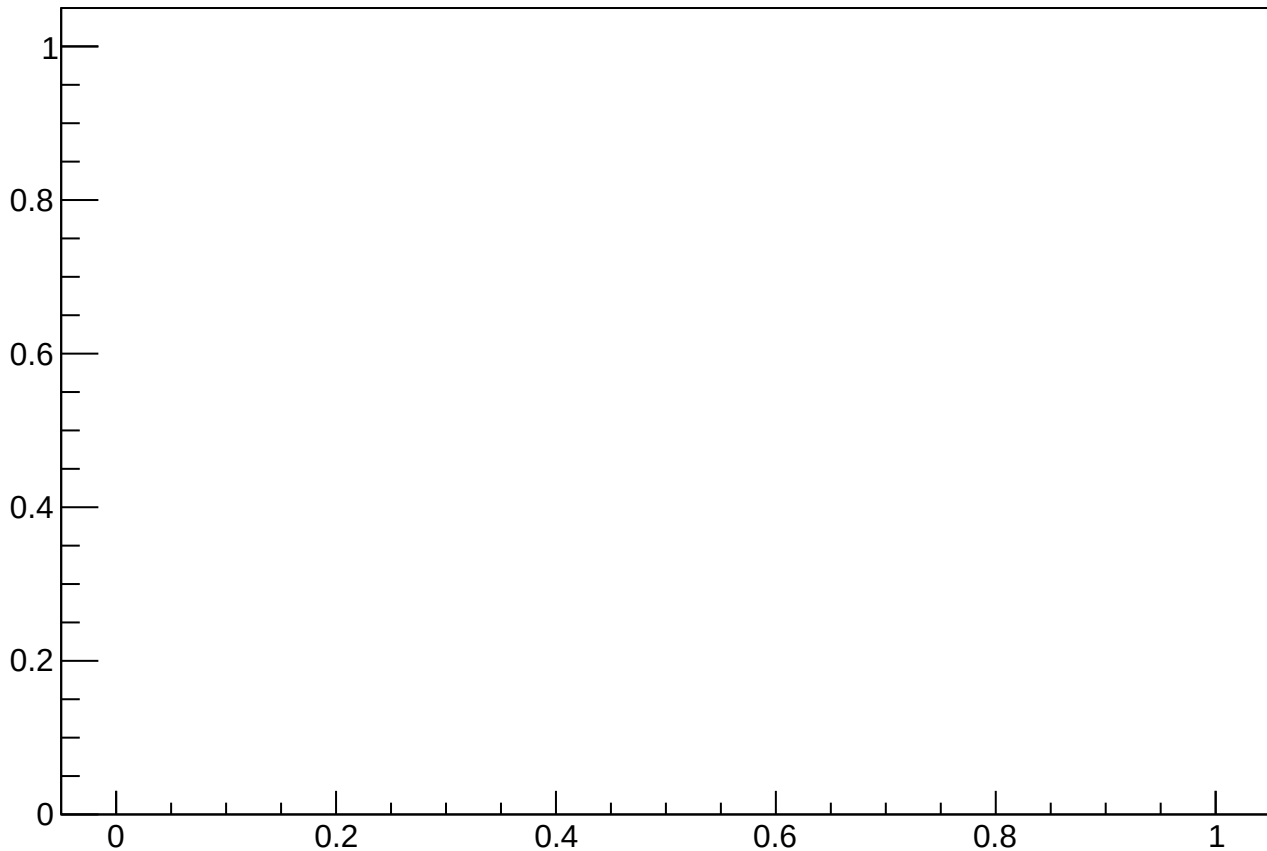
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_dg\_us\_ds\_dd\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

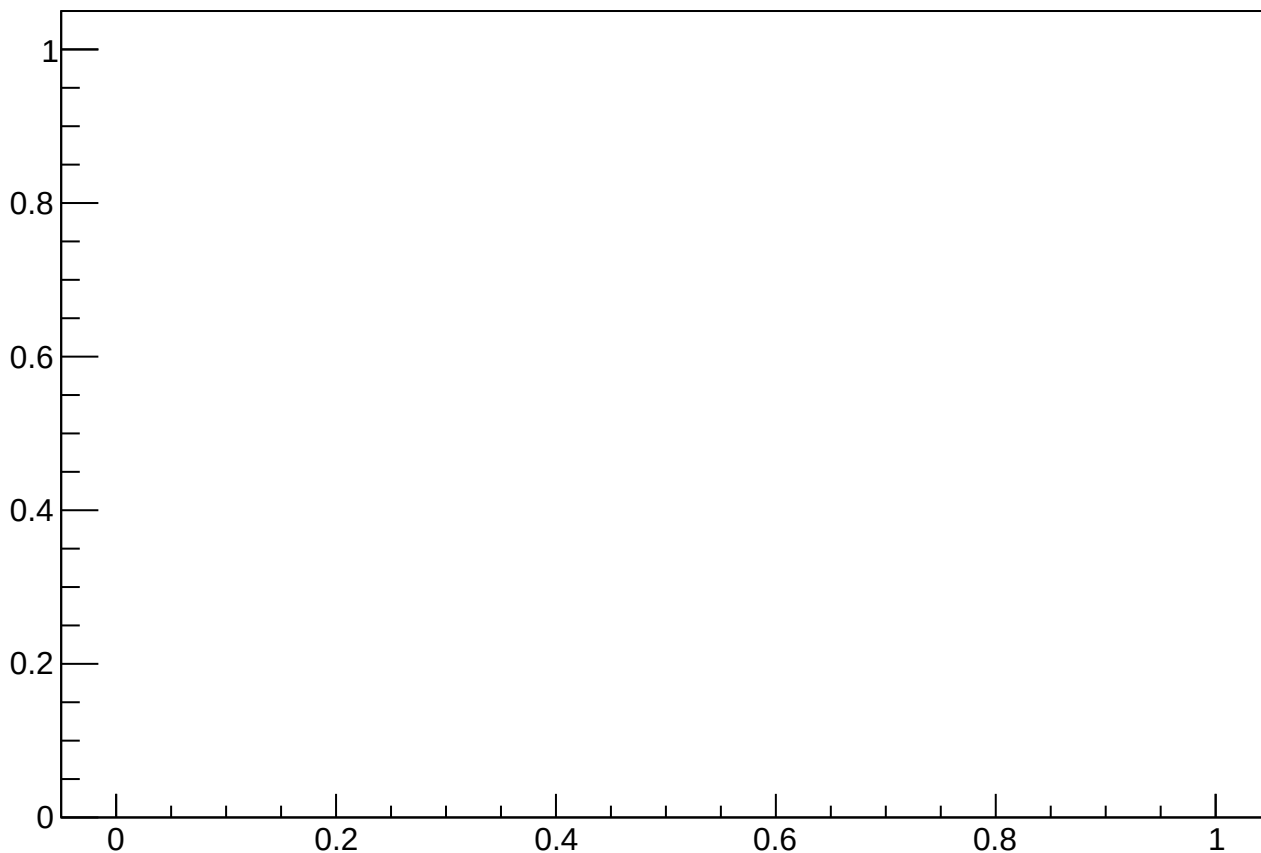
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_dg\_us\_ds\_dd\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

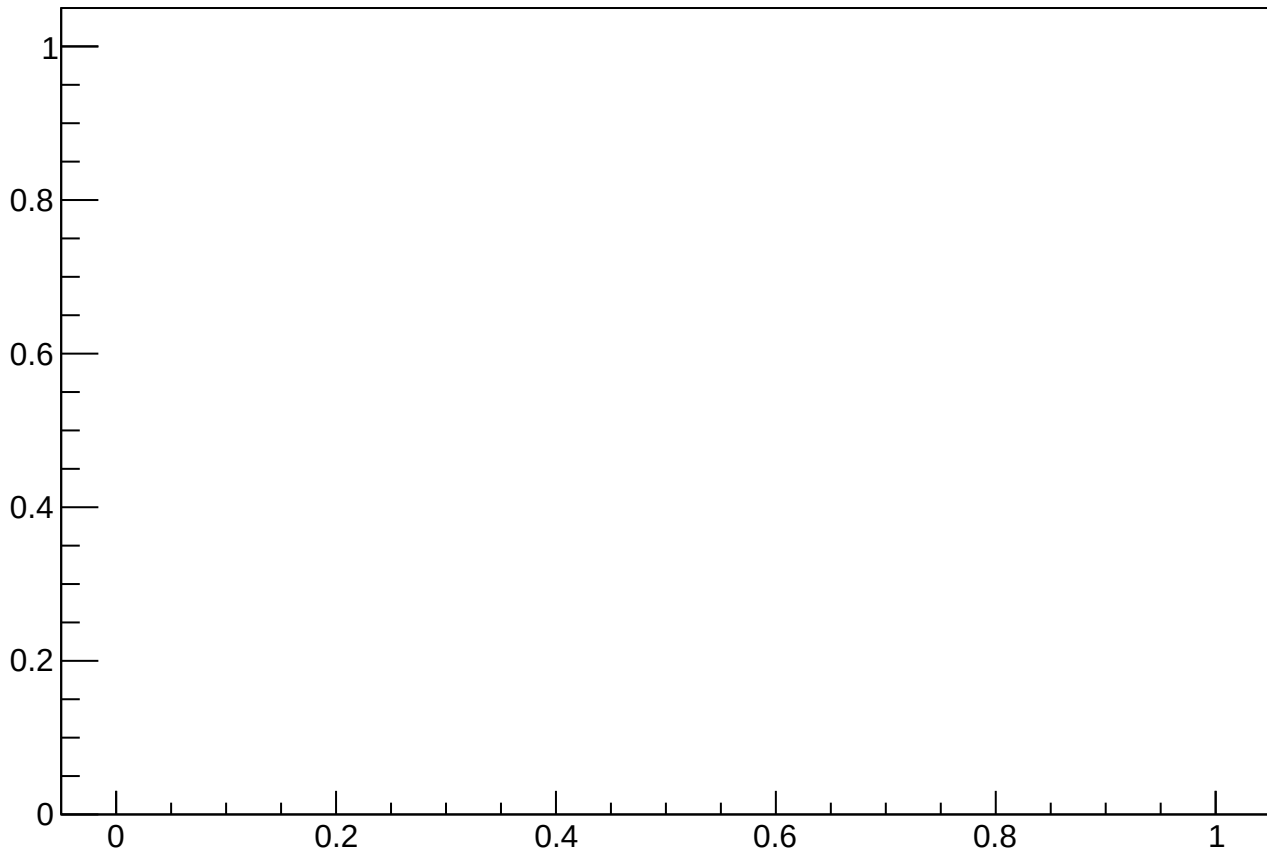
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_dg\_ds\_ds\_dd\_mean vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

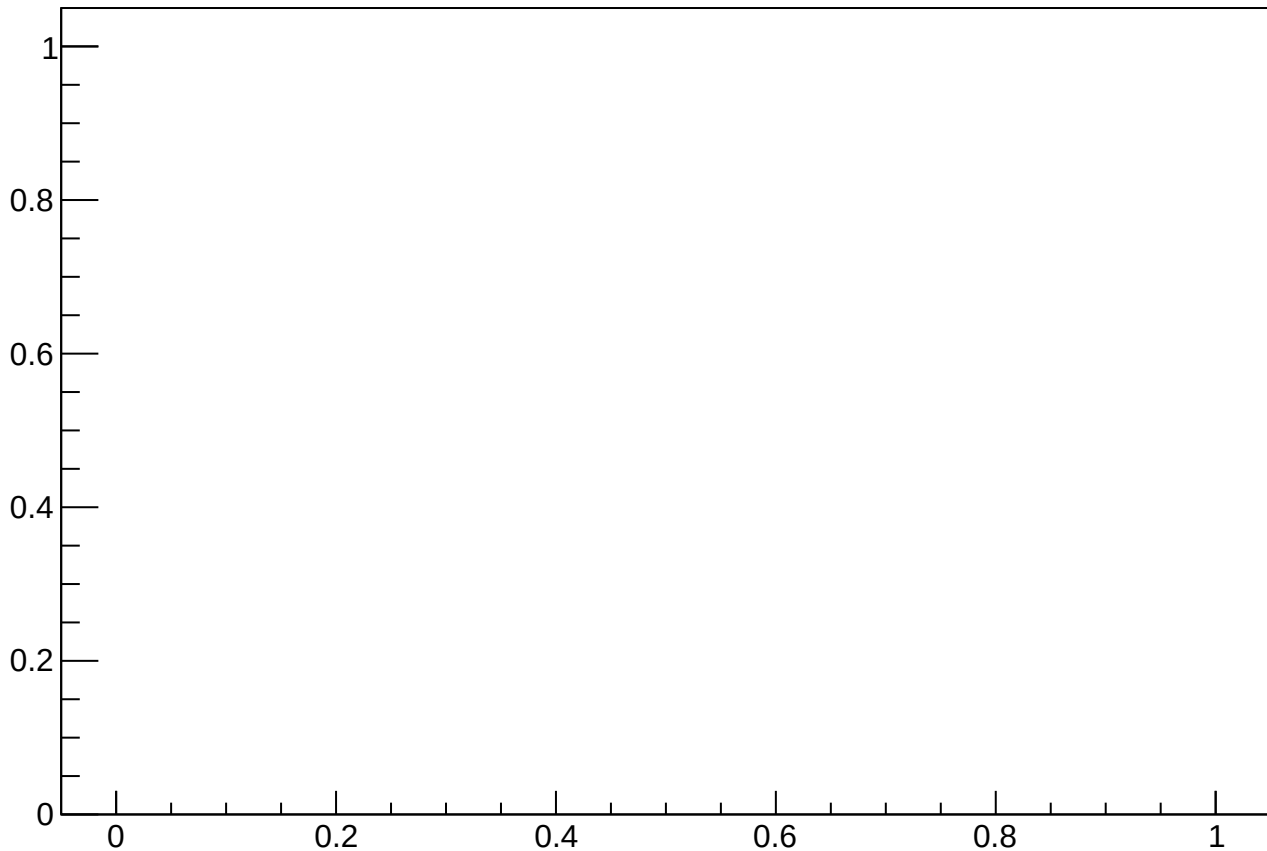
Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# bcm\_dg\_ds\_ds\_dd\_rms vs Slug



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

Left Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

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

Left In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

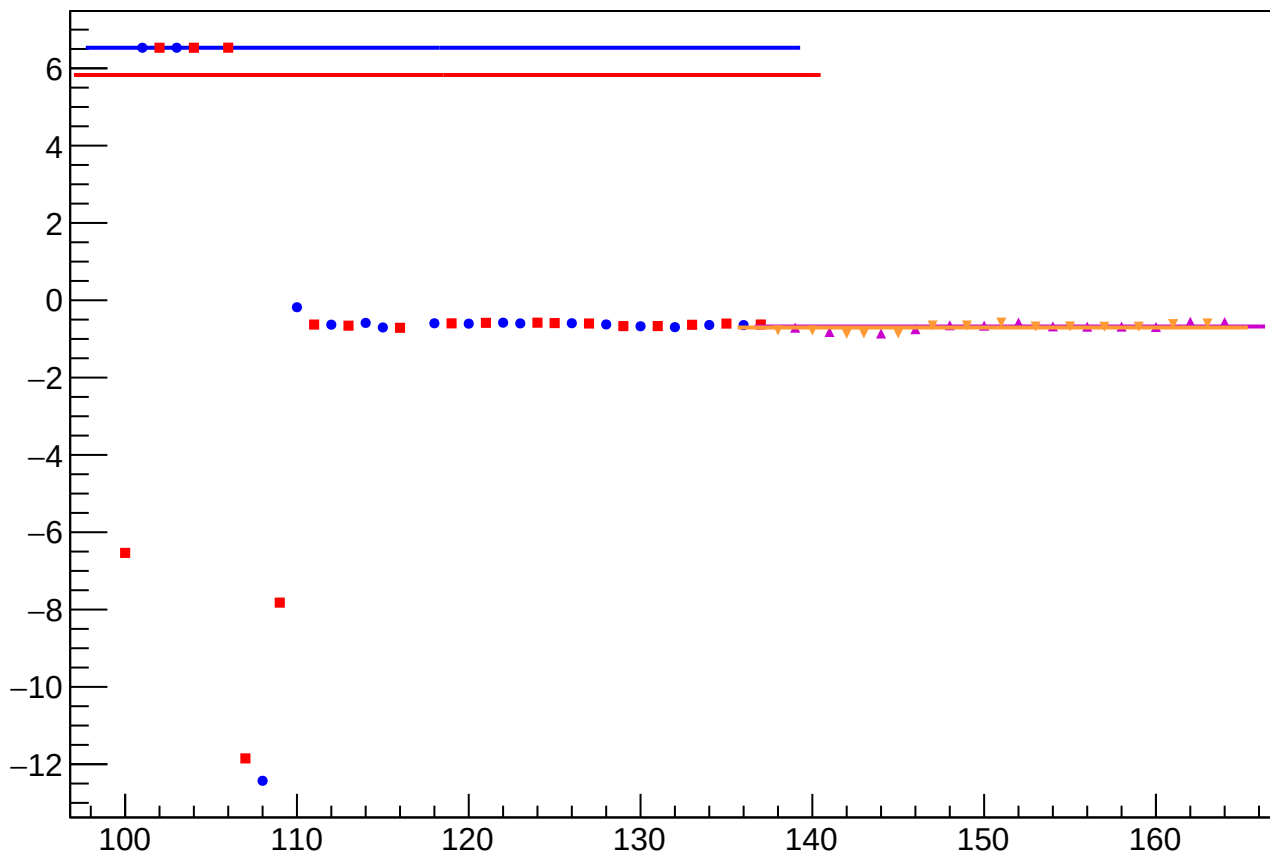
+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0



# yield\_cav4bX\_mean vs Slug



Right In: 6.532 $\pm$ 0.000  $\chi^2$ /NDF: 127219747629.7/16

Left Out: -0.705 $\pm$ 0.000  $\chi^2$ /NDF: 95059945.4/13

Right Out: 5.827 $\pm$ 0.000  $\chi^2$ /NDF: 755963218053643.4/18

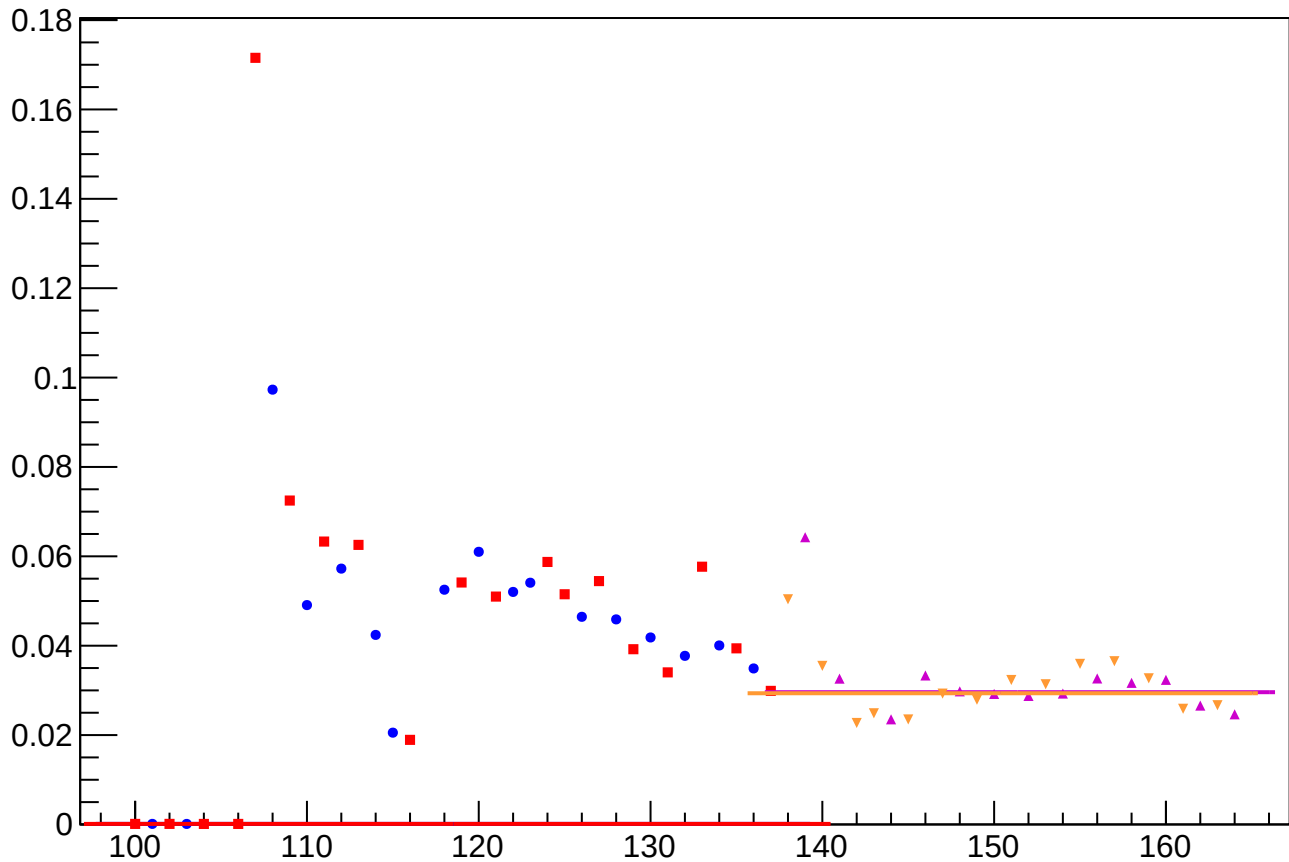
Left In: -0.679 $\pm$ 0.000  $\chi^2$ /NDF: 84932621.4/12

+ sign 6.531 $\pm$ 0.000  $\chi^2$ /NDF: 632357627772.7/30

All: 6.154 $\pm$ 0.000  $\chi^2$ /NDF: 77698735399824

- sign 5.827 $\pm$ 0.000  $\chi^2$ /NDF: 756361062385262.5/

# yield\_cav4bX\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8888070.2/16

Left Out: 0.029+/-0.000  $\chi^2/\text{NDF}$ :563909.3/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9349631.9/18

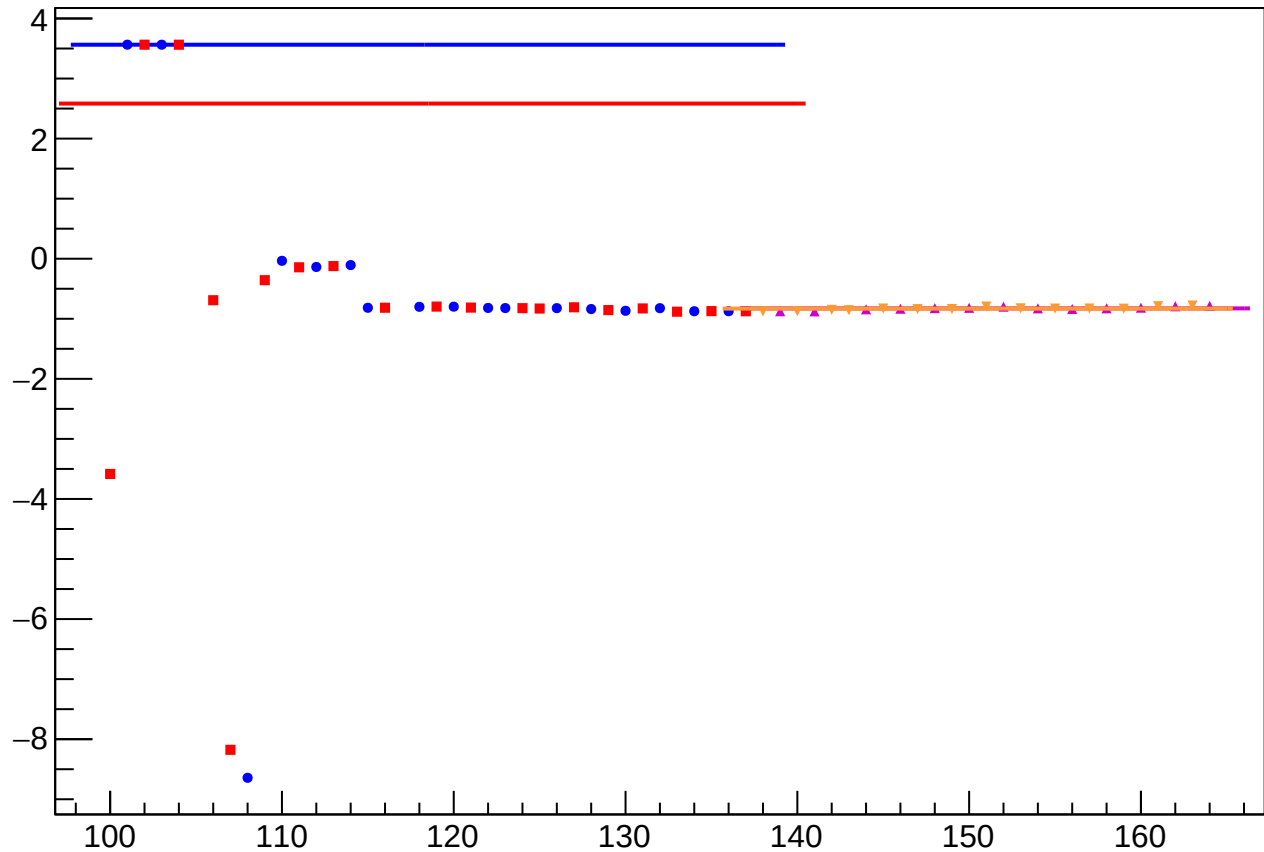
Left In: 0.030+/-0.000  $\chi^2/\text{NDF}$ :602541.1/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 25938083.0/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 52216010.3/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 26277502.1/31

# yield\_cav4bY\_mean vs Slug



Right In: 3.563 $\pm$ 0.000  $\chi^2$ /NDF: 481634392464.0/16

Left Out: -0.830 $\pm$ 0.000  $\chi^2$ /NDF: 103712253.0/13

Right Out: 2.583 $\pm$ 0.000  $\chi^2$ /NDF: 1253502070019187.0/18

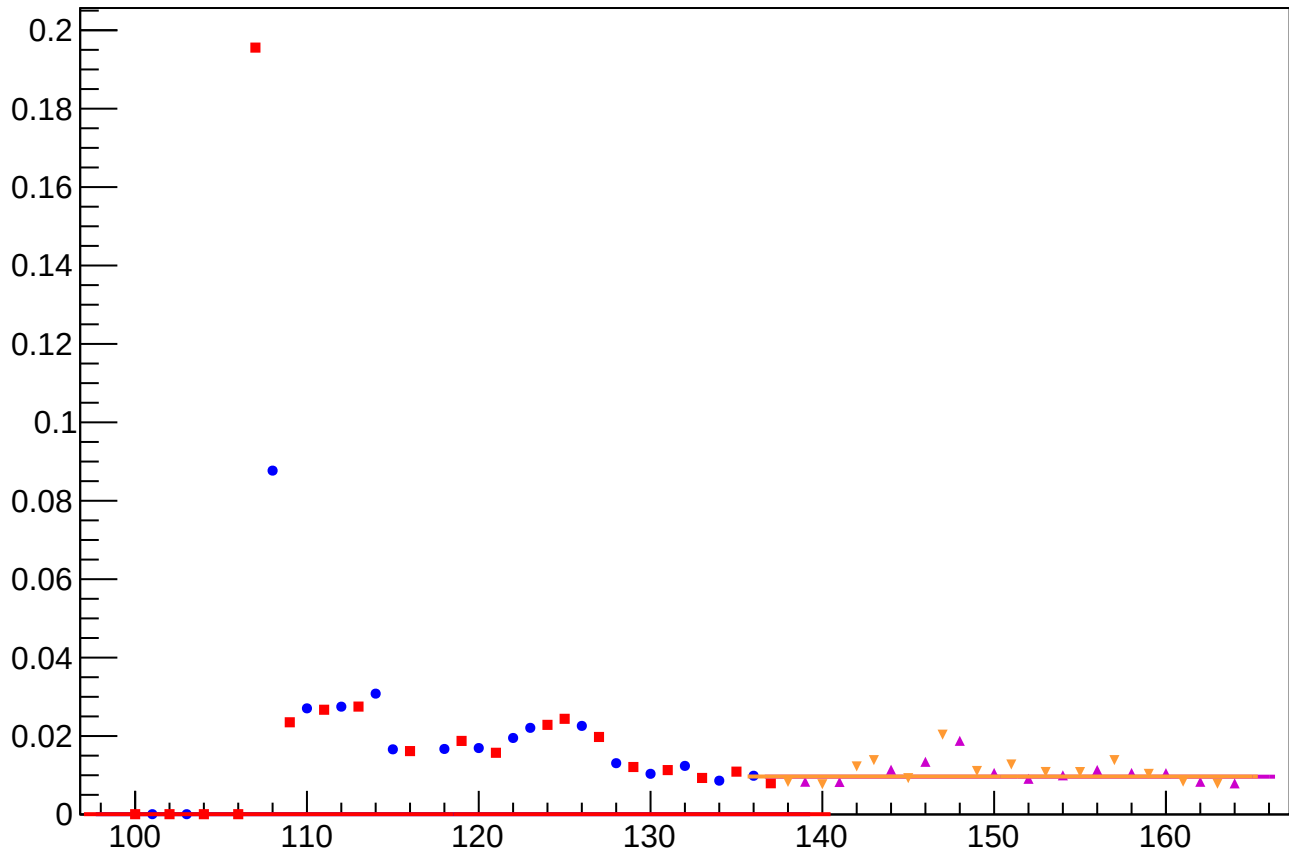
Left In: -0.827 $\pm$ 0.000  $\chi^2$ /NDF: 91453683.3/12

+ sign 3.562 $\pm$ 0.000  $\chi^2$ /NDF: 2143534251451.6/30

All: 3.039 $\pm$ 0.000  $\chi^2$ /NDF: 1384841309752.1

- sign 2.582 $\pm$ 0.000  $\chi^2$ /NDF: 1254510555948822.2

# yield\_cav4bY\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9724059.3/16

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 969753.6/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9861757.0/18

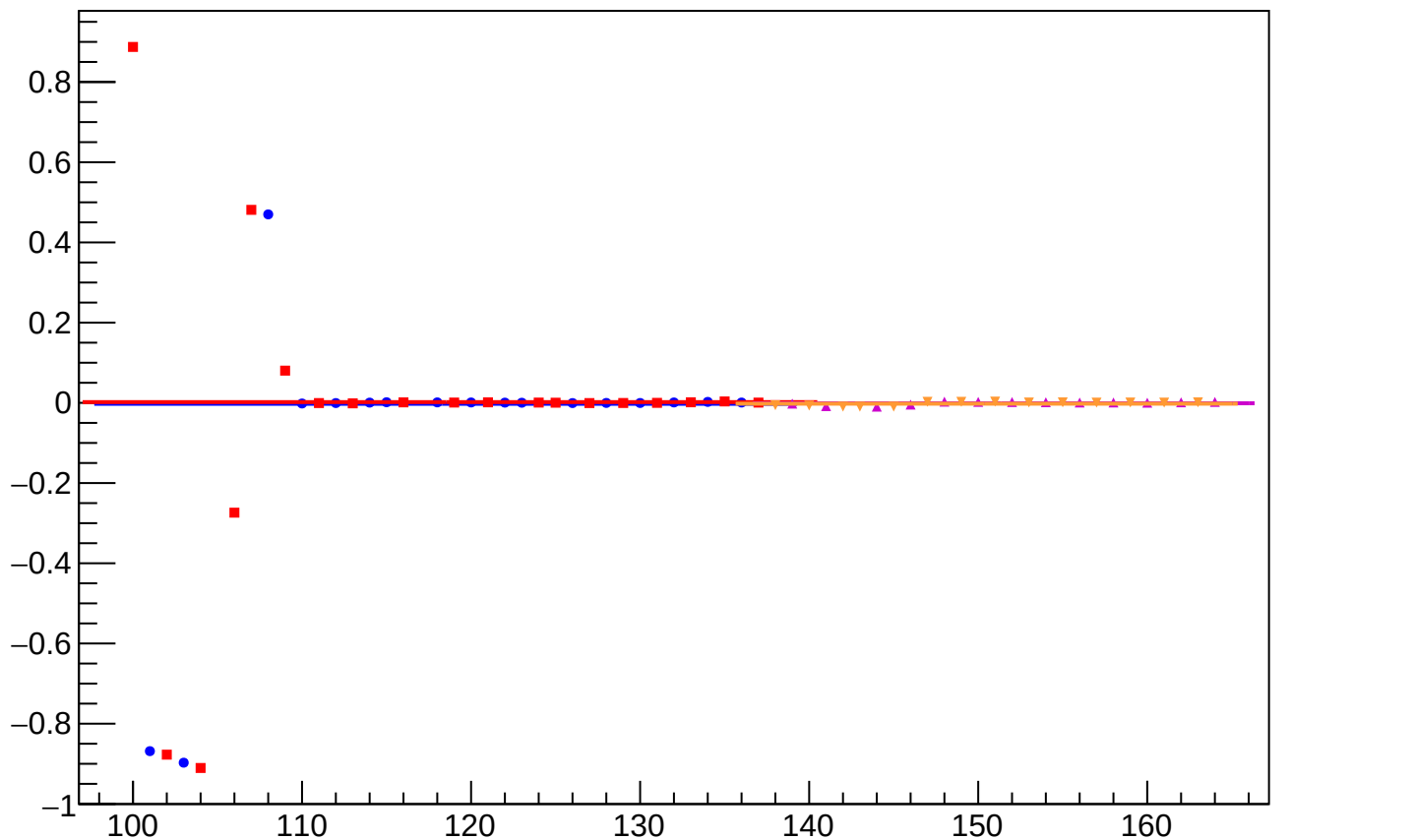
Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 671883.9/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 26592388.5/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 52990180.3/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 26397250.3/31

# yield\_cav4cX\_mean vs Slug



Right In: -0.002+/-0.000  $\chi^2/\text{NDF}$ : 9794863405.3/16

Left Out: -0.002+/-0.000  $\chi^2/\text{NDF}$ : 86033337.1/13

Right Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 3041319824.4/18

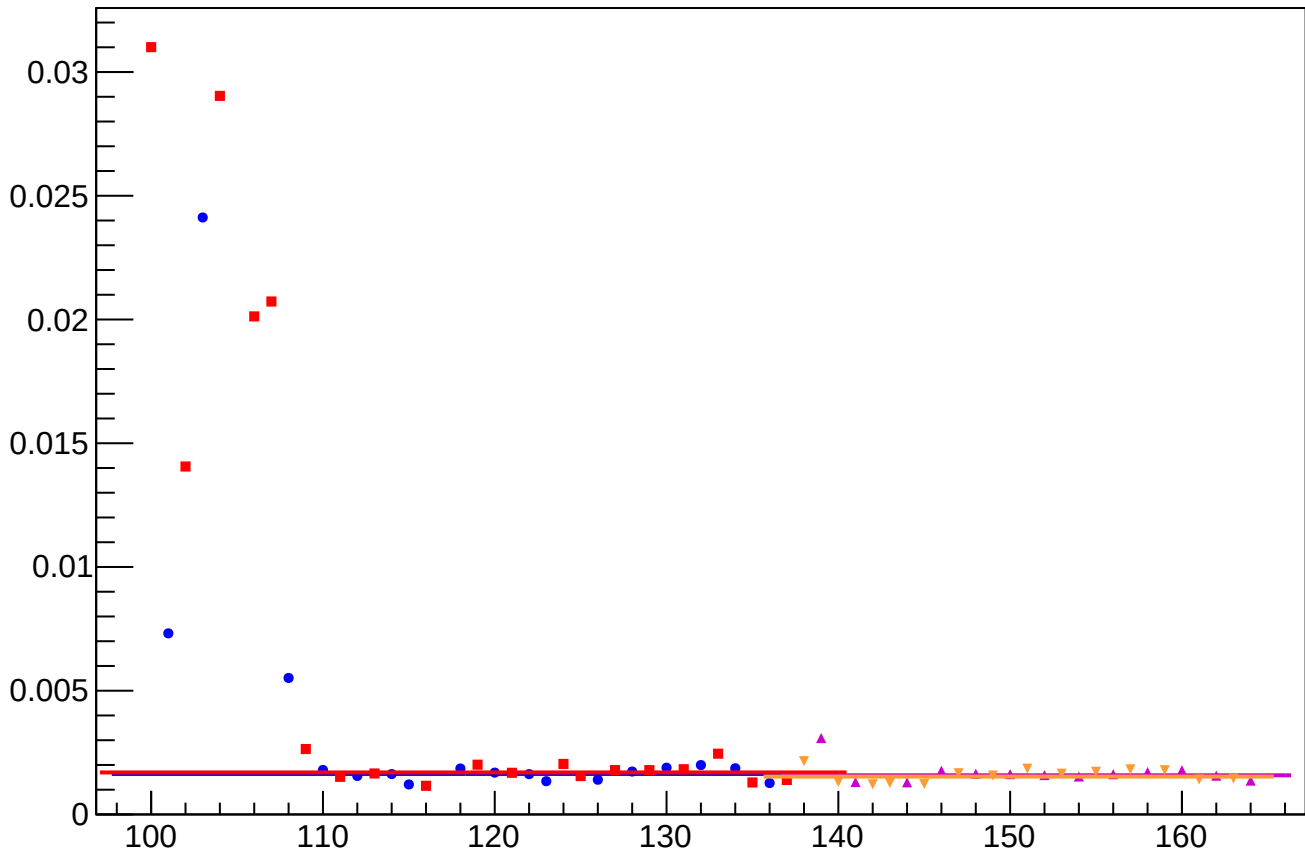
Left In: -0.001+/-0.000  $\chi^2/\text{NDF}$ : 63462106.6/12

+ sign -0.002+/-0.000  $\chi^2/\text{NDF}$ : 9880947268.4/30

All: -0.001+/-0.000  $\chi^2/\text{NDF}$ : 13005454692.3/31

- sign -0.000+/-0.000  $\chi^2/\text{NDF}$ : 3113683610.9/31

# yield\_cav4cX\_rms vs Slug



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 1916349.1/16

Left Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 418913.7/13

Right Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 3023899.0/18

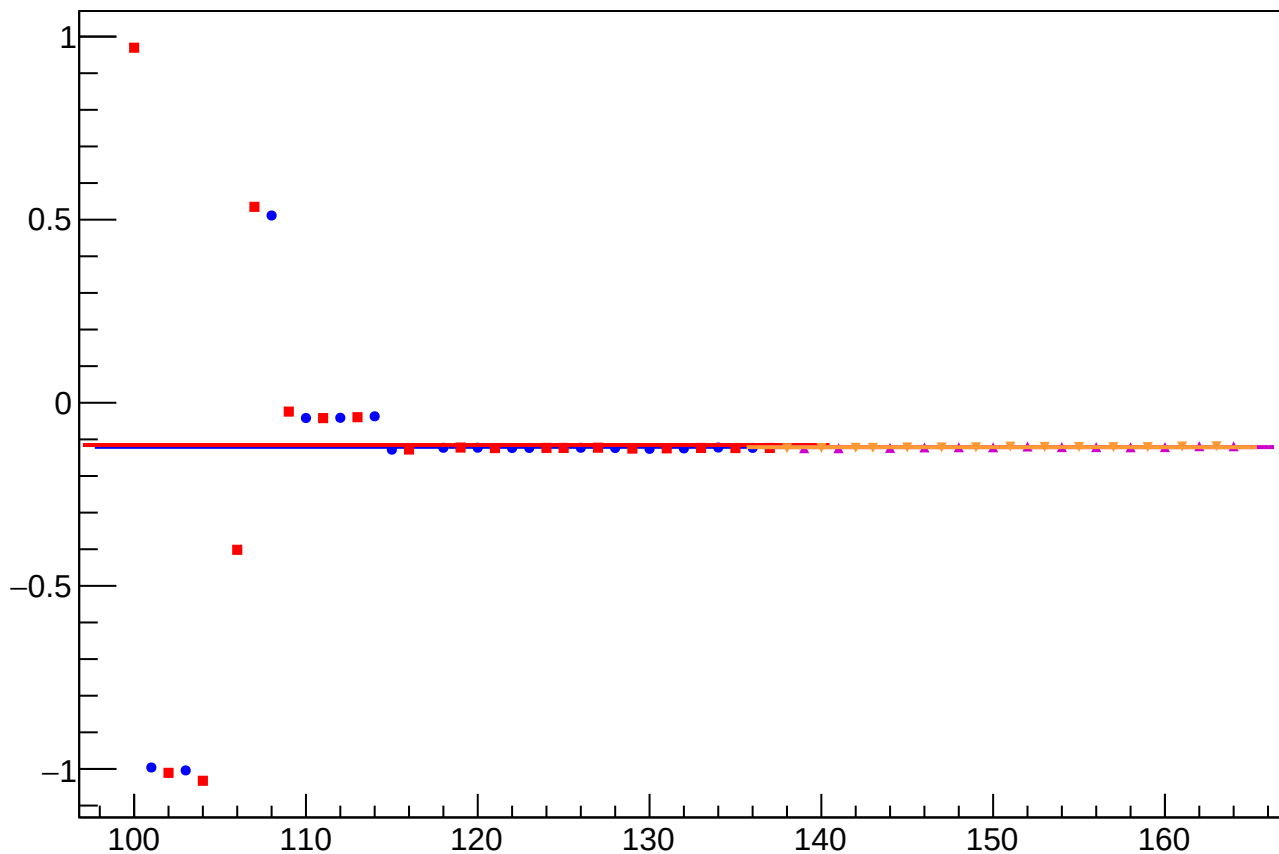
Left In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 520832.8/12

+ sign 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 2361565.3/30

All: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 5949170.3/62

- sign 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 3572804.2/31

# yield\_cav4cY\_mean vs Slug



Right In: -0.120+/-0.000  $\chi^2/\text{NDF}$ : 3932144335.2/16

Left Out: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 20832786.1/13

+ sign -0.121+/-0.000  $\chi^2/\text{NDF}$ : 3954366423.9/30

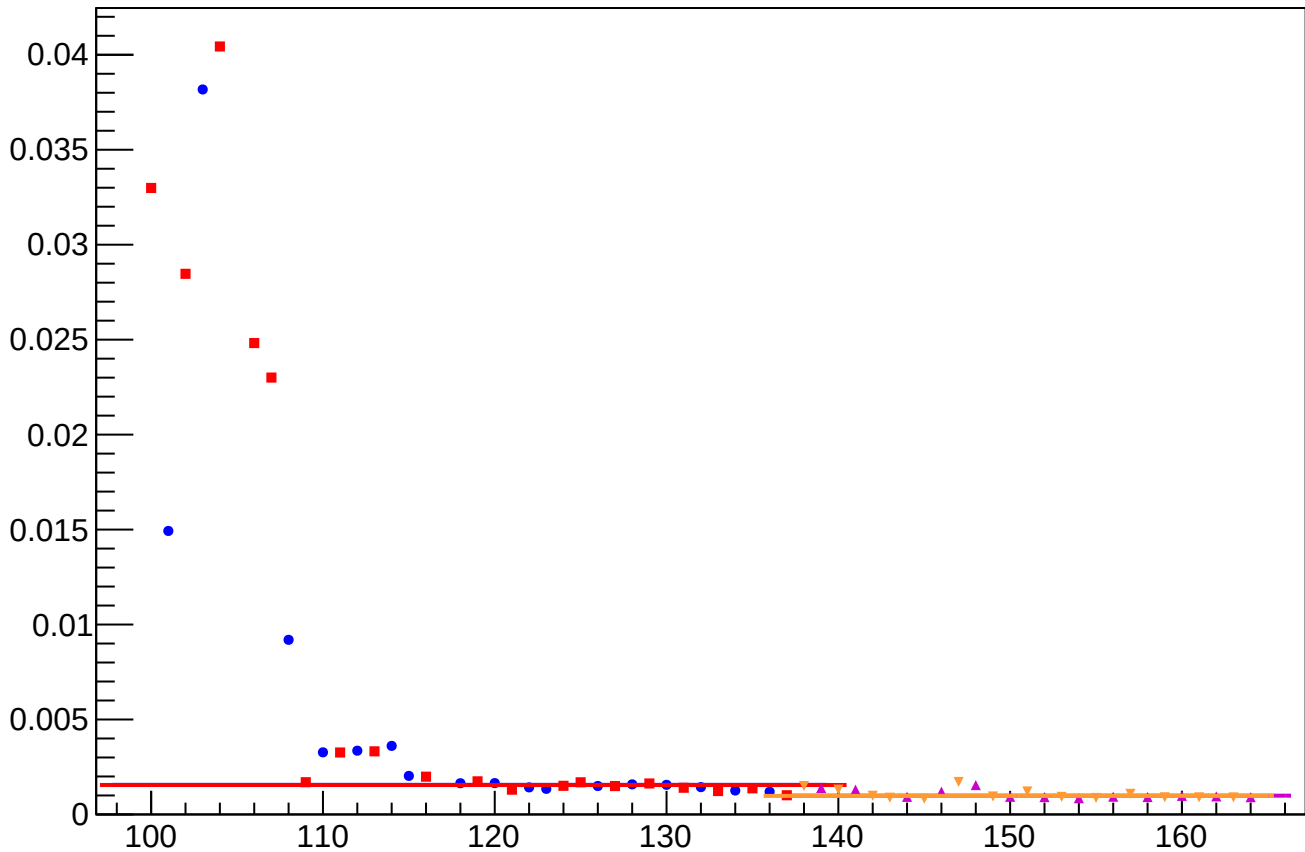
Right Out: -0.115+/-0.000  $\chi^2/\text{NDF}$ : 2456843337.8/18

All: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 6491529745.8/6

- sign -0.120+/-0.000  $\chi^2/\text{NDF}$ : 2531755309.3/31

Left In: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 24221900.9/12

# yield\_cav4cY\_rms vs Slug



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 2901093.3/16

Left Out: 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 711713.4/13

Right Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 3539455.6/18

Left In: 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 528093.1/12

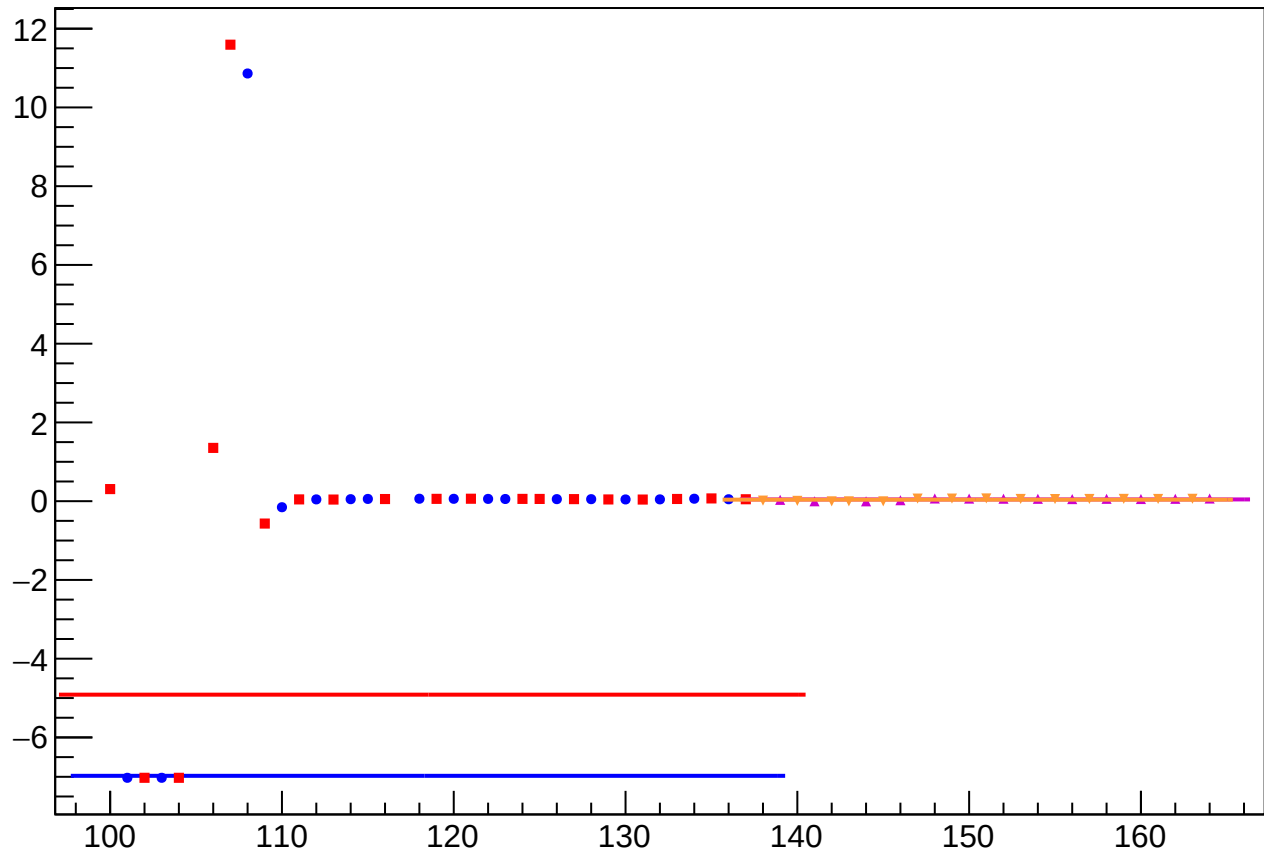
+ sign 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 4676763.1/30

All: 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 9749899.6/62

- sign 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 5071232.7/31



# yield\_cav4dX\_mean vs Slug



Right In: -6.975+/-0.000  $\chi^2/\text{NDF}$ : 8749579700722.8/16

Left Out: 0.039+/-0.000  $\chi^2/\text{NDF}$ : 87752169.4/13

Right Out: -4.914+/-0.000  $\chi^2/\text{NDF}$ : 365358092730279.9/18

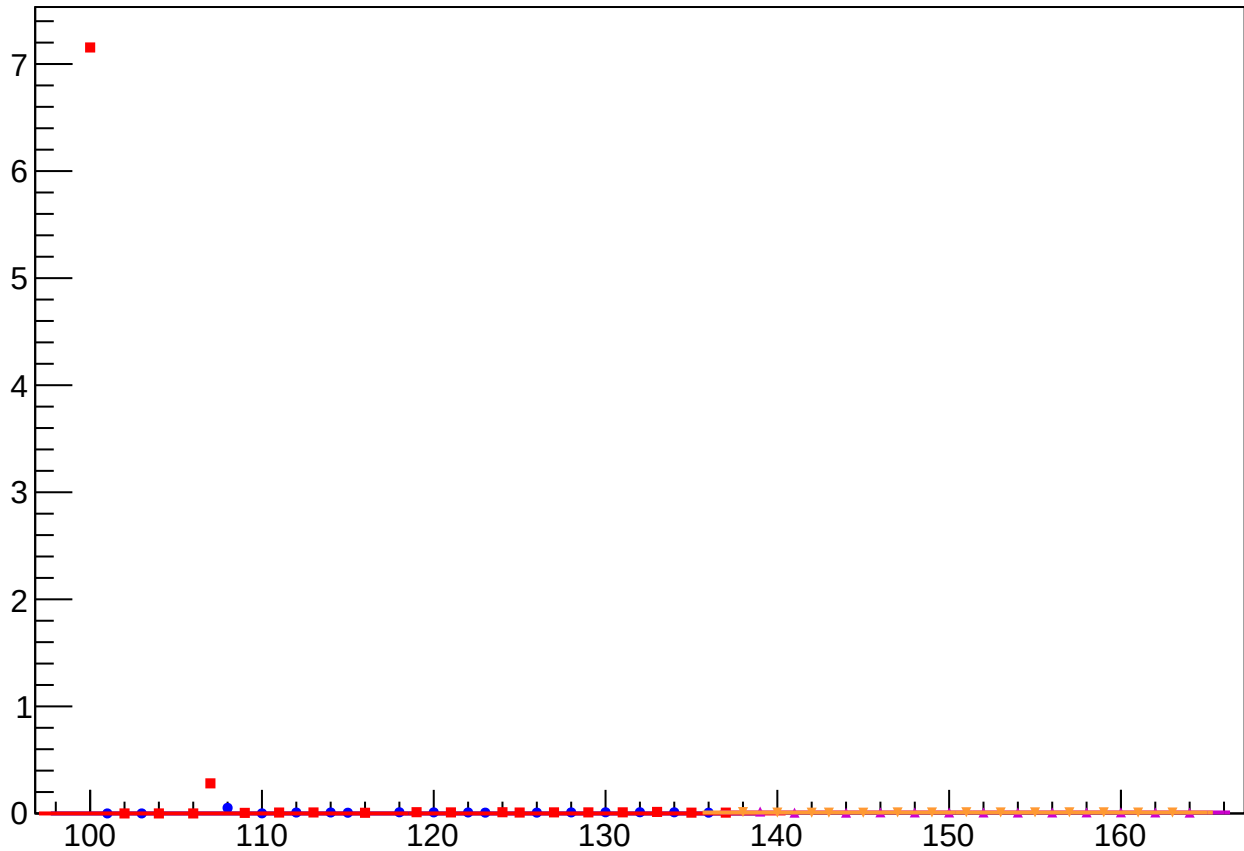
Left In: 0.044+/-0.000  $\chi^2/\text{NDF}$ : 70645161.4/12

+ sign -6.947+/-0.000  $\chi^2/\text{NDF}$ : 13733668522606.0/16

All: -5.878+/-0.000  $\chi^2/\text{NDF}$ : 4372242952043.0/16

- sign -4.897+/-0.000  $\chi^2/\text{NDF}$ : 367684343494387.9/16

# yield\_cav4dX\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8242728.7/16

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 412753.8/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8775982.6/18

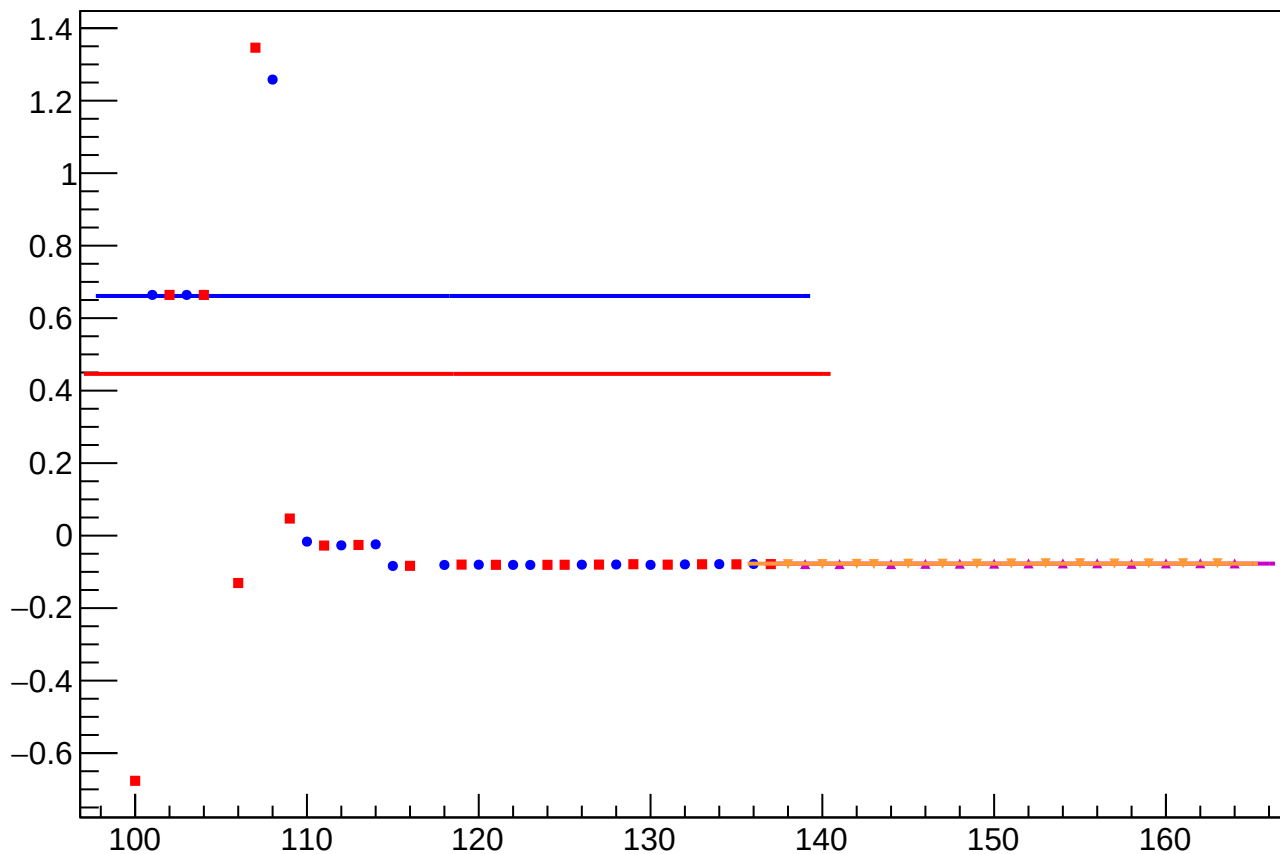
Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 515080.3/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 24506770.9/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 49626290.7/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 25118086.9/31

# yield\_cav4dY\_mean vs Slug



Right In: 0.661+/-0.000  $\chi^2/\text{NDF}$ : 5607525081216.0/16

Left Out: -0.077+/-0.000  $\chi^2/\text{NDF}$ : 26168436.6/13

Right Out: 0.446+/-0.000  $\chi^2/\text{NDF}$ : 405416924315199.0/18

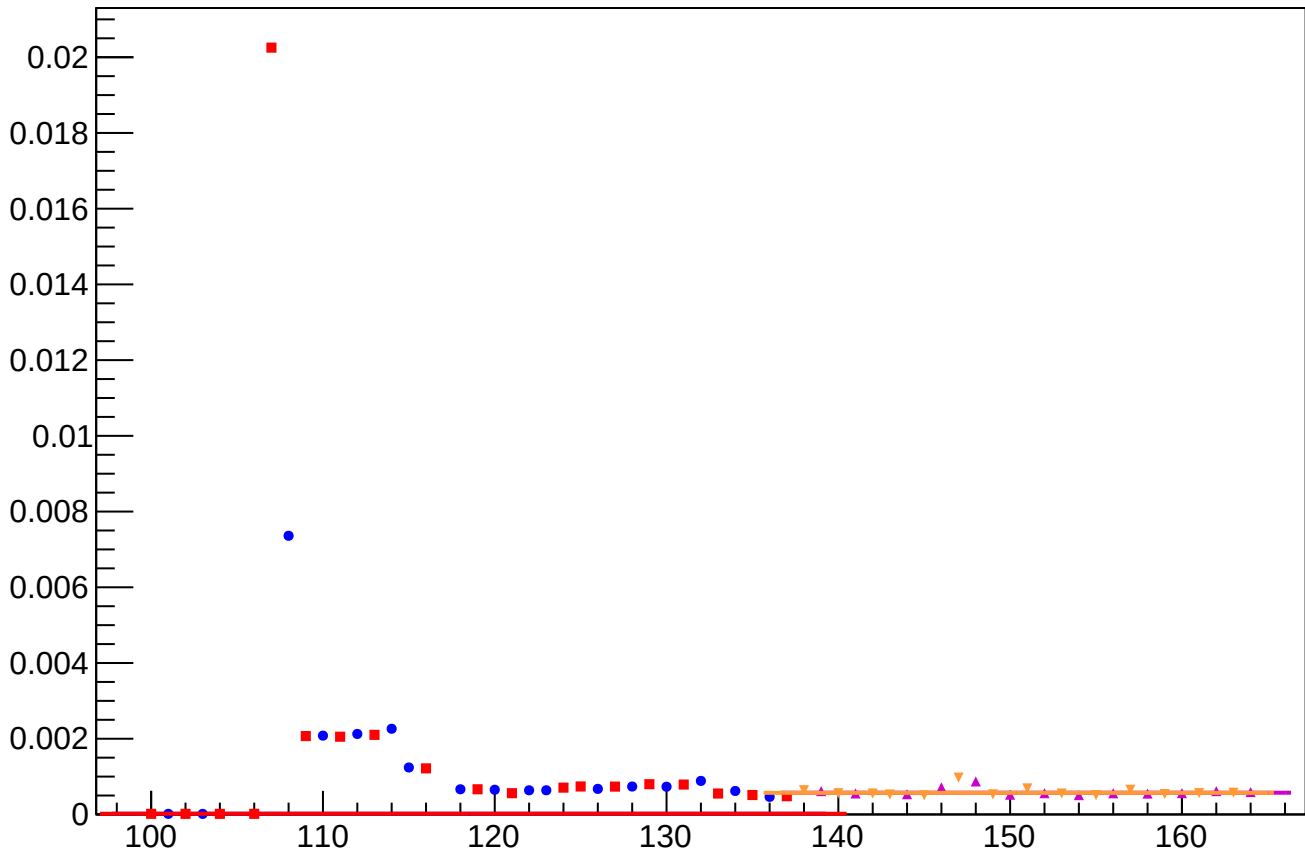
Left In: -0.077+/-0.000  $\chi^2/\text{NDF}$ : 19563499.4/12

+ sign 0.653+/-0.000  $\chi^2/\text{NDF}$ : 22033385728775.6/3

All: 0.542+/-0.000  $\chi^2/\text{NDF}$ : 49731022799313

- sign 0.441+/-0.000  $\chi^2/\text{NDF}$ : 413493457852390.8/

# yield\_cav4dY\_rms vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9874012.7/16

Left Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 407051.0/13

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9480848.1/18

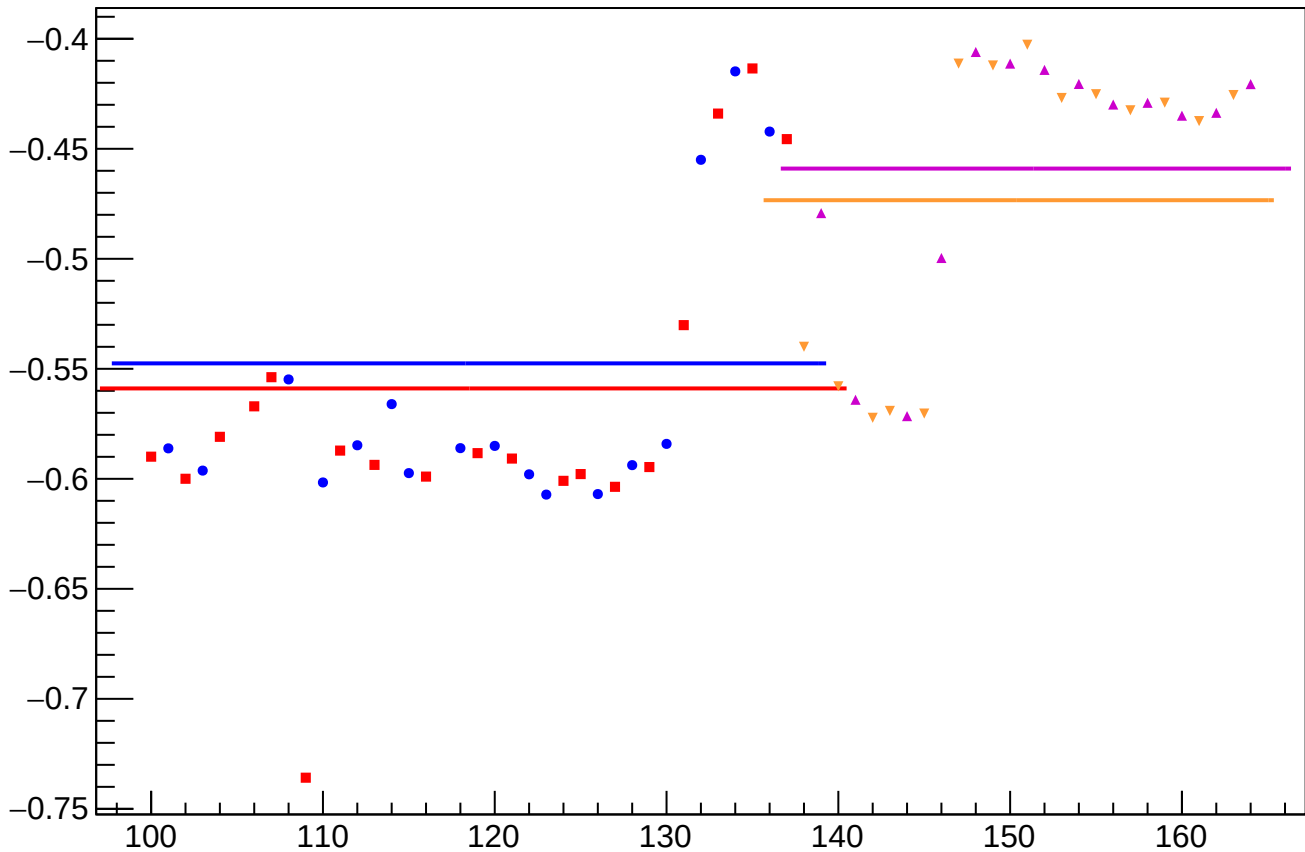
Left In: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 312625.2/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 28672923.7/30

All: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 56693094.3/62

- sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 28018839.3/31

# yield\_bpm4aX\_mean vs Slug



Right In: -0.548+/-0.000  $\chi^2/\text{NDF}$ : 48545285.9/16

Left Out: -0.473+/-0.000  $\chi^2/\text{NDF}$ : 96614769.0/13

Right Out: -0.559+/-0.000  $\chi^2/\text{NDF}$ : 65330923.3/18

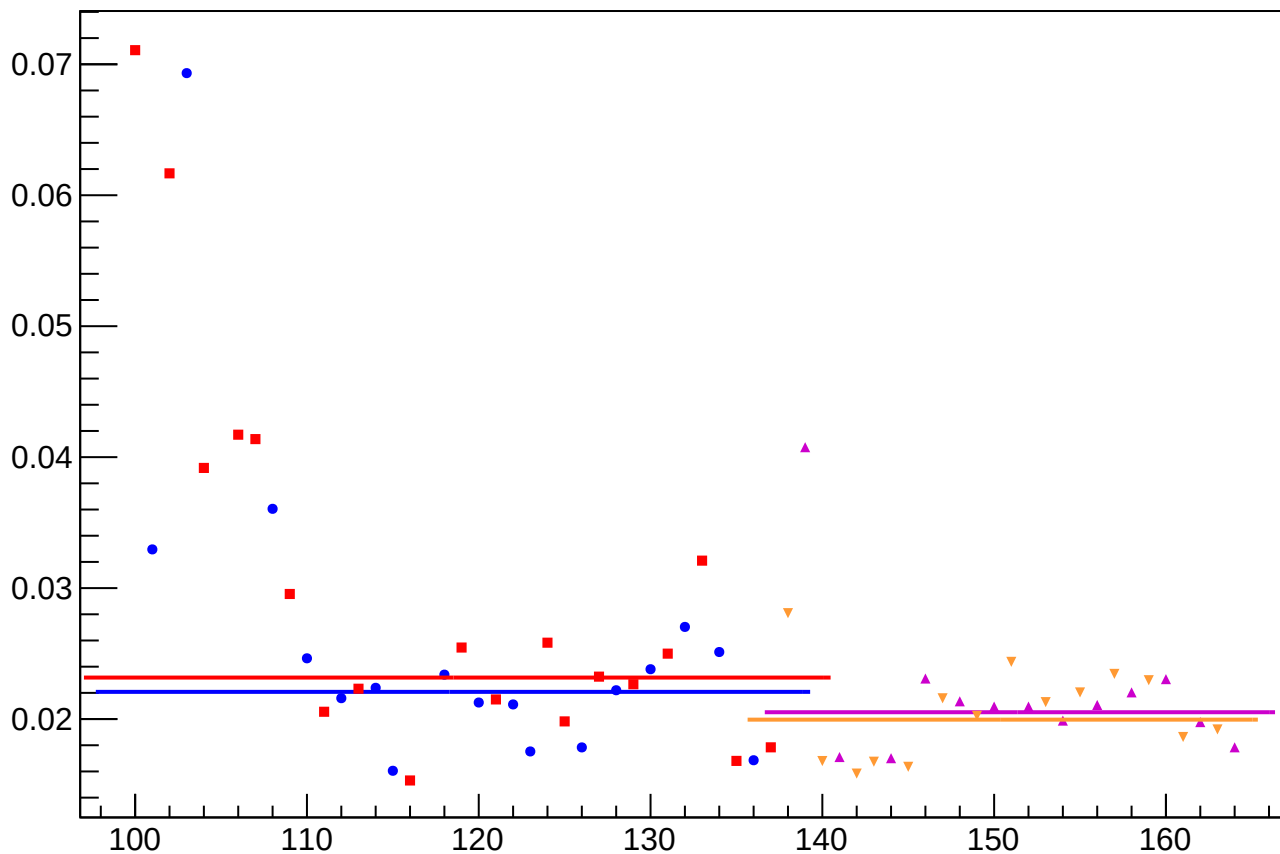
Left In: -0.459+/-0.000  $\chi^2/\text{NDF}$ : 71256993.0/12

+ sign -0.498+/-0.000  $\chi^2/\text{NDF}$ : 183124121.7/30

All: -0.495+/-0.000  $\chi^2/\text{NDF}$ : 385803328.3/62

- sign -0.493+/-0.000  $\chi^2/\text{NDF}$ : 202234310.5/31

# yield\_bpm4aX\_rms vs Slug



Right In: 0.022 $\pm$ 0.000  $\chi^2$ /NDF: 954779.5/16

Left Out: 0.020 $\pm$ 0.000  $\chi^2$ /NDF:392335.6/13

Right Out: 0.023 $\pm$ 0.000  $\chi^2$ /NDF: 1156758.3/18

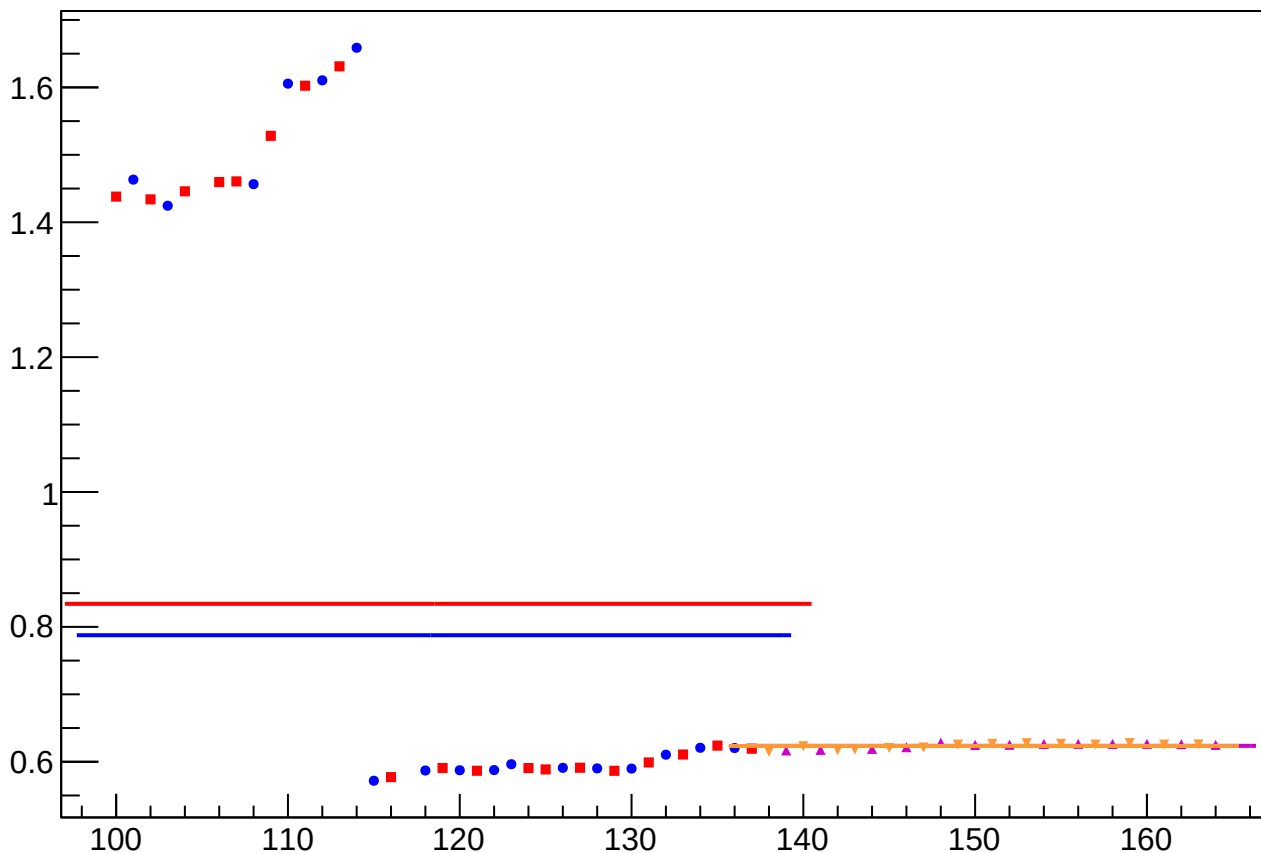
Left In: 0.021 $\pm$ 0.000  $\chi^2$ /NDF:523074.5/12

+ sign 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 1409269.7/30

All: 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 3198294.4/62

- sign 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 1771962.0/31

# yield\_bpm4aY\_mean vs Slug



Right In: 0.788 $\pm$ 0.000  $\chi^2$ /NDF: 3581400502.4/16

Left Out: 0.623 $\pm$ 0.000  $\chi^2$ /NDF:1015567.1/13

Right Out: 0.834 $\pm$ 0.000  $\chi^2$ /NDF: 4152115639.4/18

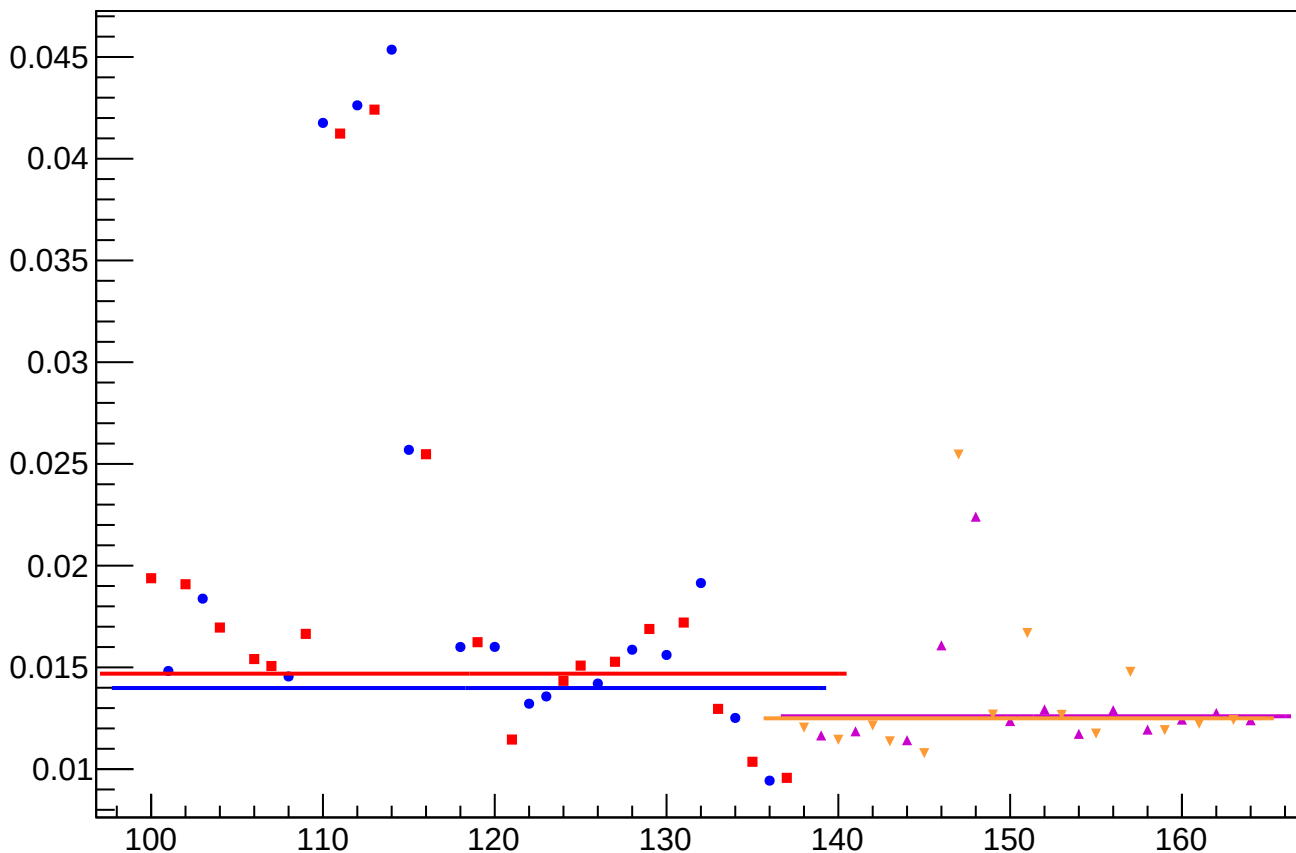
Left In: 0.624 $\pm$ 0.000  $\chi^2$ /NDF:867331.9/12

+ sign 0.675 $\pm$ 0.000  $\chi^2$ /NDF: 4115948844.1/30

All: 0.682 $\pm$ 0.000  $\chi^2$ /NDF: 9130387983.2/62

- sign 0.689 $\pm$ 0.000  $\chi^2$ /NDF: 5005209215.4/31

# yield\_bpm4aY\_rms vs Slug



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1398505.7/16

Left Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:588380.3/13

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 1258511.3/18

Left In: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:409951.4/12

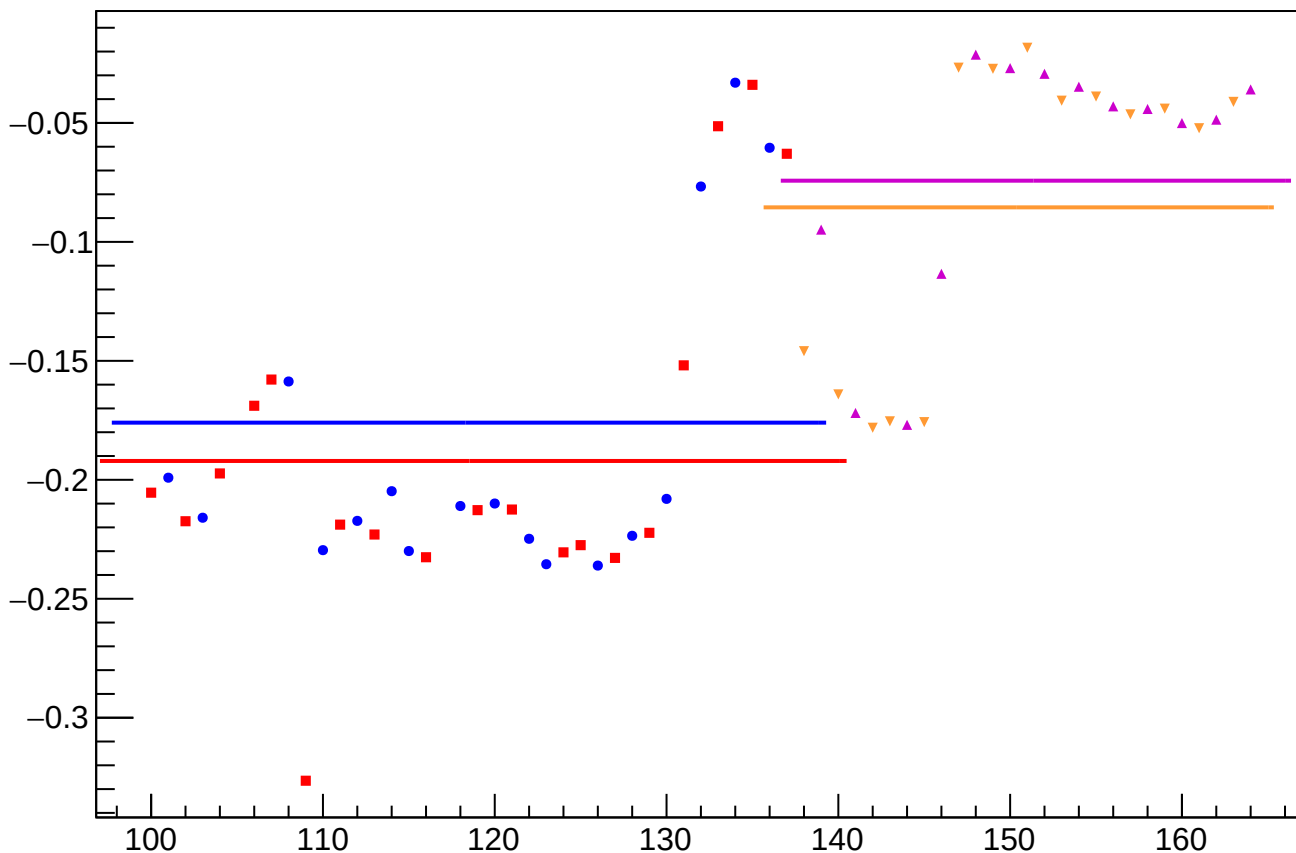
+ sign 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 2074557.6/30

All: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 3918911.0/62

- sign 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1836937.2/31



# yield\_bpm4eX\_mean vs Slug



Right In: -0.176+/-0.000  $\chi^2/\text{NDF}$ : 70121069.1/16

Left Out: -0.085+/-0.000  $\chi^2/\text{NDF}$ : 92765599.7/13

Right Out: -0.192+/-0.000  $\chi^2/\text{NDF}$ : 83253954.4/18

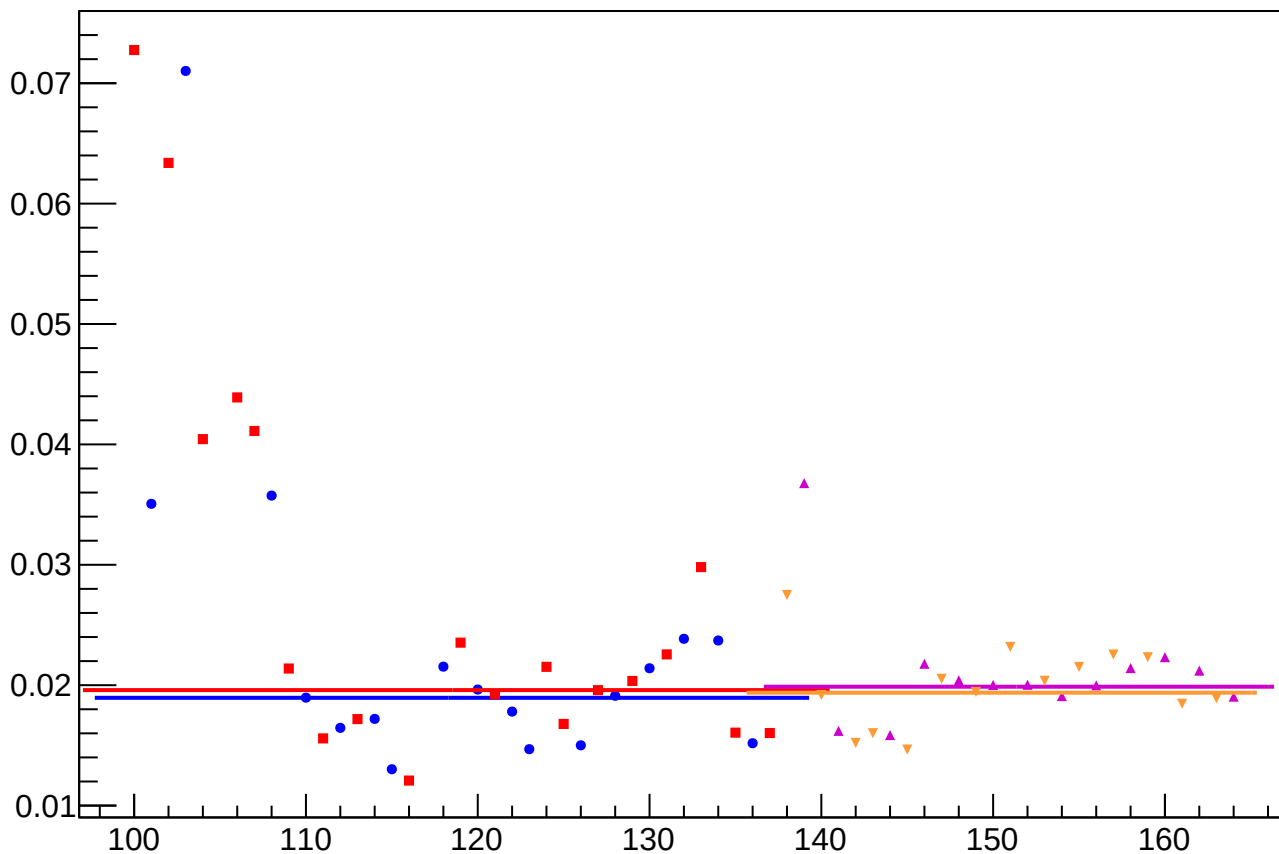
Left In: -0.074+/-0.000  $\chi^2/\text{NDF}$ : 71795503.9/12

+ sign -0.120+/-0.000  $\chi^2/\text{NDF}$ : 232584058.6/30

All: -0.120+/-0.000  $\chi^2/\text{NDF}$ : 501748648.1/62

- sign -0.120+/-0.000  $\chi^2/\text{NDF}$ : 269163246.8/31

# yield\_bpm4eX\_rms vs Slug



Right In: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 1203275.7/16

Left Out: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 416932.7/13

Right Out: 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 1455327.3/18

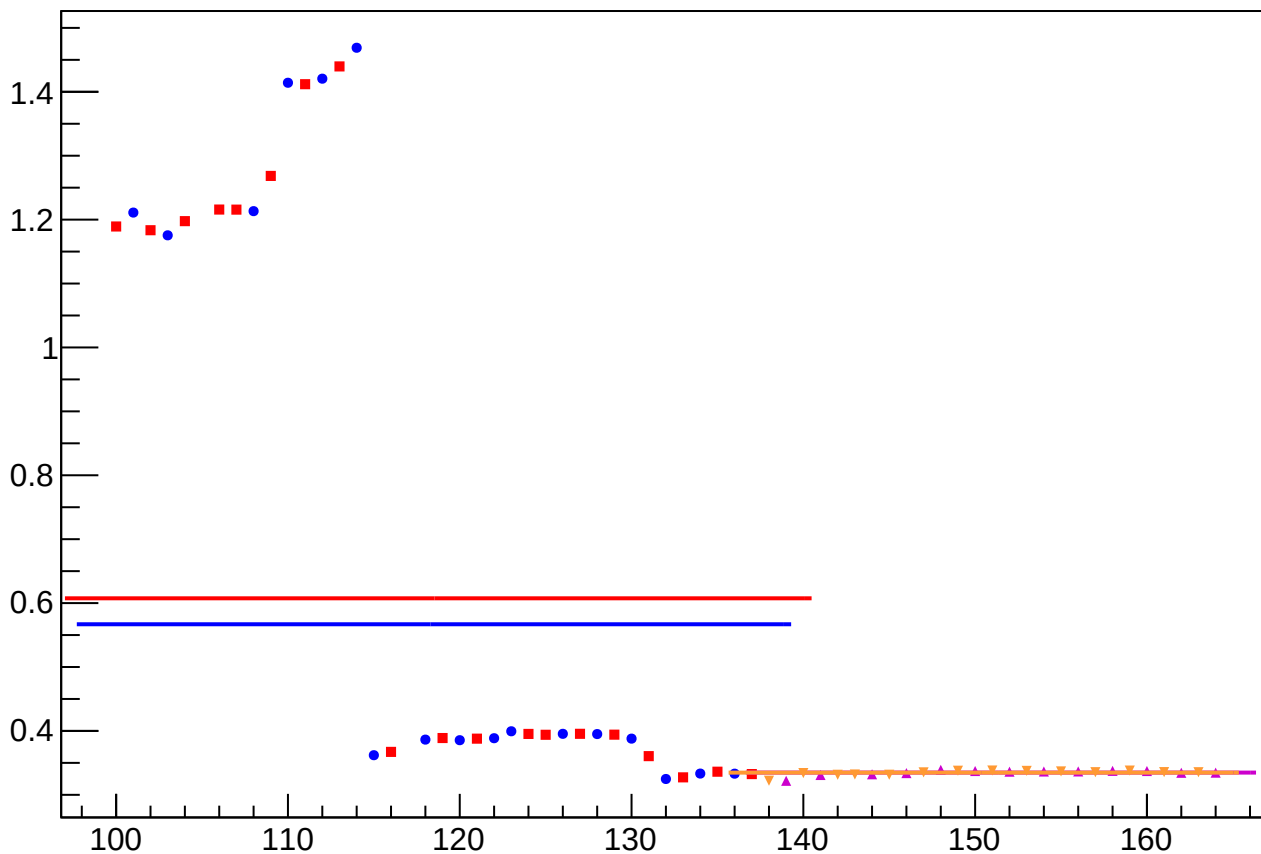
Left In: 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 490291.3/12

+ sign 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 1623275.6/30

All: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 3580841.5/62

- sign 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 1946924.0/31

# yield\_bpm4eY\_mean vs Slug



Right In: 0.567 $\pm$ 0.000  $\chi^2$ /NDF: 5016913731.3/16

Left Out: 0.335 $\pm$ 0.000  $\chi^2$ /NDF:1068097.2/13

Right Out: 0.607 $\pm$ 0.000  $\chi^2$ /NDF: 5505226431.3/18

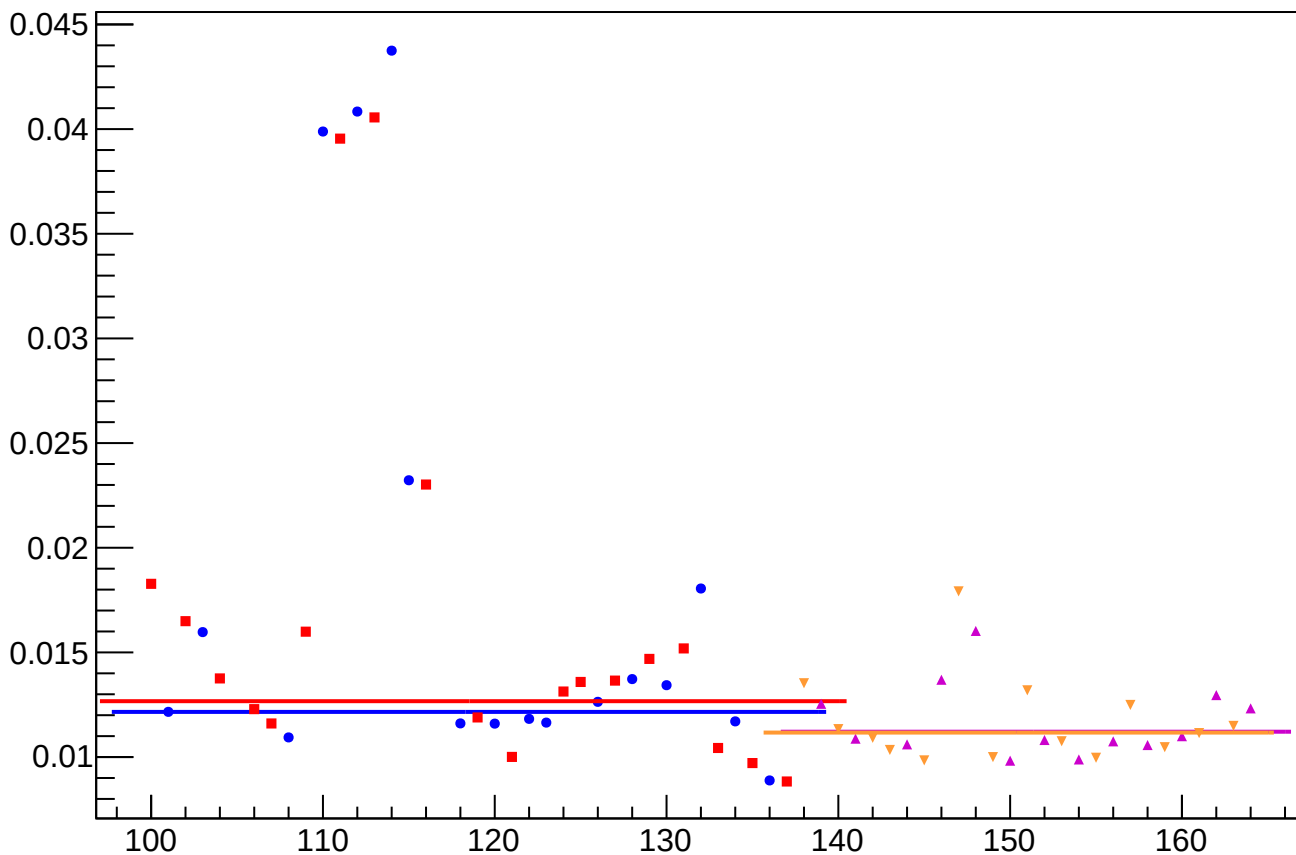
Left In: 0.335 $\pm$ 0.000  $\chi^2$ /NDF:1150975.0/12

+ sign 0.410 $\pm$ 0.000  $\chi^2$ /NDF: 6401695106.3/30

All: 0.416 $\pm$ 0.000  $\chi^2$ /NDF: 13772132305.7/6

- sign 0.422 $\pm$ 0.000  $\chi^2$ /NDF: 7361656751.6/31

# yield\_bpm4eY\_rms vs Slug



Right In:  $0.012 \pm 0.000$   $\chi^2/\text{NDF}$ : 1307948.2/16

Left Out:  $0.011 \pm 0.000$   $\chi^2/\text{NDF}$ : 396162.8/13

Right Out:  $0.013 \pm 0.000$   $\chi^2/\text{NDF}$ : 1267219.4/18

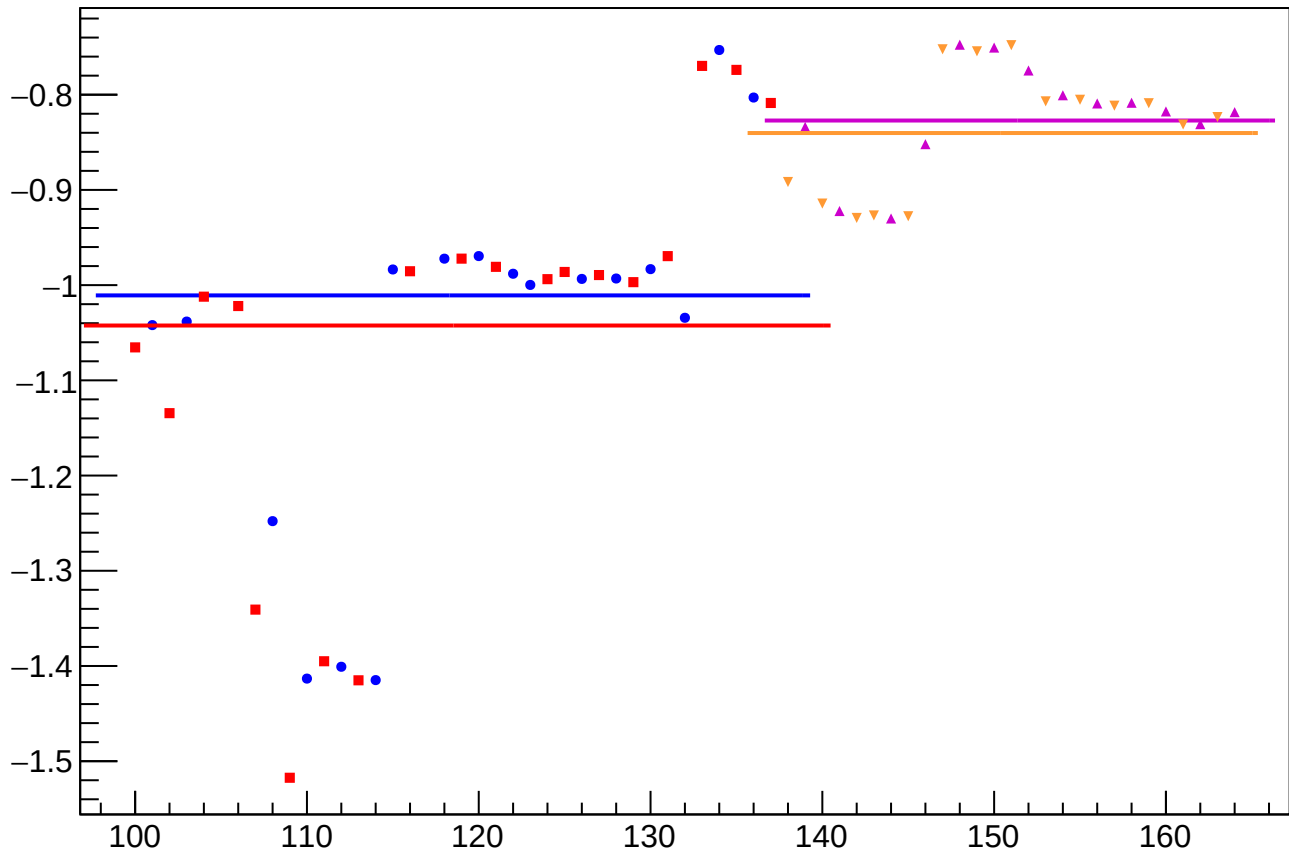
Left In:  $0.011 \pm 0.000$   $\chi^2/\text{NDF}$ : 321499.1/12

+ sign  $0.011 \pm 0.000$   $\chi^2/\text{NDF}$ : 1754184.6/30

All:  $0.012 \pm 0.000$   $\chi^2/\text{NDF}$ : 3453121.7/62

- sign  $0.012 \pm 0.000$   $\chi^2/\text{NDF}$ : 1694816.4/31

# yield\_bpm4acX\_mean vs Slug



Right In: -1.011+/-0.000  $\chi^2/\text{NDF}$ : 387140230.3/16

Left Out: -0.840+/-0.000  $\chi^2/\text{NDF}$ : 92243156.5/13

Right Out: -1.042+/-0.000  $\chi^2/\text{NDF}$ : 528958824.5/18

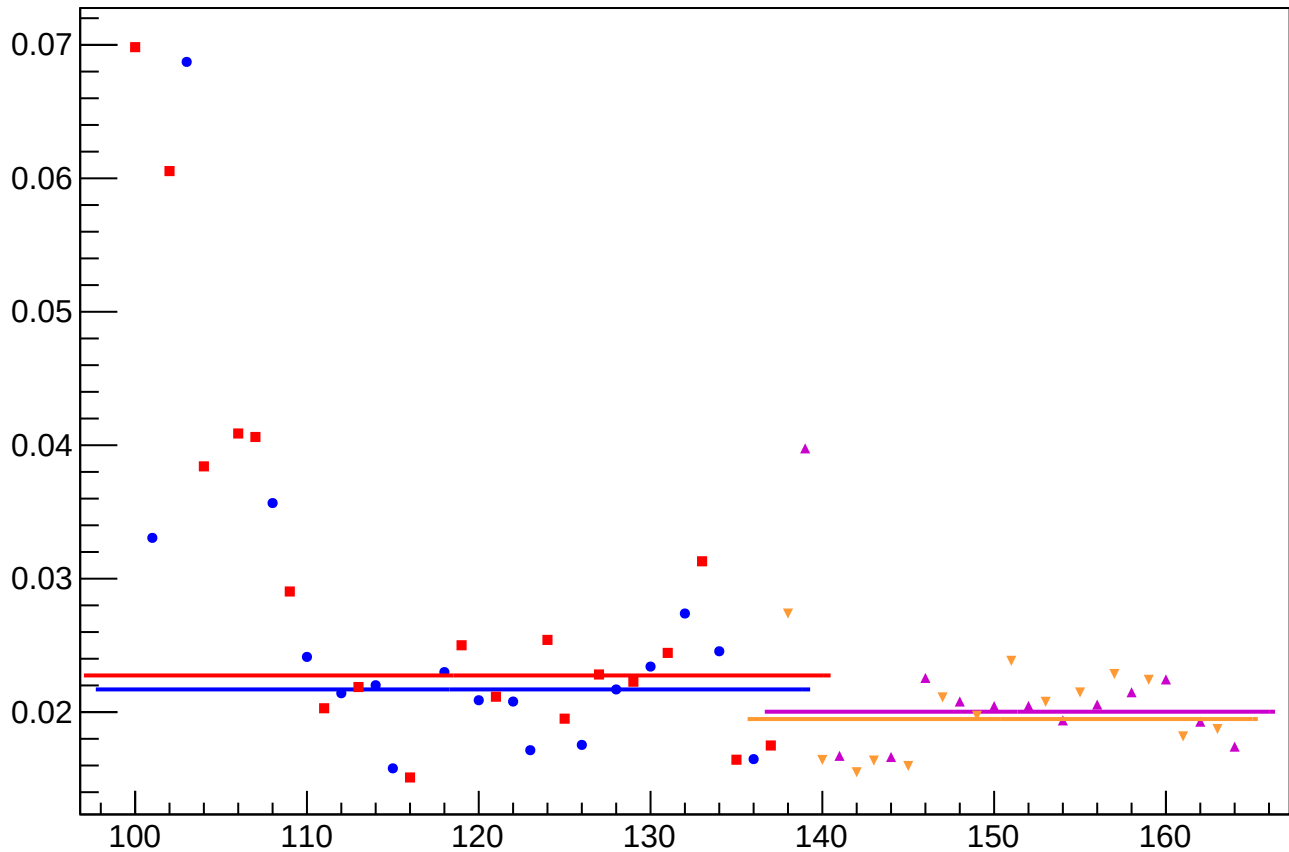
Left In: -0.827+/-0.000  $\chi^2/\text{NDF}$ : 70153023.6/12

+ sign -0.896+/-0.000  $\chi^2/\text{NDF}$ : 687871499.8/30

All: -0.898+/-0.000  $\chi^2/\text{NDF}$ : 1604043035.8/6

- sign -0.899+/-0.000  $\chi^2/\text{NDF}$ : 916074269.4/31

# yield\_bpm4acX\_rms vs Slug



Right In: 0.022 $\pm$ 0.000  $\chi^2$ /NDF: 979293.5/16

Left Out: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 390490.1/13

Right Out: 0.023 $\pm$ 0.000  $\chi^2$ /NDF: 1152332.6/18

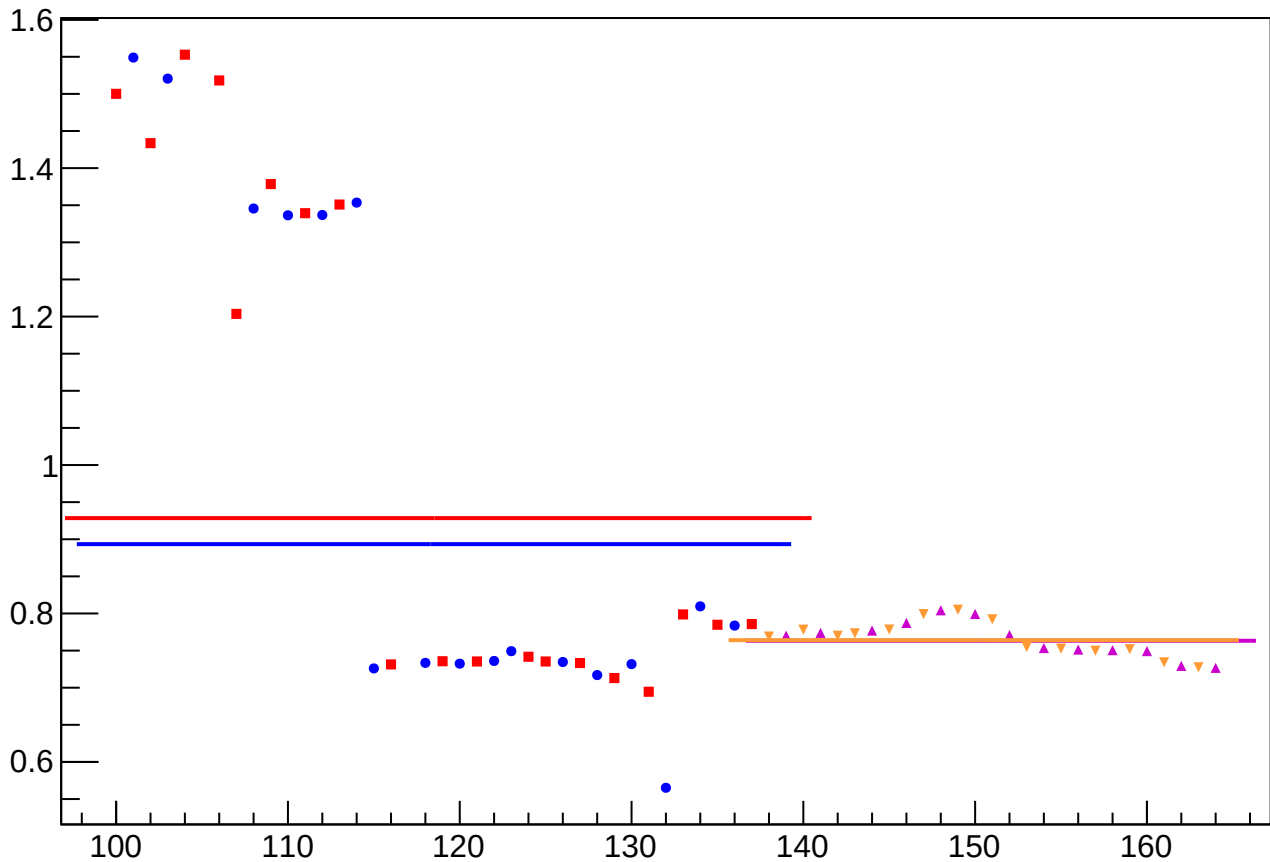
Left In: 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 519990.5/12

+ sign 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 1440450.3/30

All: 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 3230302.0/62

- sign 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 1773297.6/31

# yield\_bpm4acY\_mean vs Slug



Right In: 0.893+/-0.000  $\chi^2/\text{NDF}$ : 2408017556.1/16

Left Out: 0.764+/-0.000  $\chi^2/\text{NDF}$ : 28889310.4/13

Right Out: 0.928+/-0.000  $\chi^2/\text{NDF}$ : 2435640156.0/18

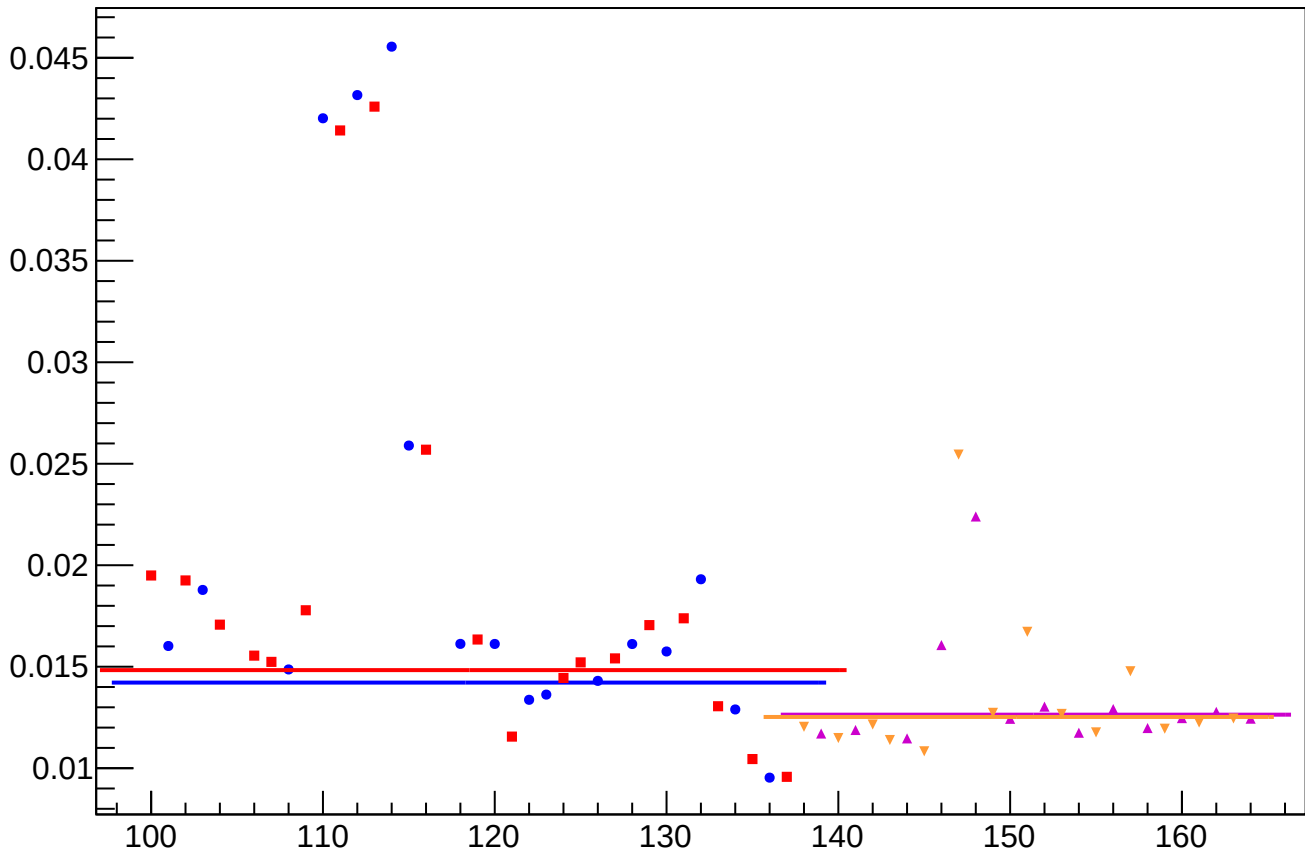
Left In: 0.763+/-0.000  $\chi^2/\text{NDF}$ : 27144013.4/12

+ sign 0.803+/-0.000  $\chi^2/\text{NDF}$ : 2758678392.5/30

All: 0.809+/-0.000  $\chi^2/\text{NDF}$ : 5741506650.8/62

- sign 0.814+/-0.000  $\chi^2/\text{NDF}$ : 2977966430.8/31

# yield\_bpm4acY\_rms vs Slug



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1409594.2/16

Left Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 583814.7/13

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 1269559.2/18

Left In: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 405559.6/12

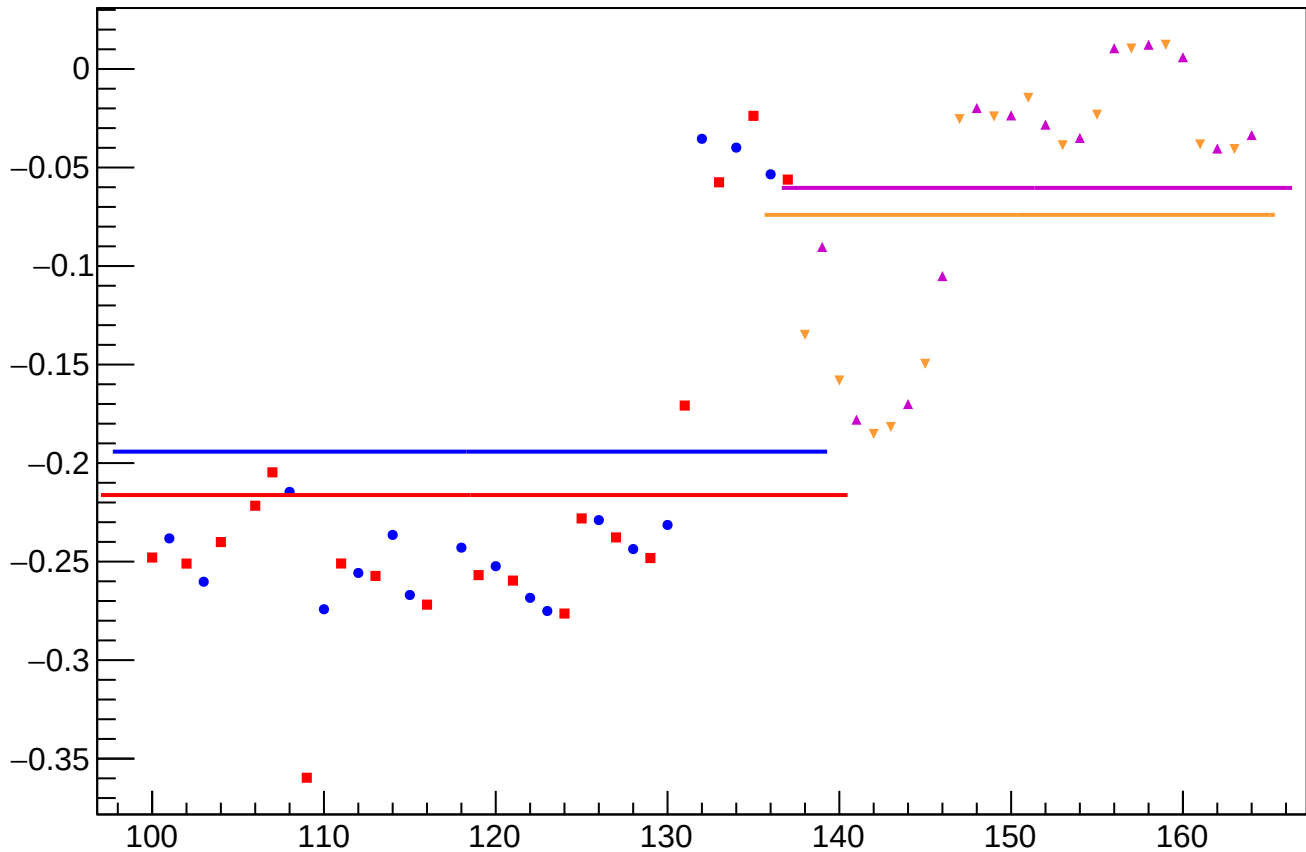
+ sign 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 2103729.8/30

All: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 3967241.3/62

- sign 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1856991.8/31



# yield\_bpm4ecX\_mean vs Slug



Right In: -0.194+/-0.000  $\chi^2/\text{NDF}$ : 108425823.4/16

Left Out: -0.074+/-0.000  $\chi^2/\text{NDF}$ : 109384626.7/13

Right Out: -0.216+/-0.000  $\chi^2/\text{NDF}$ : 111036295.0/18

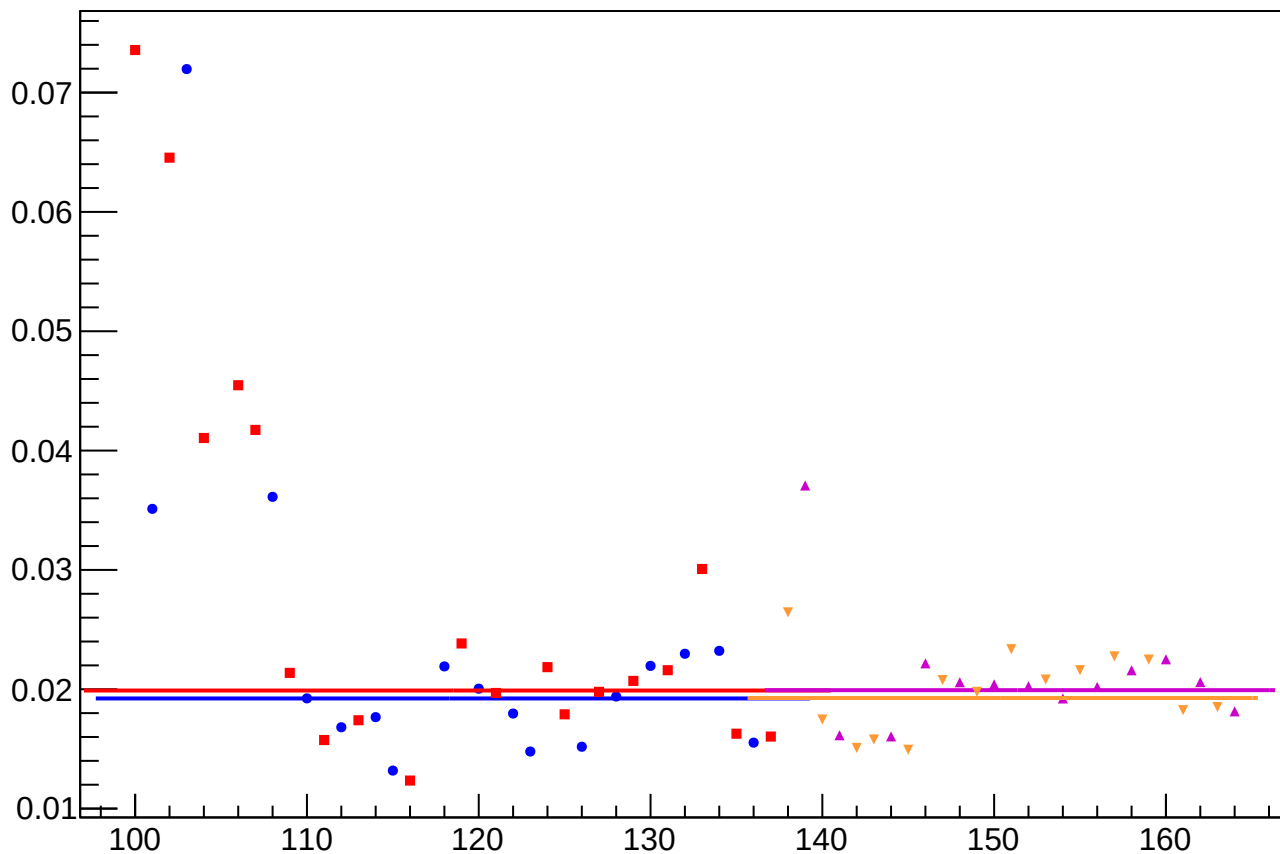
Left In: -0.060+/-0.000  $\chi^2/\text{NDF}$ : 95299745.9/12

+ sign -0.119+/-0.000  $\chi^2/\text{NDF}$ : 338864325.3/30

All: -0.120+/-0.000  $\chi^2/\text{NDF}$ : 740425661.5/62

- sign -0.120+/-0.000  $\chi^2/\text{NDF}$ : 401527067.7/31

# yield\_bpm4ecX\_rms vs Slug



Right In: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 1174577.3/16

Left Out: 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 420430.9/13

Right Out: 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 1444442.2/18

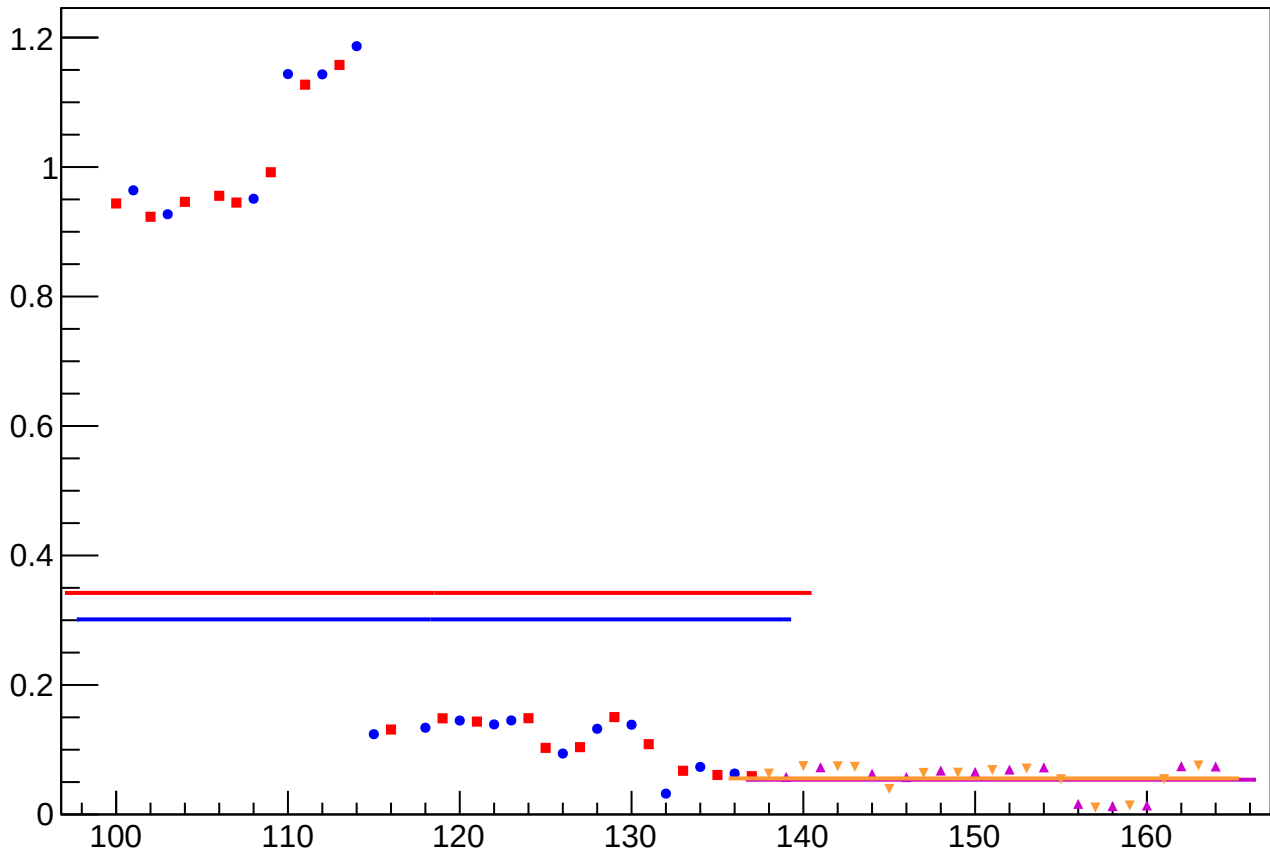
Left In: 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 501154.6/12

+ sign 0.019 $\pm$ 0.000  $\chi^2$ /NDF: 1595032.8/30

All: 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 3555789.3/62

- sign 0.020 $\pm$ 0.000  $\chi^2$ /NDF: 1945610.3/31

# yield\_bpm4ecY\_mean vs Slug



Right In: 0.301 $\pm$ 0.000  $\chi^2$ /NDF: 5154791073.8/16

Left Out: 0.056 $\pm$ 0.000  $\chi^2$ /NDF: 37210259.2/13

Right Out: 0.342 $\pm$ 0.000  $\chi^2$ /NDF: 5442717599.3/18

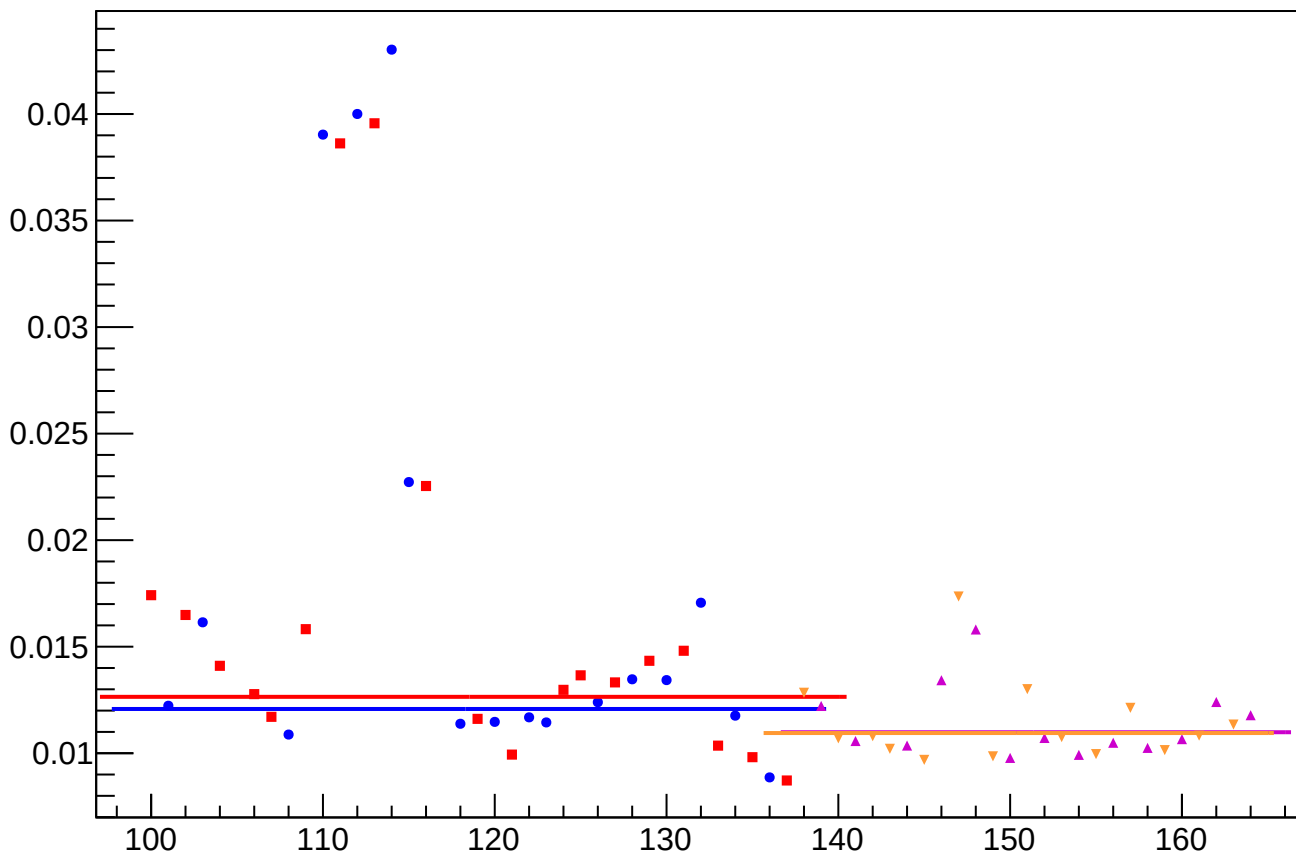
Left In: 0.054 $\pm$ 0.000  $\chi^2$ /NDF: 47269748.9/12

+ sign 0.133 $\pm$ 0.000  $\chi^2$ /NDF: 6777782908.4/30

All: 0.138 $\pm$ 0.000  $\chi^2$ /NDF: 14383428177.2/6

- sign 0.143 $\pm$ 0.000  $\chi^2$ /NDF: 7599546989.7/31

# yield\_bpm4ecY\_rms vs Slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1280342.2/16

Left Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 365173.3/13

Right Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1236084.9/18

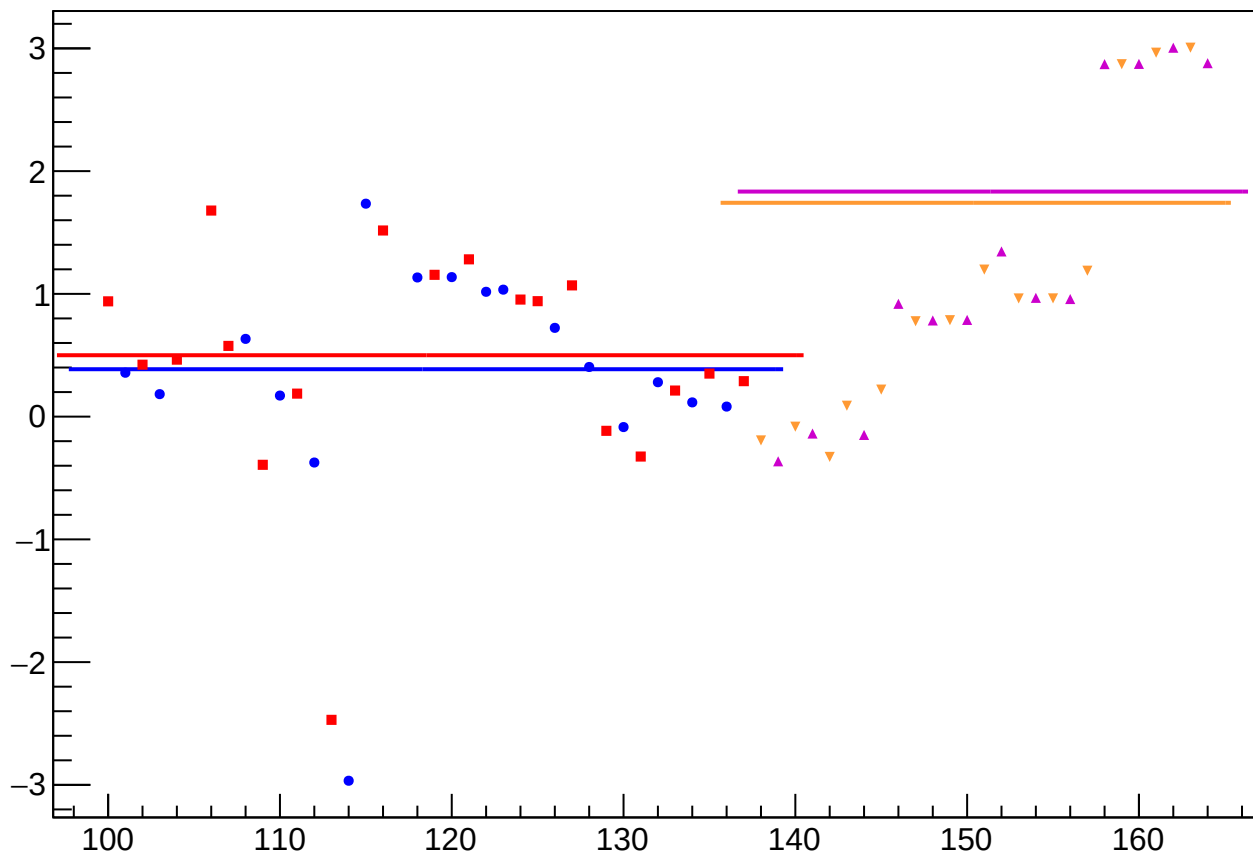
Left In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 298784.0/12

+ sign 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 1712541.6/30

All: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 3391996.1/62

- sign 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1674762.5/31

# yield\_bpm1X\_mean vs Slug



Right In:  $0.386 \pm 0.000$   $\chi^2/\text{NDF}$ : 246380221.7/16

Left Out:  $1.742 \pm 0.000$   $\chi^2/\text{NDF}$ : 24264033432.2/13

Right Out:  $0.500 \pm 0.000$   $\chi^2/\text{NDF}$ : 983386658.7/18

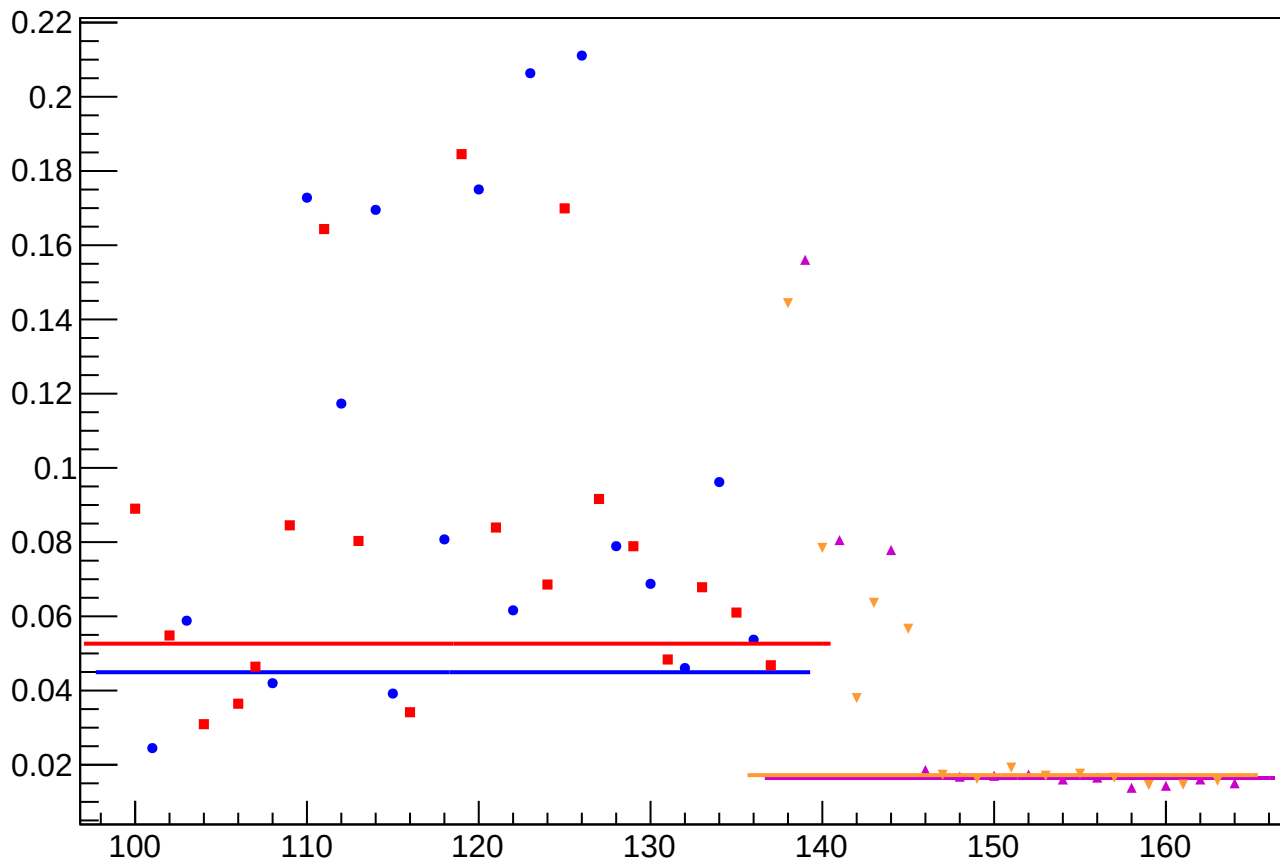
Left In:  $1.833 \pm 0.000$   $\chi^2/\text{NDF}$ : 26393671786.6/12

+ sign  $1.650 \pm 0.000$   $\chi^2/\text{NDF}$ : 27505291354.0/30

All:  $1.710 \pm 0.000$   $\chi^2/\text{NDF}$ : 57562981637.0/6

- sign  $1.764 \pm 0.000$   $\chi^2/\text{NDF}$ : 29884056817.0/31

# yield\_bpm1X\_rms vs Slug



Right In: 0.045+/-0.000  $\chi^2/\text{NDF}$ : 2788348.6/16

Left Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ :2732489.7/13

Right Out: 0.053+/-0.000  $\chi^2/\text{NDF}$ : 2191752.0/18

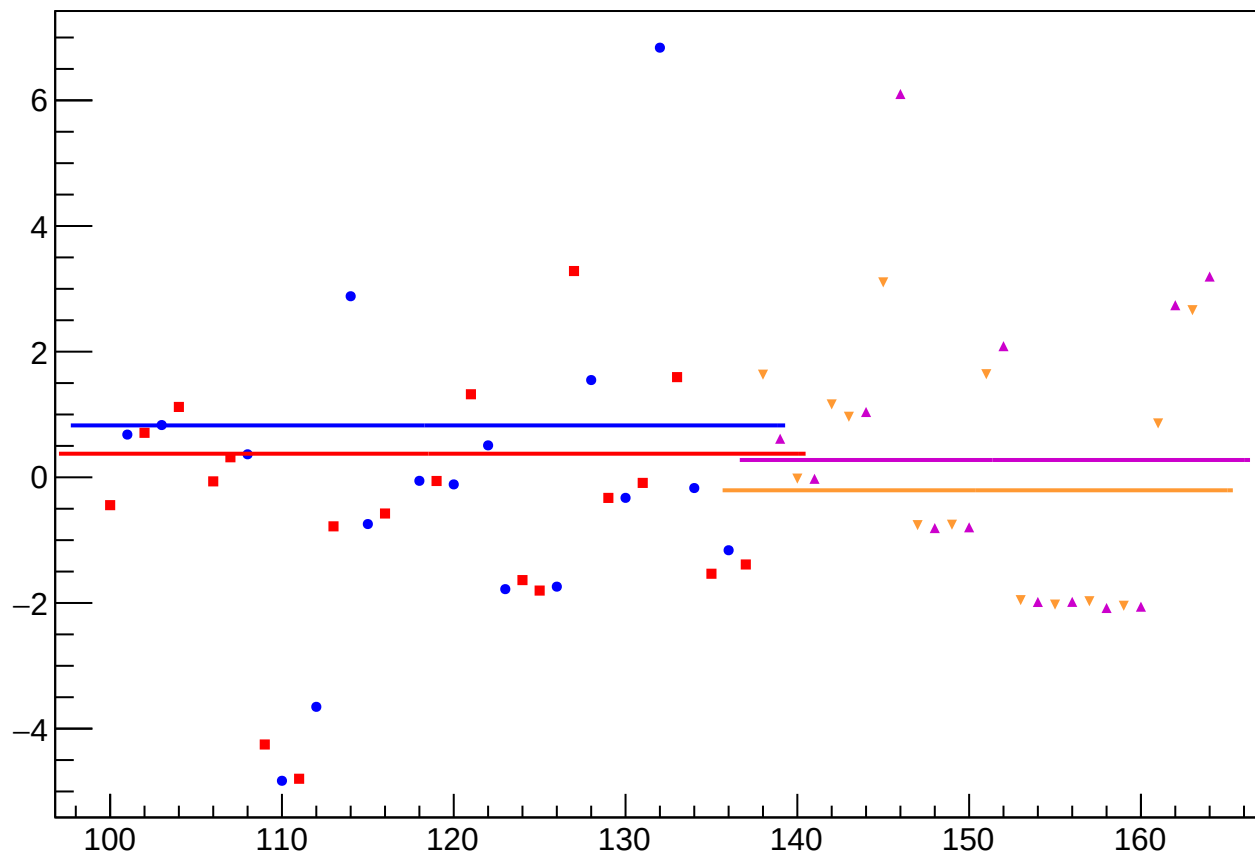
Left In: 0.016+/-0.000  $\chi^2/\text{NDF}$ :2401714.4/12

+ sign 0.019+/-0.000  $\chi^2/\text{NDF}$ : 8025786.9/30

All: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 16330678.5/62

- sign 0.018+/-0.000  $\chi^2/\text{NDF}$ : 8289445.5/31

# yield\_bpm1Y\_mean vs Slug



Right In: 0.826+/-0.000  $\chi^2/\text{NDF}$ : 10945455664.9/16

Left Out: -0.207+/-0.000  $\chi^2/\text{NDF}$ : 141440109775.5/13

Right Out: 0.376+/-0.000  $\chi^2/\text{NDF}$ : 4947158634.2/18

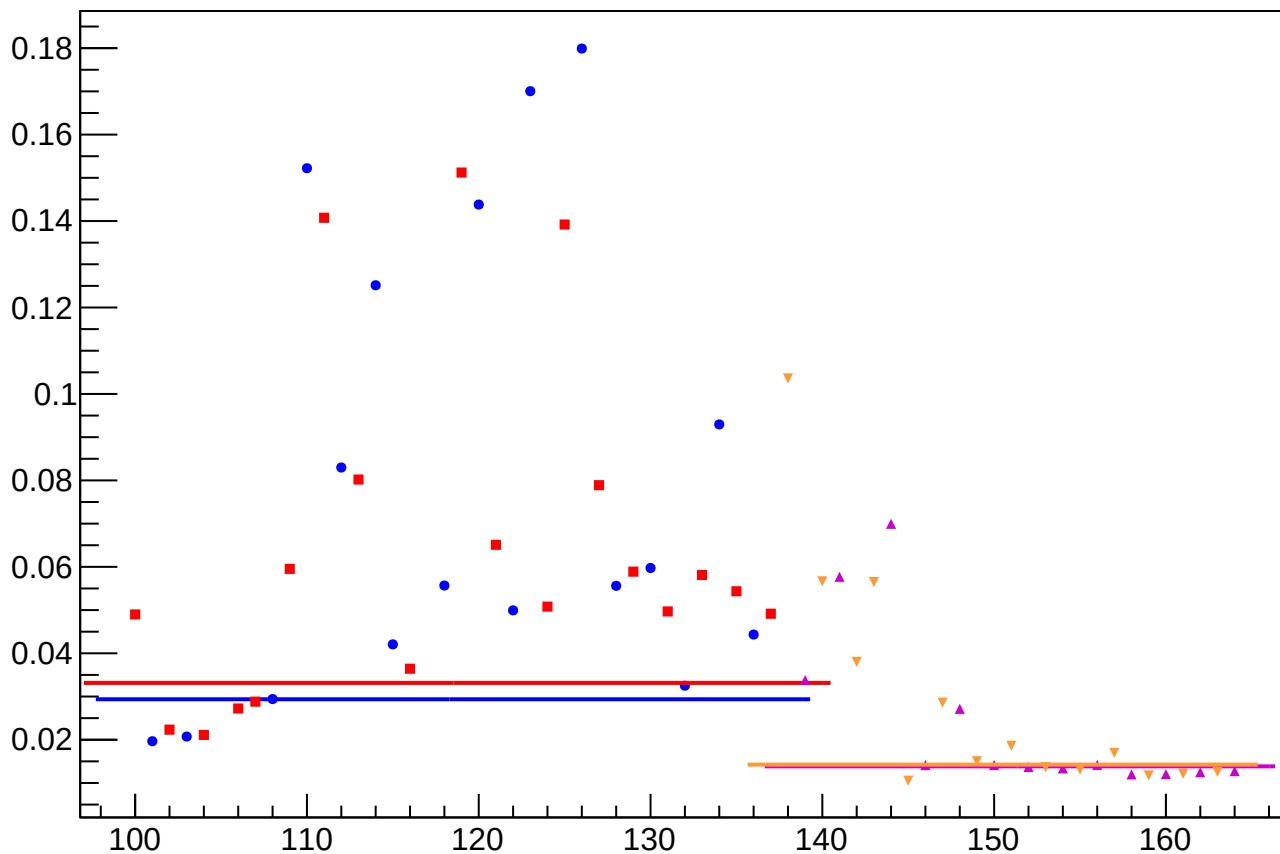
Left In: 0.276+/-0.000  $\chi^2/\text{NDF}$ : 300321544296.5/12

+ sign -0.108+/-0.000  $\chi^2/\text{NDF}$ : 156179324748.6/30

All: 0.096+/-0.000  $\chi^2/\text{NDF}$ : 464760331020.5

- sign 0.284+/-0.000  $\chi^2/\text{NDF}$ : 305300827905.8/31

# yield\_bpm1Y\_rms vs Slug



Right In: 0.029+/-0.000  $\chi^2/\text{NDF}$ : 2987169.5/16

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :2783225.6/13

Right Out: 0.033+/-0.000  $\chi^2/\text{NDF}$ : 3099105.0/18

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :1863942.0/12

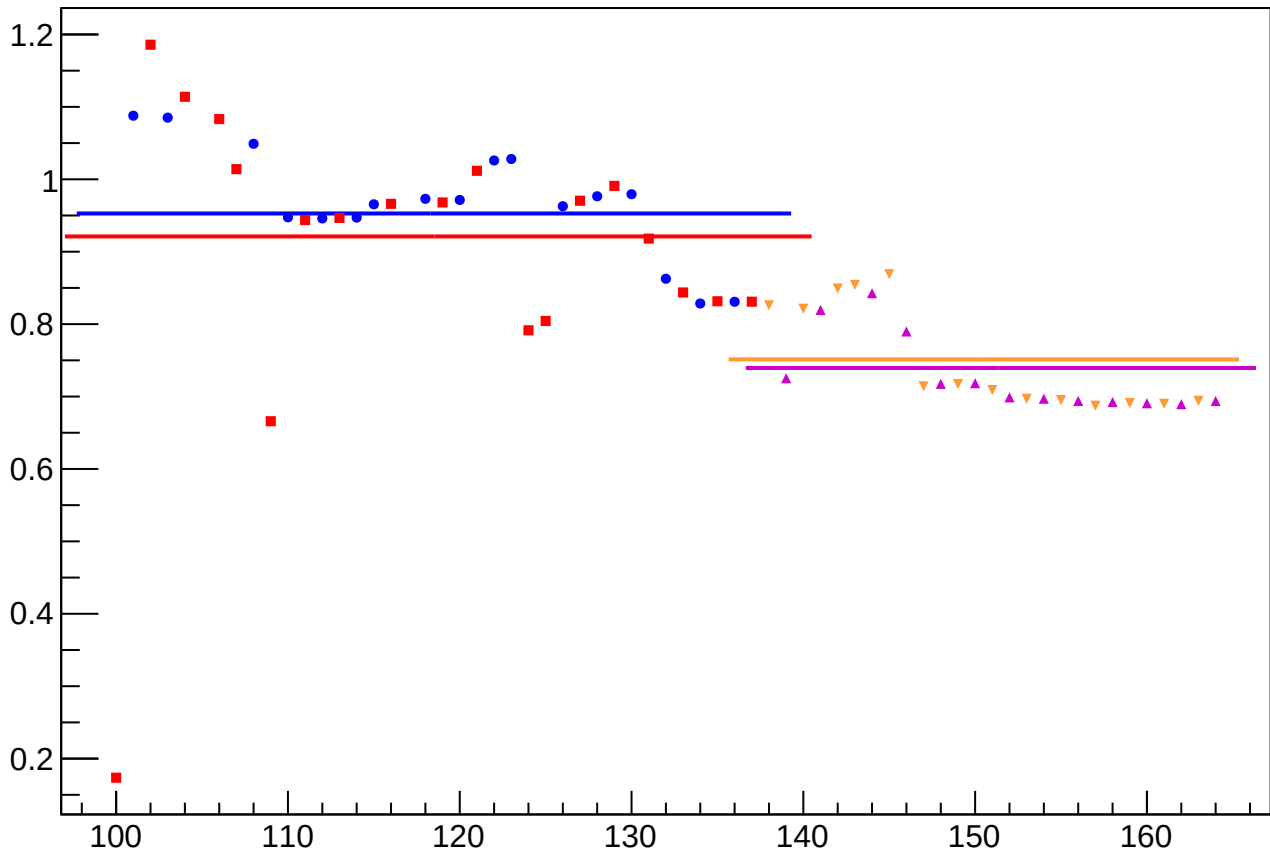
+ sign 0.016+/-0.000  $\chi^2/\text{NDF}$ : 7397121.2/30

All: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 14762684.5/62

- sign 0.015+/-0.000  $\chi^2/\text{NDF}$ : 7360765.4/31



# yield\_bpm11X\_mean vs Slug



Right In: 0.953 $\pm$ 0.000  $\chi^2$ /NDF: 175750243.6/16

Left Out: 0.751 $\pm$ 0.000  $\chi^2$ /NDF: 250854914.3/13

Right Out: 0.921 $\pm$ 0.000  $\chi^2$ /NDF: 374151585.5/18

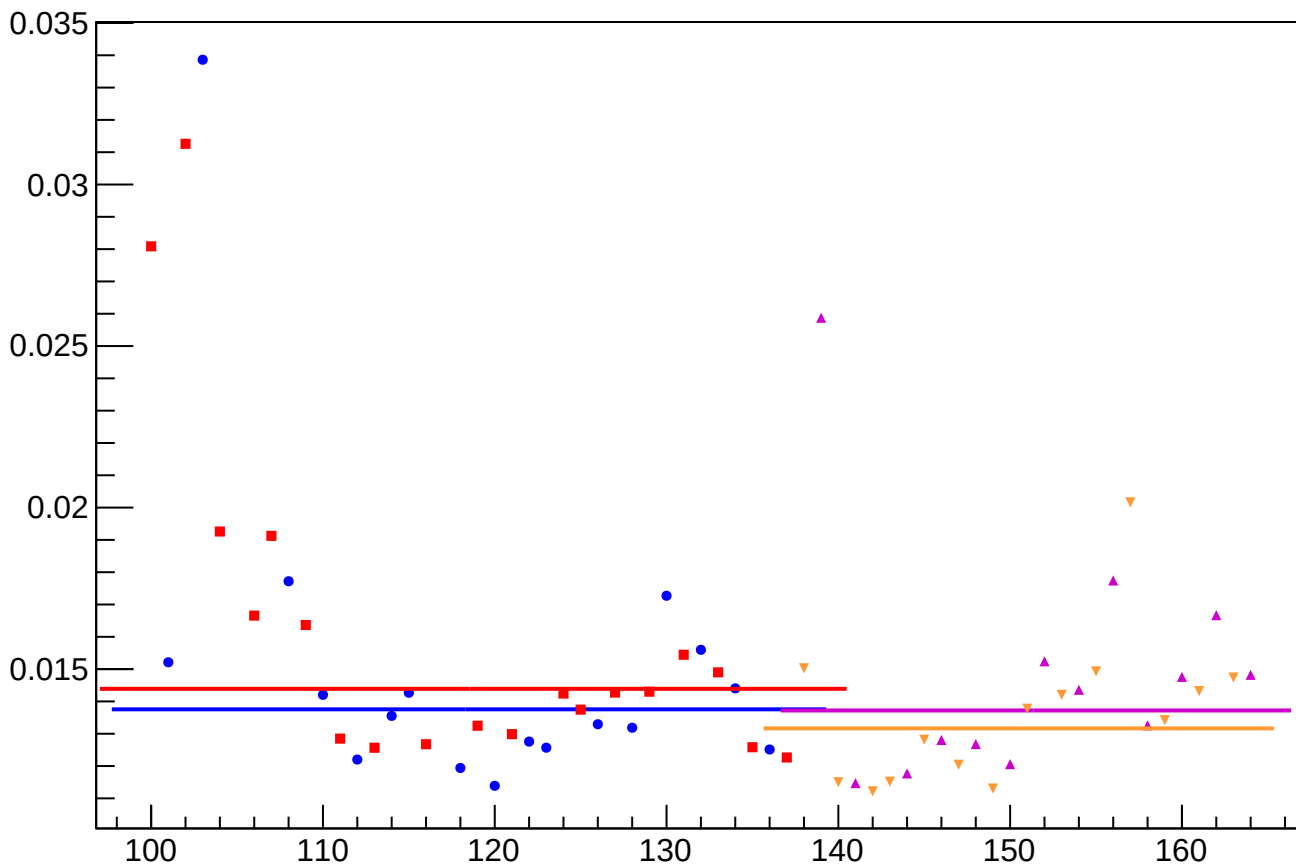
Left In: 0.739 $\pm$ 0.000  $\chi^2$ /NDF: 154929005.8/12

+ sign 0.825 $\pm$ 0.000  $\chi^2$ /NDF: 1207880626.6/30

All: 0.817 $\pm$ 0.000  $\chi^2$ /NDF: 2350479111.1/62

- sign 0.808 $\pm$ 0.000  $\chi^2$ /NDF: 1130909938.1/31

# yield\_bpm11X\_rms vs Slug



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 538469.4/16

Left Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:343529.2/13

Right Out: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 503813.0/18

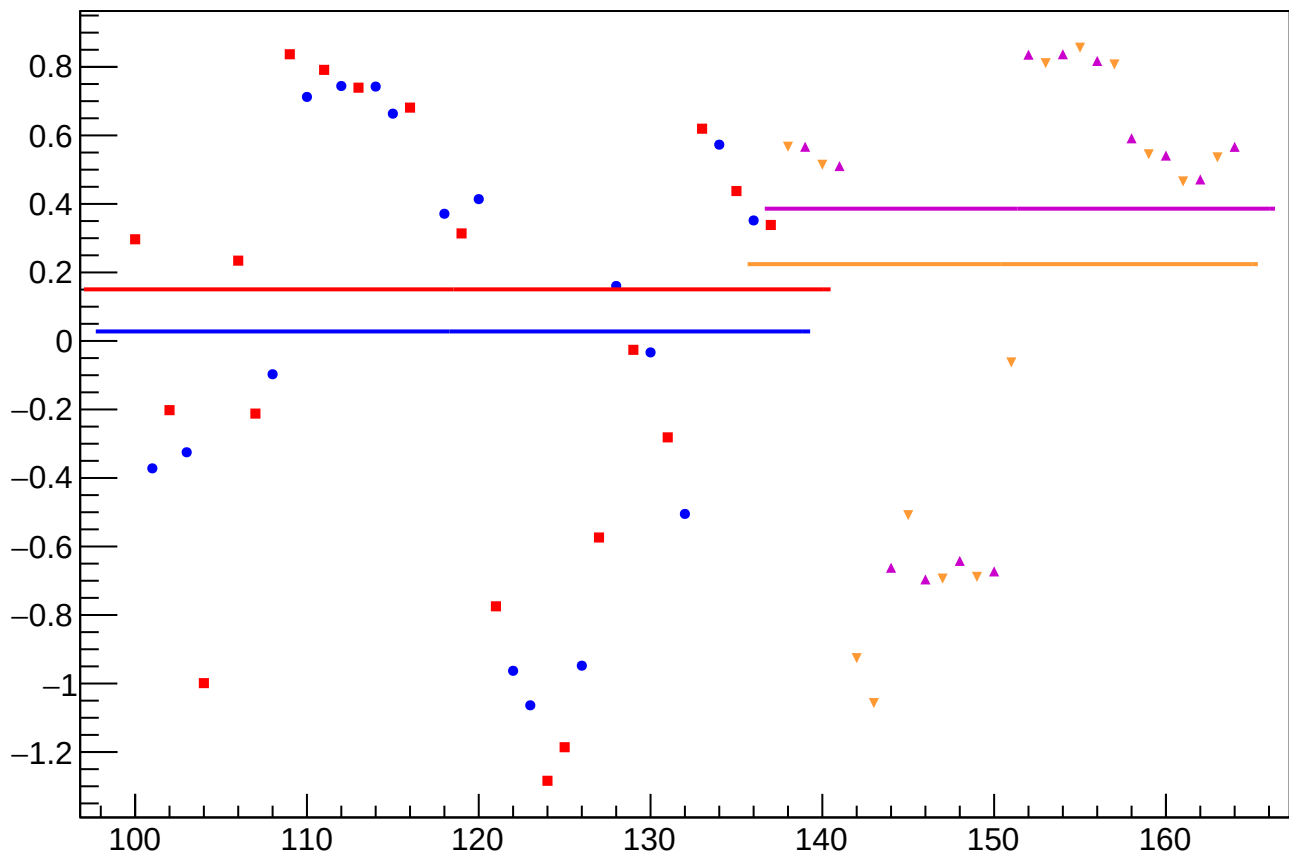
Left In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF:599367.5/12

+ sign 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 895416.2/30

All: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 2042945.5/62

- sign 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1119510.5/31

# yield\_bpm11Y\_mean vs Slug



Right In: 0.028+/-0.000  $\chi^2/\text{NDF}$ : 6276955529.7/16

Left Out: 0.224+/-0.000  $\chi^2/\text{NDF}$ : 23928586501.2/13

Right Out: 0.151+/-0.000  $\chi^2/\text{NDF}$ : 12653743155.9/18

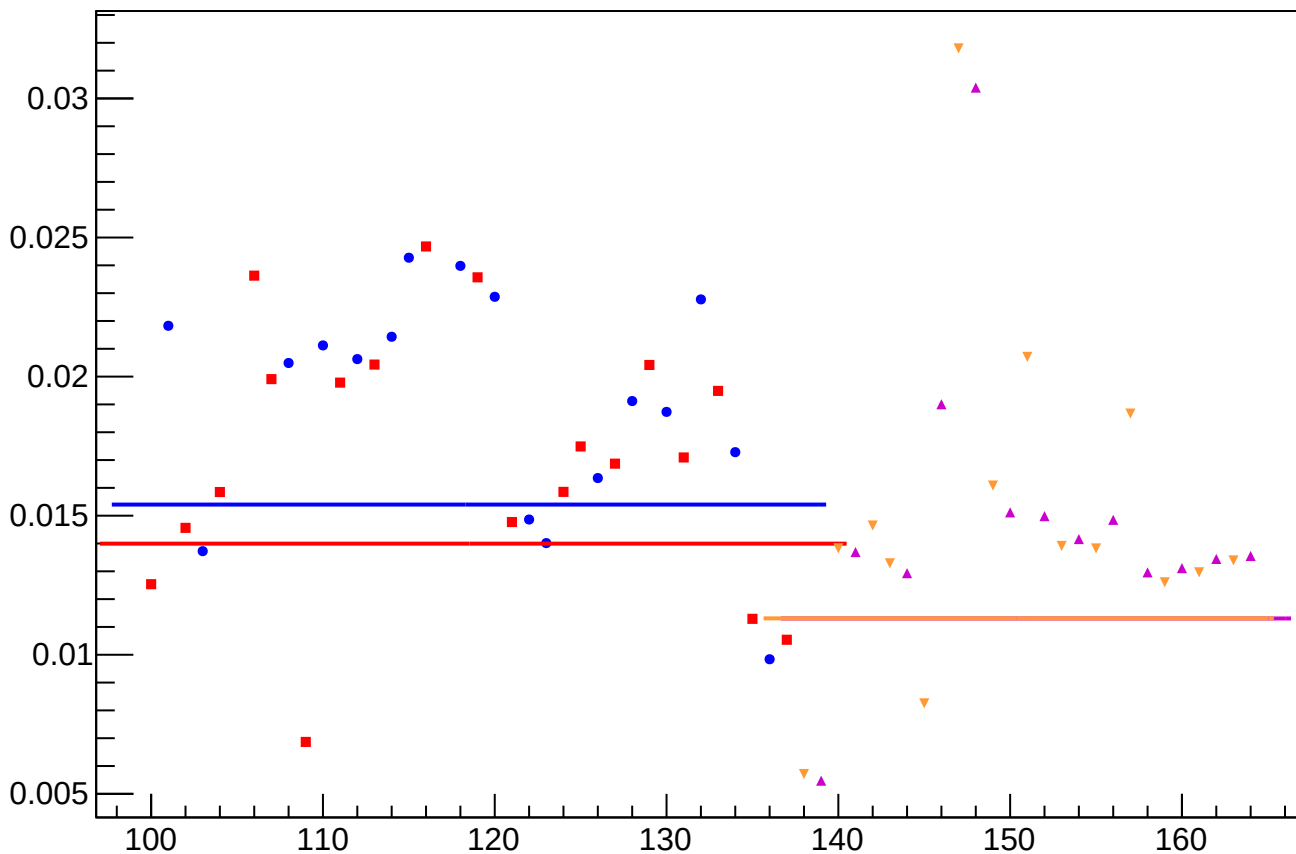
Left In: 0.386+/-0.000  $\chi^2/\text{NDF}$ : 16172031706.4/12

+ sign 0.172+/-0.000  $\chi^2/\text{NDF}$ : 30876542444.8/30

All: 0.245+/-0.000  $\chi^2/\text{NDF}$ : 61738754006.6/6

- sign 0.315+/-0.000  $\chi^2/\text{NDF}$ : 29930449127.4/31

# yield\_bpm11Y\_rms vs Slug



Right In: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 1141655.8/16

Left Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 2879751.9/13

Right Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 1561550.9/18

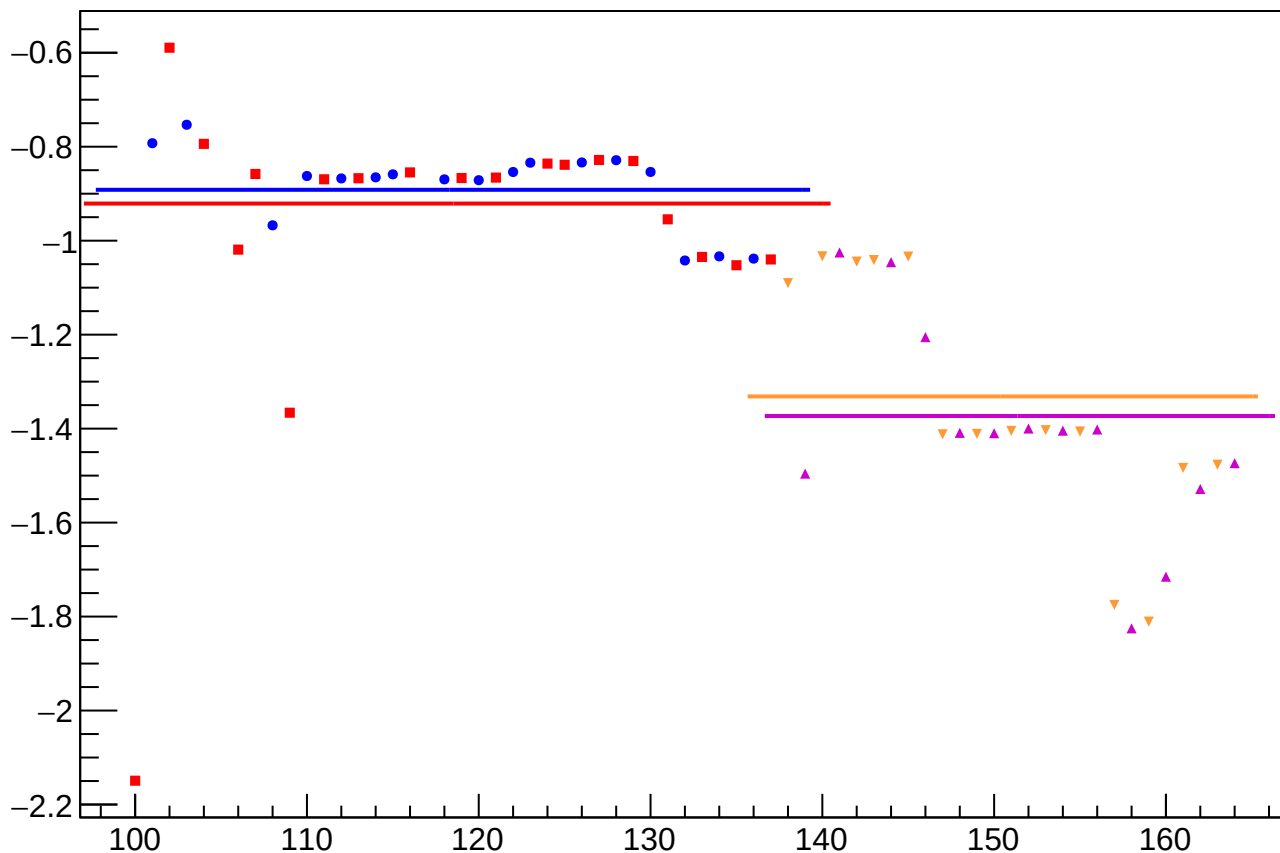
Left In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 2919688.6/12

+ sign 0.012+/-0.000  $\chi^2/\text{NDF}$ : 4603714.2/30

All: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 9379643.3/62

- sign 0.012+/-0.000  $\chi^2/\text{NDF}$ : 4769363.7/31

# yield\_bpm12X\_mean vs Slug



Right In: -0.892+/-0.000  $\chi^2/\text{NDF}$ : 39793337.2/16

Left Out: -1.331+/-0.000  $\chi^2/\text{NDF}$ : 461272247.8/13

Right Out: -0.921+/-0.000  $\chi^2/\text{NDF}$ : 131159330.1/18

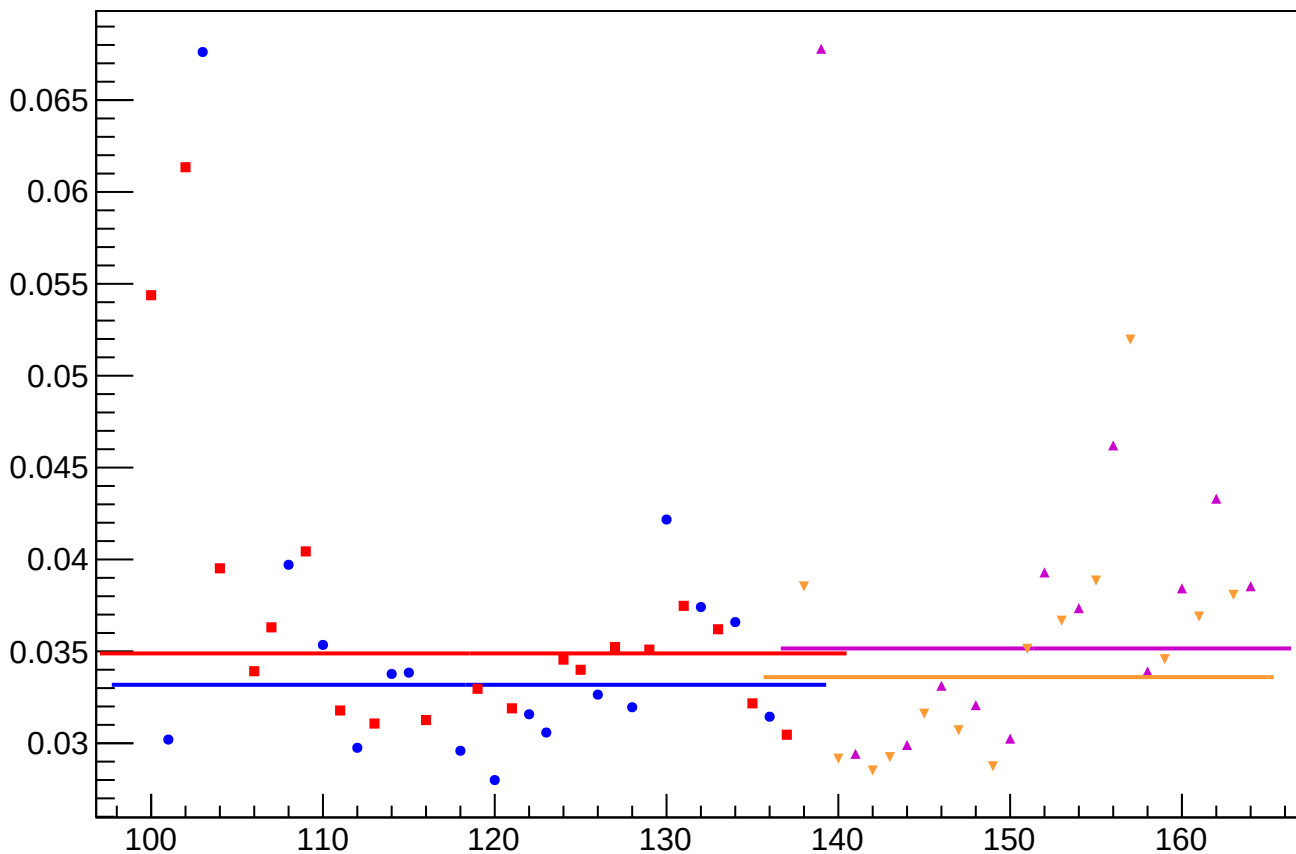
Left In: -1.373+/-0.000  $\chi^2/\text{NDF}$ : 414920952.7/12

+ sign -1.156+/-0.000  $\chi^2/\text{NDF}$ : 1115307179.3/30

All: -1.171+/-0.000  $\chi^2/\text{NDF}$ : 2277521385.5/6

- sign -1.188+/-0.000  $\chi^2/\text{NDF}$ : 1155783511.7/31

# yield\_bpm12X\_rms vs Slug



Right In: 0.033 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 400106.0/16

Left Out: 0.034 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 374259.9/13

Right Out: 0.035 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 275013.9/18

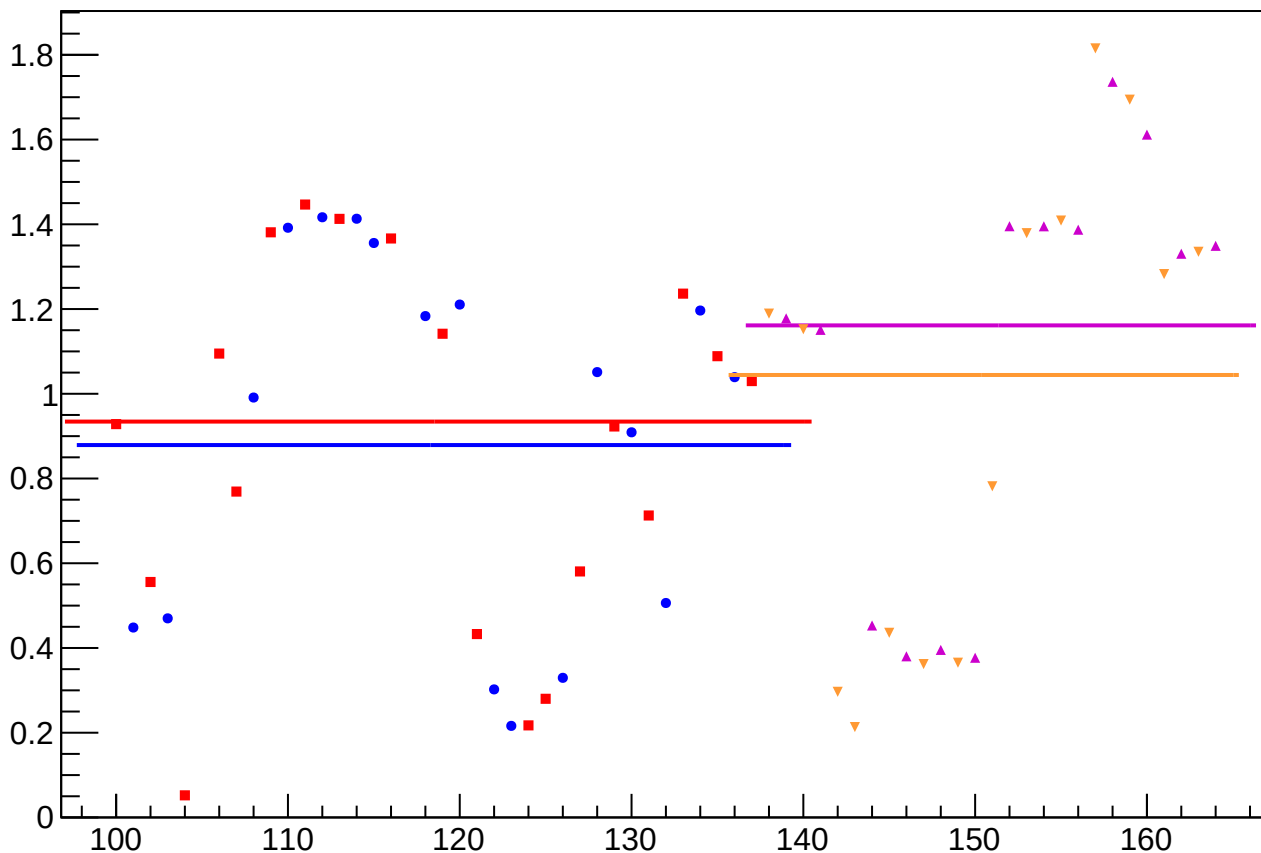
Left In: 0.035 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 654173.4/12

+ sign 0.033 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 775472.4/30

All: 0.034 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1738459.1/62

- sign 0.035 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 929620.3/31

# yield\_bpm12Y\_mean vs Slug



Right In: 0.879+/-0.000  $\chi^2/\text{NDF}$ : 6371602566.2/16

Left Out: 1.044+/-0.000  $\chi^2/\text{NDF}$ : 29405422837.6/13

Right Out: 0.934+/-0.000  $\chi^2/\text{NDF}$ : 9827120184.9/18

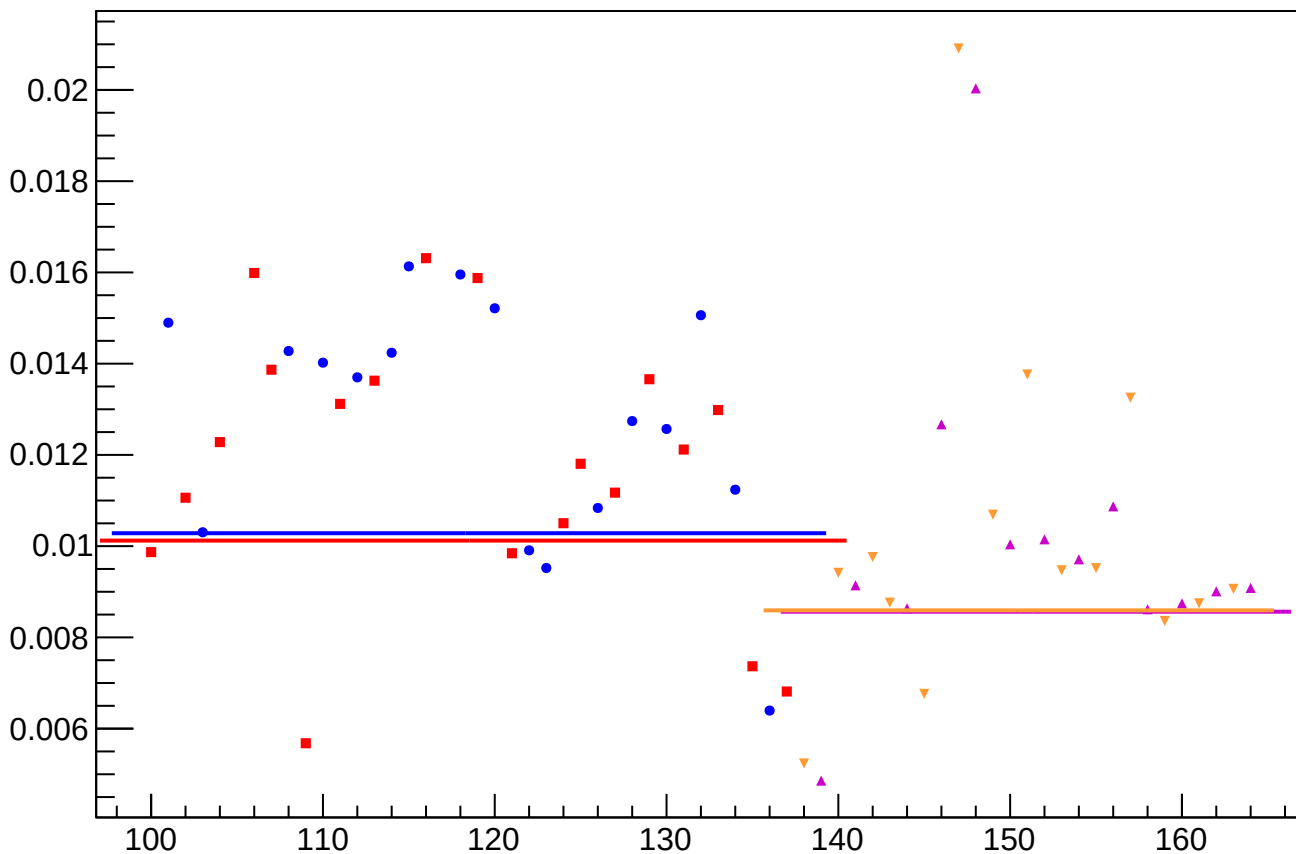
Left In: 1.161+/-0.000  $\chi^2/\text{NDF}$ : 21983022513.2/12

+ sign 0.995+/-0.000  $\chi^2/\text{NDF}$ : 36787929566.5/30

All: 1.043+/-0.000  $\chi^2/\text{NDF}$ : 71416620244.1/6

- sign 1.090+/-0.000  $\chi^2/\text{NDF}$ : 33823306552.6/31

# yield\_bpm12Y\_rms vs Slug



Right In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 1207460.1/16

Left Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 1657768.7/13

Right Out: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 1176642.1/18

Left In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 1617898.2/12

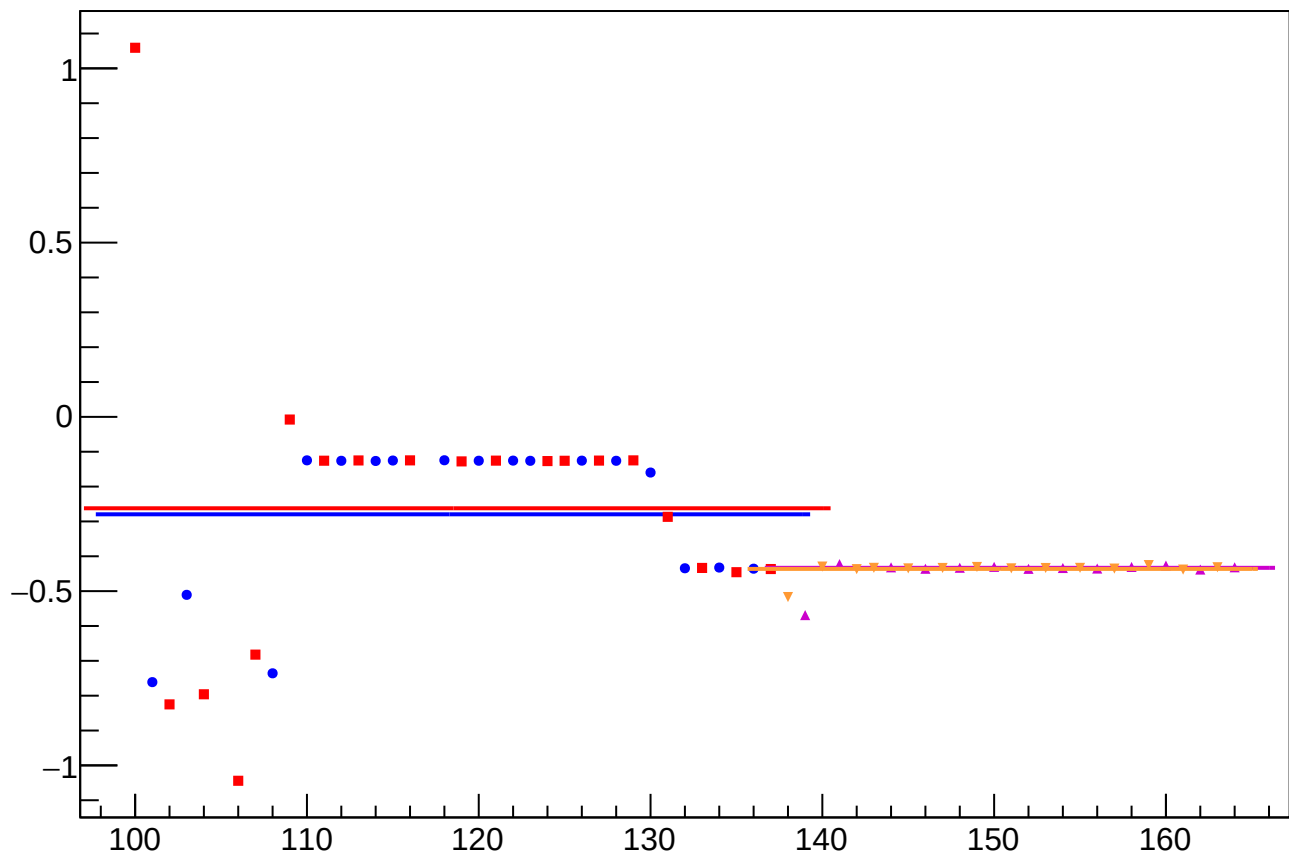
+ sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 3076634.9/30

All: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 6061280.1/62

- sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 2984338.4/31



# yield\_bpm16X\_mean vs Slug



Right In:  $-0.280 \pm 0.000$   $\chi^2/\text{NDF}$ : 929210245.5/16

Left Out:  $-0.436 \pm 0.000$   $\chi^2/\text{NDF}$ : 25617026.2/13

Right Out:  $-0.262 \pm 0.000$   $\chi^2/\text{NDF}$ : 1006263824.6/18

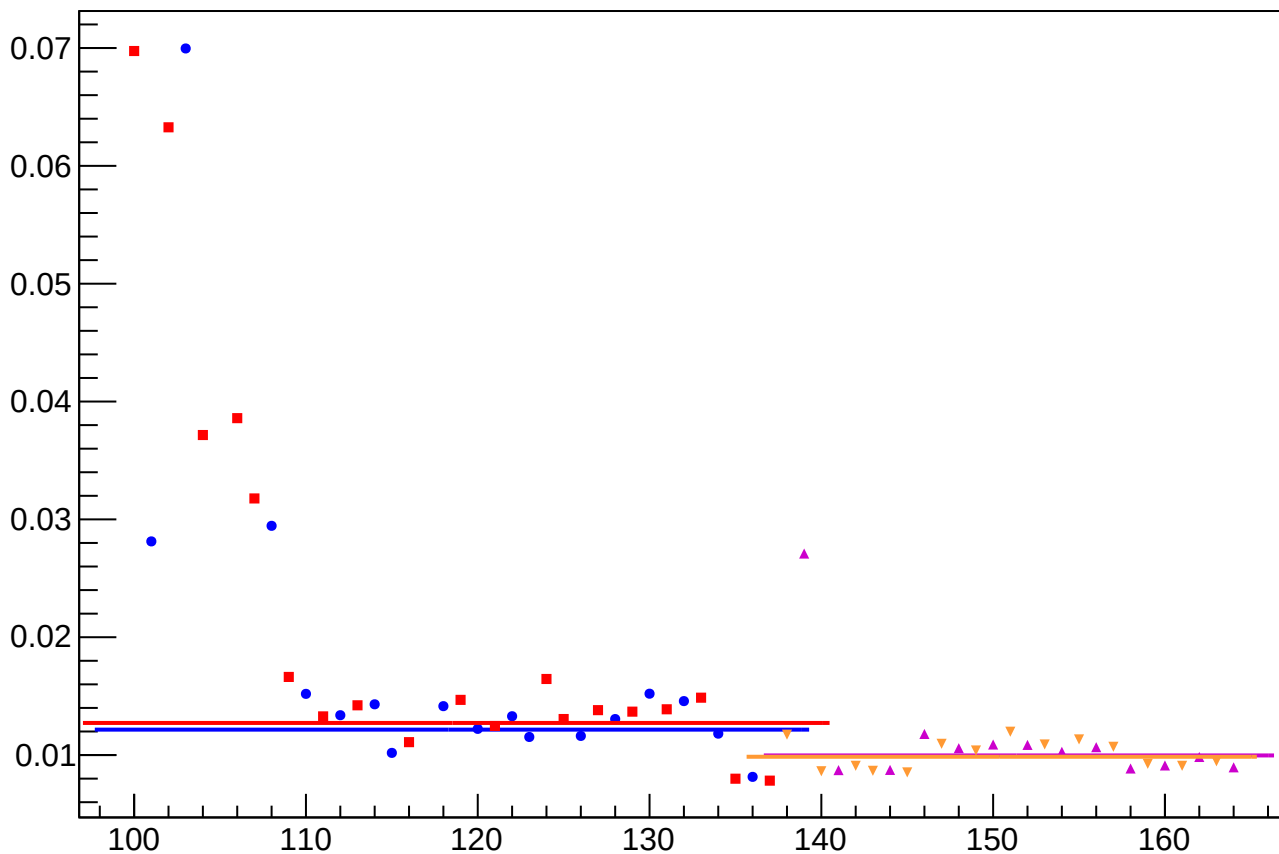
Left In:  $-0.433 \pm 0.000$   $\chi^2/\text{NDF}$ : 19530253.7/12

+ sign  $-0.395 \pm 0.000$   $\chi^2/\text{NDF}$ : 1526020737.1/30

All:  $-0.392 \pm 0.000$   $\chi^2/\text{NDF}$ : 3200172306.6/6

- sign  $-0.389 \pm 0.000$   $\chi^2/\text{NDF}$ : 1671673198.2/31

# yield\_bpm16X\_rms vs Slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 1722777.4/16

Left Out: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:225377.6/13

Right Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF: 1967397.9/18

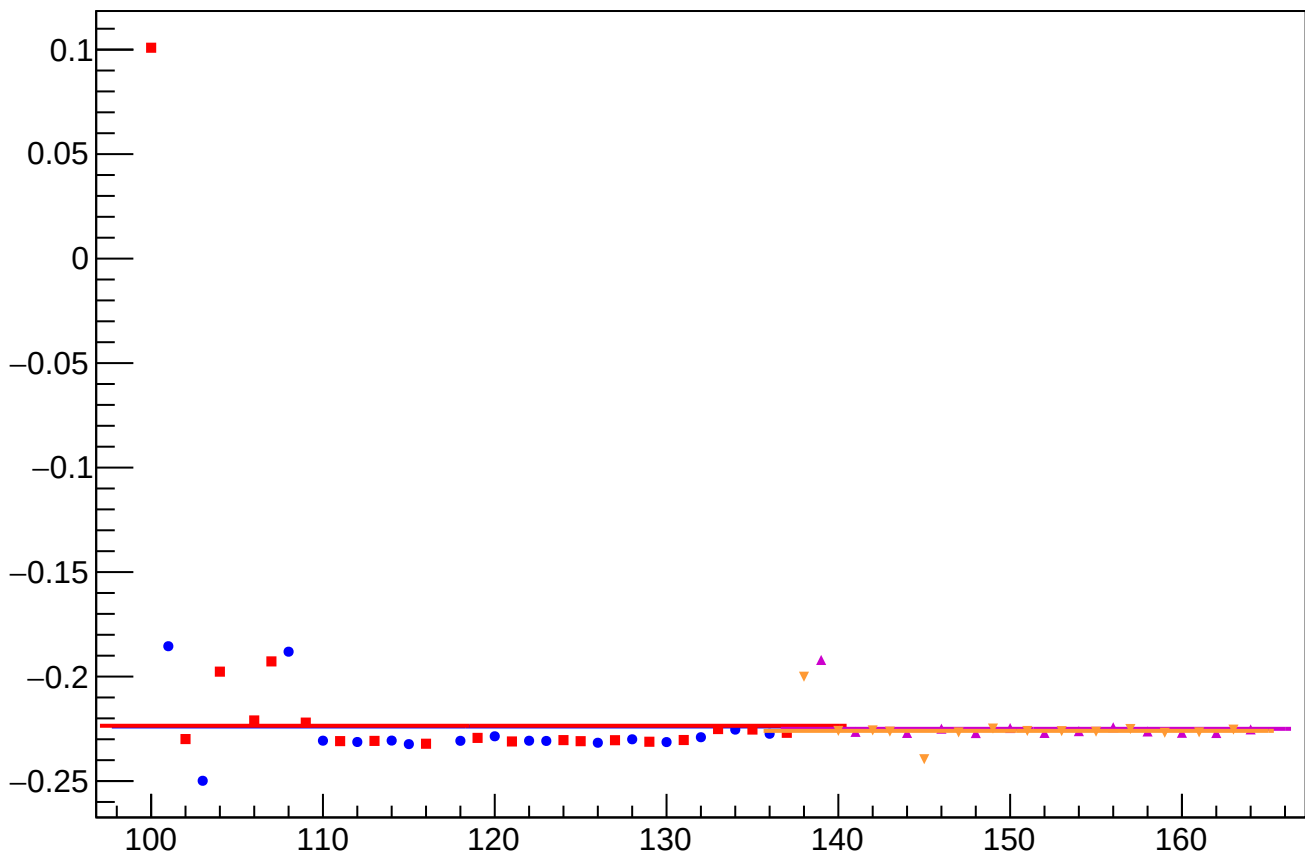
Left In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:731179.9/12

+ sign 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 2194712.9/30

All: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 5235549.0/62

- sign 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 3034837.4/31

# yield\_bpm16Y\_mean vs Slug



Right In: -0.224+/-0.000  $\chi^2/\text{NDF}$ : 74600073.9/16

Left Out: -0.226+/-0.000  $\chi^2/\text{NDF}$ : 20585400.1/13

Right Out: -0.224+/-0.000  $\chi^2/\text{NDF}$ : 168124199.3/18

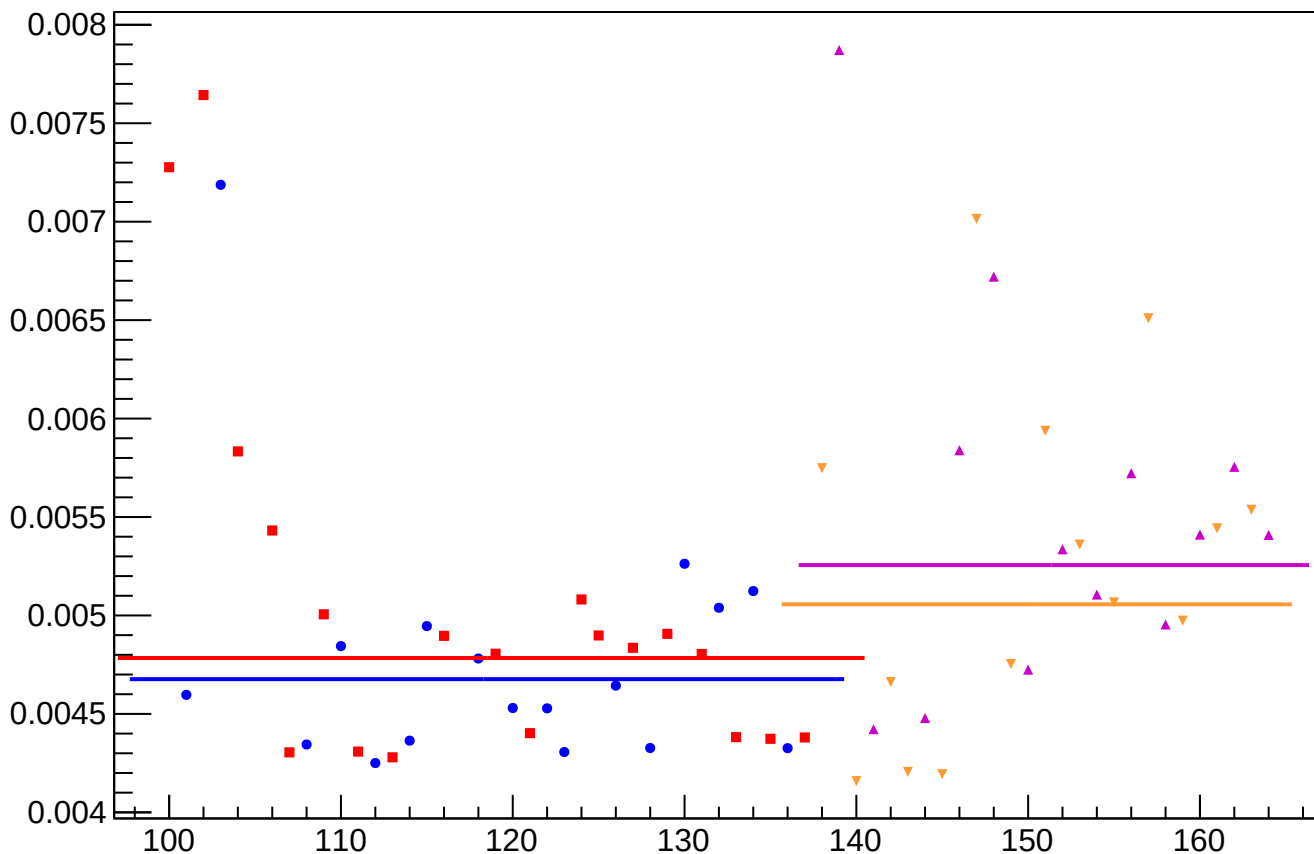
Left In: -0.225+/-0.000  $\chi^2/\text{NDF}$ : 12745982.1/12

+ sign -0.225+/-0.000  $\chi^2/\text{NDF}$ : 95883922.7/30

All: -0.225+/-0.000  $\chi^2/\text{NDF}$ : 277262134.7/62

- sign -0.224+/-0.000  $\chi^2/\text{NDF}$ : 181200678.8/31

# yield\_bpm16Y\_rms vs Slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 180780.8/16

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 446728.9/13

Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 248269.2/18

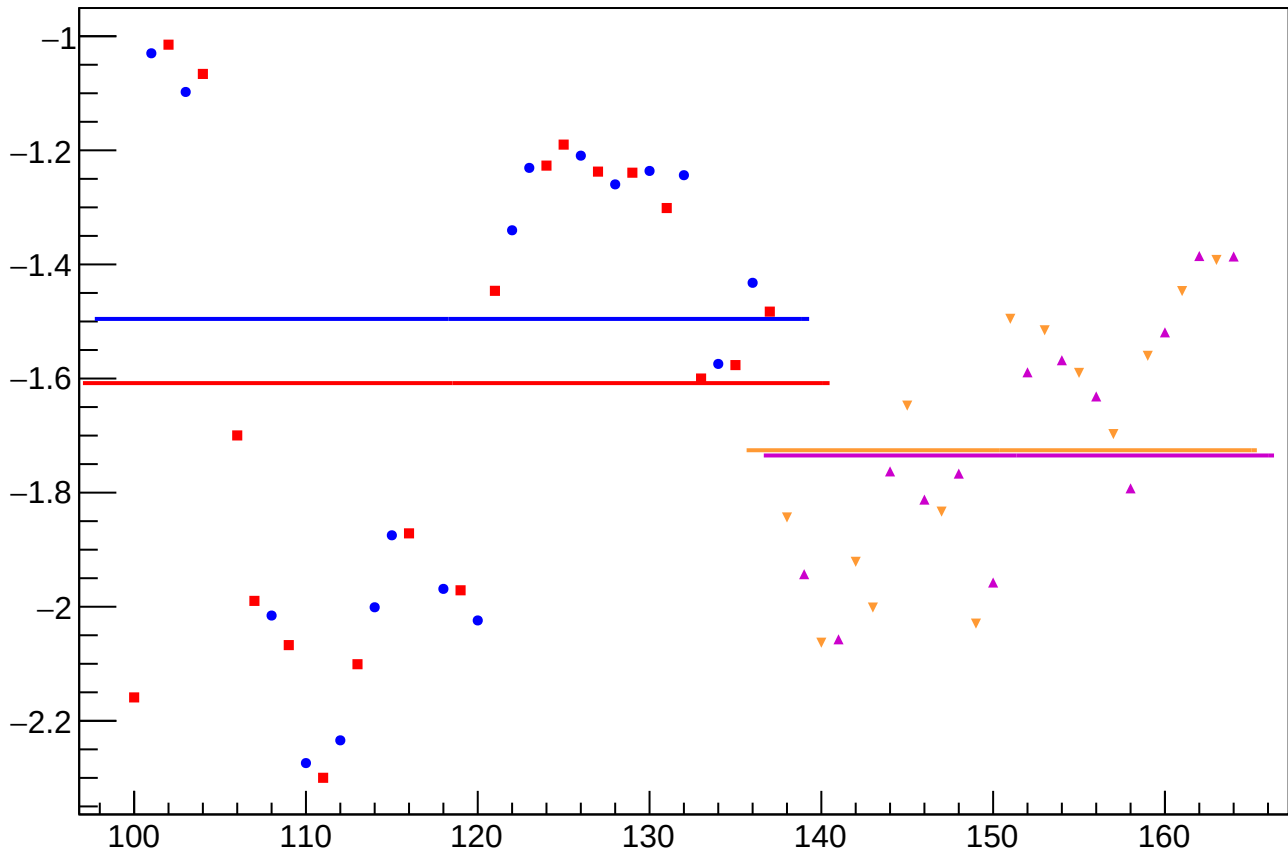
Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 392515.0/12

+ sign 0.005+/-0.000  $\chi^2/\text{NDF}$ : 673385.0/30

All: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1397320.4/62

- sign 0.005+/-0.000  $\chi^2/\text{NDF}$ : 709765.5/31

# yield\_bpm0l01X\_mean vs Slug



Right In: -1.496+/-0.000  $\chi^2/\text{NDF}$ : 22506050663.3/16

Left Out: -1.726+/-0.000  $\chi^2/\text{NDF}$ : 13307563083.7/13

Right Out: -1.608+/-0.000  $\chi^2/\text{NDF}$ : 27852841950.3/18

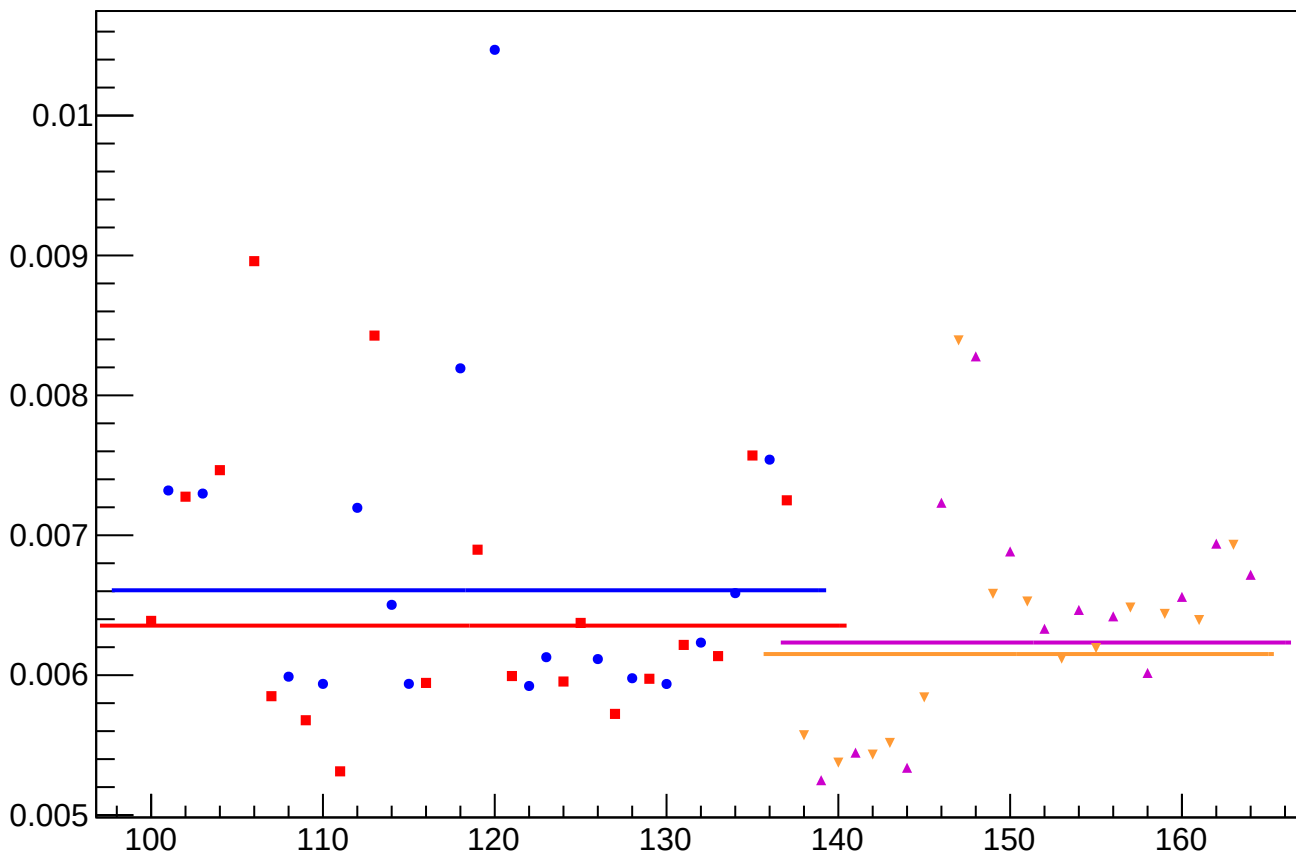
Left In: -1.735+/-0.000  $\chi^2/\text{NDF}$ : 10391742471.3/12

+ sign -1.646+/-0.000  $\chi^2/\text{NDF}$ : 40617517046.5/30

All: -1.665+/-0.000  $\chi^2/\text{NDF}$ : 80743239489.1/31

- sign -1.684+/-0.000  $\chi^2/\text{NDF}$ : 39824647748.8/31

# yield\_bpm0l01X\_rms vs Slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 201323.2/16

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ :222848.5/13

Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 227287.9/18

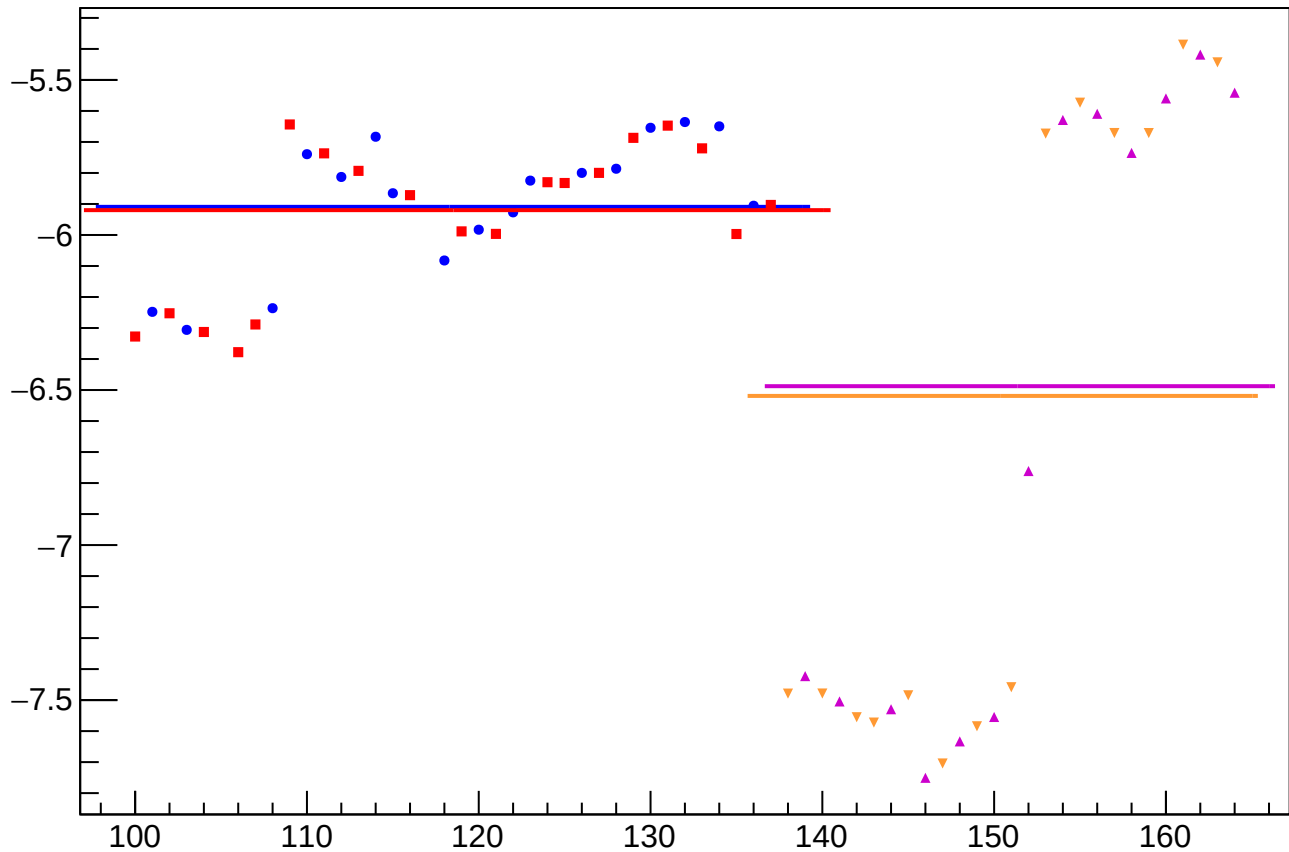
Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :289399.1/12

+ sign 0.006+/-0.000  $\chi^2/\text{NDF}$ : 461839.2/30

All: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 981713.2/62

- sign 0.006+/-0.000  $\chi^2/\text{NDF}$ : 519560.7/31

# yield\_bpm0l01Y\_mean vs Slug



Right In: -5.909+/-0.000  $\chi^2/\text{NDF}$ : 11125163629.1/16

Left Out: -6.519+/-0.000  $\chi^2/\text{NDF}$ : 137072606853.4/13

Right Out: -5.920+/-0.000  $\chi^2/\text{NDF}$ : 12785272526.6/18

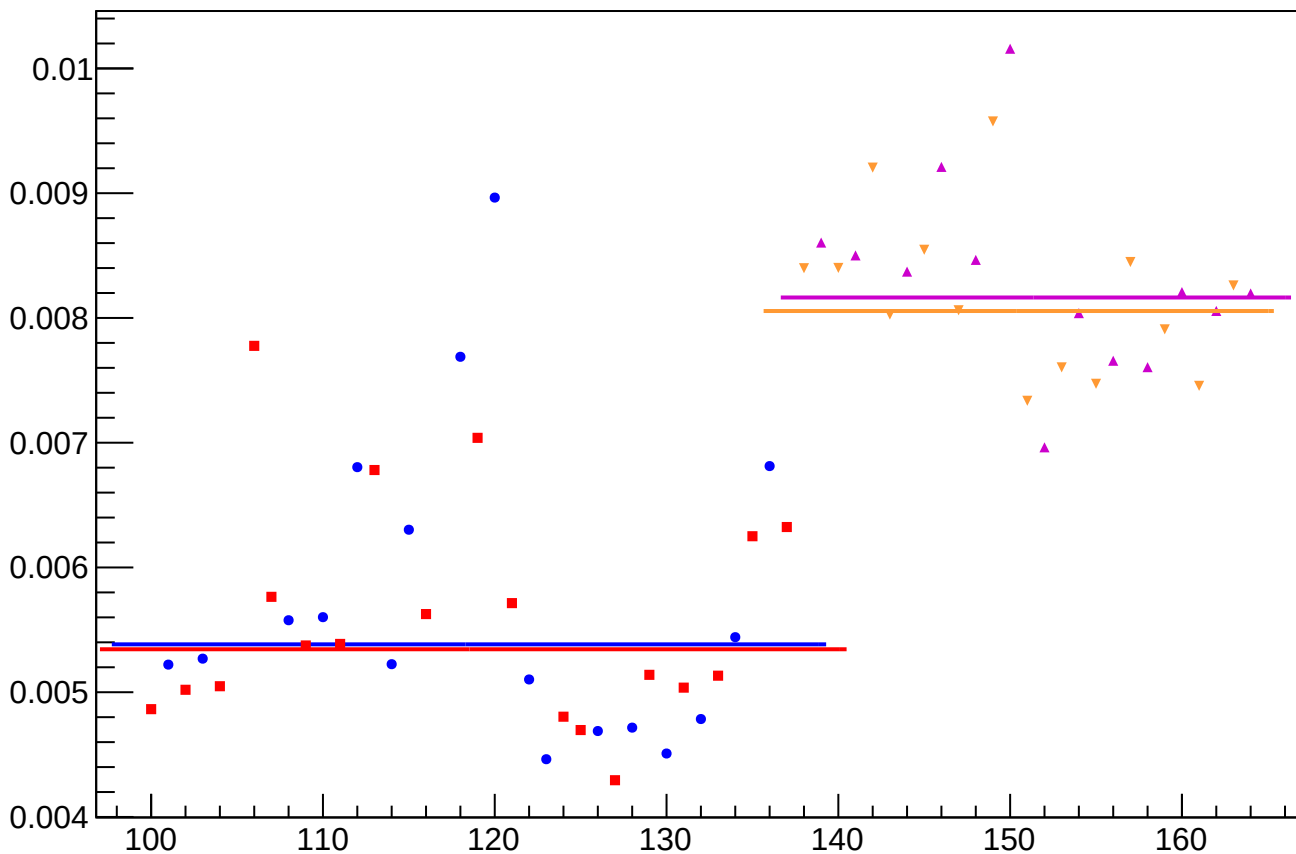
Left In: -6.488+/-0.000  $\chi^2/\text{NDF}$ : 118485816612.5/12

+ sign -6.159+/-0.000  $\chi^2/\text{NDF}$ : 178960564656.3/30

All: -6.147+/-0.000  $\chi^2/\text{NDF}$ : 337614047373.2

- sign -6.136+/-0.000  $\chi^2/\text{NDF}$ : 158558928722.2/31

# yield\_bpm0l01Y\_rms vs Slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 347627.8/16

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :94320.9/13

Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 244700.0/18

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :139794.6/12

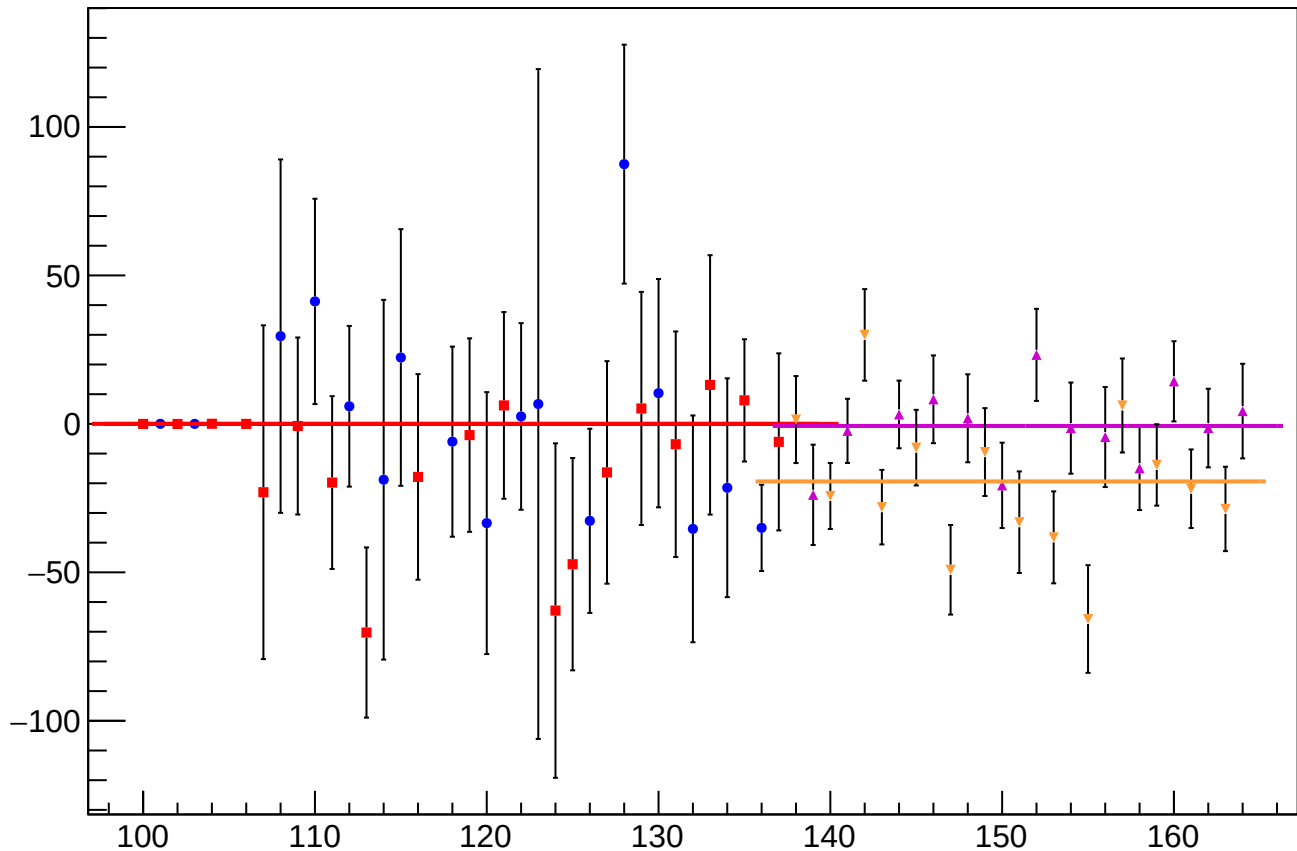
+ sign 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1623266.7/30

All: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 3355311.7/62

- sign 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1730707.8/31



# diff\_cav4bX\_mean vs Slug



Right In:  $0.013 \pm 0.017$   $\chi^2/\text{NDF}$ : 15.8/16

Left Out:  $-19.378 \pm 3.806$   $\chi^2/\text{NDF}$ : 30.0/13

Right Out:  $0.003 \pm 0.016$   $\chi^2/\text{NDF}$ : 15.3/18

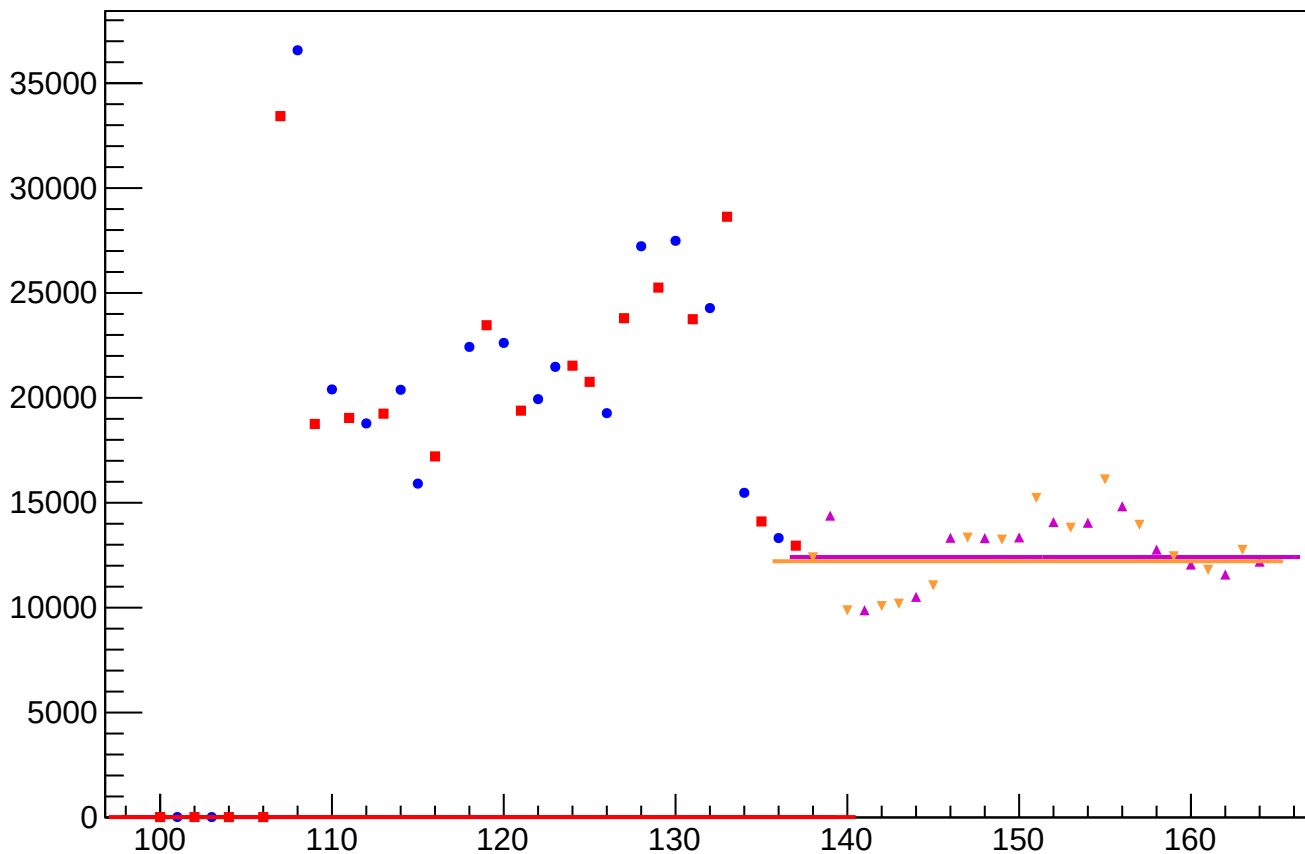
Left In:  $-0.697 \pm 3.897$   $\chi^2/\text{NDF}$ : 9.2/12

+ sign  $0.013 \pm 0.017$   $\chi^2/\text{NDF}$ : 71.7/30

All:  $0.008 \pm 0.012$   $\chi^2/\text{NDF}$ : 96.4/62

- sign  $0.003 \pm 0.016$   $\chi^2/\text{NDF}$ : 24.5/31

# diff\_cav4bX\_rms vs Slug



Right In: 18.641+/-0.012  $\chi^2/\text{NDF}$ : 10841561.4/16

Left Out: 12213.168+/-2.691  $\chi^2/\text{NDF}$ : 421901.1/13

Right Out: 18.311+/-0.011  $\chi^2/\text{NDF}$ : 11103320.8/18

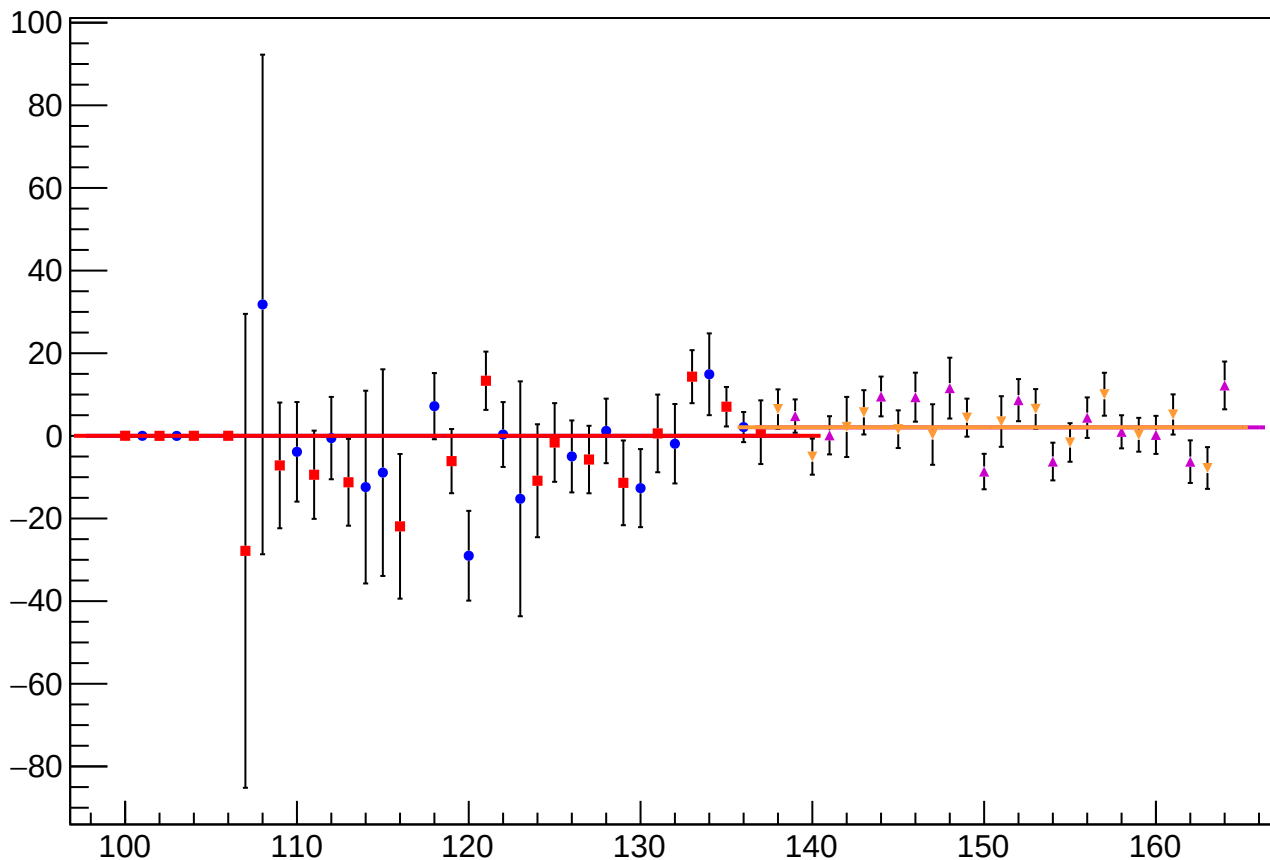
Left In: 12415.160+/-2.756  $\chi^2/\text{NDF}$ : 314550.2/12

+ sign 18.894+/-0.012  $\chi^2/\text{NDF}$ : 31791481.4/30

All: 18.694+/-0.008  $\chi^2/\text{NDF}$ : 63446561.3/62

- sign 18.522+/-0.011  $\chi^2/\text{NDF}$ : 31654585.9/31

# diff\_cav4bY\_mean vs Slug



Right In: 0.001 $\pm$ 0.009  $\chi^2$ /NDF: 14.9/16

Left Out: 2.076 $\pm$ 1.339  $\chi^2$ /NDF:12.6/13

Right Out: 0.014 $\pm$ 0.009  $\chi^2$ /NDF: 18.4/18

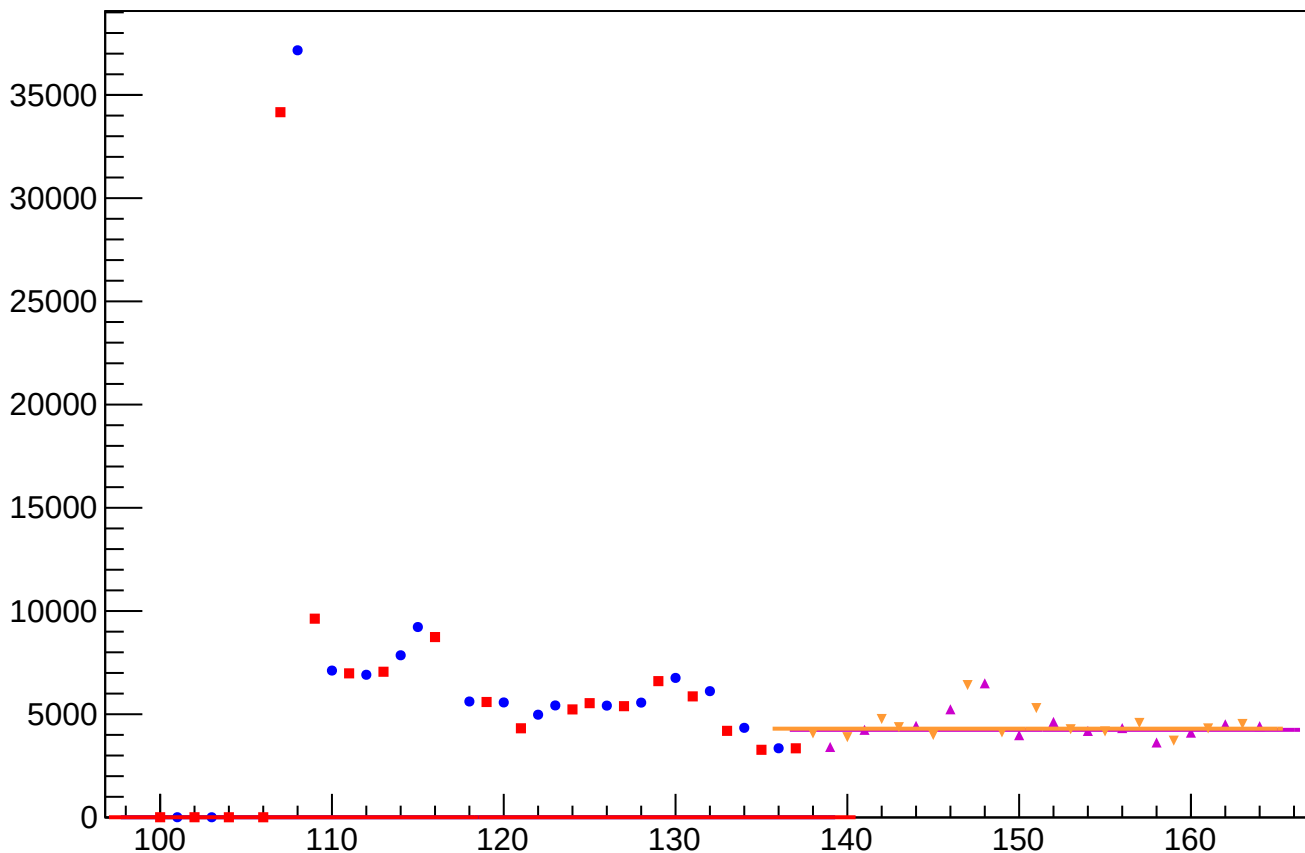
Left In: 2.053 $\pm$ 1.339  $\chi^2$ /NDF:23.5/12

+ sign 0.001 $\pm$ 0.009  $\chi^2$ /NDF: 29.9/30

All: 0.008 $\pm$ 0.006  $\chi^2$ /NDF: 75.3/62

- sign 0.014 $\pm$ 0.009  $\chi^2$ /NDF: 44.2/31

# diff\_cav4bY\_rms vs Slug



Right In: 9.938+/-0.007  $\chi^2/\text{NDF}$ : 10973577.1/16

Left Out: 4300.967+/-0.946  $\chi^2/\text{NDF}$ : 314153.3/13

Right Out: 9.854+/-0.006  $\chi^2/\text{NDF}$ : 11152667.7/18

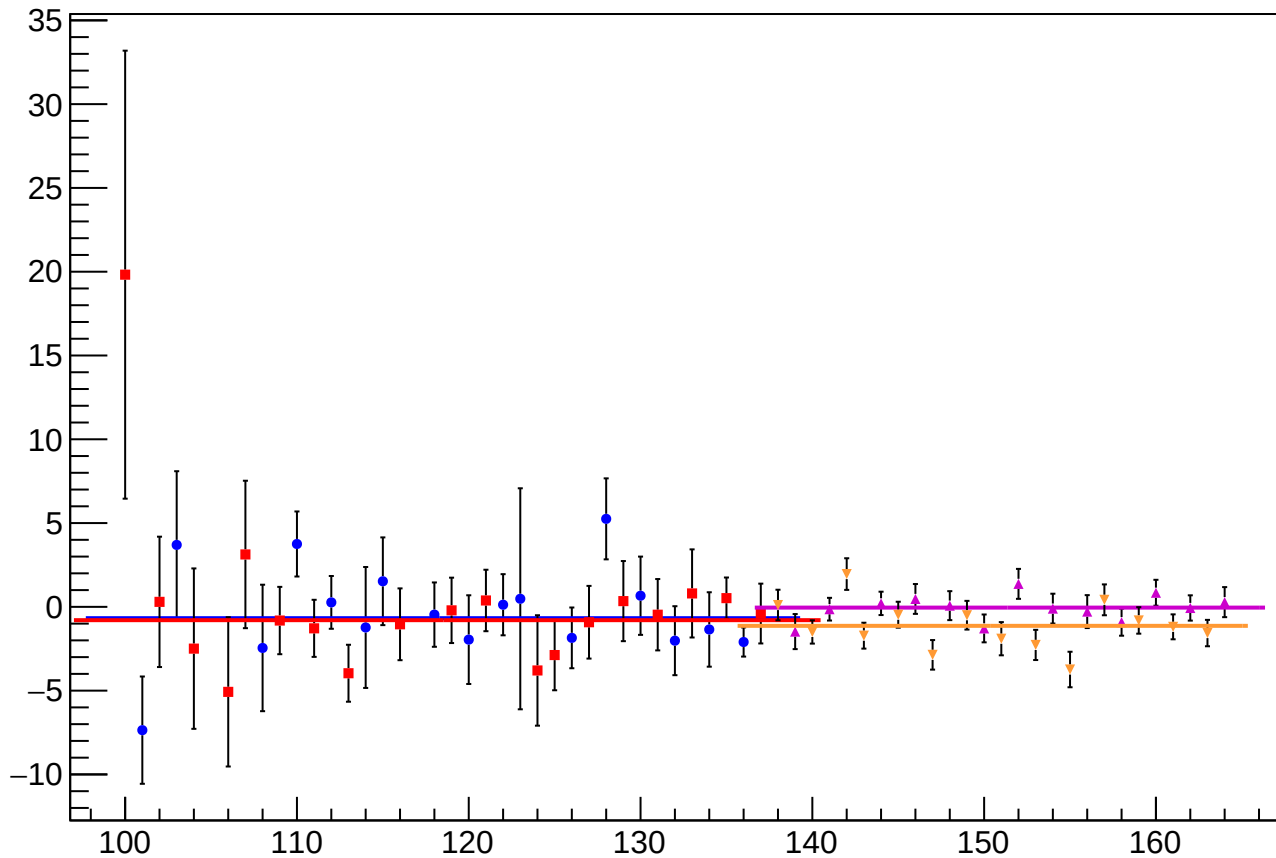
Left In: 4244.028+/-0.947  $\chi^2/\text{NDF}$ : 407073.4/12

+ sign 10.141+/-0.007  $\chi^2/\text{NDF}$ : 31840328.0/30

All: 10.083+/-0.004  $\chi^2/\text{NDF}$ : 63405535.6/62

- sign 10.031+/-0.006  $\chi^2/\text{NDF}$ : 31565056.6/31

# diff\_cav4cX\_mean vs Slug



Right In:  $-0.677 \pm 0.484$   $\chi^2/\text{NDF}$ : 22.3/16

Left Out:  $-1.133 \pm 0.225$   $\chi^2/\text{NDF}$ : 30.1/13

Right Out:  $-0.795 \pm 0.501$   $\chi^2/\text{NDF}$ : 12.0/18

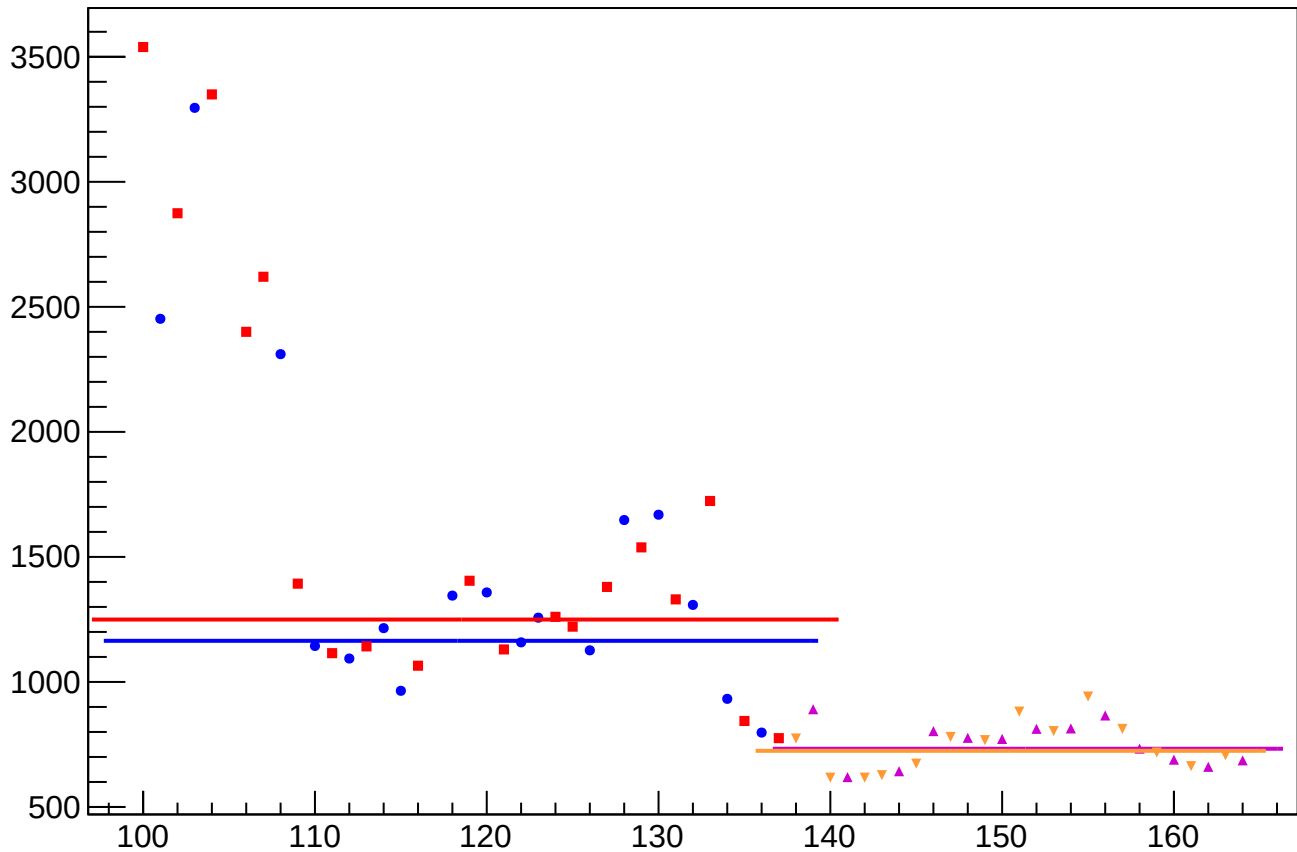
Left In:  $-0.045 \pm 0.230$   $\chi^2/\text{NDF}$ : 9.8/12

+ sign  $-1.052 \pm 0.204$   $\chi^2/\text{NDF}$ : 53.1/30

All:  $-0.623 \pm 0.146$   $\chi^2/\text{NDF}$ : 85.8/62

- sign  $-0.175 \pm 0.209$   $\chi^2/\text{NDF}$ : 23.6/31

# diff\_cav4cX\_rms vs Slug



Right In: 1164.459+/-0.342  $\chi^2/\text{NDF}$ : 1584212.9/16

Left Out: 724.604+/-0.159  $\chi^2/\text{NDF}$ : 315098.2/13

Right Out: 1249.596+/-0.354  $\chi^2/\text{NDF}$ : 1650133.1/18

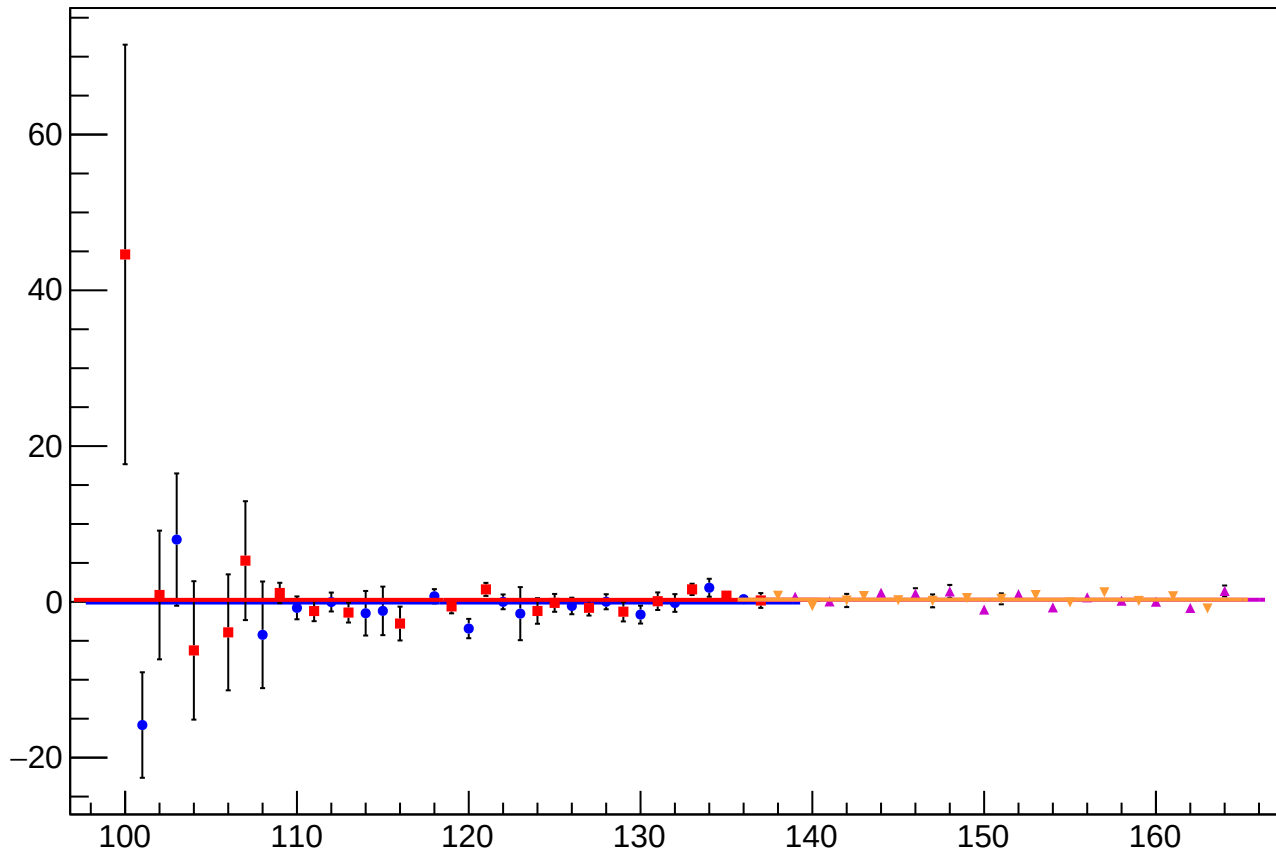
Left In: 732.846+/-0.162  $\chi^2/\text{NDF}$ : 256462.8/12

+ sign 802.812+/-0.144  $\chi^2/\text{NDF}$ : 3256645.5/30

All: 812.424+/-0.103  $\chi^2/\text{NDF}$ : 6928940.7/62

- sign 822.475+/-0.148  $\chi^2/\text{NDF}$ : 3663226.0/31

# diff\_cav4cY\_mean vs Slug



Right In:  $-0.086 \pm 0.270$   $\chi^2/\text{NDF}$ : 21.1/16

Left Out:  $0.290 \pm 0.160$   $\chi^2/\text{NDF}$ : 11.8/13

Right Out:  $0.259 \pm 0.264$   $\chi^2/\text{NDF}$ : 20.4/18

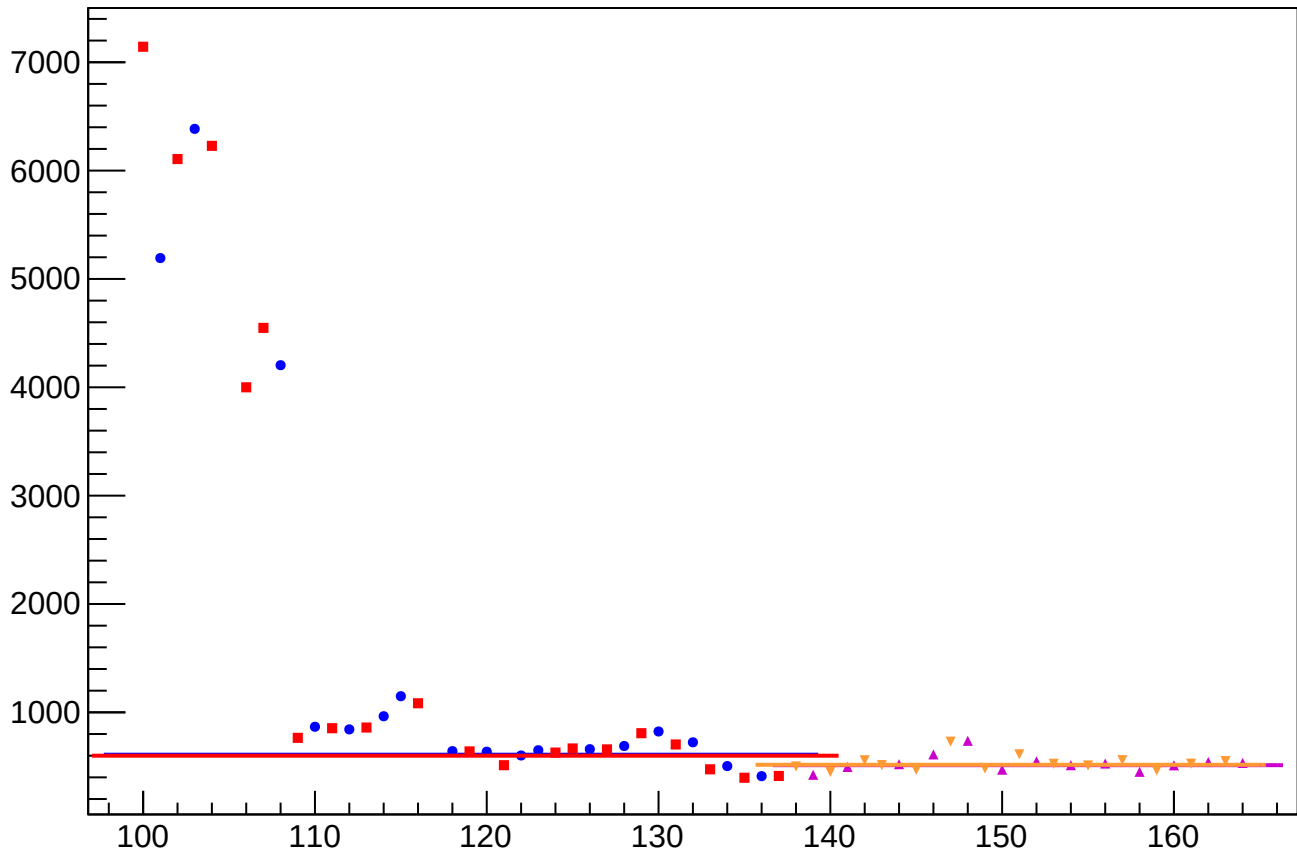
Left In:  $0.270 \pm 0.161$   $\chi^2/\text{NDF}$ : 23.0/12

+ sign  $0.192 \pm 0.138$   $\chi^2/\text{NDF}$ : 34.3/30

All:  $0.230 \pm 0.097$   $\chi^2/\text{NDF}$ : 77.9/62

- sign  $0.267 \pm 0.138$   $\chi^2/\text{NDF}$ : 43.4/31

# diff\_cav4cY\_rms vs Slug



Right In: 609.016 $\pm$ 0.191  $\chi^2$ /NDF: 3139231.5/16

Left Out: 516.086 $\pm$ 0.113  $\chi^2$ /NDF: 269501.4/13

Right Out: 599.910 $\pm$ 0.187  $\chi^2$ /NDF: 3547599.8/18

Left In: 512.340 $\pm$ 0.114  $\chi^2$ /NDF: 310330.8/12

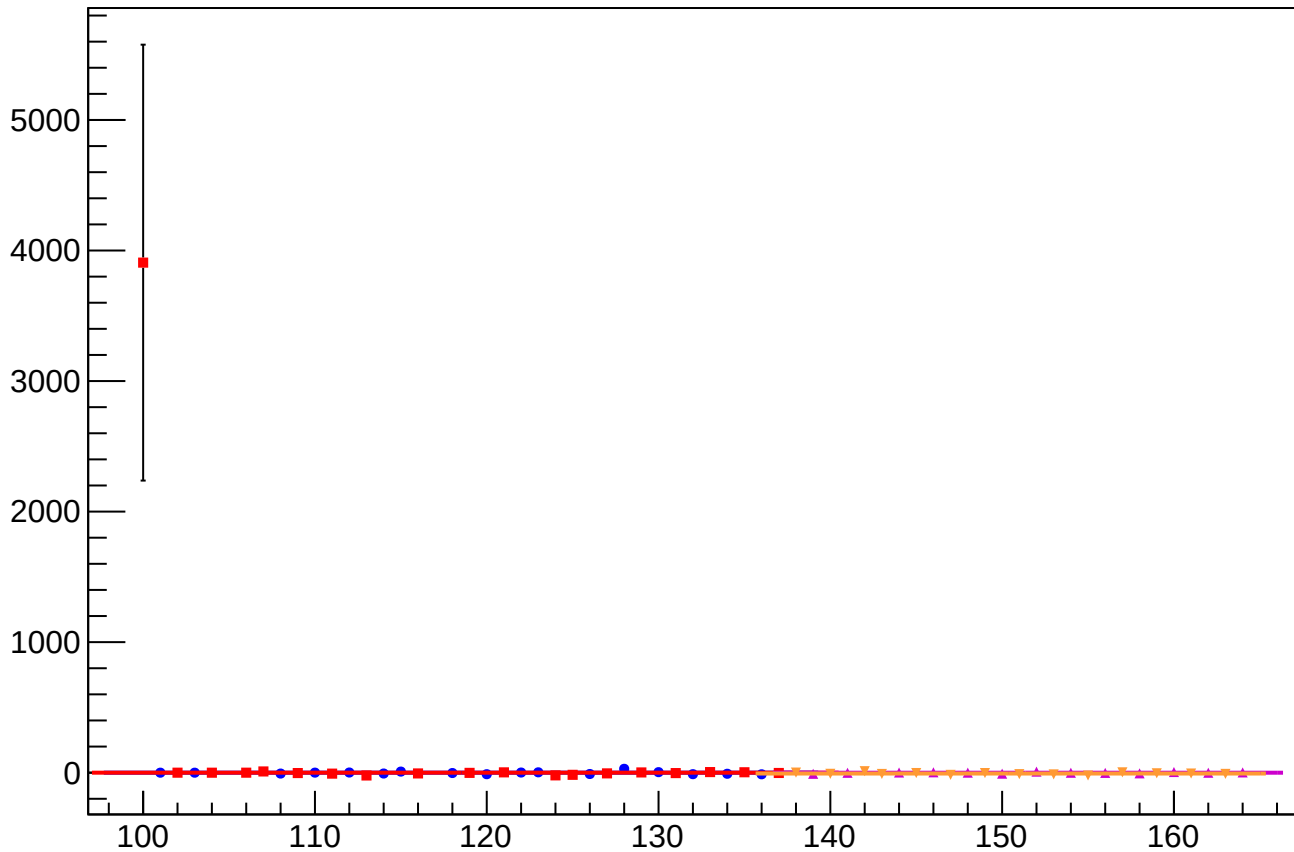
+ sign 540.291 $\pm$ 0.097  $\chi^2$ /NDF: 3583748.6/30

All: 538.177 $\pm$ 0.069  $\chi^2$ /NDF: 7602633.4/62

- sign 536.071 $\pm$ 0.097  $\chi^2$ /NDF: 4017945.8/31



# diff\_cav4dX\_mean vs Slug



Right In:  $-0.022 \pm 0.021$   $\chi^2/\text{NDF}$ : 15.3/16

Left Out:  $-6.532 \pm 1.311$   $\chi^2/\text{NDF}$ : 30.2/13

Right Out:  $-0.027 \pm 0.020$   $\chi^2/\text{NDF}$ : 17.3/18

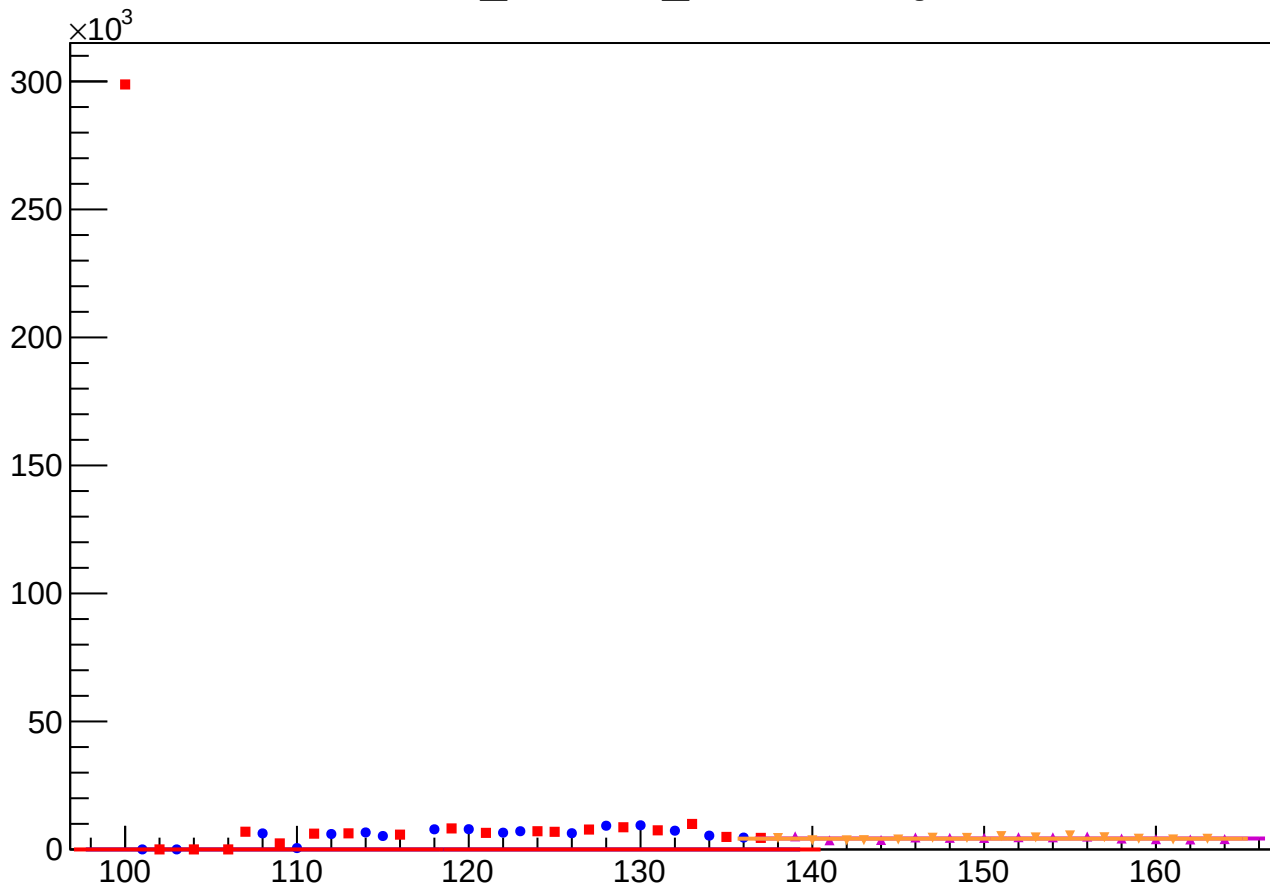
Left In:  $-0.214 \pm 1.341$   $\chi^2/\text{NDF}$ : 9.8/12

+ sign  $-0.023 \pm 0.021$   $\chi^2/\text{NDF}$ : 70.1/30

All:  $-0.025 \pm 0.014$   $\chi^2/\text{NDF}$ : 97.1/62

- sign  $-0.027 \pm 0.020$   $\chi^2/\text{NDF}$ : 27.0/31

# diff\_cav4dX\_rms vs Slug



Right In: 17.337 $\pm$ 0.015  $\chi^2$ /NDF: 10359409.4/16

Left Out: 4218.409 $\pm$ 0.927  $\chi^2$ /NDF: 333678.5/13

Right Out: 17.268 $\pm$ 0.014  $\chi^2$ /NDF: 10813350.8/18

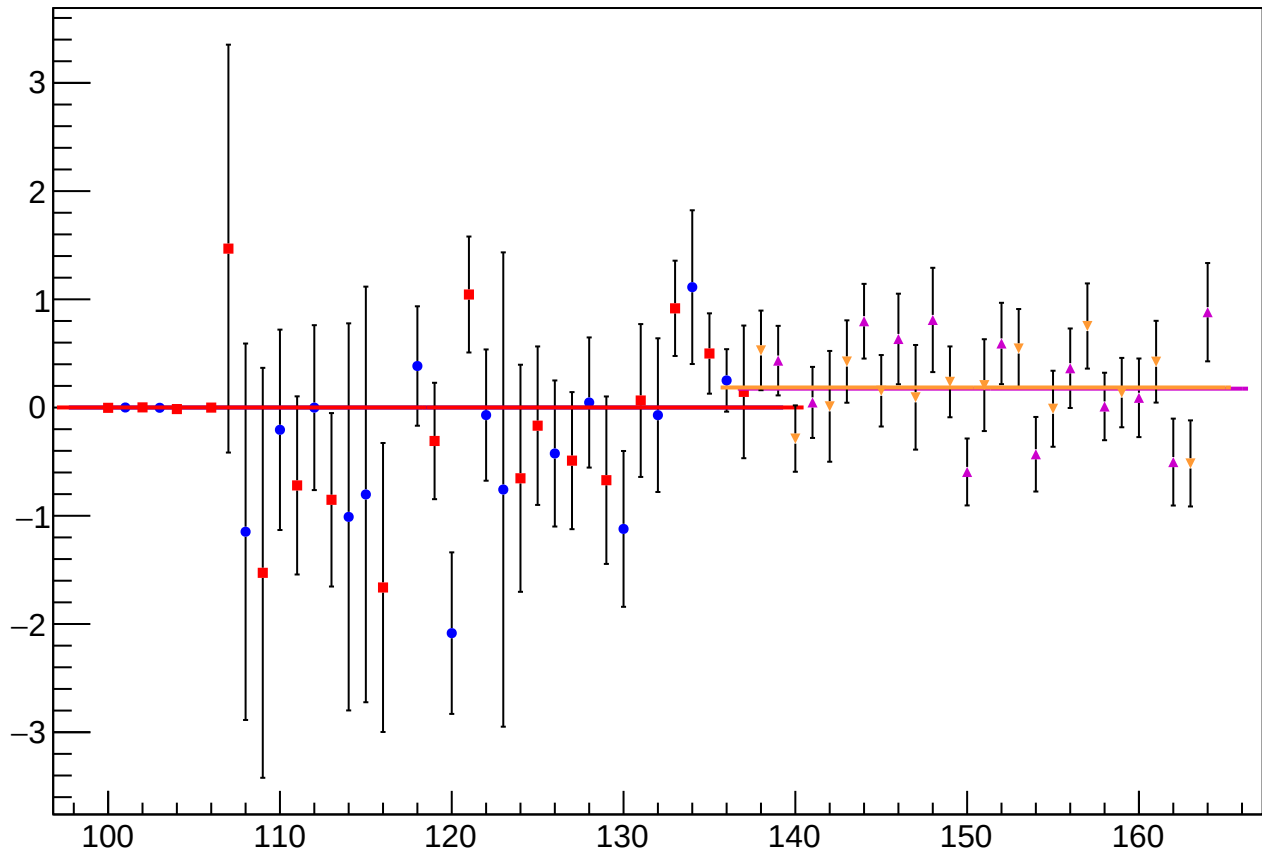
Left In: 4279.457 $\pm$ 0.948  $\chi^2$ /NDF: 260029.7/12

+ sign 18.393 $\pm$ 0.015  $\chi^2$ /NDF: 31213509.1/30

All: 18.289 $\pm$ 0.010  $\chi^2$ /NDF: 62483927.0/62

- sign 18.195 $\pm$ 0.014  $\chi^2$ /NDF: 31270322.6/31

# diff\_cav4dY\_mean vs Slug



Right In: 0.000 $\pm$ 0.002  $\chi^2$ /NDF: 15.6/16

Left Out: 0.185 $\pm$ 0.099  $\chi^2$ /NDF:10.7/13

Right Out: 0.001 $\pm$ 0.002  $\chi^2$ /NDF: 17.8/18

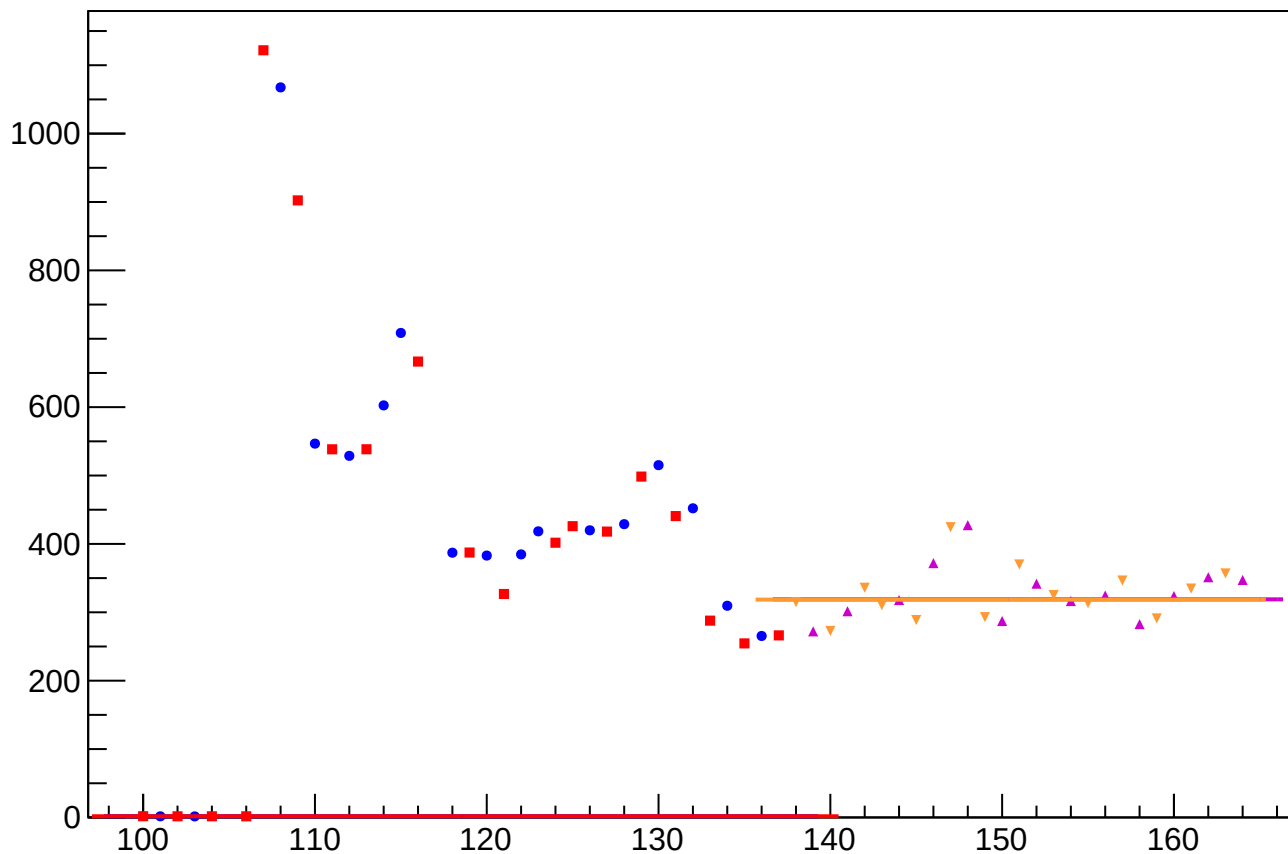
Left In: 0.175 $\pm$ 0.100  $\chi^2$ /NDF:23.4/12

+ sign 0.000 $\pm$ 0.002  $\chi^2$ /NDF: 29.9/30

All: 0.001 $\pm$ 0.001  $\chi^2$ /NDF: 74.1/62

- sign 0.001 $\pm$ 0.002  $\chi^2$ /NDF: 44.2/31

# diff\_cav4dY\_rms vs Slug



Right In: 1.698+/-0.001  $\chi^2/\text{NDF}$ : 10911617.0/16

Left Out: 318.540+/-0.070  $\chi^2/\text{NDF}$ : 250113.8/13

Right Out: 1.728+/-0.001  $\chi^2/\text{NDF}$ : 10736674.8/18

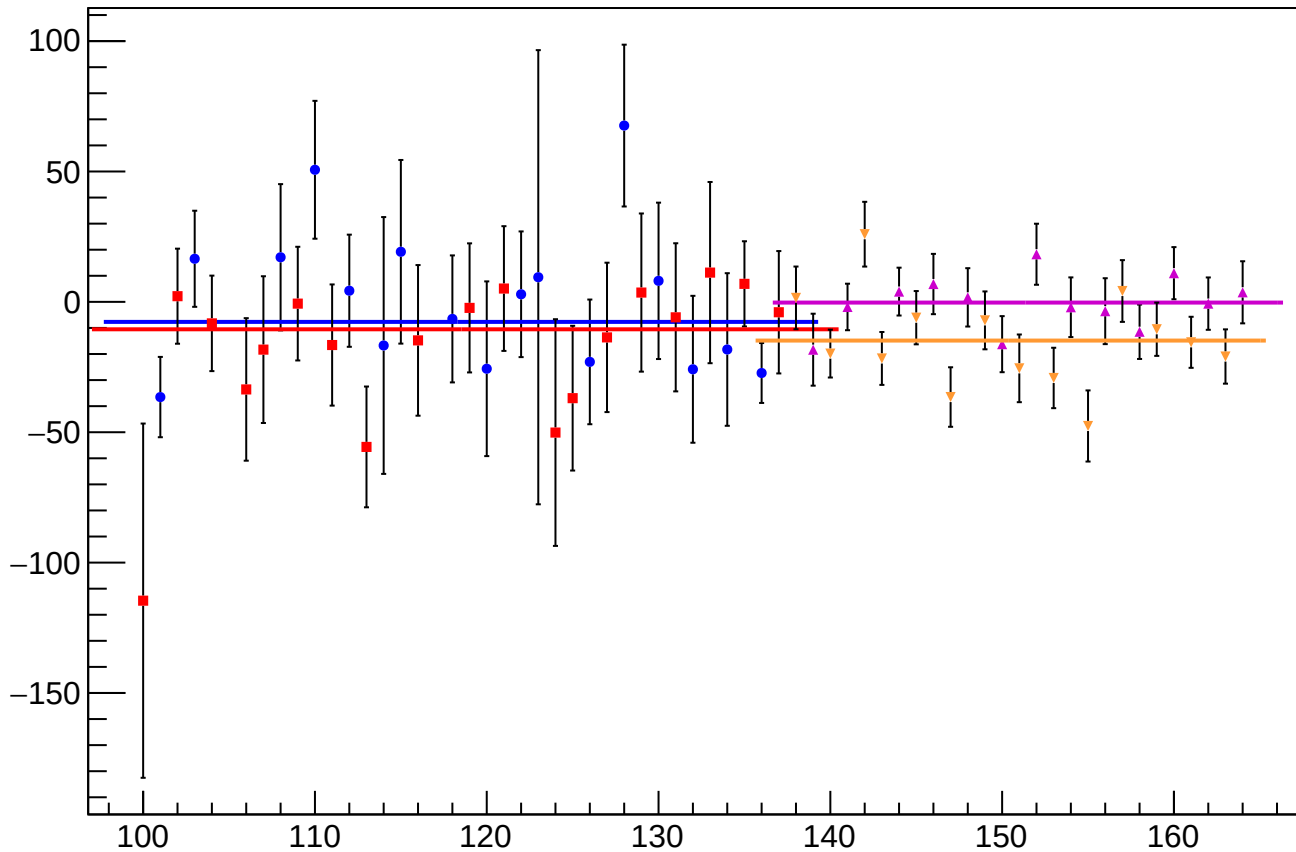
Left In: 318.960+/-0.071  $\chi^2/\text{NDF}$ : 258538.4/12

+ sign 1.831+/-0.001  $\chi^2/\text{NDF}$ : 31679517.8/30

All: 1.840+/-0.001  $\chi^2/\text{NDF}$ : 62726362.6/62

- sign 1.847+/-0.001  $\chi^2/\text{NDF}$ : 31046780.6/31

# diff\_bpm4aX\_mean vs Slug



Right In:  $-7.683 \pm 5.627$   $\chi^2/\text{NDF}$ : 22.4/16

Left Out:  $-14.844 \pm 2.942$   $\chi^2/\text{NDF}$ : 29.3/13

Right Out:  $-10.524 \pm 5.682$   $\chi^2/\text{NDF}$ : 11.9/18

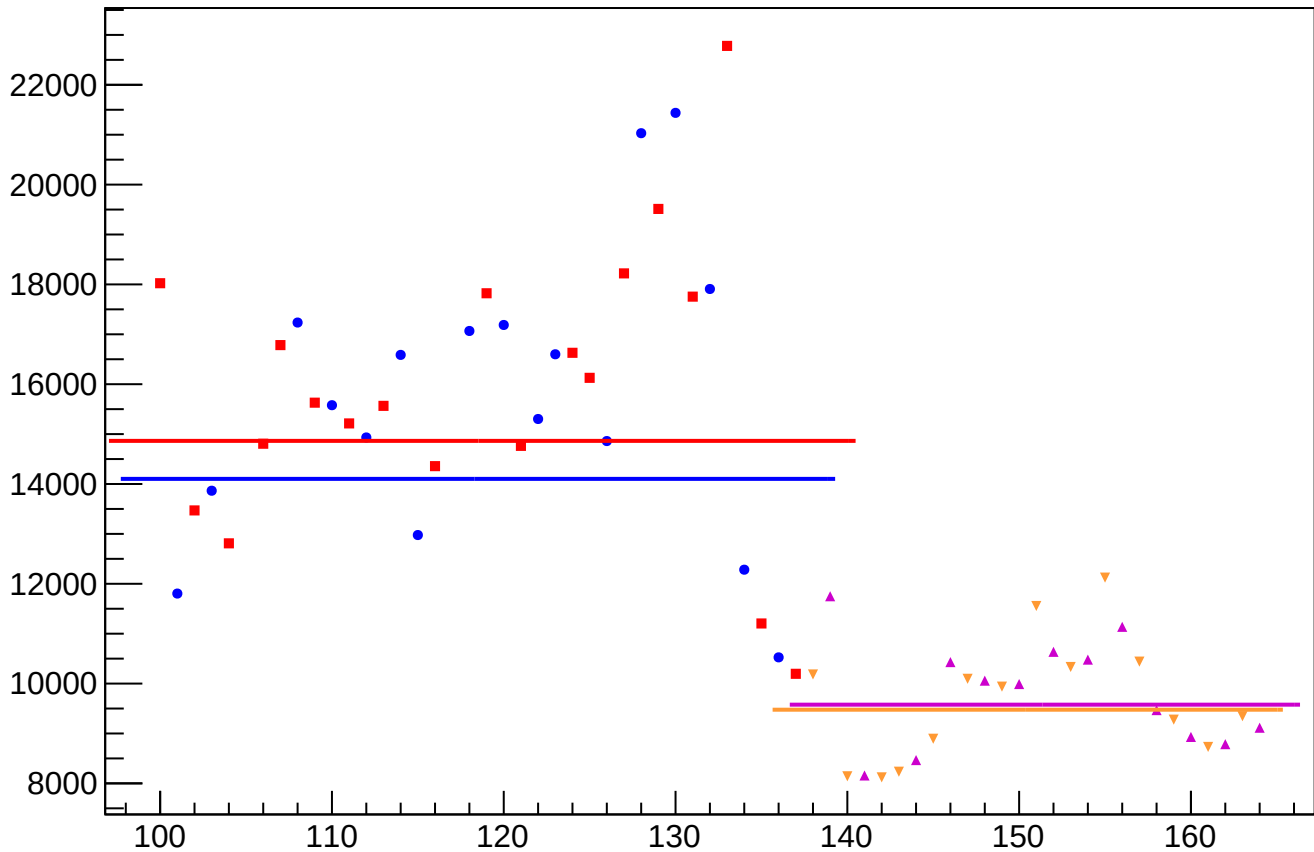
Left In:  $-0.276 \pm 2.999$   $\chi^2/\text{NDF}$ : 9.7/12

+ sign  $-13.307 \pm 2.607$   $\chi^2/\text{NDF}$ : 52.9/30

All:  $-8.001 \pm 1.859$   $\chi^2/\text{NDF}$ : 85.5/62

- sign  $-2.509 \pm 2.652$   $\chi^2/\text{NDF}$ : 24.1/31

# diff\_bpm4aX\_rms vs Slug



Right In: 14102.522+/-3.979  $\chi^2/\text{NDF}$ : 598934.8/16

Left Out: 9476.485+/-2.080  $\chi^2/\text{NDF}$ : 282458.8/13

Right Out: 14864.163+/-4.018  $\chi^2/\text{NDF}$ : 470280.3/18

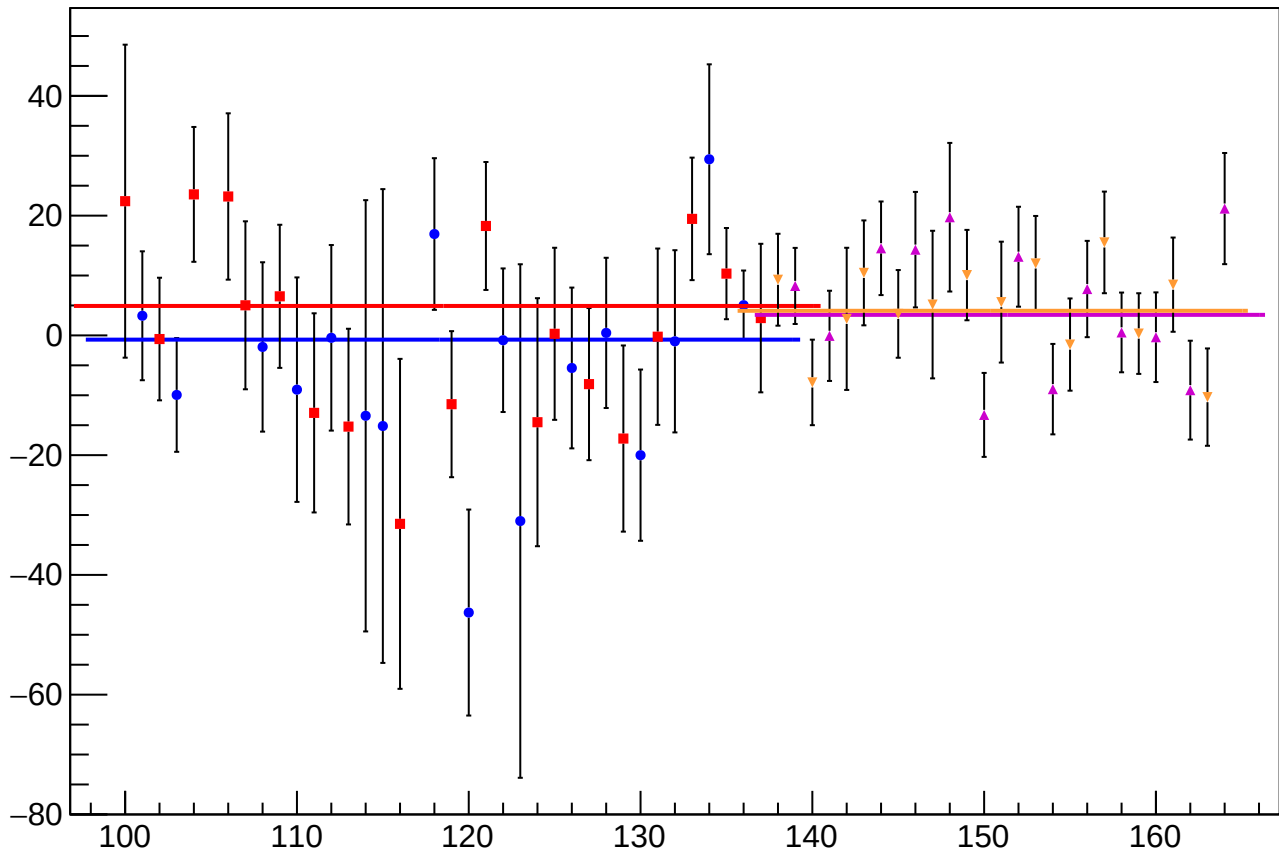
Left In: 9577.462+/-2.121  $\chi^2/\text{NDF}$ : 230382.5/12

+ sign 10469.542+/-1.844  $\chi^2/\text{NDF}$ : 1942883.4/30

All: 10597.255+/-1.315  $\chi^2/\text{NDF}$ : 4007319.8/6

- sign 10729.440+/-1.876  $\chi^2/\text{NDF}$ : 2054670.4/31

# diff\_bpm4aY\_mean vs Slug



Right In:  $-0.708 \pm 3.084$   $\chi^2/\text{NDF}$ : 17.6/16

Left Out:  $4.110 \pm 2.186$   $\chi^2/\text{NDF}$ : 11.6/13

Right Out:  $4.918 \pm 2.940$   $\chi^2/\text{NDF}$ : 19.8/18

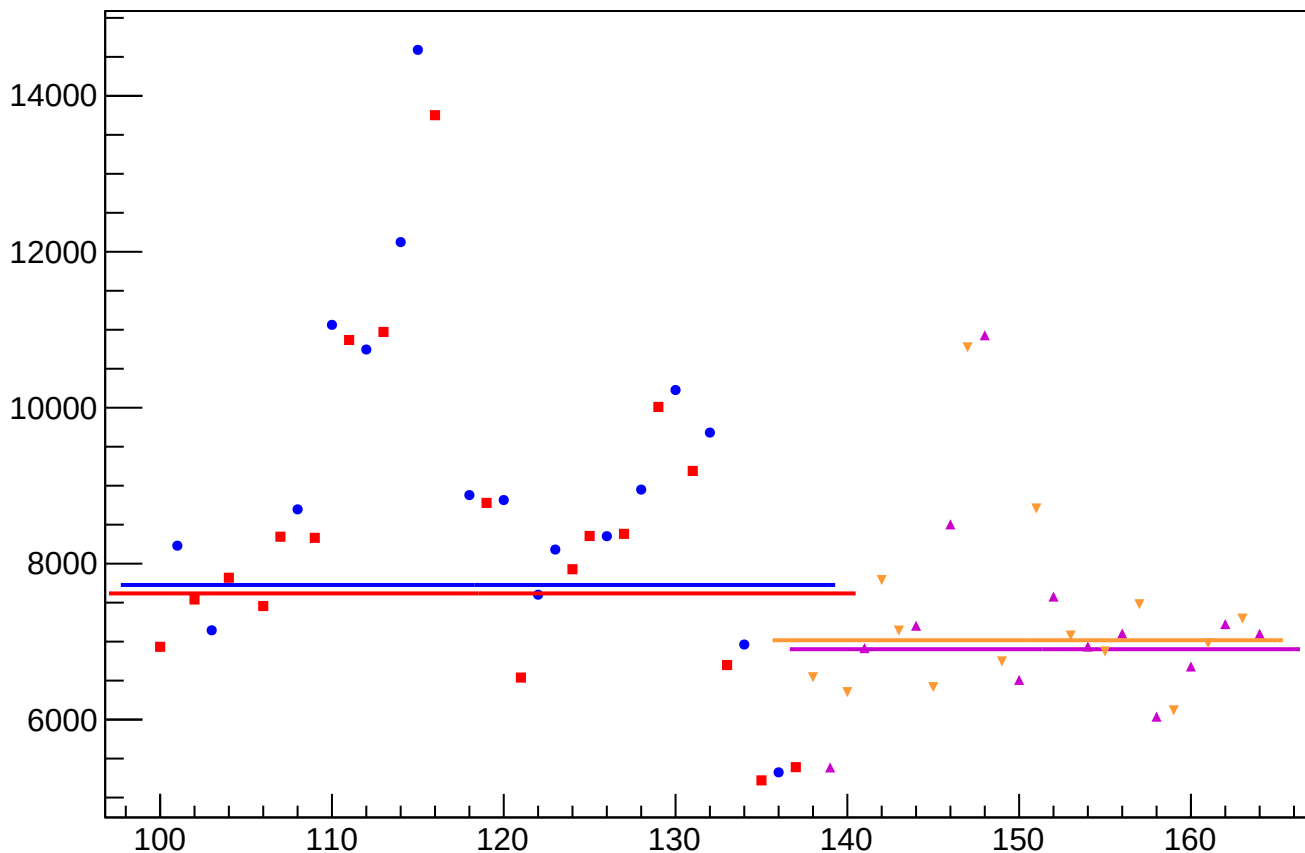
Left In:  $3.431 \pm 2.180$   $\chi^2/\text{NDF}$ : 22.3/12

+ sign  $2.498 \pm 1.783$   $\chi^2/\text{NDF}$ : 30.7/30

All:  $3.242 \pm 1.249$   $\chi^2/\text{NDF}$ : 73.3/62

- sign  $3.959 \pm 1.751$   $\chi^2/\text{NDF}$ : 42.2/31

# diff\_bpm4aY\_rms vs Slug



Right In: 7726.745+/-2.180  $\chi^2/\text{NDF}$ : 742512.8/16

Left Out: 7017.660+/-1.546  $\chi^2/\text{NDF}$ : 336592.8/13

Right Out: 7618.206+/-2.079  $\chi^2/\text{NDF}$ : 675125.4/18

Left In: 6902.615+/-1.542  $\chi^2/\text{NDF}$ : 442702.3/12

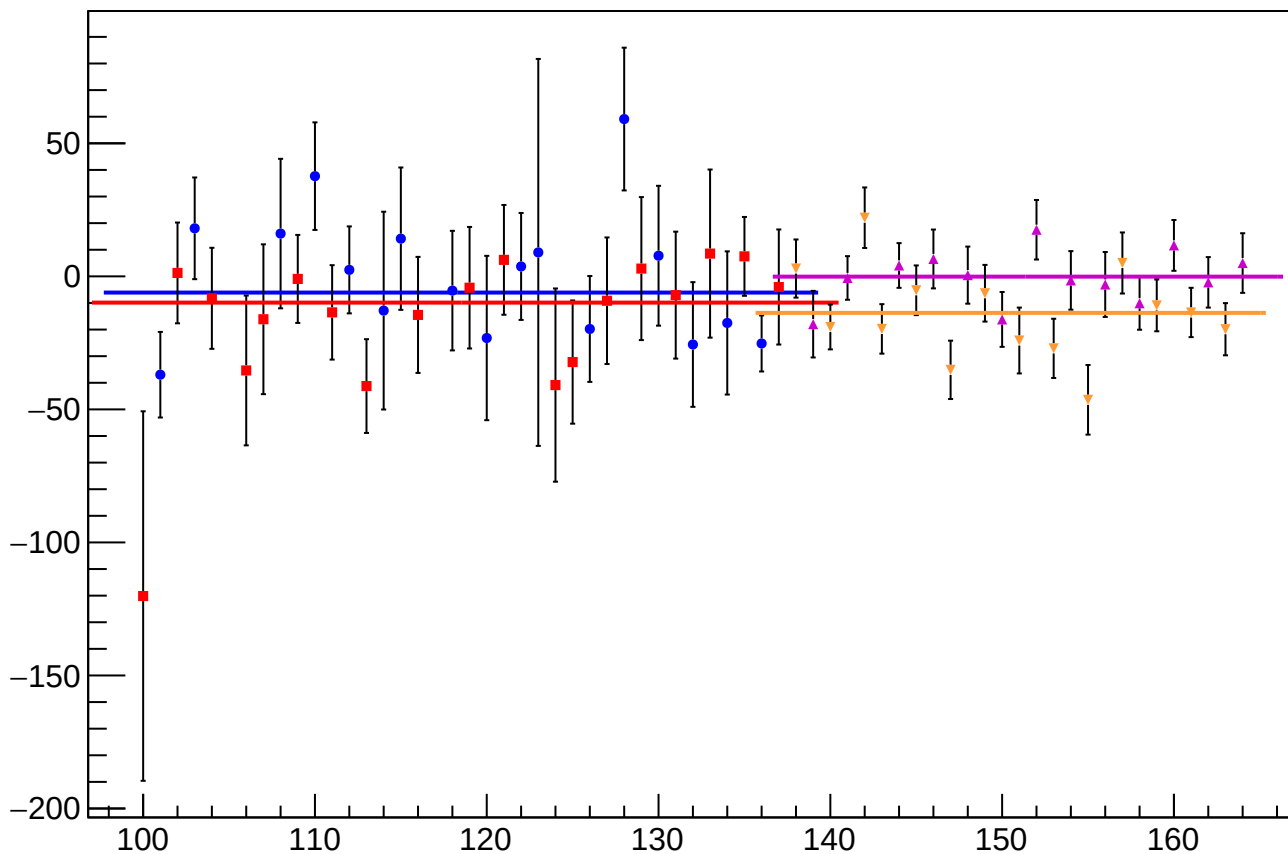
+ sign 7254.825+/-1.261  $\chi^2/\text{NDF}$ : 1149494.8/30

All: 7204.803+/-0.883  $\chi^2/\text{NDF}$ : 2346874.4/62

- sign 7156.567+/-1.238  $\chi^2/\text{NDF}$ : 1194288.5/31



# diff\_bpm4eX\_mean vs Slug



Right In:  $-6.092 \pm 5.034$   $\chi^2/\text{NDF}$ : 22.9/16

Left Out:  $-13.726 \pm 2.763$   $\chi^2/\text{NDF}$ : 29.7/13

Right Out:  $-9.864 \pm 5.004$   $\chi^2/\text{NDF}$ : 11.6/18

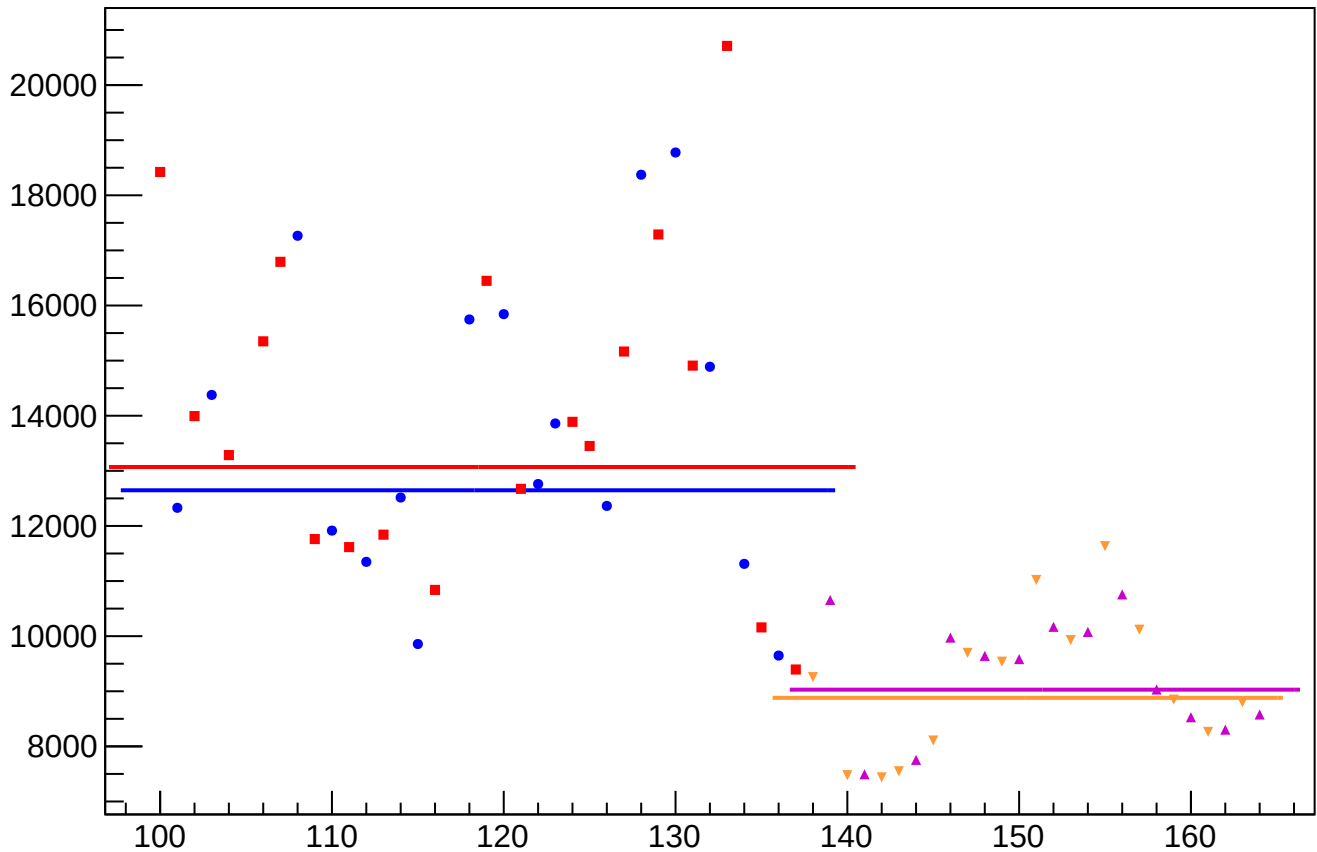
Left In:  $-0.106 \pm 2.831$   $\chi^2/\text{NDF}$ : 10.4/12

+ sign  $-11.959 \pm 2.422$   $\chi^2/\text{NDF}$ : 54.3/30

All:  $-7.296 \pm 1.727$   $\chi^2/\text{NDF}$ : 86.8/62

- sign  $-2.472 \pm 2.464$   $\chi^2/\text{NDF}$ : 25.0/31

# diff\_bpm4eX\_rms vs Slug



Right In: 12647.257+/-3.559  $\chi^2/\text{NDF}$ : 554320.4/16

Left Out: 8880.604+/-1.954  $\chi^2/\text{NDF}$ : 361899.1/13

Right Out: 13069.930+/-3.538  $\chi^2/\text{NDF}$ : 496271.7/18

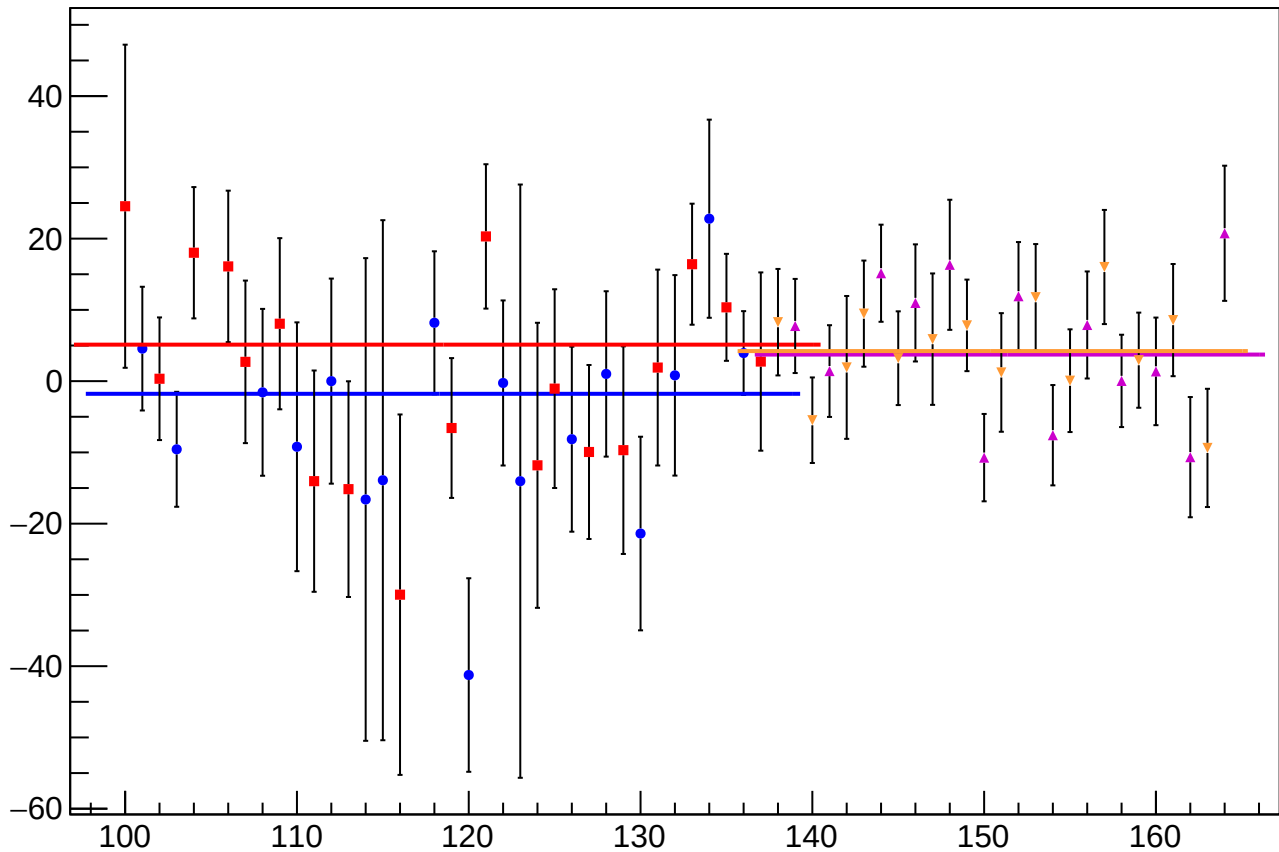
Left In: 9029.202+/-2.002  $\chi^2/\text{NDF}$ : 276437.2/12

+ sign 9752.558+/-1.713  $\chi^2/\text{NDF}$ : 1776847.8/30

All: 9878.526+/-1.221  $\chi^2/\text{NDF}$ : 3548683.4/62

- sign 10008.881+/-1.742  $\chi^2/\text{NDF}$ : 1760826.1/31

# diff\_bpm4eY\_mean vs Slug



Right In:  $-1.777 \pm 2.806$   $\chi^2/\text{NDF}$ : 18.0/16

Left Out:  $4.218 \pm 1.988$   $\chi^2/\text{NDF}$ : 10.5/13

Right Out:  $5.122 \pm 2.642$   $\chi^2/\text{NDF}$ : 18.9/18

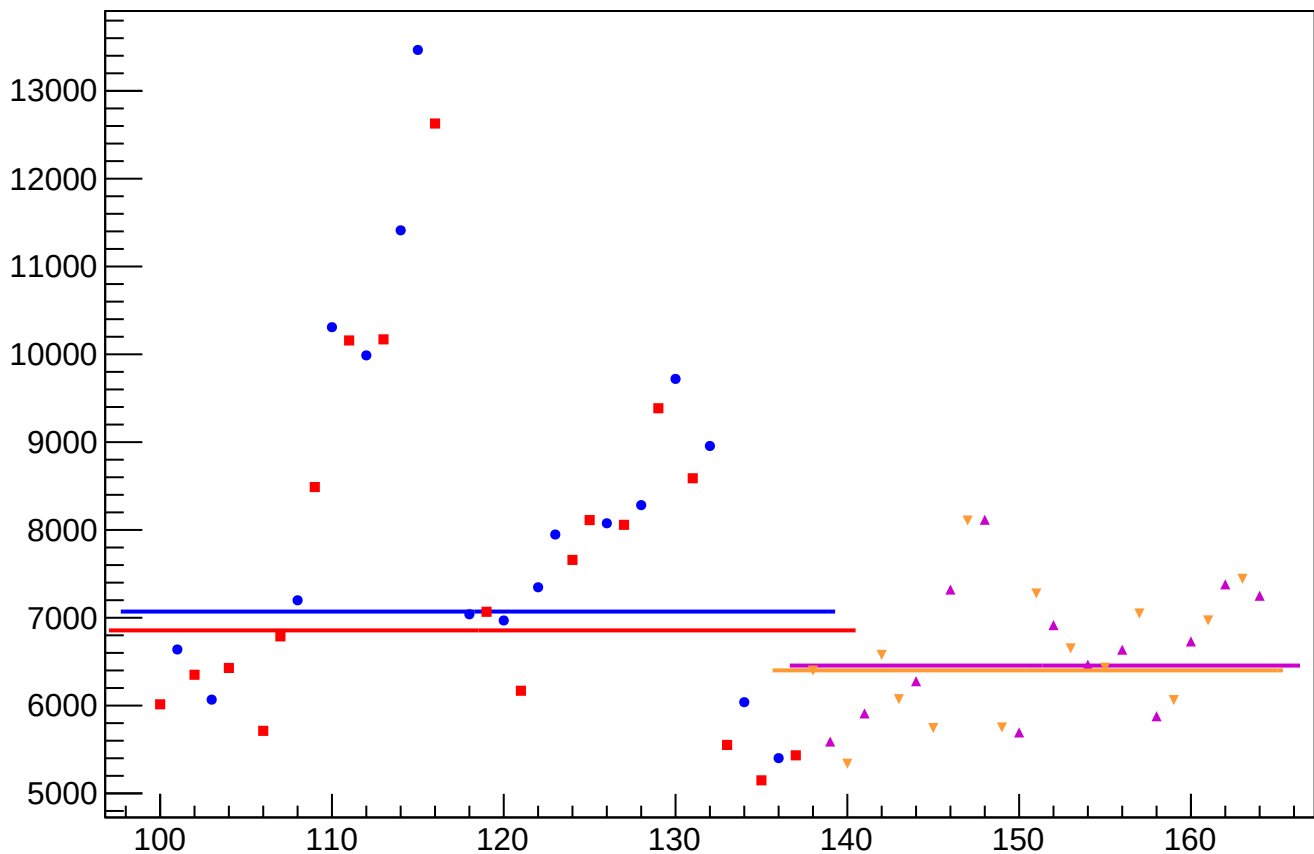
Left In:  $3.730 \pm 2.025$   $\chi^2/\text{NDF}$ : 22.2/12

+ sign  $2.215 \pm 1.622$   $\chi^2/\text{NDF}$ : 31.5/30

All:  $3.239 \pm 1.142$   $\chi^2/\text{NDF}$ : 73.6/62

- sign  $4.245 \pm 1.607$   $\chi^2/\text{NDF}$ : 41.2/31

# diff\_bpm4eY\_rms vs Slug



Right In: 7070.672 $\pm$ 1.984  $\chi^2$ /NDF: 601692.5/16

Left Out: 6400.833 $\pm$ 1.405  $\chi^2$ /NDF: 260848.8/13

Right Out: 6856.136 $\pm$ 1.868  $\chi^2$ /NDF: 682220.3/18

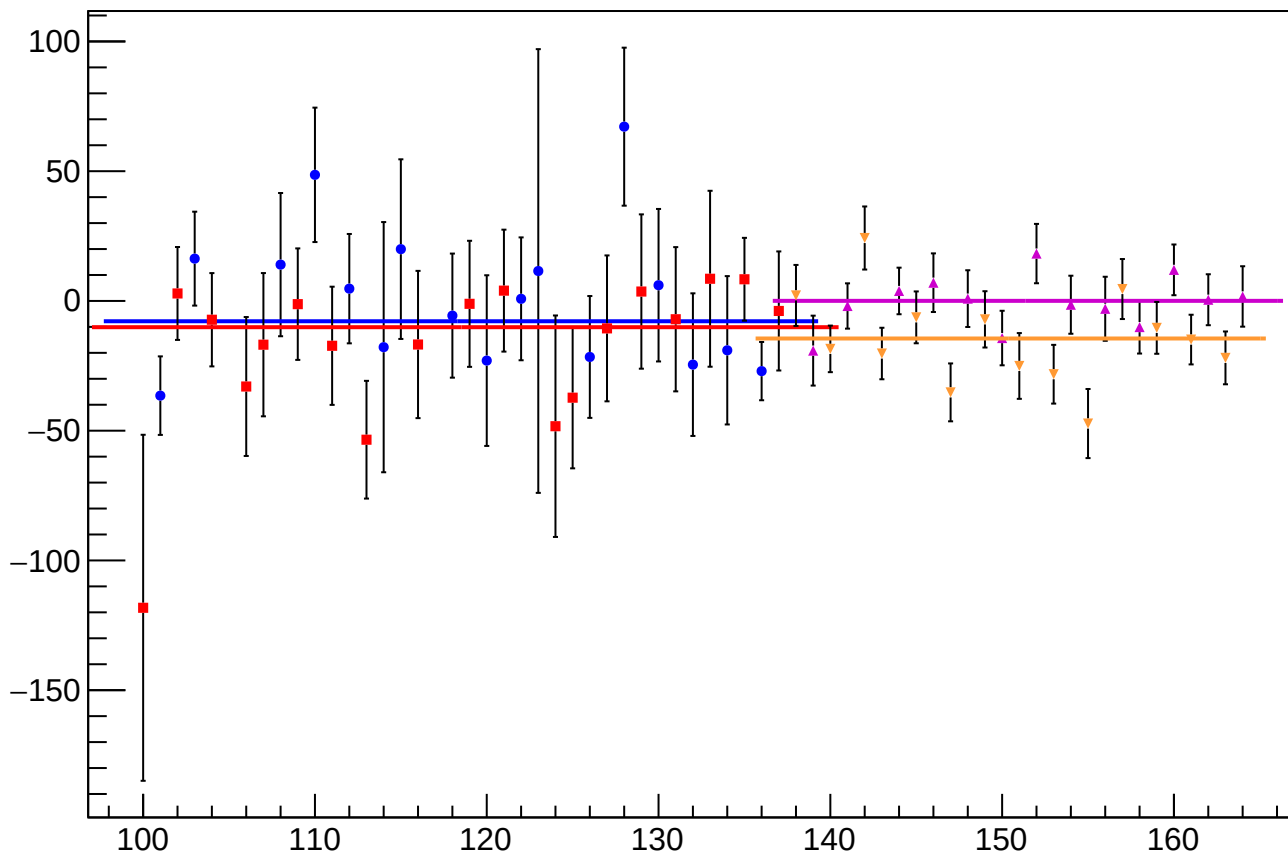
Left In: 6455.518 $\pm$ 1.432  $\chi^2$ /NDF: 234347.7/12

+ sign 6624.632 $\pm$ 1.147  $\chi^2$ /NDF: 938434.2/30

All: 6614.135 $\pm$ 0.807  $\chi^2$ /NDF: 1884133.1/62

- sign 6603.826 $\pm$ 1.137  $\chi^2$ /NDF: 945532.8/31

# diff\_bpm4acX\_mean vs Slug



Right In:  $-7.825 \pm 5.516$   $\chi^2/\text{NDF}$ : 22.3/16

Left Out:  $-14.470 \pm 2.876$   $\chi^2/\text{NDF}$ : 28.9/13

Right Out:  $-10.117 \pm 5.571$   $\chi^2/\text{NDF}$ : 12.2/18

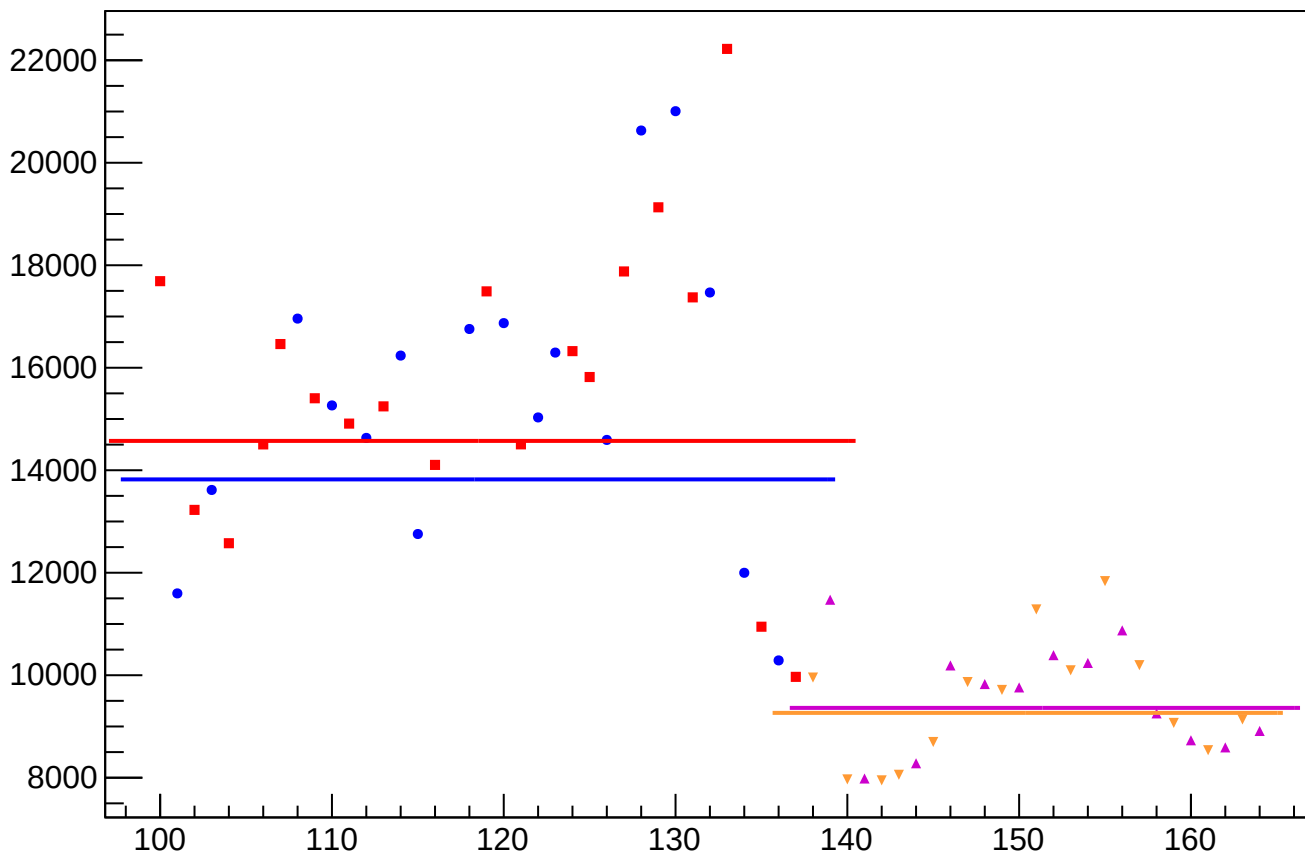
Left In:  $0.035 \pm 2.932$   $\chi^2/\text{NDF}$ : 9.6/12

+ sign  $-13.050 \pm 2.550$   $\chi^2/\text{NDF}$ : 52.4/30

All:  $-7.702 \pm 1.819$   $\chi^2/\text{NDF}$ : 85.7/62

- sign  $-2.166 \pm 2.594$   $\chi^2/\text{NDF}$ : 24.4/31

# diff\_bpm4acX\_rms vs Slug



Right In: 13821.195+/-3.900  $\chi^2/\text{NDF}$ : 602672.4/16

Left Out: 9265.329+/-2.034  $\chi^2/\text{NDF}$ : 279229.9/13

Right Out: 14572.437+/-3.939  $\chi^2/\text{NDF}$ : 472468.2/18

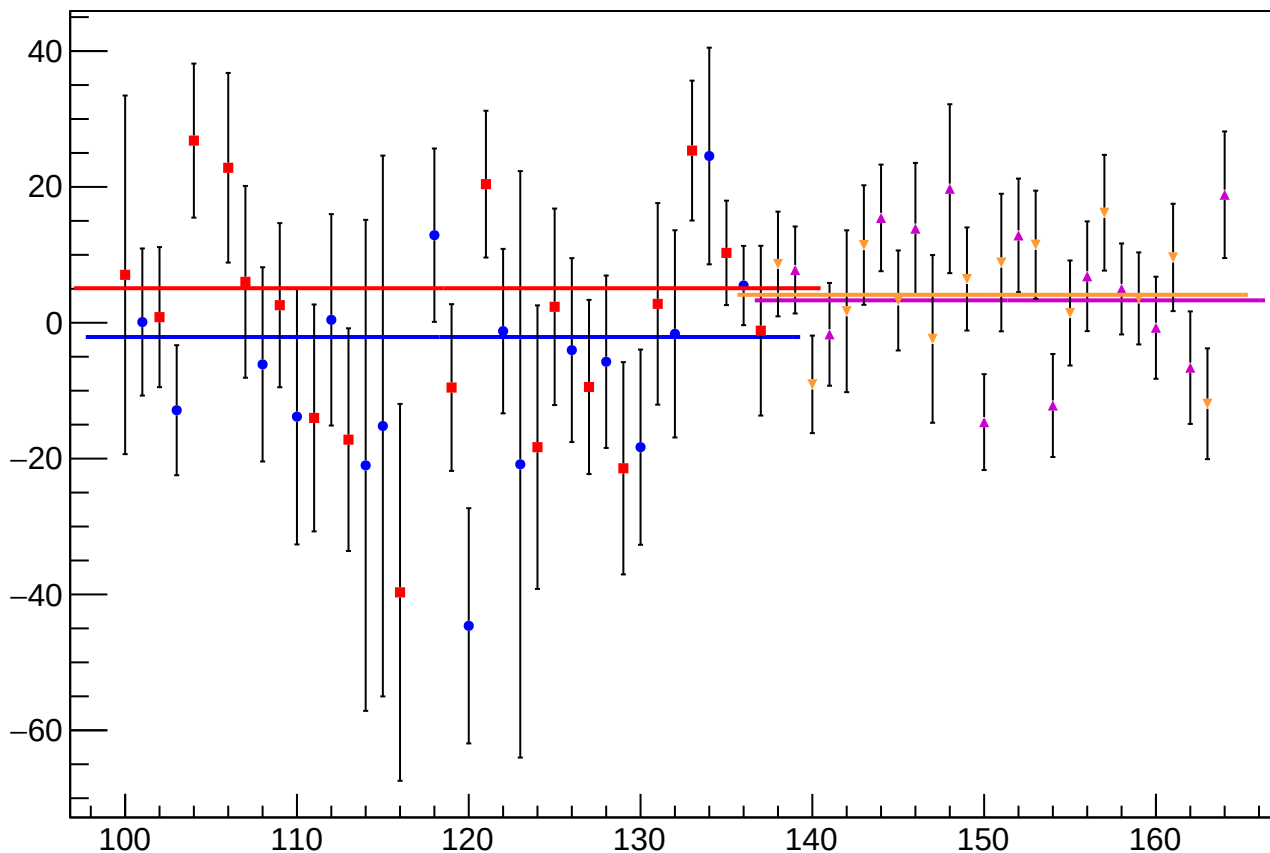
Left In: 9362.696+/-2.073  $\chi^2/\text{NDF}$ : 227604.5/12

+ sign 10239.247+/-1.803  $\chi^2/\text{NDF}$ : 1954681.0/30

All: 10363.712+/-1.286  $\chi^2/\text{NDF}$ : 4034082.0/60

- sign 10492.530+/-1.835  $\chi^2/\text{NDF}$ : 2069706.7/31

# diff\_bpm4acY\_mean vs Slug



Right In:  $-2.098 \pm 3.106$   $\chi^2/\text{NDF}$ : 15.6/16

Left Out:  $4.117 \pm 2.196$   $\chi^2/\text{NDF}$ : 12.4/13

Right Out:  $5.085 \pm 2.962$   $\chi^2/\text{NDF}$ : 24.8/18

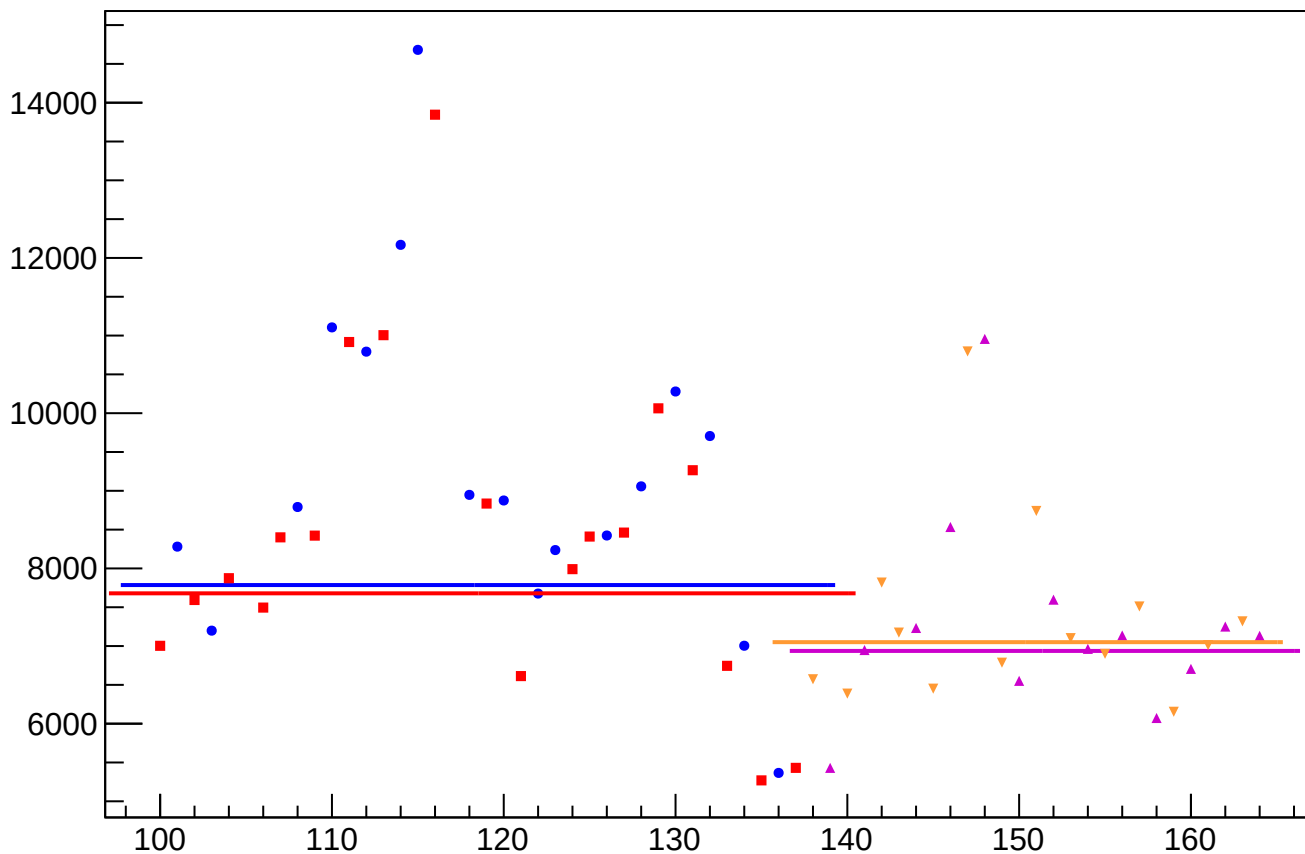
Left In:  $3.300 \pm 2.191$   $\chi^2/\text{NDF}$ : 22.9/12

+ sign  $2.047 \pm 1.793$   $\chi^2/\text{NDF}$ : 30.7/30

All:  $3.006 \pm 1.256$   $\chi^2/\text{NDF}$ : 79.2/62

- sign  $3.931 \pm 1.761$   $\chi^2/\text{NDF}$ : 47.9/31

diff\_bpm4acY\_rms vs Slug



Right In: 7785.931 $\pm$ 2.197  $\chi^2$ /NDF: 738101.9/16

Left Out: 7050.223 $\pm$ 1.553  $\chi^2$ /NDF: 332807.2/13

Right Out: 7679.182 $\pm$ 2.095  $\chi^2$ /NDF: 668736.8/18

Left In: 6937.182 $\pm$ 1.549  $\chi^2$ /NDF: 435465.5/12

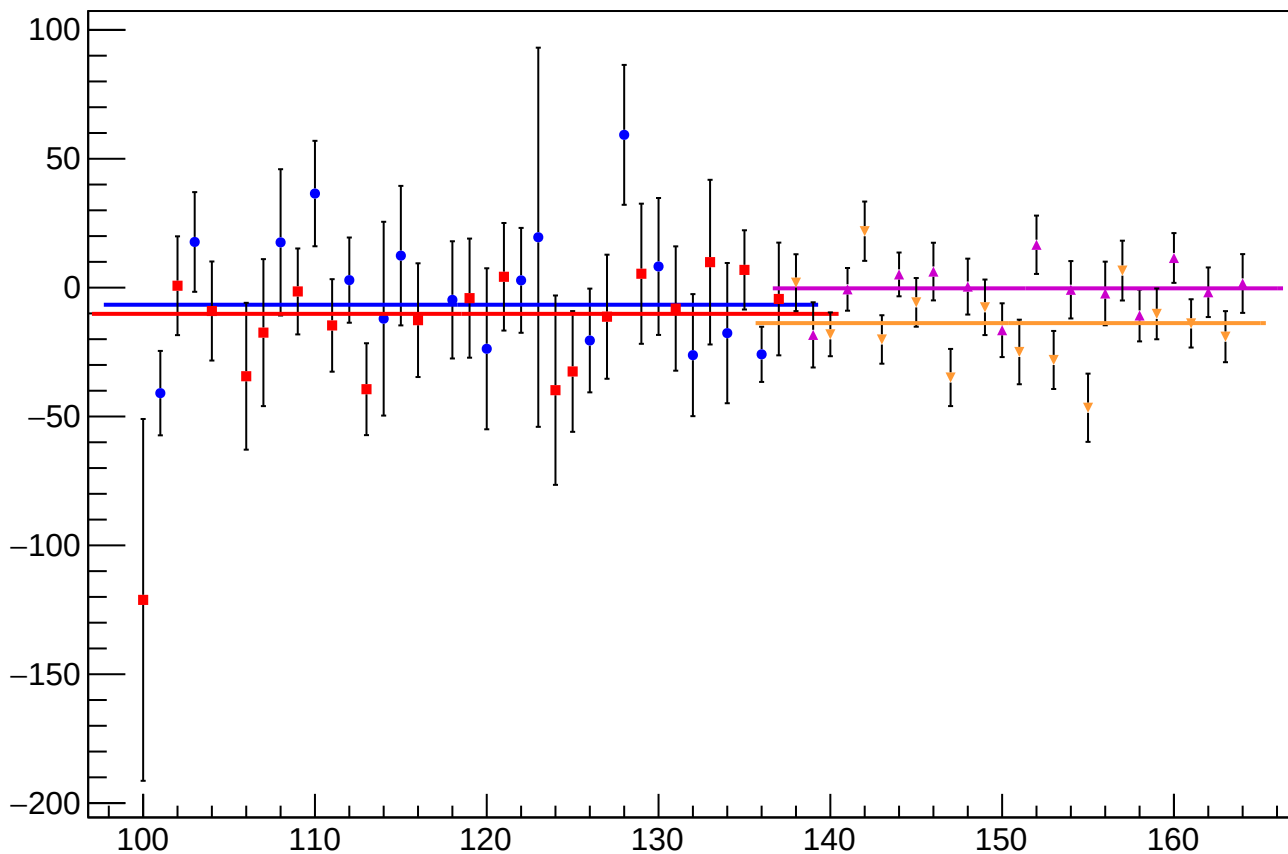
+ sign 7295.314 $\pm$ 1.268  $\chi^2$ /NDF: 1145716.2/30

All: 7246.554 $\pm$ 0.888  $\chi^2$ /NDF: 2333949.7/62

- sign 7199.504 $\pm$ 1.245  $\chi^2$ /NDF: 1185327.2/31



# diff\_bpm4ecX\_mean vs Slug



Right In:  $-6.634 \pm 5.101$   $\chi^2/\text{NDF}$ : 23.4/16

Left Out:  $-13.765 \pm 2.793$   $\chi^2/\text{NDF}$ : 29.1/13

Right Out:  $-10.172 \pm 5.075$   $\chi^2/\text{NDF}$ : 10.8/18

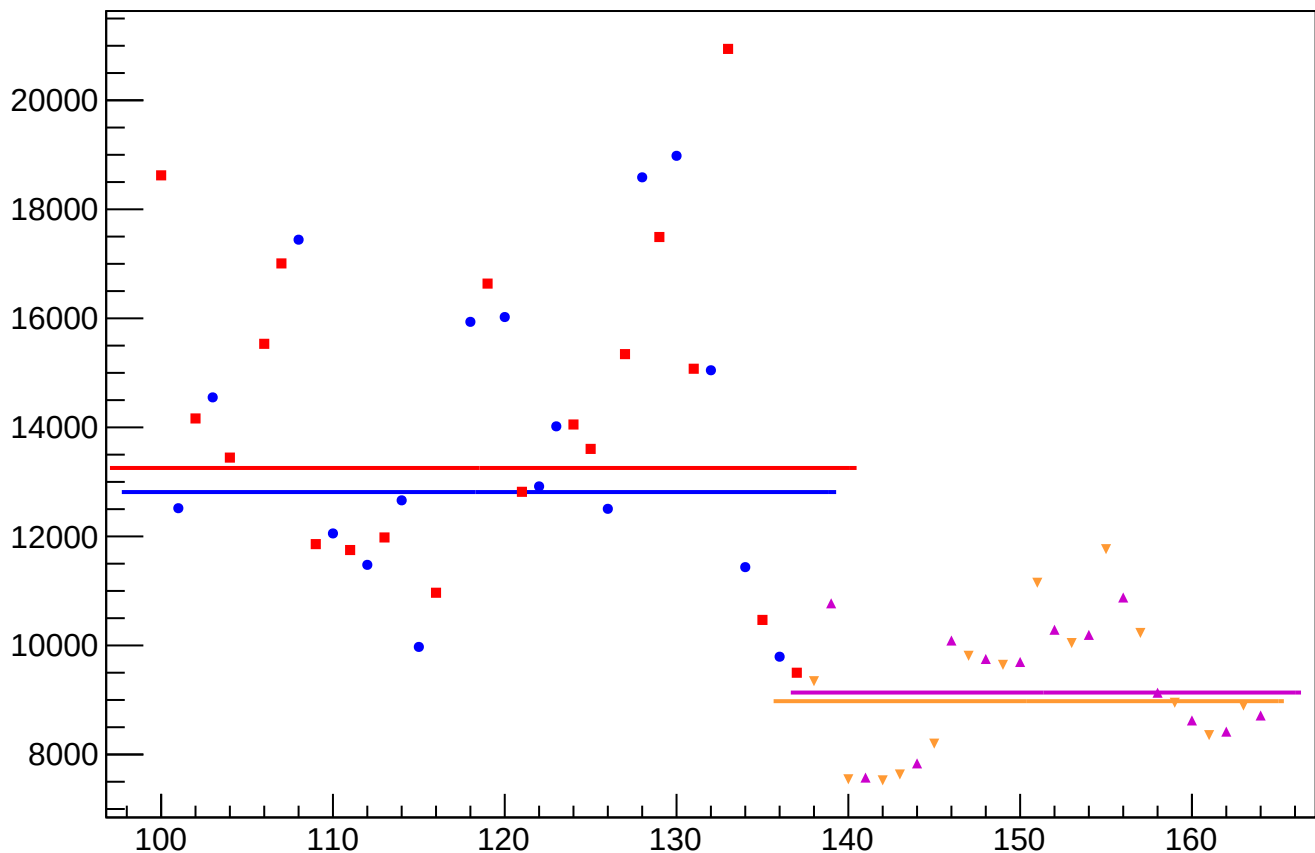
Left In:  $-0.274 \pm 2.864$   $\chi^2/\text{NDF}$ : 10.1/12

+ sign  $-12.121 \pm 2.450$   $\chi^2/\text{NDF}$ : 54.0/30

All:  $-7.479 \pm 1.748$   $\chi^2/\text{NDF}$ : 85.1/62

- sign  $-2.666 \pm 2.495$   $\chi^2/\text{NDF}$ : 23.8/31

# diff\_bpm4ecX\_rms vs Slug



Right In: 12813.726+/-3.607  $\chi^2/\text{NDF}$ : 548127.6/16

Left Out: 8977.832+/-1.975  $\chi^2/\text{NDF}$ : 363460.0/13

Right Out: 13255.535+/-3.588  $\chi^2/\text{NDF}$ : 484287.4/18

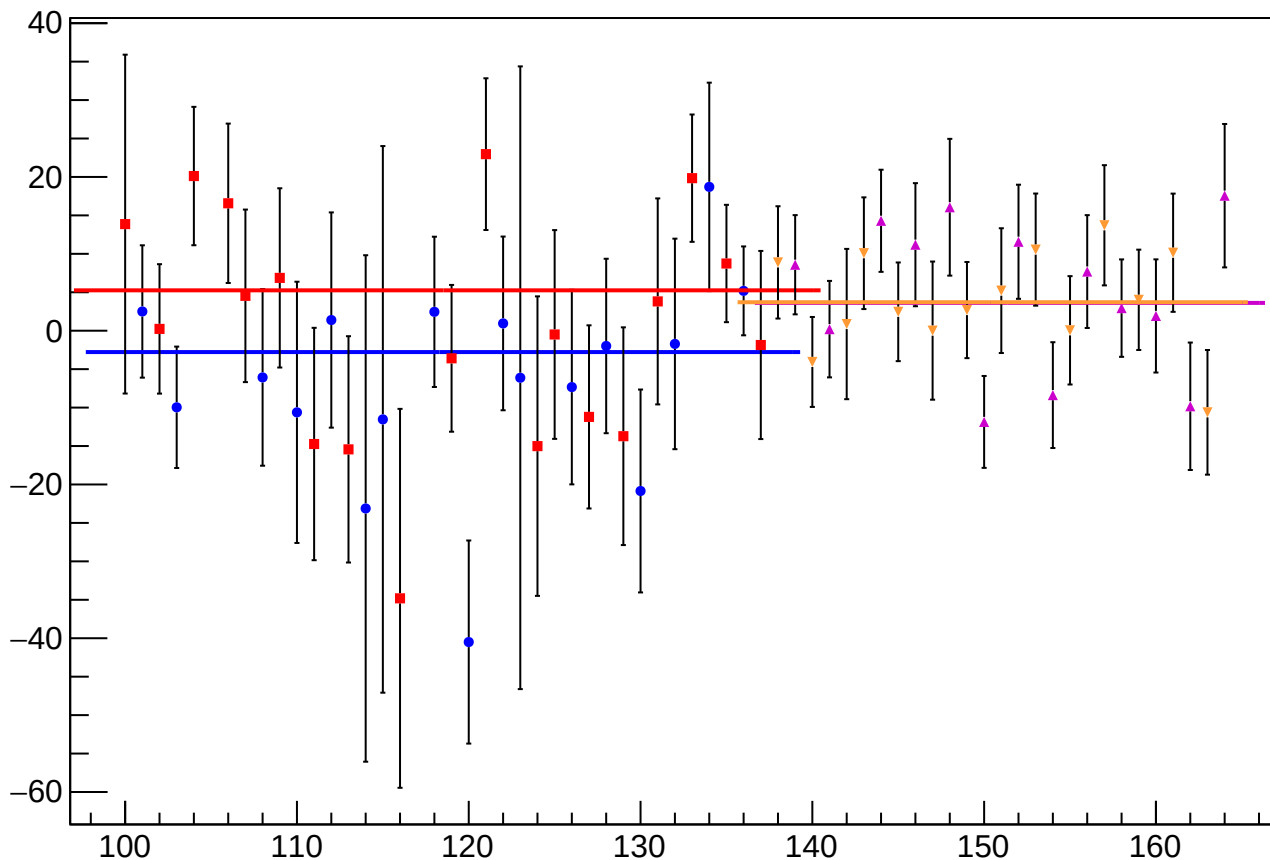
Left In: 9136.075+/-2.025  $\chi^2/\text{NDF}$ : 276069.1/12

+ sign 9862.518+/-1.732  $\chi^2/\text{NDF}$ : 1781607.9/30

All: 9994.546+/-1.236  $\chi^2/\text{NDF}$ : 3553245.9/62

- sign 10131.428+/-1.764  $\chi^2/\text{NDF}$ : 1759807.2/31

# diff\_bpm4ecY\_mean vs Slug



Right In:  $-2.778 \pm 2.747$   $\chi^2/\text{NDF}$ : 17.0/16

Left Out:  $3.703 \pm 1.940$   $\chi^2/\text{NDF}$ : 10.0/13

Right Out:  $5.252 \pm 2.590$   $\chi^2/\text{NDF}$ : 23.5/18

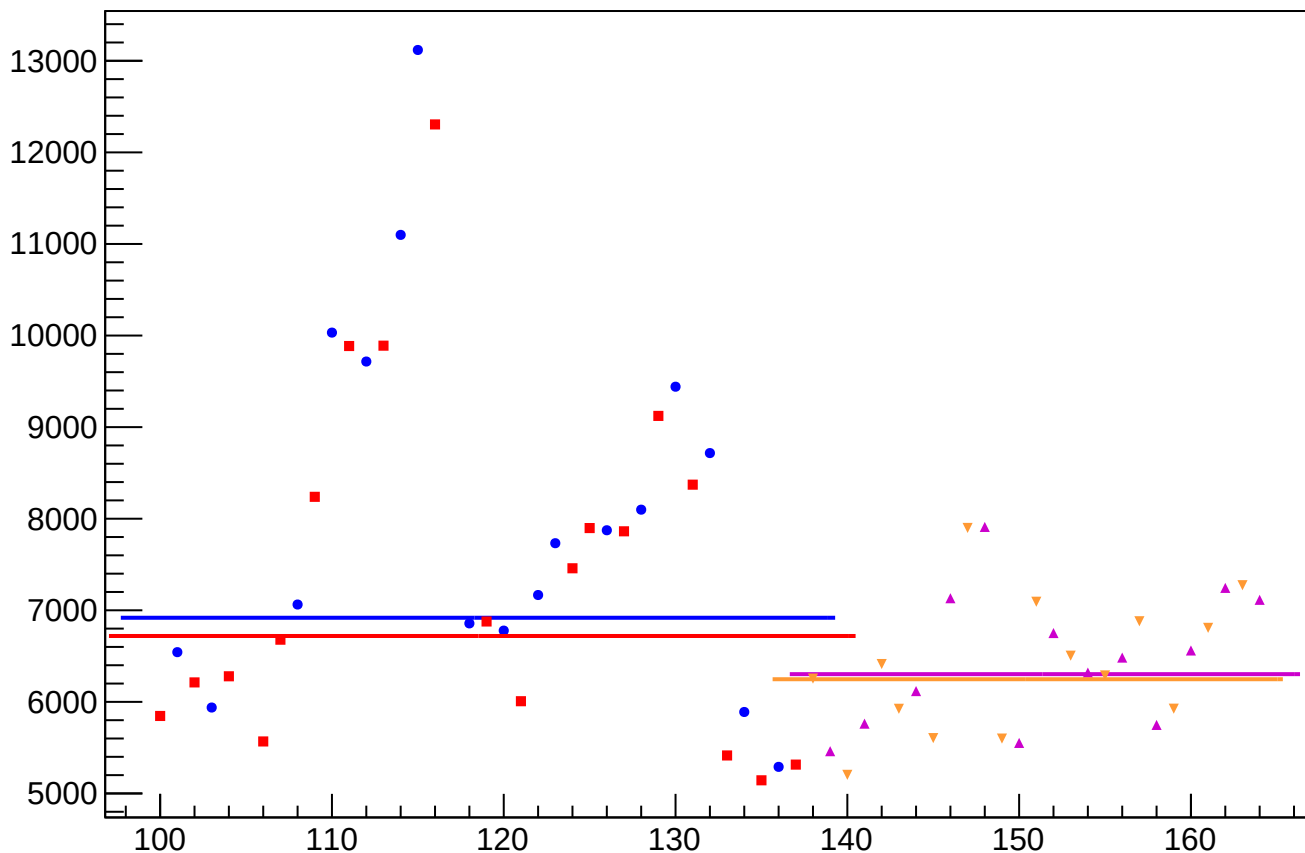
Left In:  $3.616 \pm 1.978$   $\chi^2/\text{NDF}$ : 22.5/12

+ sign  $1.546 \pm 1.585$   $\chi^2/\text{NDF}$ : 30.7/30

All:  $2.893 \pm 1.116$   $\chi^2/\text{NDF}$ : 78.4/62

- sign  $4.219 \pm 1.572$   $\chi^2/\text{NDF}$ : 46.2/31

# diff\_bpm4ecY\_rms vs Slug



Right In: 6918.554+/-1.943  $\chi^2/\text{NDF}$ : 587976.6/16

Left Out: 6247.211+/-1.372  $\chi^2/\text{NDF}$ : 262353.9/13

Right Out: 6719.404+/-1.831  $\chi^2/\text{NDF}$ : 653831.7/18

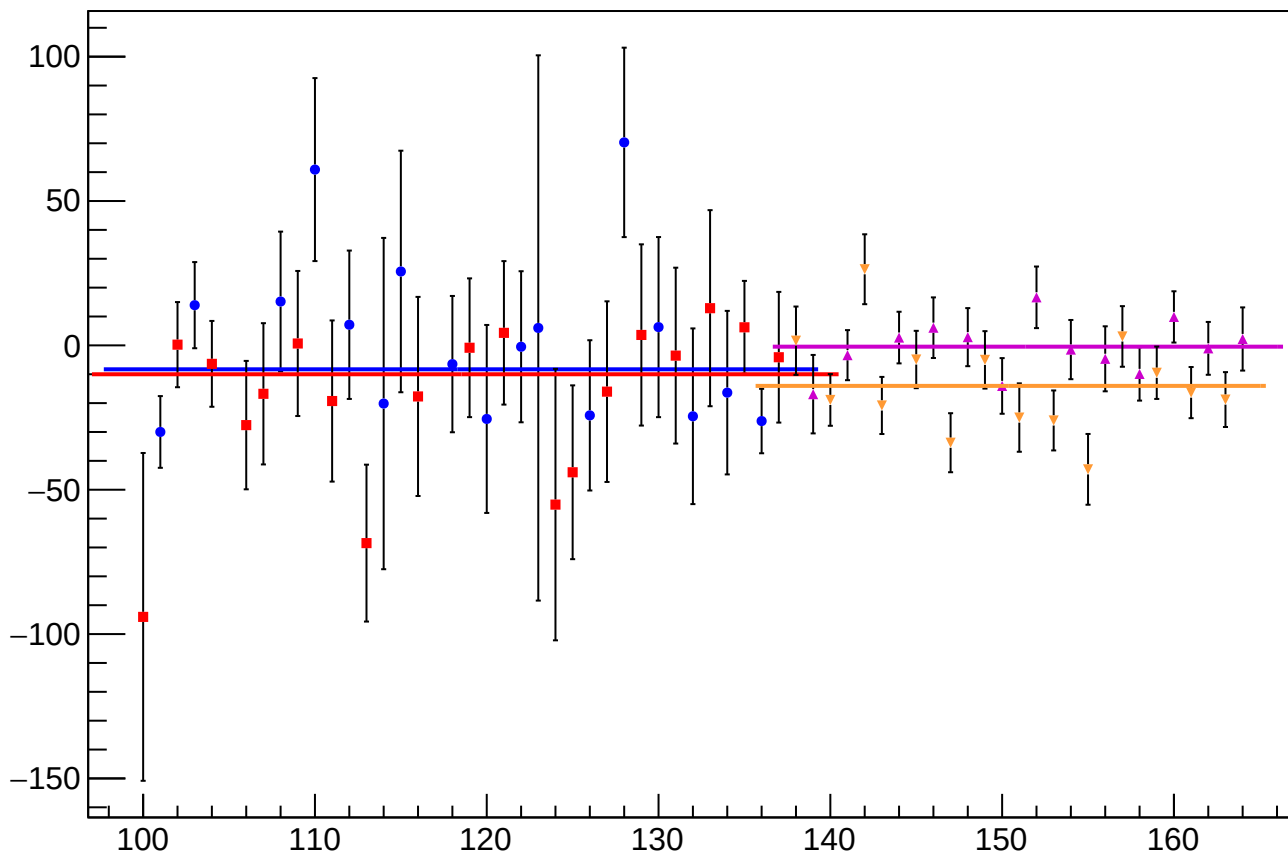
Left In: 6302.730+/-1.399  $\chi^2/\text{NDF}$ : 235999.2/12

+ sign 6470.598+/-1.121  $\chi^2/\text{NDF}$ : 930029.1/30

All: 6463.369+/-0.789  $\chi^2/\text{NDF}$ : 1852642.9/62

- sign 6456.257+/-1.112  $\chi^2/\text{NDF}$ : 922531.1/31

# diff\_bpm1X\_mean vs Slug



Right In:  $-8.286 \pm 5.410$   $\chi^2/\text{NDF}$ : 21.7/16

Left Out:  $-14.033 \pm 2.726$   $\chi^2/\text{NDF}$ : 30.0/13

Right Out:  $-10.007 \pm 5.513$   $\chi^2/\text{NDF}$ : 12.9/18

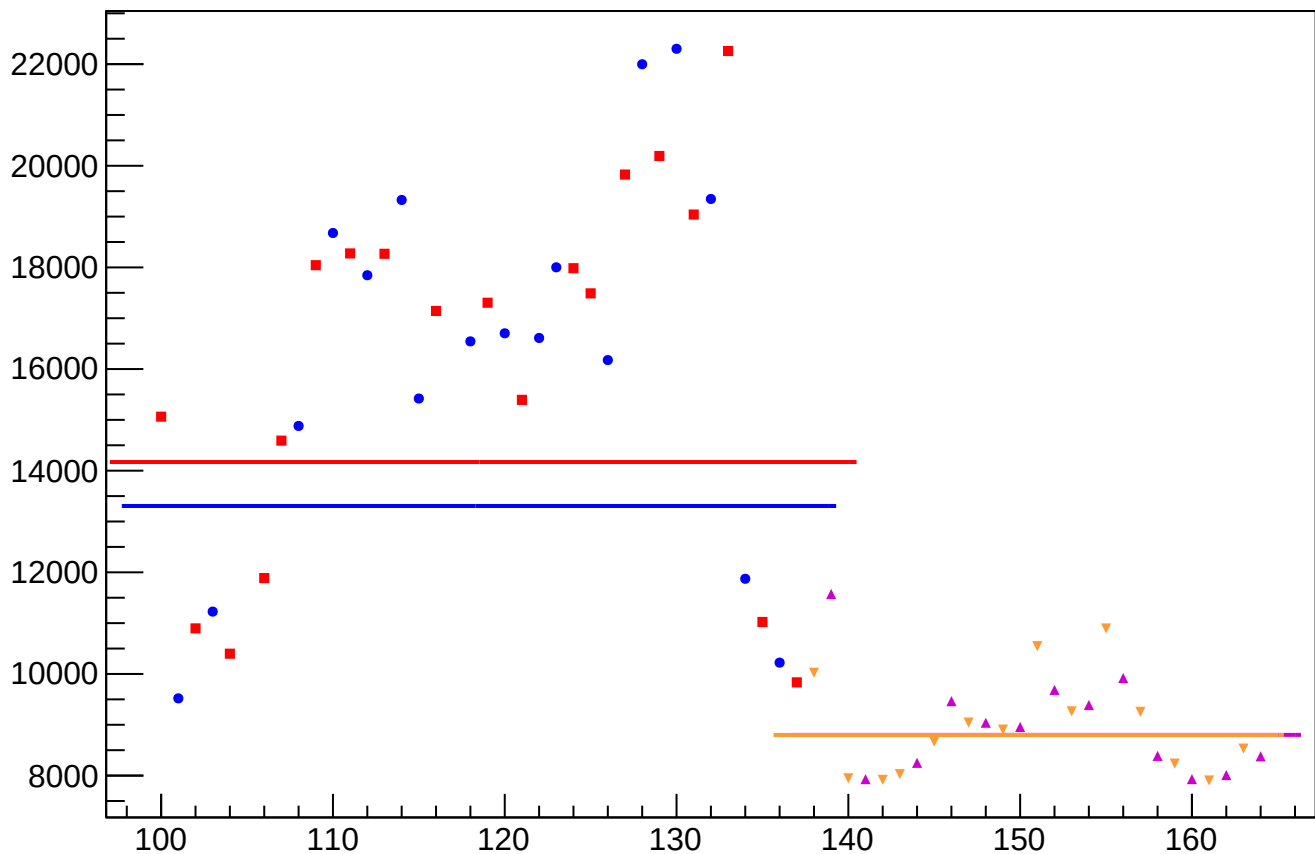
Left In:  $-0.449 \pm 2.755$   $\chi^2/\text{NDF}$ : 9.4/12

+ sign  $-12.870 \pm 2.434$   $\chi^2/\text{NDF}$ : 52.6/30

All:  $-7.678 \pm 1.732$   $\chi^2/\text{NDF}$ : 86.5/62

- sign  $-2.358 \pm 2.464$   $\chi^2/\text{NDF}$ : 24.7/31

# diff\_bpm1X\_rms vs Slug



Right In: 13305.410+/-3.826  $\chi^2/\text{NDF}$ : 1044091.1/16

Left Out: 8798.665+/-1.927  $\chi^2/\text{NDF}$ : 203569.6/13

Right Out: 14170.668+/-3.898  $\chi^2/\text{NDF}$ : 930612.1/18

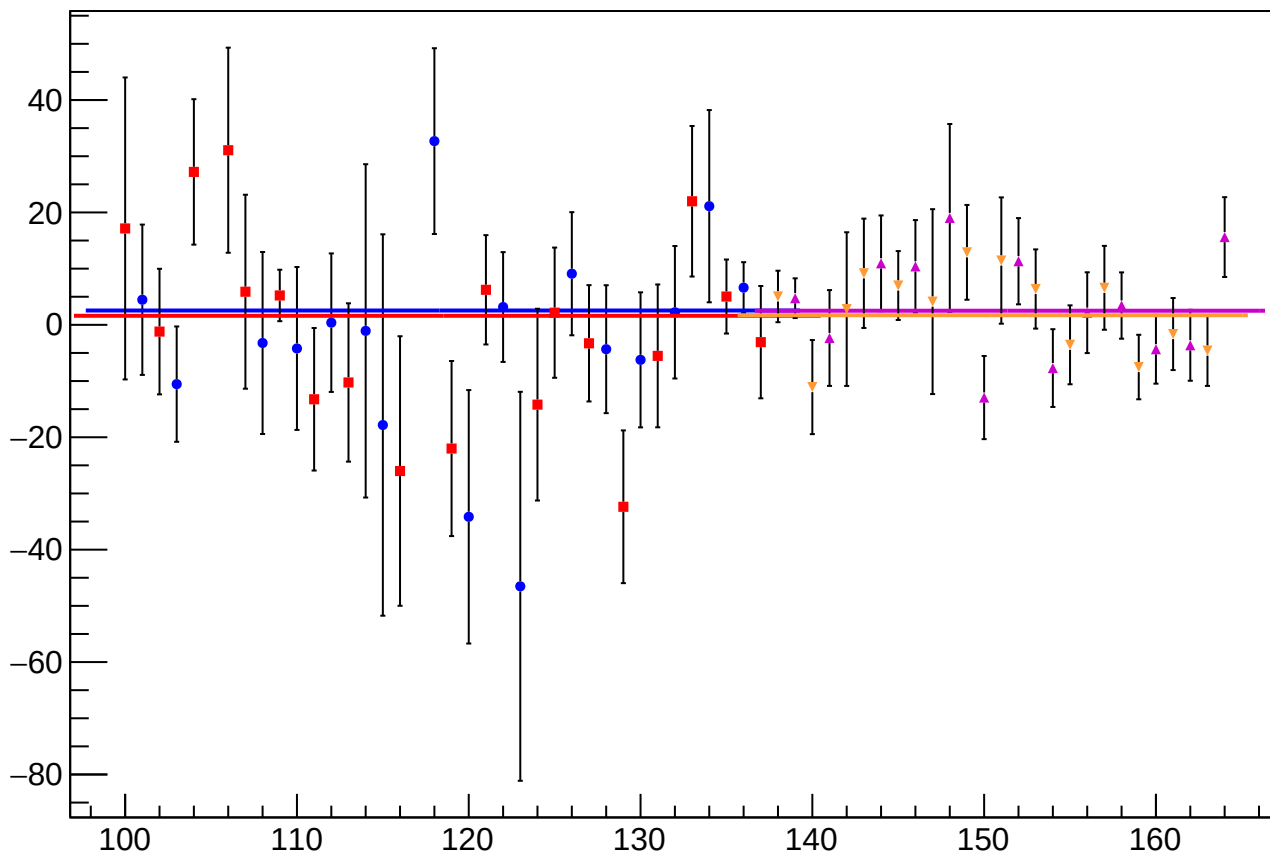
Left In: 8800.979+/-1.948  $\chi^2/\text{NDF}$ : 201790.7/12

+ sign 9711.118+/-1.721  $\chi^2/\text{NDF}$ : 2354513.3/30

All: 9791.404+/-1.225  $\chi^2/\text{NDF}$ : 5009609.6/62

- sign 9873.665+/-1.742  $\chi^2/\text{NDF}$ : 2650691.8/31

# diff\_bpm1Y\_mean vs Slug



Right In: 2.551 $\pm$ 2.757  $\chi^2$ /NDF: 13.6/16

Left Out: 1.710 $\pm$ 1.930  $\chi^2$ /NDF:12.0/13

Right Out: 1.613 $\pm$ 2.442  $\chi^2$ /NDF: 24.0/18

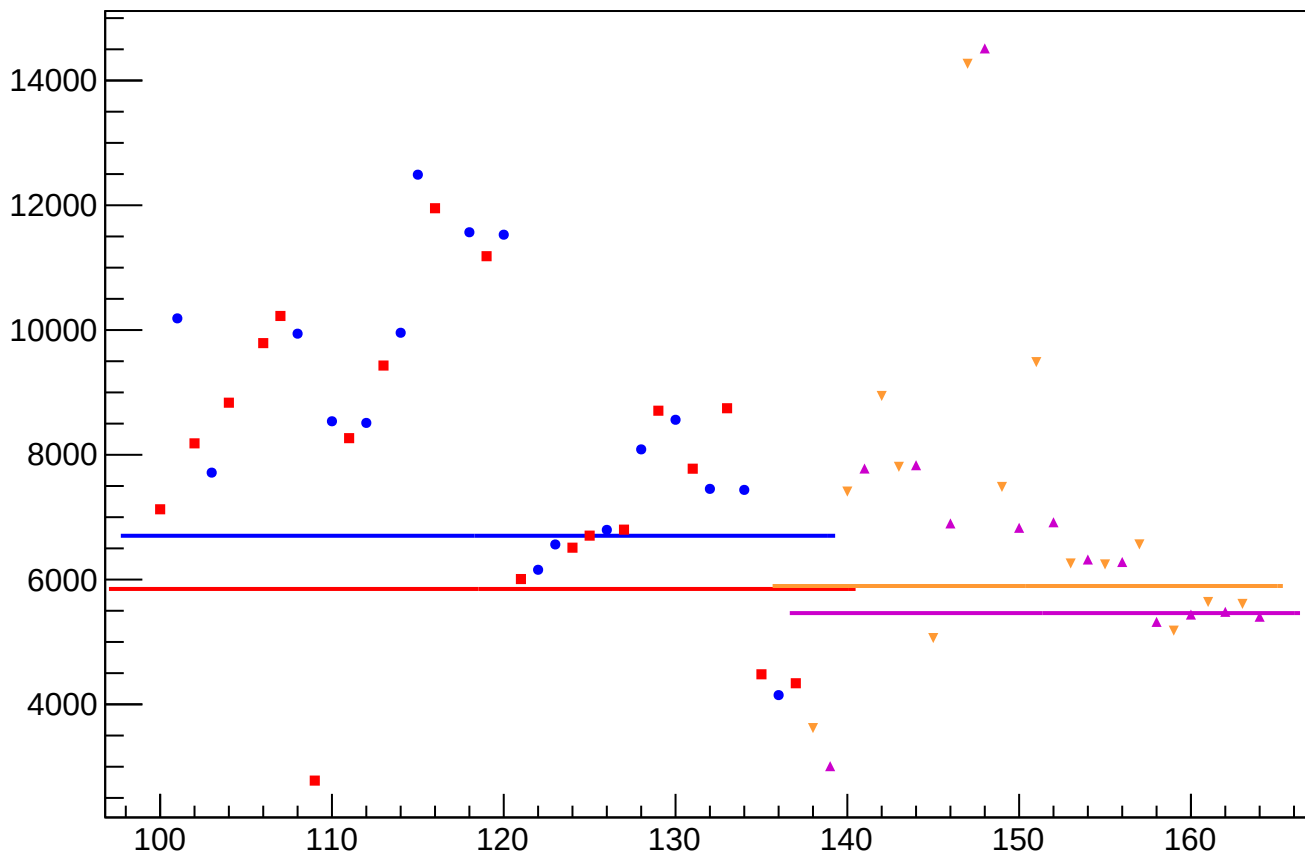
Left In: 2.513 $\pm$ 1.820  $\chi^2$ /NDF:17.1/12

+ sign 1.986 $\pm$ 1.581  $\chi^2$ /NDF: 25.7/30

All: 2.097 $\pm$ 1.072  $\chi^2$ /NDF: 66.9/62

- sign 2.191 $\pm$ 1.460  $\chi^2$ /NDF: 41.2/31

# diff\_bpm1Y\_rms vs Slug



Right In: 6702.245+/-1.949  $\chi^2/\text{NDF}$ : 1389956.8/16

Left Out: 5897.018+/-1.364  $\chi^2/\text{NDF}$ : 1631206.2/13

Right Out: 5849.606+/-1.727  $\chi^2/\text{NDF}$ : 2278464.5/18

Left In: 5462.729+/-1.287  $\chi^2/\text{NDF}$ : 2113109.7/12

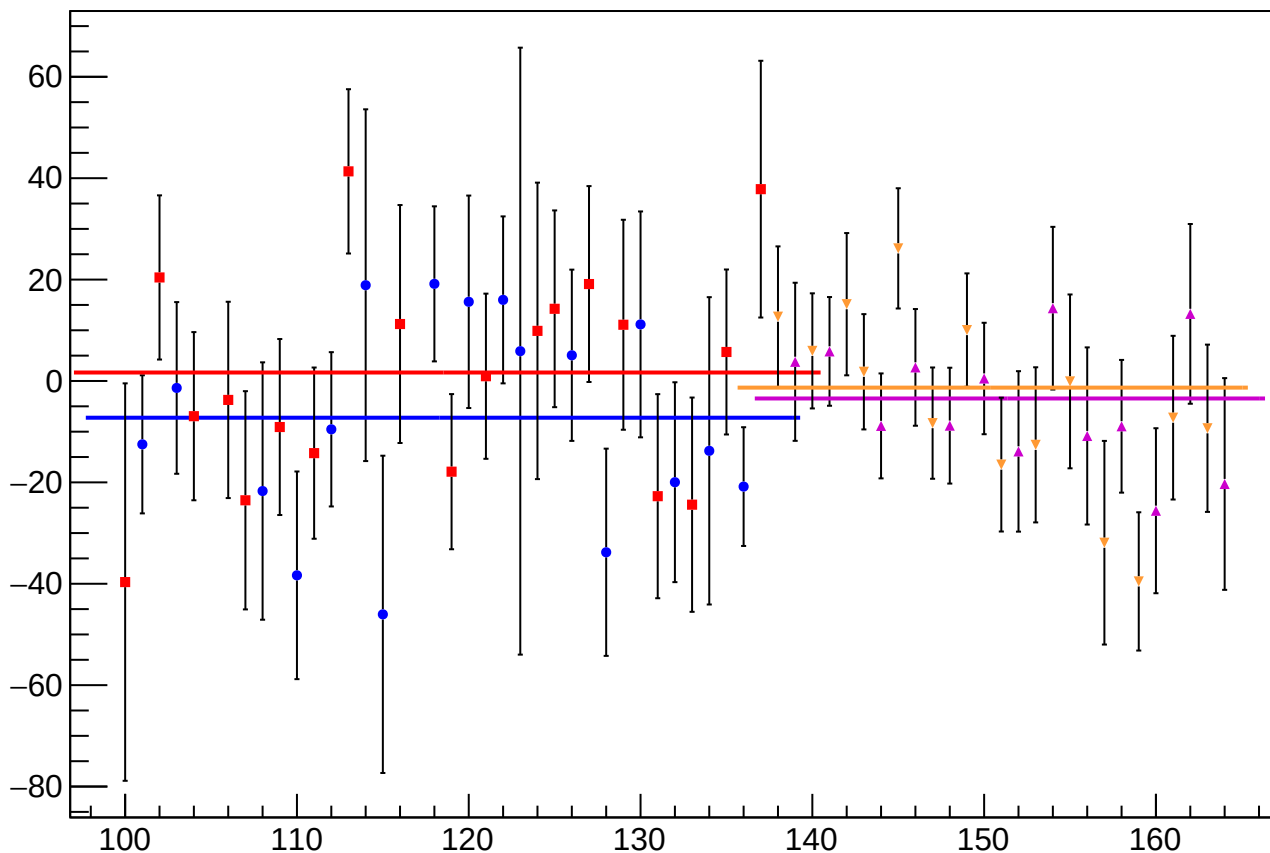
+ sign 6161.783+/-1.118  $\chi^2/\text{NDF}$ : 3135689.2/30

All: 5859.023+/-0.758  $\chi^2/\text{NDF}$ : 7695431.9/62

- sign 5600.907+/-1.032  $\chi^2/\text{NDF}$ : 4423835.1/31



# diff\_bpm11X\_mean vs Slug



Right In:  $-7.245 \pm 4.547$   $\chi^2/\text{NDF}$ : 15.9/16

Left Out:  $-1.310 \pm 3.581$   $\chi^2/\text{NDF}$ : 22.1/13

Right Out:  $1.671 \pm 4.373$   $\chi^2/\text{NDF}$ : 19.9/18

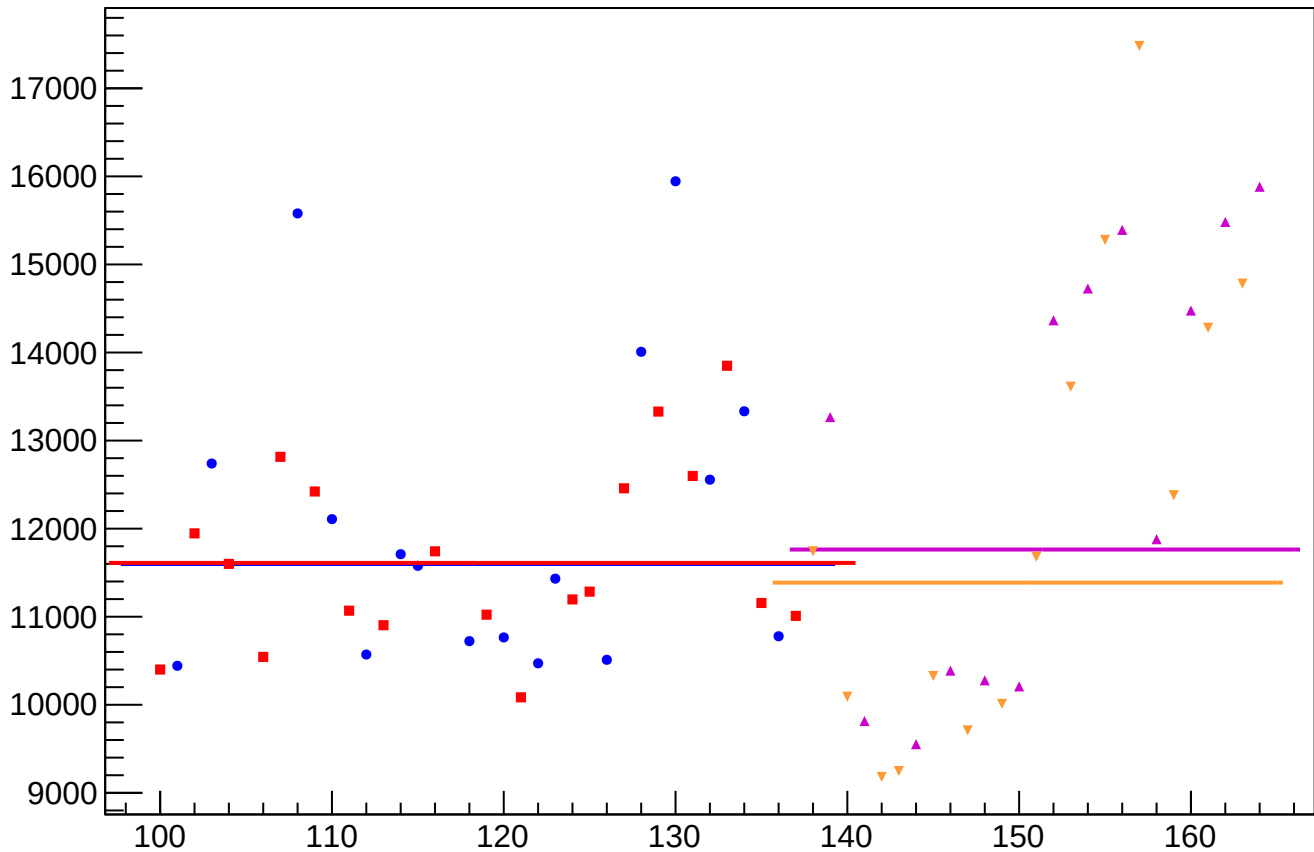
Left In:  $-3.452 \pm 3.730$   $\chi^2/\text{NDF}$ : 7.3/12

+ sign  $-3.583 \pm 2.814$   $\chi^2/\text{NDF}$ : 39.1/30

All:  $-2.448 \pm 1.998$   $\chi^2/\text{NDF}$ : 67.4/62

- sign  $-1.294 \pm 2.838$   $\chi^2/\text{NDF}$ : 27.9/31

# diff\_bpm11X\_rms vs Slug



Right In: 11598.751 $\pm$ 3.215  $\chi^2$ /NDF: 235423.8/16

Left Out: 11387.407 $\pm$ 2.532  $\chi^2$ /NDF: 730597.1/13

Right Out: 11610.941 $\pm$ 3.092  $\chi^2$ /NDF: 94447.0/18

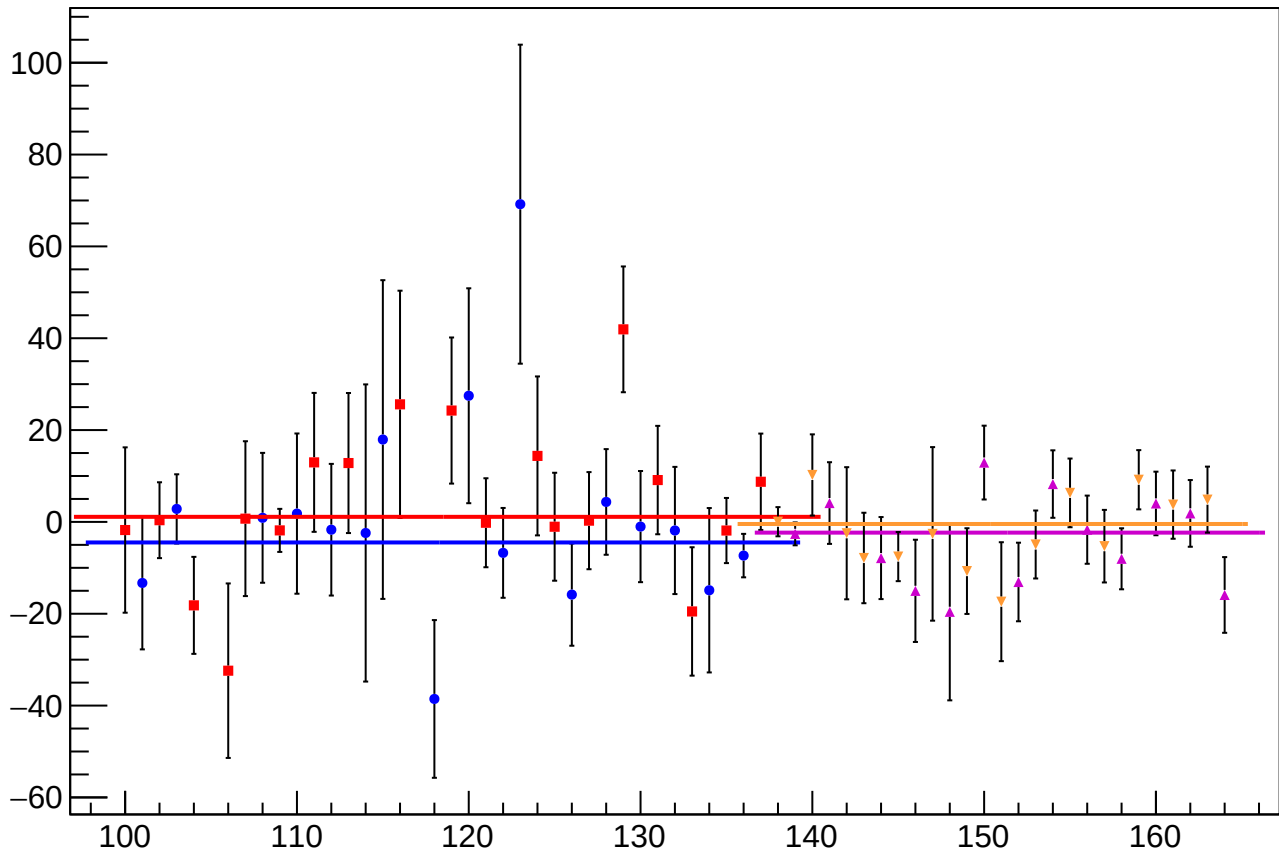
Left In: 11762.887 $\pm$ 2.638  $\chi^2$ /NDF: 708365.7/12

+ sign 11468.327 $\pm$ 1.989  $\chi^2$ /NDF: 968687.4/30

All: 11582.613 $\pm$ 1.413  $\chi^2$ /NDF: 1779555.5/6

- sign 11698.894 $\pm$ 2.007  $\chi^2$ /NDF: 804210.4/31

# diff\_bpm11Y\_mean vs Slug



Right In:  $-4.476 \pm 2.782$   $\chi^2/\text{NDF}$ : 14.8/16

Left Out:  $-0.454 \pm 1.839$   $\chi^2/\text{NDF}$ : 11.4/13

Right Out:  $1.105 \pm 2.429$   $\chi^2/\text{NDF}$ : 24.0/18

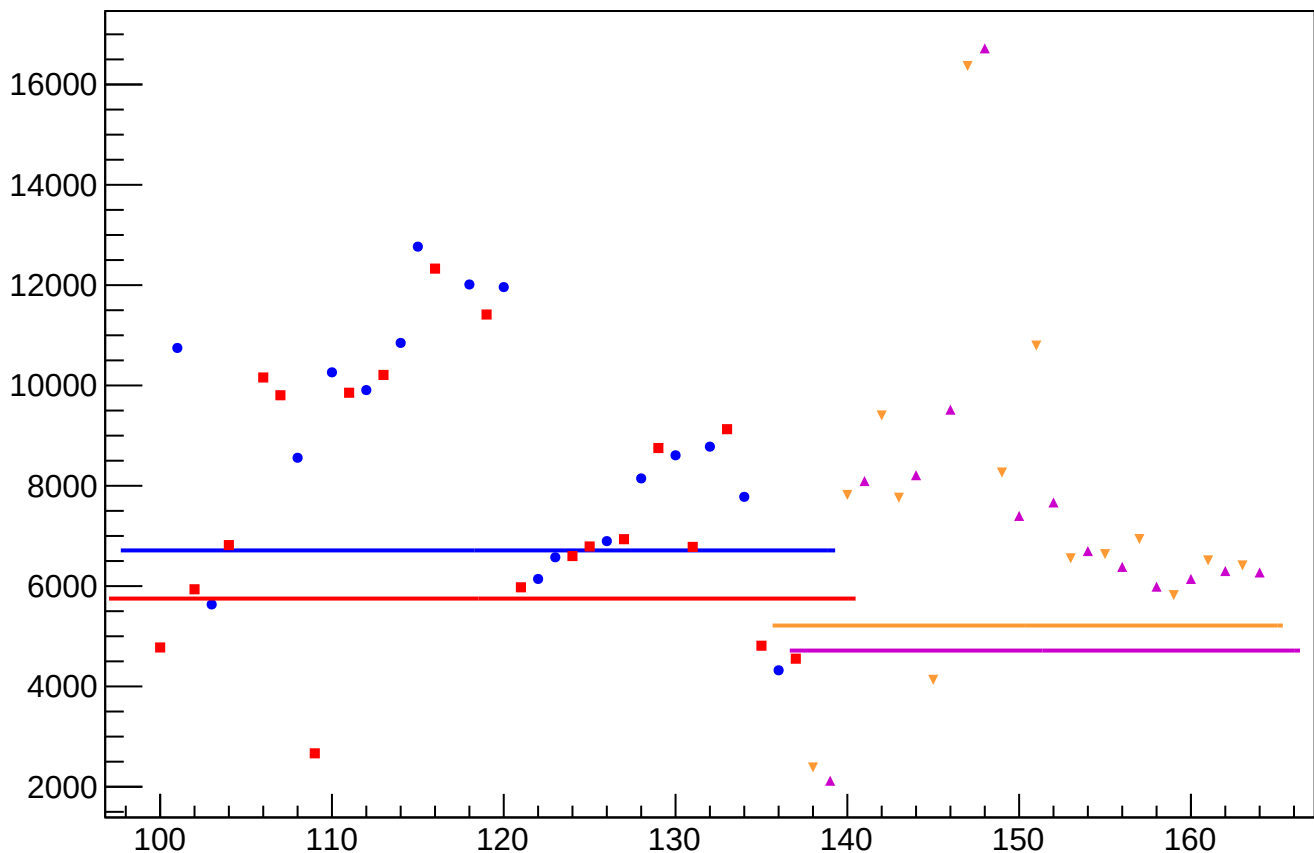
Left In:  $-2.336 \pm 1.715$   $\chi^2/\text{NDF}$ : 14.9/12

+ sign  $-1.677 \pm 1.534$   $\chi^2/\text{NDF}$ : 27.7/30

All:  $-1.412 \pm 1.034$   $\chi^2/\text{NDF}$ : 68.0/62

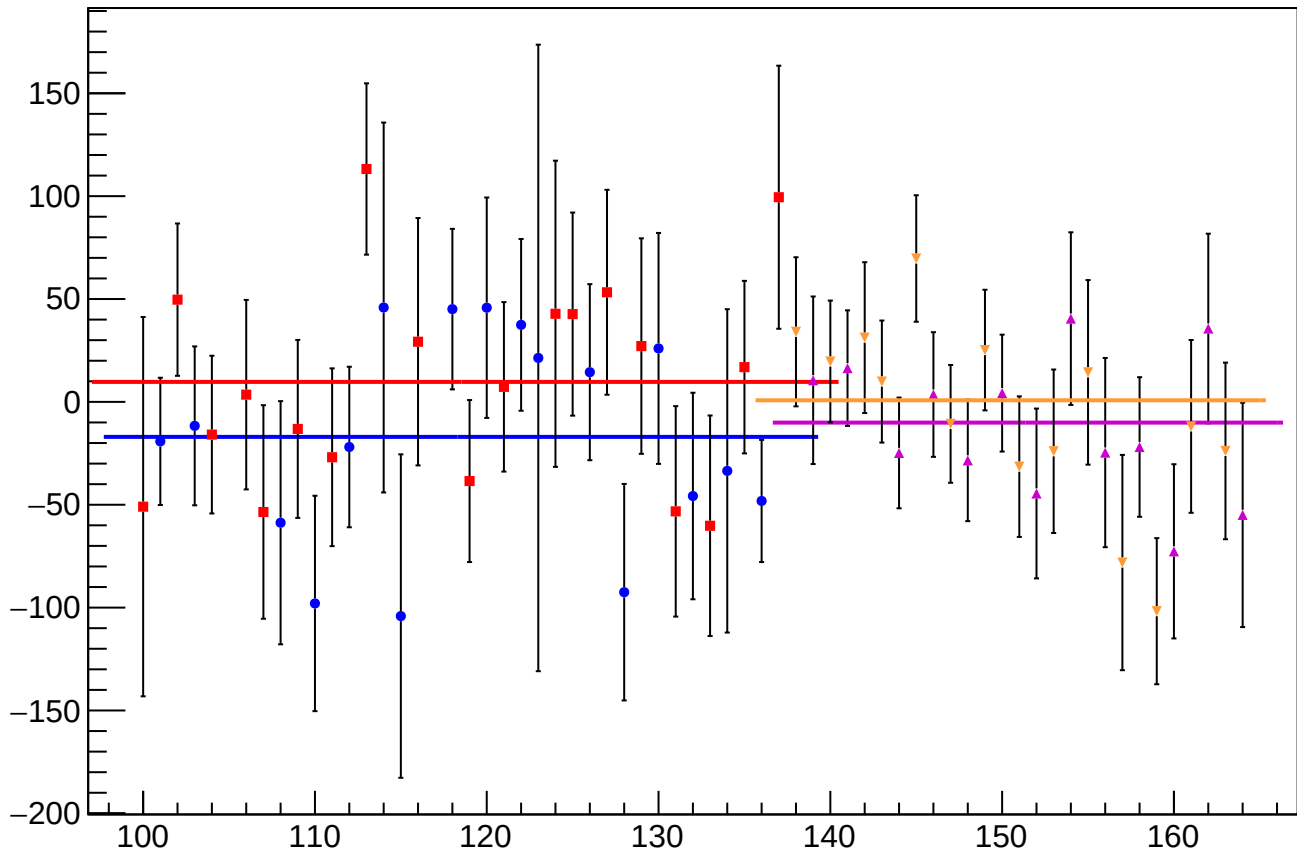
- sign  $-1.192 \pm 1.401$   $\chi^2/\text{NDF}$ : 40.3/31

# diff\_bpm11Y\_rms vs Slug



|                             |                                    |                         |                                    |
|-----------------------------|------------------------------------|-------------------------|------------------------------------|
| Right In: 6711.550+/-1.967  | $\chi^2/\text{NDF}$ : 1446972.0/16 | + sign 5669.669+/-1.085 | $\chi^2/\text{NDF}$ : 5643418.0/30 |
| Left Out: 5214.327+/-1.300  | $\chi^2/\text{NDF}$ : 3793249.8/13 | All: 5337.140+/-0.731   | $\chi^2/\text{NDF}$ : 13169726.2/6 |
| Right Out: 5751.505+/-1.718 | $\chi^2/\text{NDF}$ : 2165110.0/18 | - sign 5059.849+/-0.991 | $\chi^2/\text{NDF}$ : 7353966.3/31 |
| Left In: 4715.146+/-1.213   | $\chi^2/\text{NDF}$ : 4945866.6/12 |                         |                                    |

# diff\_bpm12X\_mean vs Slug



Right In:  $-17.010 \pm 11.287$   $\chi^2/\text{NDF}$ : 15.0/16

Left Out:  $0.777 \pm 9.334$   $\chi^2/\text{NDF}$ : 20.3/13

Right Out:  $9.719 \pm 10.891$   $\chi^2/\text{NDF}$ : 19.1/18

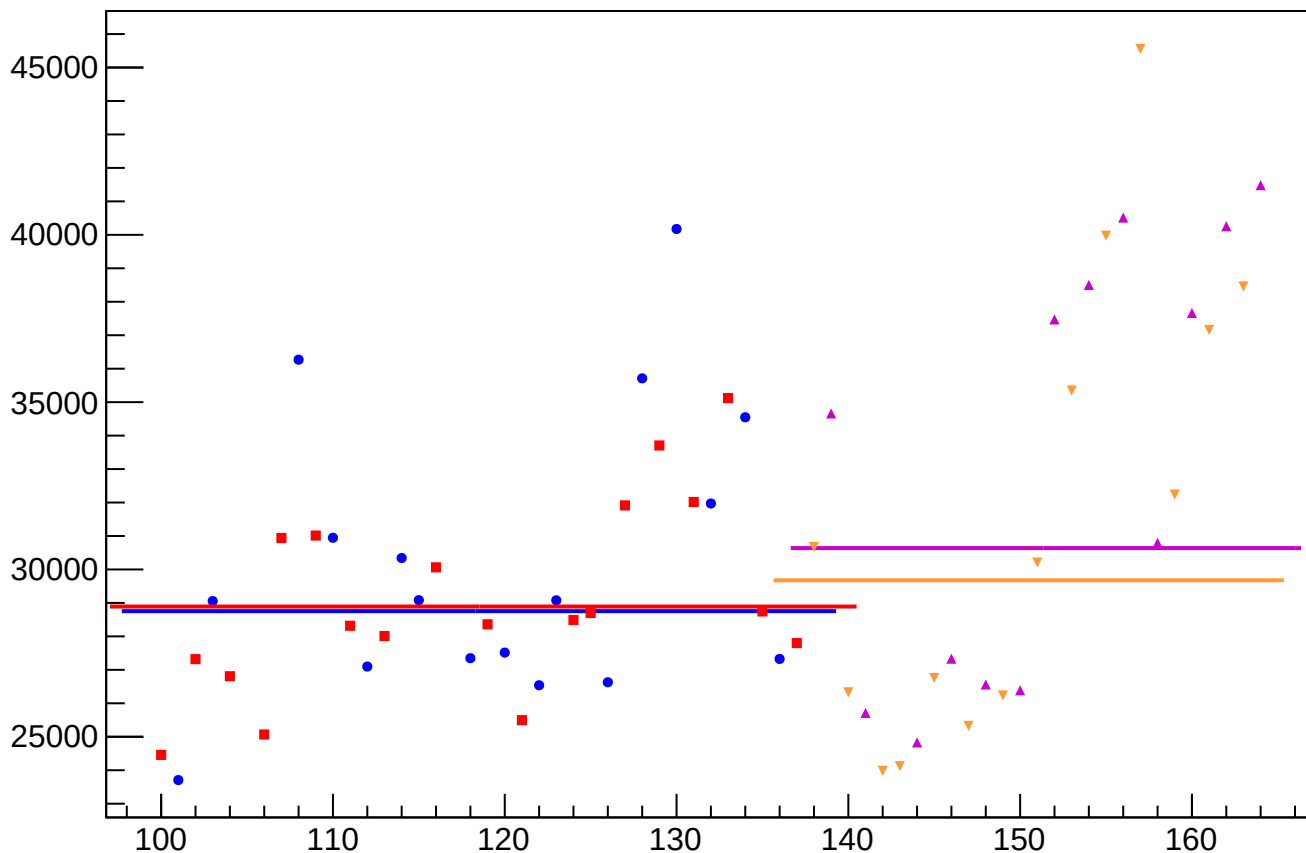
Left In:  $-10.072 \pm 9.719$   $\chi^2/\text{NDF}$ : 8.5/12

+ sign  $-6.446 \pm 7.193$   $\chi^2/\text{NDF}$ : 36.8/30

All:  $-3.893 \pm 5.107$   $\chi^2/\text{NDF}$ : 66.4/62

- sign  $-1.298 \pm 7.251$   $\chi^2/\text{NDF}$ : 29.4/31

# diff\_bpm12X\_rms vs Slug



Right In: 28753.787+/-7.981  $\chi^2/\text{NDF}$ : 249215.1/16

Left Out: 29675.239+/-6.600  $\chi^2/\text{NDF}$ : 725705.5/13

Right Out: 28892.154+/-7.701  $\chi^2/\text{NDF}$ : 111241.2/18

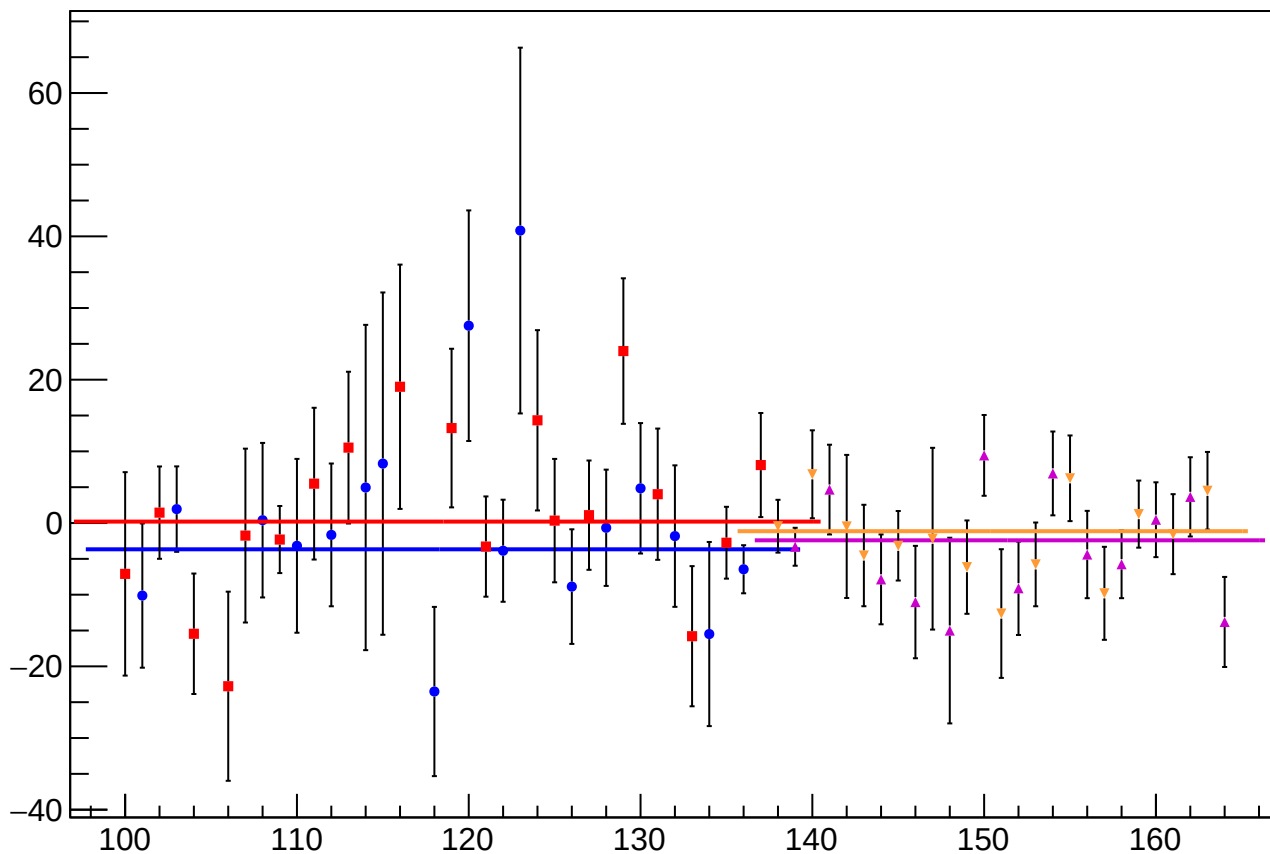
Left In: 30638.806+/-6.872  $\chi^2/\text{NDF}$ : 719496.6/12

+ sign 29301.035+/-5.086  $\chi^2/\text{NDF}$ : 982836.9/30

All: 29580.491+/-3.611  $\chi^2/\text{NDF}$ : 1848300.0/6

- sign 29864.500+/-5.127  $\chi^2/\text{NDF}$ : 859375.9/31

# diff\_bpm12Y\_mean vs Slug



Right In:  $-3.668 \pm 2.010$   $\chi^2/\text{NDF}$ : 14.5/16

Left Out:  $-1.141 \pm 1.566$   $\chi^2/\text{NDF}$ : 9.6/13

Right Out:  $0.199 \pm 1.893$   $\chi^2/\text{NDF}$ : 22.3/18

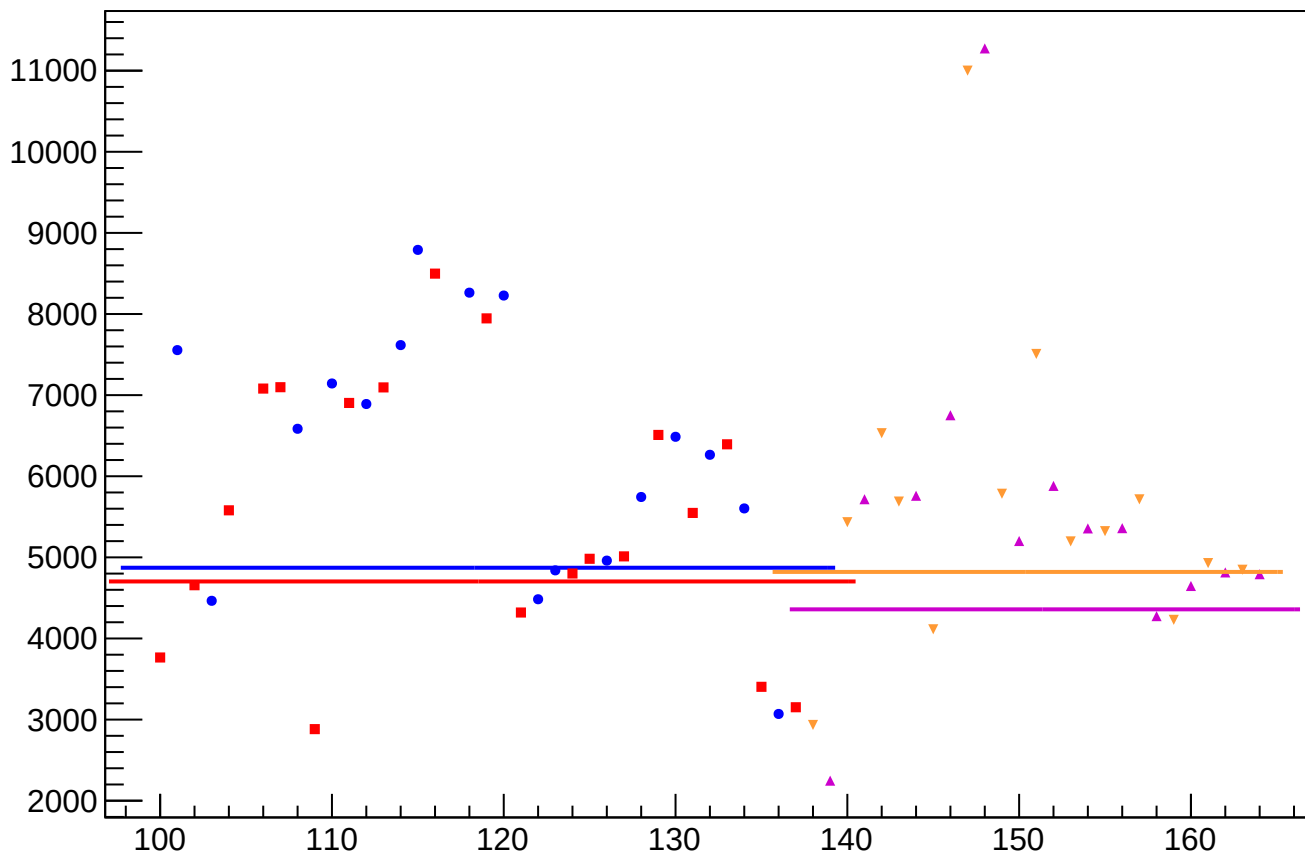
Left In:  $-2.414 \pm 1.464$   $\chi^2/\text{NDF}$ : 17.7/12

+ sign  $-2.096 \pm 1.235$   $\chi^2/\text{NDF}$ : 25.1/30

All:  $-1.744 \pm 0.845$   $\chi^2/\text{NDF}$ : 66.5/62

- sign  $-1.435 \pm 1.158$   $\chi^2/\text{NDF}$ : 41.2/31

# diff\_bpm12Y\_rms vs Slug



Right In:  $4872.105 \pm 1.421$   $\chi^2/\text{NDF}: 1405253.2/16$

Left Out:  $4820.540 \pm 1.107$   $\chi^2/\text{NDF}: 1466692.3/13$

Right Out:  $4702.994 \pm 1.338$   $\chi^2/\text{NDF}: 1312720.8/18$

Left In:  $4359.081 \pm 1.035$   $\chi^2/\text{NDF}: 2519387.9/12$

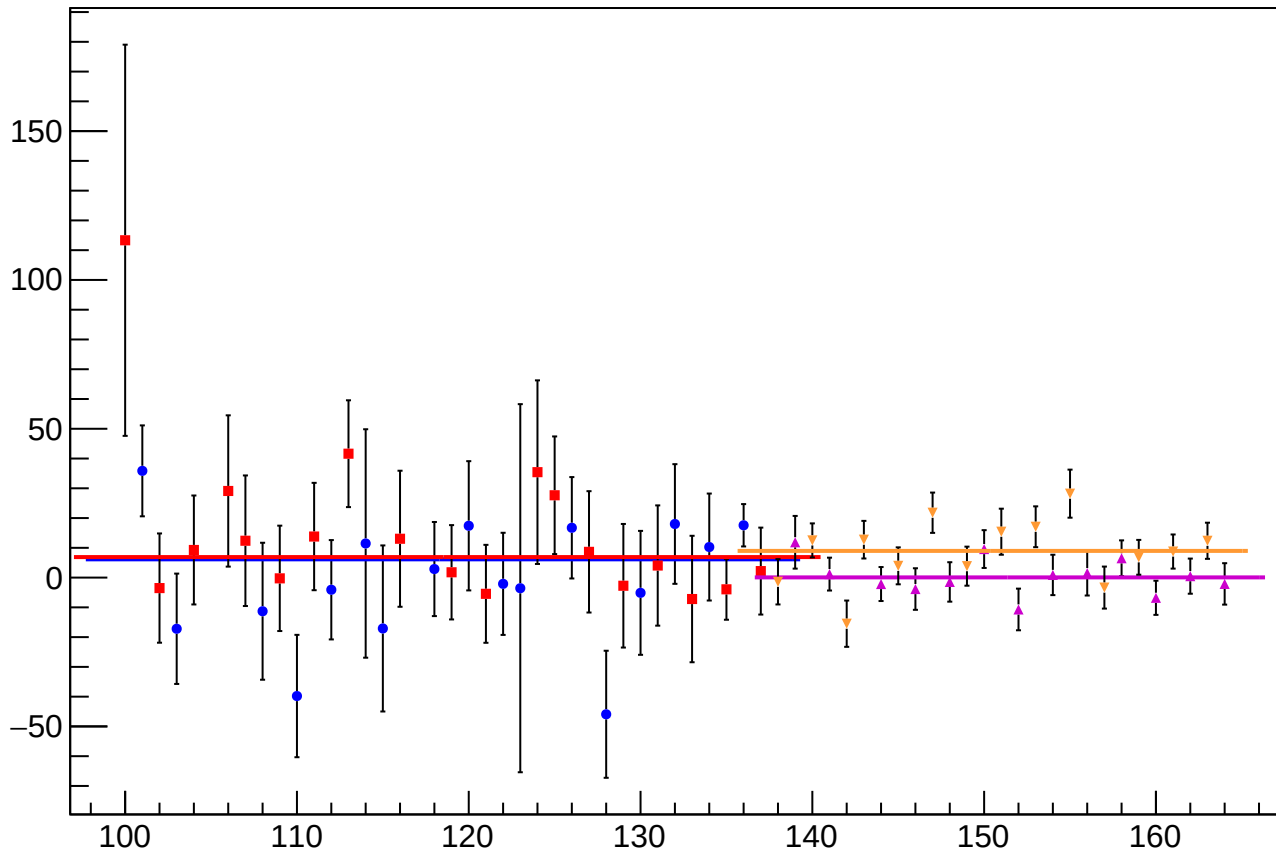
+ sign  $4840.022 \pm 0.874$   $\chi^2/\text{NDF}: 2872764.7/30$

All:  $4652.583 \pm 0.597$   $\chi^2/\text{NDF}: 6832699.0/62$

- sign  $4487.845 \pm 0.819$   $\chi^2/\text{NDF}: 3873419.7/31$



# diff\_bpm16X\_mean vs Slug



Right In:  $6.133 \pm 4.080$   $\chi^2/\text{NDF}$ : 22.2/16

Left Out:  $8.968 \pm 1.766$   $\chi^2/\text{NDF}$ : 28.6/13

Right Out:  $6.892 \pm 4.224$   $\chi^2/\text{NDF}$ : 12.5/18

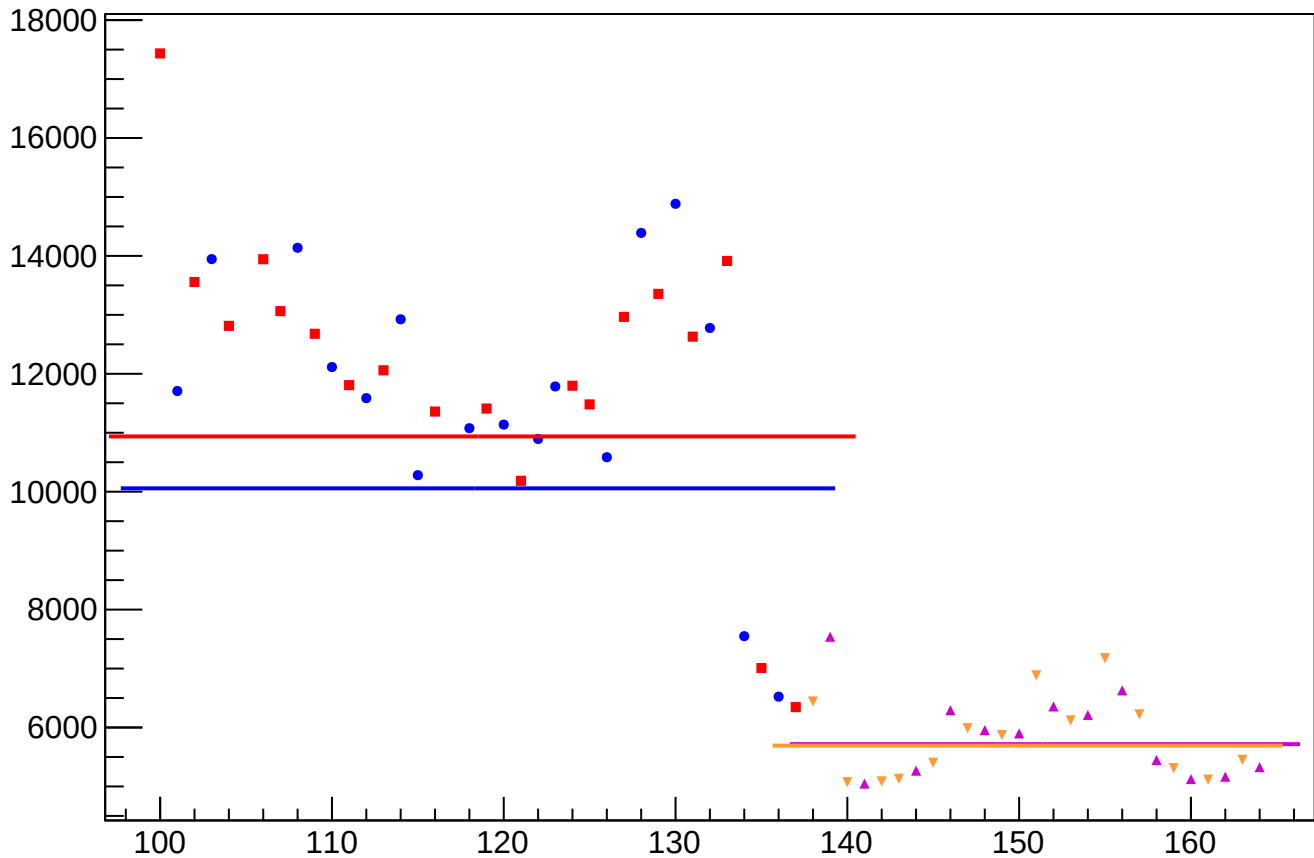
Left In:  $0.067 \pm 1.791$   $\chi^2/\text{NDF}$ : 9.7/12

+ sign  $8.521 \pm 1.621$   $\chi^2/\text{NDF}$ : 51.2/30

All:  $4.879 \pm 1.156$   $\chi^2/\text{NDF}$ : 85.9/62

- sign  $1.107 \pm 1.649$   $\chi^2/\text{NDF}$ : 24.3/31

# diff\_bpm16X\_rms vs Slug



Right In: 10056.991 $\pm$ 2.885  $\chi^2$ /NDF: 1002872.6/16

Left Out: 5692.445 $\pm$ 1.249  $\chi^2$ /NDF:246700.5/13

Right Out: 10937.573 $\pm$ 2.987  $\chi^2$ /NDF: 762909.5/18

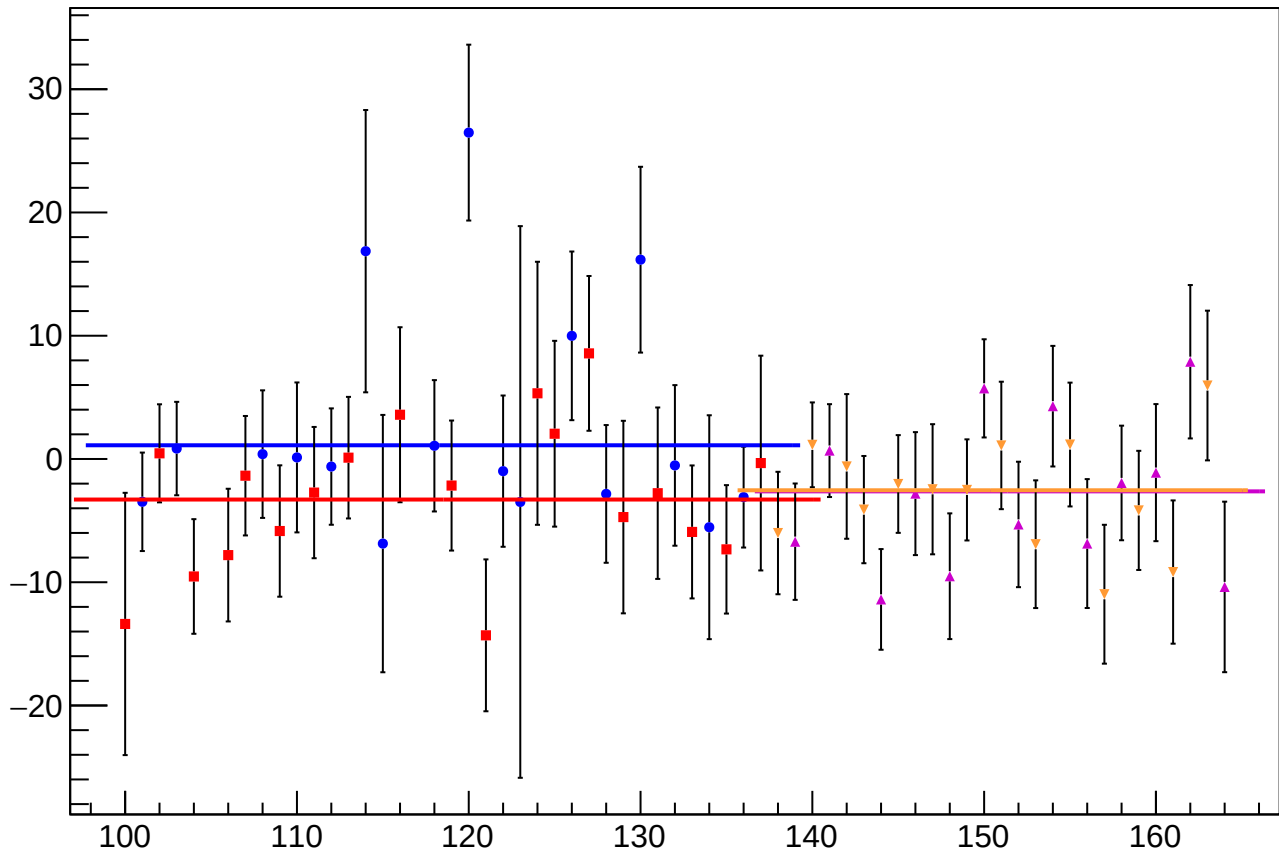
Left In: 5717.318 $\pm$ 1.267  $\chi^2$ /NDF:250192.3/12

+ sign 6381.055 $\pm$ 1.146  $\chi^2$ /NDF: 3176985.5/30

All: 6445.863 $\pm$ 0.817  $\chi^2$ /NDF: 6785196.6/62

- sign 6512.974 $\pm$ 1.166  $\chi^2$ /NDF: 3601701.3/31

# diff\_bpm16Y\_mean vs Slug



Right In:  $1.112 \pm 1.403$   $\chi^2/\text{NDF}$ : 24.6/16

Left Out:  $-2.539 \pm 1.279$   $\chi^2/\text{NDF}$ : 9.3/13

Right Out:  $-3.290 \pm 1.334$   $\chi^2/\text{NDF}$ : 15.1/18

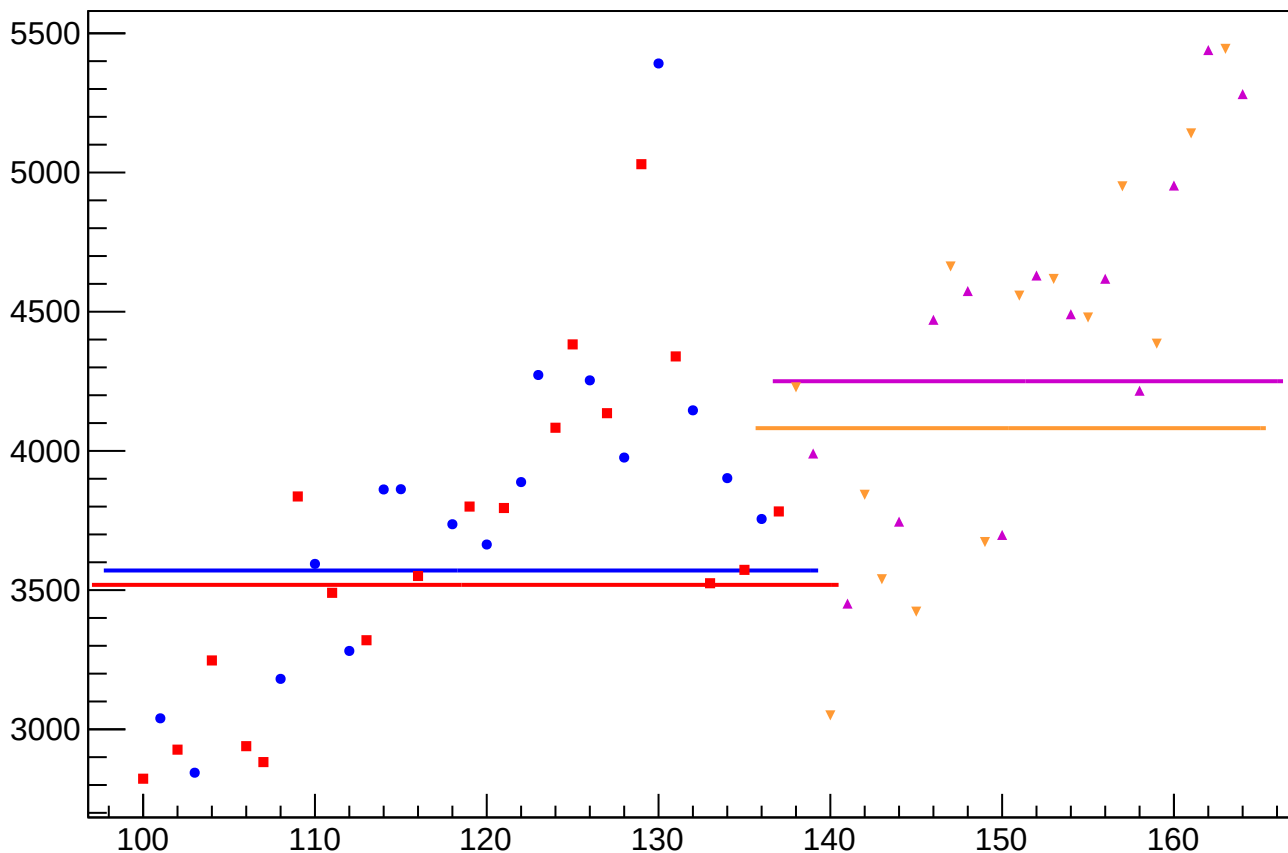
Left In:  $-2.627 \pm 1.337$   $\chi^2/\text{NDF}$ : 19.5/12

+ sign  $-0.882 \pm 0.945$   $\chi^2/\text{NDF}$ : 37.6/30

All:  $-1.922 \pm 0.668$   $\chi^2/\text{NDF}$ : 74.7/62

- sign  $-2.960 \pm 0.944$   $\chi^2/\text{NDF}$ : 34.7/31

# diff\_bpm16Y\_rms vs Slug



Right In: 3570.481+/-0.992  $\chi^2/\text{NDF}$ : 309699.2/16

Left Out: 4081.726+/-0.905  $\chi^2/\text{NDF}$ : 588646.3/13

Right Out: 3518.886+/-0.943  $\chi^2/\text{NDF}$ : 293392.5/18

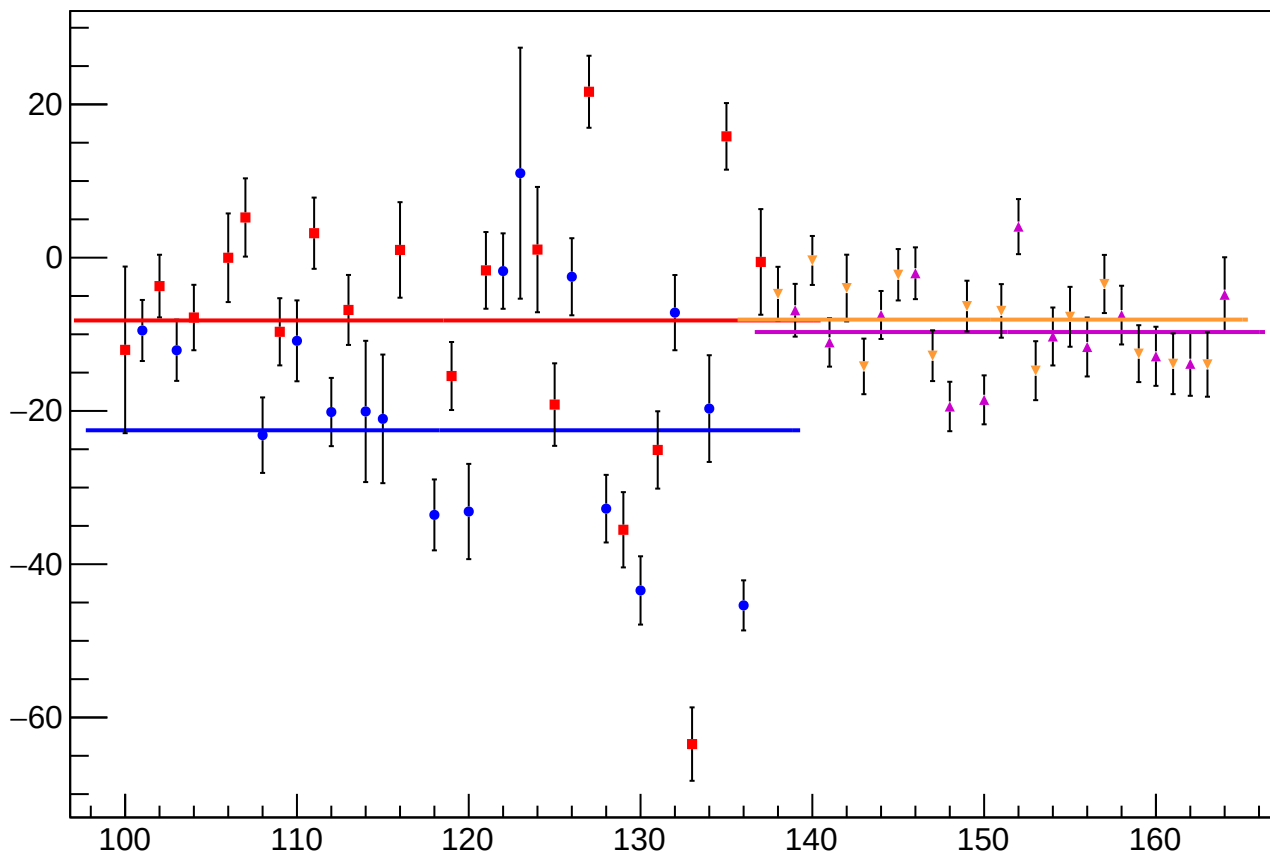
Left In: 4250.318+/-0.946  $\chi^2/\text{NDF}$ : 352334.7/12

+ sign 3849.622+/-0.668  $\chi^2/\text{NDF}$ : 1043381.0/30

All: 3866.635+/-0.472  $\chi^2/\text{NDF}$ : 1990400.0/62

- sign 3883.614+/-0.668  $\chi^2/\text{NDF}$ : 945724.4/31

# diff\_bpm0l01X\_mean vs Slug



Right In: -22.526 $\pm$ 1.201  $\chi^2/\text{NDF}$ : 155.5/16

Left Out: -8.083 $\pm$ 0.974  $\chi^2/\text{NDF}$ : 25.9/13

Right Out: -8.192 $\pm$ 1.157  $\chi^2/\text{NDF}$ : 275.8/18

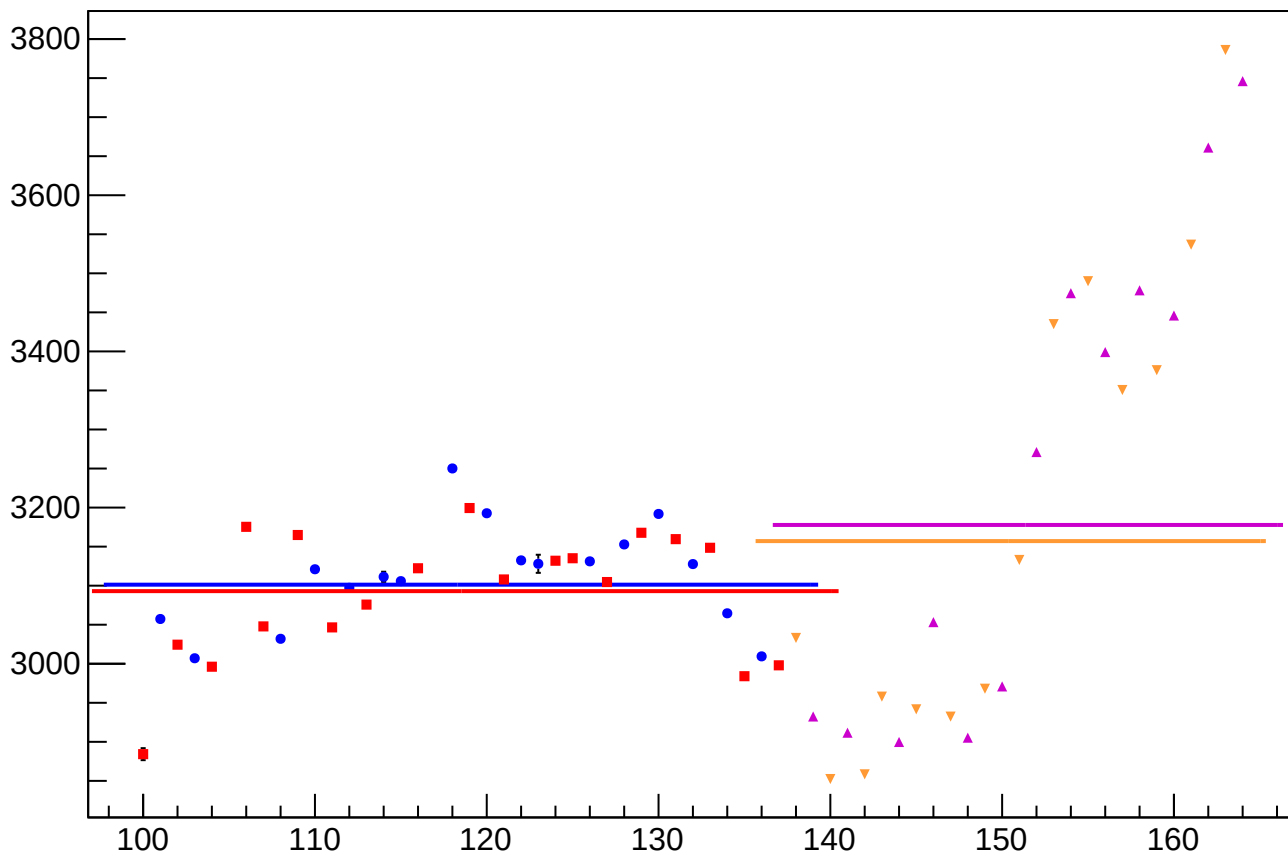
Left In: -9.705 $\pm$ 0.992  $\chi^2/\text{NDF}$ : 41.2/12

+ sign -13.814 $\pm$ 0.756  $\chi^2/\text{NDF}$ : 268.7/30

All: -11.428 $\pm$ 0.534  $\chi^2/\text{NDF}$ : 606.5/62

- sign -9.064 $\pm$ 0.753  $\chi^2/\text{NDF}$ : 318.0/31

# diff\_bpm0l01X\_rms vs Slug



Right In: 3101.270+/-0.849  $\chi^2/\text{NDF}$ : 7233.8/16

Left Out: 3157.073+/-0.689  $\chi^2/\text{NDF}$ : 160155.1/13

Right Out: 3092.993+/-0.818  $\chi^2/\text{NDF}$ : 7766.0/18

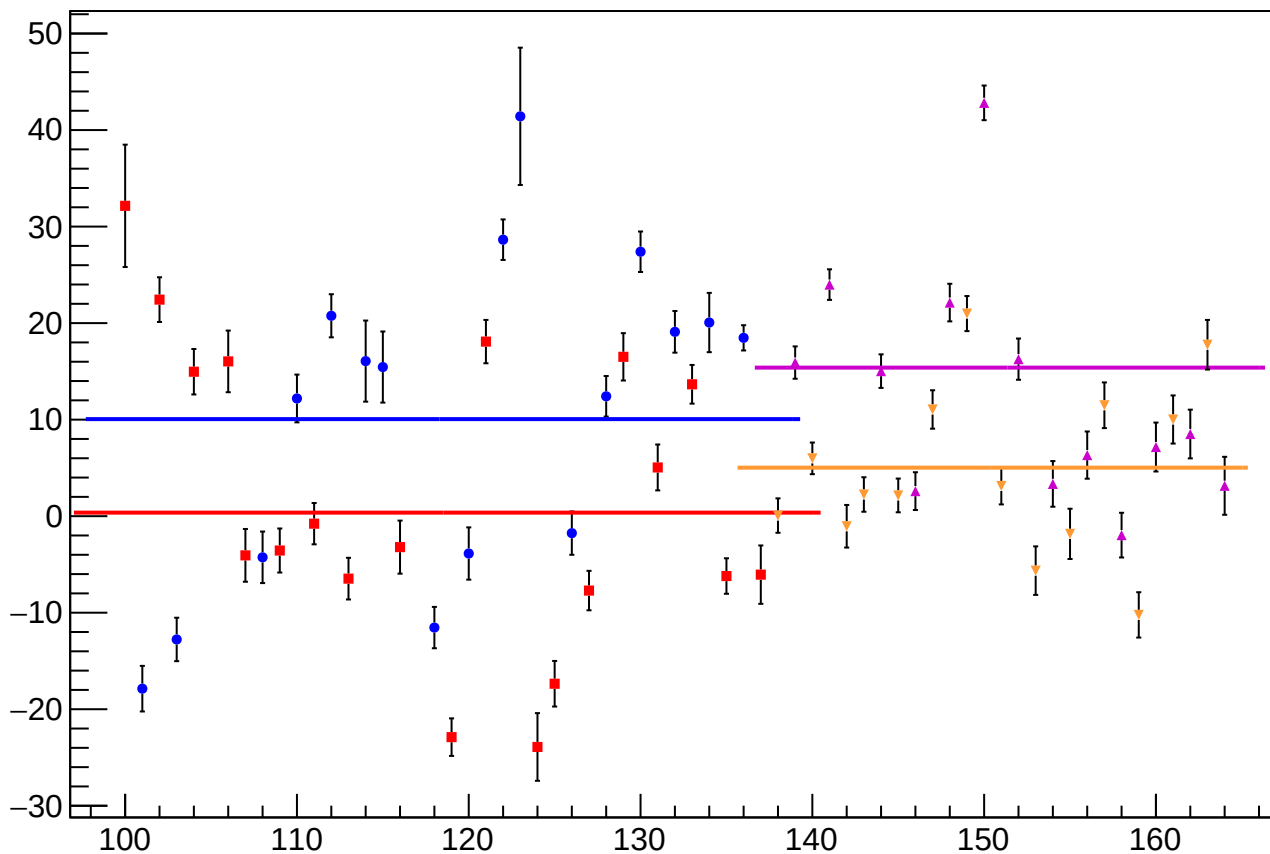
Left In: 3177.748+/-0.701  $\chi^2/\text{NDF}$ : 161439.0/12

+ sign 3134.931+/-0.535  $\chi^2/\text{NDF}$ : 169995.4/30

All: 3138.410+/-0.377  $\chi^2/\text{NDF}$ : 345473.3/62

- sign 3141.857+/-0.532  $\chi^2/\text{NDF}$ : 175393.7/31

# diff\_bpm0l01Y\_mean vs Slug



Right In: 10.055 $\pm$ 0.562  $\chi^2$ /NDF: 692.2/16

Left Out: 5.025 $\pm$ 0.547  $\chi^2$ /NDF:211.3/13

Right Out: 0.367 $\pm$ 0.547  $\chi^2$ /NDF: 629.8/18

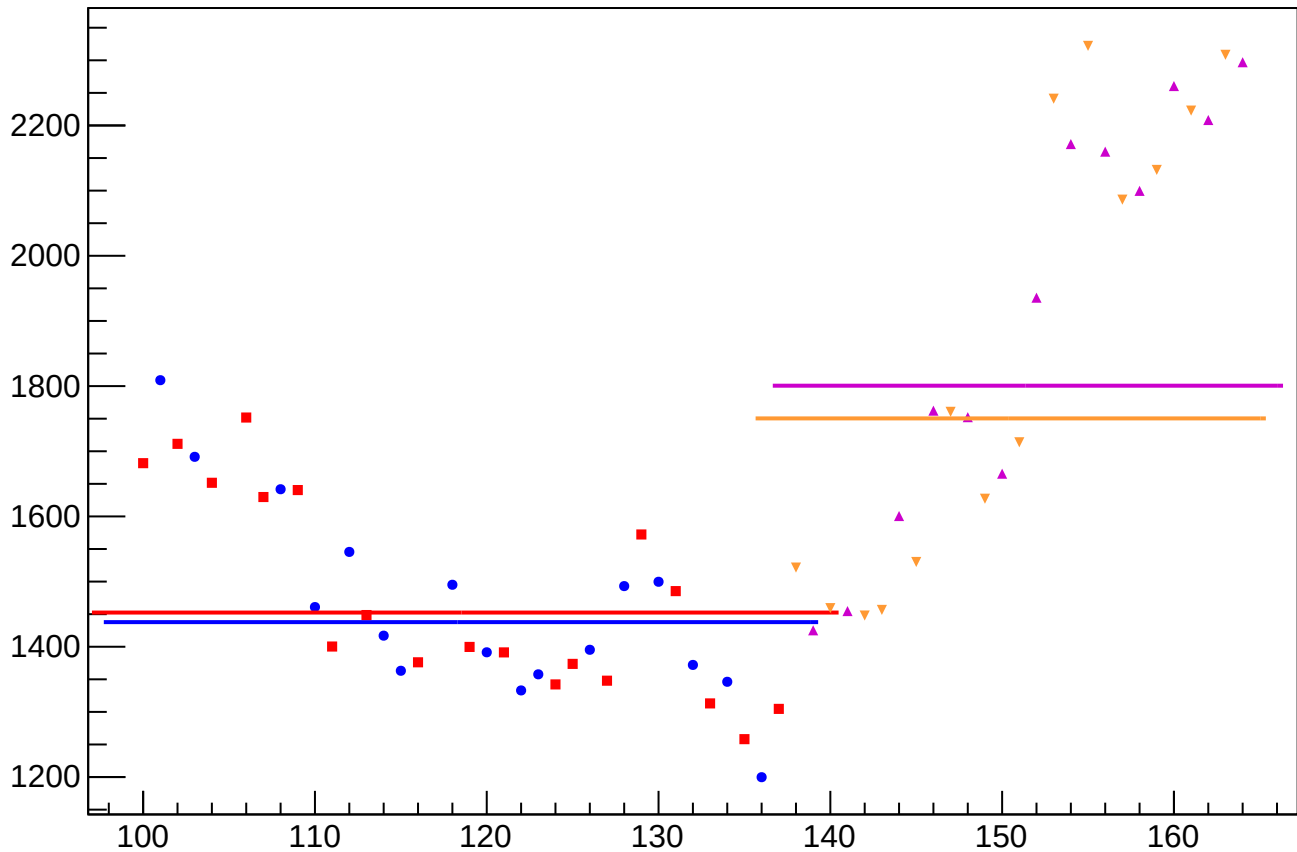
Left In: 15.390 $\pm$ 0.568  $\chi^2$ /NDF:448.4/12

+ sign 7.475 $\pm$ 0.392  $\chi^2$ /NDF: 944.6/30

All: 7.533 $\pm$ 0.278  $\chi^2$ /NDF: 2385.7/62

- sign 7.592 $\pm$ 0.394  $\chi^2$ /NDF: 1441.0/31

# diff\_bpm0l01Y\_rms vs Slug



Right In: 1437.776 $\pm$ 0.397  $\chi^2$ /NDF: 173216.2/16

Left Out: 1750.427 $\pm$ 0.387  $\chi^2$ /NDF: 661196.2/13

Right Out: 1452.469 $\pm$ 0.387  $\chi^2$ /NDF: 138605.8/18

Left In: 1800.629 $\pm$ 0.402  $\chi^2$ /NDF: 542078.7/12

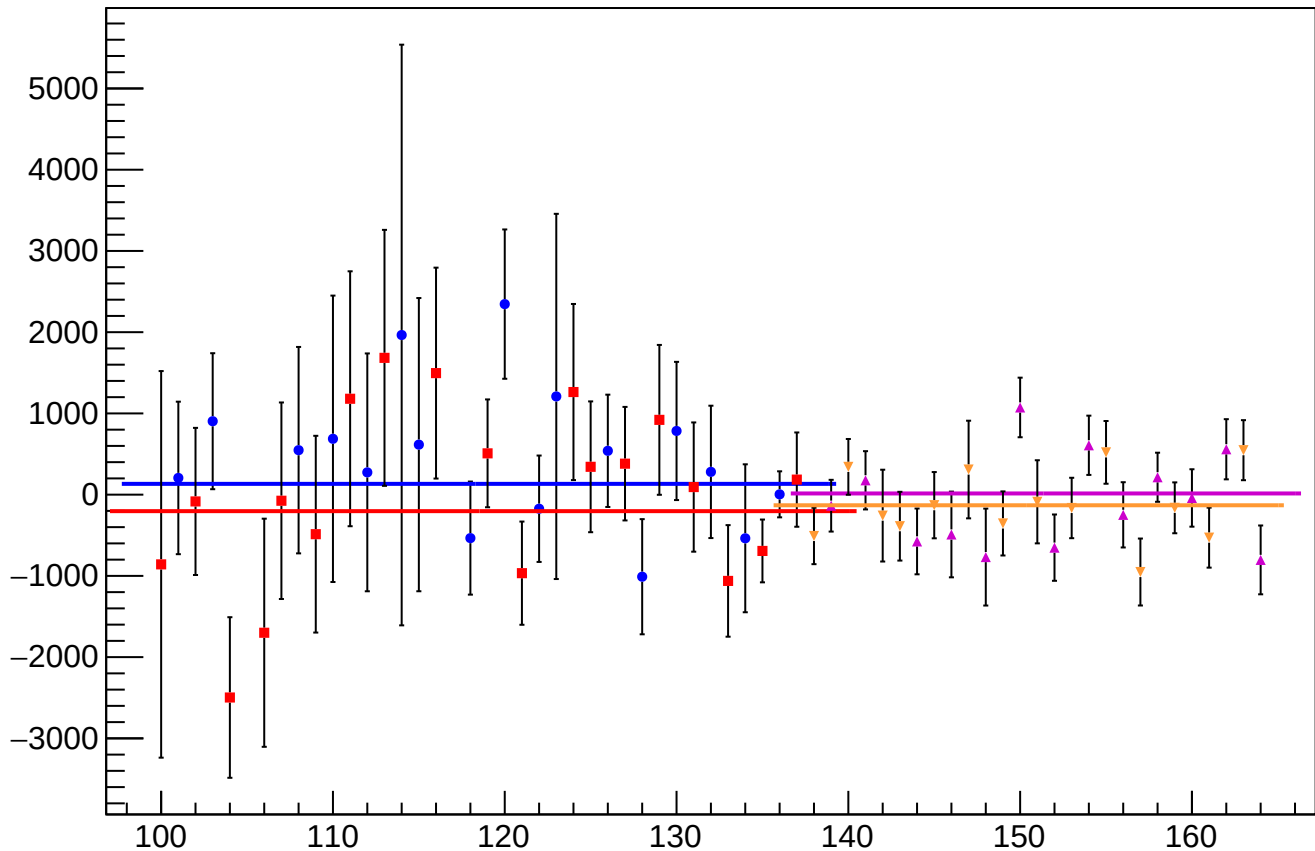
+ sign 1598.154 $\pm$ 0.277  $\chi^2$ /NDF: 1152324.3/30

All: 1608.974 $\pm$ 0.197  $\chi^2$ /NDF: 2225710.4/62

- sign 1619.912 $\pm$ 0.279  $\chi^2$ /NDF: 1070321.6/31



# asym\_sam1\_mean vs Slug



Right In:  $132.921 \pm 180.271$   $\chi^2/\text{NDF}$ : 12.9/16

Left Out:  $-130.717 \pm 105.869$   $\chi^2/\text{NDF}$ : 15.7/13

Right Out:  $-203.062 \pm 184.353$   $\chi^2/\text{NDF}$ : 21.4/18

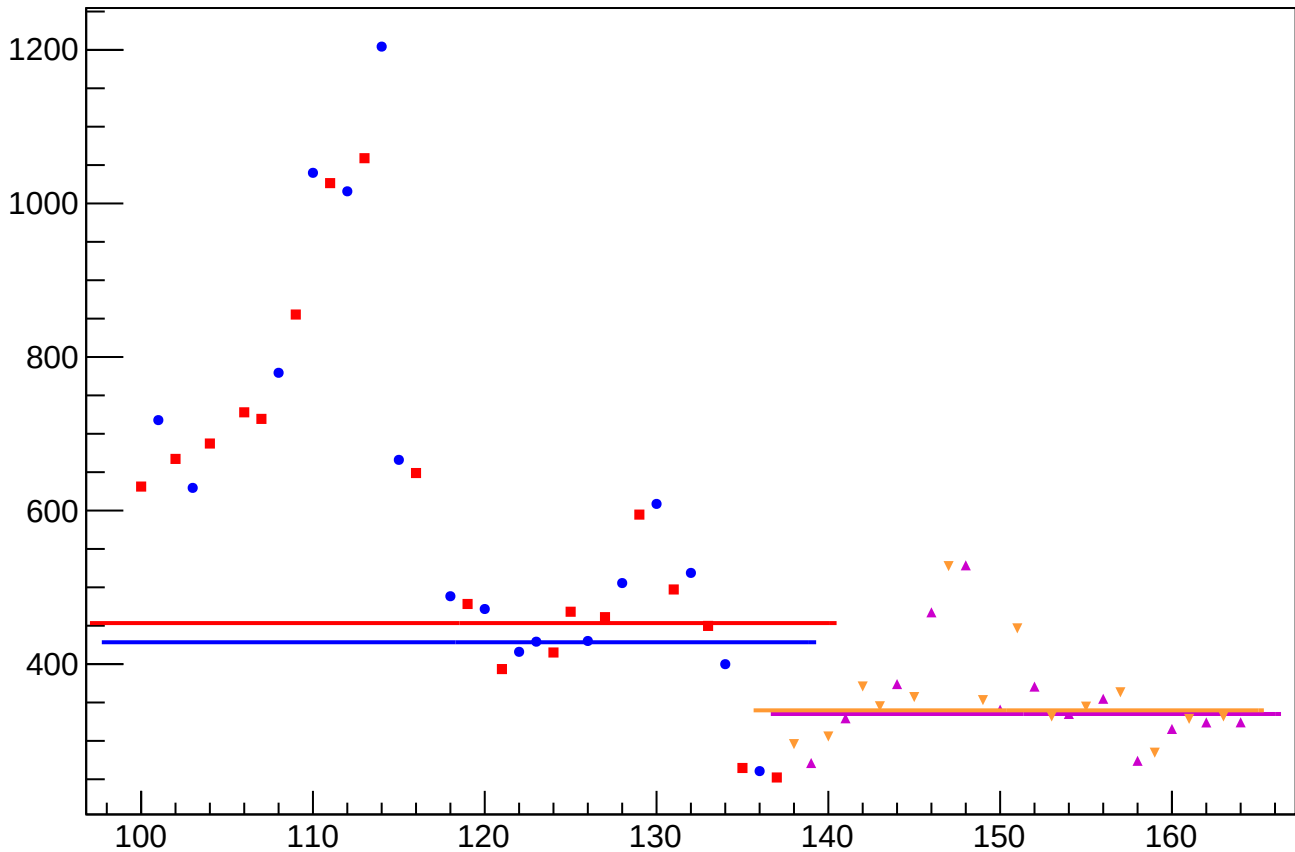
Left In:  $14.761 \pm 105.937$   $\chi^2/\text{NDF}$ : 25.6/12

+ sign  $-63.108 \pm 91.290$   $\chi^2/\text{NDF}$ : 30.2/30

All:  $-51.283 \pm 64.750$   $\chi^2/\text{NDF}$ : 78.3/62

- sign  $-39.312 \pm 91.852$   $\chi^2/\text{NDF}$ : 48.1/31

# asym\_sam1\_rms vs Slug



Right In: 428.460+/-0.127  $\chi^2/\text{NDF}$ : 2011453.8/16

Left Out: 339.770+/-0.075  $\chi^2/\text{NDF}$ : 419092.9/13

Right Out: 453.435+/-0.130  $\chi^2/\text{NDF}$ : 2029813.8/18

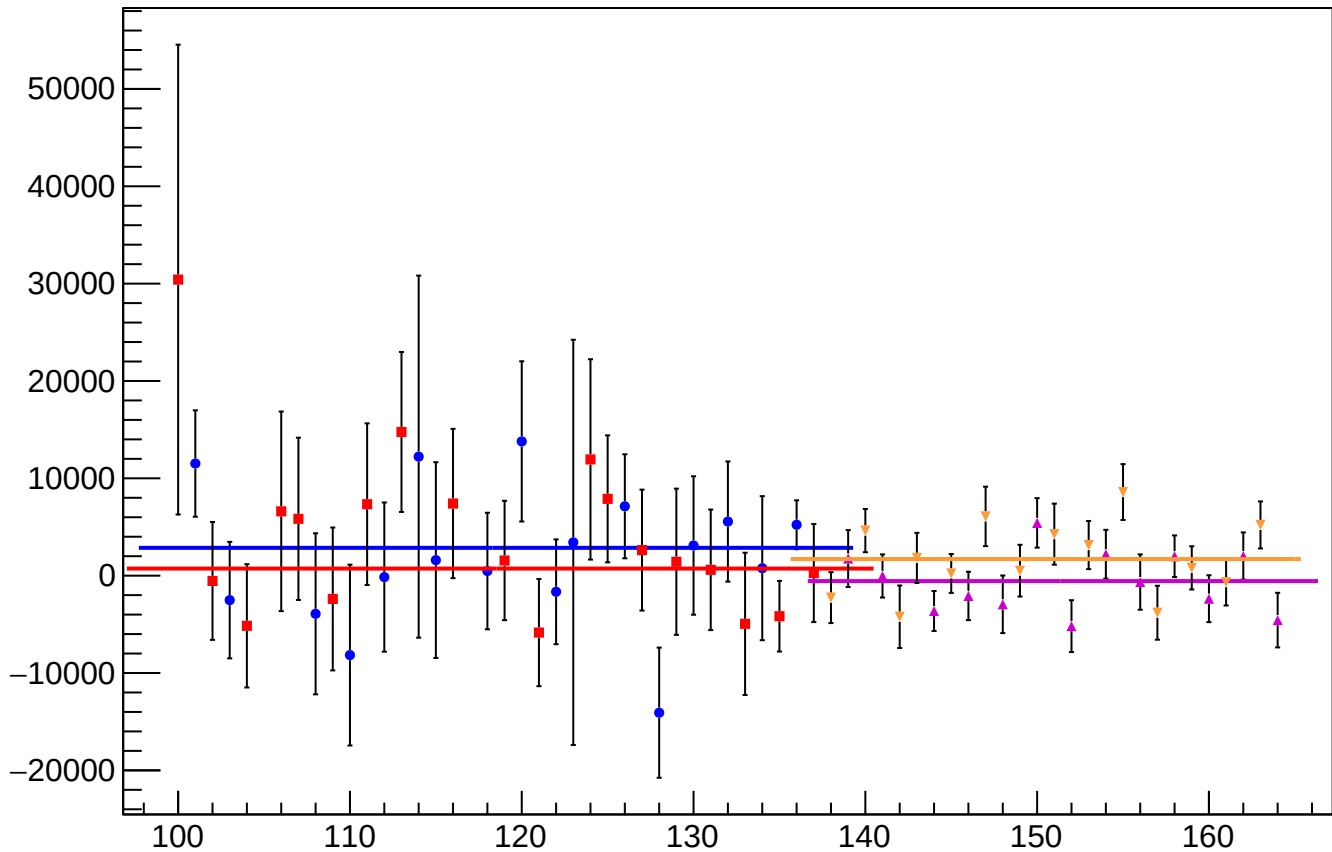
Left In: 335.031+/-0.075  $\chi^2/\text{NDF}$ : 547225.3/12

+ sign 362.515+/-0.065  $\chi^2/\text{NDF}$ : 2790494.1/30

All: 363.464+/-0.046  $\chi^2/\text{NDF}$ : 5988177.1/62

- sign 364.424+/-0.065  $\chi^2/\text{NDF}$ : 3197248.0/31

# asym\_sam2\_mean vs Slug



Right In: 2859.622 $\pm$ 1447.884  $\chi^2$ /NDF: 16.7/16

Left Out: 1707.381 $\pm$ 680.182  $\chi^2$ /NDF:24.2/13

Right Out: 729.571 $\pm$ 1509.224  $\chi^2$ /NDF: 14.0/18

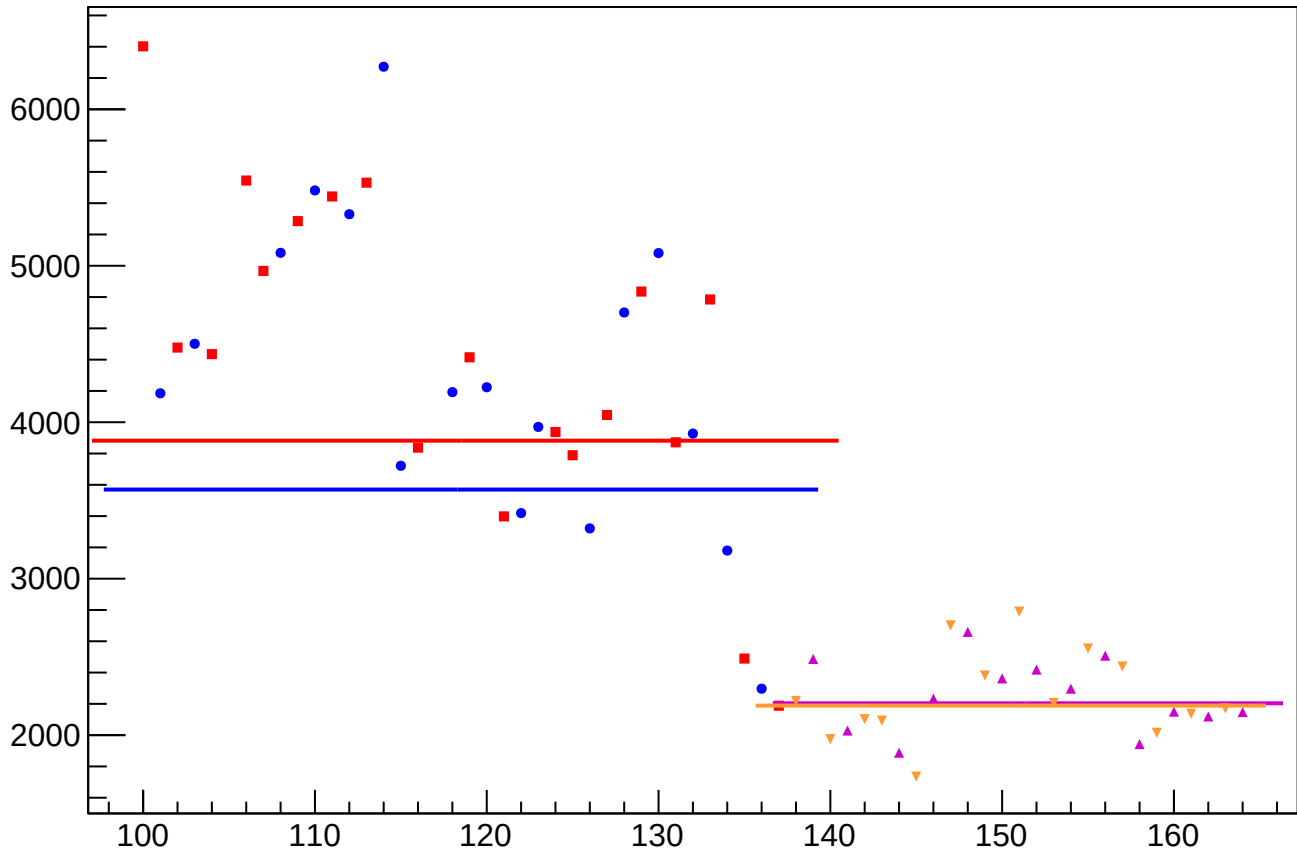
Left In: -555.249 $\pm$ 690.002  $\chi^2$ /NDF:18.9/12

+ sign 1915.696 $\pm$ 615.634  $\chi^2$ /NDF: 41.4/30

All: 812.801 $\pm$ 439.464  $\chi^2$ /NDF: 81.4/62

- sign -333.122 $\pm$ 627.528  $\chi^2$ /NDF: 33.4/31

# asym\_sam2\_rms vs Slug



Right In:  $3569.631 \pm 1.024$   $\chi^2/\text{NDF}: 1087935.4/16$

Left Out:  $2188.761 \pm 0.481$   $\chi^2/\text{NDF}: 328586.8/13$

Right Out:  $3882.169 \pm 1.067$   $\chi^2/\text{NDF}: 983087.5/18$

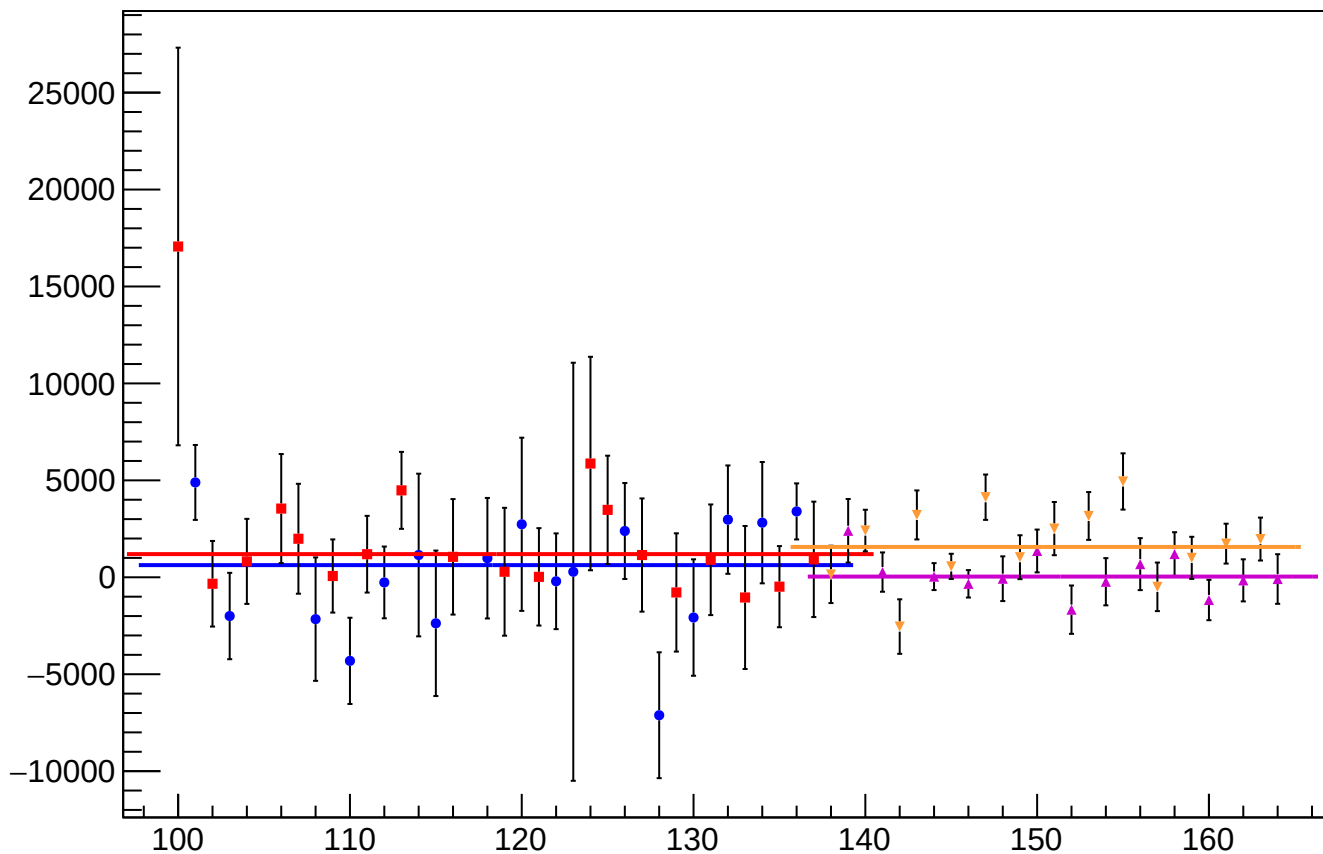
Left In:  $2203.542 \pm 0.488$   $\chi^2/\text{NDF}: 206770.3/12$

+ sign  $2438.411 \pm 0.435$   $\chi^2/\text{NDF}: 2906784.4/30$

All:  $2465.552 \pm 0.311$   $\chi^2/\text{NDF}: 6150996.2/62$

- sign  $2493.752 \pm 0.444$   $\chi^2/\text{NDF}: 3236285.5/31$

# asym\_sam3\_mean vs Slug



Right In:  $627.655 \pm 620.929$   $\chi^2/\text{NDF}$ : 25.1/16

Left Out:  $1565.030 \pm 298.225$   $\chi^2/\text{NDF}$ : 29.9/13

Right Out:  $1195.385 \pm 603.058$   $\chi^2/\text{NDF}$ : 9.9/18

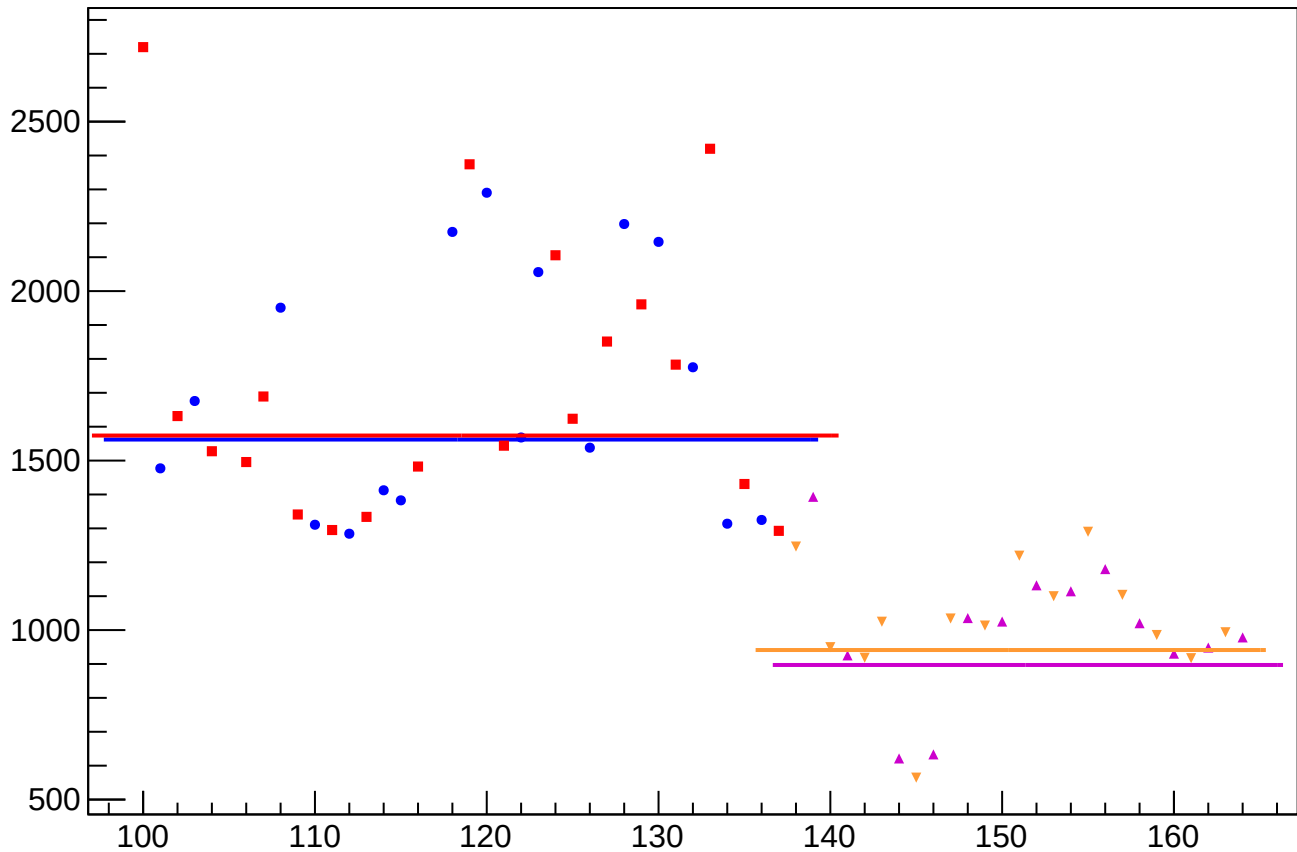
Left In:  $36.471 \pm 288.308$   $\chi^2/\text{NDF}$ : 8.5/12

+ sign  $1389.329 \pm 268.827$   $\chi^2/\text{NDF}$ : 56.8/30

All:  $801.967 \pm 186.932$   $\chi^2/\text{NDF}$ : 87.4/62

- sign  $252.072 \pm 260.111$   $\chi^2/\text{NDF}$ : 21.4/31

# asym\_sam3\_rms vs Slug



Right In: 1562.101 $\pm$ 0.439  $\chi^2$ /NDF: 482088.3/16

Left Out: 941.159 $\pm$ 0.211  $\chi^2$ /NDF: 1059607.0/13

Right Out: 1573.906 $\pm$ 0.426  $\chi^2$ /NDF: 463991.4/18

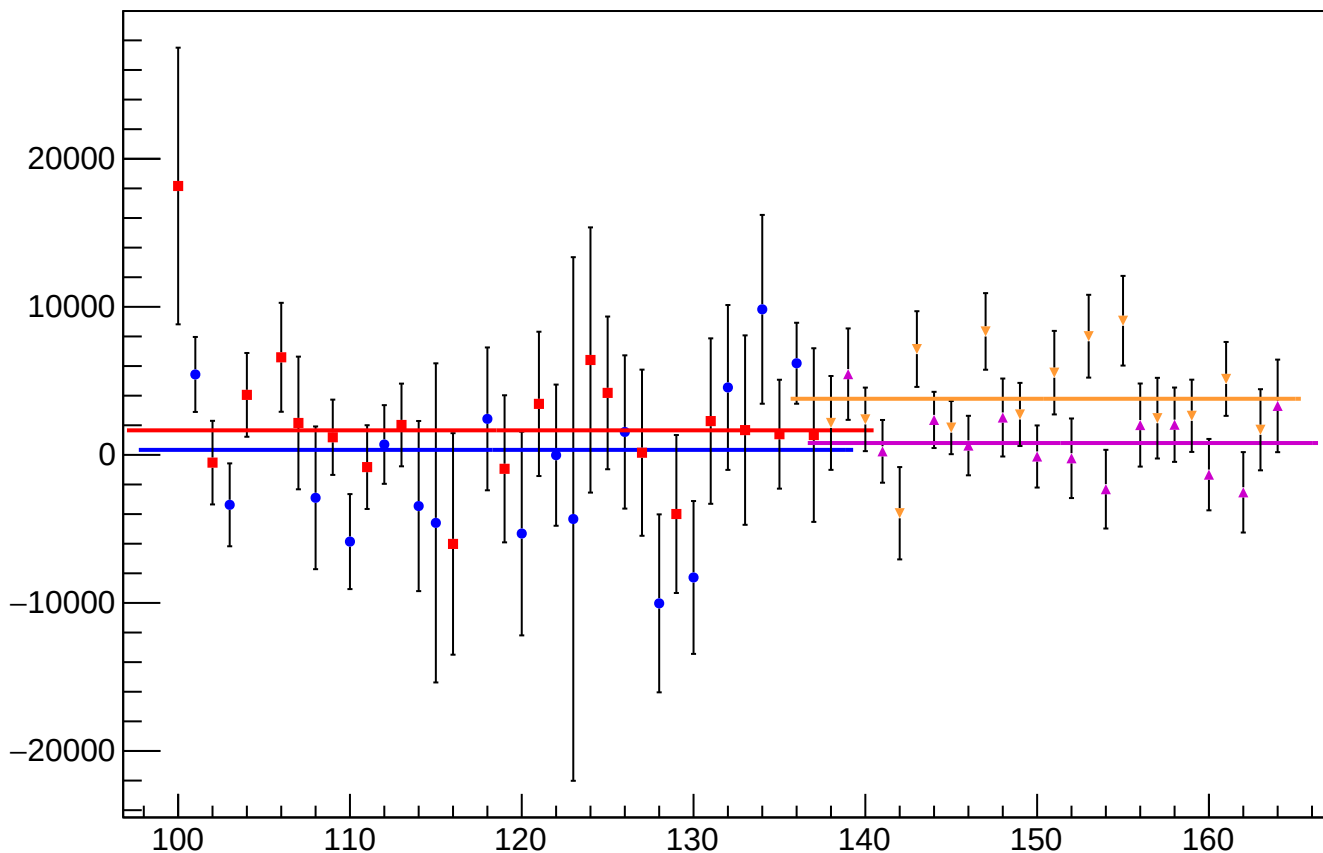
Left In: 897.048 $\pm$ 0.204  $\chi^2$ /NDF: 1095578.8/12

+ sign 1057.548 $\pm$ 0.190  $\chi^2$ /NDF: 3166885.4/30

All: 1039.689 $\pm$ 0.132  $\chi^2$ /NDF: 6794293.8/62

- sign 1022.969 $\pm$ 0.184  $\chi^2$ /NDF: 3610317.7/31

# asym\_sam4\_mean vs Slug



Right In: 338.117 $\pm$ 995.842  $\chi^2$ /NDF: 24.8/16

Left Out: 3790.007 $\pm$ 672.550  $\chi^2$ /NDF:20.1/13

Right Out: 1658.069 $\pm$ 924.453  $\chi^2$ /NDF: 10.3/18

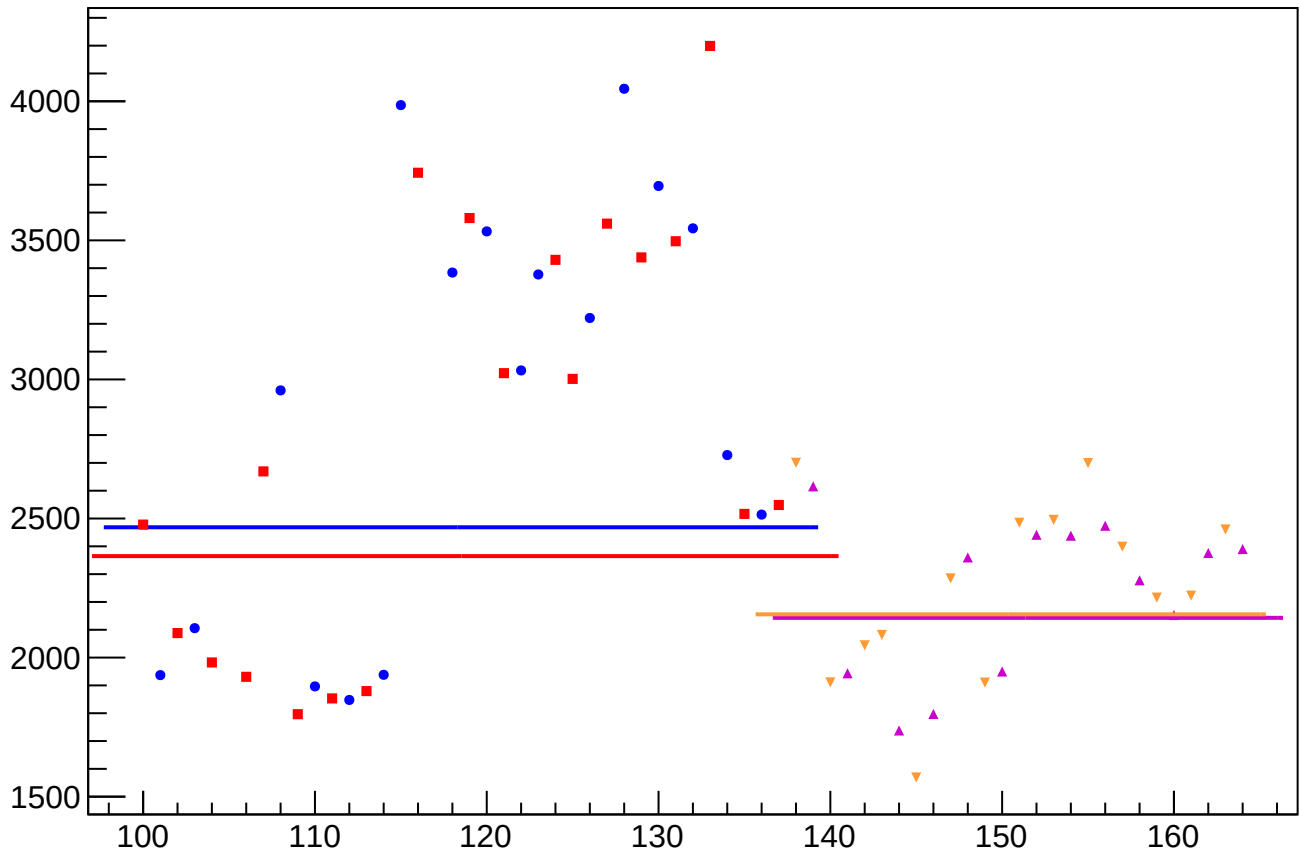
Left In: 800.949 $\pm$ 674.242  $\chi^2$ /NDF:8.5/12

+ sign 2708.744 $\pm$ 557.349  $\chi^2$ /NDF: 53.1/30

All: 1885.247 $\pm$ 389.574  $\chi^2$ /NDF: 76.7/62

- sign 1098.569 $\pm$ 544.747  $\chi^2$ /NDF: 19.3/31

# asym\_sam4\_rms vs Slug



Right In: 2468.489+/-0.704  $\chi^2$ /NDF: 896153.6/16

Left Out: 2155.563+/-0.476  $\chi^2$ /NDF: 498743.4/13

Right Out: 2364.833+/-0.654  $\chi^2$ /NDF: 1025161.0/18

Left In: 2142.902+/-0.477  $\chi^2$ /NDF: 355626.7/12

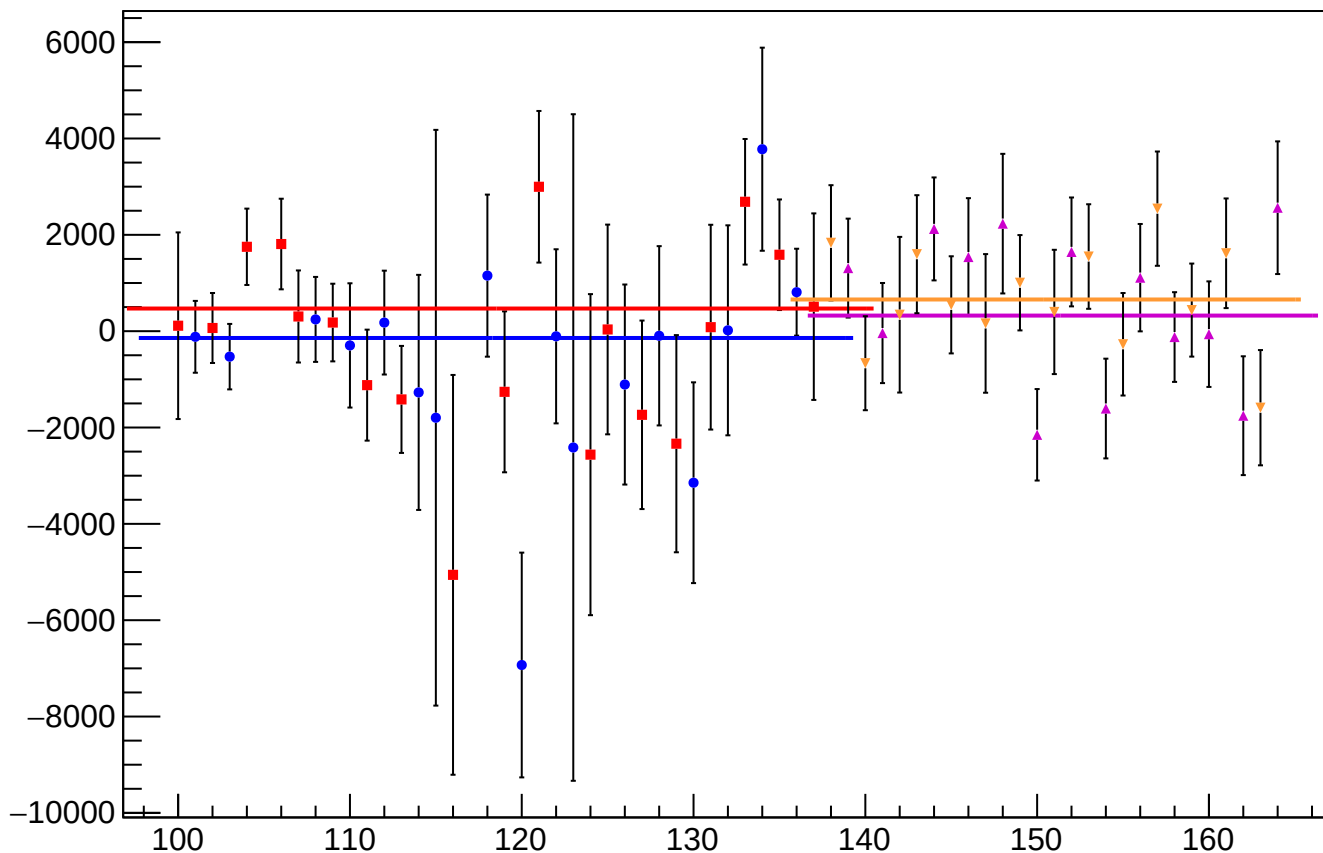
+ sign 2253.583+/-0.394  $\chi^2$ /NDF: 1530521.8/30

All: 2236.389+/-0.275  $\chi^2$ /NDF: 2990272.5/62

- sign 2219.964+/-0.385  $\chi^2$ /NDF: 1456029.0/31



# asym\_sam5\_mean vs Slug



Right In: -141.213+/-313.319  $\chi^2/\text{NDF}$ : 16.9/16

Left Out: 657.770+/-303.260  $\chi^2/\text{NDF}$ : 12.0/13

Right Out: 470.143+/-282.892  $\chi^2/\text{NDF}$ : 22.9/18

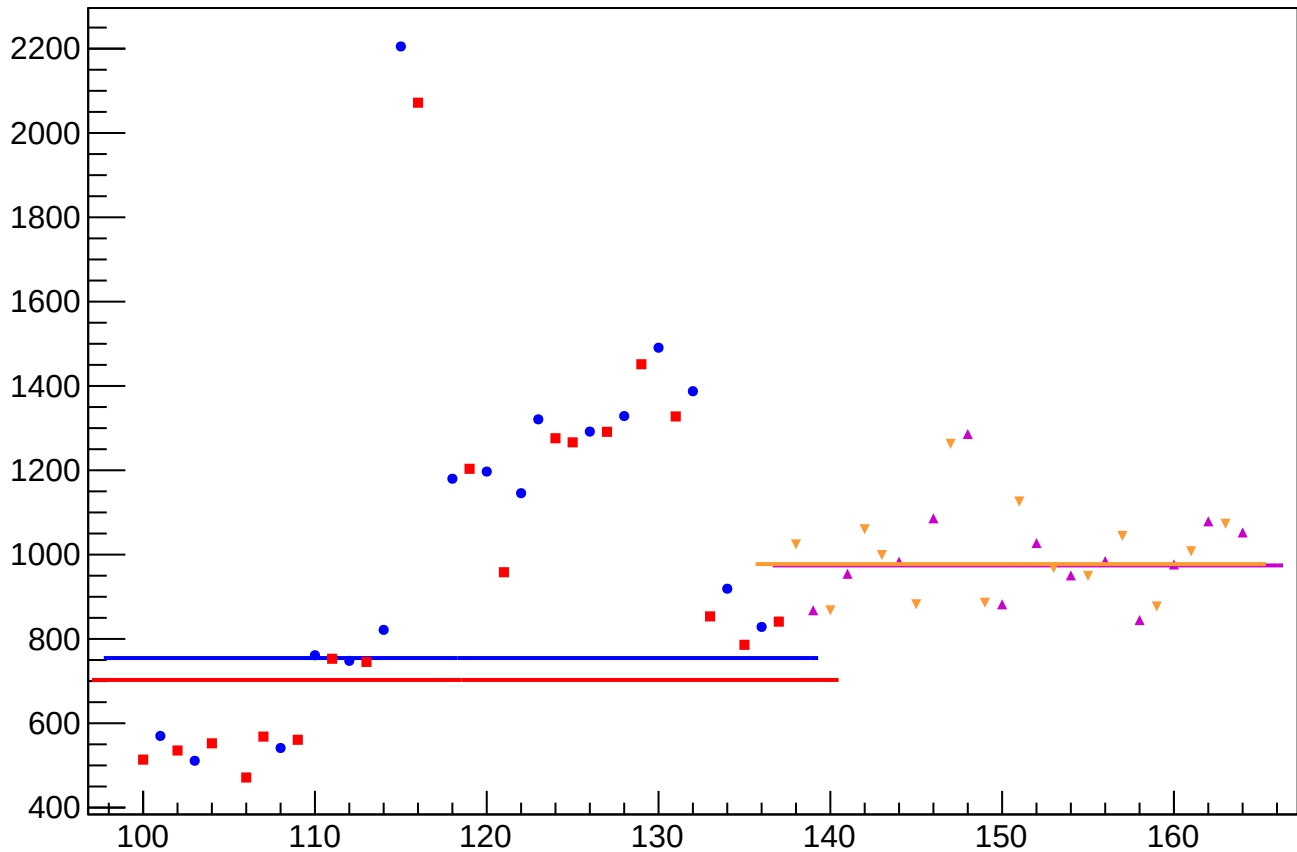
Left In: 323.700+/-305.759  $\chi^2/\text{NDF}$ : 24.6/12

+ sign 271.310+/-217.906  $\chi^2/\text{NDF}$ : 32.3/30

All: 340.118+/-150.325  $\chi^2/\text{NDF}$ : 80.1/62

- sign 402.602+/-207.649  $\chi^2/\text{NDF}$ : 47.6/31

# asym\_sam5\_rms vs Slug



Right In: 754.684+/-0.222  $\chi^2/\text{NDF}$ : 1690621.2/16

Left Out: 977.497+/-0.214  $\chi^2/\text{NDF}$ : 218002.9/13

Right Out: 702.721+/-0.200  $\chi^2/\text{NDF}$ : 1691602.9/18

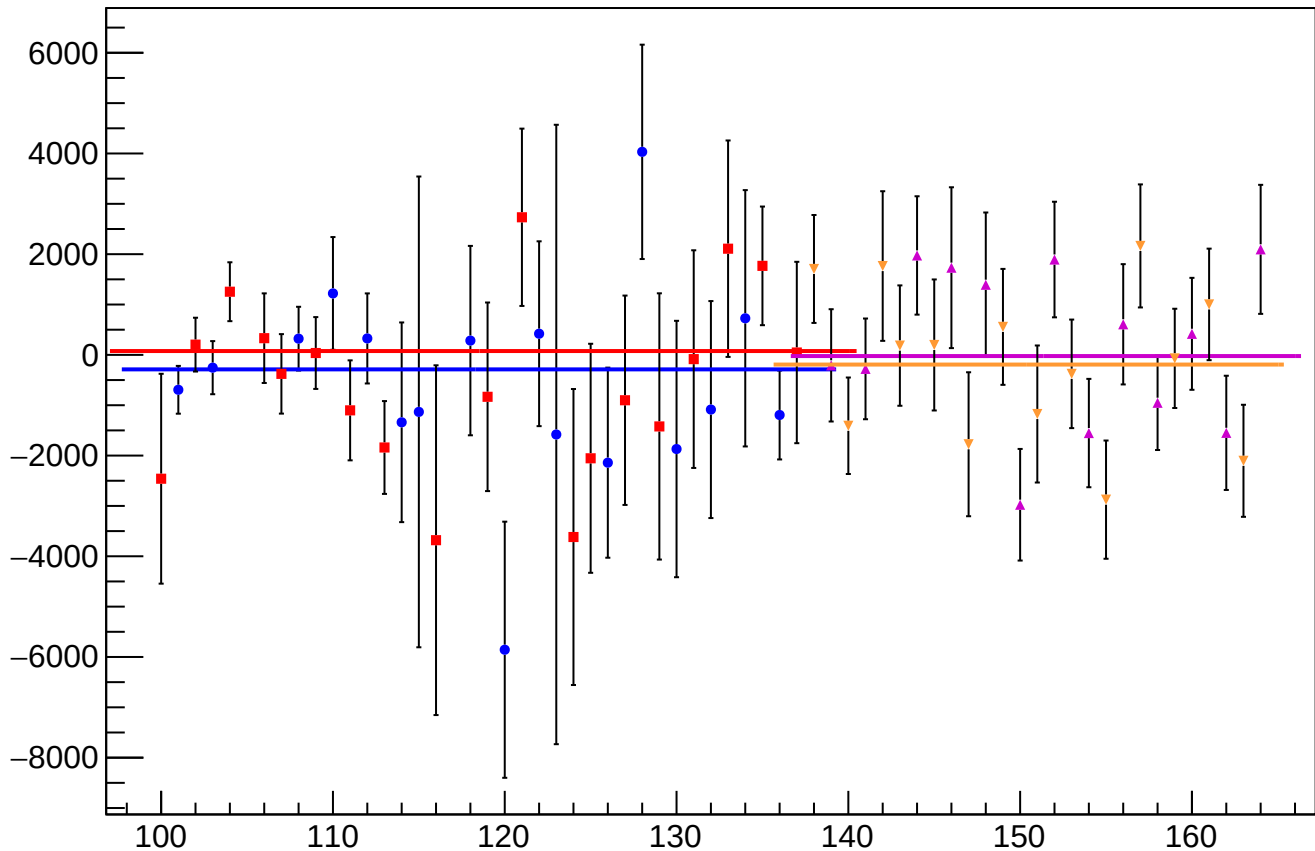
Left In: 974.352+/-0.216  $\chi^2/\text{NDF}$ : 215630.2/12

+ sign 869.724+/-0.154  $\chi^2/\text{NDF}$ : 2430839.5/30

All: 847.857+/-0.106  $\chi^2/\text{NDF}$ : 5226944.8/62

- sign 828.001+/-0.147  $\chi^2/\text{NDF}$ : 2757675.9/31

# asym\_sam6\_mean vs Slug



Right In:  $-288.037 \pm 250.436$   $\chi^2/\text{NDF}$ : 16.2/16

Left Out:  $-192.407 \pm 310.162$   $\chi^2/\text{NDF}$ : 21.9/13

Right Out:  $76.119 \pm 246.083$   $\chi^2/\text{NDF}$ : 21.4/18

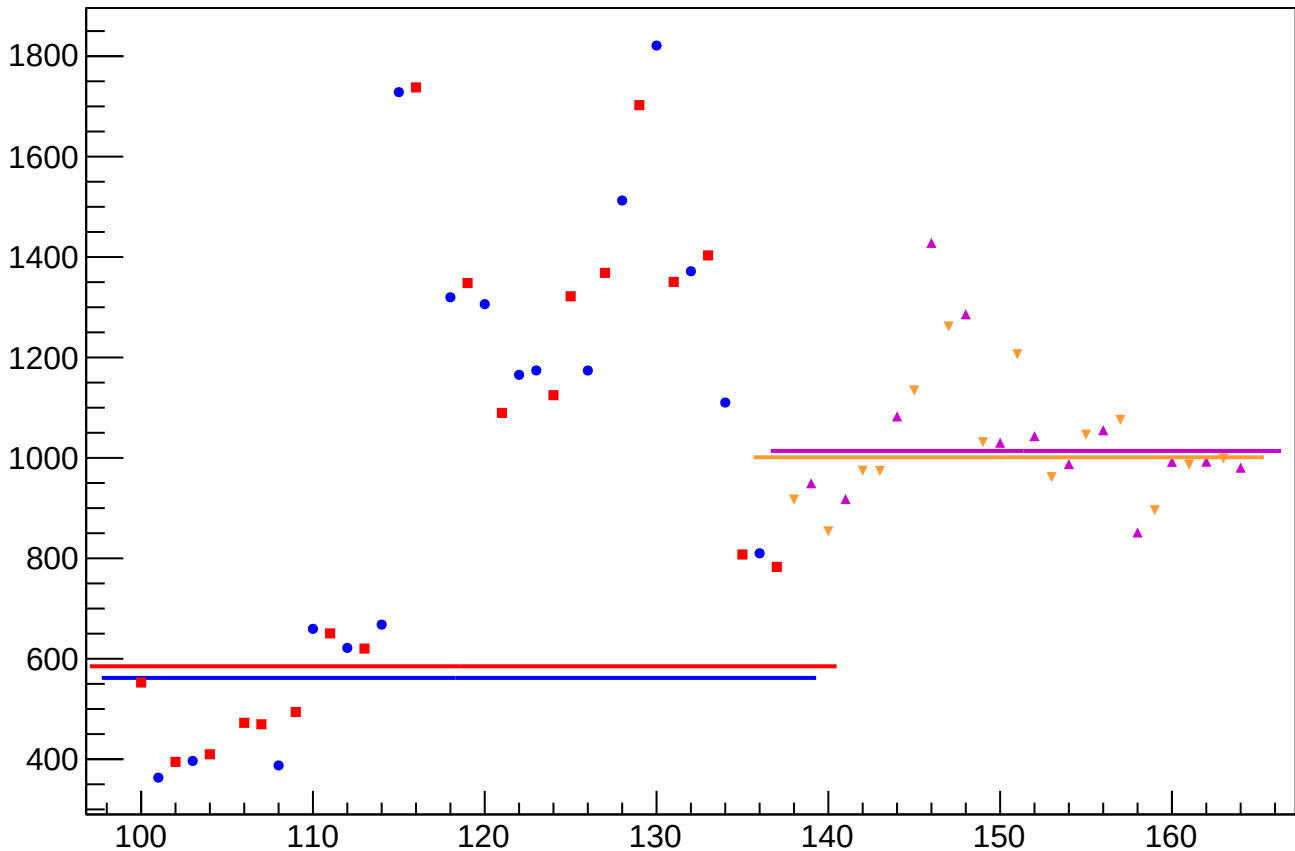
Left In:  $-23.509 \pm 318.234$   $\chi^2/\text{NDF}$ : 23.0/12

+ sign  $-250.296 \pm 194.849$   $\chi^2/\text{NDF}$ : 38.2/30

All:  $-105.597 \pm 137.716$   $\chi^2/\text{NDF}$ : 83.7/62

- sign  $38.838 \pm 194.670$   $\chi^2/\text{NDF}$ : 44.5/31

# asym\_sam6\_rms vs Slug



Right In: 561.894+/-0.177  $\chi^2/\text{NDF}$ : 3216651.3/16

Left Out: 1001.283+/-0.219  $\chi^2/\text{NDF}$ : 231949.3/13

Right Out: 584.993+/-0.174  $\chi^2/\text{NDF}$ : 2824449.5/18

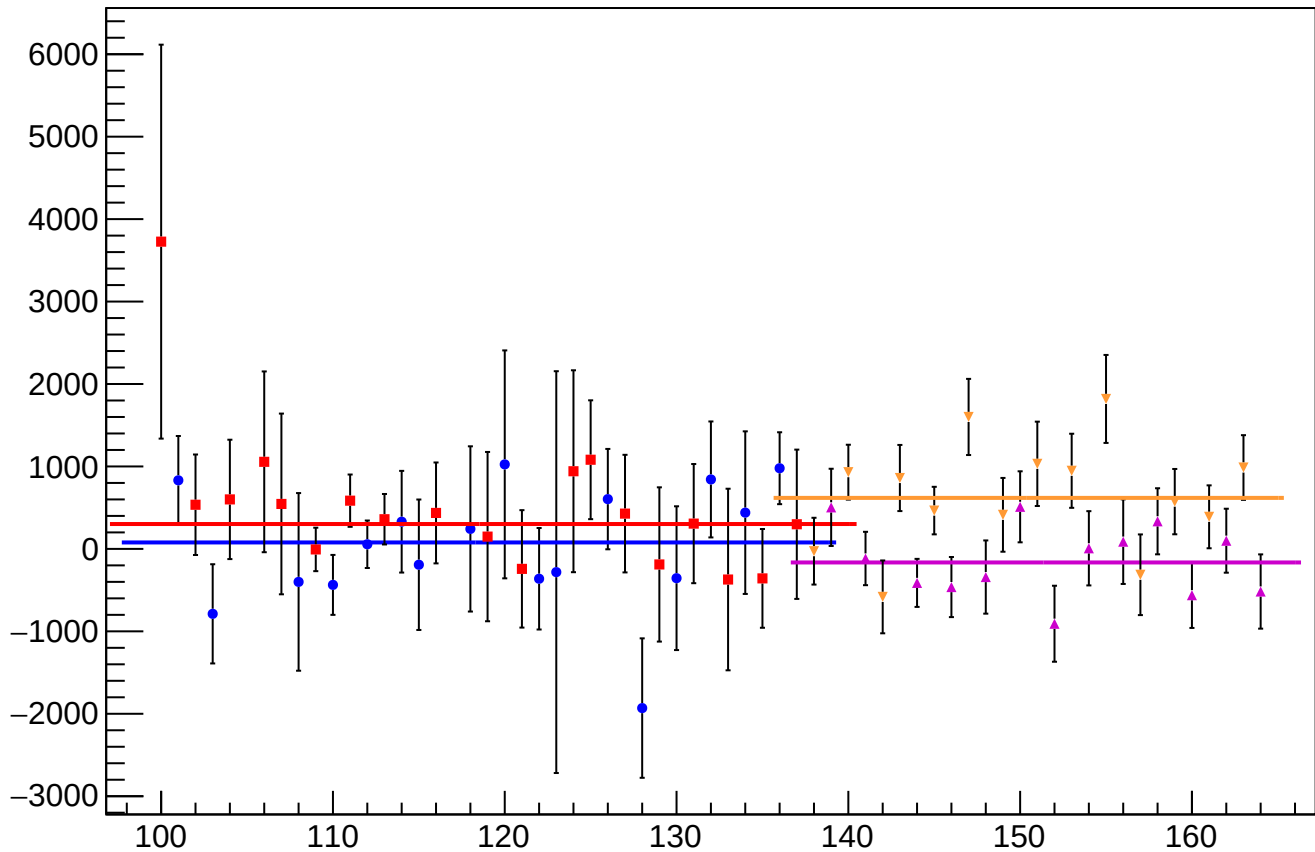
Left In: 1013.861+/-0.225  $\chi^2/\text{NDF}$ : 306383.7/12

+ sign 735.301+/-0.138  $\chi^2/\text{NDF}$ : 5878311.5/30

All: 740.393+/-0.097  $\chi^2/\text{NDF}$ : 11284976.1/62

- sign 745.476+/-0.138  $\chi^2/\text{NDF}$ : 5403935.4/31

# asym\_sam7\_mean vs Slug



Right In: 78.184 $\pm$ 142.869  $\chi^2/\text{NDF}$ : 19.8/16

Left Out: 618.670 $\pm$ 108.865  $\chi^2/\text{NDF}$ : 27.3/13

Right Out: 301.651 $\pm$ 129.650  $\chi^2/\text{NDF}$ : 9.1/18

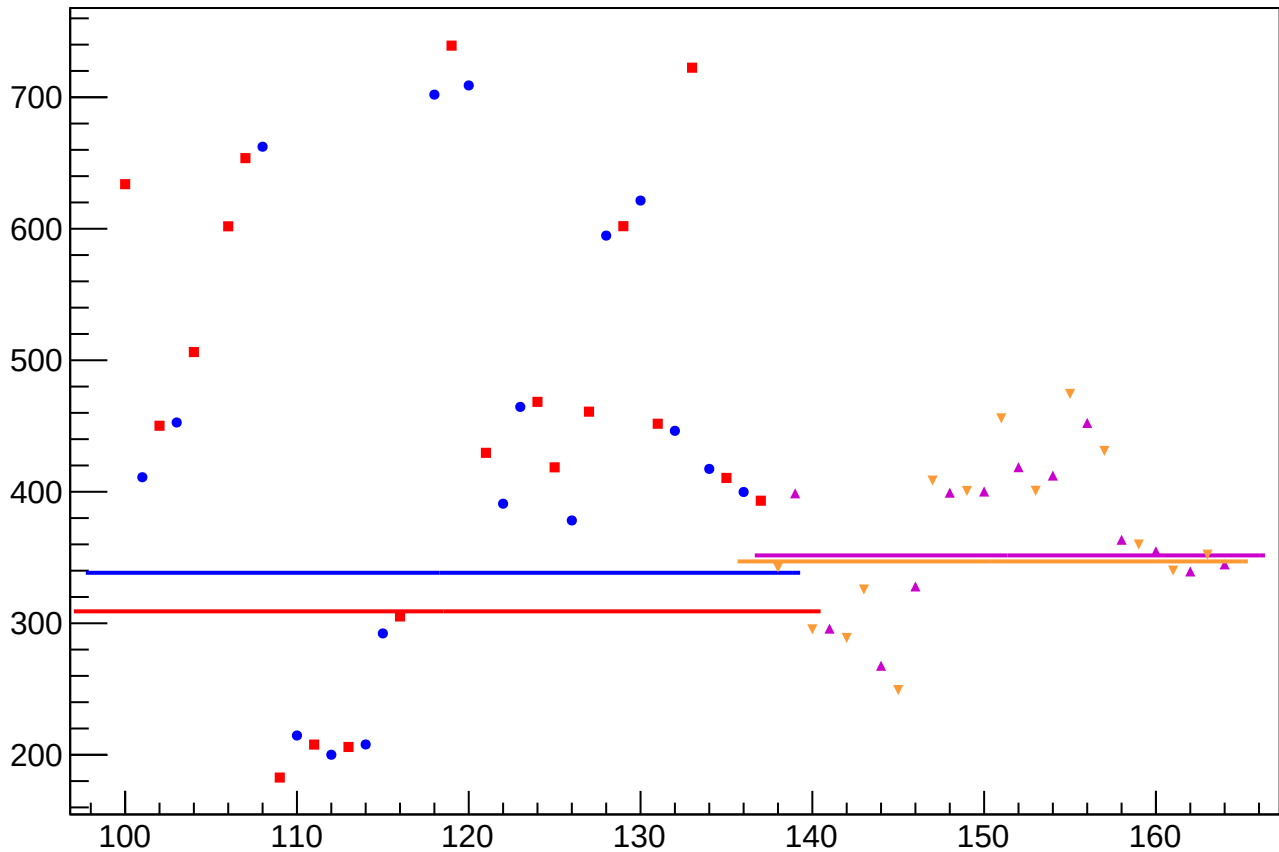
Left In: -164.564 $\pm$ 110.810  $\chi^2/\text{NDF}$ : 12.7/12

+ sign 420.128 $\pm$ 86.591  $\chi^2/\text{NDF}$ : 56.2/30

All: 220.835 $\pm$ 60.379  $\chi^2/\text{NDF}$ : 95.7/62

- sign 32.238 $\pm$ 84.235  $\chi^2/\text{NDF}$ : 29.2/31

# asym\_sam7\_rms vs Slug



Right In:  $338.408 \pm 0.101$   $\chi^2/\text{NDF}$ : 2009287.1/16

Left Out:  $347.047 \pm 0.077$   $\chi^2/\text{NDF}$ : 678097.3/13

Right Out:  $309.081 \pm 0.092$   $\chi^2/\text{NDF}$ : 2733465.5/18

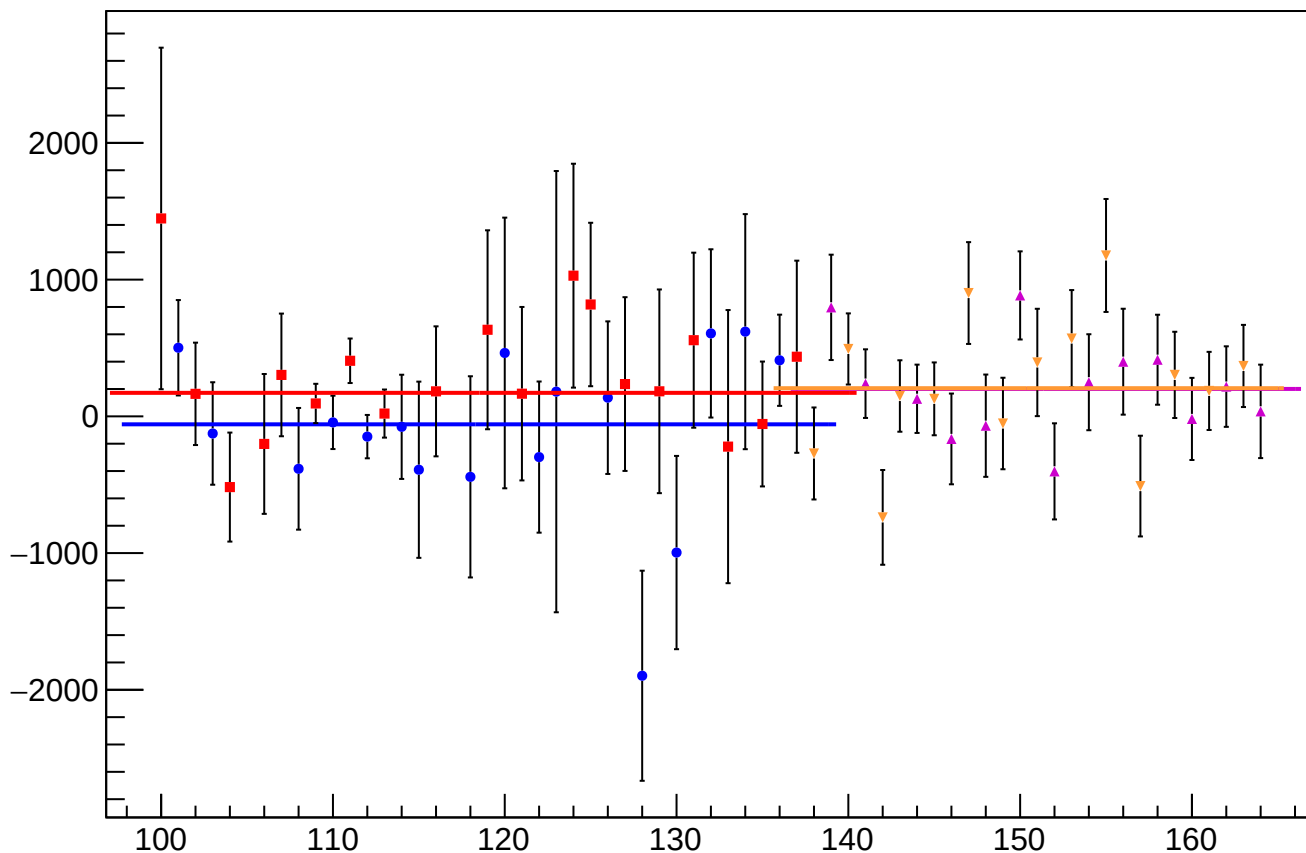
Left In:  $351.612 \pm 0.078$   $\chi^2/\text{NDF}$ : 462385.2/12

+ sign  $343.873 \pm 0.061$   $\chi^2/\text{NDF}$ : 2692011.0/30

All:  $338.625 \pm 0.043$   $\chi^2/\text{NDF}$ : 6026533.4/62

- sign  $333.658 \pm 0.060$   $\chi^2/\text{NDF}$ : 3320221.8/31

# asym\_sam8\_mean vs Slug



Right In:  $-58.299 \pm 90.484$   $\chi^2/\text{NDF}$ : 15.9/16

Left Out:  $205.877 \pm 85.161$   $\chi^2/\text{NDF}$ : 25.9/13

Right Out:  $171.954 \pm 76.920$   $\chi^2/\text{NDF}$ : 11.3/18

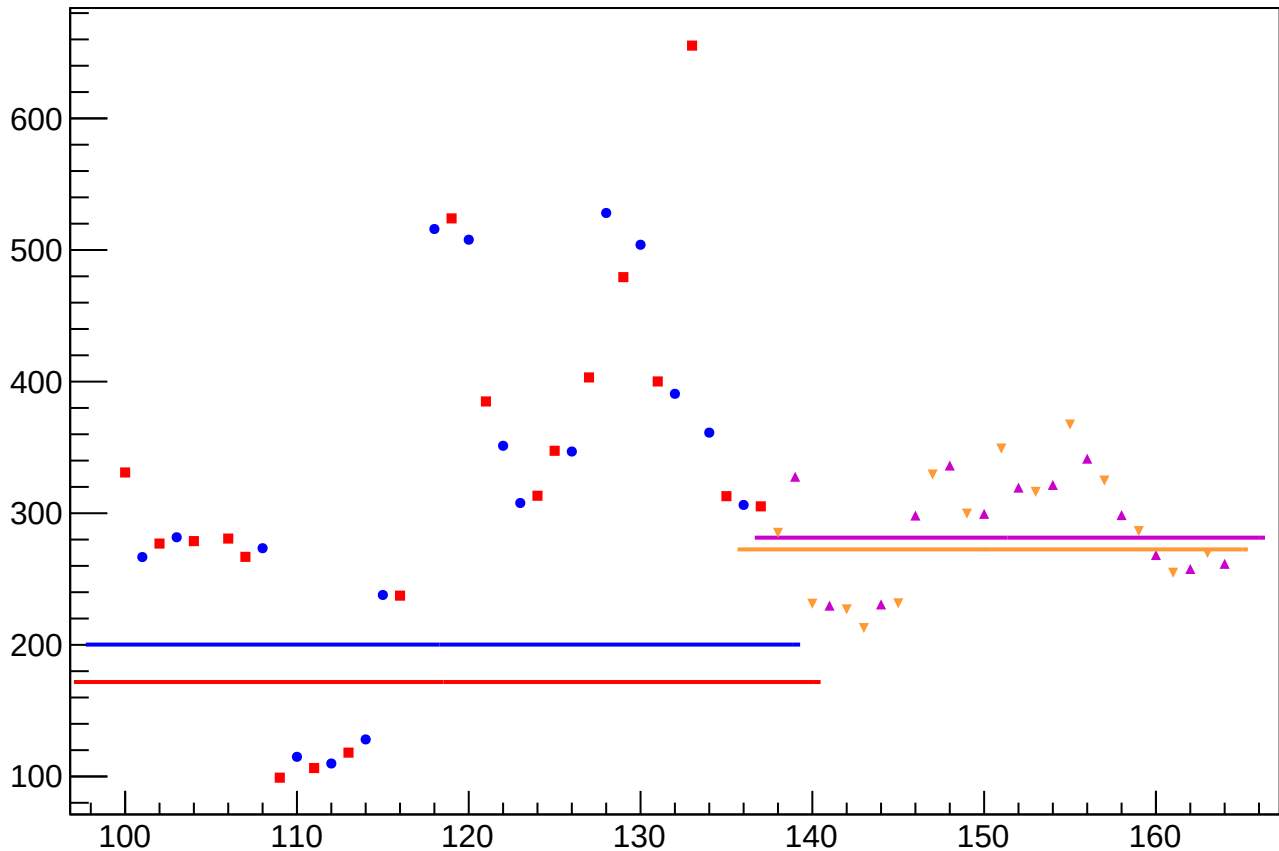
Left In:  $200.552 \pm 88.465$   $\chi^2/\text{NDF}$ : 13.2/12

+ sign  $81.787 \pm 62.015$   $\chi^2/\text{NDF}$ : 46.3/30

All:  $136.411 \pm 42.378$   $\chi^2/\text{NDF}$ : 72.3/62

- sign  $184.267 \pm 58.046$   $\chi^2/\text{NDF}$ : 24.6/31

# asym\_sam8\_rms vs Slug



Right In: 200.209+/-0.064  $\chi^2/\text{NDF}$ : 3387197.7/16

Left Out: 272.522+/-0.060  $\chi^2/\text{NDF}$ : 563814.9/13

Right Out: 171.757+/-0.054  $\chi^2/\text{NDF}$ : 4093922.6/18

Left In: 281.449+/-0.063  $\chi^2/\text{NDF}$ : 376960.0/12

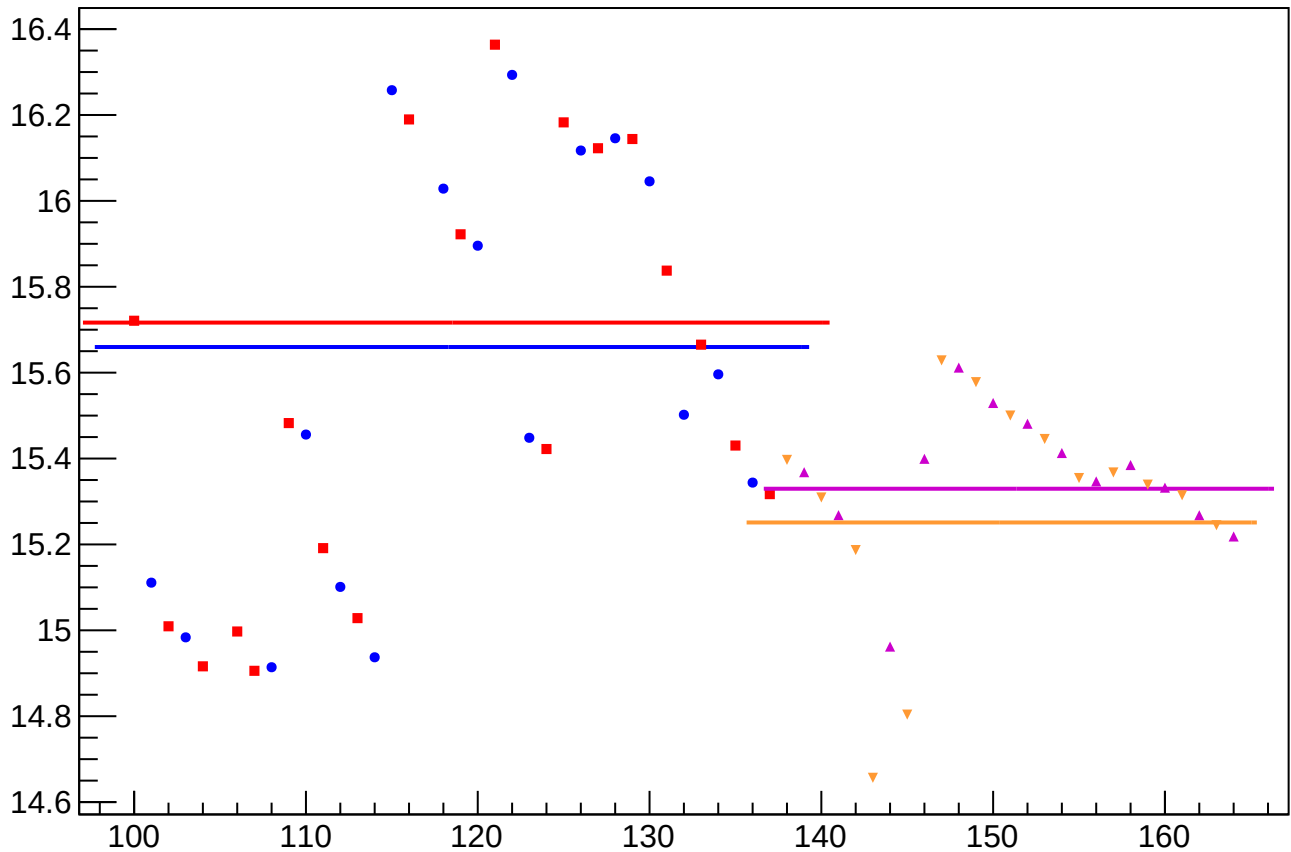
+ sign 238.555+/-0.044  $\chi^2/\text{NDF}$ : 4628371.9/30

All: 228.122+/-0.030  $\chi^2/\text{NDF}$ : 10956516.9/62

- sign 218.983+/-0.041  $\chi^2/\text{NDF}$ : 6221964.8/31



# yield\_sam1\_mean vs Slug



Right In: 15.660 $\pm$ 0.000  $\chi^2$ /NDF: 5782644553.5/16

Left Out: 15.251 $\pm$ 0.000  $\chi^2$ /NDF: 6306085235.4/13

+ sign 15.365 $\pm$ 0.000  $\chi^2$ /NDF: 16080397946.5/30

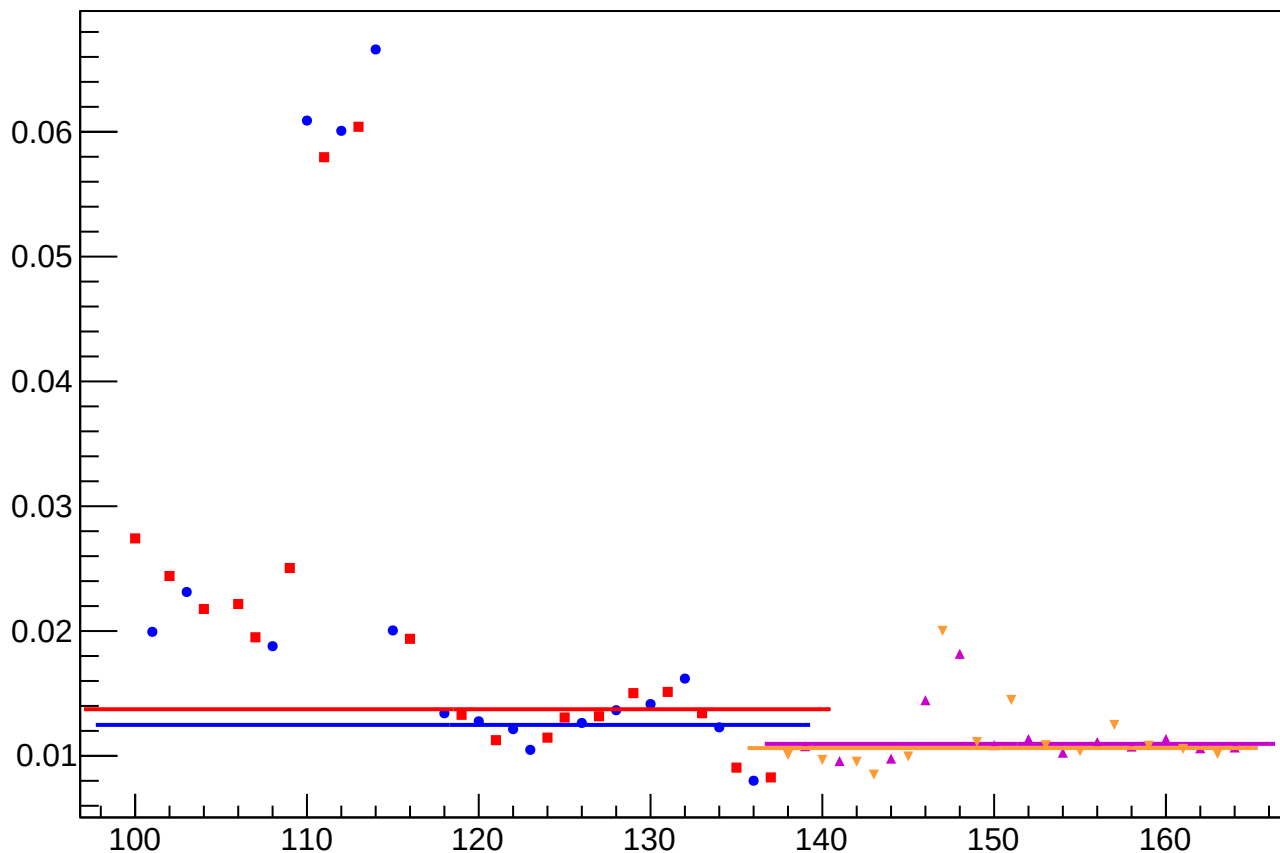
Right Out: 15.717 $\pm$ 0.000  $\chi^2$ /NDF: 5461829475.3/18

All: 15.397 $\pm$ 0.000  $\chi^2$ /NDF: 26959379498.2

Left In: 15.330 $\pm$ 0.000  $\chi^2$ /NDF: 1979756030.9/12

- sign 15.432 $\pm$ 0.000  $\chi^2$ /NDF: 10619937997.3/31

# yield\_sam1\_rms vs Slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 2152911.4/16

Left Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:586817.2/13

Right Out: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 2077569.4/18

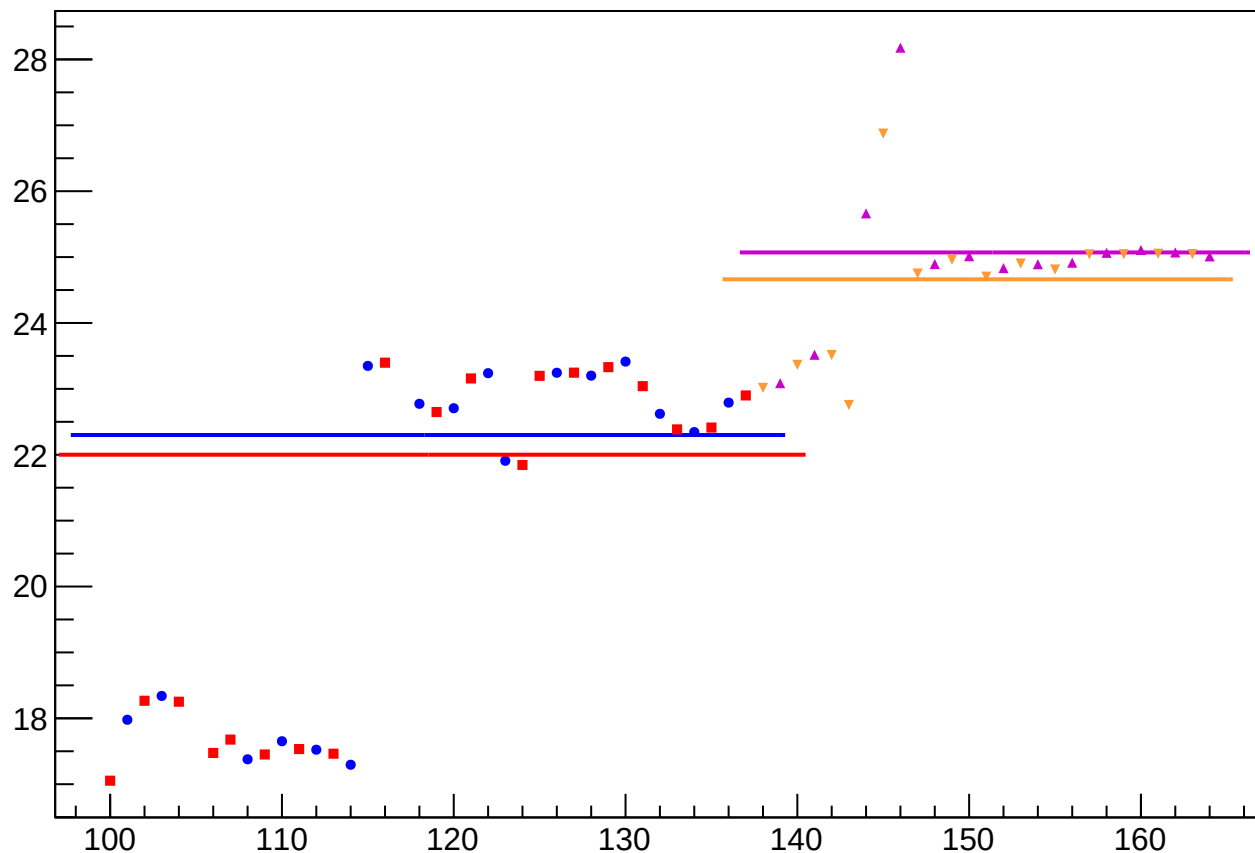
Left In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF:397893.1/12

+ sign 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 2904451.3/30

All: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 5742058.5/62

- sign 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 2802498.4/31

# yield\_sam2\_mean vs Slug



Right In: 22.300+/-0.000  $\chi^2/\text{NDF}$ : 938398636.8/16

Left Out: 24.663+/-0.000  $\chi^2/\text{NDF}$ : 864331852.8/13

Right Out: 22.001+/-0.000  $\chi^2/\text{NDF}$ : 1066041325.5/18

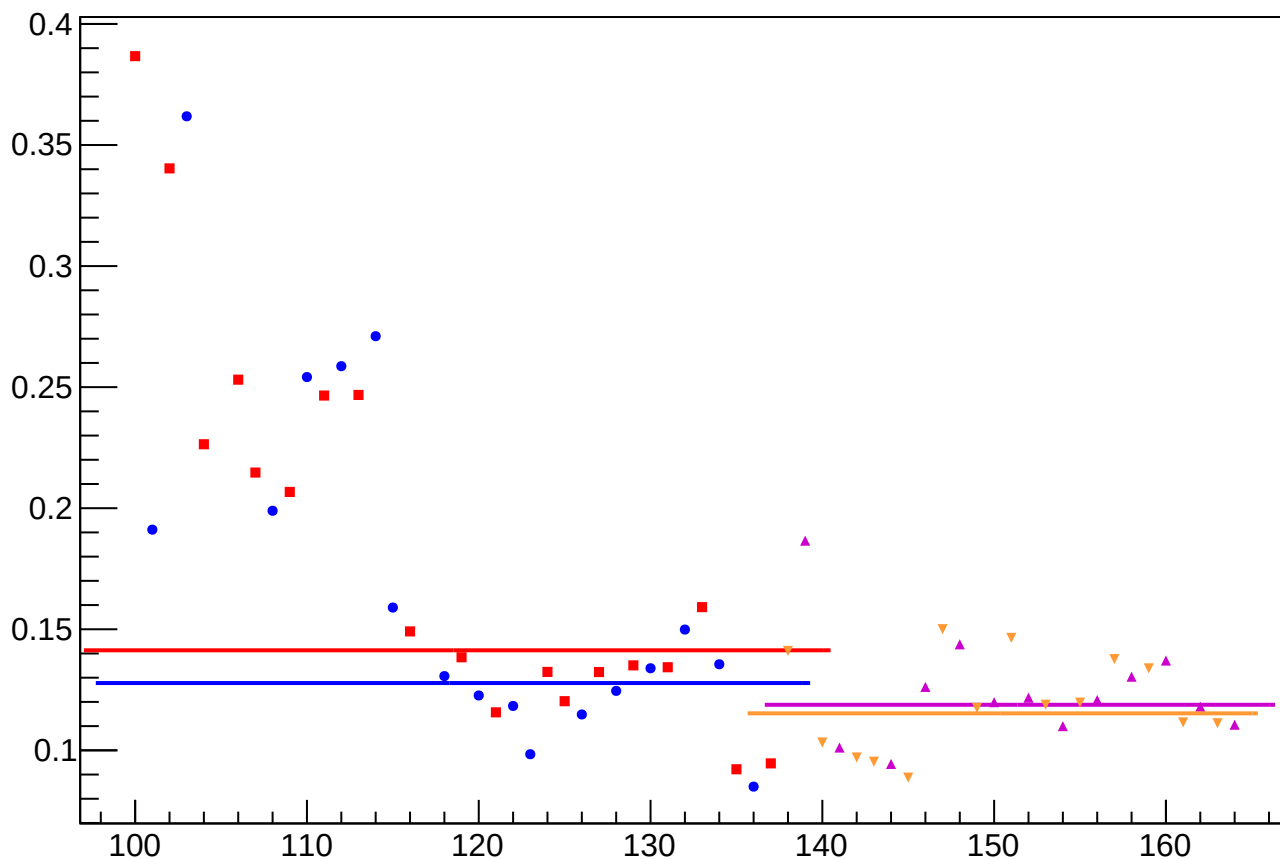
Left In: 25.070+/-0.000  $\chi^2/\text{NDF}$ : 698255965.5/12

+ sign 23.915+/-0.000  $\chi^2/\text{NDF}$ : 2984552904.1/30

All: 24.019+/-0.000  $\chi^2/\text{NDF}$ : 6575281598.8/6

- sign 24.132+/-0.000  $\chi^2/\text{NDF}$ : 3568520982.4/31

# yield\_sam2\_rms vs Slug



Right In: 0.128 $\pm$ 0.000  $\chi^2$ /NDF: 1492109.7/16

Left Out: 0.115 $\pm$ 0.000  $\chi^2$ /NDF:453719.1/13

Right Out: 0.141 $\pm$ 0.000  $\chi^2$ /NDF: 1449275.1/18

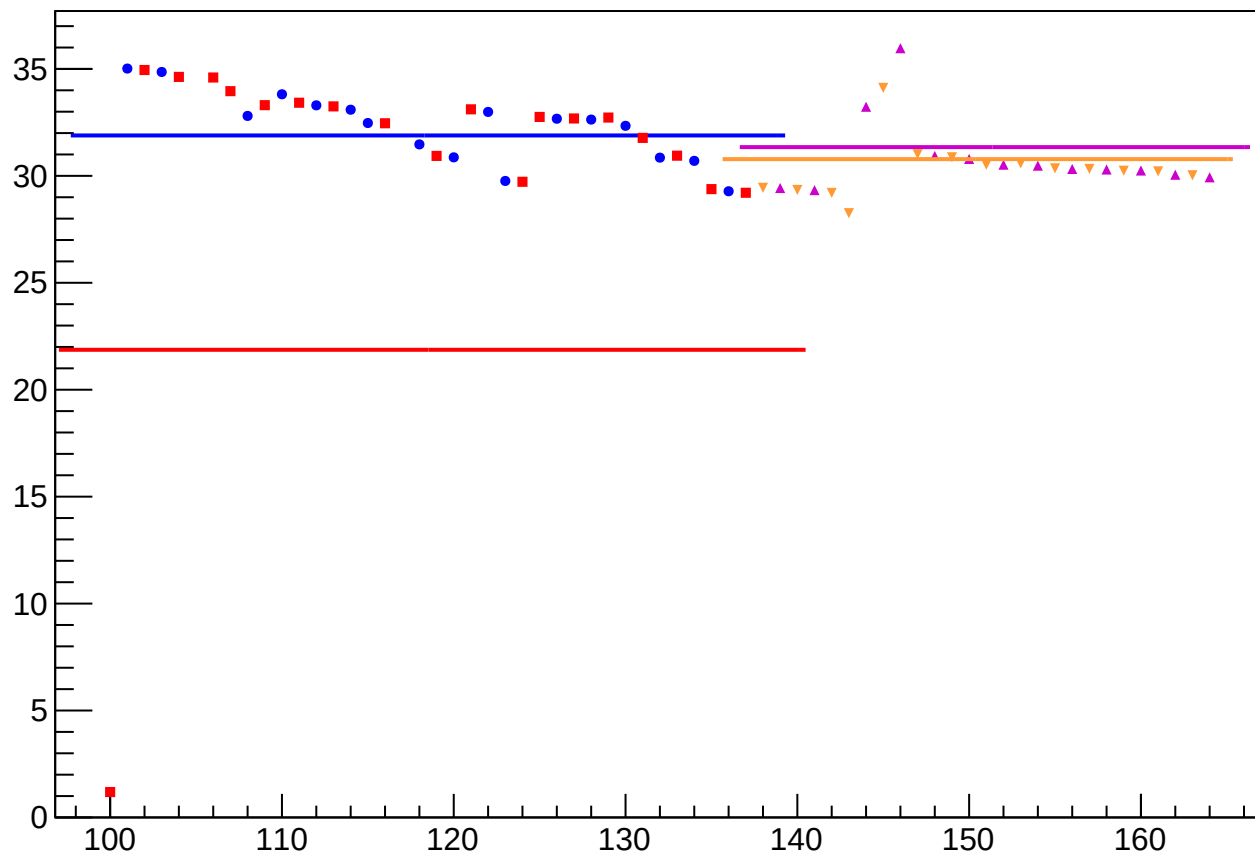
Left In: 0.119 $\pm$ 0.000  $\chi^2$ /NDF:429971.4/12

+ sign 0.119 $\pm$ 0.000  $\chi^2$ /NDF: 2012190.3/30

All: 0.122 $\pm$ 0.000  $\chi^2$ /NDF: 4124428.1/62

- sign 0.126 $\pm$ 0.000  $\chi^2$ /NDF: 2073103.6/31

# yield\_sam3\_mean vs Slug



Right In: 31.889+/-0.000  $\chi^2/\text{NDF}$ : 1930403776.3/16

Left Out: 30.782+/-0.000  $\chi^2/\text{NDF}$ : 4563008333.4/13

Right Out: 21.867+/-0.000  $\chi^2/\text{NDF}$ : 230068750081.7/18

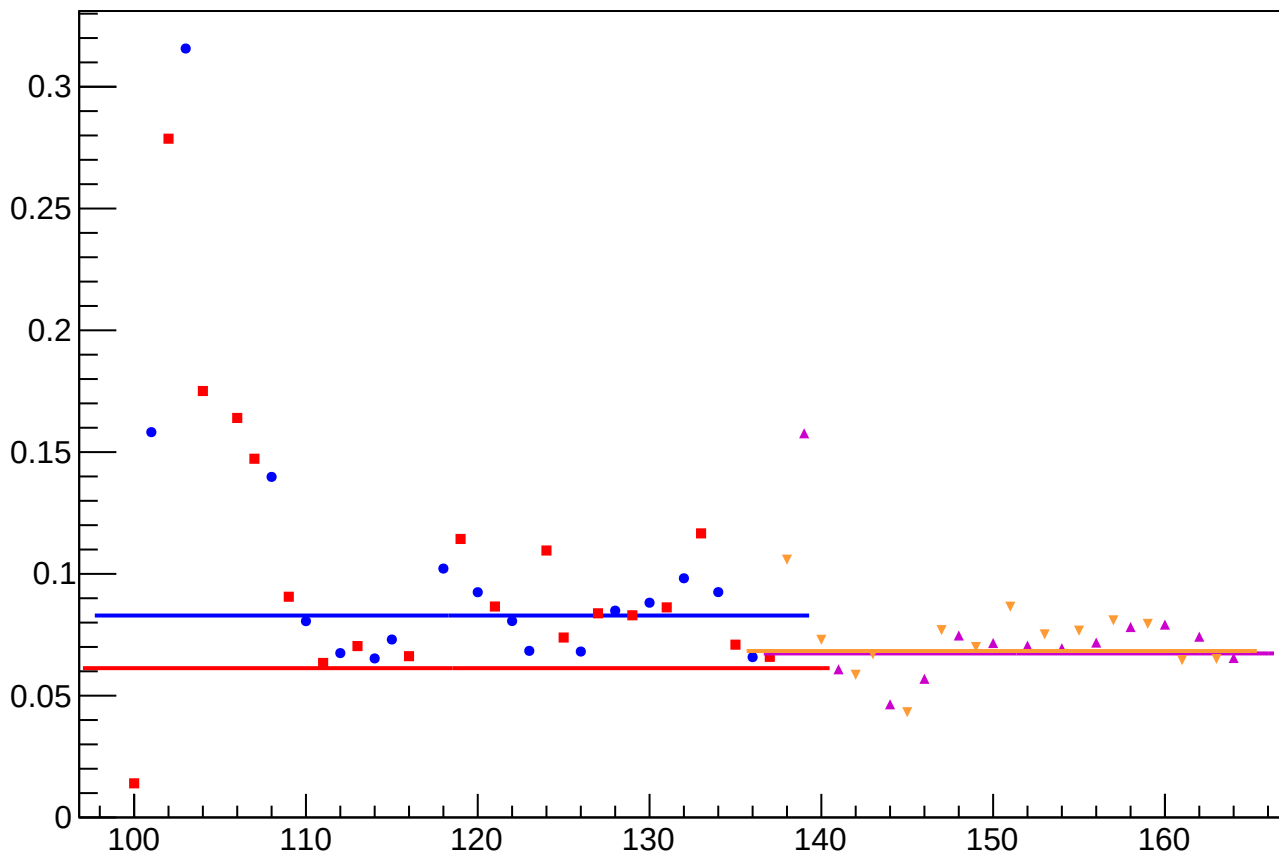
Left In: 31.344+/-0.000  $\chi^2/\text{NDF}$ : 6727089386.7/12

+ sign 31.109+/-0.000  $\chi^2/\text{NDF}$ : 7109092287.4/30

All: 29.296+/-0.000  $\chi^2/\text{NDF}$ : 317813477120.

- sign 27.726+/-0.000  $\chi^2/\text{NDF}$ : 295892769765.6/31

# yield\_sam3\_rms vs Slug



Right In: 0.083 $\pm$ 0.000  $\chi^2$ /NDF: 1164452.3/16

Left Out: 0.068 $\pm$ 0.000  $\chi^2$ /NDF:692950.8/13

Right Out: 0.061 $\pm$ 0.000  $\chi^2$ /NDF: 3603853.3/18

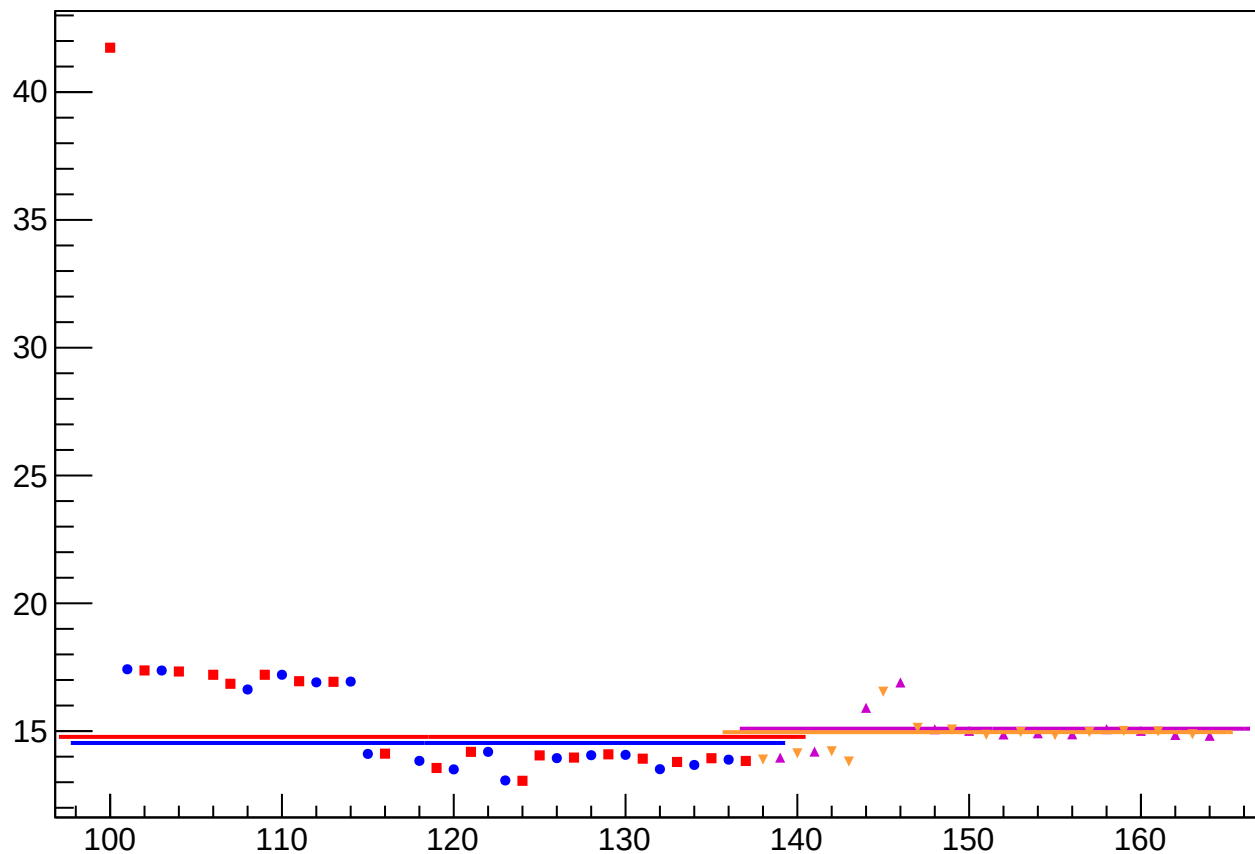
Left In: 0.067 $\pm$ 0.000  $\chi^2$ /NDF:849034.3/12

+ sign 0.073 $\pm$ 0.000  $\chi^2$ /NDF: 2070568.0/30

All: 0.069 $\pm$ 0.000  $\chi^2$ /NDF: 6721411.8/62

- sign 0.065 $\pm$ 0.000  $\chi^2$ /NDF: 4501015.8/31

# yield\_sam4\_mean vs Slug



Right In: 14.536+/-0.000  $\chi^2/\text{NDF}$ : 1470499792.7/16

Left Out: 14.959+/-0.000  $\chi^2/\text{NDF}$ : 948666444.9/13

Right Out: 14.774+/-0.000  $\chi^2/\text{NDF}$ : 1886755709.2/18

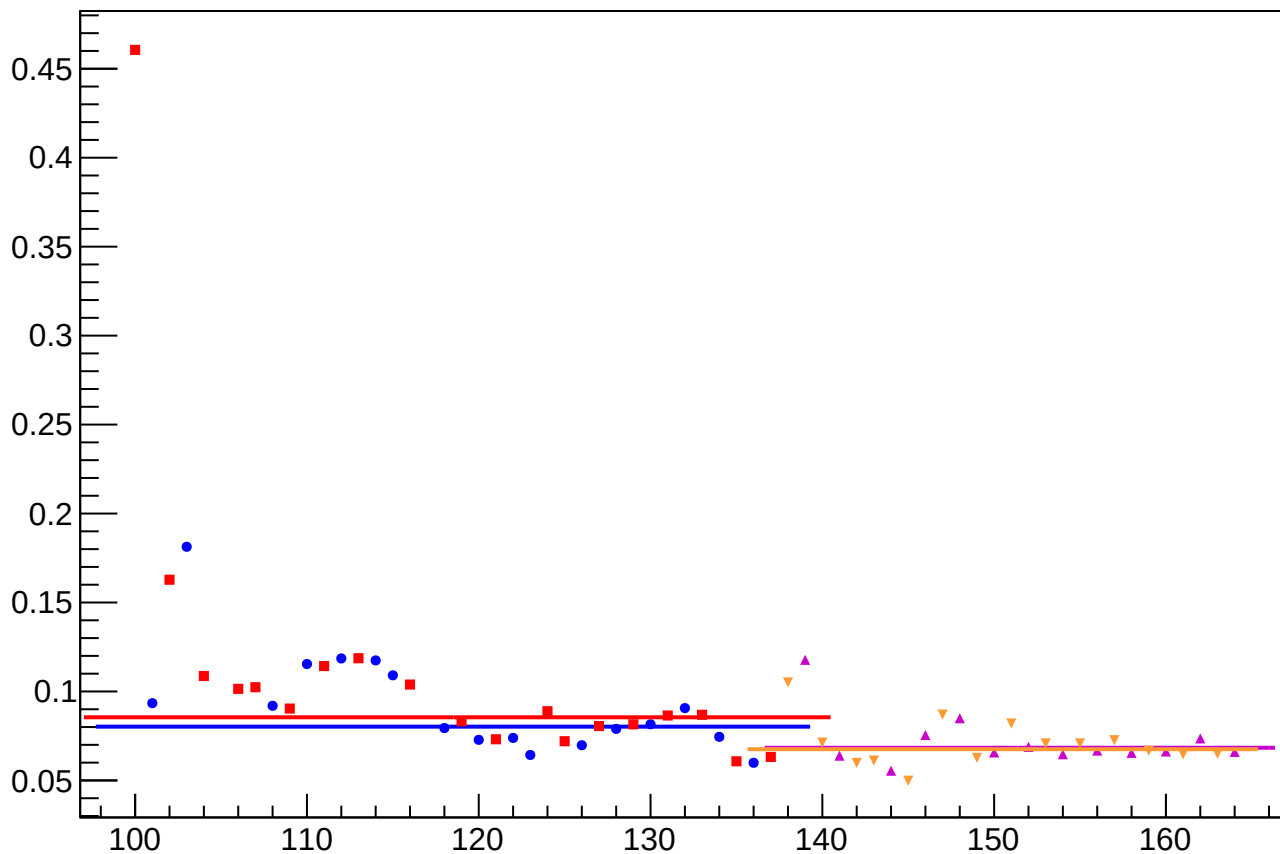
Left In: 15.094+/-0.000  $\chi^2/\text{NDF}$ : 756457738.8/12

+ sign 14.828+/-0.000  $\chi^2/\text{NDF}$ : 2525277661.8/30

All: 14.911+/-0.000  $\chi^2/\text{NDF}$ : 5264836962.6/60

- sign 14.997+/-0.000  $\chi^2/\text{NDF}$ : 2700680064.6/31

# yield\_sam4\_rms vs Slug



Right In: 0.080 $\pm$ 0.000  $\chi^2$ /NDF: 778734.5/16

Left Out: 0.068 $\pm$ 0.000  $\chi^2$ /NDF: 474518.7/13

Right Out: 0.085 $\pm$ 0.000  $\chi^2$ /NDF: 738043.0/18

Left In: 0.068 $\pm$ 0.000  $\chi^2$ /NDF: 411978.7/12

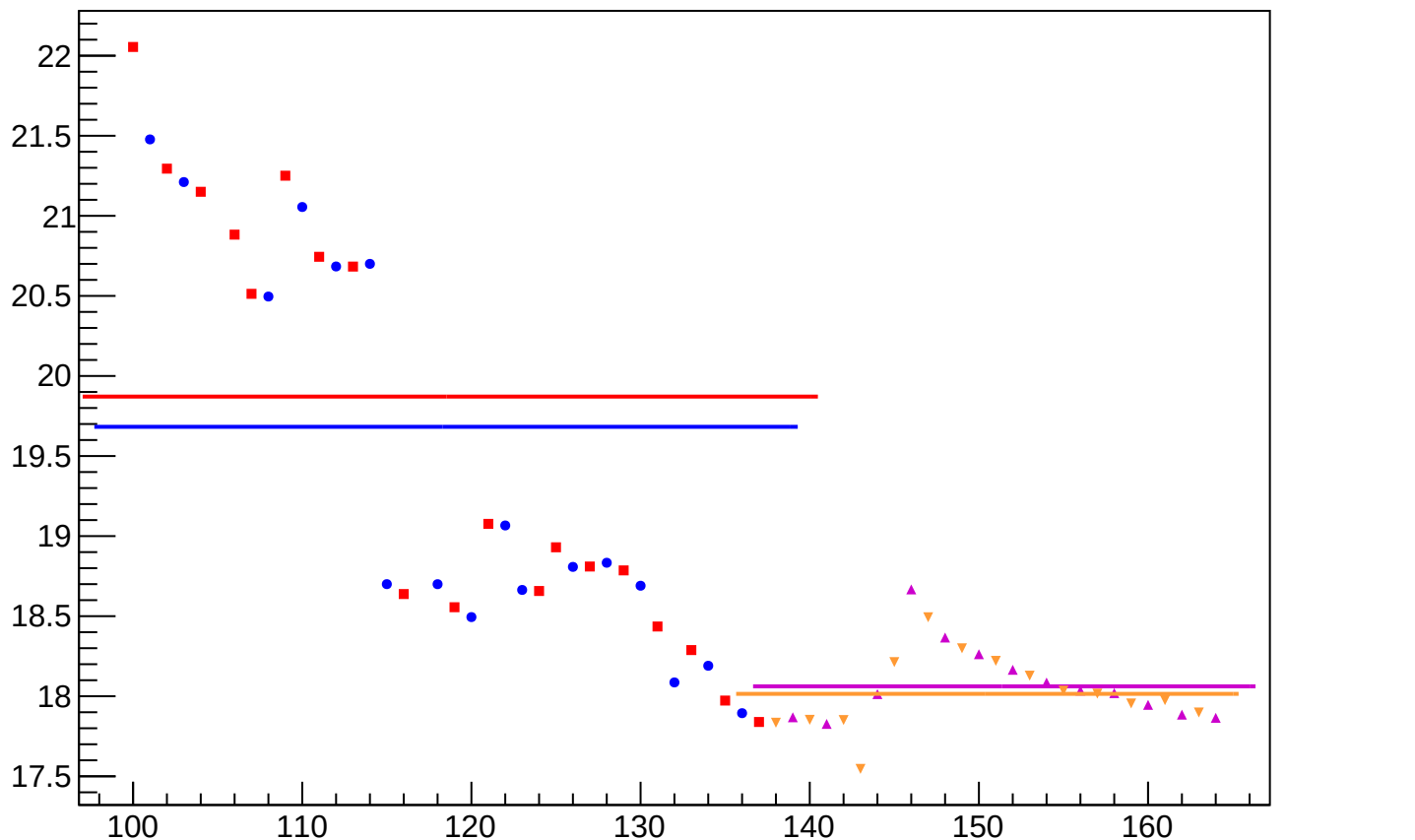
+ sign 0.071 $\pm$ 0.000  $\chi^2$ /NDF: 1443803.1/30

All: 0.072 $\pm$ 0.000  $\chi^2$ /NDF: 2934578.7/62

- sign 0.074 $\pm$ 0.000  $\chi^2$ /NDF: 1479220.3/31



# yield\_sam5\_mean vs Slug



Right In: 19.683+/-0.000  $\chi^2/\text{NDF}$ : 12276801857.2/16

Left Out: 18.015+/-0.000  $\chi^2/\text{NDF}$ : 416888476.2/13

Right Out: 19.871+/-0.000  $\chi^2/\text{NDF}$ : 11324266794.7/18

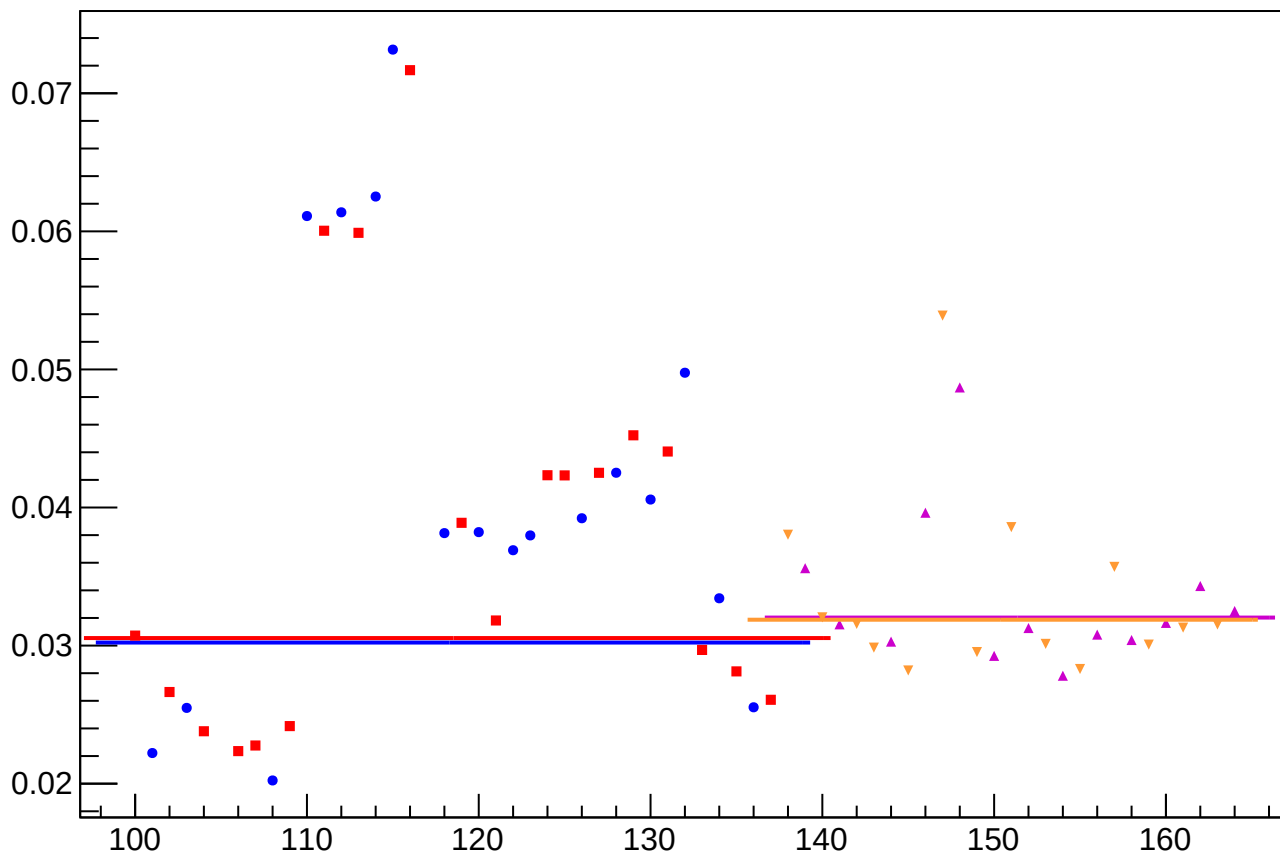
Left In: 18.062+/-0.000  $\chi^2/\text{NDF}$ : 373668337.5/12

+ sign 18.658+/-0.000  $\chi^2/\text{NDF}$ : 23143314148.1/30

All: 18.720+/-0.000  $\chi^2/\text{NDF}$ : 47418744507.1

- sign 18.783+/-0.000  $\chi^2/\text{NDF}$ : 24151470753.9/31

# yield\_sam5\_rms vs Slug



Right In: 0.030 $\pm$ 0.000  $\chi^2$ /NDF: 1324518.2/16

Left Out: 0.032 $\pm$ 0.000  $\chi^2$ /NDF:424658.1/13

Right Out: 0.031 $\pm$ 0.000  $\chi^2$ /NDF: 1189734.1/18

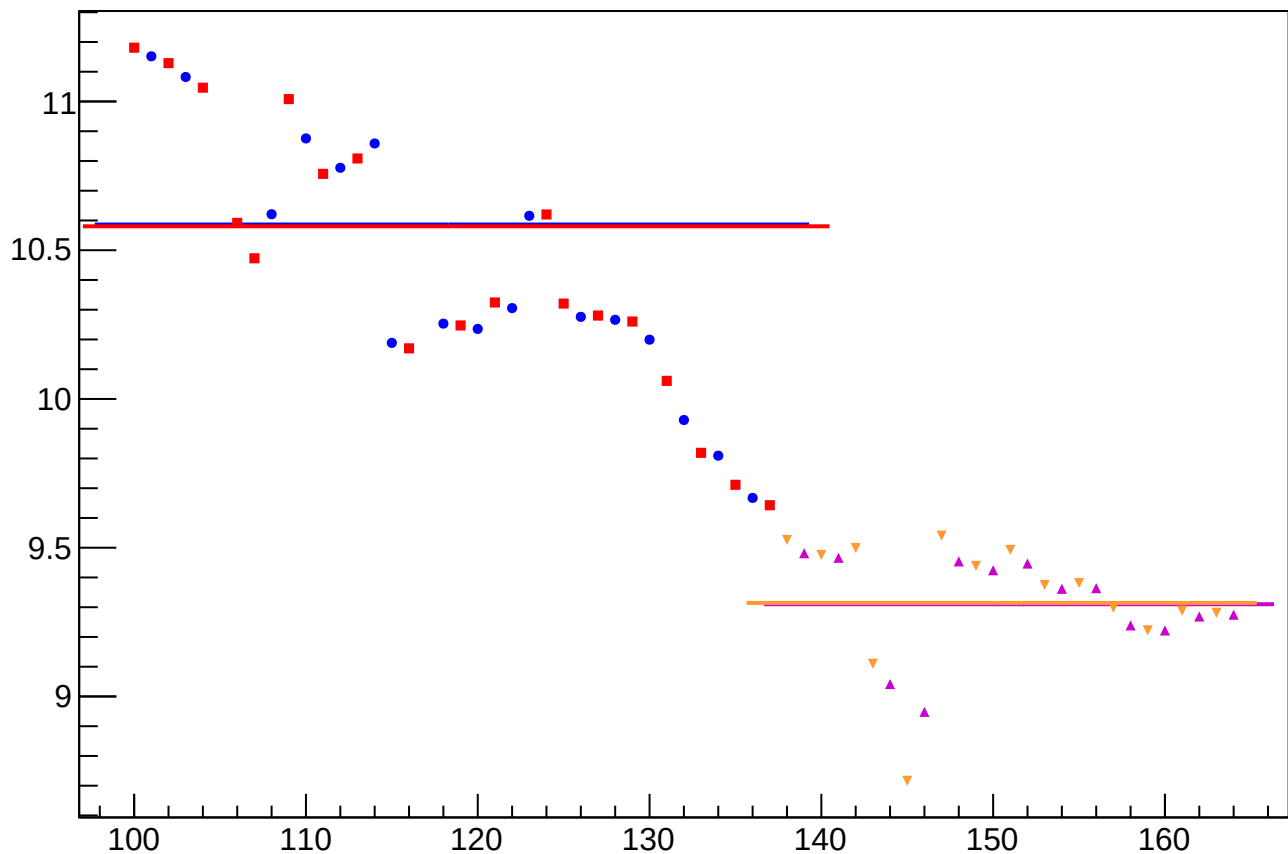
Left In: 0.032 $\pm$ 0.000  $\chi^2$ /NDF:321969.6/12

+ sign 0.031 $\pm$ 0.000  $\chi^2$ /NDF: 1769721.9/30

All: 0.031 $\pm$ 0.000  $\chi^2$ /NDF: 3298806.9/62

- sign 0.031 $\pm$ 0.000  $\chi^2$ /NDF: 1528442.1/31

# yield\_sam6\_mean vs Slug



Right In: 10.586+/-0.000  $\chi^2/\text{NDF}$ : 7420104563.4/16

Left Out: 9.314+/-0.000  $\chi^2/\text{NDF}$ : 1064447963.2/13

Right Out: 10.580+/-0.000  $\chi^2/\text{NDF}$ : 5763852721.2/18

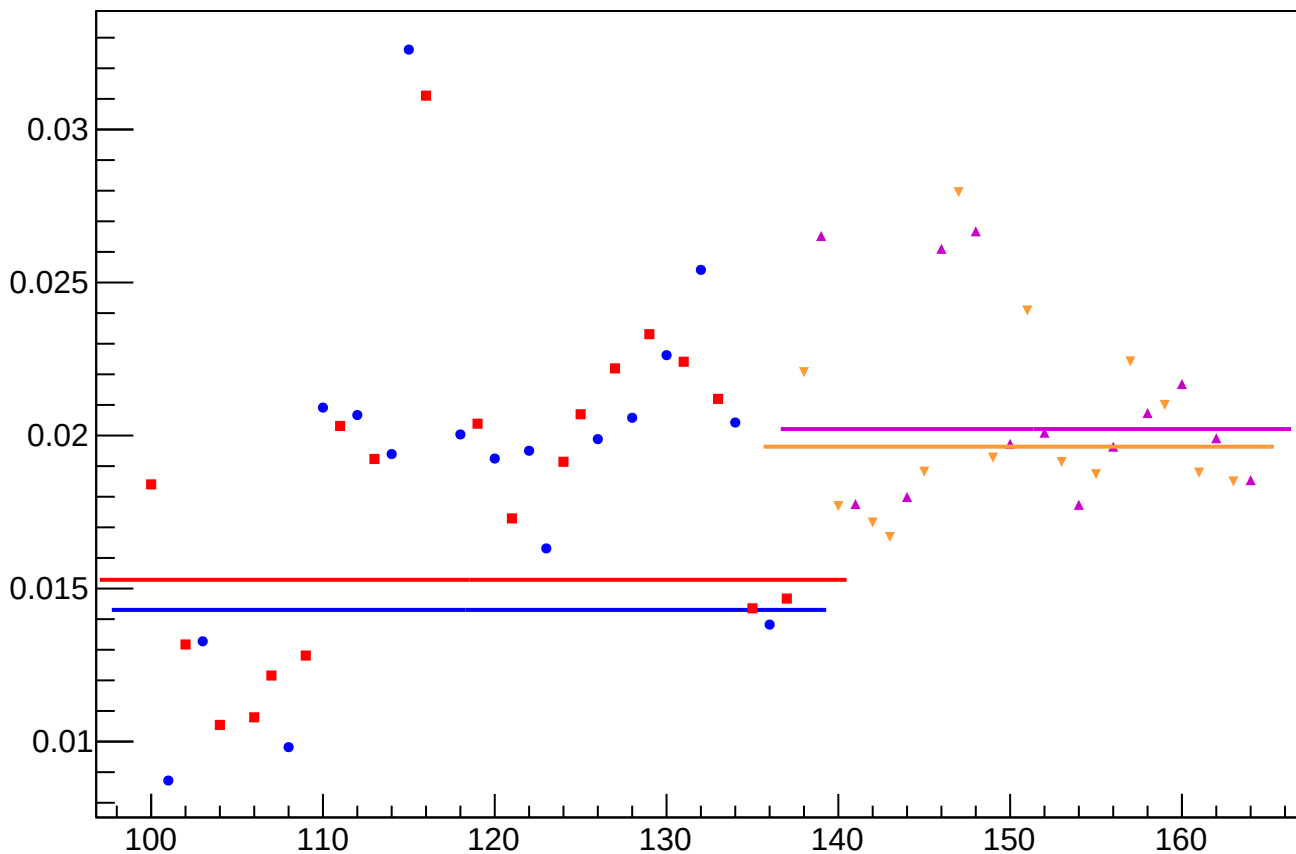
Left In: 9.310+/-0.000  $\chi^2/\text{NDF}$ : 522913264.9/12

+ sign 9.968+/-0.000  $\chi^2/\text{NDF}$ : 28960707286.7/30

All: 9.972+/-0.000  $\chi^2/\text{NDF}$ : 54646998612.5/6

- sign 9.976+/-0.000  $\chi^2/\text{NDF}$ : 25684694924.5/31

# yield\_sam6\_rms vs Slug



Right In: 0.014 $\pm$ 0.000  $\chi^2$ /NDF: 1408012.0/16

Left Out: 0.020 $\pm$ 0.000  $\chi^2$ /NDF:313873.4/13

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 989017.0/18

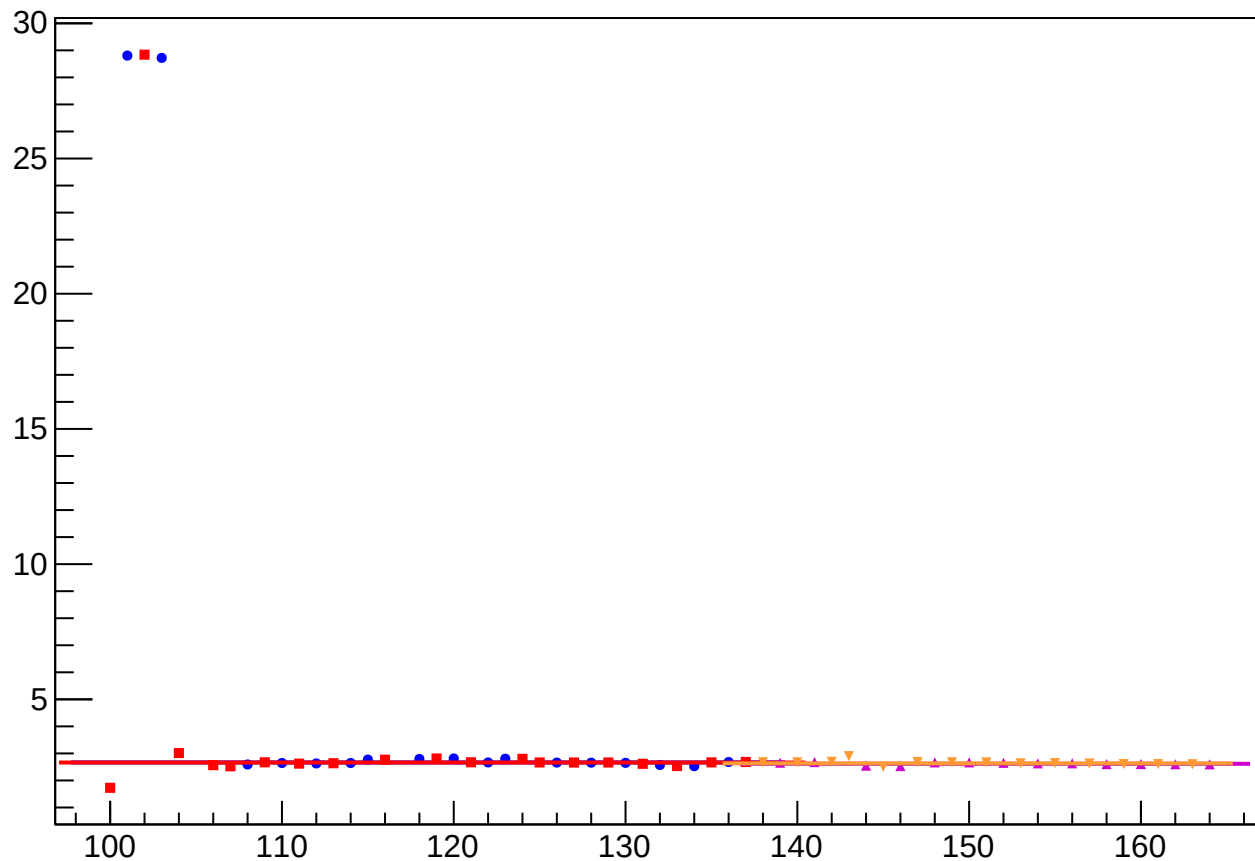
Left In: 0.020 $\pm$ 0.000  $\chi^2$ /NDF:346032.9/12

+ sign 0.017 $\pm$ 0.000  $\chi^2$ /NDF: 2441916.9/30

All: 0.017 $\pm$ 0.000  $\chi^2$ /NDF: 4386819.5/62

- sign 0.018 $\pm$ 0.000  $\chi^2$ /NDF: 1918291.6/31

# yield\_sam7\_mean vs Slug



Right In: 2.666 $\pm$ 0.000  $\chi^2$ /NDF: 163167327359.4/16

Left Out: 2.632 $\pm$ 0.000  $\chi^2$ /NDF: 11788737287.3/13

Right Out: 2.664 $\pm$ 0.000  $\chi^2$ /NDF: 70398125461.7/18

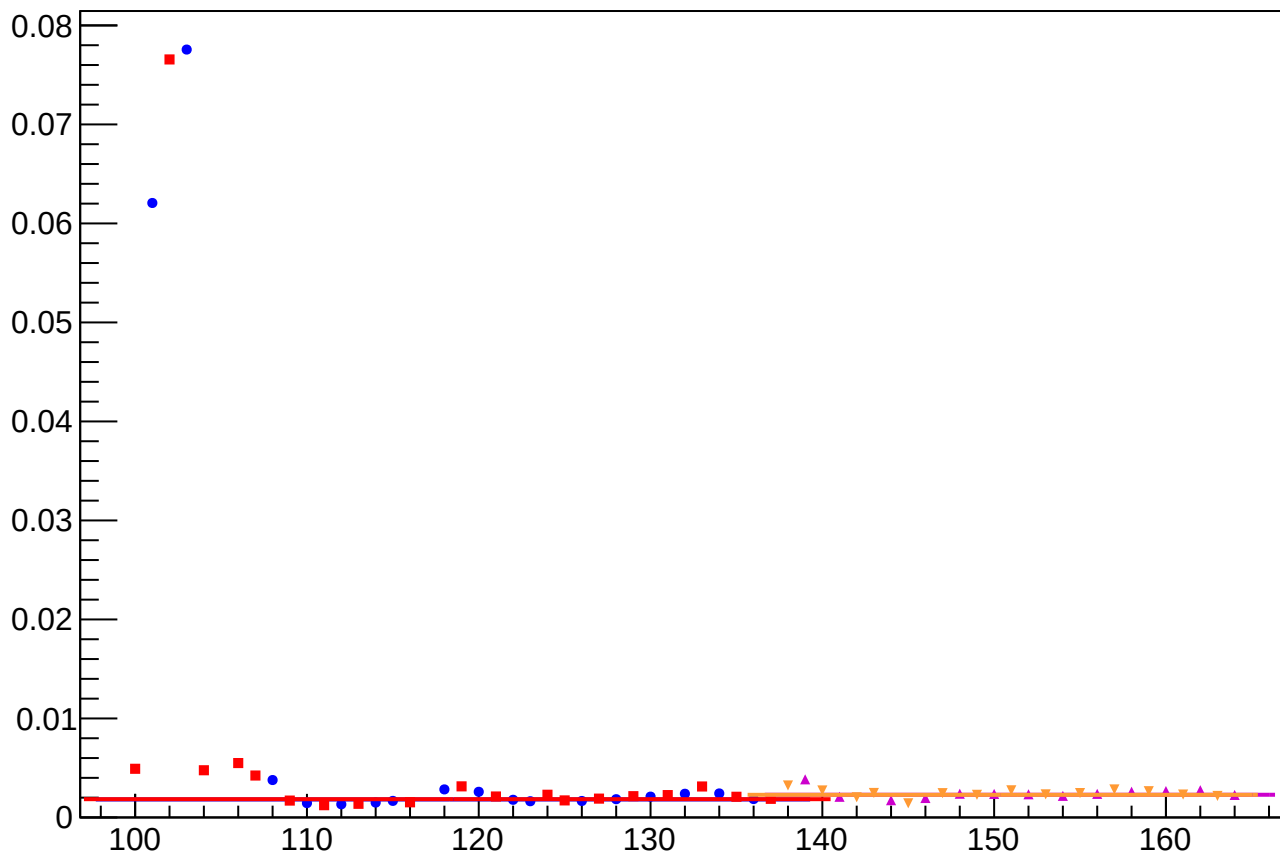
Left In: 2.616 $\pm$ 0.000  $\chi^2$ /NDF: 3941107410.6/12

+ sign 2.648 $\pm$ 0.000  $\chi^2$ /NDF: 175795029471.3/30

All: 2.643 $\pm$ 0.000  $\chi^2$ /NDF: 251939836115.9

- sign 2.638 $\pm$ 0.000  $\chi^2$ /NDF: 76018320666.8/31

# yield\_sam7\_rms vs Slug



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 2661372.0/16

Left Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF:697492.7/13

Right Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 2331228.4/18

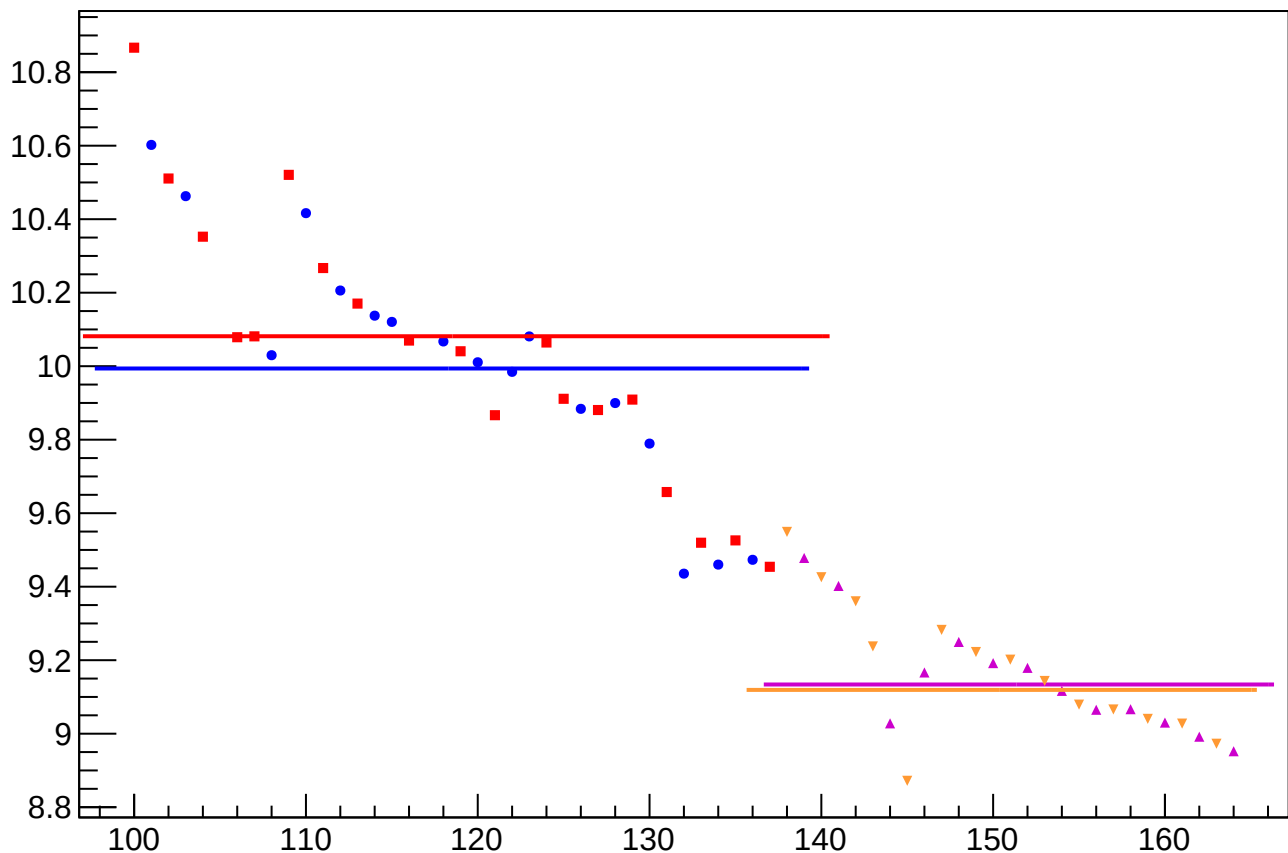
Left In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF:502704.3/12

+ sign 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 3682244.8/30

All: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 6815158.0/62

- sign 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 3132635.1/31

# yield\_sam8\_mean vs Slug



Right In: 9.994 $\pm$ 0.000  $\chi^2$ /NDF: 18815741664.6/16

Left Out: 9.119 $\pm$ 0.000  $\chi^2$ /NDF: 5768931003.2/13

Right Out: 10.082 $\pm$ 0.000  $\chi^2$ /NDF: 15502695798.7/18

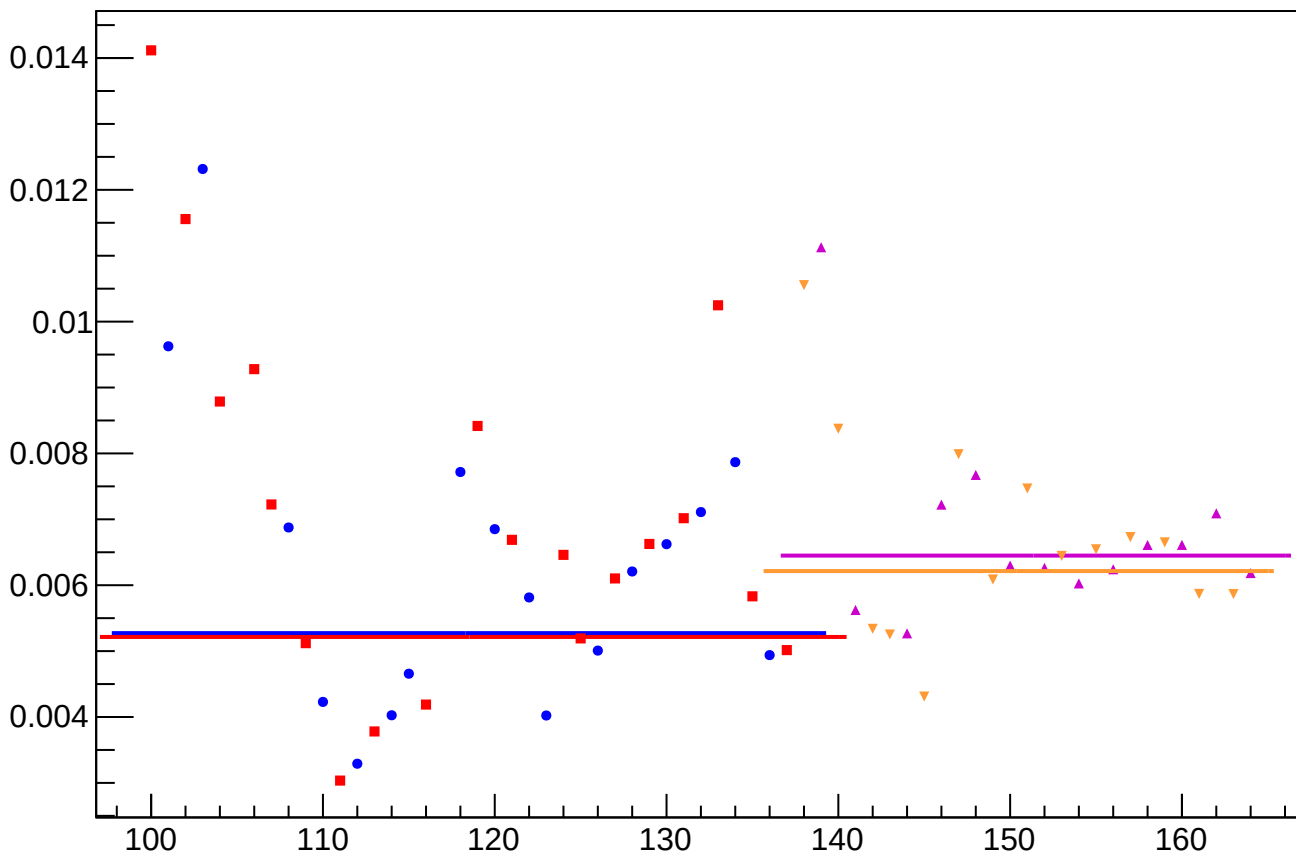
Left In: 9.134 $\pm$ 0.000  $\chi^2$ /NDF: 3466979103.3/12

+ sign 9.518 $\pm$ 0.000  $\chi^2$ /NDF: 99826774864.6/30

All: 9.557 $\pm$ 0.000  $\chi^2$ /NDF: 208208137100.3

- sign 9.597 $\pm$ 0.000  $\chi^2$ /NDF: 107134934535.9/31

# yield\_sam8\_rms vs Slug



Right In: 0.005 $\pm$ 0.000  $\chi^2$ /NDF: 1245563.1/16

Left Out: 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 678638.3/13

Right Out: 0.005 $\pm$ 0.000  $\chi^2$ /NDF: 1657948.7/18

Left In: 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 403638.9/12

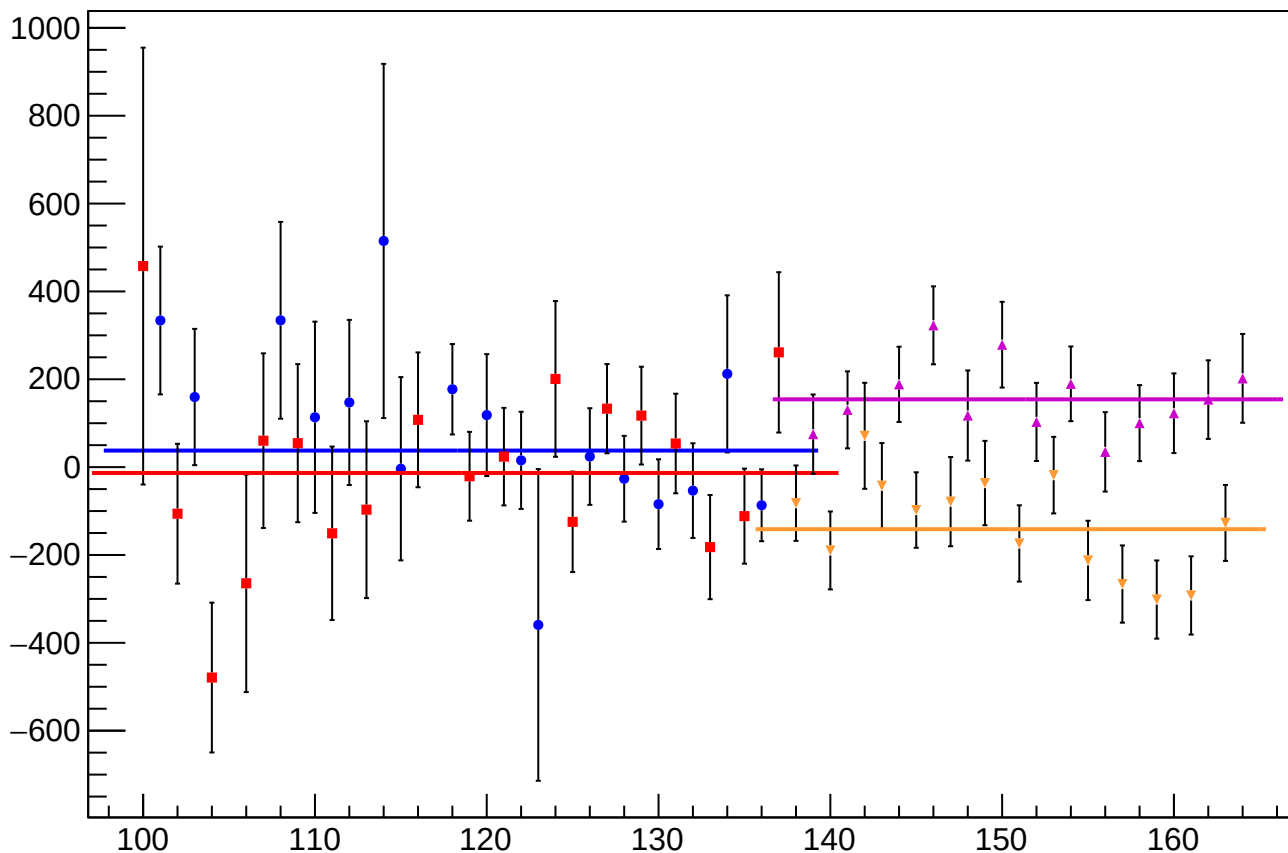
+ sign 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 2098663.8/30

All: 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 4460976.1/62

- sign 0.006 $\pm$ 0.000  $\chi^2$ /NDF: 2360878.9/31



# reg\_asym\_sam1\_mean vs Slug



Right In: 37.694 $\pm$ 32.253  $\chi^2$ /NDF: 16.7/16

Left Out: -141.273 $\pm$ 24.391  $\chi^2$ /NDF: 17.7/13

Right Out: -13.278 $\pm$ 32.066  $\chi^2$ /NDF: 22.7/18

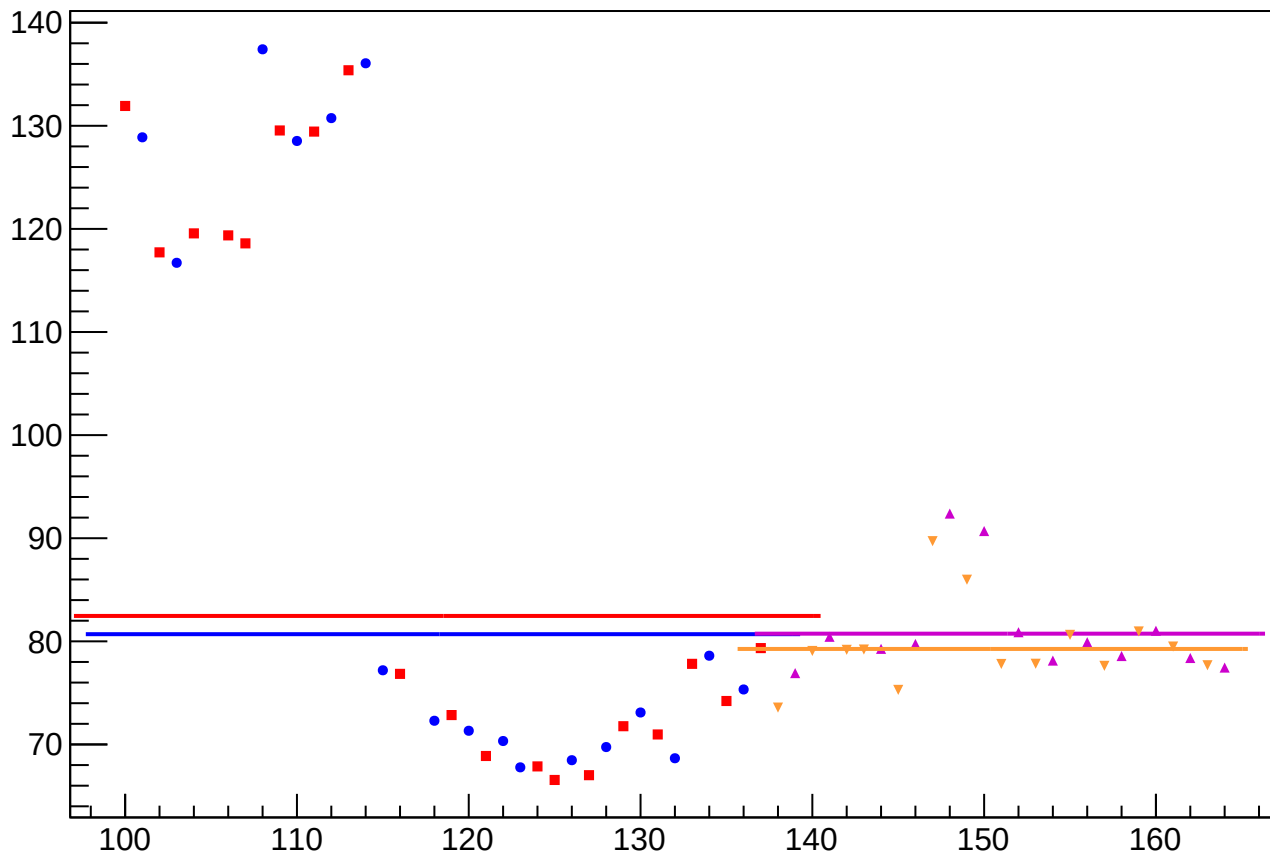
Left In: 154.356 $\pm$ 25.148  $\chi^2$ /NDF: 9.4/12

+ sign -76.160 $\pm$ 19.455  $\chi^2$ /NDF: 53.9/30

All: 5.759 $\pm$ 13.873  $\chi^2$ /NDF: 139.0/62

- sign 90.515 $\pm$ 19.789  $\chi^2$ /NDF: 49.0/31

# reg\_asym\_sam1\_rms vs Slug



Right In: 80.694 $\pm$ 0.023  $\chi^2$ /NDF: 814026.4/16

Left Out: 79.263 $\pm$ 0.017  $\chi^2$ /NDF: 47716.9/13

Right Out: 82.464 $\pm$ 0.023  $\chi^2$ /NDF: 914878.0/18

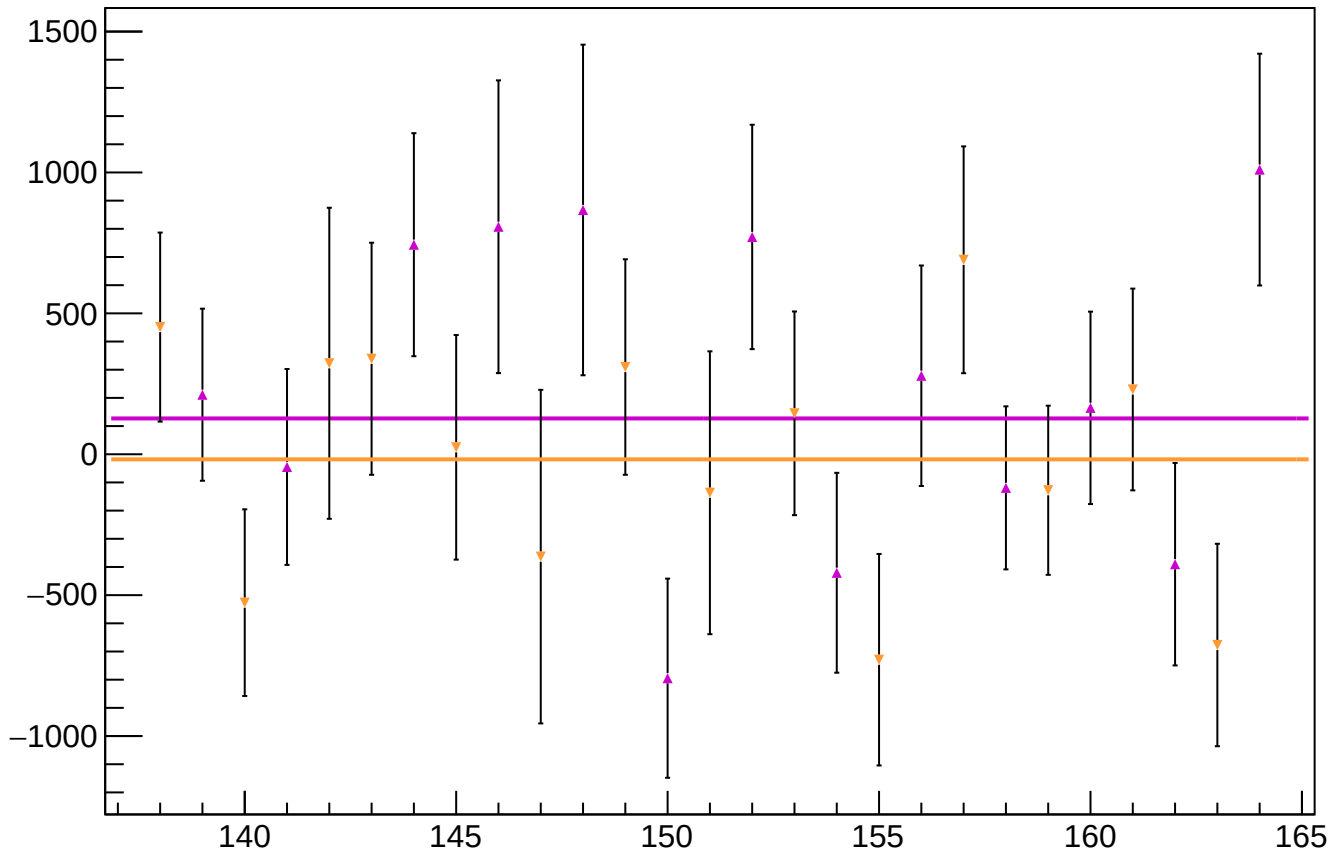
Left In: 80.744 $\pm$ 0.018  $\chi^2$ /NDF: 57846.9/12

+ sign 79.784 $\pm$ 0.014  $\chi^2$ /NDF: 864249.8/30

All: 80.577 $\pm$ 0.010  $\chi^2$ /NDF: 1847312.8/62

- sign 81.399 $\pm$ 0.014  $\chi^2$ /NDF: 976286.5/31

# asym\_sam1\_correction\_mean vs Slug



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

Left Out: -18.047+/-102.747  $\chi^2/\text{NDF}$ : 17.5/13

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

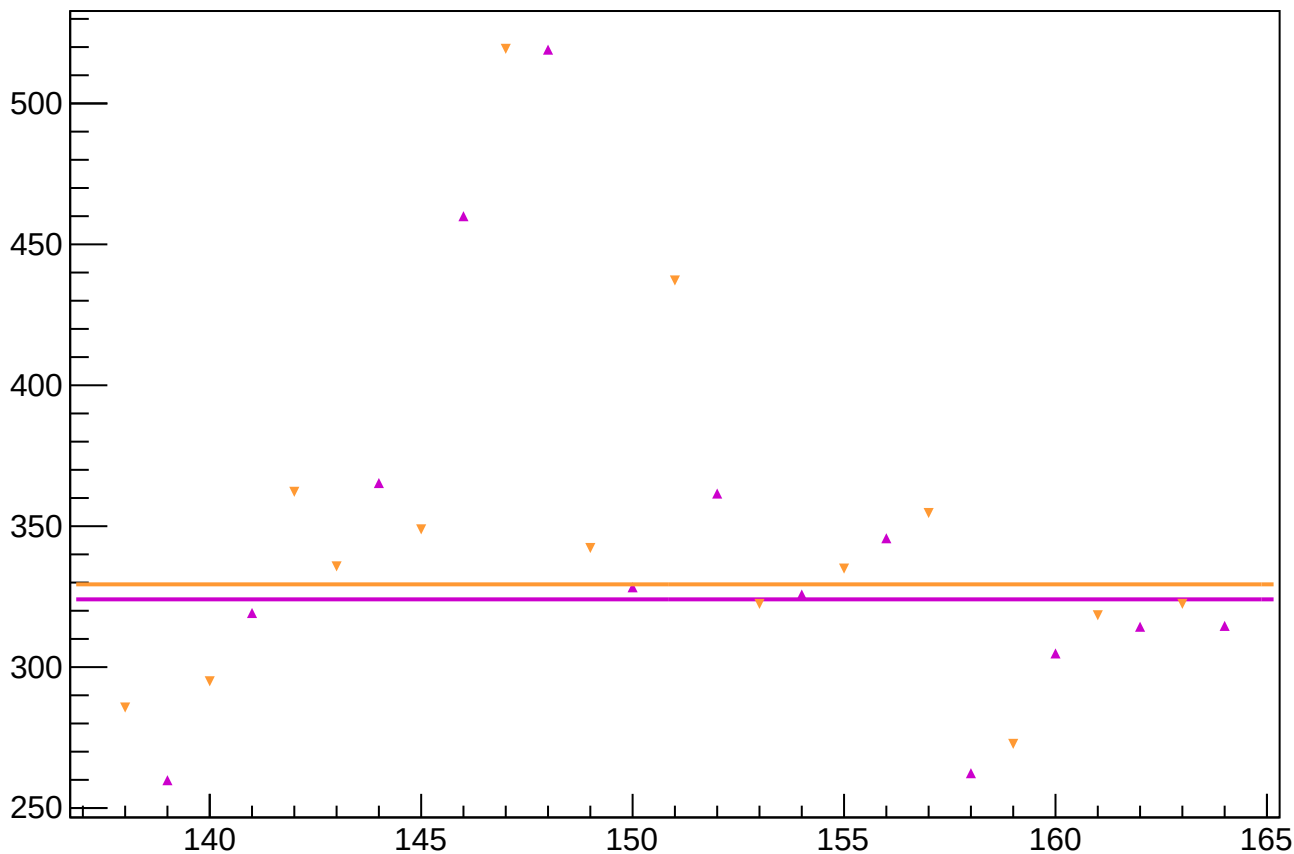
Left In: 127.086+/-102.605  $\chi^2/\text{NDF}$ : 25.4/12

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

All: 54.620+/-72.603  $\chi^2/\text{NDF}$ : 43.9/26

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

# asym\_sam1\_correction\_rms vs Slug



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

Left Out: 329.368+/-0.073  $\chi^2/\text{NDF}$ : 451387.4/13

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

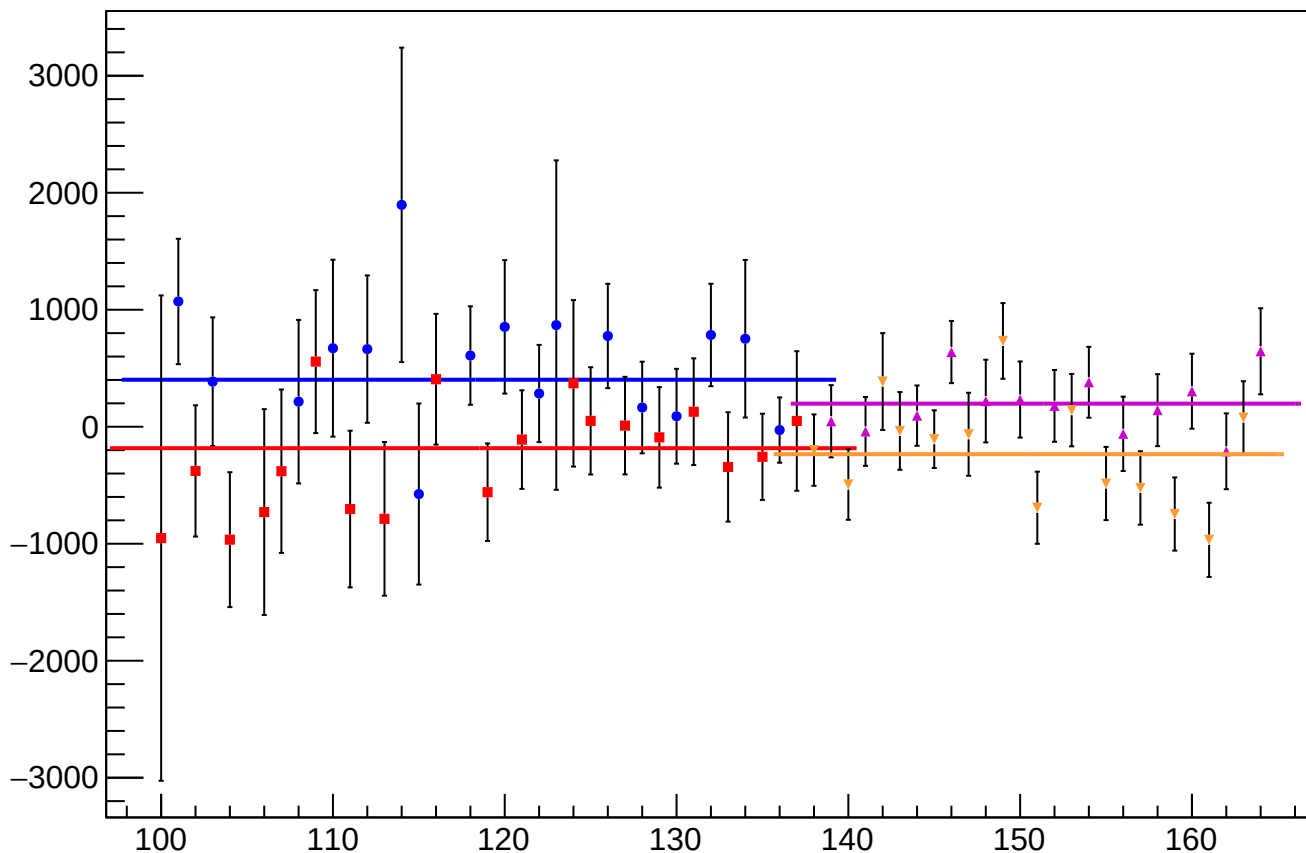
Left In: 324.044+/-0.073  $\chi^2/\text{NDF}$ : 592616.7/12

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

All: 326.702+/-0.051  $\chi^2/\text{NDF}$ : 1046691.9/26

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

# reg\_asym\_sam2\_mean vs Slug



Right In: 401.871 $\pm$ 121.048  $\chi^2$ /NDF: 10.9/16

Left Out: -234.710 $\pm$ 83.791  $\chi^2$ /NDF: 27.0/13

Right Out: -183.481 $\pm$ 120.338  $\chi^2$ /NDF: 9.3/18

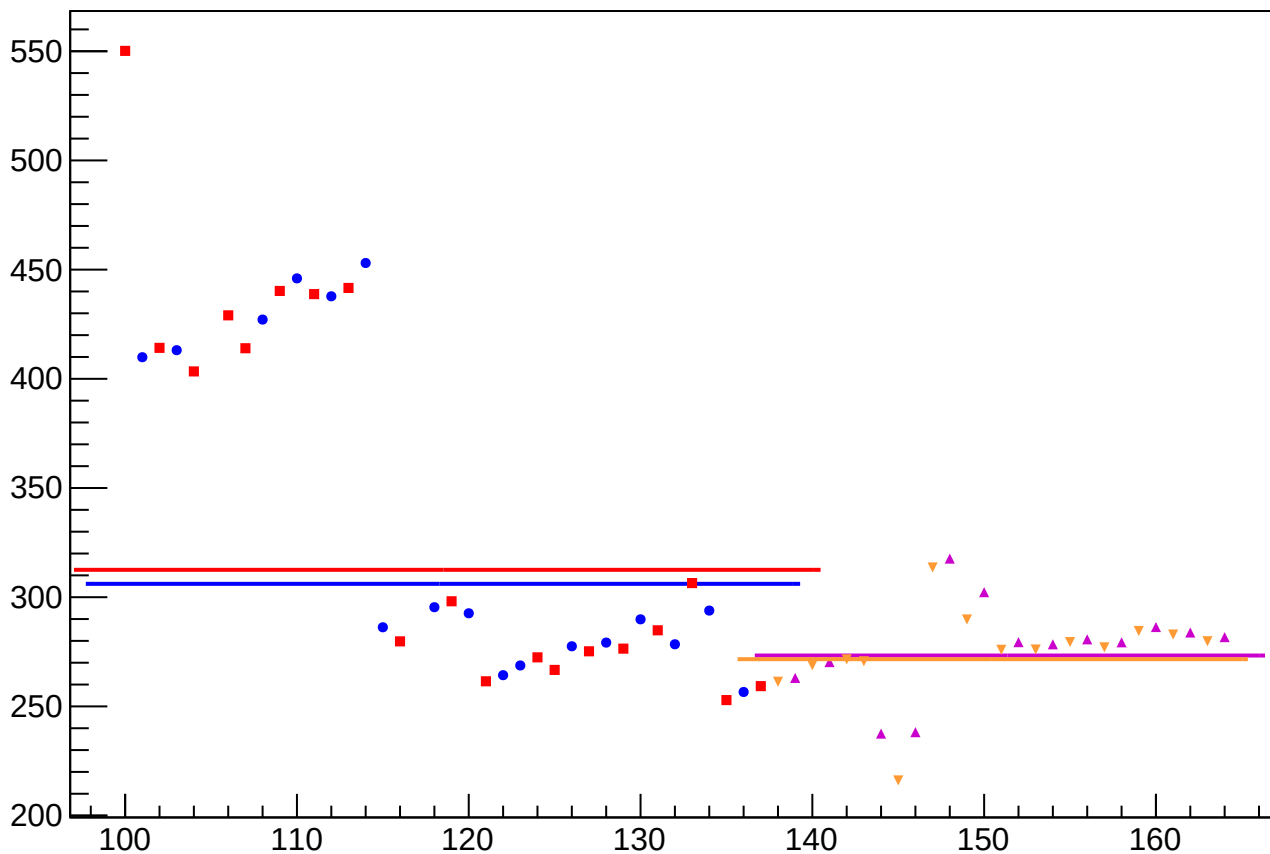
Left In: 197.383 $\pm$ 85.328  $\chi^2$ /NDF: 8.0/12

+ sign -28.496 $\pm$ 68.895  $\chi^2$ /NDF: 56.6/30

All: 20.226 $\pm$ 48.965  $\chi^2$ /NDF: 81.7/62

- sign 69.959 $\pm$ 69.605  $\chi^2$ /NDF: 24.1/31

# reg\_asym\_sam2\_rms vs Slug



Right In: 306.123+/-0.086  $\chi^2/\text{NDF}$ : 508435.8/16

Left Out: 271.617+/-0.059  $\chi^2/\text{NDF}$ :148107.3/13

Right Out: 312.543+/-0.085  $\chi^2/\text{NDF}$ : 625769.8/18

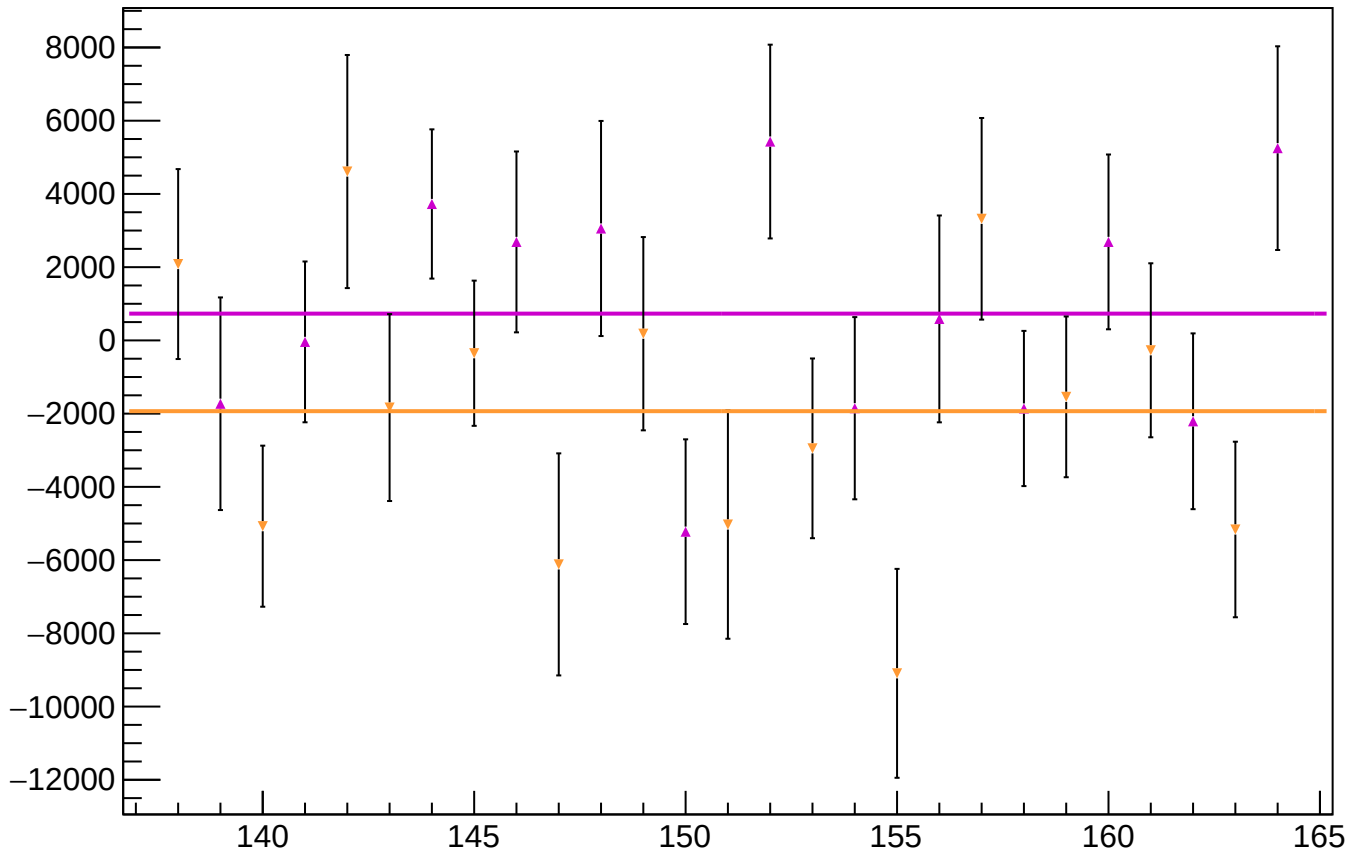
Left In: 273.298+/-0.060  $\chi^2/\text{NDF}$ :132962.6/12

+ sign 282.795+/-0.049  $\chi^2/\text{NDF}$ : 766422.7/30

All: 284.593+/-0.035  $\chi^2/\text{NDF}$ : 1669451.3/62

- sign 286.428+/-0.049  $\chi^2/\text{NDF}$ : 900276.2/31

# asym\_sam2\_correction\_mean vs Slug



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

Left Out: -1932.646+/-674.739  $\chi^2/\text{NDF}$ : 25.3/13

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

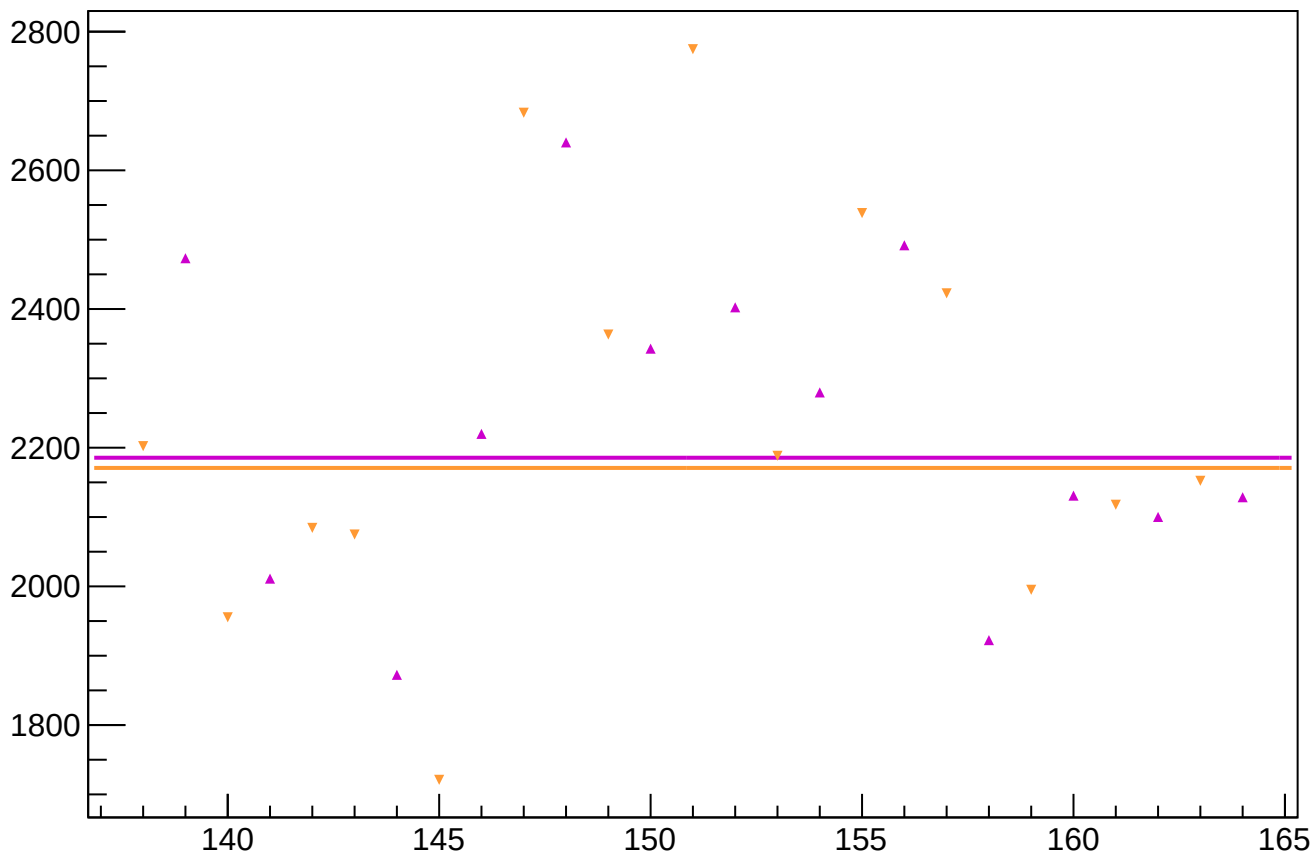
Left In: 731.168+/-684.454  $\chi^2/\text{NDF}$ : 20.4/12

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

All: -619.776+/-480.511  $\chi^2/\text{NDF}$ : 53.3/26

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

# asym\_sam2\_correction\_rms vs Slug



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

Left Out: 2170.824+/-0.477  $\chi^2/\text{NDF}$ : 333341.3/13

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

Left In: 2185.517+/-0.484  $\chi^2/\text{NDF}$ : 210642.7/12

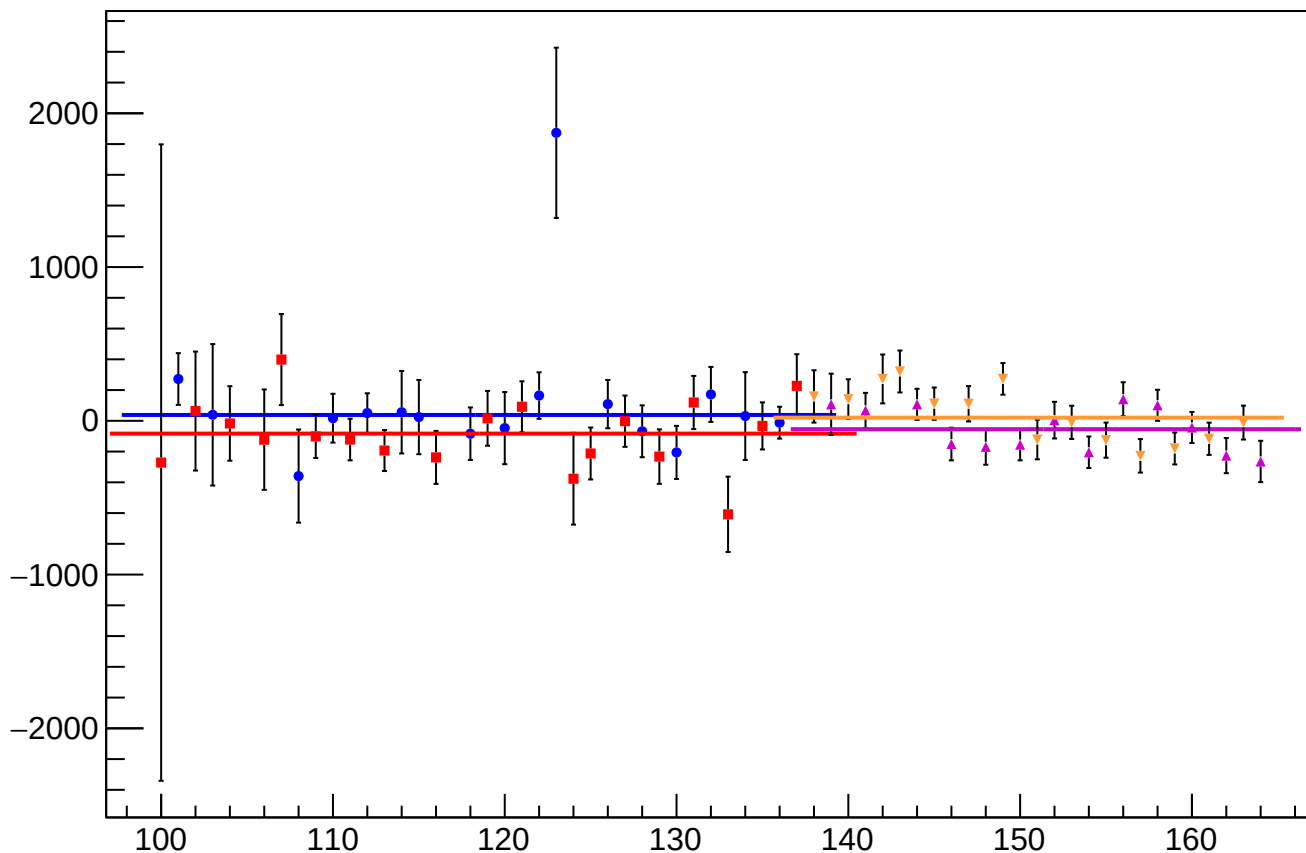
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 2178.065+/-0.340  $\chi^2/\text{NDF}$ : 544451.4/26

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



# reg\_asym\_sam3\_mean vs Slug



Right In:  $38.126 \pm 43.548$   $\chi^2/\text{NDF}$ : 19.4/16

Left Out:  $20.628 \pm 31.296$   $\chi^2/\text{NDF}$ : 29.9/13

Right Out:  $-83.101 \pm 43.098$   $\chi^2/\text{NDF}$ : 16.7/18

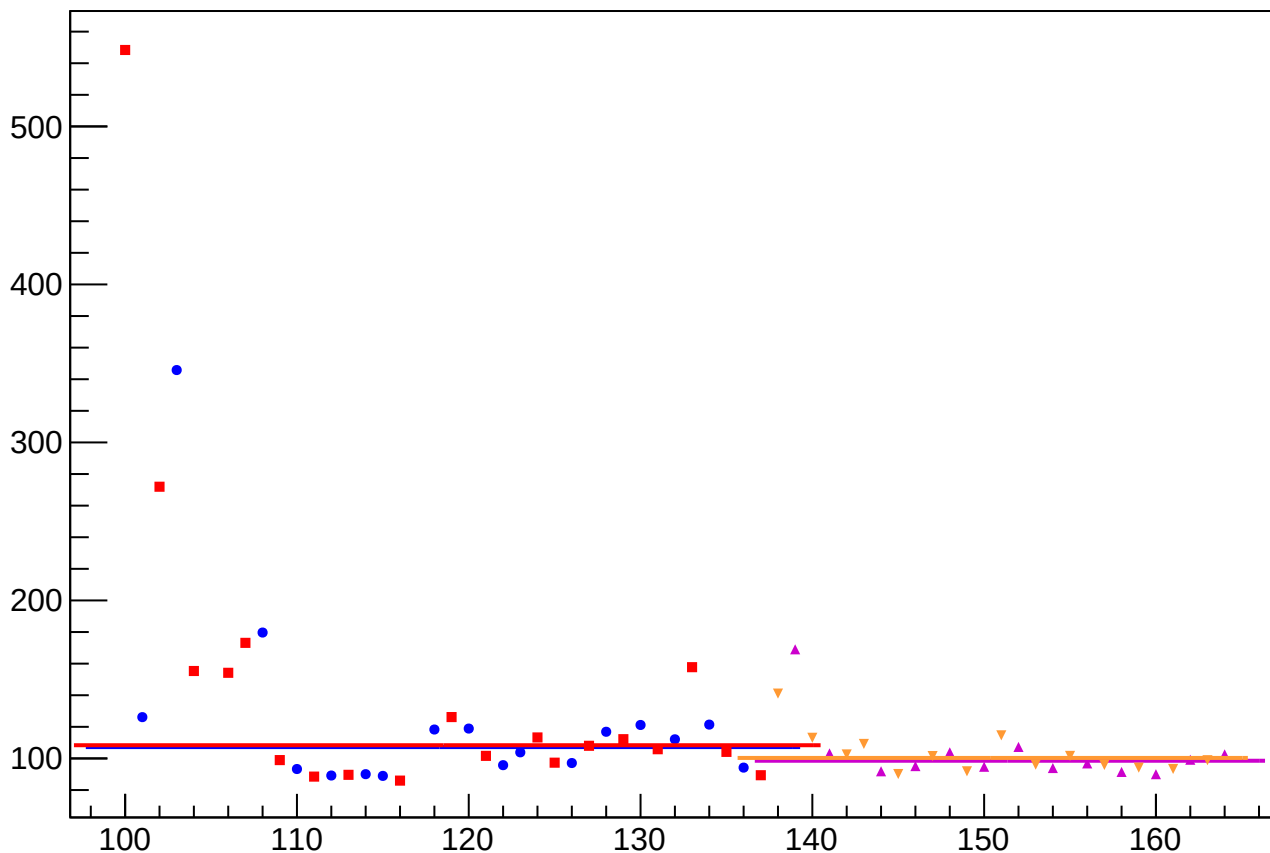
Left In:  $-54.327 \pm 31.109$   $\chi^2/\text{NDF}$ : 19.7/12

+ sign  $26.587 \pm 25.414$   $\chi^2/\text{NDF}$ : 49.4/30

All:  $-19.138 \pm 17.903$   $\chi^2/\text{NDF}$ : 92.6/62

- sign  $-64.184 \pm 25.224$   $\chi^2/\text{NDF}$ : 36.7/31

# reg\_asym\_sam3\_rms vs Slug



Right In: 107.189 $\pm$ 0.031  $\chi^2$ /NDF: 843115.1/16

Left Out: 100.316 $\pm$ 0.022  $\chi^2$ /NDF: 222685.4/13

Right Out: 108.359 $\pm$ 0.030  $\chi^2$ /NDF: 917287.7/18

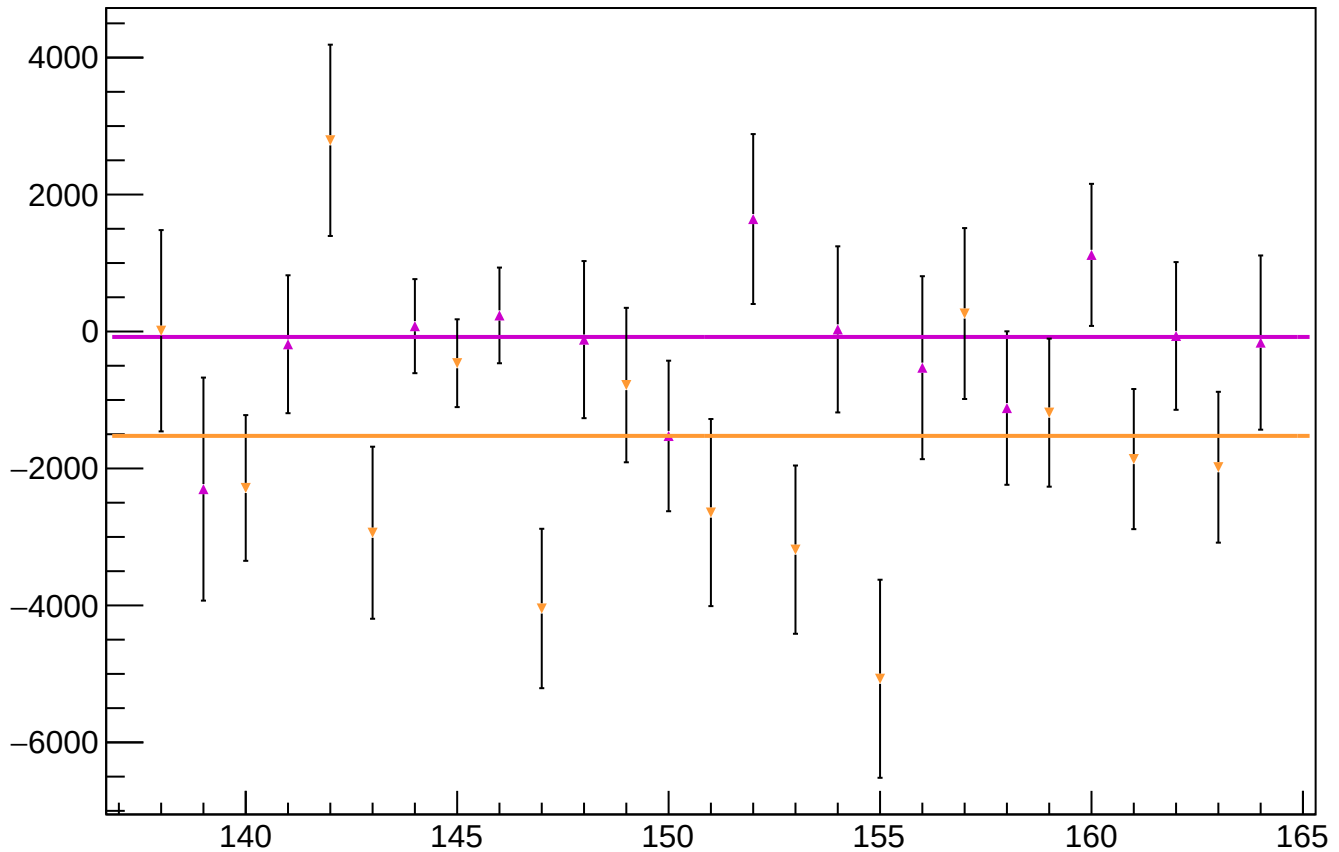
Left In: 98.537 $\pm$ 0.022  $\chi^2$ /NDF: 312740.3/12

+ sign 102.657 $\pm$ 0.018  $\chi^2$ /NDF: 1098650.3/30

All: 102.276 $\pm$ 0.013  $\chi^2$ /NDF: 2397857.8/62

- sign 101.902 $\pm$ 0.018  $\chi^2$ /NDF: 1298317.6/31

# asym\_sam3\_correction\_mean vs Slug



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

Left Out: -1524.189+/-296.135  $\chi^2/\text{NDF}$ :31.2/13

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

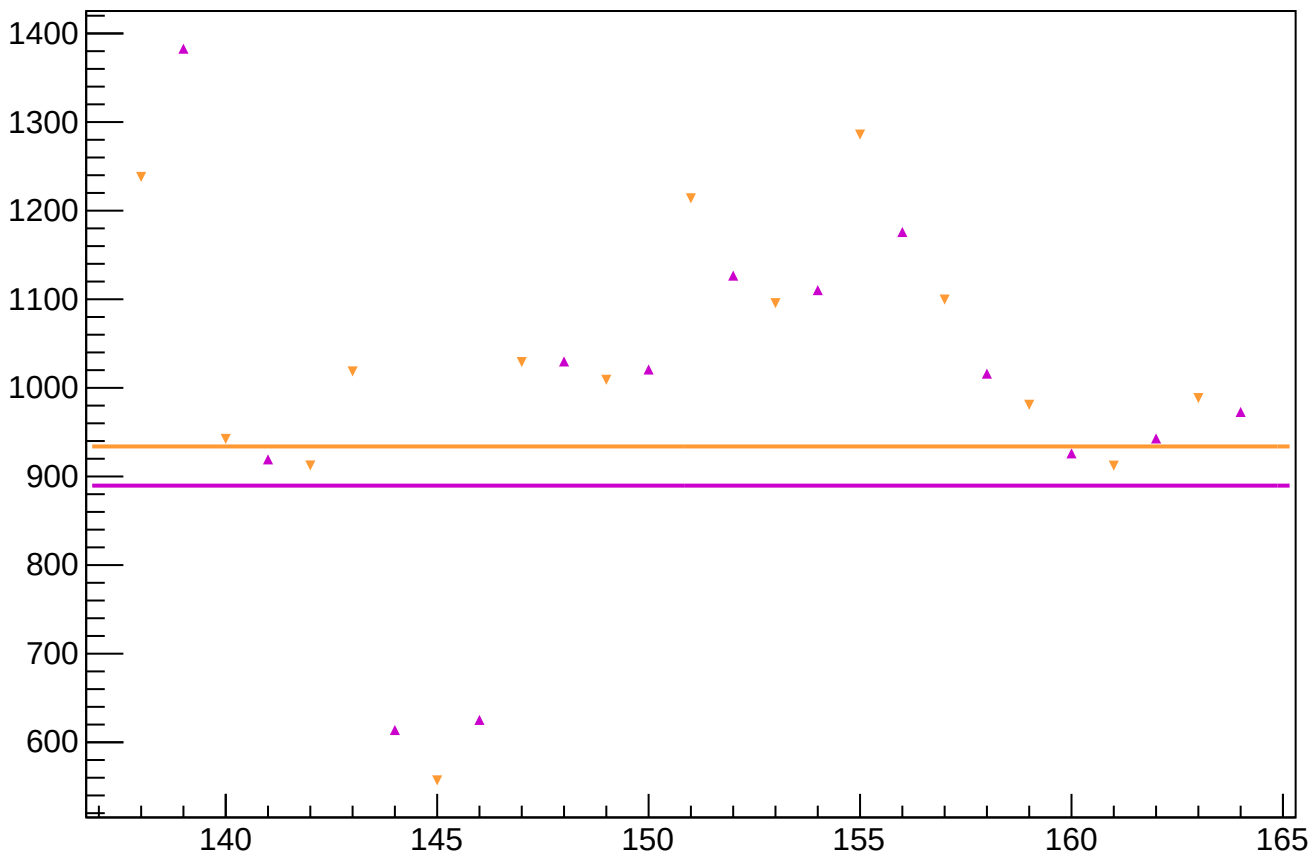
Left In: -79.447+/-286.165  $\chi^2/\text{NDF}$ :8.1/12

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

All: -777.087+/-205.784  $\chi^2/\text{NDF}$ : 51.6/26

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

# asym\_sam3\_correction\_rms vs Slug



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

Left Out: 933.877+/-0.209  $\chi^2/\text{NDF}$ : 1090777.5/13

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

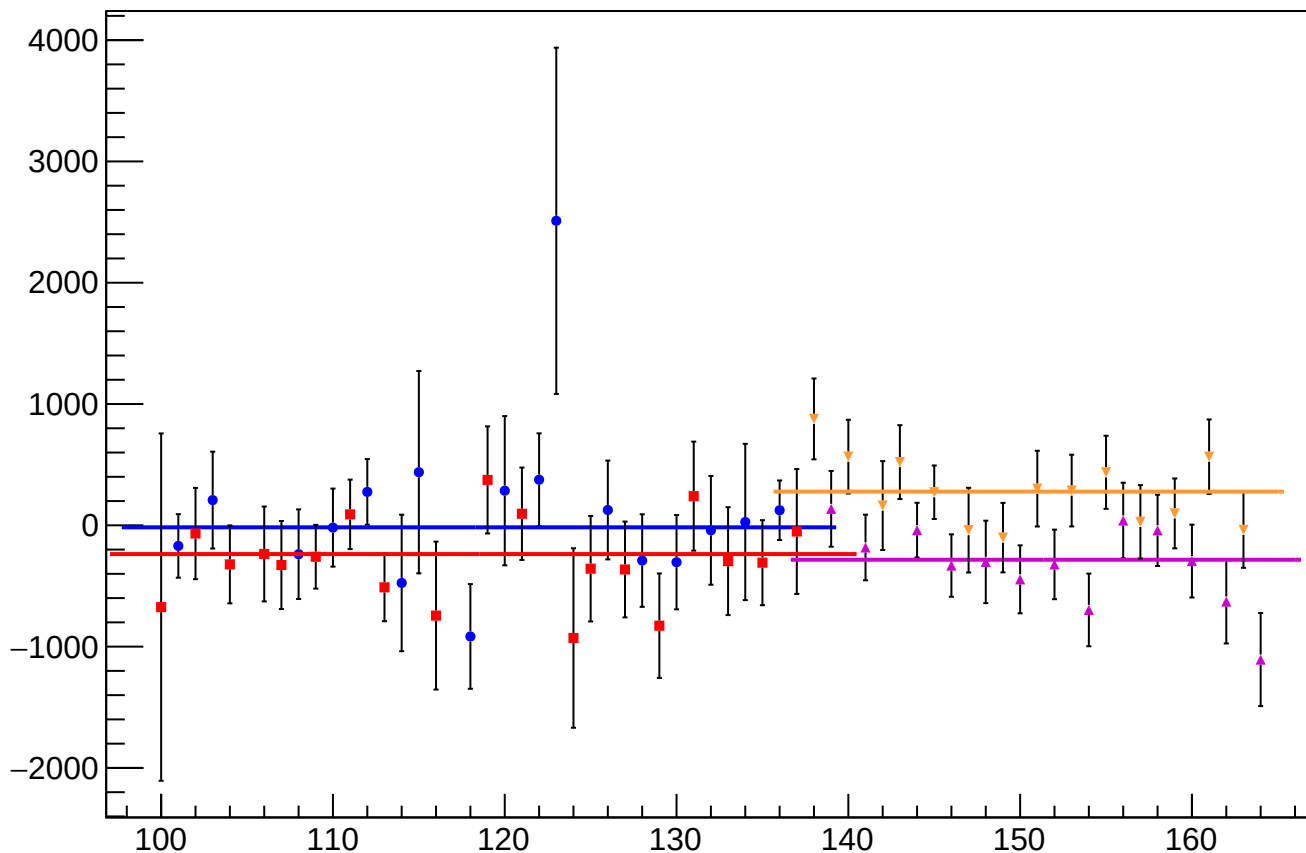
Left In: 889.676+/-0.202  $\chi^2/\text{NDF}$ : 1124674.1/12

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

All: 911.020+/-0.146  $\chi^2/\text{NDF}$ : 2238492.5/26

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

# reg\_asym\_sam4\_mean vs Slug



Right In:  $-16.459 \pm 93.285$   $\chi^2/\text{NDF}$ : 13.4/16

Left Out:  $277.847 \pm 80.189$   $\chi^2/\text{NDF}$ : 10.7/13

Right Out:  $-236.984 \pm 88.937$   $\chi^2/\text{NDF}$ : 10.3/18

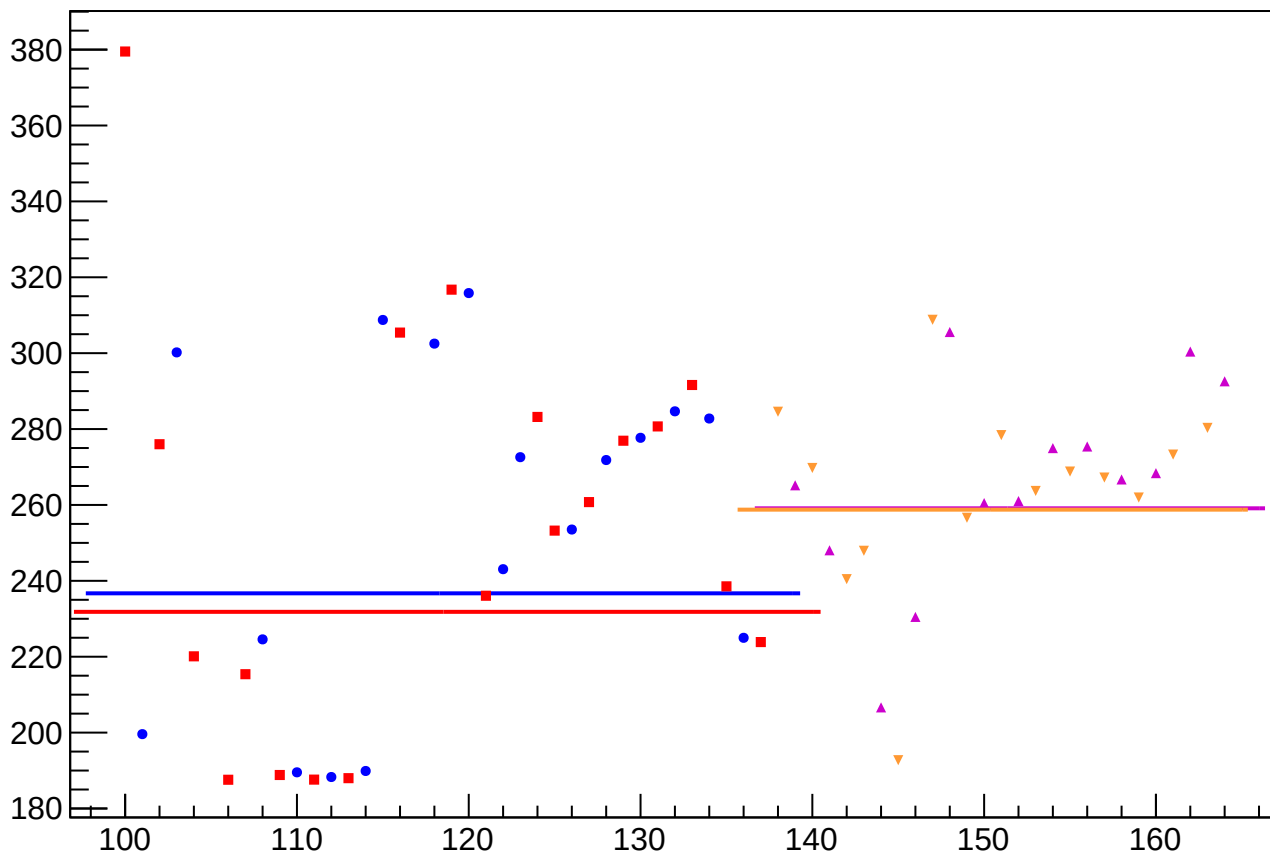
Left In:  $-283.734 \pm 81.218$   $\chi^2/\text{NDF}$ : 12.8/12

+ sign  $152.785 \pm 60.810$   $\chi^2/\text{NDF}$ : 29.9/30

All:  $-57.720 \pm 42.700$   $\chi^2/\text{NDF}$ : 76.8/62

- sign  $-262.475 \pm 59.974$   $\chi^2/\text{NDF}$ : 23.3/31

# reg\_asym\_sam4\_rms vs Slug



Right In: 236.706+/-0.066  $\chi^2/\text{NDF}$ : 390344.9/16

Left Out: 258.759+/-0.057  $\chi^2/\text{NDF}$ : 269016.1/13

Right Out: 231.828+/-0.063  $\chi^2/\text{NDF}$ : 443276.3/18

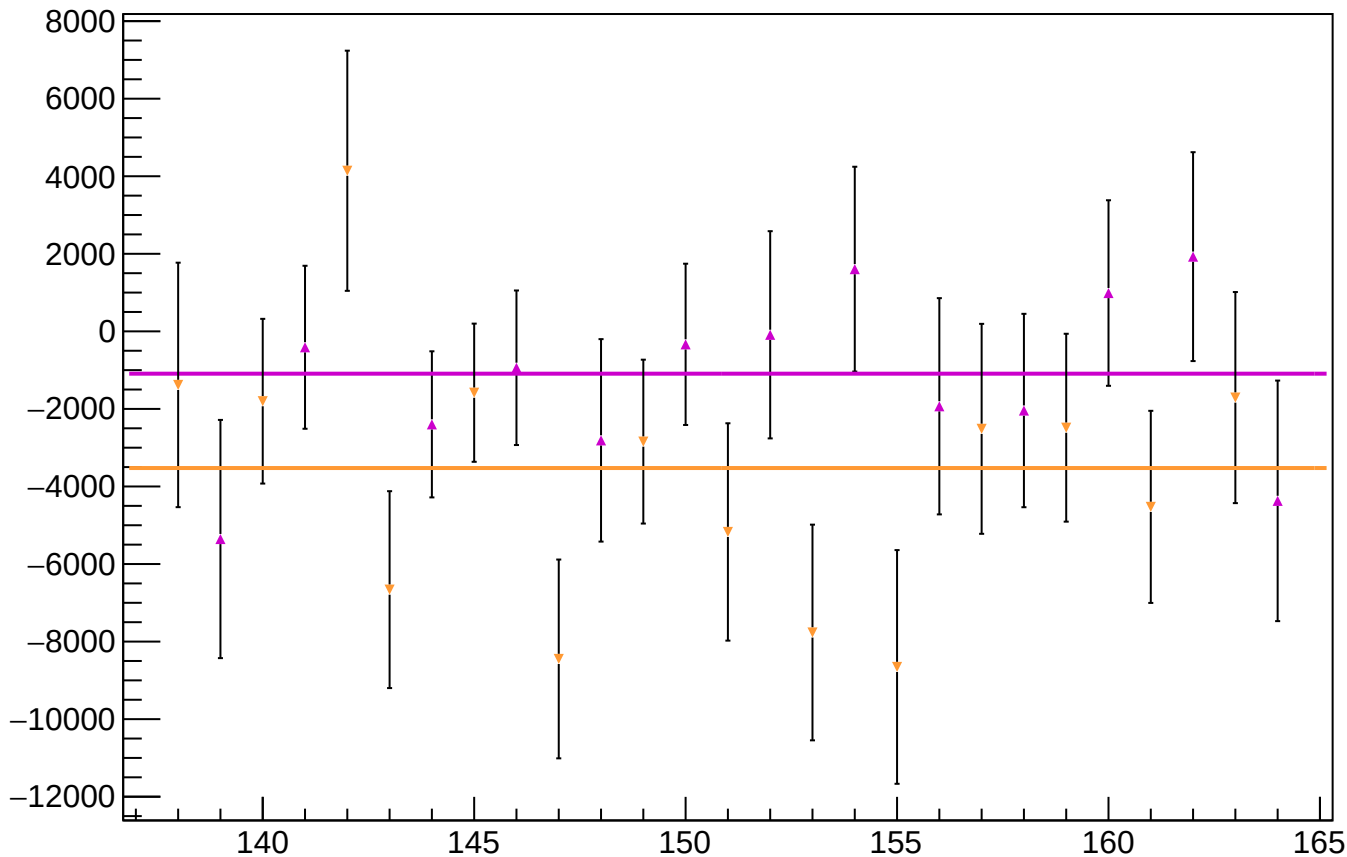
Left In: 259.113+/-0.057  $\chi^2/\text{NDF}$ : 232866.5/12

+ sign 249.388+/-0.043  $\chi^2/\text{NDF}$ : 723637.5/30

All: 248.028+/-0.030  $\chi^2/\text{NDF}$ : 1504388.9/62

- sign 246.706+/-0.042  $\chi^2/\text{NDF}$ : 778778.6/31

# asym\_sam4\_correction\_mean vs Slug



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

Left Out: -3524.465+/-667.468  $\chi^2/\text{NDF}$ : 20.3/13

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

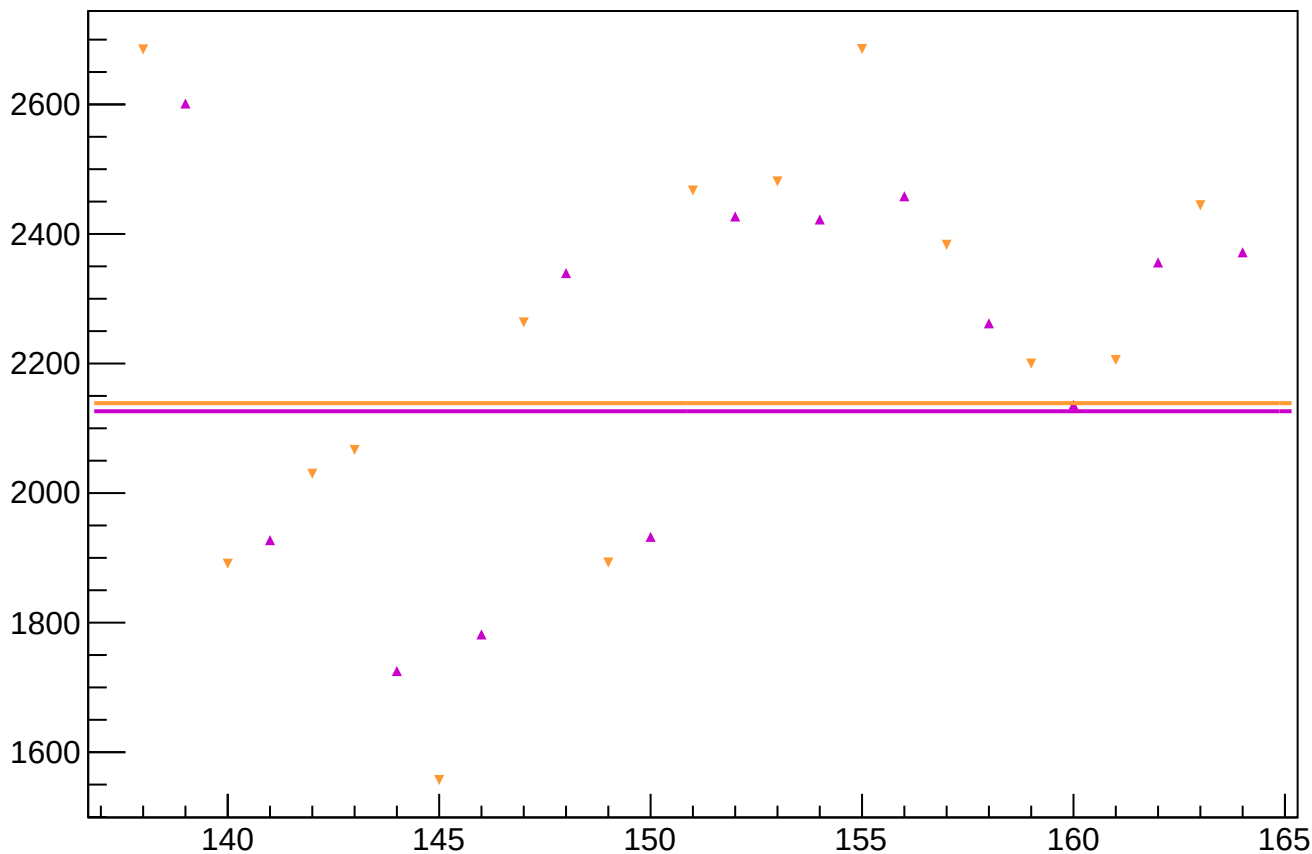
Left In: -1091.395+/-669.116  $\chi^2/\text{NDF}$ : 7.6/12

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

All: -2310.929+/-472.553  $\chi^2/\text{NDF}$ : 34.5/26

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

# asym\_sam4\_correction\_rms vs Slug



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

Left Out: 2138.878+/-0.472  $\chi^2/\text{NDF}$ : 504157.1/13

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

Left In: 2126.348+/-0.473  $\chi^2/\text{NDF}$ : 358779.7/12

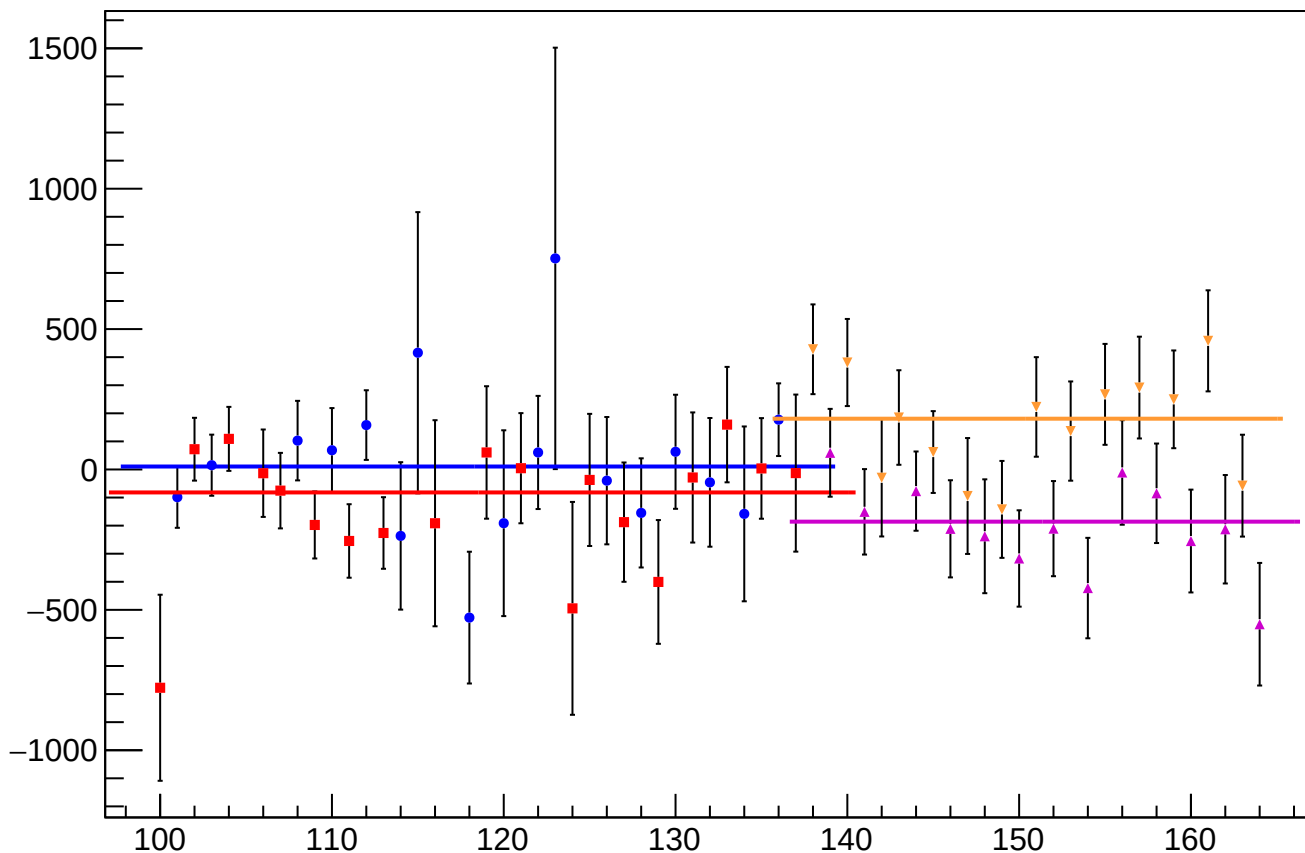
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 2132.628+/-0.334  $\chi^2/\text{NDF}$ : 863288.3/26

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



# reg\_asym\_sam5\_mean vs Slug



Right In:  $10.530 \pm 42.294$   $\chi^2/\text{NDF}: 14.1/16$

Left Out:  $180.829 \pm 46.503$   $\chi^2/\text{NDF}: 16.0/13$

Right Out:  $-81.802 \pm 38.985$   $\chi^2/\text{NDF}: 19.2/18$

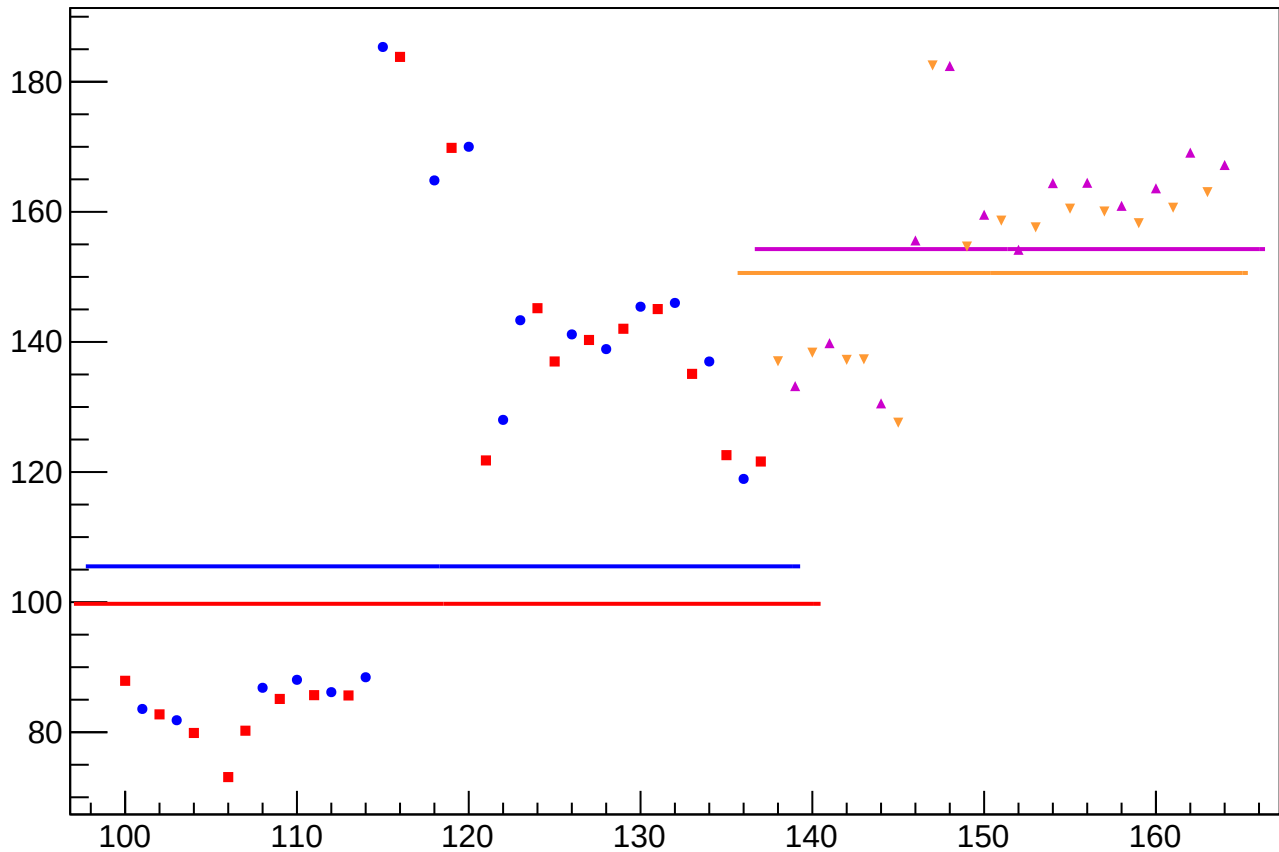
Left In:  $-185.877 \pm 48.205$   $\chi^2/\text{NDF}: 9.7/12$

+ sign  $87.626 \pm 31.289$   $\chi^2/\text{NDF}: 37.4/30$

All:  $-21.001 \pm 21.771$   $\chi^2/\text{NDF}: 92.5/62$

- sign  $-122.955 \pm 30.313$   $\chi^2/\text{NDF}: 31.7/31$

# reg\_asym\_sam5\_rms vs Slug



Right In: 105.503+/-0.030  $\chi^2/\text{NDF}$ : 869022.6/16

Left Out: 150.605+/-0.033  $\chi^2/\text{NDF}$ :184507.1/13

Right Out: 99.744+/-0.028  $\chi^2/\text{NDF}$ : 1000097.3/18

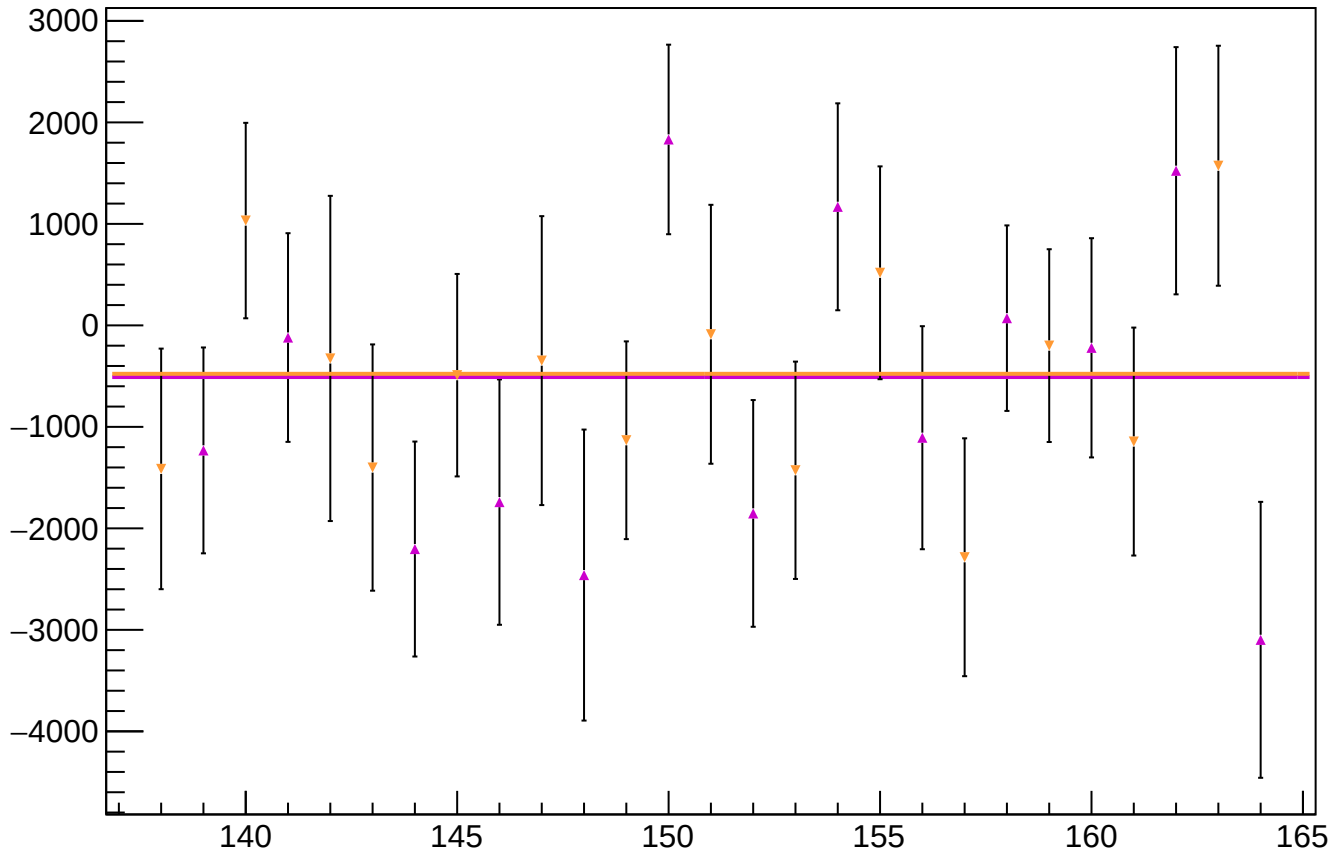
Left In: 154.276+/-0.034  $\chi^2/\text{NDF}$ :190624.4/12

+ sign 125.921+/-0.022  $\chi^2/\text{NDF}$ : 2083176.1/30

All: 123.541+/-0.015  $\chi^2/\text{NDF}$ : 4843729.6/62

- sign 121.307+/-0.021  $\chi^2/\text{NDF}$ : 2738119.9/31

# asym\_sam5\_correction\_mean vs Slug



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

Left Out: -477.297+/-299.442  $\chi^2/\text{NDF}$ :11.7/13

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

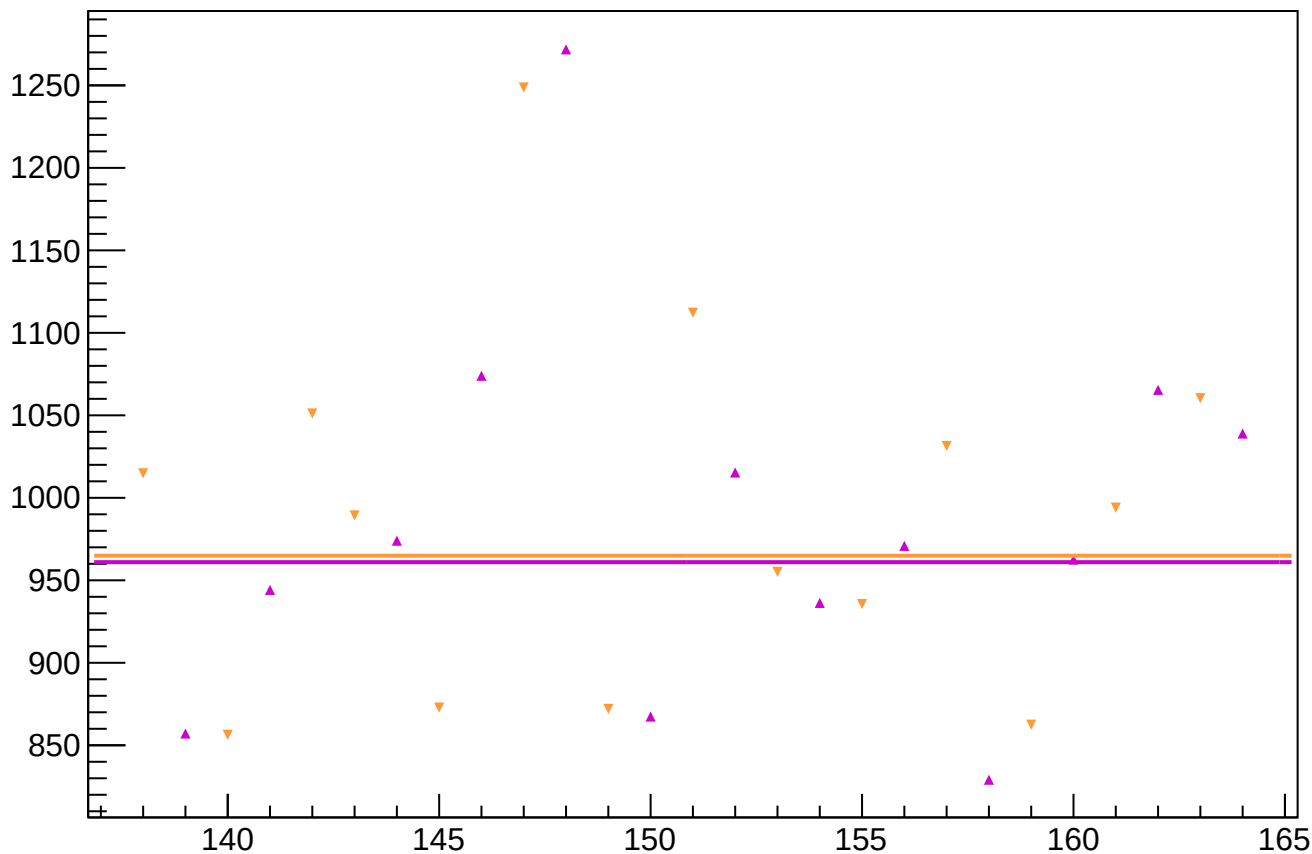
Left In: -509.068+/-301.665  $\chi^2/\text{NDF}$ :23.7/12

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

All: -493.065+/-212.519  $\chi^2/\text{NDF}$ : 35.5/26

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

# asym\_sam5\_correction\_rms vs Slug



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

Left Out: 964.909+/-0.212  $\chi^2/\text{NDF}$ : 222763.6/13

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

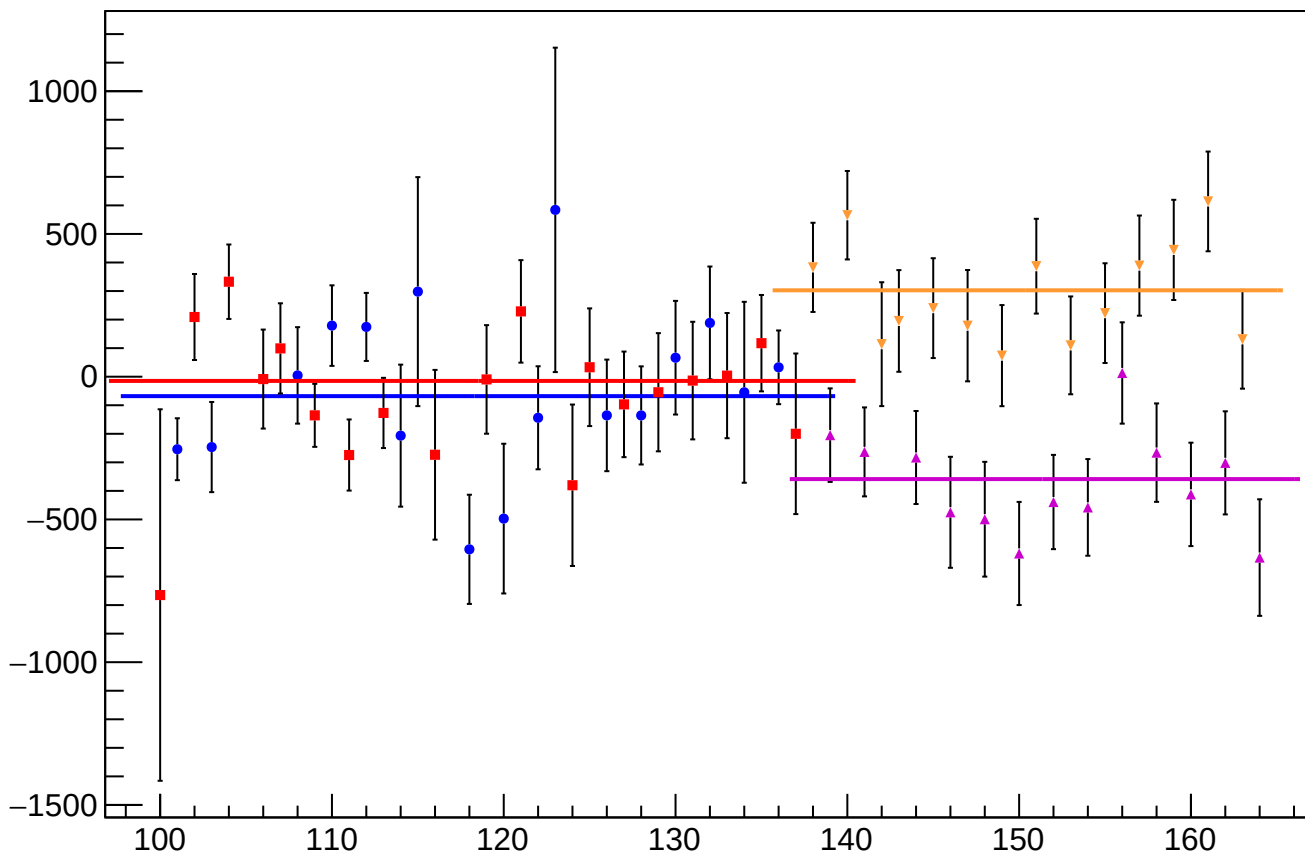
Left In: 961.000+/-0.213  $\chi^2/\text{NDF}$ : 222387.8/12

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

All: 962.969+/-0.150  $\chi^2/\text{NDF}$ : 445320.6/26

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

# reg\_asym\_sam6\_mean vs Slug



Right In:  $-68.111 \pm 42.265$   $\chi^2/\text{NDF}$ : 27.8/16

Left Out:  $302.605 \pm 46.592$   $\chi^2/\text{NDF}$ : 13.3/13

Right Out:  $-14.800 \pm 39.467$   $\chi^2/\text{NDF}$ : 23.1/18

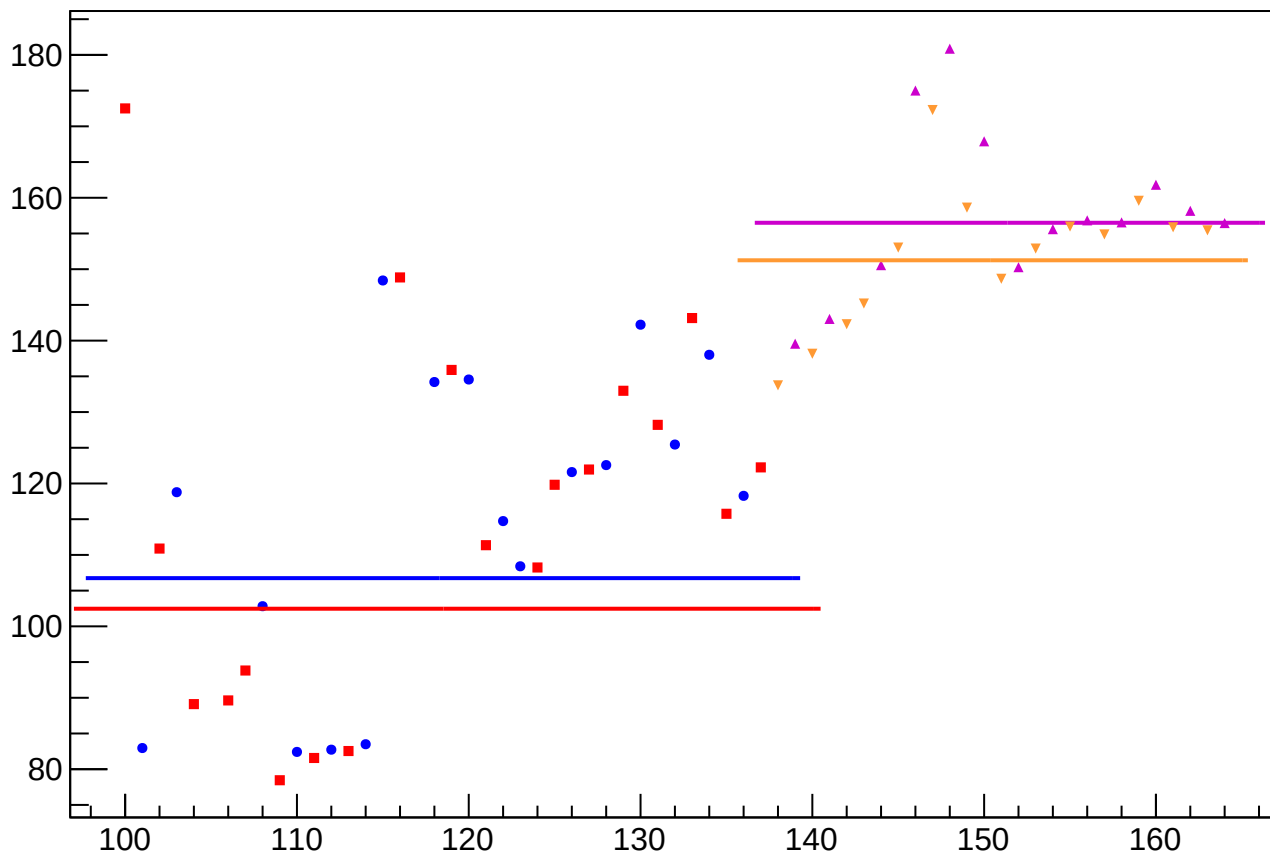
Left In:  $-358.670 \pm 48.788$   $\chi^2/\text{NDF}$ : 11.7/12

+ sign  $99.240 \pm 31.304$   $\chi^2/\text{NDF}$ : 75.8/30

All:  $-28.288 \pm 21.913$   $\chi^2/\text{NDF}$ : 173.2/62

- sign  $-150.815 \pm 30.684$   $\chi^2/\text{NDF}$ : 64.8/31

# reg\_asym\_sam6\_rms vs Slug



Right In: 106.749 $\pm$ 0.030  $\chi^2$ /NDF: 501742.8/16

Left Out: 151.247 $\pm$ 0.033  $\chi^2$ /NDF: 82140.7/13

Right Out: 102.467 $\pm$ 0.028  $\chi^2$ /NDF: 589344.0/18

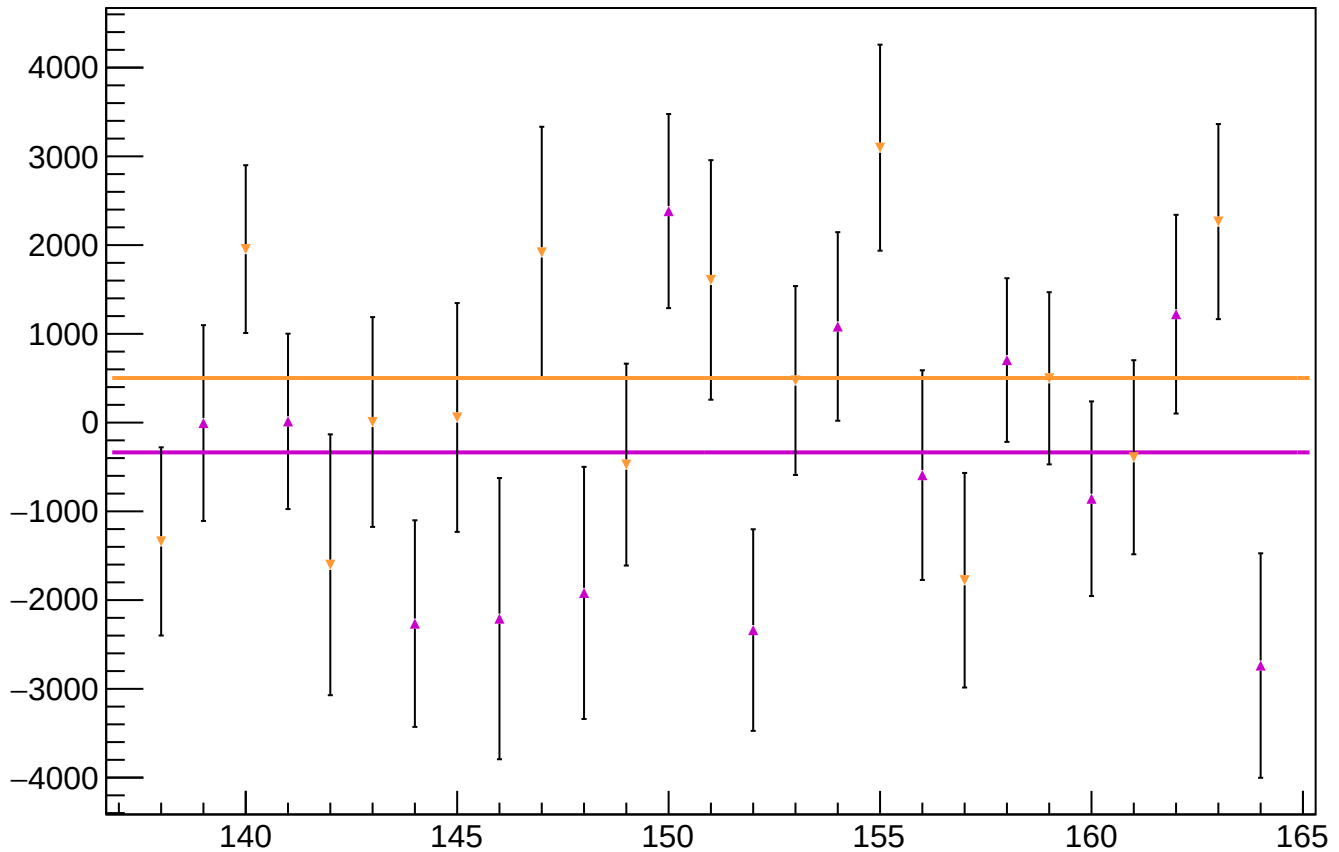
Left In: 156.499 $\pm$ 0.034  $\chi^2$ /NDF: 99244.3/12

+ sign 126.837 $\pm$ 0.022  $\chi^2$ /NDF: 1584617.3/30

All: 125.308 $\pm$ 0.015  $\chi^2$ /NDF: 3765296.7/62

- sign 123.839 $\pm$ 0.022  $\chi^2$ /NDF: 2171324.7/31

# asym\_sam6\_correction\_mean vs Slug



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

Left Out: 502.301+/-306.478  $\chi^2/\text{NDF}$ : 21.9/13

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

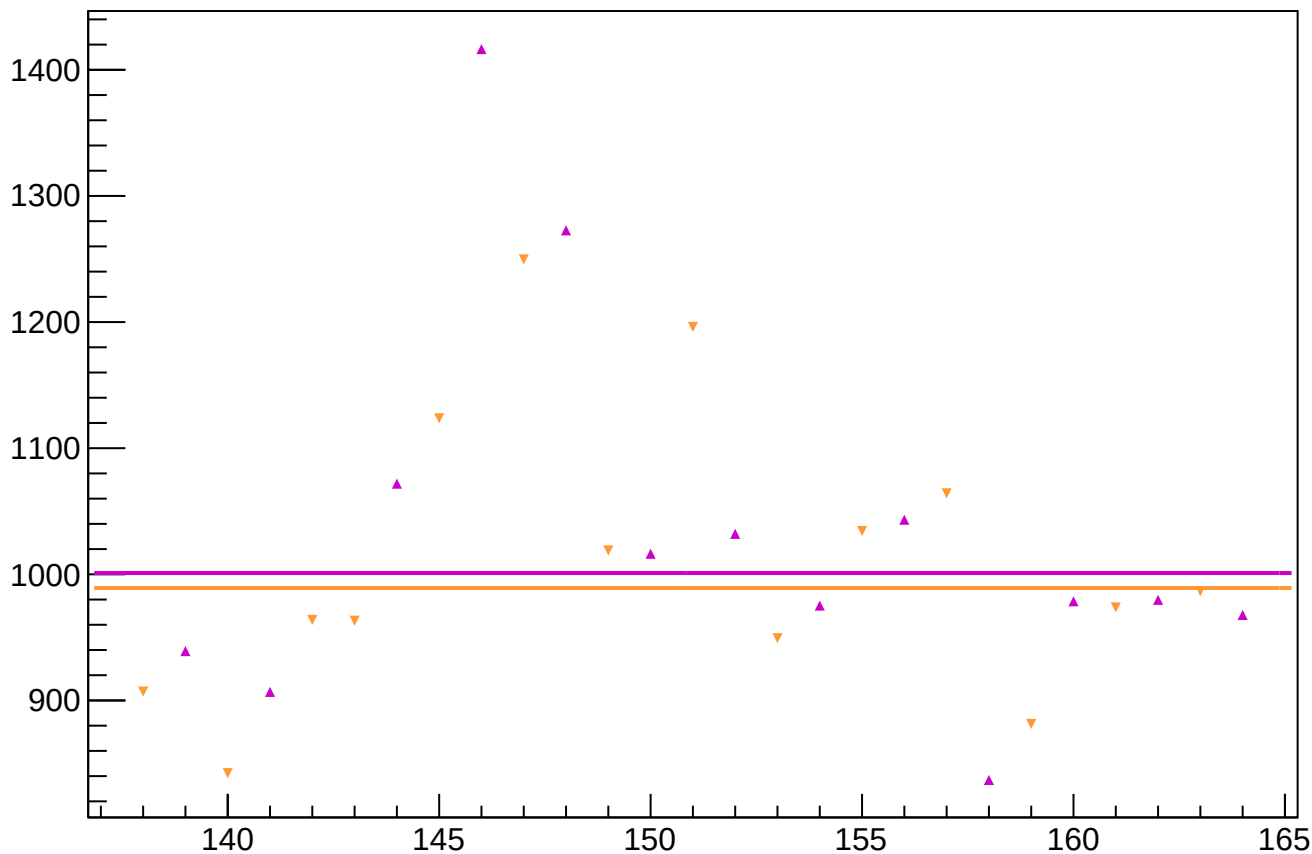
Left In: -335.643+/-314.293  $\chi^2/\text{NDF}$ : 23.8/12

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

All: 93.876+/-219.423  $\chi^2/\text{NDF}$ : 49.3/26

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

# asym\_sam6\_correction\_rms vs Slug



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

Left Out: 989.152+/-0.217  $\chi^2/\text{NDF}$ : 238319.8/13

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

Left In: 1001.025+/-0.222  $\chi^2/\text{NDF}$ : 314485.4/12

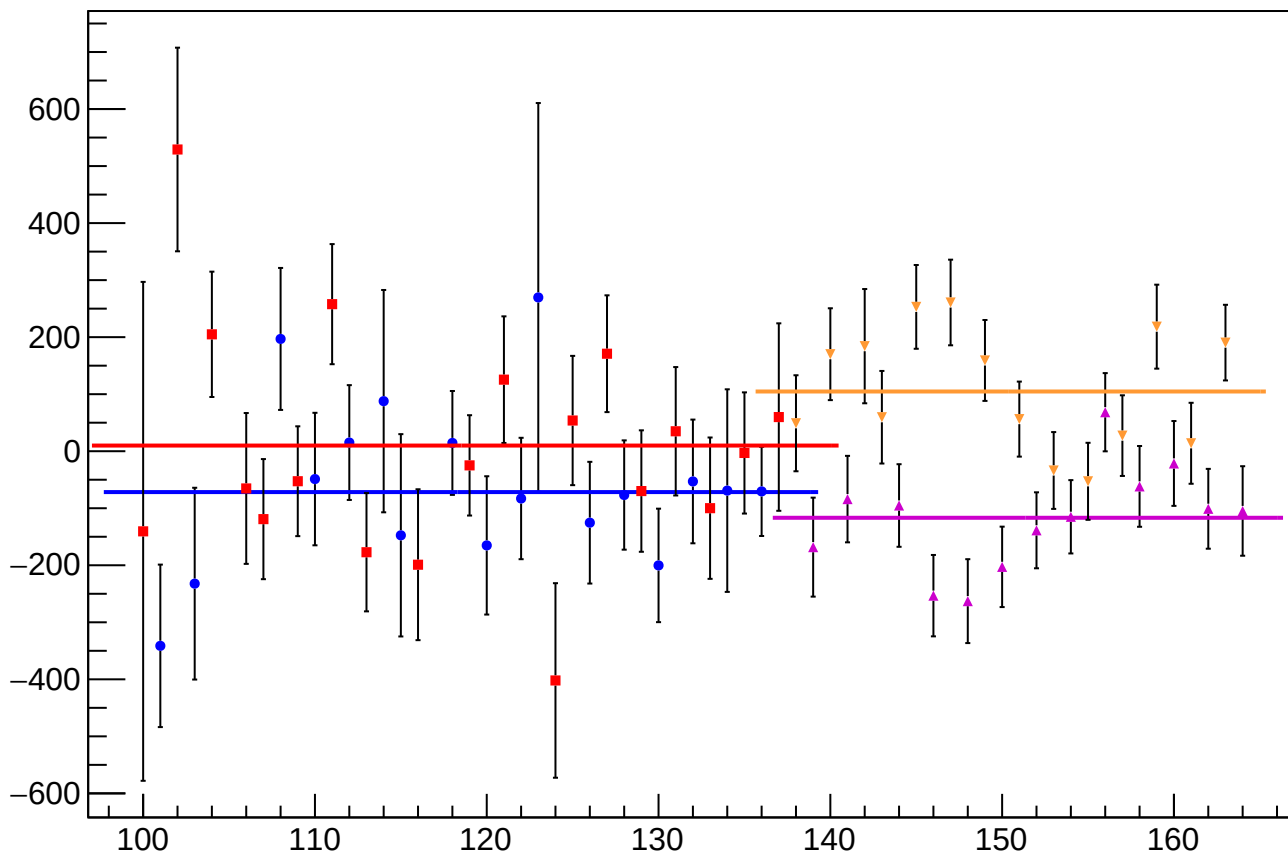
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 994.939+/-0.155  $\chi^2/\text{NDF}$ : 554268.1/26

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



# reg\_asym\_sam7\_mean vs Slug



Right In:  $-71.669 \pm 28.358$   $\chi^2/\text{NDF}: 15.2/16$

Left Out:  $104.719 \pm 19.652$   $\chi^2/\text{NDF}: 28.1/13$

Right Out:  $9.917 \pm 26.816$   $\chi^2/\text{NDF}: 36.5/18$

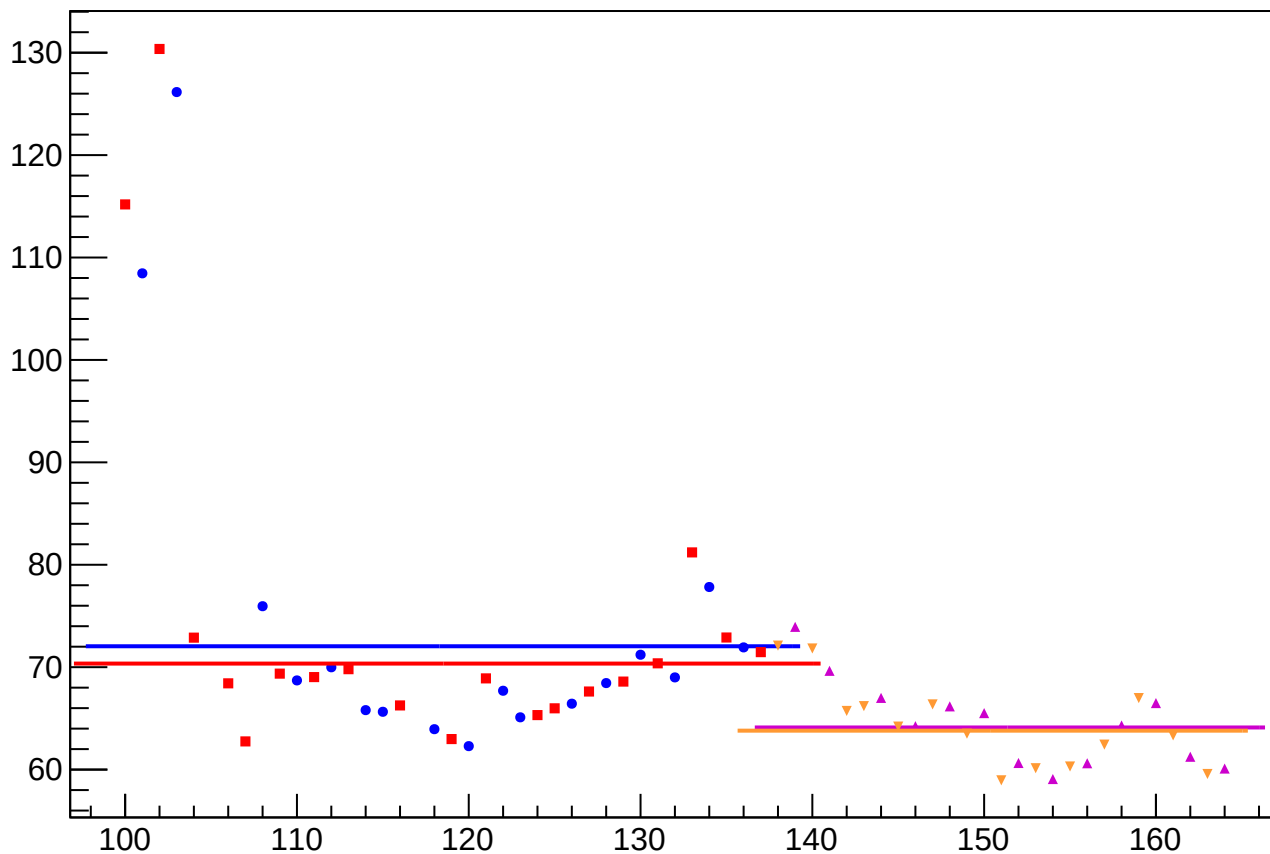
Left In:  $-116.731 \pm 19.975$   $\chi^2/\text{NDF}: 19.4/12$

+ sign  $47.492 \pm 16.153$   $\chi^2/\text{NDF}: 69.5/30$

All:  $-12.514 \pm 11.374$   $\chi^2/\text{NDF}: 167.1/62$

- sign  $-71.535 \pm 16.019$   $\chi^2/\text{NDF}: 70.2/31$

# reg\_asym\_sam7\_rms vs Slug



Right In:  $72.042 \pm 0.020$   $\chi^2/\text{NDF}$ : 391971.7/16

Left Out:  $63.801 \pm 0.014$   $\chi^2/\text{NDF}$ : 79096.3/13

Right Out:  $70.351 \pm 0.019$   $\chi^2/\text{NDF}$ : 299005.5/18

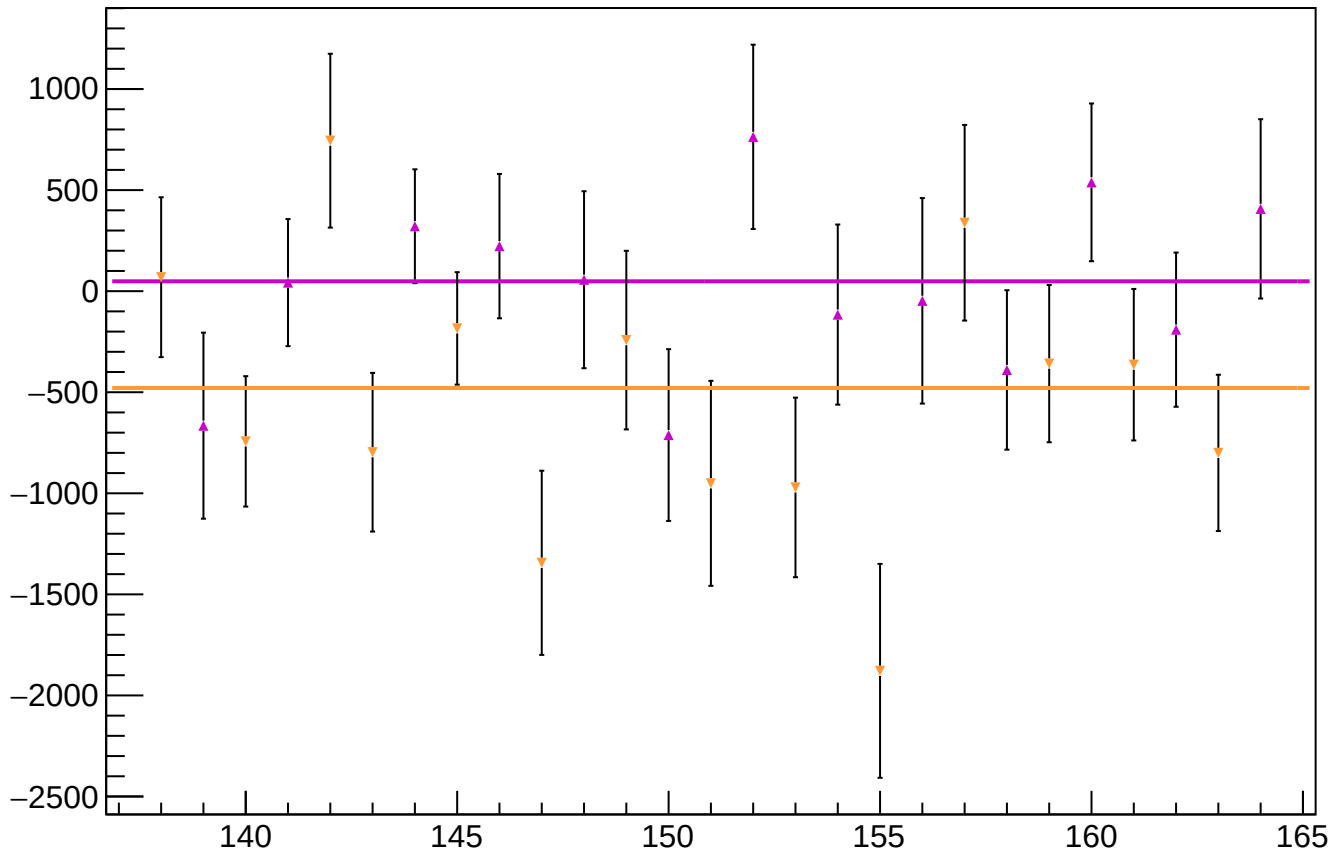
Left In:  $64.112 \pm 0.014$   $\chi^2/\text{NDF}$ : 75330.2/12

+ sign  $66.475 \pm 0.011$   $\chi^2/\text{NDF}$ : 585172.9/30

All:  $66.406 \pm 0.008$   $\chi^2/\text{NDF}$ : 1029198.5/62

- sign  $66.339 \pm 0.011$   $\chi^2/\text{NDF}$ : 443953.7/31

# asym\_sam7\_correction\_mean vs Slug



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

Left Out: -478.900+/-106.617  $\chi^2/\text{NDF}$ : 29.2/13

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

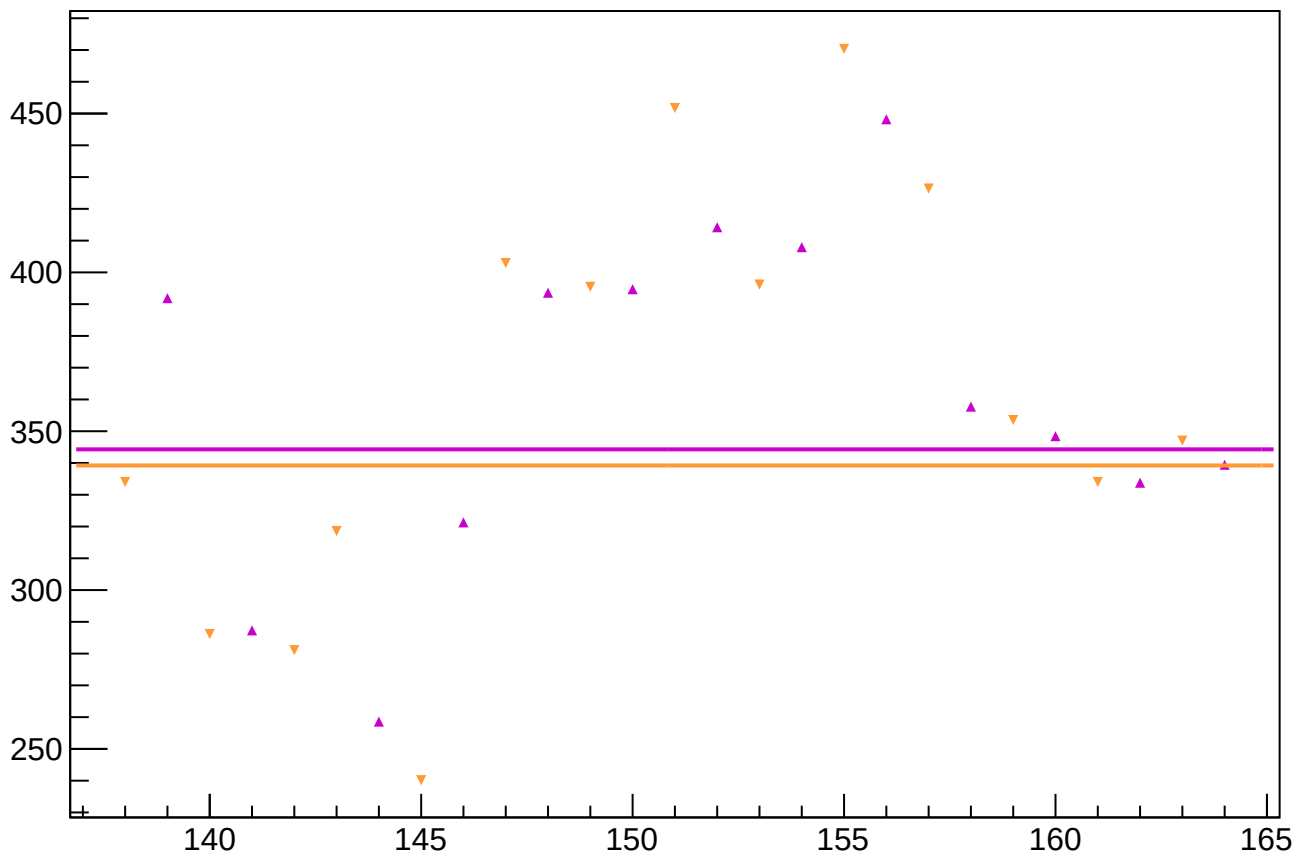
Left In: 48.727+/-108.654  $\chi^2/\text{NDF}$ : 13.3/12

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

All: -220.076+/-76.100  $\chi^2/\text{NDF}$ : 54.5/26

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

# asym\_sam7\_correction\_rms vs Slug



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

Left Out: 339.221 +/- 0.075  $\chi^2/\text{NDF}$ : 744719.0/13

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

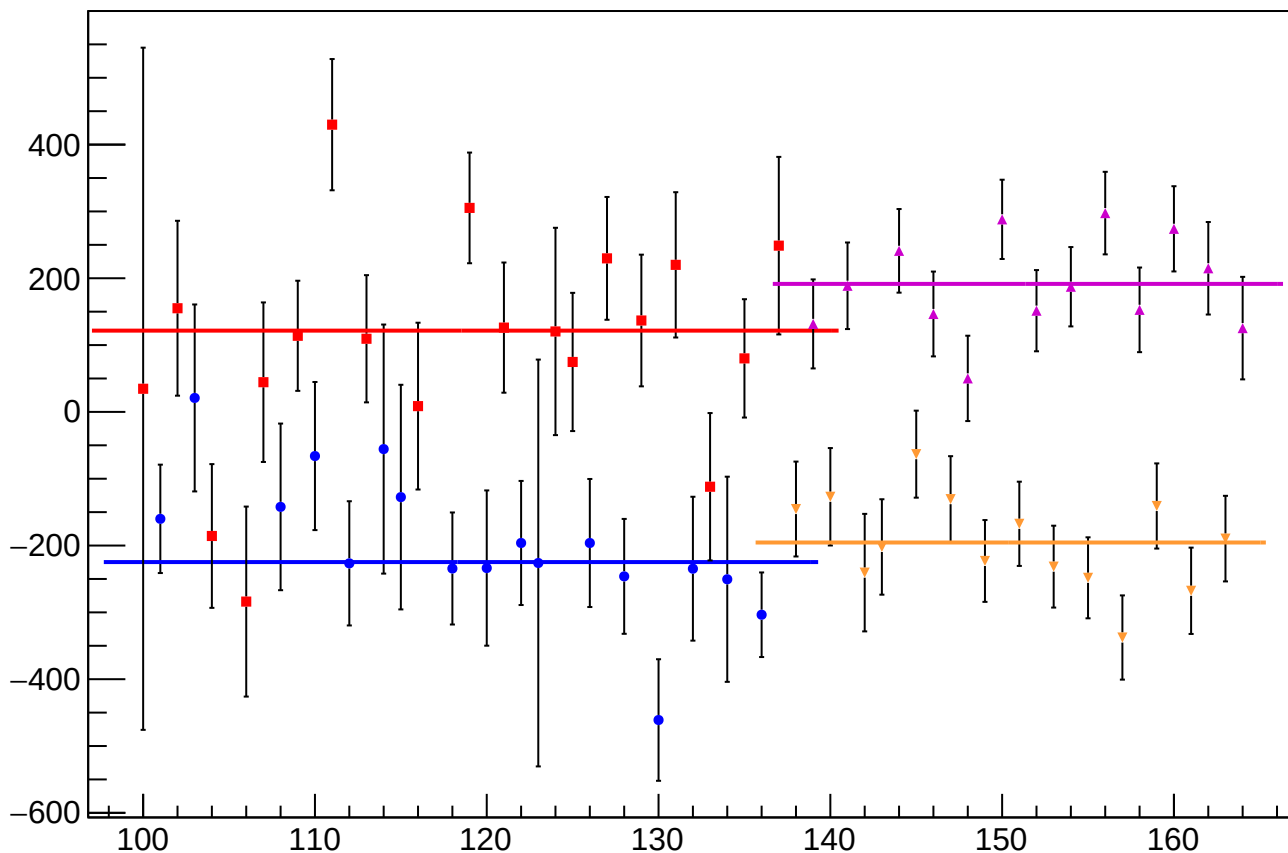
Left In: 344.299 +/- 0.077  $\chi^2/\text{NDF}$ : 509646.0/12

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

All: 341.712 +/- 0.054  $\chi^2/\text{NDF}$ : 1256591.1/26

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

# reg\_asym\_sam8\_mean vs Slug



Right In: -224.727 $\pm$ 24.880  $\chi^2$ /NDF: 16.0/16

Left Out: -195.442 $\pm$ 17.599  $\chi^2$ /NDF: 15.4/13

Right Out: 121.633 $\pm$ 24.599  $\chi^2$ /NDF: 40.5/18

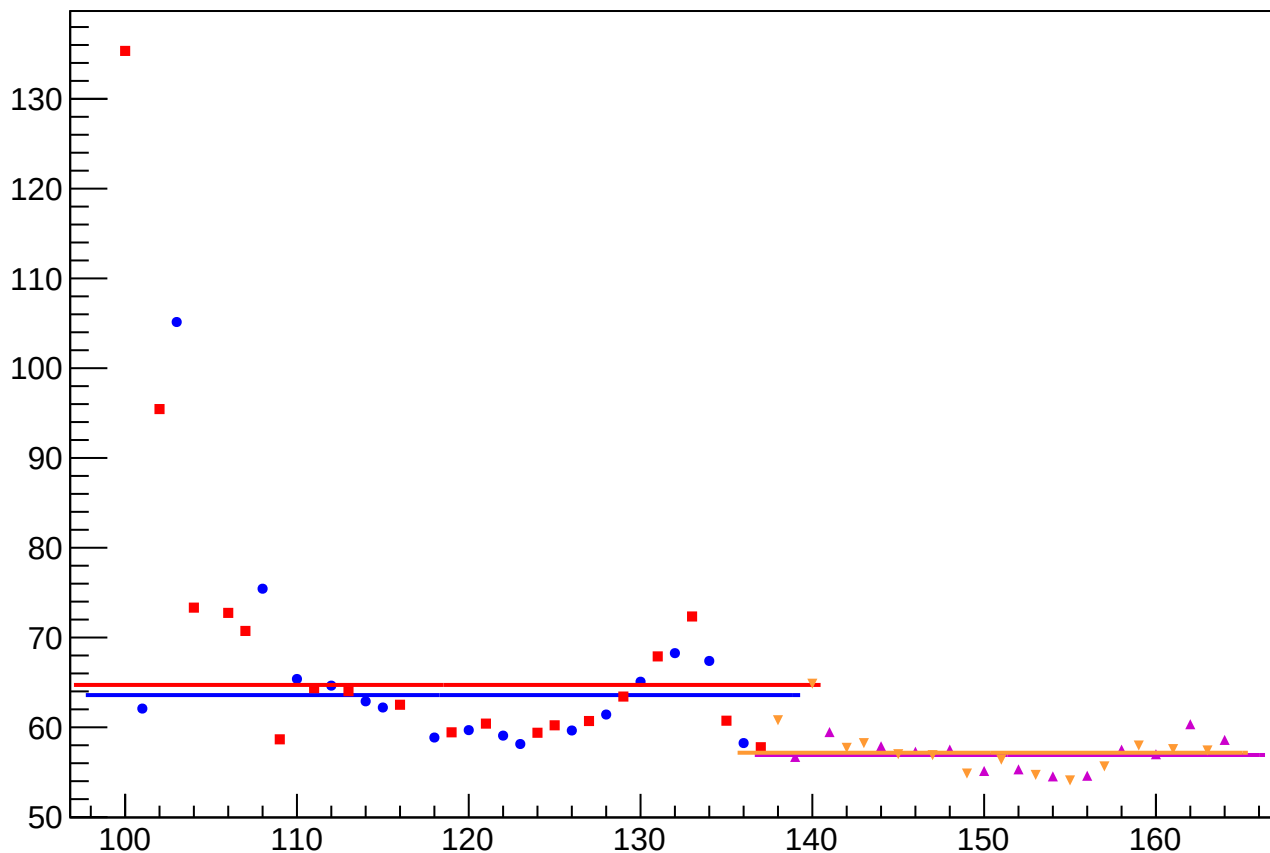
Left In: 191.560 $\pm$ 17.713  $\chi^2$ /NDF: 15.8/12

+ sign -205.208 $\pm$ 14.368  $\chi^2$ /NDF: 32.3/30

All: -18.848 $\pm$ 10.162  $\chi^2$ /NDF: 430.5/62

- sign 167.683 $\pm$ 14.374  $\chi^2$ /NDF: 61.6/31

# reg\_asym\_sam8\_rms vs Slug



Right In: 63.589+/-0.018  $\chi^2/\text{NDF}$ : 234601.0/16

Left Out: 57.168+/-0.012  $\chi^2/\text{NDF}$ : 41196.0/13

Right Out: 64.720+/-0.017  $\chi^2/\text{NDF}$ : 227506.4/18

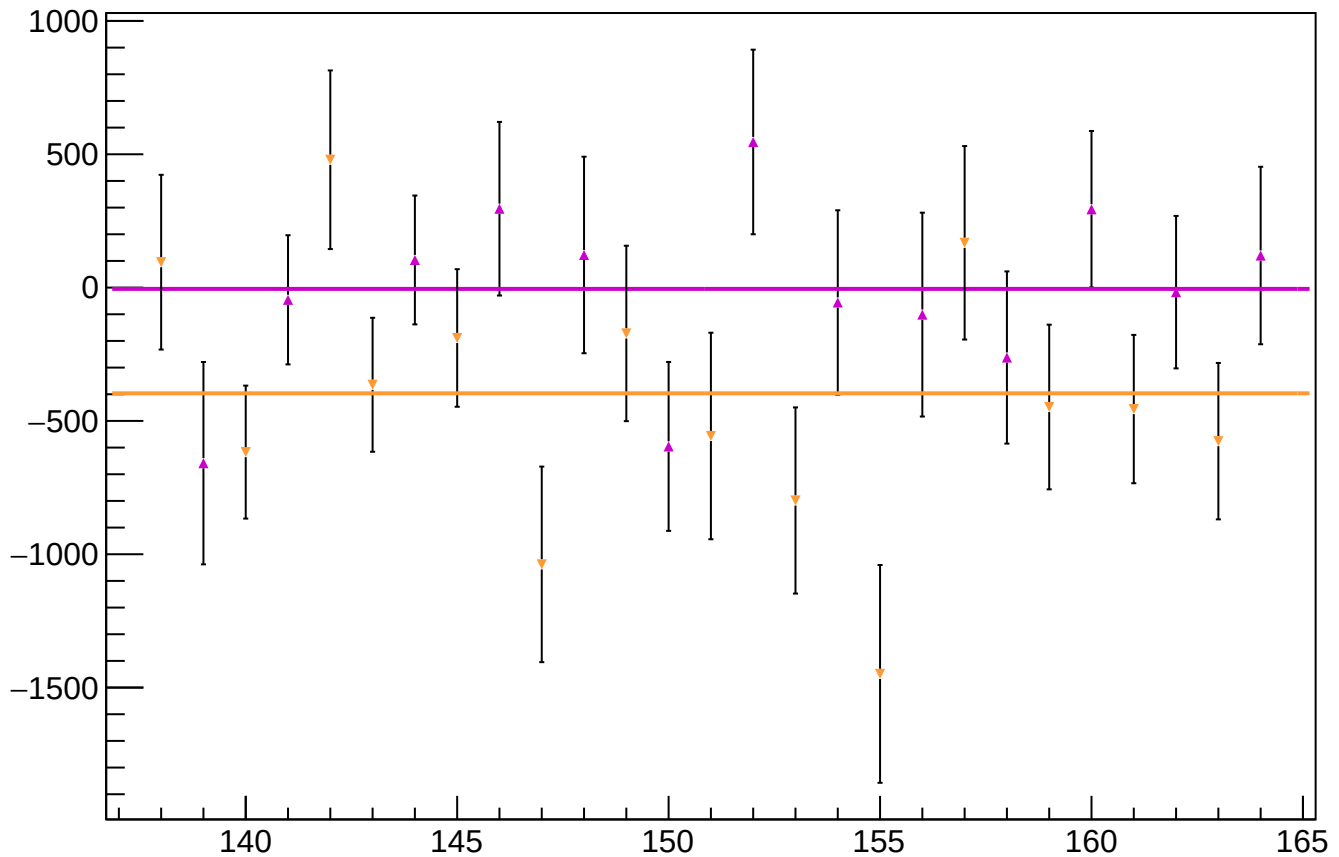
Left In: 56.916+/-0.013  $\chi^2/\text{NDF}$ : 19107.6/12

+ sign 59.309+/-0.010  $\chi^2/\text{NDF}$ : 364585.9/30

All: 59.445+/-0.007  $\chi^2/\text{NDF}$ : 744103.7/62

- sign 59.581+/-0.010  $\chi^2/\text{NDF}$ : 379160.0/31

# asym\_sam8\_correction\_mean vs Slug



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

Left Out: -396.501+/-82.942  $\chi^2/\text{NDF}$ : 25.1/13

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

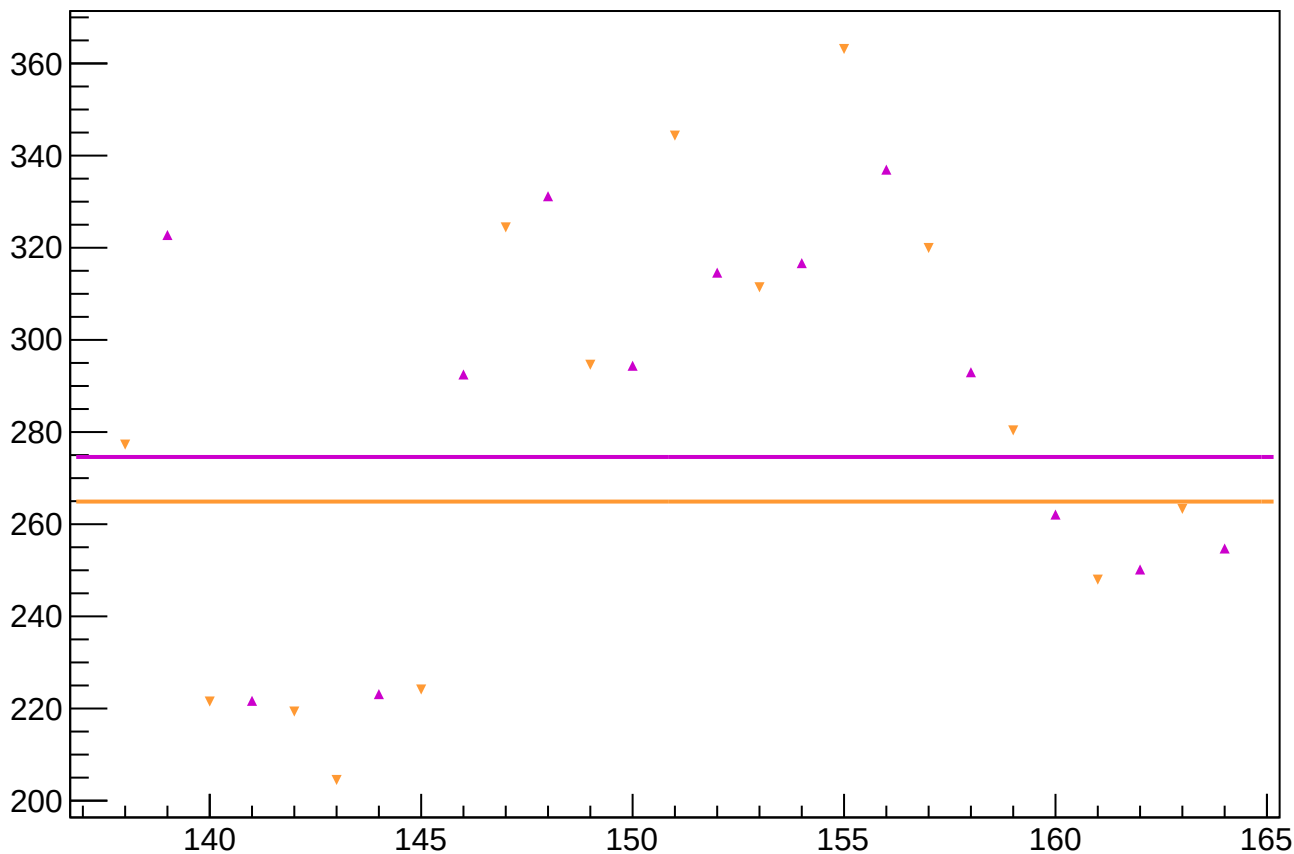
Left In: -4.865+/-86.417  $\chi^2/\text{NDF}$ : 12.1/12

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

All: -208.717+/-59.840  $\chi^2/\text{NDF}$ : 47.8/26

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

# asym\_sam8\_correction\_rms vs Slug



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

Left Out: 264.914+/-0.059  $\chi^2/\text{NDF}$ : 628896.9/13

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

Left In: 274.594+/-0.061  $\chi^2/\text{NDF}$ : 420866.1/12

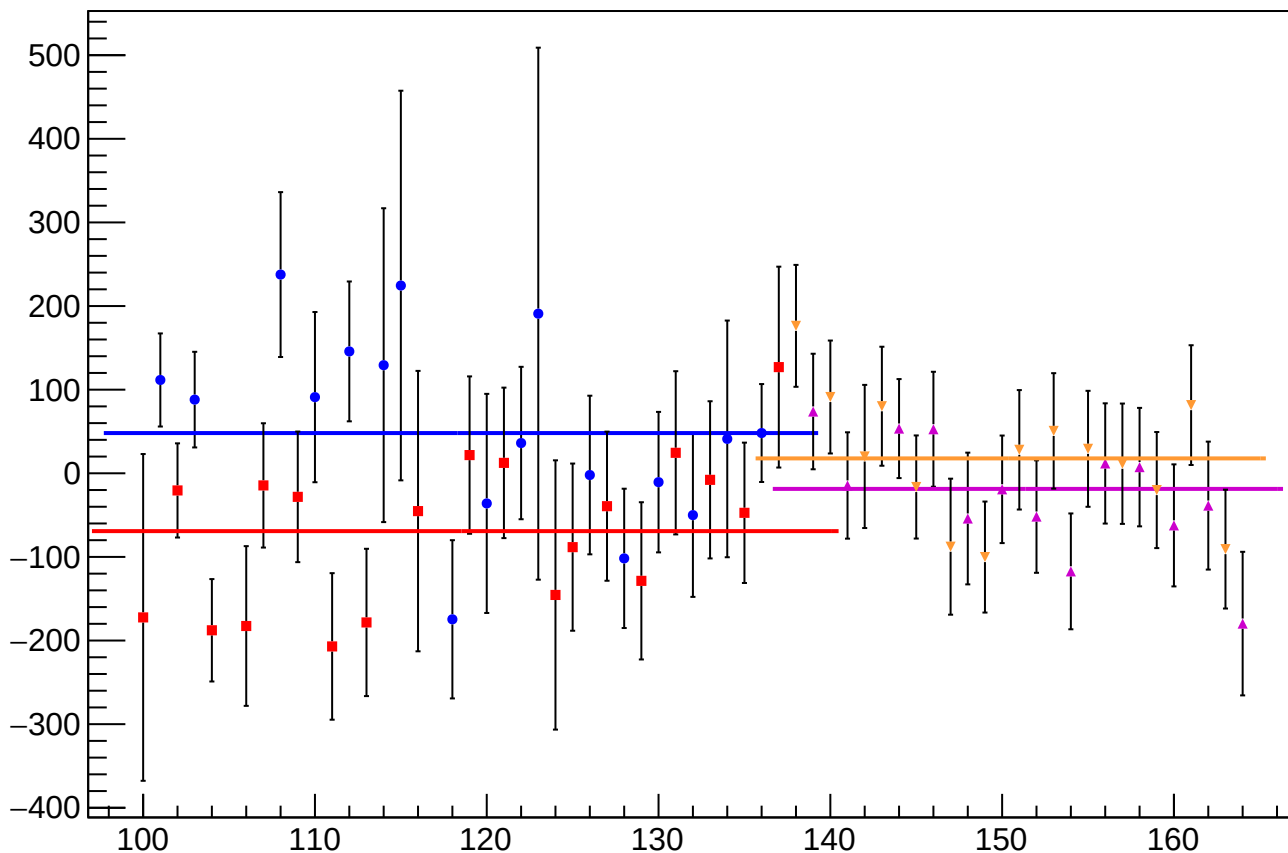
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 269.556+/-0.042  $\chi^2/\text{NDF}$ : 1062825.0/26

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



# reg\_asym\_sam\_15\_avg\_mean vs Slug



Right In: 48.109+/-21.510  $\chi^2/\text{NDF}$ : 19.0/16

Left Out: 17.809+/-18.931  $\chi^2/\text{NDF}$ : 15.5/13

Right Out: -69.156+/-20.407  $\chi^2/\text{NDF}$ : 17.7/18

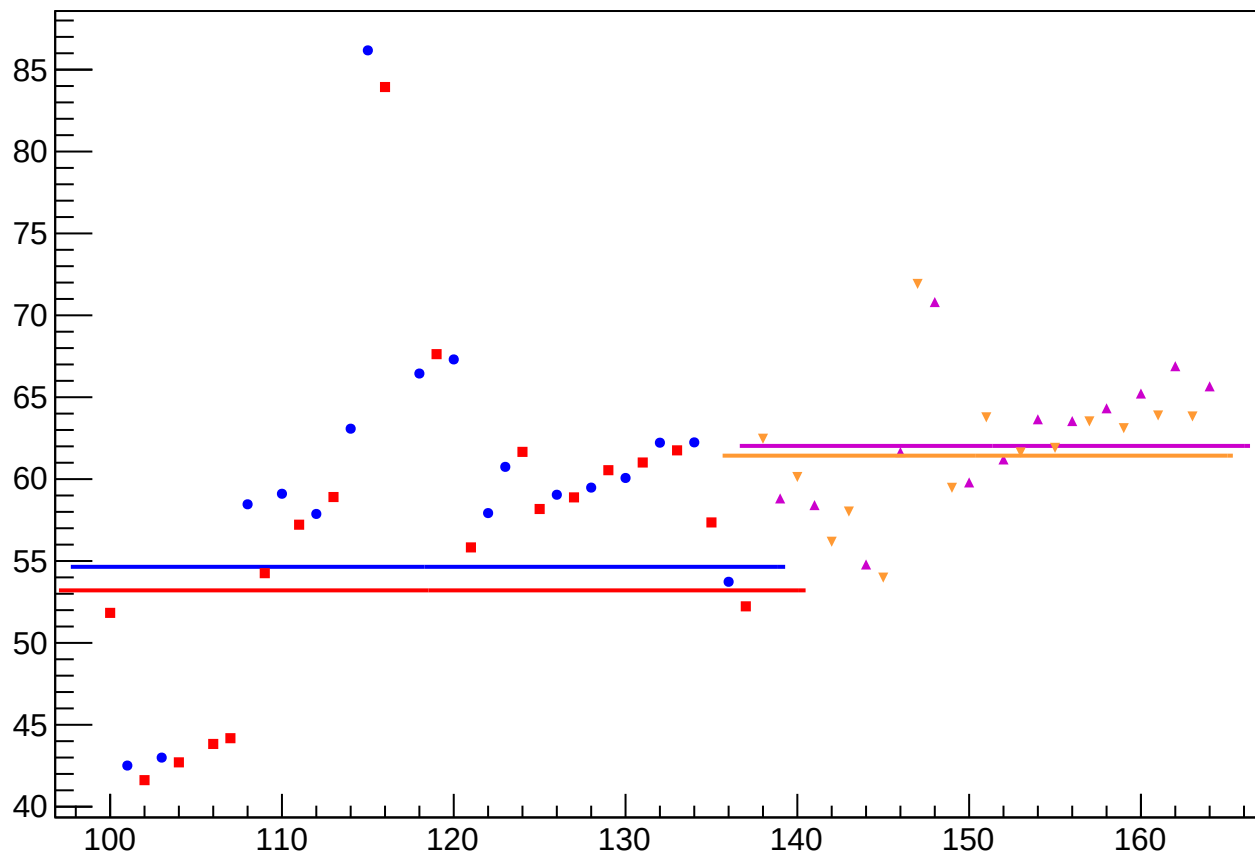
Left In: -18.658+/-19.340  $\chi^2/\text{NDF}$ : 11.1/12

+ sign 31.034+/-14.211  $\chi^2/\text{NDF}$ : 35.6/30

All: -6.211+/-9.987  $\chi^2/\text{NDF}$ : 81.2/62

- sign -42.552+/-14.037  $\chi^2/\text{NDF}$ : 32.0/31

# reg\_asym\_sam\_15\_avg\_rms vs Slug



Right In: 54.645 $\pm$ 0.015  $\chi^2$ /NDF: 319300.2/16

Left Out: 61.432 $\pm$ 0.013  $\chi^2$ /NDF: 87188.4/13

Right Out: 53.207 $\pm$ 0.014  $\chi^2$ /NDF: 386295.2/18

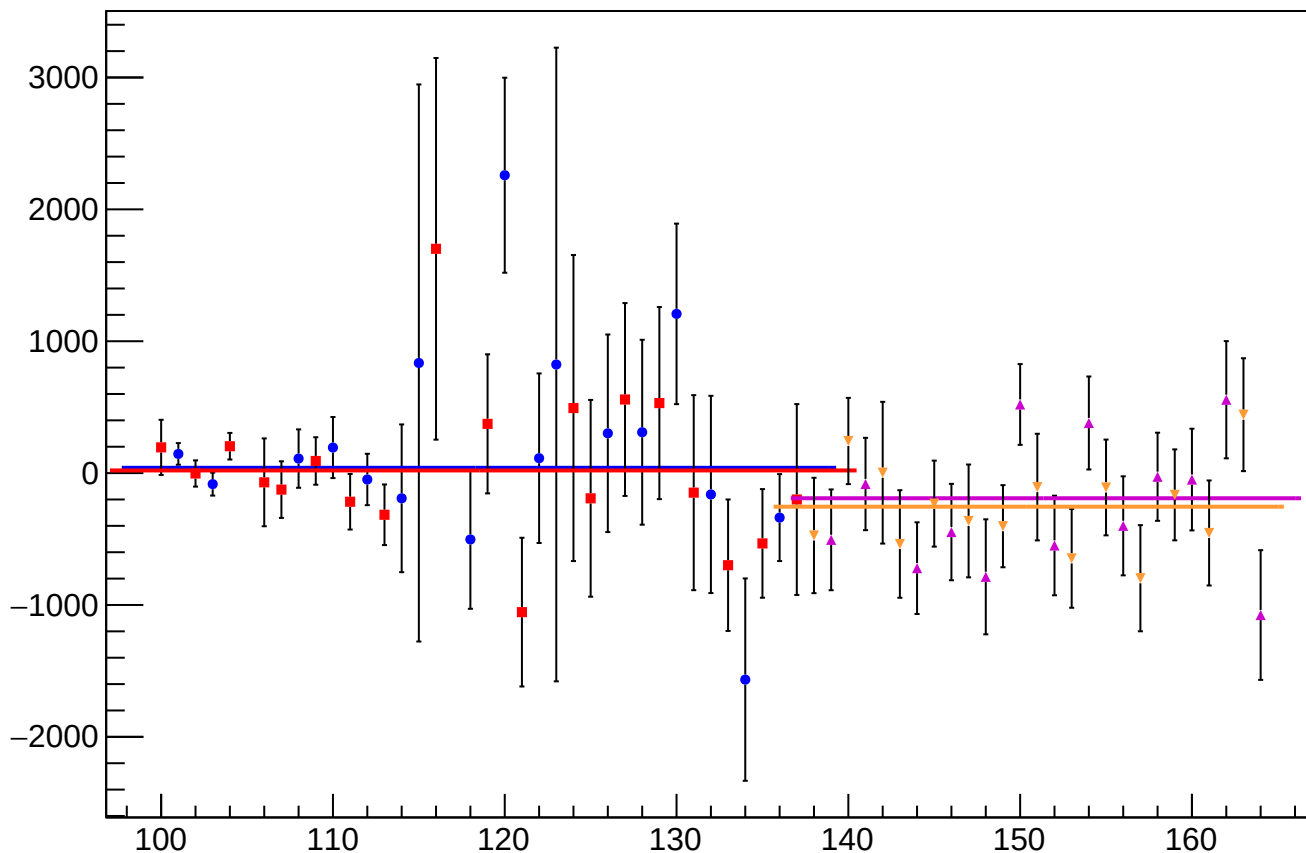
Left In: 62.027 $\pm$ 0.014  $\chi^2$ /NDF: 87929.2/12

+ sign 58.470 $\pm$ 0.010  $\chi^2$ /NDF: 518712.2/30

All: 58.158 $\pm$ 0.007  $\chi^2$ /NDF: 1191684.8/62

- sign 57.854 $\pm$ 0.010  $\chi^2$ /NDF: 671070.2/31

# asym\_sam\_15\_avg\_correction\_mean vs Slug



Right In:  $40.207 \pm 51.542$   $\chi^2/\text{NDF}$ : 23.9/16

Left Out:  $-254.788 \pm 101.850$   $\chi^2/\text{NDF}$ : 9.8/13

Right Out:  $20.232 \pm 53.274$   $\chi^2/\text{NDF}$ : 18.9/18

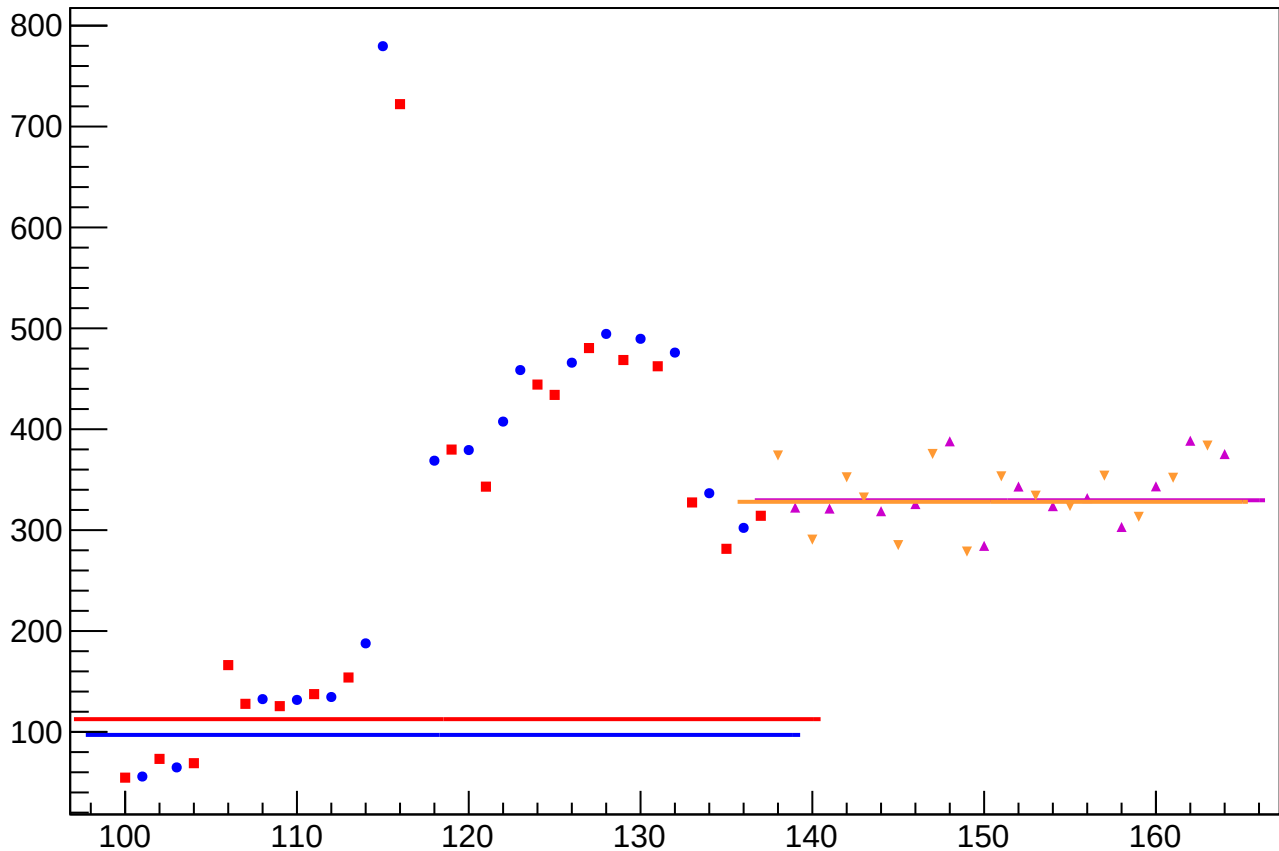
Left In:  $-190.705 \pm 103.300$   $\chi^2/\text{NDF}$ : 21.1/12

+ sign  $-19.938 \pm 45.989$   $\chi^2/\text{NDF}$ : 40.3/30

All:  $-21.950 \pm 32.989$   $\chi^2/\text{NDF}$ : 83.6/62

- sign  $-24.084 \pm 47.348$   $\chi^2/\text{NDF}$ : 43.3/31

# asym\_sam\_15\_avg\_correction\_rms vs Slug



Right In: 97.039+/-0.036  $\chi^2/\text{NDF}$ : 5819709.2/16

Left Out: 328.075+/-0.072  $\chi^2/\text{NDF}$ : 223715.4/13

Right Out: 112.653+/-0.038  $\chi^2/\text{NDF}$ : 5036306.5/18

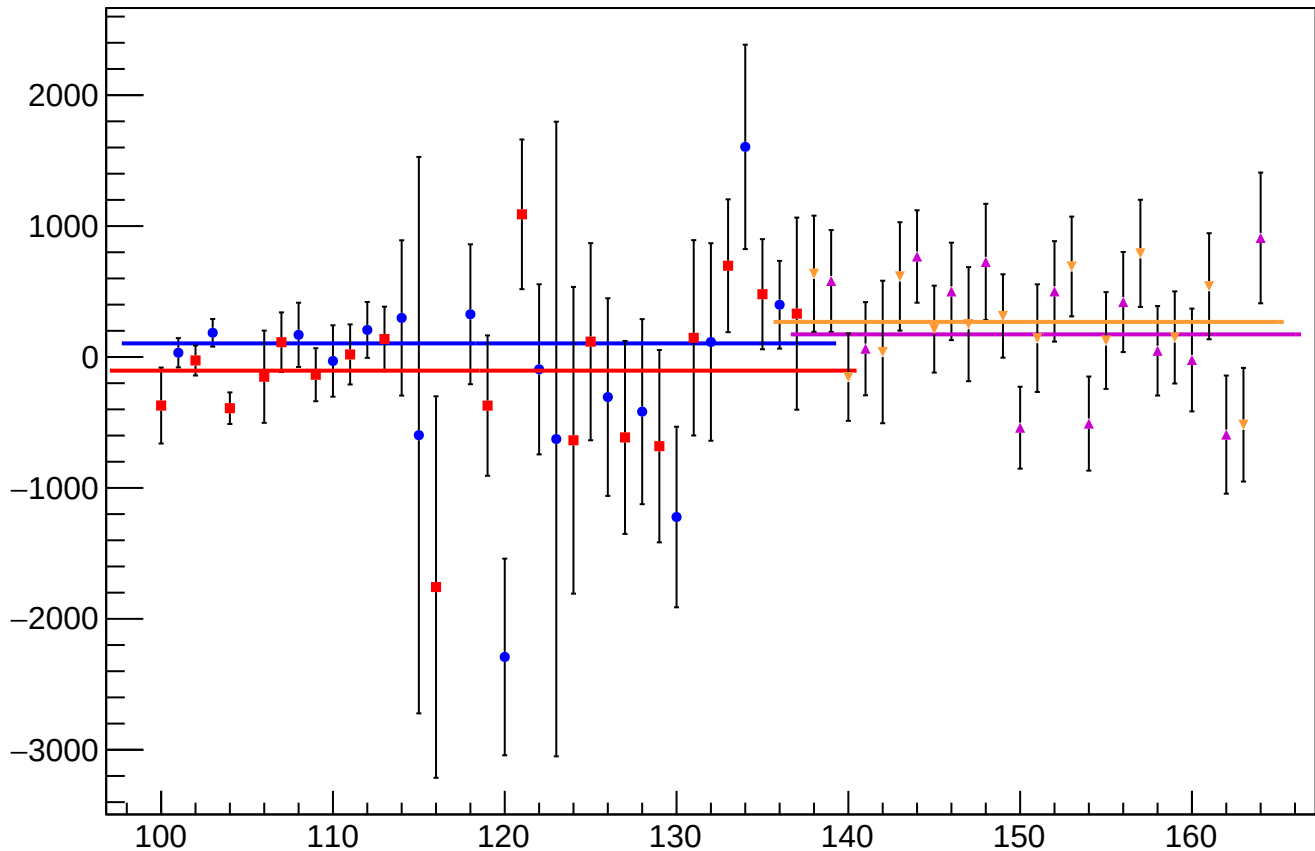
Left In: 329.598+/-0.073  $\chi^2/\text{NDF}$ : 154307.9/12

+ sign 144.143+/-0.033  $\chi^2/\text{NDF}$ : 14236442.9/30

All: 150.982+/-0.023  $\chi^2/\text{NDF}$ : 26486077.5/62

- sign 158.231+/-0.033  $\chi^2/\text{NDF}$ : 12158523.3/31

# asym\_sam\_15\_avg\_mean vs Slug



Right In: 104.001 $\pm$ 63.156  $\chi^2/\text{NDF}$ : 21.3/16

Left Out: 268.203 $\pm$ 103.684  $\chi^2/\text{NDF}$ : 10.2/13

Right Out: -104.140 $\pm$ 60.857  $\chi^2/\text{NDF}$ : 21.3/18

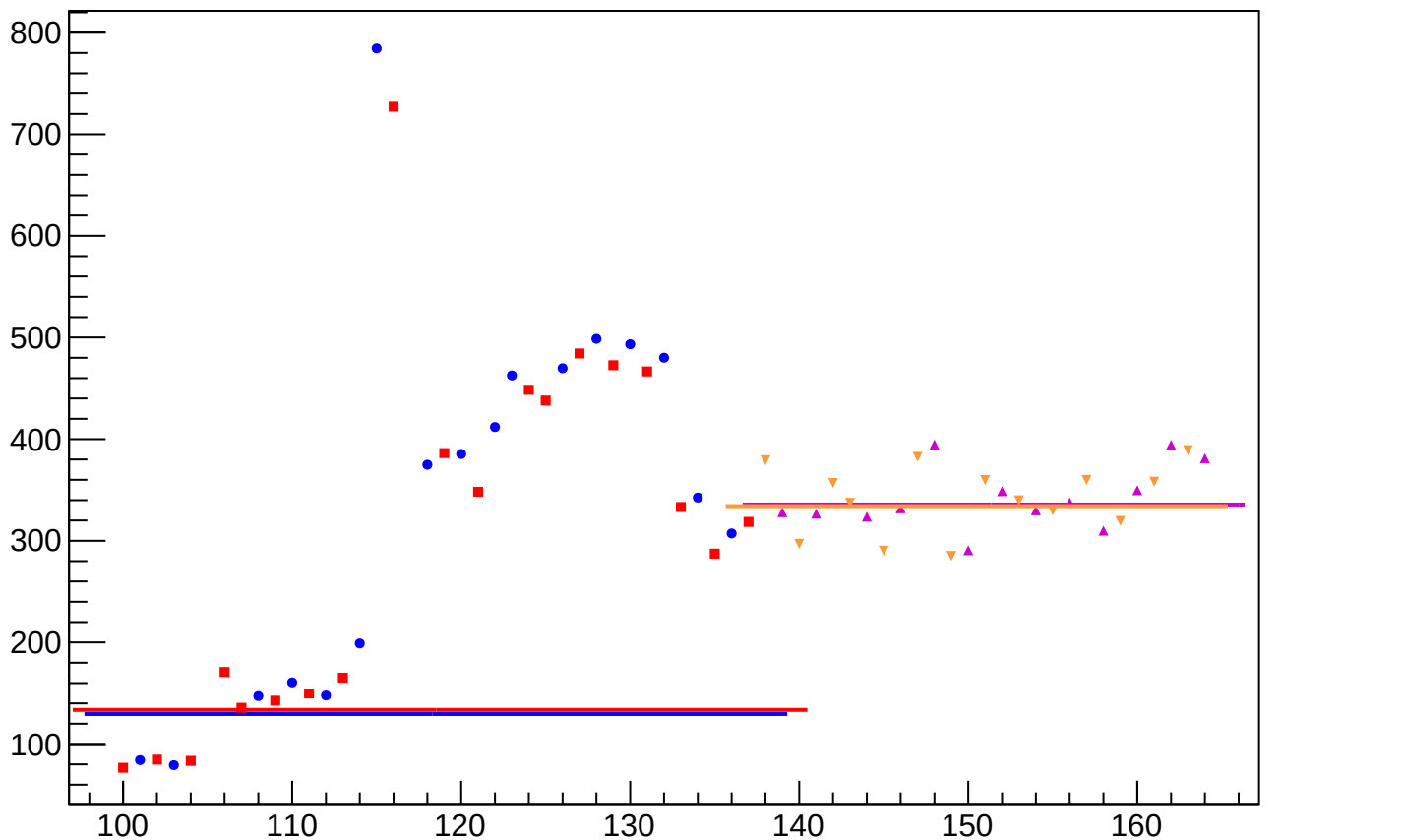
Left In: 172.892 $\pm$ 105.174  $\chi^2/\text{NDF}$ : 21.7/12

+ sign 148.438 $\pm$ 53.938  $\chi^2/\text{NDF}$ : 33.3/30

All: 54.724 $\pm$ 37.685  $\chi^2/\text{NDF}$ : 87.5/62

- sign -34.651 $\pm$ 52.675  $\chi^2/\text{NDF}$ : 48.3/31

# asym\_sam\_15\_avg\_rms vs Slug



Right In: 129.552 $\pm$ 0.045  $\chi^2$ /NDF: 4772450.4/16

Left Out: 334.135 $\pm$ 0.073  $\chi^2$ /NDF: 215197.7/13

Right Out: 133.593 $\pm$ 0.043  $\chi^2$ /NDF: 4366252.1/18

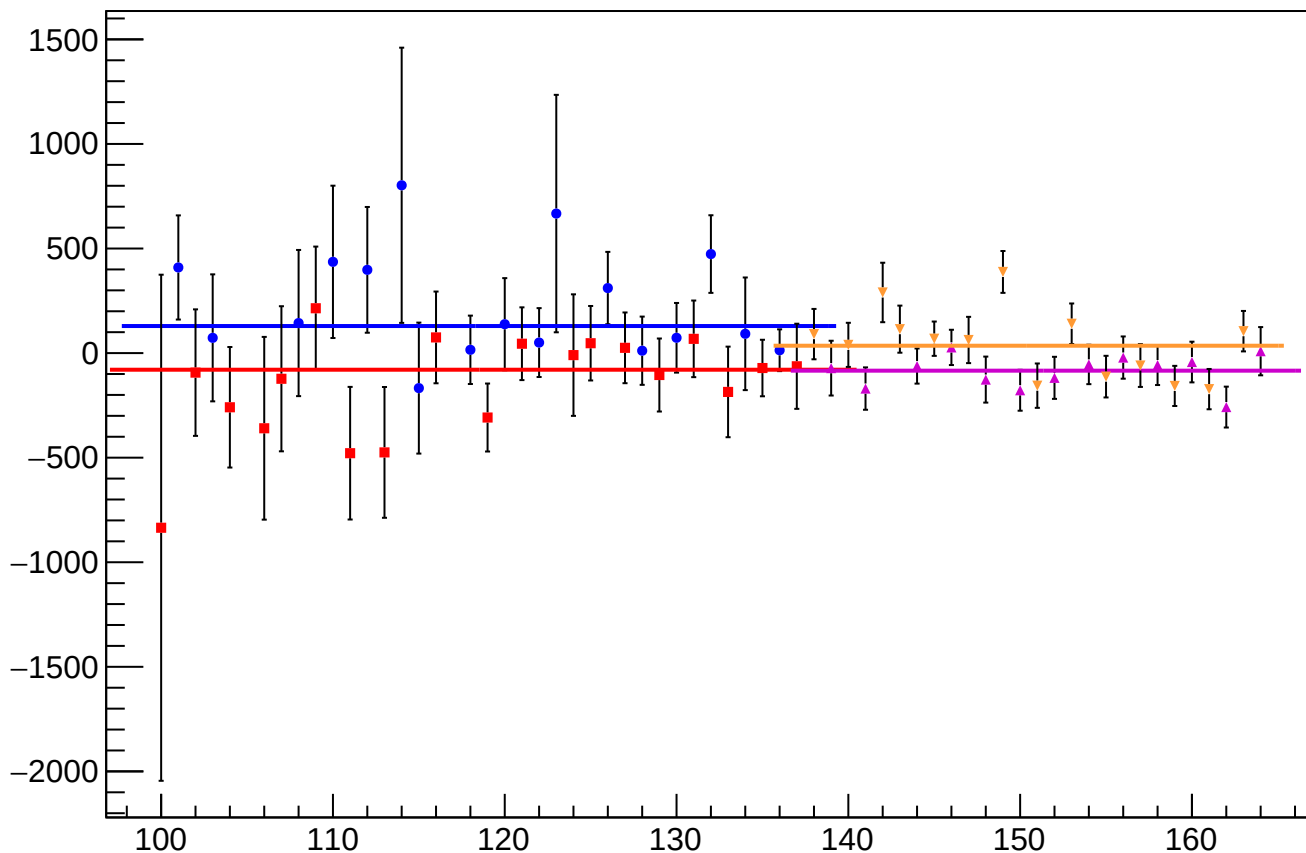
Left In: 335.699 $\pm$ 0.074  $\chi^2$ /NDF: 148681.3/12

+ sign 184.917 $\pm$ 0.038  $\chi^2$ /NDF: 10667032.1/30

All: 184.595 $\pm$ 0.027  $\chi^2$ /NDF: 20714983.4/62

- sign 184.287 $\pm$ 0.037  $\chi^2$ /NDF: 10047811.9/31

# reg\_asym\_sam\_26\_avg\_mean vs Slug



Right In: 129.398 $\pm$ 49.122  $\chi^2$ /NDF: 12.9/16

Left Out: 35.254 $\pm$ 27.396  $\chi^2$ /NDF:33.2/13

Right Out: -79.483 $\pm$ 49.886  $\chi^2$ /NDF: 10.2/18

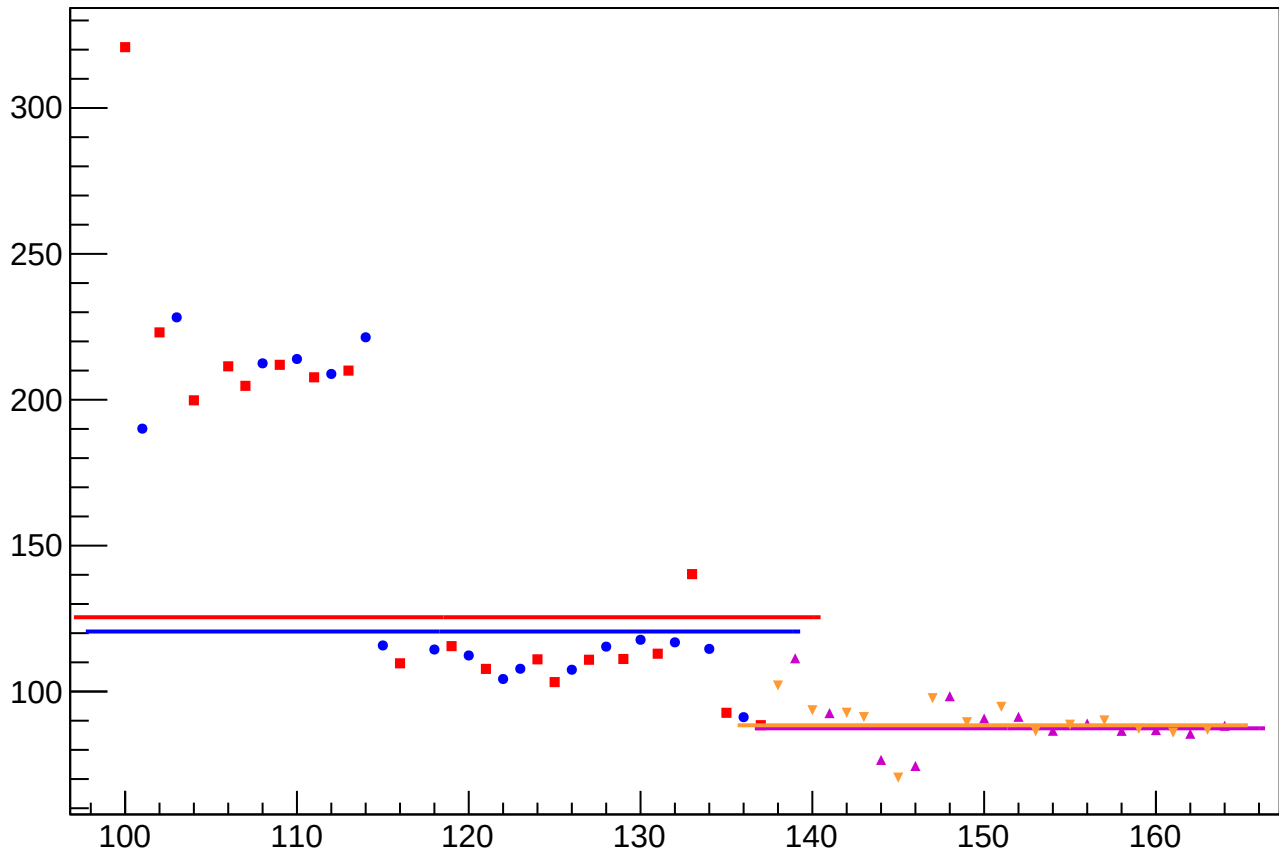
Left In: -84.035 $\pm$ 27.419  $\chi^2$ /NDF:8.3/12

+ sign 57.590 $\pm$ 23.926  $\chi^2$ /NDF: 48.9/30

All: -12.396 $\pm$ 16.954  $\chi^2$ /NDF: 84.7/62

- sign -82.979 $\pm$ 24.028  $\chi^2$ /NDF: 18.5/31

# reg\_asym\_sam\_26\_avg\_rms vs Slug



Right In: 120.565 $\pm$ 0.035  $\chi^2$ /NDF: 1112076.4/16

Left Out: 88.420 $\pm$ 0.019  $\chi^2$ /NDF:154164.5/13

Right Out: 125.458 $\pm$ 0.035  $\chi^2$ /NDF: 1333754.6/18

Left In: 87.386 $\pm$ 0.019  $\chi^2$ /NDF:179679.6/12

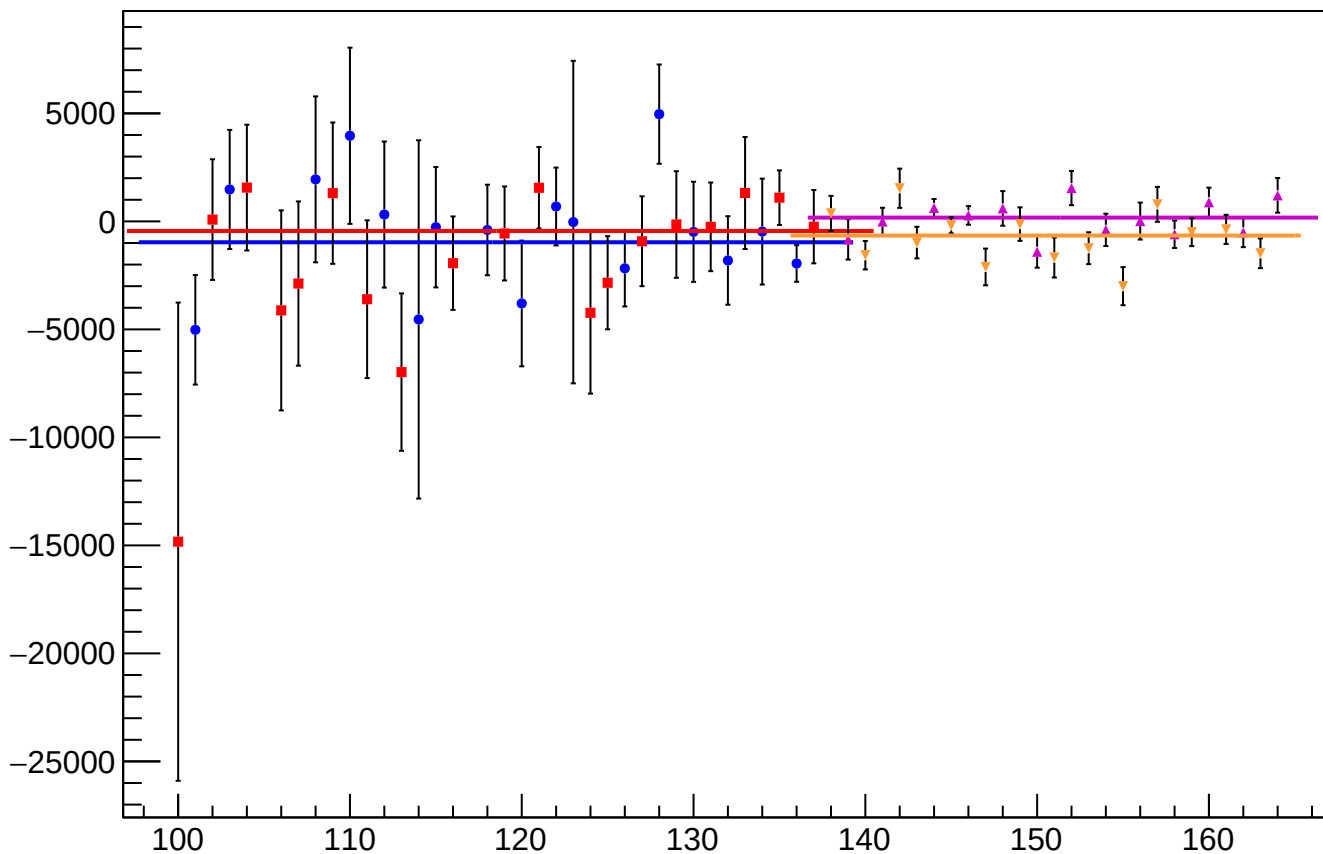
+ sign 96.047 $\pm$ 0.017  $\chi^2$ /NDF: 1919511.0/30

All: 96.132 $\pm$ 0.012  $\chi^2$ /NDF: 4327663.0/62

- sign 96.219 $\pm$ 0.017  $\chi^2$ /NDF: 2408100.4/31



# asym\_sam\_26\_avg\_correction\_mean vs Slug



Right In:  $-966.587 \pm 512.340$   $\chi^2/\text{NDF}$ : 16.4/16

Left Out:  $-655.198 \pm 183.331$   $\chi^2/\text{NDF}$ : 28.3/13

Right Out:  $-444.406 \pm 545.370$   $\chi^2/\text{NDF}$ : 13.4/18

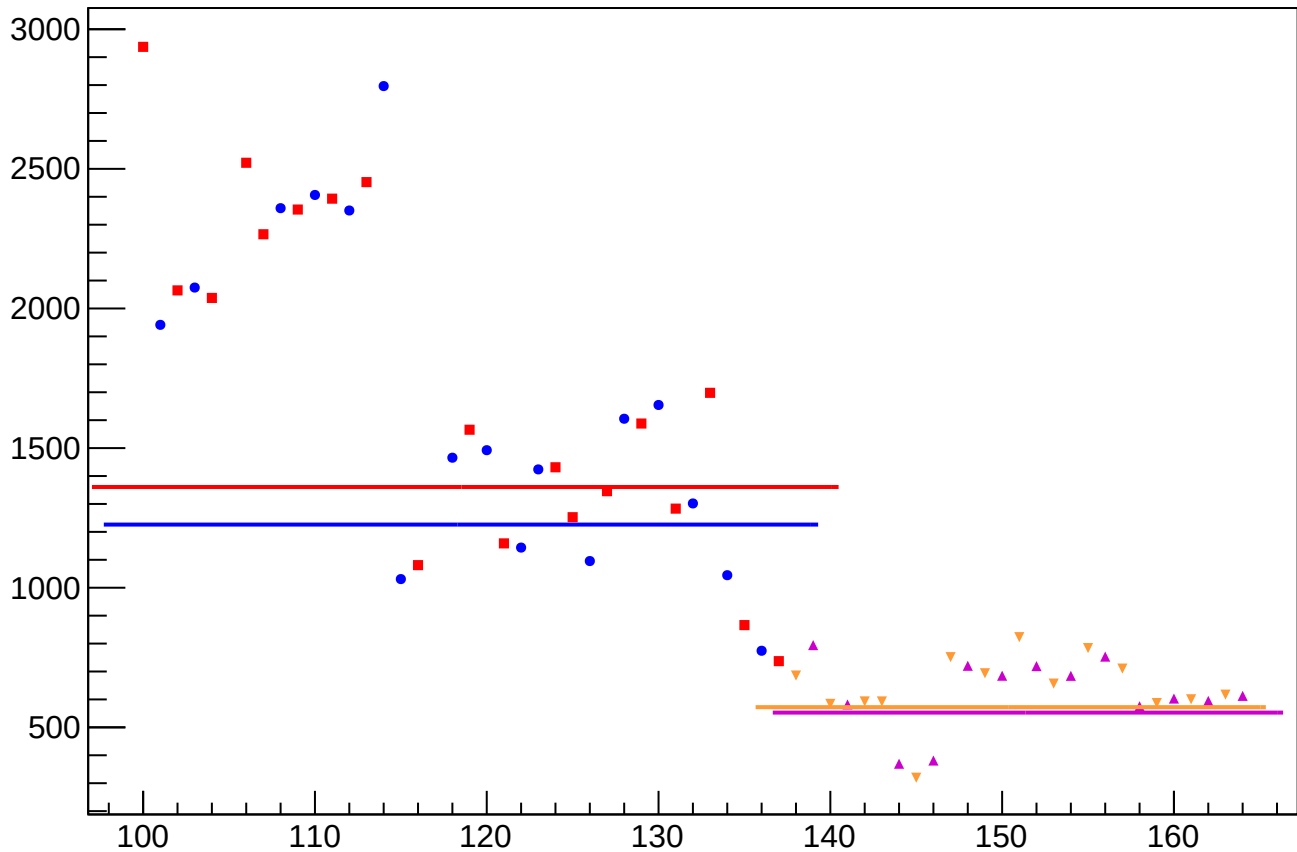
Left In:  $174.004 \pm 178.814$   $\chi^2/\text{NDF}$ : 16.2/12

+ sign  $-690.544 \pm 172.613$   $\chi^2/\text{NDF}$ : 45.0/30

All:  $-281.944 \pm 121.090$   $\chi^2/\text{NDF}$ : 86.7/62

- sign  $113.976 \pm 169.914$   $\chi^2/\text{NDF}$ : 30.7/31

# asym\_sam\_26\_avg\_correction\_rms vs Slug



Right In: 1226.135 $\pm$ 0.362  $\chi^2$ /NDF: 1756323.1/16

Left Out: 572.315 $\pm$ 0.130  $\chi^2$ /NDF: 1467351.3/13

Right Out: 1360.770 $\pm$ 0.386  $\chi^2$ /NDF: 1749074.9/18

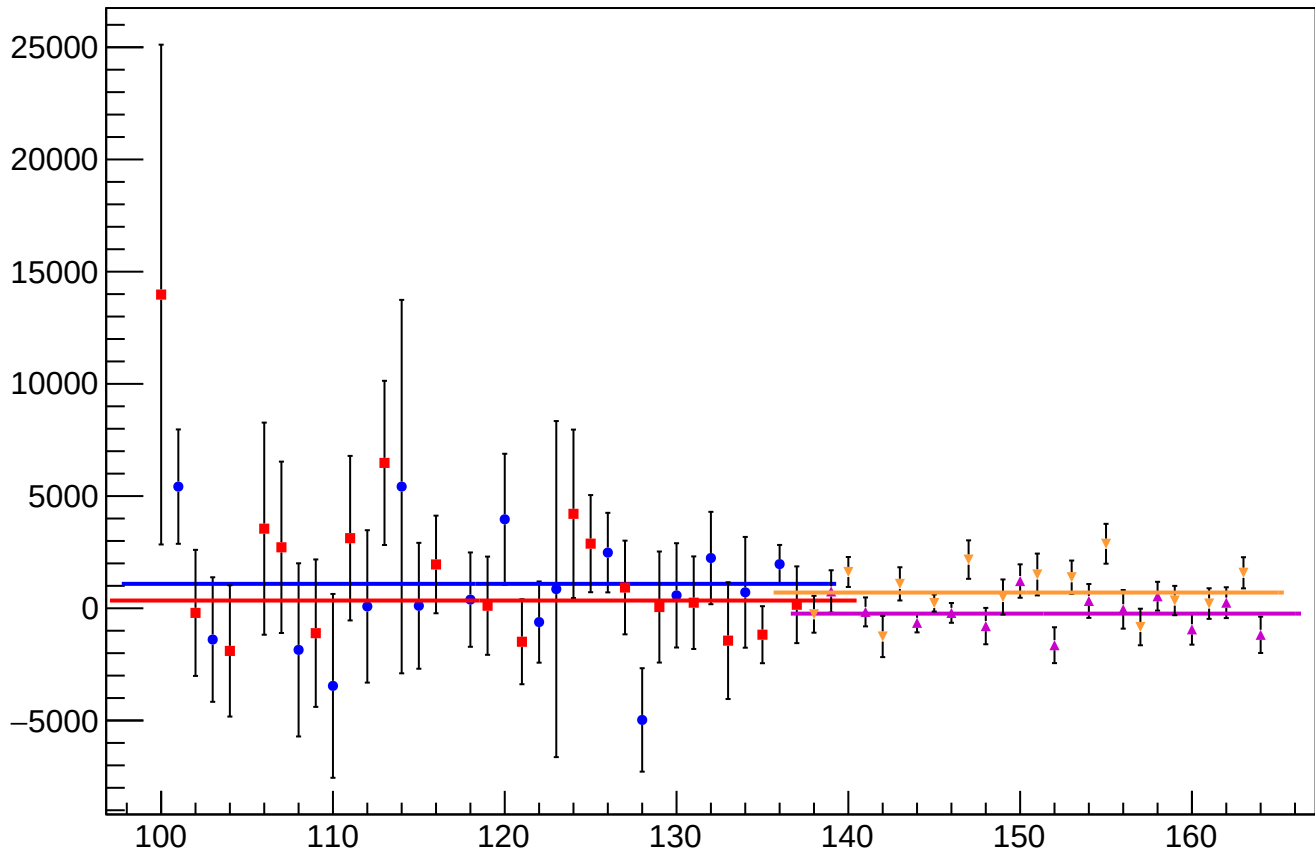
Left In: 552.832 $\pm$ 0.126  $\chi^2$ /NDF: 1285480.9/12

+ sign 646.530 $\pm$ 0.122  $\chi^2$ /NDF: 6111052.5/30

All: 638.773 $\pm$ 0.086  $\chi^2$ /NDF: 13116876.9/62

- sign 631.256 $\pm$ 0.120  $\chi^2$ /NDF: 6997871.8/31

# asym\_sam\_26\_avg\_mean vs Slug



Right In:  $1089.066 \pm 515.272$   $\chi^2/\text{NDF}$ : 16.9/16

Left Out:  $701.428 \pm 185.879$   $\chi^2/\text{NDF}$ : 26.2/13

Right Out:  $345.640 \pm 548.191$   $\chi^2/\text{NDF}$ : 12.5/18

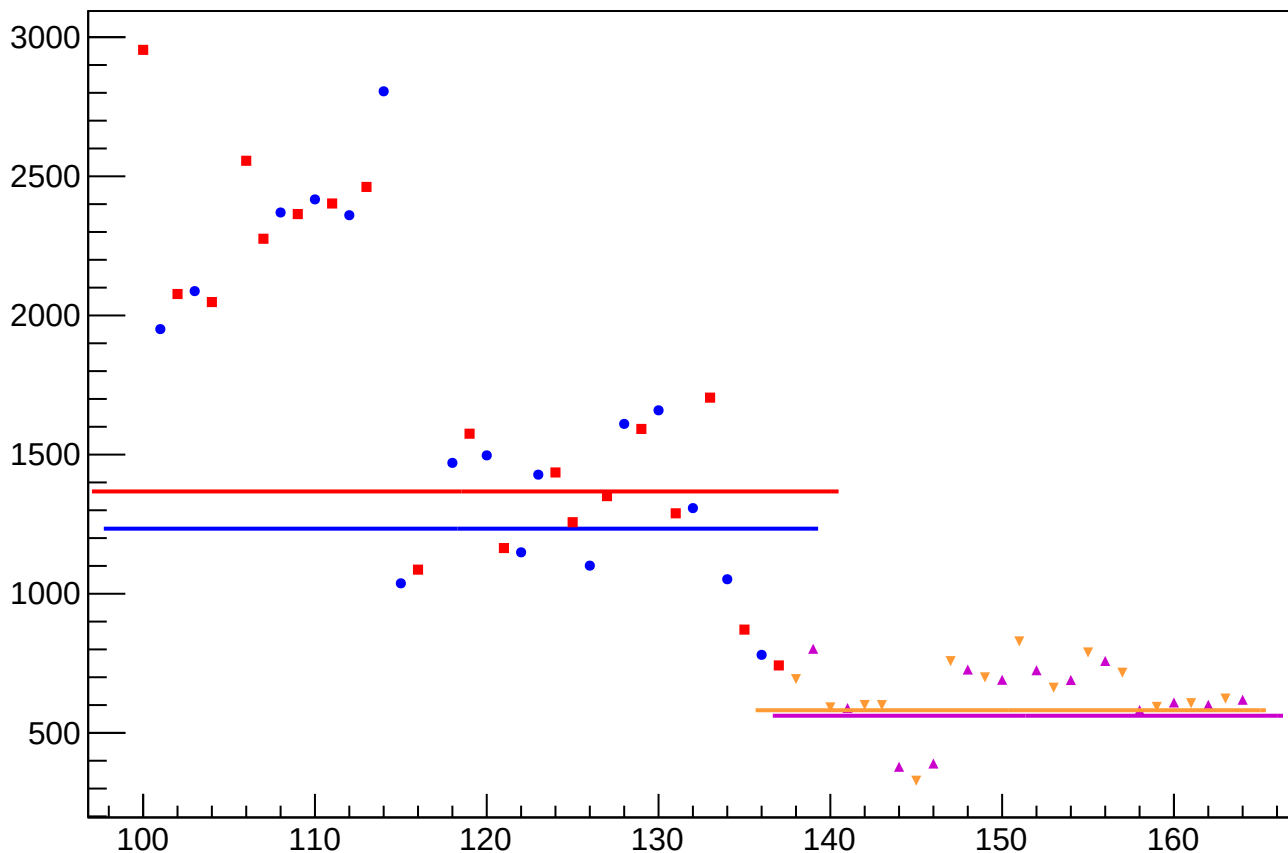
Left In:  $-237.998 \pm 181.375$   $\chi^2/\text{NDF}$ : 14.4/12

+ sign  $746.064 \pm 174.850$   $\chi^2/\text{NDF}$ : 43.6/30

All:  $275.739 \pm 122.688$   $\chi^2/\text{NDF}$ : 85.8/62

- sign  $-180.411 \pm 172.195$   $\chi^2/\text{NDF}$ : 27.9/31

# asym\_sam\_26\_avg\_rms vs Slug



Right In: 1233.863 $\pm$ 0.364  $\chi^2/\text{NDF}$ : 1744048.5/16

Left Out: 581.394 $\pm$ 0.131  $\chi^2/\text{NDF}$ : 1394215.4/13

Right Out: 1367.609 $\pm$ 0.388  $\chi^2/\text{NDF}$ : 1744594.4/18

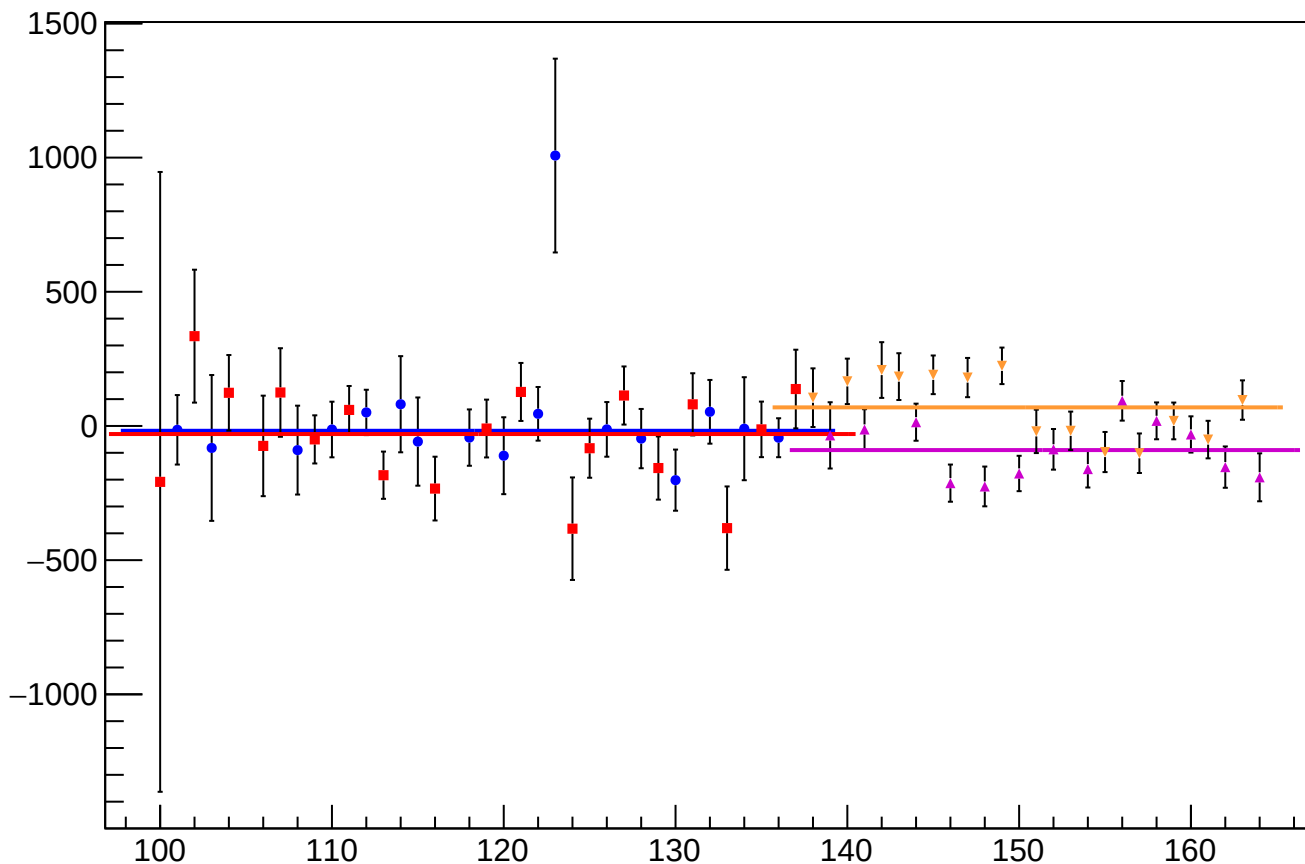
Left In: 561.683 $\pm$ 0.128  $\chi^2/\text{NDF}$ : 1226928.9/12

+ sign 656.524 $\pm$ 0.124  $\chi^2/\text{NDF}$ : 5975836.4/30

All: 648.746 $\pm$ 0.087  $\chi^2/\text{NDF}$ : 12851359.3/62

- sign 641.202 $\pm$ 0.122  $\chi^2/\text{NDF}$ : 6867726.0/31

# reg\_asym\_sam\_37\_avg\_mean vs Slug



Right In:  $-17.972 \pm 28.848$   $\chi^2/\text{NDF}: 13.4/16$

Left Out:  $69.269 \pm 20.596$   $\chi^2/\text{NDF}: 31.9/13$

Right Out:  $-30.070 \pm 27.976$   $\chi^2/\text{NDF}: 27.4/18$

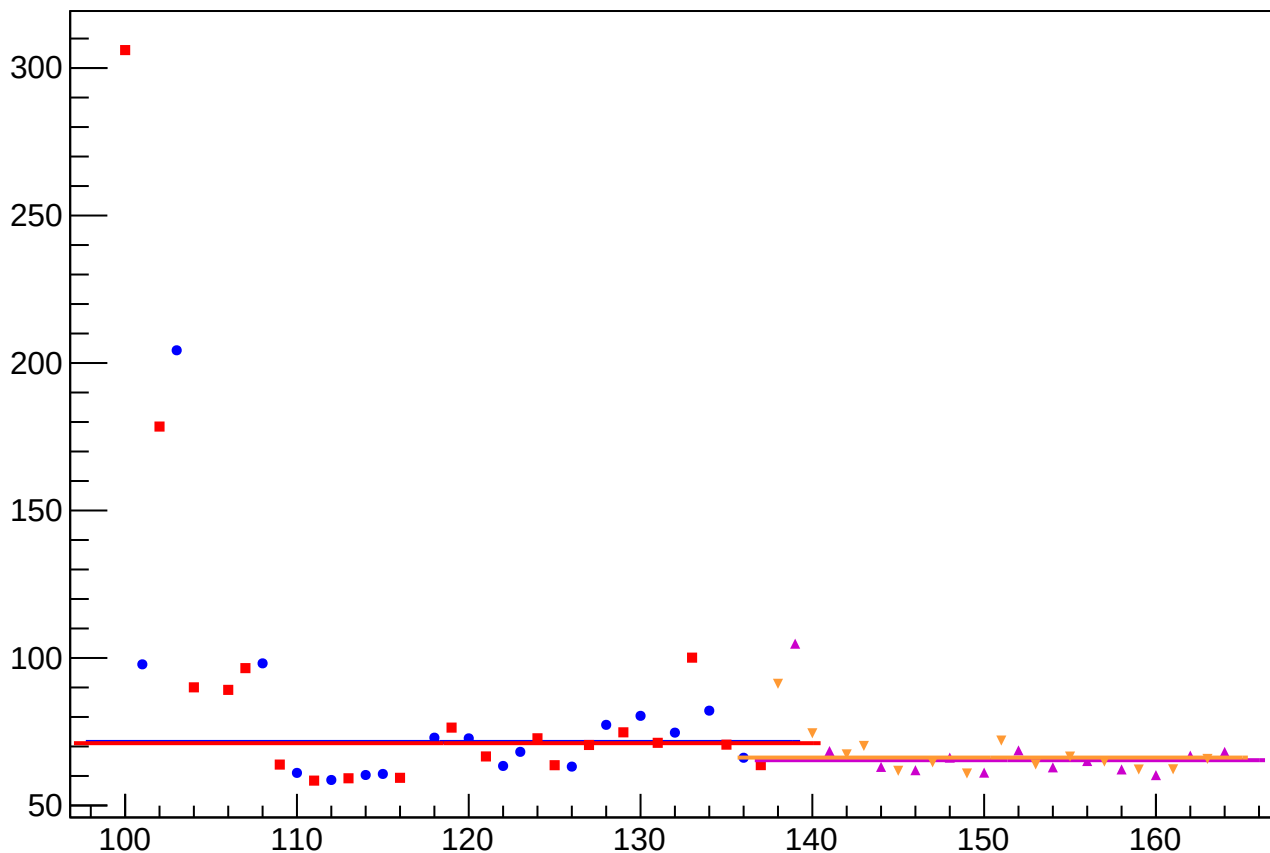
Left In:  $-89.846 \pm 20.554$   $\chi^2/\text{NDF}: 24.2/12$

+ sign  $39.815 \pm 16.762$   $\chi^2/\text{NDF}: 51.4/30$

All:  $-15.183 \pm 11.782$   $\chi^2/\text{NDF}: 127.2/62$

- sign  $-68.891 \pm 16.564$   $\chi^2/\text{NDF}: 54.6/31$

# reg\_asym\_sam\_37\_avg\_rms vs Slug



Right In: 71.536 $\pm$ 0.020  $\chi^2$ /NDF: 758961.6/16

Left Out: 66.236 $\pm$ 0.015  $\chi^2$ /NDF:175815.0/13

Right Out: 71.115 $\pm$ 0.020  $\chi^2$ /NDF: 765159.2/18

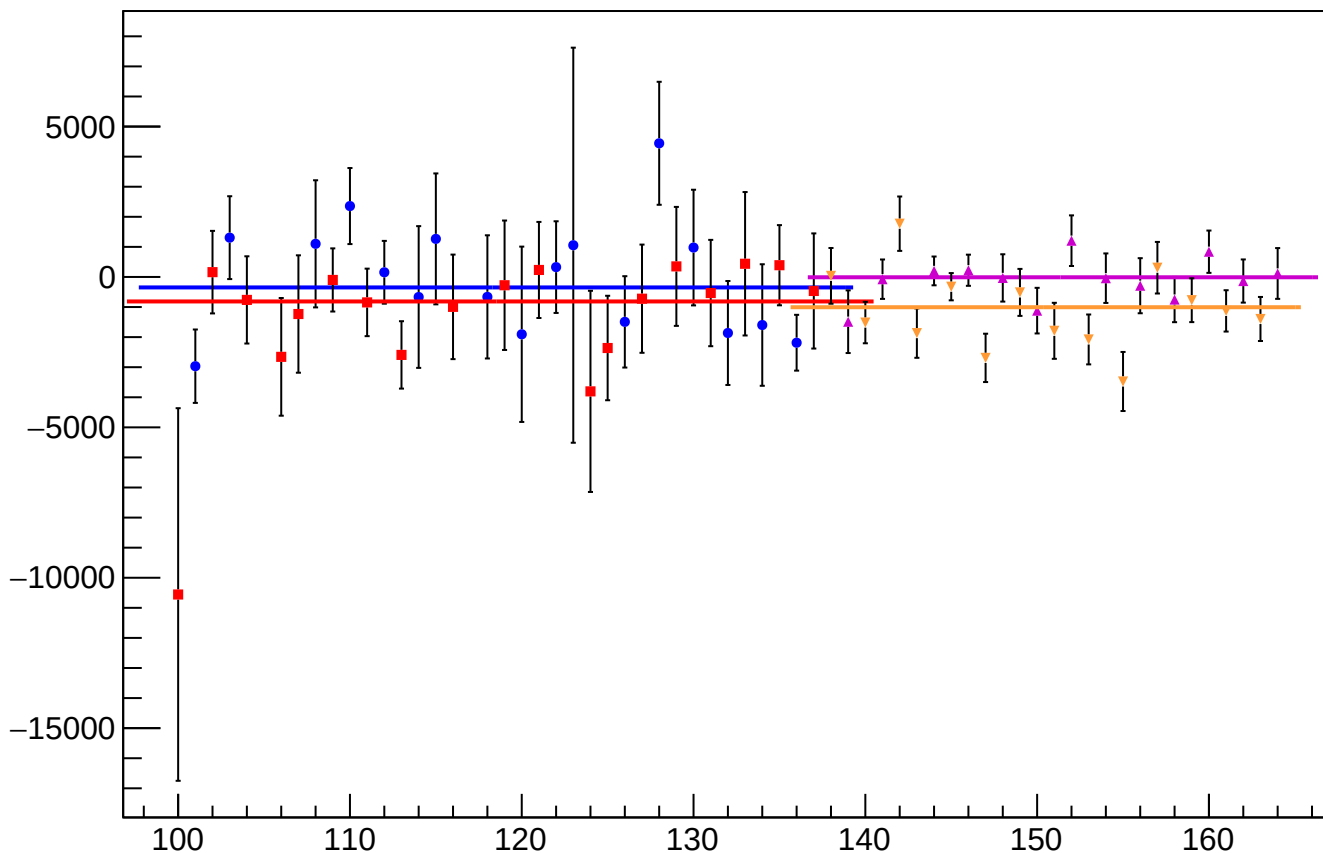
Left In: 65.348 $\pm$ 0.015  $\chi^2$ /NDF:248004.6/12

+ sign 68.025 $\pm$ 0.012  $\chi^2$ /NDF: 979491.2/30

All: 67.694 $\pm$ 0.008  $\chi^2$ /NDF: 2049394.7/62

- sign 67.370 $\pm$ 0.012  $\chi^2$ /NDF: 1068355.7/31

# asym\_sam\_37\_avg\_correction\_mean vs Slug



Right In: -347.939+/-381.994  $\chi^2/\text{NDF}$ : 24.1/16

Left Out: -1006.074+/-200.327  $\chi^2/\text{NDF}$ :30.9/13

Right Out: -814.154+/-369.807  $\chi^2/\text{NDF}$ : 10.5/18

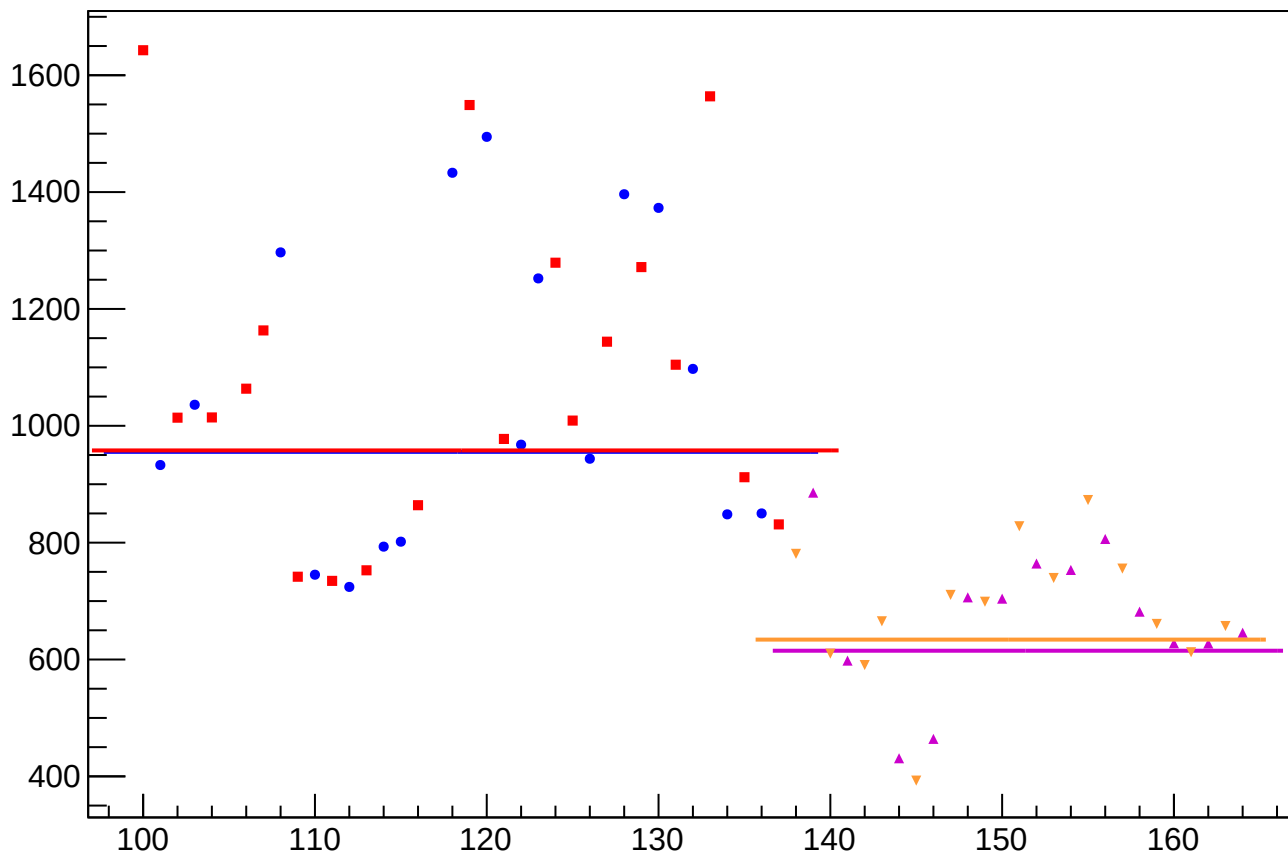
Left In: -10.350+/-196.393  $\chi^2/\text{NDF}$ :9.2/12

+ sign -864.114+/-177.411  $\chi^2/\text{NDF}$ : 57.3/30

All: -518.006+/-124.025  $\chi^2/\text{NDF}$ : 88.1/62

- sign -187.178+/-173.451  $\chi^2/\text{NDF}$ : 23.4/31

# asym\_sam\_37\_avg\_correction\_rms vs Slug



Right In: 955.425 $\pm$ 0.270  $\chi^2$ /NDF: 646512.4/16

Left Out: 634.066 $\pm$ 0.142  $\chi^2$ /NDF: 944367.1/13

Right Out: 957.849 $\pm$ 0.261  $\chi^2$ /NDF: 693081.8/18

Left In: 615.029 $\pm$ 0.139  $\chi^2$ /NDF: 883260.7/12

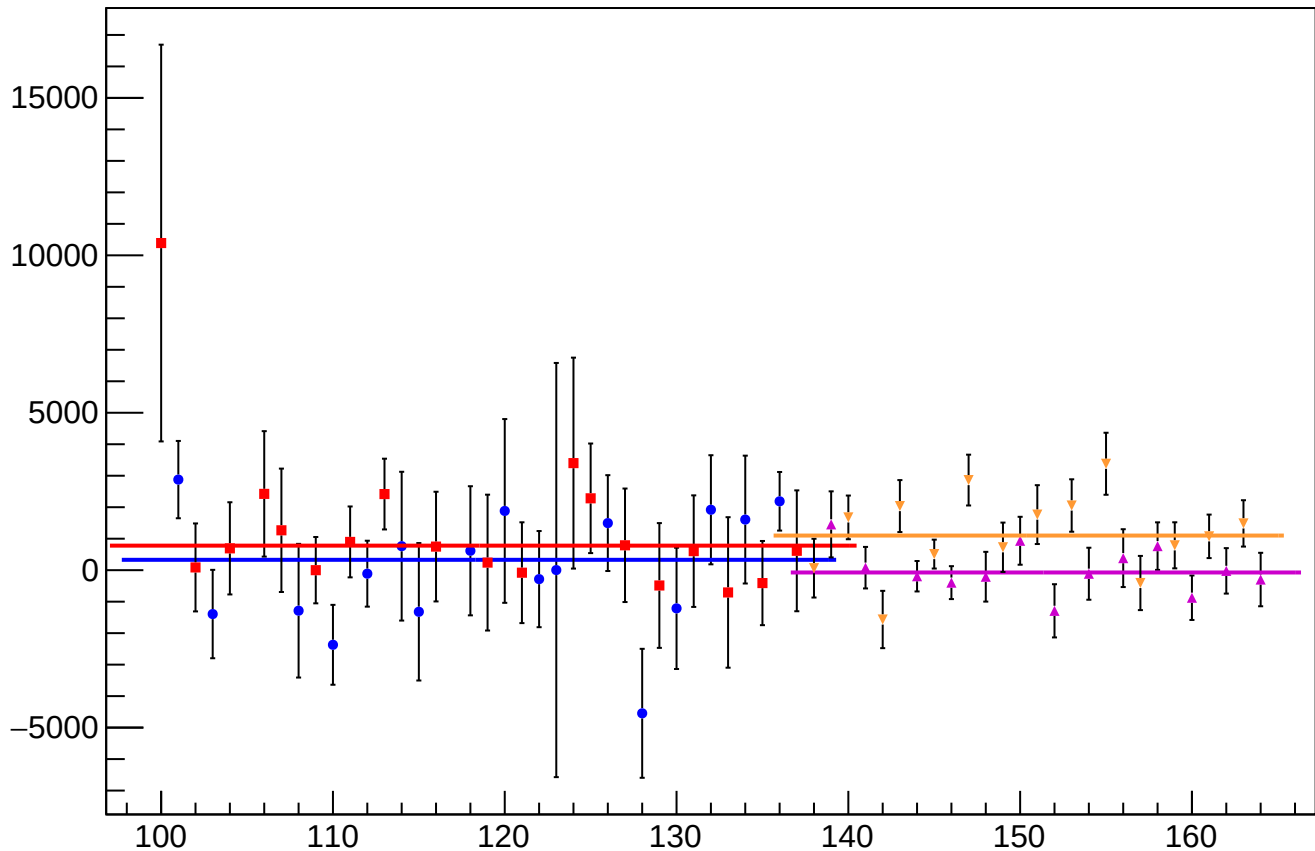
+ sign 703.383 $\pm$ 0.125  $\chi^2$ /NDF: 2701028.6/30

All: 696.769 $\pm$ 0.088  $\chi^2$ /NDF: 5623444.8/62

- sign 690.446 $\pm$ 0.123  $\chi^2$ /NDF: 2916978.3/31



# asym\_sam\_37\_avg\_mean vs Slug



Right In:  $329.164 \pm 383.728$   $\chi^2/\text{NDF}$ : 24.3/16

Left Out:  $1099.833 \pm 201.654$   $\chi^2/\text{NDF}$ : 29.1/13

Right Out:  $779.623 \pm 371.673$   $\chi^2/\text{NDF}$ : 9.3/18

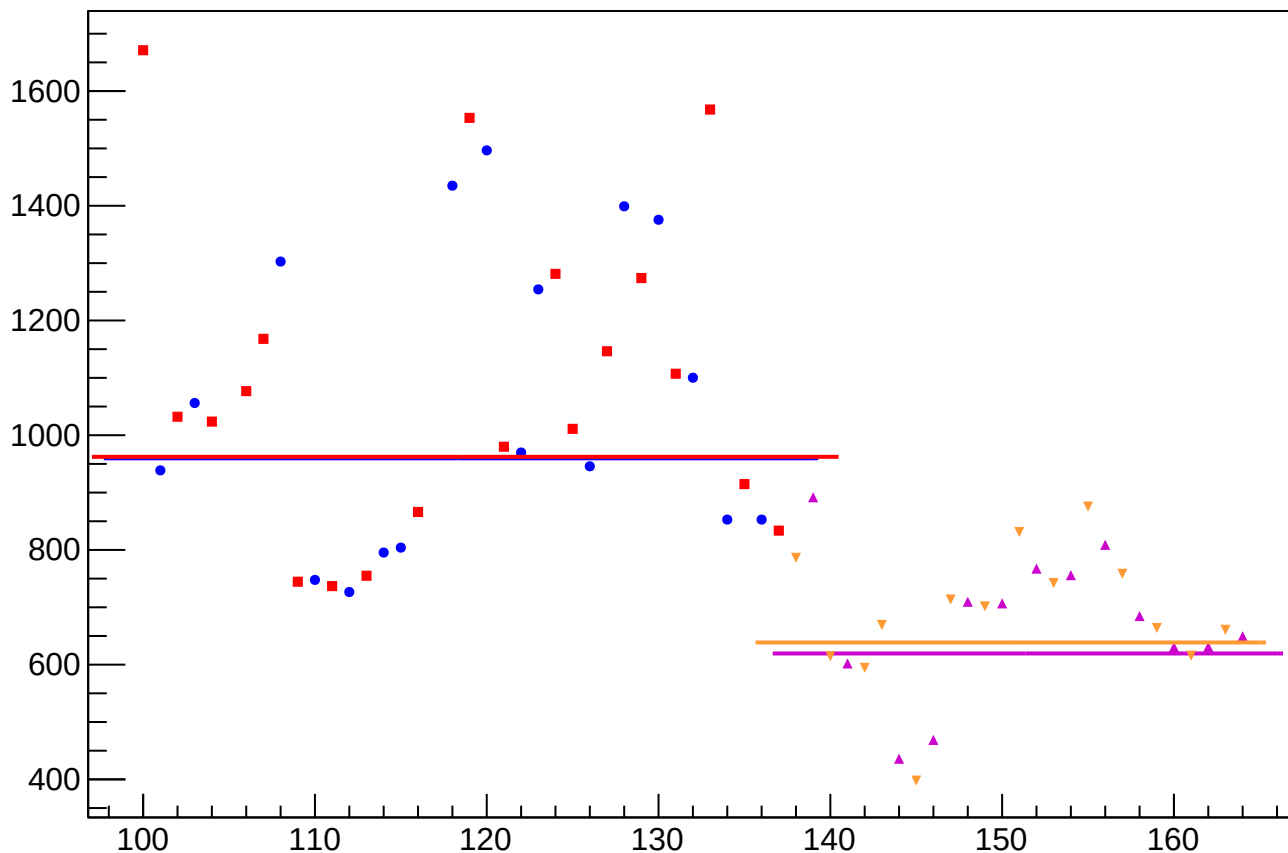
Left In:  $-73.083 \pm 197.708$   $\chi^2/\text{NDF}$ : 9.3/12

+ sign  $933.060 \pm 178.506$   $\chi^2/\text{NDF}$ : 56.6/30

All:  $514.853 \pm 124.800$   $\chi^2/\text{NDF}$ : 90.1/62

- sign  $114.983 \pm 174.549$   $\chi^2/\text{NDF}$ : 22.7/31

# asym\_sam\_37\_avg\_rms vs Slug



Right In:  $959.770 \pm 0.271$   $\chi^2/\text{NDF}$ : 646727.9/16

Left Out:  $638.675 \pm 0.143$   $\chi^2/\text{NDF}$ : 917615.9/13

Right Out:  $962.314 \pm 0.263$   $\chi^2/\text{NDF}$ : 695757.2/18

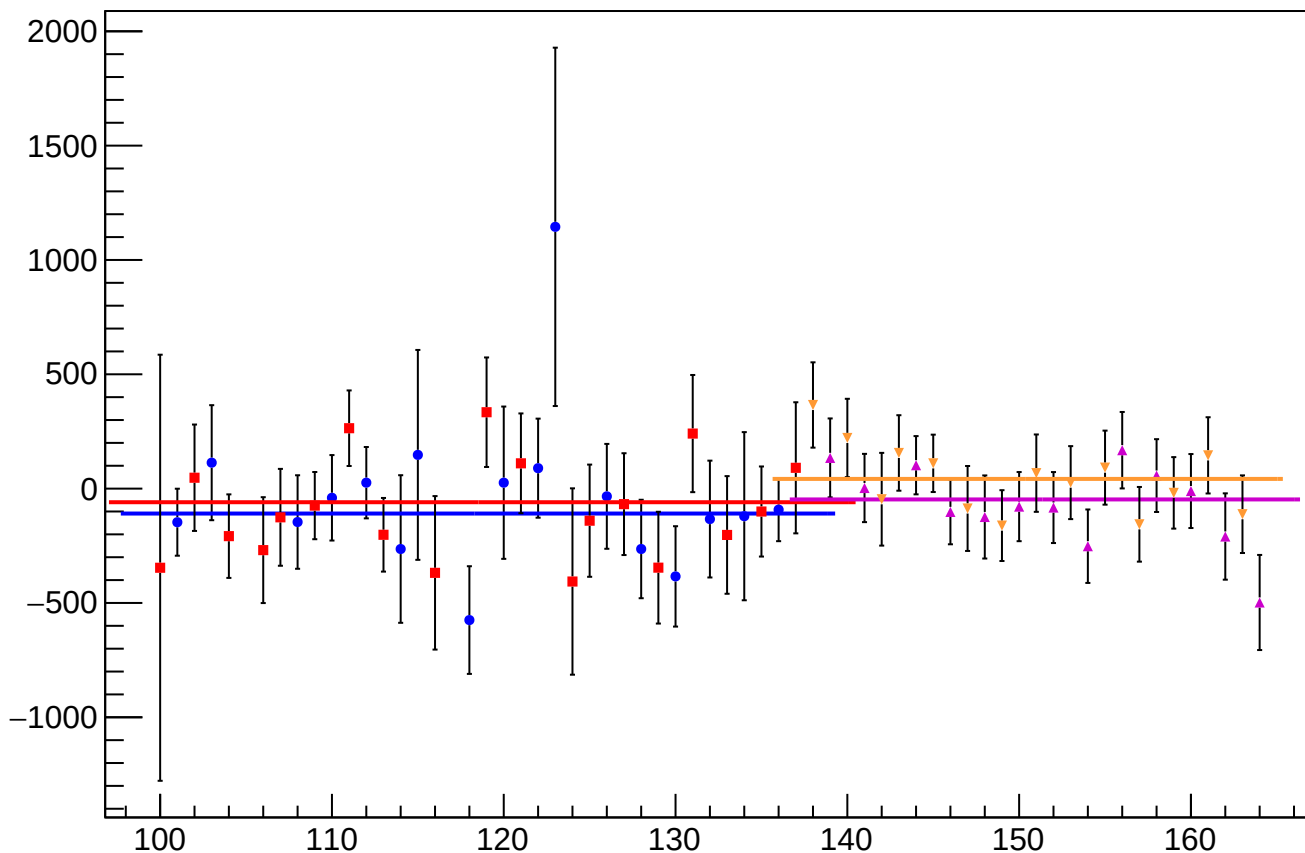
Left In:  $619.503 \pm 0.140$   $\chi^2/\text{NDF}$ : 862062.4/12

+ sign  $708.161 \pm 0.126$   $\chi^2/\text{NDF}$ : 2661691.2/30

All:  $701.489 \pm 0.088$   $\chi^2/\text{NDF}$ : 5551163.0/62

- sign  $695.110 \pm 0.123$   $\chi^2/\text{NDF}$ : 2884007.5/31

# reg\_asym\_sam\_48\_avg\_mean vs Slug



Right In:  $-108.977 \pm 52.923$   $\chi^2/\text{NDF}$ : 12.0/16

Left Out:  $42.470 \pm 43.872$   $\chi^2/\text{NDF}$ : 10.2/13

Right Out:  $-59.475 \pm 50.822$   $\chi^2/\text{NDF}$ : 14.9/18

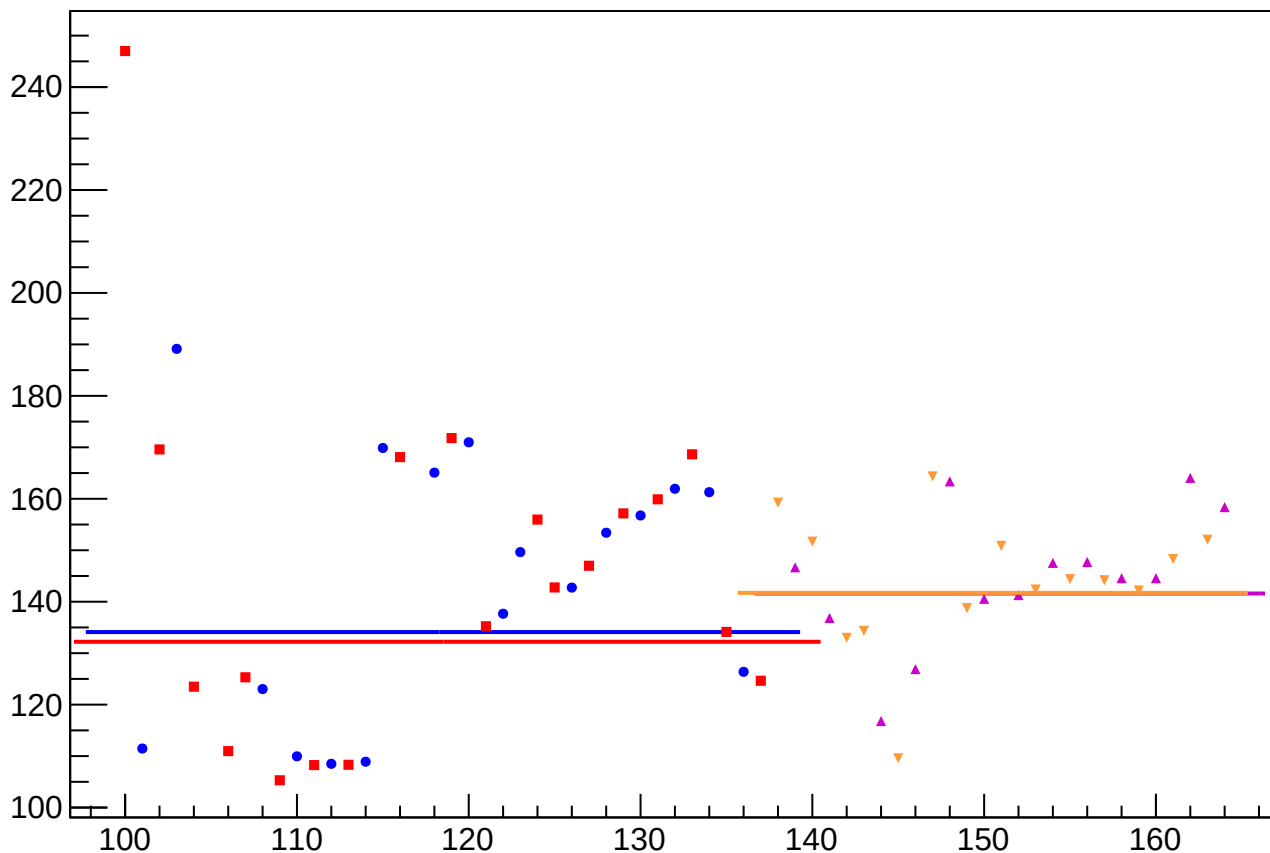
Left In:  $-47.296 \pm 44.328$   $\chi^2/\text{NDF}$ : 12.2/12

+ sign  $-19.215 \pm 33.775$   $\chi^2/\text{NDF}$ : 27.1/30

All:  $-36.070 \pm 23.751$   $\chi^2/\text{NDF}$ : 54.7/62

- sign  $-52.558 \pm 33.406$   $\chi^2/\text{NDF}$ : 27.1/31

# reg\_asym\_sam\_48\_avg\_rms vs Slug



Right In: 134.103+/-0.037  $\chi^2/\text{NDF}$ : 402581.2/16

Left Out: 141.721+/-0.031  $\chi^2/\text{NDF}$ : 211258.5/13

Right Out: 132.219+/-0.036  $\chi^2/\text{NDF}$ : 441738.5/18

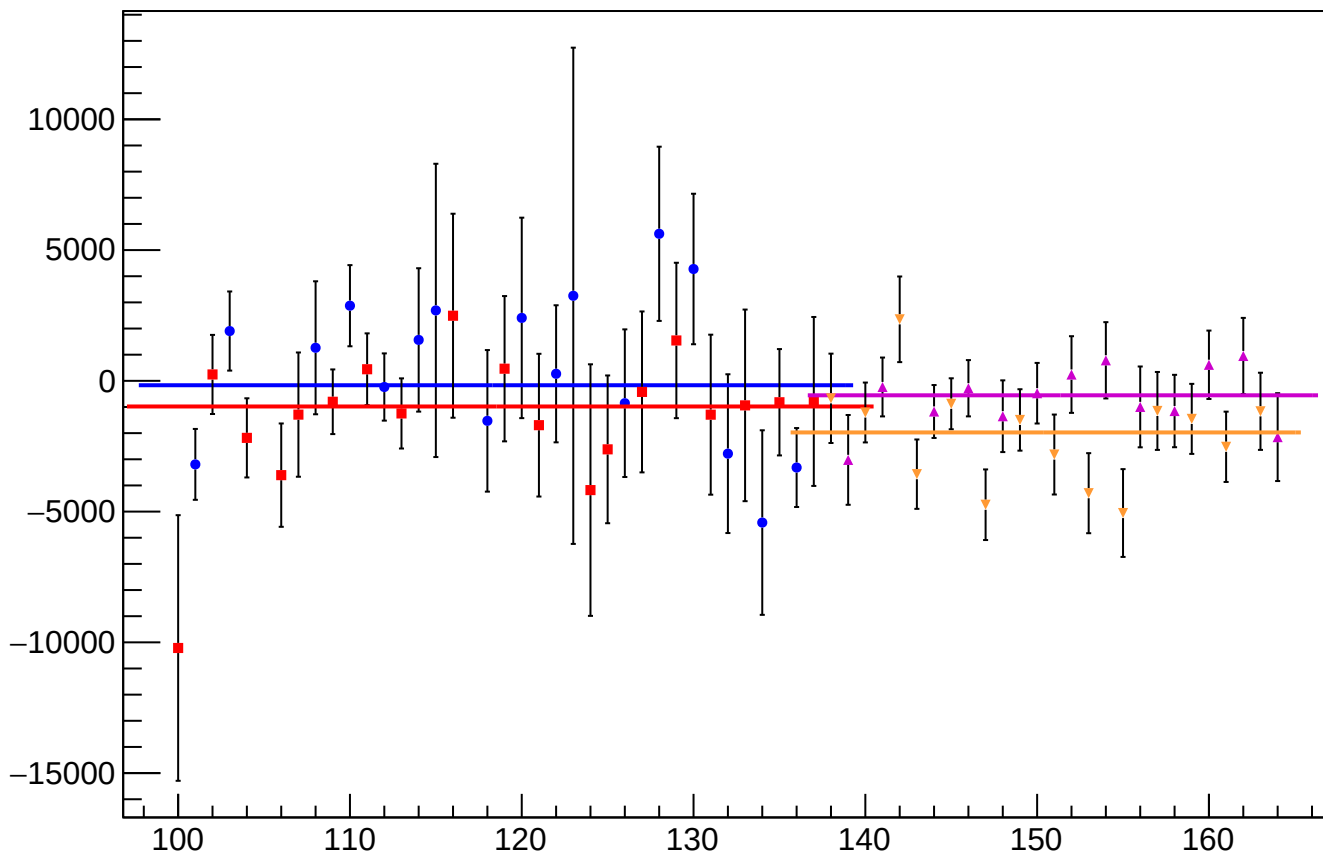
Left In: 141.595+/-0.031  $\chi^2/\text{NDF}$ : 178051.3/12

+ sign 138.618+/-0.024  $\chi^2/\text{NDF}$ : 638398.8/30

All: 138.075+/-0.017  $\chi^2/\text{NDF}$ : 1297873.7/62

- sign 137.544+/-0.024  $\chi^2/\text{NDF}$ : 658452.2/31

# asym\_sam\_48\_avg\_correction\_mean vs Slug



Right In:  $-168.237 \pm 523.672$   $\chi^2/\text{NDF}$ : 25.3/16

Left Out:  $-1973.226 \pm 362.643$   $\chi^2/\text{NDF}$ : 22.0/13

Right Out:  $-980.517 \pm 480.968$   $\chi^2/\text{NDF}$ : 10.2/18

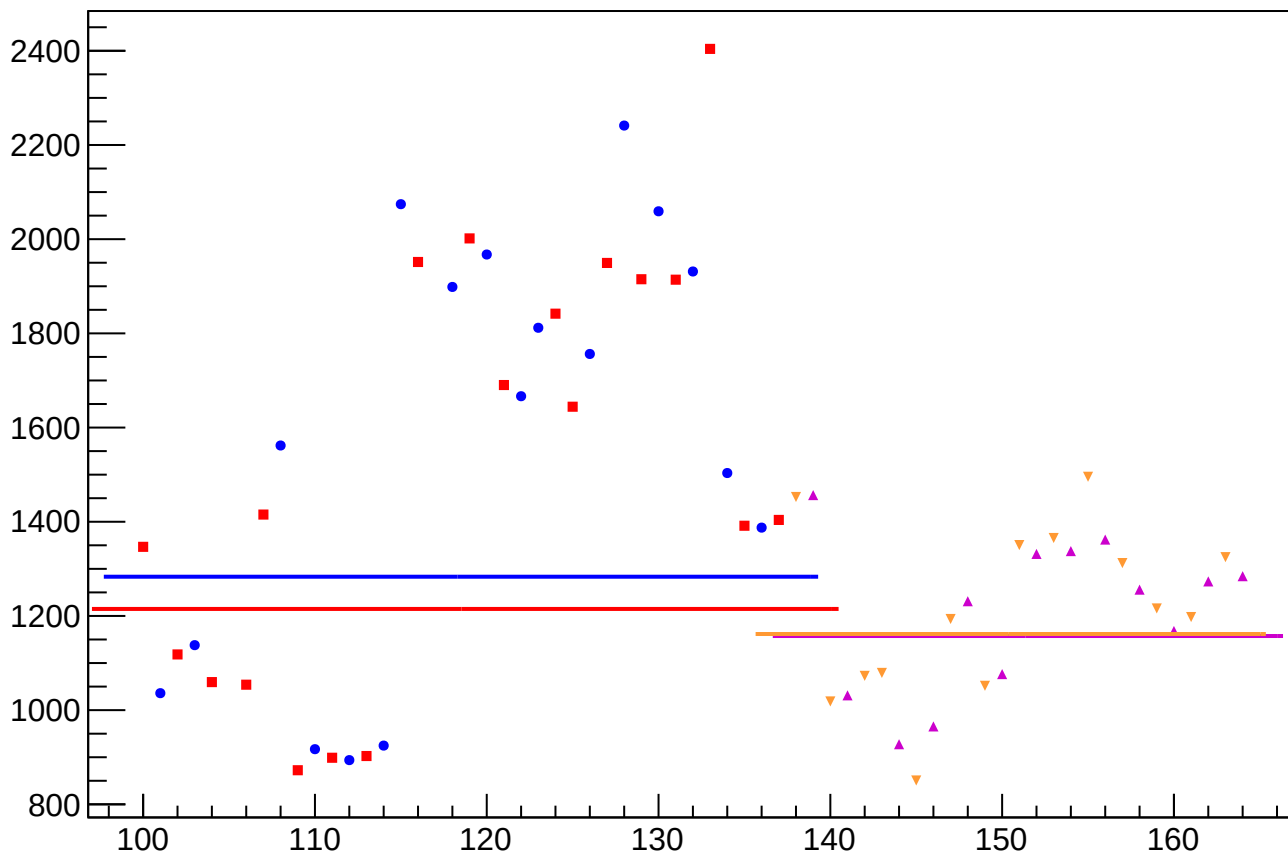
Left In:  $-553.120 \pm 364.366$   $\chi^2/\text{NDF}$ : 7.1/12

+ sign  $-1388.191 \pm 298.135$   $\chi^2/\text{NDF}$ : 55.3/30

All:  $-1039.692 \pm 208.037$   $\chi^2/\text{NDF}$ : 75.8/62

- sign  $-708.966 \pm 290.434$   $\chi^2/\text{NDF}$ : 17.8/31

# asym\_sam\_48\_avg\_correction\_rms vs Slug



Right In: 1283.318+/-0.370  $\chi^2/\text{NDF}$ : 1169431.5/16

Left Out: 1161.654+/-0.256  $\chi^2/\text{NDF}$ : 519945.6/13

Right Out: 1214.883+/-0.340  $\chi^2/\text{NDF}$ : 1360860.3/18

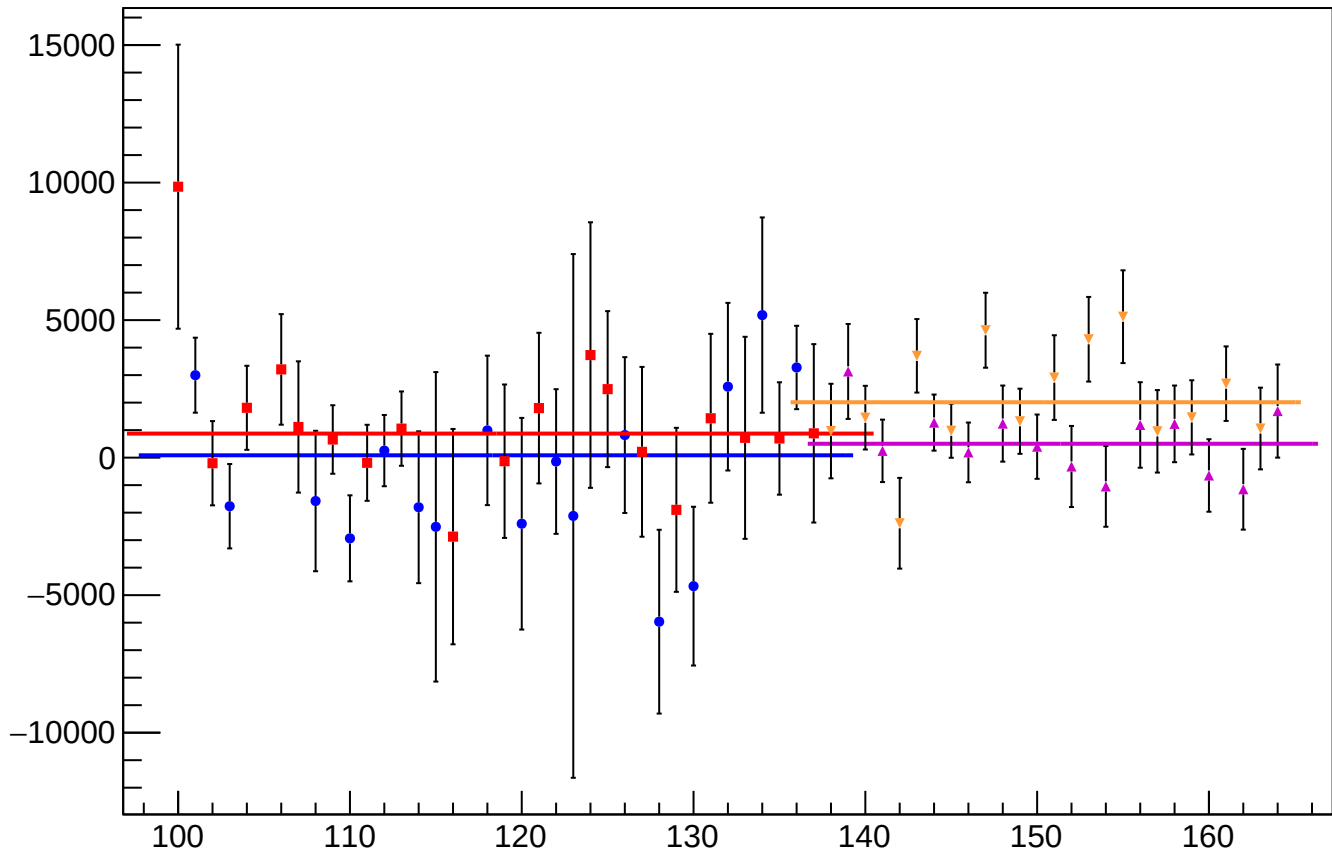
Left In: 1157.390+/-0.258  $\chi^2/\text{NDF}$ : 396425.0/12

+ sign 1201.088+/-0.211  $\chi^2/\text{NDF}$ : 1762339.4/30

All: 1189.424+/-0.147  $\chi^2/\text{NDF}$ : 3543749.0/62

- sign 1178.354+/-0.205  $\chi^2/\text{NDF}$ : 1775442.6/31

# asym\_sam\_48\_avg\_mean vs Slug



Right In: 85.077+/-527.082  $\chi^2/\text{NDF}$ : 24.7/16

Left Out: 2013.923+/-365.475  $\chi^2/\text{NDF}$ : 21.7/13

Right Out: 874.592+/-484.647  $\chi^2/\text{NDF}$ : 8.7/18

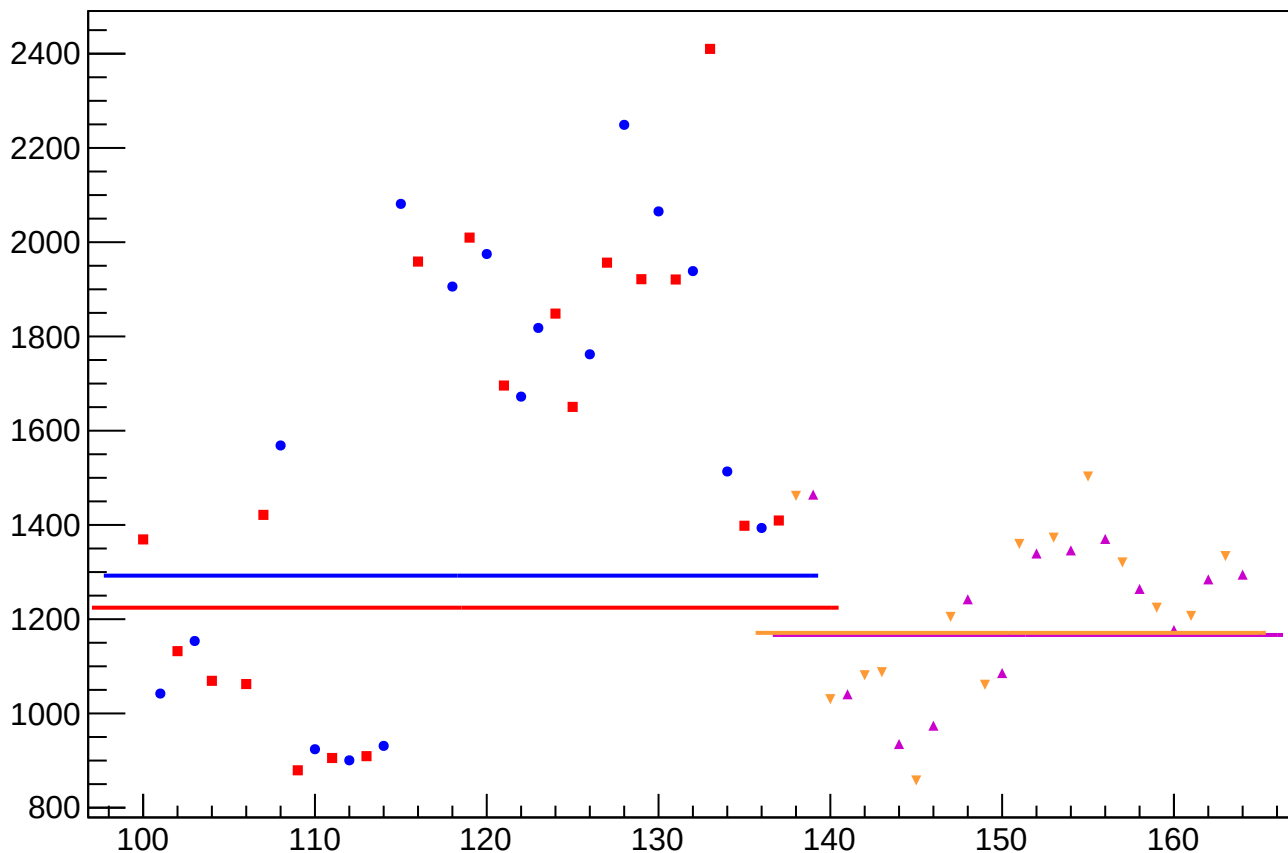
Left In: 504.590+/-367.189  $\chi^2/\text{NDF}$ : 7.7/12

+ sign 1387.653+/-300.338  $\chi^2/\text{NDF}$ : 55.5/30

All: 1003.921+/-209.609  $\chi^2/\text{NDF}$ : 75.4/62

- sign 639.524+/-292.674  $\chi^2/\text{NDF}$ : 16.8/31

# asym\_sam\_48\_avg\_rms vs Slug



Right In: 1292.426+/-0.373  $\chi^2/\text{NDF}$ : 1156576.0/16

Left Out: 1170.996+/-0.258  $\chi^2/\text{NDF}$ : 512561.6/13

Right Out: 1224.429+/-0.343  $\chi^2/\text{NDF}$ : 1345748.2/18

Left In: 1166.540+/-0.260  $\chi^2/\text{NDF}$ : 391574.1/12

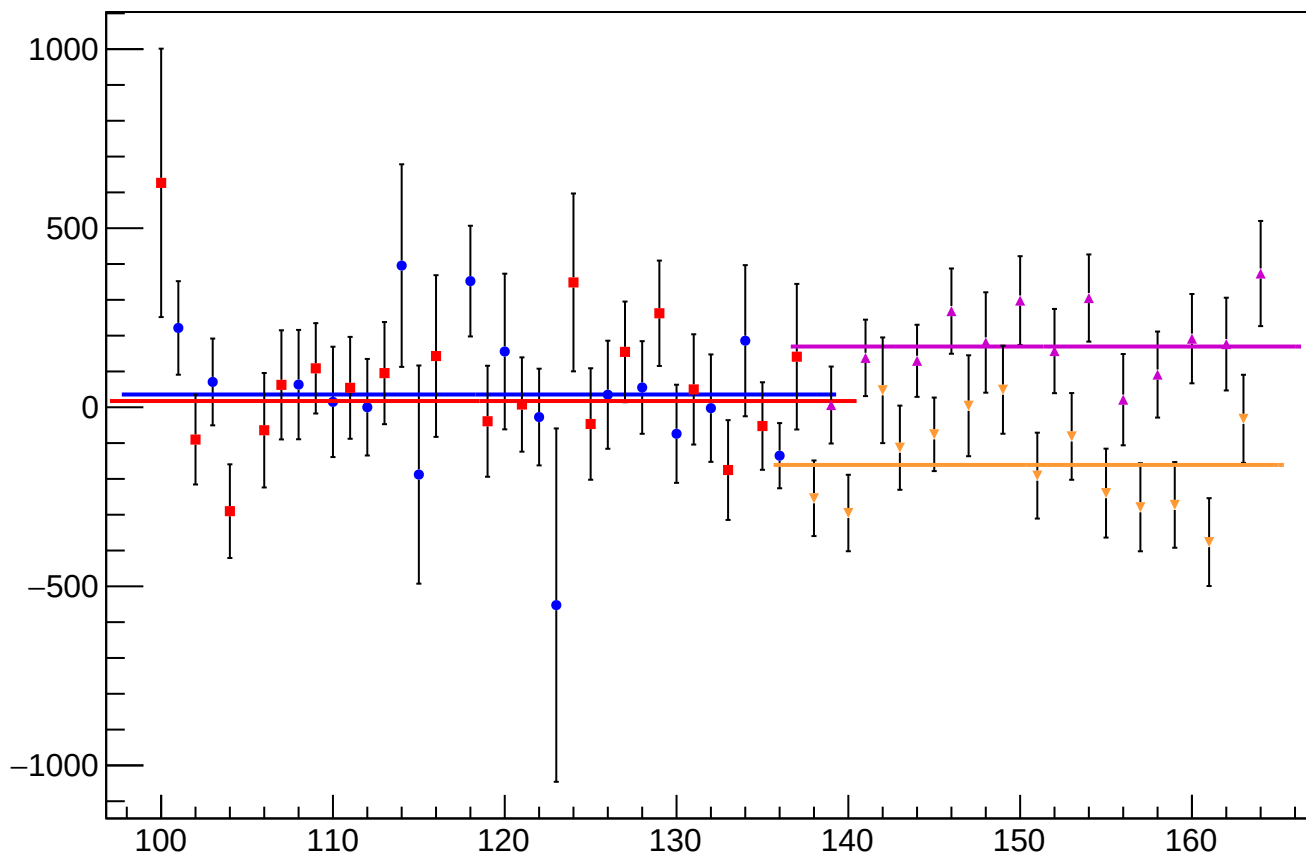
+ sign 1210.423+/-0.212  $\chi^2/\text{NDF}$ : 1740822.5/30

All: 1198.743+/-0.148  $\chi^2/\text{NDF}$ : 3502170.2/62

- sign 1187.651+/-0.207  $\chi^2/\text{NDF}$ : 1755450.7/31



# reg\_asym\_sam\_15\_dd\_mean vs Slug



Right In:  $35.679 \pm 36.350$   $\chi^2/\text{NDF}: 15.3/16$

Left Out:  $-160.948 \pm 31.968$   $\chi^2/\text{NDF}: 16.4/13$

Right Out:  $17.418 \pm 34.691$   $\chi^2/\text{NDF}: 18.9/18$

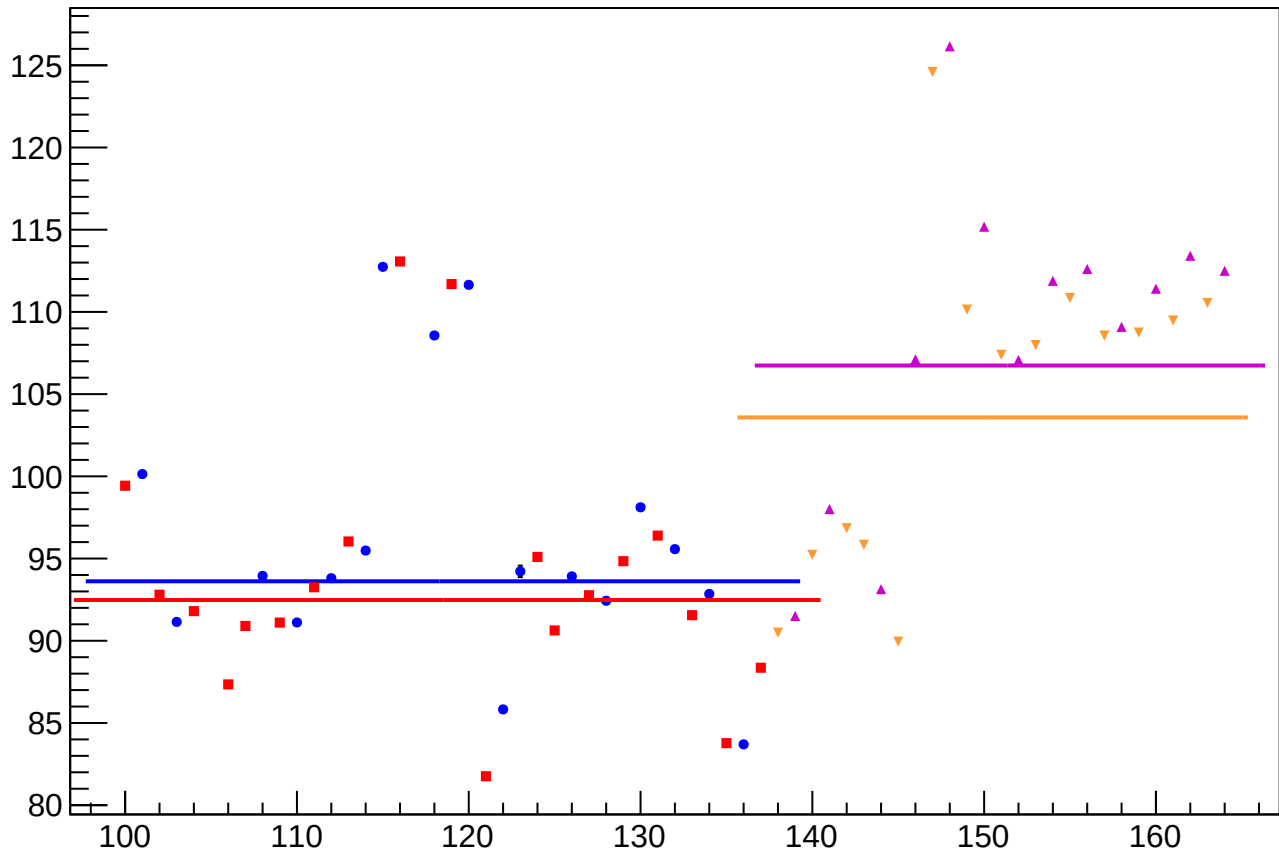
Left In:  $169.579 \pm 33.319$   $\chi^2/\text{NDF}: 9.3/12$

+ sign  $-75.197 \pm 24.005$   $\chi^2/\text{NDF}: 48.2/30$

All:  $10.596 \pm 16.983$   $\chi^2/\text{NDF}: 112.0/62$

- sign  $96.567 \pm 24.030$   $\chi^2/\text{NDF}: 38.2/31$

# reg\_asym\_sam\_15\_dd\_rms vs Slug



Right In: 93.616+/-0.026  $\chi^2/\text{NDF}$ : 79928.5/16

Left Out: 103.582+/-0.023  $\chi^2/\text{NDF}$ : 170883.8/13

Right Out: 92.477+/-0.025  $\chi^2/\text{NDF}$ : 78591.0/18

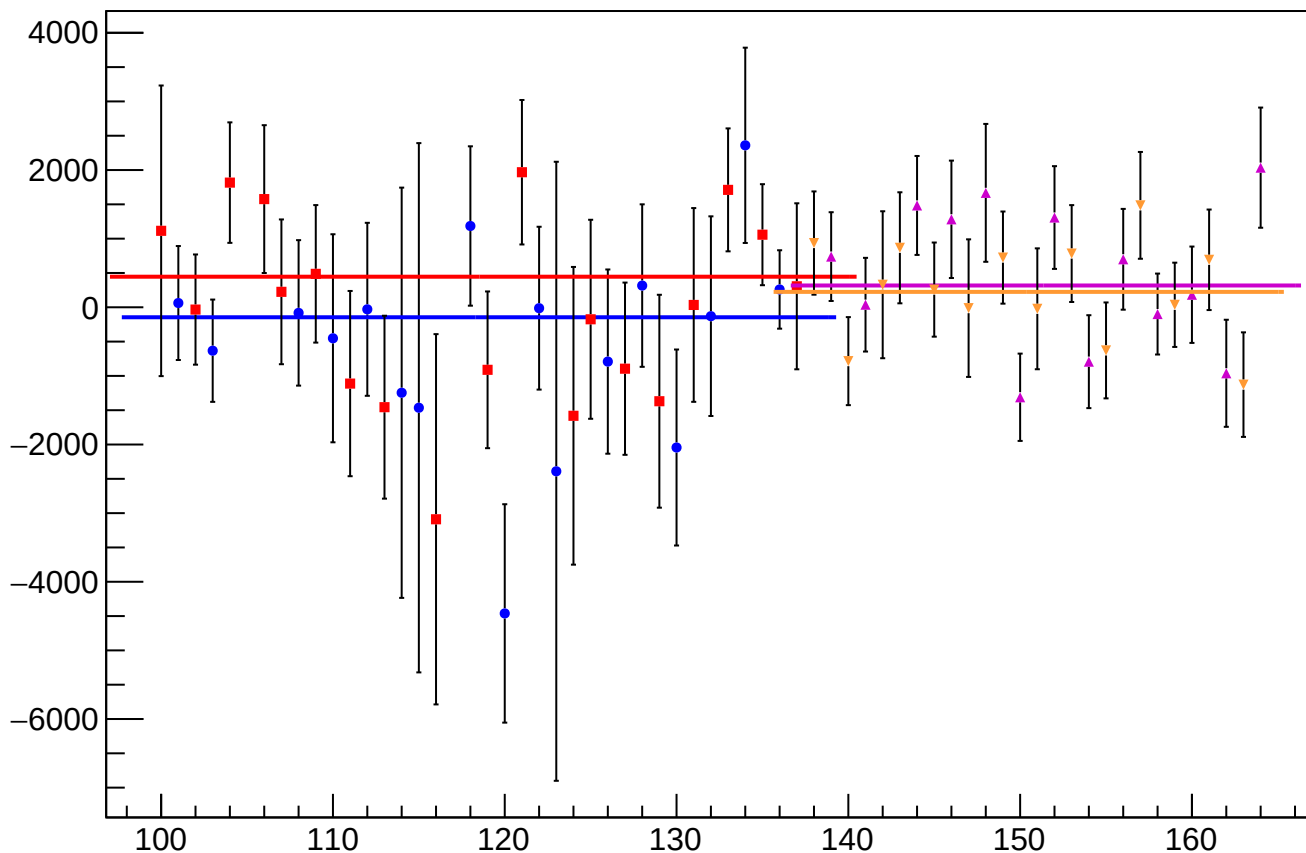
Left In: 106.739+/-0.024  $\chi^2/\text{NDF}$ : 157575.0/12

+ sign 99.236+/-0.017  $\chi^2/\text{NDF}$ : 335580.1/30

All: 99.565+/-0.012  $\chi^2/\text{NDF}$ : 748330.7/62

- sign 99.896+/-0.017  $\chi^2/\text{NDF}$ : 411995.1/31

# asym\_sam\_15\_dd\_correction\_mean vs Slug



Right In:  $-145.464 \pm 276.629$   $\chi^2/\text{NDF}$ : 15.5/16

Left Out:  $224.500 \pm 199.322$   $\chi^2/\text{NDF}$ : 13.1/13

Right Out:  $445.575 \pm 260.276$   $\chi^2/\text{NDF}$ : 19.0/18

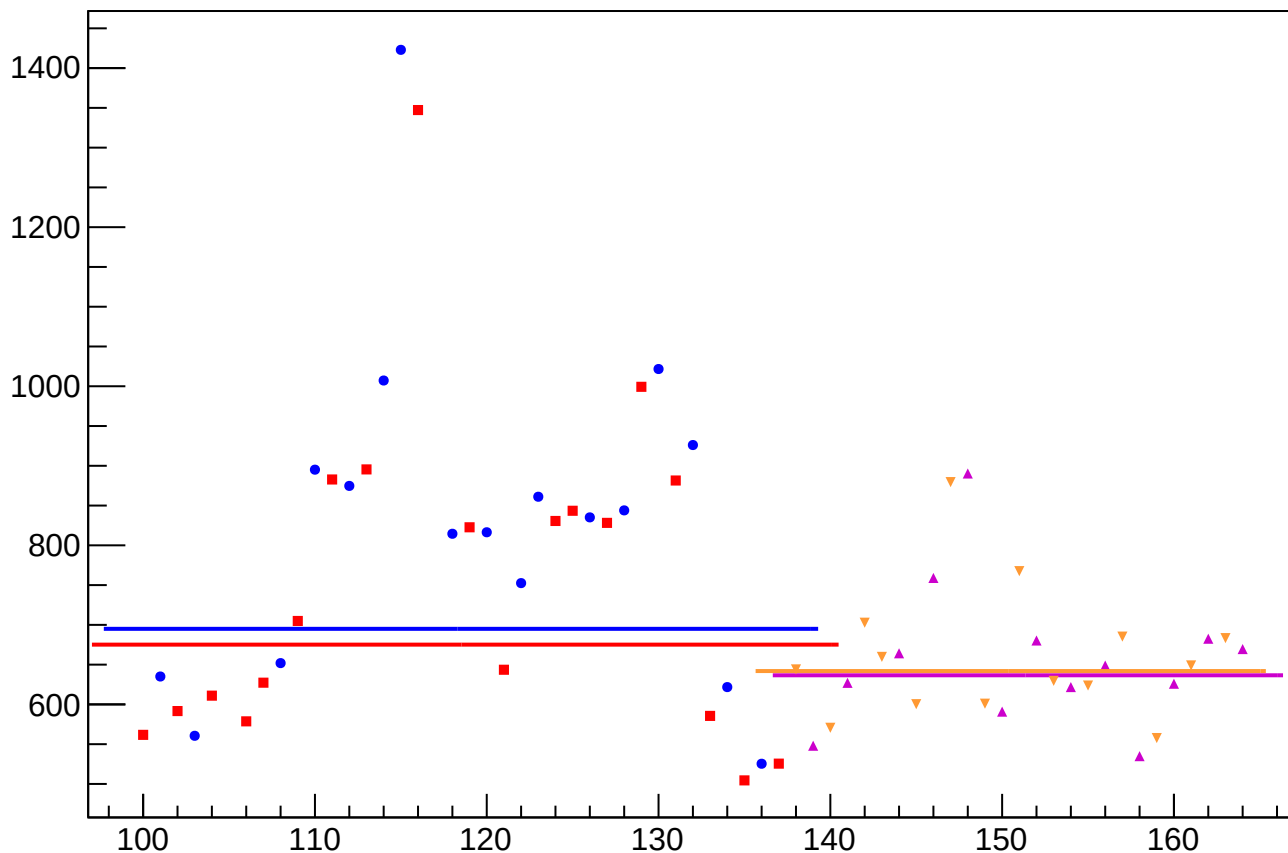
Left In:  $317.597 \pm 200.161$   $\chi^2/\text{NDF}$ : 24.6/12

+ sign  $98.065 \pm 161.715$   $\chi^2/\text{NDF}$ : 29.7/30

All:  $234.152 \pm 113.257$   $\chi^2/\text{NDF}$ : 74.9/62

- sign  $365.157 \pm 158.667$   $\chi^2/\text{NDF}$ : 43.8/31

# asym\_sam\_15\_dd\_correction\_rms vs Slug



Right In:  $695.014 \pm 0.196$   $\chi^2/\text{NDF}$ : 677713.0/16

Left Out:  $641.927 \pm 0.141$   $\chi^2/\text{NDF}$ : 251829.6/13

Right Out:  $675.151 \pm 0.184$   $\chi^2/\text{NDF}$ : 676394.1/18

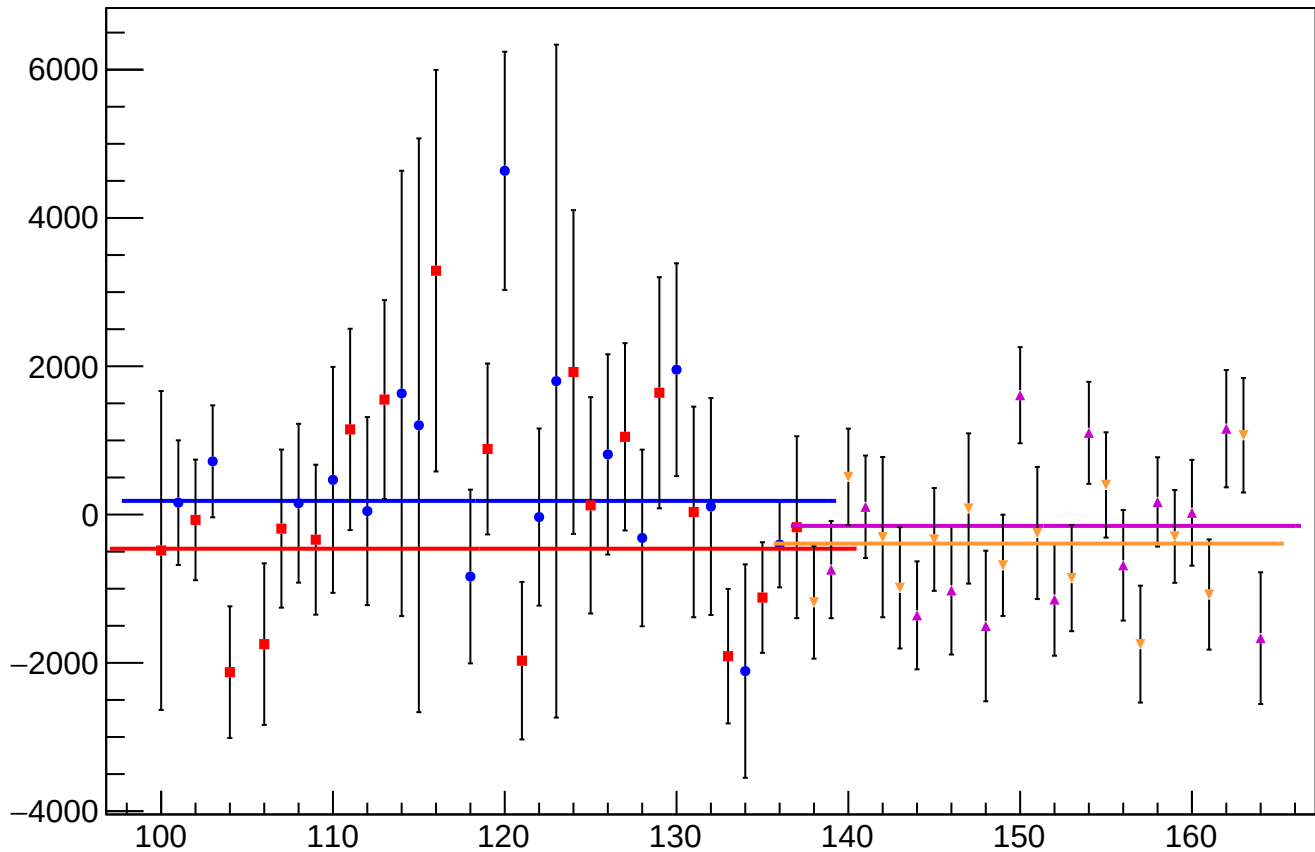
Left In:  $636.609 \pm 0.142$   $\chi^2/\text{NDF}$ : 297664.5/12

+ sign  $660.069 \pm 0.114$   $\chi^2/\text{NDF}$ : 978027.4/30

All:  $655.414 \pm 0.080$   $\chi^2/\text{NDF}$ : 1982896.3/62

- sign  $650.932 \pm 0.112$   $\chi^2/\text{NDF}$ : 1001616.0/31

# asym\_sam\_15\_dd\_mean vs Slug



Right In:  $184.518 \pm 279.390$   $\chi^2/\text{NDF}$ : 14.9/16

Left Out:  $-391.277 \pm 202.055$   $\chi^2/\text{NDF}$ : 13.1/13

Right Out:  $-460.174 \pm 262.960$   $\chi^2/\text{NDF}$ : 22.3/18

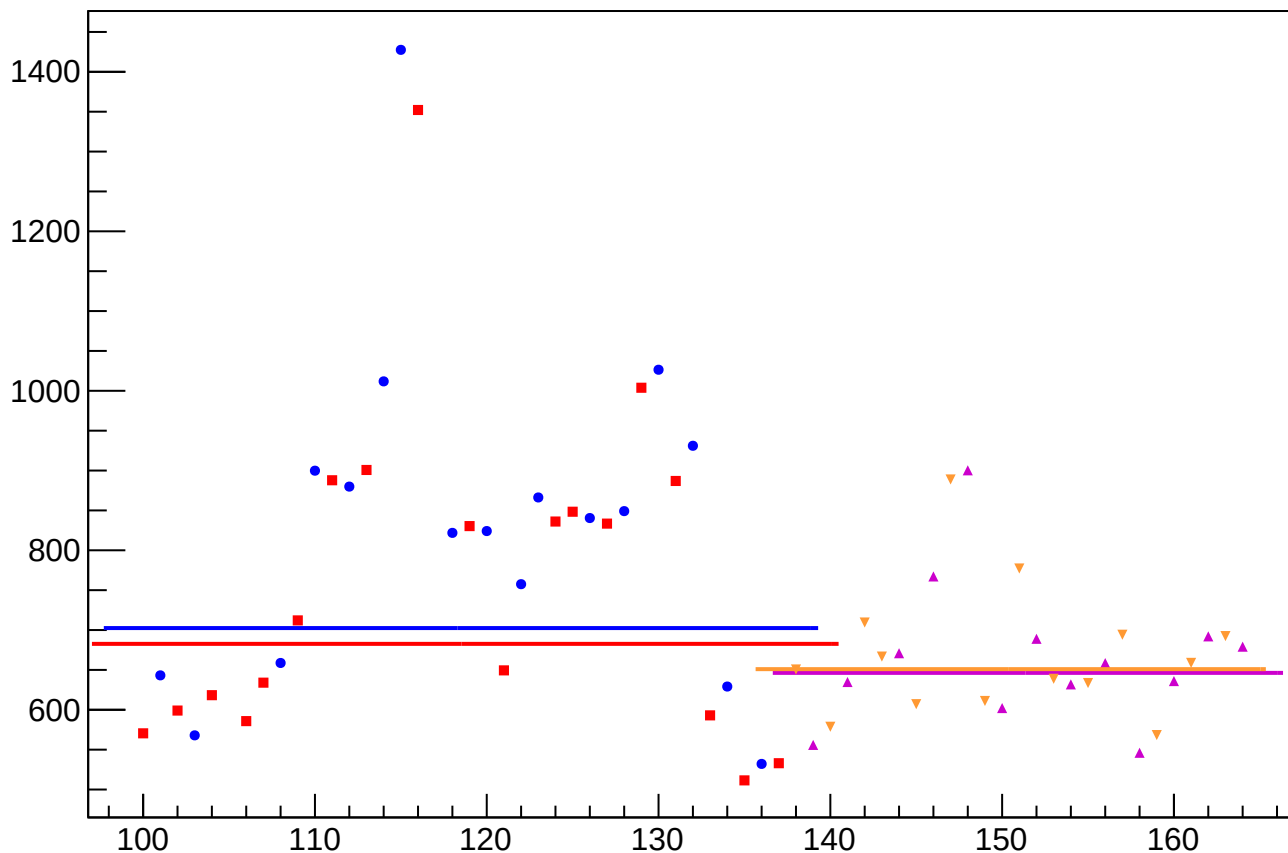
Left In:  $-152.762 \pm 203.120$   $\chi^2/\text{NDF}$ : 25.4/12

+ sign  $-193.544 \pm 163.726$   $\chi^2/\text{NDF}$ : 30.8/30

All:  $-231.271 \pm 114.704$   $\chi^2/\text{NDF}$ : 79.5/62

- sign  $-267.639 \pm 160.748$   $\chi^2/\text{NDF}$ : 48.6/31

# asym\_sam\_15\_dd\_rms vs Slug



Right In: 702.469 $\pm$ 0.198  $\chi^2$ /NDF: 660525.4/16

Left Out: 650.958 $\pm$ 0.143  $\chi^2$ /NDF: 245228.9/13

Right Out: 682.662 $\pm$ 0.186  $\chi^2$ /NDF: 659521.7/18

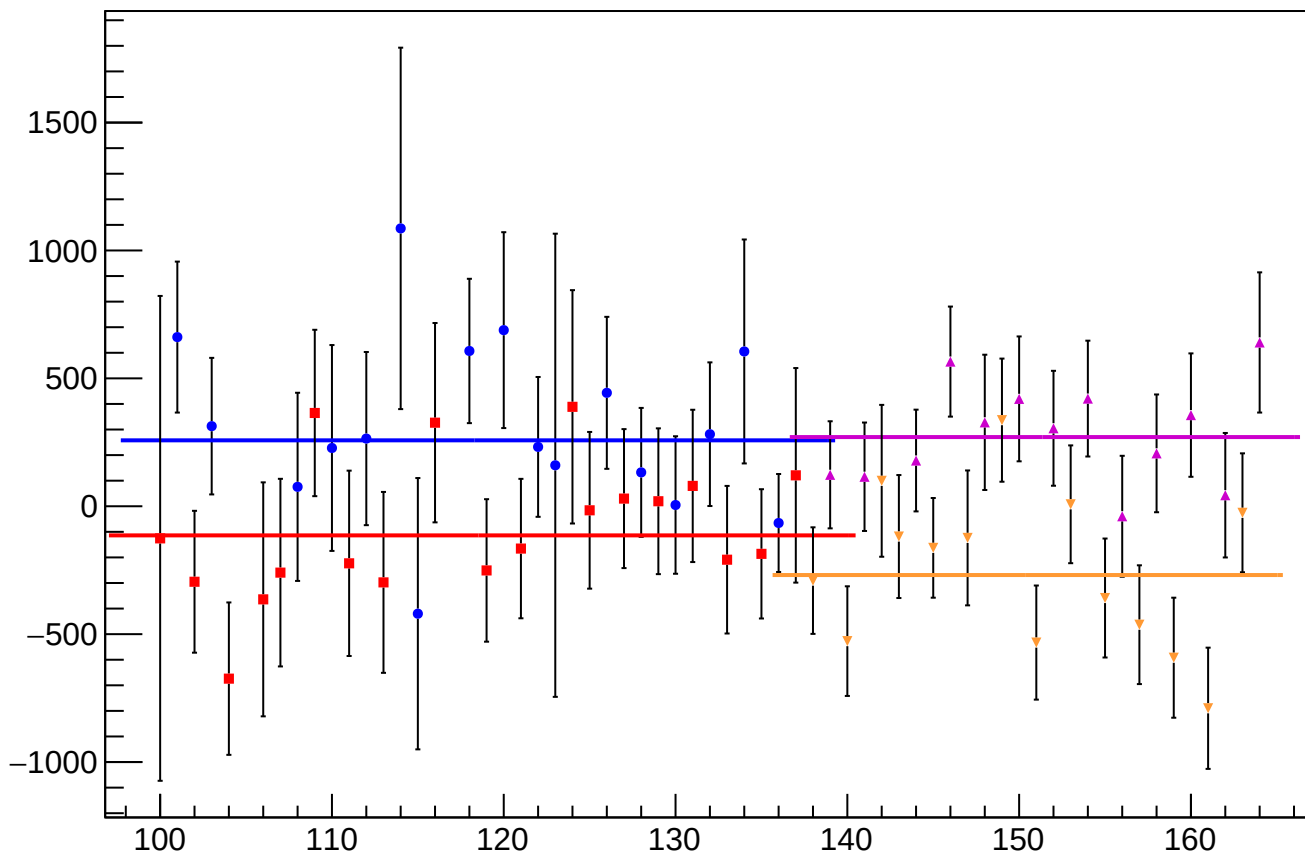
Left In: 646.284 $\pm$ 0.144  $\chi^2$ /NDF: 287382.2/12

+ sign 668.647 $\pm$ 0.116  $\chi^2$ /NDF: 950392.5/30

All: 664.182 $\pm$ 0.081  $\chi^2$ /NDF: 1924189.2/62

- sign 659.878 $\pm$ 0.114  $\chi^2$ /NDF: 970875.5/31

# reg\_asym\_sam\_26\_dd\_mean vs Slug



Right In: 257.721+/-75.931  $\chi^2/\text{NDF}$ : 13.0/16

Left Out: -268.888+/-61.790  $\chi^2/\text{NDF}$ : 21.8/13

Right Out: -113.851+/-74.211  $\chi^2/\text{NDF}$ : 11.2/18

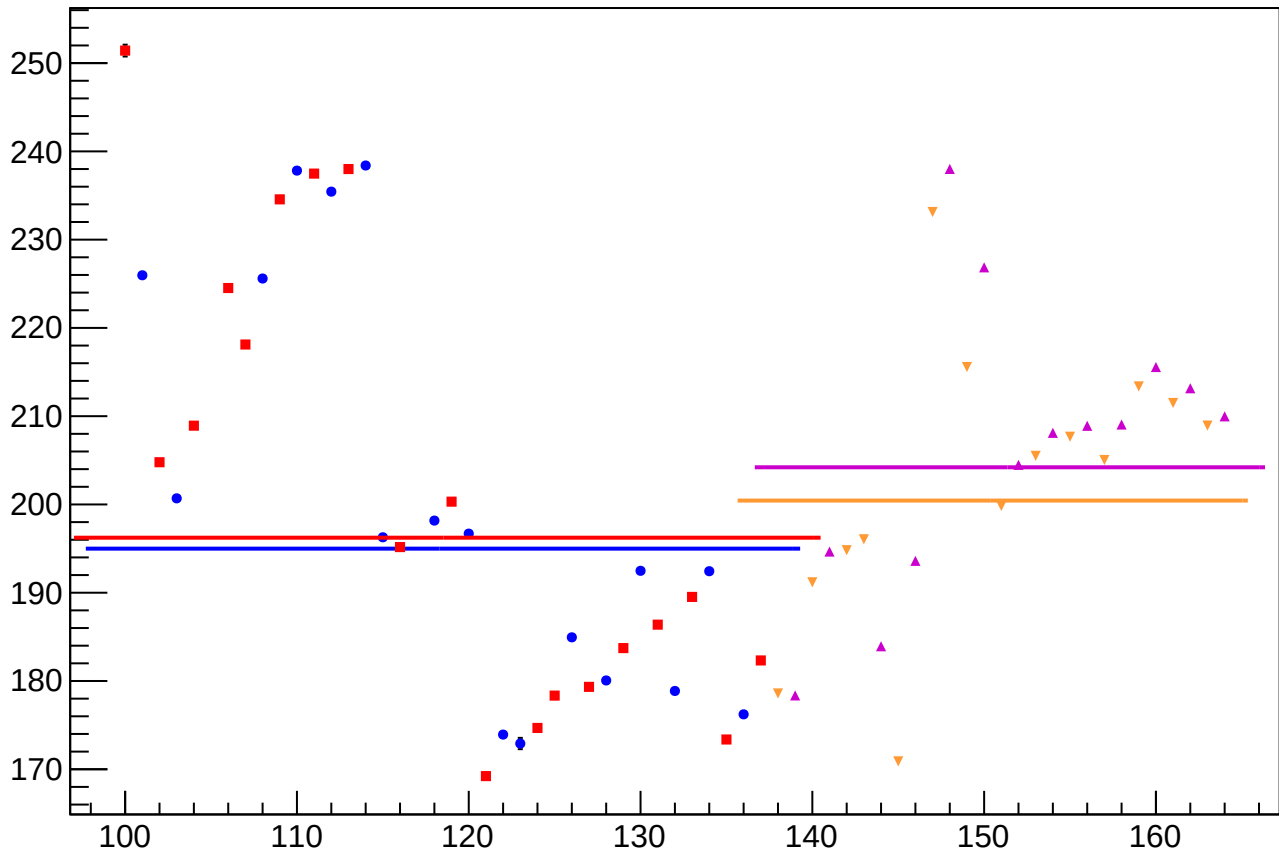
Left In: 270.498+/-63.689  $\chi^2/\text{NDF}$ : 8.6/12

+ sign -59.093+/-47.926  $\chi^2/\text{NDF}$ : 63.8/30

All: 23.494+/-34.031  $\chi^2/\text{NDF}$ : 105.1/62

- sign 107.480+/-48.331  $\chi^2/\text{NDF}$ : 35.3/31

# reg\_asym\_sam\_26\_dd\_rms vs Slug



Right In: 194.994 $\pm$ 0.054  $\chi^2$ /NDF: 144271.1/16

Left Out: 200.440 $\pm$ 0.044  $\chi^2$ /NDF:128549.6/13

Right Out: 196.235 $\pm$ 0.052  $\chi^2$ /NDF: 173491.6/18

Left In: 204.211 $\pm$ 0.045  $\chi^2$ /NDF:120389.2/12

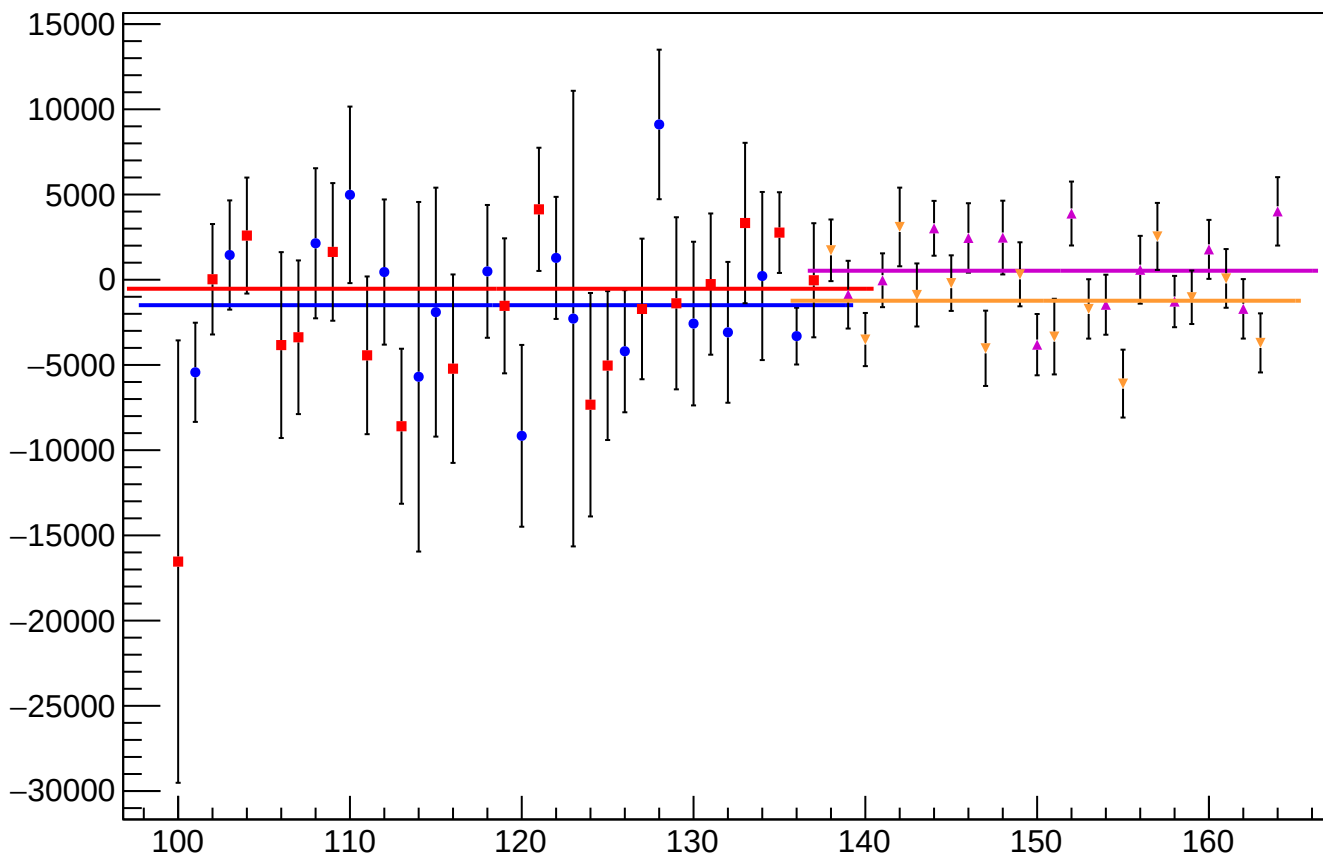
+ sign 198.271 $\pm$ 0.034  $\chi^2$ /NDF: 279009.9/30

All: 199.539 $\pm$ 0.024  $\chi^2$ /NDF: 589017.5/62

- sign 200.828 $\pm$ 0.034  $\chi^2$ /NDF: 307184.3/31



# asym\_sam\_26\_dd\_correction\_mean vs Slug



Right In: -1493.280 $\pm$ 910.834  $\chi^2$ /NDF: 16.1/16

Left Out: -1232.096 $\pm$ 489.100  $\chi^2$ /NDF:24.3/13

Right Out: -528.758 $\pm$ 934.718  $\chi^2$ /NDF: 14.6/18

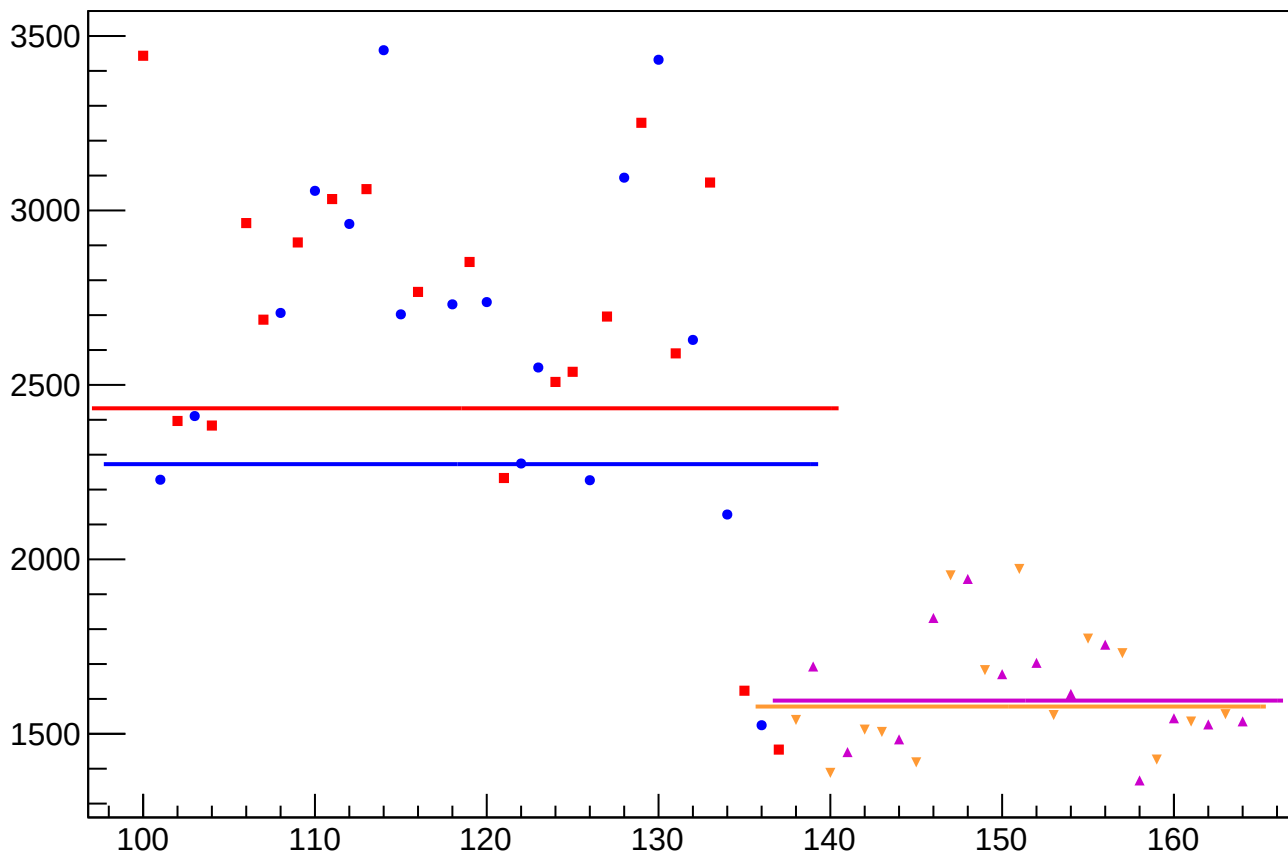
Left In: 527.657 $\pm$ 499.001  $\chi^2$ /NDF:21.6/12

+ sign -1290.552 $\pm$ 430.905  $\chi^2$ /NDF: 40.5/30

All: -515.497 $\pm$ 307.929  $\chi^2$ /NDF: 84.4/62

- sign 293.356 $\pm$ 440.200  $\chi^2$ /NDF: 37.3/31

# asym\_sam\_26\_dd\_correction\_rms vs Slug



Right In: 2272.883 $\pm$ 0.644  $\chi^2$ /NDF: 805650.3/16

Left Out: 1578.143 $\pm$ 0.346  $\chi^2$ /NDF: 233778.9/13

Right Out: 2432.950 $\pm$ 0.661  $\chi^2$ /NDF: 680783.9/18

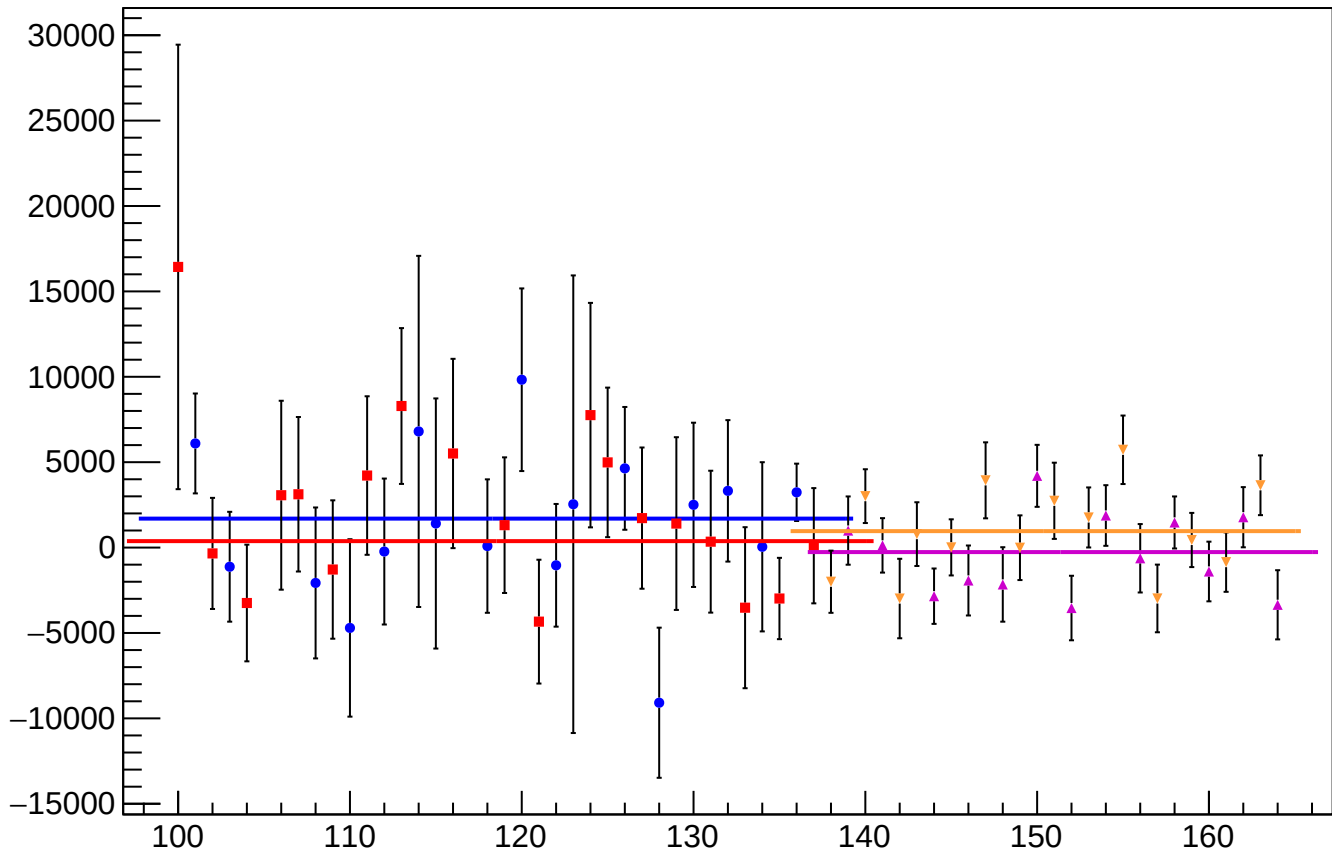
Left In: 1595.226 $\pm$ 0.353  $\chi^2$ /NDF: 187000.8/12

+ sign 1733.635 $\pm$ 0.305  $\chi^2$ /NDF: 1942586.5/30

All: 1756.823 $\pm$ 0.218  $\chi^2$ /NDF: 4072375.7/62

- sign 1781.024 $\pm$ 0.311  $\chi^2$ /NDF: 2117952.7/31

# asym\_sam\_26\_dd\_mean vs Slug



Right In: 1695.956+/-914.855  $\chi^2/\text{NDF}$ : 16.6/16

Left Out: 962.839+/-493.210  $\chi^2/\text{NDF}$ : 23.6/13

Right Out: 377.629+/-938.528  $\chi^2/\text{NDF}$ : 15.0/18

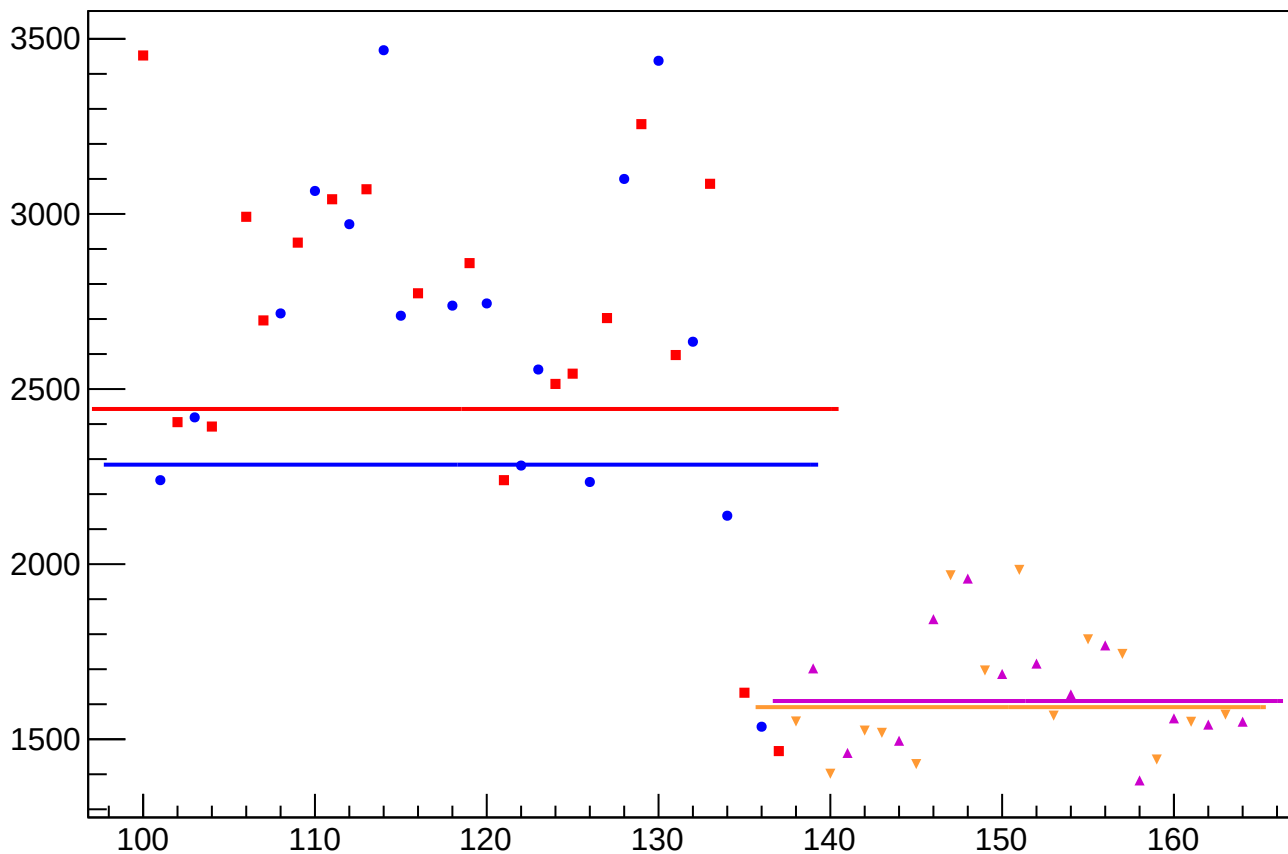
Left In: -263.969+/-503.287  $\chi^2/\text{NDF}$ : 20.3/12

+ sign 1127.931+/-434.139  $\chi^2/\text{NDF}$ : 40.7/30

All: 516.999+/-310.252  $\chi^2/\text{NDF}$ : 80.4/62

- sign -120.674+/-443.538  $\chi^2/\text{NDF}$ : 35.7/31

# asym\_sam\_26\_dd\_rms vs Slug



Right In: 2284.104+/-0.647  $\chi^2/\text{NDF}$ : 793993.4/16

Left Out: 1591.696+/-0.349  $\chi^2/\text{NDF}$ : 229629.5/13

Right Out: 2443.124+/-0.664  $\chi^2/\text{NDF}$ : 672899.9/18

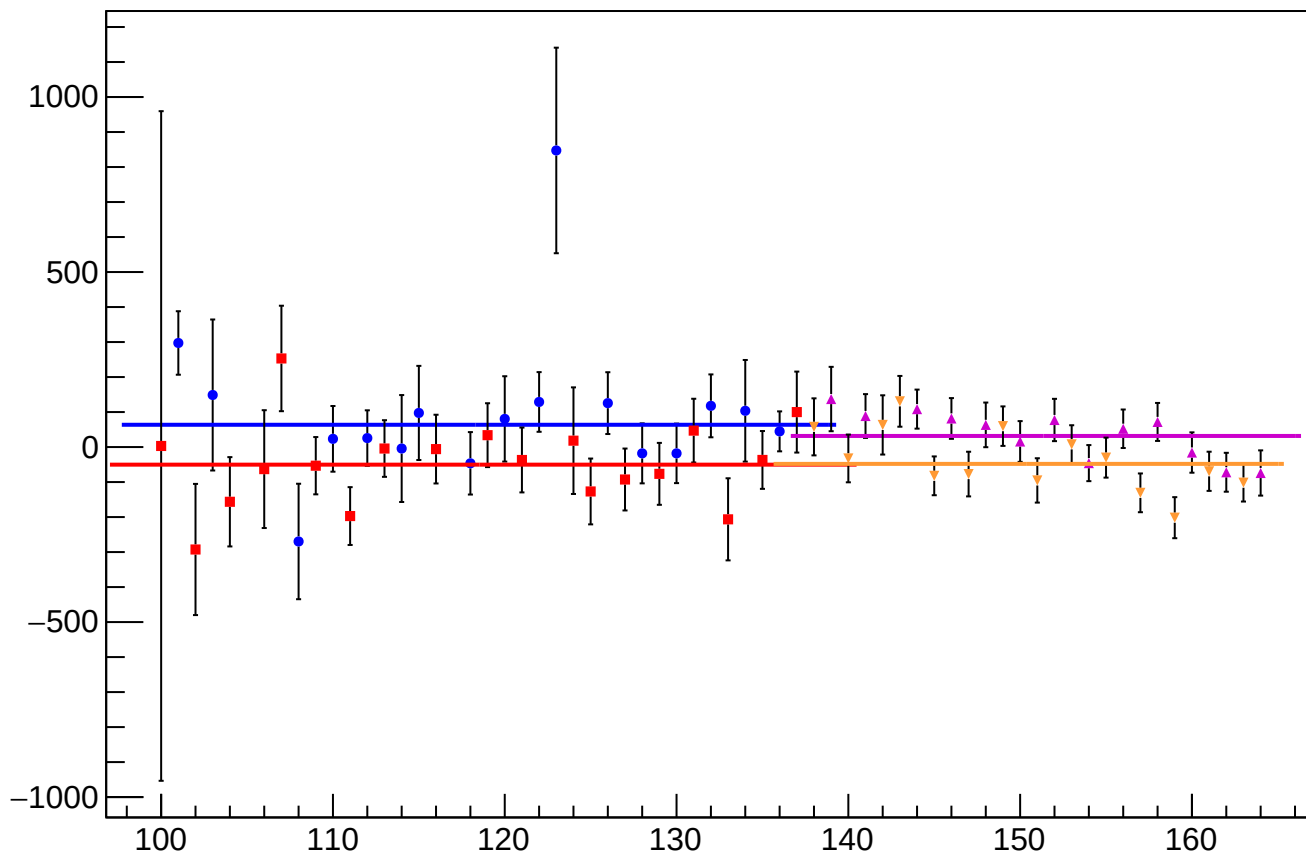
Left In: 1609.200+/-0.356  $\chi^2/\text{NDF}$ : 182304.4/12

+ sign 1747.620+/-0.307  $\chi^2/\text{NDF}$ : 1911276.1/30

All: 1771.023+/-0.219  $\chi^2/\text{NDF}$ : 4004719.6/62

- sign 1795.449+/-0.314  $\chi^2/\text{NDF}$ : 2081566.1/31

# reg\_asym\_sam\_37\_dd\_mean vs Slug



Right In:  $63.666 \pm 23.743$   $\chi^2/\text{NDF}$ : 23.7/16

Left Out:  $-48.085 \pm 16.322$   $\chi^2/\text{NDF}$ : 25.7/13

Right Out:  $-50.278 \pm 23.661$   $\chi^2/\text{NDF}$ : 16.8/18

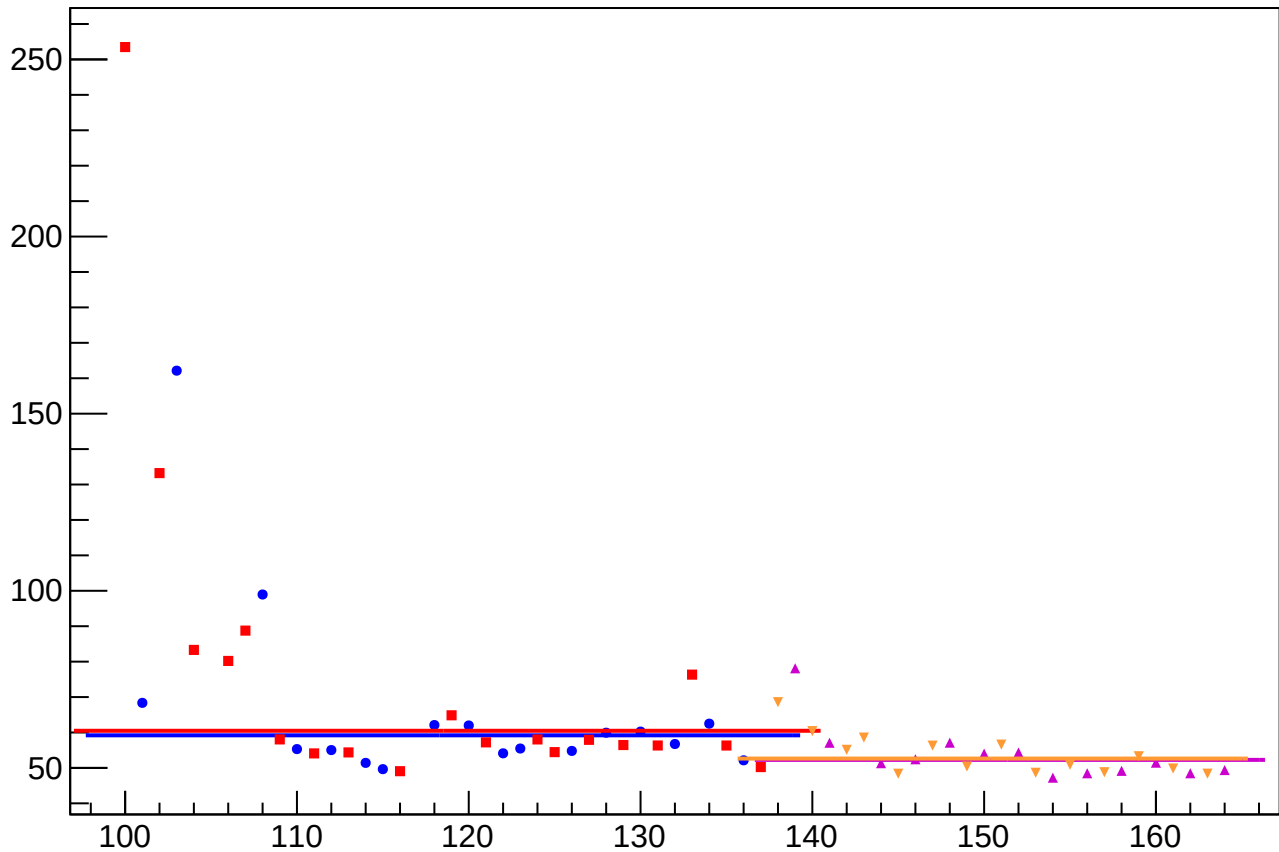
Left In:  $31.725 \pm 16.402$   $\chi^2/\text{NDF}$ : 15.5/12

+ sign  $-12.221 \pm 13.450$   $\chi^2/\text{NDF}$ : 64.4/30

All:  $-3.575 \pm 9.521$   $\chi^2/\text{NDF}$ : 105.6/62

- sign  $5.109 \pm 13.480$   $\chi^2/\text{NDF}$ : 40.4/31

# reg\_asym\_sam\_37\_dd\_rms vs Slug



Right In: 59.200 $\pm$ 0.017  $\chi^2$ /NDF: 665472.4/16

Left Out: 52.638 $\pm$ 0.012  $\chi^2$ /NDF: 186641.6/13

Right Out: 60.483 $\pm$ 0.017  $\chi^2$ /NDF: 680059.5/18

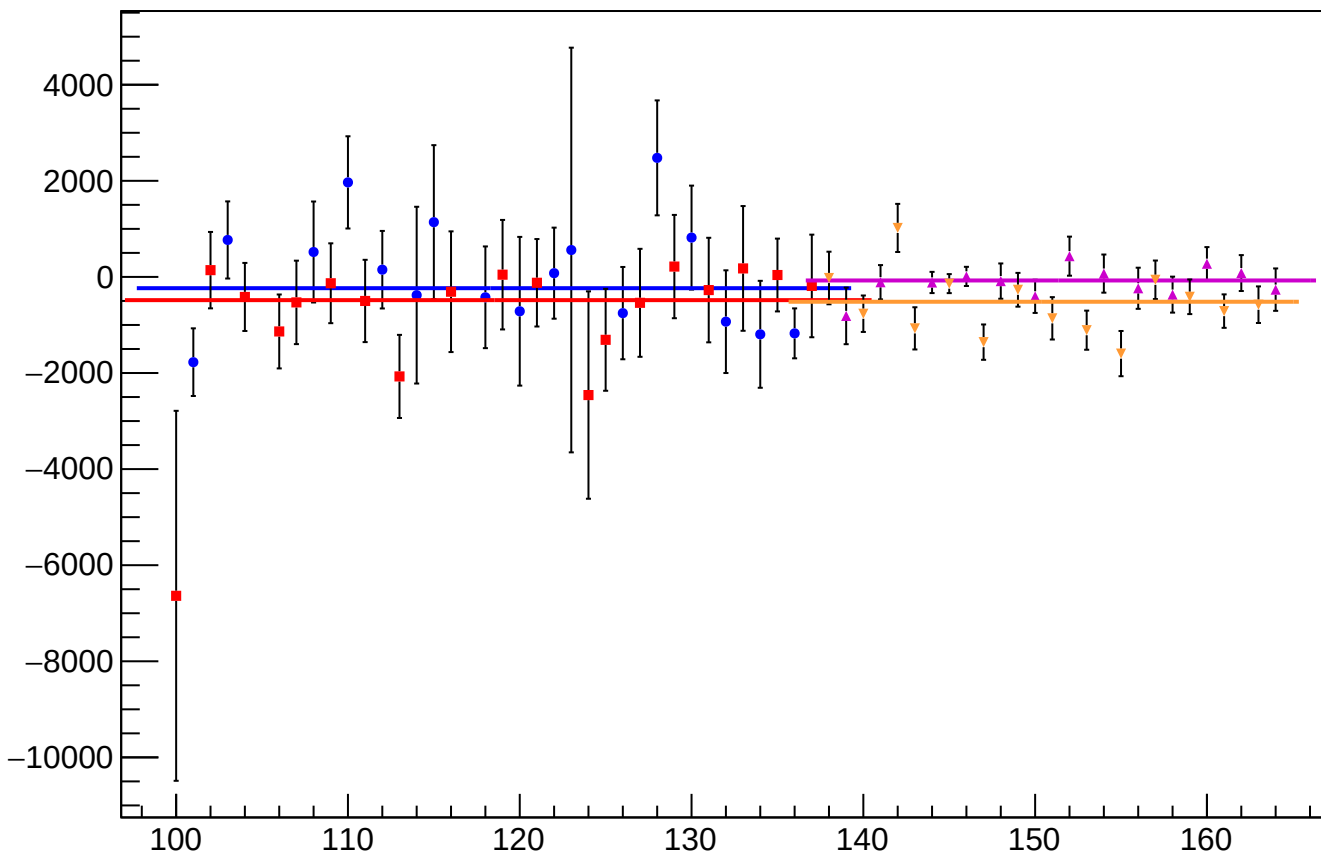
Left In: 52.269 $\pm$ 0.012  $\chi^2$ /NDF: 235059.5/12

+ sign 54.744 $\pm$ 0.010  $\chi^2$ /NDF: 955865.9/30

All: 54.839 $\pm$ 0.007  $\chi^2$ /NDF: 2034001.2/62

- sign 54.935 $\pm$ 0.010  $\chi^2$ /NDF: 1077934.7/31

# asym\_sam\_37\_dd\_correction\_mean vs Slug



Right In:  $-234.492 \pm 233.880$   $\chi^2/\text{NDF}$ : 24.2/16

Left Out:  $-516.752 \pm 97.483$   $\chi^2/\text{NDF}$ : 31.3/13

Right Out:  $-483.305 \pm 222.314$   $\chi^2/\text{NDF}$ : 10.6/18

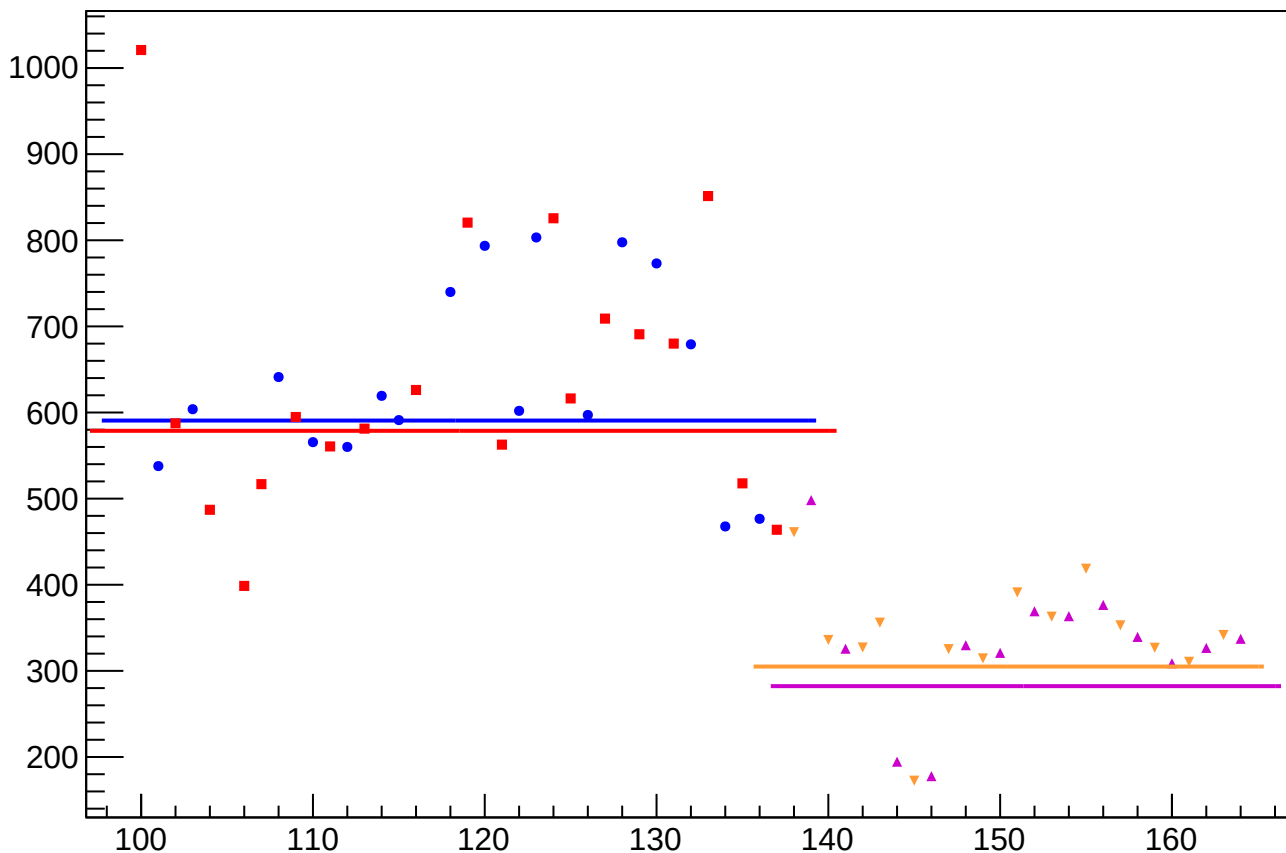
Left In:  $-73.822 \pm 92.135$   $\chi^2/\text{NDF}$ : 6.5/12

+ sign  $-474.974 \pm 89.980$   $\chi^2/\text{NDF}$ : 56.7/30

All:  $-294.939 \pm 61.834$   $\chi^2/\text{NDF}$ : 84.3/62

- sign  $-133.844 \pm 85.115$   $\chi^2/\text{NDF}$ : 20.0/31

# asym\_sam\_37\_dd\_correction\_rms vs Slug



Right In: 590.659 $\pm$ 0.165  $\chi^2$ /NDF: 352080.1/16

Left Out: 305.021 $\pm$ 0.069  $\chi^2$ /NDF: 1398839.4/13

Right Out: 578.753 $\pm$ 0.157  $\chi^2$ /NDF: 493962.7/18

Left In: 282.265 $\pm$ 0.065  $\chi^2$ /NDF: 1612219.2/12

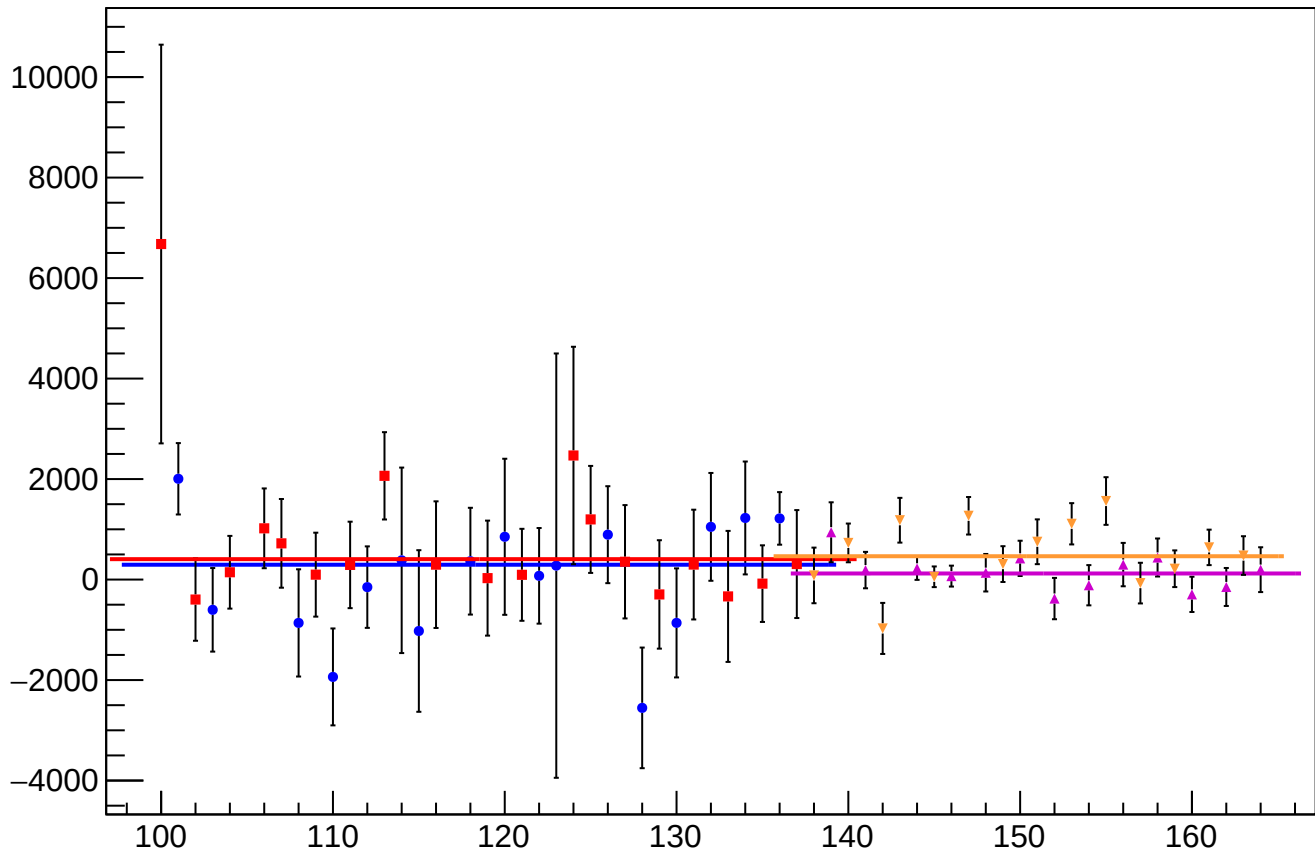
+ sign 347.299 $\pm$ 0.064  $\chi^2$ /NDF: 4292539.3/30

All: 335.913 $\pm$ 0.044  $\chi^2$ /NDF: 9495197.6/62

- sign 325.725 $\pm$ 0.060  $\chi^2$ /NDF: 5141977.3/31



# asym\_sam\_37\_dd\_mean vs Slug



Right In: 295.401 $\pm$ 235.860  $\chi^2$ /NDF: 26.1/16

Left Out: 464.230 $\pm$ 99.299  $\chi^2$ /NDF:31.1/13

Right Out: 406.158 $\pm$ 224.855  $\chi^2$ /NDF: 11.0/18

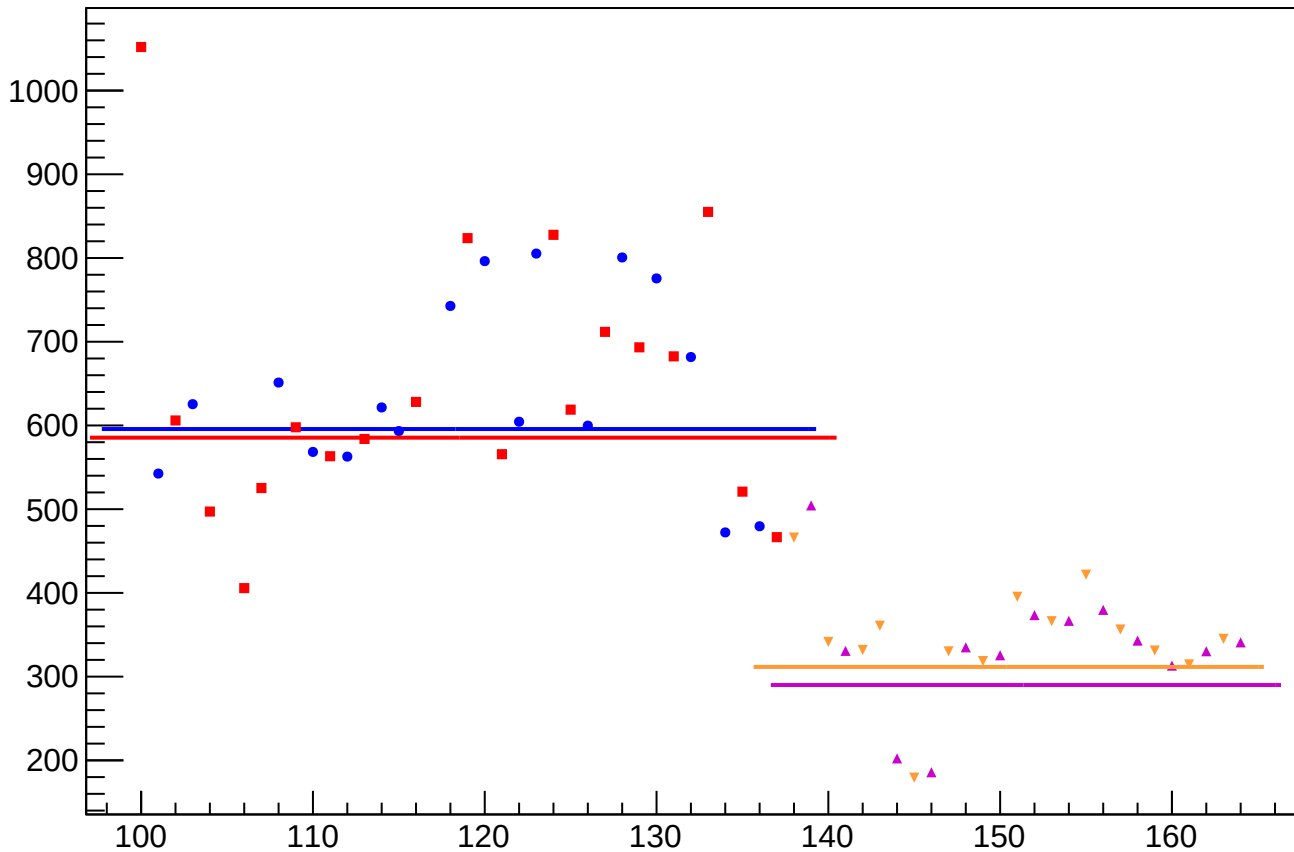
Left In: 121.141 $\pm$ 94.258  $\chi^2$ /NDF:7.6/12

+ sign 438.811 $\pm$ 91.519  $\chi^2$ /NDF: 57.6/30

All: 294.205 $\pm$ 63.029  $\chi^2$ /NDF: 82.2/62

- sign 163.740 $\pm$ 86.929  $\chi^2$ /NDF: 19.9/31

# asym\_sam\_37\_dd\_rms vs Slug



Right In: 595.734+/-0.167  $\chi^2/\text{NDF}$ : 350058.2/16

Left Out: 311.601+/-0.070  $\chi^2/\text{NDF}$ :1288263.4/13

Right Out: 585.421+/-0.159  $\chi^2/\text{NDF}$ : 474472.3/18

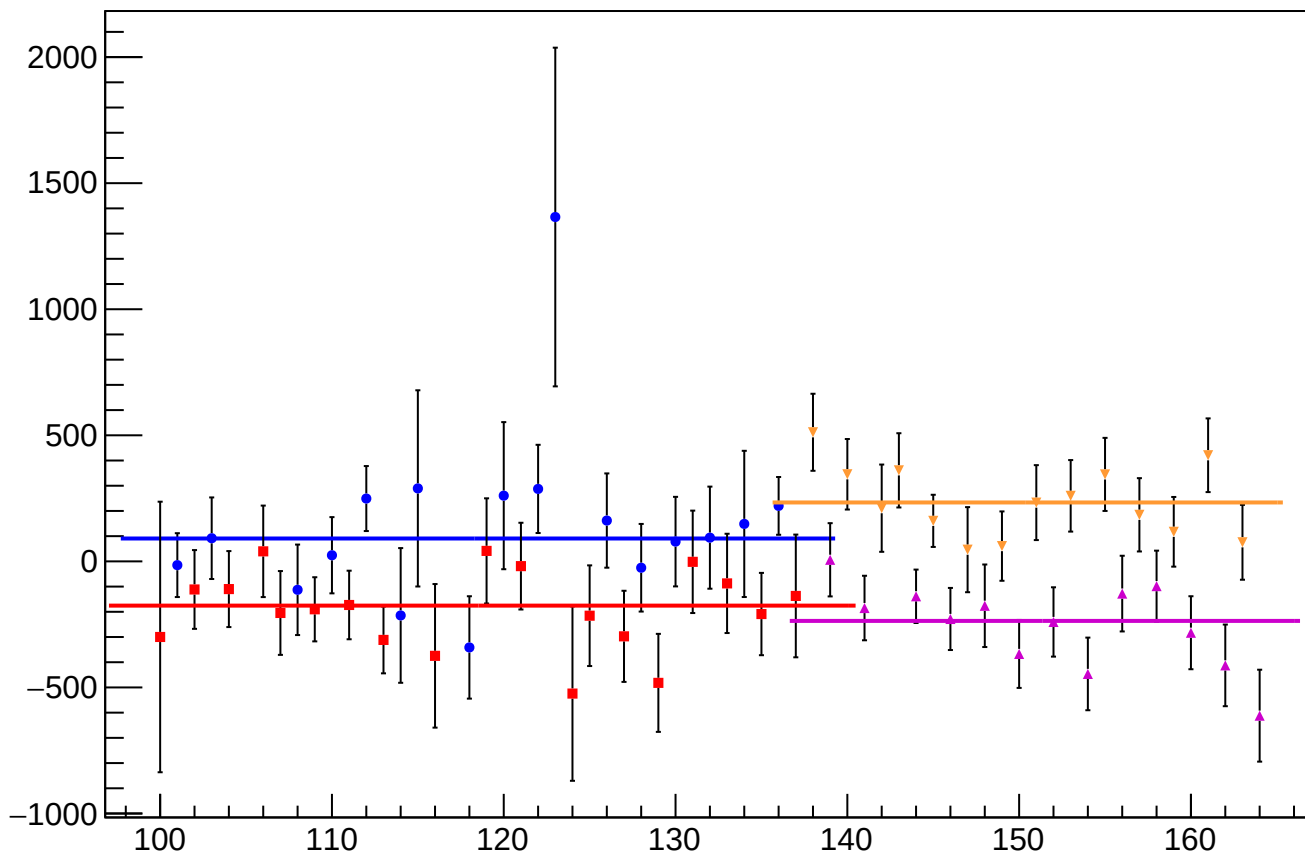
Left In: 289.992+/-0.067  $\chi^2/\text{NDF}$ :1467413.5/12

+ sign 354.380+/-0.065  $\chi^2/\text{NDF}$ : 4103762.6/30

All: 343.744+/-0.045  $\chi^2/\text{NDF}$ : 9033513.6/62

- sign 334.147+/-0.061  $\chi^2/\text{NDF}$ : 4878362.3/31

# reg\_asym\_sam\_48\_dd\_mean vs Slug



Right In:  $90.711 \pm 43.312$   $\chi^2/\text{NDF}$ : 16.9/16

Left Out:  $233.623 \pm 38.087$   $\chi^2/\text{NDF}$ : 12.3/13

Right Out:  $-175.485 \pm 41.101$   $\chi^2/\text{NDF}$ : 10.3/18

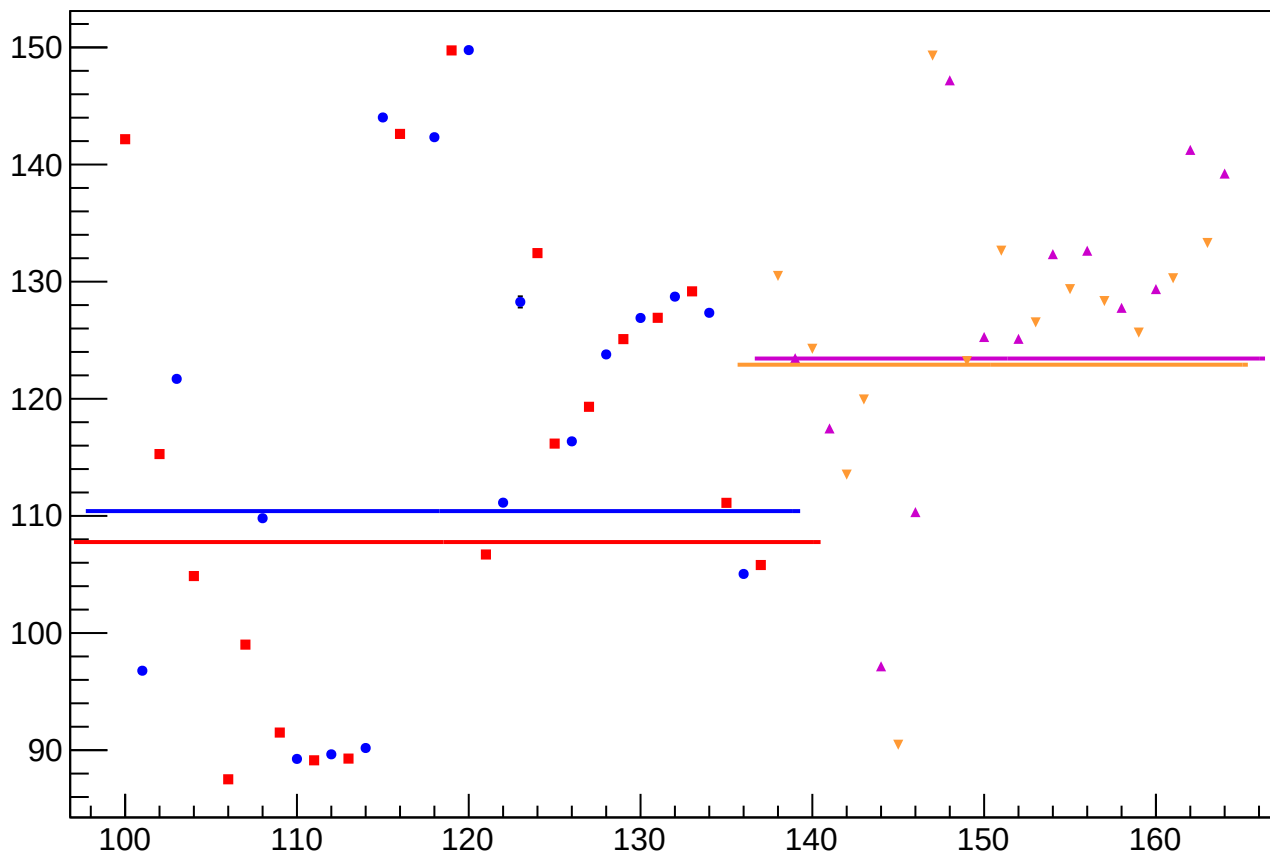
Left In:  $-236.136 \pm 38.691$   $\chi^2/\text{NDF}$ : 14.0/12

+ sign  $171.303 \pm 28.602$   $\chi^2/\text{NDF}$ : 35.3/30

All:  $-21.034 \pm 20.071$   $\chi^2/\text{NDF}$ : 149.9/62

- sign  $-207.640 \pm 28.172$   $\chi^2/\text{NDF}$ : 25.5/31

# reg\_asym\_sam\_48\_dd\_rms vs Slug



Right In: 110.411 $\pm$ 0.031  $\chi^2$ /NDF: 296425.4/16

Left Out: 122.910 $\pm$ 0.027  $\chi^2$ /NDF: 289782.9/13

Right Out: 107.768 $\pm$ 0.029  $\chi^2$ /NDF: 344441.4/18

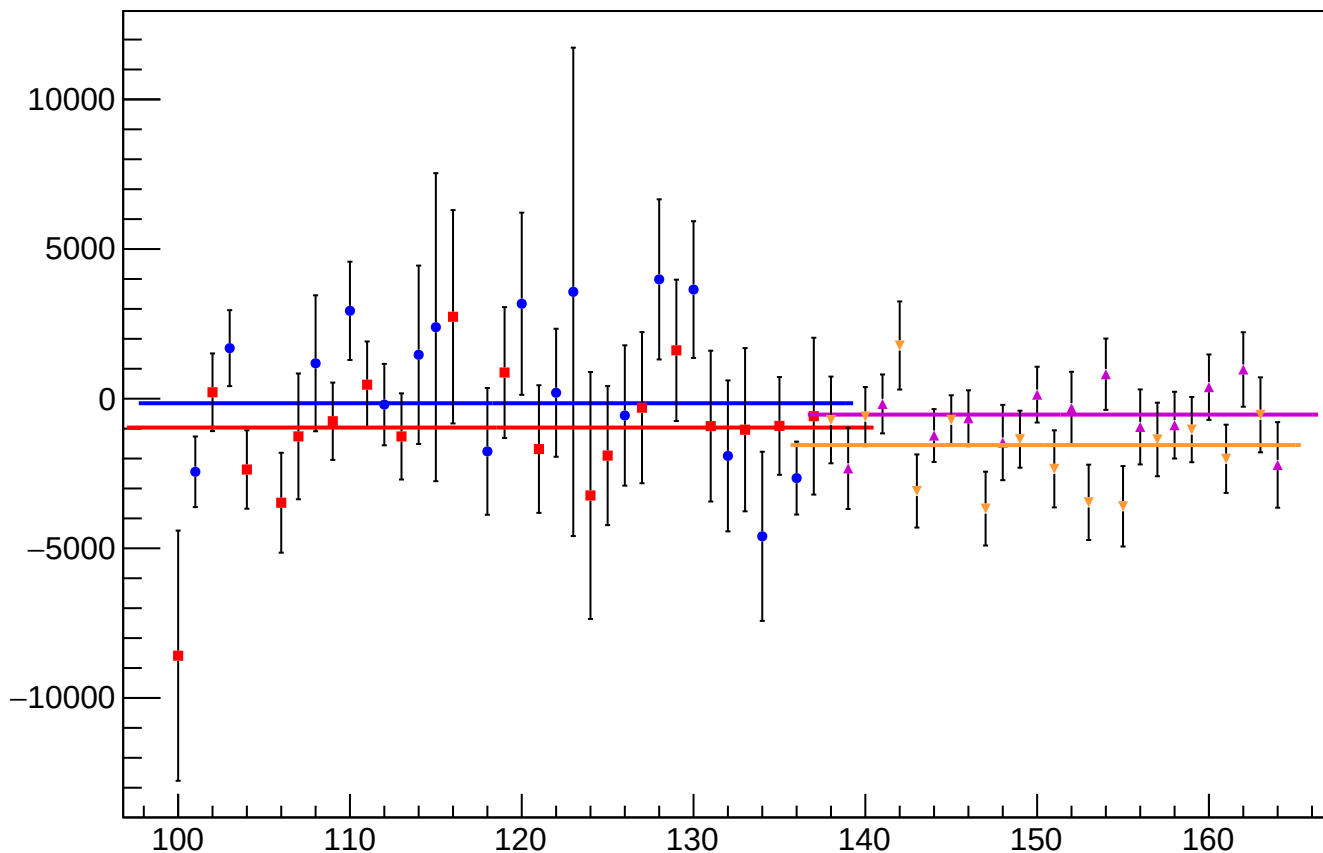
Left In: 123.437 $\pm$ 0.027  $\chi^2$ /NDF: 252692.5/12

+ sign 117.460 $\pm$ 0.020  $\chi^2$ /NDF: 680128.0/30

All: 116.757 $\pm$ 0.014  $\chi^2$ /NDF: 1433750.5/62

- sign 116.075 $\pm$ 0.020  $\chi^2$ /NDF: 751243.4/31

# asym\_sam\_48\_dd\_correction\_mean vs Slug



Right In: -152.403+/-464.753  $\chi^2/\text{NDF}$ : 24.7/16

Left Out: -1549.988+/-307.306  $\chi^2/\text{NDF}$ : 18.1/13

Right Out: -964.716+/-435.111  $\chi^2/\text{NDF}$ : 12.3/18

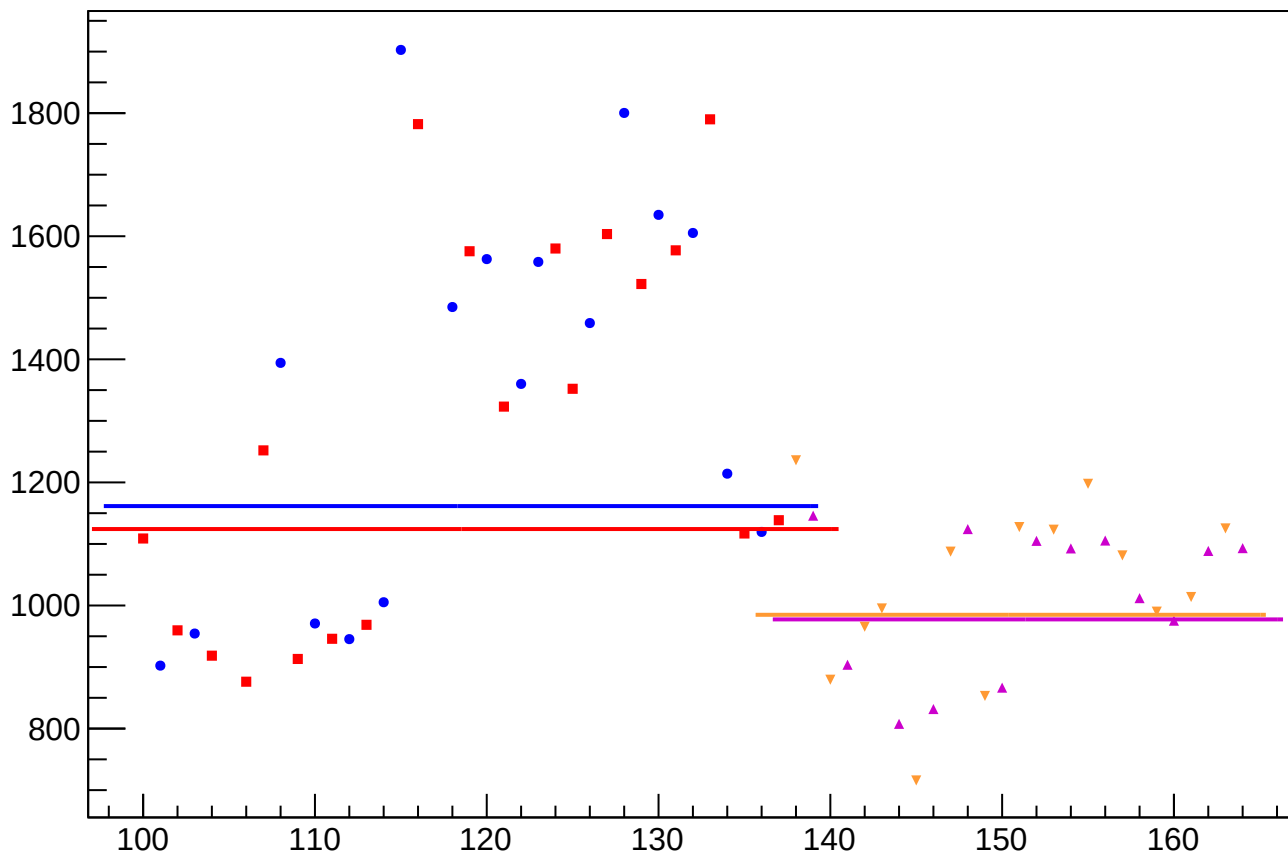
Left In: -531.610+/-307.436  $\chi^2/\text{NDF}$ : 8.7/12

+ sign -1124.826+/-256.336  $\chi^2/\text{NDF}$ : 49.1/30

All: -895.682+/-179.371  $\chi^2/\text{NDF}$ : 72.2/62

- sign -675.832+/-251.084  $\chi^2/\text{NDF}$ : 21.6/31

# asym\_sam\_48\_dd\_correction\_rms vs Slug



Right In: 1161.530+/-0.329  $\chi^2/\text{NDF}$ : 695906.9/16

Left Out: 984.894+/-0.217  $\chi^2/\text{NDF}$ : 489859.2/13

Right Out: 1124.235+/-0.308  $\chi^2/\text{NDF}$ : 767790.0/18

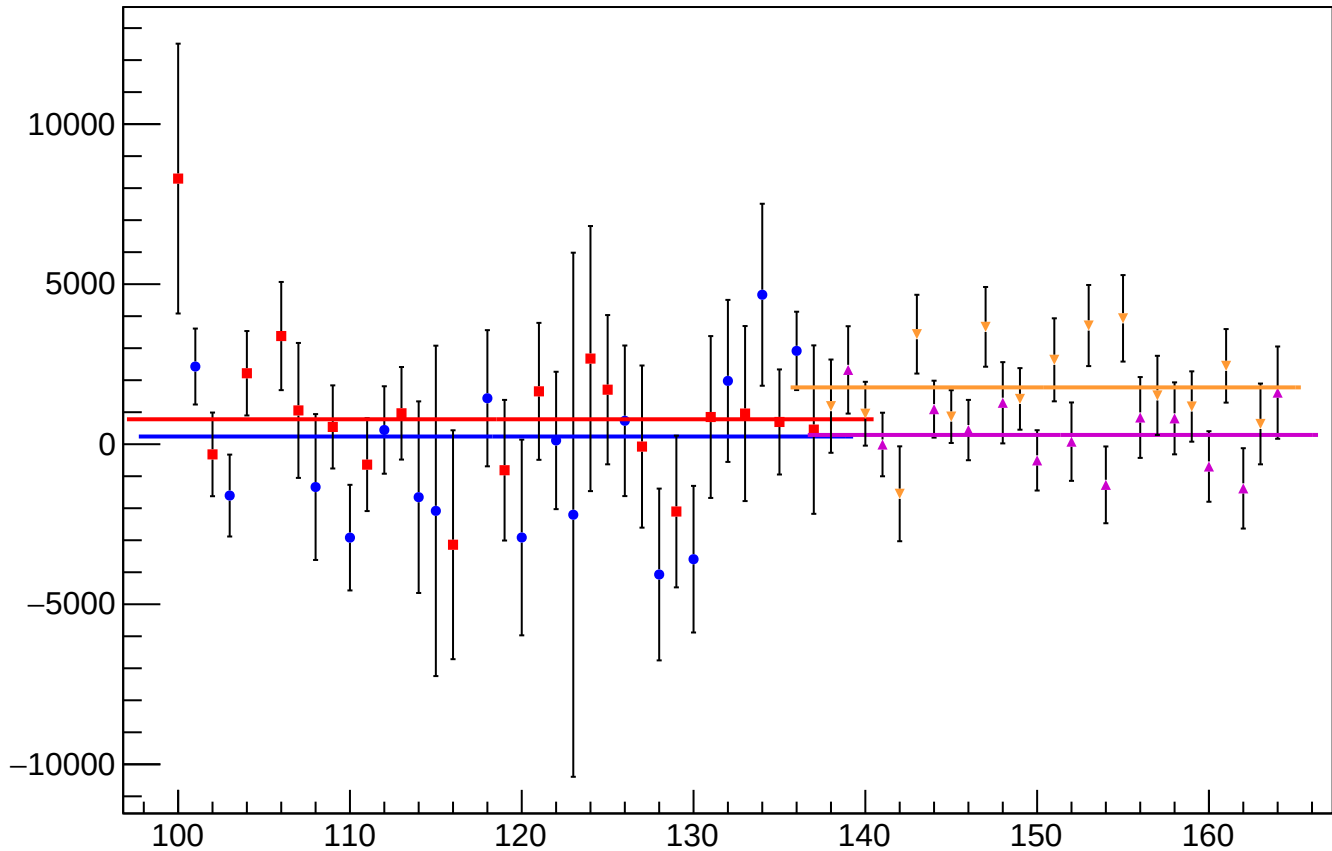
Left In: 977.398+/-0.217  $\chi^2/\text{NDF}$ : 312773.7/12

+ sign 1038.629+/-0.181  $\chi^2/\text{NDF}$ : 1386777.4/30

All: 1032.334+/-0.127  $\chi^2/\text{NDF}$ : 2621629.0/62

- sign 1026.294+/-0.178  $\chi^2/\text{NDF}$ : 1232487.9/31

# asym\_sam\_48\_dd\_mean vs Slug



Right In: 240.732 $\pm$ 467.036  $\chi^2$ /NDF: 24.8/16

Left Out: 1775.402 $\pm$ 309.782  $\chi^2$ /NDF:18.2/13

Right Out: 779.192 $\pm$ 437.487  $\chi^2$ /NDF: 12.3/18

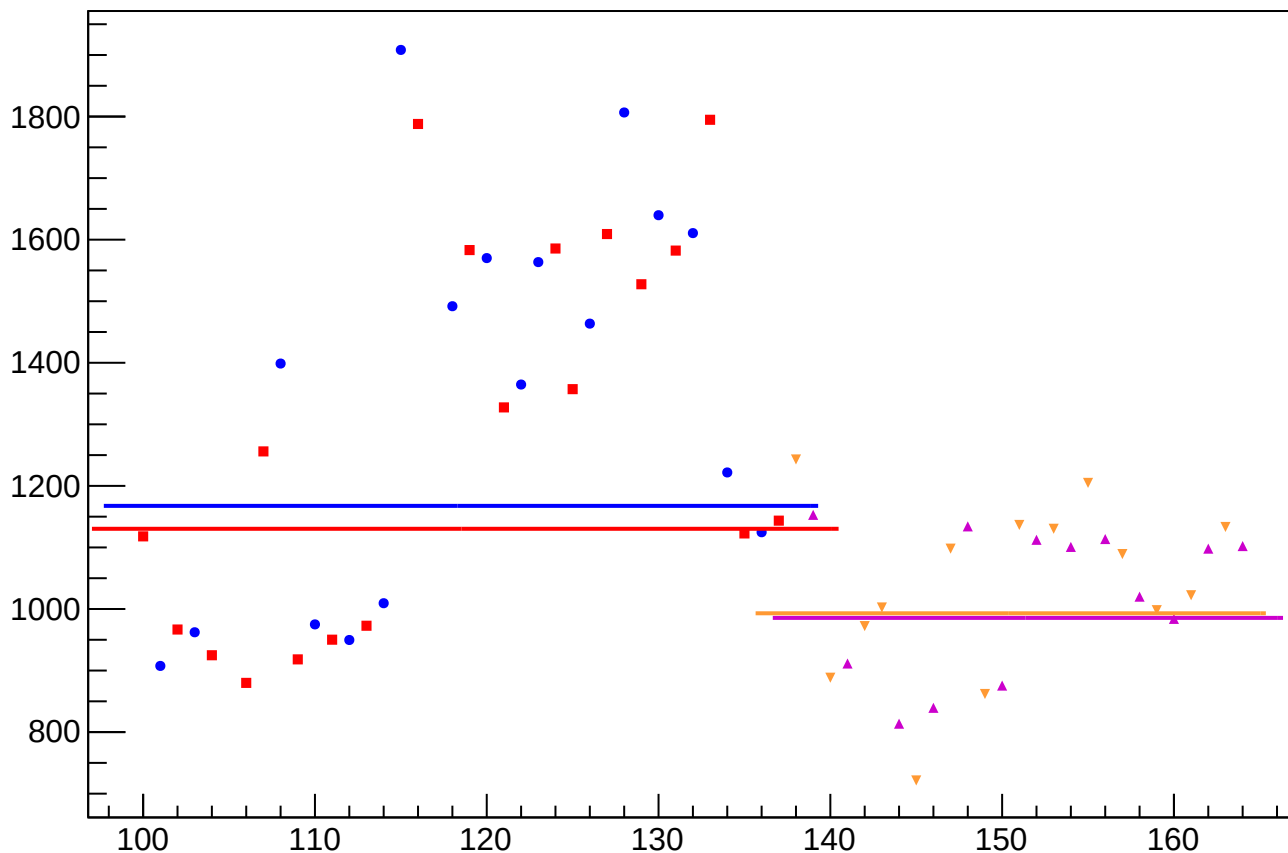
Left In: 289.829 $\pm$ 309.964  $\chi^2$ /NDF:10.0/12

+ sign 1306.506 $\pm$ 258.155  $\chi^2$ /NDF: 50.5/30

All: 871.201 $\pm$ 180.663  $\chi^2$ /NDF: 79.3/62

- sign 453.382 $\pm$ 252.917  $\chi^2$ /NDF: 23.2/31

# asym\_sam\_48\_dd\_rms vs Slug



Right In: 1167.539 $\pm$ 0.330  $\chi^2$ /NDF: 690485.6/16

Left Out: 993.018 $\pm$ 0.219  $\chi^2$ /NDF: 485054.3/13

Right Out: 1130.301 $\pm$ 0.309  $\chi^2$ /NDF: 761503.6/18

Left In: 985.561 $\pm$ 0.219  $\chi^2$ /NDF: 310280.0/12

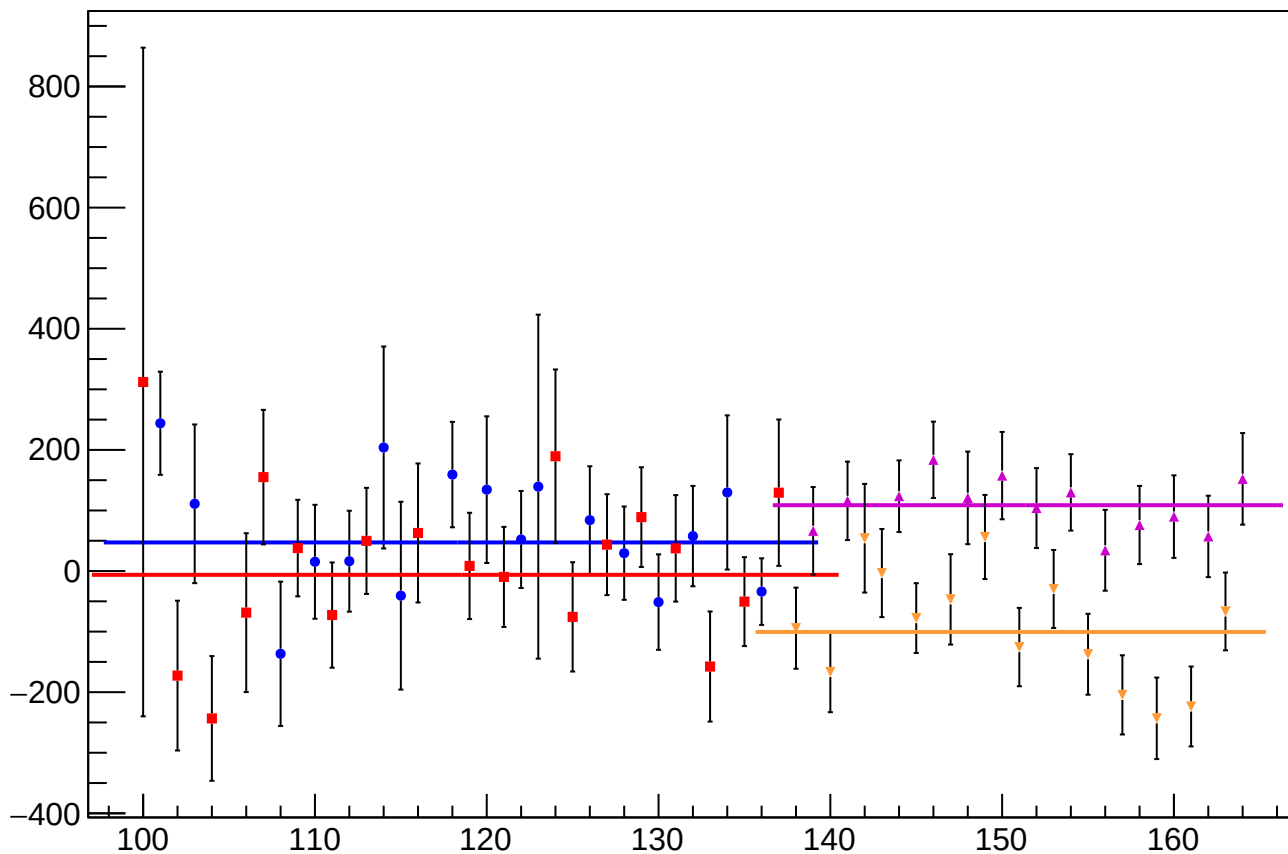
+ sign 1046.341 $\pm$ 0.183  $\chi^2$ /NDF: 1369481.2/30

All: 1040.011 $\pm$ 0.128  $\chi^2$ /NDF: 2589370.9/62

- sign 1033.935 $\pm$ 0.179  $\chi^2$ /NDF: 1217533.3/31



# reg\_asym\_sam\_13\_57\_dd\_mean vs Slug



Right In:  $47.220 \pm 22.565$   $\chi^2/\text{NDF}$ : 16.1/16

Left Out:  $-100.569 \pm 18.011$   $\chi^2/\text{NDF}$ : 24.0/13

Right Out:  $-6.246 \pm 22.128$   $\chi^2/\text{NDF}$ : 20.3/18

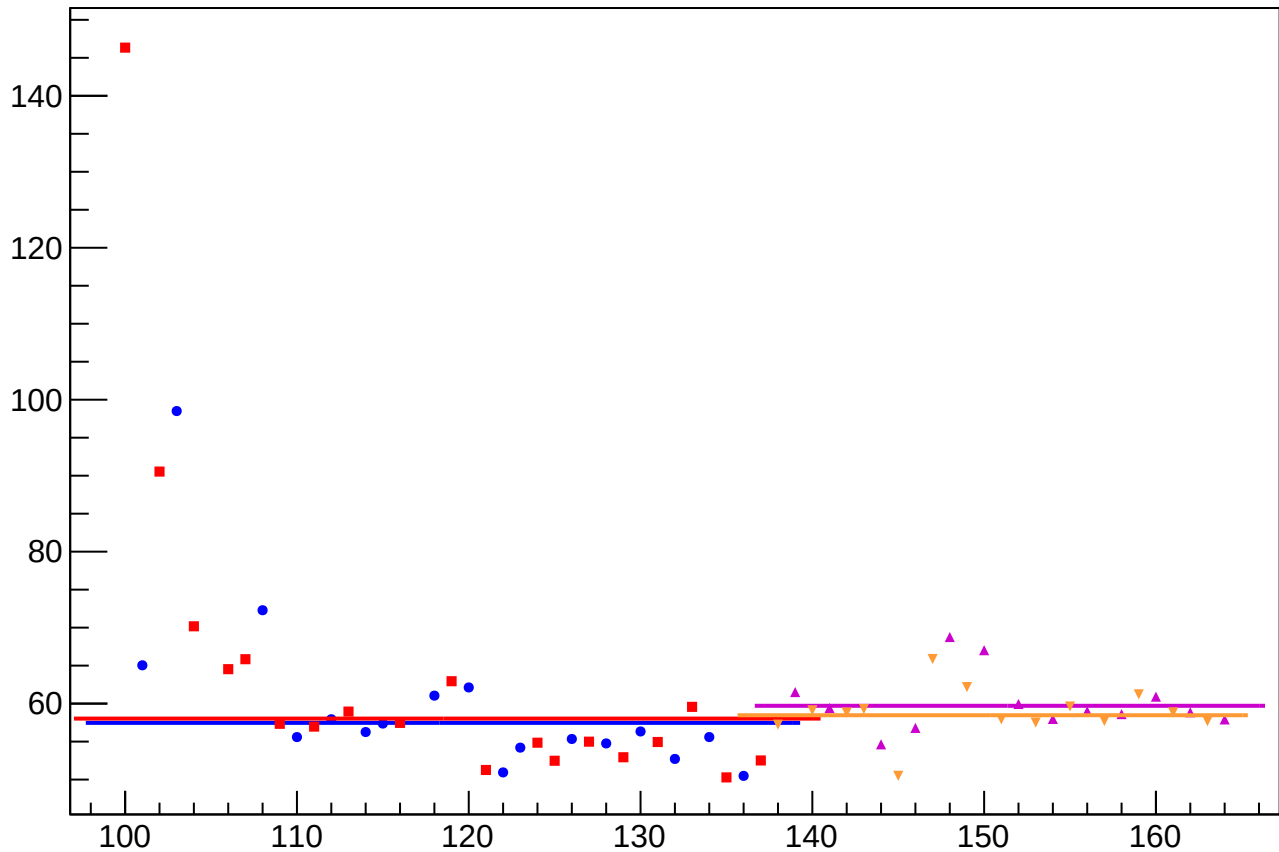
Left In:  $108.691 \pm 18.609$   $\chi^2/\text{NDF}$ : 4.9/12

+ sign  $-43.054 \pm 14.077$   $\chi^2/\text{NDF}$ : 66.3/30

All:  $8.403 \pm 10.012$   $\chi^2/\text{NDF}$ : 134.3/62

- sign  $61.076 \pm 14.242$   $\chi^2/\text{NDF}$ : 41.0/31

# reg\_asym\_sam\_13\_57\_dd\_rms vs Slug



Right In: 57.465 $\pm$ 0.016  $\chi^2$ /NDF: 307156.4/16

Left Out: 58.468 $\pm$ 0.013  $\chi^2$ /NDF: 69945.5/13

Right Out: 58.027 $\pm$ 0.016  $\chi^2$ /NDF: 300788.2/18

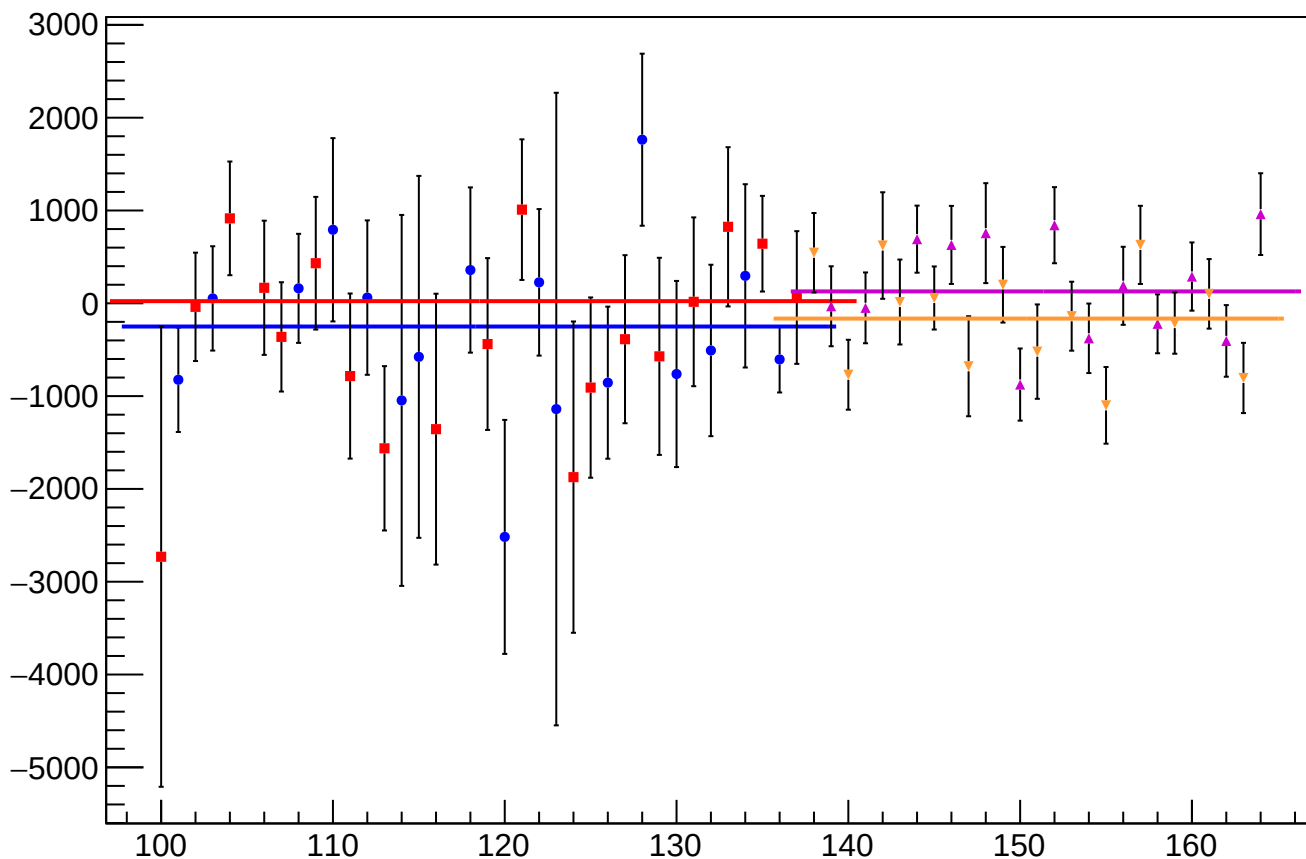
Left In: 59.712 $\pm$ 0.013  $\chi^2$ /NDF: 73298.1/12

+ sign 58.078 $\pm$ 0.010  $\chi^2$ /NDF: 379513.0/30

All: 58.540 $\pm$ 0.007  $\chi^2$ /NDF: 764765.1/62

- sign 59.014 $\pm$ 0.010  $\chi^2$ /NDF: 380879.3/31

# asym\_sam\_13\_57\_dd\_correction\_mean vs Slug



Right In:  $-250.140 \pm 184.092$   $\chi^2/\text{NDF}$ : 14.3/16

Left Out:  $-164.665 \pm 108.906$   $\chi^2/\text{NDF}$ : 22.1/13

Right Out:  $23.314 \pm 181.834$   $\chi^2/\text{NDF}$ : 16.1/18

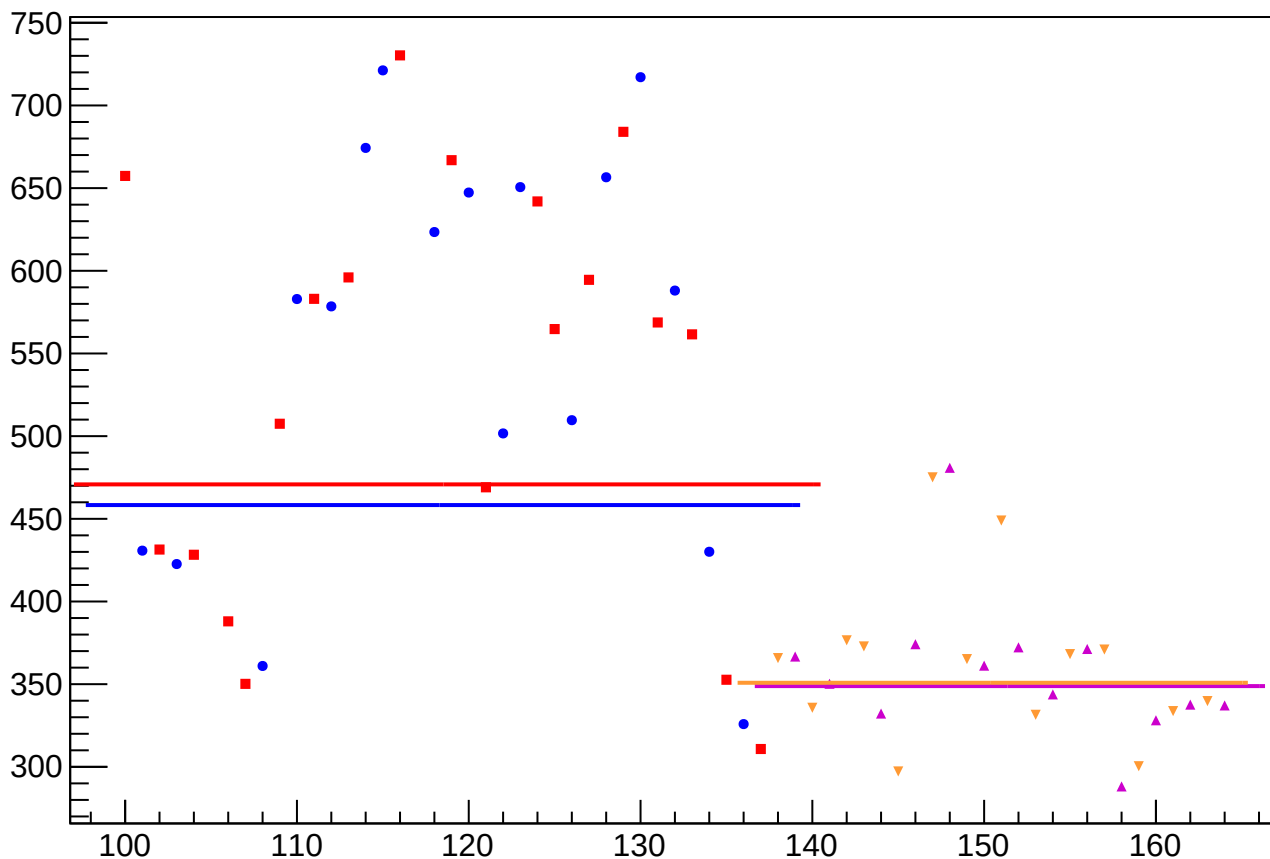
Left In:  $128.208 \pm 109.396$   $\chi^2/\text{NDF}$ : 24.0/12

+ sign  $-186.824 \pm 93.732$   $\chi^2/\text{NDF}$ : 36.5/30

All:  $-43.257 \pm 66.281$   $\chi^2/\text{NDF}$ : 81.5/62

- sign  $100.332 \pm 93.739$   $\chi^2/\text{NDF}$ : 40.3/31

# asym\_sam\_13\_57\_dd\_correction\_rms vs Slug



Right In: 458.324 $\pm$ 0.130  $\chi^2$ /NDF: 877201.7/16

Left Out: 350.851 $\pm$ 0.077  $\chi^2$ /NDF: 313423.5/13

Right Out: 470.827 $\pm$ 0.129  $\chi^2$ /NDF: 778635.2/18

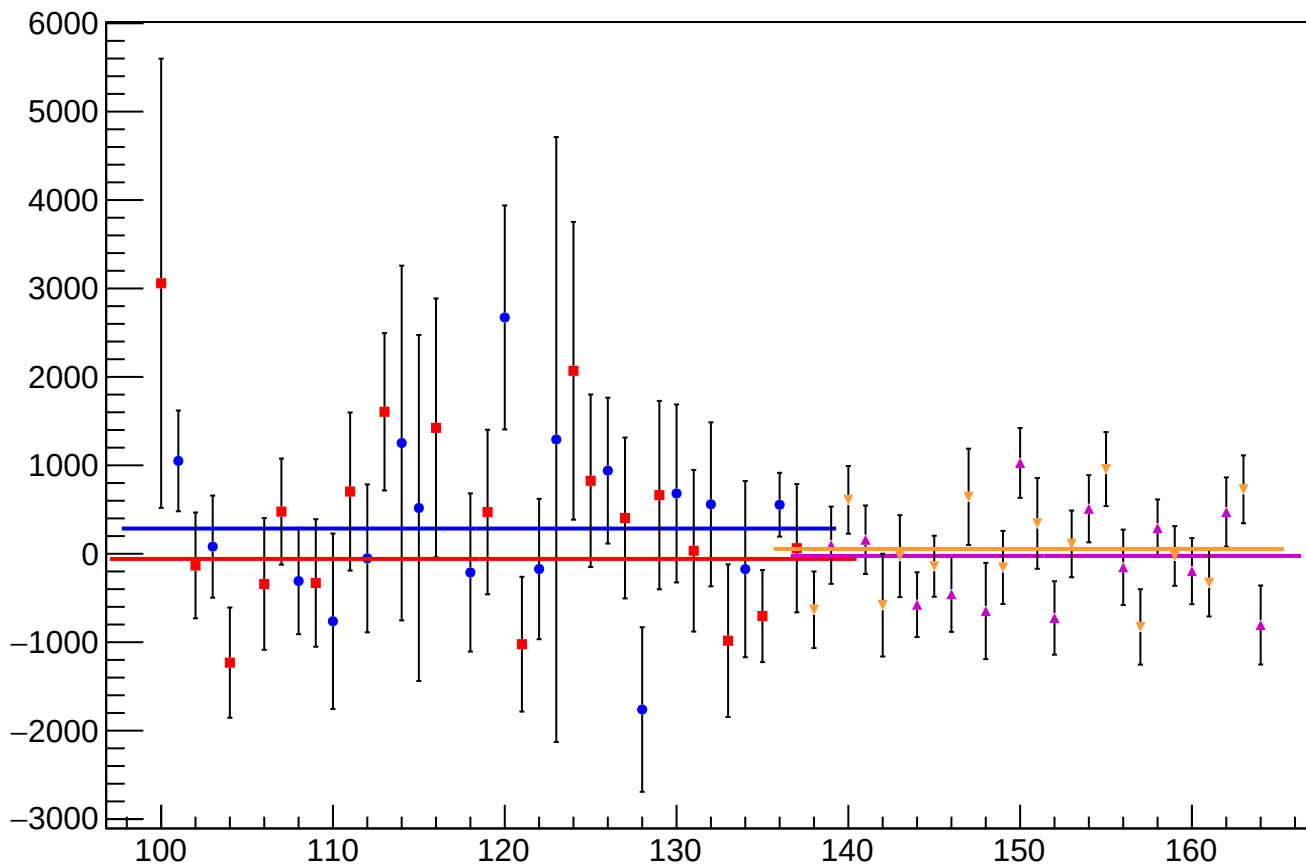
Left In: 348.839 $\pm$ 0.077  $\chi^2$ /NDF: 232277.5/12

+ sign 378.713 $\pm$ 0.066  $\chi^2$ /NDF: 1695564.3/30

All: 379.986 $\pm$ 0.047  $\chi^2$ /NDF: 3368139.0/62

- sign 381.259 $\pm$ 0.066  $\chi^2$ /NDF: 1671836.8/31

# asym\_sam\_13\_57\_dd\_mean vs Slug



Right In:  $285.349 \pm 186.262$   $\chi^2/\text{NDF}$ : 15.2/16

Left Out:  $55.056 \pm 110.474$   $\chi^2/\text{NDF}$ : 21.0/13

Right Out:  $-58.001 \pm 184.074$   $\chi^2/\text{NDF}$ : 19.2/18

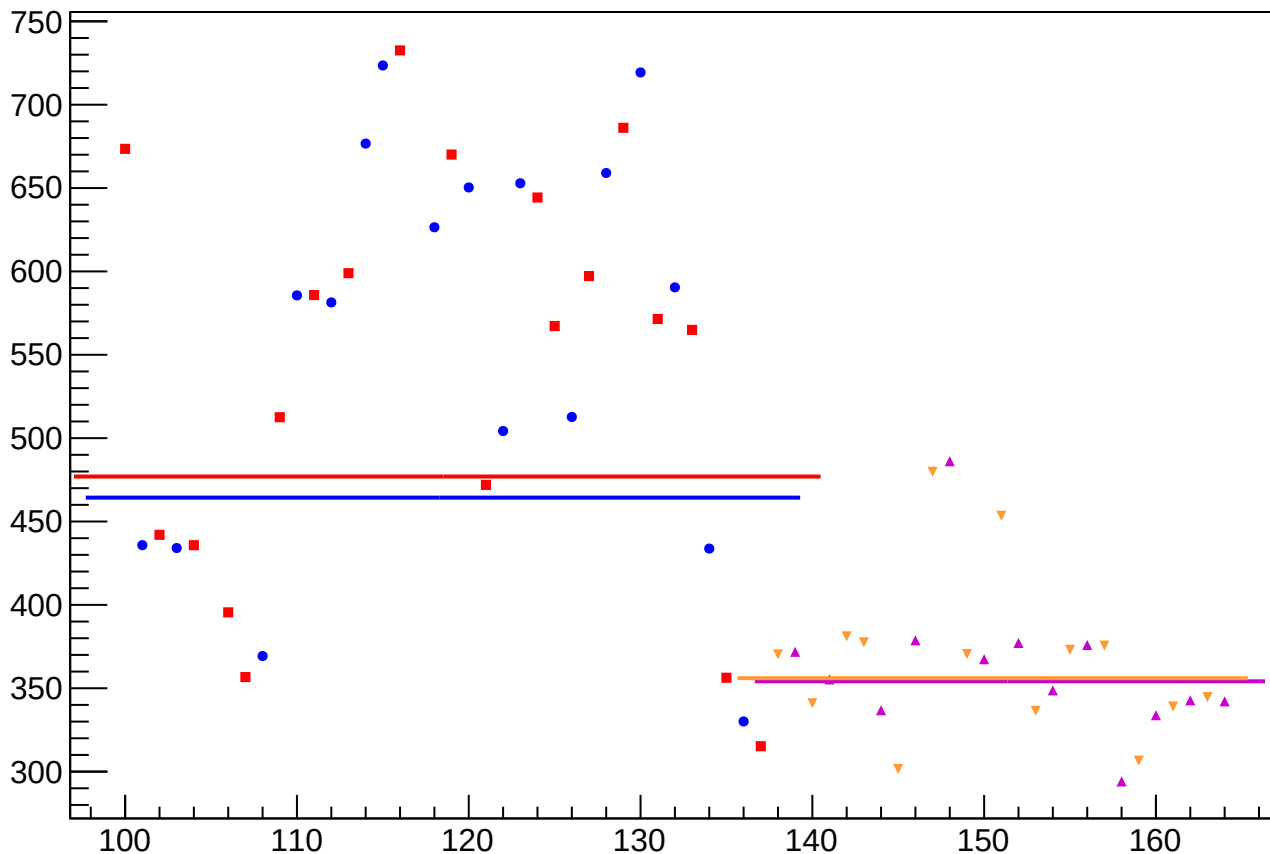
Left In:  $-24.229 \pm 111.040$   $\chi^2/\text{NDF}$ : 22.7/12

+ sign  $114.986 \pm 95.018$   $\chi^2/\text{NDF}$ : 37.3/30

All:  $40.921 \pm 67.210$   $\chi^2/\text{NDF}$ : 80.5/62

- sign  $-33.240 \pm 95.080$   $\chi^2/\text{NDF}$ : 41.9/31

# asym\_sam\_13\_57\_dd\_rms vs Slug



Right In: 464.341 $\pm$ 0.132  $\chi^2$ /NDF: 845900.9/16

Left Out: 356.028 $\pm$ 0.078  $\chi^2$ /NDF: 302847.9/13

Right Out: 476.989 $\pm$ 0.130  $\chi^2$ /NDF: 749331.1/18

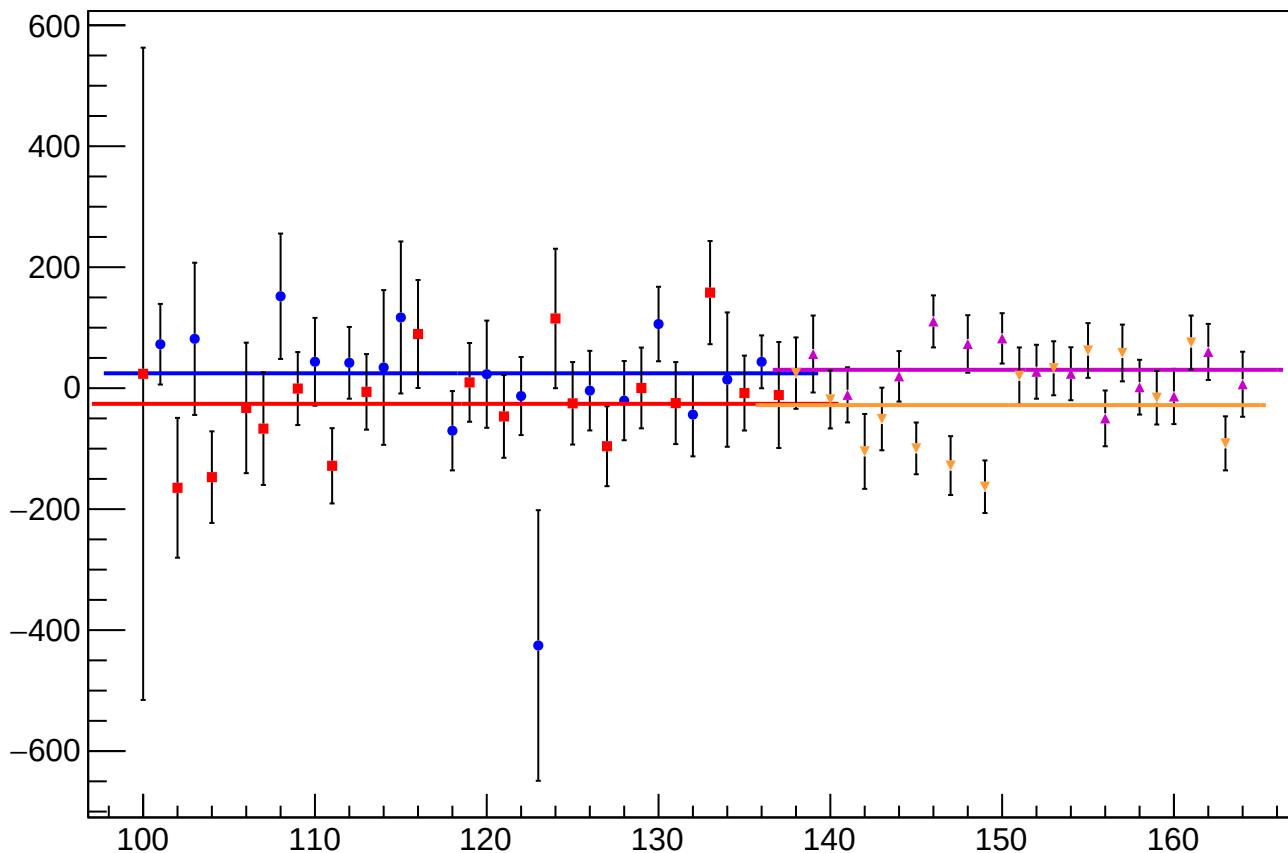
Left In: 354.188 $\pm$ 0.079  $\chi^2$ /NDF: 223881.7/12

+ sign 384.215 $\pm$ 0.067  $\chi^2$ /NDF: 1649050.5/30

All: 385.582 $\pm$ 0.048  $\chi^2$ /NDF: 3275729.3/62

- sign 386.952 $\pm$ 0.067  $\chi^2$ /NDF: 1625849.9/31

# reg\_asym\_sam\_15\_37\_dd\_mean vs Slug



Right In:  $24.584 \pm 17.839$   $\chi^2/\text{NDF}: 13.0/16$

Left Out:  $-27.987 \pm 12.631$   $\chi^2/\text{NDF}: 37.0/13$

Right Out:  $-25.884 \pm 17.386$   $\chi^2/\text{NDF}: 16.8/18$

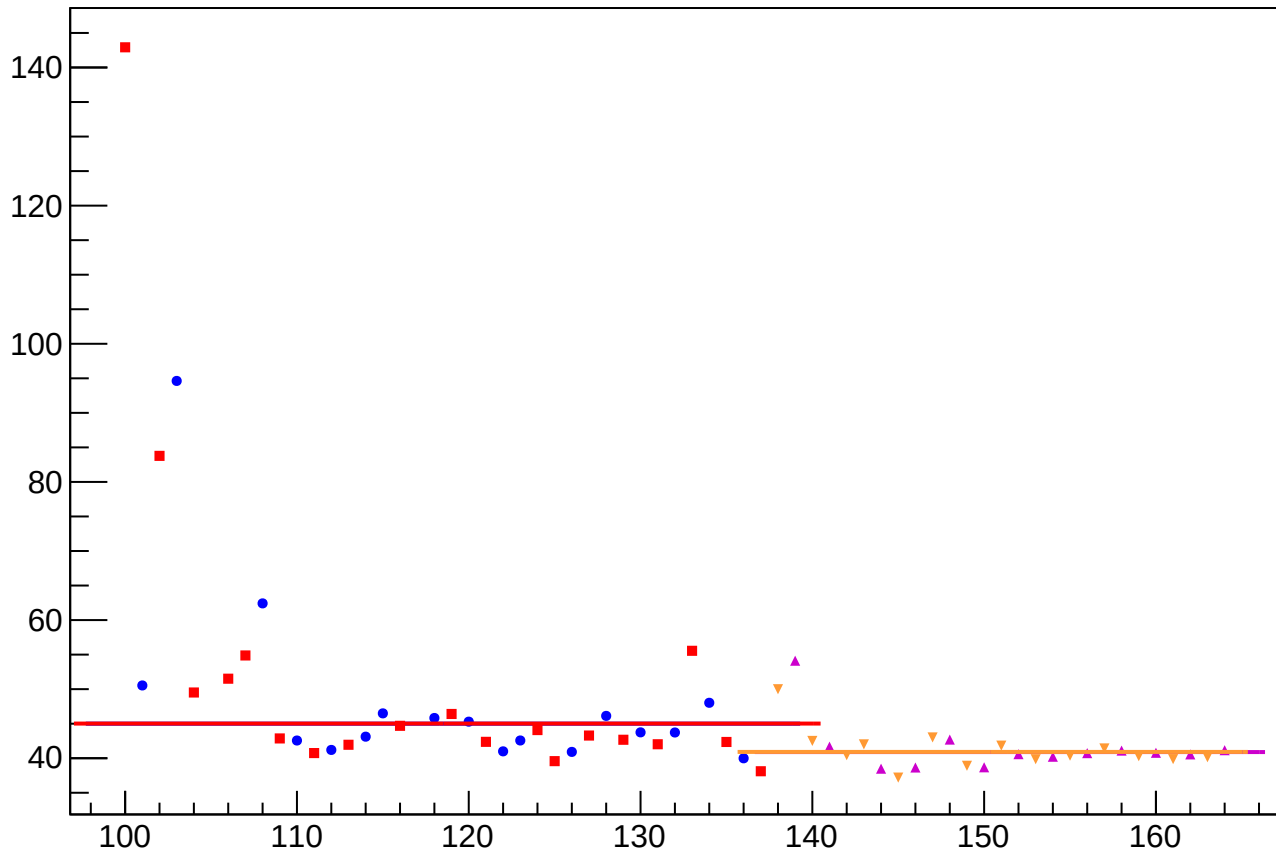
Left In:  $30.368 \pm 12.767$   $\chi^2/\text{NDF}: 11.9/12$

+ sign  $-10.432 \pm 10.309$   $\chi^2/\text{NDF}: 55.8/30$

All:  $0.134 \pm 7.283$   $\chi^2/\text{NDF}: 93.3/62$

- sign  $10.663 \pm 10.290$   $\chi^2/\text{NDF}: 35.5/31$

# reg\_asym\_sam\_15\_37\_dd\_rms vs Slug



Right In: 45.001 $\pm$ 0.013  $\chi^2$ /NDF: 438352.8/16

Left Out: 40.913 $\pm$ 0.009  $\chi^2$ /NDF: 78107.7/13

Right Out: 45.017 $\pm$ 0.012  $\chi^2$ /NDF: 415509.0/18

Left In: 40.892 $\pm$ 0.009  $\chi^2$ /NDF: 108377.9/12

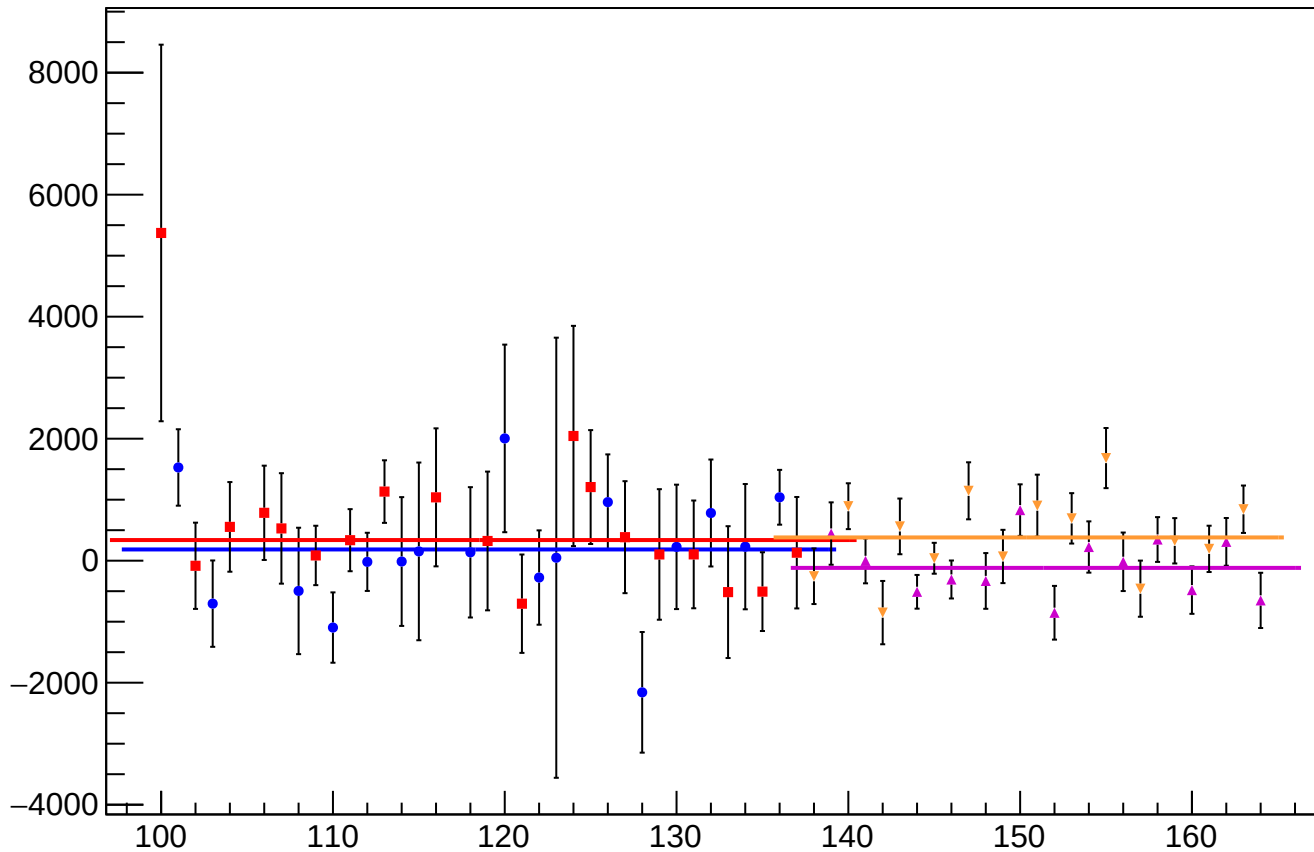
+ sign 42.278 $\pm$ 0.007  $\chi^2$ /NDF: 586408.9/30

All: 42.308 $\pm$ 0.005  $\chi^2$ /NDF: 1183484.2/62

- sign 42.337 $\pm$ 0.007  $\chi^2$ /NDF: 597043.0/31



# asym\_sam\_15\_37\_dd\_correction\_mean vs Slug



Right In: 184.184 $\pm$ 188.558  $\chi^2/\text{NDF}$ : 24.2/16

Left Out: 381.108 $\pm$ 108.341  $\chi^2/\text{NDF}$ : 28.2/13

Right Out: 338.329 $\pm$ 179.381  $\chi^2/\text{NDF}$ : 12.5/18

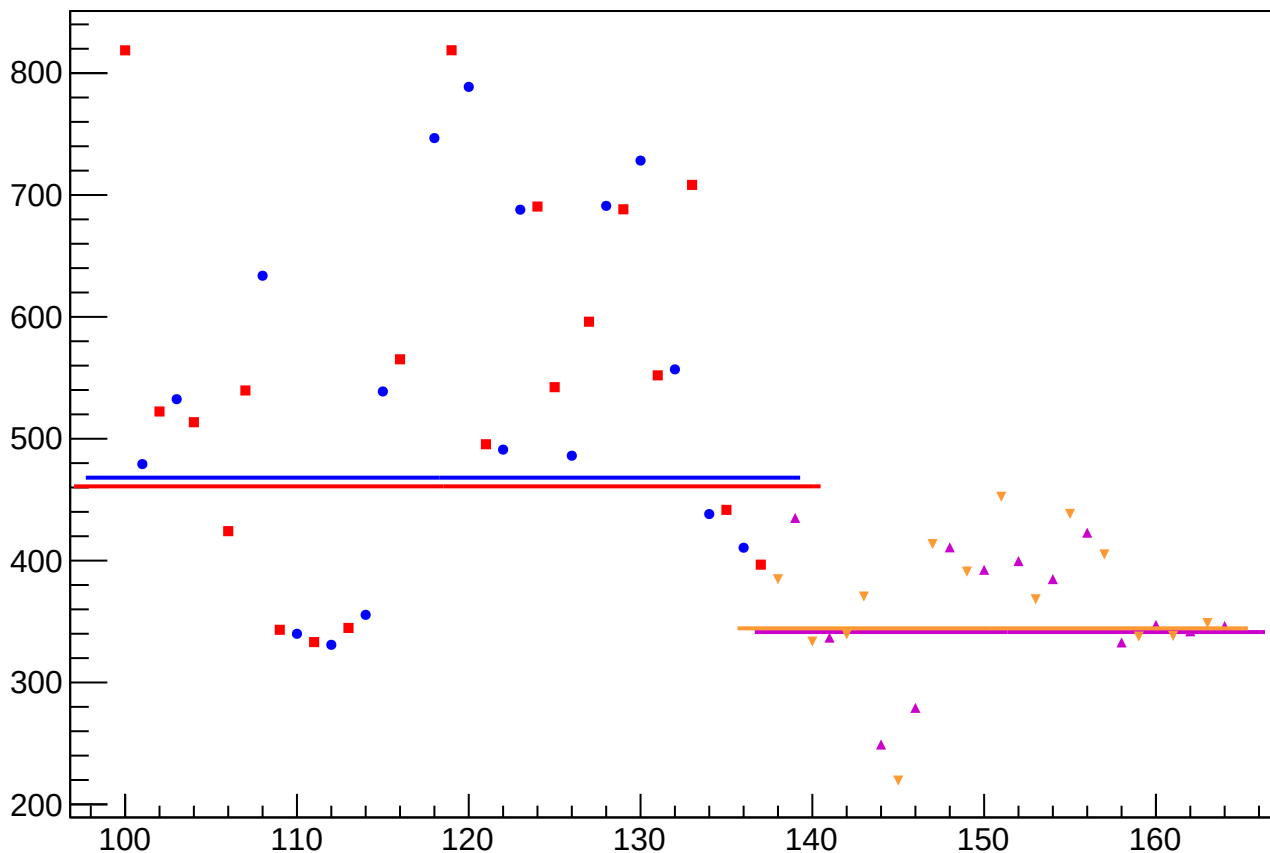
Left In: -117.952 $\pm$ 108.076  $\chi^2/\text{NDF}$ : 17.5/12

+ sign 332.232 $\pm$ 93.938  $\chi^2/\text{NDF}$ : 53.2/30

All: 165.493 $\pm$ 65.936  $\chi^2/\text{NDF}$ : 94.2/62

- sign 3.567 $\pm$ 92.573  $\chi^2/\text{NDF}$ : 34.7/31

# asym\_sam\_15\_37\_dd\_correction\_rms vs Slug



Right In: 468.071 $\pm$ 0.133  $\chi^2$ /NDF: 880319.3/16

Left Out: 344.448 $\pm$ 0.077  $\chi^2$ /NDF: 782895.9/13

Right Out: 460.939 $\pm$ 0.127  $\chi^2$ /NDF: 955028.5/18

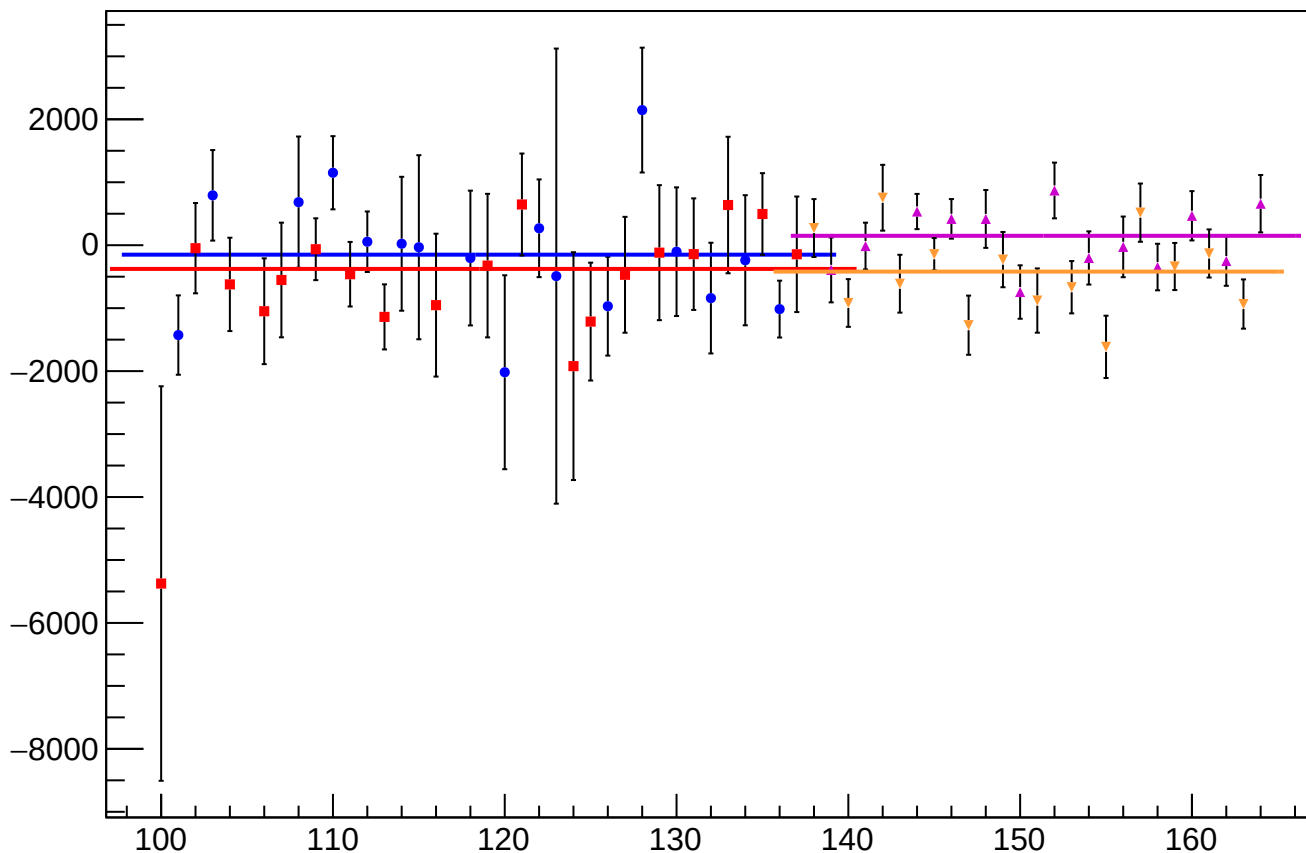
Left In: 341.376 $\pm$ 0.076  $\chi^2$ /NDF: 561508.0/12

+ sign 375.131 $\pm$ 0.066  $\chi^2$ /NDF: 2309531.3/30

All: 374.161 $\pm$ 0.047  $\chi^2$ /NDF: 4478382.1/62

- sign 373.219 $\pm$ 0.065  $\chi^2$ /NDF: 2168430.2/31

# asym\_sam\_15\_37\_dd\_mean vs Slug



Right In:  $-150.305 \pm 189.729$   $\chi^2/\text{NDF}$ : 24.2/16

Left Out:  $-419.412 \pm 109.191$   $\chi^2/\text{NDF}$ : 27.3/13

Right Out:  $-376.554 \pm 181.258$   $\chi^2/\text{NDF}$ : 12.4/18

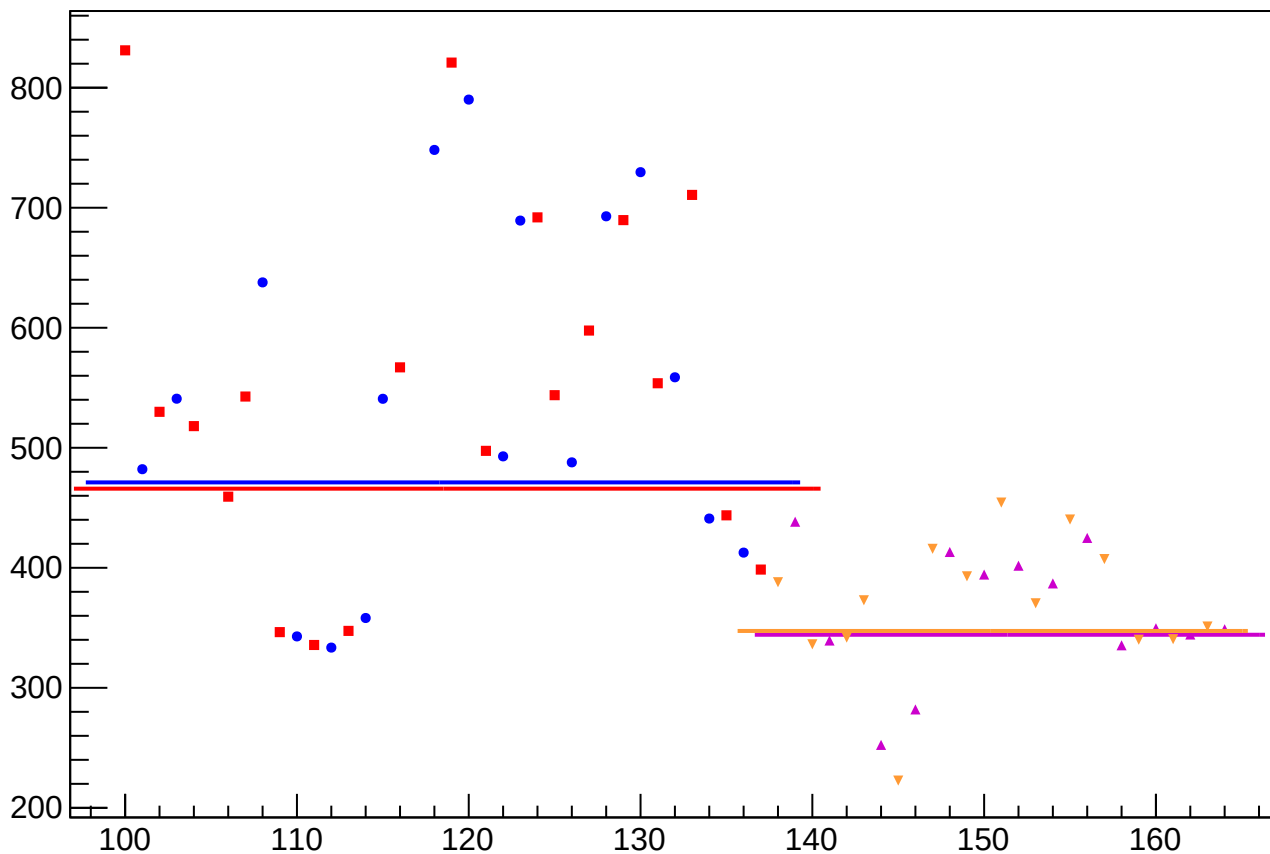
Left In:  $149.392 \pm 108.921$   $\chi^2/\text{NDF}$ : 16.9/12

+ sign  $-352.456 \pm 94.638$   $\chi^2/\text{NDF}$ : 53.0/30

All:  $-168.839 \pm 66.463$   $\chi^2/\text{NDF}$ : 95.9/62

- sign  $9.858 \pm 93.361$   $\chi^2/\text{NDF}$ : 35.5/31

# asym\_sam\_15\_37\_dd\_rms vs Slug



Right In: 471.156 $\pm$ 0.134  $\chi^2$ /NDF: 871832.5/16

Left Out: 347.379 $\pm$ 0.077  $\chi^2$ /NDF: 758157.4/13

Right Out: 465.935 $\pm$ 0.128  $\chi^2$ /NDF: 940521.6/18

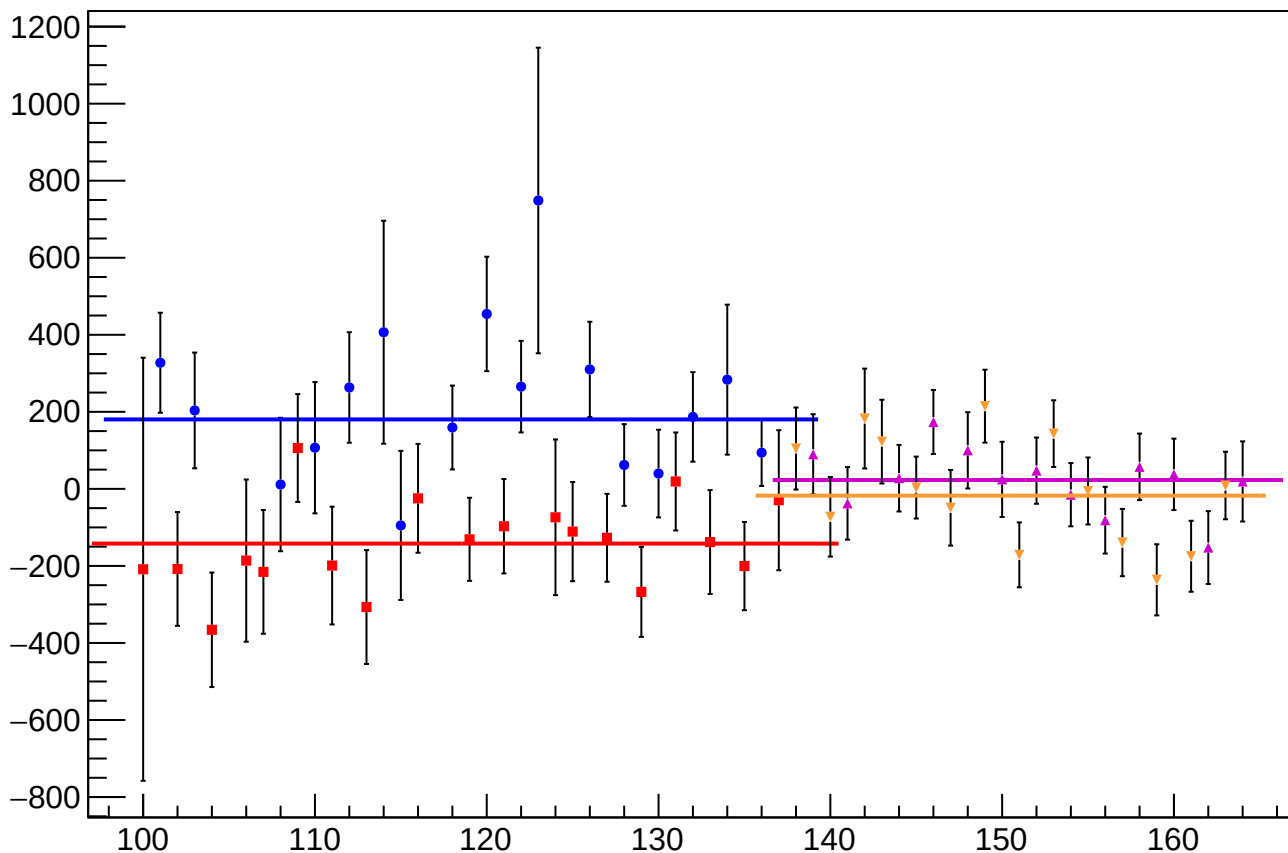
Left In: 344.212 $\pm$ 0.077  $\chi^2$ /NDF: 545406.7/12

+ sign 378.175 $\pm$ 0.067  $\chi^2$ /NDF: 2269424.6/30

All: 377.329 $\pm$ 0.047  $\chi^2$ /NDF: 4418332.9/62

- sign 376.505 $\pm$ 0.066  $\chi^2$ /NDF: 2148592.6/31

# reg\_asym\_sam\_24\_68\_dd\_mean vs Slug



Right In: 180.326 $\pm$ 32.769  $\chi^2$ /NDF: 16.6/16

Left Out: -17.523 $\pm$ 25.010  $\chi^2$ /NDF:29.2/13

Right Out: -142.040 $\pm$ 32.338  $\chi^2$ /NDF: 11.7/18

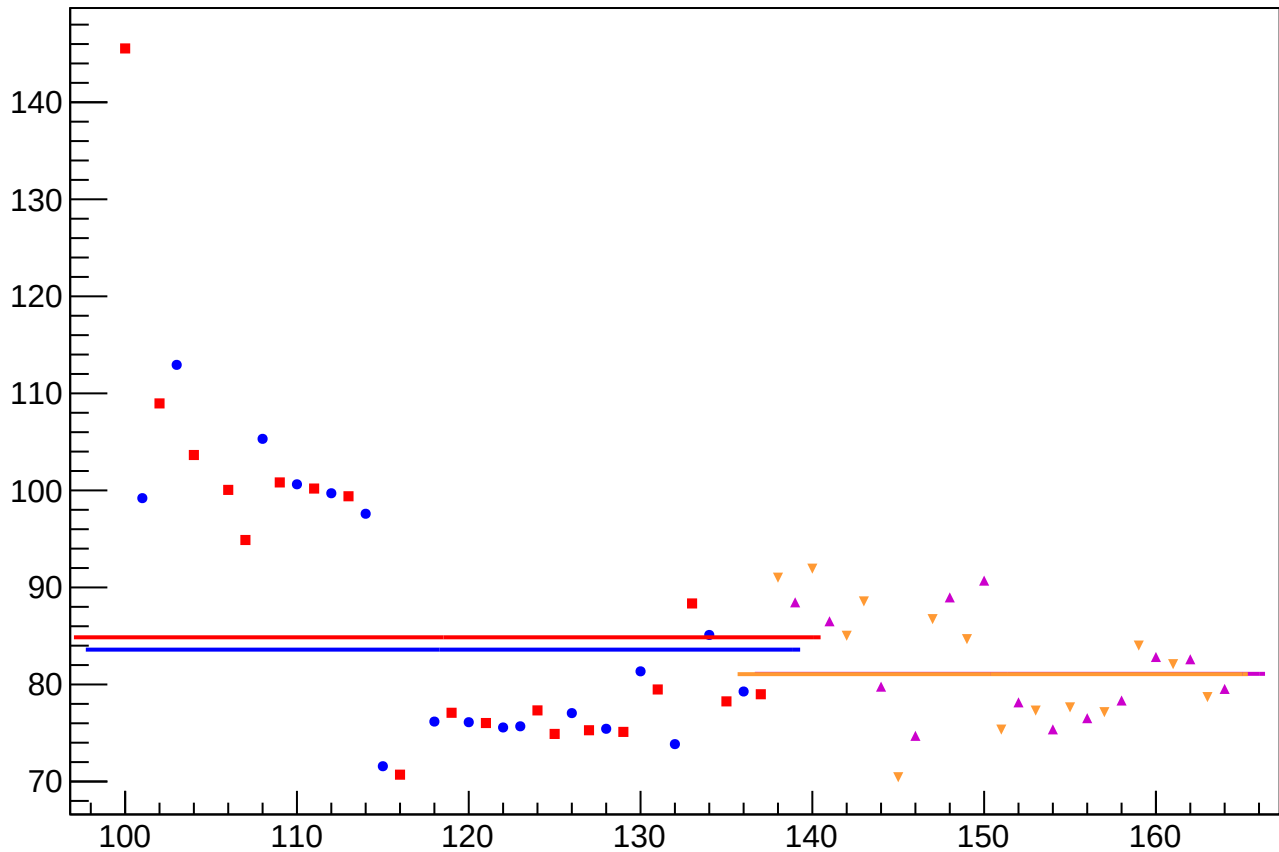
Left In: 22.973 $\pm$ 25.295  $\chi^2$ /NDF:10.1/12

+ sign 55.304 $\pm$ 19.881  $\chi^2$ /NDF: 68.8/30

All: 7.921 $\pm$ 14.073  $\chi^2$ /NDF: 118.1/62

- sign -39.664 $\pm$ 19.924  $\chi^2$ /NDF: 37.9/31

# reg\_asym\_sam\_24\_68\_dd\_rms vs Slug



Right In: 83.591 $\pm$ 0.023  $\chi^2$ /NDF: 255921.7/16

Left Out: 81.063 $\pm$ 0.018  $\chi^2$ /NDF:119304.5/13

Right Out: 84.861 $\pm$ 0.023  $\chi^2$ /NDF: 290606.5/18

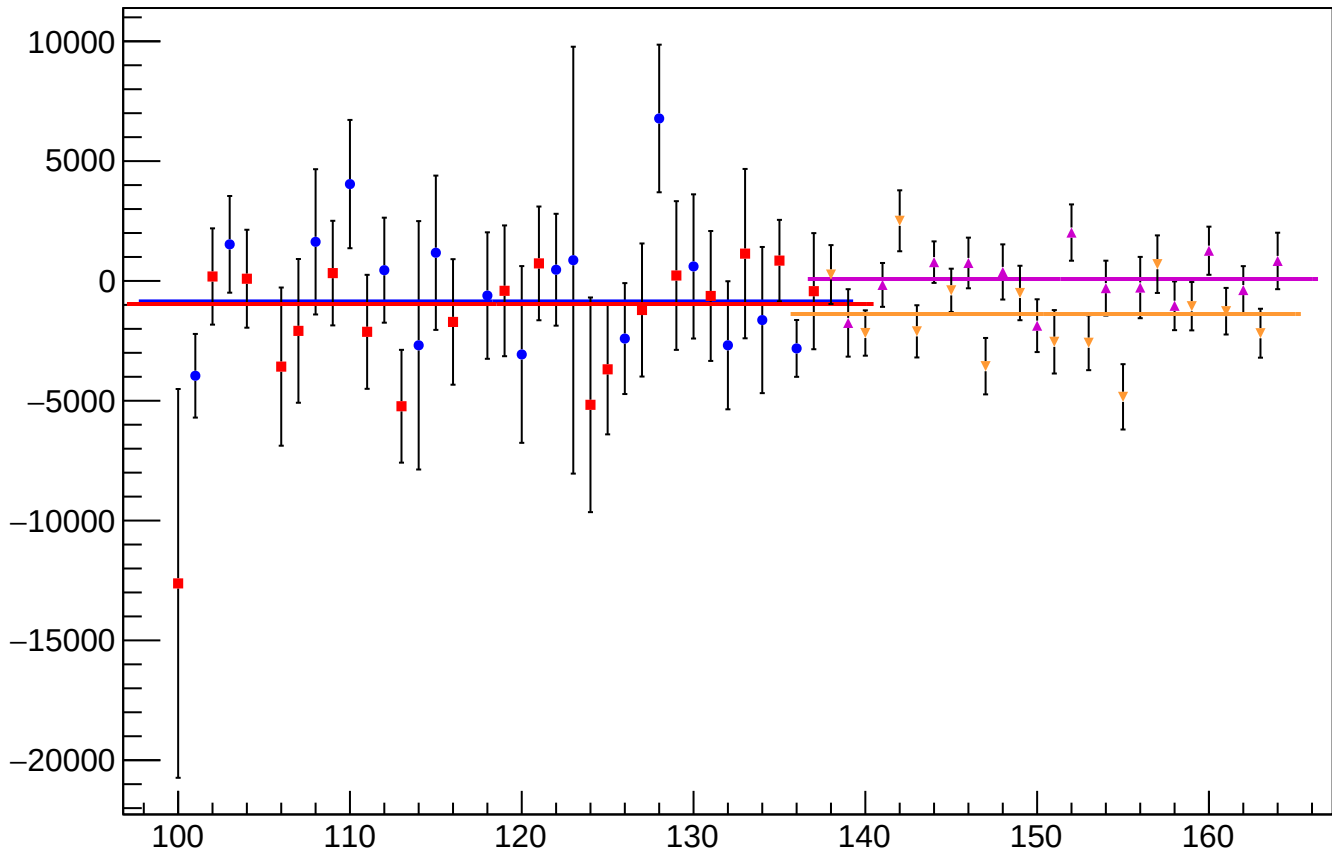
Left In: 81.096 $\pm$ 0.018  $\chi^2$ /NDF:82289.0/12

+ sign 81.994 $\pm$ 0.014  $\chi^2$ /NDF: 382744.9/30

All: 82.259 $\pm$ 0.010  $\chi^2$ /NDF: 773172.4/62

- sign 82.525 $\pm$ 0.014  $\chi^2$ /NDF: 389713.6/31

# asym\_sam\_24\_68\_dd\_correction\_mean vs Slug



Right In: -855.308 $\pm$ 583.290  $\chi^2/\text{NDF}$ : 20.3/16

Left Out: -1379.934 $\pm$ 294.511  $\chi^2/\text{NDF}$ : 29.5/13

Right Out: -962.932 $\pm$ 589.071  $\chi^2/\text{NDF}$ : 11.5/18

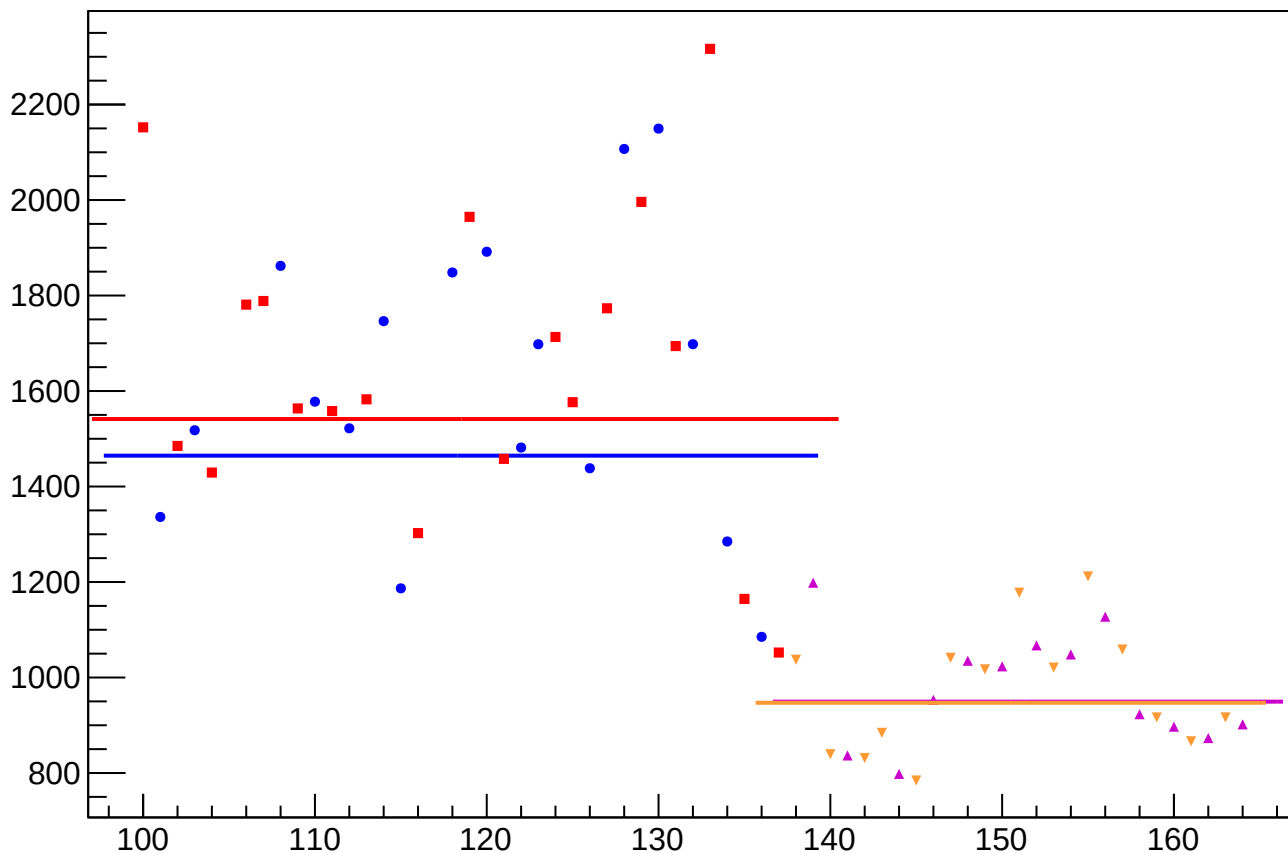
Left In: 80.578 $\pm$ 297.713  $\chi^2/\text{NDF}$ : 12.1/12

+ sign -1273.358 $\pm$ 262.900  $\chi^2/\text{NDF}$ : 50.5/30

All: -708.606 $\pm$ 186.883  $\chi^2/\text{NDF}$ : 86.0/62

- sign -131.730 $\pm$ 265.707  $\chi^2/\text{NDF}$ : 26.2/31

# asym\_sam\_24\_68\_dd\_correction\_rms vs Slug



Right In: 1464.636 $\pm$ 0.412  $\chi^2$ /NDF: 560863.4/16

Left Out: 947.113 $\pm$ 0.208  $\chi^2$ /NDF:324303.0/13

Right Out: 1541.388 $\pm$ 0.417  $\chi^2$ /NDF: 453710.5/18

Left In: 949.474 $\pm$ 0.211  $\chi^2$ /NDF:269412.7/12

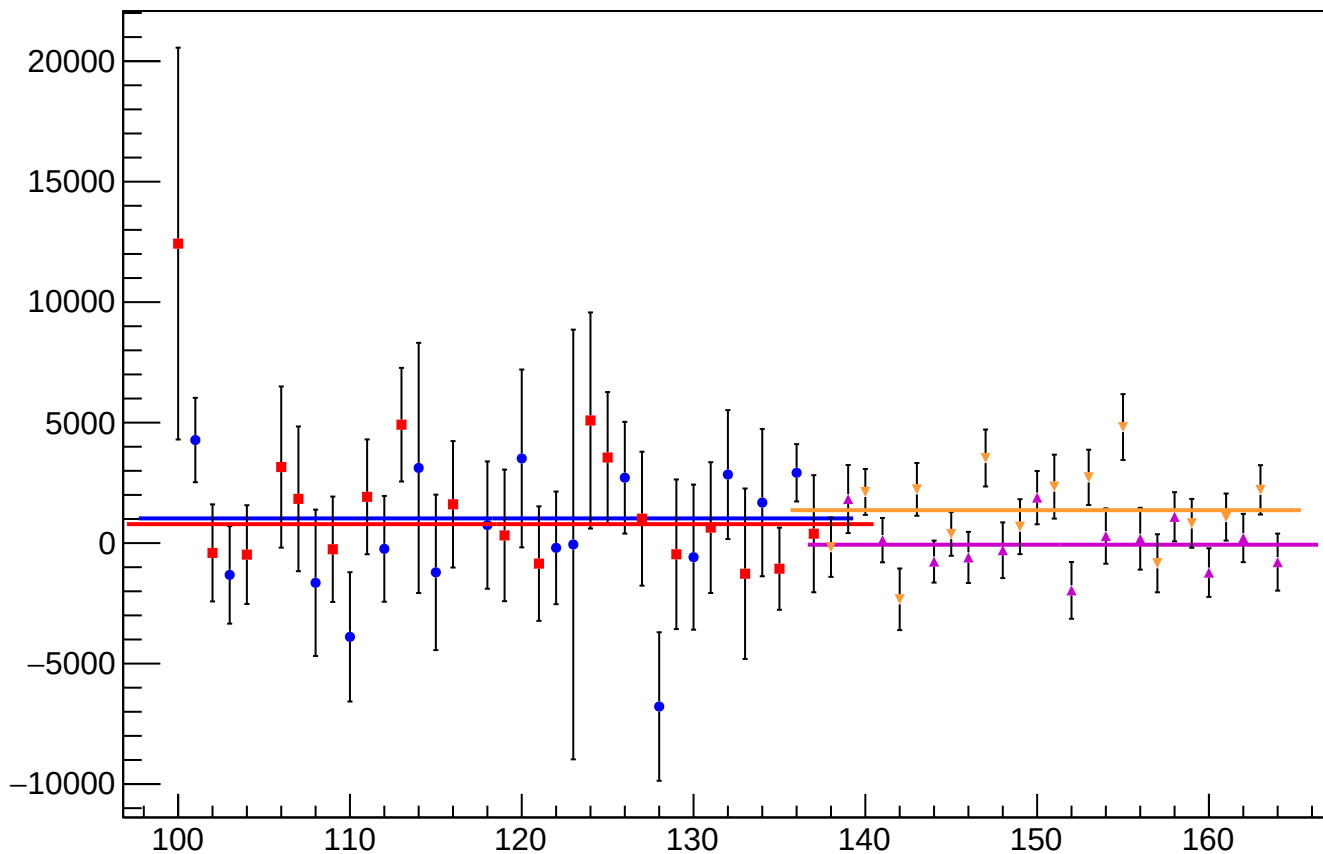
+ sign 1052.247 $\pm$ 0.186  $\chi^2$ /NDF: 2139741.5/30

All: 1060.981 $\pm$ 0.132  $\chi^2$ /NDF: 4475832.0/62

- sign 1069.902 $\pm$ 0.188  $\chi^2$ /NDF: 2331628.5/31



# asym\_sam\_24\_68\_dd\_mean vs Slug



Right In: 1025.527+/-584.500  $\chi^2/\text{NDF}$ : 20.9/16

Left Out: 1366.667+/-295.701  $\chi^2/\text{NDF}$ : 28.8/13

Right Out: 787.007+/-590.388  $\chi^2/\text{NDF}$ : 11.2/18

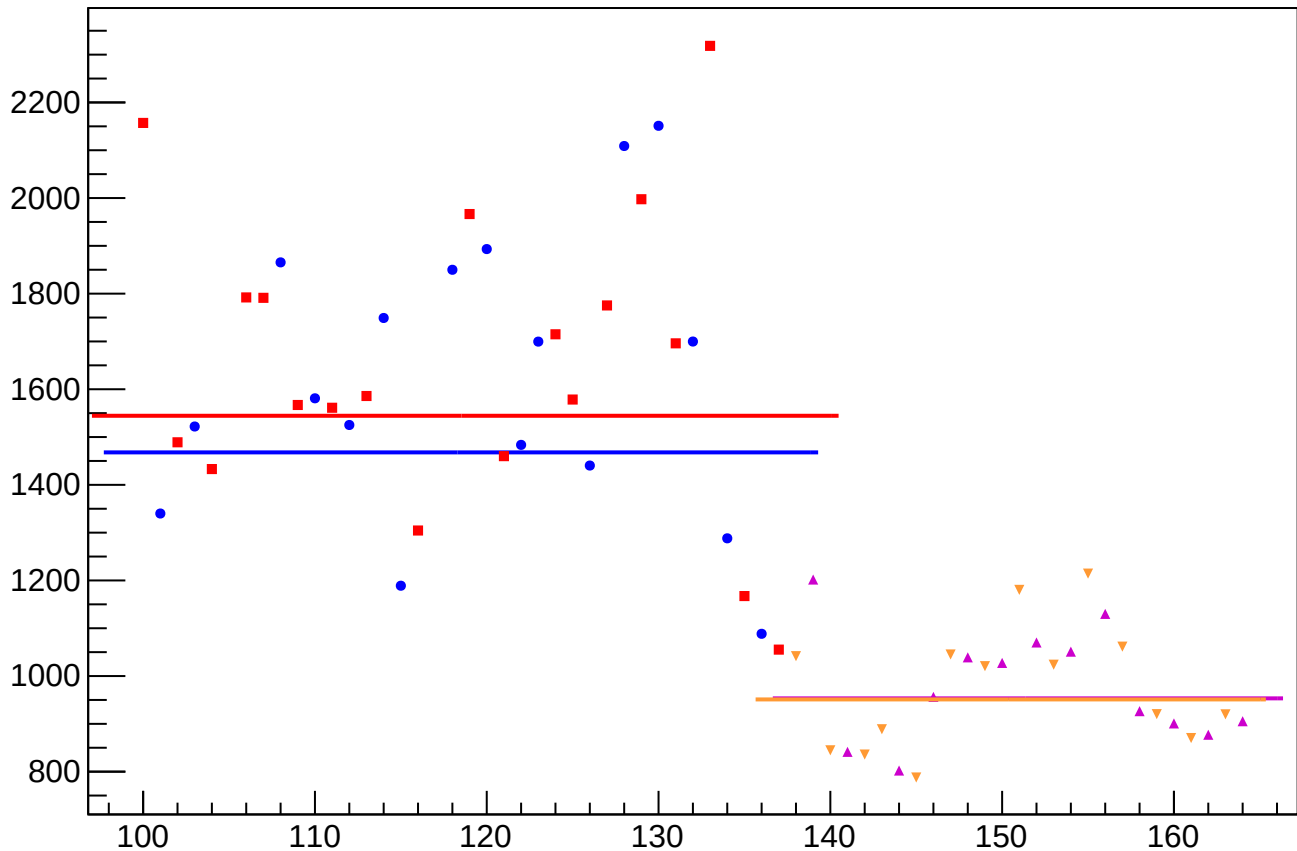
Left In: -66.397+/-298.886  $\chi^2/\text{NDF}$ : 11.7/12

+ sign 1297.148+/-263.857  $\chi^2/\text{NDF}$ : 50.0/30

All: 708.714+/-187.558  $\chi^2/\text{NDF}$ : 84.6/62

- sign 107.704+/-266.661  $\chi^2/\text{NDF}$ : 24.5/31

# asym\_sam\_24\_68\_dd\_rms vs Slug



Right In: 1467.905 $\pm$ 0.413  $\chi^2/\text{NDF}$ : 557458.9/16

Left Out: 951.093 $\pm$ 0.209  $\chi^2/\text{NDF}$ : 319652.8/13

Right Out: 1544.513 $\pm$ 0.417  $\chi^2/\text{NDF}$ : 451805.9/18

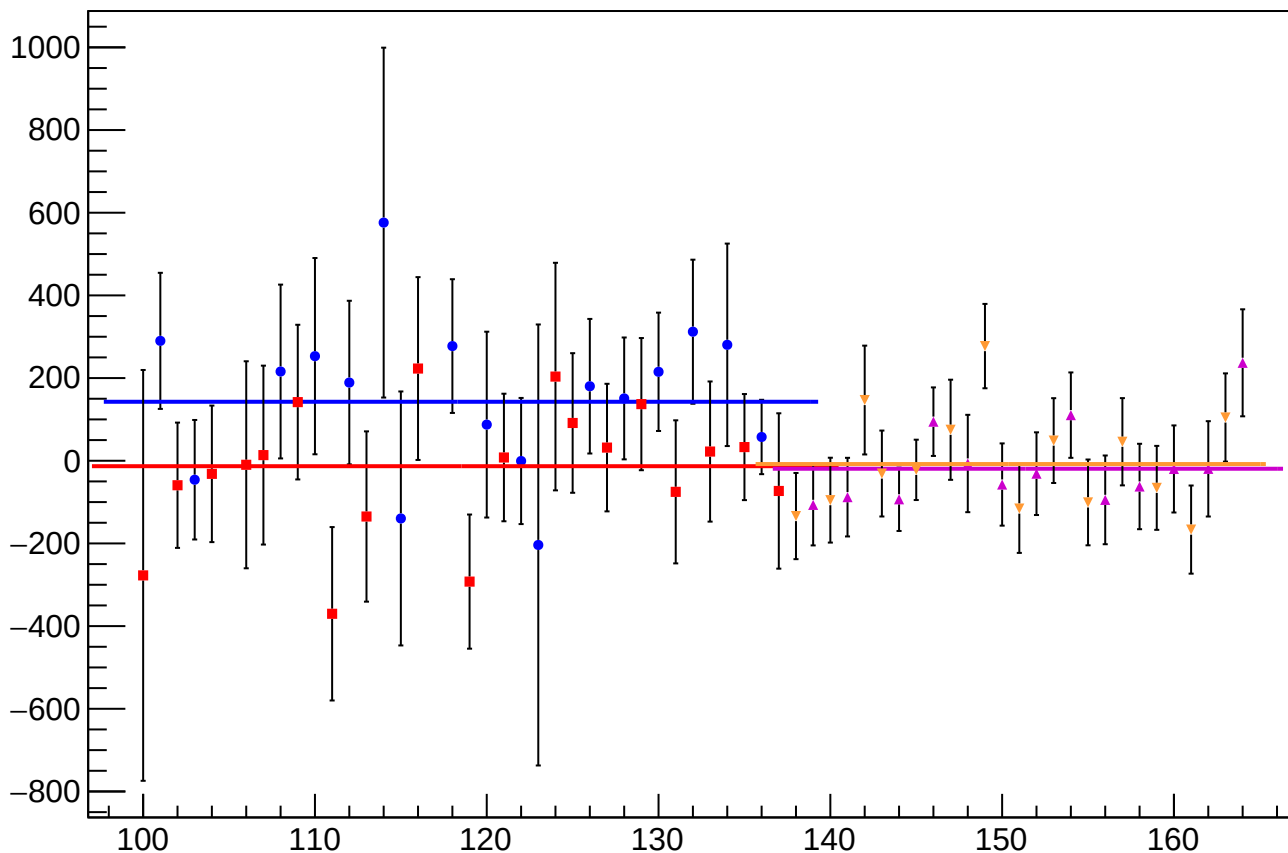
Left In: 953.332 $\pm$ 0.211  $\chi^2/\text{NDF}$ : 265475.8/12

+ sign 1056.410 $\pm$ 0.187  $\chi^2/\text{NDF}$ : 2122082.3/30

All: 1065.081 $\pm$ 0.133  $\chi^2/\text{NDF}$ : 4440001.2/62

- sign 1073.937 $\pm$ 0.189  $\chi^2/\text{NDF}$ : 2313553.3/31

# reg\_asym\_sam\_26\_48\_dd\_mean vs Slug



Right In: 142.683 $\pm$ 41.625  $\chi^2$ /NDF: 9.3/16

Left Out: -7.980 $\pm$ 27.456  $\chi^2$ /NDF:18.0/13

Right Out: -13.177 $\pm$ 41.396  $\chi^2$ /NDF: 10.8/18

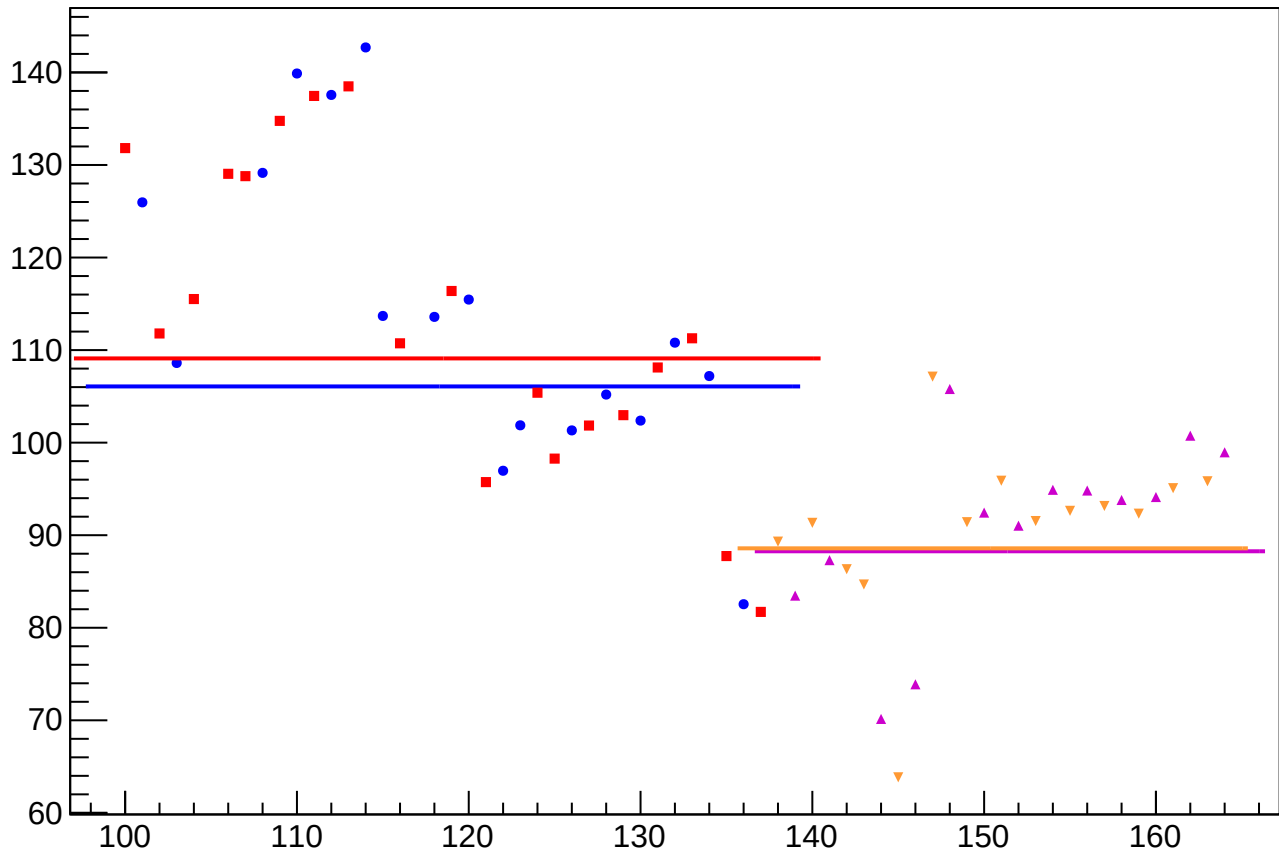
Left In: -19.343 $\pm$ 27.704  $\chi^2$ /NDF:10.5/12

+ sign 37.697 $\pm$ 22.919  $\chi^2$ /NDF: 36.4/30

All: 10.256 $\pm$ 16.243  $\chi^2$ /NDF: 60.6/62

- sign -17.436 $\pm$ 23.024  $\chi^2$ /NDF: 21.3/31

# reg\_asym\_sam\_26\_48\_dd\_rms vs Slug



Right In: 106.074 $\pm$ 0.029  $\chi^2$ /NDF: 317907.9/16

Left Out: 88.581 $\pm$ 0.019  $\chi^2$ /NDF:320364.3/13

Right Out: 109.100 $\pm$ 0.029  $\chi^2$ /NDF: 285394.8/18

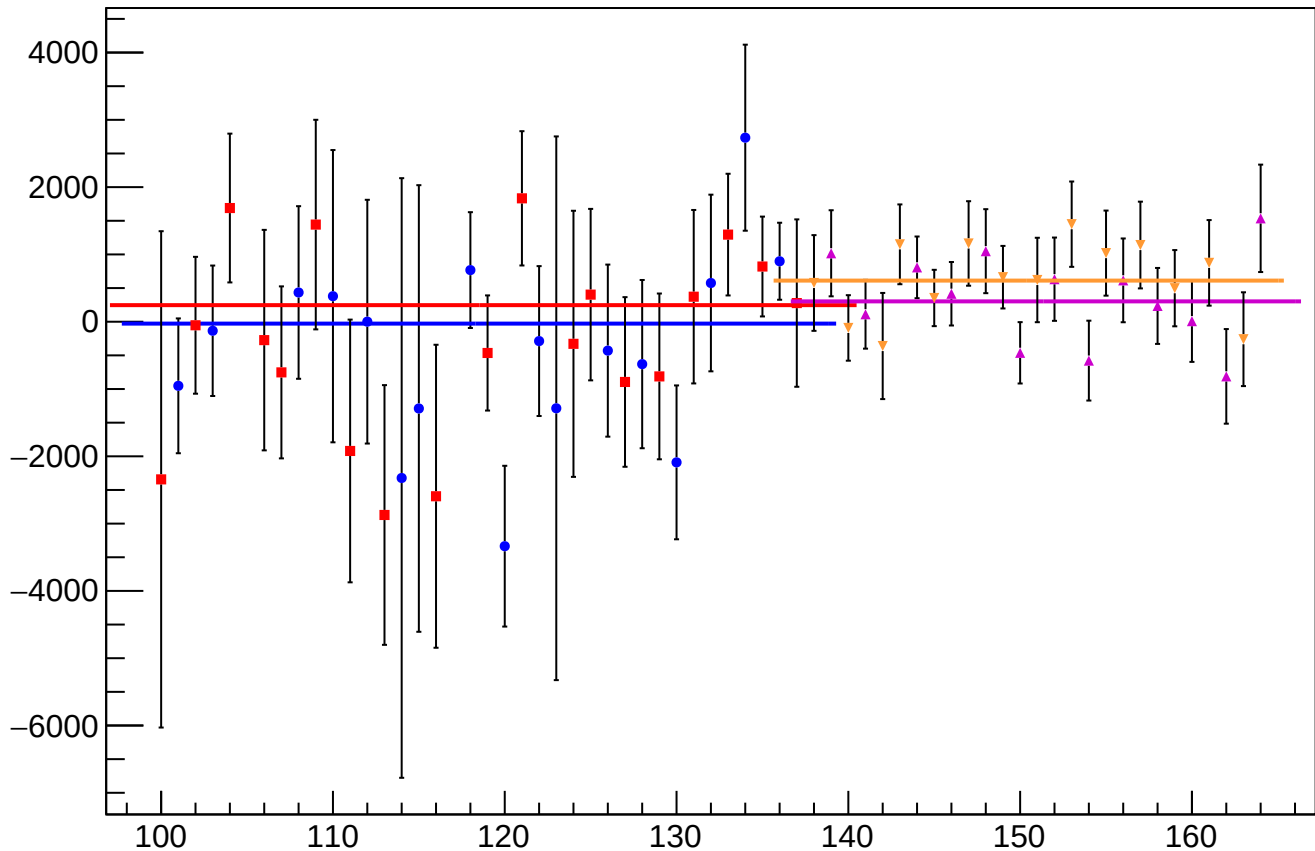
Left In: 88.263 $\pm$ 0.020  $\chi^2$ /NDF:291095.9/12

+ sign 93.884 $\pm$ 0.016  $\chi^2$ /NDF: 884394.2/30

All: 94.295 $\pm$ 0.011  $\chi^2$ /NDF: 1812166.5/62

- sign 94.709 $\pm$ 0.016  $\chi^2$ /NDF: 926483.8/31

# asym\_sam\_26\_48\_dd\_correction\_mean vs Slug



Right In:  $-27.969 \pm 283.741$   $\chi^2/\text{NDF}$ : 20.5/16

Left Out:  $611.203 \pm 155.954$   $\chi^2/\text{NDF}$ : 10.2/13

Right Out:  $246.386 \pm 279.451$   $\chi^2/\text{NDF}$ : 15.9/18

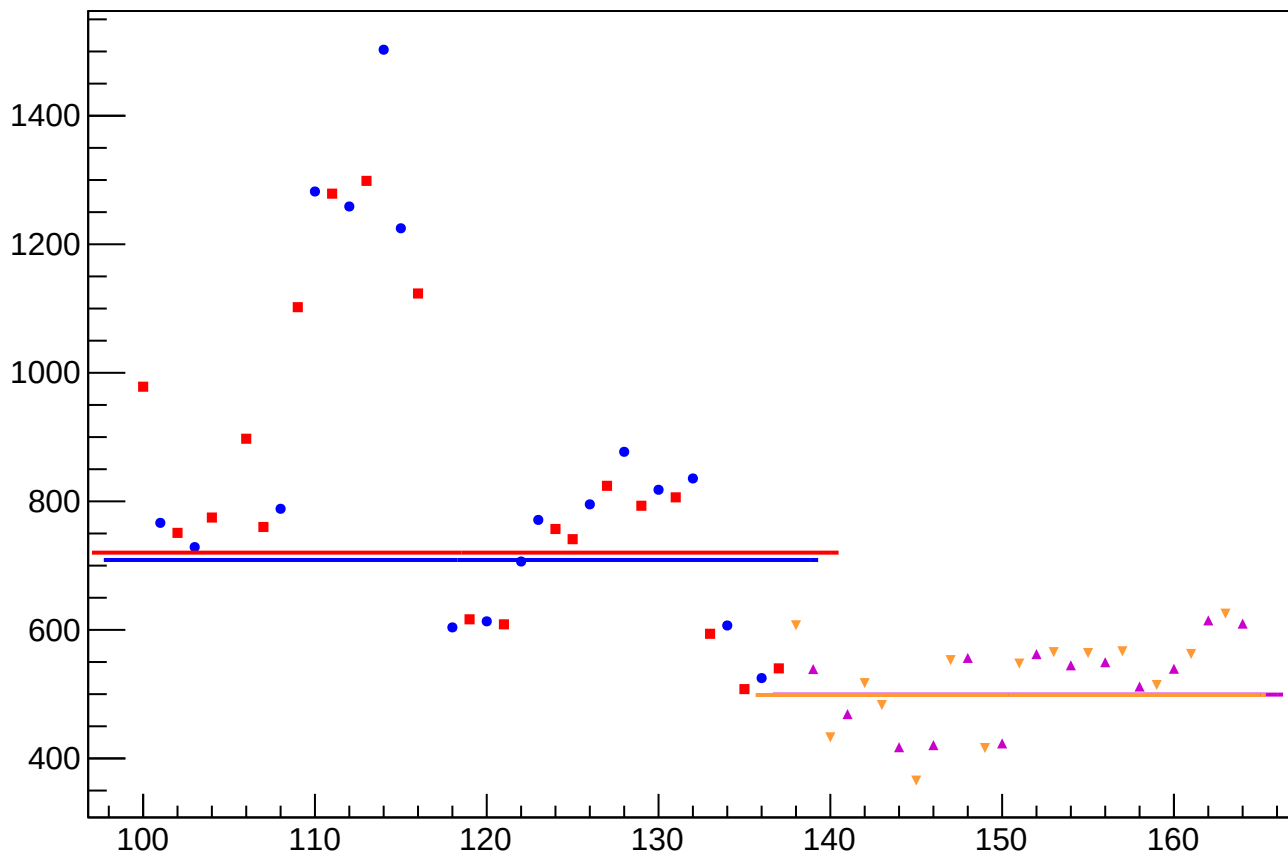
Left In:  $302.416 \pm 157.329$   $\chi^2/\text{NDF}$ : 14.8/12

+ sign  $462.909 \pm 136.671$   $\chi^2/\text{NDF}$ : 34.6/30

All:  $376.189 \pm 96.791$   $\chi^2/\text{NDF}$ : 66.1/62

- sign  $288.931 \pm 137.095$   $\chi^2/\text{NDF}$ : 30.7/31

# asym\_sam\_26\_48\_dd\_correction\_rms vs Slug



Right In: 708.784+/-0.201  $\chi^2/\text{NDF}$ : 793538.1/16

Left Out: 498.691+/-0.110  $\chi^2/\text{NDF}$ : 531698.5/13

Right Out: 720.201+/-0.198  $\chi^2/\text{NDF}$ : 899934.4/18

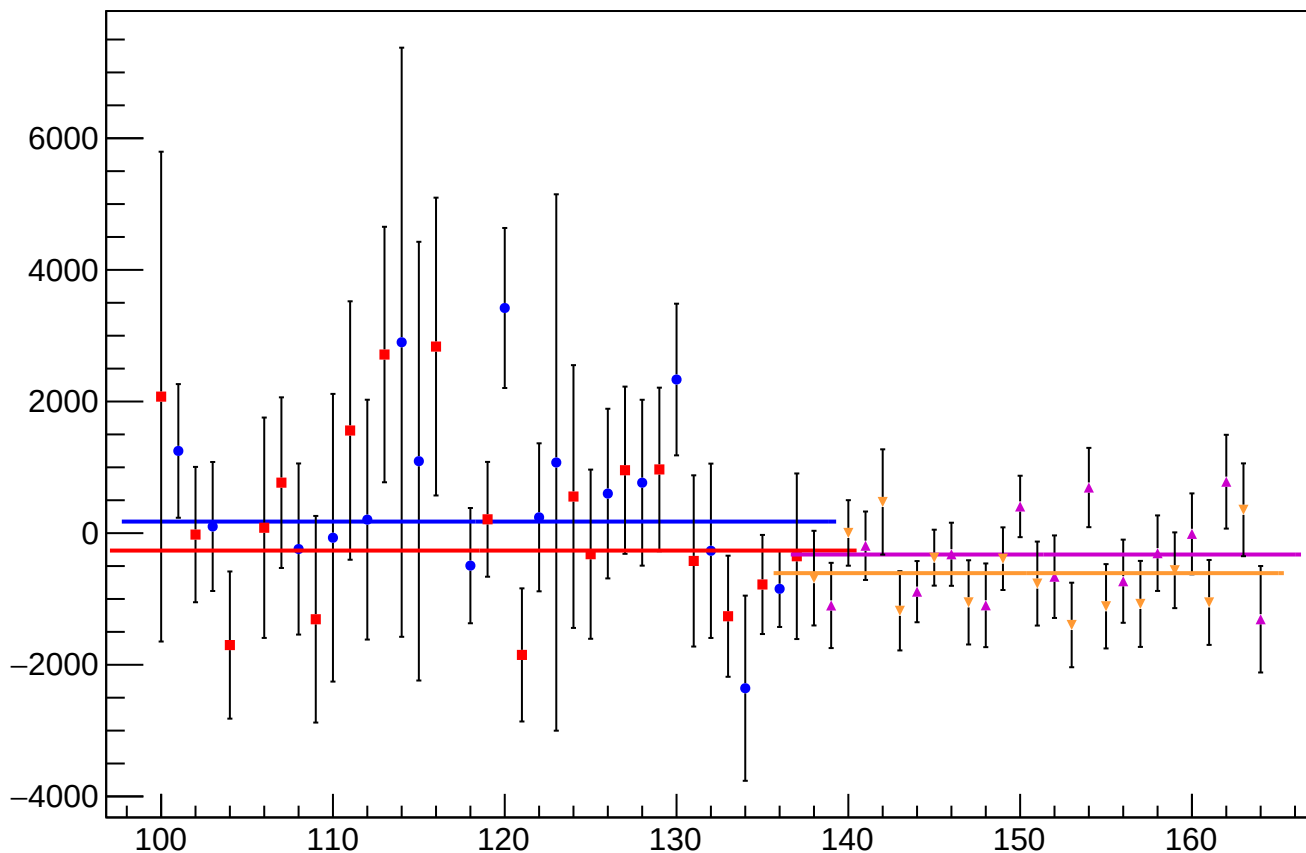
Left In: 499.315+/-0.111  $\chi^2/\text{NDF}$ : 354110.9/12

+ sign 547.435+/-0.097  $\chi^2/\text{NDF}$ : 2167336.6/30

All: 549.948+/-0.068  $\chi^2/\text{NDF}$ : 4371558.8/62

- sign 552.477+/-0.097  $\chi^2/\text{NDF}$ : 2202865.4/31

# asym\_sam\_26\_48\_dd\_mean vs Slug



Right In: 175.854 $\pm$ 287.218  $\chi^2$ /NDF: 19.7/16

Left Out: -607.642 $\pm$ 158.548  $\chi^2$ /NDF:10.3/13

Right Out: -264.622 $\pm$ 283.074  $\chi^2$ /NDF: 14.8/18

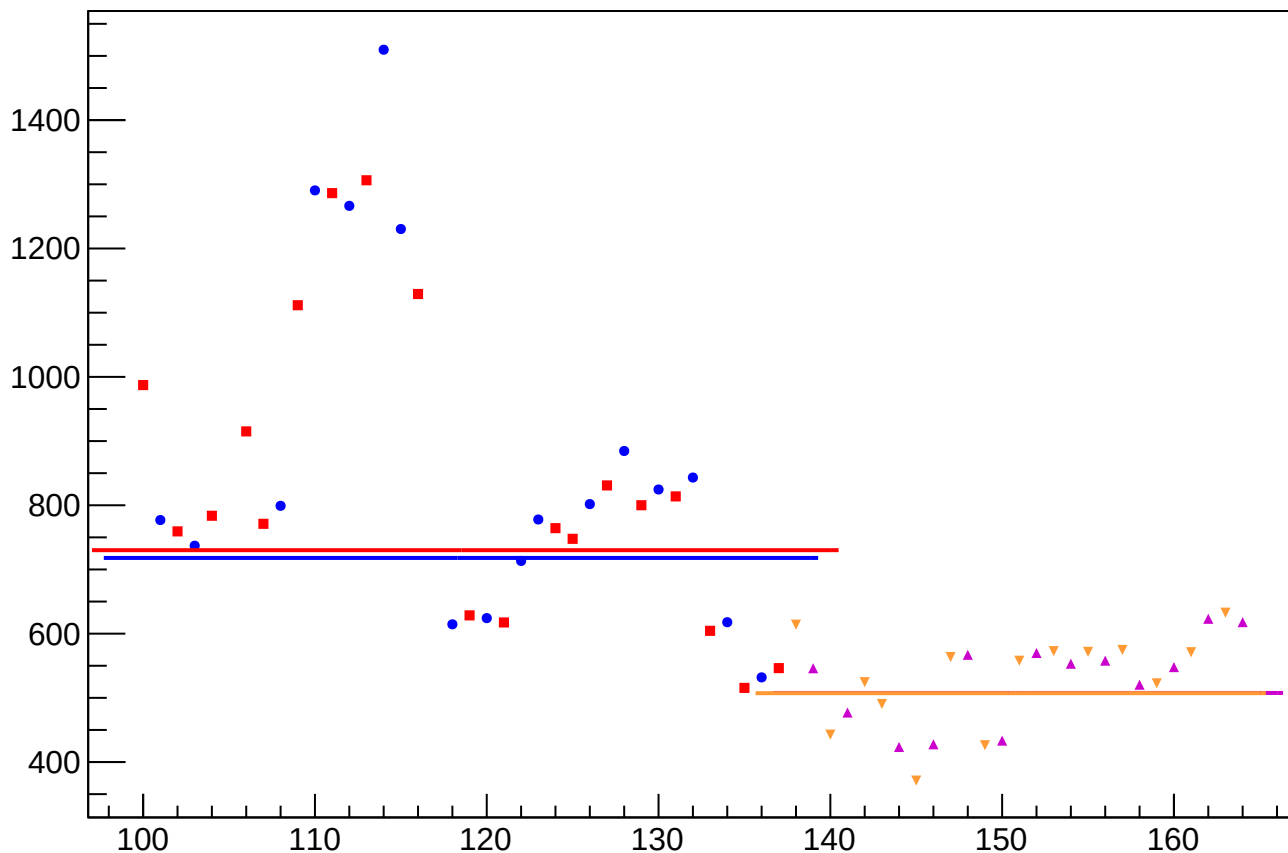
Left In: -324.675 $\pm$ 159.893  $\chi^2$ /NDF:14.6/12

+ sign -424.655 $\pm$ 138.804  $\chi^2$ /NDF: 35.7/30

All: -367.573 $\pm$ 98.296  $\chi^2$ /NDF: 65.5/62

- sign -310.149 $\pm$ 139.219  $\chi^2$ /NDF: 29.4/31

# asym\_sam\_26\_48\_dd\_rms vs Slug



Right In: 717.973+/-0.203  $\chi^2/\text{NDF}$ : 778580.1/16

Left Out: 507.276+/-0.112  $\chi^2/\text{NDF}$ : 518215.9/13

Right Out: 730.040+/-0.200  $\chi^2/\text{NDF}$ : 881842.0/18

Left In: 507.628+/-0.113  $\chi^2/\text{NDF}$ : 346448.9/12

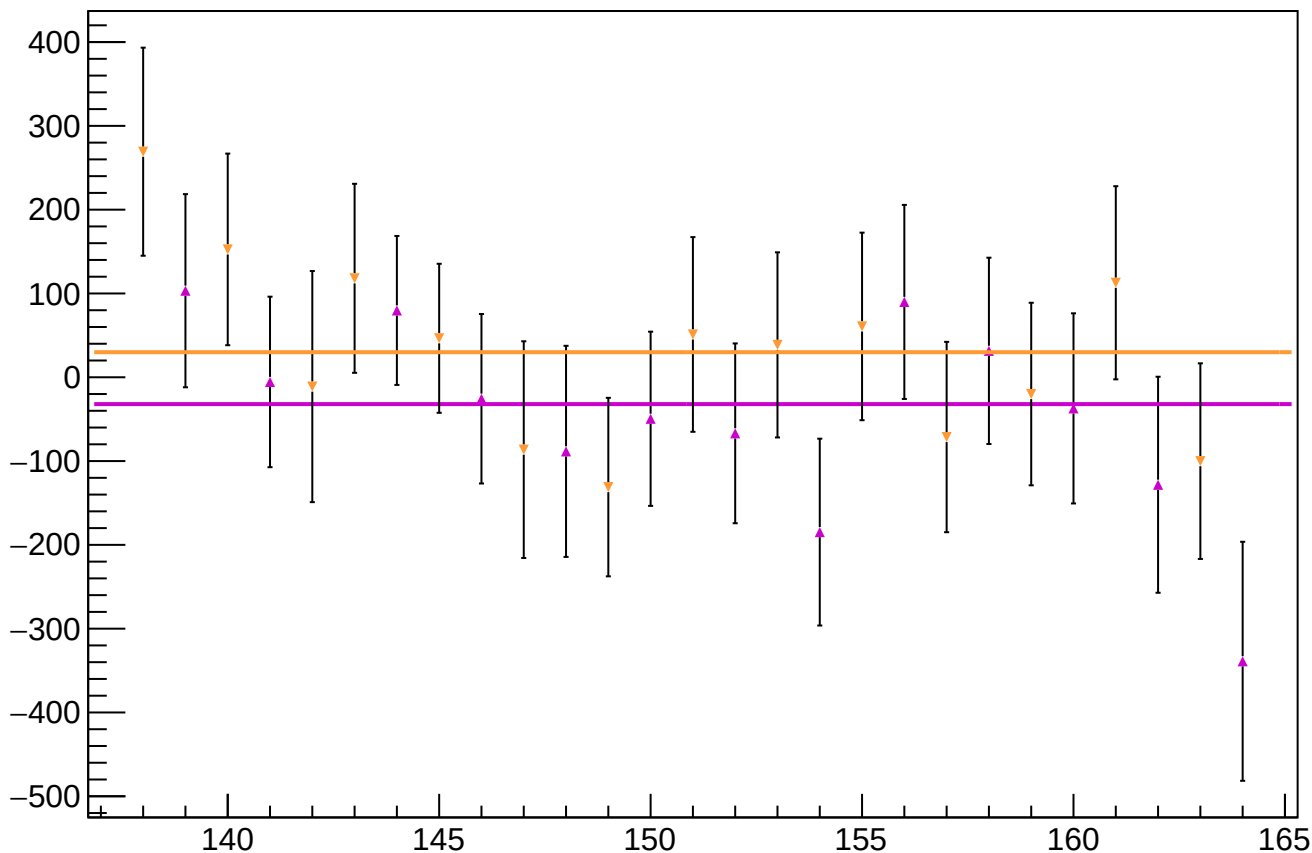
+ sign 556.484+/-0.098  $\chi^2/\text{NDF}$ : 2121709.0/30

All: 558.947+/-0.070  $\chi^2/\text{NDF}$ : 4287279.8/62

- sign 561.425+/-0.098  $\chi^2/\text{NDF}$ : 2164307.4/31



# reg\_asym\_sam\_1548\_avg\_mean vs Slug



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

Left Out: 29.929 $\pm$ 30.241  $\chi^2$ /NDF:11.6/13

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

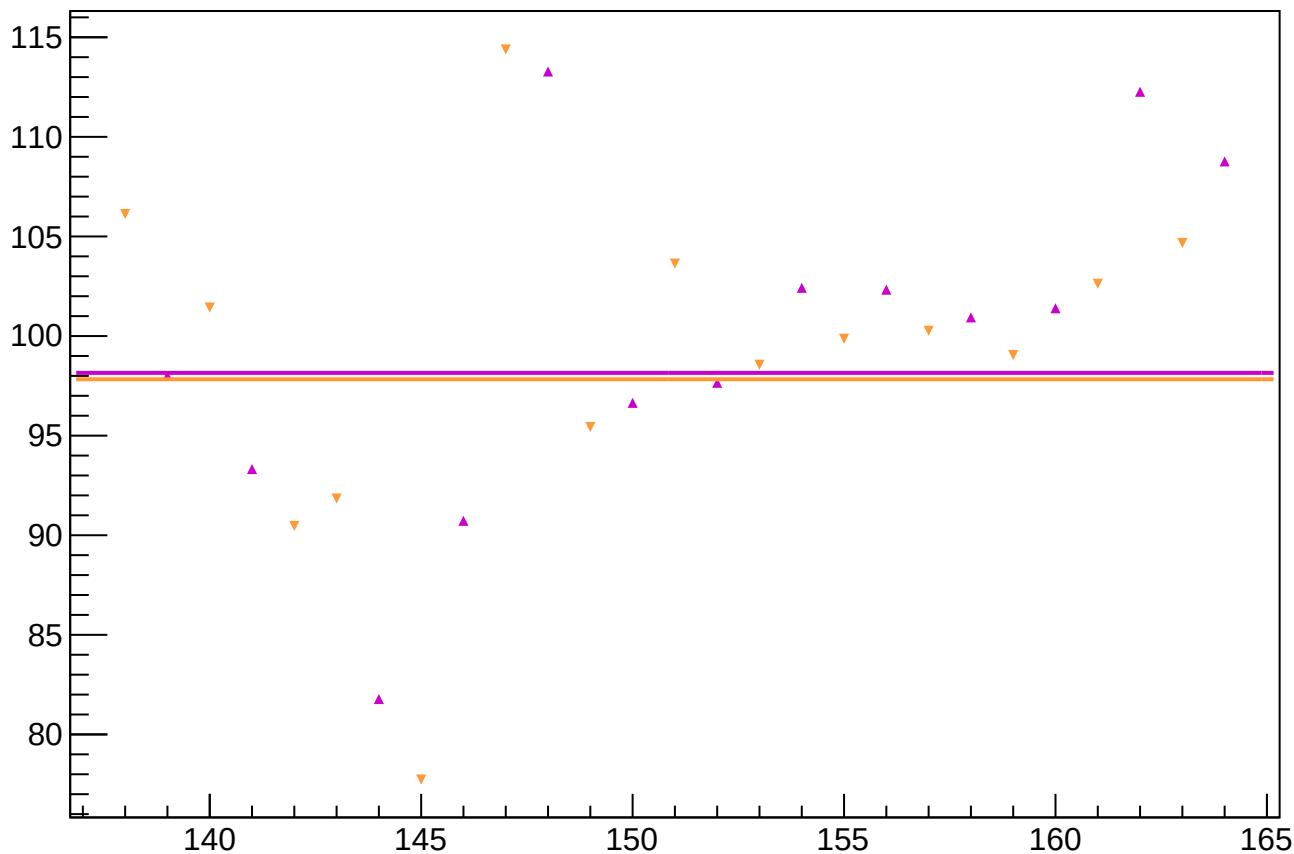
Left In: -32.043 $\pm$ 30.689  $\chi^2$ /NDF:11.9/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -0.601 $\pm$ 21.541  $\chi^2$ /NDF: 25.5/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_sam\_1548\_avg\_rms vs Slug



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

Left Out: 97.830+/-0.021  $\chi^2/\text{NDF}$ :175457.5/13

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

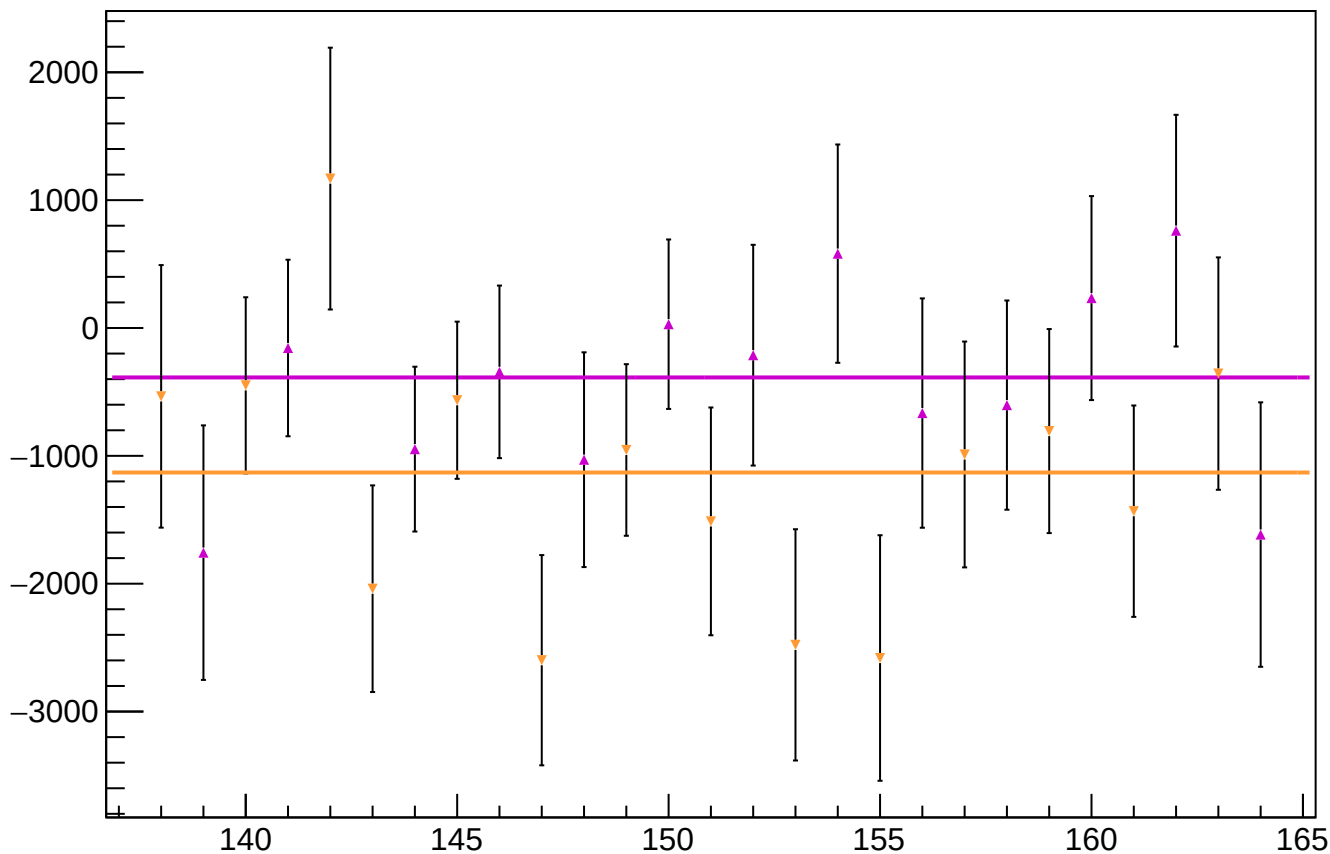
Left In: 98.151+/-0.022  $\chi^2/\text{NDF}$ :155973.6/12

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

All: 97.988+/-0.015  $\chi^2/\text{NDF}$ : 331542.2/26

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

# asym\_sam\_1548\_avg\_correction\_mean vs Slug



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

Left Out: -1130.352+/-218.325  $\chi^2/\text{NDF}$ : 17.5/13

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

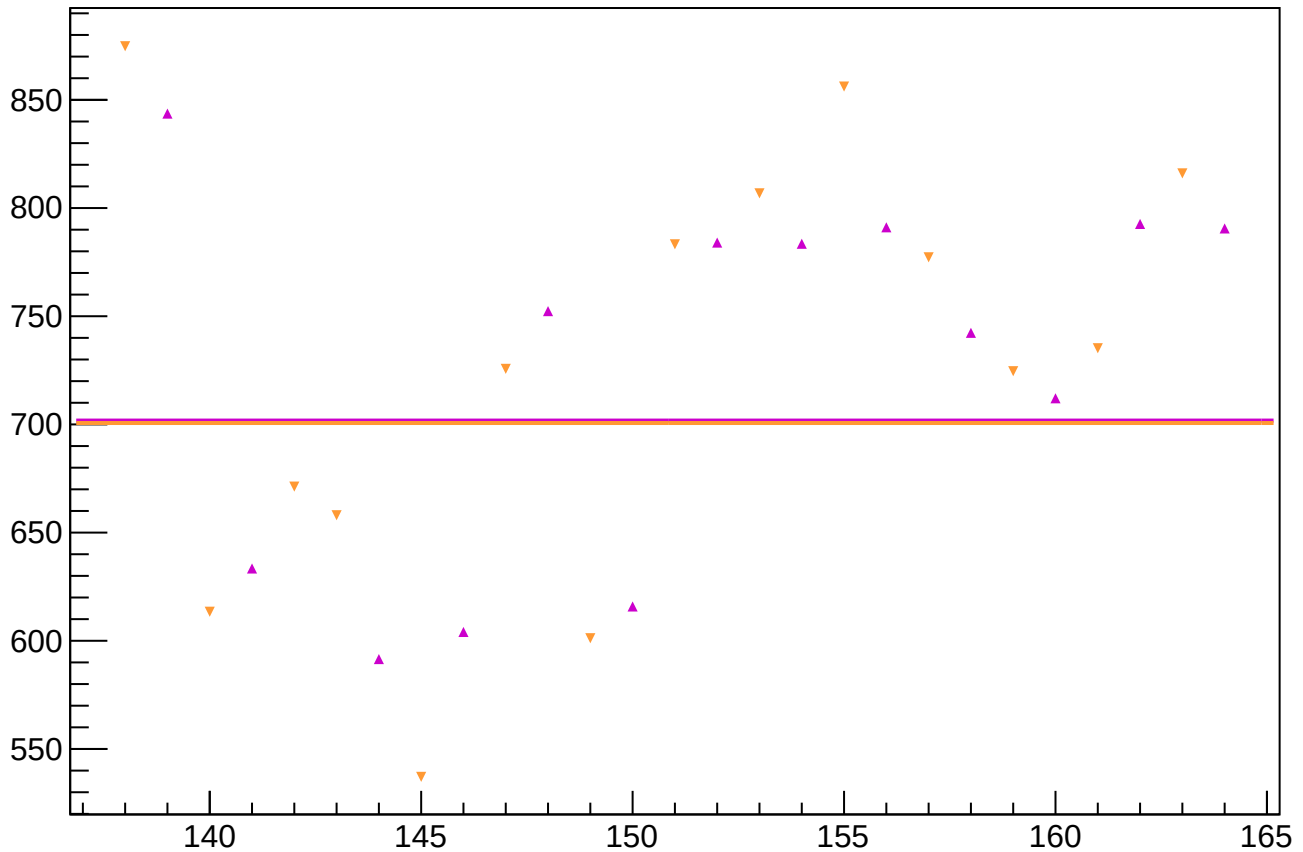
Left In: -386.756+/-220.443  $\chi^2/\text{NDF}$ : 8.9/12

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

All: -762.143+/-155.123  $\chi^2/\text{NDF}$ : 32.1/26

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

# asym\_sam\_1548\_avg\_correction\_rms vs Slug



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

Left Out: 700.647+/-0.154  $\chi^2/\text{NDF}$ : 433889.4/13

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

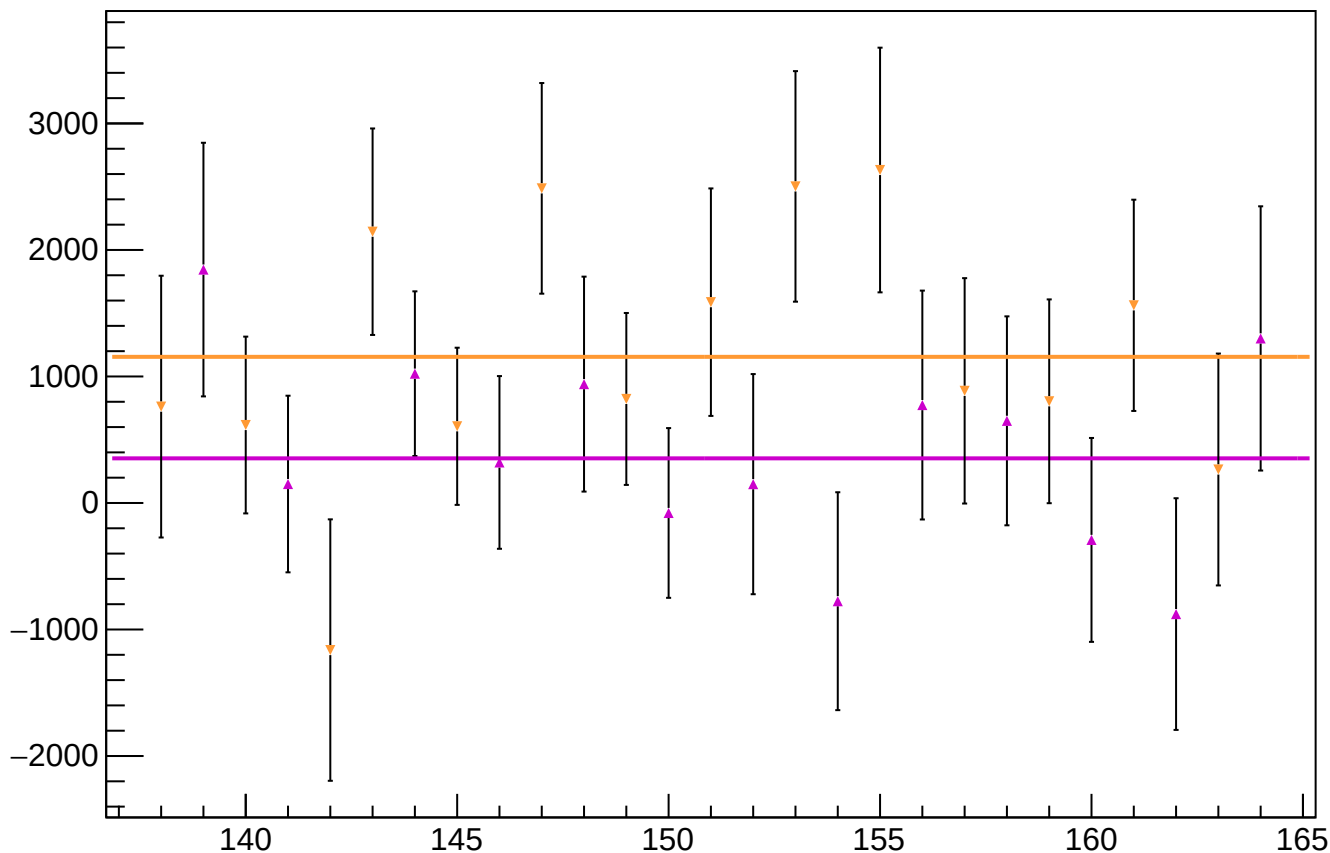
Left In: 701.780+/-0.156  $\chi^2/\text{NDF}$ : 297939.4/12

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

All: 701.208+/-0.110  $\chi^2/\text{NDF}$ : 731855.5/26

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

# asym\_sam\_1548\_avg\_mean vs Slug



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

Left Out: 1155.180+/-220.543  $\chi^2/\text{NDF}$ : 17.0/13

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

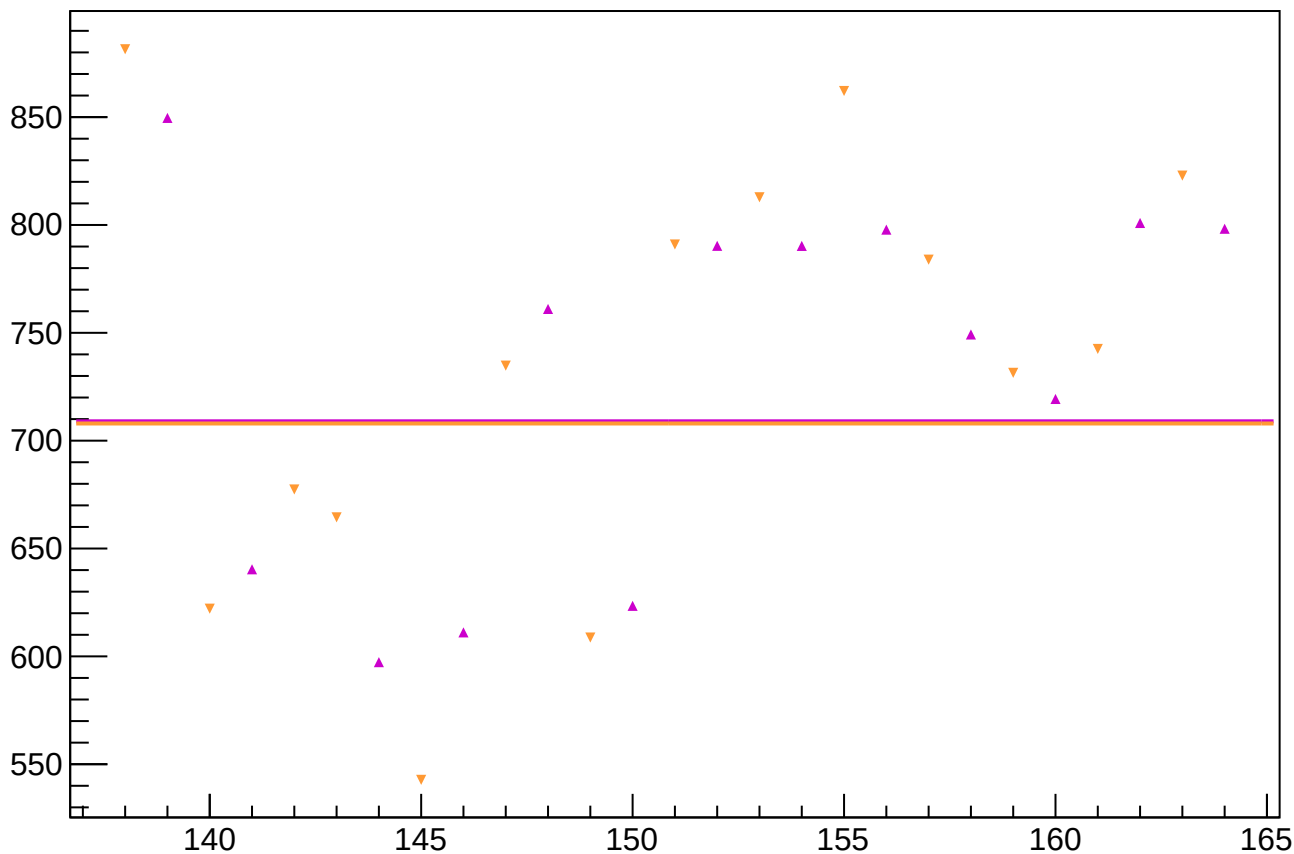
Left In: 352.793+/-222.662  $\chi^2/\text{NDF}$ : 9.6/12

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

All: 757.824+/-156.691  $\chi^2/\text{NDF}$ : 33.2/26

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

# asym\_sam\_1548\_avg\_rms vs Slug



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

Left Out: 707.964+/-0.156  $\chi^2/\text{NDF}$ : 425588.7/13

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

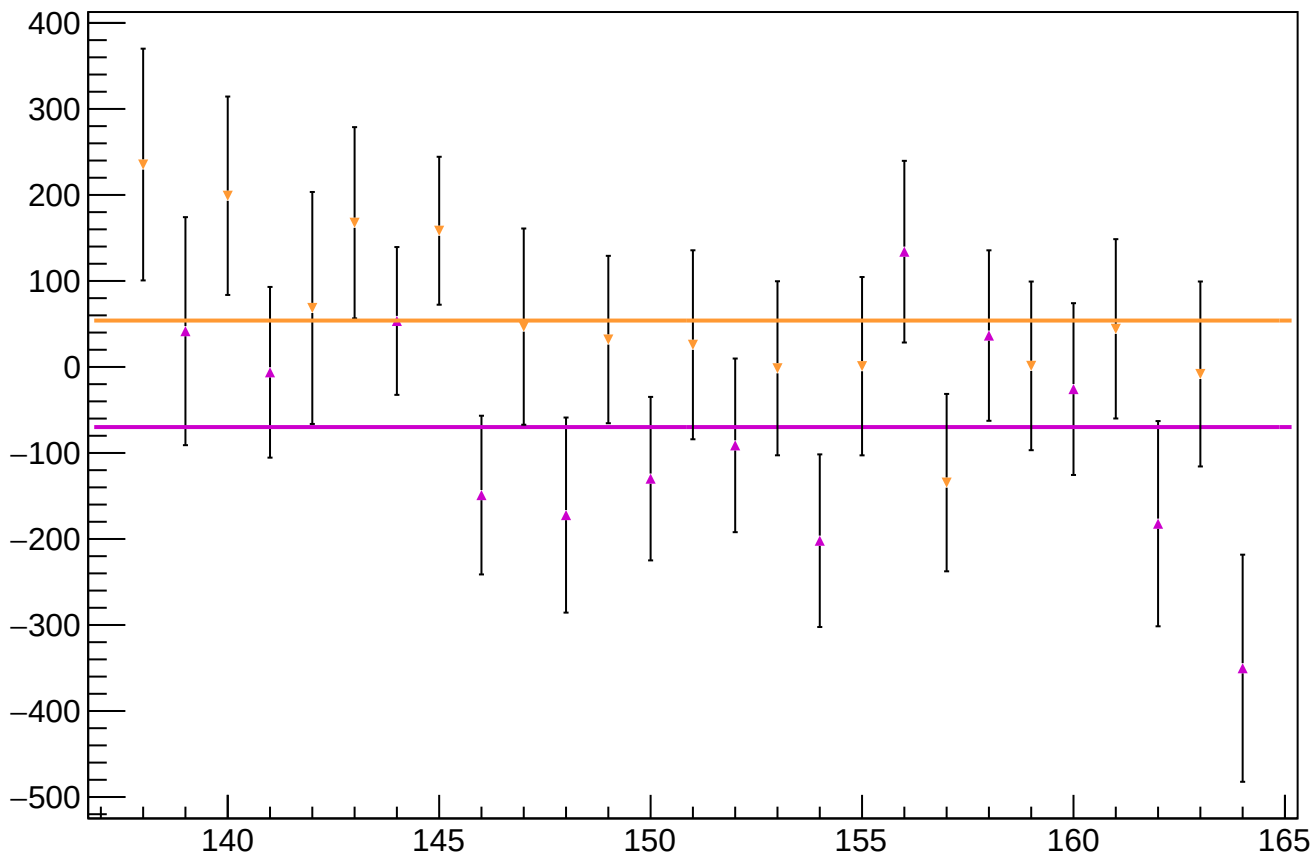
Left In: 708.974+/-0.157  $\chi^2/\text{NDF}$ : 293218.7/12

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

All: 708.464+/-0.111  $\chi^2/\text{NDF}$ : 718828.1/26

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

# reg\_asym\_sam\_3748\_avg\_mean vs Slug



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

Left Out: 53.962+/-28.468  $\chi^2/\text{NDF}$ :10.6/13

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

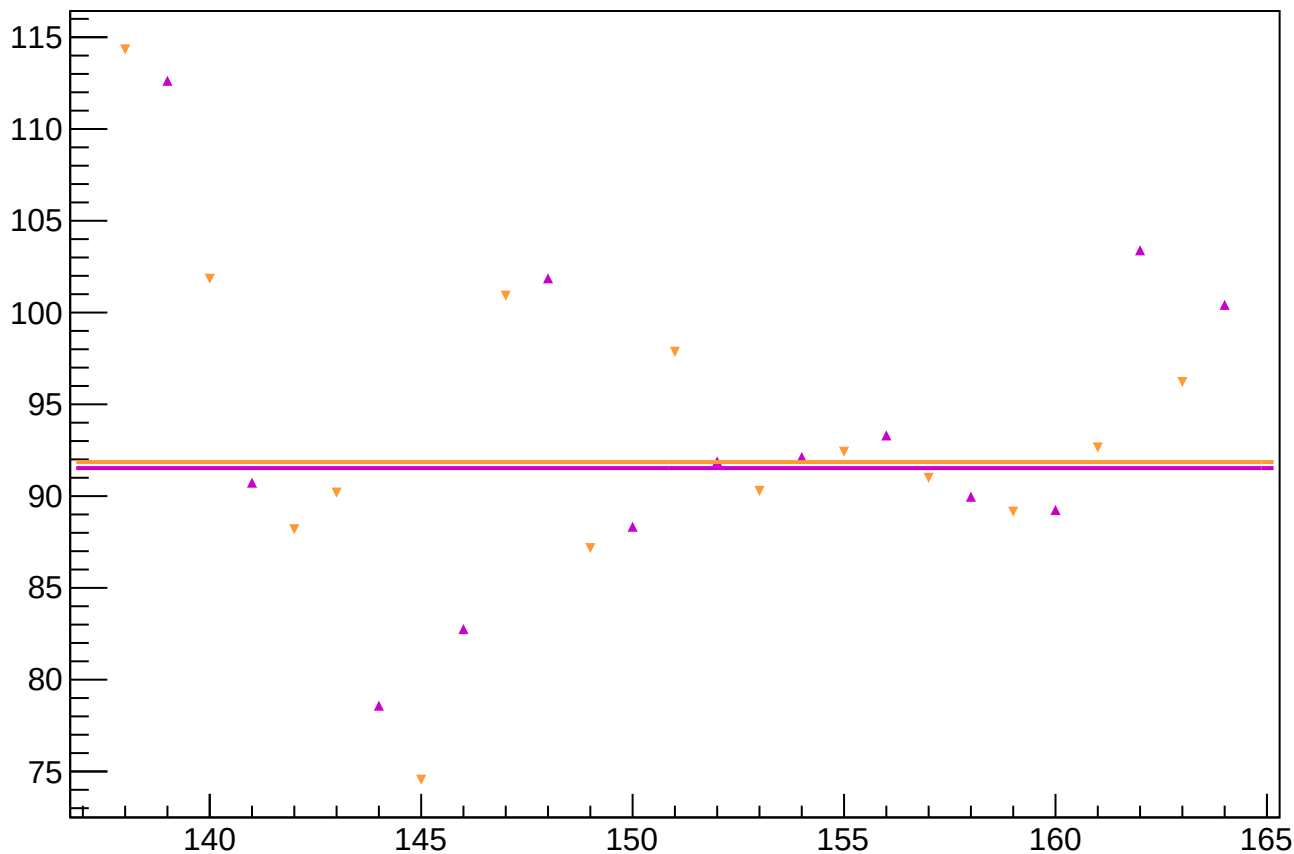
Left In: -69.882+/-28.671  $\chi^2/\text{NDF}$ :17.4/12

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

All: -7.521+/-20.201  $\chi^2/\text{NDF}$ : 37.4/26

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

# reg\_asym\_sam\_3748\_avg\_rms vs Slug



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

Left Out: 91.854+/-0.020  $\chi^2/\text{NDF}$ :182408.5/13

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

Left In: 91.526+/-0.020  $\chi^2/\text{NDF}$ :164171.1/12

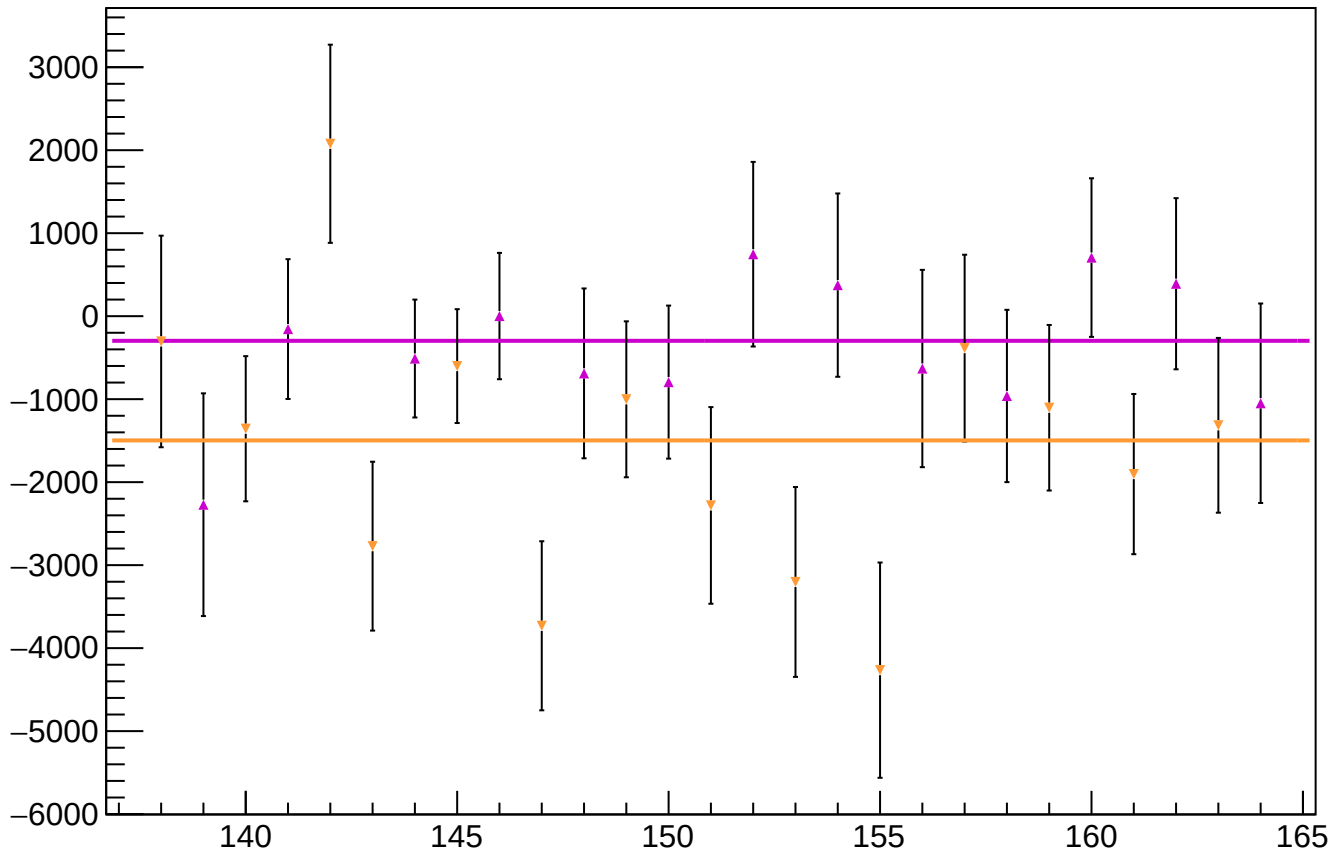
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 91.691+/-0.014  $\chi^2/\text{NDF}$ : 346711.2/26

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



# asym\_sam\_3748\_avg\_correction\_mean vs Slug



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

Left Out: -1497.029+/-270.644  $\chi^2/\text{NDF}$ : 26.8/13

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

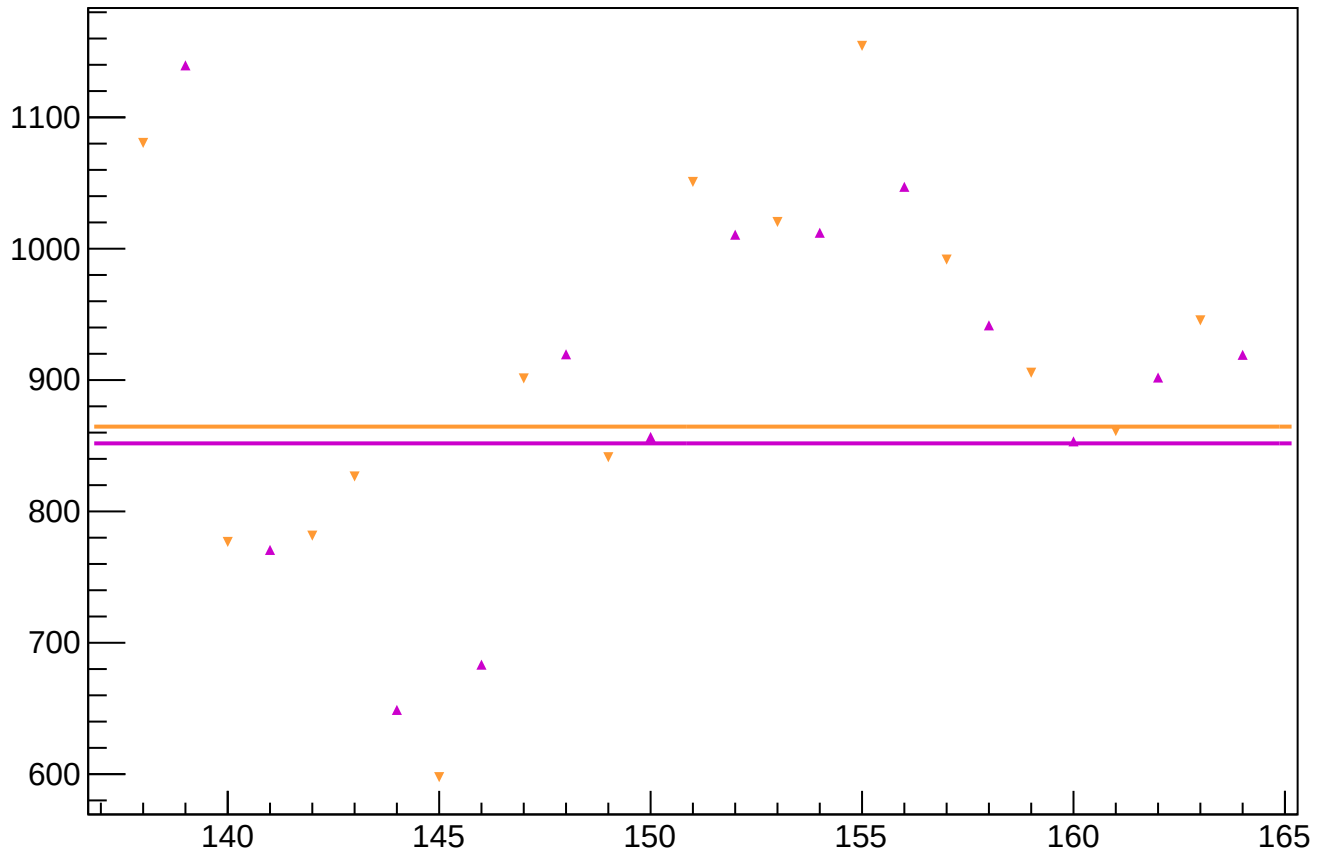
Left In: -296.983+/-269.227  $\chi^2/\text{NDF}$ : 6.6/12

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

All: -893.858+/-190.871  $\chi^2/\text{NDF}$ : 43.2/26

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

# asym\_sam\_3748\_avg\_correction\_rms vs Slug



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

Left Out: 864.560+/-0.191  $\chi^2/\text{NDF}$ : 623628.3/13

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

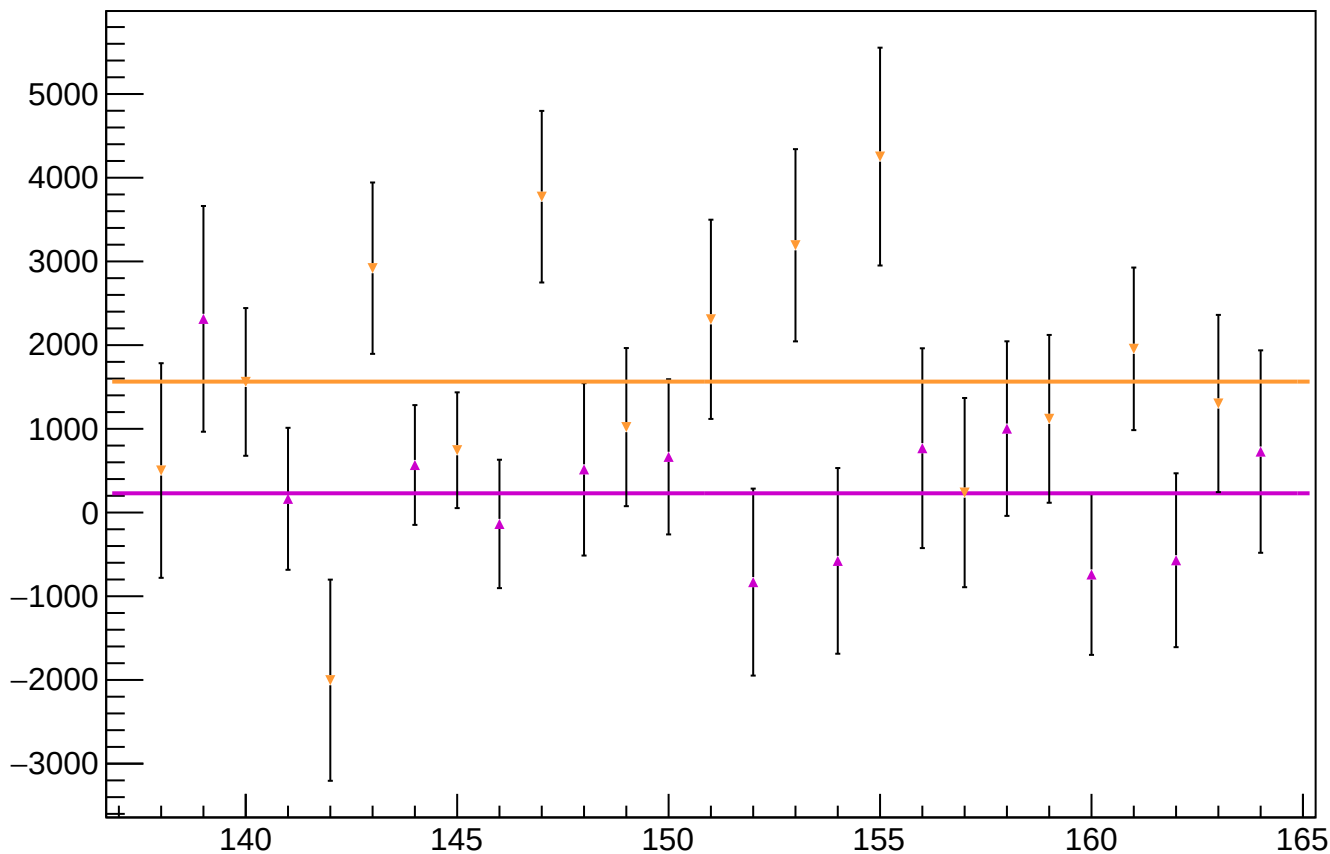
Left In: 851.805+/-0.190  $\chi^2/\text{NDF}$ : 543509.0/12

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

All: 858.149+/-0.135  $\chi^2/\text{NDF}$ : 1169369.9/26

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

# asym\_sam\_3748\_avg\_mean vs Slug



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

Left Out: 1564.192+/-272.279  $\chi^2/\text{NDF}$ : 26.1/13

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

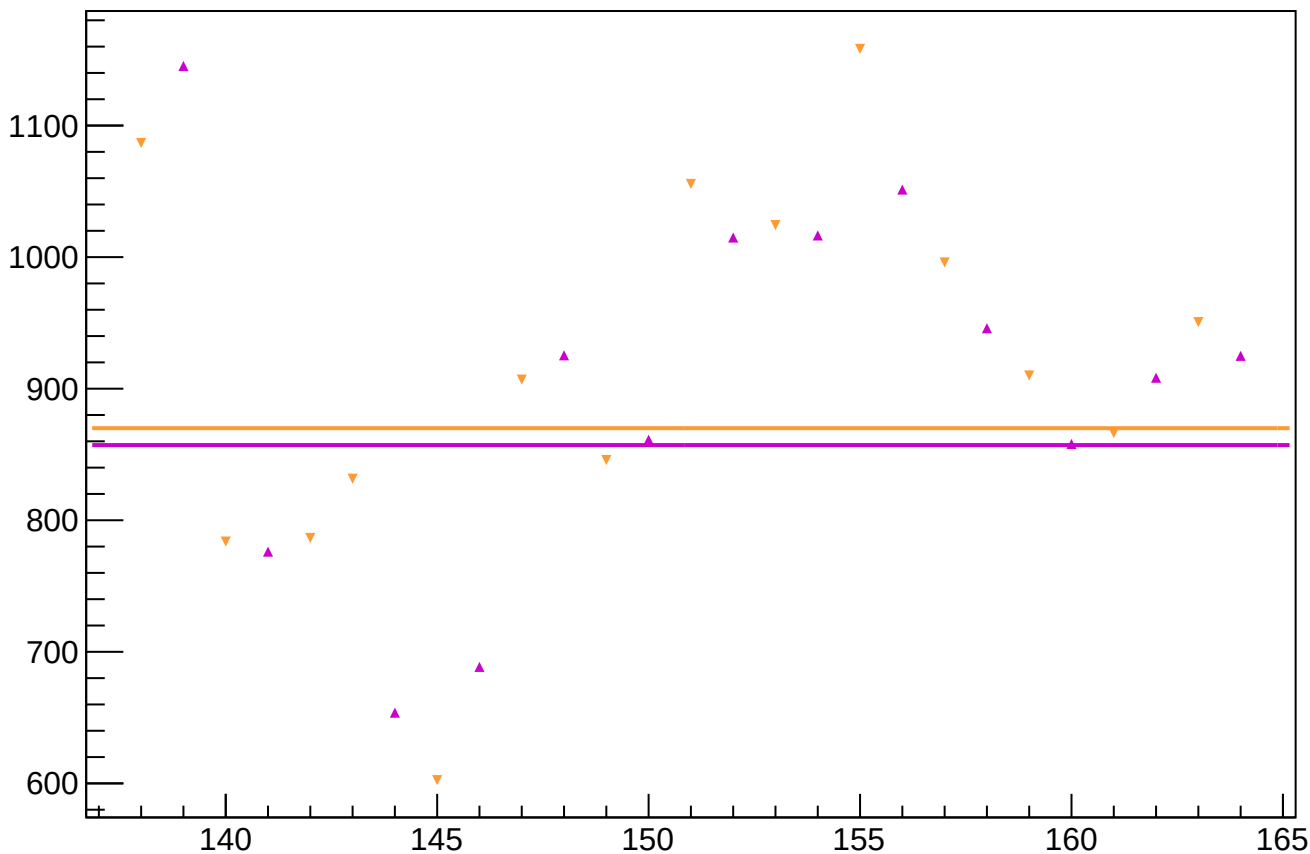
Left In: 229.919+/-270.861  $\chi^2/\text{NDF}$ : 7.1/12

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

All: 893.571+/-192.027  $\chi^2/\text{NDF}$ : 45.3/26

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

# asym\_sam\_3748\_avg\_rms vs Slug



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

Left Out: 869.990+/-0.193  $\chi^2/\text{NDF}$ : 614586.1/13

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

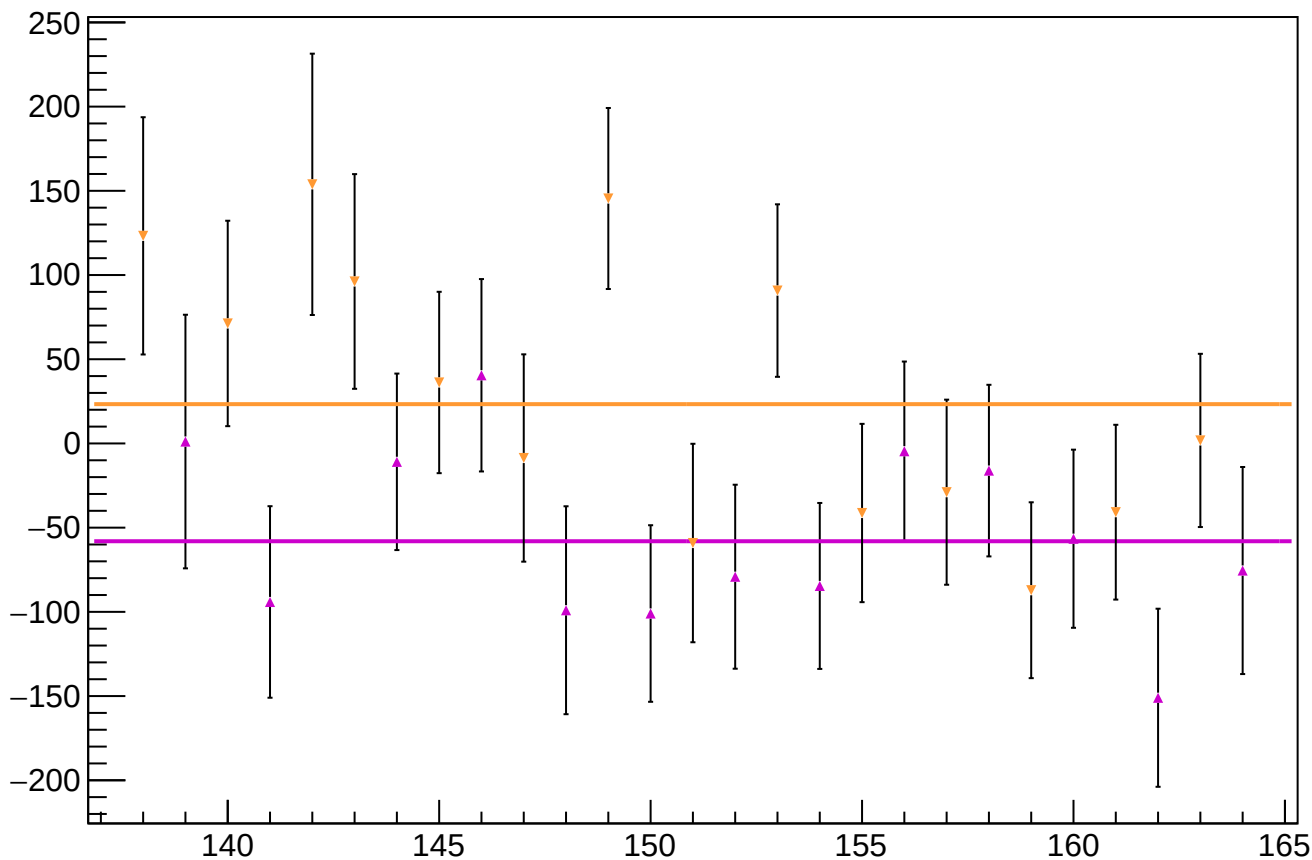
Left In: 857.142+/-0.192  $\chi^2/\text{NDF}$ : 536357.6/12

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

All: 863.533+/-0.136  $\chi^2/\text{NDF}$ : 1153181.9/26

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

# reg\_asym\_sam\_1526\_avg\_mean vs Slug



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

Left Out: 23.328 $\pm$ 15.230  $\chi^2$ /NDF:24.5/13

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

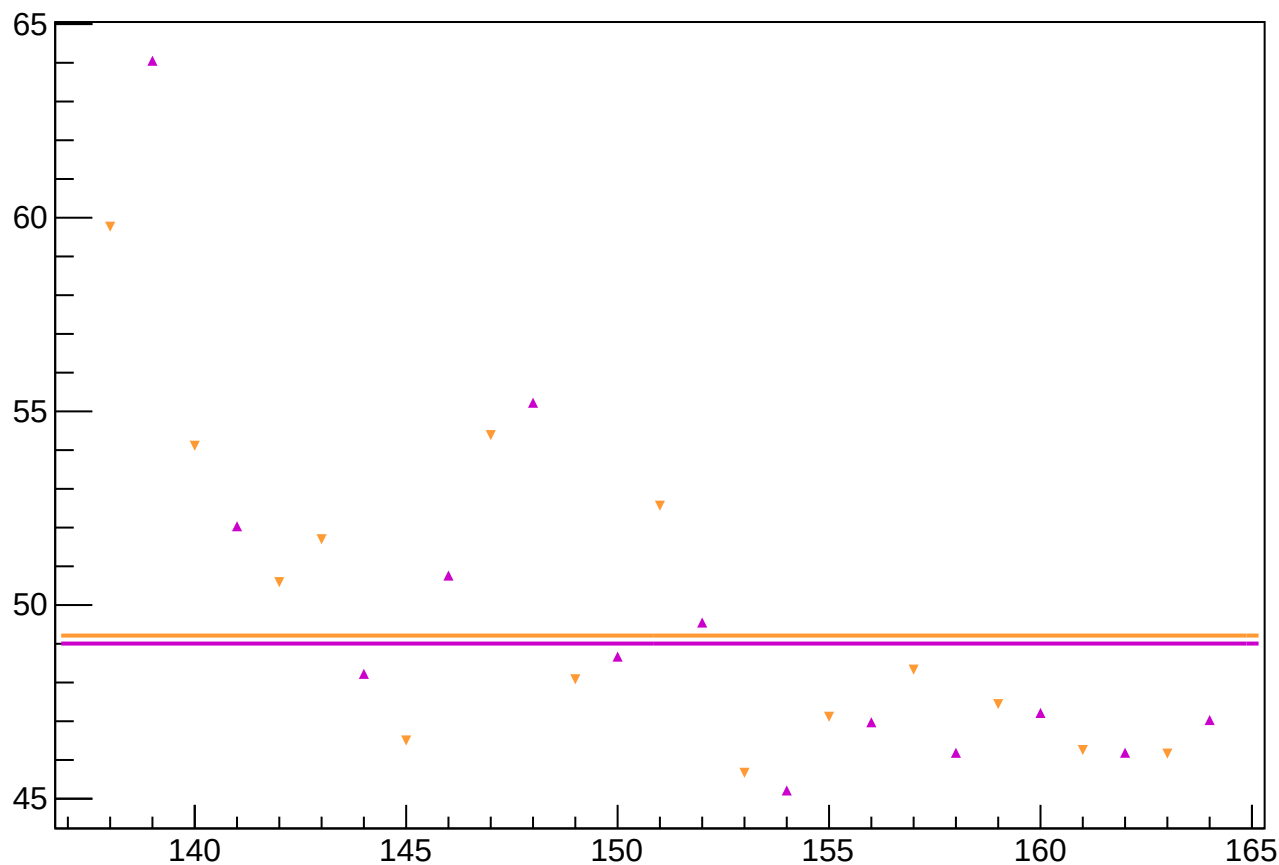
Left In: -58.067 $\pm$ 15.344  $\chi^2$ /NDF:11.2/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -17.067 $\pm$ 10.809  $\chi^2$ /NDF: 49.9/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_sam\_1526\_avg\_rms vs Slug



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

Left Out: 49.212+/-0.011  $\chi^2/\text{NDF}$ : 117087.7/13

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

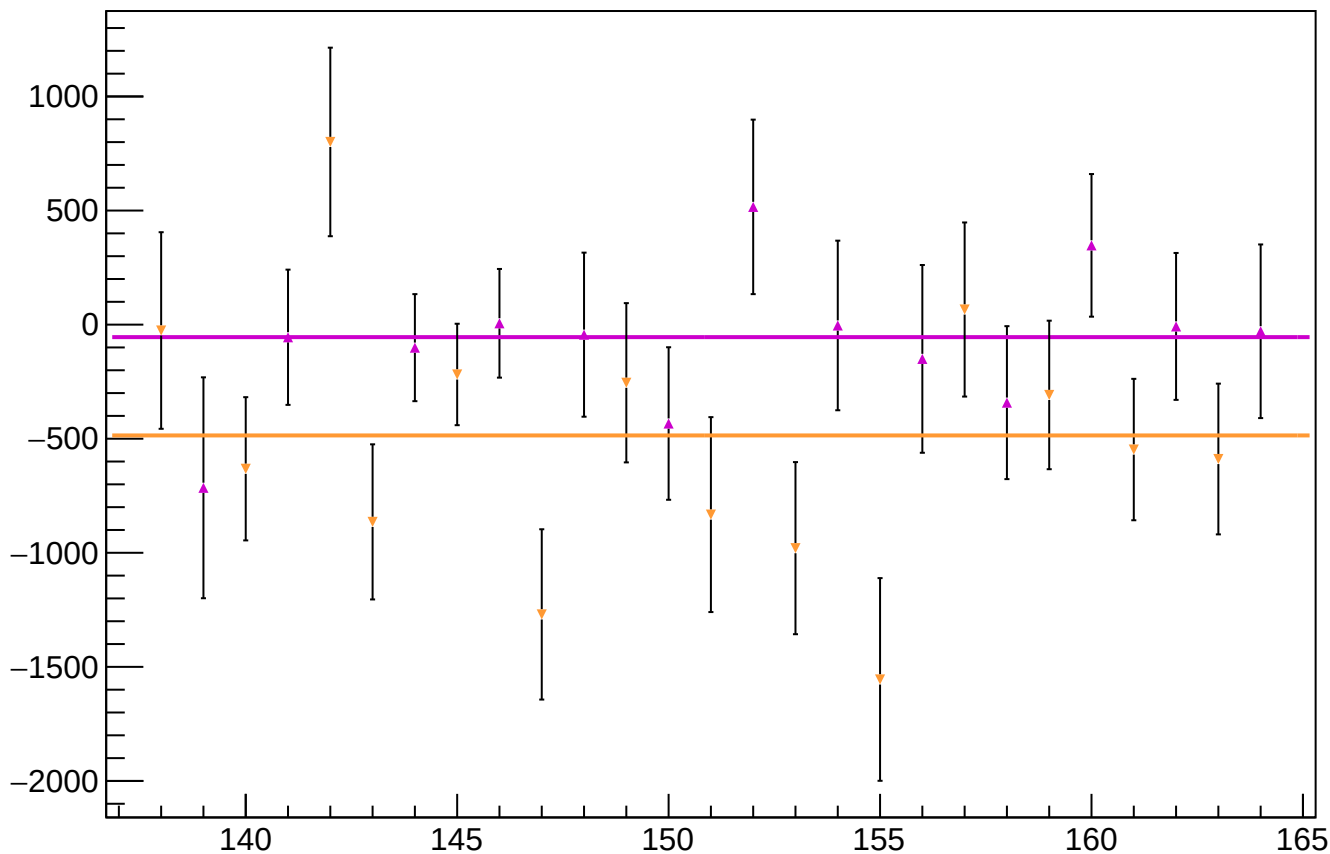
Left In: 49.006+/-0.011  $\chi^2/\text{NDF}$ : 139389.0/12

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

All: 49.110+/-0.008  $\chi^2/\text{NDF}$ : 256659.7/26

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

# asym\_sam\_1526\_avg\_correction\_mean vs Slug



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

Left Out: -485.635+/-91.619  $\chi^2/\text{NDF}$ : 29.3/13

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

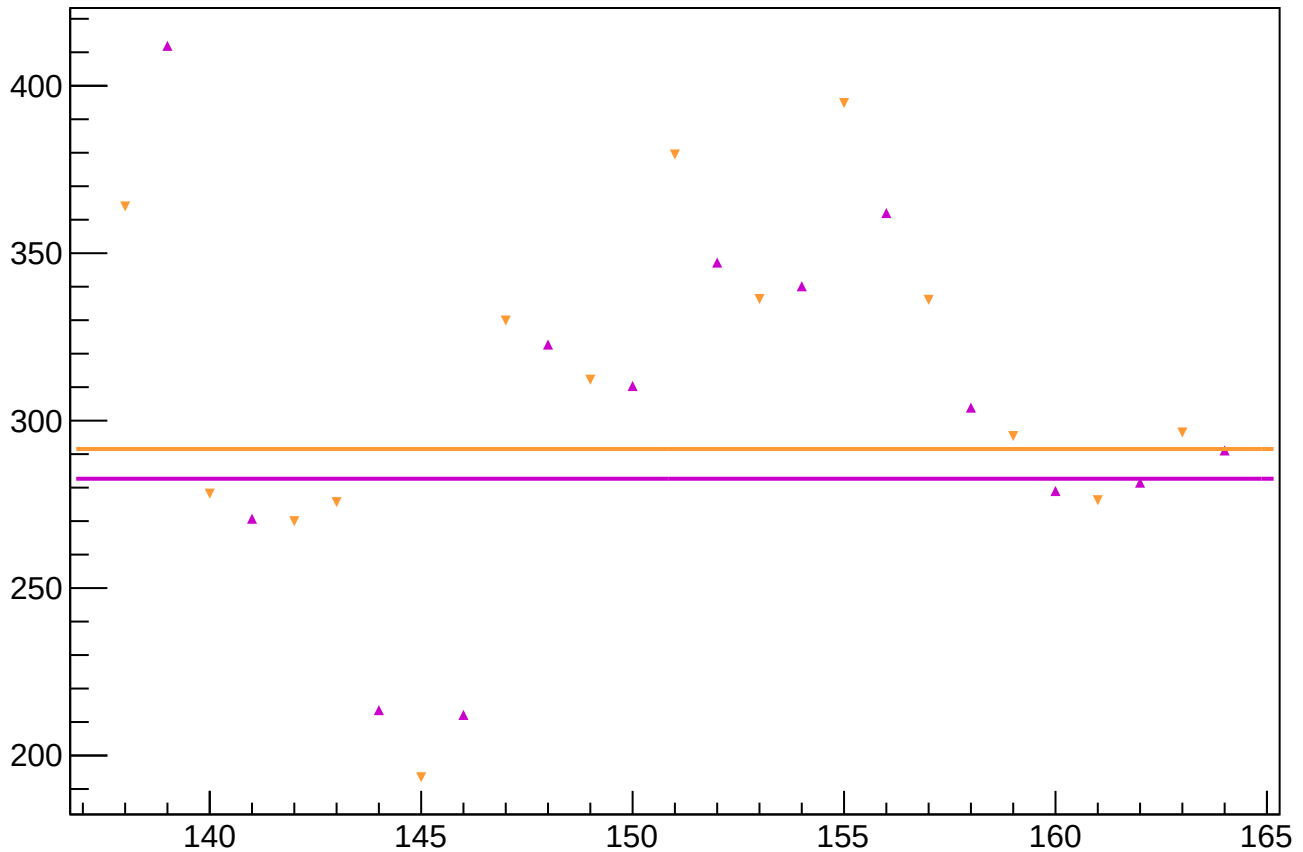
Left In: -54.740+/-89.872  $\chi^2/\text{NDF}$ : 8.0/12

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

All: -266.040+/-64.158  $\chi^2/\text{NDF}$ : 48.5/26

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

# asym\_sam\_1526\_avg\_correction\_rms vs Slug



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

Left Out: 291.539+/-0.065  $\chi^2$ /NDF:740978.1/13

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

Left In: 282.651+/-0.064  $\chi^2$ /NDF:721814.8/12

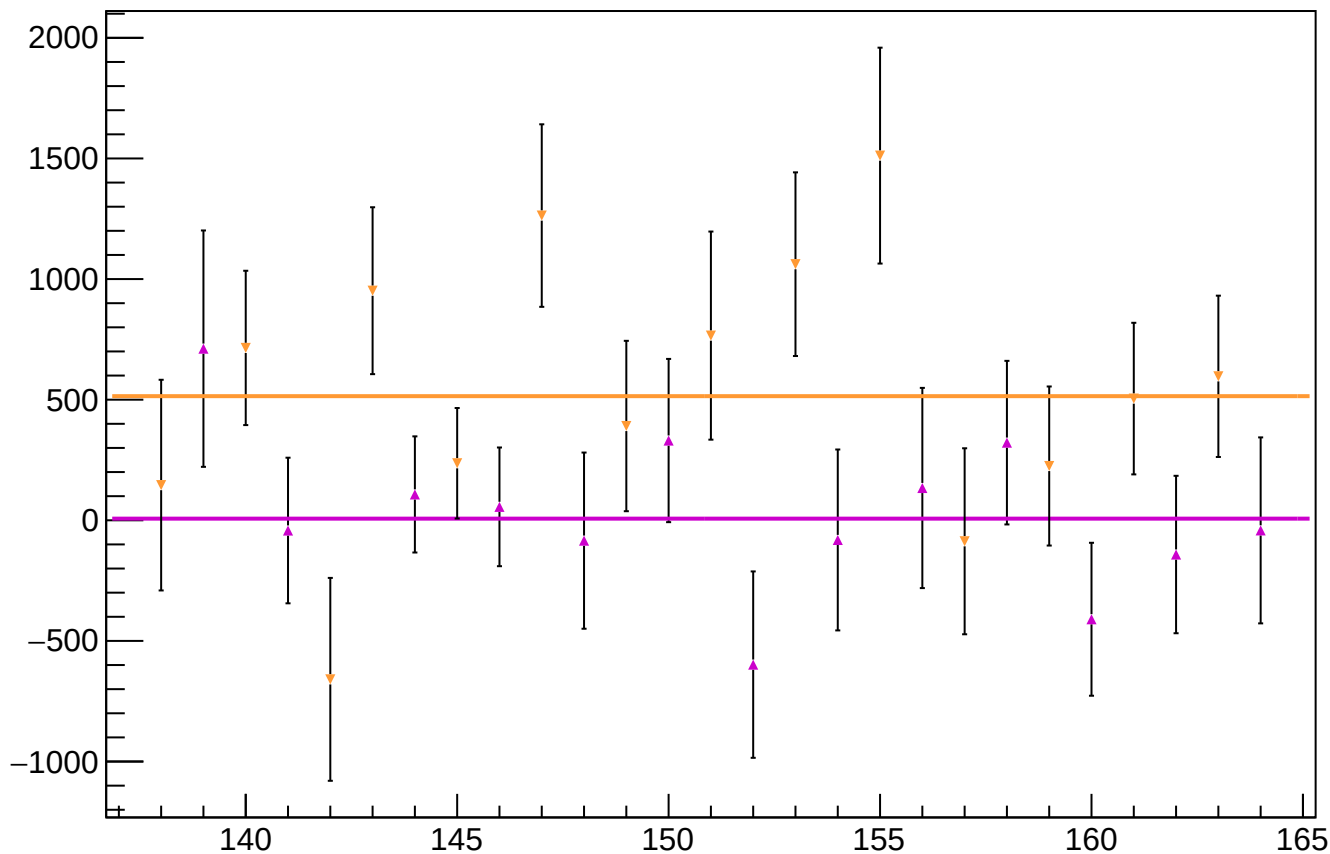
+ sign 0.000+/-0.000  $\chi^2$ /NDF: 0.0/0

All: 287.009+/-0.045  $\chi^2$ /NDF: 1472386.0/26

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



# asym\_sam\_1526\_avg\_mean vs Slug



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

Left Out: 514.594+/-93.108  $\chi^2/\text{NDF}$ :26.6/13

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

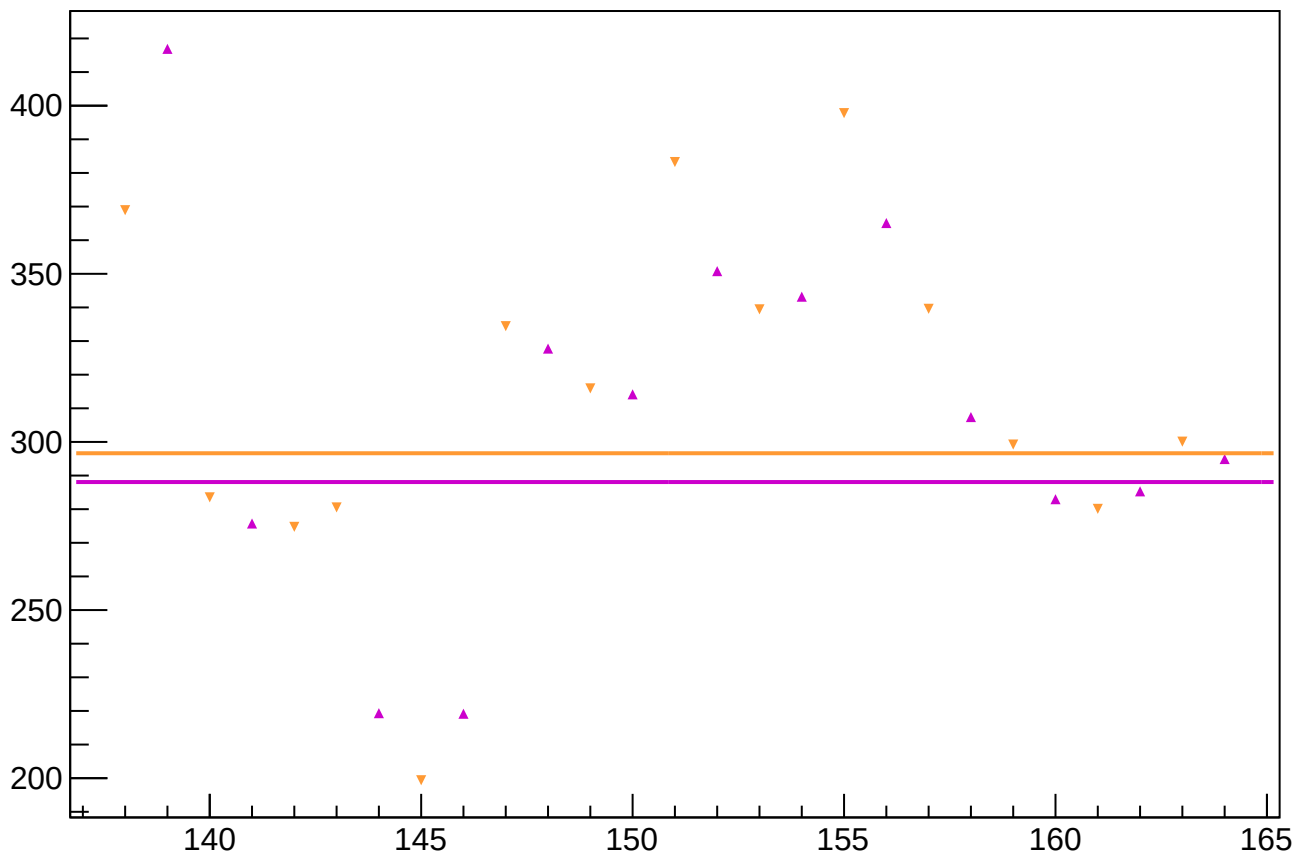
Left In: 6.862+/-91.465  $\chi^2/\text{NDF}$ :8.7/12

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

All: 256.210+/-65.249  $\chi^2/\text{NDF}$ : 50.5/26

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

# asym\_sam\_1526\_avg\_rms vs Slug



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

Left Out: 296.637+/-0.066  $\chi^2/\text{NDF}$ : 693059.7/13

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

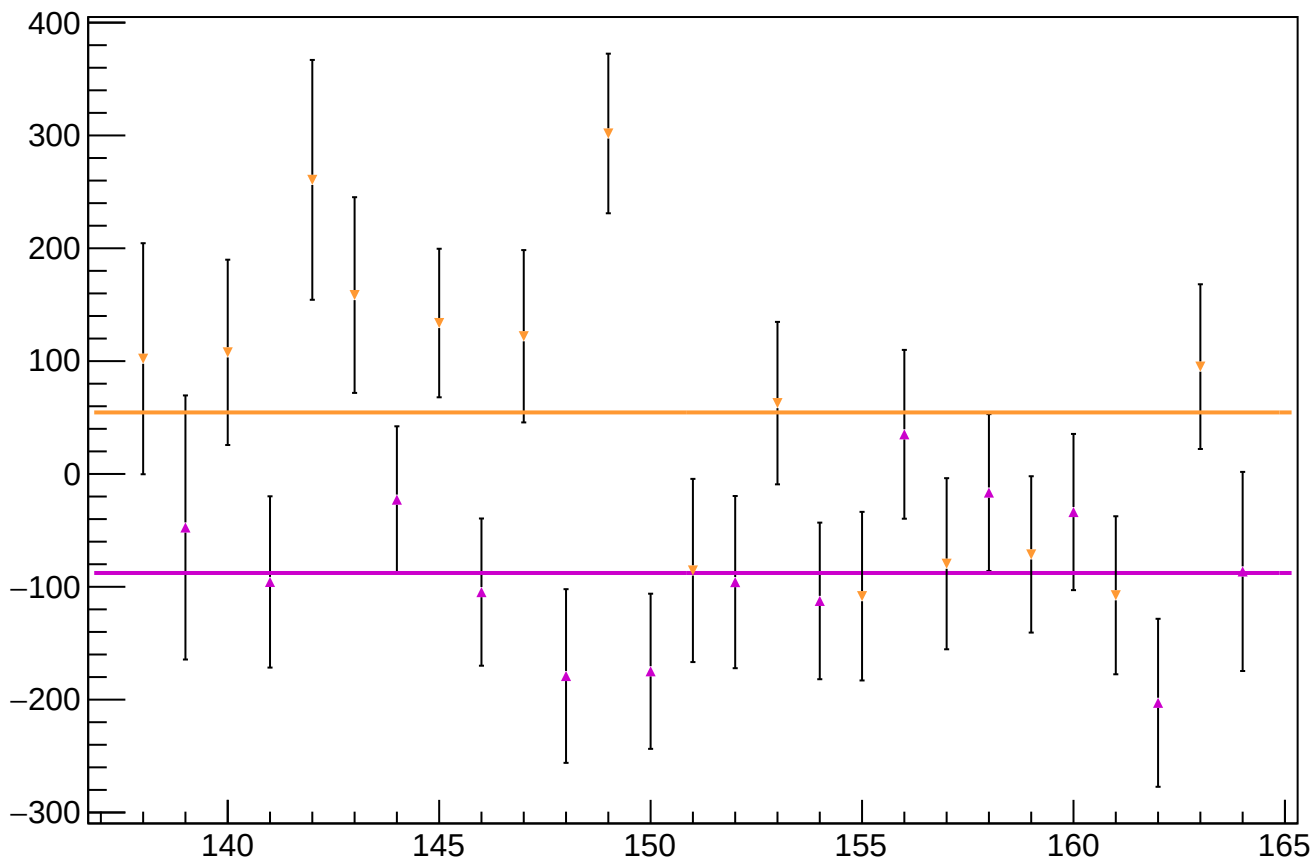
Left In: 288.072+/-0.065  $\chi^2/\text{NDF}$ : 669684.6/12

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

All: 292.278+/-0.046  $\chi^2/\text{NDF}$ : 1371358.2/26

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

# reg\_asym\_sam\_3726\_avg\_mean vs Slug



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

Left Out: 54.528+/-20.562  $\chi^2/\text{NDF}$ : 40.1/13

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

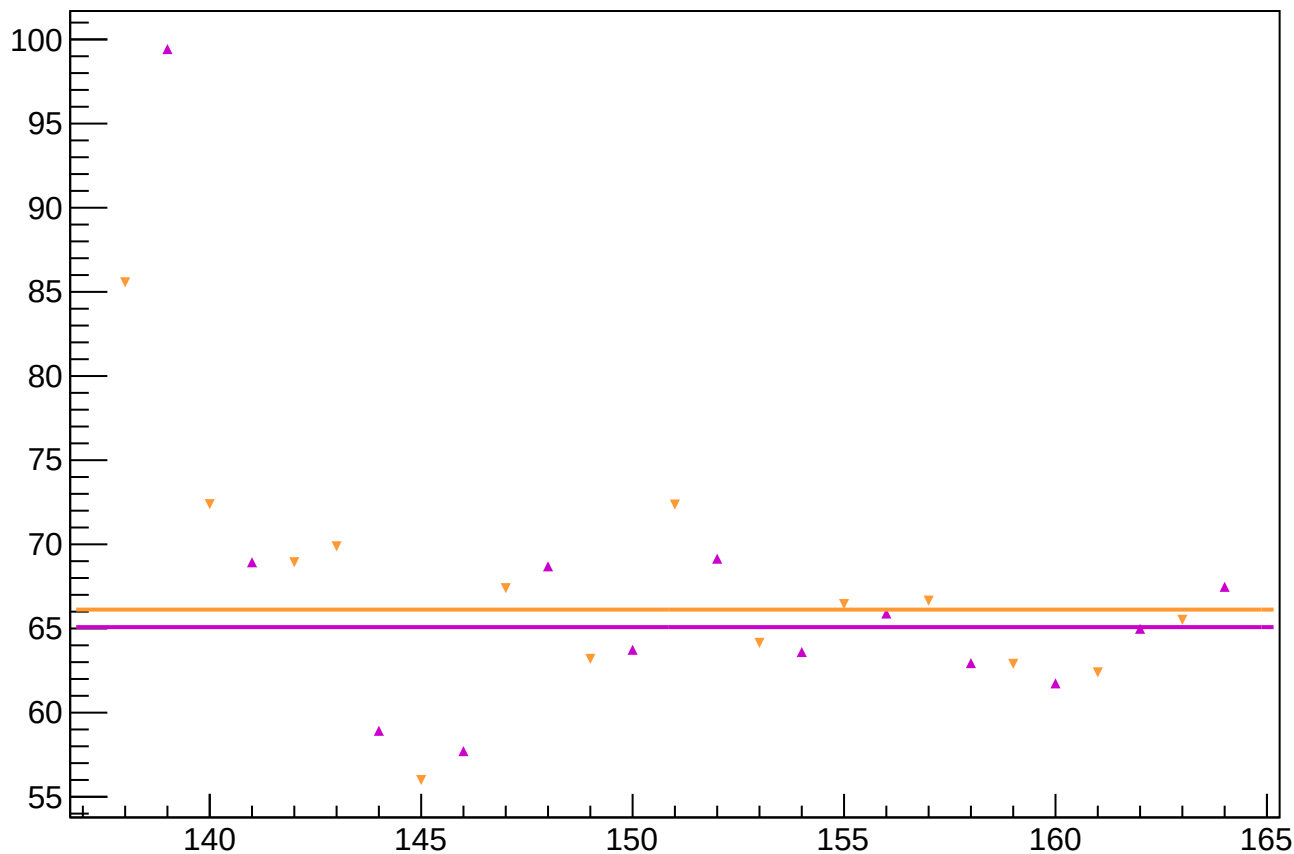
Left In: -87.752+/-20.492  $\chi^2/\text{NDF}$ : 11.1/12

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

All: -16.854+/-14.515  $\chi^2/\text{NDF}$ : 75.2/26

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

# reg\_asym\_sam\_3726\_avg\_rms vs Slug



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

Left Out: 66.122+/-0.015  $\chi^2/\text{NDF}$ :163852.8/13

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

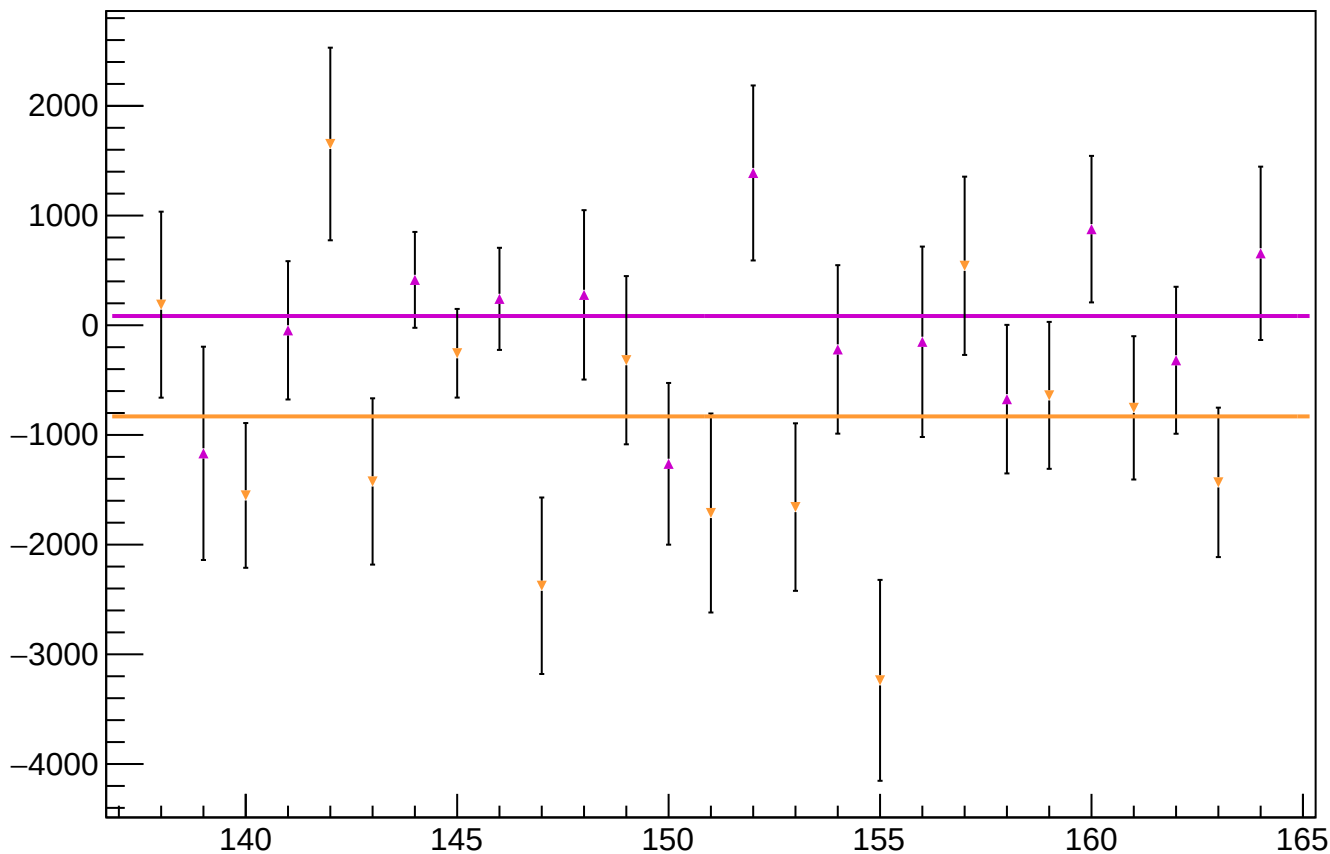
Left In: 65.081+/-0.014  $\chi^2/\text{NDF}$ :240939.8/12

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

All: 65.600+/-0.010  $\chi^2/\text{NDF}$ : 407363.7/26

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

# asym\_sam\_3726\_avg\_correction\_mean vs Slug



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

Left Out: -831.080+/-187.462  $\chi^2/\text{NDF}$ : 30.2/13

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

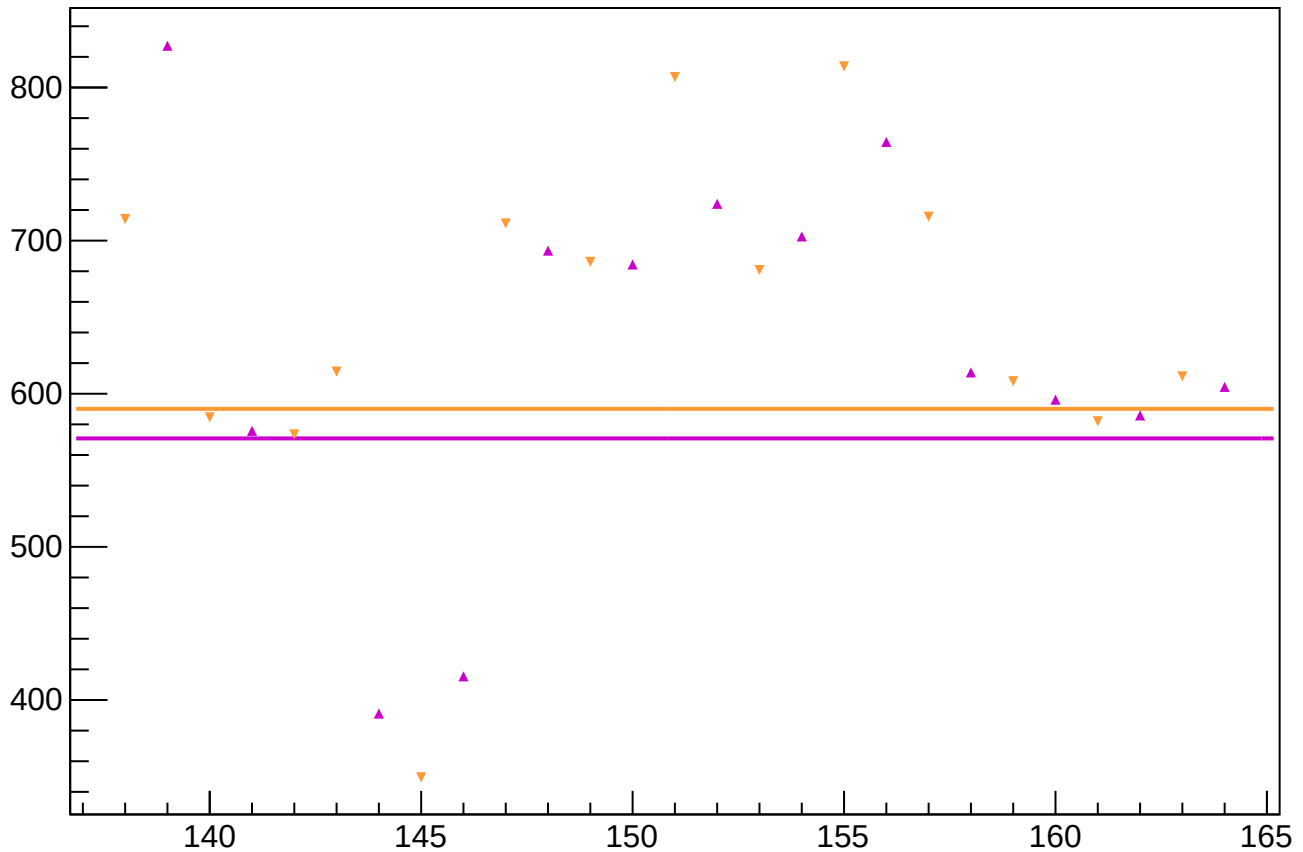
Left In: 84.164+/-183.228  $\chi^2/\text{NDF}$ : 12.2/12

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

All: -363.004+/-131.033  $\chi^2/\text{NDF}$ : 54.6/26

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

# asym\_sam\_3726\_avg\_correction\_rms vs Slug



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

Left Out: 590.130+/-0.133  $\chi^2/\text{NDF}$ :1144418.2/13

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

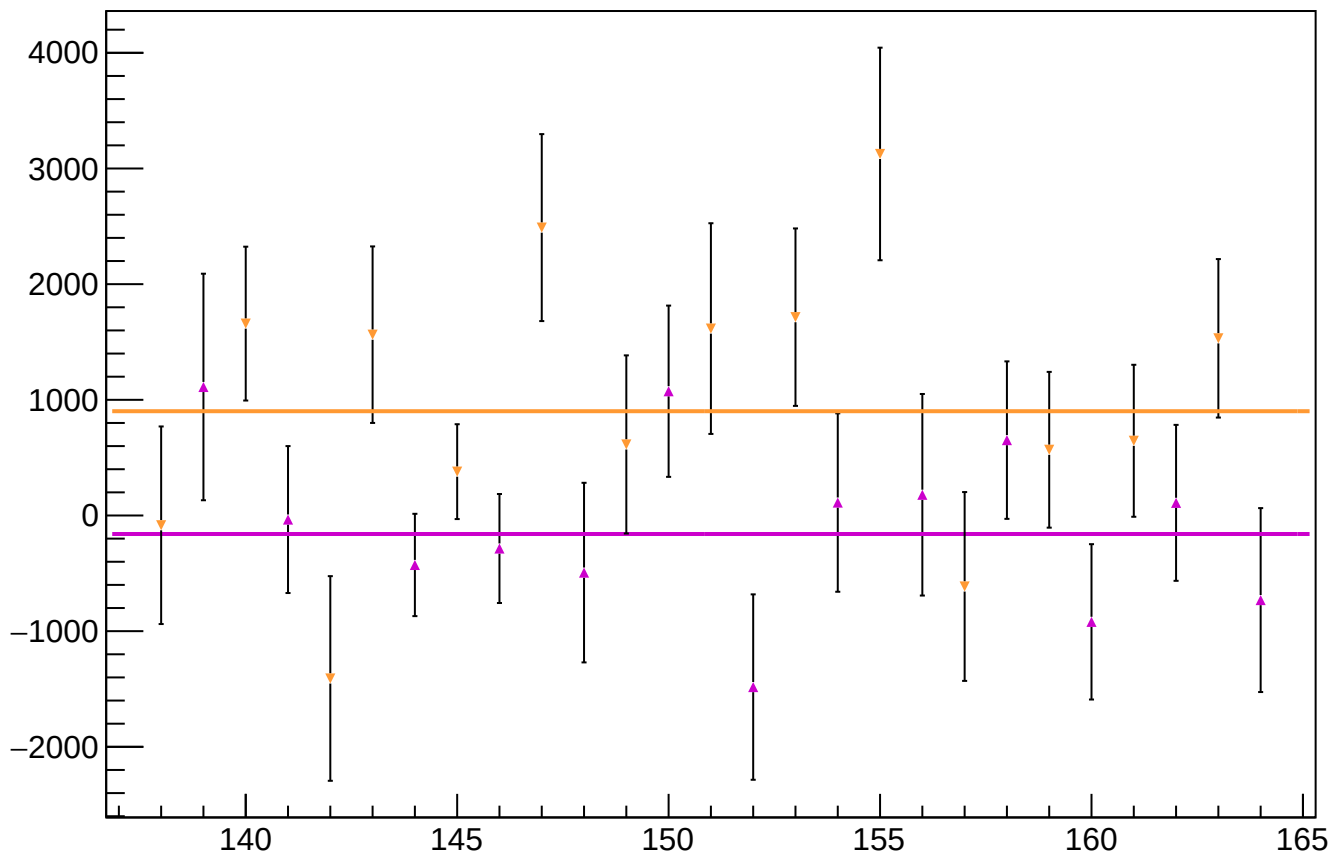
Left In: 570.839+/-0.130  $\chi^2/\text{NDF}$ :1046075.6/12

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

All: 580.264+/-0.093  $\chi^2/\text{NDF}$ : 2201325.9/26

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

# asym\_sam\_3726\_avg\_mean vs Slug



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

Left Out: 901.572+/-188.866  $\chi^2/\text{NDF}$ : 28.1/13

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

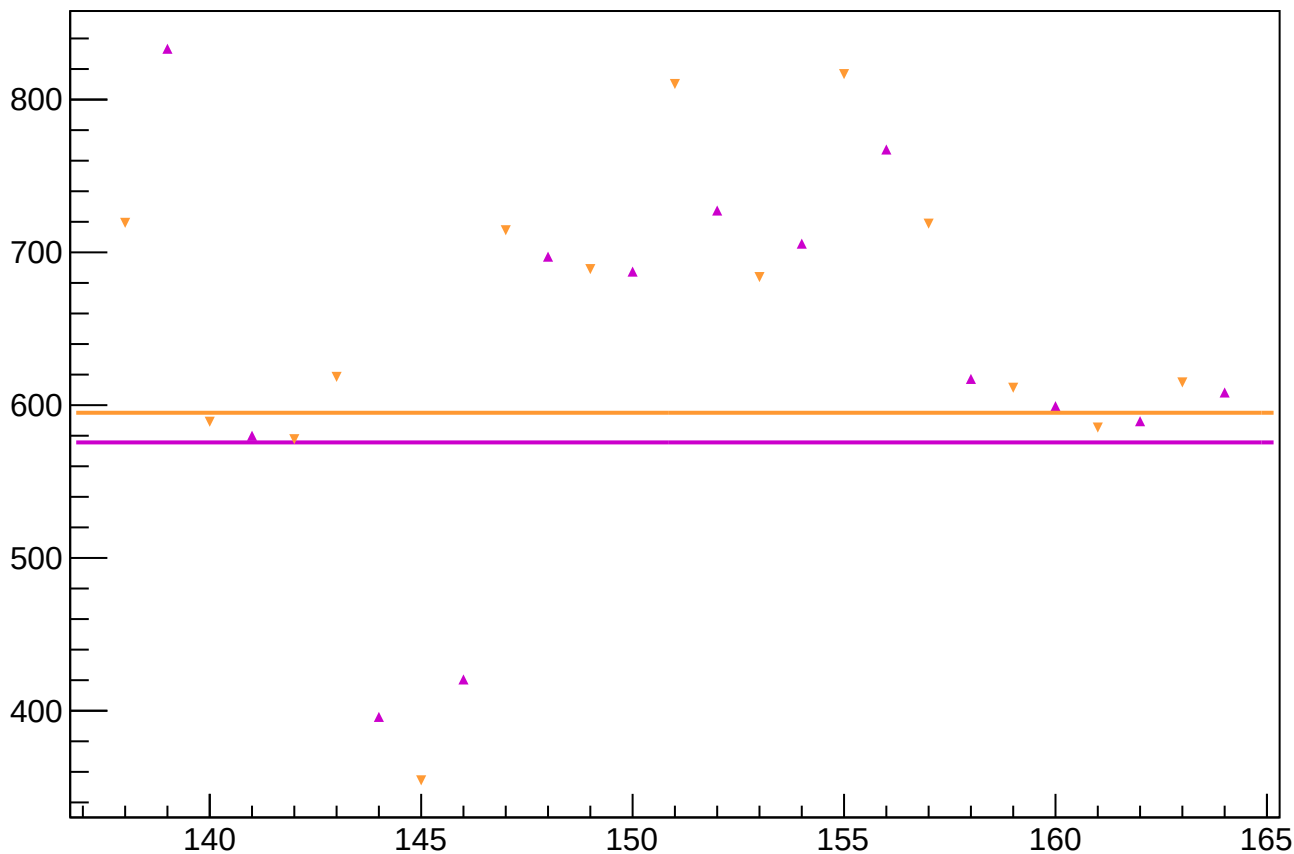
Left In: -160.041+/-184.631  $\chi^2/\text{NDF}$ : 11.5/12

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

All: 358.730+/-132.026  $\chi^2/\text{NDF}$ : 55.8/26

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

# asym\_sam\_3726\_avg\_rms vs Slug



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

Left Out: 595.031+/-0.134  $\chi^2/\text{NDF}$ :1111248.2/13

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

Left In: 575.620+/-0.131  $\chi^2/\text{NDF}$ :1019635.8/12

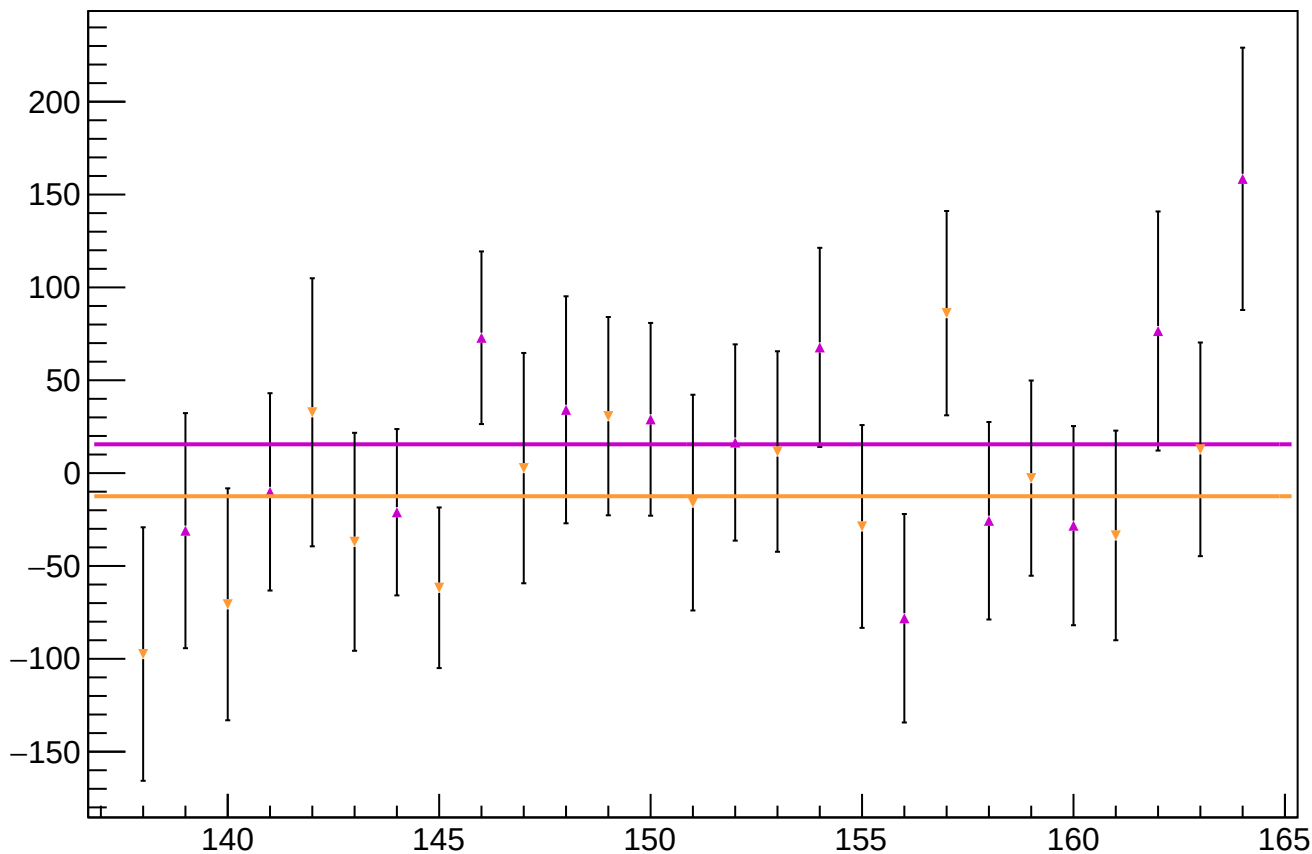
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 585.105+/-0.093  $\chi^2/\text{NDF}$ : 2141686.9/26

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



# reg\_asym\_sam\_15\_48\_dd\_mean vs Slug



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

Left Out: -12.454 $\pm$ 15.106  $\chi^2$ /NDF:8.9/13

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

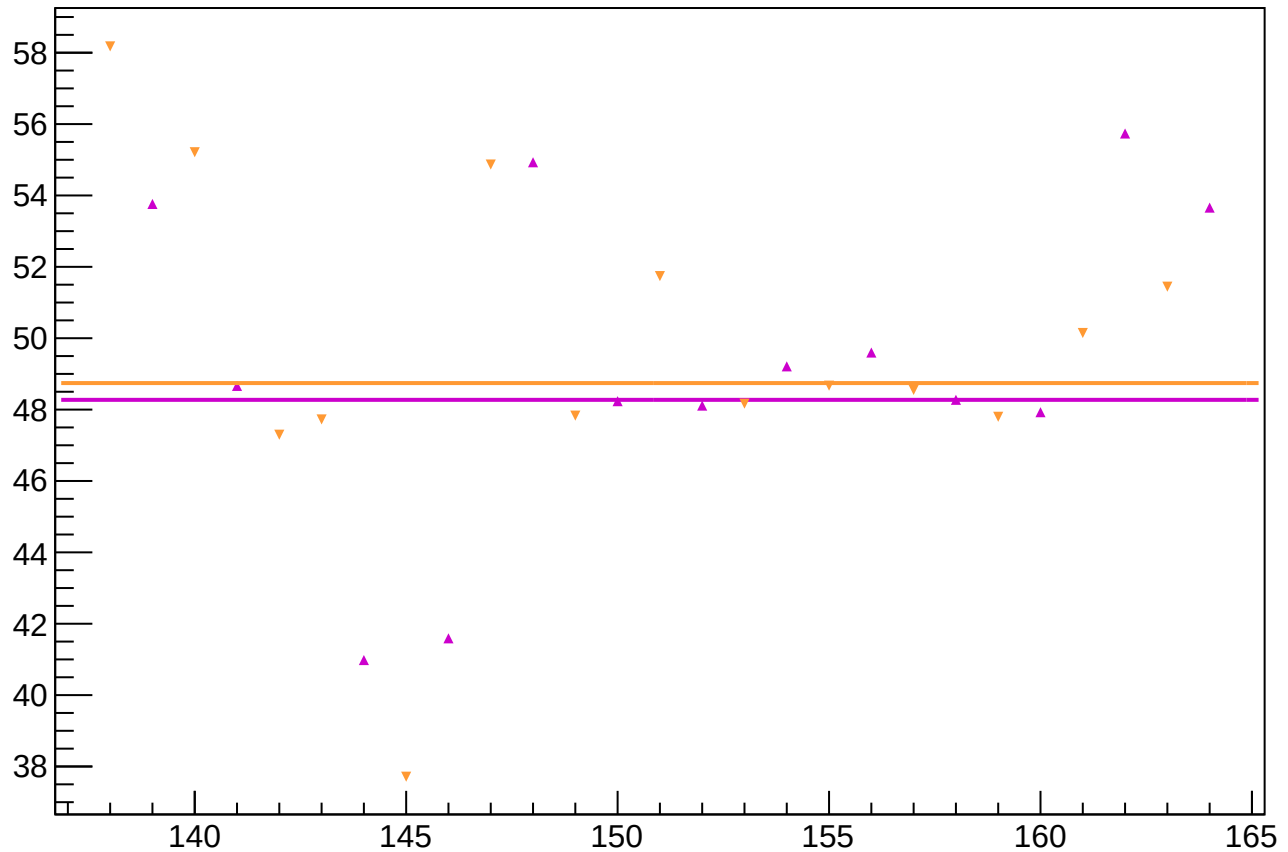
Left In: 15.511 $\pm$ 15.126  $\chi^2$ /NDF:13.1/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 1.509 $\pm$ 10.689  $\chi^2$ /NDF: 23.7/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_sam\_15\_48\_dd\_rms vs Slug



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

Left Out: 48.743+/-0.011  $\chi^2/\text{NDF}$ : 223146.3/13

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

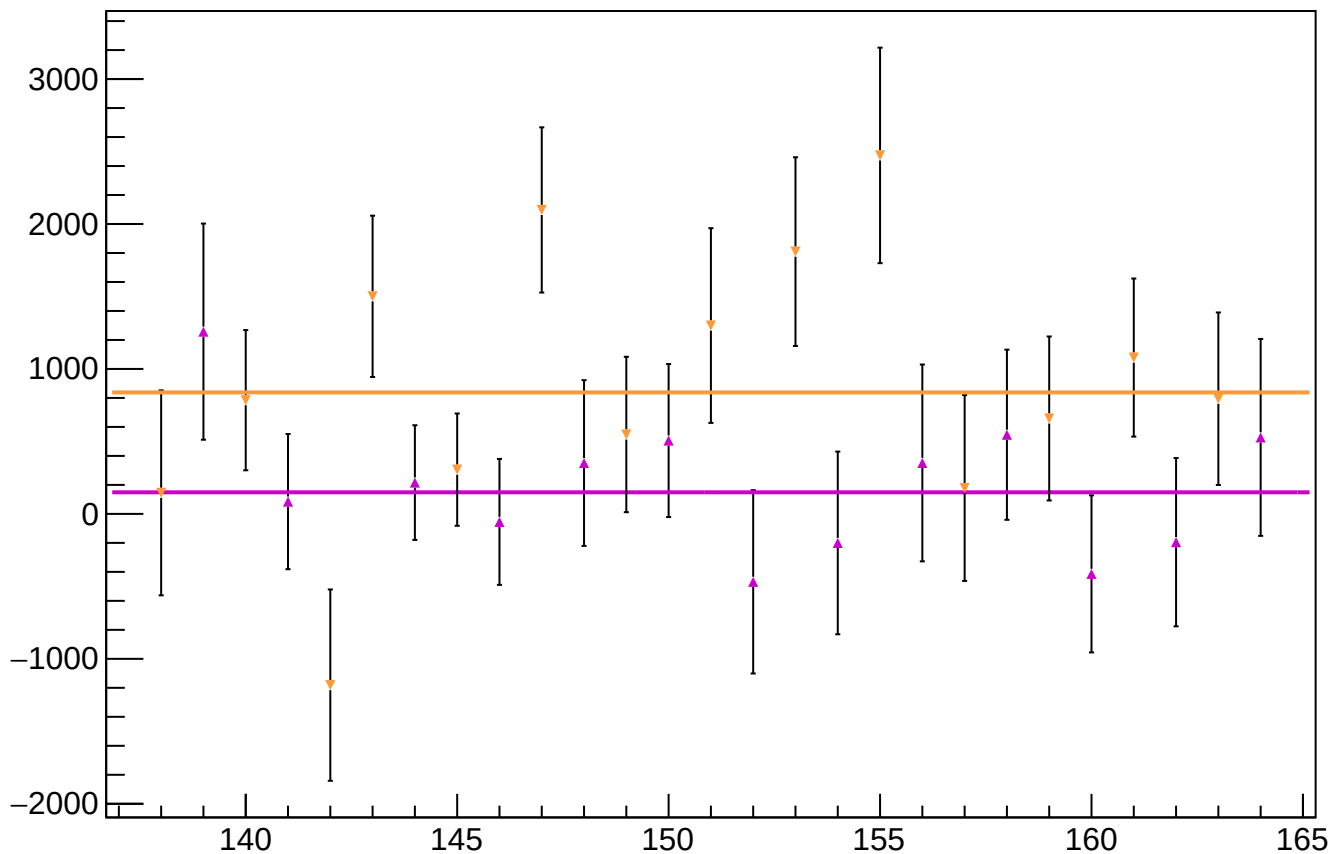
Left In: 48.273+/-0.011  $\chi^2/\text{NDF}$ : 173536.8/12

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

All: 48.509+/-0.008  $\chi^2/\text{NDF}$ : 397649.5/26

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

# asym\_sam\_15\_48\_dd\_correction\_mean vs Slug



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

Left Out: 838.149+/-152.225  $\chi^2/\text{NDF}$ : 27.7/13

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

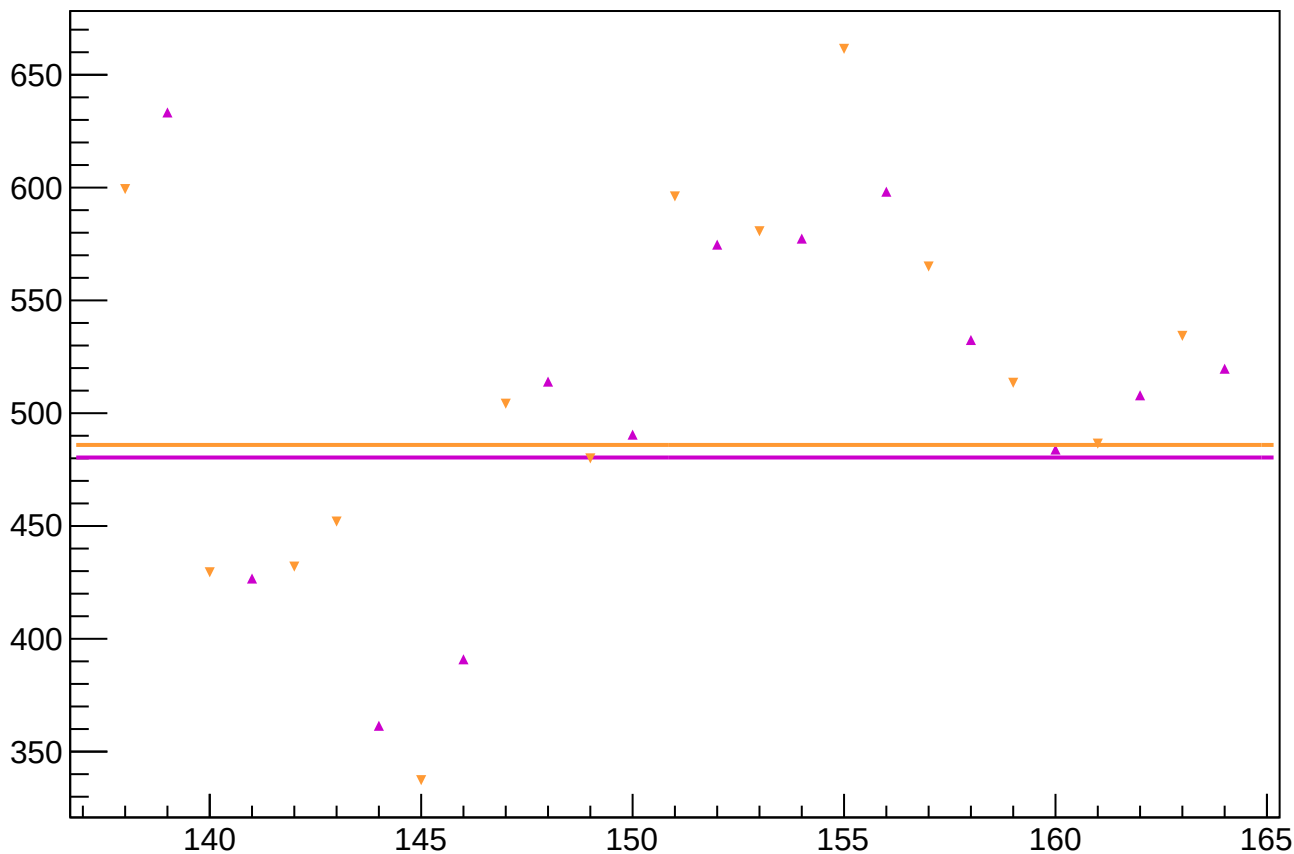
Left In: 148.889+/-151.866  $\chi^2/\text{NDF}$ : 6.6/12

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

All: 492.705+/-107.512  $\chi^2/\text{NDF}$ : 44.6/26

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

# asym\_sam\_15\_48\_dd\_correction\_rms vs Slug



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

Left Out: 485.933+/-0.108  $\chi^2/\text{NDF}$ : 652064.0/13

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

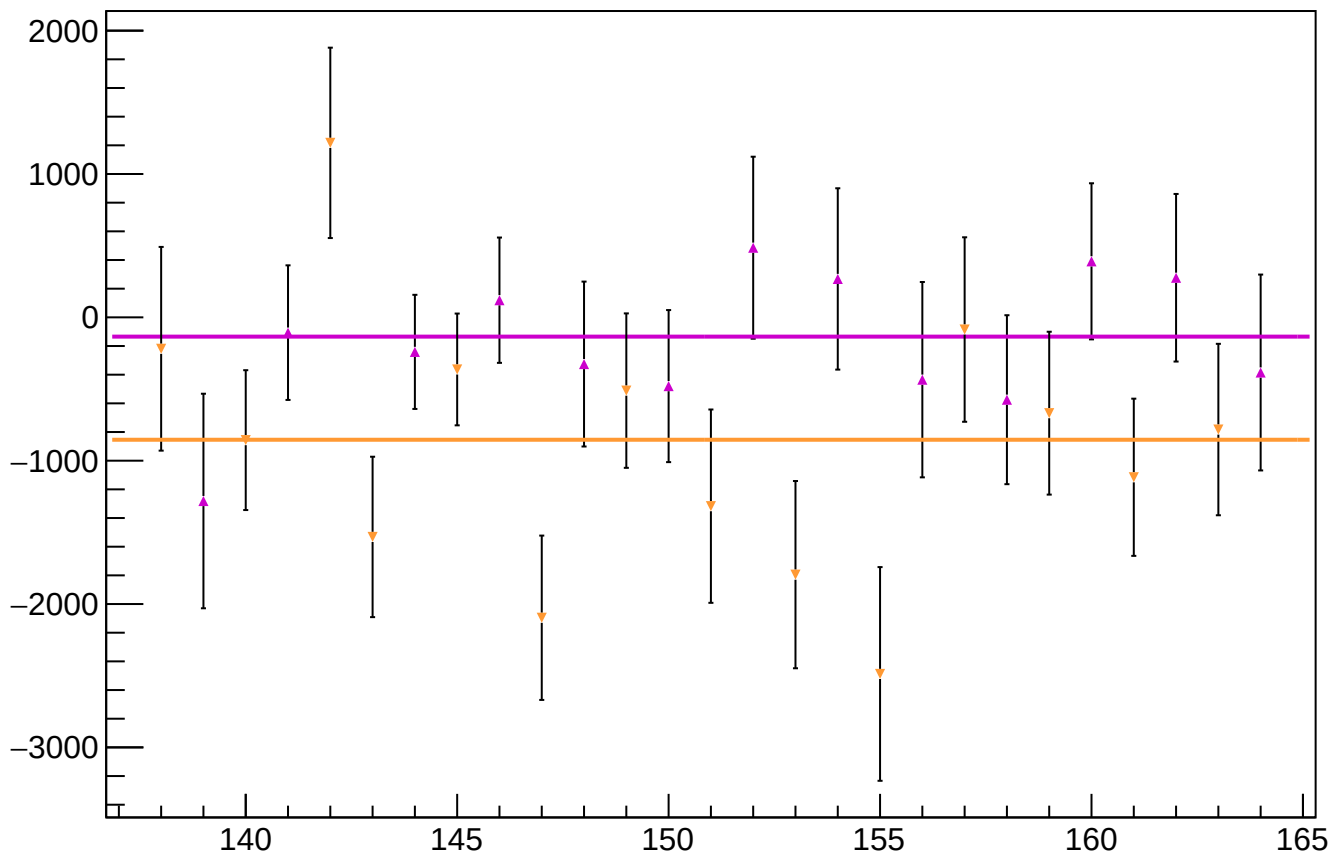
Left In: 480.361+/-0.107  $\chi^2/\text{NDF}$ : 563033.9/12

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

All: 483.140+/-0.076  $\chi^2/\text{NDF}$ : 1216441.1/26

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

# asym\_sam\_15\_48\_dd\_mean vs Slug



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

Left Out: -853.925+/-153.050  $\chi^2/\text{NDF}$ : 27.8/13

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

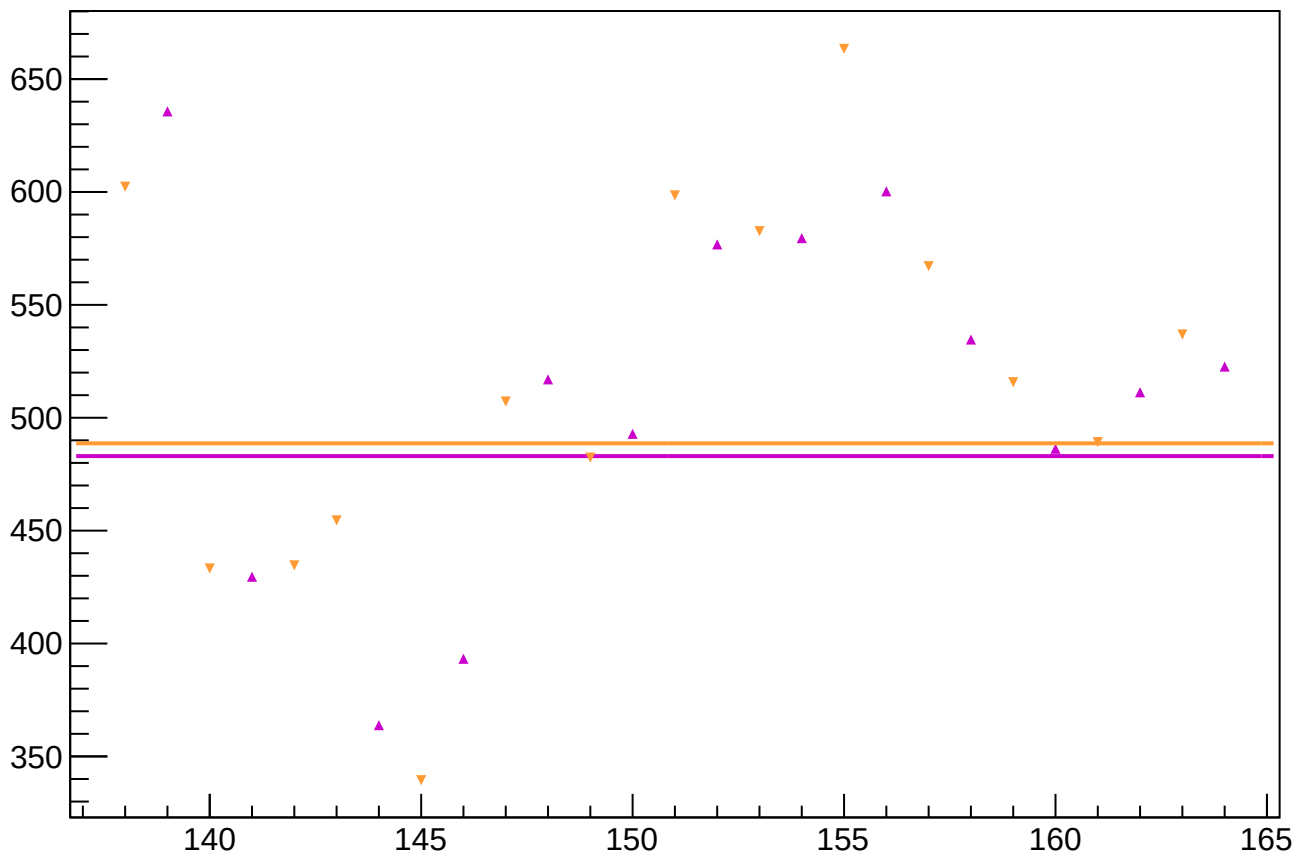
Left In: -134.460+/-152.679  $\chi^2/\text{NDF}$ : 7.0/12

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

All: -493.321+/-108.091  $\chi^2/\text{NDF}$ : 45.8/26

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

# asym\_sam\_15\_48\_dd\_rms vs Slug



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

Left Out: 488.671+/-0.108  $\chi^2/\text{NDF}$ : 644511.5/13

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

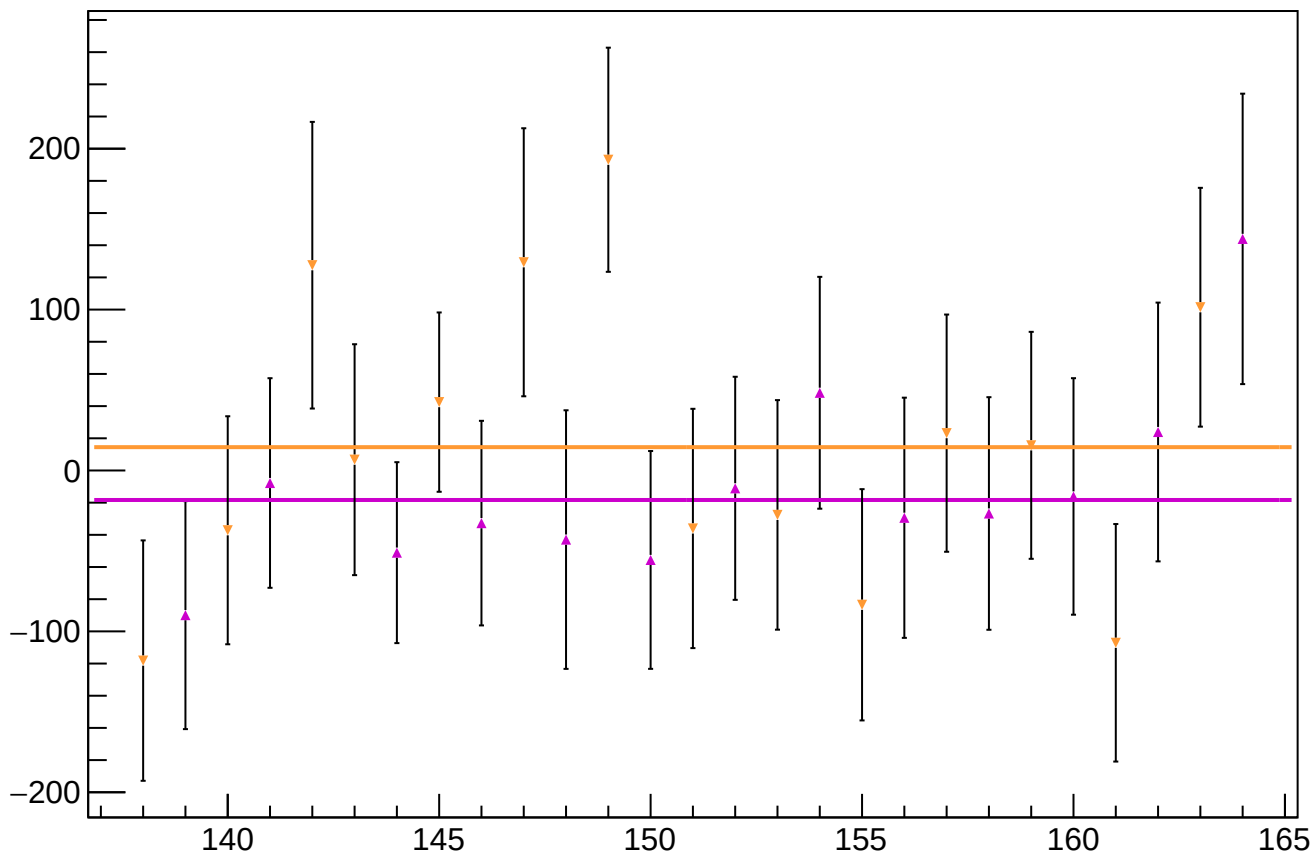
Left In: 483.018+/-0.108  $\chi^2/\text{NDF}$ : 556773.2/12

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

All: 485.837+/-0.076  $\chi^2/\text{NDF}$ : 1202652.1/26

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

# reg\_asym\_sam\_37\_48\_dd\_mean vs Slug



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

Left Out: 14.494+/-19.274  $\chi^2/\text{NDF}$ :20.8/13

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

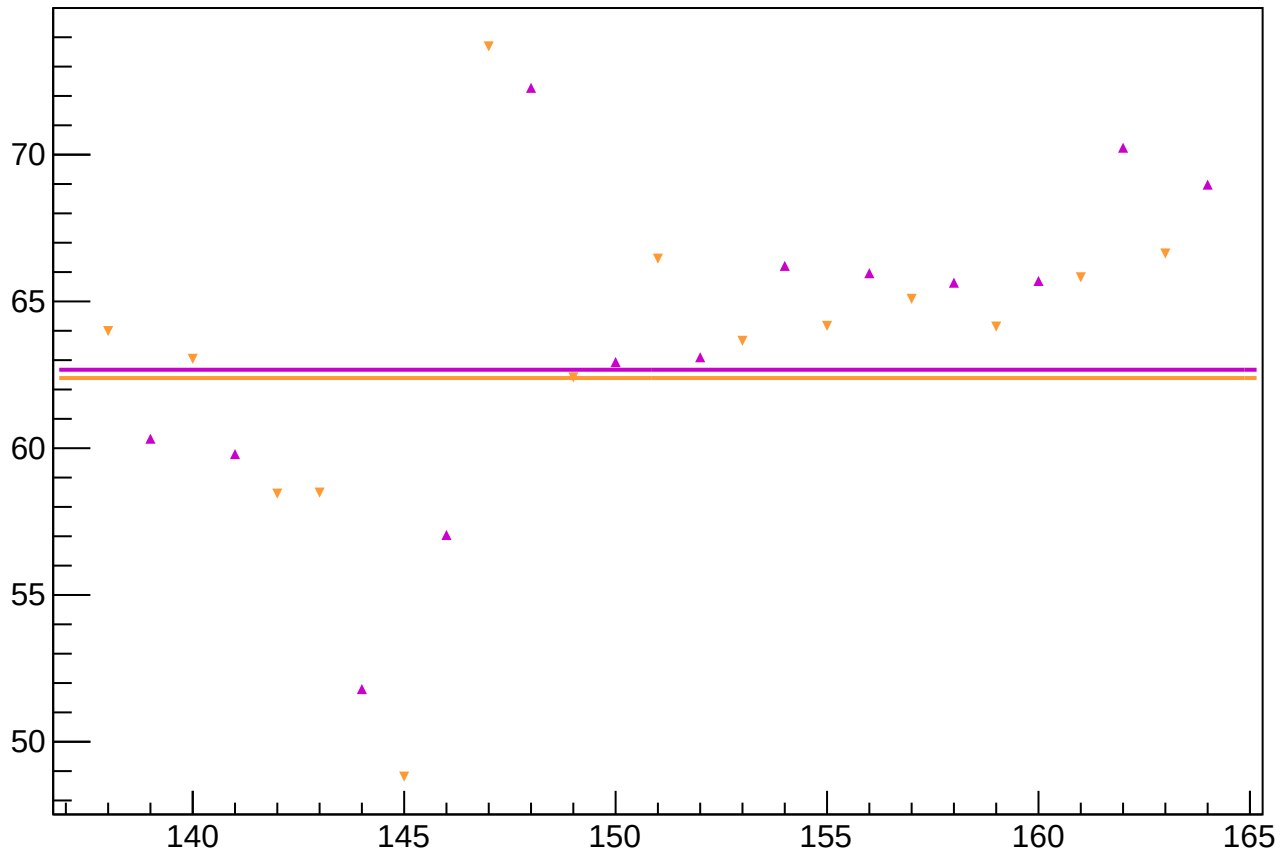
Left In: -18.339+/-19.591  $\chi^2/\text{NDF}$ :6.2/12

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

All: -1.655+/-13.739  $\chi^2/\text{NDF}$ : 28.5/26

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

# reg\_asym\_sam\_37\_48\_dd\_rms vs Slug



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

Left Out: 62.390+/-0.014  $\chi^2/\text{NDF}$ :189060.0/13

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

Left In: 62.673+/-0.014  $\chi^2/\text{NDF}$ :168199.0/12

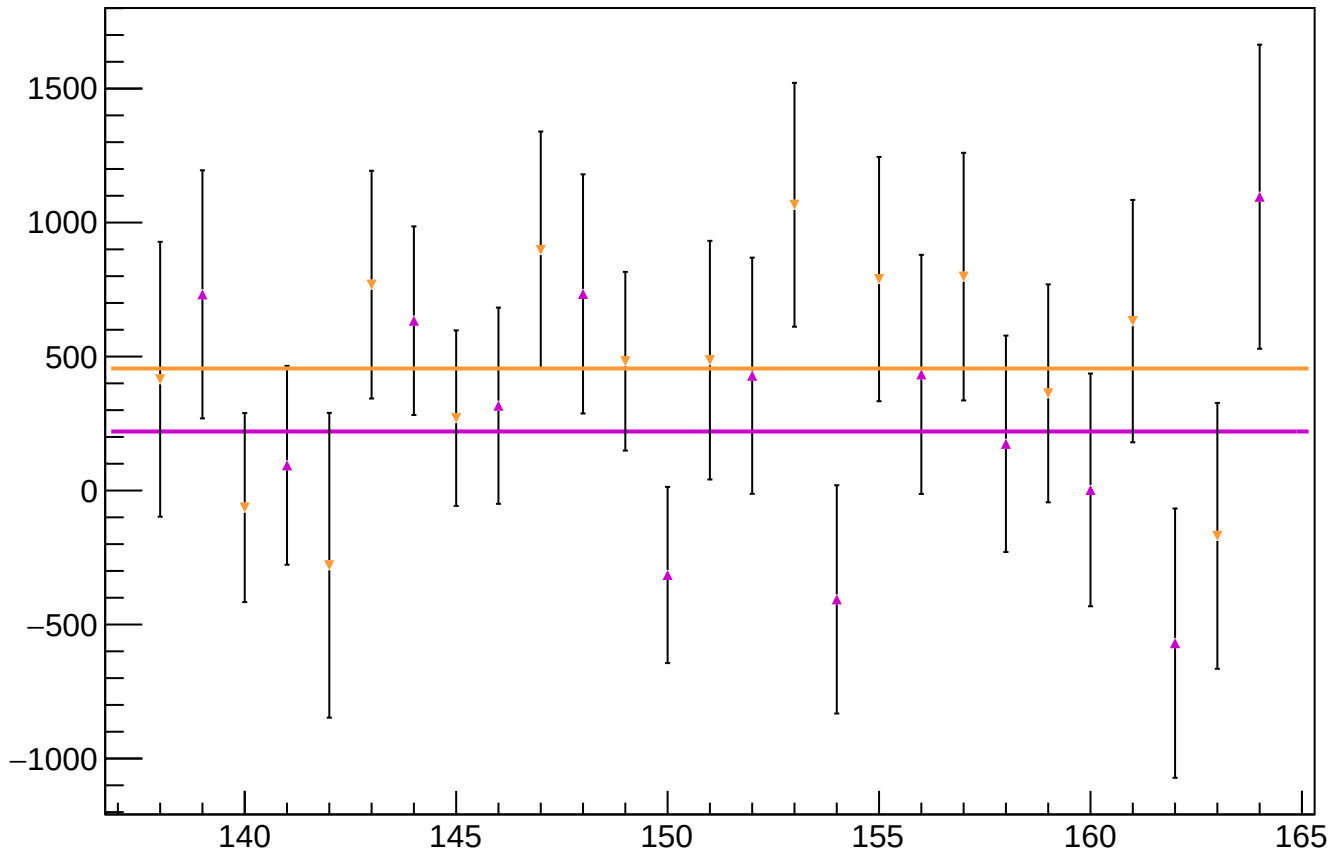
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 62.529+/-0.010  $\chi^2/\text{NDF}$ : 357470.7/26

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



# asym\_sam\_37\_48\_dd\_correction\_mean vs Slug



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

Left Out: 455.451+/-113.040  $\chi^2/\text{NDF}$ : 10.4/13

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

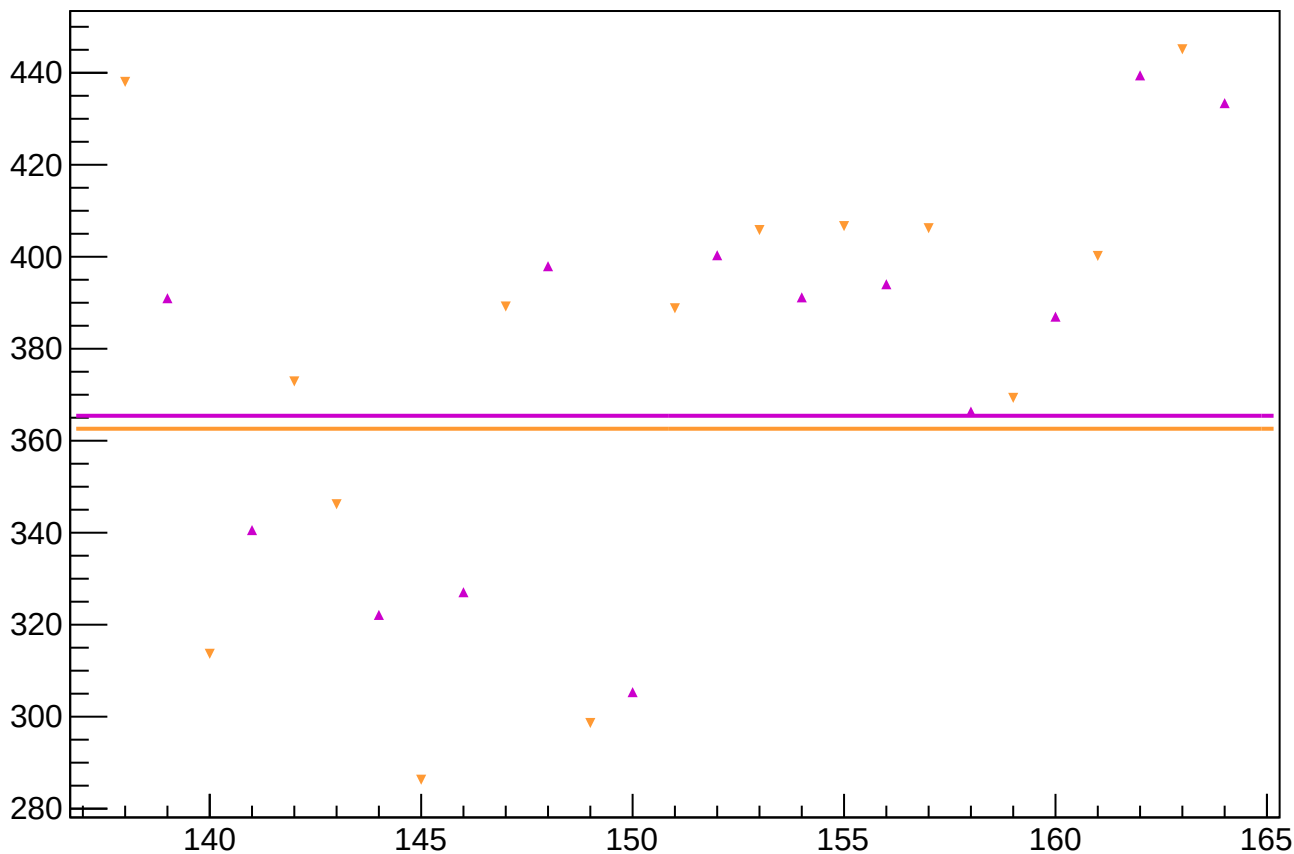
Left In: 220.310+/-114.765  $\chi^2/\text{NDF}$ : 14.5/12

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

All: 339.661+/-80.534  $\chi^2/\text{NDF}$ : 27.0/26

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

# asym\_sam\_37\_48\_dd\_correction\_rms vs Slug



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

Left Out: 362.606+/-0.080  $\chi^2/\text{NDF}$ : 405874.4/13

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

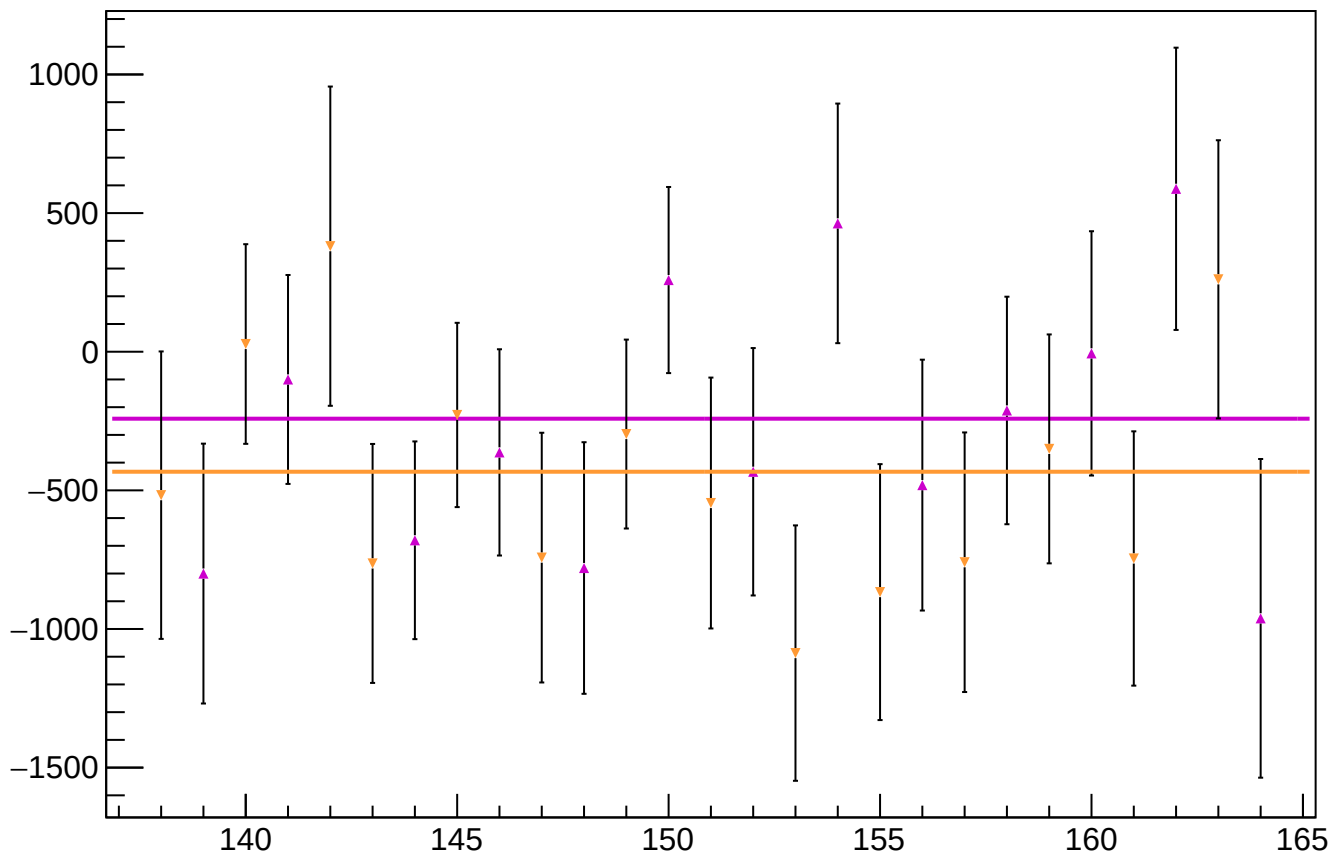
Left In: 365.427+/-0.081  $\chi^2/\text{NDF}$ : 249871.8/12

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

All: 363.996+/-0.057  $\chi^2/\text{NDF}$ : 656359.6/26

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

# asym\_sam\_37\_48\_dd\_mean vs Slug



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

Left Out: -432.825+/-114.792  $\chi^2/\text{NDF}$ : 11.1/13

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

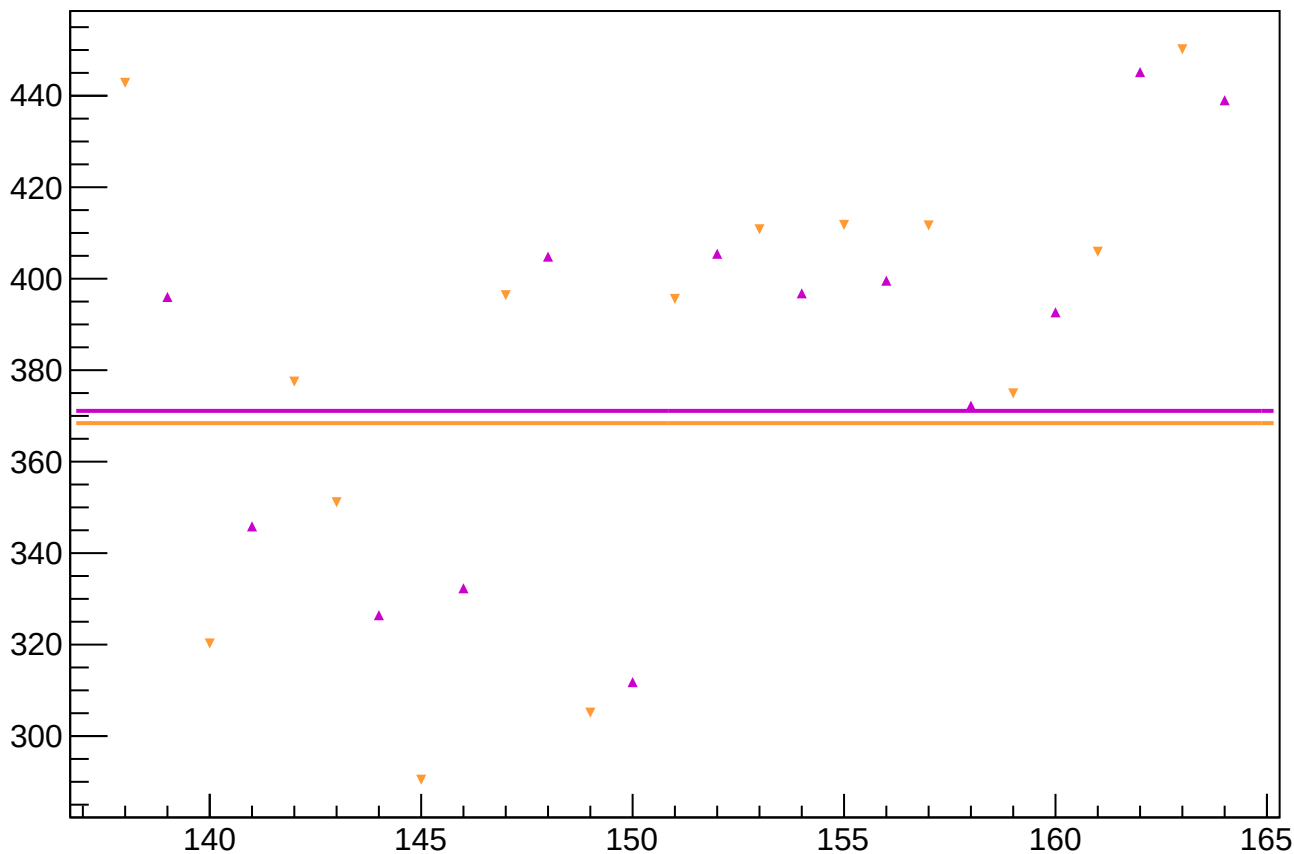
Left In: -241.530+/-116.510  $\chi^2/\text{NDF}$ : 14.4/12

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

All: -338.598+/-81.771  $\chi^2/\text{NDF}$ : 26.9/26

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

# asym\_sam\_37\_48\_dd\_rms vs Slug



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

Left Out: 368.423+/-0.081  $\chi^2/\text{NDF}$ : 393312.3/13

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

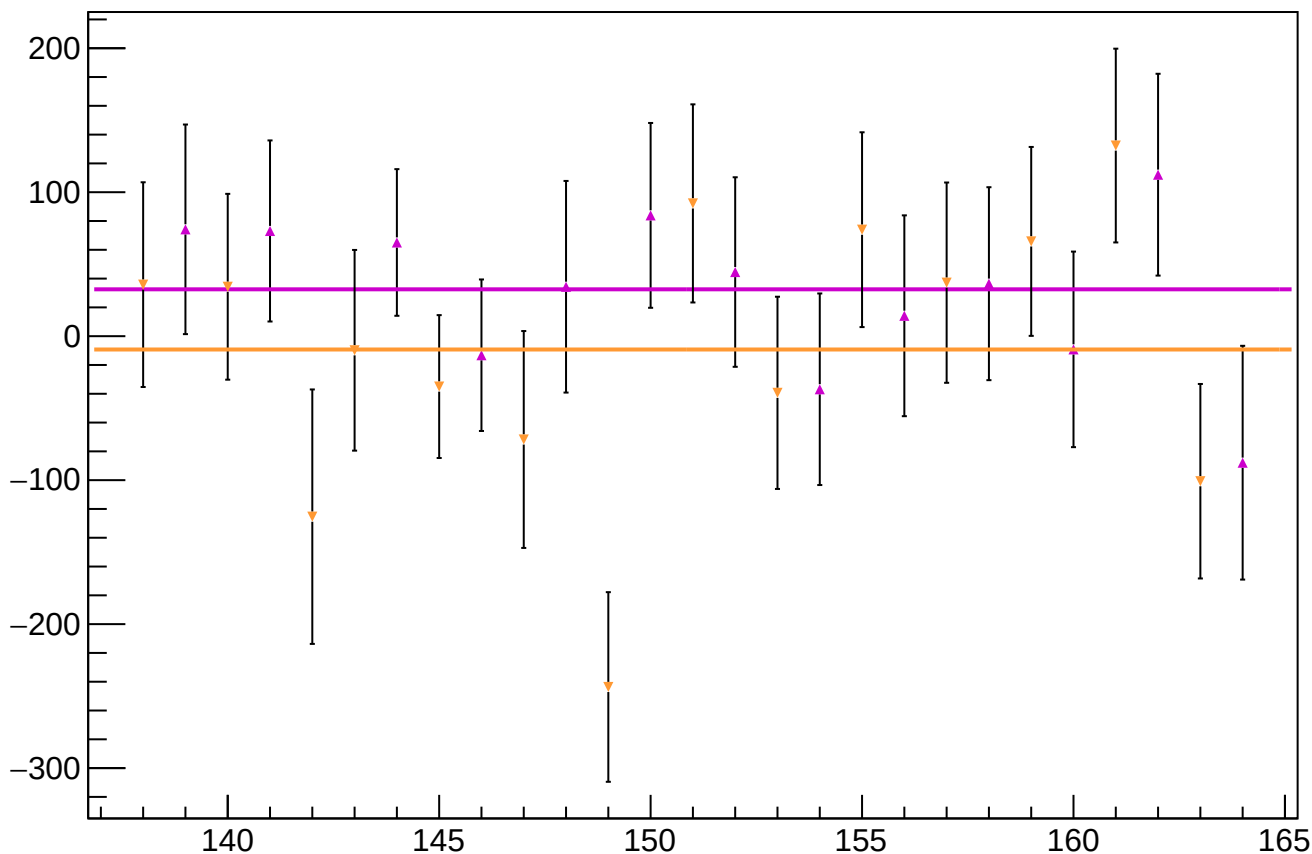
Left In: 371.104+/-0.082  $\chi^2/\text{NDF}$ : 243177.1/12

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

All: 369.743+/-0.058  $\chi^2/\text{NDF}$ : 637026.6/26

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

# reg\_asym\_sam\_15\_26\_dd\_mean vs Slug



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

Left Out: -9.249+/-17.909  $\chi^2/\text{NDF}$ : 28.1/13

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

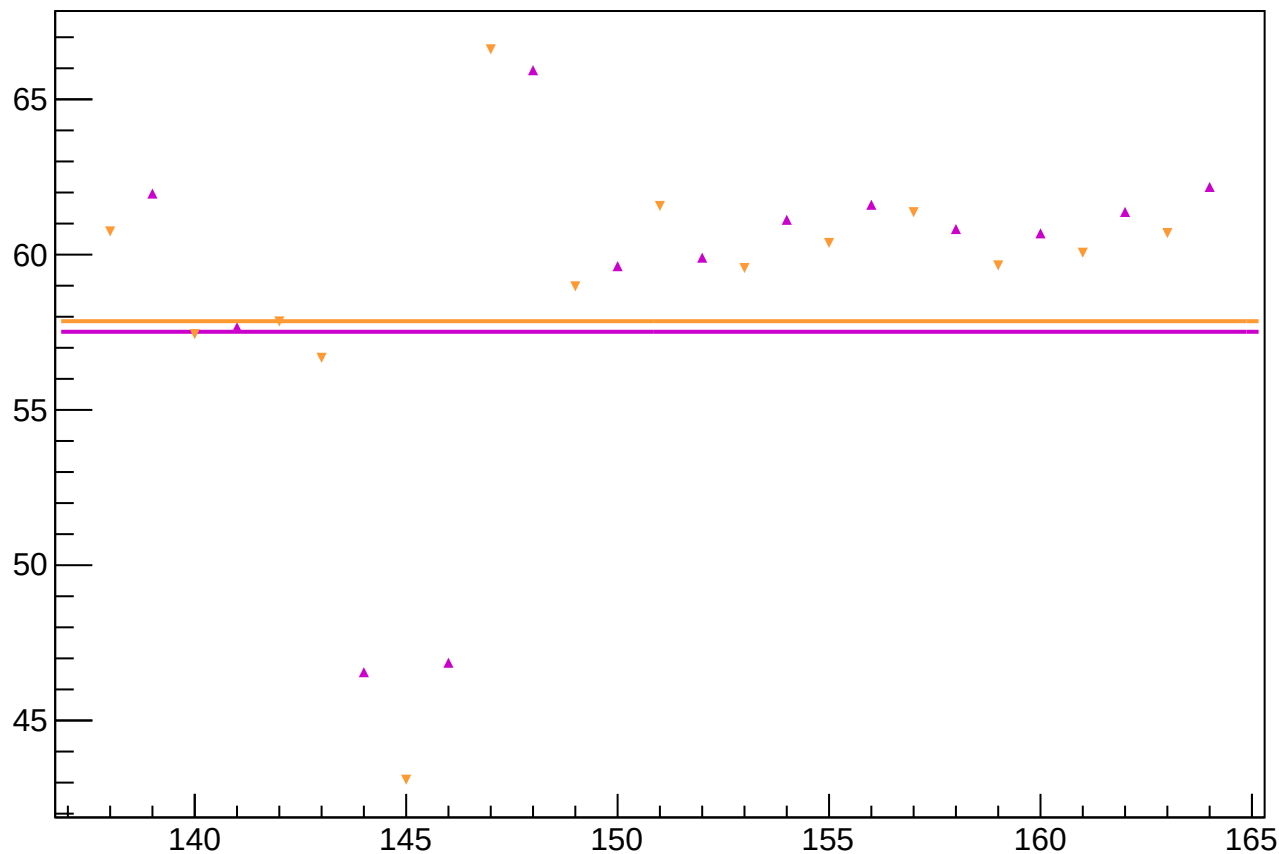
Left In: 32.549+/-18.039  $\chi^2/\text{NDF}$ : 7.6/12

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

All: 11.499+/-12.709  $\chi^2/\text{NDF}$ : 38.4/26

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

# reg\_asym\_sam\_15\_26\_dd\_rms vs Slug



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

Left Out: 57.857+/-0.013  $\chi^2/\text{NDF}$ : 230778.8/13

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

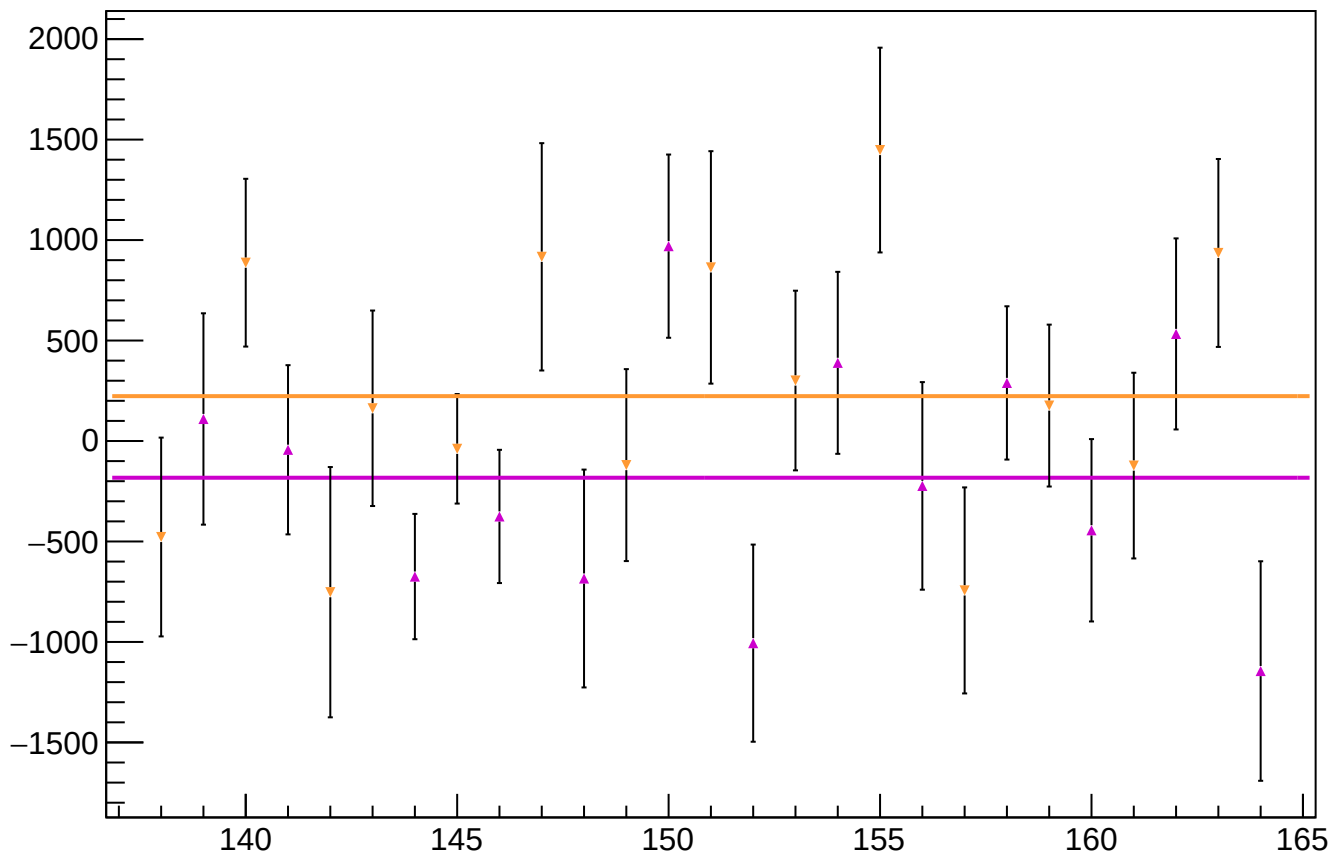
Left In: 57.516+/-0.013  $\chi^2/\text{NDF}$ : 247828.0/12

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

All: 57.688+/-0.009  $\chi^2/\text{NDF}$ : 478968.3/26

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

# asym\_sam\_15\_26\_dd\_correction\_mean vs Slug



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

Left Out: 223.283+/-120.676  $\chi^2/\text{NDF}$ : 23.4/13

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

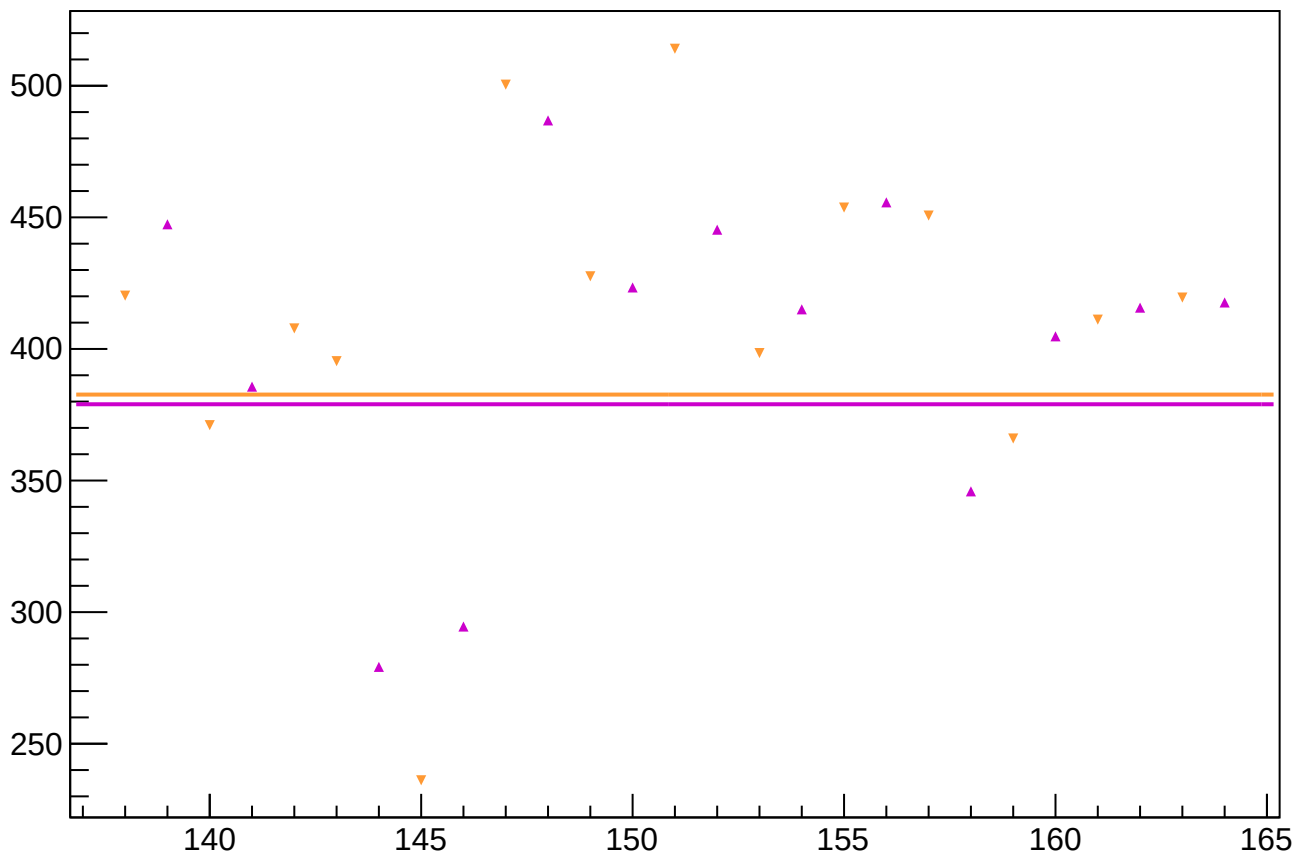
Left In: -182.786+/-120.268  $\chi^2/\text{NDF}$ : 22.1/12

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

All: 19.561+/-85.186  $\chi^2/\text{NDF}$ : 51.3/26

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

# asym\_sam\_15\_26\_dd\_correction\_rms vs Slug



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

Left Out: 382.667+/-0.085  $\chi^2/\text{NDF}$ : 903789.8/13

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

Left In: 378.985+/-0.085  $\chi^2/\text{NDF}$ : 603900.4/12

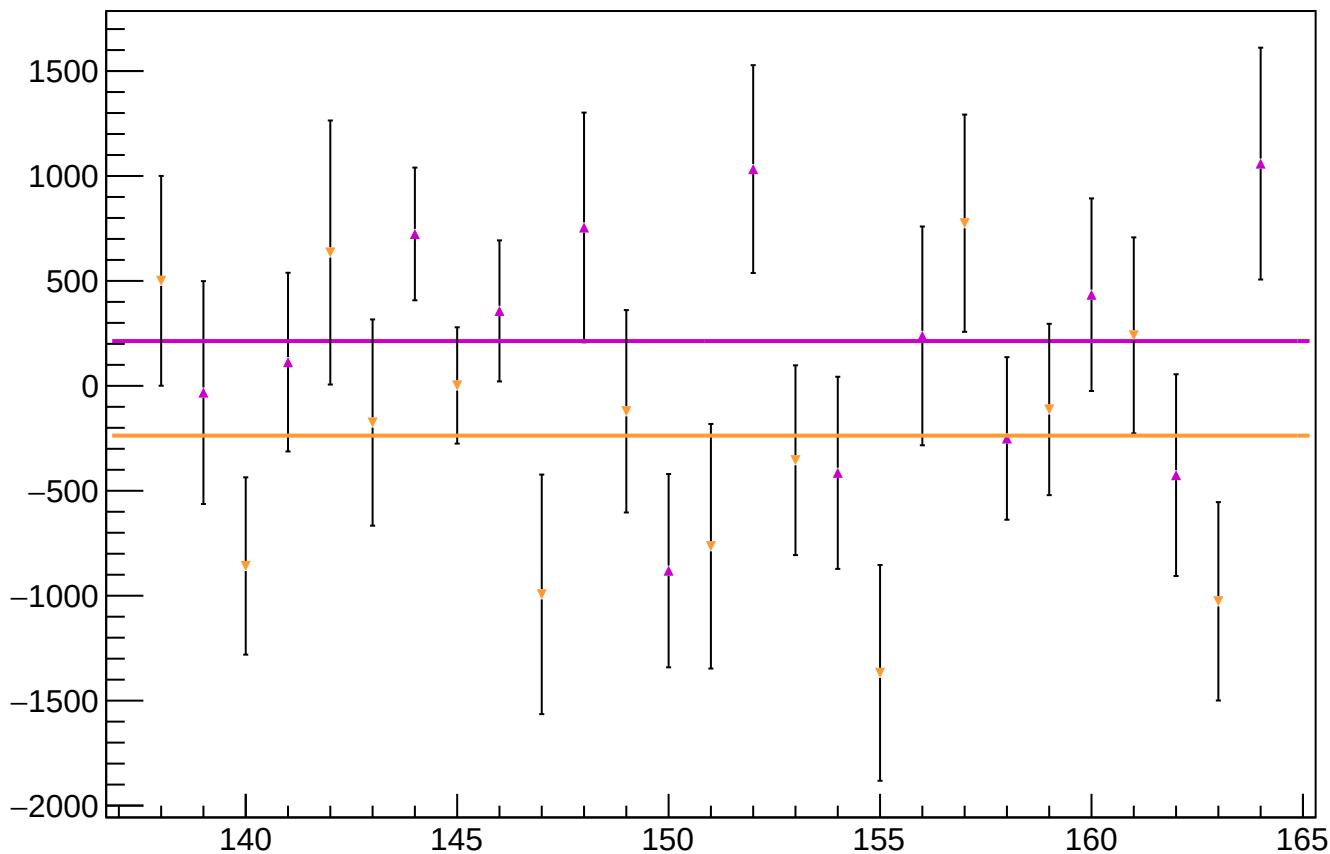
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 380.820+/-0.060  $\chi^2/\text{NDF}$ : 1508624.3/26

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



# asym\_sam\_15\_26\_dd\_mean vs Slug



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

Left Out: -237.153 $\pm$ 122.091  $\chi^2$ /NDF: 22.3/13

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

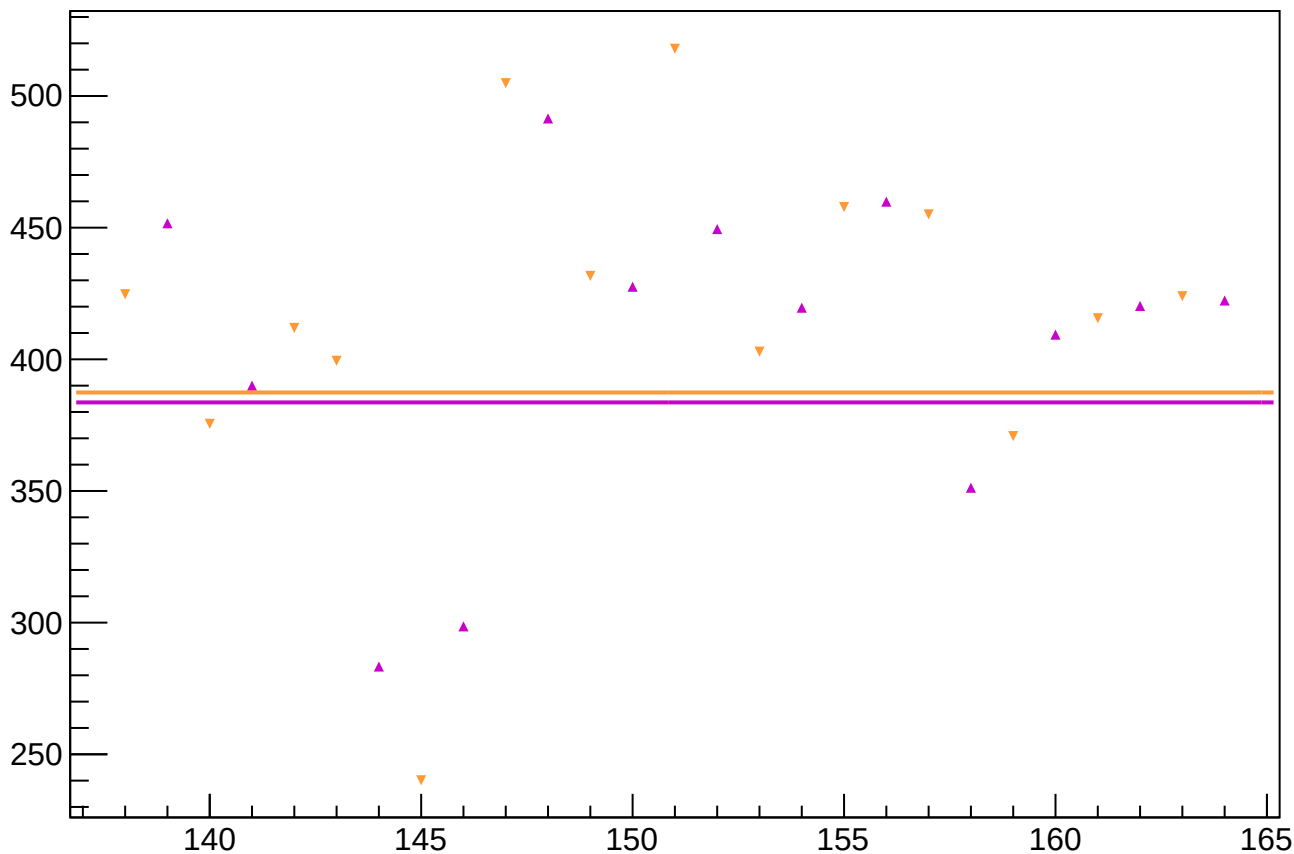
Left In: 213.391 $\pm$ 121.690  $\chi^2$ /NDF: 20.1/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -11.139 $\pm$ 86.189  $\chi^2$ /NDF: 49.2/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# asym\_sam\_15\_26\_dd\_rms vs Slug



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

Left Out: 387.414+/-0.086  $\chi^2/\text{NDF}$ : 880414.1/13

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

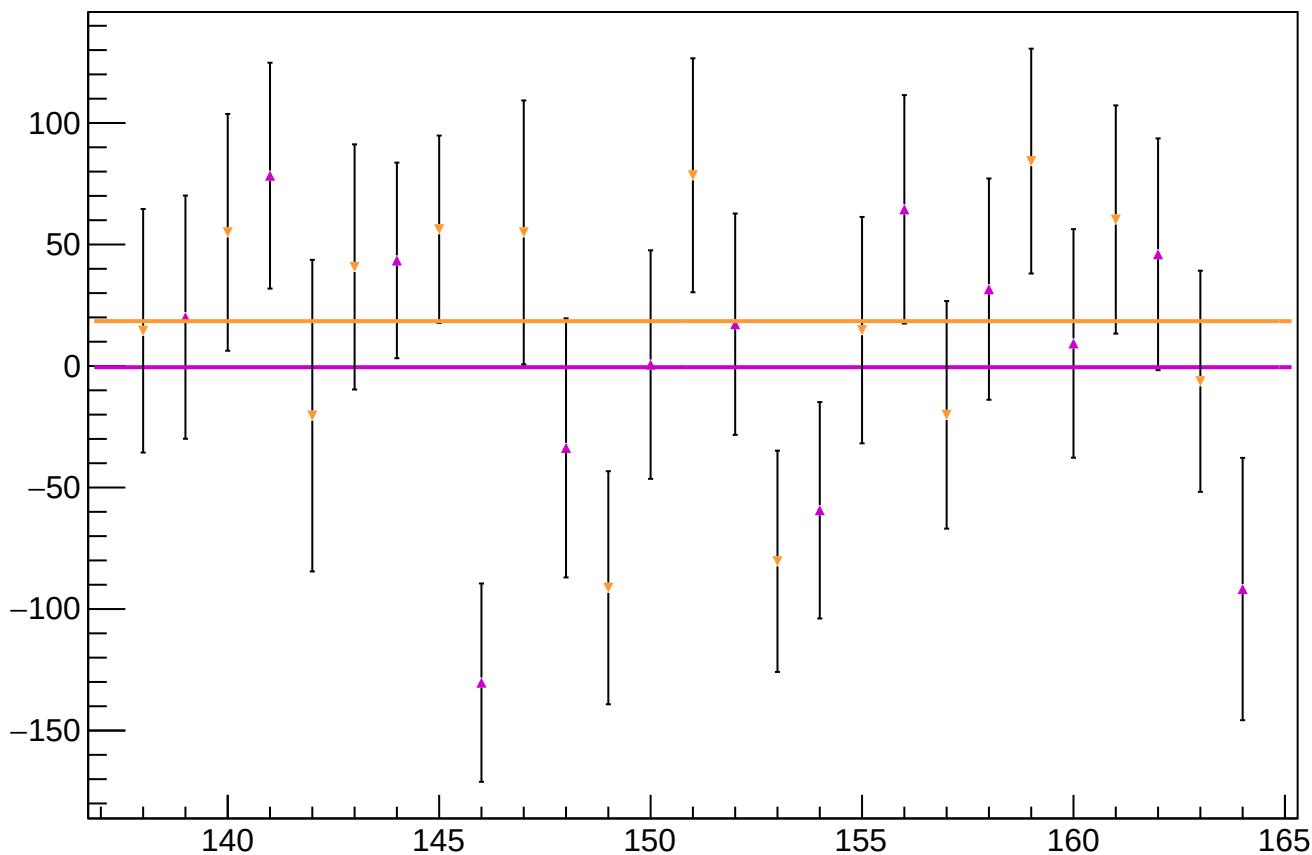
Left In: 383.637+/-0.086  $\chi^2/\text{NDF}$ : 590735.8/12

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

All: 385.519+/-0.061  $\chi^2/\text{NDF}$ : 1472110.1/26

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

# reg\_asym\_sam\_37\_26\_dd\_mean vs Slug



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

Left Out: 18.463+/-12.764  $\chi^2/\text{NDF}$ : 17.8/13

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

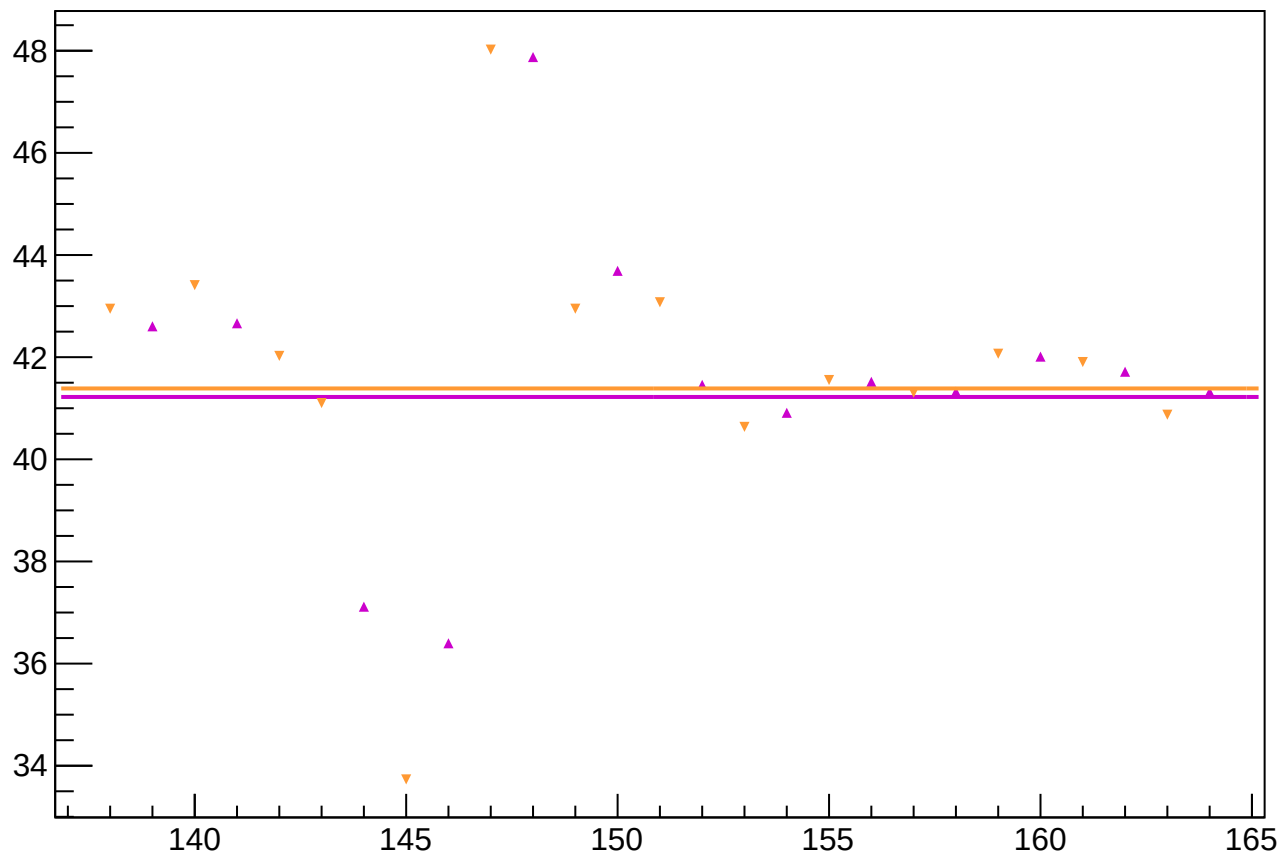
Left In: -0.492+/-12.865  $\chi^2/\text{NDF}$ : 22.9/12

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

All: 9.061+/-9.061  $\chi^2/\text{NDF}$ : 41.9/26

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

# reg\_asym\_sam\_37\_26\_dd\_rms vs Slug



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

Left Out: 41.387+/-0.009  $\chi^2/\text{NDF}$ :120506.8/13

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

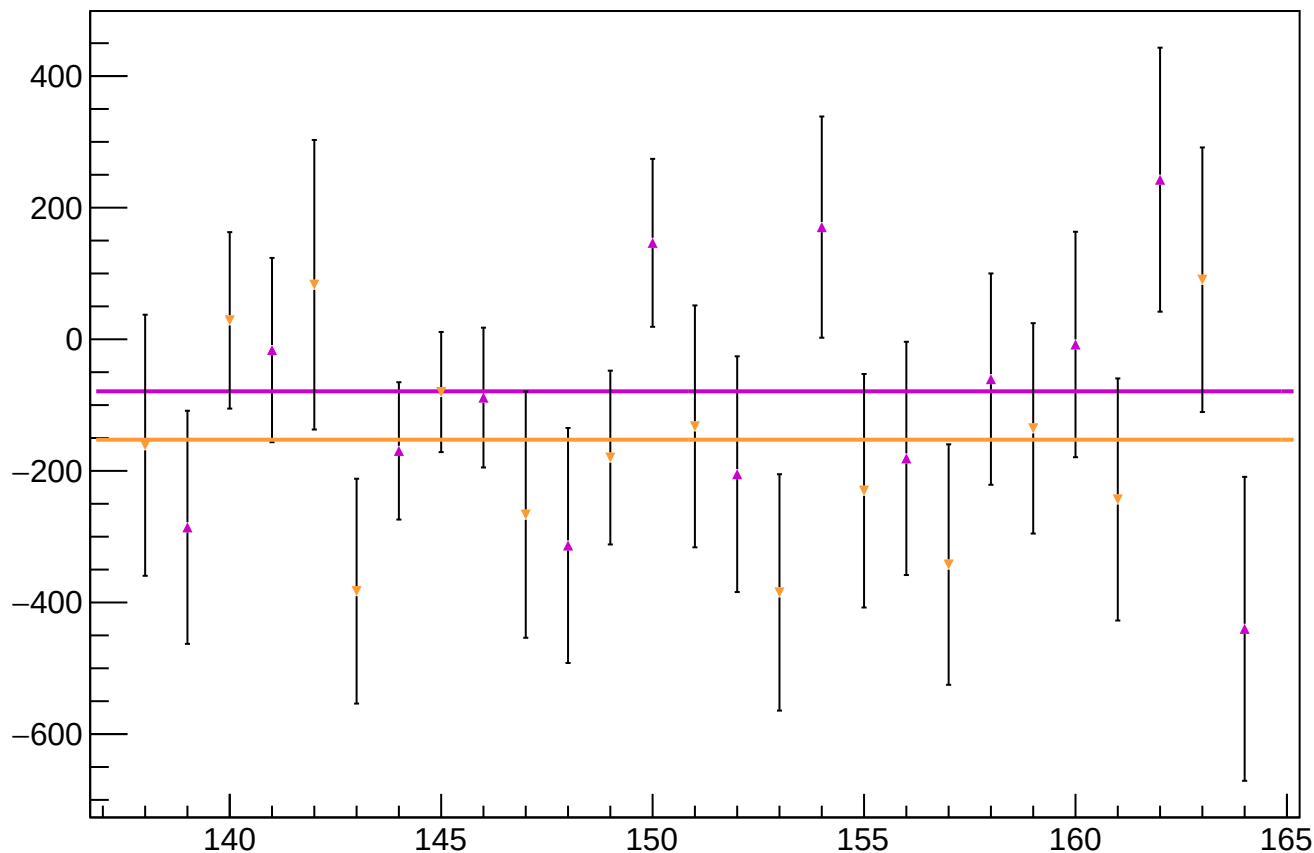
Left In: 41.221+/-0.009  $\chi^2/\text{NDF}$ :89943.5/12

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

All: 41.305+/-0.006  $\chi^2/\text{NDF}$ : 210619.4/26

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

# asym\_sam\_37\_26\_dd\_correction\_mean vs Slug



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

Left Out: -152.625+/-42.350  $\chi^2/\text{NDF}$ :10.5/13

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

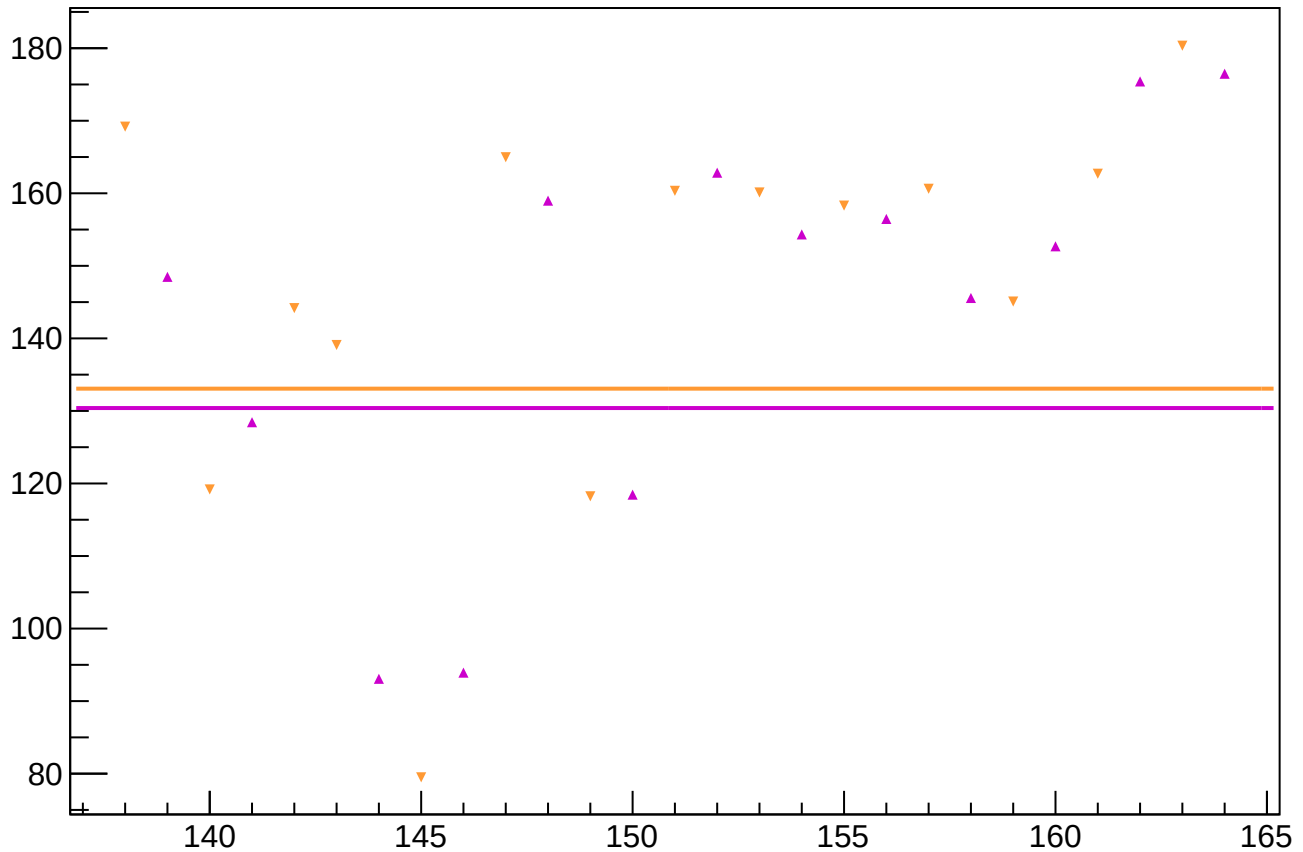
Left In: -79.090+/-41.853  $\chi^2/\text{NDF}$ :15.4/12

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

All: -115.423+/-29.769  $\chi^2/\text{NDF}$ : 27.4/26

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

# asym\_sam\_37\_26\_dd\_correction\_rms vs Slug



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

Left Out: 133.071+/-0.030  $\chi^2/\text{NDF}$ : 1216478.7/13

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

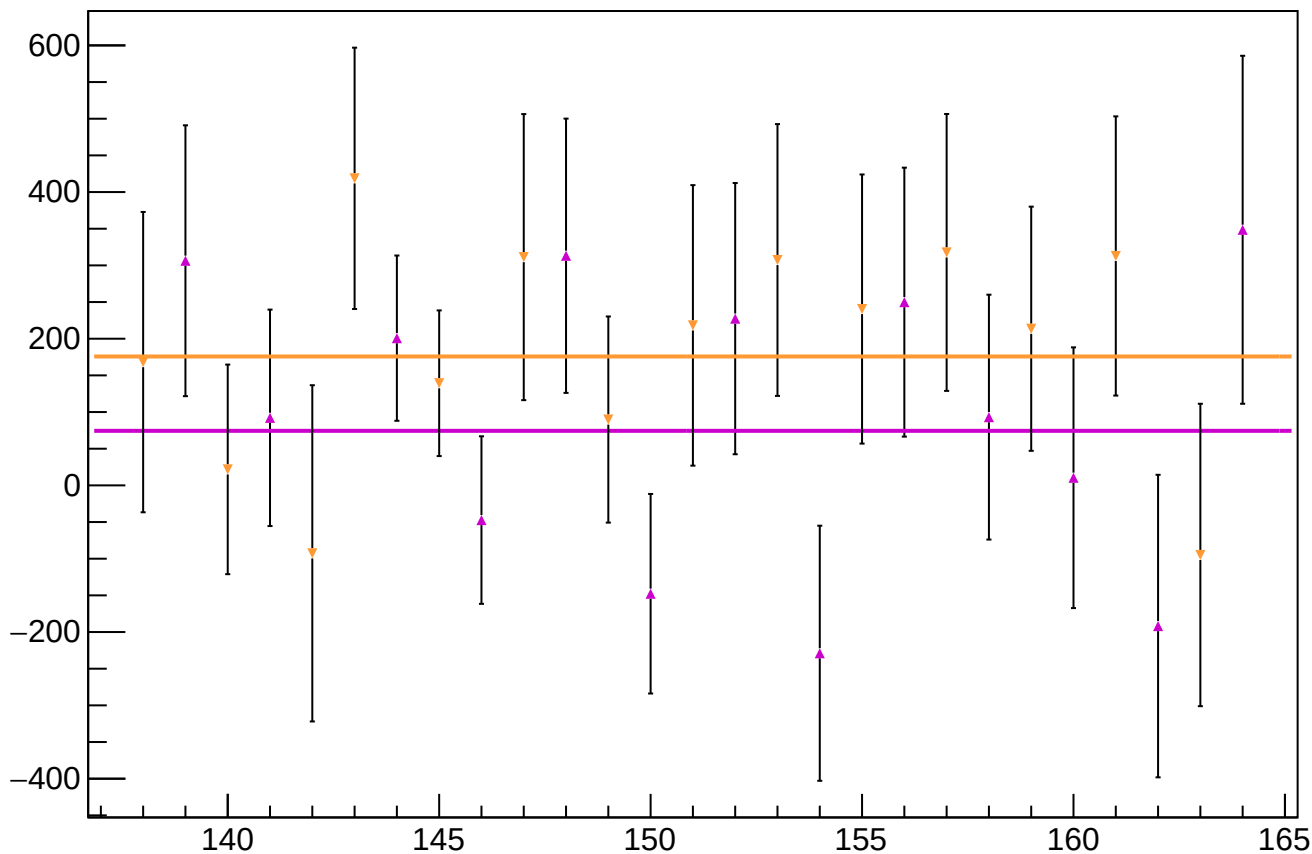
Left In: 130.397+/-0.030  $\chi^2/\text{NDF}$ : 963031.0/12

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

All: 131.718+/-0.021  $\chi^2/\text{NDF}$ : 2183540.9/26

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

# asym\_sam\_37\_26\_dd\_mean vs Slug



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

Left Out: 175.780+/-44.589  $\chi^2/\text{NDF}$ : 8.9/13

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

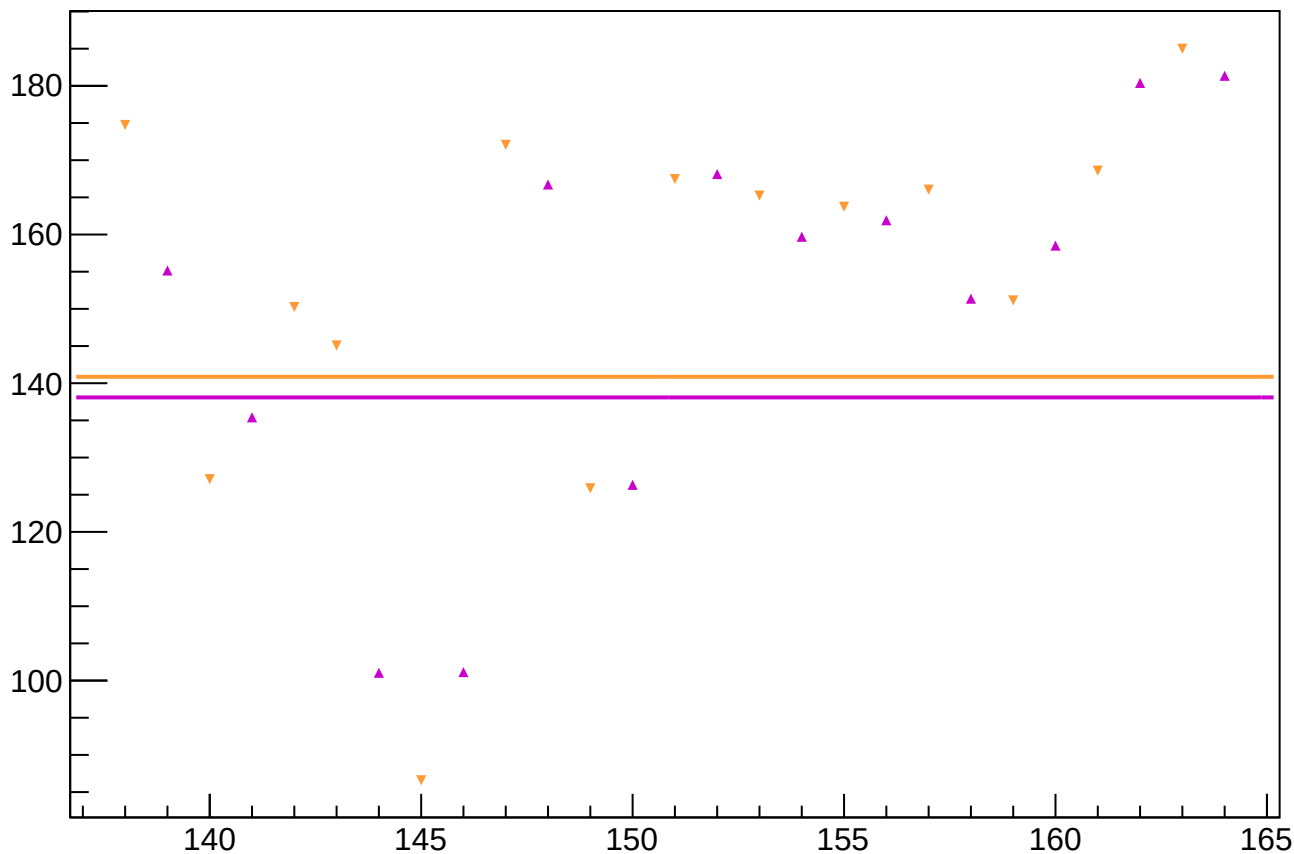
Left In: 74.377+/-44.107  $\chi^2/\text{NDF}$ : 16.1/12

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

All: 124.528+/-31.357  $\chi^2/\text{NDF}$ : 27.6/26

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

# asym\_sam\_37\_26\_dd\_rms vs Slug



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

Left Out: 140.863+/-0.032  $\chi^2/\text{NDF}$ :1030462.7/13

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

Left In: 138.091+/-0.031  $\chi^2/\text{NDF}$ :812035.3/12

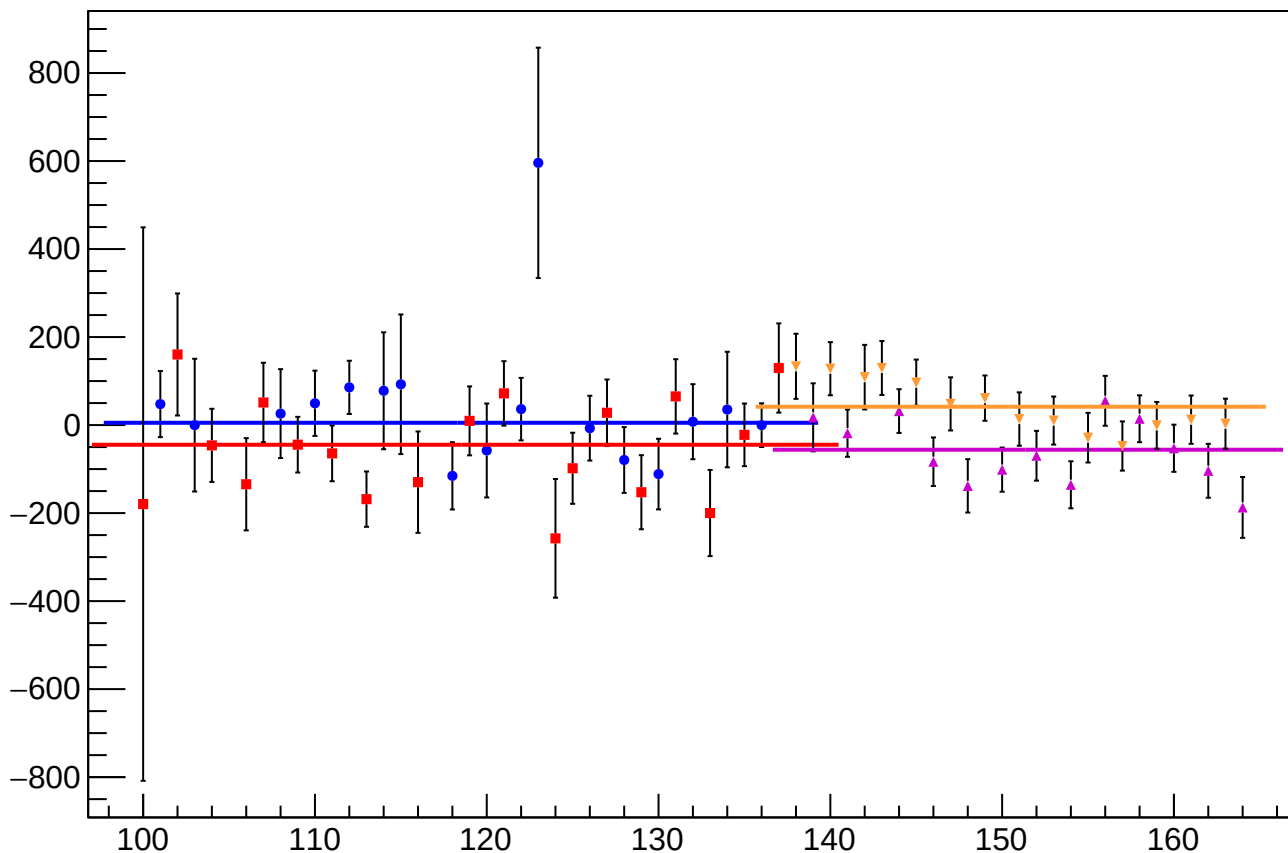
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 139.462+/-0.022  $\chi^2/\text{NDF}$ : 1846407.1/26

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



# reg\_asym\_sam\_1357\_avg\_mean vs Slug



Right In:  $5.220 \pm 20.150$   $\chi^2/\text{NDF}$ : 14.7/16

Left Out:  $41.666 \pm 15.495$   $\chi^2/\text{NDF}$ : 13.8/13

Right Out:  $-44.715 \pm 19.410$   $\chi^2/\text{NDF}$ : 24.4/18

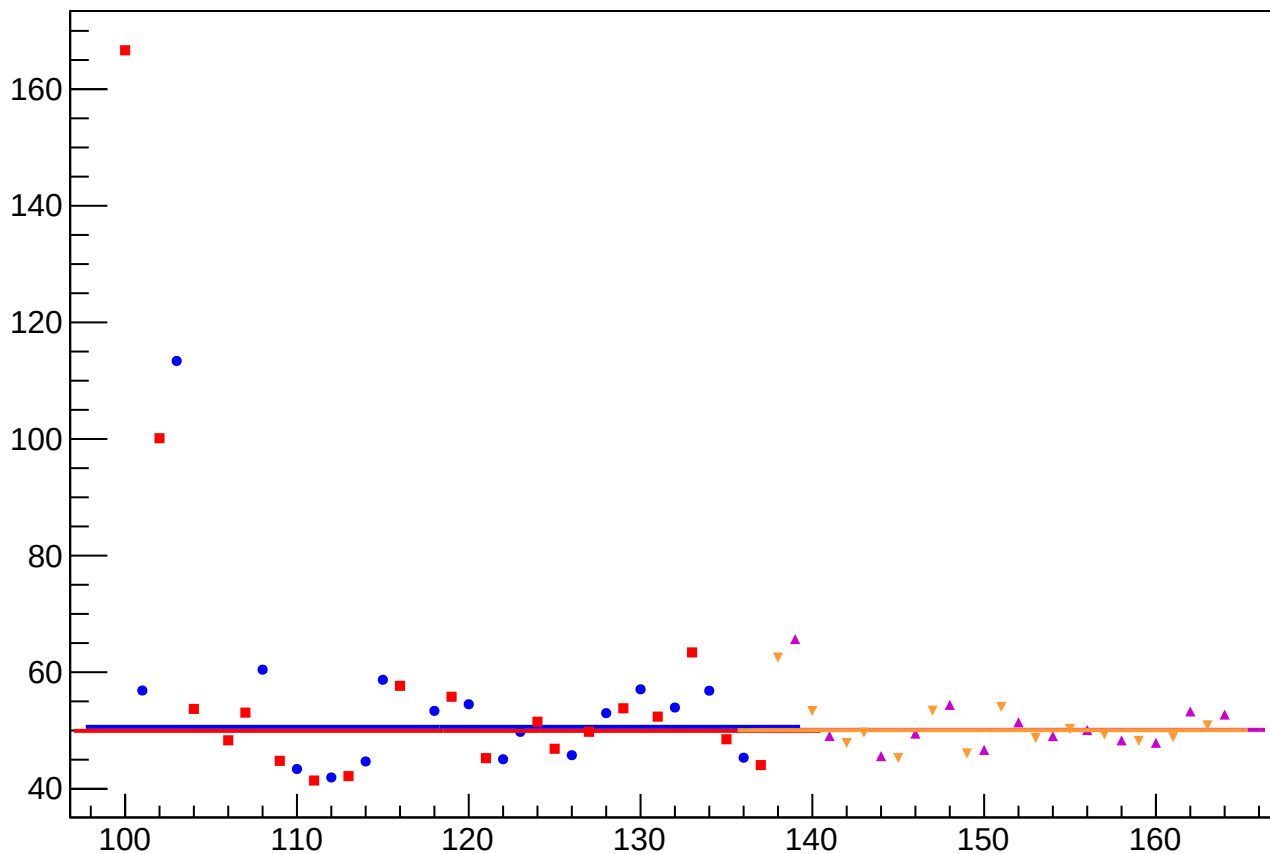
Left In:  $-56.050 \pm 15.680$   $\chi^2/\text{NDF}$ : 19.5/12

+ sign  $28.123 \pm 12.283$   $\chi^2/\text{NDF}$ : 30.5/30

All:  $-12.005 \pm 8.655$   $\chi^2/\text{NDF}$ : 95.8/62

- sign  $-51.574 \pm 12.197$   $\chi^2/\text{NDF}$ : 44.1/31

# reg\_asym\_sam\_1357\_avg\_rms vs Slug



Right In: 50.635 $\pm$ 0.014  $\chi^2$ /NDF: 519687.1/16

Left Out: 50.060 $\pm$ 0.011  $\chi^2$ /NDF: 113108.0/13

Right Out: 49.943 $\pm$ 0.014  $\chi^2$ /NDF: 500488.8/18

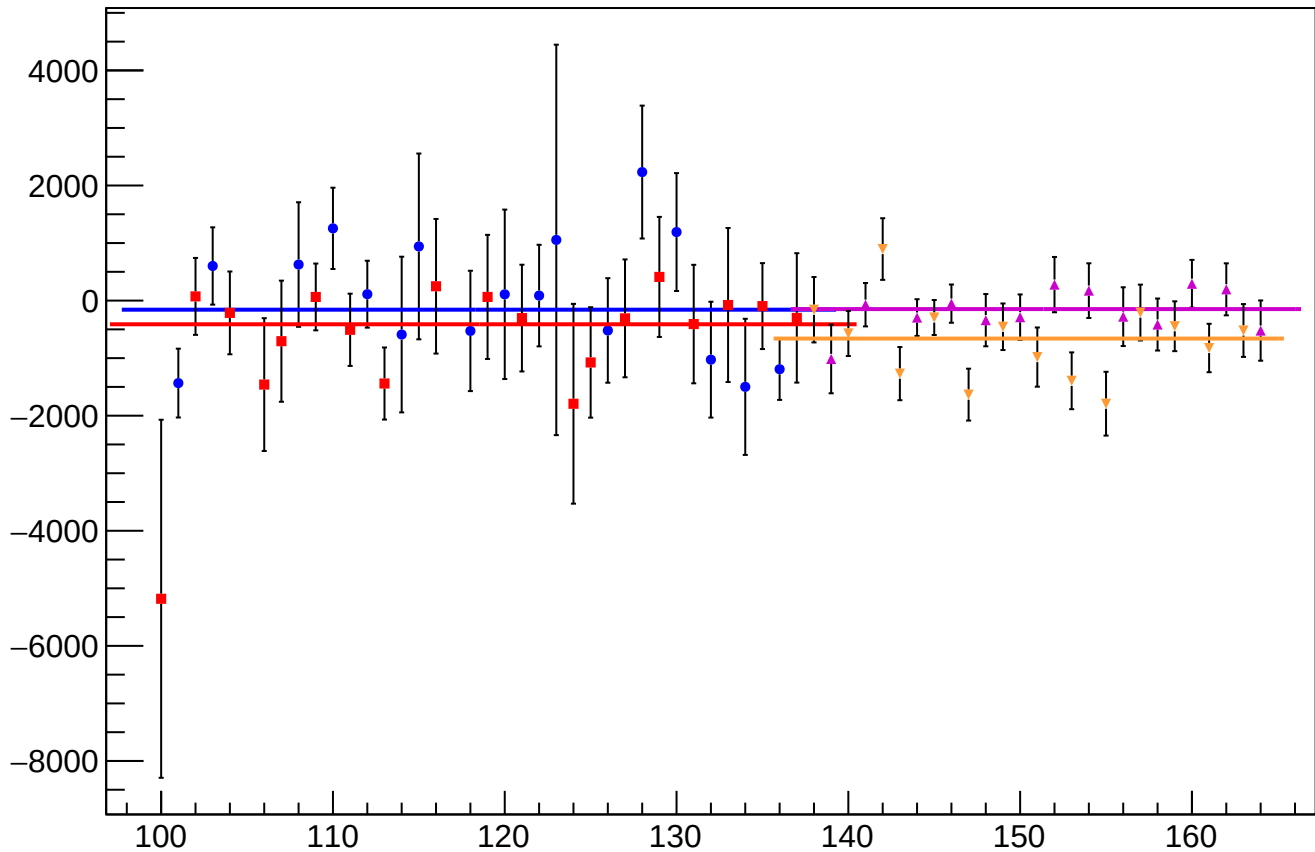
Left In: 50.118 $\pm$ 0.011  $\chi^2$ /NDF: 133628.3/12

+ sign 50.274 $\pm$ 0.009  $\chi^2$ /NDF: 633817.3/30

All: 50.161 $\pm$ 0.006  $\chi^2$ /NDF: 1268370.2/62

- sign 50.049 $\pm$ 0.009  $\chi^2$ /NDF: 634216.2/31

# asym\_sam\_1357\_avg\_correction\_mean vs Slug



Right In: -158.001 $\pm$ 210.181  $\chi^2/\text{NDF}$ : 23.5/16

Left Out: -659.633 $\pm$ 118.884  $\chi^2/\text{NDF}$ : 25.5/13

Right Out: -411.611 $\pm$ 203.633  $\chi^2/\text{NDF}$ : 9.8/18

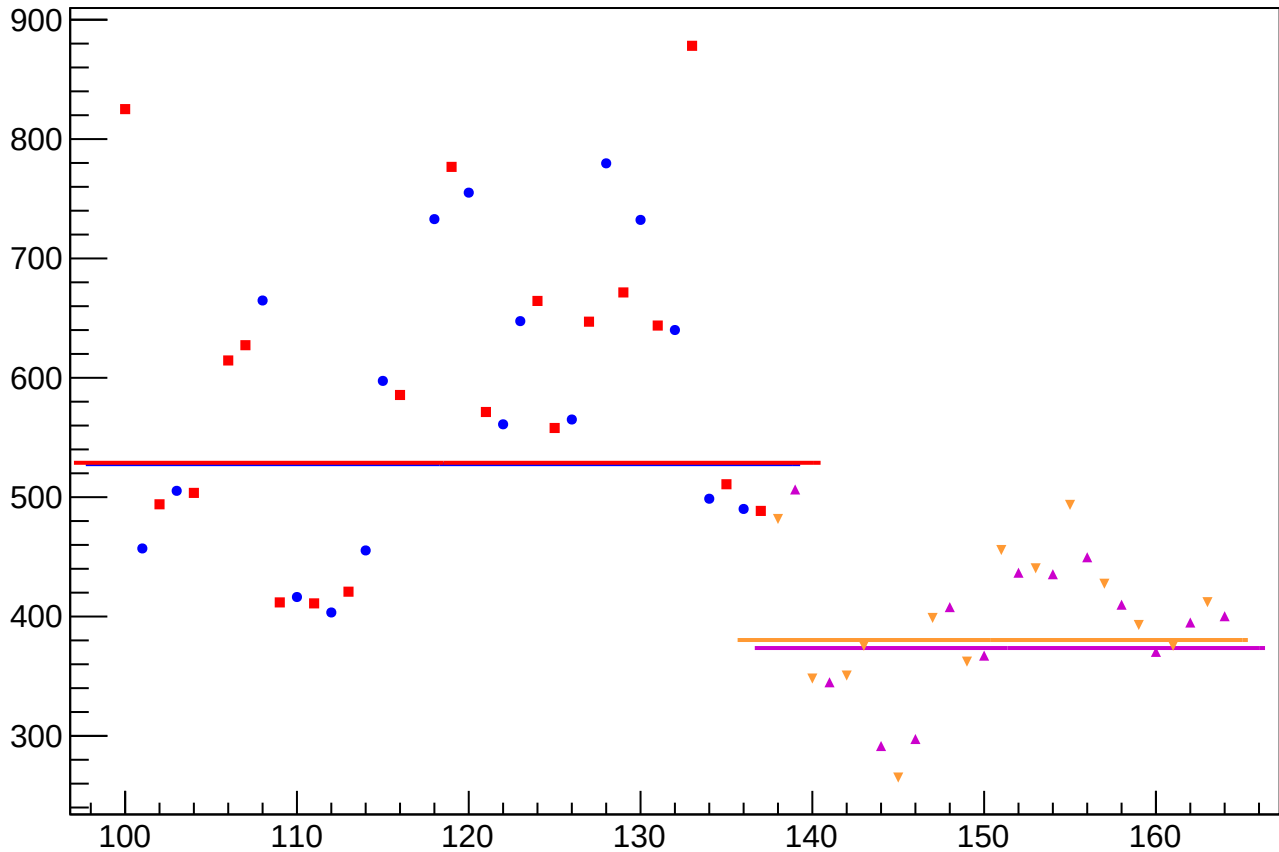
Left In: -147.604 $\pm$ 117.973  $\chi^2/\text{NDF}$ : 6.6/12

+ sign -538.045 $\pm$ 103.478  $\chi^2/\text{NDF}$ : 53.3/30

All: -373.791 $\pm$ 72.670  $\chi^2/\text{NDF}$ : 75.9/62

- sign -213.947 $\pm$ 102.079  $\chi^2/\text{NDF}$ : 17.7/31

# asym\_sam\_1357\_avg\_correction\_rms vs Slug



Right In: 527.663+/-0.149  $\chi^2/\text{NDF}$ : 557423.6/16

Left Out: 380.326+/-0.084  $\chi^2/\text{NDF}$ : 564904.1/13

Right Out: 528.806+/-0.144  $\chi^2/\text{NDF}$ : 623364.6/18

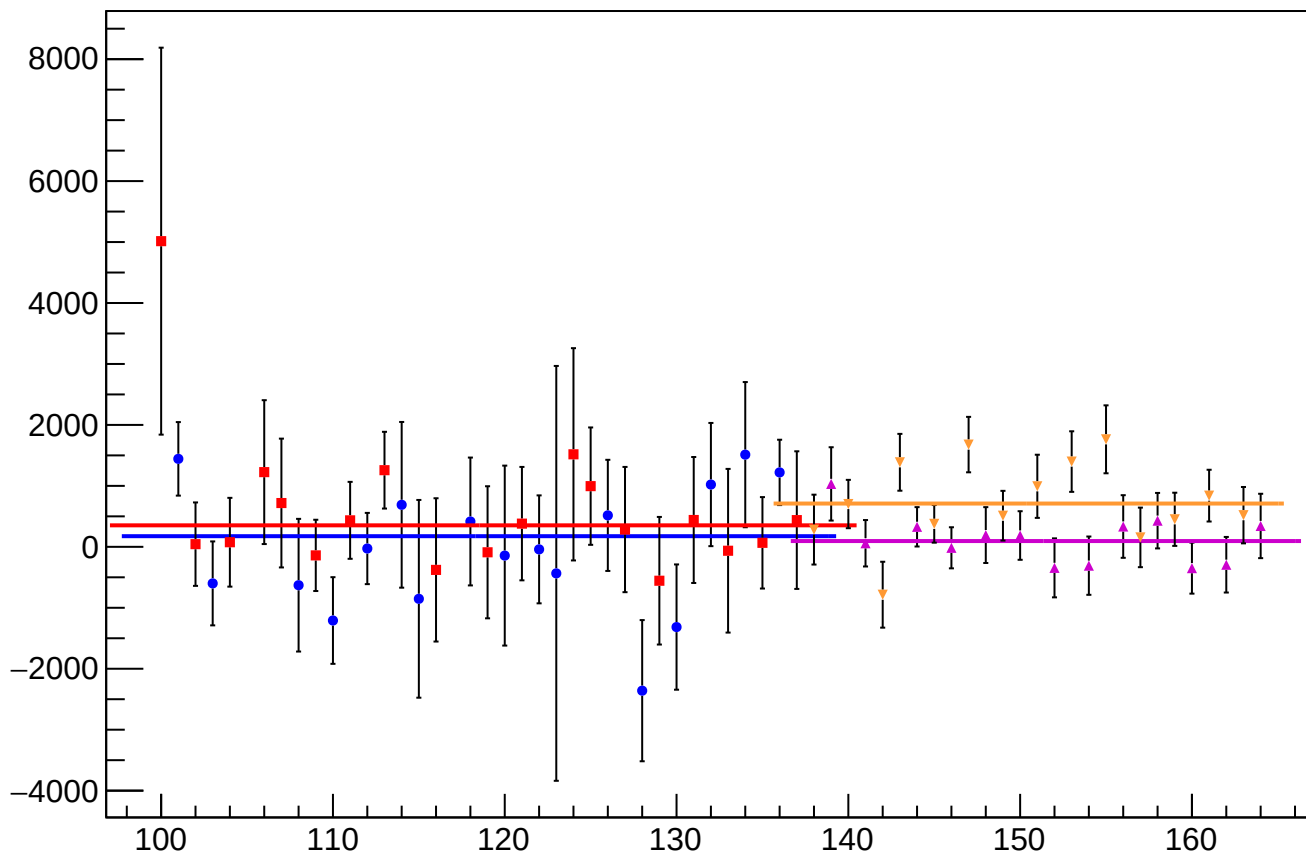
Left In: 373.608+/-0.083  $\chi^2/\text{NDF}$ : 495963.6/12

+ sign 416.038+/-0.073  $\chi^2/\text{NDF}$ : 1866920.9/30

All: 414.300+/-0.051  $\chi^2/\text{NDF}$ : 3857160.3/62

- sign 412.608+/-0.072  $\chi^2/\text{NDF}$ : 1989125.8/31

# asym\_sam\_1357\_avg\_mean vs Slug



Right In: 174.605 $\pm$ 211.662  $\chi^2$ /NDF: 23.7/16

Left Out: 710.097 $\pm$ 119.999  $\chi^2$ /NDF: 23.9/13

Right Out: 352.570 $\pm$ 205.204  $\chi^2$ /NDF: 8.4/18

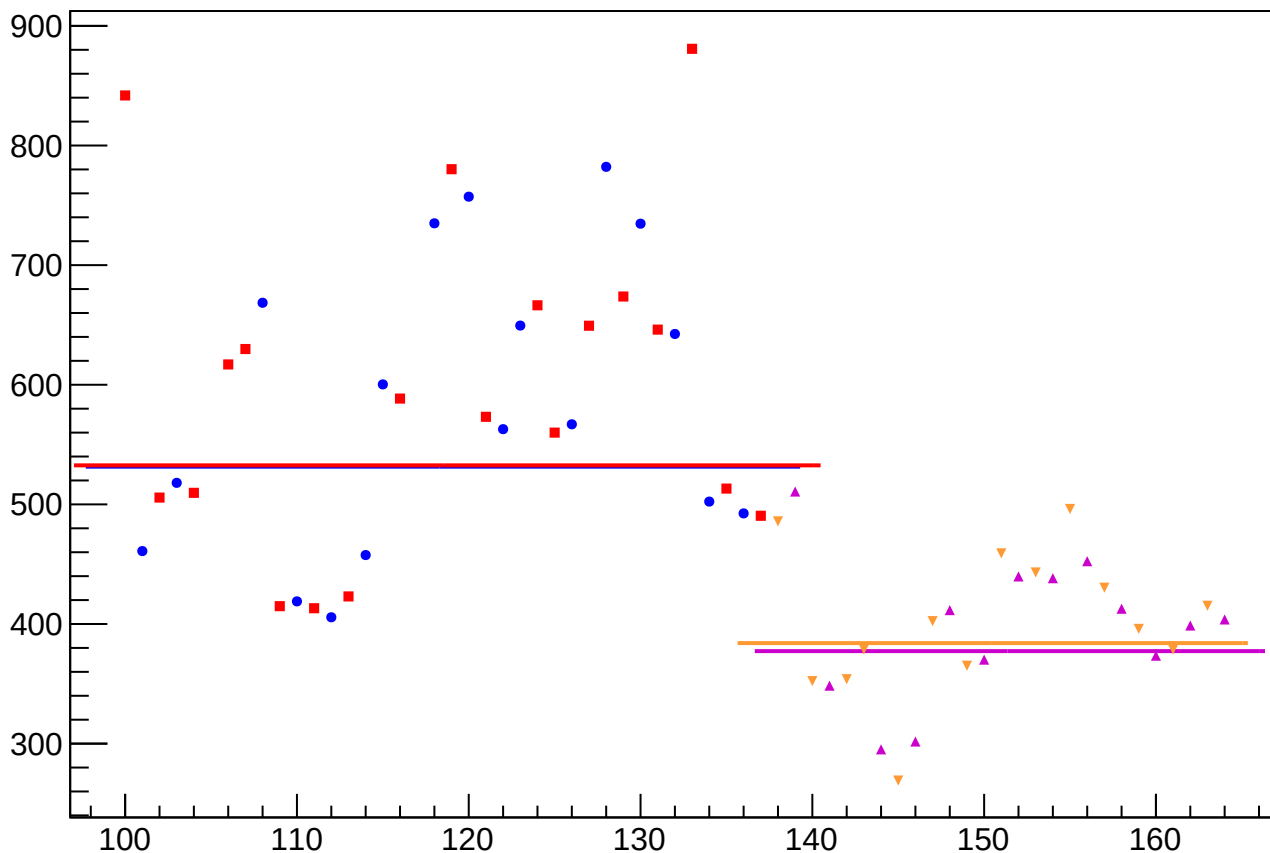
Left In: 94.782 $\pm$ 119.103  $\chi^2$ /NDF: 7.5/12

+ sign 579.847 $\pm$ 104.390  $\chi^2$ /NDF: 52.5/30

All: 366.999 $\pm$ 73.322  $\chi^2$ /NDF: 77.8/62

- sign 159.743 $\pm$ 103.010  $\chi^2$ /NDF: 17.1/31

# asym\_sam\_1357\_avg\_rms vs Slug



Right In: 531.554 $\pm$ 0.150  $\chi^2$ /NDF: 550087.6/16

Left Out: 384.058 $\pm$ 0.085  $\chi^2$ /NDF: 547335.7/13

Right Out: 532.620 $\pm$ 0.145  $\chi^2$ /NDF: 615746.2/18

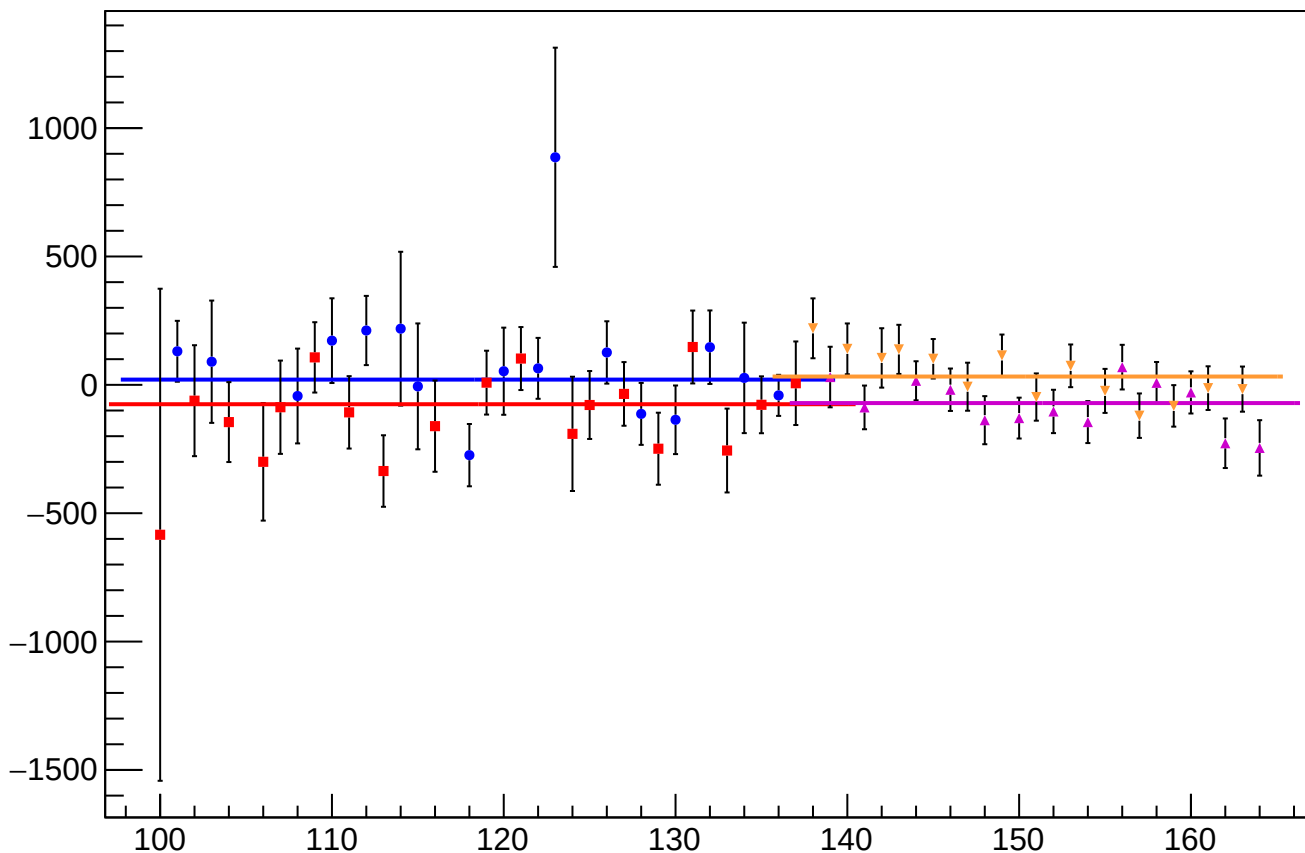
Left In: 377.338 $\pm$ 0.084  $\chi^2$ /NDF: 481988.3/12

+ sign 419.934 $\pm$ 0.074  $\chi^2$ /NDF: 1832387.7/30

All: 418.178 $\pm$ 0.052  $\chi^2$ /NDF: 3787904.9/62

- sign 416.468 $\pm$ 0.073  $\chi^2$ /NDF: 1954399.8/31

# reg\_asym\_sam\_2468\_avg\_mean vs Slug



Right In: 20.441 $\pm$ 34.583  $\chi^2/\text{NDF}$ : 19.3/16

Left Out: 32.355 $\pm$ 23.926  $\chi^2/\text{NDF}$ : 14.5/13

Right Out: -75.454 $\pm$ 34.698  $\chi^2/\text{NDF}$ : 15.4/18

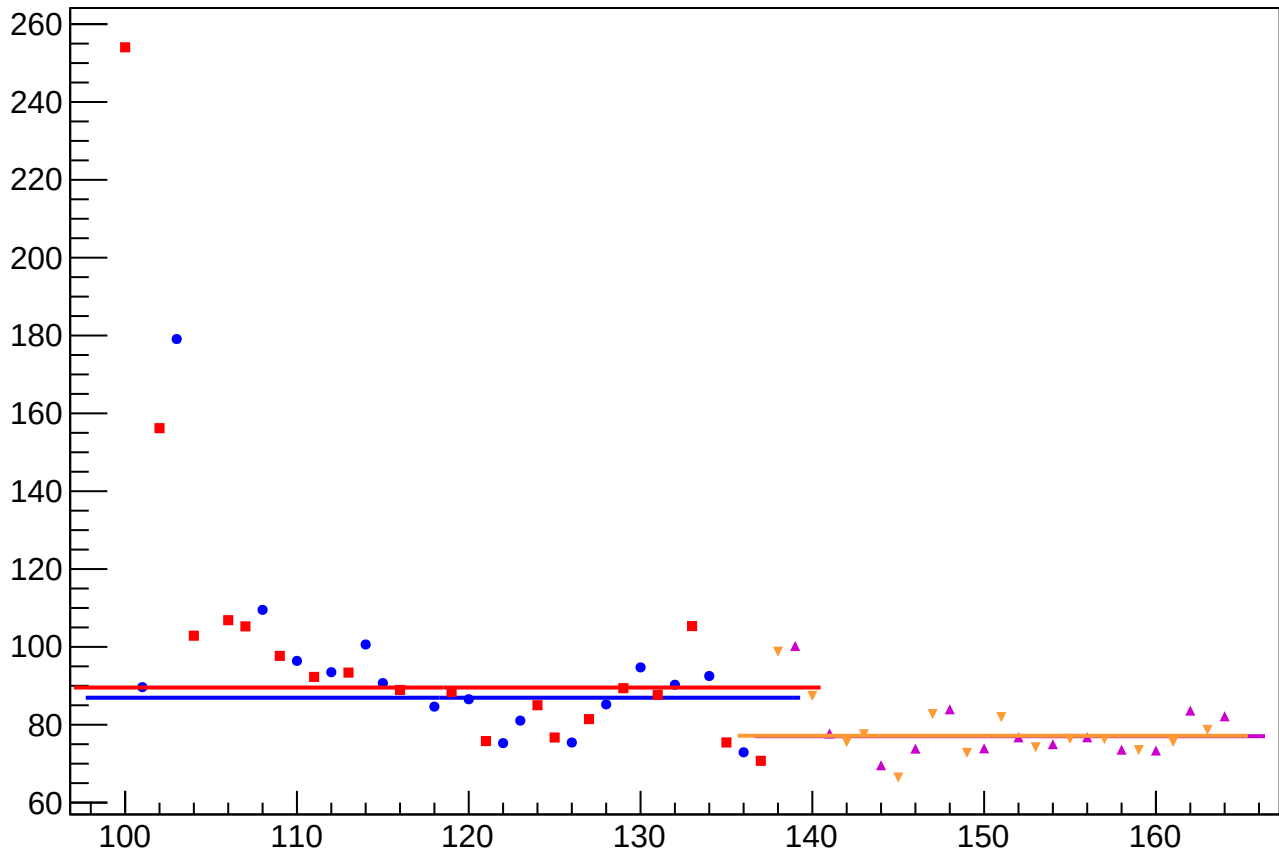
Left In: -70.983 $\pm$ 24.137  $\chi^2/\text{NDF}$ : 13.5/12

+ sign 28.499 $\pm$ 19.676  $\chi^2/\text{NDF}$ : 33.9/30

All: -21.618 $\pm$ 13.962  $\chi^2/\text{NDF}$ : 75.9/62

- sign -72.441 $\pm$ 19.814  $\chi^2/\text{NDF}$ : 28.9/31

# reg\_asym\_sam\_2468\_avg\_rms vs Slug



Right In:  $86.943 \pm 0.024$   $\chi^2/\text{NDF}: 455809.4/16$

Left Out:  $77.183 \pm 0.017$   $\chi^2/\text{NDF}: 156027.8/13$

Right Out:  $89.561 \pm 0.025$   $\chi^2/\text{NDF}: 431229.7/18$

Left In:  $77.054 \pm 0.017$   $\chi^2/\text{NDF}: 136339.7/12$

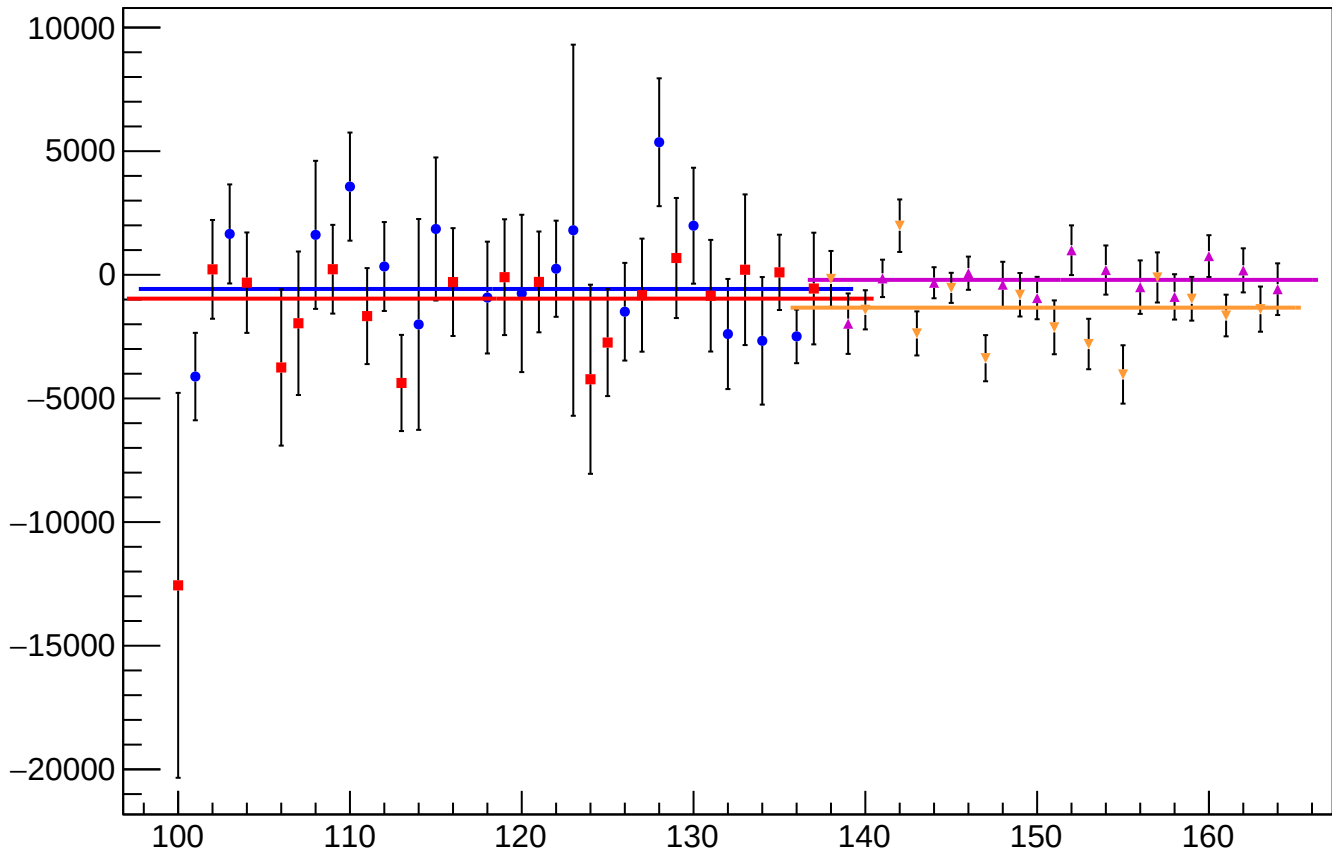
+ sign  $80.342 \pm 0.014$   $\chi^2/\text{NDF}: 719565.6/30$

All:  $80.734 \pm 0.010$   $\chi^2/\text{NDF}: 1463853.6/62$

- sign  $81.132 \pm 0.014$   $\chi^2/\text{NDF}: 742686.3/31$



# asym\_sam\_2468\_avg\_correction\_mean vs Slug



Right In:  $-572.342 \pm 517.020$   $\chi^2/\text{NDF}$ : 21.9/16

Left Out:  $-1328.417 \pm 242.208$   $\chi^2/\text{NDF}$ : 28.7/13

Right Out:  $-963.846 \pm 514.621$   $\chi^2/\text{NDF}$ : 10.1/18

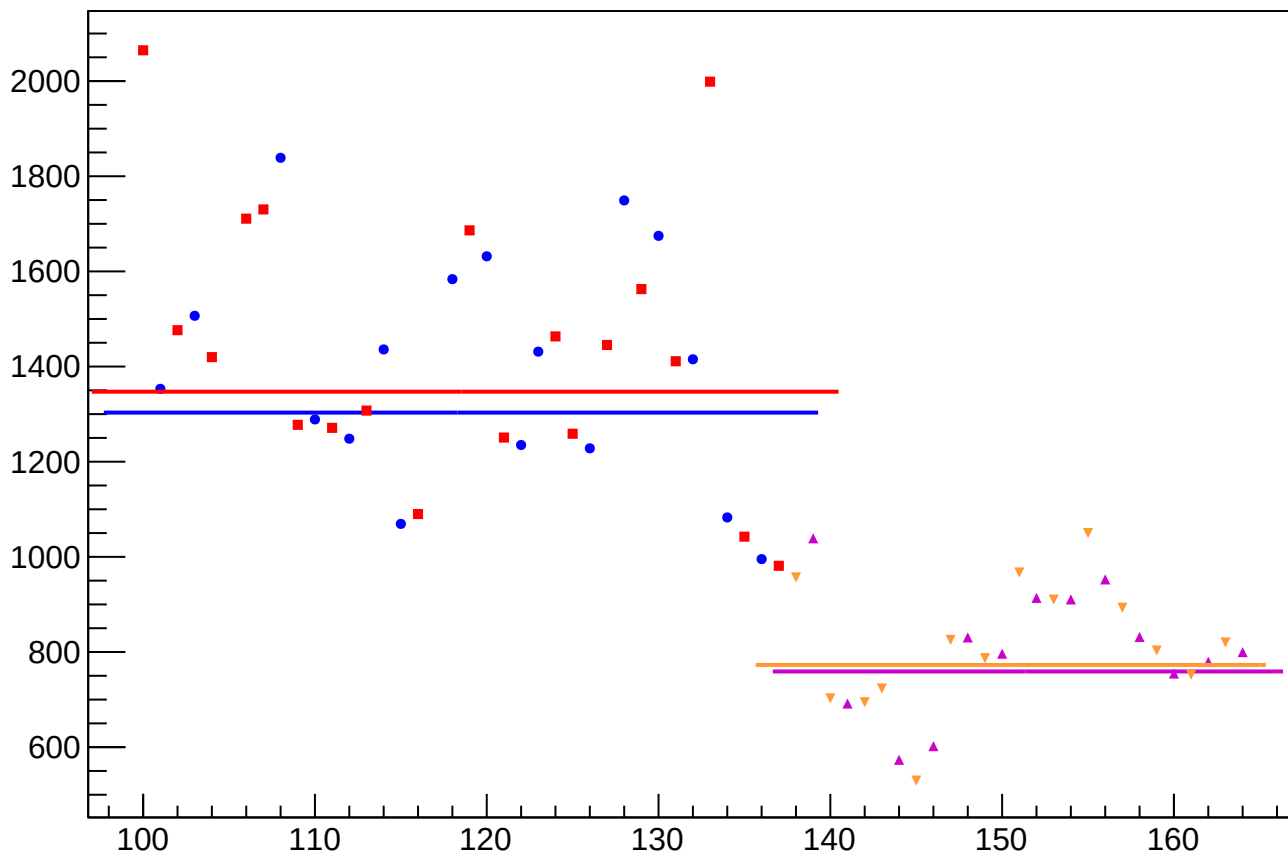
Left In:  $-204.646 \pm 240.290$   $\chi^2/\text{NDF}$ : 6.9/12

+ sign  $-1192.348 \pm 219.333$   $\chi^2/\text{NDF}$ : 52.3/30

All:  $-763.310 \pm 154.521$   $\chi^2/\text{NDF}$ : 78.7/62

- sign  $-340.540 \pm 217.725$   $\chi^2/\text{NDF}$ : 18.8/31

# asym\_sam\_2468\_avg\_correction\_rms vs Slug



Right In: 1303.201 $\pm$ 0.366  $\chi^2$ /NDF: 451961.9/16

Left Out: 772.846 $\pm$ 0.171  $\chi^2$ /NDF: 659128.5/13

Right Out: 1347.177 $\pm$ 0.364  $\chi^2$ /NDF: 420774.0/18

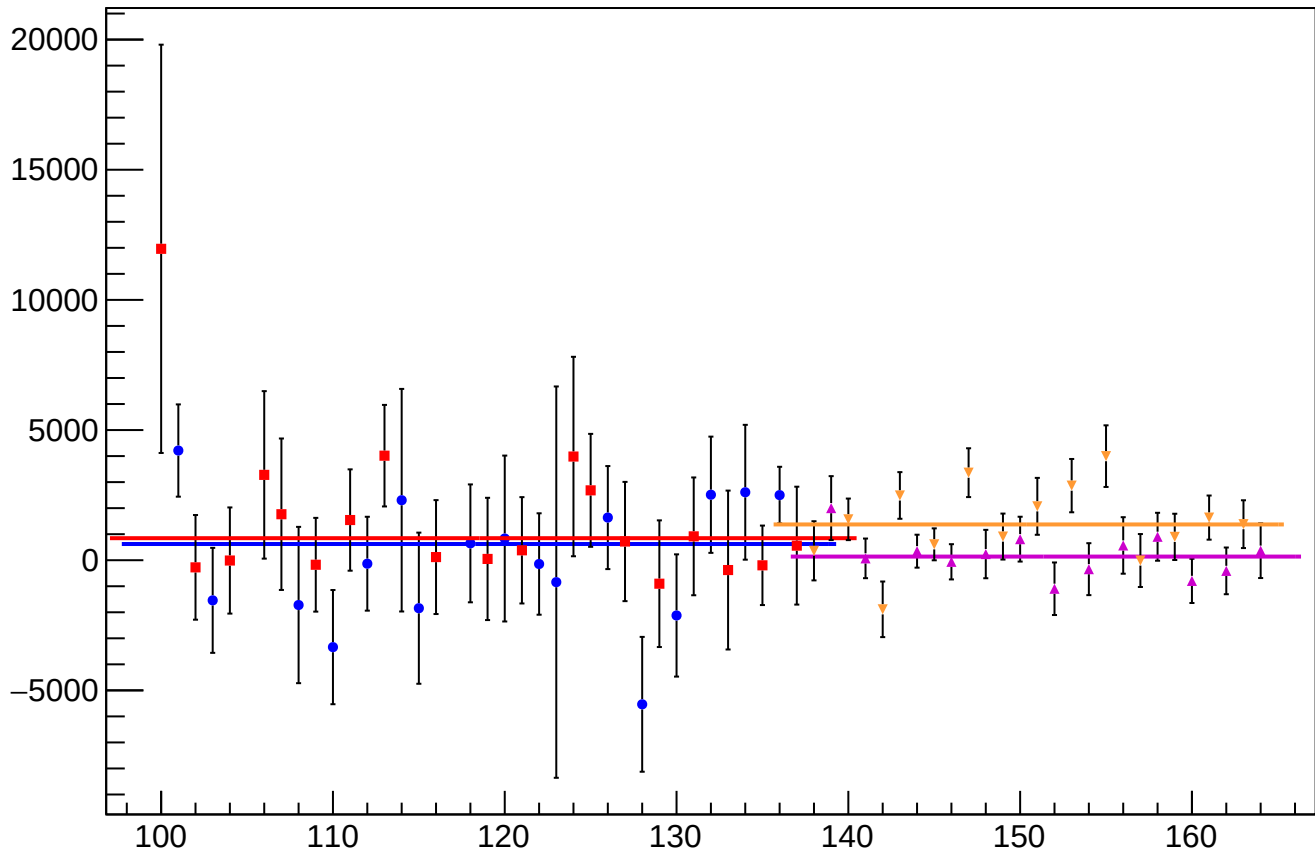
Left In: 759.113 $\pm$ 0.170  $\chi^2$ /NDF: 594950.7/12

+ sign 868.293 $\pm$ 0.155  $\chi^2$ /NDF: 2836847.1/30

All: 866.319 $\pm$ 0.109  $\chi^2$ /NDF: 5997012.3/62

- sign 864.374 $\pm$ 0.154  $\chi^2$ /NDF: 3159843.7/31

# asym\_sam\_2468\_avg\_mean vs Slug



Right In:  $622.411 \pm 518.496$   $\chi^2/\text{NDF}$ : 22.0/16

Left Out:  $1374.012 \pm 243.544$   $\chi^2/\text{NDF}$ : 27.7/13

Right Out:  $846.021 \pm 516.325$   $\chi^2/\text{NDF}$ : 9.1/18

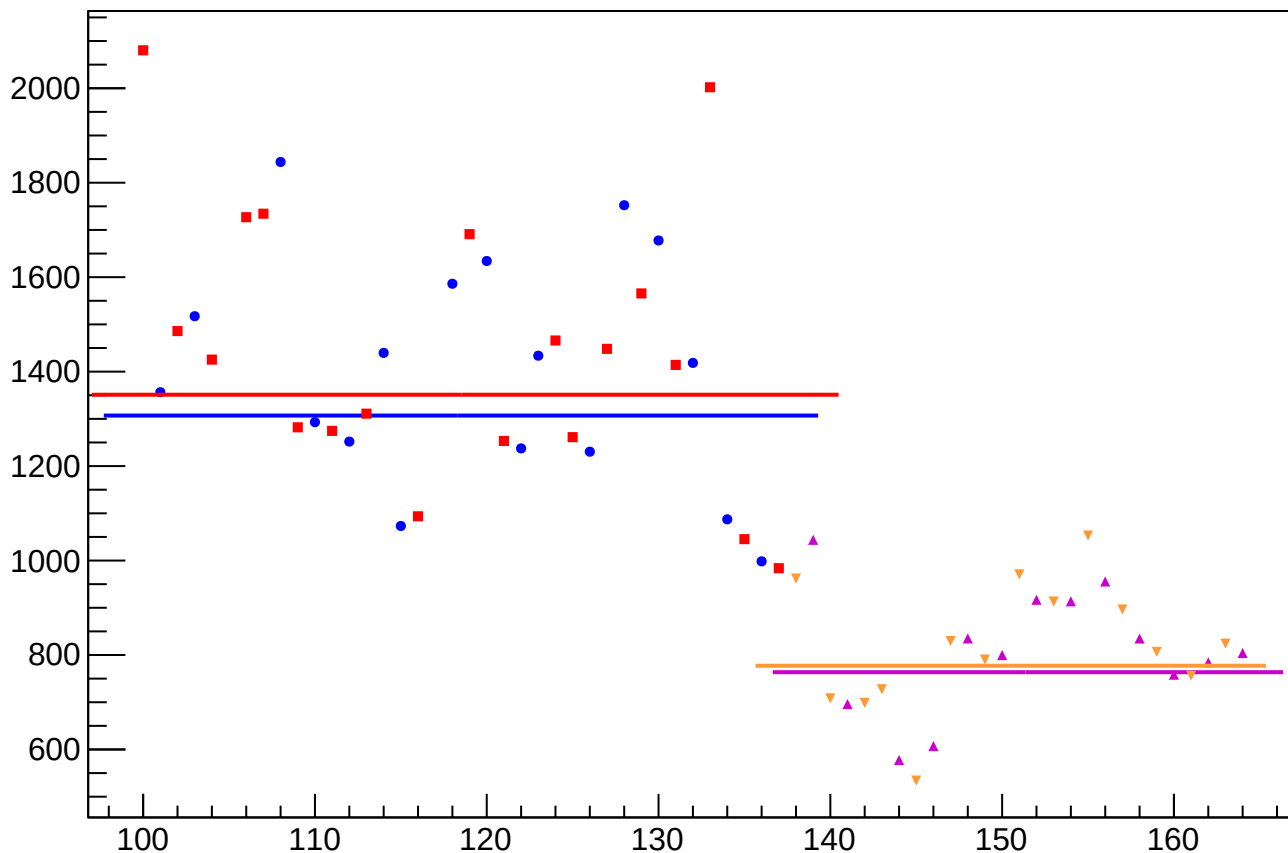
Left In:  $139.742 \pm 241.648$   $\chi^2/\text{NDF}$ : 7.3/12

+ sign  $1238.159 \pm 220.437$   $\chi^2/\text{NDF}$ : 51.4/30

All:  $748.924 \pm 155.313$   $\chi^2/\text{NDF}$ : 79.1/62

- sign  $266.647 \pm 218.864$   $\chi^2/\text{NDF}$ : 17.9/31

# asym\_sam\_2468\_avg\_rms vs Slug



Right In: 1306.980+/-0.367  $\chi^2/\text{NDF}$ : 451191.7/16

Left Out: 777.323+/-0.172  $\chi^2/\text{NDF}$ : 648084.0/13

Right Out: 1351.096+/-0.365  $\chi^2/\text{NDF}$ : 421804.6/18

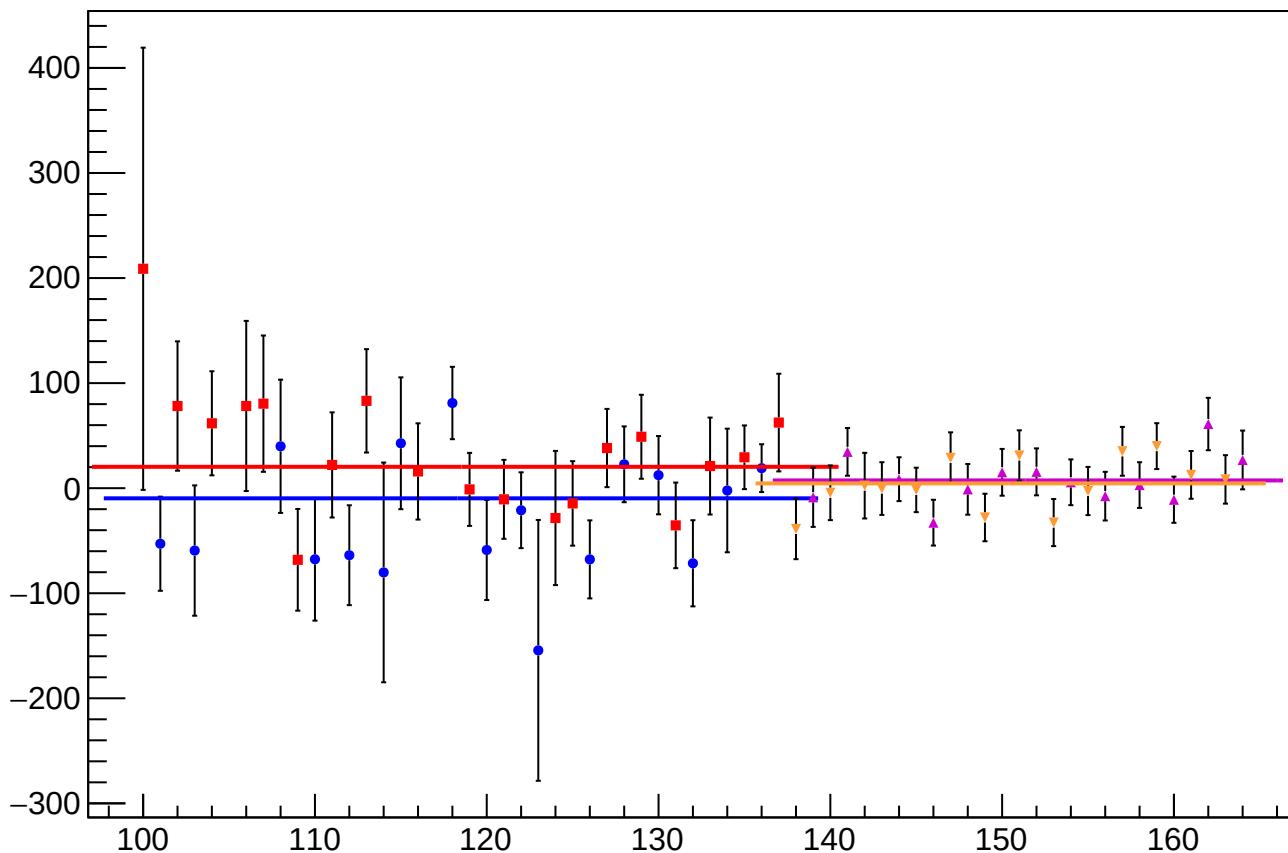
Left In: 763.605+/-0.171  $\chi^2/\text{NDF}$ : 584959.8/12

+ sign 873.059+/-0.156  $\chi^2/\text{NDF}$ : 2809080.5/30

All: 871.099+/-0.110  $\chi^2/\text{NDF}$ : 5940231.1/62

- sign 869.166+/-0.155  $\chi^2/\text{NDF}$ : 3130836.6/31

# reg\_asym\_sam\_1357\_2468\_dd\_mean vs Slug



Right In:  $-9.669 \pm 10.408$   $\chi^2/\text{NDF}$ : 22.6/16

Left Out:  $4.552 \pm 6.378$   $\chi^2/\text{NDF}$ : 14.2/13

Right Out:  $20.335 \pm 10.444$   $\chi^2/\text{NDF}$ : 14.7/18

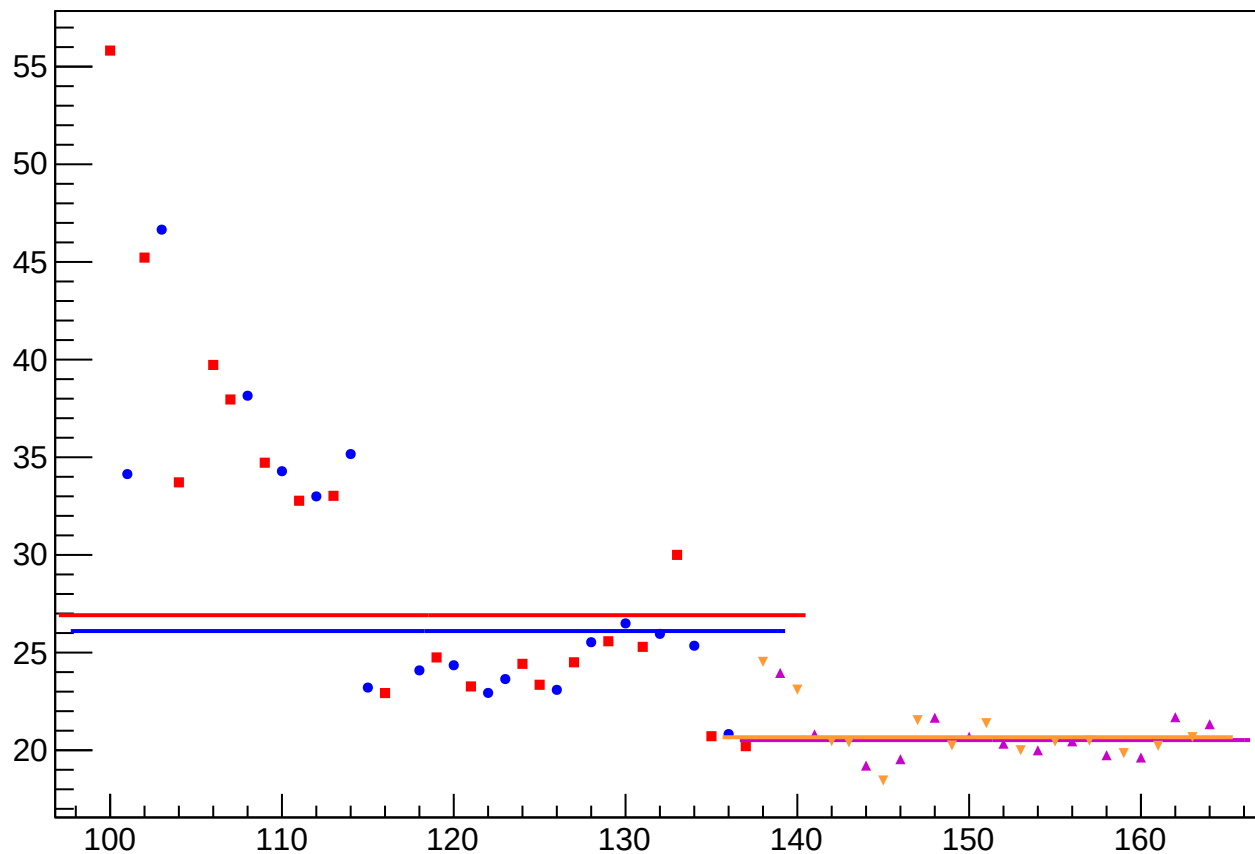
Left In:  $7.372 \pm 6.404$   $\chi^2/\text{NDF}$ : 11.8/12

+ sign  $0.669 \pm 5.438$   $\chi^2/\text{NDF}$ : 38.1/30

All:  $5.772 \pm 3.853$   $\chi^2/\text{NDF}$ : 67.5/62

- sign  $10.915 \pm 5.460$   $\chi^2/\text{NDF}$ : 27.6/31

# reg\_asym\_sam\_1357\_2468\_dd\_rms vs Slug



Right In: 26.103 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 604038.5/16

Left Out: 20.665 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 86456.5/13

Right Out: 26.914 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 678970.2/18

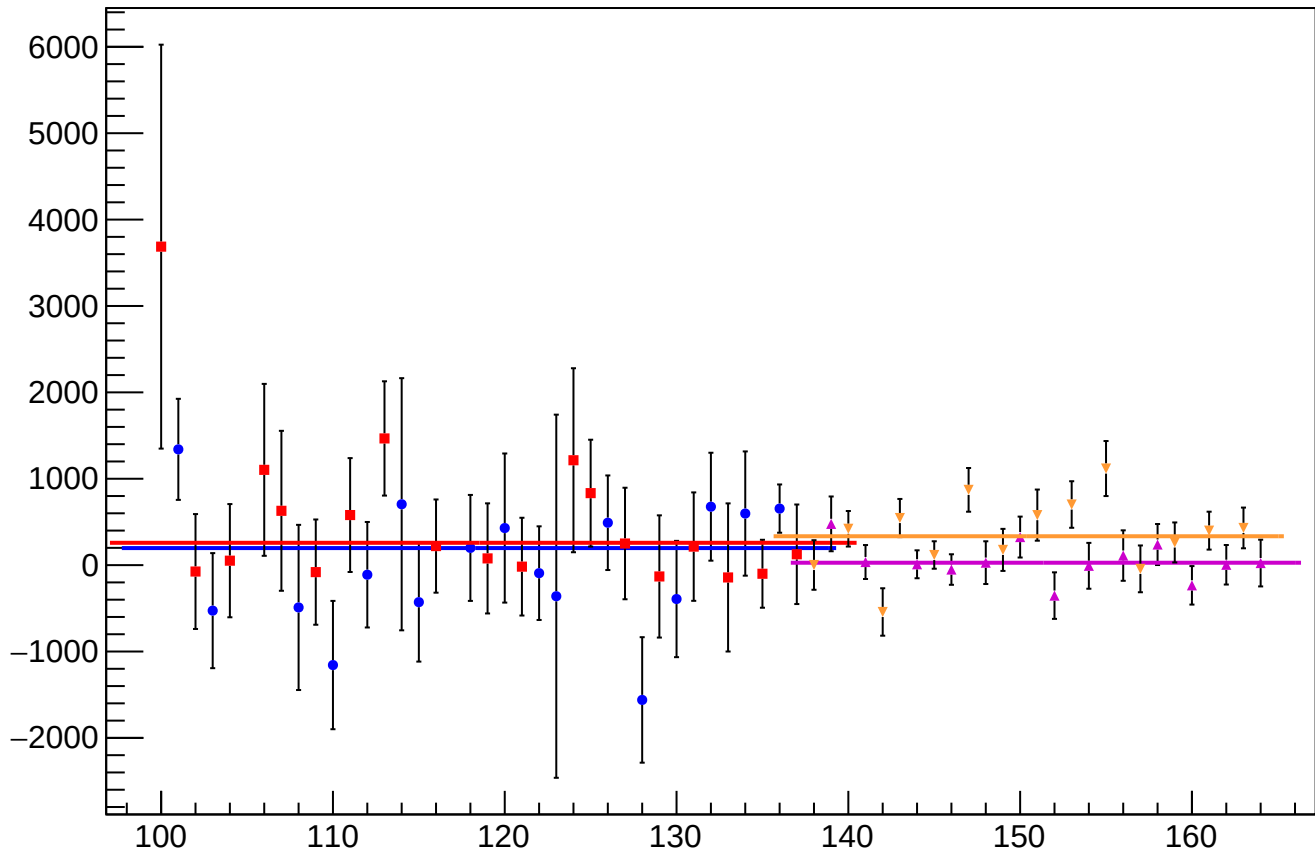
Left In: 20.520 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 59813.2/12

+ sign 22.150 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 1087334.7/30

All: 22.208 $\pm$ 0.003  $\chi^2/\text{NDF}$ : 2371359.0/62

- sign 22.267 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 1283559.6/31

asym\_sam\_1357\_2468\_dd\_correction\_mean vs Slug



Right In:  $197.327 \pm 147.883$   $\chi^2/\text{NDF}$ : 21.0/16

Left Out:  $334.339 \pm 63.534$   $\chi^2/\text{NDF}$ : 30.3/13

Right Out:  $258.537 \pm 149.867$   $\chi^2/\text{NDF}$ : 10.7/18

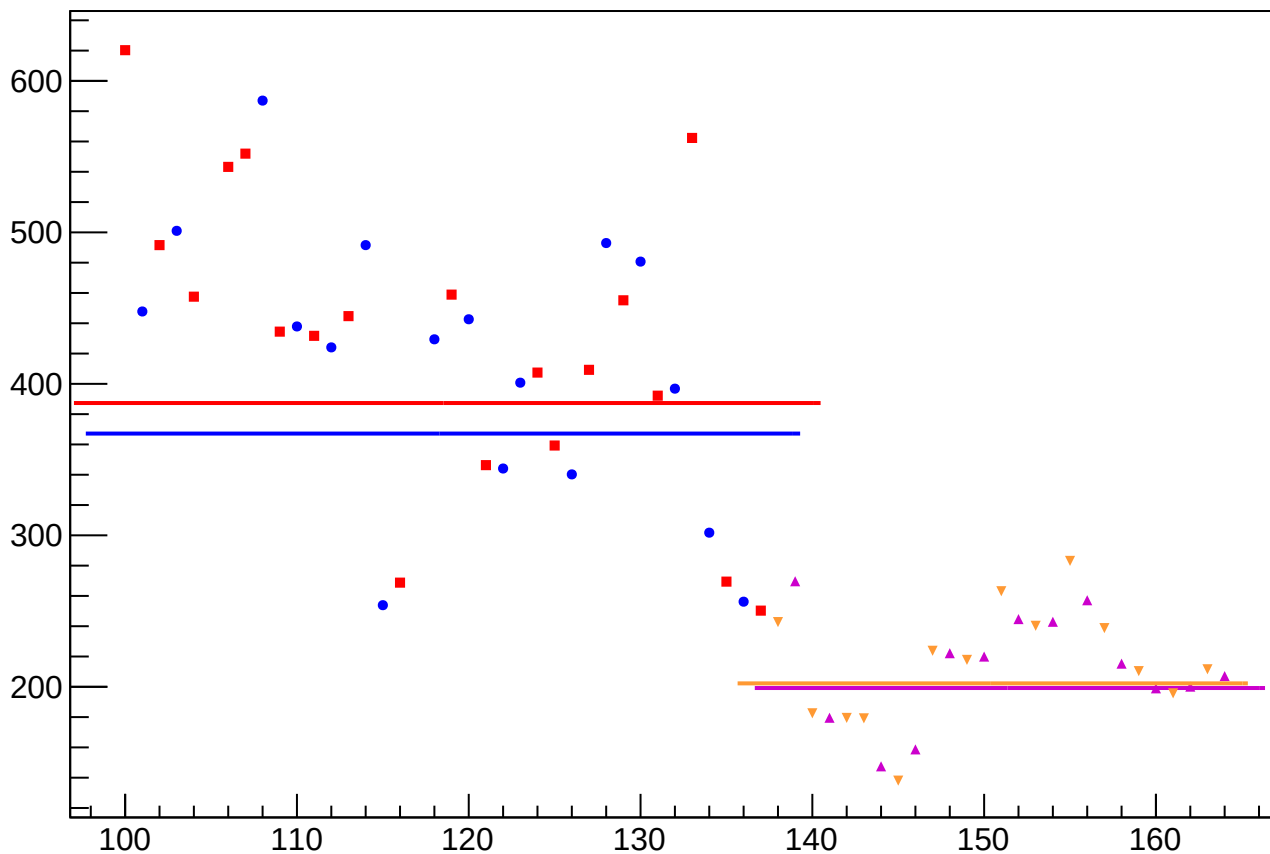
Left In:  $27.750 \pm 63.163$   $\chi^2/\text{NDF}$ : 8.1/12

+ sign  $312.990 \pm 58.375$   $\chi^2/\text{NDF}$ : 52.0/30

All:  $187.411 \pm 41.217$   $\chi^2/\text{NDF}$ : 82.0/62

- sign  $62.561 \pm 58.205$   $\chi^2/\text{NDF}$ : 20.8/31

asym\_sam\_1357\_2468\_dd\_correction\_rms vs Slug



Right In: 367.180 $\pm$ 0.105  $\chi^2$ /NDF: 827148.2/16

Left Out: 202.261 $\pm$ 0.045  $\chi^2$ /NDF: 739692.6/13

Right Out: 387.344 $\pm$ 0.106  $\chi^2$ /NDF: 774562.4/18

Left In: 199.198 $\pm$ 0.045  $\chi^2$ /NDF: 662093.4/12

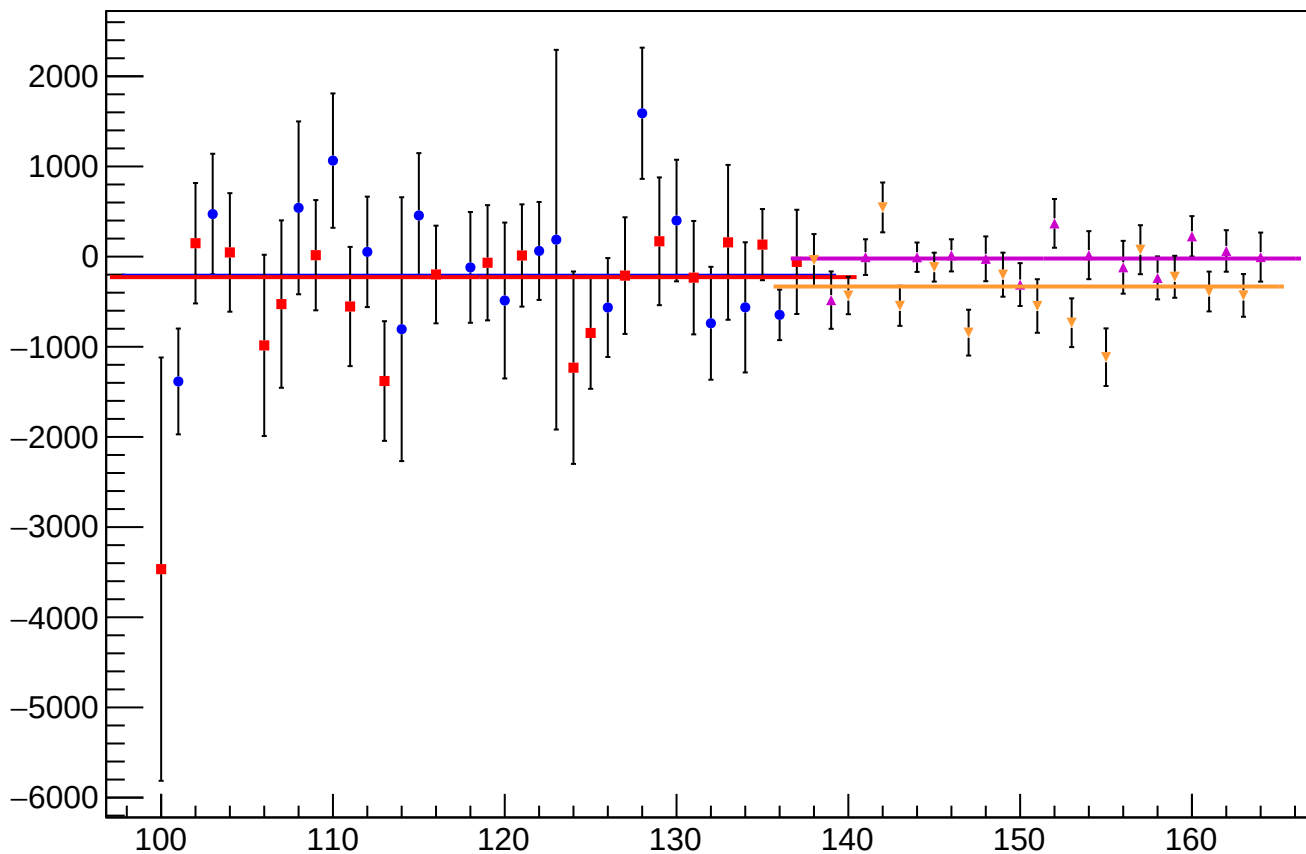
+ sign 227.958 $\pm$ 0.041  $\chi^2$ /NDF: 3666612.7/30

All: 227.767 $\pm$ 0.029  $\chi^2$ /NDF: 7779999.4/62

- sign 227.577 $\pm$ 0.041  $\chi^2$ /NDF: 4113344.1/31



# asym\_sam\_1357\_2468\_dd\_mean vs Slug



Right In:  $-211.859 \pm 148.316$   $\chi^2/\text{NDF}$ : 21.0/16

Left Out:  $-331.620 \pm 63.902$   $\chi^2/\text{NDF}$ : 29.9/13

Right Out:  $-227.831 \pm 150.317$   $\chi^2/\text{NDF}$ : 10.1/18

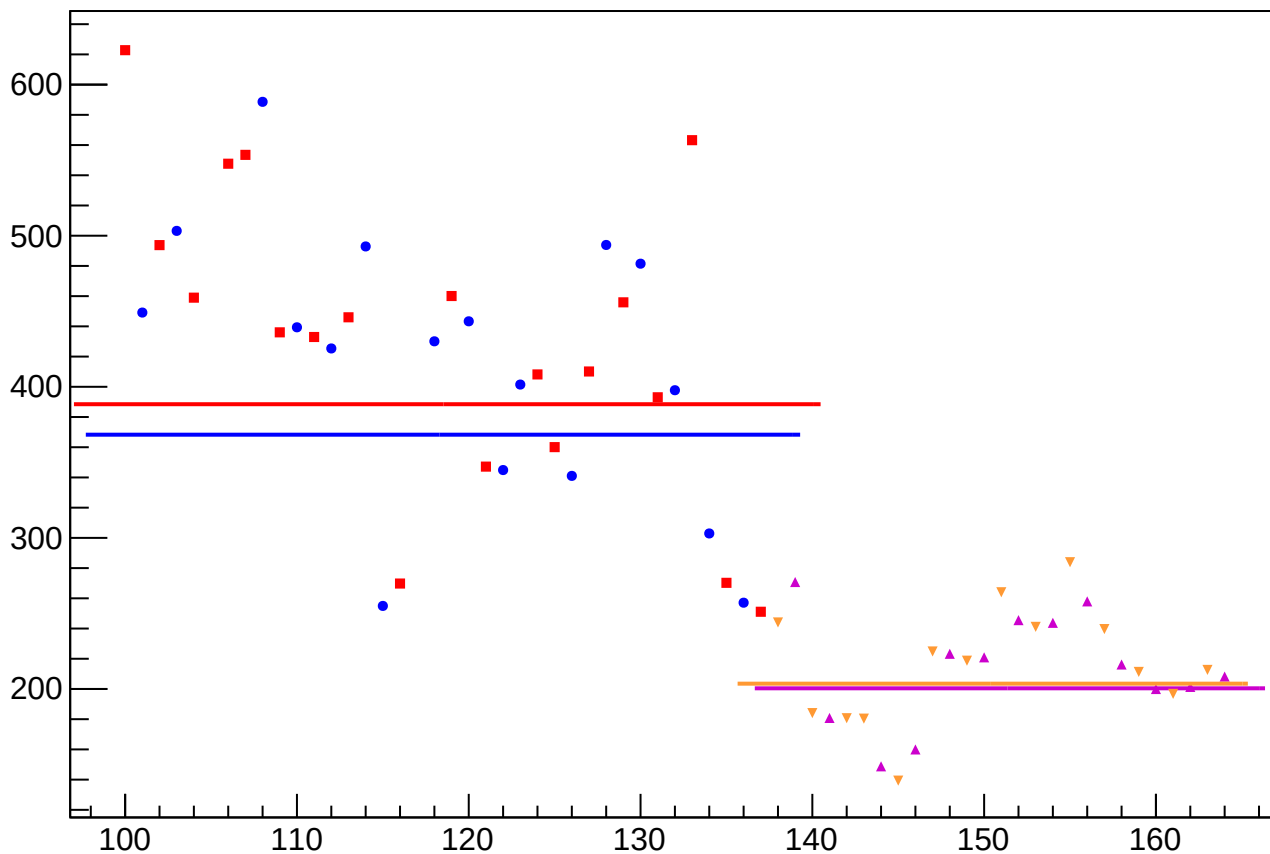
Left In:  $-21.219 \pm 63.532$   $\chi^2/\text{NDF}$ : 8.0/12

+ sign  $-312.870 \pm 58.687$   $\chi^2/\text{NDF}$ : 51.4/30

All:  $-182.332 \pm 41.439$   $\chi^2/\text{NDF}$ : 80.9/62

- sign  $-52.534 \pm 58.520$   $\chi^2/\text{NDF}$ : 19.7/31

# asym\_sam\_1357\_2468\_dd\_rms vs Slug



Right In: 368.302 $\pm$ 0.105  $\chi^2$ /NDF: 824619.2/16

Left Out: 203.512 $\pm$ 0.045  $\chi^2$ /NDF: 725319.9/13

Right Out: 388.472 $\pm$ 0.106  $\chi^2$ /NDF: 774717.2/18

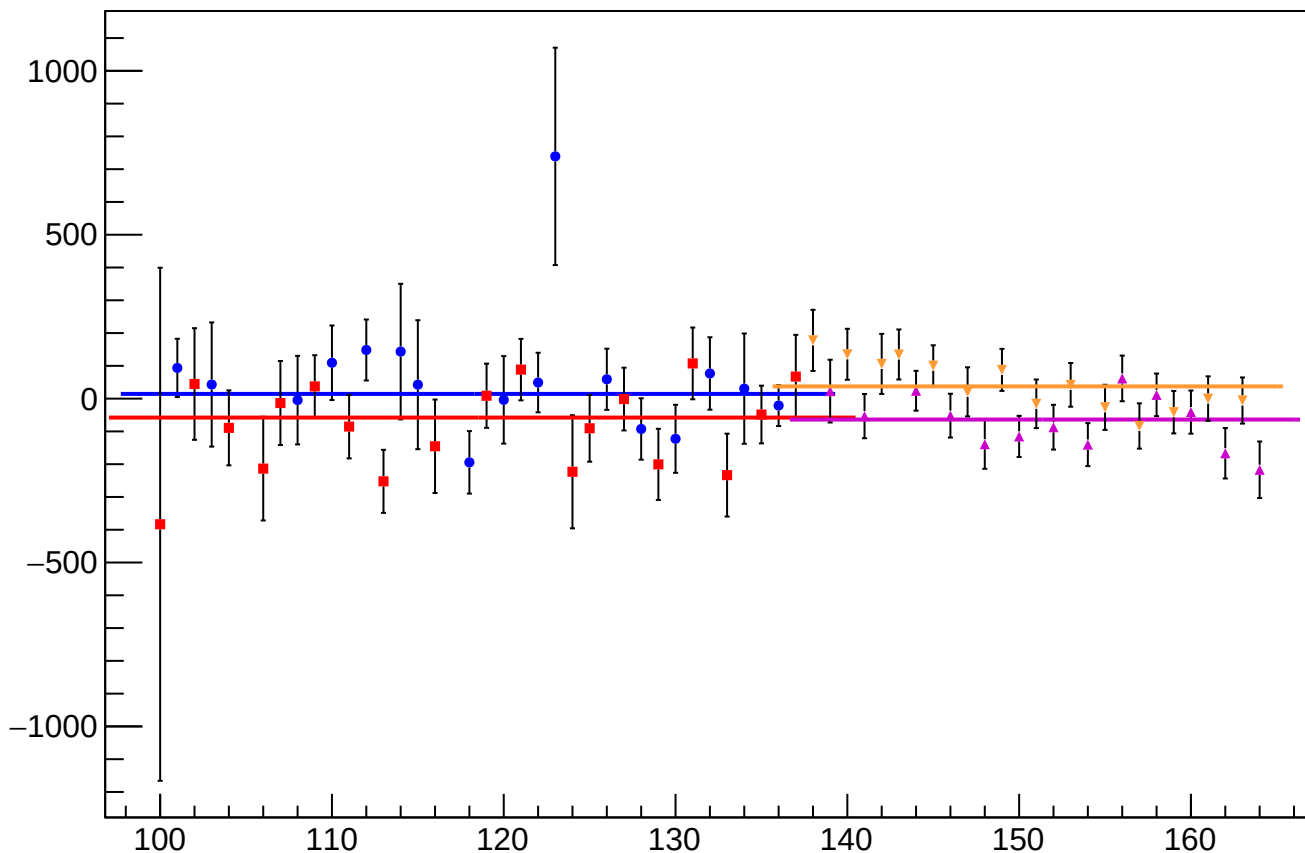
Left In: 200.435 $\pm$ 0.045  $\chi^2$ /NDF: 649072.9/12

+ sign 229.313 $\pm$ 0.041  $\chi^2$ /NDF: 3632327.4/30

All: 229.123 $\pm$ 0.029  $\chi^2$ /NDF: 7711510.5/62

- sign 228.935 $\pm$ 0.041  $\chi^2$ /NDF: 4079141.5/31

# reg\_asym\_sam\_12345678\_avg\_mean vs Slug



Right In:  $14.385 \pm 26.334$   $\chi^2/\text{NDF}$ : 17.7/16

Left Out:  $37.276 \pm 19.121$   $\chi^2/\text{NDF}$ : 14.3/13

Right Out:  $-57.795 \pm 26.121$   $\chi^2/\text{NDF}$ : 18.4/18

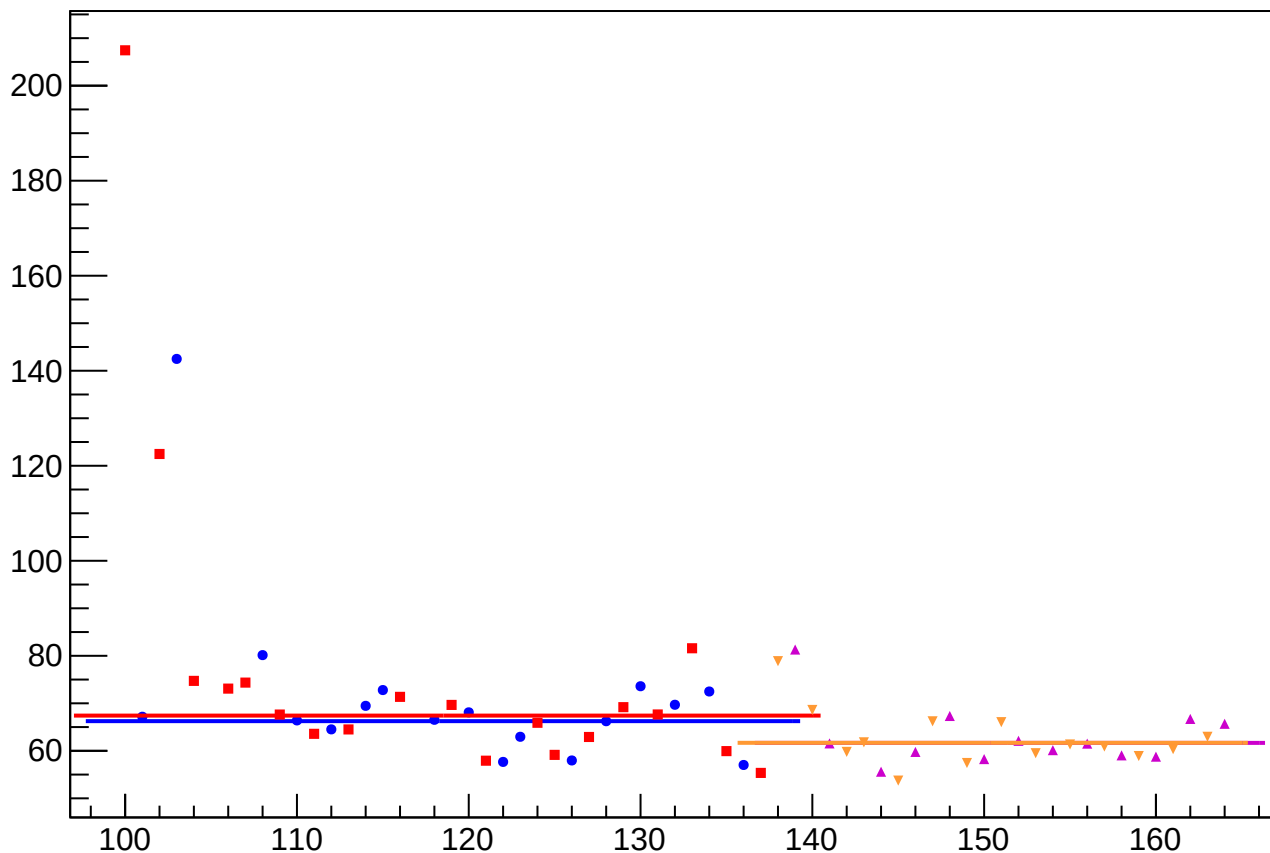
Left In:  $-63.834 \pm 19.318$   $\chi^2/\text{NDF}$ : 15.8/12

+ sign  $29.374 \pm 15.473$   $\chi^2/\text{NDF}$ : 32.5/30

All:  $-15.988 \pm 10.962$   $\chi^2/\text{NDF}$ : 84.0/62

- sign  $-61.699 \pm 15.532$   $\chi^2/\text{NDF}$ : 34.2/31

# reg\_asym\_sam\_12345678\_avg\_rms vs Slug



Right In: 66.247+/-0.019  $\chi^2$ /NDF: 440944.2/16

Left Out: 61.686+/-0.014  $\chi^2$ /NDF:147700.6/13

Right Out: 67.415+/-0.018  $\chi^2$ /NDF: 393608.5/18

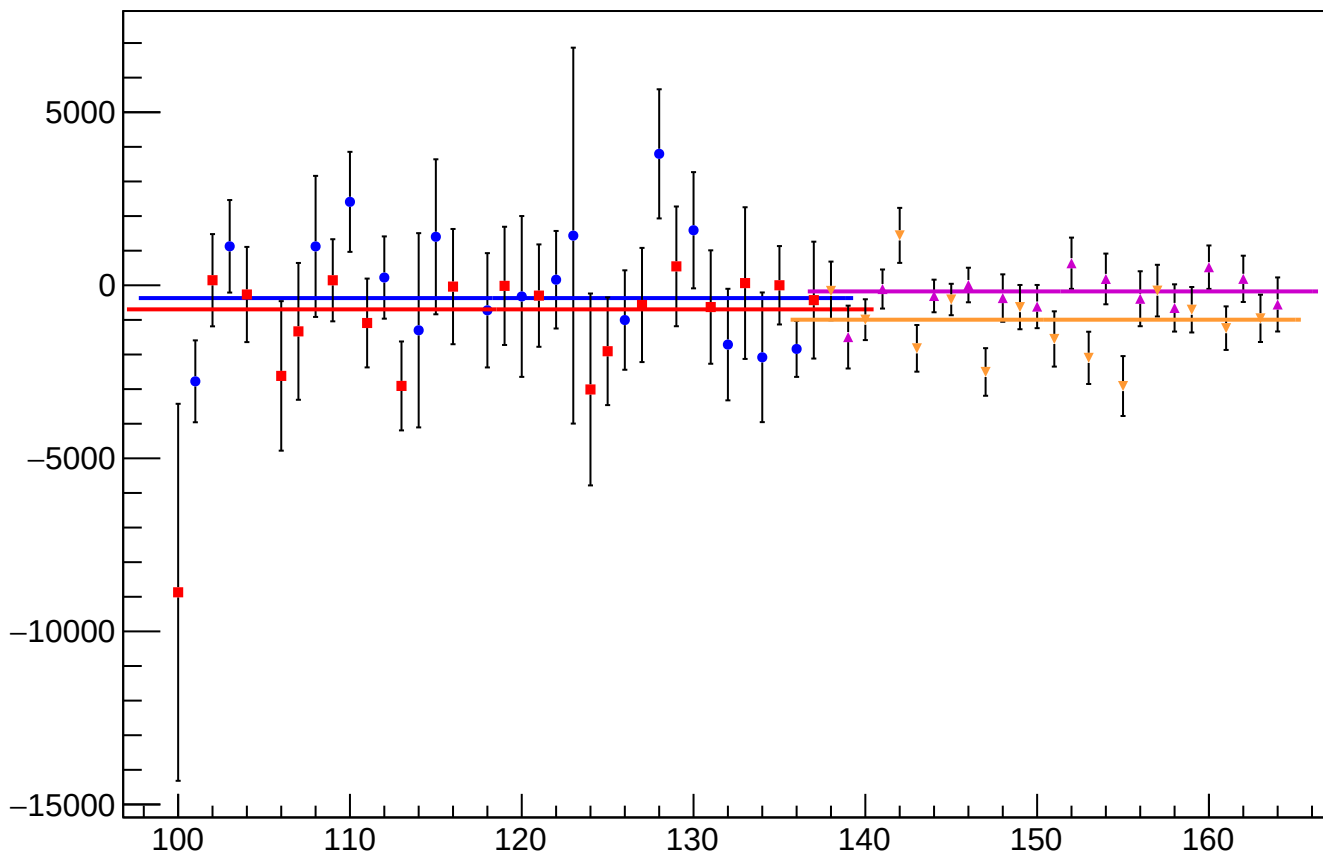
Left In: 61.670+/-0.014  $\chi^2$ /NDF:144433.4/12

+ sign 63.261+/-0.011  $\chi^2$ /NDF: 627924.0/30

All: 63.480+/-0.008  $\chi^2$ /NDF: 1229316.3/62

- sign 63.701+/-0.011  $\chi^2$ /NDF: 600585.3/31

asym\_sam\_12345678\_avg\_correction\_mean vs Slug



Right In:  $-369.546 \pm 366.432$   $\chi^2/\text{NDF}$ : 22.3/16

Left Out:  $-994.172 \pm 179.909$   $\chi^2/\text{NDF}$ : 27.8/13

Right Out:  $-695.425 \pm 361.887$   $\chi^2/\text{NDF}$ : 9.9/18

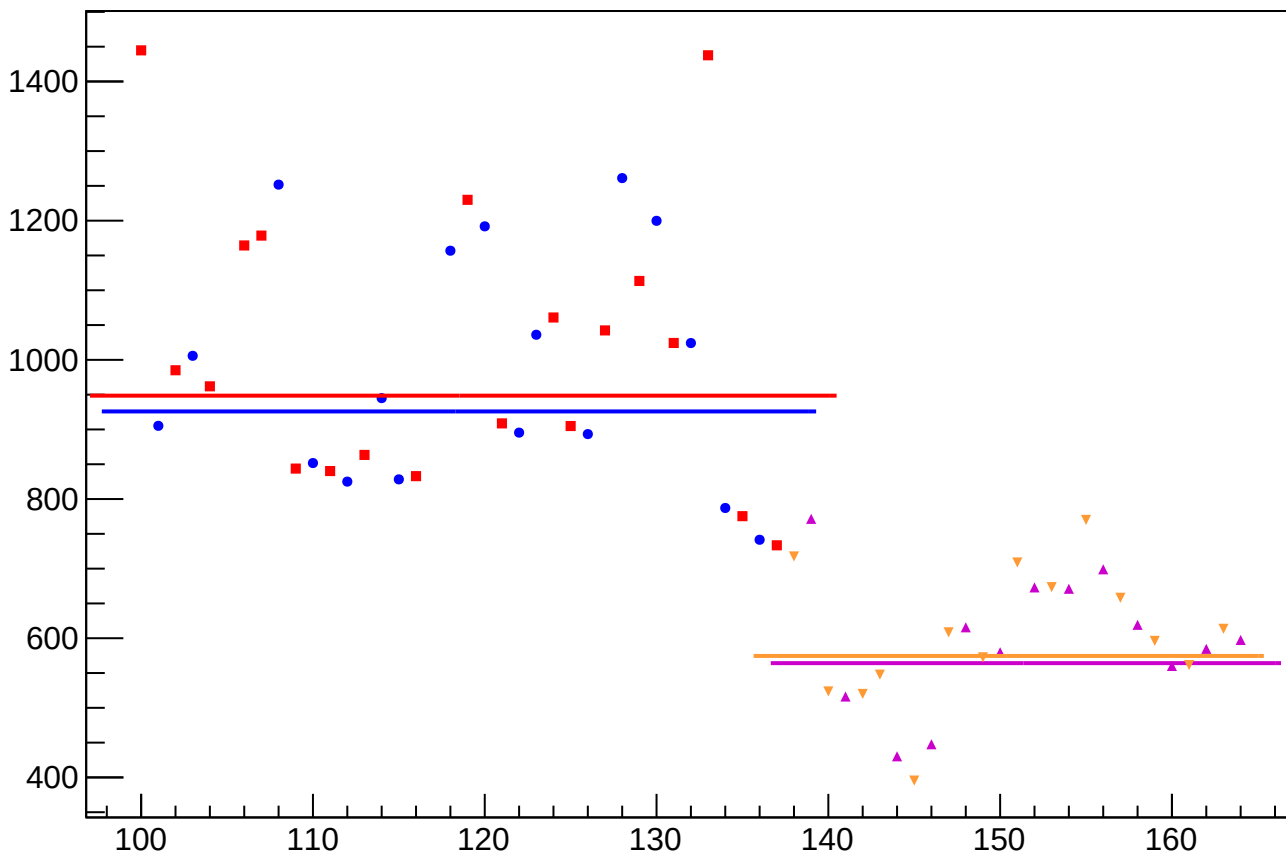
Left In:  $-176.731 \pm 178.458$   $\chi^2/\text{NDF}$ : 6.7/12

+ sign  $-872.849 \pm 161.494$   $\chi^2/\text{NDF}$ : 52.4/30

All:  $-572.859 \pm 113.681$   $\chi^2/\text{NDF}$ : 77.6/62

- sign  $-278.192 \pm 160.055$   $\chi^2/\text{NDF}$ : 18.3/31

asym\_sam\_12345678\_avg\_correction\_rms vs Slug



Right In: 925.885 $\pm$ 0.259  $\chi^2$ /NDF: 391084.5/16

Left Out: 574.561 $\pm$ 0.127  $\chi^2$ /NDF: 628156.2/13

Right Out: 948.553 $\pm$ 0.256  $\chi^2$ /NDF: 381931.9/18

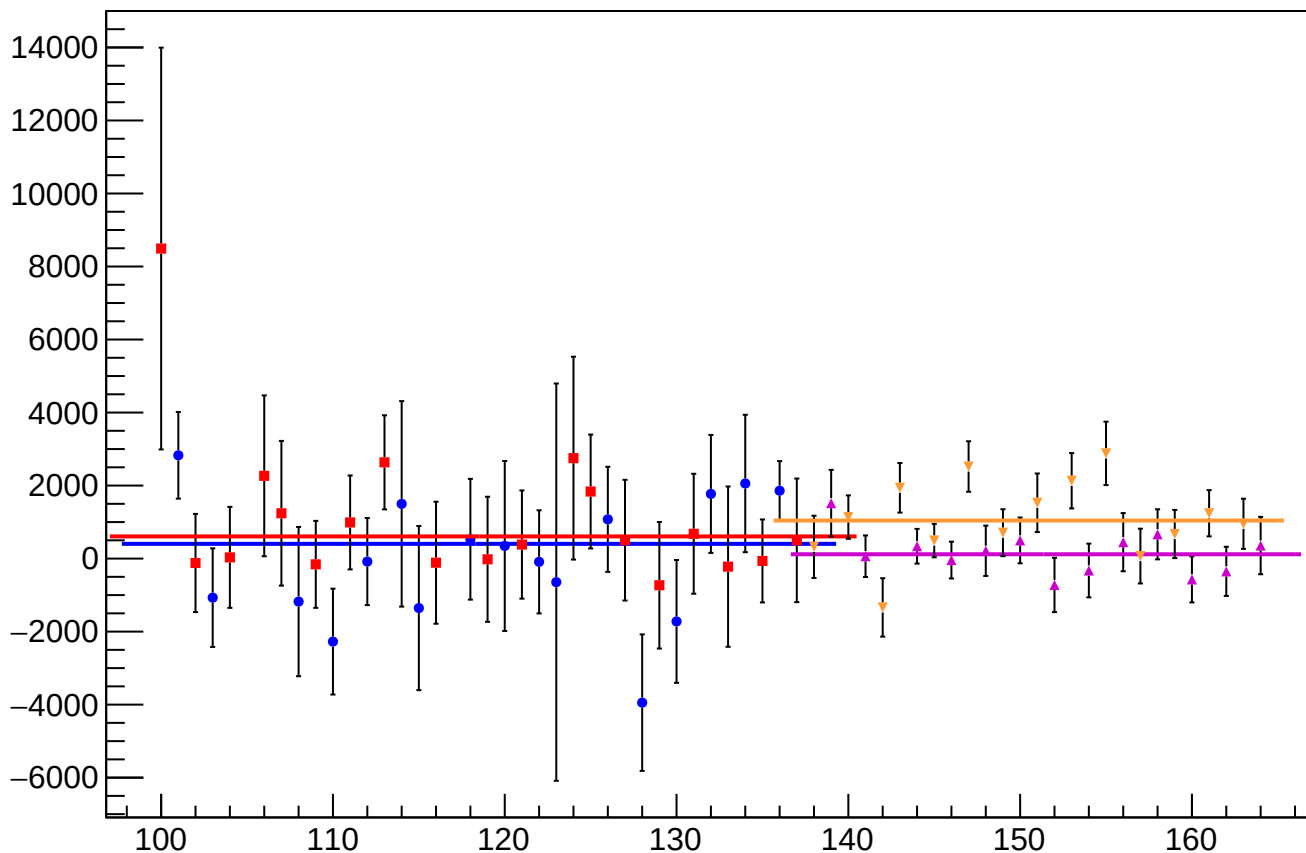
Left In: 564.218 $\pm$ 0.126  $\chi^2$ /NDF: 563868.2/12

+ sign 642.800 $\pm$ 0.114  $\chi^2$ /NDF: 2500620.1/30

All: 641.083 $\pm$ 0.080  $\chi^2$ /NDF: 5261420.1/62

- sign 639.397 $\pm$ 0.113  $\chi^2$ /NDF: 2760352.1/31

# asym\_sam\_12345678\_avg\_mean vs Slug



Right In: 403.591 $\pm$ 367.686  $\chi^2$ /NDF: 22.4/16

Left Out: 1042.365 $\pm$ 181.048  $\chi^2$ /NDF:26.6/13

Right Out: 607.276 $\pm$ 363.327  $\chi^2$ /NDF: 8.8/18

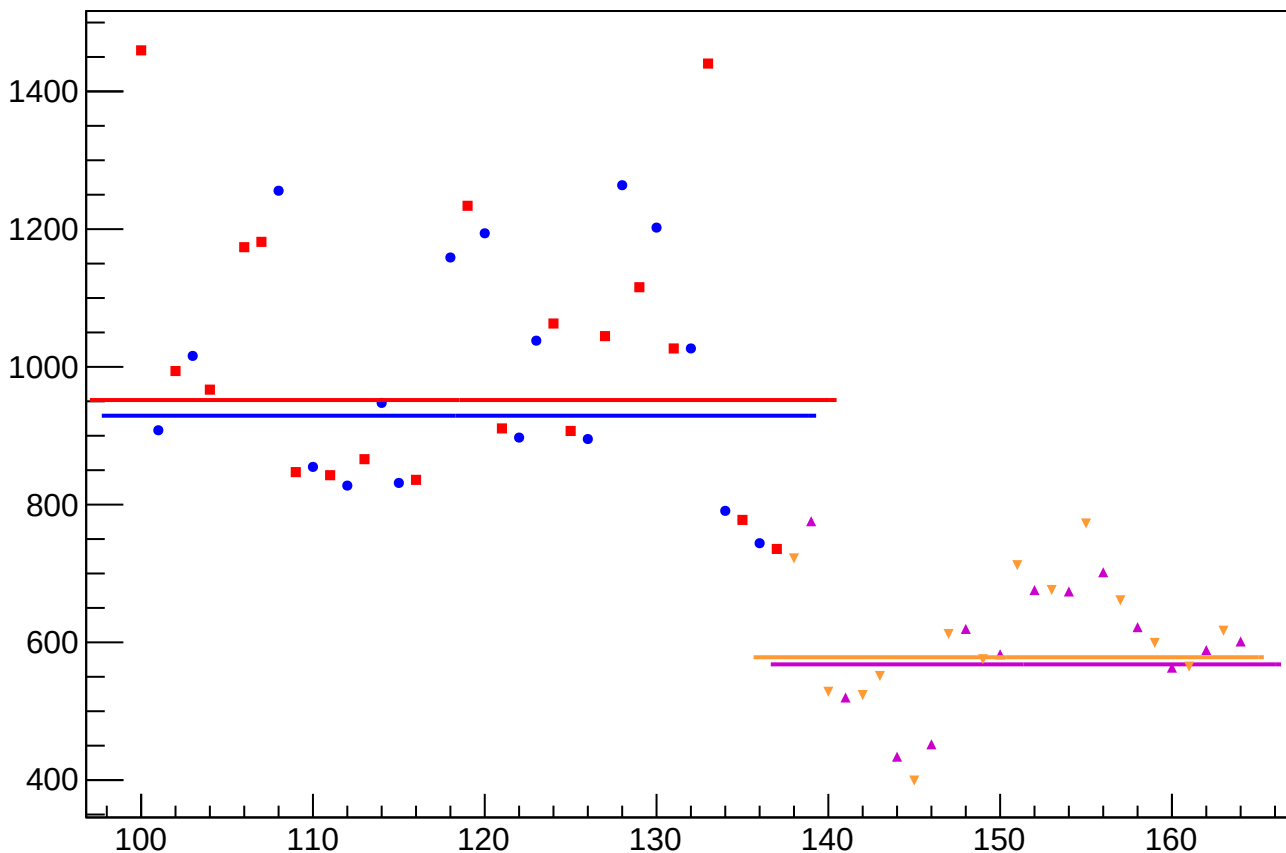
Left In: 117.959 $\pm$ 179.617  $\chi^2$ /NDF:7.3/12

+ sign 917.713 $\pm$ 162.425  $\chi^2$ /NDF: 51.5/30

All: 562.819 $\pm$ 114.350  $\chi^2$ /NDF: 78.5/62

- sign 214.060 $\pm$ 161.015  $\chi^2$ /NDF: 17.6/31

# asym\_sam\_12345678\_avg\_rms vs Slug



Right In: 929.096 $\pm$ 0.260  $\chi^2$ /NDF: 390292.1/16

Left Out: 578.376 $\pm$ 0.128  $\chi^2$ /NDF: 615821.3/13

Right Out: 951.847 $\pm$ 0.257  $\chi^2$ /NDF: 382219.3/18

Left In: 568.046 $\pm$ 0.127  $\chi^2$ /NDF: 553135.3/12

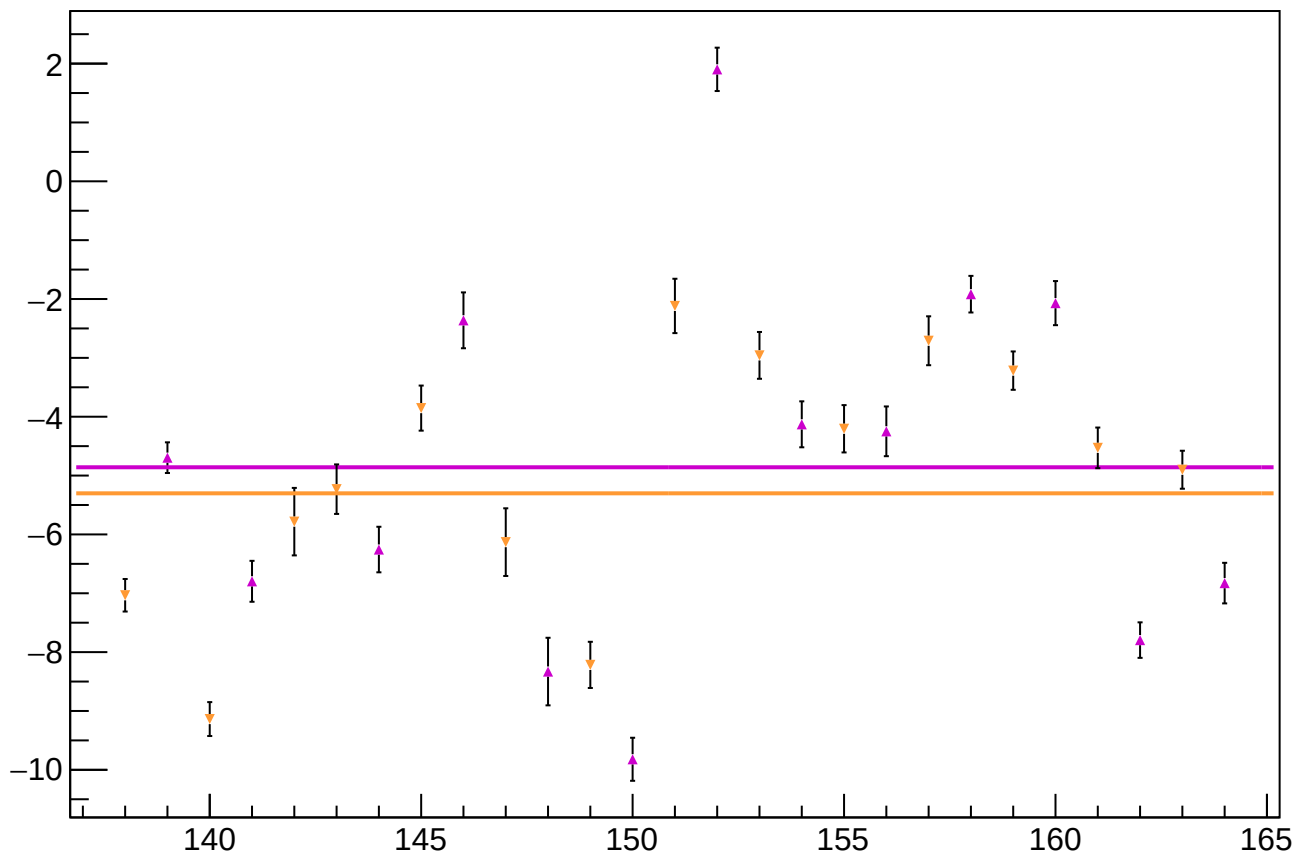
+ sign 646.817 $\pm$ 0.115  $\chi^2$ /NDF: 2470706.4/30

All: 645.106 $\pm$ 0.081  $\chi^2$ /NDF: 5199934.4/62

- sign 643.424 $\pm$ 0.114  $\chi^2$ /NDF: 2728787.9/31



# reg\_asym\_sam1\_diff\_bpm1X\_slope vs Slug



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

Left Out: -5.302+/-0.100  $\chi^2/\text{NDF}$ : 464.9/13

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

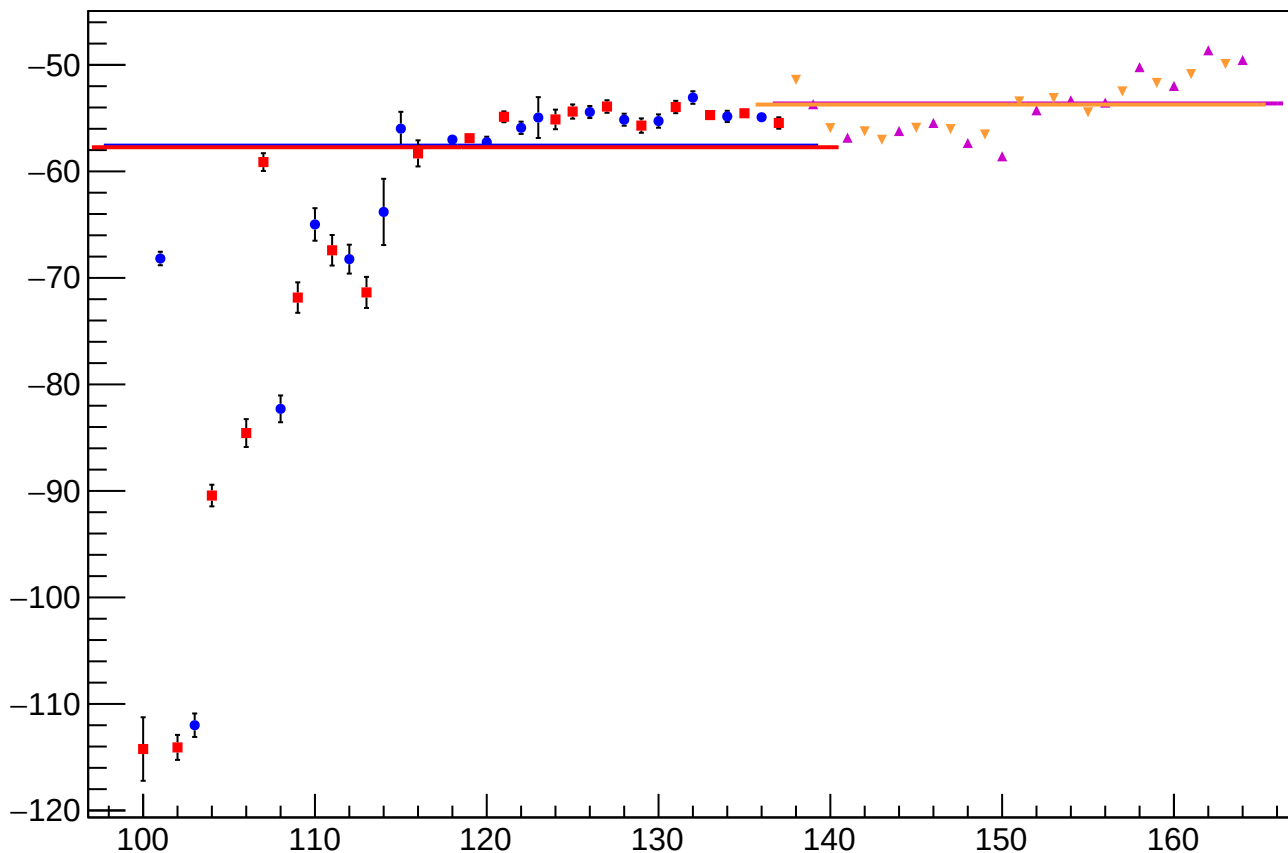
Left In: -4.859+/-0.100  $\chi^2/\text{NDF}$ : 907.5/12

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

All: -5.080+/-0.070  $\chi^2/\text{NDF}$ : 1382.3/26

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

# reg\_asym\_sam1\_diff\_bpm4aY\_slope vs Slug



Right In:  $-57.581 \pm 0.143$   $\chi^2/\text{NDF}$ : 3455.5/16

Left Out:  $-53.724 \pm 0.073$   $\chi^2/\text{NDF}$ : 1033.4/13

Right Out:  $-57.732 \pm 0.143$   $\chi^2/\text{NDF}$ : 4698.5/18

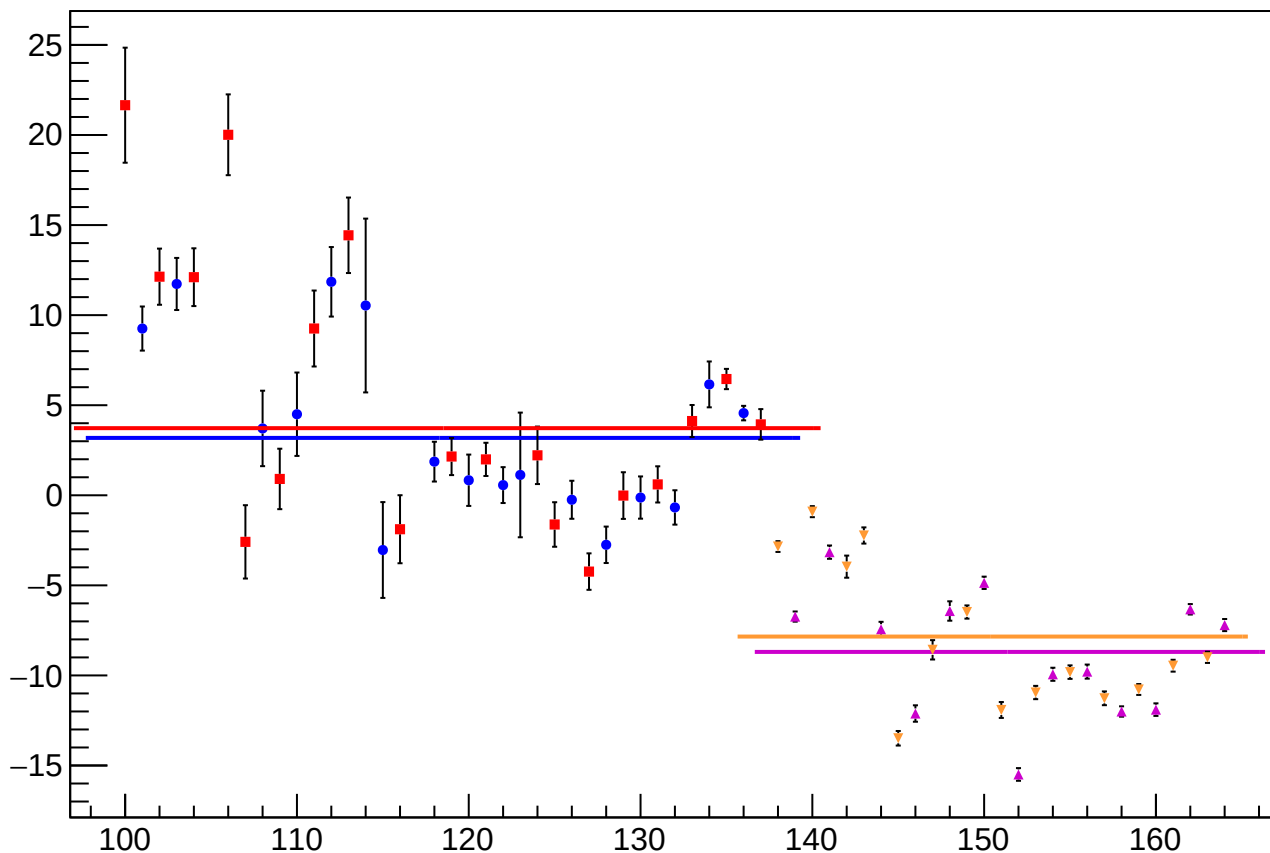
Left In:  $-53.620 \pm 0.075$   $\chi^2/\text{NDF}$ : 1770.5/12

+ sign  $-54.524 \pm 0.065$   $\chi^2/\text{NDF}$ : 5065.0/30

All:  $-54.517 \pm 0.047$   $\chi^2/\text{NDF}$ : 12182.2/62

- sign  $-54.510 \pm 0.067$   $\chi^2/\text{NDF}$ : 7117.1/31

# reg\_asym\_sam1\_diff\_bpm4eX\_slope vs Slug



Right In:  $3.185 \pm 0.259$   $\chi^2/\text{NDF}$ : 185.8/16

Left Out:  $-7.842 \pm 0.098$   $\chi^2/\text{NDF}$ : 1590.5/13

Right Out:  $3.726 \pm 0.268$   $\chi^2/\text{NDF}$ : 324.1/18

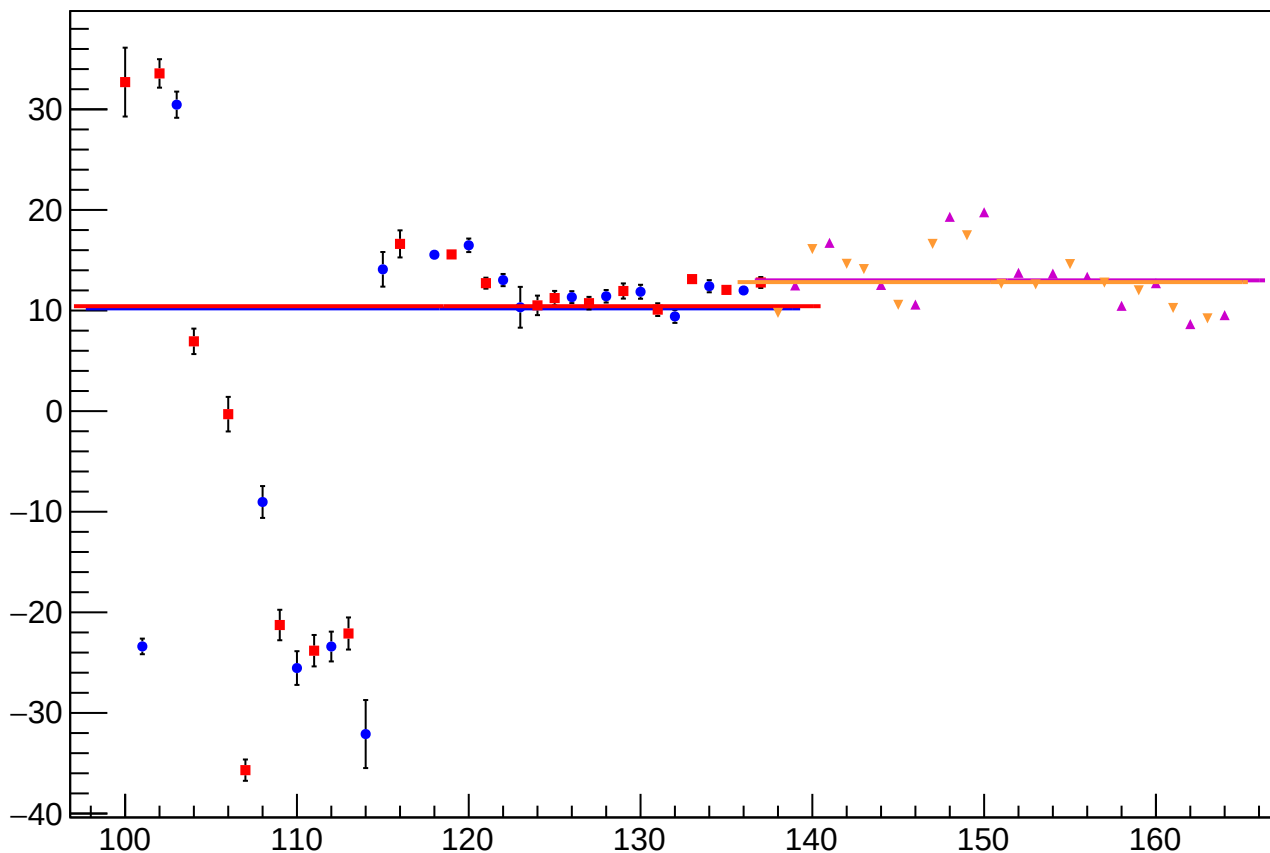
Left In:  $-8.695 \pm 0.097$   $\chi^2/\text{NDF}$ : 1176.8/12

+ sign  $-6.451 \pm 0.092$   $\chi^2/\text{NDF}$ : 3360.4/30

All:  $-6.850 \pm 0.065$   $\chi^2/\text{NDF}$ : 6802.7/62

- sign  $-7.245 \pm 0.091$   $\chi^2/\text{NDF}$ : 3404.8/31

# reg\_asym\_sam1\_diff\_bpm4eY\_slope vs Slug



Right In: 10.215 $\pm$ 0.158  $\chi^2$ /NDF: 3692.6/16

Left Out: 12.827 $\pm$ 0.084  $\chi^2$ /NDF: 939.1/13

Right Out: 10.430 $\pm$ 0.160  $\chi^2$ /NDF: 3826.9/18

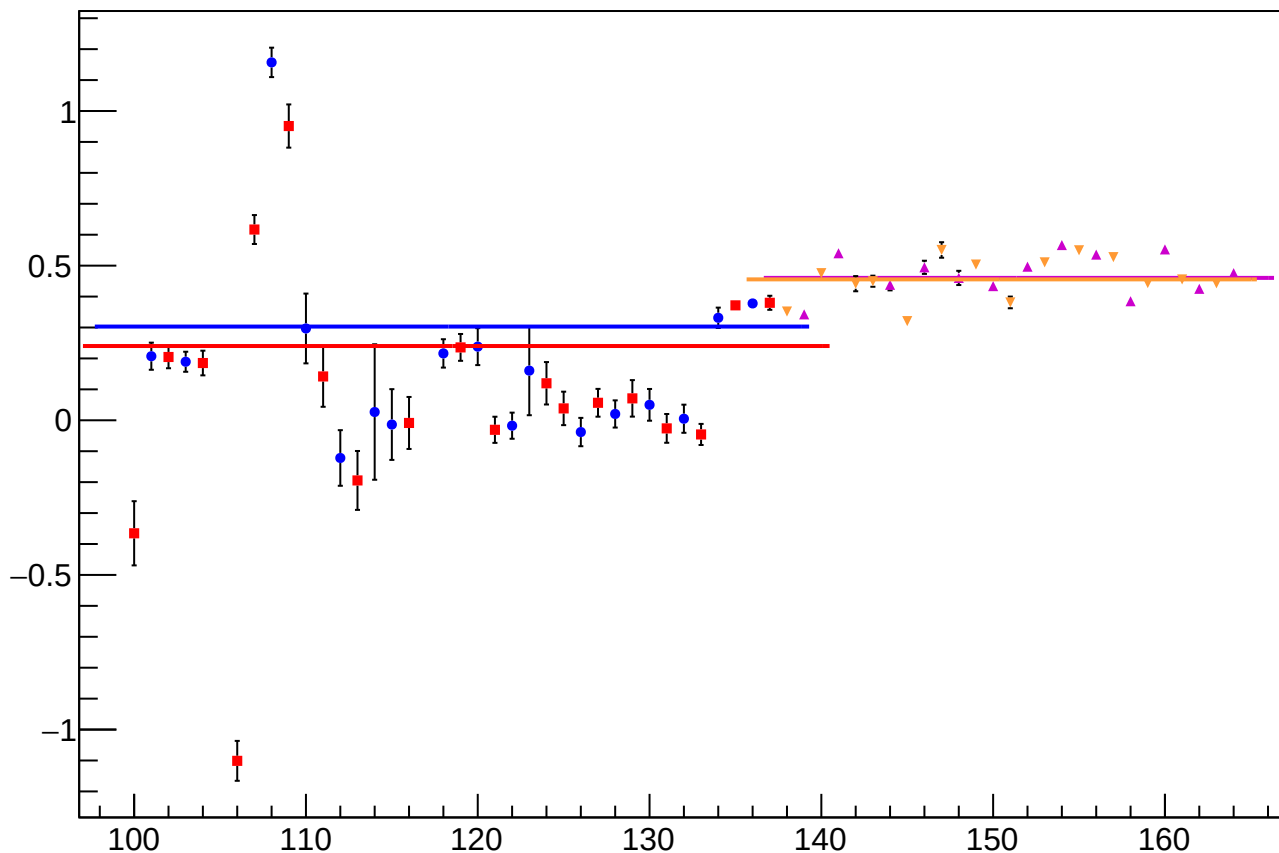
Left In: 13.000 $\pm$ 0.085  $\chi^2$ /NDF: 1565.7/12

+ sign 12.254 $\pm$ 0.074  $\chi^2$ /NDF: 4844.8/30

All: 12.344 $\pm$ 0.053  $\chi^2$ /NDF: 10441.8/62

- sign 12.436 $\pm$ 0.075  $\chi^2$ /NDF: 5594.0/31

# reg\_asym\_sam1\_diff\_bpm12X\_slope vs Slug



Right In: 0.303 $\pm$ 0.008  $\chi^2$ /NDF: 646.3/16

Left Out: 0.456 $\pm$ 0.004  $\chi^2$ /NDF: 299.1/13

Right Out: 0.240 $\pm$ 0.009  $\chi^2$ /NDF: 984.4/18

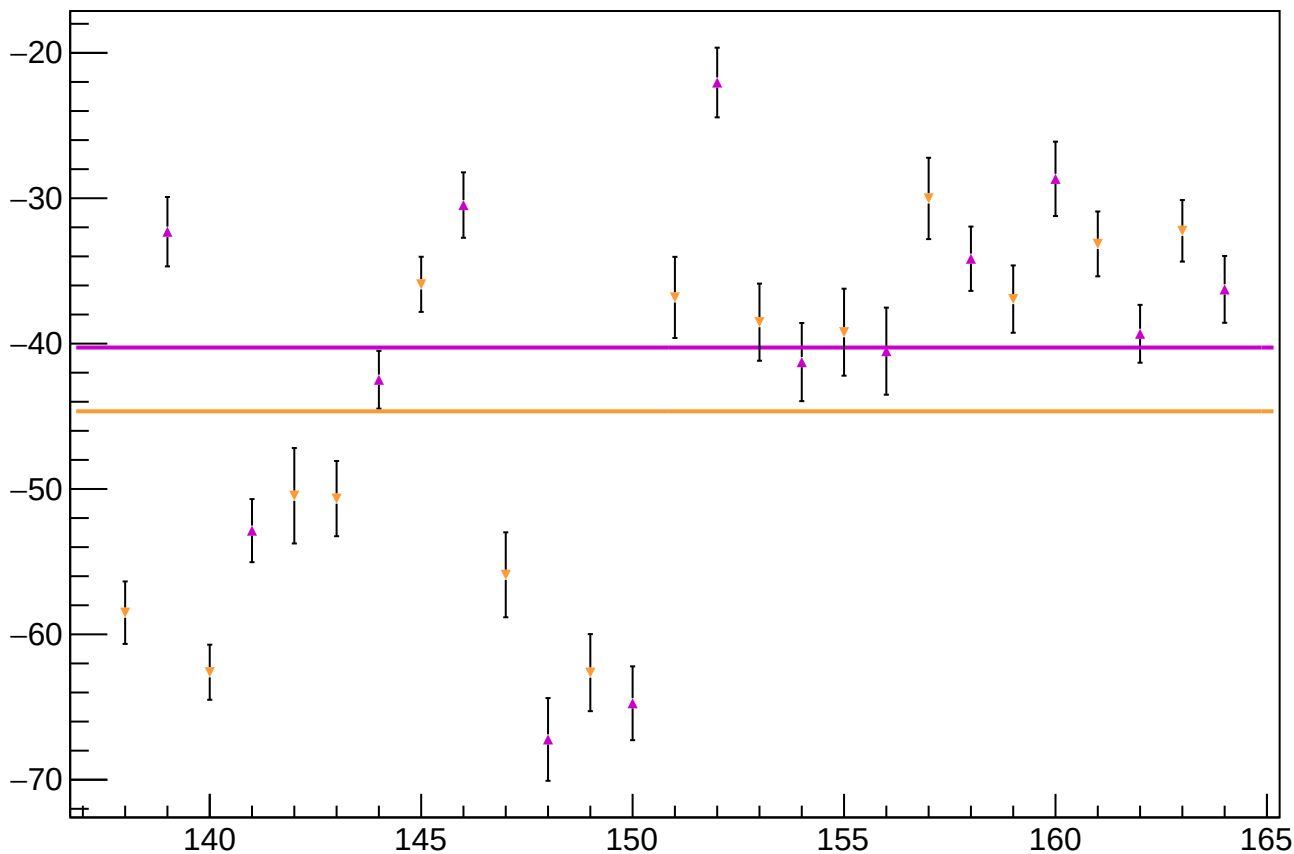
Left In: 0.460 $\pm$ 0.004  $\chi^2$ /NDF: 404.5/12

+ sign 0.429 $\pm$ 0.003  $\chi^2$ /NDF: 1229.9/30

All: 0.427 $\pm$ 0.002  $\chi^2$ /NDF: 3179.8/62

- sign 0.425 $\pm$ 0.003  $\chi^2$ /NDF: 1949.4/31

# reg\_asym\_sam2\_diff\_bpm1X\_slope vs Slug



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

Left Out: -44.656+/-0.646  $\chi^2/\text{NDF}$ : 337.9/13

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

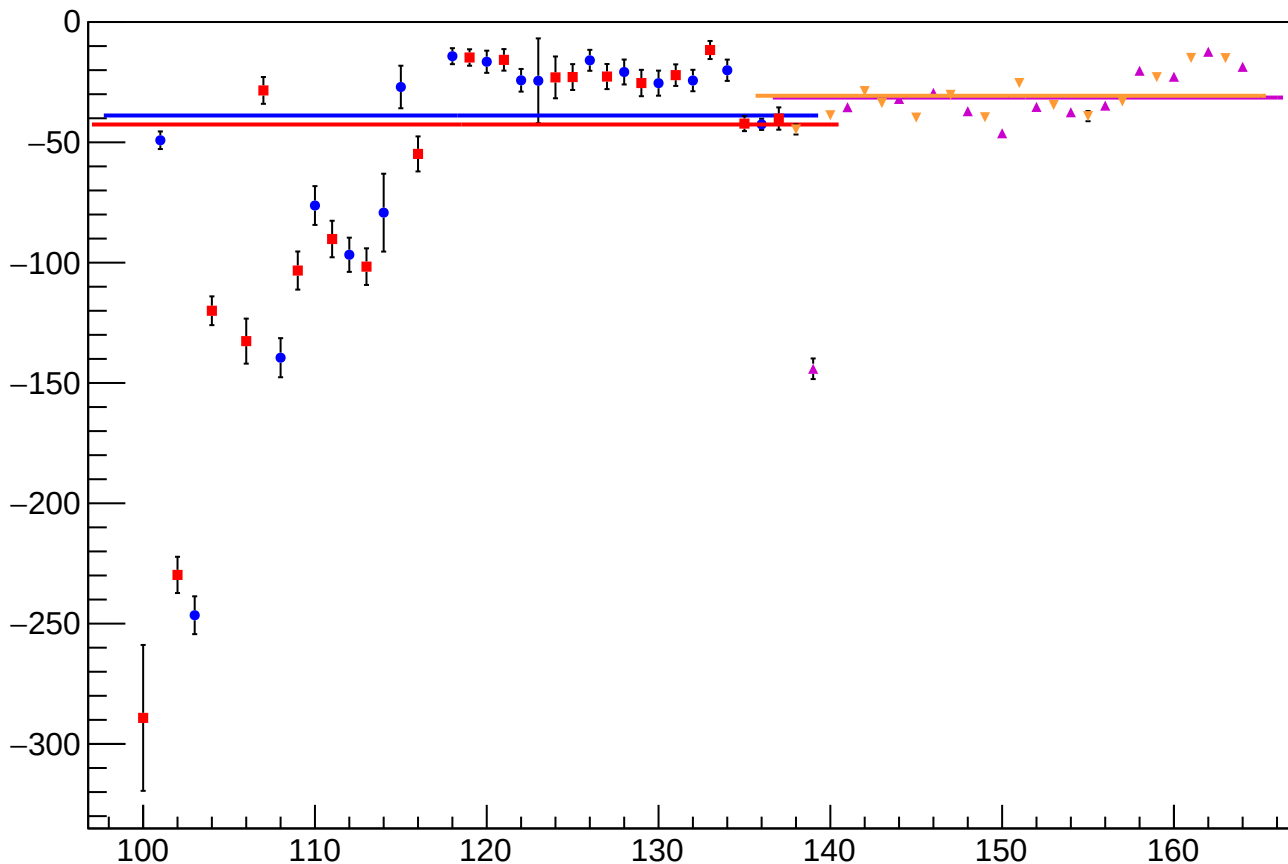
Left In: -40.270+/-0.654  $\chi^2/\text{NDF}$ : 337.1/12

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

All: -42.489+/-0.460  $\chi^2/\text{NDF}$ : 697.7/26

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

# reg\_asym\_sam2\_diff\_bpm4aY\_slope vs Slug



Right In:  $-38.844 \pm 1.148$   $\chi^2/\text{NDF}$ : 1121.9/16

Left Out:  $-30.641 \pm 0.455$   $\chi^2/\text{NDF}$ : 390.3/13

Right Out:  $-42.586 \pm 1.210$   $\chi^2/\text{NDF}$ : 1345.7/18

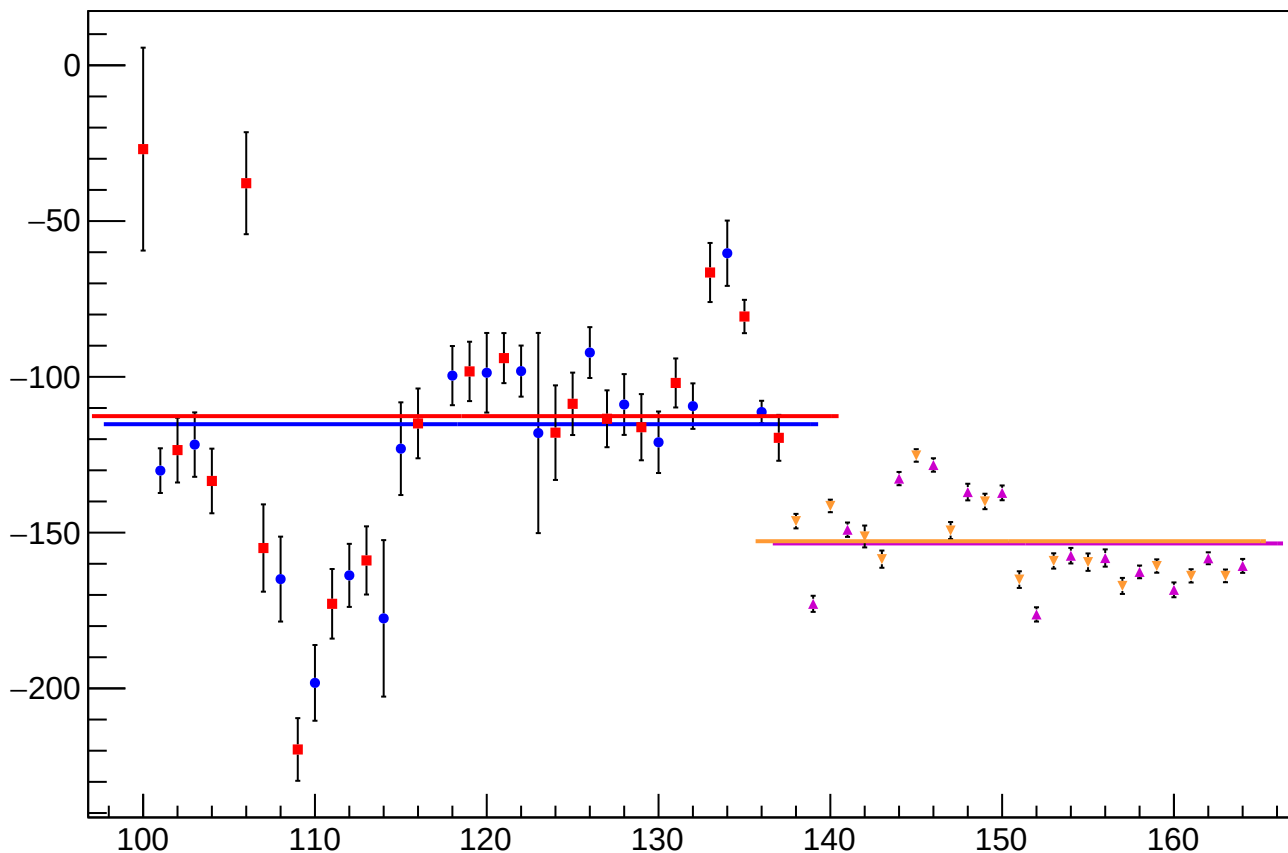
Left In:  $-31.393 \pm 0.464$   $\chi^2/\text{NDF}$ : 1080.0/12

+ sign  $-31.754 \pm 0.423$   $\chi^2/\text{NDF}$ : 1556.4/30

All:  $-32.278 \pm 0.303$   $\chi^2/\text{NDF}$ : 4059.8/62

- sign  $-32.827 \pm 0.433$   $\chi^2/\text{NDF}$ : 2500.3/31

# reg\_asym\_sam2\_diff\_bpm4eX\_slope vs Slug



Right In:  $-115.199 \pm 2.081$   $\chi^2/\text{NDF}: 140.8/16$

Left Out:  $-152.761 \pm 0.639$   $\chi^2/\text{NDF}: 393.3/13$

Right Out:  $-112.611 \pm 2.209$   $\chi^2/\text{NDF}: 272.4/18$

Left In:  $-153.472 \pm 0.638$   $\chi^2/\text{NDF}: 556.2/12$

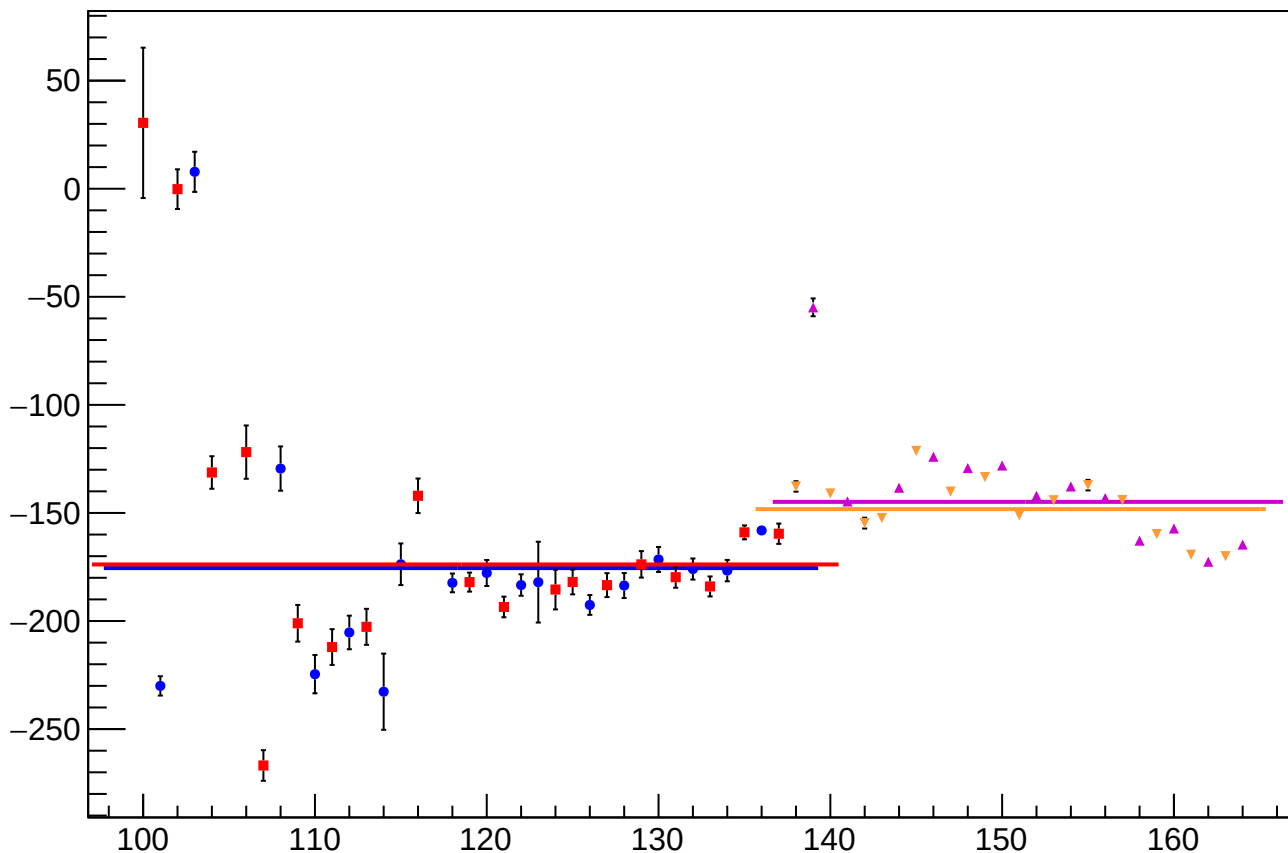
+ sign  $-149.521 \pm 0.611$   $\chi^2/\text{NDF}: 831.6/30$

All:  $-149.925 \pm 0.433$   $\chi^2/\text{NDF}: 1976.8/62$

- sign  $-150.330 \pm 0.613$   $\chi^2/\text{NDF}: 1144.3/31$



# reg\_asym\_sam2\_diff\_bpm4eY\_slope vs Slug



Right In:  $-175.521 \pm 1.277$   $\chi^2/\text{NDF}$ : 692.3/16

Left Out:  $-148.232 \pm 0.531$   $\chi^2/\text{NDF}$ : 750.1/13

Right Out:  $-173.830 \pm 1.357$   $\chi^2/\text{NDF}$ : 737.9/18

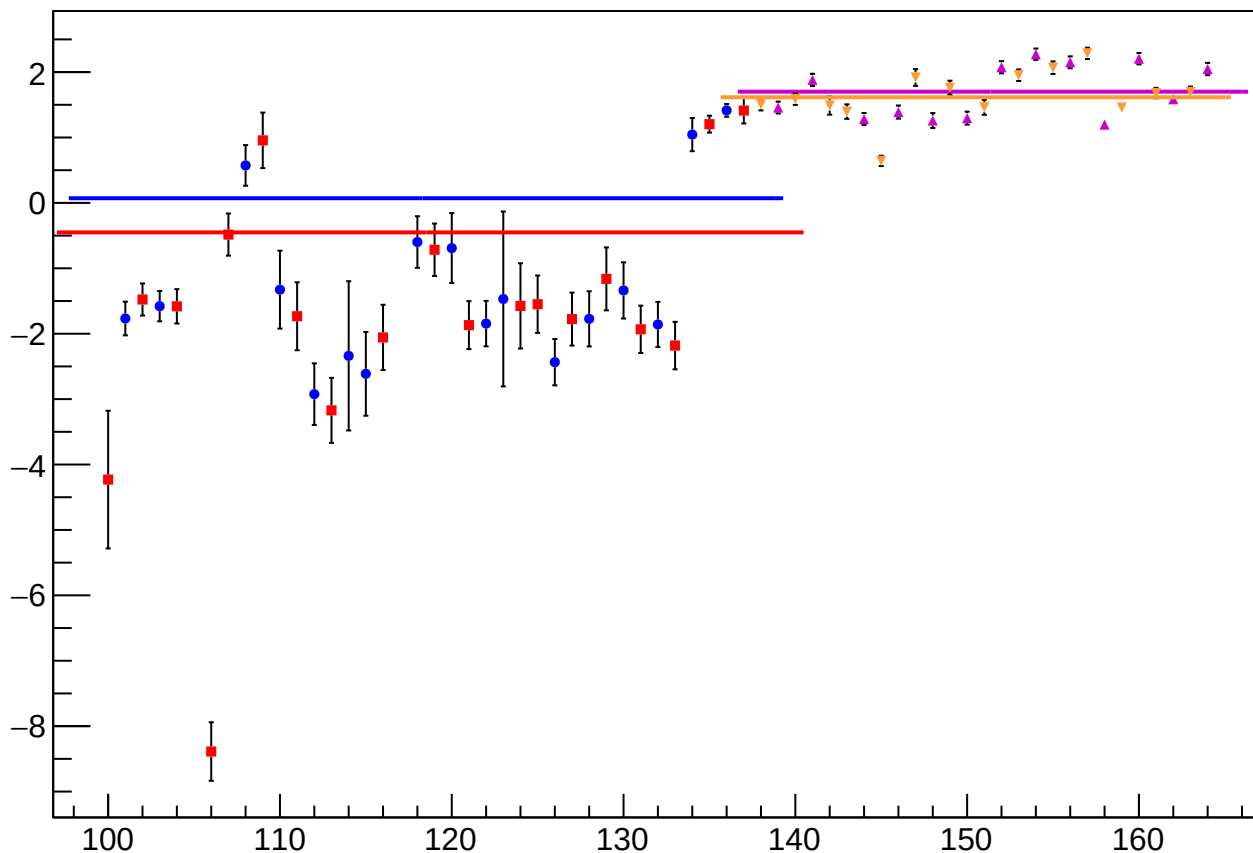
Left In:  $-144.873 \pm 0.537$   $\chi^2/\text{NDF}$ : 1330.8/12

+ sign  $-152.248 \pm 0.490$   $\chi^2/\text{NDF}$ : 1831.8/30

All:  $-150.554 \pm 0.350$   $\chi^2/\text{NDF}$ : 4318.8/62

- sign  $-148.795 \pm 0.499$   $\chi^2/\text{NDF}$ : 2462.7/31

# reg\_asym\_sam2\_diff\_bpm12X\_slope vs Slug



Right In:  $0.072 \pm 0.067$   $\chi^2/\text{NDF}$ : 525.2/16

Left Out:  $1.615 \pm 0.025$   $\chi^2/\text{NDF}$ : 269.0/13

Right Out:  $-0.451 \pm 0.071$   $\chi^2/\text{NDF}$ : 751.3/18

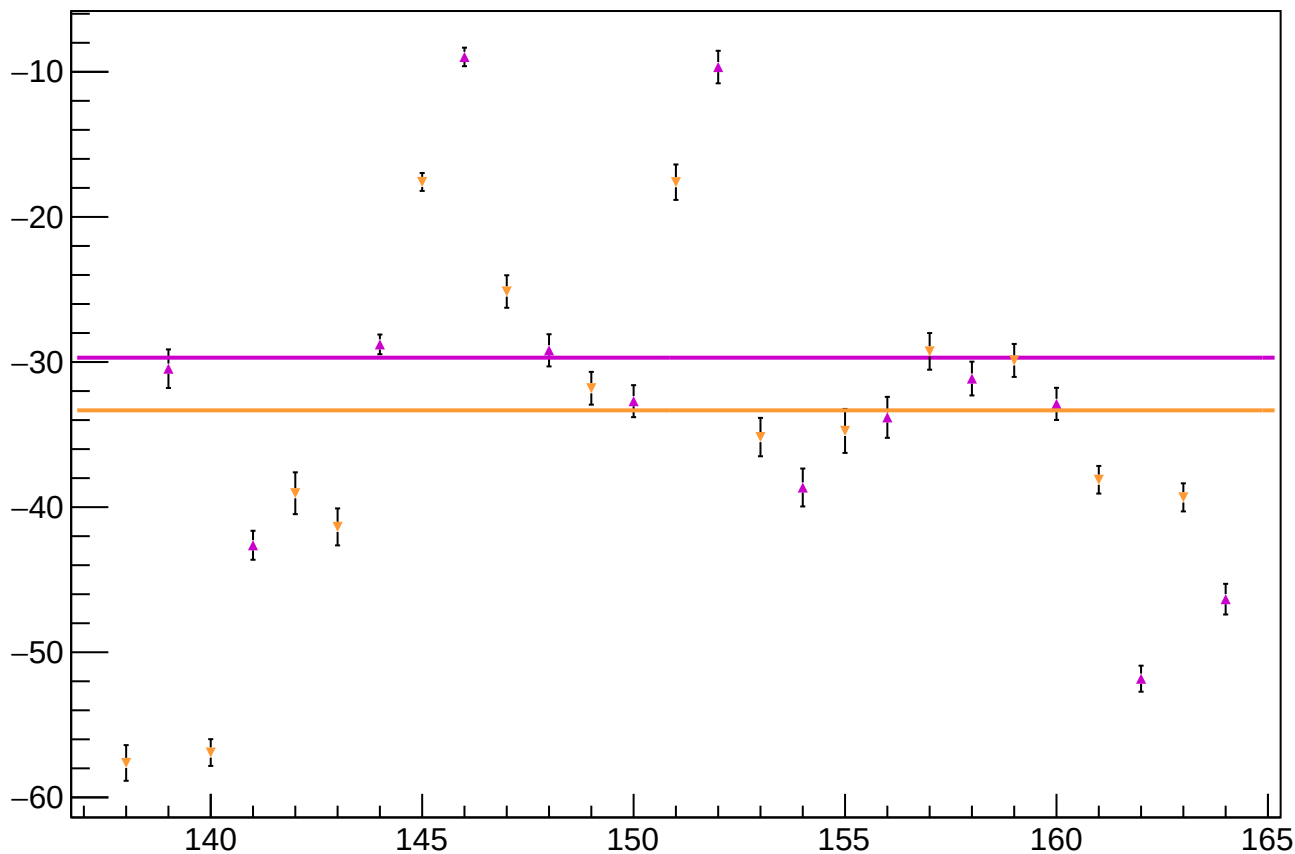
Left In:  $1.700 \pm 0.025$   $\chi^2/\text{NDF}$ : 252.0/12

+ sign  $1.428 \pm 0.023$   $\chi^2/\text{NDF}$ : 1258.7/30

All:  $1.447 \pm 0.017$   $\chi^2/\text{NDF}$ : 3073.7/62

- sign  $1.465 \pm 0.024$   $\chi^2/\text{NDF}$ : 1813.7/31

# reg\_asym\_sam3\_diff\_bpm1X\_slope vs Slug



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

Left Out: -33.329+/-0.284  $\chi^2/\text{NDF}$ : 2057.0/13

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

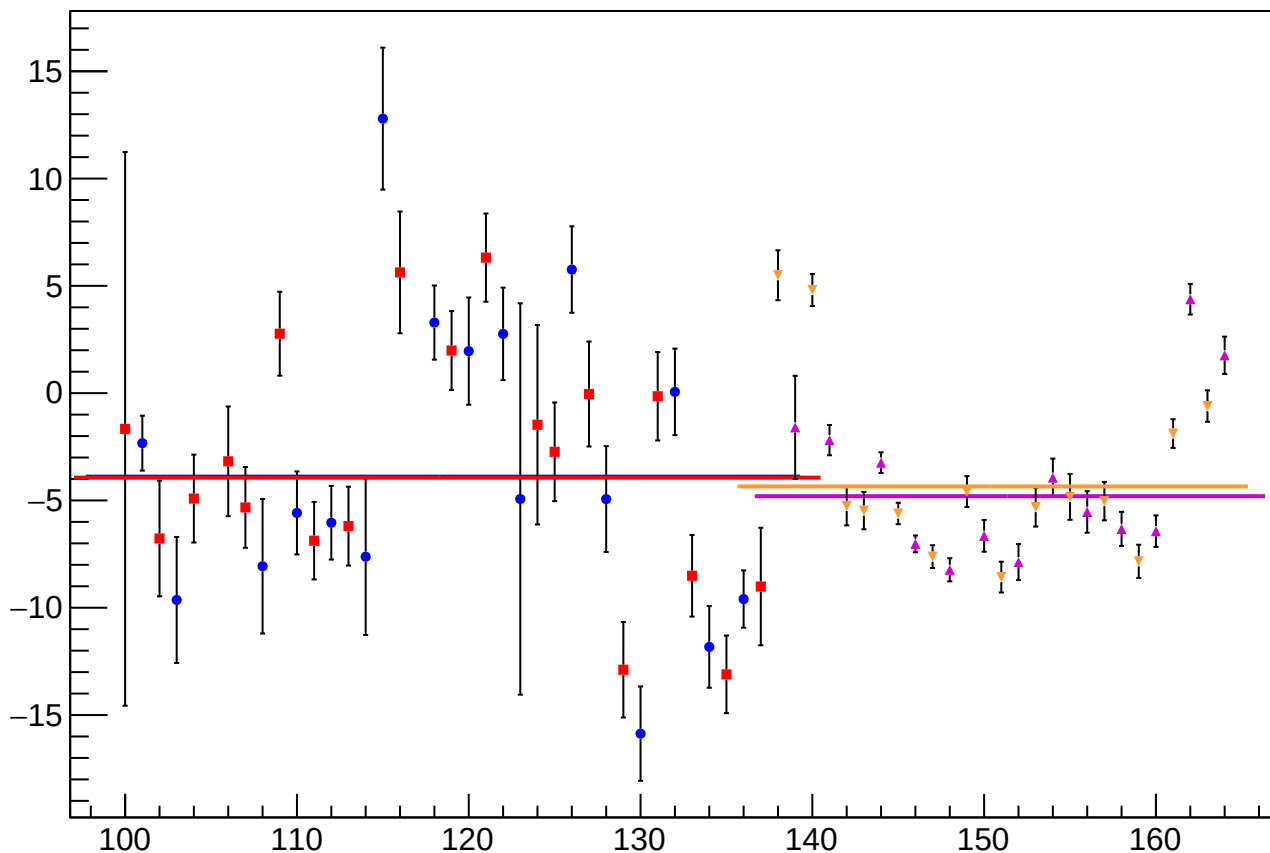
Left In: -29.699+/-0.273  $\chi^2/\text{NDF}$ : 2470.2/12

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

All: -31.443+/-0.197  $\chi^2/\text{NDF}$ : 4612.0/26

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

# reg\_asym\_sam3\_diff\_bpm4aY\_slope vs Slug



Right In:  $-3.890 \pm 0.498$   $\chi^2/\text{NDF}$ : 160.5/16

Left Out:  $-4.347 \pm 0.198$   $\chi^2/\text{NDF}$ : 366.2/13

Right Out:  $-3.937 \pm 0.507$   $\chi^2/\text{NDF}$ : 122.2/18

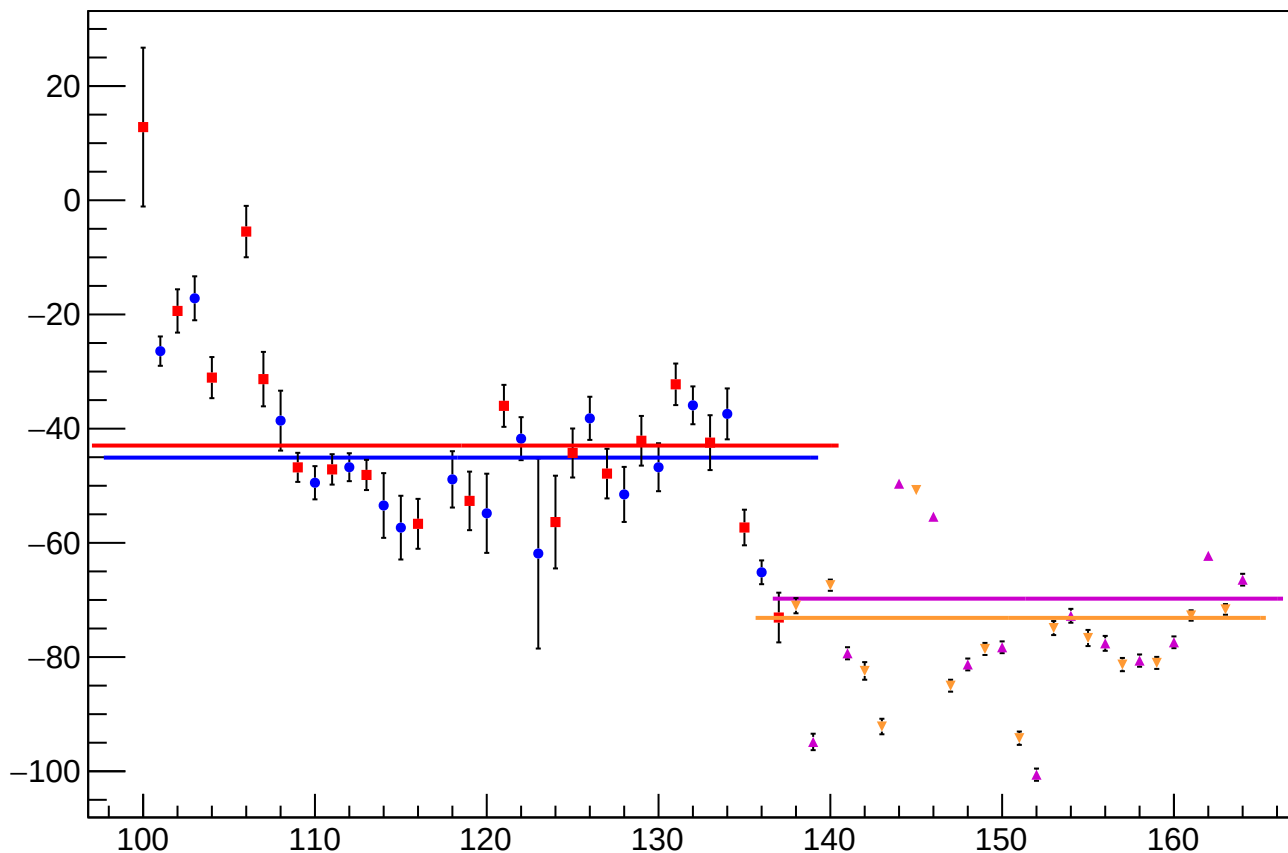
Left In:  $-4.801 \pm 0.186$   $\chi^2/\text{NDF}$ : 351.1/12

+ sign  $-4.285 \pm 0.184$   $\chi^2/\text{NDF}$ : 527.4/30

All:  $-4.501 \pm 0.127$   $\chi^2/\text{NDF}$ : 1005.9/62

- sign  $-4.698 \pm 0.175$   $\chi^2/\text{NDF}$ : 475.8/31

# reg\_asym\_sam3\_diff\_bpm4eX\_slope vs Slug



Right In:  $-45.070 \pm 0.883$   $\chi^2/\text{NDF}$ : 229.7/16

Left Out:  $-73.138 \pm 0.282$   $\chi^2/\text{NDF}$ : 2032.2/13

Right Out:  $-42.959 \pm 0.878$   $\chi^2/\text{NDF}$ : 248.3/18

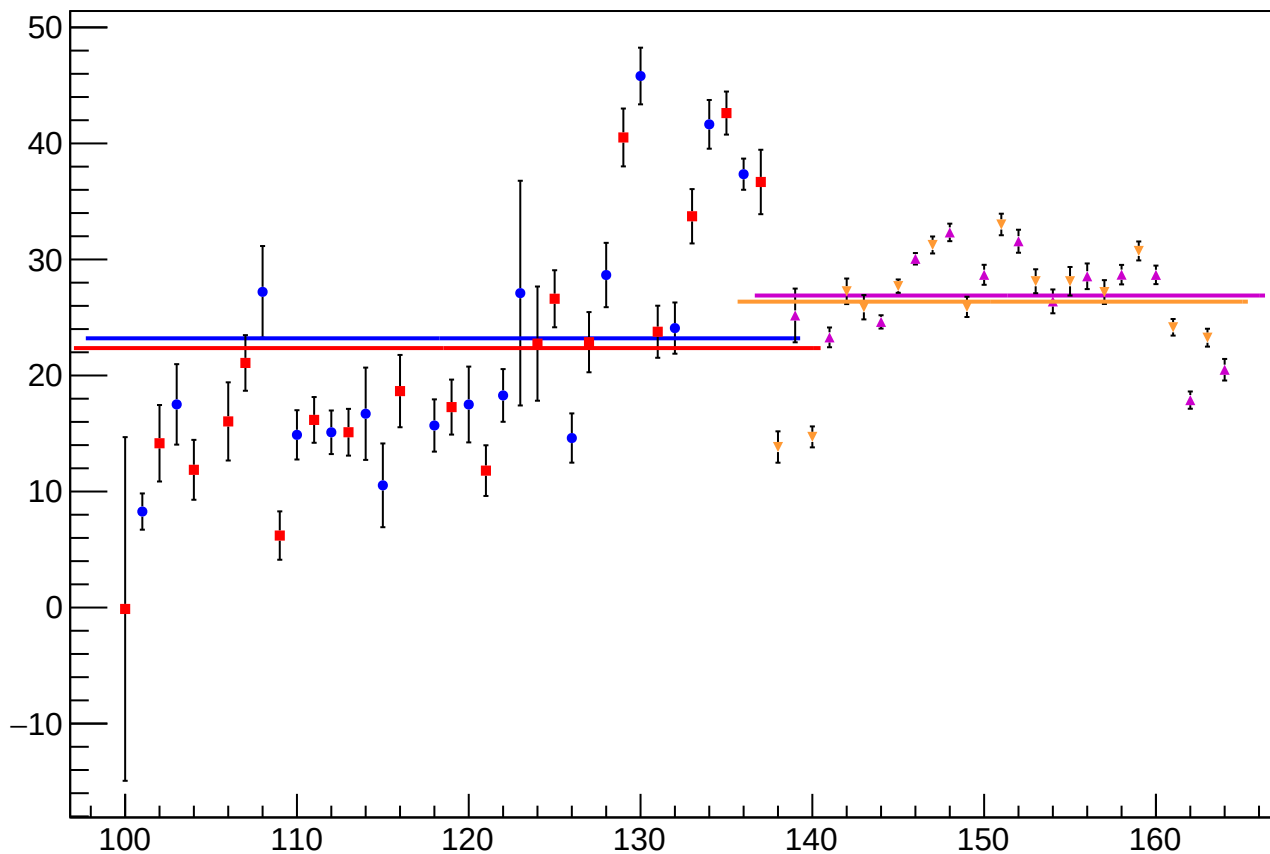
Left In:  $-69.772 \pm 0.267$   $\chi^2/\text{NDF}$ : 2998.7/12

+ sign  $-70.545 \pm 0.269$   $\chi^2/\text{NDF}$ : 3178.2/30

All:  $-68.947 \pm 0.185$   $\chi^2/\text{NDF}$ : 7346.6/62

- sign  $-67.498 \pm 0.256$   $\chi^2/\text{NDF}$ : 4100.8/31

# reg\_asym\_sam3\_diff\_bpm4eY\_slope vs Slug



Right In: 23.205 $\pm$ 0.559  $\chi^2$ /NDF: 457.3/16

Left Out: 26.364 $\pm$ 0.232  $\chi^2$ /NDF: 415.0/13

Right Out: 22.361 $\pm$ 0.573  $\chi^2$ /NDF: 366.9/18

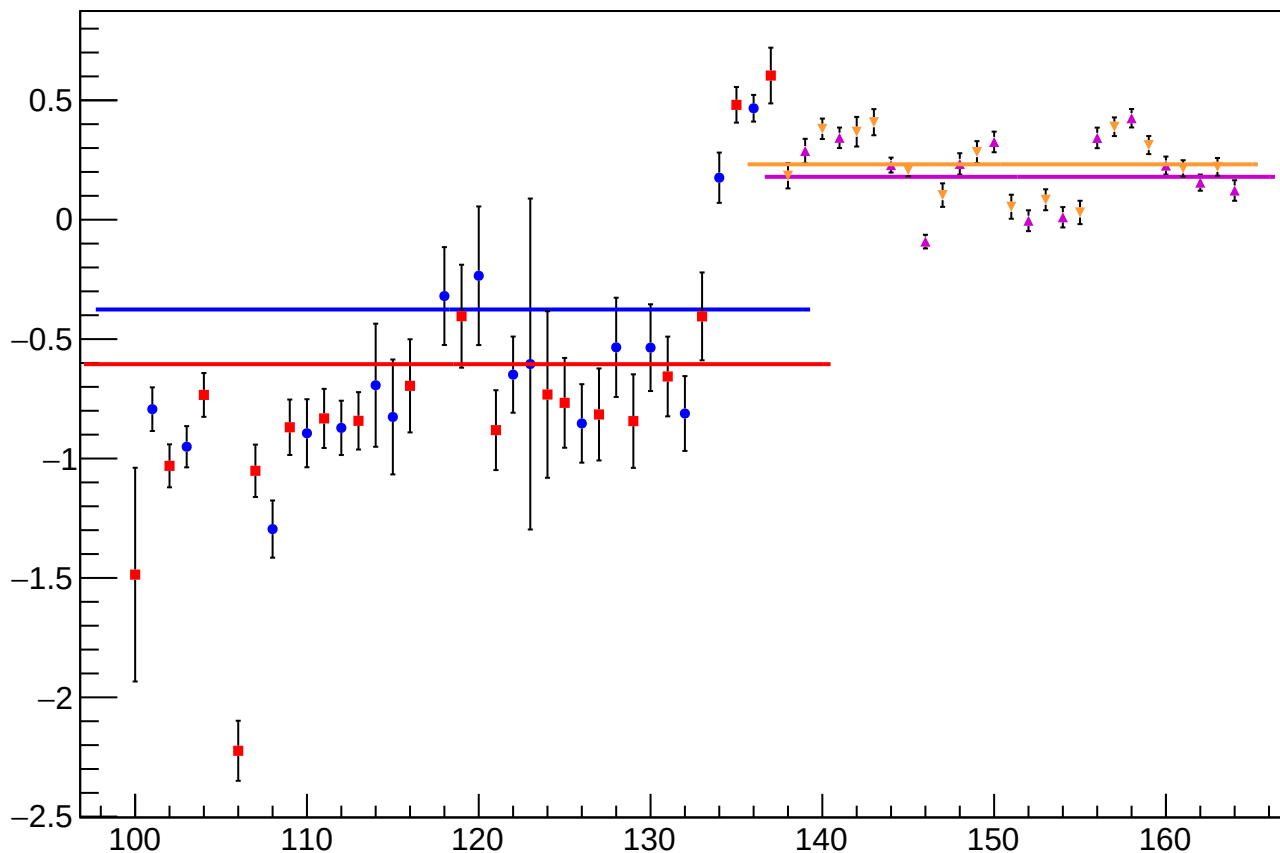
Left In: 26.892 $\pm$ 0.221  $\chi^2$ /NDF: 359.8/12

+ sign 25.899 $\pm$ 0.214  $\chi^2$ /NDF: 899.6/30

All: 26.110 $\pm$ 0.149  $\chi^2$ /NDF: 1682.7/62

- sign 26.305 $\pm$ 0.206  $\chi^2$ /NDF: 781.2/31

# reg\_asym\_sam3\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.376 \pm 0.030$   $\chi^2/\text{NDF}: 437.3/16$

Left Out:  $0.232 \pm 0.011$   $\chi^2/\text{NDF}: 99.0/13$

Right Out:  $-0.605 \pm 0.030$   $\chi^2/\text{NDF}: 551.1/18$

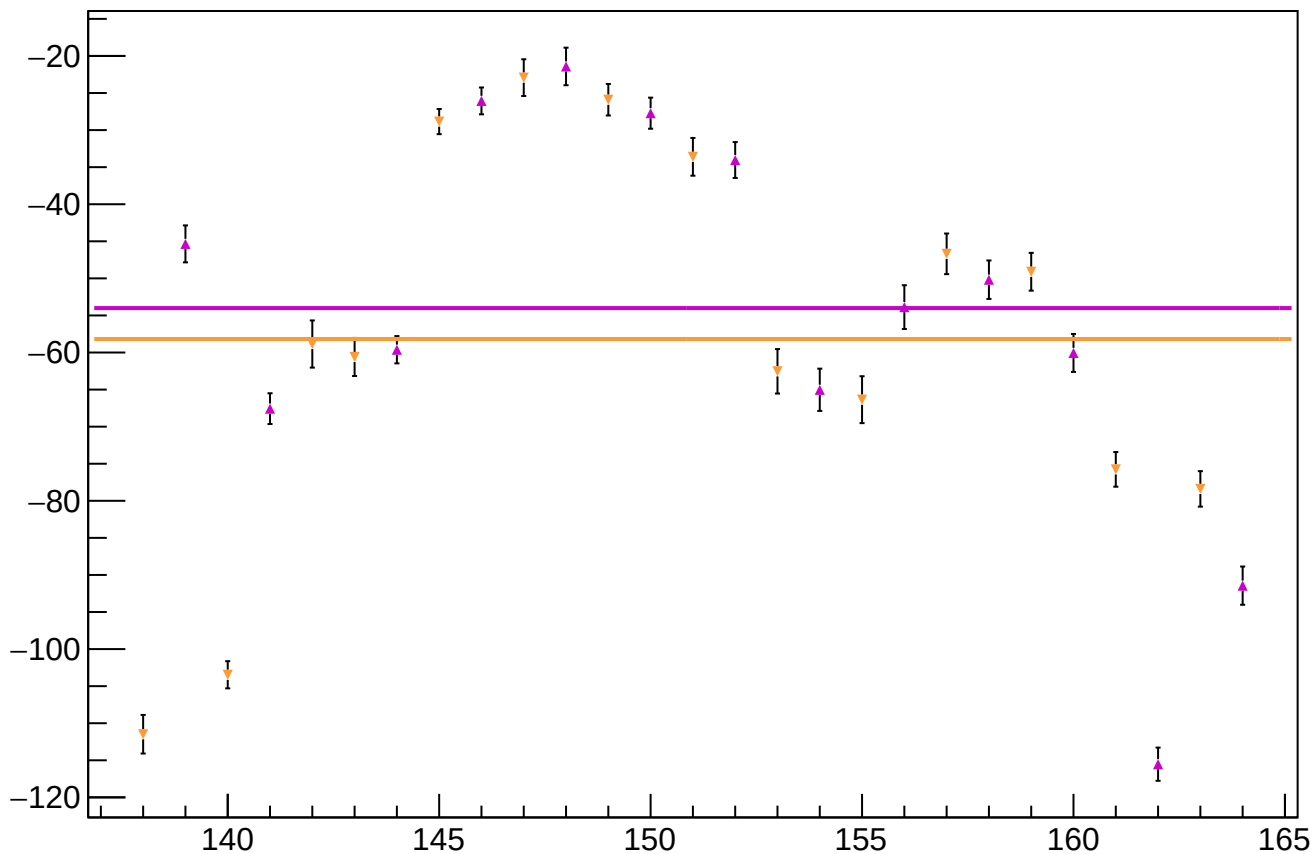
Left In:  $0.180 \pm 0.011$   $\chi^2/\text{NDF}: 216.0/12$

+ sign  $0.160 \pm 0.010$   $\chi^2/\text{NDF}: 895.0/30$

All:  $0.125 \pm 0.007$   $\chi^2/\text{NDF}: 2282.0/62$

- sign  $0.091 \pm 0.010$   $\chi^2/\text{NDF}: 1364.8/31$

# reg\_asym\_sam4\_diff\_bpm1X\_slope vs Slug



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

Left Out: -58.179+/-0.640  $\chi^2/\text{NDF}$ : 2023.2/13

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

Left In: -54.004+/-0.640  $\chi^2/\text{NDF}$ : 1681.7/12

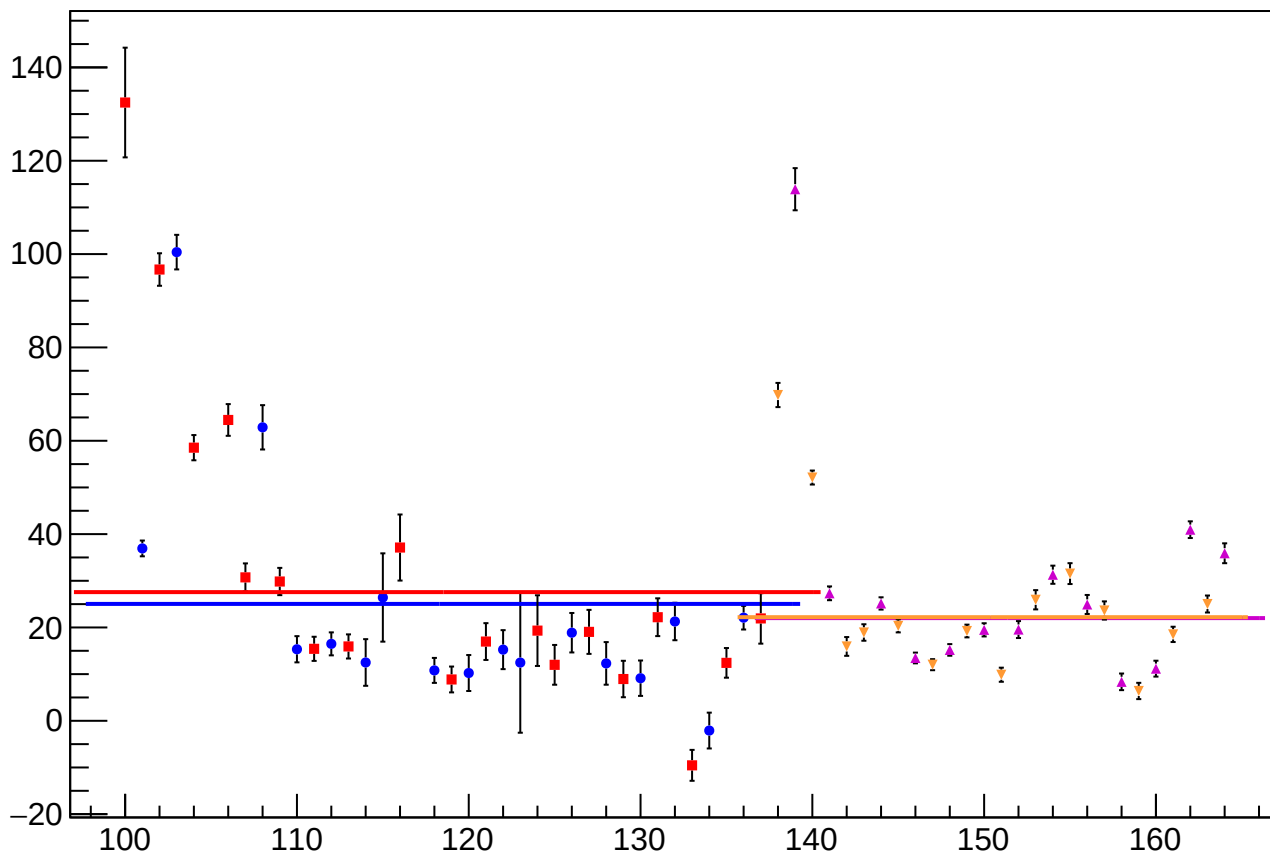
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -56.092+/-0.453  $\chi^2/\text{NDF}$ : 3726.2/26

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



# reg\_asym\_sam4\_diff\_bpm4aY\_slope vs Slug



Right In:  $25.045 \pm 0.806$   $\chi^2/\text{NDF}$ : 686.4/16

Left Out:  $22.202 \pm 0.444$   $\chi^2/\text{NDF}$ : 1006.3/13

Right Out:  $27.573 \pm 0.810$   $\chi^2/\text{NDF}$ : 1012.8/18

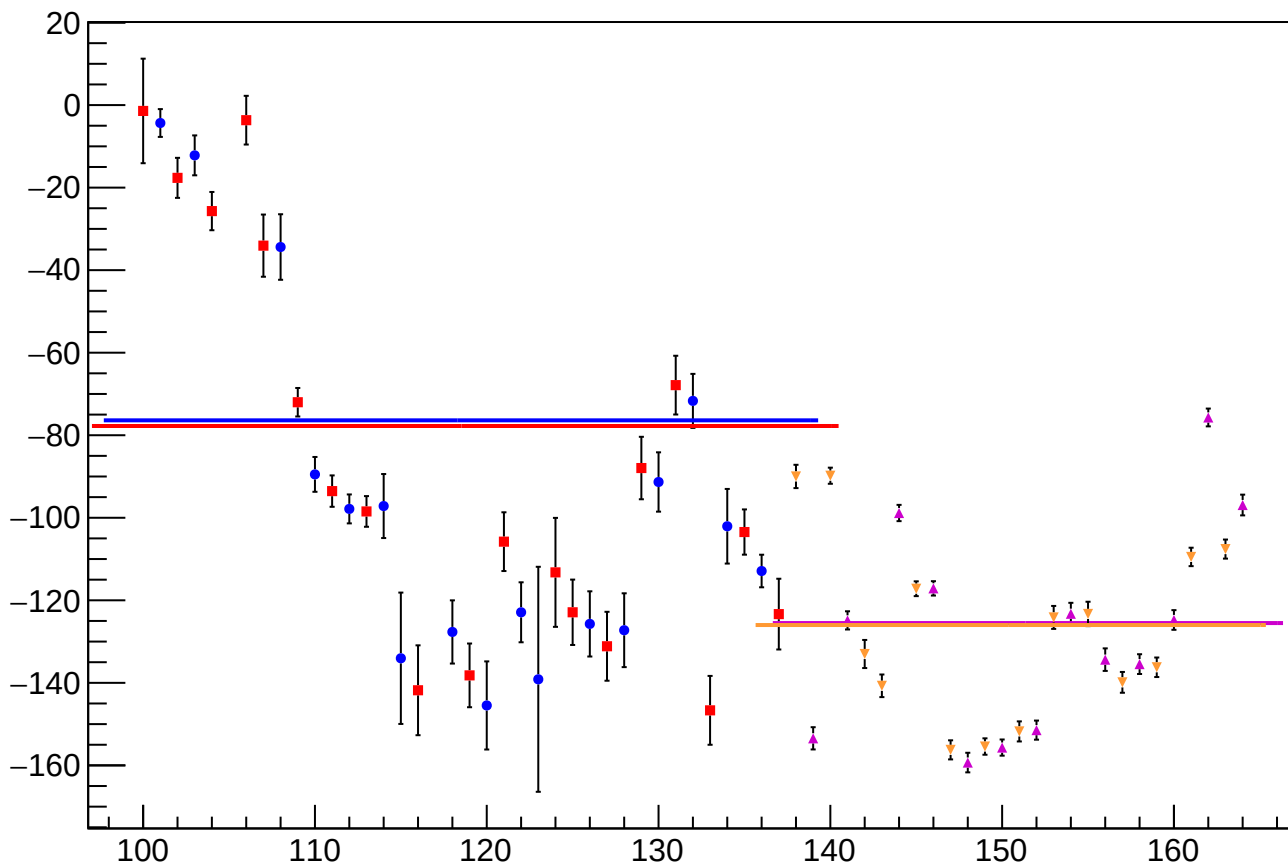
Left In:  $22.005 \pm 0.448$   $\chi^2/\text{NDF}$ : 801.7/12

+ sign  $22.865 \pm 0.389$   $\chi^2/\text{NDF}$ : 1702.2/30

All:  $23.085 \pm 0.276$   $\chi^2/\text{NDF}$ : 3553.6/62

- sign  $23.309 \pm 0.392$   $\chi^2/\text{NDF}$ : 1850.7/31

# reg\_asym\_sam4\_diff\_bpm4eX\_slope vs Slug



Right In:  $-76.392 \pm 1.416$   $\chi^2/\text{NDF}$ : 1031.9/16

Left Out:  $-125.989 \pm 0.633$   $\chi^2/\text{NDF}$ : 1234.9/13

Right Out:  $-77.761 \pm 1.353$   $\chi^2/\text{NDF}$ : 872.7/18

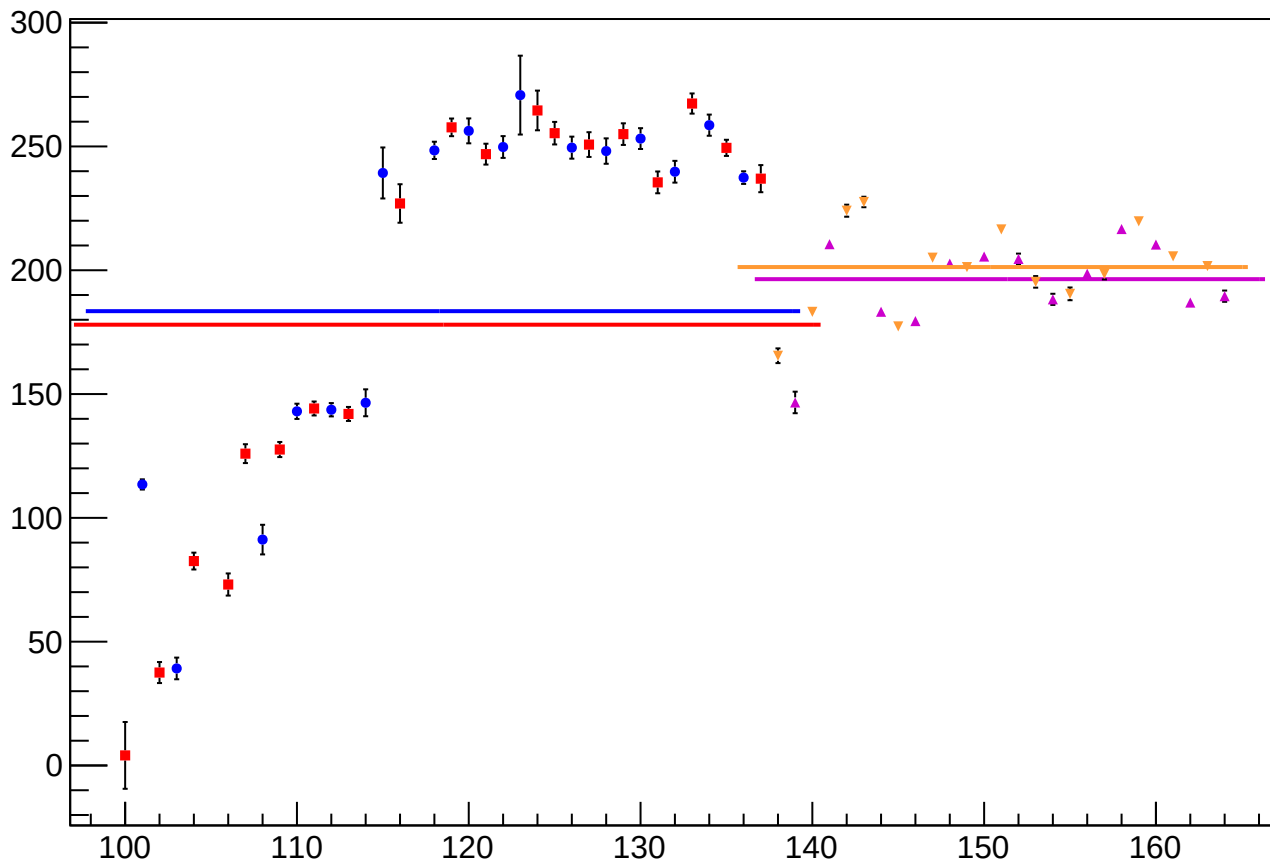
Left In:  $-125.513 \pm 0.625$   $\chi^2/\text{NDF}$ : 1571.2/12

+ sign  $-117.733 \pm 0.578$   $\chi^2/\text{NDF}$ : 3289.1/30

All:  $-117.413 \pm 0.405$   $\chi^2/\text{NDF}$ : 6760.1/62

- sign  $-117.103 \pm 0.568$   $\chi^2/\text{NDF}$ : 3470.4/31

# reg\_asym\_sam4\_diff\_bpm4eY\_slope vs Slug



Right In: 183.478 $\pm$ 0.919  $\chi^2$ /NDF: 5331.4/16

Left Out: 201.291 $\pm$ 0.524  $\chi^2$ /NDF: 908.9/13

Right Out: 178.011 $\pm$ 0.924  $\chi^2$ /NDF: 6345.7/18

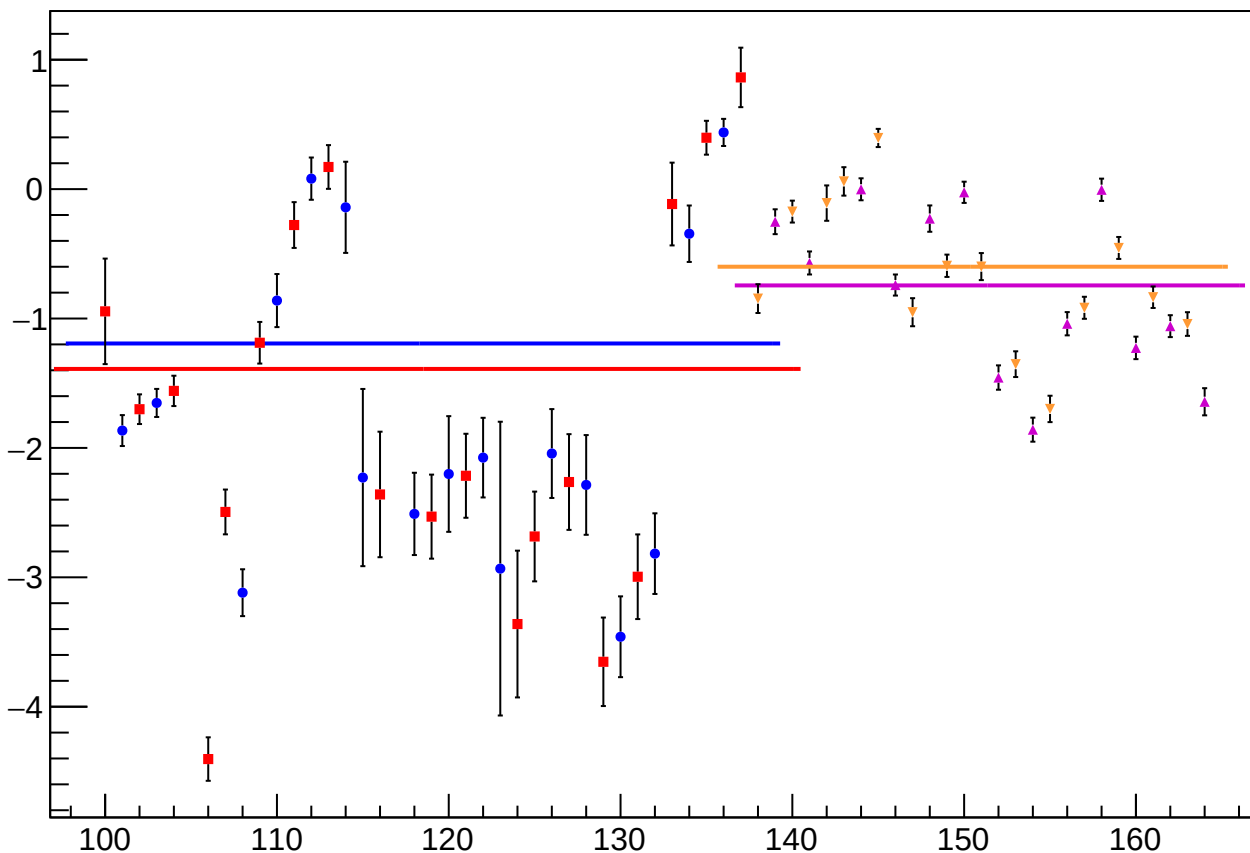
Left In: 196.401 $\pm$ 0.525  $\chi^2$ /NDF: 686.4/12

+ sign 196.917 $\pm$ 0.455  $\chi^2$ /NDF: 6524.0/30

All: 194.423 $\pm$ 0.322  $\chi^2$ /NDF: 13915.9/62

- sign 191.919 $\pm$ 0.456  $\chi^2$ /NDF: 7331.7/31

# reg\_asym\_sam4\_diff\_bpm12X\_slope vs Slug



Right In:  $-1.193 \pm 0.048$   $\chi^2/\text{NDF}$ : 621.7/16

Left Out:  $-0.600 \pm 0.025$   $\chi^2/\text{NDF}$ : 511.8/13

Right Out:  $-1.390 \pm 0.046$   $\chi^2/\text{NDF}$ : 920.6/18

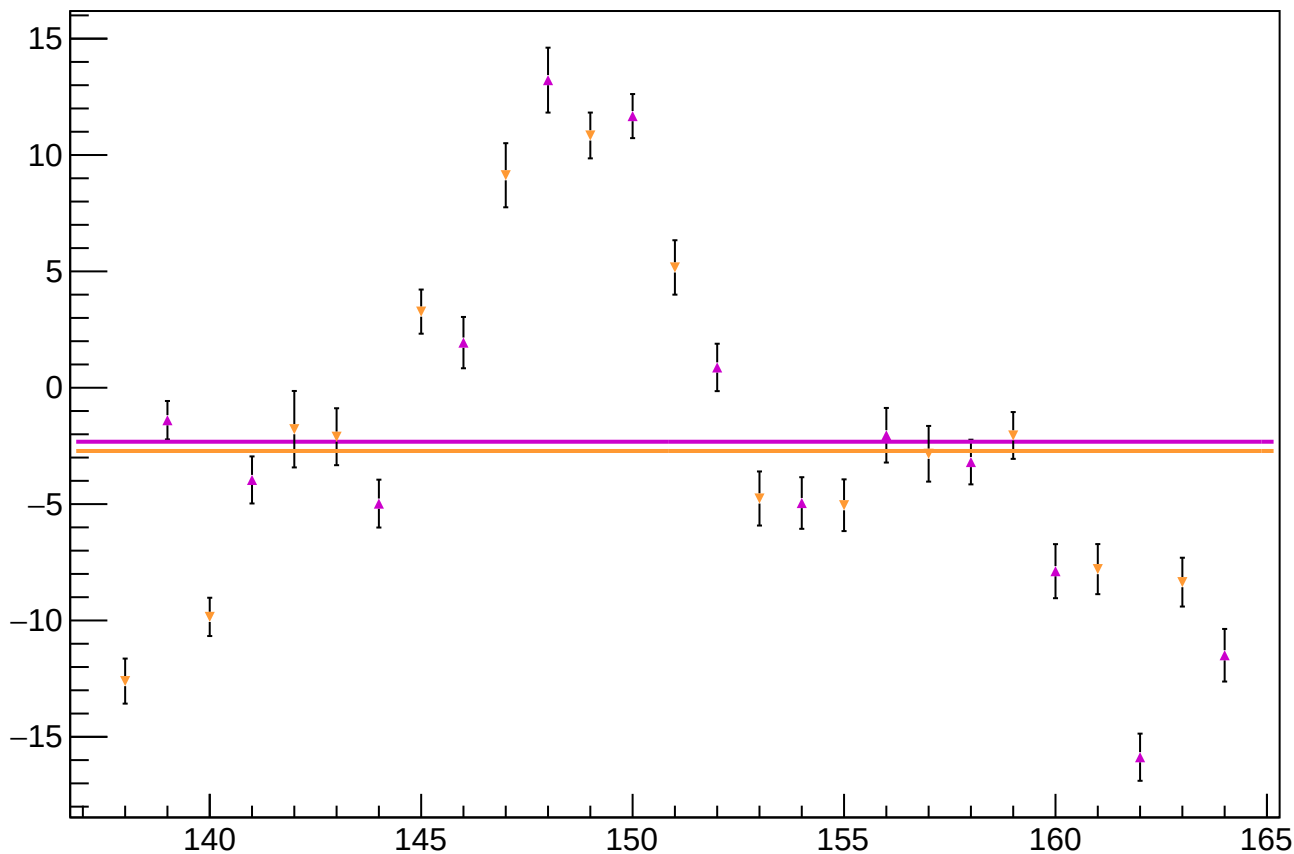
Left In:  $-0.744 \pm 0.025$   $\chi^2/\text{NDF}$ : 613.4/12

+ sign  $-0.725 \pm 0.022$   $\chi^2/\text{NDF}$ : 1253.1/30

All:  $-0.809 \pm 0.016$   $\chi^2/\text{NDF}$ : 2968.6/62

- sign  $-0.891 \pm 0.022$   $\chi^2/\text{NDF}$ : 1687.2/31

# reg\_asym\_sam5\_diff\_bpm1X\_slope vs Slug



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

Left Out: -2.717+/-0.289  $\chi^2/\text{NDF}$ : 588.2/13

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

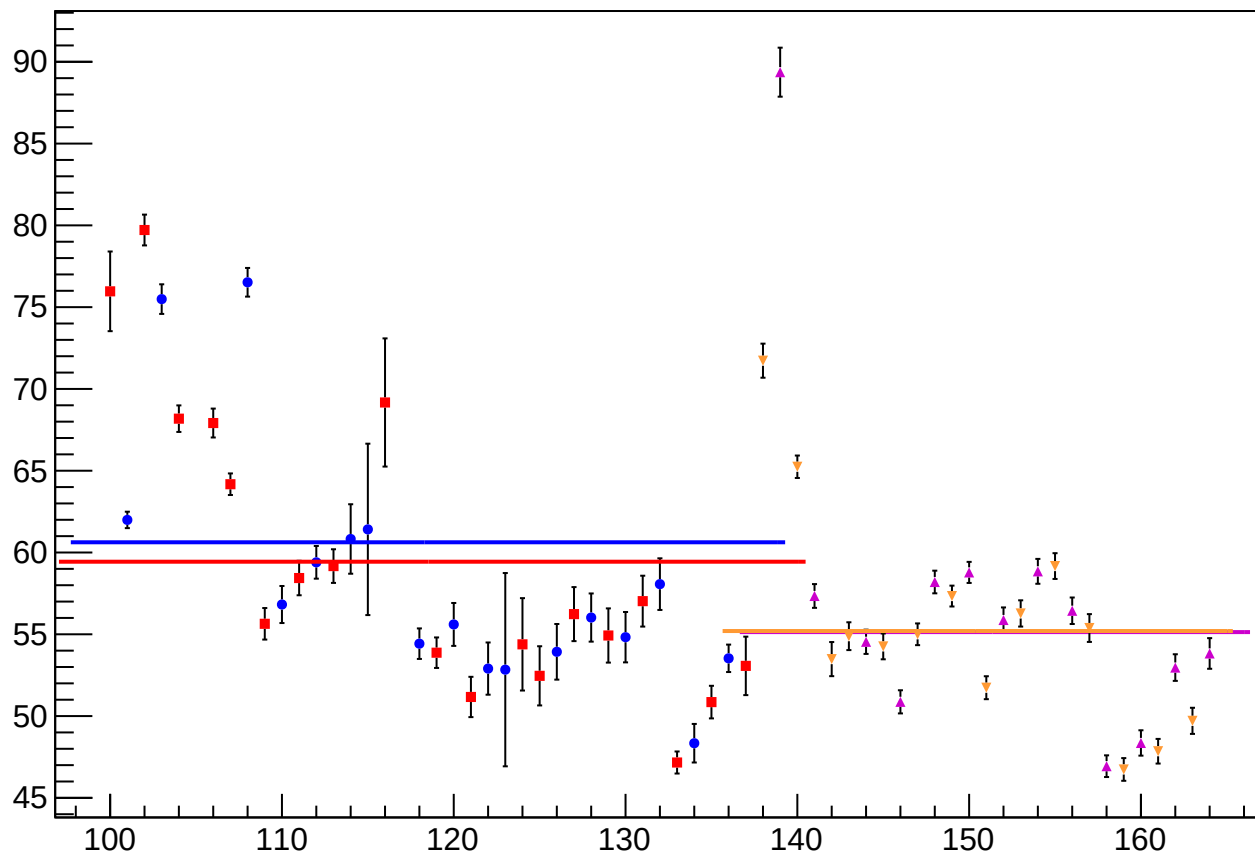
Left In: -2.320+/-0.290  $\chi^2/\text{NDF}$ : 652.0/12

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

All: -2.519+/-0.204  $\chi^2/\text{NDF}$ : 1241.2/26

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

# reg\_asym\_sam5\_diff\_bpm4aY\_slope vs Slug



Right In: 60.625 $\pm$ 0.263  $\chi^2$ /NDF: 924.6/16

Left Out: 55.199 $\pm$ 0.206  $\chi^2$ /NDF: 824.5/13

Right Out: 59.438 $\pm$ 0.248  $\chi^2$ /NDF: 1323.4/18

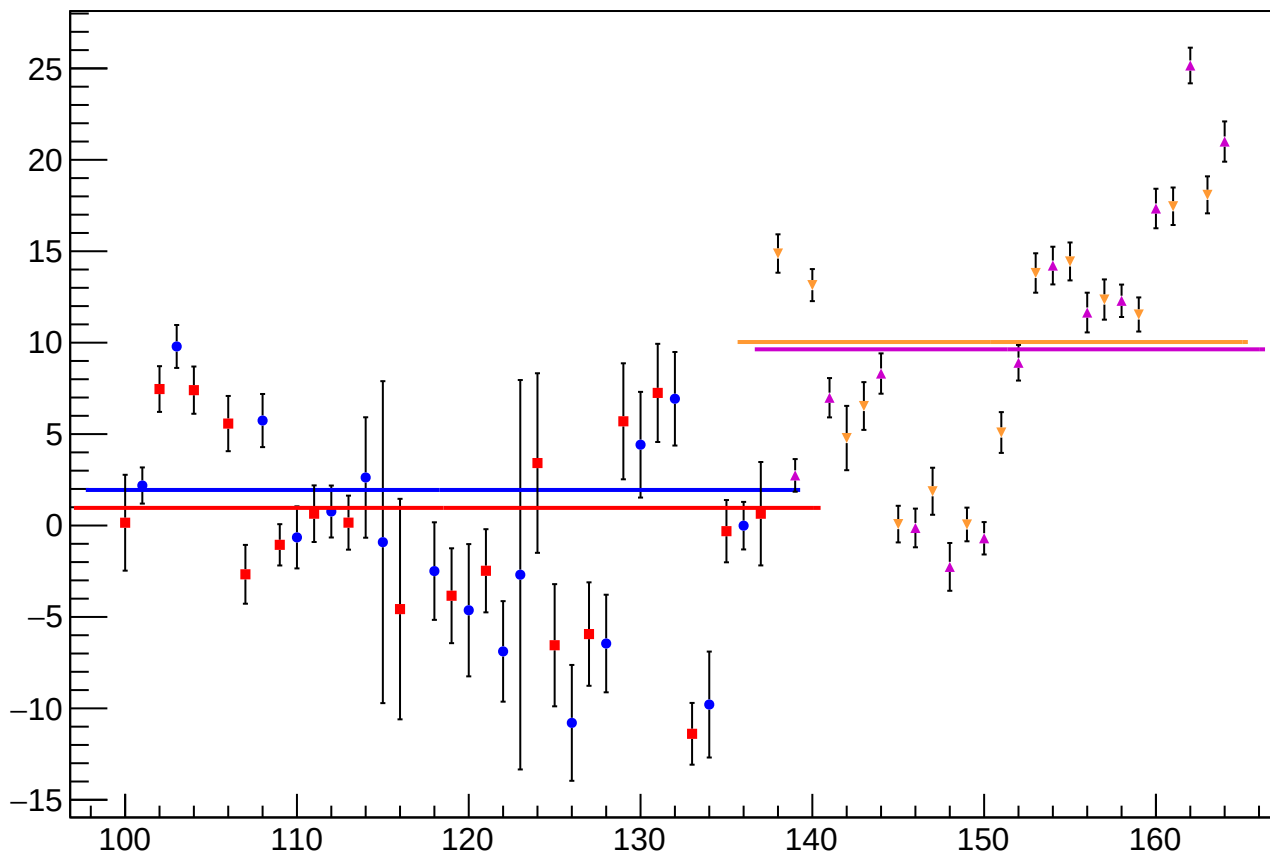
Left In: 55.134 $\pm$ 0.212  $\chi^2$ /NDF: 885.6/12

+ sign 57.256 $\pm$ 0.162  $\chi^2$ /NDF: 2013.3/30

All: 57.105 $\pm$ 0.114  $\chi^2$ /NDF: 4397.9/62

- sign 56.956 $\pm$ 0.161  $\chi^2$ /NDF: 2382.9/31

# reg\_asym\_sam5\_diff\_bpm4eX\_slope vs Slug



Right In:  $1.945 \pm 0.459$   $\chi^2/\text{NDF}$ : 120.6/16

Left Out:  $10.036 \pm 0.284$   $\chi^2/\text{NDF}$ : 479.3/13

Right Out:  $0.964 \pm 0.424$   $\chi^2/\text{NDF}$ : 149.5/18

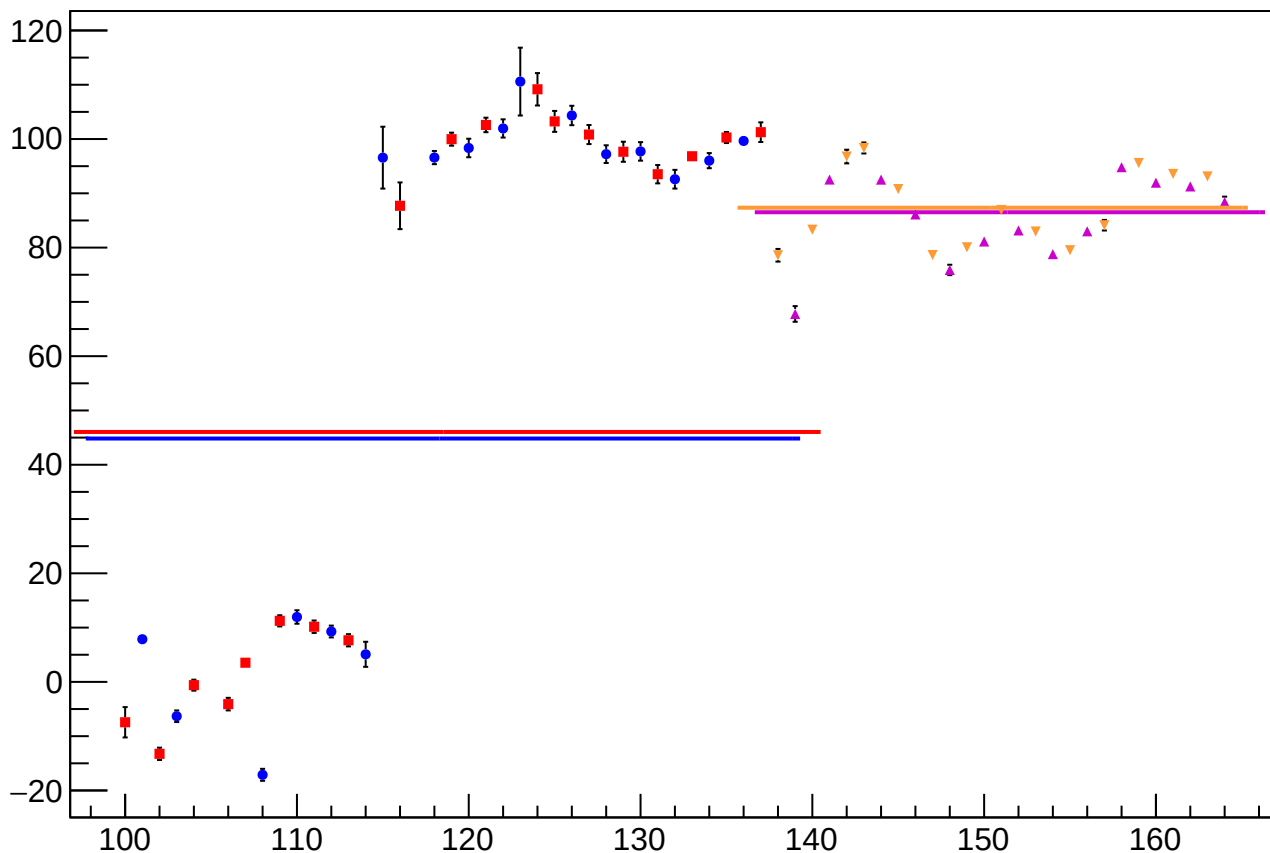
Left In:  $9.636 \pm 0.282$   $\chi^2/\text{NDF}$ : 814.4/12

+ sign  $7.794 \pm 0.242$   $\chi^2/\text{NDF}$ : 824.7/30

All:  $7.373 \pm 0.168$   $\chi^2/\text{NDF}$ : 2083.9/62

- sign  $6.975 \pm 0.235$   $\chi^2/\text{NDF}$ : 1253.3/31

# reg\_asym\_sam5\_diff\_bpm4eY\_slope vs Slug



Right In: 44.829 $\pm$ 0.305  $\chi^2$ /NDF: 24763.1/16

Left Out: 87.351 $\pm$ 0.239  $\chi^2$ /NDF: 794.8/13

Right Out: 46.040 $\pm$ 0.289  $\chi^2$ /NDF: 28263.4/18

Left In: 86.513 $\pm$ 0.243  $\chi^2$ /NDF: 763.7/12

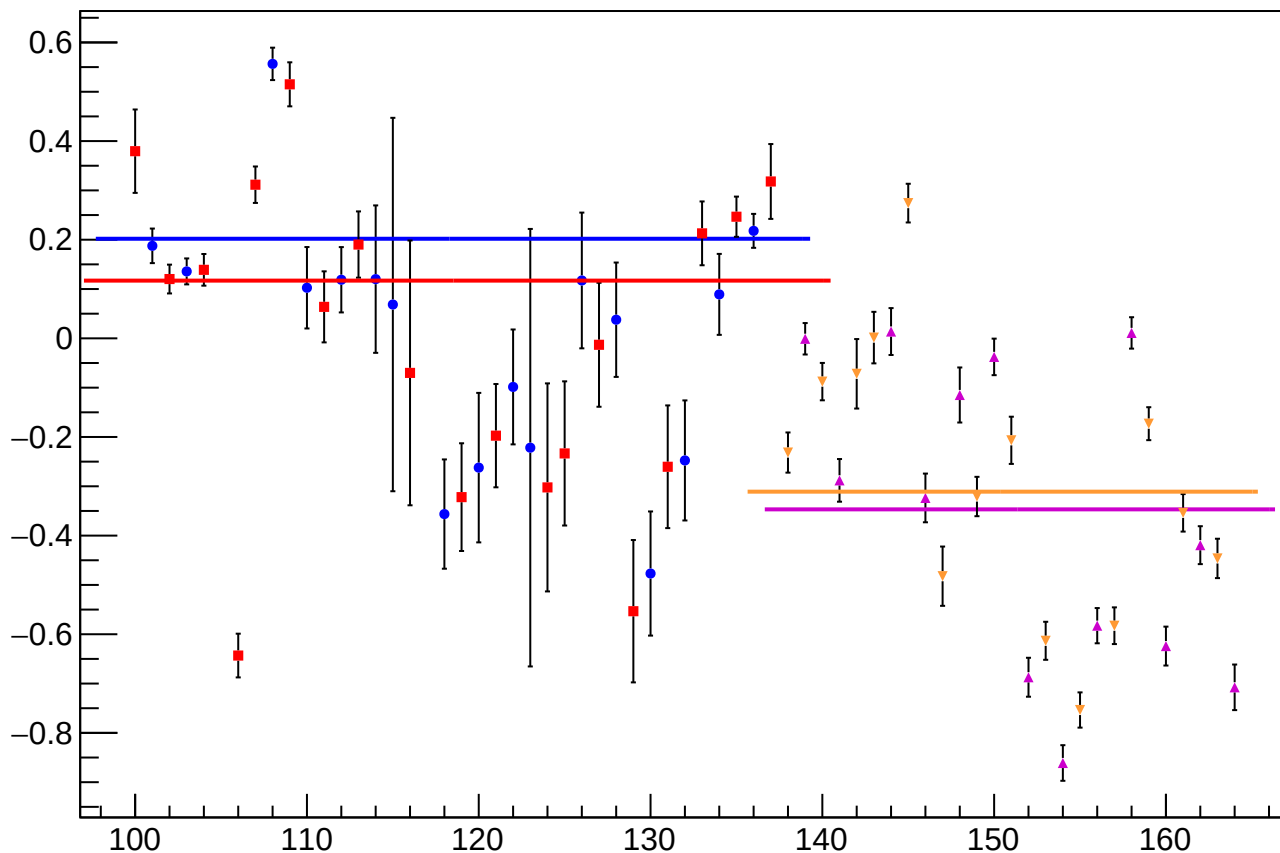
+ sign 71.166 $\pm$ 0.188  $\chi^2$ /NDF: 37624.1/30

All: 70.451 $\pm$ 0.132  $\chi^2$ /NDF: 78131.7/62

- sign 69.749 $\pm$ 0.186  $\chi^2$ /NDF: 40479.0/31



# reg\_asym\_sam5\_diff\_bpm12X\_slope vs Slug



Right In:  $0.202 \pm 0.014$   $\chi^2/\text{NDF}$ : 216.0/16

Left Out:  $-0.311 \pm 0.011$   $\chi^2/\text{NDF}$ : 619.1/13

Right Out:  $0.117 \pm 0.013$   $\chi^2/\text{NDF}$ : 499.6/18

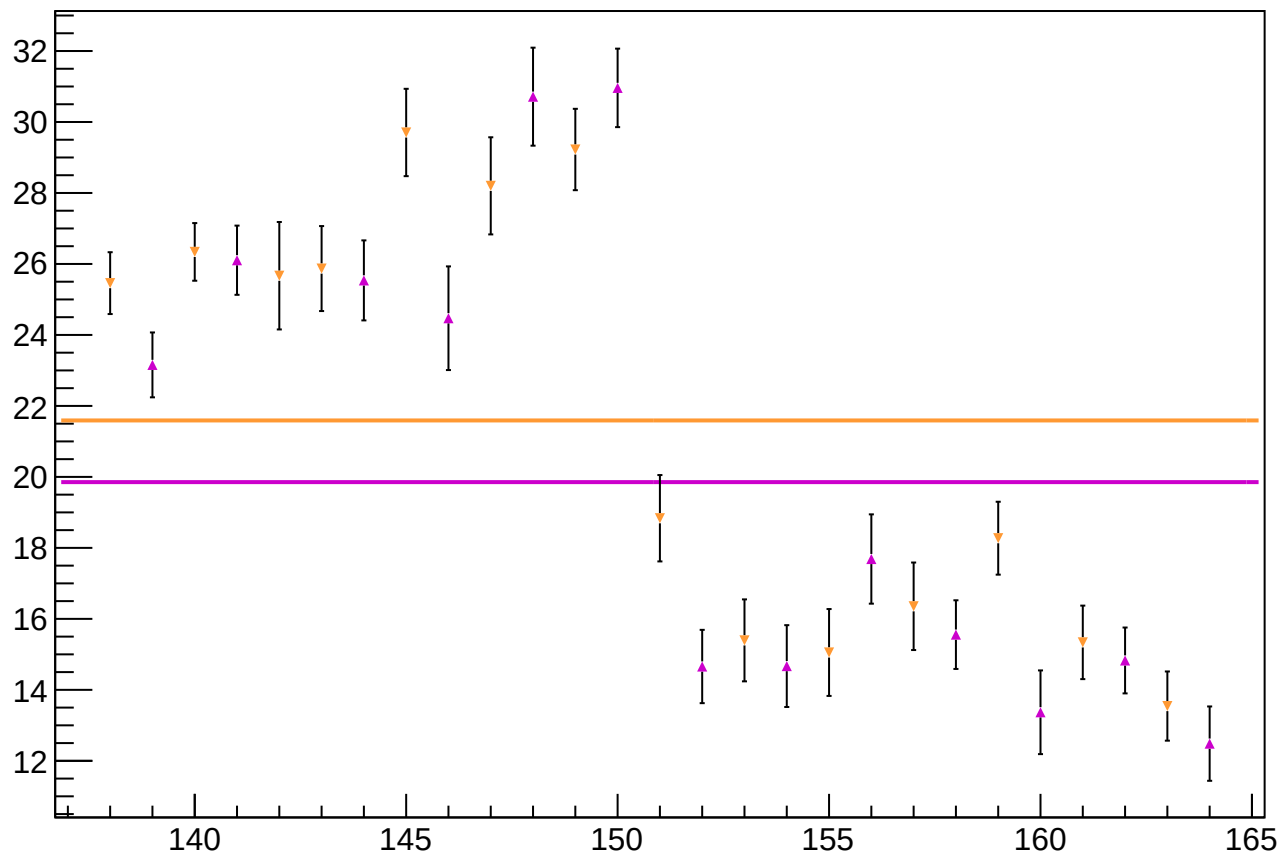
Left In:  $-0.347 \pm 0.011$   $\chi^2/\text{NDF}$ : 825.2/12

+ sign  $-0.116 \pm 0.009$   $\chi^2/\text{NDF}$ : 1660.5/30

All:  $-0.136 \pm 0.006$   $\chi^2/\text{NDF}$ : 3740.4/62

- sign  $-0.155 \pm 0.008$   $\chi^2/\text{NDF}$ : 2069.1/31

# reg\_asym\_sam6\_diff\_bpm1X\_slope vs Slug



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

Left Out: 21.591+/-0.294  $\chi^2/\text{NDF}$ : 380.7/13

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

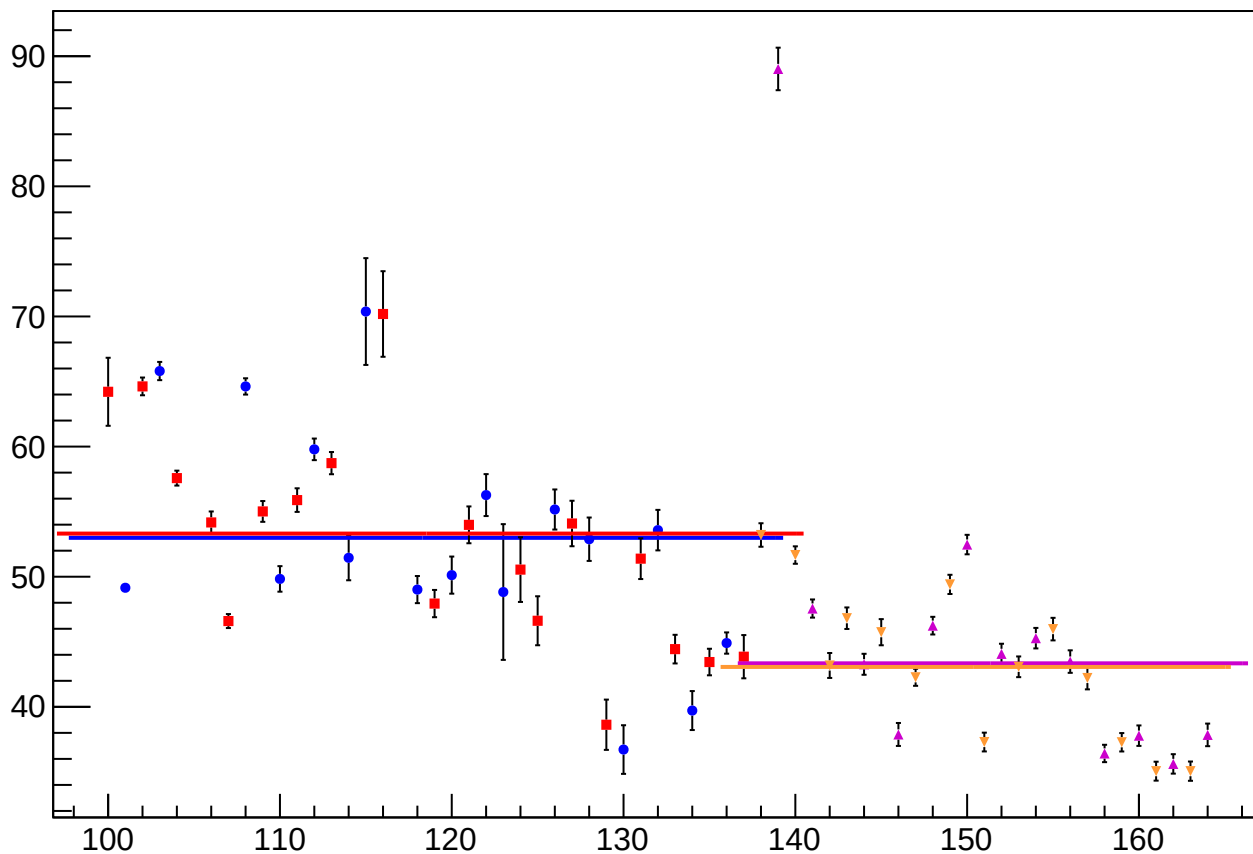
Left In: 19.853+/-0.301  $\chi^2/\text{NDF}$ : 429.7/12

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

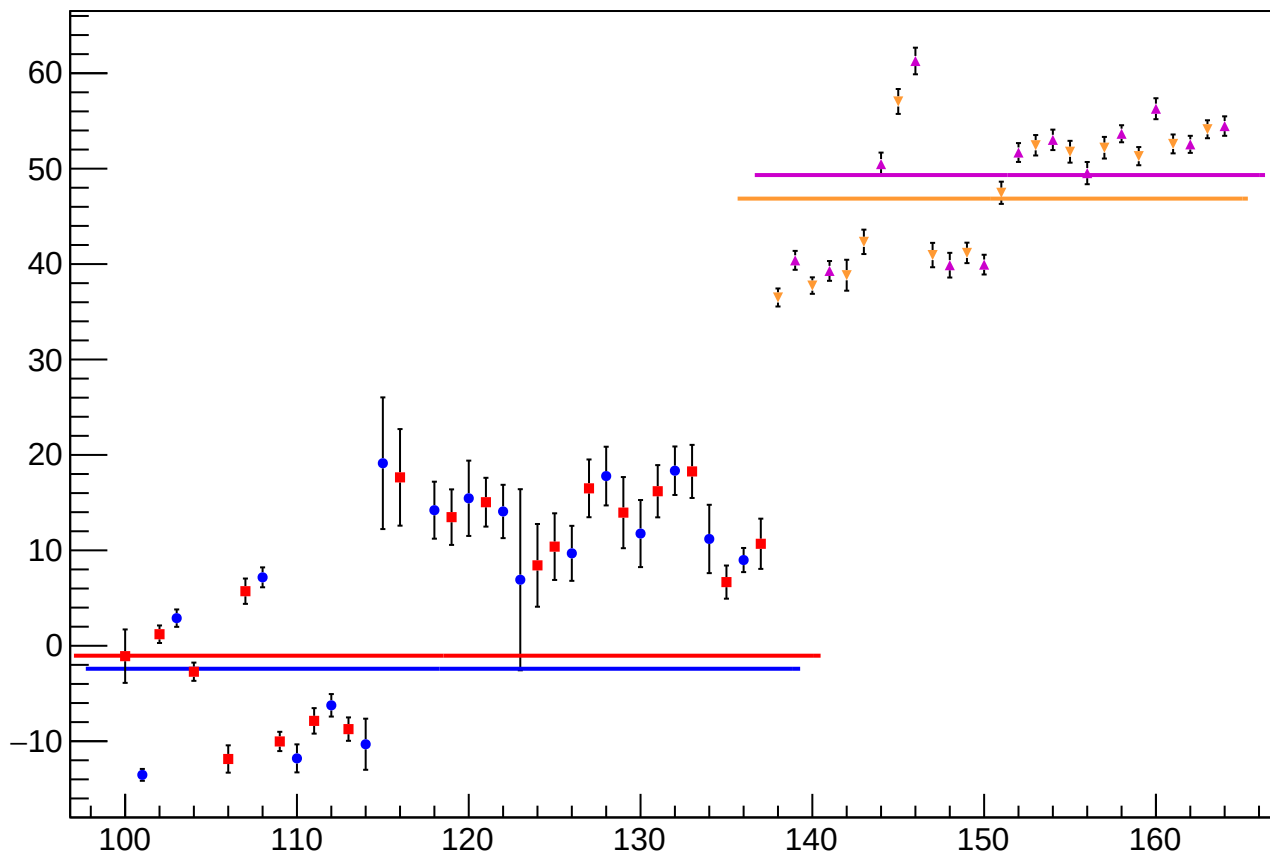
All: 20.744+/-0.210  $\chi^2/\text{NDF}$ : 827.4/26

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

# reg\_asym\_sam6\_diff\_bpm4aY\_slope vs Slug



# reg\_asym\_sam6\_diff\_bpm4eX\_slope vs Slug



Right In:  $-2.409 \pm 0.364$   $\chi^2/\text{NDF}$ : 834.6/16

Left Out:  $46.860 \pm 0.290$   $\chi^2/\text{NDF}$ : 562.1/13

Right Out:  $-1.040 \pm 0.377$   $\chi^2/\text{NDF}$ : 507.5/18

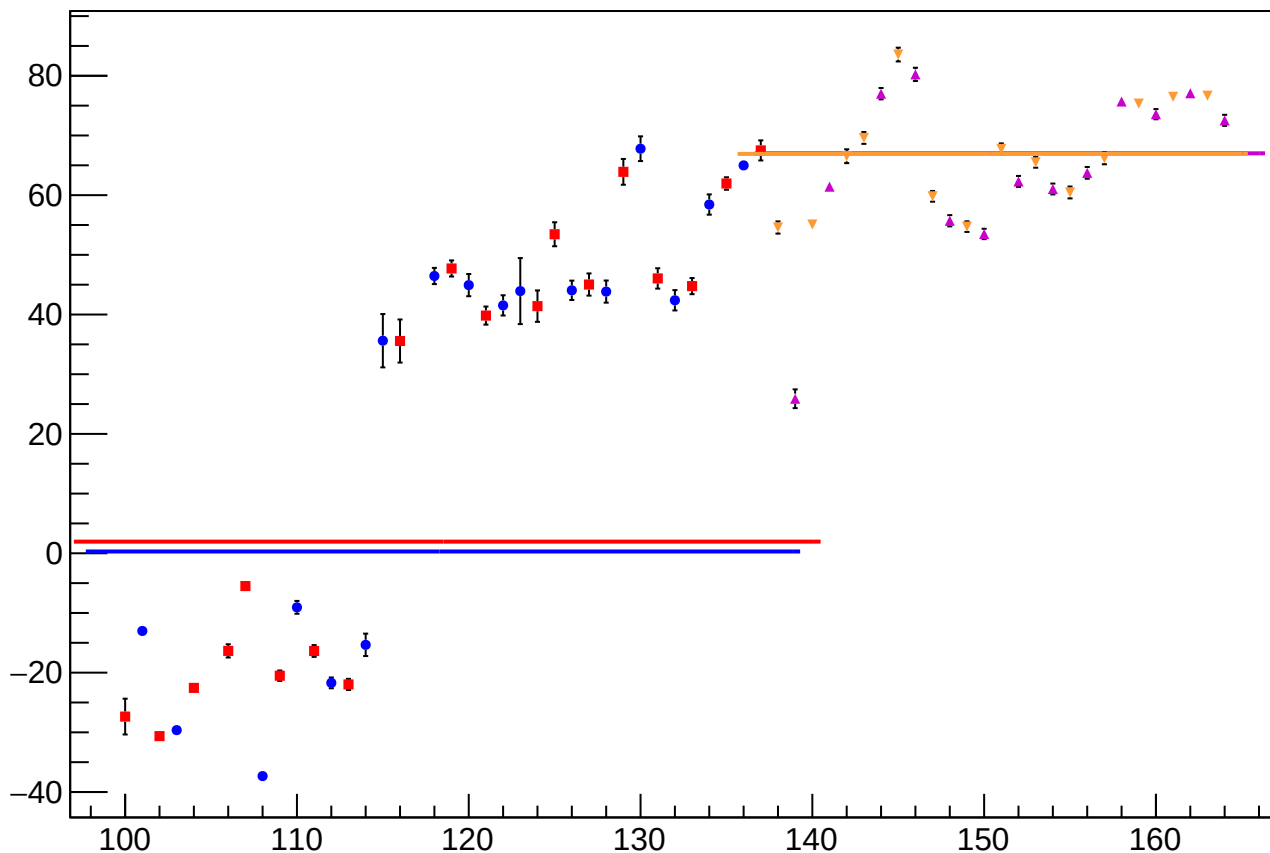
Left In:  $49.329 \pm 0.293$   $\chi^2/\text{NDF}$ : 504.7/12

+ sign  $27.786 \pm 0.227$   $\chi^2/\text{NDF}$ : 12605.2/30

All:  $29.030 \pm 0.162$   $\chi^2/\text{NDF}$ : 24791.6/62

- sign  $30.327 \pm 0.232$   $\chi^2/\text{NDF}$ : 12124.9/31

# reg\_asym\_sam6\_diff\_bpm4eY\_slope vs Slug



Right In:  $0.300 \pm 0.247$   $\chi^2/\text{NDF}$ : 18259.2/16

Left Out:  $66.916 \pm 0.242$   $\chi^2/\text{NDF}$ : 1307.2/13

Right Out:  $1.952 \pm 0.267$   $\chi^2/\text{NDF}$ : 15450.6/18

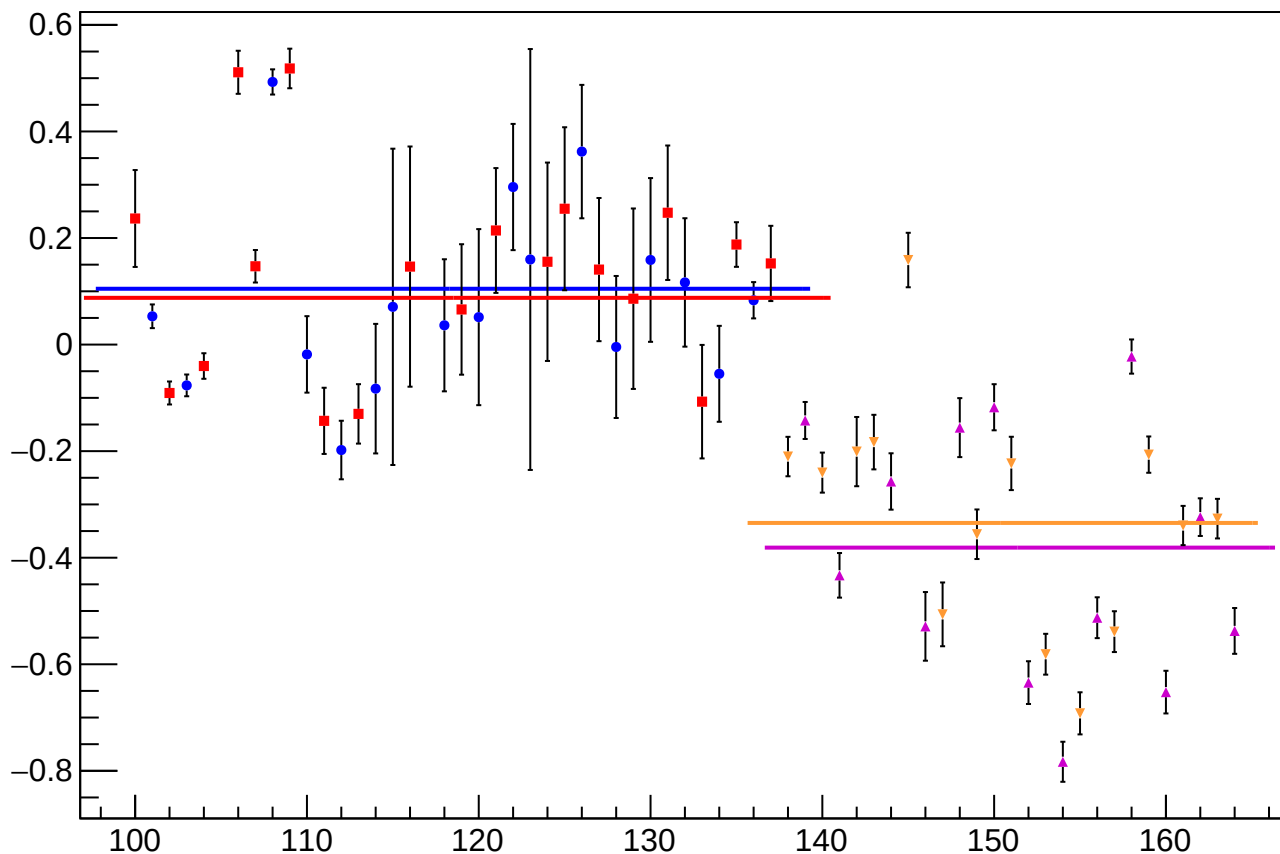
Left In:  $67.011 \pm 0.251$   $\chi^2/\text{NDF}$ : 1862.0/12

+ sign  $34.283 \pm 0.173$   $\chi^2/\text{NDF}$ : 56547.3/30

All:  $35.292 \pm 0.126$   $\chi^2/\text{NDF}$ : 105472.5/62

- sign  $36.418 \pm 0.183$   $\chi^2/\text{NDF}$ : 48853.4/31

# reg\_asym\_sam6\_diff\_bpm12X\_slope vs Slug



Right In:  $0.105 \pm 0.011$   $\chi^2/\text{NDF}$ : 400.8/16

Left Out:  $-0.335 \pm 0.011$   $\chi^2/\text{NDF}$ : 303.0/13

Right Out:  $0.088 \pm 0.011$   $\chi^2/\text{NDF}$ : 390.9/18

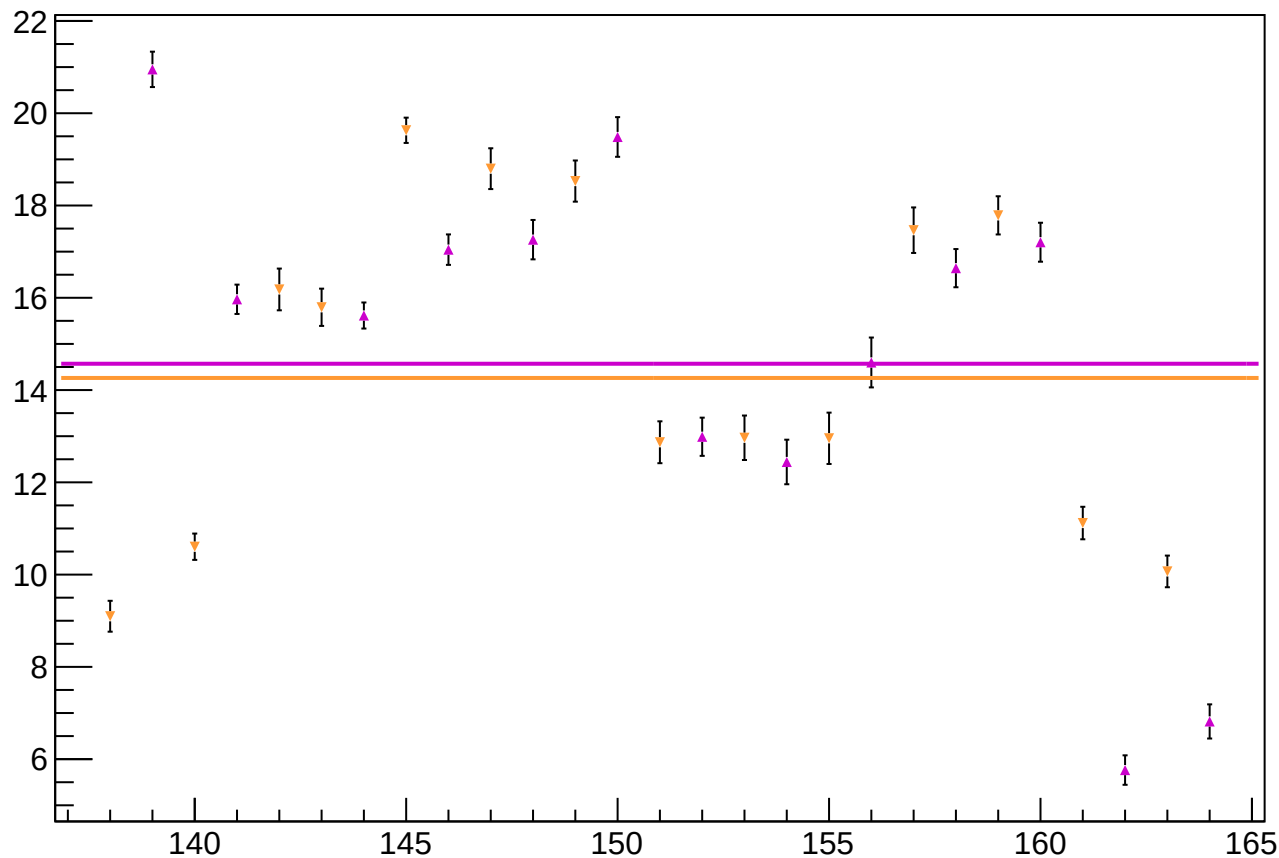
Left In:  $-0.381 \pm 0.011$   $\chi^2/\text{NDF}$ : 465.7/12

+ sign  $-0.111 \pm 0.008$   $\chi^2/\text{NDF}$ : 1481.5/30

All:  $-0.126 \pm 0.006$   $\chi^2/\text{NDF}$ : 3226.3/62

- sign  $-0.140 \pm 0.008$   $\chi^2/\text{NDF}$ : 1737.9/31

# reg\_asym\_sam7\_diff\_bpm1X\_slope vs Slug



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

Left Out: 14.262+/-0.103  $\chi^2/\text{NDF}$ :1381.0/13

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

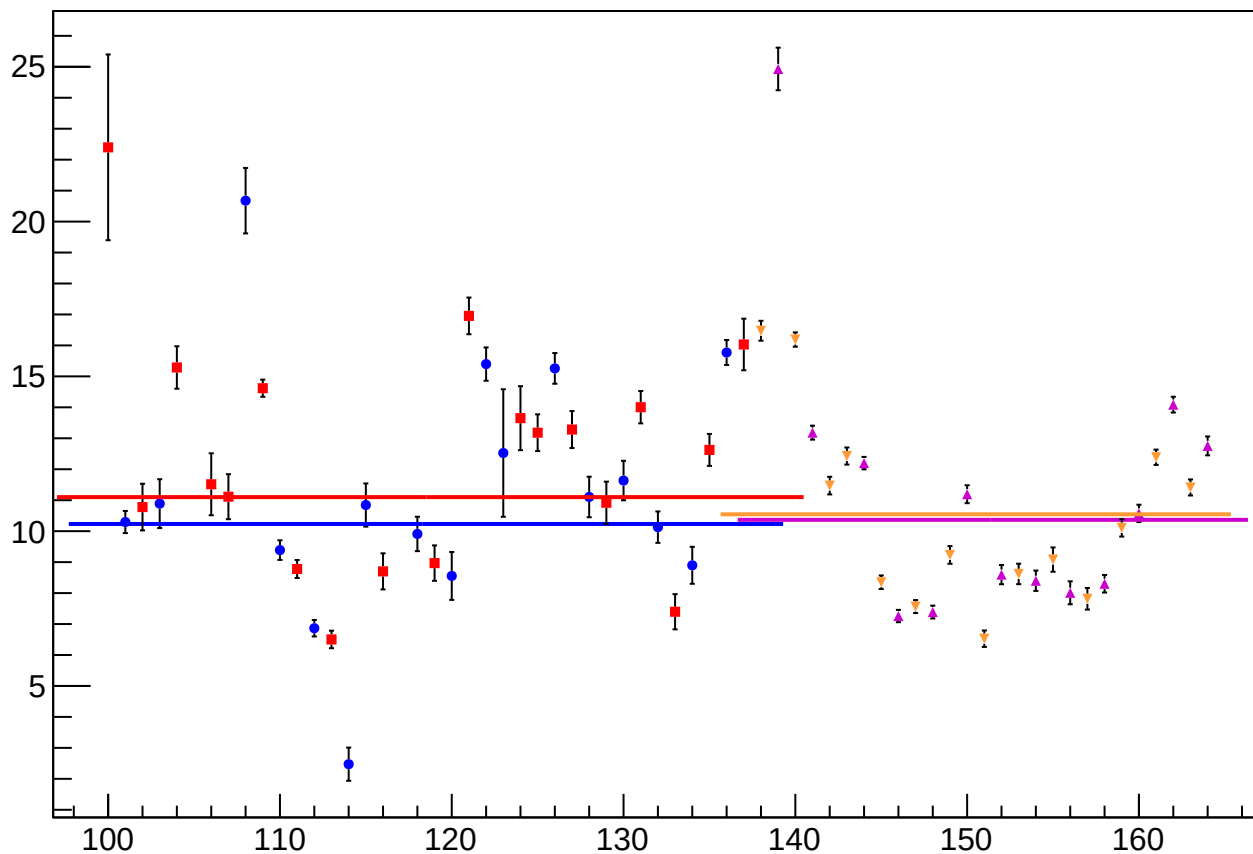
Left In: 14.570+/-0.105  $\chi^2/\text{NDF}$ :1832.7/12

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

All: 14.414+/-0.073  $\chi^2/\text{NDF}$ : 3218.2/26

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

# reg\_asym\_sam7\_diff\_bpm4aY\_slope vs Slug



Right In:  $10.232 \pm 0.119$   $\chi^2/\text{NDF}$ : 876.7/16

Left Out:  $10.544 \pm 0.072$   $\chi^2/\text{NDF}$ : 1722.0/13

Right Out:  $11.100 \pm 0.116$   $\chi^2/\text{NDF}$ : 817.8/18

Left In:  $10.366 \pm 0.073$   $\chi^2/\text{NDF}$ : 1582.3/12

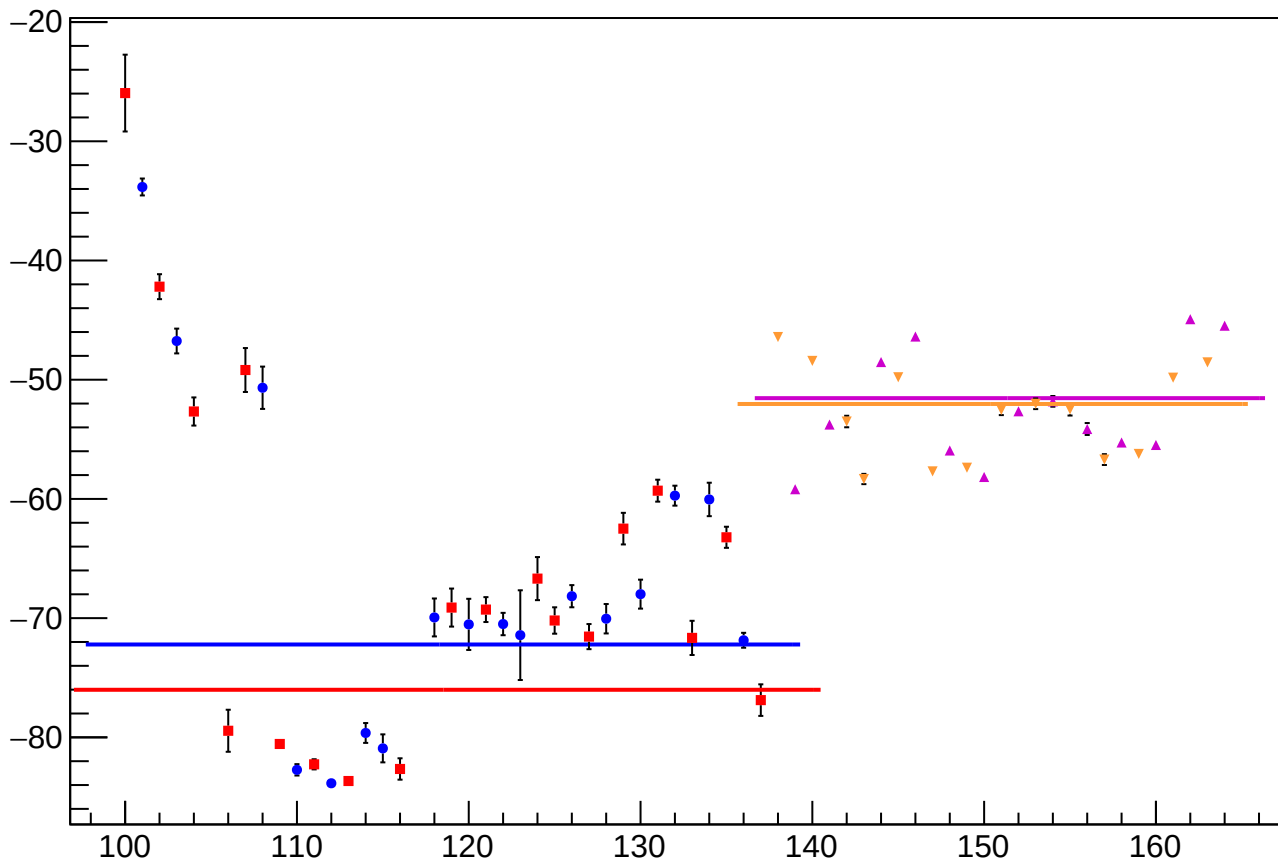
+ sign  $10.461 \pm 0.062$   $\chi^2/\text{NDF}$ : 2603.7/30

All:  $10.518 \pm 0.044$   $\chi^2/\text{NDF}$ : 5034.0/62

- sign  $10.575 \pm 0.062$   $\chi^2/\text{NDF}$ : 2428.6/31



# reg\_asym\_sam7\_diff\_bpm4eX\_slope vs Slug



Right In:  $-72.211 \pm 0.198$   $\chi^2/\text{NDF}: 5566.2/16$

Left Out:  $-52.036 \pm 0.103$   $\chi^2/\text{NDF}: 1394.8/13$

Right Out:  $-76.009 \pm 0.181$   $\chi^2/\text{NDF}: 3463.3/18$

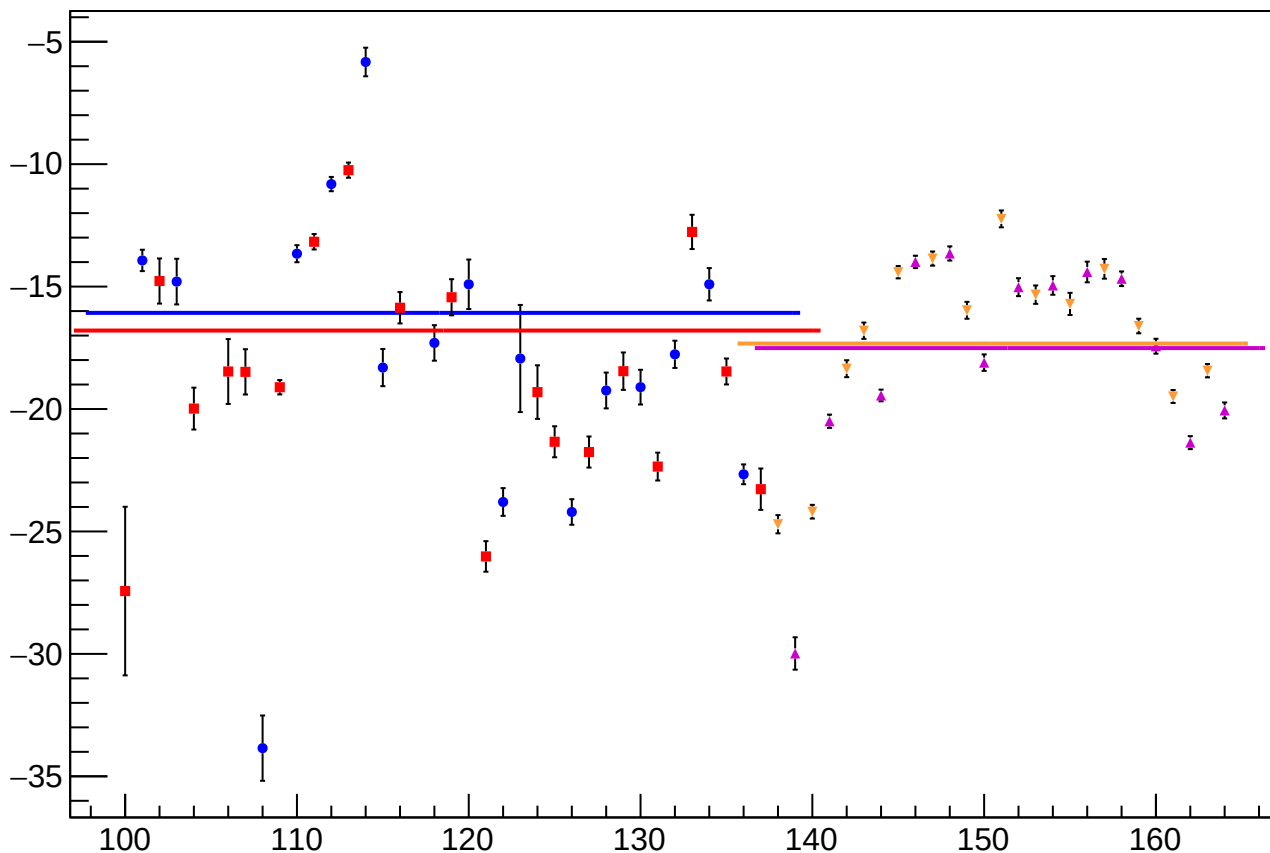
Left In:  $-51.547 \pm 0.103$   $\chi^2/\text{NDF}: 2114.8/12$

+ sign  $-56.309 \pm 0.091$   $\chi^2/\text{NDF}: 15145.4/30$

All:  $-56.920 \pm 0.064$   $\chi^2/\text{NDF}: 34628.9/62$

- sign  $-57.507 \pm 0.089$   $\chi^2/\text{NDF}: 19395.4/31$

# reg\_asym\_sam7\_diff\_bpm4eY\_slope vs Slug



Right In:  $-16.073 \pm 0.133$   $\chi^2/\text{NDF}$ : 1640.5/16

Left Out:  $-17.325 \pm 0.085$   $\chi^2/\text{NDF}$ : 1704.3/13

Right Out:  $-16.795 \pm 0.128$   $\chi^2/\text{NDF}$ : 1216.0/18

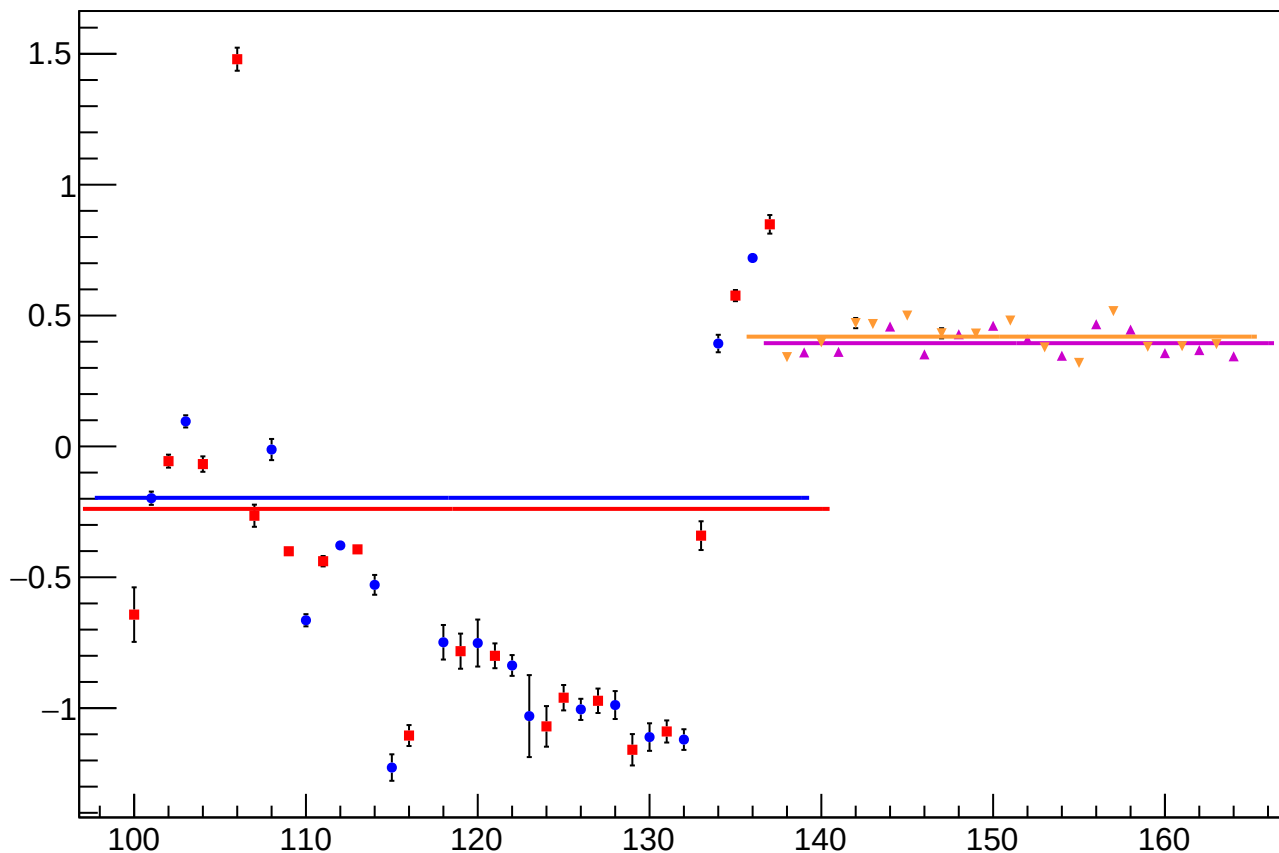
Left In:  $-17.511 \pm 0.086$   $\chi^2/\text{NDF}$ : 1422.5/12

+ sign  $-16.961 \pm 0.071$   $\chi^2/\text{NDF}$ : 3408.1/30

All:  $-17.125 \pm 0.051$   $\chi^2/\text{NDF}$ : 6078.8/62

- sign  $-17.289 \pm 0.071$   $\chi^2/\text{NDF}$ : 2660.1/31

# reg\_asym\_sam7\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.196 \pm 0.008$   $\chi^2/\text{NDF}$ : 6323.5/16

Left Out:  $0.419 \pm 0.004$   $\chi^2/\text{NDF}$ : 207.1/13

Right Out:  $-0.239 \pm 0.007$   $\chi^2/\text{NDF}$ : 6188.6/18

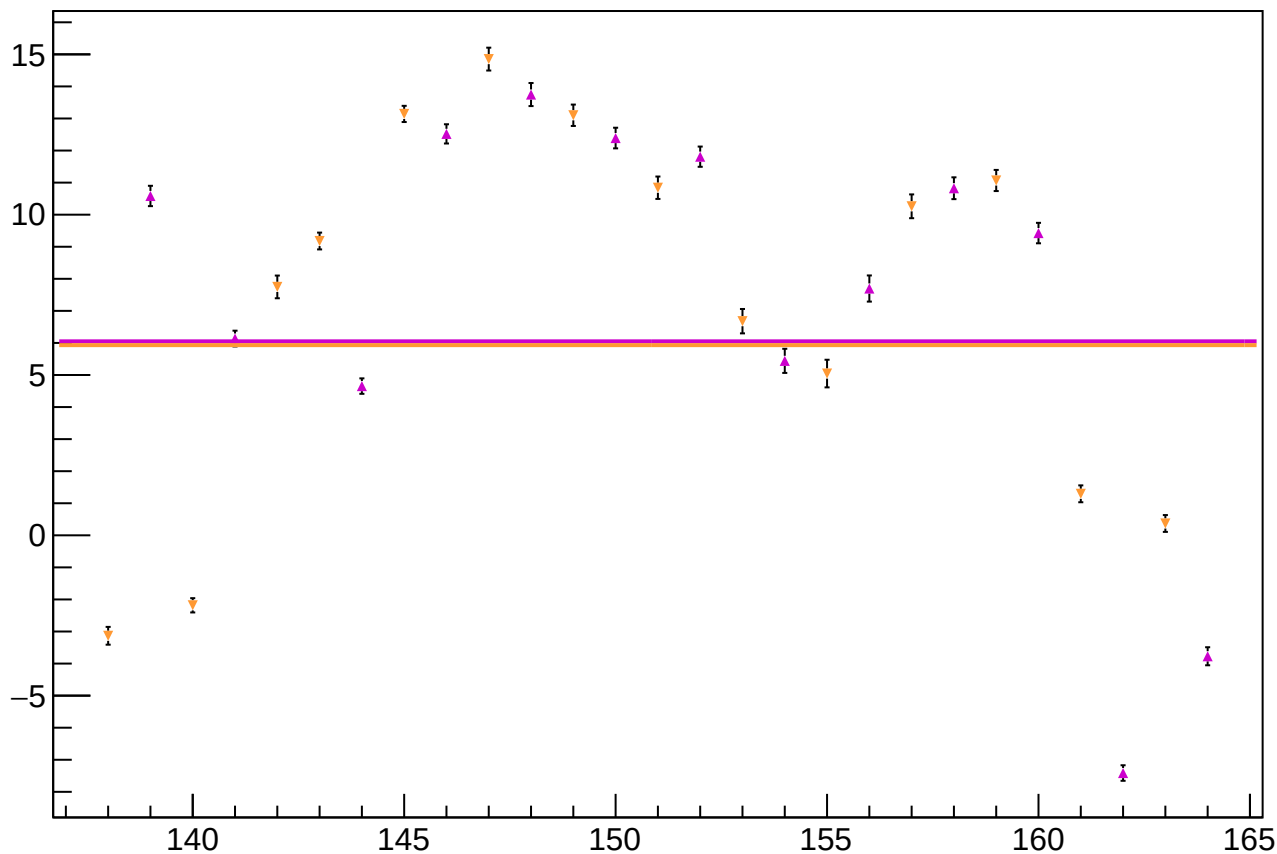
Left In:  $0.394 \pm 0.004$   $\chi^2/\text{NDF}$ : 129.6/12

+ sign  $0.282 \pm 0.004$   $\chi^2/\text{NDF}$ : 11707.7/30

All:  $0.261 \pm 0.003$   $\chi^2/\text{NDF}$ : 23979.4/62

- sign  $0.240 \pm 0.004$   $\chi^2/\text{NDF}$ : 12202.1/31

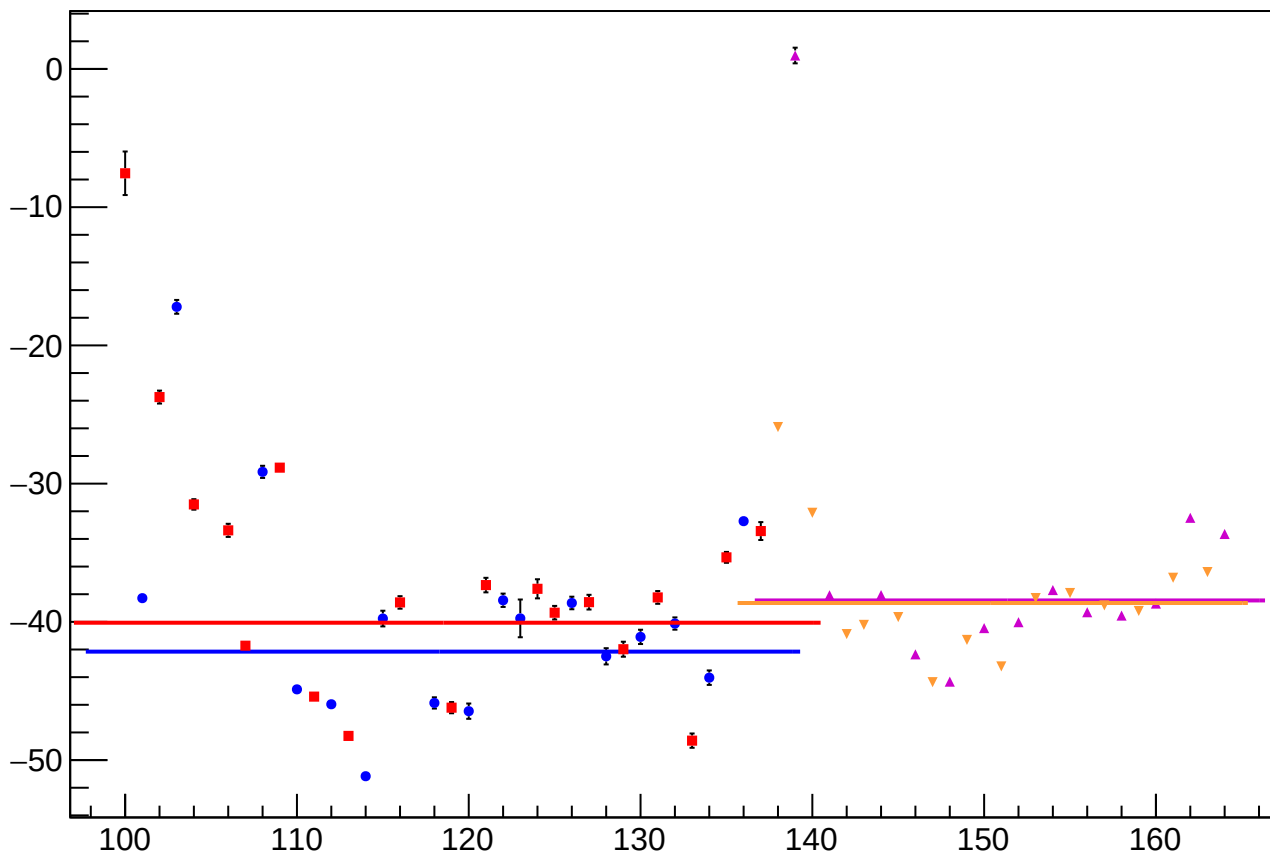
# reg\_asym\_sam8\_diff\_bpm1X\_slope vs Slug



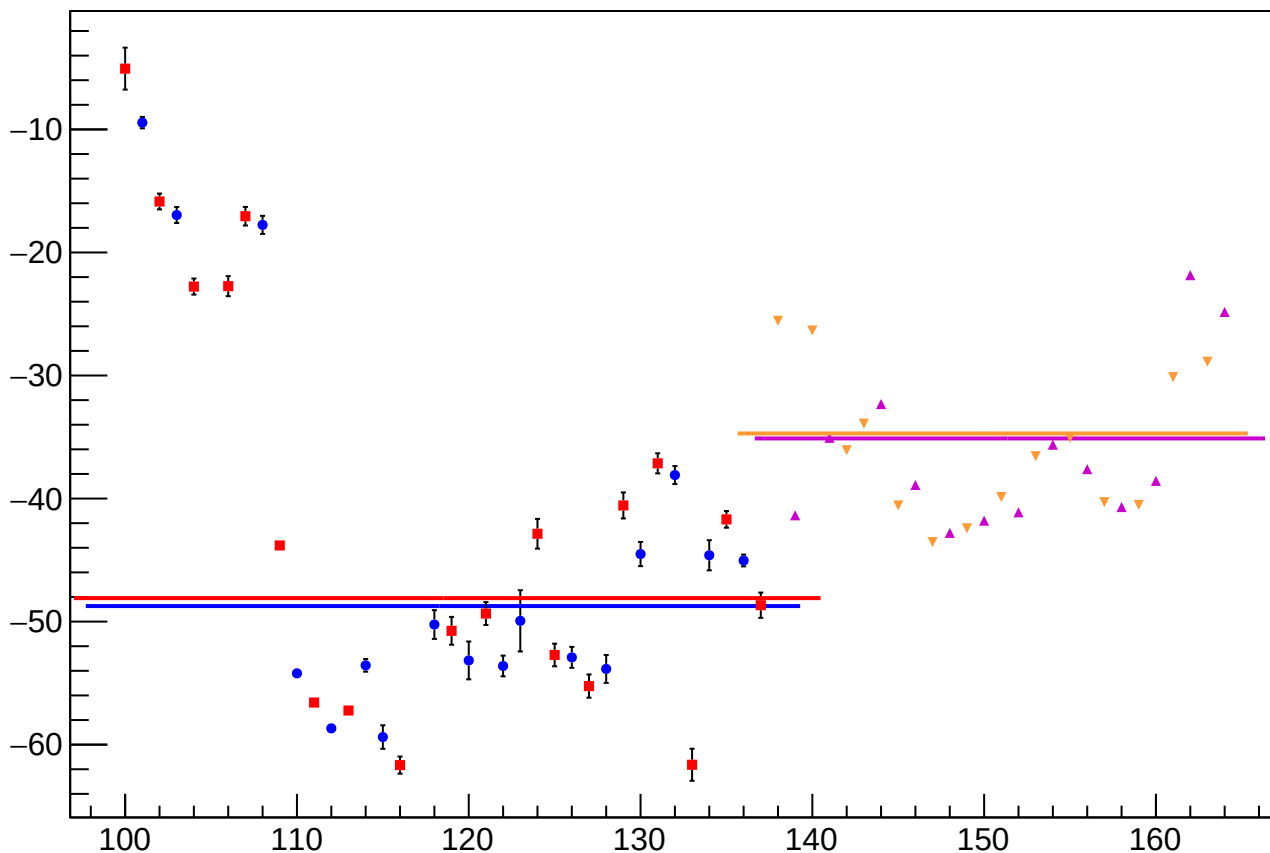
Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 5.931 $\pm$ 0.081  $\chi^2$ /NDF: 5823.4/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 6.050 $\pm$ 0.084  $\chi^2$ /NDF: 6514.9/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 5.988 $\pm$ 0.058  $\chi^2$ /NDF: 12339.3/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_sam8\_diff\_bpm4aY\_slope vs Slug



# reg\_asym\_sam8\_diff\_bpm4eX\_slope vs Slug



Right In:  $-48.737 \pm 0.125$   $\chi^2/\text{NDF}: 14658.1/16$

Left Out:  $-34.709 \pm 0.080$   $\chi^2/\text{NDF}: 5738.6/13$

Right Out:  $-48.092 \pm 0.107$   $\chi^2/\text{NDF}: 11733.2/18$

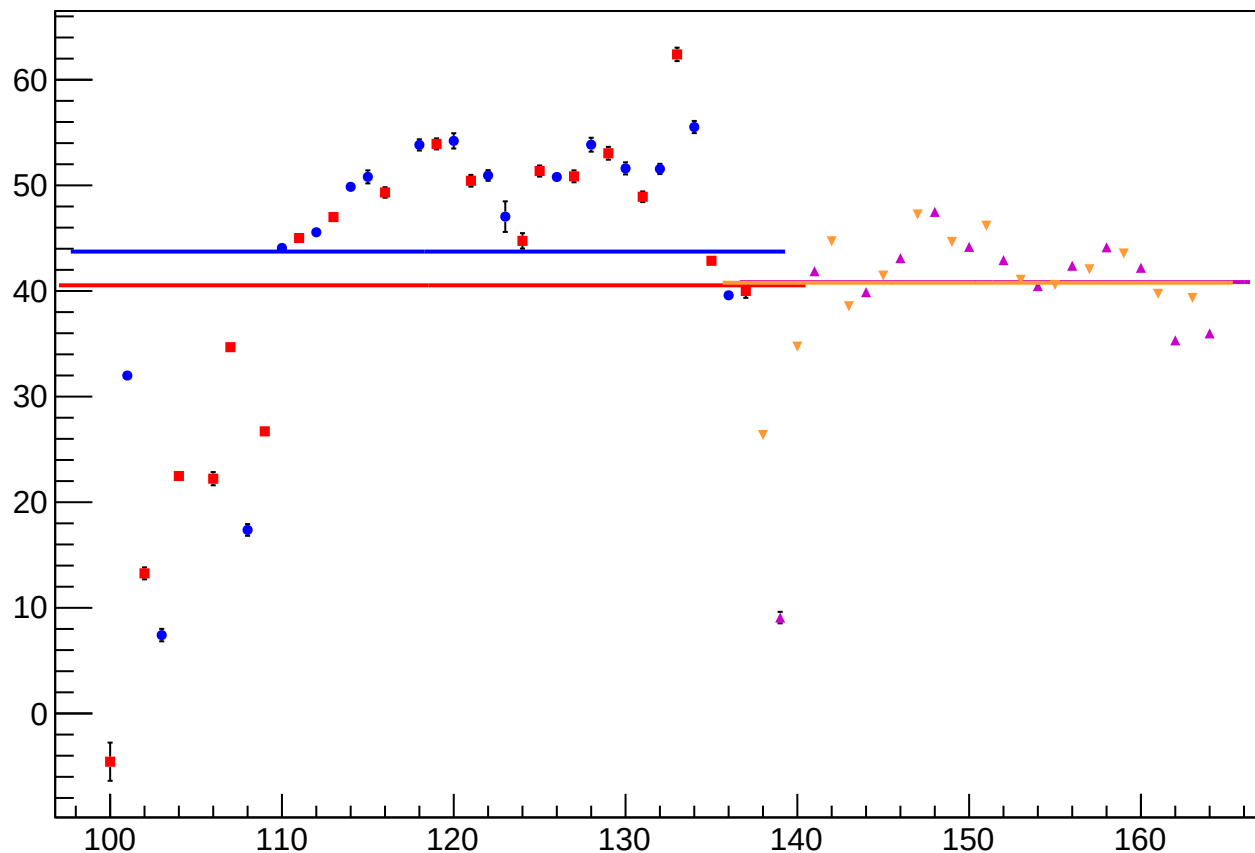
Left In:  $-35.113 \pm 0.082$   $\chi^2/\text{NDF}: 7161.1/12$

+ sign  $-38.818 \pm 0.067$   $\chi^2/\text{NDF}: 29364.7/30$

All:  $-39.373 \pm 0.047$   $\chi^2/\text{NDF}: 57646.3/62$

- sign  $-39.890 \pm 0.065$   $\chi^2/\text{NDF}: 28150.7/31$

# reg\_asym\_sam8\_diff\_bpm4eY\_slope vs Slug



Right In: 43.731 $\pm$ 0.087  $\chi^2$ /NDF: 10567.7/16

Left Out: 40.783 $\pm$ 0.066  $\chi^2$ /NDF: 4876.0/13

Right Out: 40.537 $\pm$ 0.080  $\chi^2$ /NDF: 17601.3/18

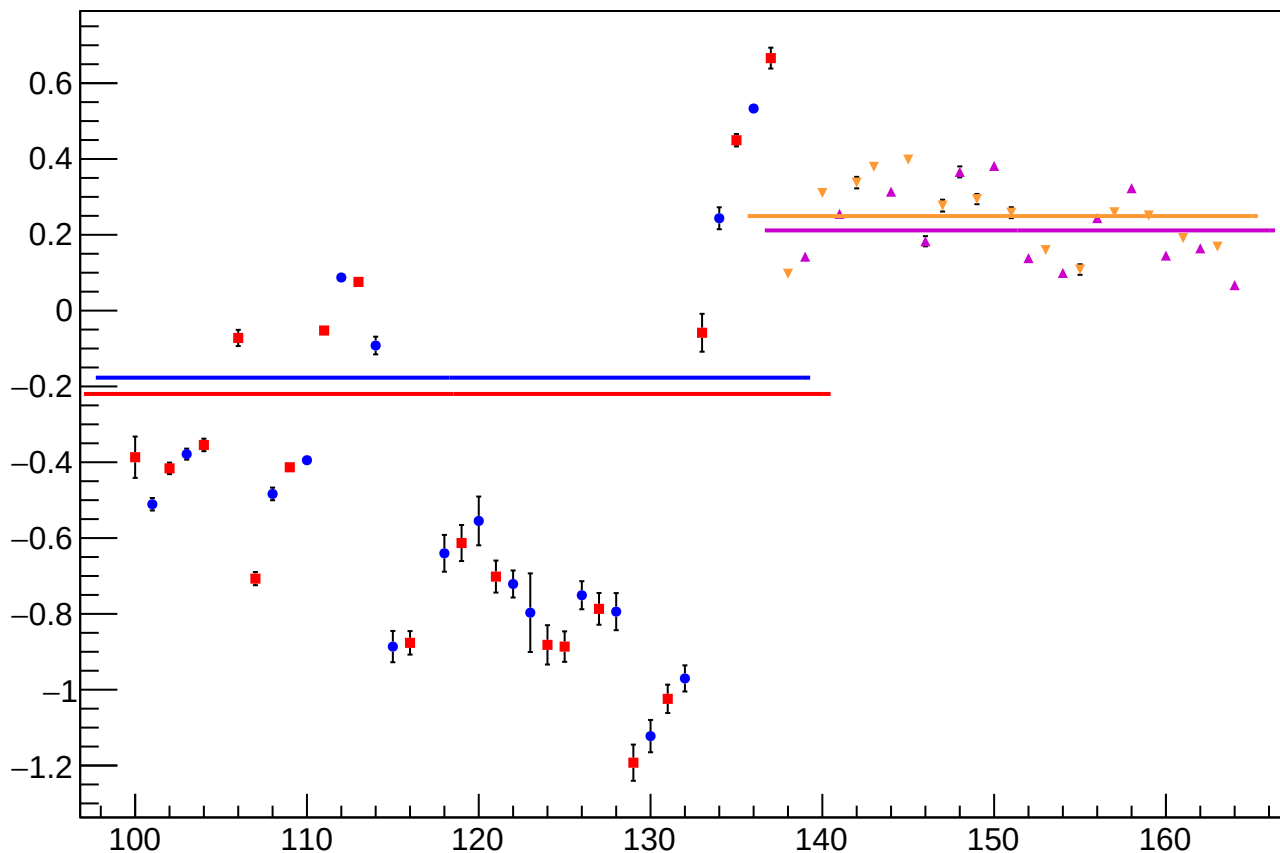
Left In: 40.847 $\pm$ 0.069  $\chi^2$ /NDF: 5872.4/12

+ sign 41.866 $\pm$ 0.053  $\chi^2$ /NDF: 16172.5/30

All: 41.286 $\pm$ 0.037  $\chi^2$ /NDF: 39895.4/62

- sign 40.716 $\pm$ 0.052  $\chi^2$ /NDF: 23482.3/31

# reg\_asym\_sam8\_diff\_bpm12X\_slope vs Slug



Right In: -0.177±/0.005  $\chi^2/\text{NDF}$ : 7364.7/16

Left Out: 0.249±/0.003  $\chi^2/\text{NDF}$ : 835.9/13

Right Out: -0.220±/0.004  $\chi^2/\text{NDF}$ : 7430.4/18

Left In: 0.212±/0.003  $\chi^2/\text{NDF}$ : 878.7/12

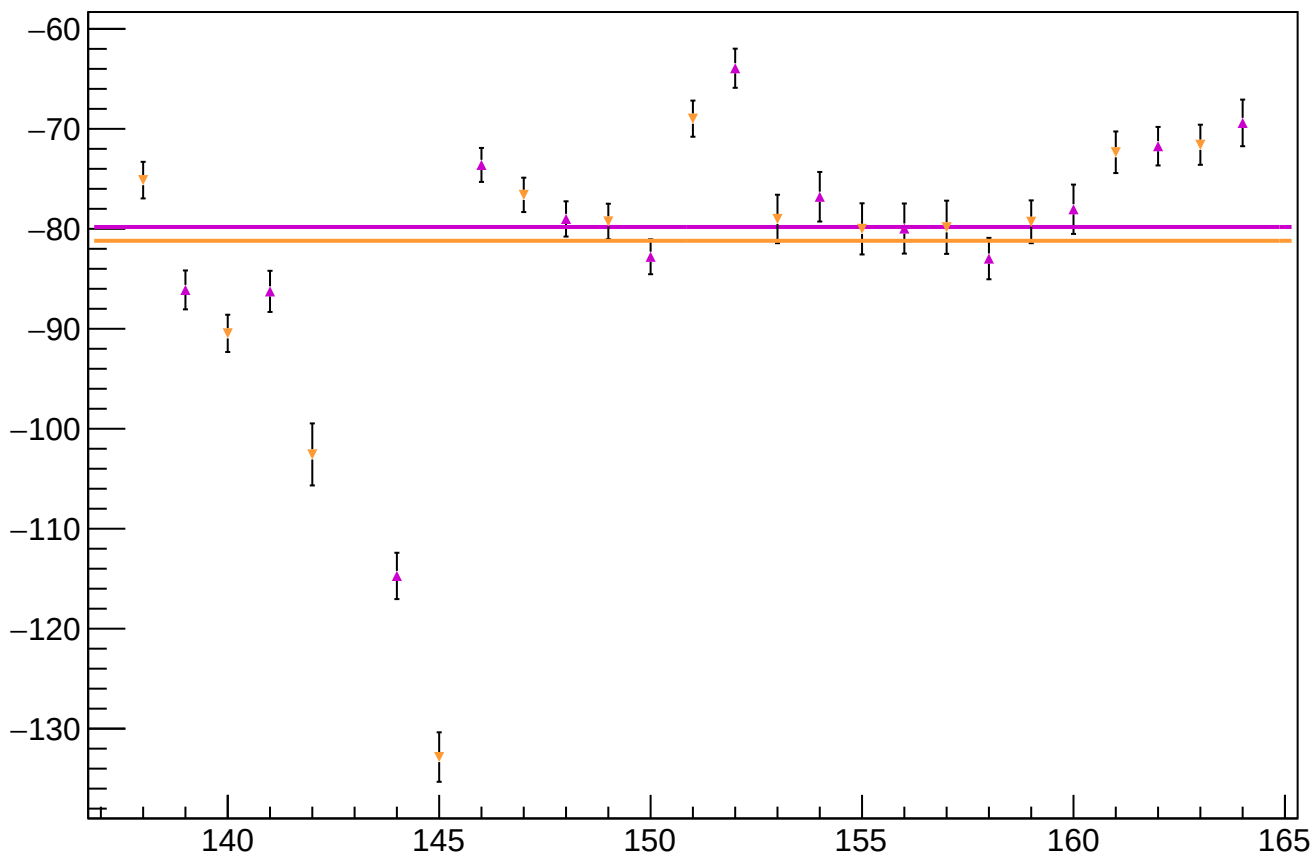
+ sign 0.122±/0.003  $\chi^2/\text{NDF}$ : 13646.4/30

All: 0.089±/0.002  $\chi^2/\text{NDF}$ : 28707.4/62

- sign 0.056±/0.003  $\chi^2/\text{NDF}$ : 14740.2/31



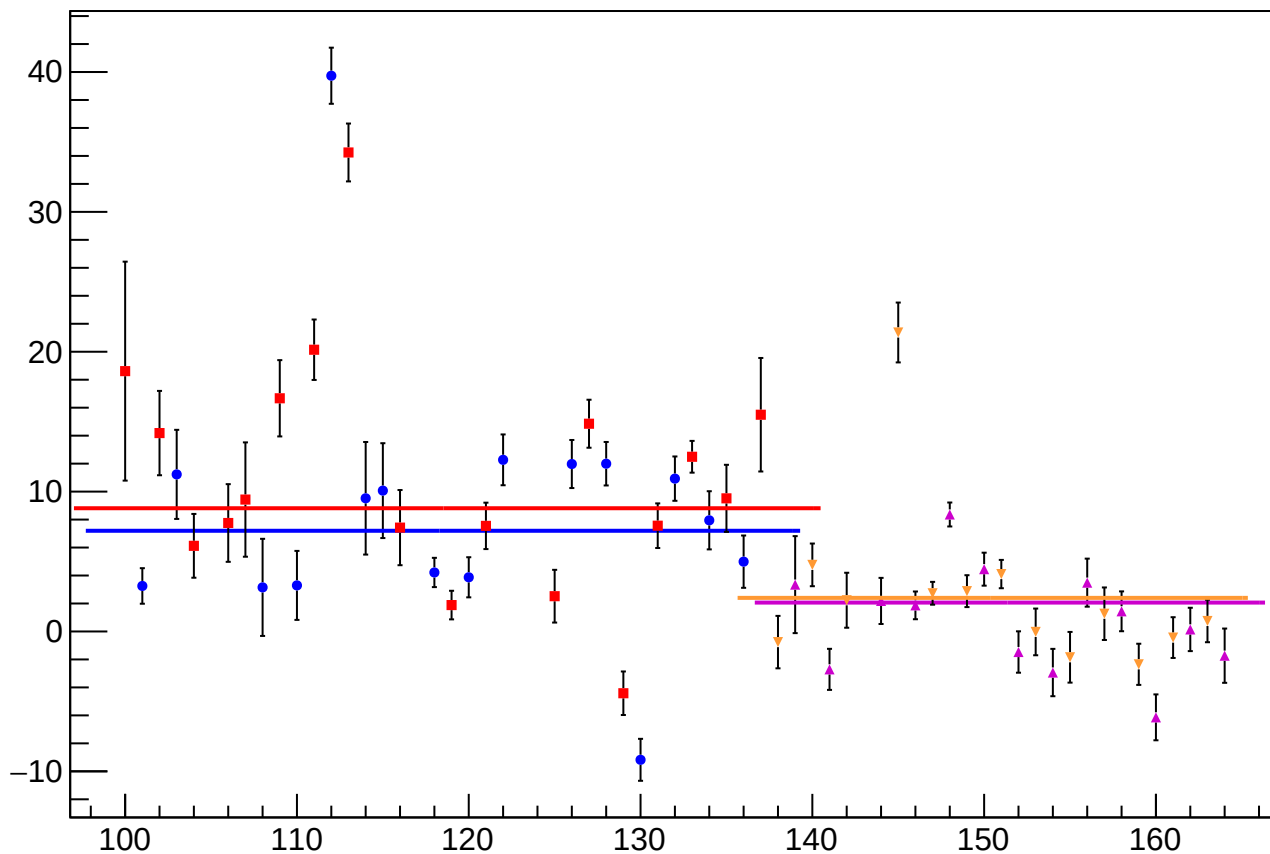
# reg\_asym\_usl\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -81.198+/-0.580  $\chi^2/\text{NDF}$ : 615.4/12  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -79.815+/-0.566  $\chi^2/\text{NDF}$ : 371.2/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -80.491+/-0.405  $\chi^2/\text{NDF}$ : 989.5/25  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_usl\_diff\_bpm4aY\_slope vs Slug



Right In:  $7.199 \pm 0.440$   $\chi^2/\text{NDF}: 443.8/15$

Left Out:  $2.402 \pm 0.385$   $\chi^2/\text{NDF}: 110.4/12$

Right Out:  $8.810 \pm 0.448$   $\chi^2/\text{NDF}: 349.7/17$

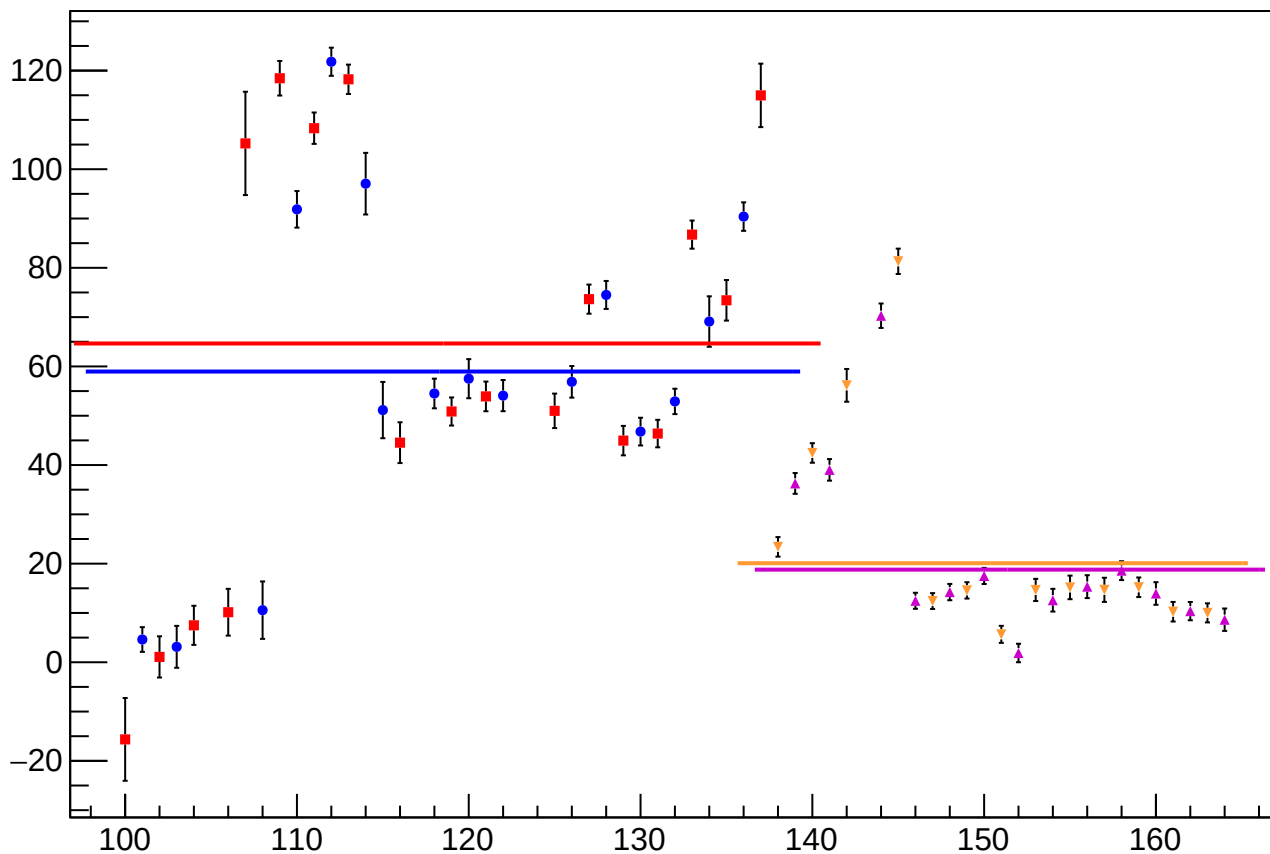
Left In:  $2.065 \pm 0.386$   $\chi^2/\text{NDF}: 114.7/12$

+ sign  $4.484 \pm 0.290$   $\chi^2/\text{NDF}: 621.6/28$

All:  $4.710 \pm 0.206$   $\chi^2/\text{NDF}: 1217.4/59$

- sign  $4.941 \pm 0.292$   $\chi^2/\text{NDF}: 594.5/30$

# reg\_asym\_usl\_diff\_bpm4eX\_slope vs Slug



Right In: 58.962 $\pm$ 0.837  $\chi^2$ /NDF: 1496.5/15

Left Out: 20.089 $\pm$ 0.563  $\chi^2$ /NDF: 992.2/12

Right Out: 64.655 $\pm$ 0.840  $\chi^2$ /NDF: 1721.8/17

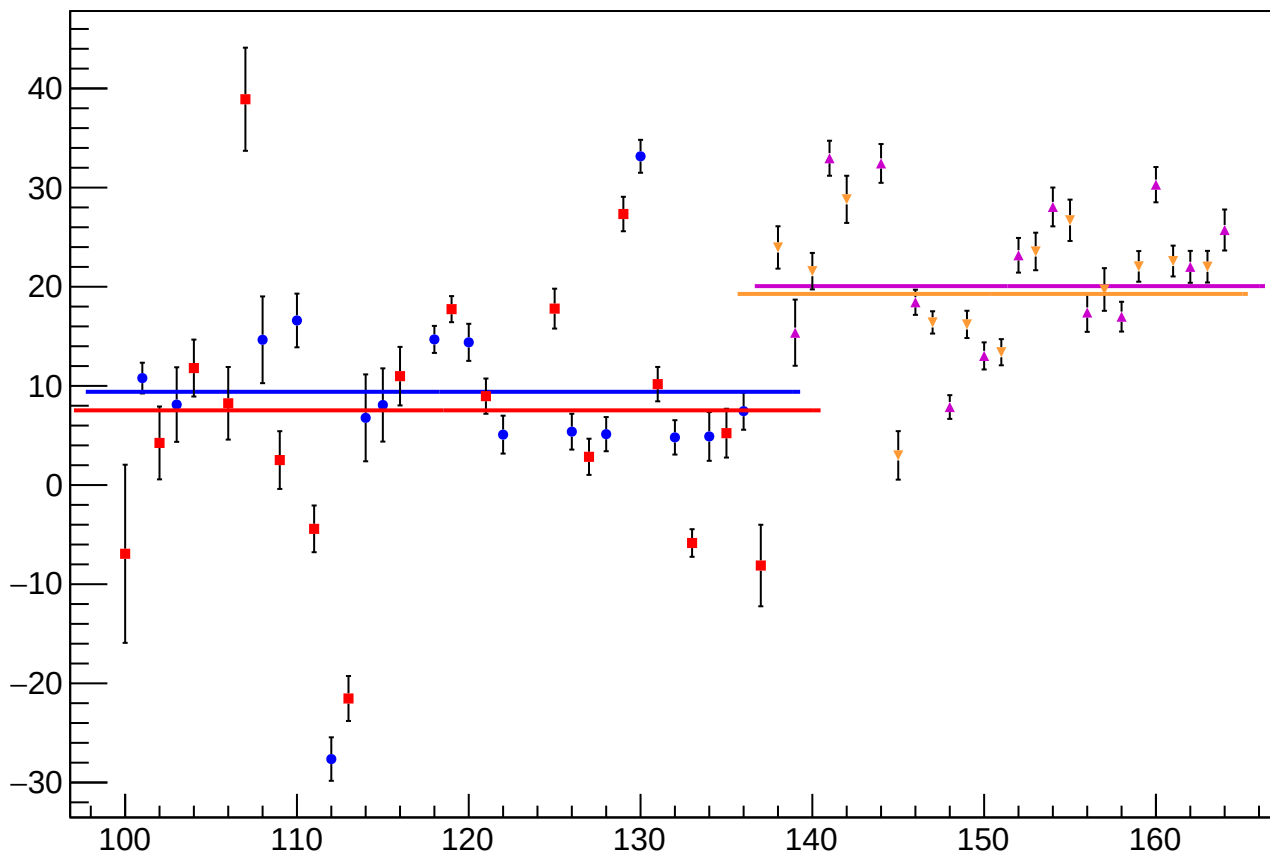
Left In: 18.786 $\pm$ 0.549  $\chi^2$ /NDF: 745.2/12

+ sign 32.210 $\pm$ 0.467  $\chi^2$ /NDF: 3973.3/28

All: 32.358 $\pm$ 0.328  $\chi^2$ /NDF: 8530.6/59

- sign 32.500 $\pm$ 0.459  $\chi^2$ /NDF: 4557.1/30

# reg\_asym\_usl\_diff\_bpm4eY\_slope vs Slug



Right In:  $9.405 \pm 0.507$   $\chi^2/\text{NDF}$ : 549.5/15

Left Out:  $19.277 \pm 0.461$   $\chi^2/\text{NDF}$ : 126.8/12

Right Out:  $7.533 \pm 0.515$   $\chi^2/\text{NDF}$ : 569.8/17

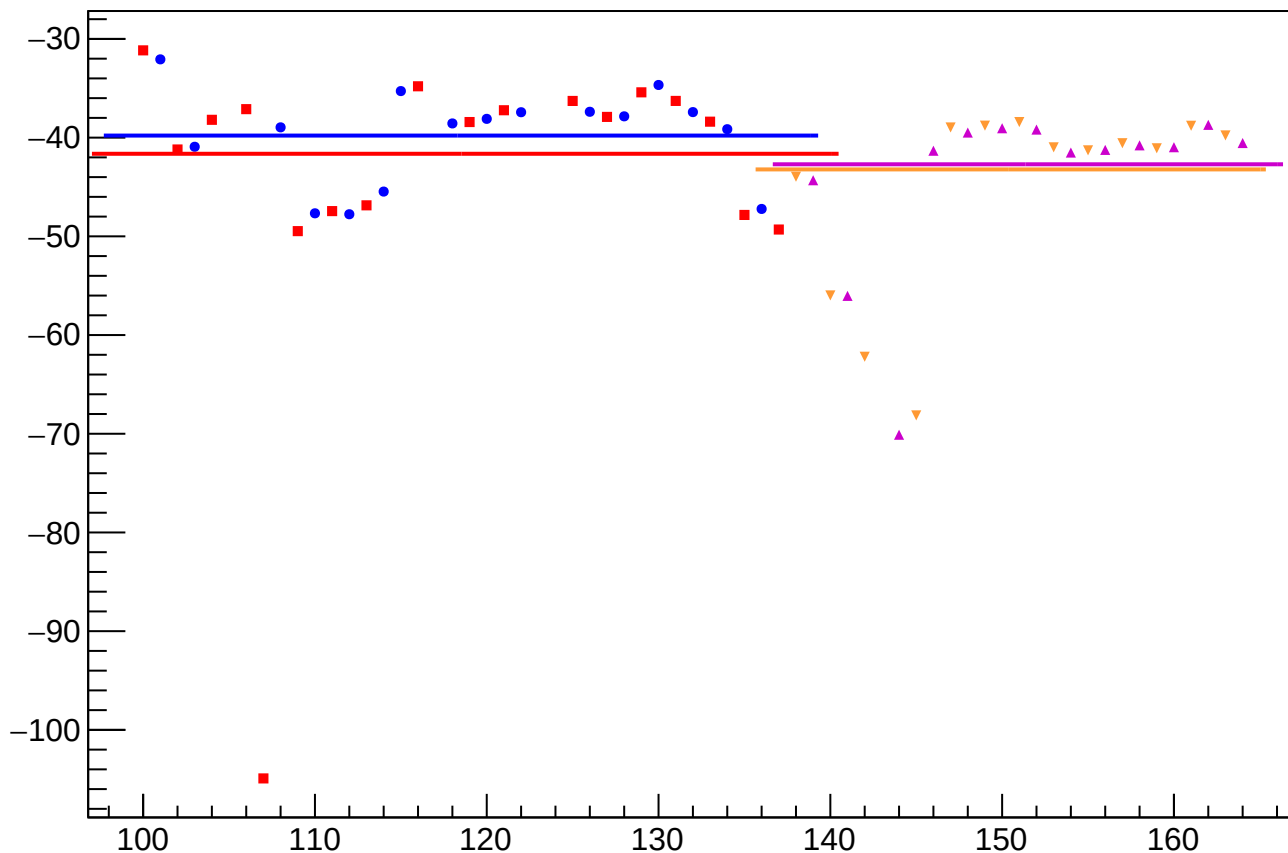
Left In:  $20.063 \pm 0.459$   $\chi^2/\text{NDF}$ : 295.3/12

+ sign  $14.805 \pm 0.341$   $\chi^2/\text{NDF}$ : 883.9/28

All:  $14.663 \pm 0.242$   $\chi^2/\text{NDF}$ : 2079.6/59

- sign  $14.520 \pm 0.342$   $\chi^2/\text{NDF}$ : 1195.3/30

# reg\_asym\_usl\_diff\_bpm12X\_slope vs Slug



Right In:  $-39.791 \pm 0.031$   $\chi^2/\text{NDF}$ : 26138.6/15

Left Out:  $-43.220 \pm 0.022$   $\chi^2/\text{NDF}$ : 122013.2/12

Right Out:  $-41.635 \pm 0.031$   $\chi^2/\text{NDF}$ : 94393.1/17

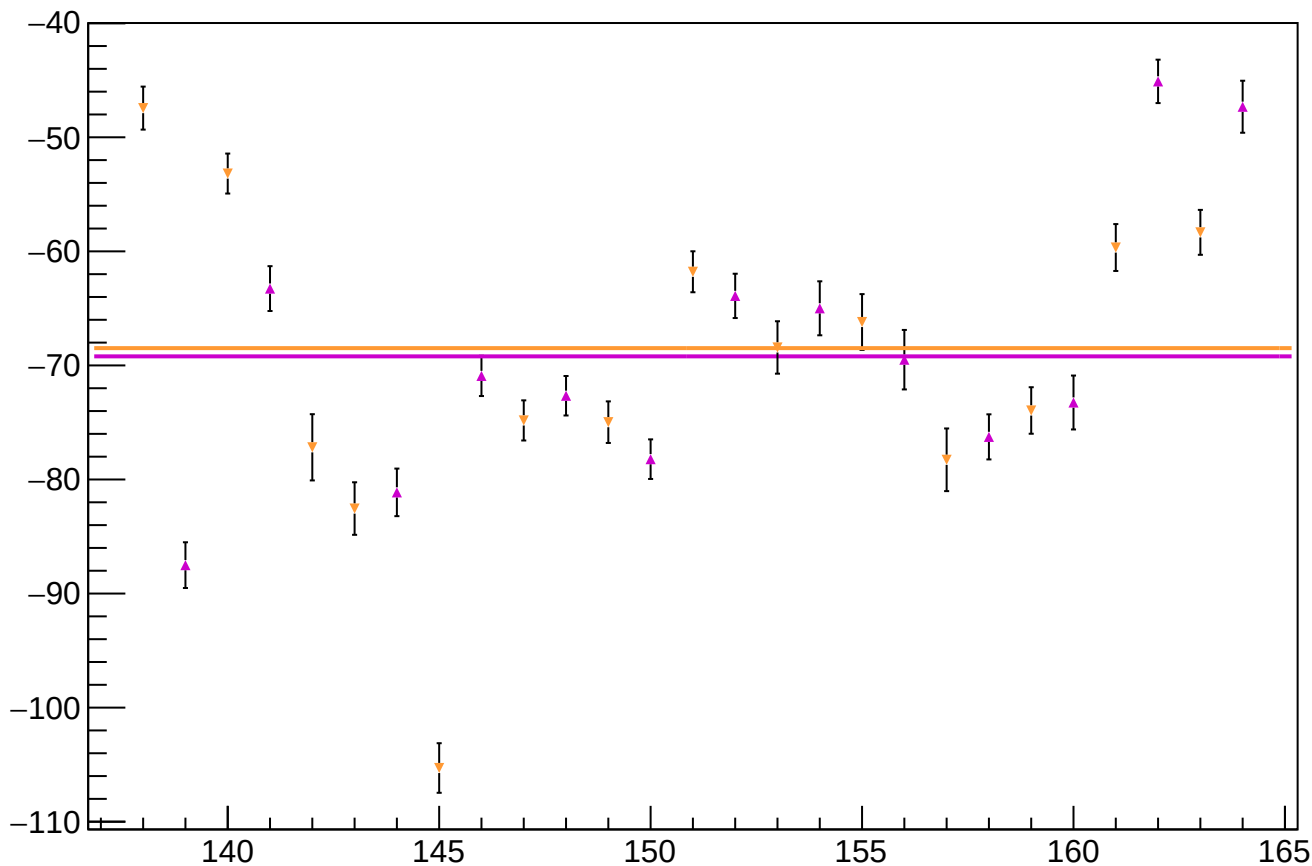
Left In:  $-42.700 \pm 0.022$   $\chi^2/\text{NDF}$ : 99264.3/12

+ sign  $-42.056 \pm 0.018$   $\chi^2/\text{NDF}$ : 156118.1/28

All:  $-42.208 \pm 0.013$   $\chi^2/\text{NDF}$ : 350697.2/59

- sign  $-42.354 \pm 0.018$   $\chi^2/\text{NDF}$ : 194442.5/30

# reg\_asym\_usr\_diff\_bpm1X\_slope vs Slug



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

Left Out: -68.484+/-0.552  $\chi^2/\text{NDF}$ : 639.2/13

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

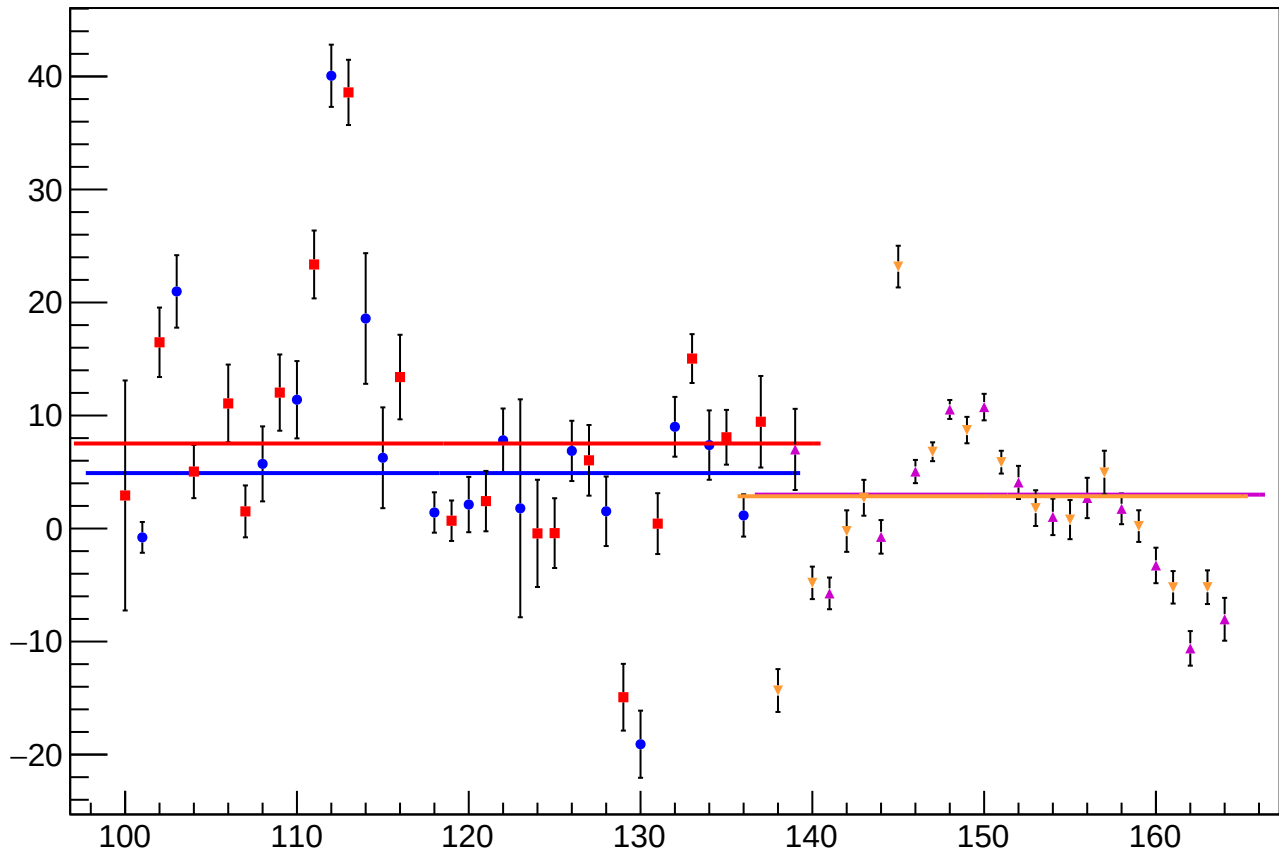
Left In: -69.206+/-0.557  $\chi^2/\text{NDF}$ : 435.9/12

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

All: -68.841+/-0.392  $\chi^2/\text{NDF}$ : 1076.0/26

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

# reg\_asym\_usr\_diff\_bpm4aY\_slope vs Slug



Right In:  $4.907 \pm 0.628$   $\chi^2/\text{NDF}$ : 295.4/16

Left Out:  $2.856 \pm 0.369$   $\chi^2/\text{NDF}$ : 358.3/13

Right Out:  $7.523 \pm 0.651$   $\chi^2/\text{NDF}$ : 270.6/18

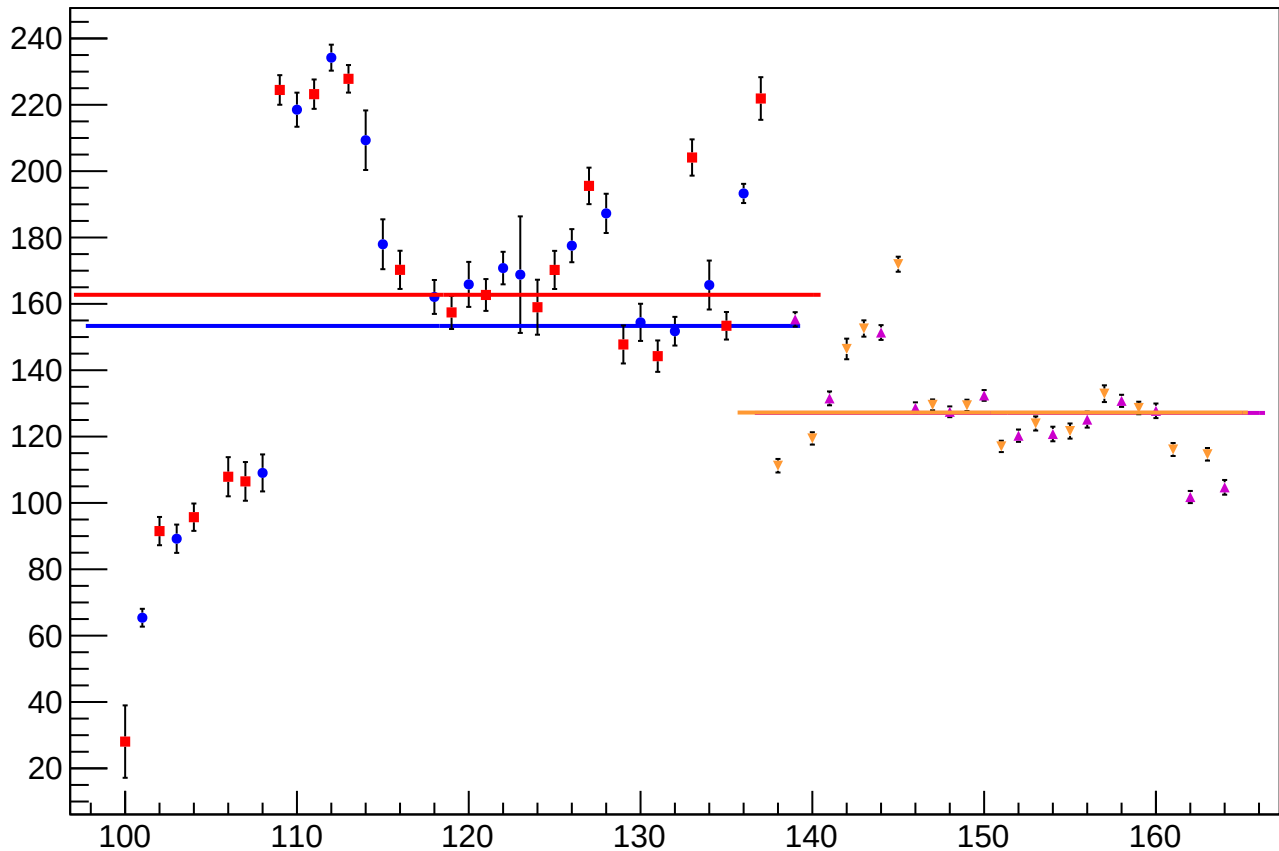
Left In:  $2.999 \pm 0.379$   $\chi^2/\text{NDF}$ : 306.3/12

+ sign  $3.382 \pm 0.318$   $\chi^2/\text{NDF}$ : 661.7/30

All:  $3.753 \pm 0.228$   $\chi^2/\text{NDF}$ : 1277.4/62

- sign  $4.147 \pm 0.328$   $\chi^2/\text{NDF}$ : 613.0/31

# reg\_asym\_usr\_diff\_bpm4eX\_slope vs Slug



Right In: 153.350 $\pm$ 1.150  $\chi^2$ /NDF: 2268.3/16

Left Out: 127.245 $\pm$ 0.540  $\chi^2$ /NDF: 740.3/13

Right Out: 162.734 $\pm$ 1.177  $\chi^2$ /NDF: 1708.8/18

Left In: 127.126 $\pm$ 0.540  $\chi^2$ /NDF: 622.3/12

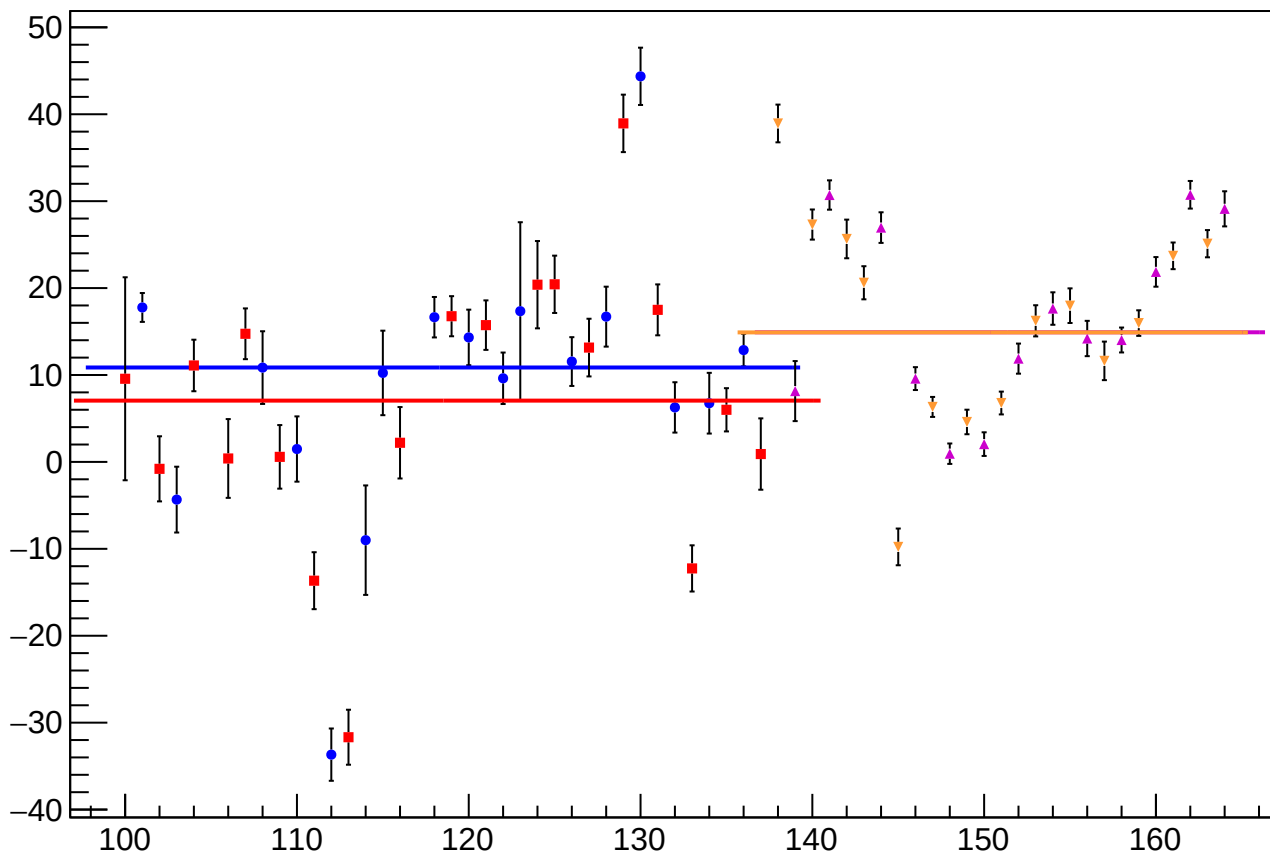
+ sign 131.959 $\pm$ 0.489  $\chi^2$ /NDF: 3430.7/30

All: 132.637 $\pm$ 0.346  $\chi^2$ /NDF: 6521.8/62

- sign 133.322 $\pm$ 0.491  $\chi^2$ /NDF: 3087.3/31



# reg\_asym\_usr\_diff\_bpm4eY\_slope vs Slug



Right In: 10.864 $\pm$ 0.719  $\chi^2$ /NDF: 387.9/16

Left Out: 14.901 $\pm$ 0.441  $\chi^2$ /NDF: 570.9/13

Right Out: 7.052 $\pm$ 0.748  $\chi^2$ /NDF: 424.7/18

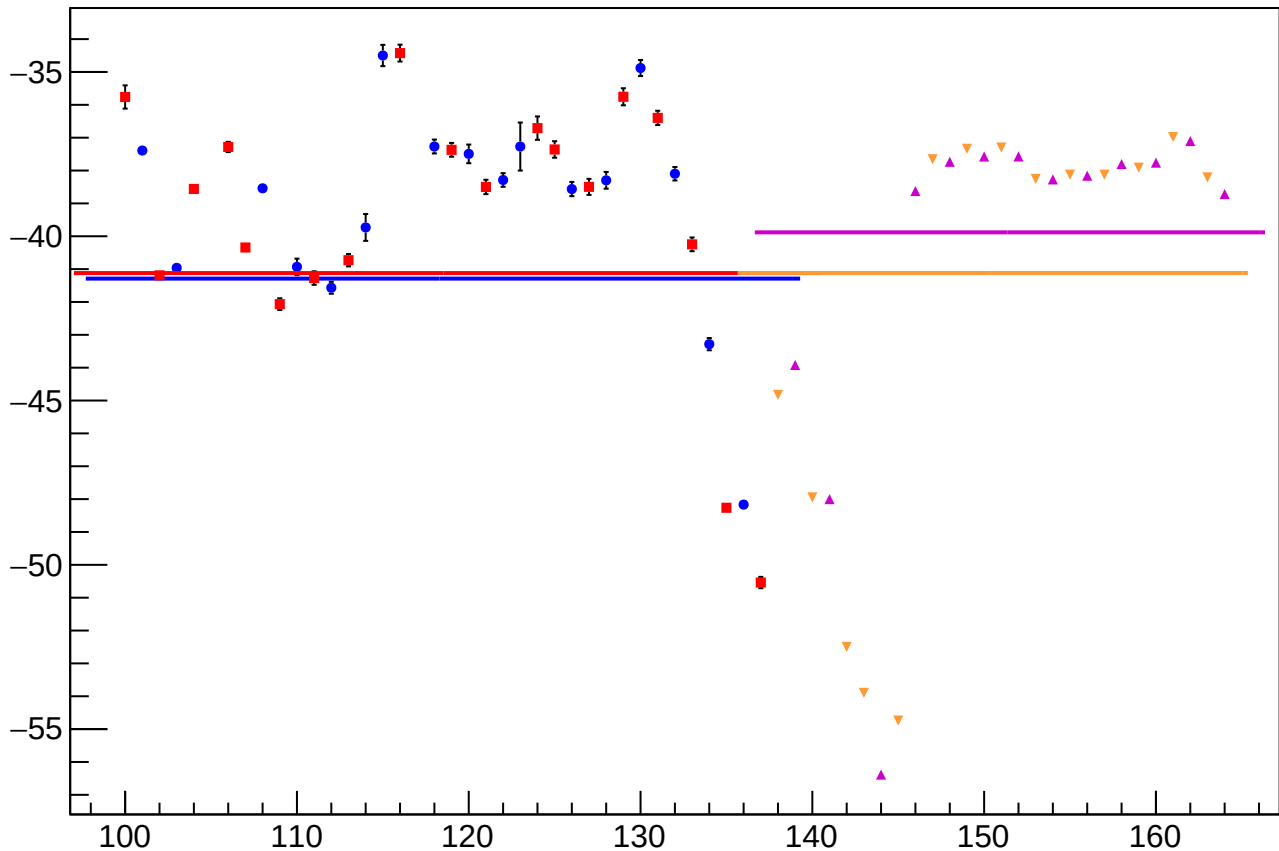
Left In: 14.914 $\pm$ 0.450  $\chi^2$ /NDF: 556.5/12

+ sign 13.799 $\pm$ 0.376  $\chi^2$ /NDF: 981.7/30

All: 13.323 $\pm$ 0.269  $\chi^2$ /NDF: 2047.4/62

- sign 12.822 $\pm$ 0.386  $\chi^2$ /NDF: 1062.4/31

# reg\_asym\_usr\_diff\_bpm12X\_slope vs Slug

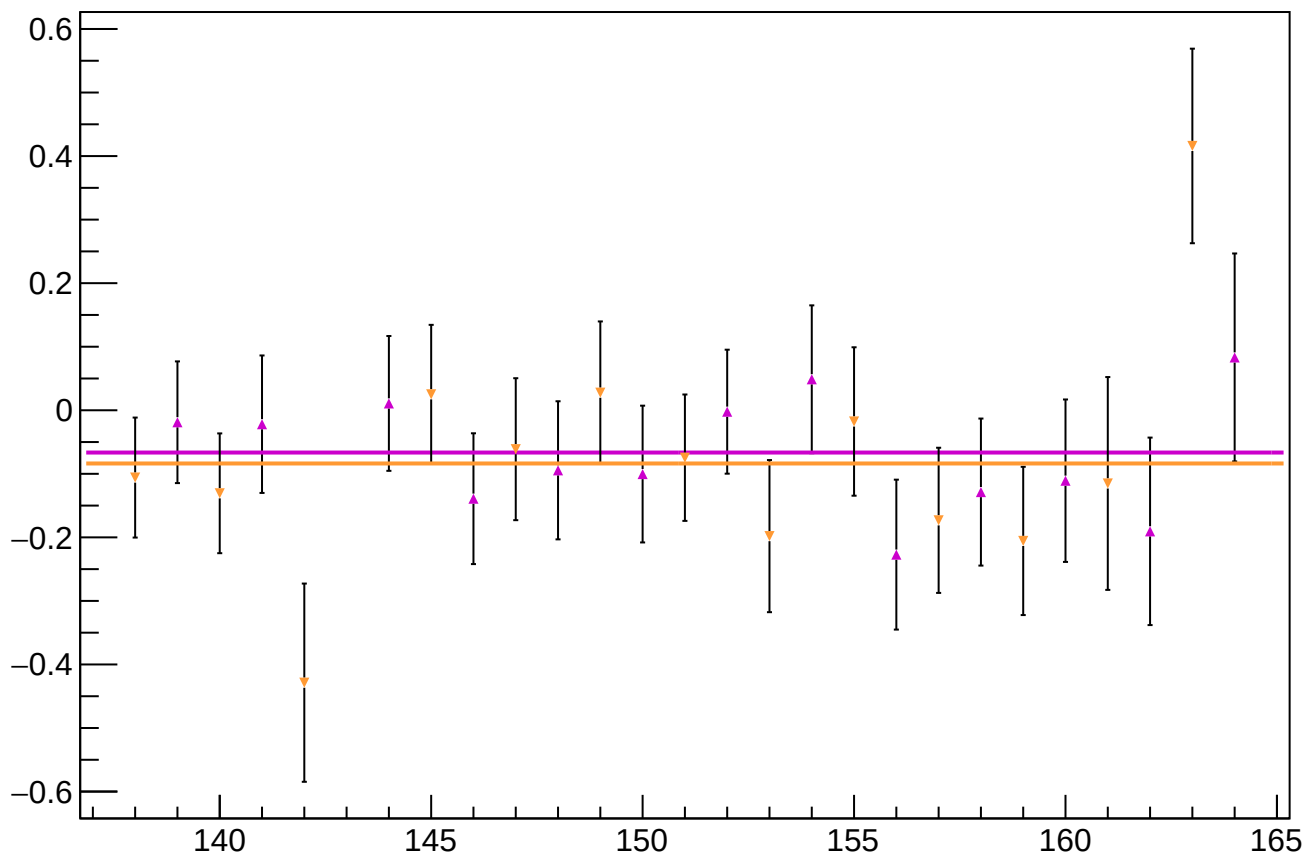


+ sign  $-41.158 \pm 0.019$   $\chi^2/\text{NDF}: 88089.5/30$

All:  $-40.663 \pm 0.013$   $\chi^2/\text{NDF}: 150532.2/62$

- sign  $-40.171 \pm 0.019$   $\chi^2/\text{NDF}: 61051.8/31$

# reg\_asym\_dsl\_diff\_bpm1X\_slope vs Slug



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

Left Out: -0.084 $\pm$ 0.032  $\chi^2$ /NDF: 20.8/12

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

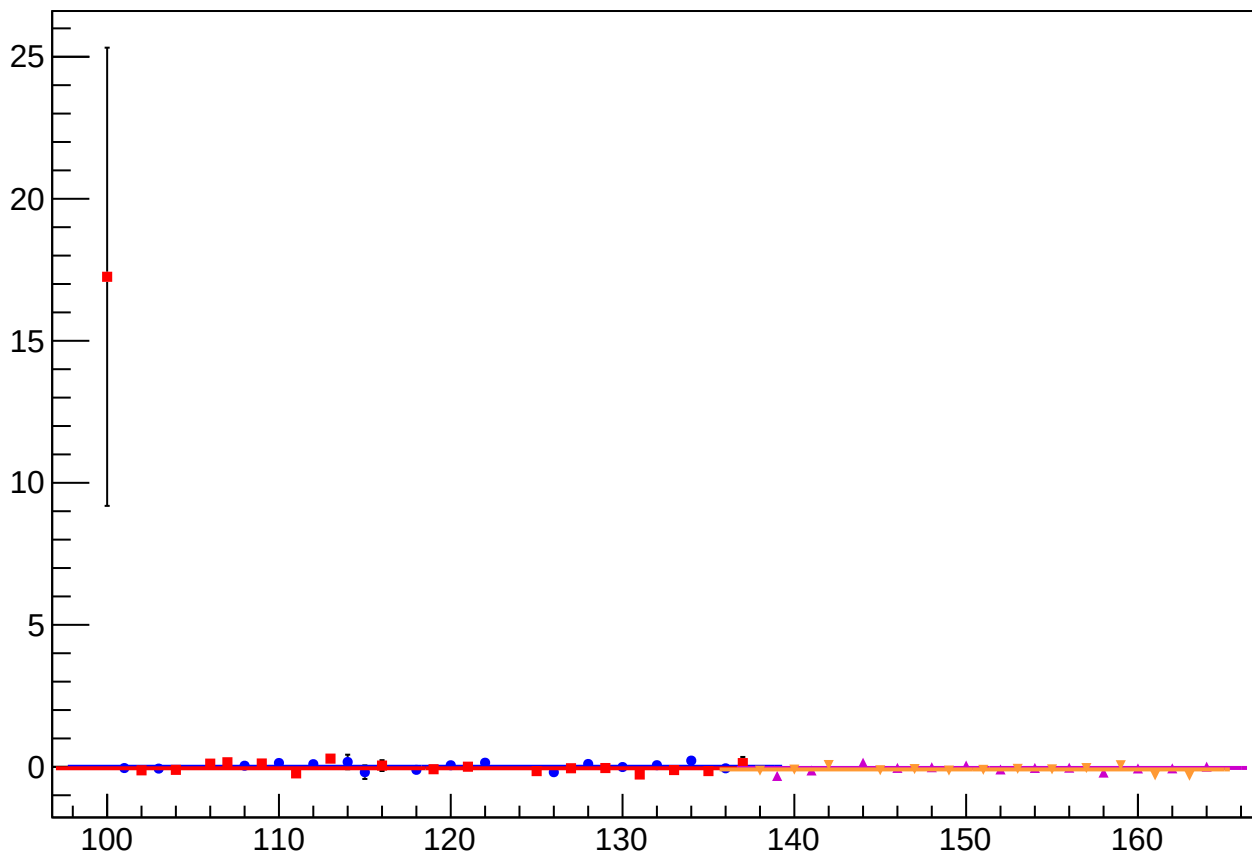
Left In: -0.067 $\pm$ 0.031  $\chi^2$ /NDF: 6.8/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -0.075 $\pm$ 0.022  $\chi^2$ /NDF: 27.8/25

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_dsl\_diff\_bpm4aY\_slope vs Slug



Right In:  $0.003 \pm 0.029$   $\chi^2/\text{NDF}$ : 12.4/15

Left Out:  $-0.090 \pm 0.022$   $\chi^2/\text{NDF}$ : 13.7/12

Right Out:  $-0.050 \pm 0.029$   $\chi^2/\text{NDF}$ : 25.6/17

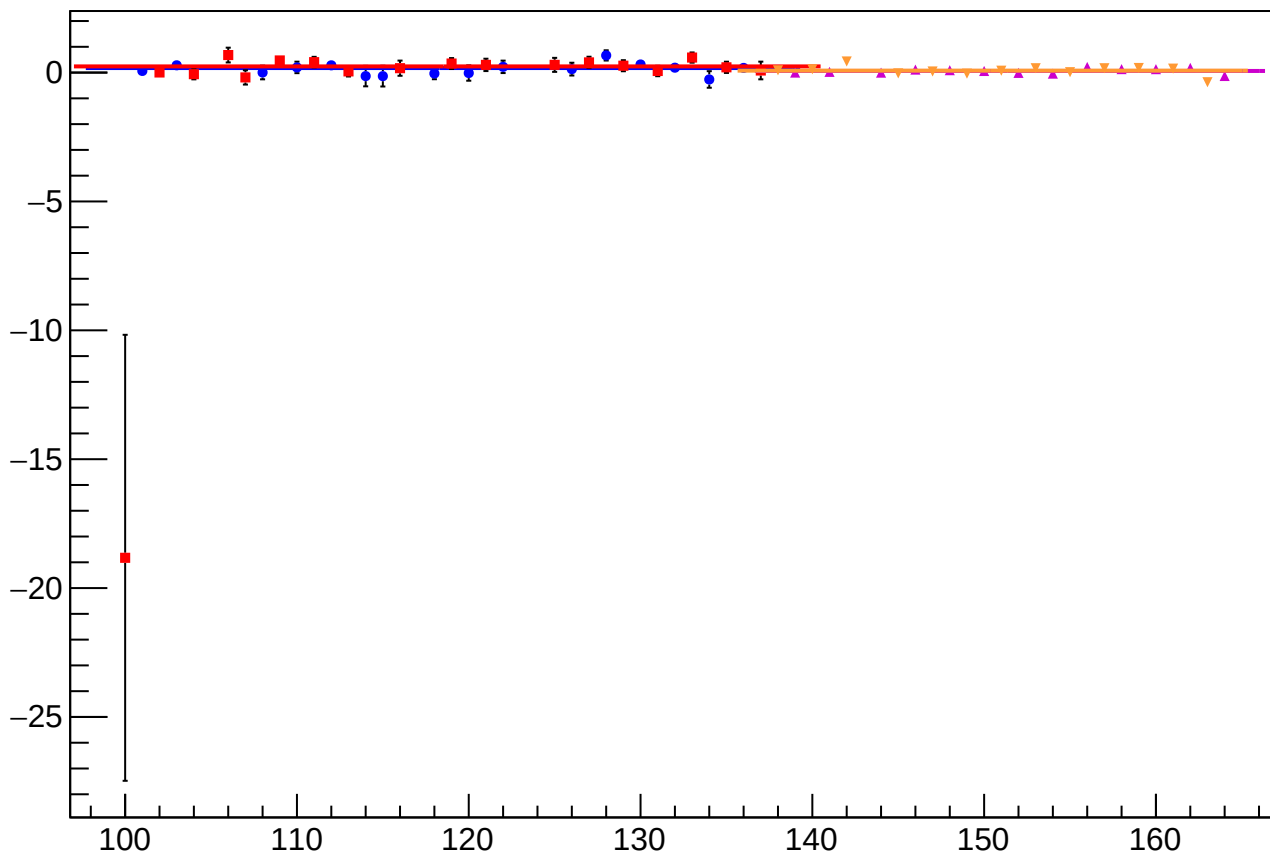
Left In:  $-0.039 \pm 0.022$   $\chi^2/\text{NDF}$ : 16.2/12

+ sign  $-0.056 \pm 0.017$   $\chi^2/\text{NDF}$ : 32.9/28

All:  $-0.049 \pm 0.012$   $\chi^2/\text{NDF}$ : 75.0/59

- sign  $-0.043 \pm 0.018$   $\chi^2/\text{NDF}$ : 41.9/30

# reg\_asym\_dsl\_diff\_bpm4eX\_slope vs Slug



Right In: 0.176 $\pm$ 0.053  $\chi^2$ /NDF: 13.0/15

Left Out: 0.075 $\pm$ 0.031  $\chi^2$ /NDF: 19.2/12

Right Out: 0.240 $\pm$ 0.054  $\chi^2$ /NDF: 21.6/17

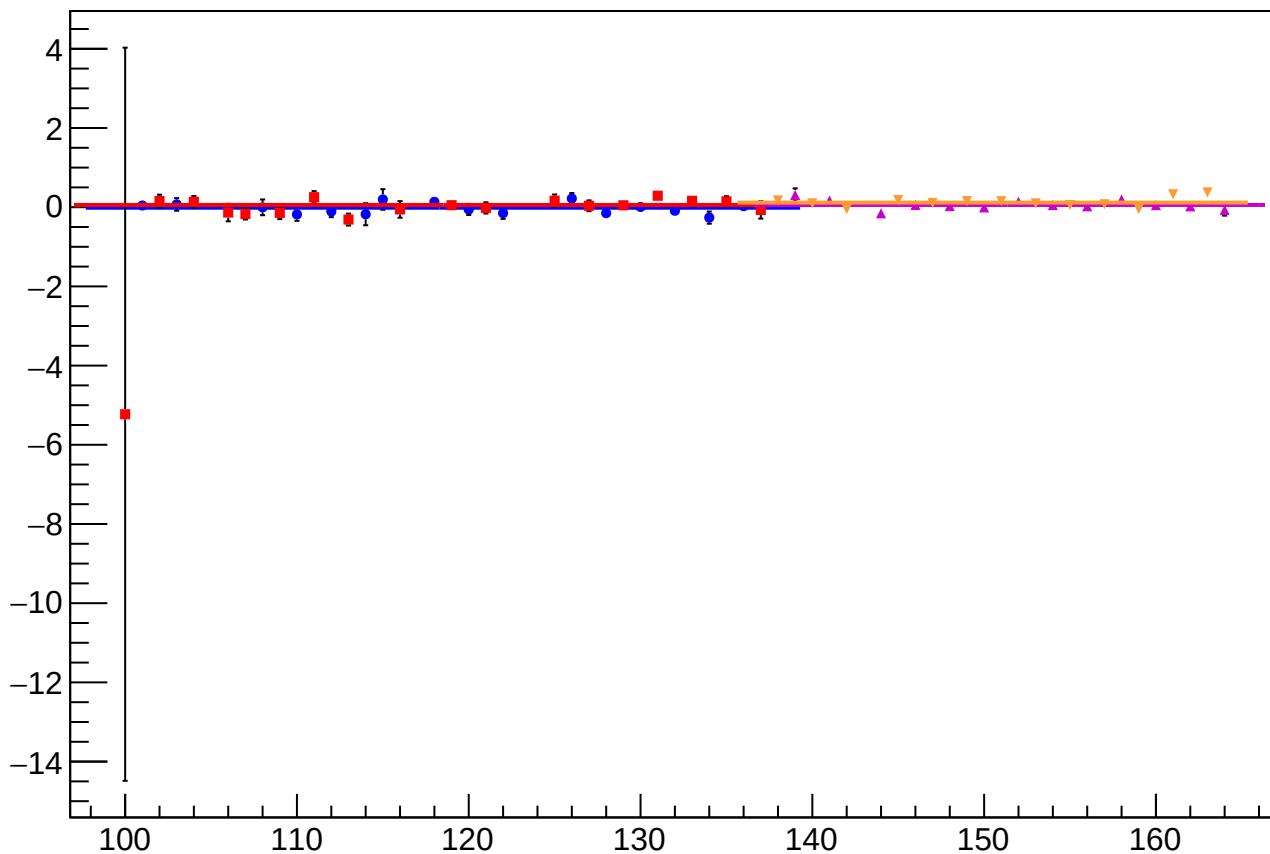
Left In: 0.063 $\pm$ 0.030  $\chi^2$ /NDF: 7.7/12

+ sign 0.101 $\pm$ 0.027  $\chi^2$ /NDF: 34.9/28

All: 0.103 $\pm$ 0.019  $\chi^2$ /NDF: 72.4/59

- sign 0.106 $\pm$ 0.027  $\chi^2$ /NDF: 37.5/30

# reg\_asym\_dsl\_diff\_bpm4eY\_slope vs Slug



Right In:  $-0.013 \pm 0.033$   $\chi^2/\text{NDF}$ : 13.6/15

Left Out:  $0.117 \pm 0.026$   $\chi^2/\text{NDF}$ : 14.4/12

Right Out:  $0.057 \pm 0.034$   $\chi^2/\text{NDF}$ : 20.3/17

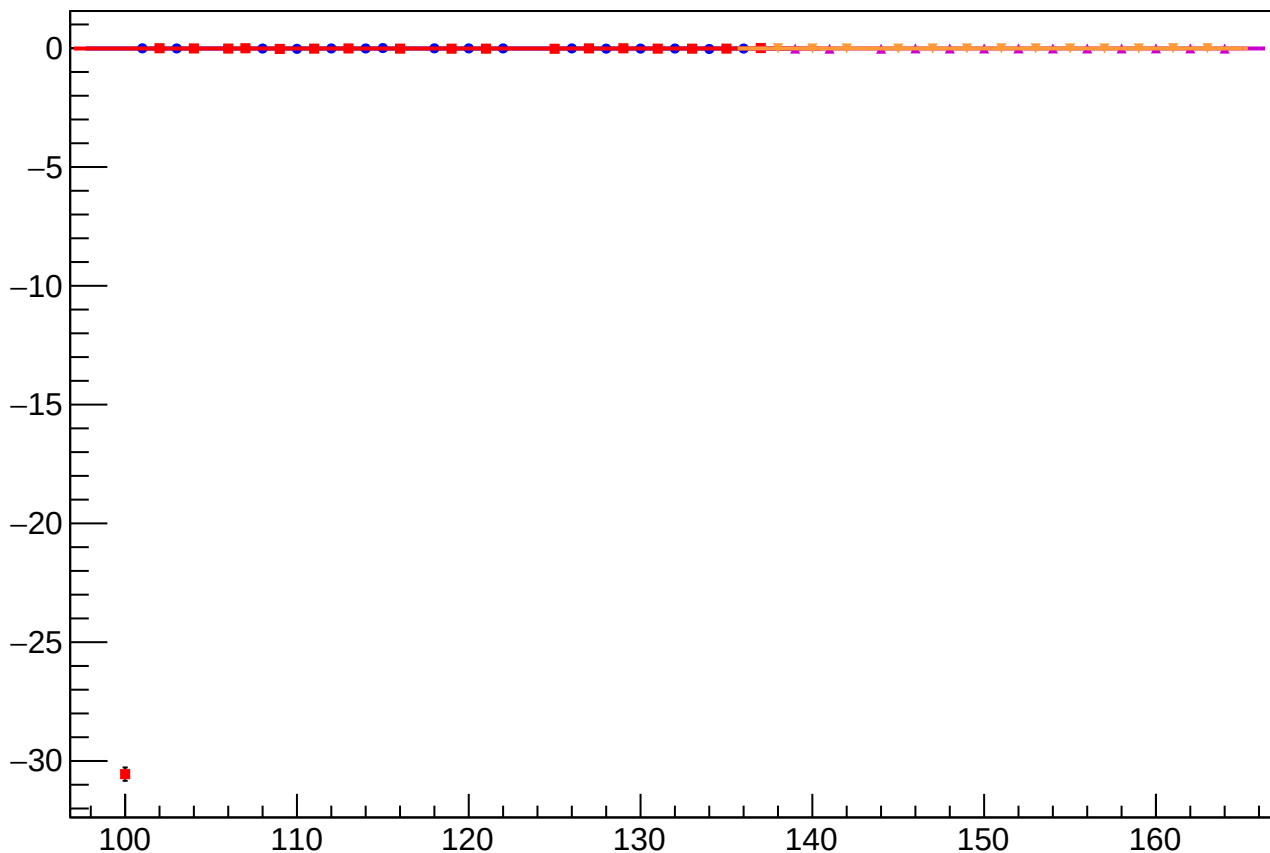
Left In:  $0.057 \pm 0.026$   $\chi^2/\text{NDF}$ : 14.6/12

+ sign  $0.066 \pm 0.020$   $\chi^2/\text{NDF}$ : 37.6/28

All:  $0.062 \pm 0.014$   $\chi^2/\text{NDF}$ : 72.6/59

- sign  $0.057 \pm 0.021$   $\chi^2/\text{NDF}$ : 34.9/30

# reg\_asym\_dsl\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.012 \pm 0.002$   $\chi^2/\text{NDF}$ : 12.8/15

Left Out:  $-0.008 \pm 0.001$   $\chi^2/\text{NDF}$ : 11.9/12

Right Out:  $-0.012 \pm 0.002$   $\chi^2/\text{NDF}$ : 11891.4/17

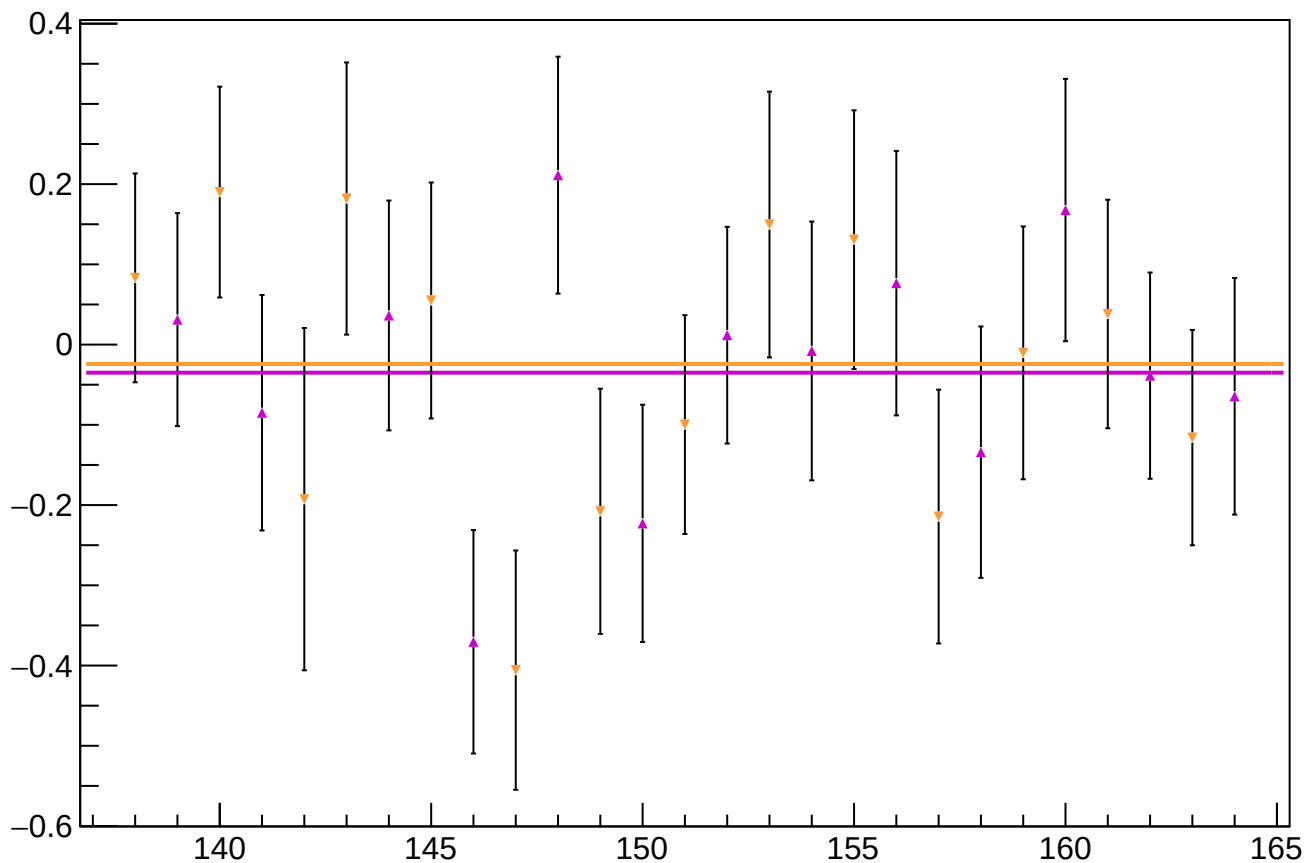
Left In:  $-0.011 \pm 0.001$   $\chi^2/\text{NDF}$ : 11.6/12

+ sign  $-0.009 \pm 0.001$   $\chi^2/\text{NDF}$ : 27.7/28

All:  $-0.010 \pm 0.001$   $\chi^2/\text{NDF}$ : 11932.6/59

- sign  $-0.011 \pm 0.001$   $\chi^2/\text{NDF}$ : 11903.5/30

# reg\_asym\_dsr\_diff\_bpm1X\_slope vs Slug



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

Left Out: -0.024 $\pm$ 0.040  $\chi^2$ /NDF: 18.2/13

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

Left In: -0.035 $\pm$ 0.040  $\chi^2$ /NDF: 13.4/12

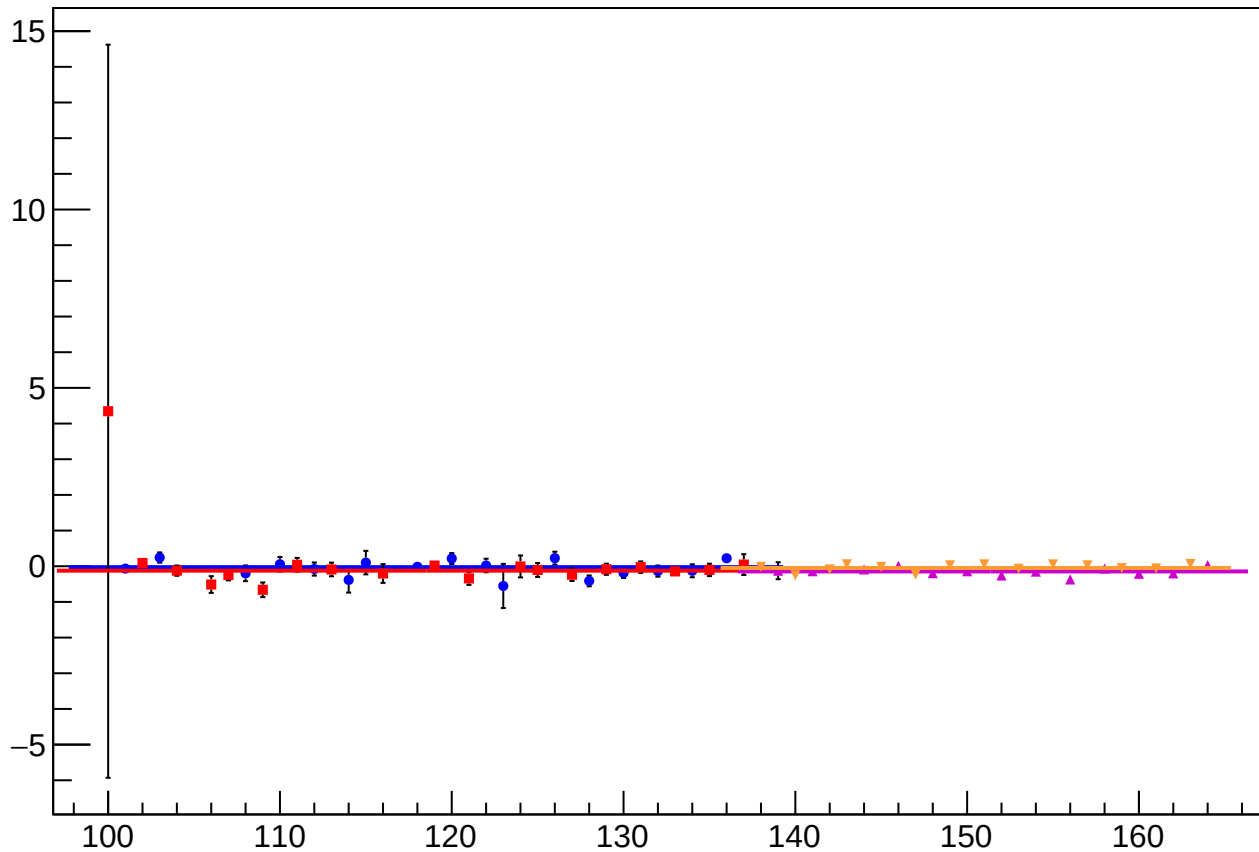
+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -0.029 $\pm$ 0.028  $\chi^2$ /NDF: 31.6/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0



# reg\_asym\_dsr\_diff\_bpm4aY\_slope vs Slug



Right In:  $-0.026 \pm 0.037$   $\chi^2/\text{NDF}$ : 22.7/16

Left Out:  $-0.049 \pm 0.028$   $\chi^2/\text{NDF}$ : 16.0/13

Right Out:  $-0.124 \pm 0.039$   $\chi^2/\text{NDF}$ : 18.3/18

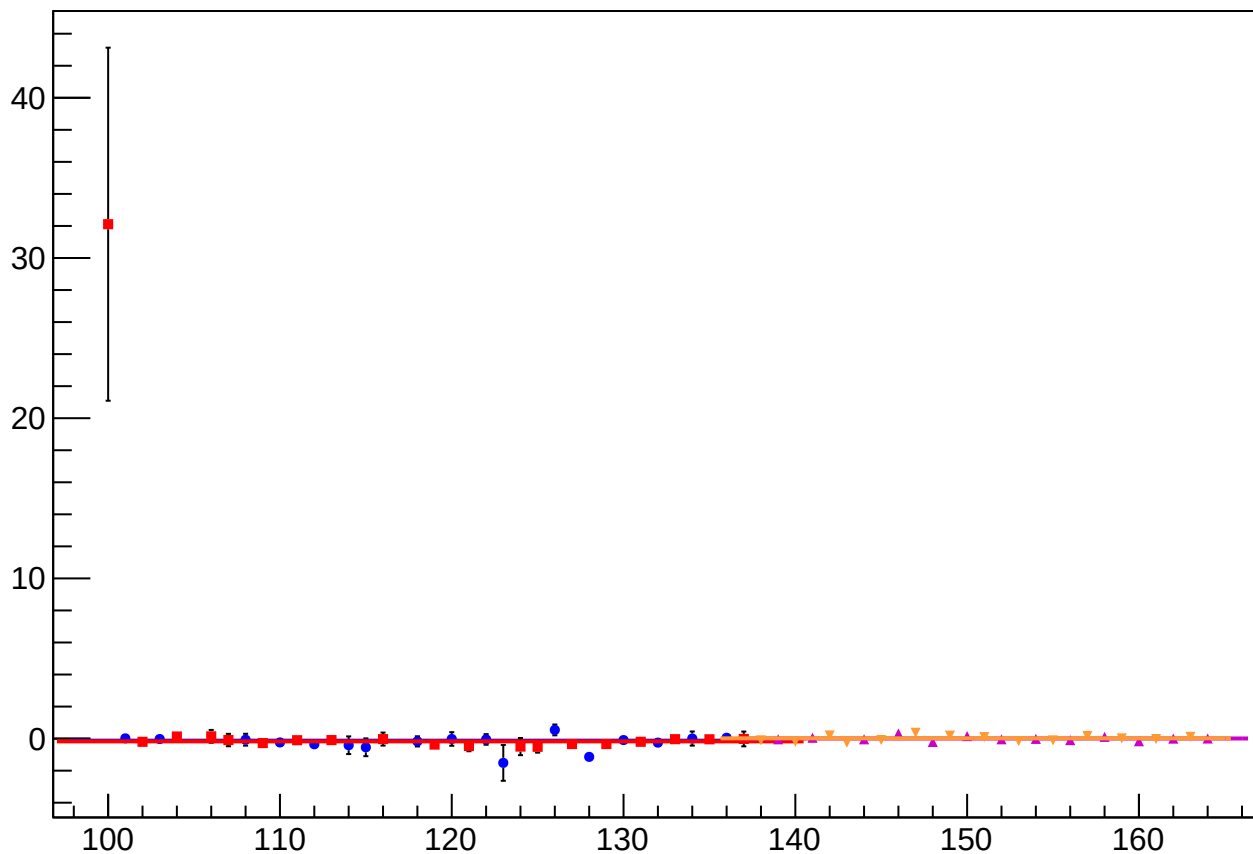
Left In:  $-0.145 \pm 0.029$   $\chi^2/\text{NDF}$ : 12.9/12

+ sign  $-0.041 \pm 0.022$   $\chi^2/\text{NDF}$ : 39.0/30

All:  $-0.087 \pm 0.016$   $\chi^2/\text{NDF}$ : 79.6/62

- sign  $-0.138 \pm 0.023$   $\chi^2/\text{NDF}$ : 31.4/31

# reg\_asym\_dsr\_diff\_bpm4eX\_slope vs Slug



Right In:  $-0.129 \pm 0.067$   $\chi^2/\text{NDF}$ : 23.1/16

Left Out:  $0.018 \pm 0.039$   $\chi^2/\text{NDF}$ : 17.8/13

Right Out:  $-0.172 \pm 0.071$   $\chi^2/\text{NDF}$ : 14.9/18

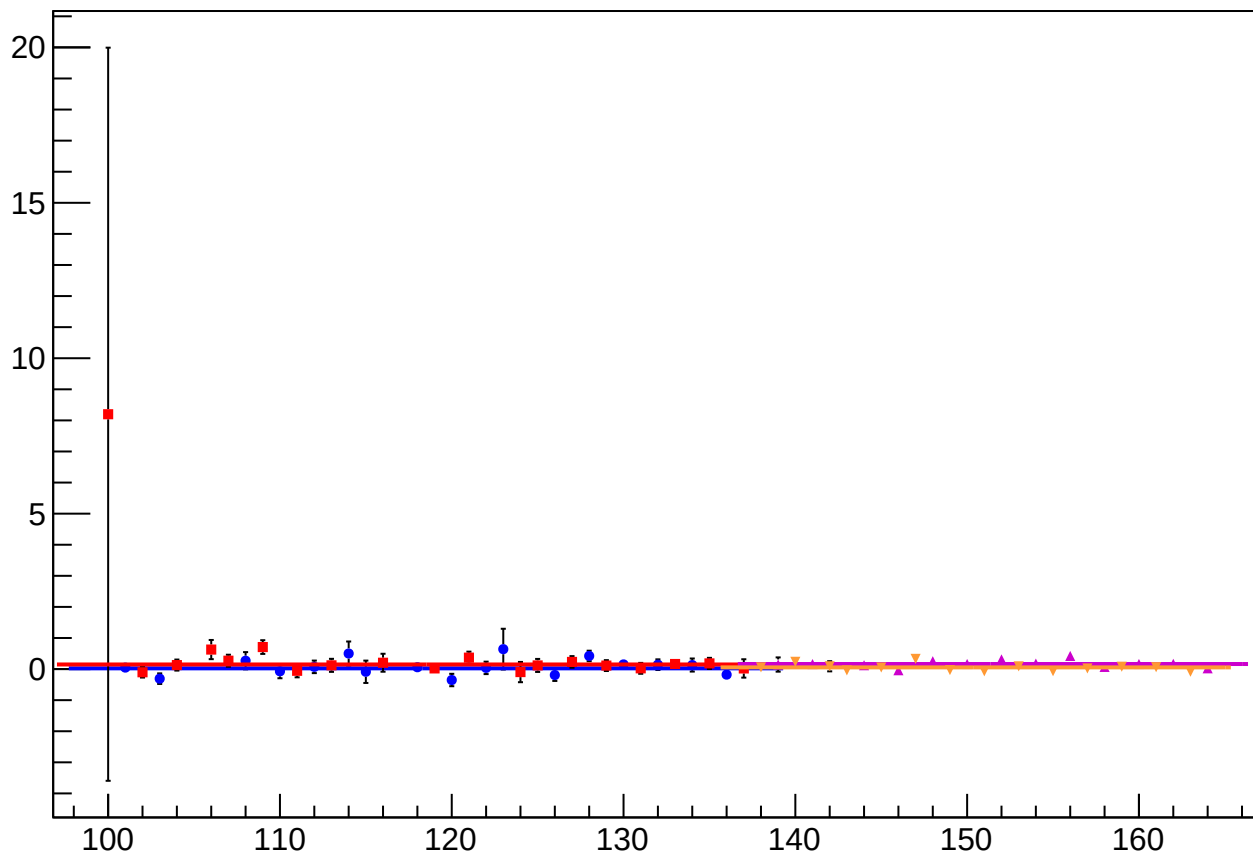
Left In:  $0.009 \pm 0.039$   $\chi^2/\text{NDF}$ : 11.9/12

+ sign  $-0.019 \pm 0.034$   $\chi^2/\text{NDF}$ : 44.5/30

All:  $-0.026 \pm 0.024$   $\chi^2/\text{NDF}$ : 76.4/62

- sign  $-0.034 \pm 0.034$   $\chi^2/\text{NDF}$ : 31.8/31

# reg\_asym\_dsr\_diff\_bpm4eY\_slope vs Slug



Right In:  $0.023 \pm 0.043$   $\chi^2/\text{NDF}$ : 21.3/16

Left Out:  $0.054 \pm 0.033$   $\chi^2/\text{NDF}$ : 15.1/13

Right Out:  $0.148 \pm 0.045$   $\chi^2/\text{NDF}$ : 16.6/18

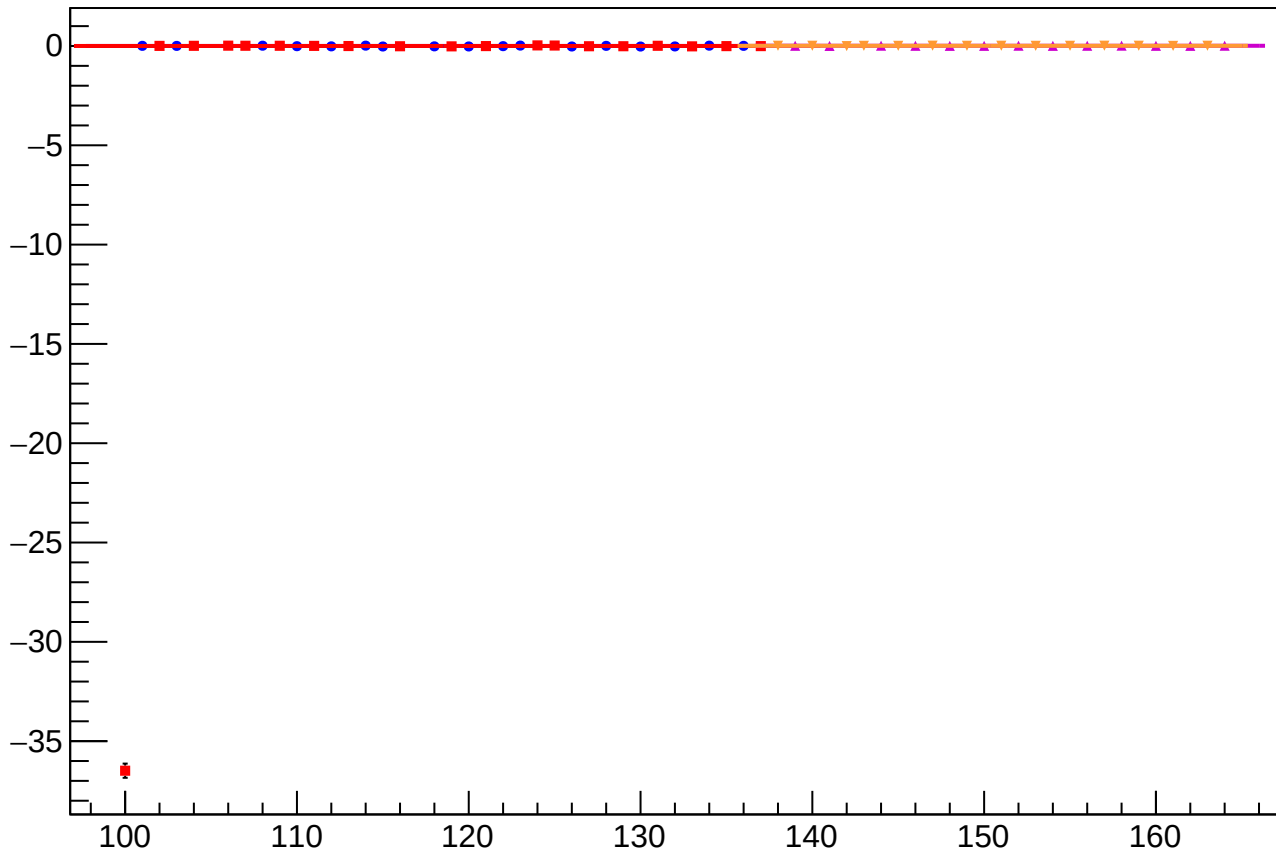
Left In:  $0.163 \pm 0.033$   $\chi^2/\text{NDF}$ : 11.9/12

+ sign  $0.043 \pm 0.026$   $\chi^2/\text{NDF}$ : 36.8/30

All:  $0.098 \pm 0.019$   $\chi^2/\text{NDF}$ : 74.8/62

- sign  $0.158 \pm 0.027$   $\chi^2/\text{NDF}$ : 28.6/31

# reg\_asym\_dsr\_diff\_bpm12X\_slope vs Slug



Right In: 0.001+/-0.002  $\chi^2/\text{NDF}$ : 30.6/16

Left Out: 0.010+/-0.002  $\chi^2/\text{NDF}$ : 6.6/13

Right Out: 0.001+/-0.002  $\chi^2/\text{NDF}$ : 10449.1/18

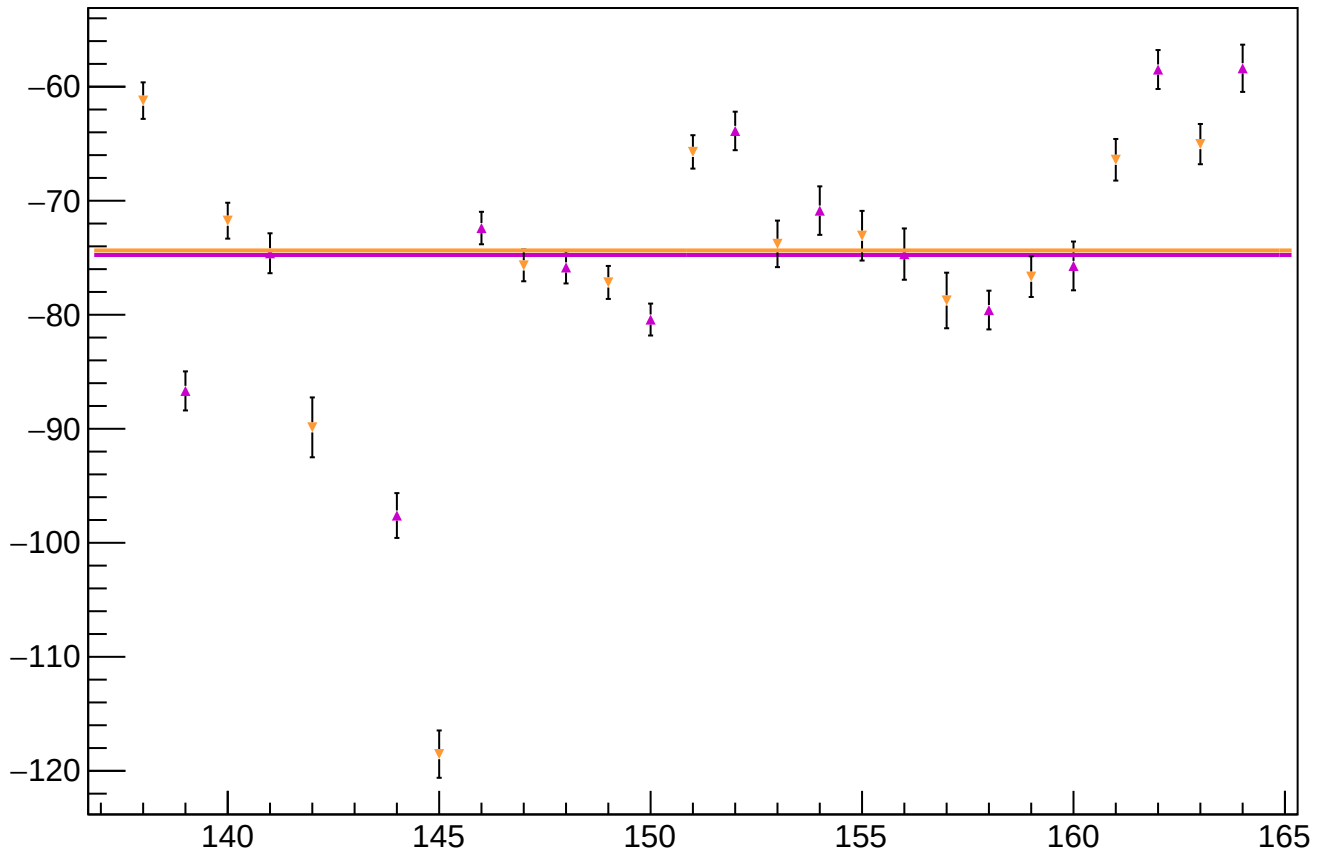
Left In: 0.011+/-0.002  $\chi^2/\text{NDF}$ : 5.5/12

+ sign 0.008+/-0.001  $\chi^2/\text{NDF}$ : 48.4/30

All: 0.008+/-0.001  $\chi^2/\text{NDF}$ : 10516.0/62

- sign 0.008+/-0.001  $\chi^2/\text{NDF}$ : 10467.5/31

# reg\_asym\_us\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -74.359+/-0.489  $\chi^2/\text{NDF}$ : 649.6/12

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

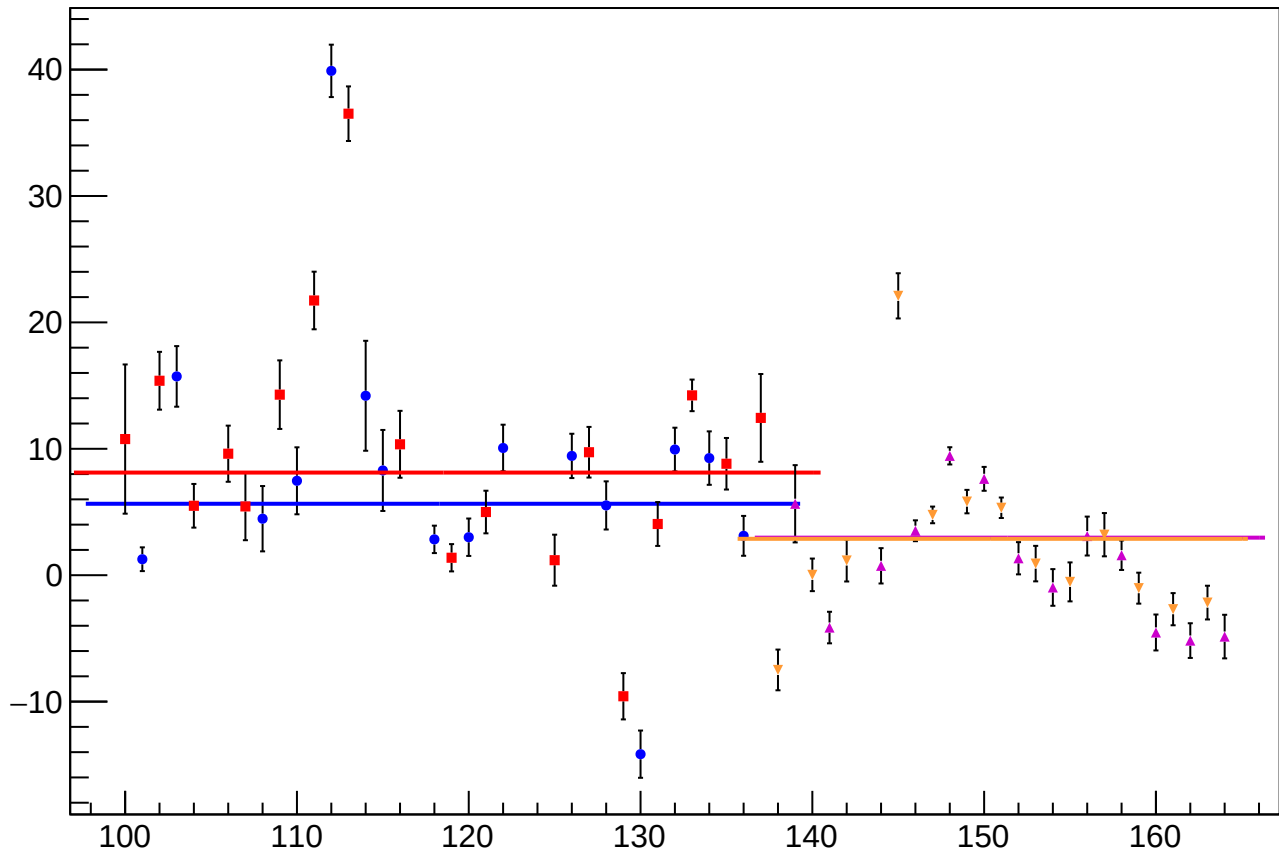
Left In: -74.758+/-0.480  $\chi^2/\text{NDF}$ : 409.6/12

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

All: -74.562+/-0.342  $\chi^2/\text{NDF}$ : 1059.5/25

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

# reg\_asym\_us\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $5.651 \pm 0.429$   $\chi^2/\text{NDF}$ : 461.9/15

Left Out:  $2.879 \pm 0.320$   $\chi^2/\text{NDF}$ : 240.9/12

Right Out:  $8.119 \pm 0.453$   $\chi^2/\text{NDF}$ : 407.9/17

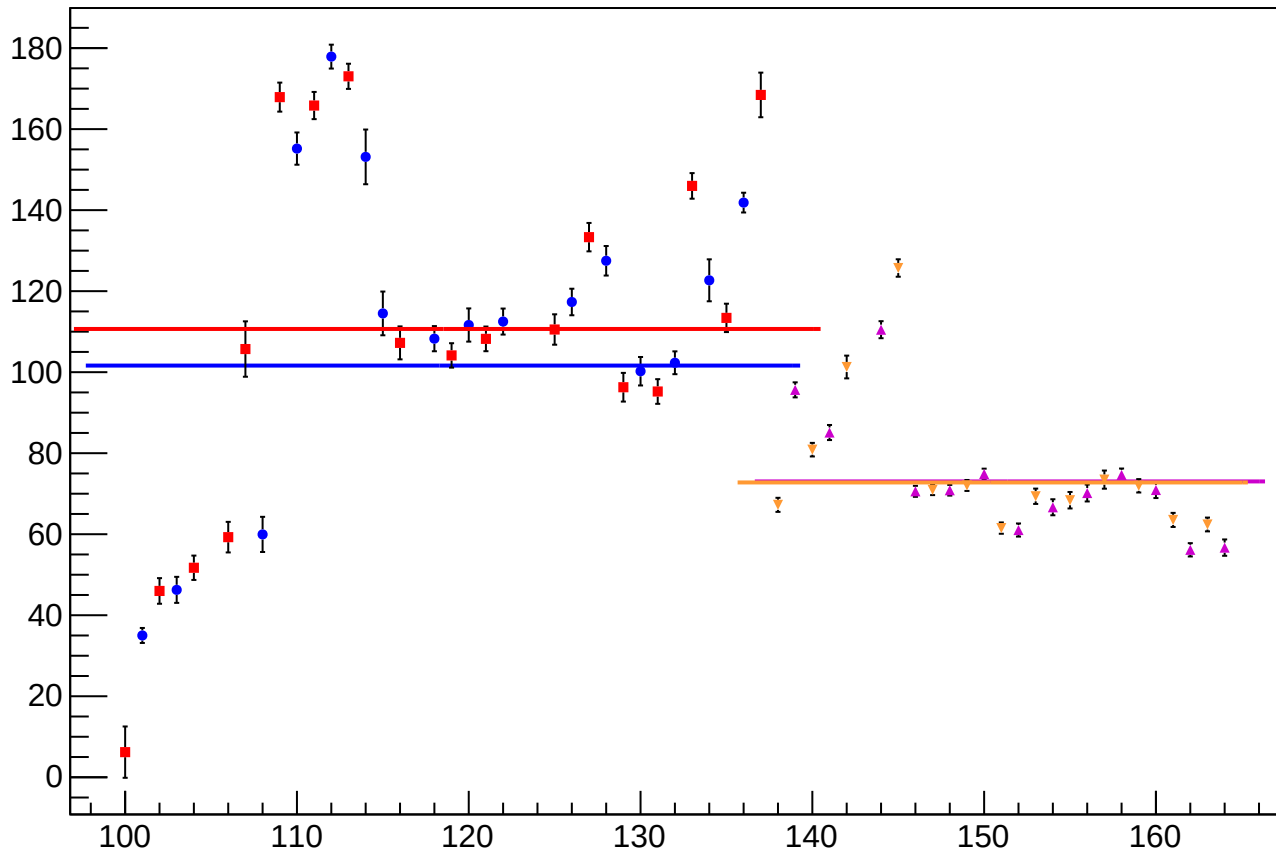
Left In:  $2.970 \pm 0.323$   $\chi^2/\text{NDF}$ : 244.6/12

+ sign  $3.869 \pm 0.257$   $\chi^2/\text{NDF}$ : 729.6/28

All:  $4.277 \pm 0.184$   $\chi^2/\text{NDF}$ : 1473.1/59

- sign  $4.705 \pm 0.263$   $\chi^2/\text{NDF}$ : 738.3/30

# reg\_asym\_us\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $101.630 \pm 0.812$   $\chi^2/\text{NDF}: 2980.2/15$

Left Out:  $72.779 \pm 0.474$   $\chi^2/\text{NDF}: 881.0/12$

Right Out:  $110.669 \pm 0.836$   $\chi^2/\text{NDF}: 2514.0/17$

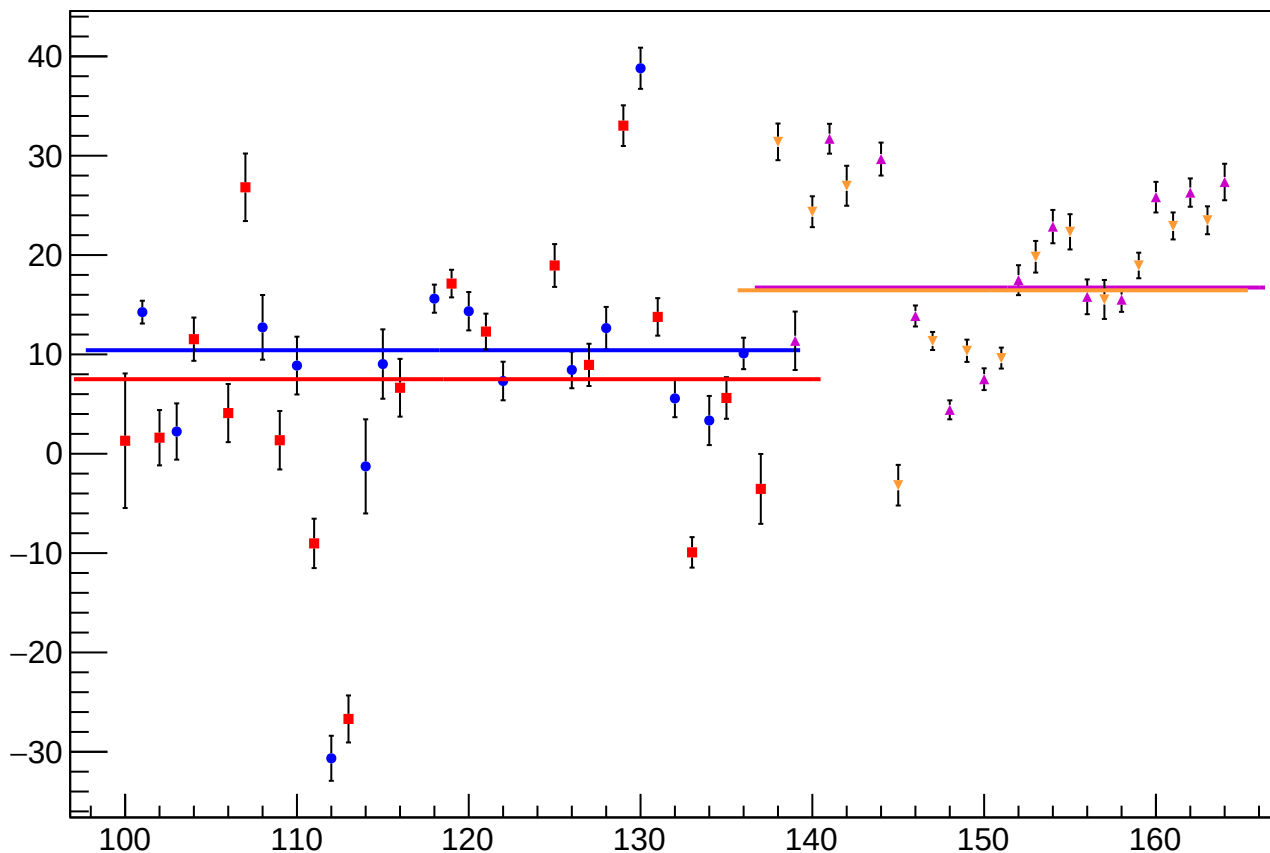
Left In:  $73.033 \pm 0.464$   $\chi^2/\text{NDF}: 756.0/12$

+ sign  $80.121 \pm 0.410$   $\chi^2/\text{NDF}: 4802.2/28$

All:  $81.014 \pm 0.288$   $\chi^2/\text{NDF}: 9631.1/59$

- sign  $81.890 \pm 0.406$   $\chi^2/\text{NDF}: 4819.5/30$

# reg\_asym\_us\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 10.420 $\pm$ 0.497  $\chi^2$ /NDF: 579.7/15

Left Out: 16.450 $\pm$ 0.386  $\chi^2$ /NDF: 381.0/12

Right Out: 7.502 $\pm$ 0.523  $\chi^2$ /NDF: 689.4/17

Left In: 16.731 $\pm$ 0.385  $\chi^2$ /NDF: 536.4/12

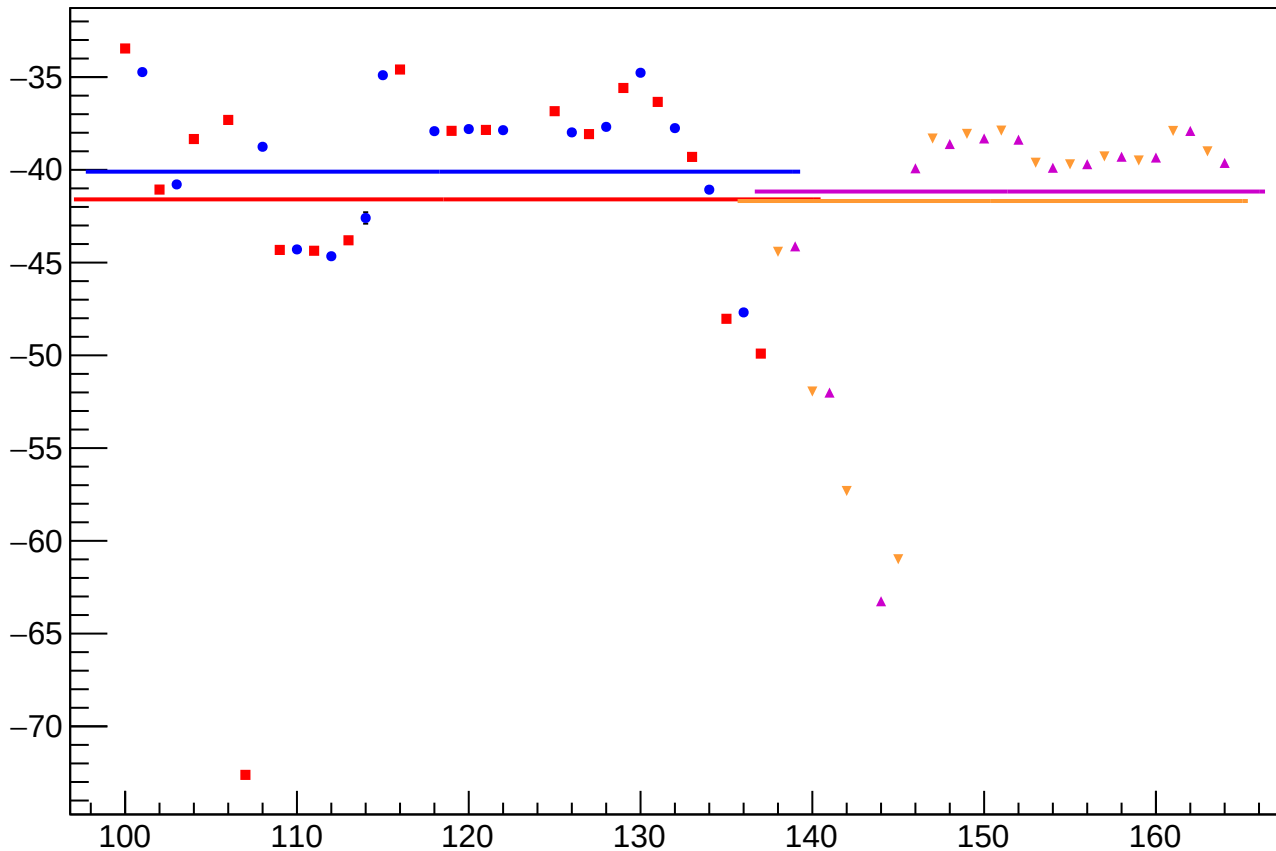
+ sign 14.186 $\pm$ 0.305  $\chi^2$ /NDF: 1052.5/28

All: 13.843 $\pm$ 0.217  $\chi^2$ /NDF: 2482.7/59

- sign 13.487 $\pm$ 0.310  $\chi^2$ /NDF: 1427.6/30



# reg\_asym\_us\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-40.098 \pm 0.028$   $\chi^2/\text{NDF}: 25073.4/15$

Left Out:  $-41.680 \pm 0.019$   $\chi^2/\text{NDF}: 111423.9/12$

Right Out:  $-41.592 \pm 0.029$   $\chi^2/\text{NDF}: 61677.7/17$

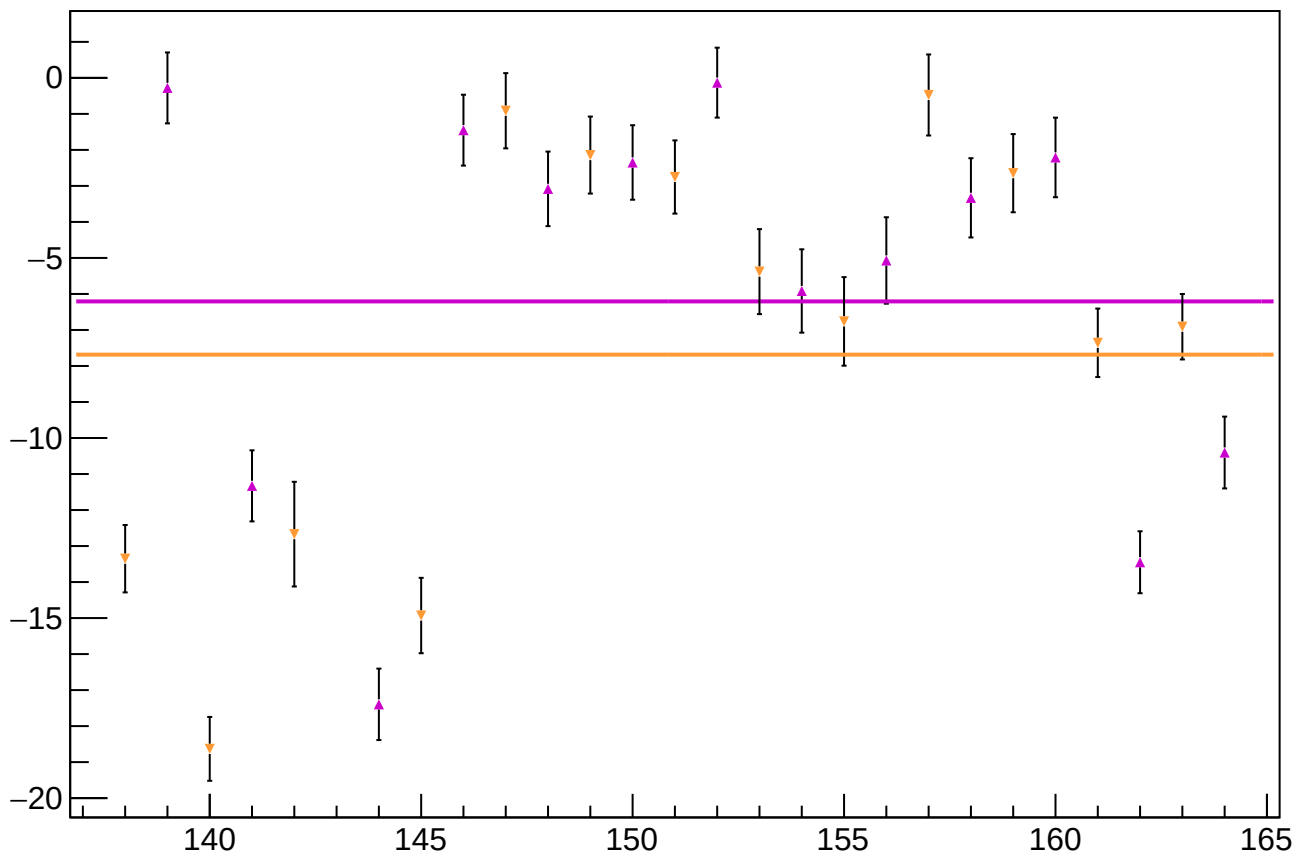
Left In:  $-41.170 \pm 0.018$   $\chi^2/\text{NDF}: 92511.4/12$

+ sign  $-41.191 \pm 0.016$   $\chi^2/\text{NDF}: 138652.3/28$

All:  $-41.243 \pm 0.011$   $\chi^2/\text{NDF}: 293017.4/59$

- sign  $-41.294 \pm 0.015$   $\chi^2/\text{NDF}: 154343.4/30$

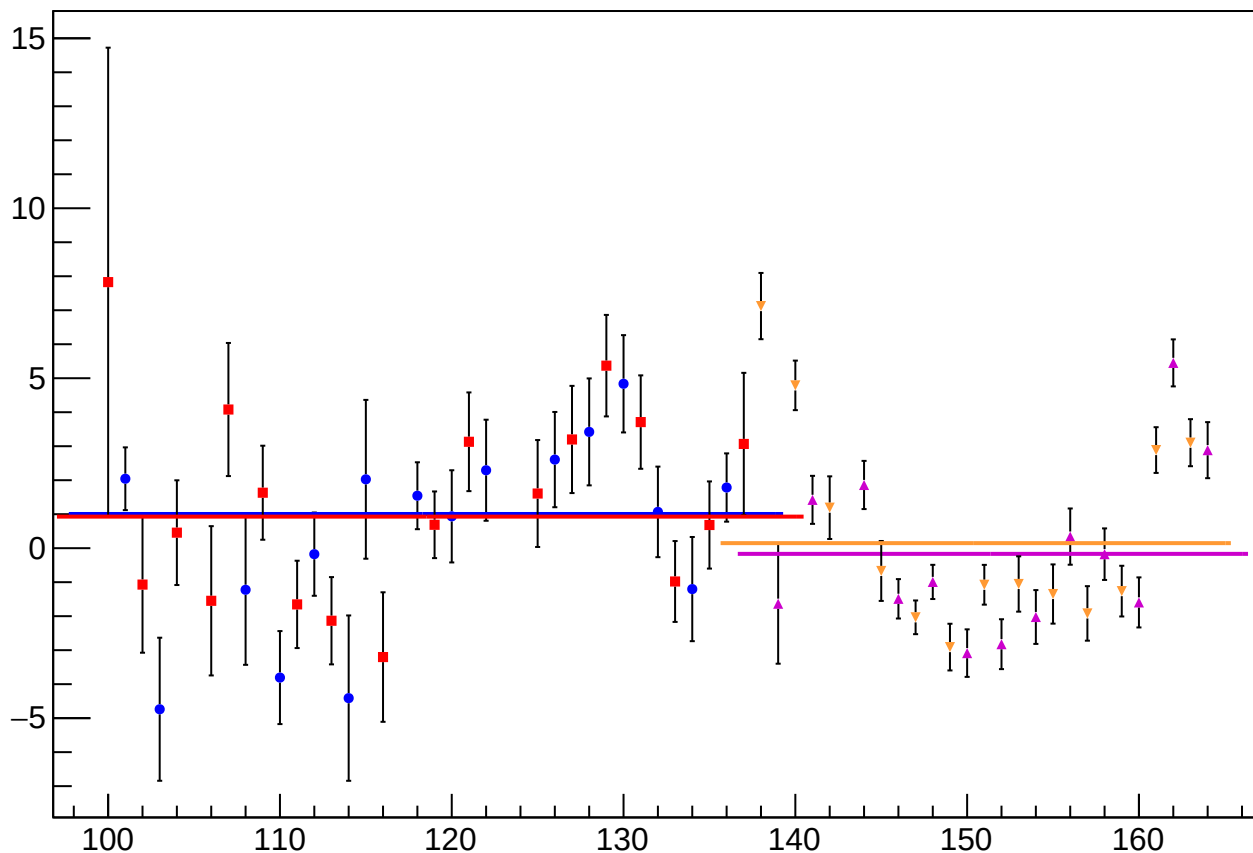
# reg\_asym\_us\_dd\_diff\_bpm1X\_slope vs Slug



Right In:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out:  $-7.685 \pm 0.290$   $\chi^2/\text{NDF}$ : 409.1/12  
 Right Out:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0  
 Left In:  $-6.207 \pm 0.283$   $\chi^2/\text{NDF}$ : 385.5/12

+ sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0  
 All:  $-6.928 \pm 0.203$   $\chi^2/\text{NDF}$ : 807.8/25  
 - sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_us\_dd\_diff\_bpm4aY\_slope vs Slug



Right In: 1.006 $\pm$ 0.342  $\chi^2$ /NDF: 42.7/15

Left Out: 0.149 $\pm$ 0.200  $\chi^2$ /NDF:187.7/12

Right Out: 0.929 $\pm$ 0.353  $\chi^2$ /NDF: 41.9/17

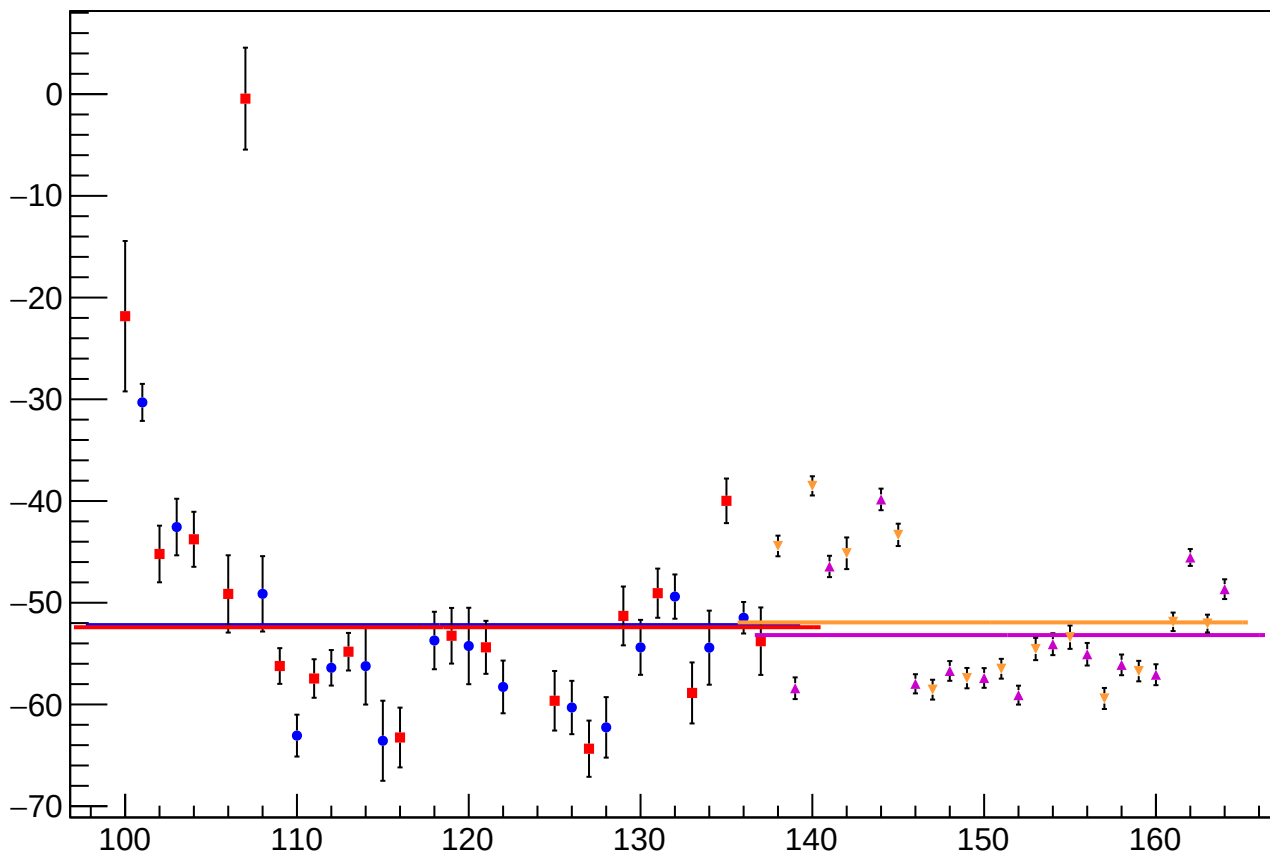
Left In: -0.167 $\pm$ 0.199  $\chi^2$ /NDF:141.7/12

+ sign 0.368 $\pm$ 0.173  $\chi^2$ /NDF: 235.1/28

All: 0.232 $\pm$ 0.122  $\chi^2$ /NDF: 427.2/59

- sign 0.096 $\pm$ 0.173  $\chi^2$ /NDF: 190.9/30

# reg\_asym\_us\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-52.200 \pm 0.615$   $\chi^2/\text{NDF}$ : 230.6/15

Left Out:  $-51.935 \pm 0.283$   $\chi^2/\text{NDF}$ : 517.1/12

Right Out:  $-52.407 \pm 0.616$   $\chi^2/\text{NDF}$ : 233.9/17

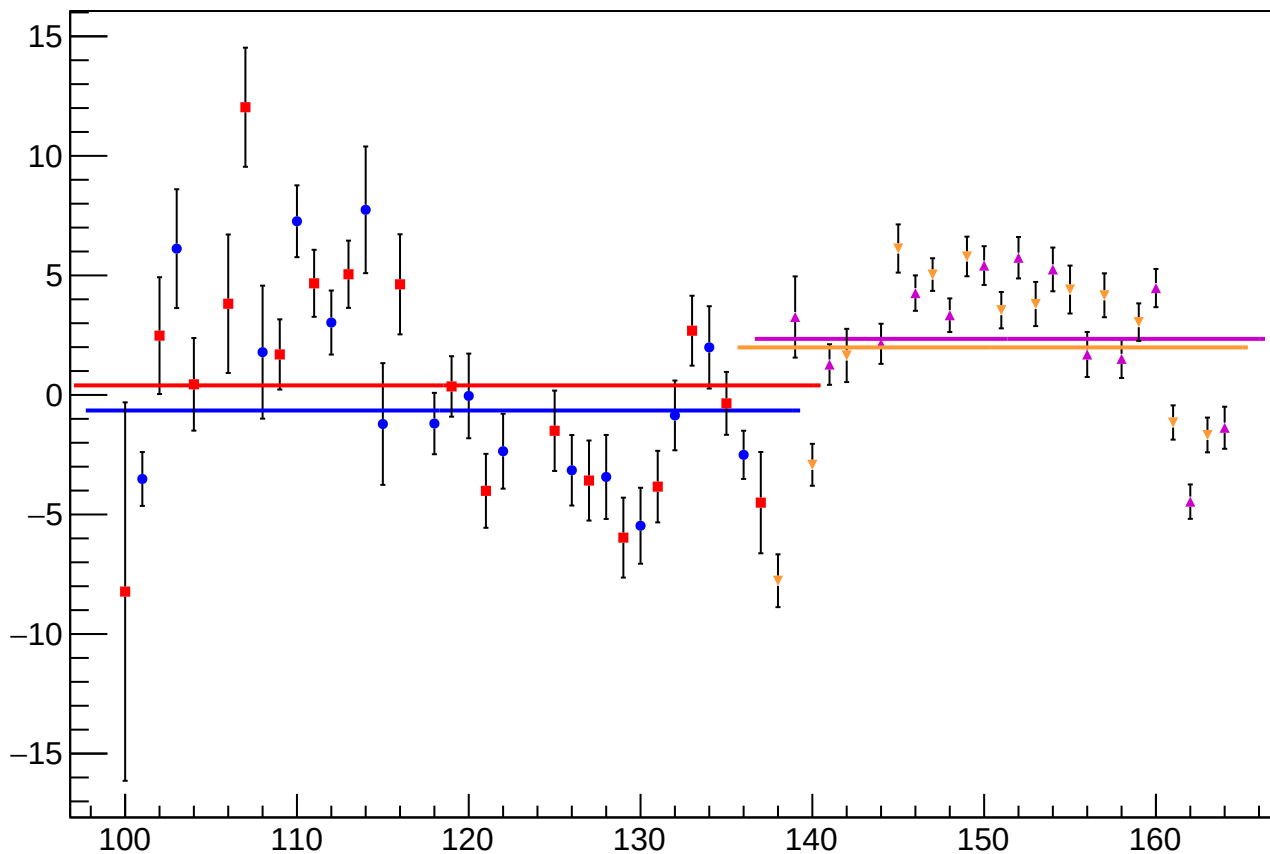
Left In:  $-53.180 \pm 0.275$   $\chi^2/\text{NDF}$ : 454.4/12

+ sign  $-51.981 \pm 0.257$   $\chi^2/\text{NDF}$ : 747.9/28

All:  $-52.529 \pm 0.180$   $\chi^2/\text{NDF}$ : 1446.4/59

- sign  $-53.051 \pm 0.251$   $\chi^2/\text{NDF}$ : 689.6/30

# reg\_asym\_us\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-0.651 \pm 0.387$   $\chi^2/\text{NDF}$ : 81.9/15

Left Out:  $1.988 \pm 0.235$   $\chi^2/\text{NDF}$ : 233.2/12

Right Out:  $0.400 \pm 0.399$   $\chi^2/\text{NDF}$ : 95.9/17

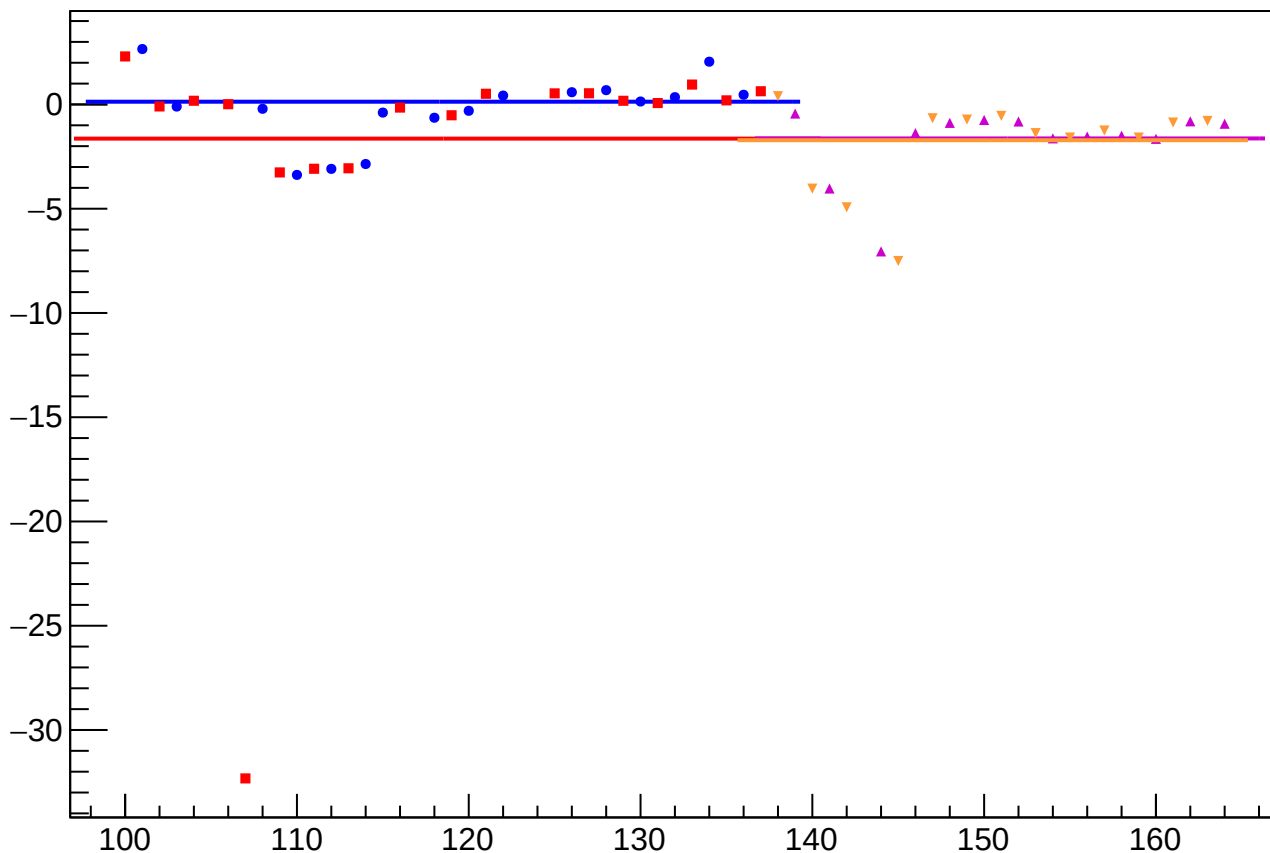
Left In:  $2.345 \pm 0.232$   $\chi^2/\text{NDF}$ : 166.5/12

+ sign  $1.275 \pm 0.201$   $\chi^2/\text{NDF}$ : 349.0/28

All:  $1.565 \pm 0.142$   $\chi^2/\text{NDF}$ : 633.3/59

- sign  $1.854 \pm 0.201$   $\chi^2/\text{NDF}$ : 280.1/30

# reg\_asym\_us\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $0.132 \pm 0.022$   $\chi^2/\text{NDF}: 5247.5/15$

Left Out:  $-1.715 \pm 0.011$   $\chi^2/\text{NDF}: 30098.3/12$

Right Out:  $-1.638 \pm 0.022$   $\chi^2/\text{NDF}: 77848.3/17$

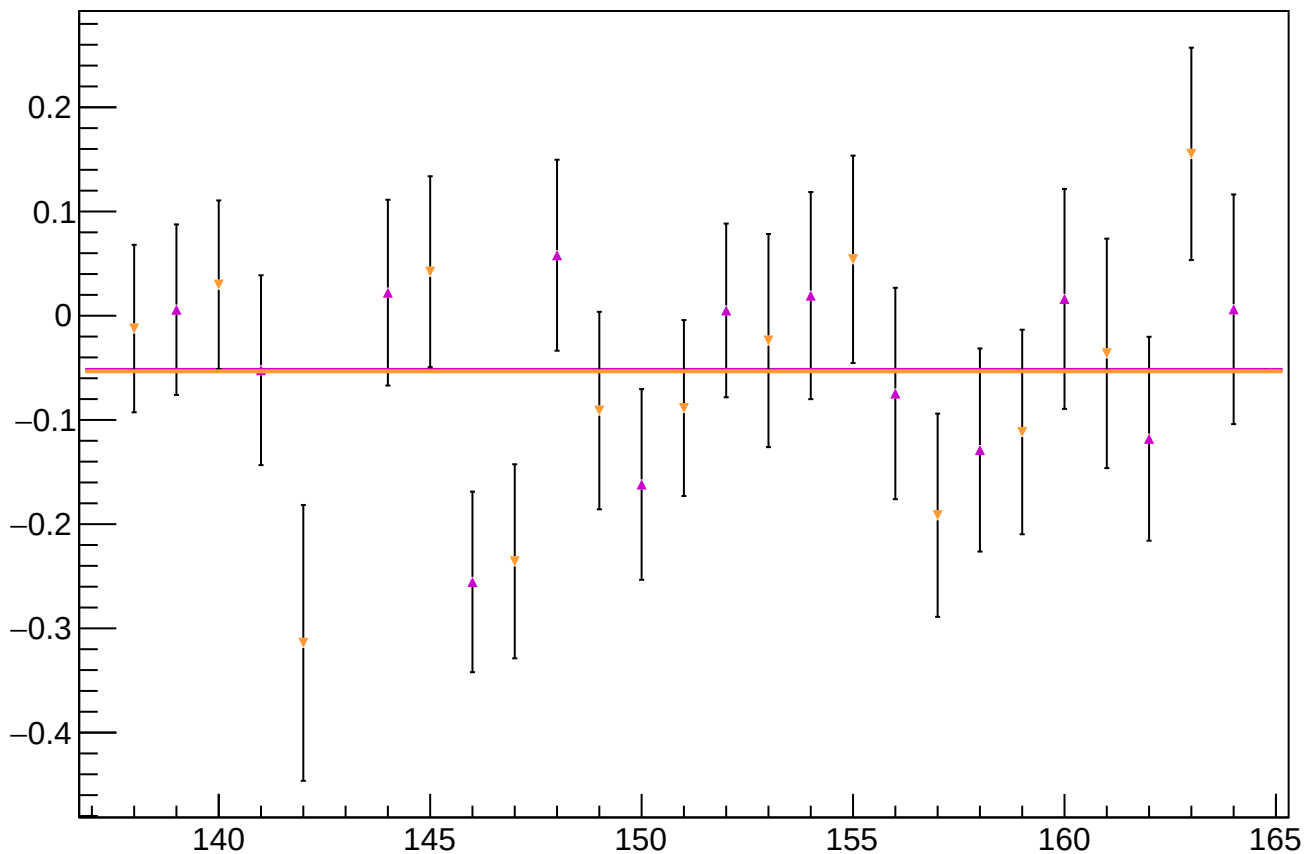
Left In:  $-1.630 \pm 0.011$   $\chi^2/\text{NDF}: 20135.5/12$

+ sign  $-1.330 \pm 0.010$   $\chi^2/\text{NDF}: 41152.6/28$

All:  $-1.483 \pm 0.007$   $\chi^2/\text{NDF}: 139613.9/59$

- sign  $-1.631 \pm 0.010$   $\chi^2/\text{NDF}: 97983.9/30$

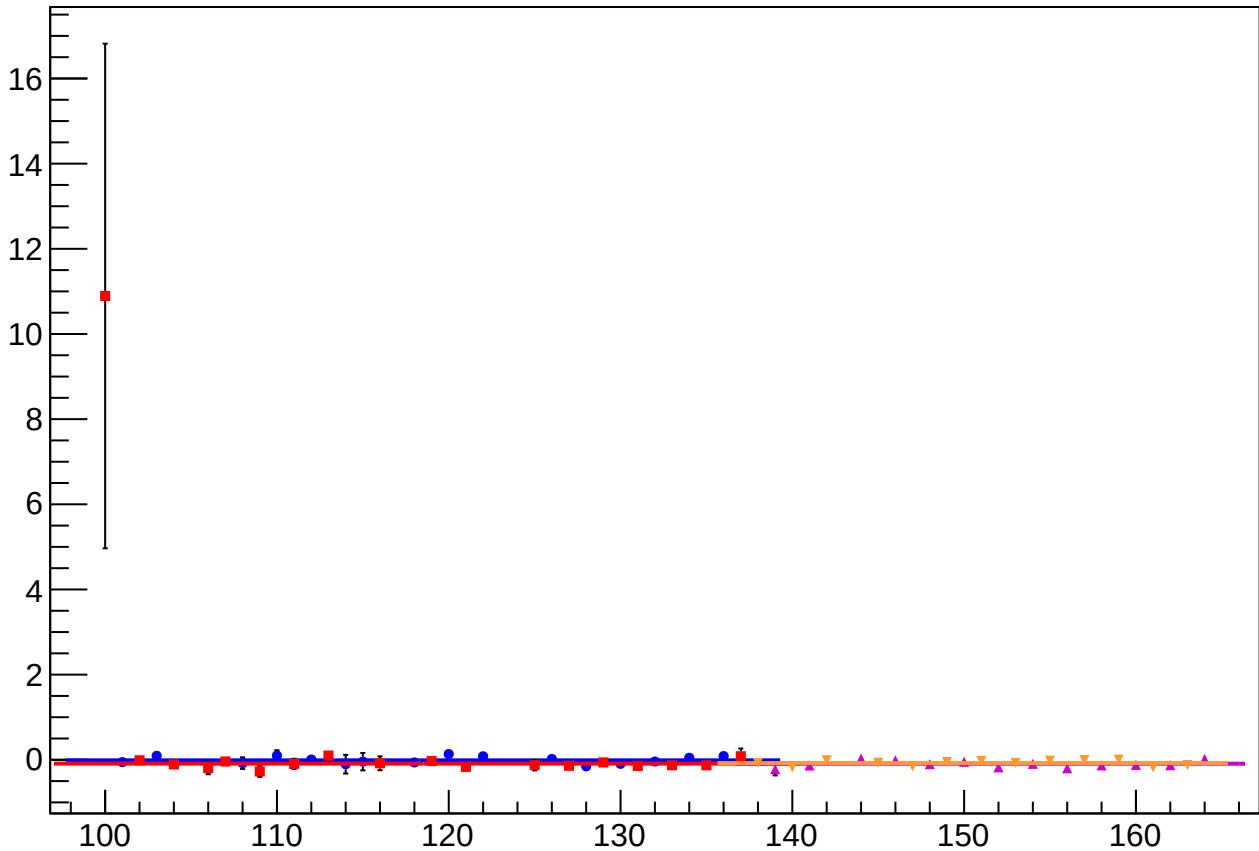
# reg\_asym\_ds\_avg\_diff\_bpm1X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -0.053 $\pm$ 0.026  $\chi^2$ /NDF: 18.3/12  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -0.052 $\pm$ 0.026  $\chi^2$ /NDF: 12.4/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: -0.053 $\pm$ 0.018  $\chi^2$ /NDF: 30.7/25  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_ds\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-0.013 \pm 0.023$   $\chi^2/\text{NDF}$ : 11.7/15

Left Out:  $-0.078 \pm 0.018$   $\chi^2/\text{NDF}$ : 12.4/12

Right Out:  $-0.089 \pm 0.025$   $\chi^2/\text{NDF}$ : 13.0/17

Left In:  $-0.091 \pm 0.018$   $\chi^2/\text{NDF}$ : 14.1/12

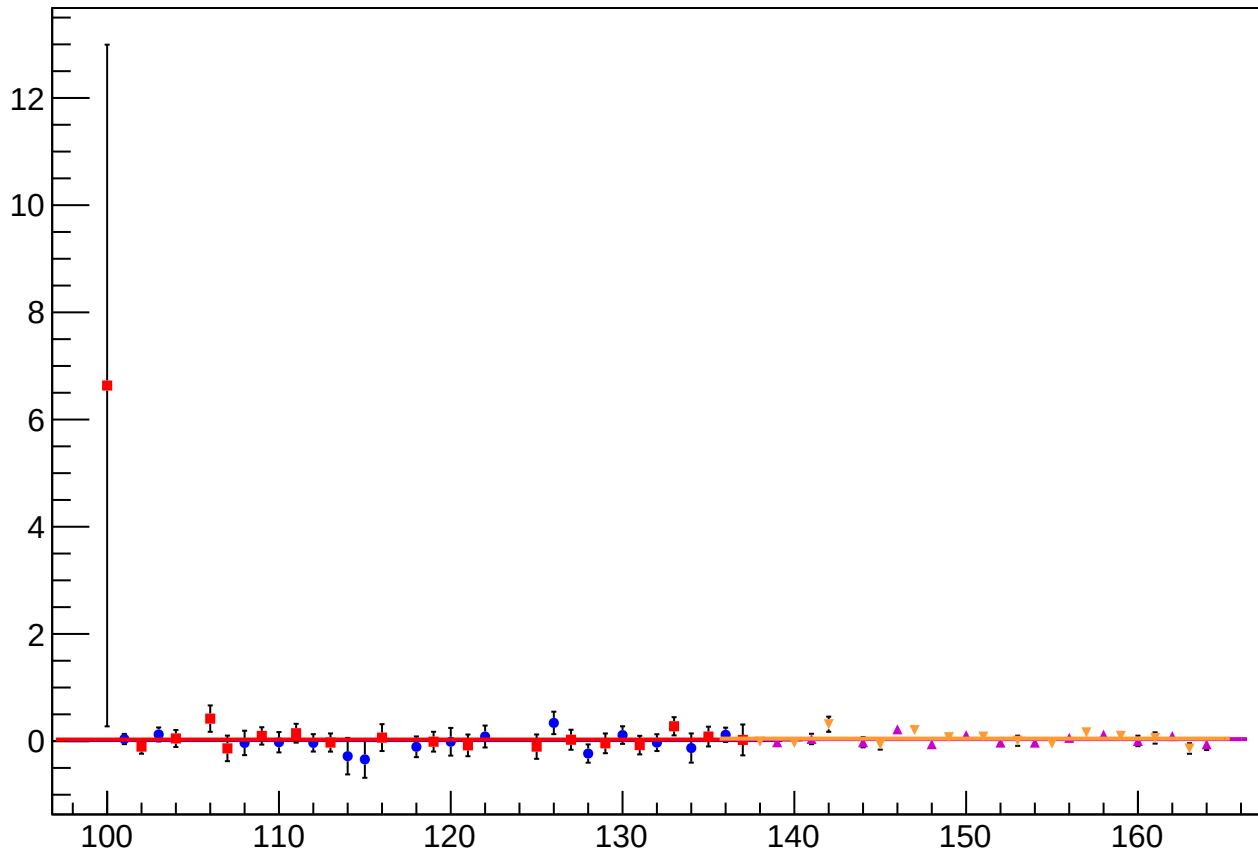
+ sign  $-0.054 \pm 0.014$   $\chi^2/\text{NDF}$ : 28.9/28

All:  $-0.072 \pm 0.010$   $\chi^2/\text{NDF}$ : 59.2/59

- sign  $-0.091 \pm 0.015$   $\chi^2/\text{NDF}$ : 27.1/30



# reg\_asym\_ds\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $0.020 \pm 0.043$   $\chi^2/\text{NDF}$ : 9.1/15

Left Out:  $0.047 \pm 0.026$   $\chi^2/\text{NDF}$ : 16.5/12

Right Out:  $0.030 \pm 0.045$   $\chi^2/\text{NDF}$ : 9.2/17

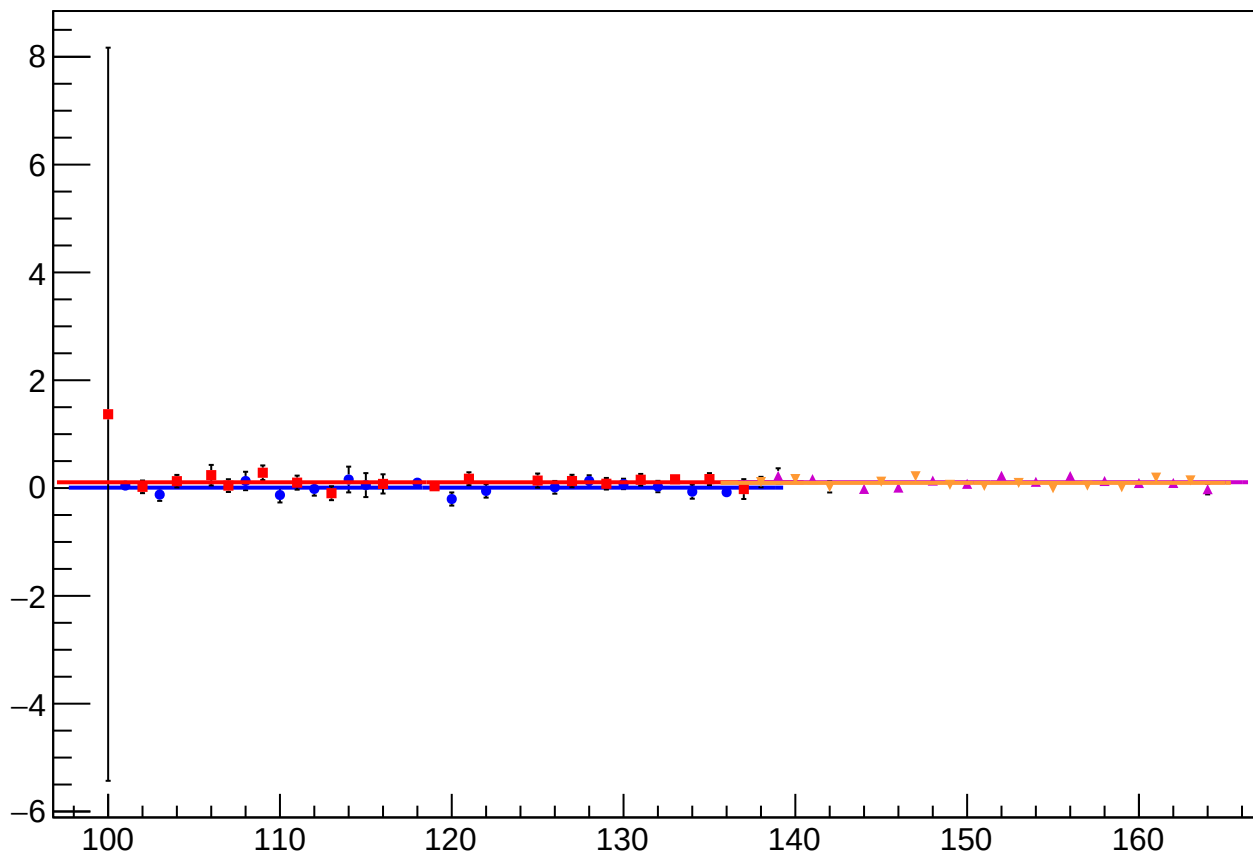
Left In:  $0.038 \pm 0.025$   $\chi^2/\text{NDF}$ : 10.9/12

+ sign  $0.040 \pm 0.022$   $\chi^2/\text{NDF}$ : 25.9/28

All:  $0.038 \pm 0.016$   $\chi^2/\text{NDF}$ : 46.1/59

- sign  $0.036 \pm 0.022$   $\chi^2/\text{NDF}$ : 20.2/30

# reg\_asym\_ds\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 0.007 +/- 0.027  $\chi^2/\text{NDF}$ : 11.3/15

Left Out: 0.096 +/- 0.022  $\chi^2/\text{NDF}$ : 11.5/12

Right Out: 0.107 +/- 0.029  $\chi^2/\text{NDF}$ : 8.2/17

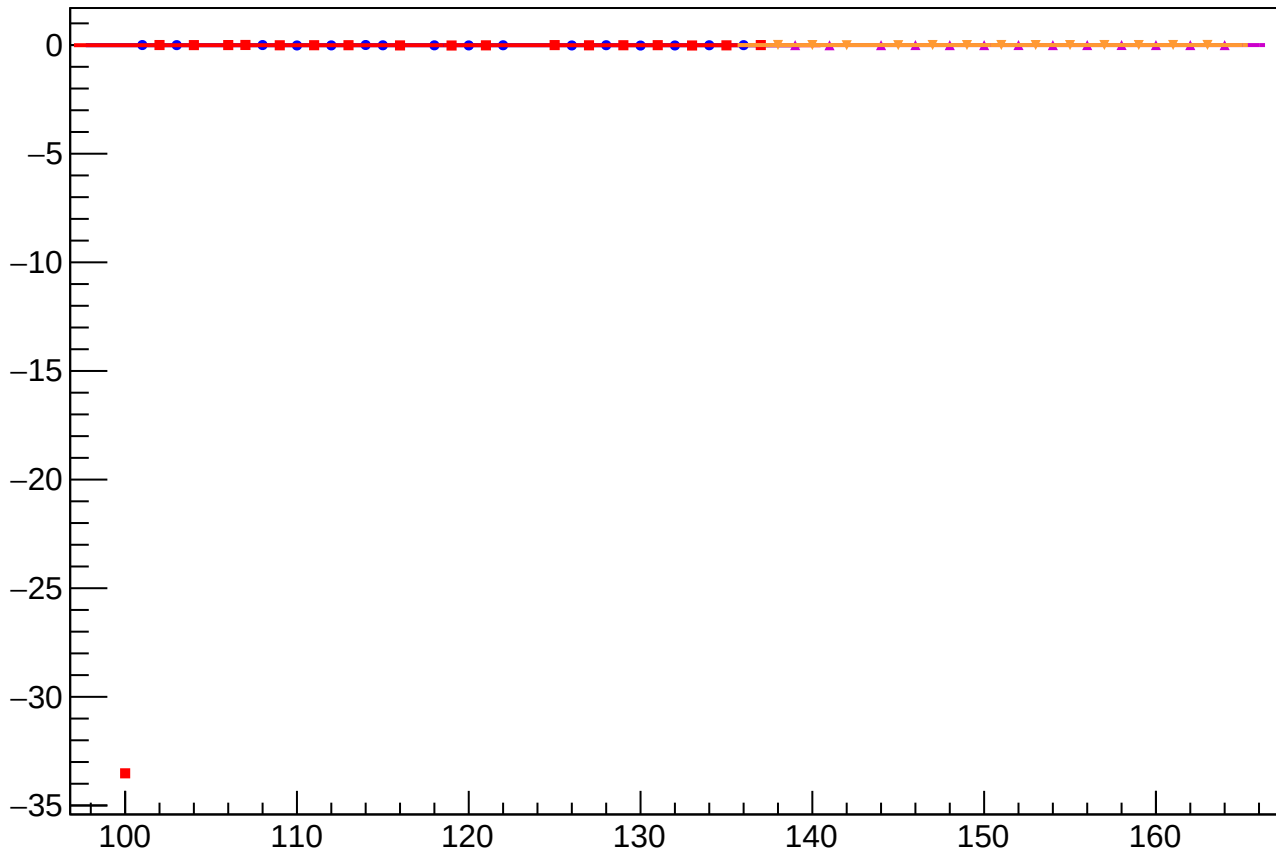
Left In: 0.108 +/- 0.021  $\chi^2/\text{NDF}$ : 13.2/12

+ sign 0.062 +/- 0.017  $\chi^2/\text{NDF}$ : 29.3/28

All: 0.084 +/- 0.012  $\chi^2/\text{NDF}$ : 54.4/59

- sign 0.108 +/- 0.017  $\chi^2/\text{NDF}$ : 21.4/30

# reg\_asym\_ds\_avg\_diff\_bpm12X\_slope vs Slug



Right In: -0.005+/-0.001  $\chi^2$ /NDF: 21.8/15

Left Out: 0.001+/-0.001  $\chi^2$ /NDF: 8.4/12

Right Out: -0.006+/-0.001  $\chi^2$ /NDF: 26508.7/17

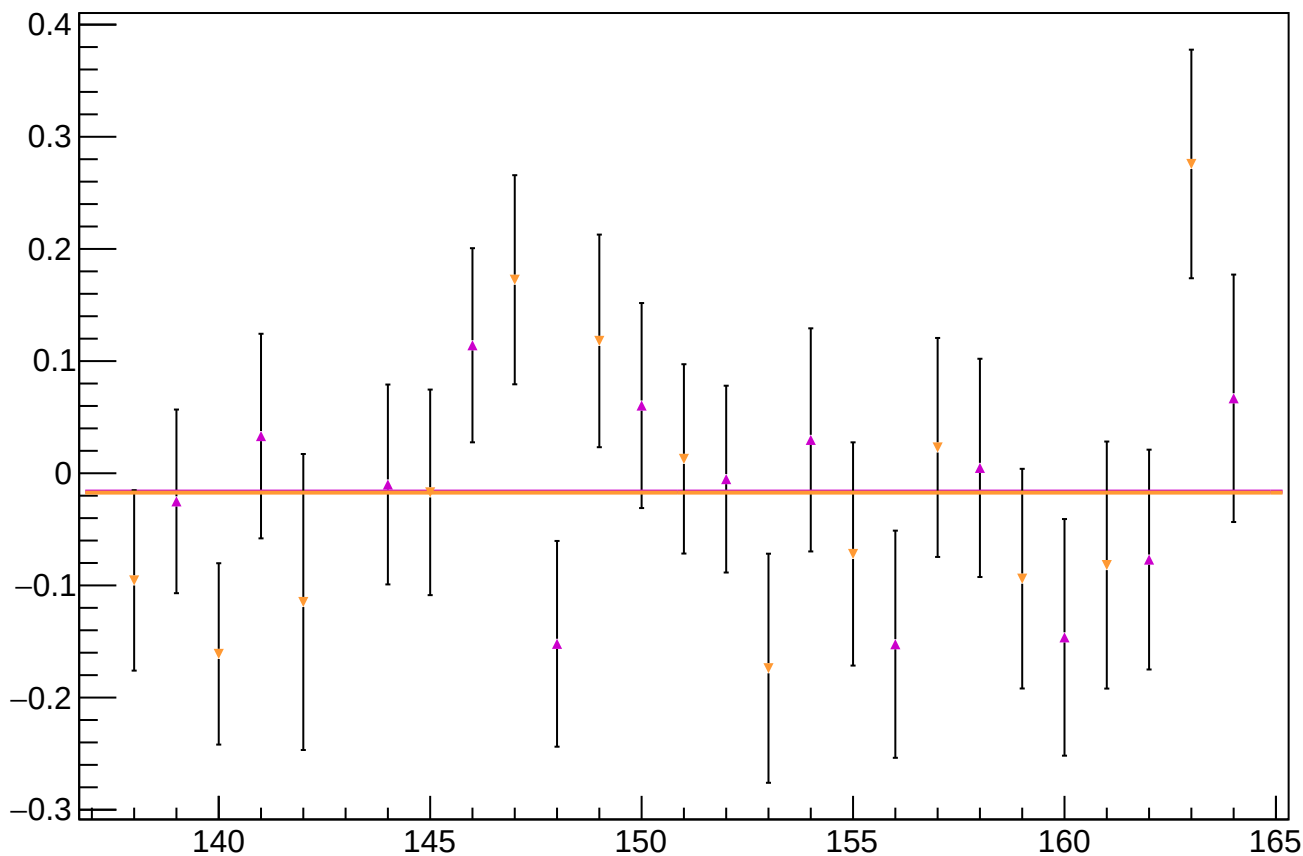
Left In: 0.000+/-0.001  $\chi^2$ /NDF: 7.5/12

+ sign -0.001+/-0.001  $\chi^2$ /NDF: 45.1/28

All: -0.001+/-0.001  $\chi^2$ /NDF: 26573.8/59

- sign -0.002+/-0.001  $\chi^2$ /NDF: 26528.0/30

# reg\_asym\_ds\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: -0.017 $\pm$ 0.026  $\chi^2$ /NDF:23.0/12

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

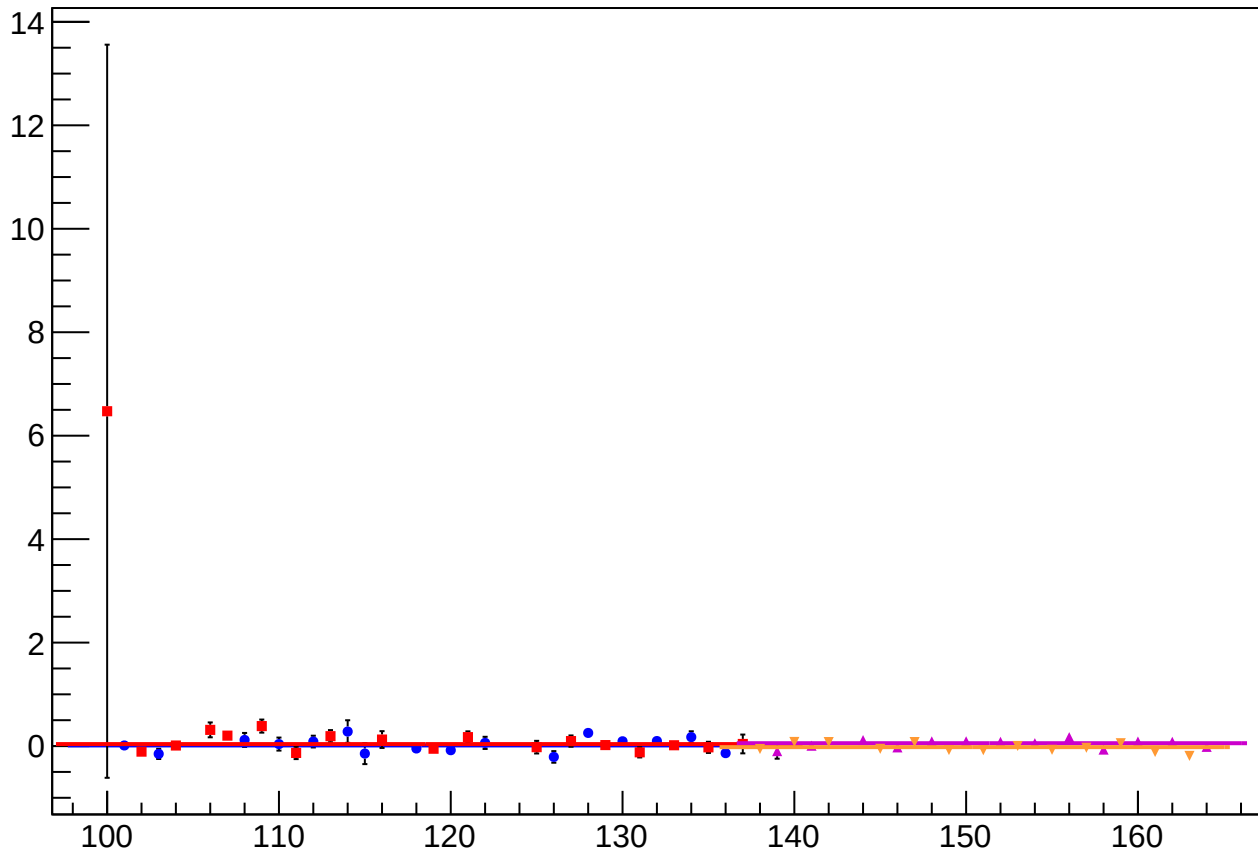
Left In: -0.016 $\pm$ 0.026  $\chi^2$ /NDF:10.0/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -0.017 $\pm$ 0.018  $\chi^2$ /NDF: 33.0/25

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_ds\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $0.012 \pm 0.023$   $\chi^2/\text{NDF}$ : 25.0/15

Left Out:  $-0.021 \pm 0.018$   $\chi^2/\text{NDF}$ : 19.4/12

Right Out:  $0.038 \pm 0.025$   $\chi^2/\text{NDF}$ : 28.4/17

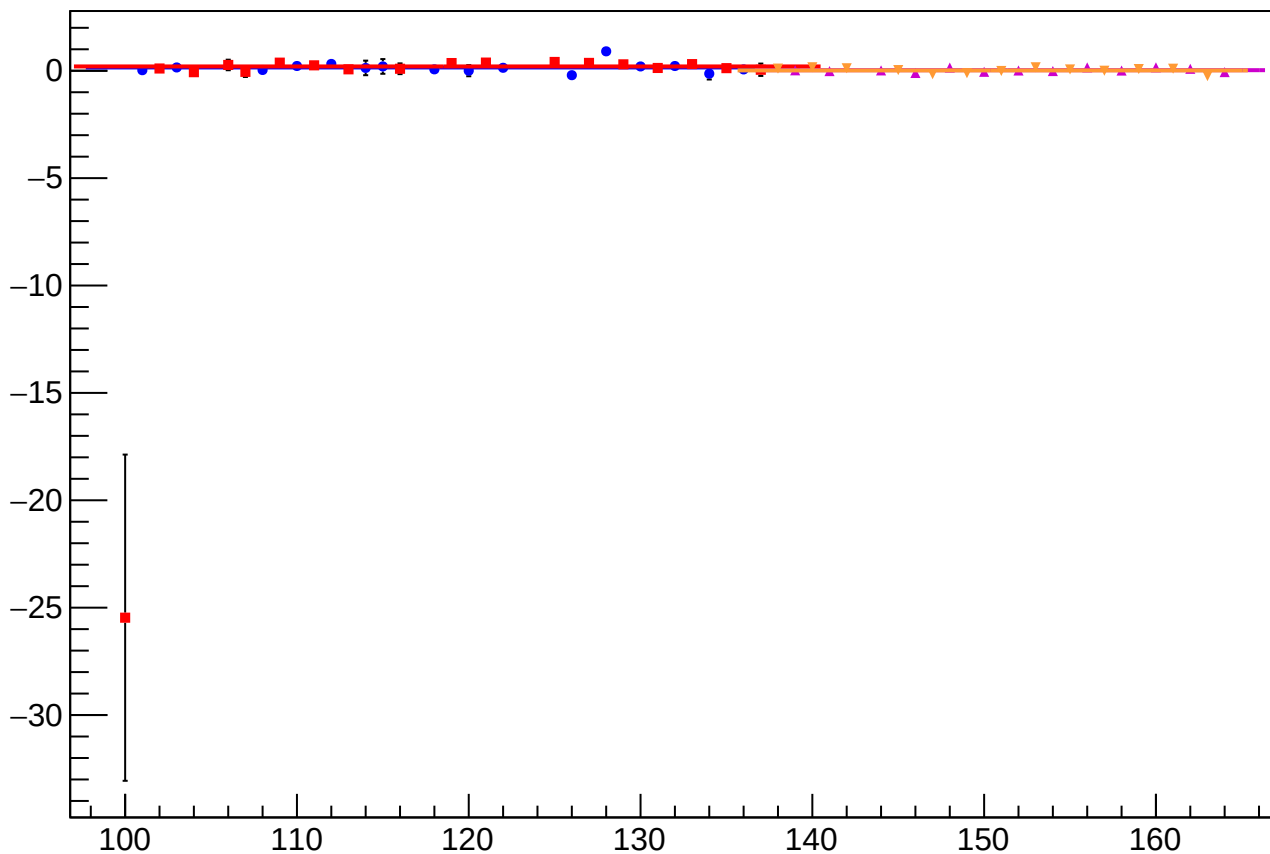
Left In:  $0.055 \pm 0.018$   $\chi^2/\text{NDF}$ : 13.3/12

+ sign  $-0.008 \pm 0.014$   $\chi^2/\text{NDF}$ : 45.6/28

All:  $0.020 \pm 0.010$   $\chi^2/\text{NDF}$ : 95.5/59

- sign  $0.049 \pm 0.015$   $\chi^2/\text{NDF}$ : 42.0/30

# reg\_asym\_ds\_dd\_diff\_bpm4eX\_slope vs Slug



Right In: 0.154 $\pm$ 0.043  $\chi^2$ /NDF: 27.9/15

Left Out: 0.016 $\pm$ 0.026  $\chi^2$ /NDF:21.6/12

Right Out: 0.201 $\pm$ 0.045  $\chi^2$ /NDF: 22.6/17

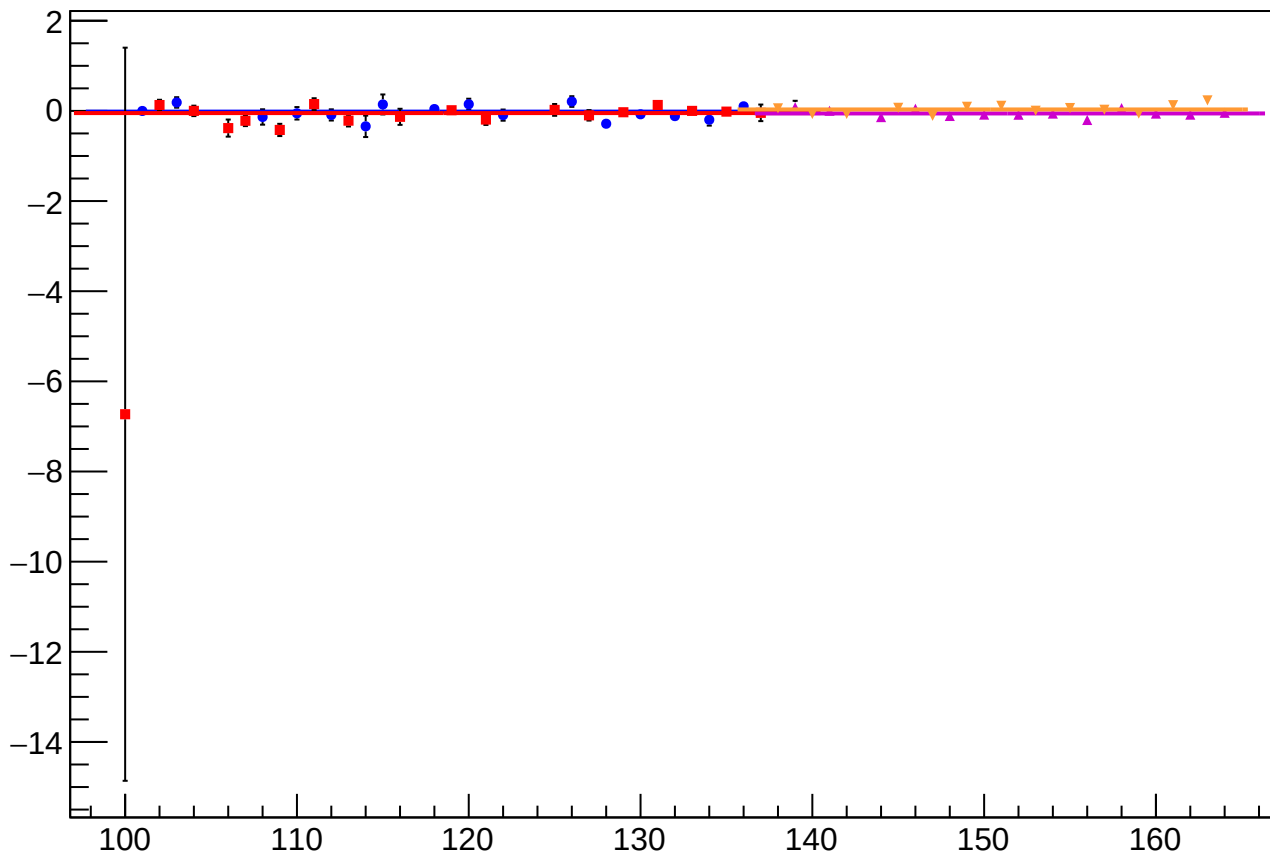
Left In: 0.027 $\pm$ 0.025  $\chi^2$ /NDF:10.5/12

+ sign 0.053 $\pm$ 0.022  $\chi^2$ /NDF: 57.1/28

All: 0.061 $\pm$ 0.016  $\chi^2$ /NDF: 101.9/59

- sign 0.069 $\pm$ 0.022  $\chi^2$ /NDF: 44.5/30

# reg\_asym\_ds\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-0.016 \pm 0.027$   $\chi^2/\text{NDF}$ : 24.3/15

Left Out:  $0.032 \pm 0.022$   $\chi^2/\text{NDF}$ : 20.0/12

Right Out:  $-0.048 \pm 0.029$   $\chi^2/\text{NDF}$ : 25.9/17

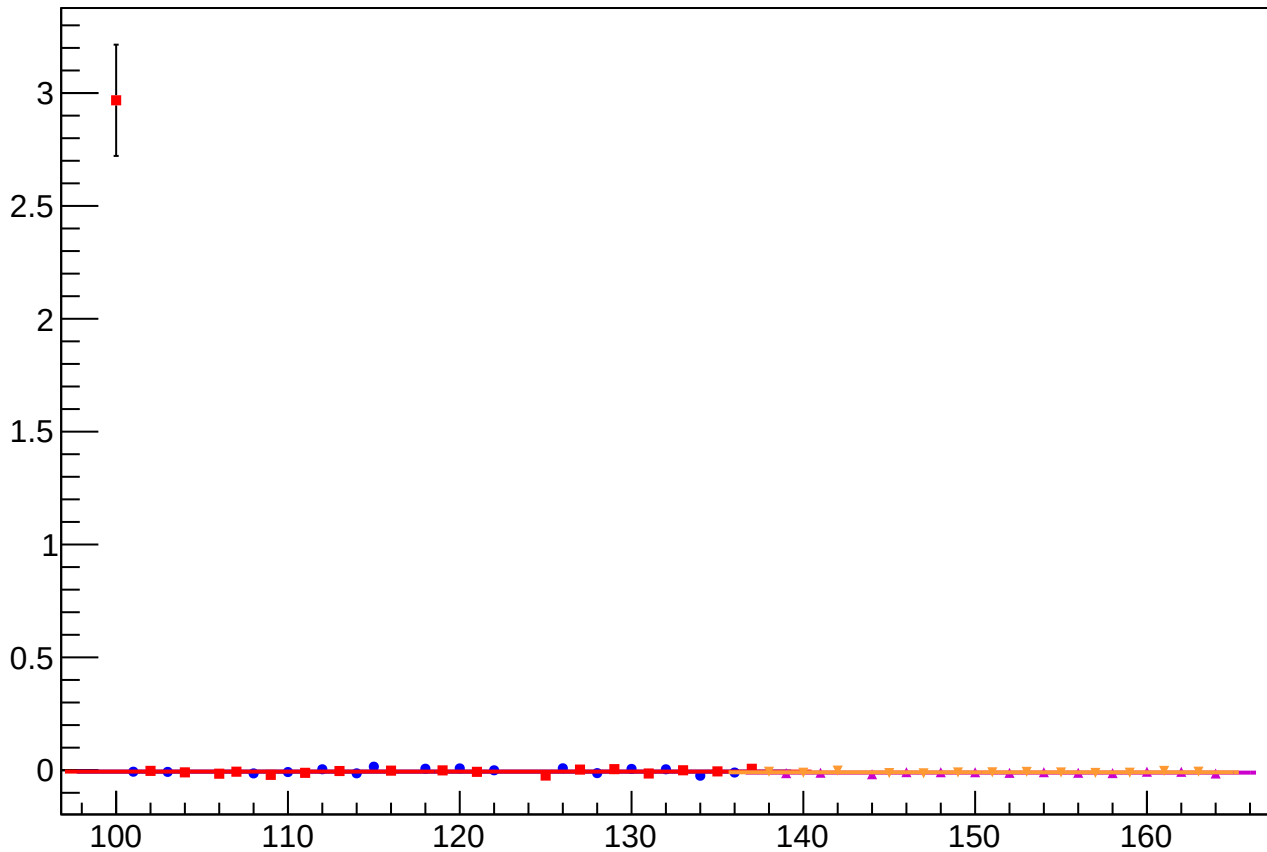
Left In:  $-0.057 \pm 0.021$   $\chi^2/\text{NDF}$ : 12.6/12

+ sign  $0.014 \pm 0.017$   $\chi^2/\text{NDF}$ : 46.2/28

All:  $-0.020 \pm 0.012$   $\chi^2/\text{NDF}$ : 92.7/59

- sign  $-0.054 \pm 0.017$   $\chi^2/\text{NDF}$ : 38.6/30

# reg\_asym\_ds\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.006 \pm 0.001$   $\chi^2/\text{NDF}$ : 27.3/15

Left Out:  $-0.009 \pm 0.001$   $\chi^2/\text{NDF}$ : 9.1/12

Right Out:  $-0.006 \pm 0.001$   $\chi^2/\text{NDF}$ : 165.9/17

Left In:  $-0.011 \pm 0.001$   $\chi^2/\text{NDF}$ : 8.1/12

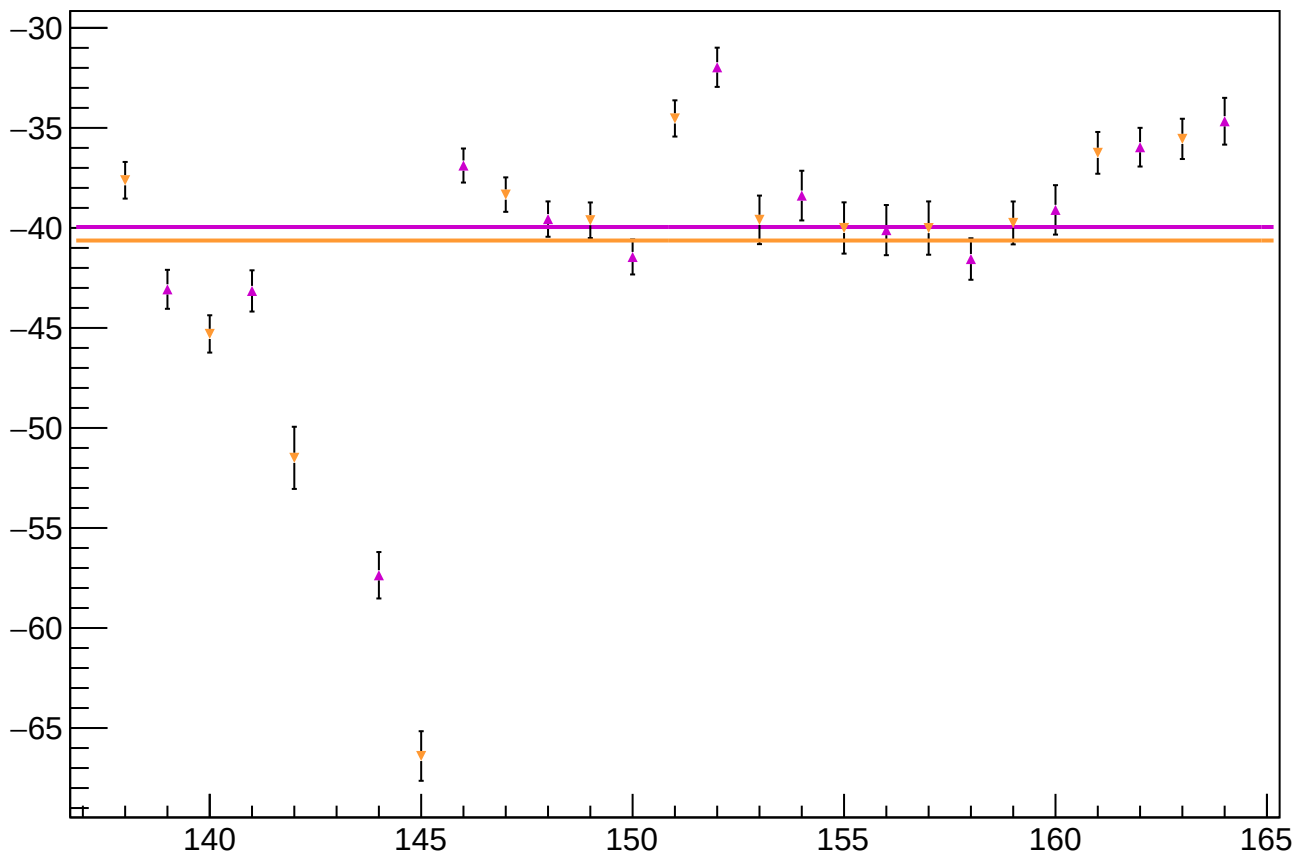
+ sign  $-0.008 \pm 0.001$   $\chi^2/\text{NDF}$ : 39.4/28

All:  $-0.009 \pm 0.001$   $\chi^2/\text{NDF}$ : 220.9/59

- sign  $-0.009 \pm 0.001$   $\chi^2/\text{NDF}$ : 180.9/30



# reg\_asym\_left\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -40.630+/-0.290  $\chi^2/\text{NDF}$ : 615.7/12

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

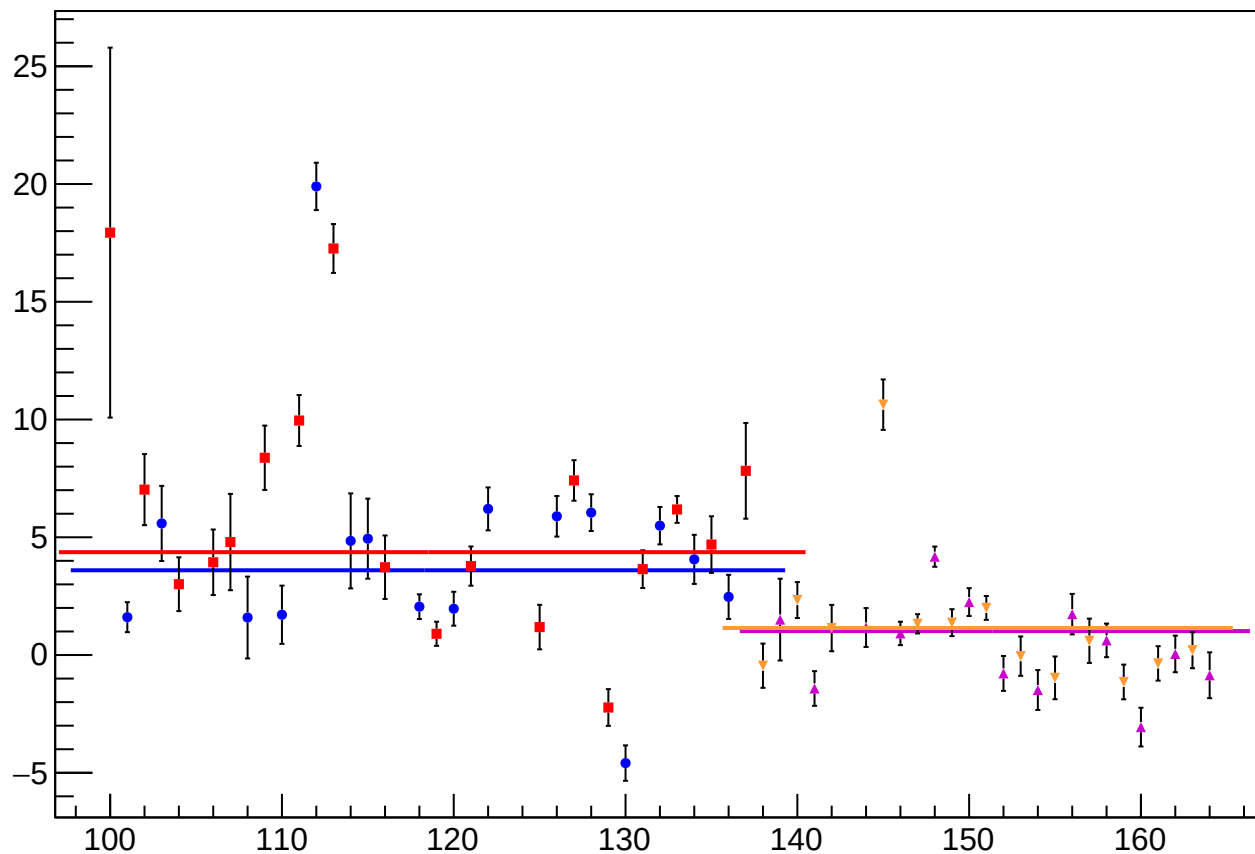
Left In: -39.954+/-0.284  $\chi^2/\text{NDF}$ : 369.4/12

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

All: -40.284+/-0.203  $\chi^2/\text{NDF}$ : 987.8/25

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

# reg\_asym\_left\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $3.599 \pm 0.220$   $\chi^2/\text{NDF}$ : 443.4/15

Left Out:  $1.148 \pm 0.193$   $\chi^2/\text{NDF}$ : 110.1/12

Right Out:  $4.367 \pm 0.225$   $\chi^2/\text{NDF}$ : 353.1/17

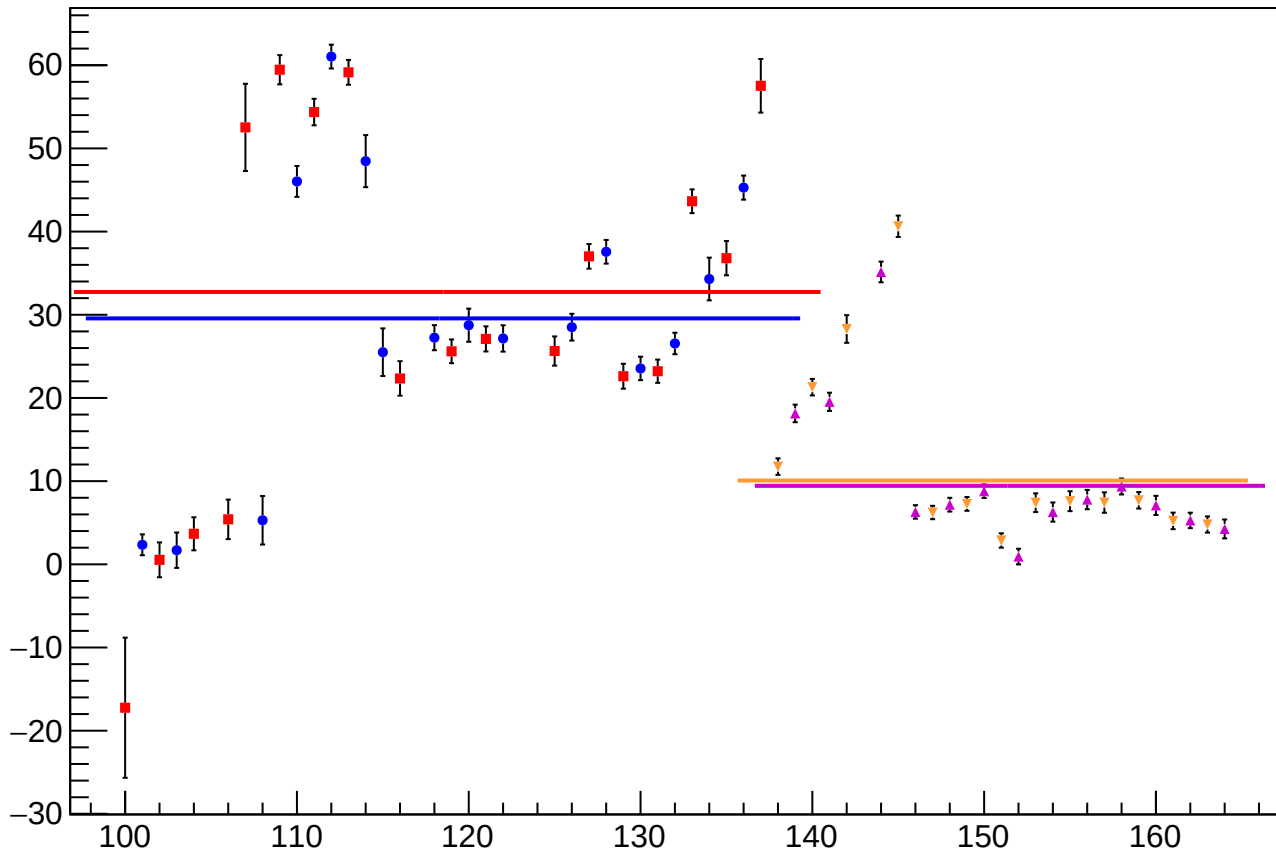
Left In:  $1.016 \pm 0.193$   $\chi^2/\text{NDF}$ : 115.2/12

+ sign  $2.211 \pm 0.145$   $\chi^2/\text{NDF}$ : 623.6/28

All:  $2.325 \pm 0.103$   $\chi^2/\text{NDF}$ : 1220.9/59

- sign  $2.442 \pm 0.147$   $\chi^2/\text{NDF}$ : 596.0/30

# reg\_asym\_left\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: 29.564 $\pm$ 0.420  $\chi^2$ /NDF: 1494.6/15

Left Out: 10.074 $\pm$ 0.282  $\chi^2$ /NDF: 992.4/12

Right Out: 32.741 $\pm$ 0.423  $\chi^2$ /NDF: 1663.3/17

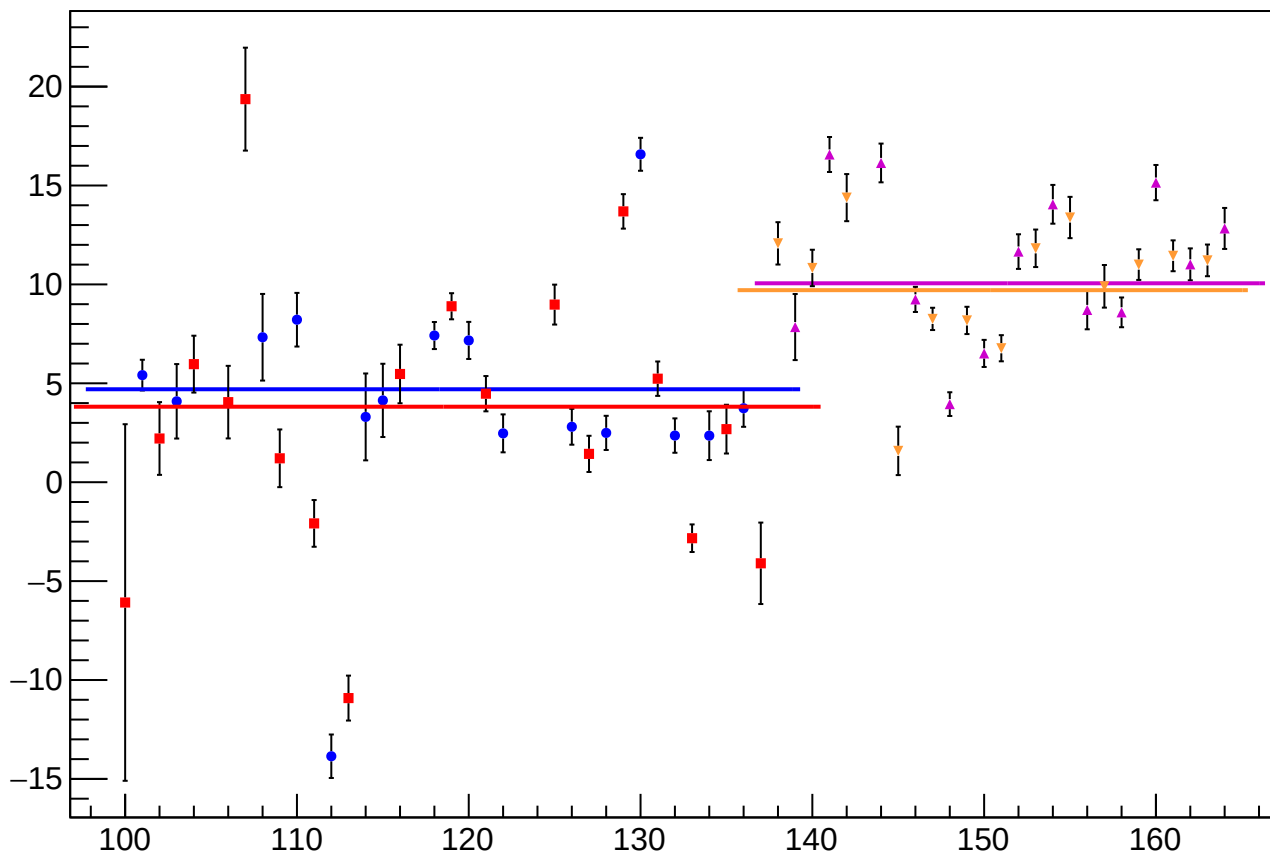
Left In: 9.437 $\pm$ 0.275  $\chi^2$ /NDF: 741.6/12

+ sign 16.147 $\pm$ 0.234  $\chi^2$ /NDF: 3972.6/28

All: 16.256 $\pm$ 0.164  $\chi^2$ /NDF: 8513.8/59

- sign 16.362 $\pm$ 0.230  $\chi^2$ /NDF: 4540.7/30

# reg\_asym\_left\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $4.699 \pm 0.254$   $\chi^2/\text{NDF}$ : 548.9/15

Left Out:  $9.709 \pm 0.231$   $\chi^2/\text{NDF}$ : 125.8/12

Right Out:  $3.817 \pm 0.258$   $\chi^2/\text{NDF}$ : 567.6/17

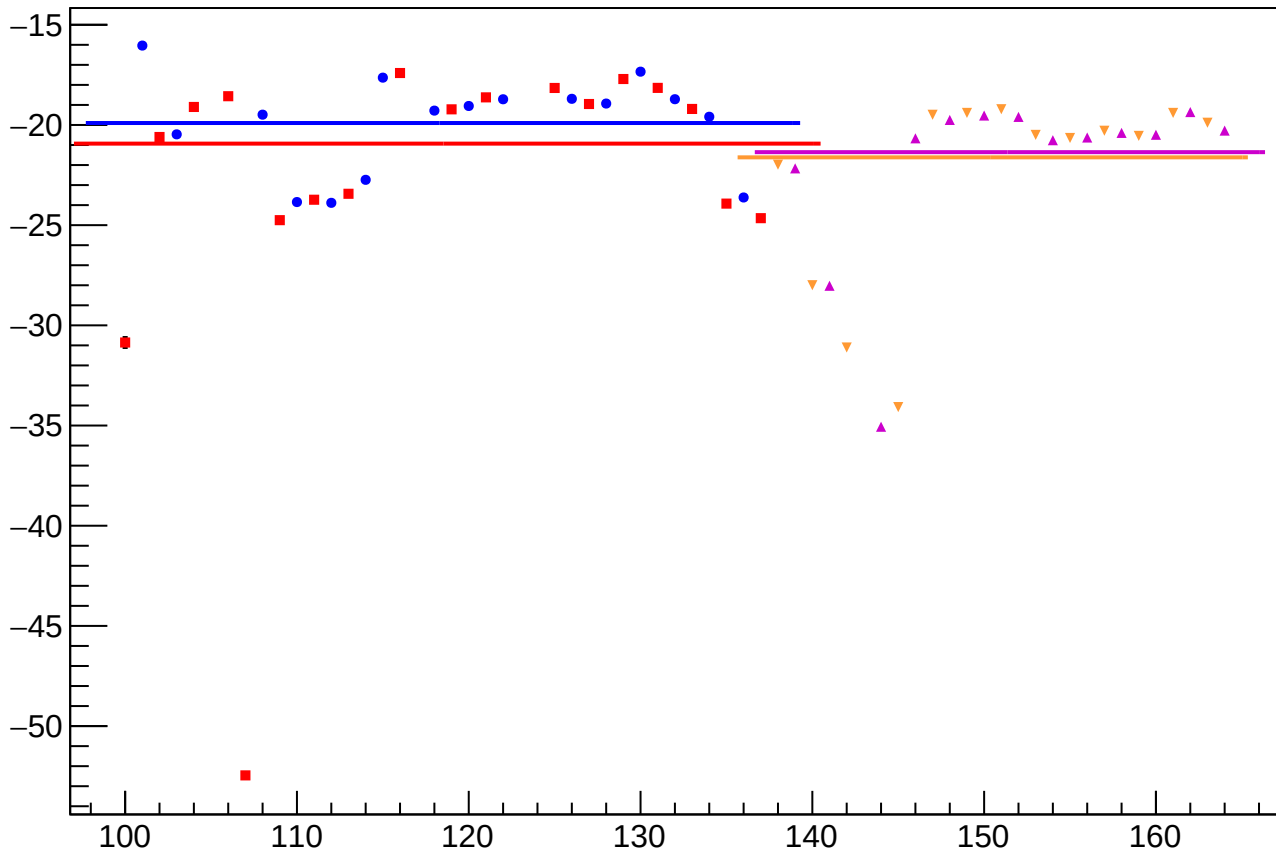
Left In:  $10.057 \pm 0.230$   $\chi^2/\text{NDF}$ : 293.6/12

+ sign  $7.440 \pm 0.171$   $\chi^2/\text{NDF}$ : 887.6/28

All:  $7.372 \pm 0.121$   $\chi^2/\text{NDF}$ : 2074.7/59

- sign  $7.302 \pm 0.172$   $\chi^2/\text{NDF}$ : 1186.7/30

# reg\_asym\_left\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-19.902 \pm 0.016$   $\chi^2/\text{NDF}$ : 26054.0/15

Left Out:  $-21.616 \pm 0.011$   $\chi^2/\text{NDF}$ : 121704.0/12

Right Out:  $-20.931 \pm 0.016$   $\chi^2/\text{NDF}$ : 94008.3/17

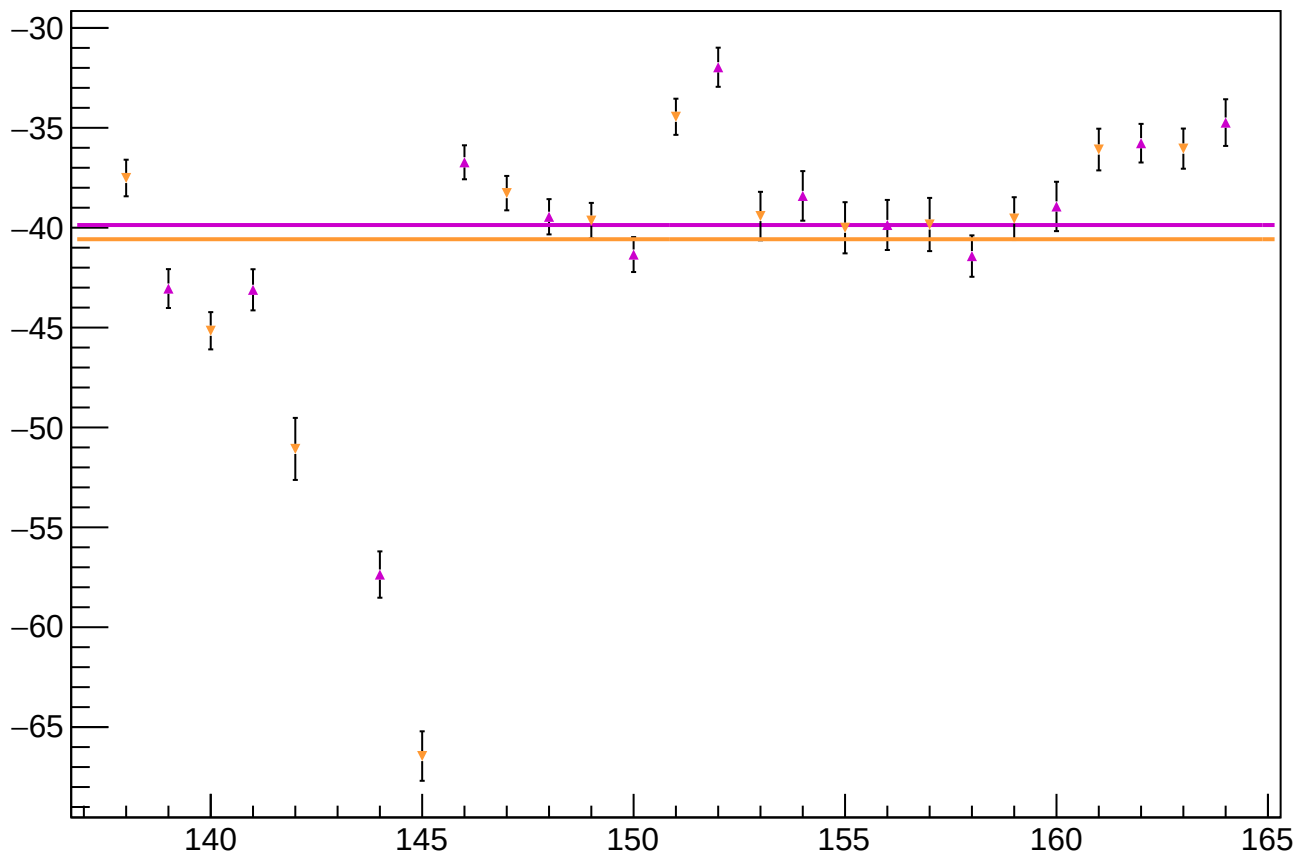
Left In:  $-21.357 \pm 0.011$   $\chi^2/\text{NDF}$ : 99049.5/12

+ sign  $-21.035 \pm 0.009$   $\chi^2/\text{NDF}$ : 155682.6/28

All:  $-21.129 \pm 0.006$   $\chi^2/\text{NDF}$ : 349446.6/59

- sign  $-21.219 \pm 0.009$   $\chi^2/\text{NDF}$ : 193554.8/30

# reg\_asym\_left\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: -40.577+/-0.290  $\chi^2/\text{NDF}$ : 612.6/12

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

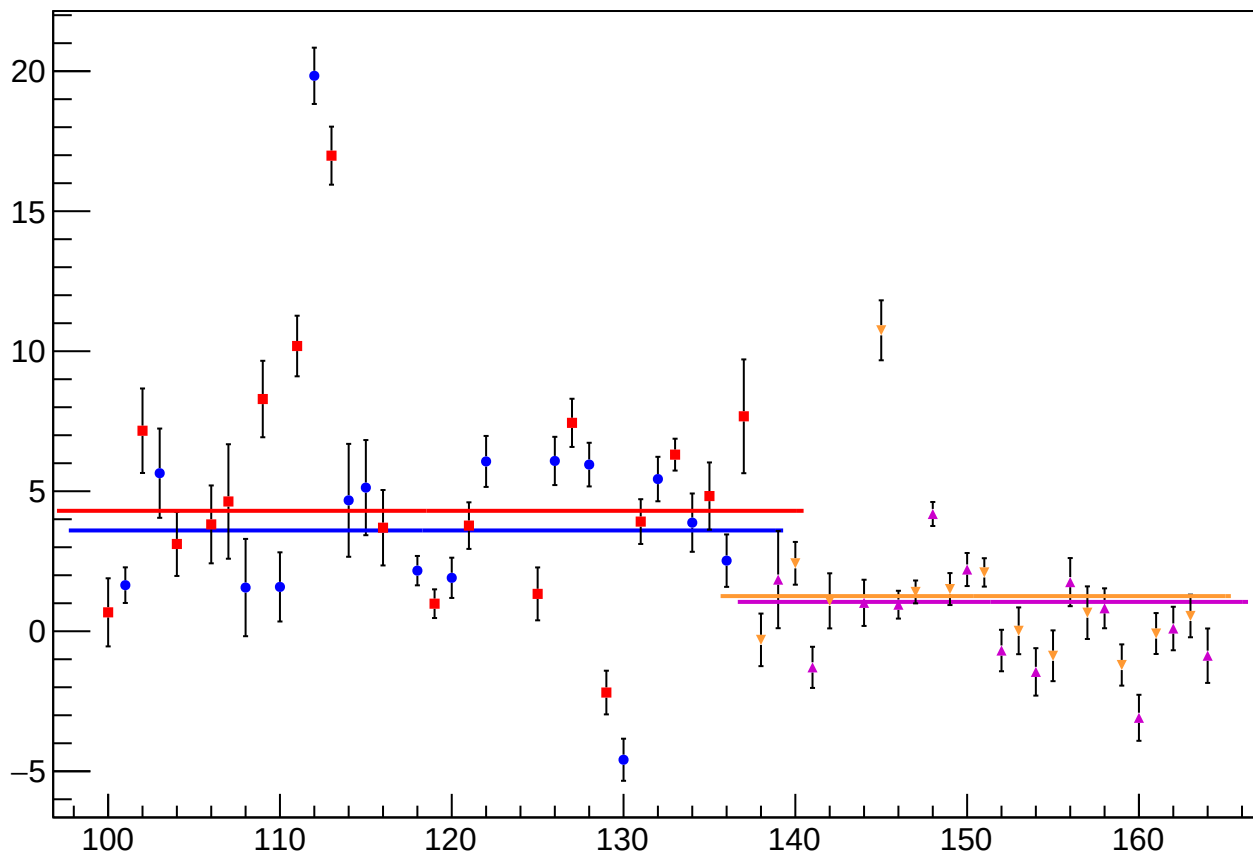
Left In: -39.867+/-0.284  $\chi^2/\text{NDF}$ : 371.3/12

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

All: -40.214+/-0.203  $\chi^2/\text{NDF}$ : 987.0/25

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

# reg\_asym\_left\_dd\_diff\_bpm4aY\_slope vs Slug



Right In: 3.599 $\pm$ 0.220  $\chi^2/\text{NDF}$ : 440.3/15

Left Out: 1.255 $\pm$ 0.193  $\chi^2/\text{NDF}$ :110.4/12

Right Out: 4.301 $\pm$ 0.221  $\chi^2/\text{NDF}$ : 352.1/17

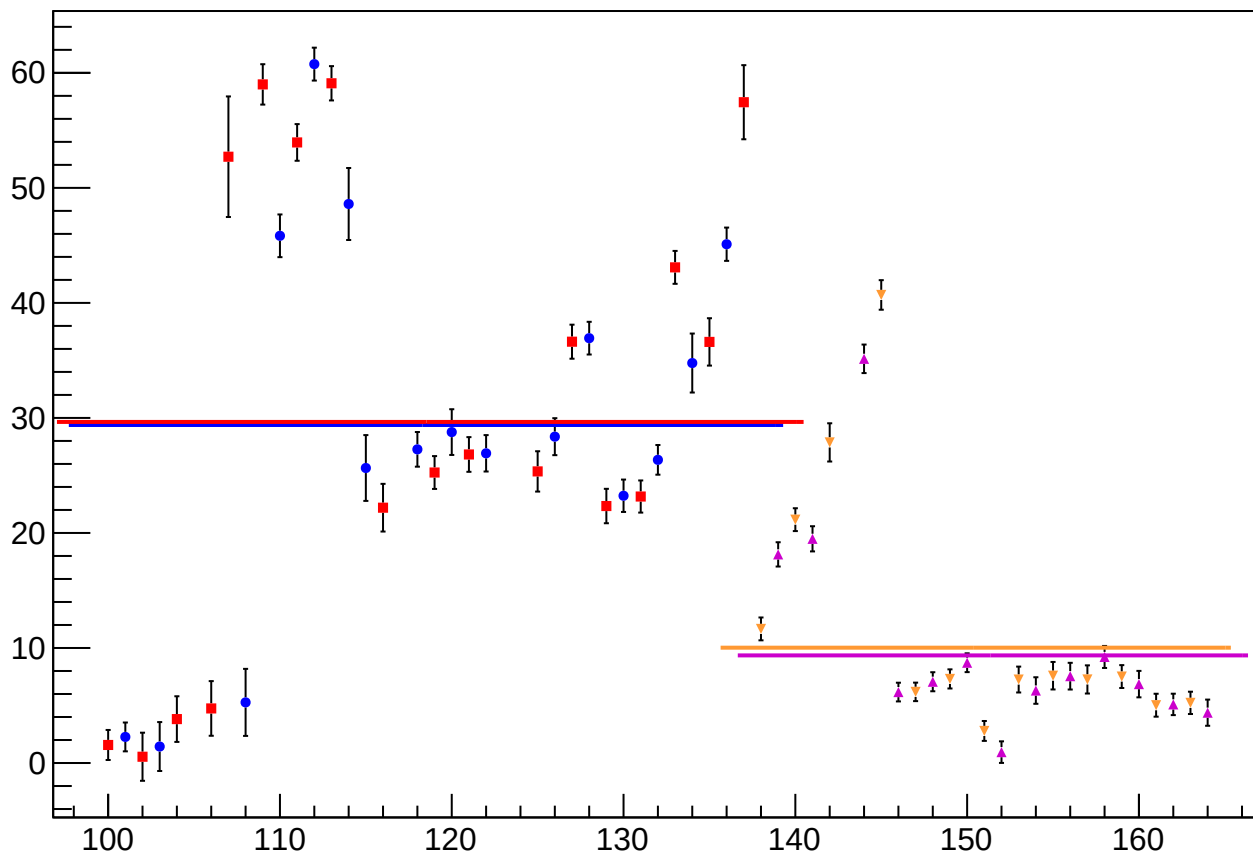
Left In: 1.048 $\pm$ 0.193  $\chi^2/\text{NDF}$ :113.6/12

+ sign 2.272 $\pm$ 0.145  $\chi^2/\text{NDF}$ : 614.8/28

All: 2.365 $\pm$ 0.103  $\chi^2/\text{NDF}$ : 1204.0/59

- sign 2.458 $\pm$ 0.146  $\chi^2/\text{NDF}$ : 588.4/30

# reg\_asym\_left\_dd\_diff\_bpm4eX\_slope vs Slug



Right In: 29.387 $\pm$ 0.419  $\chi^2$ /NDF: 1488.6/15

Left Out: 10.026 $\pm$ 0.282  $\chi^2$ /NDF: 987.7/12

Right Out: 29.652 $\pm$ 0.402  $\chi^2$ /NDF: 2131.0/17

Left In: 9.355 $\pm$ 0.275  $\chi^2$ /NDF: 745.3/12

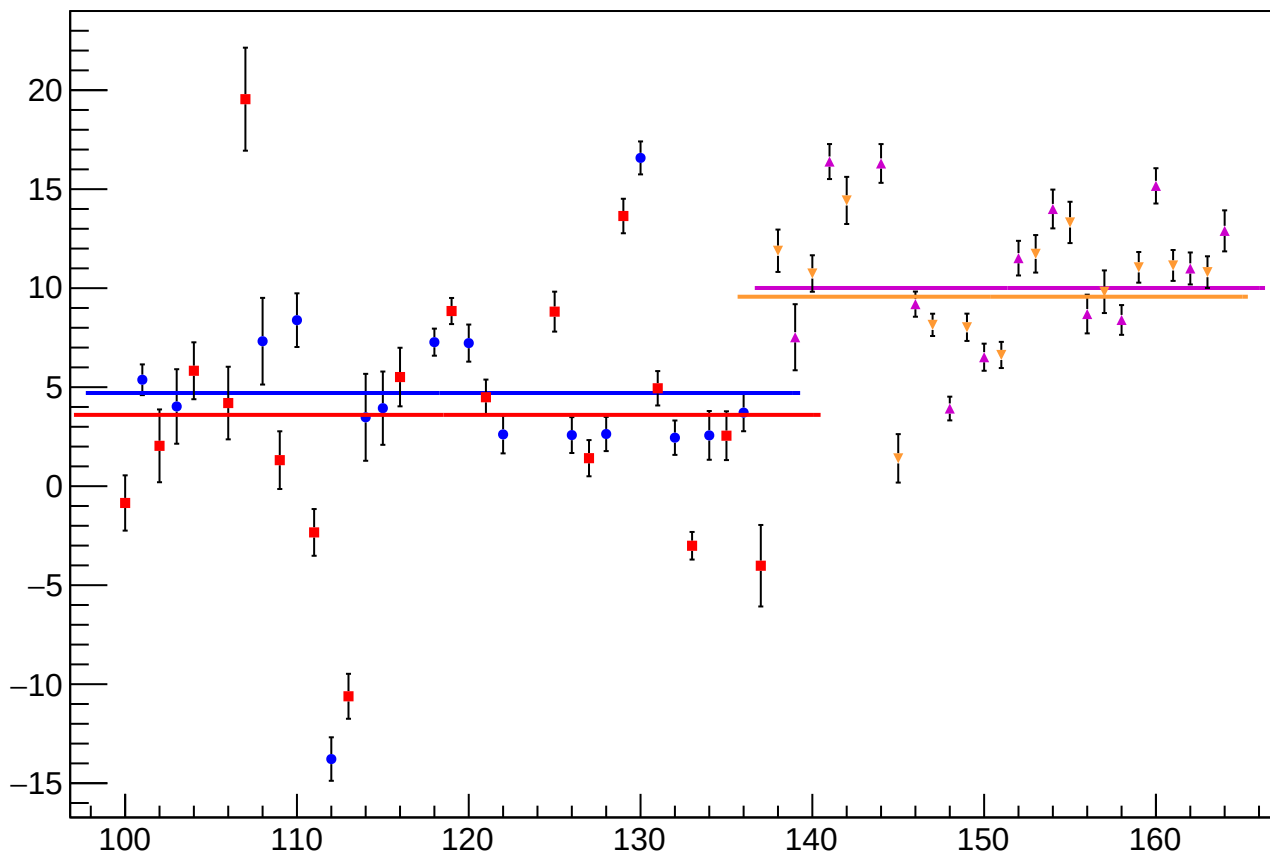
+ sign 16.060 $\pm$ 0.234  $\chi^2$ /NDF: 3944.2/28

All: 15.930 $\pm$ 0.163  $\chi^2$ /NDF: 8556.8/59

- sign 15.808 $\pm$ 0.227  $\chi^2$ /NDF: 4612.0/30



# reg\_asym\_left\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $4.706 \pm 0.254$   $\chi^2/\text{NDF}$ : 545.2/15

Left Out:  $9.569 \pm 0.231$   $\chi^2/\text{NDF}$ : 127.1/12

Right Out:  $3.601 \pm 0.254$   $\chi^2/\text{NDF}$ : 573.4/17

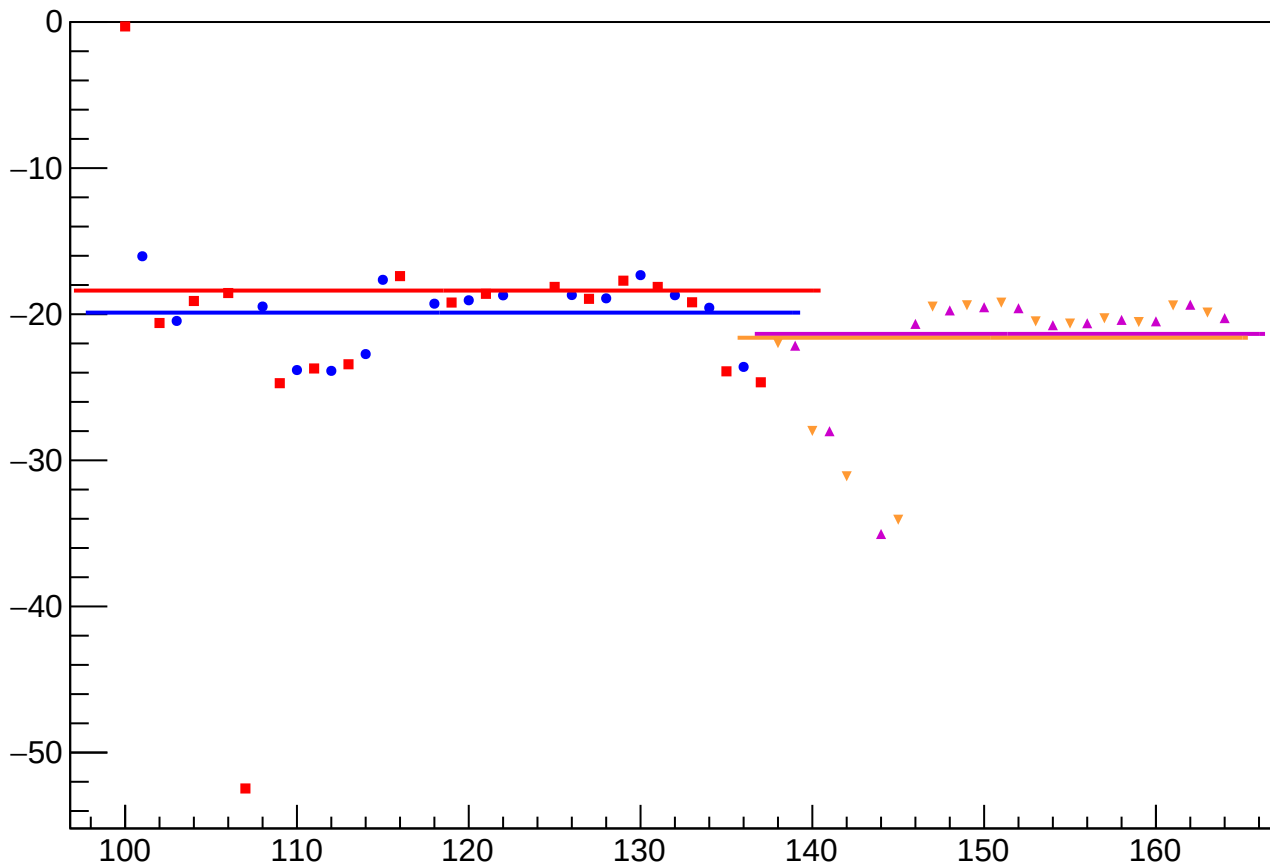
Left In:  $10.009 \pm 0.230$   $\chi^2/\text{NDF}$ : 295.3/12

+ sign  $7.367 \pm 0.171$   $\chi^2/\text{NDF}$ : 873.1/28

All:  $7.247 \pm 0.121$   $\chi^2/\text{NDF}$ : 2093.0/59

- sign  $7.128 \pm 0.170$   $\chi^2/\text{NDF}$ : 1219.0/30

# reg\_asym\_left\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-19.890 \pm 0.016$   $\chi^2/\text{NDF}$ : 26044.4/15

Left Out:  $-21.609 \pm 0.011$   $\chi^2/\text{NDF}$ : 121741.6/12

Right Out:  $-18.380 \pm 0.015$   $\chi^2/\text{NDF}$ : 300999.4/17

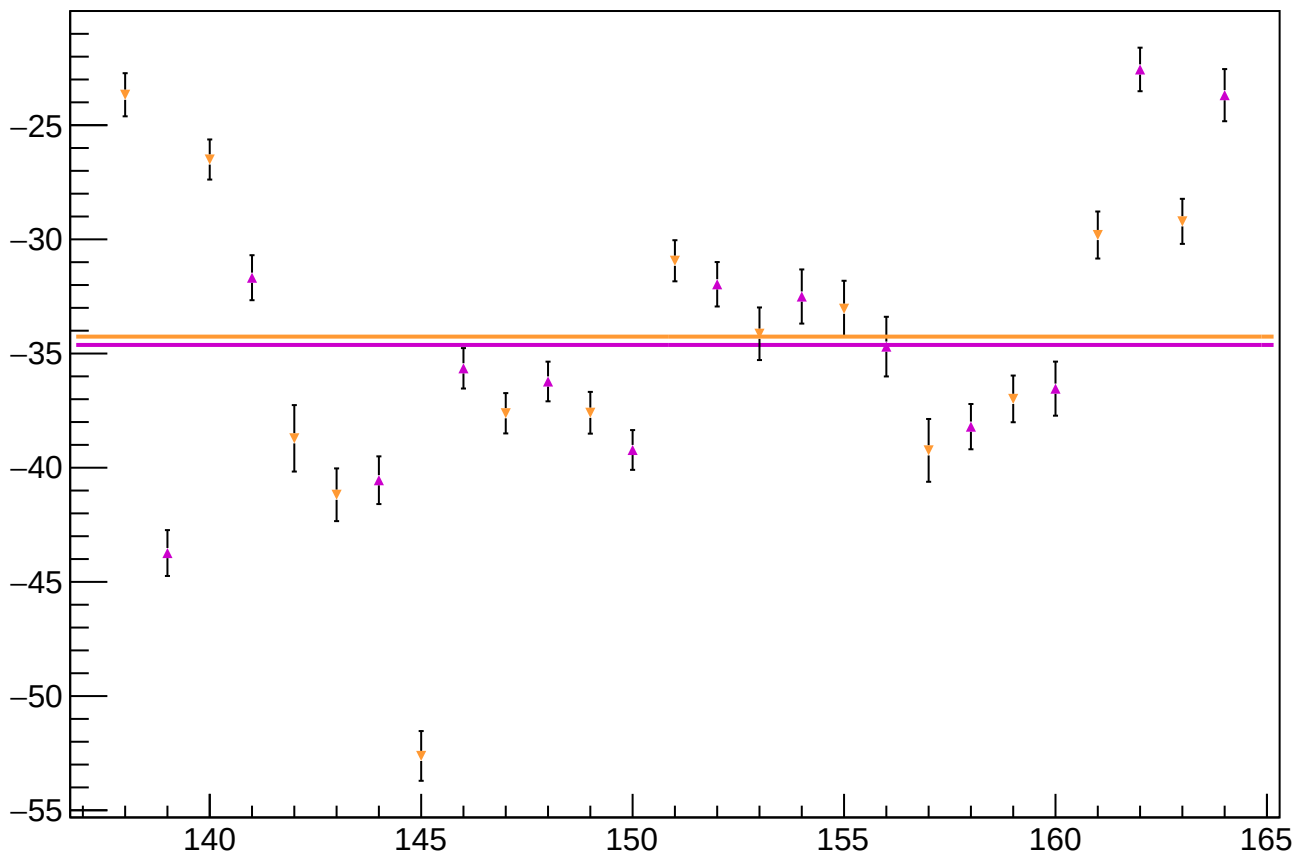
Left In:  $-21.347 \pm 0.011$   $\chi^2/\text{NDF}$ : 98987.5/12

+ sign  $-21.026 \pm 0.009$   $\chi^2/\text{NDF}$ : 155766.3/28

All:  $-20.650 \pm 0.006$   $\chi^2/\text{NDF}$ : 585267.6/59

- sign  $-20.305 \pm 0.009$   $\chi^2/\text{NDF}$ : 426238.0/30

# reg\_asym\_right\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -34.259+/-0.277  $\chi^2/\text{NDF}$ : 640.8/13

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

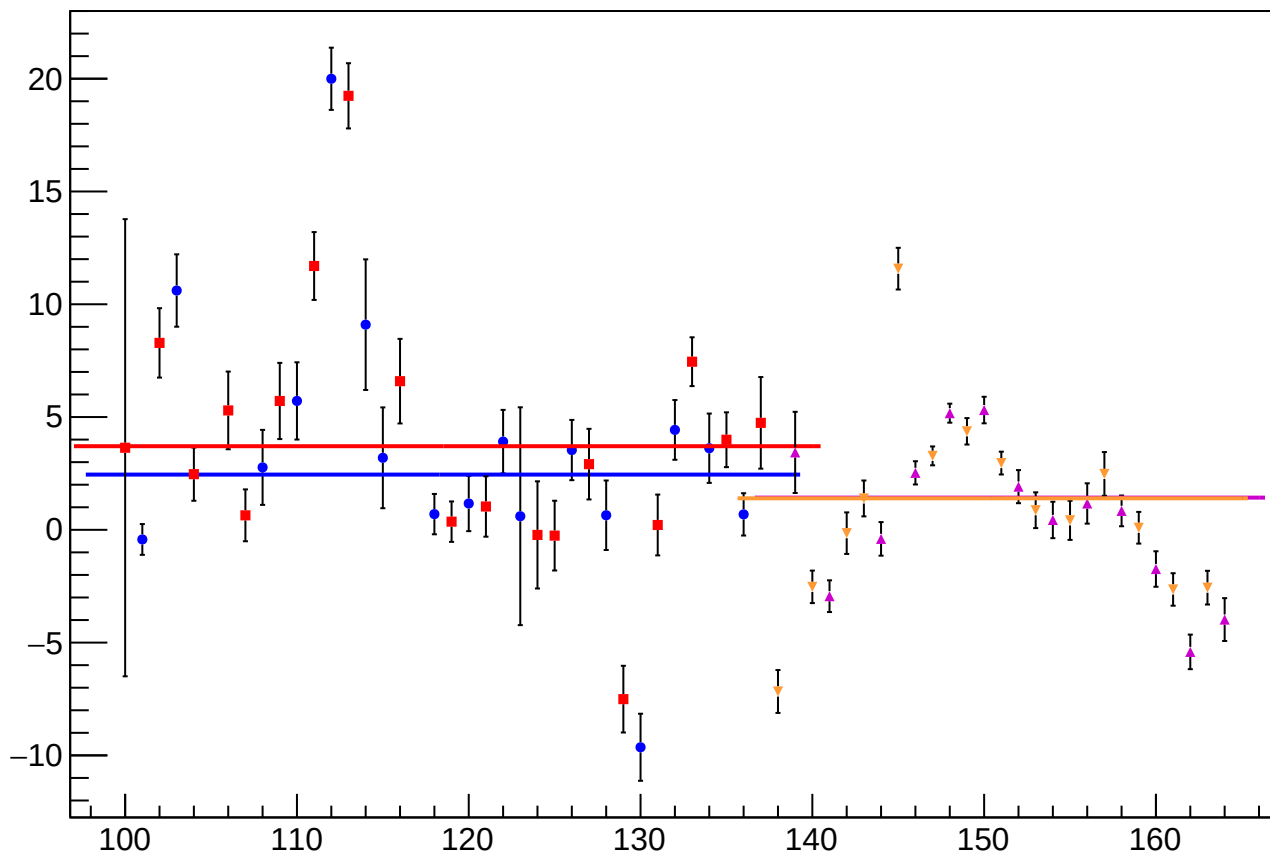
Left In: -34.624+/-0.279  $\chi^2/\text{NDF}$ : 434.2/12

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

All: -34.440+/-0.197  $\chi^2/\text{NDF}$ : 1075.8/26

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

# reg\_asym\_right\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $2.449 \pm 0.314$   $\chi^2/\text{NDF}$ : 295.3/16

Left Out:  $1.397 \pm 0.185$   $\chi^2/\text{NDF}$ : 356.5/13

Right Out:  $3.707 \pm 0.326$   $\chi^2/\text{NDF}$ : 269.4/18

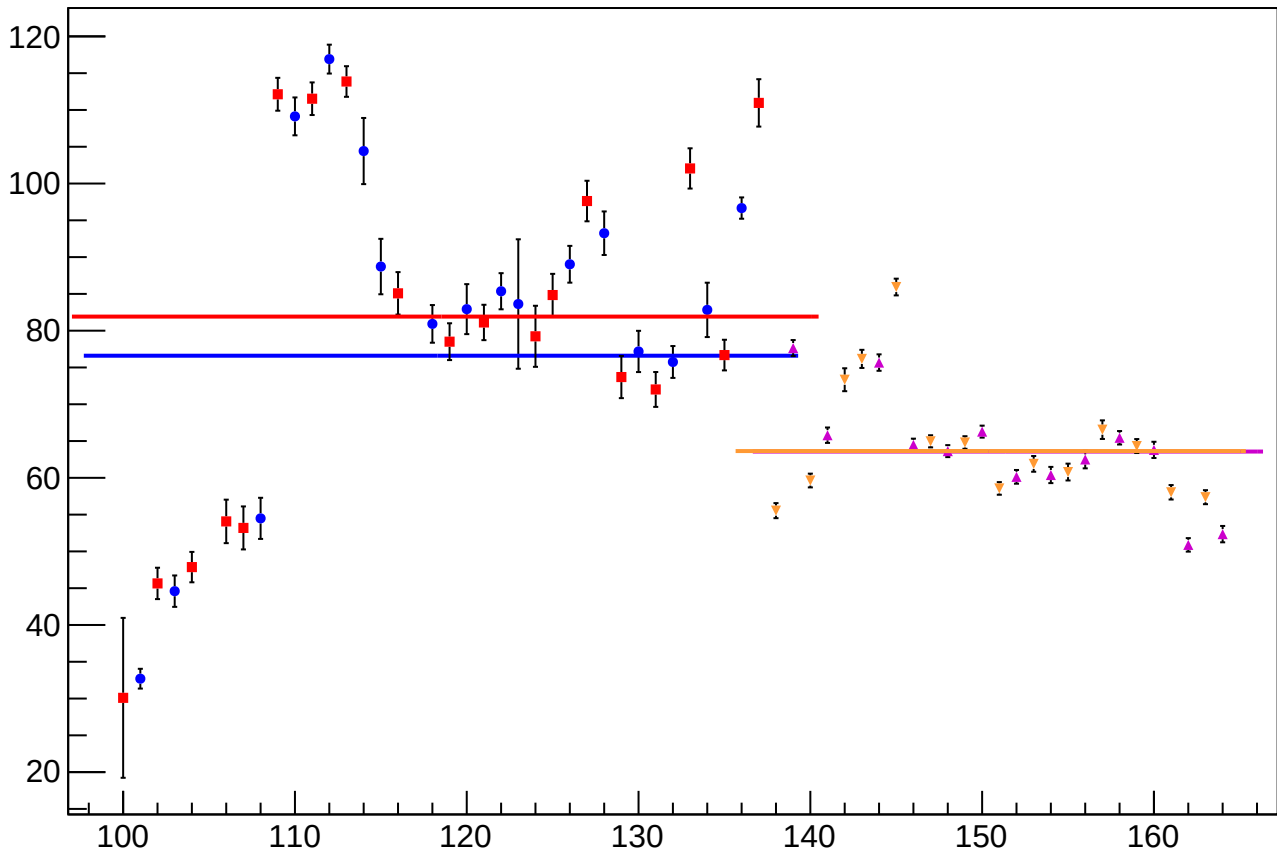
Left In:  $1.428 \pm 0.190$   $\chi^2/\text{NDF}$ : 304.0/12

+ sign  $1.667 \pm 0.159$   $\chi^2/\text{NDF}$ : 660.1/30

All:  $1.831 \pm 0.114$   $\chi^2/\text{NDF}$ : 1272.2/62

- sign  $2.006 \pm 0.164$   $\chi^2/\text{NDF}$ : 609.9/31

# reg\_asym\_right\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: 76.598 $\pm$ 0.576  $\chi^2$ /NDF: 2255.1/16

Left Out: 63.638 $\pm$ 0.271  $\chi^2$ /NDF: 737.2/13

Right Out: 81.916 $\pm$ 0.592  $\chi^2$ /NDF: 1570.7/18

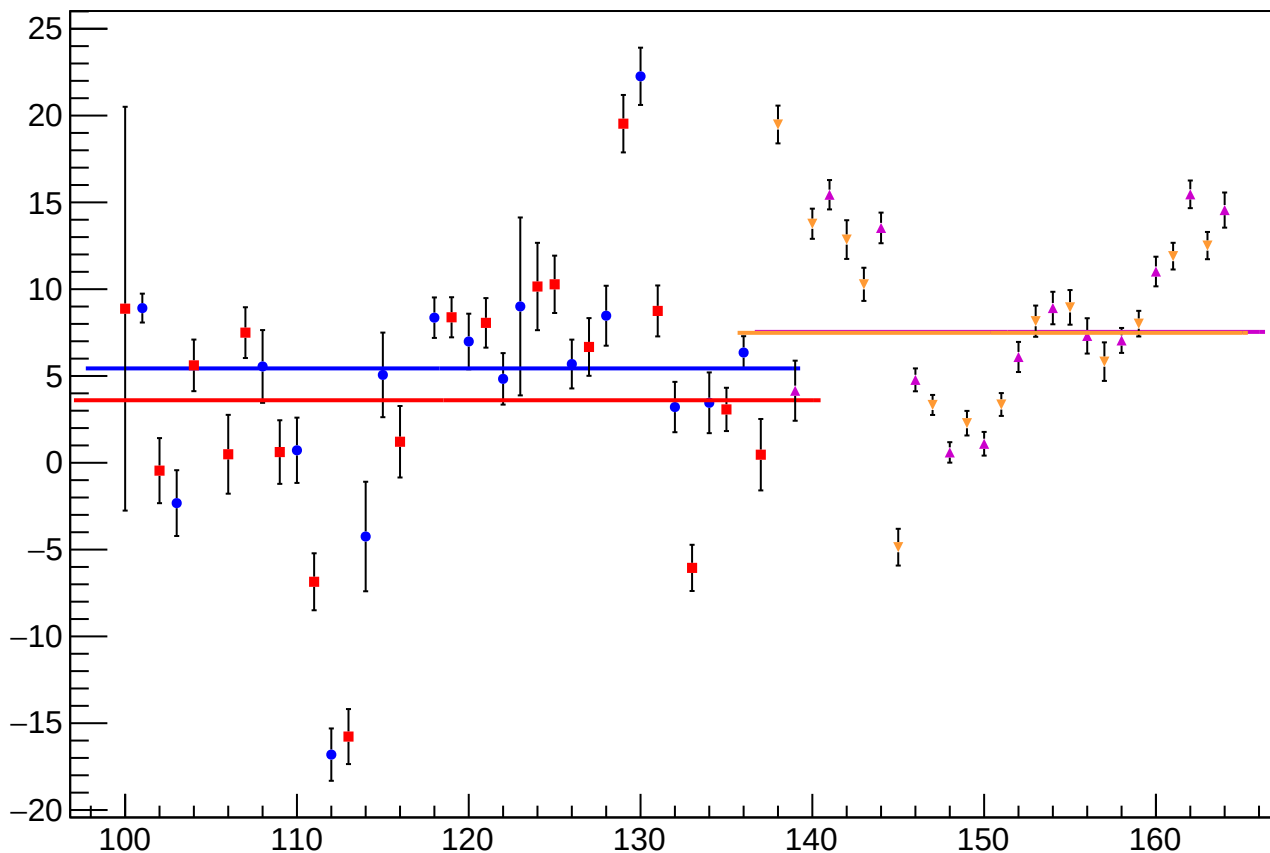
Left In: 63.572 $\pm$ 0.271  $\chi^2$ /NDF: 620.6/12

+ sign 65.981 $\pm$ 0.245  $\chi^2$ /NDF: 3406.9/30

All: 66.361 $\pm$ 0.174  $\chi^2$ /NDF: 6397.0/62

- sign 66.745 $\pm$ 0.246  $\chi^2$ /NDF: 2985.3/31

# reg\_asym\_right\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $5.436 \pm 0.360$   $\chi^2/\text{NDF}: 387.2/16$

Left Out:  $7.486 \pm 0.221$   $\chi^2/\text{NDF}: 566.5/13$

Right Out:  $3.602 \pm 0.375$   $\chi^2/\text{NDF}: 423.3/18$

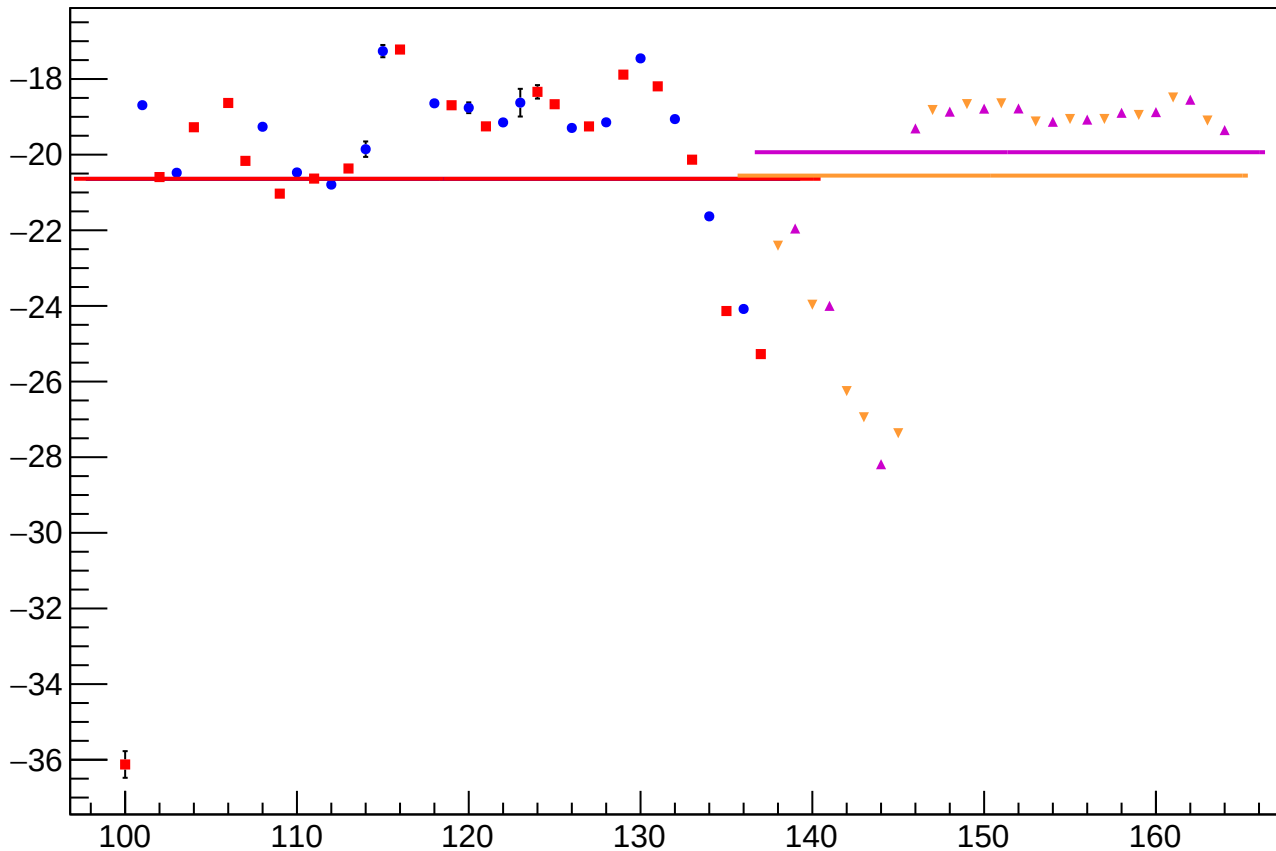
Left In:  $7.540 \pm 0.226$   $\chi^2/\text{NDF}: 551.8/12$

+ sign  $6.926 \pm 0.188$   $\chi^2/\text{NDF}: 977.2/30$

All:  $6.715 \pm 0.135$   $\chi^2/\text{NDF}: 2035.8/62$

- sign  $6.493 \pm 0.193$   $\chi^2/\text{NDF}: 1056.1/31$

# reg\_asym\_right\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-20.642 \pm 0.019$   $\chi^2/\text{NDF}$ : 12431.5/16

Left Out:  $-20.554 \pm 0.011$   $\chi^2/\text{NDF}$ : 75259.0/13

Right Out:  $-20.638 \pm 0.019$   $\chi^2/\text{NDF}$ : 13783.4/18

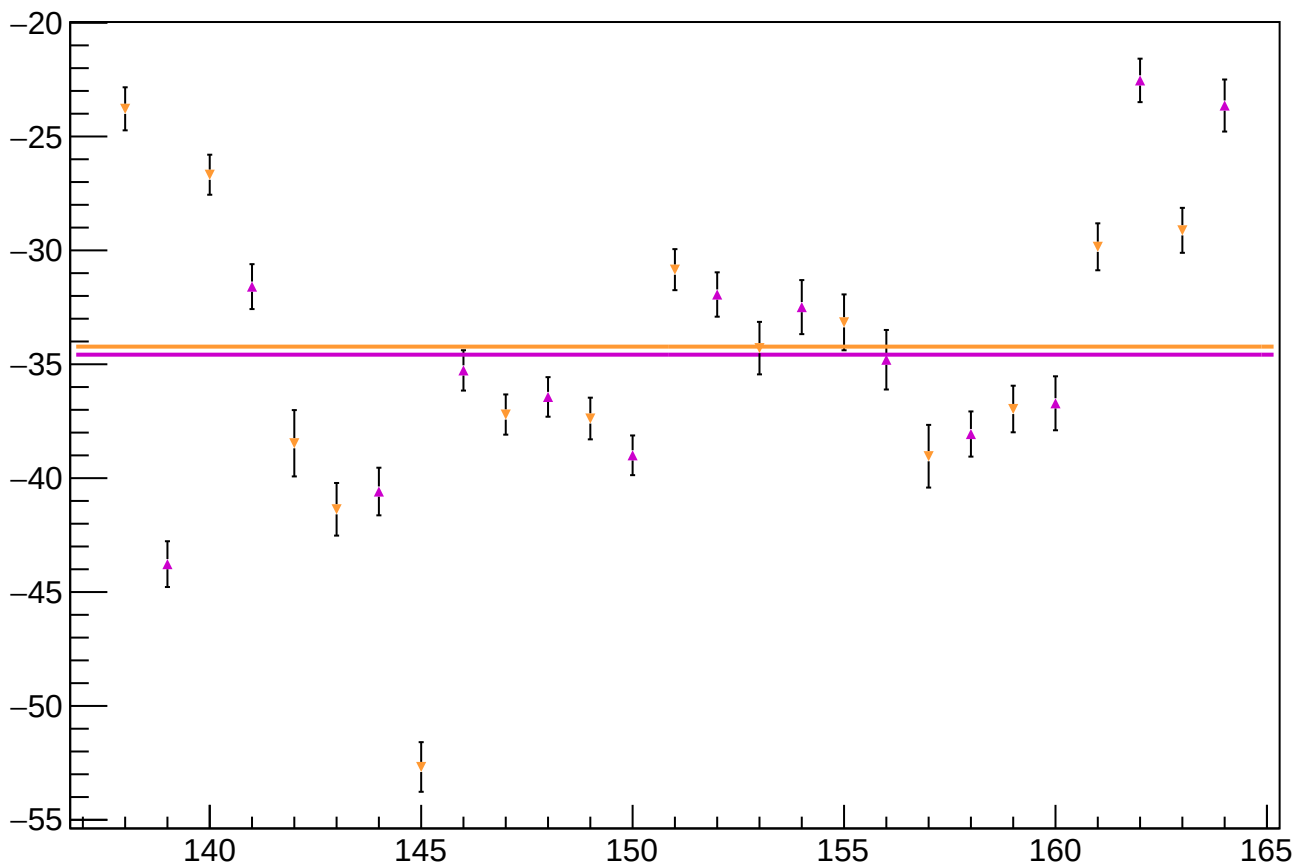
Left In:  $-19.936 \pm 0.011$   $\chi^2/\text{NDF}$ : 47947.8/12

+ sign  $-20.575 \pm 0.009$   $\chi^2/\text{NDF}$ : 87706.3/30

All:  $-20.337 \pm 0.007$   $\chi^2/\text{NDF}$ : 151724.9/62

- sign  $-20.099 \pm 0.009$   $\chi^2/\text{NDF}$ : 62731.8/31

# reg\_asym\_right\_dd\_diff\_bpm1X\_slope vs Slug

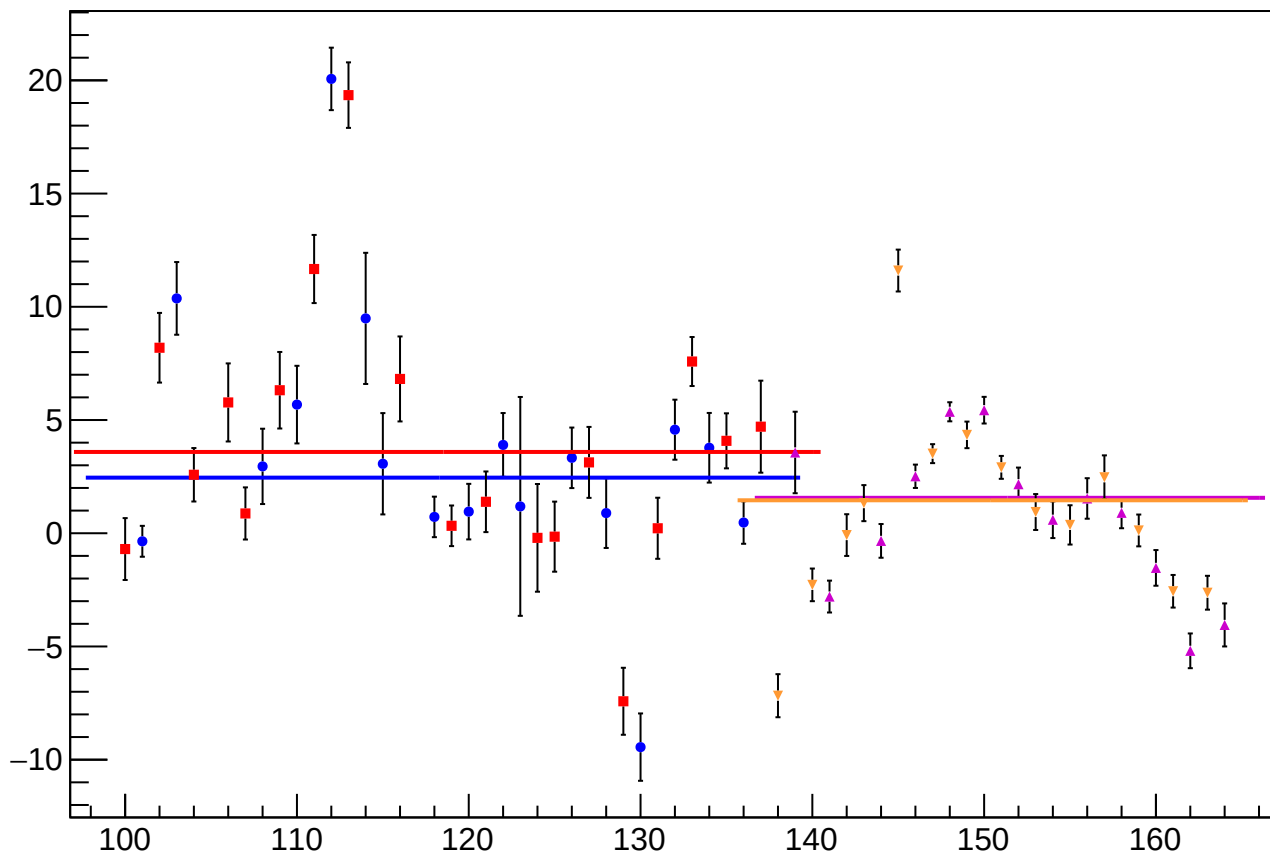


Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -34.225+/-0.277  $\chi^2/\text{NDF}$ : 631.6/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -34.579+/-0.280  $\chi^2/\text{NDF}$ : 433.8/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -34.400+/-0.197  $\chi^2/\text{NDF}$ : 1066.2/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0



# reg\_asym\_right\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $2.455 \pm 0.315$   $\chi^2/\text{NDF}: 293.5/16$

Left Out:  $1.455 \pm 0.185$   $\chi^2/\text{NDF}: 356.7/13$

Right Out:  $3.590 \pm 0.318$   $\chi^2/\text{NDF}: 279.8/18$

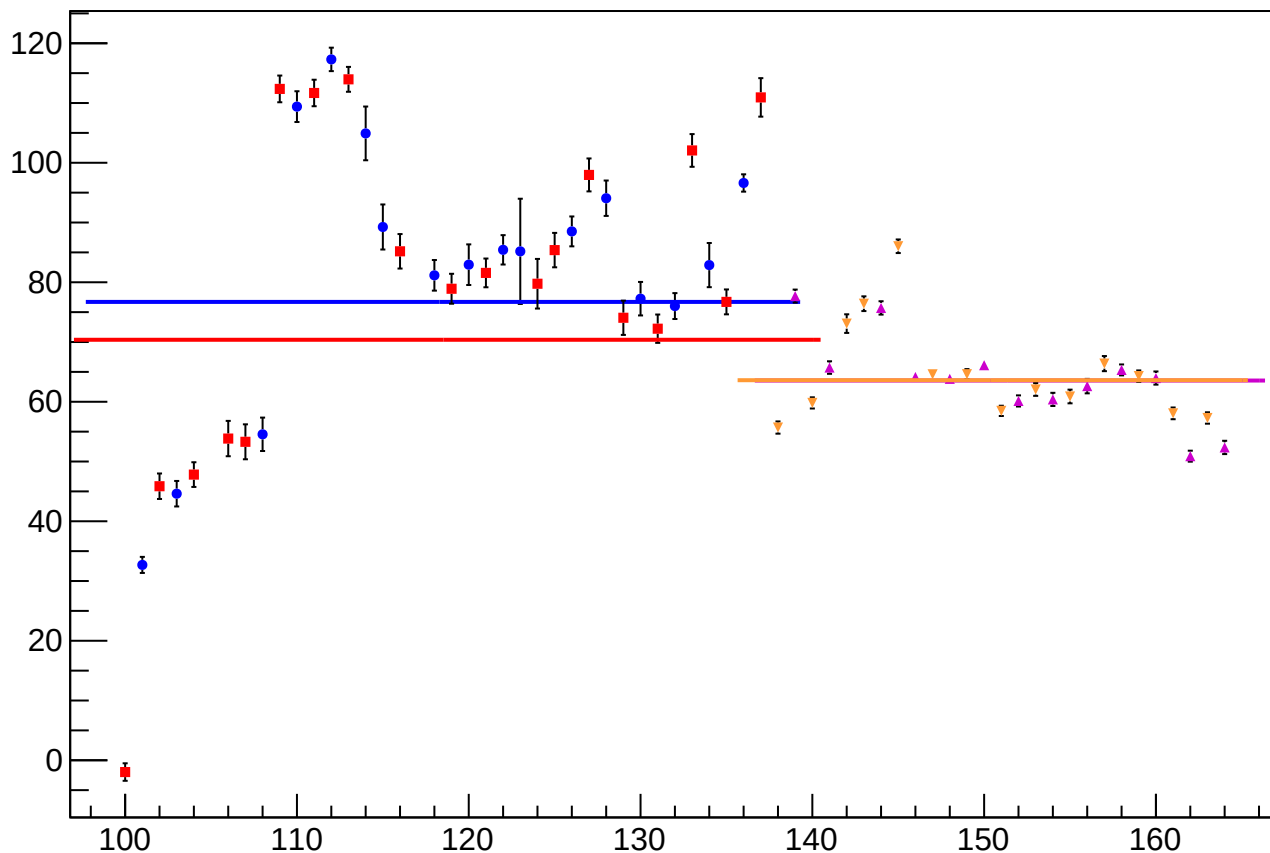
Left In:  $1.565 \pm 0.190$   $\chi^2/\text{NDF}: 305.1/12$

+ sign  $1.713 \pm 0.160$   $\chi^2/\text{NDF}: 657.6/30$

All:  $1.901 \pm 0.114$   $\chi^2/\text{NDF}: 1275.4/62$

- sign  $2.099 \pm 0.163$   $\chi^2/\text{NDF}: 614.8/31$

# reg\_asym\_right\_dd\_diff\_bpm4eX\_slope vs Slug



Right In: 76.713 $\pm$ 0.576  $\chi^2$ /NDF: 2266.6/16

Left Out: 63.608 $\pm$ 0.271  $\chi^2$ /NDF: 736.7/13

Right Out: 70.376 $\pm$ 0.550  $\chi^2$ /NDF: 4390.7/18

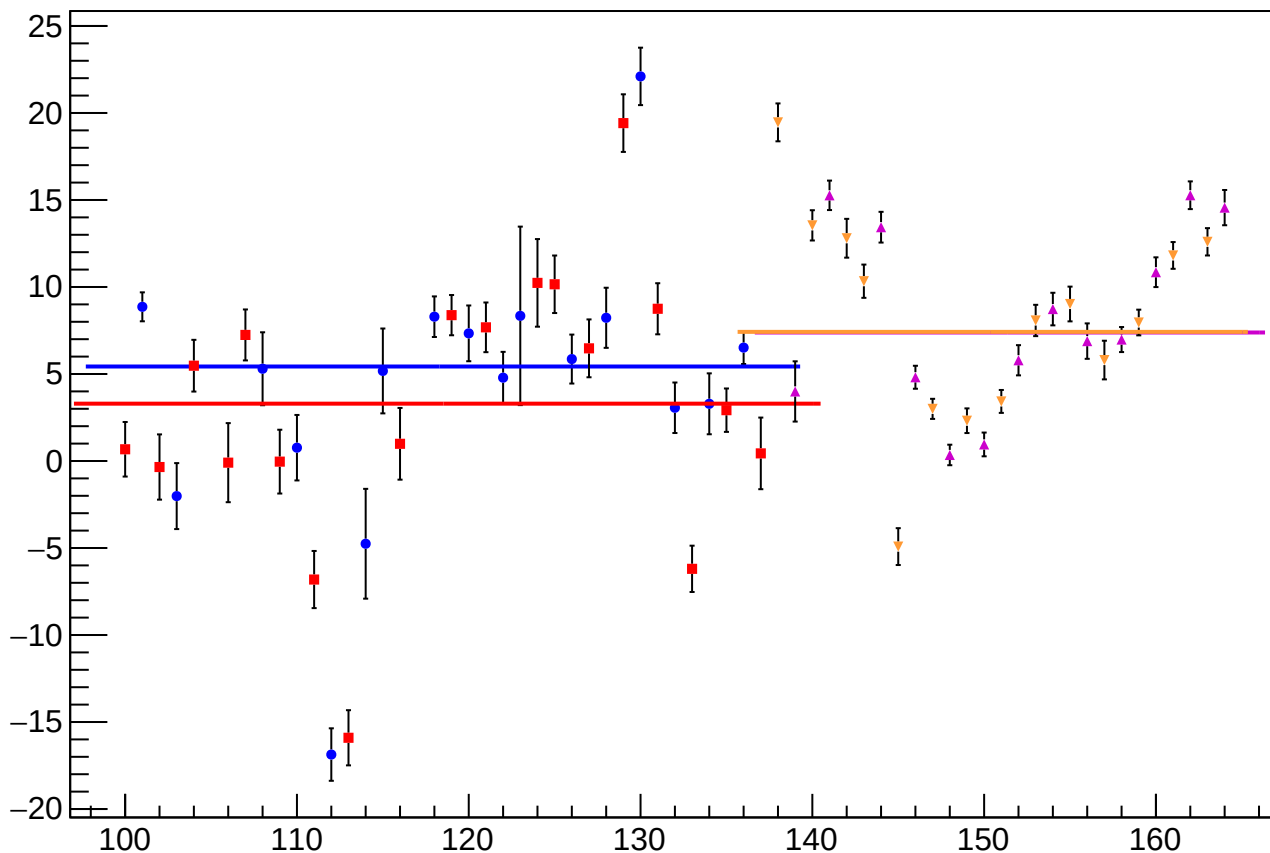
Left In: 63.552 $\pm$ 0.271  $\chi^2$ /NDF: 618.6/12

+ sign 65.978 $\pm$ 0.245  $\chi^2$ /NDF: 3426.8/30

All: 65.427 $\pm$ 0.173  $\chi^2$ /NDF: 8570.0/62

- sign 64.885 $\pm$ 0.243  $\chi^2$ /NDF: 5133.2/31

# reg\_asym\_right\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $5.430 \pm 0.361$   $\chi^2/\text{NDF}: 385.9/16$

Left Out:  $7.421 \pm 0.221$   $\chi^2/\text{NDF}: 569.5/13$

Right Out:  $3.295 \pm 0.365$   $\chi^2/\text{NDF}: 426.1/18$

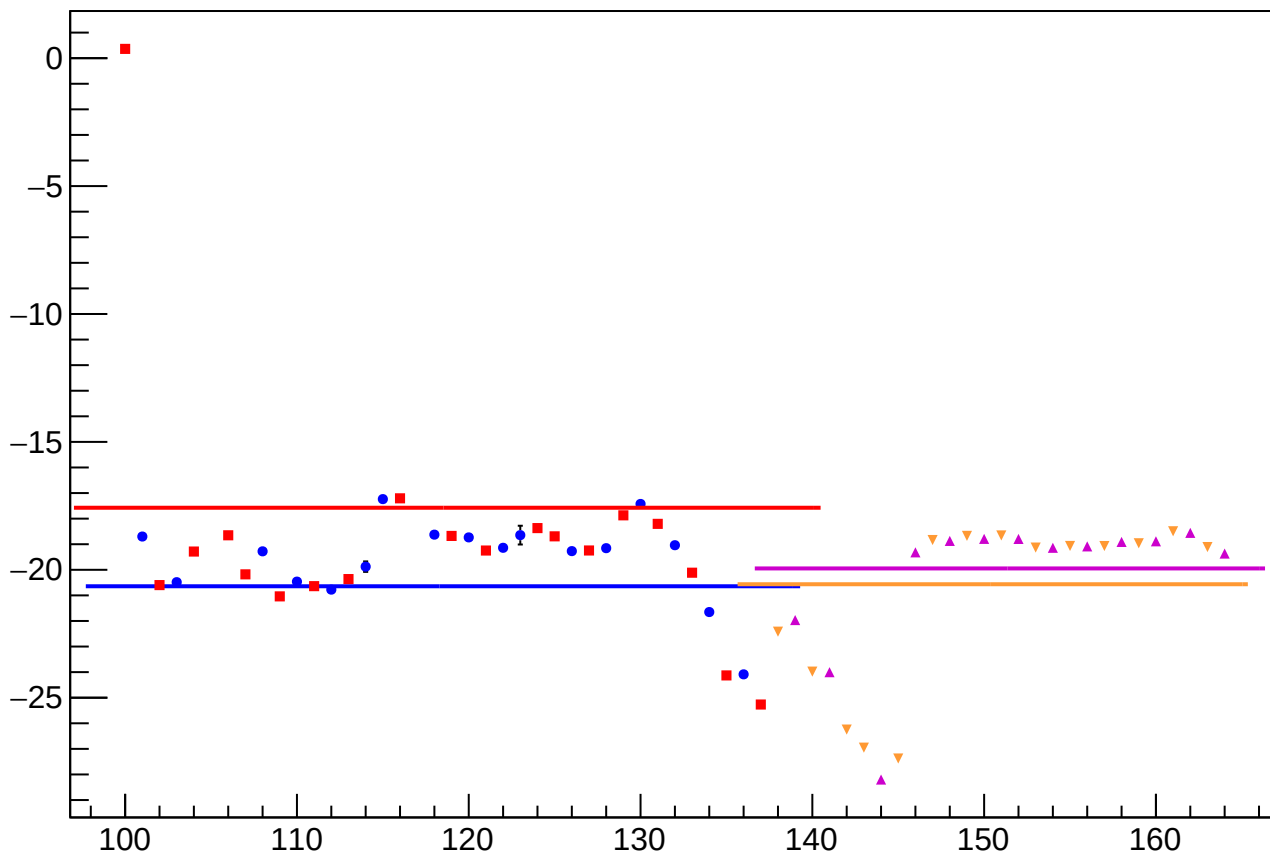
Left In:  $7.385 \pm 0.226$   $\chi^2/\text{NDF}: 554.7/12$

+ sign  $6.877 \pm 0.188$   $\chi^2/\text{NDF}: 977.5/30$

All:  $6.571 \pm 0.135$   $\chi^2/\text{NDF}: 2054.5/62$

- sign  $6.253 \pm 0.192$   $\chi^2/\text{NDF}: 1071.6/31$

# reg\_asym\_right\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-20.643 \pm 0.019$   $\chi^2/\text{NDF}: 12468.6/16$

Left Out:  $-20.564 \pm 0.011$   $\chi^2/\text{NDF}: 75100.5/13$

Right Out:  $-17.574 \pm 0.018$   $\chi^2/\text{NDF}: 178327.0/18$

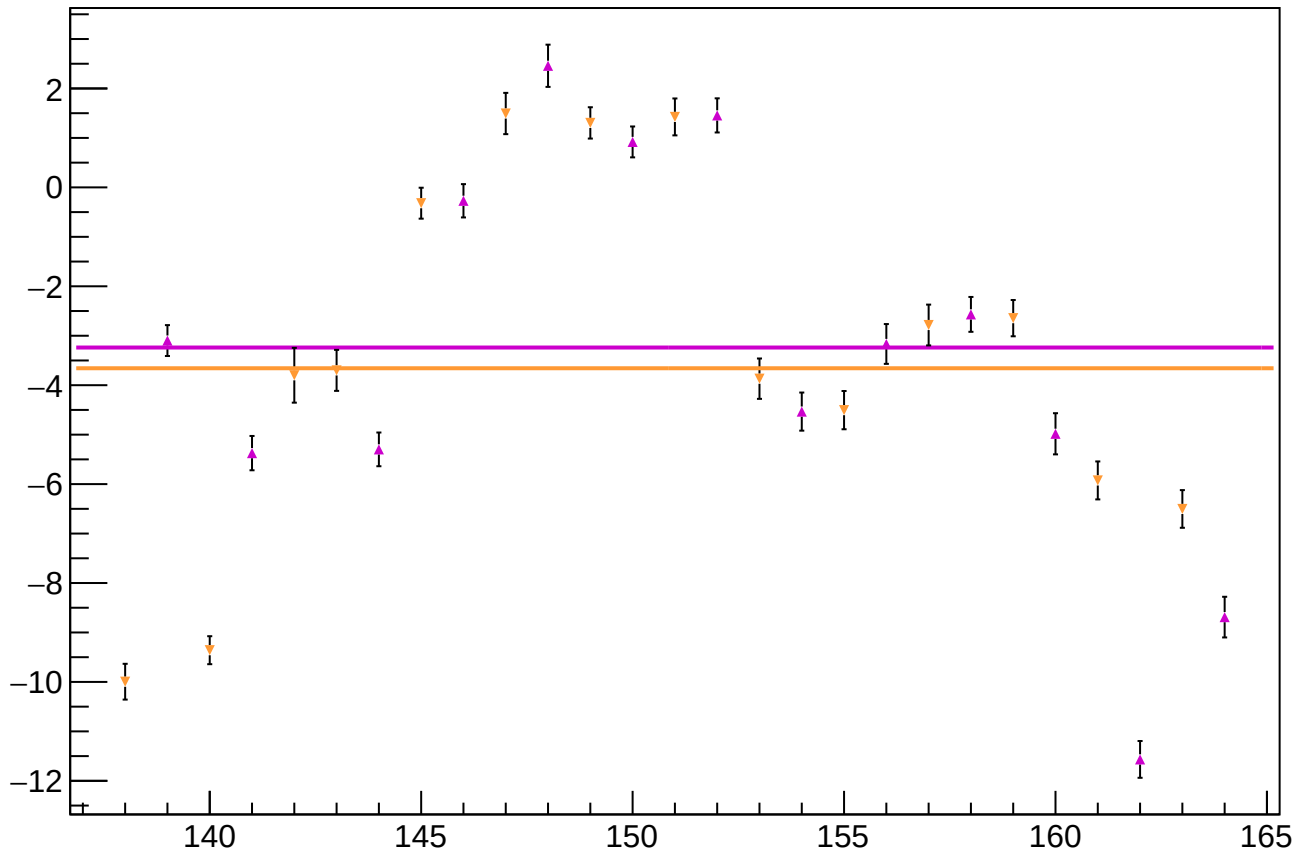
Left In:  $-19.947 \pm 0.011$   $\chi^2/\text{NDF}: 47877.2/12$

+ sign  $-20.583 \pm 0.009$   $\chi^2/\text{NDF}: 87581.8/30$

All:  $-19.943 \pm 0.007$   $\chi^2/\text{NDF}: 335682.7/62$

- sign  $-19.328 \pm 0.009$   $\chi^2/\text{NDF}: 239000.3/31$

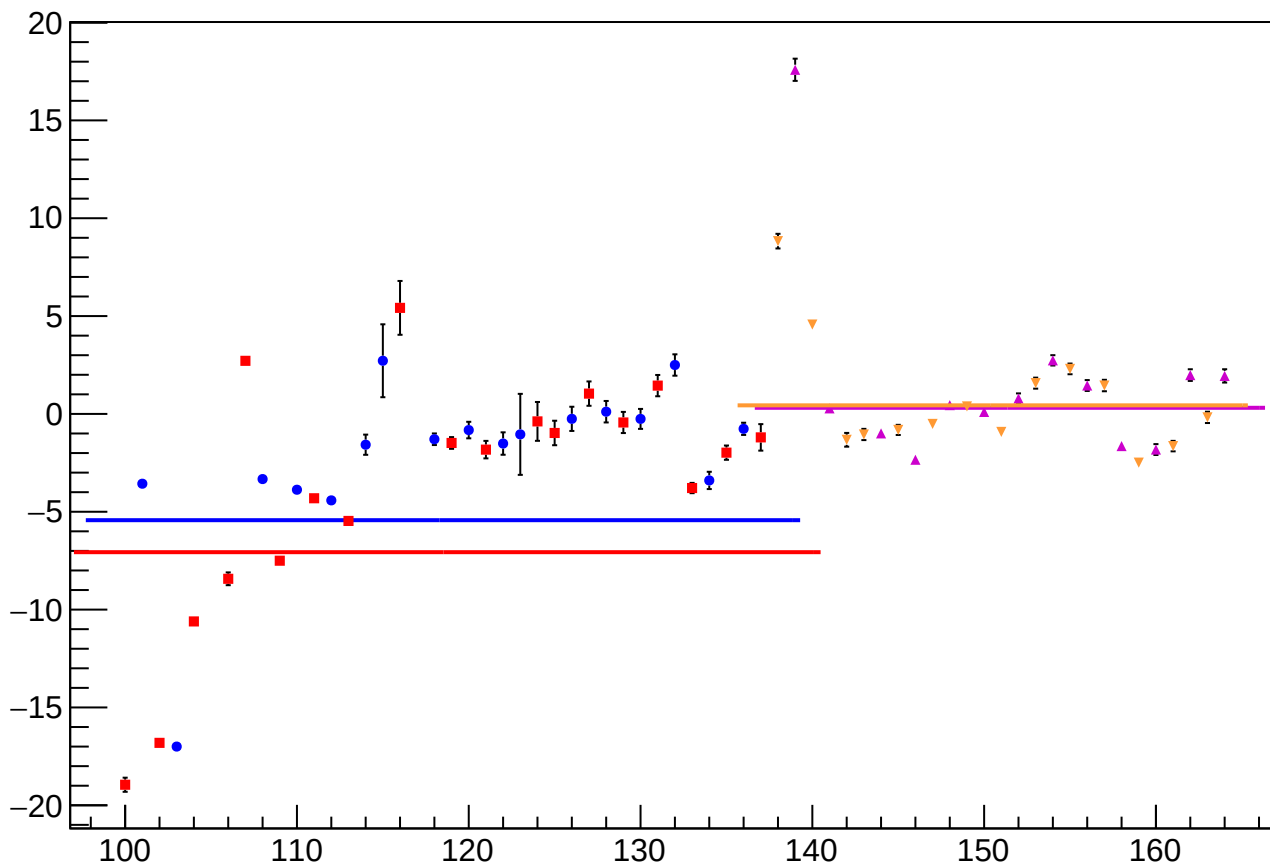
# reg\_asym\_sam\_15\_avg\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -3.657+/-0.099  $\chi^2/\text{NDF}$ :1517.8/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -3.238+/-0.100  $\chi^2/\text{NDF}$ :1402.0/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -3.450+/-0.070  $\chi^2/\text{NDF}$ : 2928.7/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

reg\_asym\_sam\_15\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-5.431 \pm 0.055$   $\chi^2/\text{NDF}$ : 9233.8/16

Left Out:  $0.438 \pm 0.069$   $\chi^2/\text{NDF}$ : 1220.0/13

Right Out:  $-7.066 \pm 0.059$   $\chi^2/\text{NDF}$ : 12306.6/18

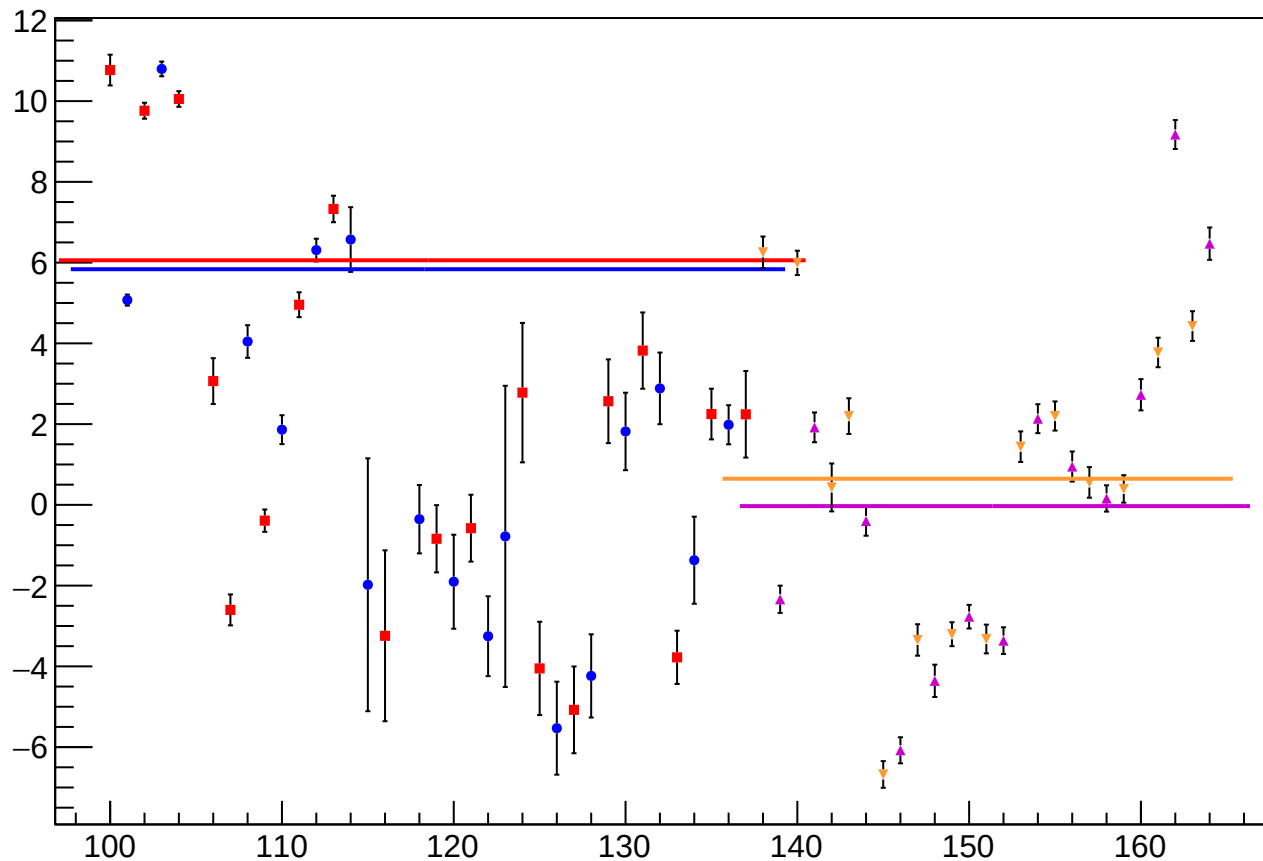
Left In:  $0.313 \pm 0.072$   $\chi^2/\text{NDF}$ : 1394.6/12

+ sign  $-3.169 \pm 0.043$   $\chi^2/\text{NDF}$ : 14864.1/30

All:  $-3.600 \pm 0.031$   $\chi^2/\text{NDF}$ : 35092.2/62

- sign  $-4.085 \pm 0.046$   $\chi^2/\text{NDF}$ : 20014.4/31

reg\_asym\_sam\_15\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $5.836 \pm 0.090$   $\chi^2/\text{NDF}$ : 1440.9/16

Left Out:  $0.648 \pm 0.097$   $\chi^2/\text{NDF}$ : 1622.8/13

Right Out:  $6.057 \pm 0.093$   $\chi^2/\text{NDF}$ : 2668.9/18

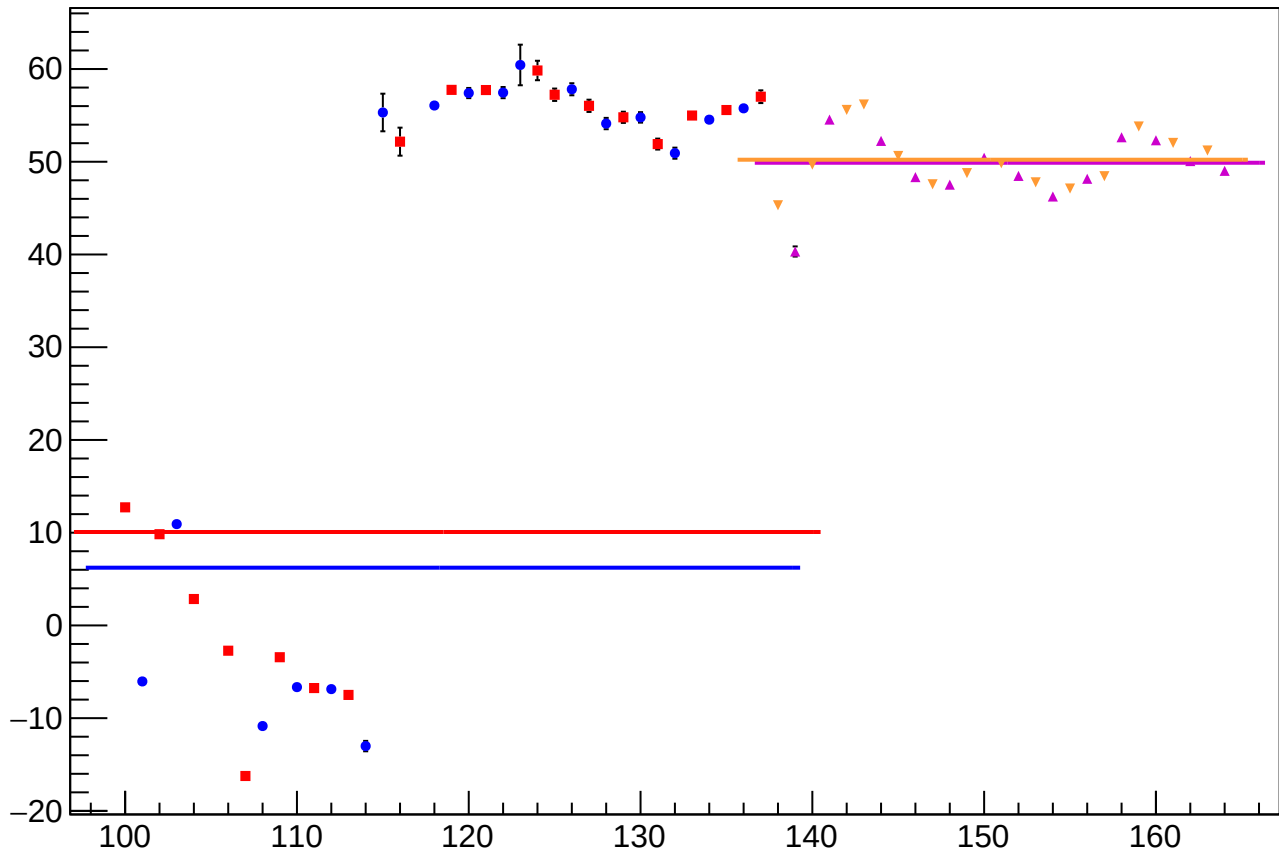
Left In:  $-0.031 \pm 0.097$   $\chi^2/\text{NDF}$ : 1750.9/12

+ sign  $3.454 \pm 0.066$   $\chi^2/\text{NDF}$ : 4601.2/30

All:  $3.302 \pm 0.047$   $\chi^2/\text{NDF}$ : 11069.4/62

- sign  $3.143 \pm 0.067$   $\chi^2/\text{NDF}$ : 6457.3/31

reg\_asym\_sam\_15\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $6.226 \pm 0.065$   $\chi^2/\text{NDF}$ : 120955.1/16

Left Out:  $50.219 \pm 0.081$   $\chi^2/\text{NDF}$ : 1145.3/13

Right Out:  $10.075 \pm 0.070$   $\chi^2/\text{NDF}$ : 122049.3/18

Left In:  $49.892 \pm 0.083$   $\chi^2/\text{NDF}$ : 1100.7/12

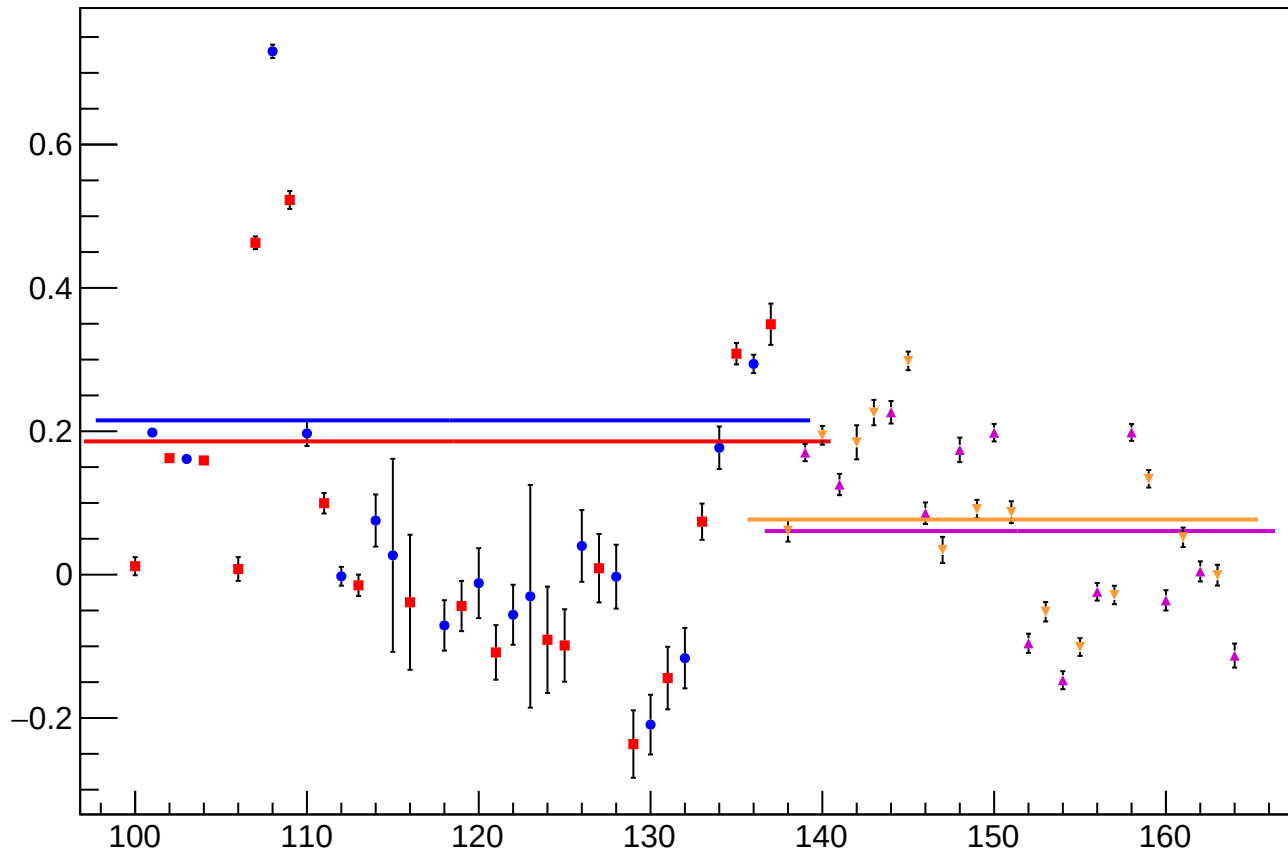
+ sign  $23.342 \pm 0.051$   $\chi^2/\text{NDF}$ : 301256.3/30

All:  $24.853 \pm 0.037$   $\chi^2/\text{NDF}$ : 561027.0/62

- sign  $26.532 \pm 0.053$   $\chi^2/\text{NDF}$ : 257892.7/31



reg\_asym\_sam\_15\_avg\_diff\_bpm12X\_slope vs Slug



Right In: 0.215 $\pm$ 0.003  $\chi^2$ /NDF: 3925.9/16

Left Out: 0.077 $\pm$ 0.004  $\chi^2$ /NDF: 889.0/13

Right Out: 0.186 $\pm$ 0.003  $\chi^2$ /NDF: 2718.1/18

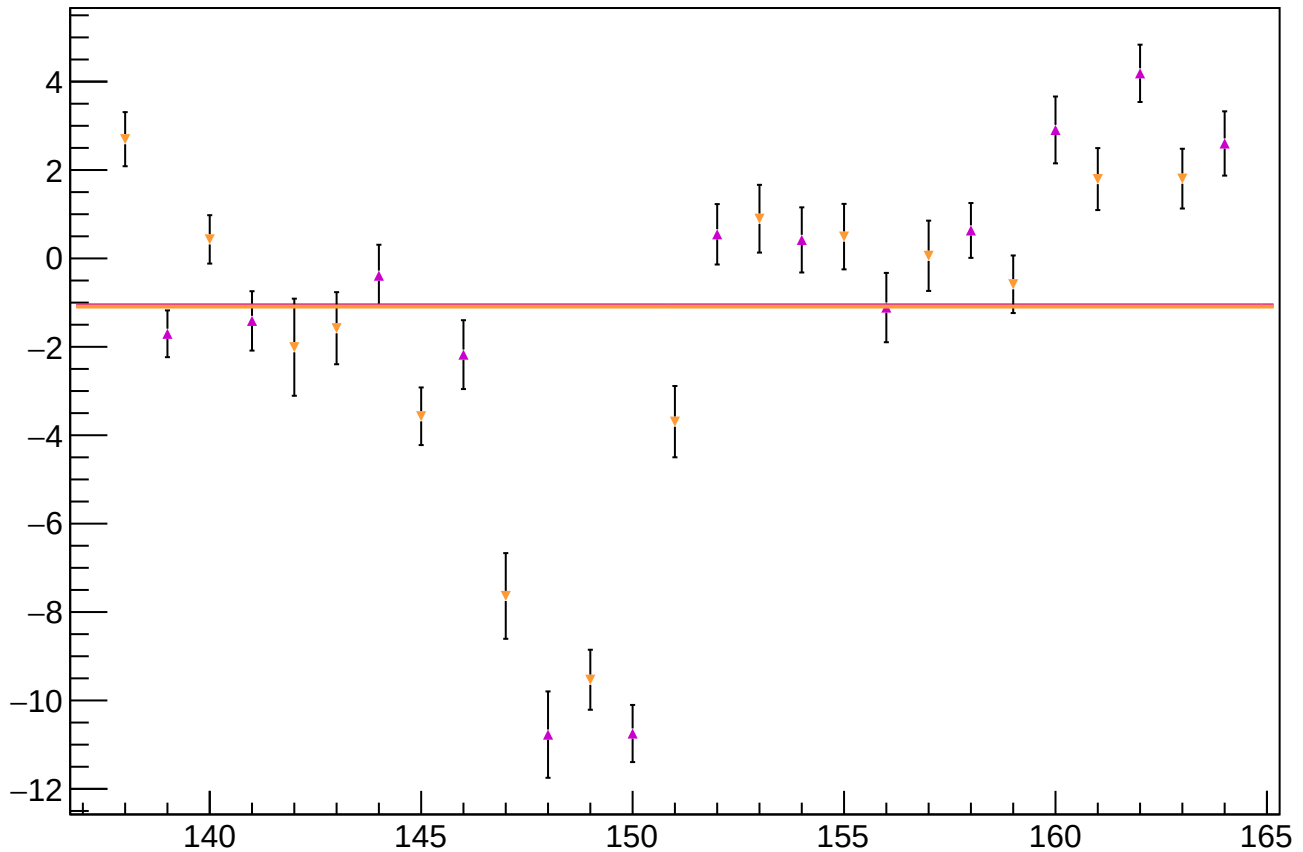
Left In: 0.061 $\pm$ 0.004  $\chi^2$ /NDF: 1153.1/12

+ sign 0.167 $\pm$ 0.002  $\chi^2$ /NDF: 5681.1/30

All: 0.155 $\pm$ 0.002  $\chi^2$ /NDF: 10330.9/62

- sign 0.144 $\pm$ 0.002  $\chi^2$ /NDF: 4595.6/31

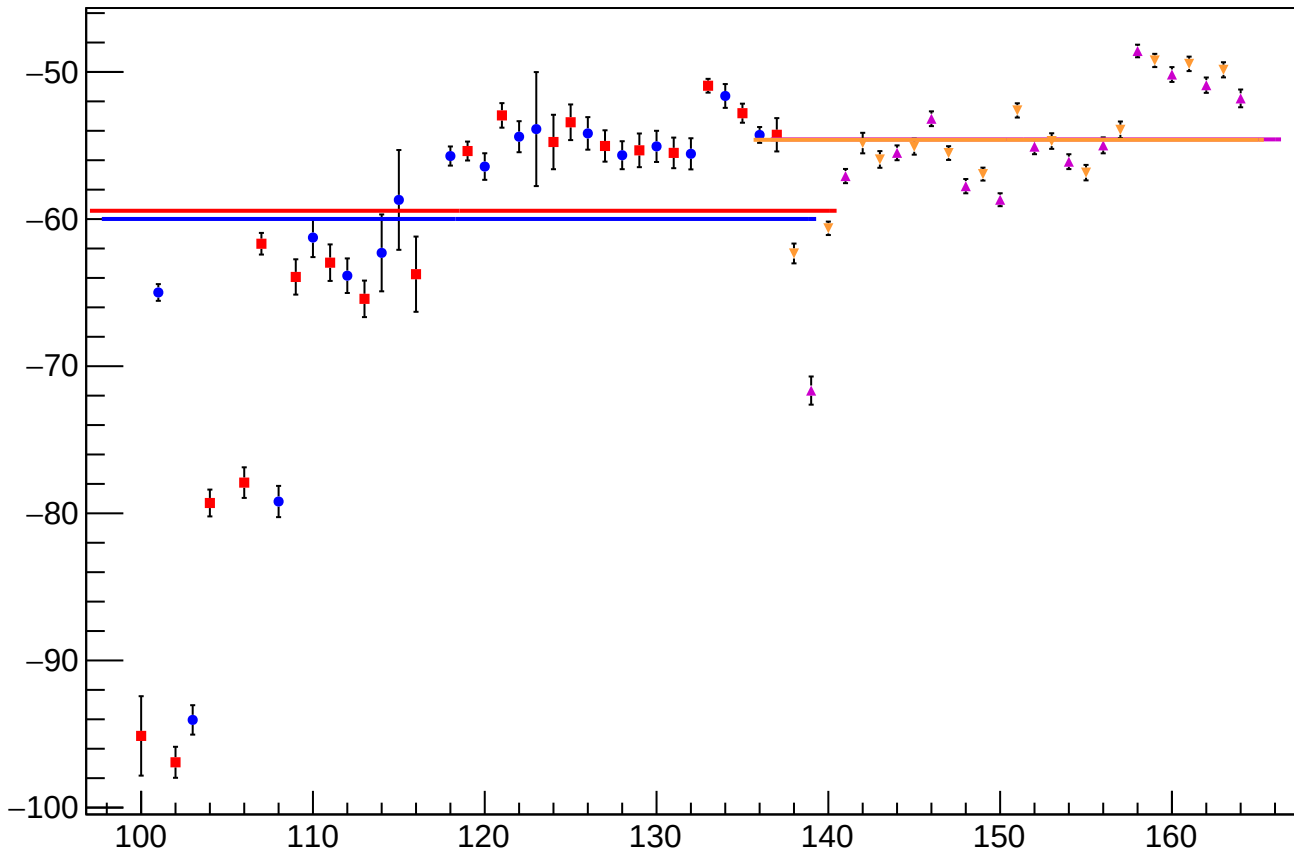
# reg\_asym\_sam\_15\_dd\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -1.088+/-0.192  $\chi^2/\text{NDF}$ : 321.4/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -1.063+/-0.192  $\chi^2/\text{NDF}$ : 463.5/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -1.076+/-0.136  $\chi^2/\text{NDF}$ : 784.9/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_sam\_15\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-59.992 \pm 0.225$   $\chi^2/\text{NDF}$ : 1972.9/16

Left Out:  $-54.612 \pm 0.138$   $\chi^2/\text{NDF}$ : 718.3/13

Right Out:  $-59.435 \pm 0.212$   $\chi^2/\text{NDF}$ : 2917.9/18

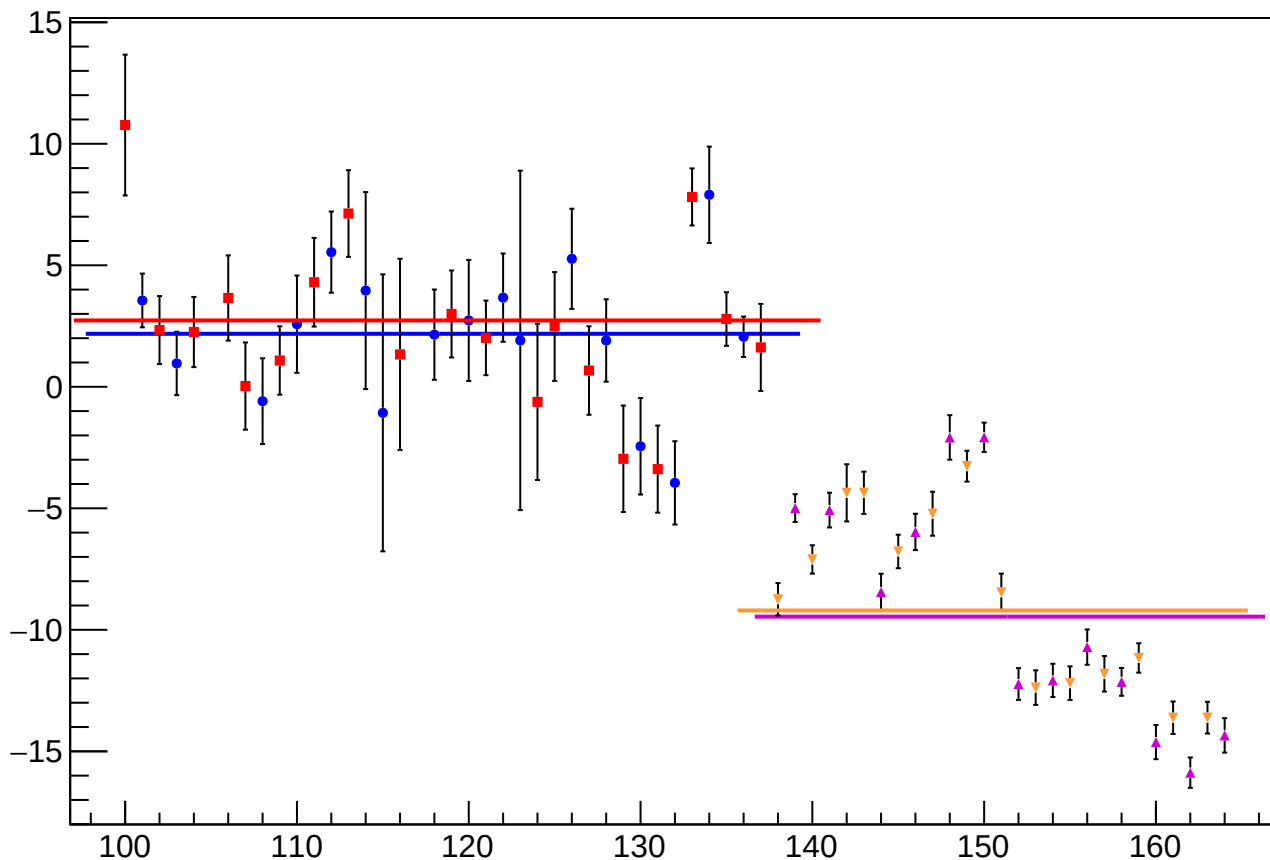
Left In:  $-54.584 \pm 0.142$   $\chi^2/\text{NDF}$ : 839.5/12

+ sign  $-56.080 \pm 0.118$   $\chi^2/\text{NDF}$ : 3107.2/30

All:  $-56.084 \pm 0.083$   $\chi^2/\text{NDF}$ : 7226.0/62

- sign  $-56.088 \pm 0.118$   $\chi^2/\text{NDF}$ : 4118.8/31

# reg\_asym\_sam\_15\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $2.181 \pm 0.406$   $\chi^2/\text{NDF}: 39.0/16$

Left Out:  $-9.202 \pm 0.189$   $\chi^2/\text{NDF}: 332.6/13$

Right Out:  $2.731 \pm 0.388$   $\chi^2/\text{NDF}: 58.9/18$

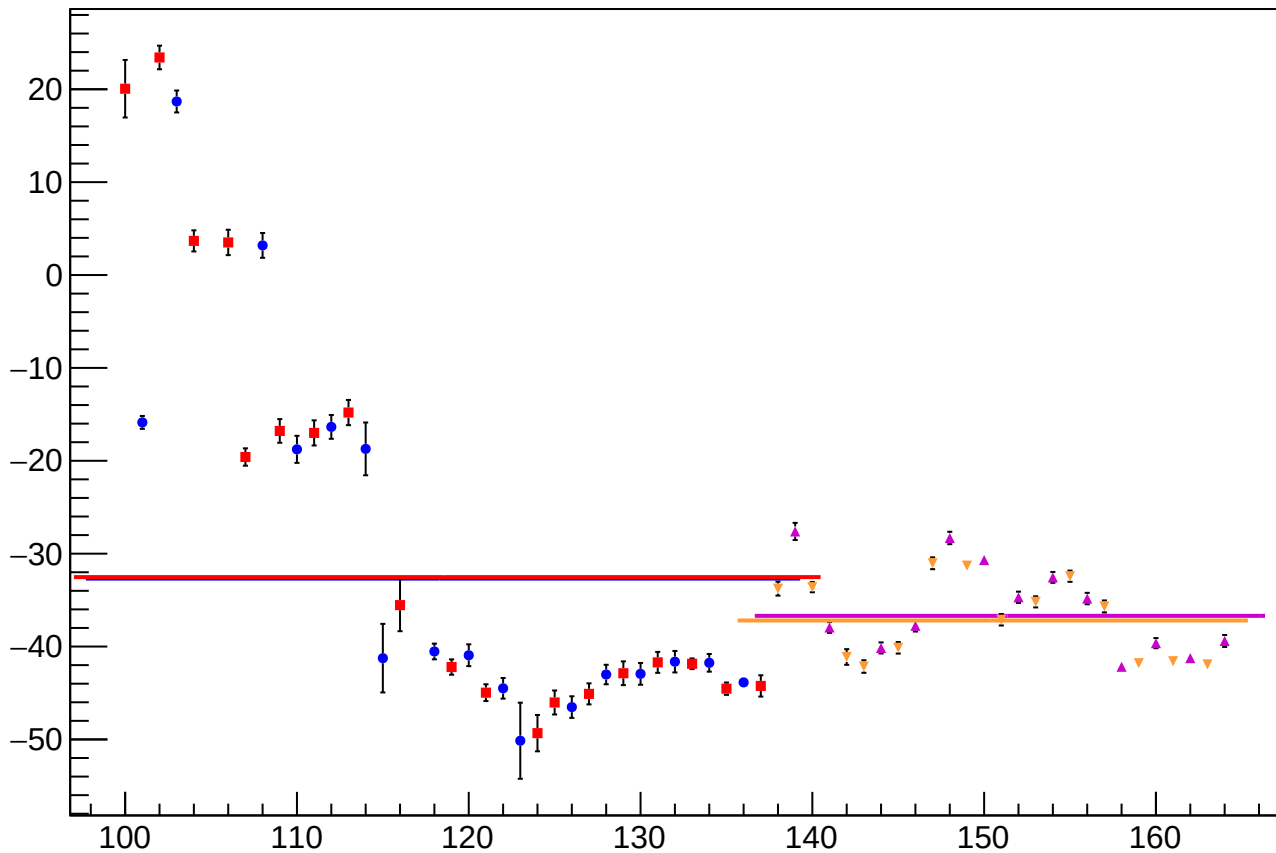
Left In:  $-9.458 \pm 0.187$   $\chi^2/\text{NDF}: 600.6/12$

+ sign  $-7.172 \pm 0.171$   $\chi^2/\text{NDF}: 1018.6/30$

All:  $-7.163 \pm 0.120$   $\chi^2/\text{NDF}: 2478.5/62$

- sign  $-7.154 \pm 0.169$   $\chi^2/\text{NDF}: 1459.9/31$

# reg\_asym\_sam\_15\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-32.682 \pm 0.256$   $\chi^2/\text{NDF}: 4646.9/16$

Left Out:  $-37.195 \pm 0.159$   $\chi^2/\text{NDF}: 698.7/13$

Right Out:  $-32.523 \pm 0.244$   $\chi^2/\text{NDF}: 6045.3/18$

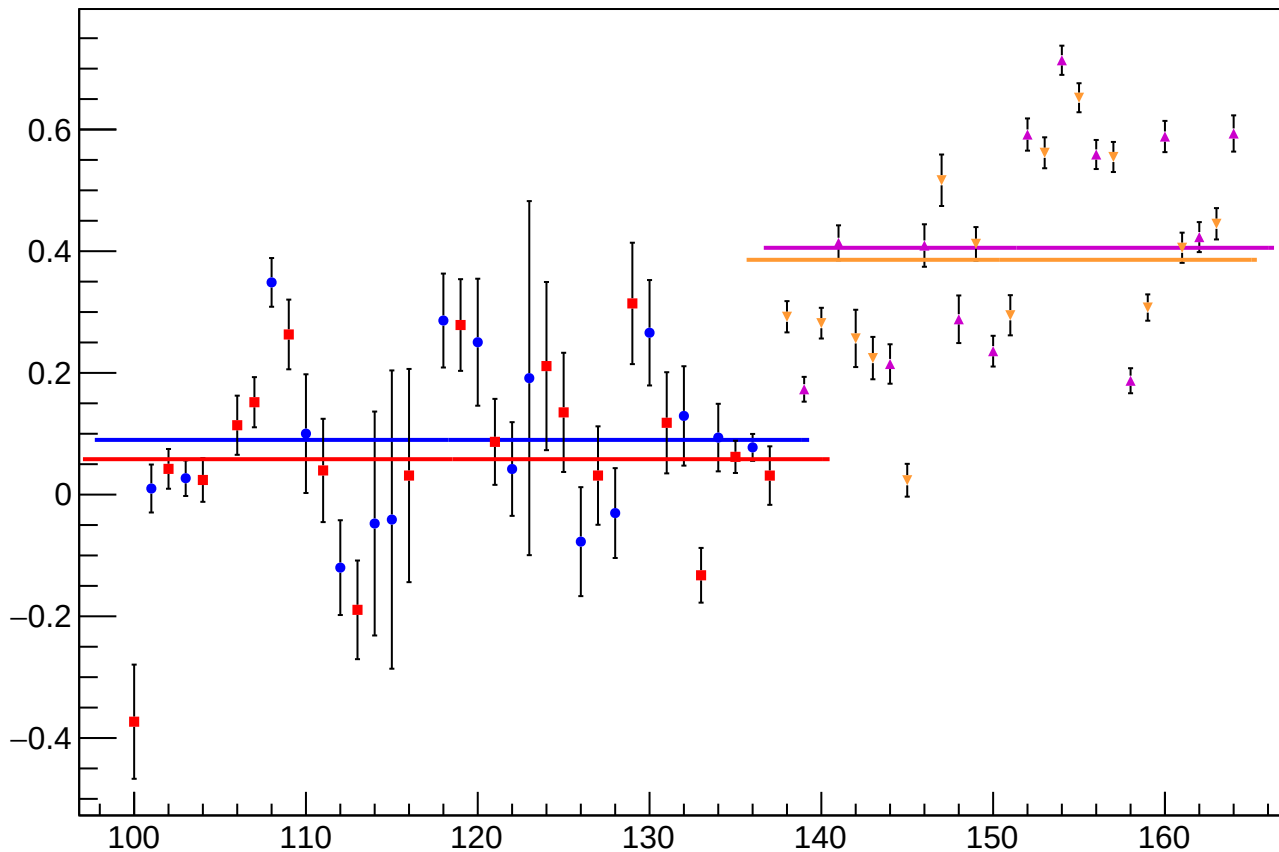
Left In:  $-36.694 \pm 0.162$   $\chi^2/\text{NDF}: 769.1/12$

+ sign  $-35.932 \pm 0.135$   $\chi^2/\text{NDF}: 5569.7/30$

All:  $-35.674 \pm 0.096$   $\chi^2/\text{NDF}: 12594.1/62$

- sign  $-35.416 \pm 0.135$   $\chi^2/\text{NDF}: 7017.1/31$

# reg\_asym\_sam\_15\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $0.090 \pm 0.013$   $\chi^2/\text{NDF}: 78.8/16$

Left Out:  $0.386 \pm 0.007$   $\chi^2/\text{NDF}: 496.3/13$

Right Out:  $0.058 \pm 0.012$   $\chi^2/\text{NDF}: 87.1/18$

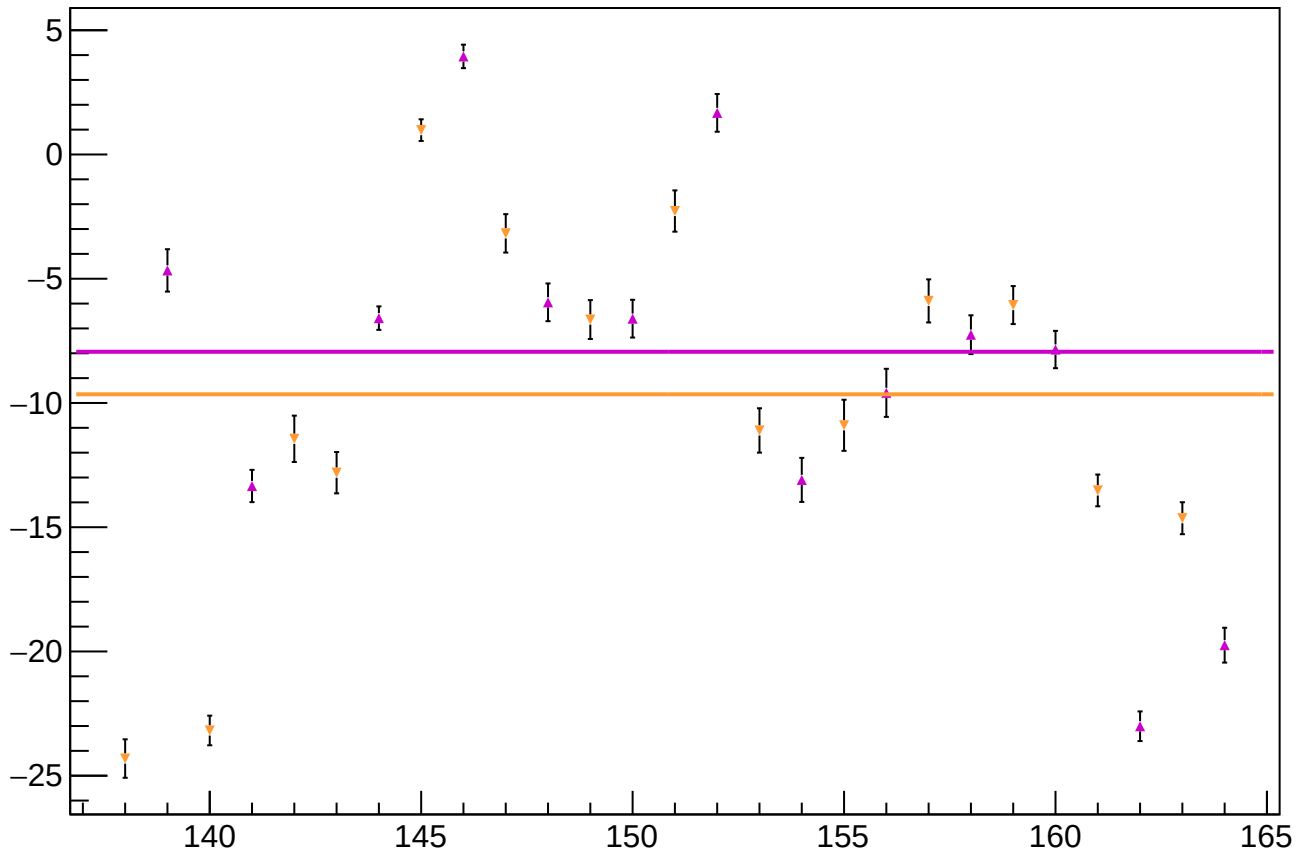
Left In:  $0.406 \pm 0.007$   $\chi^2/\text{NDF}: 678.6/12$

+ sign  $0.313 \pm 0.006$   $\chi^2/\text{NDF}: 981.0/30$

All:  $0.314 \pm 0.004$   $\chi^2/\text{NDF}: 2349.3/62$

- sign  $0.315 \pm 0.006$   $\chi^2/\text{NDF}: 1368.2/31$

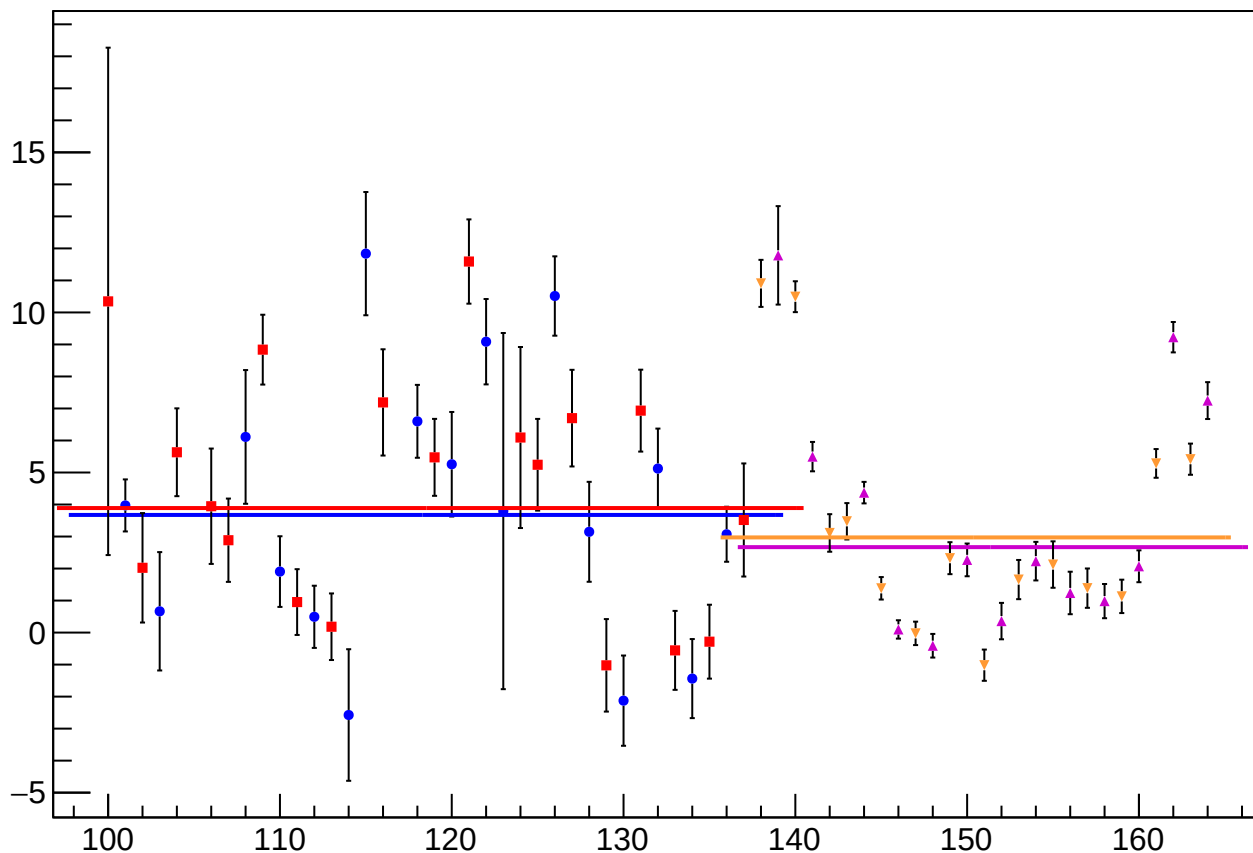
reg\_asym\_sam\_37\_avg\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -9.651+/-0.192  $\chi^2/\text{NDF}$ : 1790.3/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -7.939+/-0.187  $\chi^2/\text{NDF}$ : 1854.0/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -8.775+/-0.134  $\chi^2/\text{NDF}$ : 3685.1/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_sam\_37\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $3.675 \pm 0.310$   $\chi^2/\text{NDF}$ : 135.2/16

Left Out:  $2.973 \pm 0.134$   $\chi^2/\text{NDF}$ : 593.6/13

Right Out:  $3.890 \pm 0.316$   $\chi^2/\text{NDF}$ : 133.7/18

Left In:  $2.669 \pm 0.129$   $\chi^2/\text{NDF}$ : 536.3/12

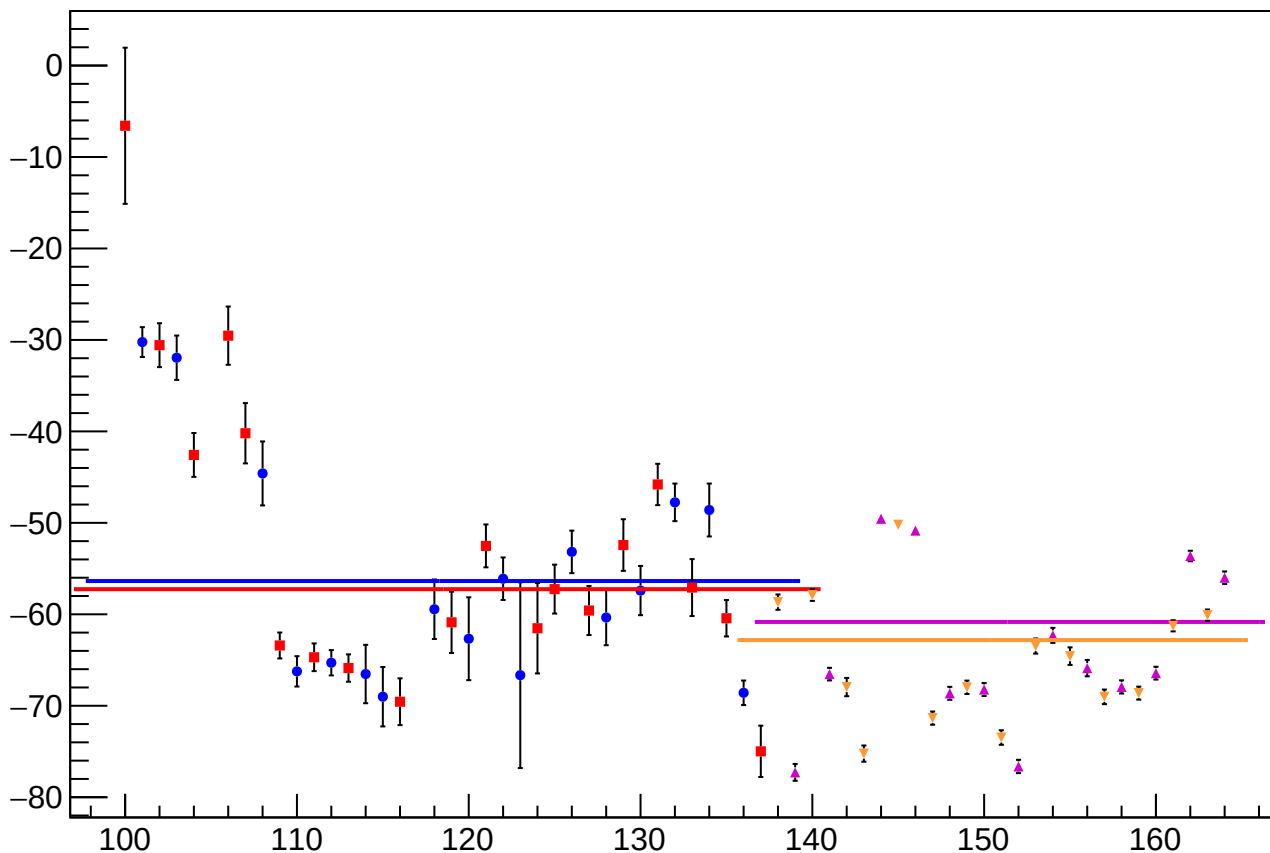
+ sign  $3.082 \pm 0.123$   $\chi^2/\text{NDF}$ : 733.0/30

All:  $2.959 \pm 0.085$   $\chi^2/\text{NDF}$ : 1417.8/62

- sign  $2.842 \pm 0.119$   $\chi^2/\text{NDF}$ : 682.8/31



# reg\_asym\_sam\_37\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $-56.362 \pm 0.543$   $\chi^2/\text{NDF}$ : 587.2/16

Left Out:  $-62.816 \pm 0.190$   $\chi^2/\text{NDF}$ : 1571.8/13

Right Out:  $-57.252 \pm 0.536$   $\chi^2/\text{NDF}$ : 476.0/18

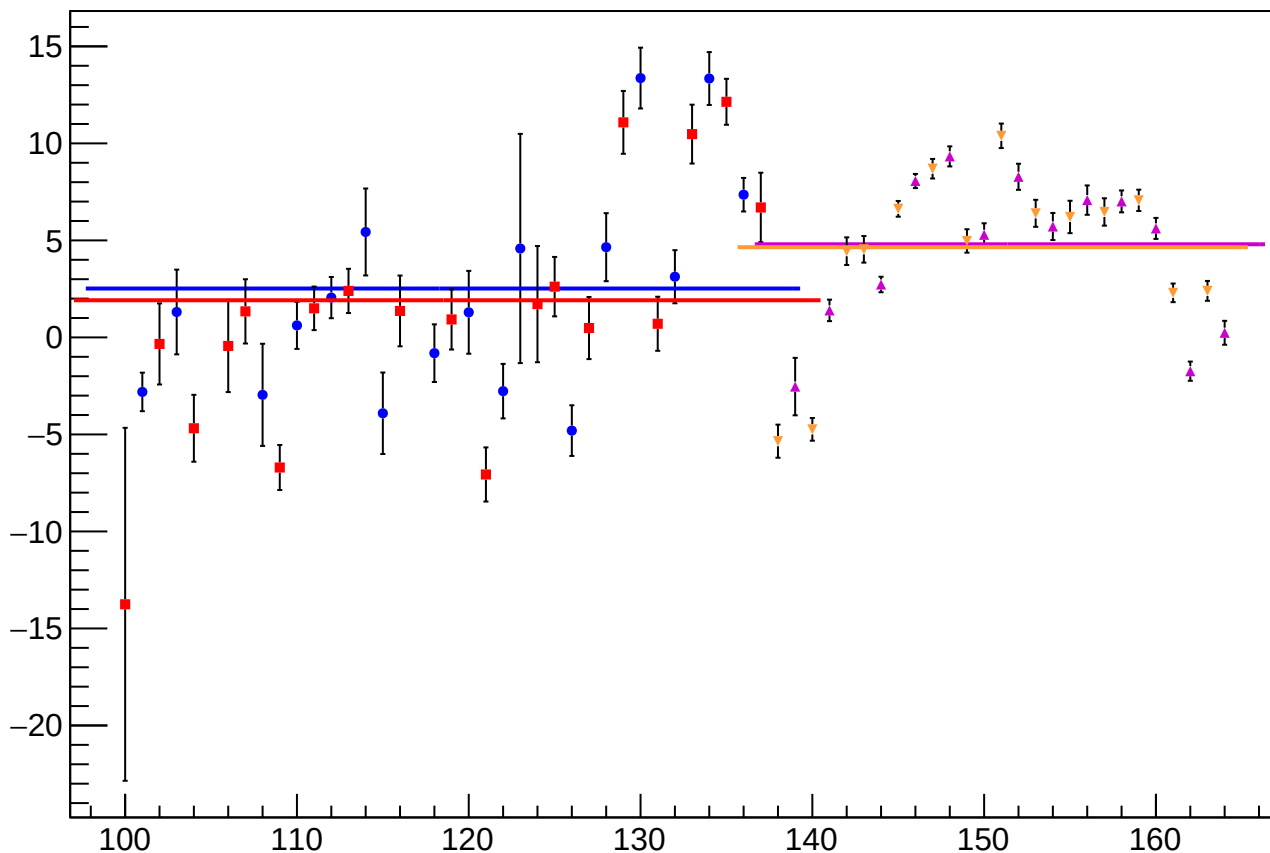
Left In:  $-60.835 \pm 0.183$   $\chi^2/\text{NDF}$ : 2472.7/12

+ sign  $-62.110 \pm 0.180$   $\chi^2/\text{NDF}$ : 2284.7/30

All:  $-61.256 \pm 0.125$   $\chi^2/\text{NDF}$ : 5317.0/62

- sign  $-60.460 \pm 0.173$   $\chi^2/\text{NDF}$ : 2988.7/31

reg\_asym\_sam\_37\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $2.520 \pm 0.347$   $\chi^2/\text{NDF}$ : 242.3/16

Left Out:  $4.649 \pm 0.157$   $\chi^2/\text{NDF}$ : 645.8/13

Right Out:  $1.914 \pm 0.355$   $\chi^2/\text{NDF}$ : 264.5/18

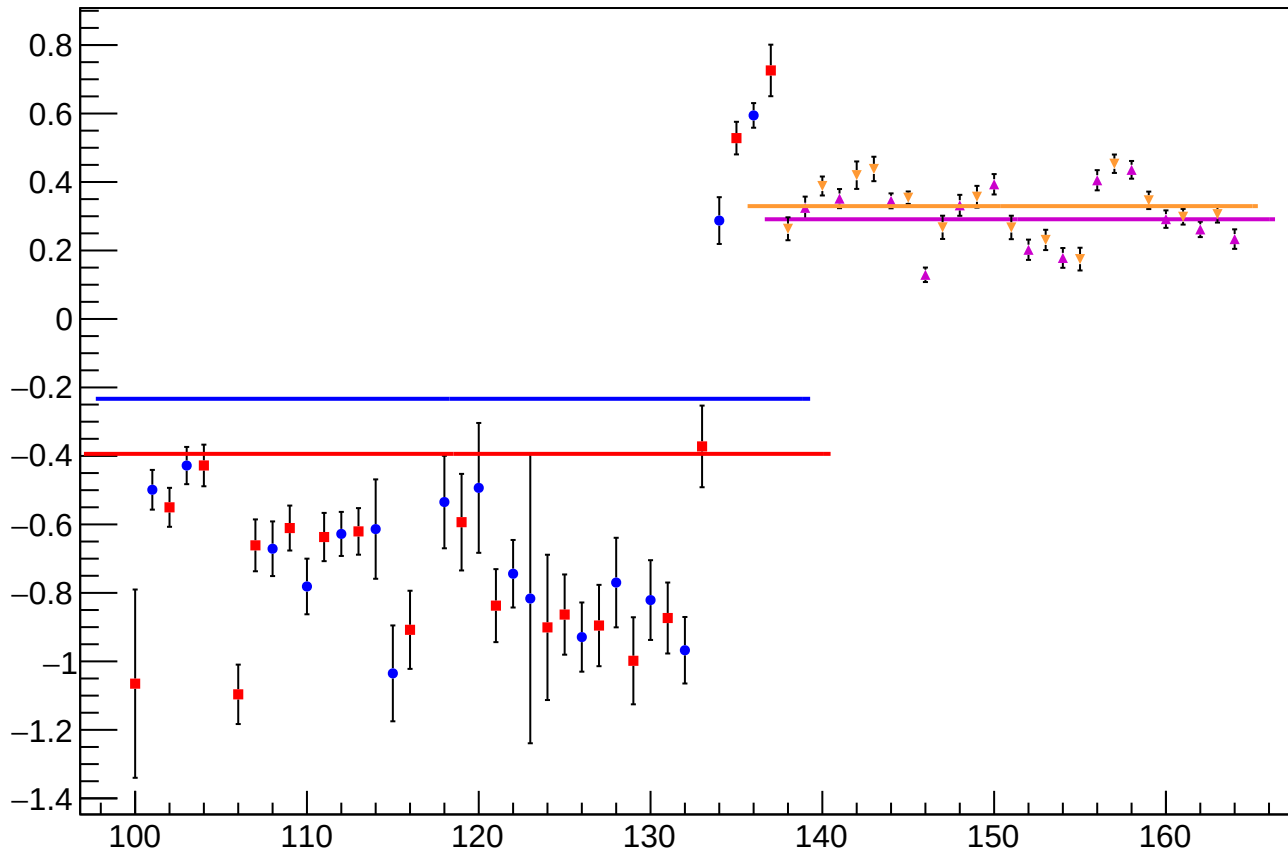
Left In:  $4.800 \pm 0.152$   $\chi^2/\text{NDF}$ : 531.5/12

+ sign  $4.287 \pm 0.143$   $\chi^2/\text{NDF}$ : 919.4/30

All:  $4.321 \pm 0.100$   $\chi^2/\text{NDF}$ : 1771.4/62

- sign  $4.354 \pm 0.140$   $\chi^2/\text{NDF}$ : 852.0/31

reg\_asym\_sam\_37\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.233 \pm 0.019$   $\chi^2/\text{NDF}$ : 956.8/16

Left Out:  $0.330 \pm 0.007$   $\chi^2/\text{NDF}$ : 89.1/13

Right Out:  $-0.394 \pm 0.019$   $\chi^2/\text{NDF}$ : 845.2/18

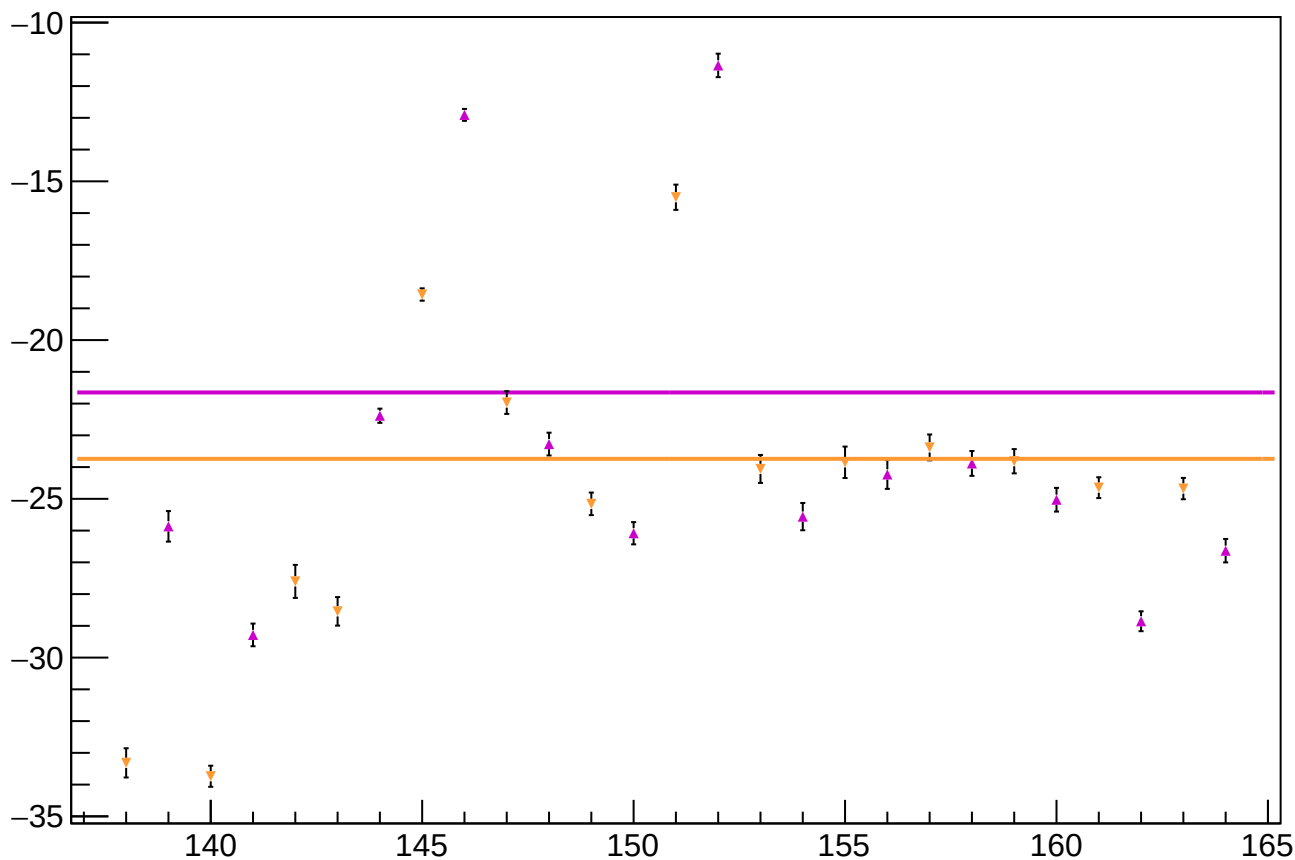
Left In:  $0.291 \pm 0.007$   $\chi^2/\text{NDF}$ : 160.2/12

+ sign  $0.253 \pm 0.007$   $\chi^2/\text{NDF}$ : 1811.9/30

All:  $0.227 \pm 0.005$   $\chi^2/\text{NDF}$ : 3977.1/62

- sign  $0.202 \pm 0.007$   $\chi^2/\text{NDF}$ : 2137.3/31

# reg\_asym\_sam\_37\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out:  $-23.740 \pm 0.095$   $\chi^2/\text{NDF}$ : 2701.9/13

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

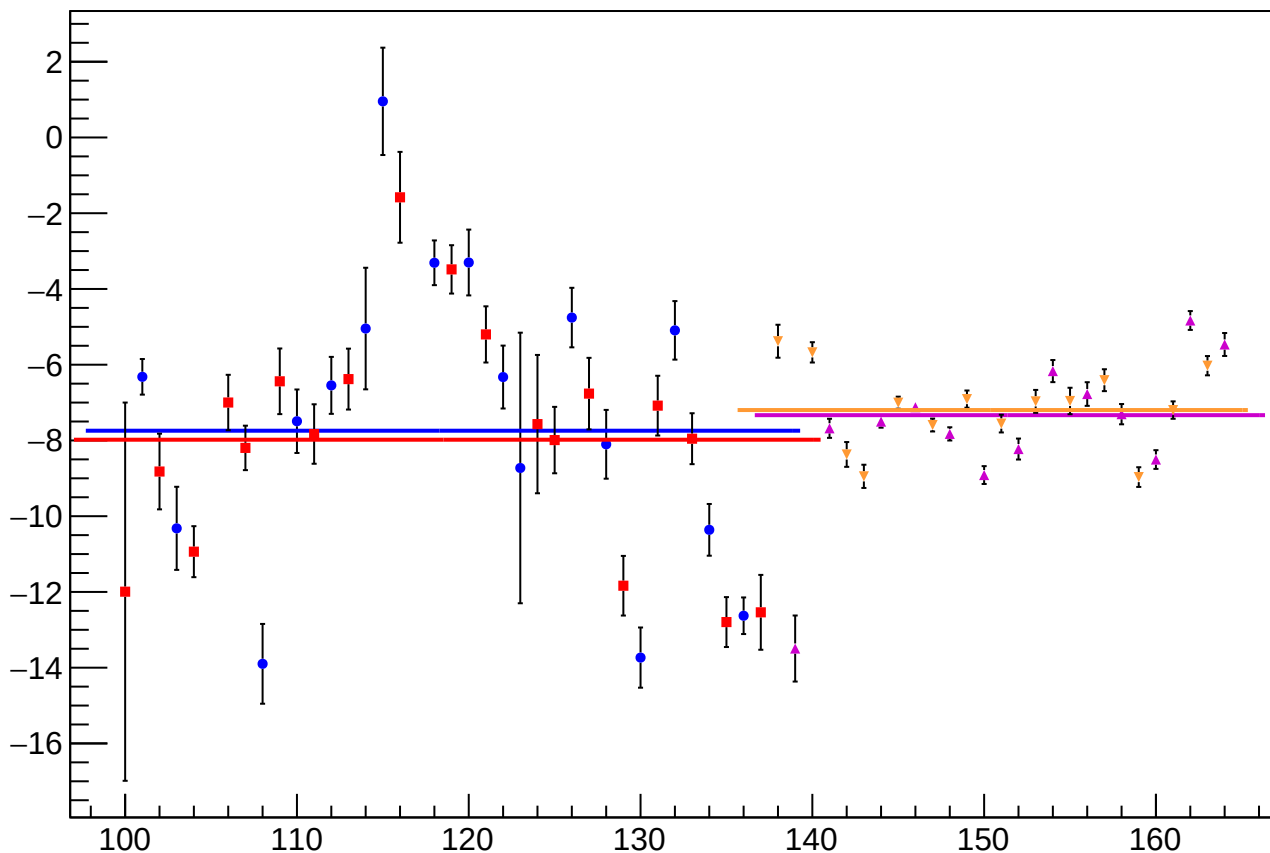
Left In:  $-21.649 \pm 0.089$   $\chi^2/\text{NDF}$ : 4619.4/12

+ sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

All:  $-22.632 \pm 0.065$   $\chi^2/\text{NDF}$ : 7578.8/26

- sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_sam\_37\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-7.743 \pm 0.187$   $\chi^2/\text{NDF}$ : 377.5/16

Left Out:  $-7.197 \pm 0.066$   $\chi^2/\text{NDF}$ : 182.0/13

Right Out:  $-7.981 \pm 0.186$   $\chi^2/\text{NDF}$ : 223.5/18

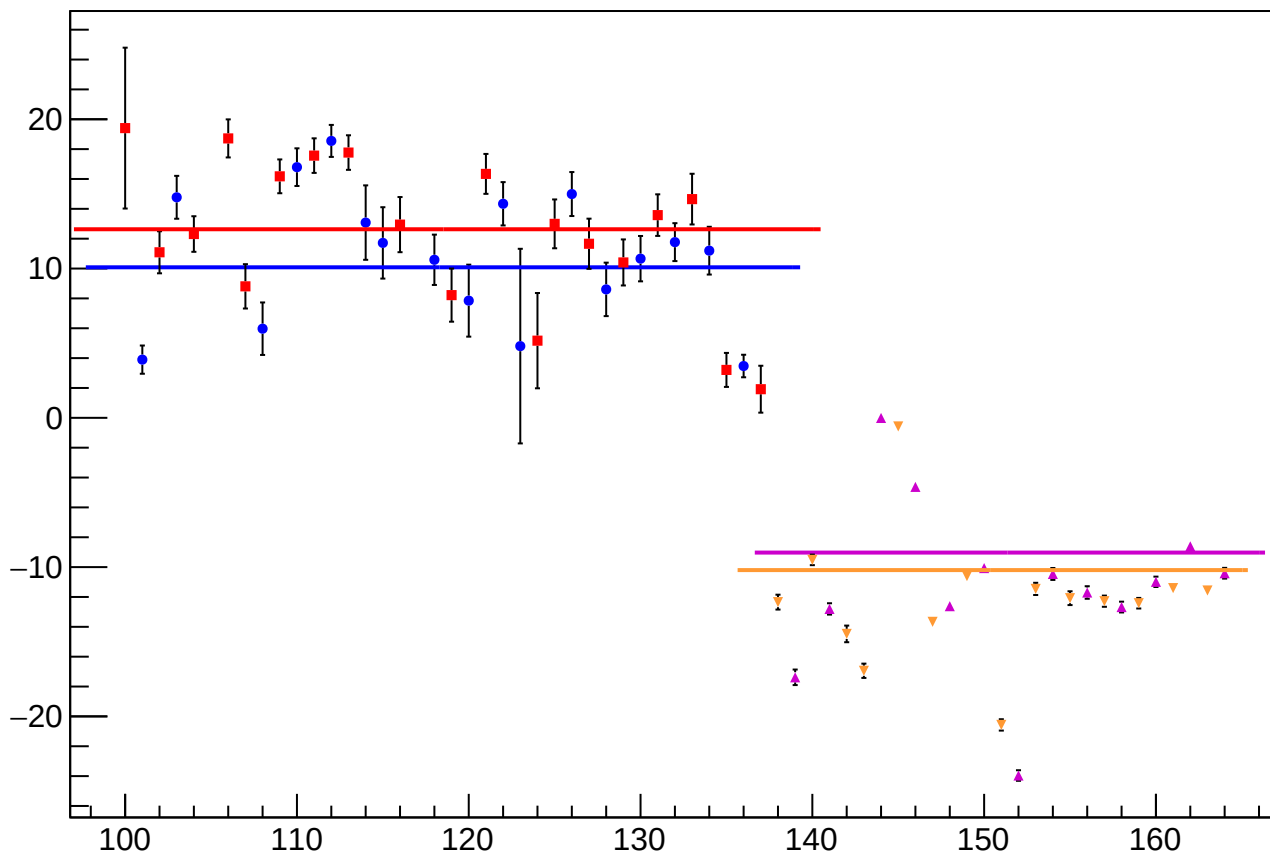
Left In:  $-7.332 \pm 0.061$   $\chi^2/\text{NDF}$ : 300.3/12

+ sign  $-7.257 \pm 0.062$   $\chi^2/\text{NDF}$ : 567.1/30

All:  $-7.331 \pm 0.042$   $\chi^2/\text{NDF}$ : 1104.6/62

- sign  $-7.395 \pm 0.058$   $\chi^2/\text{NDF}$ : 534.8/31

# reg\_asym\_sam\_37\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $10.083 \pm 0.338$   $\chi^2/\text{NDF}: 252.7/16$

Left Out:  $-10.200 \pm 0.094$   $\chi^2/\text{NDF}: 3441.2/13$

Right Out:  $12.632 \pm 0.333$   $\chi^2/\text{NDF}: 218.6/18$

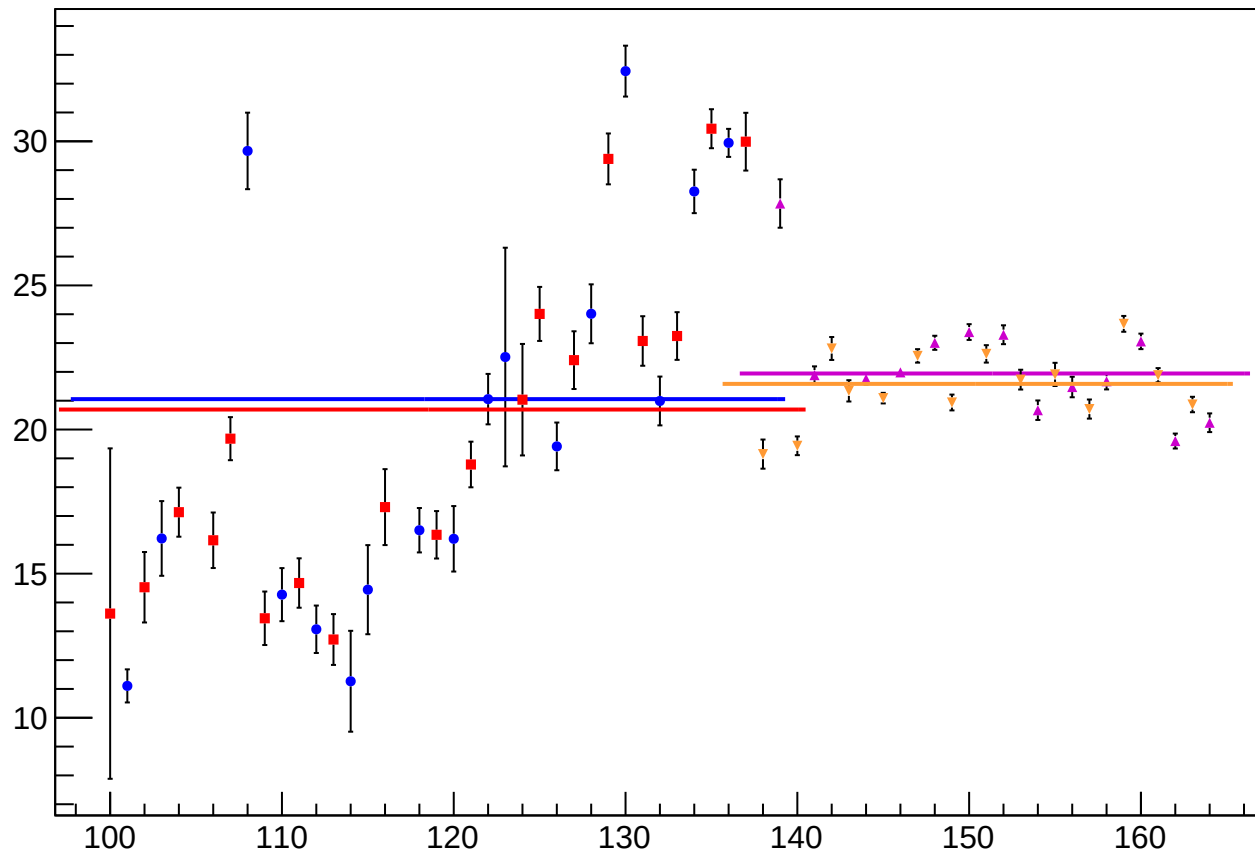
Left In:  $-9.027 \pm 0.087$   $\chi^2/\text{NDF}: 4475.0/12$

+ sign  $-8.748 \pm 0.090$   $\chi^2/\text{NDF}: 7038.6/30$

All:  $-8.152 \pm 0.062$   $\chi^2/\text{NDF}: 15779.6/62$

- sign  $-7.635 \pm 0.084$   $\chi^2/\text{NDF}: 8660.0/31$

# reg\_asym\_sam\_37\_dd\_diff\_bpm4eY\_slope vs Slug



Right In: 21.055 $\pm$ 0.211  $\chi^2$ /NDF: 1211.8/16

Left Out: 21.584 $\pm$ 0.077  $\chi^2$ /NDF:192.8/13

Right Out: 20.694 $\pm$ 0.213  $\chi^2$ /NDF: 724.1/18

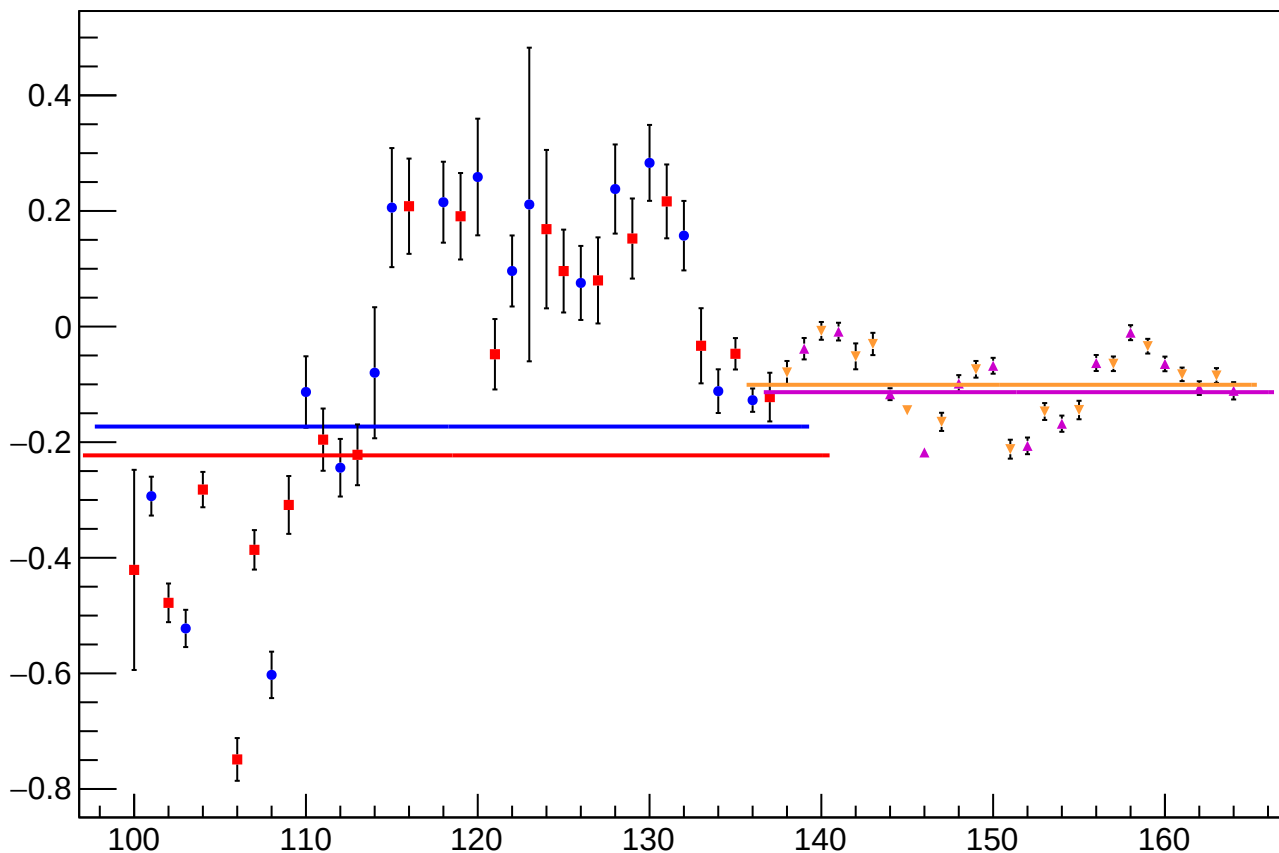
Left In: 21.944 $\pm$ 0.072  $\chi^2$ /NDF:257.4/12

+ sign 21.521 $\pm$ 0.073  $\chi^2$ /NDF: 1410.1/30

All: 21.678 $\pm$ 0.050  $\chi^2$ /NDF: 2431.4/62

- sign 21.816 $\pm$ 0.068  $\chi^2$ /NDF: 1012.5/31

# reg\_asym\_sam\_37\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.173 \pm 0.011$   $\chi^2/\text{NDF}$ : 461.8/16

Left Out:  $-0.101 \pm 0.004$   $\chi^2/\text{NDF}$ : 209.3/13

Right Out:  $-0.223 \pm 0.011$   $\chi^2/\text{NDF}$ : 535.1/18

Left In:  $-0.113 \pm 0.004$   $\chi^2/\text{NDF}$ : 375.8/12

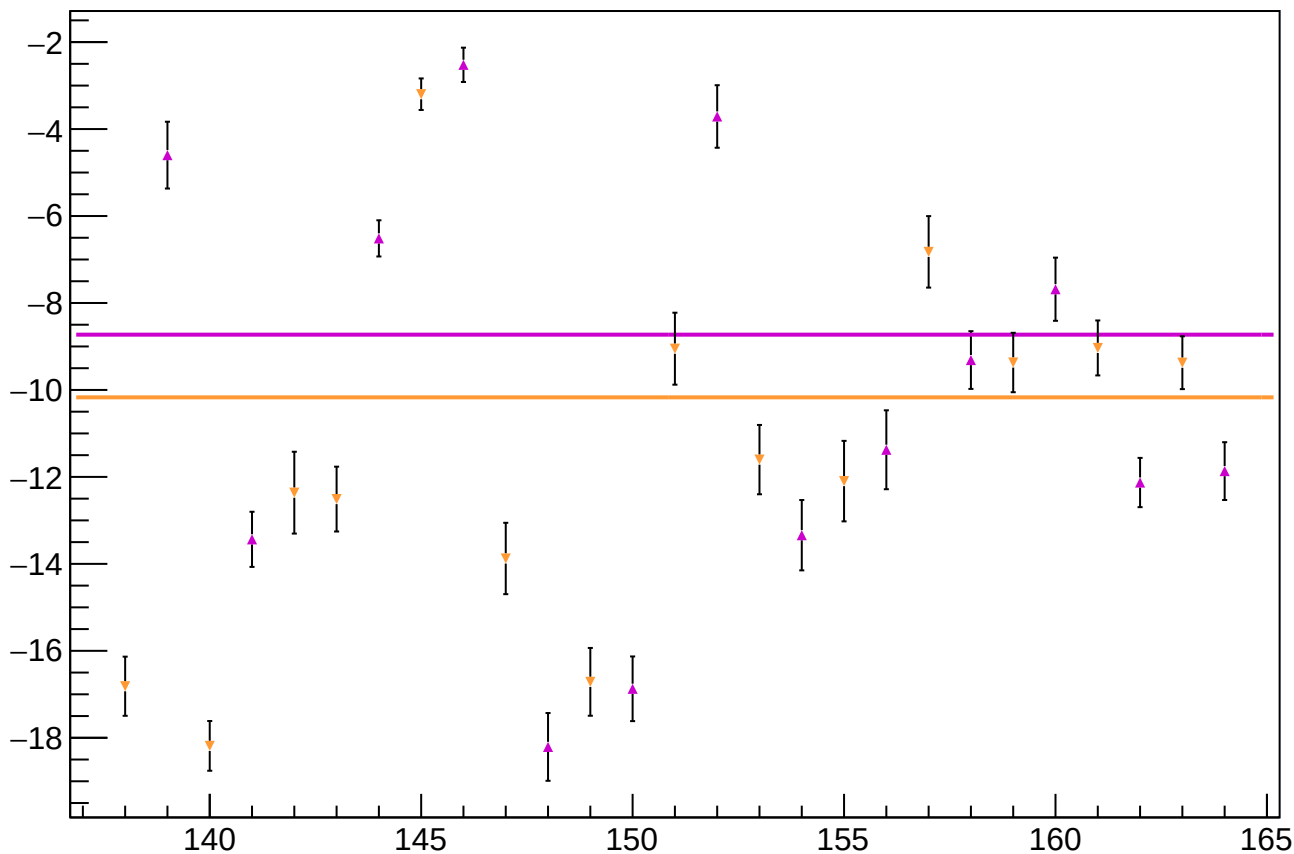
+ sign  $-0.108 \pm 0.004$   $\chi^2/\text{NDF}$ : 708.7/30

All:  $-0.116 \pm 0.002$   $\chi^2/\text{NDF}$ : 1720.7/62

- sign  $-0.124 \pm 0.003$   $\chi^2/\text{NDF}$ : 1001.1/31



# reg\_asym\_sam\_26\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -10.170+/-0.177  $\chi^2/\text{NDF}$ : 799.7/13

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

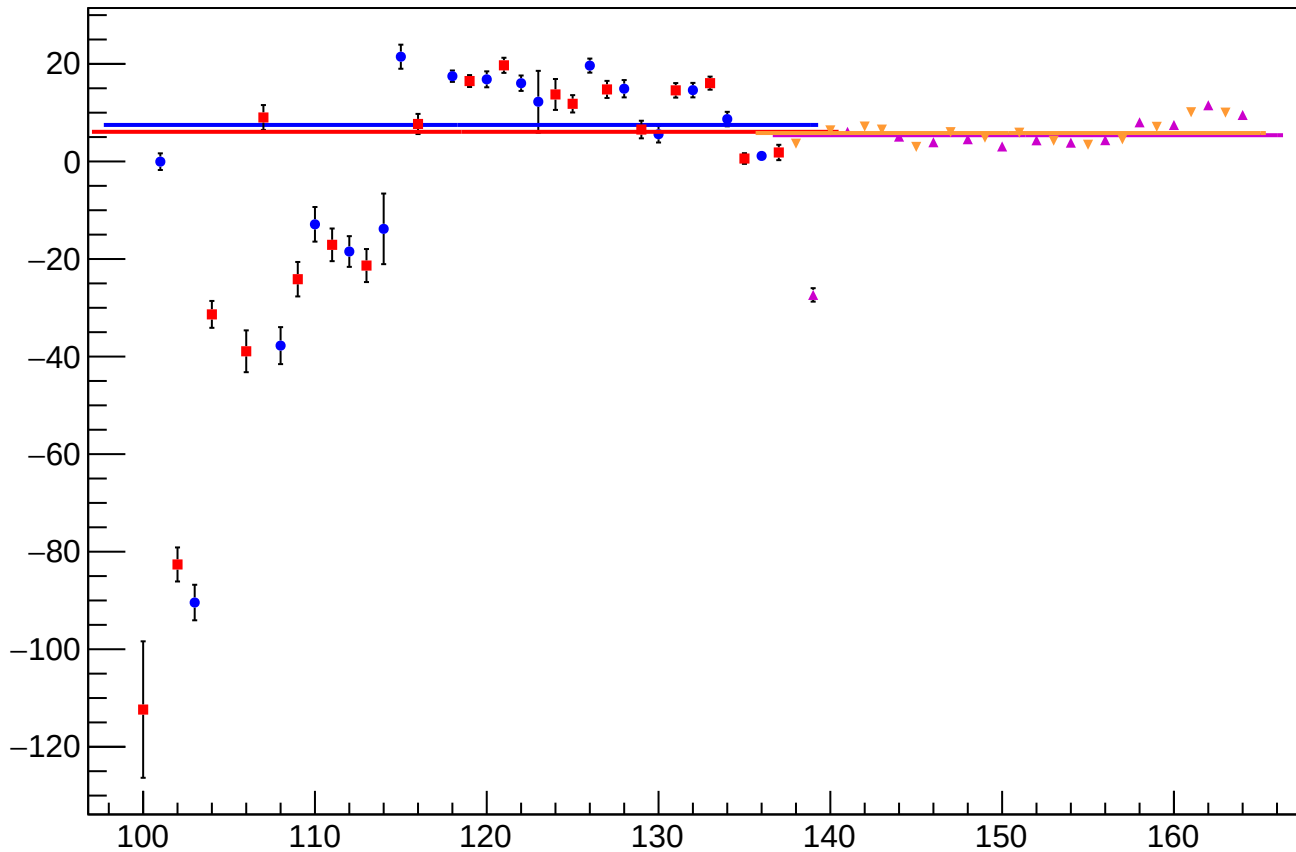
Left In: -8.729+/-0.171  $\chi^2/\text{NDF}$ : 778.7/12

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

All: -9.426+/-0.123  $\chi^2/\text{NDF}$ : 1612.6/26

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

# reg\_asym\_sam\_26\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $7.488 \pm 0.407$   $\chi^2/\text{NDF}$ : 1340.5/16

Left Out:  $5.827 \pm 0.125$   $\chi^2/\text{NDF}$ : 330.0/13

Right Out:  $6.078 \pm 0.434$   $\chi^2/\text{NDF}$ : 1512.1/18

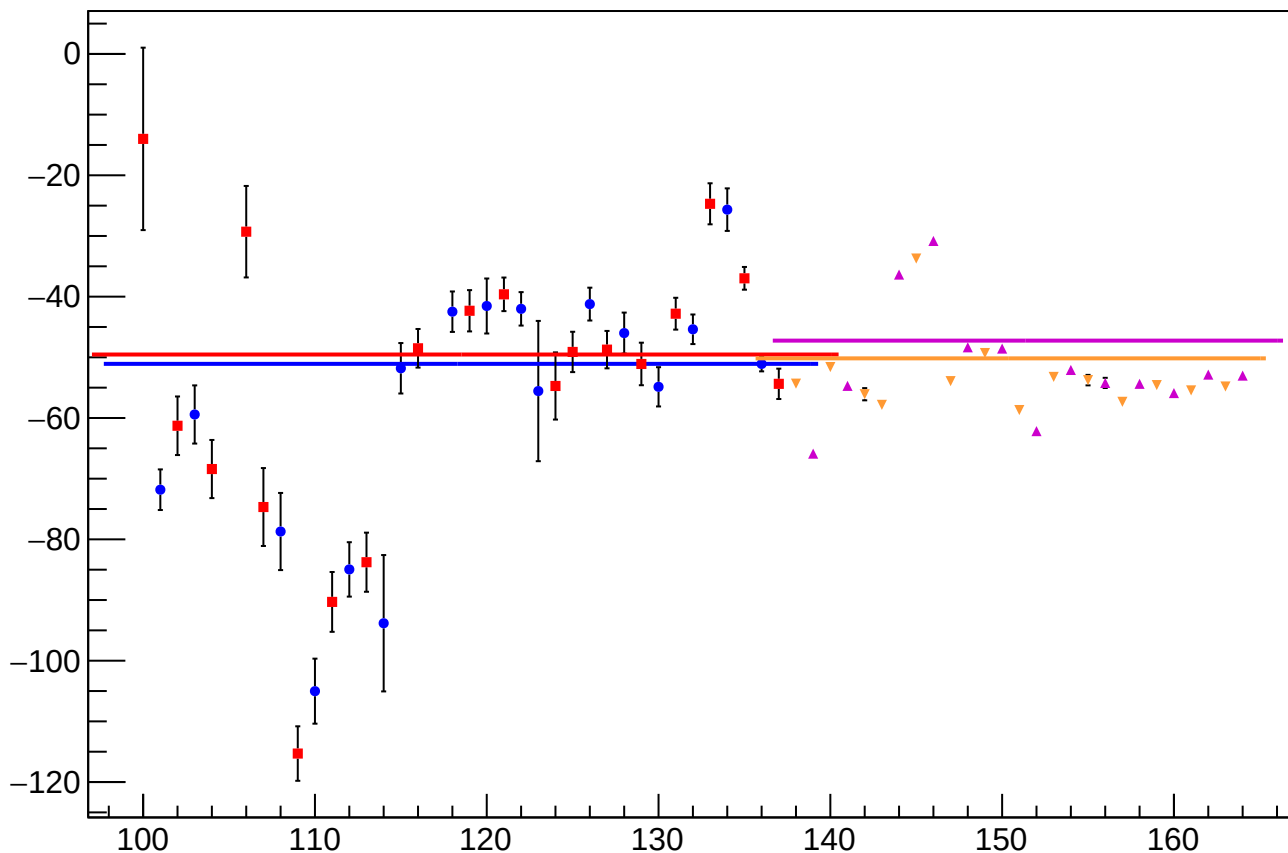
Left In:  $5.381 \pm 0.119$   $\chi^2/\text{NDF}$ : 933.3/12

+ sign  $5.971 \pm 0.120$   $\chi^2/\text{NDF}$ : 1685.7/30

All:  $5.690 \pm 0.083$   $\chi^2/\text{NDF}$ : 4144.1/62

- sign  $5.430 \pm 0.115$   $\chi^2/\text{NDF}$ : 2447.7/31

reg\_asym\_sam\_26\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $-51.077 \pm 0.741$   $\chi^2/\text{NDF}$ : 330.2/16

Left Out:  $-50.172 \pm 0.177$   $\chi^2/\text{NDF}$ : 2419.2/13

Right Out:  $-49.537 \pm 0.798$   $\chi^2/\text{NDF}$ : 509.6/18

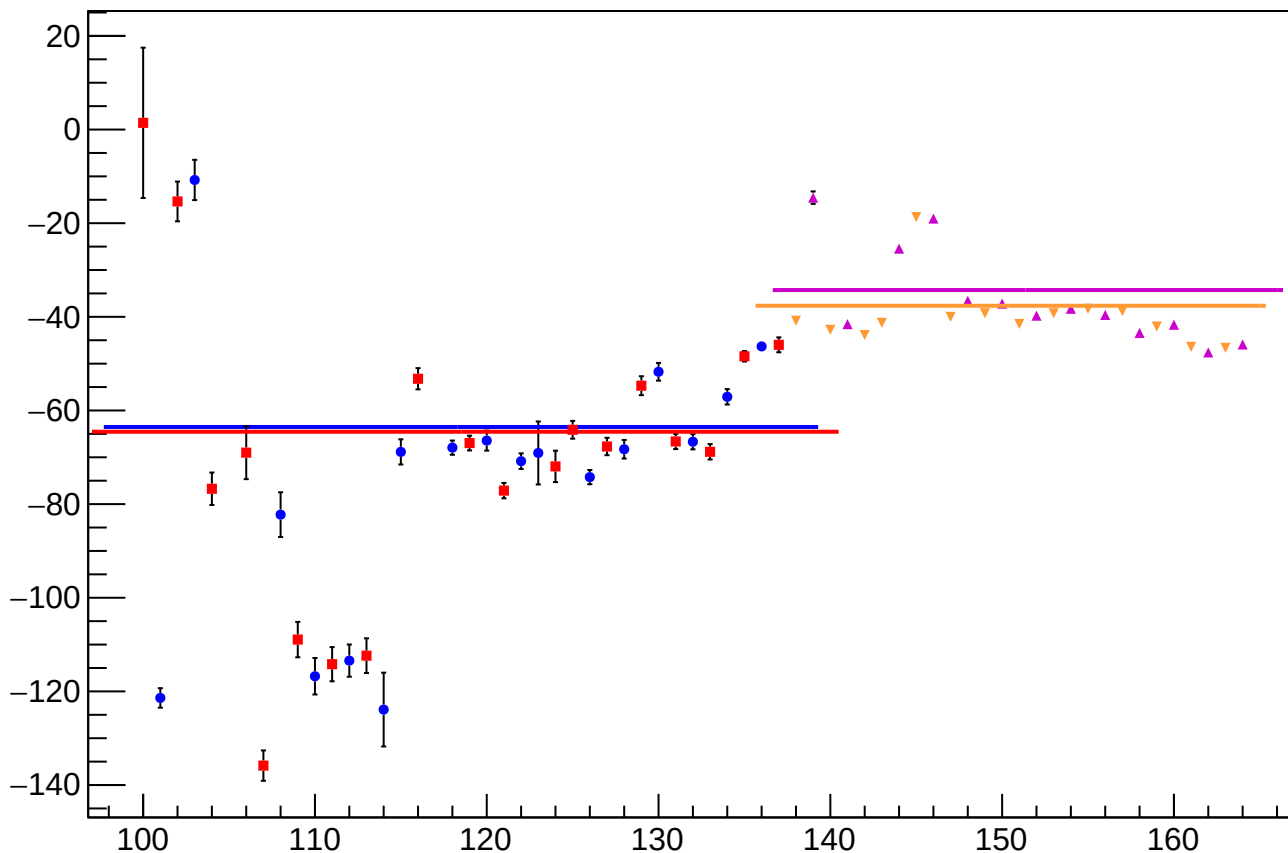
Left In:  $-47.247 \pm 0.168$   $\chi^2/\text{NDF}$ : 4158.0/12

+ sign  $-50.221 \pm 0.172$   $\chi^2/\text{NDF}$ : 2750.8/30

All:  $-48.718 \pm 0.119$   $\chi^2/\text{NDF}$ : 7572.5/62

- sign  $-47.344 \pm 0.164$   $\chi^2/\text{NDF}$ : 4675.4/31

reg\_asym\_sam\_26\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $-63.525 \pm 0.449$   $\chi^2/\text{NDF}$ : 2010.9/16

Left Out:  $-37.637 \pm 0.146$   $\chi^2/\text{NDF}$ : 4271.9/13

Right Out:  $-64.540 \pm 0.483$   $\chi^2/\text{NDF}$ : 1603.1/18

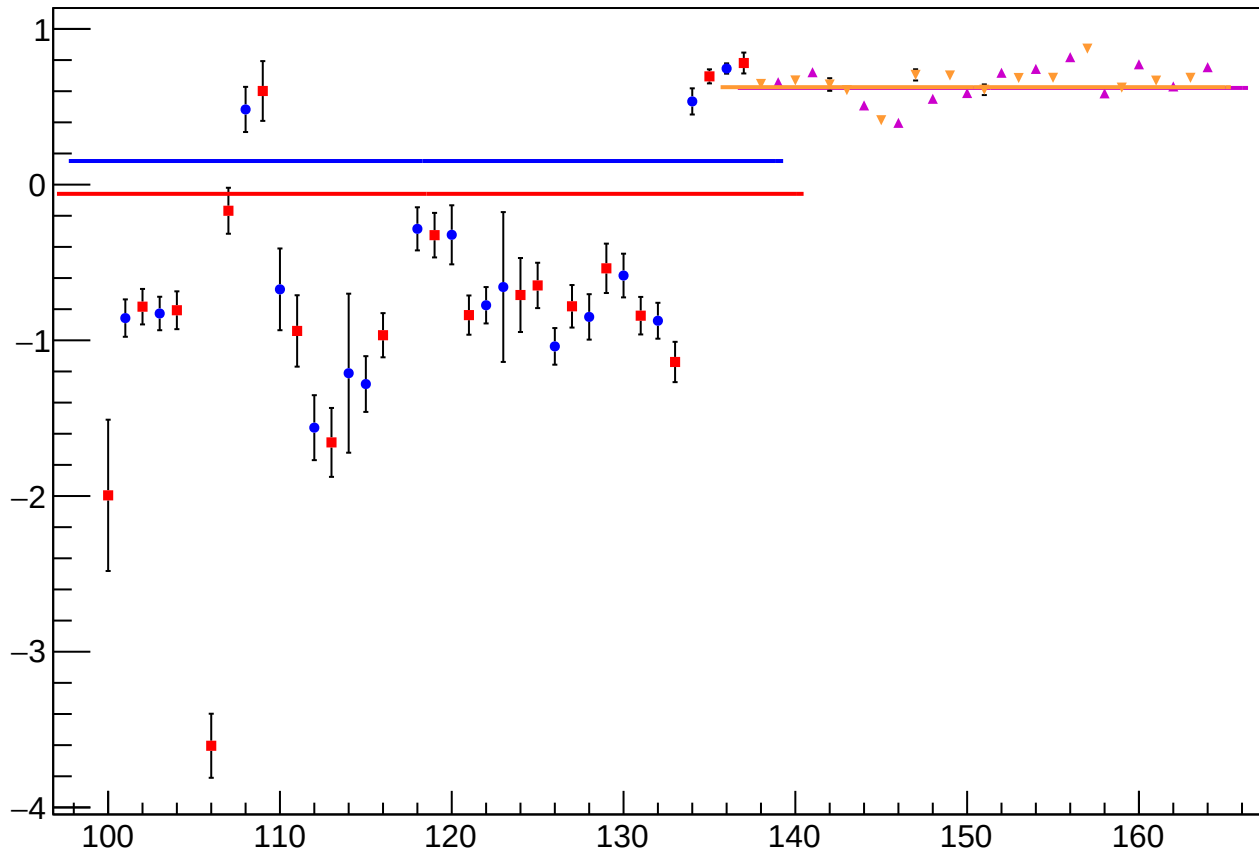
Left In:  $-34.278 \pm 0.140$   $\chi^2/\text{NDF}$ : 5360.7/12

+ sign  $-40.124 \pm 0.139$   $\chi^2/\text{NDF}$ : 9292.2/30

All:  $-38.315 \pm 0.097$   $\chi^2/\text{NDF}$ : 20205.1/62

- sign  $-36.624 \pm 0.134$   $\chi^2/\text{NDF}$ : 10585.5/31

reg\_asym\_sam\_26\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $0.152 \pm 0.024$   $\chi^2/\text{NDF}$ : 987.4/16

Left Out:  $0.626 \pm 0.007$   $\chi^2/\text{NDF}$ : 322.9/13

Right Out:  $-0.059 \pm 0.026$   $\chi^2/\text{NDF}$ : 1161.9/18

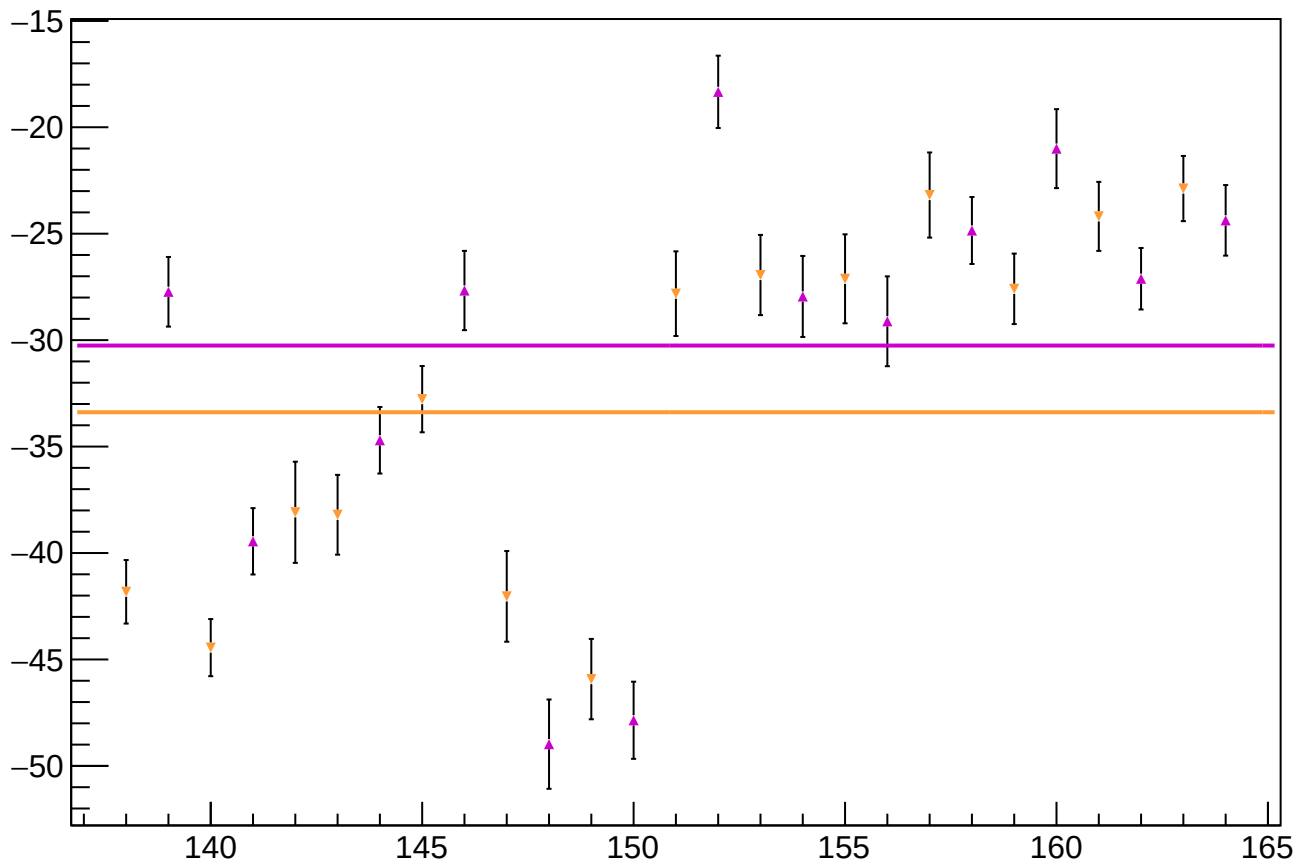
Left In:  $0.621 \pm 0.007$   $\chi^2/\text{NDF}$ : 362.3/12

+ sign  $0.590 \pm 0.007$   $\chi^2/\text{NDF}$ : 1669.8/30

All:  $0.584 \pm 0.005$   $\chi^2/\text{NDF}$ : 3823.0/62

- sign  $0.579 \pm 0.007$   $\chi^2/\text{NDF}$ : 2151.8/31

# reg\_asym\_sam\_26\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: -33.387+/-0.468  $\chi^2/\text{NDF}$ : 317.3/13

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

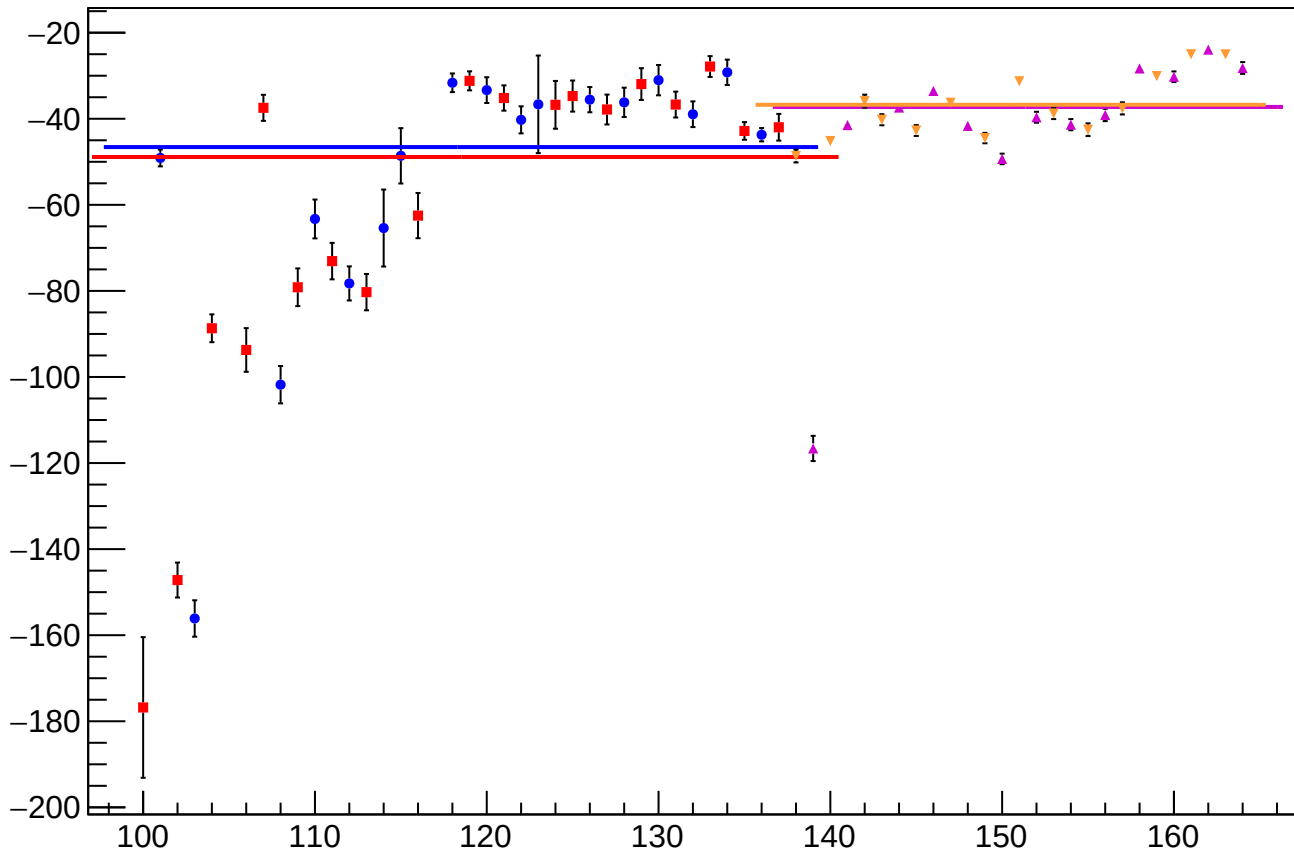
Left In: -30.255+/-0.477  $\chi^2/\text{NDF}$ : 326.2/12

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

All: -31.850+/-0.334  $\chi^2/\text{NDF}$ : 665.5/26

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

# reg\_asym\_sam\_26\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-46.579 \pm 0.730$   $\chi^2/\text{NDF}$ : 1076.4/16

Left Out:  $-36.754 \pm 0.330$   $\chi^2/\text{NDF}$ : 477.0/13

Right Out:  $-48.888 \pm 0.763$   $\chi^2/\text{NDF}$ : 1277.5/18

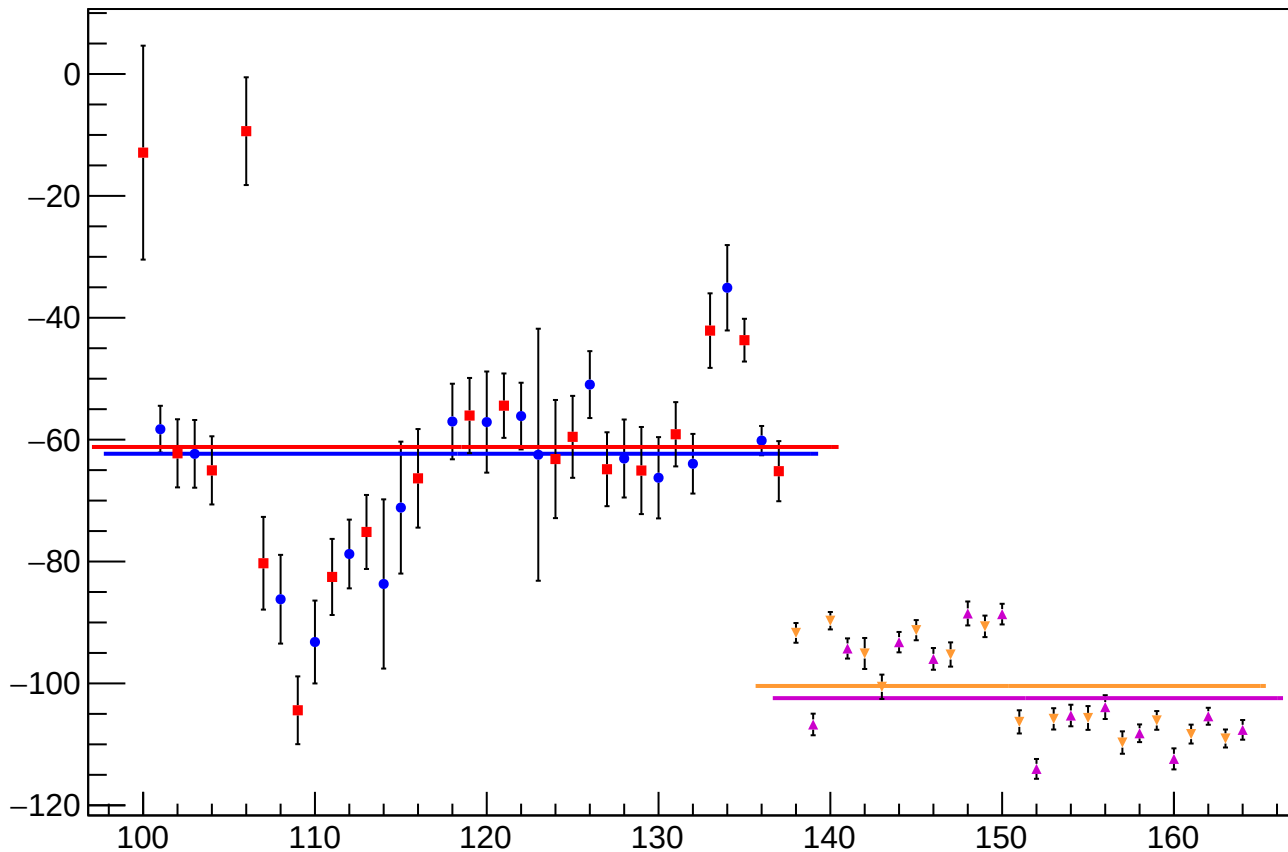
Left In:  $-37.250 \pm 0.341$   $\chi^2/\text{NDF}$ : 1165.8/12

+ sign  $-38.423 \pm 0.301$   $\chi^2/\text{NDF}$ : 1703.8/30

All:  $-38.792 \pm 0.216$   $\chi^2/\text{NDF}$ : 4344.0/62

- sign  $-39.187 \pm 0.311$   $\chi^2/\text{NDF}$ : 2637.0/31

# reg\_asym\_sam\_26\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-62.315 \pm 1.316$   $\chi^2/\text{NDF}$ : 67.1/16

Left Out:  $-100.419 \pm 0.462$   $\chi^2/\text{NDF}$ : 283.1/13

Right Out:  $-61.203 \pm 1.381$   $\chi^2/\text{NDF}$ : 165.0/18

Left In:  $-102.417 \pm 0.465$   $\chi^2/\text{NDF}$ : 307.7/12

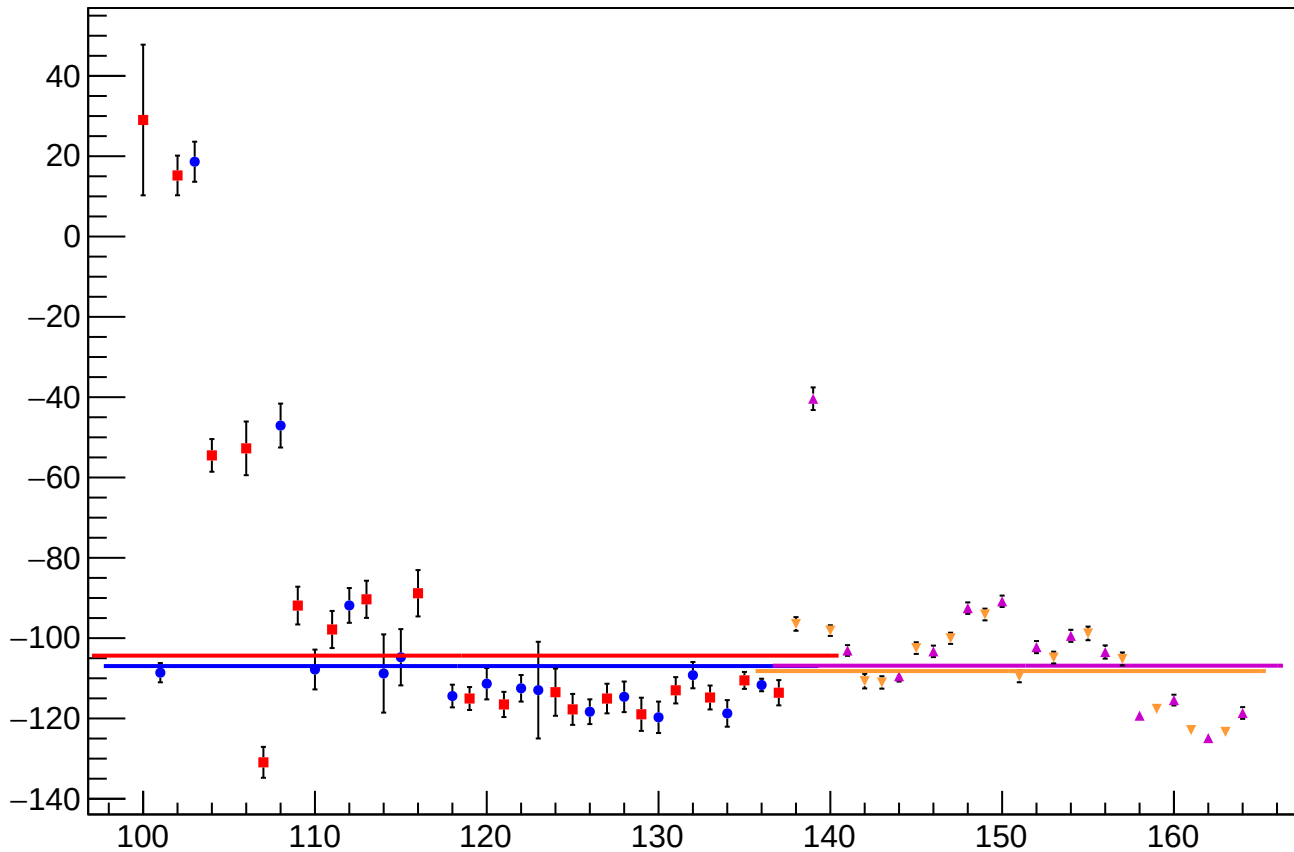
+ sign  $-96.229 \pm 0.436$   $\chi^2/\text{NDF}$ : 1096.8/30

All:  $-97.217 \pm 0.310$   $\chi^2/\text{NDF}$ : 2380.0/62

- sign  $-98.225 \pm 0.440$   $\chi^2/\text{NDF}$ : 1272.8/31



# reg\_asym\_sam\_26\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-106.954 \pm 0.817$   $\chi^2/\text{NDF}: 827.2/16$

Left Out:  $-108.200 \pm 0.385$   $\chi^2/\text{NDF}: 654.8/13$

Right Out:  $-104.356 \pm 0.861$   $\chi^2/\text{NDF}: 1021.0/18$

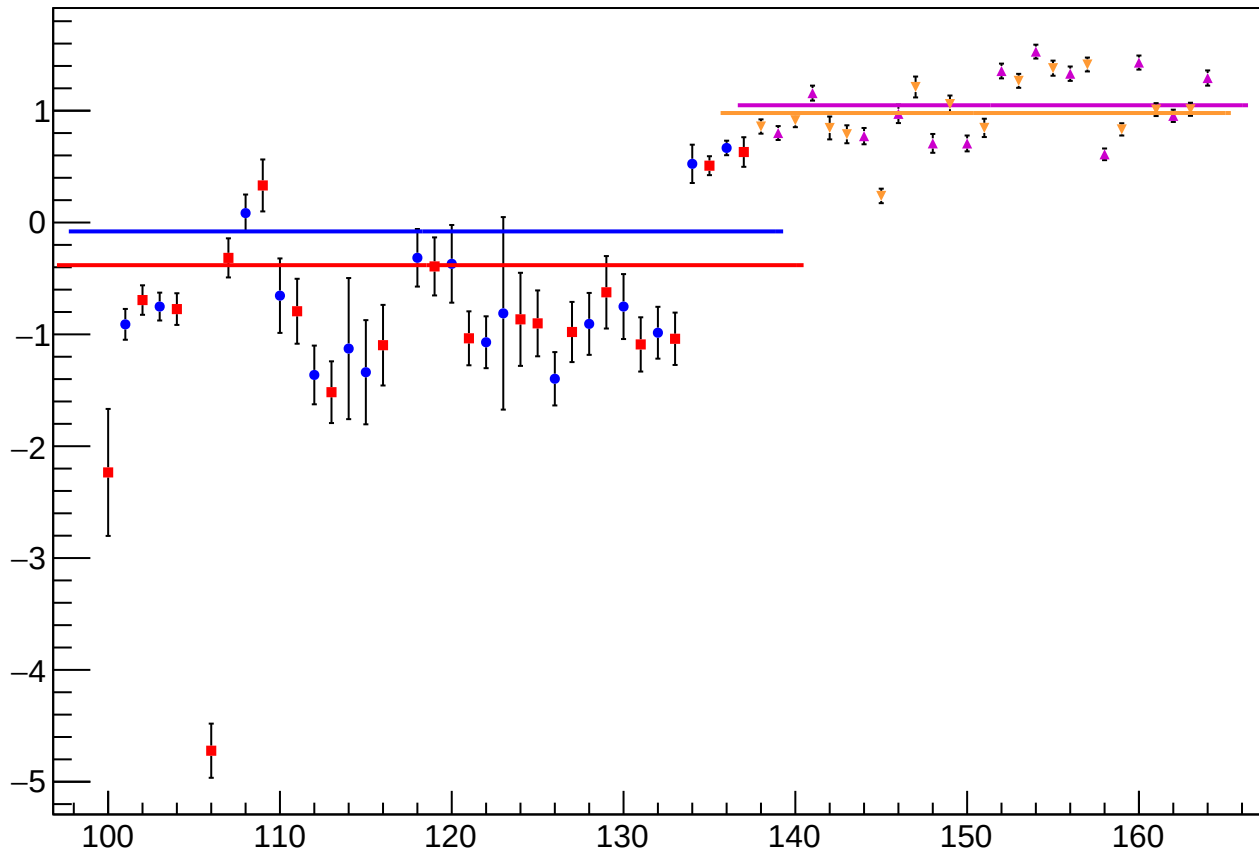
Left In:  $-106.856 \pm 0.393$   $\chi^2/\text{NDF}: 1289.1/12$

+ sign  $-107.974 \pm 0.348$   $\chi^2/\text{NDF}: 1484.0/30$

All:  $-107.221 \pm 0.249$   $\chi^2/\text{NDF}: 3810.7/62$

- sign  $-106.424 \pm 0.358$   $\chi^2/\text{NDF}: 2317.0/31$

# reg\_asym\_sam\_26\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.079 \pm 0.042$   $\chi^2/\text{NDF}$ : 328.5/16

Left Out:  $0.979 \pm 0.018$   $\chi^2/\text{NDF}$ : 265.4/13

Right Out:  $-0.381 \pm 0.044$   $\chi^2/\text{NDF}$ : 580.5/18

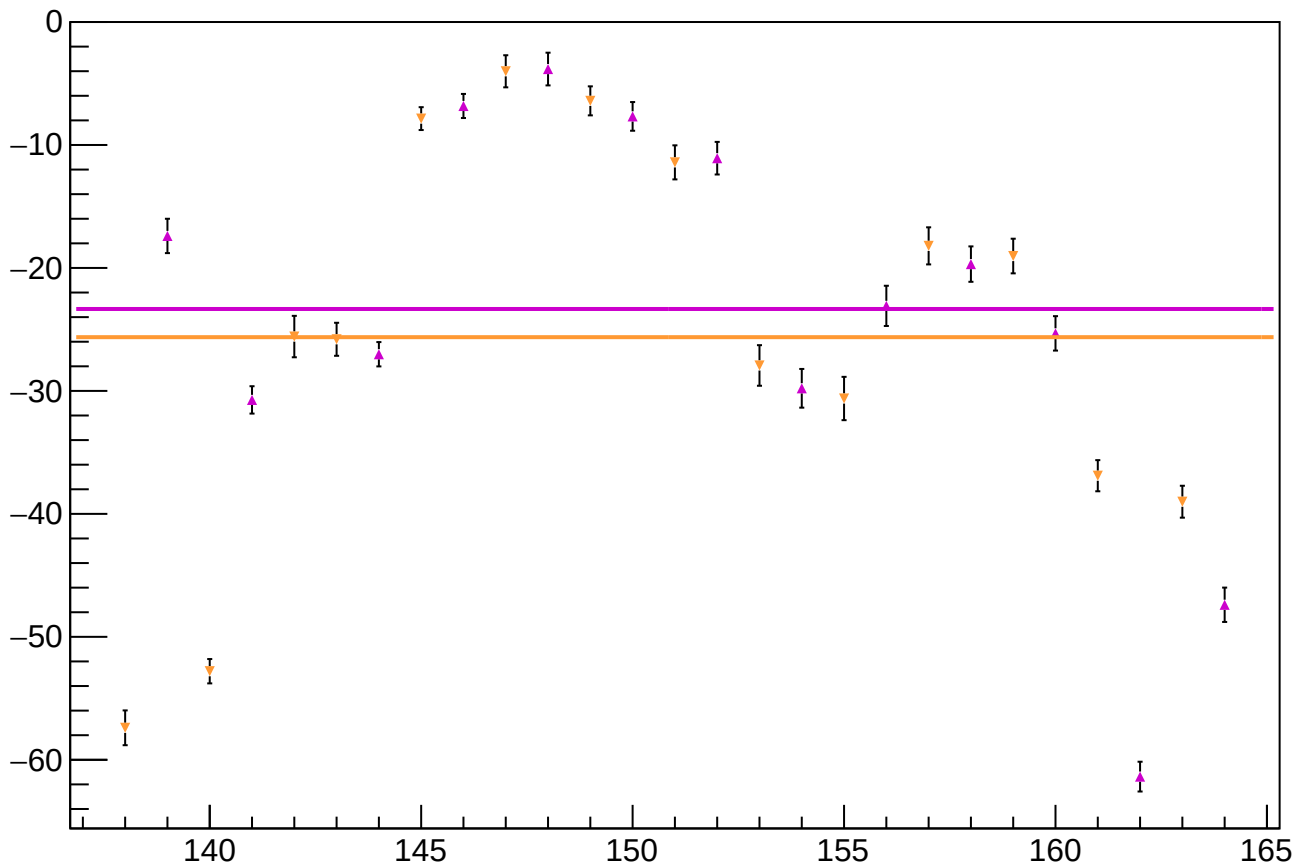
Left In:  $1.049 \pm 0.018$   $\chi^2/\text{NDF}$ : 296.9/12

+ sign  $0.817 \pm 0.017$   $\chi^2/\text{NDF}$ : 1124.9/30

All:  $0.829 \pm 0.012$   $\chi^2/\text{NDF}$ : 2906.2/62

- sign  $0.842 \pm 0.017$   $\chi^2/\text{NDF}$ : 1780.1/31

reg\_asym\_sam\_48\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -25.630+/-0.348  $\chi^2/\text{NDF}$ : 2509.4/13

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

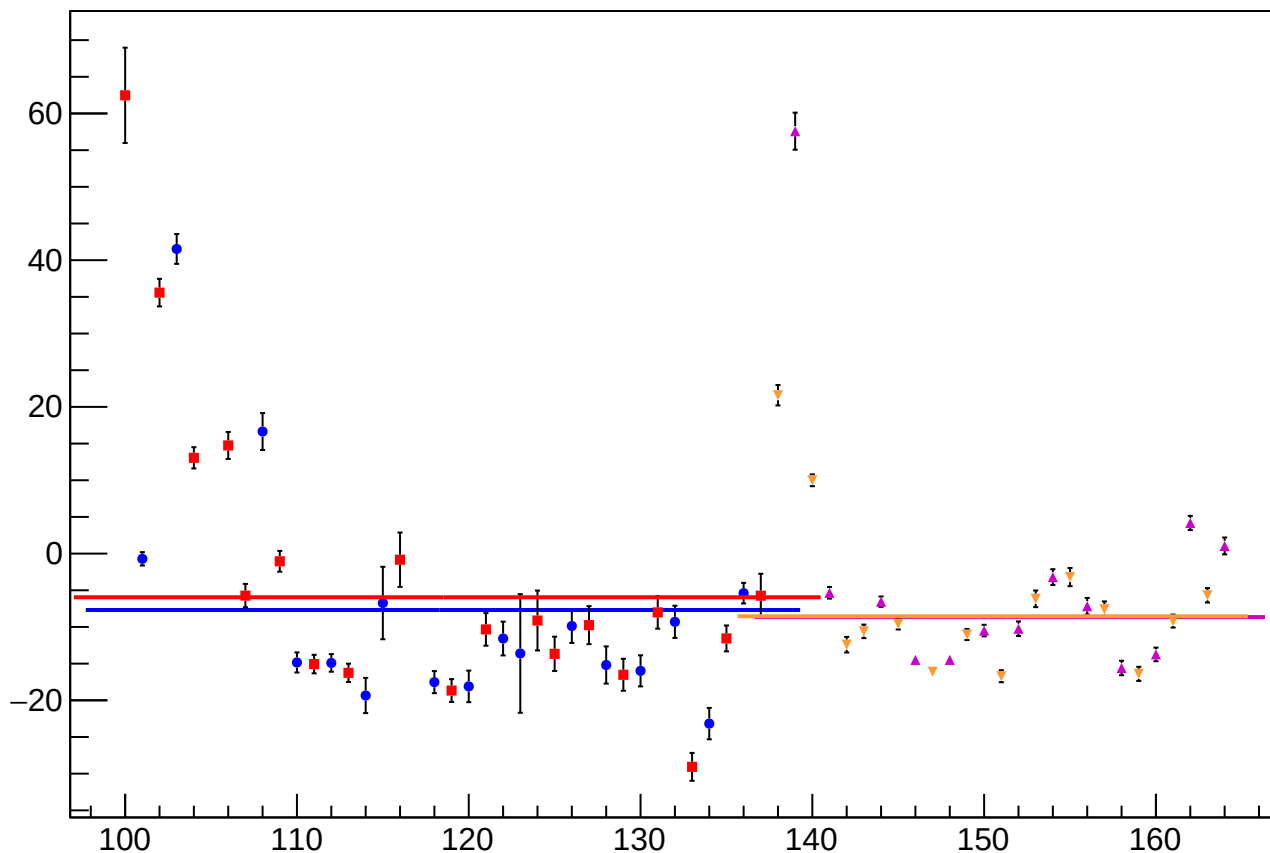
Left In: -23.337+/-0.349  $\chi^2/\text{NDF}$ : 2149.1/12

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

All: -24.487+/-0.246  $\chi^2/\text{NDF}$ : 4680.1/26

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

reg\_asym\_sam\_48\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-7.686 \pm 0.430$   $\chi^2/\text{NDF}$ : 975.9/16

Left Out:  $-8.544 \pm 0.240$   $\chi^2/\text{NDF}$ : 1370.7/13

Right Out:  $-5.953 \pm 0.429$   $\chi^2/\text{NDF}$ : 1298.1/18

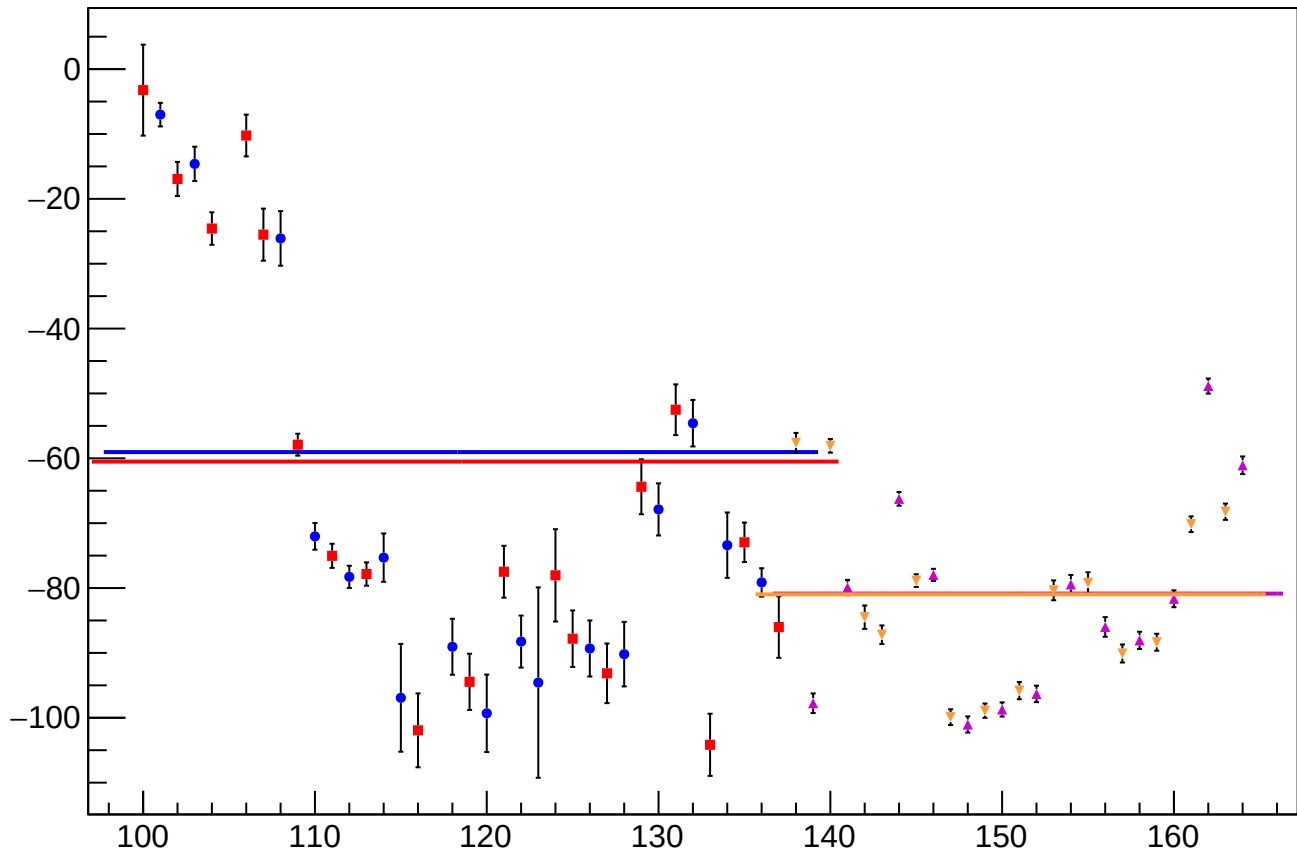
Left In:  $-8.654 \pm 0.242$   $\chi^2/\text{NDF}$ : 1246.1/12

+ sign  $-8.340 \pm 0.210$   $\chi^2/\text{NDF}$ : 2349.7/30

All:  $-8.171 \pm 0.149$   $\chi^2/\text{NDF}$ : 4925.2/62

- sign  $-8.001 \pm 0.211$   $\chi^2/\text{NDF}$ : 2574.3/31

reg\_asym\_sam\_48\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $-59.039 \pm 0.746$   $\chi^2/\text{NDF}$ : 1709.5/16

Left Out:  $-80.971 \pm 0.344$   $\chi^2/\text{NDF}$ : 1621.6/13

Right Out:  $-60.507 \pm 0.704$   $\chi^2/\text{NDF}$ : 1384.8/18

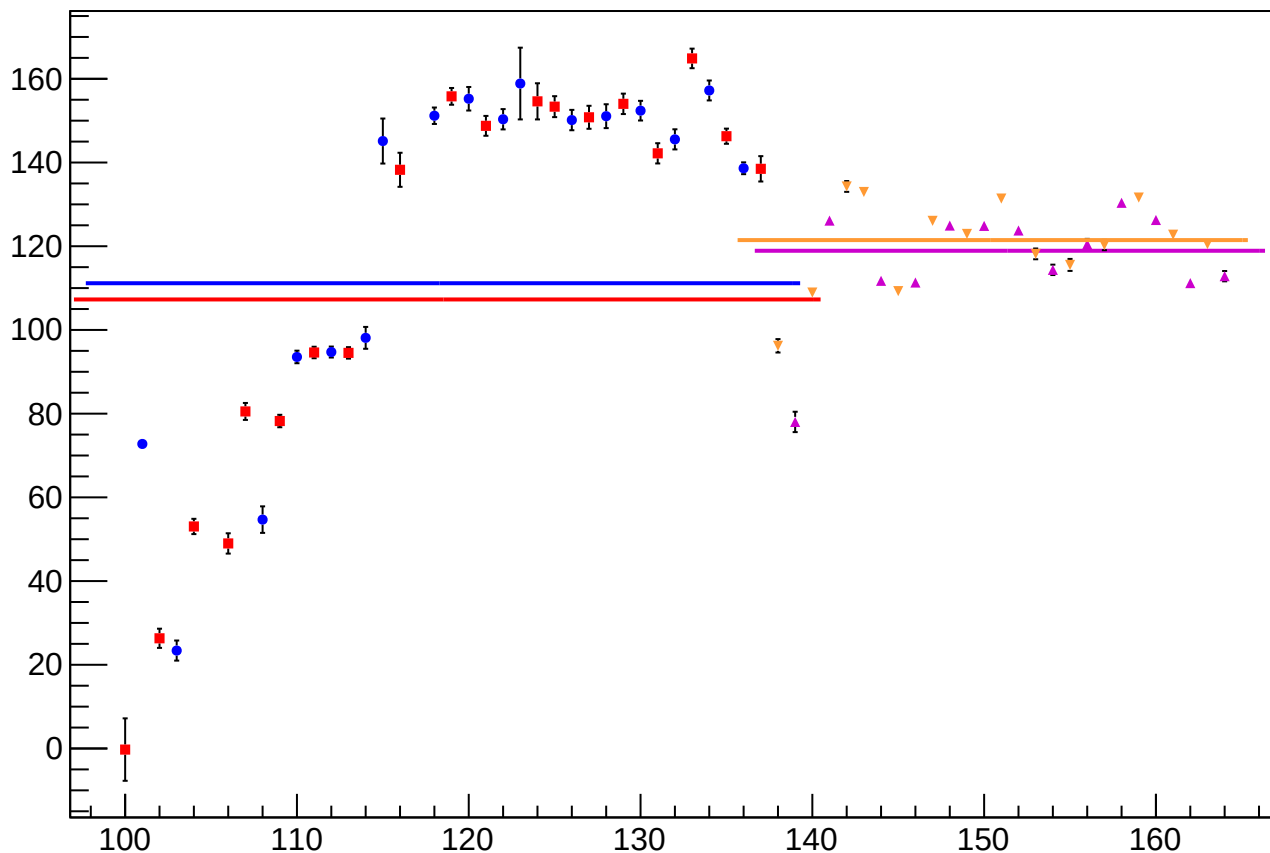
Left In:  $-80.857 \pm 0.341$   $\chi^2/\text{NDF}$ : 2009.9/12

+ sign  $-77.119 \pm 0.313$   $\chi^2/\text{NDF}$ : 4044.3/30

All:  $-77.057 \pm 0.219$   $\chi^2/\text{NDF}$ : 8115.4/62

- sign  $-76.997 \pm 0.307$   $\chi^2/\text{NDF}$ : 4071.0/31

reg\_asym\_sam\_48\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $111.160 \pm 0.489$   $\chi^2/\text{NDF}: 5877.6/16$

Left Out:  $121.467 \pm 0.284$   $\chi^2/\text{NDF}: 1061.2/13$

Right Out:  $107.283 \pm 0.488$   $\chi^2/\text{NDF}: 7055.1/18$

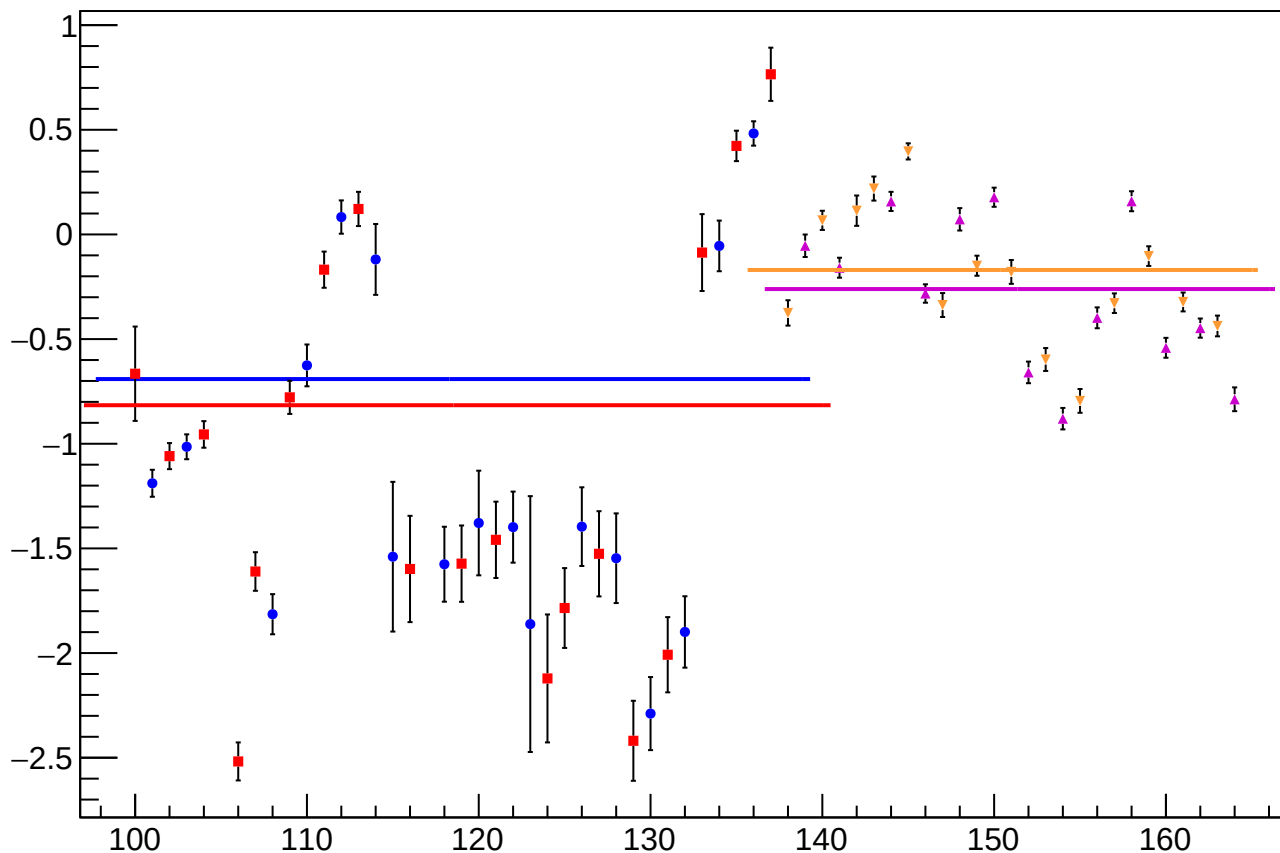
Left In:  $118.917 \pm 0.285$   $\chi^2/\text{NDF}: 886.2/12$

+ sign  $118.865 \pm 0.246$   $\chi^2/\text{NDF}: 7270.9/30$

All:  $117.414 \pm 0.174$   $\chi^2/\text{NDF}: 15706.5/62$

- sign  $115.959 \pm 0.246$   $\chi^2/\text{NDF}: 8365.7/31$

reg\_asym\_sam\_48\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.691 \pm 0.026$   $\chi^2/\text{NDF}$ : 990.9/16

Left Out:  $-0.170 \pm 0.014$   $\chi^2/\text{NDF}$ : 559.9/13

Right Out:  $-0.816 \pm 0.024$   $\chi^2/\text{NDF}$ : 1304.4/18

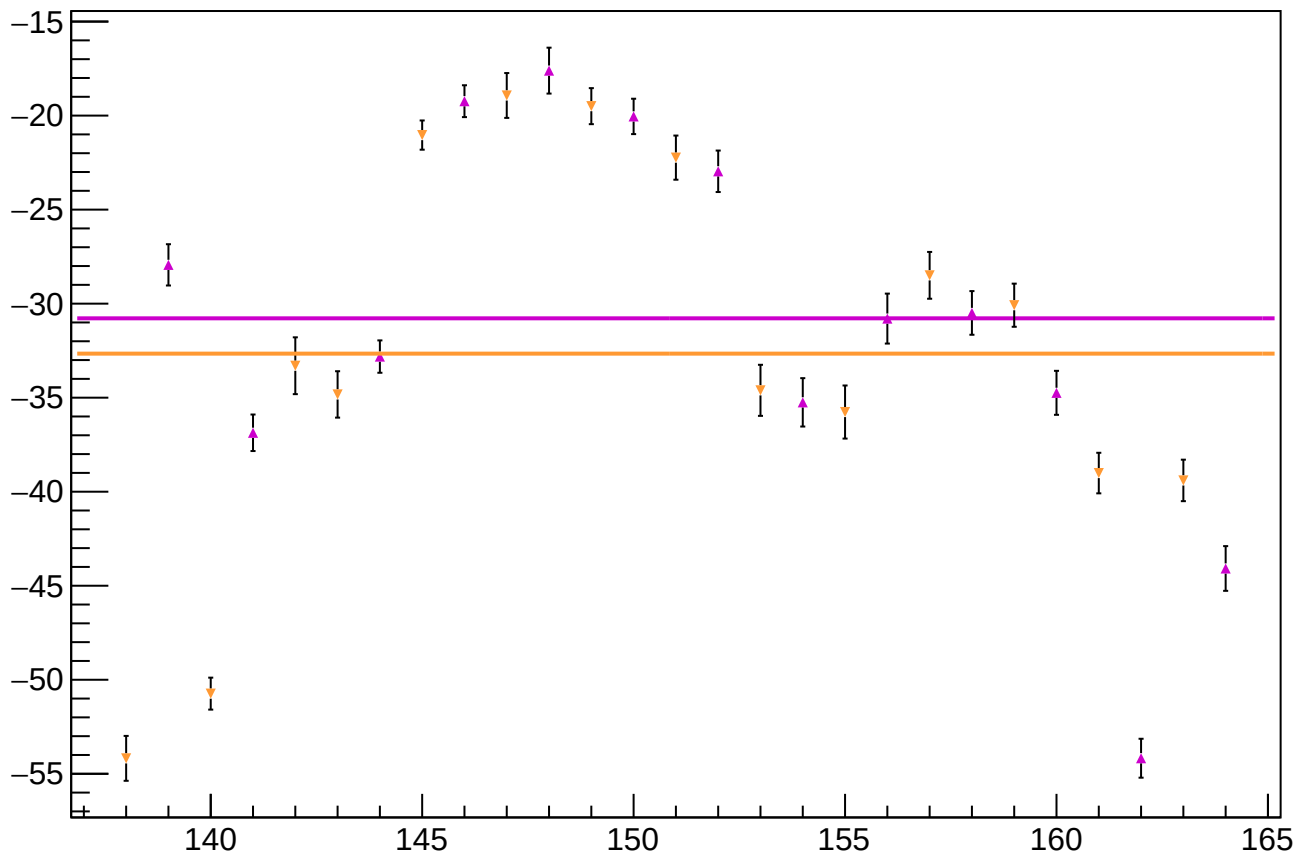
Left In:  $-0.261 \pm 0.014$   $\chi^2/\text{NDF}$ : 661.7/12

+ sign  $-0.283 \pm 0.012$   $\chi^2/\text{NDF}$ : 1870.0/30

All:  $-0.338 \pm 0.008$   $\chi^2/\text{NDF}$ : 4274.2/62

- sign  $-0.392 \pm 0.012$   $\chi^2/\text{NDF}$ : 2362.2/31

# reg\_asym\_sam\_48\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: -32.658+/-0.295  $\chi^2/\text{NDF}$ :1499.9/13

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

Left In: -30.781+/-0.294  $\chi^2/\text{NDF}$ :1194.2/12

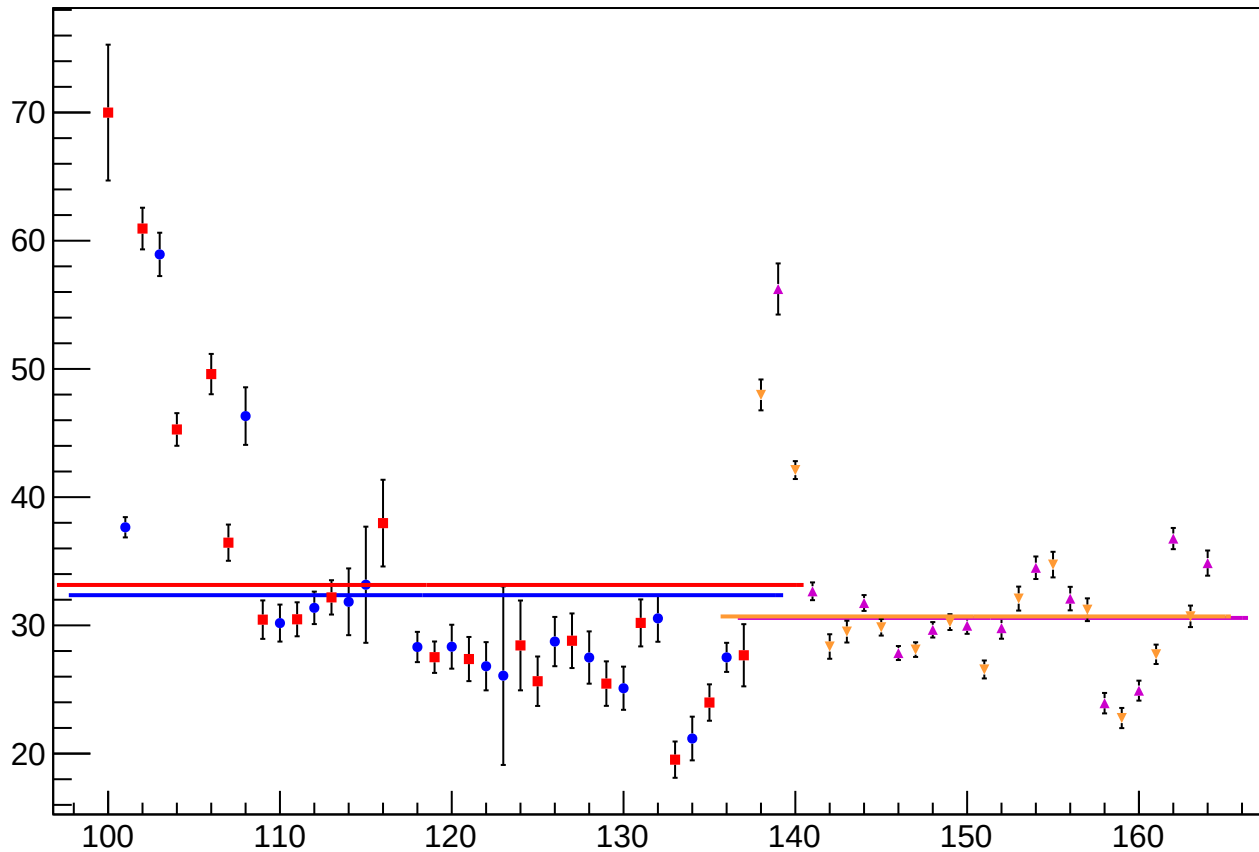
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -31.717+/-0.208  $\chi^2/\text{NDF}$ : 2714.5/26

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



# reg\_asym\_sam\_48\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $32.355 \pm 0.375$   $\chi^2/\text{NDF}: 450.5/16$

Left Out:  $30.696 \pm 0.206$   $\chi^2/\text{NDF}: 675.0/13$

Right Out:  $33.152 \pm 0.379$   $\chi^2/\text{NDF}: 772.0/18$

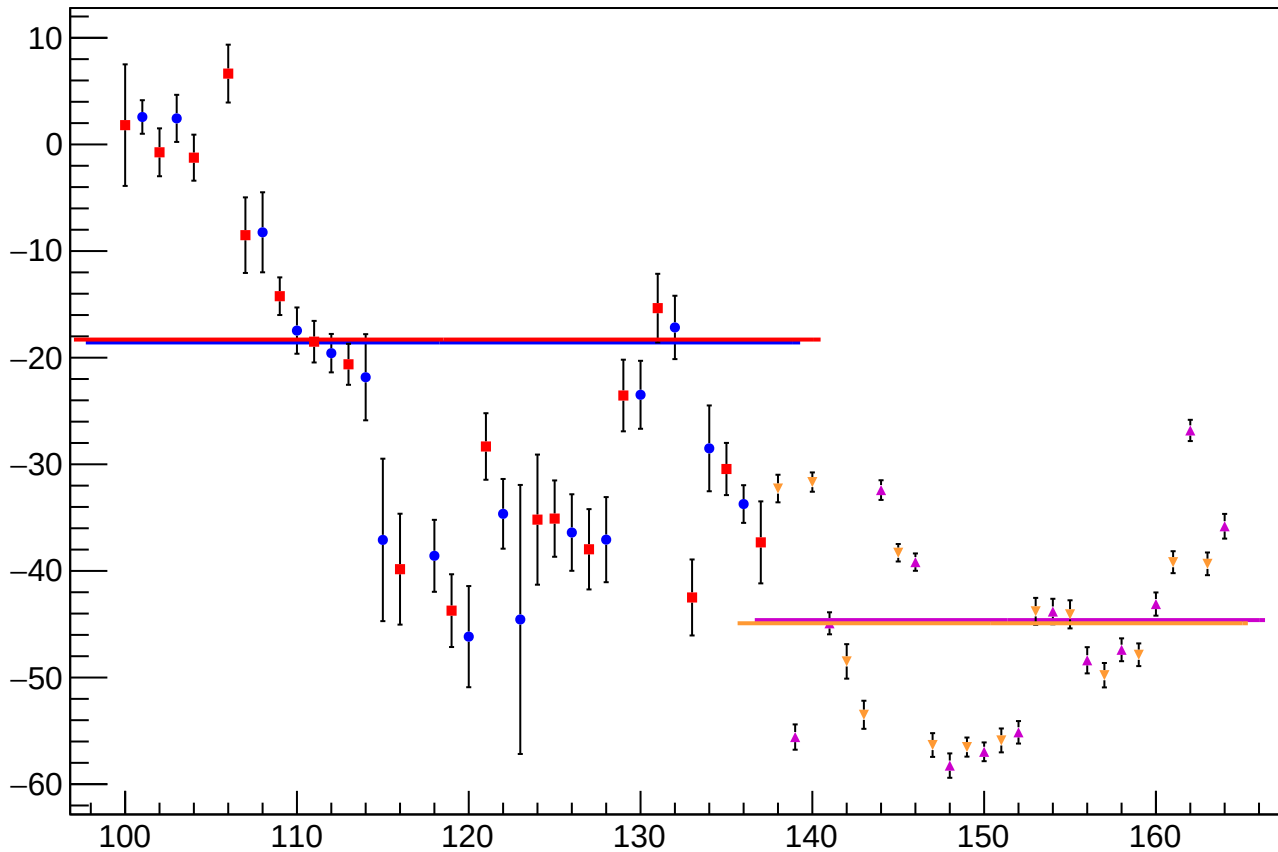
Left In:  $30.581 \pm 0.208$   $\chi^2/\text{NDF}: 427.5/12$

+ sign  $31.080 \pm 0.181$   $\chi^2/\text{NDF}: 1140.5/30$

All:  $31.127 \pm 0.128$   $\chi^2/\text{NDF}: 2375.5/62$

- sign  $31.175 \pm 0.182$   $\chi^2/\text{NDF}: 1234.9/31$

# reg\_asym\_sam\_48\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-18.572 \pm 0.667$   $\chi^2/\text{NDF}$ : 511.5/16

Left Out:  $-44.910 \pm 0.291$   $\chi^2/\text{NDF}$ : 876.4/13

Right Out:  $-18.300 \pm 0.644$   $\chi^2/\text{NDF}$ : 473.4/18

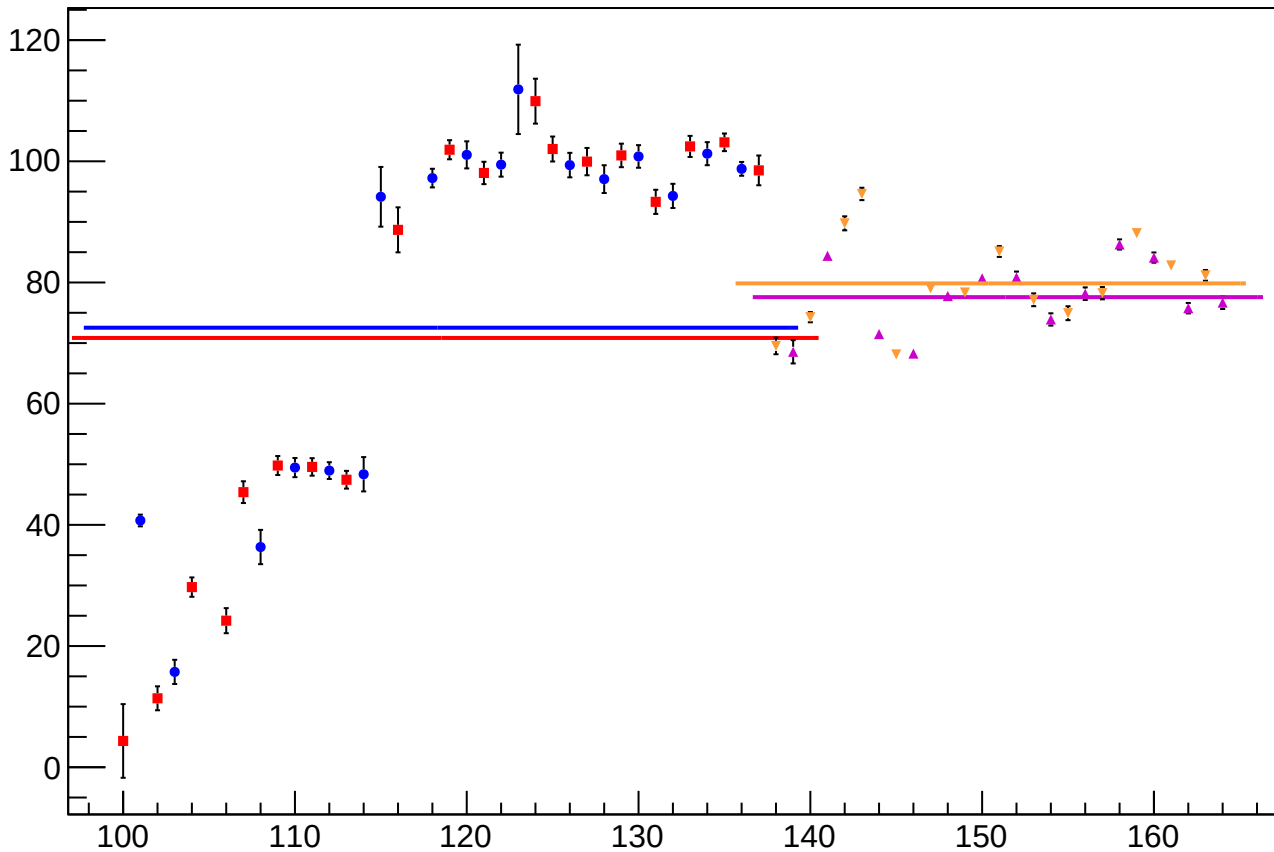
Left In:  $-44.612 \pm 0.287$   $\chi^2/\text{NDF}$ : 1138.6/12

+ sign  $-40.698 \pm 0.267$   $\chi^2/\text{NDF}$ : 2695.9/30

All:  $-40.466 \pm 0.187$   $\chi^2/\text{NDF}$ : 5702.1/62

- sign  $-40.242 \pm 0.262$   $\chi^2/\text{NDF}$ : 3004.8/31

# reg\_asym\_sam\_48\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $72.537 \pm 0.428$   $\chi^2/\text{NDF}: 4684.1/16$

Left Out:  $79.851 \pm 0.242$   $\chi^2/\text{NDF}: 817.0/13$

Right Out:  $70.849 \pm 0.433$   $\chi^2/\text{NDF}: 5500.2/18$

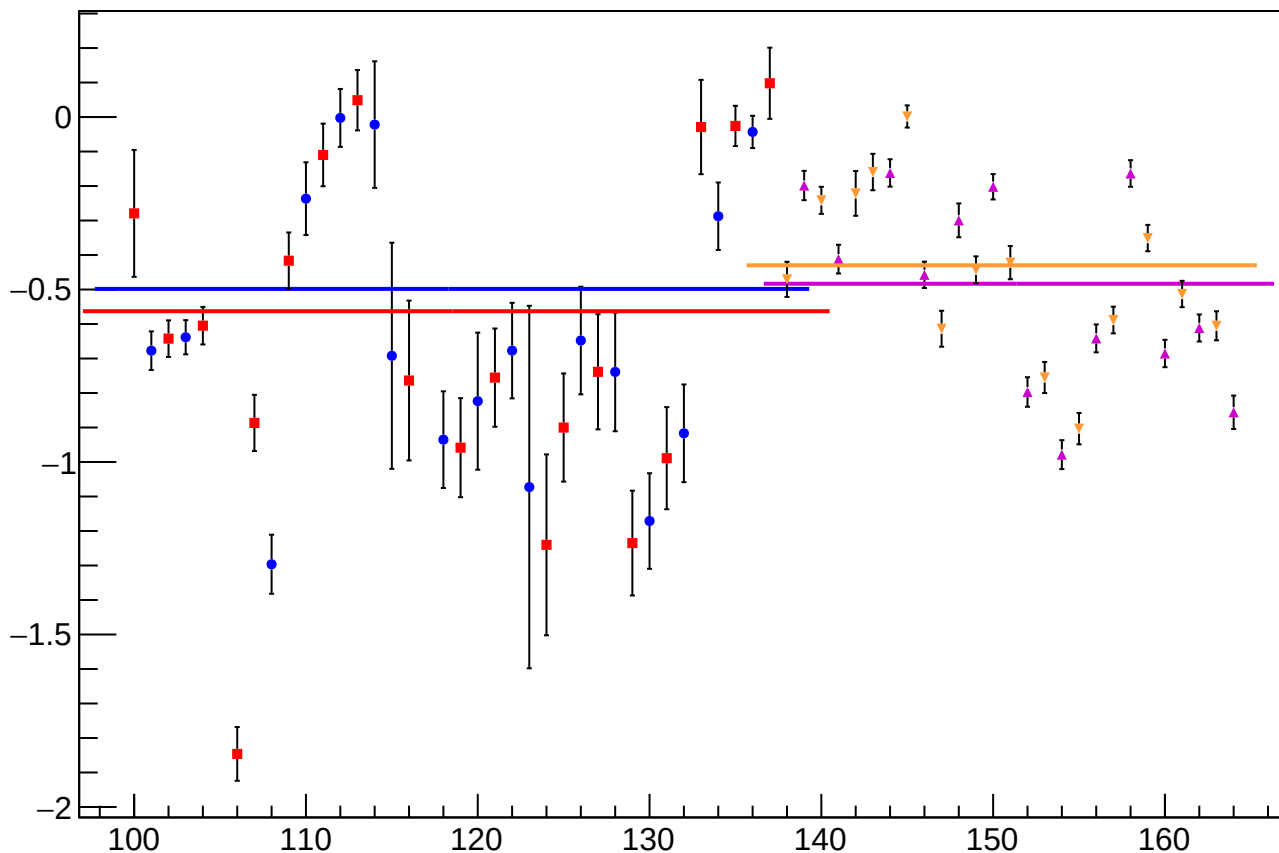
Left In:  $77.582 \pm 0.242$   $\chi^2/\text{NDF}: 562.9/12$

+ sign  $78.080 \pm 0.211$   $\chi^2/\text{NDF}: 5722.1/30$

All:  $77.033 \pm 0.149$   $\chi^2/\text{NDF}: 12018.9/62$

- sign  $75.979 \pm 0.211$   $\chi^2/\text{NDF}: 6247.2/31$

# reg\_asym\_sam\_48\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.498 \pm 0.022$   $\chi^2/\text{NDF}$ : 302.8/16

Left Out:  $-0.430 \pm 0.011$   $\chi^2/\text{NDF}$ : 456.4/13

Right Out:  $-0.563 \pm 0.021$   $\chi^2/\text{NDF}$ : 560.8/18

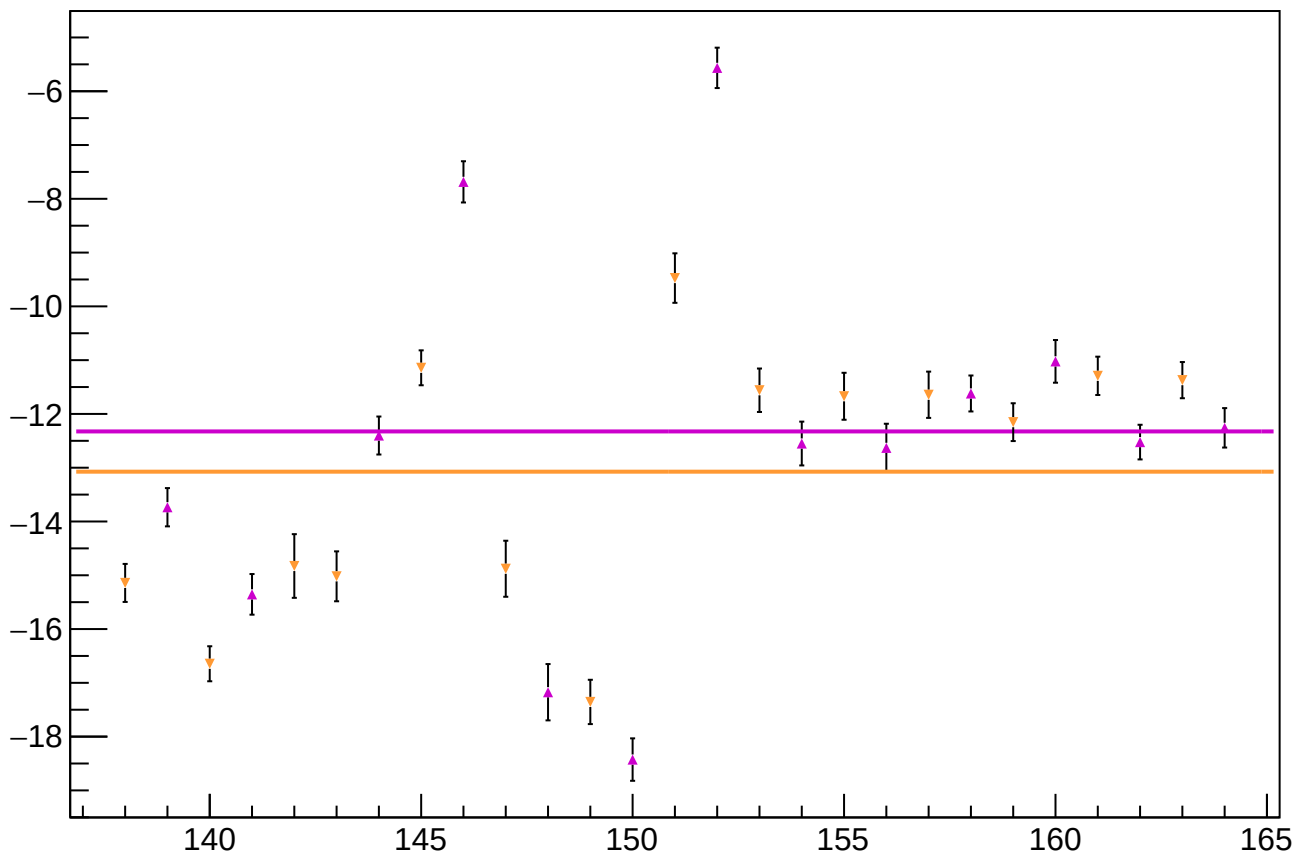
Left In:  $-0.483 \pm 0.011$   $\chi^2/\text{NDF}$ : 559.8/12

+ sign  $-0.444 \pm 0.010$   $\chi^2/\text{NDF}$ : 766.6/30

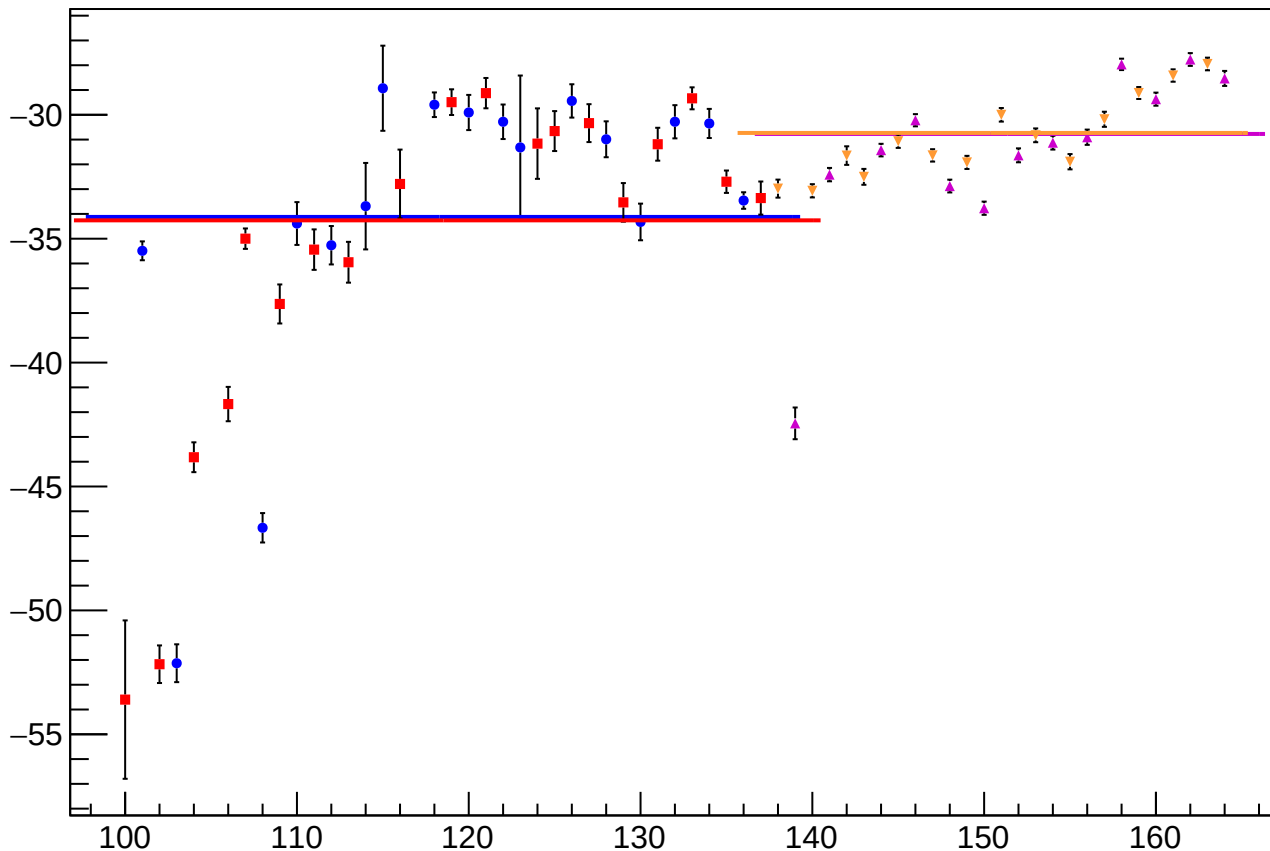
All:  $-0.473 \pm 0.007$   $\chi^2/\text{NDF}$ : 1913.7/62

- sign  $-0.501 \pm 0.010$   $\chi^2/\text{NDF}$ : 1131.3/31

reg\_asym\_sam\_13\_57\_dd\_diff\_bpm1X\_slope vs Slug



# reg\_asym\_sam\_13\_57\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-34.122 \pm 0.152$   $\chi^2/\text{NDF}$ : 1322.4/16

Left Out:  $-30.732 \pm 0.075$   $\chi^2/\text{NDF}$ : 458.7/13

Right Out:  $-34.260 \pm 0.151$   $\chi^2/\text{NDF}$ : 1354.9/18

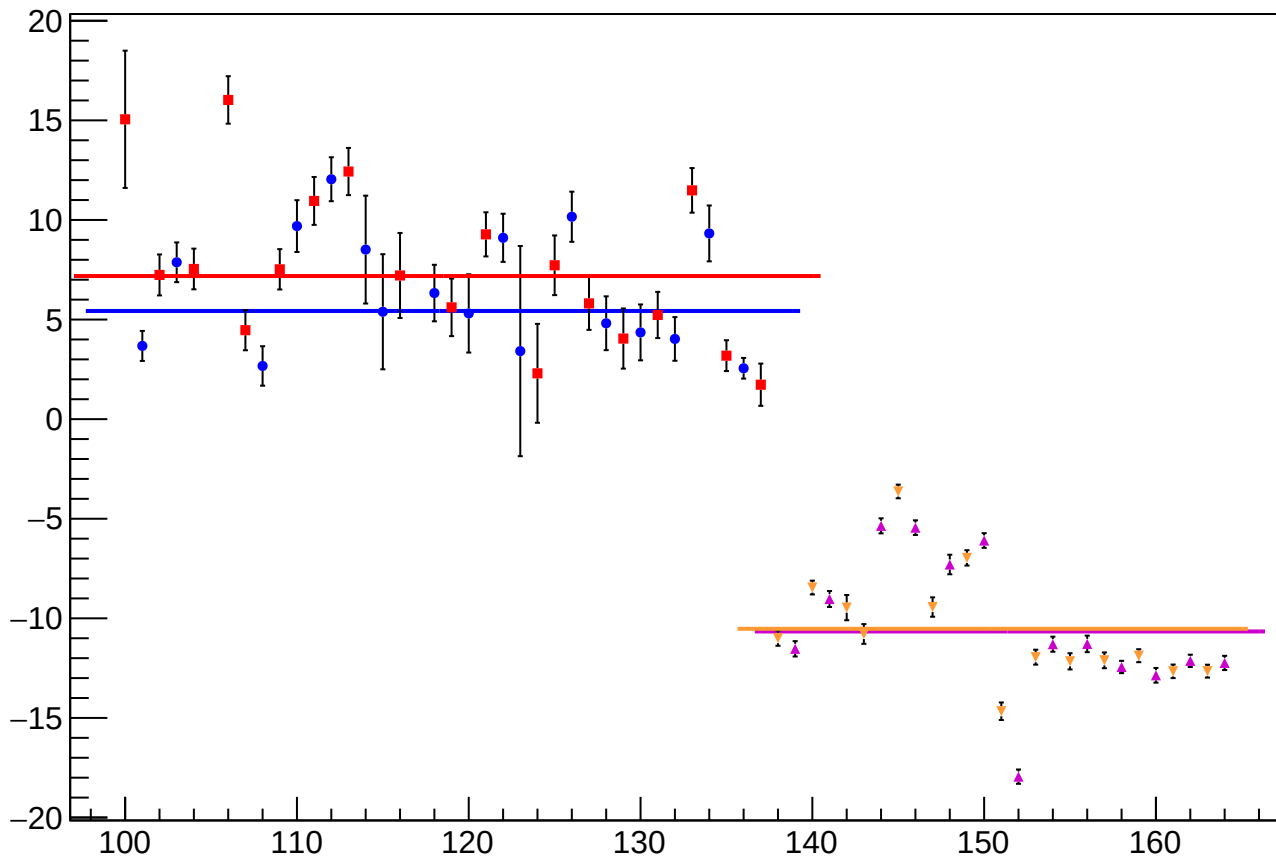
Left In:  $-30.773 \pm 0.076$   $\chi^2/\text{NDF}$ : 951.4/12

+ sign  $-31.396 \pm 0.067$   $\chi^2/\text{NDF}$ : 2182.1/30

All:  $-31.438 \pm 0.048$   $\chi^2/\text{NDF}$ : 4915.1/62

- sign  $-31.482 \pm 0.068$   $\chi^2/\text{NDF}$ : 2732.2/31

# reg\_asym\_sam\_13\_57\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $5.431 \pm 0.270$   $\chi^2/\text{NDF}$ : 132.0/16

Left Out:  $-10.525 \pm 0.103$   $\chi^2/\text{NDF}$ : 769.0/13

Right Out:  $7.185 \pm 0.274$   $\chi^2/\text{NDF}$ : 182.1/18

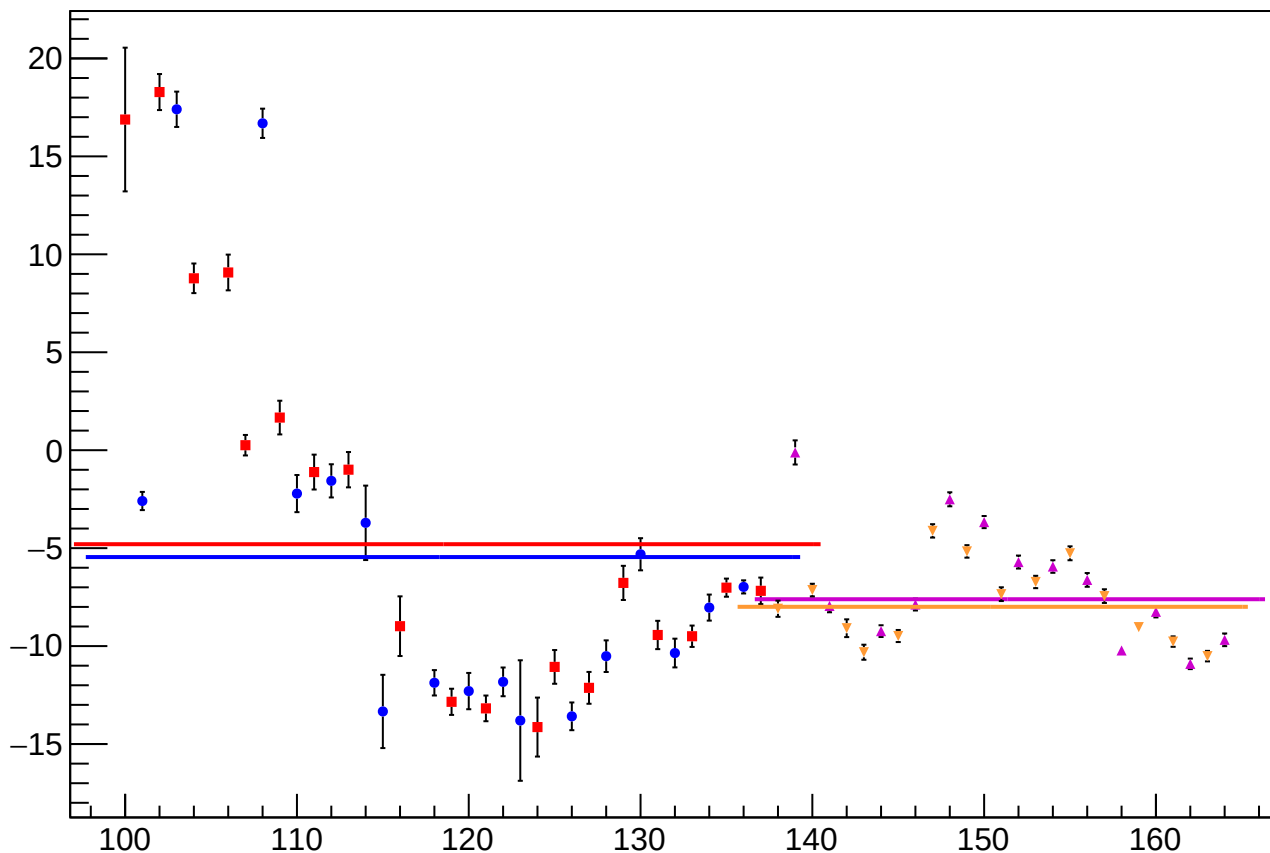
Left In:  $-10.659 \pm 0.102$   $\chi^2/\text{NDF}$ : 1146.7/12

+ sign  $-8.486 \pm 0.097$   $\chi^2/\text{NDF}$ : 3938.1/30

All:  $-8.482 \pm 0.068$   $\chi^2/\text{NDF}$ : 8978.0/62

- sign  $-8.479 \pm 0.096$   $\chi^2/\text{NDF}$ : 5039.9/31

# reg\_asym\_sam\_13\_57\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-5.455 \pm 0.171$   $\chi^2/\text{NDF}$ : 2096.5/16

Left Out:  $-7.995 \pm 0.087$   $\chi^2/\text{NDF}$ : 509.0/13

Right Out:  $-4.798 \pm 0.173$   $\chi^2/\text{NDF}$ : 2047.4/18

Left In:  $-7.608 \pm 0.087$   $\chi^2/\text{NDF}$ : 925.0/12

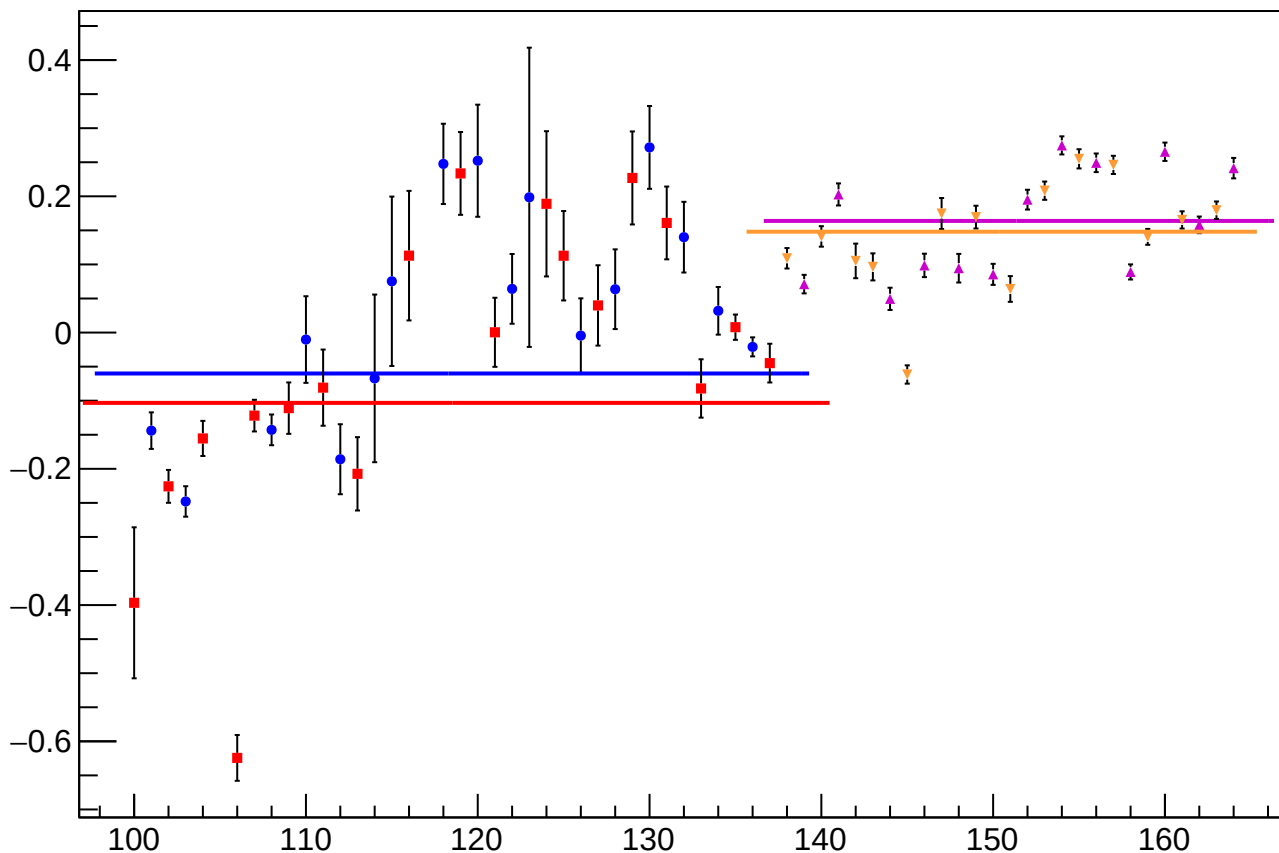
+ sign  $-7.476 \pm 0.077$   $\chi^2/\text{NDF}$ : 2781.4/30

All:  $-7.259 \pm 0.055$   $\chi^2/\text{NDF}$ : 5980.3/62

- sign  $-7.039 \pm 0.078$   $\chi^2/\text{NDF}$ : 3182.9/31



# reg\_asym\_sam\_13\_57\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.060 \pm 0.008$   $\chi^2/\text{NDF}$ : 215.5/16

Left Out:  $0.148 \pm 0.004$   $\chi^2/\text{NDF}$ : 422.5/13

Right Out:  $-0.103 \pm 0.008$   $\chi^2/\text{NDF}$ : 434.3/18

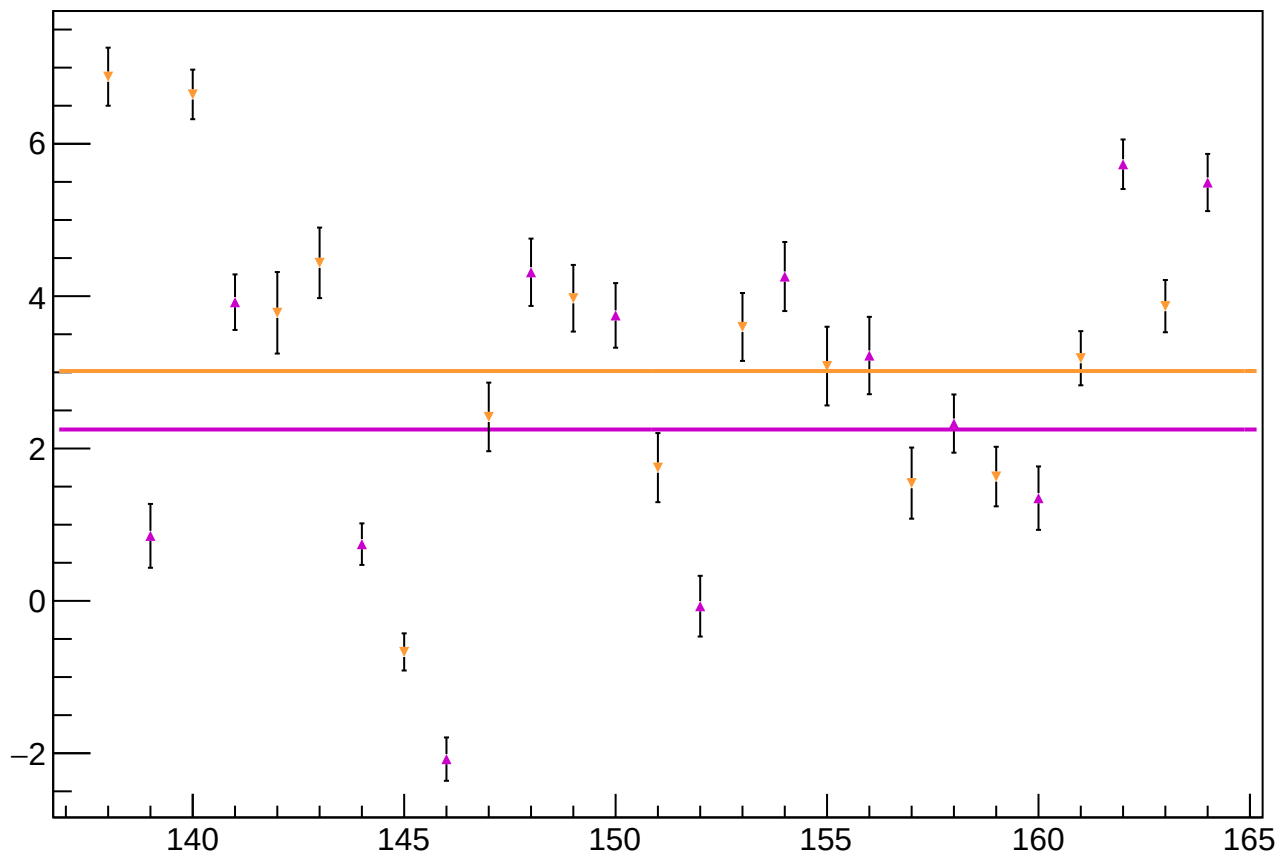
Left In:  $0.164 \pm 0.004$   $\chi^2/\text{NDF}$ : 395.3/12

+ sign  $0.110 \pm 0.004$   $\chi^2/\text{NDF}$ : 1138.2/30

All:  $0.113 \pm 0.003$   $\chi^2/\text{NDF}$ : 2789.2/62

- sign  $0.115 \pm 0.004$   $\chi^2/\text{NDF}$ : 1649.7/31

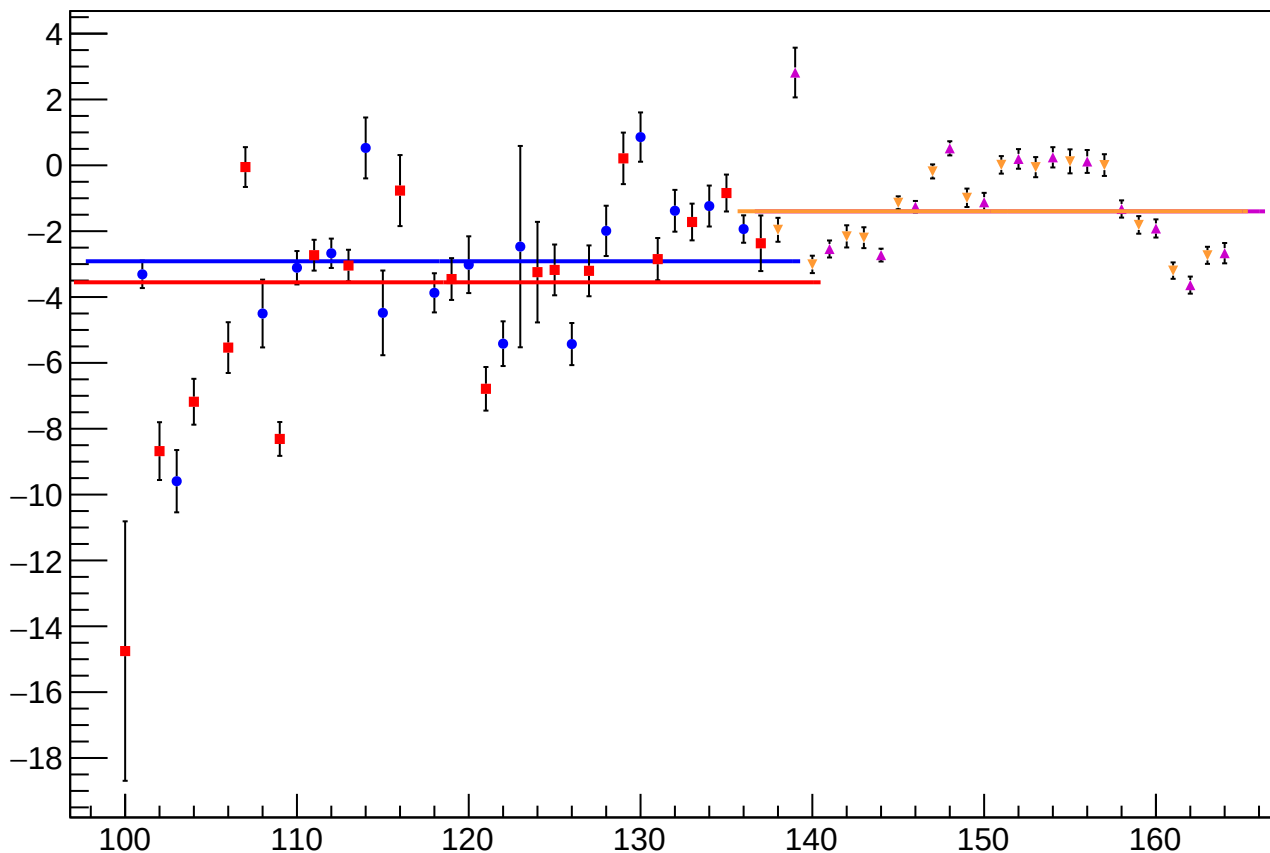
reg\_asym\_sam\_15\_37\_dd\_diff\_bpm1X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 3.017 $\pm$ 0.104  $\chi^2$ /NDF:512.5/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 2.250 $\pm$ 0.103  $\chi^2$ /NDF:579.2/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 2.631 $\pm$ 0.073  $\chi^2$ /NDF: 1119.2/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_sam\_15\_37\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-2.914 \pm 0.155$   $\chi^2/\text{NDF}$ : 146.1/16

Left Out:  $-1.395 \pm 0.073$   $\chi^2/\text{NDF}$ : 251.2/13

Right Out:  $-3.553 \pm 0.155$   $\chi^2/\text{NDF}$ : 290.9/18

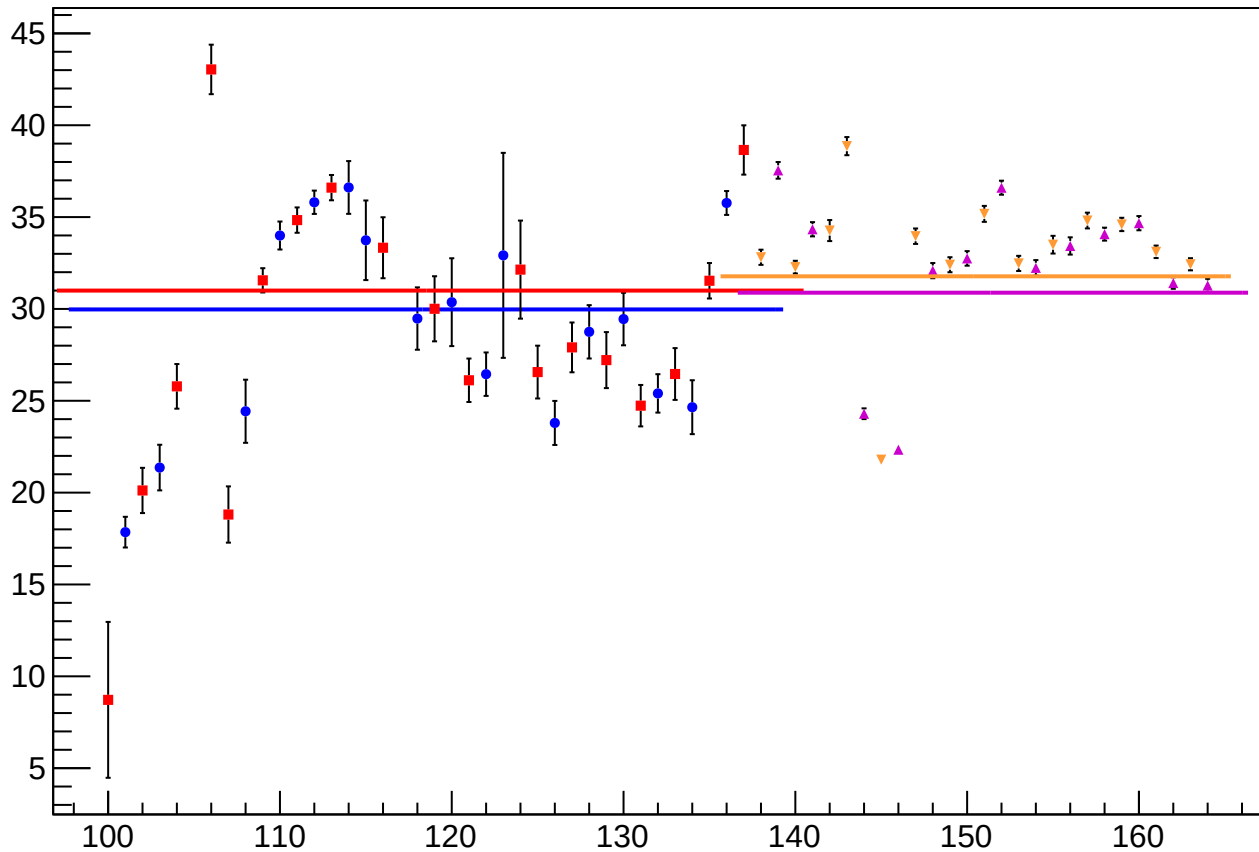
Left In:  $-1.398 \pm 0.072$   $\chi^2/\text{NDF}$ : 348.9/12

+ sign  $-1.671 \pm 0.066$   $\chi^2/\text{NDF}$ : 476.0/30

All:  $-1.727 \pm 0.046$   $\chi^2/\text{NDF}$ : 1276.8/62

- sign  $-1.782 \pm 0.065$   $\chi^2/\text{NDF}$ : 799.3/31

# reg\_asym\_sam\_15\_37\_dd\_diff\_bpm4eX\_slope vs Slug



Right In: 29.972 $\pm$ 0.267  $\chi^2$ /NDF: 554.3/16

Left Out: 31.775 $\pm$ 0.103  $\chi^2$ /NDF: 1946.6/13

Right Out: 30.999 $\pm$ 0.260  $\chi^2$ /NDF: 479.5/18

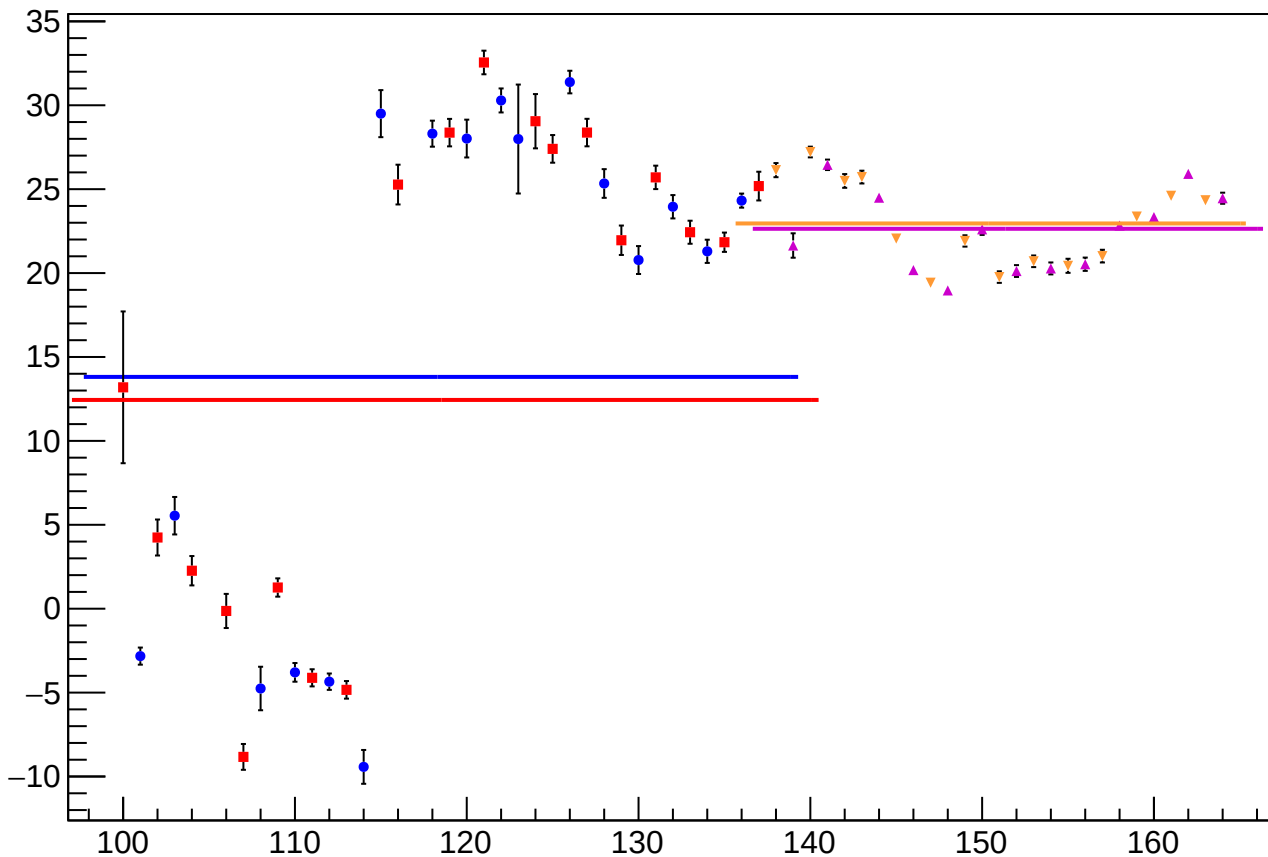
Left In: 30.884 $\pm$ 0.101  $\chi^2$ /NDF: 2259.2/12

+ sign 31.542 $\pm$ 0.096  $\chi^2$ /NDF: 2540.5/30

All: 31.213 $\pm$ 0.067  $\chi^2$ /NDF: 5302.2/62

- sign 30.899 $\pm$ 0.094  $\chi^2$ /NDF: 2738.9/31

# reg\_asym\_sam\_15\_37\_dd\_diff\_bpm4eY\_slope vs Slug



Right In: 13.813 $\pm$ 0.173  $\chi^2$ /NDF: 7318.6/16

Left Out: 22.957 $\pm$ 0.085  $\chi^2$ /NDF: 751.1/13

Right Out: 12.440 $\pm$ 0.174  $\chi^2$ /NDF: 6970.3/18

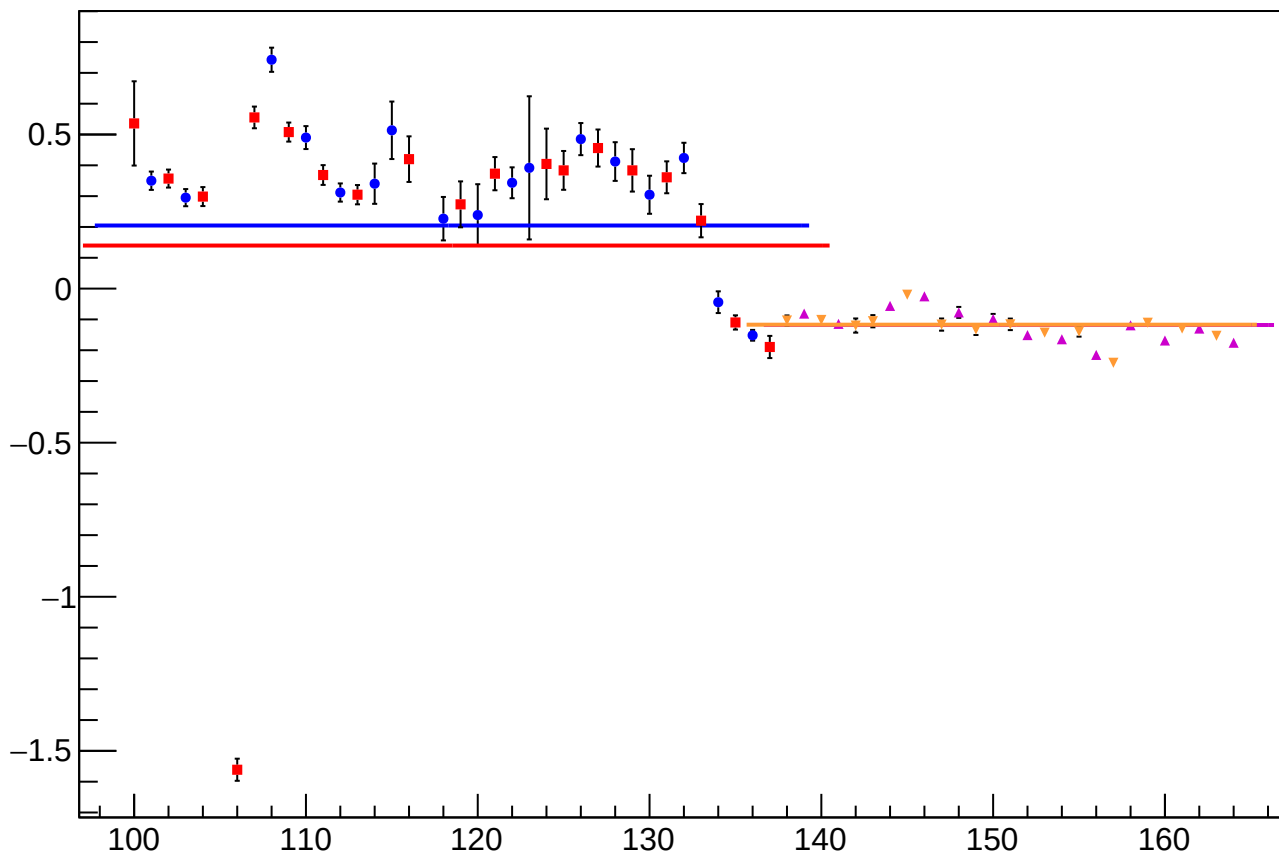
Left In: 22.639 $\pm$ 0.084  $\chi^2$ /NDF: 796.5/12

+ sign 21.164 $\pm$ 0.076  $\chi^2$ /NDF: 10324.1/30

All: 20.930 $\pm$ 0.054  $\chi^2$ /NDF: 20900.3/62

- sign 20.699 $\pm$ 0.076  $\chi^2$ /NDF: 10557.6/31

# reg\_asym\_sam\_15\_37\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 0.205 $\pm$ 0.009  $\chi^2$ /NDF: 845.8/16

Left Out: -0.117 $\pm$ 0.004  $\chi^2$ /NDF:180.6/13

Right Out: 0.140 $\pm$ 0.009  $\chi^2$ /NDF: 3014.2/18

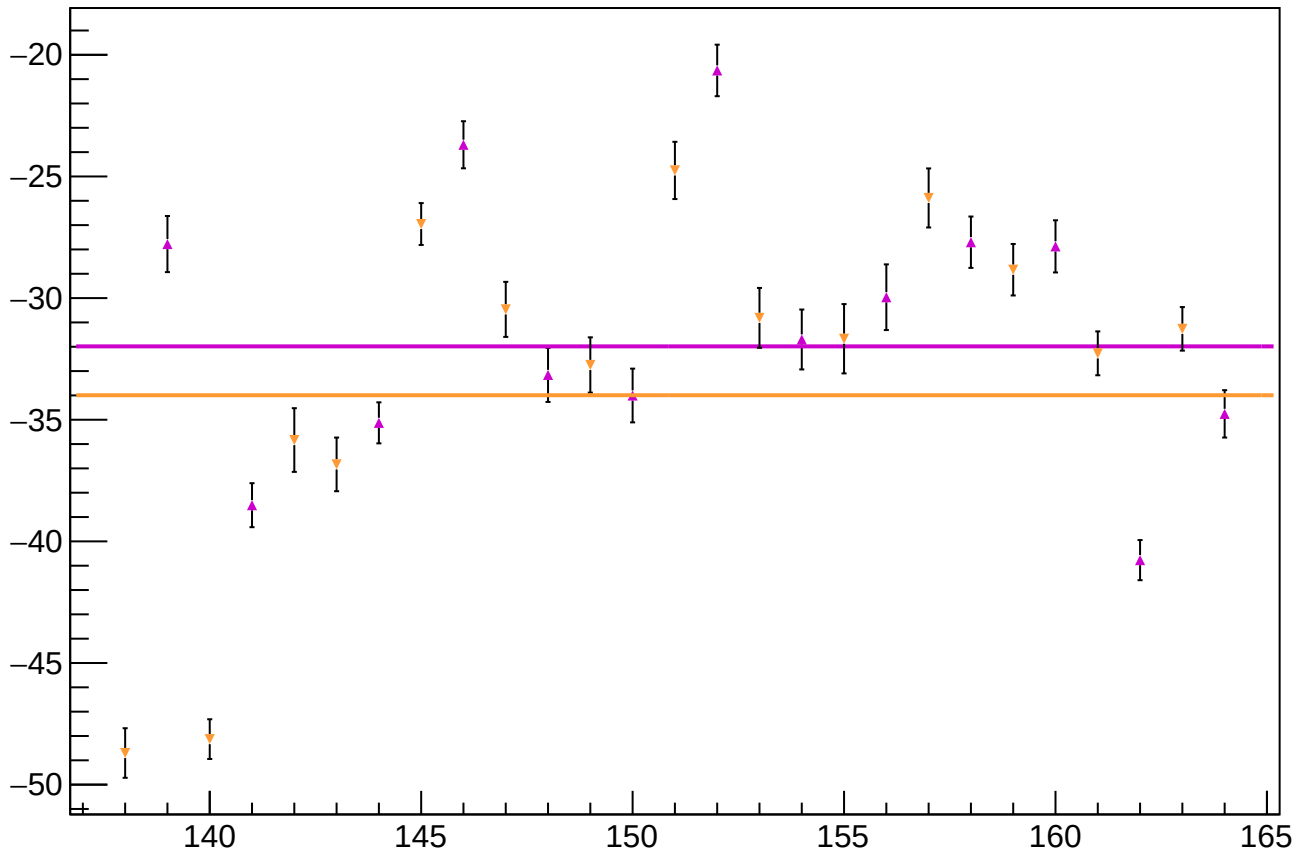
Left In: -0.118 $\pm$ 0.004  $\chi^2$ /NDF:171.4/12

+ sign -0.067 $\pm$ 0.004  $\chi^2$ /NDF: 2021.5/30

All: -0.072 $\pm$ 0.003  $\chi^2$ /NDF: 5870.0/62

- sign -0.077 $\pm$ 0.004  $\chi^2$ /NDF: 3844.7/31

reg\_asym\_sam\_24\_68\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: -33.993+/-0.281  $\chi^2/\text{NDF}$ : 746.7/13

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

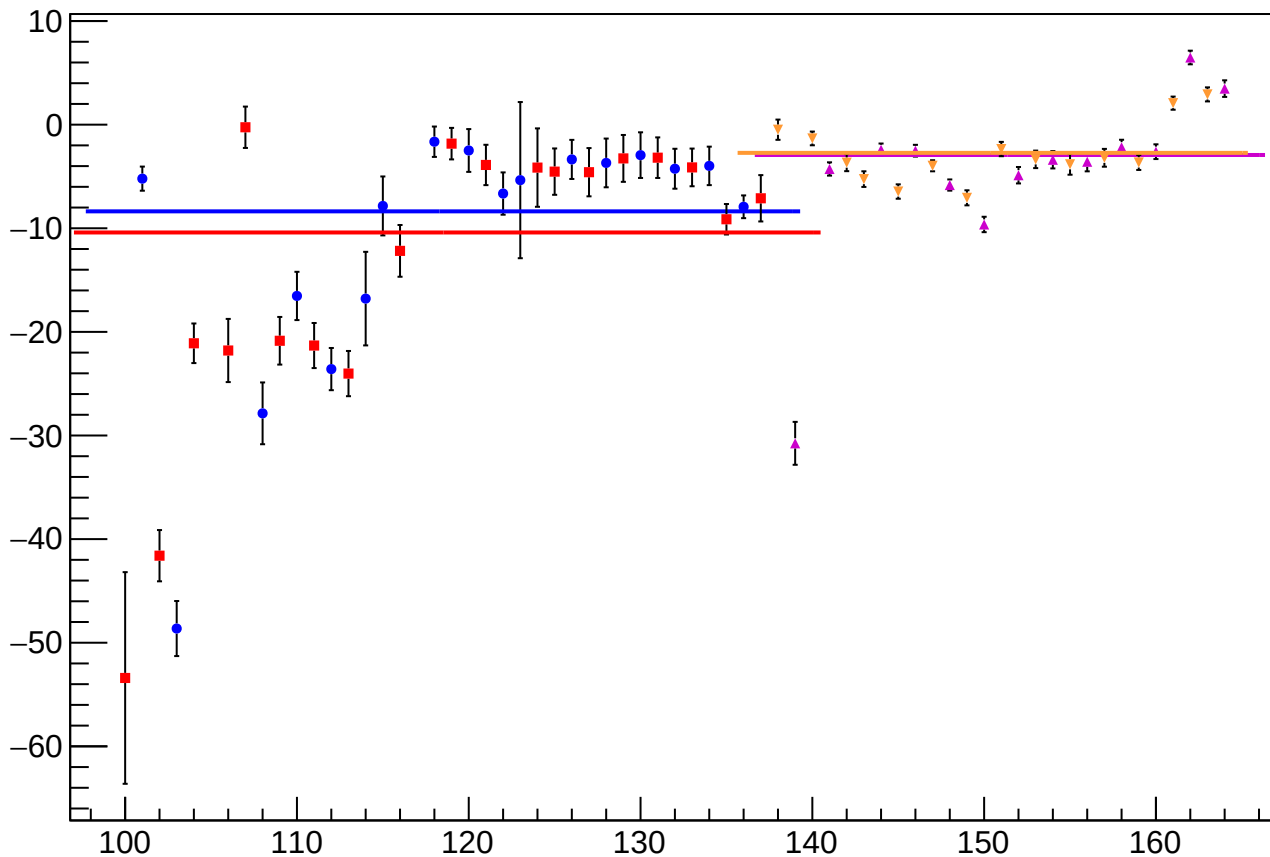
Left In: -31.984+/-0.283  $\chi^2/\text{NDF}$ : 426.9/12

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

All: -32.997+/-0.199  $\chi^2/\text{NDF}$ : 1198.9/26

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

# reg\_asym\_sam\_24\_68\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-8.367 \pm 0.466$   $\chi^2/\text{NDF}$ : 408.8/16

Left Out:  $-2.721 \pm 0.195$   $\chi^2/\text{NDF}$ : 222.6/13

Right Out:  $-10.405 \pm 0.491$   $\chi^2/\text{NDF}$ : 430.3/18

Left In:  $-2.927 \pm 0.197$   $\chi^2/\text{NDF}$ : 572.3/12

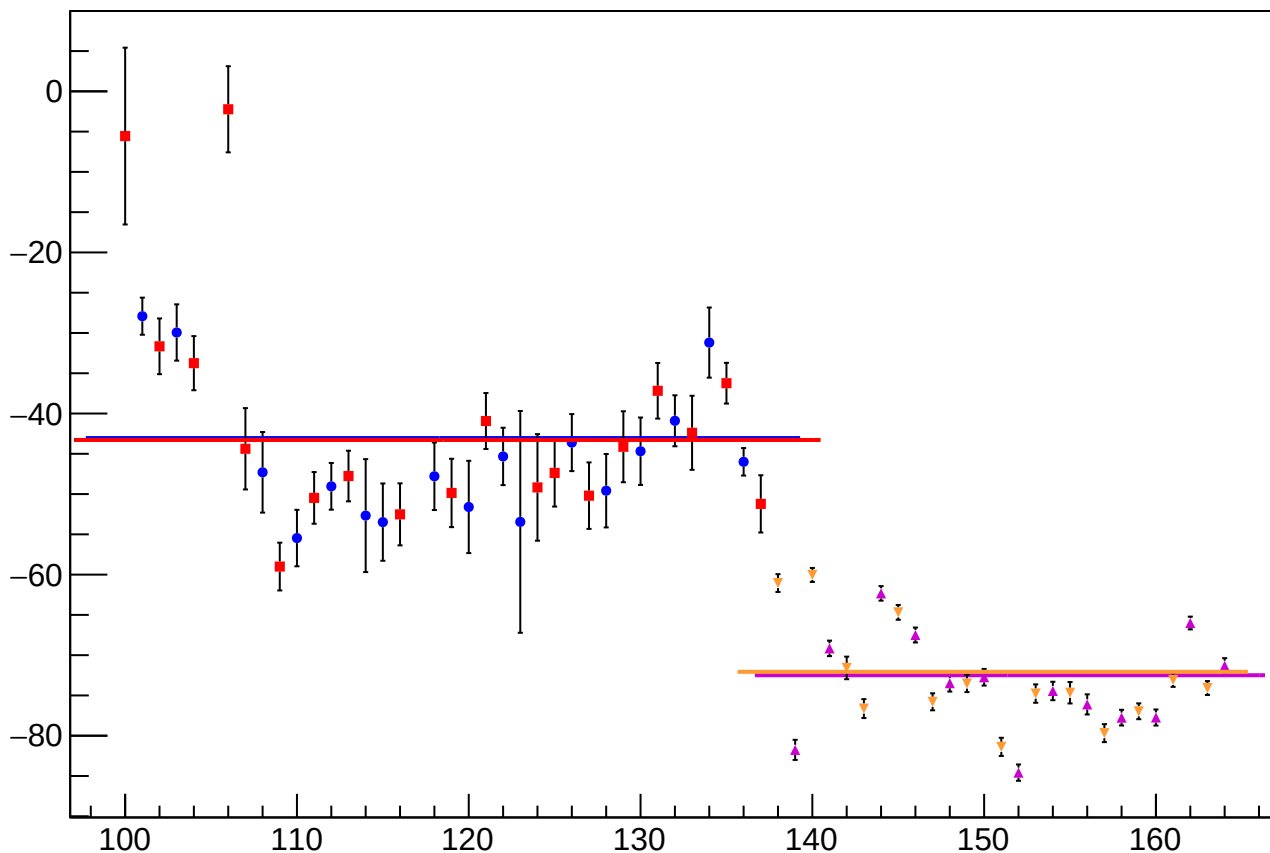
+ sign  $-3.560 \pm 0.180$   $\chi^2/\text{NDF}$ : 756.3/30

All:  $-3.759 \pm 0.128$   $\chi^2/\text{NDF}$ : 1961.2/62

- sign  $-3.965 \pm 0.183$   $\chi^2/\text{NDF}$ : 1202.4/31



# reg\_asym\_sam\_24\_68\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-43.047 \pm 0.837$   $\chi^2/\text{NDF}: 99.0/16$

Left Out:  $-72.068 \pm 0.277$   $\chi^2/\text{NDF}: 541.4/13$

Right Out:  $-43.282 \pm 0.867$   $\chi^2/\text{NDF}: 154.4/18$

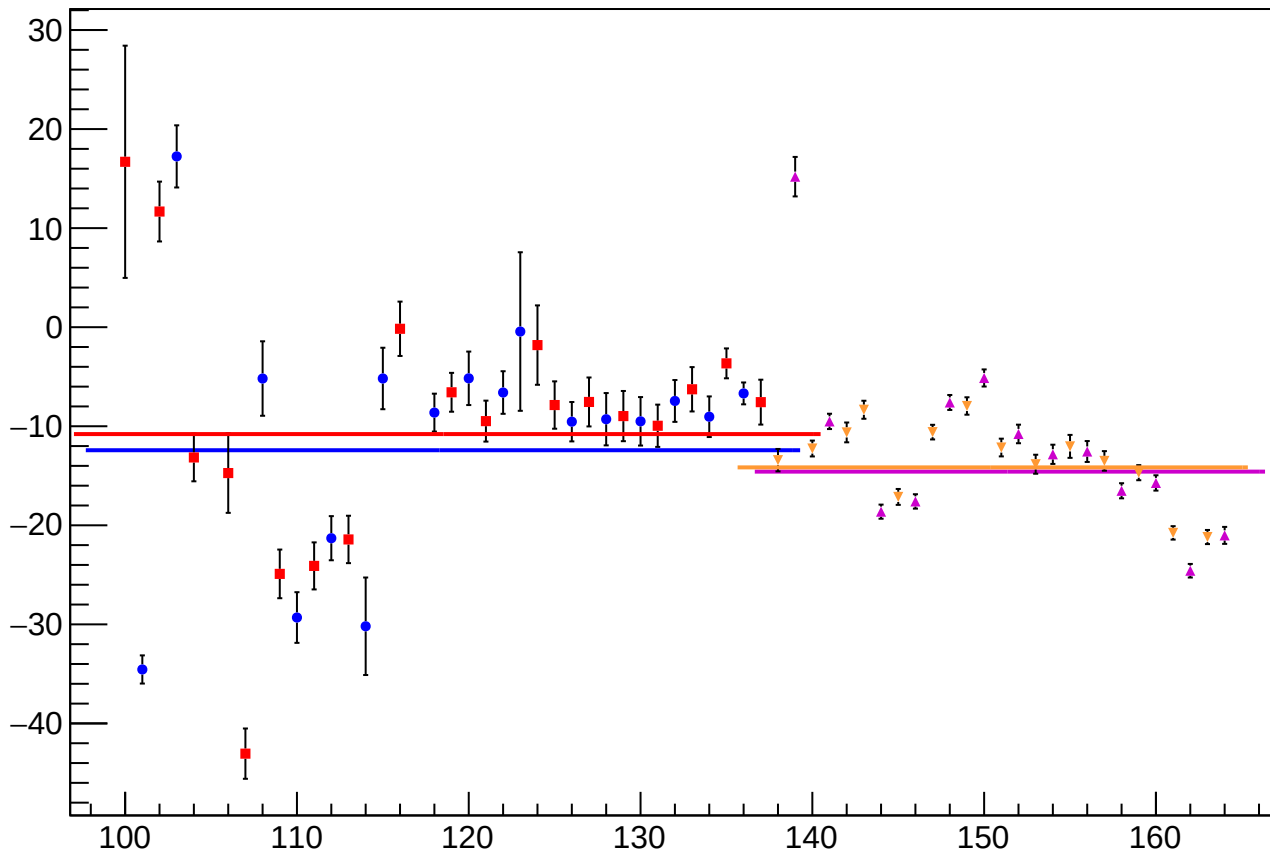
Left In:  $-72.493 \pm 0.276$   $\chi^2/\text{NDF}: 502.6/12$

+ sign  $-69.197 \pm 0.263$   $\chi^2/\text{NDF}: 1723.0/30$

All:  $-69.500 \pm 0.186$   $\chi^2/\text{NDF}: 3412.8/62$

- sign  $-69.803 \pm 0.263$   $\chi^2/\text{NDF}: 1687.1/31$

# reg\_asym\_sam\_24\_68\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-12.421 \pm 0.523$   $\chi^2/\text{NDF}$ : 474.4/16

Left Out:  $-14.153 \pm 0.228$   $\chi^2/\text{NDF}$ : 347.9/13

Right Out:  $-10.791 \pm 0.554$   $\chi^2/\text{NDF}$ : 365.8/18

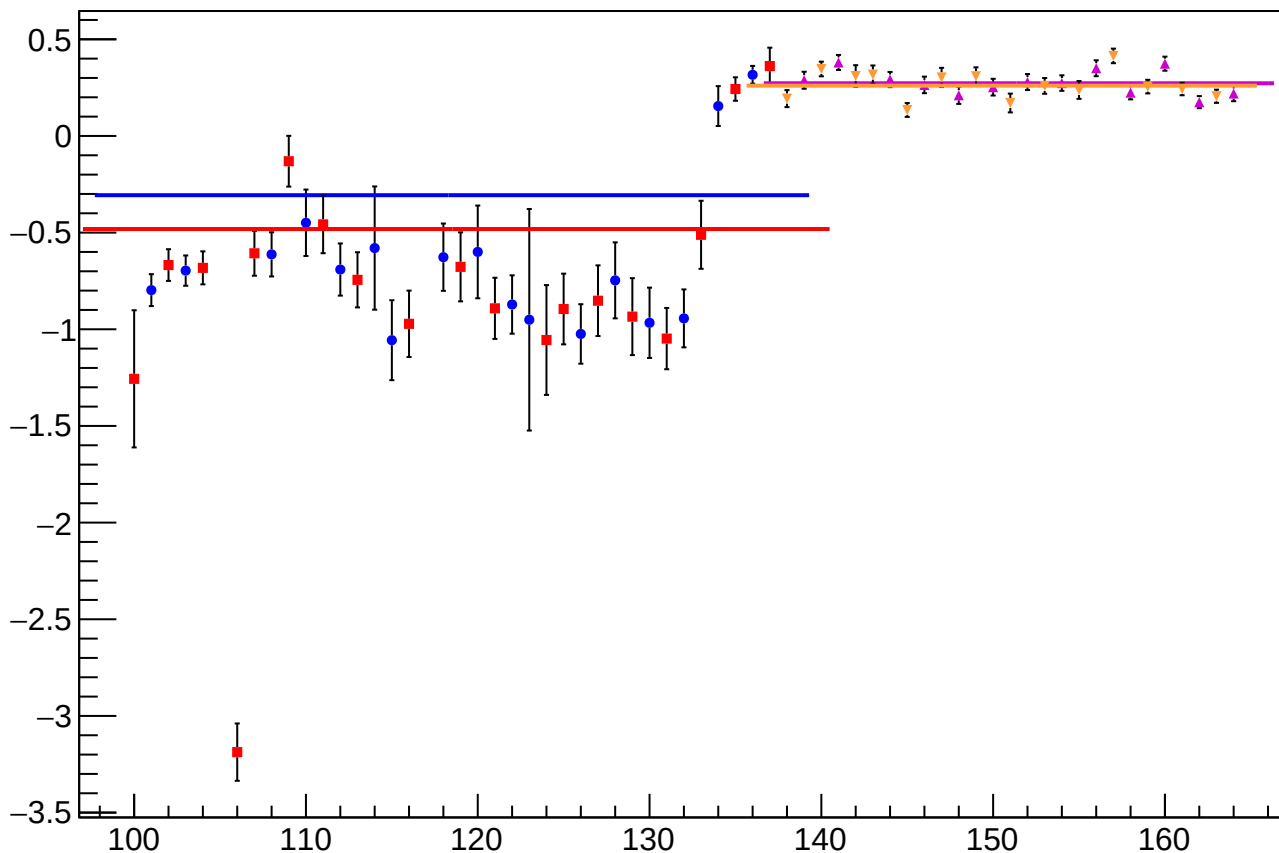
Left In:  $-14.581 \pm 0.230$   $\chi^2/\text{NDF}$ : 821.7/12

+ sign  $-13.876 \pm 0.209$   $\chi^2/\text{NDF}$ : 831.4/30

All:  $-13.948 \pm 0.149$   $\chi^2/\text{NDF}$ : 2059.1/62

- sign  $-14.022 \pm 0.213$   $\chi^2/\text{NDF}$ : 1227.5/31

# reg\_asym\_sam\_24\_68\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.306 \pm 0.028$   $\chi^2/\text{NDF}$ : 371.7/16

Left Out:  $0.260 \pm 0.011$   $\chi^2/\text{NDF}$ : 47.1/13

Right Out:  $-0.481 \pm 0.029$   $\chi^2/\text{NDF}$ : 628.3/18

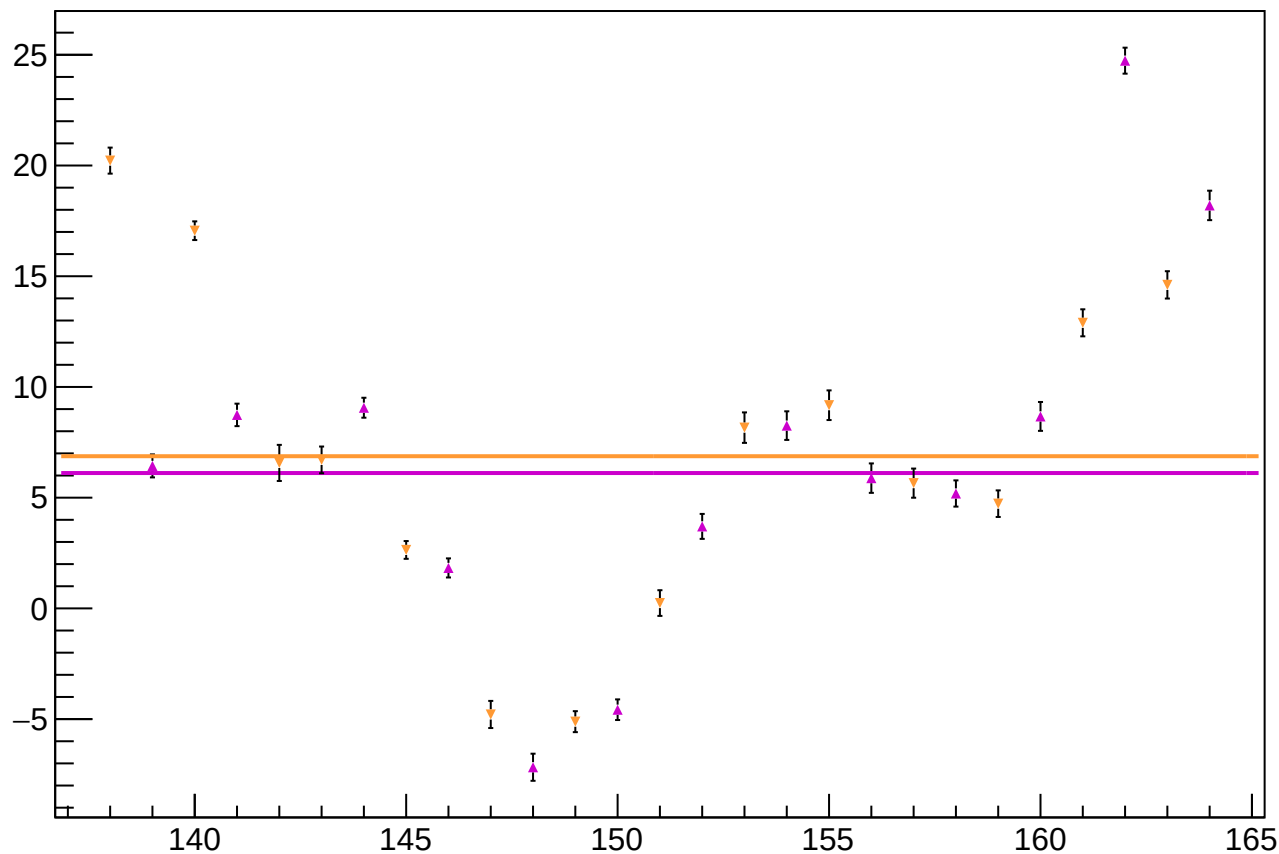
Left In:  $0.272 \pm 0.011$   $\chi^2/\text{NDF}$ : 35.0/12

+ sign  $0.184 \pm 0.010$   $\chi^2/\text{NDF}$ : 784.3/30

All:  $0.180 \pm 0.007$   $\chi^2/\text{NDF}$ : 2054.6/62

- sign  $0.177 \pm 0.010$   $\chi^2/\text{NDF}$ : 1270.2/31

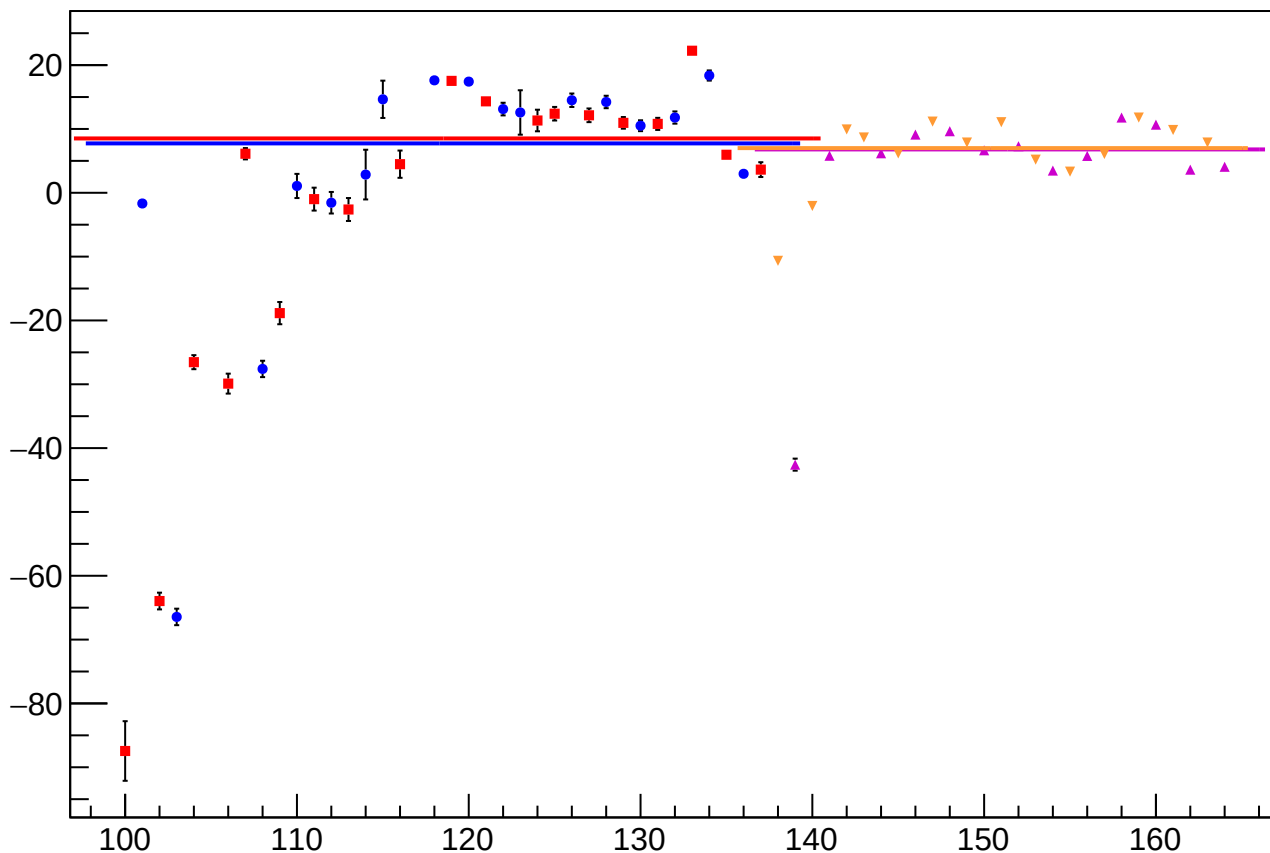
reg\_asym\_sam\_26\_48\_dd\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 6.872+/-0.151  $\chi^2/\text{NDF}$ : 2629.1/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 6.113+/-0.152  $\chi^2/\text{NDF}$ : 2551.2/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: 6.494+/-0.107  $\chi^2/\text{NDF}$ : 5192.9/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

reg\_asym\_sam\_26\_48\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $7.737 \pm 0.218$   $\chi^2/\text{NDF}$ : 5300.6/16

Left Out:  $6.998 \pm 0.106$   $\chi^2/\text{NDF}$ : 2211.4/13

Right Out:  $8.514 \pm 0.213$   $\chi^2/\text{NDF}$ : 6719.4/18

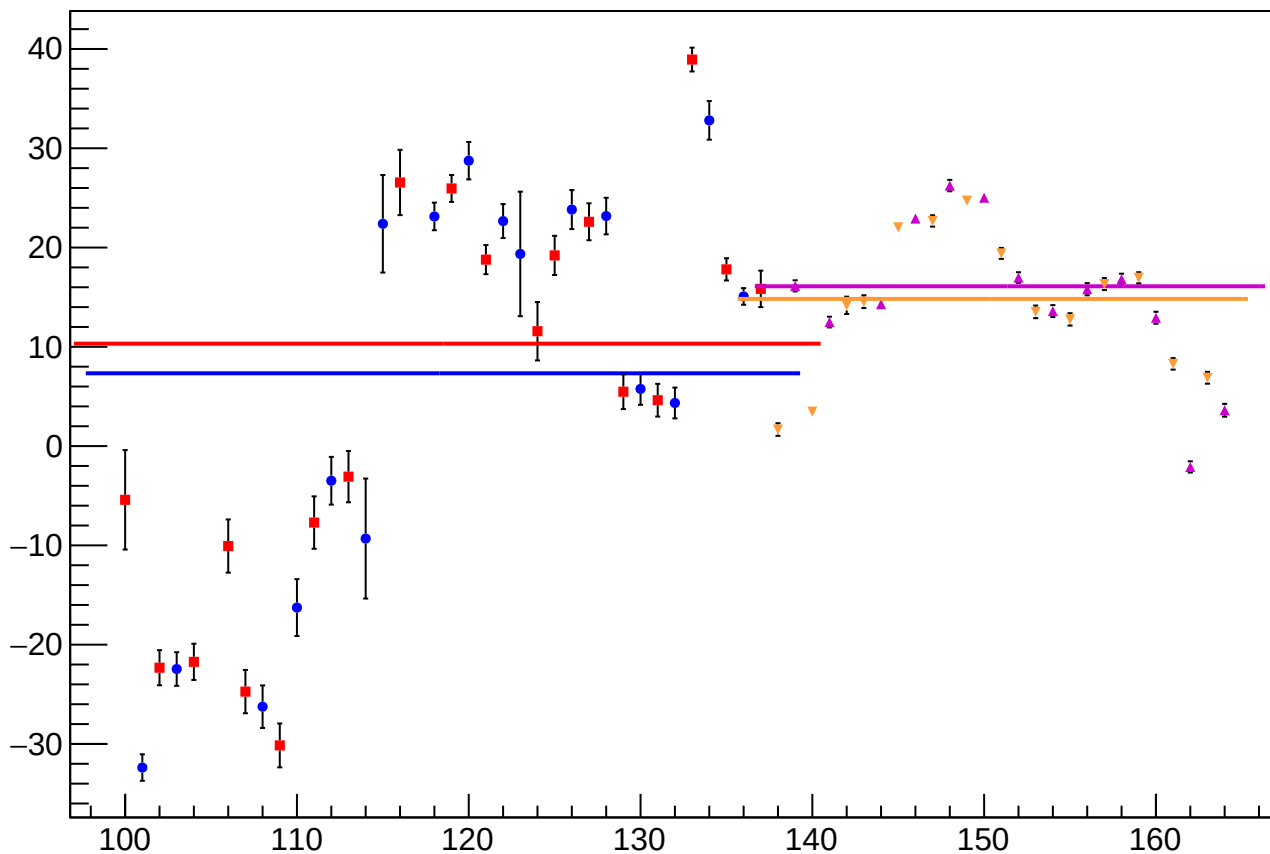
Left In:  $6.792 \pm 0.107$   $\chi^2/\text{NDF}$ : 3266.0/12

+ sign  $7.138 \pm 0.095$   $\chi^2/\text{NDF}$ : 7521.3/30

All:  $7.139 \pm 0.067$   $\chi^2/\text{NDF}$ : 17558.7/62

- sign  $7.140 \pm 0.096$   $\chi^2/\text{NDF}$ : 10037.4/31

# reg\_asym\_sam\_26\_48\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $7.333 \pm 0.419$   $\chi^2/\text{NDF}$ : 2293.1/16

Left Out:  $14.826 \pm 0.149$   $\chi^2/\text{NDF}$ : 2449.2/13

Right Out:  $10.317 \pm 0.417$   $\chi^2/\text{NDF}$ : 2281.5/18

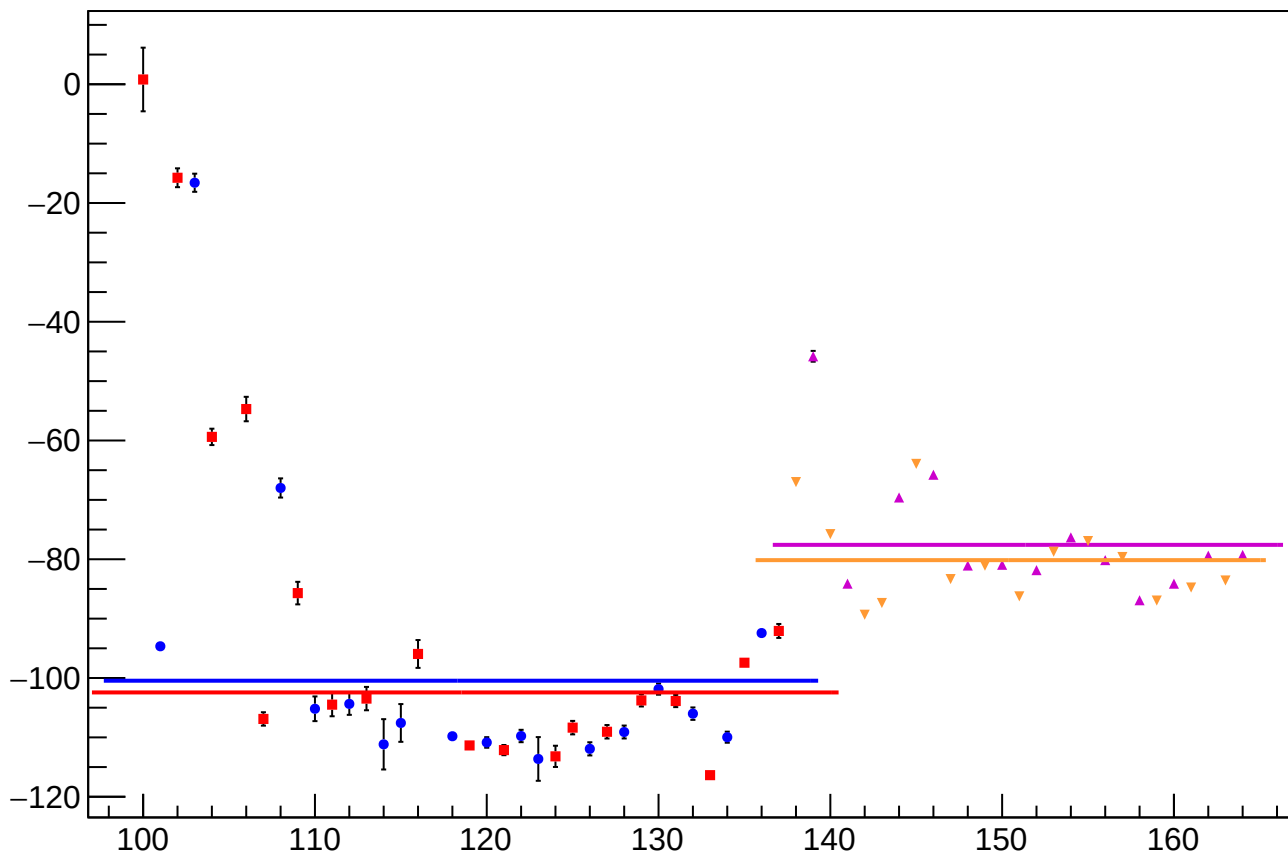
Left In:  $16.097 \pm 0.148$   $\chi^2/\text{NDF}$ : 2518.7/12

+ sign  $13.980 \pm 0.141$   $\chi^2/\text{NDF}$ : 5026.6/30

All:  $14.719 \pm 0.099$   $\chi^2/\text{NDF}$ : 10052.2/62

- sign  $15.447 \pm 0.140$   $\chi^2/\text{NDF}$ : 4970.9/31

reg\_asym\_sam\_26\_48\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-100.457 \pm 0.251$   $\chi^2/\text{NDF}$ : 4461.1/16

Left Out:  $-80.150 \pm 0.124$   $\chi^2/\text{NDF}$ : 3437.3/13

Right Out:  $-102.431 \pm 0.246$   $\chi^2/\text{NDF}$ : 6094.3/18

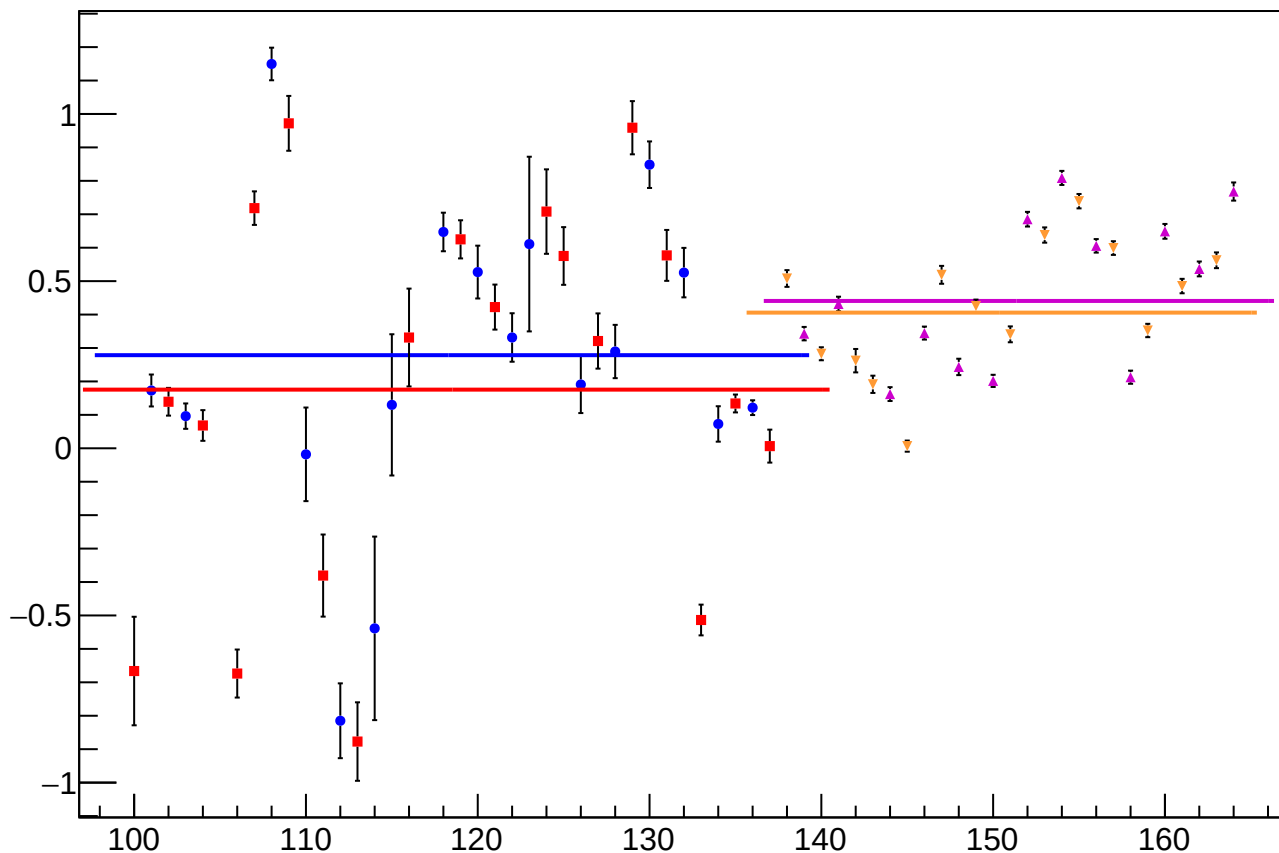
Left In:  $-77.575 \pm 0.125$   $\chi^2/\text{NDF}$ : 4005.2/12

+ sign  $-84.161 \pm 0.111$   $\chi^2/\text{NDF}$ : 13161.7/30

All:  $-83.432 \pm 0.079$   $\chi^2/\text{NDF}$ : 31434.5/62

- sign  $-82.699 \pm 0.112$   $\chi^2/\text{NDF}$ : 18187.0/31

# reg\_asym\_sam\_26\_48\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $0.279 \pm 0.014$   $\chi^2/\text{NDF}$ : 653.9/16

Left Out:  $0.406 \pm 0.006$   $\chi^2/\text{NDF}$ : 1239.9/13

Right Out:  $0.175 \pm 0.013$   $\chi^2/\text{NDF}$ : 967.7/18

Left In:  $0.441 \pm 0.006$   $\chi^2/\text{NDF}$ : 1348.6/12

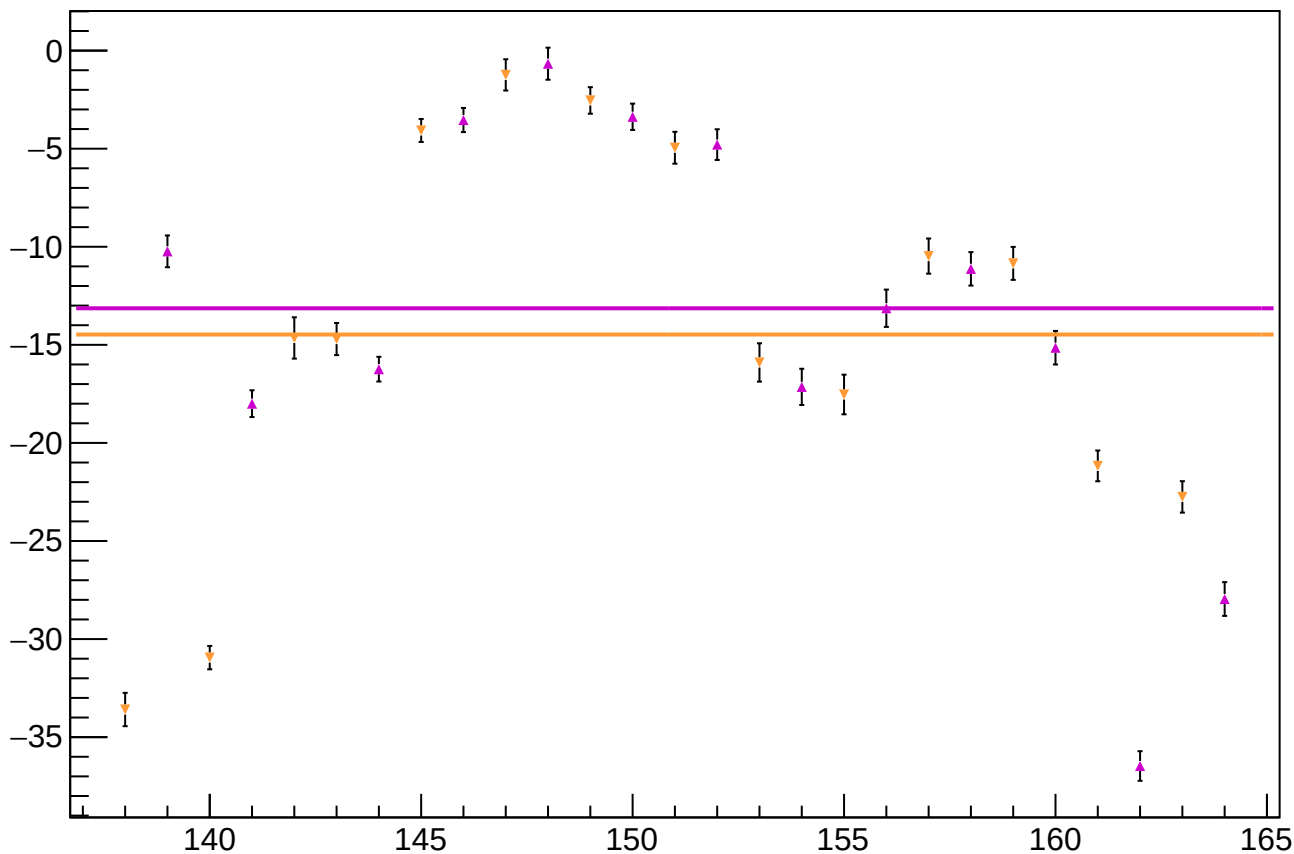
+ sign  $0.386 \pm 0.005$   $\chi^2/\text{NDF}$ : 1968.4/30

All:  $0.392 \pm 0.004$   $\chi^2/\text{NDF}$ : 4613.2/62

- sign  $0.398 \pm 0.005$   $\chi^2/\text{NDF}$ : 2641.9/31



reg\_asym\_sam\_1548\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -14.474+/-0.210  $\chi^2/\text{NDF}$ : 2538.1/13

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

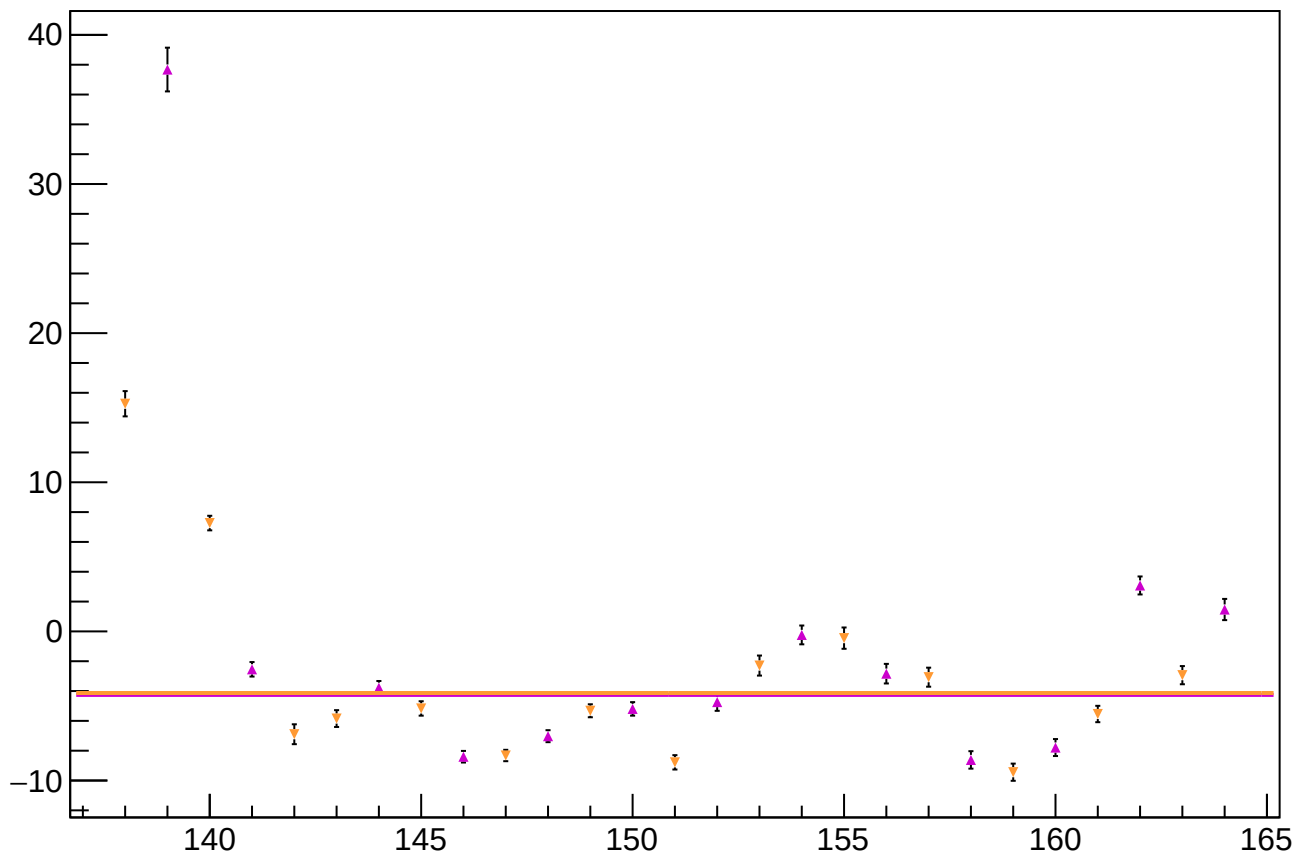
Left In: -13.137+/-0.212  $\chi^2/\text{NDF}$ : 2171.2/12

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

All: -13.811+/-0.149  $\chi^2/\text{NDF}$ : 4729.4/26

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

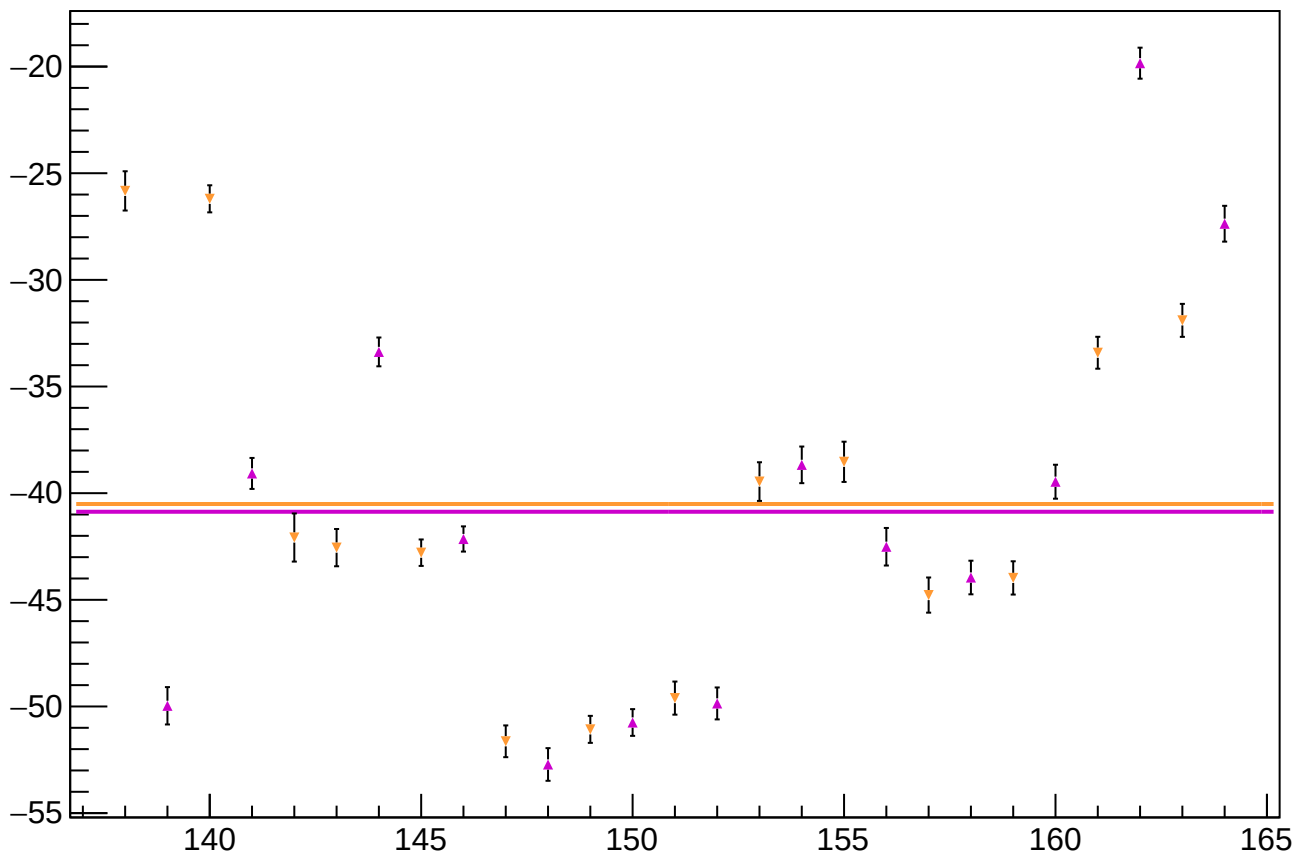
reg\_asym\_sam\_1548\_avg\_diff\_bpm4aY\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -4.130+/-0.145  $\chi^2/\text{NDF}$ :1452.6/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -4.259+/-0.148  $\chi^2/\text{NDF}$ :1349.1/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -4.194+/-0.104  $\chi^2/\text{NDF}$ : 2802.1/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

reg\_asym\_sam\_1548\_avg\_diff\_bpm4eX\_slope vs Slug



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

Left Out: -40.508+/-0.207  $\chi^2/\text{NDF}$ :1688.5/13

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

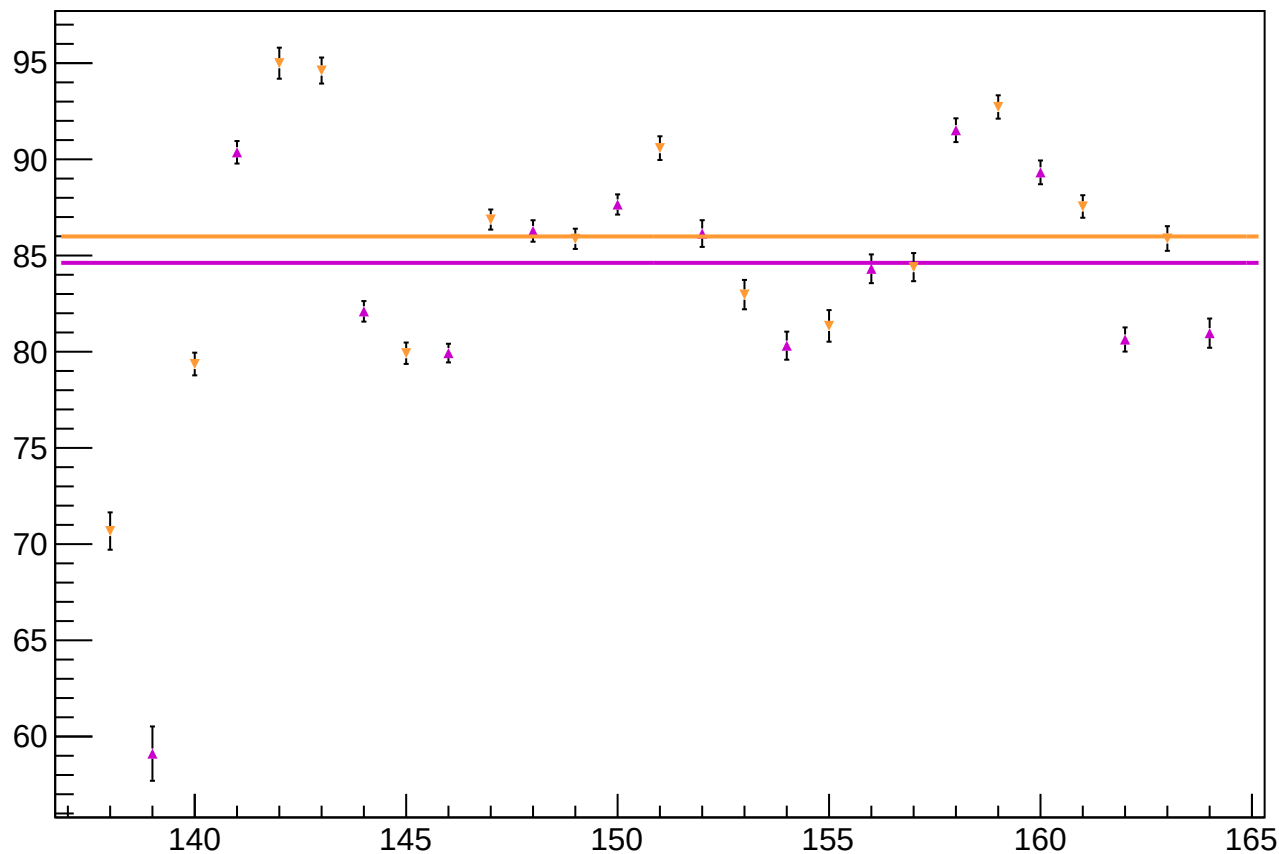
Left In: -40.871+/-0.207  $\chi^2/\text{NDF}$ :1997.7/12

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

All: -40.690+/-0.146  $\chi^2/\text{NDF}$ : 3687.8/26

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

reg\_asym\_sam\_1548\_avg\_diff\_bpm4eY\_slope vs Slug



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

Left Out: 85.991 $\pm$ 0.172  $\chi^2$ /NDF:1022.1/13

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

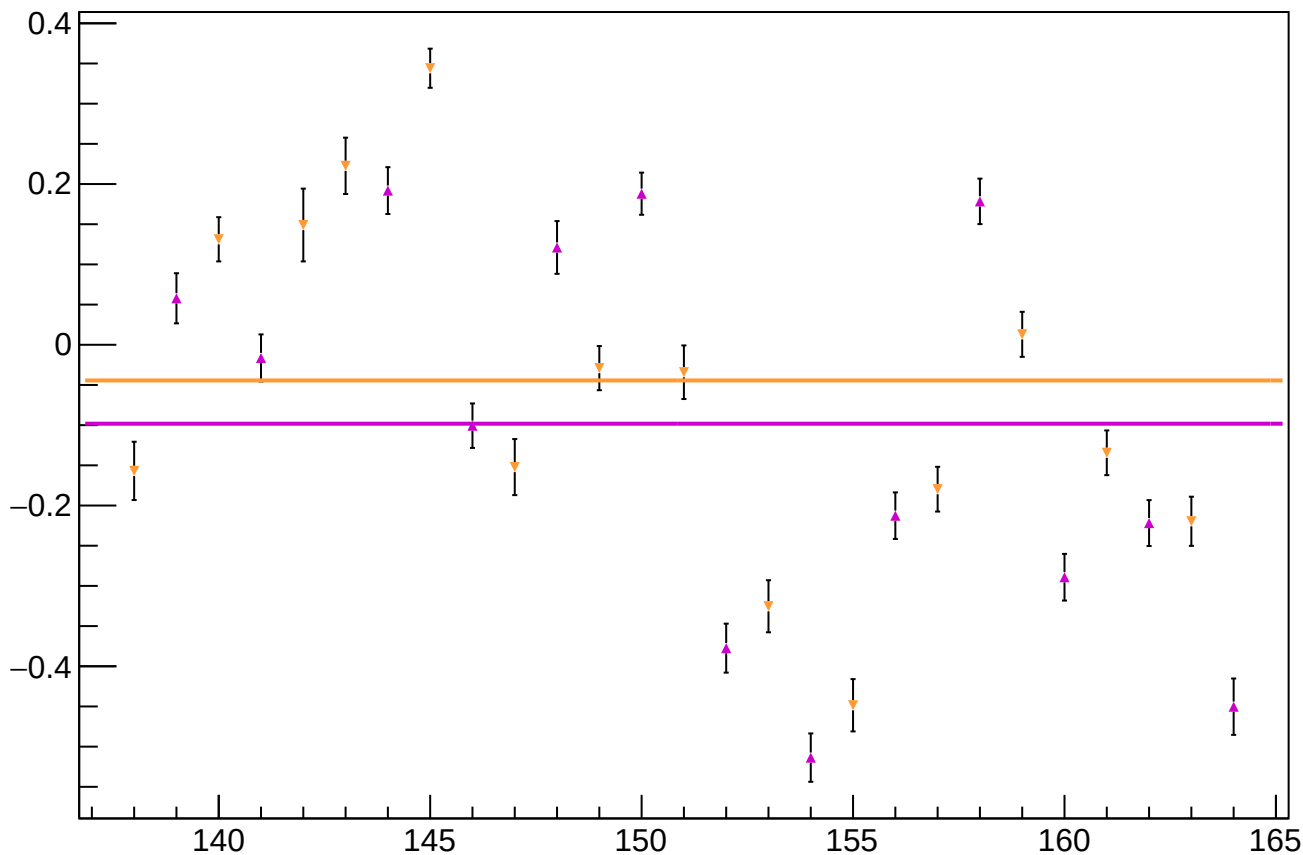
Left In: 84.619 $\pm$ 0.173  $\chi^2$ /NDF:866.1/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 85.312 $\pm$ 0.122  $\chi^2$ /NDF: 1919.8/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_1548\_avg\_diff\_bpm12X\_slope vs Slug



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

Left Out: -0.044 $\pm$ 0.008  $\chi^2$ /NDF: 691.9/13

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

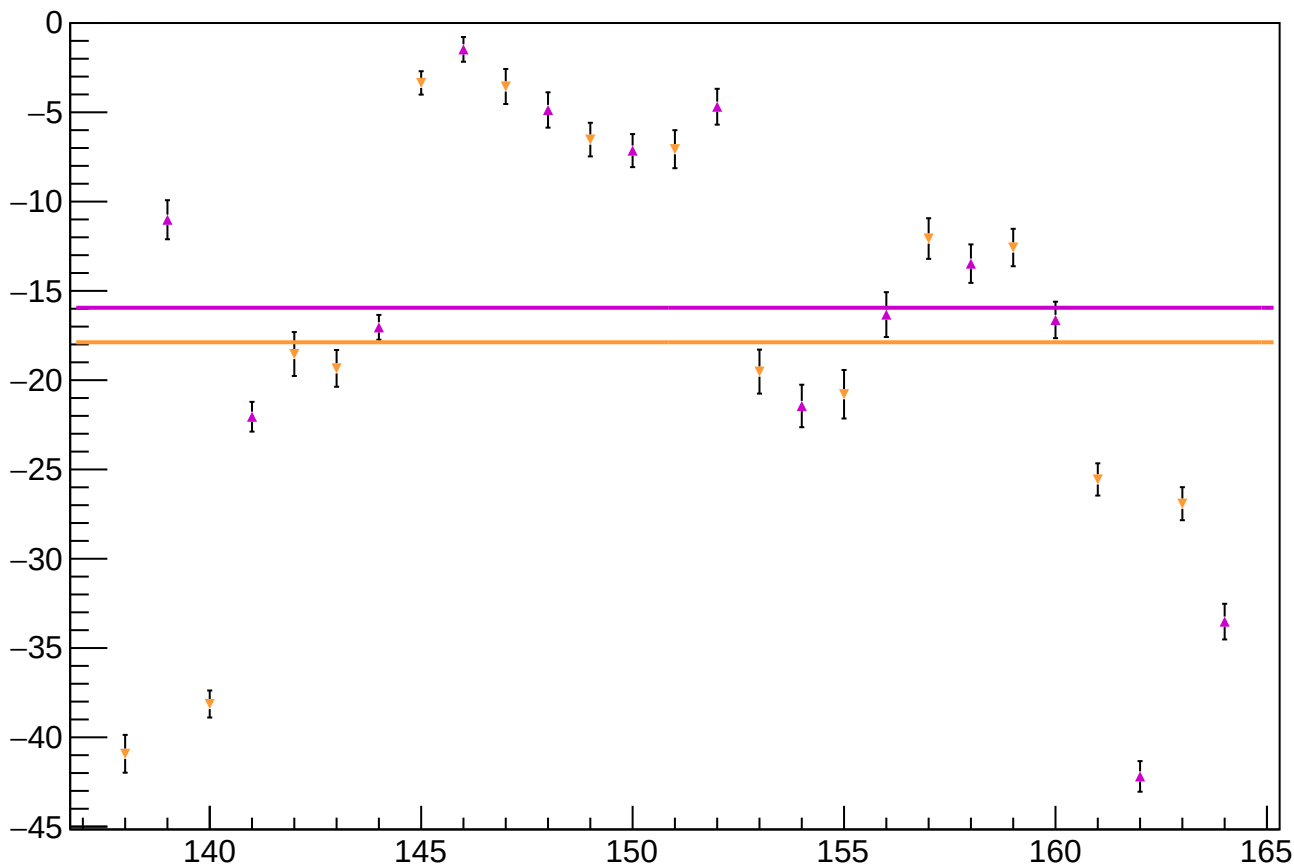
Left In: -0.098 $\pm$ 0.008  $\chi^2$ /NDF: 844.4/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -0.071 $\pm$ 0.006  $\chi^2$ /NDF: 1557.9/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_3748\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out:  $-17.879 \pm 0.259$   $\chi^2/\text{NDF}$ : 2371.7/13

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

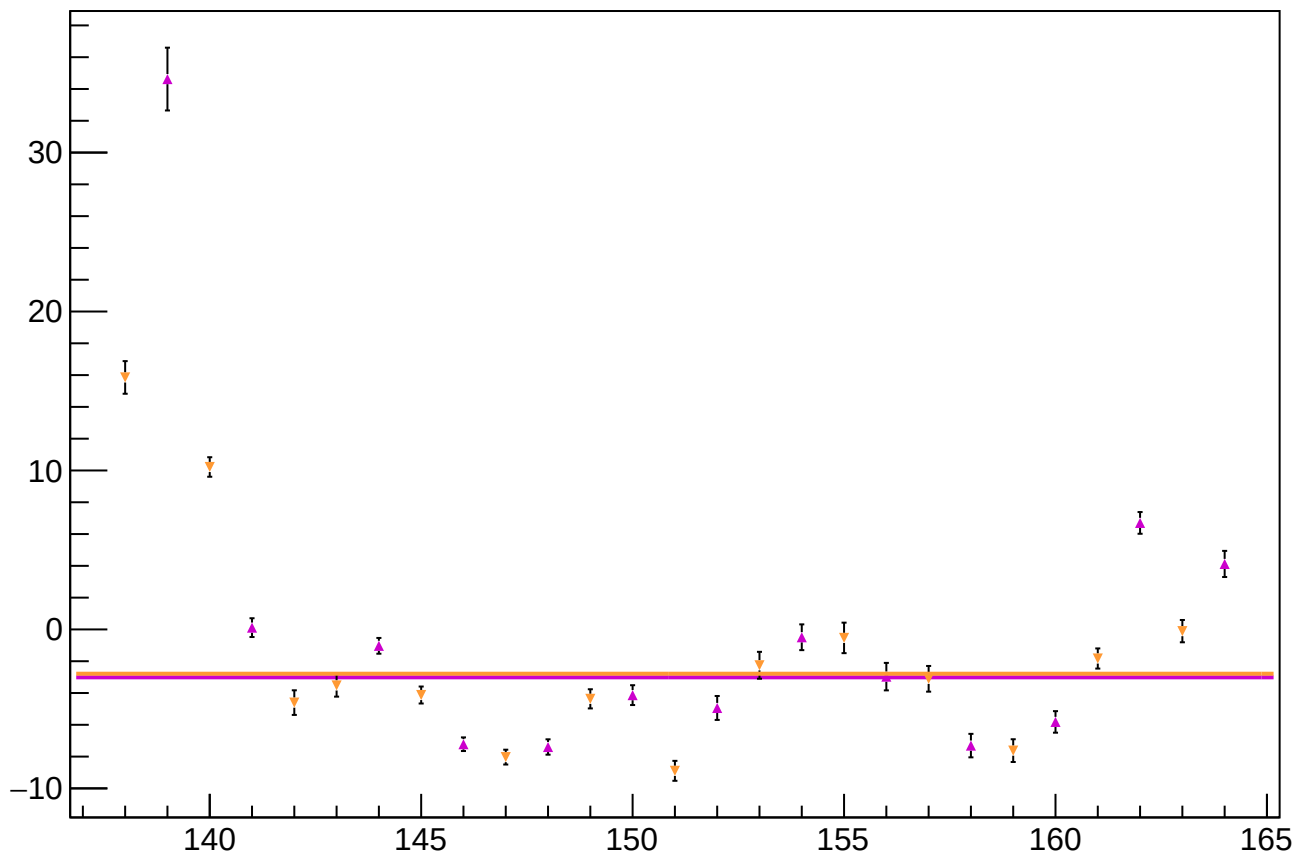
Left In:  $-15.945 \pm 0.257$   $\chi^2/\text{NDF}$ : 2128.9/12

+ sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

All:  $-16.904 \pm 0.182$   $\chi^2/\text{NDF}$ : 4528.7/26

- sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/0

reg\_asym\_sam\_3748\_avg\_diff\_bpm4aY\_slope vs Slug



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

Left Out: -2.786+/-0.179  $\chi^2/\text{NDF}$ : 1086.9/13

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

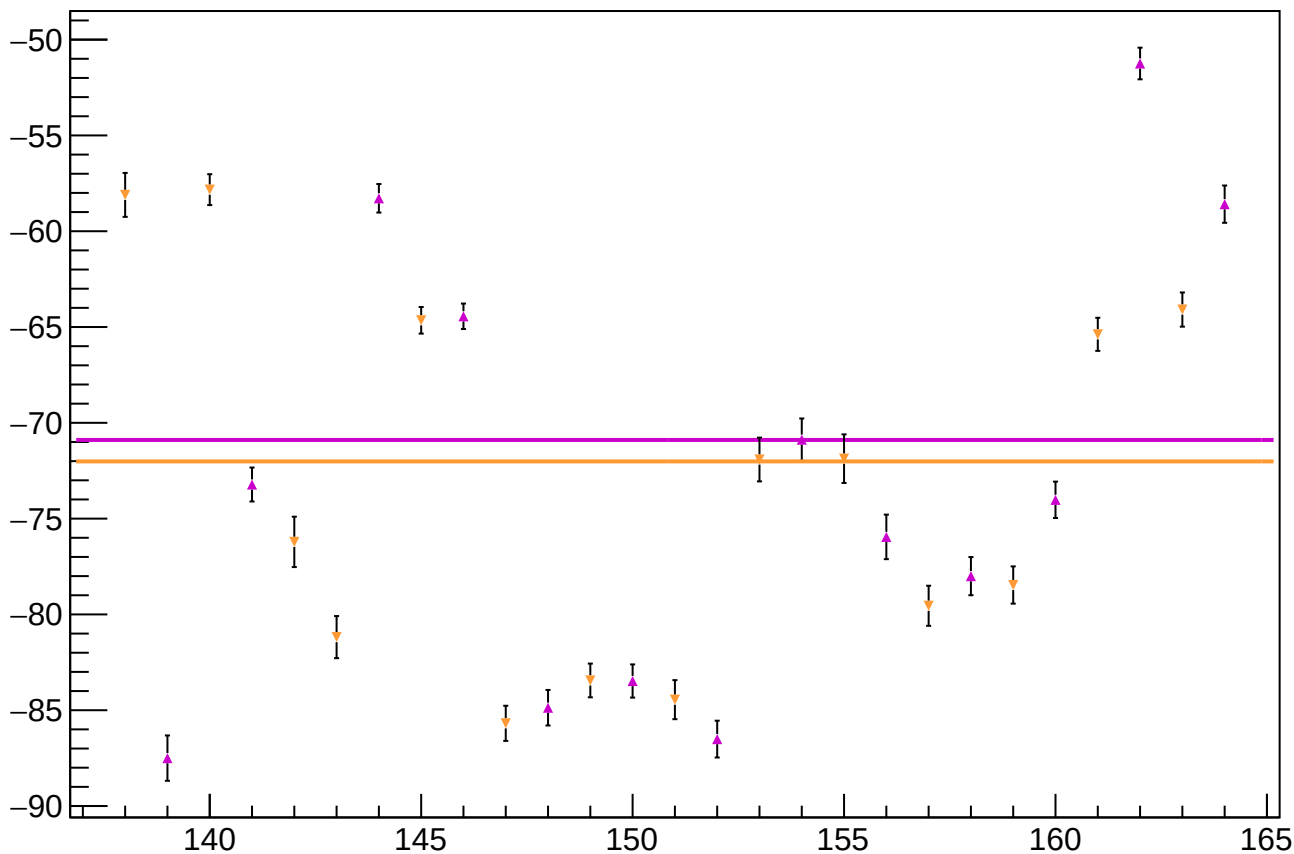
Left In: -3.014+/-0.178  $\chi^2/\text{NDF}$ : 933.3/12

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

All: -2.901+/-0.126  $\chi^2/\text{NDF}$ : 2021.0/26

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

reg\_asym\_sam\_3748\_avg\_diff\_bpm4eX\_slope vs Slug



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

Left Out: -72.014+/-0.257  $\chi^2/\text{NDF}$ :1423.0/13

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

Left In: -70.893+/-0.251  $\chi^2/\text{NDF}$ :2094.2/12

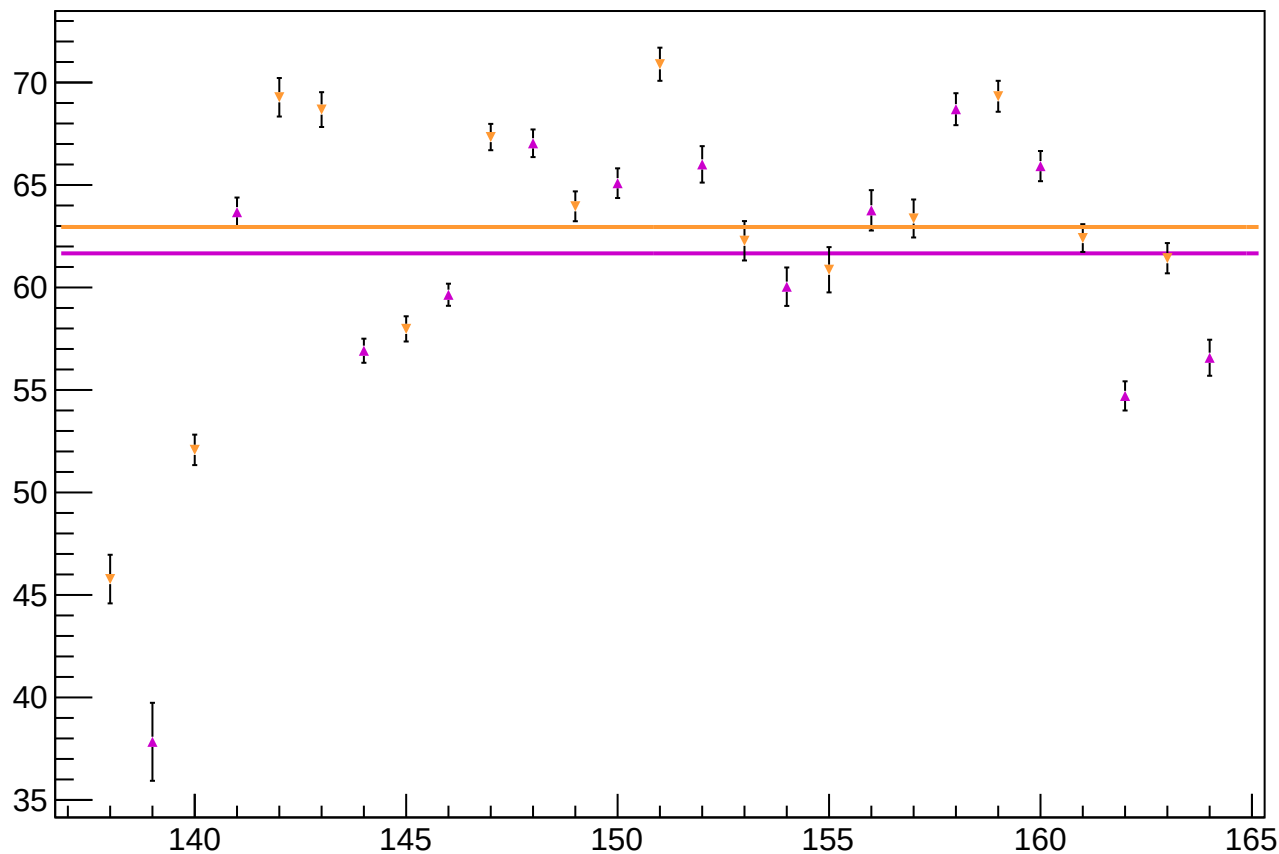
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -71.442+/-0.180  $\chi^2/\text{NDF}$ : 3526.9/26

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



reg\_asym\_sam\_3748\_avg\_diff\_bpm4eY\_slope vs Slug



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

Left Out: 62.951+/-0.211  $\chi^2/\text{NDF}$ : 805.7/13

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

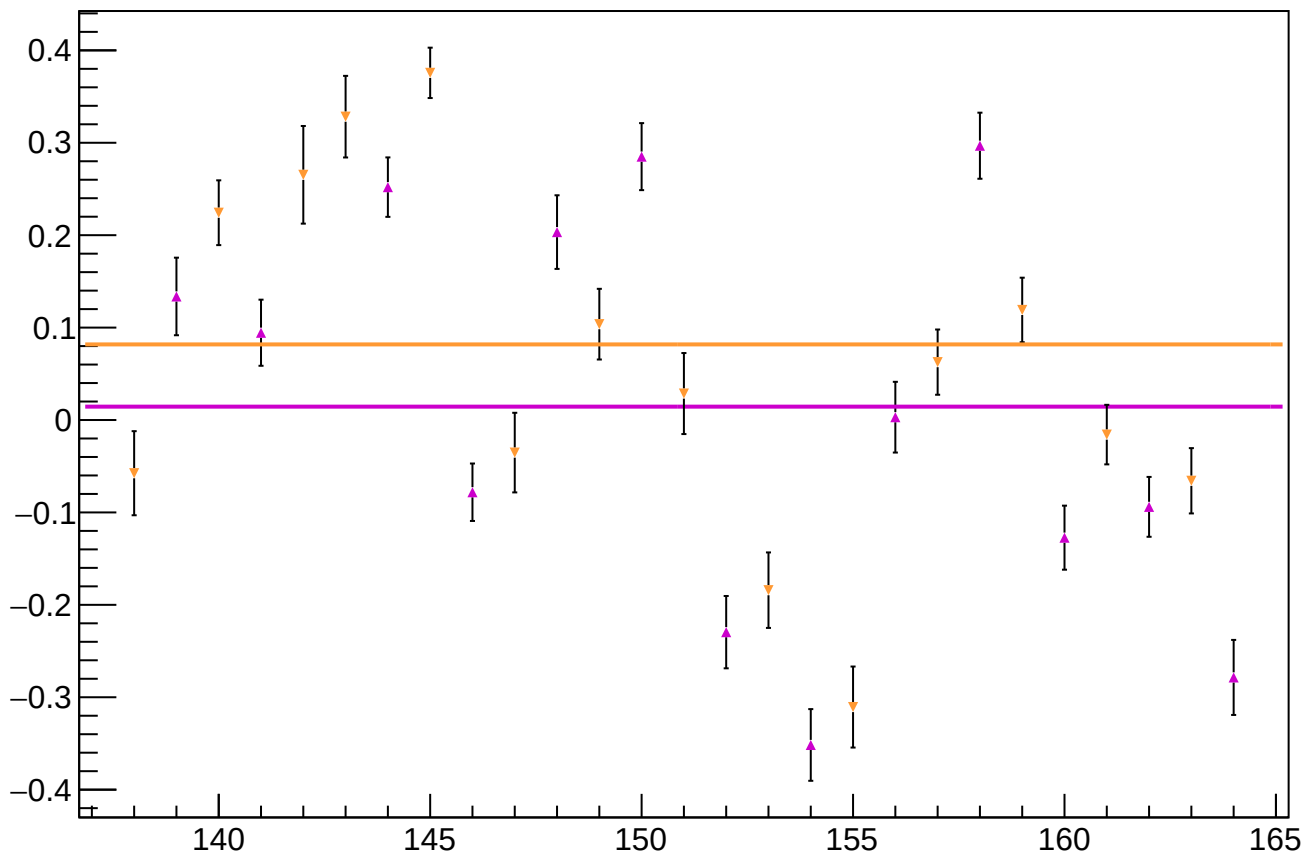
Left In: 61.664+/-0.209  $\chi^2/\text{NDF}$ : 605.1/12

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

All: 62.300+/-0.149  $\chi^2/\text{NDF}$ : 1429.5/26

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

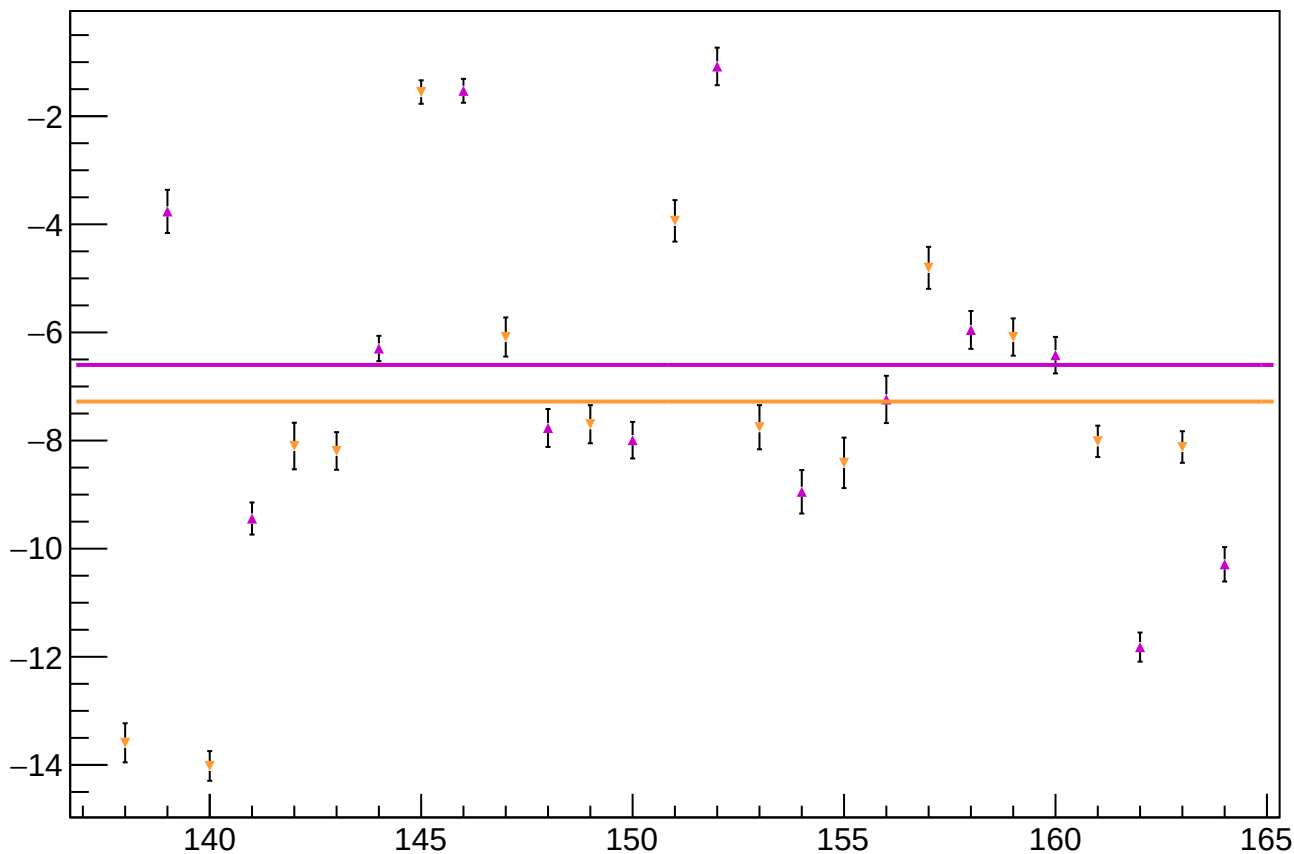
reg\_asym\_sam\_3748\_avg\_diff\_bpm12X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.082 $\pm$ 0.010  $\chi^2$ /NDF:345.2/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.014 $\pm$ 0.010  $\chi^2$ /NDF:425.1/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 0.048 $\pm$ 0.007  $\chi^2$ /NDF: 792.6/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

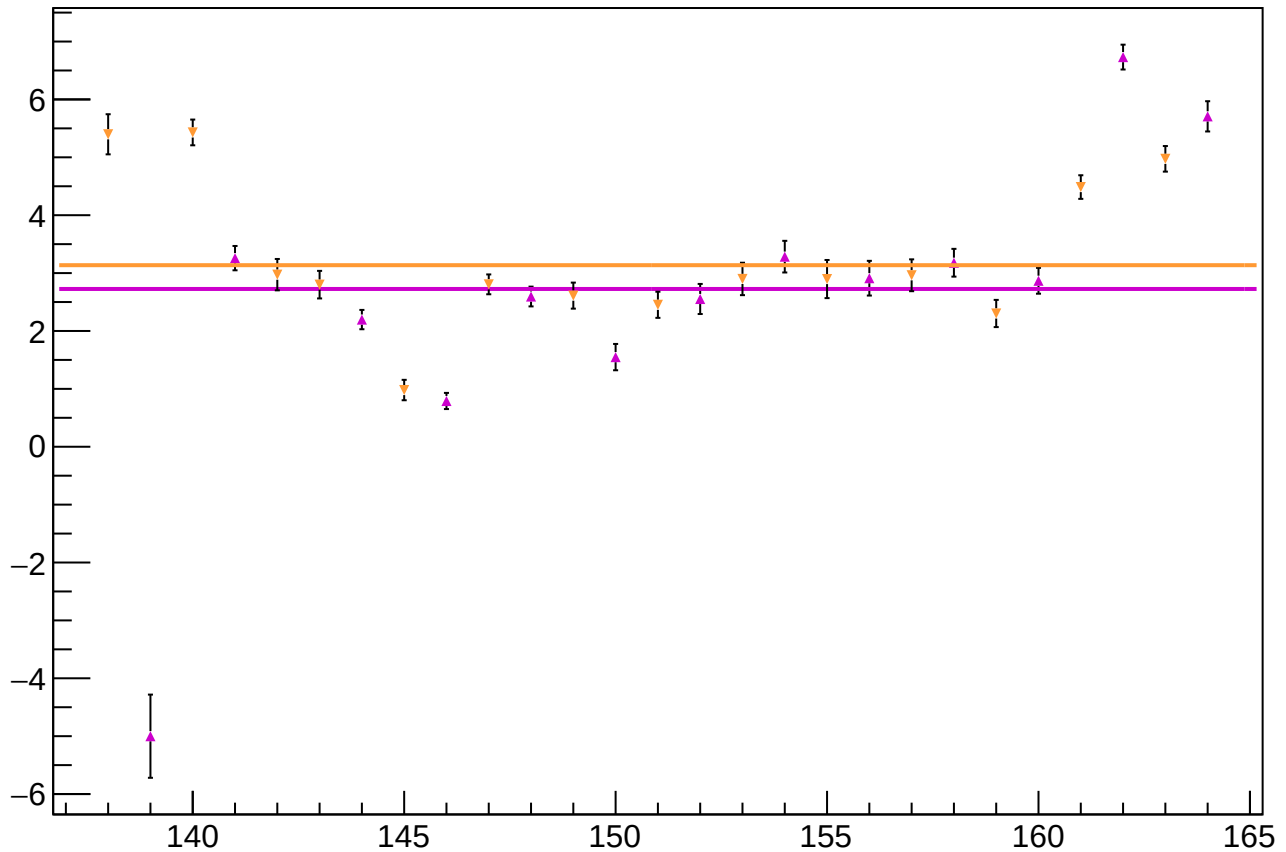
reg\_asym\_sam\_1526\_avg\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -7.278+/-0.089  $\chi^2/\text{NDF}$ : 1776.4/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -6.601+/-0.087  $\chi^2/\text{NDF}$ : 1501.2/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -6.932+/-0.062  $\chi^2/\text{NDF}$ : 3307.5/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

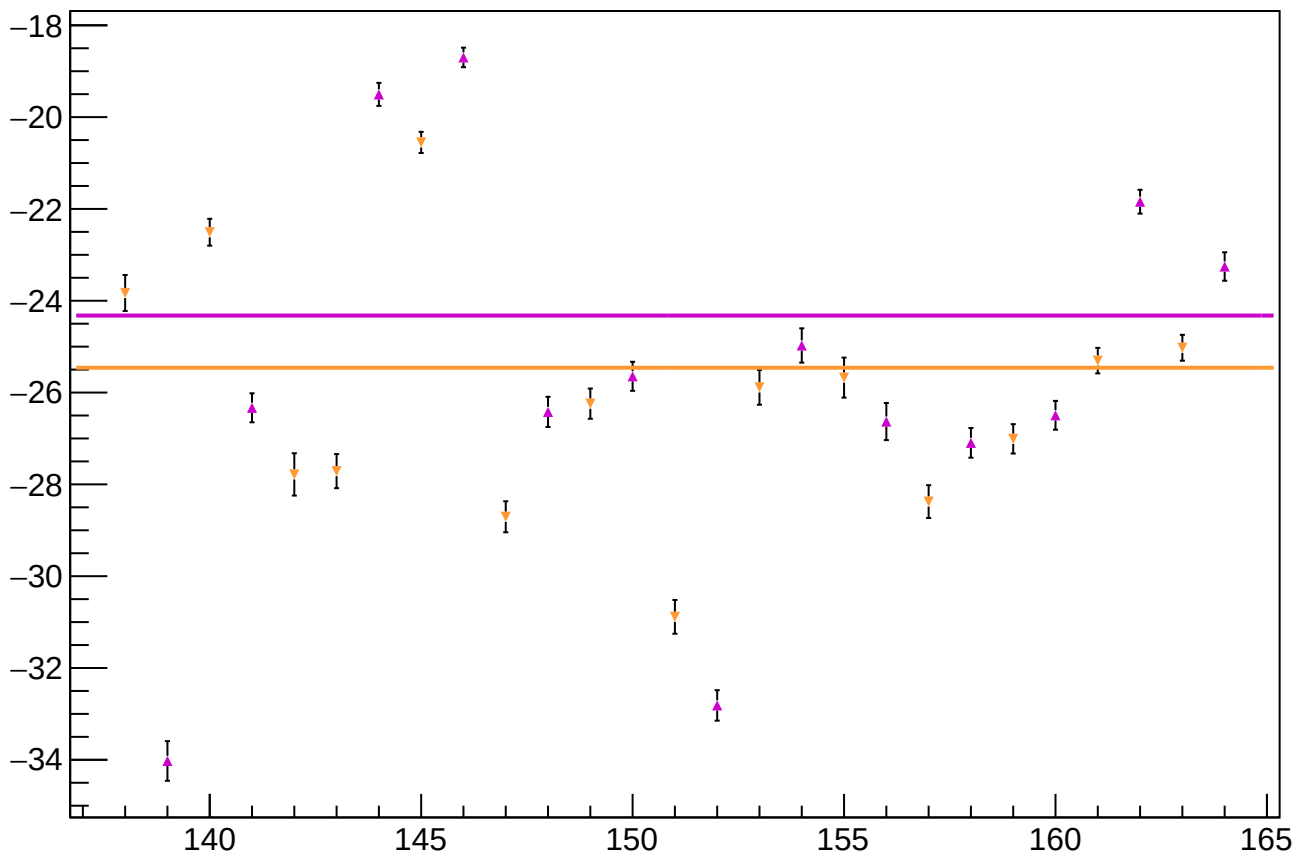
reg\_asym\_sam\_1526\_avg\_diff\_bpm4aY\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 3.136 $\pm$ 0.062  $\chi^2$ /NDF:446.5/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 2.726 $\pm$ 0.060  $\chi^2$ /NDF:839.6/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 2.925 $\pm$ 0.043  $\chi^2$ /NDF: 1308.9/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_1526\_avg\_diff\_bpm4eX\_slope vs Slug



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

Left Out: -25.459+/-0.088  $\chi^2/\text{NDF}$ :1045.3/13

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

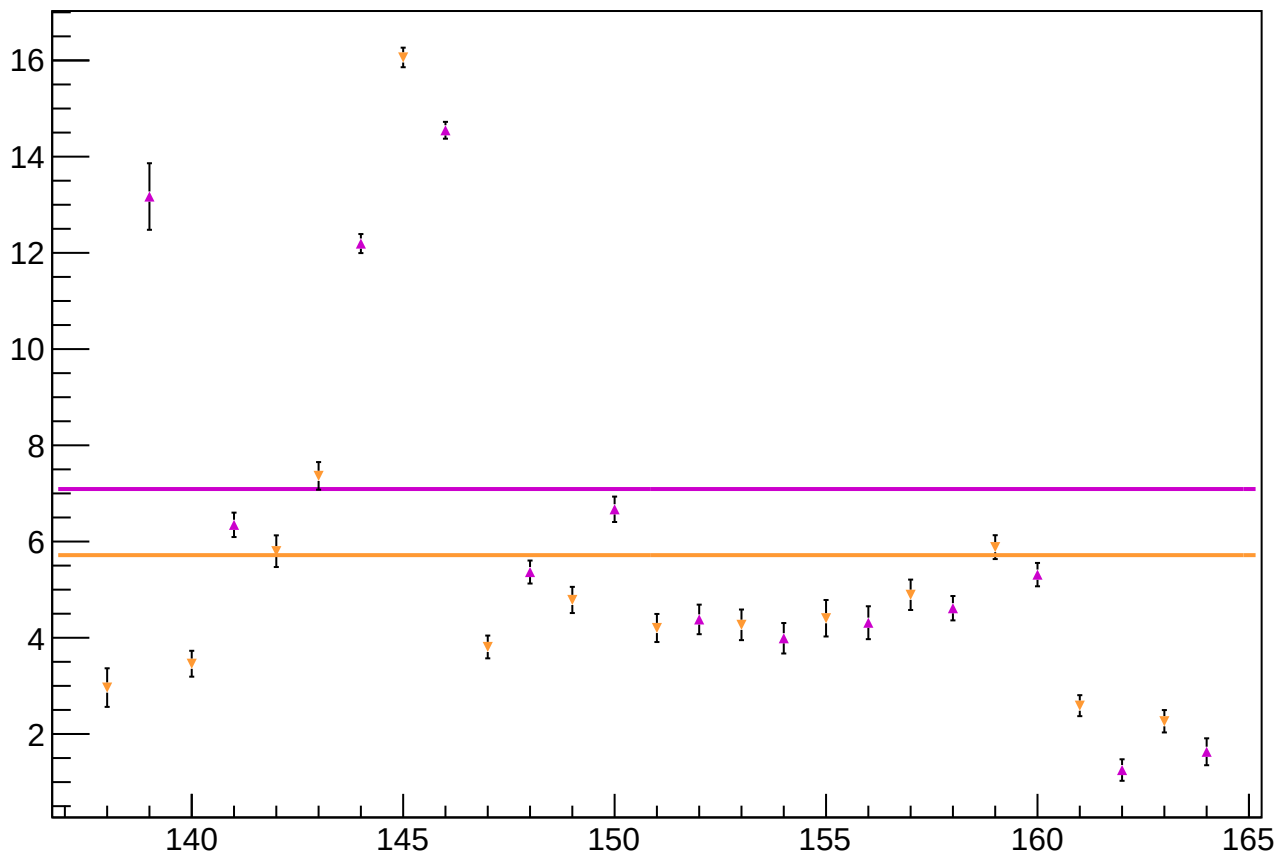
Left In: -24.323+/-0.085  $\chi^2/\text{NDF}$ :2585.2/12

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

All: -24.869+/-0.061  $\chi^2/\text{NDF}$ : 3717.4/26

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

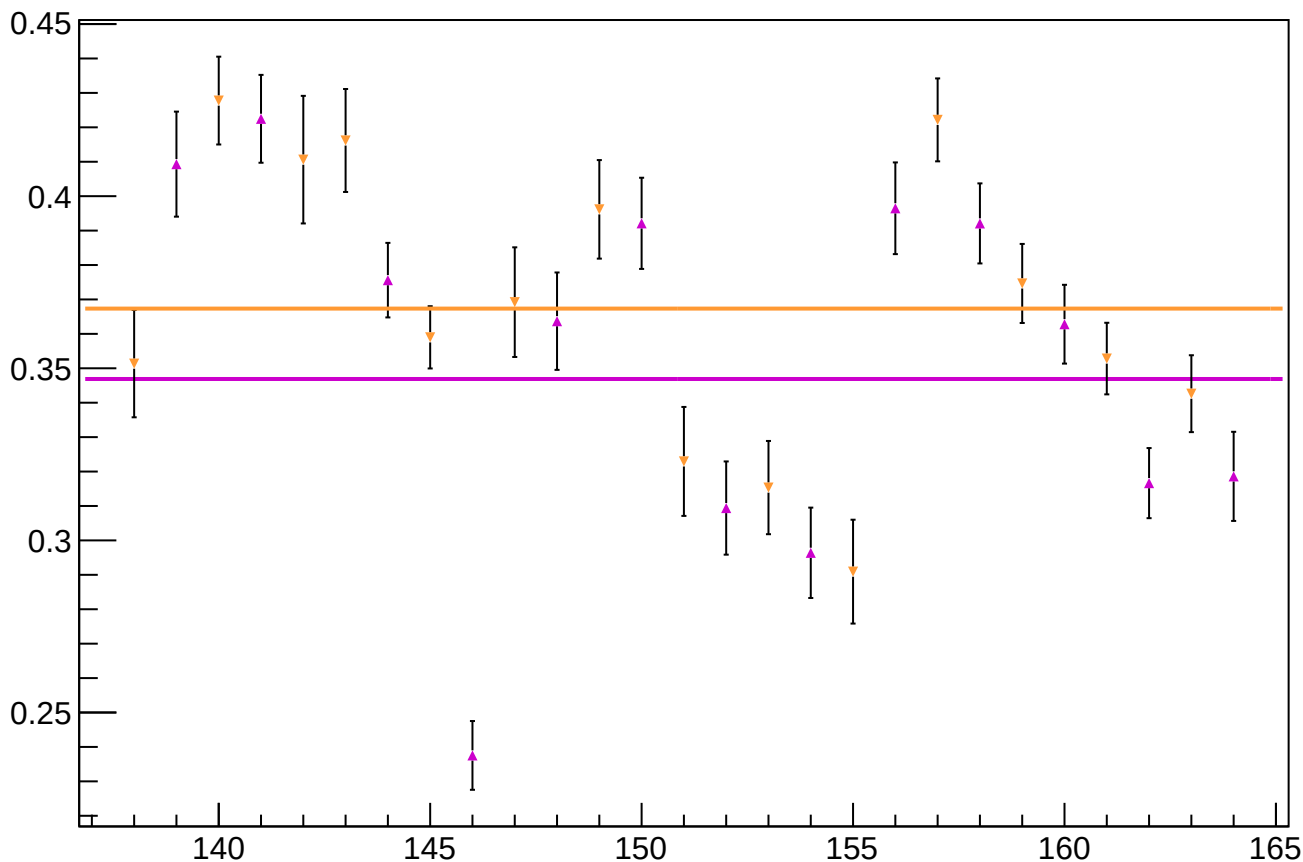
reg\_asym\_sam\_1526\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 5.717 $\pm$ 0.072  $\chi^2$ /NDF:3311.4/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 7.091 $\pm$ 0.070  $\chi^2$ /NDF:4075.5/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 6.423 $\pm$ 0.050  $\chi^2$ /NDF: 7572.5/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

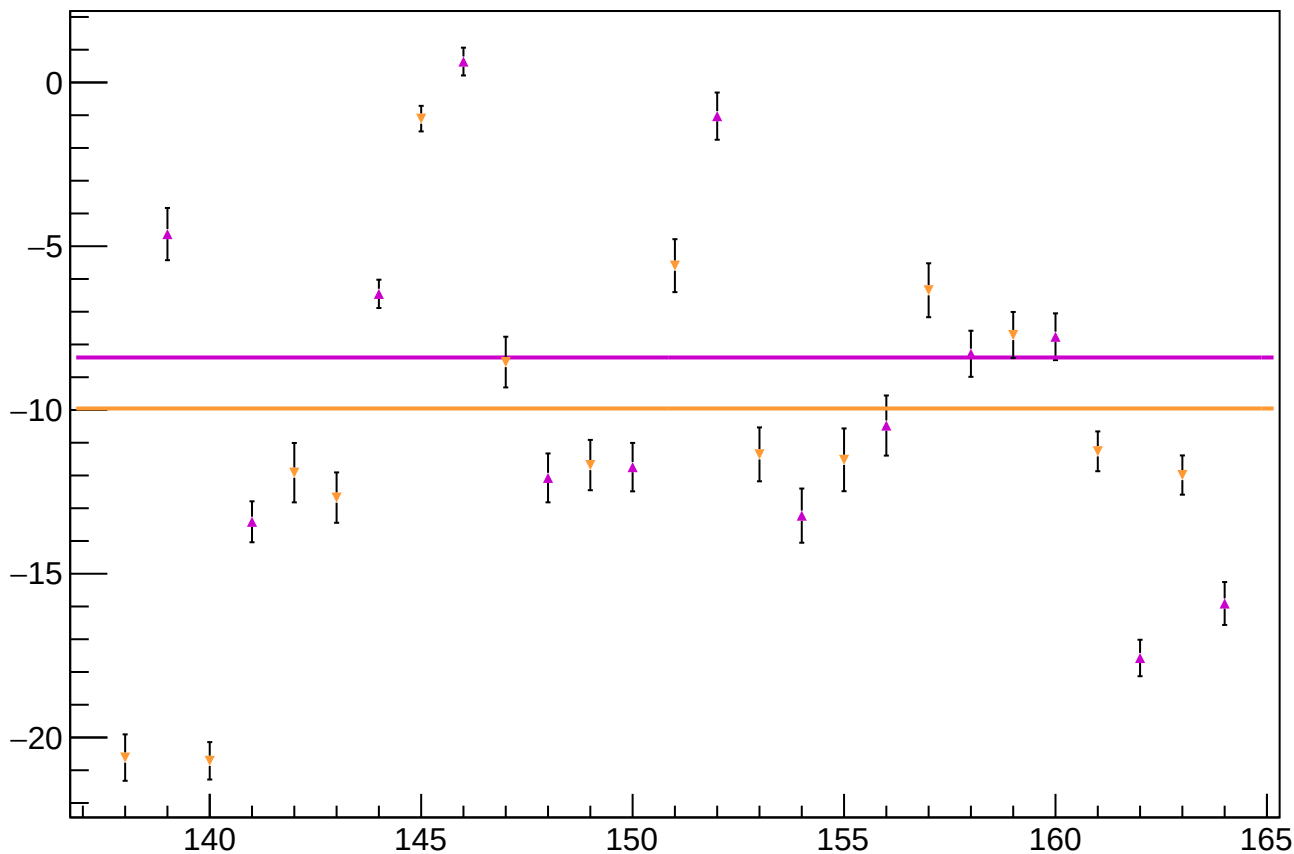
reg\_asym\_sam\_1526\_avg\_diff\_bpm12X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.367 $\pm$ 0.003  $\chi^2$ /NDF:120.8/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.347 $\pm$ 0.003  $\chi^2$ /NDF:258.8/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 0.357 $\pm$ 0.002  $\chi^2$ /NDF: 397.4/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_3726\_avg\_diff\_bpm1X\_slope vs Slug

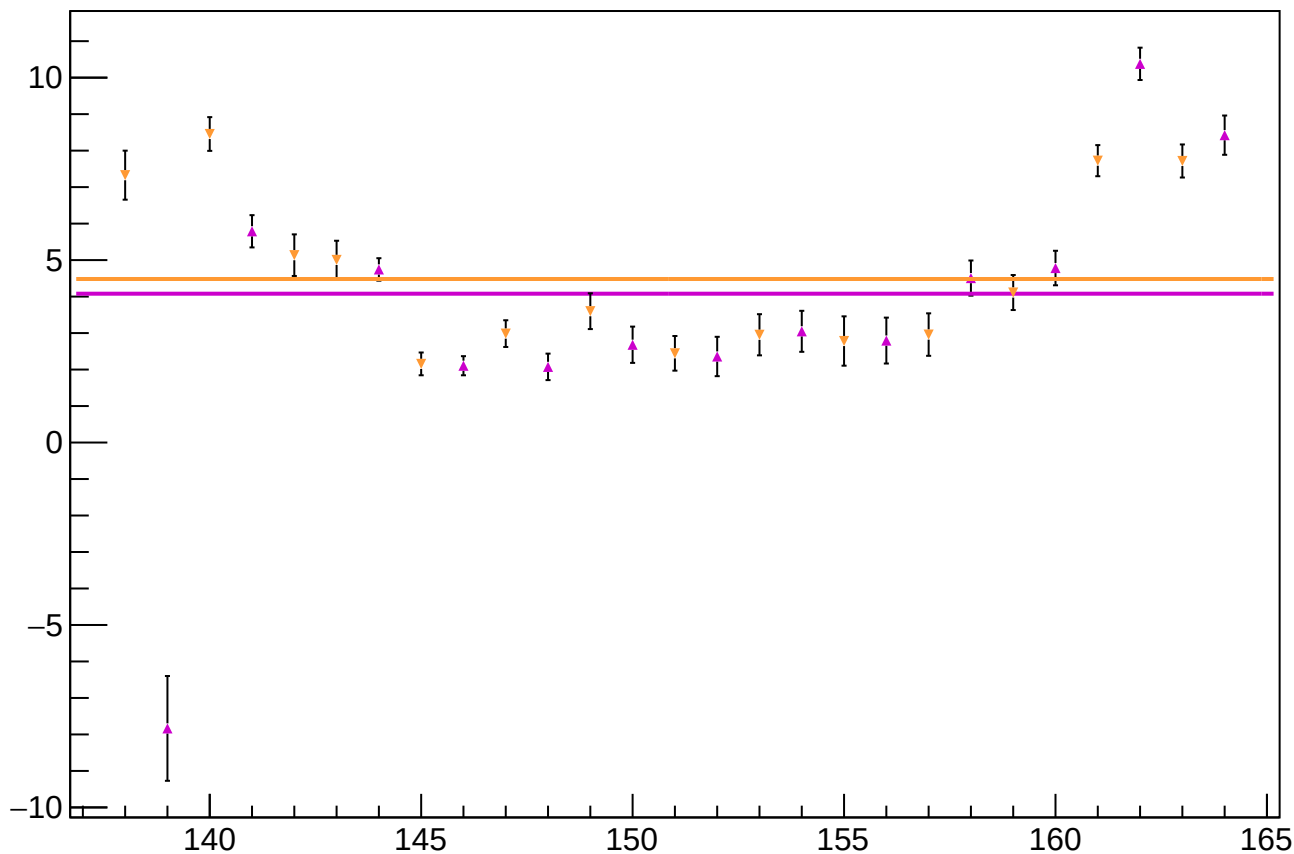


Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -9.954+/-0.180  $\chi^2/\text{NDF}$ : 1201.3/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -8.397+/-0.175  $\chi^2/\text{NDF}$ : 1153.0/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -9.154+/-0.125  $\chi^2/\text{NDF}$ : 2392.9/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0



reg\_asym\_sam\_3726\_avg\_diff\_bpm4aY\_slope vs Slug



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

Left Out: 4.482 $\pm$ 0.126  $\chi^2$ /NDF:317.9/13

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

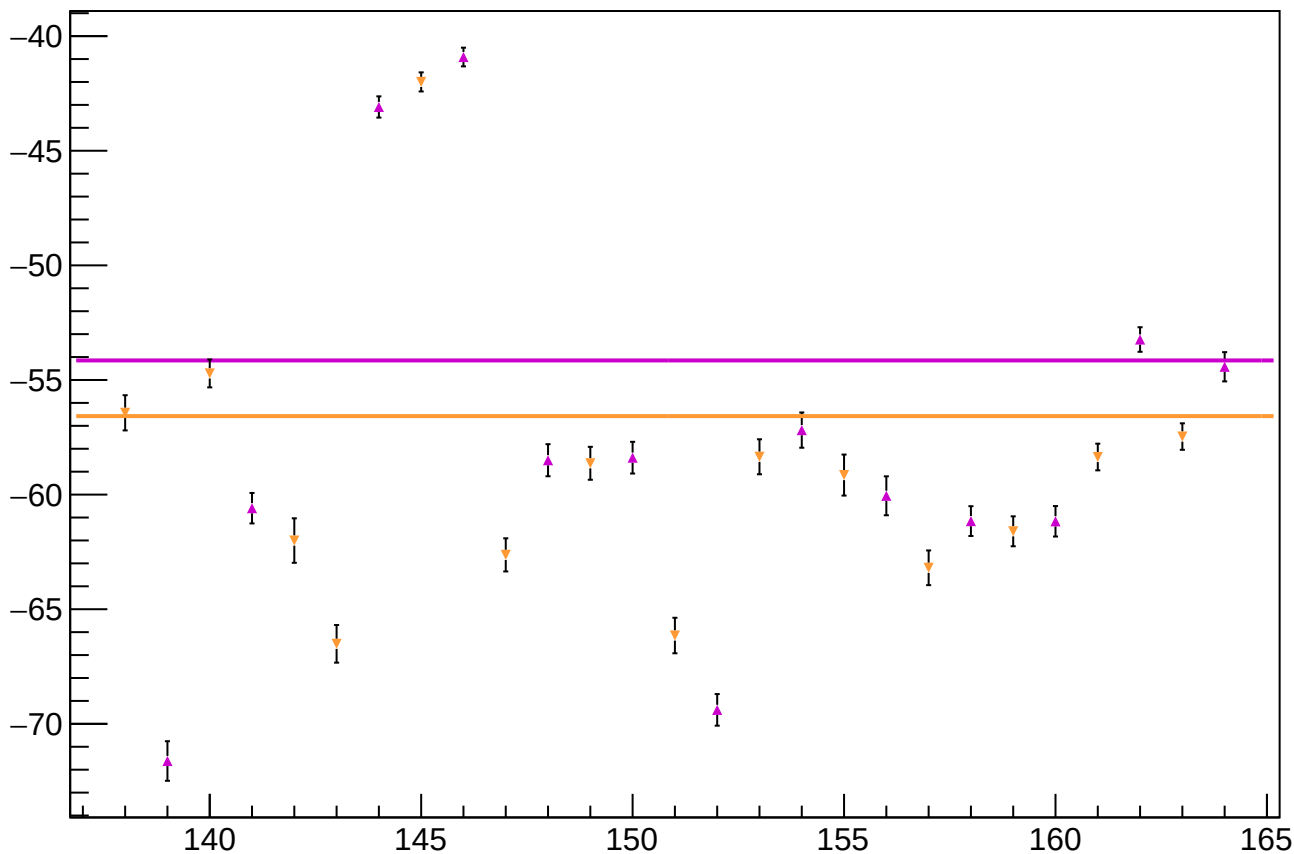
Left In: 4.079 $\pm$ 0.121  $\chi^2$ /NDF:471.7/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 4.271 $\pm$ 0.087  $\chi^2$ /NDF: 795.0/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_3726\_avg\_diff\_bpm4eX\_slope vs Slug



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

Left Out: -56.576+/-0.179  $\chi^2/\text{NDF}$ :1807.9/13

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

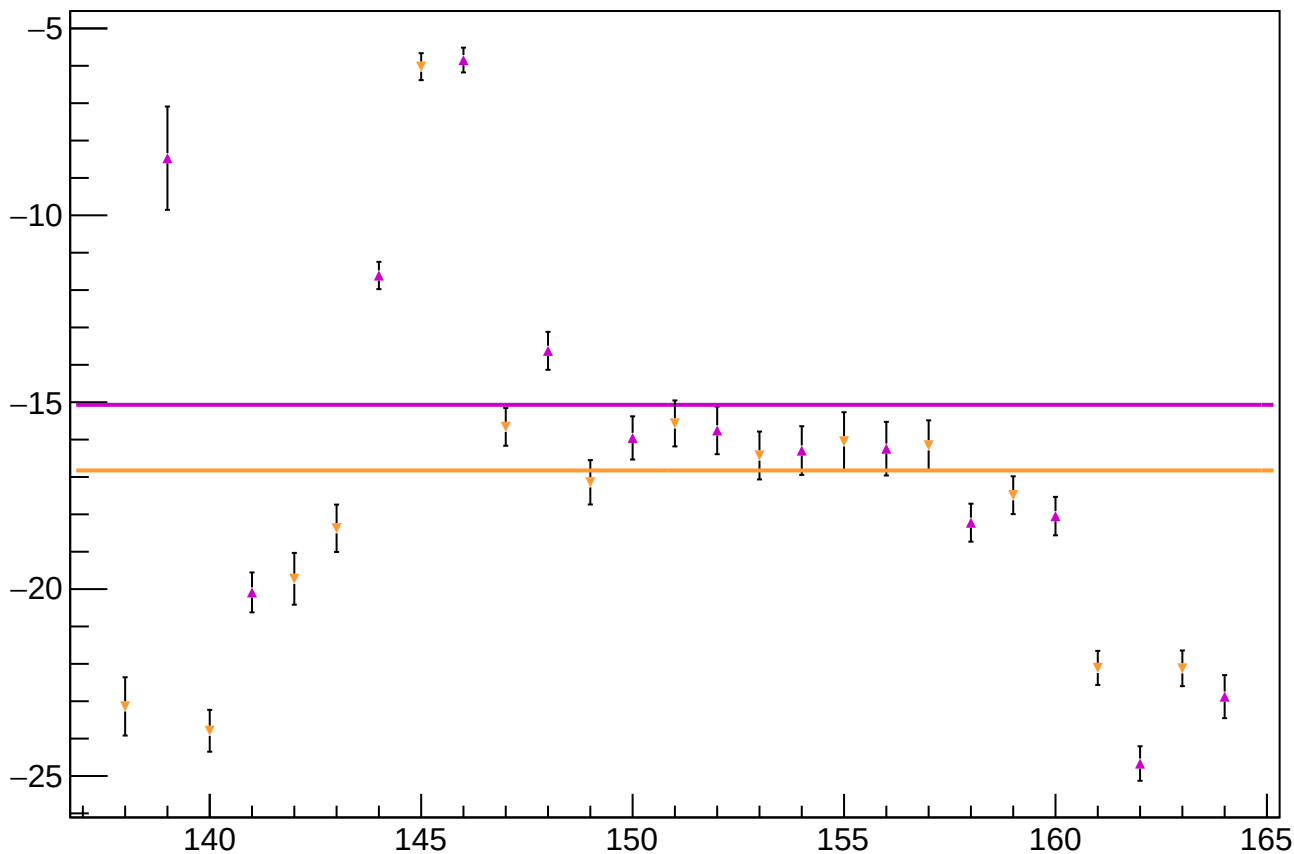
Left In: -54.147+/-0.171  $\chi^2/\text{NDF}$ :2987.1/12

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

All: -55.308+/-0.124  $\chi^2/\text{NDF}$ : 4891.2/26

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

reg\_asym\_sam\_3726\_avg\_diff\_bpm4eY\_slope vs Slug



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

Left Out: -16.826 $\pm$ 0.148  $\chi^2$ /NDF:1411.2/13

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

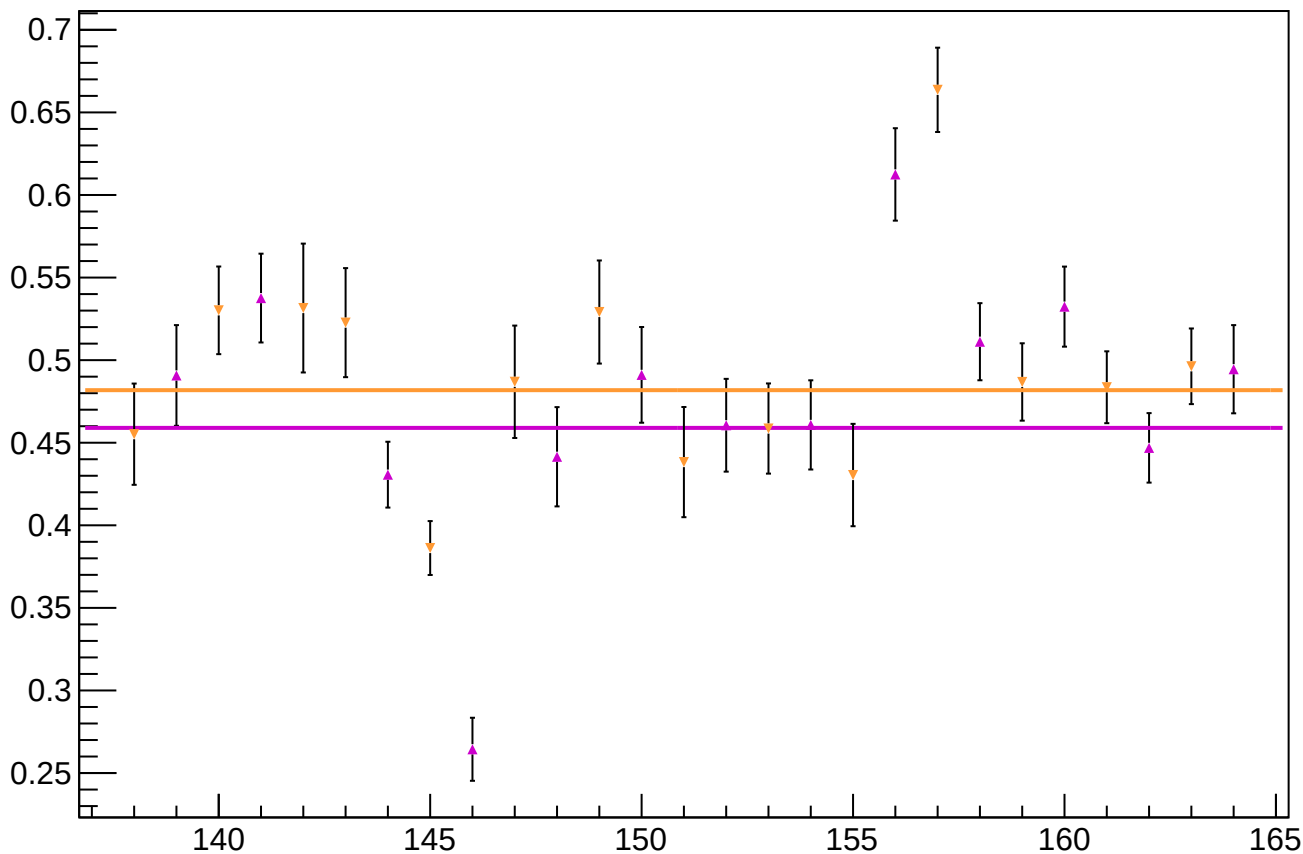
Left In: -15.070 $\pm$ 0.142  $\chi^2$ /NDF:1682.2/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -15.914 $\pm$ 0.102  $\chi^2$ /NDF: 3167.0/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

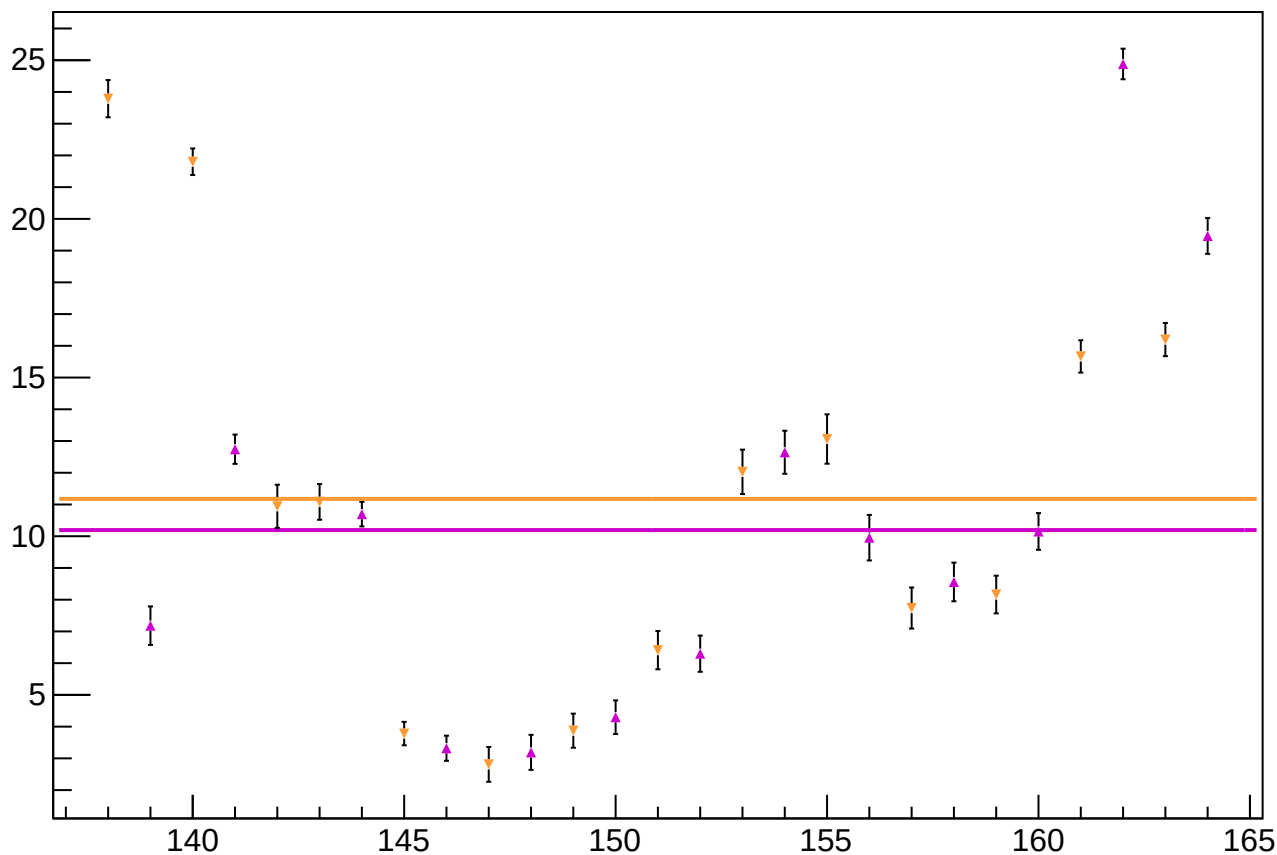
reg\_asym\_sam\_3726\_avg\_diff\_bpm12X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.482 $\pm$ 0.007  $\chi^2$ /NDF:100.2/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.459 $\pm$ 0.007  $\chi^2$ /NDF:163.5/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 0.470 $\pm$ 0.005  $\chi^2$ /NDF: 269.2/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_15\_48\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 11.176+/-0.145  $\chi^2/\text{NDF}$ : 2219.3/13

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

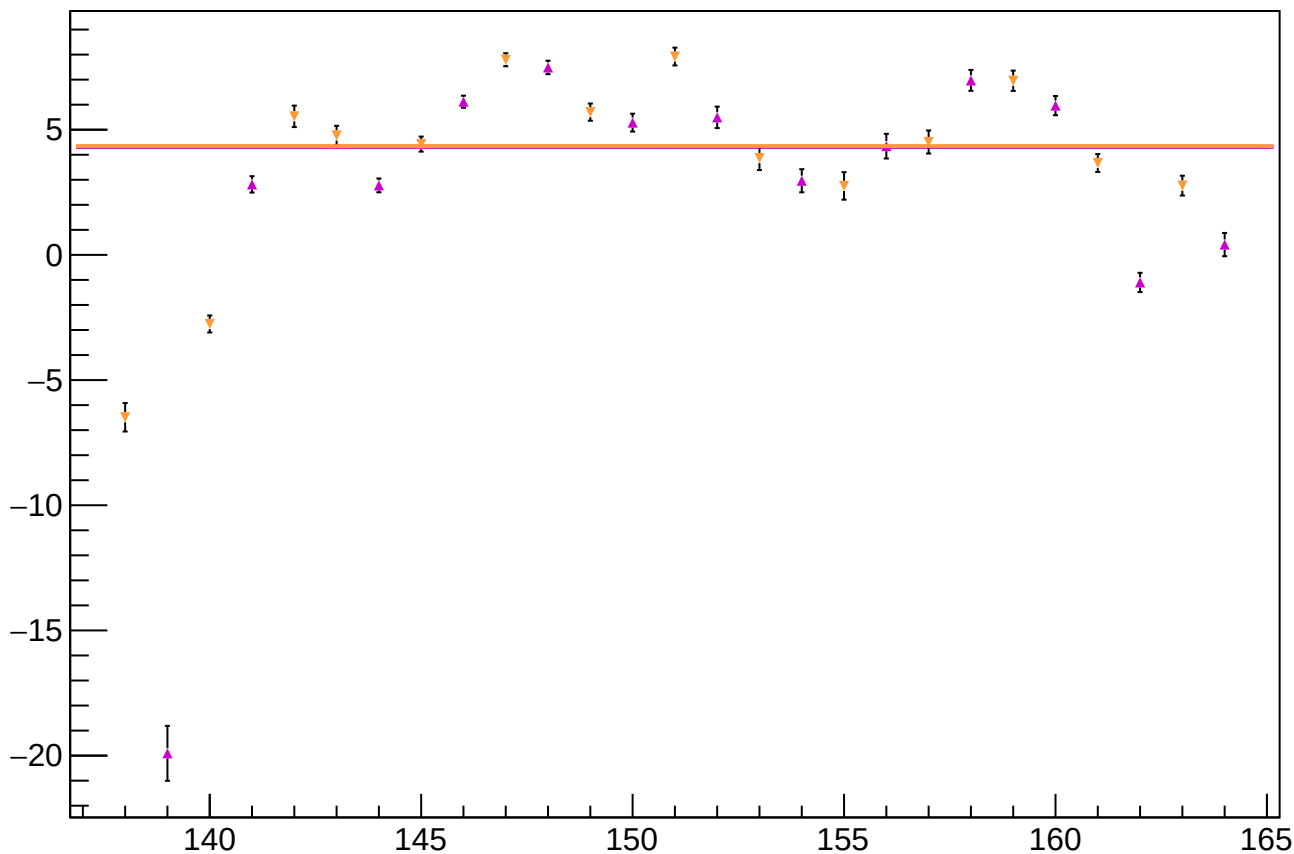
Left In: 10.193+/-0.145  $\chi^2/\text{NDF}$ : 1908.3/12

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

All: 10.683+/-0.103  $\chi^2/\text{NDF}$ : 4150.4/26

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

reg\_asym\_sam\_15\_48\_dd\_diff\_bpm4aY\_slope vs Slug



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

Left Out: 4.343+/-0.101  $\chi^2/\text{NDF}$ :1171.3/13

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

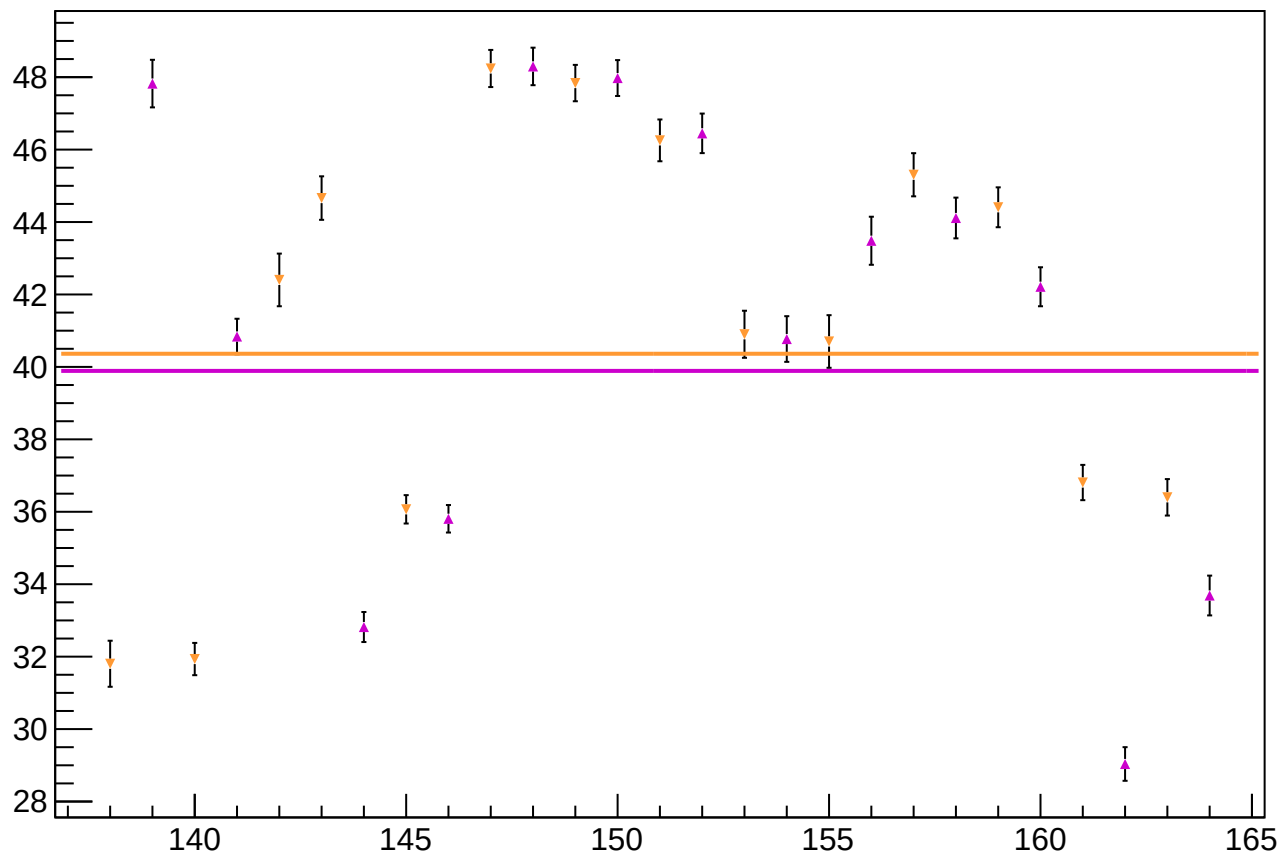
Left In: 4.313+/-0.100  $\chi^2/\text{NDF}$ :1085.9/12

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

All: 4.328+/-0.071  $\chi^2/\text{NDF}$ : 2257.3/26

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

# reg\_asym\_sam\_15\_48\_dd\_diff\_bpm4eX\_slope vs Slug



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

Left Out: 40.363+/-0.144  $\chi^2/\text{NDF}$ :1519.3/13

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

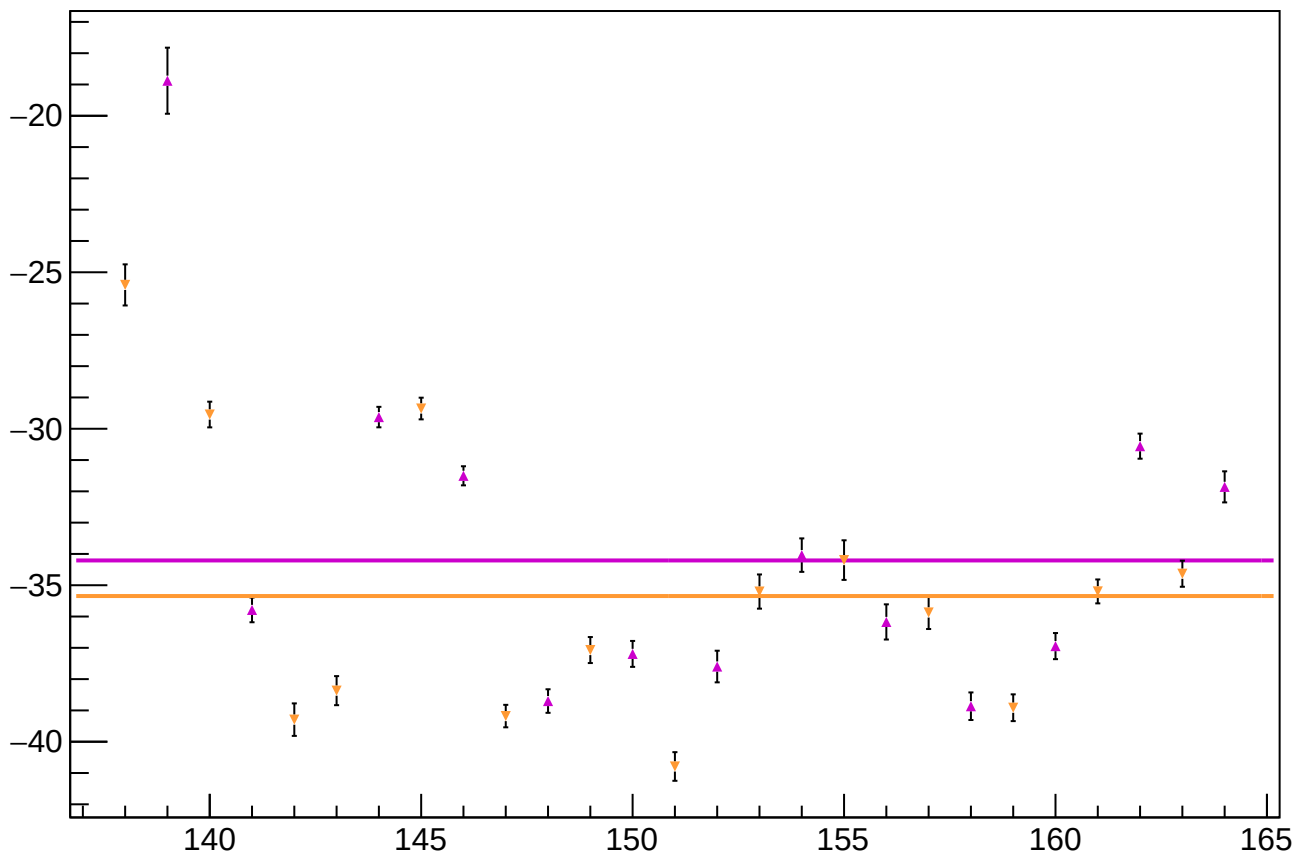
Left In: 39.890+/-0.142  $\chi^2/\text{NDF}$ :2010.1/12

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

All: 40.122+/-0.101  $\chi^2/\text{NDF}$ : 3534.9/26

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

reg\_asym\_sam\_15\_48\_dd\_diff\_bpm4eY\_slope vs Slug



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

Left Out: -35.345+/-0.119  $\chi^2/\text{NDF}$ : 1177.9/13

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

Left In: -34.208+/-0.118  $\chi^2/\text{NDF}$ : 1013.5/12

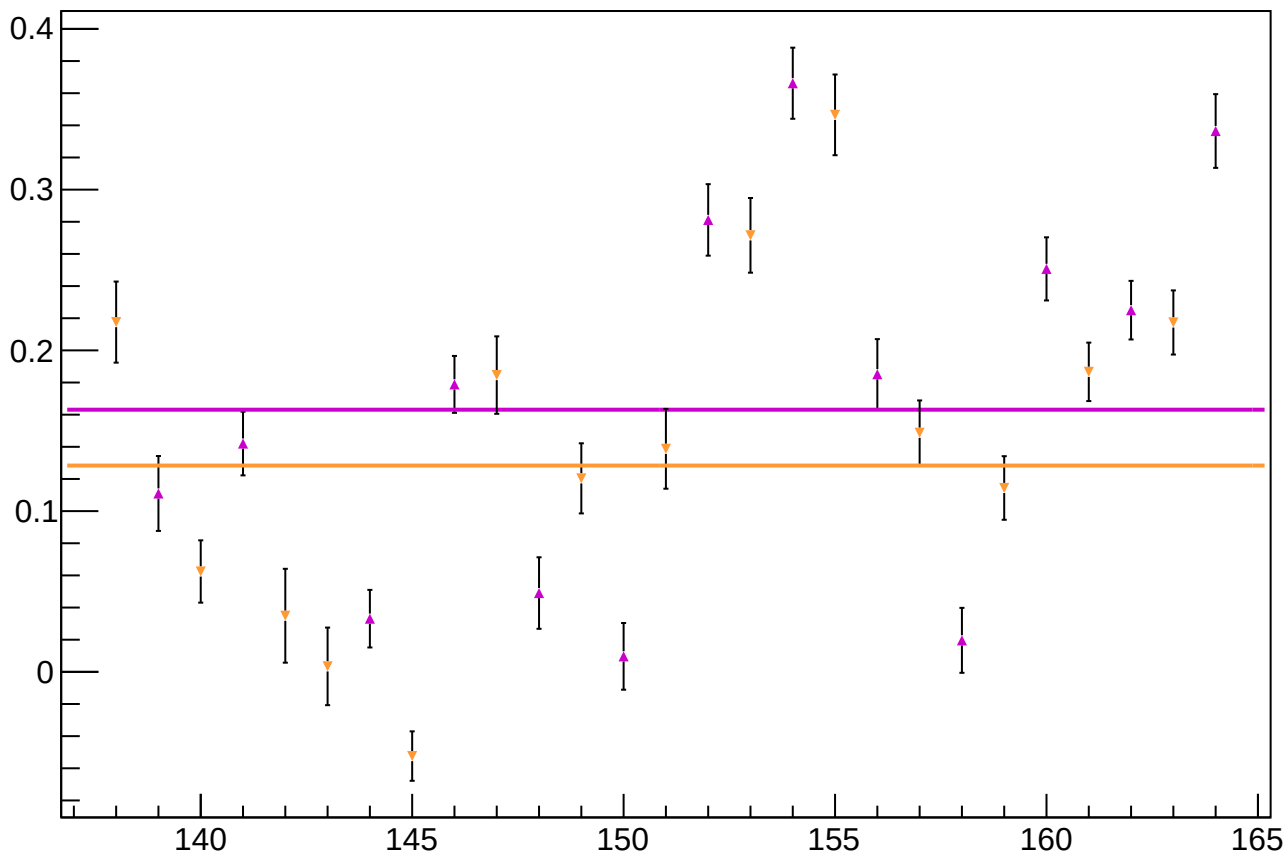
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -34.772+/-0.084  $\chi^2/\text{NDF}$ : 2237.6/26

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



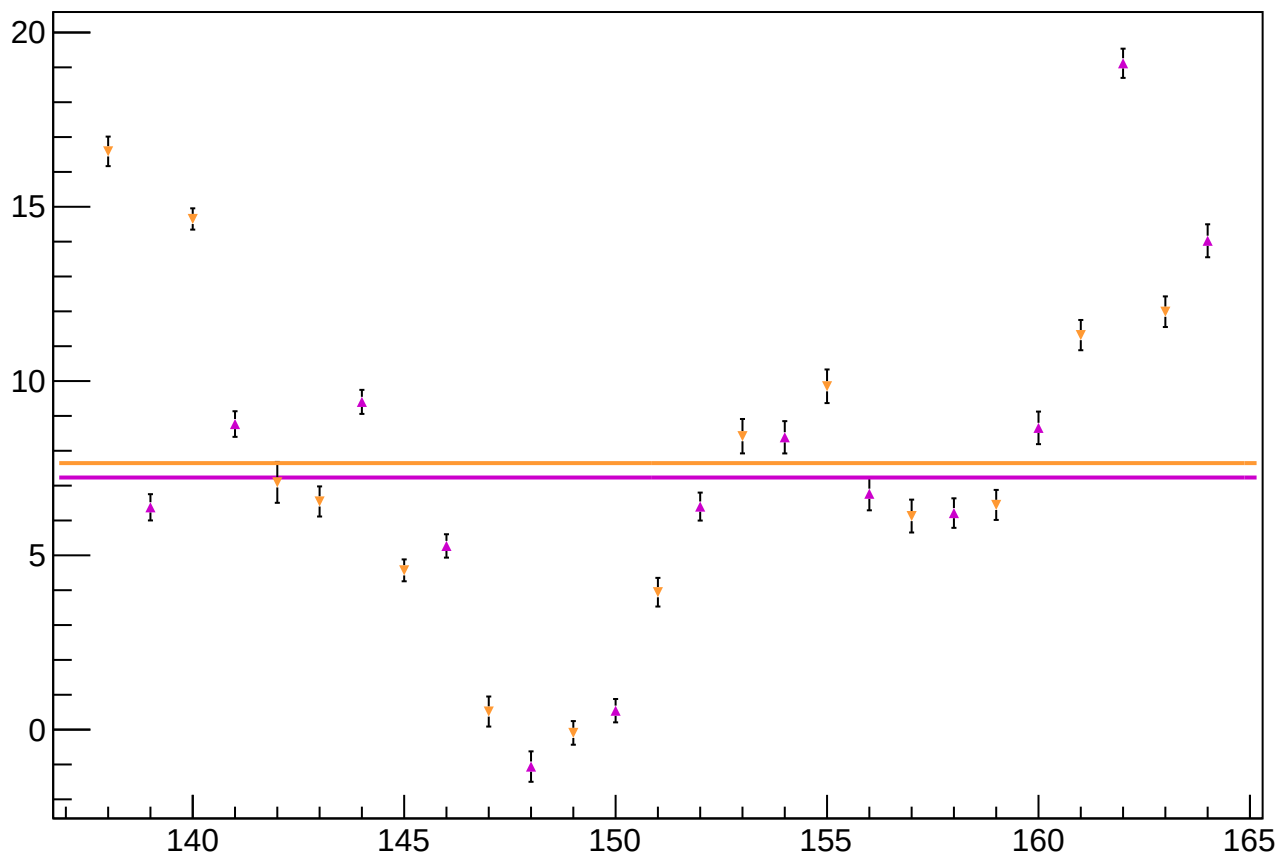
reg\_asym\_sam\_15\_48\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 0.128+/-0.006  $\chi^2/\text{NDF}$ : 350.2/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 0.163+/-0.006  $\chi^2/\text{NDF}$ : 393.1/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: 0.146+/-0.004  $\chi^2/\text{NDF}$ : 762.0/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

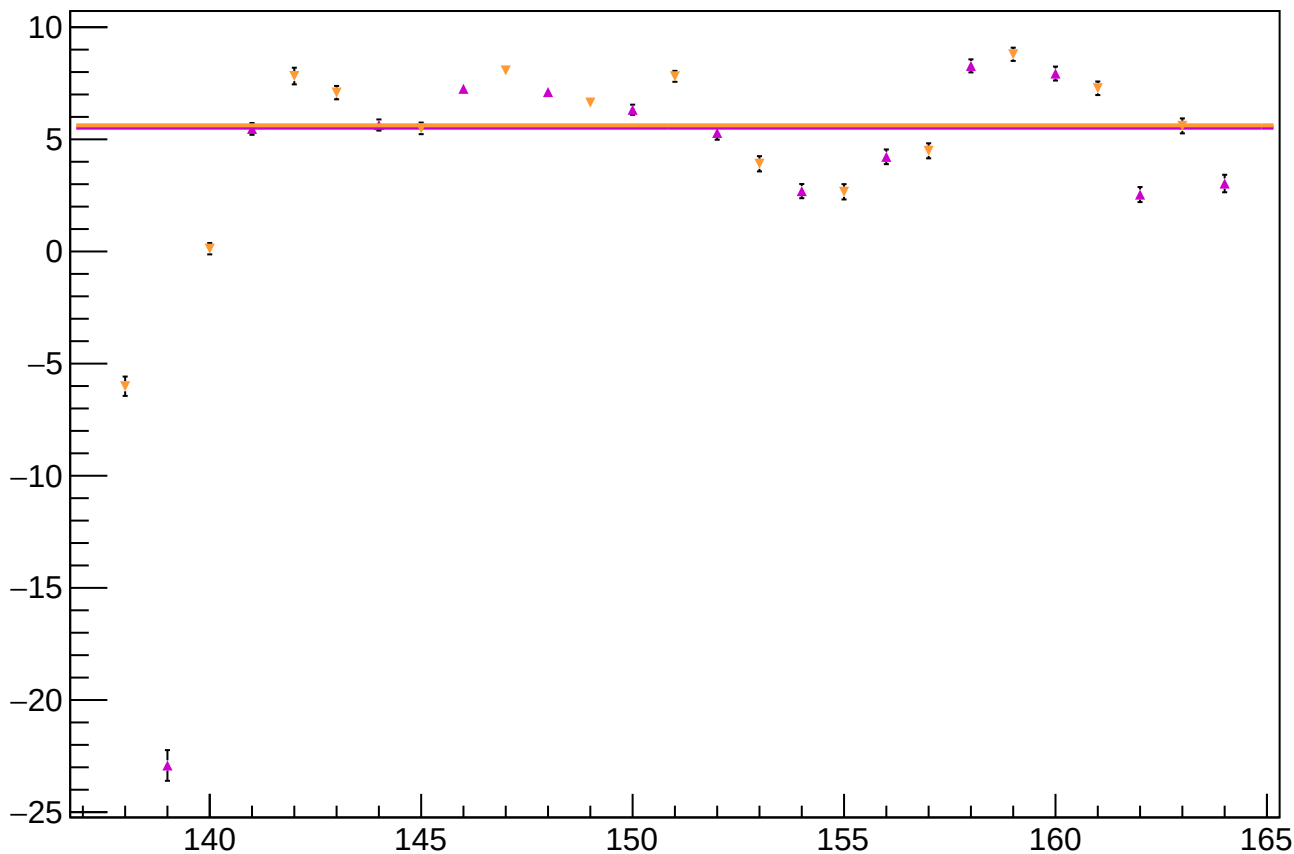
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: 7.646+/-0.109  $\chi^2/\text{NDF}$ :2161.8/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: 7.233+/-0.111  $\chi^2/\text{NDF}$ :1891.6/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: 7.442+/-0.078  $\chi^2/\text{NDF}$ : 4060.4/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

reg\_asym\_sam\_37\_48\_dd\_diff\_bpm4aY\_slope vs Slug



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

Left Out: 5.625 $\pm$ 0.076  $\chi^2$ /NDF:1757.5/13

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

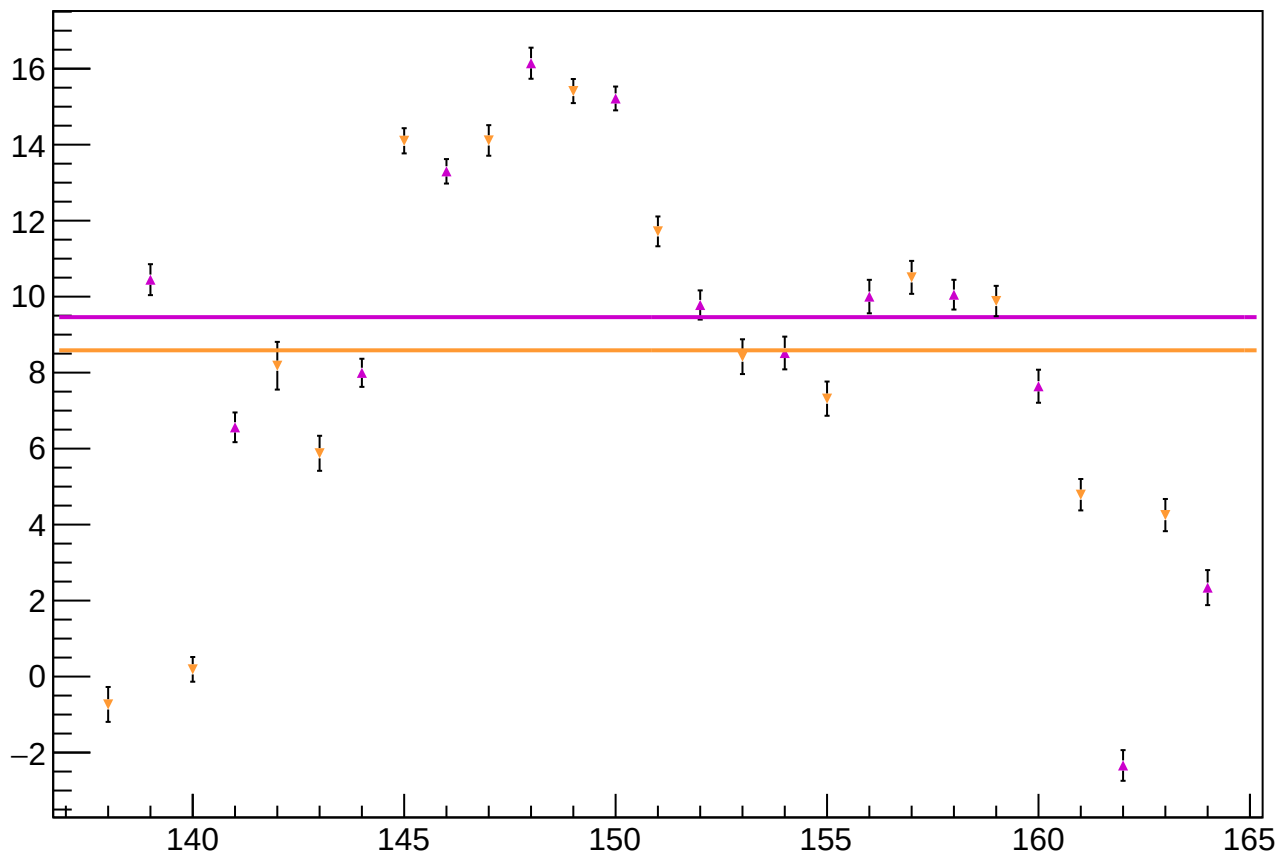
Left In: 5.519 $\pm$ 0.078  $\chi^2$ /NDF:2224.8/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 5.574 $\pm$ 0.055  $\chi^2$ /NDF: 3983.2/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

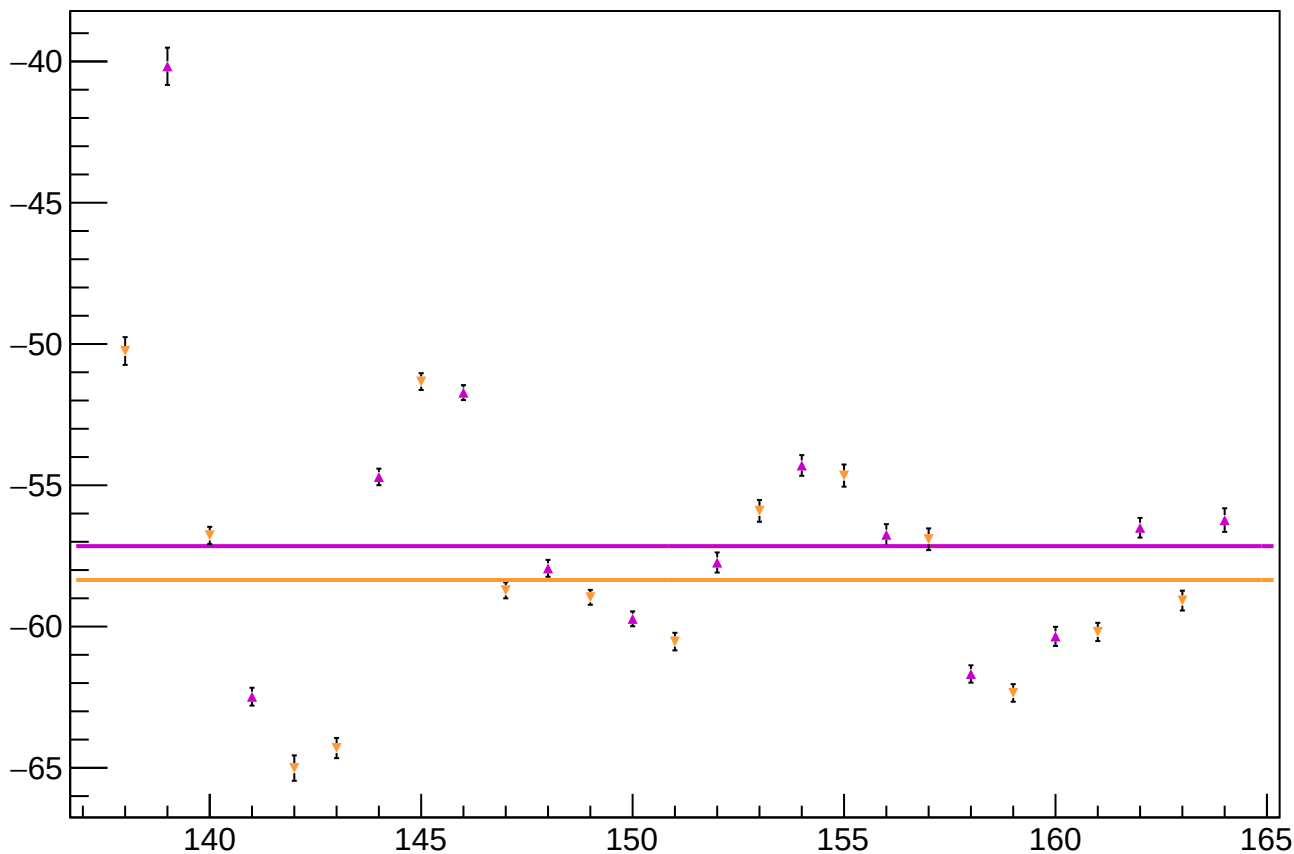
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm4eX\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 8.587 $\pm$ 0.108  $\chi^2$ /NDF:2331.8/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 9.460 $\pm$ 0.108  $\chi^2$ /NDF:1941.7/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 9.023 $\pm$ 0.076  $\chi^2$ /NDF: 4306.3/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_37\_48\_dd\_diff\_bpm4eY\_slope vs Slug



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

Left Out: -58.351+/-0.090  $\chi^2/\text{NDF}$ :1753.2/13

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

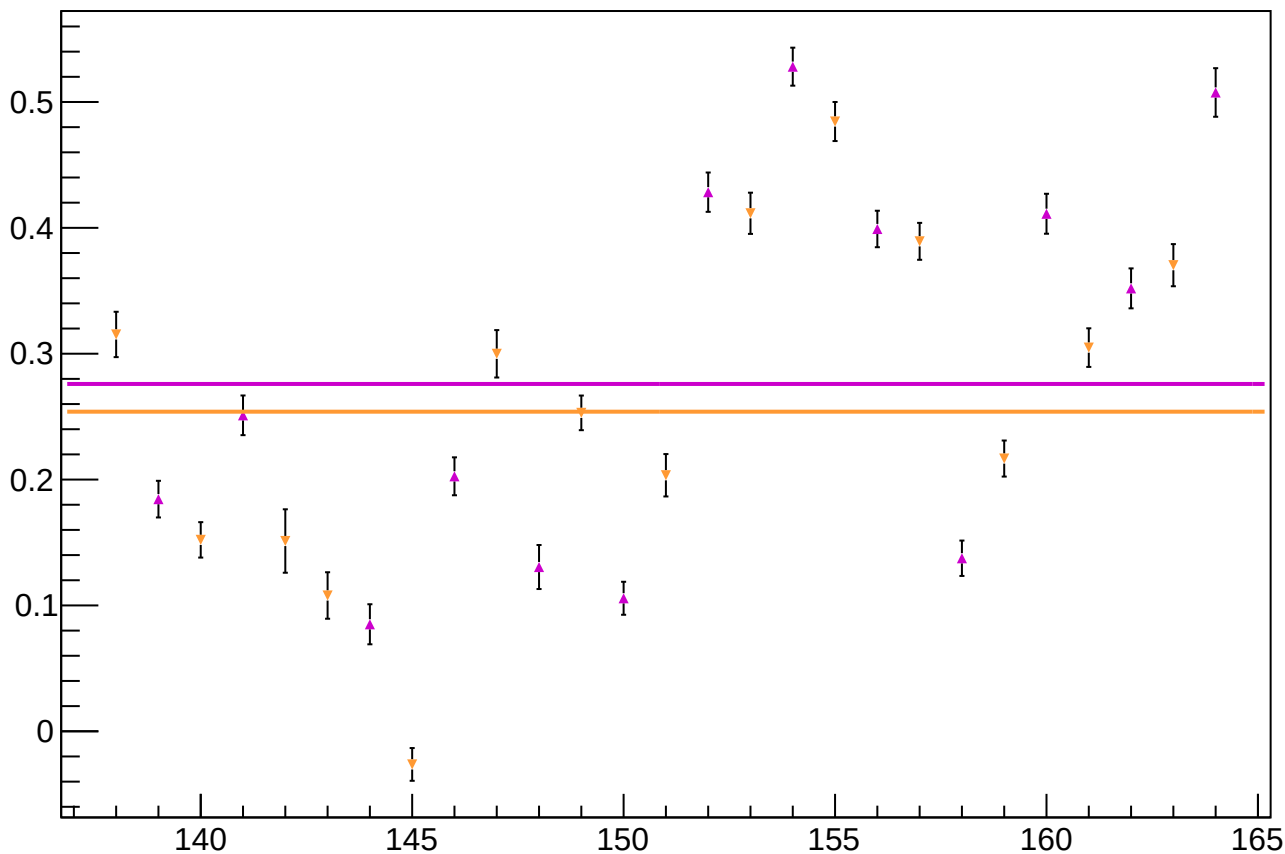
Left In: -57.153+/-0.091  $\chi^2/\text{NDF}$ :1920.3/12

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

All: -57.763+/-0.064  $\chi^2/\text{NDF}$ : 3760.9/26

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

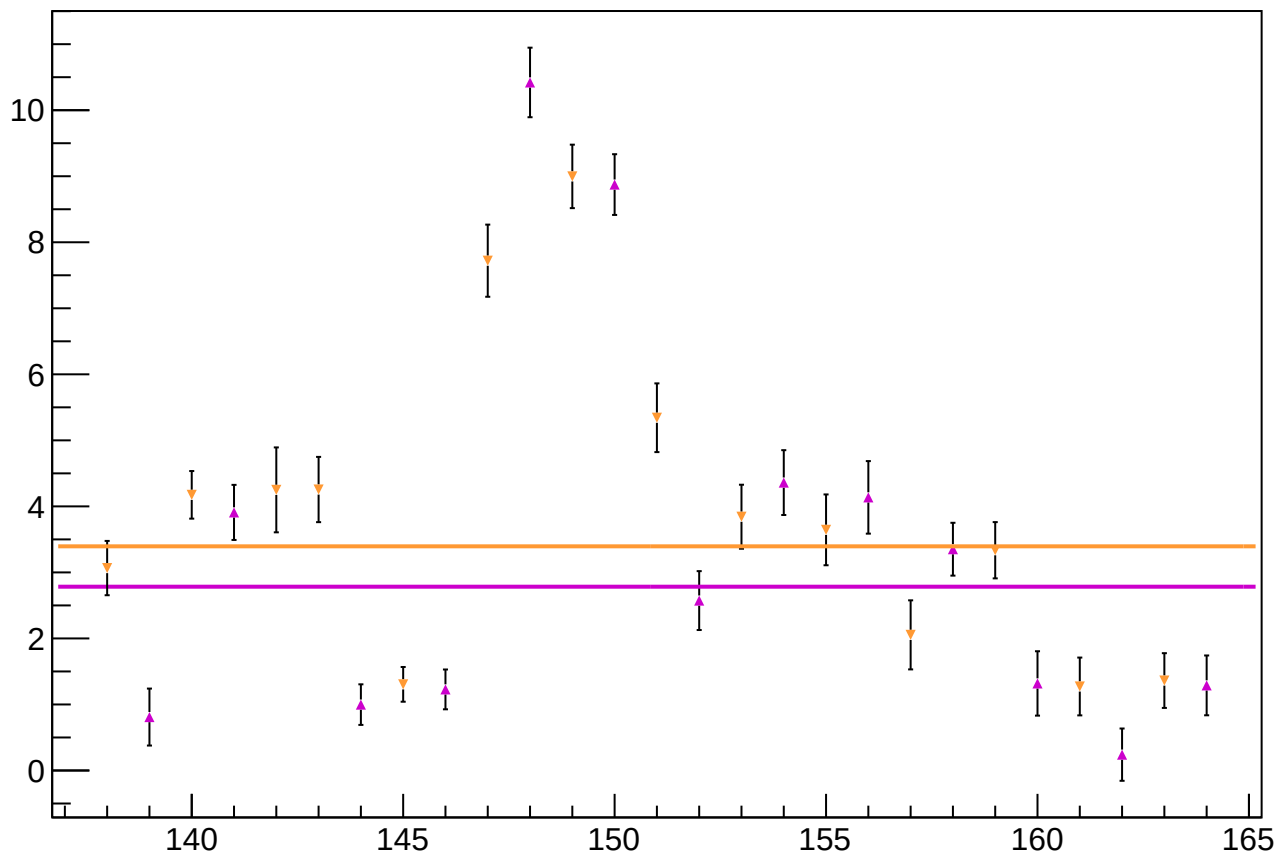
reg\_asym\_sam\_37\_48\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.254 $\pm$ 0.004  $\chi^2$ /NDF:1086.7/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 0.276 $\pm$ 0.004  $\chi^2$ /NDF:1230.6/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 0.265 $\pm$ 0.003  $\chi^2$ /NDF: 2330.7/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

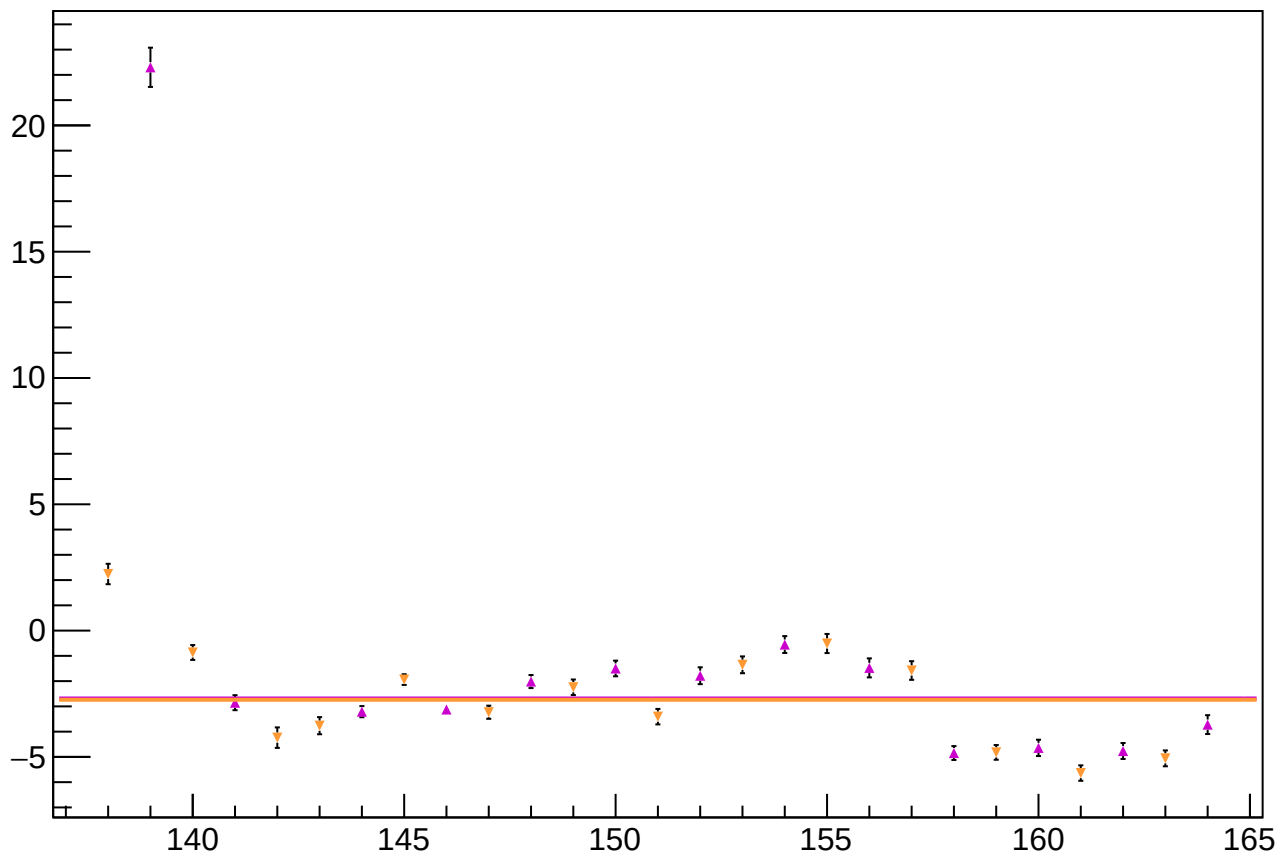
reg\_asym\_sam\_15\_26\_dd\_diff\_bpm1X\_slope vs Slug



Right In:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$   
 Left Out:  $3.395 \pm 0.116$   $\chi^2/\text{NDF}: 341.1/13$   
 Right Out:  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$   
 Left In:  $2.784 \pm 0.115$   $\chi^2/\text{NDF}: 554.0/12$

+ sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$   
 All:  $3.086 \pm 0.082$   $\chi^2/\text{NDF}: 909.0/26$   
 - sign  $0.000 \pm 0.000$   $\chi^2/\text{NDF}: 0.0/0$

reg\_asym\_sam\_15\_26\_dd\_diff\_bpm4aY\_slope vs Slug



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

Left Out: -2.737+/-0.083  $\chi^2/\text{NDF}$ : 497.5/13

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

Left In: -2.688+/-0.081  $\chi^2/\text{NDF}$ : 1274.0/12

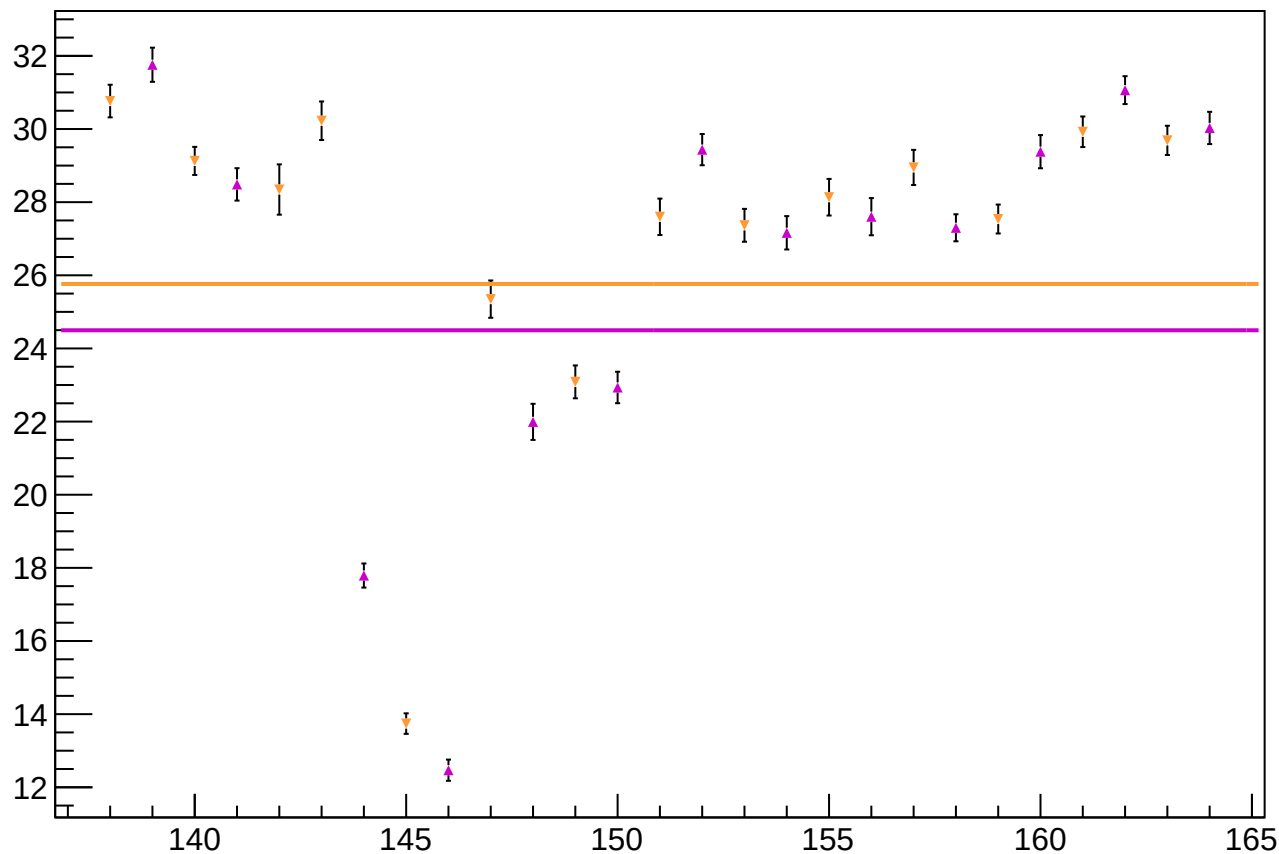
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -2.712+/-0.058  $\chi^2/\text{NDF}$ : 1771.7/26

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



reg\_asym\_sam\_15\_26\_dd\_diff\_bpm4eX\_slope vs Slug



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

Left Out: 25.763+/-0.116  $\chi^2/\text{NDF}$ : 2471.5/13

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

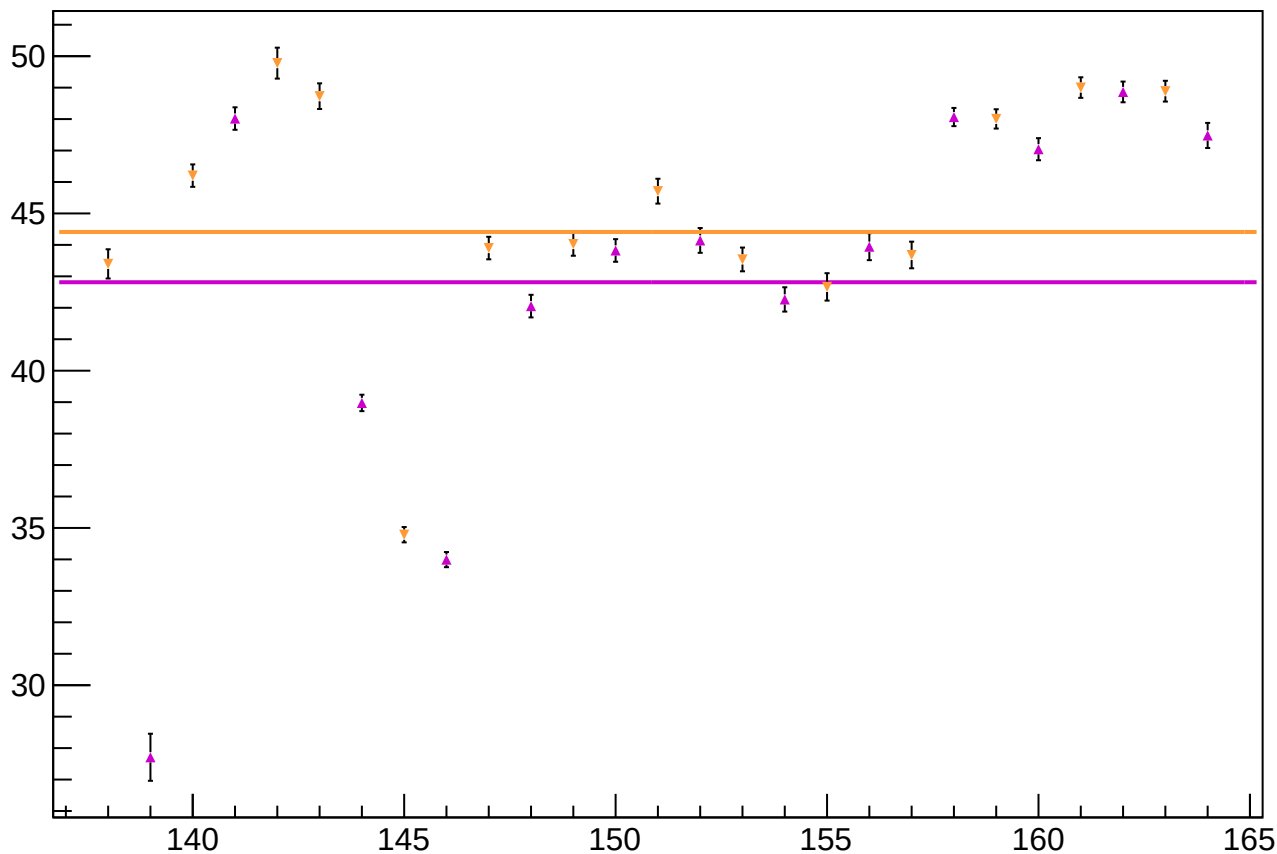
Left In: 24.497+/-0.113  $\chi^2/\text{NDF}$ : 3328.7/12

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

All: 25.114+/-0.081  $\chi^2/\text{NDF}$ : 5861.6/26

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

reg\_asym\_sam\_15\_26\_dd\_diff\_bpm4eY\_slope vs Slug



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

Left Out: 44.411+/-0.096  $\chi^2/\text{NDF}$ :2374.2/13

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

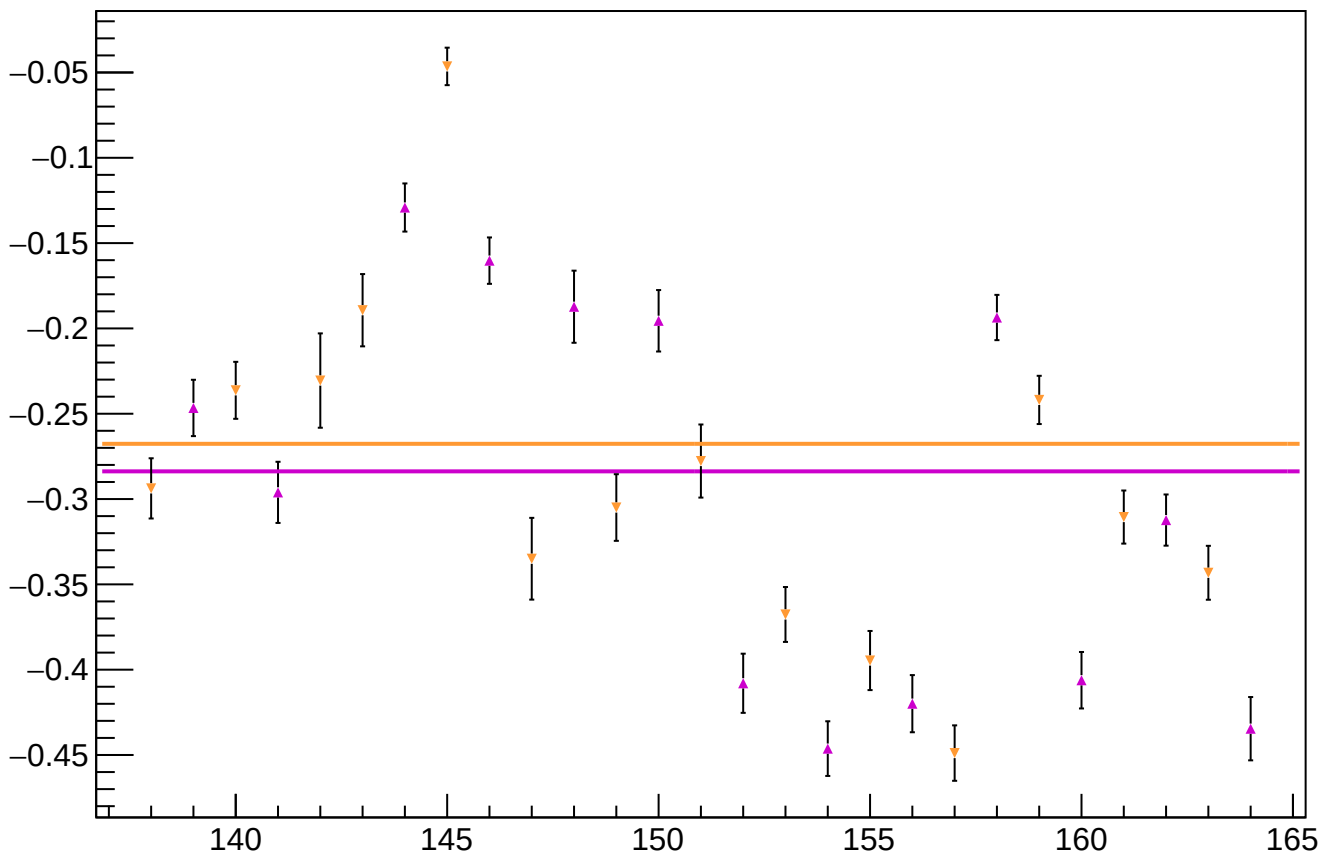
Left In: 42.812+/-0.095  $\chi^2/\text{NDF}$ :3160.7/12

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

All: 43.600+/-0.068  $\chi^2/\text{NDF}$ : 5674.8/26

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

reg\_asym\_sam\_15\_26\_dd\_diff\_bpm12X\_slope vs Slug



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

Left Out: -0.268+/-0.005  $\chi^2/\text{NDF}$ : 689.1/13

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

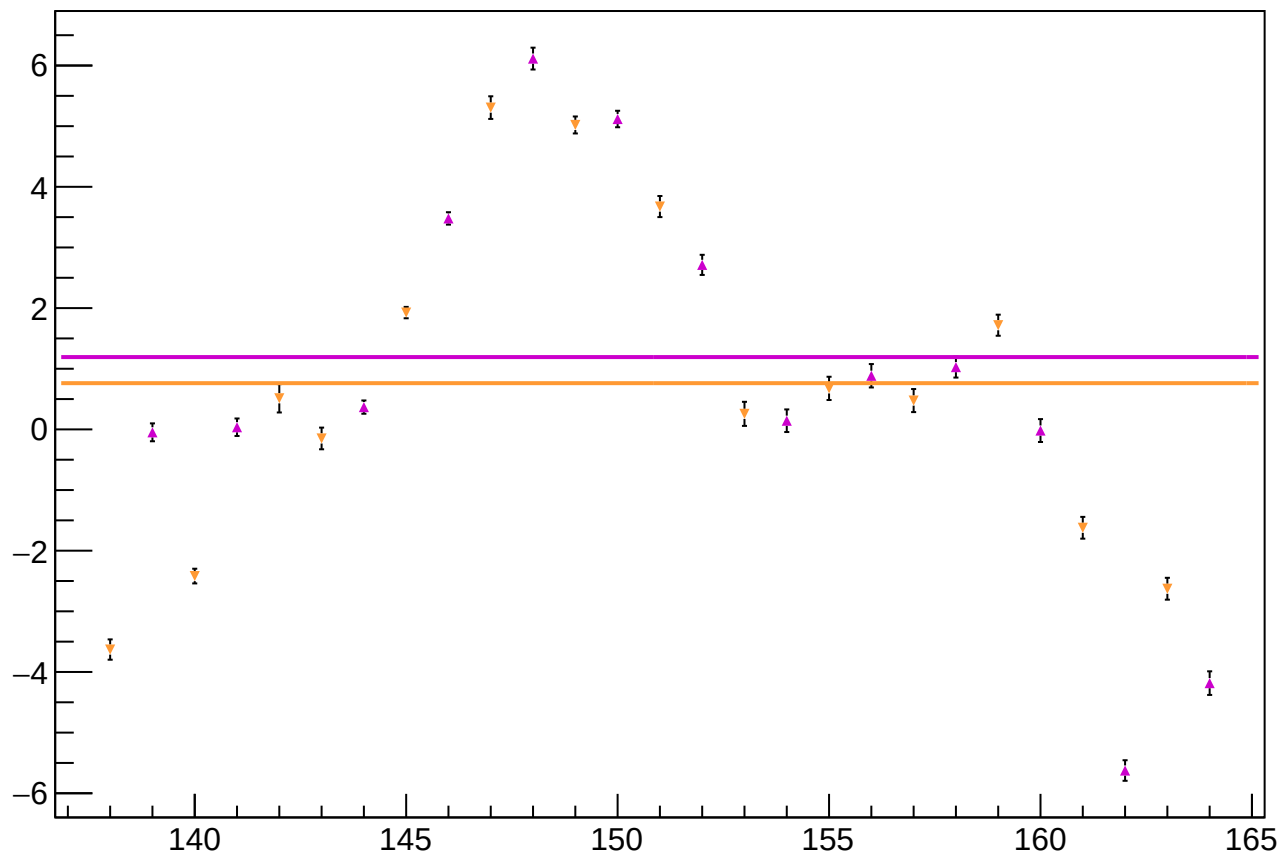
Left In: -0.284+/-0.004  $\chi^2/\text{NDF}$ : 643.8/12

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

All: -0.276+/-0.003  $\chi^2/\text{NDF}$ : 1339.4/26

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

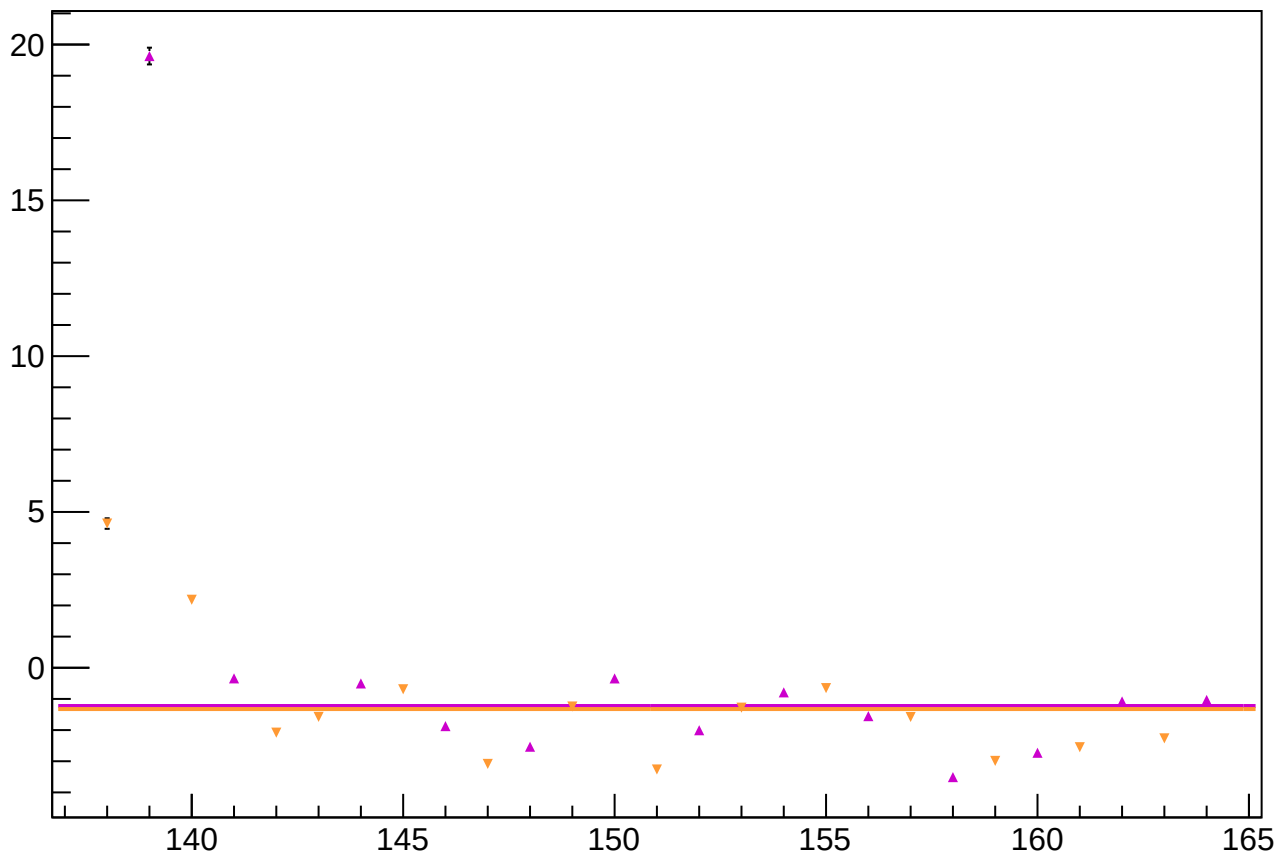
reg\_asym\_sam\_37\_26\_dd\_diff\_bpm1X\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: 0.762 $\pm$ 0.042  $\chi^2$ /NDF:3925.8/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: 1.192 $\pm$ 0.042  $\chi^2$ /NDF:4811.6/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: 0.981 $\pm$ 0.030  $\chi^2$ /NDF: 8789.5/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

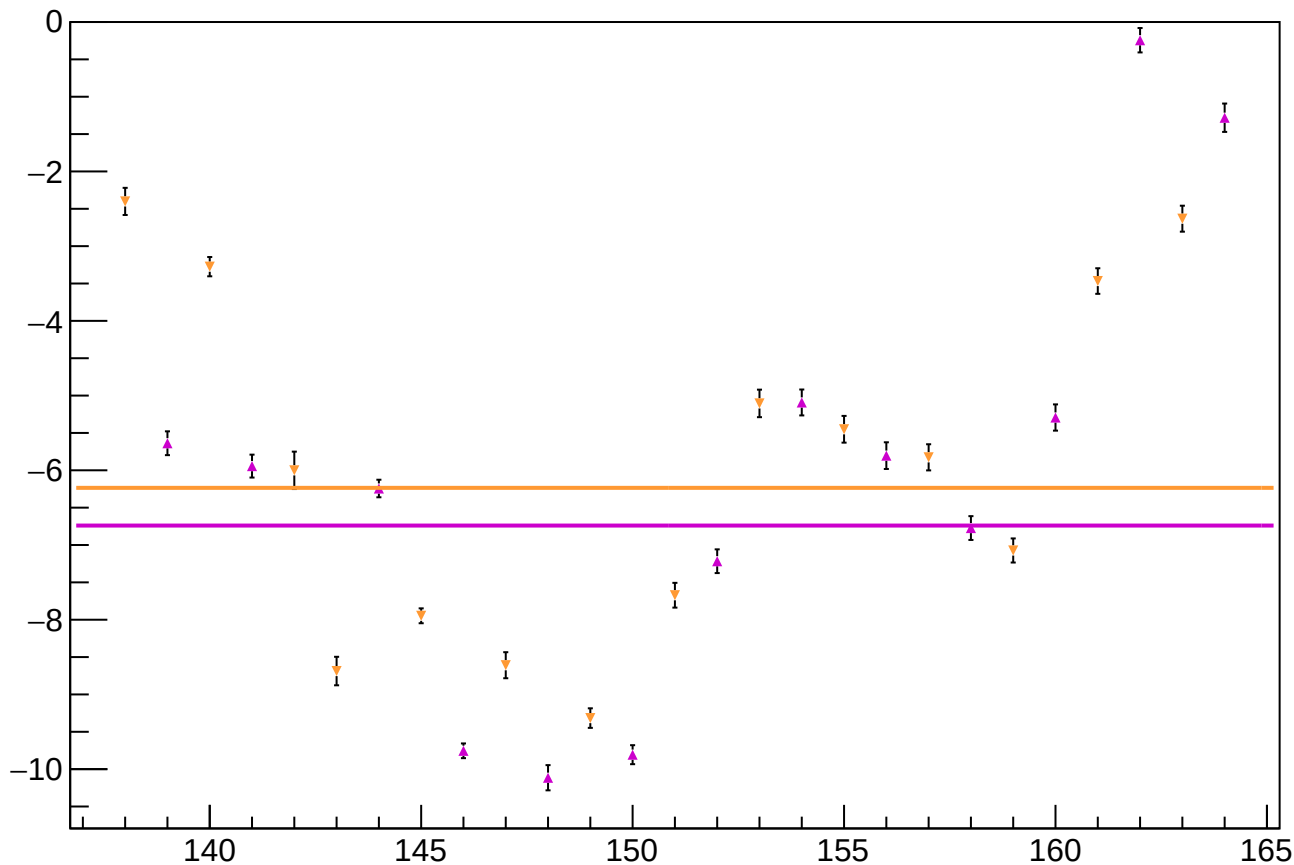
reg\_asym\_sam\_37\_26\_dd\_diff\_bpm4aY\_slope vs Slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -1.325 $\pm$ 0.030  $\chi^2$ /NDF: 3674.3/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -1.227 $\pm$ 0.029  $\chi^2$ /NDF: 7146.2/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: -1.275 $\pm$ 0.021  $\chi^2$ /NDF: 10825.8/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm4eX\_slope vs Slug



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

Left Out: -6.235+/-0.042  $\chi^2/\text{NDF}$ : 3028.7/13

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

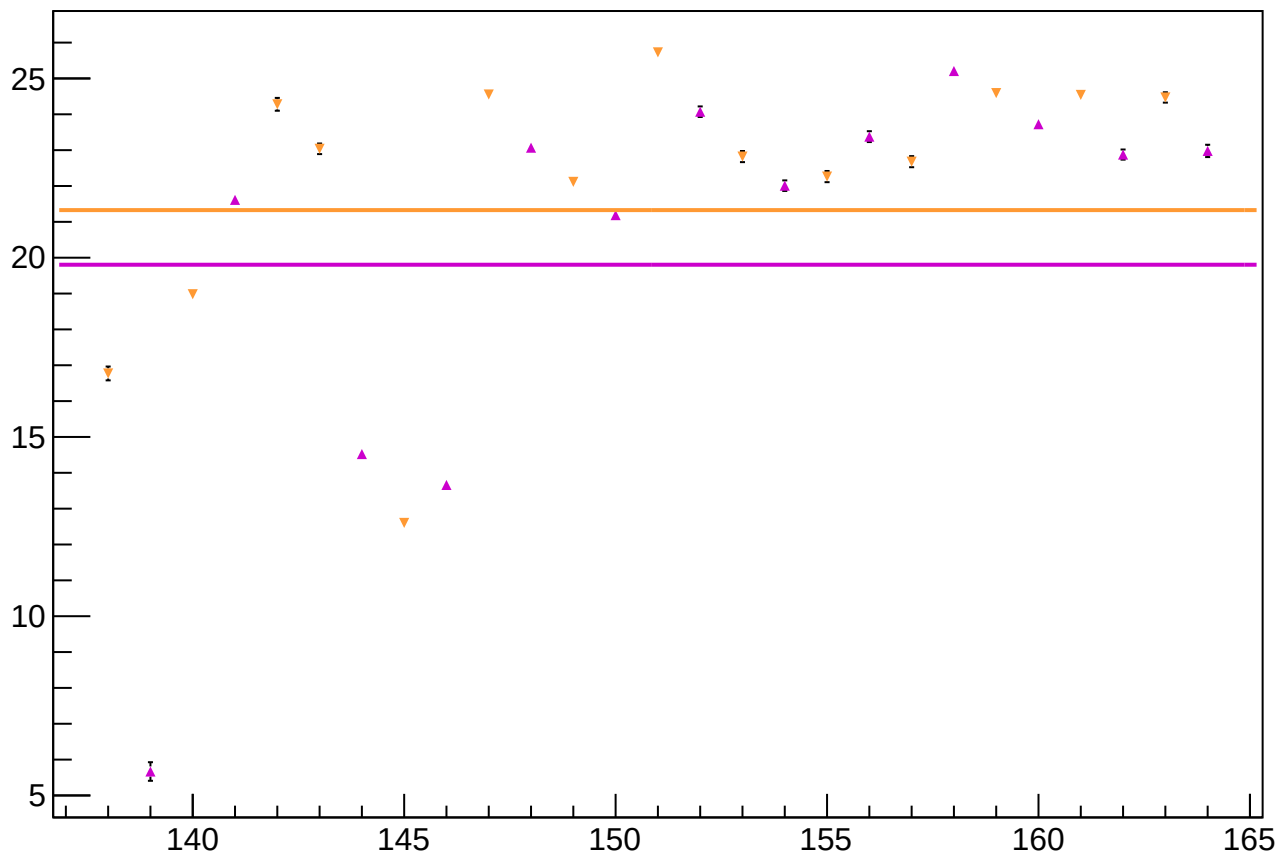
Left In: -6.740+/-0.041  $\chi^2/\text{NDF}$ : 4616.4/12

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

All: -6.495+/-0.029  $\chi^2/\text{NDF}$ : 7718.7/26

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

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm4eY\_slope vs Slug



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

Left Out: 21.328+/-0.035  $\chi^2/\text{NDF}$ :14909.5/13

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

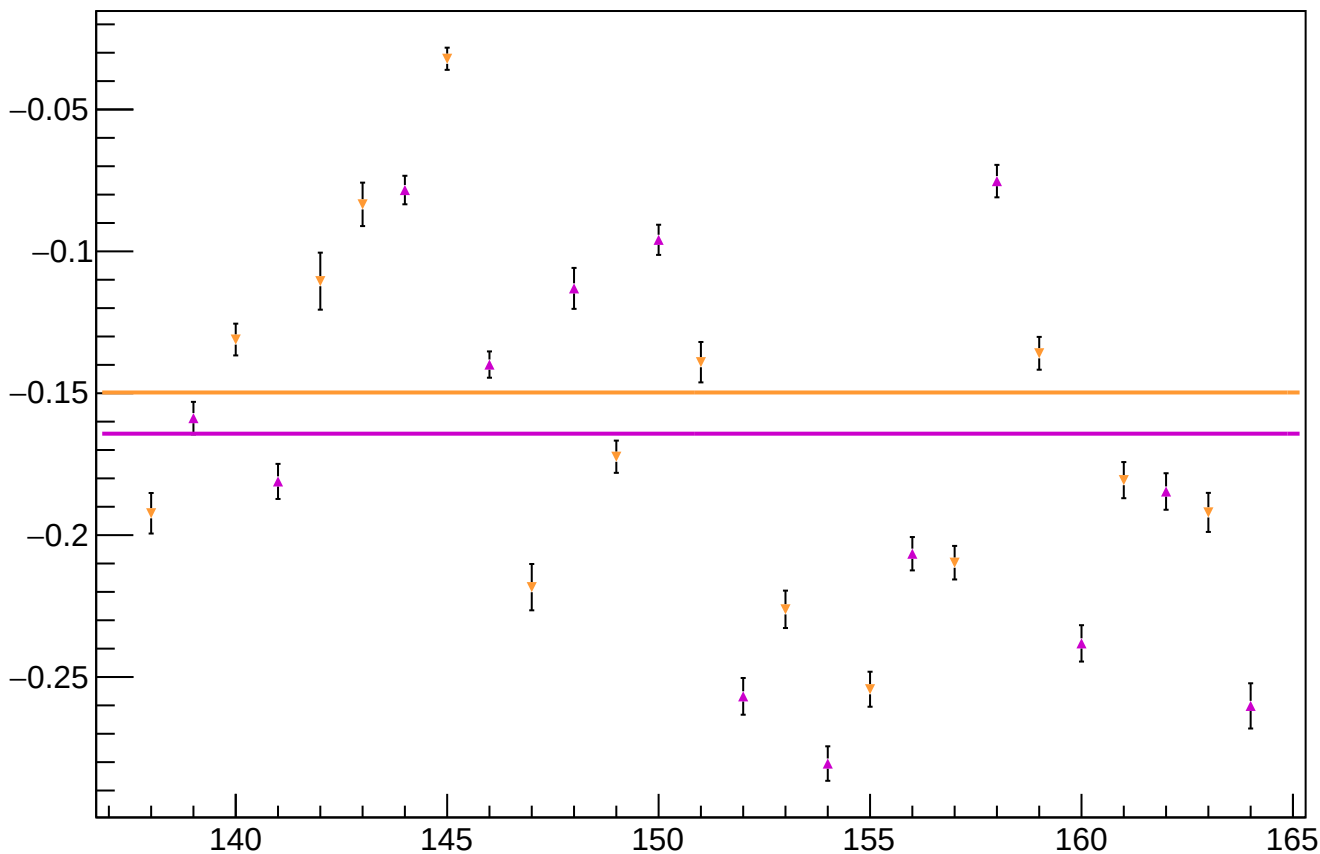
Left In: 19.804+/-0.035  $\chi^2/\text{NDF}$ :17979.2/12

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

All: 20.550+/-0.025  $\chi^2/\text{NDF}$ : 33837.9/26

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

reg\_asym\_sam\_37\_26\_dd\_diff\_bpm12X\_slope vs Slug

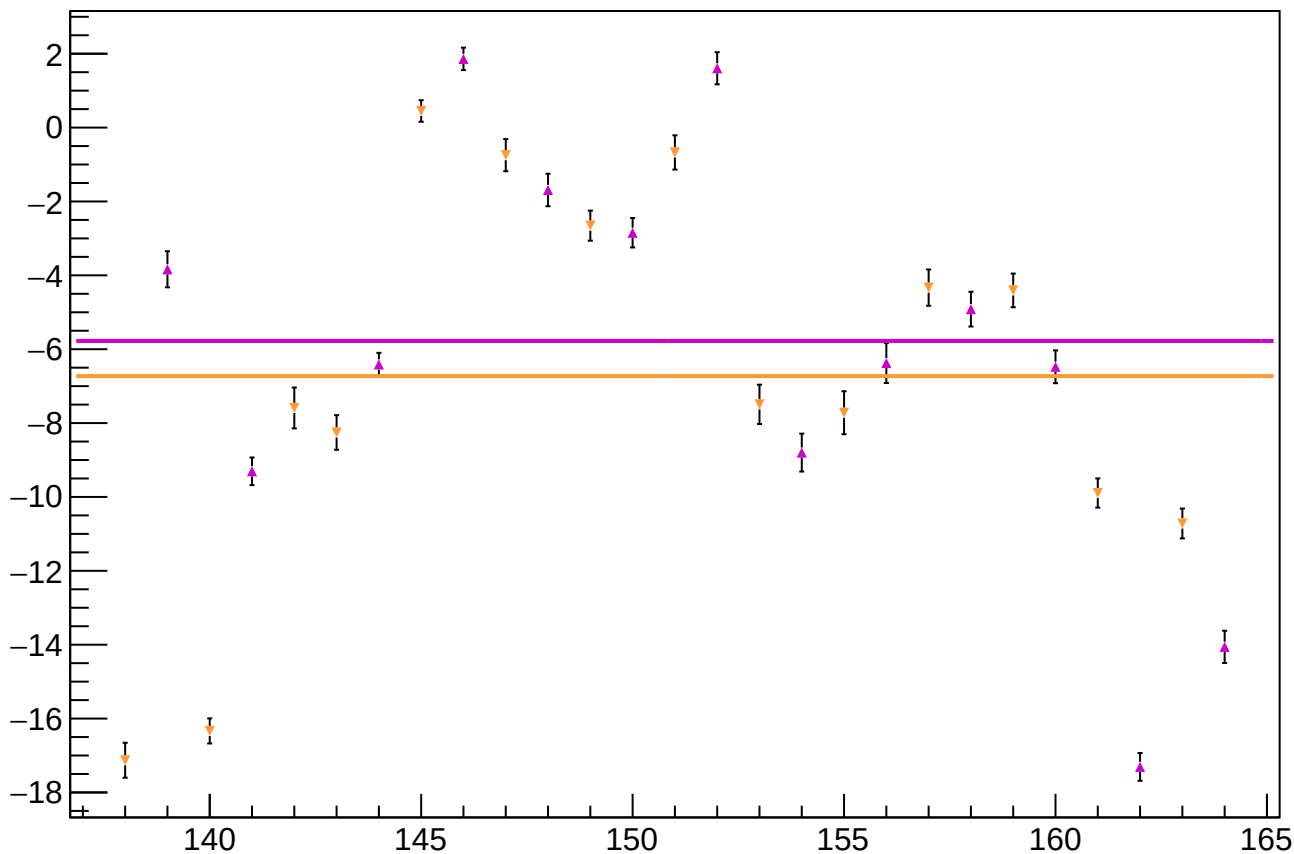


Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left Out: -0.150 $\pm$ 0.002  $\chi^2$ /NDF:1723.0/13  
 Right Out: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 Left In: -0.164 $\pm$ 0.002  $\chi^2$ /NDF:1695.3/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0  
 All: -0.157 $\pm$ 0.001  $\chi^2$ /NDF: 3457.0/26  
 - sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0



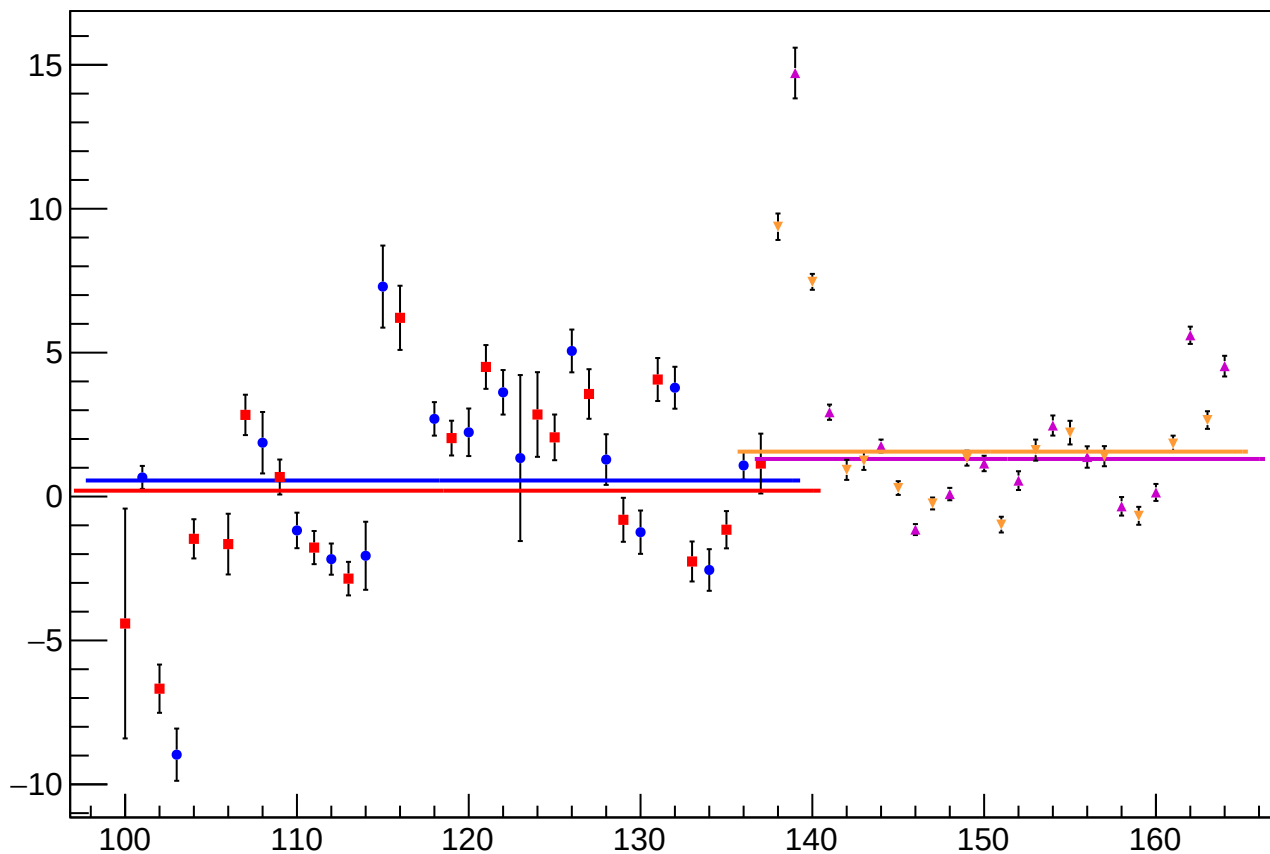
reg\_asym\_sam\_1357\_avg\_diff\_bpm1X\_slope vs Slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left Out: -6.728+/-0.114  $\chi^2/\text{NDF}$ : 2573.6/13  
 Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 Left In: -5.777+/-0.113  $\chi^2/\text{NDF}$ : 2510.8/12

+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0  
 All: -6.247+/-0.080  $\chi^2/\text{NDF}$ : 5119.5/26  
 - sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_sam\_1357\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $0.558 \pm 0.170$   $\chi^2/\text{NDF}$ : 287.9/16

Left Out:  $1.561 \pm 0.079$   $\chi^2/\text{NDF}$ : 1007.7/13

Right Out:  $0.204 \pm 0.175$   $\chi^2/\text{NDF}$ : 272.1/18

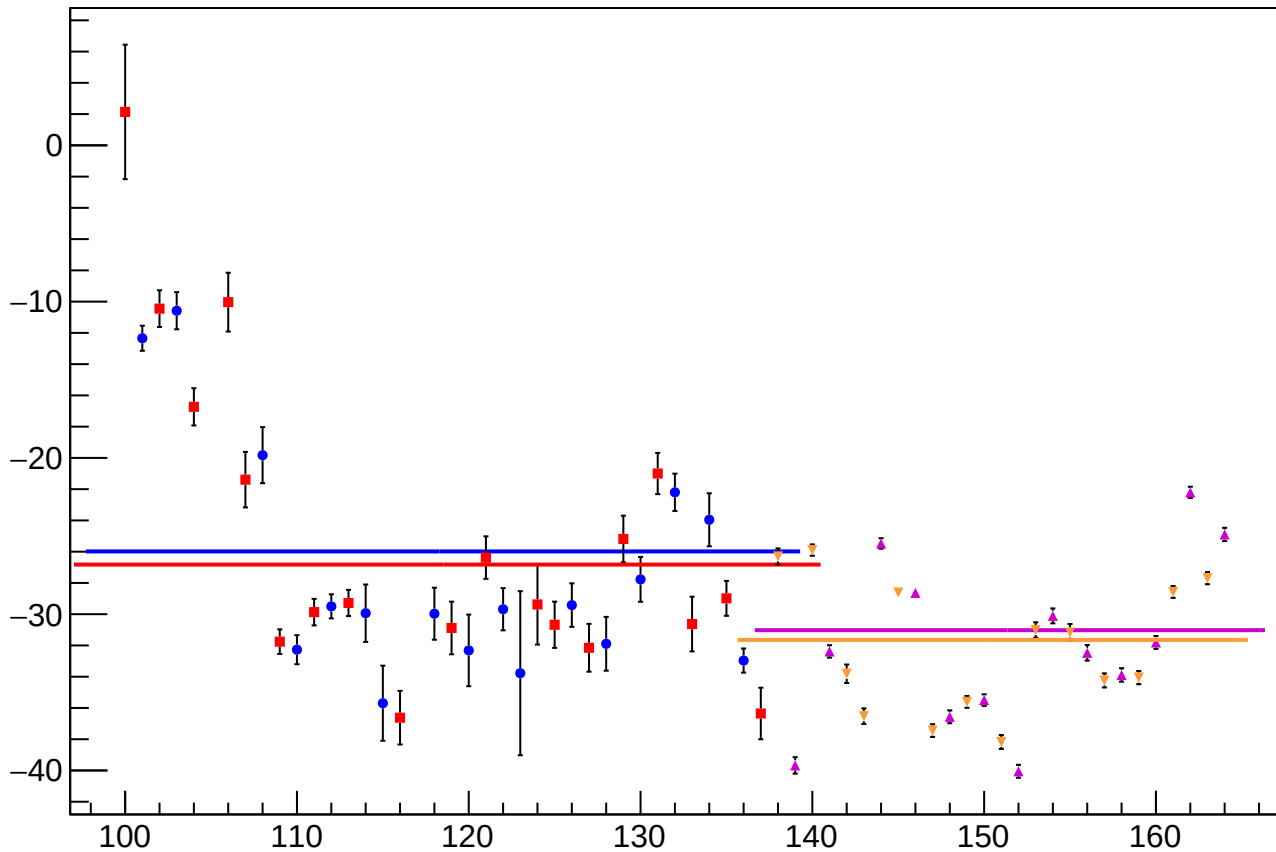
Left In:  $1.306 \pm 0.078$   $\chi^2/\text{NDF}$ : 814.3/12

+ sign  $1.383 \pm 0.072$   $\chi^2/\text{NDF}$ : 1324.2/30

All:  $1.252 \pm 0.051$   $\chi^2/\text{NDF}$ : 2450.4/62

- sign  $1.121 \pm 0.071$   $\chi^2/\text{NDF}$ : 1119.5/31

reg\_asym\_sam\_1357\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $-25.984 \pm 0.300$   $\chi^2/\text{NDF}$ : 691.5/16

Left Out:  $-31.644 \pm 0.113$   $\chi^2/\text{NDF}$ : 1330.5/13

Right Out:  $-26.825 \pm 0.298$   $\chi^2/\text{NDF}$ : 581.6/18

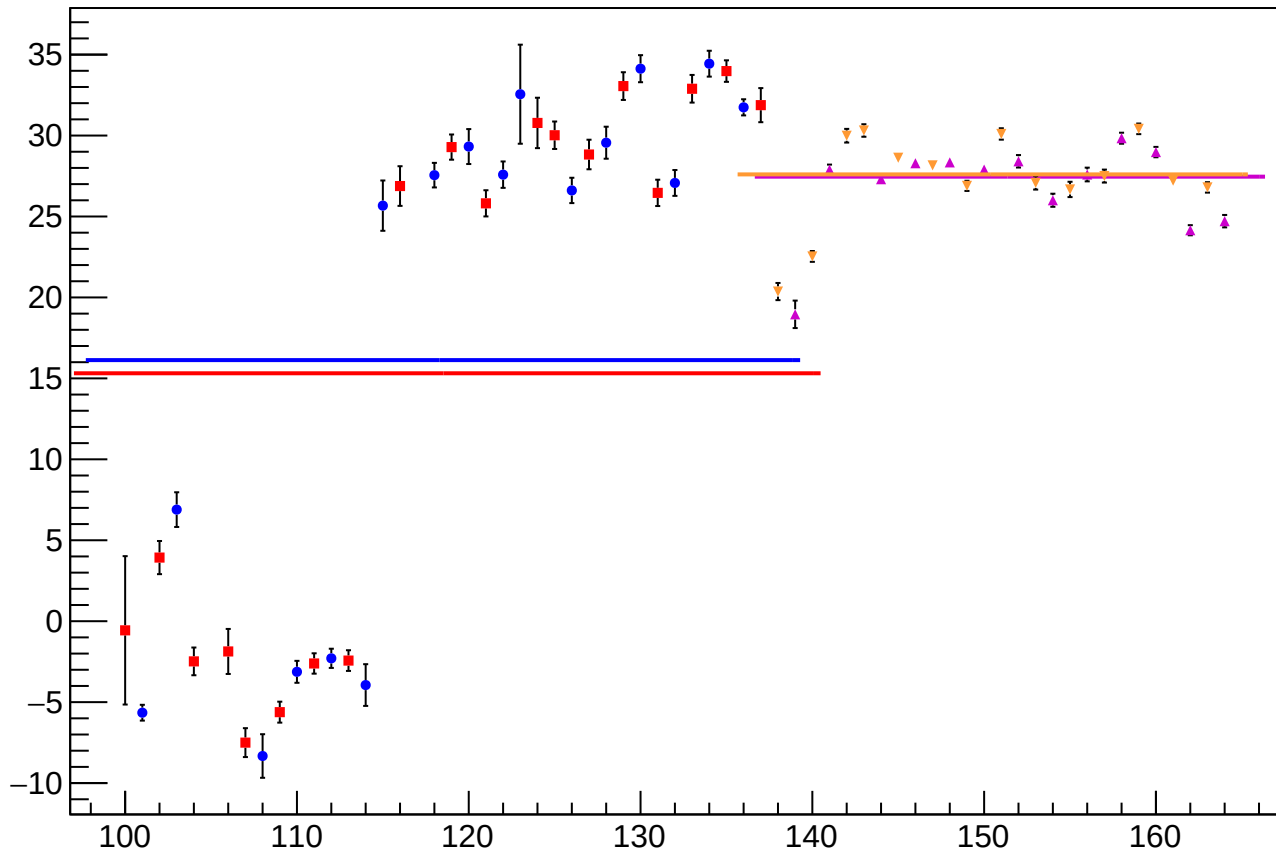
Left In:  $-31.023 \pm 0.110$   $\chi^2/\text{NDF}$ : 2272.9/12

+ sign  $-30.943 \pm 0.106$   $\chi^2/\text{NDF}$ : 2332.9/30

All:  $-30.725 \pm 0.074$   $\chi^2/\text{NDF}$ : 5370.6/62

- sign  $-30.516 \pm 0.103$   $\chi^2/\text{NDF}$ : 3029.3/31

# reg\_asym\_sam\_1357\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 16.129 $\pm$ 0.192  $\chi^2$ /NDF: 7572.5/16

Left Out: 27.600 $\pm$ 0.093  $\chi^2$ /NDF: 657.6/13

Right Out: 15.315 $\pm$ 0.197  $\chi^2$ /NDF: 7278.1/18

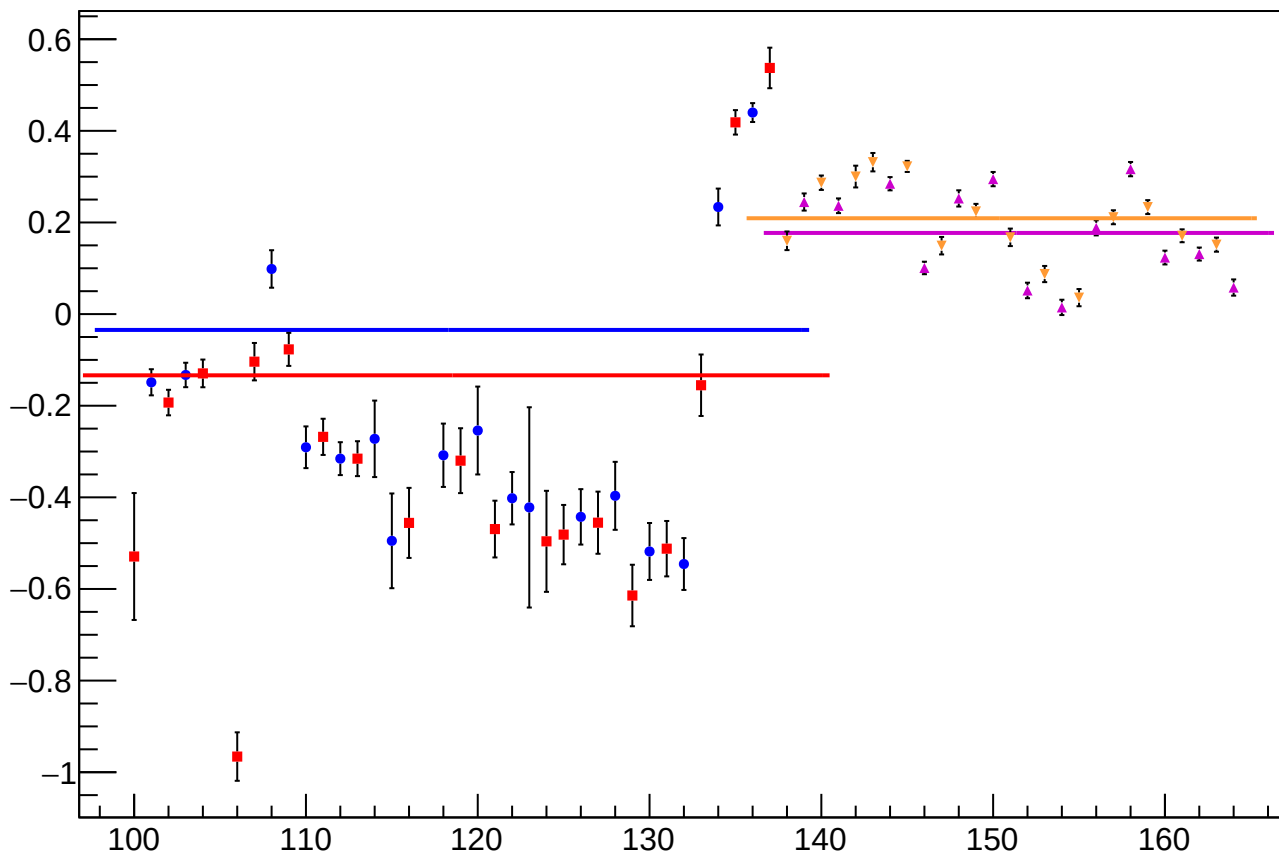
Left In: 27.461 $\pm$ 0.092  $\chi^2$ /NDF: 378.8/12

+ sign 25.416 $\pm$ 0.084  $\chi^2$ /NDF: 11118.4/30

All: 25.351 $\pm$ 0.059  $\chi^2$ /NDF: 21896.4/62

- sign 25.286 $\pm$ 0.083  $\chi^2$ /NDF: 10776.7/31

# reg\_asym\_sam\_1357\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.035 \pm 0.010$   $\chi^2/\text{NDF}$ : 1011.6/16

Left Out:  $0.209 \pm 0.004$   $\chi^2/\text{NDF}$ : 340.8/13

Right Out:  $-0.134 \pm 0.010$   $\chi^2/\text{NDF}$ : 1161.9/18

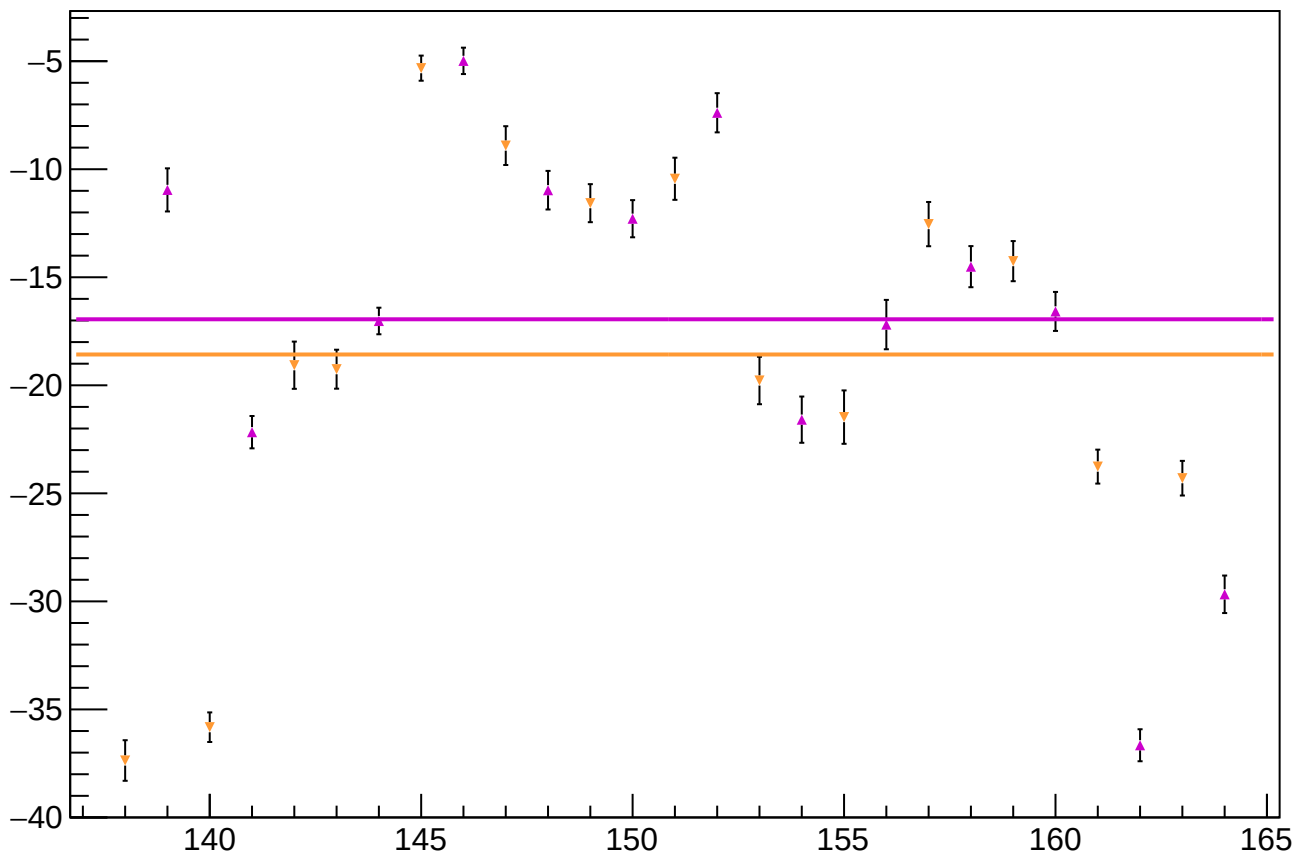
Left In:  $0.177 \pm 0.004$   $\chi^2/\text{NDF}$ : 485.6/12

+ sign  $0.171 \pm 0.004$   $\chi^2/\text{NDF}$ : 1822.1/30

All:  $0.150 \pm 0.003$   $\chi^2/\text{NDF}$ : 4281.6/62

- sign  $0.130 \pm 0.004$   $\chi^2/\text{NDF}$ : 2407.7/31

reg\_asym\_sam\_2468\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -18.574+/-0.232  $\chi^2/\text{NDF}$ :1961.2/13

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

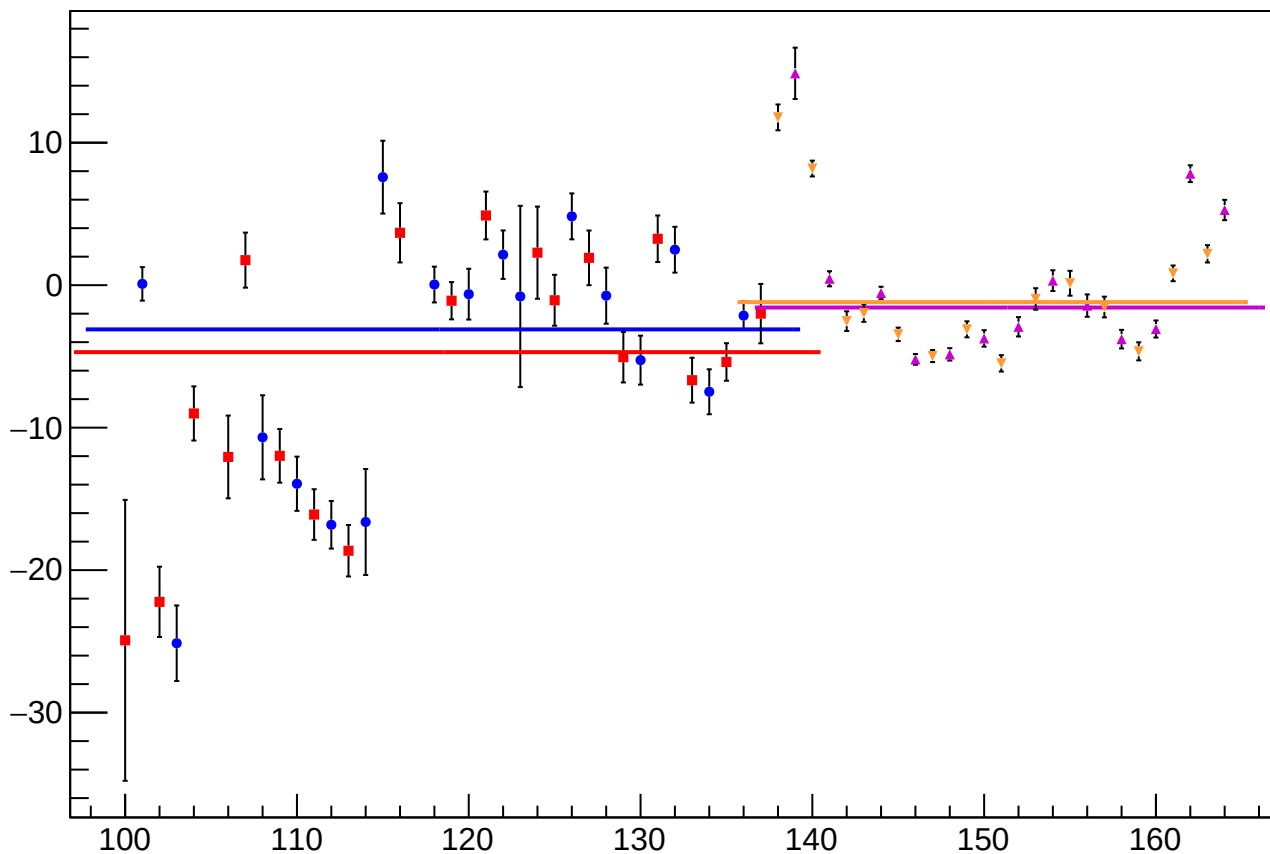
Left In: -16.945+/-0.229  $\chi^2/\text{NDF}$ :1602.8/12

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

All: -17.751+/-0.163  $\chi^2/\text{NDF}$ : 3589.0/26

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

# reg\_asym\_sam\_2468\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-3.104 \pm 0.411$   $\chi^2/\text{NDF}$ : 279.1/16

Left Out:  $-1.191 \pm 0.160$   $\chi^2/\text{NDF}$ : 741.3/13

Right Out:  $-4.701 \pm 0.427$   $\chi^2/\text{NDF}$ : 297.6/18

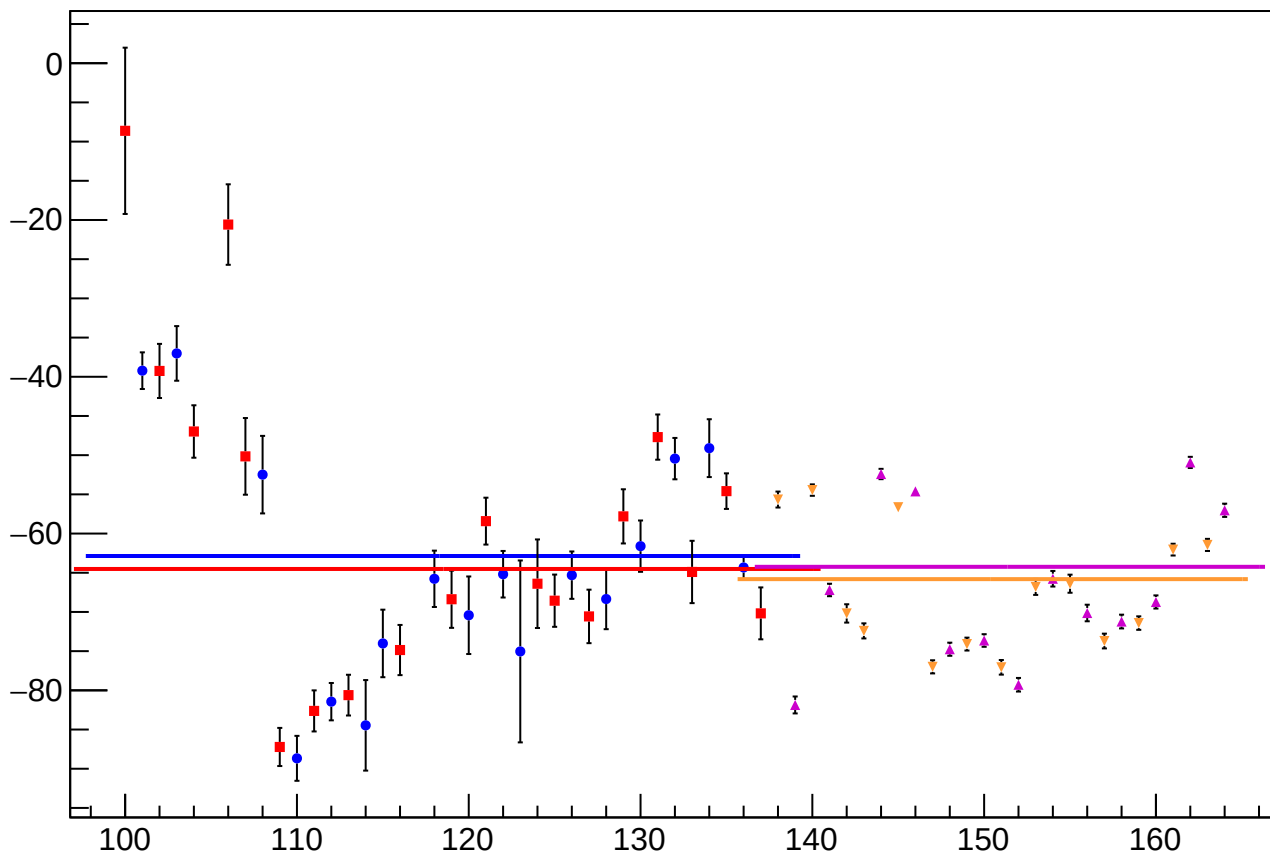
Left In:  $-1.569 \pm 0.158$   $\chi^2/\text{NDF}$ : 641.3/12

+ sign  $-1.444 \pm 0.150$   $\chi^2/\text{NDF}$ : 1039.2/30

All:  $-1.698 \pm 0.105$   $\chi^2/\text{NDF}$ : 2031.2/62

- sign  $-1.948 \pm 0.148$   $\chi^2/\text{NDF}$ : 986.3/31

# reg\_asym\_sam\_2468\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $-62.863 \pm 0.741$   $\chi^2/\text{NDF}$ : 368.7/16

Left Out:  $-65.813 \pm 0.230$   $\chi^2/\text{NDF}$ : 1219.6/13

Right Out:  $-64.517 \pm 0.752$   $\chi^2/\text{NDF}$ : 444.3/18

Left In:  $-64.242 \pm 0.224$   $\chi^2/\text{NDF}$ : 2013.0/12

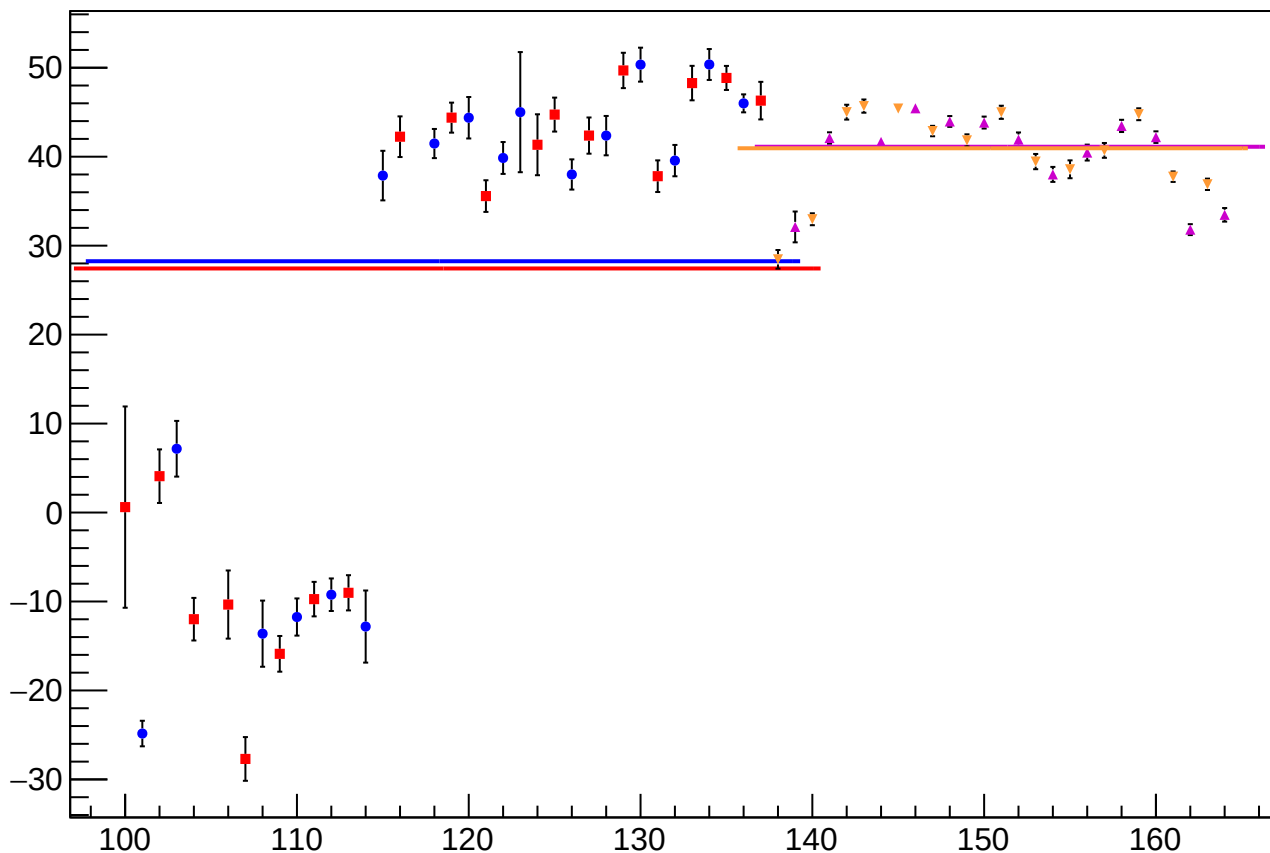
+ sign  $-65.555 \pm 0.219$   $\chi^2/\text{NDF}$ : 1602.8/30

All:  $-64.896 \pm 0.153$   $\chi^2/\text{NDF}$ : 4077.8/62

- sign  $-64.264 \pm 0.215$   $\chi^2/\text{NDF}$ : 2457.4/31



# reg\_asym\_sam\_2468\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 28.250 $\pm$ 0.460  $\chi^2$ /NDF: 3319.5/16

Left Out: 40.947 $\pm$ 0.189  $\chi^2$ /NDF: 567.7/13

Right Out: 27.435 $\pm$ 0.479  $\chi^2$ /NDF: 3032.4/18

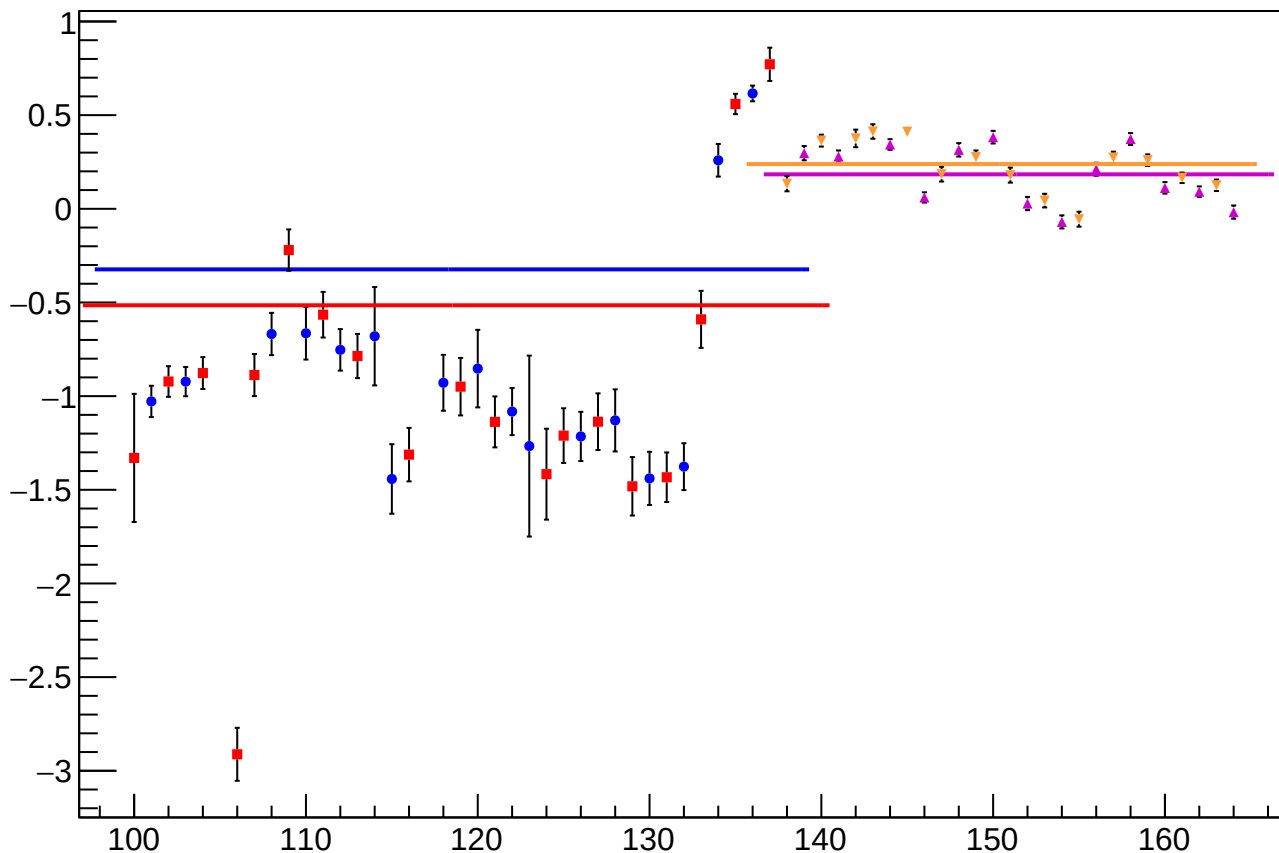
Left In: 41.118 $\pm$ 0.186  $\chi^2$ /NDF: 510.6/12

+ sign 39.113 $\pm$ 0.175  $\chi^2$ /NDF: 4538.7/30

All: 39.218 $\pm$ 0.123  $\chi^2$ /NDF: 8792.0/62

- sign 39.321 $\pm$ 0.174  $\chi^2$ /NDF: 4252.5/31

# reg\_asym\_sam\_2468\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.323 \pm 0.025$   $\chi^2/\text{NDF}$ : 1010.8/16

Left Out:  $0.239 \pm 0.009$   $\chi^2/\text{NDF}$ : 212.2/13

Right Out:  $-0.515 \pm 0.026$   $\chi^2/\text{NDF}$ : 1160.9/18

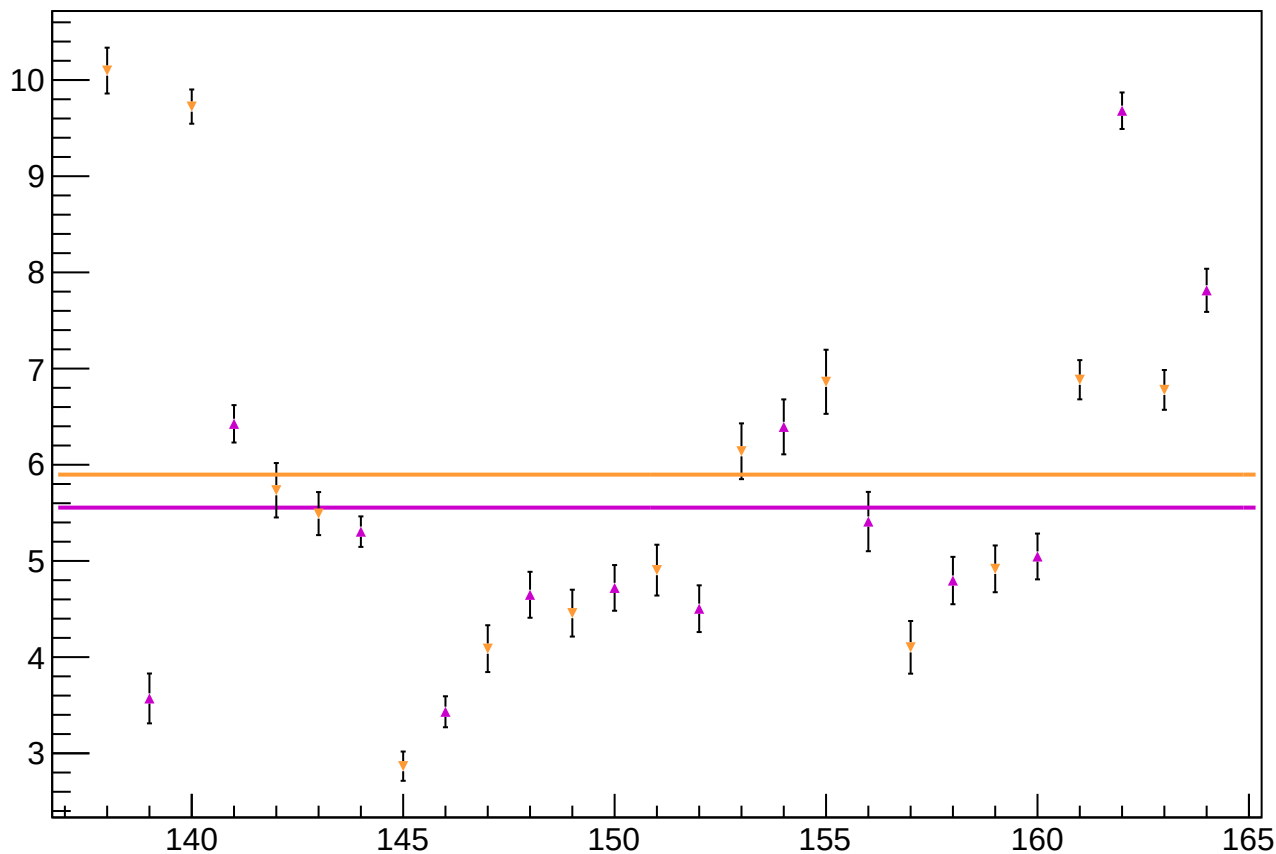
Left In:  $0.184 \pm 0.009$   $\chi^2/\text{NDF}$ : 274.8/12

+ sign  $0.174 \pm 0.009$   $\chi^2/\text{NDF}$ : 1671.6/30

All:  $0.141 \pm 0.006$   $\chi^2/\text{NDF}$ : 3793.7/62

- sign  $0.109 \pm 0.008$   $\chi^2/\text{NDF}$ : 2092.7/31

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 5.898+/-0.061  $\chi^2/\text{NDF}$ :1387.3/13

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

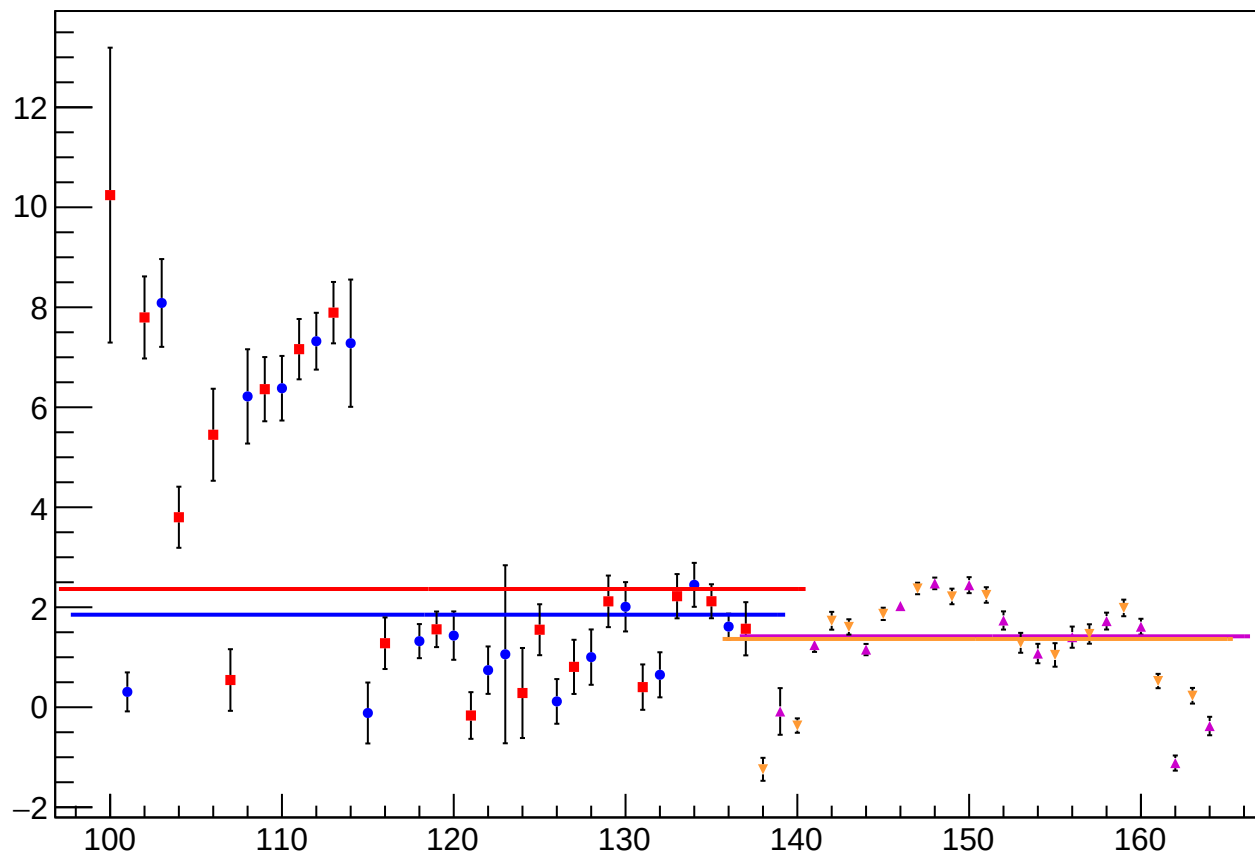
Left In: 5.554+/-0.060  $\chi^2/\text{NDF}$ :896.8/12

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

All: 5.724+/-0.043  $\chi^2/\text{NDF}$ : 2300.3/26

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

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $1.851 \pm 0.117$   $\chi^2/\text{NDF}$ : 294.2/16

Left Out:  $1.366 \pm 0.042$   $\chi^2/\text{NDF}$ : 538.3/13

Right Out:  $2.365 \pm 0.123$   $\chi^2/\text{NDF}$ : 336.2/18

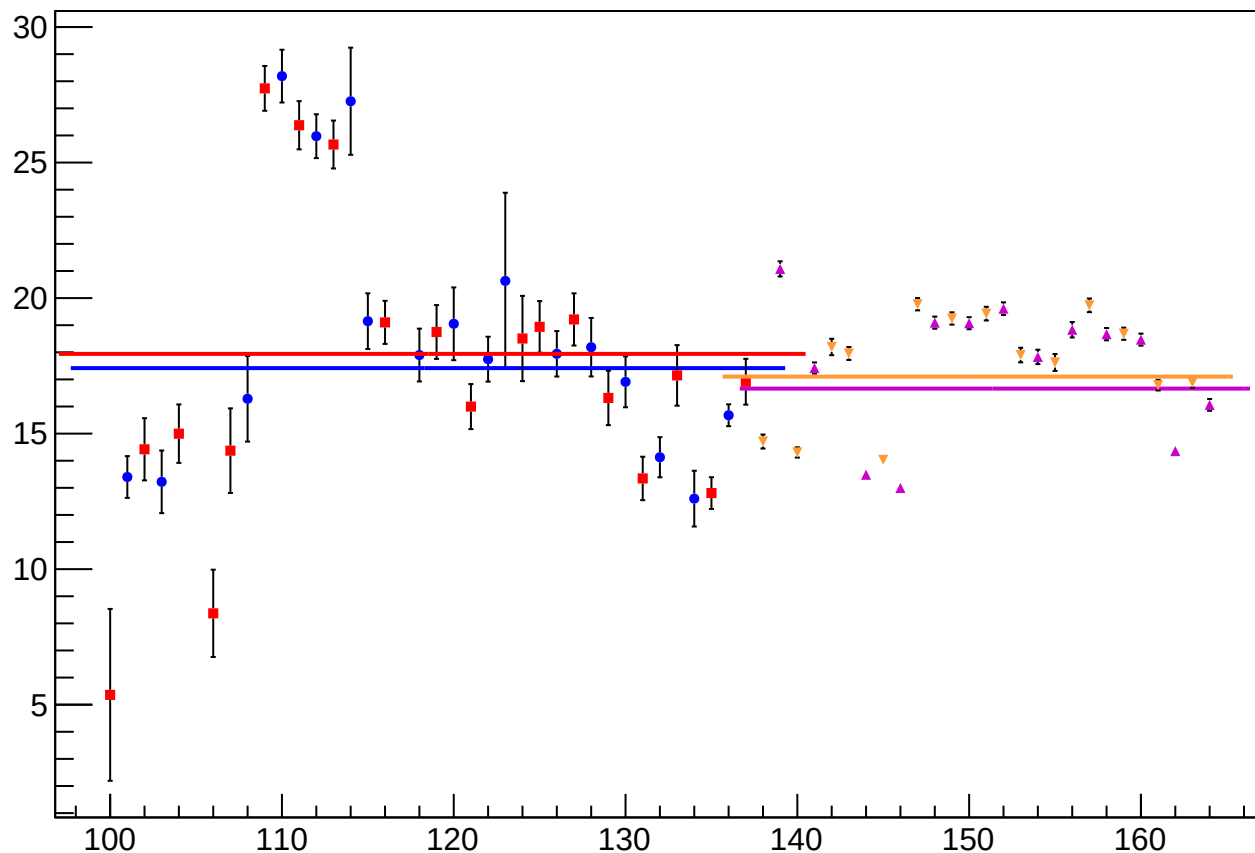
Left In:  $1.419 \pm 0.042$   $\chi^2/\text{NDF}$ : 565.7/12

+ sign  $1.422 \pm 0.040$   $\chi^2/\text{NDF}$ : 847.6/30

All:  $1.469 \pm 0.028$   $\chi^2/\text{NDF}$ : 1805.9/62

- sign  $1.516 \pm 0.039$   $\chi^2/\text{NDF}$ : 955.4/31

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $17.417 \pm 0.213$   $\chi^2/\text{NDF}$ : 367.0/16

Left Out:  $17.104 \pm 0.060$   $\chi^2/\text{NDF}$ : 1174.8/13

Right Out:  $17.941 \pm 0.219$   $\chi^2/\text{NDF}$ : 505.6/18

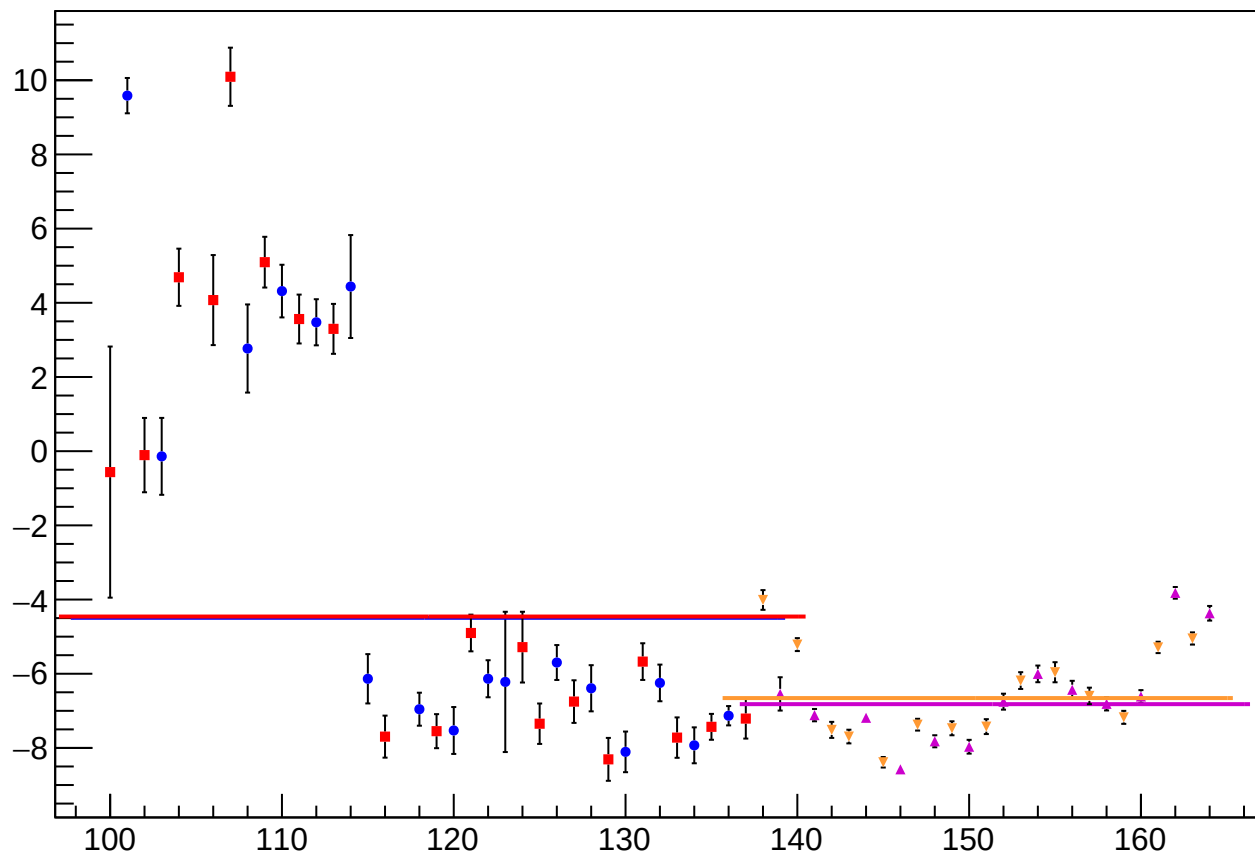
Left In:  $16.661 \pm 0.059$   $\chi^2/\text{NDF}$ : 1957.8/12

+ sign  $17.127 \pm 0.058$   $\chi^2/\text{NDF}$ : 1543.8/30

All:  $16.933 \pm 0.041$   $\chi^2/\text{NDF}$ : 4061.0/62

- sign  $16.747 \pm 0.057$   $\chi^2/\text{NDF}$ : 2495.3/31

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-4.491 \pm 0.130$   $\chi^2/\text{NDF}$ : 1585.4/16

Left Out:  $-6.656 \pm 0.050$   $\chi^2/\text{NDF}$ : 611.3/13

Right Out:  $-4.458 \pm 0.137$   $\chi^2/\text{NDF}$ : 1338.9/18

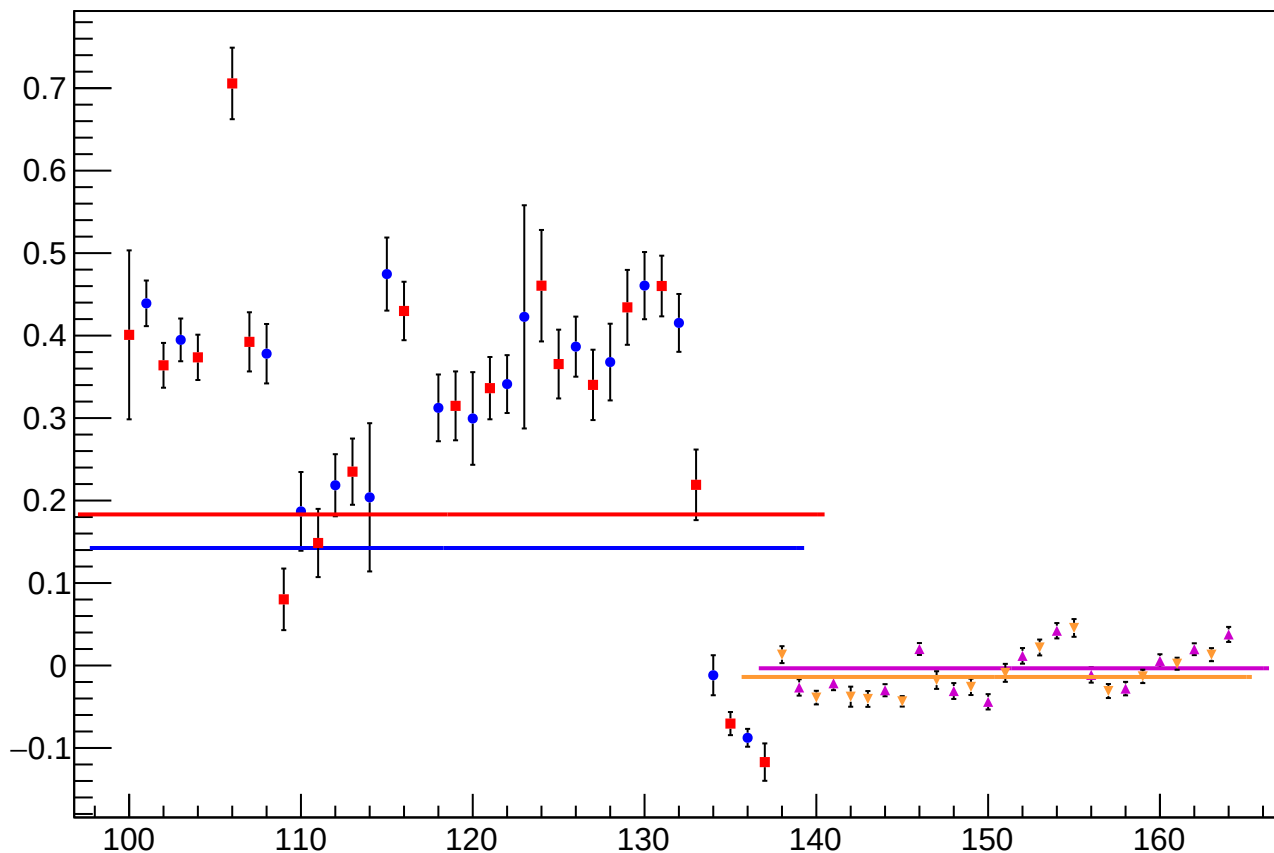
Left In:  $-6.820 \pm 0.049$   $\chi^2/\text{NDF}$ : 820.6/12

+ sign  $-6.382 \pm 0.046$   $\chi^2/\text{NDF}$ : 2437.2/30

All:  $-6.468 \pm 0.033$   $\chi^2/\text{NDF}$ : 4867.2/62

- sign  $-6.553 \pm 0.046$   $\chi^2/\text{NDF}$ : 2423.1/31

reg\_asym\_sam\_1357\_2468\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $0.142 \pm 0.007$   $\chi^2/\text{NDF}$ : 1058.8/16

Left Out:  $-0.014 \pm 0.002$   $\chi^2/\text{NDF}$ : 116.1/13

Right Out:  $0.183 \pm 0.007$   $\chi^2/\text{NDF}$ : 1000.9/18

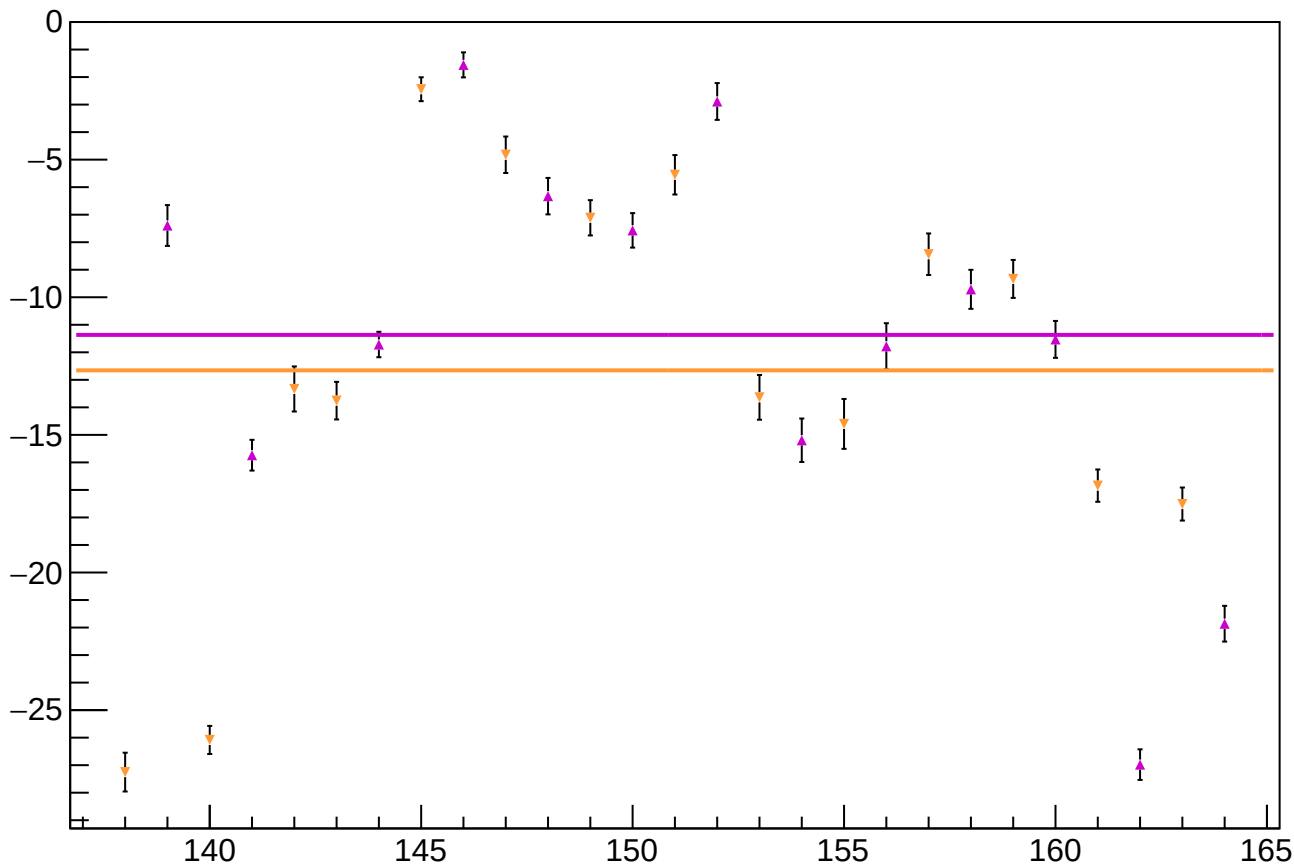
Left In:  $-0.003 \pm 0.002$   $\chi^2/\text{NDF}$ : 129.2/12

+ sign  $0.002 \pm 0.002$   $\chi^2/\text{NDF}$ : 1614.4/30

All:  $0.008 \pm 0.002$   $\chi^2/\text{NDF}$ : 3334.0/62

- sign  $0.014 \pm 0.002$   $\chi^2/\text{NDF}$ : 1705.8/31

reg\_asym\_sam\_12345678\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -12.656+/-0.172  $\chi^2/\text{NDF}$ : 2167.3/13

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

Left In: -11.367+/-0.170  $\chi^2/\text{NDF}$ : 1891.3/12

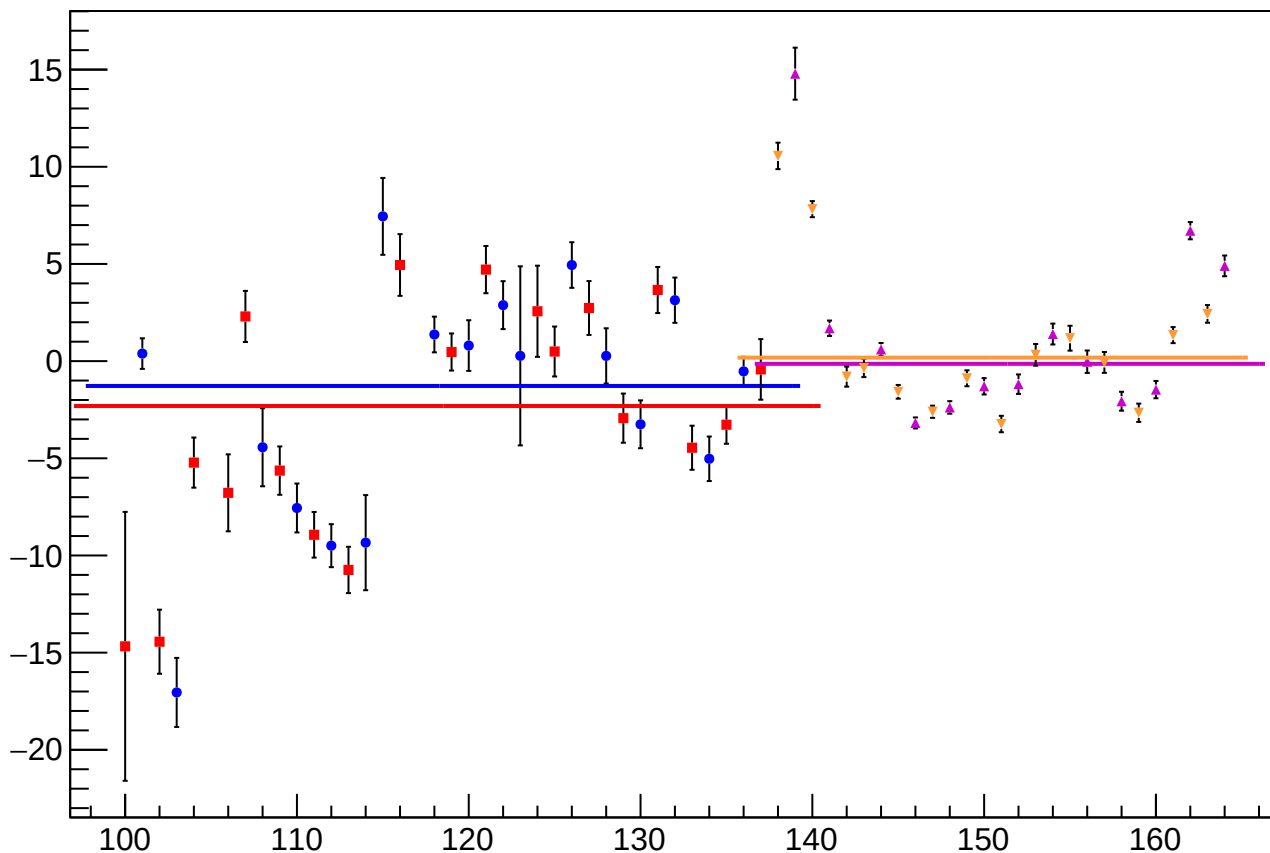
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -12.005+/-0.121  $\chi^2/\text{NDF}$ : 4086.8/26

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



reg\_asym\_sam\_12345678\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-1.278 \pm 0.292$   $\chi^2/\text{NDF}$ : 276.5/16

Left Out:  $0.180 \pm 0.119$   $\chi^2/\text{NDF}$ : 824.3/13

Right Out:  $-2.309 \pm 0.302$   $\chi^2/\text{NDF}$ : 285.3/18

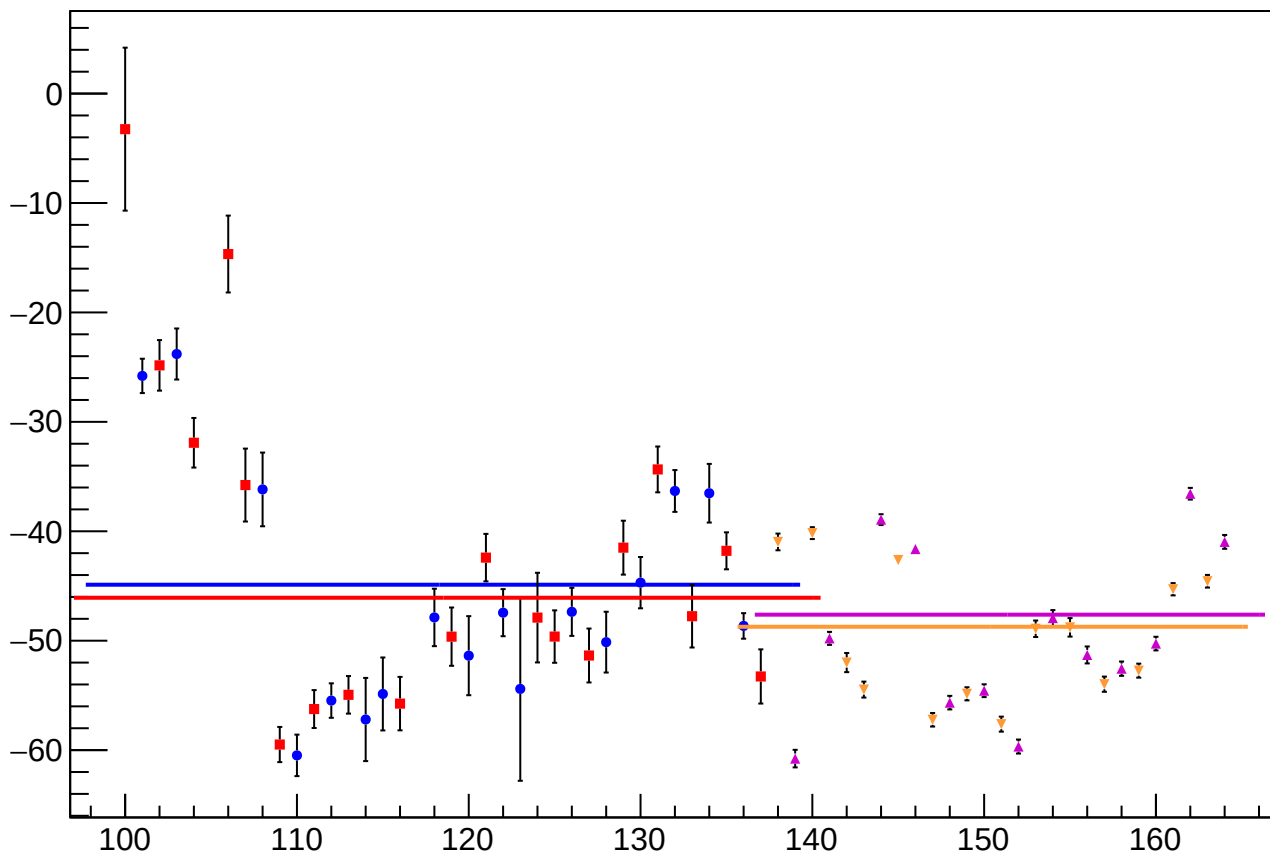
Left In:  $-0.139 \pm 0.118$   $\chi^2/\text{NDF}$ : 687.7/12

+ sign  $-0.028 \pm 0.110$   $\chi^2/\text{NDF}$ : 1122.1/30

All:  $-0.228 \pm 0.078$   $\chi^2/\text{NDF}$ : 2146.2/62

- sign  $-0.425 \pm 0.110$   $\chi^2/\text{NDF}$ : 1017.7/31

reg\_asym\_sam\_12345678\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $-44.883 \pm 0.524$   $\chi^2/\text{NDF}$ : 421.0/16

Left Out:  $-48.726 \pm 0.171$   $\chi^2/\text{NDF}$ : 1249.6/13

Right Out:  $-46.075 \pm 0.529$   $\chi^2/\text{NDF}$ : 454.3/18

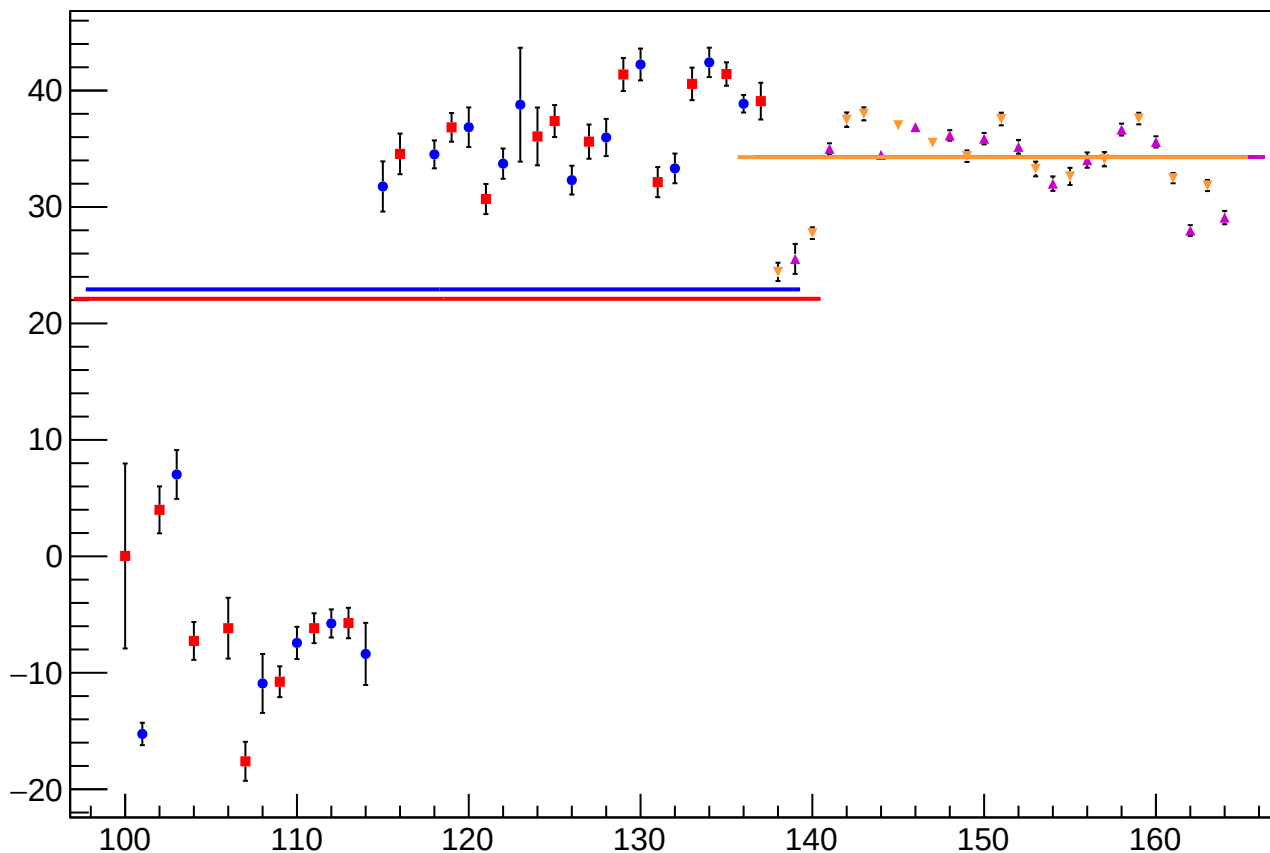
Left In:  $-47.621 \pm 0.166$   $\chi^2/\text{NDF}$ : 2075.9/12

+ sign  $-48.358 \pm 0.162$   $\chi^2/\text{NDF}$ : 1719.1/30

All:  $-47.910 \pm 0.113$   $\chi^2/\text{NDF}$ : 4272.0/62

- sign  $-47.481 \pm 0.159$   $\chi^2/\text{NDF}$ : 2537.9/31

reg\_asym\_sam\_12345678\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 22.926 $\pm$ 0.328  $\chi^2$ /NDF: 4330.2/16

Left Out: 34.280 $\pm$ 0.141  $\chi^2$ /NDF:580.8/13

Right Out: 22.117 $\pm$ 0.340  $\chi^2$ /NDF: 4033.4/18

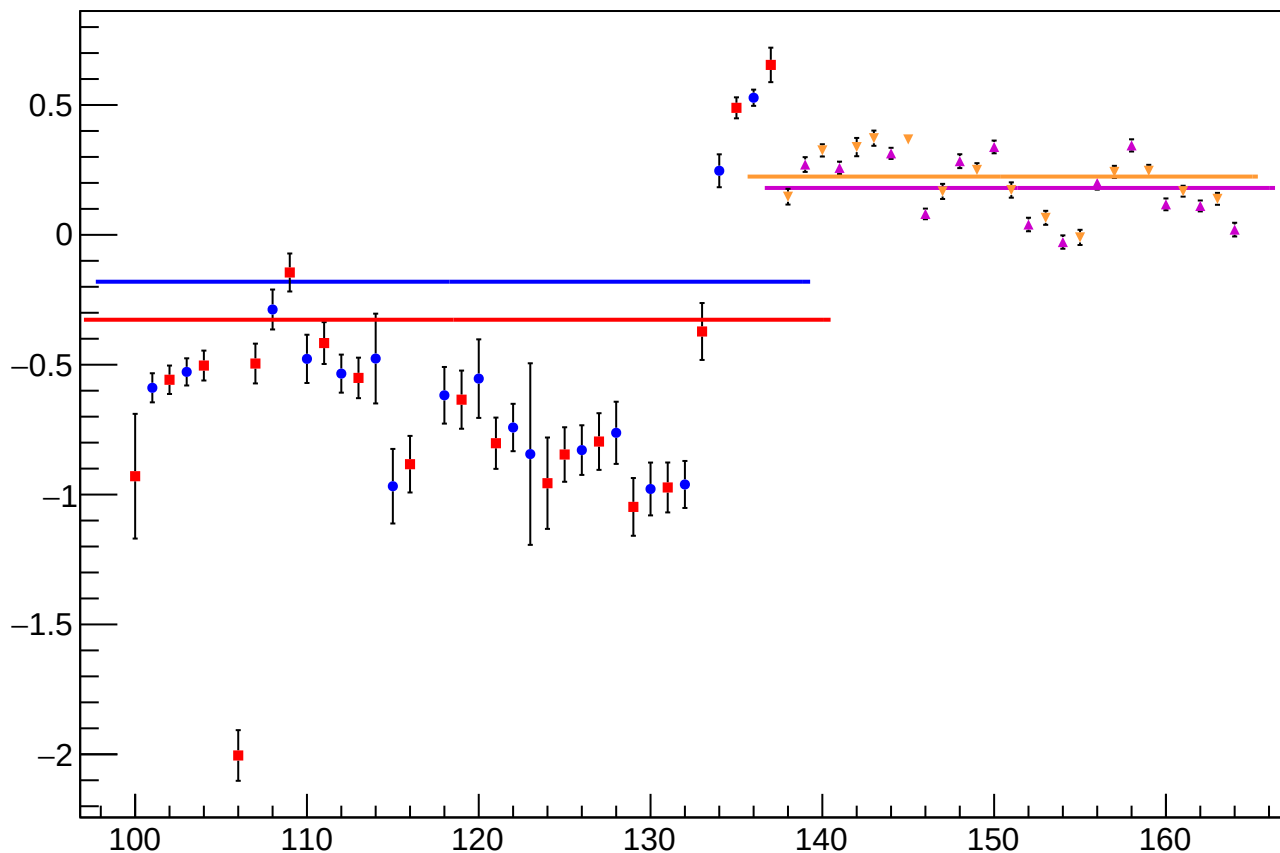
Left In: 34.292 $\pm$ 0.138  $\chi^2$ /NDF:442.1/12

+ sign 32.520 $\pm$ 0.129  $\chi^2$ /NDF: 5923.1/30

All: 32.539 $\pm$ 0.091  $\chi^2$ /NDF: 11498.6/62

- sign 32.559 $\pm$ 0.128  $\chi^2$ /NDF: 5575.5/31

reg\_asym\_sam\_12345678\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-0.180 \pm 0.018$   $\chi^2/\text{NDF}$ : 995.7/16

Left Out:  $0.224 \pm 0.007$   $\chi^2/\text{NDF}$ : 252.5/13

Right Out:  $-0.327 \pm 0.018$   $\chi^2/\text{NDF}$ : 1175.6/18

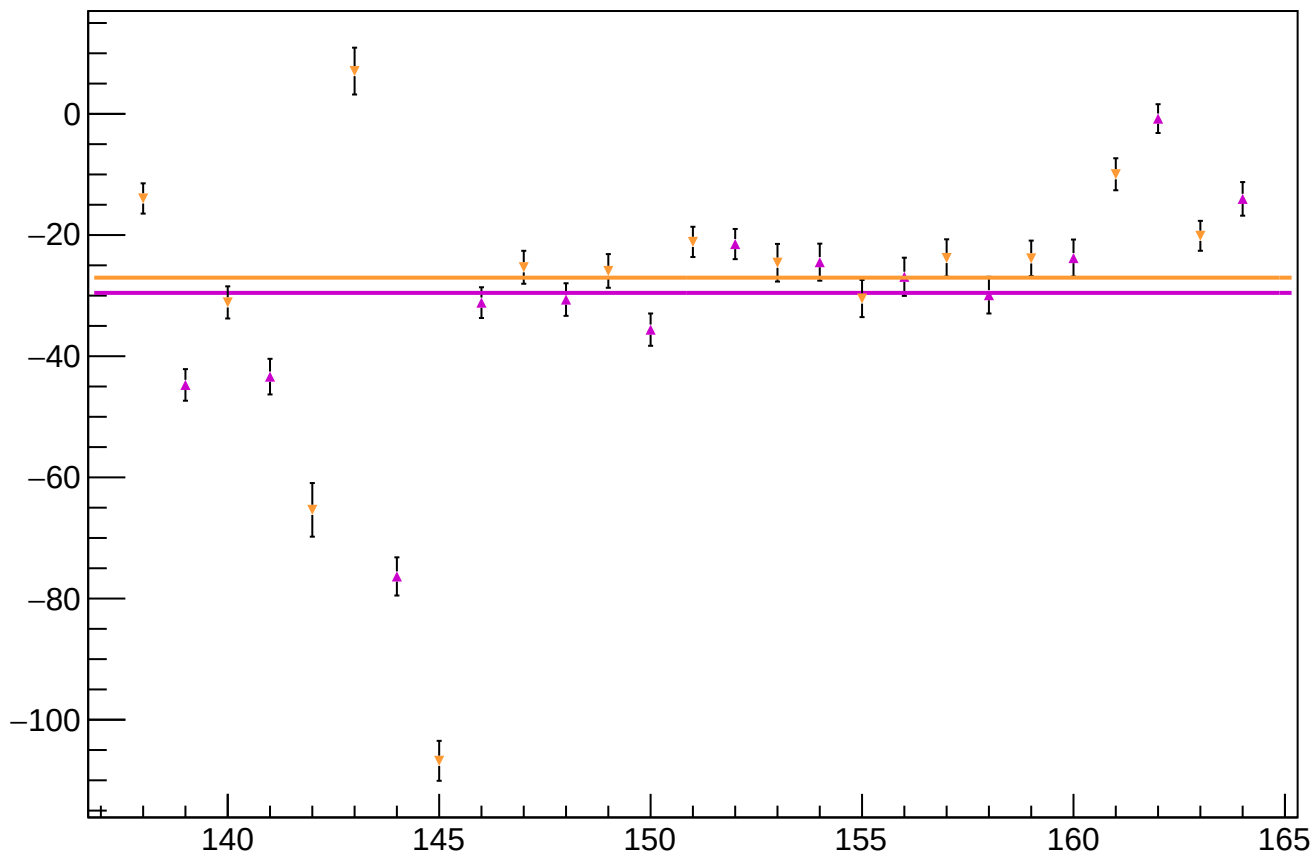
Left In:  $0.181 \pm 0.007$   $\chi^2/\text{NDF}$ : 338.9/12

+ sign  $0.174 \pm 0.006$   $\chi^2/\text{NDF}$ : 1702.3/30

All:  $0.147 \pm 0.004$   $\chi^2/\text{NDF}$ : 3938.2/62

- sign  $0.121 \pm 0.006$   $\chi^2/\text{NDF}$ : 2200.1/31

# reg\_asym\_atl1\_diff\_bpm1X\_slope vs Slug



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

Left Out: -27.033+/-0.773  $\chi^2/\text{NDF}$ : 827.7/13

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

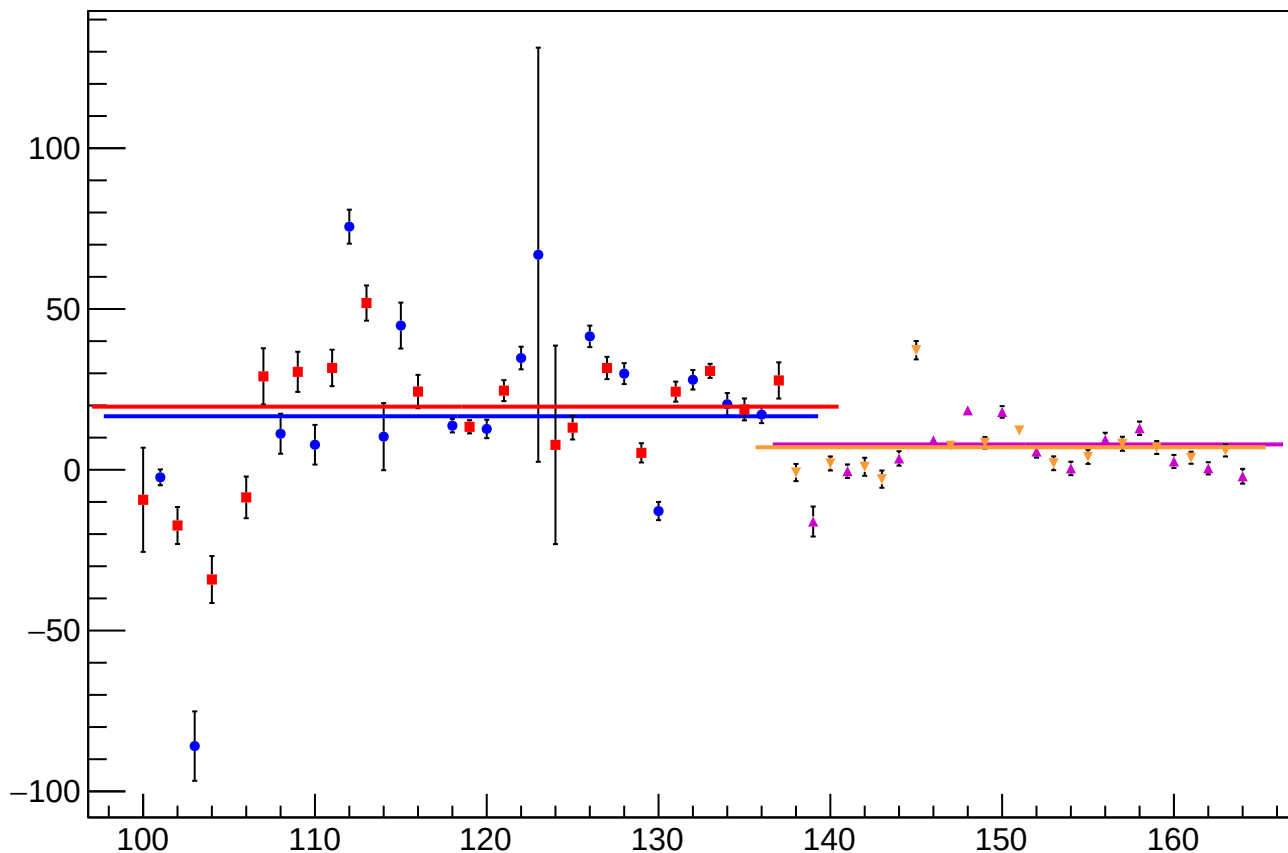
Left In: -29.547+/-0.769  $\chi^2/\text{NDF}$ : 477.6/12

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

All: -28.295+/-0.545  $\chi^2/\text{NDF}$ : 1310.6/26

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

# reg\_asym\_atl1\_diff\_bpm4aY\_slope vs Slug



Right In: 16.641 $\pm$ 0.859  $\chi^2$ /NDF: 518.9/16

Left Out: 7.003 $\pm$ 0.527  $\chi^2$ /NDF: 169.0/13

Right Out: 19.632 $\pm$ 0.896  $\chi^2$ /NDF: 241.7/18

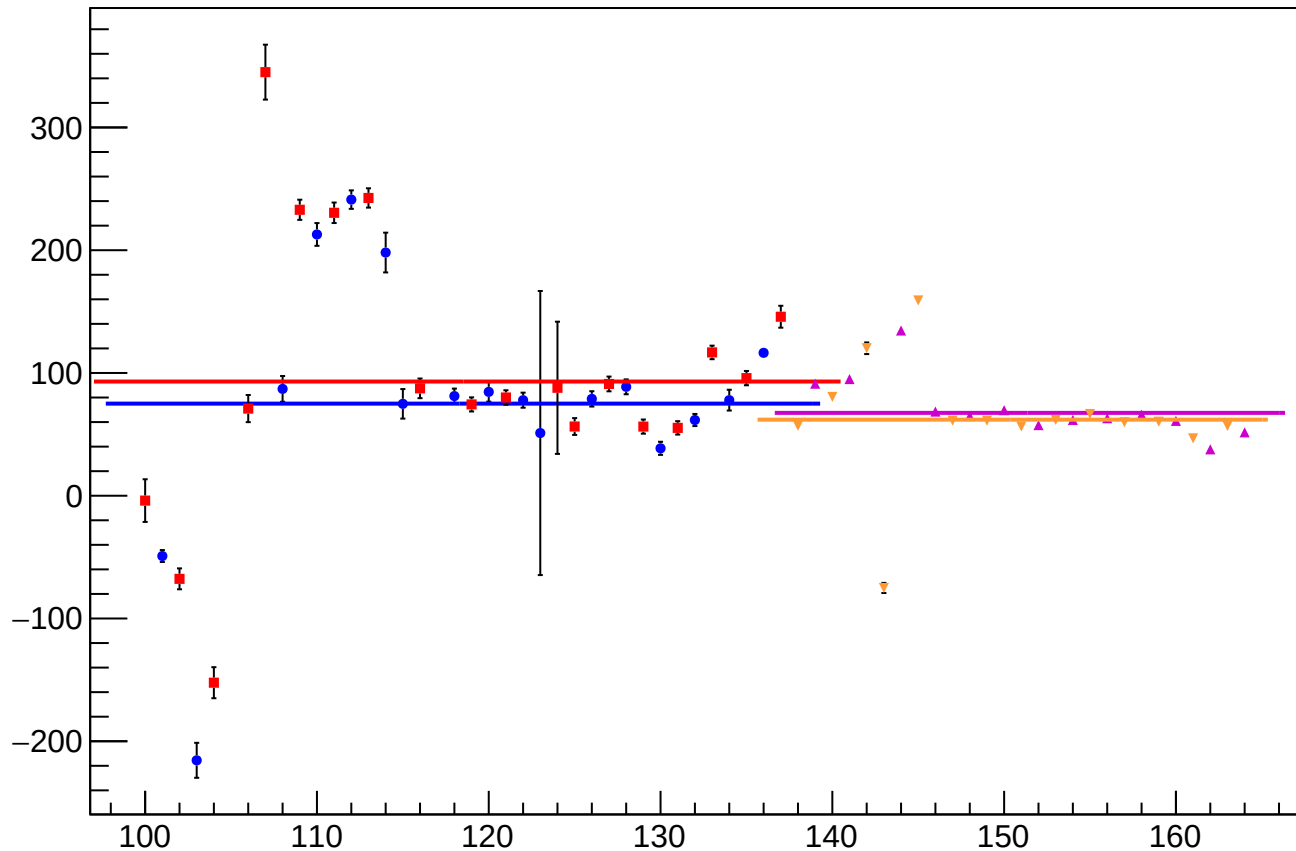
Left In: 7.887 $\pm$ 0.537  $\chi^2$ /NDF: 204.4/12

+ sign 9.641 $\pm$ 0.449  $\chi^2$ /NDF: 779.4/30

All: 10.298 $\pm$ 0.322  $\chi^2$ /NDF: 1356.3/62

- sign 10.988 $\pm$ 0.461  $\chi^2$ /NDF: 572.5/31

# reg\_asym\_atl1\_diff\_bpm4eX\_slope vs Slug



Right In: 75.032 $\pm$ 1.647  $\chi^2$ /NDF: 1999.7/16

Left Out: 61.975 $\pm$ 0.753  $\chi^2$ /NDF: 2156.2/13

Right Out: 93.028 $\pm$ 1.711  $\chi^2$ /NDF: 2003.6/18

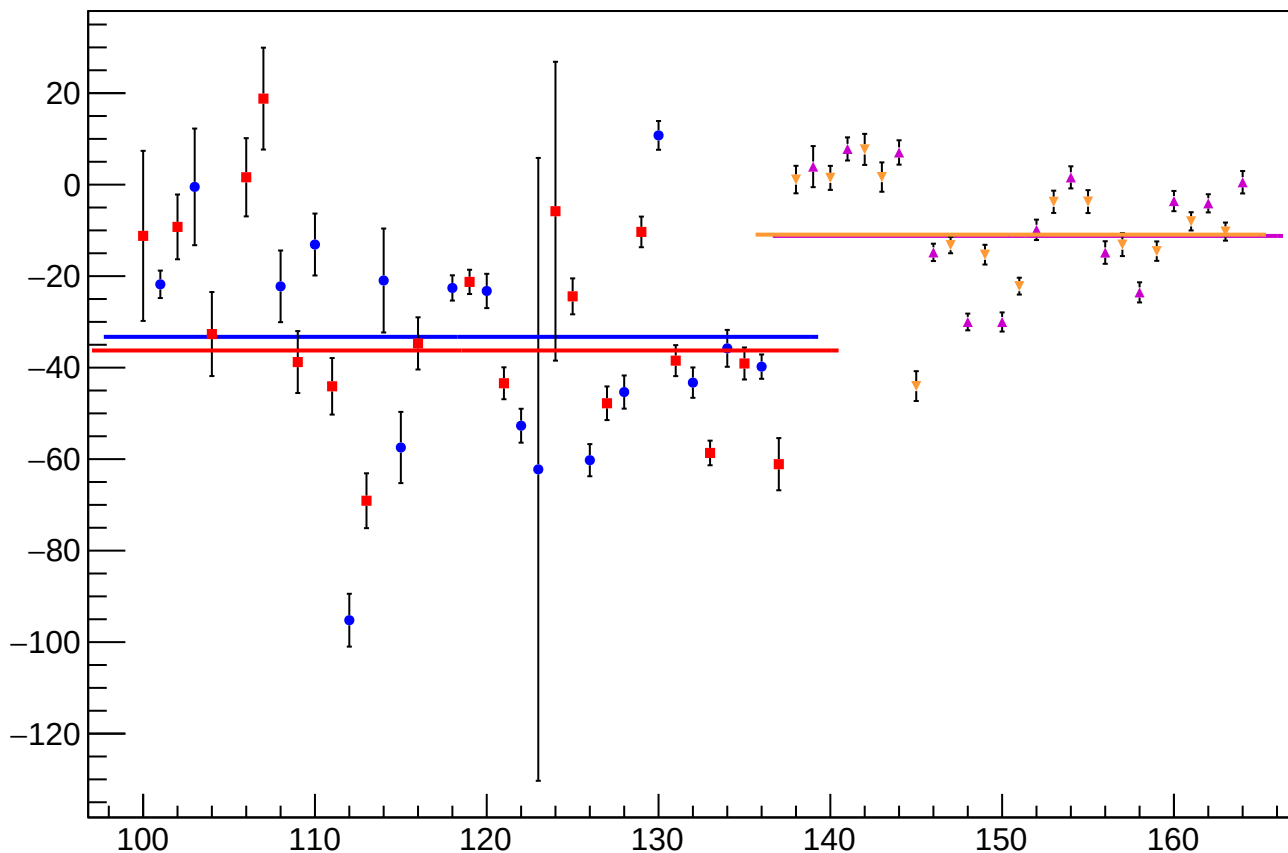
Left In: 67.500 $\pm$ 0.745  $\chi^2$ /NDF: 778.9/12

+ sign 64.235 $\pm$ 0.685  $\chi^2$ /NDF: 4207.9/30

All: 67.912 $\pm$ 0.484  $\chi^2$ /NDF: 7234.9/62

- sign 71.571 $\pm$ 0.683  $\chi^2$ /NDF: 2969.5/31

# reg\_asym\_atl1\_diff\_bpm4eY\_slope vs Slug



Right In: -33.272 $\pm$ 0.982  $\chi^2/\text{NDF}$ : 489.4/16

Left Out: -10.928 $\pm$ 0.623  $\chi^2/\text{NDF}$ : 252.9/13

Right Out: -36.251 $\pm$ 1.024  $\chi^2/\text{NDF}$ : 297.6/18

Left In: -11.209 $\pm$ 0.630  $\chi^2/\text{NDF}$ : 414.9/12

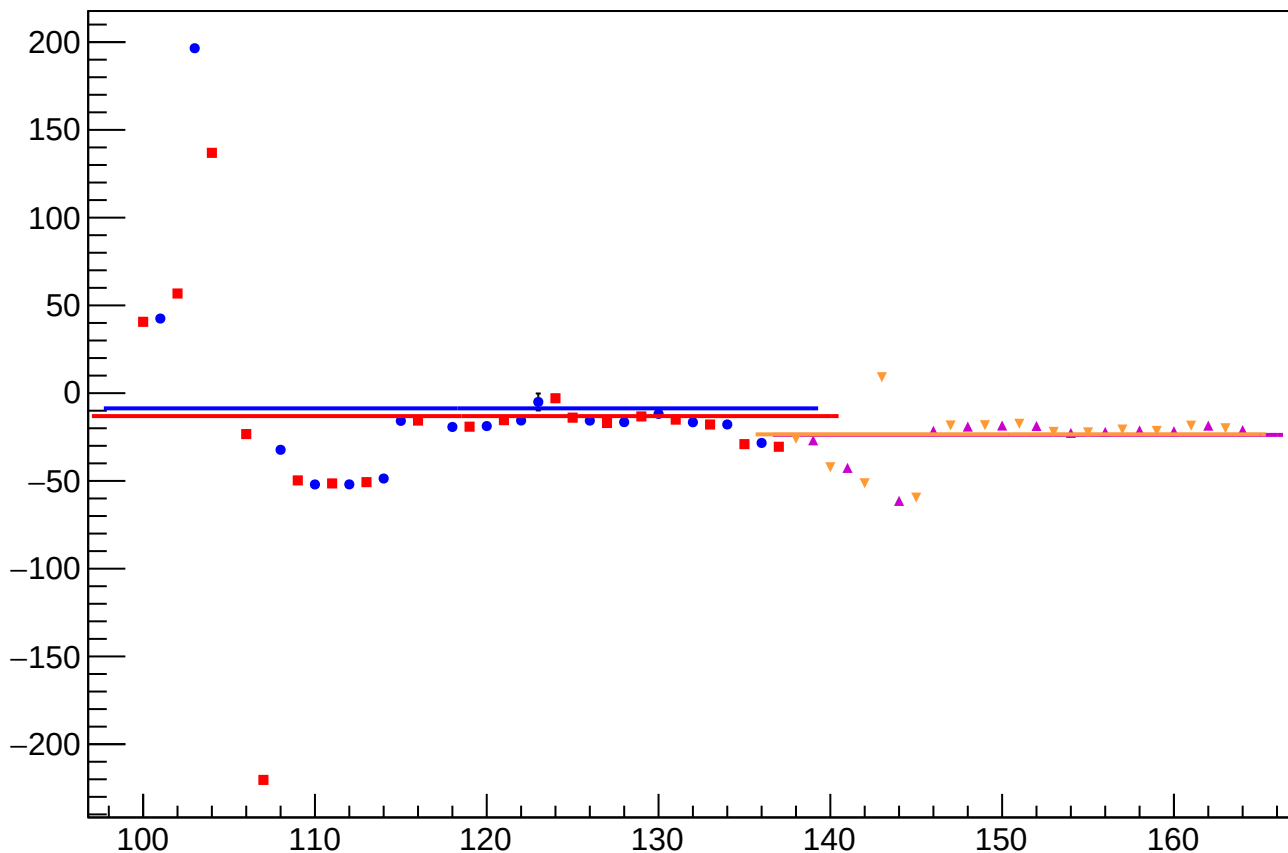
+ sign -17.342 $\pm$ 0.526  $\chi^2/\text{NDF}$ : 1111.4/30

All: -17.706 $\pm$ 0.376  $\chi^2/\text{NDF}$ : 2258.8/62

- sign -18.085 $\pm$ 0.537  $\chi^2/\text{NDF}$ : 1146.4/31



# reg\_asym\_atl1\_diff\_bpm12X\_slope vs Slug



Right In:  $-8.657 \pm 0.059$   $\chi^2/\text{NDF}: 575742.7/16$

Left Out:  $-23.470 \pm 0.029$   $\chi^2/\text{NDF}: 168216.3/13$

Right Out:  $-13.077 \pm 0.062$   $\chi^2/\text{NDF}: 558318.9/18$

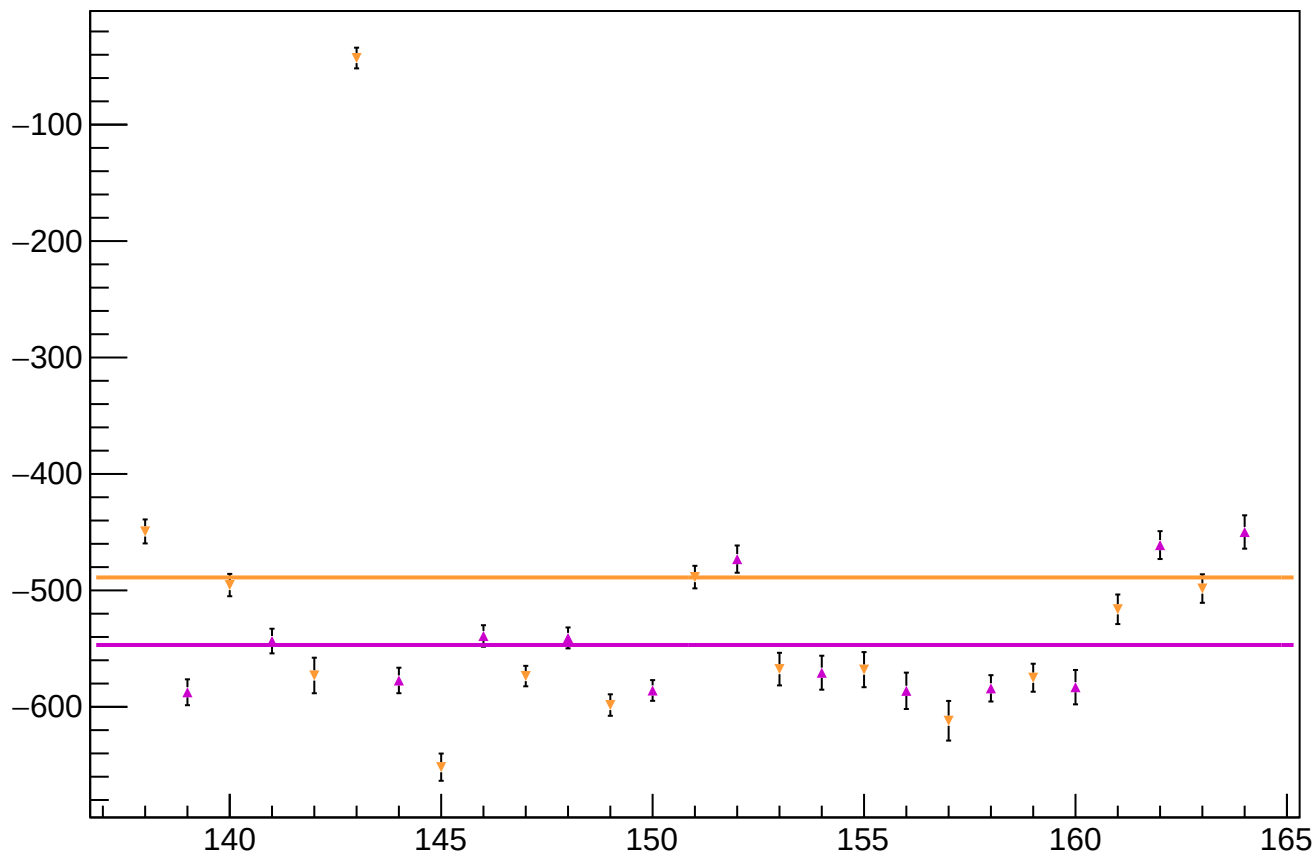
Left In:  $-23.776 \pm 0.029$   $\chi^2/\text{NDF}: 101161.1/12$

+ sign  $-20.523 \pm 0.026$   $\chi^2/\text{NDF}: 794312.9/30$

All:  $-21.174 \pm 0.019$   $\chi^2/\text{NDF}: 1479503.7/62$

- sign  $-21.827 \pm 0.026$   $\chi^2/\text{NDF}: 683969.1/31$

# reg\_asym\_atl2\_diff\_bpm1X\_slope vs Slug



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

Left Out: -488.877+/-2.980  $\chi^2/\text{NDF}$ : 3153.8/13

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

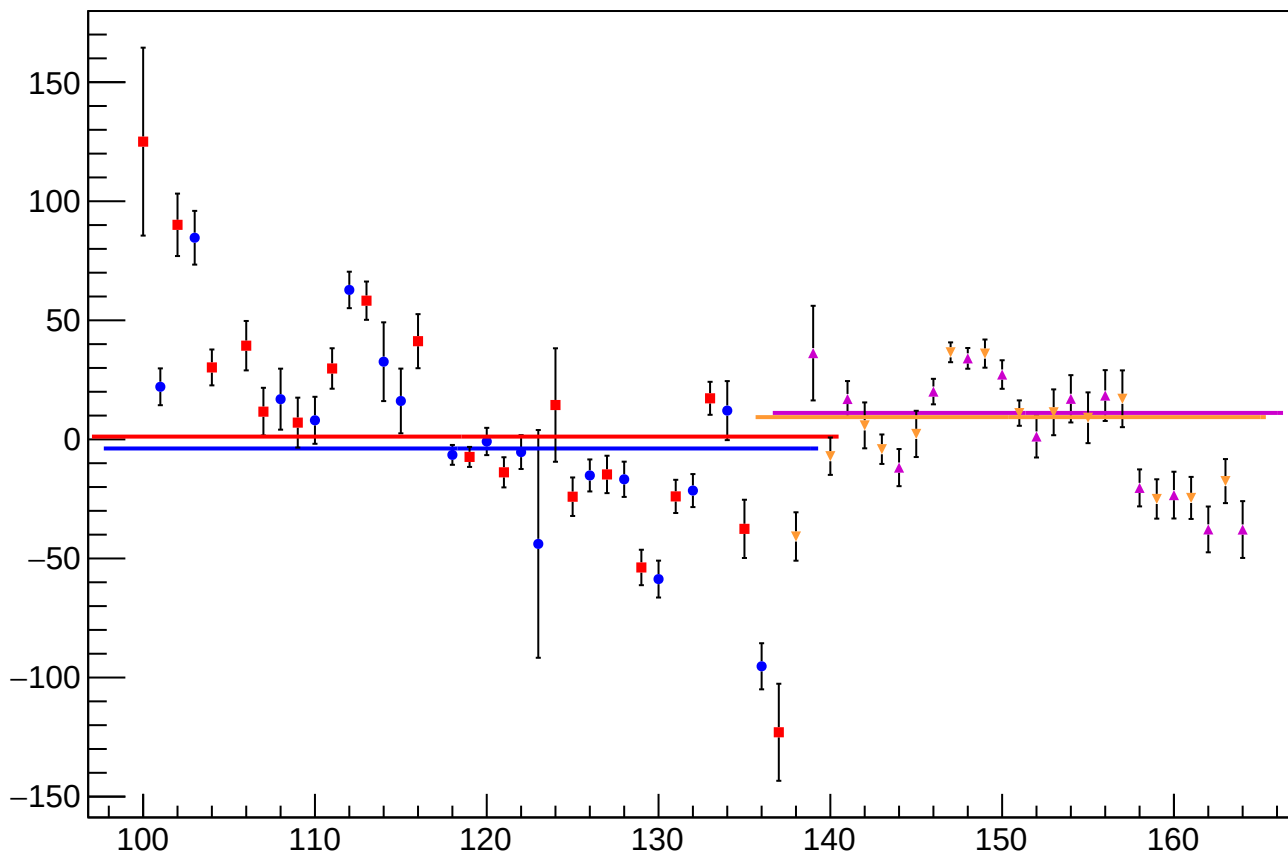
Left In: -546.874+/-3.123  $\chi^2/\text{NDF}$ : 204.5/12

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

All: -516.516+/-2.156  $\chi^2/\text{NDF}$ : 3538.8/26

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

# reg\_asym\_atl2\_diff\_bpm4aY\_slope vs Slug



Right In:  $-3.815 \pm 1.923$   $\chi^2/\text{NDF}$ : 314.3/16

Left Out:  $9.352 \pm 1.959$   $\chi^2/\text{NDF}$ : 138.3/13

Right Out:  $1.175 \pm 1.914$   $\chi^2/\text{NDF}$ : 303.9/18

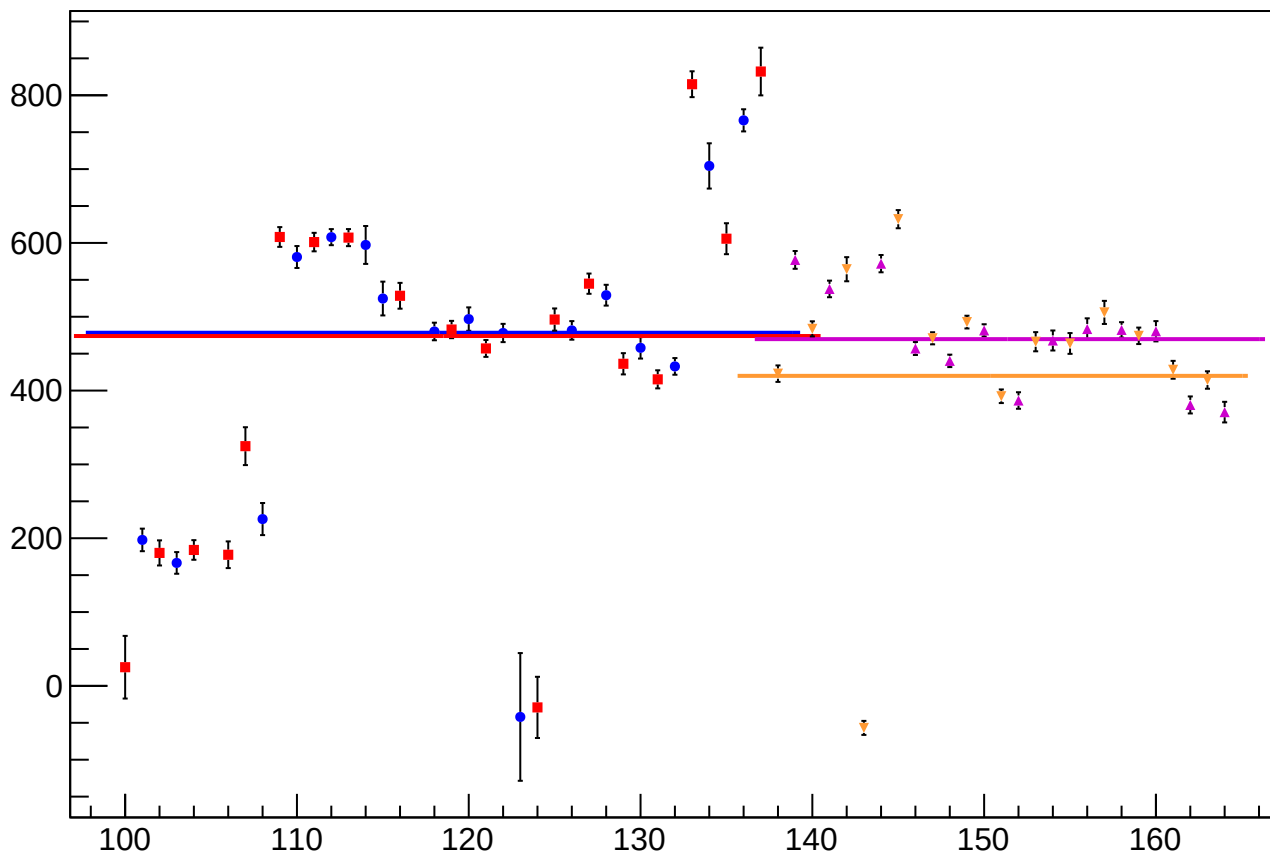
Left In:  $11.120 \pm 2.092$   $\chi^2/\text{NDF}$ : 122.2/12

+ sign  $2.647 \pm 1.372$   $\chi^2/\text{NDF}$ : 475.6/30

All:  $4.134 \pm 0.984$   $\chi^2/\text{NDF}$ : 916.3/62

- sign  $5.707 \pm 1.412$   $\chi^2/\text{NDF}$ : 438.3/31

# reg\_asym\_atl2\_diff\_bpm4eX\_slope vs Slug



Right In: 478.334 $\pm$ 3.662  $\chi^2/\text{NDF}$ : 1628.8/16

Left Out: 419.942 $\pm$ 2.934  $\chi^2/\text{NDF}$ : 3129.8/13

Right Out: 473.902 $\pm$ 3.531  $\chi^2/\text{NDF}$ : 2285.0/18

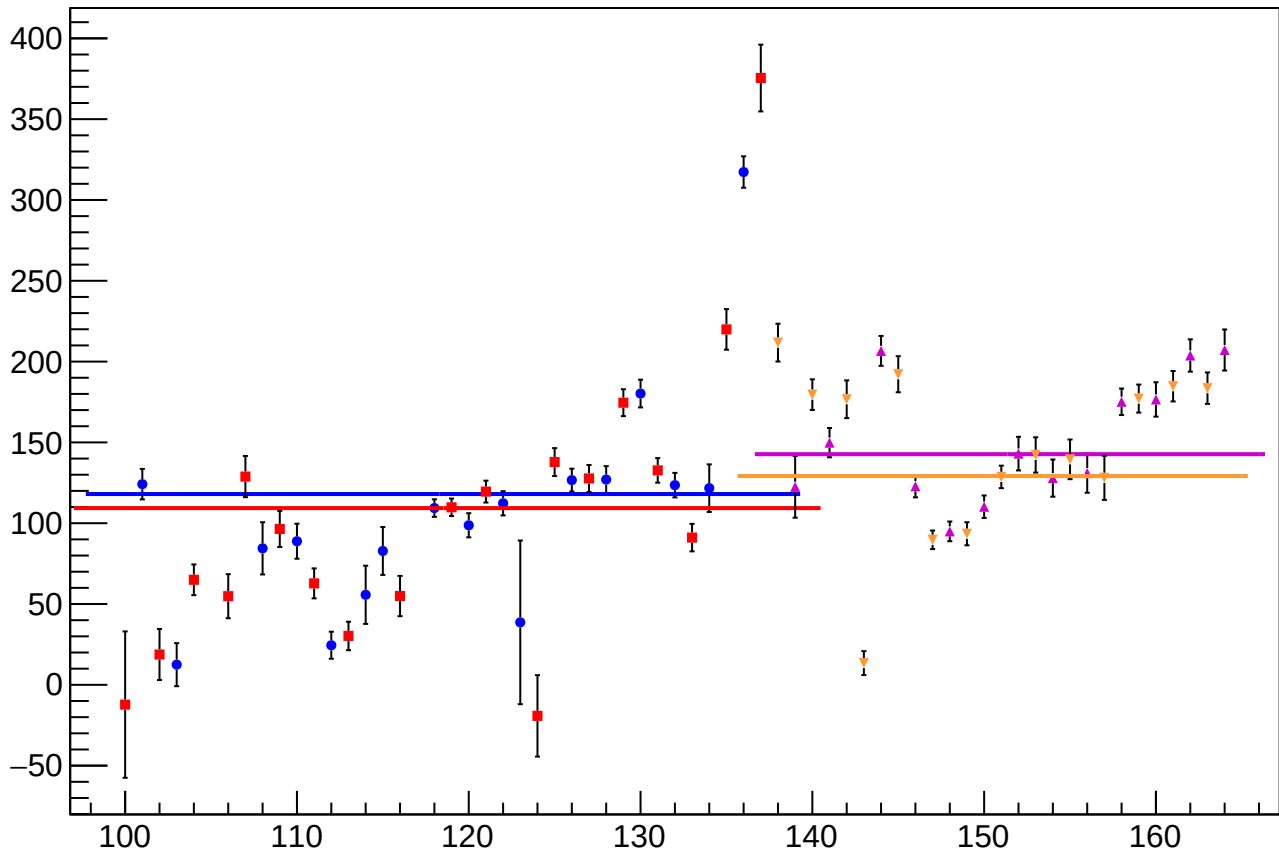
Left In: 469.690 $\pm$ 3.031  $\chi^2/\text{NDF}$ : 376.4/12

+ sign 442.772 $\pm$ 2.290  $\chi^2/\text{NDF}$ : 4913.4/30

All: 457.061 $\pm$ 1.623  $\chi^2/\text{NDF}$ : 7653.9/62

- sign 471.477 $\pm$ 2.300  $\chi^2/\text{NDF}$ : 2662.3/31

# reg\_asym\_atl2\_diff\_bpm4eY\_slope vs Slug



Right In:  $118.055 \pm 2.225$   $\chi^2/\text{NDF}: 705.3/16$

Left Out:  $129.200 \pm 2.369$   $\chi^2/\text{NDF}: 542.1/13$

Right Out:  $109.367 \pm 2.205$   $\chi^2/\text{NDF}: 569.8/18$

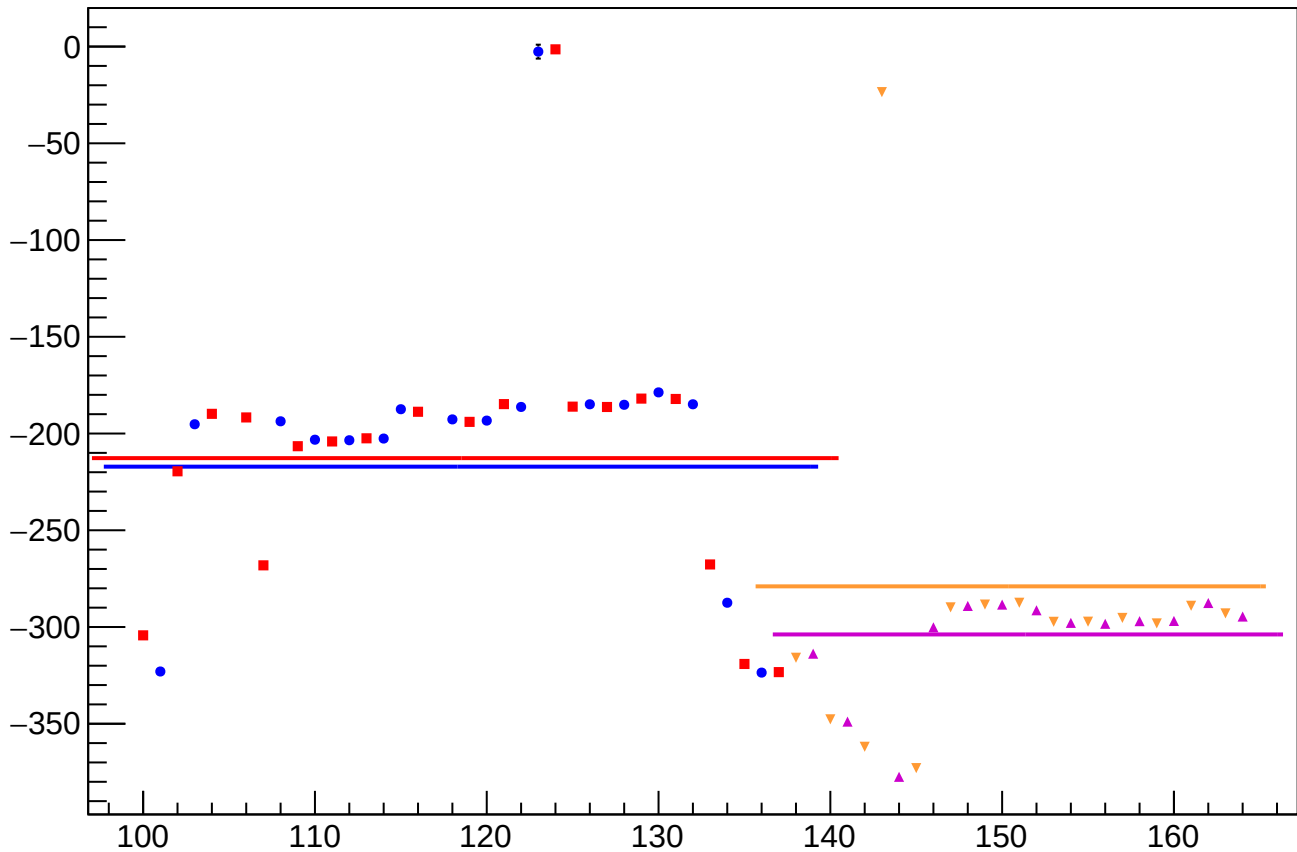
Left In:  $142.733 \pm 2.509$   $\chi^2/\text{NDF}: 232.6/12$

+ sign  $123.280 \pm 1.622$   $\chi^2/\text{NDF}: 1259.2/30$

All:  $123.588 \pm 1.159$   $\chi^2/\text{NDF}: 2161.5/62$

- sign  $123.909 \pm 1.656$   $\chi^2/\text{NDF}: 902.2/31$

# reg\_asym\_atl2\_diff\_bpm12X\_slope vs Slug



Right In:  $-217.120 \pm 0.137$   $\chi^2/\text{NDF}: 146559.7/16$

Left Out:  $-278.989 \pm 0.118$   $\chi^2/\text{NDF}: 544963.8/13$

Right Out:  $-212.715 \pm 0.130$   $\chi^2/\text{NDF}: 115566.2/18$

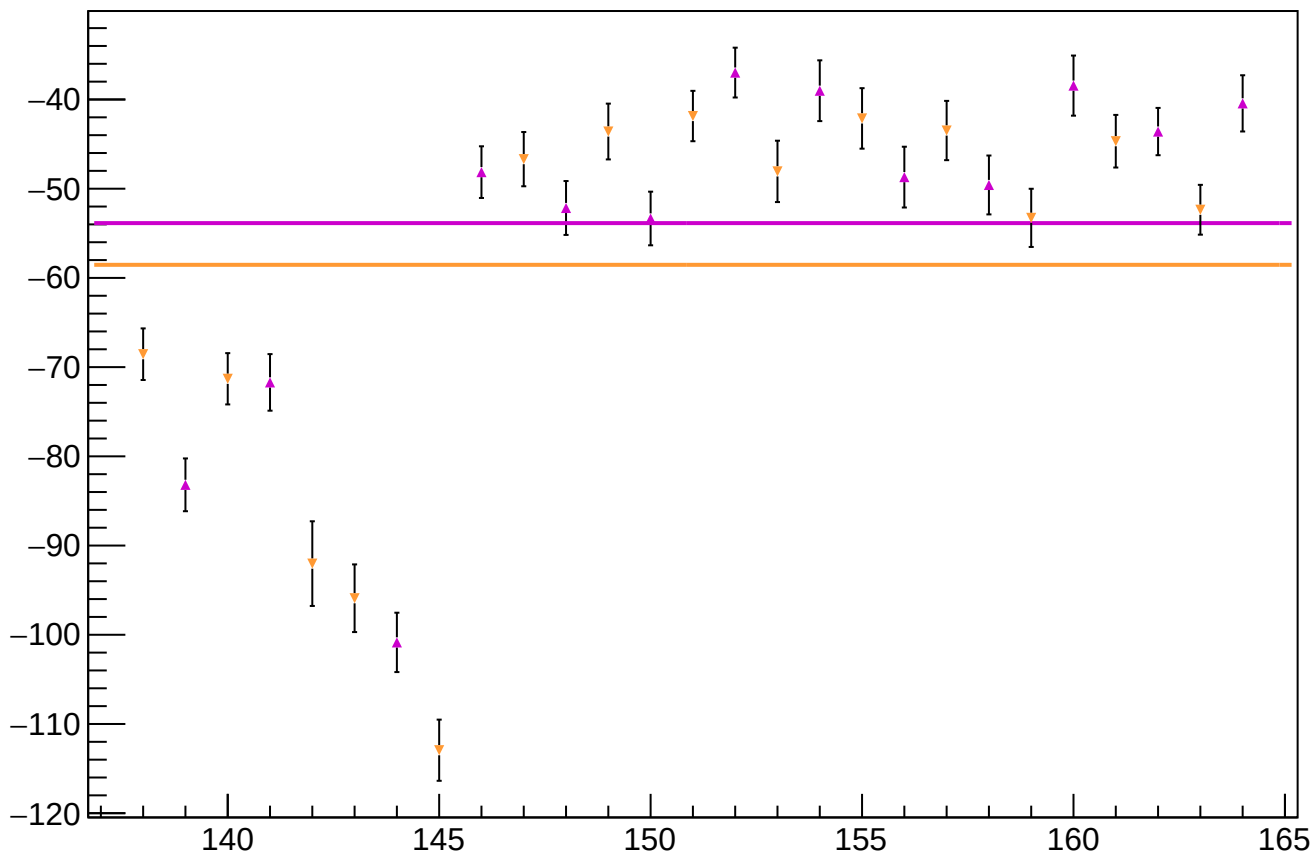
Left In:  $-303.840 \pm 0.121$   $\chi^2/\text{NDF}: 37722.6/12$

+ sign  $-252.543 \pm 0.089$   $\chi^2/\text{NDF}: 809015.2/30$

All:  $-257.130 \pm 0.063$   $\chi^2/\text{NDF}: 1230648.8/62$

- sign  $-261.644 \pm 0.089$   $\chi^2/\text{NDF}: 416397.4/31$

# reg\_asym\_atr1\_diff\_bpm1X\_slope vs Slug



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

Left Out: -58.532+/-0.853  $\chi^2/\text{NDF}$ : 586.2/13

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

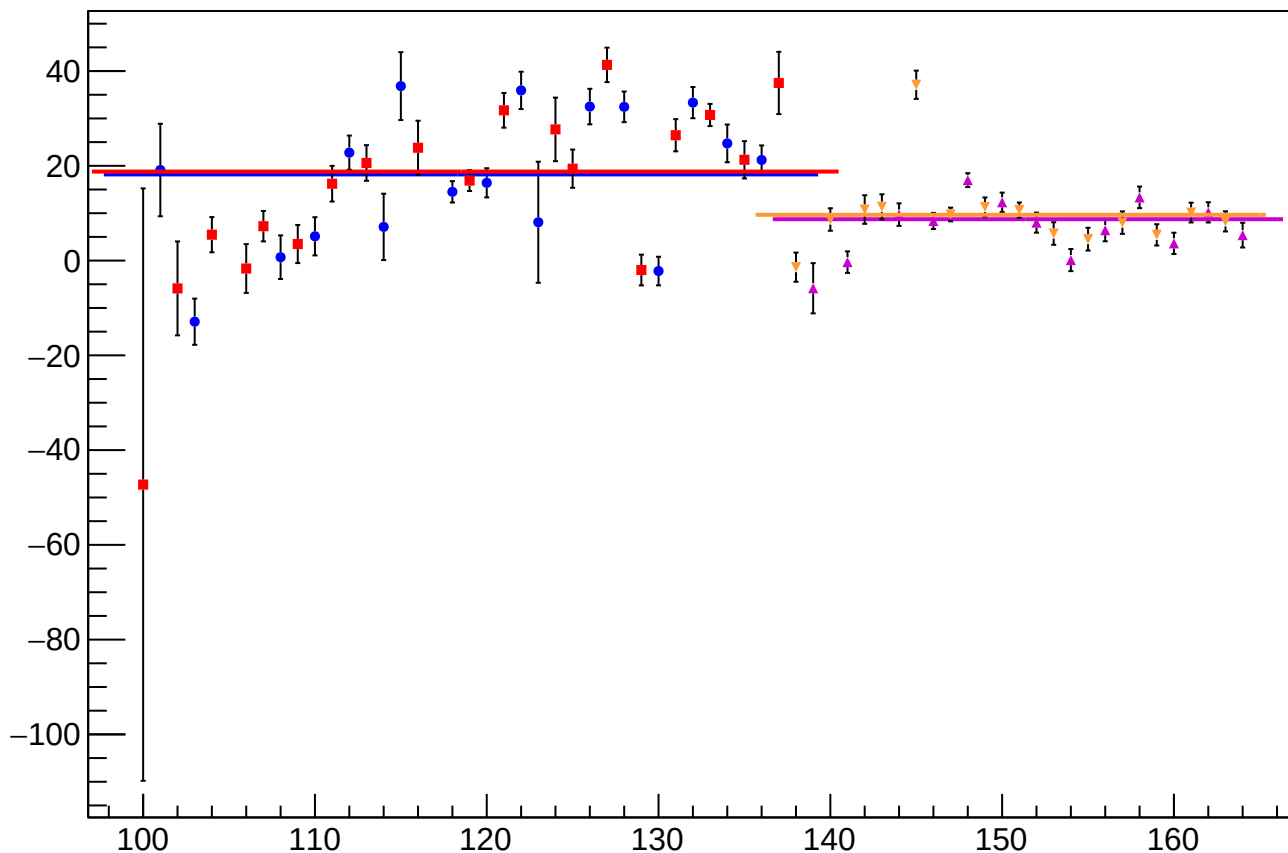
Left In: -53.857+/-0.855  $\chi^2/\text{NDF}$ : 447.3/12

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

All: -56.202+/-0.604  $\chi^2/\text{NDF}$ : 1048.5/26

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

# reg\_asym\_atr1\_diff\_bpm4aY\_slope vs Slug



Right In:  $18.188 \pm 0.917$   $\chi^2/\text{NDF}$ : 204.9/16

Left Out:  $9.668 \pm 0.583$   $\chi^2/\text{NDF}$ : 111.3/13

Right Out:  $18.791 \pm 0.863$   $\chi^2/\text{NDF}$ : 198.8/18

Left In:  $8.733 \pm 0.598$   $\chi^2/\text{NDF}$ : 84.4/12

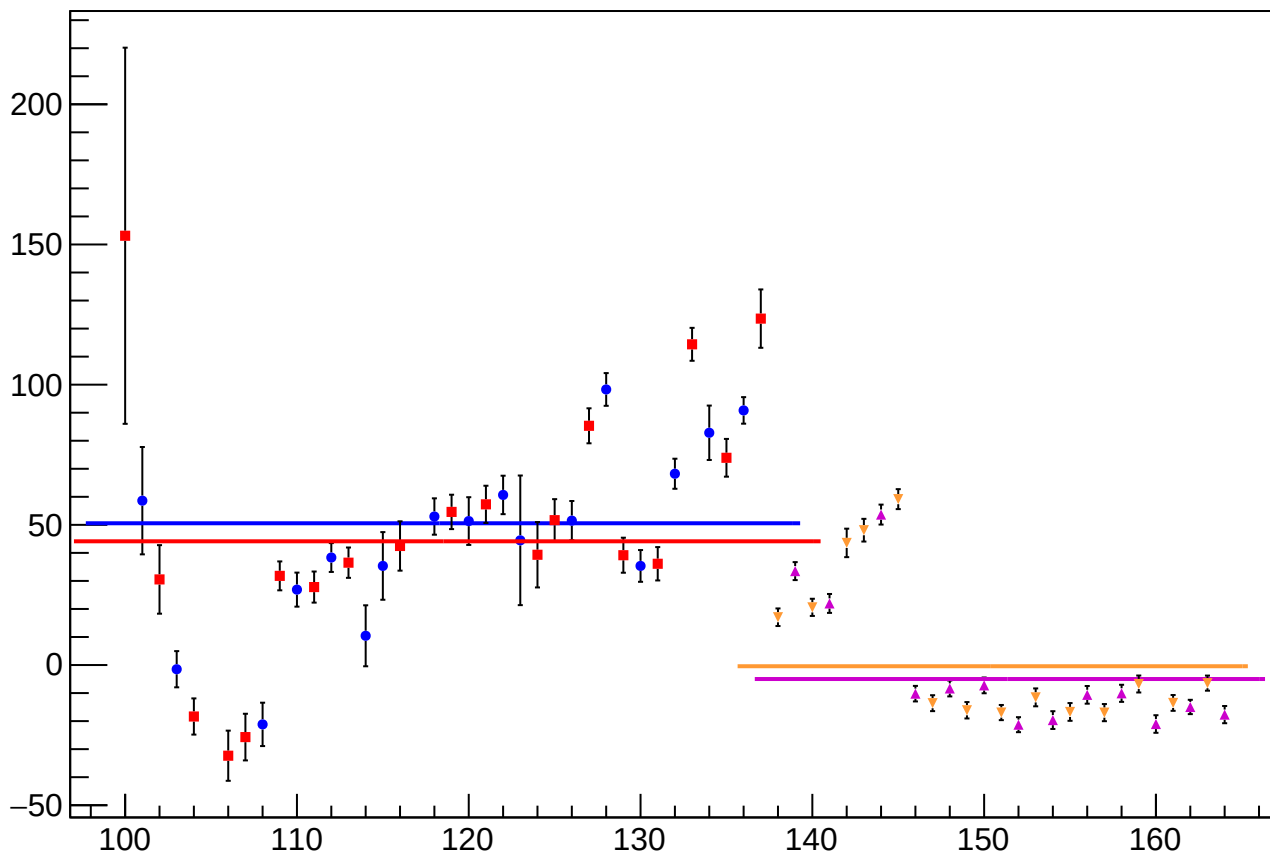
+ sign  $12.119 \pm 0.492$   $\chi^2/\text{NDF}$ : 377.6/30

All:  $12.057 \pm 0.348$   $\chi^2/\text{NDF}$ : 752.6/62

- sign  $11.995 \pm 0.491$   $\chi^2/\text{NDF}$ : 375.0/31



# reg\_asym\_atr1\_diff\_bpm4eX\_slope vs Slug



Right In: 50.565 $\pm$ 1.678  $\chi^2$ /NDF: 357.9/16

Left Out: -0.429 $\pm$ 0.833  $\chi^2$ /NDF: 763.5/13

Right Out: 44.132 $\pm$ 1.603  $\chi^2$ /NDF: 532.5/18

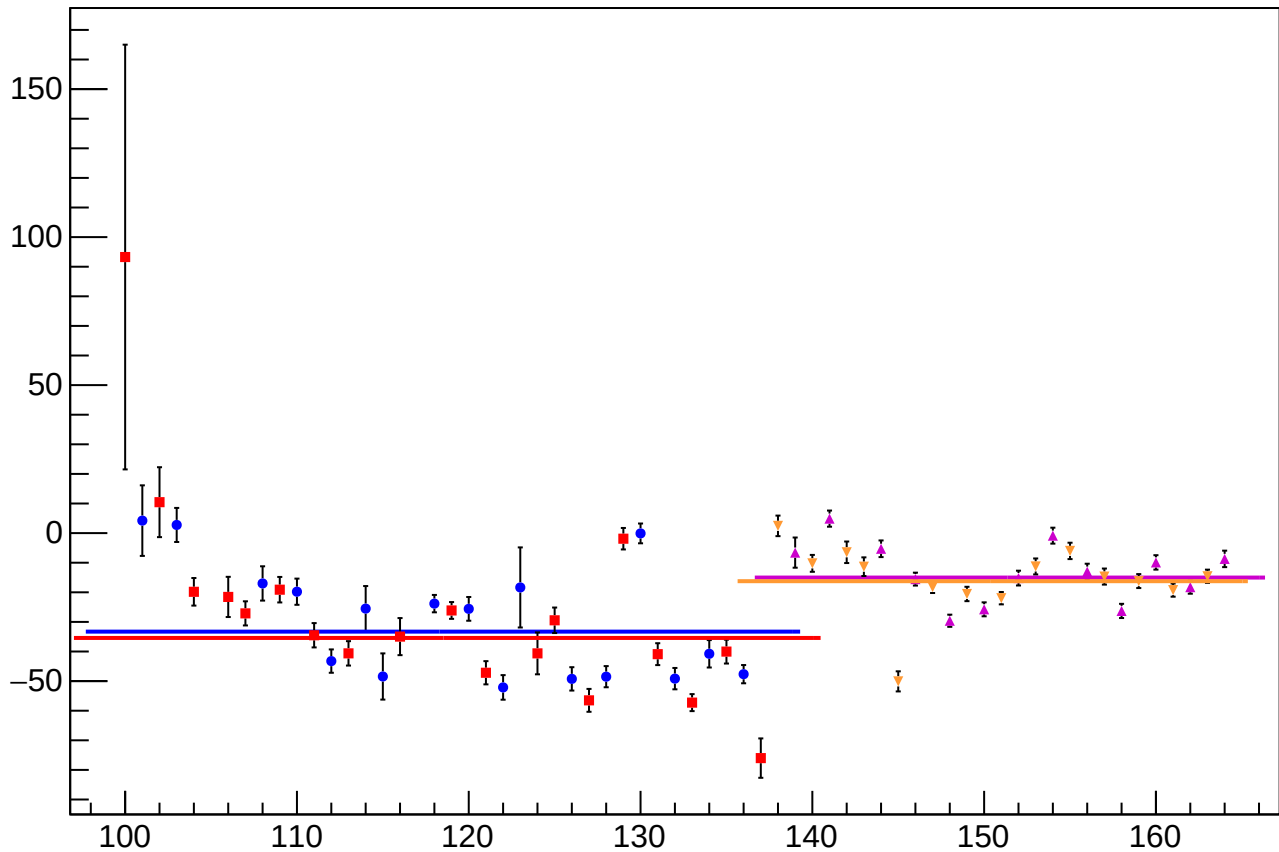
Left In: -4.988 $\pm$ 0.829  $\chi^2$ /NDF: 608.3/12

+ sign 9.650 $\pm$ 0.746  $\chi^2$ /NDF: 1862.8/30

All: 7.491 $\pm$ 0.524  $\chi^2$ /NDF: 3761.4/62

- sign 5.386 $\pm$ 0.736  $\chi^2$ /NDF: 1882.0/31

# reg\_asym\_atr1\_diff\_bpm4eY\_slope vs Slug



Right In:  $-33.281 \pm 1.043$   $\chi^2/\text{NDF}$ : 290.1/16

Left Out:  $-16.243 \pm 0.689$   $\chi^2/\text{NDF}$ : 174.0/13

Right Out:  $-35.417 \pm 0.991$   $\chi^2/\text{NDF}$ : 289.7/18

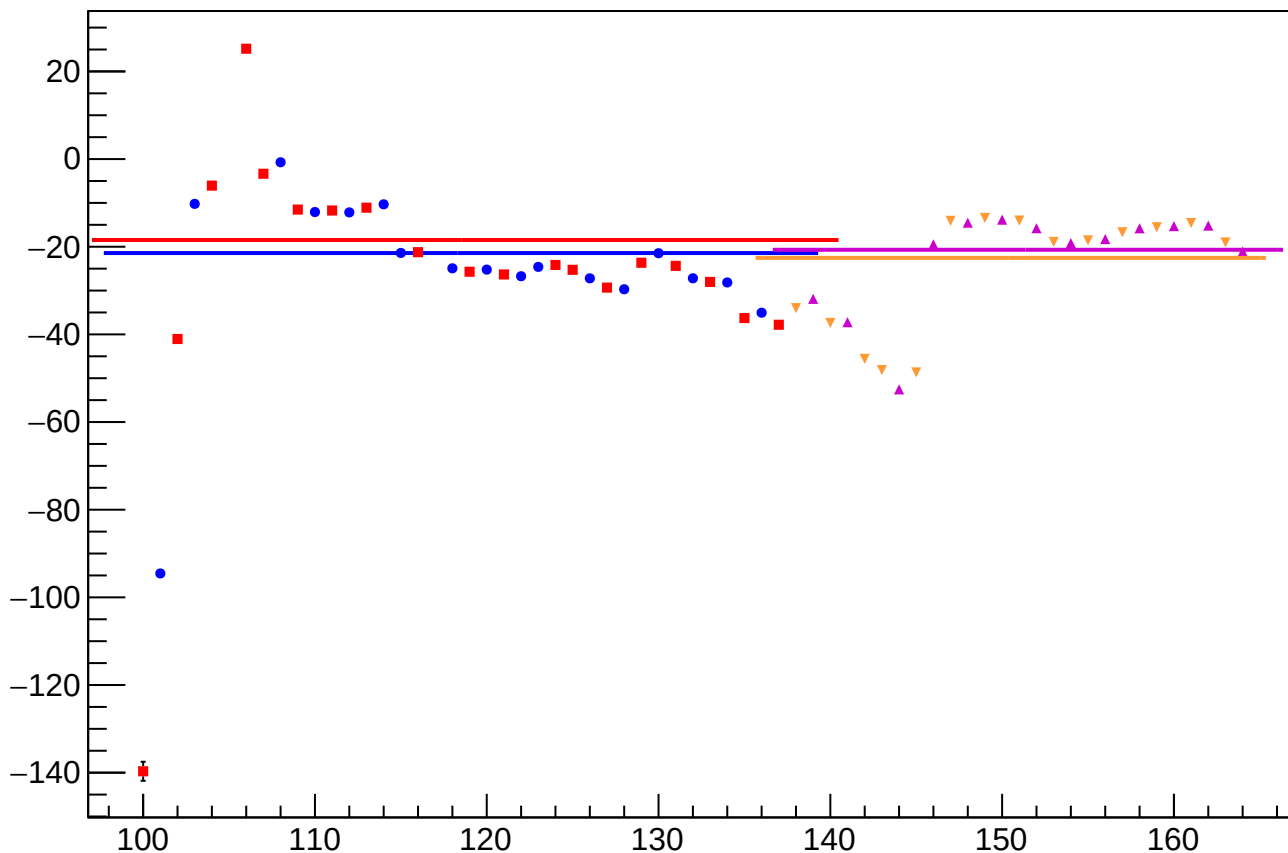
Left In:  $-15.020 \pm 0.700$   $\chi^2/\text{NDF}$ : 201.1/12

+ sign  $-21.413 \pm 0.575$   $\chi^2/\text{NDF}$ : 649.8/30

All:  $-21.613 \pm 0.405$   $\chi^2/\text{NDF}$ : 1423.3/62

- sign  $-21.810 \pm 0.572$   $\chi^2/\text{NDF}$ : 773.3/31

# reg\_asym\_atr1\_diff\_bpm12X\_slope vs Slug



Right In:  $-21.442 \pm 0.059$   $\chi^2/\text{NDF}$ : 48968.5/16

Left Out:  $-22.543 \pm 0.033$   $\chi^2/\text{NDF}$ : 124543.4/13

Right Out:  $-18.463 \pm 0.057$   $\chi^2/\text{NDF}$ : 80470.6/18

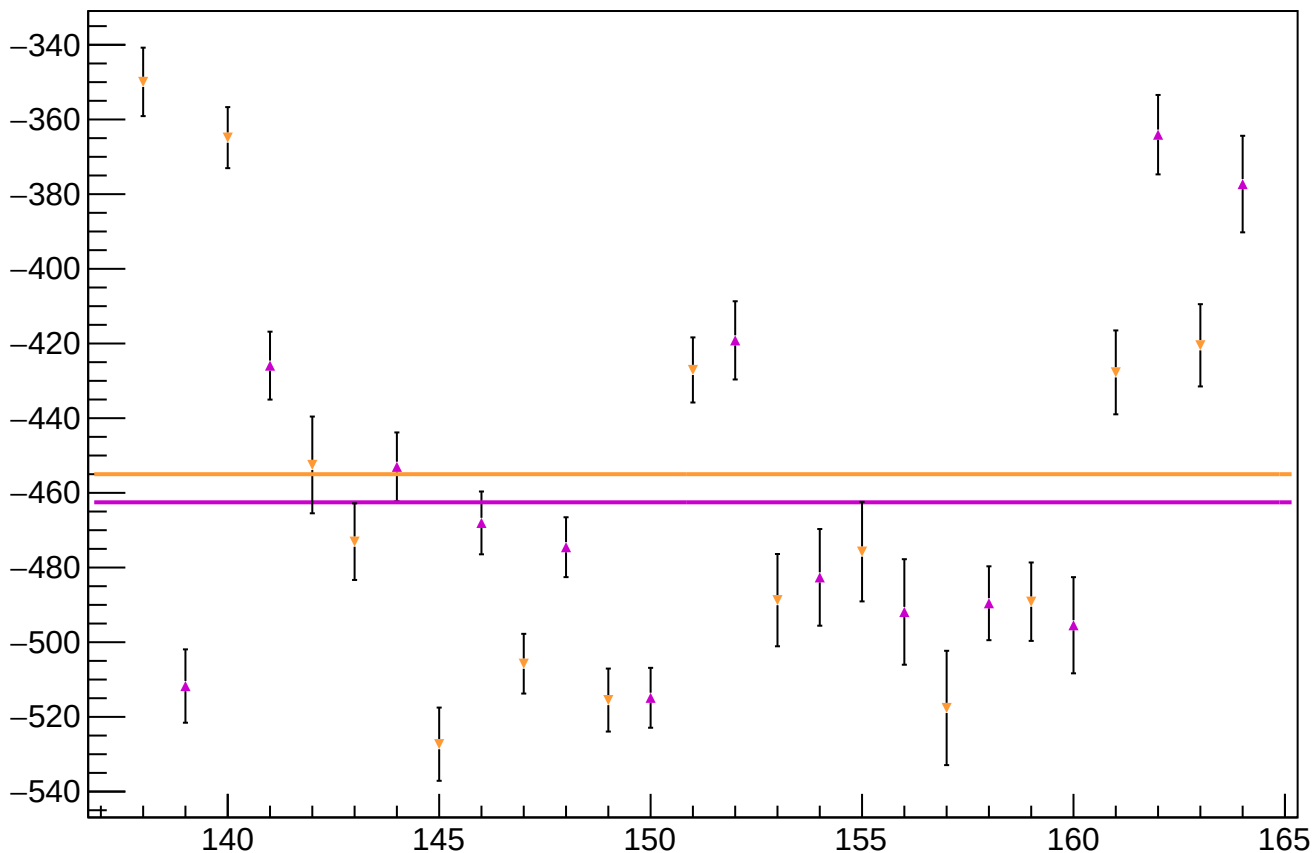
Left In:  $-20.696 \pm 0.032$   $\chi^2/\text{NDF}$ : 82666.0/12

+ sign  $-22.286 \pm 0.028$   $\chi^2/\text{NDF}$ : 173779.5/30

All:  $-21.212 \pm 0.020$   $\chi^2/\text{NDF}$ : 340887.3/62

- sign  $-20.156 \pm 0.028$   $\chi^2/\text{NDF}$ : 164283.9/31

# reg\_asym\_atr2\_diff\_bpm1X\_slope vs Slug



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

Left Out: -455.002 $\pm$ 2.699  $\chi^2$ /NDF:465.4/13

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

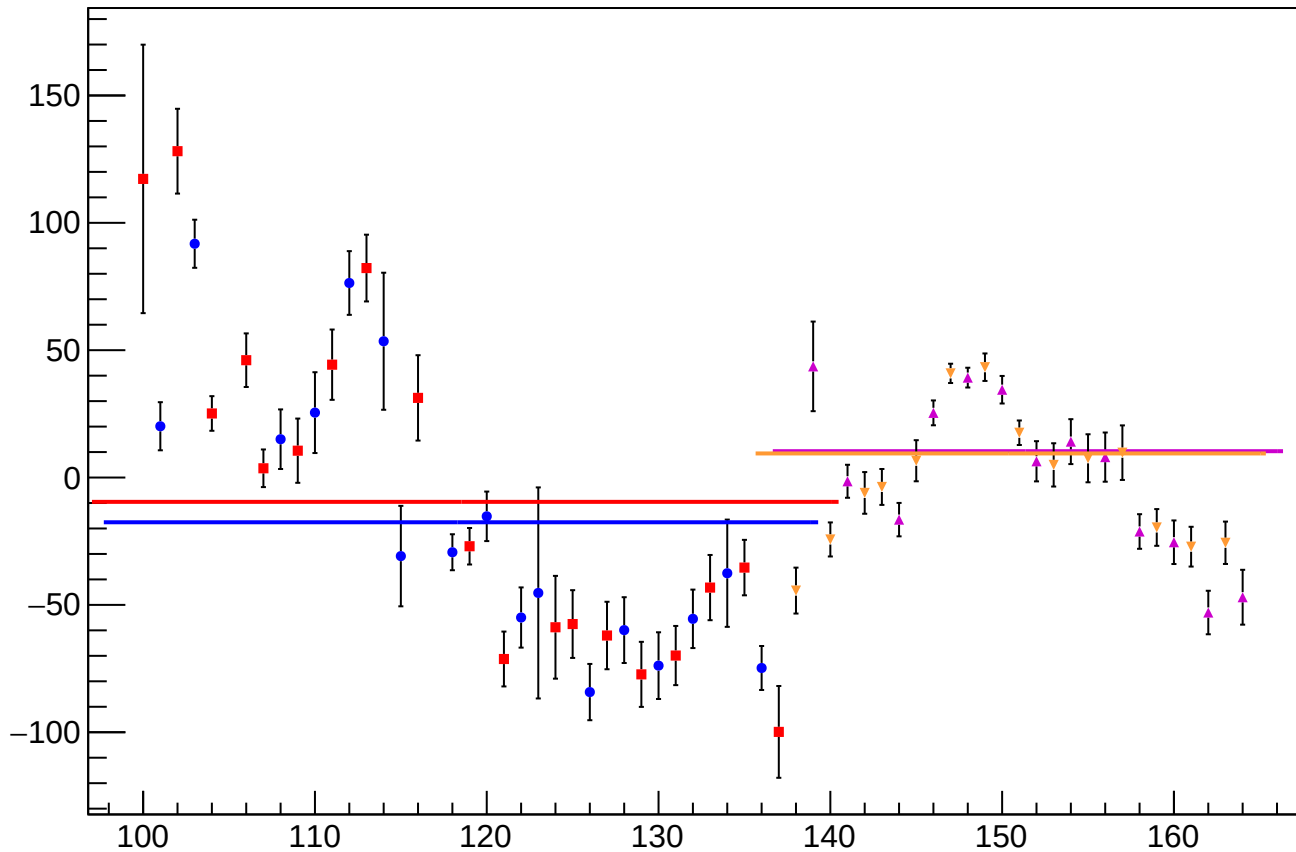
Left In: -462.530 $\pm$ 2.767  $\chi^2$ /NDF:254.6/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: -458.673 $\pm$ 1.932  $\chi^2$ /NDF: 723.8/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

# reg\_asym\_atr2\_diff\_bpm4aY\_slope vs Slug



Right In:  $-17.564 \pm 2.820$   $\chi^2/\text{NDF}$ : 363.7/16

Left Out:  $9.458 \pm 1.778$   $\chi^2/\text{NDF}$ : 235.8/13

Right Out:  $-9.547 \pm 2.609$   $\chi^2/\text{NDF}$ : 370.3/18

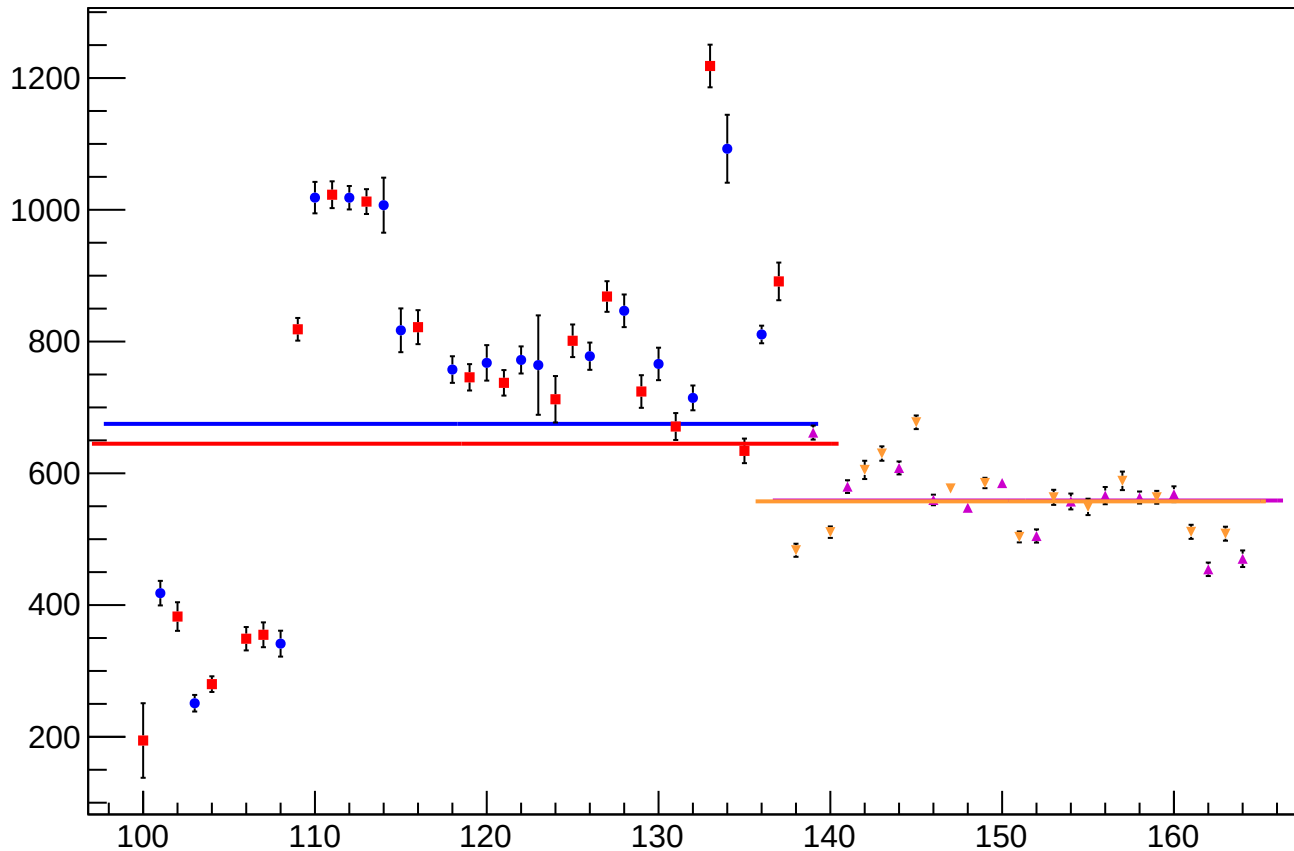
Left In:  $10.344 \pm 1.857$   $\chi^2/\text{NDF}$ : 231.3/12

+ sign  $1.771 \pm 1.504$   $\chi^2/\text{NDF}$ : 665.2/30

All:  $2.708 \pm 1.067$   $\chi^2/\text{NDF}$ : 1306.1/62

- sign  $3.656 \pm 1.513$   $\chi^2/\text{NDF}$ : 640.1/31

# reg\_asym\_atr2\_diff\_bpm4eX\_slope vs Slug



Right In: 675.045+/-5.067  $\chi^2/\text{NDF}$ : 2584.3/16

Left Out: 557.425+/-2.654  $\chi^2/\text{NDF}$ : 382.8/13

Right Out: 644.915+/-4.761  $\chi^2/\text{NDF}$ : 3122.2/18

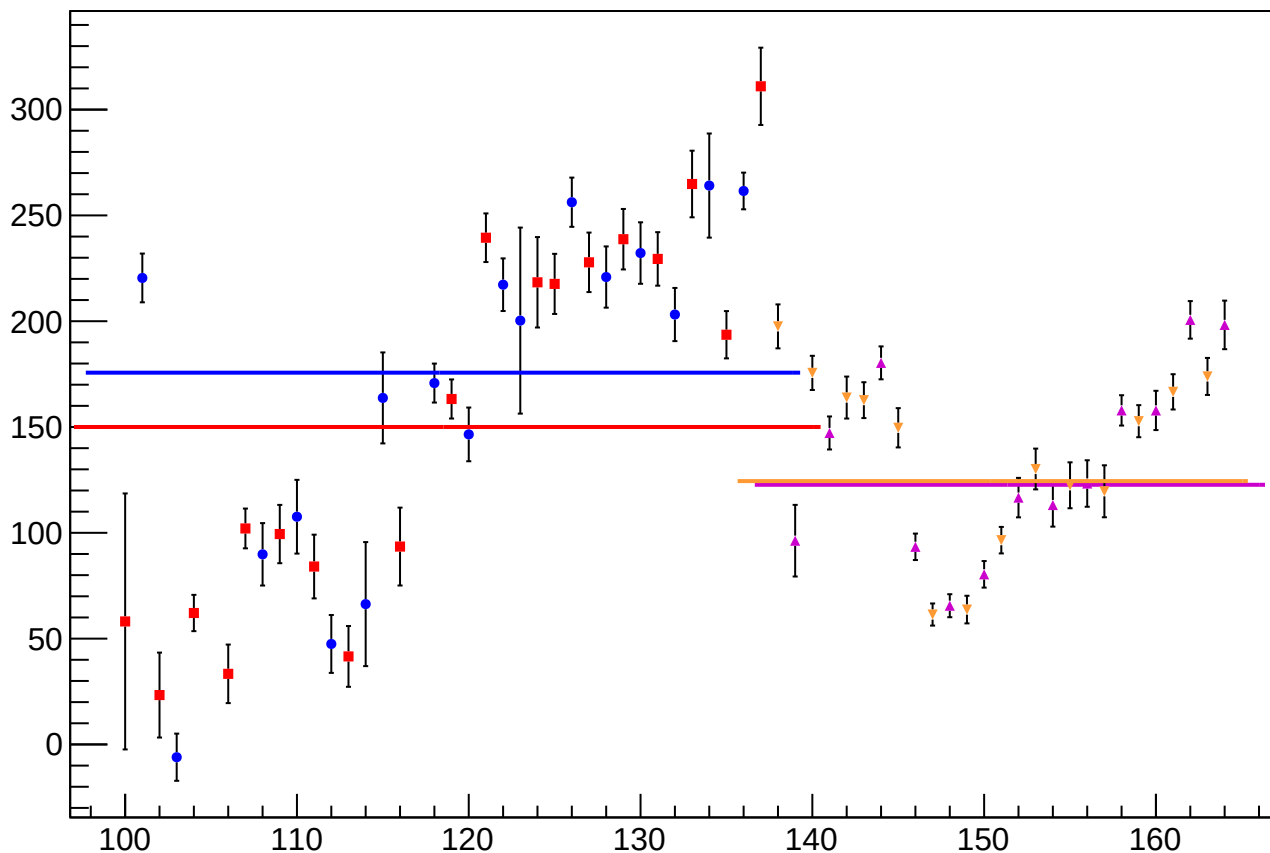
Left In: 558.722+/-2.689  $\chi^2/\text{NDF}$ : 321.6/12

+ sign 582.743+/-2.351  $\chi^2/\text{NDF}$ : 3389.9/30

All: 581.150+/-1.659  $\chi^2/\text{NDF}$ : 7083.1/62

- sign 579.570+/-2.342  $\chi^2/\text{NDF}$ : 3692.2/31

# reg\_asym\_atr2\_diff\_bpm4eY\_slope vs Slug



Right In:  $175.686 \pm 3.239$   $\chi^2/\text{NDF}$ : 637.9/16

Left Out:  $124.446 \pm 2.148$   $\chi^2/\text{NDF}$ : 457.3/13

Right Out:  $150.017 \pm 3.042$   $\chi^2/\text{NDF}$ : 693.8/18

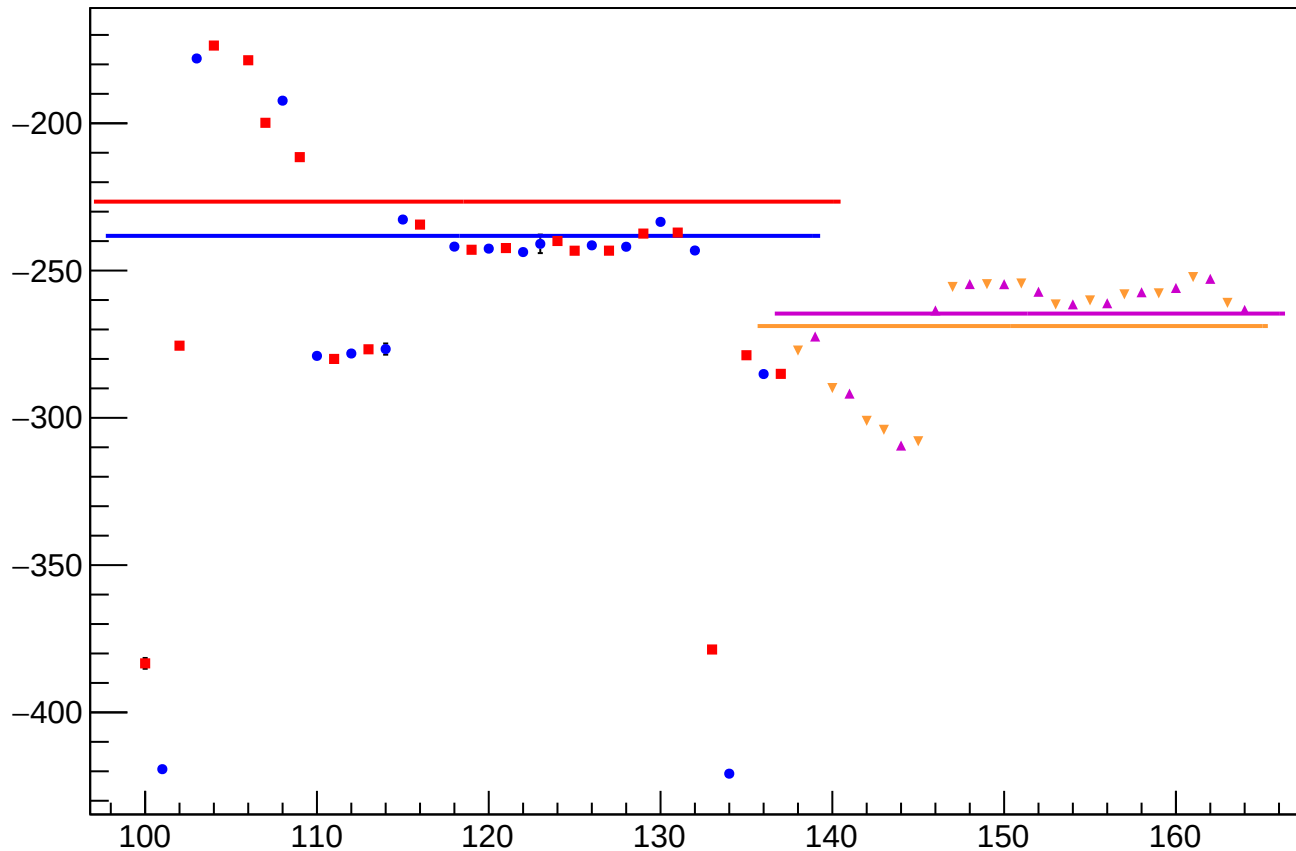
Left In:  $122.703 \pm 2.225$   $\chi^2/\text{NDF}$ : 405.4/12

+ sign  $140.104 \pm 1.790$   $\chi^2/\text{NDF}$ : 1269.1/30

All:  $136.174 \pm 1.268$   $\chi^2/\text{NDF}$ : 2430.4/62

- sign  $132.221 \pm 1.796$   $\chi^2/\text{NDF}$ : 1151.7/31

# reg\_asym\_atr2\_diff\_bpm12X\_slope vs Slug



Right In: -238.217 $\pm$ 0.160  $\chi^2$ /NDF: 167120.0/16

Left Out: -268.839 $\pm$ 0.107  $\chi^2$ /NDF: 31534.8/13

Right Out: -226.597 $\pm$ 0.151  $\chi^2$ /NDF: 102562.3/18

Left In: -264.603 $\pm$ 0.107  $\chi^2$ /NDF: 20252.7/12

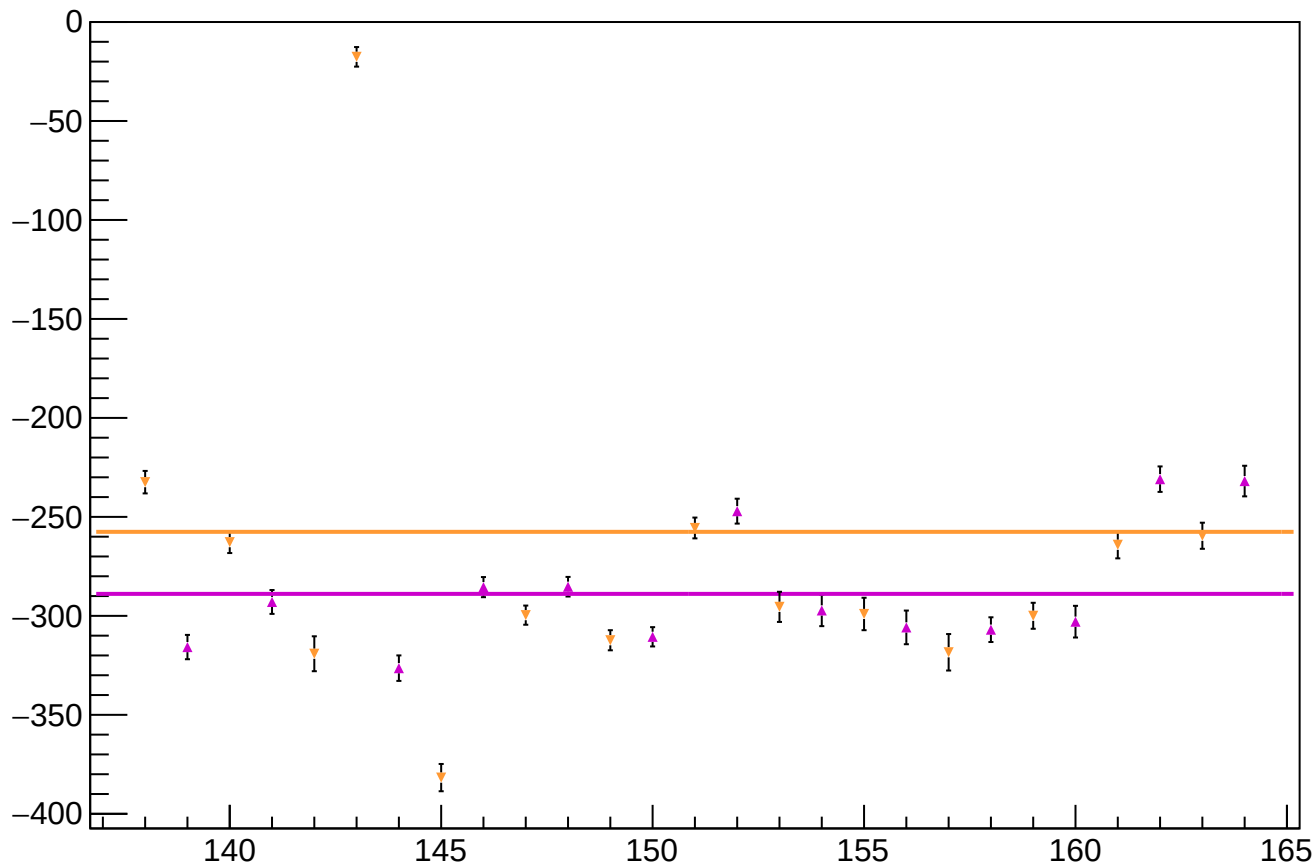
+ sign -259.455 $\pm$ 0.089  $\chi^2$ /NDF: 223914.1/30

All: -255.615 $\pm$ 0.062  $\chi^2$ /NDF: 392447.1/62

- sign -251.893 $\pm$ 0.087  $\chi^2$ /NDF: 164853.5/31



# reg\_asym\_atl\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -257.550+/-1.649  $\chi^2/\text{NDF}$ : 3075.9/13

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

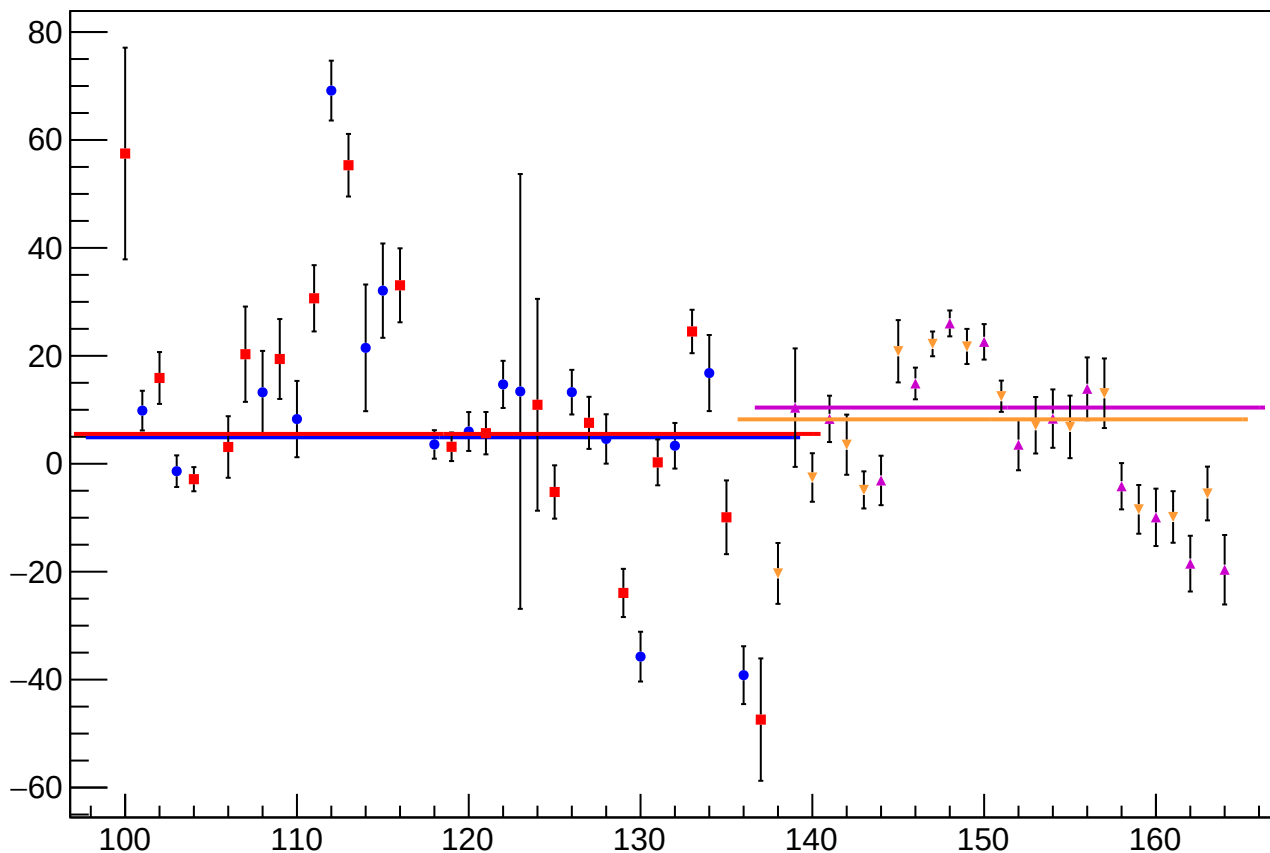
Left In: -288.893+/-1.723  $\chi^2/\text{NDF}$ : 270.5/12

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

All: -272.529+/-1.191  $\chi^2/\text{NDF}$ : 3519.2/26

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

# reg\_asym\_atl\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $4.905 \pm 1.105$   $\chi^2/\text{NDF}: 311.7/16$

Left Out:  $8.231 \pm 1.082$   $\chi^2/\text{NDF}: 144.1/13$

Right Out:  $5.530 \pm 1.069$   $\chi^2/\text{NDF}: 238.9/18$

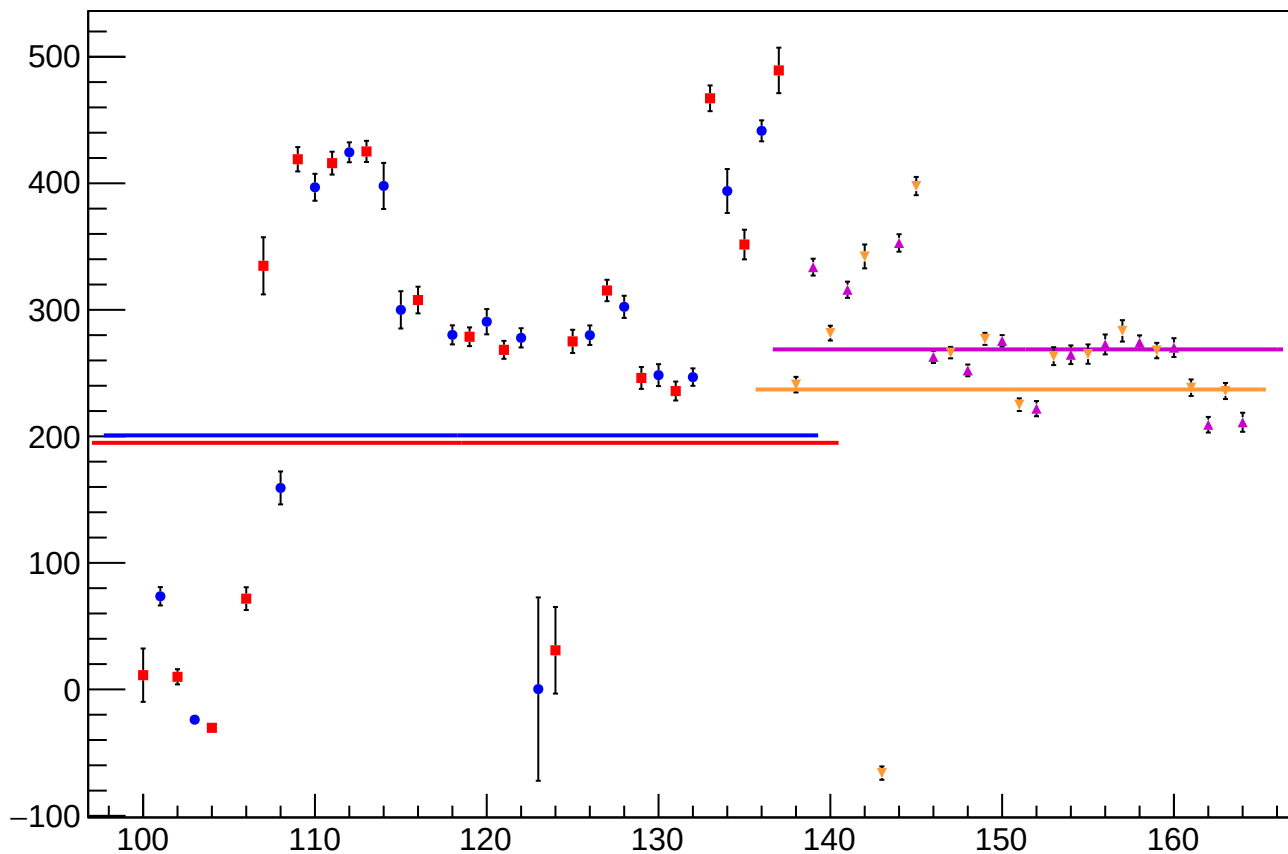
Left In:  $10.415 \pm 1.153$   $\chi^2/\text{NDF}: 149.1/12$

+ sign  $6.604 \pm 0.773$   $\chi^2/\text{NDF}: 460.4/30$

All:  $7.187 \pm 0.550$   $\chi^2/\text{NDF}: 859.2/62$

- sign  $7.786 \pm 0.784$   $\chi^2/\text{NDF}: 397.7/31$

# reg\_asym\_atl\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: 200.773 $\pm$ 1.983  $\chi^2$ /NDF: 6733.0/16

Left Out: 237.048 $\pm$ 1.620  $\chi^2$ /NDF: 4176.6/13

Right Out: 194.892 $\pm$ 1.924  $\chi^2$ /NDF: 8247.1/18

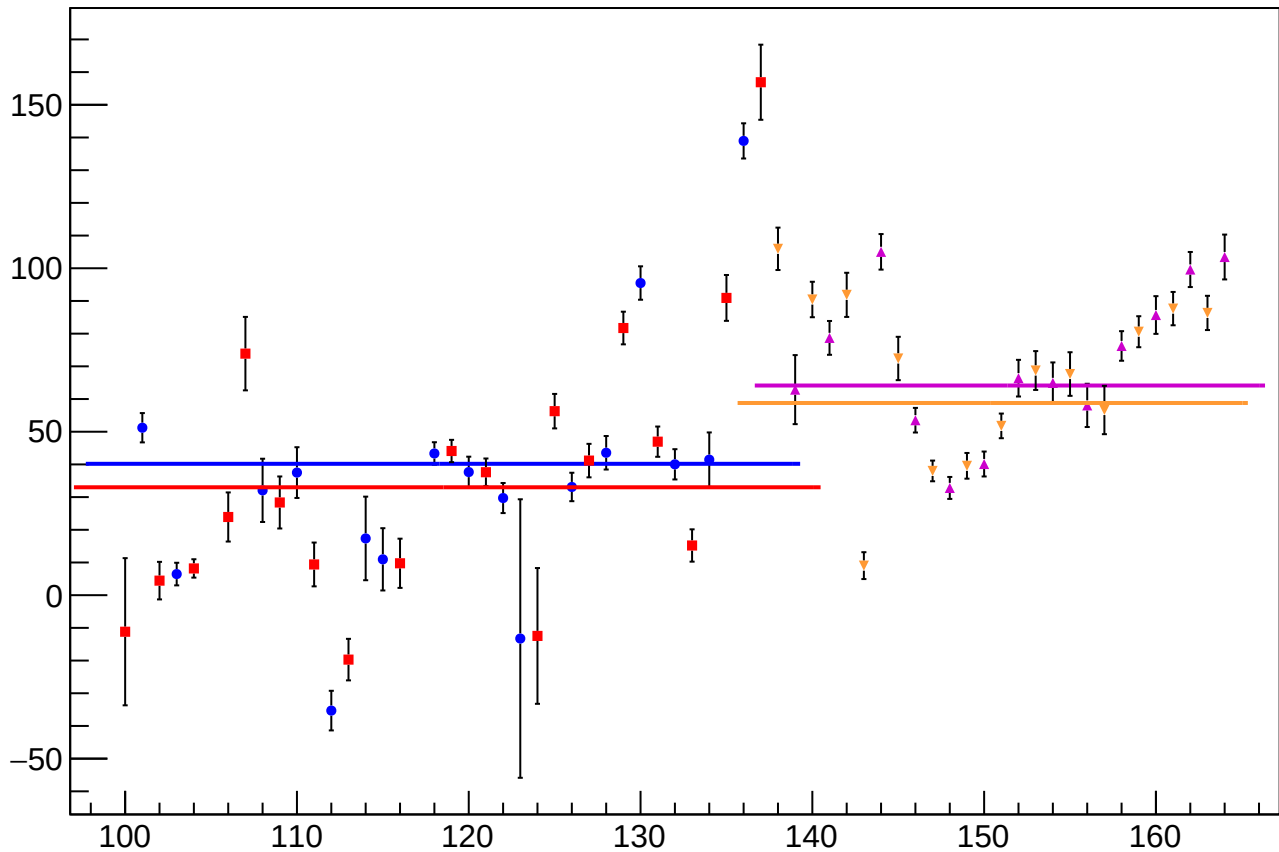
Left In: 268.732 $\pm$ 1.670  $\chi^2$ /NDF: 527.7/12

+ sign 222.531 $\pm$ 1.255  $\chi^2$ /NDF: 11110.3/30

All: 229.733 $\pm$ 0.889  $\chi^2$ /NDF: 20791.6/62

- sign 237.008 $\pm$ 1.261  $\chi^2$ /NDF: 9615.1/31

# reg\_asym\_atl\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 40.185+/-1.283  $\chi^2/\text{NDF}$ : 734.6/16

Left Out: 58.791+/-1.307  $\chi^2/\text{NDF}$ : 417.7/13

Right Out: 33.006+/-1.250  $\chi^2/\text{NDF}$ : 552.7/18

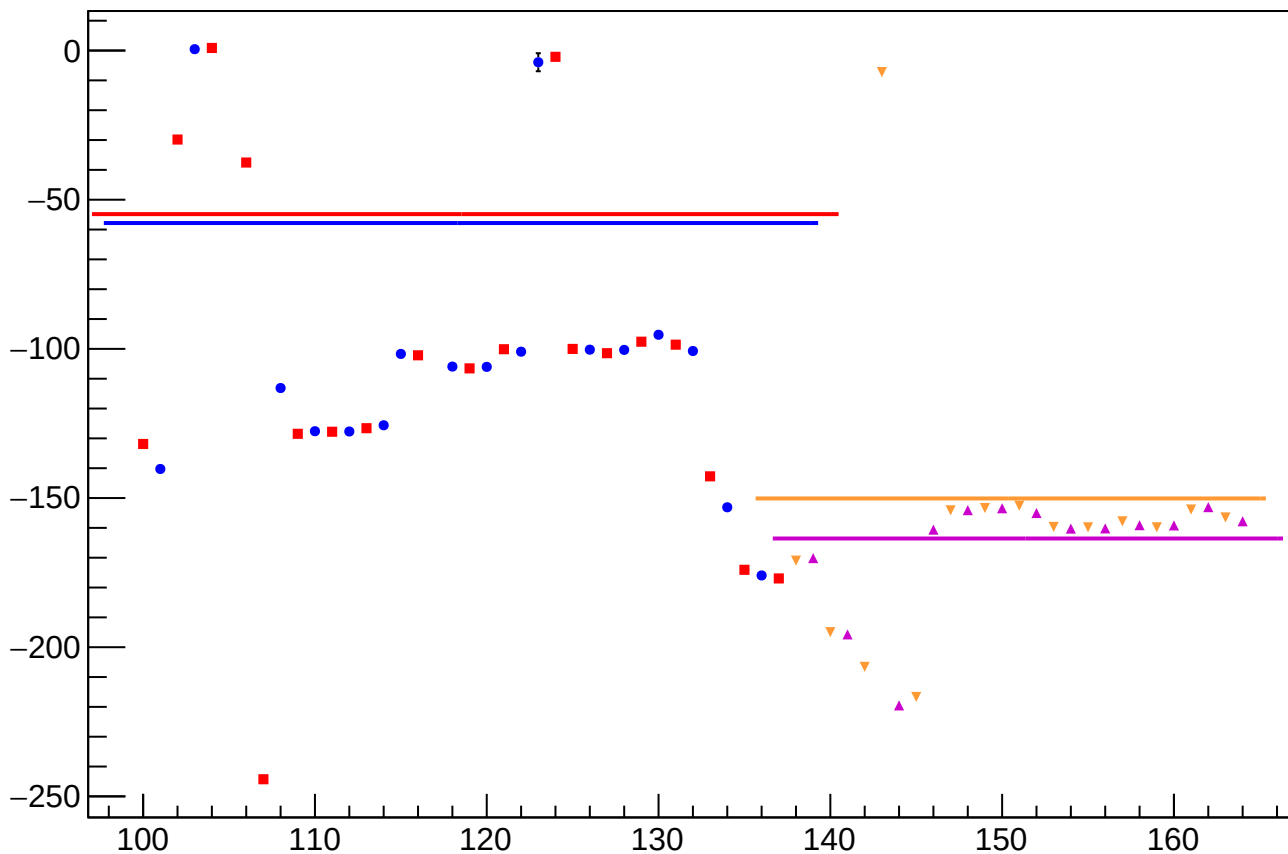
Left In: 64.133+/-1.383  $\chi^2/\text{NDF}$ : 297.8/12

+ sign 49.314+/-0.916  $\chi^2/\text{NDF}$ : 1255.5/30

All: 48.176+/-0.652  $\chi^2/\text{NDF}$ : 2387.9/62

- sign 47.010+/-0.927  $\chi^2/\text{NDF}$ : 1129.3/31

# reg\_asym\_atl\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-57.821 \pm 0.062$   $\chi^2/\text{NDF}$ : 1101296.2/16

Left Out:  $-150.142 \pm 0.065$   $\chi^2/\text{NDF}$ : 579579.9/13

Right Out:  $-54.833 \pm 0.060$   $\chi^2/\text{NDF}$ : 1000741.7/18

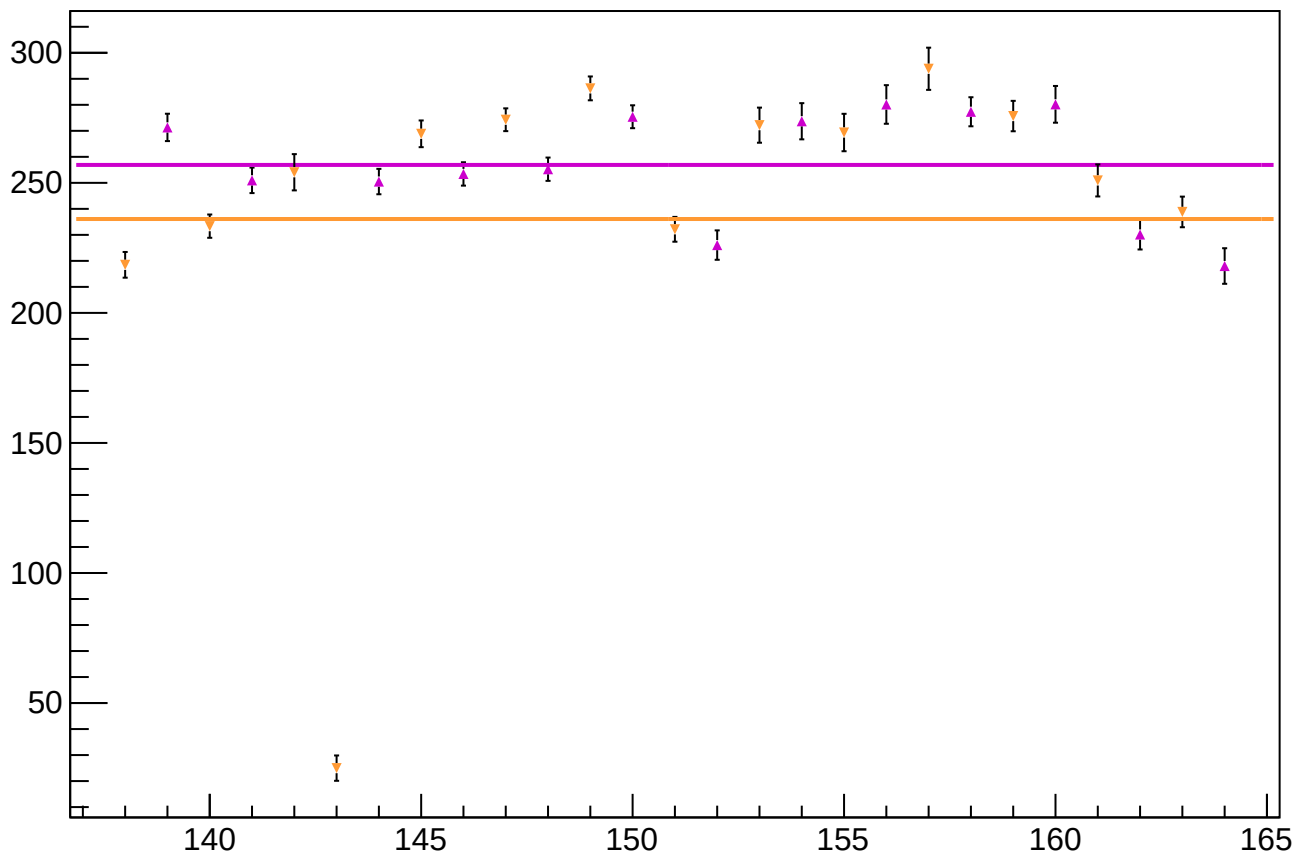
Left In:  $-163.563 \pm 0.067$   $\chi^2/\text{NDF}$ : 60153.3/12

+ sign  $-101.604 \pm 0.045$   $\chi^2/\text{NDF}$ : 2739613.2/30

All:  $-102.719 \pm 0.032$   $\chi^2/\text{NDF}$ : 5270076.6/62

- sign  $-103.826 \pm 0.045$   $\chi^2/\text{NDF}$ : 2529228.3/31

# reg\_asym\_atl\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 236.098+/-1.449  $\chi^2/\text{NDF}$ :2288.9/13

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

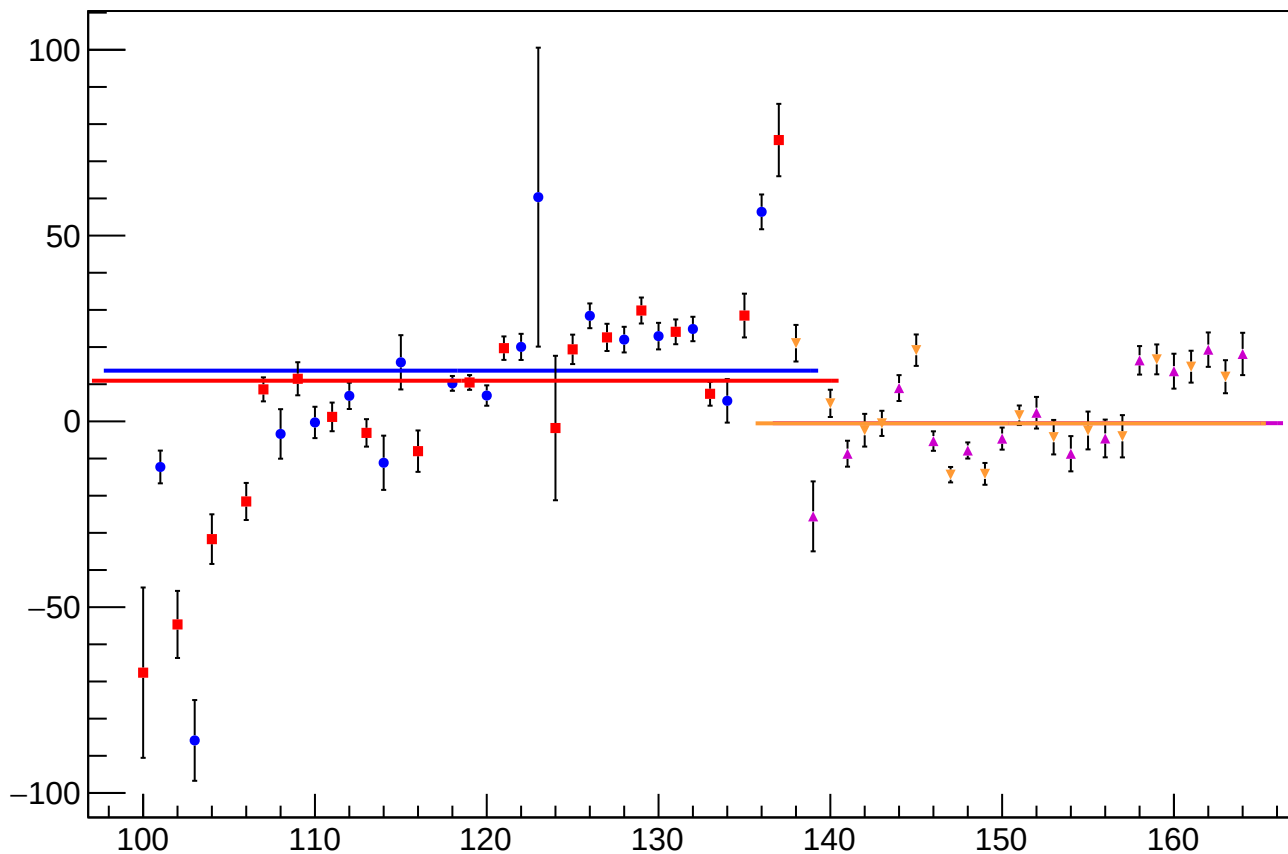
Left In: 256.889+/-1.500  $\chi^2/\text{NDF}$ :152.6/12

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

All: 246.136+/-1.042  $\chi^2/\text{NDF}$ : 2540.8/26

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

# reg\_asym\_atl\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $13.652 \pm 0.936$   $\chi^2/\text{NDF}$ : 294.0/16

Left Out:  $-0.528 \pm 0.960$   $\chi^2/\text{NDF}$ : 149.7/13

Right Out:  $10.944 \pm 0.913$   $\chi^2/\text{NDF}$ : 302.5/18

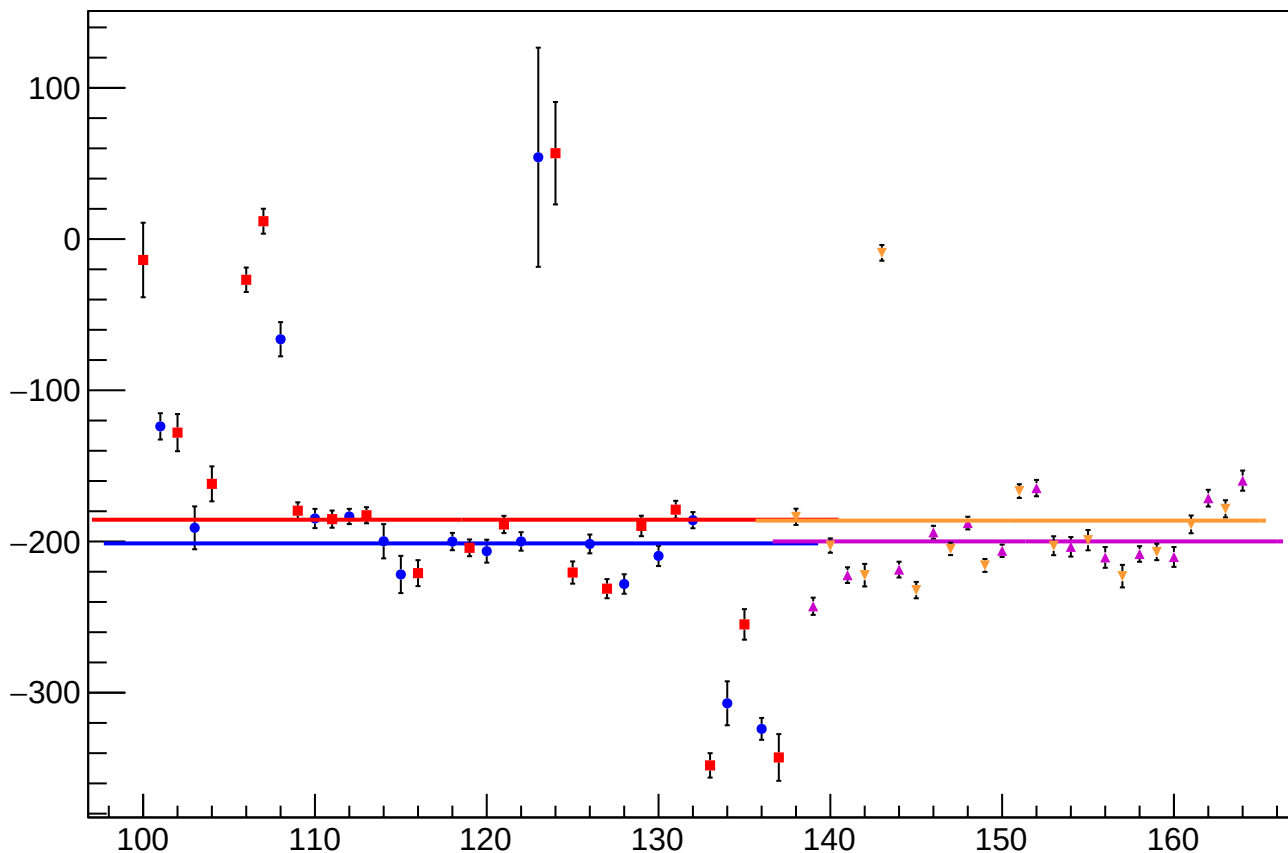
Left In:  $-0.480 \pm 1.012$   $\chi^2/\text{NDF}$ : 98.2/12

+ sign  $6.739 \pm 0.670$   $\chi^2/\text{NDF}$ : 555.5/30

All:  $6.284 \pm 0.477$   $\chi^2/\text{NDF}$ : 1027.4/62

- sign  $5.818 \pm 0.678$   $\chi^2/\text{NDF}$ : 470.9/31

# reg\_asym\_atl\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-201.266 \pm 1.795$   $\chi^2/\text{NDF}$ : 623.4/16

Left Out:  $-186.185 \pm 1.428$   $\chi^2/\text{NDF}$ : 1406.5/13

Right Out:  $-185.593 \pm 1.699$   $\chi^2/\text{NDF}$ : 1746.0/18

Left In:  $-199.949 \pm 1.460$   $\chi^2/\text{NDF}$ : 213.5/12

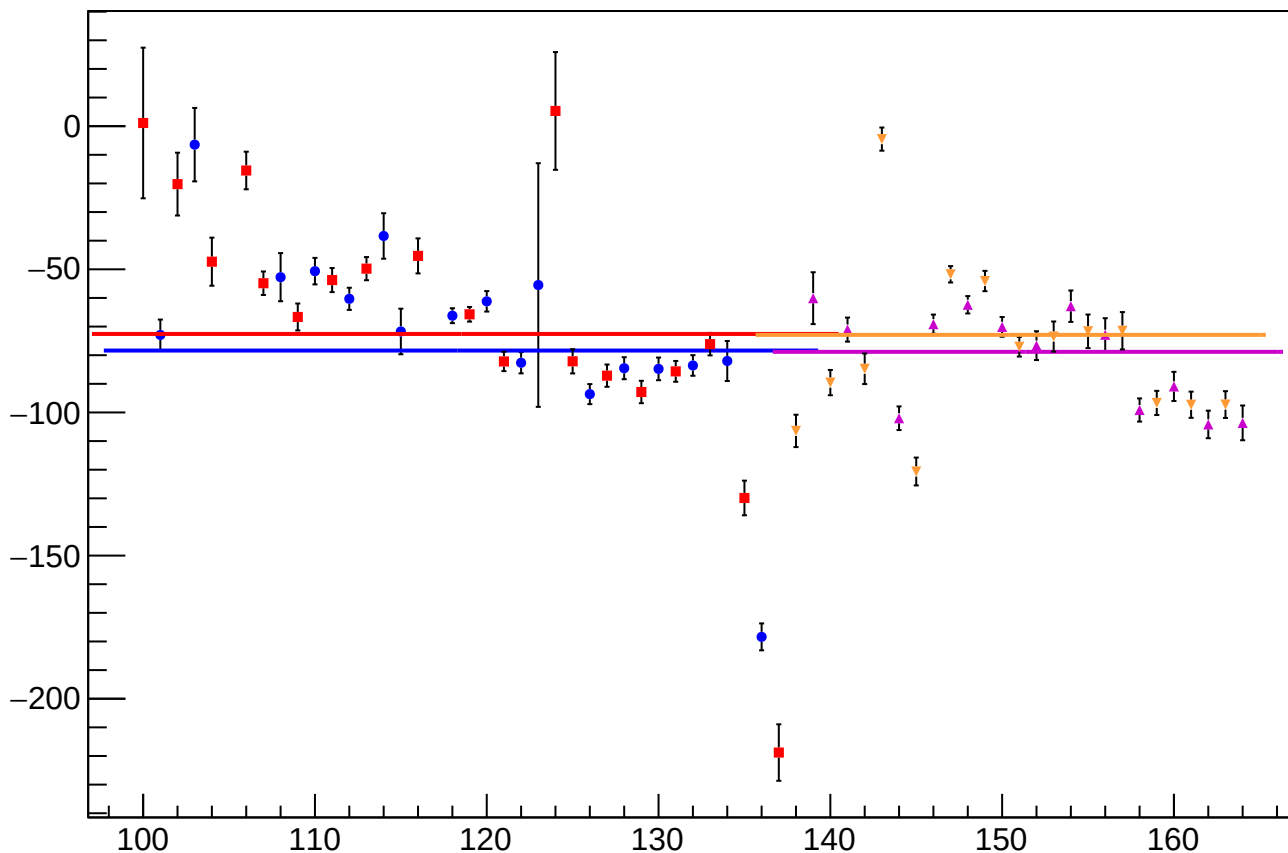
+ sign  $-192.031 \pm 1.118$   $\chi^2/\text{NDF}$ : 2073.1/30

All:  $-192.950 \pm 0.787$   $\chi^2/\text{NDF}$ : 4075.1/62

- sign  $-193.852 \pm 1.107$   $\chi^2/\text{NDF}$ : 2000.6/31



# reg\_asym\_atl\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-78.376 \pm 1.081$   $\chi^2/\text{NDF}$ : 651.4/16

Left Out:  $-72.897 \pm 1.158$   $\chi^2/\text{NDF}$ : 608.0/13

Right Out:  $-72.577 \pm 1.052$   $\chi^2/\text{NDF}$ : 605.8/18

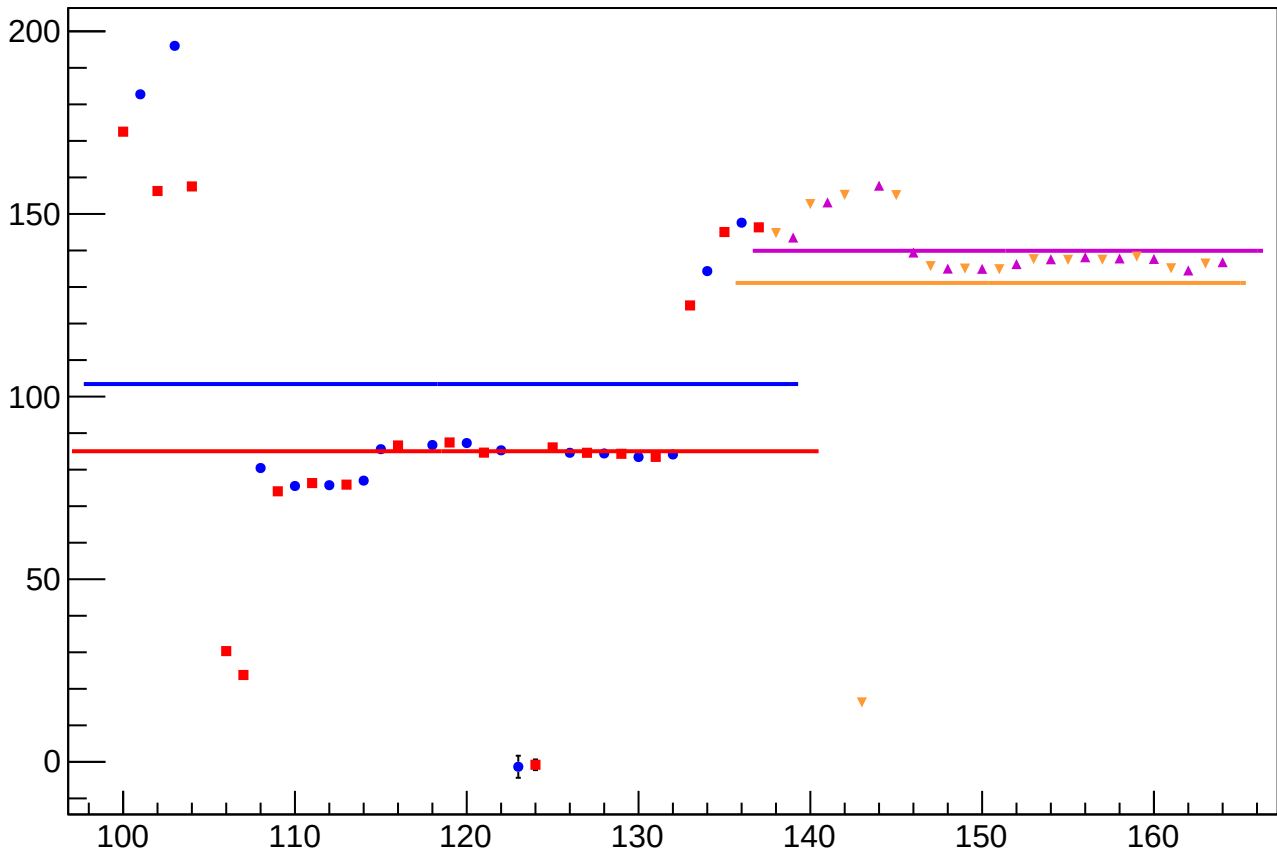
Left In:  $-78.827 \pm 1.211$   $\chi^2/\text{NDF}$ : 168.3/12

+ sign  $-75.824 \pm 0.790$   $\chi^2/\text{NDF}$ : 1271.3/30

All:  $-75.545 \pm 0.560$   $\chi^2/\text{NDF}$ : 2060.9/62

- sign  $-75.263 \pm 0.794$   $\chi^2/\text{NDF}$ : 789.3/31

# reg\_asym\_atl\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 103.436 $\pm$ 0.071  $\chi^2$ /NDF: 272785.6/16

Left Out: 131.117 $\pm$ 0.057  $\chi^2$ /NDF: 344925.1/13

Right Out: 85.043 $\pm$ 0.064  $\chi^2$ /NDF: 422343.0/18

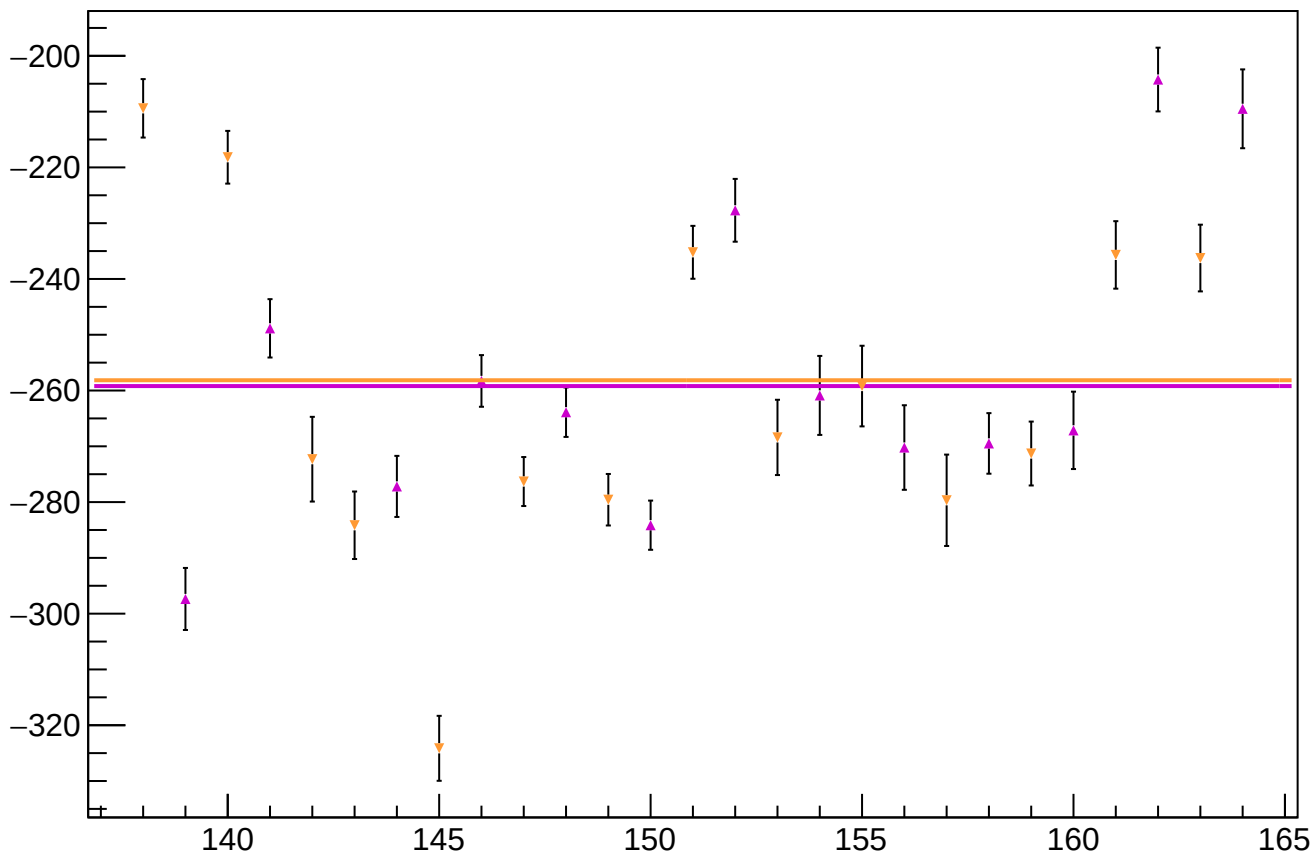
Left In: 139.918 $\pm$ 0.058  $\chi^2$ /NDF: 13310.6/12

+ sign 120.175 $\pm$ 0.045  $\chi^2$ /NDF: 709938.4/30

All: 117.483 $\pm$ 0.031  $\chi^2$ /NDF: 1556985.1/62

- sign 114.980 $\pm$ 0.043  $\chi^2$ /NDF: 840005.0/31

# reg\_asym\_atr\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -258.159+/-1.507  $\chi^2/\text{NDF}$ : 412.2/13

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

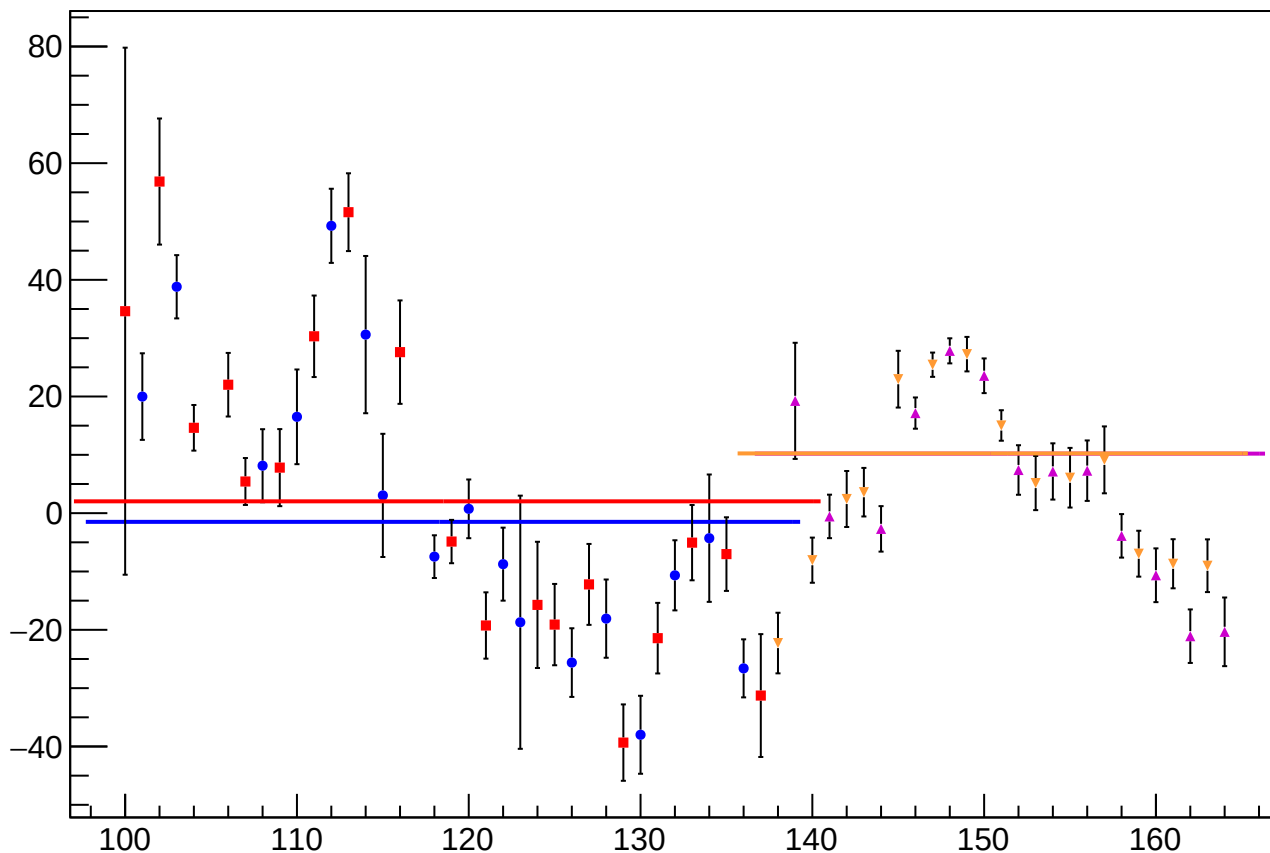
Left In: -259.201+/-1.533  $\chi^2/\text{NDF}$ : 275.3/12

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

All: -258.671+/-1.075  $\chi^2/\text{NDF}$ : 687.7/26

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

# reg\_asym\_atr\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-1.490 \pm 1.536$   $\chi^2/\text{NDF}$ : 226.0/16

Left Out:  $10.241 \pm 0.988$   $\chi^2/\text{NDF}$ : 222.8/13

Right Out:  $2.028 \pm 1.400$   $\chi^2/\text{NDF}$ : 233.3/18

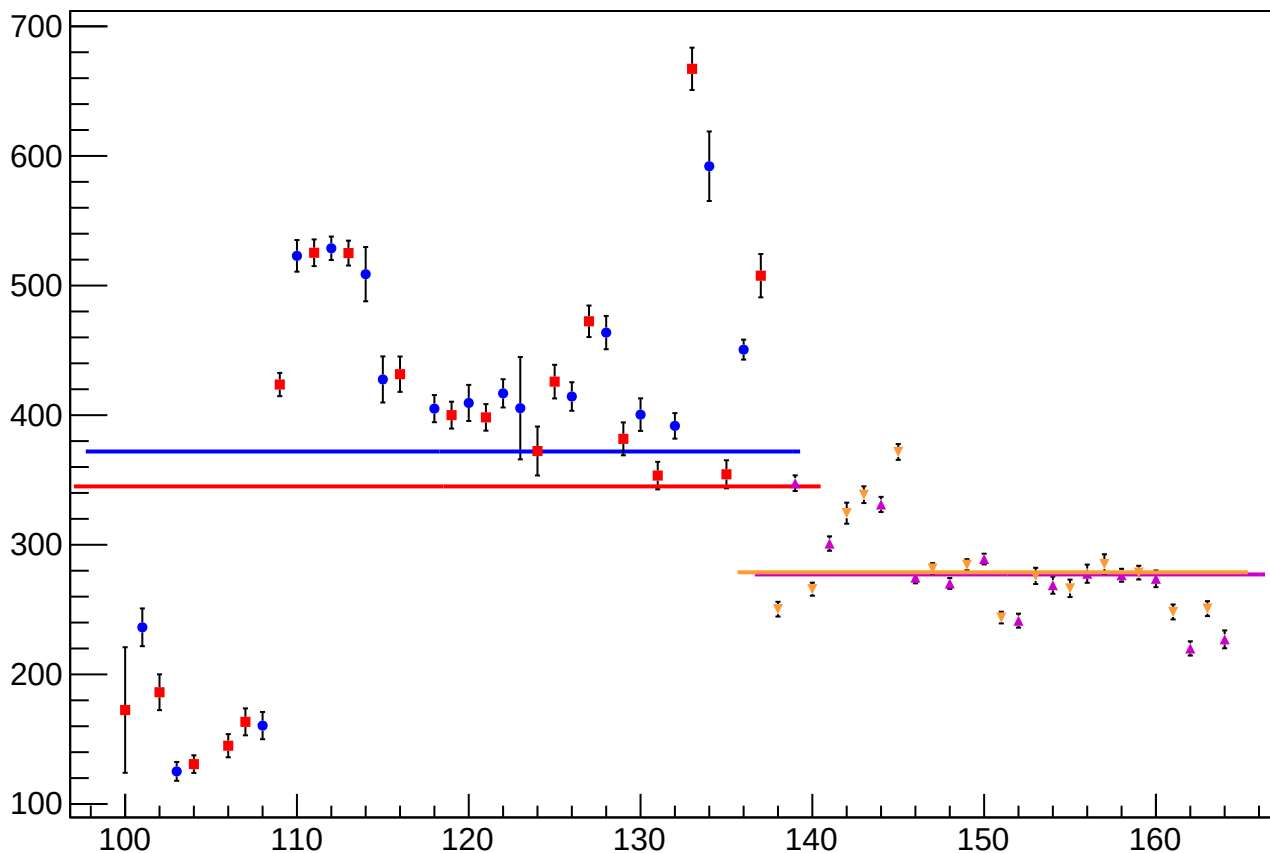
Left In:  $10.205 \pm 1.027$   $\chi^2/\text{NDF}$ : 223.6/12

+ sign  $6.807 \pm 0.831$   $\chi^2/\text{NDF}$ : 490.0/30

All:  $7.076 \pm 0.587$   $\chi^2/\text{NDF}$ : 969.2/62

- sign  $7.342 \pm 0.828$   $\chi^2/\text{NDF}$ : 479.0/31

# reg\_asym\_atr\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $371.975 \pm 2.778$   $\chi^2/\text{NDF}: 2432.6/16$

Left Out:  $278.762 \pm 1.476$   $\chi^2/\text{NDF}: 498.3/13$

Right Out:  $345.043 \pm 2.562$   $\chi^2/\text{NDF}: 3415.2/18$

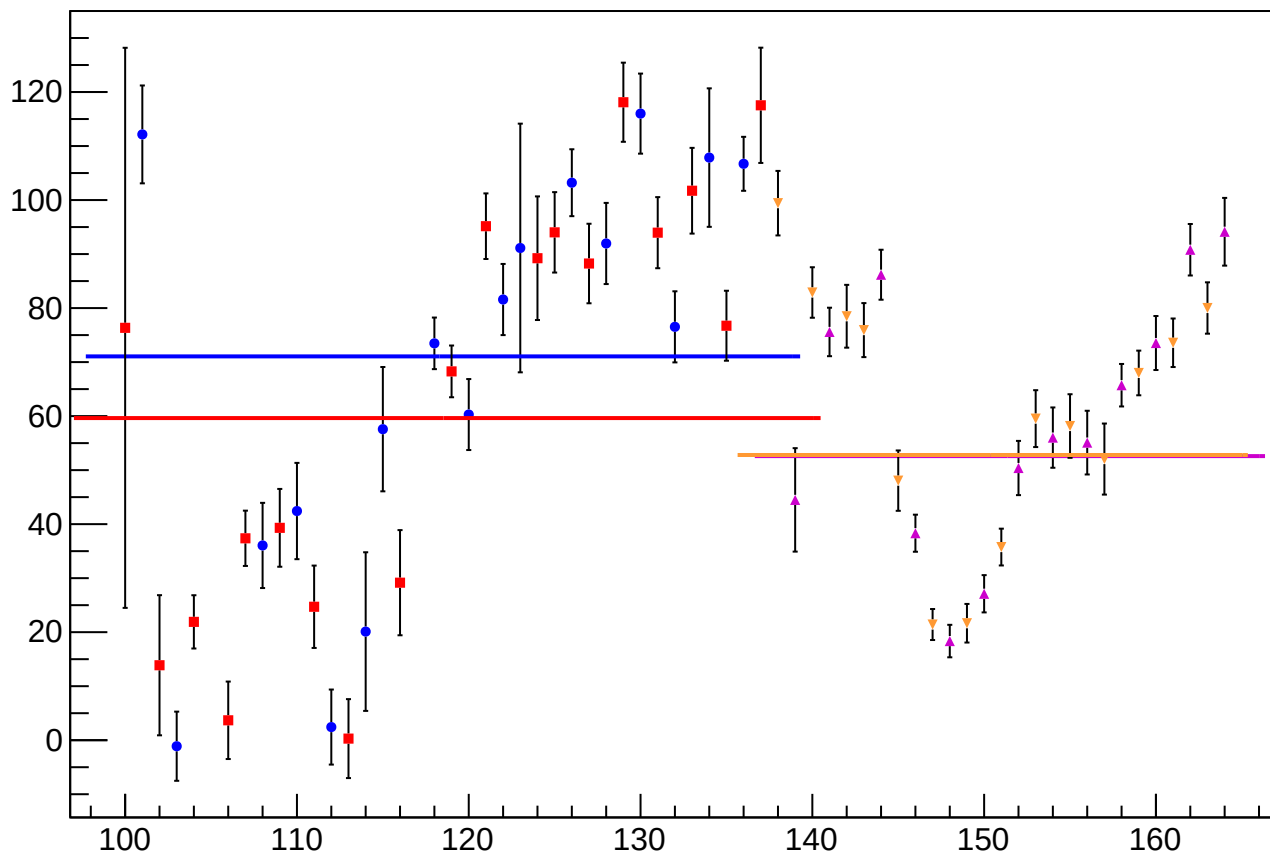
Left In:  $277.112 \pm 1.486$   $\chi^2/\text{NDF}: 457.5/12$

+ sign  $299.280 \pm 1.303$   $\chi^2/\text{NDF}: 3809.1/30$

All:  $296.715 \pm 0.915$   $\chi^2/\text{NDF}: 8215.4/62$

- sign  $294.219 \pm 1.286$   $\chi^2/\text{NDF}: 4398.6/31$

# reg\_asym\_atr\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $71.056 \pm 1.764$   $\chi^2/\text{NDF}: 426.2/16$

Left Out:  $52.802 \pm 1.194$   $\chi^2/\text{NDF}: 434.7/13$

Right Out:  $59.637 \pm 1.631$   $\chi^2/\text{NDF}: 491.6/18$

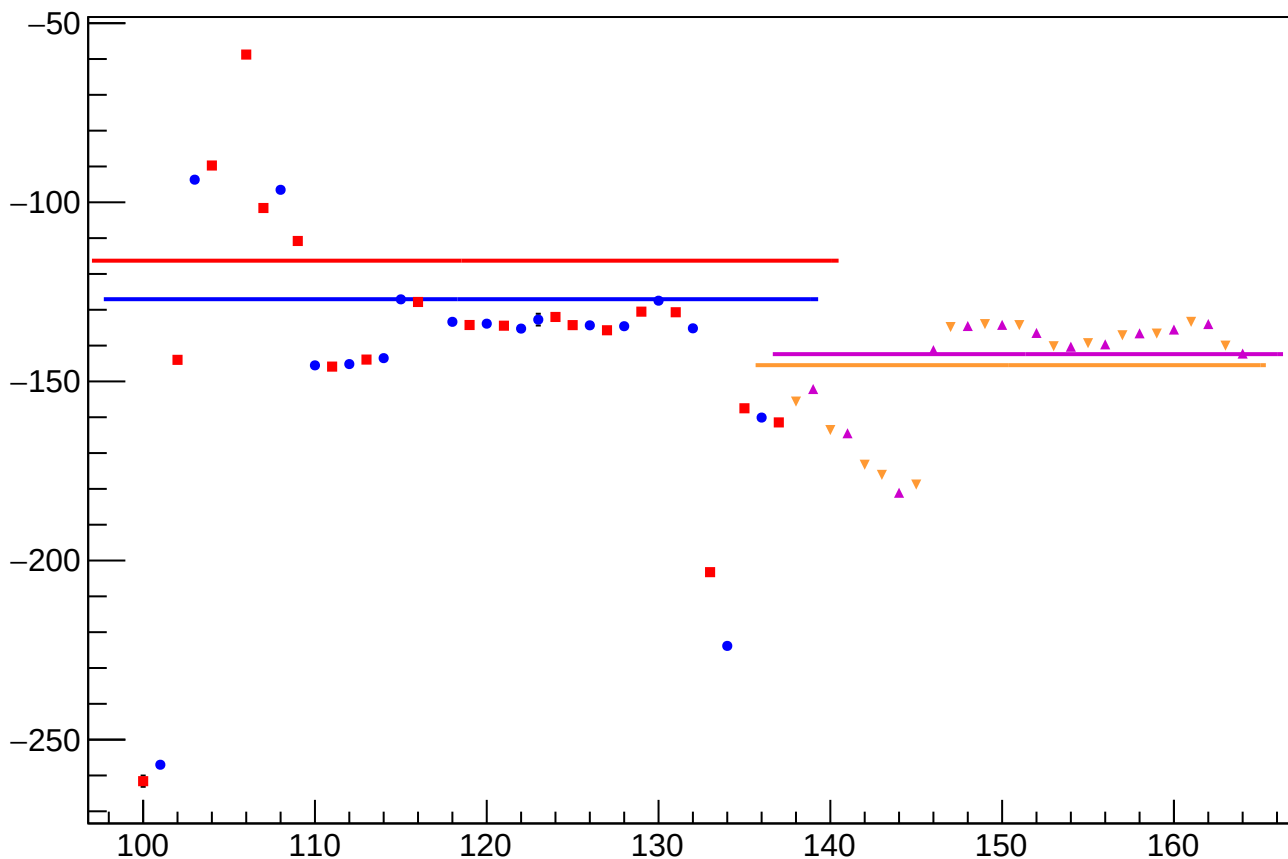
Left In:  $52.596 \pm 1.230$   $\chi^2/\text{NDF}: 418.7/12$

+ sign  $58.536 \pm 0.989$   $\chi^2/\text{NDF}: 934.3/30$

All:  $56.830 \pm 0.697$   $\chi^2/\text{NDF}: 1862.5/62$

- sign  $55.148 \pm 0.982$   $\chi^2/\text{NDF}: 922.2/31$

# reg\_asym\_atr\_avg\_diff\_bpm12X\_slope vs Slug



Right In: -127.049 $\pm$ 0.090  $\chi^2$ /NDF: 167014.4/16

Left Out: -145.463 $\pm$ 0.059  $\chi^2$ /NDF: 67275.8/13

Right Out: -116.295 $\pm$ 0.083  $\chi^2$ /NDF: 167109.1/18

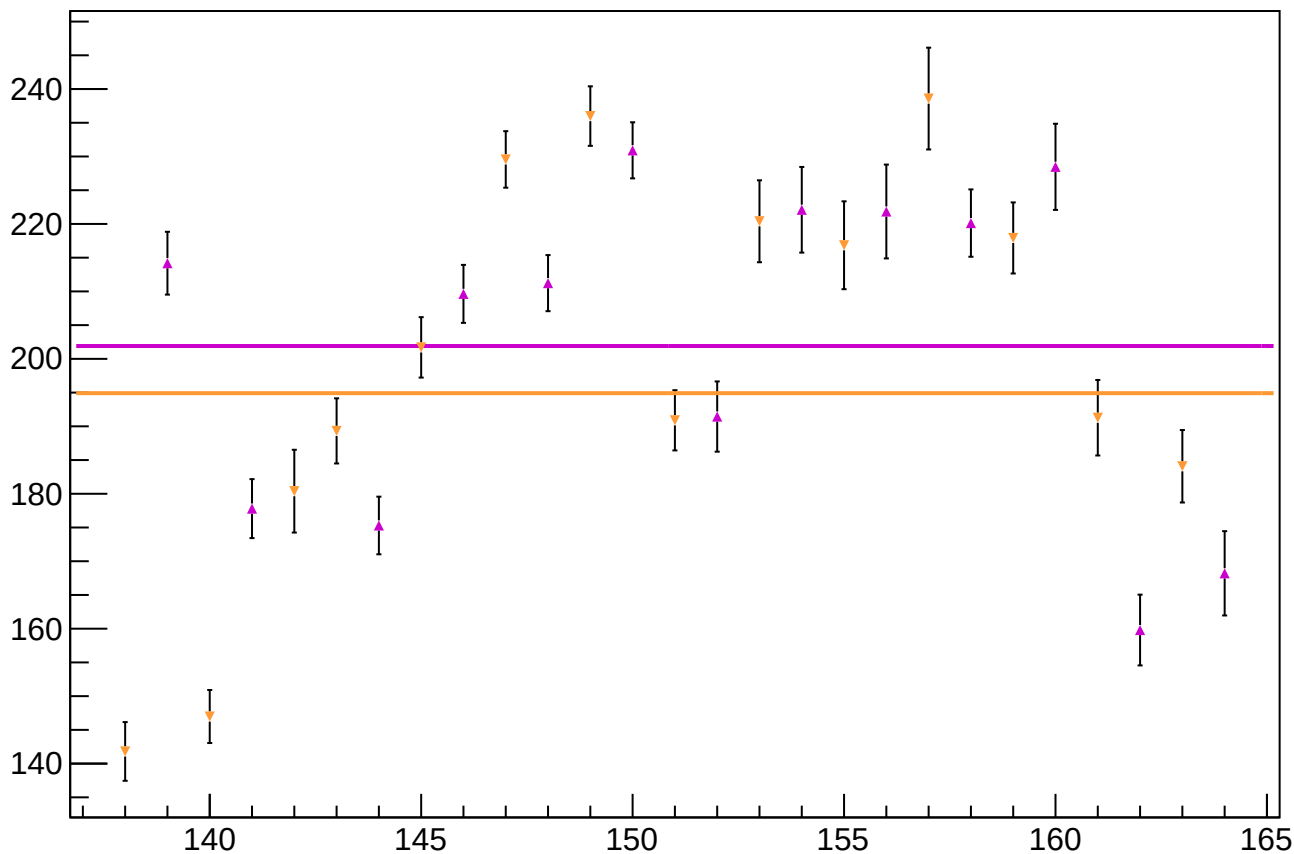
Left In: -142.385 $\pm$ 0.059  $\chi^2$ /NDF: 43057.2/12

+ sign -139.880 $\pm$ 0.049  $\chi^2$ /NDF: 263605.9/30

All: -136.656 $\pm$ 0.035  $\chi^2$ /NDF: 547605.7/62

- sign -133.593 $\pm$ 0.048  $\chi^2$ /NDF: 275702.4/31

# reg\_asym\_atr\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 194.914+/-1.329  $\chi^2/\text{NDF}$ : 548.8/13

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

Left In: 201.904+/-1.371  $\chi^2/\text{NDF}$ : 279.6/12

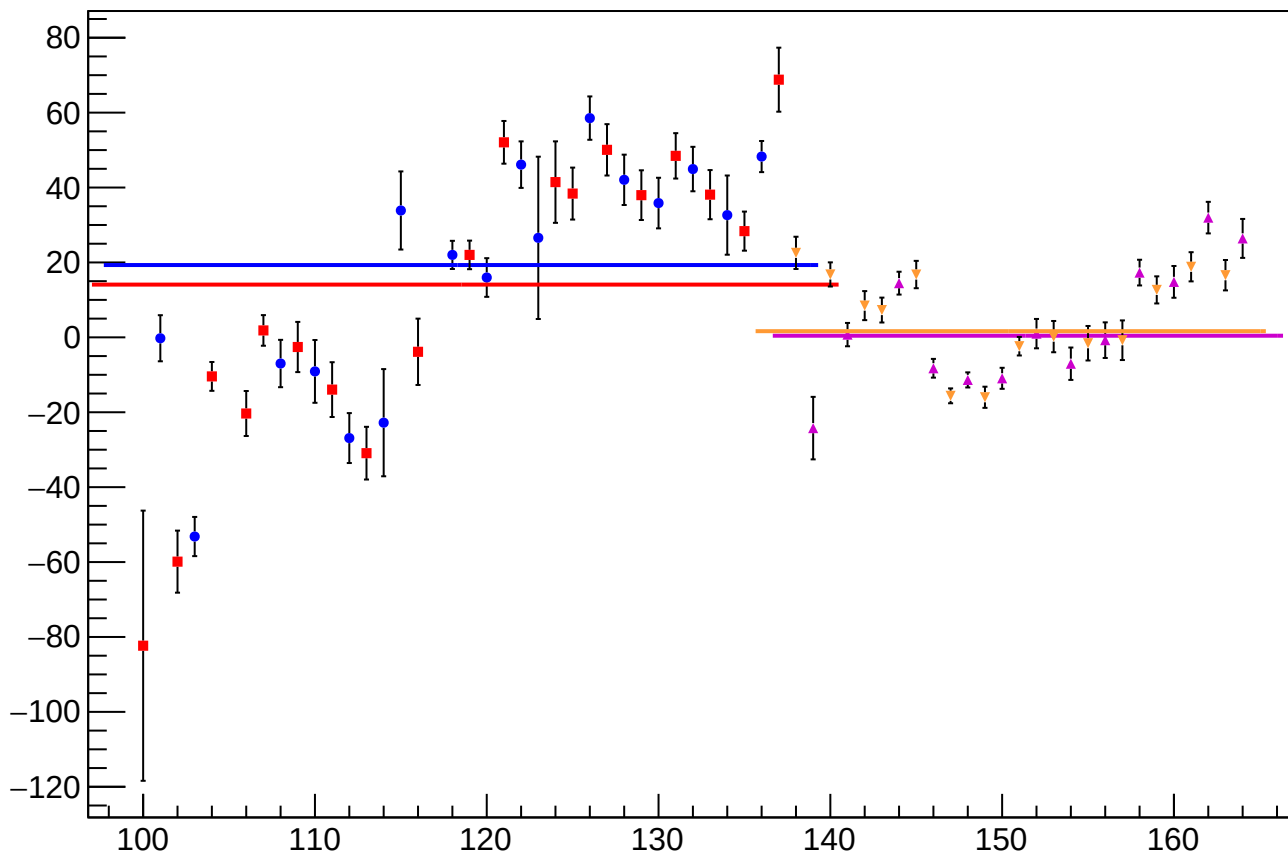
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 198.300+/-0.954  $\chi^2/\text{NDF}$ : 841.8/26

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



# reg\_asym\_atr\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $19.308 \pm 1.500$   $\chi^2/\text{NDF}$ : 441.3/16

Left Out:  $1.647 \pm 0.888$   $\chi^2/\text{NDF}$ : 229.2/13

Right Out:  $14.083 \pm 1.390$   $\chi^2/\text{NDF}$ : 436.9/18

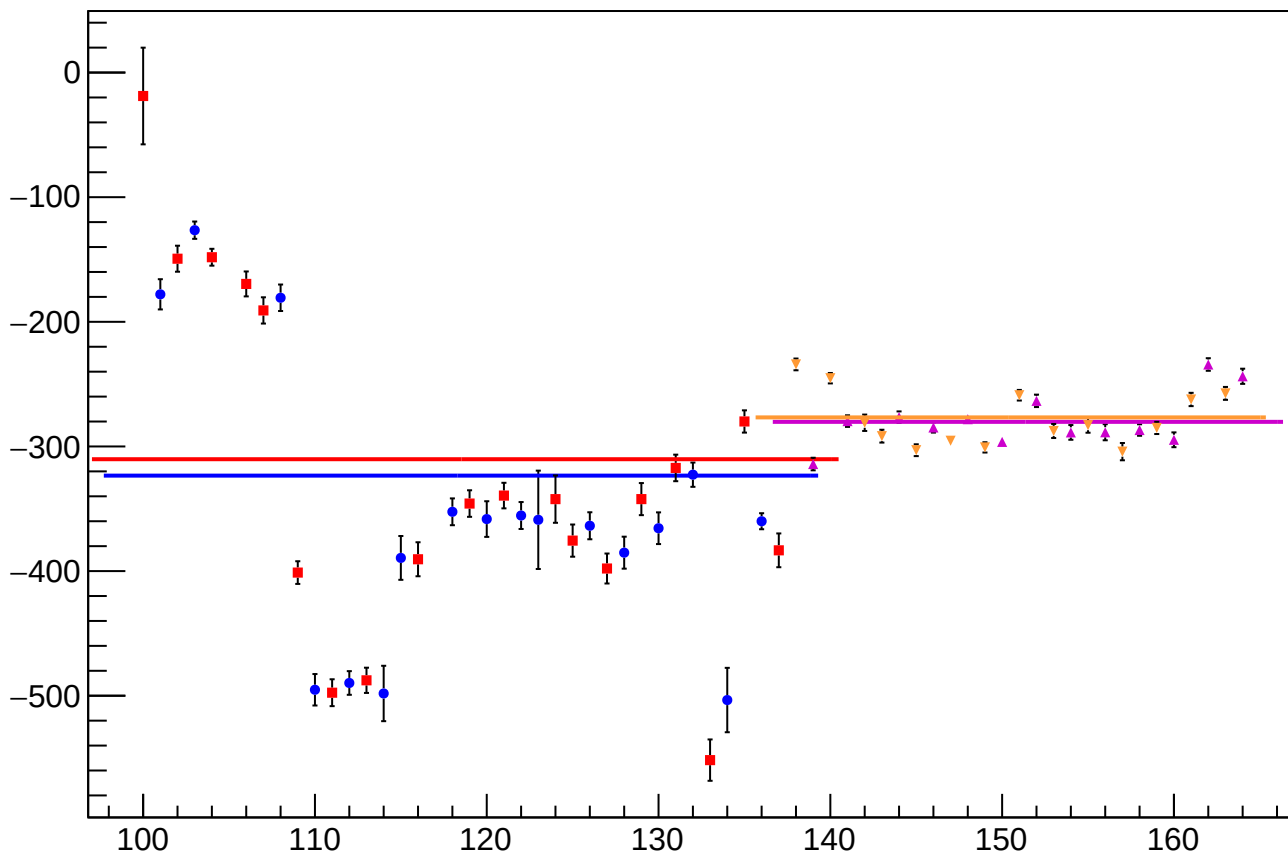
Left In:  $0.436 \pm 0.931$   $\chi^2/\text{NDF}$ : 212.3/12

+ sign  $6.230 \pm 0.764$   $\chi^2/\text{NDF}$ : 773.1/30

All:  $5.456 \pm 0.544$   $\chi^2/\text{NDF}$ : 1490.9/62

- sign  $4.663 \pm 0.773$   $\chi^2/\text{NDF}$ : 715.7/31

# reg\_asym\_atr\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-323.402 \pm 2.684$   $\chi^2/\text{NDF}$ : 1849.6/16

Left Out:  $-276.685 \pm 1.313$   $\chi^2/\text{NDF}$ : 296.4/13

Right Out:  $-310.236 \pm 2.523$   $\chi^2/\text{NDF}$ : 2298.8/18

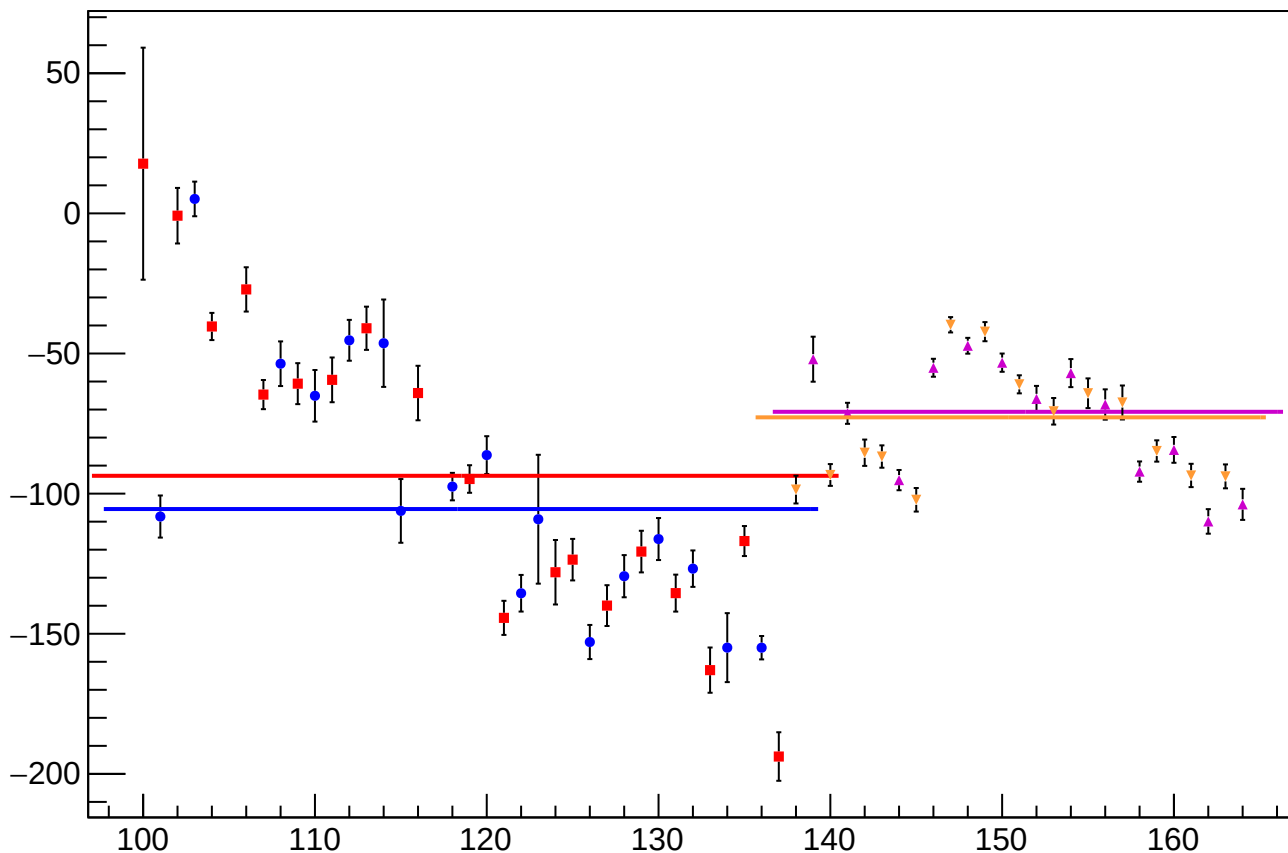
Left In:  $-280.262 \pm 1.337$   $\chi^2/\text{NDF}$ : 206.5/12

+ sign  $-285.704 \pm 1.179$   $\chi^2/\text{NDF}$ : 2390.5/30

All:  $-286.267 \pm 0.835$   $\chi^2/\text{NDF}$ : 5006.4/62

- sign  $-286.833 \pm 1.182$   $\chi^2/\text{NDF}$ : 2615.5/31

# reg\_asym\_atr\_dd\_diff\_bpm4eY\_slope vs Slug



Right In: -105.496±/1.712  $\chi^2/\text{NDF}$ : 737.3/16

Left Out: -72.781±/1.068  $\chi^2/\text{NDF}$ : 425.5/13

Right Out: -93.637±/1.610  $\chi^2/\text{NDF}$ : 827.1/18

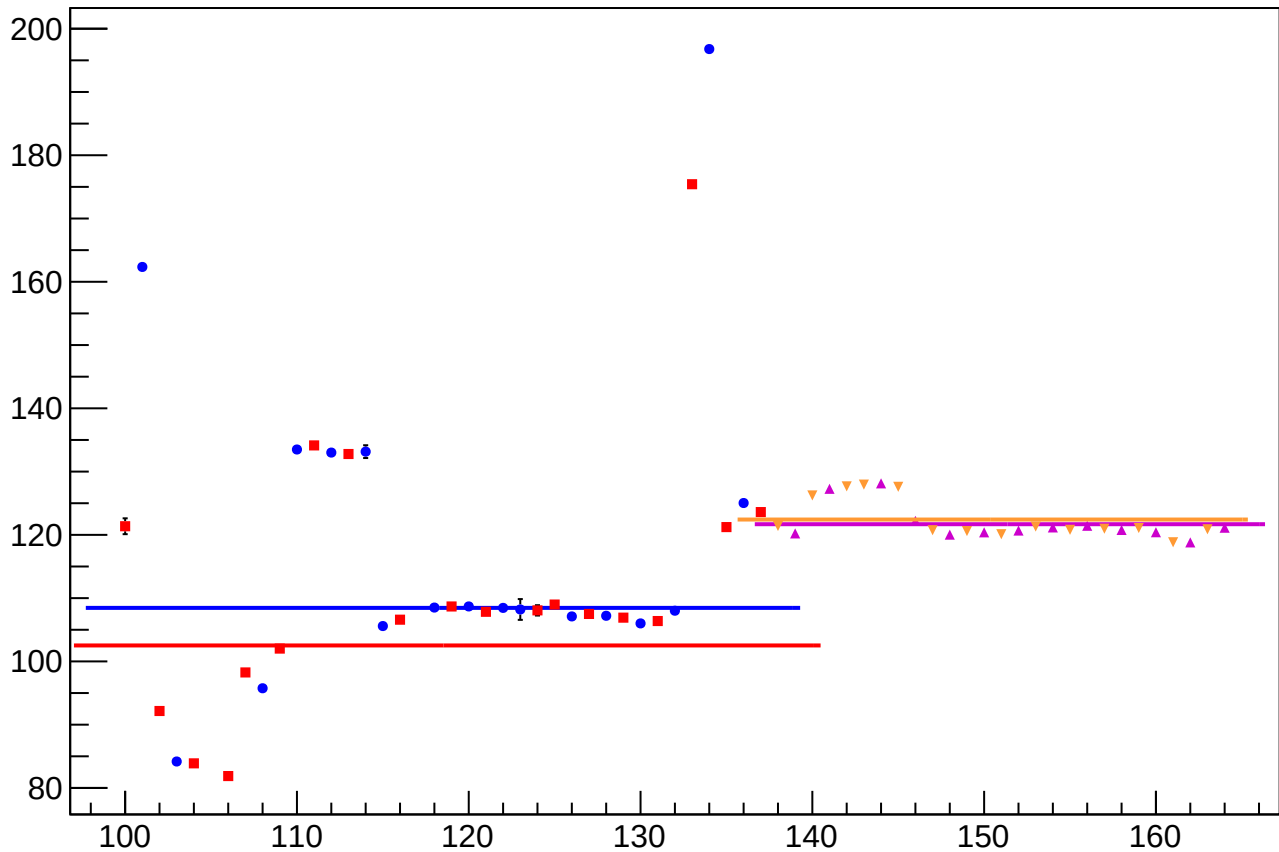
Left In: -70.799±/1.111  $\chi^2/\text{NDF}$ : 341.4/12

+ sign -81.949±/0.906  $\chi^2/\text{NDF}$ : 1425.6/30

All: -80.077±/0.644  $\chi^2/\text{NDF}$ : 2739.0/62

- sign -78.169±/0.915  $\chi^2/\text{NDF}$ : 1304.7/31

# reg\_asym\_atr\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 108.460 $\pm$ 0.085  $\chi^2$ /NDF: 73301.9/16

Left Out: 122.424 $\pm$ 0.053  $\chi^2$ /NDF:3253.8/13

Right Out: 102.521 $\pm$ 0.080  $\chi^2$ /NDF: 52992.1/18

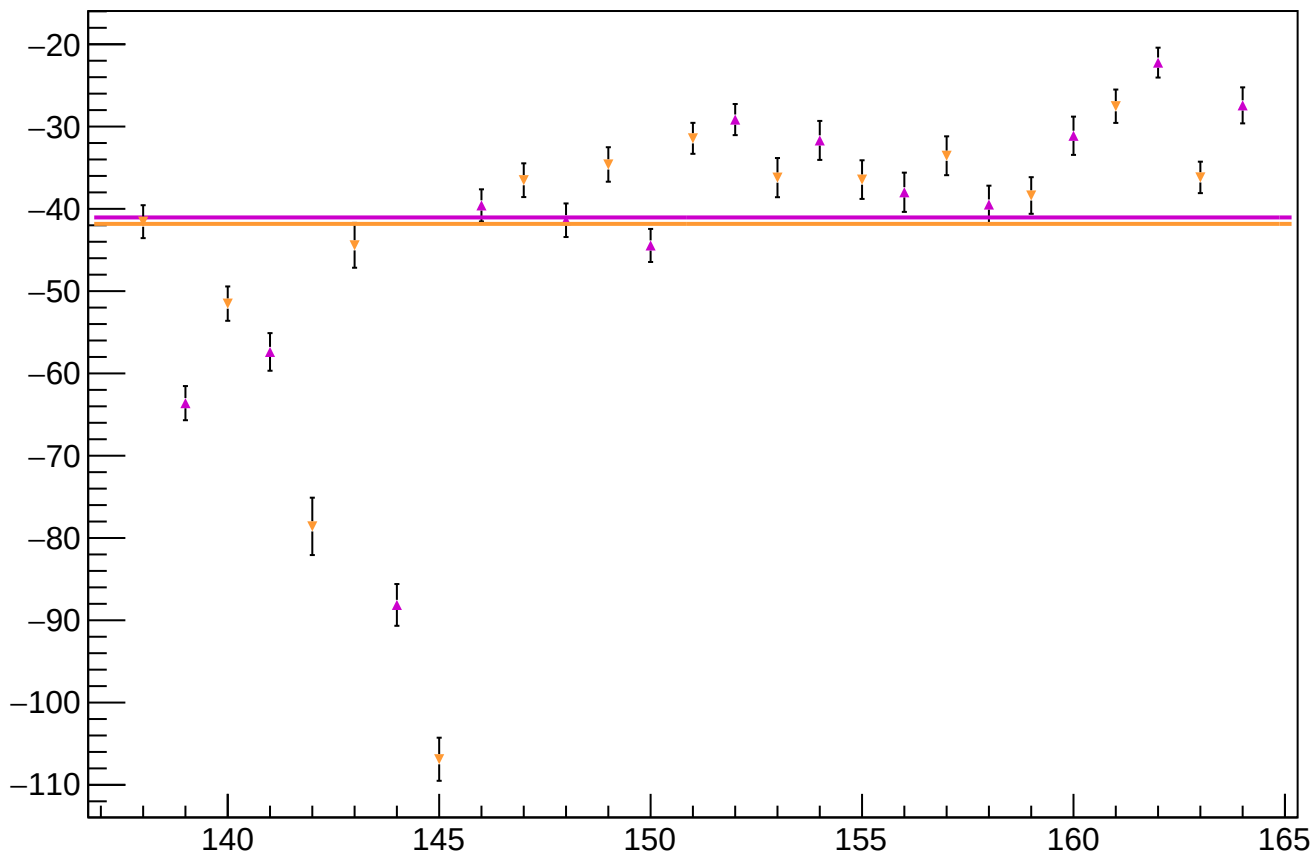
Left In: 121.684 $\pm$ 0.053  $\chi^2$ /NDF:2474.8/12

+ sign 118.561 $\pm$ 0.045  $\chi^2$ /NDF: 96078.2/30

All: 117.147 $\pm$ 0.031  $\chi^2$ /NDF: 193628.2/62

- sign 115.765 $\pm$ 0.044  $\chi^2$ /NDF: 95572.6/31

# reg\_asym\_at1\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -41.828+/-0.593  $\chi^2/\text{NDF}$ : 883.9/13

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

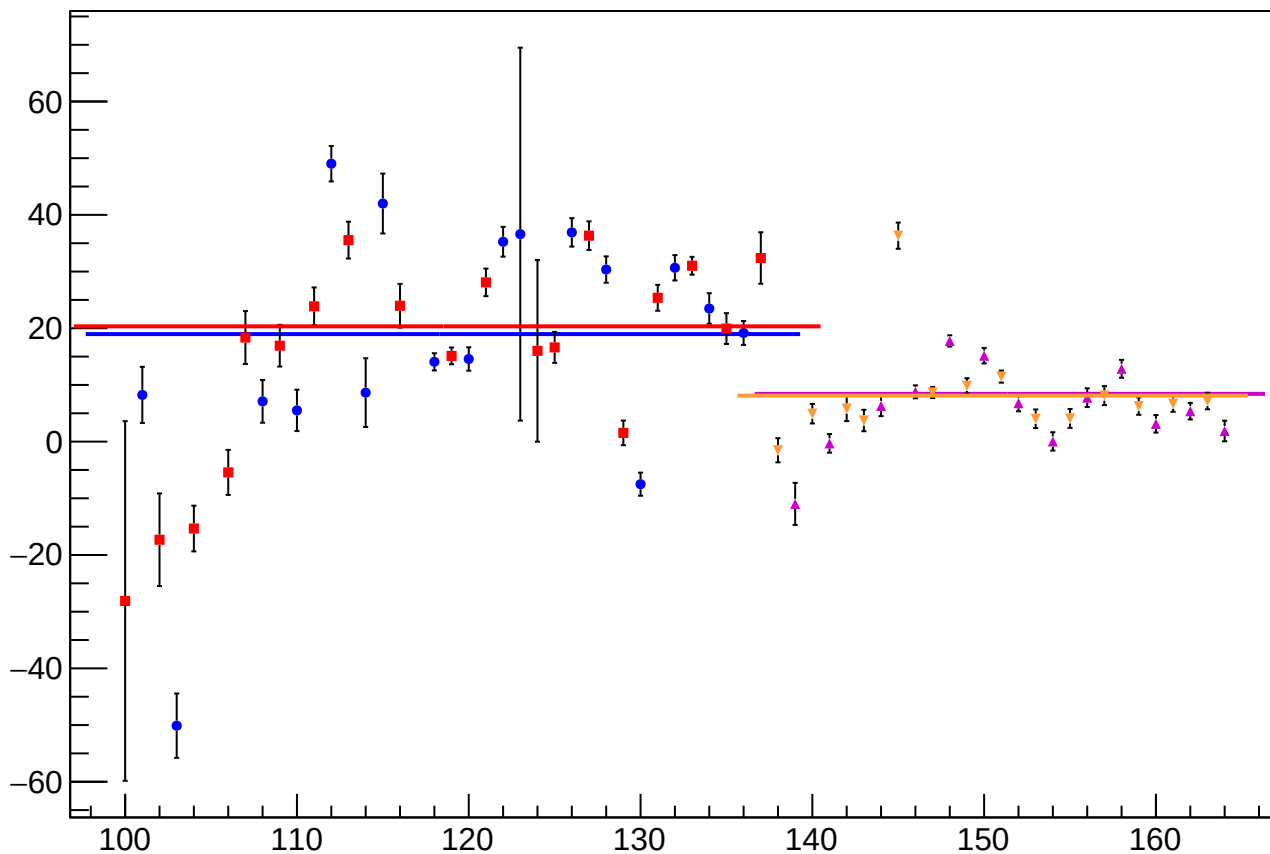
Left In: -41.045+/-0.592  $\chi^2/\text{NDF}$ : 738.4/12

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

All: -41.436+/-0.419  $\chi^2/\text{NDF}$ : 1623.2/26

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

# reg\_asym\_at1\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $18.970 \pm 0.653$   $\chi^2/\text{NDF}$ : 618.4/16

Left Out:  $8.115 \pm 0.402$   $\chi^2/\text{NDF}$ : 206.2/13

Right Out:  $20.338 \pm 0.642$   $\chi^2/\text{NDF}$ : 366.4/18

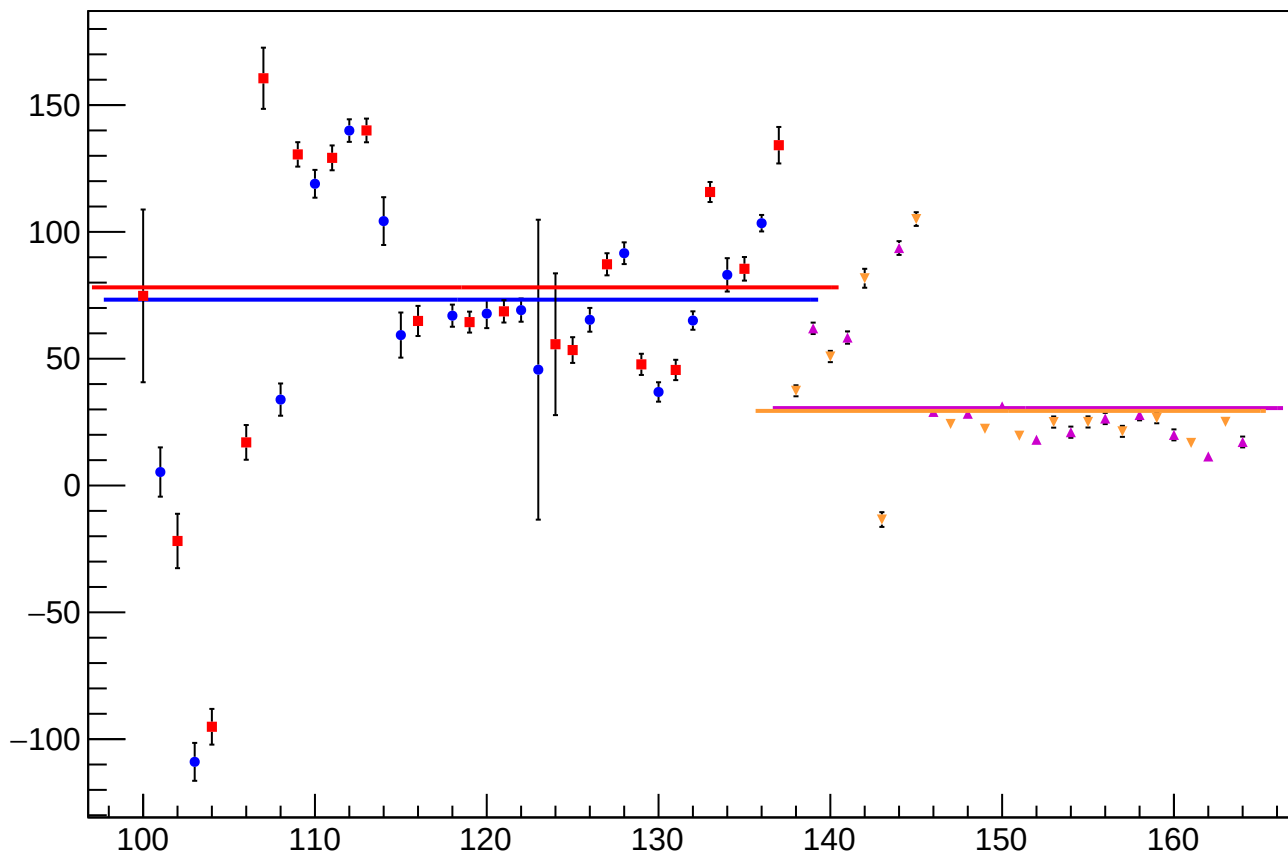
Left In:  $8.426 \pm 0.412$   $\chi^2/\text{NDF}$ : 235.3/12

+ sign  $11.100 \pm 0.342$   $\chi^2/\text{NDF}$ : 1025.0/30

All:  $11.492 \pm 0.244$   $\chi^2/\text{NDF}$ : 1873.2/62

- sign  $11.895 \pm 0.347$   $\chi^2/\text{NDF}$ : 845.6/31

# reg\_asym\_at1\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: 73.278 $\pm$ 1.236  $\chi^2$ /NDF: 1198.6/16

Left Out: 29.424 $\pm$ 0.577  $\chi^2$ /NDF:1423.5/13

Right Out: 78.130 $\pm$ 1.223  $\chi^2$ /NDF: 1543.3/18

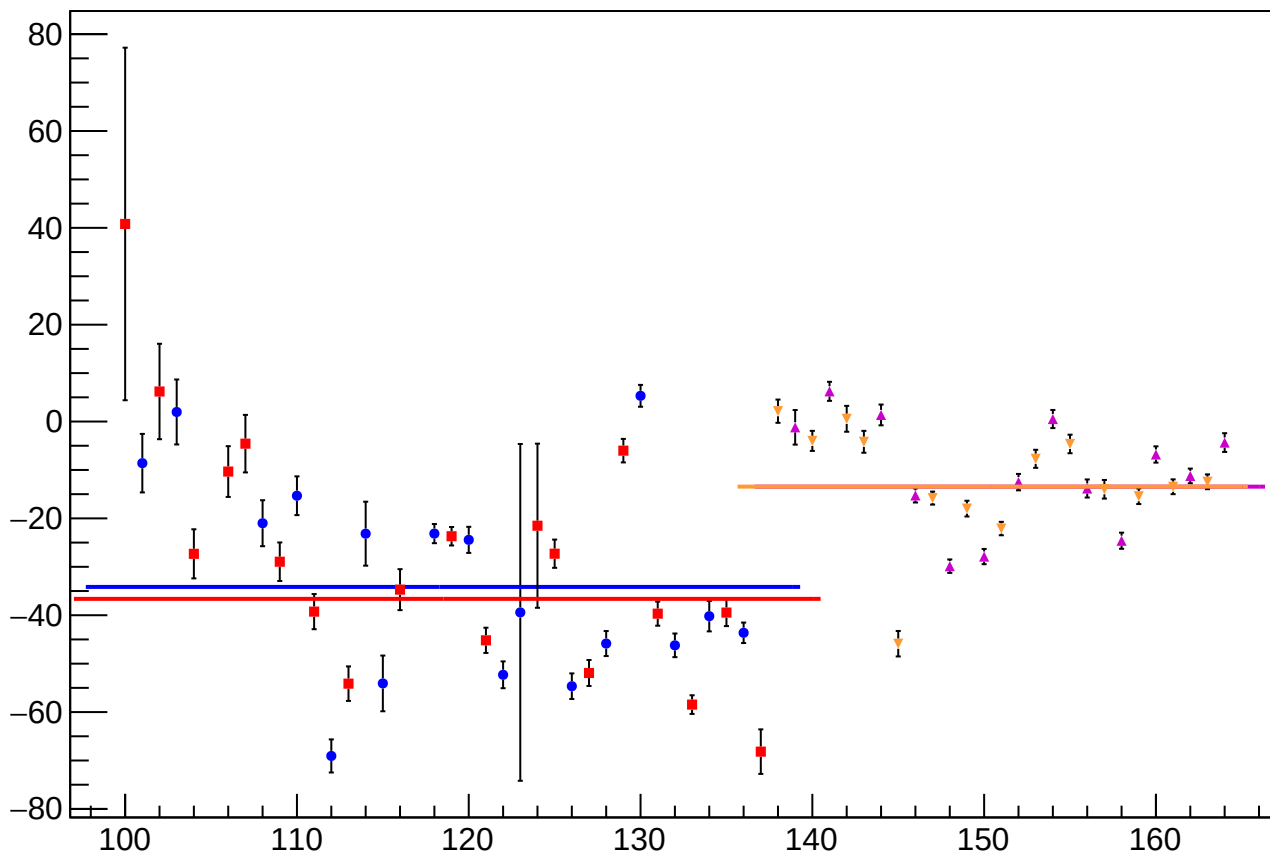
Left In: 30.528 $\pm$ 0.573  $\chi^2$ /NDF:1122.4/12

+ sign 37.269 $\pm$ 0.523  $\chi^2$ /NDF: 3655.1/30

All: 38.193 $\pm$ 0.368  $\chi^2$ /NDF: 7570.0/62

- sign 39.102 $\pm$ 0.519  $\chi^2$ /NDF: 3908.7/31

# reg\_asym\_at1\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $-34.153 \pm 0.745$   $\chi^2/\text{NDF}$ : 717.5/16

Left Out:  $-13.438 \pm 0.476$   $\chi^2/\text{NDF}$ : 341.7/13

Right Out:  $-36.618 \pm 0.736$   $\chi^2/\text{NDF}$ : 547.0/18

Left In:  $-13.447 \pm 0.483$   $\chi^2/\text{NDF}$ : 526.0/12

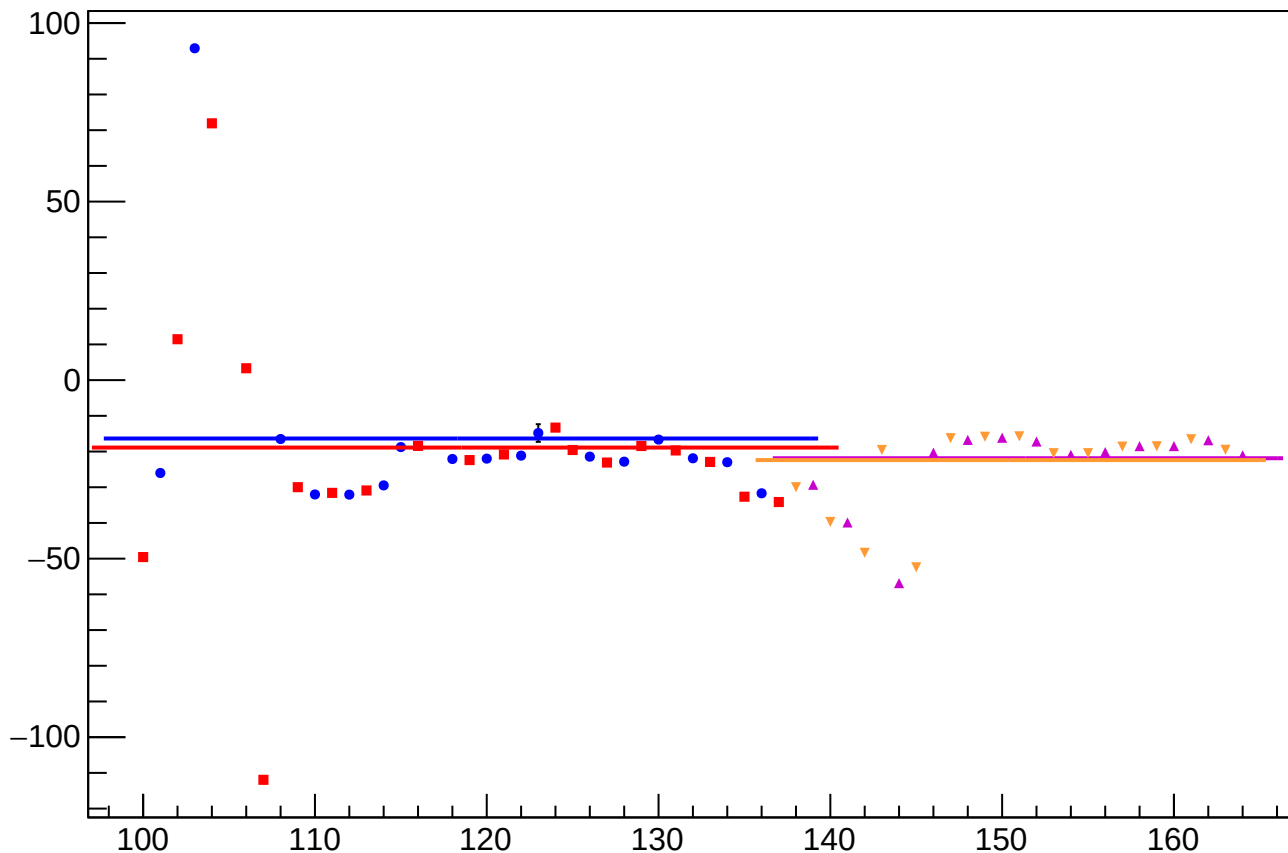
+ sign  $-19.445 \pm 0.401$   $\chi^2/\text{NDF}$ : 1608.3/30

All:  $-19.935 \pm 0.285$   $\chi^2/\text{NDF}$ : 3377.2/62

- sign  $-20.431 \pm 0.404$   $\chi^2/\text{NDF}$ : 1765.9/31



# reg\_asym\_at1\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-16.349 \pm 0.045$   $\chi^2/\text{NDF}: 474192.3/16$

Left Out:  $-22.394 \pm 0.023$   $\chi^2/\text{NDF}: 181979.7/13$

Right Out:  $-18.886 \pm 0.045$   $\chi^2/\text{NDF}: 433793.7/18$

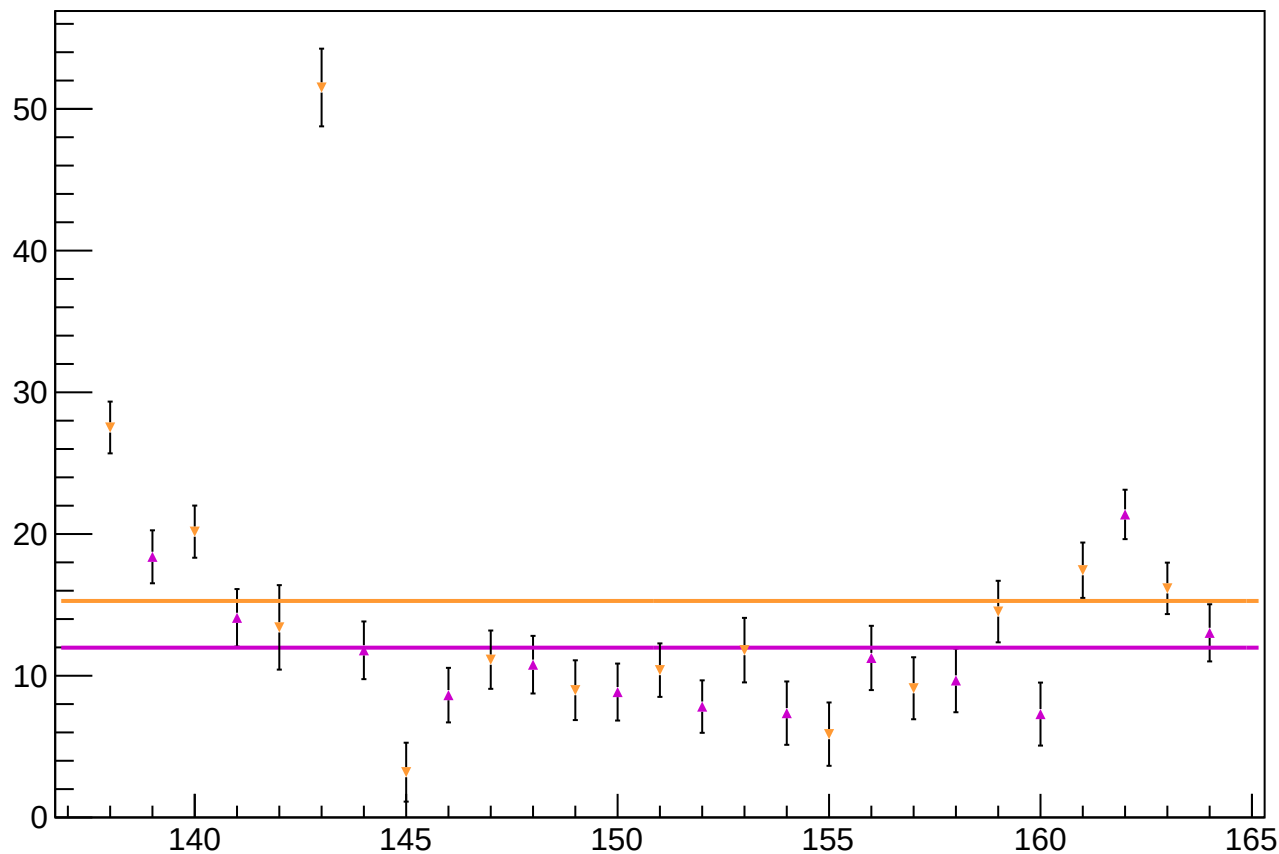
Left In:  $-21.875 \pm 0.022$   $\chi^2/\text{NDF}: 152327.2/12$

+ sign  $-21.163 \pm 0.020$   $\chi^2/\text{NDF}: 670773.1/30$

All:  $-21.225 \pm 0.014$   $\chi^2/\text{NDF}: 1260409.3/62$

- sign  $-21.287 \pm 0.020$   $\chi^2/\text{NDF}: 589617.3/31$

# reg\_asym\_at1\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 15.278±/-0.560  $\chi^2/\text{NDF}$ :310.0/13

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

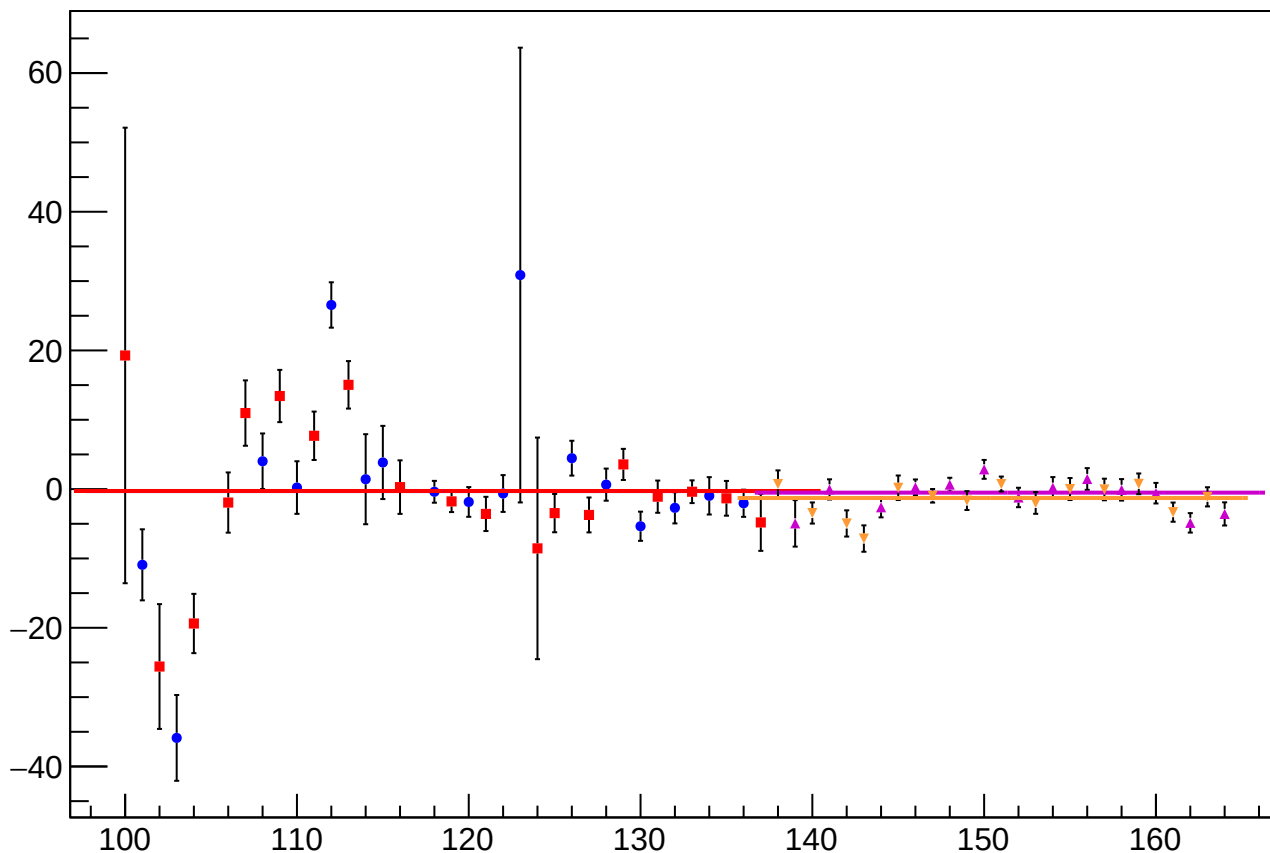
Left In: 11.981±/-0.560  $\chi^2/\text{NDF}$ :63.0/12

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

All: 13.630±/-0.396  $\chi^2/\text{NDF}$ : 390.3/26

- sign 0.000±/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_at1\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-0.280 \pm 0.662$   $\chi^2/\text{NDF}$ : 119.5/16

Left Out:  $-1.285 \pm 0.386$   $\chi^2/\text{NDF}$ : 26.3/13

Right Out:  $-0.270 \pm 0.656$   $\chi^2/\text{NDF}$ : 83.2/18

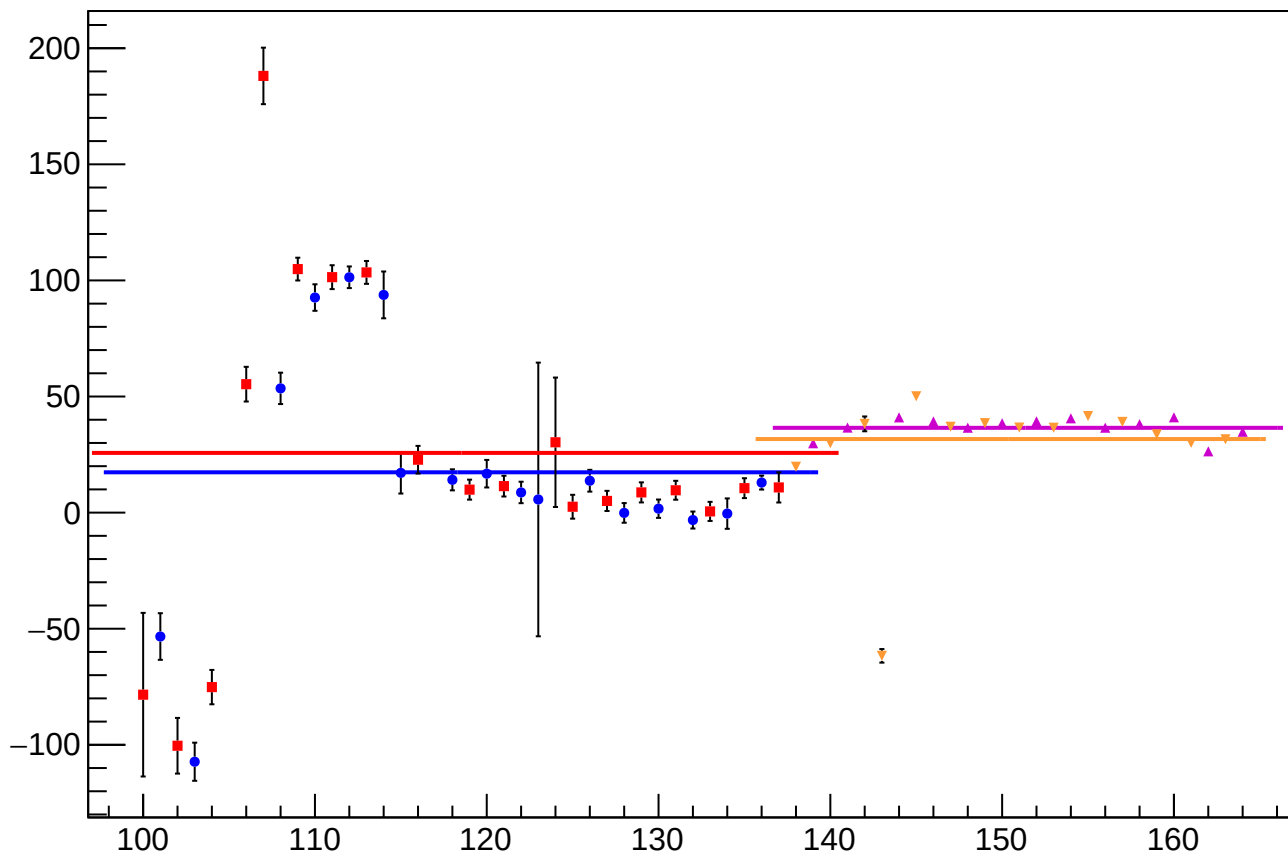
Left In:  $-0.509 \pm 0.394$   $\chi^2/\text{NDF}$ : 27.0/12

+ sign  $-1.031 \pm 0.333$   $\chi^2/\text{NDF}$ : 147.5/30

All:  $-0.742 \pm 0.237$   $\chi^2/\text{NDF}$ : 259.3/62

- sign  $-0.446 \pm 0.337$   $\chi^2/\text{NDF}$ : 110.3/31

# reg\_asym\_at1\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $17.361 \pm 1.247$   $\chi^2/\text{NDF}$ : 943.0/16

Left Out:  $31.687 \pm 0.548$   $\chi^2/\text{NDF}$ : 1200.8/13

Right Out:  $25.717 \pm 1.243$   $\chi^2/\text{NDF}$ : 1378.8/18

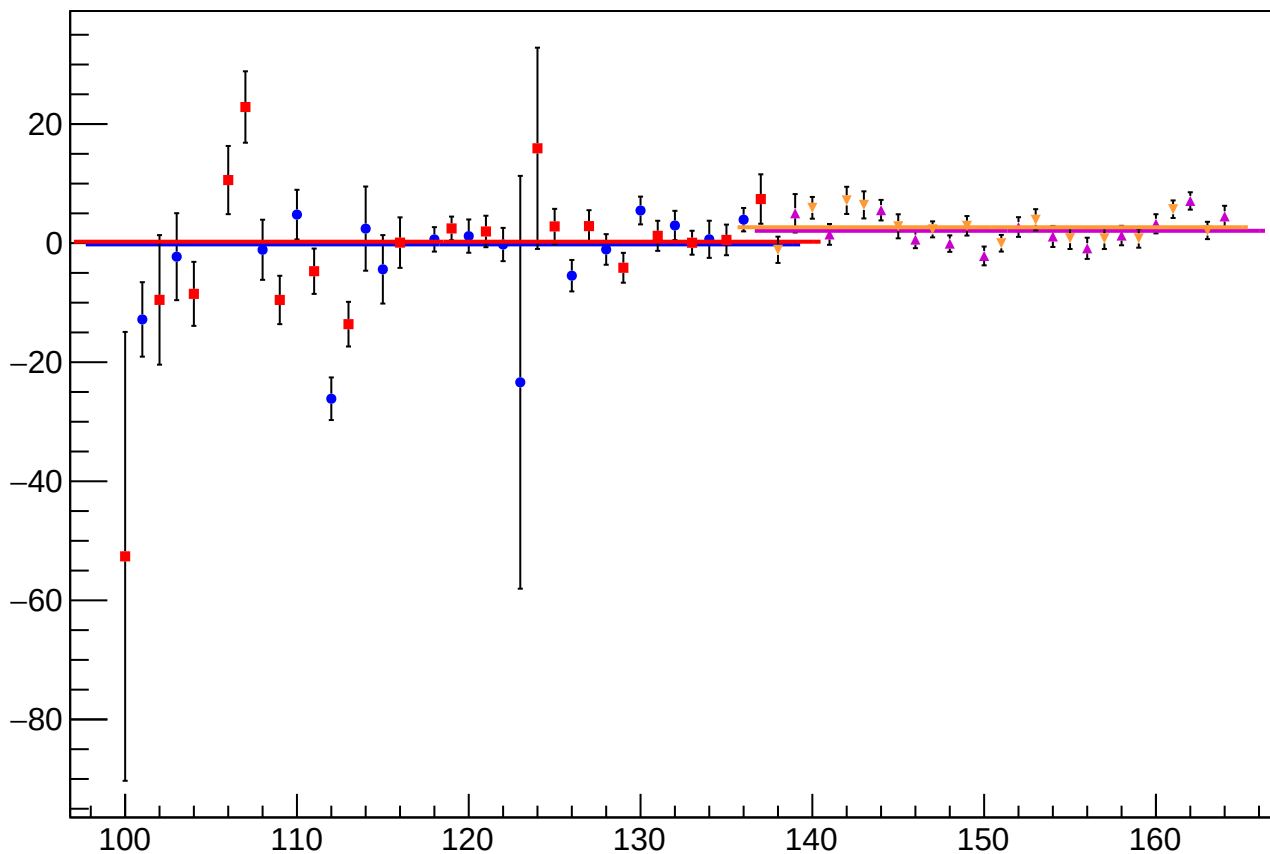
Left In:  $36.518 \pm 0.544$   $\chi^2/\text{NDF}$ : 67.3/12

+ sign  $29.370 \pm 0.501$   $\chi^2/\text{NDF}$ : 2254.5/30

All:  $32.093 \pm 0.353$   $\chi^2/\text{NDF}$ : 3822.6/62

- sign  $34.782 \pm 0.498$   $\chi^2/\text{NDF}$ : 1509.5/31

# reg\_asym\_at1\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-0.211 \pm 0.752$   $\chi^2/\text{NDF}$ : 75.9/16

Left Out:  $2.666 \pm 0.455$   $\chi^2/\text{NDF}$ : 24.9/13

Right Out:  $0.239 \pm 0.748$   $\chi^2/\text{NDF}$ : 54.5/18

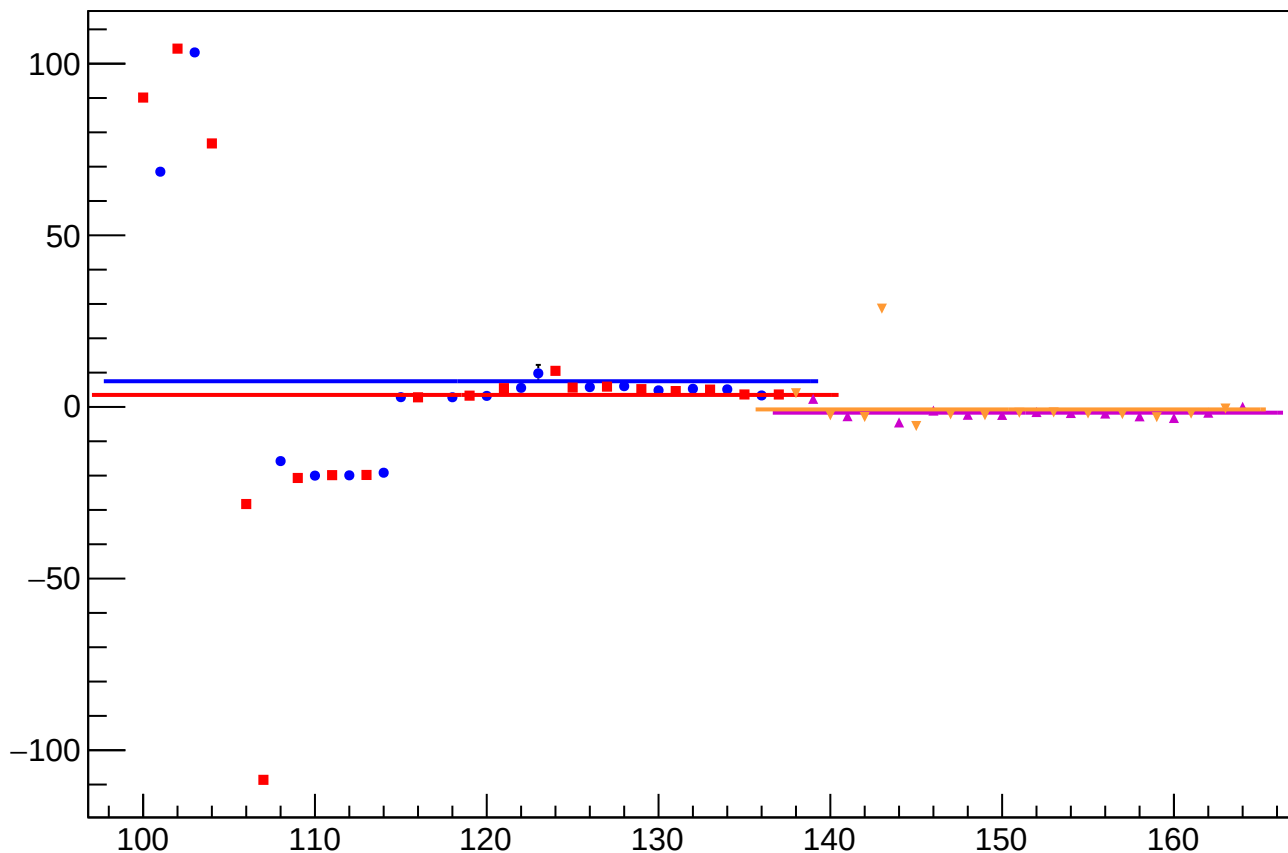
Left In:  $2.072 \pm 0.461$   $\chi^2/\text{NDF}$ : 33.3/12

+ sign  $1.896 \pm 0.389$   $\chi^2/\text{NDF}$ : 111.5/30

All:  $1.734 \pm 0.276$   $\chi^2/\text{NDF}$ : 204.0/62

- sign  $1.569 \pm 0.392$   $\chi^2/\text{NDF}$ : 92.1/31

# reg\_asym\_at1\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $7.492 \pm 0.045$   $\chi^2/\text{NDF}: 355979.0/16$

Left Out:  $-0.718 \pm 0.021$   $\chi^2/\text{NDF}: 73458.8/13$

Right Out:  $3.504 \pm 0.046$   $\chi^2/\text{NDF}: 510579.4/18$

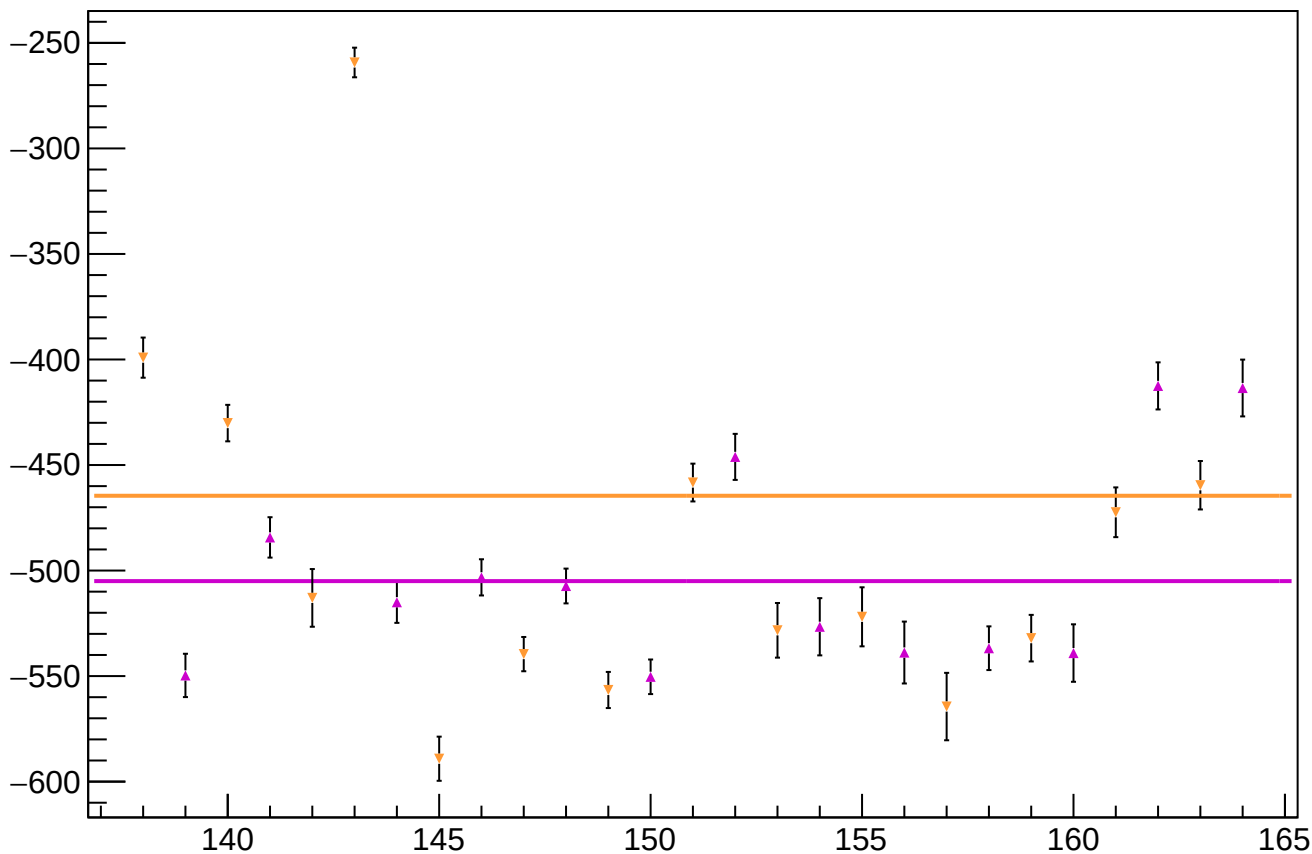
Left In:  $-1.671 \pm 0.021$   $\chi^2/\text{NDF}: 5490.5/12$

+ sign  $0.811 \pm 0.019$   $\chi^2/\text{NDF}: 456968.9/30$

All:  $0.033 \pm 0.014$   $\chi^2/\text{NDF}: 986878.2/62$

- sign  $-0.747 \pm 0.019$   $\chi^2/\text{NDF}: 526637.8/31$

# reg\_asym\_at2\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -464.563+/-2.687  $\chi^2/\text{NDF}$ :1392.8/13

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

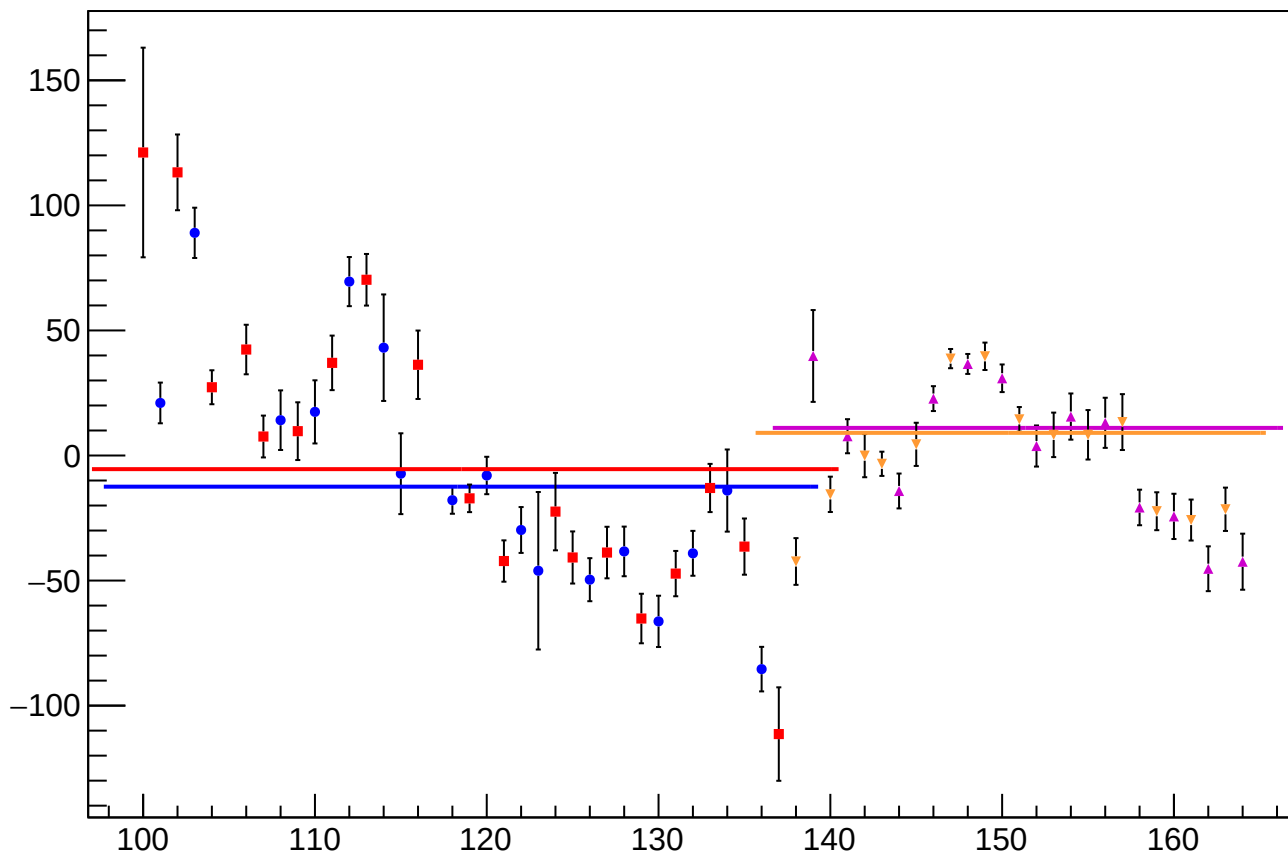
Left In: -505.004+/-2.877  $\chi^2/\text{NDF}$ :223.0/12

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

All: -483.405+/-1.963  $\chi^2/\text{NDF}$ : 1721.5/26

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

# reg\_asym\_at2\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-12.458 \pm 2.349$   $\chi^2/\text{NDF}$ : 341.1/16

Left Out:  $9.057 \pm 1.769$   $\chi^2/\text{NDF}$ : 190.2/13

Right Out:  $-5.453 \pm 2.259$   $\chi^2/\text{NDF}$ : 345.0/18

Left In:  $11.039 \pm 1.925$   $\chi^2/\text{NDF}$ : 174.0/12

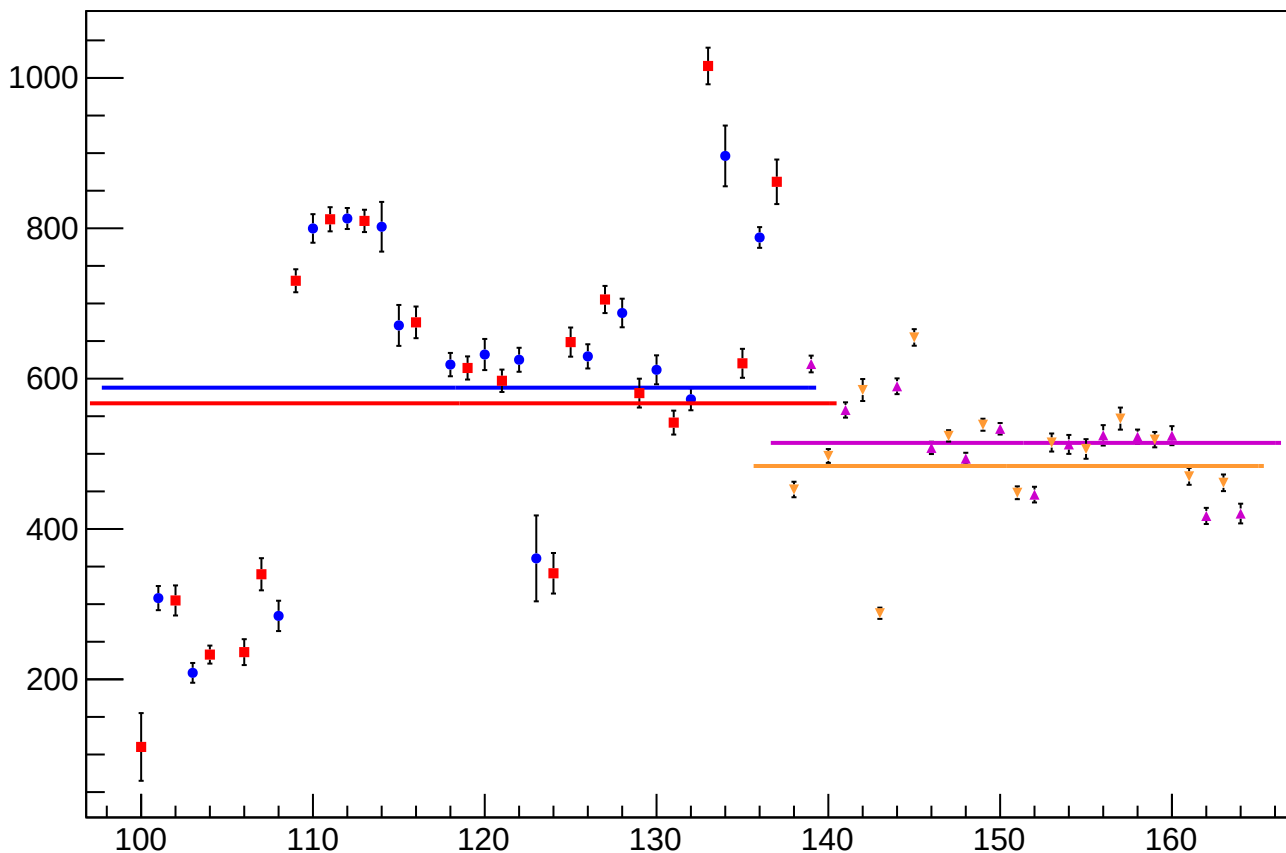
+ sign  $1.271 \pm 1.413$   $\chi^2/\text{NDF}$ : 584.8/30

All:  $2.635 \pm 1.017$   $\chi^2/\text{NDF}$ : 1136.6/62

- sign  $4.101 \pm 1.465$   $\chi^2/\text{NDF}$ : 549.8/31



# reg\_asym\_at2\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $587.994 \pm 4.353$   $\chi^2/\text{NDF}$ : 2129.6/16

Left Out:  $483.803 \pm 2.656$   $\chi^2/\text{NDF}$ : 1121.7/13

Right Out:  $567.179 \pm 4.136$   $\chi^2/\text{NDF}$ : 2783.2/18

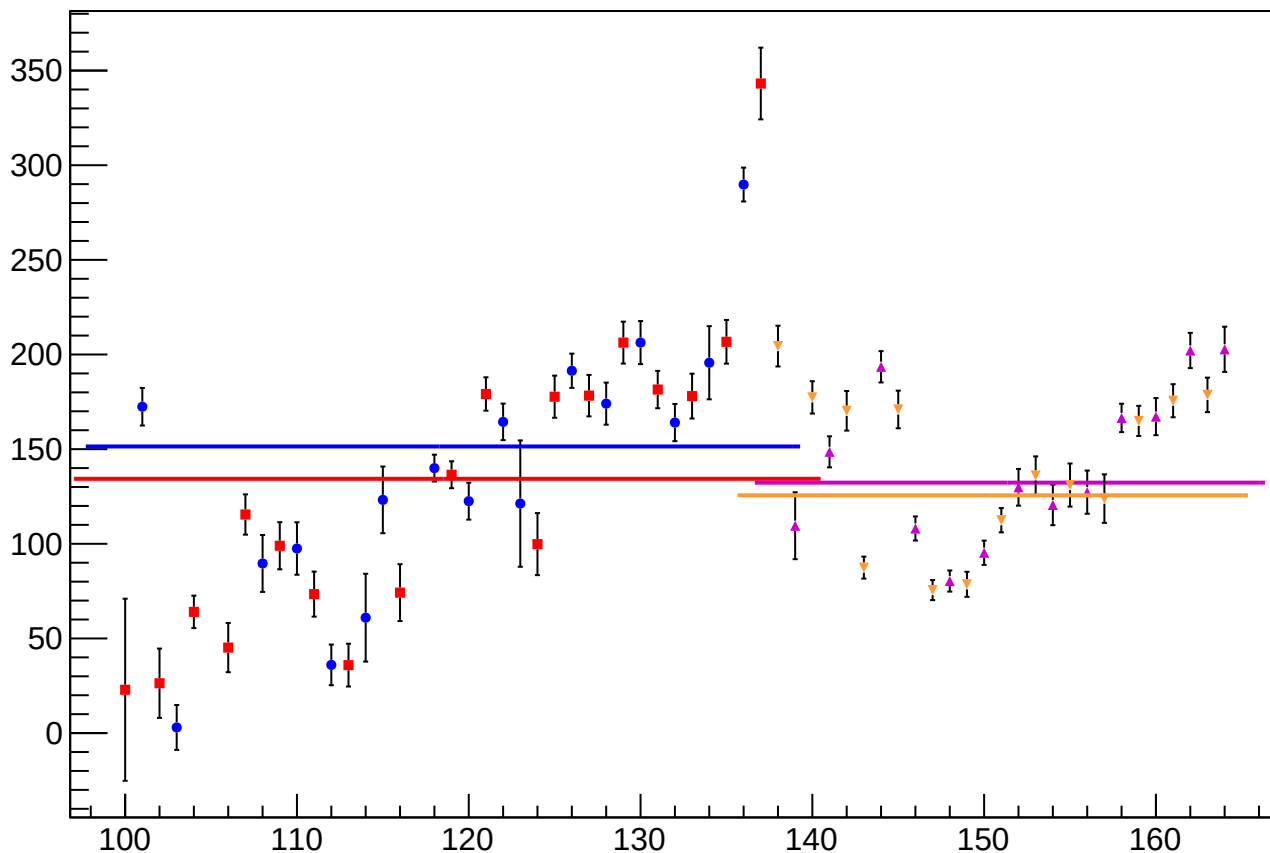
Left In:  $514.534 \pm 2.794$   $\chi^2/\text{NDF}$ : 351.9/12

+ sign  $512.066 \pm 2.267$   $\chi^2/\text{NDF}$ : 3668.9/30

All:  $521.349 \pm 1.620$   $\chi^2/\text{NDF}$ : 6949.4/62

- sign  $531.029 \pm 2.315$   $\chi^2/\text{NDF}$ : 3246.3/31

# reg\_asym\_at2\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $151.421 \pm 2.709$   $\chi^2/\text{NDF}: 633.3/16$

Left Out:  $125.622 \pm 2.140$   $\chi^2/\text{NDF}: 408.6/13$

Right Out:  $134.346 \pm 2.616$   $\chi^2/\text{NDF}: 584.9/18$

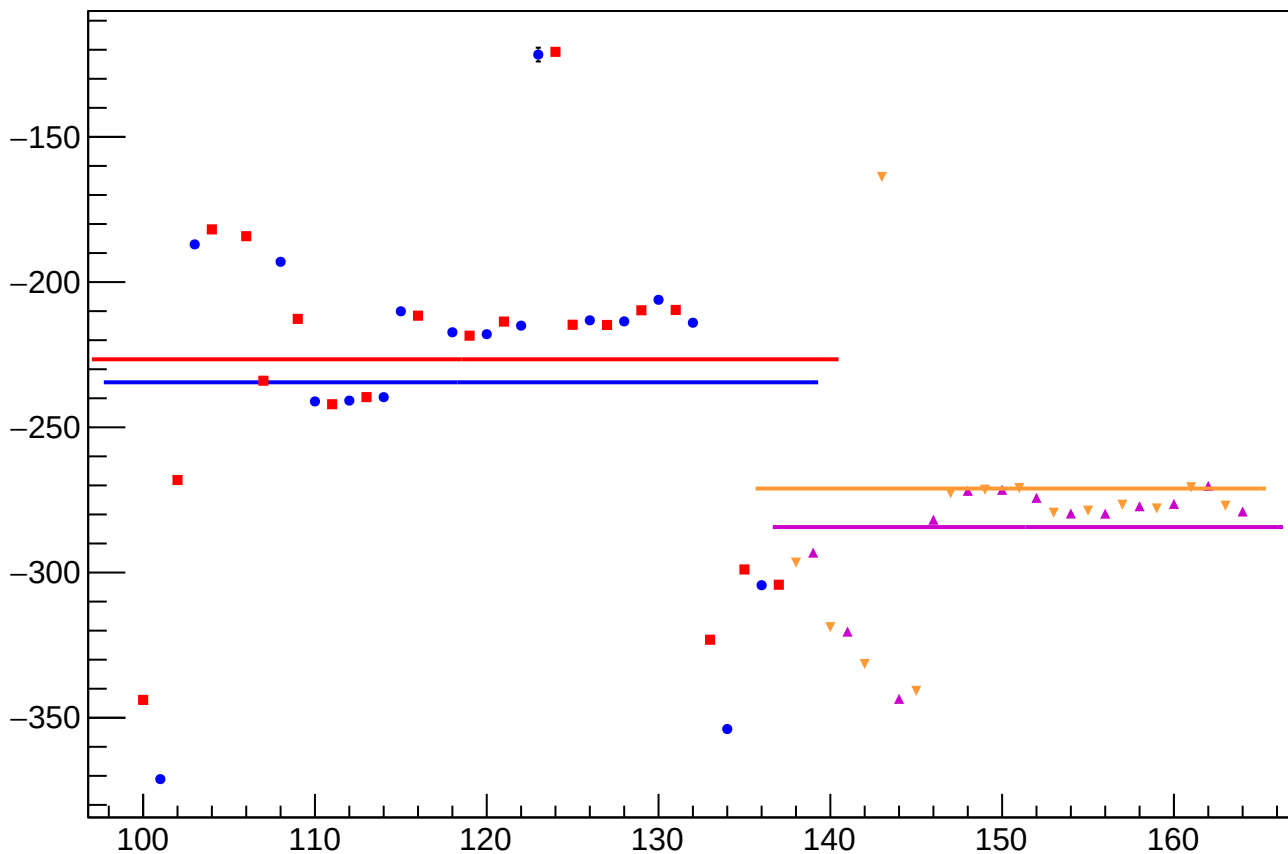
Left In:  $132.312 \pm 2.309$   $\chi^2/\text{NDF}: 320.8/12$

+ sign  $135.533 \pm 1.679$   $\chi^2/\text{NDF}: 1097.7/30$

All:  $134.403 \pm 1.205$   $\chi^2/\text{NDF}: 2004.7/62$

- sign  $133.203 \pm 1.731$   $\chi^2/\text{NDF}: 906.0/31$

# reg\_asym\_at2\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-234.501 \pm 0.149$   $\chi^2/\text{NDF}$ : 145046.5/16

Left Out:  $-271.076 \pm 0.107$   $\chi^2/\text{NDF}$ : 182864.5/13

Right Out:  $-226.581 \pm 0.141$   $\chi^2/\text{NDF}$ : 98968.8/18

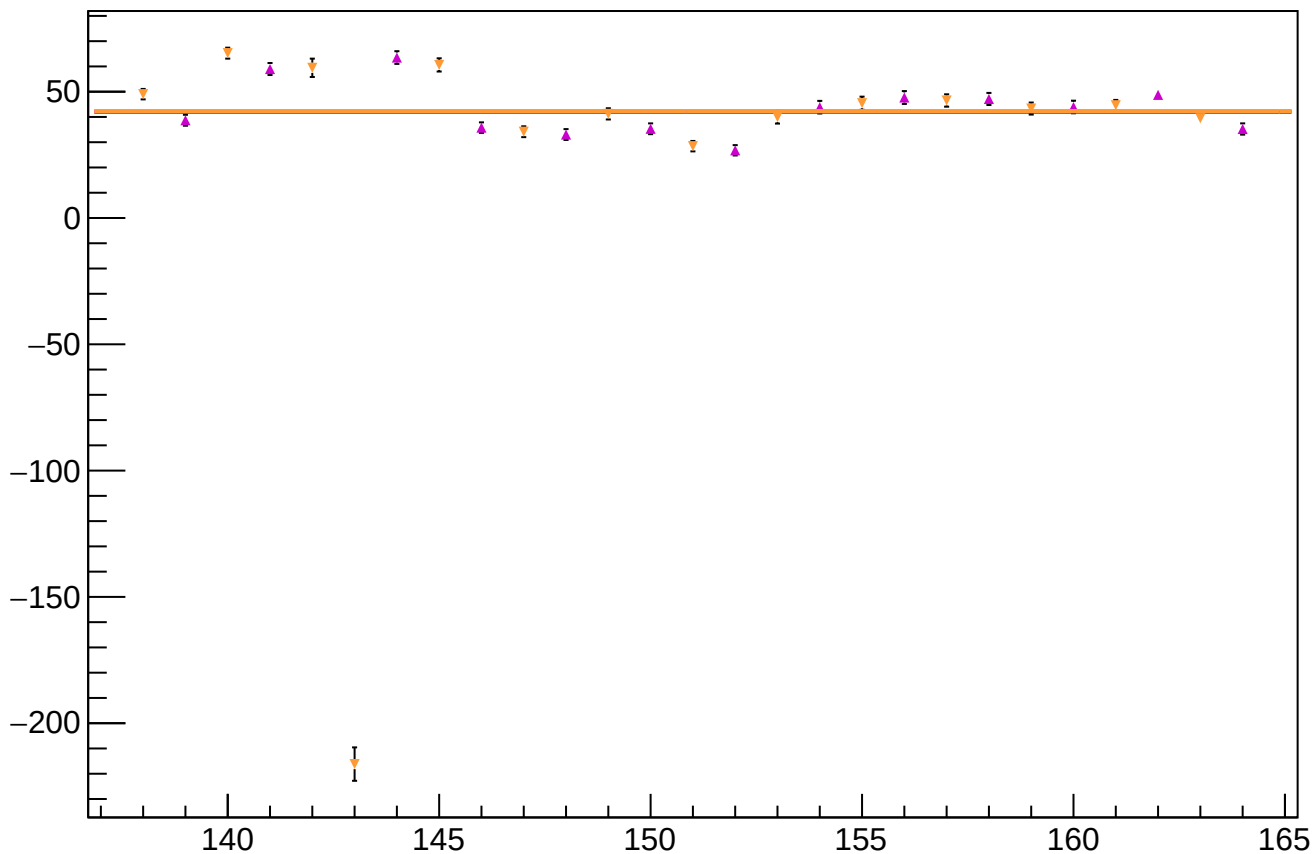
Left In:  $-284.344 \pm 0.111$   $\chi^2/\text{NDF}$ : 30582.8/12

+ sign  $-258.651 \pm 0.087$   $\chi^2/\text{NDF}$ : 367681.0/30

All:  $-260.412 \pm 0.062$   $\chi^2/\text{NDF}$ : 600955.8/62

- sign  $-262.201 \pm 0.088$   $\chi^2/\text{NDF}$ : 232446.1/31

# reg\_asym\_at2\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 42.336+/-0.637  $\chi^2/\text{NDF}$ :1790.0/13

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

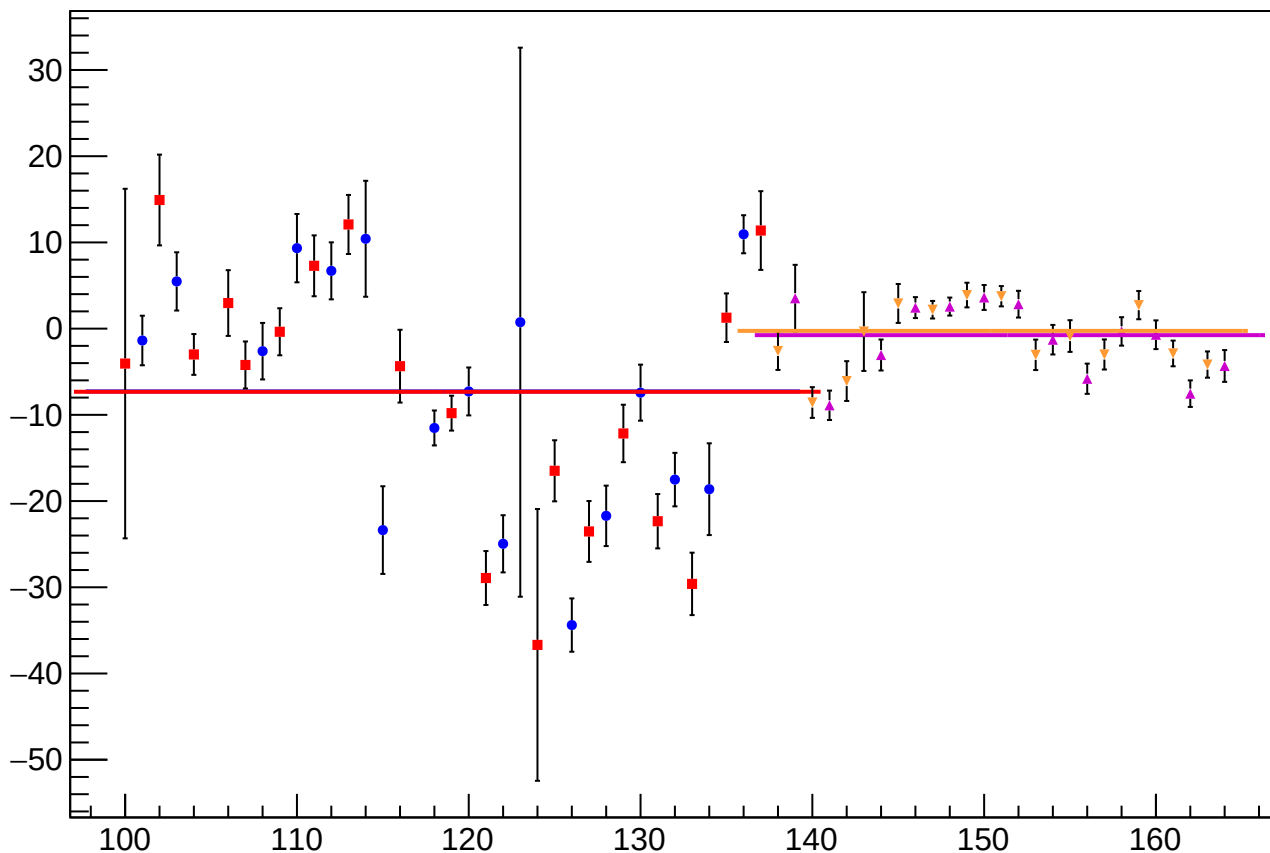
Left In: 42.036+/-0.623  $\chi^2/\text{NDF}$ :250.1/12

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

All: 42.183+/-0.445  $\chi^2/\text{NDF}$ : 2040.2/26

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

# reg\_asym\_at2\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-7.284 \pm 0.789$   $\chi^2/\text{NDF}$ : 283.2/16

Left Out:  $-0.260 \pm 0.433$   $\chi^2/\text{NDF}$ : 75.1/13

Right Out:  $-7.323 \pm 0.761$   $\chi^2/\text{NDF}$ : 255.3/18

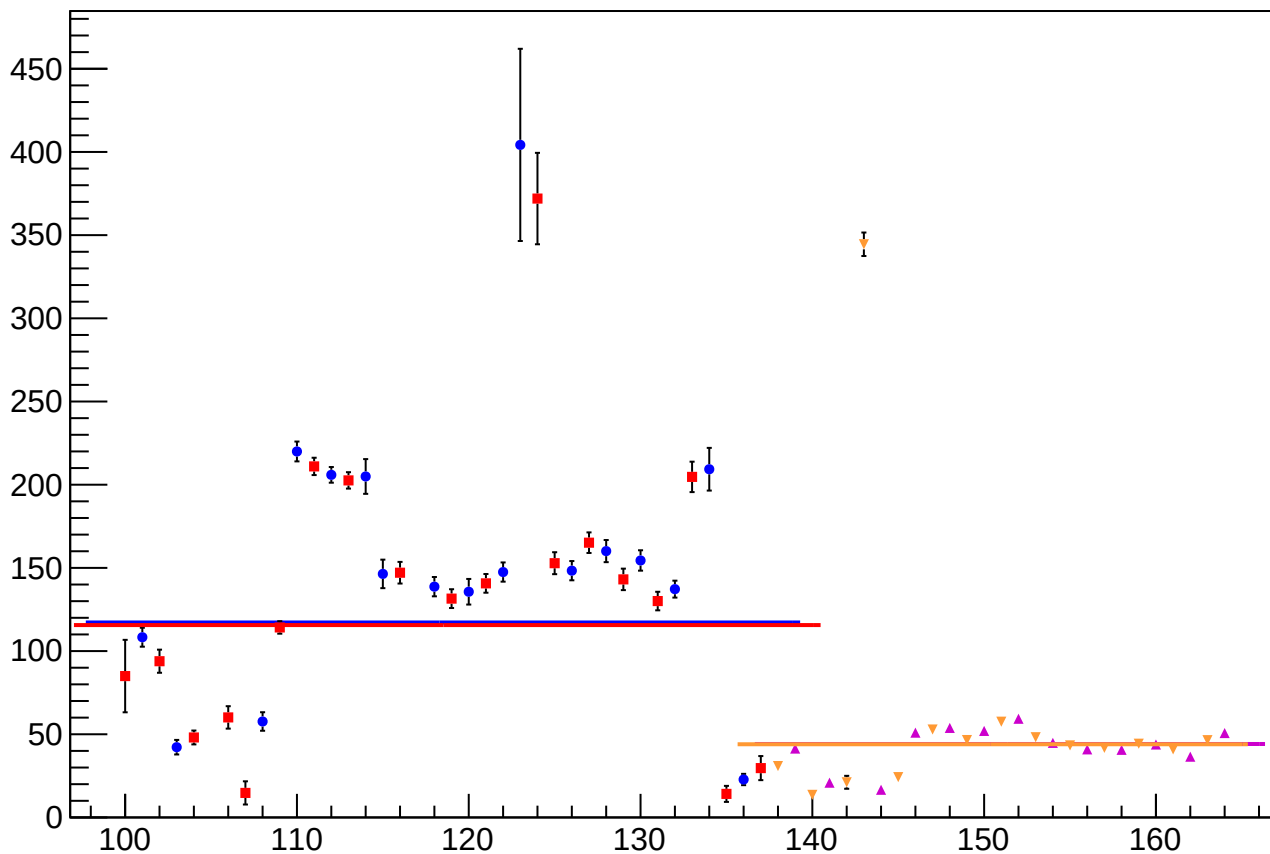
Left In:  $-0.757 \pm 0.434$   $\chi^2/\text{NDF}$ : 88.8/12

+ sign  $-1.889 \pm 0.380$   $\chi^2/\text{NDF}$ : 419.3/30

All:  $-2.130 \pm 0.267$   $\chi^2/\text{NDF}$ : 820.4/62

- sign  $-2.367 \pm 0.377$   $\chi^2/\text{NDF}$ : 400.3/31

# reg\_asym\_at2\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $117.187 \pm 1.416$   $\chi^2/\text{NDF}$ : 2161.0/16

Left Out:  $43.995 \pm 0.619$   $\chi^2/\text{NDF}$ : 2183.7/13

Right Out:  $115.632 \pm 1.361$   $\chi^2/\text{NDF}$ : 2137.6/18

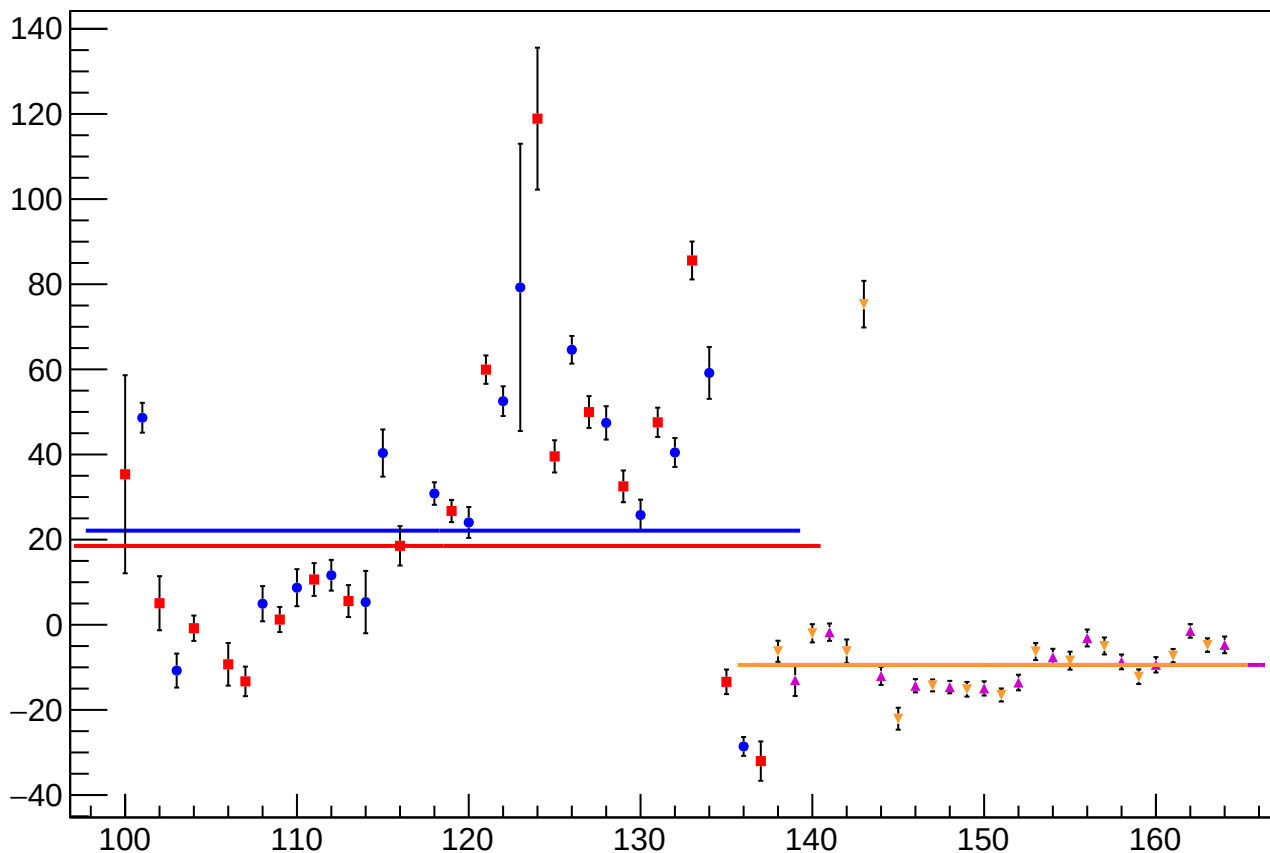
Left In:  $44.157 \pm 0.603$   $\chi^2/\text{NDF}$ : 331.5/12

+ sign  $55.744 \pm 0.567$   $\chi^2/\text{NDF}$ : 6586.5/30

All:  $55.823 \pm 0.396$   $\chi^2/\text{NDF}$ : 11360.5/62

- sign  $55.897 \pm 0.552$   $\chi^2/\text{NDF}$ : 4773.9/31

# reg\_asym\_at2\_dd\_diff\_bpm4eY\_slope vs Slug



Right In: 22.110 $\pm$ 0.898  $\chi^2$ /NDF: 1070.3/16

Left Out: -9.440 $\pm$ 0.512  $\chi^2$ /NDF: 343.3/13

Right Out: 18.521 $\pm$ 0.871  $\chi^2$ /NDF: 1068.6/18

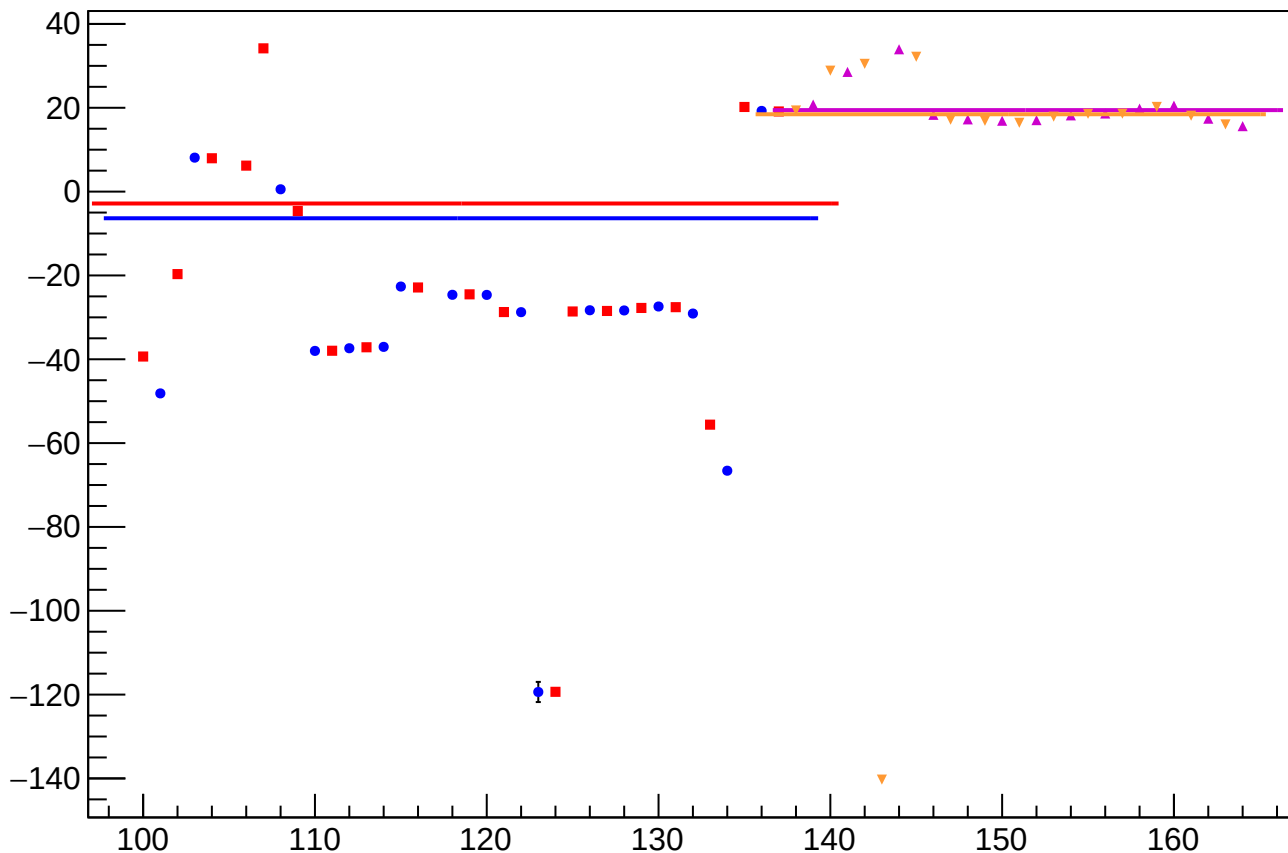
Left In: -9.434 $\pm$ 0.509  $\chi^2$ /NDF: 96.8/12

+ sign -1.696 $\pm$ 0.445  $\chi^2$ /NDF: 2344.6/30

All: -2.013 $\pm$ 0.313  $\chi^2$ /NDF: 4278.7/62

- sign -2.321 $\pm$ 0.439  $\chi^2$ /NDF: 1933.1/31

# reg\_asym\_at2\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $-6.360 \pm 0.046$   $\chi^2/\text{NDF}: 264750.9/16$

Left Out:  $18.455 \pm 0.024$   $\chi^2/\text{NDF}: 350105.5/13$

Right Out:  $-2.837 \pm 0.046$   $\chi^2/\text{NDF}: 265573.0/18$

Left In:  $19.442 \pm 0.024$   $\chi^2/\text{NDF}: 29181.3/12$

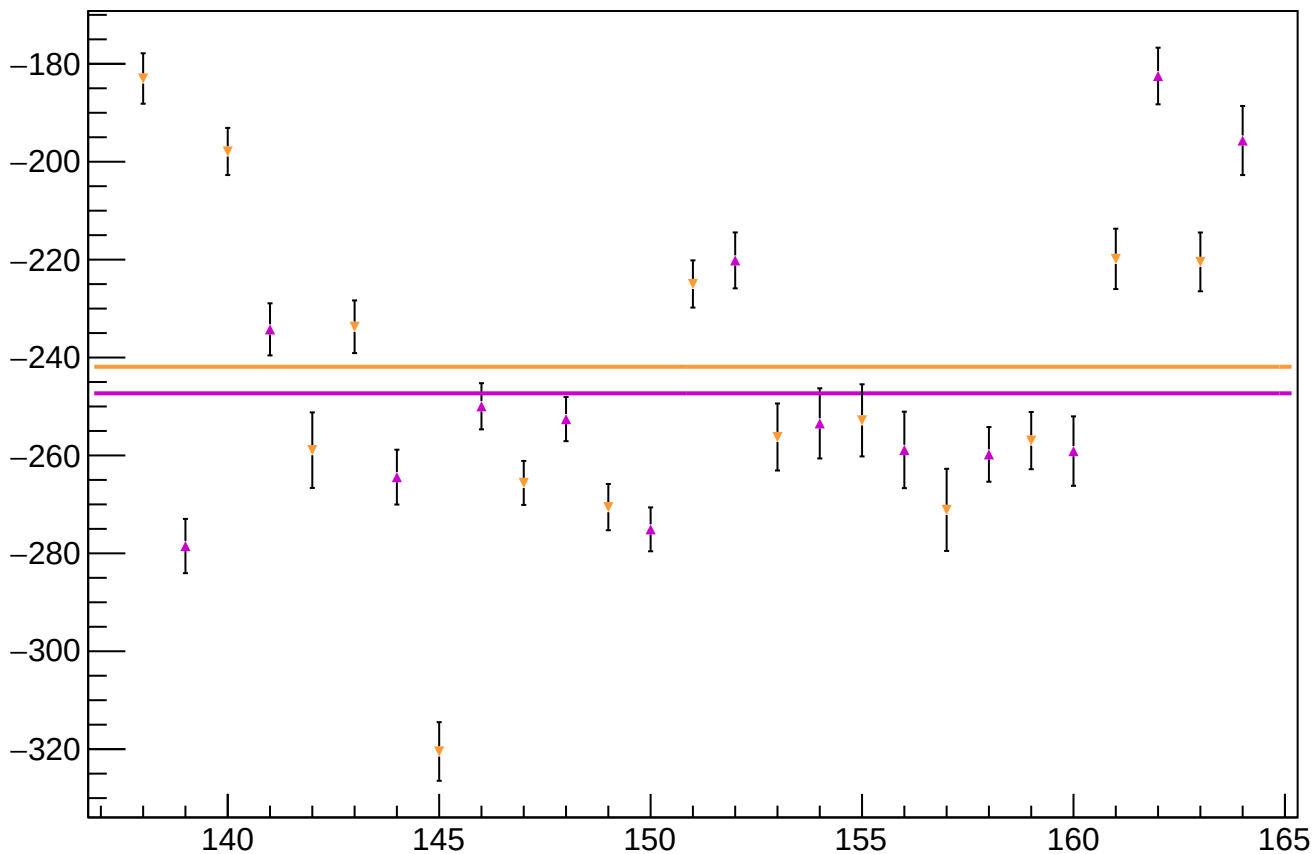
+ sign  $13.130 \pm 0.021$   $\chi^2/\text{NDF}: 840335.8/30$

All:  $13.958 \pm 0.015$   $\chi^2/\text{NDF}: 1325255.4/62$

- sign  $14.751 \pm 0.021$   $\chi^2/\text{NDF}: 482002.7/31$



# reg\_asym\_atl1r2\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -241.885+/-1.517  $\chi^2/\text{NDF}$ : 521.2/13

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

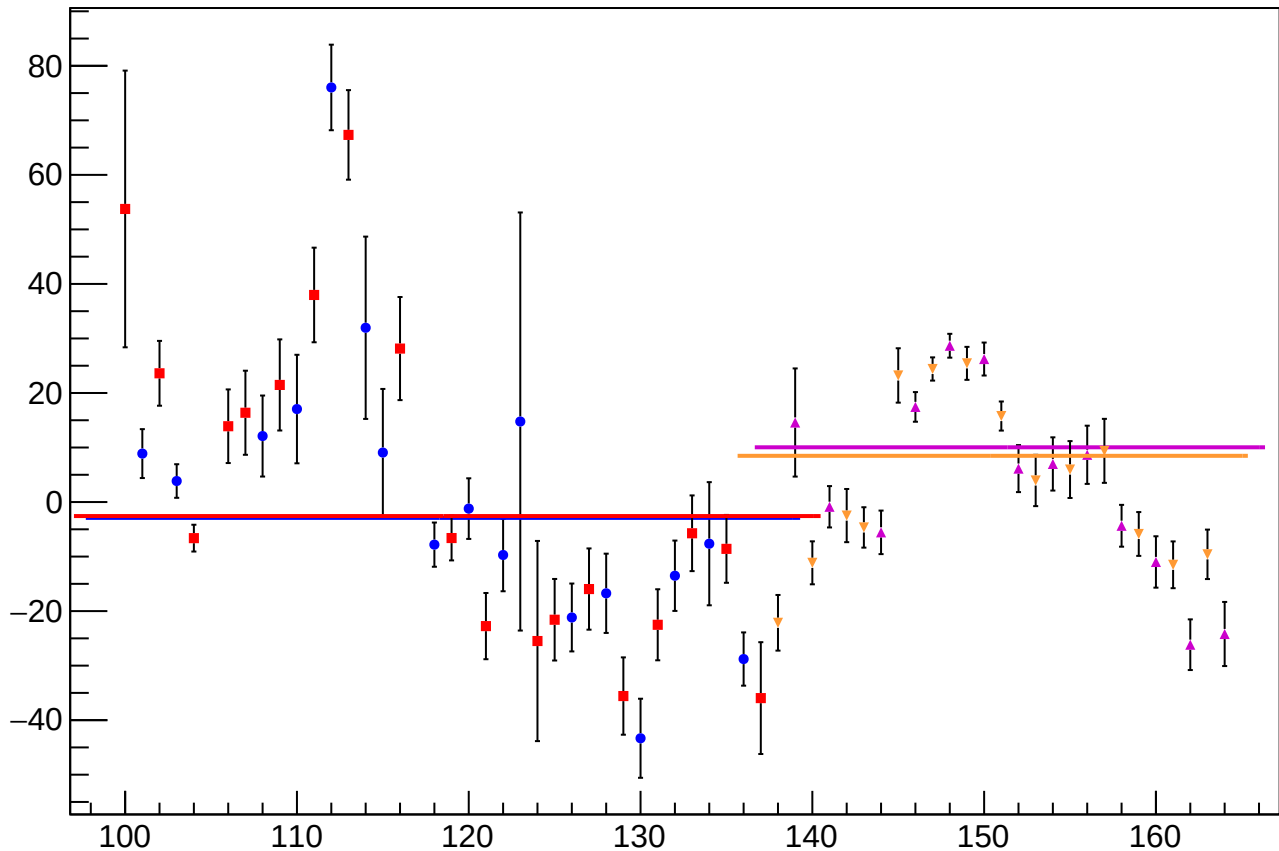
Left In: -247.310+/-1.558  $\chi^2/\text{NDF}$ : 299.4/12

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

All: -244.525+/-1.087  $\chi^2/\text{NDF}$ : 826.8/26

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

# reg\_asym\_atl1r2\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $-2.901 \pm 1.467$   $\chi^2/\text{NDF}$ : 203.6/16

Left Out:  $8.478 \pm 0.998$   $\chi^2/\text{NDF}$ : 233.4/13

Right Out:  $-2.570 \pm 1.396$   $\chi^2/\text{NDF}$ : 218.2/18

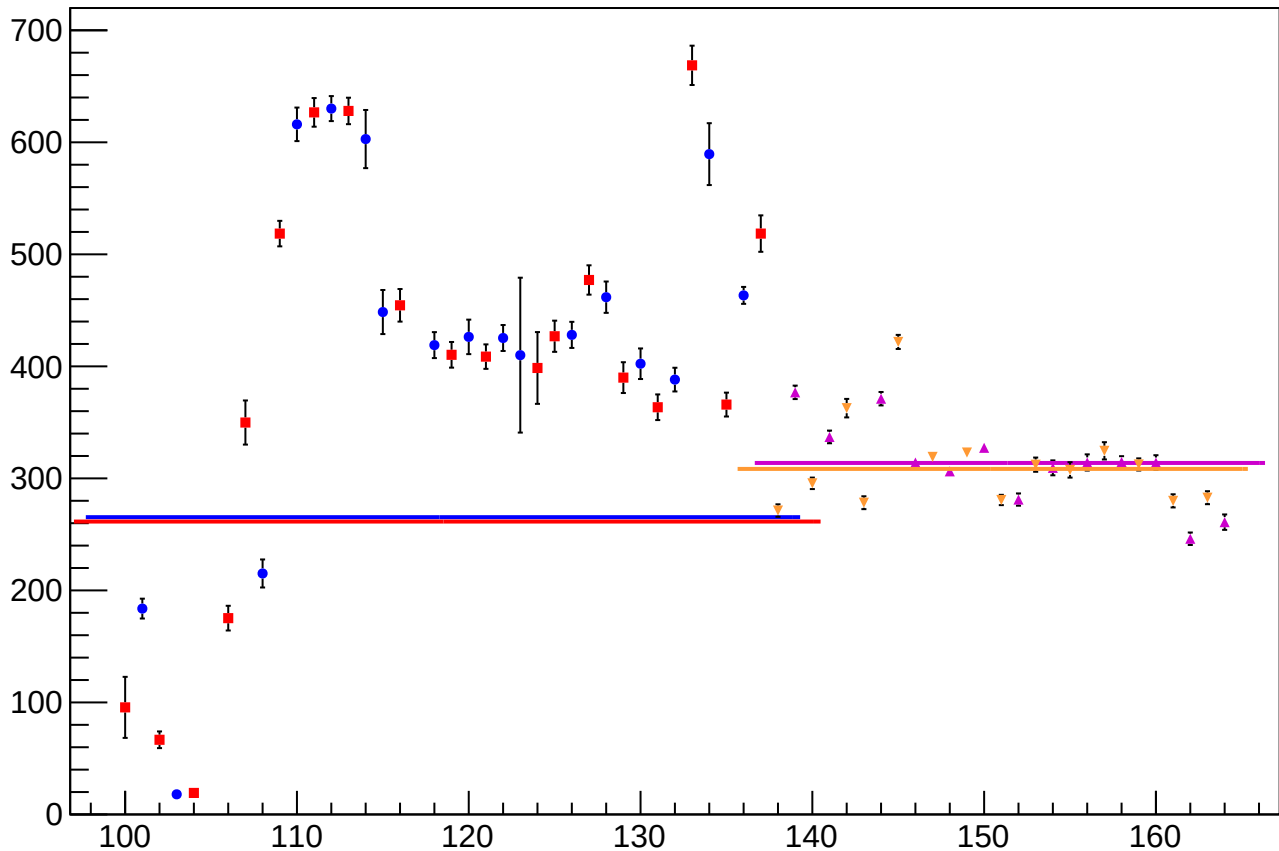
Left In:  $10.039 \pm 1.045$   $\chi^2/\text{NDF}$ : 262.3/12

+ sign  $4.878 \pm 0.825$   $\chi^2/\text{NDF}$ : 478.1/30

All:  $5.191 \pm 0.588$   $\chi^2/\text{NDF}$ : 1011.2/62

- sign  $5.512 \pm 0.837$   $\chi^2/\text{NDF}$ : 532.8/31

# reg\_asym\_atl1r2\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: 265.369 $\pm$ 2.488  $\chi^2/\text{NDF}$ : 7633.8/16

Left Out: 308.452 $\pm$ 1.489  $\chi^2/\text{NDF}$ :548.2/13

Right Out: 261.465 $\pm$ 2.458  $\chi^2/\text{NDF}$ : 8204.3/18

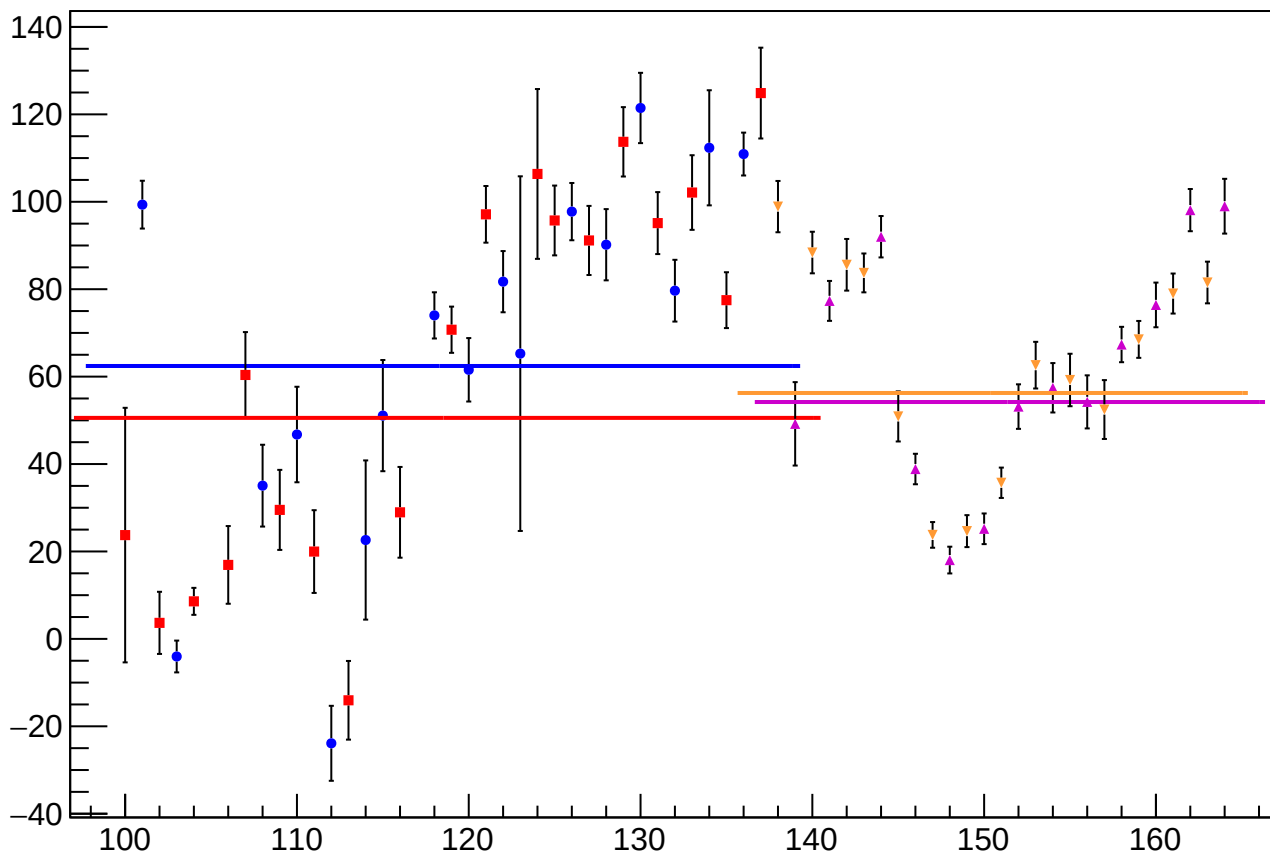
Left In: 313.771 $\pm$ 1.511  $\chi^2/\text{NDF}$ :474.6/12

+ sign 297.095 $\pm$ 1.277  $\chi^2/\text{NDF}$ : 8402.8/30

All: 298.249 $\pm$ 0.907  $\chi^2/\text{NDF}$ : 17412.0/62

- sign 299.421 $\pm$ 1.287  $\chi^2/\text{NDF}$ : 9007.5/31

# reg\_asym\_atl1r2\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 62.434+/-1.694  $\chi^2/\text{NDF}$ : 721.8/16

Left Out: 56.260+/-1.205  $\chi^2/\text{NDF}$ : 457.1/13

Right Out: 50.560+/-1.642  $\chi^2/\text{NDF}$ : 657.4/18

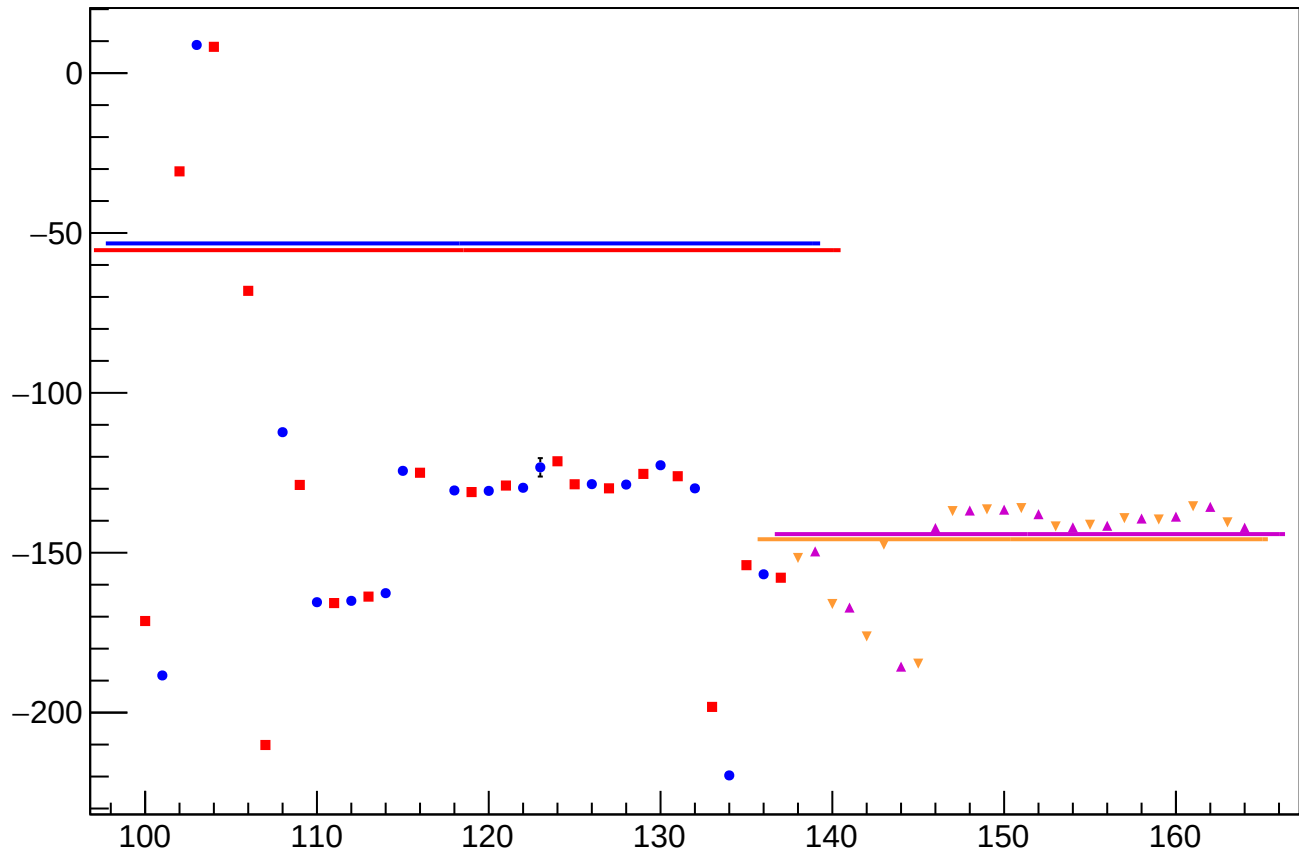
Left In: 54.192+/-1.251  $\chi^2/\text{NDF}$ : 480.7/12

+ sign 58.334+/-0.982  $\chi^2/\text{NDF}$ : 1187.7/30

All: 55.633+/-0.699  $\chi^2/\text{NDF}$ : 2344.2/62

- sign 52.858+/-0.995  $\chi^2/\text{NDF}$ : 1141.2/31

# reg\_asym\_atl1r2\_avg\_diff\_bpm12X\_slope vs Slug



Right In:  $-53.264 \pm 0.070$   $\chi^2/\text{NDF}: 1225492.9/16$

Left Out:  $-145.784 \pm 0.060$   $\chi^2/\text{NDF}: 53634.4/13$

Right Out:  $-55.373 \pm 0.072$   $\chi^2/\text{NDF}: 967027.2/18$

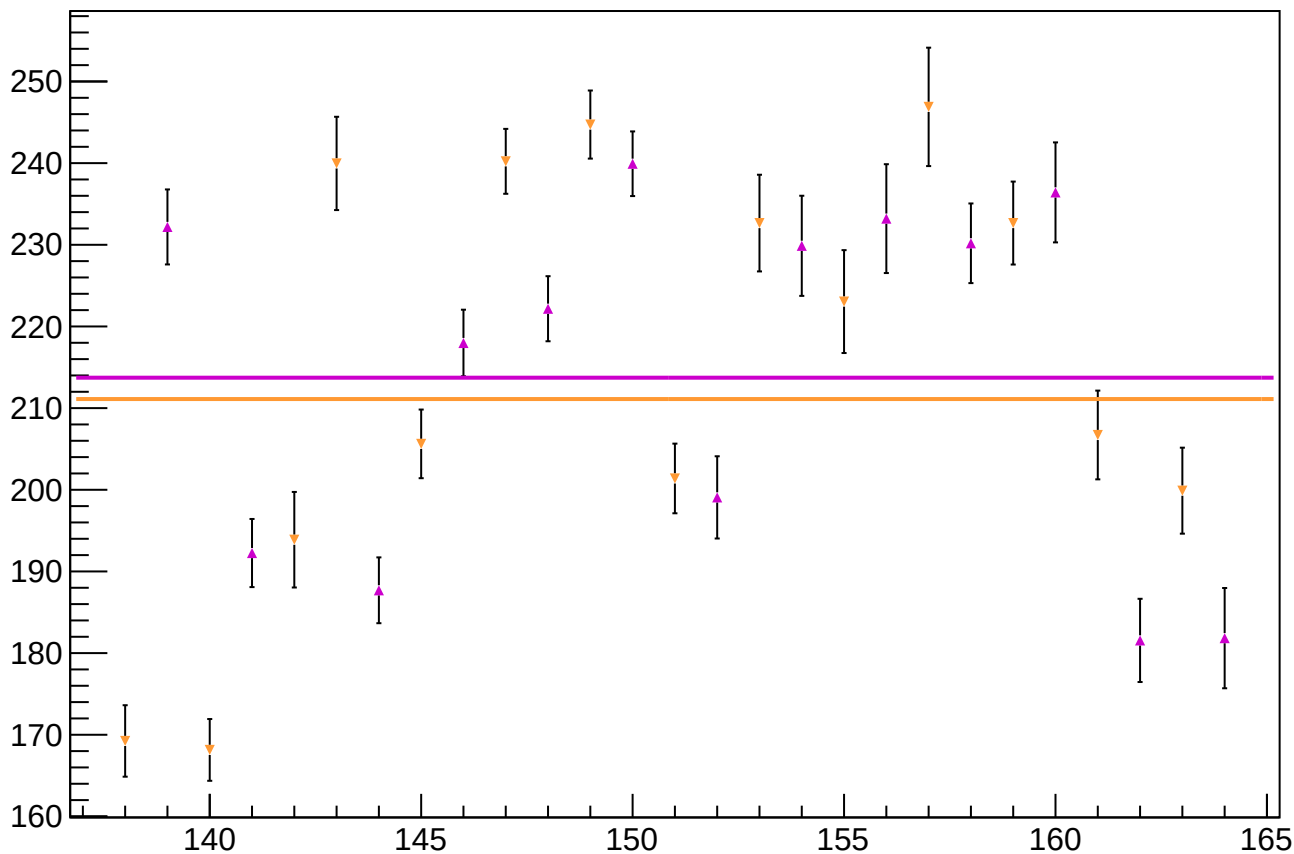
Left In:  $-144.173 \pm 0.060$   $\chi^2/\text{NDF}: 42979.1/12$

+ sign  $-107.075 \pm 0.046$   $\chi^2/\text{NDF}: 2283341.7/30$

All:  $-107.354 \pm 0.032$   $\chi^2/\text{NDF}: 4189987.2/62$

- sign  $-107.640 \pm 0.046$   $\chi^2/\text{NDF}: 1906569.6/31$

# reg\_asym\_atl1r2\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 211.111+/-1.295  $\chi^2/\text{NDF}$ : 444.7/13

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

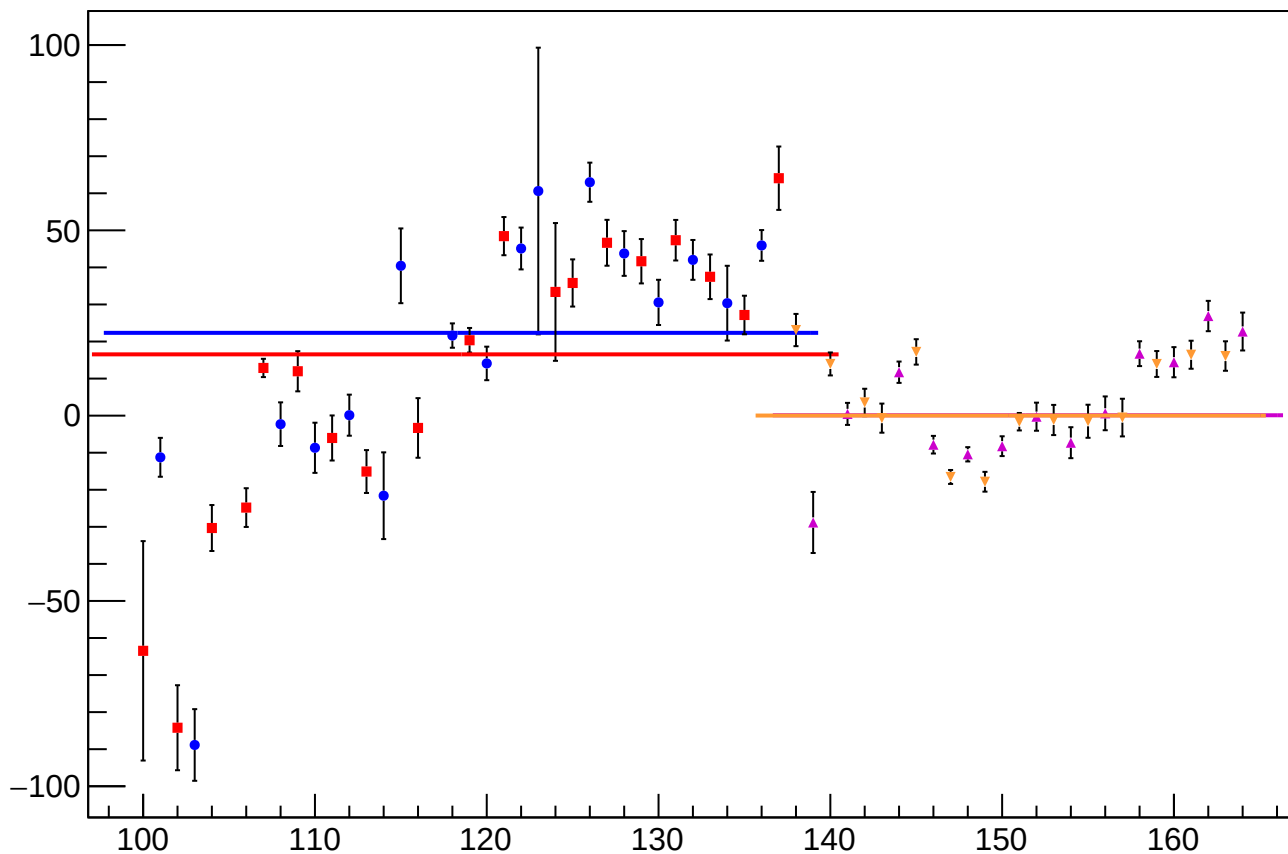
Left In: 213.726+/-1.318  $\chi^2/\text{NDF}$ : 249.7/12

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

All: 212.396+/-0.924  $\chi^2/\text{NDF}$ : 696.4/26

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

# reg\_asym\_atl1r2\_dd\_diff\_bpm4aY\_slope vs Slug



Right In: 22.342 $\pm$ 1.395  $\chi^2$ /NDF: 385.8/16

Left Out: 0.027 $\pm$ 0.862  $\chi^2$ /NDF:248.1/13

Right Out: 16.537 $\pm$ 1.227  $\chi^2$ /NDF: 426.6/18

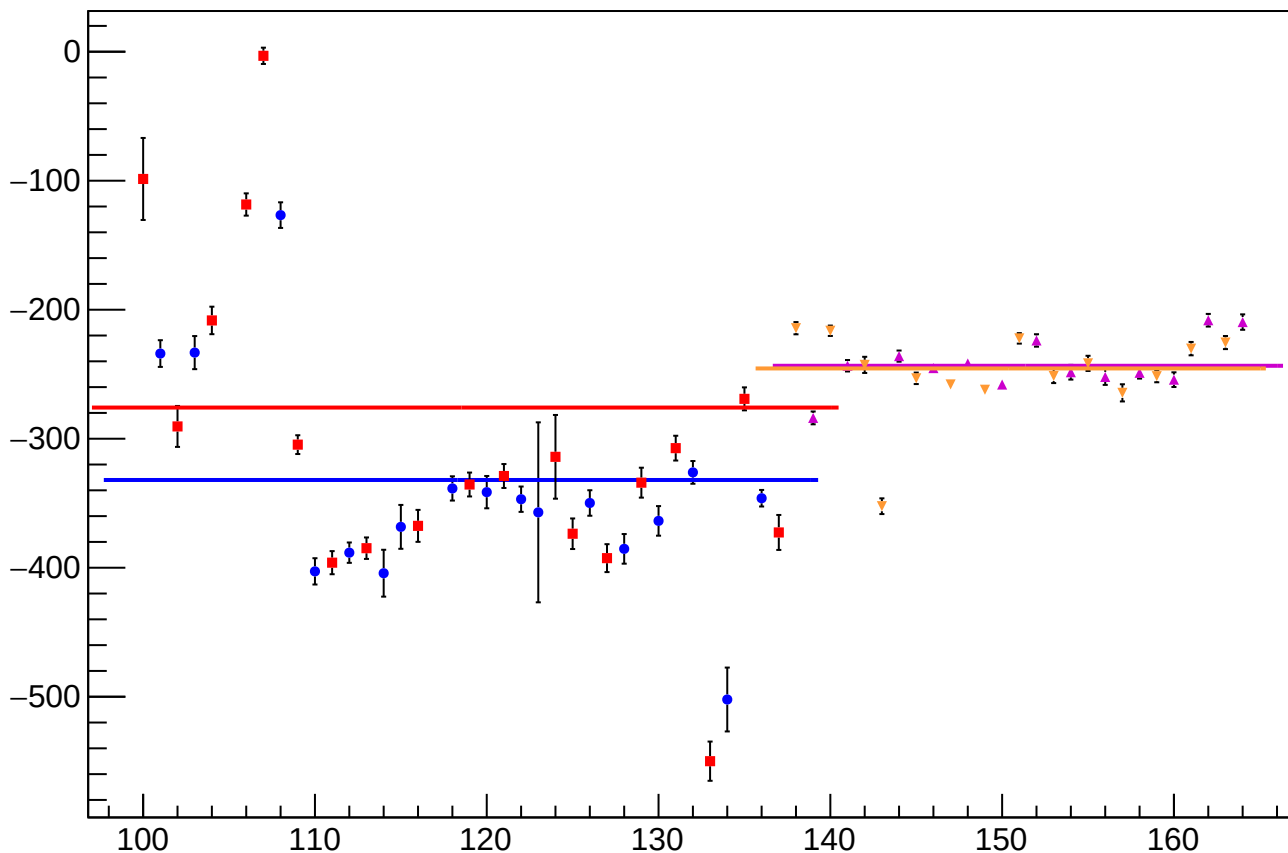
Left In: 0.103 $\pm$ 0.892  $\chi^2$ /NDF:181.8/12

+ sign 6.189 $\pm$ 0.733  $\chi^2$ /NDF: 819.1/30

All: 5.985 $\pm$ 0.514  $\chi^2$ /NDF: 1544.9/62

- sign 5.786 $\pm$ 0.722  $\chi^2$ /NDF: 725.6/31

# reg\_asym\_atl1r2\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-331.989 \pm 2.580$   $\chi^2/\text{NDF}$ : 785.0/16

Left Out:  $-245.528 \pm 1.277$   $\chi^2/\text{NDF}$ : 503.5/13

Right Out:  $-275.842 \pm 2.325$   $\chi^2/\text{NDF}$ : 3362.2/18

Left In:  $-243.456 \pm 1.285$   $\chi^2/\text{NDF}$ : 193.1/12

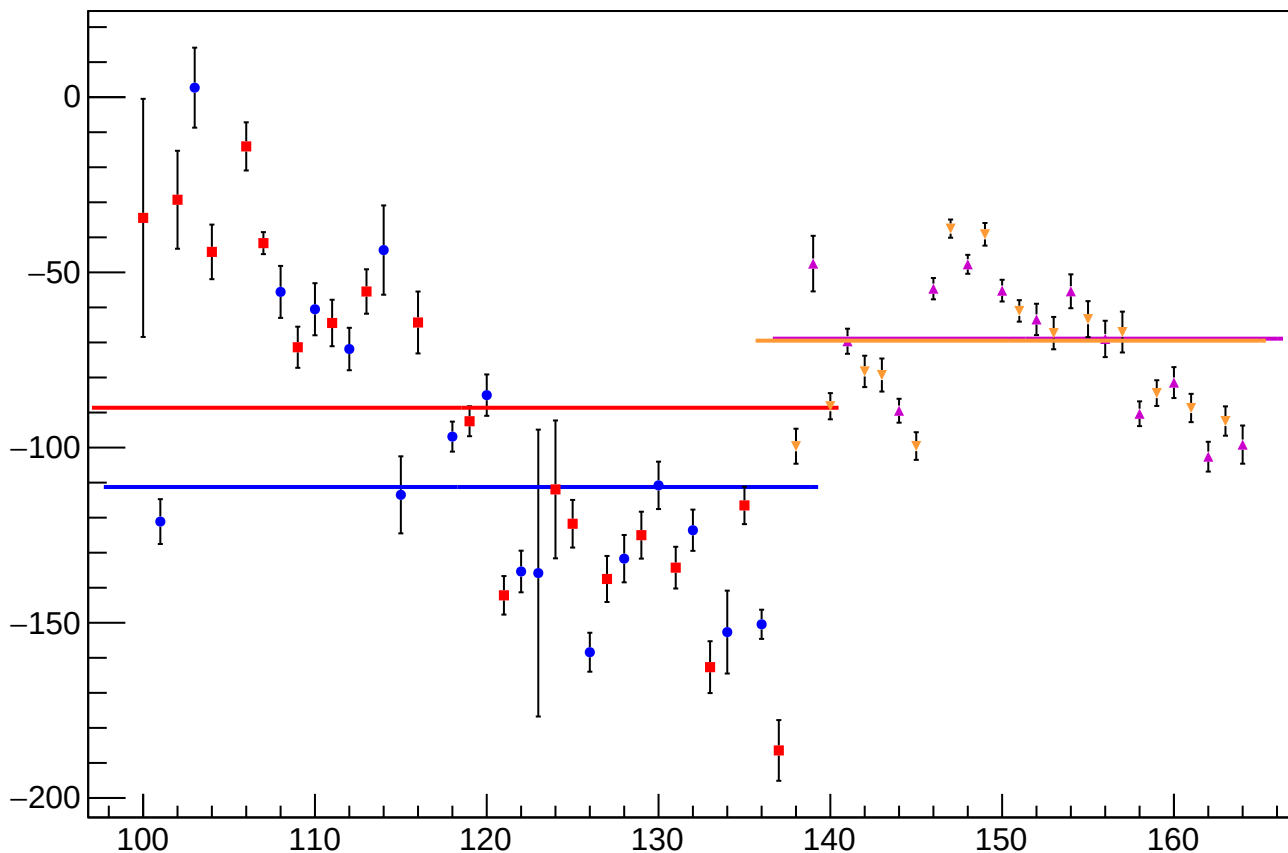
+ sign  $-262.532 \pm 1.144$   $\chi^2/\text{NDF}$ : 2190.5/30

All:  $-256.688 \pm 0.802$   $\chi^2/\text{NDF}$ : 5945.7/62

- sign  $-251.040 \pm 1.125$   $\chi^2/\text{NDF}$ : 3704.0/31



# reg\_asym\_atl1r2\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-111.257 \pm 1.597$   $\chi^2/\text{NDF}$ : 509.6/16

Left Out:  $-69.483 \pm 1.038$   $\chi^2/\text{NDF}$ : 446.4/13

Right Out:  $-88.633 \pm 1.433$   $\chi^2/\text{NDF}$ : 971.0/18

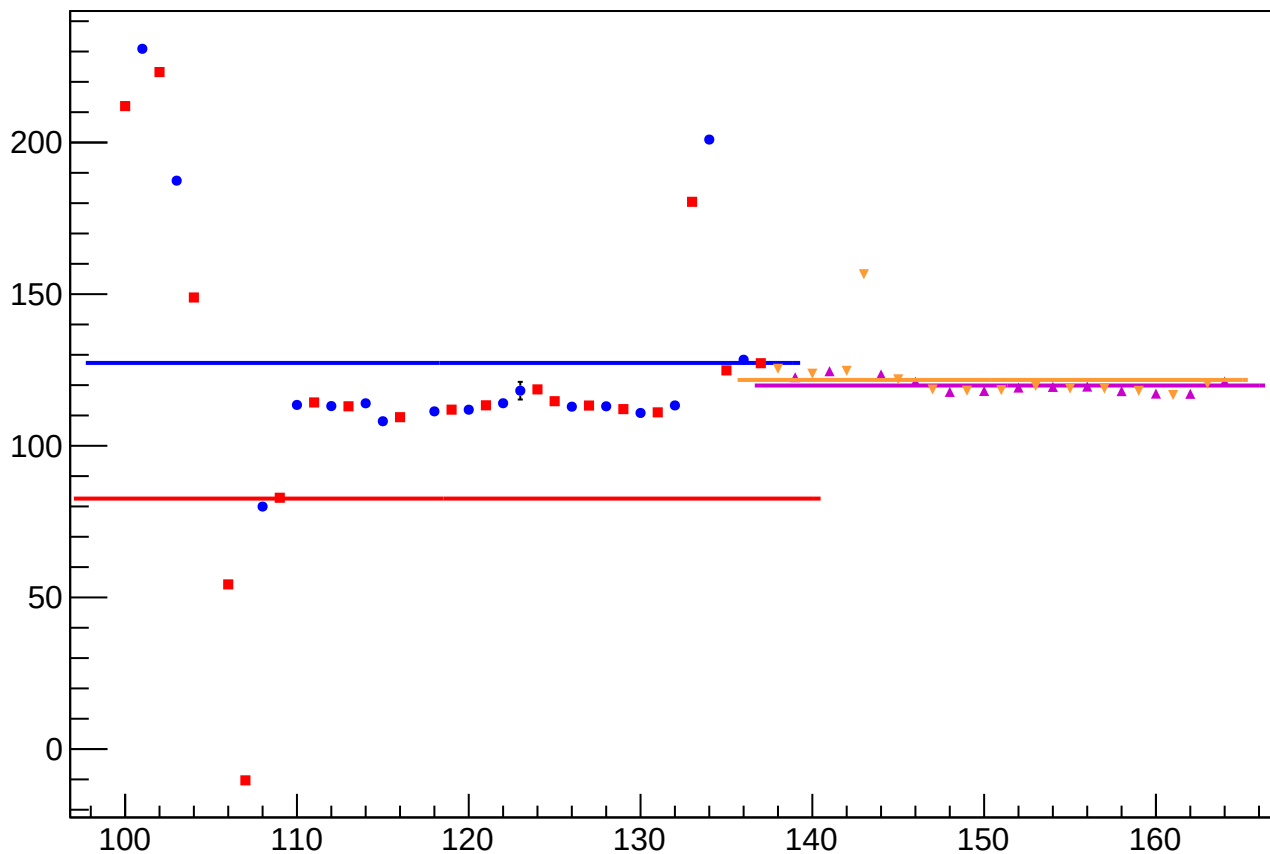
Left In:  $-68.918 \pm 1.066$   $\chi^2/\text{NDF}$ : 294.6/12

+ sign  $-81.887 \pm 0.870$   $\chi^2/\text{NDF}$ : 1436.9/30

All:  $-78.865 \pm 0.610$   $\chi^2/\text{NDF}$ : 2848.0/62

- sign  $-75.944 \pm 0.856$   $\chi^2/\text{NDF}$ : 1387.4/31

# reg\_asym\_atl1r2\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 127.323 $\pm$ 0.089  $\chi^2$ /NDF: 187776.4/16

Left Out: 121.715 $\pm$ 0.051  $\chi^2$ /NDF: 23673.1/13

Right Out: 82.595 $\pm$ 0.075  $\chi^2$ /NDF: 765022.5/18

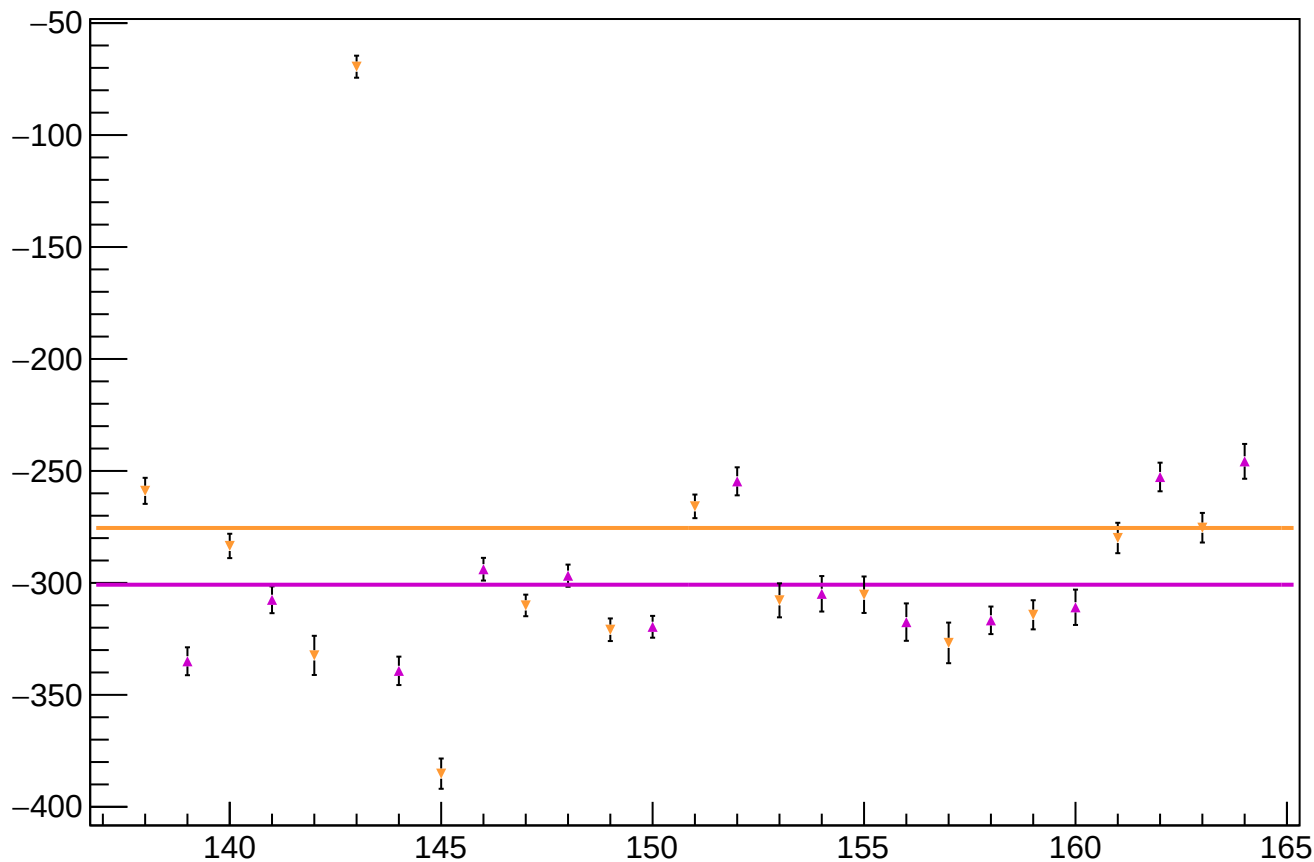
Left In: 119.875 $\pm$ 0.051  $\chi^2$ /NDF: 2206.9/12

+ sign 123.098 $\pm$ 0.044  $\chi^2$ /NDF: 214411.0/30

All: 115.246 $\pm$ 0.031  $\chi^2$ /NDF: 1208721.0/62

- sign 108.104 $\pm$ 0.042  $\chi^2$ /NDF: 934615.0/31

# reg\_asym\_atr1l2\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -275.466+/-1.643  $\chi^2/\text{NDF}$ : 2301.7/13

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

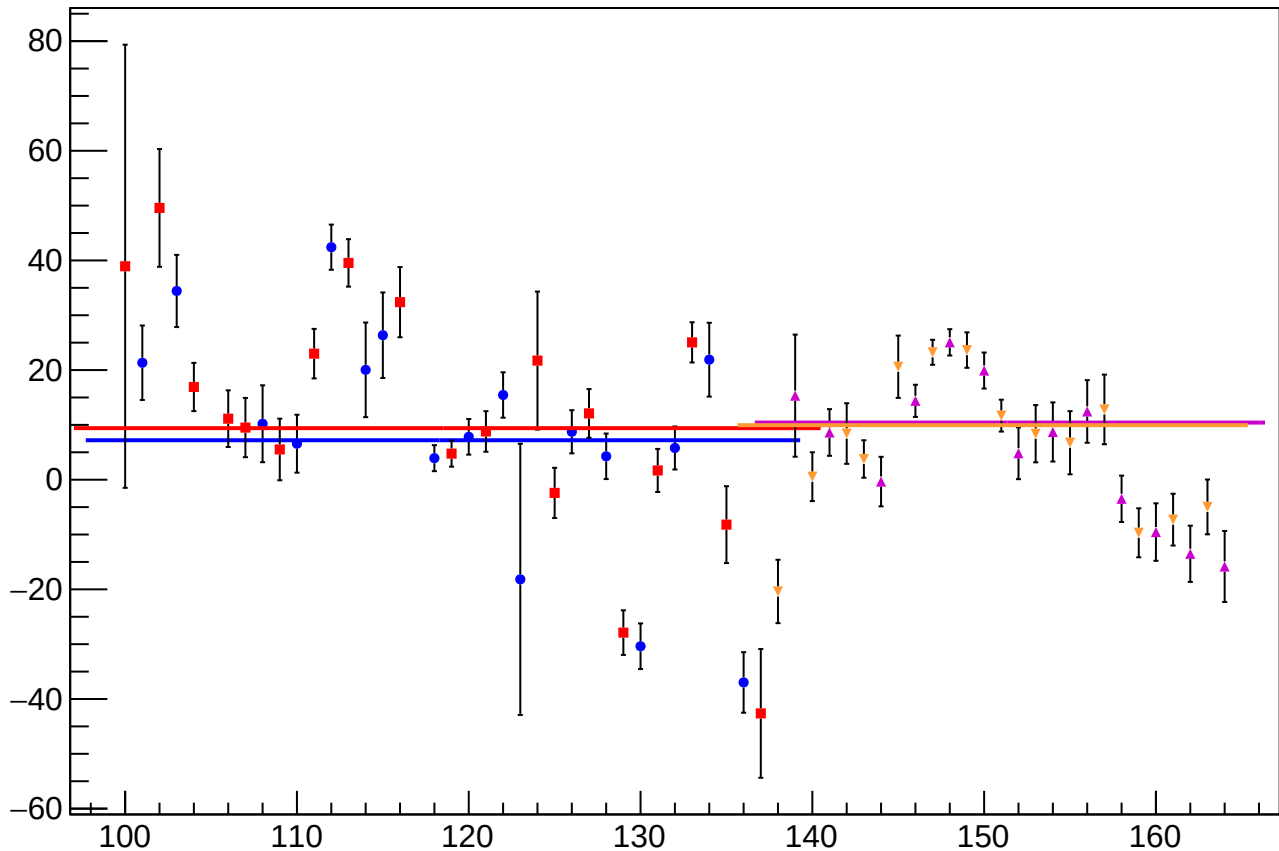
Left In: -300.809+/-1.716  $\chi^2/\text{NDF}$ : 259.3/12

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

All: -287.586+/-1.187  $\chi^2/\text{NDF}$ : 2674.8/26

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

# reg\_asym\_atr1l2\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $7.199 \pm 1.103$   $\chi^2/\text{NDF}$ : 260.9/16

Left Out:  $9.947 \pm 1.077$   $\chi^2/\text{NDF}$ : 133.1/13

Right Out:  $9.403 \pm 1.071$   $\chi^2/\text{NDF}$ : 232.2/18

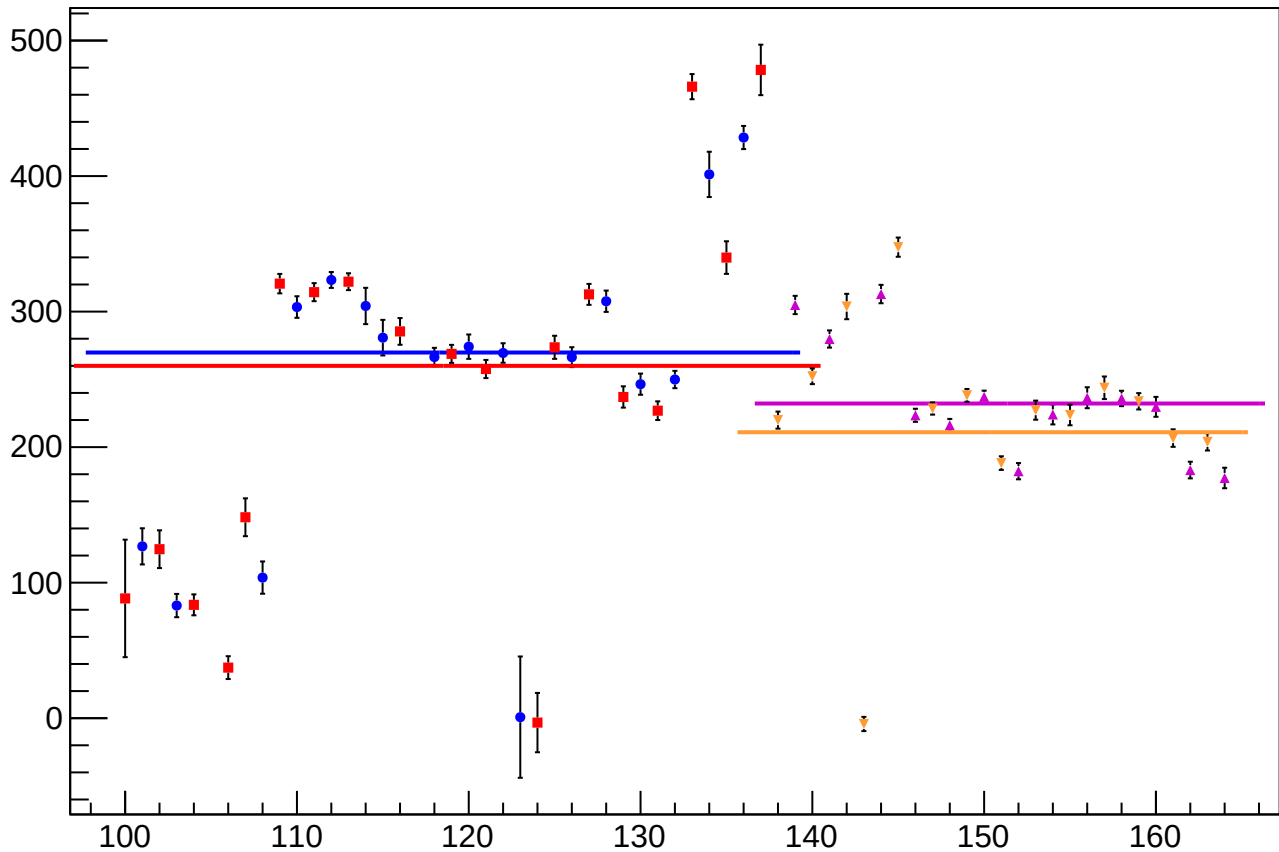
Left In:  $10.423 \pm 1.148$   $\chi^2/\text{NDF}$ : 118.5/12

+ sign  $8.605 \pm 0.771$   $\chi^2/\text{NDF}$ : 397.2/30

All:  $9.231 \pm 0.549$   $\chi^2/\text{NDF}$ : 749.6/62

- sign  $9.877 \pm 0.783$   $\chi^2/\text{NDF}$ : 351.1/31

# reg\_asym\_atr1l2\_avg\_diff\_bpm4eX\_slope vs Slug



Right In:  $269.806 \pm 2.089$   $\chi^2/\text{NDF}: 1374.1/16$

Left Out:  $210.993 \pm 1.613$   $\chi^2/\text{NDF}: 2309.0/13$

Right Out:  $259.980 \pm 1.977$   $\chi^2/\text{NDF}: 2538.6/18$

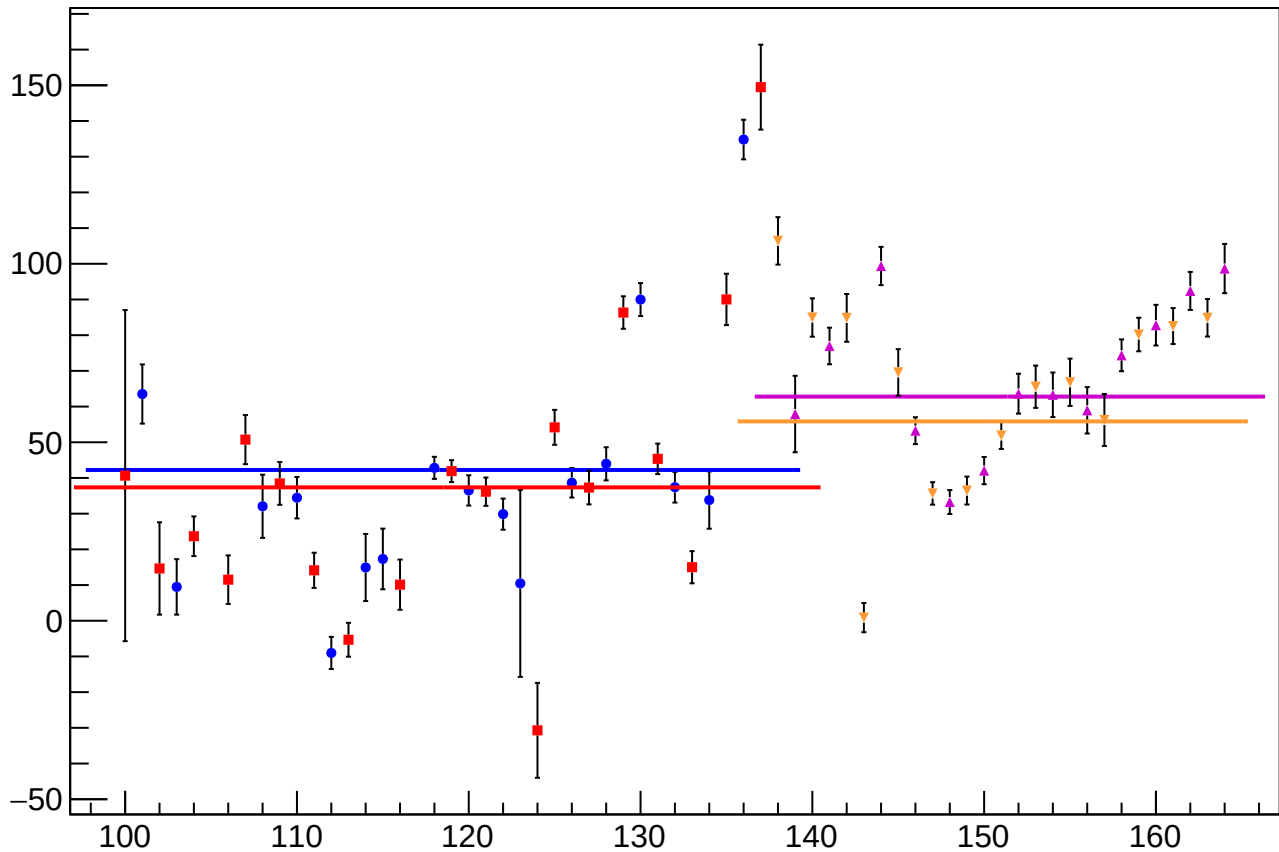
Left In:  $232.182 \pm 1.662$   $\chi^2/\text{NDF}: 517.6/12$

+ sign  $232.966 \pm 1.277$   $\chi^2/\text{NDF}: 4179.6/30$

All:  $238.350 \pm 0.901$   $\chi^2/\text{NDF}: 7387.1/62$

- sign  $243.694 \pm 1.272$   $\chi^2/\text{NDF}: 3172.0/31$

# reg\_asym\_atr1l2\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 42.242 $\pm$ 1.274  $\chi^2/\text{NDF}$ : 574.4/16

Left Out: 55.846 $\pm$ 1.302  $\chi^2/\text{NDF}$ : 448.6/13

Right Out: 37.367 $\pm$ 1.235  $\chi^2/\text{NDF}$ : 472.3/18

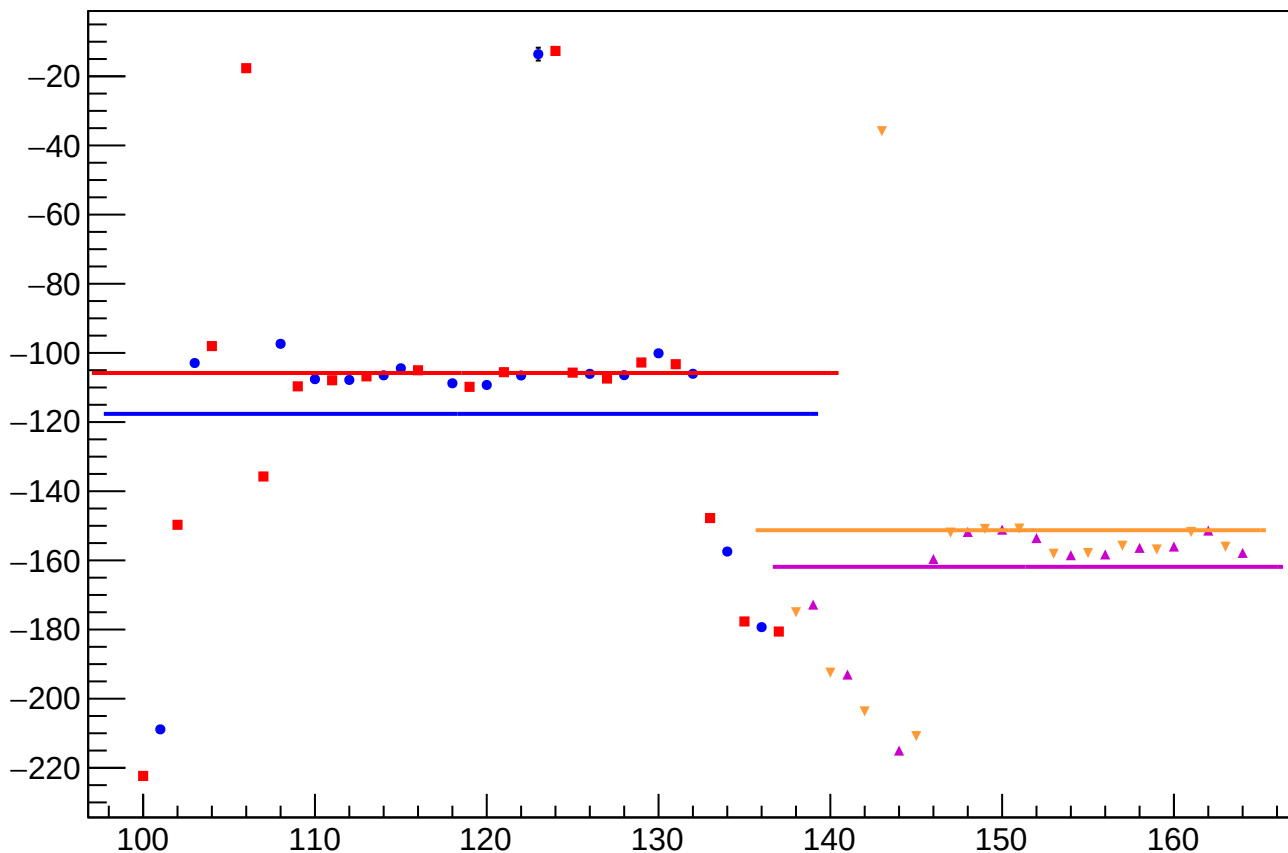
Left In: 62.792 $\pm$ 1.376  $\chi^2/\text{NDF}$ : 245.2/12

+ sign 48.893 $\pm$ 0.910  $\chi^2/\text{NDF}$ : 1078.8/30

All: 48.802 $\pm$ 0.647  $\chi^2/\text{NDF}$ : 1985.5/62

- sign 48.709 $\pm$ 0.919  $\chi^2/\text{NDF}$ : 906.7/31

reg\_asym\_atr1l2\_avg\_diff\_bpm12X\_slope vs Slug



Right In: -117.625+/-0.079  $\chi^2/\text{NDF}$ : 141872.3/16

Left Out: -151.282+/-0.065  $\chi^2/\text{NDF}$ : 403619.3/13

Right Out: -105.807+/-0.073  $\chi^2/\text{NDF}$ : 323108.1/18

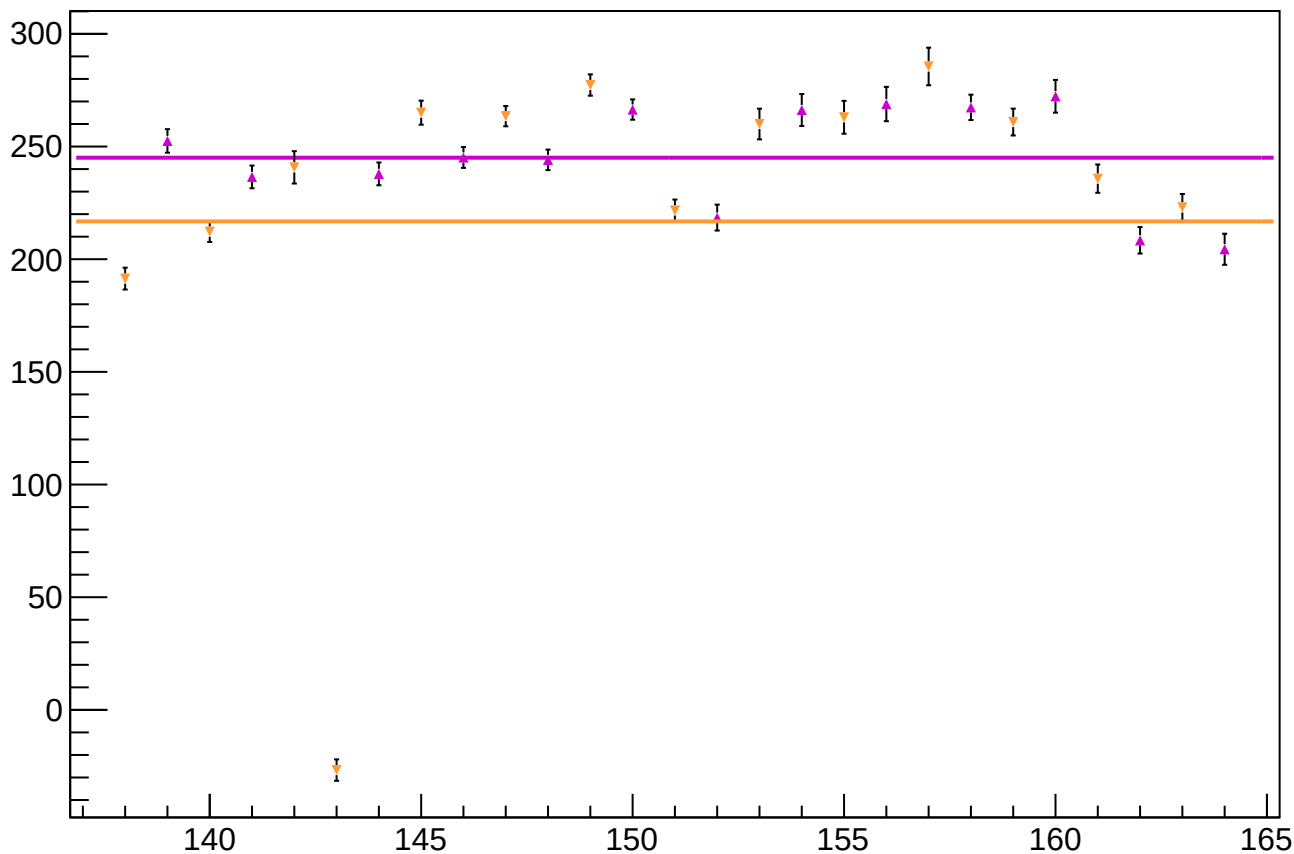
Left In: -161.866+/-0.066  $\chi^2/\text{NDF}$ : 59334.7/12

+ sign -137.651+/-0.050  $\chi^2/\text{NDF}$ : 654795.2/30

All: -137.064+/-0.035  $\chi^2/\text{NDF}$ : 1362045.0/62

- sign -136.500+/-0.049  $\chi^2/\text{NDF}$ : 706979.4/31

# reg\_asym\_atr1l2\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 216.768+/-1.470  $\chi^2/\text{NDF}$ : 3229.8/13

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

Left In: 245.047+/-1.530  $\chi^2/\text{NDF}$ : 173.0/12

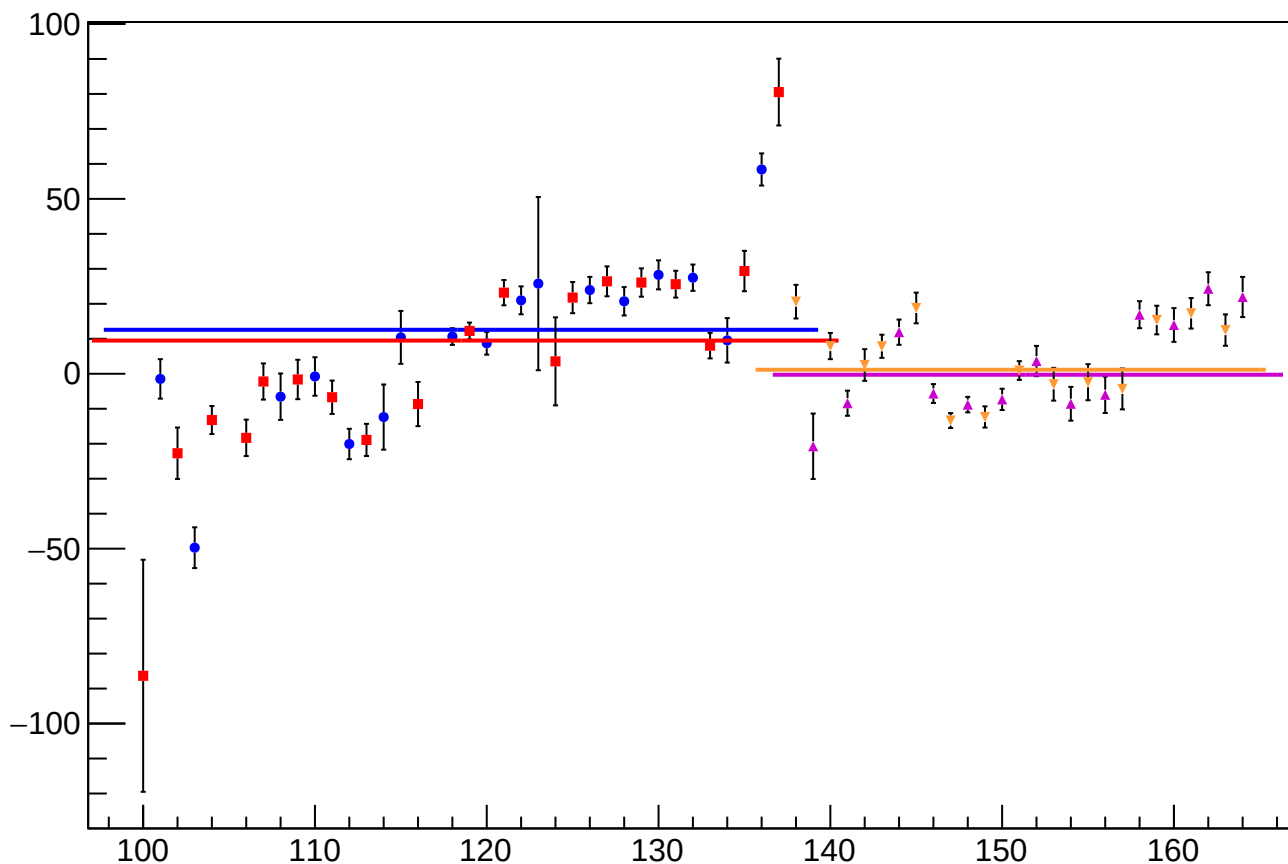
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: 230.345+/-1.060  $\chi^2/\text{NDF}$ : 3580.4/26

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



# reg\_asym\_atr1l2\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $12.574 \pm 1.074$   $\chi^2/\text{NDF}$ : 348.0/16

Left Out:  $1.149 \pm 0.976$   $\chi^2/\text{NDF}$ : 140.6/13

Right Out:  $9.493 \pm 1.047$   $\chi^2/\text{NDF}$ : 295.8/18

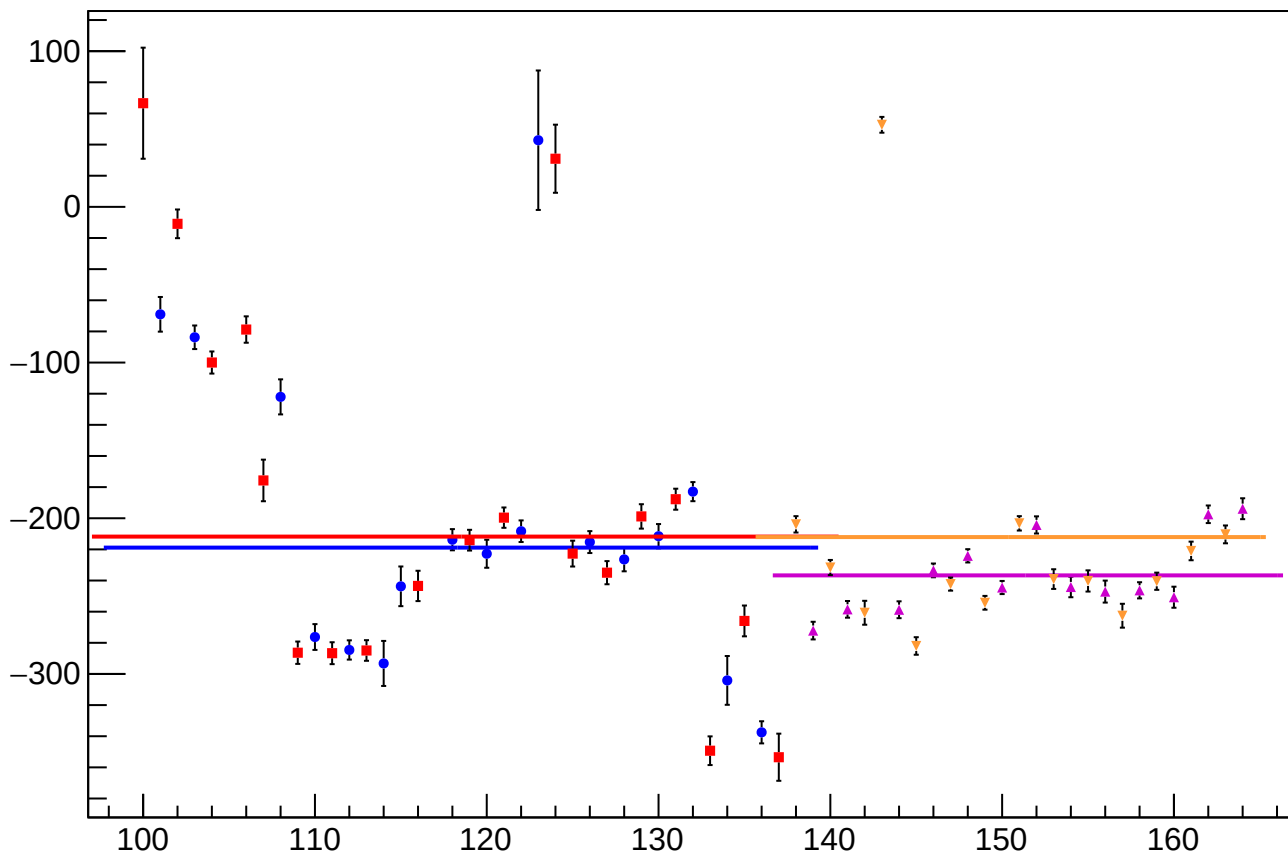
Left In:  $-0.275 \pm 1.035$   $\chi^2/\text{NDF}$ : 121.2/12

+ sign  $6.318 \pm 0.722$   $\chi^2/\text{NDF}$ : 550.5/30

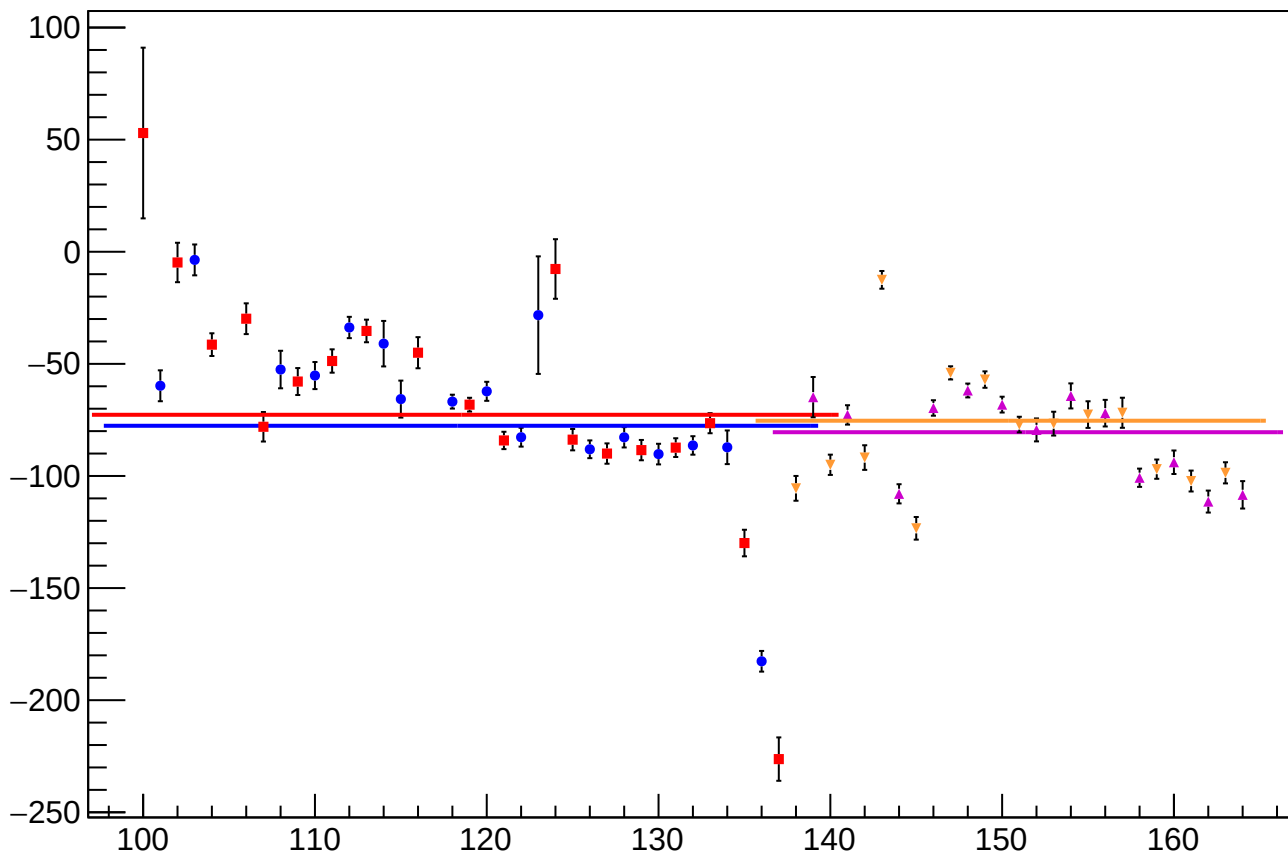
All:  $5.450 \pm 0.516$   $\chi^2/\text{NDF}$ : 1014.5/62

- sign  $4.549 \pm 0.736$   $\chi^2/\text{NDF}$ : 461.0/31

# reg\_asym\_atr1l2\_dd\_diff\_bpm4eX\_slope vs Slug



# reg\_asym\_atr1l2\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-77.612 \pm 1.236$   $\chi^2/\text{NDF}$ : 815.9/16

Left Out:  $-75.357 \pm 1.177$   $\chi^2/\text{NDF}$ : 562.1/13

Right Out:  $-72.710 \pm 1.206$   $\chi^2/\text{NDF}$ : 671.4/18

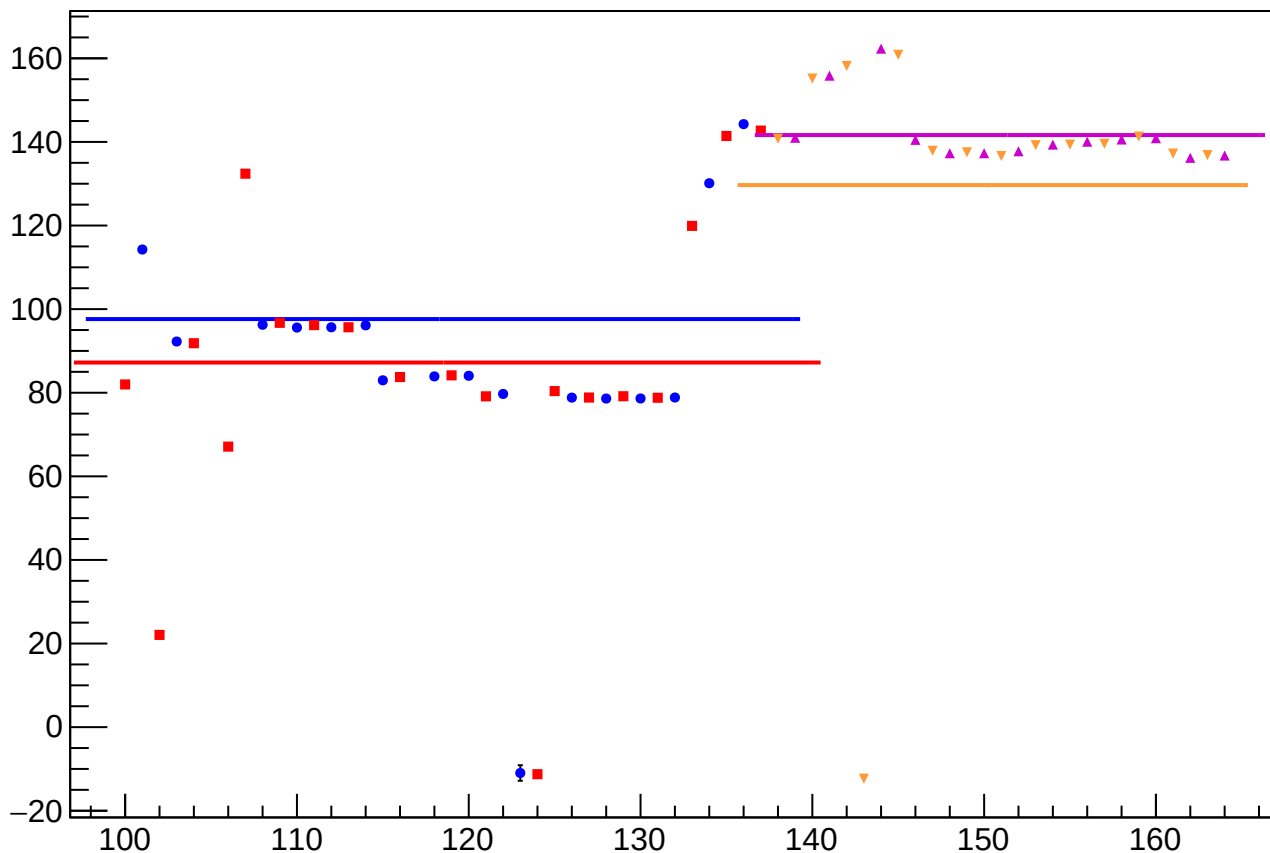
Left In:  $-80.484 \pm 1.237$   $\chi^2/\text{NDF}$ : 208.3/12

+ sign  $-76.429 \pm 0.853$   $\chi^2/\text{NDF}$ : 1379.8/30

All:  $-76.463 \pm 0.607$   $\chi^2/\text{NDF}$ : 2279.7/62

- sign  $-76.498 \pm 0.864$   $\chi^2/\text{NDF}$ : 899.9/31

# reg\_asym\_atr1l2\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 97.620 $\pm$ 0.074  $\chi^2$ /NDF: 94045.2/16

Left Out: 129.672 $\pm$ 0.058  $\chi^2$ /NDF: 549514.9/13

Right Out: 87.226 $\pm$ 0.068  $\chi^2$ /NDF: 220850.5/18

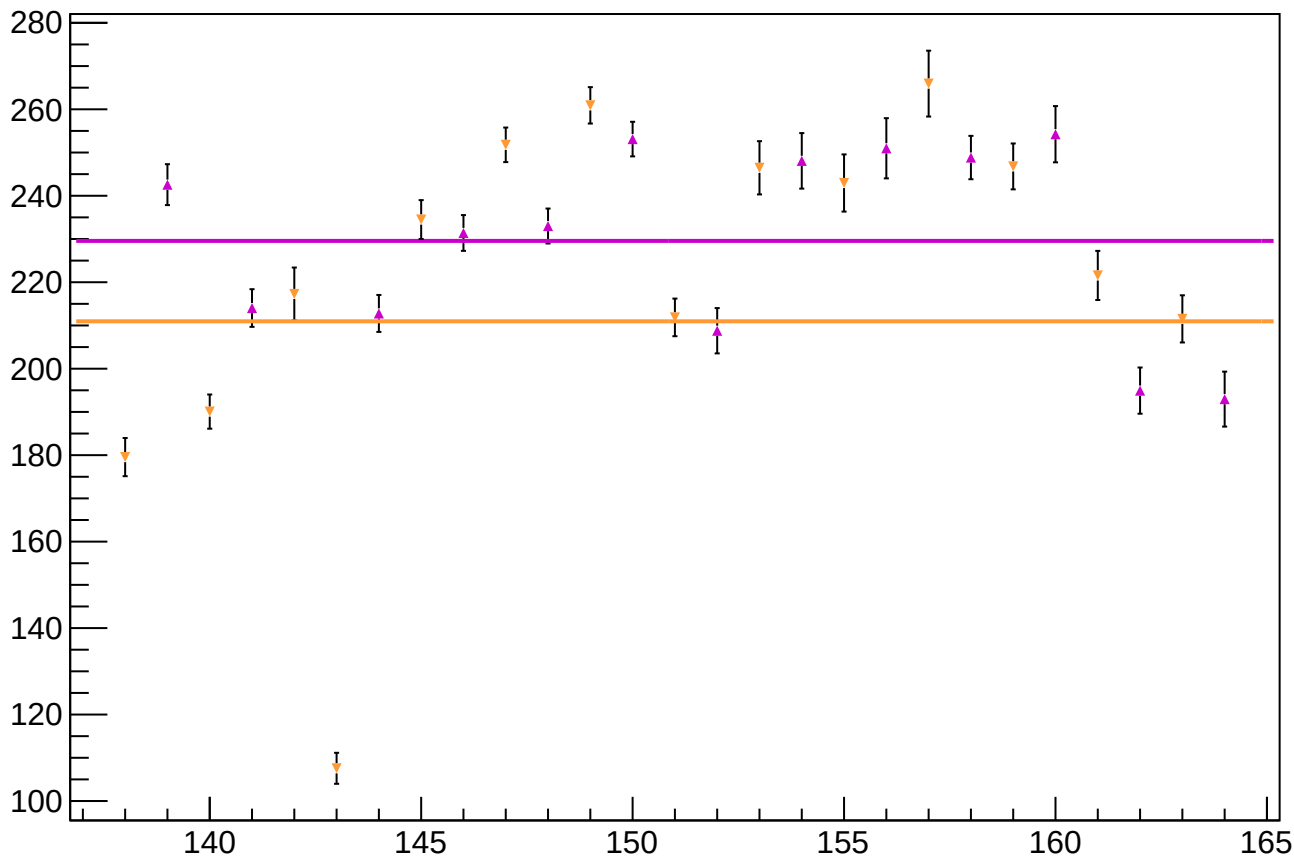
Left In: 141.644 $\pm$ 0.059  $\chi^2$ /NDF: 14508.5/12

+ sign 117.368 $\pm$ 0.046  $\chi^2$ /NDF: 760059.1/30

All: 117.817 $\pm$ 0.032  $\chi^2$ /NDF: 1357824.3/62

- sign 118.248 $\pm$ 0.045  $\chi^2$ /NDF: 597575.9/31

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: 210.959 $\pm$ 1.283  $\chi^2$ /NDF:1341.7/13

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

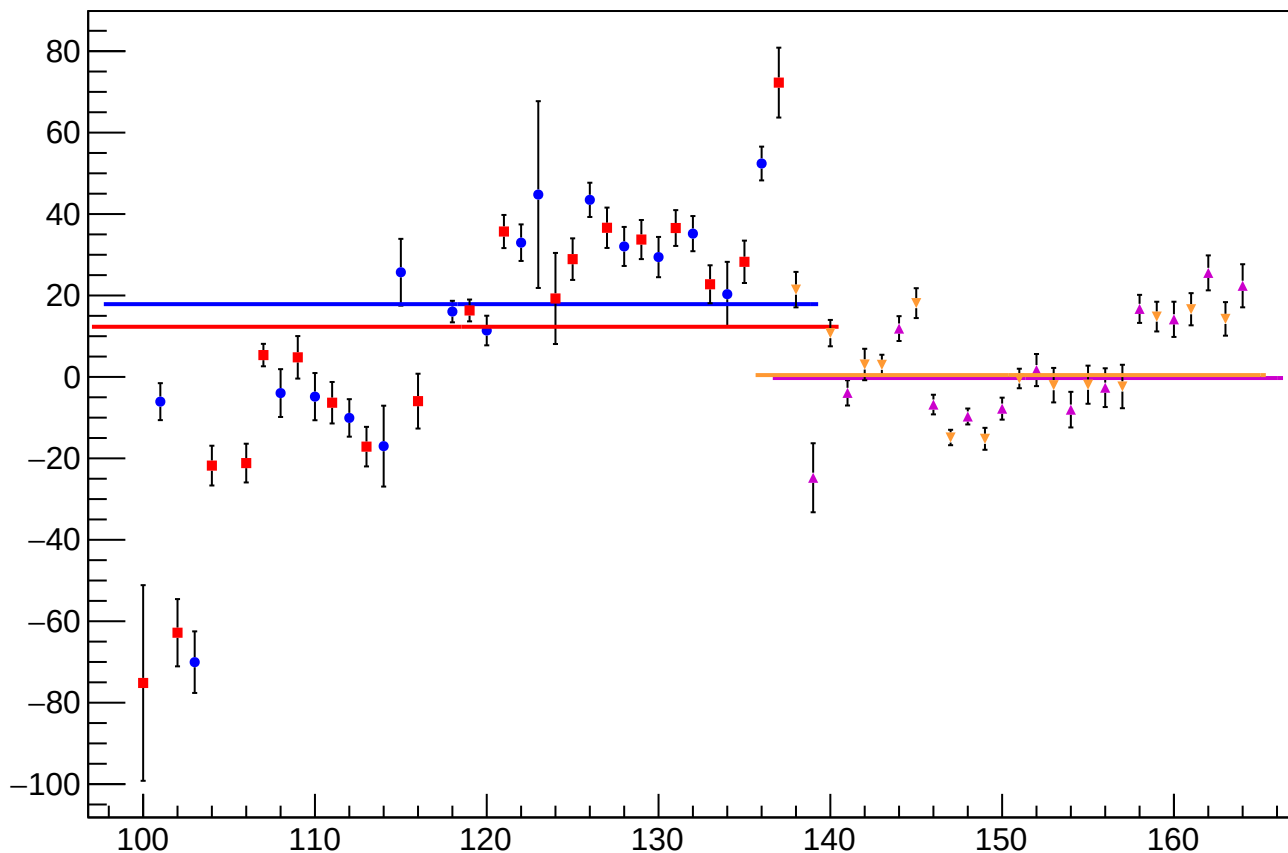
Left In: 229.561 $\pm$ 1.363  $\chi^2$ /NDF:209.0/12

+ sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

All: 219.700 $\pm$ 0.934  $\chi^2$ /NDF: 1649.6/26

- sign 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/0

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm4aY\_slope vs Slug



Right In: 17.872 $\pm$ 1.166  $\chi^2$ /NDF: 395.3/16

Left Out: 0.452 $\pm$ 0.852  $\chi^2$ /NDF: 201.8/13

Right Out: 12.317 $\pm$ 1.083  $\chi^2$ /NDF: 444.0/18

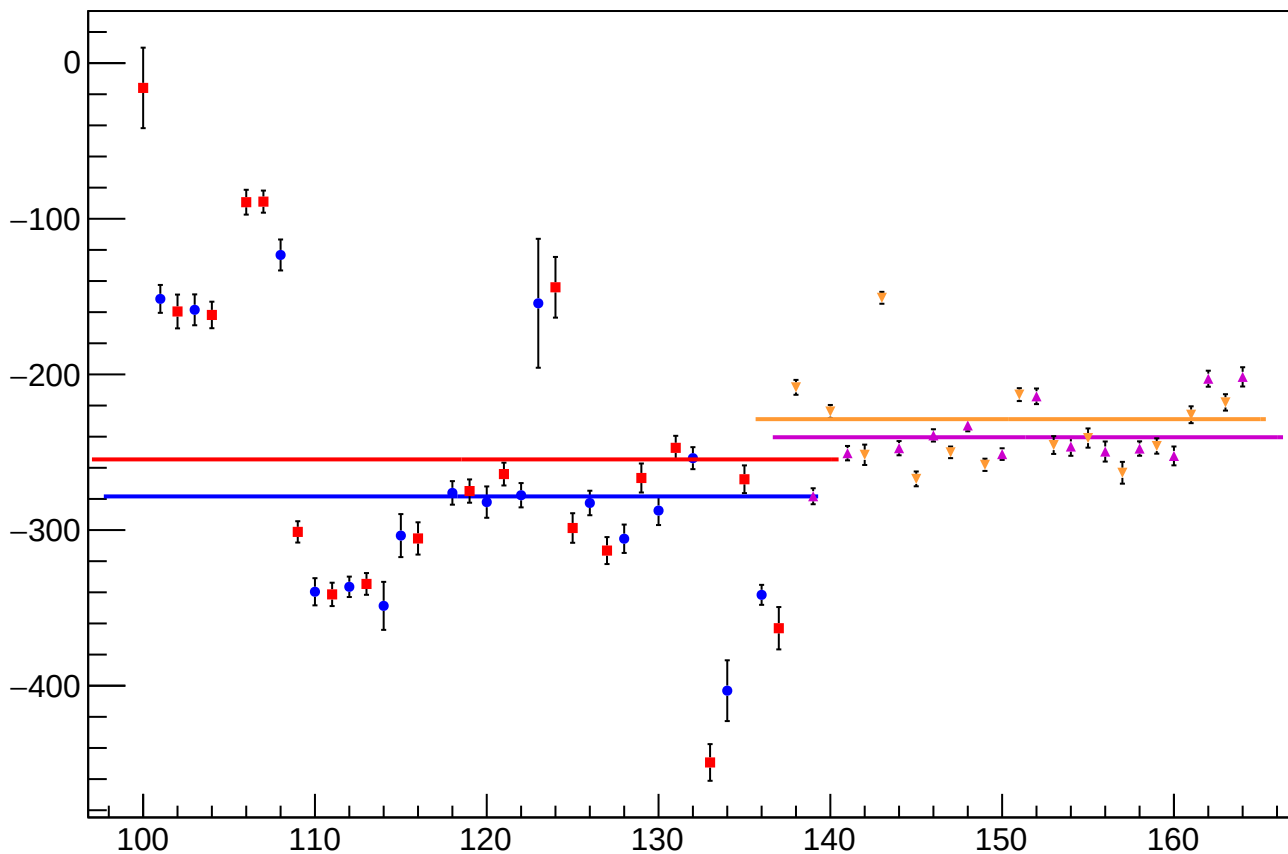
Left In: -0.273 $\pm$ 0.919  $\chi^2$ /NDF: 157.5/12

+ sign 6.516 $\pm$ 0.688  $\chi^2$ /NDF: 742.7/30

All: 5.771 $\pm$ 0.491  $\chi^2$ /NDF: 1425.1/62

- sign 4.997 $\pm$ 0.701  $\chi^2$ /NDF: 680.1/31

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: -278.380 $\pm$ 2.185  $\chi^2$ /NDF: 910.6/16

Left Out: -228.742 $\pm$ 1.271  $\chi^2$ /NDF: 667.9/13

Right Out: -254.603 $\pm$ 2.020  $\chi^2$ /NDF: 2037.5/18

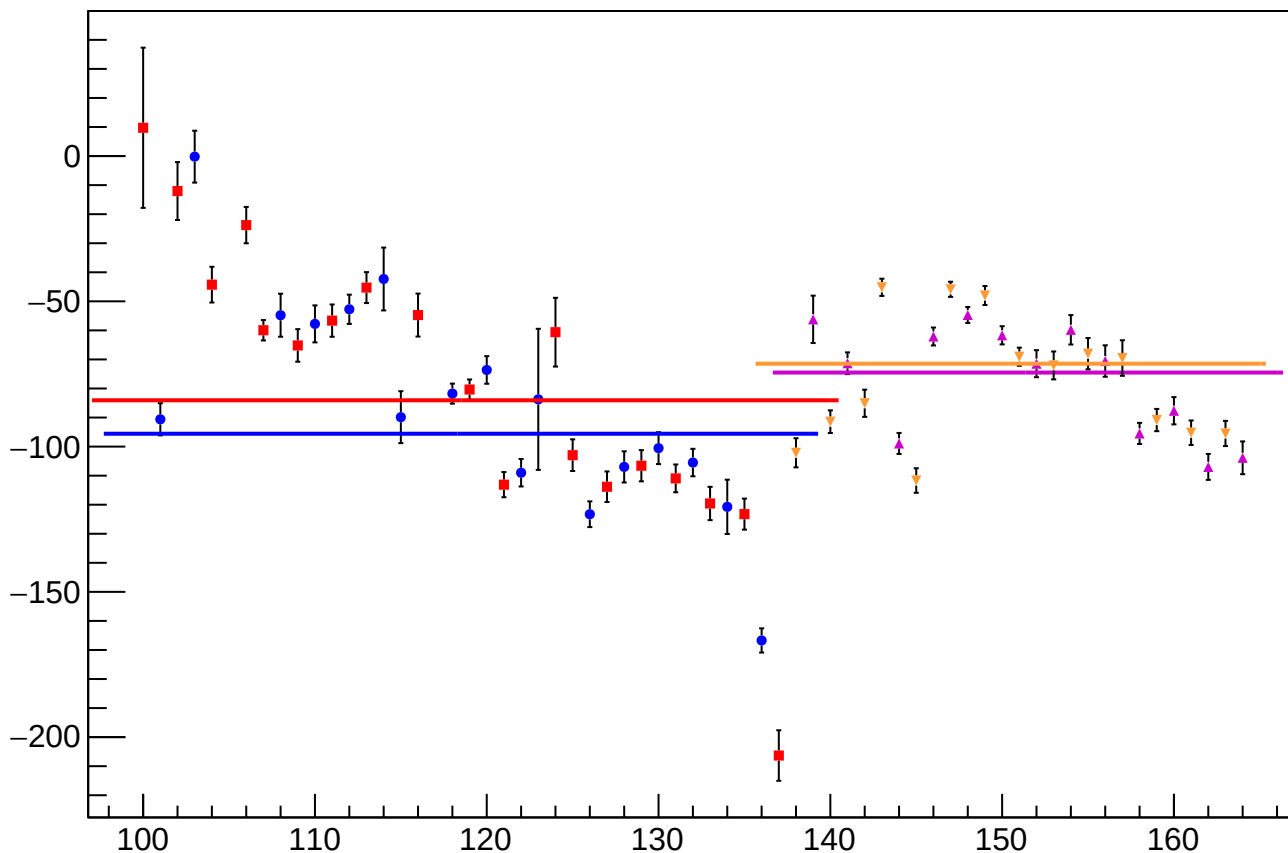
Left In: -240.360 $\pm$ 1.328  $\chi^2$ /NDF: 203.9/12

+ sign -241.291 $\pm$ 1.099  $\chi^2$ /NDF: 1964.1/30

All: -242.958 $\pm$ 0.781  $\chi^2$ /NDF: 4244.9/62

- sign -244.658 $\pm$ 1.110  $\chi^2$ /NDF: 2276.1/31

reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm4eY\_slope vs Slug



Right In:  $-95.576 \pm 1.340$   $\chi^2/\text{NDF}$ : 671.2/16

Left Out:  $-71.465 \pm 1.028$   $\chi^2/\text{NDF}$ : 478.3/13

Right Out:  $-84.062 \pm 1.257$   $\chi^2/\text{NDF}$ : 783.2/18

Left In:  $-74.513 \pm 1.101$   $\chi^2/\text{NDF}$ : 267.2/12

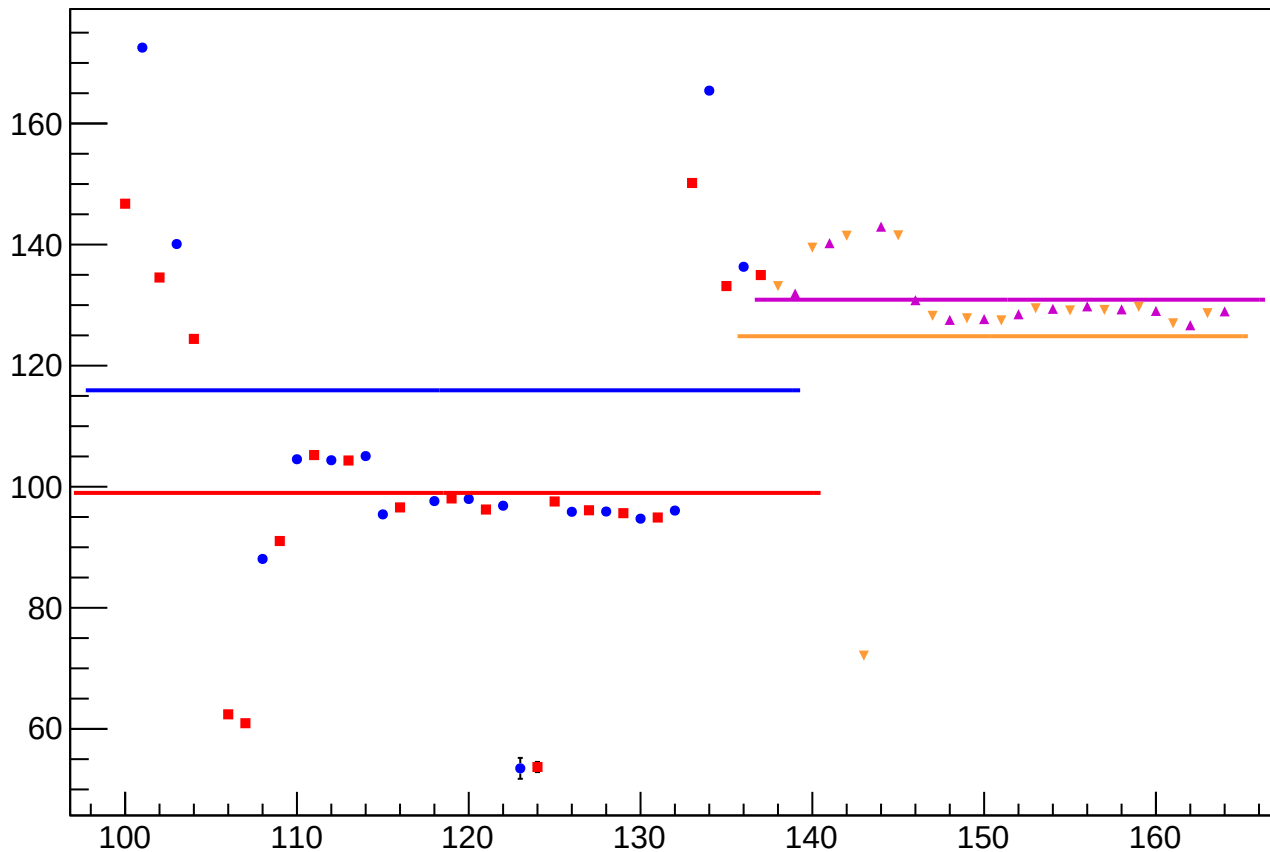
+ sign  $-80.394 \pm 0.816$   $\chi^2/\text{NDF}$ : 1353.3/30

All:  $-79.539 \pm 0.581$   $\chi^2/\text{NDF}$ : 2438.6/62

- sign  $-78.658 \pm 0.828$   $\chi^2/\text{NDF}$ : 1083.1/31



reg\_asym\_atl\_dd\_atr\_dd\_avg\_diff\_bpm12X\_slope vs Slug



Right In: 115.927±/-0.078  $\chi^2/\text{NDF}$ : 105791.4/16

Left Out: 124.859±/-0.051  $\chi^2/\text{NDF}$ :141741.2/13

Right Out: 98.981±/-0.069  $\chi^2/\text{NDF}$ : 172974.2/18

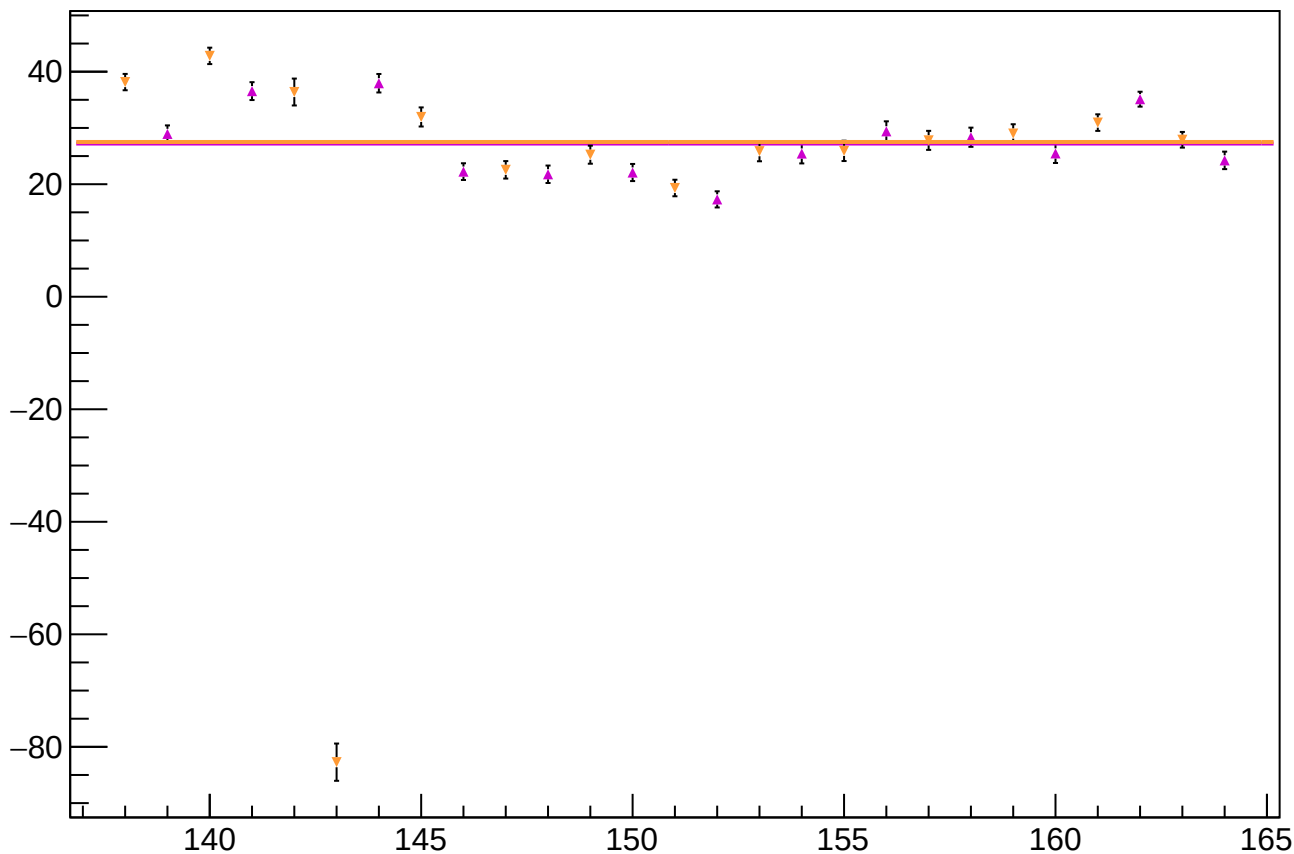
Left In: 130.892±/-0.053  $\chi^2/\text{NDF}$ :7856.6/12

+ sign 122.200±/-0.043  $\chi^2/\text{NDF}$ : 256643.5/30

All: 120.549±/-0.030  $\chi^2/\text{NDF}$ : 576095.5/62

- sign 118.965±/-0.042  $\chi^2/\text{NDF}$ : 316533.4/31

reg\_asym\_atl\_dd\_atr\_dd\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: 27.506+/-0.441  $\chi^2/\text{NDF}$ :1344.2/13

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

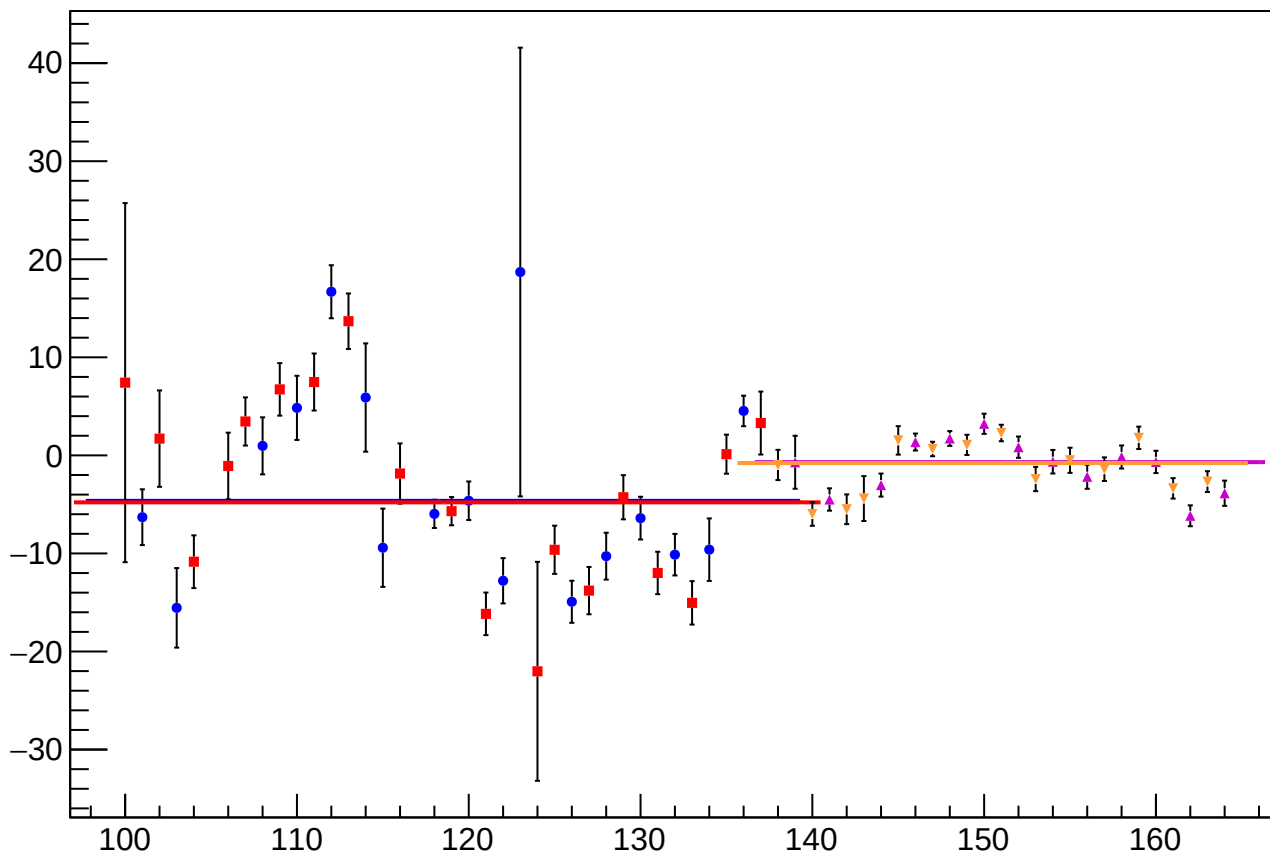
Left In: 27.229+/-0.434  $\chi^2/\text{NDF}$ :204.3/12

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

All: 27.365+/-0.310  $\chi^2/\text{NDF}$ : 1548.7/26

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

reg\_asym\_atl\_dd\_atr\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $-4.637 \pm 0.588$   $\chi^2/\text{NDF}$ : 174.4/16

Left Out:  $-0.783 \pm 0.302$   $\chi^2/\text{NDF}$ : 70.0/13

Right Out:  $-4.791 \pm 0.585$   $\chi^2/\text{NDF}$ : 192.5/18

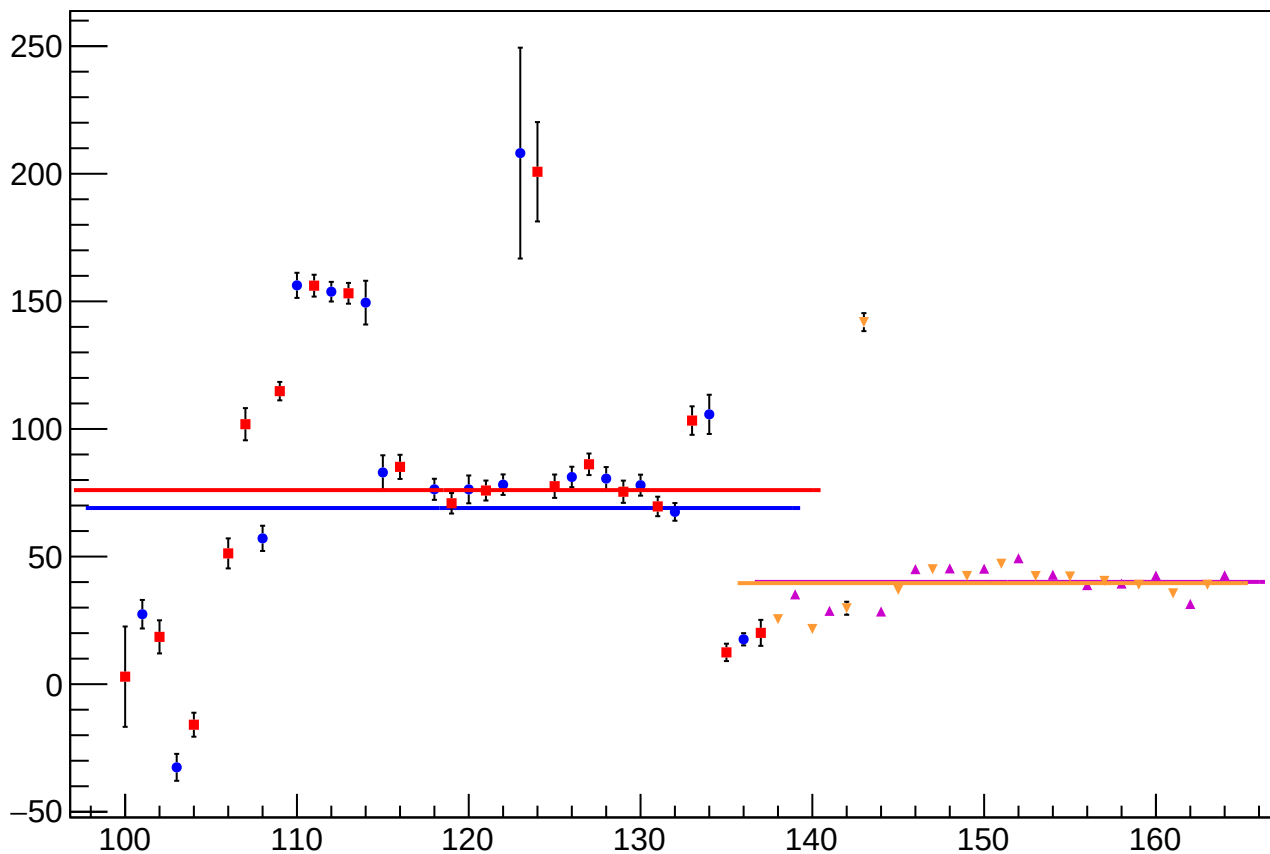
Left In:  $-0.689 \pm 0.304$   $\chi^2/\text{NDF}$ : 81.5/12

+ sign  $-1.590 \pm 0.269$   $\chi^2/\text{NDF}$ : 278.5/30

All:  $-1.575 \pm 0.190$   $\chi^2/\text{NDF}$ : 591.3/62

- sign  $-1.560 \pm 0.269$   $\chi^2/\text{NDF}$ : 312.8/31

reg\_asym\_atl\_dd\_atr\_dd\_dd\_diff\_bpm4eX\_slope vs Slug



Right In: 69.019+/-1.083  $\chi^2$ /NDF: 1848.0/16

Left Out: 39.593+/-0.430  $\chi^2$ /NDF: 1129.4/13

Right Out: 76.041+/-1.070  $\chi^2$ /NDF: 1881.9/18

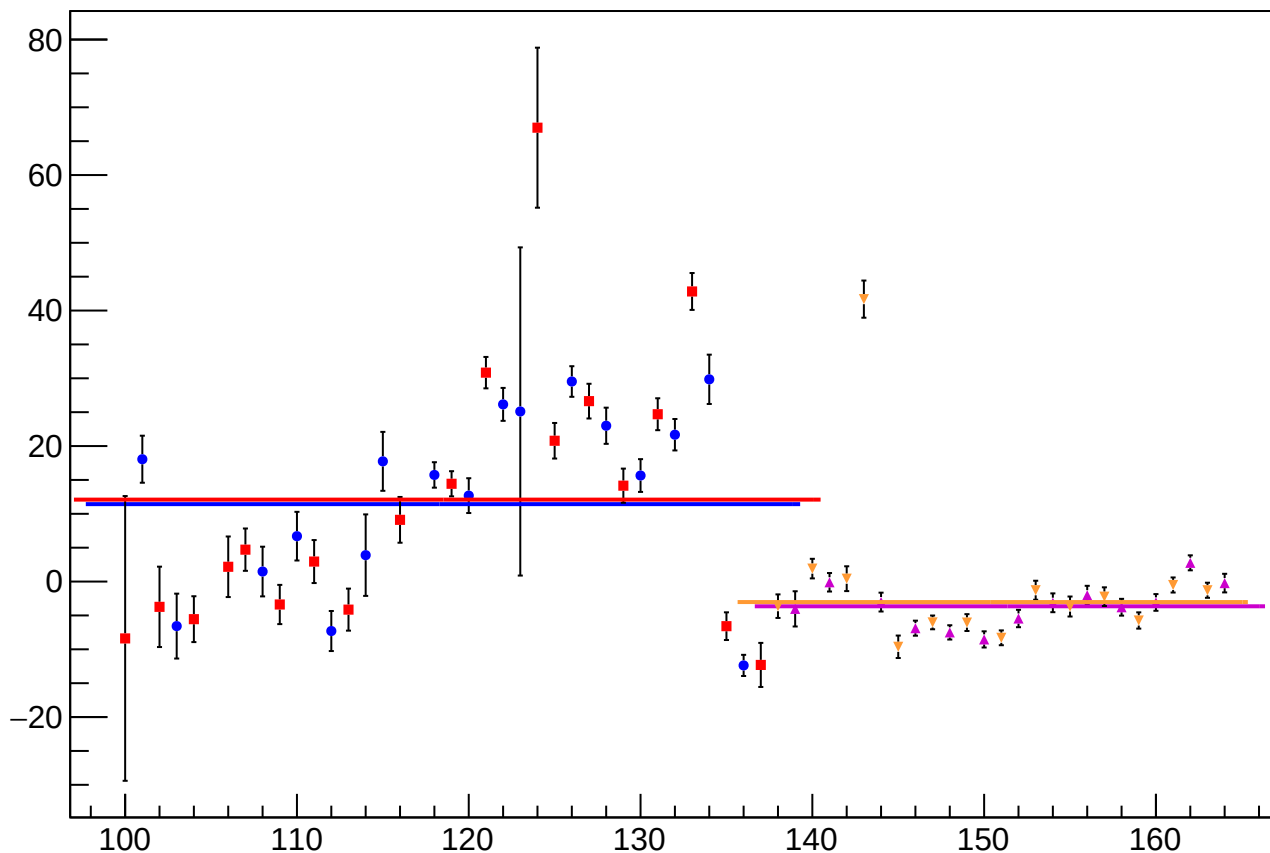
Left In: 40.079+/-0.421  $\chi^2$ /NDF: 236.9/12

+ sign 43.604+/-0.400  $\chi^2$ /NDF: 3614.6/30

All: 44.268+/-0.280  $\chi^2$ /NDF: 6717.0/62

- sign 44.905+/-0.392  $\chi^2$ /NDF: 3097.1/31

reg\_asym\_atl\_dd\_atr\_dd\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $11.428 \pm 0.665$   $\chi^2/\text{NDF}: 476.8/16$

Left Out:  $-3.024 \pm 0.357$   $\chi^2/\text{NDF}: 349.6/13$

Right Out:  $12.095 \pm 0.664$   $\chi^2/\text{NDF}: 539.1/18$

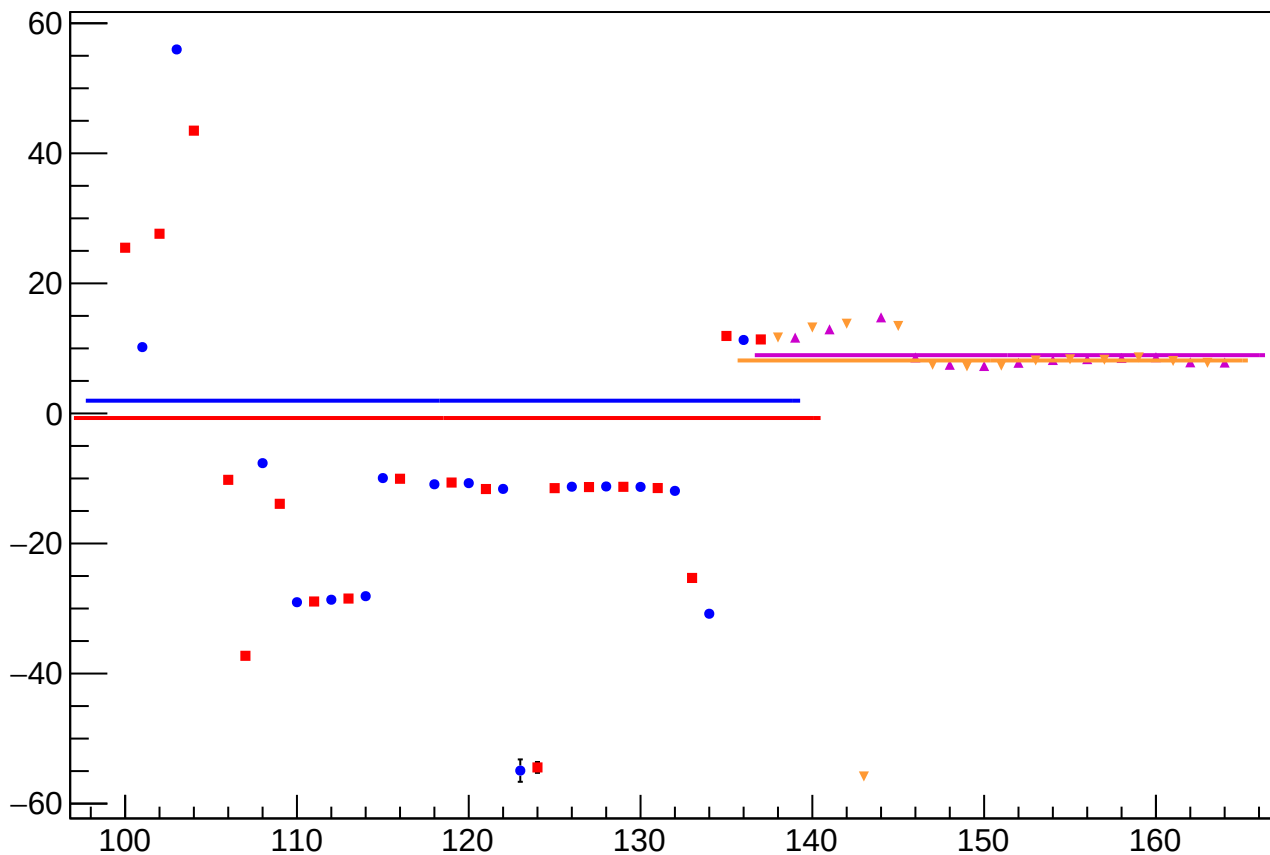
Left In:  $-3.649 \pm 0.356$   $\chi^2/\text{NDF}: 89.0/12$

+ sign  $0.201 \pm 0.314$   $\chi^2/\text{NDF}: 1192.8/30$

All:  $0.030 \pm 0.222$   $\chi^2/\text{NDF}: 2258.5/62$

- sign  $-0.141 \pm 0.313$   $\chi^2/\text{NDF}: 1065.1/31$

reg\_asym\_atl\_dd\_atr\_dd\_diff\_bpm12X\_slope vs Slug



Right In:  $1.960 \pm 0.037$   $\chi^2/\text{NDF}$ : 358457.0/16

Left Out:  $8.146 \pm 0.017$   $\chi^2/\text{NDF}$ : 222561.7/13

Right Out:  $-0.704 \pm 0.037$   $\chi^2/\text{NDF}$ : 361168.6/18

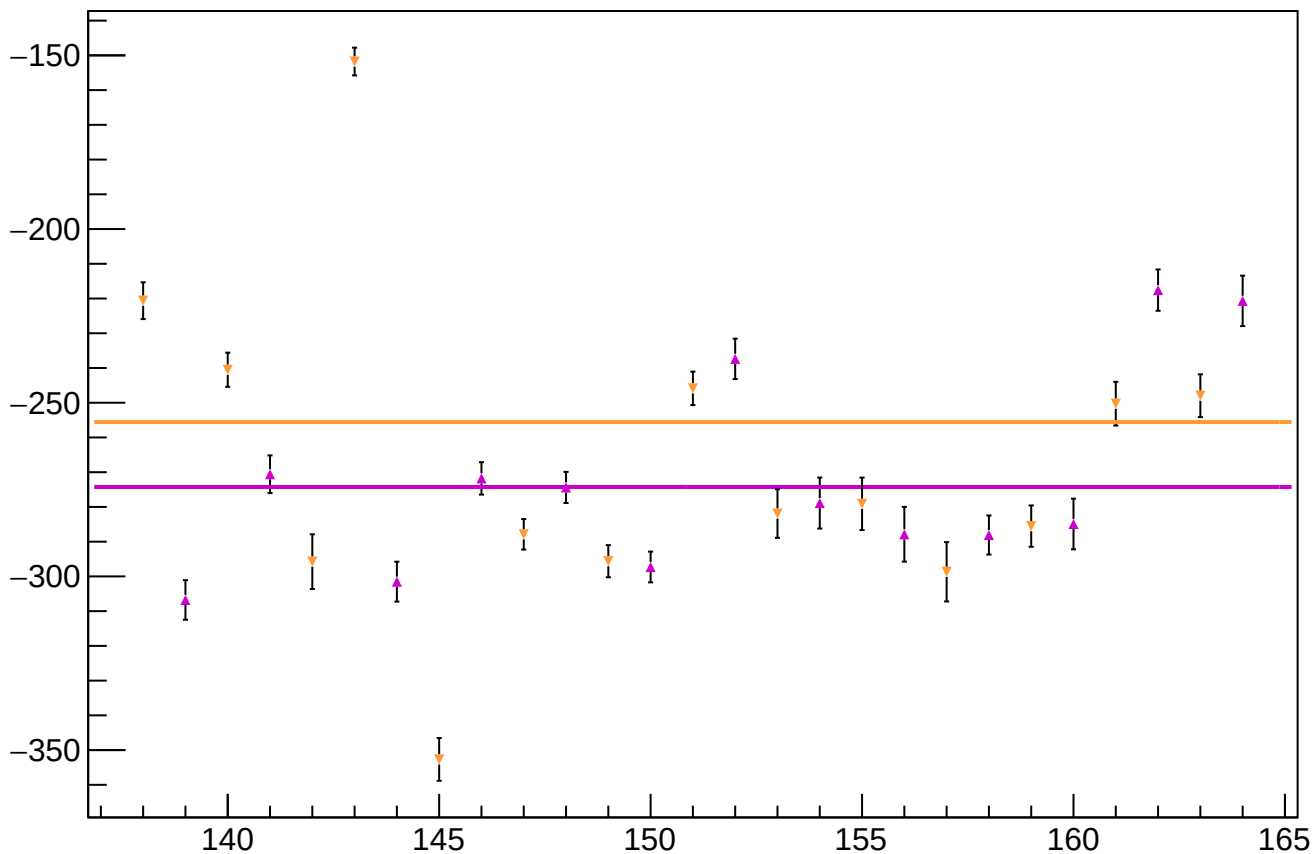
Left In:  $8.959 \pm 0.016$   $\chi^2/\text{NDF}$ : 14336.3/12

+ sign  $7.096 \pm 0.015$   $\chi^2/\text{NDF}$ : 604039.9/30

All:  $7.234 \pm 0.011$   $\chi^2/\text{NDF}$ : 1036305.7/62

- sign  $7.368 \pm 0.015$   $\chi^2/\text{NDF}$ : 432105.3/31

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm1X\_slope vs Slug



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

Left Out: -255.565+/-1.482  $\chi^2/\text{NDF}$ :1214.7/13

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

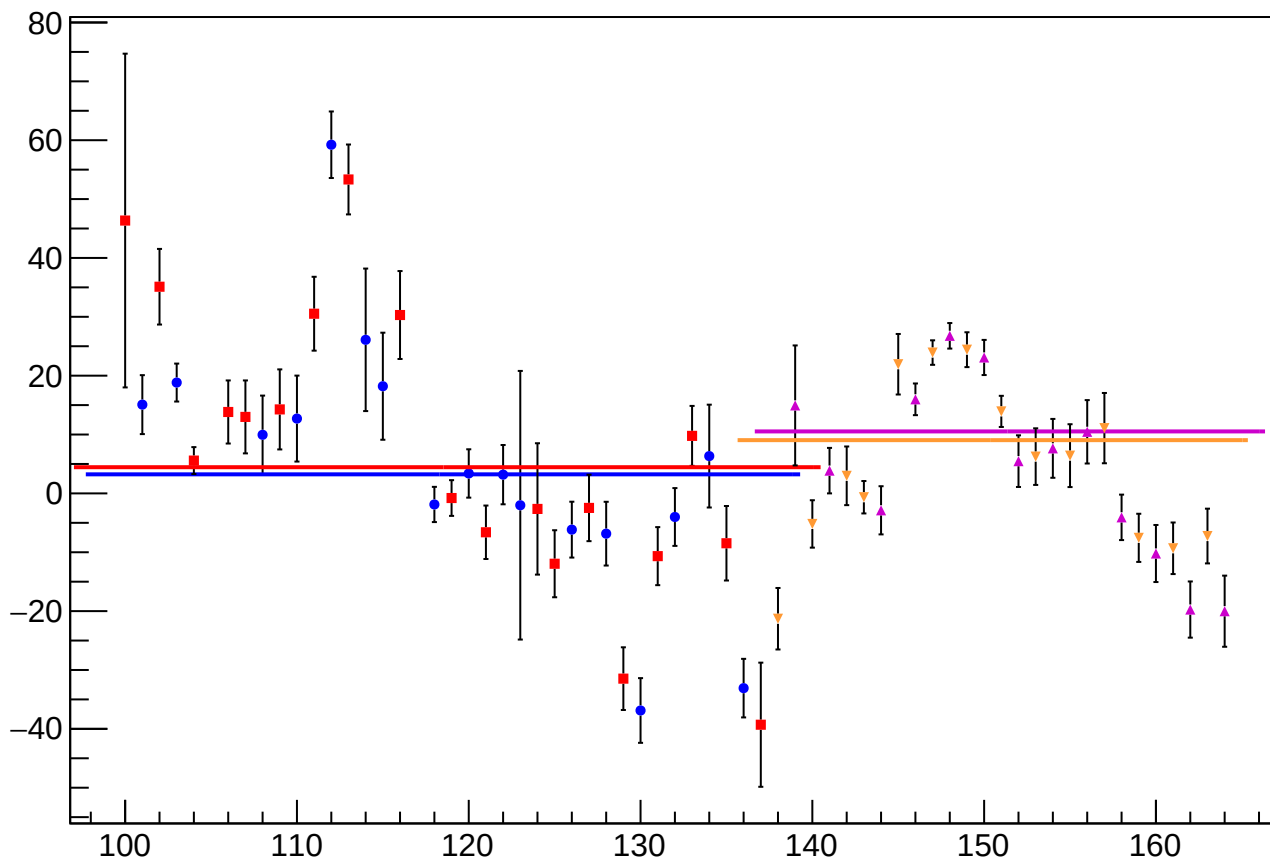
Left In: -274.255+/-1.574  $\chi^2/\text{NDF}$ :279.9/12

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

All: -264.346+/-1.079  $\chi^2/\text{NDF}$ : 1569.4/26

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

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm4aY\_slope vs Slug



Right In:  $3.237 \pm 1.244$   $\chi^2/\text{NDF}$ : 255.3/16

Left Out:  $9.046 \pm 0.971$   $\chi^2/\text{NDF}$ : 194.8/13

Right Out:  $4.450 \pm 1.157$   $\chi^2/\text{NDF}$ : 225.8/18

Left In:  $10.528 \pm 1.050$   $\chi^2/\text{NDF}$ : 191.7/12

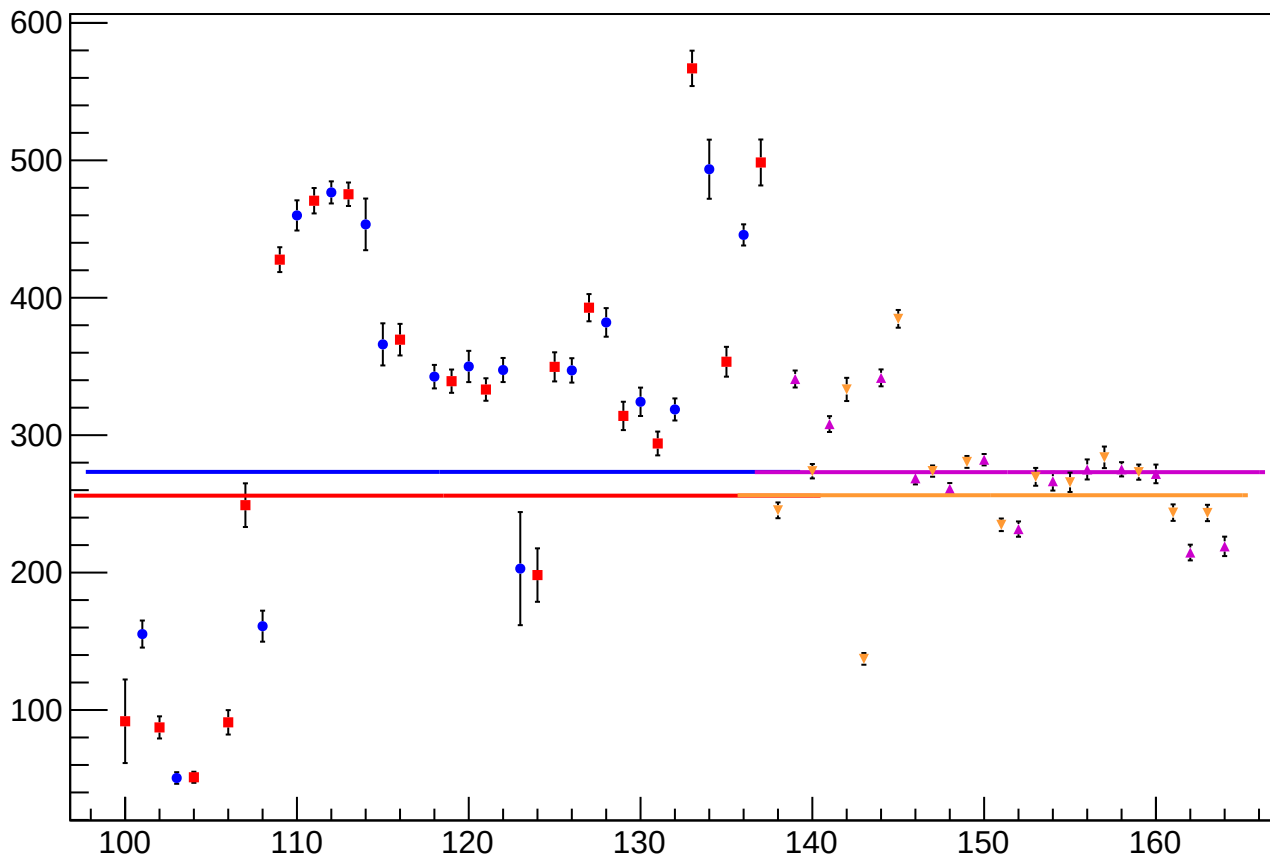
+ sign  $6.846 \pm 0.765$   $\chi^2/\text{NDF}$ : 463.7/30

All:  $7.306 \pm 0.546$   $\chi^2/\text{NDF}$ : 897.0/62

- sign  $7.782 \pm 0.778$   $\chi^2/\text{NDF}$ : 432.6/31



reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm4eX\_slope vs Slug



Right In: 273.276 $\pm$ 2.205  $\chi^2$ /NDF: 5101.5/16

Left Out: 256.287 $\pm$ 1.459  $\chi^2$ /NDF:1384.1/13

Right Out: 255.985 $\pm$ 2.080  $\chi^2$ /NDF: 6438.4/18

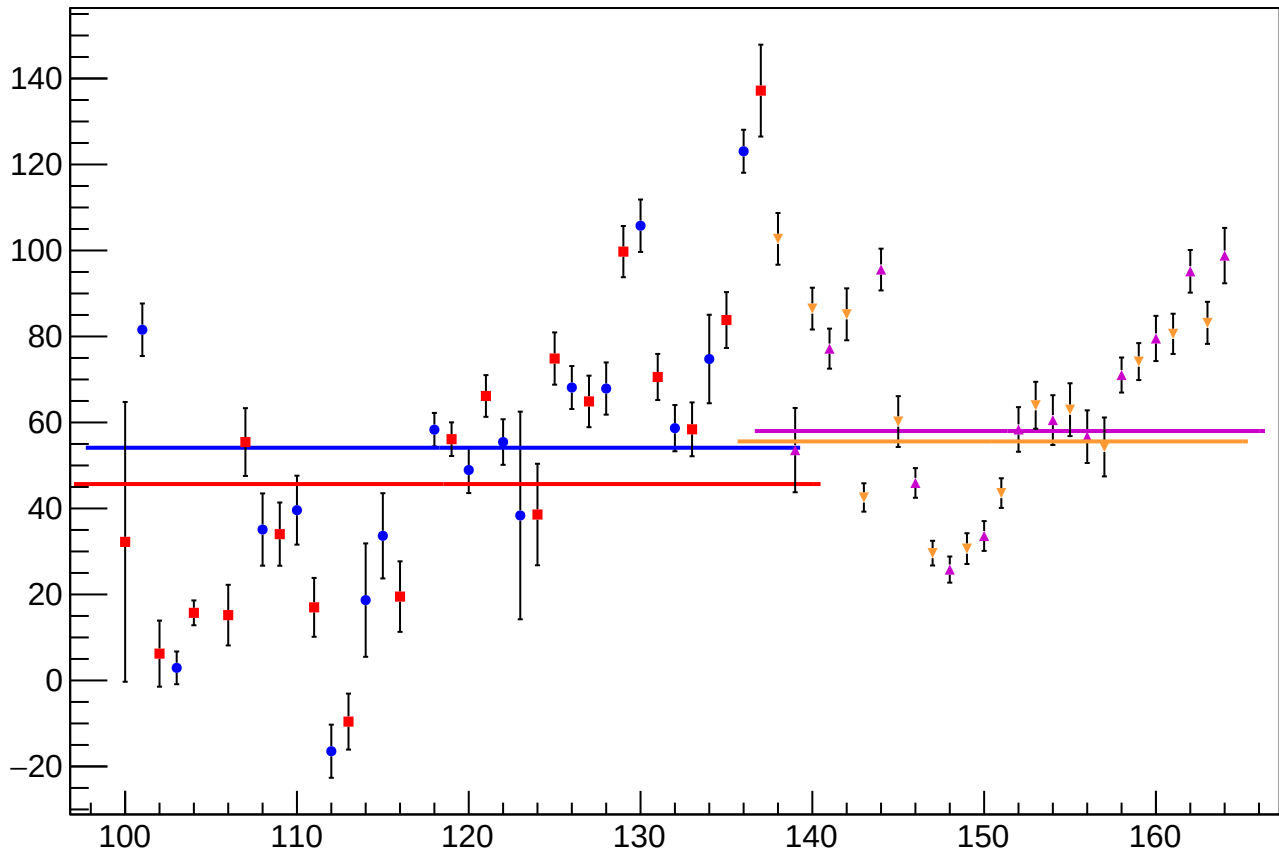
Left In: 273.088 $\pm$ 1.525  $\chi^2$ /NDF:515.0/12

+ sign 261.463 $\pm$ 1.217  $\chi^2$ /NDF: 6526.9/30

All: 264.255 $\pm$ 0.865  $\chi^2$ /NDF: 13535.0/62

- sign 267.108 $\pm$ 1.230  $\chi^2$ /NDF: 6997.4/31

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm4eY\_slope vs Slug



Right In: 54.119 $\pm$ 1.438  $\chi^2$ /NDF: 633.9/16

Left Out: 55.592 $\pm$ 1.175  $\chi^2$ /NDF: 367.3/13

Right Out: 45.675 $\pm$ 1.357  $\chi^2$ /NDF: 531.0/18

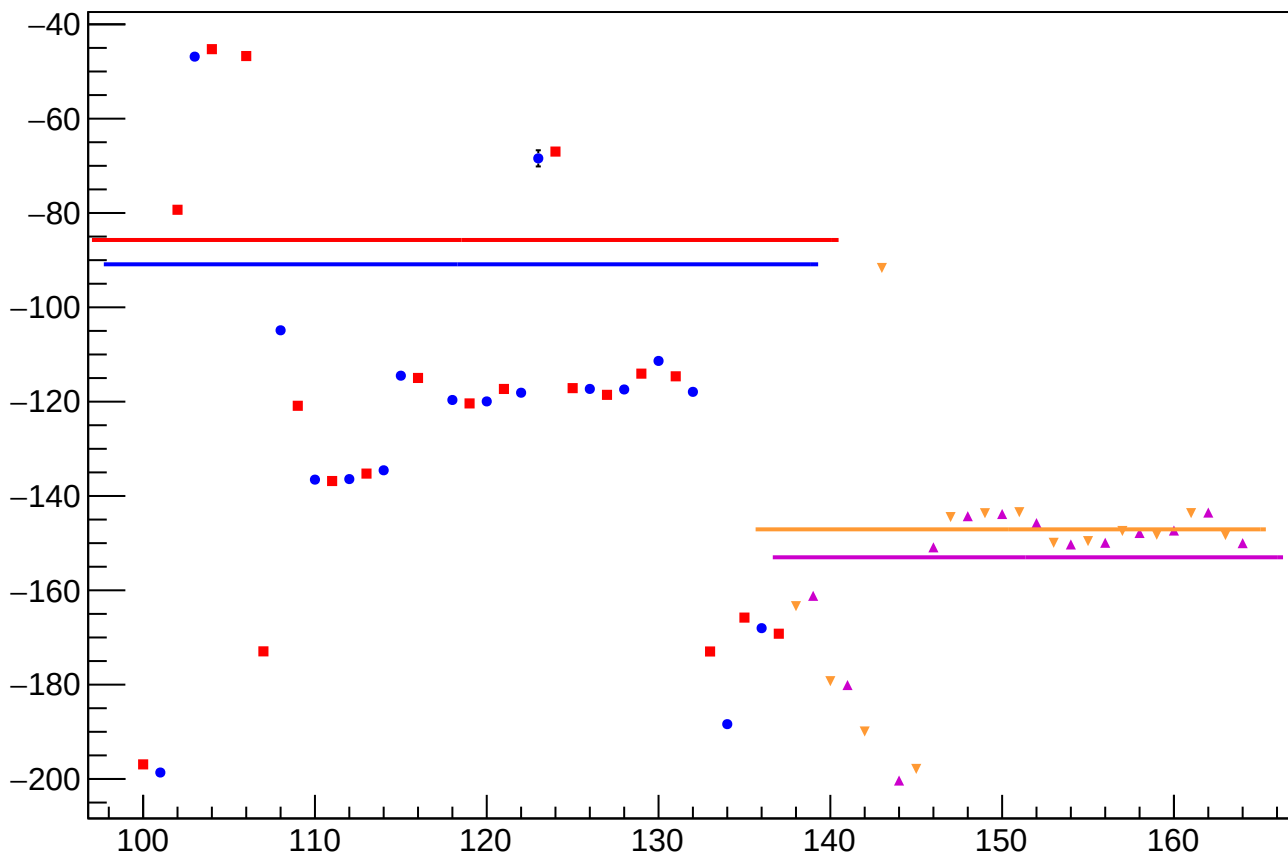
Left In: 58.008 $\pm$ 1.260  $\chi^2$ /NDF: 375.0/12

+ sign 55.002 $\pm$ 0.910  $\chi^2$ /NDF: 1001.9/30

All: 53.670 $\pm$ 0.648  $\chi^2$ /NDF: 1956.6/62

- sign 52.297 $\pm$ 0.923  $\chi^2$ /NDF: 950.4/31

reg\_asym\_atl\_avg\_atr\_avg\_avg\_diff\_bpm12X\_slope vs Slug



Right In: -90.881+/-0.068  $\chi^2/\text{NDF}$ : 533423.8/16

Left Out: -147.074+/-0.059  $\chi^2/\text{NDF}$ : 187072.7/13

Right Out: -85.722+/-0.065  $\chi^2/\text{NDF}$ : 494183.1/18

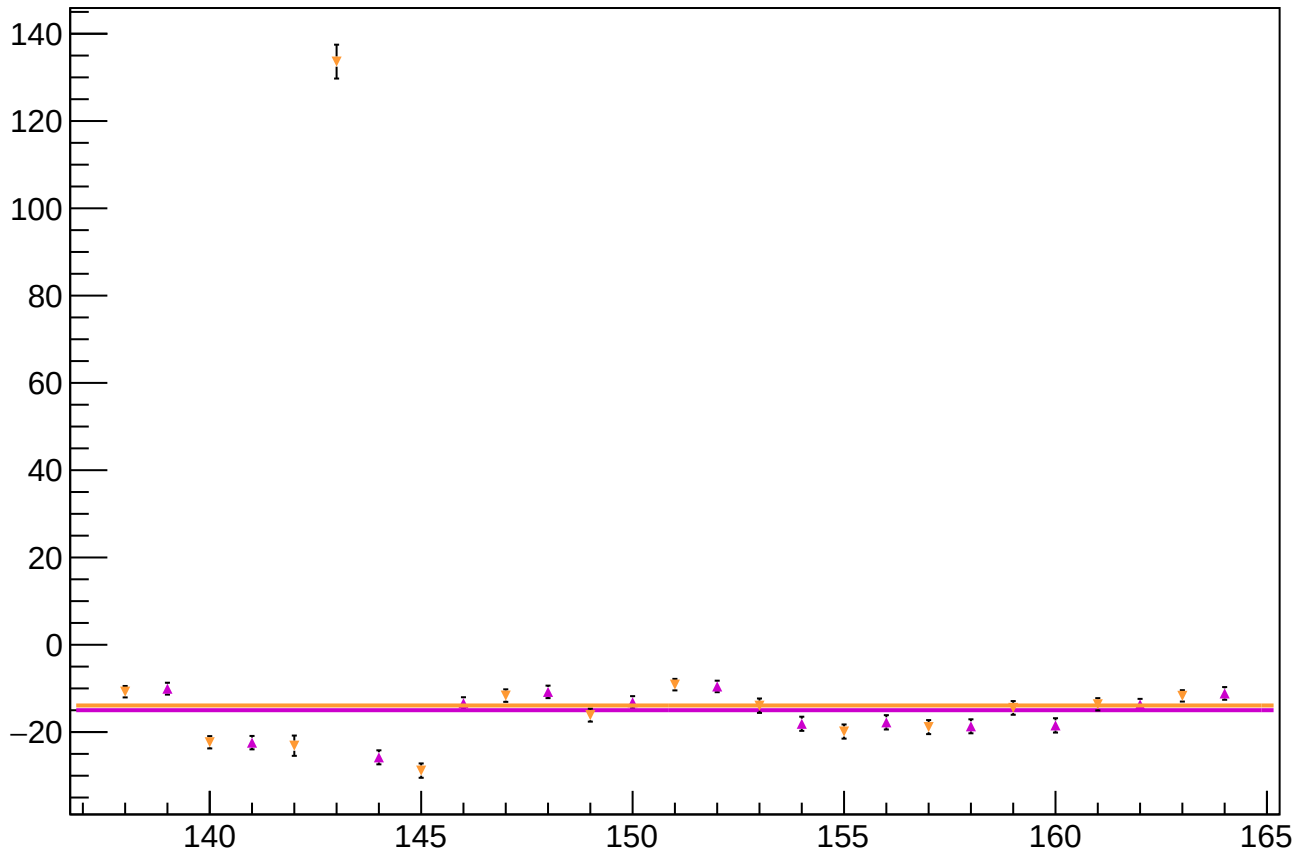
Left In: -153.000+/-0.061  $\chi^2/\text{NDF}$ : 55406.9/12

+ sign -122.982+/-0.044  $\chi^2/\text{NDF}$ : 1113452.3/30

All: -122.311+/-0.031  $\chi^2/\text{NDF}$ : 2234261.4/62

- sign -121.638+/-0.044  $\chi^2/\text{NDF}$ : 1120350.4/31

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm1X\_slope vs Slug



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

Left Out: -13.906+/-0.414     $\chi^2/\text{NDF}$ :1627.8/13

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

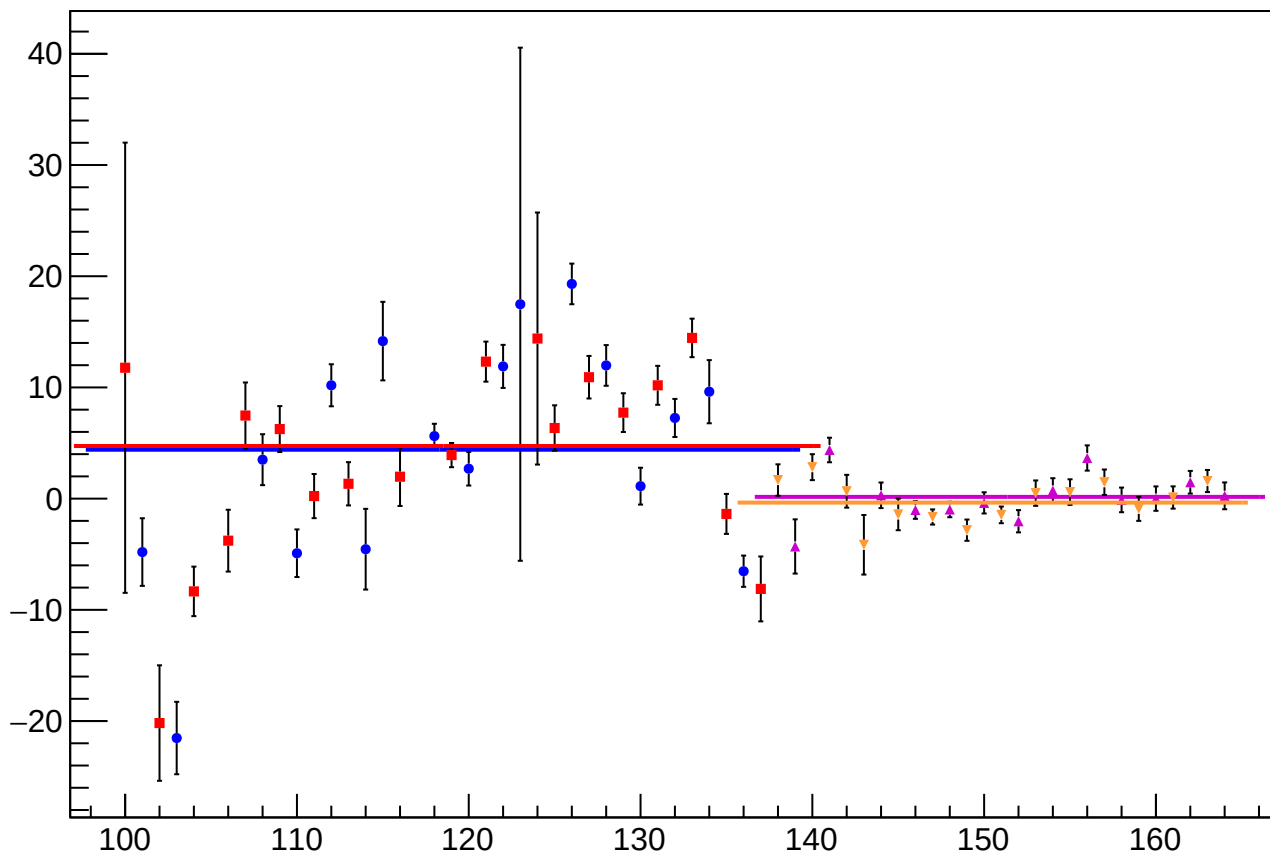
Left In: -14.992+/-0.407     $\chi^2/\text{NDF}$ :134.5/12

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

All: -14.458+/-0.290     $\chi^2/\text{NDF}$ : 1765.8/26

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

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm4aY\_slope vs Slug



Right In:  $4.399 \pm 0.471$   $\chi^2/\text{NDF}$ : 286.8/16

Left Out:  $-0.356 \pm 0.283$   $\chi^2/\text{NDF}$ : 33.1/13

Right Out:  $4.732 \pm 0.473$   $\chi^2/\text{NDF}$ : 182.9/18

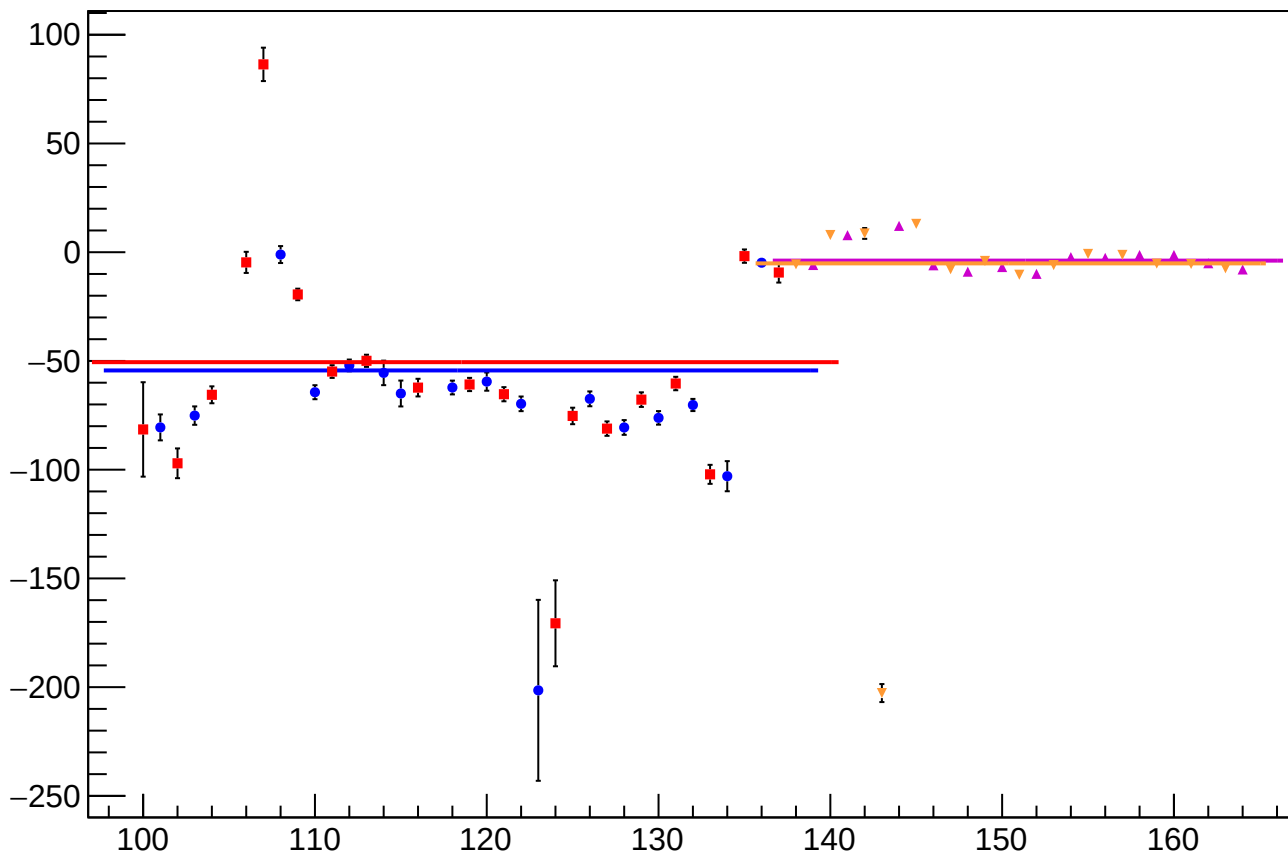
Left In:  $0.158 \pm 0.285$   $\chi^2/\text{NDF}$ : 39.3/12

+ sign  $0.903 \pm 0.242$   $\chi^2/\text{NDF}$ : 394.9/30

All:  $1.137 \pm 0.172$   $\chi^2/\text{NDF}$ : 687.6/62

- sign  $1.374 \pm 0.244$   $\chi^2/\text{NDF}$ : 290.8/31

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm4eX\_slope vs Slug



Right In:  $-54.365 \pm 0.868$   $\chi^2/\text{NDF}: 1013.5/16$

Left Out:  $-5.137 \pm 0.403$   $\chi^2/\text{NDF}: 2533.5/13$

Right Out:  $-50.554 \pm 0.858$   $\chi^2/\text{NDF}: 1321.3/18$

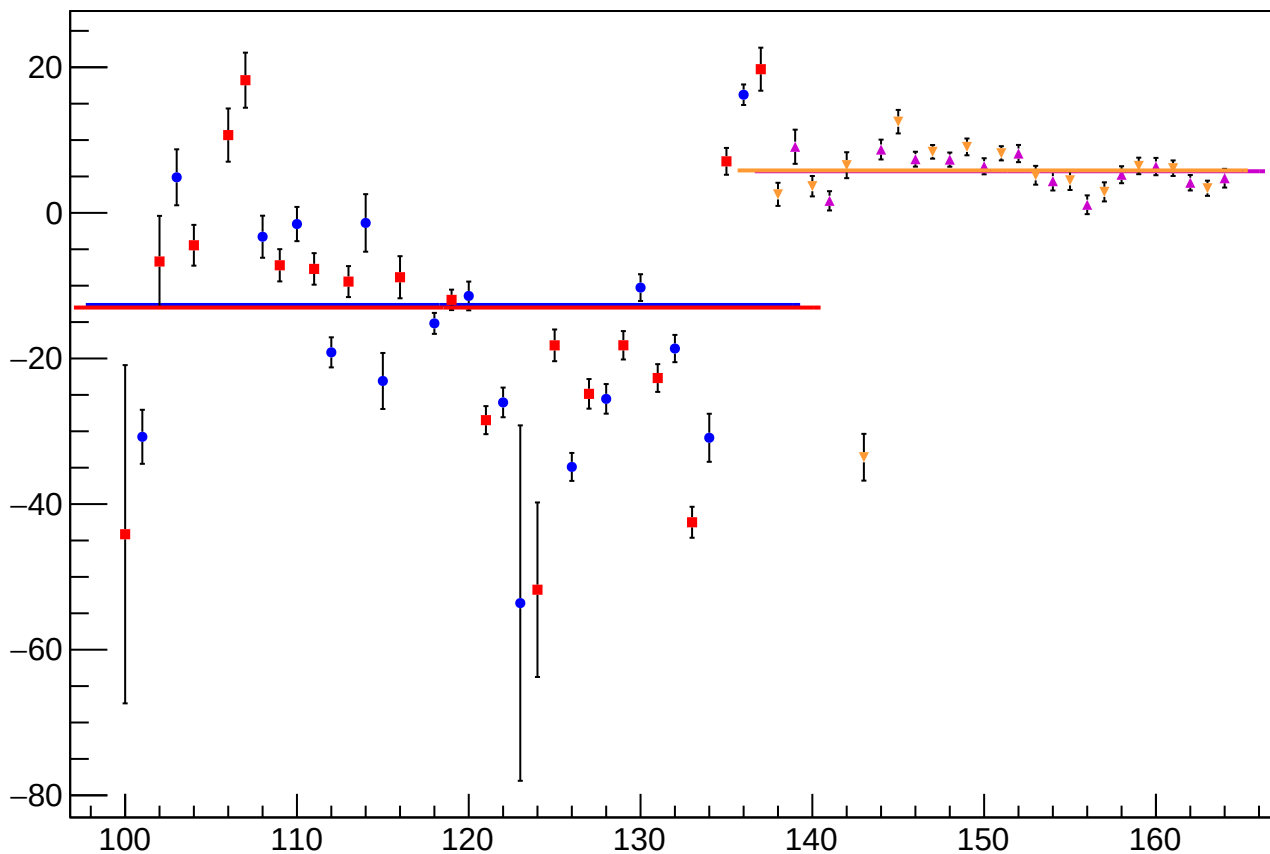
Left In:  $-3.863 \pm 0.394$   $\chi^2/\text{NDF}: 201.3/12$

+ sign  $-13.860 \pm 0.365$   $\chi^2/\text{NDF}: 6192.1/30$

All:  $-12.919 \pm 0.256$   $\chi^2/\text{NDF}: 10174.7/62$

- sign  $-12.015 \pm 0.358$   $\chi^2/\text{NDF}: 3969.7/31$

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm4eY\_slope vs Slug



Right In:  $-12.648 \pm 0.536$   $\chi^2/\text{NDF}$ : 788.4/16

Left Out:  $5.828 \pm 0.334$   $\chi^2/\text{NDF}$ : 207.8/13

Right Out:  $-13.005 \pm 0.538$   $\chi^2/\text{NDF}$ : 721.4/18

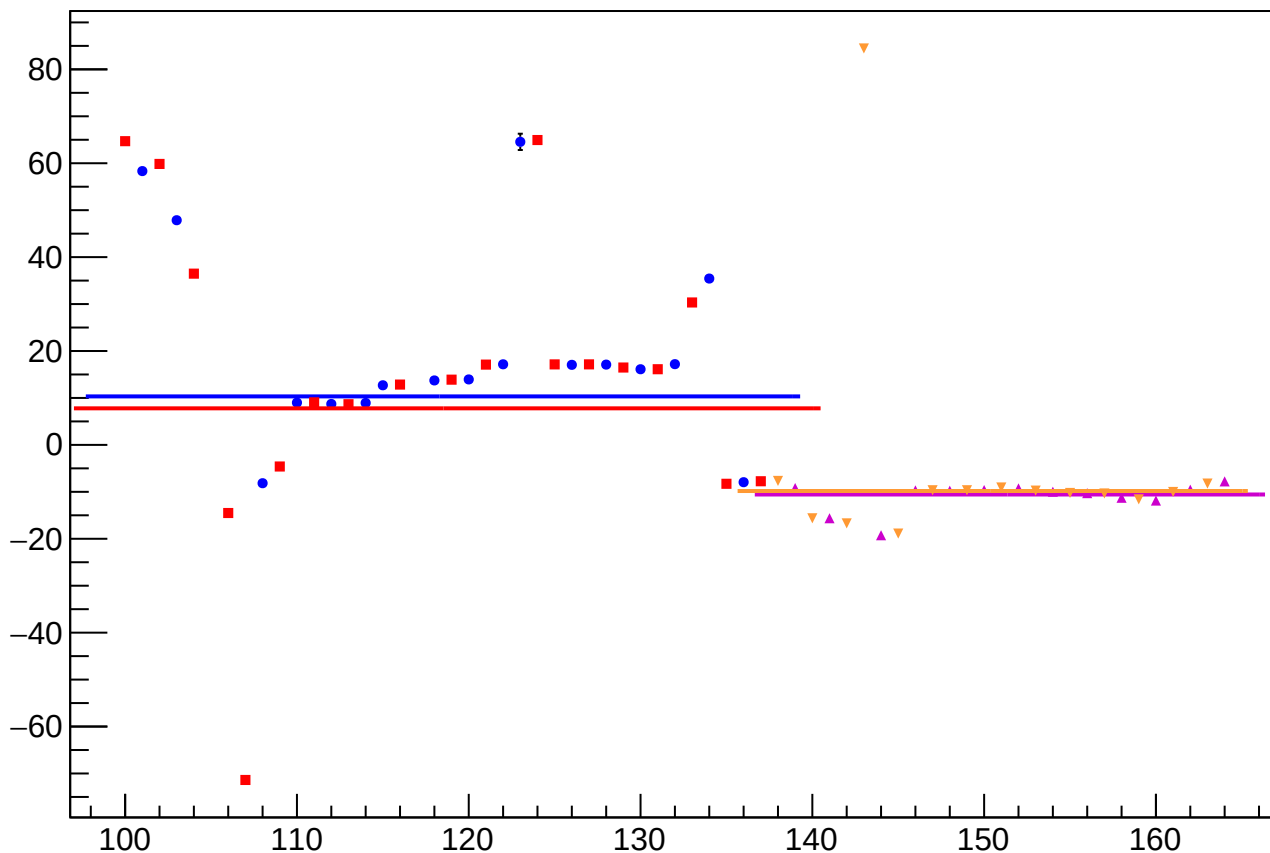
Left In:  $5.717 \pm 0.334$   $\chi^2/\text{NDF}$ : 43.3/12

+ sign  $0.663 \pm 0.284$   $\chi^2/\text{NDF}$ : 1851.3/30

All:  $0.585 \pm 0.201$   $\chi^2/\text{NDF}$ : 3491.7/62

- sign  $0.507 \pm 0.284$   $\chi^2/\text{NDF}$ : 1640.2/31

reg\_asym\_atl\_avg\_atr\_avg\_dd\_diff\_bpm12X\_slope vs Slug



Right In: 10.330 $\pm$ 0.031  $\chi^2$ /NDF: 380857.1/16

Left Out: -9.827 $\pm$ 0.016  $\chi^2$ /NDF: 356891.9/13

Right Out: 7.786 $\pm$ 0.031  $\chi^2$ /NDF: 544119.7/18

Left In: -10.568 $\pm$ 0.015  $\chi^2$ /NDF: 24786.5/12

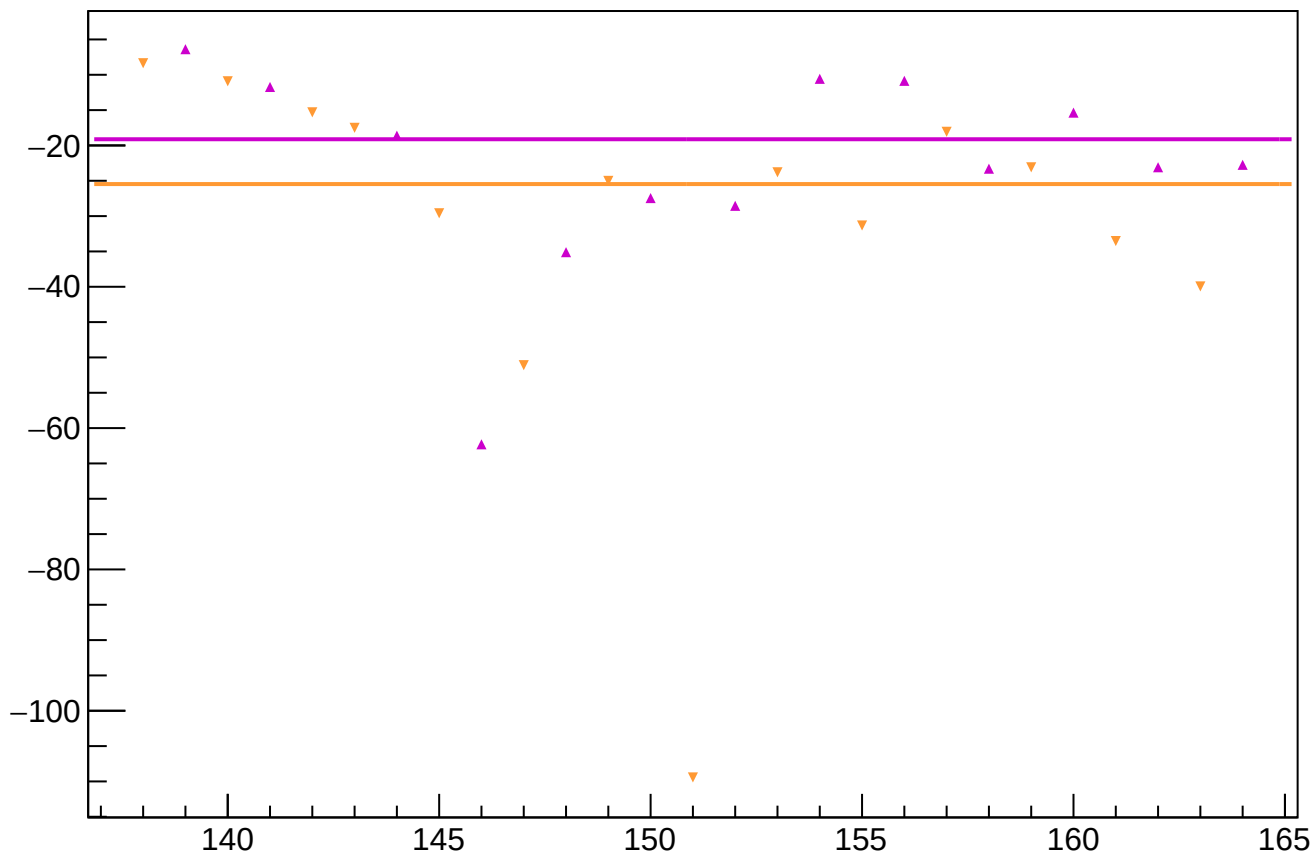
+ sign -5.633 $\pm$ 0.014  $\chi^2$ /NDF: 1079673.5/30

All: -6.315 $\pm$ 0.010  $\chi^2$ /NDF: 1929880.5/62

- sign -6.982 $\pm$ 0.014  $\chi^2$ /NDF: 845502.5/31



reg\_asym\_bcm\_an\_ds3\_diff\_bpm1X\_slope vs Slug



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

Left Out: -25.466+/-0.069  $\chi^2/\text{NDF}$ : 56399.6/13

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

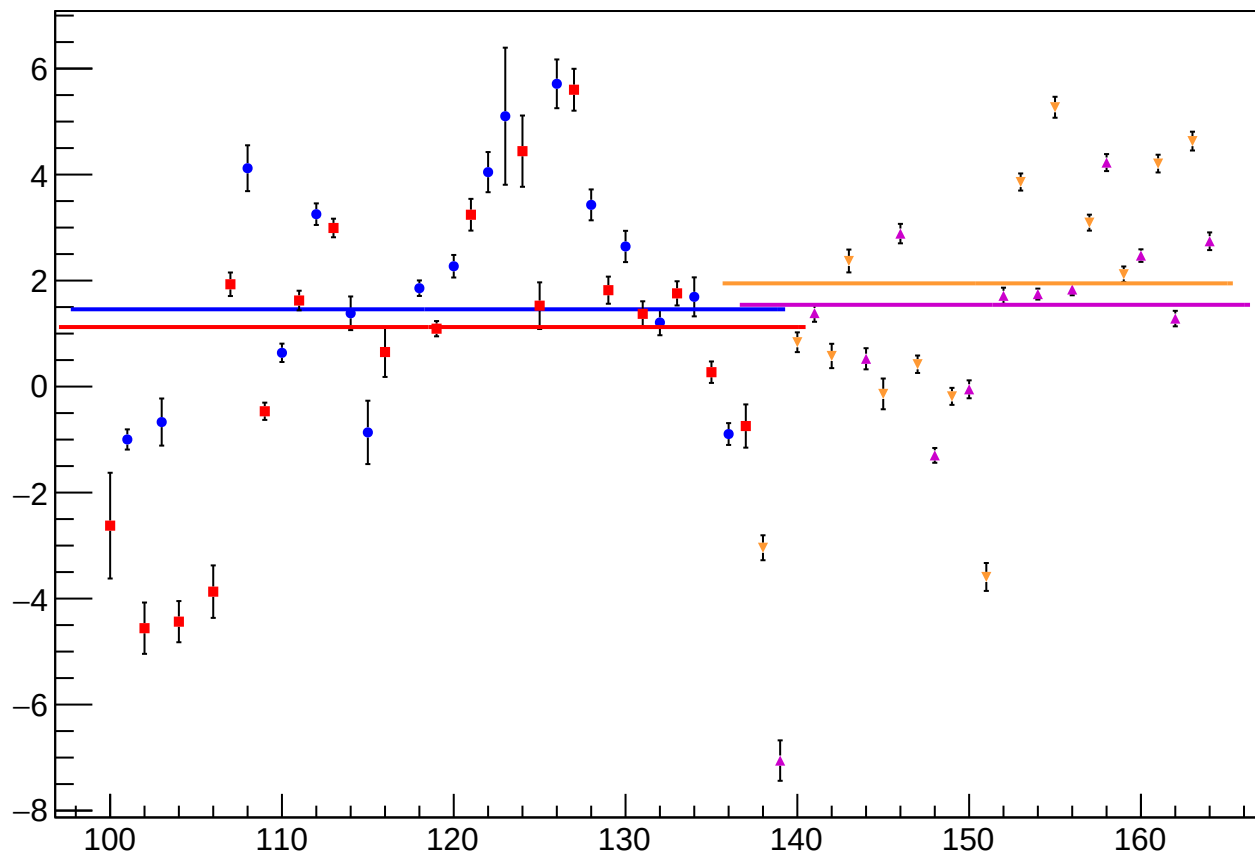
Left In: -19.123+/-0.058  $\chi^2/\text{NDF}$ : 37037.0/12

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

All: -21.738+/-0.044  $\chi^2/\text{NDF}$ : 98413.3/26

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

# reg\_asym\_bcm\_an\_ds3\_diff\_bpm4aY\_slope vs Slug



Right In:  $1.458 \pm 0.062$   $\chi^2/\text{NDF}$ : 698.2/16

Left Out:  $1.947 \pm 0.049$   $\chi^2/\text{NDF}$ : 2173.5/13

Right Out:  $1.123 \pm 0.058$   $\chi^2/\text{NDF}$ : 947.4/18

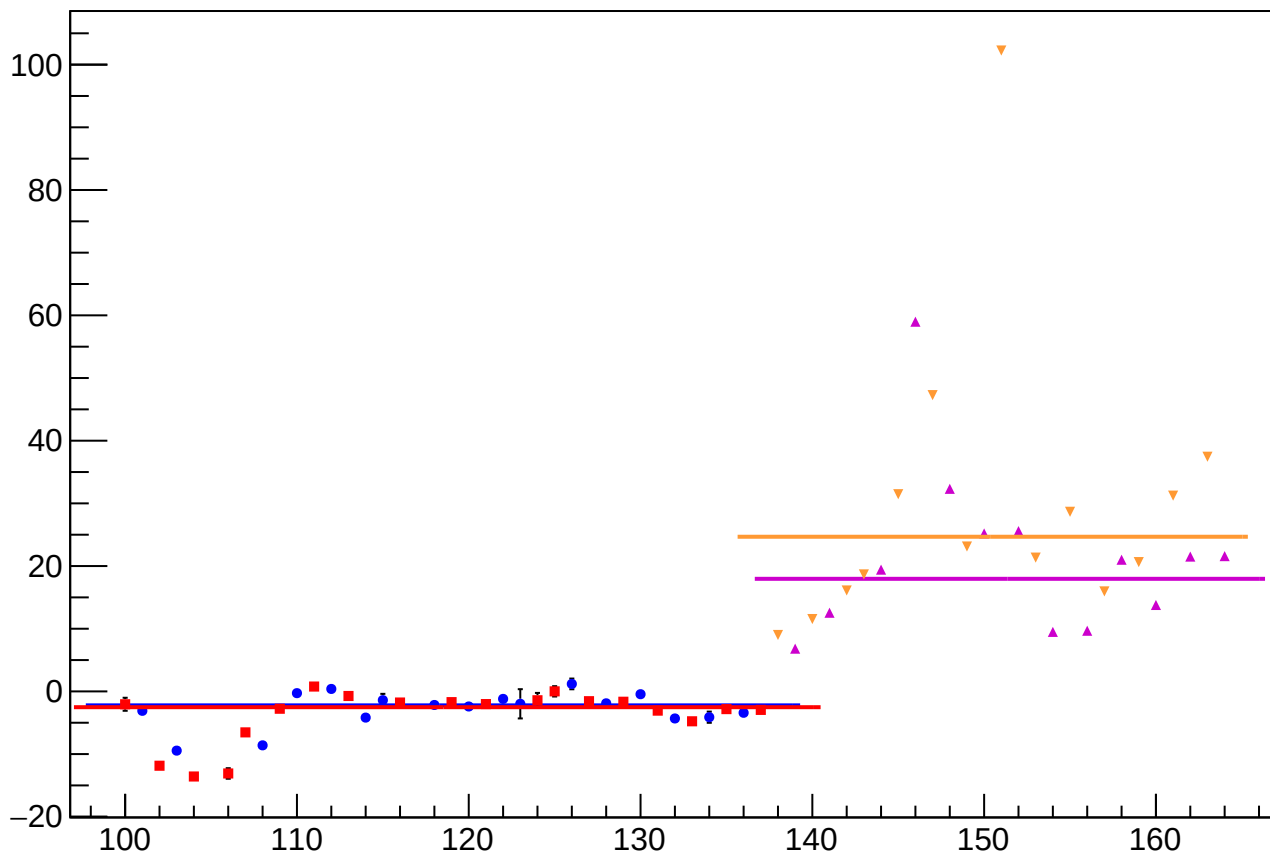
Left In:  $1.543 \pm 0.041$   $\chi^2/\text{NDF}$ : 1499.5/12

+ sign  $1.758 \pm 0.039$   $\chi^2/\text{NDF}$ : 2909.9/30

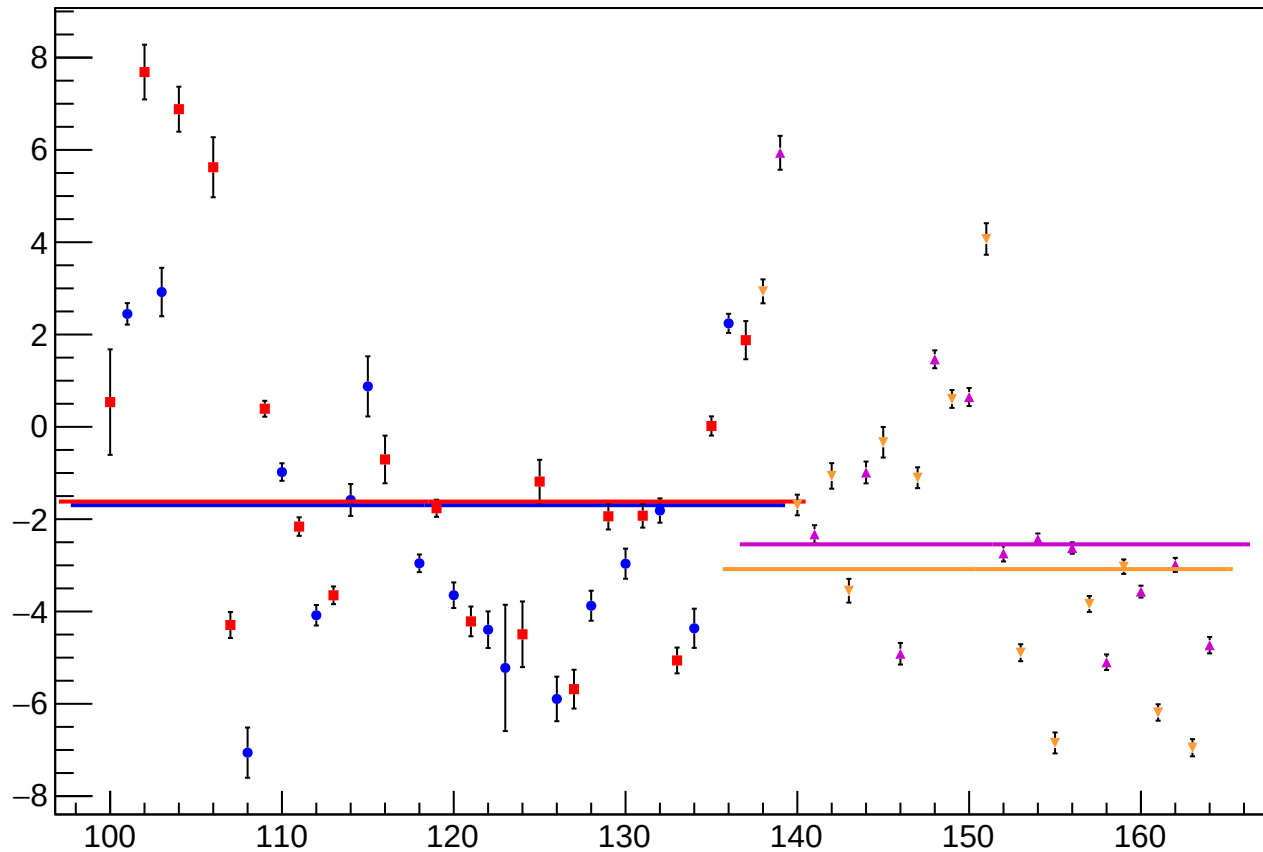
All:  $1.556 \pm 0.025$   $\chi^2/\text{NDF}$ : 5439.7/62

- sign  $1.404 \pm 0.033$   $\chi^2/\text{NDF}$ : 2481.8/31

reg\_asym\_bcm\_an\_ds3\_diff\_bpm4eX\_slope vs Slug



# reg\_asym\_bcm\_an\_ds3\_diff\_bpm4eY\_slope vs Slug



Right In: -1.697±/0.071  $\chi^2/\text{NDF}$ : 1319.4/16

Left Out: -3.081±/0.057  $\chi^2/\text{NDF}$ : 2706.3/13

Right Out: -1.618±/0.066  $\chi^2/\text{NDF}$ : 1489.2/18

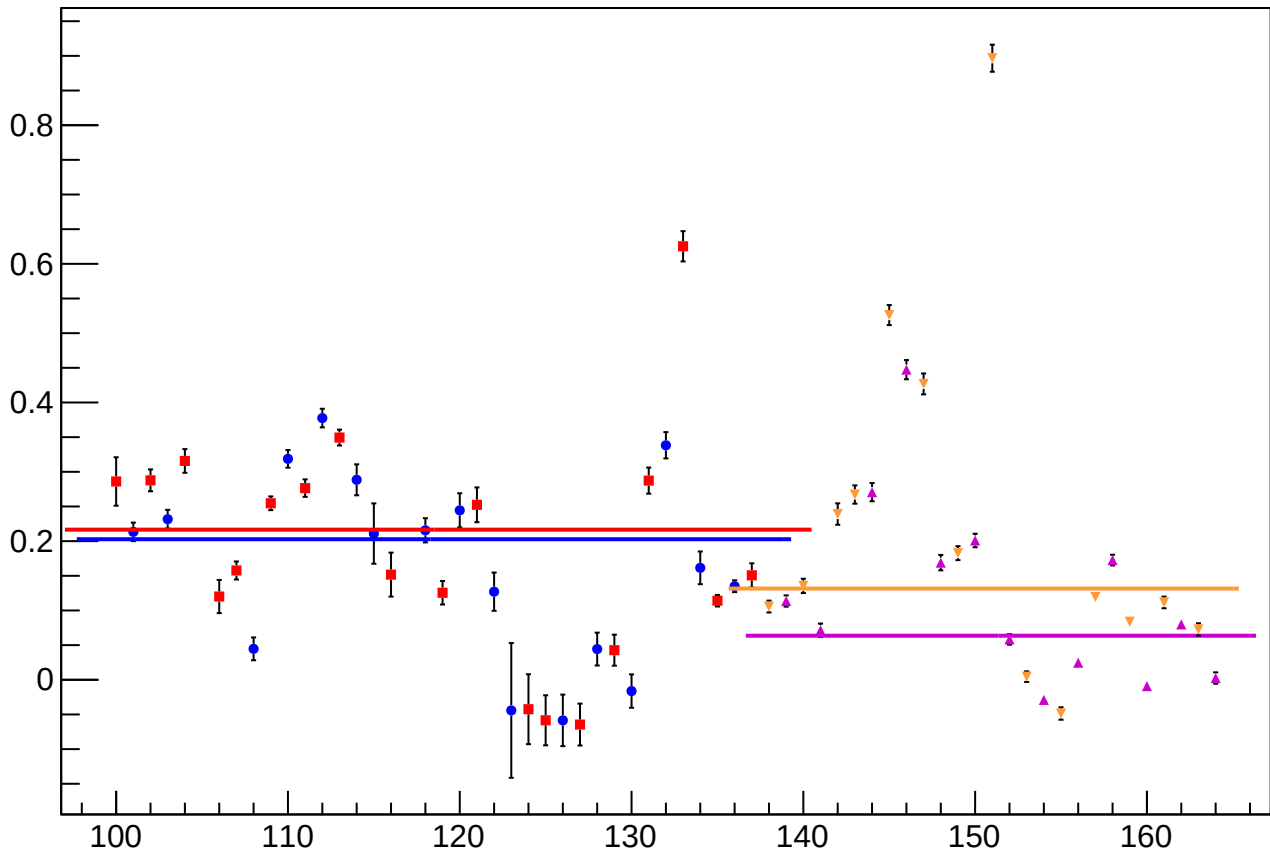
Left In: -2.545±/0.047  $\chi^2/\text{NDF}$ : 1827.7/12

+ sign -2.543±/0.044  $\chi^2/\text{NDF}$ : 4257.3/30

All: -2.365±/0.029  $\chi^2/\text{NDF}$ : 7734.4/62

- sign -2.234±/0.038  $\chi^2/\text{NDF}$ : 3449.2/31

# reg\_asym\_bcm\_an\_ds3\_diff\_bpm12X\_slope vs Slug



Right In: 0.203 $\pm$ 0.004  $\chi^2$ /NDF: 676.5/16

Left Out: 0.132 $\pm$ 0.003  $\chi^2$ /NDF: 3626.9/13

Right Out: 0.217 $\pm$ 0.004  $\chi^2$ /NDF: 1064.4/18

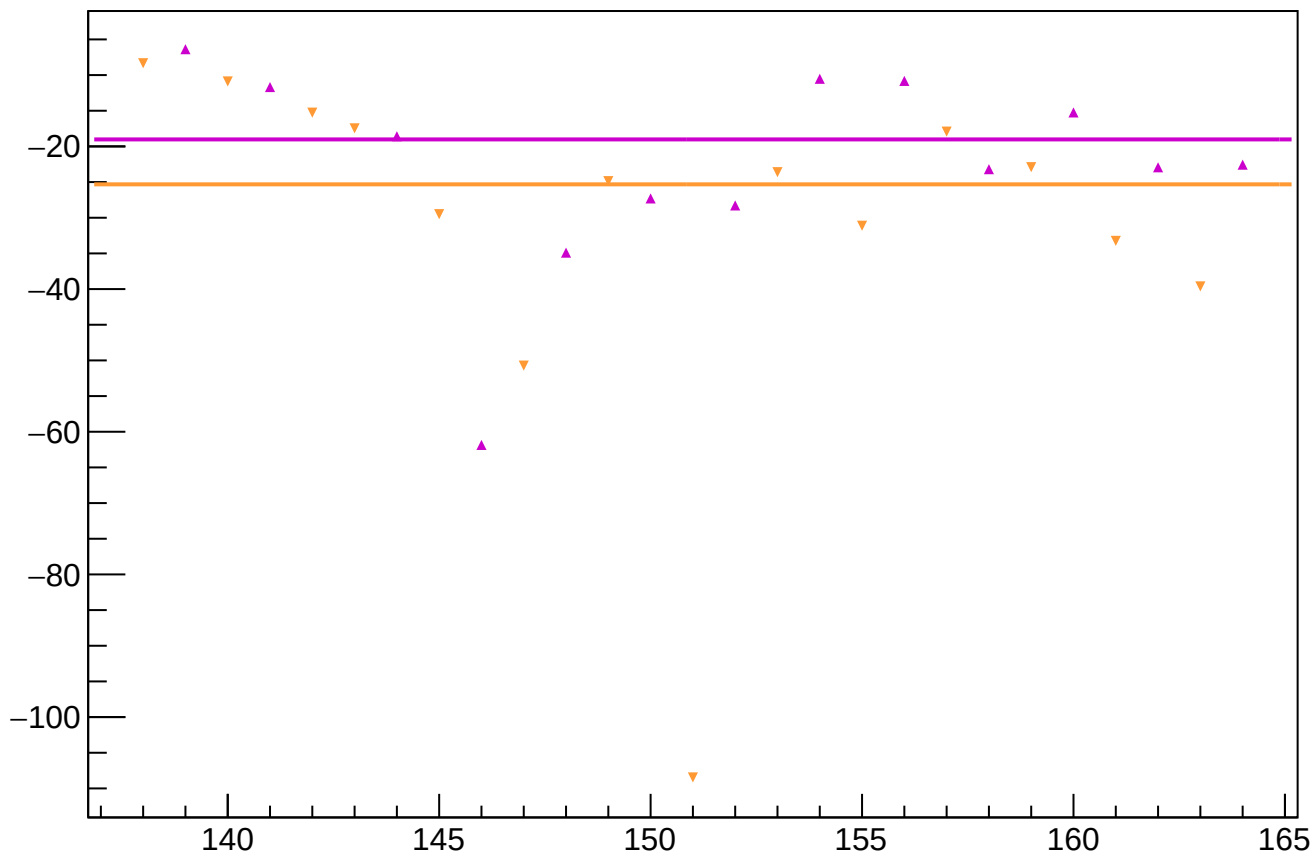
Left In: 0.064 $\pm$ 0.002  $\chi^2$ /NDF: 2173.6/12

+ sign 0.151 $\pm$ 0.002  $\chi^2$ /NDF: 4516.3/30

All: 0.120 $\pm$ 0.001  $\chi^2$ /NDF: 9398.3/62

- sign 0.100 $\pm$ 0.002  $\chi^2$ /NDF: 4546.9/31

# reg\_asym\_bcm\_an\_ds\_diff\_bpm1X\_slope vs Slug



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

Left Out: -25.317+/-0.068  $\chi^2/\text{NDF}$ : 56206.3/13

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

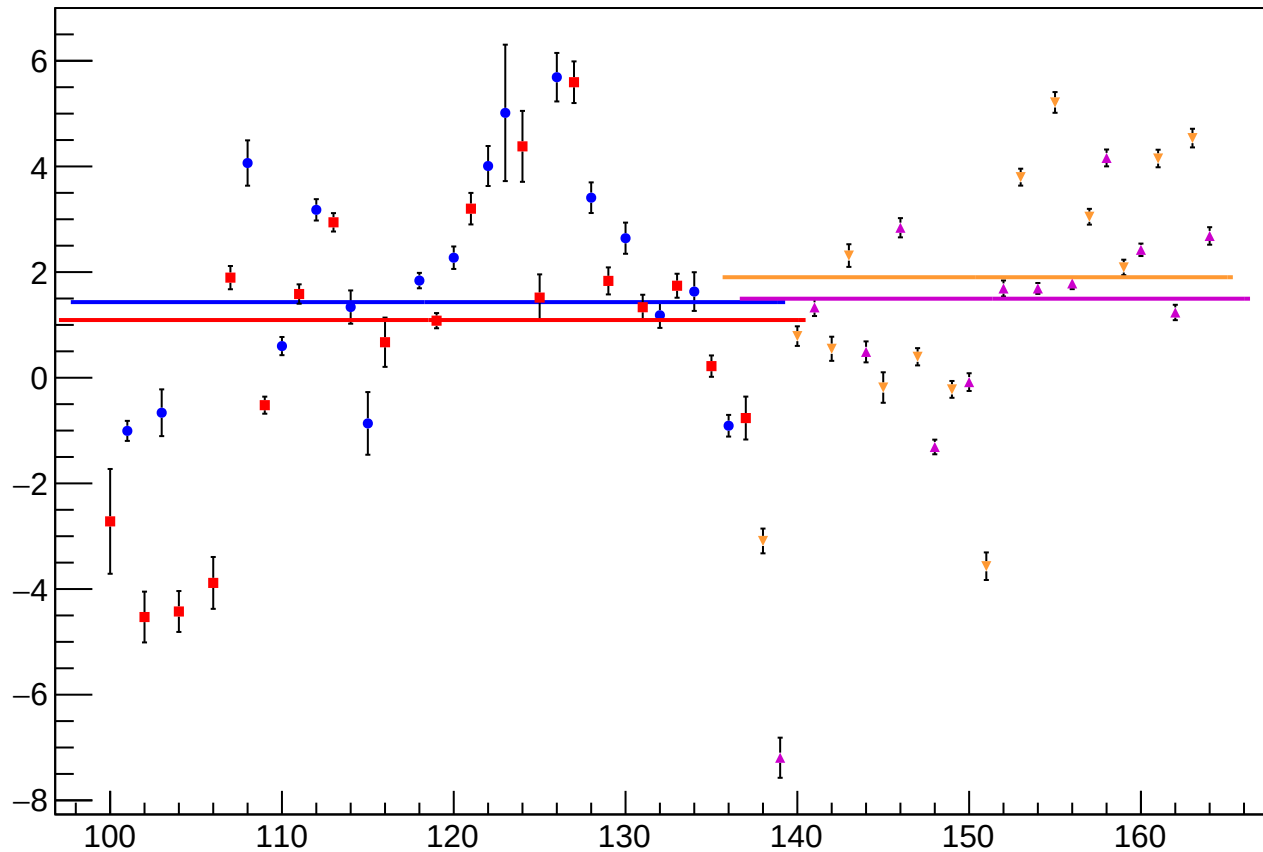
Left In: -19.020+/-0.057  $\chi^2/\text{NDF}$ : 36946.8/12

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

All: -21.617+/-0.044  $\chi^2/\text{NDF}$ : 98118.8/26

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

# reg\_asym\_bcm\_an\_ds\_diff\_bpm4aY\_slope vs Slug



Right In: 1.432 $\pm$ 0.062  $\chi^2/\text{NDF}$ : 696.6/16

Left Out: 1.903 $\pm$ 0.049  $\chi^2/\text{NDF}$ : 2173.0/13

Right Out: 1.092 $\pm$ 0.058  $\chi^2/\text{NDF}$ : 953.2/18

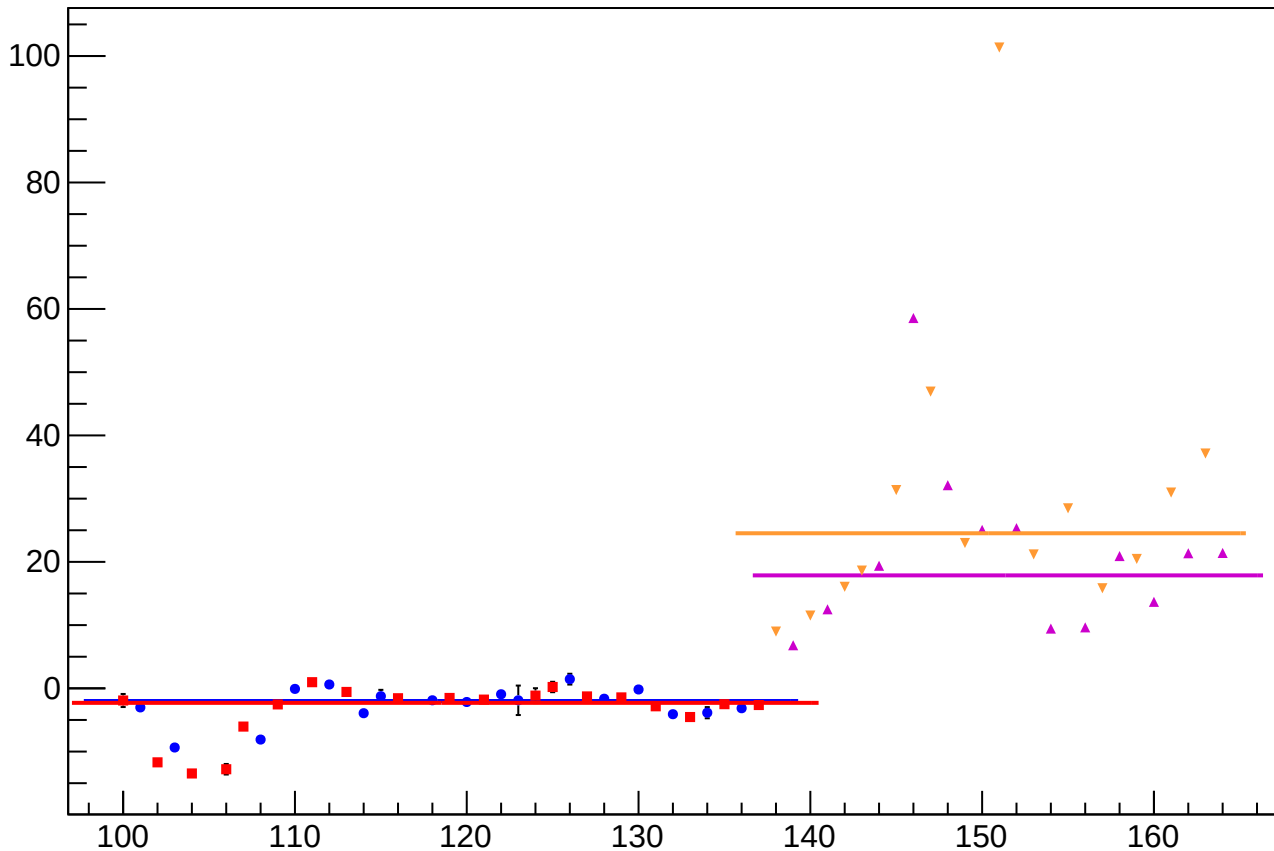
Left In: 1.496 $\pm$ 0.041  $\chi^2/\text{NDF}$ : 1509.8/12

+ sign 1.721 $\pm$ 0.038  $\chi^2/\text{NDF}$ : 2905.4/30

All: 1.516 $\pm$ 0.025  $\chi^2/\text{NDF}$ : 5450.6/62

- sign 1.363 $\pm$ 0.033  $\chi^2/\text{NDF}$ : 2495.7/31

reg\_asym\_bcm\_an\_ds\_diff\_bpm4eX\_slope vs Slug



Right In:  $-2.005 \pm 0.111$   $\chi^2/\text{NDF}$ : 463.1/16

Left Out:  $24.525 \pm 0.067$   $\chi^2/\text{NDF}$ : 50329.9/13

Right Out:  $-2.295 \pm 0.098$   $\chi^2/\text{NDF}$ : 907.2/18

Left In:  $17.864 \pm 0.055$   $\chi^2/\text{NDF}$ : 35045.4/12

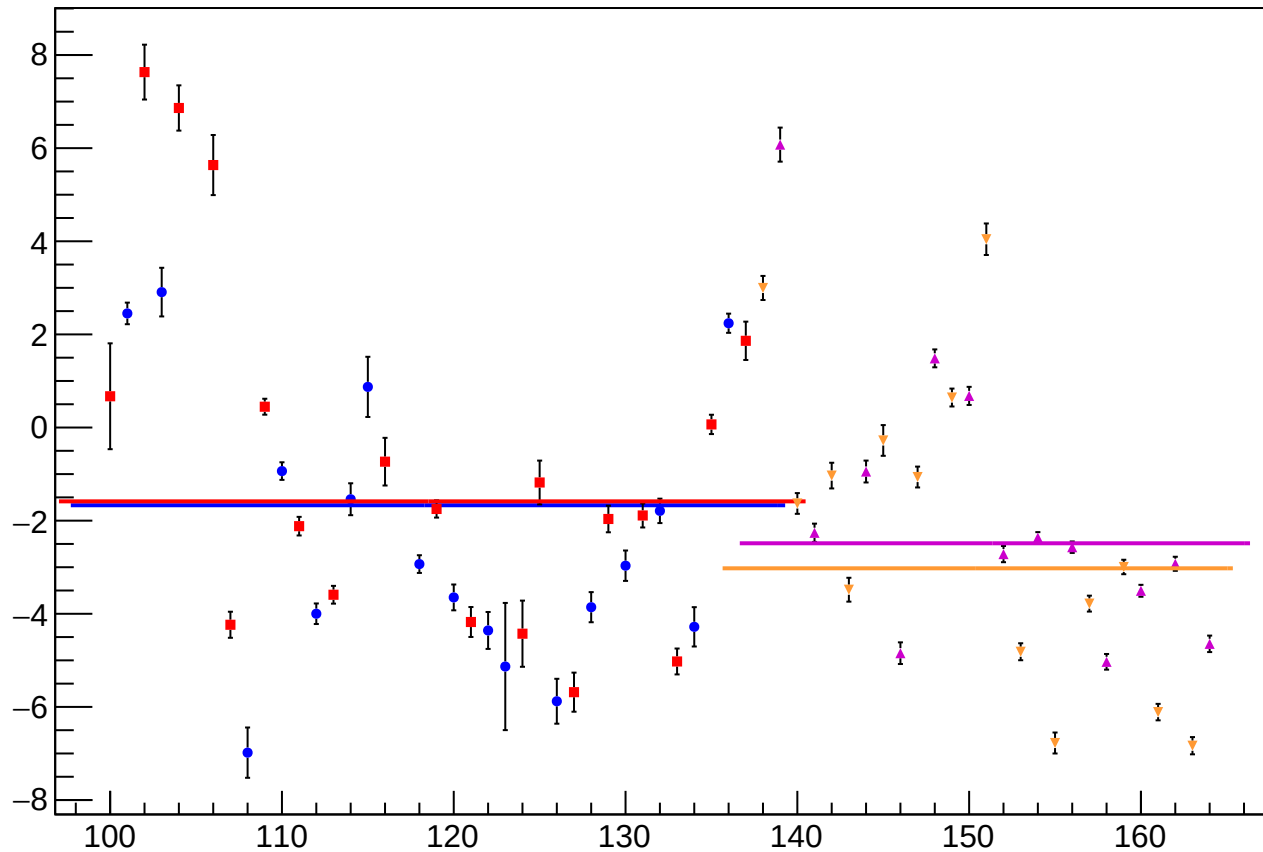
+ sign  $17.433 \pm 0.057$   $\chi^2/\text{NDF}$ : 92860.5/30

All:  $14.869 \pm 0.037$   $\chi^2/\text{NDF}$ : 164169.9/62

- sign  $13.063 \pm 0.048$   $\chi^2/\text{NDF}$ : 67890.9/31



# reg\_asym\_bcm\_an\_ds\_diff\_bpm4eY\_slope vs Slug



Right In:  $-1.669 \pm 0.071$   $\chi^2/\text{NDF}: 1314.9/16$

Left Out:  $-3.023 \pm 0.056$   $\chi^2/\text{NDF}: 2704.5/13$

Right Out:  $-1.585 \pm 0.065$   $\chi^2/\text{NDF}: 1494.7/18$

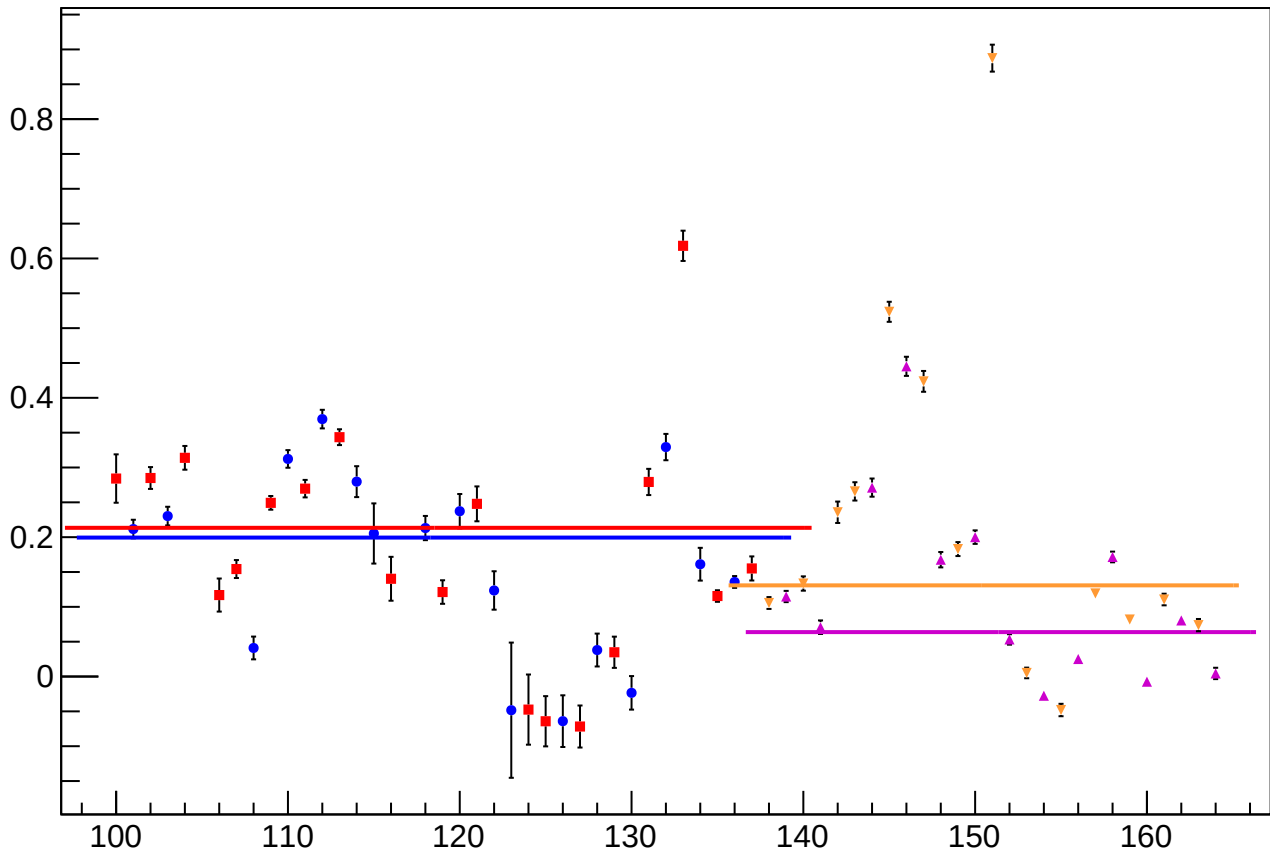
Left In:  $-2.486 \pm 0.046$   $\chi^2/\text{NDF}: 1839.9/12$

+ sign  $-2.498 \pm 0.044$   $\chi^2/\text{NDF}: 4243.6/30$

All:  $-2.318 \pm 0.029$   $\chi^2/\text{NDF}: 7733.6/62$

- sign  $-2.185 \pm 0.038$   $\chi^2/\text{NDF}: 3460.9/31$

# reg\_asym\_bcm\_an\_ds\_diff\_bpm12X\_slope vs Slug



Right In:  $0.199 \pm 0.004$   $\chi^2/\text{NDF}$ : 662.1/16

Left Out:  $0.131 \pm 0.003$   $\chi^2/\text{NDF}$ : 3618.1/13

Right Out:  $0.213 \pm 0.004$   $\chi^2/\text{NDF}$ : 1048.2/18

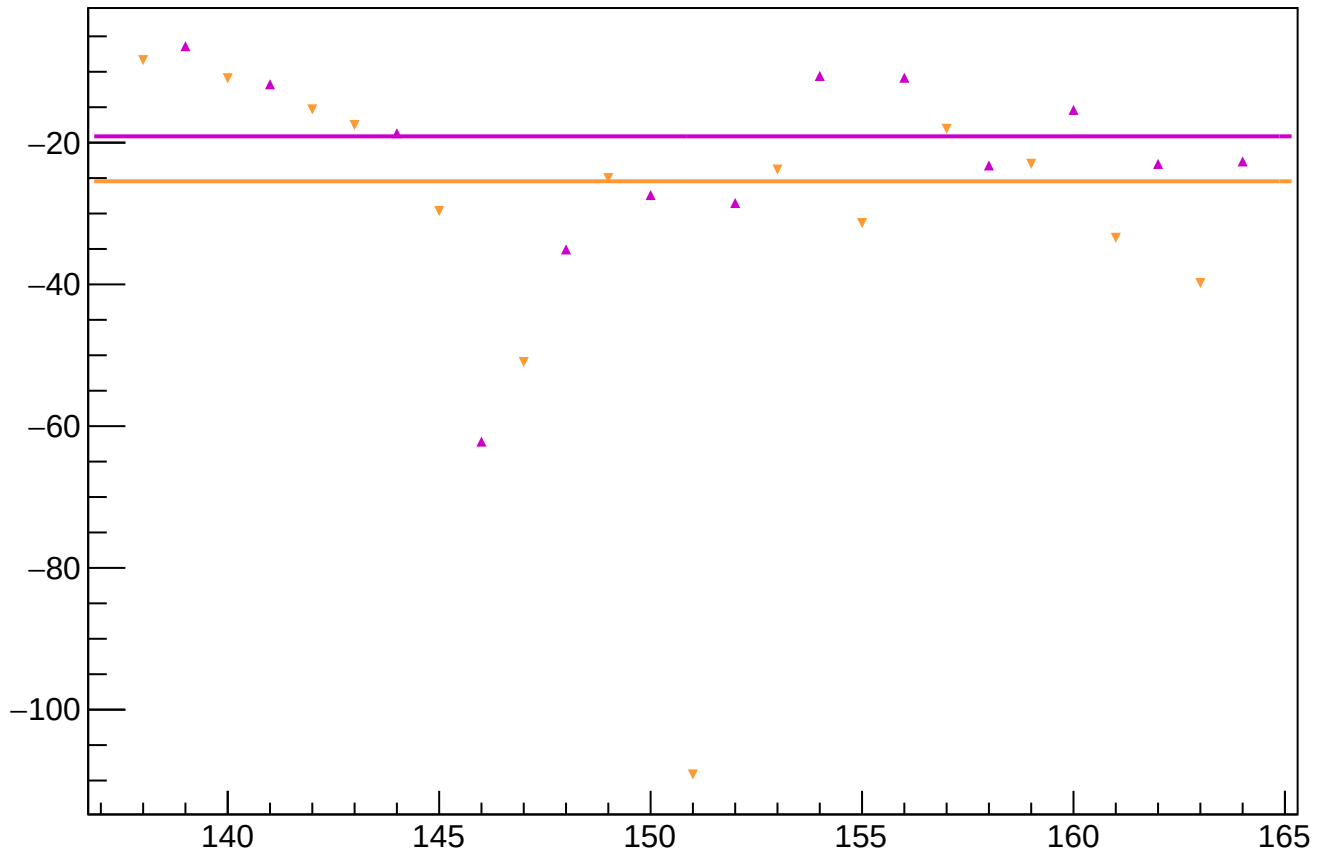
Left In:  $0.064 \pm 0.002$   $\chi^2/\text{NDF}$ : 2165.4/12

+ sign  $0.150 \pm 0.002$   $\chi^2/\text{NDF}$ : 4480.2/30

All:  $0.119 \pm 0.001$   $\chi^2/\text{NDF}$ : 9287.0/62

- sign  $0.099 \pm 0.002$   $\chi^2/\text{NDF}$ : 4479.1/31

# reg\_asym\_bcm\_an\_us\_diff\_bpm1X\_slope vs Slug



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

Left Out: -25.451+/-0.069  $\chi^2/\text{NDF}$ : 56330.1/13

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

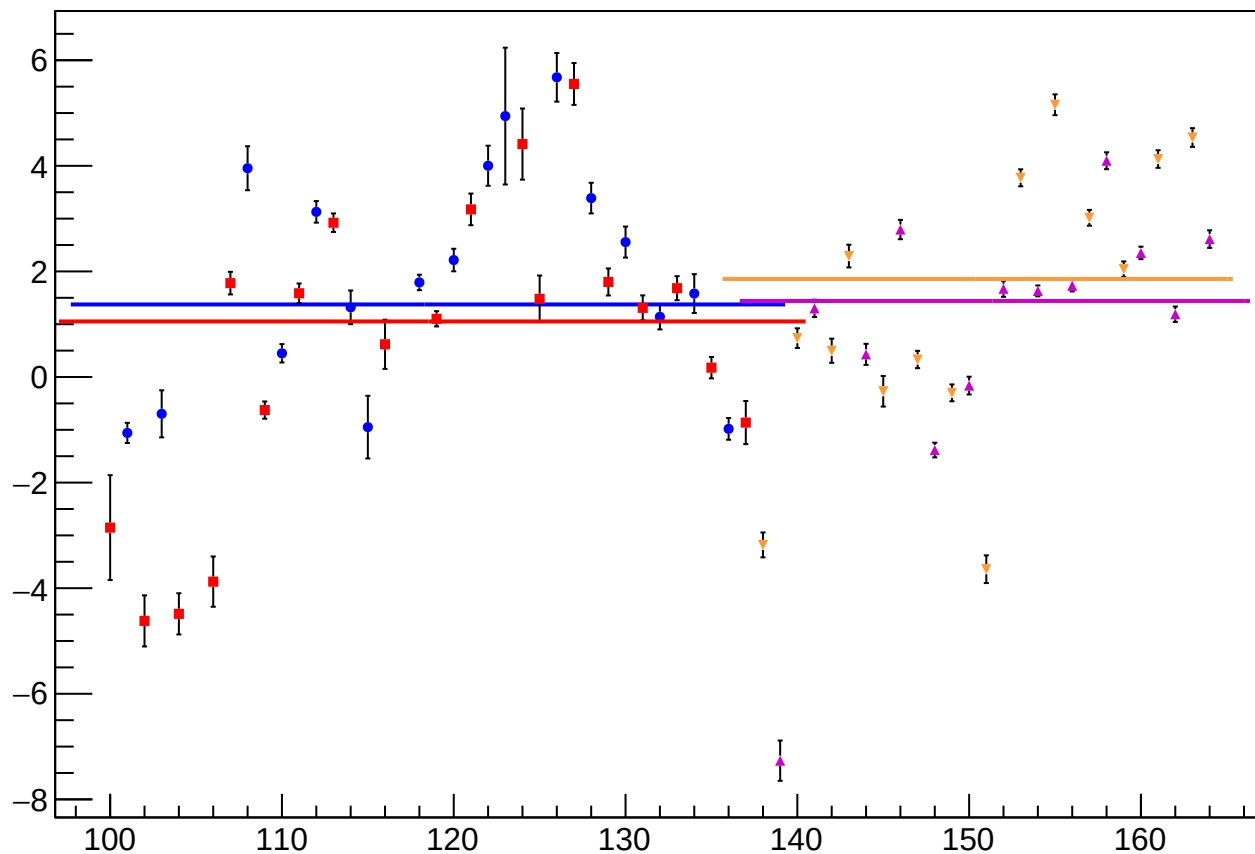
Left In: -19.109+/-0.058  $\chi^2/\text{NDF}$ : 37012.2/12

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

All: -21.722+/-0.044  $\chi^2/\text{NDF}$ : 98338.8/26

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

# reg\_asym\_bcm\_an\_us\_diff\_bpm4aY\_slope vs Slug



Right In:  $1.375 \pm 0.062$   $\chi^2/\text{NDF}$ : 702.4/16

Left Out:  $1.858 \pm 0.049$   $\chi^2/\text{NDF}$ : 2191.4/13

Right Out:  $1.052 \pm 0.058$   $\chi^2/\text{NDF}$ : 964.0/18

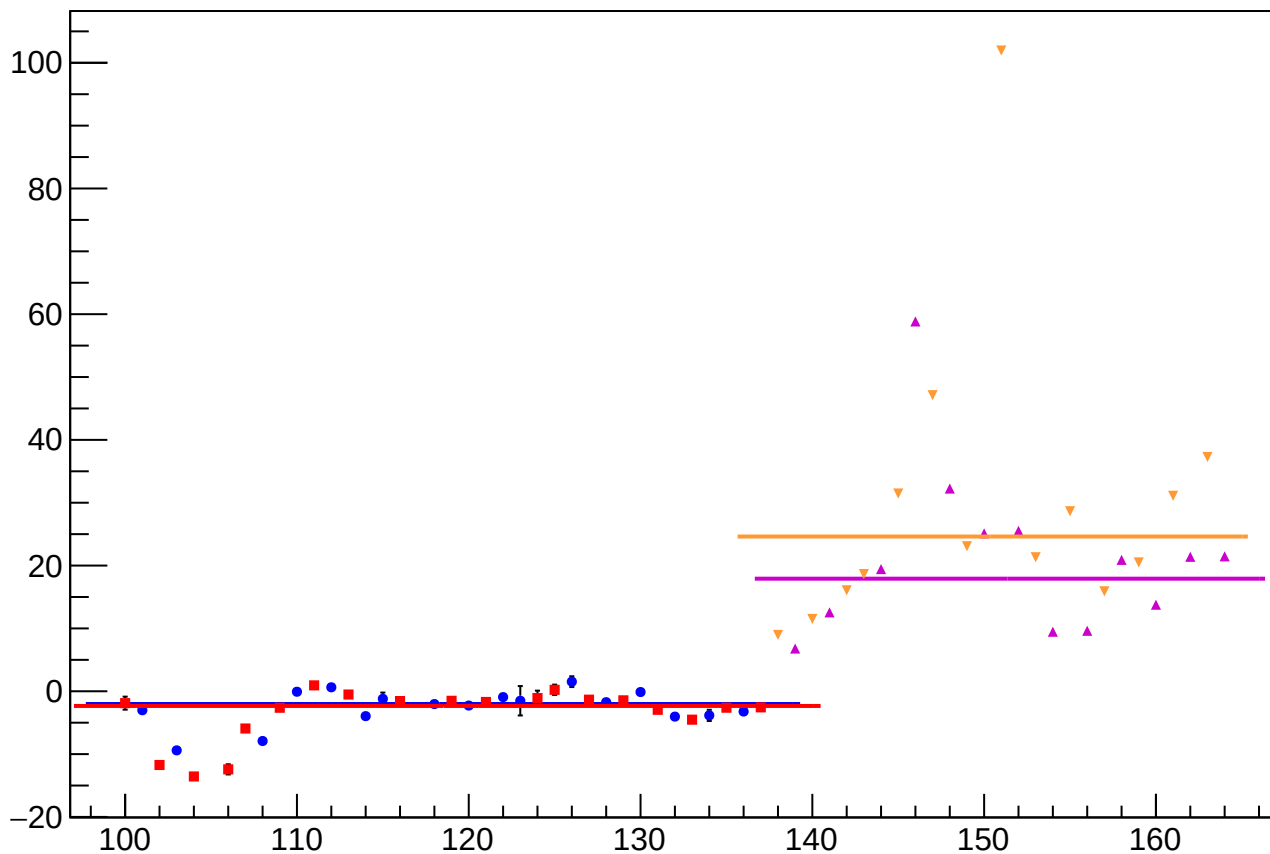
Left In:  $1.440 \pm 0.041$   $\chi^2/\text{NDF}$ : 1504.4/12

+ sign  $1.671 \pm 0.039$   $\chi^2/\text{NDF}$ : 2931.1/30

All:  $1.466 \pm 0.025$   $\chi^2/\text{NDF}$ : 5479.0/62

- sign  $1.312 \pm 0.033$   $\chi^2/\text{NDF}$ : 2498.4/31

reg\_asym\_bcm\_an\_us\_diff\_bpm4eX\_slope vs Slug



Right In:  $-2.031 \pm 0.111$   $\chi^2/\text{NDF}$ : 463.2/16

Left Out:  $24.622 \pm 0.067$   $\chi^2/\text{NDF}$ : 50435.5/13

Right Out:  $-2.336 \pm 0.099$   $\chi^2/\text{NDF}$ : 902.0/18

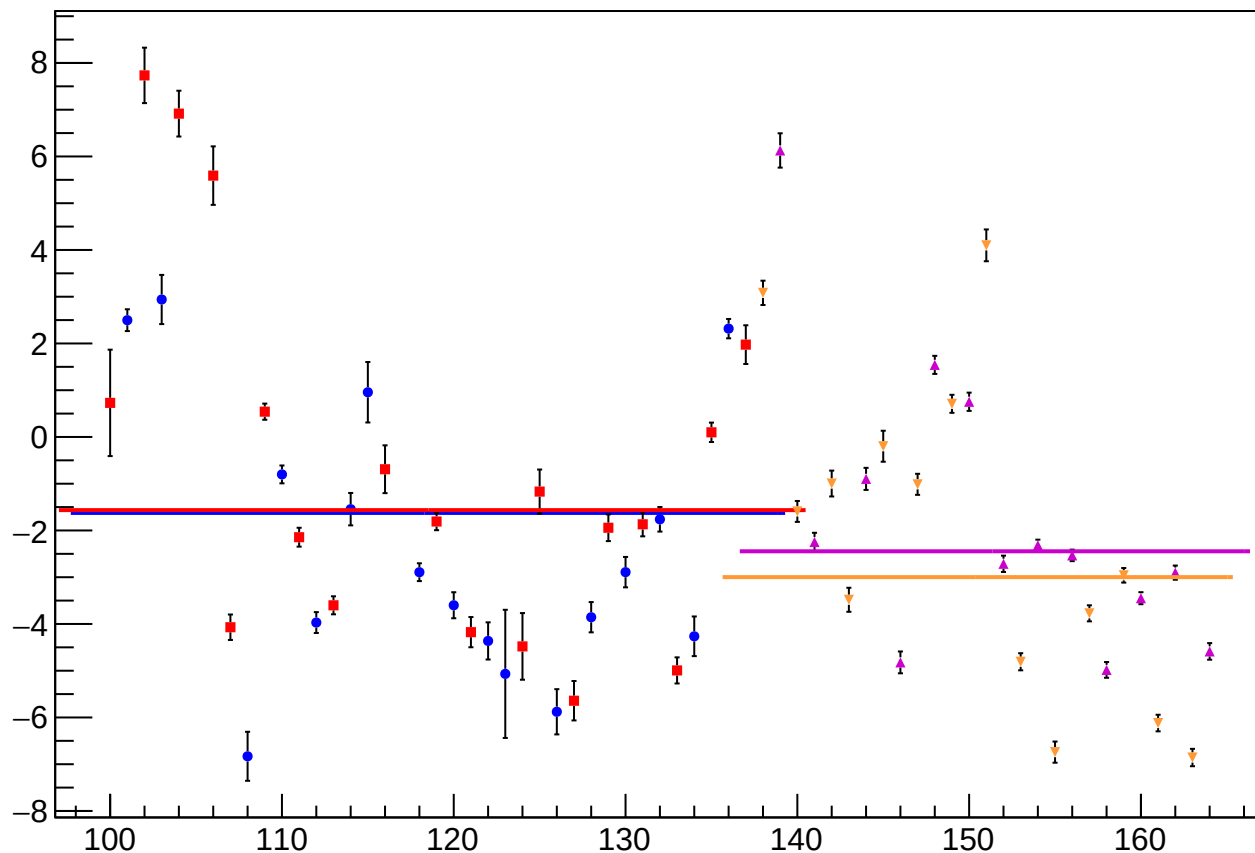
Left In:  $17.913 \pm 0.055$   $\chi^2/\text{NDF}$ : 35117.9/12

+ sign  $17.508 \pm 0.058$   $\chi^2/\text{NDF}$ : 92935.9/30

All:  $14.921 \pm 0.037$   $\chi^2/\text{NDF}$ : 164336.6/62

- sign  $13.101 \pm 0.048$   $\chi^2/\text{NDF}$ : 67952.5/31

# reg\_asym\_bcm\_an\_us\_diff\_bpm4eY\_slope vs Slug



Right In:  $-1.625 \pm 0.071$   $\chi^2/\text{NDF}$ : 1320.8/16

Left Out:  $-2.998 \pm 0.057$   $\chi^2/\text{NDF}$ : 2729.1/13

Right Out:  $-1.565 \pm 0.066$   $\chi^2/\text{NDF}$ : 1505.8/18

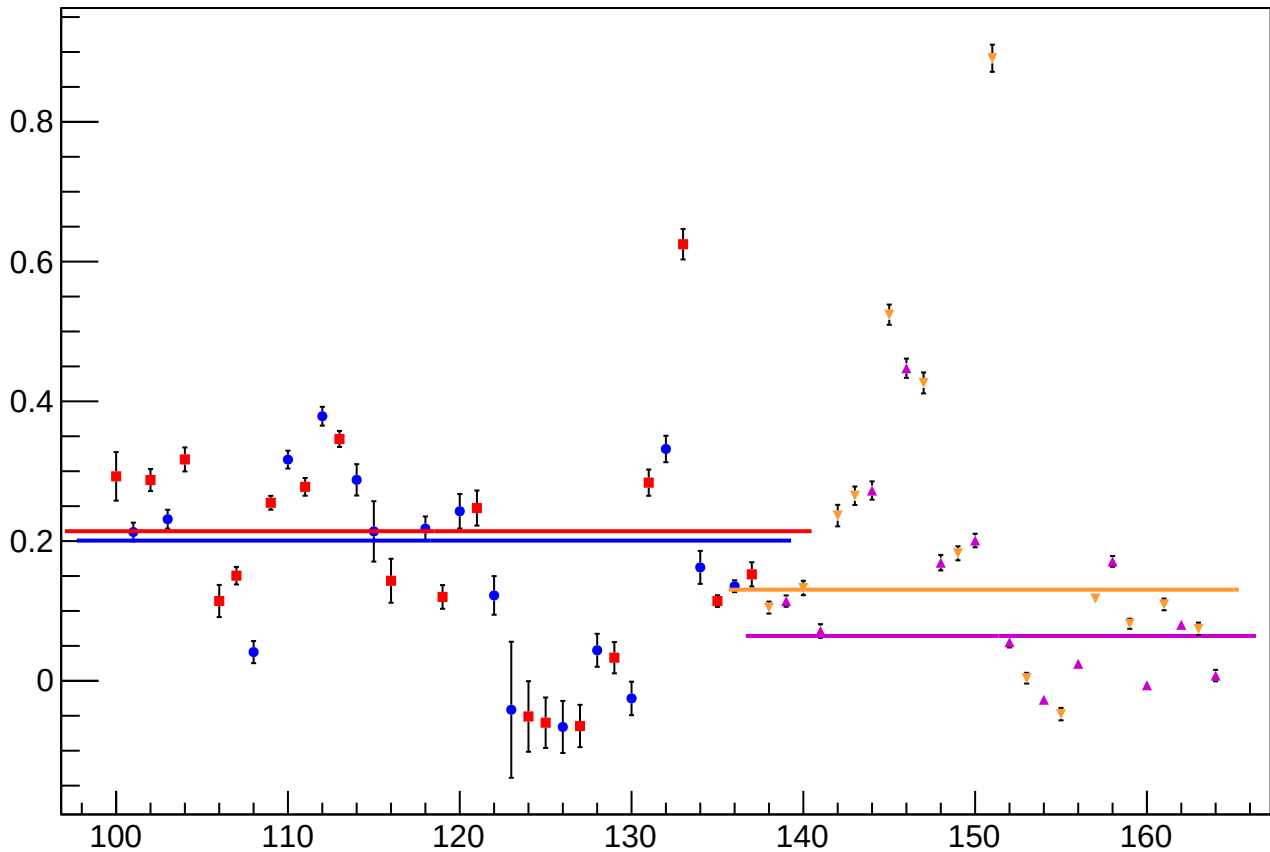
Left In:  $-2.445 \pm 0.047$   $\chi^2/\text{NDF}$ : 1833.8/12

+ sign  $-2.466 \pm 0.044$   $\chi^2/\text{NDF}$ : 4278.4/30

All:  $-2.284 \pm 0.029$   $\chi^2/\text{NDF}$ : 7767.0/62

- sign  $-2.151 \pm 0.038$   $\chi^2/\text{NDF}$ : 3459.4/31

# reg\_asym\_bcm\_an\_us\_diff\_bpm12X\_slope vs Slug



Right In:  $0.201 \pm 0.004$   $\chi^2/\text{NDF}$ : 690.6/16

Left Out:  $0.130 \pm 0.003$   $\chi^2/\text{NDF}$ : 3609.9/13

Right Out:  $0.214 \pm 0.004$   $\chi^2/\text{NDF}$ : 1080.4/18

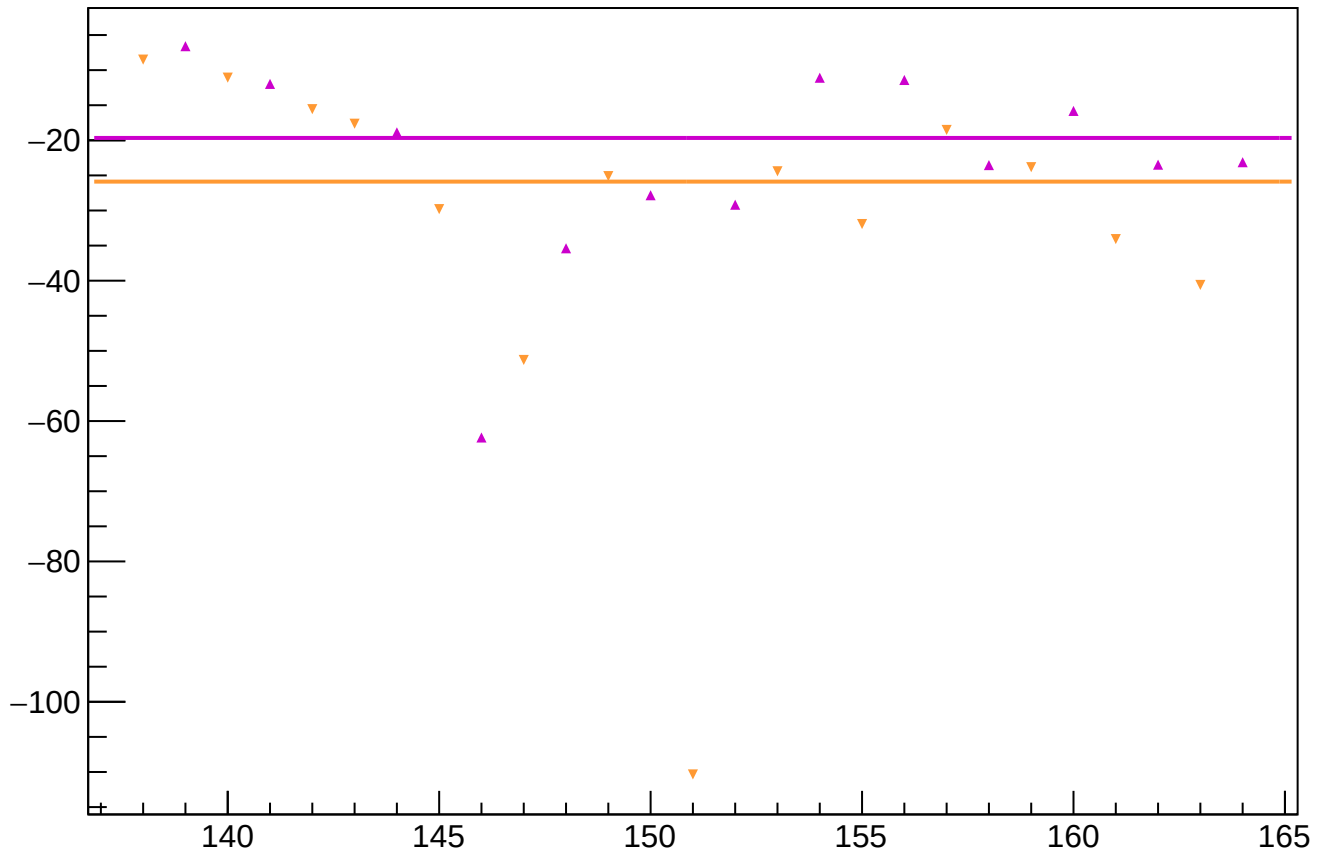
Left In:  $0.064 \pm 0.002$   $\chi^2/\text{NDF}$ : 2151.1/12

+ sign  $0.150 \pm 0.002$   $\chi^2/\text{NDF}$ : 4508.9/30

All:  $0.120 \pm 0.001$   $\chi^2/\text{NDF}$ : 9323.5/62

- sign  $0.100 \pm 0.002$   $\chi^2/\text{NDF}$ : 4496.1/31

# reg\_asym\_bcm\_dg\_ds\_diff\_bpm1X\_slope vs Slug



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

Left Out: -25.883+/-0.070  $\chi^2/\text{NDF}$ : 56258.8/13

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

Left In: -19.663+/-0.059  $\chi^2/\text{NDF}$ : 35858.5/12

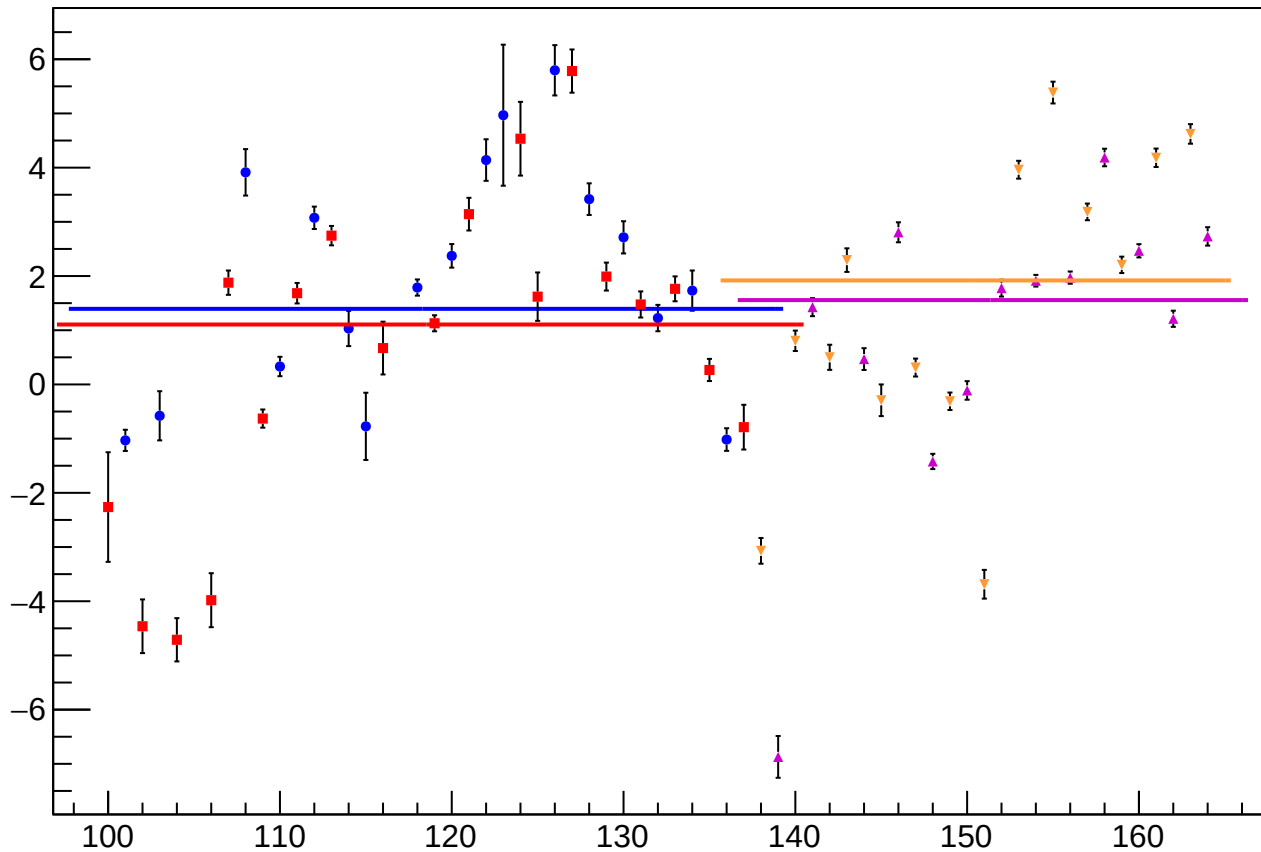
+ sign 0.000+/-0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -22.250+/-0.045  $\chi^2/\text{NDF}$ : 96739.8/26

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



# reg\_asym\_bcm\_dg\_ds\_diff\_bpm4aY\_slope vs Slug



Right In: 1.395 $\pm$ 0.063  $\chi^2/\text{NDF}$ : 701.4/16

Left Out: 1.919 $\pm$ 0.050  $\chi^2/\text{NDF}$ :2230.6/13

Right Out: 1.106 $\pm$ 0.059  $\chi^2/\text{NDF}$ : 937.0/18

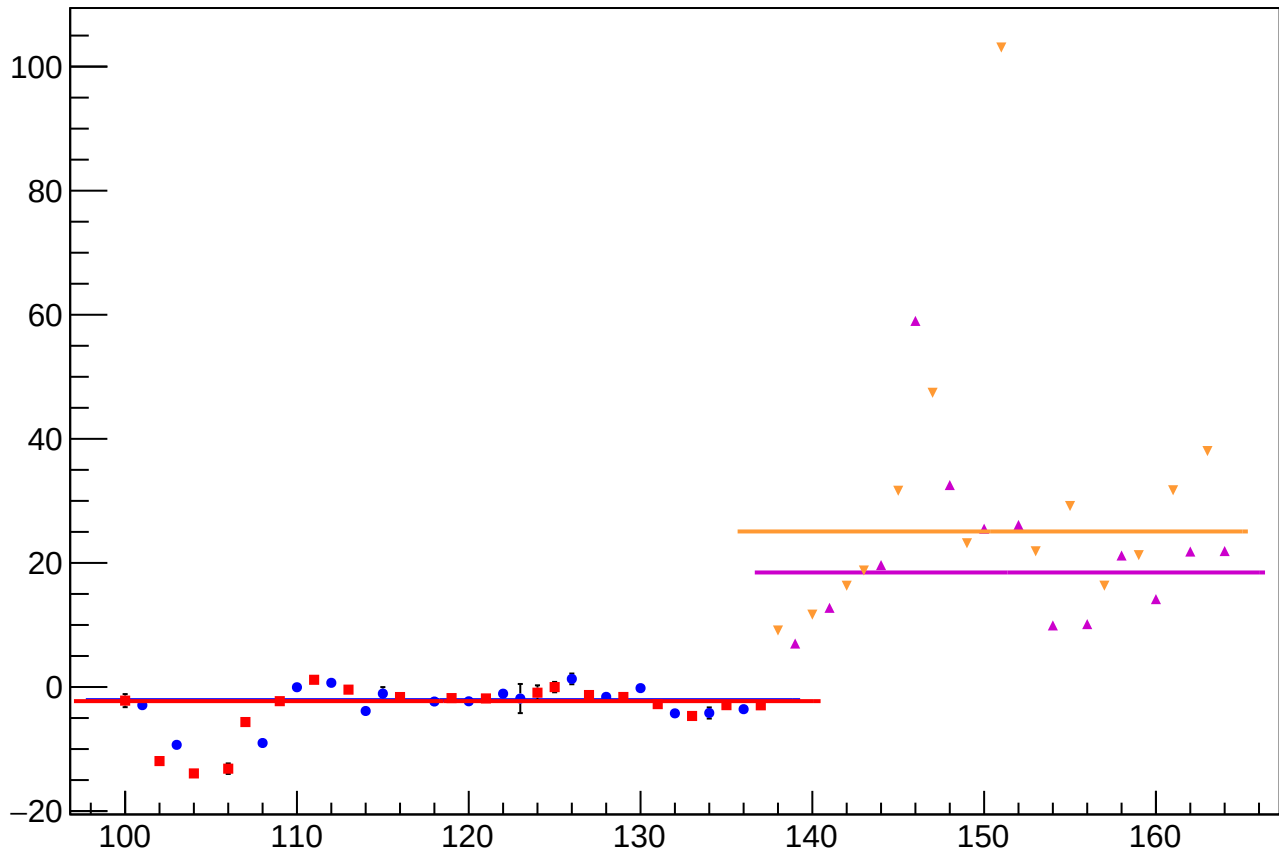
Left In: 1.556 $\pm$ 0.042  $\chi^2/\text{NDF}$ :1495.6/12

+ sign 1.717 $\pm$ 0.039  $\chi^2/\text{NDF}$ : 2974.4/30

All: 1.540 $\pm$ 0.026  $\chi^2/\text{NDF}$ : 5481.1/62

- sign 1.406 $\pm$ 0.034  $\chi^2/\text{NDF}$ : 2471.1/31

reg\_asym\_bcm\_dg\_ds\_diff\_bpm4eX\_slope vs Slug



Right In:  $-2.119 \pm 0.113$   $\chi^2/\text{NDF}$ : 486.3/16

Left Out:  $25.071 \pm 0.068$   $\chi^2/\text{NDF}$ : 50215.3/13

Right Out:  $-2.277 \pm 0.101$   $\chi^2/\text{NDF}$ : 919.4/18

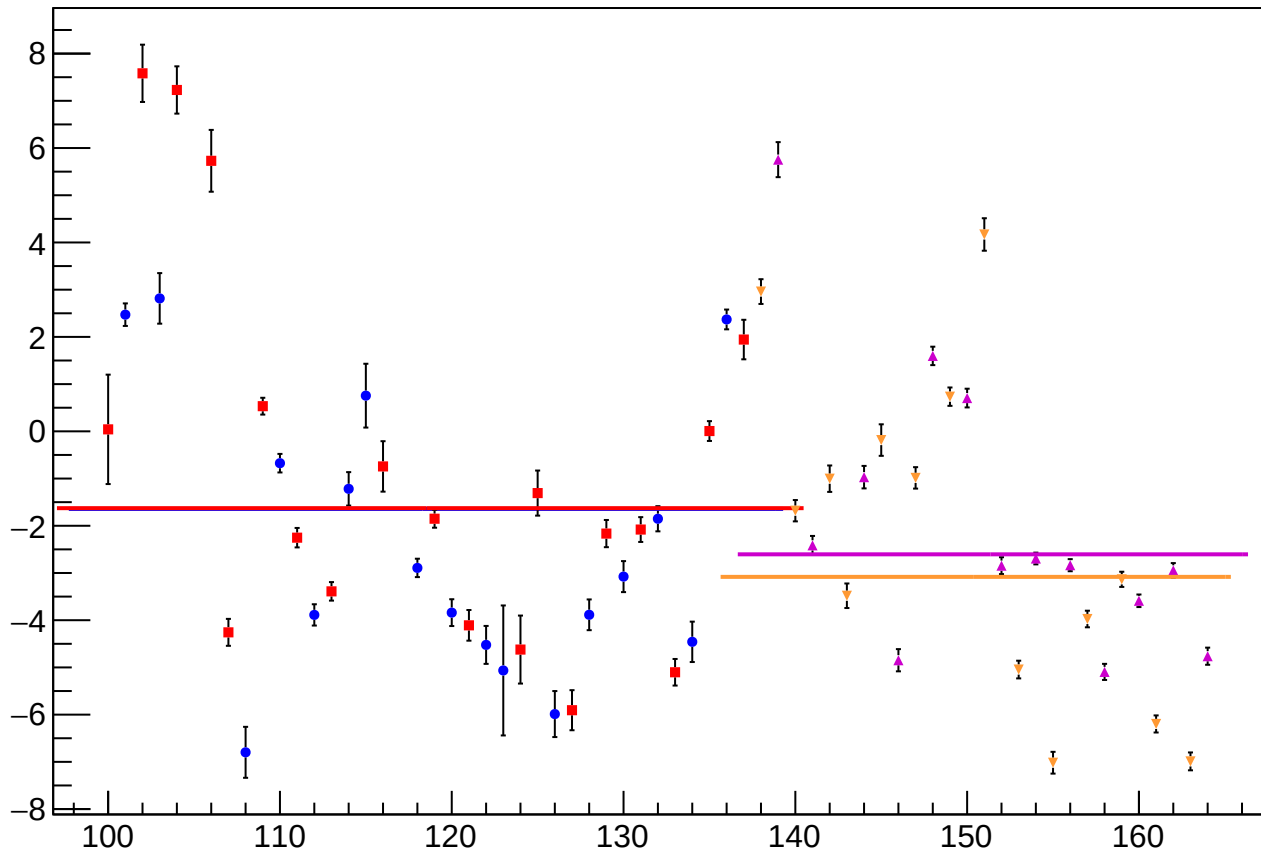
Left In:  $18.460 \pm 0.057$   $\chi^2/\text{NDF}$ : 33876.0/12

+ sign  $17.821 \pm 0.059$   $\chi^2/\text{NDF}$ : 92936.7/30

All:  $15.300 \pm 0.038$   $\chi^2/\text{NDF}$ : 162966.1/62

- sign  $13.502 \pm 0.049$   $\chi^2/\text{NDF}$ : 66848.4/31

# reg\_asym\_bcm\_dg\_ds\_diff\_bpm4eY\_slope vs Slug



Right In:  $-1.643 \pm 0.072$   $\chi^2/\text{NDF}$ : 1310.1/16

Left Out:  $-3.082 \pm 0.058$   $\chi^2/\text{NDF}$ : 2767.3/13

Right Out:  $-1.627 \pm 0.067$   $\chi^2/\text{NDF}$ : 1468.1/18

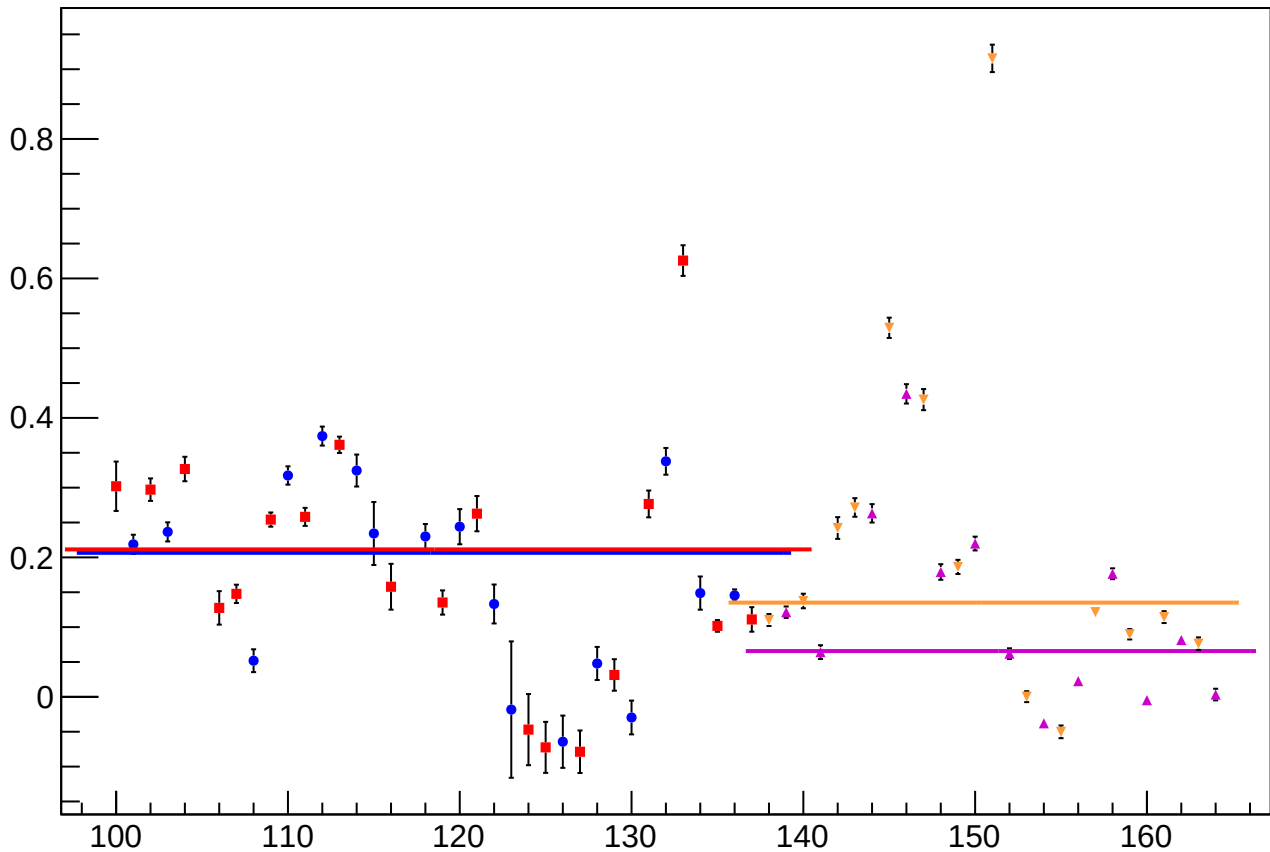
Left In:  $-2.605 \pm 0.048$   $\chi^2/\text{NDF}$ : 1808.1/12

+ sign  $-2.525 \pm 0.045$   $\chi^2/\text{NDF}$ : 4319.6/30

All:  $-2.382 \pm 0.029$   $\chi^2/\text{NDF}$ : 7754.8/62

- sign  $-2.276 \pm 0.039$   $\chi^2/\text{NDF}$ : 3417.7/31

# reg\_asym\_bcm\_dg\_ds\_diff\_bpm12X\_slope vs Slug



Right In: 0.207 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 655.0/16

Left Out: 0.135 $\pm$ 0.003  $\chi^2/\text{NDF}$ :3660.0/13

Right Out: 0.211 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 1145.6/18

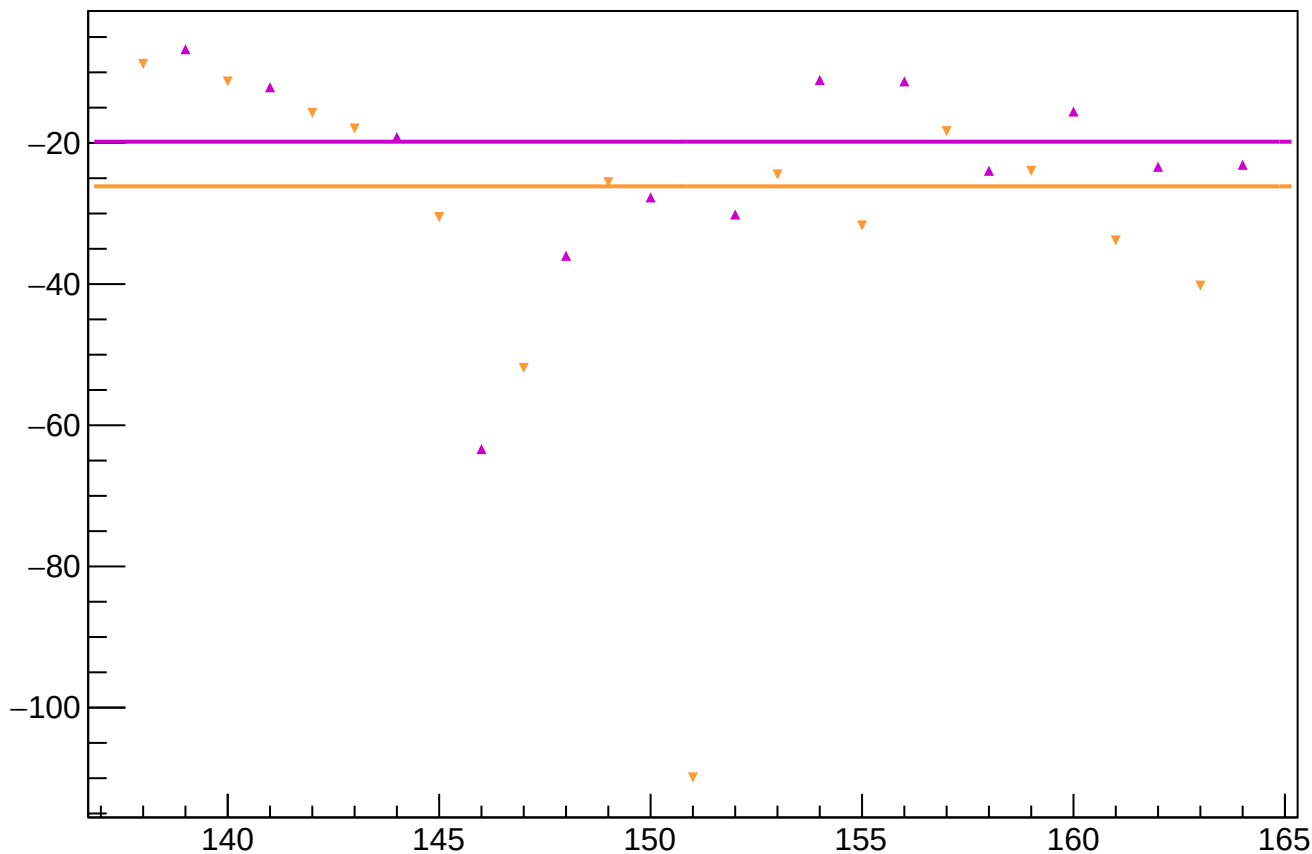
Left In: 0.066 $\pm$ 0.002  $\chi^2/\text{NDF}$ :2199.1/12

+ sign 0.155 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 4522.7/30

All: 0.123 $\pm$ 0.001  $\chi^2/\text{NDF}$ : 9370.5/62

- sign 0.100 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 4488.4/31

# reg\_asym\_bcm\_dg\_us\_diff\_bpm1X\_slope vs Slug



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

Left Out: -26.150 $\pm$ 0.071  $\chi^2/\text{NDF}$ : 54975.4/13

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

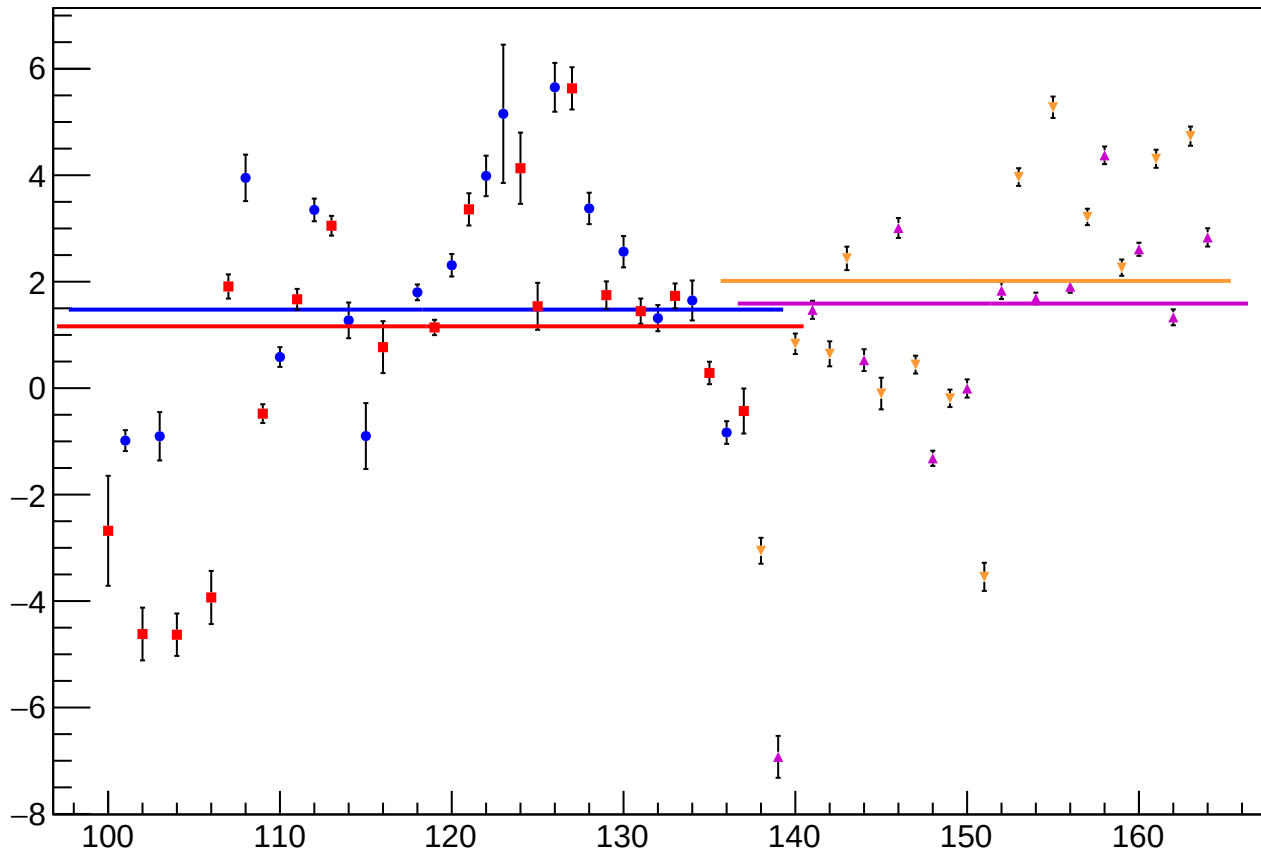
Left In: -19.826 $\pm$ 0.060  $\chi^2/\text{NDF}$ : 36168.4/12

+ sign 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

All: -22.467 $\pm$ 0.046  $\chi^2/\text{NDF}$ : 95800.4/26

- sign 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 0.0/0

# reg\_asym\_bcm\_dg\_us\_diff\_bpm4aY\_slope vs Slug



Right In: 1.476 $\pm$ 0.064  $\chi^2/\text{NDF}$ : 659.7/16

Left Out: 2.015 $\pm$ 0.051  $\chi^2/\text{NDF}$ : 2143.3/13

Right Out: 1.161 $\pm$ 0.060  $\chi^2/\text{NDF}$ : 917.9/18

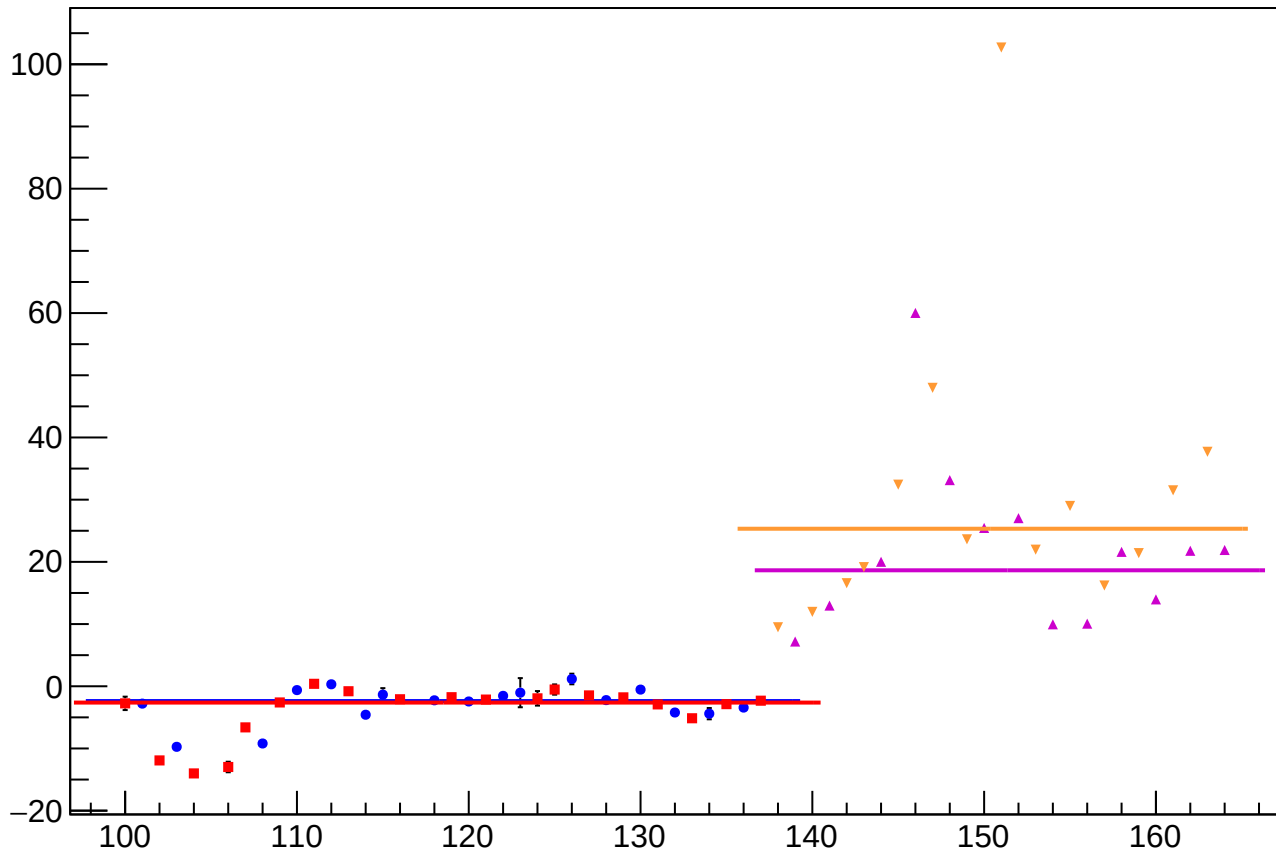
Left In: 1.589 $\pm$ 0.042  $\chi^2/\text{NDF}$ : 1469.2/12

+ sign 1.806 $\pm$ 0.040  $\chi^2/\text{NDF}$ : 2846.9/30

All: 1.602 $\pm$ 0.026  $\chi^2/\text{NDF}$ : 5314.8/62

- sign 1.446 $\pm$ 0.035  $\chi^2/\text{NDF}$ : 2421.0/31

reg\_asym\_bcm\_dg\_us\_diff\_bpm4eX\_slope vs Slug



Right In:  $-2.380 \pm 0.115$   $\chi^2/\text{NDF}$ : 438.8/16

Left Out:  $25.327 \pm 0.069$   $\chi^2/\text{NDF}$ : 49216.8/13

Right Out:  $-2.623 \pm 0.103$   $\chi^2/\text{NDF}$ : 841.3/18

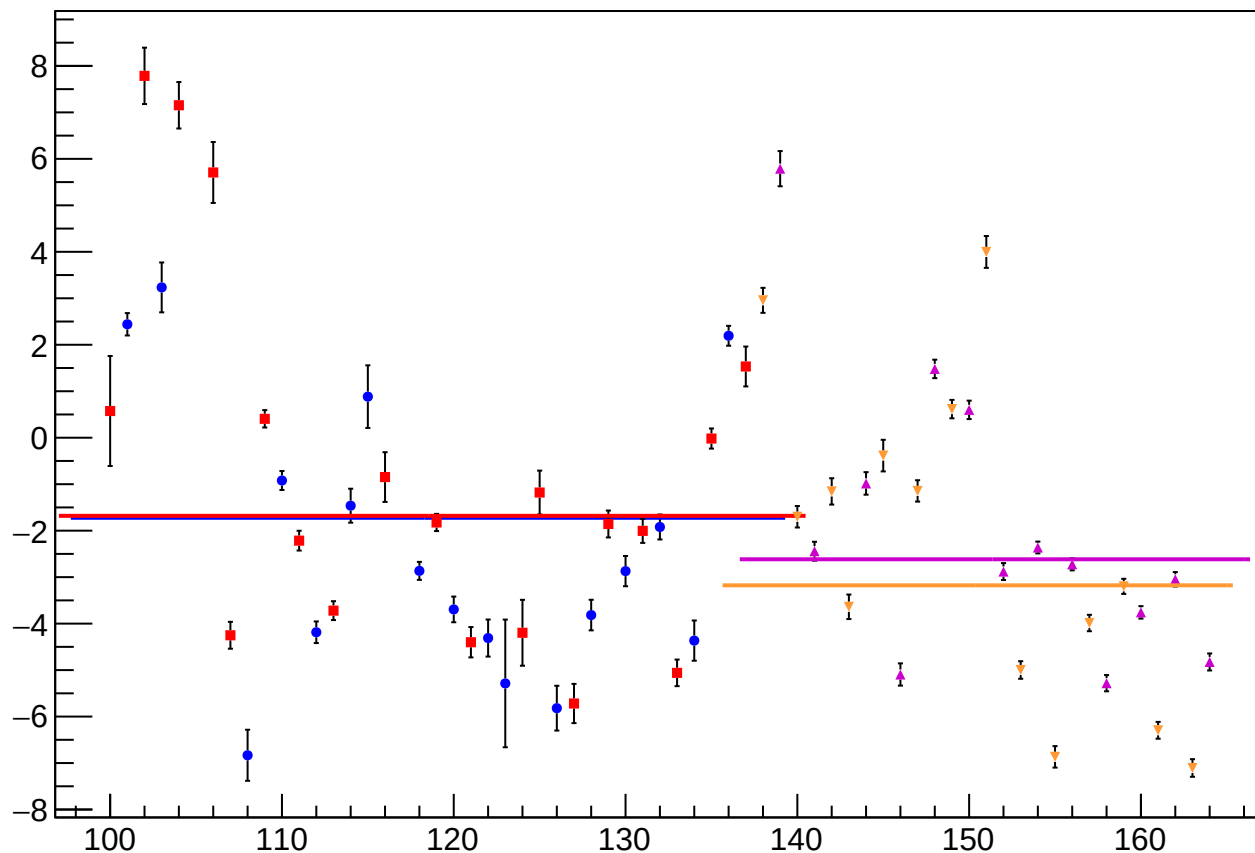
Left In:  $18.645 \pm 0.057$   $\chi^2/\text{NDF}$ : 34213.4/12

+ sign  $17.989 \pm 0.059$   $\chi^2/\text{NDF}$ : 92308.3/30

All:  $15.445 \pm 0.038$   $\chi^2/\text{NDF}$ : 162926.6/62

- sign  $13.613 \pm 0.050$   $\chi^2/\text{NDF}$ : 67440.9/31

# reg\_asym\_bcm\_dg\_us\_diff\_bpm4eY\_slope vs Slug



Right In: -1.722 $\pm$ 0.073  $\chi^2/\text{NDF}$ : 1247.6/16

Left Out: -3.176 $\pm$ 0.058  $\chi^2/\text{NDF}$ : 2661.1/13

Right Out: -1.681 $\pm$ 0.068  $\chi^2/\text{NDF}$ : 1431.0/18

Left In: -2.616 $\pm$ 0.048  $\chi^2/\text{NDF}$ : 1799.9/12

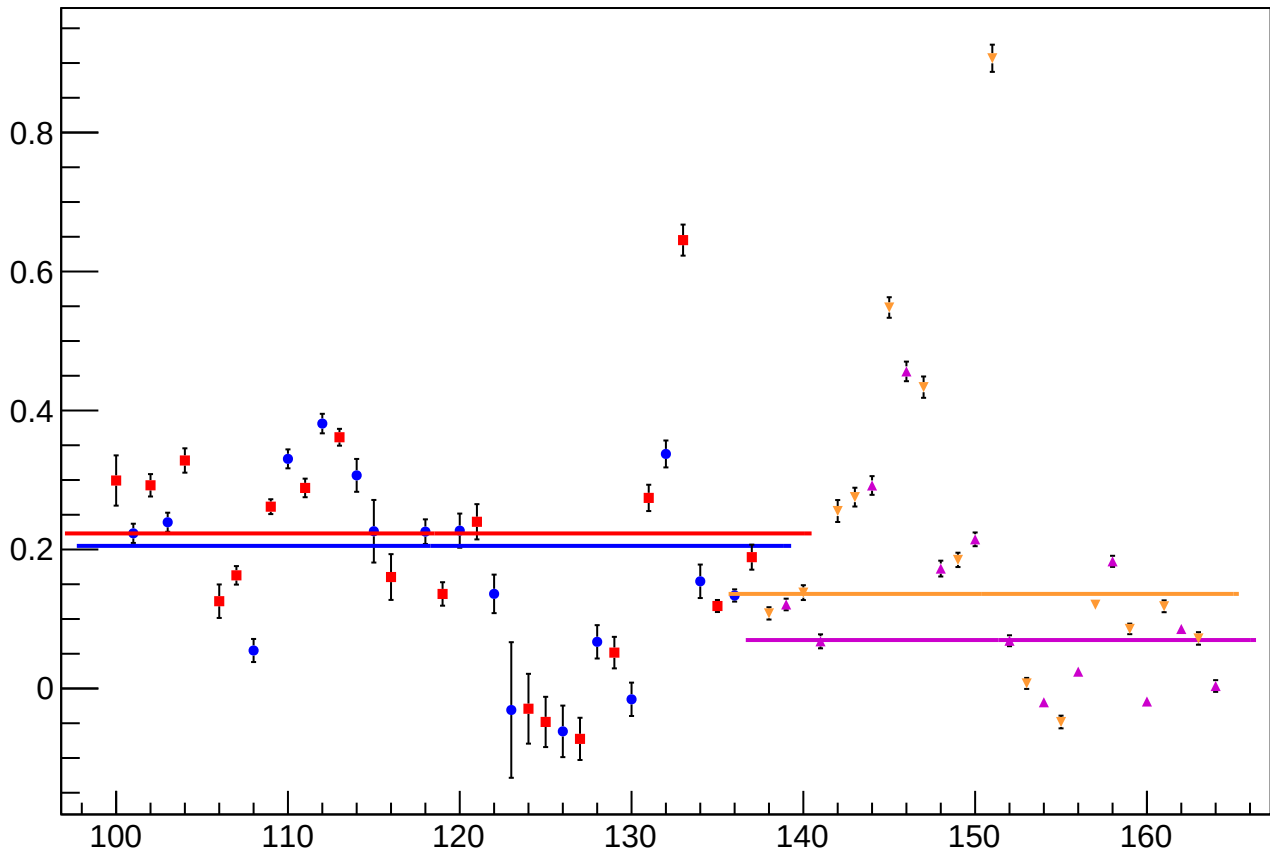
+ sign -2.613 $\pm$ 0.045  $\chi^2/\text{NDF}$ : 4151.1/30

All: -2.435 $\pm$ 0.030  $\chi^2/\text{NDF}$ : 7534.5/62

- sign -2.301 $\pm$ 0.039  $\chi^2/\text{NDF}$ : 3356.5/31



# reg\_asym\_bcm\_dg\_us\_diff\_bpm12X\_slope vs Slug



Right In:  $0.205 \pm 0.004$   $\chi^2/\text{NDF}$ : 650.7/16

Left Out:  $0.136 \pm 0.003$   $\chi^2/\text{NDF}$ : 3673.0/13

Right Out:  $0.223 \pm 0.004$   $\chi^2/\text{NDF}$ : 1040.5/18

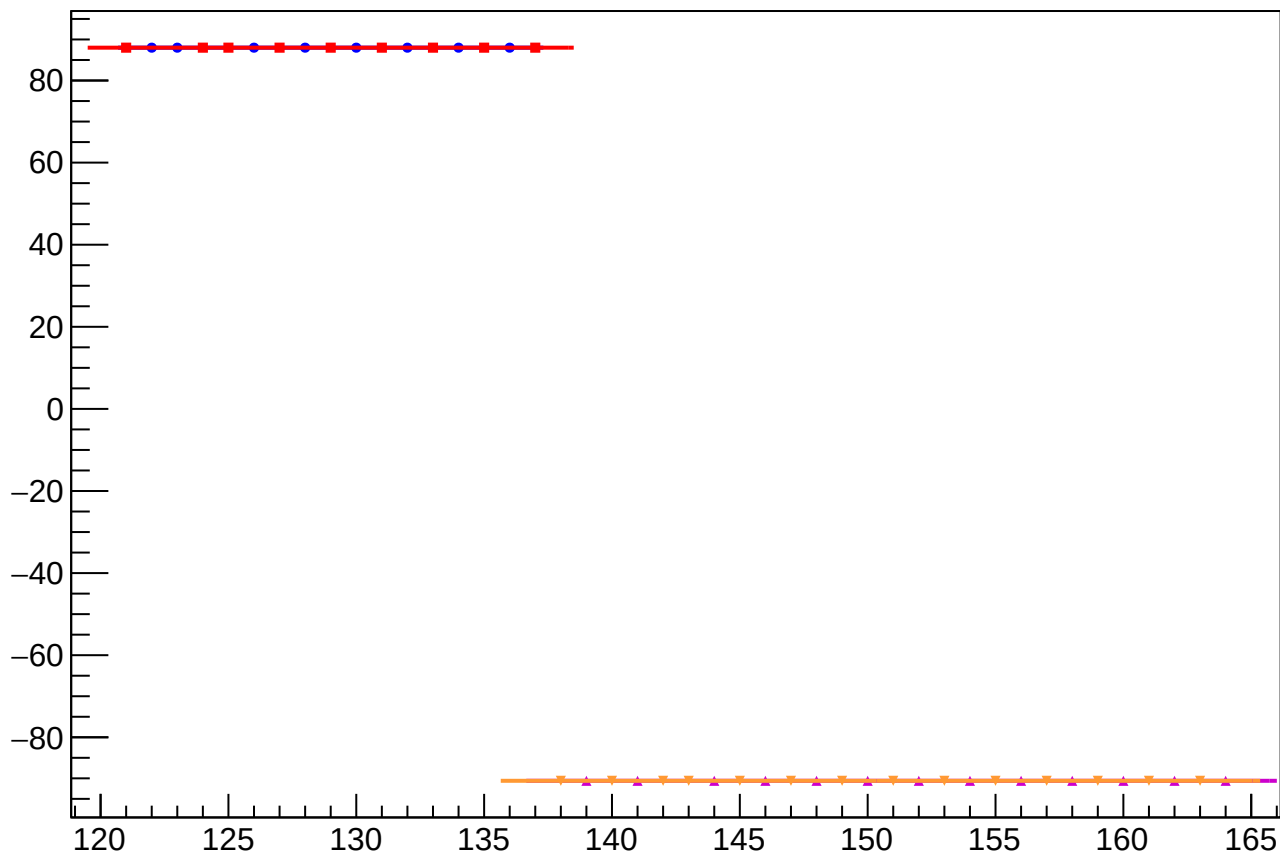
Left In:  $0.070 \pm 0.002$   $\chi^2/\text{NDF}$ : 2199.9/12

+ sign  $0.155 \pm 0.002$   $\chi^2/\text{NDF}$ : 4513.4/30

All:  $0.126 \pm 0.001$   $\chi^2/\text{NDF}$ : 9257.1/62

- sign  $0.106 \pm 0.002$   $\chi^2/\text{NDF}$ : 4459.4/31

# VWienAngle\_mean vs Slug



Right In: 88.001 $\pm$ 0.000  $\chi^2$ /NDF: 714089.5/7

Left Out: -90.599 $\pm$ 0.000  $\chi^2$ /NDF: 3777444.7/13

Right Out: 88.001 $\pm$ 0.000  $\chi^2$ /NDF: 109456.0/8

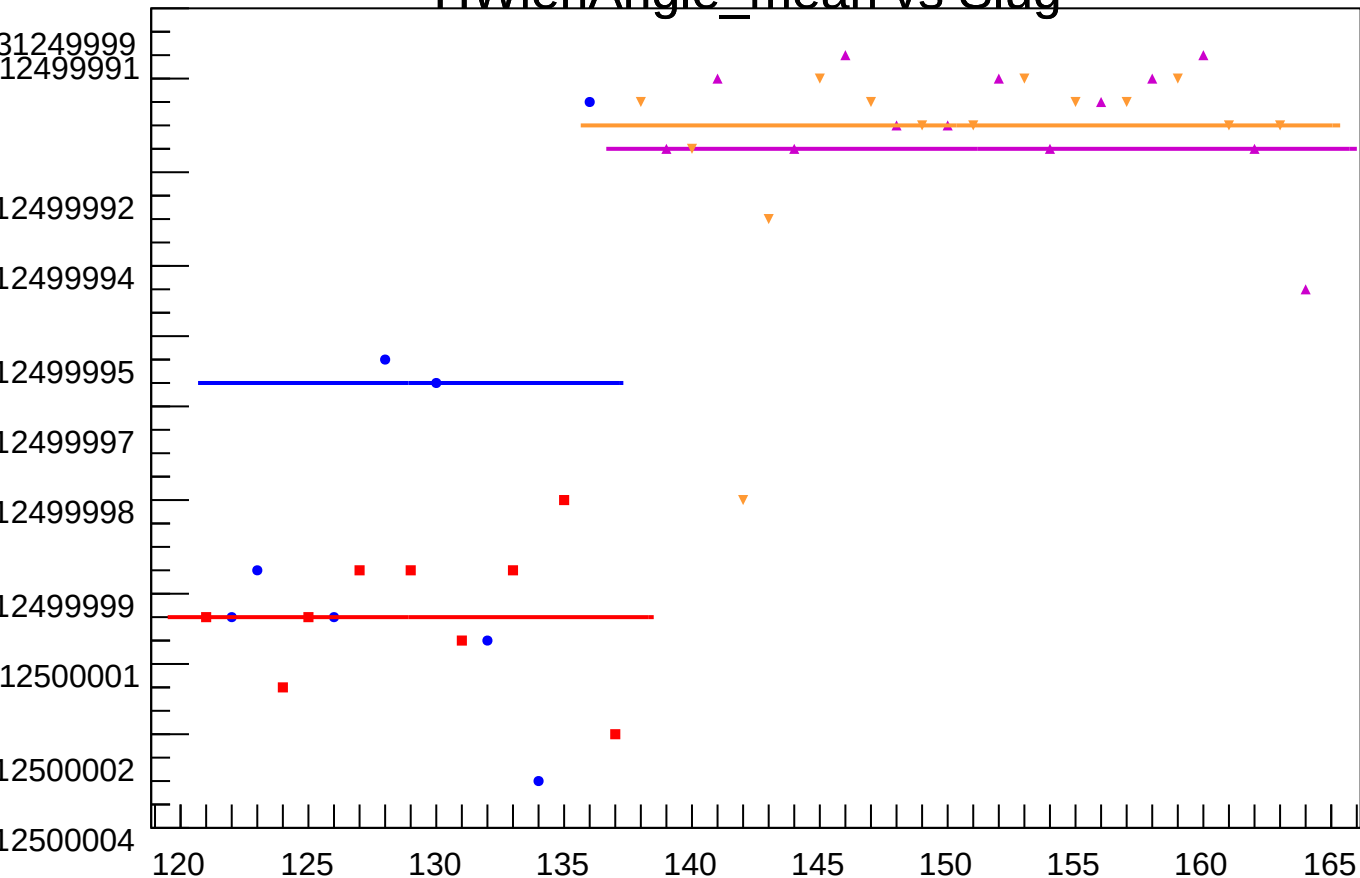
Left In: -90.599 $\pm$ 0.000  $\chi^2$ /NDF: 2567773.8/12

+ sign -48.004 $\pm$ 0.000  $\chi^2$ /NDF: 830734988384936

All: -48.721 $\pm$ 0.000  $\chi^2$ /NDF: 161406393283

- sign -49.463 $\pm$ 0.000  $\chi^2$ /NDF: 7831789812158831

# HWienAngle\_mean vs Slug



Right In:  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 405045.4/7

Left Out:  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 179948.6/13

Right Out:  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 29358.2/8

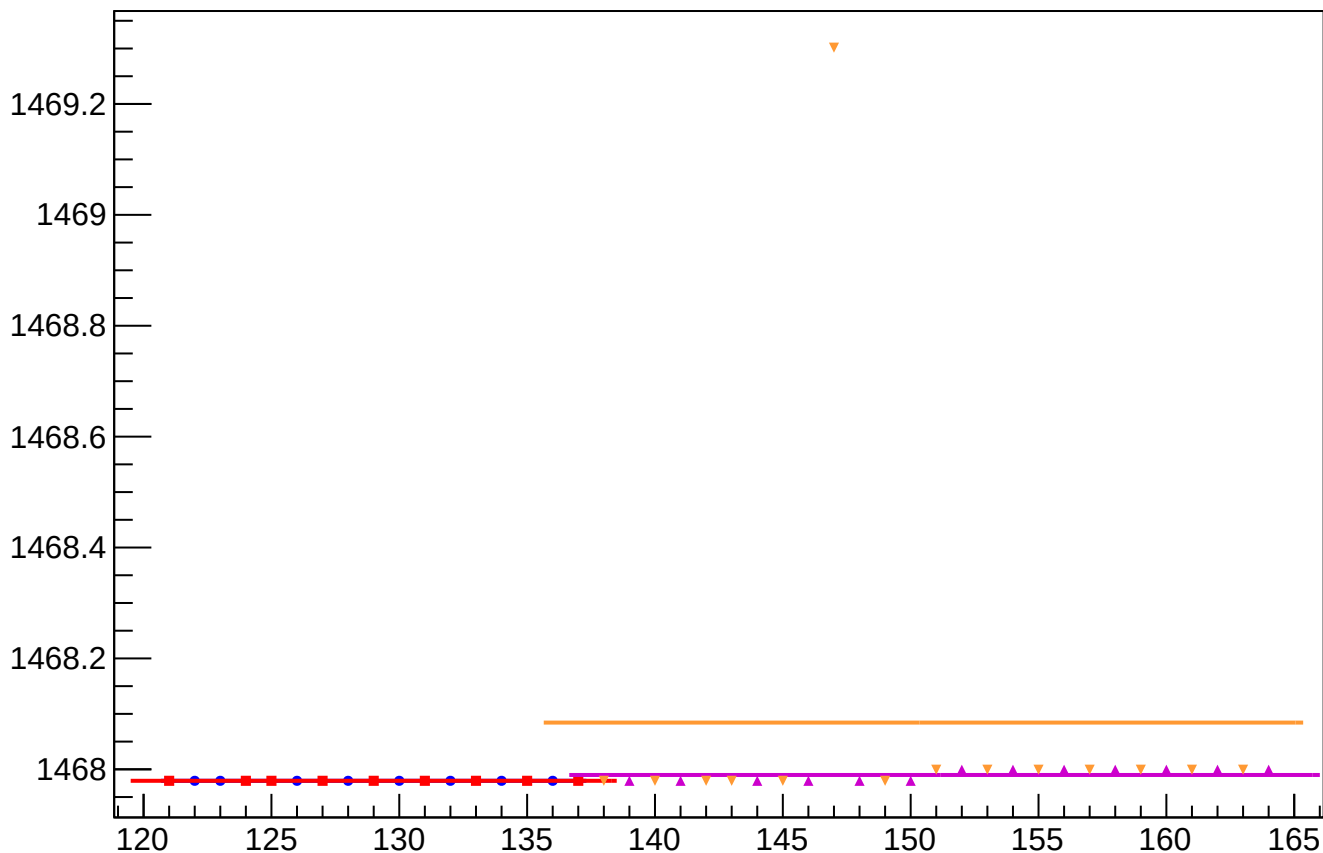
Left In:  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 97137.2/12

+ sign  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 1159814.9/21

All:  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 2466988.9/43

- sign  $-29.641 \pm 0.000$   $\chi^2/\text{NDF}$ : 1411846.5/21

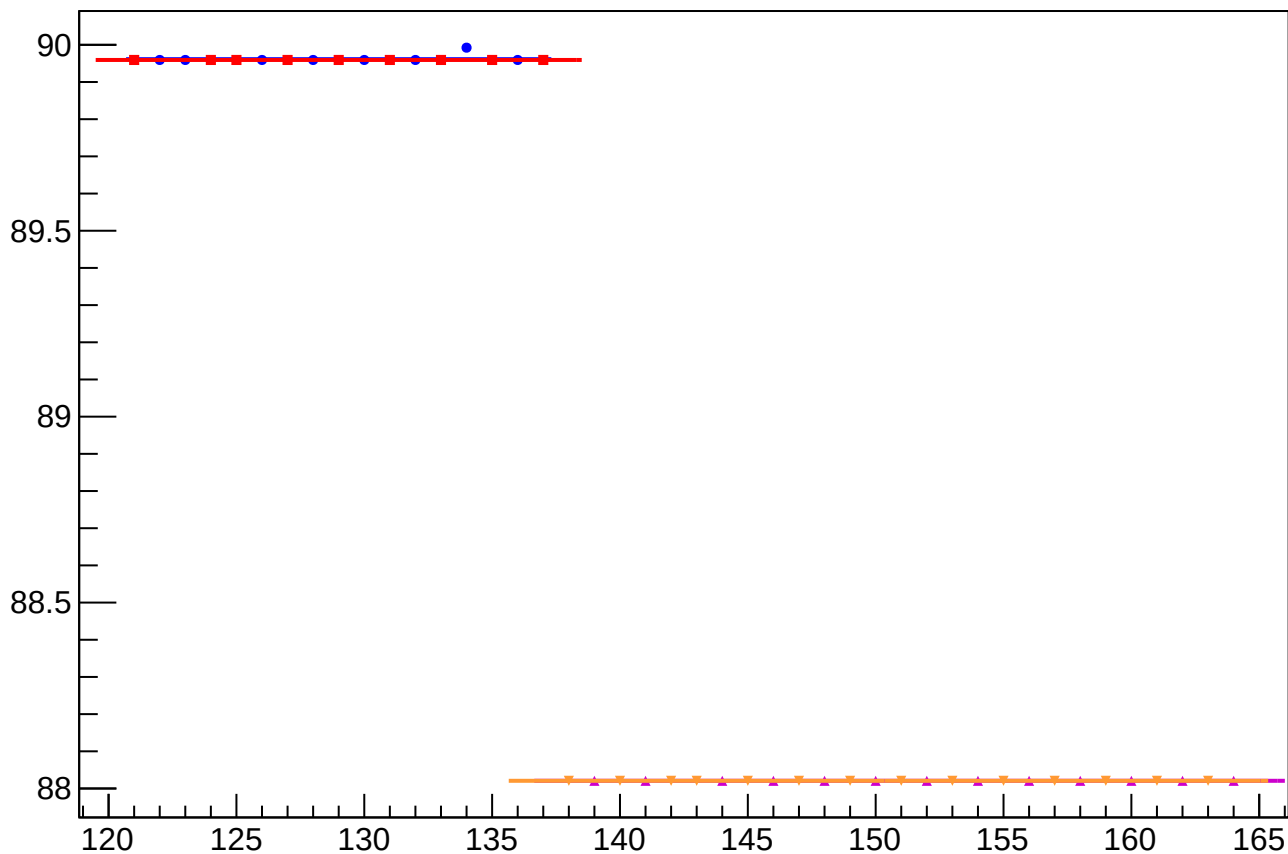
# psub\_pl\_pos\_mean vs Slug



Right In: 1467.979+/-0.000  $\chi^2/\text{NDF}$ : 436234375.5/7  
 Left Out: 1468.084+/-0.000  $\chi^2/\text{NDF}$ : 124556797583811109412065375158272.0/13  
 Right Out: 1467.979+/-0.000  $\chi^2/\text{NDF}$ : 83183350.3/8  
 Left In: 1467.990+/-0.000  $\chi^2/\text{NDF}$ : 106326454008359177080641945600.0/12

+ sign 1468.059+/-0.000  $\chi^2/\text{NDF}$ : 12742774293310  
 - sign 1467.987+/-0.000  $\chi^2/\text{NDF}$ : 13342960284541  
 All: 1468.024+/-0.000  $\chi^2/\text{NDF}$ : 13119997270

# Phi\_FG\_mean vs Slug

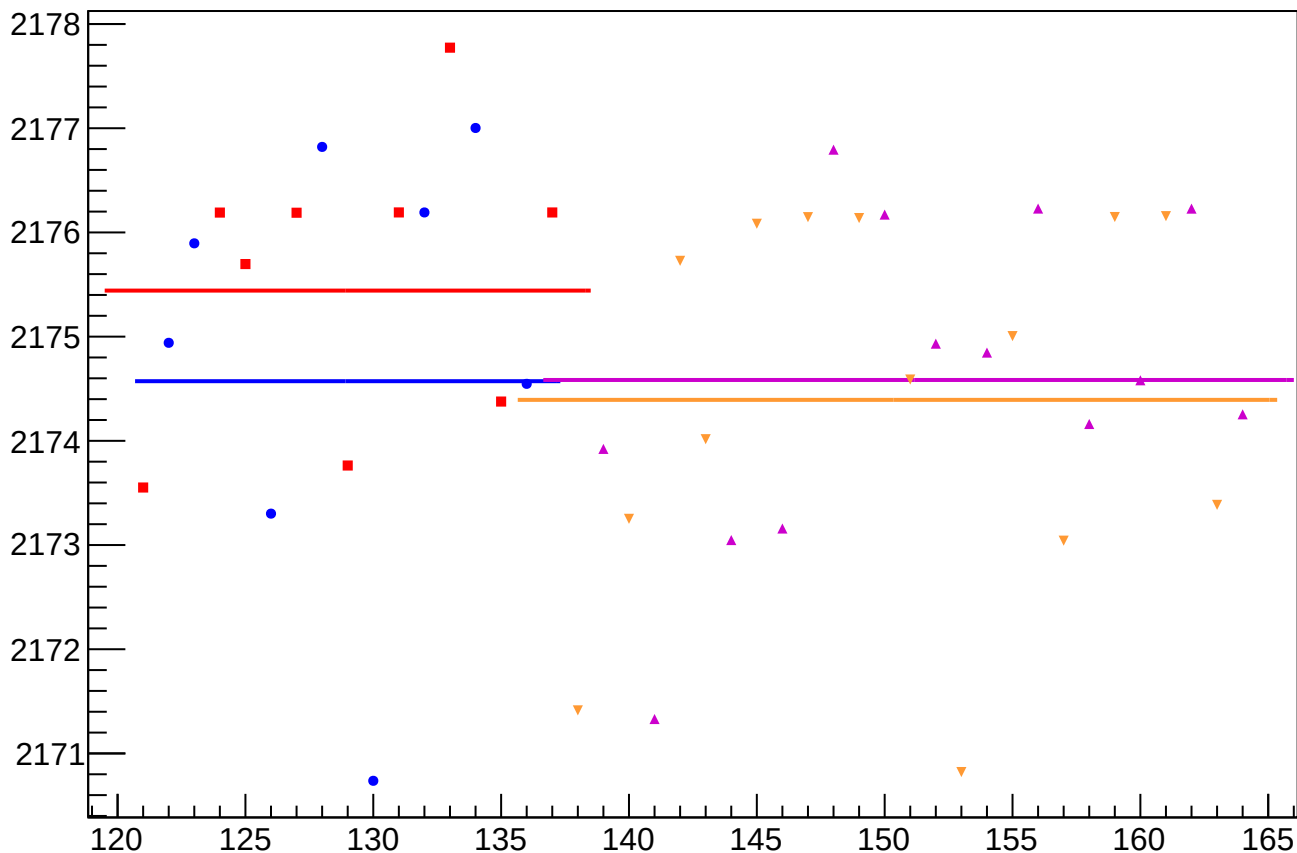


+ sign 88.484 $\pm$ 0.000  $\chi^2$ /NDF: 9808249606090169

All: 88.476 $\pm$ 0.000  $\chi^2$ /NDF: 1903736426064

- sign 88.467 $\pm$ 0.000  $\chi^2$ /NDF: 9227238174965347

# HALLA\_p\_mean vs Slug



Right In: 2174.572+/-0.000  $\chi^2/\text{NDF}$ : 1360264074026849381407550448074752.0/7

Left Out: 2174.393+/-0.000  $\chi^2/\text{NDF}$ : 3493754556495061994293722597031936.0/13

Right Out: 2175.442+/-0.000  $\chi^2/\text{NDF}$ : 610778445075790556034346524868608.0/8

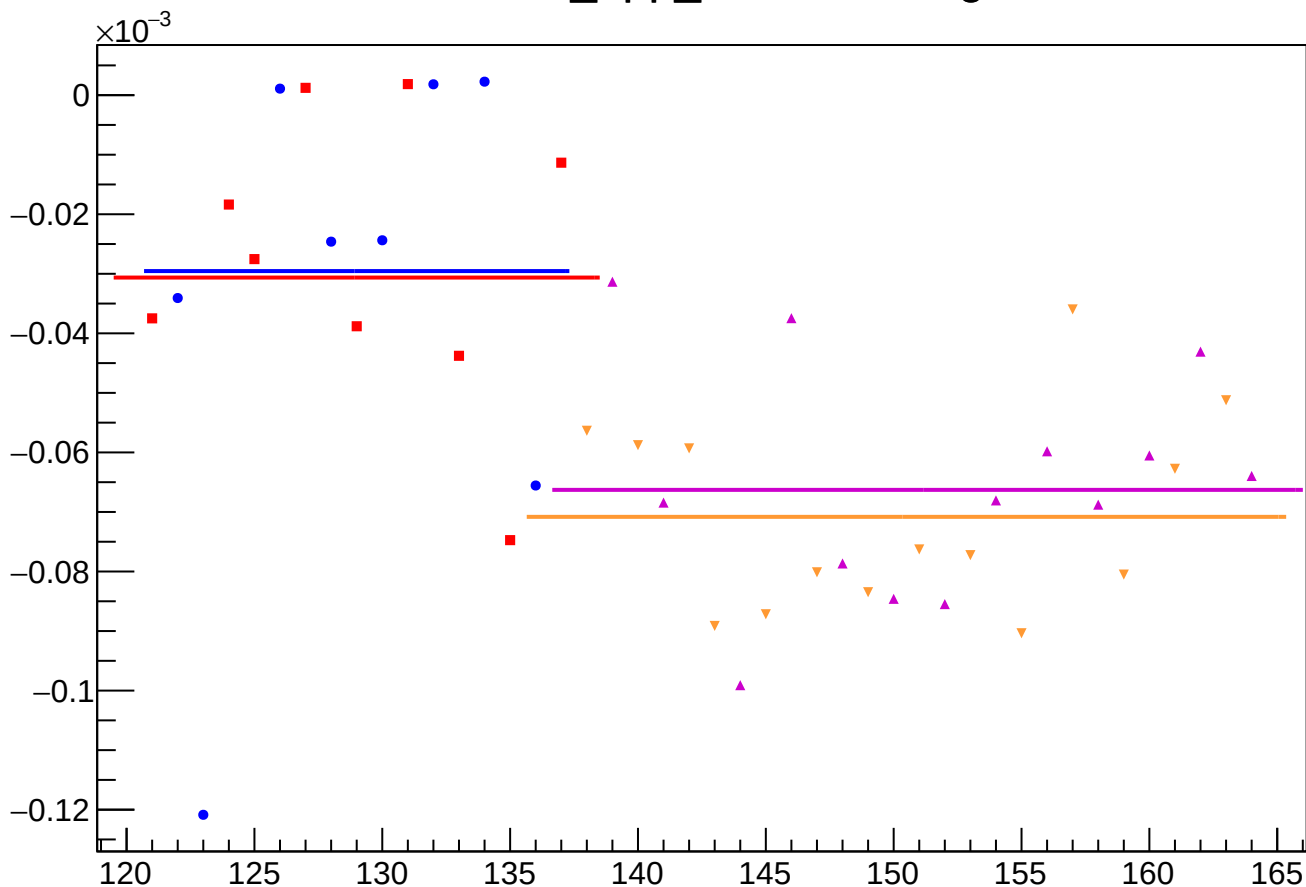
Left In: 2174.584+/-0.000  $\chi^2/\text{NDF}$ : 2405847276523443203084741578326016.0/12

+ sign 2174.436+/-0.000  $\chi^2/\text{NDF}$ : 48623861087335

All: 2174.606+/-0.000  $\chi^2/\text{NDF}$ : 81438940724

- sign 2174.782+/-0.000  $\chi^2/\text{NDF}$ : 31973040901279

# HALLA\_dpp\_mean vs Slug



Right In: -0.000+/-0.000  $\chi^2$ /NDF: 250161267307815387529216.0/7

Left Out: -0.000+/-0.000  $\chi^2$ /NDF: 276800137098451199459328.0/13

Right Out: -0.000+/-0.000  $\chi^2$ /NDF: 196732771178766734983168.0/8

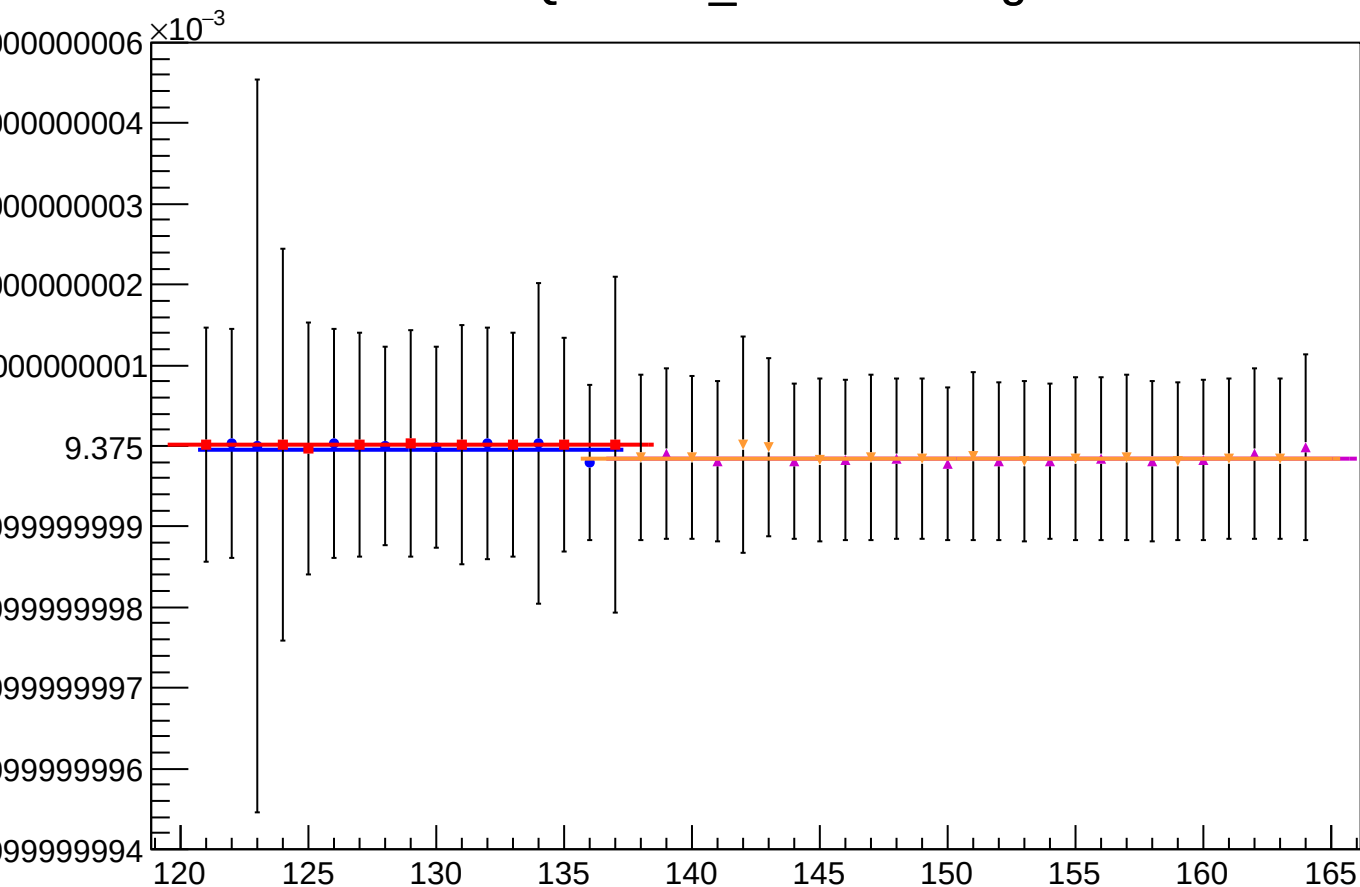
Left In: -0.000+/-0.000  $\chi^2$ /NDF: 378062219391262053629952.0/12

+ sign -0.000+/-0.000  $\chi^2$ /NDF: 9706530009503804

All: -0.000+/-0.000  $\chi^2$ /NDF: 1863523942086

- sign -0.000+/-0.000  $\chi^2$ /NDF: 88695151782647909

# MQ171LM\_mean vs Slug



Right In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/7

Left Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/13

Right Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/8

Left In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/12

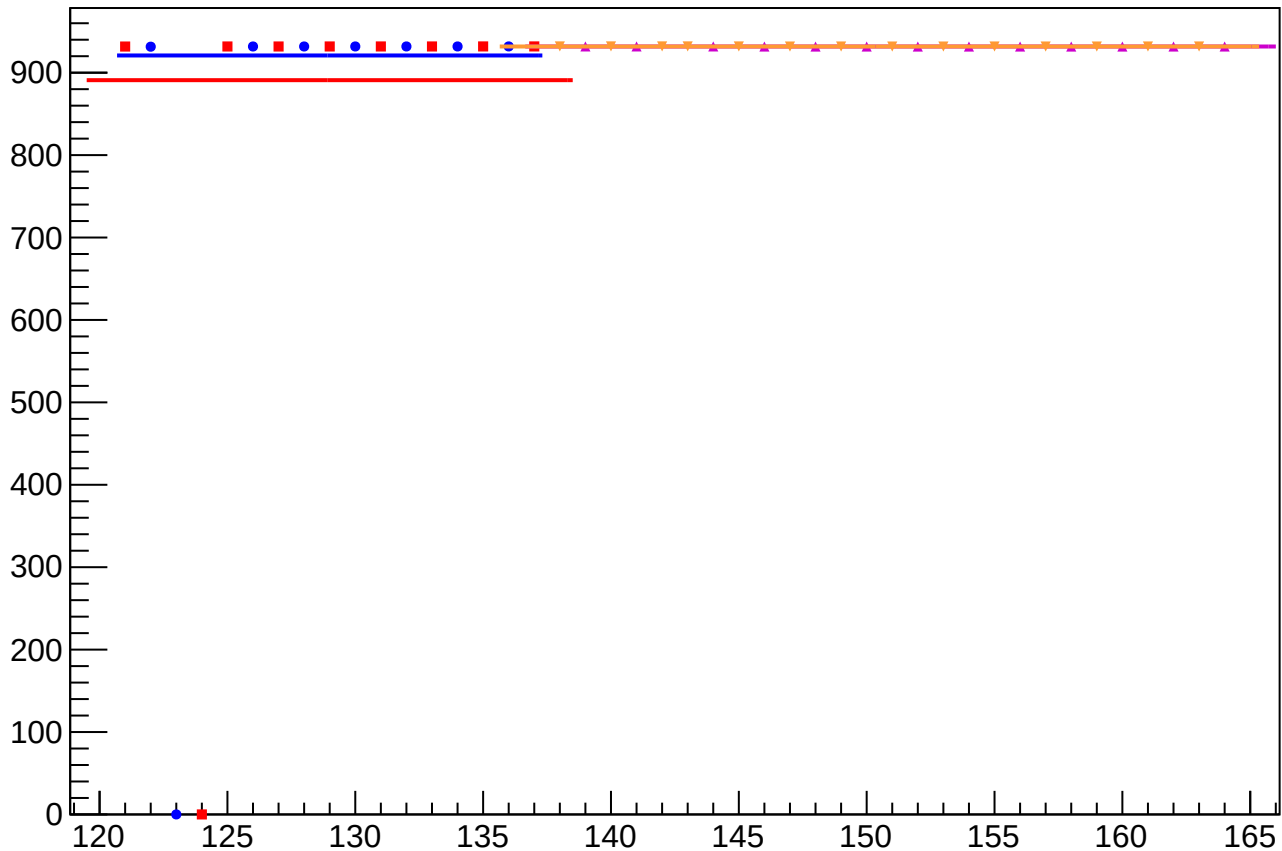
+ sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.1/21

All: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.2/43

- sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.1/21



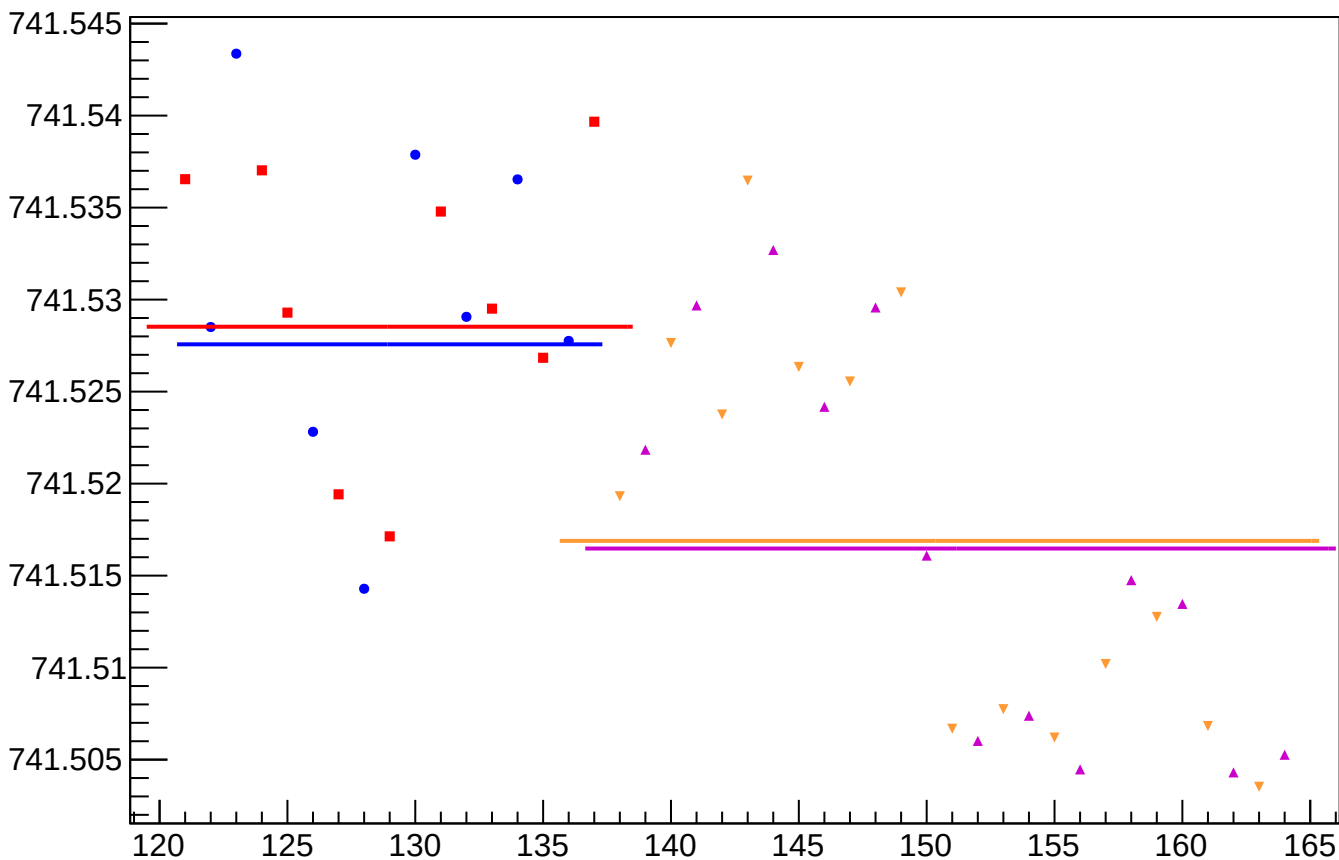
# HacL\_Q2\_HP3458A\_IOUT\_mean vs Slug



Right In: 920.898 $\pm$ 0.000  $\chi^2$ /NDF: 3432128841951899861299566212080992256.0/7  
 Left Out: 931.785 $\pm$ 0.000  $\chi^2$ /NDF: 3824097196132259392435592888320.0/13  
 Right Out: 890.923 $\pm$ 0.000  $\chi^2$ /NDF: 11621671430114409722932854398744788992.0/8  
 Left In: 931.771 $\pm$ 0.000  $\chi^2$ /NDF: 3339793681810209771105256734720.0/12

+ sign 929.188 $\pm$ 0.000  $\chi^2$ /NDF: 346299973854376  
 All: 925.835 $\pm$ 0.000  $\chi^2$ /NDF: 155271696233  
 - sign 922.363 $\pm$ 0.000  $\chi^2$ /NDF: 120313501564755

# HacL\_D1\_HP3458A\_IOUT\_mean vs Slug



Right In: 741.528+/-0.000  $\chi^2/\text{NDF}$ : 18896144326732419810052800512.0/7

Left Out: 741.517+/-0.000  $\chi^2/\text{NDF}$ : 119003742152676901932423446528.0/13

Right Out: 741.529+/-0.000  $\chi^2/\text{NDF}$ : 16580353917842624420385914880.0/8

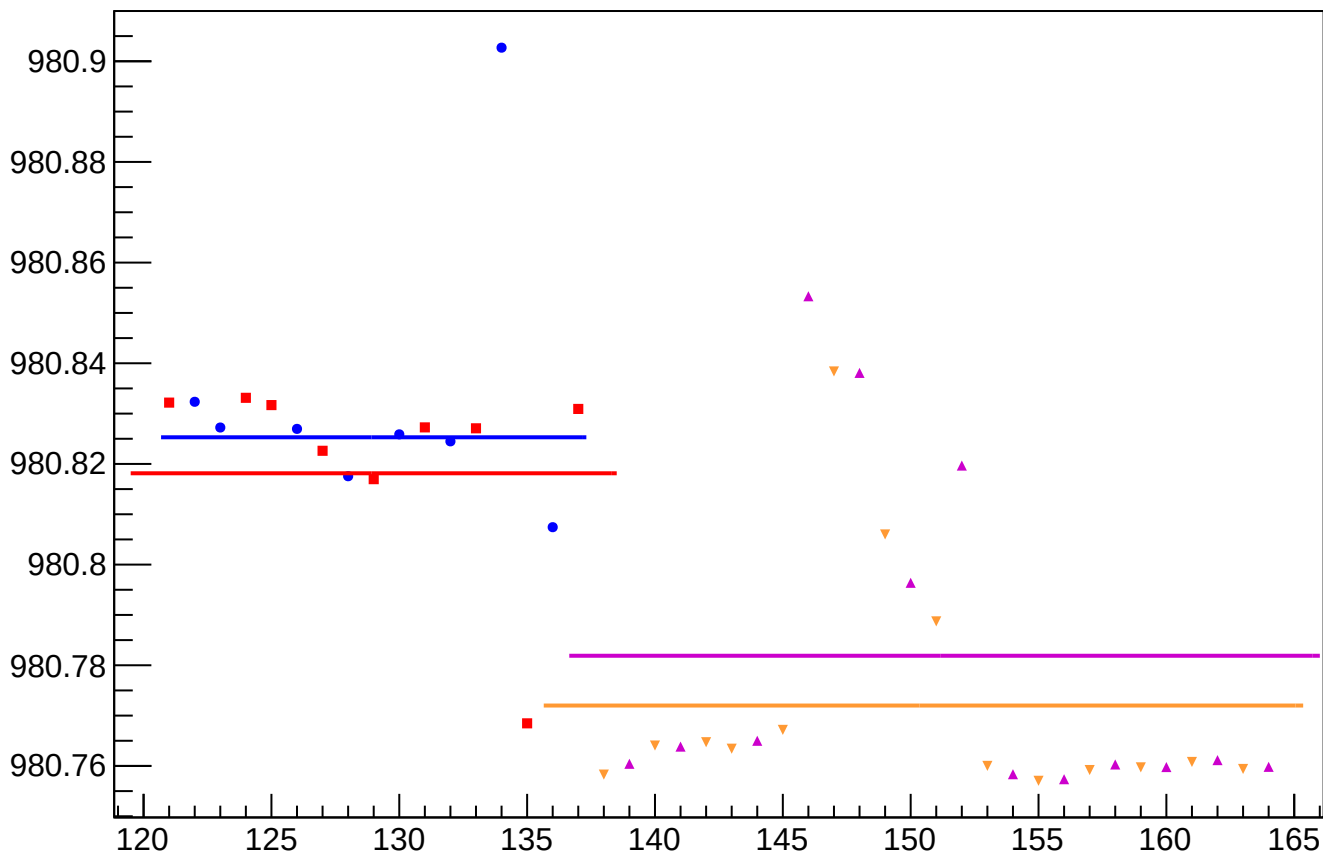
Left In: 741.516+/-0.000  $\chi^2/\text{NDF}$ : 107880392033344386335334465536.0/12

+ sign 741.519+/-0.000  $\chi^2/\text{NDF}$ : 167616078052378

All: 741.519+/-0.000  $\chi^2/\text{NDF}$ : 327777638372

- sign 741.519+/-0.000  $\chi^2/\text{NDF}$ : 160136987559661

# HacL\_Q3\_HP3458A\_IOUT\_mean vs Slug



Right In: 980.825 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 159345321268745350954763681792.0/7

Left Out: 980.772 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 571426813038232490263791534080.0/13

Right Out: 980.818 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 143689912167528137563261894656.0/8

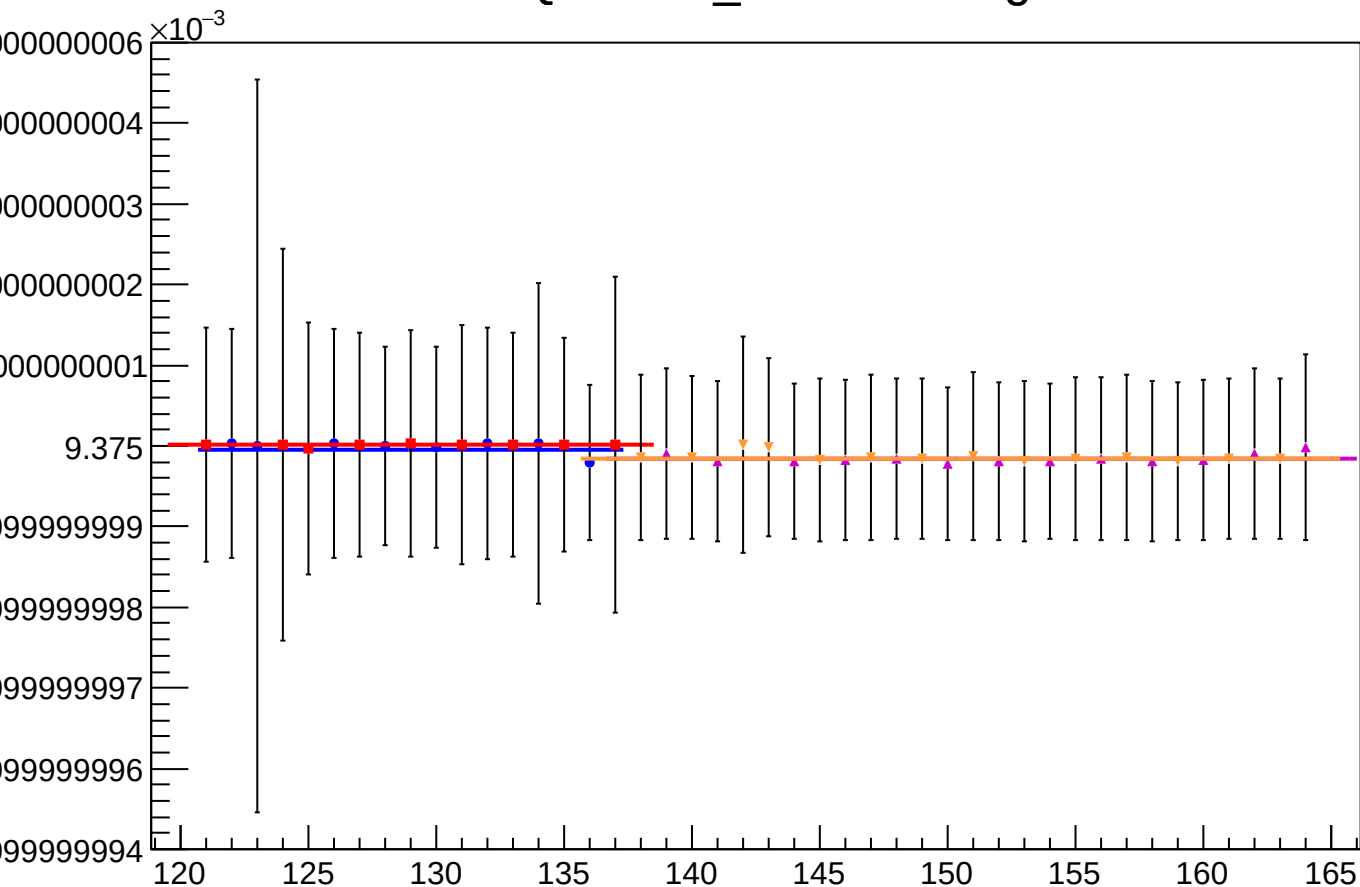
Left In: 980.782 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1158837931650333561932868485120.0/12

+ sign 980.785 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 147046764667526

All: 980.787 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 311721145683

- sign 980.790 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 162520252607399

# MQ172RM\_mean vs Slug



Right In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/7

Left Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF:0.0/13

Right Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/8

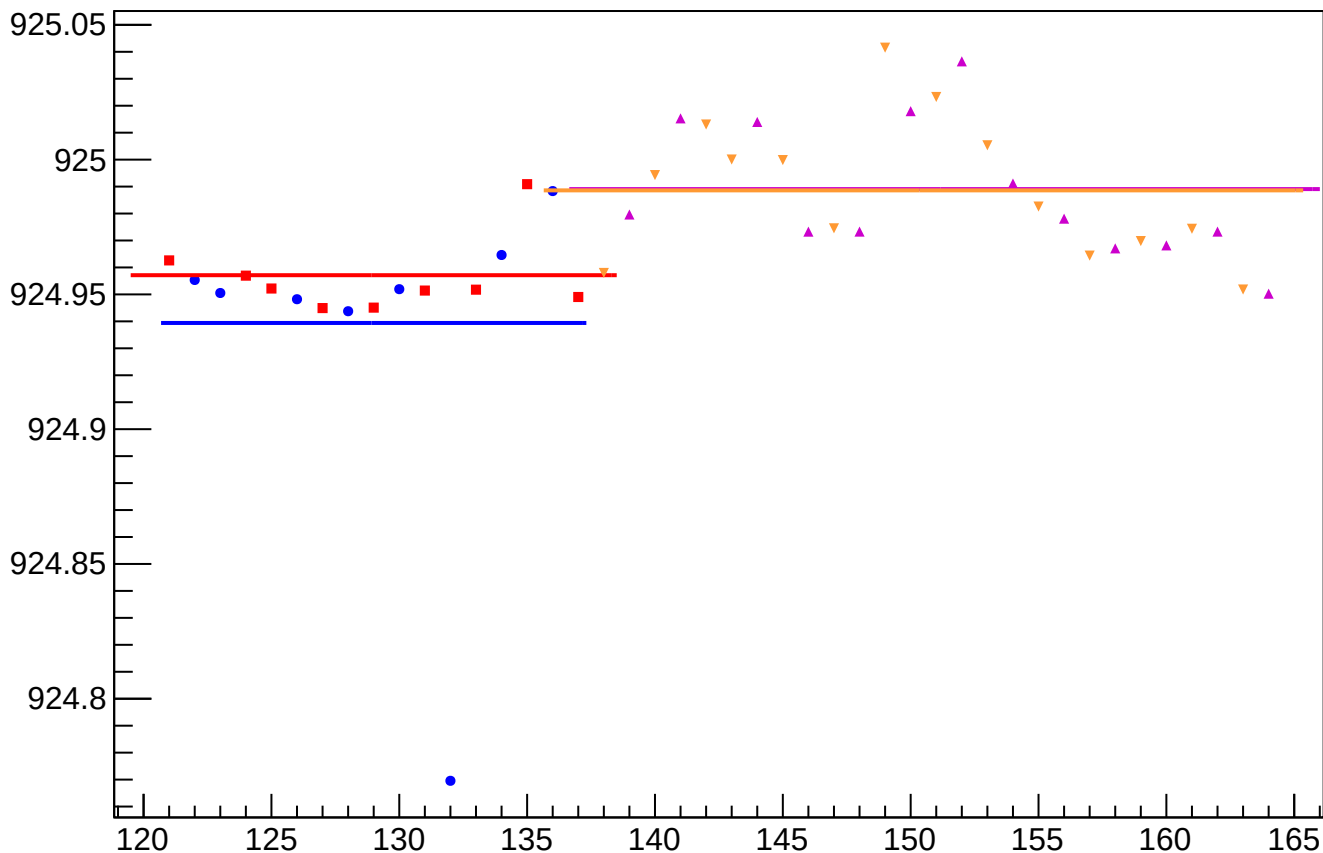
Left In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF:0.0/12

+ sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.1/21

All: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.2/43

- sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.1/21

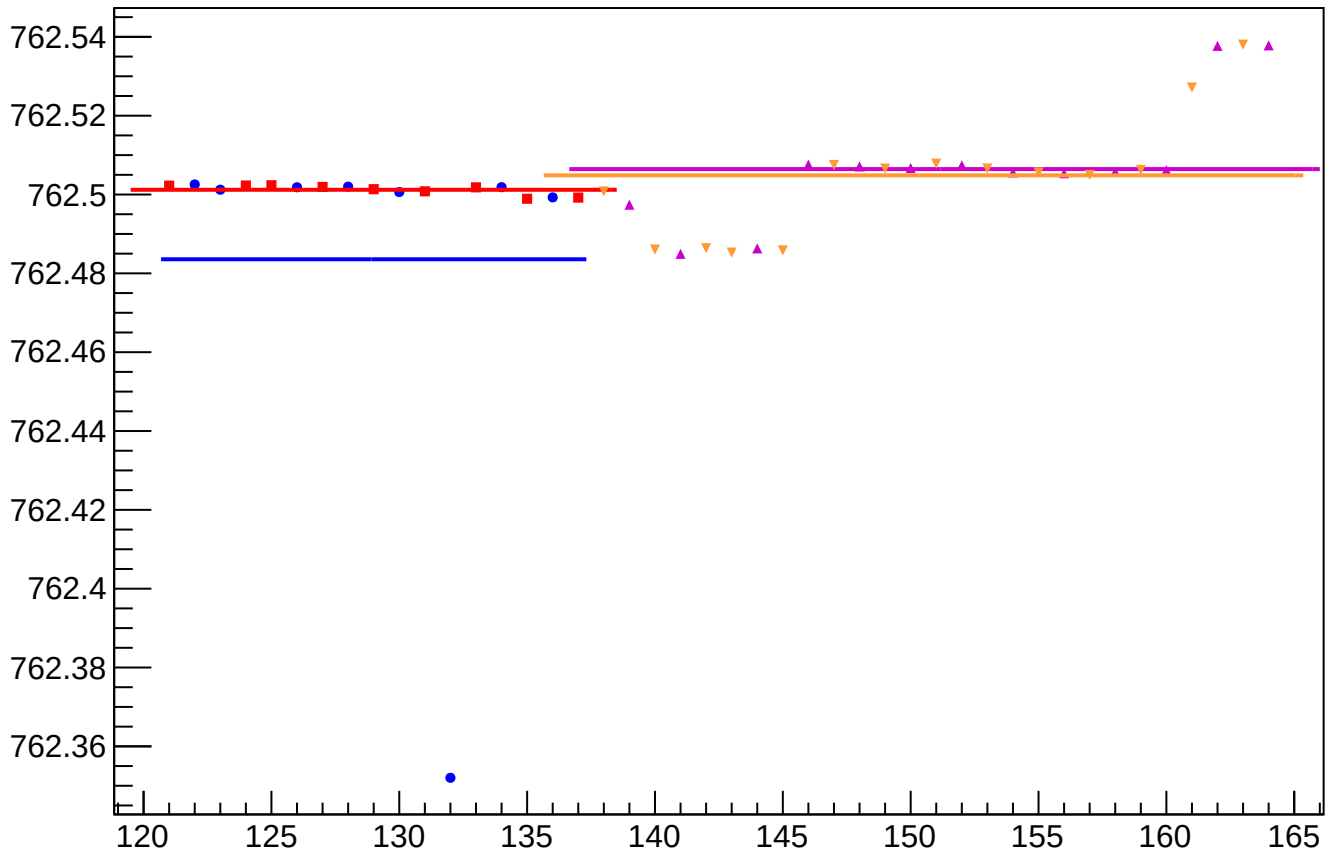
# HacR\_Q2\_HP3458A\_IOUT\_mean vs Slug



Right In: 924.939 $\pm$ 0.000  $\chi^2$ /NDF: 1401458495809517406218388242432.0/7  
 Left Out: 924.989 $\pm$ 0.000  $\chi^2$ /NDF: 700023076741883835114319773696.0/13  
 Right Out: 924.957 $\pm$ 0.000  $\chi^2$ /NDF: 71808709366506786060310151168.0/8  
 Left In: 924.989 $\pm$ 0.000  $\chi^2$ /NDF: 632386300836268356458531258368.0/12

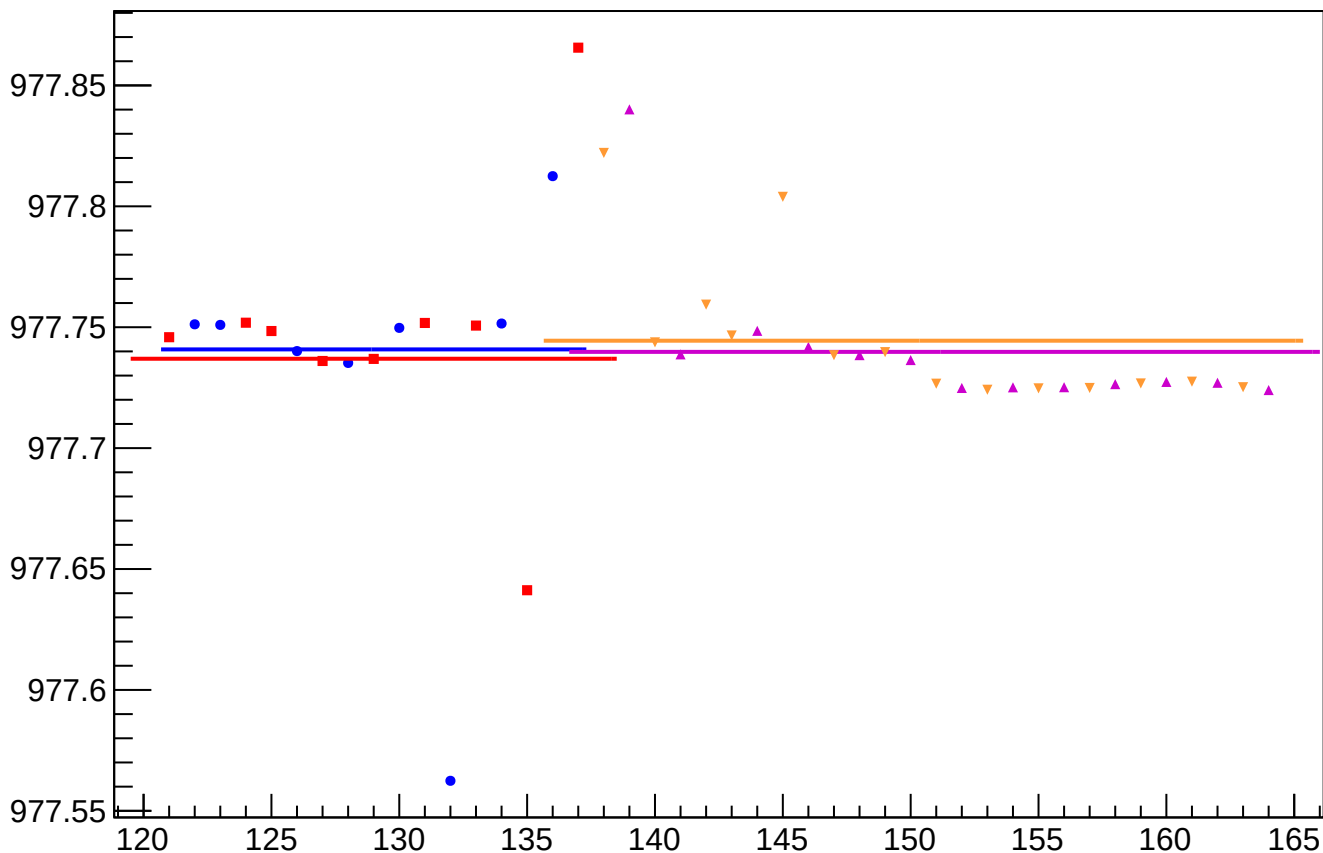
+ sign 924.977 $\pm$ 0.000  $\chi^2$ /NDF: 273160432170818  
 All: 924.979 $\pm$ 0.000  $\chi^2$ /NDF: 37029715609  
 - sign 924.982 $\pm$ 0.000  $\chi^2$ /NDF: 954789523869400

# HacR\_D1\_HP3458A\_IOUT\_mean vs Slug



Right In: 762.484 $\pm$ 0.000  $\chi^2$ /NDF: 784430761251084401798891438080.0/7  
 Left Out: 762.505 $\pm$ 0.000  $\chi^2$ /NDF: 237144156026255736646427213824.0/13  
 Right Out: 762.501 $\pm$ 0.000  $\chi^2$ /NDF: 469794702848036819563446272.0/8  
 Left In: 762.506 $\pm$ 0.000  $\chi^2$ /NDF: 215201935229639697930519576576.0/12

# HacR\_Q3\_HP3458A\_IOUT\_mean vs Slug



Right In: 977.741+/-0.000  $\chi^2/\text{NDF}$ : 1738104571804792841781326643200.0/7

Left Out: 977.744+/-0.000  $\chi^2/\text{NDF}$ : 975425008830335686262021685248.0/13

Right Out: 977.737+/-0.000  $\chi^2/\text{NDF}$ : 772313054358211830610902646784.0/8

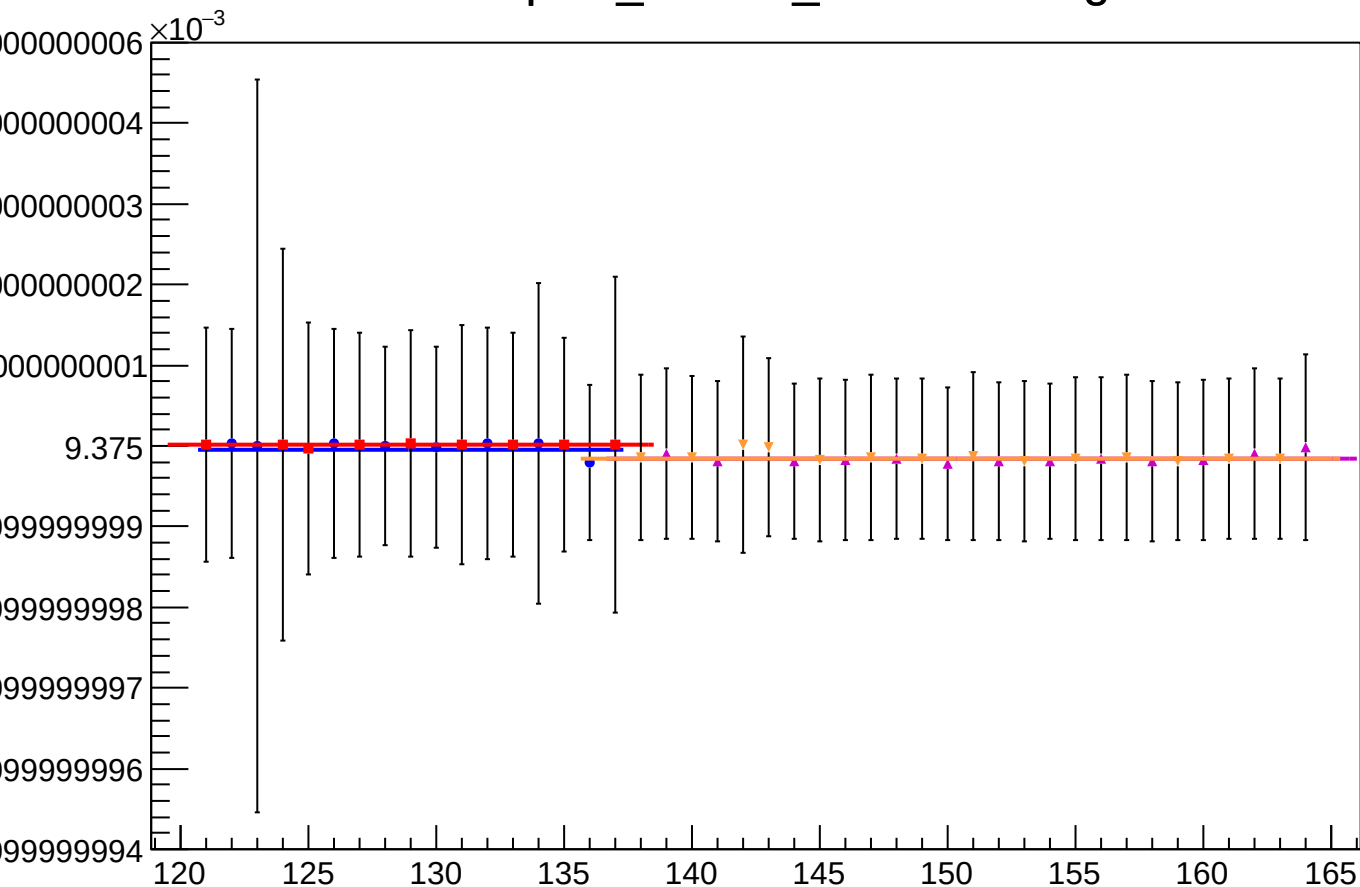
Left In: 977.740+/-0.000  $\chi^2/\text{NDF}$ : 863753888409015974068611973120.0/12

+ sign 977.744+/-0.000  $\chi^2/\text{NDF}$ : 271689450433111

All: 977.741+/-0.000  $\chi^2/\text{NDF}$ : 436867541913

- sign 977.739+/-0.000  $\chi^2/\text{NDF}$ : 163804903800451

# hesDipole\_current\_mean vs Slug



Right In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/7

Left Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF:0.0/13

Right Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.0/8

Left In: 0.009 $\pm$ 0.000  $\chi^2$ /NDF:0.0/12

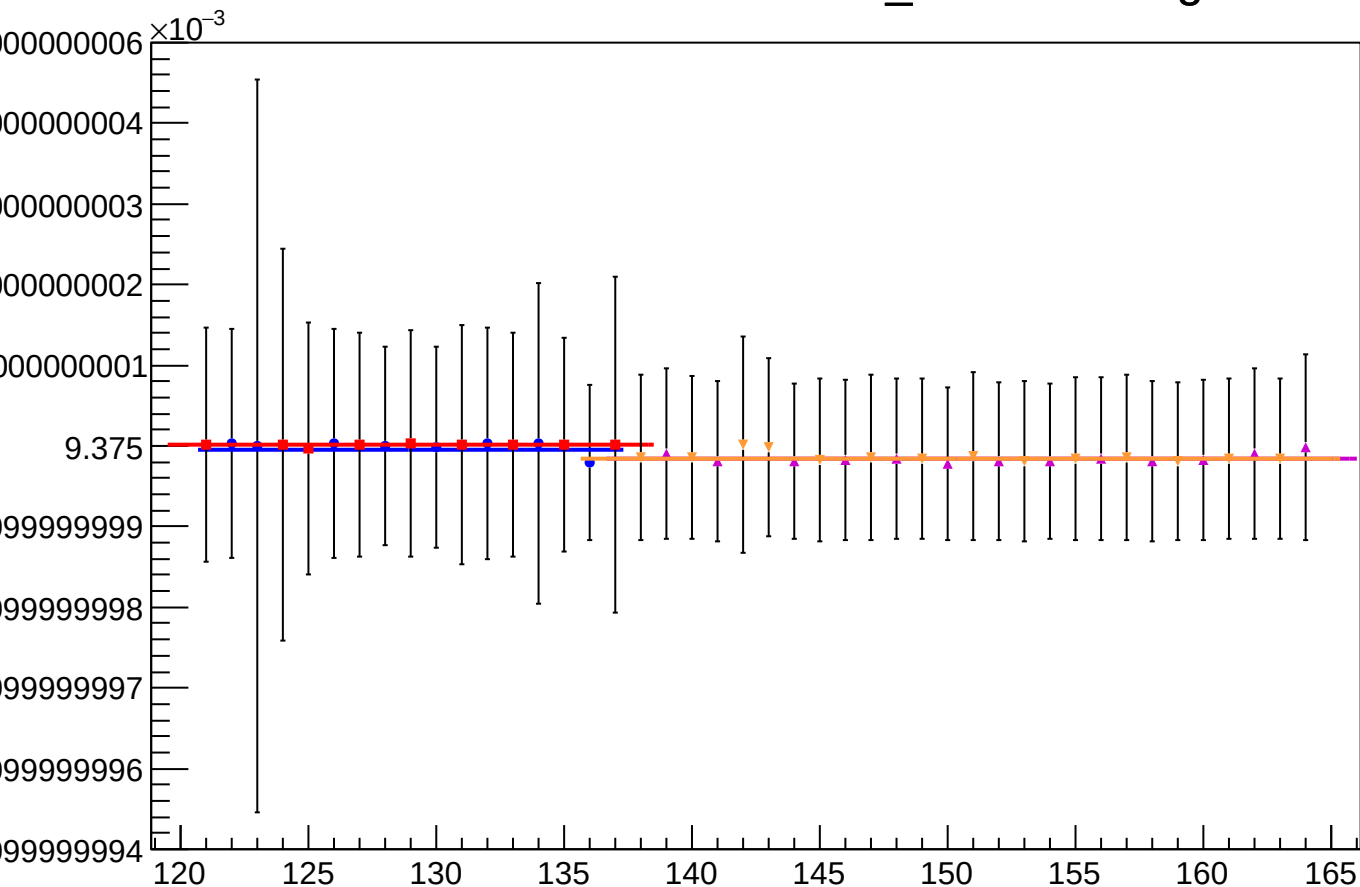
+ sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.1/21

All: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.2/43

- sign 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 0.1/21



# MSUPERBIGBITereadcalc\_mean vs Slug



Right In:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/7

Left Out:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/13

Right Out:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/8

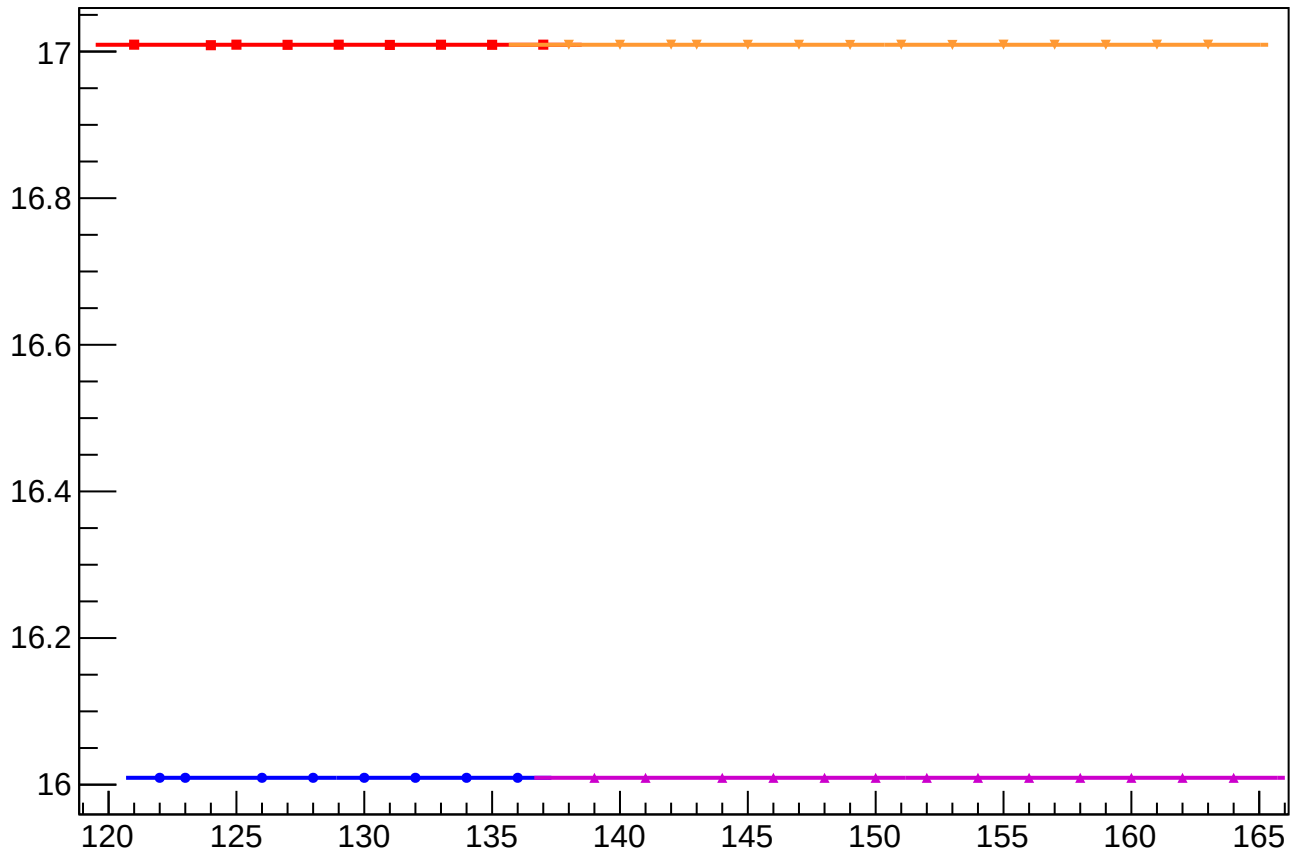
Left In:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.0/12

+ sign  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.1/21

All:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.2/43

- sign  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 0.1/21

# IGL1I00DI24\_24M\_mean vs Slug



Right In: 16.009+/-0.000  $\chi^2/\text{NDF}$ : 30506.8/7

Left Out: 17.009+/-0.000  $\chi^2/\text{NDF}$ : 13483818070691772654157824.0/13

Right Out: 17.009+/-0.000  $\chi^2/\text{NDF}$ : 8333578329558812540796928.0/8

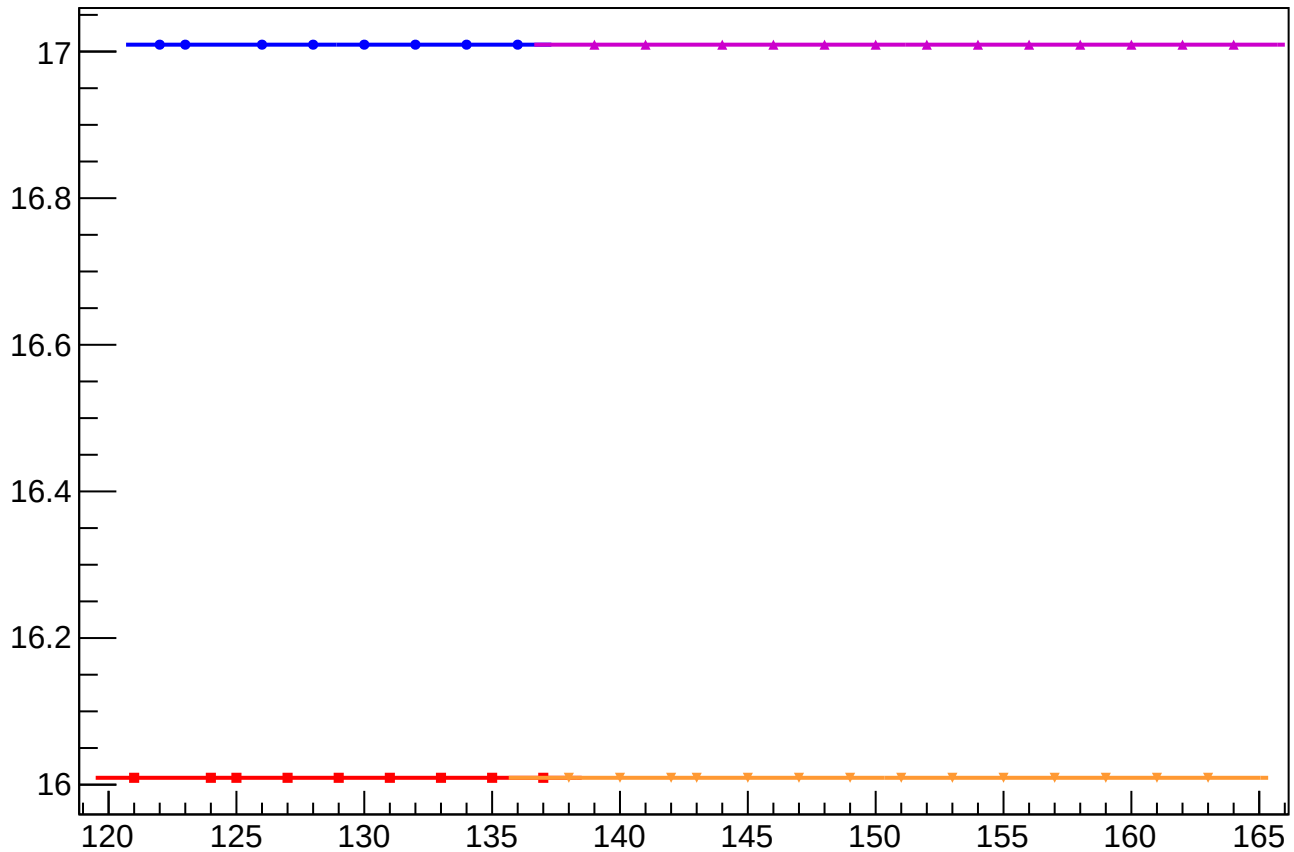
Left In: 16.009+/-0.000  $\chi^2/\text{NDF}$ : 56861.1/12

+ sign 16.767+/-0.000  $\chi^2/\text{NDF}$ : 2394199600318132

All: 16.506+/-0.000  $\chi^2/\text{NDF}$ : 6490586486260

- sign 16.243+/-0.000  $\chi^2/\text{NDF}$ : 2313464231247730

# IGL1I00OD16\_16\_mean vs Slug



Right In: 17.009+/-0.000  $\chi^2/\text{NDF}$ : 76109.3/7

Left Out: 16.009+/-0.000  $\chi^2/\text{NDF}$ : 53983.3/13

Right Out: 16.009+/-0.000  $\chi^2/\text{NDF}$ : 17859.8/8

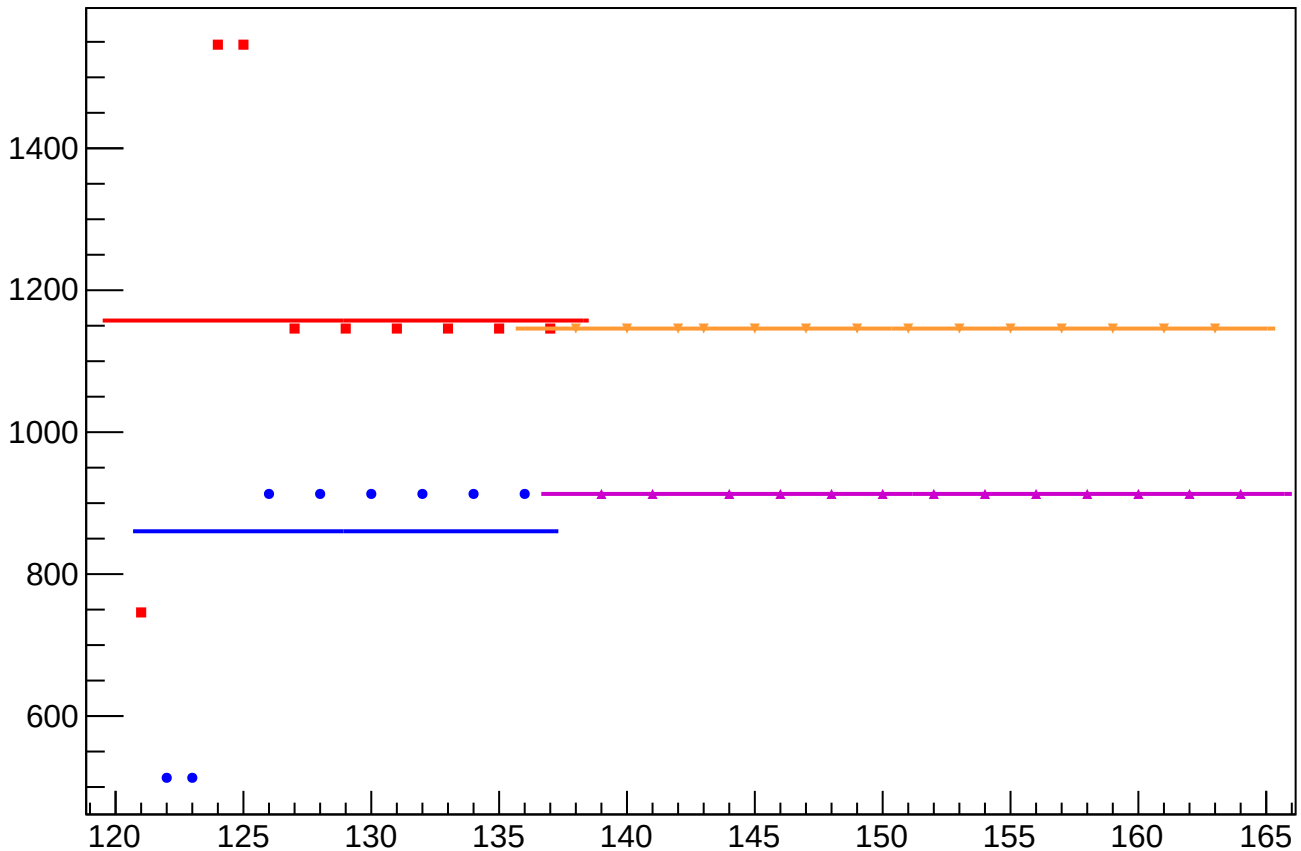
Left In: 17.009+/-0.000  $\chi^2/\text{NDF}$ : 31302.0/12

+ sign 16.249+/-0.000  $\chi^2/\text{NDF}$ : 2599775596072891

All: 16.507+/-0.000  $\chi^2/\text{NDF}$ : 6977298459333

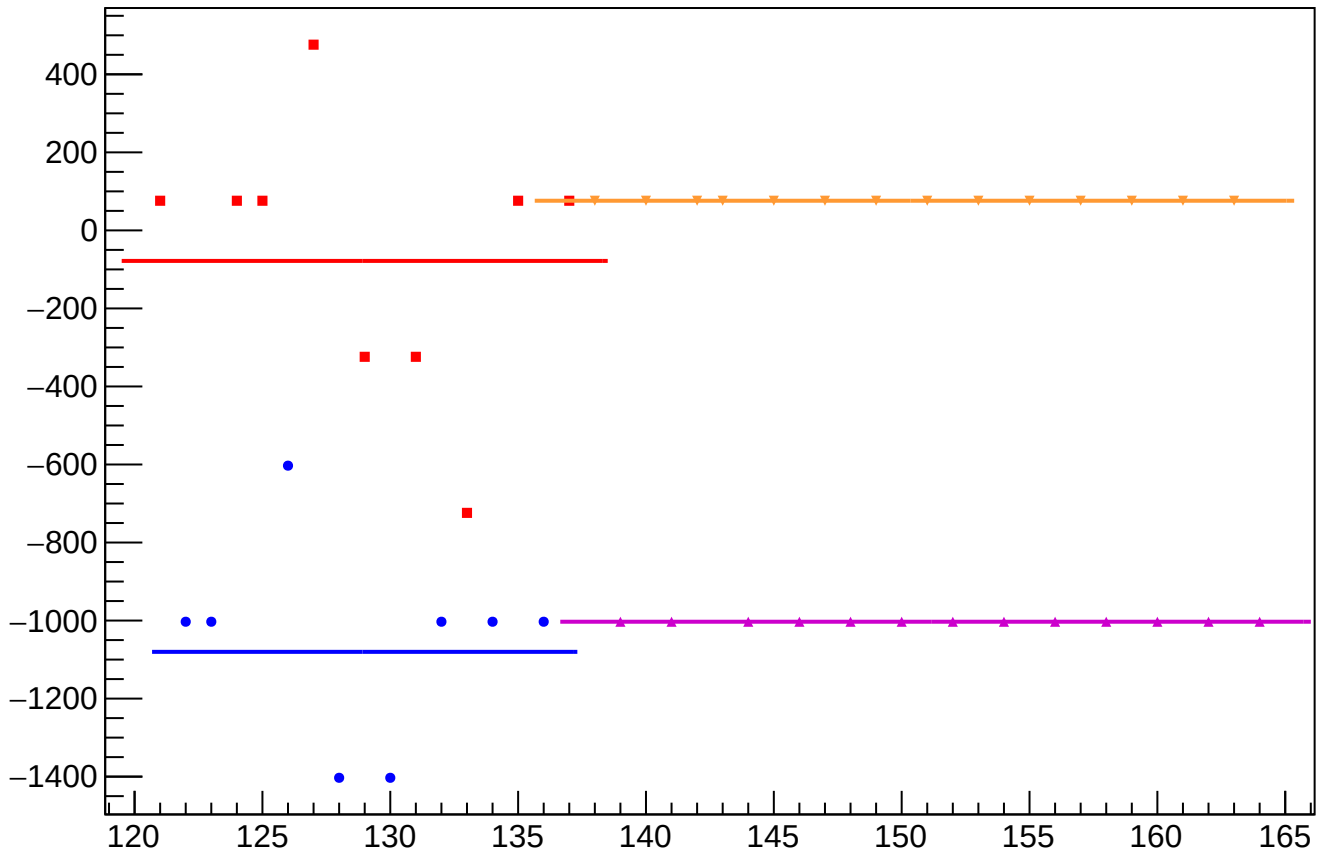
- sign 16.776+/-0.000  $\chi^2/\text{NDF}$ : 2444498168497946

# RTPAPOSUCNT\_mean vs Slug



Right In: 860.361+/-0.000  $\chi^2/\text{NDF}$ : 6252693455178703850651720460594577408.0/7  
 Left Out: 1146.011+/-0.000  $\chi^2/\text{NDF}$ : 3914954058934147058554109952.0/13  
 Right Out: 1157.295+/-0.000  $\chi^2/\text{NDF}$ : 13880040120623316310083946144856014848.0/8  
 Left In: 912.995+/-0.000  $\chi^2/\text{NDF}$ : 17126628652444717315885367296.0/12  
 All: 1024.518+/-0.000  $\chi^2/\text{NDF}$ : 64349580442  
 + sign 1077.885+/-0.000  $\chi^2/\text{NDF}$ : 27503196491202  
 - sign 969.263+/-0.000  $\chi^2/\text{NDF}$ : 285337040645017

# RTPAPOSVCNT\_mean vs Slug



Right In:  $-1080.182 \pm 0.000$   $\chi^2/\text{NDF}$ : 21641787691490496475350584298794123264.0/7  
 Left Out:  $76.011 \pm 0.000$   $\chi^2/\text{NDF}$ : 8804602533957945597624320000.0/13  
 Right Out:  $-78.224 \pm 0.000$   $\chi^2/\text{NDF}$ : 39611265375063350144036471826150326272.0/8  
 Left In:  $-1002.990 \pm 0.000$   $\chi^2/\text{NDF}$ : 1391870443526787827517882368.0/12  
 All:  $-489.733 \pm 0.000$   $\chi^2/\text{NDF}$ : 86483525656  
 + sign  $-199.734 \pm 0.000$   $\chi^2/\text{NDF}$ : 36978694870047  
 - sign  $-789.993 \pm 0.000$   $\chi^2/\text{NDF}$ : 249583168524304