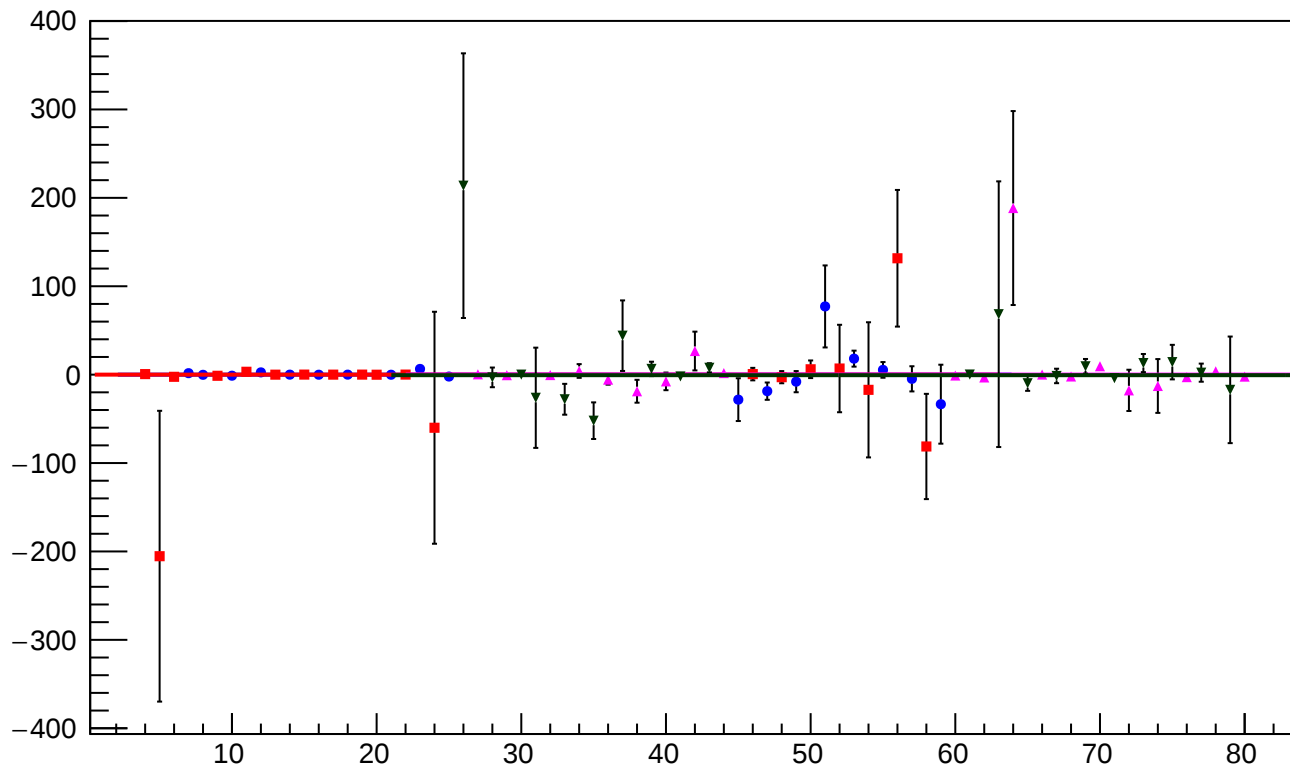


# diff\_cav4bX\_mean vs slug



Right In:  $-0.014 \pm 0.014$

$\chi^2/\text{NDF}: 31.2/17$

Left Out:  $-0.595 \pm 1.121$

$\chi^2/\text{NDF}: 22.6/19$

Right Out:  $0.017 \pm 0.016$

$\chi^2/\text{NDF}: 24.7/18$

Left In:  $0.069 \pm 0.073$

$\chi^2/\text{NDF}: 30.1/19$

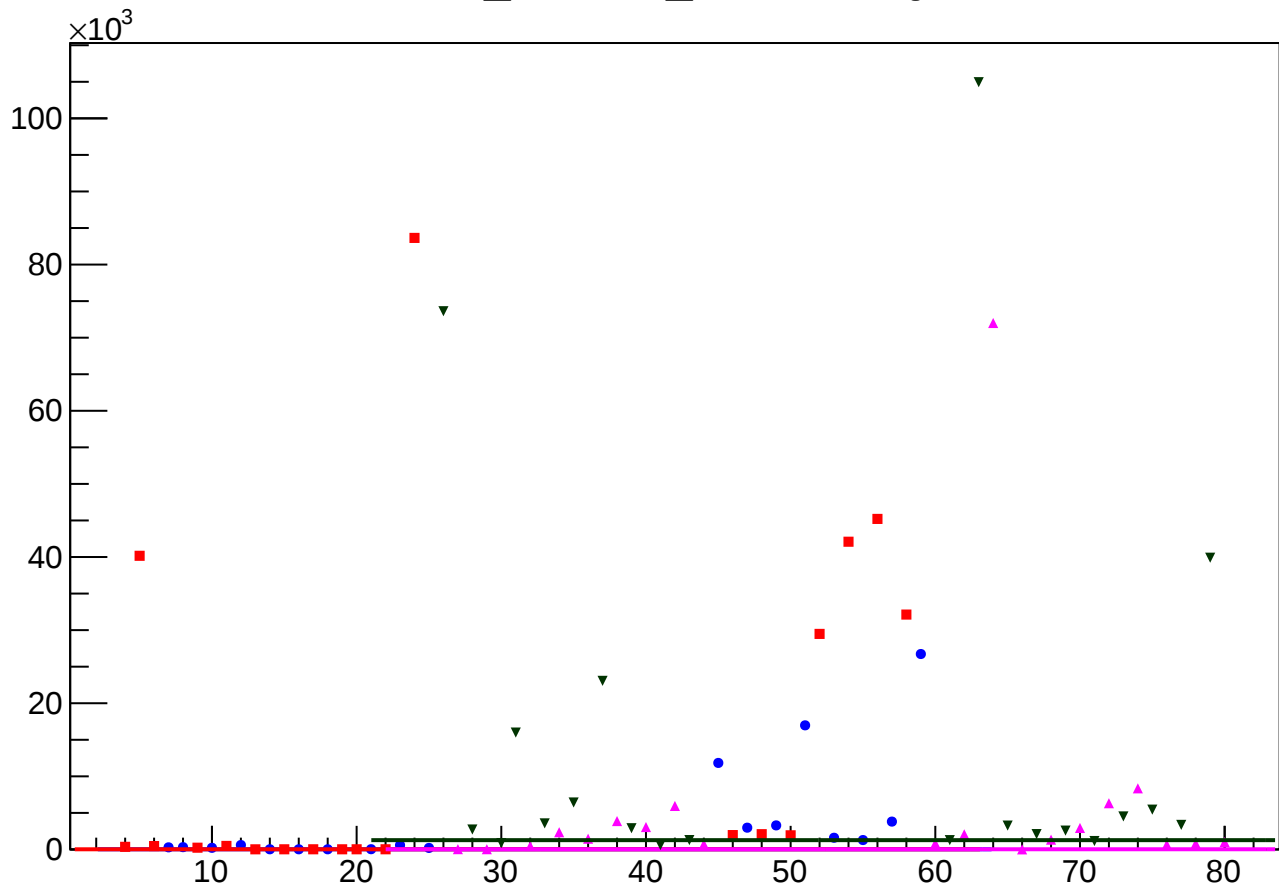
$-0.014 \pm 0.014$

$\chi^2/\text{NDF}: 54.1/37$

$0.019 \pm 0.016$

$\chi^2/\text{NDF}: 55.3/38$

# diff\_cav4bX\_rms vs slug



Right In:  $22.429 \pm 0.010$   $\chi^2/\text{NDF}$ : 2804434.6/17

$22.633 \pm 0.010$   $\chi^2/\text{NDF}$ : 9339934.4/37

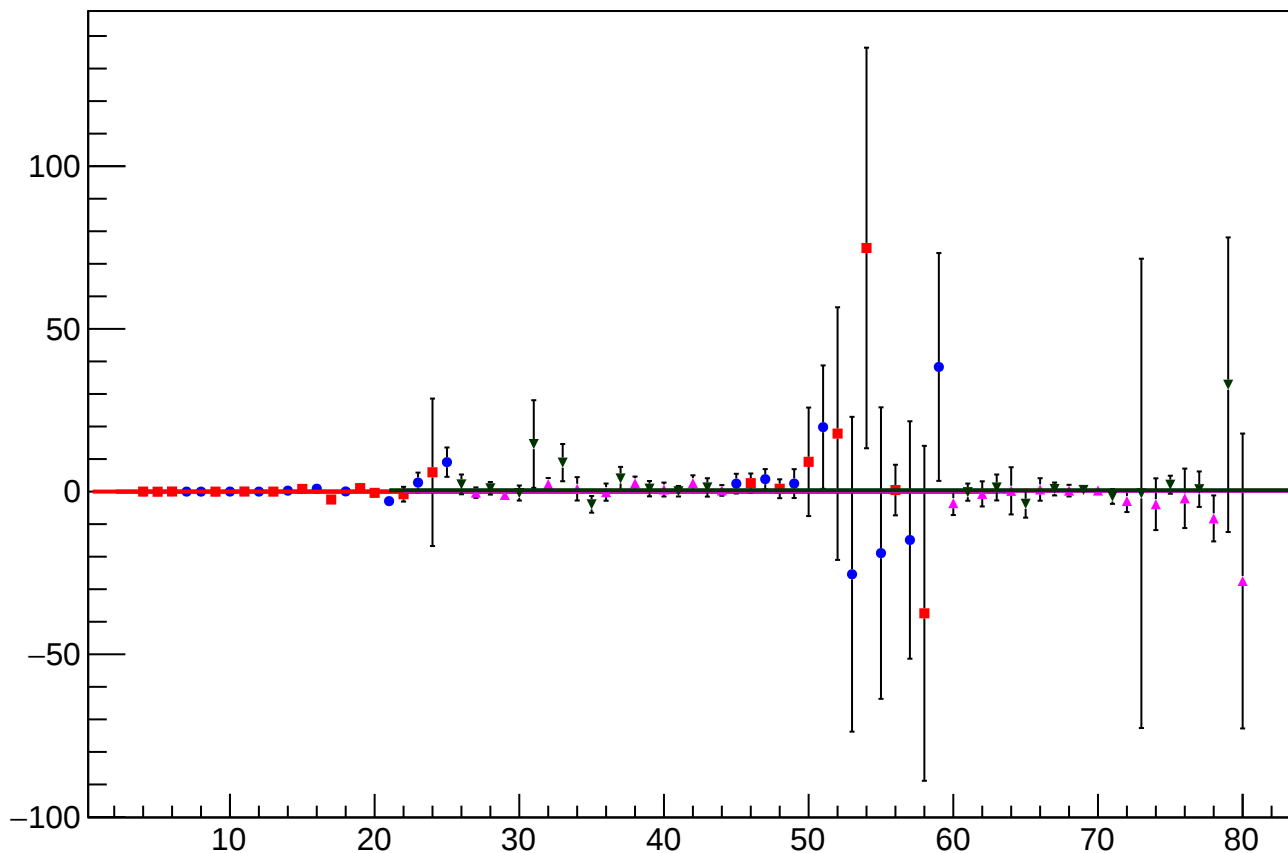
Left Out:  $1272.330 \pm 0.792$   $\chi^2/\text{NDF}$ : 4047663.5/19

Right Out:  $22.611 \pm 0.011$   $\chi^2/\text{NDF}$ : 4395534.2/18

$22.803 \pm 0.011$   $\chi^2/\text{NDF}$ : 10008875.3/38

Left In:  $26.714 \pm 0.051$   $\chi^2/\text{NDF}$ : 5607284.4/19

# diff\_cav4bY\_mean vs slug



Right In:  $-0.001 \pm 0.006$   $\chi^2/\text{NDF}$ : 23.6/17

Left Out:  $0.418 \pm 0.589$   $\chi^2/\text{NDF}$ : 10.6/19

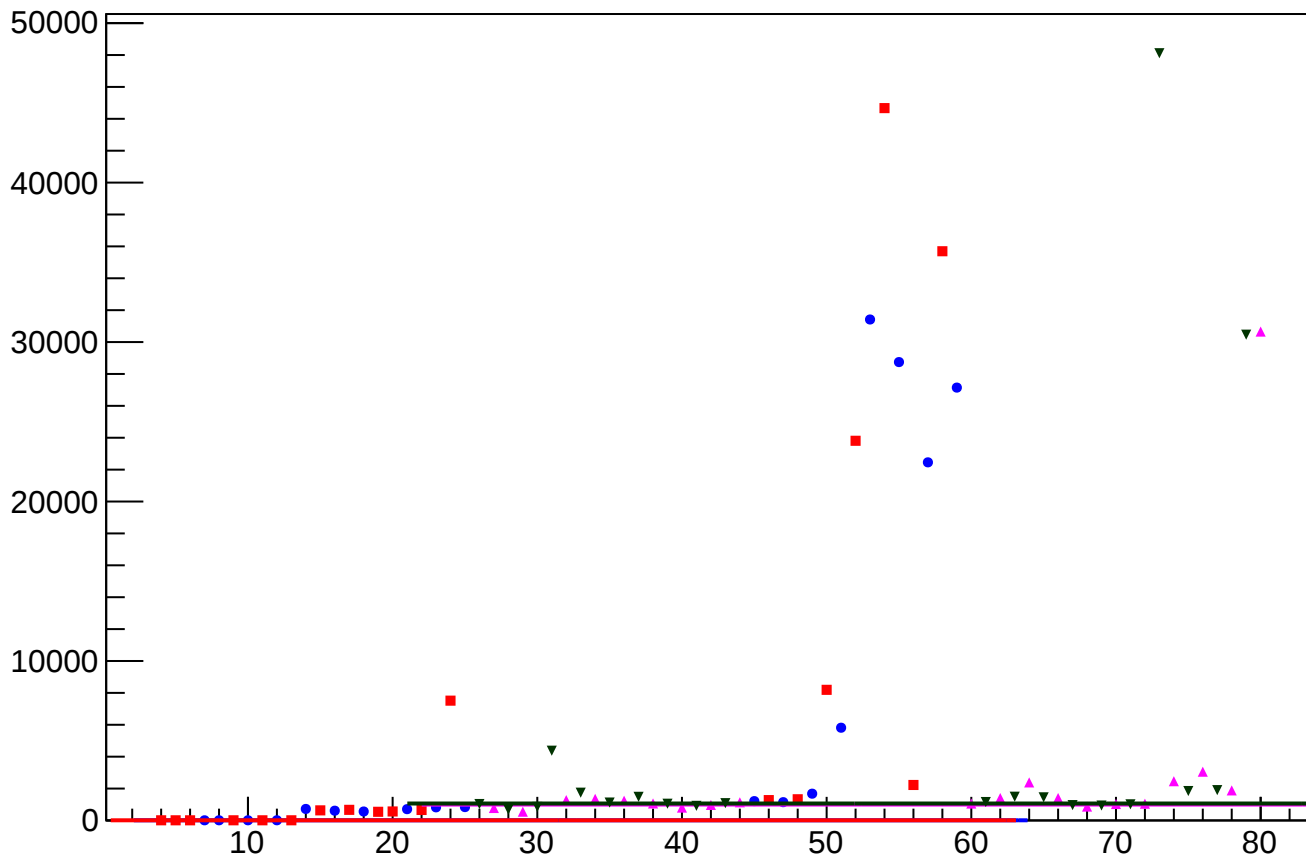
Right Out:  $0.002 \pm 0.005$   $\chi^2/\text{NDF}$ : 20.3/18

Left In:  $0.220 \pm 0.526$   $\chi^2/\text{NDF}$ : 8.7/19

$-0.001 \pm 0.006$   $\chi^2/\text{NDF}$ : 34.7/37

$0.002 \pm 0.005$   $\chi^2/\text{NDF}$ : 29.2/38

# diff\_cav4bY\_rms vs slug



Right In: 10.507+/-0.005  $\chi^2/\text{NDF}$ : 8959205.7/17

Left Out: 1062.475+/-0.417  $\chi^2/\text{NDF}$ : 2253927.8/19

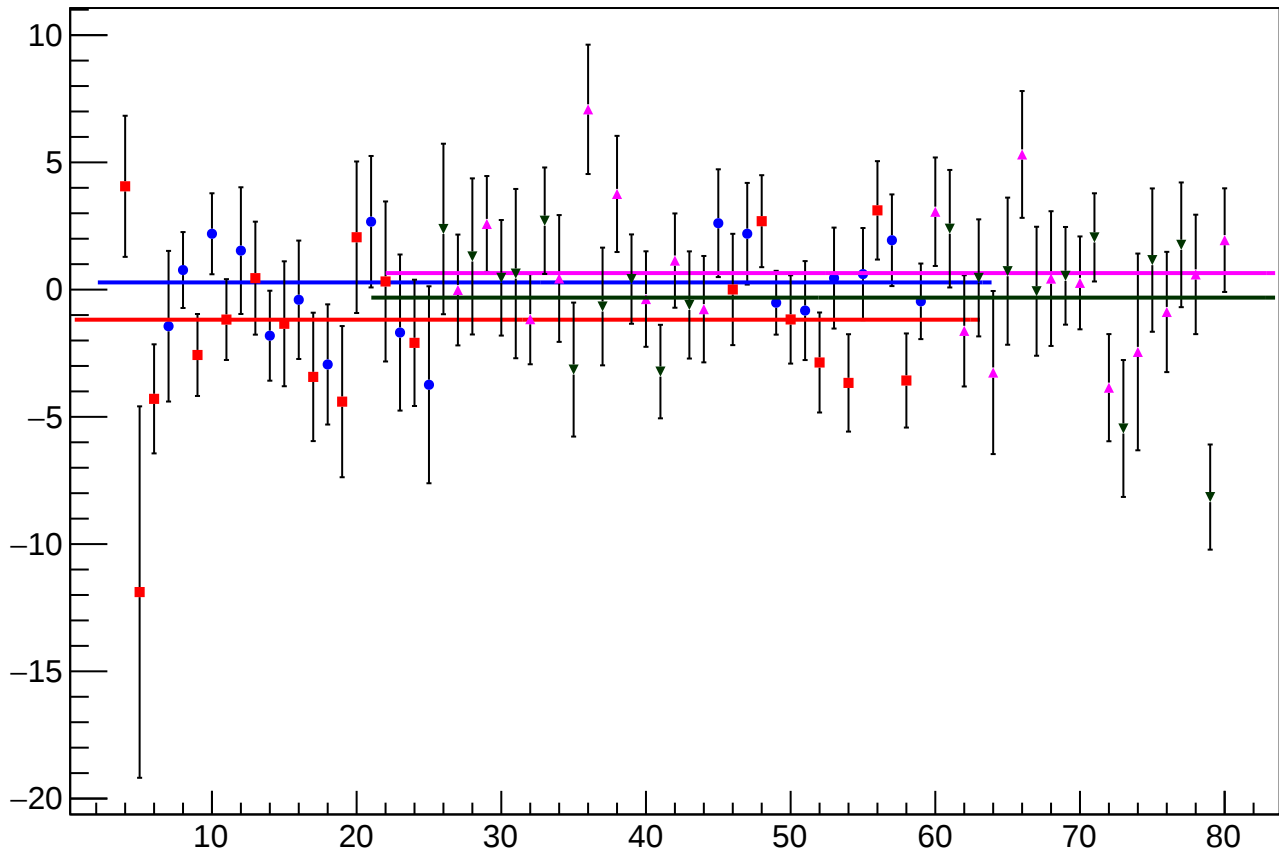
Right Out: 10.086+/-0.004  $\chi^2/\text{NDF}$ : 6750125.6/18

Left In: 994.513+/-0.372  $\chi^2/\text{NDF}$ : 1565239.6/19

10.635+/-0.005  $\chi^2/\text{NDF}$ : 17587882.4/37

10.192+/-0.004  $\chi^2/\text{NDF}$ : 15331315.4/38

# diff\_cav4cX\_mean vs slug



Right In:  $0.283 \pm 0.455$   $\chi^2/\text{NDF}$ : 11.8/17

Left Out:  $-0.315 \pm 0.513$   $\chi^2/\text{NDF}$ : 29.8/19

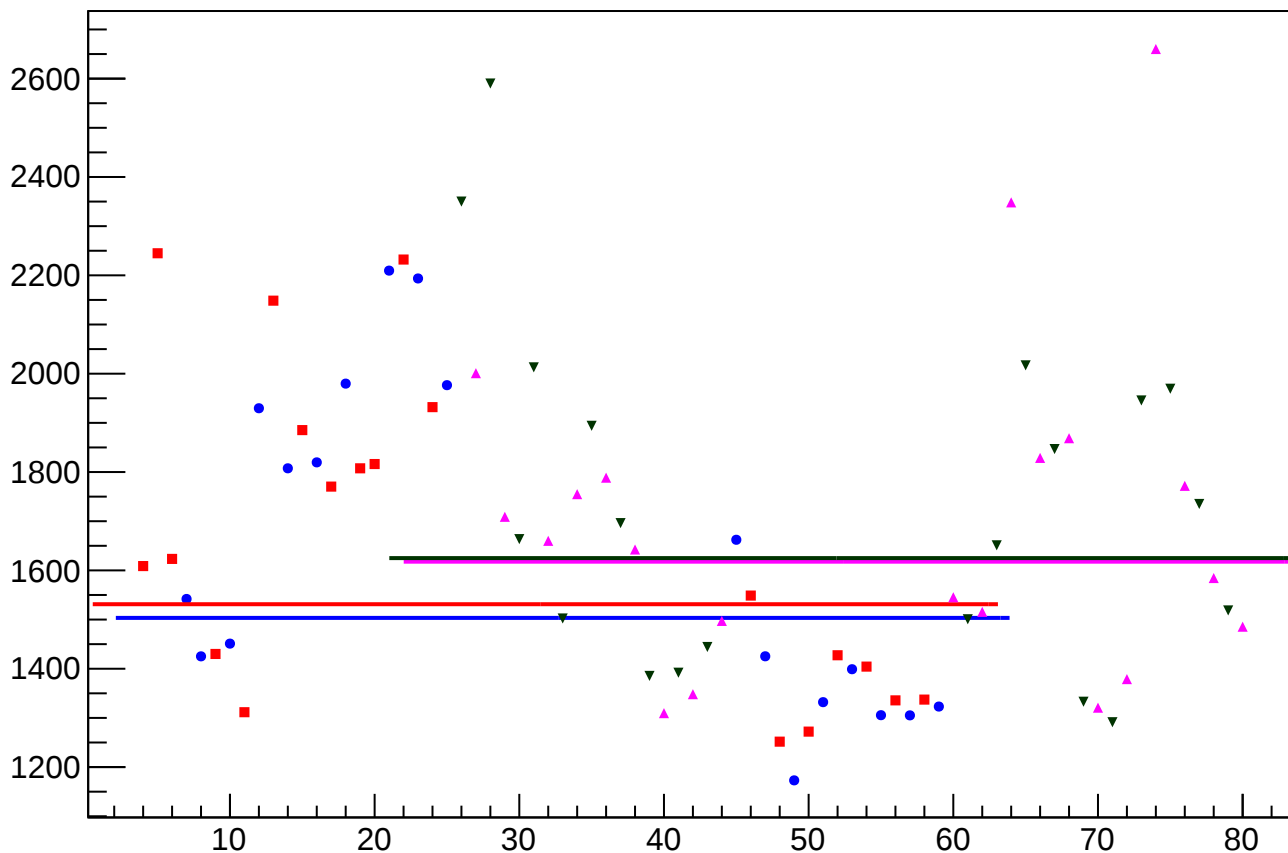
Right Out:  $-1.182 \pm 0.494$   $\chi^2/\text{NDF}$ : 26.5/18

Left In:  $0.650 \pm 0.491$   $\chi^2/\text{NDF}$ : 24.7/19

$0.019 \pm 0.340$   $\chi^2/\text{NDF}$ : 42.4/37

$-0.261 \pm 0.348$   $\chi^2/\text{NDF}$ : 58.2/38

# diff\_cav4cX\_rms vs slug



Right In: 1503.404+/-0.322  $\chi^2/\text{NDF}$ : 776769.4/17

Left Out: 1624.984+/-0.362  $\chi^2/\text{NDF}$ : 679525.4/19

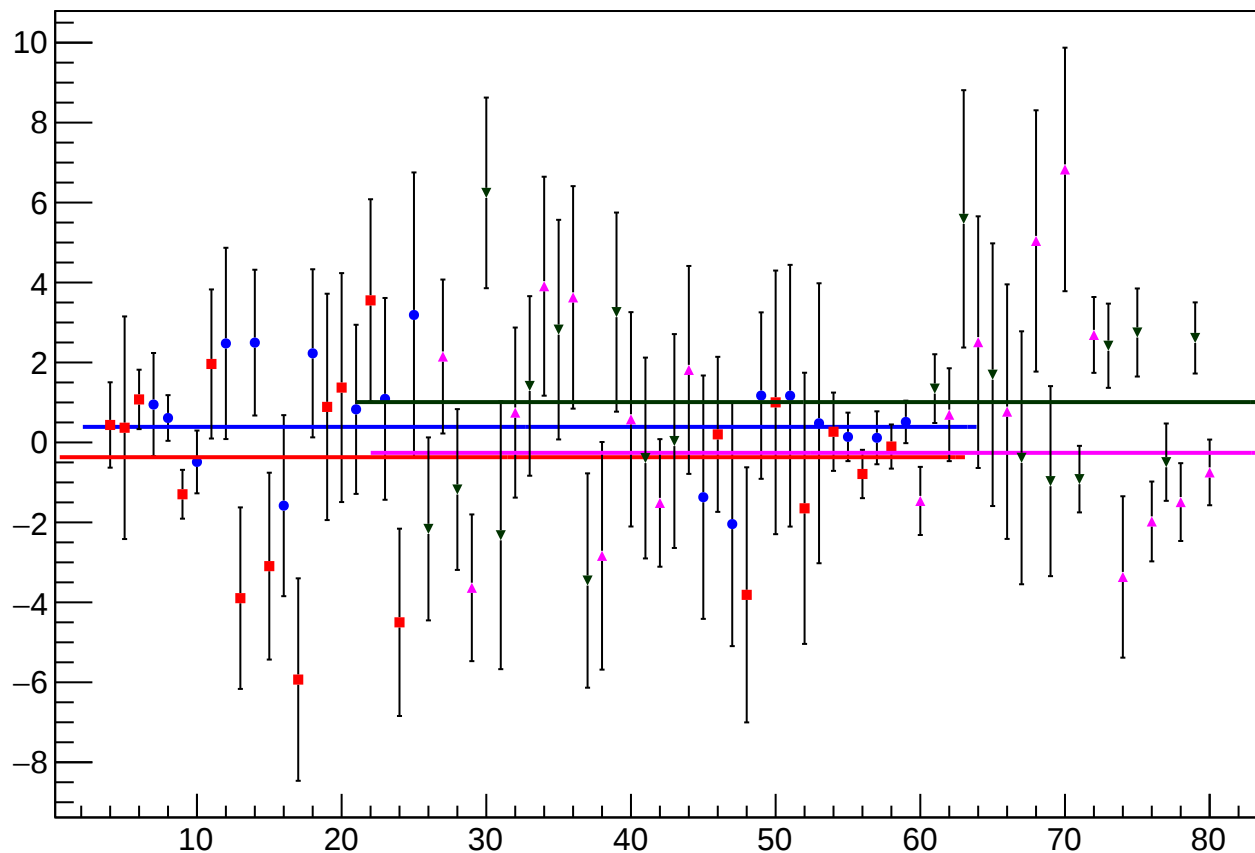
Right Out: 1531.211+/-0.349  $\chi^2/\text{NDF}$ : 621310.9/18

Left In: 1617.723+/-0.347  $\chi^2/\text{NDF}$ : 570432.8/19

1557.039+/-0.241  $\chi^2/\text{NDF}$ : 1519186.6/37

1574.701+/-0.246  $\chi^2/\text{NDF}$ : 1222622.8/38

# diff\_cav4cY\_mean vs slug



Right In:  $0.389 \pm 0.251$   $\chi^2/\text{NDF}$ : 7.5/17

Left Out:  $1.009 \pm 0.334$   $\chi^2/\text{NDF}$ : 31.8/19

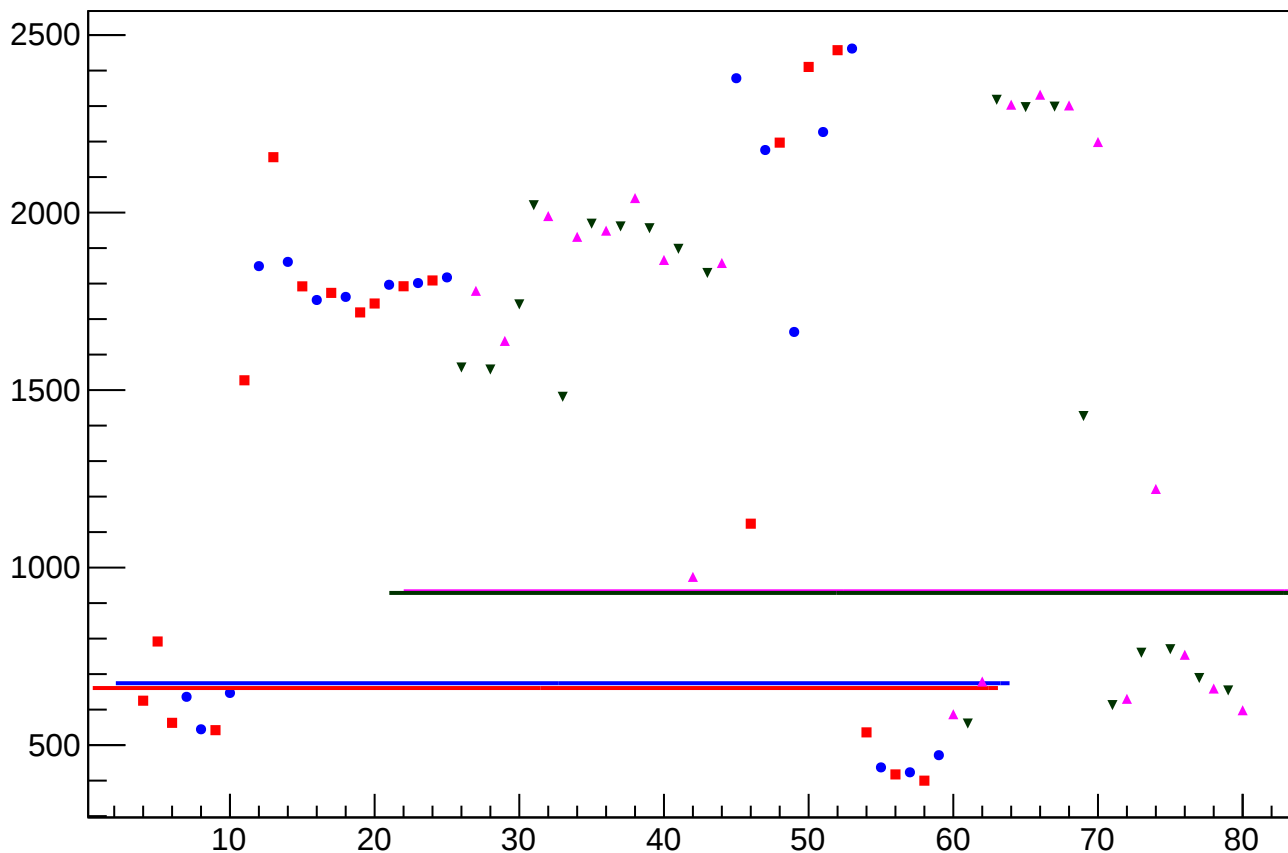
Right Out:  $-0.369 \pm 0.263$   $\chi^2/\text{NDF}$ : 25.7/18

Left In:  $-0.260 \pm 0.328$   $\chi^2/\text{NDF}$ : 40.2/19

$0.613 \pm 0.201$   $\chi^2/\text{NDF}$ : 41.5/37

$-0.327 \pm 0.205$   $\chi^2/\text{NDF}$ : 65.9/38

# diff\_cav4cY\_rms vs slug



Right In: 674.323 $\pm$ 0.178  $\chi^2$ /NDF: 7013232.4/17

Left Out: 928.657 $\pm$ 0.236  $\chi^2$ /NDF:4606847.9/19

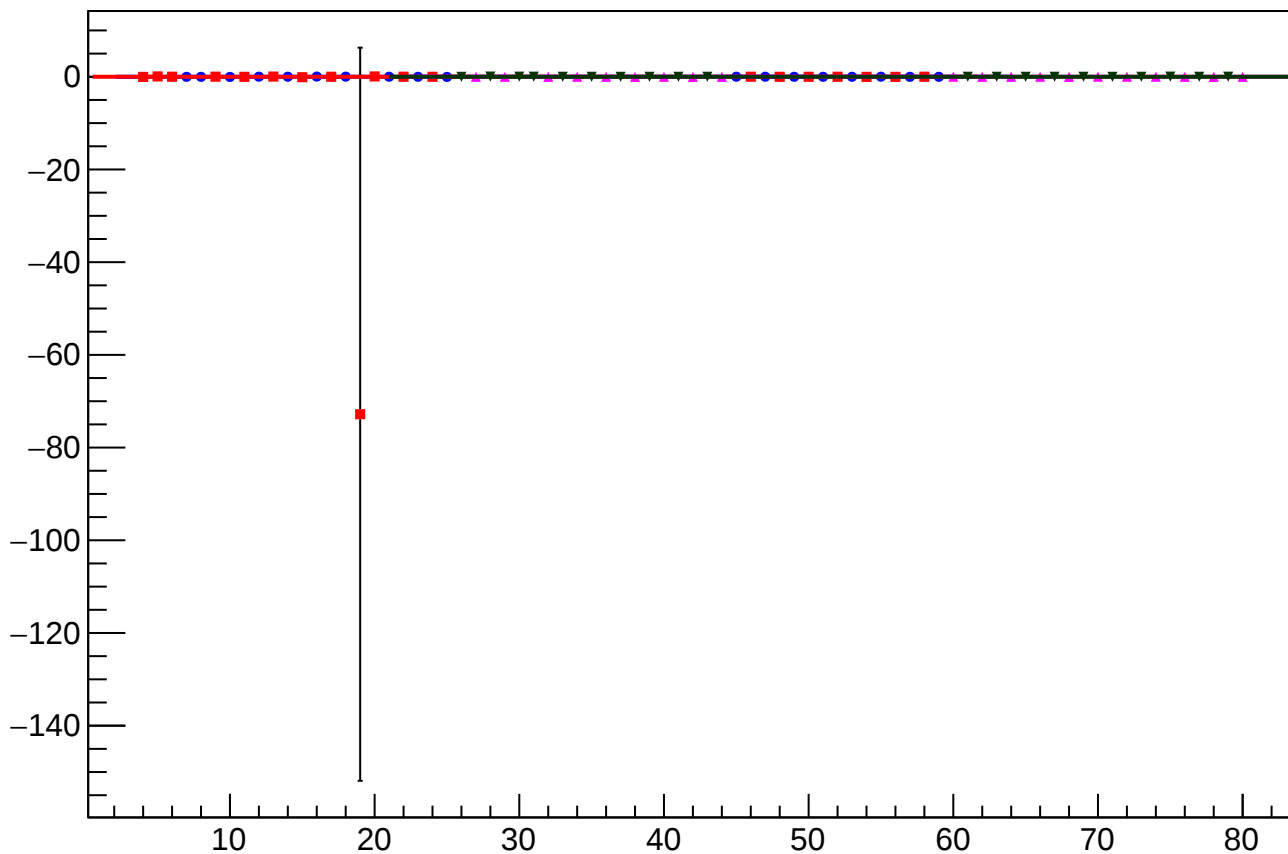
Right Out: 660.761 $\pm$ 0.186  $\chi^2$ /NDF: 6222915.7/18

Left In: 933.248 $\pm$ 0.232  $\chi^2$ /NDF:5194609.3/19

766.270 $\pm$ 0.142  $\chi^2$ /NDF: 12359548.7/37

767.006 $\pm$ 0.145  $\chi^2$ /NDF: 12257438.0/38

# diff\_cav4dX\_mean vs slug



Right In:  $-0.000 \pm 0.004$   $\chi^2/\text{NDF}$ : 11.9/17

Left Out:  $0.002 \pm 0.003$   $\chi^2/\text{NDF}$ : 16.5/19

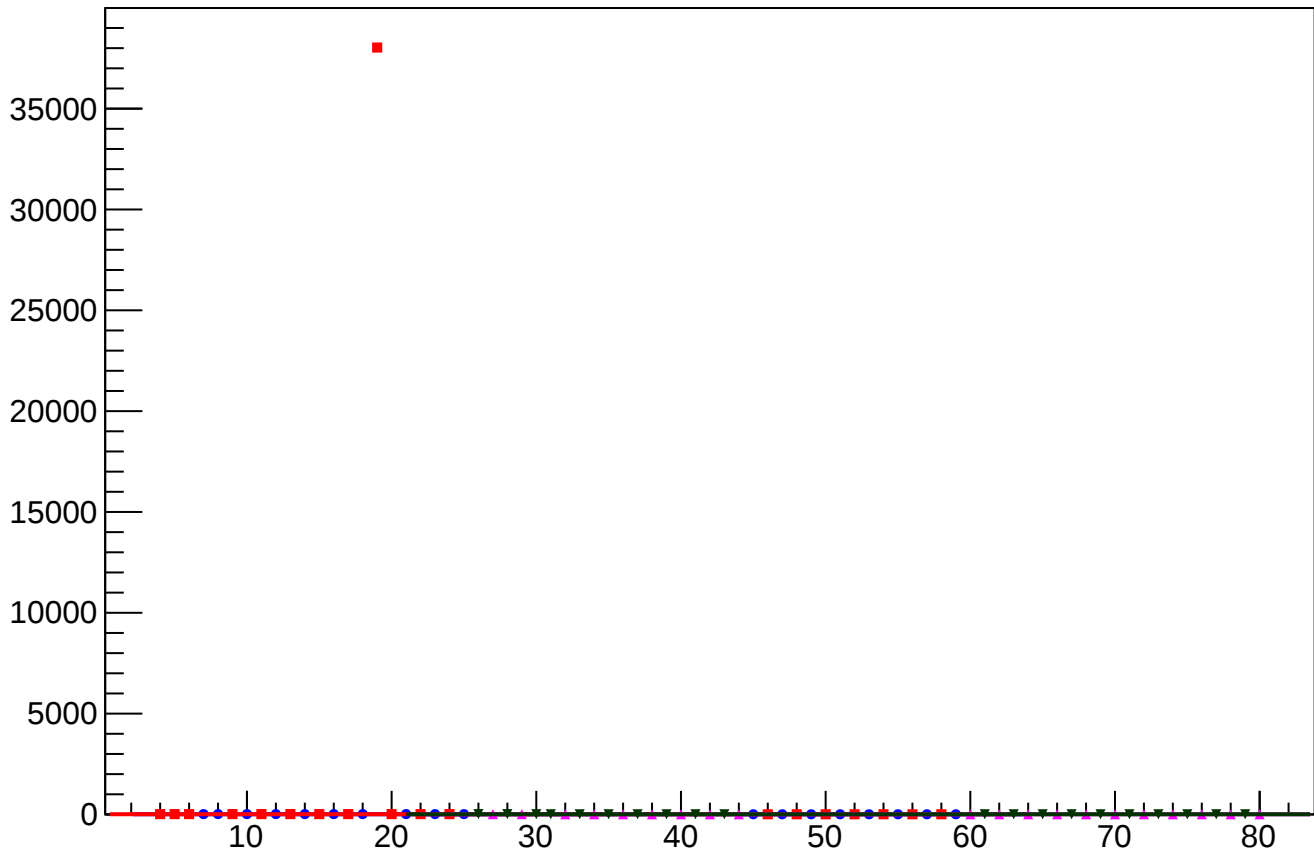
Right Out:  $0.002 \pm 0.004$   $\chi^2/\text{NDF}$ : 20.0/18

Left In:  $0.002 \pm 0.003$   $\chi^2/\text{NDF}$ : 10.3/19

$0.001 \pm 0.002$   $\chi^2/\text{NDF}$ : 28.7/37

$0.002 \pm 0.002$   $\chi^2/\text{NDF}$ : 30.3/38

# diff\_cav4dX\_rms vs slug



Right In: 10.593 $\pm$ 0.003     $\chi^2$ /NDF: 1953039.1/17

Left Out: 8.976 $\pm$ 0.002     $\chi^2$ /NDF: 620948.5/19

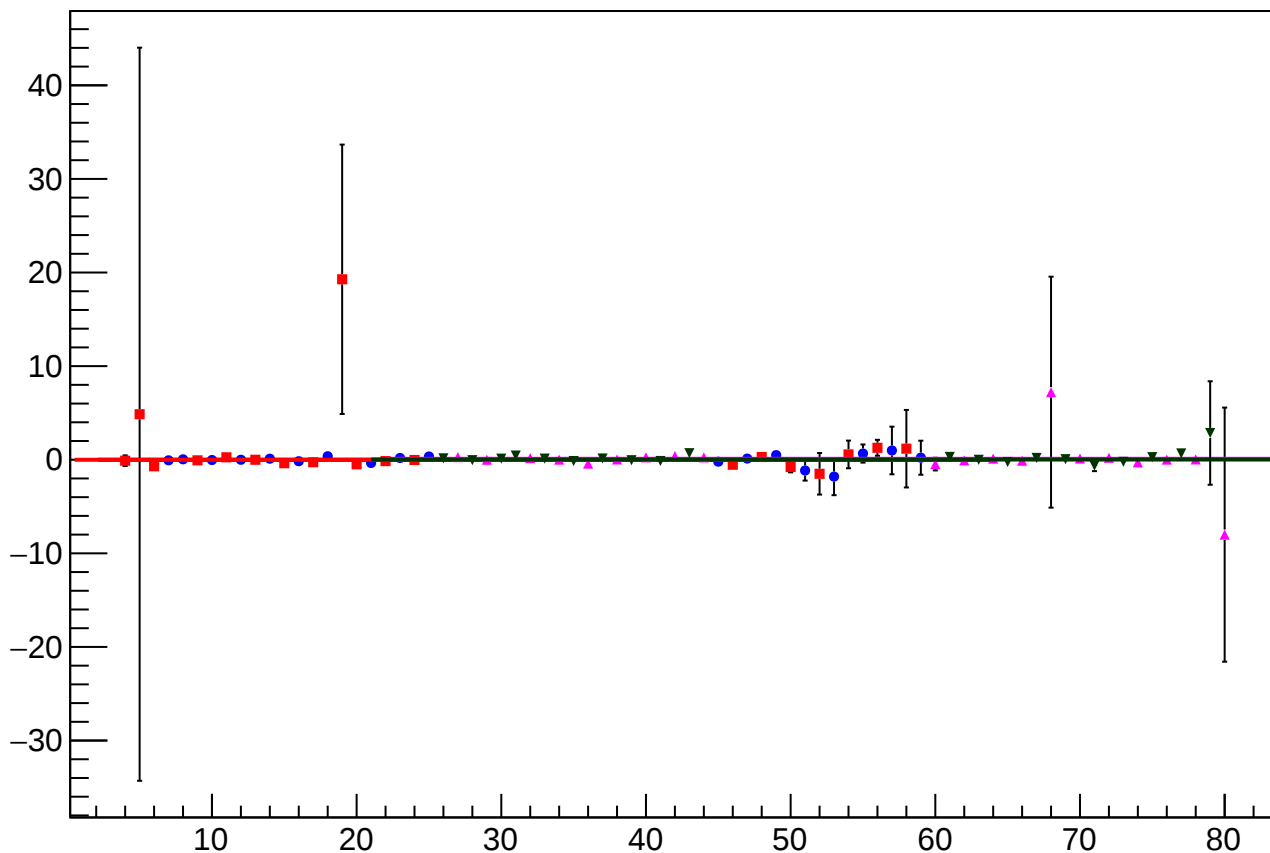
9.605 $\pm$ 0.002     $\chi^2$ /NDF: 2817360.6/37

Right Out: 11.097 $\pm$ 0.003     $\chi^2$ /NDF: 2257827.7/18

9.640 $\pm$ 0.002     $\chi^2$ /NDF: 3411229.4/38

Left In: 8.974 $\pm$ 0.002     $\chi^2$ /NDF: 788961.9/19

# diff\_cav4dY\_mean vs slug



Right In:  $-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 20.9/17

Left Out:  $0.022 \pm 0.044$   $\chi^2/\text{NDF}$ : 26.2/19

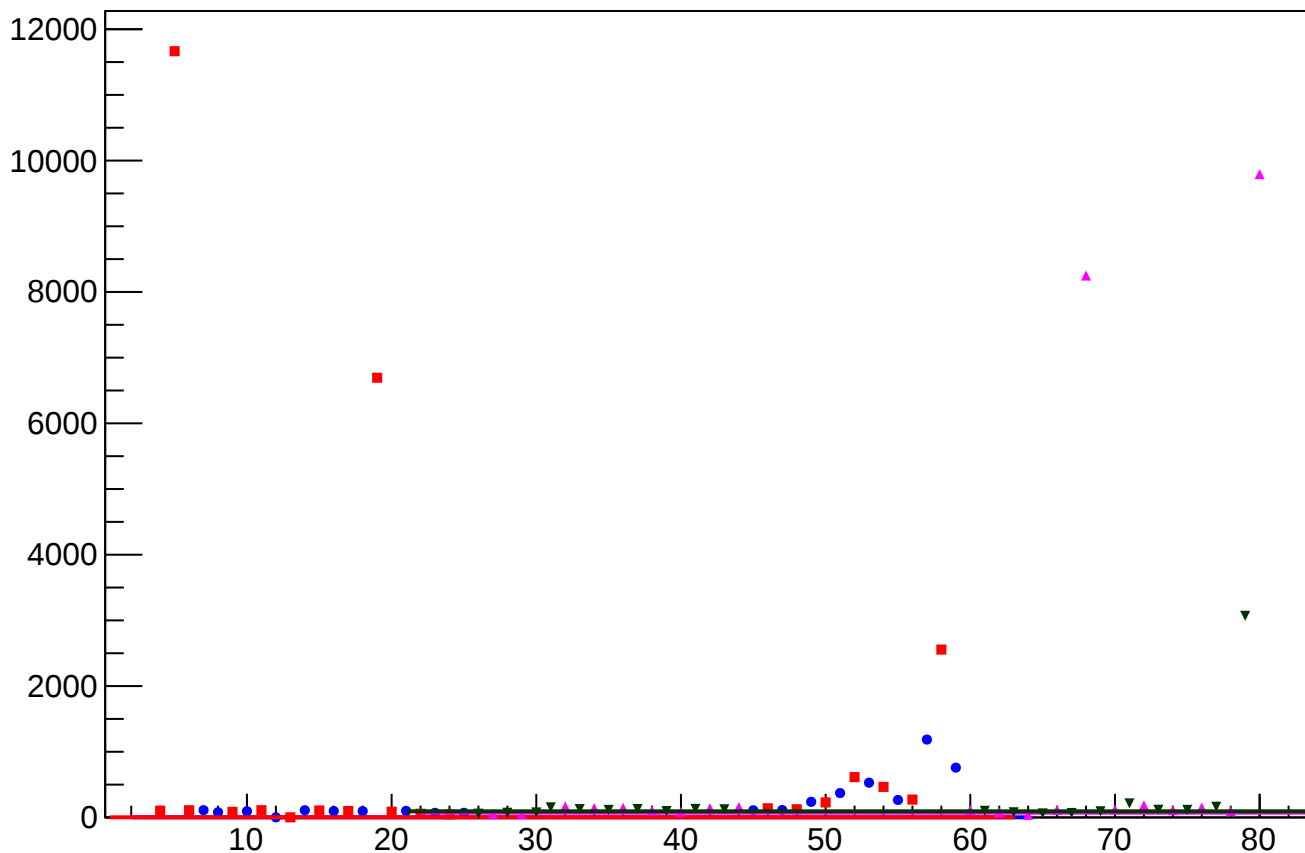
Right Out:  $-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 21.1/18

Left In:  $0.099 \pm 0.037$   $\chi^2/\text{NDF}$ : 15.6/19

$-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 47.4/37

$-0.002 \pm 0.003$   $\chi^2/\text{NDF}$ : 44.1/38

# diff\_cav4dY\_rms vs slug



Right In: 2.214 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 9160380.4/17

Left Out: 93.389 $\pm$ 0.031  $\chi^2/\text{NDF}$ :1388817.0/19

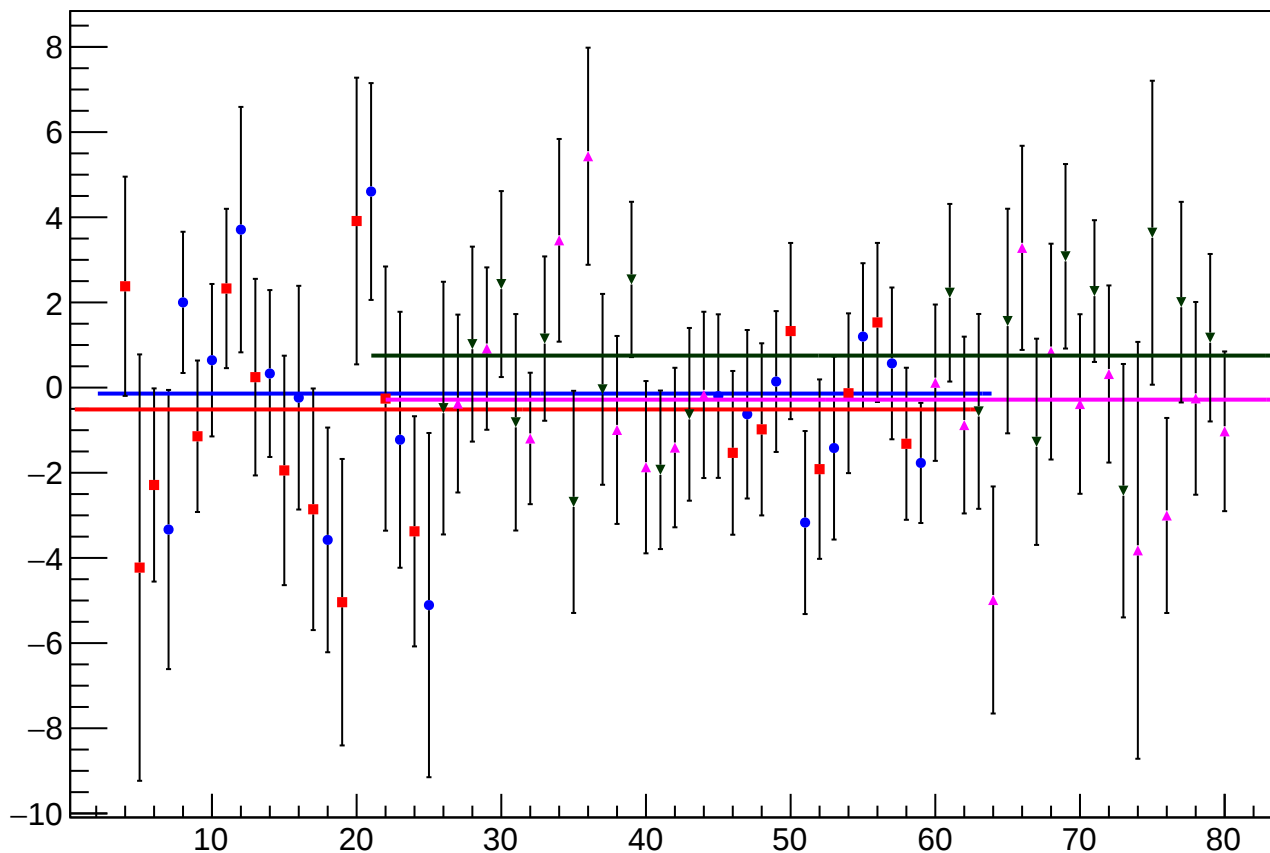
Right Out: 2.101 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 6716516.3/18

Left In: 72.395 $\pm$ 0.026  $\chi^2/\text{NDF}$ :4081837.8/19

2.662 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 19172479.5/37

2.566 $\pm$ 0.002  $\chi^2/\text{NDF}$ : 17958425.5/38

# diff\_bpm4aX\_mean vs slug



Right In:  $-0.141 \pm 0.485$   $\chi^2/\text{NDF}: 16.0/17$

Left Out:  $0.752 \pm 0.497$   $\chi^2/\text{NDF}: 12.3/19$

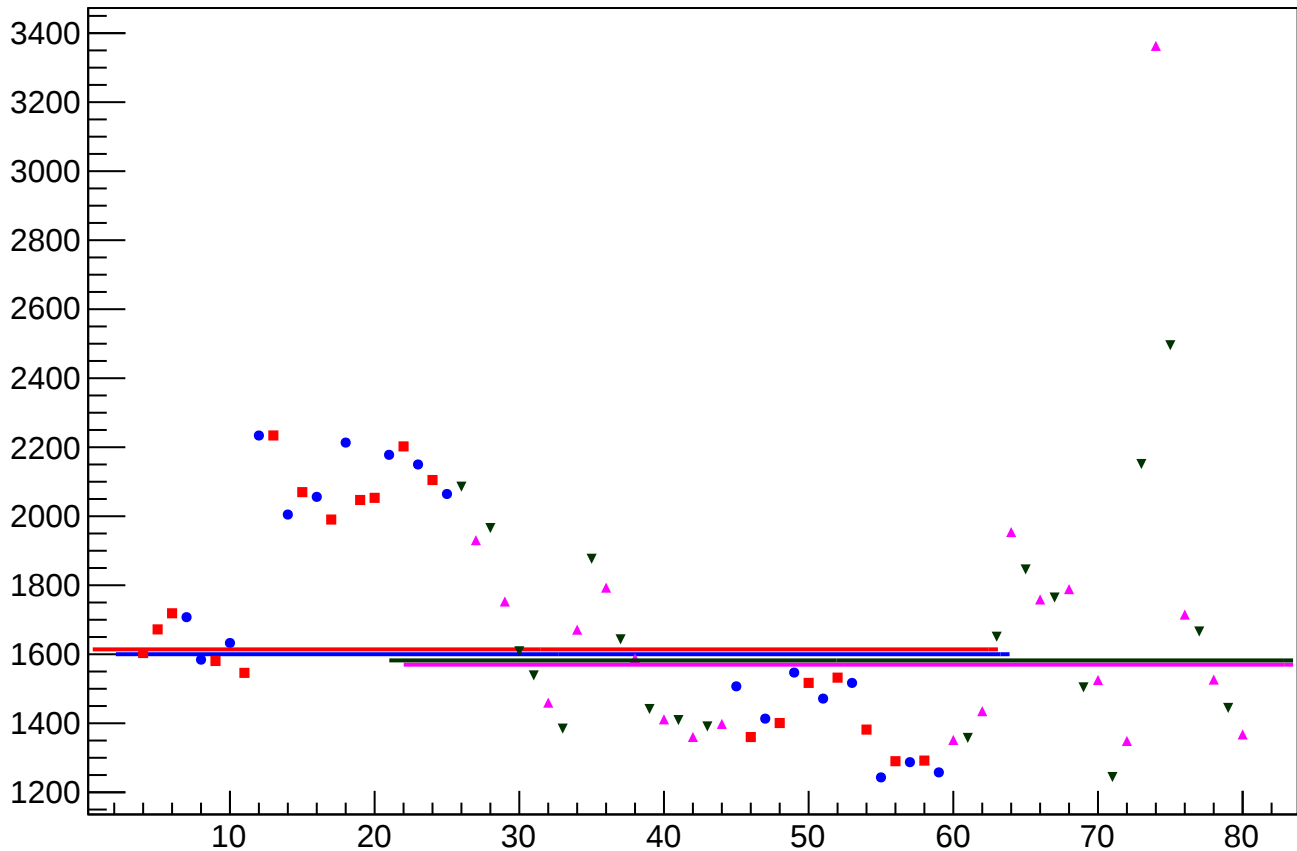
Right Out:  $-0.513 \pm 0.519$   $\chi^2/\text{NDF}: 13.6/18$

Left In:  $-0.283 \pm 0.476$   $\chi^2/\text{NDF}: 17.2/19$

$0.295 \pm 0.347$   $\chi^2/\text{NDF}: 29.9/37$

$-0.388 \pm 0.351$   $\chi^2/\text{NDF}: 30.9/38$

# diff\_bpm4aX\_rms vs slug



Right In: 1600.111 $\pm$ 0.343  $\chi^2$ /NDF: 849754.6/17

Left Out: 1582.225 $\pm$ 0.351  $\chi^2$ /NDF: 567431.4/19

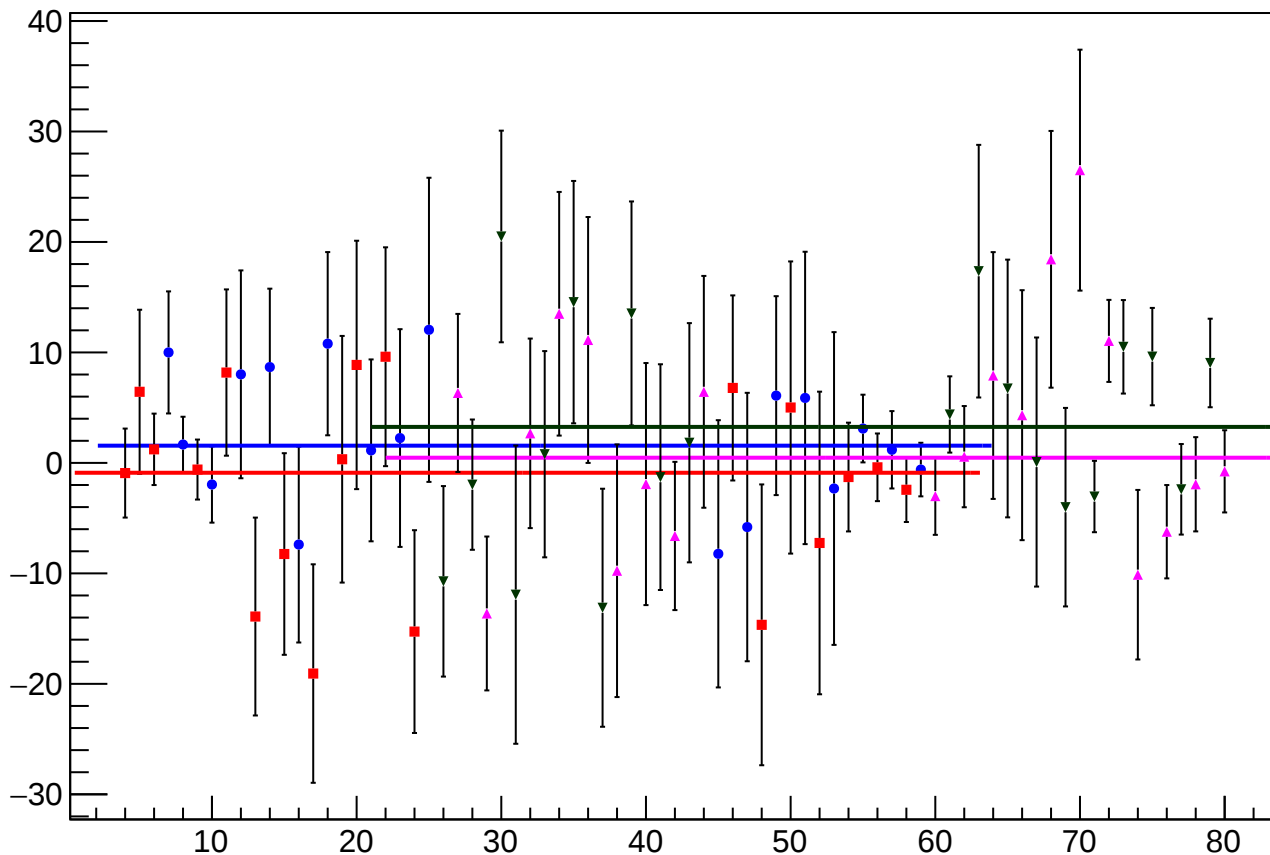
Right Out: 1614.182 $\pm$ 0.367  $\chi^2$ /NDF: 670373.5/18

Left In: 1569.888 $\pm$ 0.336  $\chi^2$ /NDF: 589668.8/19

1591.370 $\pm$ 0.245  $\chi^2$ /NDF: 1418512.9/37

1590.112 $\pm$ 0.248  $\chi^2$ /NDF: 1267959.4/38

# diff\_bpm4aY\_mean vs slug



Right In:  $1.560 \pm 1.148$   $\chi^2/\text{NDF}$ : 10.2/17

Left Out:  $3.258 \pm 1.338$   $\chi^2/\text{NDF}$ : 27.9/19

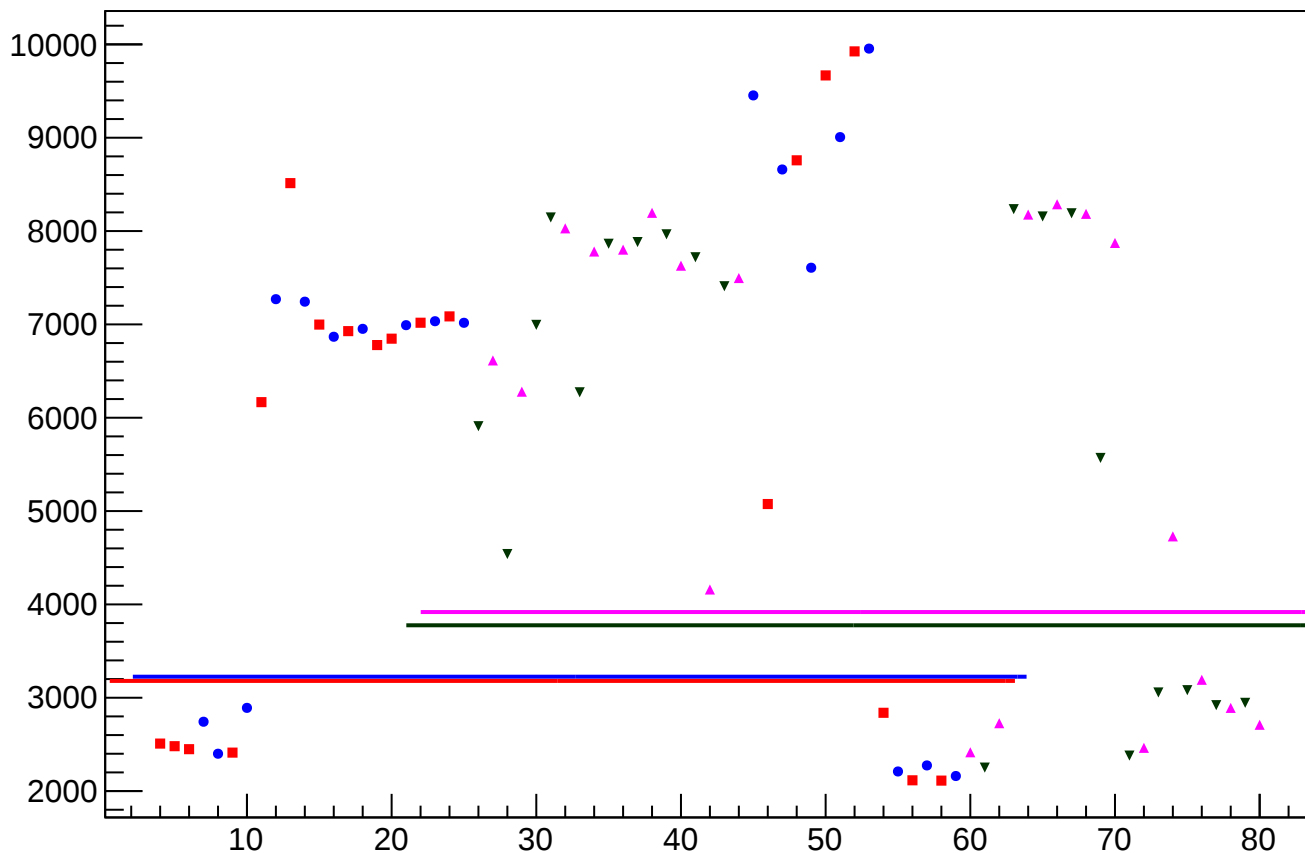
Right Out:  $-0.892 \pm 1.197$   $\chi^2/\text{NDF}$ : 16.1/18

Left In:  $0.470 \pm 1.348$   $\chi^2/\text{NDF}$ : 32.0/19

$2.281 \pm 0.871$   $\chi^2/\text{NDF}$ : 39.0/37

$-0.292 \pm 0.895$   $\chi^2/\text{NDF}$ : 48.7/38

# diff\_bpm4aY\_rms vs slug



Right In: 3225.359 $\pm$ 0.812  $\chi^2$ /NDF: 5860780.1/17

Left Out: 3776.238 $\pm$ 0.946  $\chi^2$ /NDF:4183707.9/19

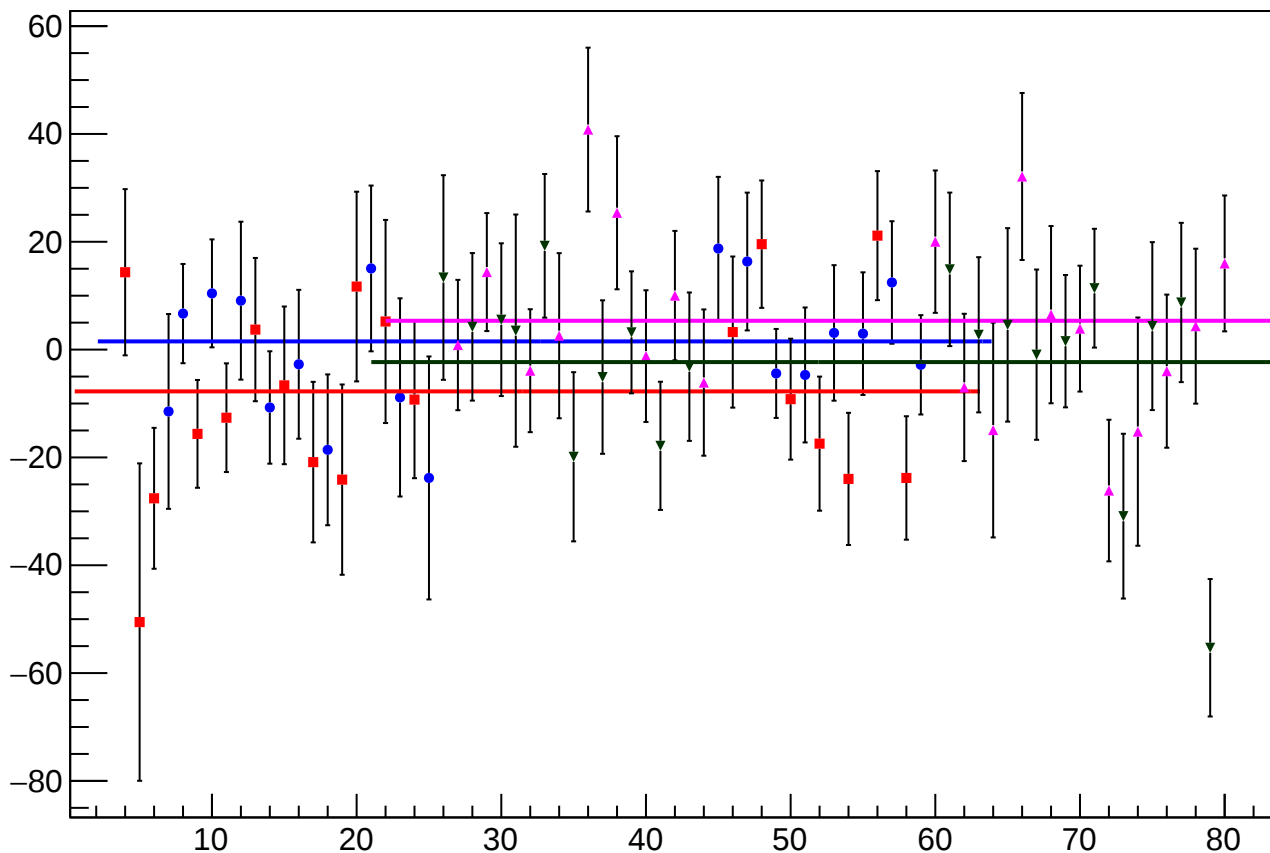
Right Out: 3180.260 $\pm$ 0.846  $\chi^2$ /NDF: 5053490.5/18

Left In: 3918.182 $\pm$ 0.953  $\chi^2$ /NDF:4544910.7/19

3459.111 $\pm$ 0.616  $\chi^2$ /NDF: 10239792.5/37

3505.592 $\pm$ 0.633  $\chi^2$ /NDF: 9933678.6/38

# diff\_bpm4eX\_mean vs slug



Right In:  $1.521 \pm 2.832$   $\chi^2/\text{NDF}: 12.8/17$

Left Out:  $-2.315 \pm 3.147$   $\chi^2/\text{NDF}: 32.1/19$

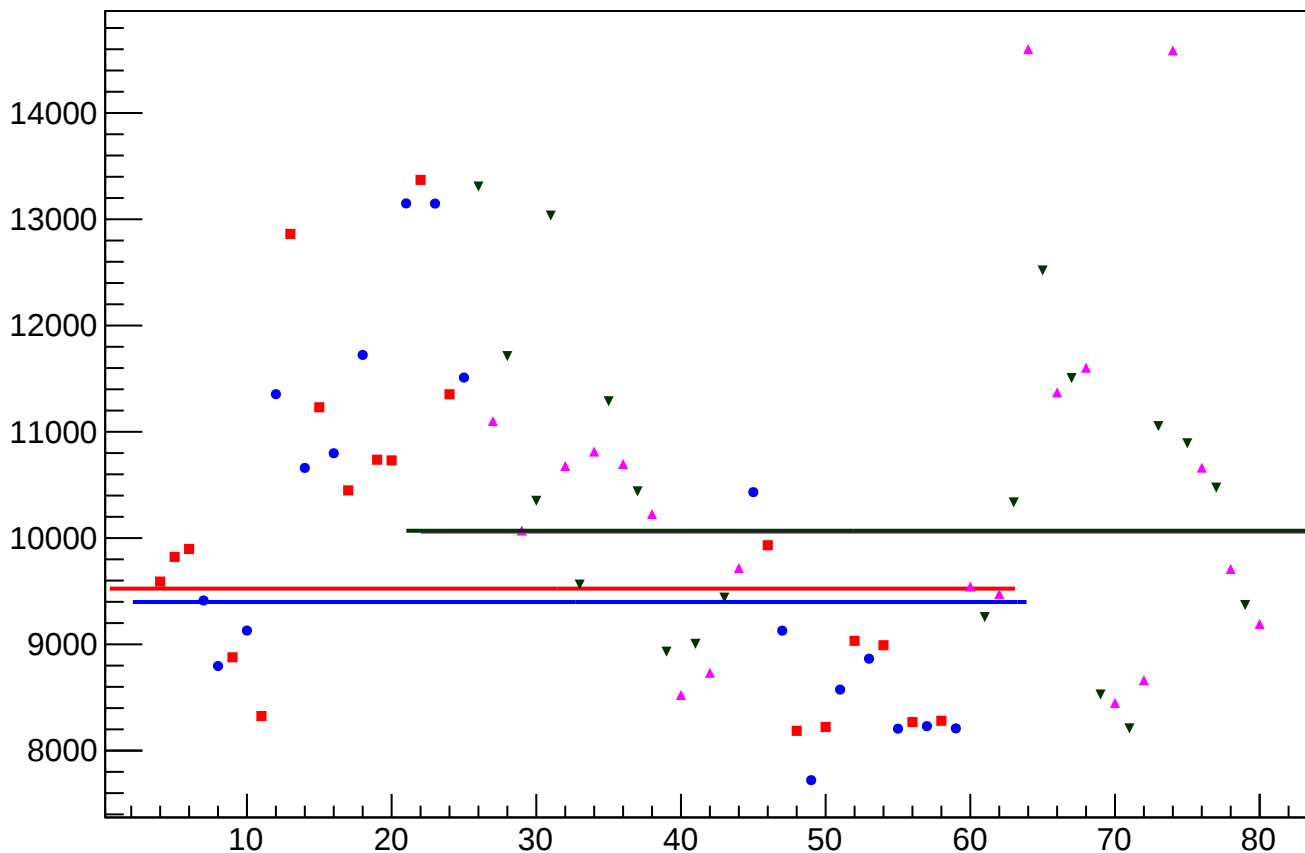
Right Out:  $-7.752 \pm 3.046$   $\chi^2/\text{NDF}: 27.5/18$

Left In:  $5.348 \pm 3.036$   $\chi^2/\text{NDF}: 24.0/19$

$-0.195 \pm 2.105$   $\chi^2/\text{NDF}: 45.6/37$

$-1.182 \pm 2.150$   $\chi^2/\text{NDF}: 60.9/38$

# diff\_bpm4eX\_rms vs slug



Right In: 9398.368 $\pm$ 2.003  $\chi^2$ /NDF: 554872.2/17

Left Out: 10069.005 $\pm$ 2.226  $\chi^2$ /NDF: 353516.9/19

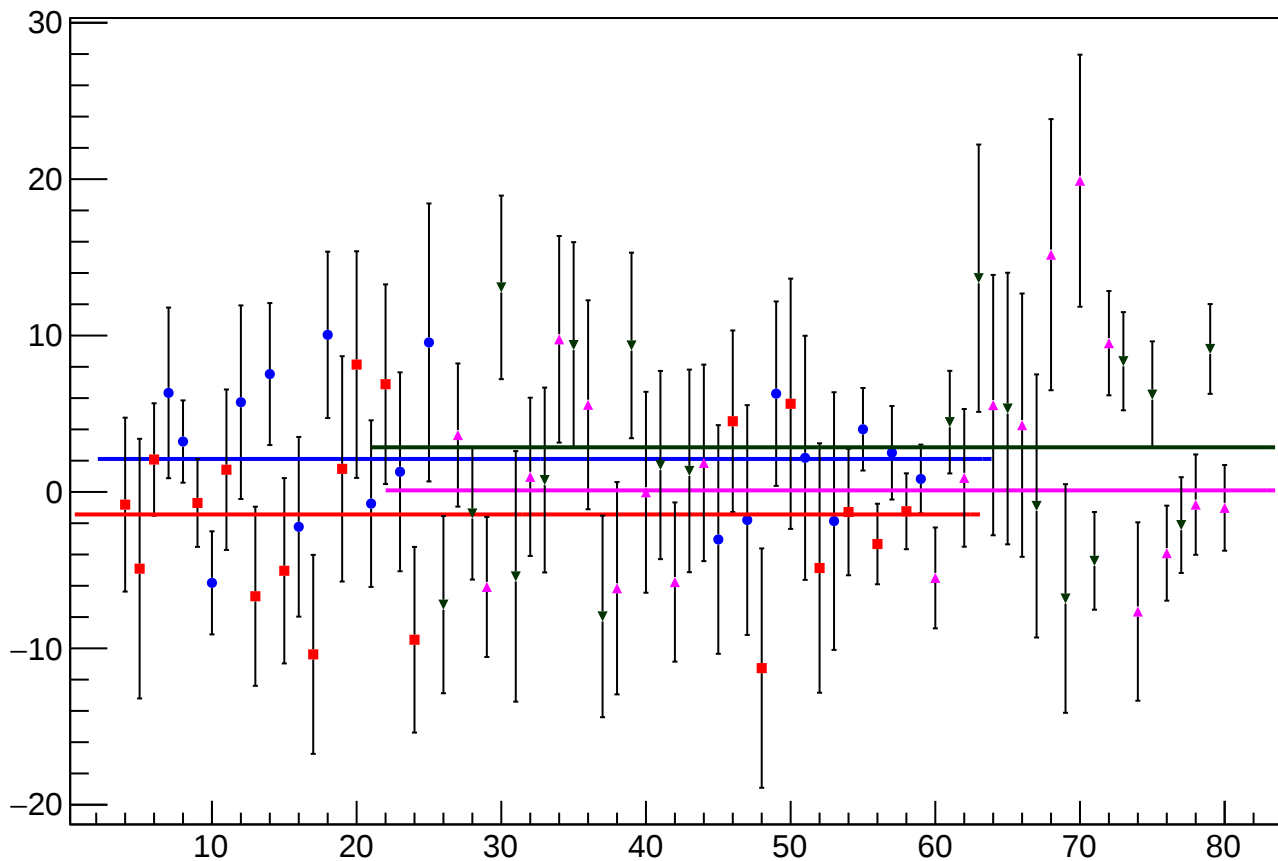
Right Out: 9524.317 $\pm$ 2.154  $\chi^2$ /NDF: 440161.2/18

Left In: 10059.562 $\pm$ 2.147  $\chi^2$ /NDF: 395831.5/19

9698.447 $\pm$ 1.489  $\chi^2$ /NDF: 958561.3/37

9792.752 $\pm$ 1.520  $\chi^2$ /NDF: 866971.9/38

# diff\_bpm4eY\_mean vs slug



Right In:  $2.110 \pm 0.979$   $\chi^2/\text{NDF}: 14.5/17$

Left Out:  $2.855 \pm 1.021$   $\chi^2/\text{NDF}: 34.2/19$

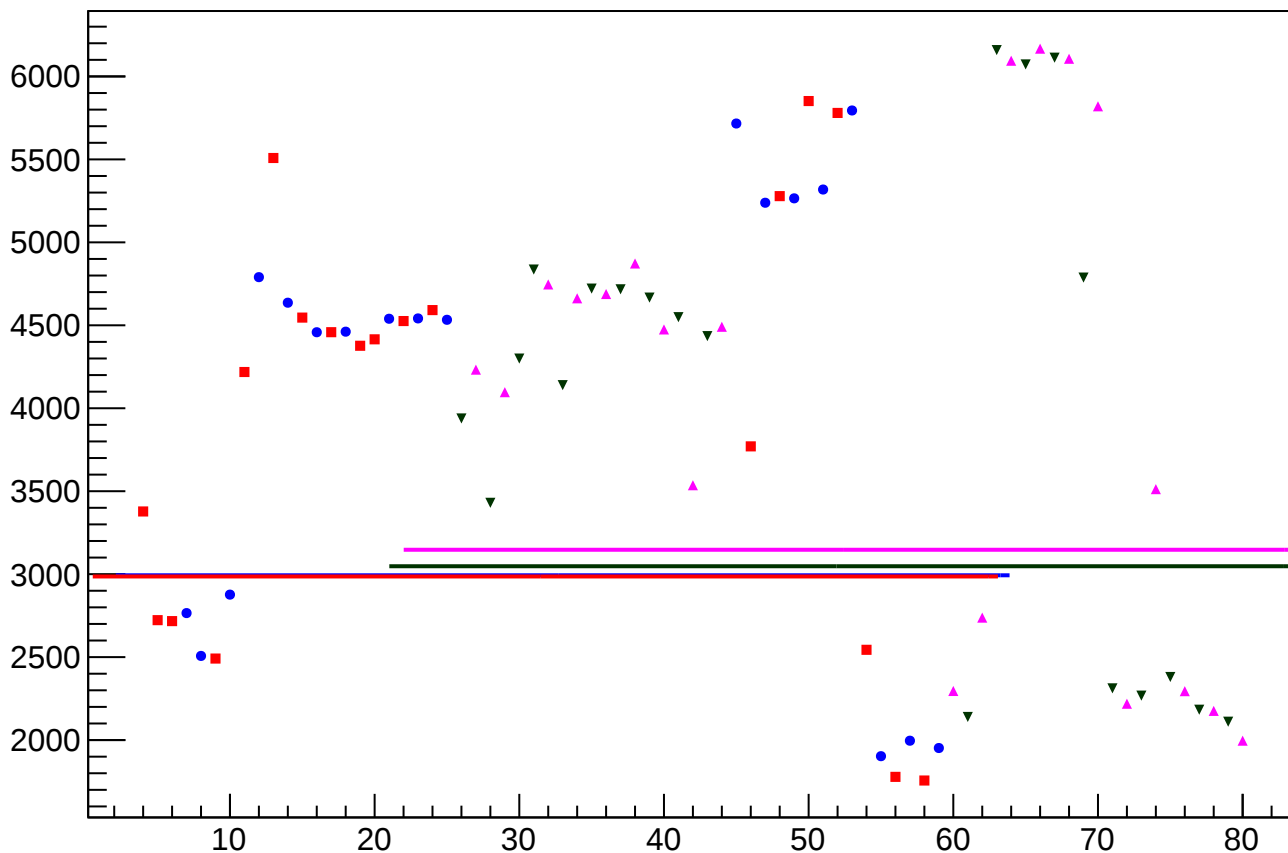
Right Out:  $-1.438 \pm 1.040$   $\chi^2/\text{NDF}: 14.4/18$

Left In:  $0.100 \pm 1.022$   $\chi^2/\text{NDF}: 32.2/19$

$2.467 \pm 0.707$   $\chi^2/\text{NDF}: 49.0/37$

$-0.656 \pm 0.729$   $\chi^2/\text{NDF}: 47.6/38$

# diff\_bpm4eY\_rms vs slug



Right In: 2993.228 $\pm$ 0.692  $\chi^2$ /NDF: 3318124.3/17

Left Out: 3047.753 $\pm$ 0.722  $\chi^2$ /NDF: 2677545.3/19

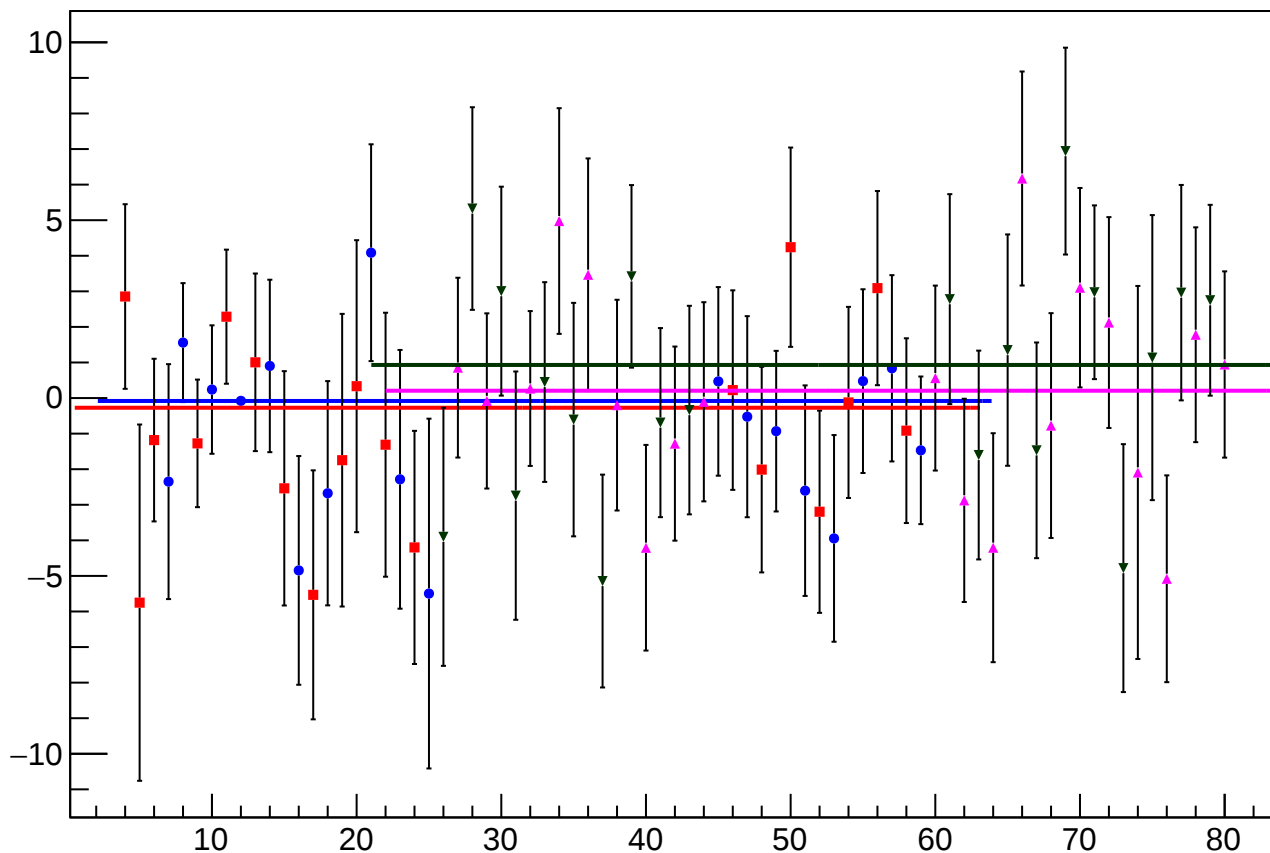
Right Out: 2986.116 $\pm$ 0.736  $\chi^2$ /NDF: 2945634.2/18

Left In: 3147.096 $\pm$ 0.723  $\chi^2$ /NDF: 2907221.4/19

3019.337 $\pm$ 0.500  $\chi^2$ /NDF: 5998639.5/37

3067.994 $\pm$ 0.516  $\chi^2$ /NDF: 5877216.3/38

# diff\_bpm4acX\_mean vs slug



Right In:  $-0.082 \pm 0.060$   $\chi^2/\text{NDF}$ : 11.3/17

Left Out:  $0.931 \pm 0.666$   $\chi^2/\text{NDF}$ : 22.0/19

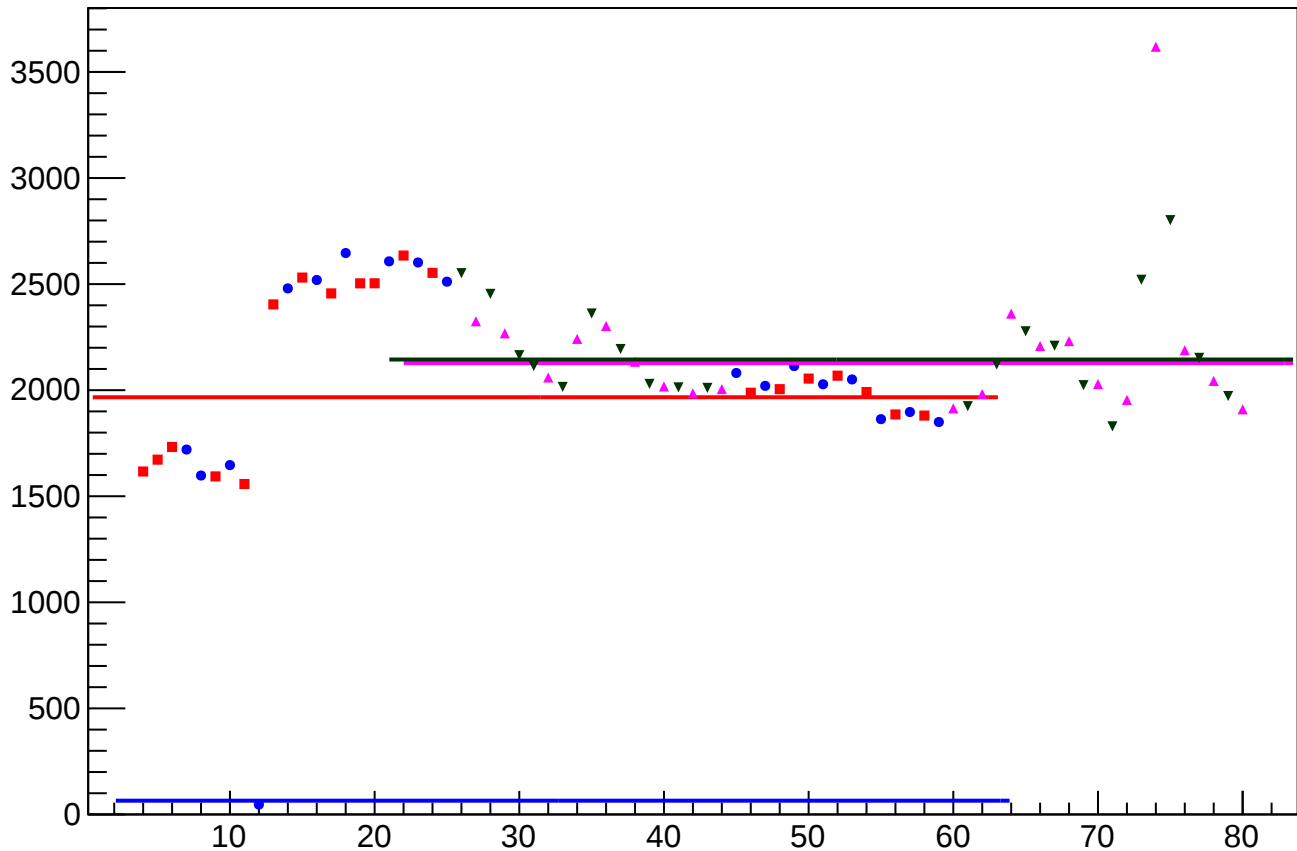
Right Out:  $-0.272 \pm 0.631$   $\chi^2/\text{NDF}$ : 15.3/18

Left In:  $0.206 \pm 0.639$   $\chi^2/\text{NDF}$ : 18.4/19

$-0.074 \pm 0.060$   $\chi^2/\text{NDF}$ : 35.6/37

$-0.036 \pm 0.449$   $\chi^2/\text{NDF}$ : 34.0/38

# diff\_bpm4acX\_rms vs slug



Right In: 64.916+/-0.042  $\chi^2$ /NDF: 20258480.2/17

Left Out: 2144.554+/-0.471  $\chi^2$ /NDF:213185.7/19

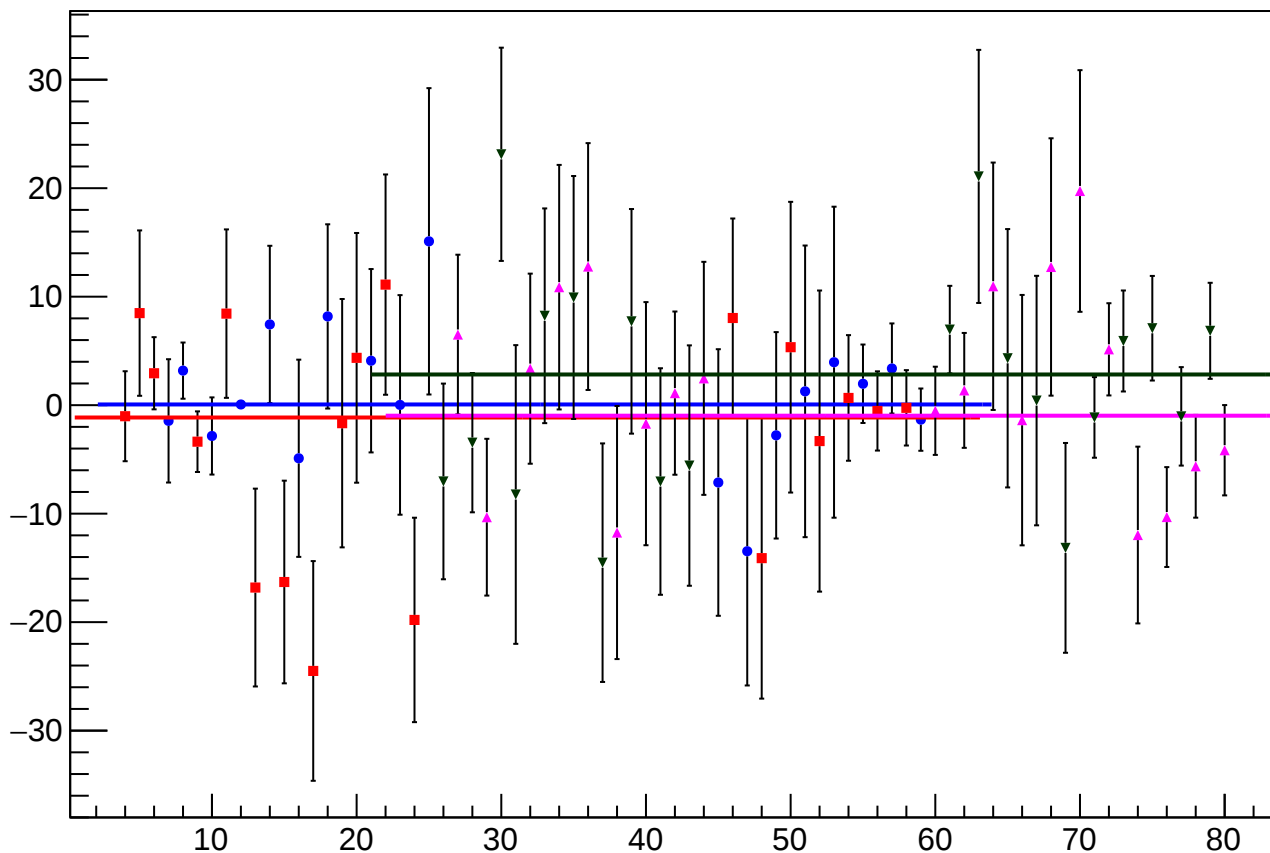
Right Out: 1966.634+/-0.446  $\chi^2$ /NDF: 610680.3/18

Left In: 2127.963+/-0.452  $\chi^2$ /NDF:261233.7/19

81.658+/-0.042  $\chi^2$ /NDF: 39789570.8/37

2046.327+/-0.318  $\chi^2$ /NDF: 936450.3/38

# diff\_bpm4acY\_mean vs slug



Right In:  $0.065 \pm 0.052$   $\chi^2/\text{NDF}: 8.7/17$

Left Out:  $2.829 \pm 1.473$   $\chi^2/\text{NDF}: 22.1/19$

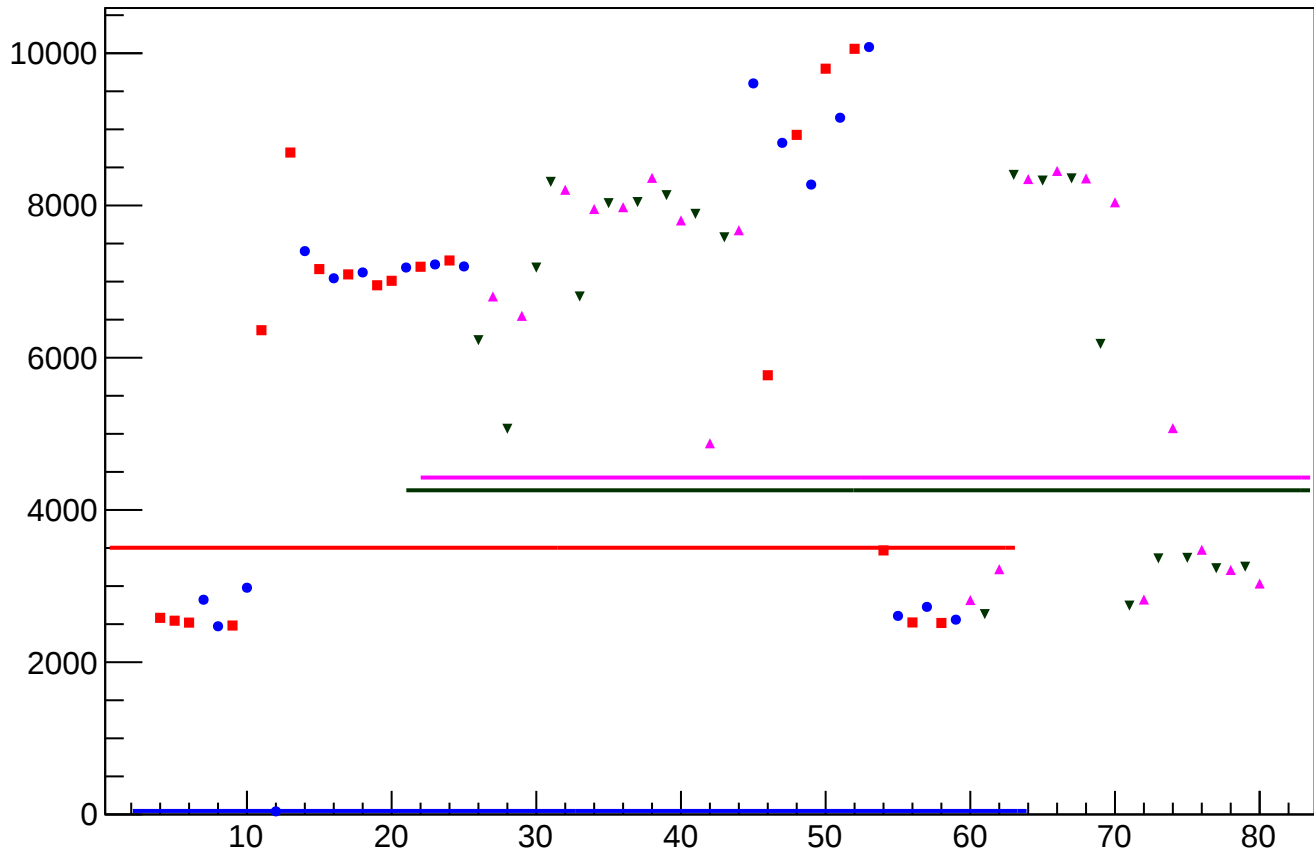
Right Out:  $-1.137 \pm 1.295$   $\chi^2/\text{NDF}: 24.2/18$

Left In:  $-0.970 \pm 1.483$   $\chi^2/\text{NDF}: 22.2/19$

$0.069 \pm 0.052$   $\chi^2/\text{NDF}: 34.3/37$

$-1.065 \pm 0.976$   $\chi^2/\text{NDF}: 46.5/38$

diff\_bpm4acY\_rms vs slug



Right In: 46.257+/-0.037  $\chi^2$ /NDF: 20176828.9/17

Left Out: 4258.528+/-1.042  $\chi^2$ /NDF:3599477.2/19

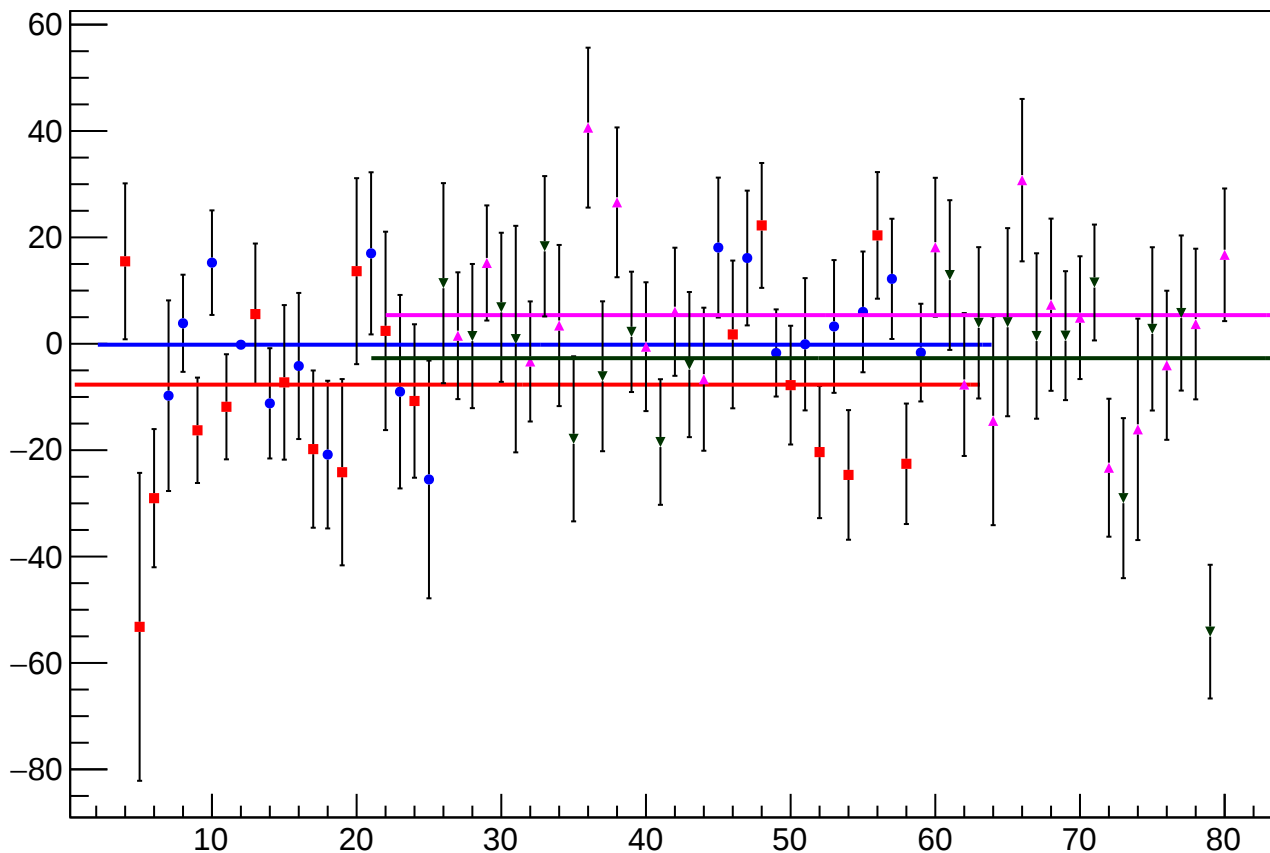
Right Out: 3503.720+/-0.916  $\chi^2$ /NDF: 4669685.2/18

Left In: 4425.995+/-1.049  $\chi^2$ /NDF:3809648.1/19

51.512+/-0.037  $\chi^2$ /NDF: 40101391.5/37

3902.668+/-0.690  $\chi^2$ /NDF: 8917981.3/38

# diff\_bpm4ecX\_mean vs slug



Right In:  $-0.174 \pm 0.106$   $\chi^2/\text{NDF}$ : 14.4/17

Left Out:  $-2.707 \pm 3.114$   $\chi^2/\text{NDF}$ : 30.4/19

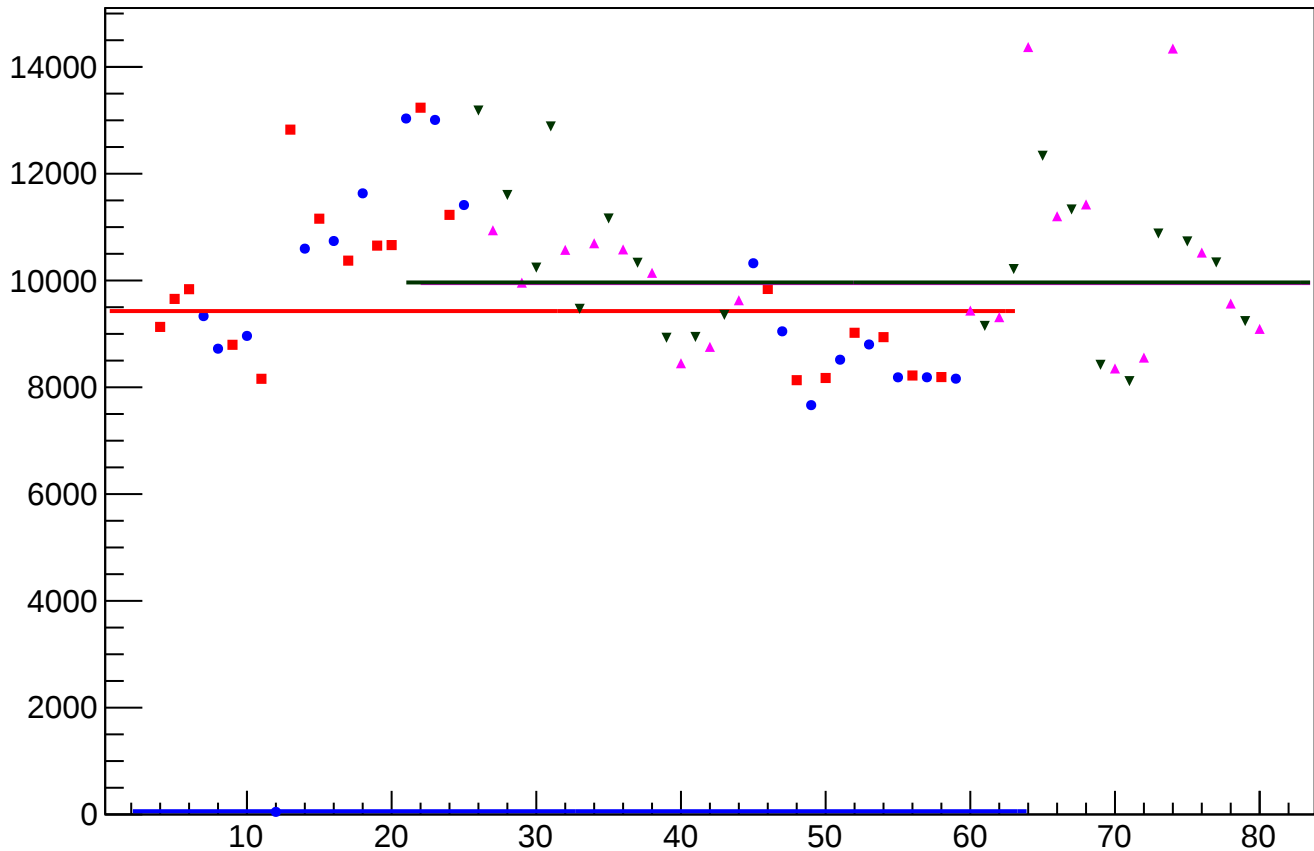
Right Out:  $-7.679 \pm 3.015$   $\chi^2/\text{NDF}$ : 30.2/18

Left In:  $5.386 \pm 3.003$   $\chi^2/\text{NDF}$ : 23.3/19

$-0.177 \pm 0.106$   $\chi^2/\text{NDF}$ : 45.5/37

$-1.119 \pm 2.128$   $\chi^2/\text{NDF}$ : 63.0/38

diff\_bpm4ecX\_rms vs slug



Right In: 60.738 $\pm$ 0.075  $\chi^2$ /NDF: 21121924.5/17

Left Out: 9963.290 $\pm$ 2.202  $\chi^2$ /NDF:347241.1/19

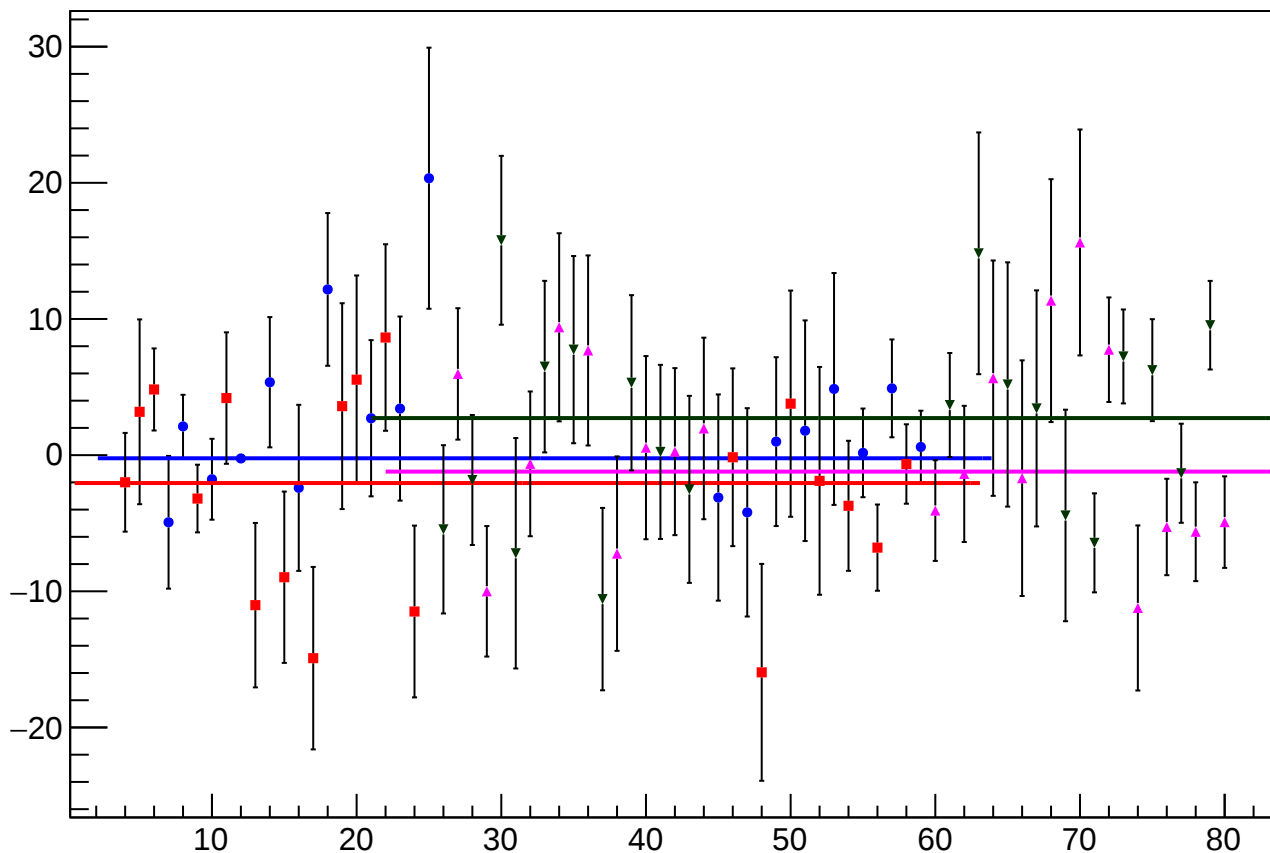
Right Out: 9427.549 $\pm$ 2.132  $\chi^2$ /NDF: 447350.4/18

Left In: 9951.270 $\pm$ 2.123  $\chi^2$ /NDF:384362.8/19

72.303 $\pm$ 0.075  $\chi^2$ /NDF: 41671804.0/37

9690.506 $\pm$ 1.505  $\chi^2$ /NDF: 862003.6/38

# diff\_bpm4ecY\_mean vs slug



Right In:  $-0.230 \pm 0.090$   $\chi^2/\text{NDF}: 16.8/17$

Left Out:  $2.723 \pm 1.137$   $\chi^2/\text{NDF}: 31.6/19$

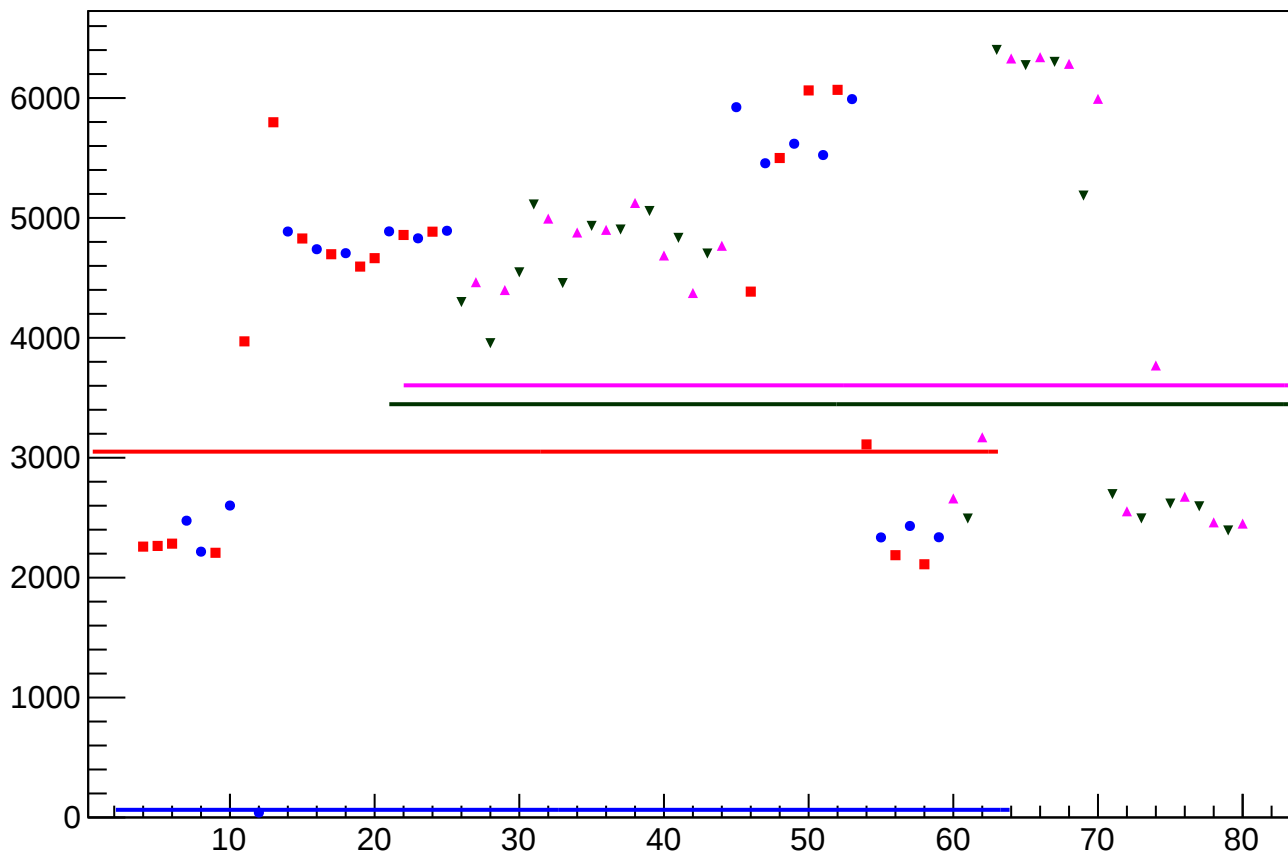
Right Out:  $-2.049 \pm 1.055$   $\chi^2/\text{NDF}: 27.2/18$

Left In:  $-1.209 \pm 1.147$   $\chi^2/\text{NDF}: 30.1/19$

$-0.212 \pm 0.090$   $\chi^2/\text{NDF}: 55.1/37$

$-1.664 \pm 0.777$   $\chi^2/\text{NDF}: 57.6/38$

# diff\_bpm4ecY\_rms vs slug



Right In: 63.702+/-0.064  $\chi^2/\text{NDF}$ : 20268366.8/17

Left Out: 3446.490+/-0.804  $\chi^2/\text{NDF}$ : 2243941.2/19

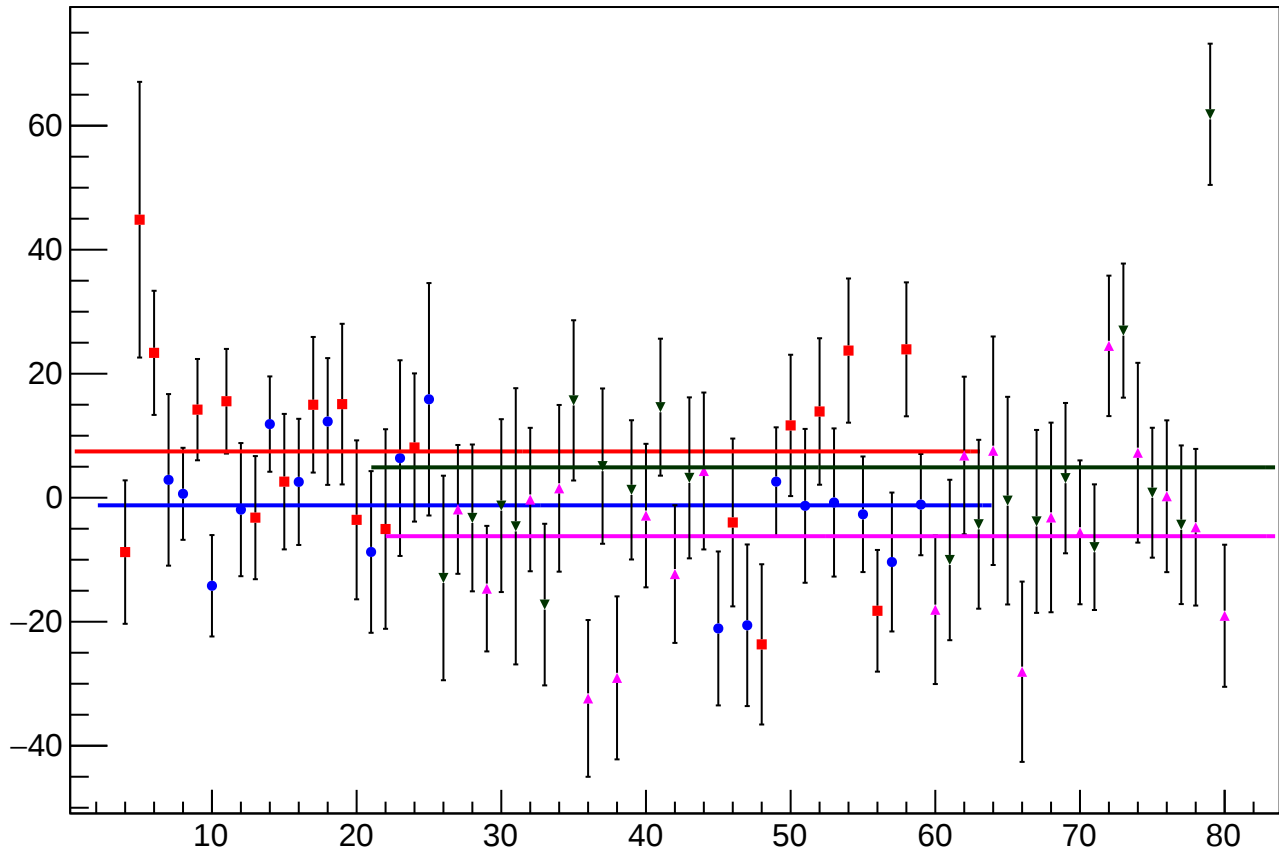
Right Out: 3050.872+/-0.746  $\chi^2/\text{NDF}$ : 2882138.2/18

Left In: 3603.875+/-0.811  $\chi^2/\text{NDF}$ : 2241064.2/19

84.674+/-0.063  $\chi^2/\text{NDF}$ : 40092634.1/37

3304.473+/-0.549  $\chi^2/\text{NDF}$ : 5375004.8/38

diff\_bpm1X\_mean vs slug



Right In:  $-1.229 \pm 2.430$   $\chi^2/\text{NDF}: 14.5/17$

Left Out:  $4.899 \pm 2.819$   $\chi^2/\text{NDF}: 40.2/19$

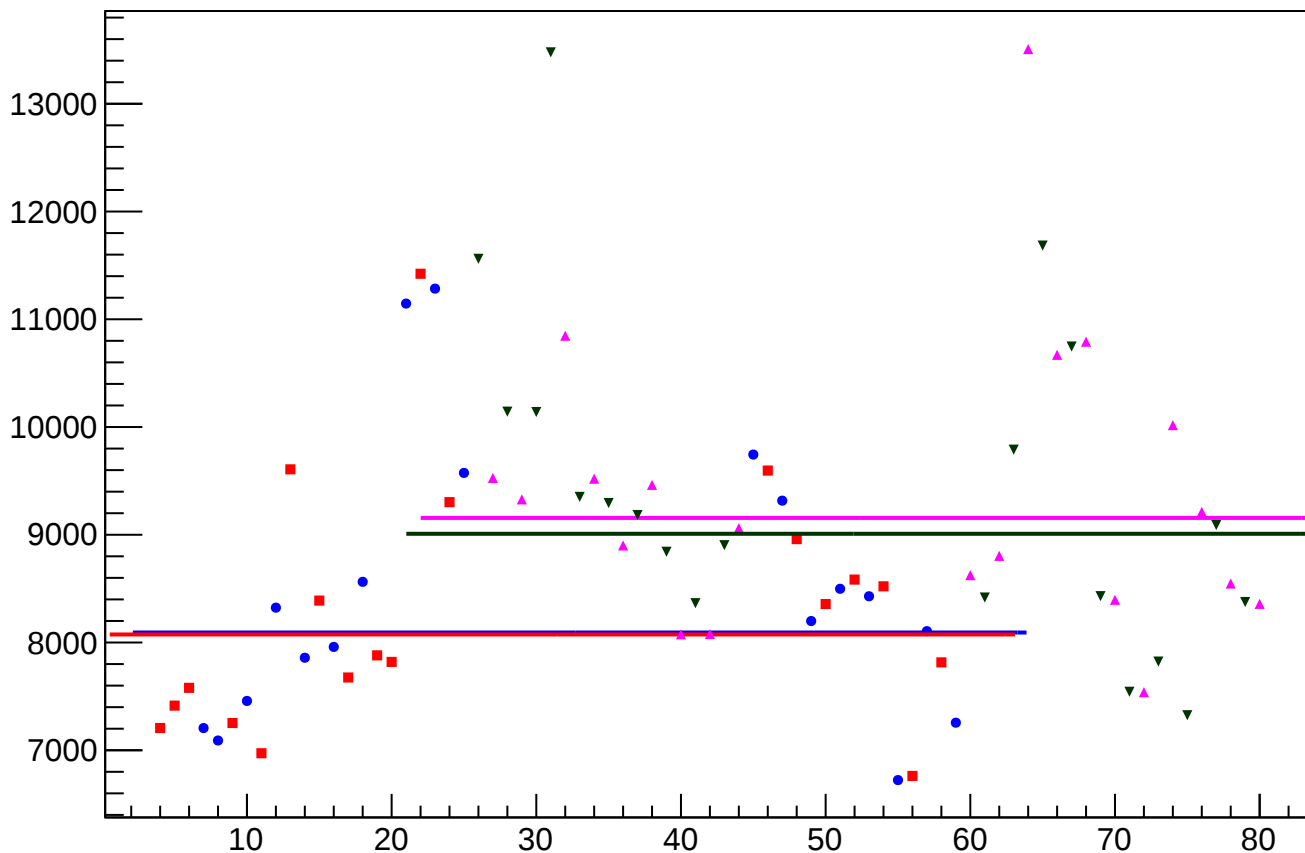
Right Out:  $7.465 \pm 2.574$   $\chi^2/\text{NDF}: 30.5/18$

Left In:  $-6.206 \pm 2.757$   $\chi^2/\text{NDF}: 24.5/19$

$1.384 \pm 1.841$   $\chi^2/\text{NDF}: 57.4/37$

$1.100 \pm 1.881$   $\chi^2/\text{NDF}: 68.2/38$

# diff\_bpm1X\_rms vs slug



Right In: 8092.852 $\pm$ 1.719  $\chi^2$ /NDF: 389353.1/17

Left Out: 9009.153 $\pm$ 1.993  $\chi^2$ /NDF:387946.5/19

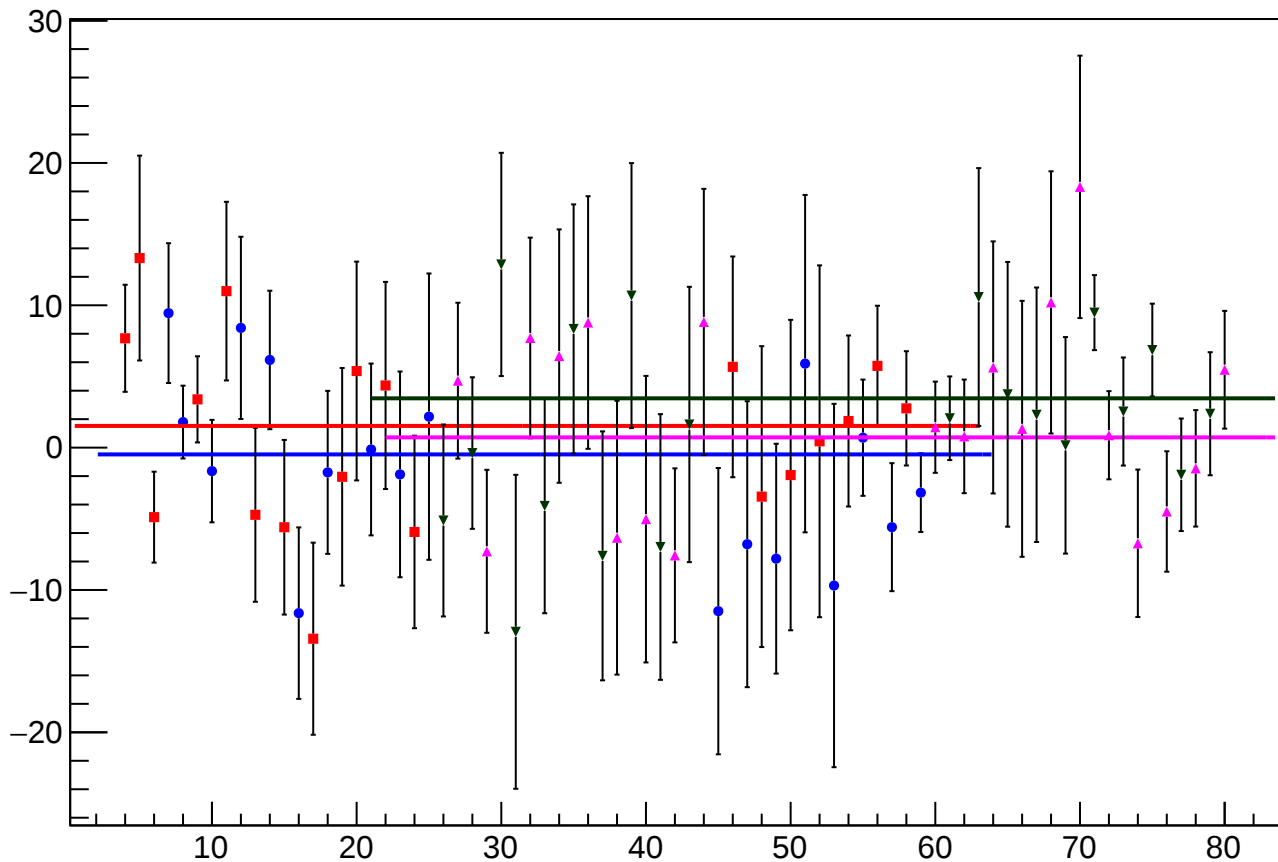
Right Out: 8074.654 $\pm$ 1.820  $\chi^2$ /NDF: 312658.9/18

Left In: 9156.319 $\pm$ 1.950  $\chi^2$ /NDF:317989.8/19

8483.548 $\pm$ 1.302  $\chi^2$ /NDF: 898510.0/37

8578.315 $\pm$ 1.330  $\chi^2$ /NDF: 795123.9/38

diff\_bpm1Y\_mean vs slug



Right In:  $-0.476 \pm 1.161$   $\chi^2/\text{NDF}: 17.9/17$

Left Out:  $3.463 \pm 1.152$   $\chi^2/\text{NDF}: 19.9/19$

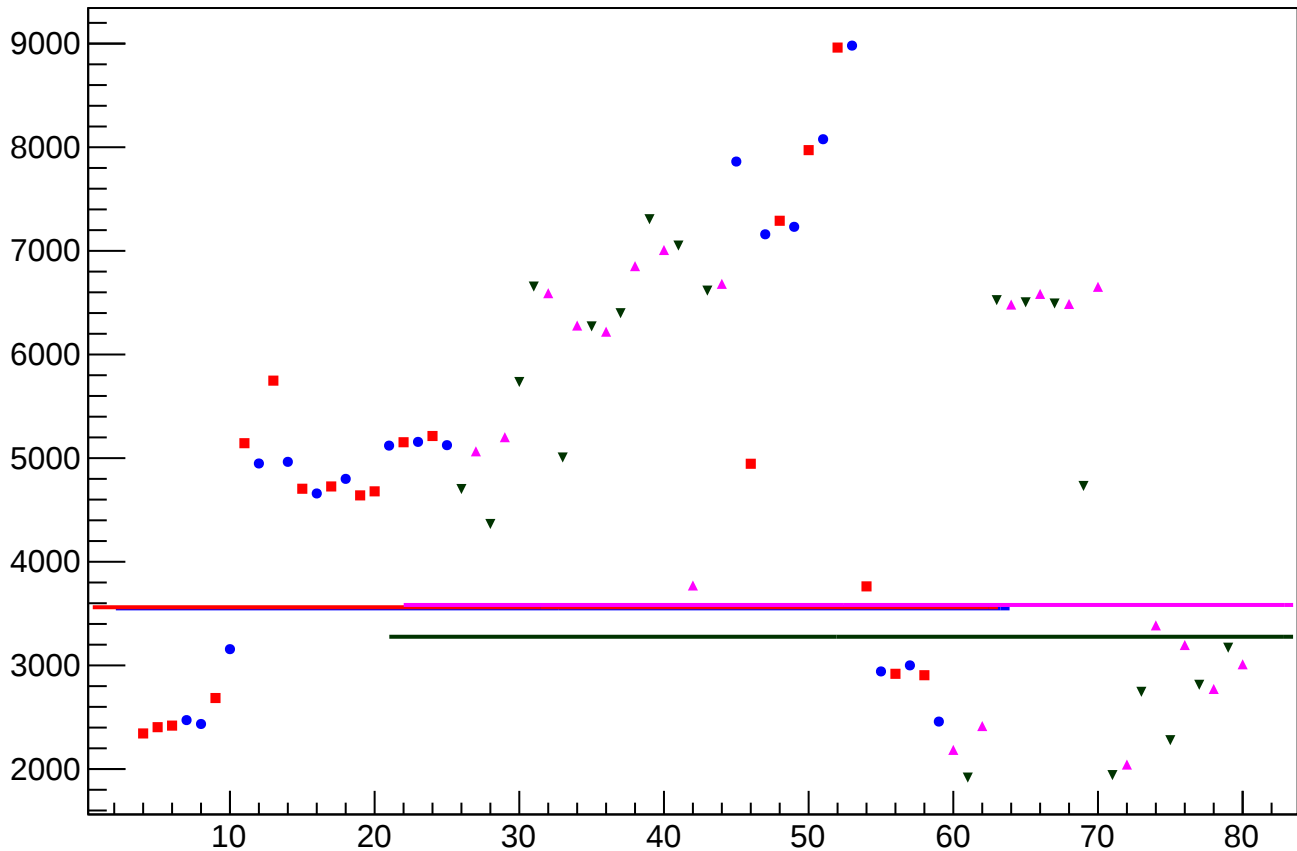
Right Out:  $1.525 \pm 1.232$   $\chi^2/\text{NDF}: 22.9/18$

Left In:  $0.720 \pm 1.201$   $\chi^2/\text{NDF}: 18.4/19$

$1.509 \pm 0.818$   $\chi^2/\text{NDF}: 43.6/37$

$1.113 \pm 0.860$   $\chi^2/\text{NDF}: 41.5/38$

# diff\_bpm1Y\_rms vs slug



Right In: 3550.424+/-0.821  $\chi^2/\text{NDF}$ : 3293988.0/17

Left Out: 3276.586+/-0.815  $\chi^2/\text{NDF}$ : 4118086.1/19

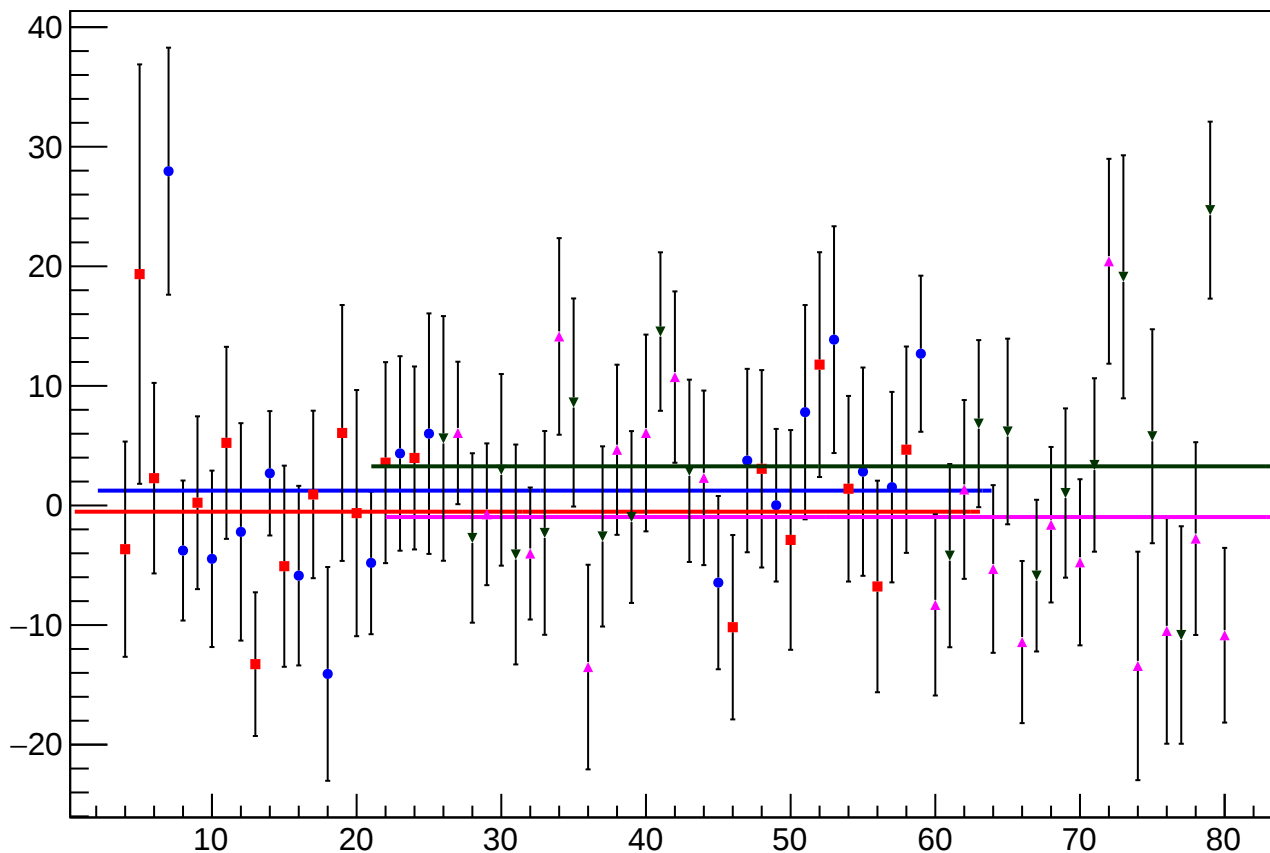
Right Out: 3561.233+/-0.871  $\chi^2/\text{NDF}$ : 2618224.4/18

Left In: 3583.324+/-0.850  $\chi^2/\text{NDF}$ : 3756765.5/19

3412.409+/-0.578  $\chi^2/\text{NDF}$ : 7468129.6/37

3572.554+/-0.608  $\chi^2/\text{NDF}$ : 6375319.6/38

# diff\_bpm11X\_mean vs slug



Right In:  $1.242 \pm 1.752$   $\chi^2/\text{NDF}$ : 20.2/17

Left Out:  $3.273 \pm 1.737$   $\chi^2/\text{NDF}$ : 22.9/19

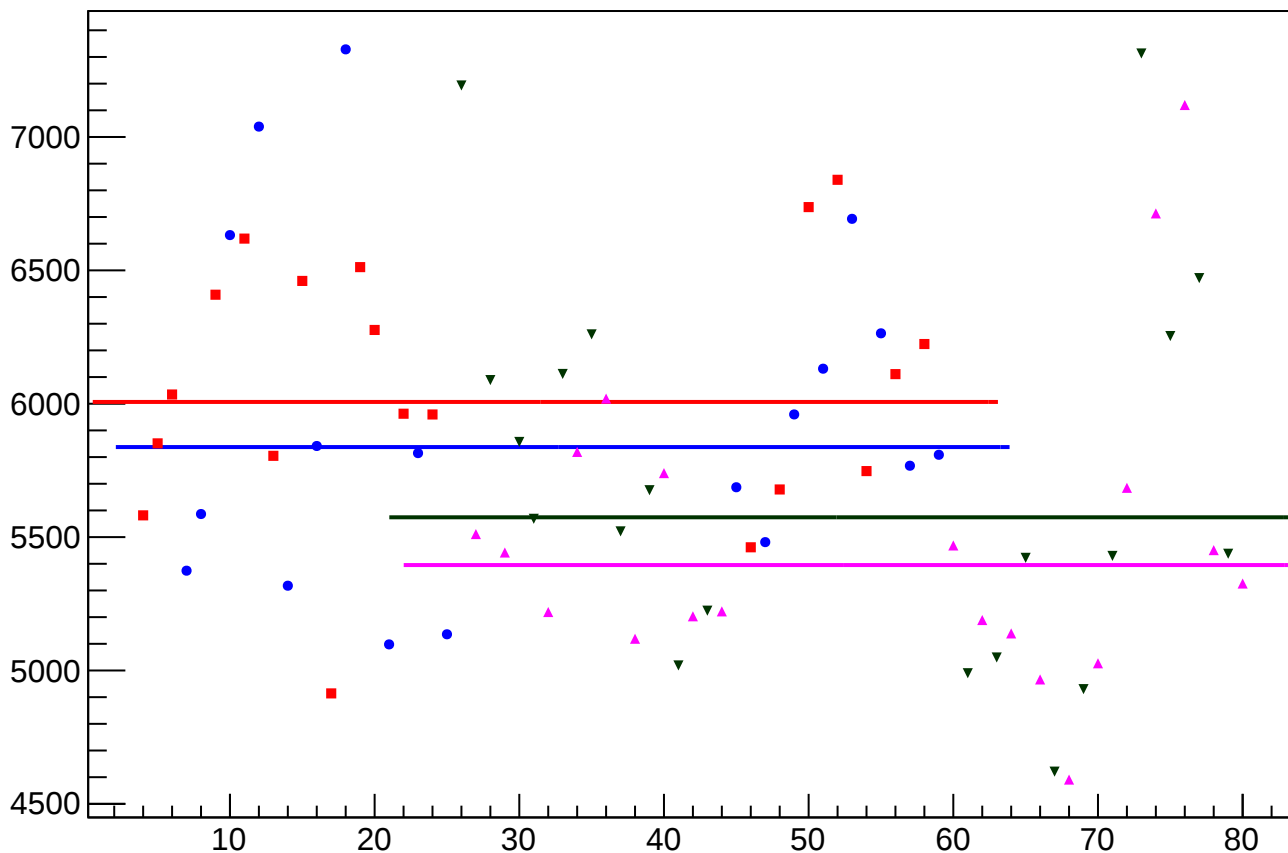
Right Out:  $-0.521 \pm 1.907$   $\chi^2/\text{NDF}$ : 12.3/18

Left In:  $-0.967 \pm 1.617$   $\chi^2/\text{NDF}$ : 26.4/19

$2.266 \pm 1.233$   $\chi^2/\text{NDF}$ : 43.7/37

$-0.780 \pm 1.233$   $\chi^2/\text{NDF}$ : 38.7/38

diff\_bpm11X\_rms vs slug



Right In: 5837.587+/-1.239  $\chi^2/\text{NDF}$ : 211311.8/17

Left Out: 5574.271+/-1.228  $\chi^2/\text{NDF}$ :278746.1/19

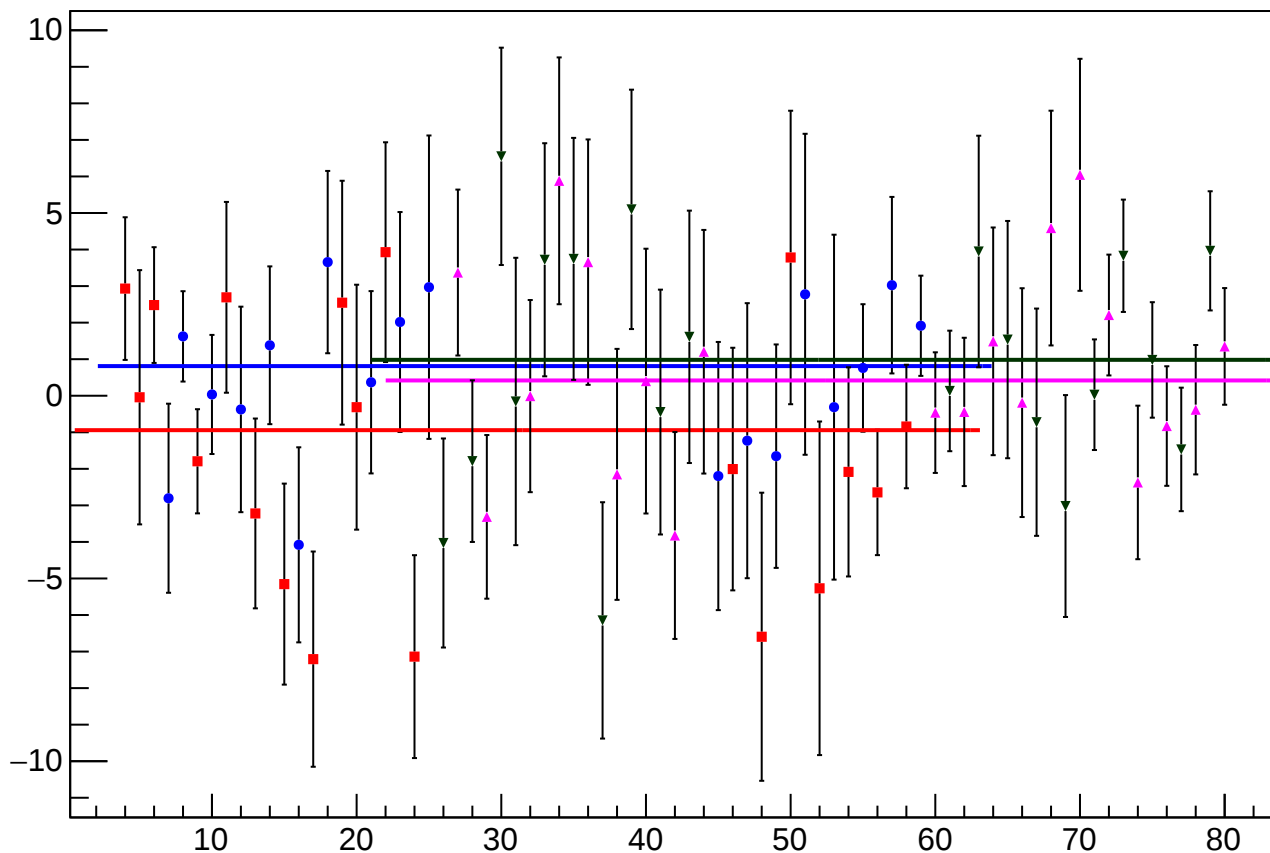
Right Out: 6006.736+/-1.348  $\chi^2/\text{NDF}$ : 130455.1/18

Left In: 5395.256+/-1.143  $\chi^2/\text{NDF}$ :184064.3/19

5704.857+/-0.872  $\chi^2/\text{NDF}$ : 512842.4/37

5651.102+/-0.872  $\chi^2/\text{NDF}$ : 434176.8/38

# diff\_bpm11Y\_mean vs slug



Right In:  $0.811 \pm 0.532$   $\chi^2/\text{NDF}$ : 11.3/17

Left Out:  $0.982 \pm 0.512$   $\chi^2/\text{NDF}$ : 28.8/19

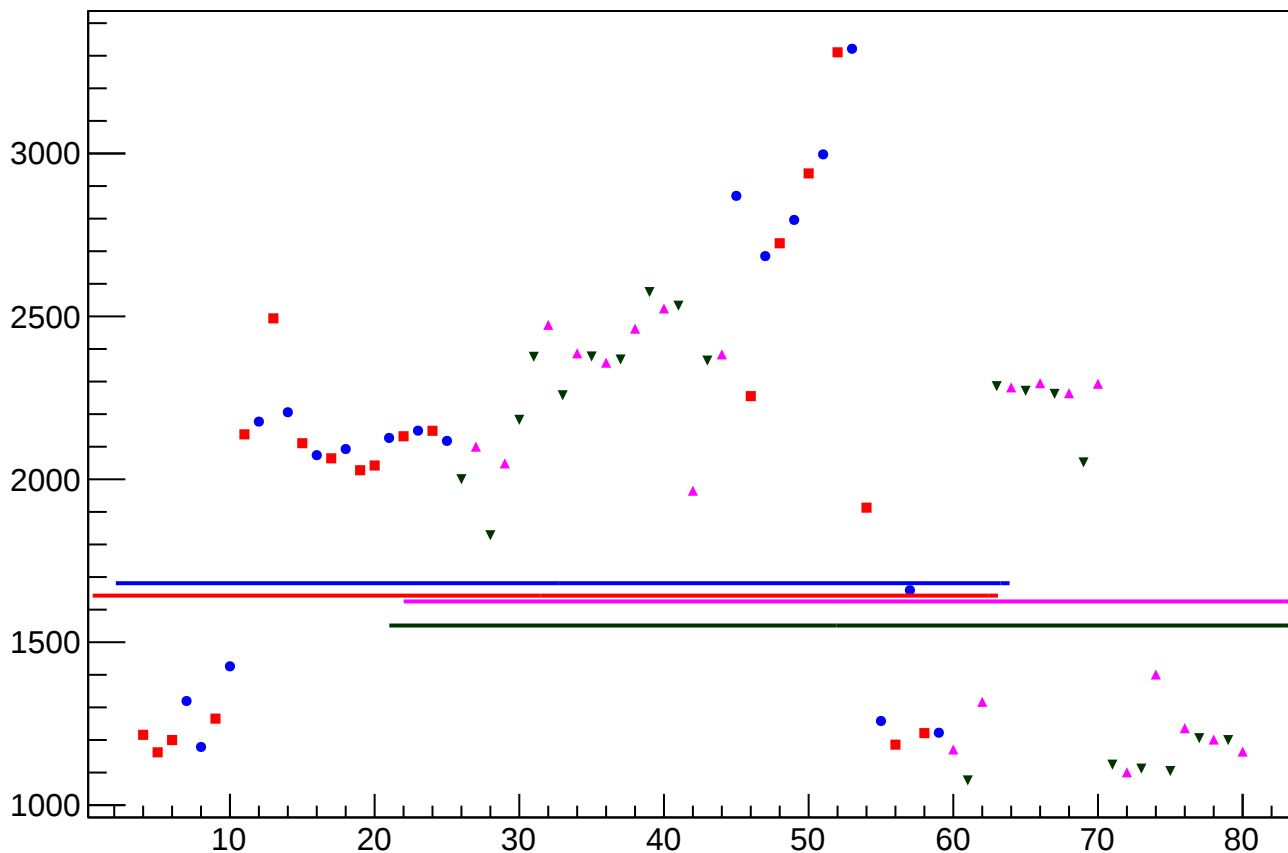
Right Out:  $-0.942 \pm 0.553$   $\chi^2/\text{NDF}$ : 32.9/18

Left In:  $0.418 \pm 0.514$   $\chi^2/\text{NDF}$ : 20.4/19

$0.900 \pm 0.369$   $\chi^2/\text{NDF}$ : 40.2/37

$-0.213 \pm 0.376$   $\chi^2/\text{NDF}$ : 56.6/38

diff\_bpm11Y\_rms vs slug



Right In: 1681.167 $\pm$ 0.376  $\chi^2$ /NDF: 2212913.1/17

Left Out: 1551.284 $\pm$ 0.362  $\chi^2$ /NDF: 2277222.8/19

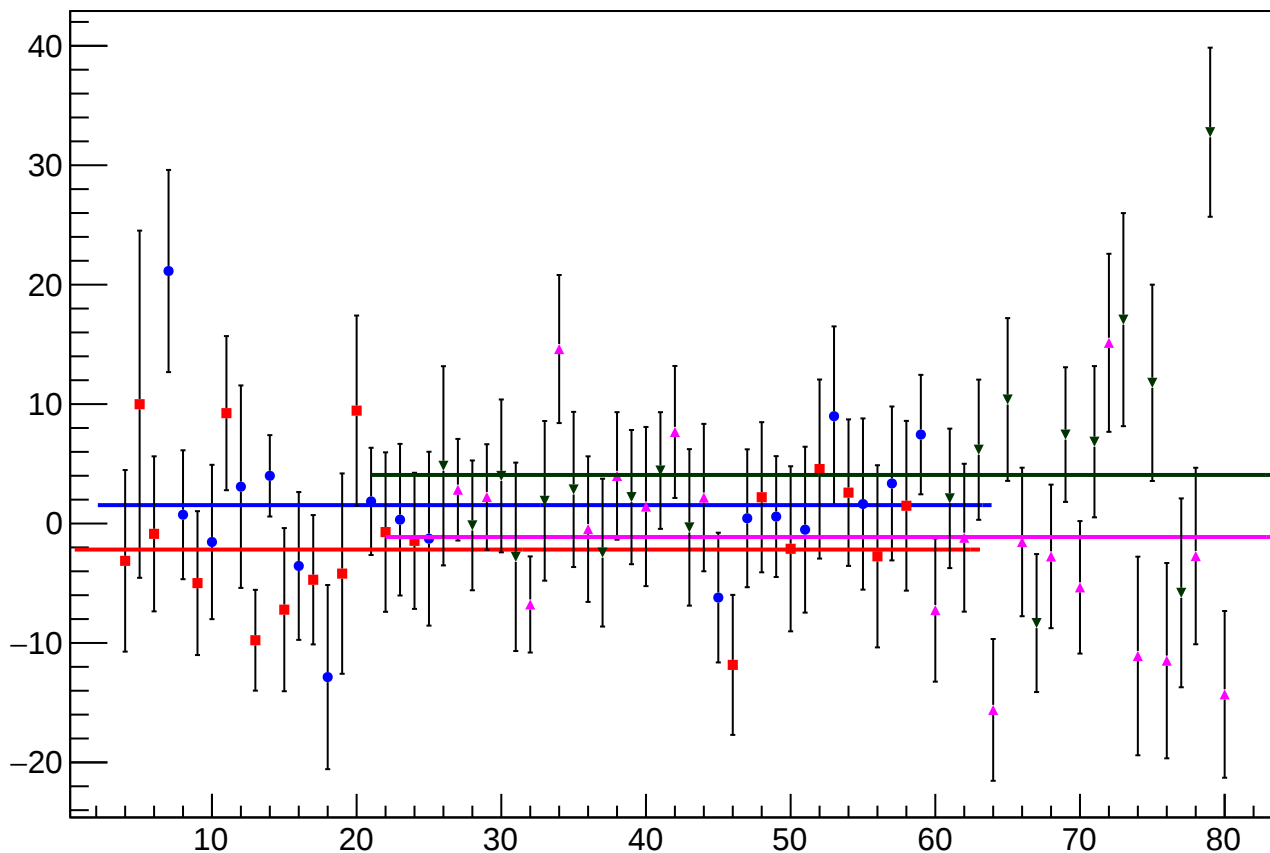
Right Out: 1643.071 $\pm$ 0.391  $\chi^2$ /NDF: 1969332.5/18

Left In: 1625.193 $\pm$ 0.364  $\chi^2$ /NDF: 2103806.4/19

1613.714 $\pm$ 0.261  $\chi^2$ /NDF: 4552037.7/37

1633.493 $\pm$ 0.266  $\chi^2$ /NDF: 4074260.6/38

# diff\_bpm12X\_mean vs slug



Right In:  $1.541 \pm 1.369$   $\chi^2/\text{NDF}$ : 15.2/17

Left Out:  $4.067 \pm 1.432$   $\chi^2/\text{NDF}$ : 30.4/19

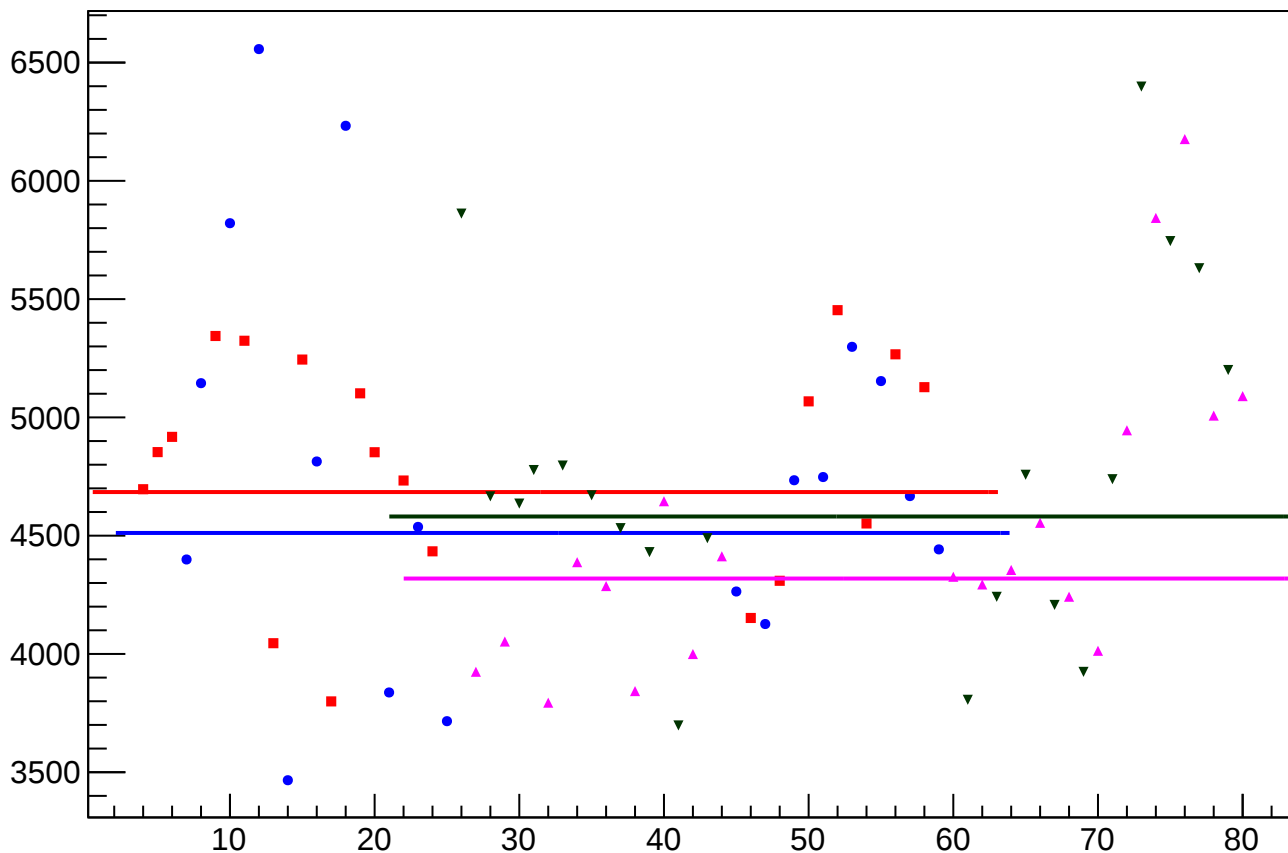
Right Out:  $-2.180 \pm 1.492$   $\chi^2/\text{NDF}$ : 15.2/18

Left In:  $-1.130 \pm 1.299$   $\chi^2/\text{NDF}$ : 32.8/19

$2.747 \pm 0.990$   $\chi^2/\text{NDF}$ : 47.2/37

$-1.583 \pm 0.980$   $\chi^2/\text{NDF}$ : 48.3/38

diff\_bpm12X\_rms vs slug



Right In: 4511.494 $\pm$ 0.968  $\chi^2$ /NDF: 646999.1/17

Left Out: 4581.060 $\pm$ 1.013  $\chi^2$ /NDF: 372559.4/19

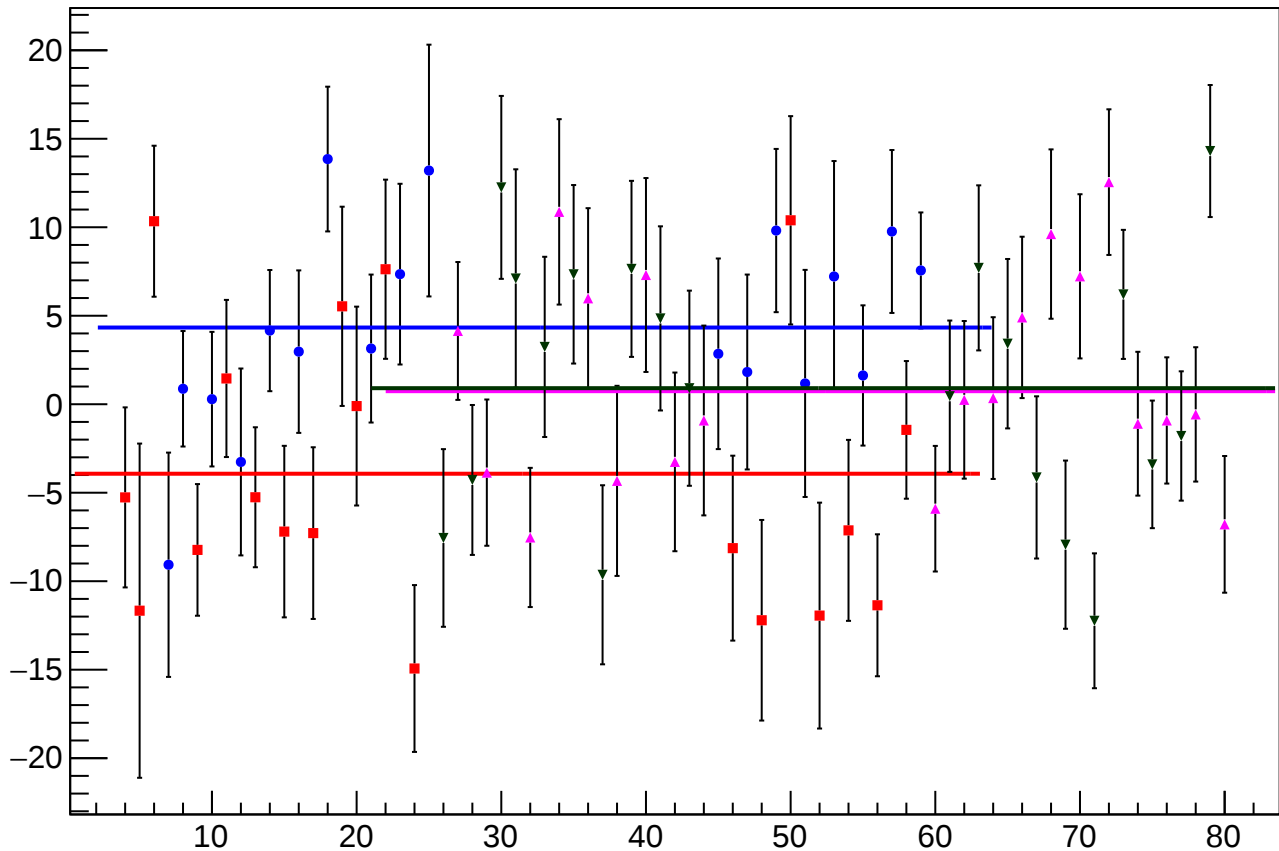
Right Out: 4684.391 $\pm$ 1.055  $\chi^2$ /NDF: 240230.9/18

Left In: 4318.784 $\pm$ 0.919  $\chi^2$ /NDF: 322390.7/19

4544.707 $\pm$ 0.700  $\chi^2$ /NDF: 1022023.4/37

4476.401 $\pm$ 0.693  $\chi^2$ /NDF: 630900.6/38

# diff\_bpm12Y\_mean vs slug



Right In:  $4.334 \pm 1.055$   $\chi^2/\text{NDF}$ : 21.3/17

Left Out:  $0.907 \pm 1.005$   $\chi^2/\text{NDF}$ : 54.7/19

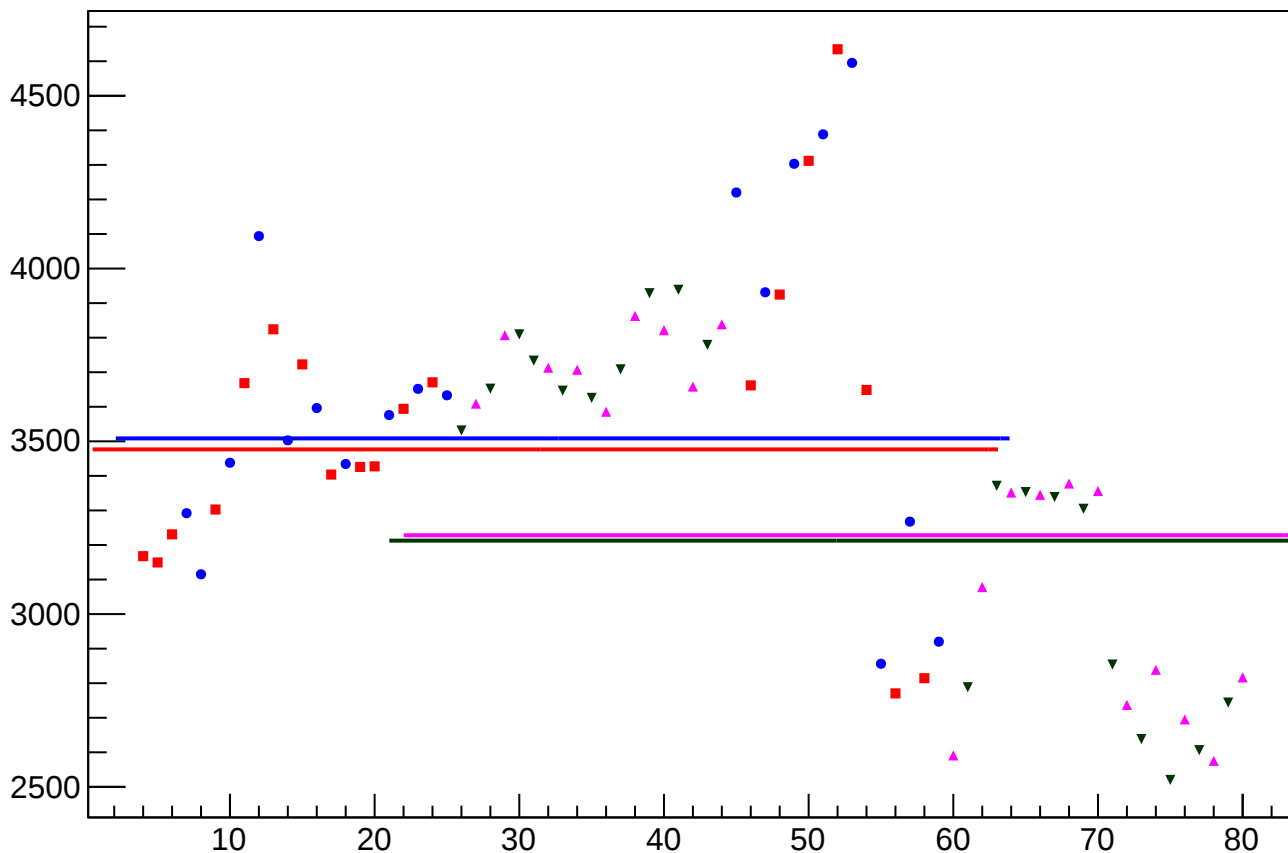
Right Out:  $-3.927 \pm 1.110$   $\chi^2/\text{NDF}$ : 44.2/18

Left In:  $0.738 \pm 0.973$   $\chi^2/\text{NDF}$ : 36.6/19

$2.537 \pm 0.728$   $\chi^2/\text{NDF}$ : 81.5/37

$-1.289 \pm 0.732$   $\chi^2/\text{NDF}$ : 90.8/38

diff\_bpm12Y\_rms vs slug



Right In: 3508.449 $\pm$ 0.746  $\chi^2$ /NDF: 384135.9/17

Left Out: 3212.583 $\pm$ 0.711  $\chi^2$ /NDF: 473052.9/19

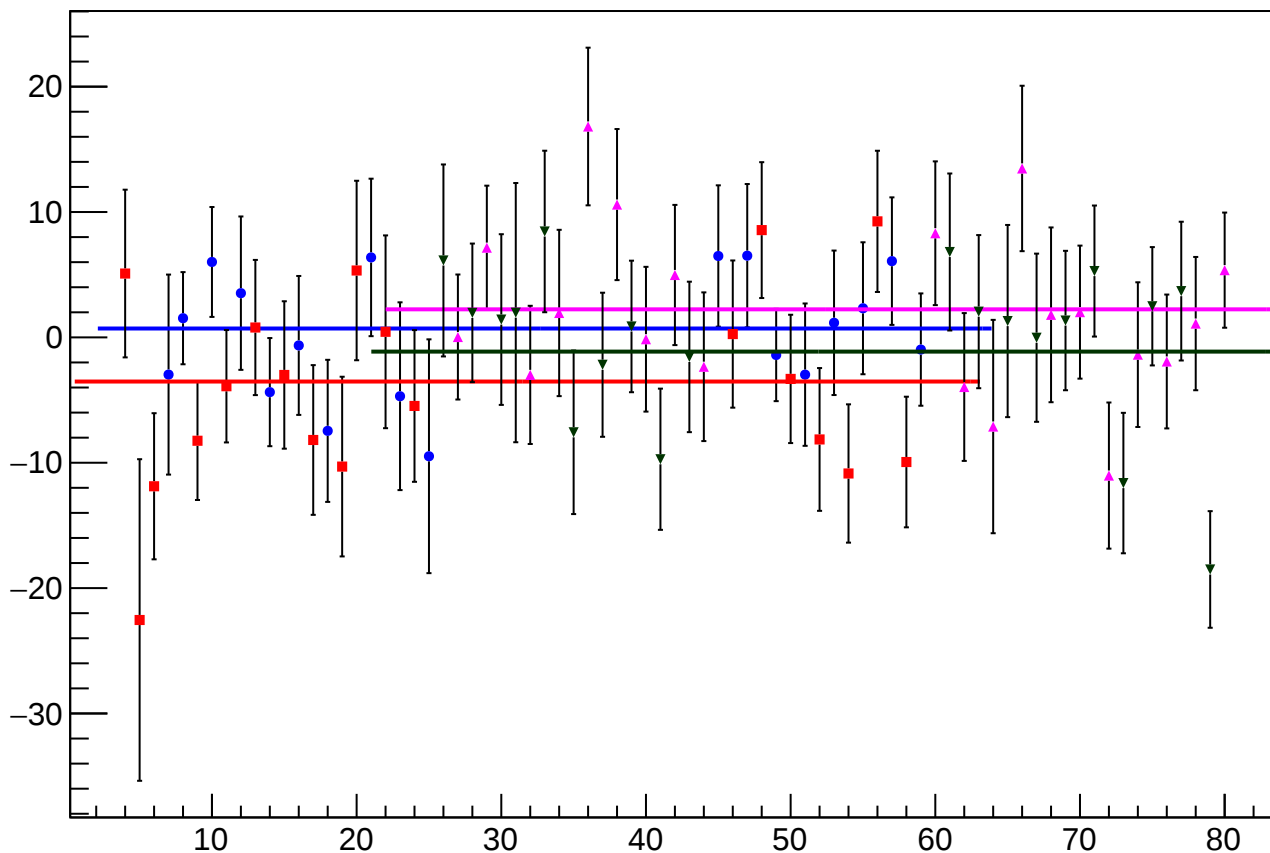
Right Out: 3476.662 $\pm$ 0.785  $\chi^2$ /NDF: 293750.8/18

Left In: 3228.177 $\pm$ 0.688  $\chi^2$ /NDF: 453606.0/19

3353.282 $\pm$ 0.515  $\chi^2$ /NDF: 939644.8/37

3336.134 $\pm$ 0.517  $\chi^2$ /NDF: 804052.9/38

# diff\_bpm16X\_mean vs slug



Right In:  $0.708 \pm 1.229$   $\chi^2/\text{NDF}$ : 12.2/17

Left Out:  $-1.135 \pm 1.324$   $\chi^2/\text{NDF}$ : 29.7/19

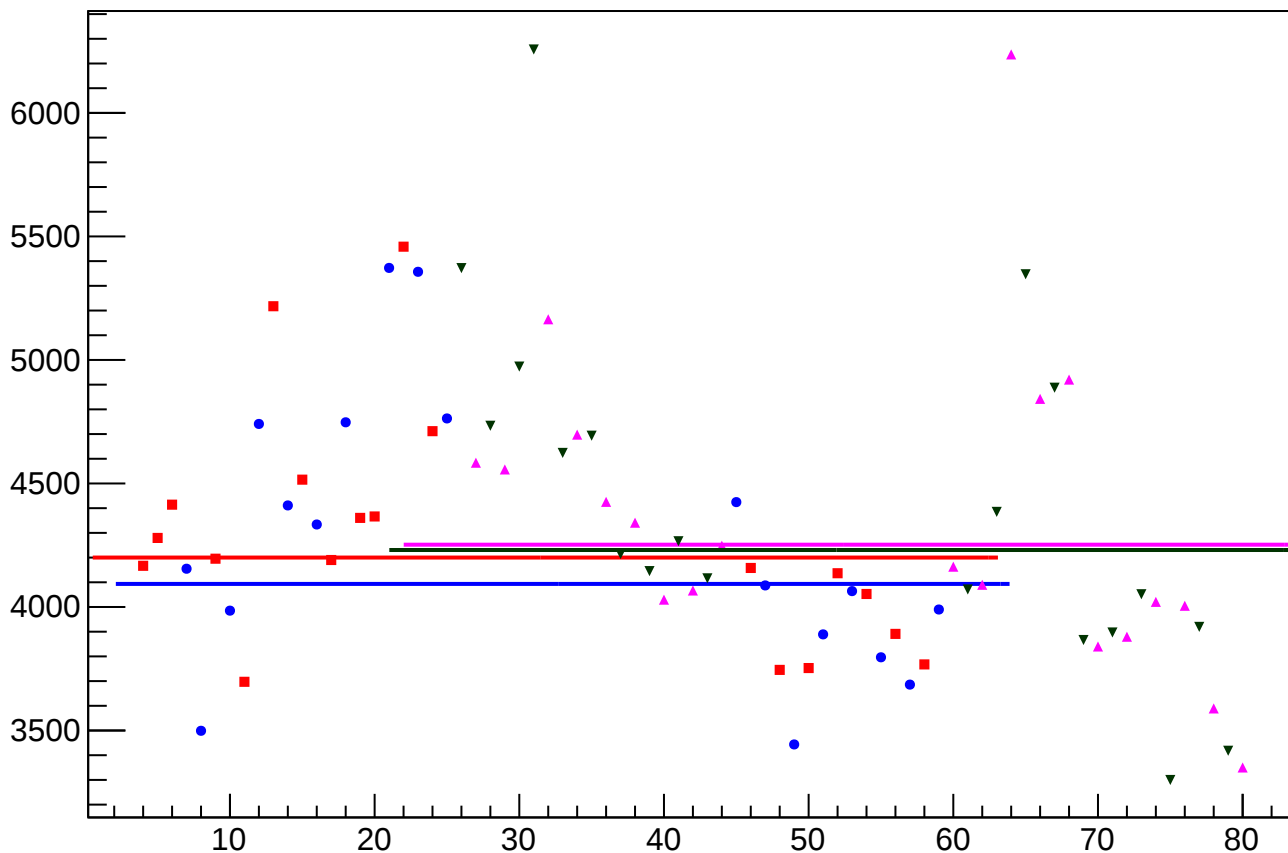
Right Out:  $-3.522 \pm 1.336$   $\chi^2/\text{NDF}$ : 25.4/18

Left In:  $2.237 \pm 1.281$   $\chi^2/\text{NDF}$ : 23.4/19

$-0.145 \pm 0.901$   $\chi^2/\text{NDF}$ : 42.9/37

$-0.522 \pm 0.925$   $\chi^2/\text{NDF}$ : 58.5/38

# diff\_bpm16X\_rms vs slug



Right In: 4093.382 $\pm$ 0.869  $\chi^2$ /NDF: 359698.6/17

Left Out: 4230.658 $\pm$ 0.936  $\chi^2$ /NDF: 408607.1/19

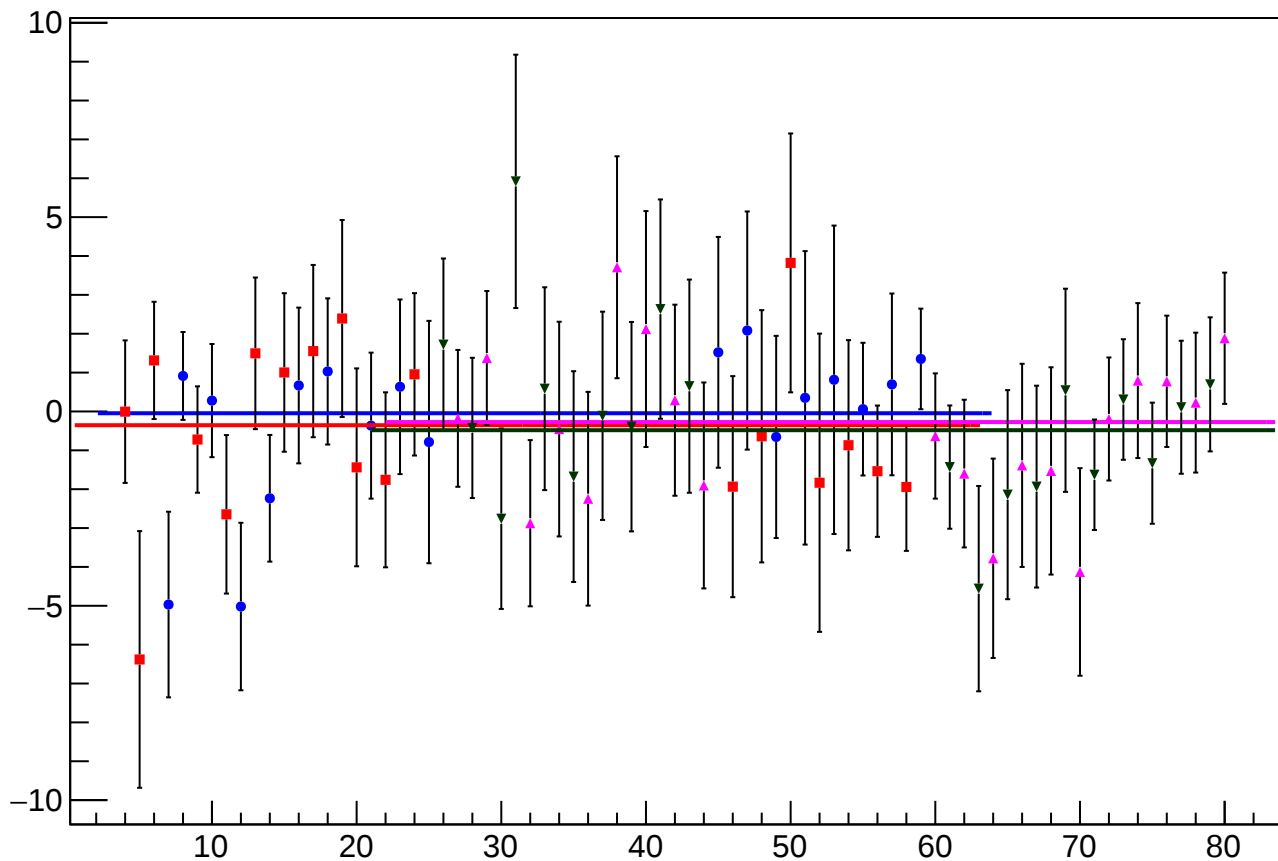
Right Out: 4200.125 $\pm$ 0.945  $\chi^2$ /NDF: 225858.3/18

Left In: 4252.184 $\pm$ 0.906  $\chi^2$ /NDF: 368520.1/19

4156.904 $\pm$ 0.637  $\chi^2$ /NDF: 779855.4/37

4227.247 $\pm$ 0.654  $\chi^2$ /NDF: 595960.6/38

# diff\_bpm16Y\_mean vs slug



Right In:  $-0.046 \pm 0.458$   $\chi^2/\text{NDF}: 14.9/17$

Left Out:  $-0.482 \pm 0.467$   $\chi^2/\text{NDF}: 13.0/19$

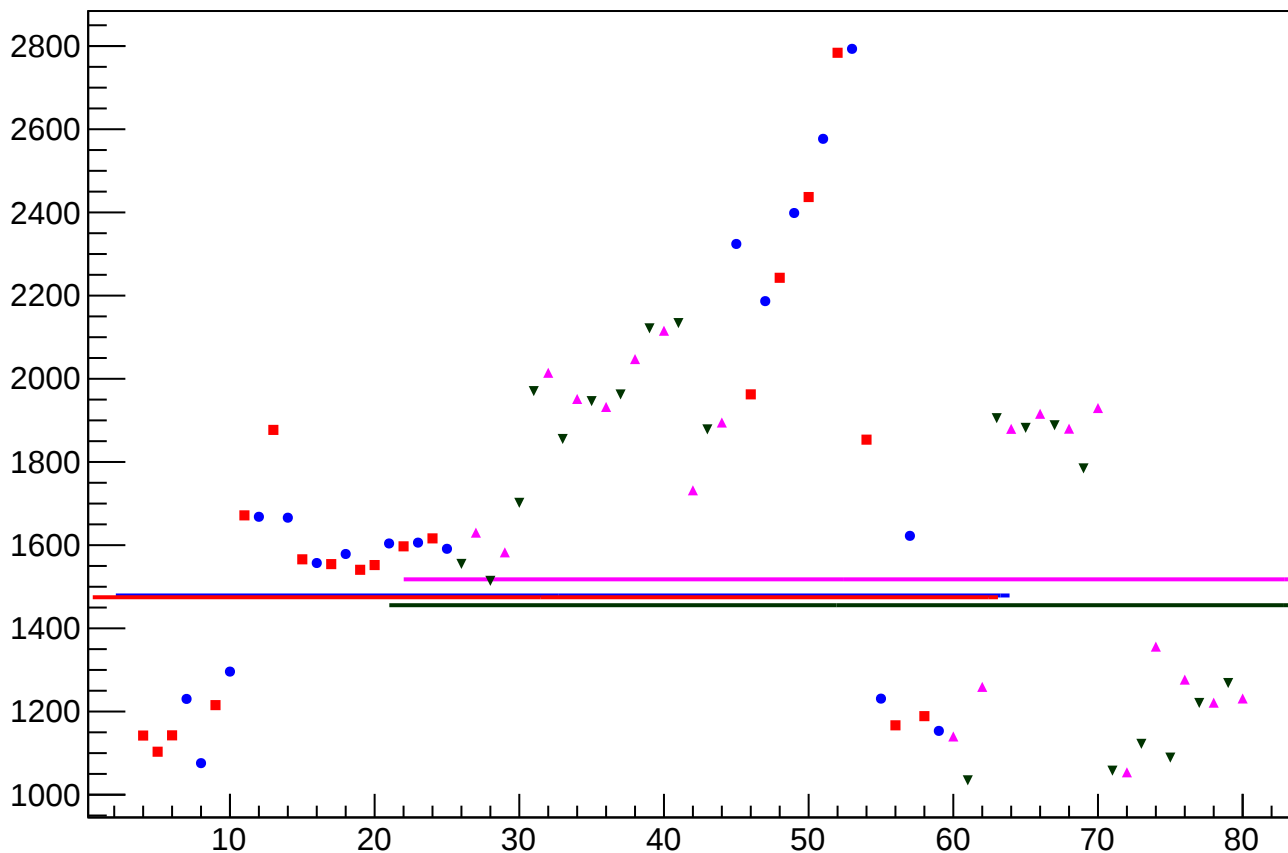
Right Out:  $-0.354 \pm 0.483$   $\chi^2/\text{NDF}: 13.6/18$

Left In:  $-0.273 \pm 0.467$   $\chi^2/\text{NDF}: 13.2/19$

$-0.260 \pm 0.327$   $\chi^2/\text{NDF}: 28.3/37$

$-0.312 \pm 0.336$   $\chi^2/\text{NDF}: 26.8/38$

# diff\_bpm16Y\_rms vs slug



Right In: 1479.014+/-0.324  $\chi^2/\text{NDF}$ : 1459343.9/17

Left Out: 1455.619+/-0.330  $\chi^2/\text{NDF}$ :1305032.4/19

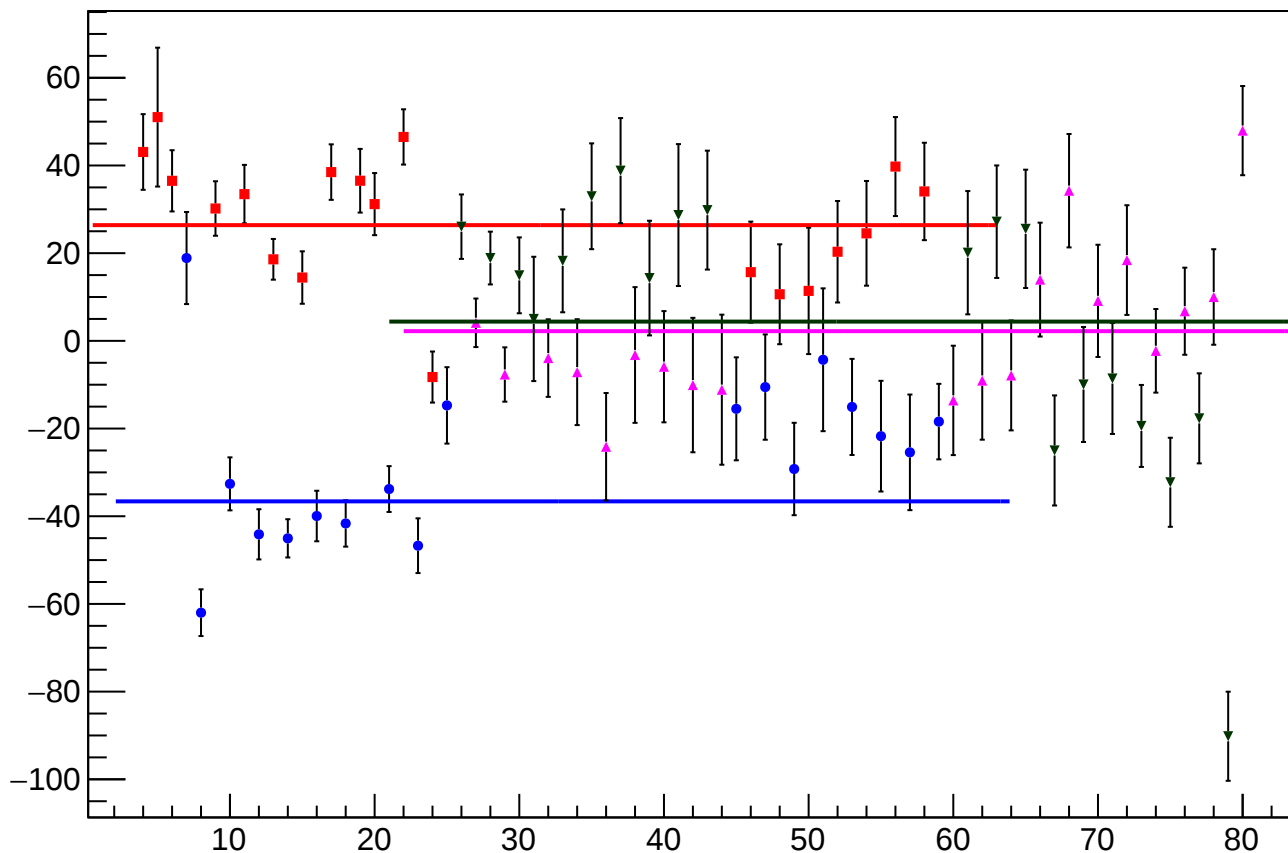
Right Out: 1474.750+/-0.342  $\chi^2/\text{NDF}$ : 1125200.2/18

Left In: 1517.814+/-0.330  $\chi^2/\text{NDF}$ :1070842.7/19

1467.540+/-0.231  $\chi^2/\text{NDF}$ : 2766932.9/37

1497.017+/-0.238  $\chi^2/\text{NDF}$ : 2204250.4/38

# diff\_bpm0l01X\_mean vs slug



Right In:  $-36.608 \pm 1.674$   $\chi^2/\text{NDF}$ : 89.8/17

Left Out:  $4.396 \pm 2.384$   $\chi^2/\text{NDF}$ : 162.9/19

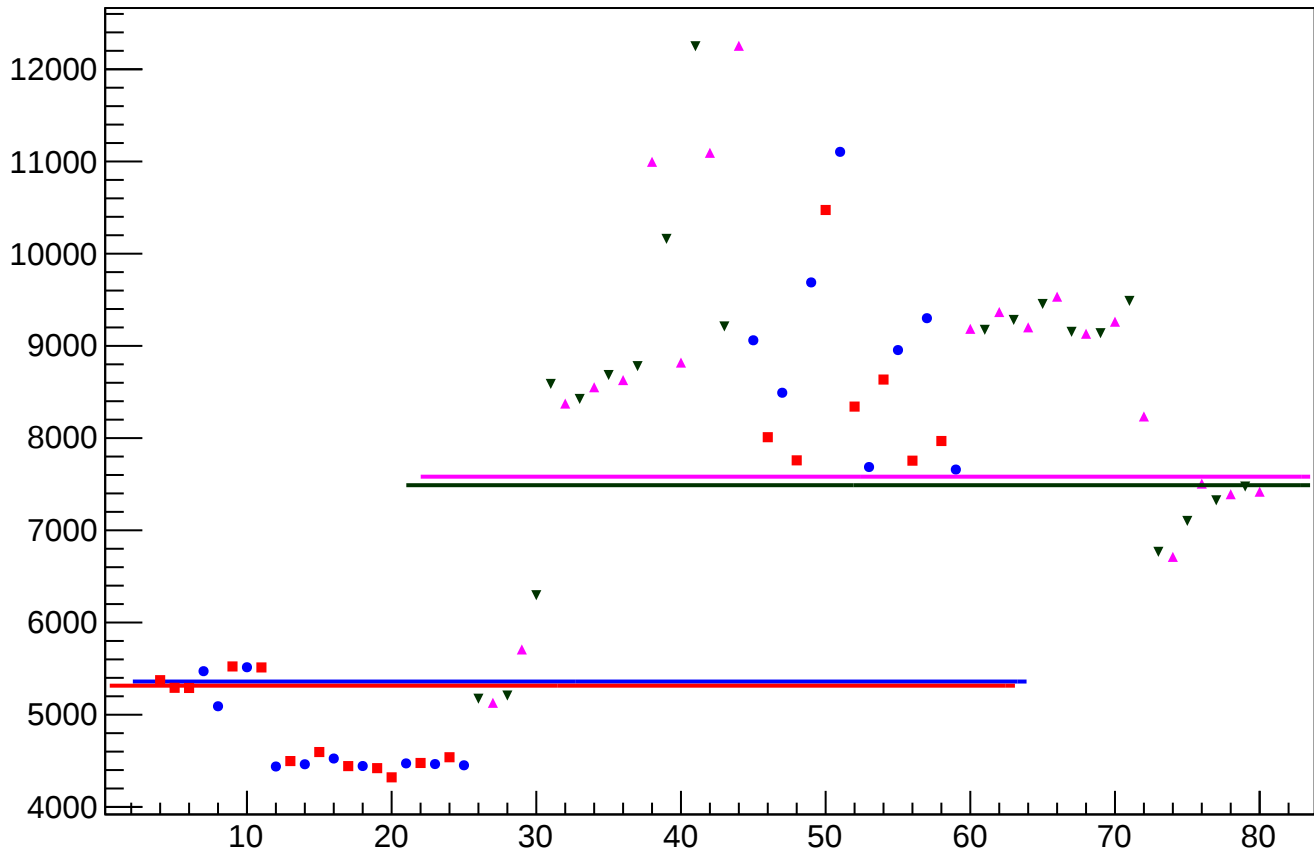
Right Out:  $26.394 \pm 1.742$   $\chi^2/\text{NDF}$ : 74.2/18

Left In:  $2.212 \pm 2.325$   $\chi^2/\text{NDF}$ : 43.2/19

$-23.068 \pm 1.370$   $\chi^2/\text{NDF}$ : 450.8/37

$17.701 \pm 1.394$   $\chi^2/\text{NDF}$ : 186.7/38

# diff\_bpm0l01X\_rms vs slug



Right In: 5359.964+/-1.184  $\chi^2/\text{NDF}$ : 1859958.8/17

Left Out: 7489.212+/-1.686  $\chi^2/\text{NDF}$ :1121814.3/19

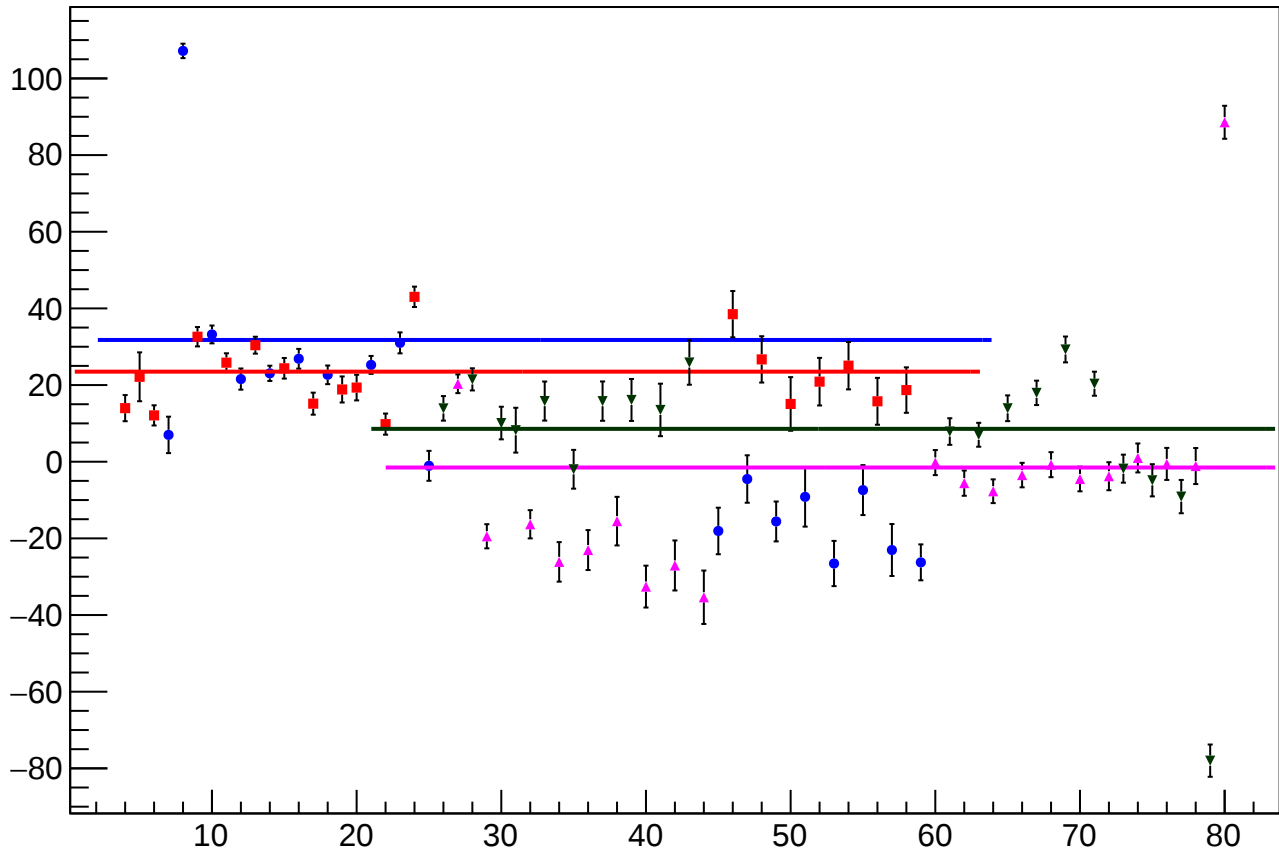
Right Out: 5315.062+/-1.232  $\chi^2/\text{NDF}$ : 1229938.4/18

Left In: 7581.627+/-1.644  $\chi^2/\text{NDF}$ :1222670.9/19

6063.070+/-0.969  $\chi^2/\text{NDF}$ : 4050232.8/37

6129.859+/-0.986  $\chi^2/\text{NDF}$ : 3669814.3/38

# diff\_bpm0l01Y\_mean vs slug



Right In: 31.767 $\pm$ 0.741  $\chi^2$ /NDF: 2323.1/17

22.090 $\pm$ 0.566  $\chi^2$ /NDF: 3295.5/37

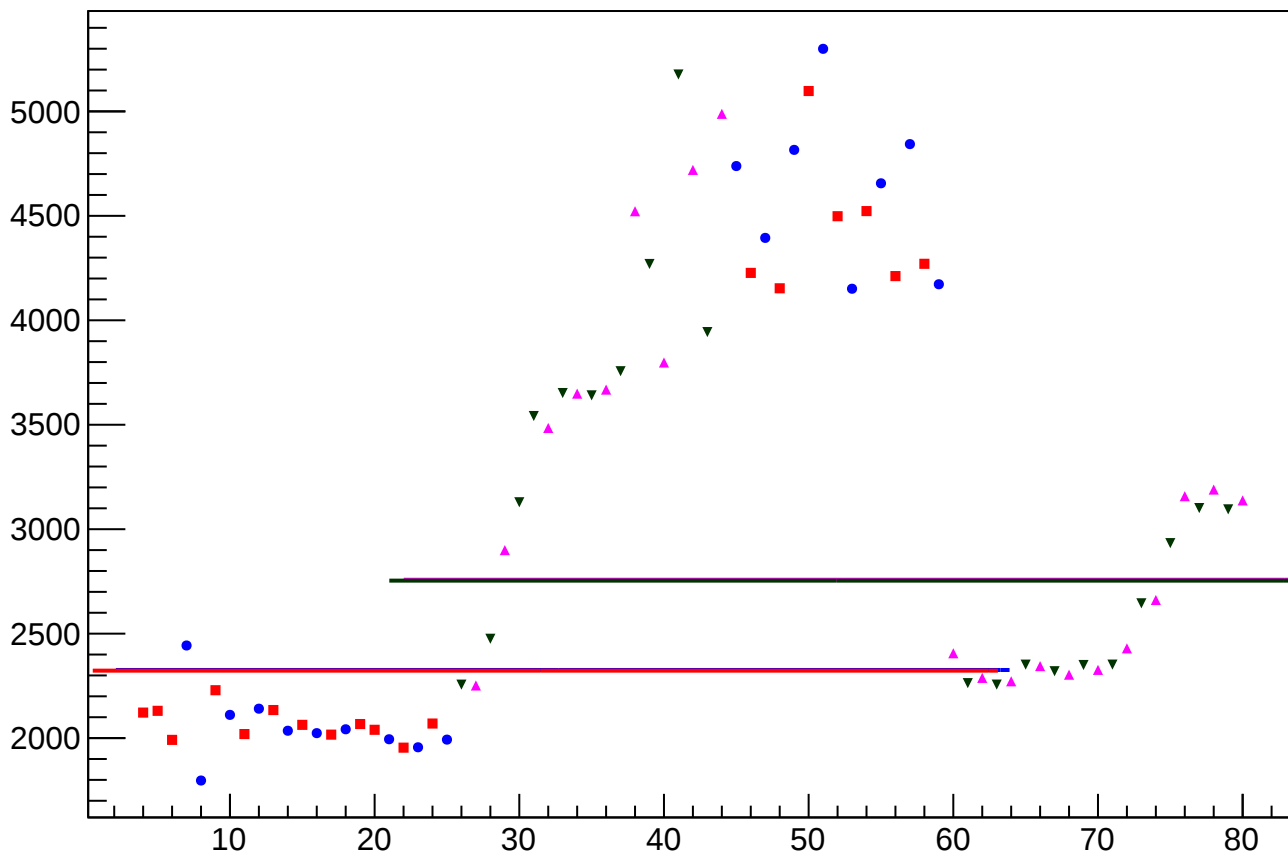
Left Out: 8.574 $\pm$ 0.876  $\chi^2$ /NDF: 563.4/19

Right Out: 23.500 $\pm$ 0.773  $\chi^2$ /NDF: 151.3/18

12.114 $\pm$ 0.570  $\chi^2$ /NDF: 1319.5/38

Left In: -1.509 $\pm$ 0.845  $\chi^2$ /NDF: 691.3/19

diff\_bpm0l01Y\_rms vs slug



Right In: 2326.082 $\pm$ 0.524  $\chi^2$ /NDF: 2696546.0/17

Left Out: 2753.830 $\pm$ 0.619  $\chi^2$ /NDF:1055620.9/19

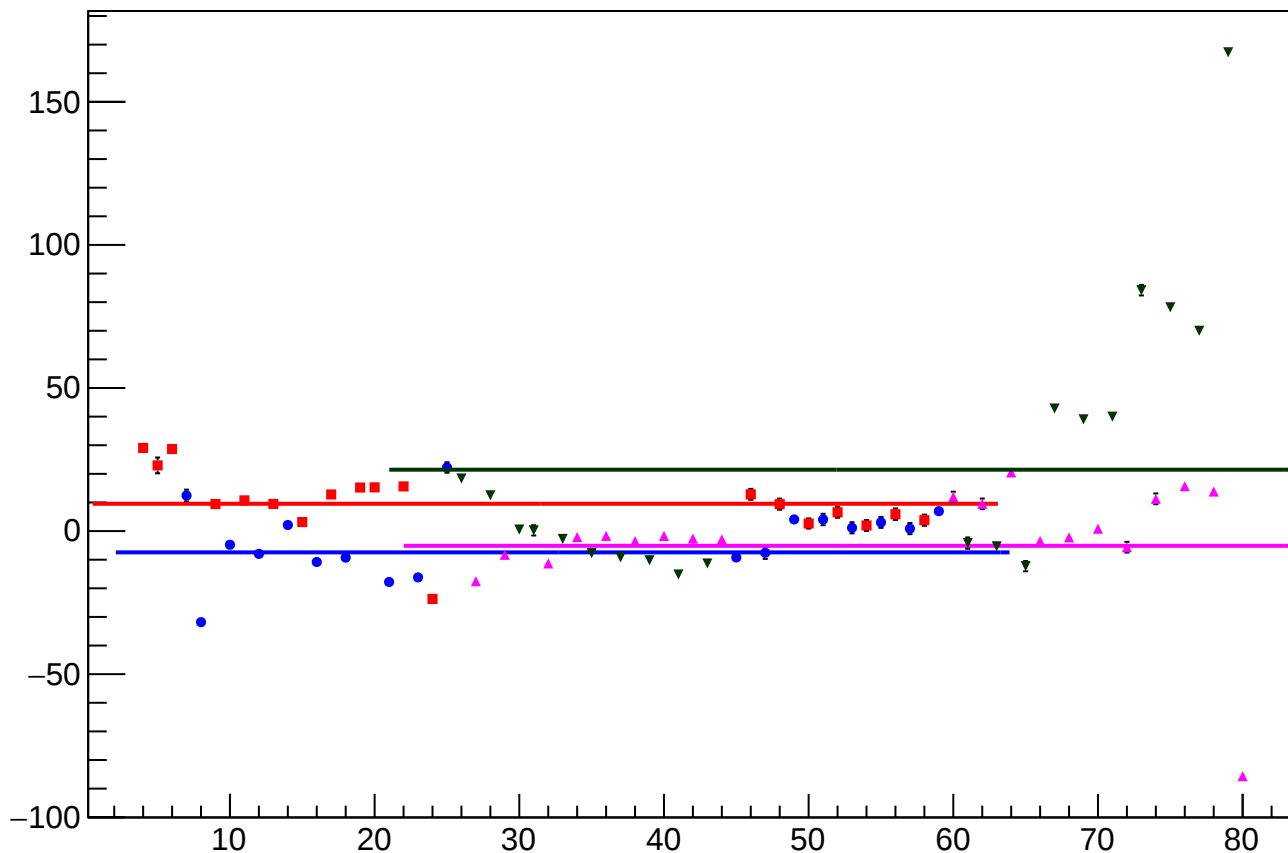
Right Out: 2322.918 $\pm$ 0.546  $\chi^2$ /NDF: 1810759.5/18

Left In: 2758.114 $\pm$ 0.598  $\chi^2$ /NDF:1191817.5/19

2504.560 $\pm$ 0.400  $\chi^2$ /NDF: 4030376.4/37

2521.039 $\pm$ 0.403  $\chi^2$ /NDF: 3291459.3/38

# diff\_bpm2i01X\_mean vs slug



Right In:  $-7.442 \pm 0.310$   $\chi^2/\text{NDF}: 1753.9/17$

Left Out:  $21.453 \pm 0.347$   $\chi^2/\text{NDF}: 15757.2/19$

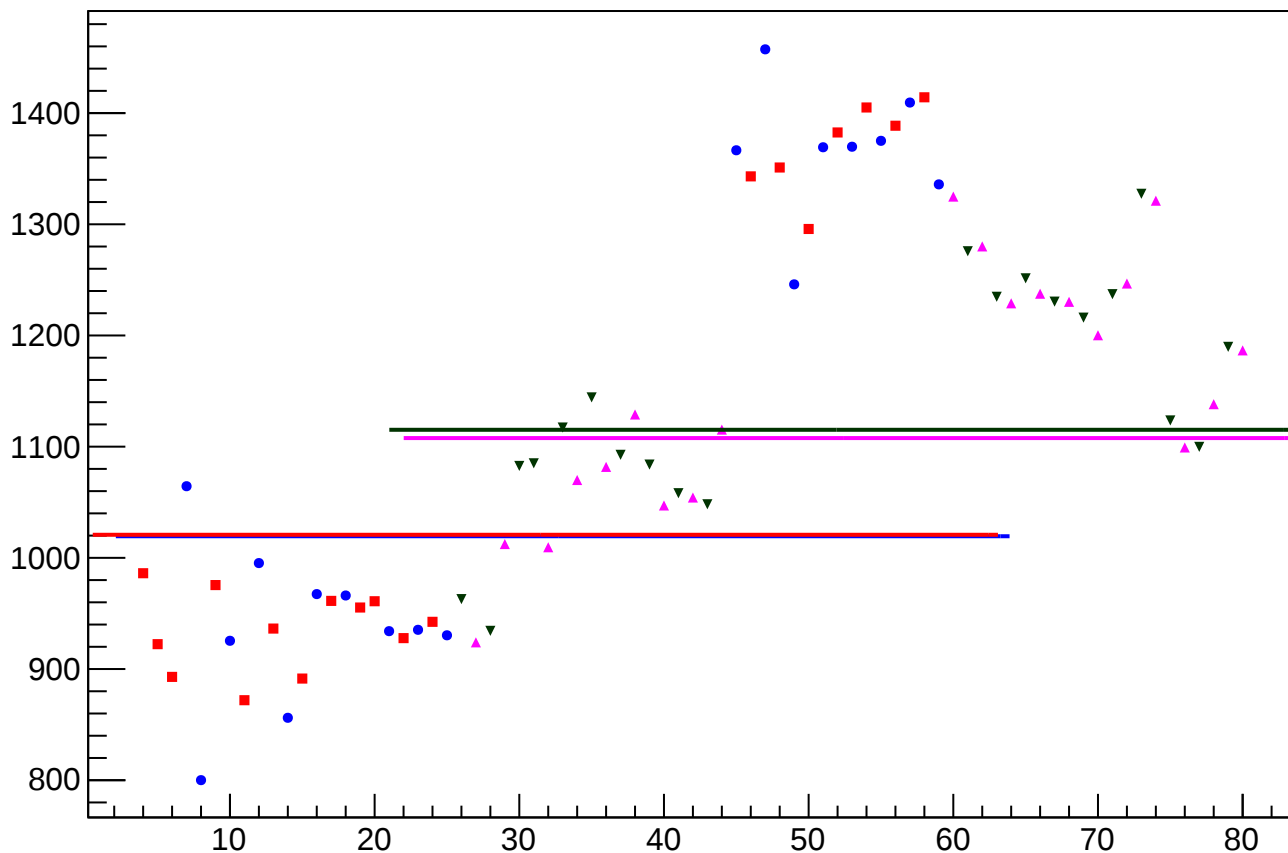
Right Out:  $9.540 \pm 0.328$   $\chi^2/\text{NDF}: 1327.8/18$

Left In:  $-5.152 \pm 0.332$   $\chi^2/\text{NDF}: 3470.4/19$

$5.396 \pm 0.231$   $\chi^2/\text{NDF}: 21372.7/37$

$2.294 \pm 0.233$   $\chi^2/\text{NDF}: 5789.9/38$

# diff\_bpm2i01X\_rms vs slug



Right In: 1019.424+/-0.219  $\chi^2/\text{NDF}$ : 852878.1/17

Left Out: 1115.170+/-0.245  $\chi^2/\text{NDF}$ : 184361.4/19

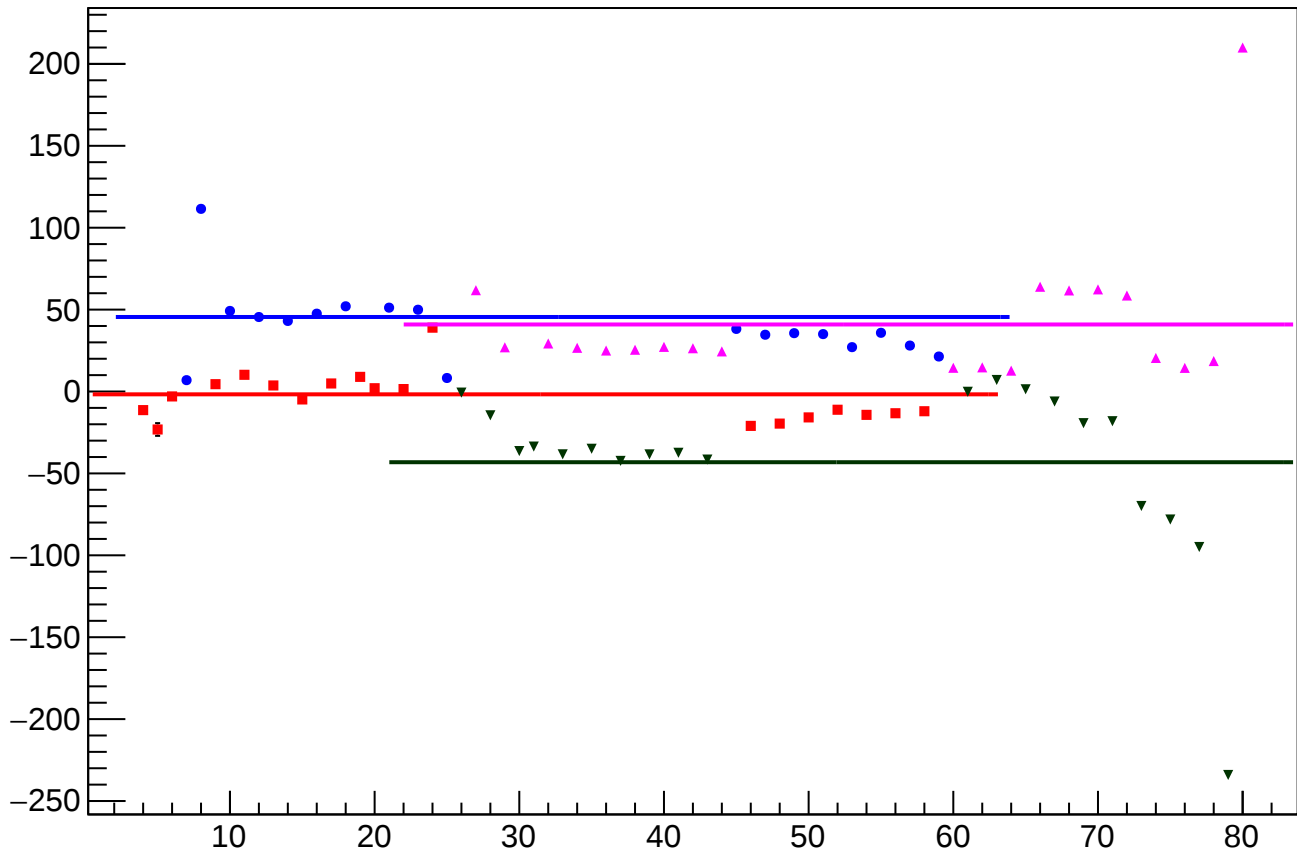
Right Out: 1020.749+/-0.232  $\chi^2/\text{NDF}$ : 605072.5/18

Left In: 1107.721+/-0.235  $\chi^2/\text{NDF}$ : 234812.7/19

1061.963+/-0.163  $\chi^2/\text{NDF}$ : 1122041.2/37

1063.644+/-0.165  $\chi^2/\text{NDF}$ : 909399.6/38

# diff\_bpm2i01Y\_mean vs slug



Right In: 45.496+/-0.408     $\chi^2/\text{NDF}$ : 3402.2/17

Left Out: -43.166+/-0.395     $\chi^2/\text{NDF}$ : 17145.4/19

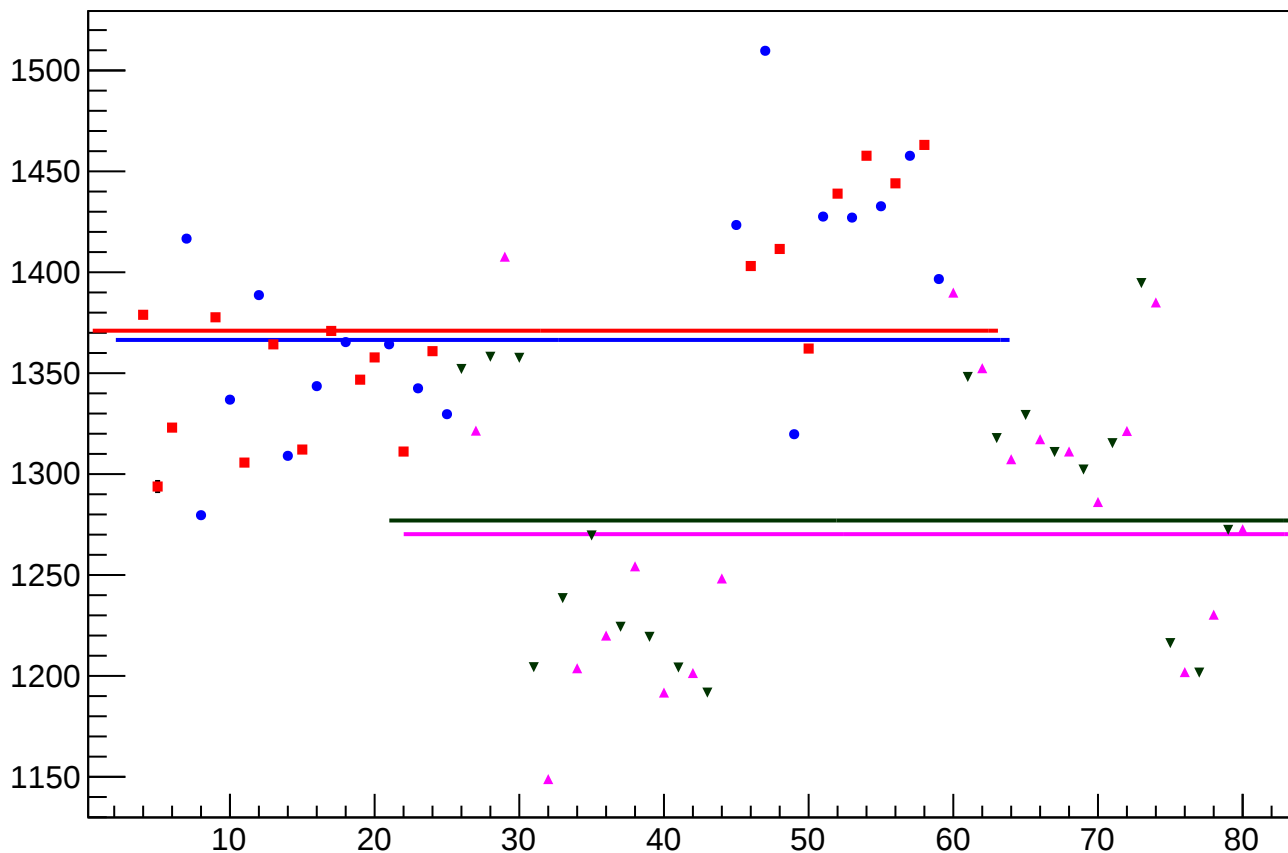
Right Out: -1.724+/-0.434     $\chi^2/\text{NDF}$ : 1071.7/18

Left In: 40.924+/-0.379     $\chi^2/\text{NDF}$ : 11901.3/19

-0.210+/-0.284     $\chi^2/\text{NDF}$ : 44898.5/37

22.455+/-0.286     $\chi^2/\text{NDF}$ : 18449.3/38

# diff\_bpm2i01Y\_rms vs slug



Right In: 1366.474 $\pm$ 0.288  $\chi^2$ /NDF: 38633.0/17

Left Out: 1277.006 $\pm$ 0.280  $\chi^2$ /NDF: 50452.1/19

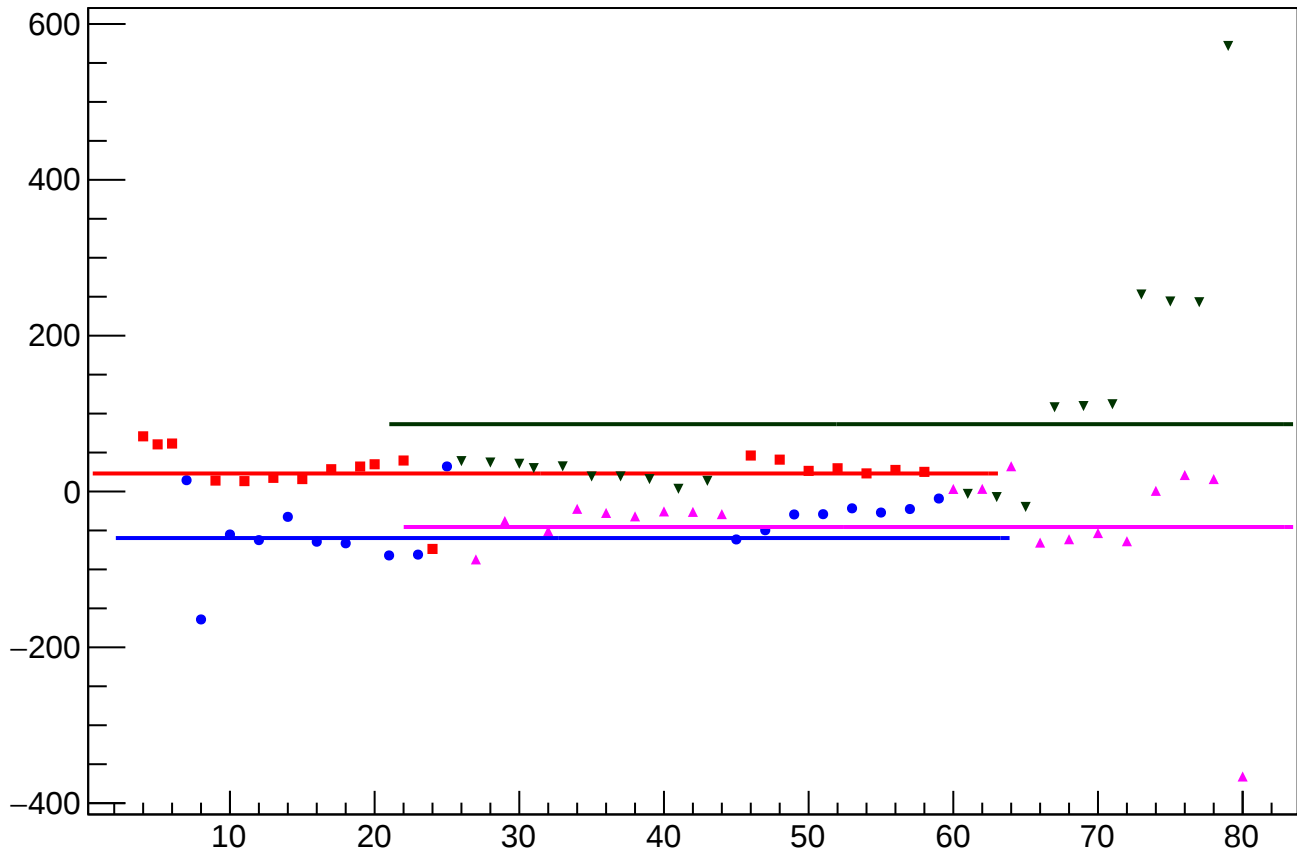
Right Out: 1371.055 $\pm$ 0.307  $\chi^2$ /NDF: 24860.5/18

Left In: 1270.236 $\pm$ 0.268  $\chi^2$ /NDF: 79358.9/19

1320.353 $\pm$ 0.201  $\chi^2$ /NDF: 138675.7/37

1313.896 $\pm$ 0.202  $\chi^2$ /NDF: 165426.2/38

# diff\_bpm2i02X\_mean vs slug



Right In:  $-59.738 \pm 0.343$   $\chi^2/\text{NDF}: 18760.8/17$

Left Out:  $86.404 \pm 0.361$   $\chi^2/\text{NDF}: 136324.5/19$

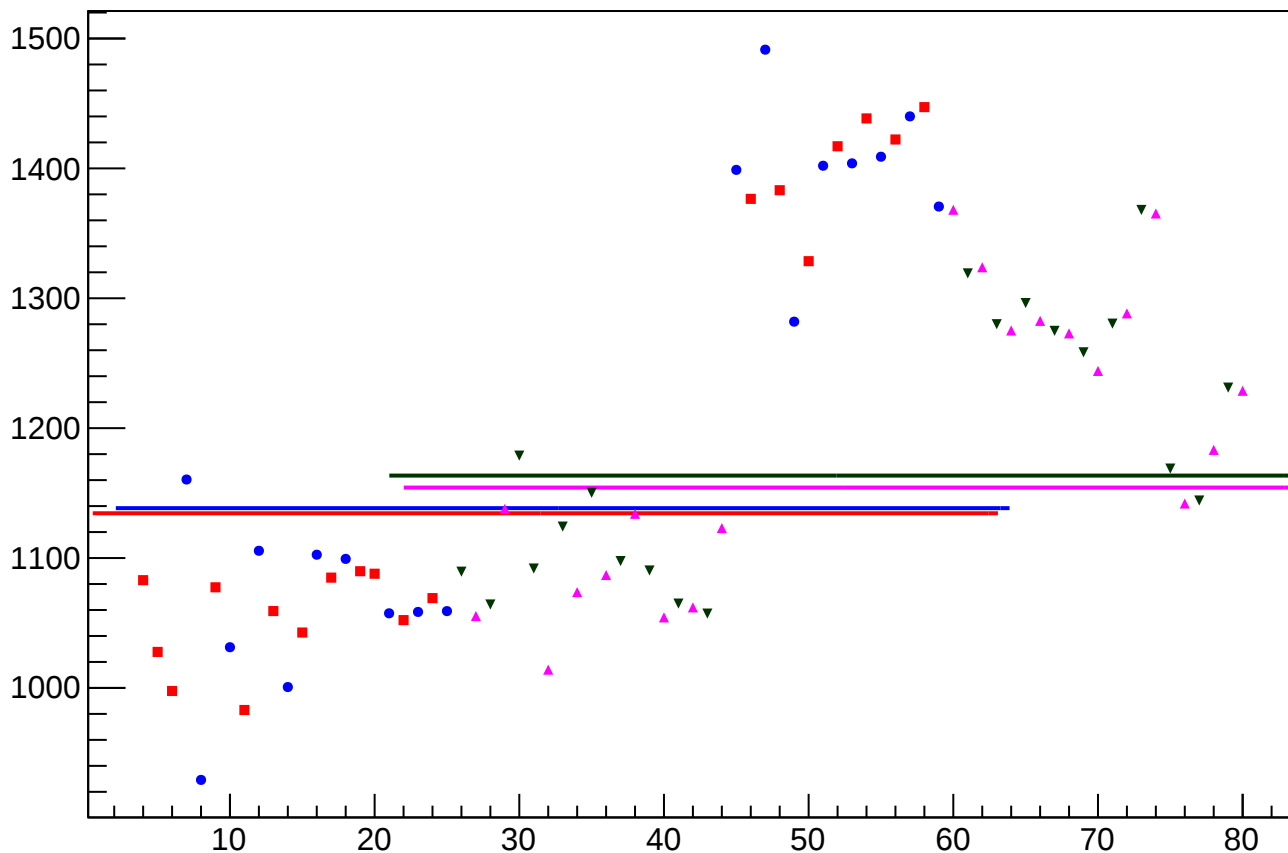
Right Out:  $23.126 \pm 0.362$   $\chi^2/\text{NDF}: 7355.2/18$

Left In:  $-45.565 \pm 0.346$   $\chi^2/\text{NDF}: 45775.0/19$

$9.605 \pm 0.249$   $\chi^2/\text{NDF}: 241150.7/37$

$-12.785 \pm 0.250$   $\chi^2/\text{NDF}: 71974.5/38$

# diff\_bpm2i02X\_rms vs slug



Right In: 1138.411 $\pm$ 0.243  $\chi^2$ /NDF: 488075.7/17

Left Out: 1163.488 $\pm$ 0.255  $\chi^2$ /NDF:131734.3/19

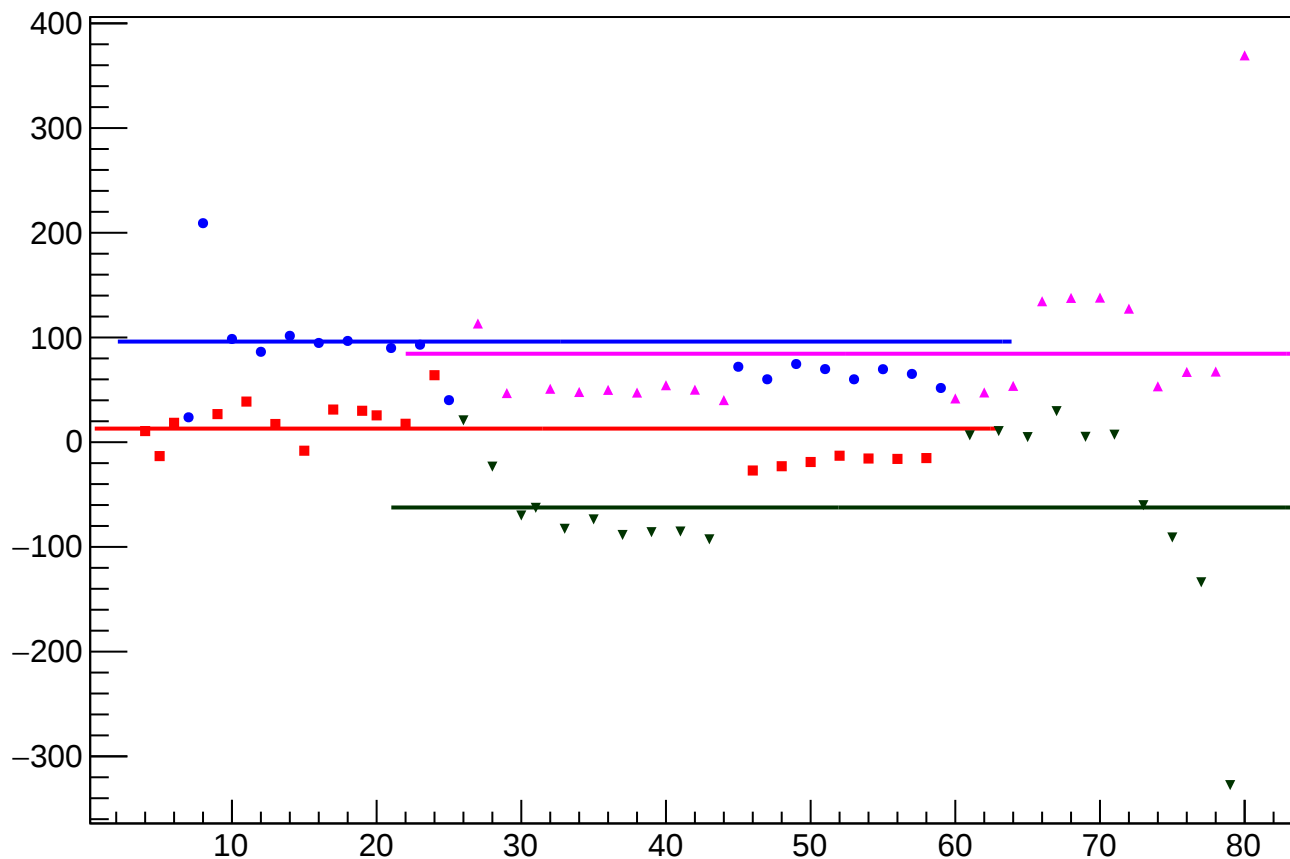
Right Out: 1134.479 $\pm$ 0.256  $\chi^2$ /NDF: 360721.2/18

Left In: 1154.267 $\pm$ 0.244  $\chi^2$ /NDF:191377.3/19

1150.310 $\pm$ 0.176  $\chi^2$ /NDF: 624878.1/37

1144.824 $\pm$ 0.177  $\chi^2$ /NDF: 555226.2/38

# diff\_bpm2i02Y\_mean vs slug



Right In: 96.096+/-0.343  $\chi^2/\text{NDF}$ : 17116.6/17

Left Out: -62.342+/-0.355  $\chi^2/\text{NDF}$ : 46479.6/19

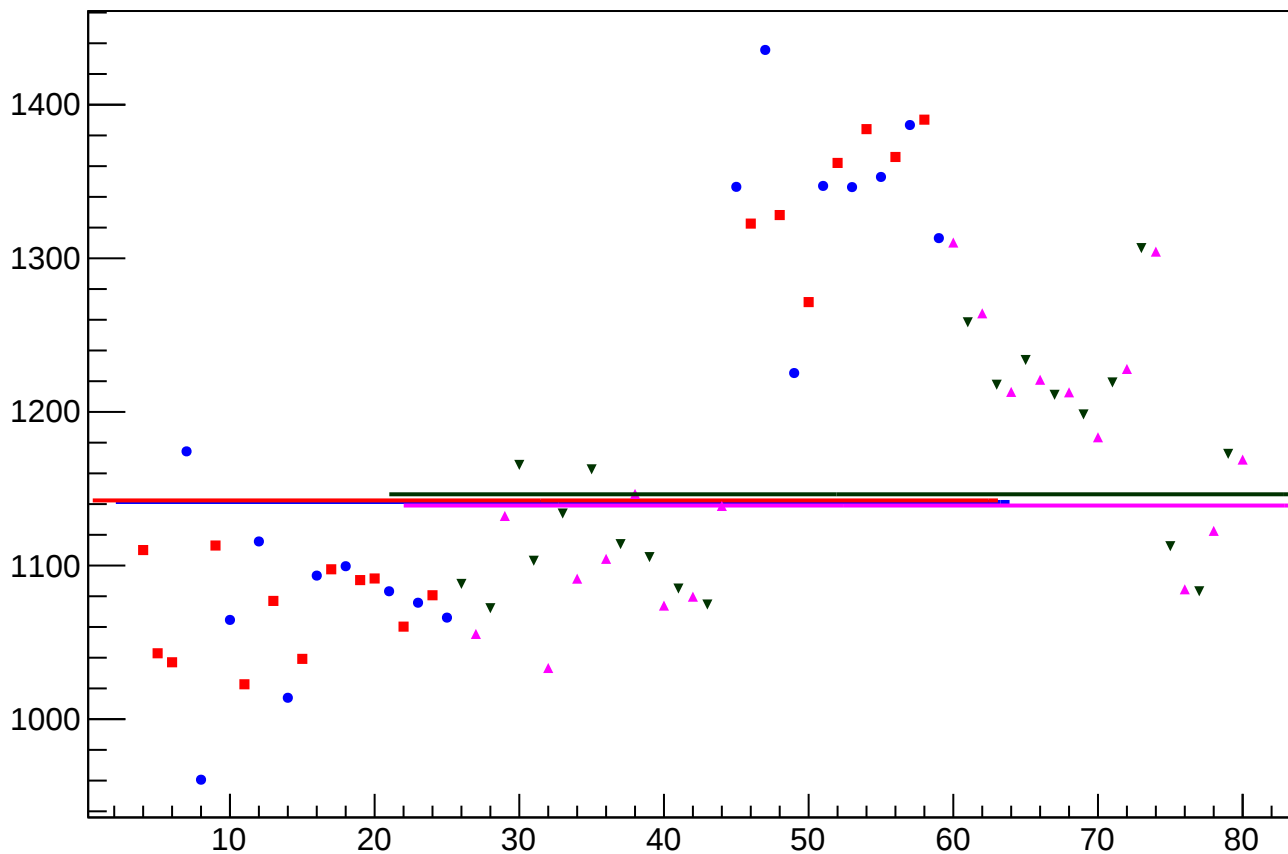
Right Out: 12.992+/-0.363  $\chi^2/\text{NDF}$ : 4541.3/18

Left In: 84.480+/-0.340  $\chi^2/\text{NDF}$ : 42645.7/19

19.682+/-0.247  $\chi^2/\text{NDF}$ : 166575.4/37

51.055+/-0.248  $\chi^2/\text{NDF}$ : 67807.4/38

diff\_bpm2i02Y\_rms vs slug



Right In: 1141.379 $\pm$ 0.242  $\chi^2$ /NDF: 329306.4/17

Left Out: 1146.381 $\pm$ 0.251  $\chi^2$ /NDF:66913.1/19

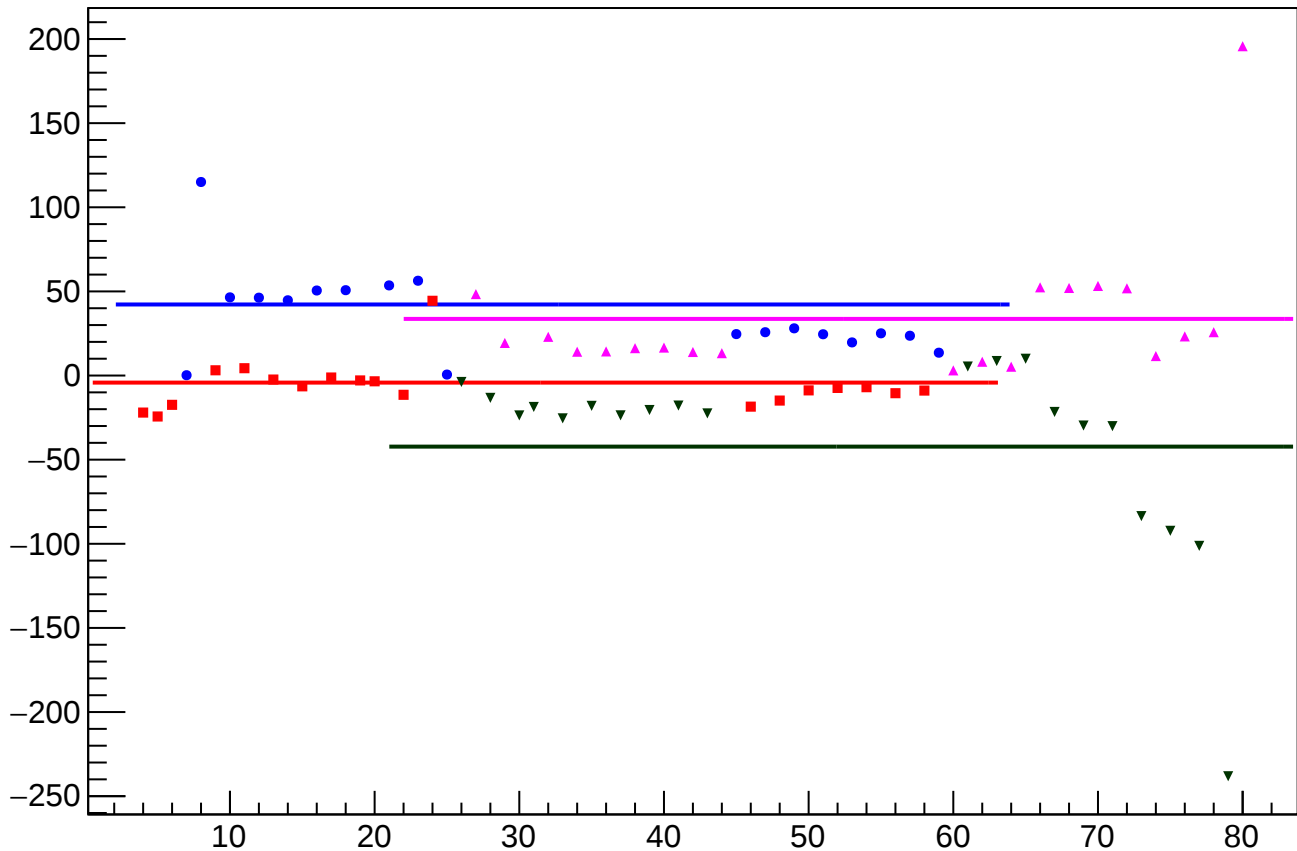
Right Out: 1142.390 $\pm$ 0.257  $\chi^2$ /NDF: 236212.3/18

Left In: 1139.066 $\pm$ 0.241  $\chi^2$ /NDF:105381.7/19

1143.792 $\pm$ 0.174  $\chi^2$ /NDF: 396424.7/37

1140.620 $\pm$ 0.176  $\chi^2$ /NDF: 341683.1/38

# diff\_bpm1i04X\_mean vs slug



Right In: 42.233+/-0.231  $\chi^2/\text{NDF}$ : 14293.4/17

Left Out: -42.245+/-0.224  $\chi^2/\text{NDF}$ : 67685.0/19

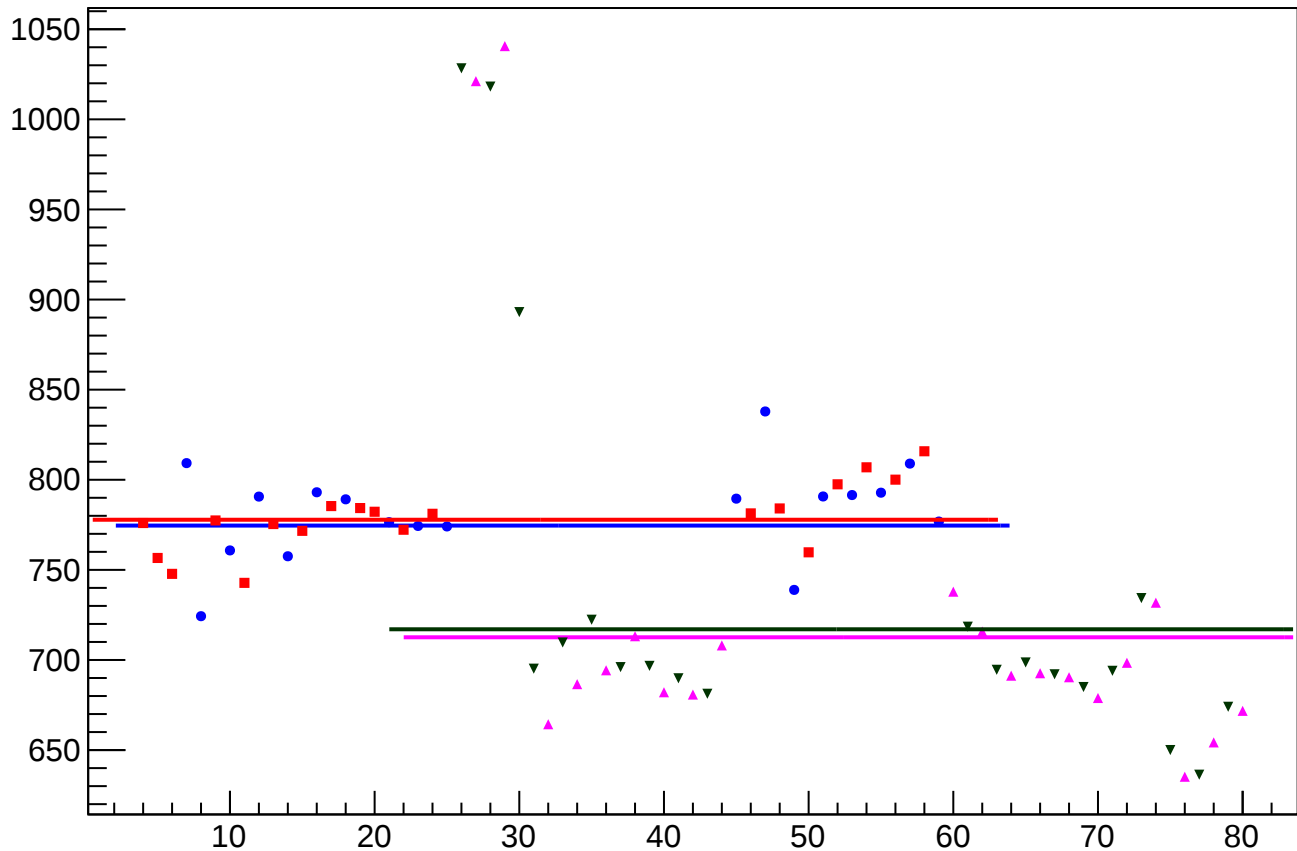
Right Out: -4.198+/-0.246  $\chi^2/\text{NDF}$ : 3378.3/18

Left In: 33.663+/-0.214  $\chi^2/\text{NDF}$ : 38350.0/19

-1.372+/-0.161  $\chi^2/\text{NDF}$ : 151077.3/37

17.326+/-0.161  $\chi^2/\text{NDF}$ : 55218.8/38

# diff\_bpm1i04X\_rms vs slug



Right In:  $774.583 \pm 0.163$   $\chi^2/\text{NDF}$ : 26360.5/17

Left Out:  $717.035 \pm 0.158$   $\chi^2/\text{NDF}$ : 308061.5/19

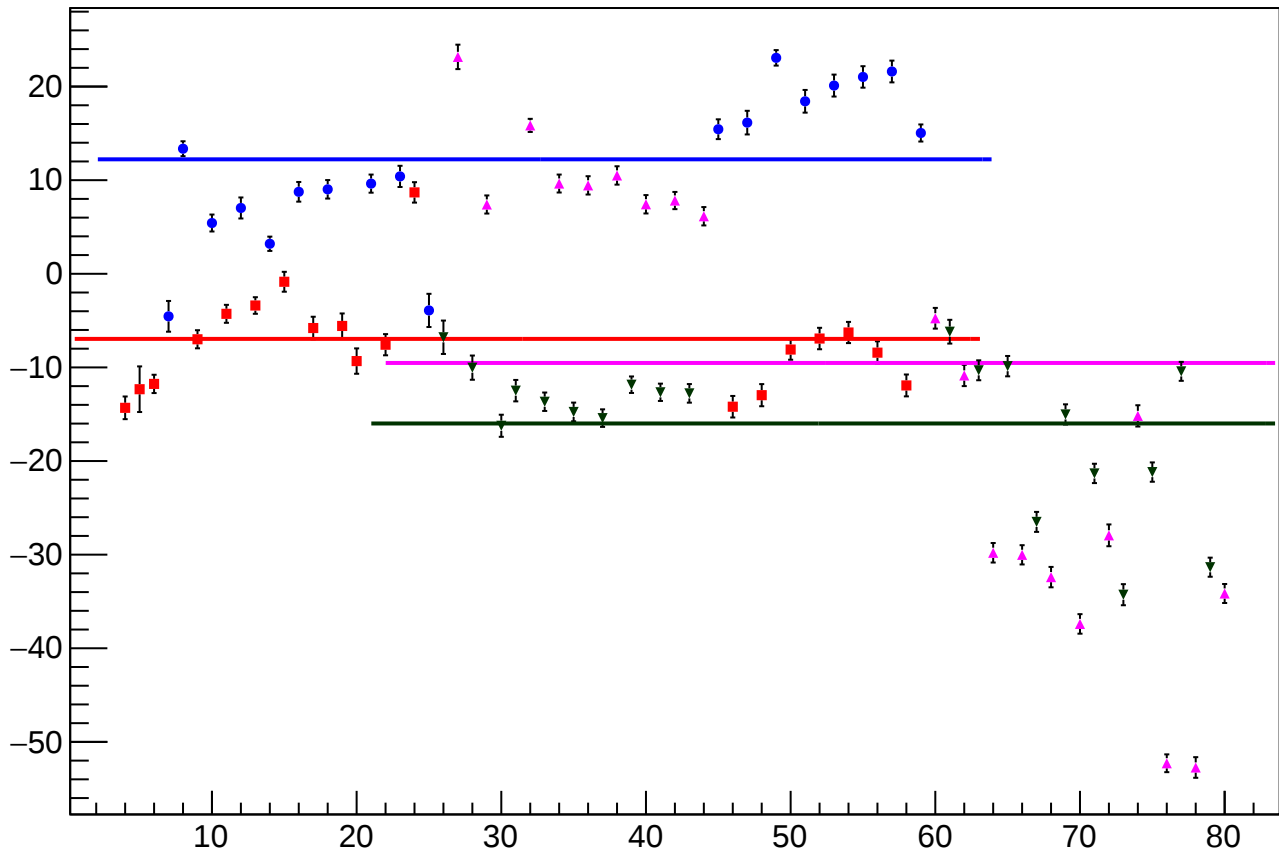
Right Out:  $777.816 \pm 0.174$   $\chi^2/\text{NDF}$ : 11180.5/18

Left In:  $712.591 \pm 0.151$   $\chi^2/\text{NDF}$ : 377547.2/19

$744.878 \pm 0.114$   $\chi^2/\text{NDF}$ : 398552.6/37

$740.737 \pm 0.114$   $\chi^2/\text{NDF}$ : 468805.2/38

# diff\_bpm1i04Y\_mean vs slug



Right In: 12.227 $\pm$ 0.244  $\chi^2$ /NDF: 832.9/17

Left Out: -15.989 $\pm$ 0.238  $\chi^2$ /NDF: 900.5/19

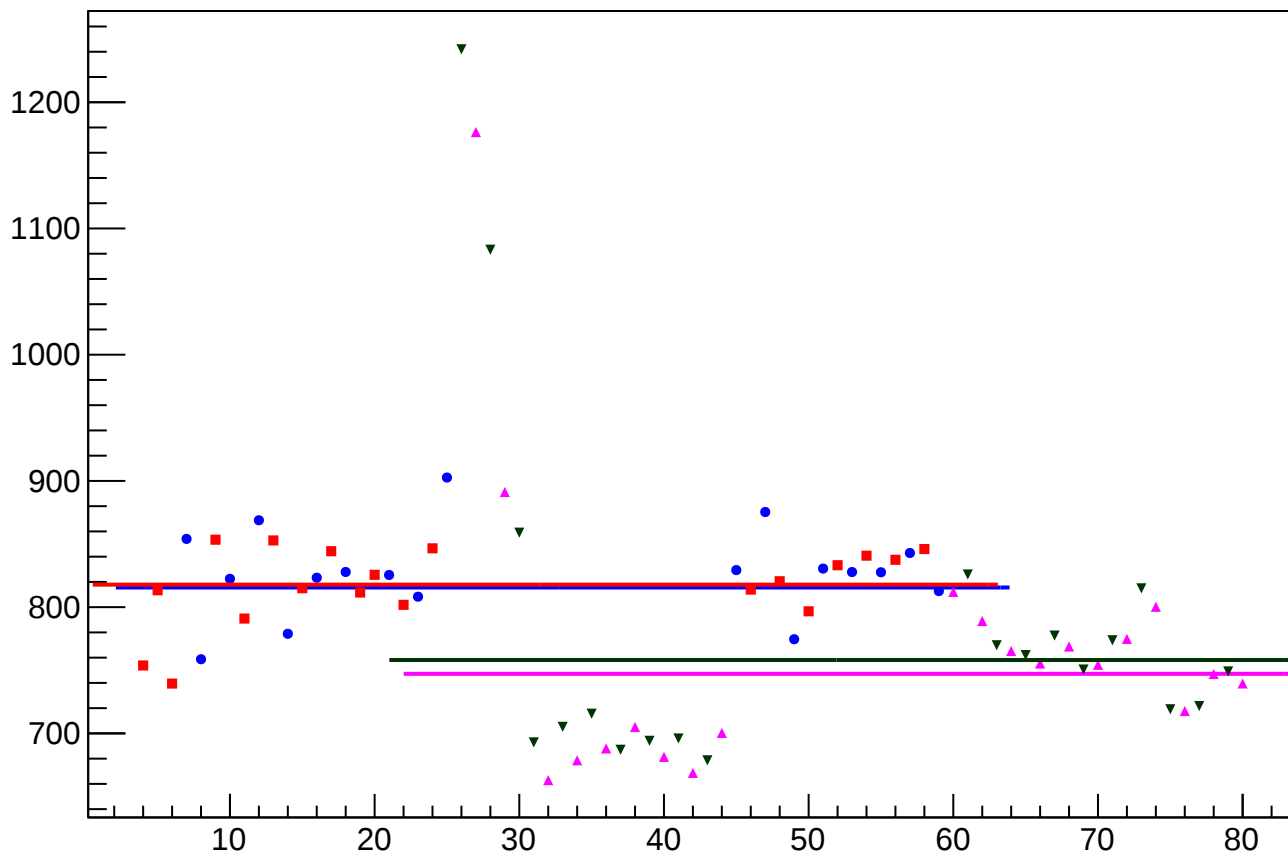
Right Out: -6.954 $\pm$ 0.259  $\chi^2$ /NDF: 420.8/18

Left In: -9.524 $\pm$ 0.225  $\chi^2$ /NDF: 10722.1/19

-2.232 $\pm$ 0.170  $\chi^2$ /NDF: 8613.9/37

-8.419 $\pm$ 0.170  $\chi^2$ /NDF: 11198.9/38

diff\_bpm1i04Y\_rms vs slug



Right In: 815.575 $\pm$ 0.172  $\chi^2$ /NDF: 37644.6/17

Left Out: 758.123 $\pm$ 0.168  $\chi^2$ /NDF: 365776.0/19

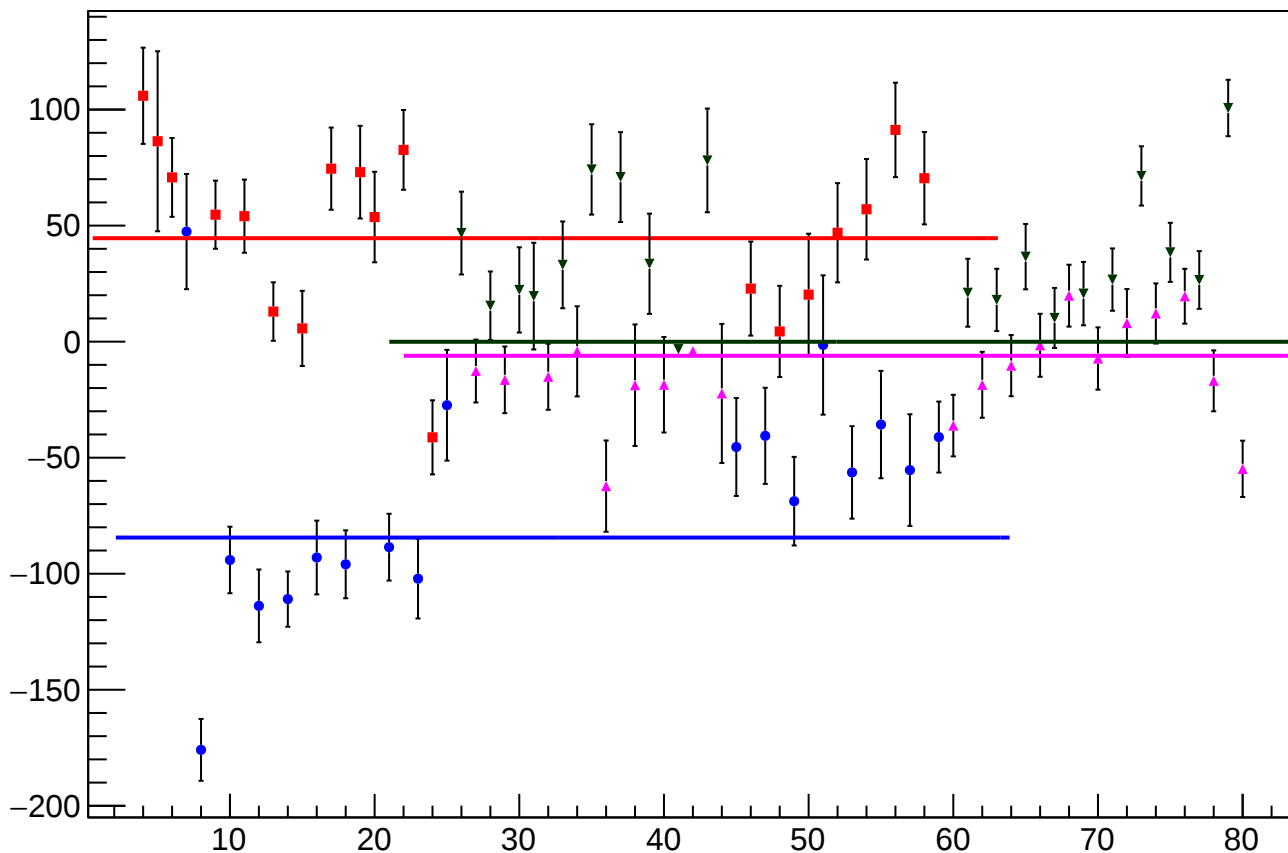
Right Out: 817.840 $\pm$ 0.183  $\chi^2$ /NDF: 32410.2/18

Left In: 747.195 $\pm$ 0.159  $\chi^2$ /NDF: 357468.6/19

786.133 $\pm$ 0.120  $\chi^2$ /NDF: 460474.7/37

777.571 $\pm$ 0.120  $\chi^2$ /NDF: 474661.1/38

# diff\_bpm0l02X\_mean vs slug



Right In:  $-84.415 \pm 4.060$   $\chi^2/\text{NDF}$ : 124.1/17

Left Out:  $-0.054 \pm 0.946$   $\chi^2/\text{NDF}$ : 197.7/19

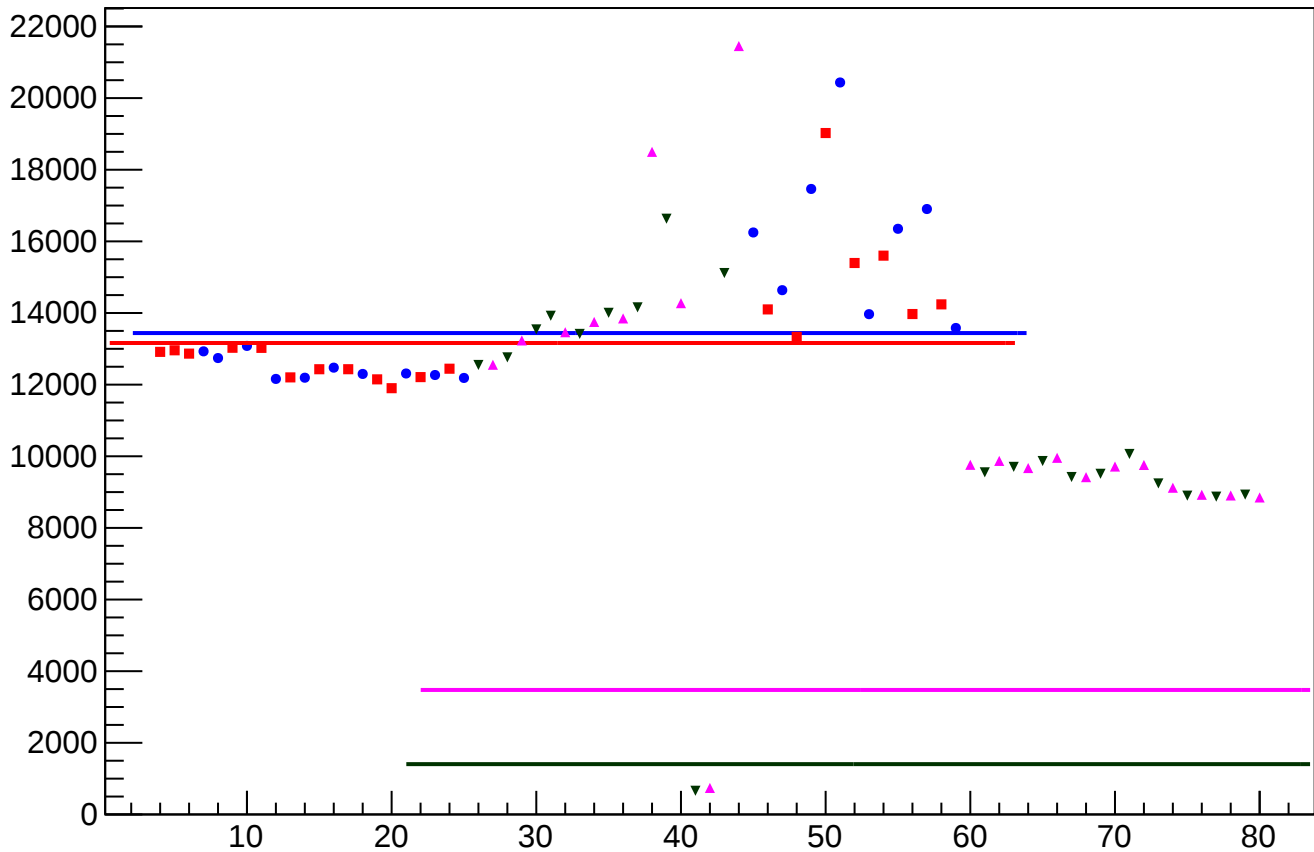
Right Out:  $44.573 \pm 4.203$   $\chi^2/\text{NDF}$ : 77.6/18

Left In:  $-6.093 \pm 1.756$   $\chi^2/\text{NDF}$ : 45.5/19

$-4.402 \pm 0.922$   $\chi^2/\text{NDF}$ : 731.4/37

$1.439 \pm 1.620$   $\chi^2/\text{NDF}$ : 246.8/38

# diff\_bpm0l02X\_rms vs slug



Right In: 13440.177+/-2.871  $\chi^2/\text{NDF}$ : 403912.7/17

Left Out: 1404.857+/-0.669  $\chi^2/\text{NDF}$ :16204037.6/19

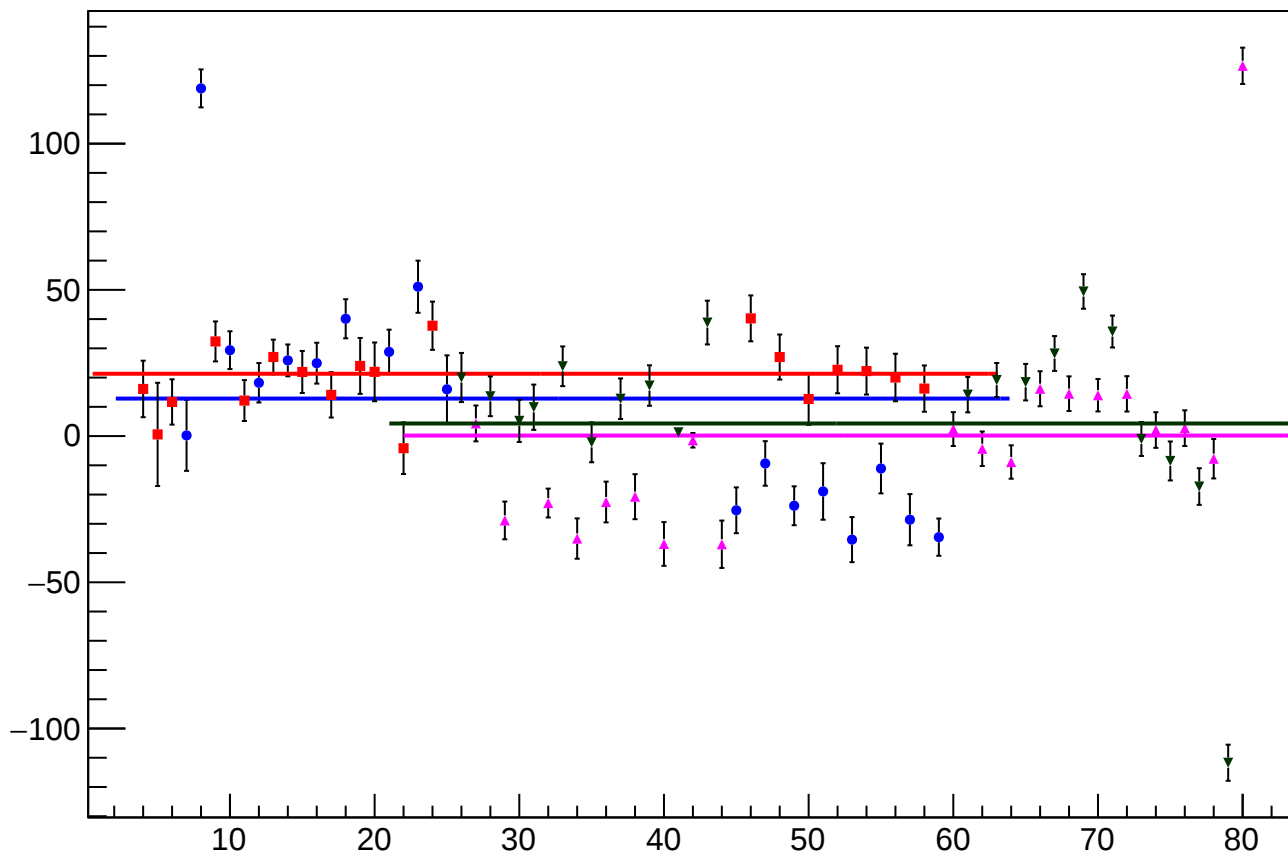
Right Out: 13162.769+/-2.972  $\chi^2/\text{NDF}$ : 204436.9/18

Left In: 3476.021+/-1.242  $\chi^2/\text{NDF}$ :13865832.7/19

2025.097+/-0.652  $\chi^2/\text{NDF}$ : 33277824.3/37

4916.203+/-1.146  $\chi^2/\text{NDF}$ : 23115992.4/38

# diff\_bpm0l02Y\_mean vs slug



Right In: 12.827+/-1.752  $\chi^2/\text{NDF}$ : 521.8/17

Left Out: 4.303+/-0.956  $\chi^2/\text{NDF}$ : 538.5/19

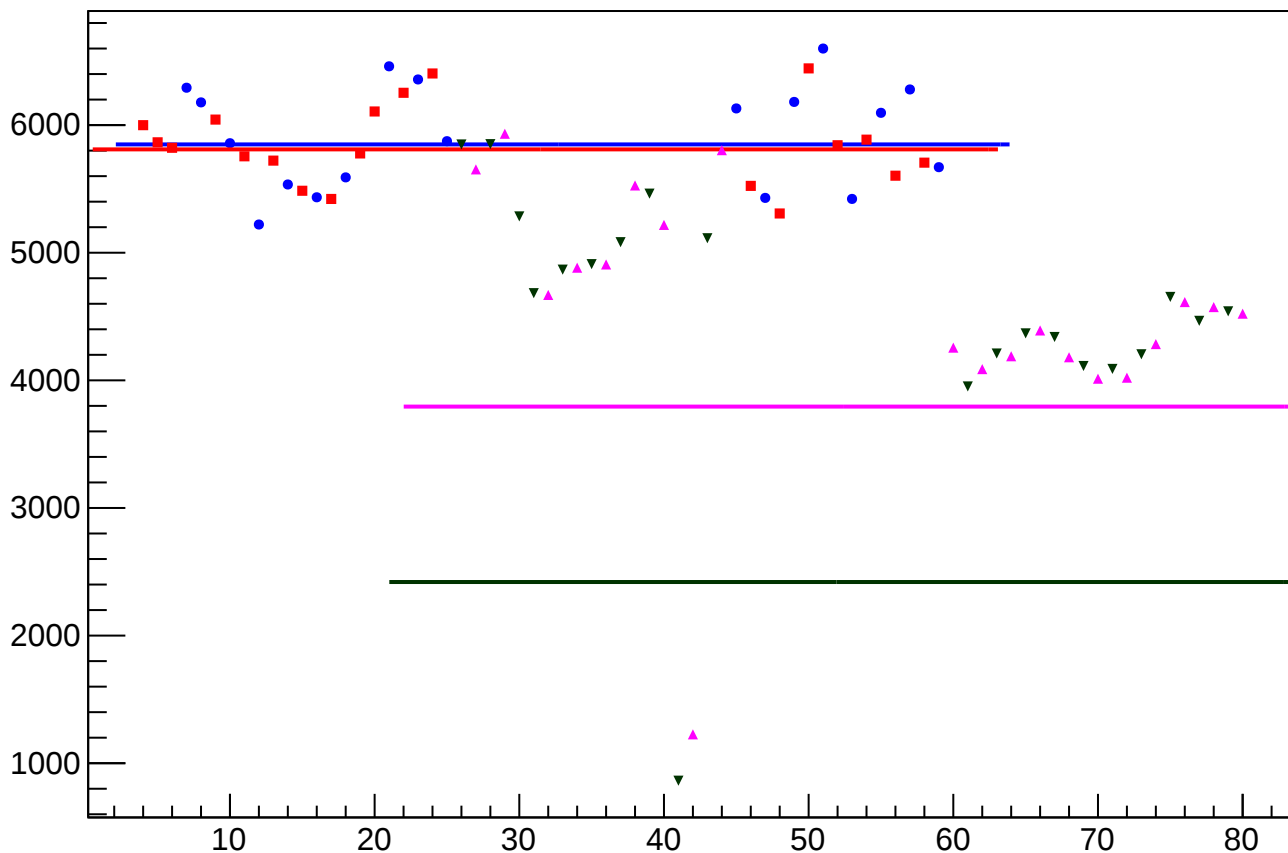
Right Out: 21.314+/-1.847  $\chi^2/\text{NDF}$ : 29.5/18

Left In: 0.175+/-1.239  $\chi^2/\text{NDF}$ : 577.6/19

6.256+/-0.839  $\chi^2/\text{NDF}$ : 1078.5/37

6.734+/-1.029  $\chi^2/\text{NDF}$ : 697.5/38

# diff\_bpm0l02Y\_rms vs slug



Right In: 5848.690+/-1.239  $\chi^2/\text{NDF}$ : 101335.3/17

Left Out: 2419.809+/-0.676  $\chi^2/\text{NDF}$ : 7849435.4/19

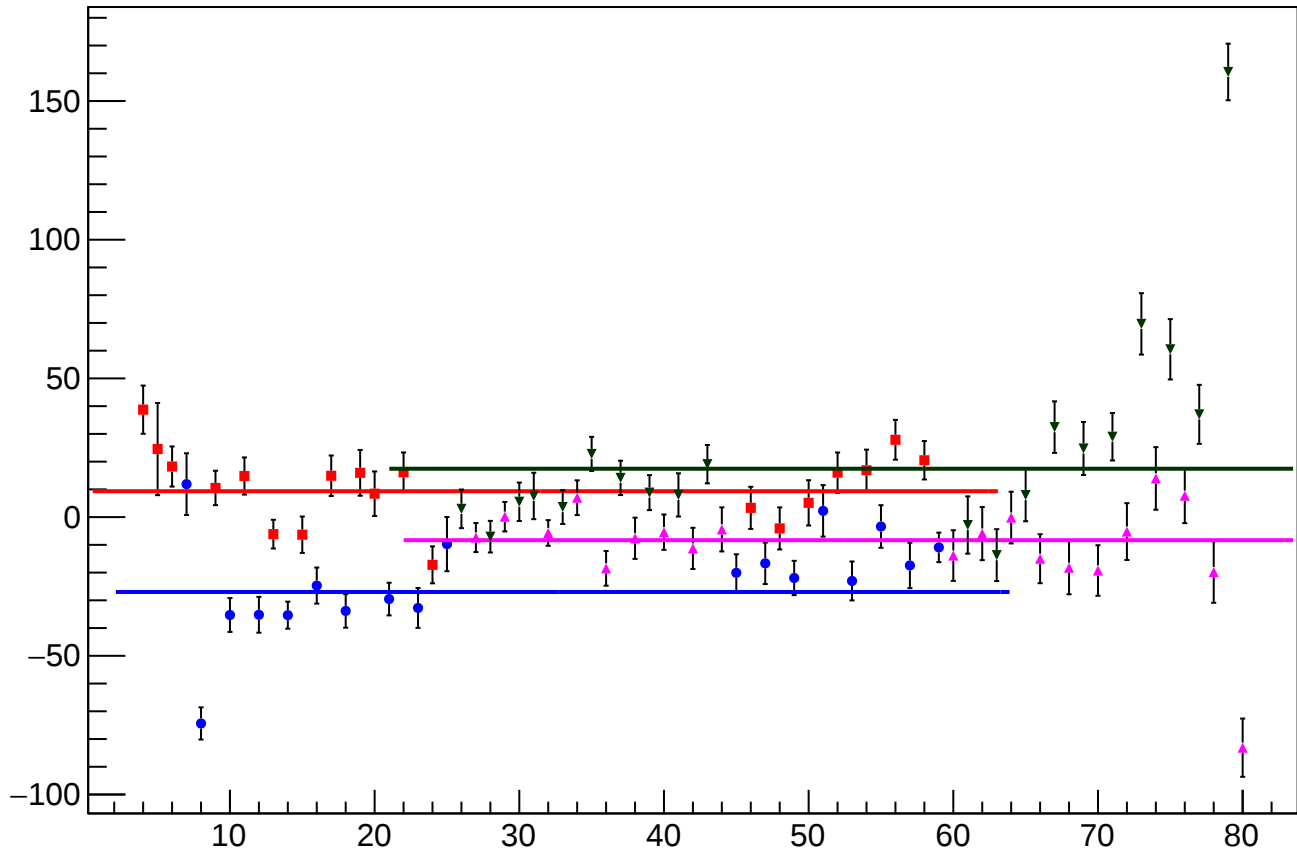
Right Out: 5809.767+/-1.306  $\chi^2/\text{NDF}$ : 53321.4/18

Left In: 3794.355+/-0.876  $\chi^2/\text{NDF}$ : 3155418.9/19

3205.768+/-0.593  $\chi^2/\text{NDF}$ : 13852746.4/37

4419.693+/-0.727  $\chi^2/\text{NDF}$ : 4851226.7/38

# diff\_bpm0l03X\_mean vs slug



Right In:  $-26.989 \pm 1.569$   $\chi^2/\text{NDF}: 124.5/17$

Left Out:  $17.441 \pm 1.736$   $\chi^2/\text{NDF}: 295.7/19$

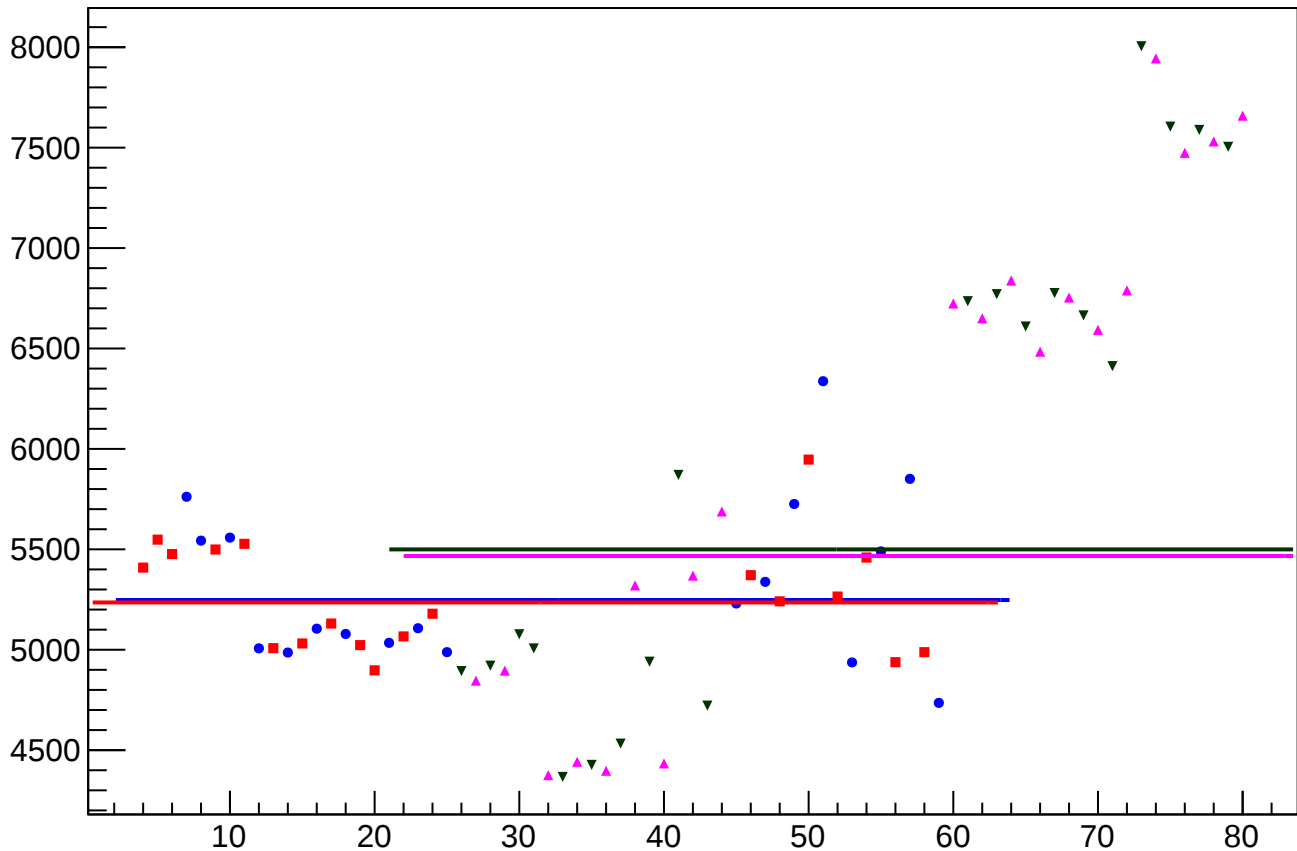
Right Out:  $9.337 \pm 1.659$   $\chi^2/\text{NDF}: 62.4/18$

Left In:  $-8.316 \pm 1.663$   $\chi^2/\text{NDF}: 74.8/19$

$-7.004 \pm 1.164$   $\chi^2/\text{NDF}: 780.6/37$

$0.529 \pm 1.175$   $\chi^2/\text{NDF}: 193.7/38$

# diff\_bpm0l03X\_rms vs slug



Right In: 5247.571 $\pm$ 1.110  $\chi^2$ /NDF: 105629.3/17

Left Out: 5499.622 $\pm$ 1.227  $\chi^2$ /NDF: 789859.1/19

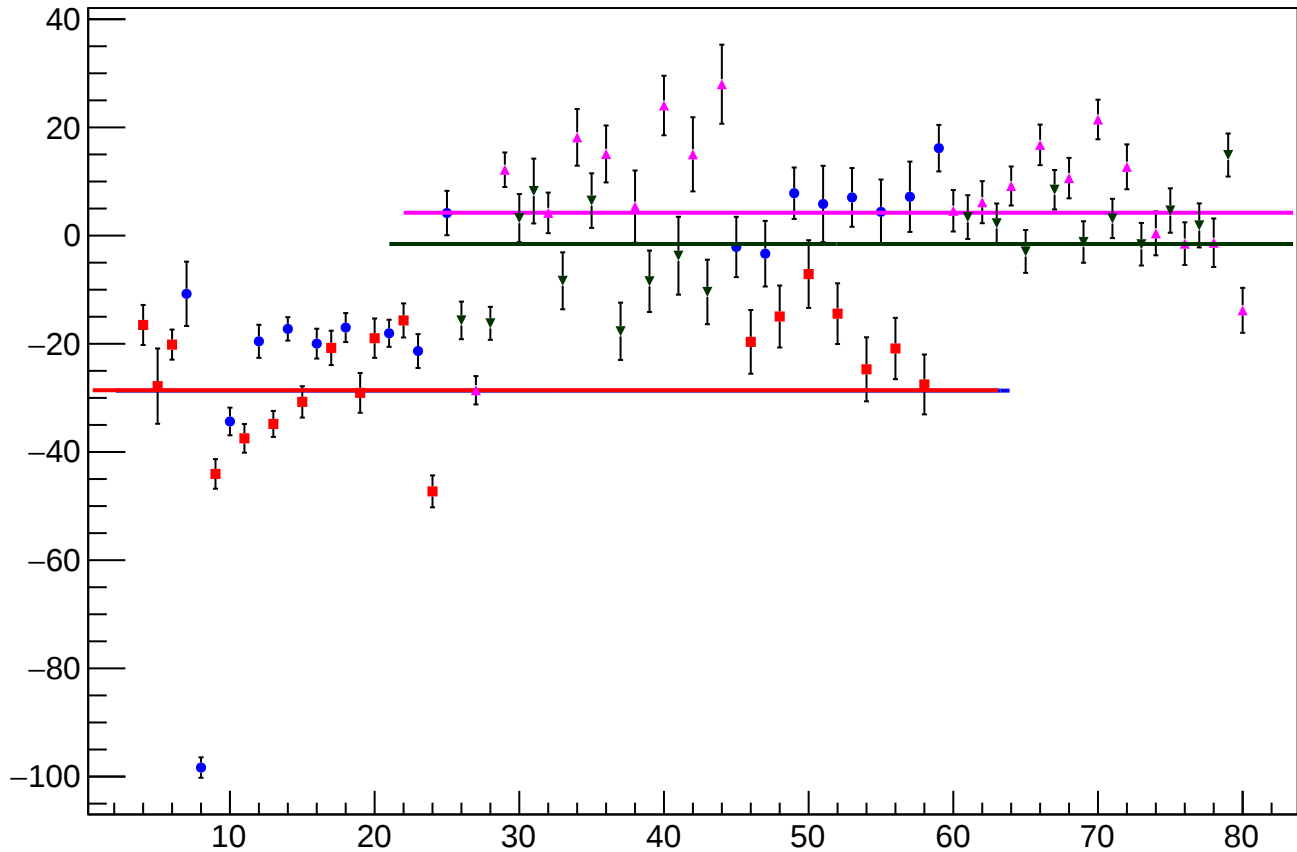
Right Out: 5235.469 $\pm$ 1.173  $\chi^2$ /NDF: 47165.0/18

Left In: 5466.766 $\pm$ 1.176  $\chi^2$ /NDF: 903565.3/19

5360.942 $\pm$ 0.823  $\chi^2$ /NDF: 918691.4/37

5350.875 $\pm$ 0.831  $\chi^2$ /NDF: 970115.8/38

# diff\_bpm0l03Y\_mean vs slug



Right In: -28.657 $\pm$ 0.782  $\chi^2$ /NDF: 1857.6/17

Left Out: -1.550 $\pm$ 0.943  $\chi^2$ /NDF: 92.9/19

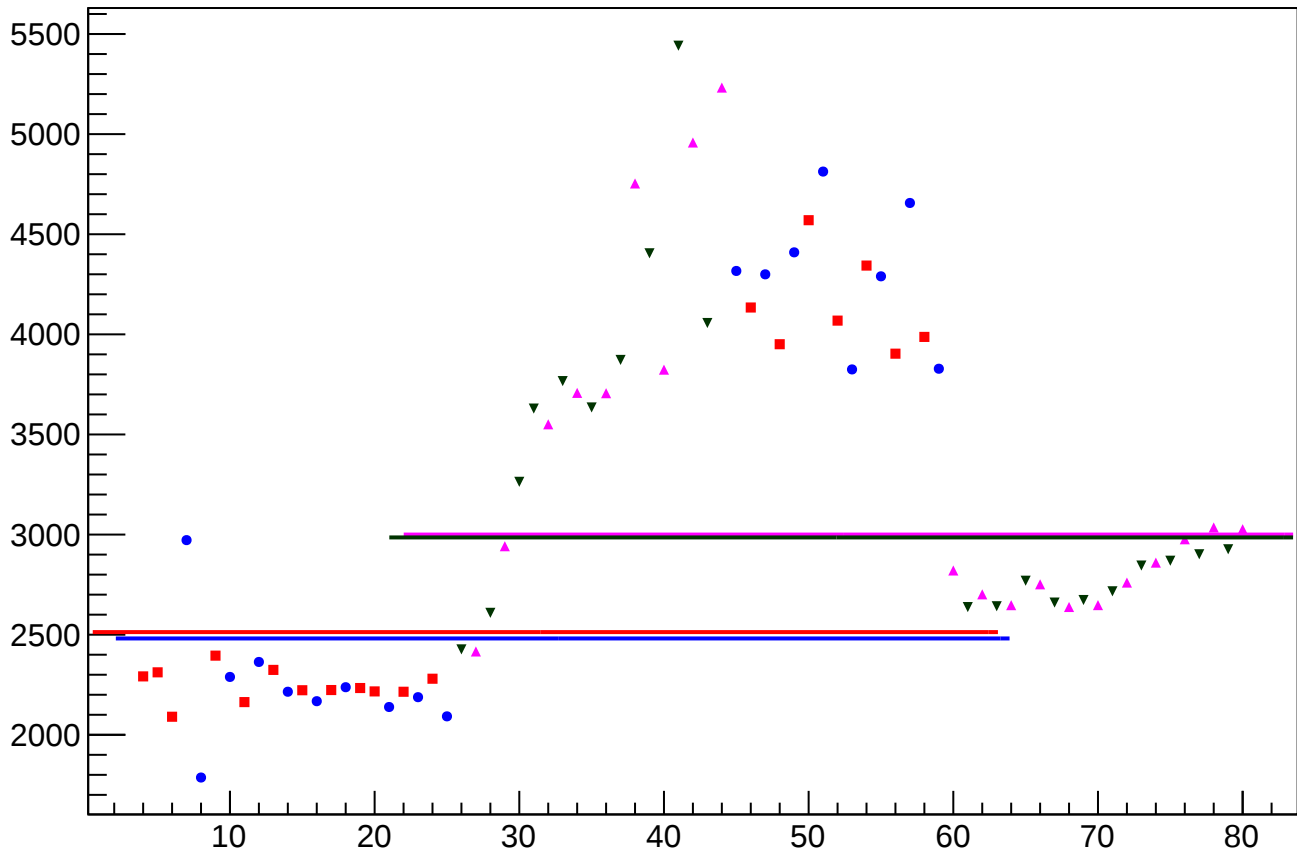
Right Out: -28.584 $\pm$ 0.826  $\chi^2$ /NDF: 168.7/18

Left In: 4.225 $\pm$ 0.912  $\chi^2$ /NDF: 266.4/19

-17.610 $\pm$ 0.602  $\chi^2$ /NDF: 2440.1/37

-13.794 $\pm$ 0.612  $\chi^2$ /NDF: 1145.6/38

# diff\_bpm0l03Y\_rms vs slug



Right In: 2481.193+/-0.553  $\chi^2/\text{NDF}$ : 2112375.4/17

Left Out: 2985.756+/-0.667  $\chi^2/\text{NDF}$ : 752687.7/19

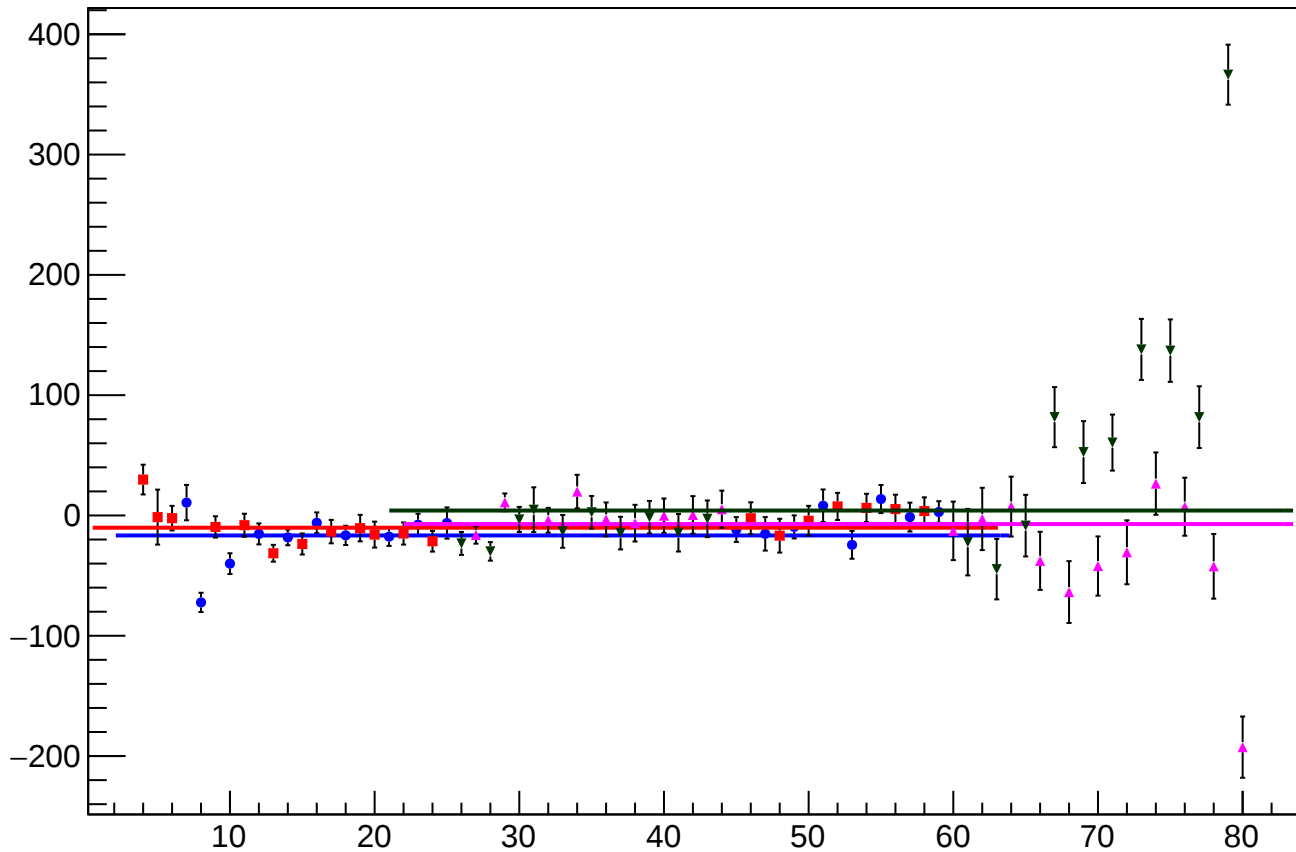
2686.831+/-0.426  $\chi^2/\text{NDF}$ : 3204353.9/37

Right Out: 2512.934+/-0.584  $\chi^2/\text{NDF}$ : 1298593.5/18

2732.498+/-0.433  $\chi^2/\text{NDF}$ : 2450207.3/38

Left In: 2999.997+/-0.645  $\chi^2/\text{NDF}$ : 838446.5/19

# diff\_bpm0l04X\_mean vs slug



Right In:  $-16.612 \pm 2.242$   $\chi^2/\text{NDF}$ : 79.9/17

Left Out:  $4.097 \pm 3.419$   $\chi^2/\text{NDF}$ : 331.9/19

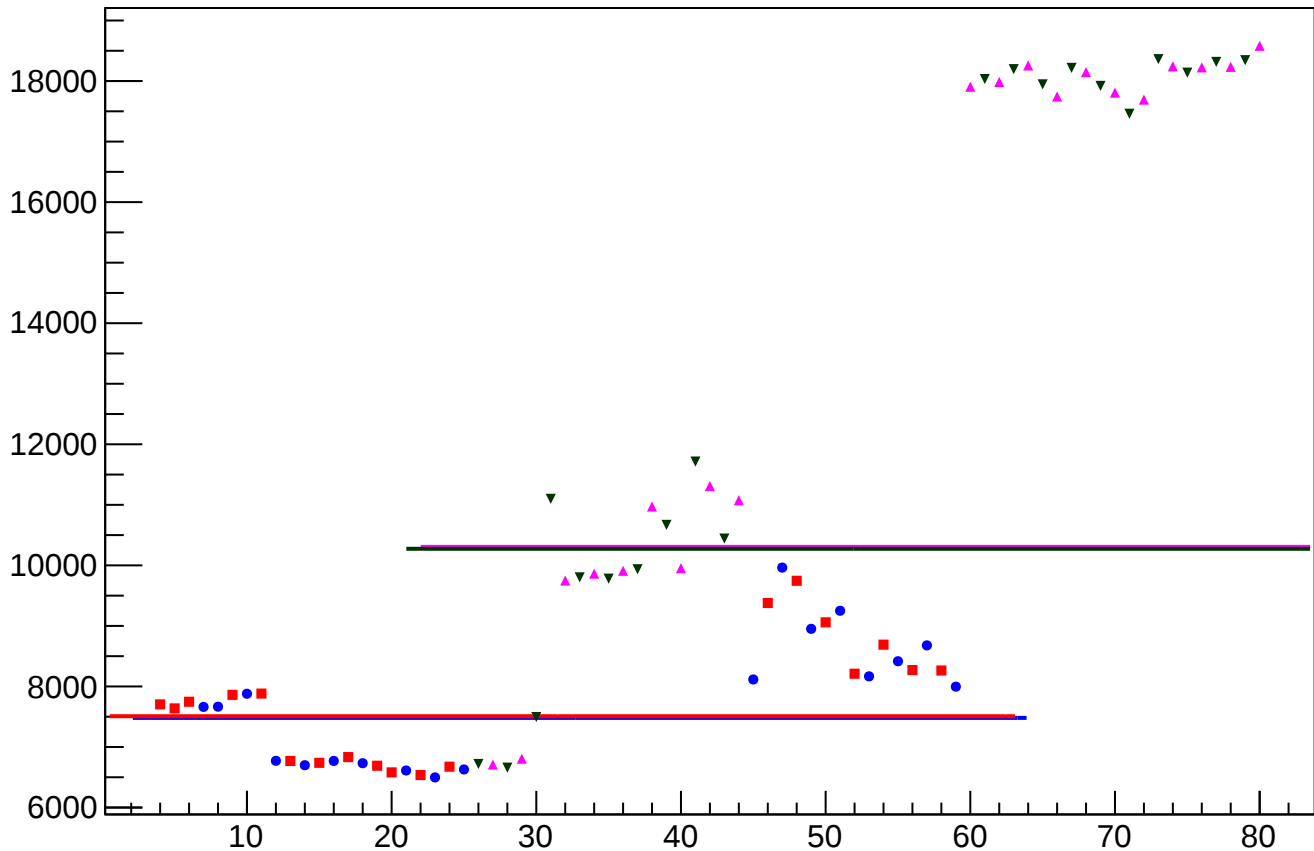
Right Out:  $-10.172 \pm 2.389$   $\chi^2/\text{NDF}$ : 33.7/18

Left In:  $-7.148 \pm 3.301$   $\chi^2/\text{NDF}$ : 79.0/19

$-10.385 \pm 1.875$   $\chi^2/\text{NDF}$ : 437.4/37

$-9.132 \pm 1.935$   $\chi^2/\text{NDF}$ : 113.2/38

# diff\_bpm0l04X\_rms vs slug



Right In: 7480.718+/-1.585  $\chi^2/\text{NDF}$ : 334863.0/17

Left Out: 10274.000+/-2.417  $\chi^2/\text{NDF}$ : 2786844.1/19

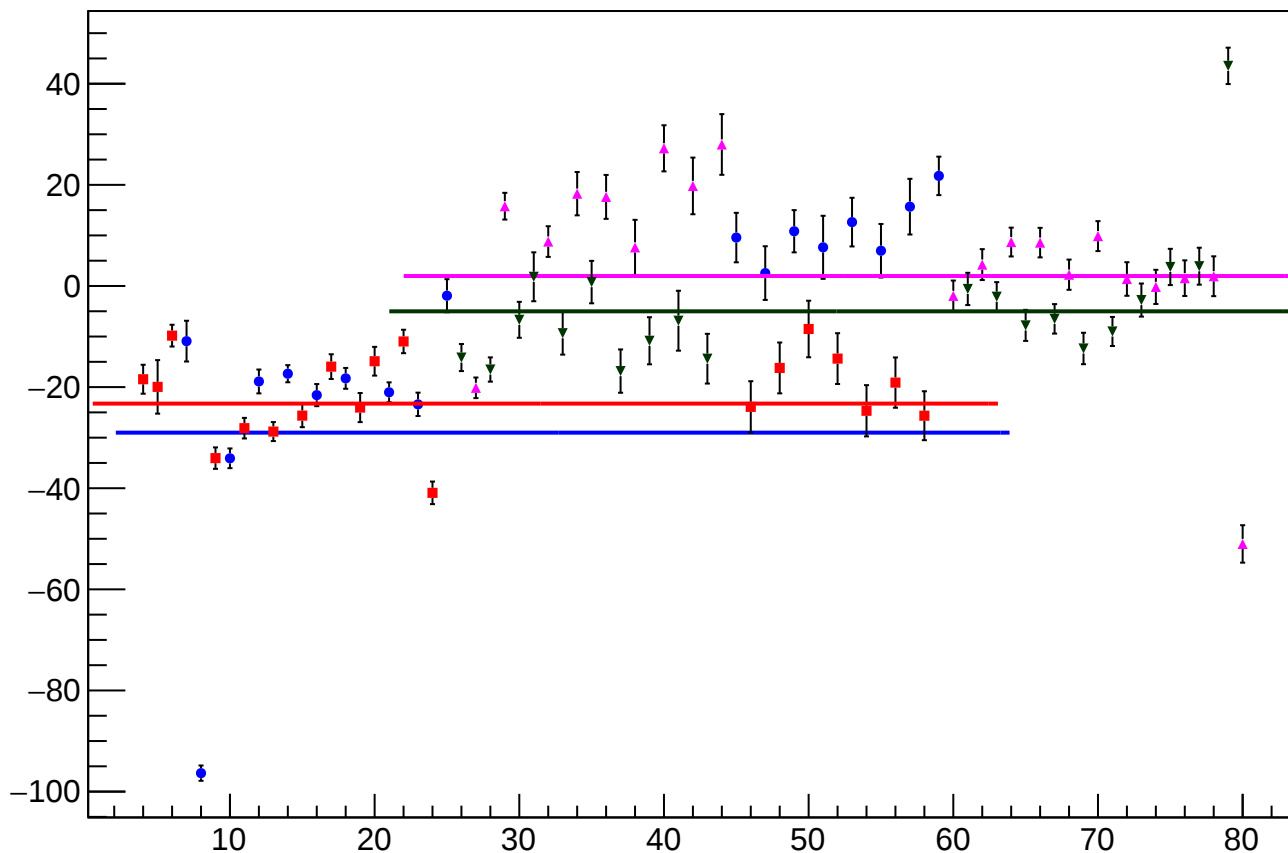
Right Out: 7508.240+/-1.689  $\chi^2/\text{NDF}$ : 289453.4/18

Left In: 10305.953+/-2.334  $\chi^2/\text{NDF}$ : 3051202.2/19

8320.590+/-1.326  $\chi^2/\text{NDF}$ : 4055364.6/37

8470.045+/-1.368  $\chi^2/\text{NDF}$ : 4283579.2/38

# diff\_bpm0l04Y\_mean vs slug



Right In: -29.007+/-0.618  $\chi^2/\text{NDF}$ : 2792.0/17

Left Out: -5.015+/-0.765  $\chi^2/\text{NDF}$ : 258.7/19

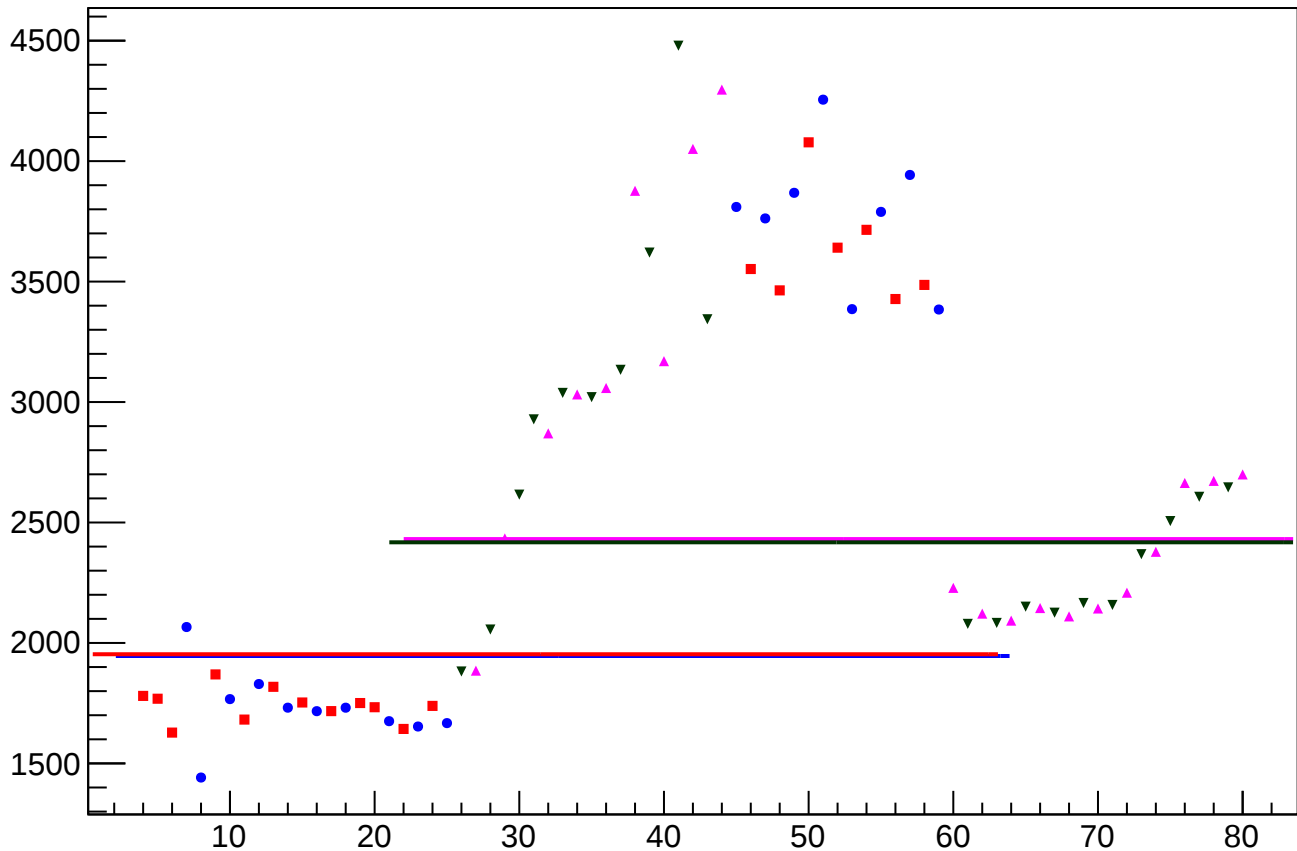
Right Out: -23.263+/-0.648  $\chi^2/\text{NDF}$ : 204.8/18

Left In: 1.968+/-0.741  $\chi^2/\text{NDF}$ : 463.5/19

-19.528+/-0.481  $\chi^2/\text{NDF}$ : 3645.5/37

-12.334+/-0.488  $\chi^2/\text{NDF}$ : 1325.1/38

# diff\_bpm0l04Y\_rms vs slug



Right In: 1945.876+/-0.437  $\chi^2/\text{NDF}$ : 2599522.0/17

Left Out: 2417.783+/-0.541  $\chi^2/\text{NDF}$ : 869800.2/19

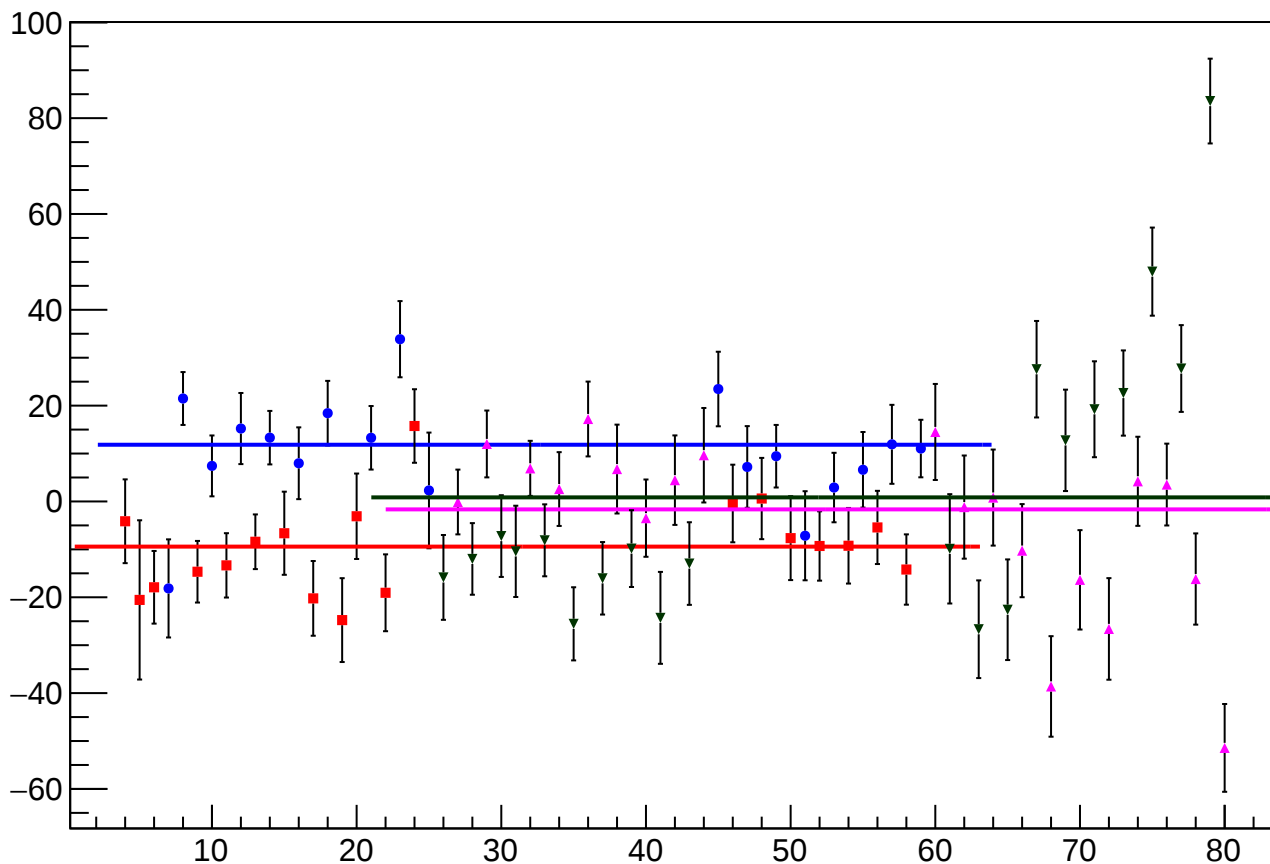
2132.308+/-0.340  $\chi^2/\text{NDF}$ : 3929561.6/37

Right Out: 1953.157+/-0.458  $\chi^2/\text{NDF}$ : 1725858.1/18

2160.212+/-0.345  $\chi^2/\text{NDF}$ : 3172605.1/38

Left In: 2431.188+/-0.524  $\chi^2/\text{NDF}$ : 975240.5/19

# diff\_bpm0l05X\_mean vs slug



Right In: 11.837+/-1.701  $\chi^2/\text{NDF}$ : 30.8/17

Left Out: 0.851+/-1.991  $\chi^2/\text{NDF}$ : 191.7/19

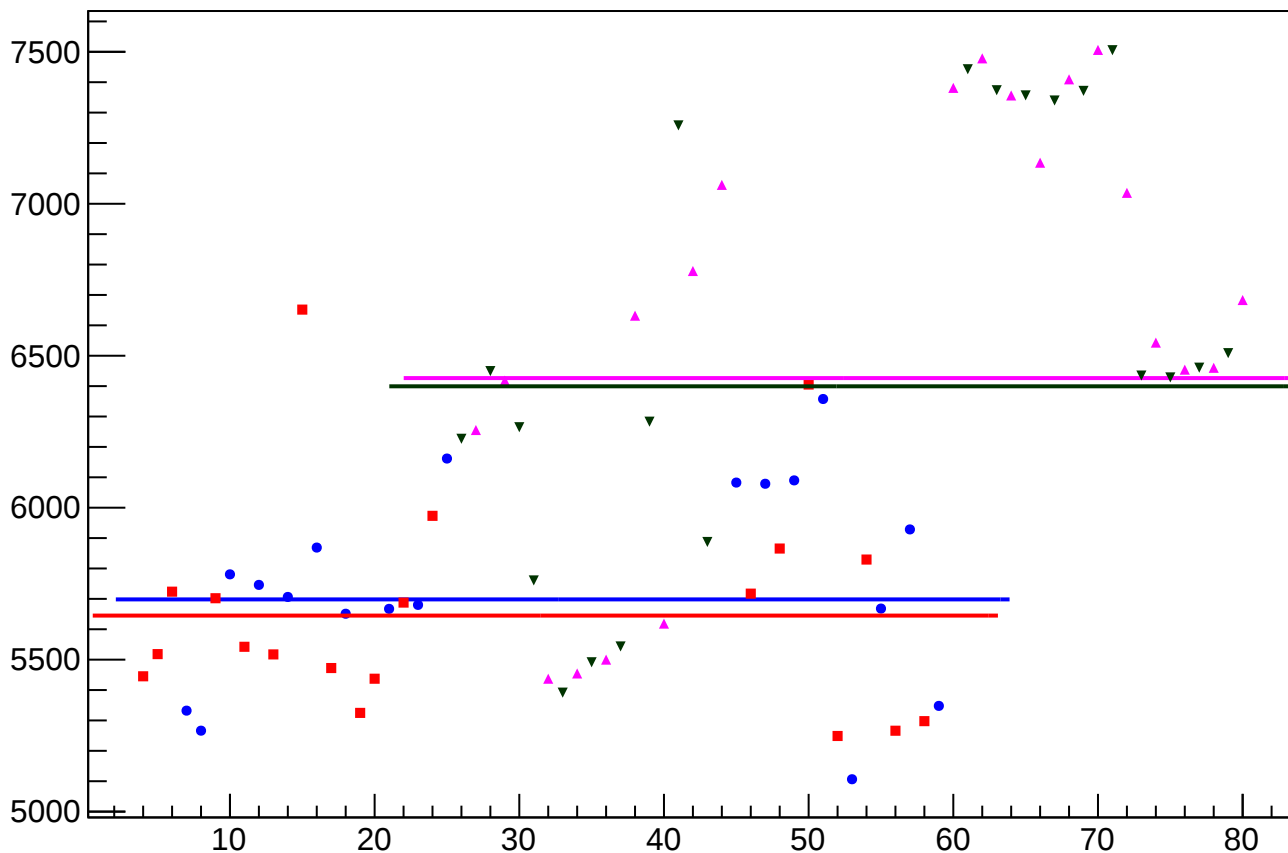
Right Out: -9.425+/-1.790  $\chi^2/\text{NDF}$ : 24.3/18

Left In: -1.655+/-1.927  $\chi^2/\text{NDF}$ : 70.9/19

7.201+/-1.293  $\chi^2/\text{NDF}$ : 240.1/37

-5.826+/-1.311  $\chi^2/\text{NDF}$ : 103.9/38

# diff\_bpm0l05X\_rms vs slug



Right In: 5698.250+/-1.203  $\chi^2/\text{NDF}$ : 67217.8/17

Left Out: 6399.403+/-1.408  $\chi^2/\text{NDF}$ : 234571.6/19

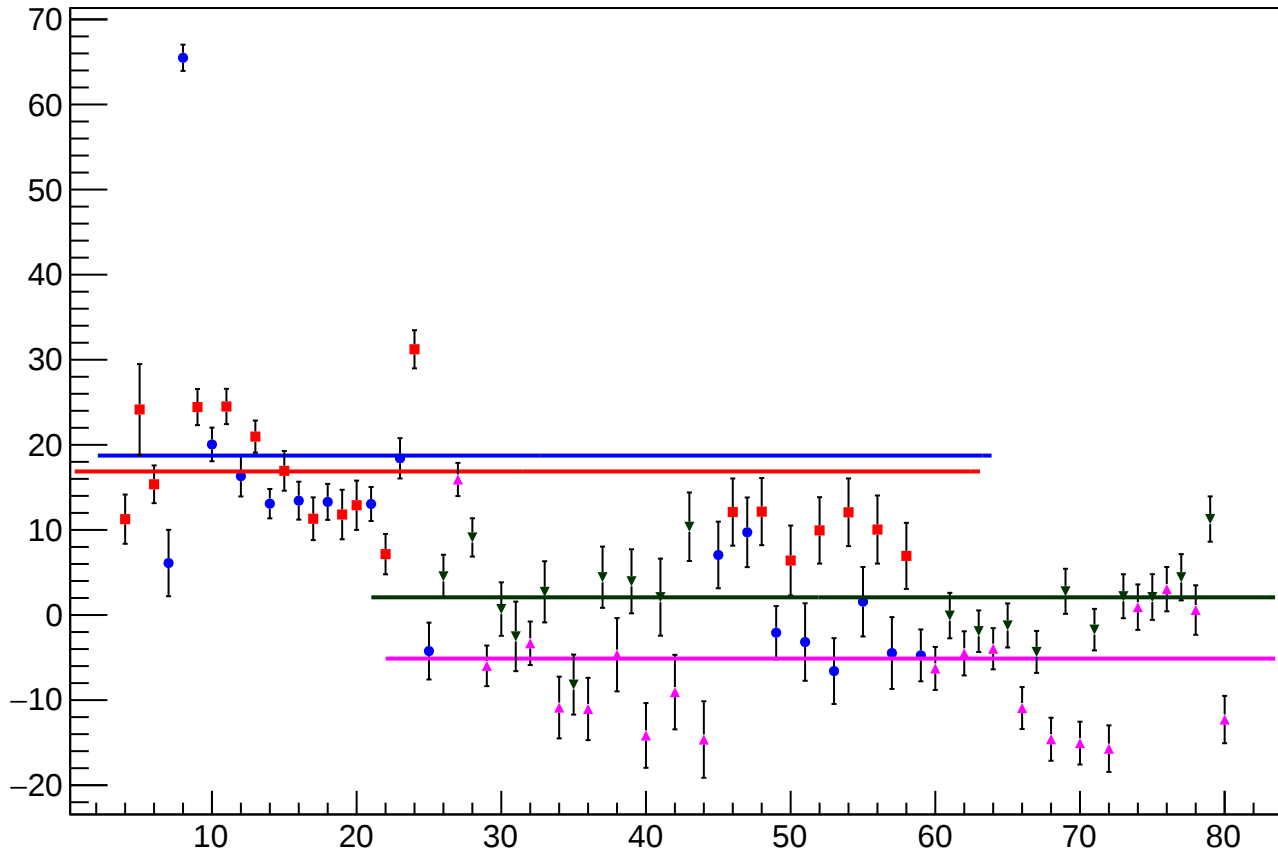
Right Out: 5644.999+/-1.266  $\chi^2/\text{NDF}$ : 71475.4/18

Left In: 6426.443+/-1.362  $\chi^2/\text{NDF}$ : 265646.9/19

5994.125+/-0.915  $\chi^2/\text{NDF}$ : 445163.5/37

6006.997+/-0.927  $\chi^2/\text{NDF}$ : 513702.8/38

# diff\_bpm0l05Y\_mean vs slug



Right In: 18.738 $\pm$ 0.602  $\chi^2$ /NDF: 1241.3/17

Left Out: 2.079 $\pm$ 0.642  $\chi^2$ /NDF: 52.4/19

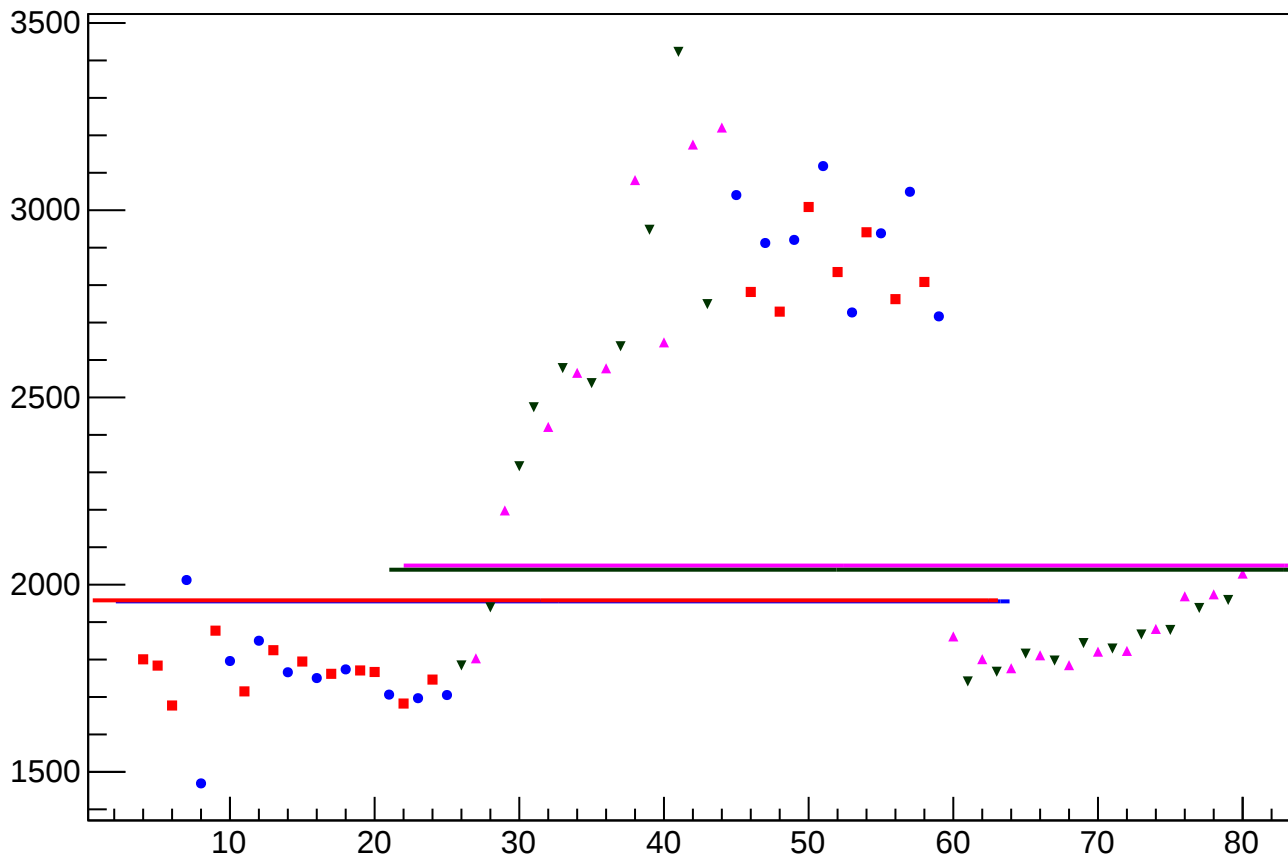
Right Out: 16.874 $\pm$ 0.633  $\chi^2$ /NDF: 128.0/18

Left In: -5.119 $\pm$ 0.621  $\chi^2$ /NDF: 209.5/19

10.949 $\pm$ 0.439  $\chi^2$ /NDF: 1652.2/37

5.671 $\pm$ 0.444  $\chi^2$ /NDF: 952.0/38

# diff\_bpm0l05Y\_rms vs slug



Right In: 1955.370+/-0.425  $\chi^2/\text{NDF}$ : 1375682.1/17

Left Out: 2039.936+/-0.454  $\chi^2/\text{NDF}$ : 697834.6/19

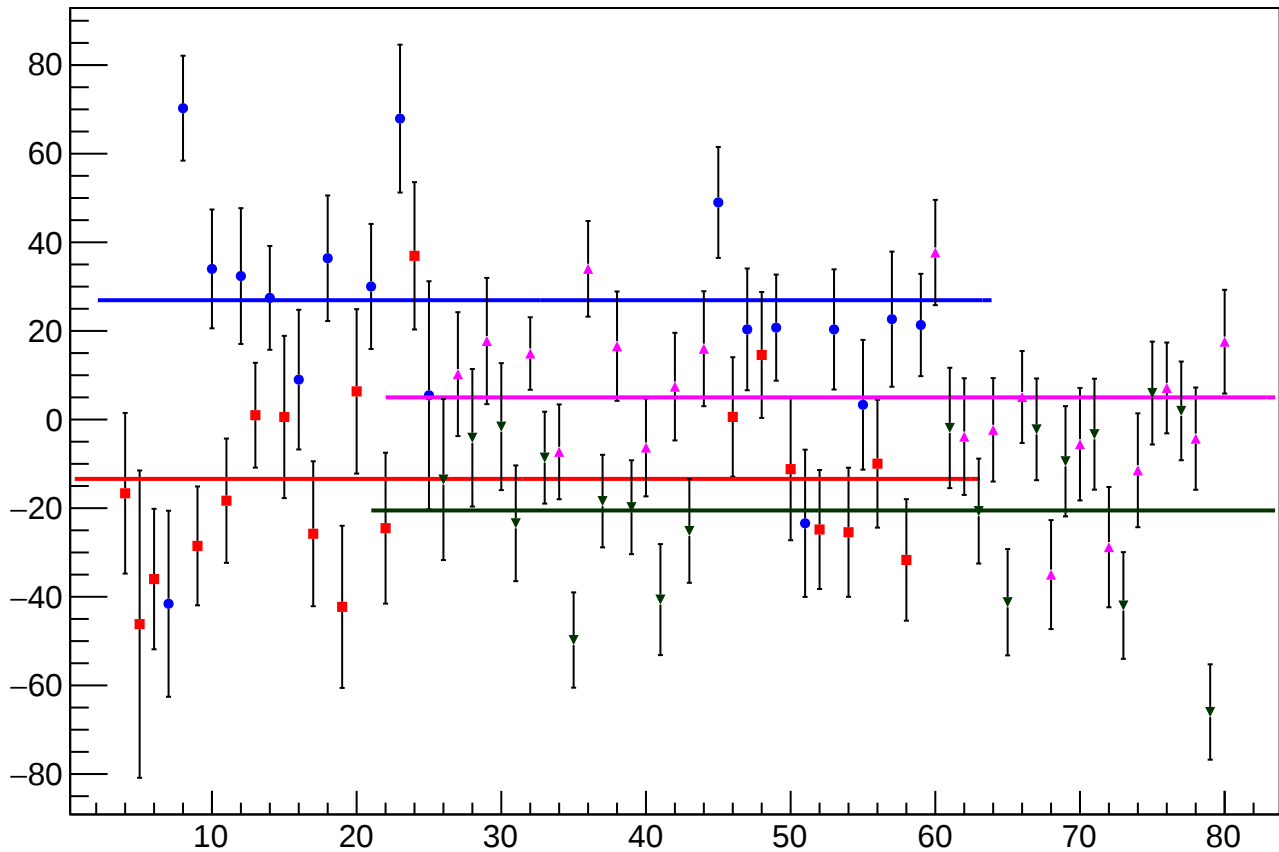
Right Out: 1958.115+/-0.448  $\chi^2/\text{NDF}$ : 858074.3/18

Left In: 2051.014+/-0.439  $\chi^2/\text{NDF}$ : 732613.6/19

1994.909+/-0.310  $\chi^2/\text{NDF}$ : 2091990.3/37

2005.436+/-0.314  $\chi^2/\text{NDF}$ : 1612615.6/38

# diff\_bpm0l06X\_mean vs slug



Right In:  $26.931 \pm 3.337$   $\chi^2/\text{NDF}: 48.9/17$

Left Out:  $-20.518 \pm 2.686$   $\chi^2/\text{NDF}: 54.9/19$

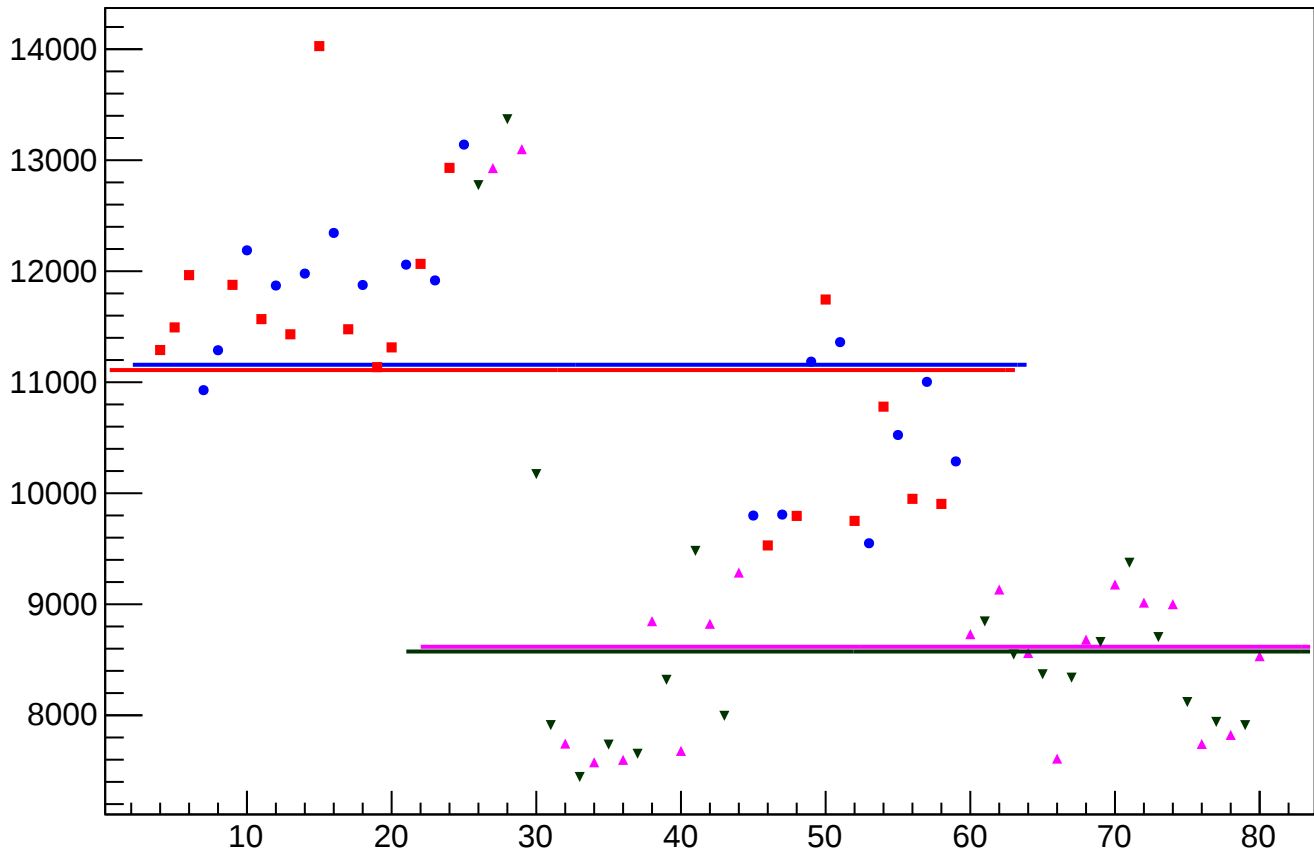
Right Out:  $-13.392 \pm 3.535$   $\chi^2/\text{NDF}: 28.4/18$

Left In:  $5.008 \pm 2.600$   $\chi^2/\text{NDF}: 43.0/19$

$-1.857 \pm 2.093$   $\chi^2/\text{NDF}: 226.5/37$

$-1.453 \pm 2.094$   $\chi^2/\text{NDF}: 89.0/38$

# diff\_bpm0l06X\_rms vs slug



Right In: 11157.335 $\pm$ 2.359  $\chi^2$ /NDF: 153724.7/17

Left Out: 8574.449 $\pm$ 1.900  $\chi^2$ /NDF:423723.4/19

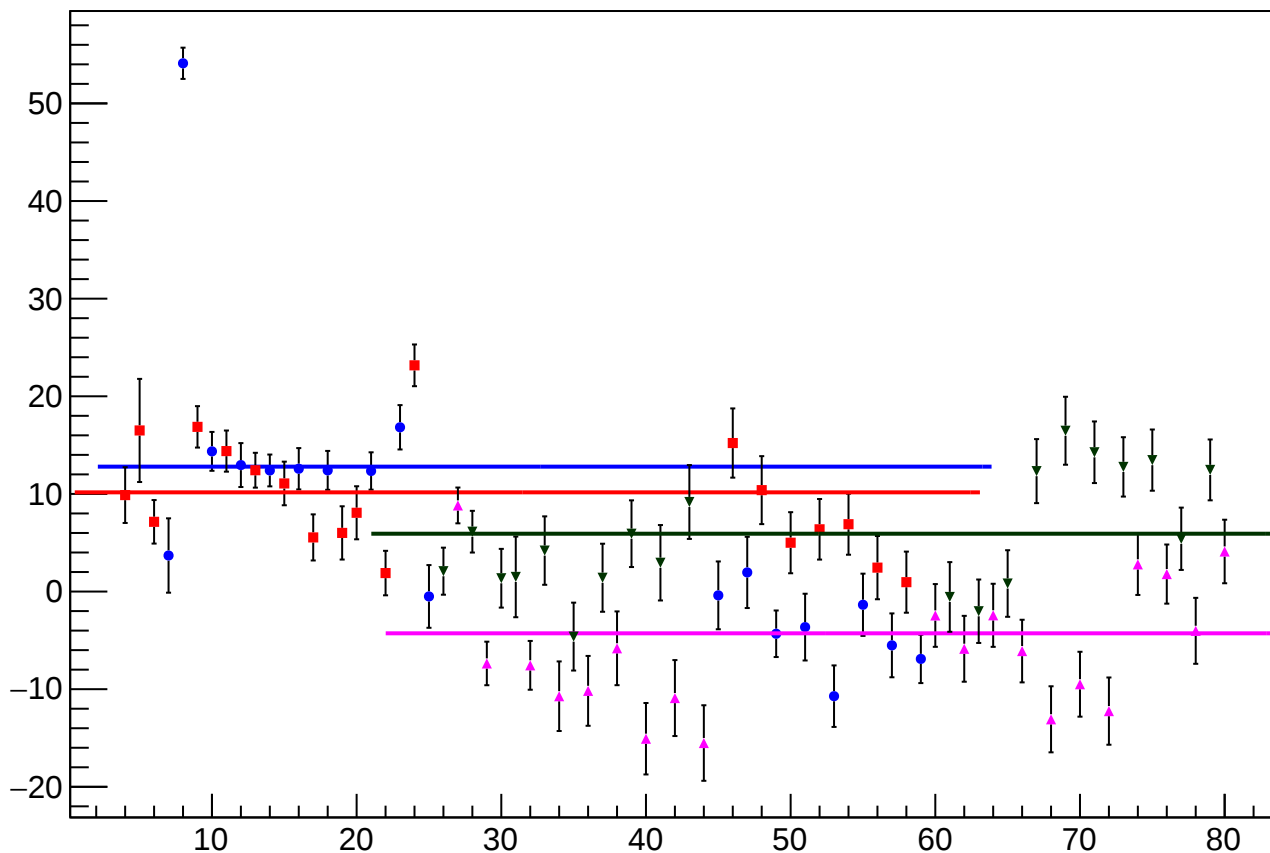
9590.248 $\pm$ 1.480  $\chi^2$ /NDF: 1304511.0/37

Right Out: 11109.639 $\pm$ 2.499  $\chi^2$ /NDF: 196396.7/18

9492.294 $\pm$ 1.481  $\chi^2$ /NDF: 1364301.6/38

Left In: 8617.102 $\pm$ 1.839  $\chi^2$ /NDF:522567.2/19

# diff\_bpm0l06Y\_mean vs slug



Right In:  $12.794 \pm 0.559$   $\chi^2/\text{NDF}$ : 961.0/17

Left Out:  $5.924 \pm 0.711$   $\chi^2/\text{NDF}$ : 65.2/19

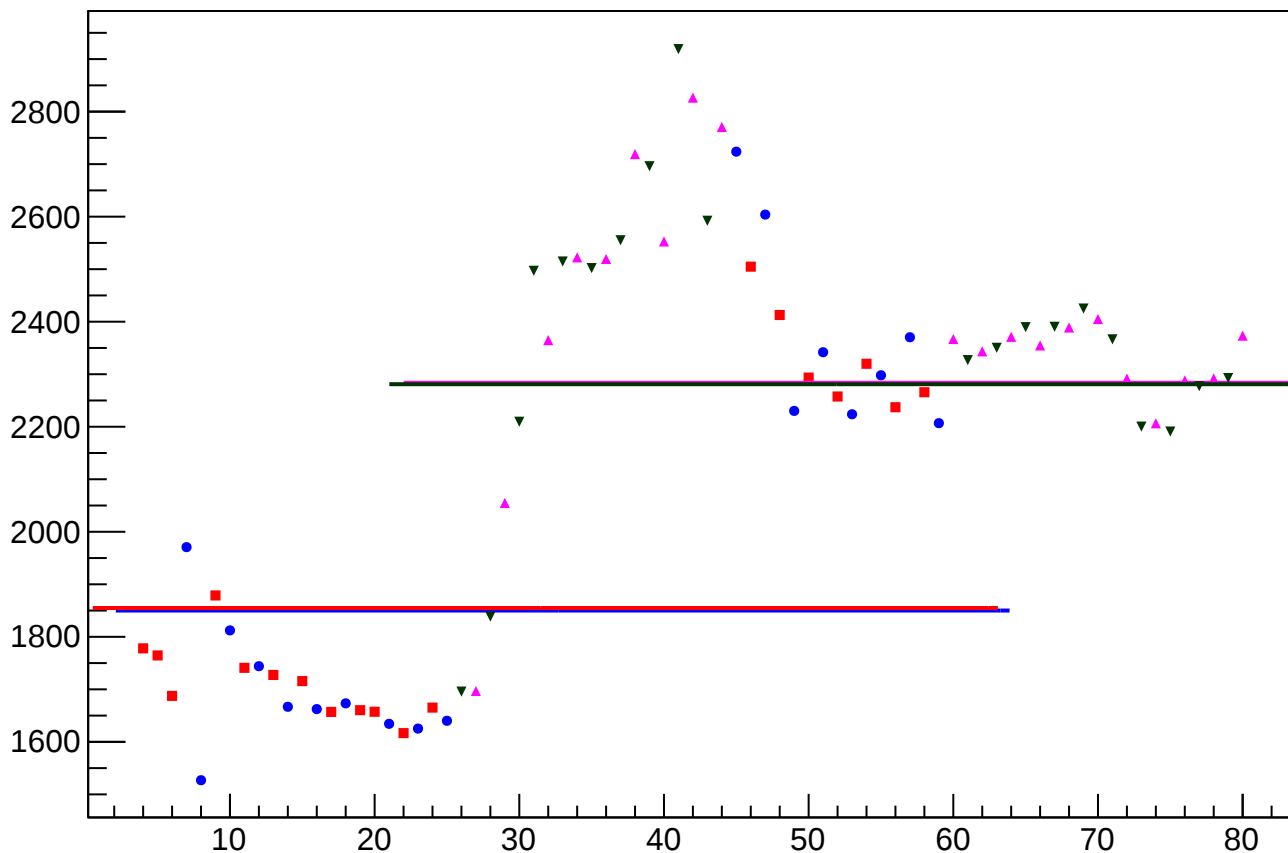
Right Out:  $10.162 \pm 0.592$   $\chi^2/\text{NDF}$ : 97.7/18

Left In:  $-4.277 \pm 0.686$   $\chi^2/\text{NDF}$ : 112.4/19

$10.172 \pm 0.440$   $\chi^2/\text{NDF}$ : 1083.9/37

$3.992 \pm 0.448$   $\chi^2/\text{NDF}$ : 464.0/38

# diff\_bpm0l06Y\_rms vs slug



Right In: 1850.054+/-0.395  $\chi^2/\text{NDF}$ : 663006.9/17

Left Out: 2280.987+/-0.503  $\chi^2/\text{NDF}$ : 350867.5/19

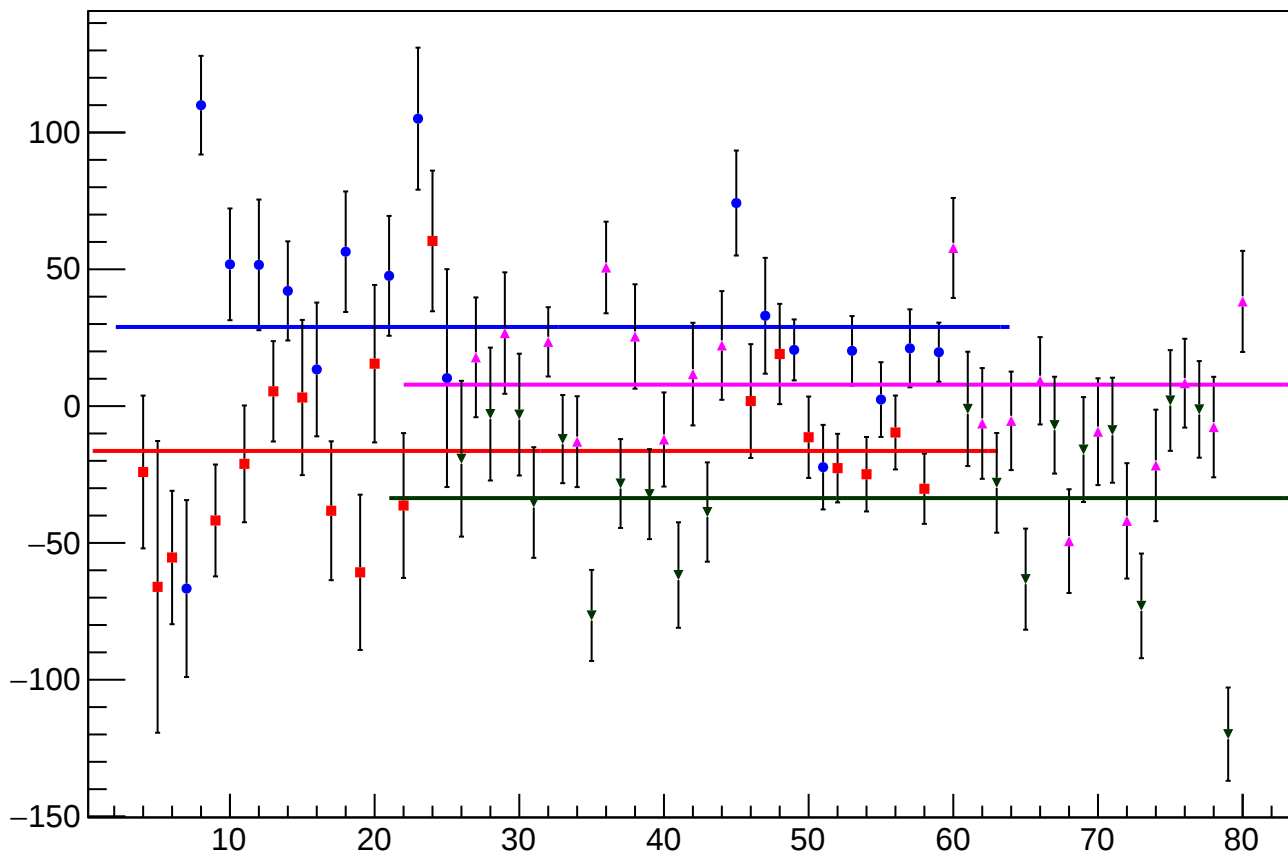
Right Out: 1854.854+/-0.419  $\chi^2/\text{NDF}$ : 407929.4/18

Left In: 2283.668+/-0.485  $\chi^2/\text{NDF}$ : 365650.6/19

2014.544+/-0.311  $\chi^2/\text{NDF}$ : 1467599.4/37

2038.069+/-0.317  $\chi^2/\text{NDF}$ : 1221445.0/38

# diff\_bpm0l07X\_mean vs slug



Right In:  $28.924 \pm 4.035$   $\chi^2/\text{NDF}: 65.6/17$

Left Out:  $-33.615 \pm 4.178$   $\chi^2/\text{NDF}: 61.4/19$

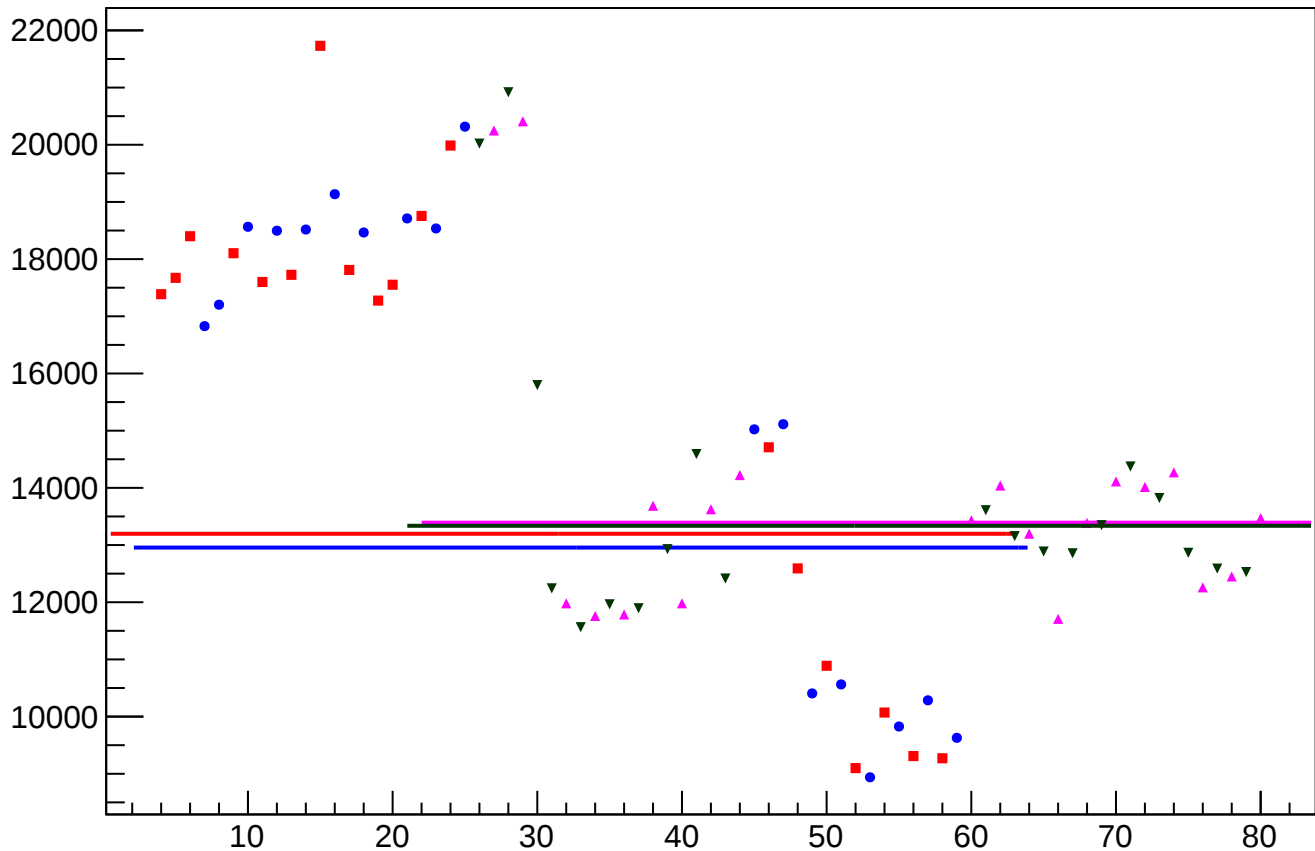
Right Out:  $-16.388 \pm 4.377$   $\chi^2/\text{NDF}: 27.5/18$

Left In:  $7.840 \pm 4.041$   $\chi^2/\text{NDF}: 42.8/19$

$-1.256 \pm 2.903$   $\chi^2/\text{NDF}: 242.9/37$

$-3.307 \pm 2.969$   $\chi^2/\text{NDF}: 86.9/38$

# diff\_bpm0l07X\_rms vs slug



Right In: 12955.913+/-2.853  $\chi^2/\text{NDF}$ : 1900634.7/17

Left Out: 13336.884+/-2.955  $\chi^2/\text{NDF}$ : 423720.4/19

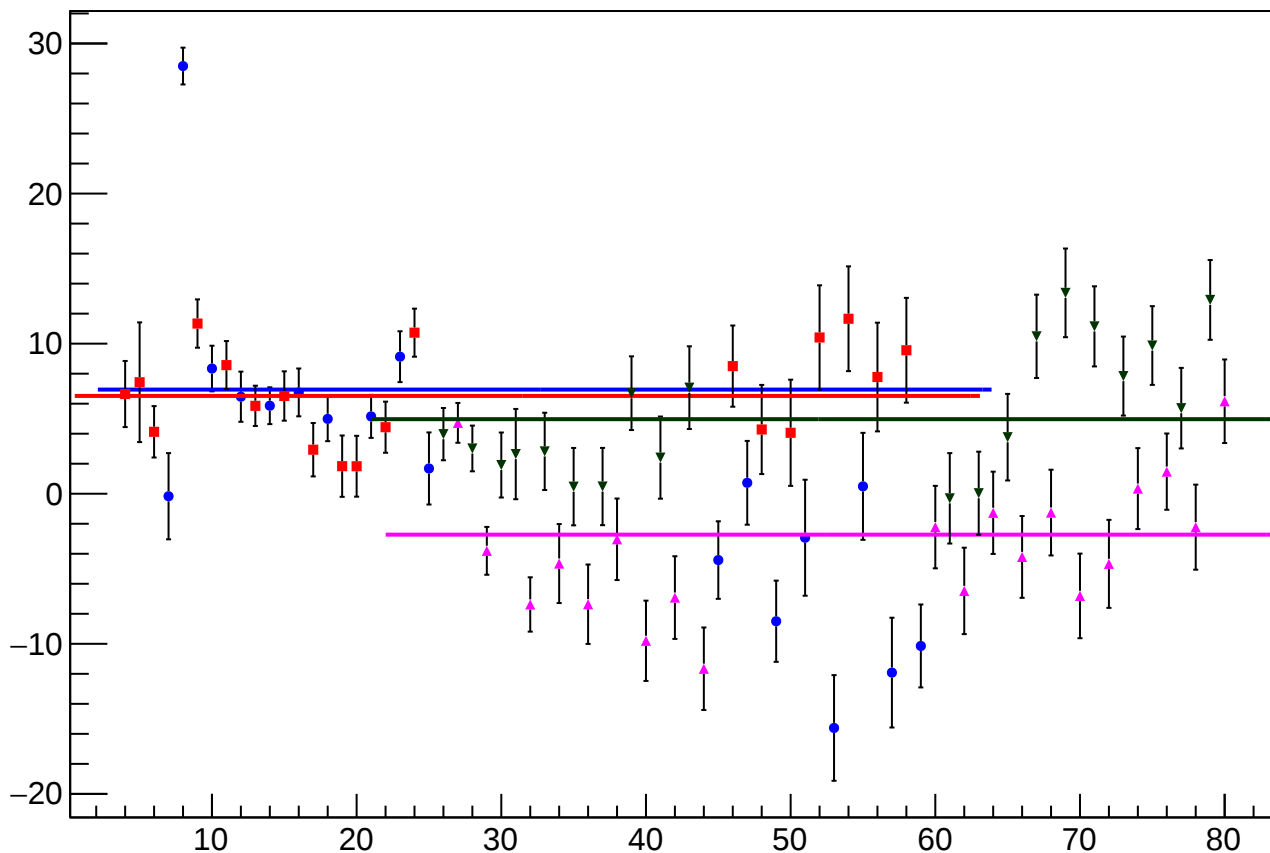
Right Out: 13197.185+/-3.095  $\chi^2/\text{NDF}$ : 1767752.6/18

Left In: 13391.667+/-2.857  $\chi^2/\text{NDF}$ : 524250.7/19

13139.757+/-2.052  $\chi^2/\text{NDF}$ : 2332958.1/37

13302.186+/-2.099  $\chi^2/\text{NDF}$ : 2294135.1/38

# diff\_bpm0l07Y\_mean vs slug



Right In:  $6.939 \pm 0.450$   $\chi^2/\text{NDF}$ : 499.6/17

Left Out:  $4.967 \pm 0.552$   $\chi^2/\text{NDF}$ : 50.8/19

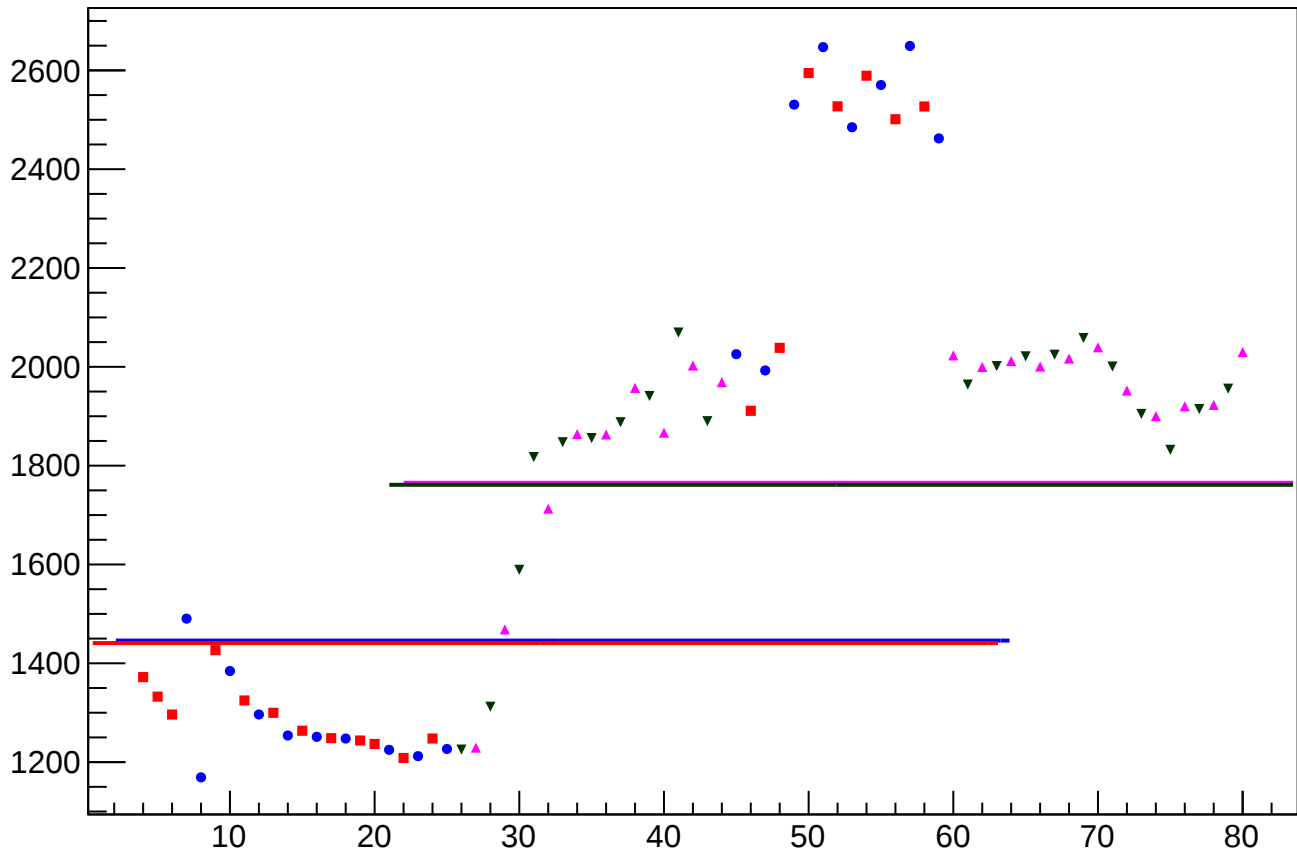
Right Out:  $6.517 \pm 0.472$   $\chi^2/\text{NDF}$ : 41.8/18

Left In:  $-2.726 \pm 0.533$   $\chi^2/\text{NDF}$ : 81.4/19

$6.153 \pm 0.349$   $\chi^2/\text{NDF}$ : 558.1/37

$2.456 \pm 0.353$   $\chi^2/\text{NDF}$ : 292.0/38

# diff\_bpm0l07Y\_rms vs slug



Right In: 1446.011+/-0.318  $\chi^2/\text{NDF}$ : 1891465.4/17

Left Out: 1761.256+/-0.390  $\chi^2/\text{NDF}$ : 546218.8/19

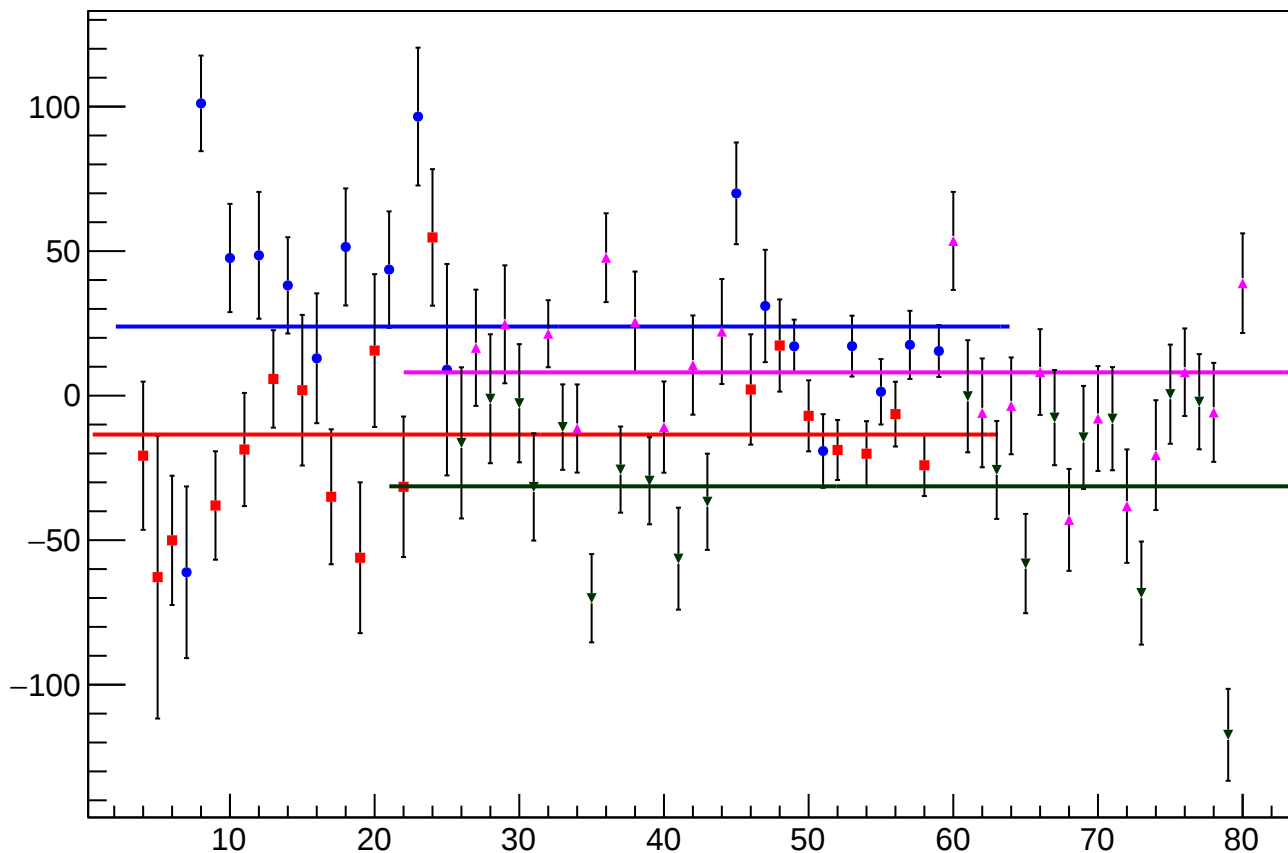
1571.781+/-0.246  $\chi^2/\text{NDF}$ : 2829949.2/37

Right Out: 1440.962+/-0.333  $\chi^2/\text{NDF}$ : 1333198.7/18

1583.514+/-0.250  $\chi^2/\text{NDF}$ : 2331366.9/38

Left In: 1765.388+/-0.377  $\chi^2/\text{NDF}$ : 582265.4/19

# diff\_bpm0l08X\_mean vs slug



Right In:  $23.908 \pm 3.470$   $\chi^2/\text{NDF}: 70.6/17$

Left Out:  $-31.371 \pm 3.862$   $\chi^2/\text{NDF}: 64.7/19$

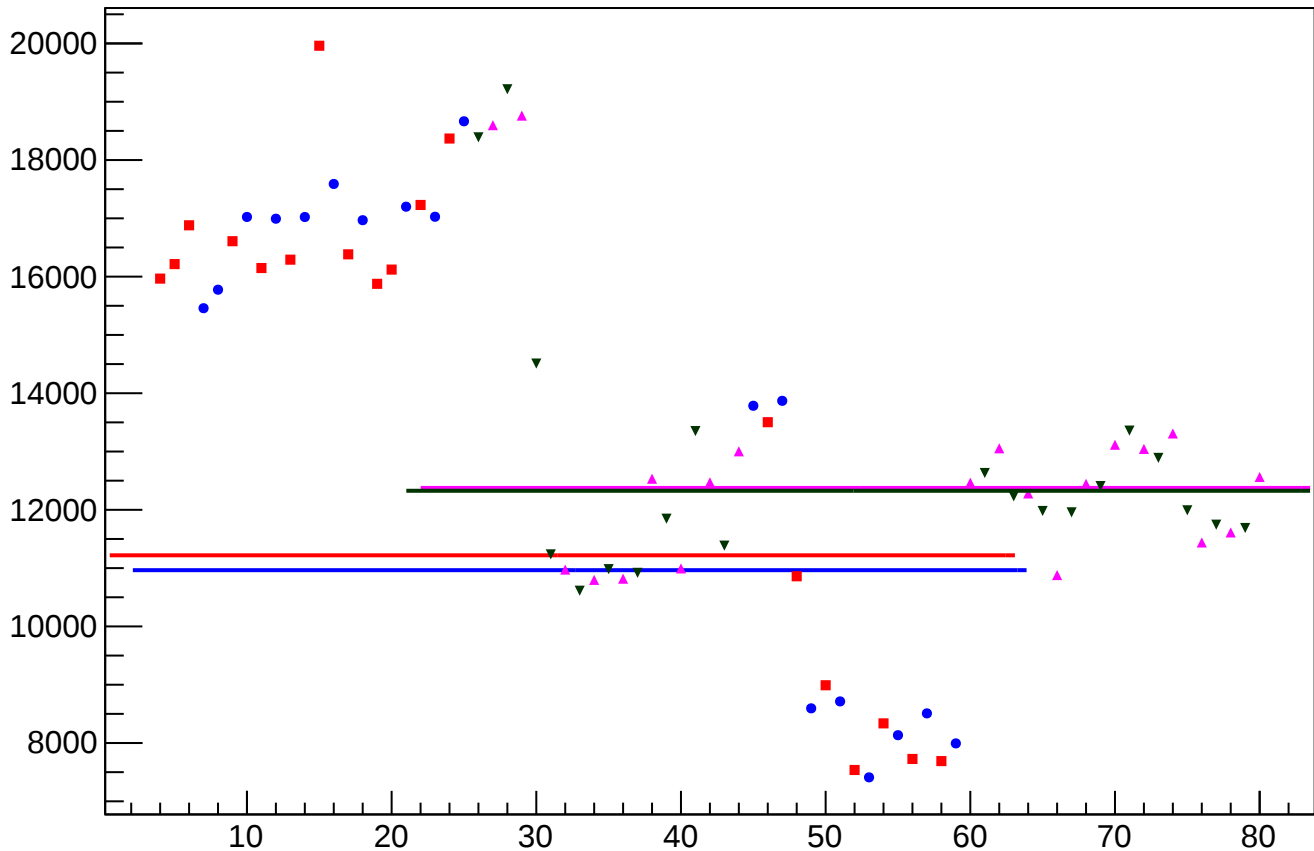
Right Out:  $-13.450 \pm 3.783$   $\chi^2/\text{NDF}: 27.5/18$

Left In:  $8.054 \pm 3.734$   $\chi^2/\text{NDF}: 42.6/19$

$-0.787 \pm 2.581$   $\chi^2/\text{NDF}: 248.7/37$

$-2.557 \pm 2.657$   $\chi^2/\text{NDF}: 86.5/38$

# diff\_bpm0l08X\_rms vs slug



Right In: 10964.744 $\pm$ 2.454  $\chi^2$ /NDF: 2550839.7/17

Left Out: 12326.849 $\pm$ 2.731  $\chi^2$ /NDF:420871.7/19

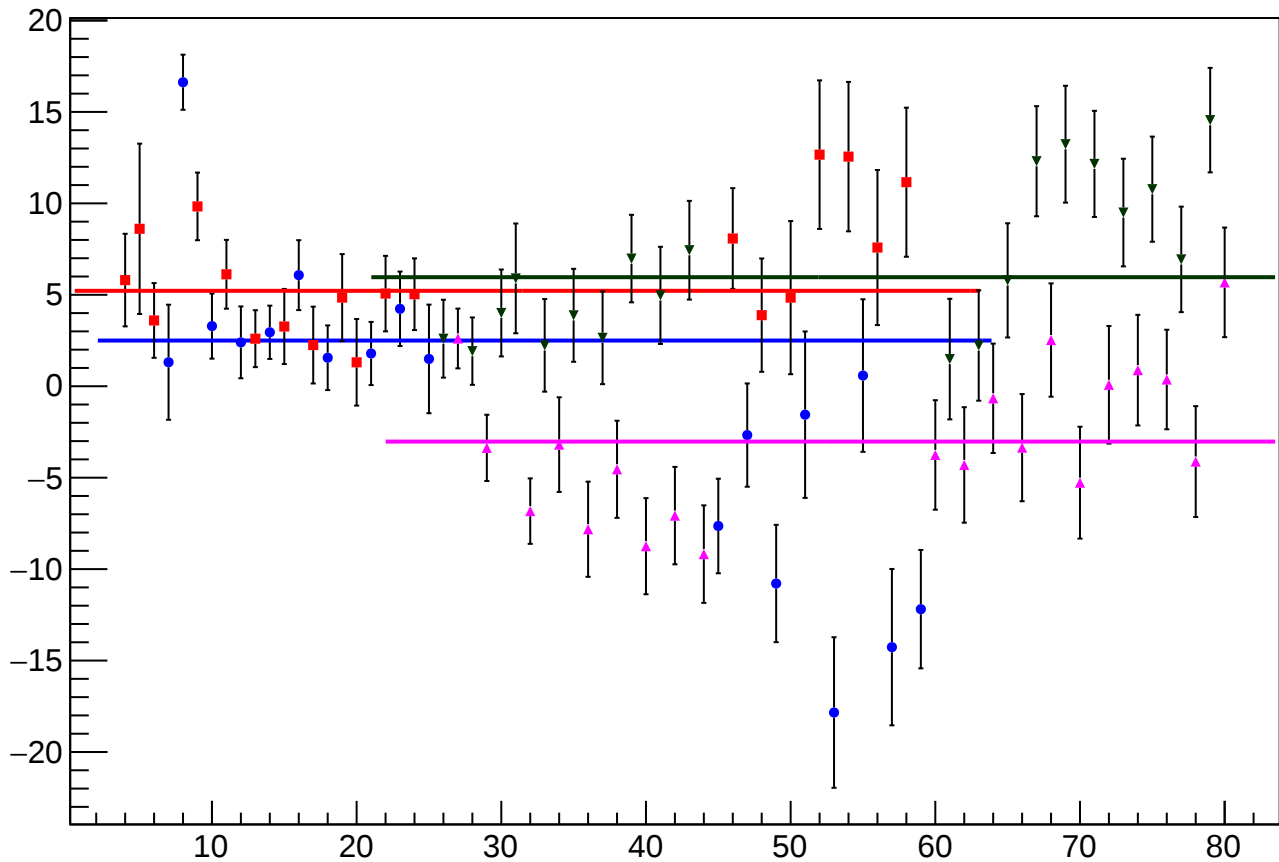
Right Out: 11219.959 $\pm$ 2.675  $\chi^2$ /NDF: 2343952.2/18

Left In: 12375.806 $\pm$ 2.640  $\chi^2$ /NDF:521919.5/19

11573.233 $\pm$ 1.825  $\chi^2$ /NDF: 3109384.0/37

11805.482 $\pm$ 1.879  $\chi^2$ /NDF: 2960442.2/38

# diff\_bpm0l08Y\_mean vs slug



Right In:  $2.499 \pm 0.530$   $\chi^2/\text{NDF}$ : 190.3/17

Left Out:  $5.963 \pm 0.594$   $\chi^2/\text{NDF}$ : 44.1/19

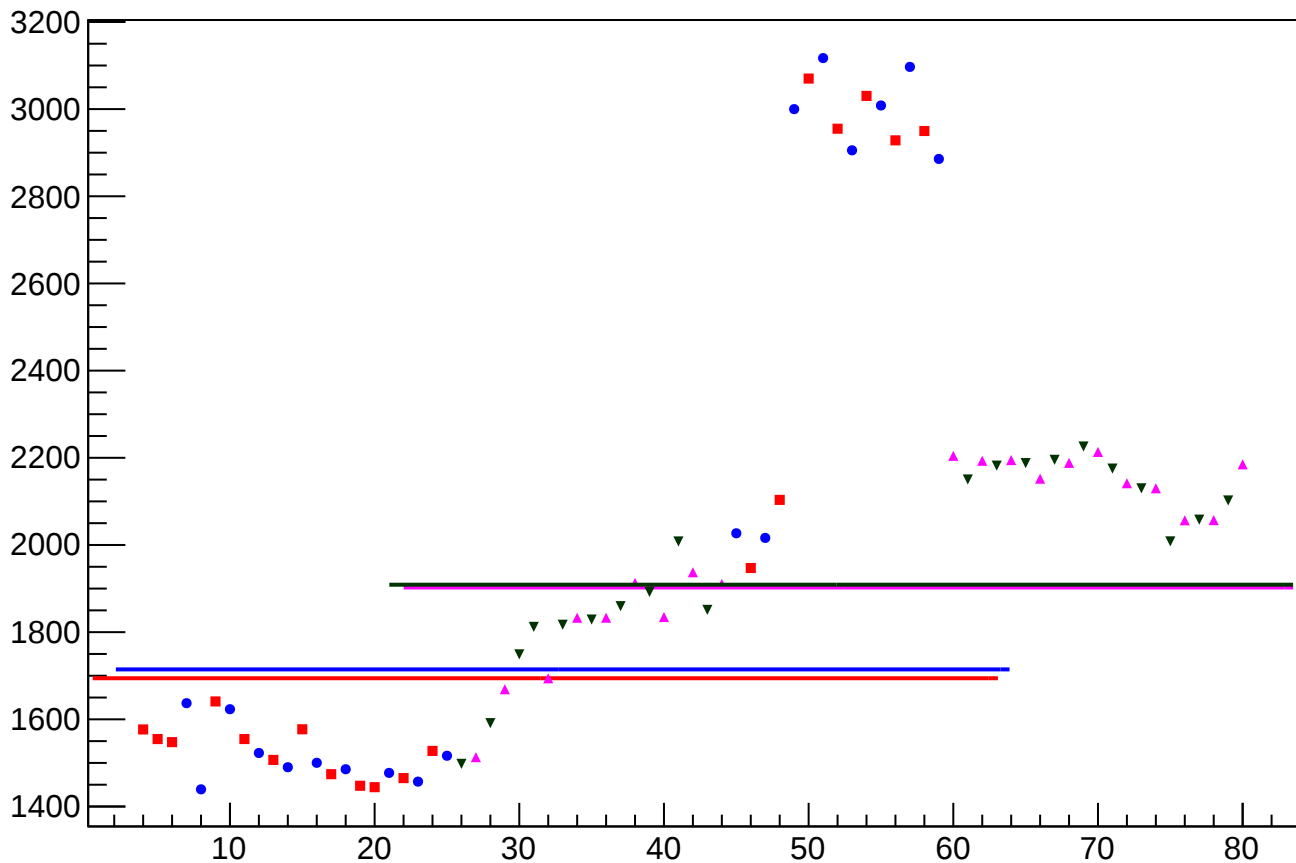
Right Out:  $5.218 \pm 0.553$   $\chi^2/\text{NDF}$ : 26.5/18

Left In:  $-3.026 \pm 0.571$   $\chi^2/\text{NDF}$ : 49.9/19

$4.035 \pm 0.396$   $\chi^2/\text{NDF}$ : 253.4/37

$1.228 \pm 0.397$   $\chi^2/\text{NDF}$ : 184.0/38

# diff\_bpm0l08Y\_rms vs slug



Right In: 1714.550+/-0.375  $\chi^2/\text{NDF}$ : 1670759.3/17

Left Out: 1908.851+/-0.420  $\chi^2/\text{NDF}$ : 280180.6/19

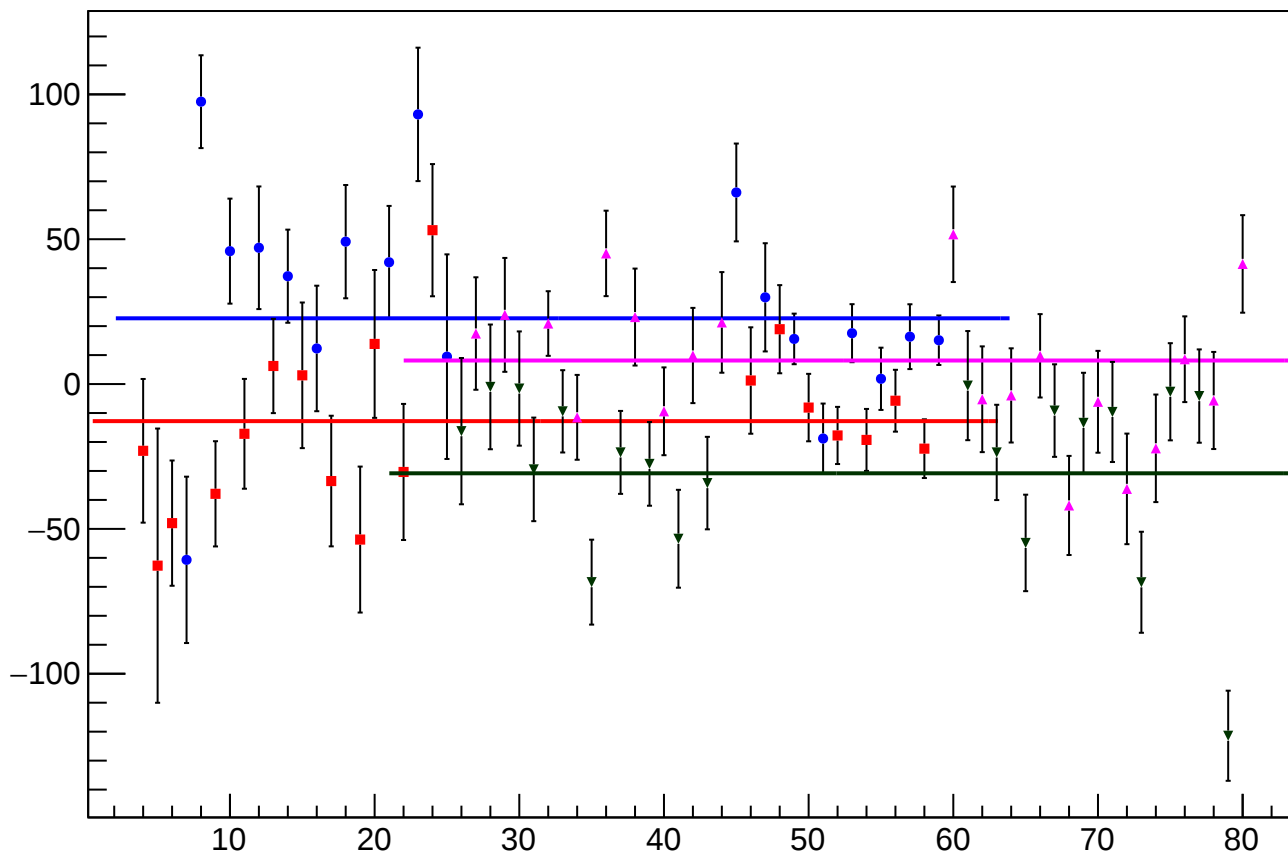
Right Out: 1694.263+/-0.391  $\chi^2/\text{NDF}$ : 1202765.8/18

Left In: 1902.496+/-0.404  $\chi^2/\text{NDF}$ : 338817.1/19

1800.702+/-0.280  $\chi^2/\text{NDF}$ : 2070037.9/37

1795.035+/-0.281  $\chi^2/\text{NDF}$ : 1678923.9/38

# diff\_bpm0l09X\_mean vs slug



Right In:  $22.698 \pm 3.315$   $\chi^2/\text{NDF}: 70.9/17$

Left Out:  $-30.807 \pm 3.735$   $\chi^2/\text{NDF}: 68.8/19$

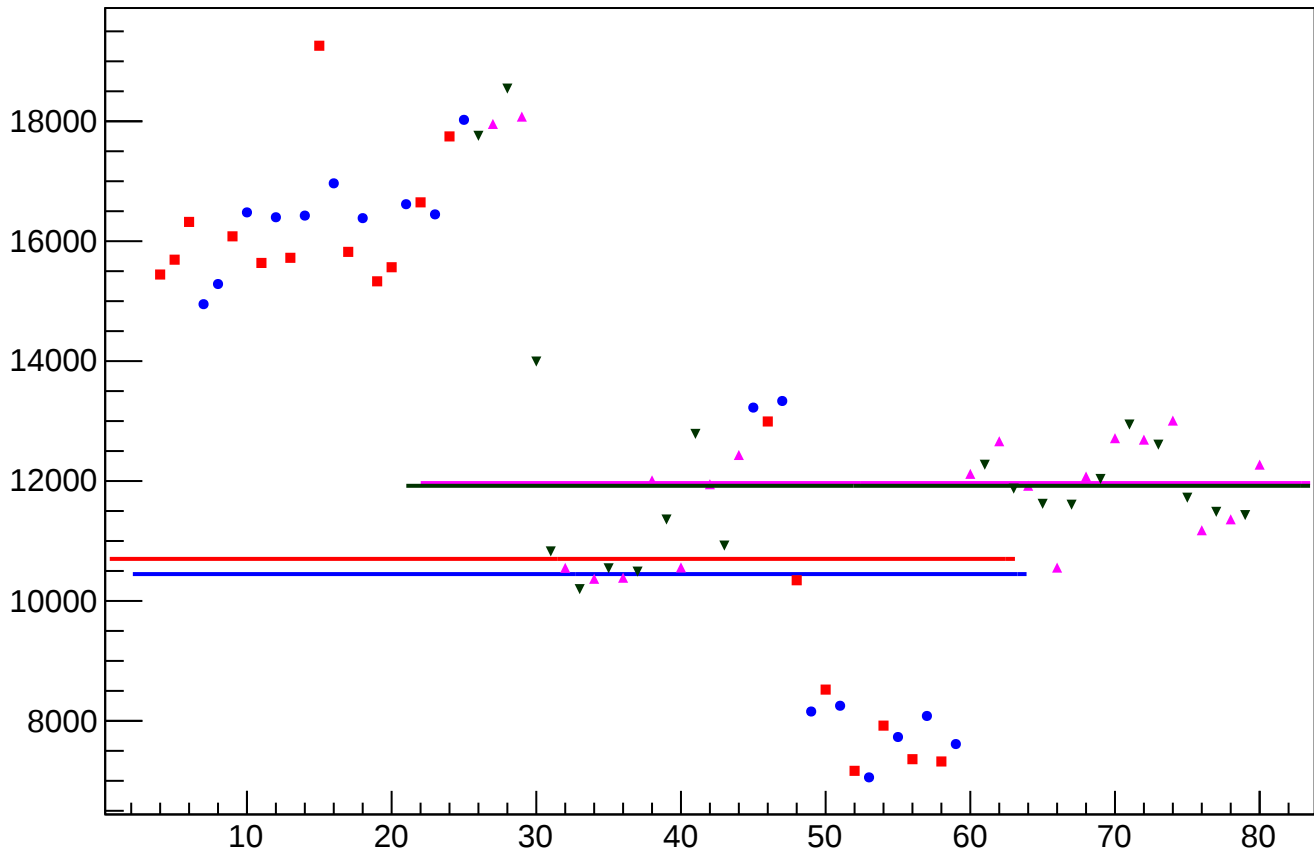
Right Out:  $-12.799 \pm 3.618$   $\chi^2/\text{NDF}: 28.2/18$

Left In:  $8.130 \pm 3.610$   $\chi^2/\text{NDF}: 42.9/19$

$-0.880 \pm 2.479$   $\chi^2/\text{NDF}: 254.5/37$

$-2.312 \pm 2.556$   $\chi^2/\text{NDF}: 87.9/38$

# diff\_bpm0l09X\_rms vs slug



Right In: 10448.159+/-2.344  $\chi^2/\text{NDF}$ : 2654654.8/17

Left Out: 11920.482+/-2.641  $\chi^2/\text{NDF}$ : 424994.2/19

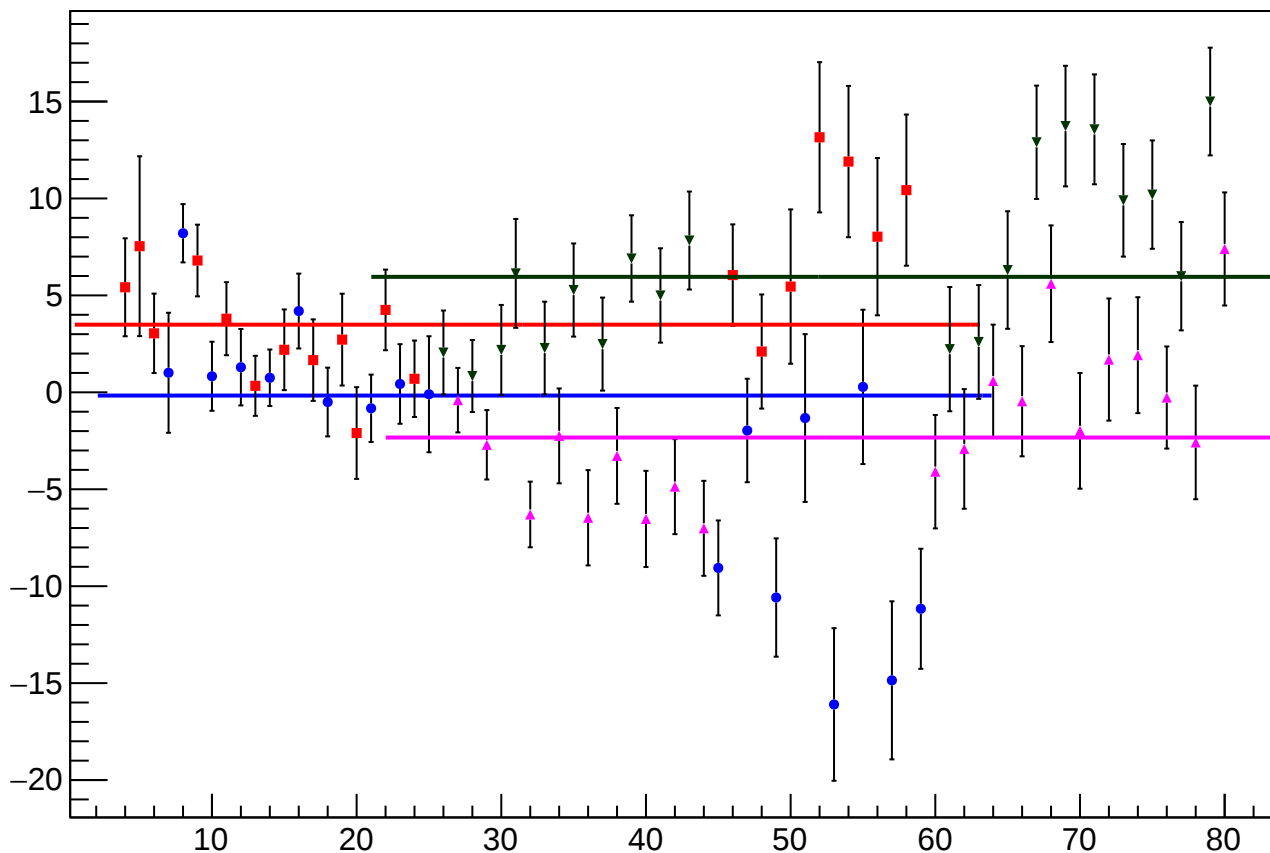
11096.971+/-1.753  $\chi^2/\text{NDF}$ : 3253515.1/37

Right Out: 10701.460+/-2.558  $\chi^2/\text{NDF}$ : 2438498.5/18

11335.185+/-1.807  $\chi^2/\text{NDF}$ : 3086249.0/38

Left In: 11966.143+/-2.553  $\chi^2/\text{NDF}$ : 525312.3/19

# diff\_bpm0l09Y\_mean vs slug



Right In:  $-0.167 \pm 0.526$   $\chi^2/\text{NDF}$ : 105.2/17

Left Out:  $5.956 \pm 0.574$   $\chi^2/\text{NDF}$ : 55.4/19

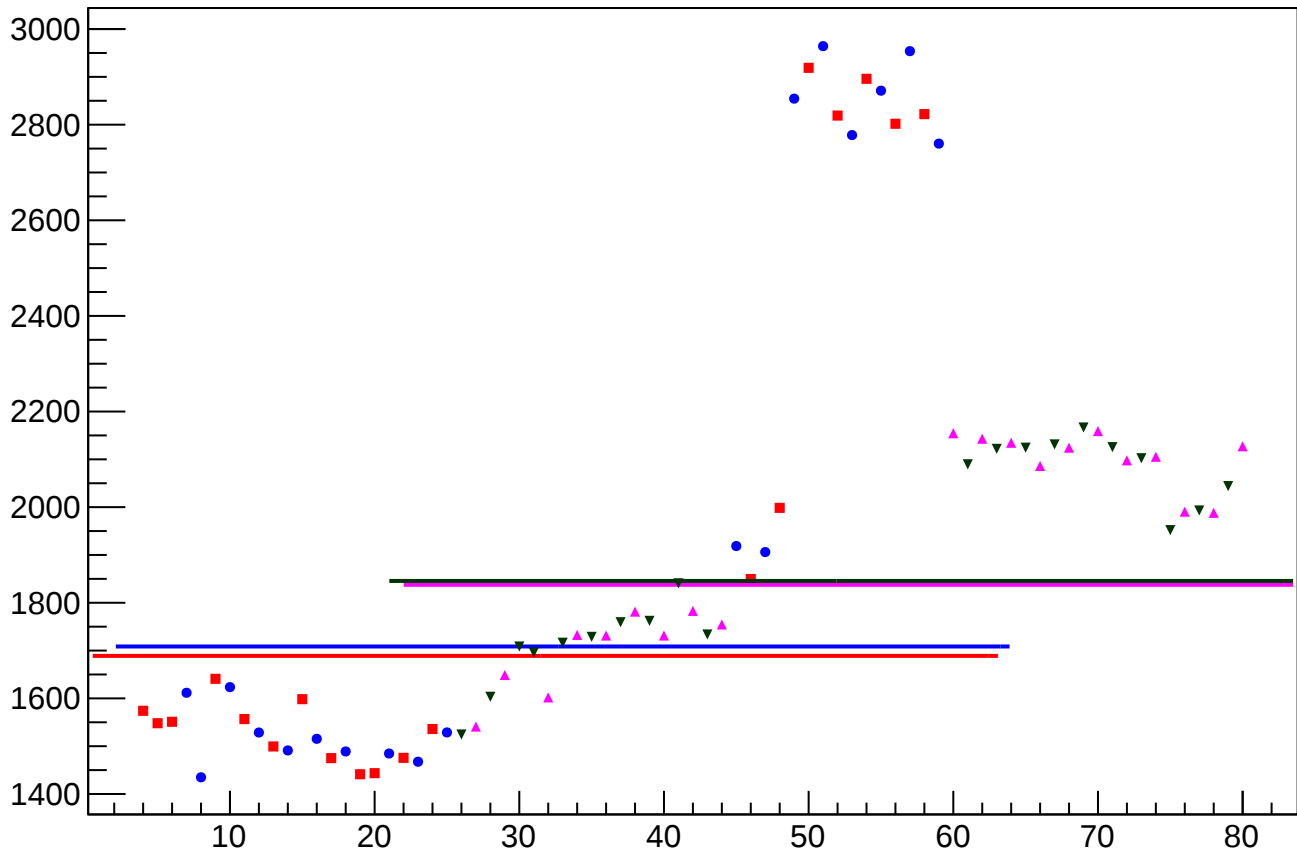
Right Out:  $3.490 \pm 0.549$   $\chi^2/\text{NDF}$ : 34.4/18

Left In:  $-2.332 \pm 0.551$   $\chi^2/\text{NDF}$ : 41.6/19

$2.627 \pm 0.388$   $\chi^2/\text{NDF}$ : 222.5/37

$0.591 \pm 0.389$   $\chi^2/\text{NDF}$ : 132.1/38

# diff\_bpm0l09Y\_rms vs slug



Right In: 1708.561+/-0.372  $\chi^2/\text{NDF}$ : 1464594.2/17

Left Out: 1845.644+/-0.406  $\chi^2/\text{NDF}$ : 250990.7/19

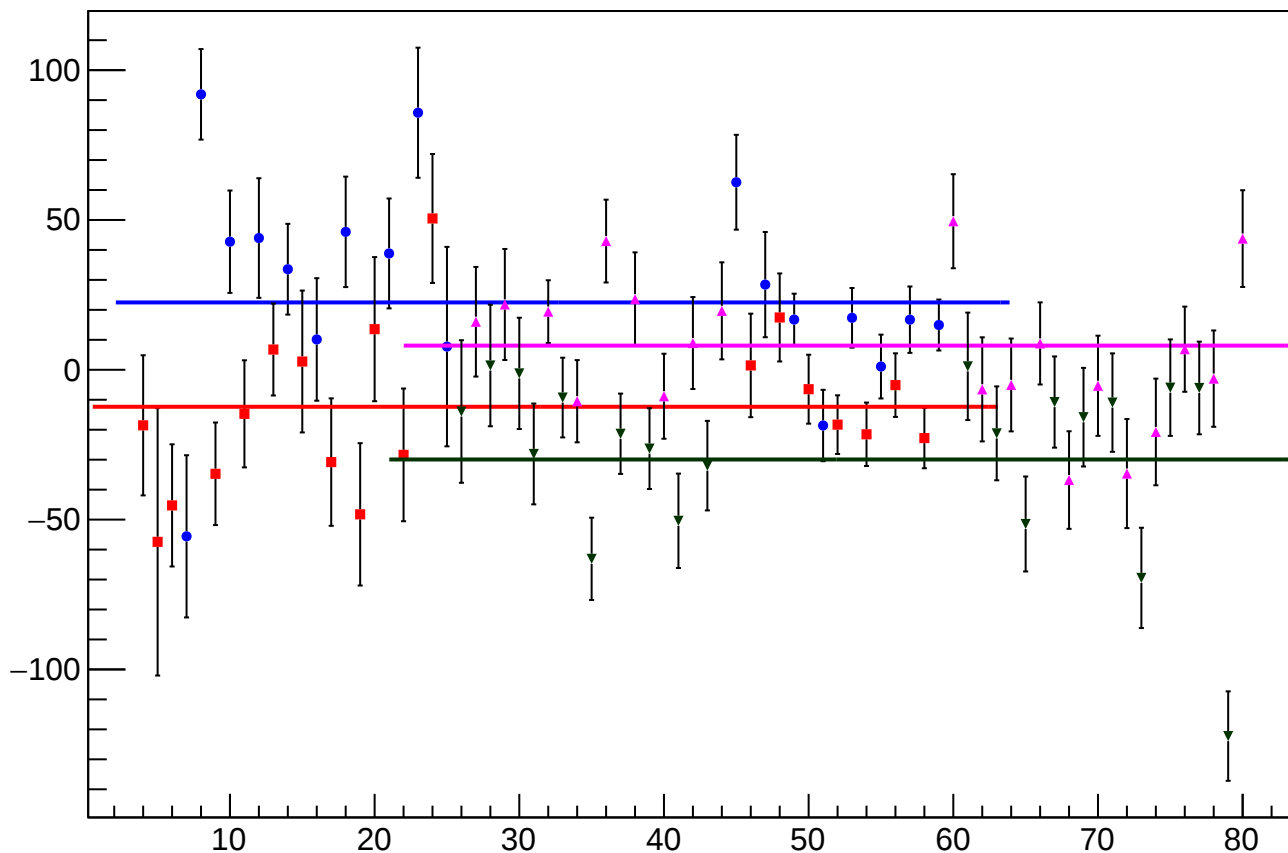
1771.111+/-0.274  $\chi^2/\text{NDF}$ : 1777629.0/37

Right Out: 1688.902+/-0.388  $\chi^2/\text{NDF}$ : 1058632.3/18

1762.967+/-0.275  $\chi^2/\text{NDF}$ : 1453736.2/38

Left In: 1837.635+/-0.390  $\chi^2/\text{NDF}$ : 321987.6/19

# diff\_bpm0l10X\_mean vs slug



Right In:  $22.480 \pm 3.228$   $\chi^2/\text{NDF}: 68.3/17$

Left Out:  $-29.933 \pm 3.533$   $\chi^2/\text{NDF}: 72.9/19$

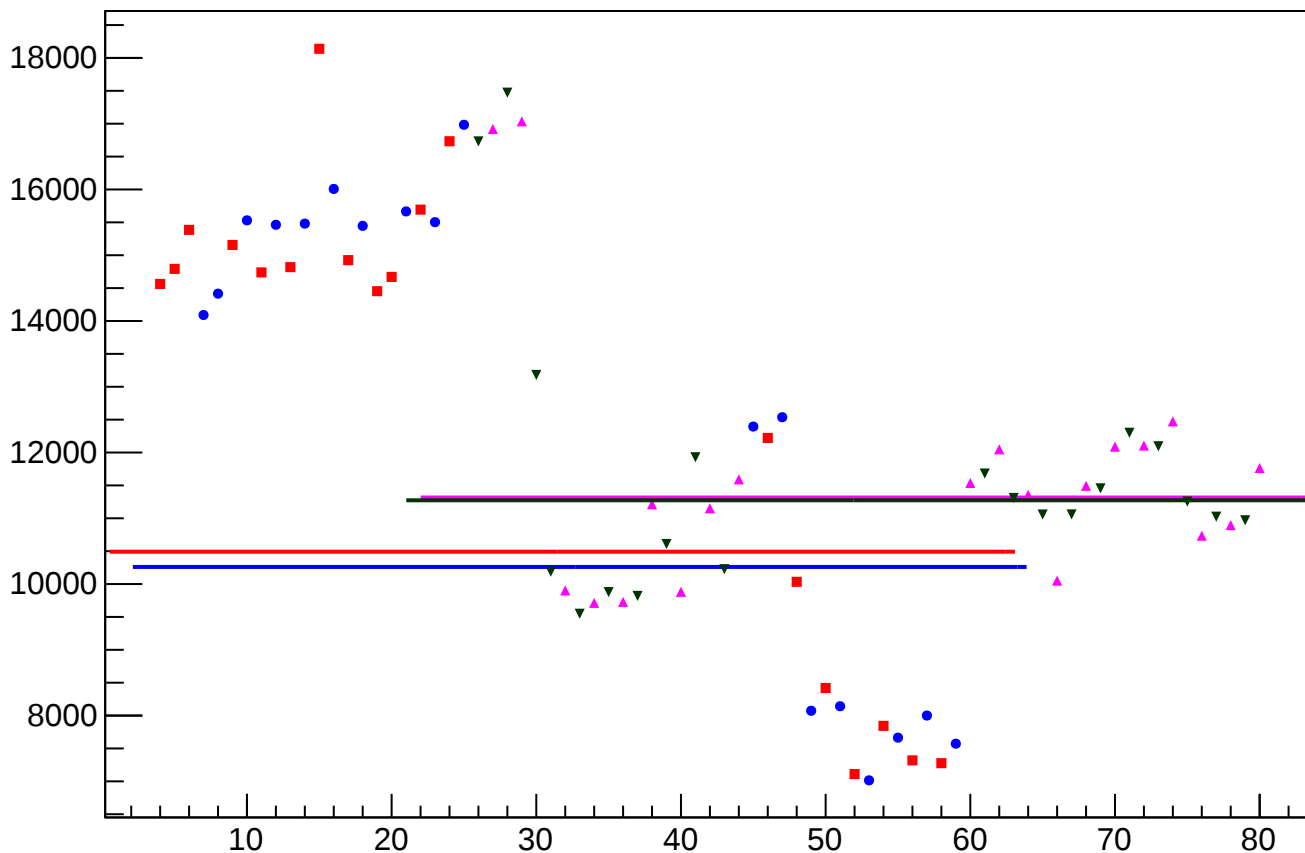
Right Out:  $-12.340 \pm 3.516$   $\chi^2/\text{NDF}: 28.3/18$

Left In:  $8.067 \pm 3.415$   $\chi^2/\text{NDF}: 43.2/19$

$-1.370 \pm 2.383$   $\chi^2/\text{NDF}: 261.2/37$

$-1.837 \pm 2.450$   $\chi^2/\text{NDF}: 88.8/38$

# diff\_bpm0l10X\_rms vs slug



Right In: 10260.138 $\pm$ 2.282  $\chi^2$ /NDF: 2319999.2/17

Left Out: 11273.512 $\pm$ 2.498  $\chi^2$ /NDF: 433432.0/19

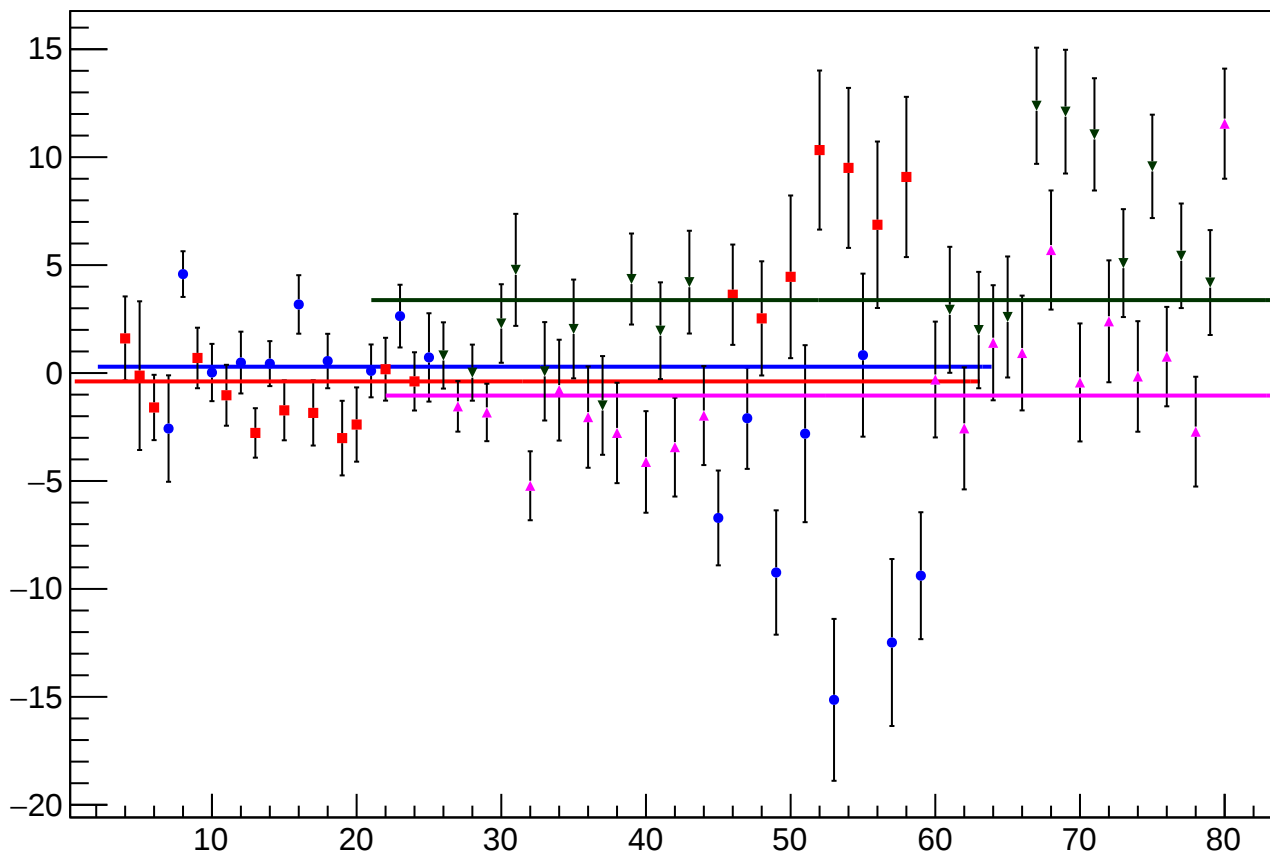
10721.259 $\pm$ 1.685  $\chi^2$ /NDF: 2843126.5/37

Right Out: 10492.088 $\pm$ 2.487  $\chi^2$ /NDF: 2138865.4/18

10916.050 $\pm$ 1.732  $\chi^2$ /NDF: 2729183.7/38

Left In: 11315.822 $\pm$ 2.415  $\chi^2$ /NDF: 533832.8/19

# diff\_bpm0l10Y\_mean vs slug



Right In: 0.293+/-0.393     $\chi^2/\text{NDF}$ : 86.6/17

Left Out: 3.379+/-0.493     $\chi^2/\text{NDF}$ : 55.4/19

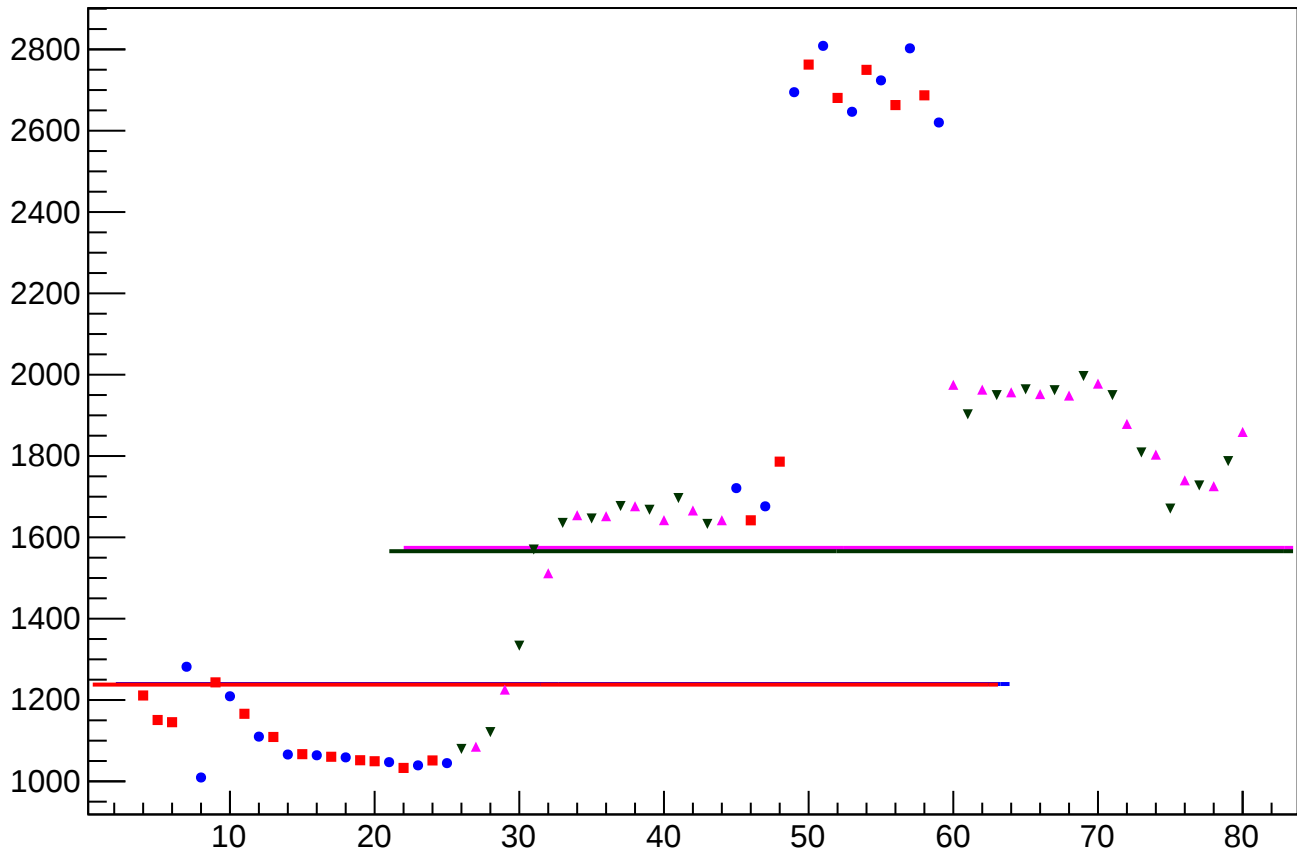
Right Out: -0.388+/-0.412     $\chi^2/\text{NDF}$ : 44.0/18

Left In: -1.043+/-0.478     $\chi^2/\text{NDF}$ : 45.9/19

1.490+/-0.307     $\chi^2/\text{NDF}$ : 165.9/37

-0.667+/-0.312     $\chi^2/\text{NDF}$ : 91.0/38

diff\_bpm0l10Y\_rms vs slug



Right In: 1239.296+/-0.278  $\chi^2/\text{NDF}$ : 2675601.4/17

Left Out: 1565.938+/-0.349  $\chi^2/\text{NDF}$ : 778147.0/19

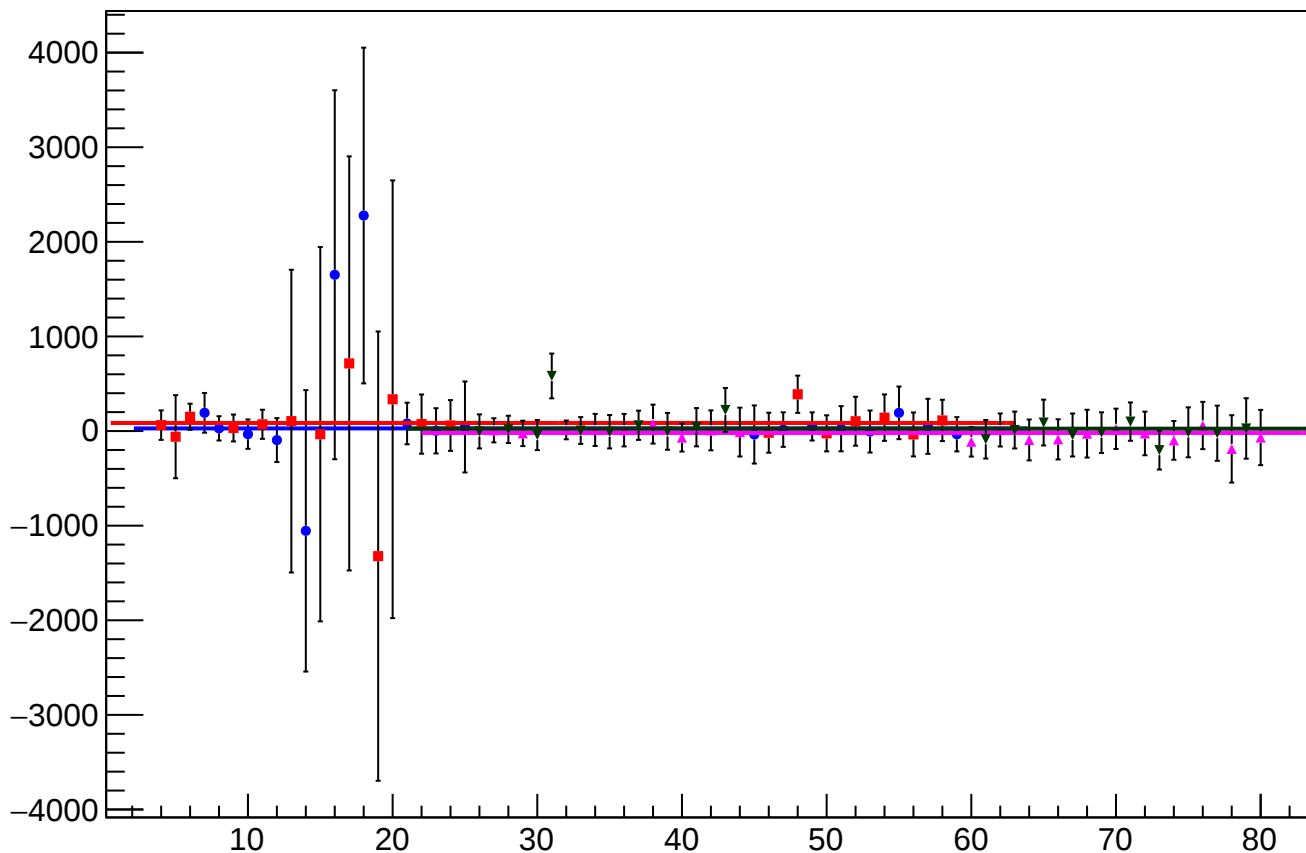
Right Out: 1237.907+/-0.291  $\chi^2/\text{NDF}$ : 1914347.8/18

Left In: 1574.102+/-0.338  $\chi^2/\text{NDF}$ : 830442.6/19

1366.018+/-0.217  $\chi^2/\text{NDF}$ : 3990324.5/37

1381.279+/-0.221  $\chi^2/\text{NDF}$ : 3313165.0/38

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_avg\_mean vs slug



Right In: 27.874 $\pm$ 52.297  $\chi^2$ /NDF: 4.5/17

Left Out: 25.144 $\pm$ 43.768  $\chi^2$ /NDF:8.5/19

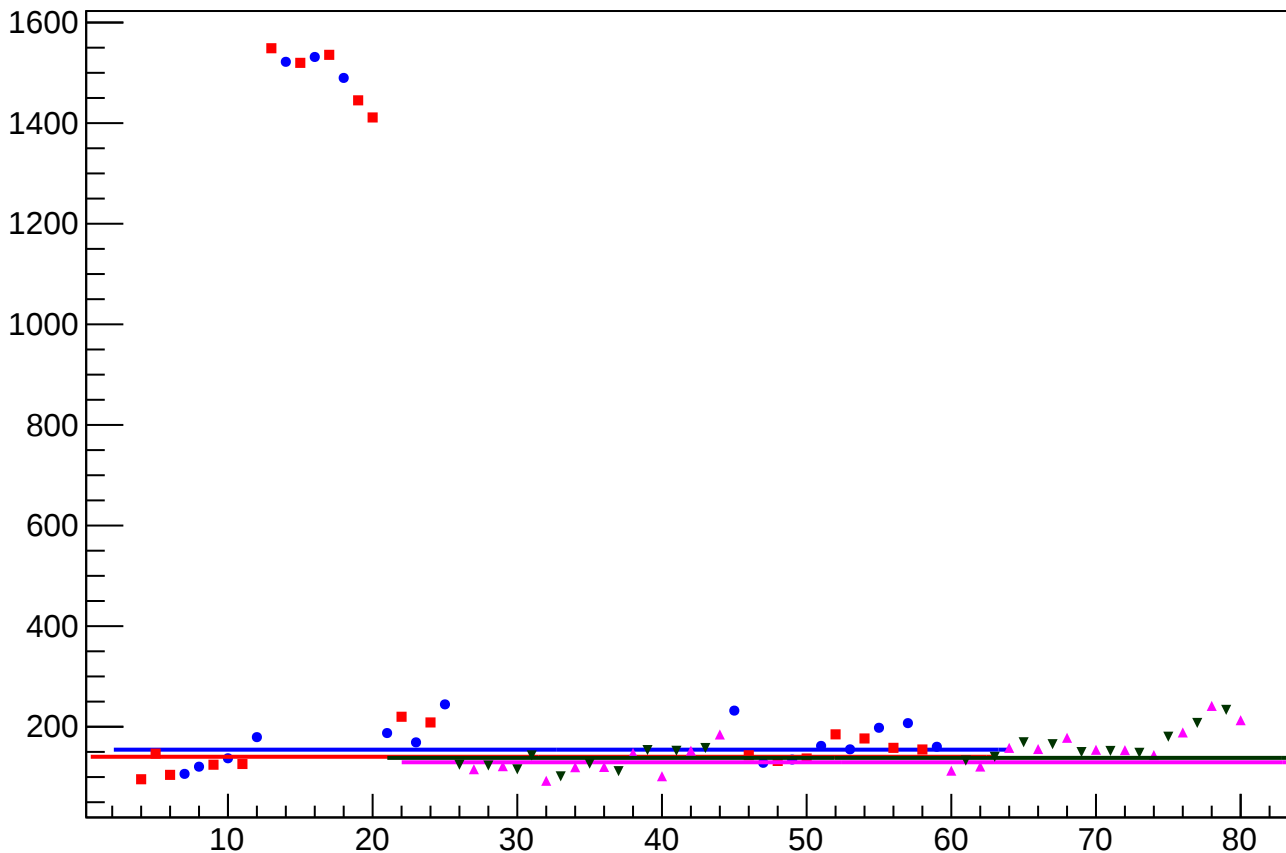
Right Out: 85.325 $\pm$ 52.506  $\chi^2$ /NDF: 4.3/18

Left In: -20.250 $\pm$ 39.922  $\chi^2$ /NDF:1.7/19

26.269 $\pm$ 33.564  $\chi^2$ /NDF: 13.0/37

18.425 $\pm$ 31.779  $\chi^2$ /NDF: 8.5/38

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_avg\_rms vs slug



Right In: 154.452 $\pm$ 0.037  $\chi^2$ /NDF: 4556738.2/17

Left Out: 138.146 $\pm$ 0.031  $\chi^2$ /NDF: 739199.8/19

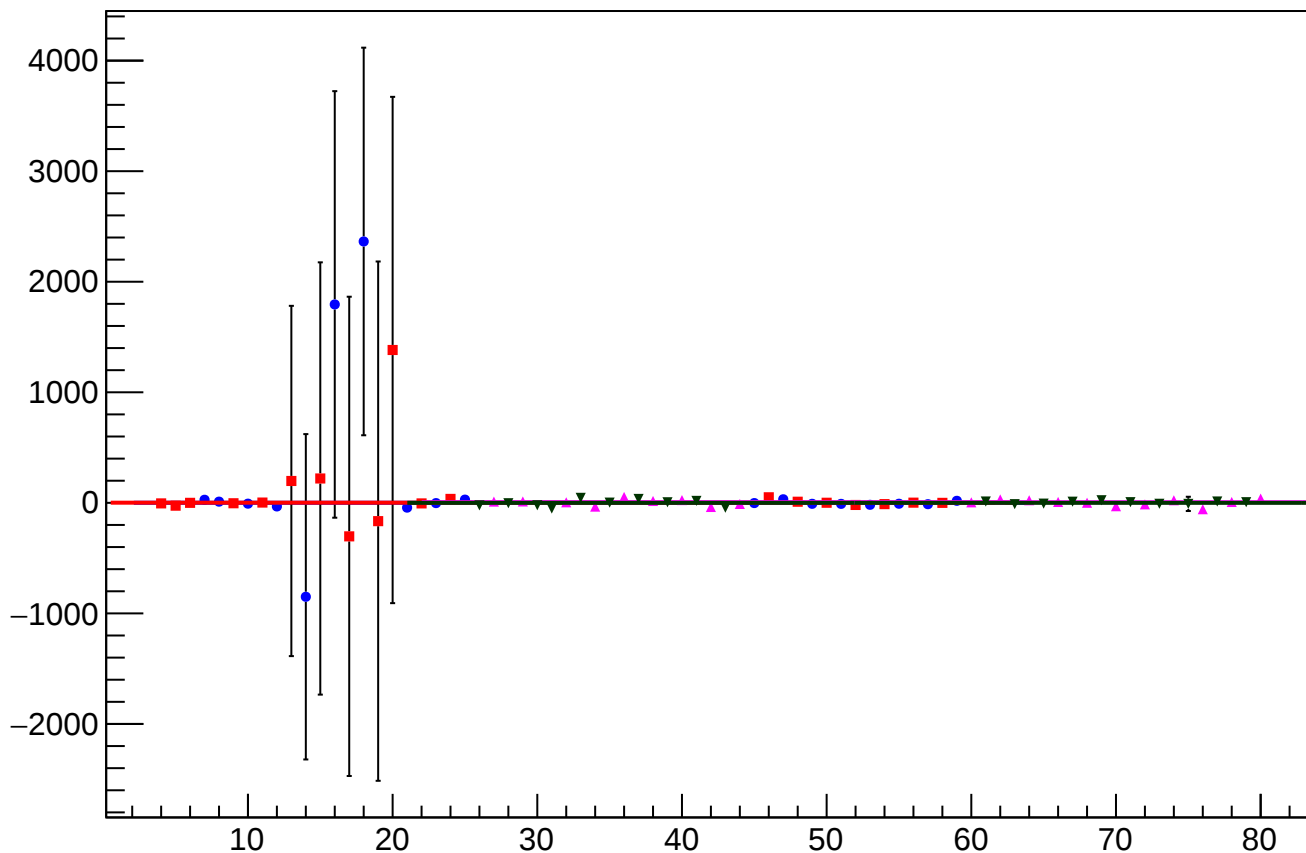
144.863 $\pm$ 0.024  $\chi^2$ /NDF: 5410283.4/37

Right Out: 140.345 $\pm$ 0.037  $\chi^2$ /NDF: 5274055.6/18

133.405 $\pm$ 0.022  $\chi^2$ /NDF: 6549325.5/38

Left In: 129.393 $\pm$ 0.028  $\chi^2$ /NDF: 1220125.1/19

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_dd\_mean vs slug



Right In: 0.581+/-4.614  $\chi^2/\text{NDF}$ : 16.6/17

Left Out: 0.087+/-5.342  $\chi^2/\text{NDF}$ : 16.7/19

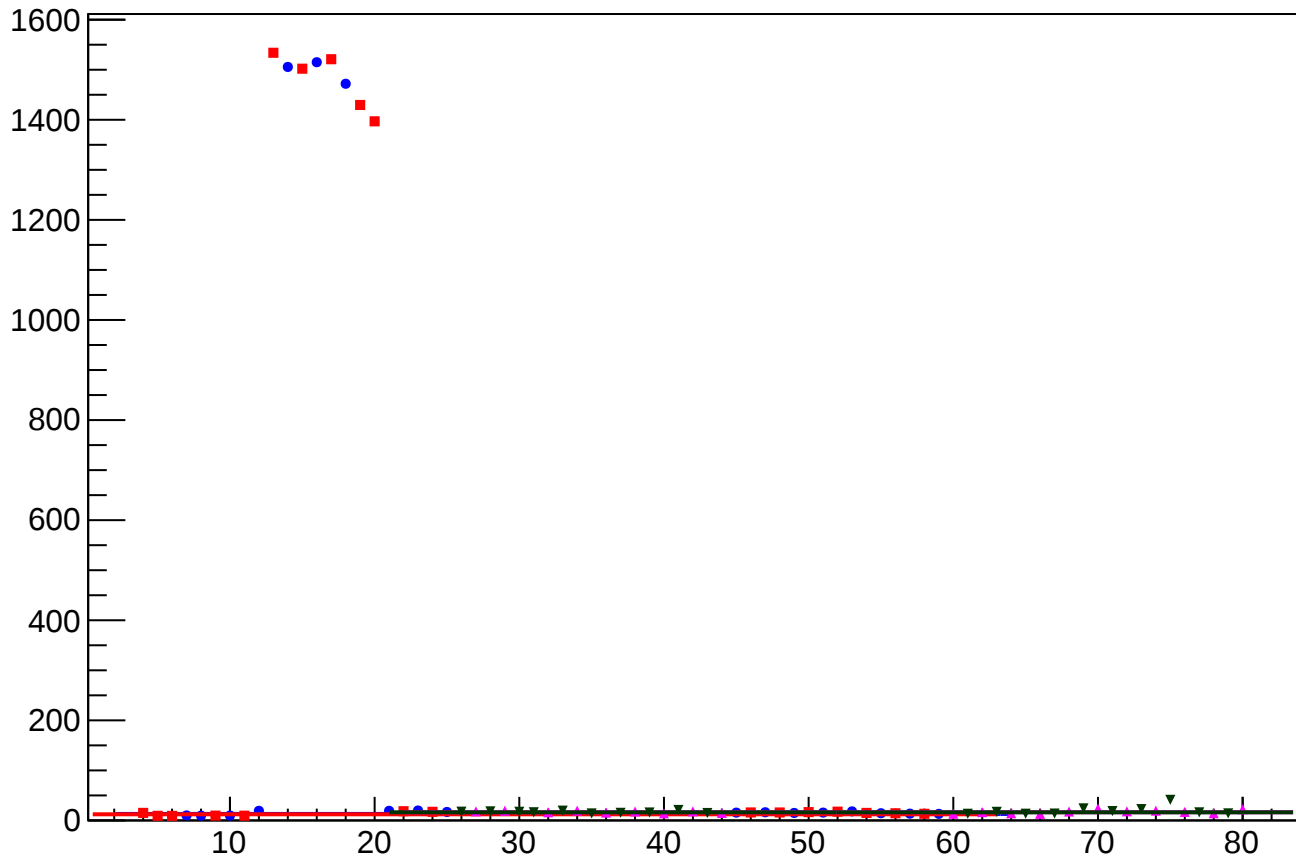
Right Out: 1.382+/-4.789  $\chi^2/\text{NDF}$ : 9.5/18

Left In: 5.967+/-5.162  $\chi^2/\text{NDF}$ : 21.8/19

0.370+/-3.492  $\chi^2/\text{NDF}$ : 33.3/37

3.503+/-3.511  $\chi^2/\text{NDF}$ : 31.7/38

asym\_bcm\_an\_us\_bcm\_an\_ds\_agg\_dd\_rms vs slug



Right In: 13.014 $\pm$ 0.003  $\chi^2$ /NDF: 5695749.7/17

Left Out: 16.280 $\pm$ 0.004  $\chi^2$ /NDF: 751105.5/19

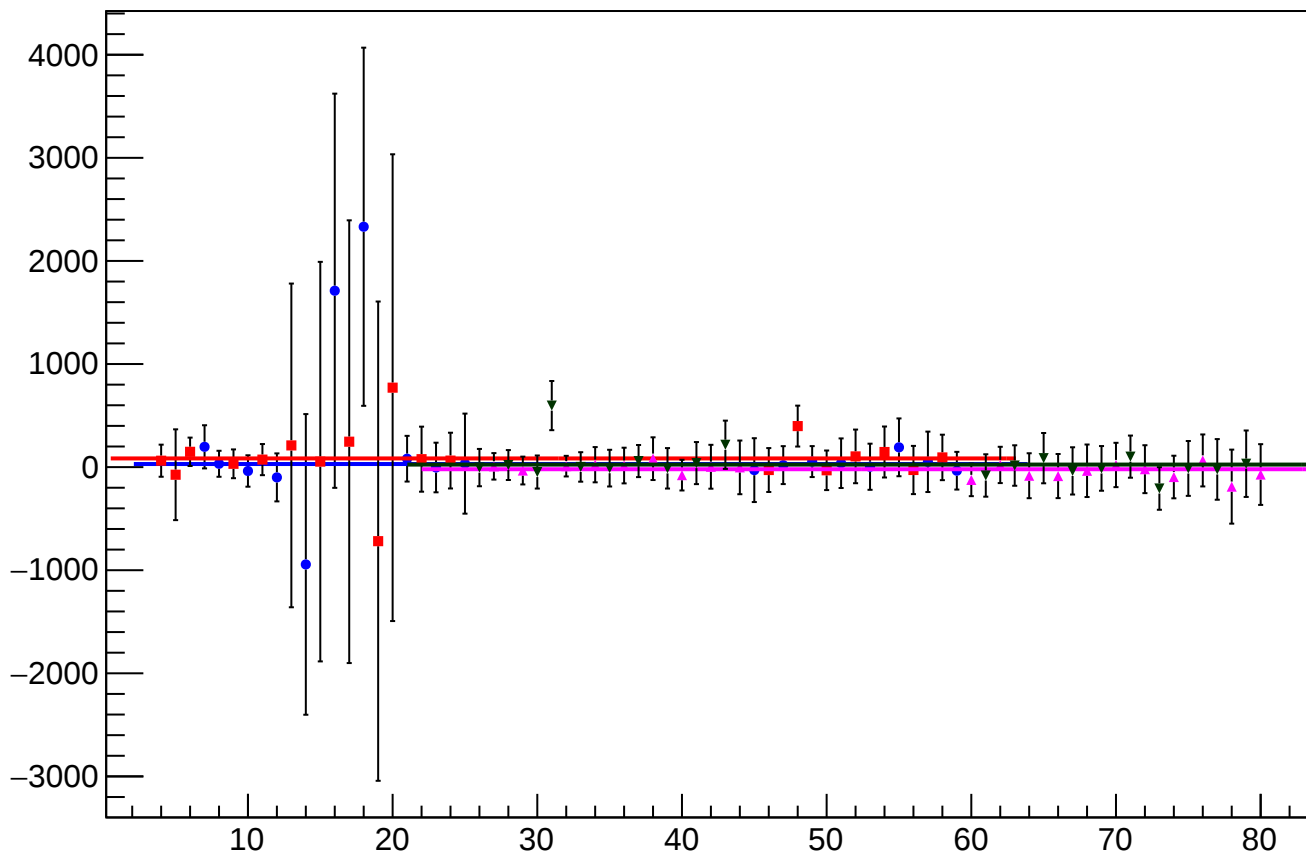
14.409 $\pm$ 0.002  $\chi^2$ /NDF: 6875152.1/37

Right Out: 12.312 $\pm$ 0.003  $\chi^2$ /NDF: 6373010.7/18

14.227 $\pm$ 0.002  $\chi^2$ /NDF: 7524371.7/38

Left In: 16.452 $\pm$ 0.004  $\chi^2$ /NDF: 460182.4/19

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_avg\_mean vs slug



Right In: 30.011 $\pm$ 52.267  $\chi^2$ /NDF: 4.7/17

Left Out: 24.733 $\pm$ 44.116  $\chi^2$ /NDF:8.7/19

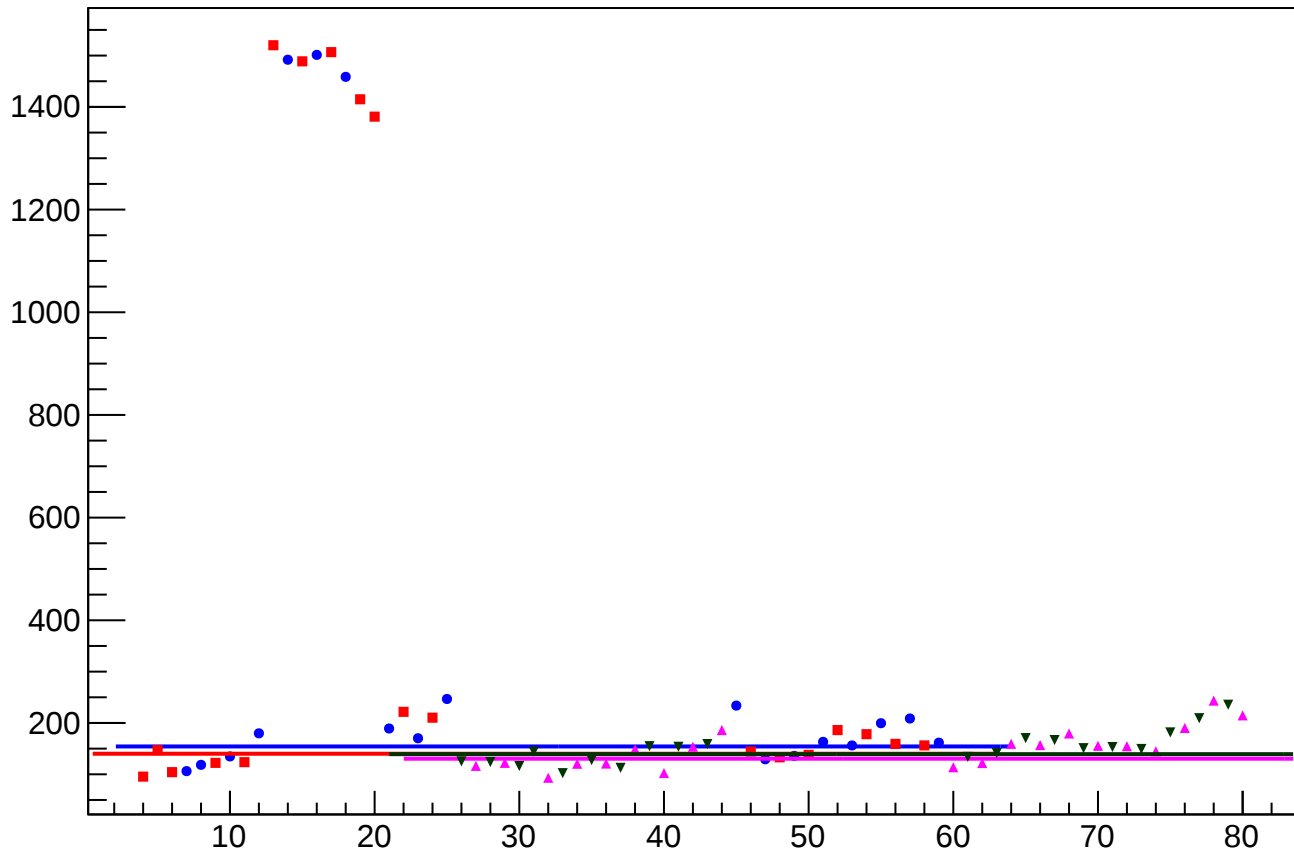
Right Out: 84.316 $\pm$ 52.424  $\chi^2$ /NDF: 4.2/18

Left In: -20.410 $\pm$ 40.227  $\chi^2$ /NDF:1.9/19

26.929 $\pm$ 33.713  $\chi^2$ /NDF: 13.4/37

18.401 $\pm$ 31.914  $\chi^2$ /NDF: 8.6/38

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_avg\_rms vs slug



Right In: 154.234 $\pm$ 0.037  $\chi^2$ /NDF: 4584859.8/17

Left Out: 139.239 $\pm$ 0.031  $\chi^2$ /NDF: 740342.4/19

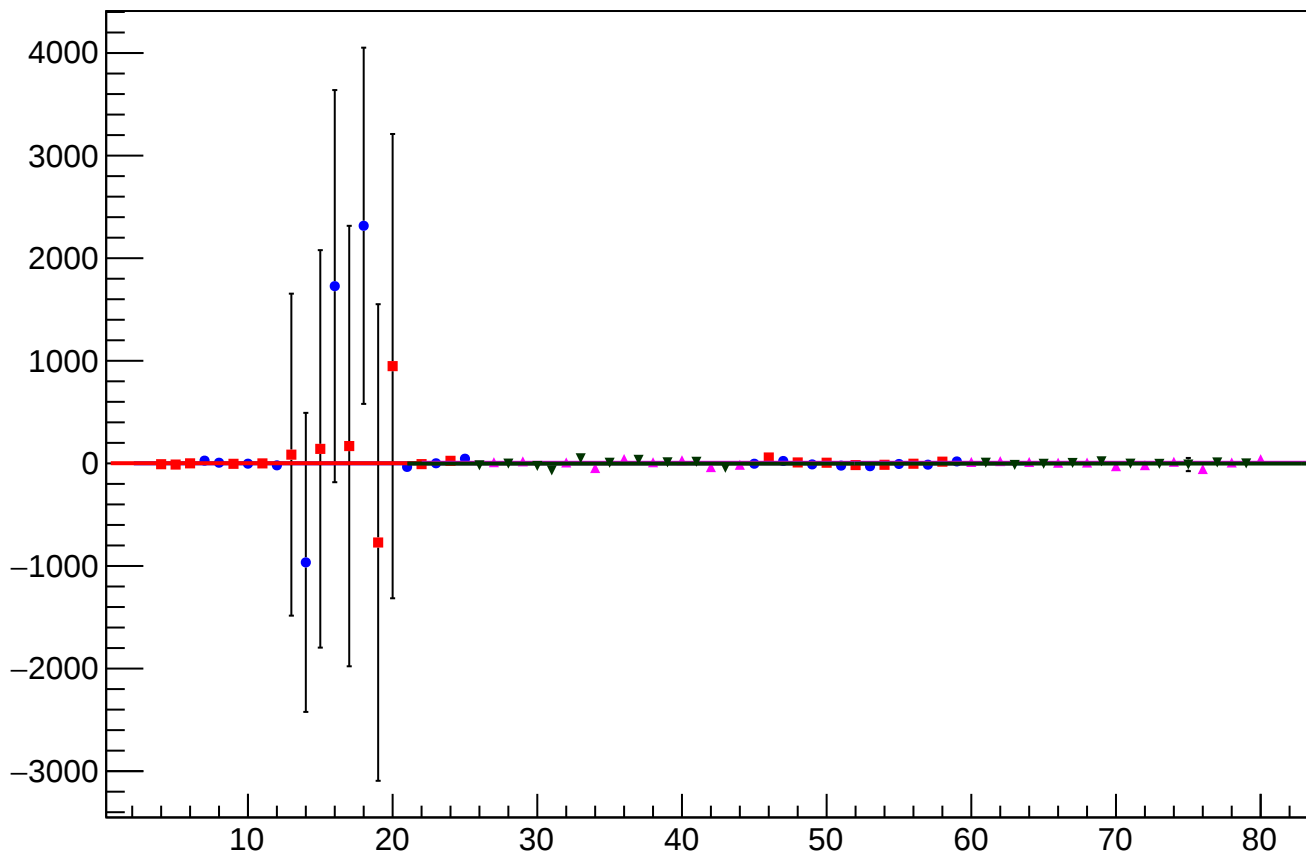
145.478 $\pm$ 0.024  $\chi^2$ /NDF: 5421333.0/37

Right Out: 140.050 $\pm$ 0.037  $\chi^2$ /NDF: 5289912.8/18

133.956 $\pm$ 0.023  $\chi^2$ /NDF: 6556346.0/38

Left In: 130.368 $\pm$ 0.028  $\chi^2$ /NDF: 1223489.9/19

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_dd\_mean vs slug



Right In: 0.652 $\pm$ 4.315  $\chi^2$ /NDF: 16.0/17

Left Out: -1.437 $\pm$ 5.227  $\chi^2$ /NDF:19.4/19

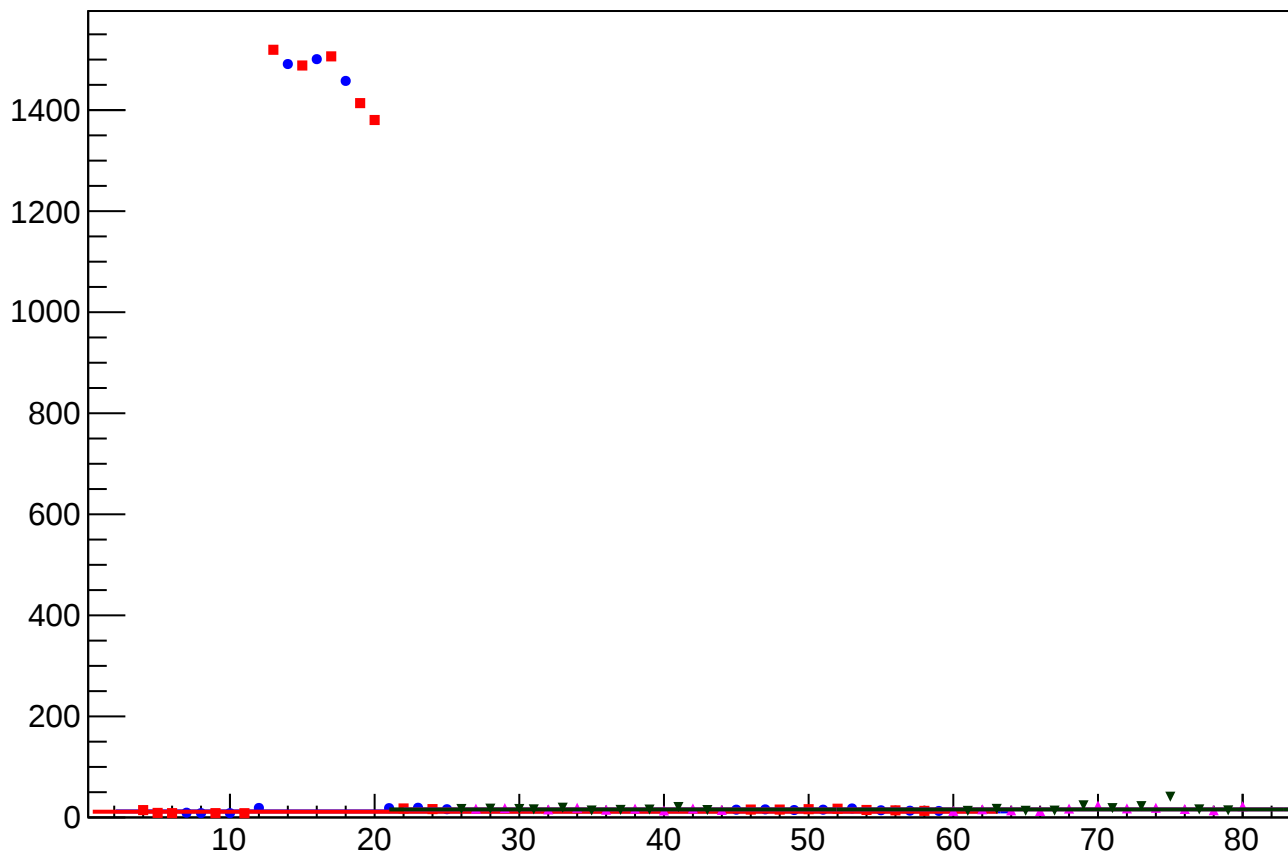
Right Out: 1.782 $\pm$ 4.470  $\chi^2$ /NDF: 10.1/18

Left In: 5.964 $\pm$ 5.054  $\chi^2$ /NDF:21.2/19

-0.195 $\pm$ 3.328  $\chi^2$ /NDF: 35.5/37

3.617 $\pm$ 3.348  $\chi^2$ /NDF: 31.7/38

asym\_bcm\_an\_us\_bcm\_an\_ds3\_agg\_dd\_rms vs slug



Right In: 12.013 $\pm$ 0.003  $\chi^2$ /NDF: 6061463.6/17

Left Out: 15.901 $\pm$ 0.004  $\chi^2$ /NDF: 757278.9/19

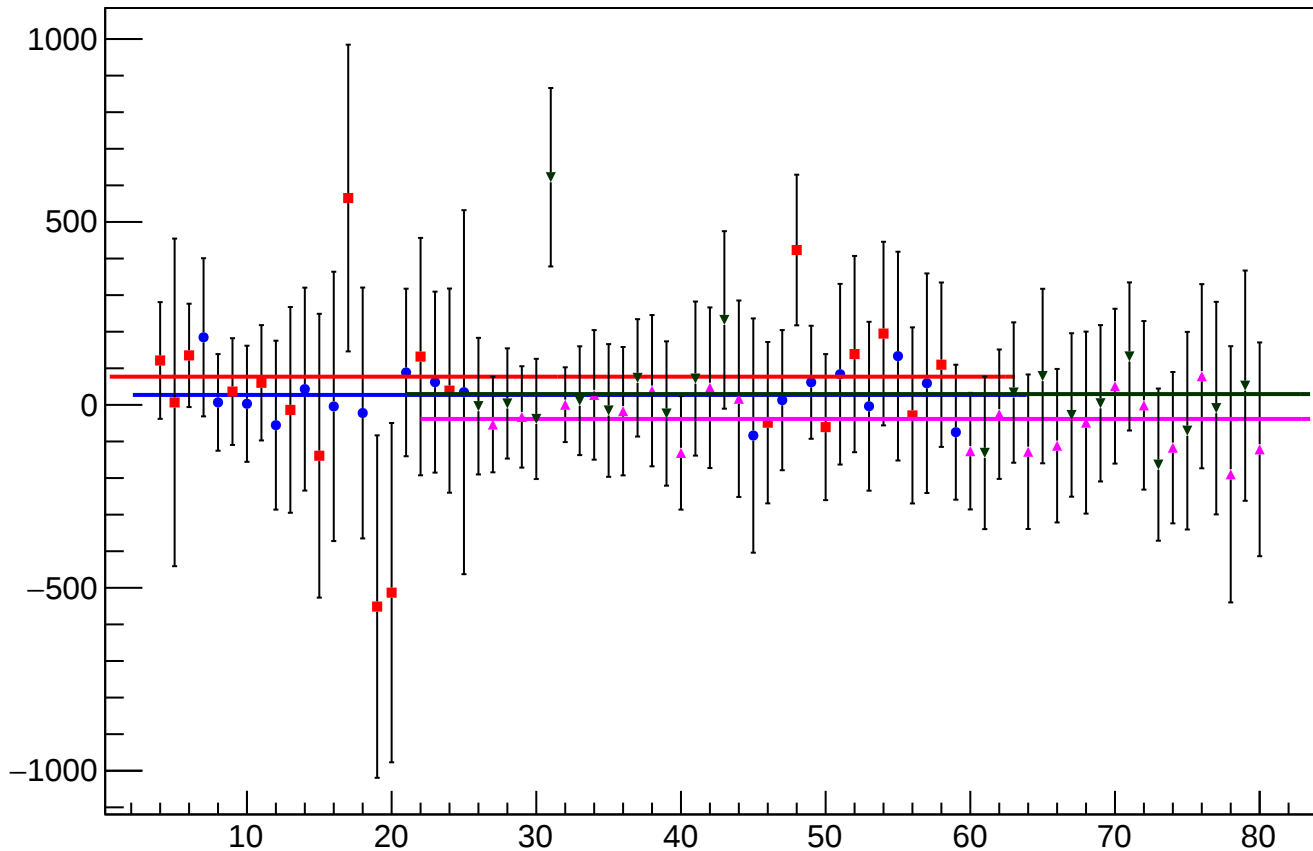
Right Out: 11.361 $\pm$ 0.003  $\chi^2$ /NDF: 6645877.2/18

Left In: 16.077 $\pm$ 0.004  $\chi^2$ /NDF: 460475.5/19

13.589 $\pm$ 0.002  $\chi^2$ /NDF: 7476839.3/37

13.431 $\pm$ 0.002  $\chi^2$ /NDF: 8083516.9/38

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_avg\_mean vs slug



Right In: 27.225 $\pm$ 51.816  $\chi^2$ /NDF: 1.5/17

Left Out: 29.540 $\pm$ 44.755  $\chi^2$ /NDF: 9.1/19

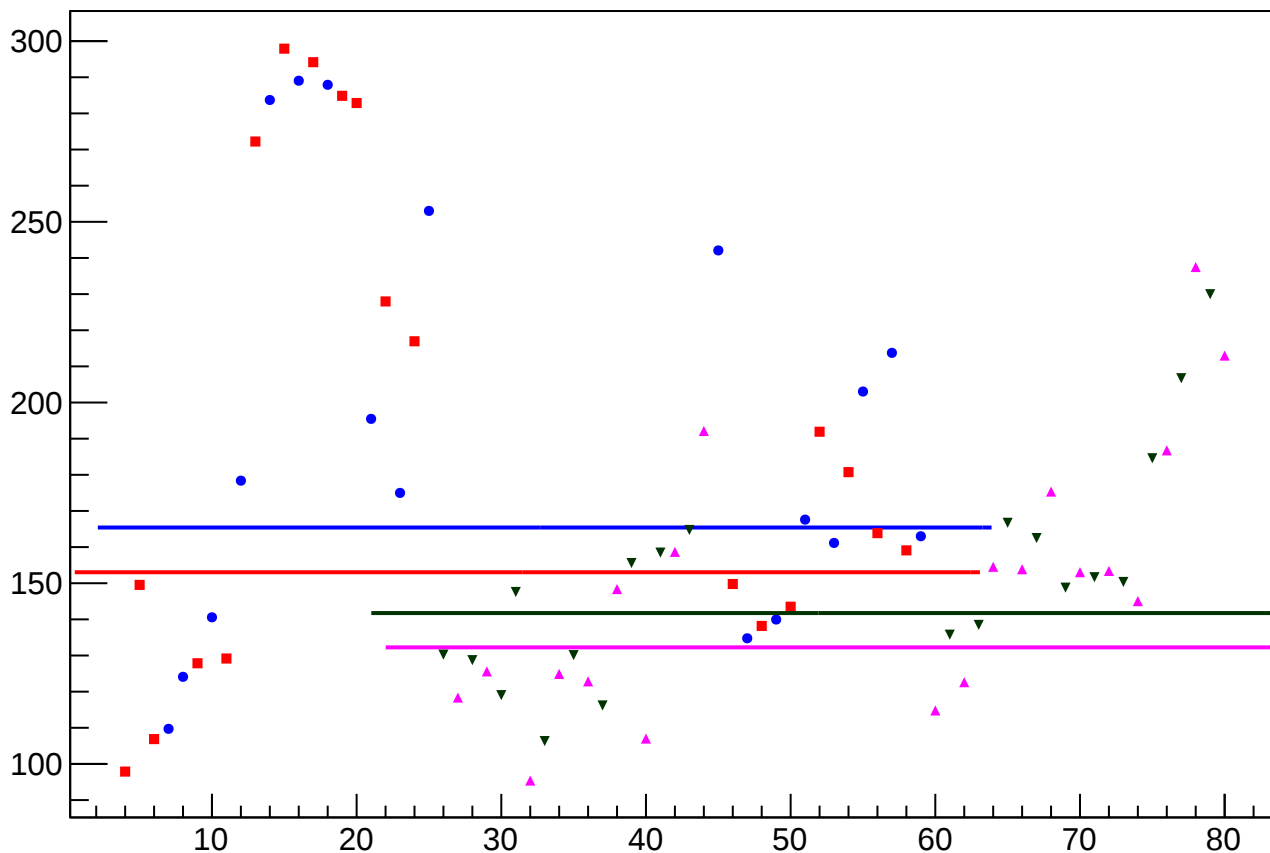
Right Out: 77.113 $\pm$ 51.687  $\chi^2$ /NDF: 9.7/18

Left In: -38.414 $\pm$ 40.717  $\chi^2$ /NDF: 2.4/19

28.551 $\pm$ 33.870  $\chi^2$ /NDF: 10.6/37

5.825 $\pm$ 31.985  $\chi^2$ /NDF: 15.3/38

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_avg\_rms vs slug



Right In: 165.419 $\pm$ 0.037  $\chi^2$ /NDF: 1636400.3/17

Left Out: 141.747 $\pm$ 0.032  $\chi^2$ /NDF: 634371.1/19

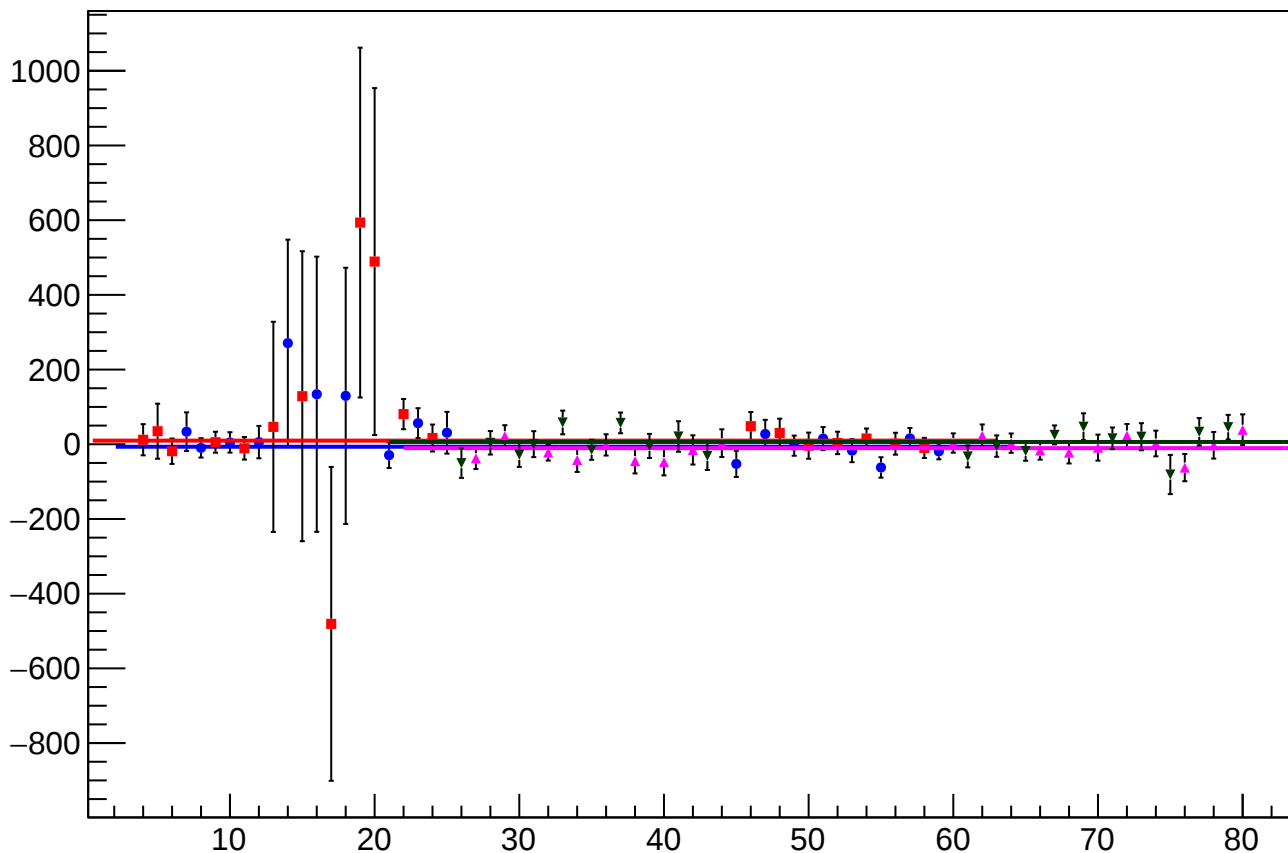
151.861 $\pm$ 0.024  $\chi^2$ /NDF: 2509846.0/37

Right Out: 153.039 $\pm$ 0.037  $\chi^2$ /NDF: 2037868.3/18

140.215 $\pm$ 0.023  $\chi^2$ /NDF: 3331904.9/38

Left In: 132.256 $\pm$ 0.029  $\chi^2$ /NDF: 1094492.7/19

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_dd\_mean vs slug



Right In: -6.569+/-8.065  $\chi^2/\text{NDF}$ : 13.8/17

Left Out: 6.198+/-7.159  $\chi^2/\text{NDF}$ :20.7/19

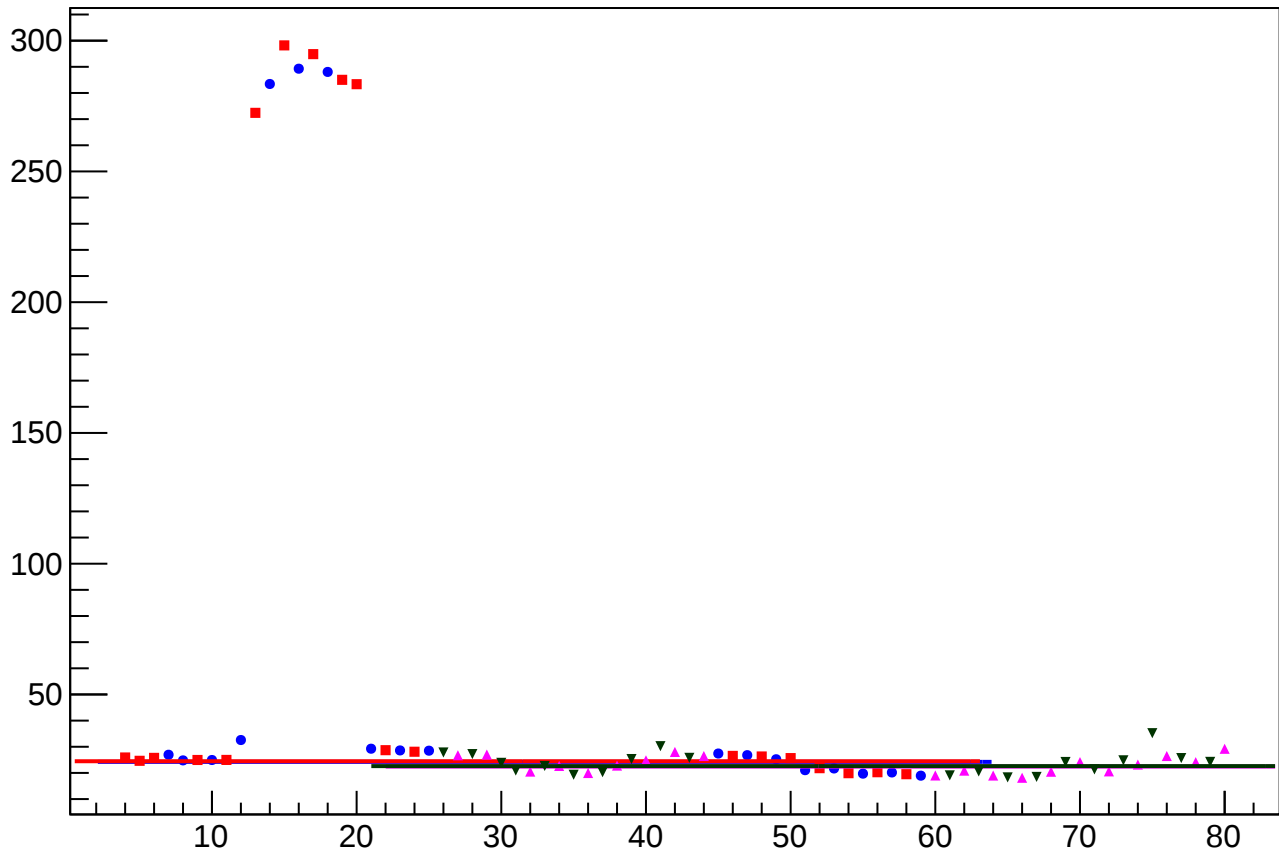
Right Out: 9.755+/-8.898  $\chi^2/\text{NDF}$ : 10.7/18

Left In: -10.321+/-6.829  $\chi^2/\text{NDF}$ :12.5/19

0.572+/-5.354  $\chi^2/\text{NDF}$ : 35.9/37

-2.880+/-5.417  $\chi^2/\text{NDF}$ : 26.4/38

asym\_bcm\_dg\_us\_bcm\_an\_ds\_agg\_dd\_rms vs slug



Right In: 24.225+/-0.006  $\chi^2/\text{NDF}$ : 4413051.2/17

Left Out: 22.601+/-0.005  $\chi^2/\text{NDF}$ : 523267.2/19

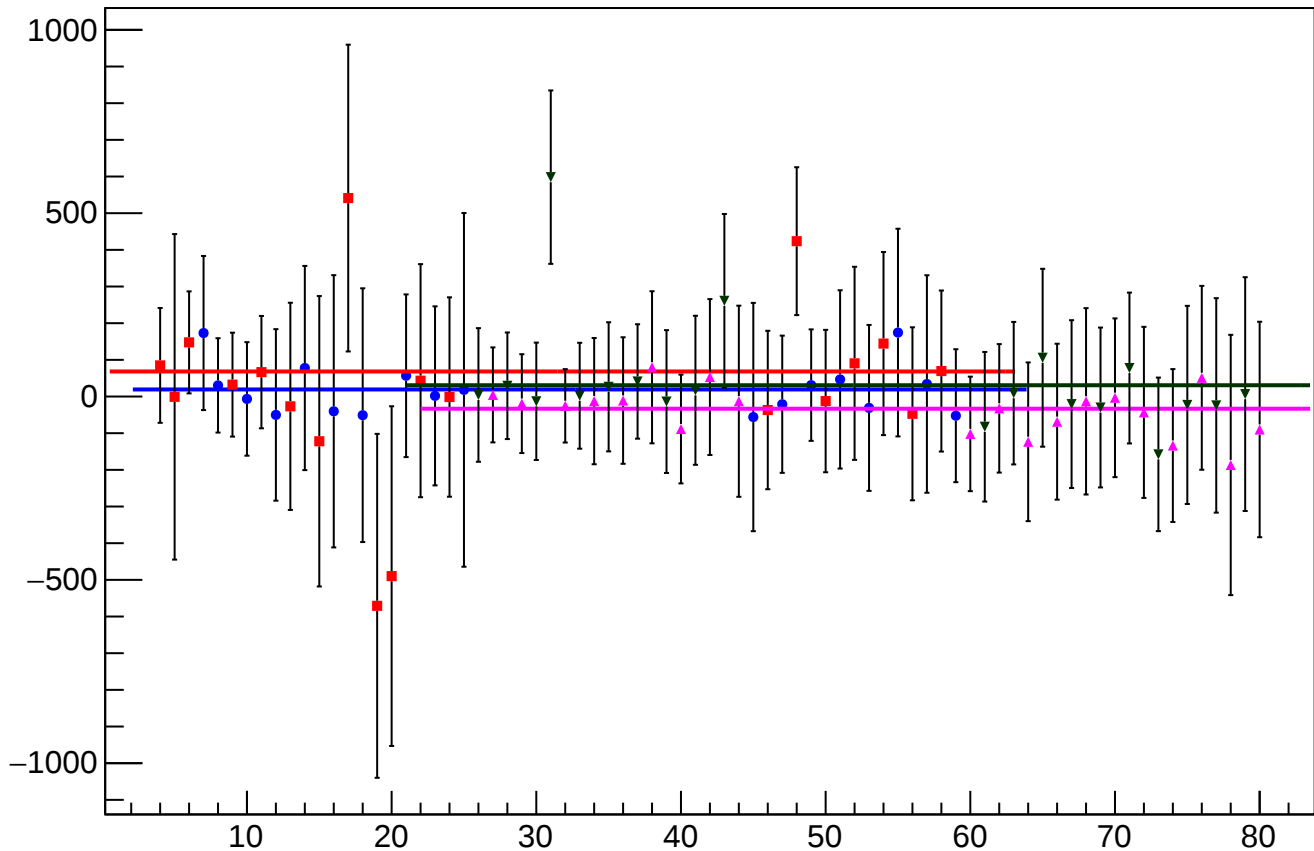
23.317+/-0.004  $\chi^2/\text{NDF}$ : 4981682.7/37

Right Out: 24.466+/-0.006  $\chi^2/\text{NDF}$ : 4859985.2/18

23.176+/-0.004  $\chi^2/\text{NDF}$ : 5364666.6/38

Left In: 22.417+/-0.005  $\chi^2/\text{NDF}$ : 437948.1/19

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_avg\_mean vs slug



Right In: 19.264+/-50.913  $\chi^2/\text{NDF}$ : 1.4/17

Left Out: 30.770+/-44.136  $\chi^2/\text{NDF}$ : 8.4/19

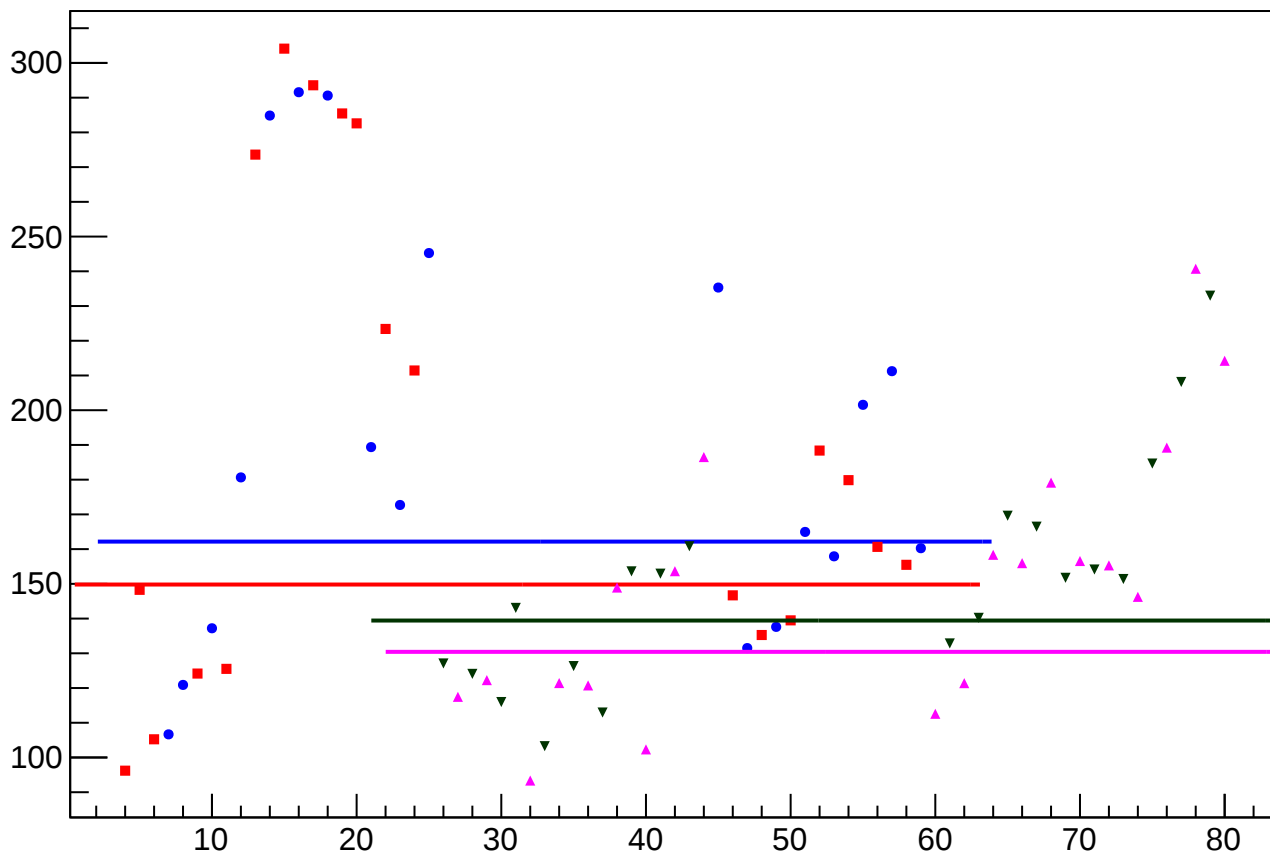
Right Out: 68.308+/-50.710  $\chi^2/\text{NDF}$ : 9.3/18

Left In: -33.267+/-40.224  $\chi^2/\text{NDF}$ : 1.7/19

25.833+/-33.349  $\chi^2/\text{NDF}$ : 9.9/37

5.961+/-31.514  $\chi^2/\text{NDF}$ : 13.5/38

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_avg\_rms vs slug



Right In: 162.166+/-0.036  $\chi^2/\text{NDF}$ : 1720612.8/17

Left Out: 139.435+/-0.031  $\chi^2/\text{NDF}$ : 727603.2/19

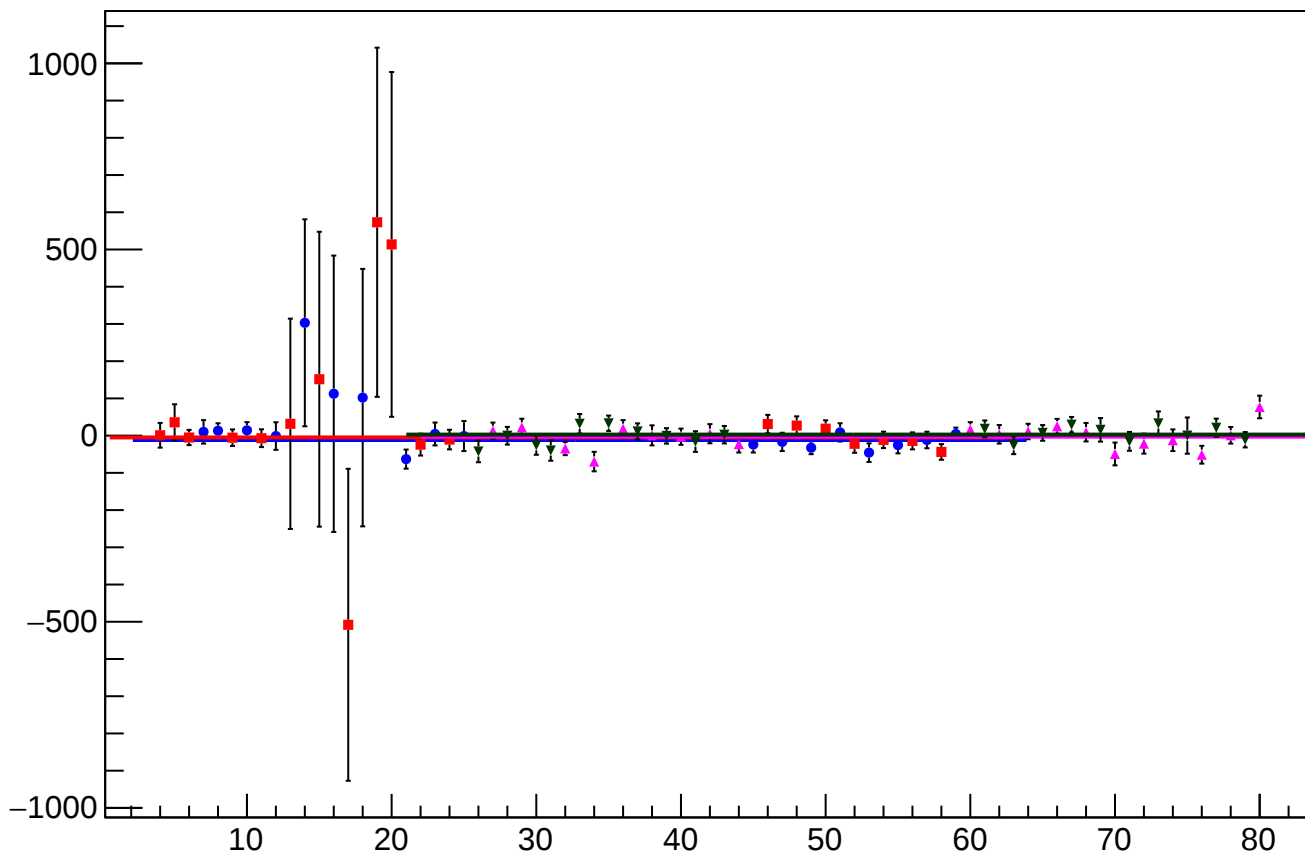
149.188+/-0.024  $\chi^2/\text{NDF}$ : 2675837.6/37

Right Out: 149.803+/-0.036  $\chi^2/\text{NDF}$ : 2114602.4/18

137.905+/-0.022  $\chi^2/\text{NDF}$ : 3508099.4/38

Left In: 130.419+/-0.028  $\chi^2/\text{NDF}$ : 1214123.7/19

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_dd\_mean vs slug



Right In: -11.713 $\pm$ 6.036  $\chi^2$ /NDF: 15.0/17

Left Out: 2.758 $\pm$ 5.470  $\chi^2$ /NDF:16.3/19

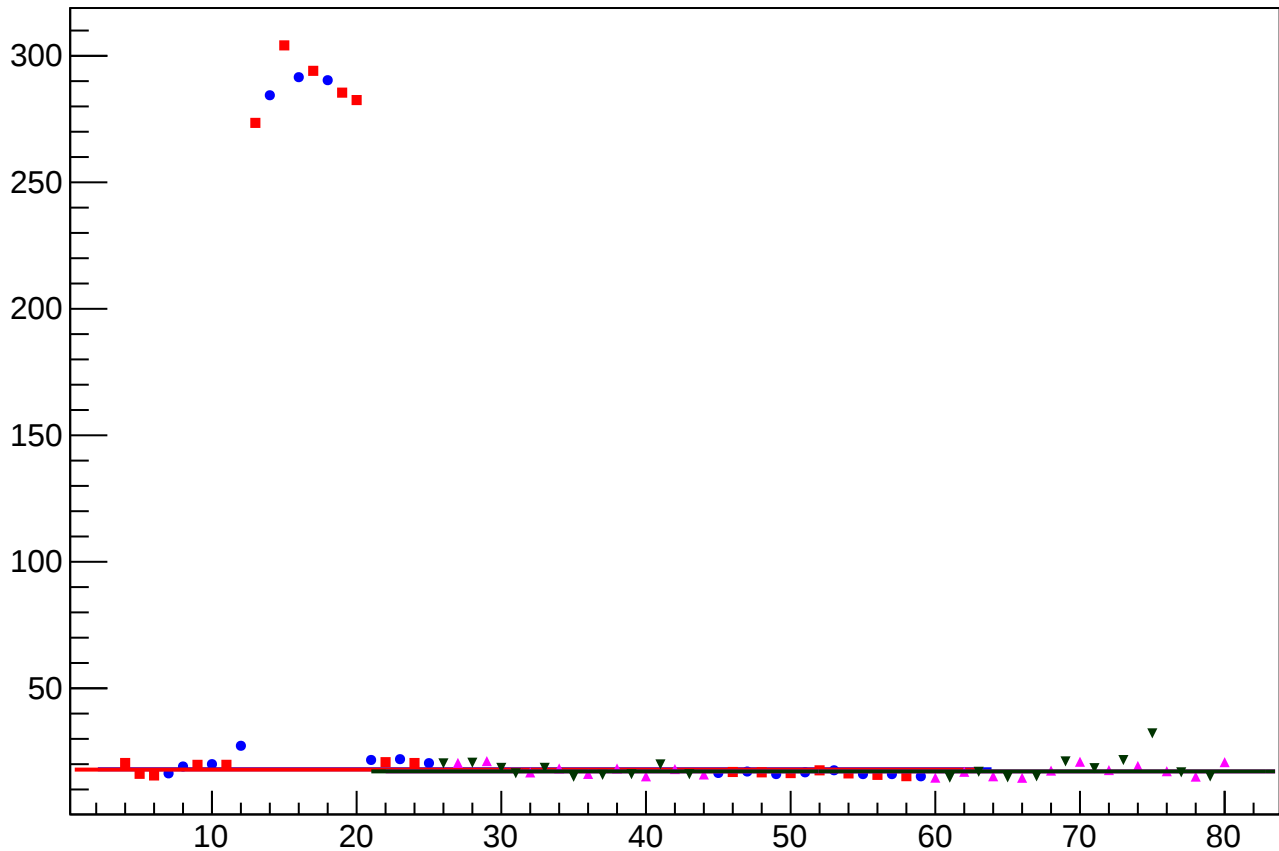
Right Out: -4.846 $\pm$ 6.550  $\chi^2$ /NDF: 14.7/18

Left In: -2.747 $\pm$ 5.243  $\chi^2$ /NDF:30.7/19

-3.768 $\pm$ 4.053  $\chi^2$ /NDF: 34.5/37

-3.567 $\pm$ 4.093  $\chi^2$ /NDF: 45.4/38

asym\_bcm\_dg\_ds\_bcm\_an\_ds\_agg\_dd\_rms vs slug



Right In: 17.988 $\pm$ 0.004  $\chi^2$ /NDF: 4525208.5/17

Left Out: 17.152 $\pm$ 0.004  $\chi^2$ /NDF: 491147.4/19

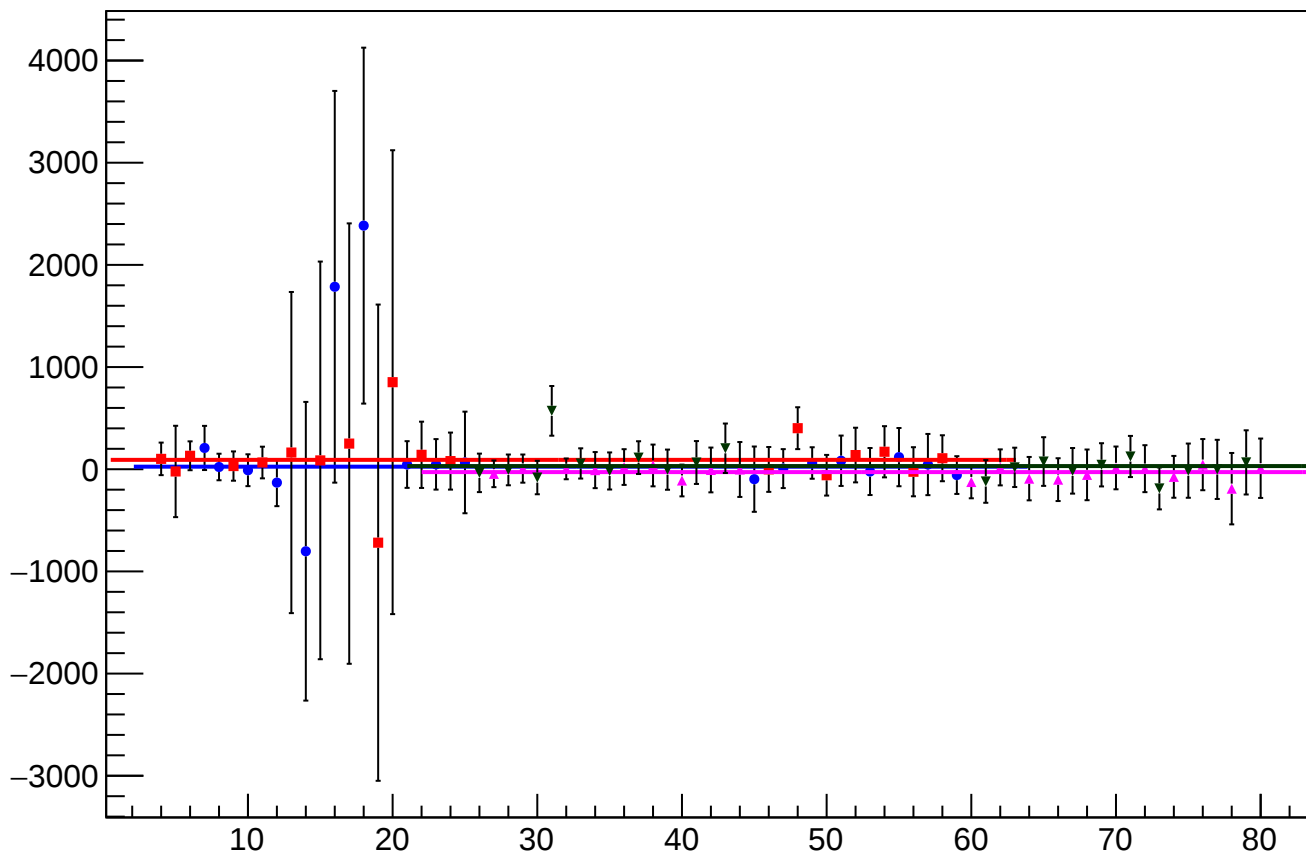
Right Out: 17.855 $\pm$ 0.005  $\chi^2$ /NDF: 5034119.1/18

Left In: 17.146 $\pm$ 0.004  $\chi^2$ /NDF: 313630.1/19

17.529 $\pm$ 0.003  $\chi^2$ /NDF: 5037433.6/37

17.422 $\pm$ 0.003  $\chi^2$ /NDF: 5362029.3/38

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_avg\_mean vs slug



Right In: 25.115+/-53.539  $\chi^2/\text{NDF}$ : 4.9/17

Left Out: 30.957+/-44.641  $\chi^2/\text{NDF}$ : 8.5/19

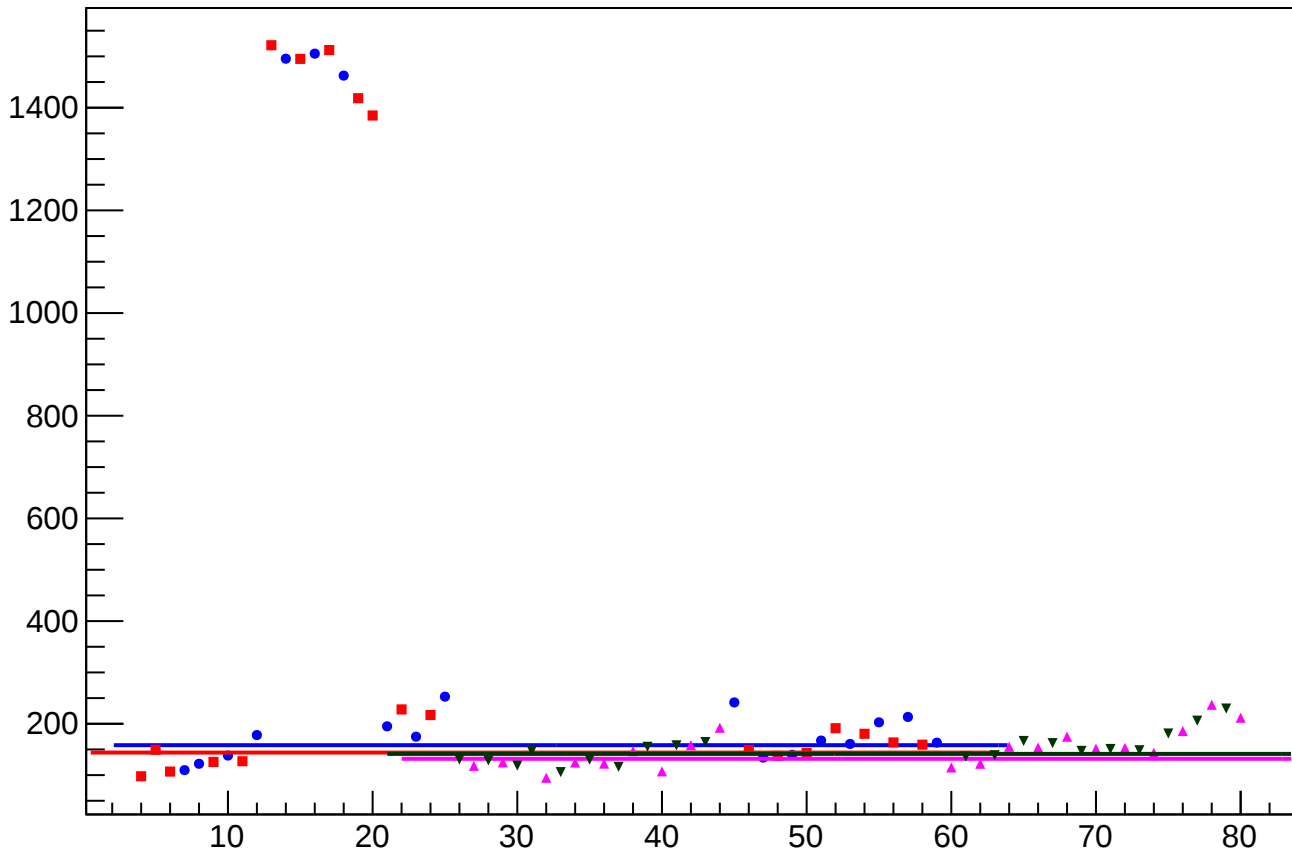
Right Out: 91.771+/-53.823  $\chi^2/\text{NDF}$ : 4.0/18

Left In: -28.083+/-40.576  $\chi^2/\text{NDF}$ : 1.8/19

28.561+/-34.286  $\chi^2/\text{NDF}$ : 13.4/37

15.350+/-32.400  $\chi^2/\text{NDF}$ : 9.0/38

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_avg\_rms vs slug



Right In: 158.277 +/- 0.038  $\chi^2/\text{NDF}$ : 4538983.8/17

Left Out: 141.339 +/- 0.032  $\chi^2/\text{NDF}$ : 626986.5/19

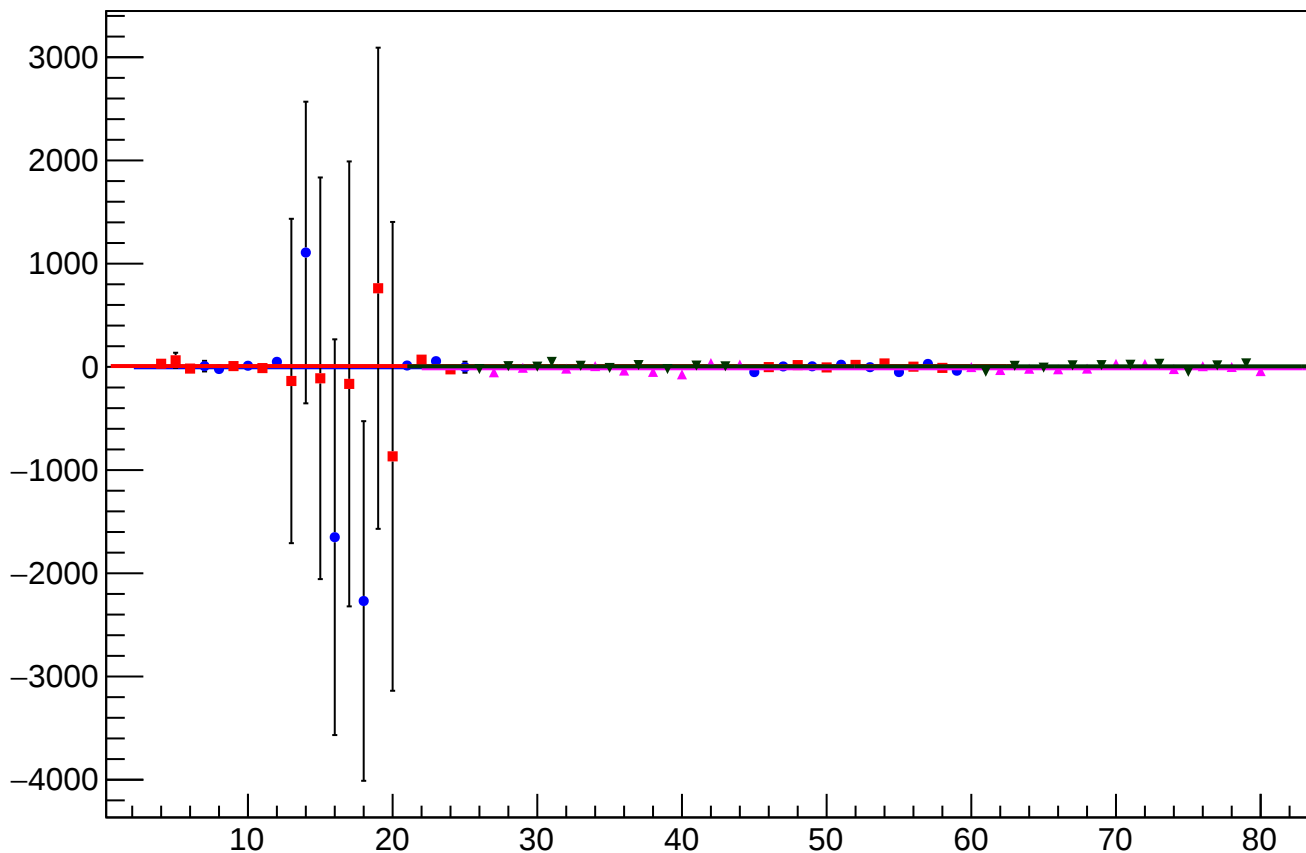
148.285 +/- 0.024  $\chi^2/\text{NDF}$ : 5284047.5/37

Right Out: 143.939 +/- 0.038  $\chi^2/\text{NDF}$ : 5267987.5/18

136.190 +/- 0.023  $\chi^2/\text{NDF}$ : 6427023.7/38

Left In: 131.786 +/- 0.029  $\chi^2/\text{NDF}$ : 1094022.6/19

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_dd\_mean vs slug



Right In: -4.070+/-7.876  $\chi^2/\text{NDF}$ : 17.6/17

Left Out: 5.123+/-6.681  $\chi^2/\text{NDF}$ : 11.5/19

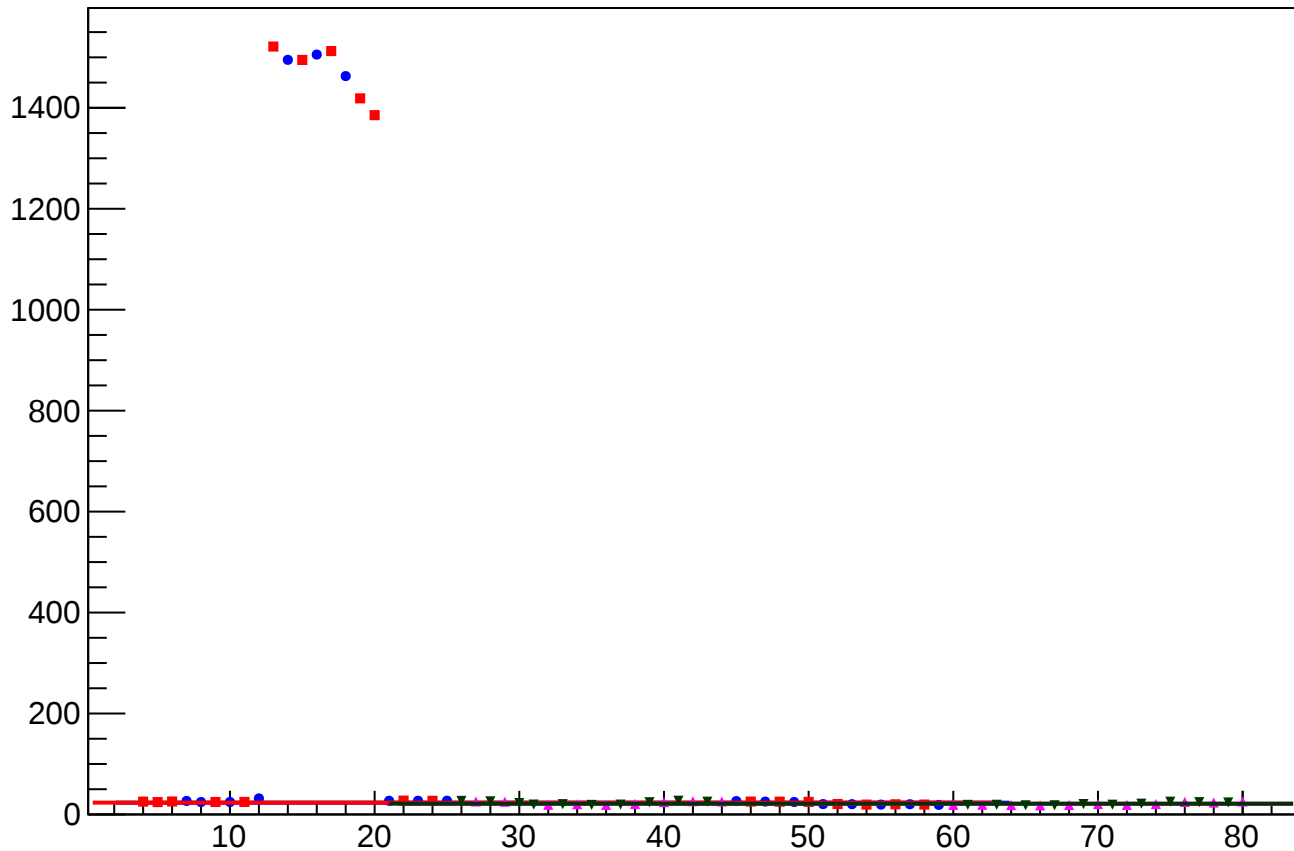
Right Out: 7.973+/-8.718  $\chi^2/\text{NDF}$ : 7.3/18

Left In: -13.809+/-6.377  $\chi^2/\text{NDF}$ : 16.6/19

1.276+/-5.095  $\chi^2/\text{NDF}$ : 29.8/37

-6.217+/-5.147  $\chi^2/\text{NDF}$ : 28.0/38

asym\_bcm\_dg\_us\_bcm\_an\_us\_agg\_dd\_rms vs slug



Right In: 23.336+/-0.006  $\chi^2/\text{NDF}$ : 4965228.2/17

Left Out: 21.340+/-0.005  $\chi^2/\text{NDF}$ : 371920.0/19

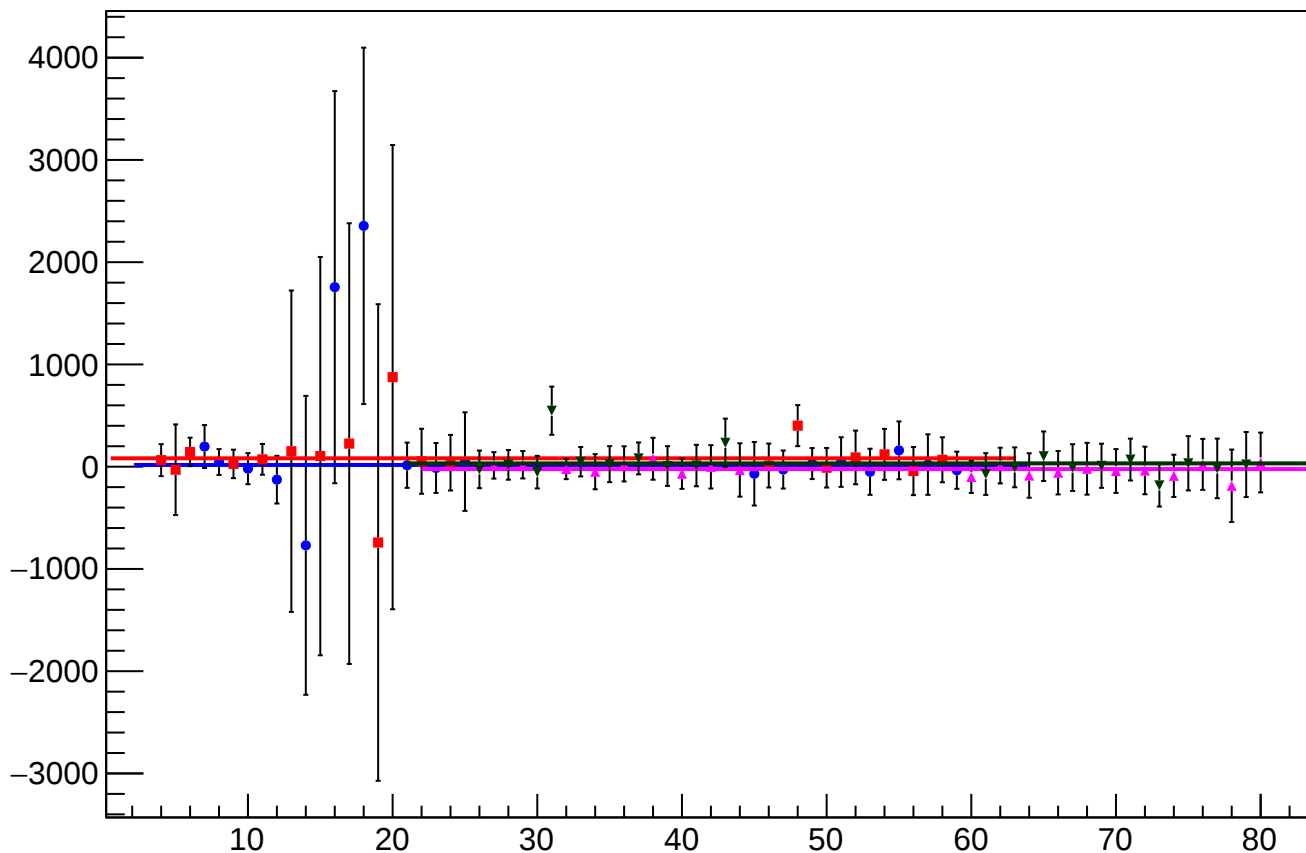
Right Out: 23.445+/-0.006  $\chi^2/\text{NDF}$ : 5561556.7/18

Left In: 21.134+/-0.005  $\chi^2/\text{NDF}$ : 395060.3/19

22.175+/-0.004  $\chi^2/\text{NDF}$ : 5411869.6/37

21.939+/-0.004  $\chi^2/\text{NDF}$ : 6048199.9/38

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_avg\_mean vs slug



Right In: 16.936+/-52.488  $\chi^2/\text{NDF}$ : 4.7/17

Left Out: 32.350+/-44.023  $\chi^2/\text{NDF}$ : 7.6/19

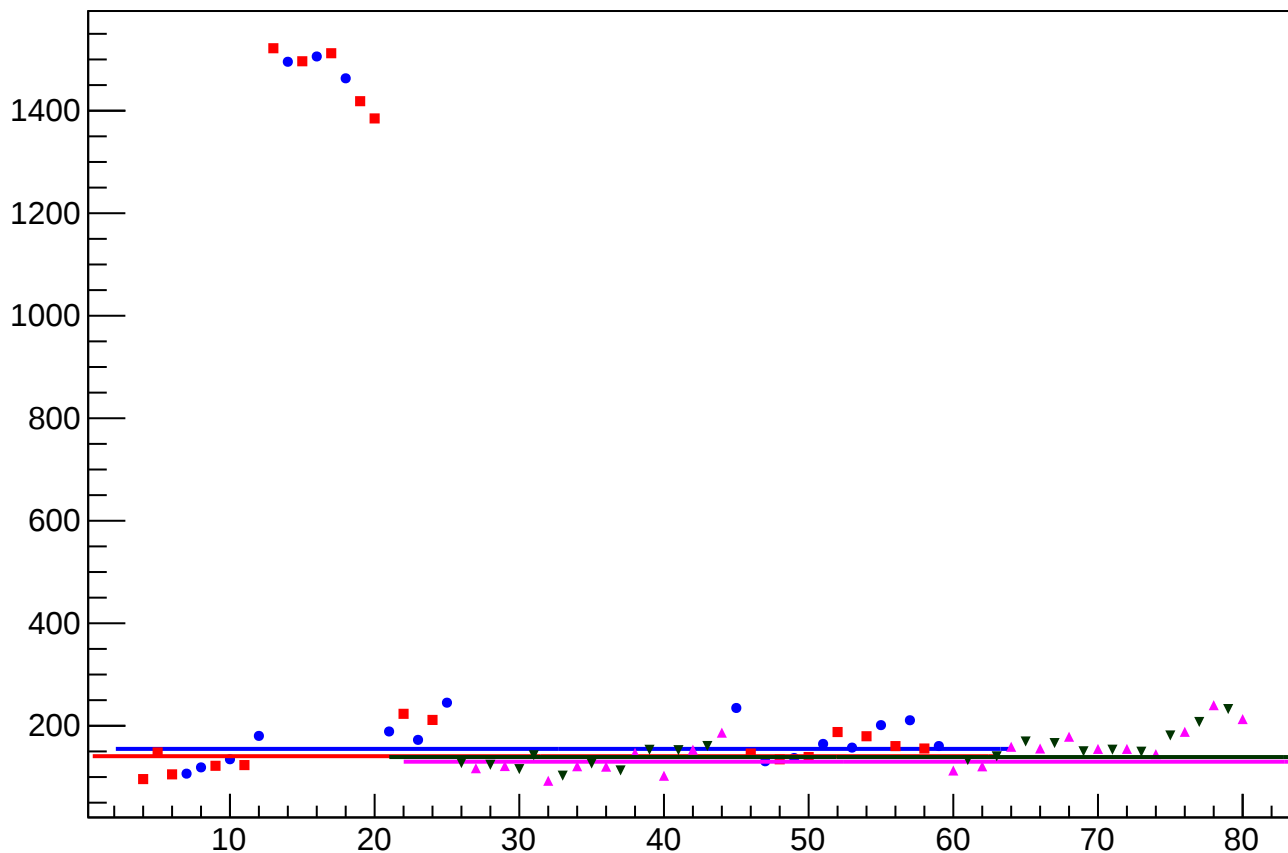
Right Out: 81.906+/-52.666  $\chi^2/\text{NDF}$ : 3.9/18

Left In: -23.134+/-40.083  $\chi^2/\text{NDF}$ : 1.4/19

25.985+/-33.730  $\chi^2/\text{NDF}$ : 12.4/37

15.393+/-31.896  $\chi^2/\text{NDF}$ : 7.9/38

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_avg\_rms vs slug



Right In: 154.947+/-0.037  $\chi^2/\text{NDF}$ : 4580594.9/17

Left Out: 139.034+/-0.031  $\chi^2/\text{NDF}$ : 719667.2/19

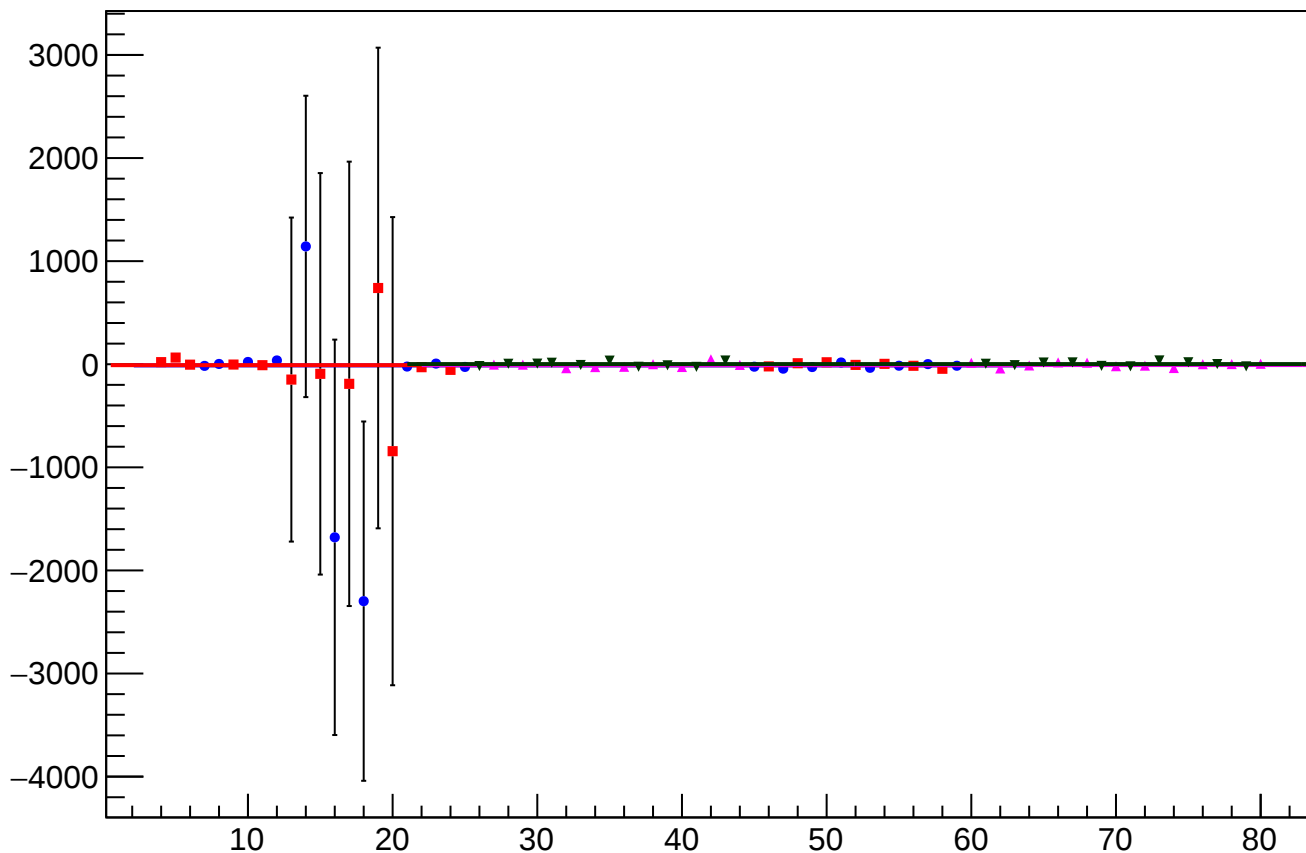
Right Out: 140.710+/-0.037  $\chi^2/\text{NDF}$ : 5291988.7/18

Left In: 129.951+/-0.028  $\chi^2/\text{NDF}$ : 1213765.8/19

145.606+/-0.024  $\chi^2/\text{NDF}$ : 5408182.4/37

133.897+/-0.023  $\chi^2/\text{NDF}$ : 6558607.2/38

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_dd\_mean vs slug



Right In: -11.332 $\pm$ 5.773  $\chi^2$ /NDF: 15.0/17

Left Out: 1.491 $\pm$ 5.031  $\chi^2$ /NDF: 15.8/19

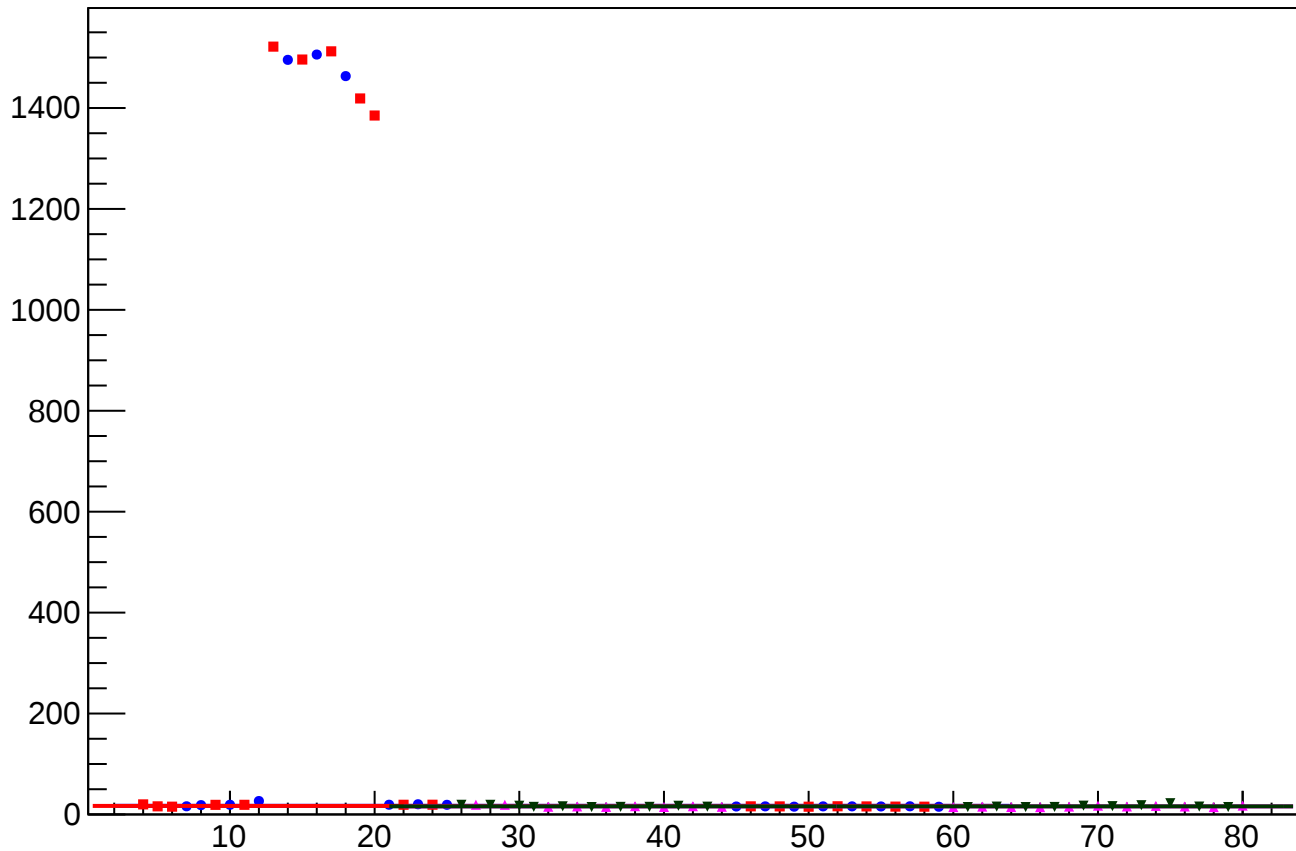
Right Out: -8.864 $\pm$ 6.293  $\chi^2$ /NDF: 13.3/18

Left In: -8.068 $\pm$ 4.809  $\chi^2$ /NDF: 20.2/19

-4.044 $\pm$ 3.793  $\chi^2$ /NDF: 33.6/37

-8.362 $\pm$ 3.821  $\chi^2$ /NDF: 33.6/38

asym\_bcm\_dg\_ds\_bcm\_an\_us\_agg\_dd\_rms vs slug



Right In: 17.094+/-0.004  $\chi^2/\text{NDF}$ : 4922010.4/17

Left Out: 16.082+/-0.004  $\chi^2/\text{NDF}$ : 227908.1/19

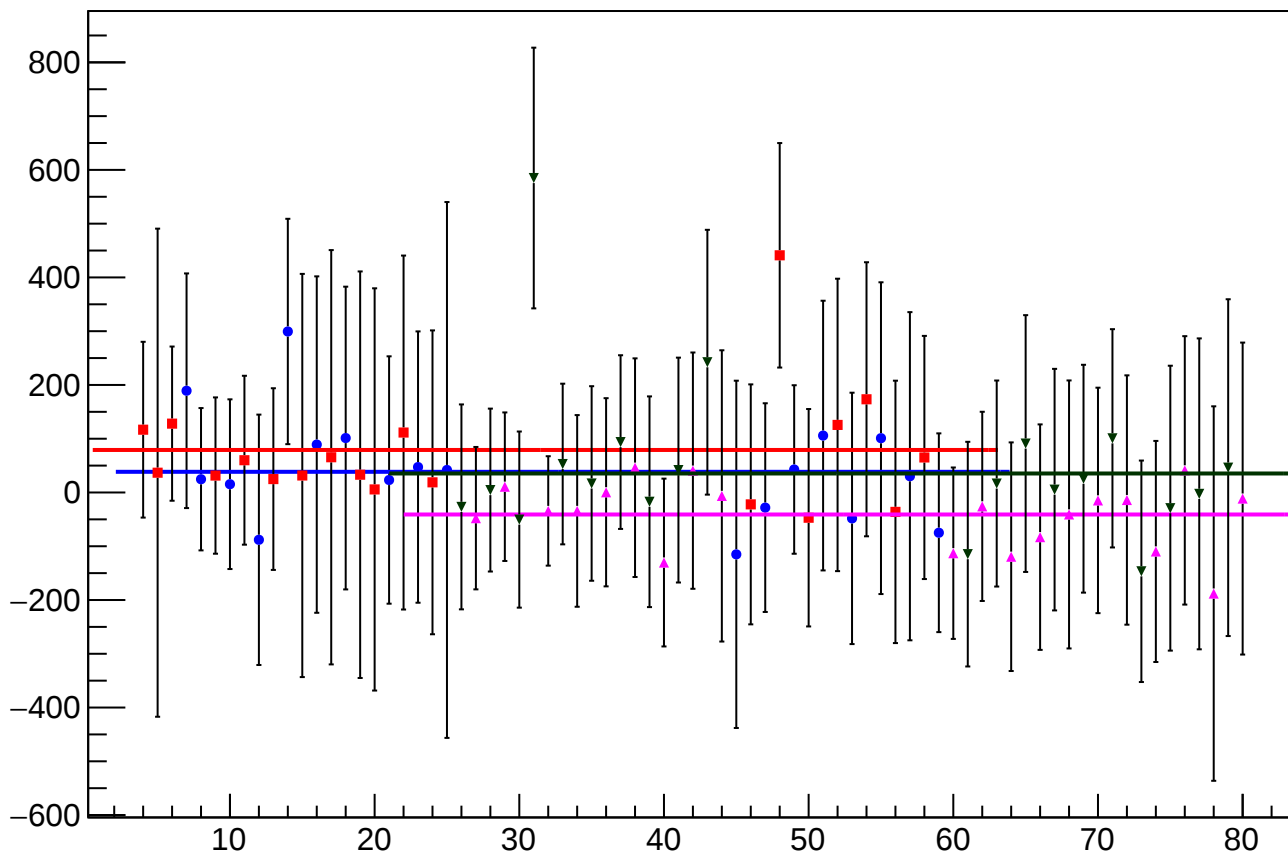
Right Out: 16.920+/-0.004  $\chi^2/\text{NDF}$ : 5539958.1/18

Left In: 15.996+/-0.003  $\chi^2/\text{NDF}$ : 164366.1/19

16.519+/-0.003  $\chi^2/\text{NDF}$ : 5184837.3/37

16.337+/-0.003  $\chi^2/\text{NDF}$ : 5731519.6/38

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_avg\_mean vs slug



Right In: 38.450+/-51.040  $\chi^2/\text{NDF}$ : 3.4/17

Left Out: 35.335+/-44.790  $\chi^2/\text{NDF}$ : 8.1/19

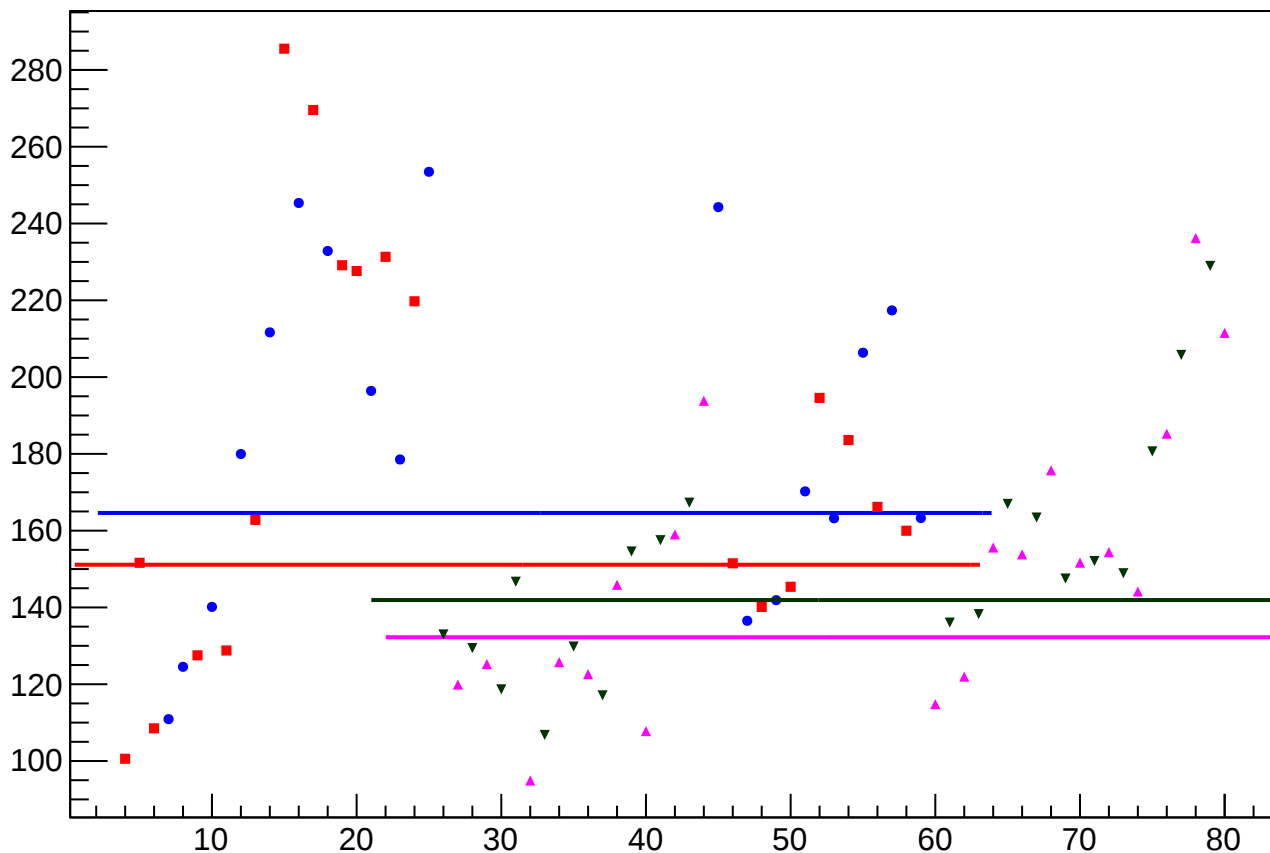
Right Out: 79.078+/-50.233  $\chi^2/\text{NDF}$ : 4.5/18

Left In: -40.937+/-40.706  $\chi^2/\text{NDF}$ : 1.7/19

36.690+/-33.665  $\chi^2/\text{NDF}$ : 11.5/37

6.634+/-31.626  $\chi^2/\text{NDF}$ : 9.7/38

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_avg\_rms vs slug



Right In: 164.613 $\pm$ 0.036  $\chi^2/\text{NDF}$ : 1128549.0/17

Left Out: 141.927 $\pm$ 0.032  $\chi^2/\text{NDF}$ : 612648.7/19

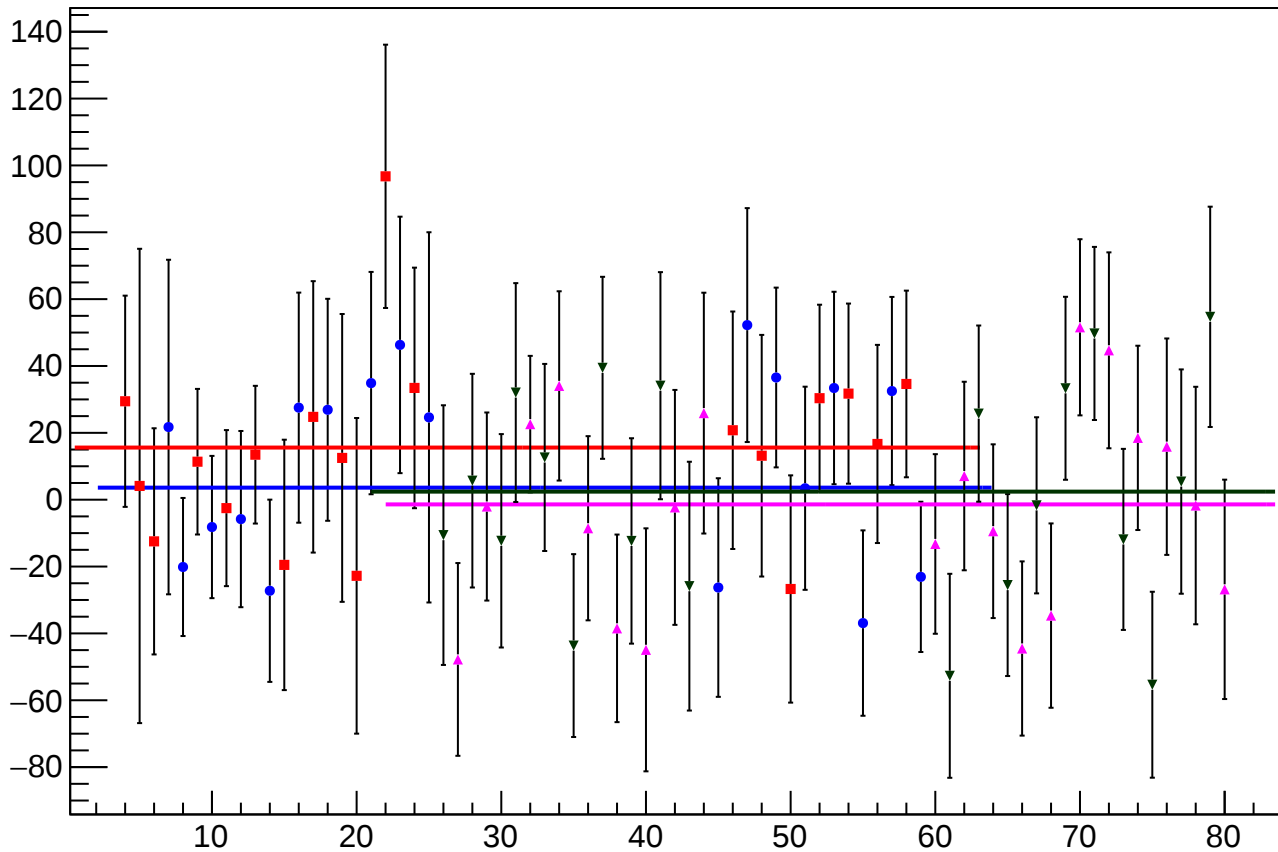
Right Out: 151.124 $\pm$ 0.036  $\chi^2/\text{NDF}$ : 1423423.3/18

Left In: 132.249 $\pm$ 0.029  $\chi^2/\text{NDF}$ : 1088238.6/19

151.796 $\pm$ 0.024  $\chi^2/\text{NDF}$ : 1964416.8/37

139.730 $\pm$ 0.022  $\chi^2/\text{NDF}$ : 2682103.7/38

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_dd\_mean vs slug



Right In:  $3.606 \pm 6.842$   $\chi^2/\text{NDF}$ : 16.3/17

Left Out:  $2.413 \pm 6.628$   $\chi^2/\text{NDF}$ : 24.5/19

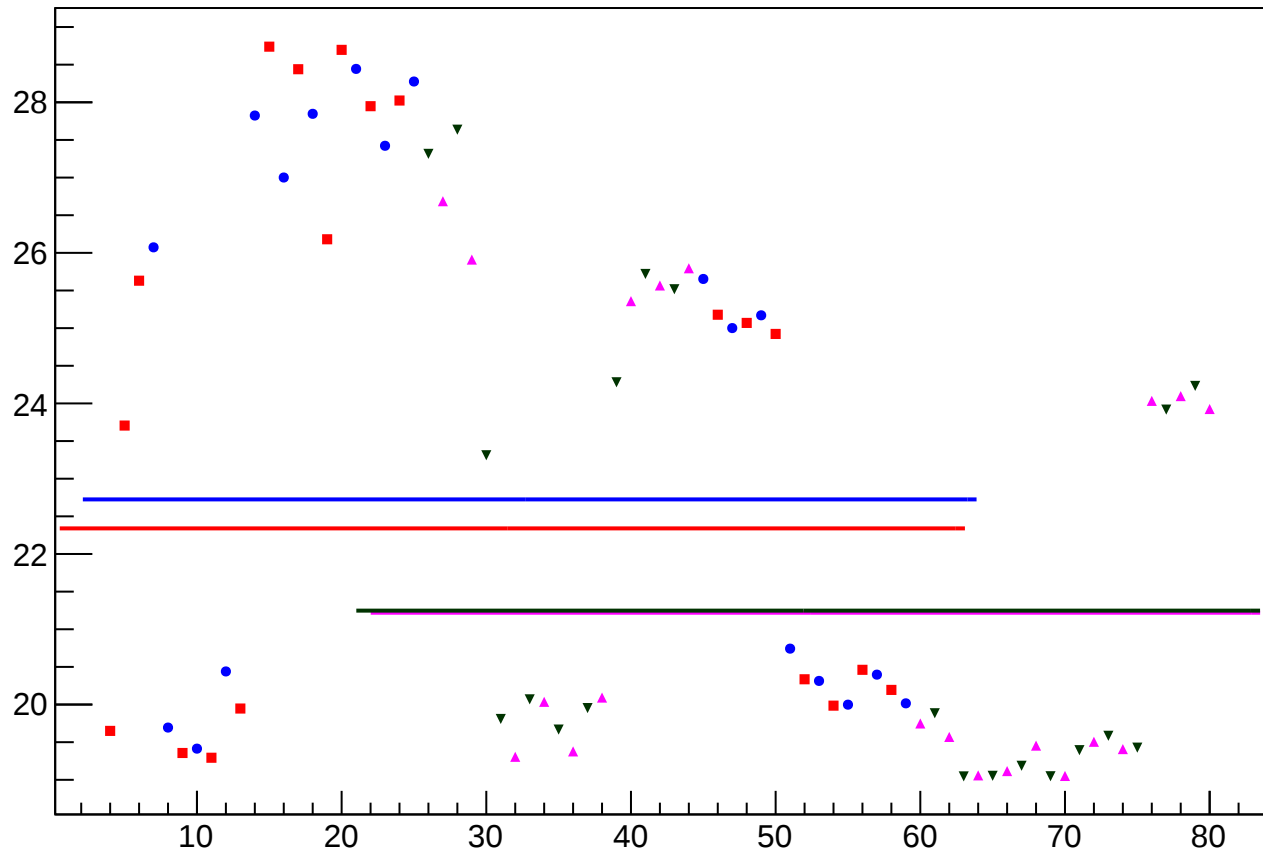
Right Out:  $15.596 \pm 7.143$   $\chi^2/\text{NDF}$ : 10.3/18

Left In:  $-1.406 \pm 6.383$   $\chi^2/\text{NDF}$ : 21.9/19

$2.990 \pm 4.760$   $\chi^2/\text{NDF}$ : 40.9/37

$6.143 \pm 4.760$   $\chi^2/\text{NDF}$ : 35.3/38

asym\_bcm\_dg\_us\_bcm\_dg\_ds\_agg\_dd\_rms vs slug



Right In: 22.725+/-0.005  $\chi^2/\text{NDF}$ : 498774.9/17

Left Out: 21.248+/-0.005  $\chi^2/\text{NDF}$ : 347710.7/19

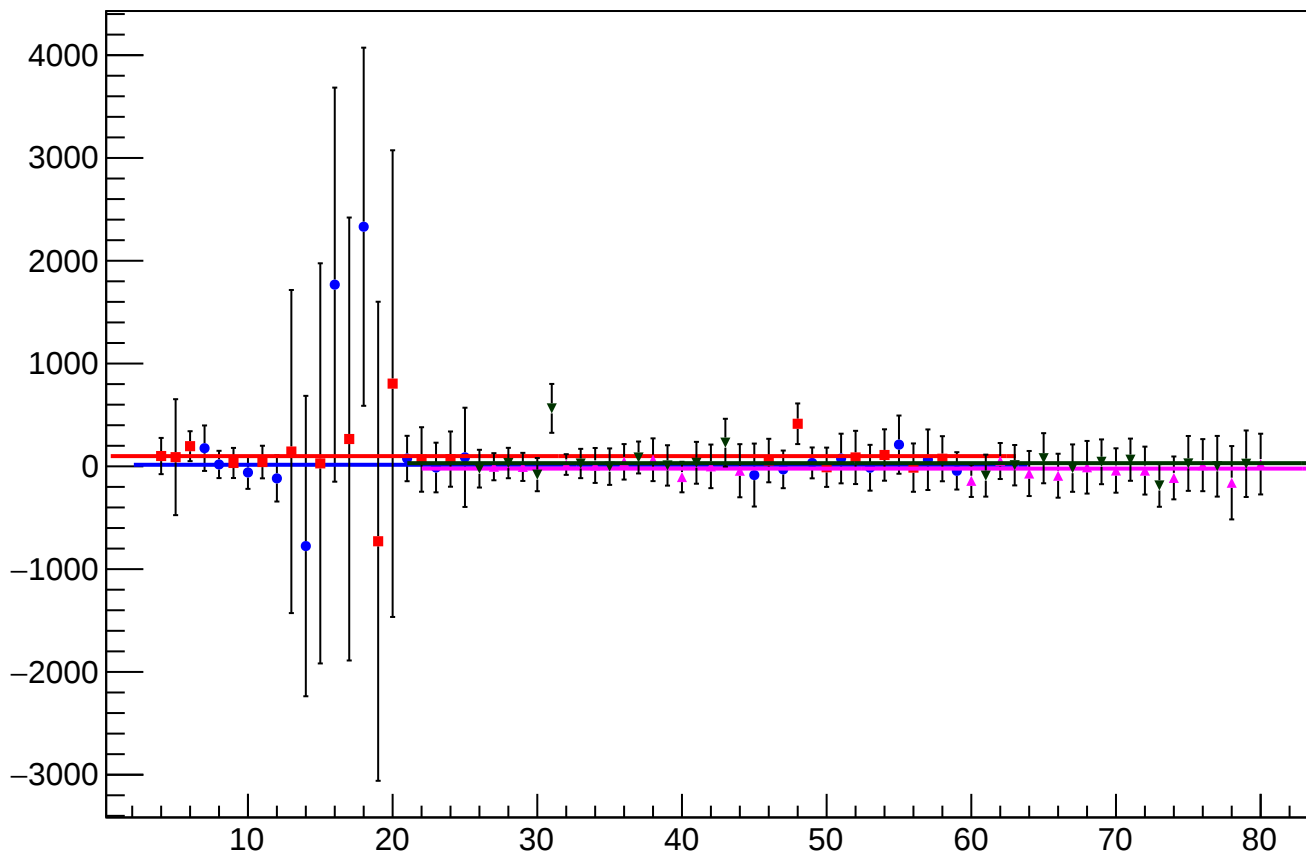
Right Out: 22.340+/-0.005  $\chi^2/\text{NDF}$ : 460008.2/18

Left In: 21.220+/-0.005  $\chi^2/\text{NDF}$ : 368281.1/19

21.963+/-0.003  $\chi^2/\text{NDF}$ : 894599.1/37

21.717+/-0.003  $\chi^2/\text{NDF}$ : 855638.3/38

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_avg\_mean vs slug



Right In: 15.197+/-53.019  $\chi^2/\text{NDF}$ : 5.0/17

Left Out: 30.930+/-44.230  $\chi^2/\text{NDF}$ : 8.1/19

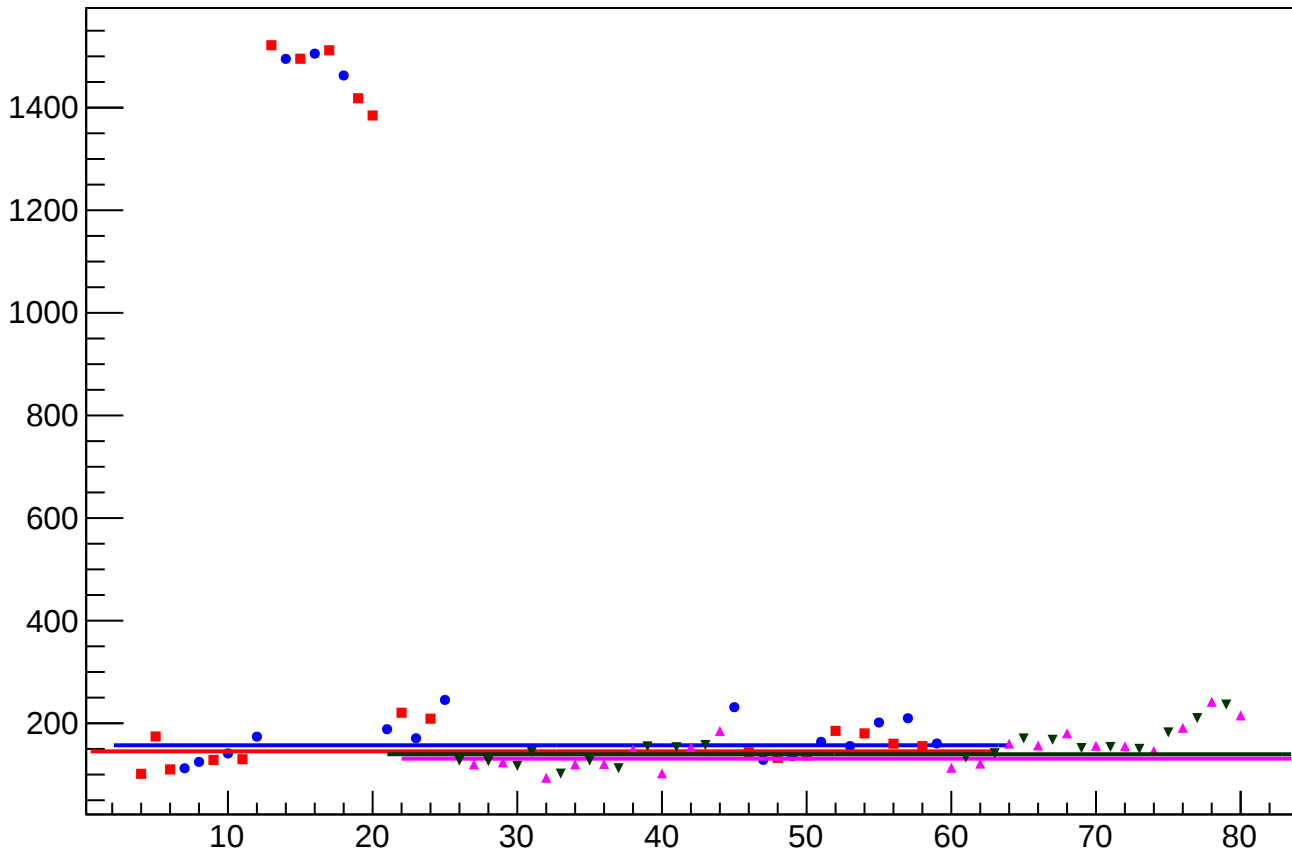
Right Out: 99.514+/-54.286  $\chi^2/\text{NDF}$ : 4.2/18

Left In: -21.996+/-40.396  $\chi^2/\text{NDF}$ : 2.2/19

24.474+/-33.963  $\chi^2/\text{NDF}$ : 13.1/37

21.309+/-32.408  $\chi^2/\text{NDF}$ : 9.6/38

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_avg\_rms vs slug



Right In: 157.088+/-0.037  $\chi^2/\text{NDF}$ : 4456786.2/17

Left Out: 139.621+/-0.031  $\chi^2/\text{NDF}$ : 739398.3/19

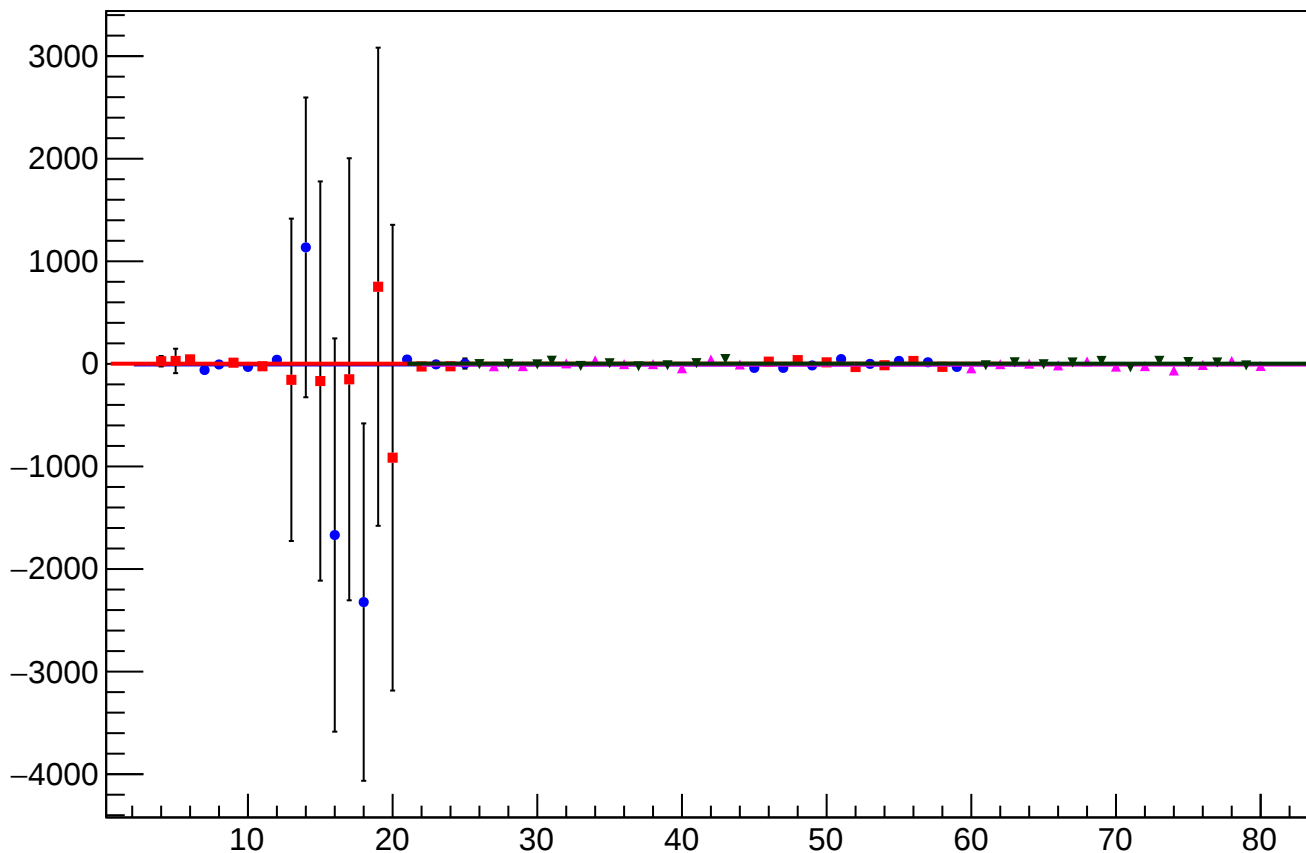
146.789+/-0.024  $\chi^2/\text{NDF}$ : 5324185.4/37

Right Out: 145.299+/-0.038  $\chi^2/\text{NDF}$ : 5124139.9/18

136.098+/-0.023  $\chi^2/\text{NDF}$ : 6421444.4/38

Left In: 131.003+/-0.029  $\chi^2/\text{NDF}$ : 1208027.3/19

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_dd\_mean vs slug



Right In: -5.662+/-7.390  $\chi^2/\text{NDF}$ : 18.7/17

Left Out: 2.234+/-6.506  $\chi^2/\text{NDF}$ : 10.0/19

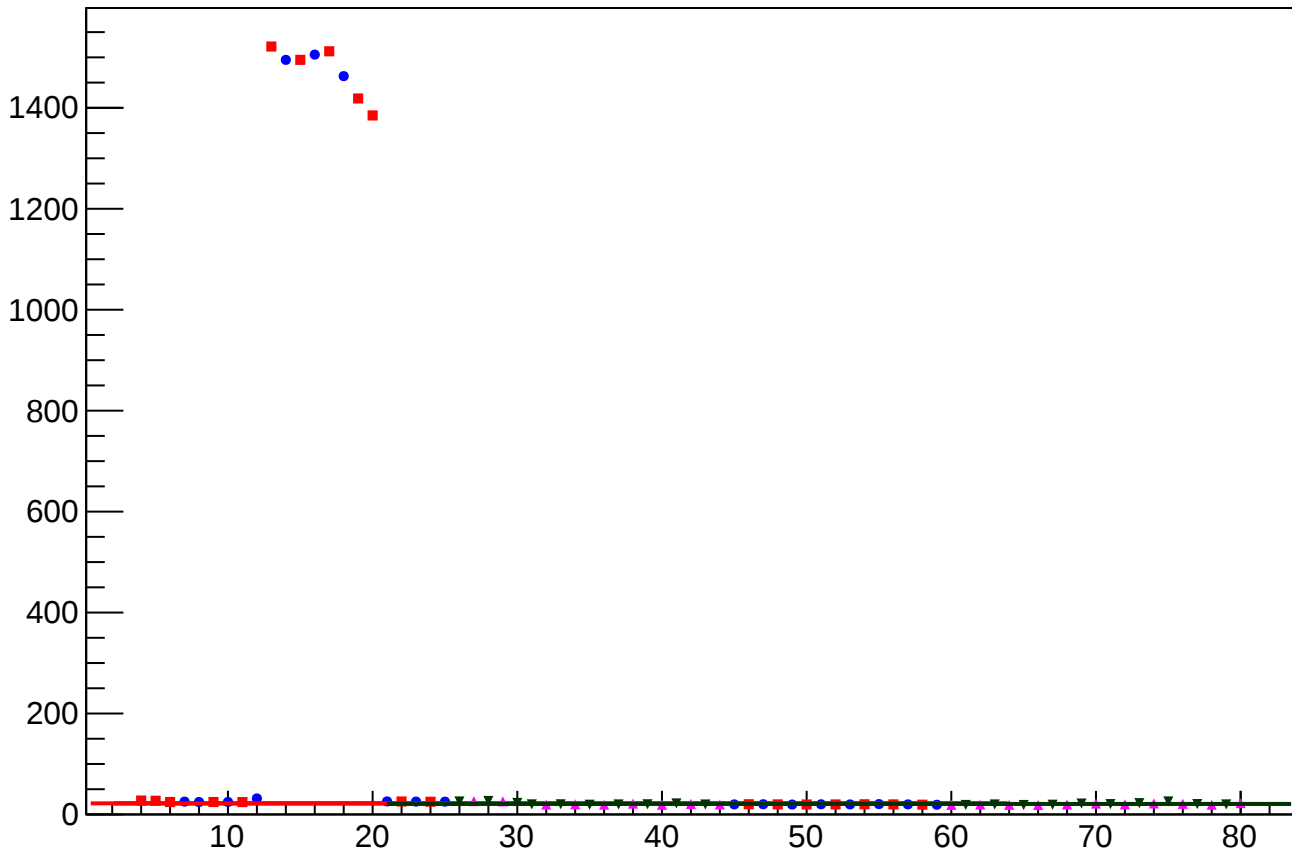
Right Out: 1.722+/-8.261  $\chi^2/\text{NDF}$ : 10.4/18

Left In: -7.440+/-6.211  $\chi^2/\text{NDF}$ : 16.8/19

-1.214+/-4.883  $\chi^2/\text{NDF}$ : 29.4/37

-4.132+/-4.964  $\chi^2/\text{NDF}$ : 28.0/38

asym\_bcm\_cav4cQ\_bcm\_an\_us\_agg\_dd\_rms vs slug



Right In: 21.918 $\pm$ 0.005  $\chi^2$ /NDF: 4931747.1/17

Left Out: 20.858 $\pm$ 0.005  $\chi^2$ /NDF: 209741.1/19

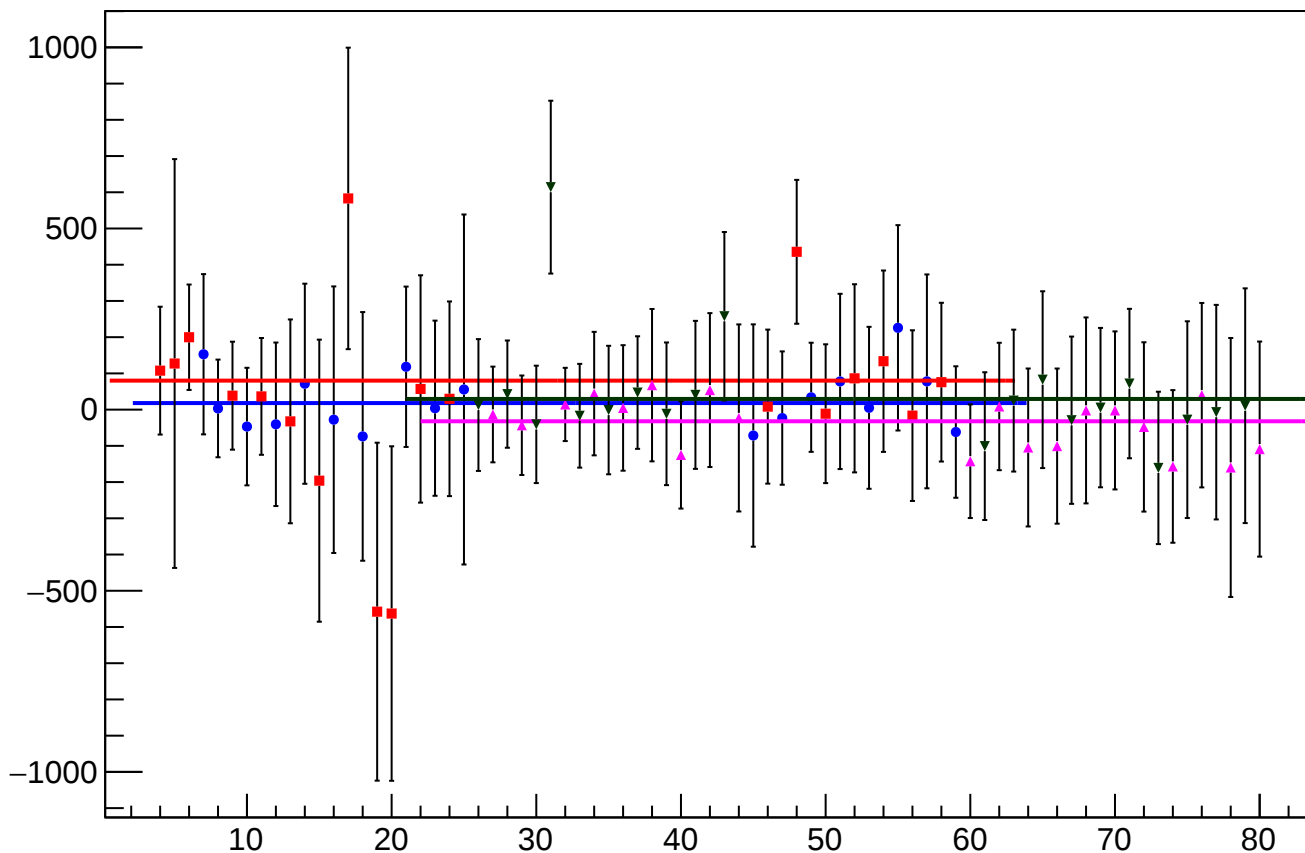
Right Out: 21.987 $\pm$ 0.006  $\chi^2$ /NDF: 5559967.3/18

Left In: 20.688 $\pm$ 0.004  $\chi^2$ /NDF: 217292.2/19

21.321 $\pm$ 0.003  $\chi^2$ /NDF: 5164663.8/37

21.157 $\pm$ 0.004  $\chi^2$ /NDF: 5808850.2/38

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_avg\_mean vs slug



Right In: 18.106 $\pm$ 51.332  $\chi^2$ /NDF: 1.9/17

Left Out: 29.484 $\pm$ 44.339  $\chi^2$ /NDF:8.8/19

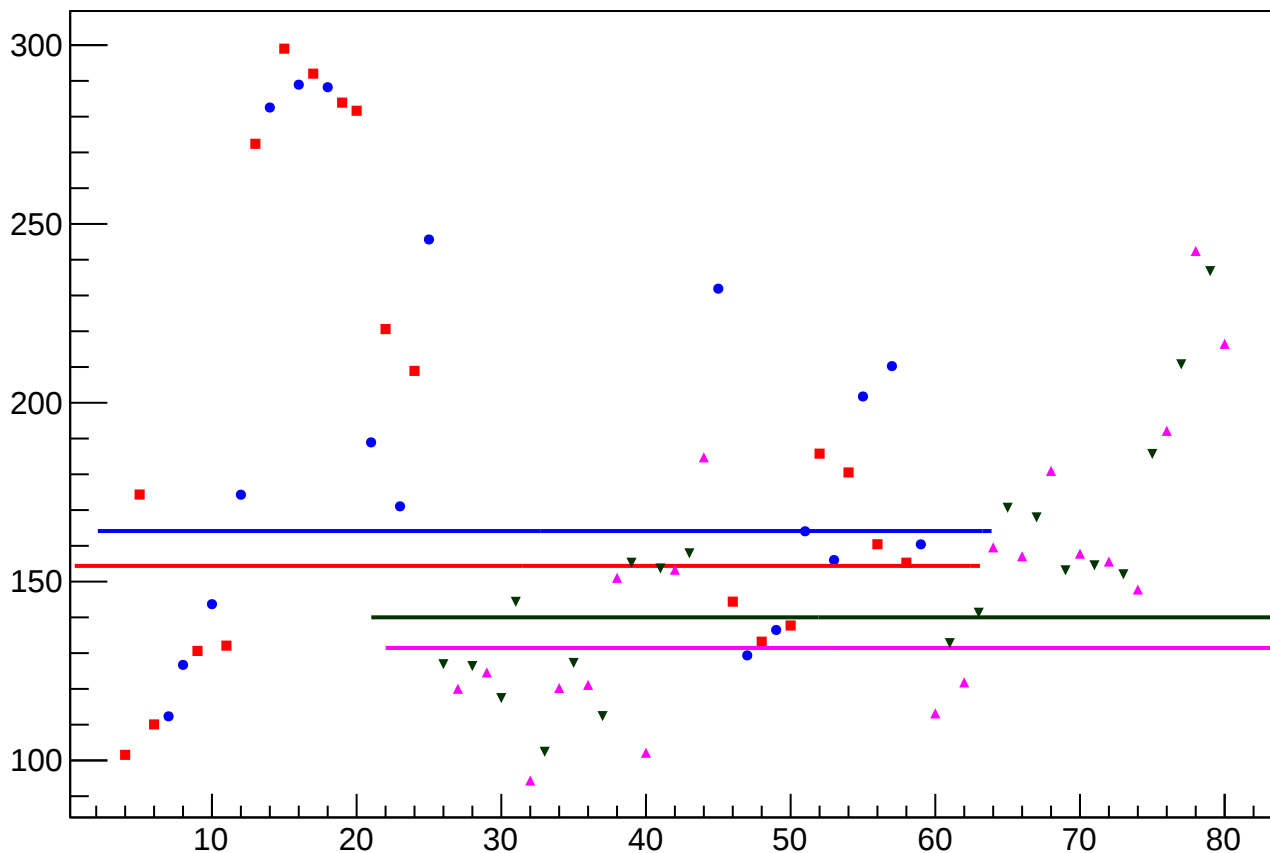
Right Out: 80.043 $\pm$ 52.081  $\chi^2$ /NDF: 10.6/18

Left In: -32.135 $\pm$ 40.532  $\chi^2$ /NDF:2.7/19

24.623 $\pm$ 33.555  $\chi^2$ /NDF: 10.8/37

10.180 $\pm$ 31.987  $\chi^2$ /NDF: 16.2/38

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_avg\_rms vs slug



Right In:  $164.140 \pm 0.036$   $\chi^2/\text{NDF}$ : 1566554.6/17

Left Out:  $140.010 \pm 0.031$   $\chi^2/\text{NDF}$ : 747280.6/19

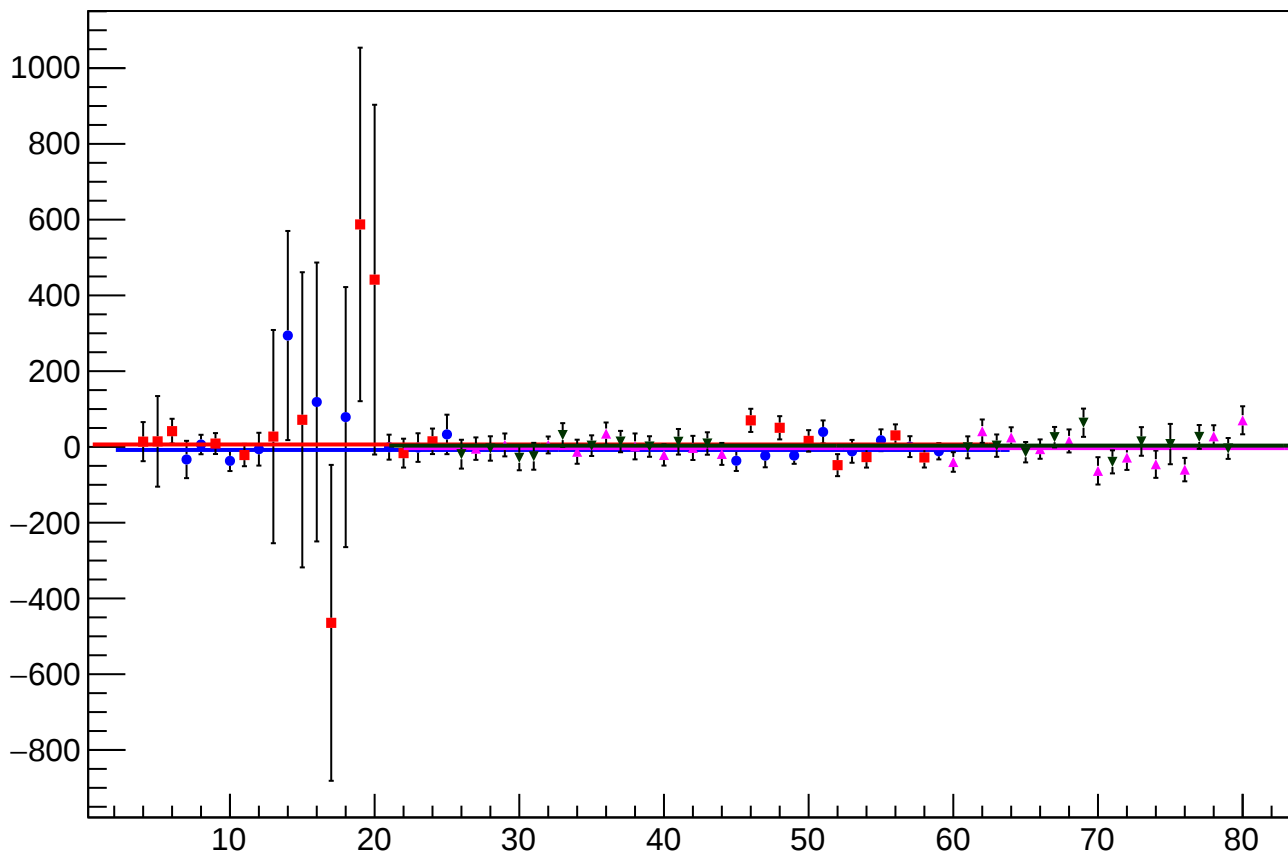
$150.320 \pm 0.024$   $\chi^2/\text{NDF}$ : 2566940.3/37

Right Out:  $154.395 \pm 0.037$   $\chi^2/\text{NDF}$ : 1875575.3/18

$140.107 \pm 0.023$   $\chi^2/\text{NDF}$ : 3326503.0/38

Left In:  $131.453 \pm 0.029$   $\chi^2/\text{NDF}$ : 1209226.8/19

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_dd\_mean vs slug



Right In: -7.981+/-7.603  $\chi^2$ /NDF: 9.0/17

Left Out: 3.463+/-6.961  $\chi^2$ /NDF:9.5/19

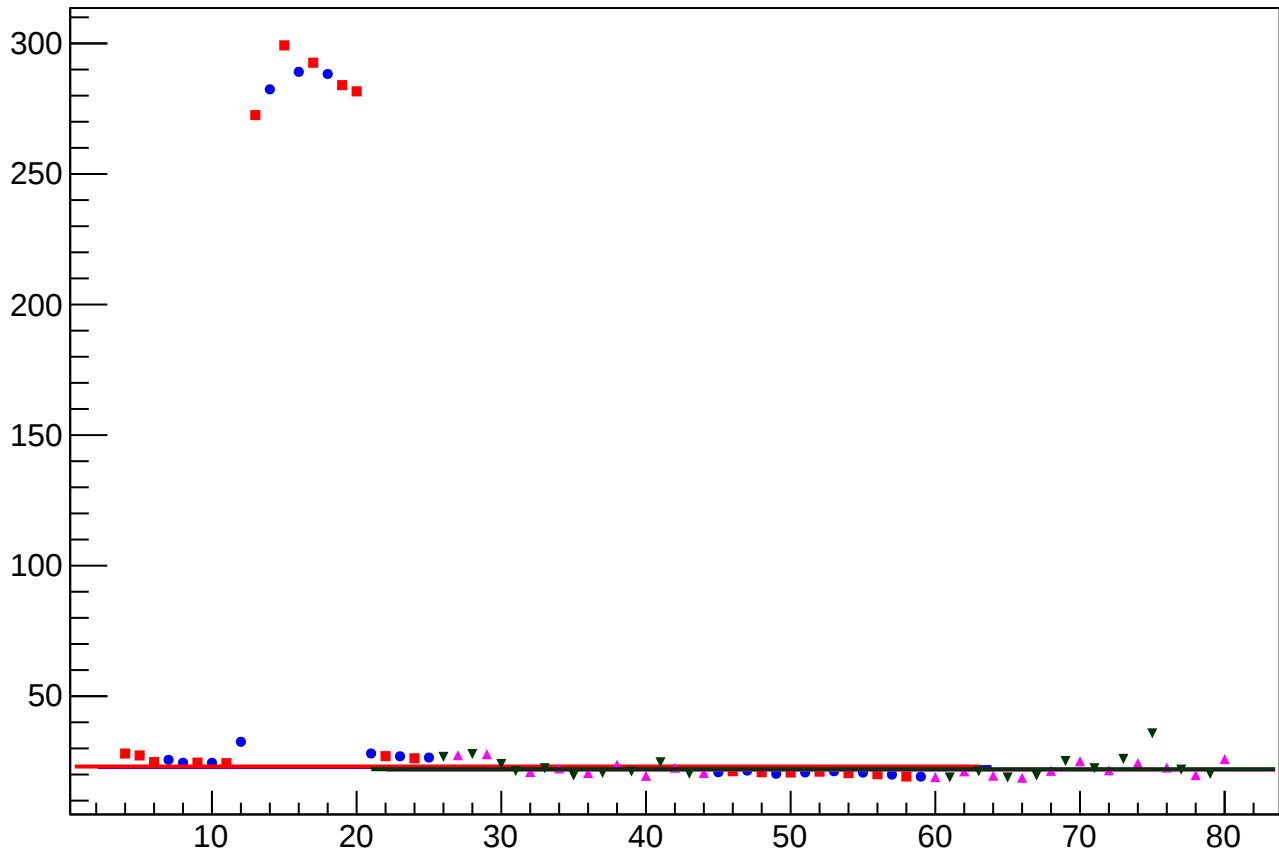
Right Out: 6.463+/-8.479  $\chi^2$ /NDF: 20.1/18

Left In: -3.142+/-6.638  $\chi^2$ /NDF:21.6/19

-1.756+/-5.134  $\chi^2$ /NDF: 19.7/37

0.508+/-5.227  $\chi^2$ /NDF: 42.5/38

asym\_bcm\_cav4cQ\_bcm\_an\_ds\_agg\_dd\_rms vs slug



Right In: 22.854+/-0.005  $\chi^2/\text{NDF}$ : 4363507.8/17

Left Out: 22.028+/-0.005  $\chi^2/\text{NDF}$ : 393790.7/19

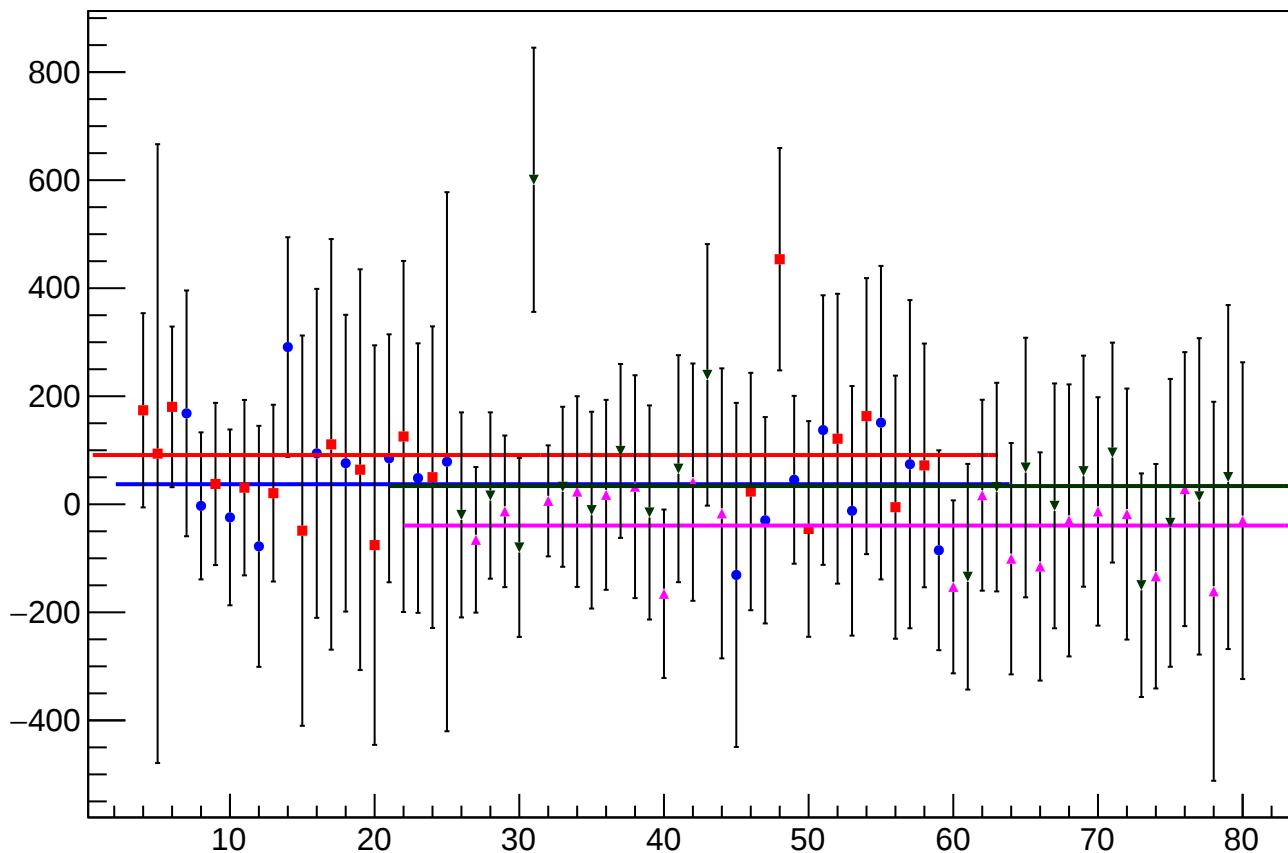
Right Out: 23.069+/-0.006  $\chi^2/\text{NDF}$ : 4856723.7/18

Left In: 21.867+/-0.005  $\chi^2/\text{NDF}$ : 311248.9/19

22.405+/-0.004  $\chi^2/\text{NDF}$ : 4770145.8/37

22.324+/-0.004  $\chi^2/\text{NDF}$ : 5192885.6/38

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_avg\_mean vs slug



Right In: 37.153+/-51.038  $\chi^2/\text{NDF}$ : 3.7/17

Left Out: 33.729+/-44.987  $\chi^2/\text{NDF}$ : 8.6/19

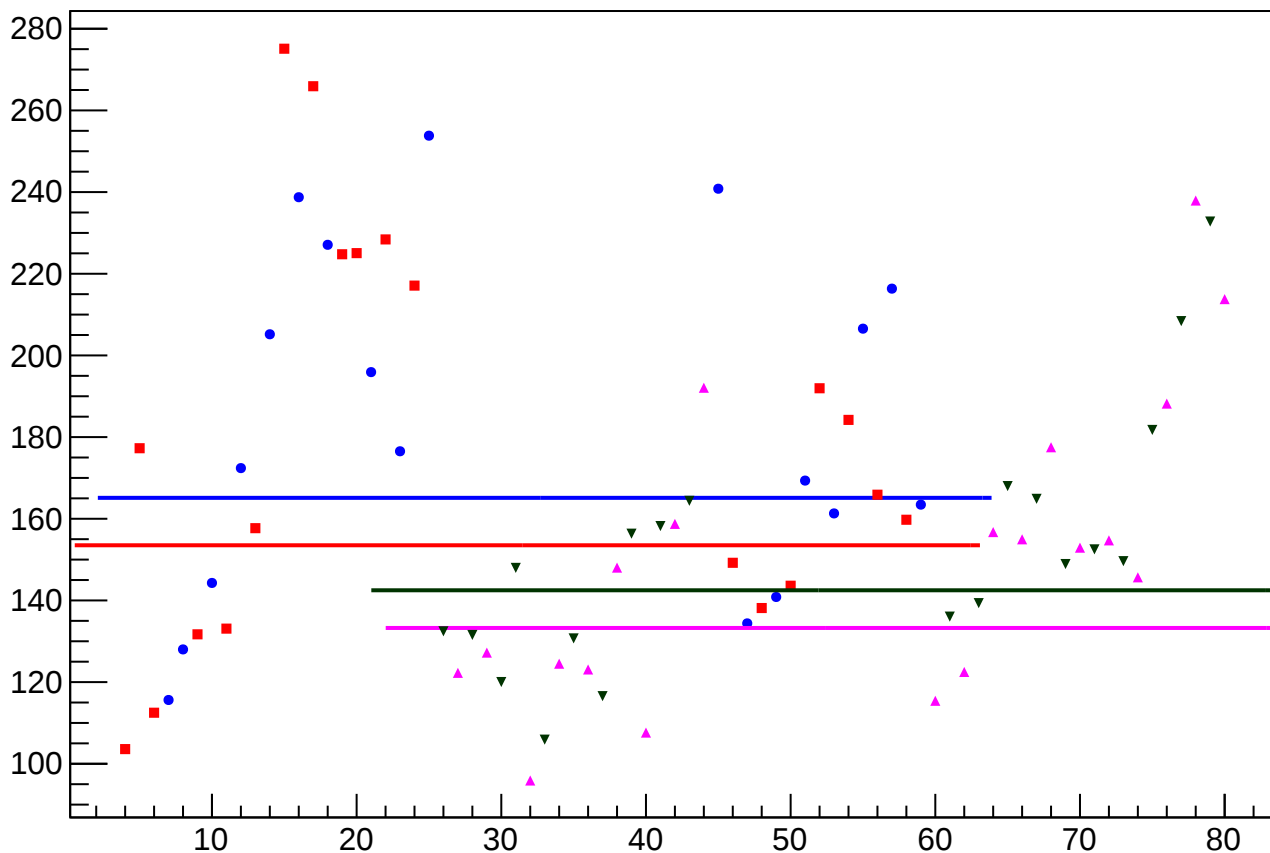
Right Out: 91.157+/-50.934  $\chi^2/\text{NDF}$ : 5.3/18

Left In: -39.370+/-41.007  $\chi^2/\text{NDF}$ : 2.7/19

35.226+/-33.748  $\chi^2/\text{NDF}$ : 12.3/37

11.963+/-31.941  $\chi^2/\text{NDF}$ : 12.0/38

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_avg\_rms vs slug



Right In: 165.125+/-0.036  $\chi^2/\text{NDF}$ : 990659.0/17

Left Out: 142.486+/-0.032  $\chi^2/\text{NDF}$ : 632291.8/19

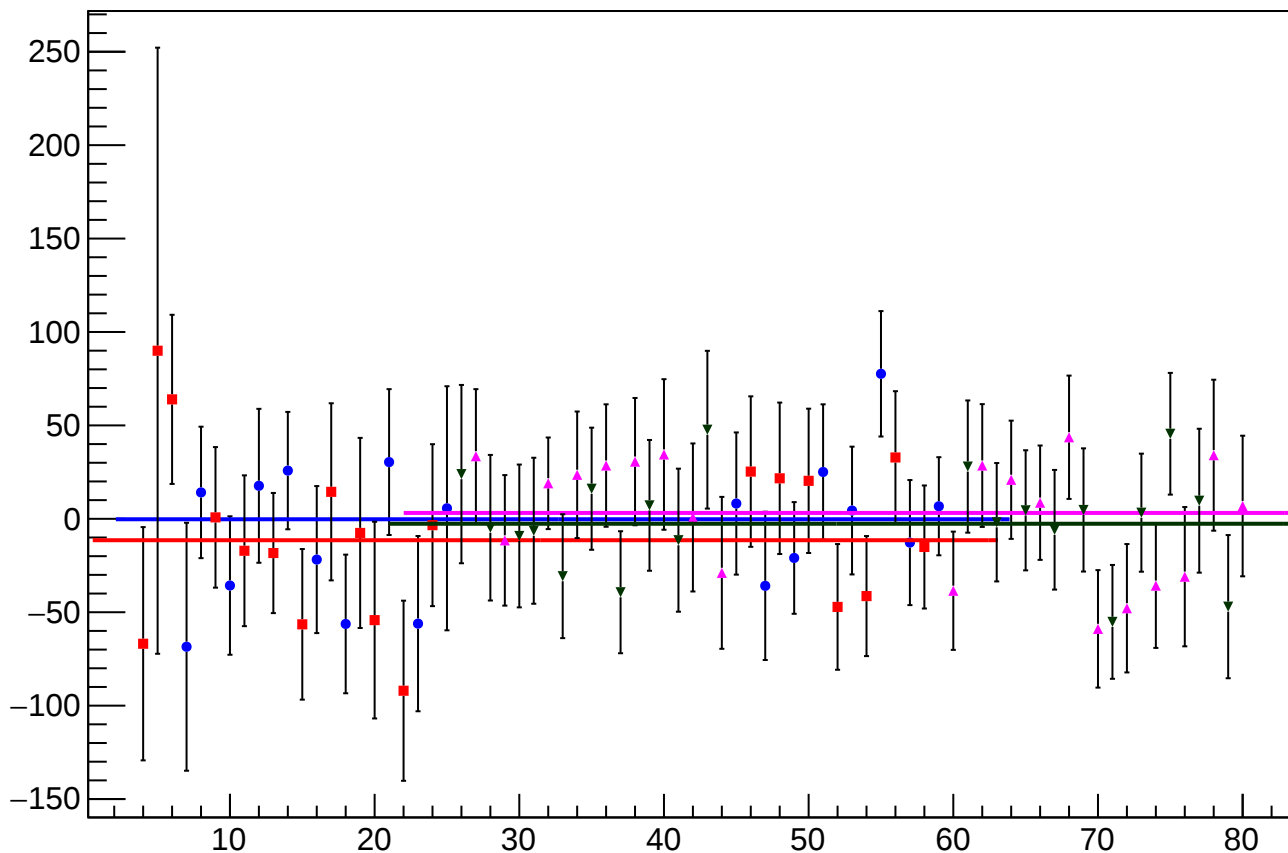
152.385+/-0.024  $\chi^2/\text{NDF}$ : 1844397.6/37

Right Out: 153.509+/-0.036  $\chi^2/\text{NDF}$ : 1238601.8/18

141.224+/-0.023  $\chi^2/\text{NDF}$ : 2514064.4/38

Left In: 133.260+/-0.029  $\chi^2/\text{NDF}$ : 1083687.3/19

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_dd\_mean vs slug



Right In:  $-0.239 \pm 8.646$   $\chi^2/\text{NDF}$ : 15.1/17

Left Out:  $-2.641 \pm 7.829$   $\chi^2/\text{NDF}$ : 11.7/19

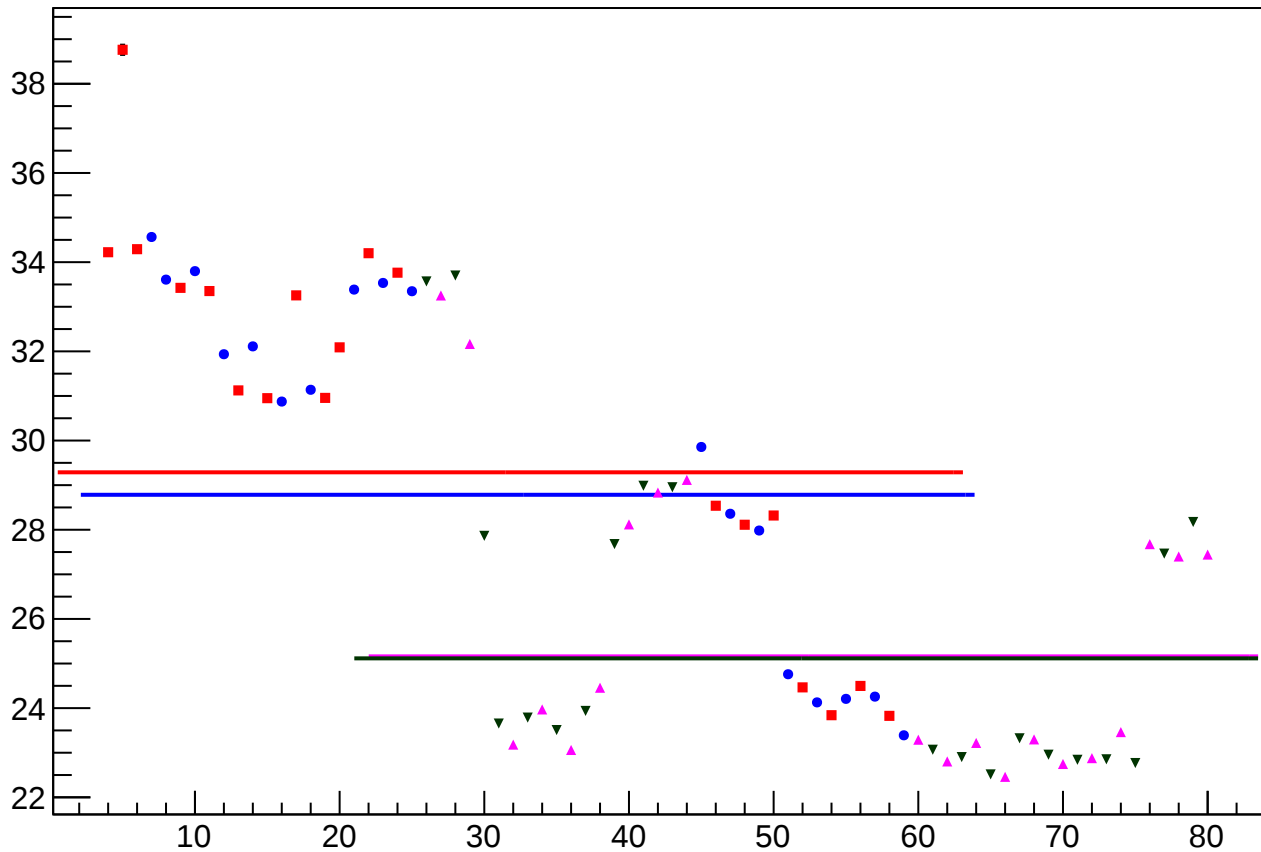
Right Out:  $-11.462 \pm 9.405$   $\chi^2/\text{NDF}$ : 14.9/18

Left In:  $3.152 \pm 7.562$   $\chi^2/\text{NDF}$ : 17.2/19

$-1.559 \pm 5.803$   $\chi^2/\text{NDF}$ : 26.8/37

$-2.586 \pm 5.893$   $\chi^2/\text{NDF}$ : 33.6/38

asym\_bcm\_cav4cQ\_bcm\_dg\_us\_agg\_dd\_rms vs slug



Right In: 28.784 $\pm$ 0.006  $\chi^2$ /NDF: 418497.9/17

Left Out: 25.116 $\pm$ 0.006  $\chi^2$ /NDF: 327682.6/19

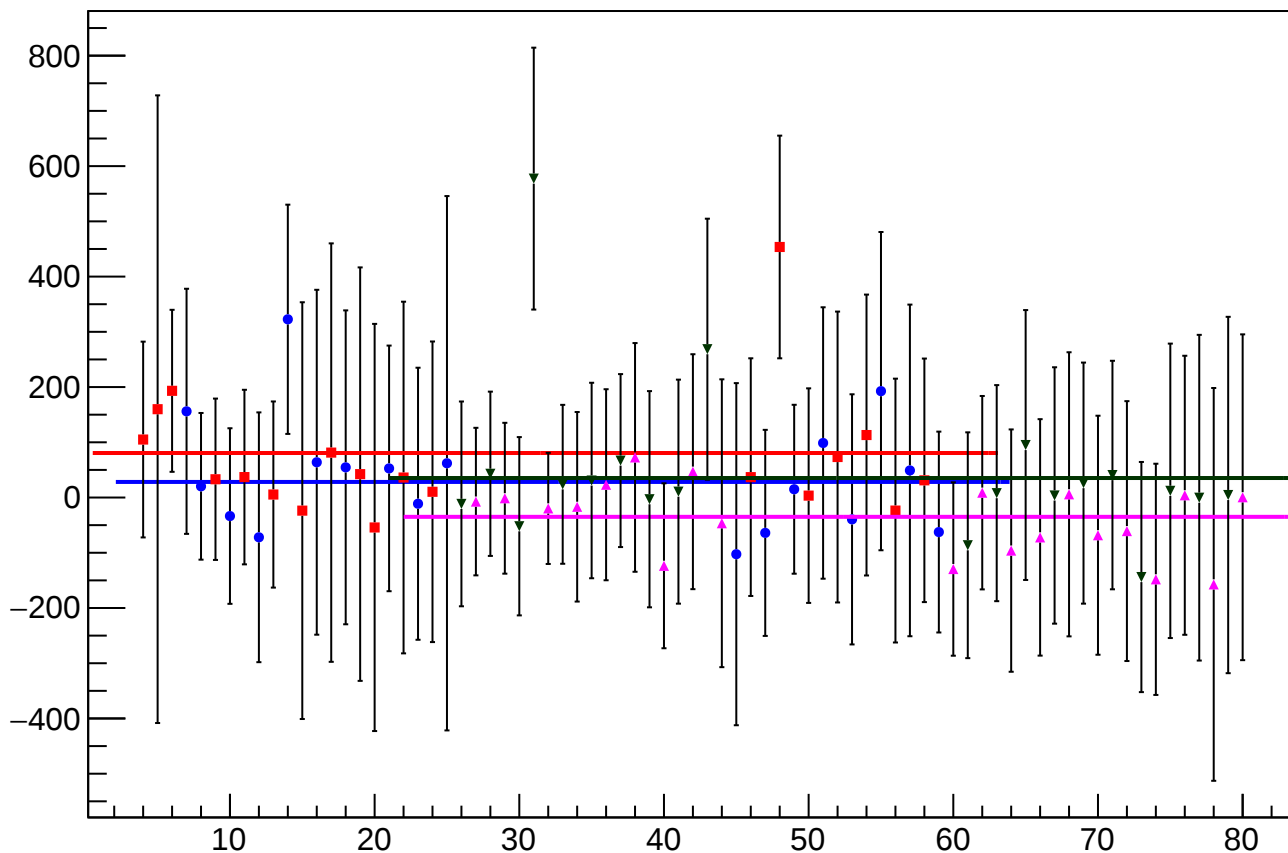
Right Out: 29.288 $\pm$ 0.007  $\chi^2$ /NDF: 355757.4/18

Left In: 25.161 $\pm$ 0.005  $\chi^2$ /NDF: 348641.8/19

26.768 $\pm$ 0.004  $\chi^2$ /NDF: 943957.0/37

26.781 $\pm$ 0.004  $\chi^2$ /NDF: 938316.5/38

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_mean vs slug



Right In: 28.225+/-50.353  $\chi^2/\text{NDF}$ : 3.9/17

Left Out: 35.332+/-44.374  $\chi^2/\text{NDF}$ : 7.9/19

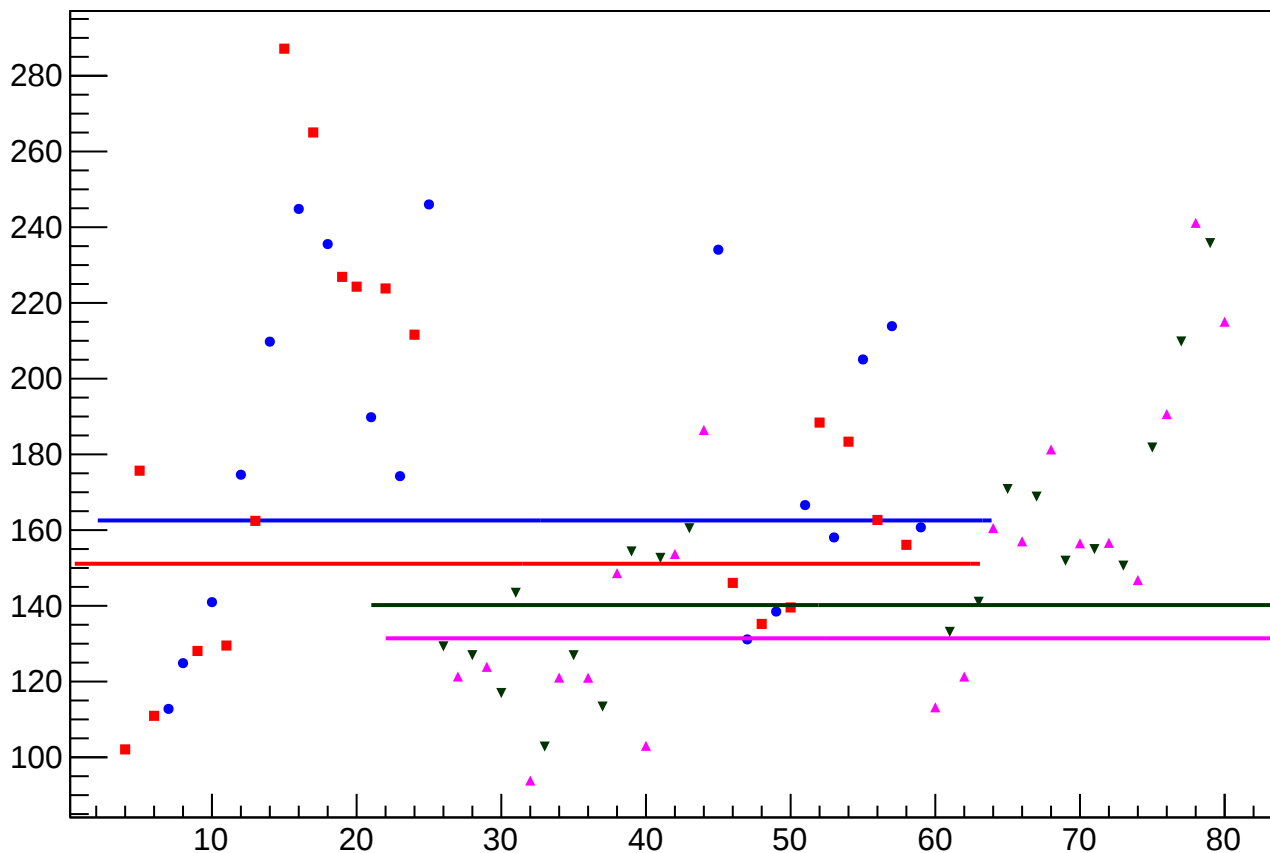
Right Out: 80.614+/-50.242  $\chi^2/\text{NDF}$ : 5.2/18

Left In: -34.941+/-40.514  $\chi^2/\text{NDF}$ : 2.1/19

32.226+/-33.291  $\chi^2/\text{NDF}$ : 11.8/37

10.591+/-31.538  $\chi^2/\text{NDF}$ : 10.5/38

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_rms vs slug



Right In:  $162.548 \pm 0.036$   $\chi^2/\text{NDF}$ : 1089314.8/17

Left Out:  $140.200 \pm 0.031$   $\chi^2/\text{NDF}$ : 723411.8/19

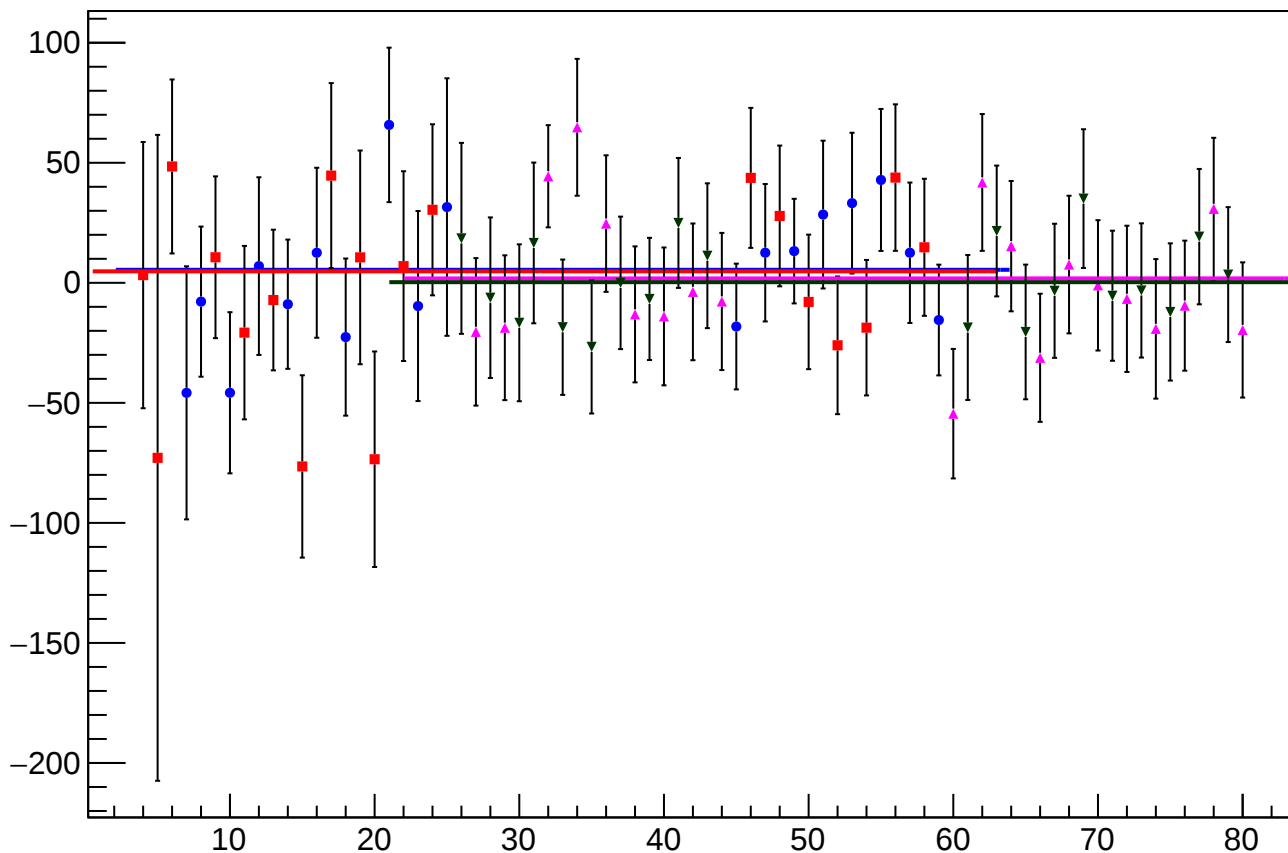
$149.969 \pm 0.024$   $\chi^2/\text{NDF}$ : 2034478.7/37

Right Out:  $151.117 \pm 0.036$   $\chi^2/\text{NDF}$ : 1306443.7/18

$139.183 \pm 0.022$   $\chi^2/\text{NDF}$ : 2695607.8/38

Left In:  $131.423 \pm 0.029$   $\chi^2/\text{NDF}$ : 1202937.8/19

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_mean vs slug



Right In:  $5.427 \pm 7.205$   $\chi^2/\text{NDF}$ : 13.4/17

Left Out:  $0.267 \pm 6.479$   $\chi^2/\text{NDF}$ : 6.9/19

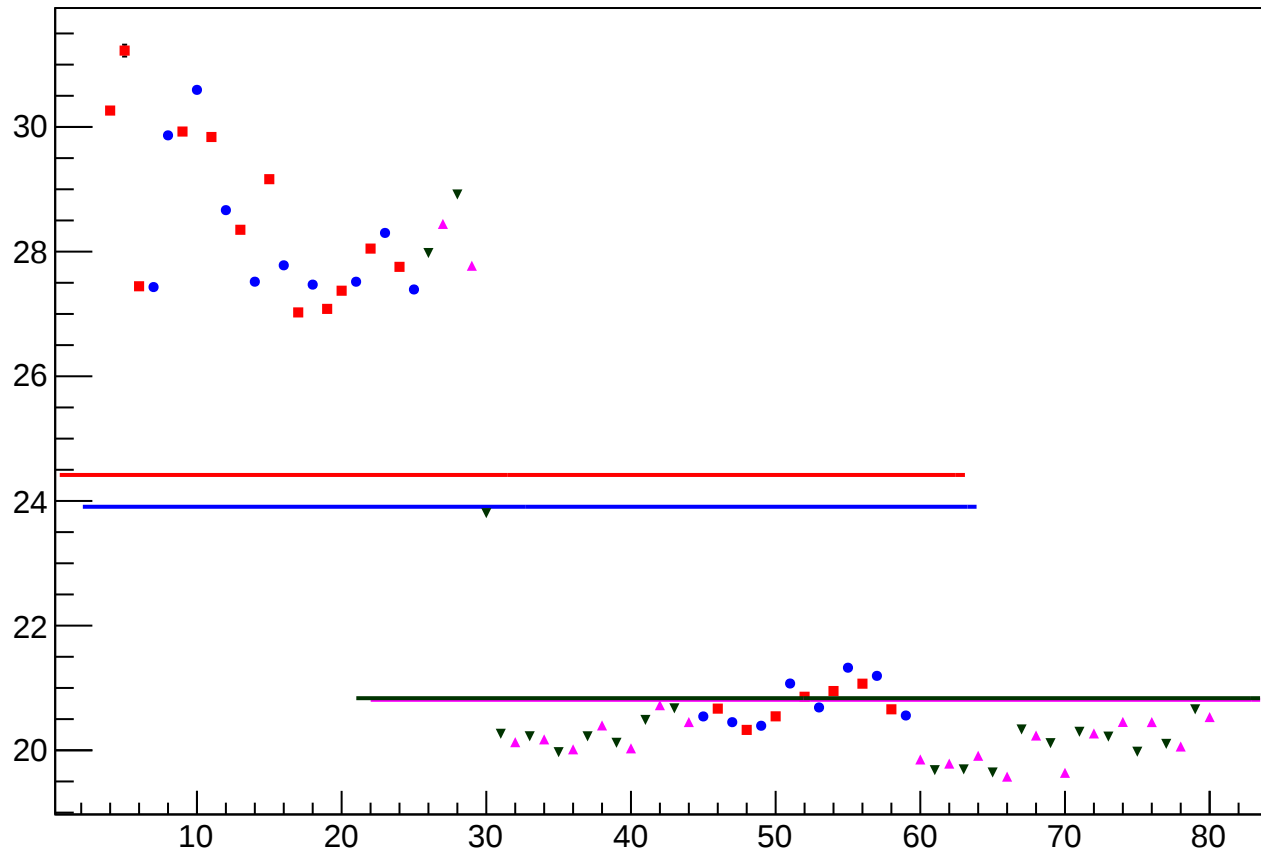
Right Out:  $4.784 \pm 7.872$   $\chi^2/\text{NDF}$ : 17.9/18

Left In:  $1.836 \pm 6.235$   $\chi^2/\text{NDF}$ : 21.7/19

$2.574 \pm 4.818$   $\chi^2/\text{NDF}$ : 20.5/37

$2.972 \pm 4.888$   $\chi^2/\text{NDF}$ : 39.7/38

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_rms vs slug



Right In: 23.907 $\pm$ 0.005  $\chi^2$ /NDF: 565903.0/17

Left Out: 20.836 $\pm$ 0.005  $\chi^2$ /NDF: 221163.5/19

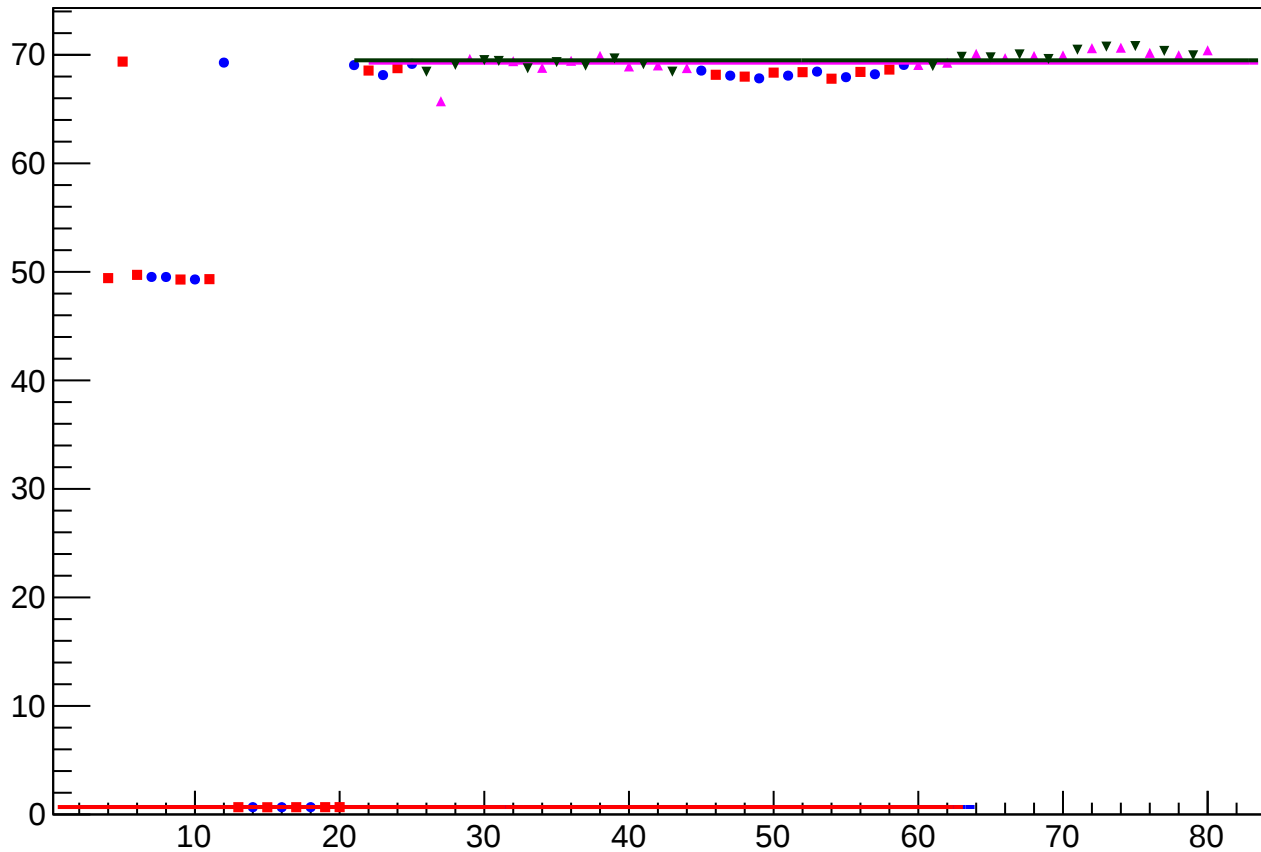
Right Out: 24.417 $\pm$ 0.006  $\chi^2$ /NDF: 496476.9/18

Left In: 20.809 $\pm$ 0.004  $\chi^2$ /NDF: 255809.2/19

22.209 $\pm$ 0.003  $\chi^2$ /NDF: 987968.9/37

22.200 $\pm$ 0.003  $\chi^2$ /NDF: 1010436.1/38

# yield\_bcm\_an\_ds\_mean vs slug



Right In:  $0.688 \pm 0.000$   $\chi^2/\text{NDF}$ : 1036988220984.6/17

Left Out:  $69.497 \pm 0.000$   $\chi^2/\text{NDF}$ : 118263114.2/19

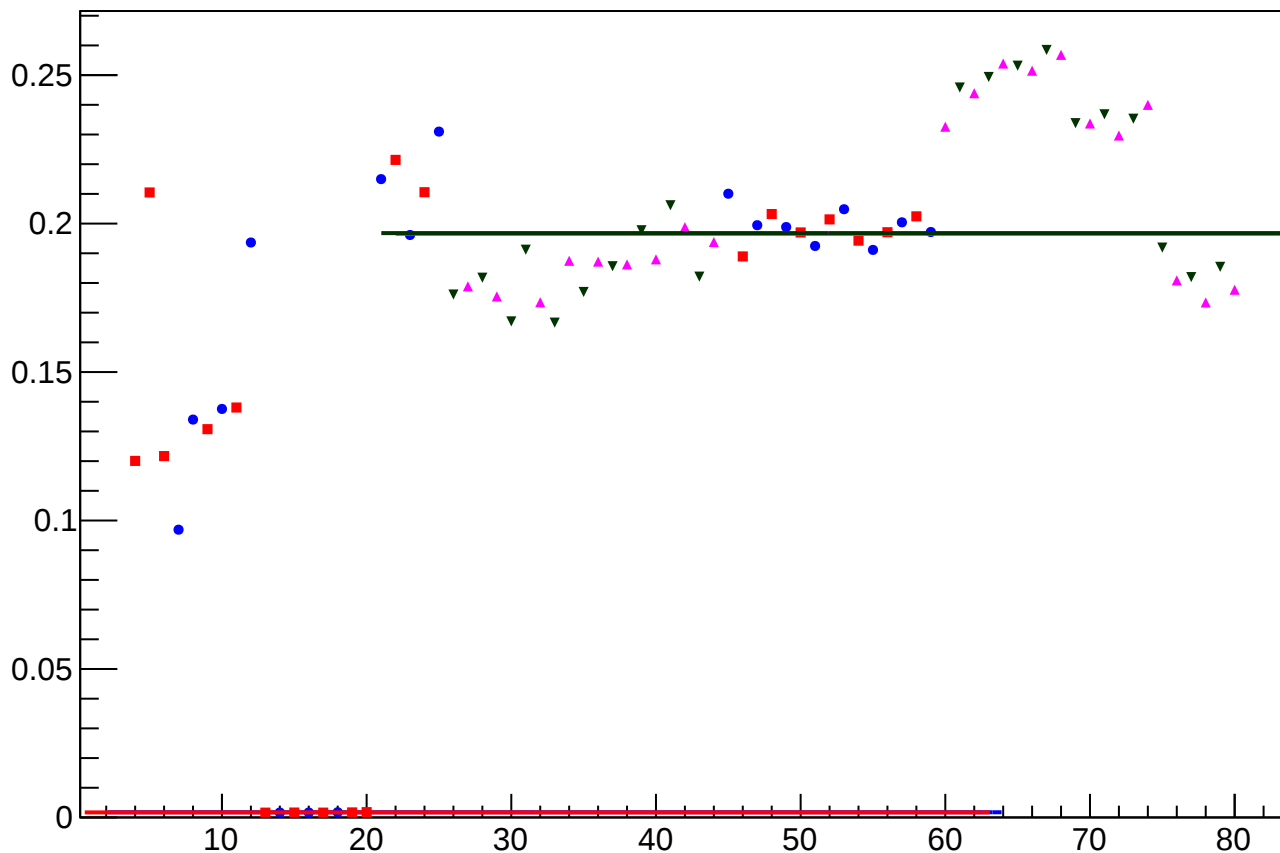
$0.709 \pm 0.000$   $\chi^2/\text{NDF}$ : 2258057132268.9/37

Right Out:  $0.684 \pm 0.000$   $\chi^2/\text{NDF}$ : 845851789818.6/18

$0.703 \pm 0.000$   $\chi^2/\text{NDF}$ : 2160034736737.4/38

Left In:  $69.277 \pm 0.000$   $\chi^2/\text{NDF}$ : 430047589.7/19

# yield\_bcm\_an\_ds\_rms vs slug



Right In: 0.002 $\pm$ 0.000     $\chi^2$ /NDF: 16897571.8/17

Left Out: 0.197 $\pm$ 0.000     $\chi^2$ /NDF:393830.8/19

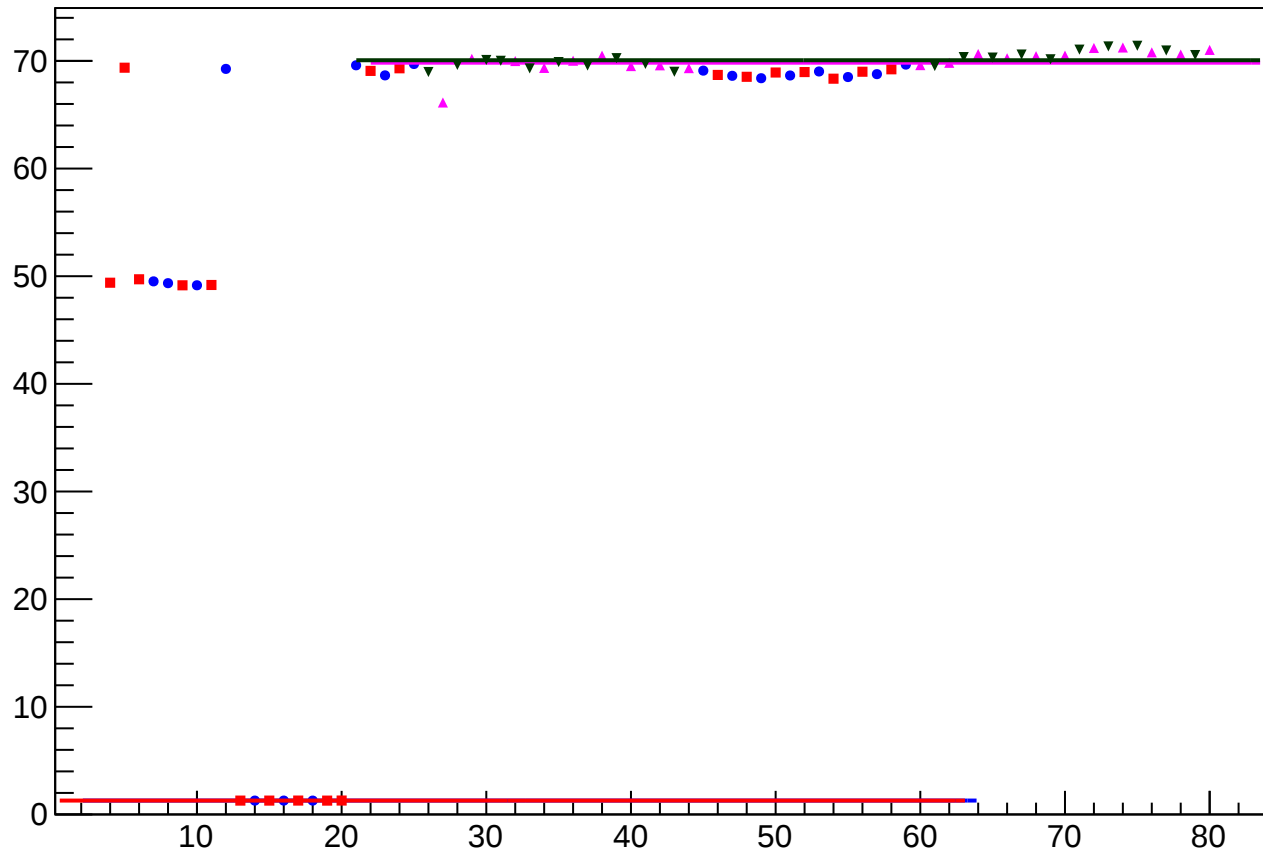
Right Out: 0.002 $\pm$ 0.000     $\chi^2$ /NDF: 13510450.3/18

Left In: 0.197 $\pm$ 0.000     $\chi^2$ /NDF:414448.3/19

0.002 $\pm$ 0.000     $\chi^2$ /NDF: 36911974.9/37

0.002 $\pm$ 0.000     $\chi^2$ /NDF: 35131995.2/38

# yield\_bcm\_an\_ds3\_mean vs slug



Right In: 1.291+/-0.000  $\chi^2/\text{NDF}$ : 1010041068715.0/17

Left Out: 70.062+/-0.000  $\chi^2/\text{NDF}$ : 118358428.8/19

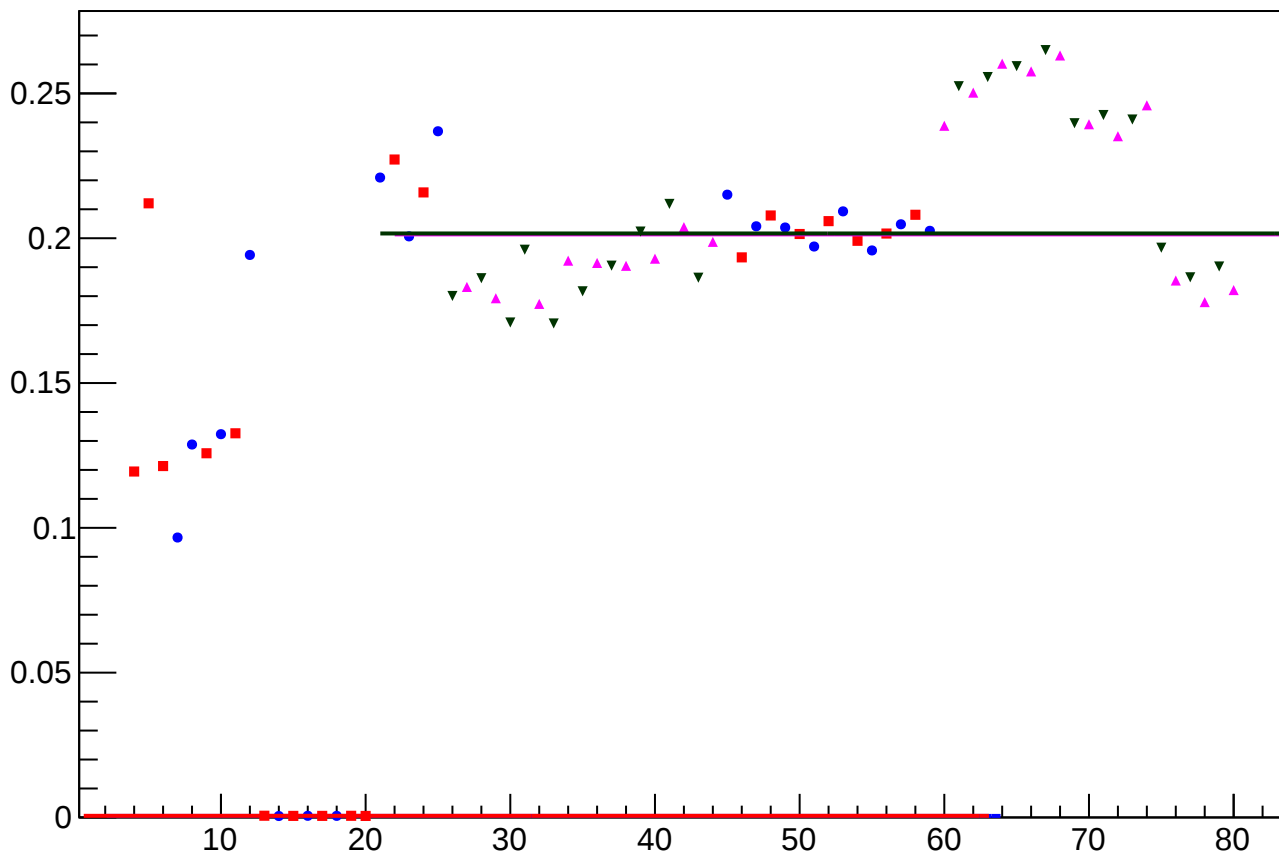
1.293+/-0.000  $\chi^2/\text{NDF}$ : 2171909040990.2/37

Right Out: 1.290+/-0.000  $\chi^2/\text{NDF}$ : 826763948171.6/18

1.292+/-0.000  $\chi^2/\text{NDF}$ : 2077961152790.5/38

Left In: 69.835+/-0.000  $\chi^2/\text{NDF}$ : 441761526.3/19

yield\_bcm\_an\_ds3\_rms vs slug



Right In: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 17142253.8/17

Left Out: 0.202+/-0.000  $\chi^2/\text{NDF}$ : 395912.0/19

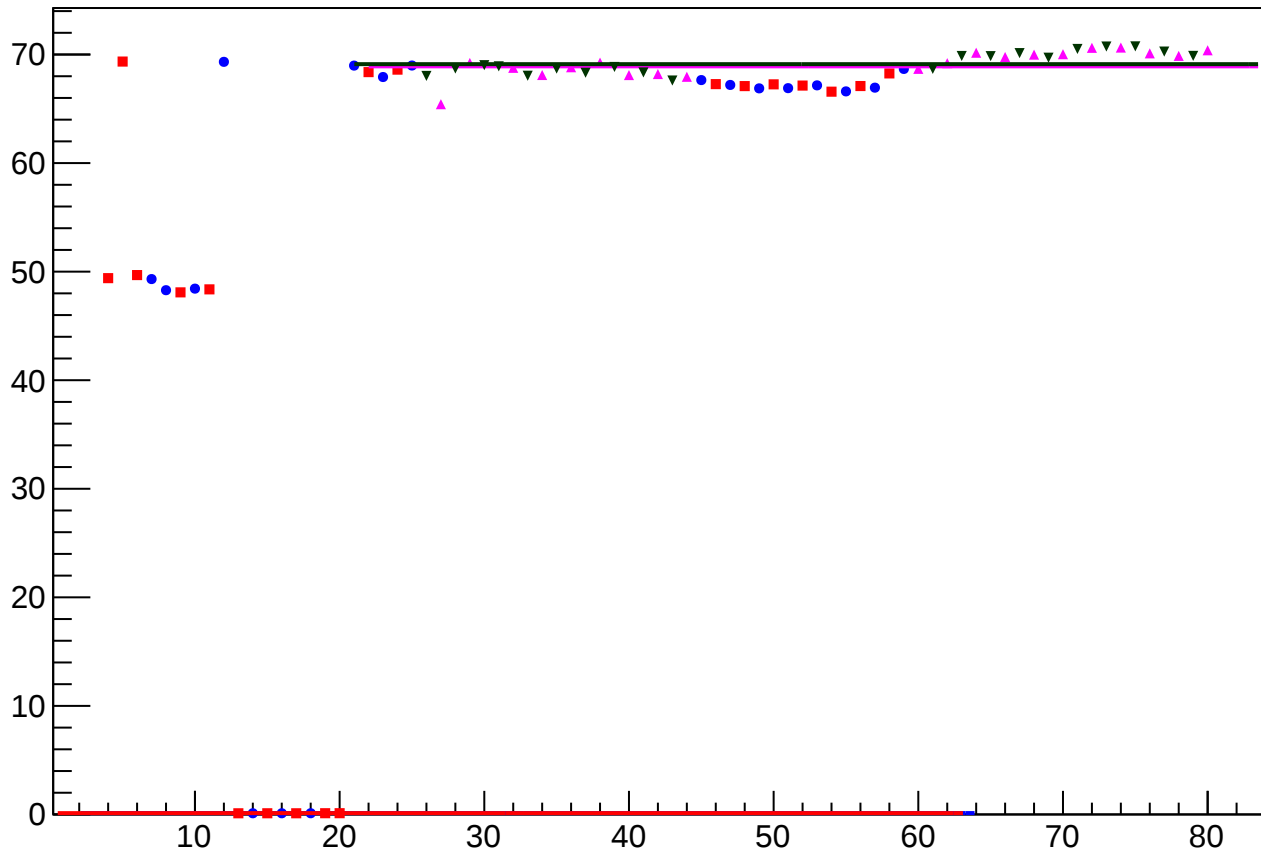
Right Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 13695888.0/18

Left In: 0.201+/-0.000  $\chi^2/\text{NDF}$ : 417722.9/19

0.001+/-0.000  $\chi^2/\text{NDF}$ : 37408513.0/37

0.001+/-0.000  $\chi^2/\text{NDF}$ : 35572063.4/38

# yield\_bcm\_an\_us\_mean vs slug



Right In: 0.126+/-0.000  $\chi^2/\text{NDF}$ : 1070197088852.4/17

Left Out: 69.112+/-0.000  $\chi^2/\text{NDF}$ : 224575688.1/19

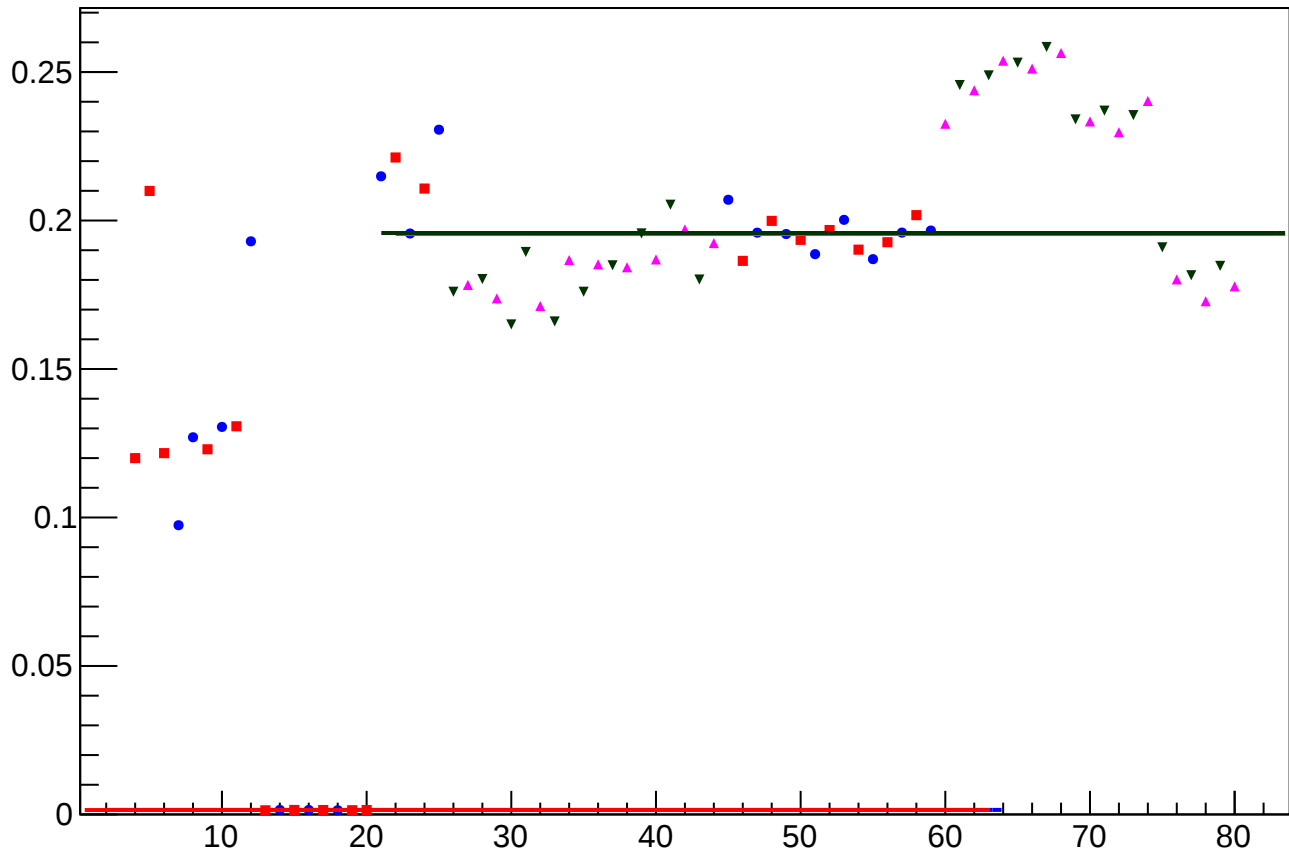
Right Out: 0.122+/-0.000  $\chi^2/\text{NDF}$ : 876428994690.6/18

Left In: 68.910+/-0.000  $\chi^2/\text{NDF}$ : 520203969.0/19

0.143+/-0.000  $\chi^2/\text{NDF}$ : 2308170398240.8/37

0.137+/-0.000  $\chi^2/\text{NDF}$ : 2212297938161.5/38

# yield\_bcm\_an\_us\_rms vs slug



Right In: 0.002 $\pm$ 0.000     $\chi^2$ /NDF: 16922209.8/17

Left Out: 0.196 $\pm$ 0.000     $\chi^2$ /NDF:407335.1/19

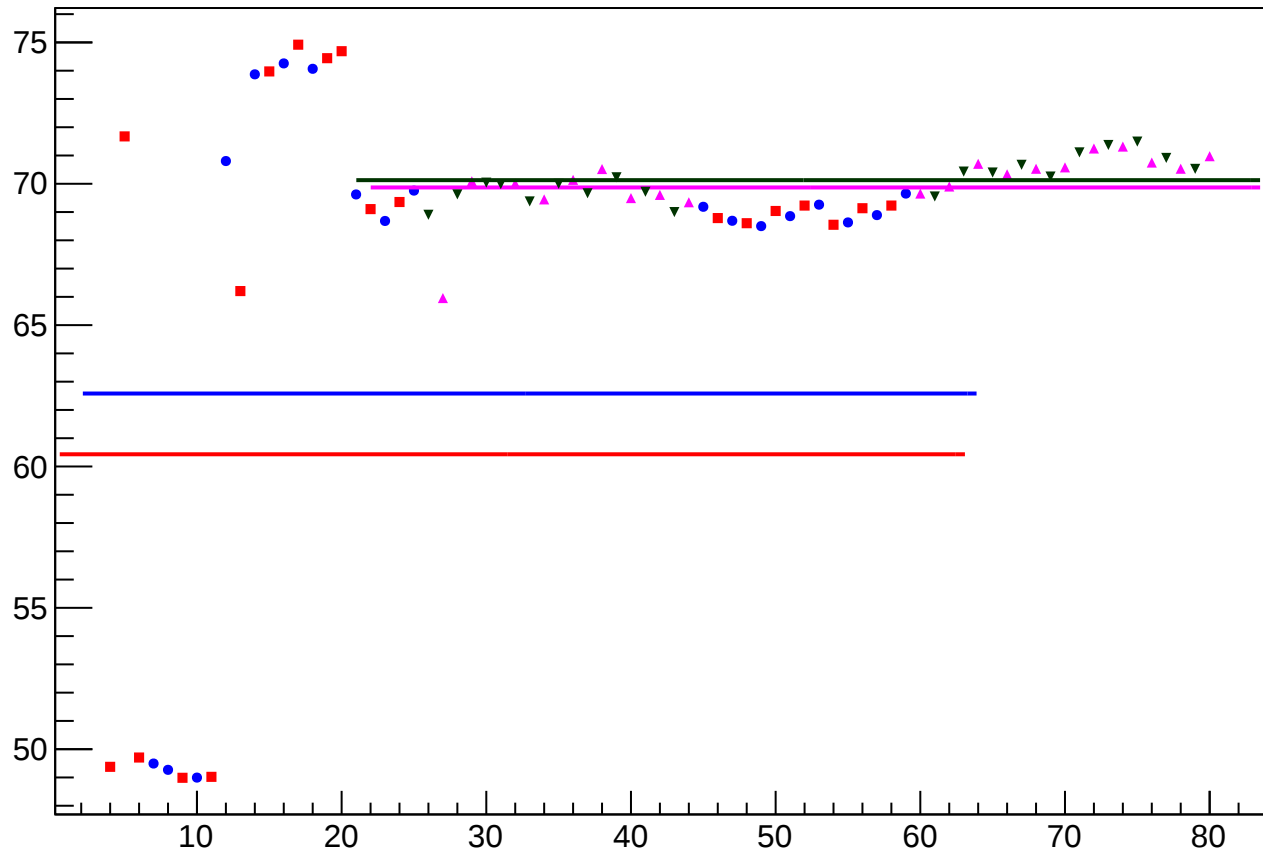
0.002 $\pm$ 0.000     $\chi^2$ /NDF: 36960370.5/37

Right Out: 0.001 $\pm$ 0.000     $\chi^2$ /NDF: 13535654.6/18

0.002 $\pm$ 0.000     $\chi^2$ /NDF: 35199875.9/38

Left In: 0.195 $\pm$ 0.000     $\chi^2$ /NDF:430777.9/19

# yield\_bcm\_dg\_us\_mean vs slug



Right In: 62.581+/-0.000  $\chi^2/\text{NDF}$ : 33681231971.4/17

Left Out: 70.128+/-0.000  $\chi^2/\text{NDF}$ : 119489461.0/19

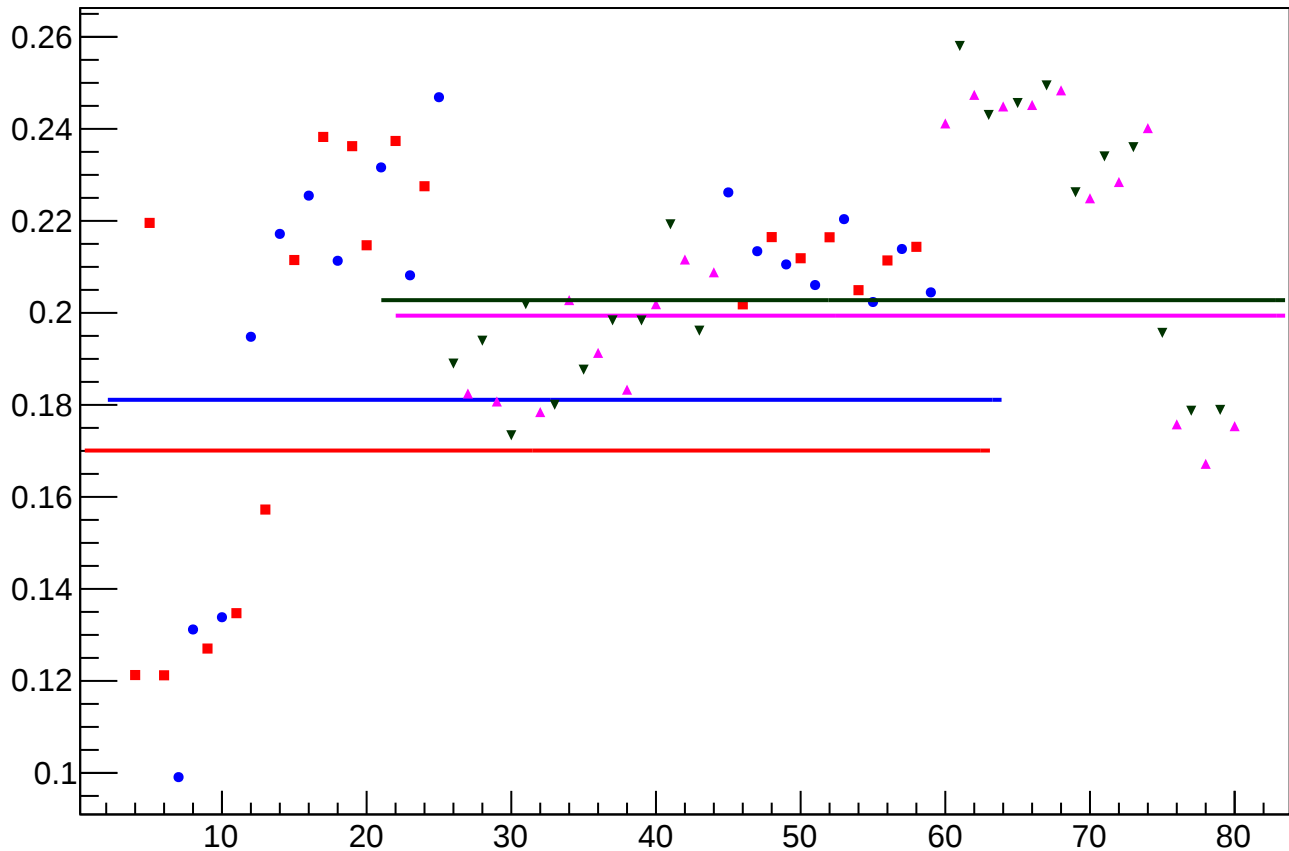
65.884+/-0.000  $\chi^2/\text{NDF}$ : 41626057223.0/37

Right Out: 60.432+/-0.000  $\chi^2/\text{NDF}$ : 32977972131.8/18

64.863+/-0.000  $\chi^2/\text{NDF}$ : 46270535413.2/38

Left In: 69.870+/-0.000  $\chi^2/\text{NDF}$ : 482466564.9/19

yield\_bcm\_dg\_us\_rms vs slug



Right In: 0.181+/-0.000  $\chi^2/\text{NDF}$ : 1216212.6/17

Left Out: 0.203+/-0.000  $\chi^2/\text{NDF}$ : 290047.2/19

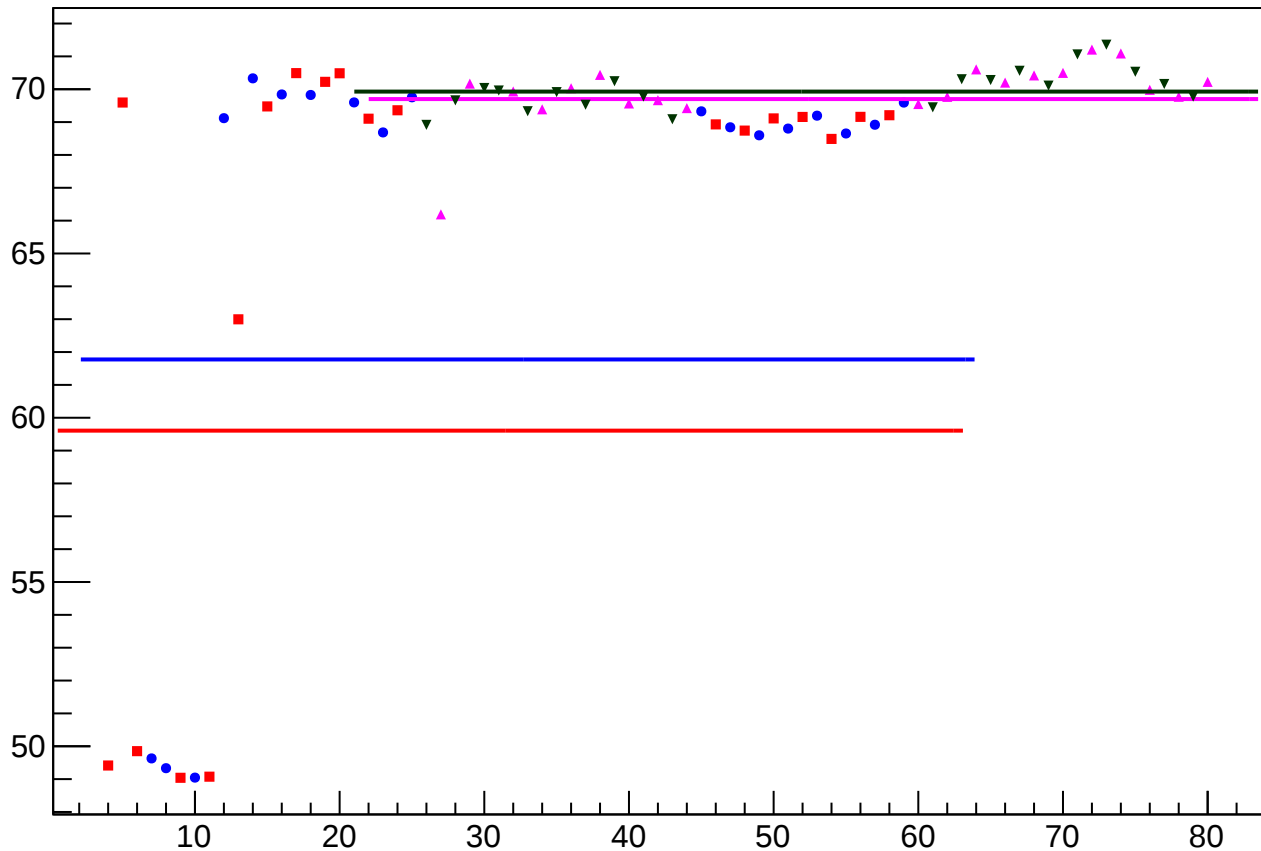
0.191+/-0.000  $\chi^2/\text{NDF}$ : 1635172.3/37

Right Out: 0.170+/-0.000  $\chi^2/\text{NDF}$ : 1183604.4/18

0.184+/-0.000  $\chi^2/\text{NDF}$ : 1810462.4/38

Left In: 0.199+/-0.000  $\chi^2/\text{NDF}$ : 379589.8/19

# yield\_bcm\_dg\_ds\_mean vs slug



Right In: 61.774 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 30968593880.6/17

Left Out: 69.928 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 77827229.4/19

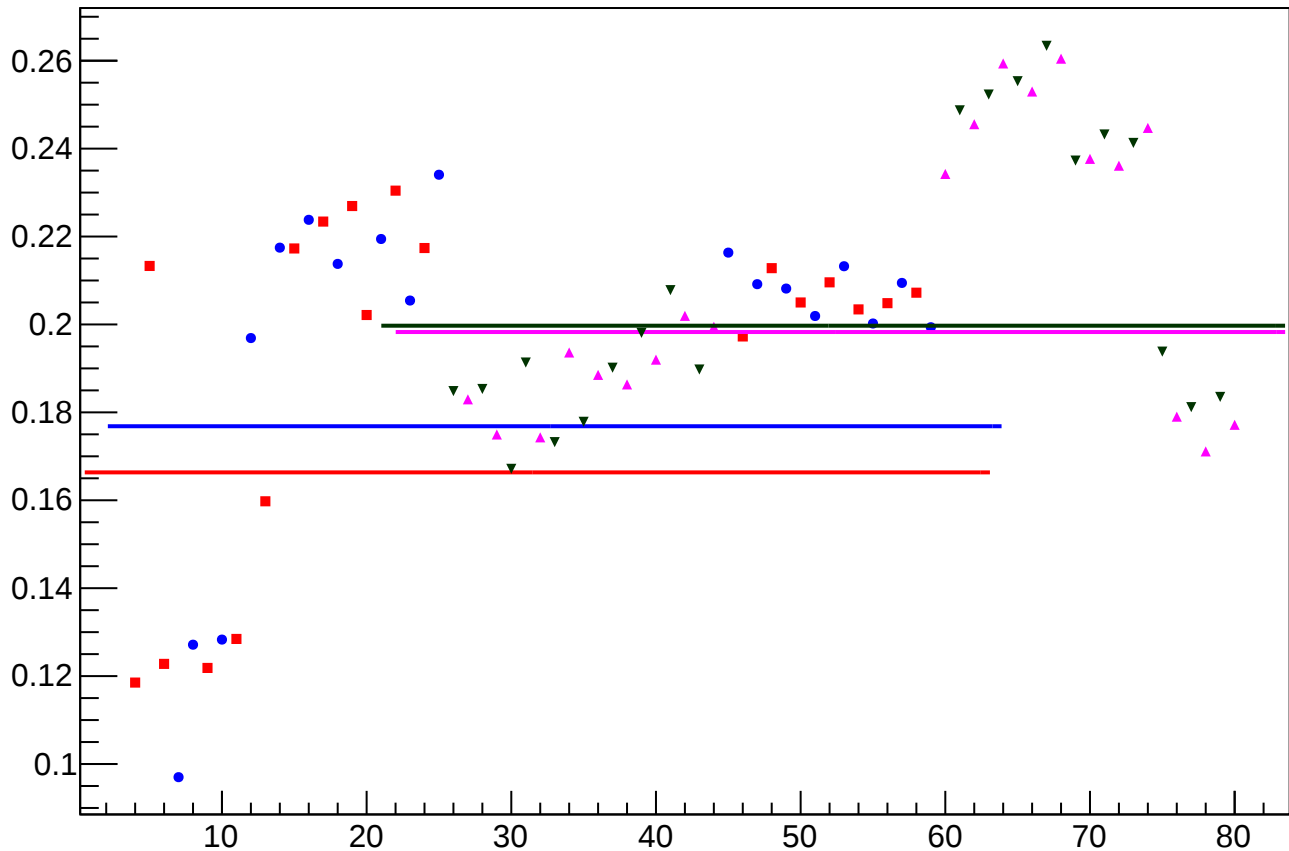
65.302 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 40498913042.3/37

Right Out: 59.608 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 29547406430.8/18

64.260 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 44973072216.2/38

Left In: 69.701 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 376867435.4/19

# yield\_bcm\_dg\_ds\_rms vs slug



Right In: 0.177+/-0.000  $\chi^2/\text{NDF}$ : 1276663.3/17

Left Out: 0.200+/-0.000  $\chi^2/\text{NDF}$ : 394329.4/19

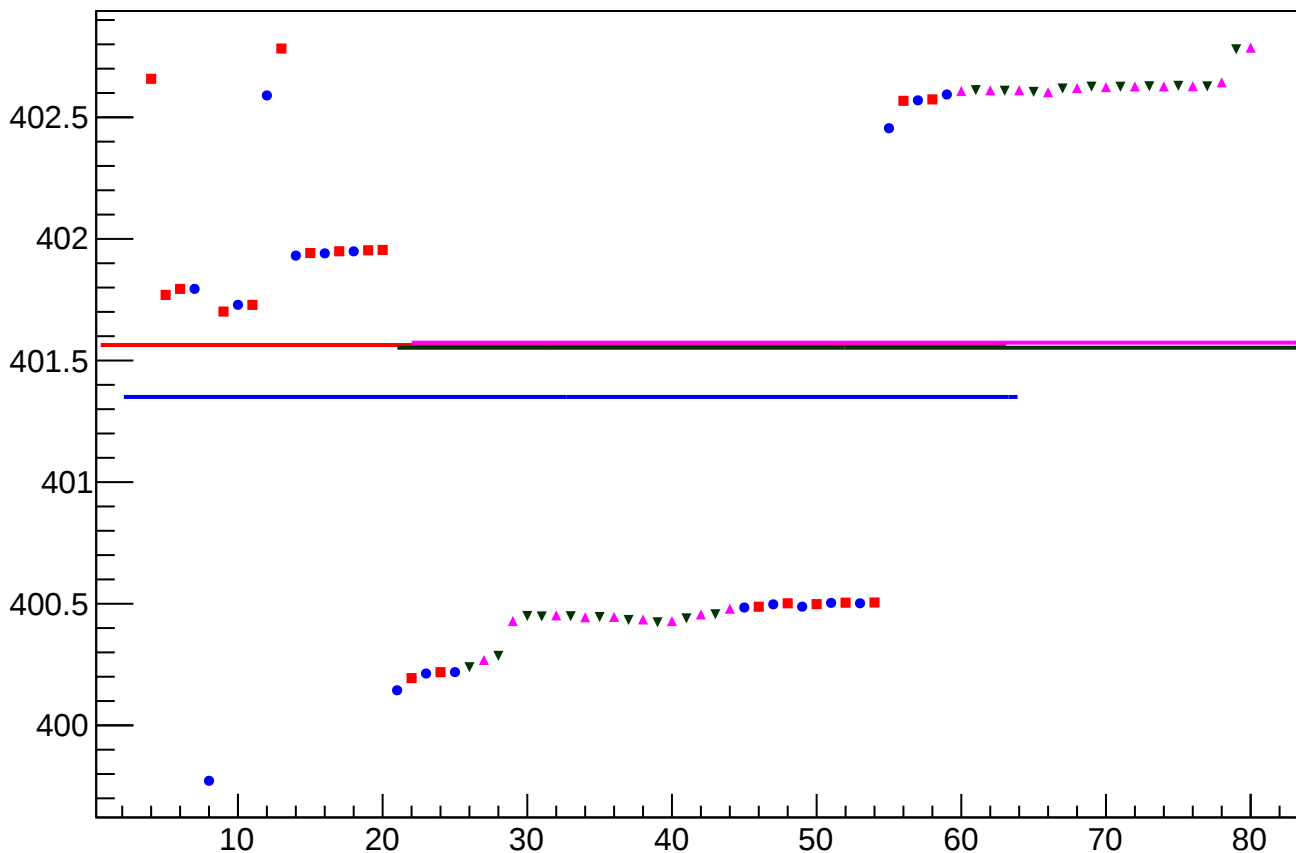
0.187+/-0.000  $\chi^2/\text{NDF}$ : 1819738.7/37

Right Out: 0.166+/-0.000  $\chi^2/\text{NDF}$ : 1156468.8/18

0.181+/-0.000  $\chi^2/\text{NDF}$ : 1902321.3/38

Left In: 0.198+/-0.000  $\chi^2/\text{NDF}$ : 444624.3/19

# yield\_cav4bQ\_mean vs slug



Right In: 401.350 $\pm$ 0.000  $\chi^2$ /NDF: 235093599906.3/17

Left Out: 401.553 $\pm$ 0.000  $\chi^2$ /NDF: 298337493937.2/19

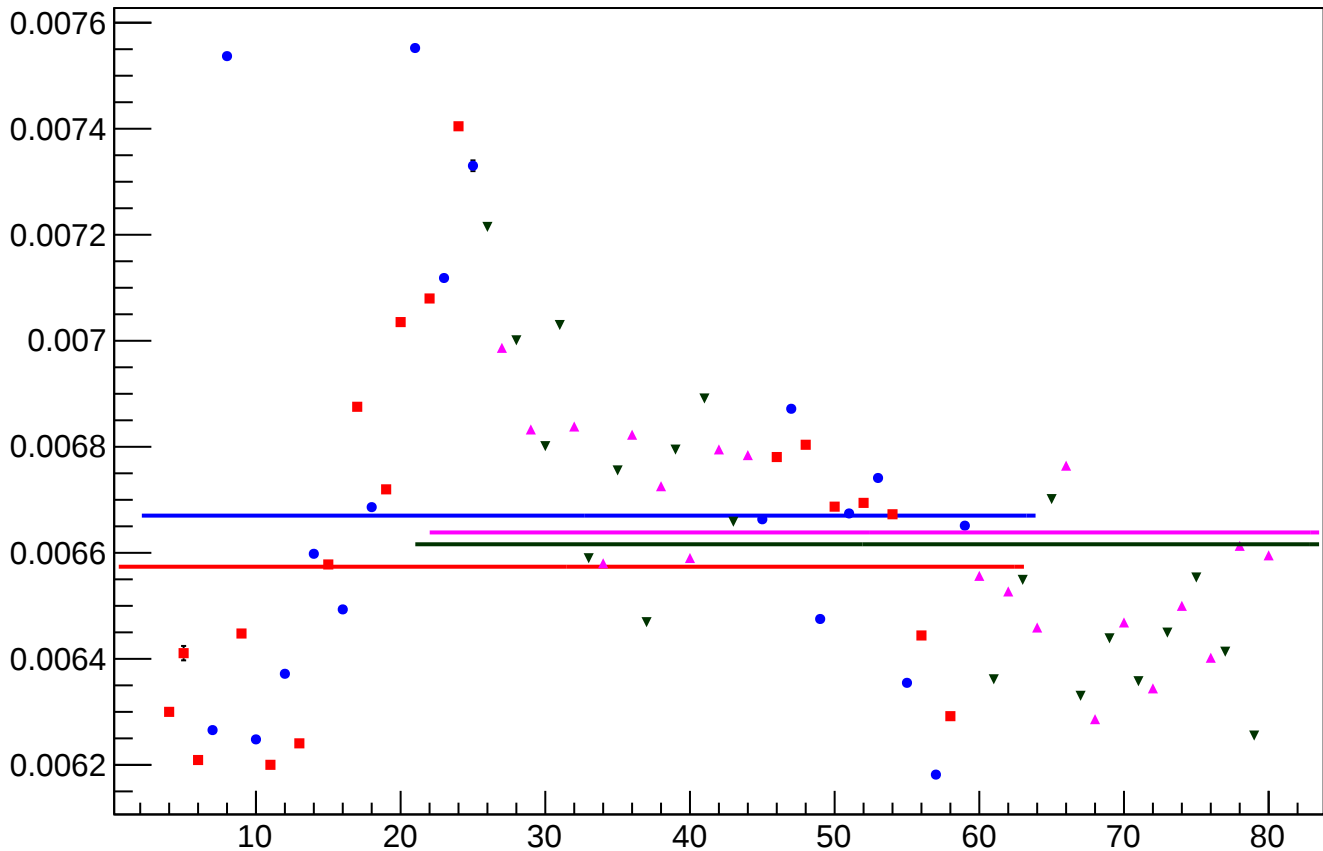
Right Out: 401.564 $\pm$ 0.000  $\chi^2$ /NDF: 183973928948.5/18

Left In: 401.573 $\pm$ 0.000  $\chi^2$ /NDF: 313288445303.1/19

401.449 $\pm$ 0.000  $\chi^2$ /NDF: 538447104392.9/37

401.569 $\pm$ 0.000  $\chi^2$ /NDF: 497273833268.4/38

# yield\_cav4bQ\_rms vs slug



Right In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 76682.3/17

Left Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:30172.1/19

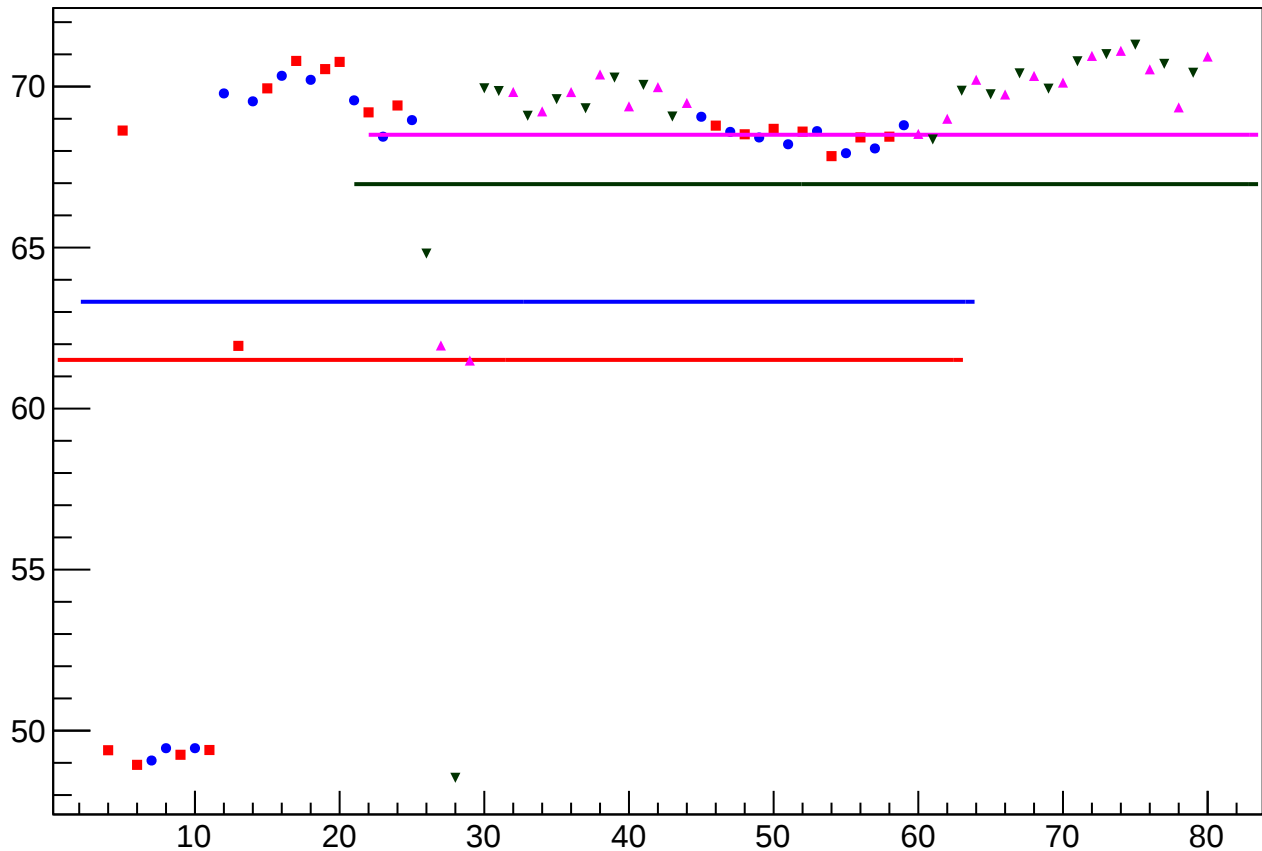
Right Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 47681.9/18

Left In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:18695.3/19

0.007 $\pm$ 0.000  $\chi^2$ /NDF: 107570.3/37

0.007 $\pm$ 0.000  $\chi^2$ /NDF: 67389.6/38

# yield\_cav4cQ\_mean vs slug



Right In: 63.318+/-0.000  $\chi^2/\text{NDF}$ : 17047377048.9/17

Left Out: 66.970+/-0.000  $\chi^2/\text{NDF}$ : 10454323026.3/19

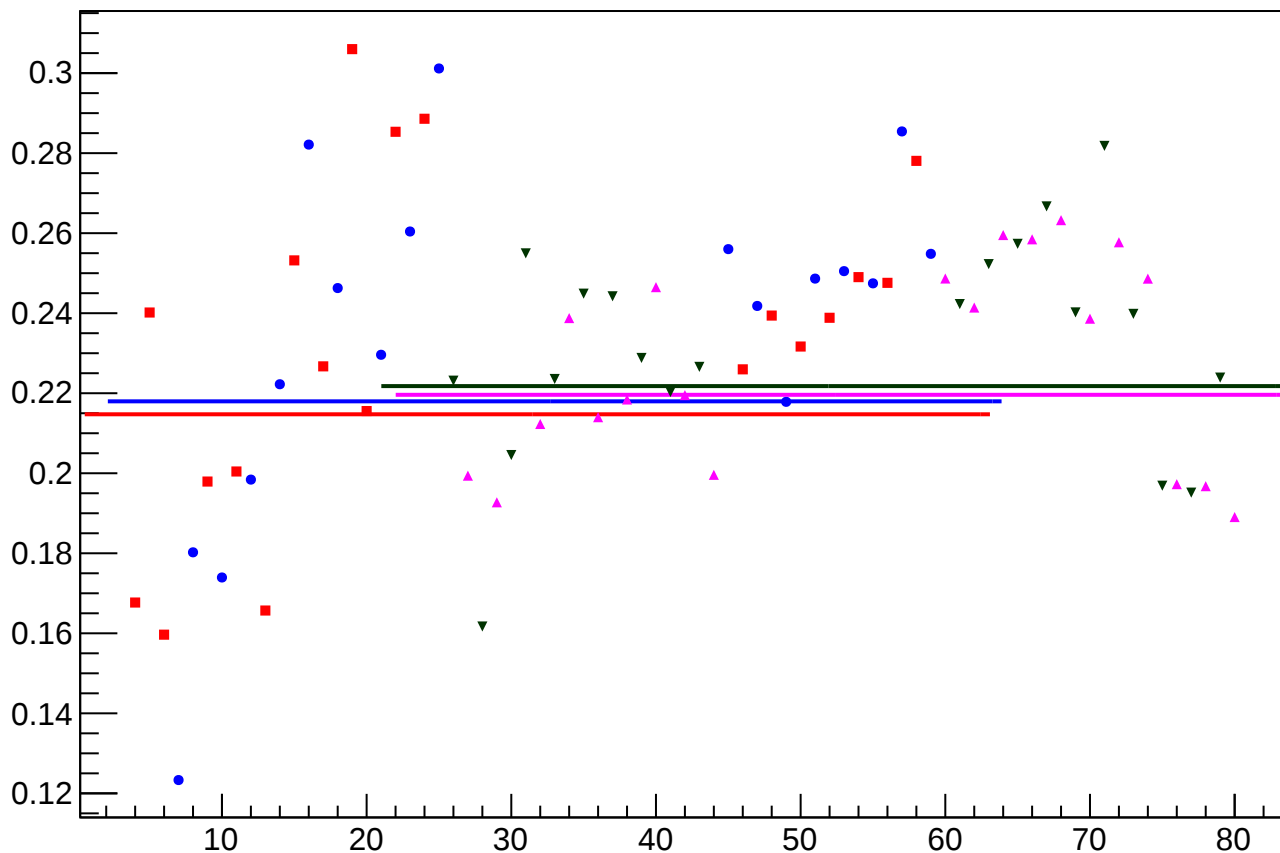
Right Out: 61.513+/-0.000  $\chi^2/\text{NDF}$ : 15349624825.1/18

Left In: 68.503+/-0.000  $\chi^2/\text{NDF}$ : 2218970568.5/19

65.072+/-0.000  $\chi^2/\text{NDF}$ : 28857037434.1/37

65.270+/-0.000  $\chi^2/\text{NDF}$ : 22460747857.5/38

# yield\_cav4cQ\_rms vs slug



Right In: 0.218+/-0.000  $\chi^2/\text{NDF}$ : 734629.1/17

Left Out: 0.222+/-0.000  $\chi^2/\text{NDF}$ : 386383.0/19

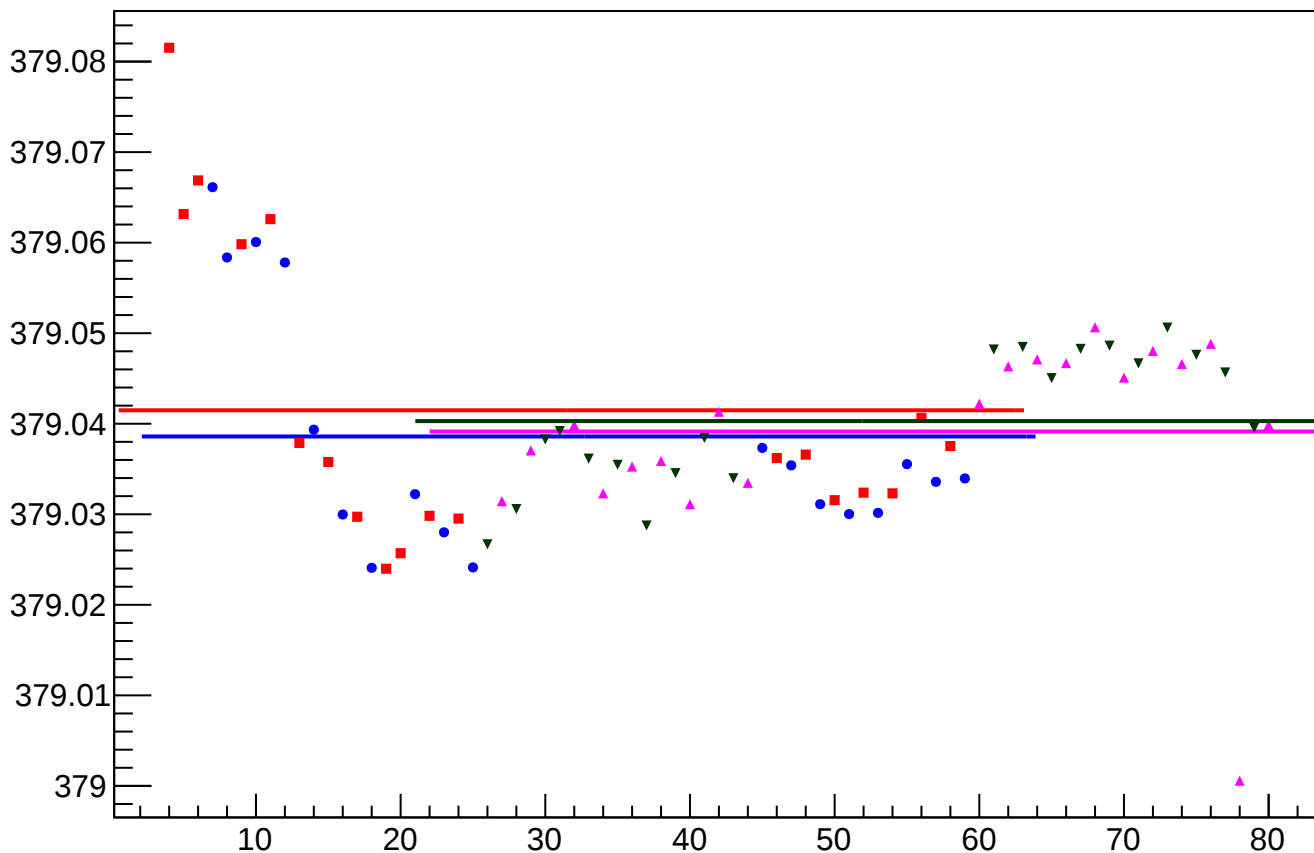
Right Out: 0.215+/-0.000  $\chi^2/\text{NDF}$ : 631176.3/18

Left In: 0.220+/-0.000  $\chi^2/\text{NDF}$ : 261765.8/19

0.220+/-0.000  $\chi^2/\text{NDF}$ : 1123961.1/37

0.217+/-0.000  $\chi^2/\text{NDF}$ : 897688.7/38

# yield\_cav4dQ\_mean vs slug



Right In: 379.039 $\pm$ 0.000  $\chi^2$ /NDF: 33775812.8/17

Left Out: 379.040 $\pm$ 0.000  $\chi^2$ /NDF:11895755.3/19

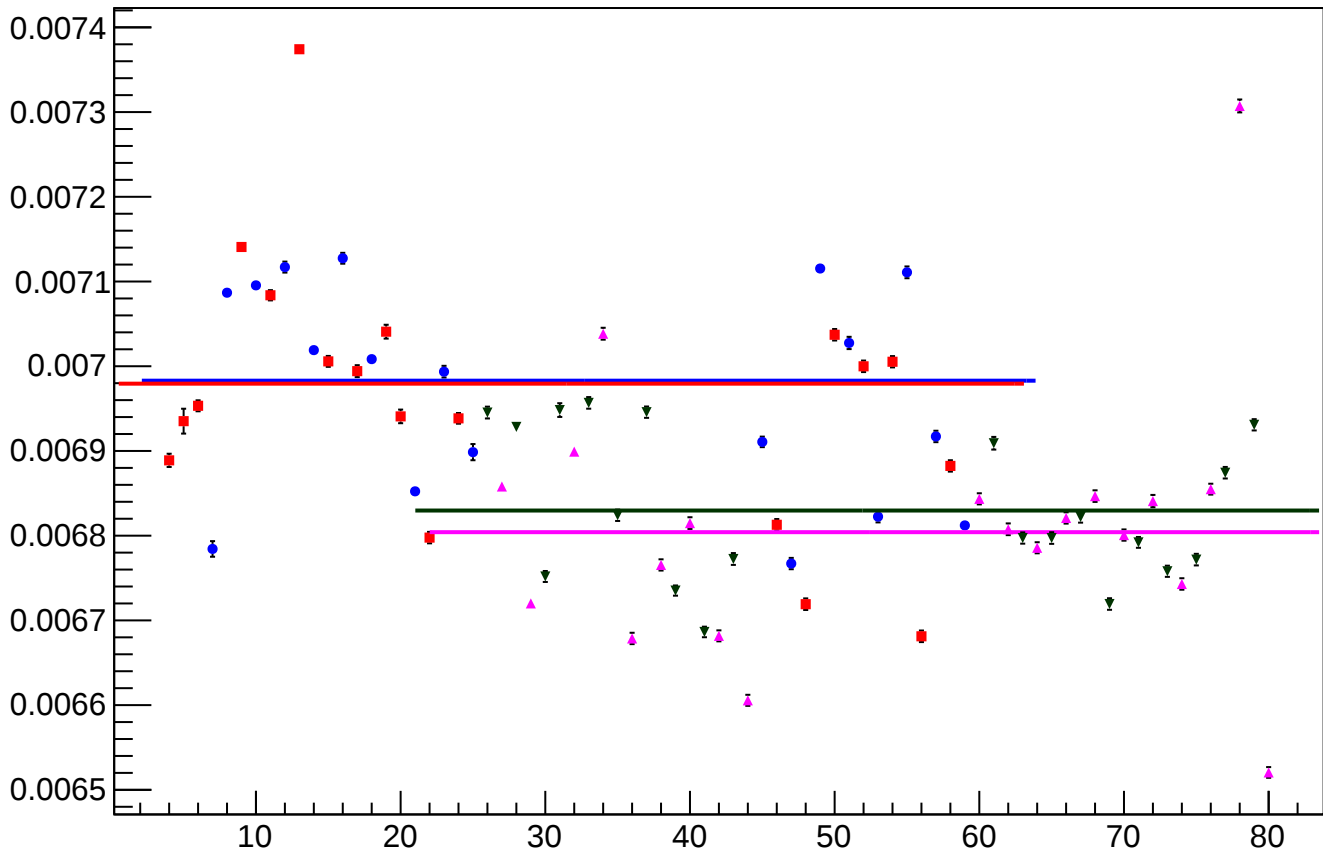
Right Out: 379.041 $\pm$ 0.000  $\chi^2$ /NDF: 46280794.1/18

Left In: 379.039 $\pm$ 0.000  $\chi^2$ /NDF:22153896.3/19

379.039 $\pm$ 0.000  $\chi^2$ /NDF: 46000577.1/37

379.040 $\pm$ 0.000  $\chi^2$ /NDF: 69044855.8/38

# yield\_cav4dQ\_rms vs slug



Right In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 6696.3/17

Left Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 3340.5/19

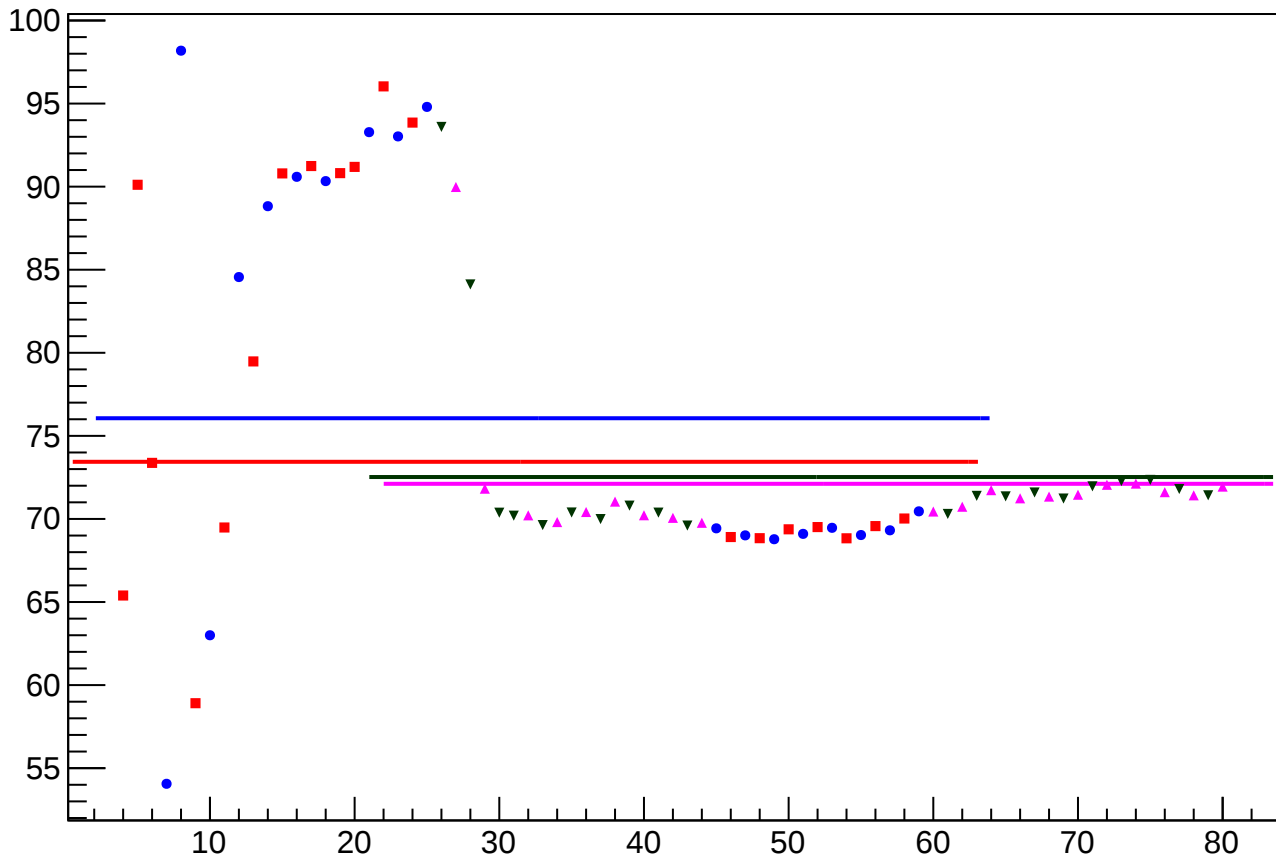
Right Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 11747.2/18

Left In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 10105.0/19

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 15393.3/37

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 28697.4/38

# yield\_bcm0l02\_mean vs slug



Right In: 76.061 $\pm$ 0.000  $\chi^2$ /NDF: 20787602024.2/17

Left Out: 72.523 $\pm$ 0.000  $\chi^2$ /NDF: 3830370248.0/19

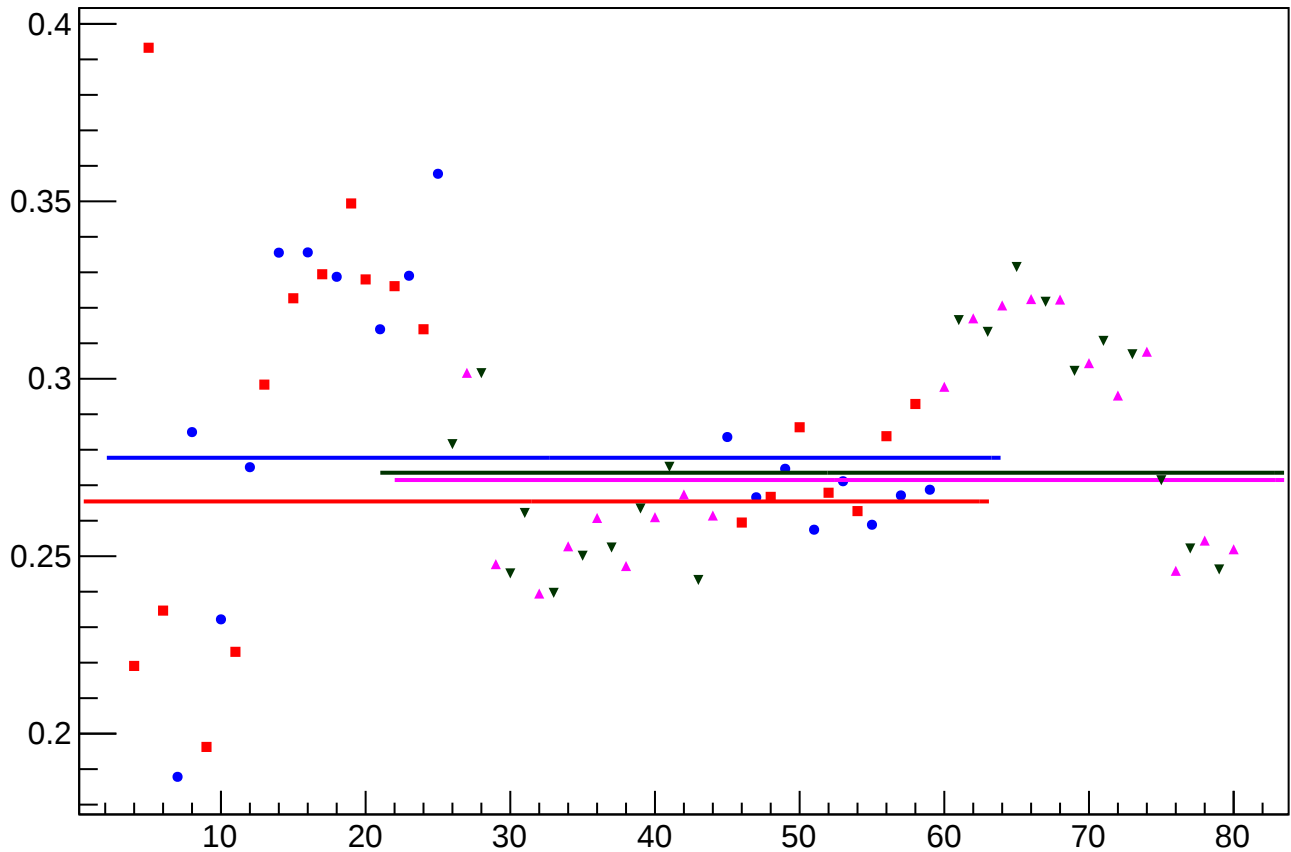
Right Out: 73.439 $\pm$ 0.000  $\chi^2$ /NDF: 14741427319.0/18

Left In: 72.114 $\pm$ 0.000  $\chi^2$ /NDF: 2990476676.3/19

74.309 $\pm$ 0.000  $\chi^2$ /NDF: 25439663869.2/37

72.730 $\pm$ 0.000  $\chi^2$ /NDF: 17848971066.9/38

# yield\_bcm0l02\_rms vs slug



Right In: 0.278+/-0.000  $\chi^2/\text{NDF}$ : 370245.0/17

Left Out: 0.274+/-0.000  $\chi^2/\text{NDF}$ : 215020.7/19

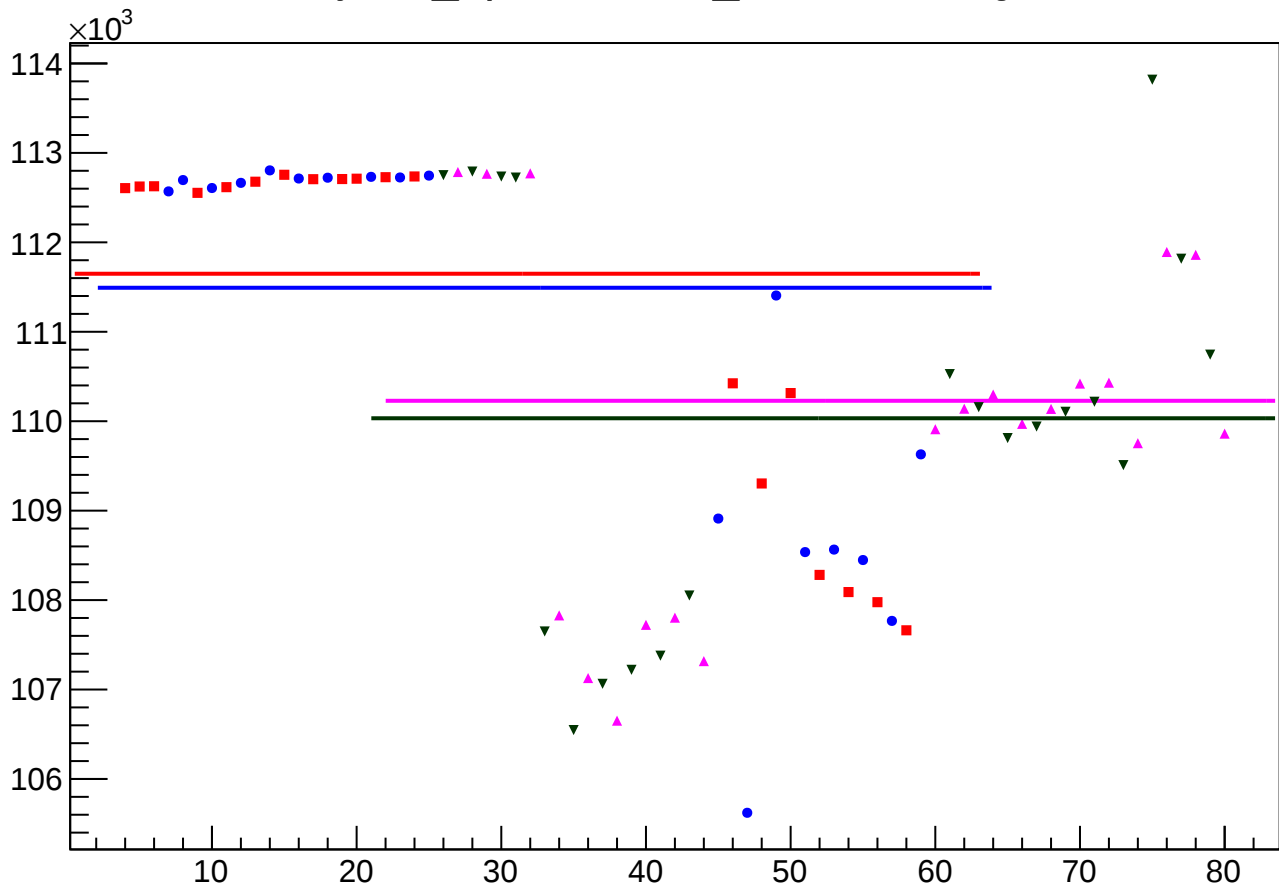
0.276+/-0.000  $\chi^2/\text{NDF}$ : 587599.3/37

Right Out: 0.265+/-0.000  $\chi^2/\text{NDF}$ : 503582.7/18

0.269+/-0.000  $\chi^2/\text{NDF}$ : 742185.0/38

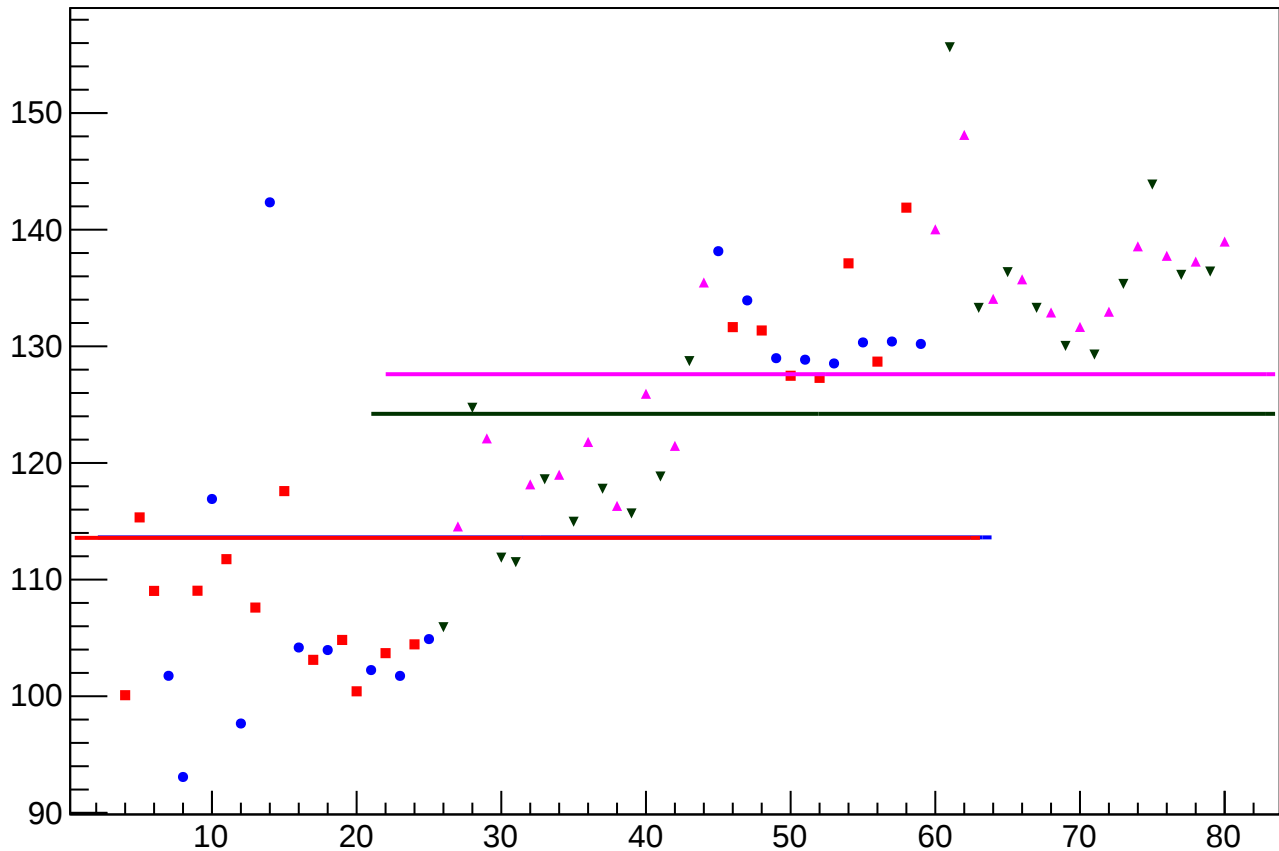
Left In: 0.271+/-0.000  $\chi^2/\text{NDF}$ : 233743.8/19

# yield\_bpm2i01WS\_mean vs slug



Right In: 111492.185 $\pm$ 0.035  $\chi^2$ /NDF: 3171680490.6/17  
 Left Out: 110032.963 $\pm$ 0.040  $\chi^2$ /NDF: 3122839573.4/19  
 Right Out: 111648.935 $\pm$ 0.037  $\chi^2$ /NDF: 2298631932.7/18  
 Left In: 110228.339 $\pm$ 0.040  $\chi^2$ /NDF: 2758386082.3/19

# yield\_bpm2i01WS\_rms vs slug



Right In: 113.620 $\pm$ 0.025  $\chi^2$ /NDF: 422351.8/17

Left Out: 124.213 $\pm$ 0.029  $\chi^2$ /NDF: 148887.5/19

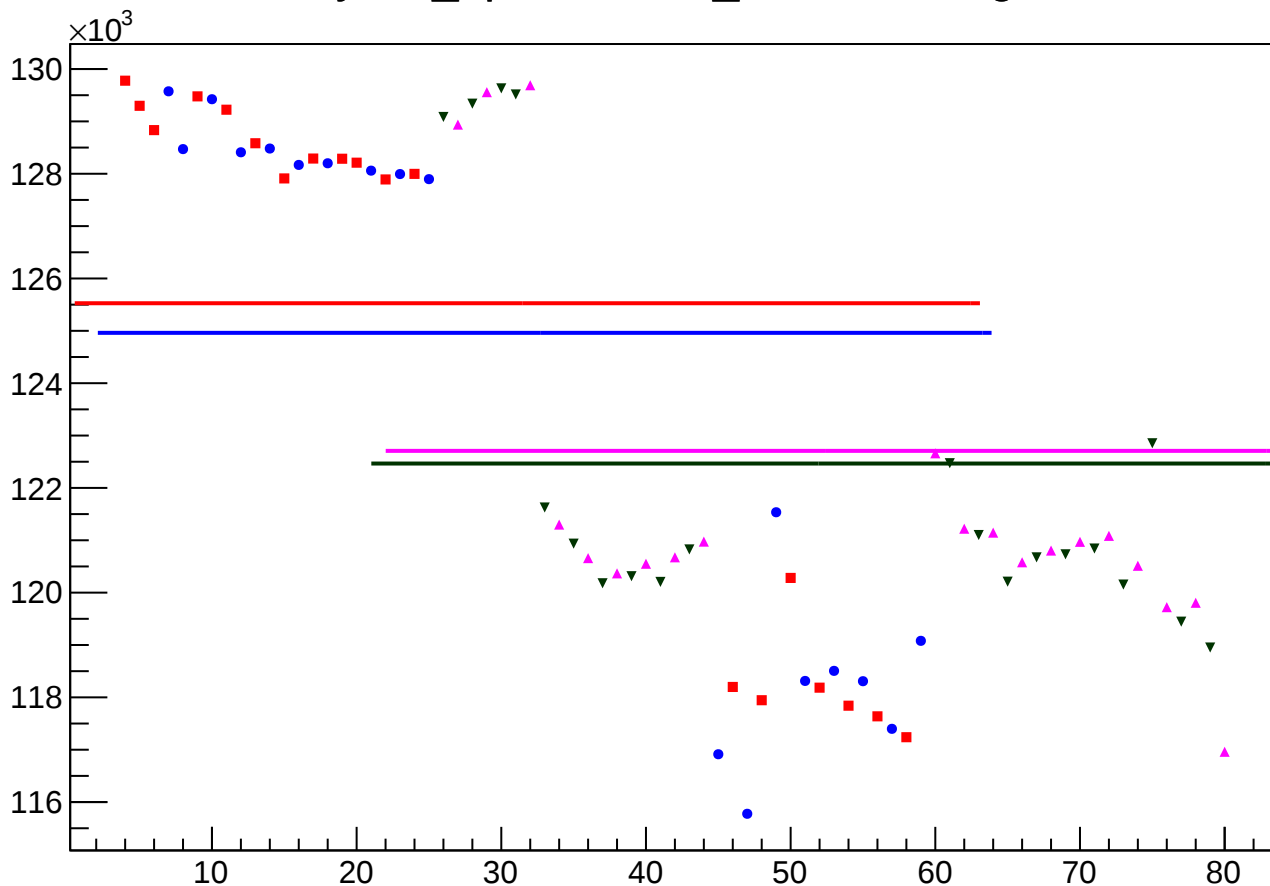
Right Out: 113.579 $\pm$ 0.026  $\chi^2$ /NDF: 206805.2/18

Left In: 127.610 $\pm$ 0.028  $\chi^2$ /NDF: 109009.6/19

118.152 $\pm$ 0.019  $\chi^2$ /NDF: 649885.7/37

120.148 $\pm$ 0.019  $\chi^2$ /NDF: 448755.1/38

# yield\_bpm0i07WS\_mean vs slug



Right In: 124961.680 $\pm$ 0.057  $\chi^2$ /NDF: 7216201458.1/17

Left Out: 122465.594 $\pm$ 0.067  $\chi^2$ /NDF: 3154698427.9/19

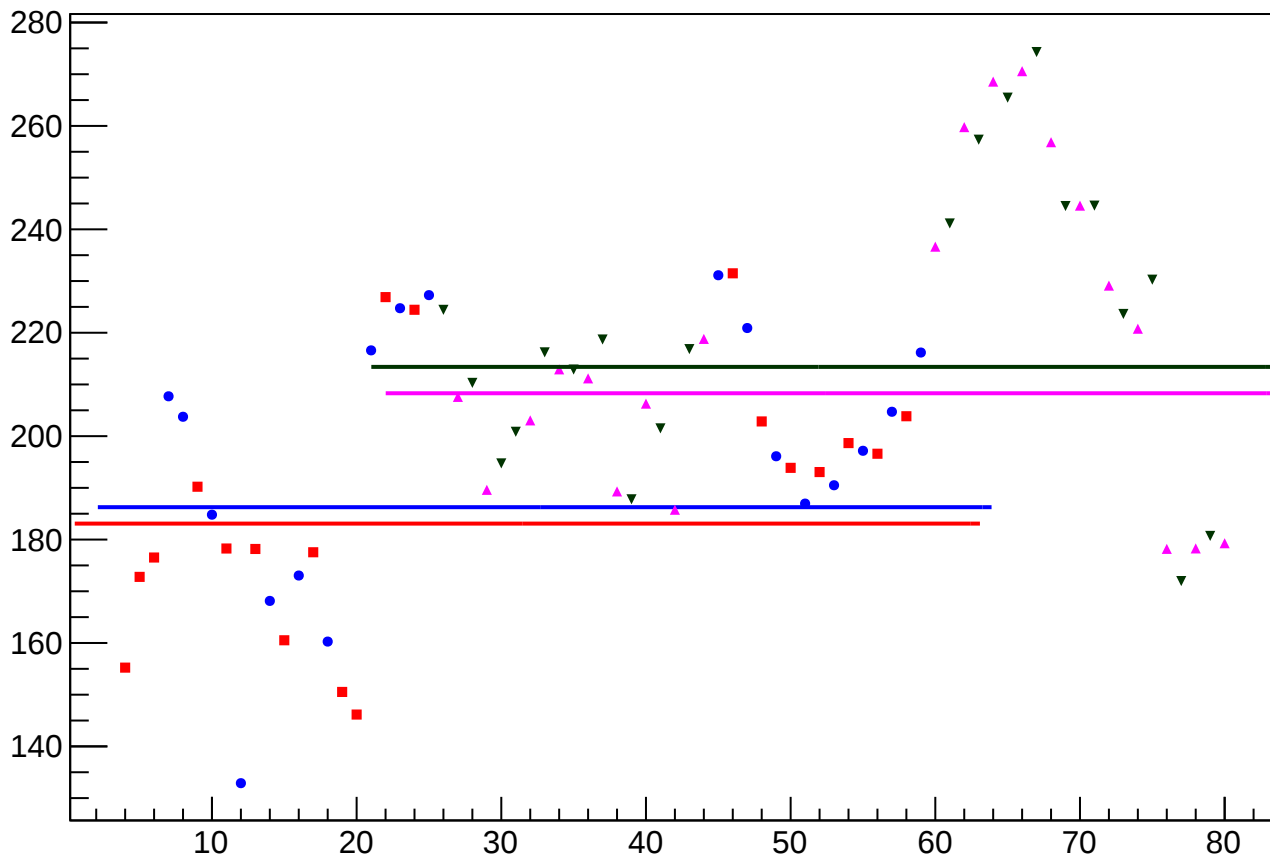
Right Out: 125527.018 $\pm$ 0.060  $\chi^2$ /NDF: 6545248421.9/18

Left In: 122707.508 $\pm$ 0.063  $\chi^2$ /NDF: 4226110362.1/19

123924.733 $\pm$ 0.043  $\chi^2$ /NDF: 11173550538.2/3

124198.053 $\pm$ 0.043  $\chi^2$ /NDF: 11828170162.0/3

# yield\_bpm0i07WS\_rms vs slug



Right In: 186.263 +/- 0.040  $\chi^2/\text{NDF}$ : 462392.0/17

Left Out: 213.397 +/- 0.048  $\chi^2/\text{NDF}$ : 307367.4/19

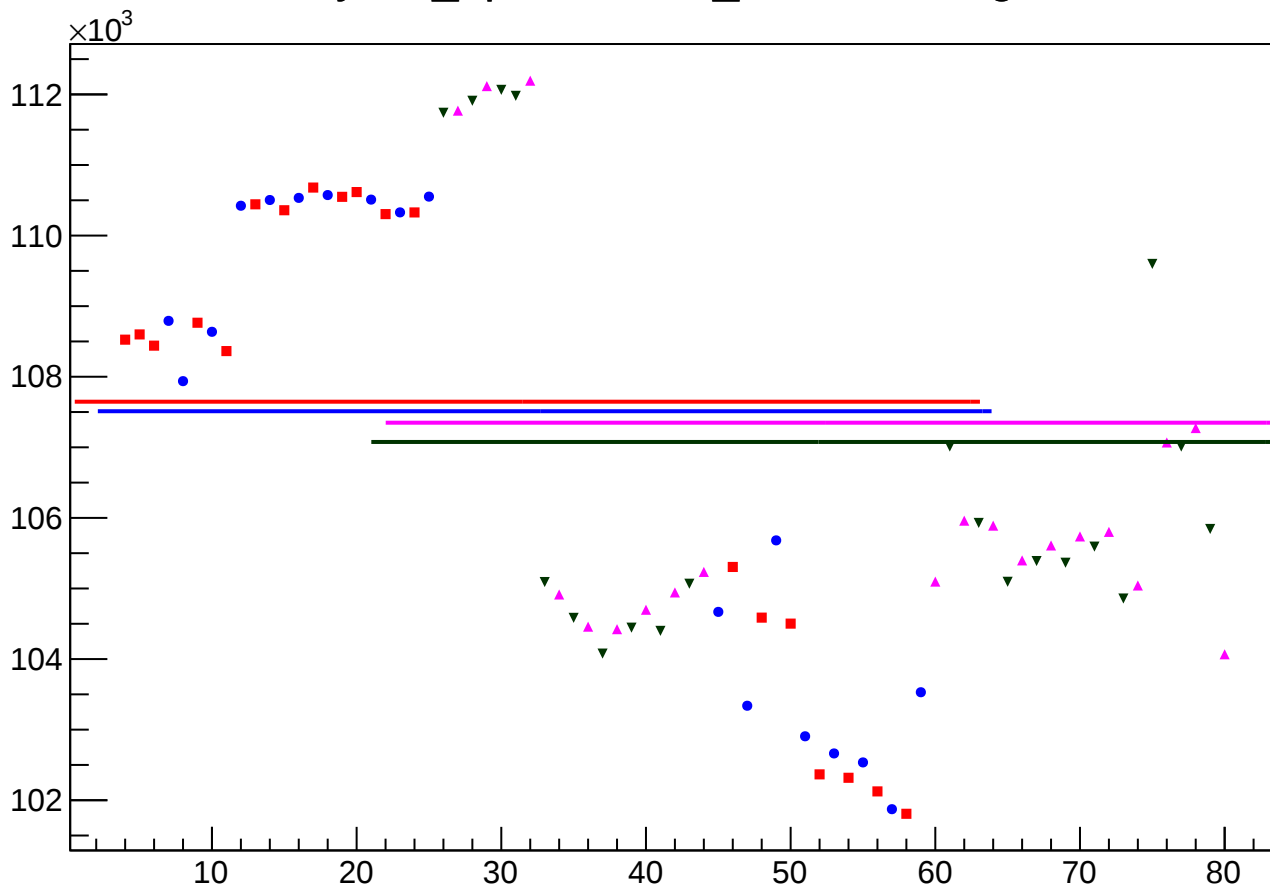
Right Out: 183.088 +/- 0.042  $\chi^2/\text{NDF}$ : 276420.3/18

Left In: 208.296 +/- 0.045  $\chi^2/\text{NDF}$ : 357227.3/19

197.535 +/- 0.031  $\chi^2/\text{NDF}$ : 959454.0/37

194.970 +/- 0.031  $\chi^2/\text{NDF}$ : 802596.0/38

yield\_bpm0l01WS\_mean vs slug



Right In: 107511.375 $\pm$ 0.037  $\chi^2$ /NDF: 7545366390.6/17

Left Out: 107075.898 $\pm$ 0.040  $\chi^2$ /NDF: 5958571230.8/19

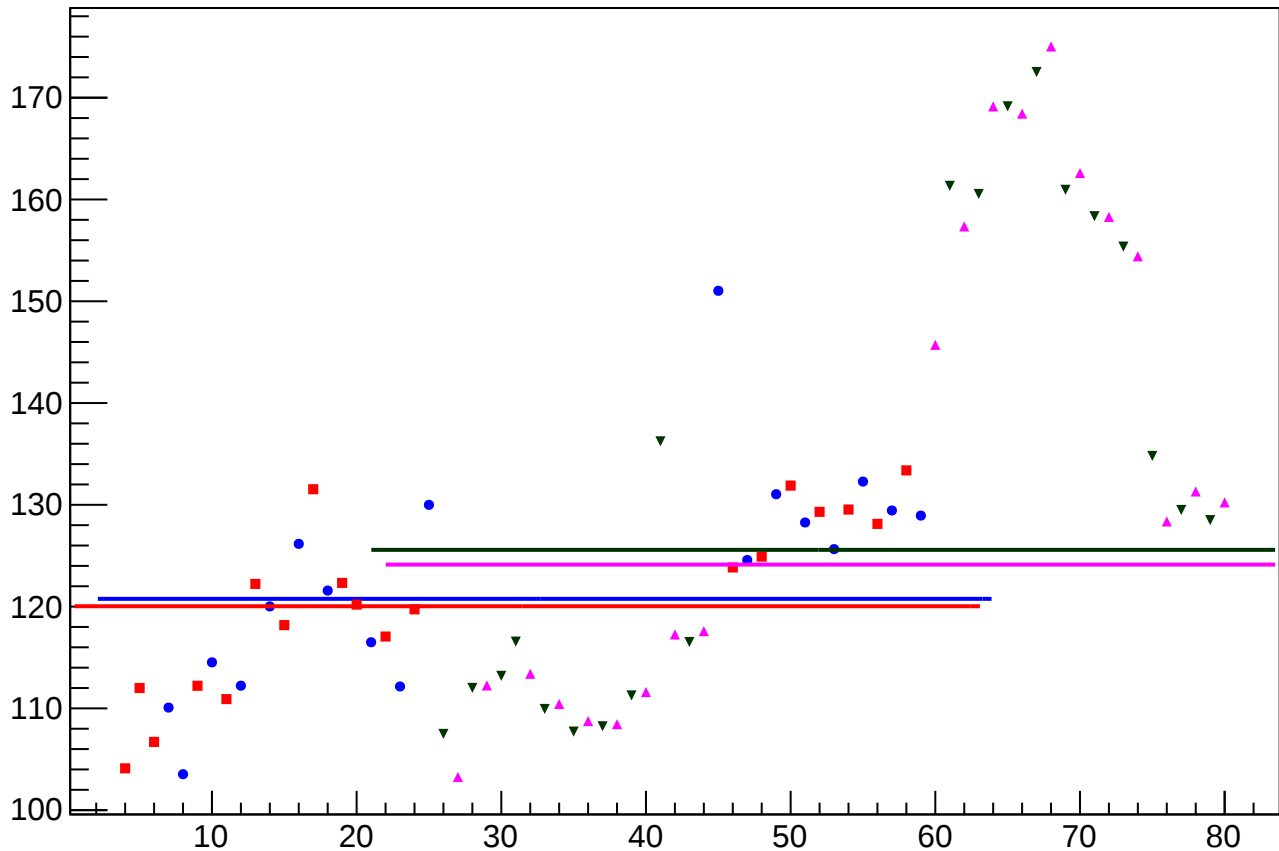
Right Out: 107646.372 $\pm$ 0.039  $\chi^2$ /NDF: 6547636060.9/18

Left In: 107348.782 $\pm$ 0.038  $\chi^2$ /NDF: 7165627485.5/19

107312.847 $\pm$ 0.027  $\chi^2$ /NDF: 13568514090.2/3

107493.434 $\pm$ 0.027  $\chi^2$ /NDF: 13743304801.4/3

# yield\_bpm0l01WS\_rms vs slug



Right In:  $120.763 \pm 0.026$   $\chi^2/\text{NDF}$ : 155732.1/17

Left Out:  $125.575 \pm 0.028$   $\chi^2/\text{NDF}$ : 533822.0/19

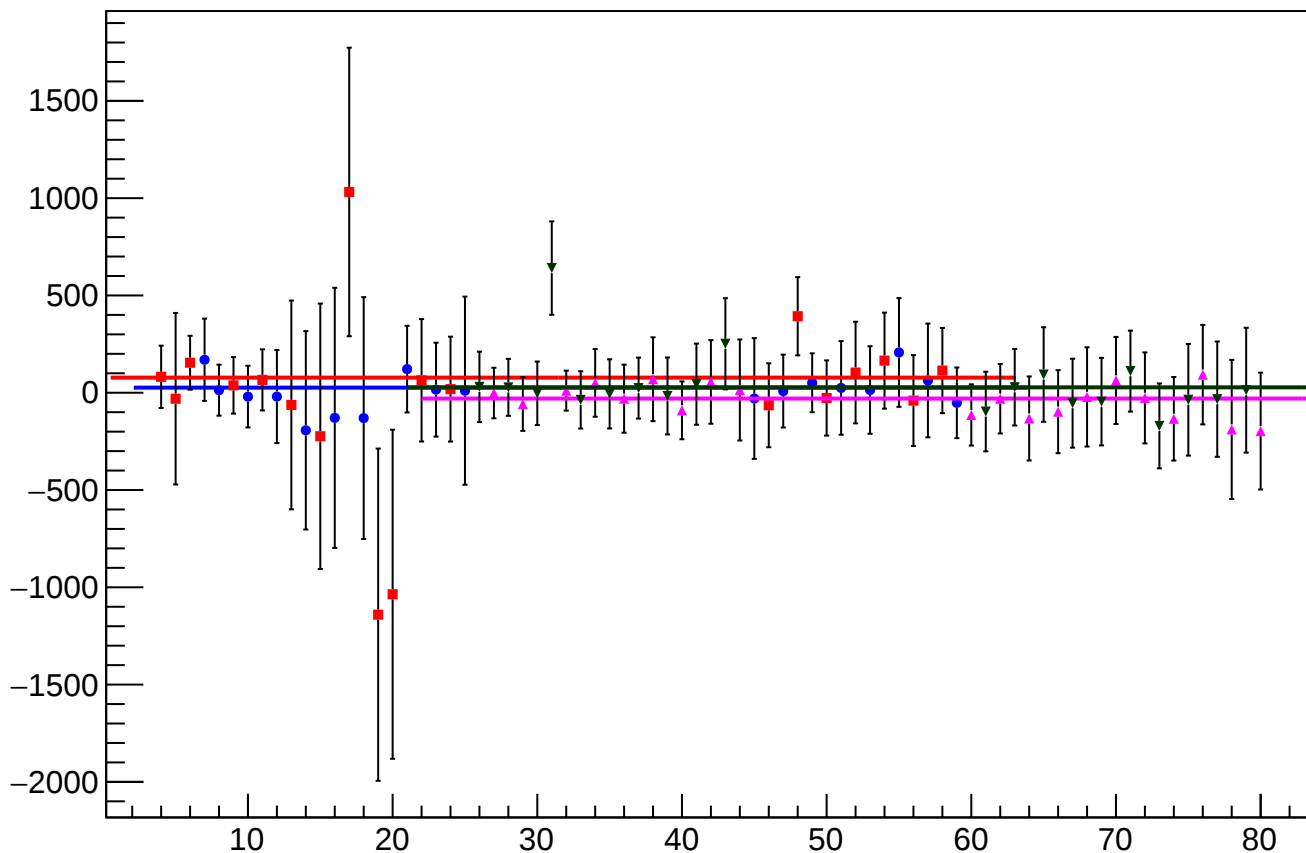
Right Out:  $120.035 \pm 0.028$   $\chi^2/\text{NDF}$ : 93920.3/18

Left In:  $124.127 \pm 0.027$   $\chi^2/\text{NDF}$ : 613208.5/19

$122.957 \pm 0.019$   $\chi^2/\text{NDF}$ : 705324.0/37

$122.138 \pm 0.019$   $\chi^2/\text{NDF}$ : 718491.5/38

# asym\_bcm\_an\_ds\_mean vs slug



Right In: 26.246+/-52.510  $\chi^2/\text{NDF}$ : 1.8/17

Left Out: 27.667+/-44.718  $\chi^2/\text{NDF}$ : 9.5/19

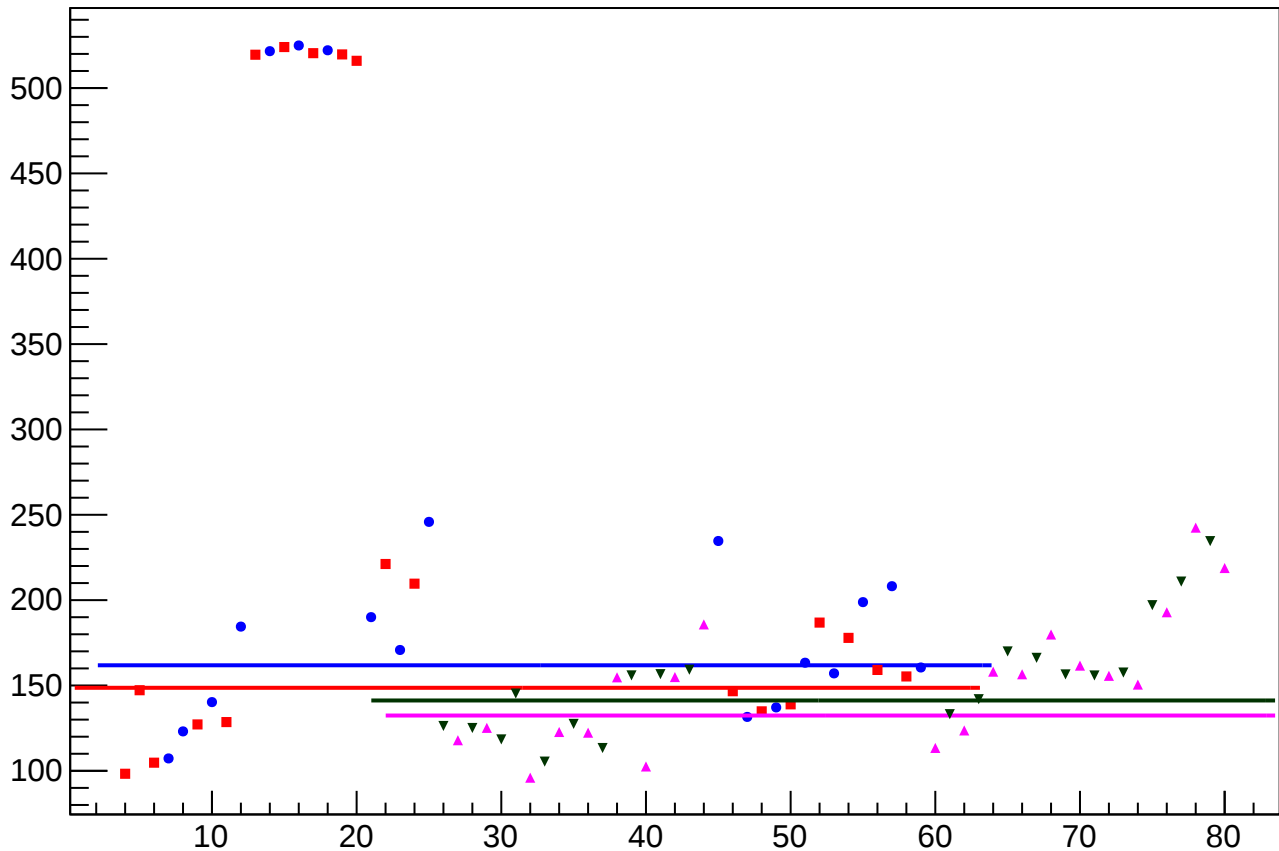
Right Out: 77.703+/-52.586  $\chi^2/\text{NDF}$ : 9.8/18

Left In: -29.831+/-40.820  $\chi^2/\text{NDF}$ : 2.8/19

27.070+/-34.046  $\chi^2/\text{NDF}$ : 11.3/37

10.602+/-32.245  $\chi^2/\text{NDF}$ : 15.2/38

# asym\_bcm\_an\_ds\_rms vs slug



Right In:  $161.835 \pm 0.037$   $\chi^2/\text{NDF}$ : 3018868.1/17

Left Out:  $141.221 \pm 0.032$   $\chi^2/\text{NDF}$ : 745246.9/19

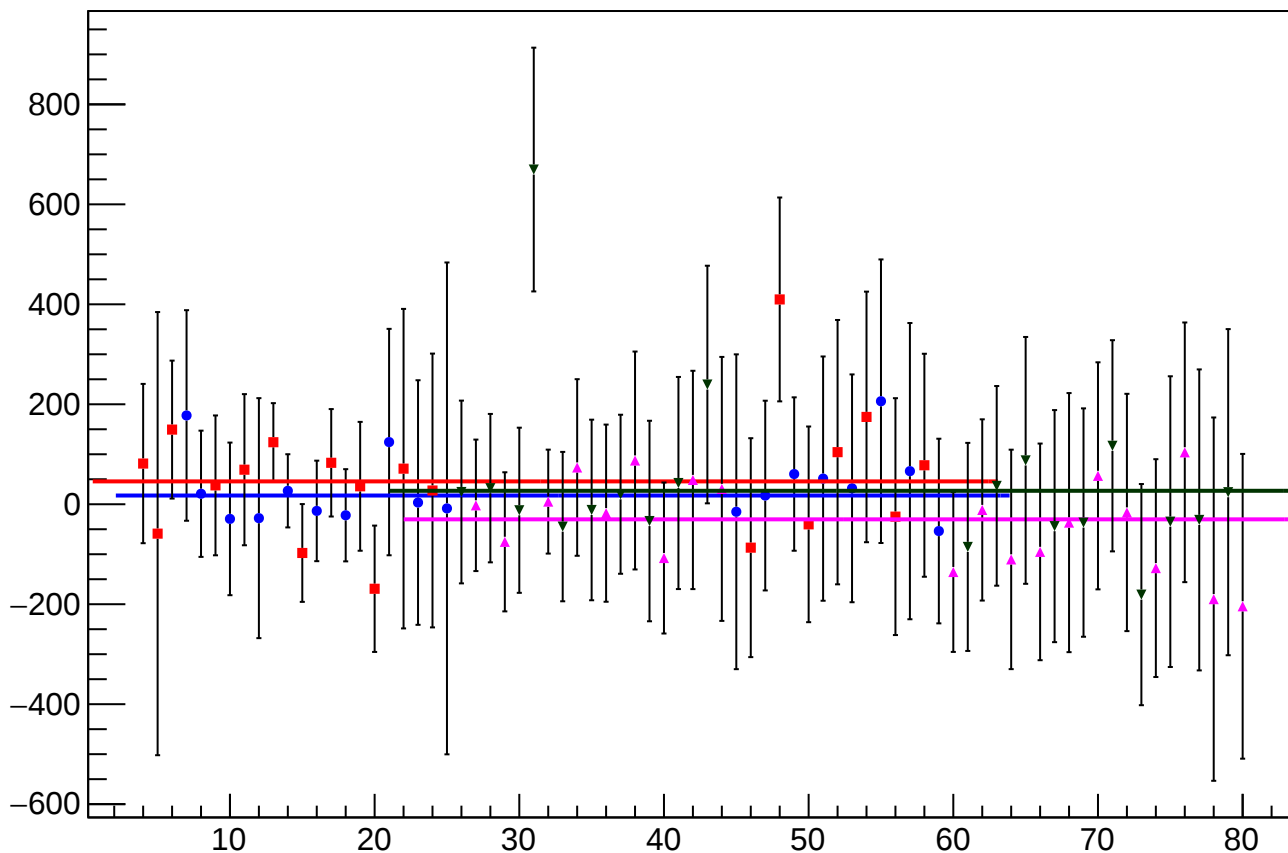
Right Out:  $148.646 \pm 0.037$   $\chi^2/\text{NDF}$ : 3594583.0/18

Left In:  $132.403 \pm 0.029$   $\chi^2/\text{NDF}$ : 1195211.0/19

$149.886 \pm 0.024$   $\chi^2/\text{NDF}$ : 3942766.8/37

$138.510 \pm 0.023$   $\chi^2/\text{NDF}$ : 4908872.8/38

# asym\_bcm\_an\_ds3\_mean vs slug



Right In:  $17.458 \pm 36.313$   $\chi^2/\text{NDF}$ : 2.0/17

Left Out:  $26.921 \pm 45.370$   $\chi^2/\text{NDF}$ : 9.8/19

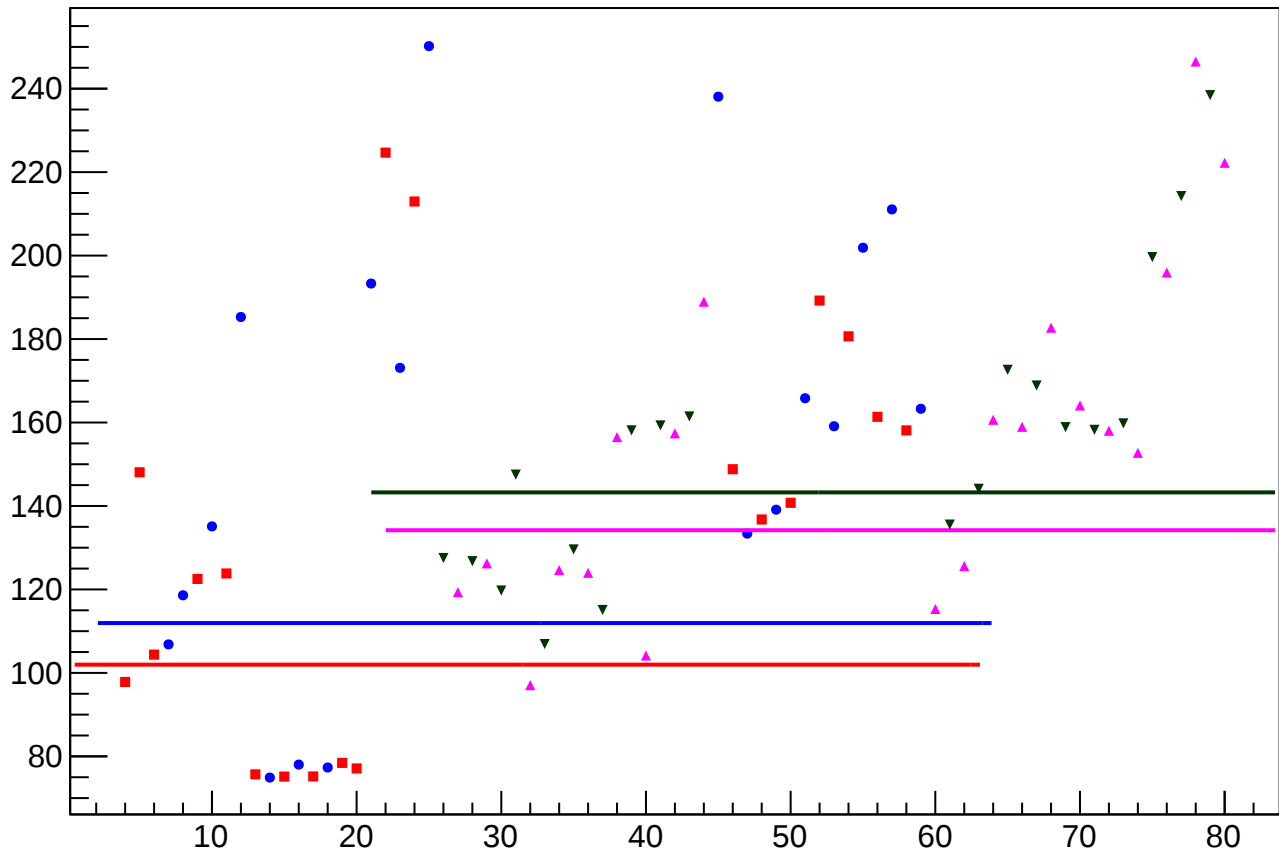
Right Out:  $45.735 \pm 34.677$   $\chi^2/\text{NDF}$ : 11.0/18

Left In:  $-30.203 \pm 41.385$   $\chi^2/\text{NDF}$ : 3.2/19

$21.153 \pm 28.351$   $\chi^2/\text{NDF}$ : 11.8/37

$14.411 \pm 26.580$   $\chi^2/\text{NDF}$ : 16.2/38

asym\_bcm\_an\_ds3\_rms vs slug



Right In: 111.942 $\pm$ 0.026  $\chi^2$ /NDF: 2972725.0/17

Left Out: 143.257 $\pm$ 0.032  $\chi^2$ /NDF: 749928.2/19

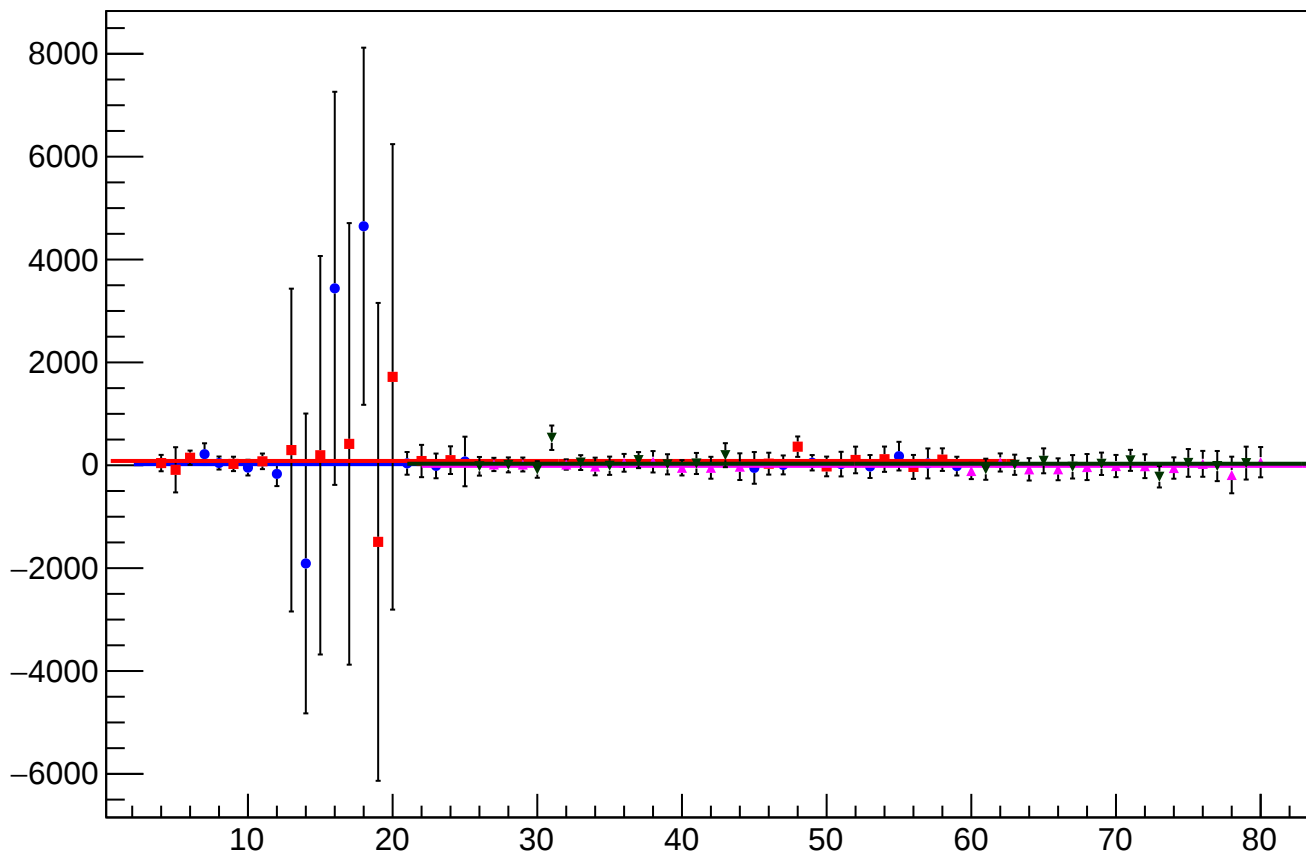
Right Out: 101.974 $\pm$ 0.025  $\chi^2$ /NDF: 2271871.2/18

Left In: 134.189 $\pm$ 0.029  $\chi^2$ /NDF: 1205998.2/19

124.170 $\pm$ 0.020  $\chi^2$ /NDF: 4303423.6/37

115.262 $\pm$ 0.019  $\chi^2$ /NDF: 4189898.0/38

# asym\_bcm\_an\_us\_mean vs slug



Right In: 21.772+/-52.365  $\chi^2/\text{NDF}$ : 5.3/17

Left Out: 30.022+/-44.195  $\chi^2/\text{NDF}$ : 7.9/19

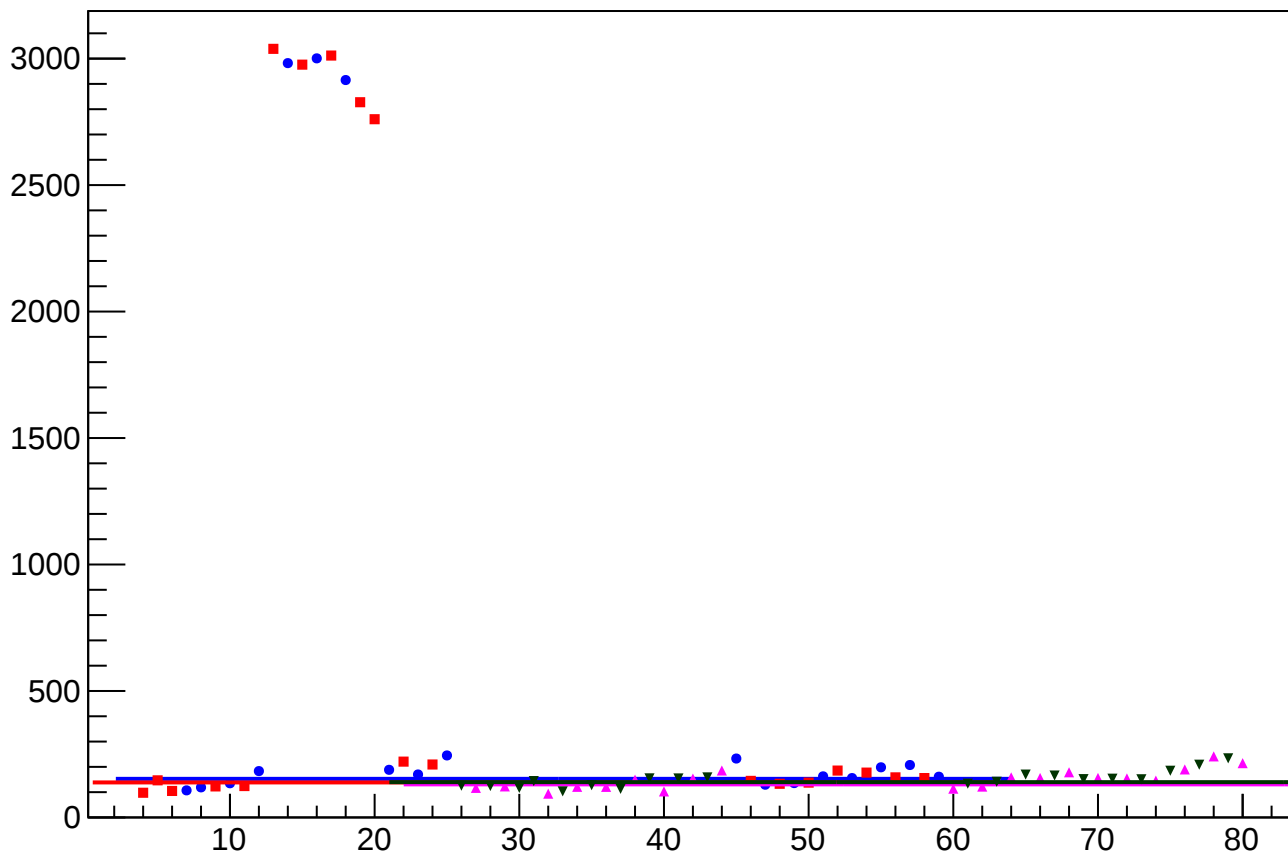
Right Out: 84.092+/-52.636  $\chi^2/\text{NDF}$ : 3.5/18

Left In: -11.183+/-40.315  $\chi^2/\text{NDF}$ : 1.6/19

26.590+/-33.774  $\chi^2/\text{NDF}$ : 13.2/37

24.044+/-32.006  $\chi^2/\text{NDF}$ : 7.2/38

# asym\_bcm\_an\_us\_rms vs slug



Right In: 152.628 $\pm$ 0.037  $\chi^2$ /NDF: 5017627.8/17

Left Out: 139.553 $\pm$ 0.031  $\chi^2$ /NDF: 725048.1/19

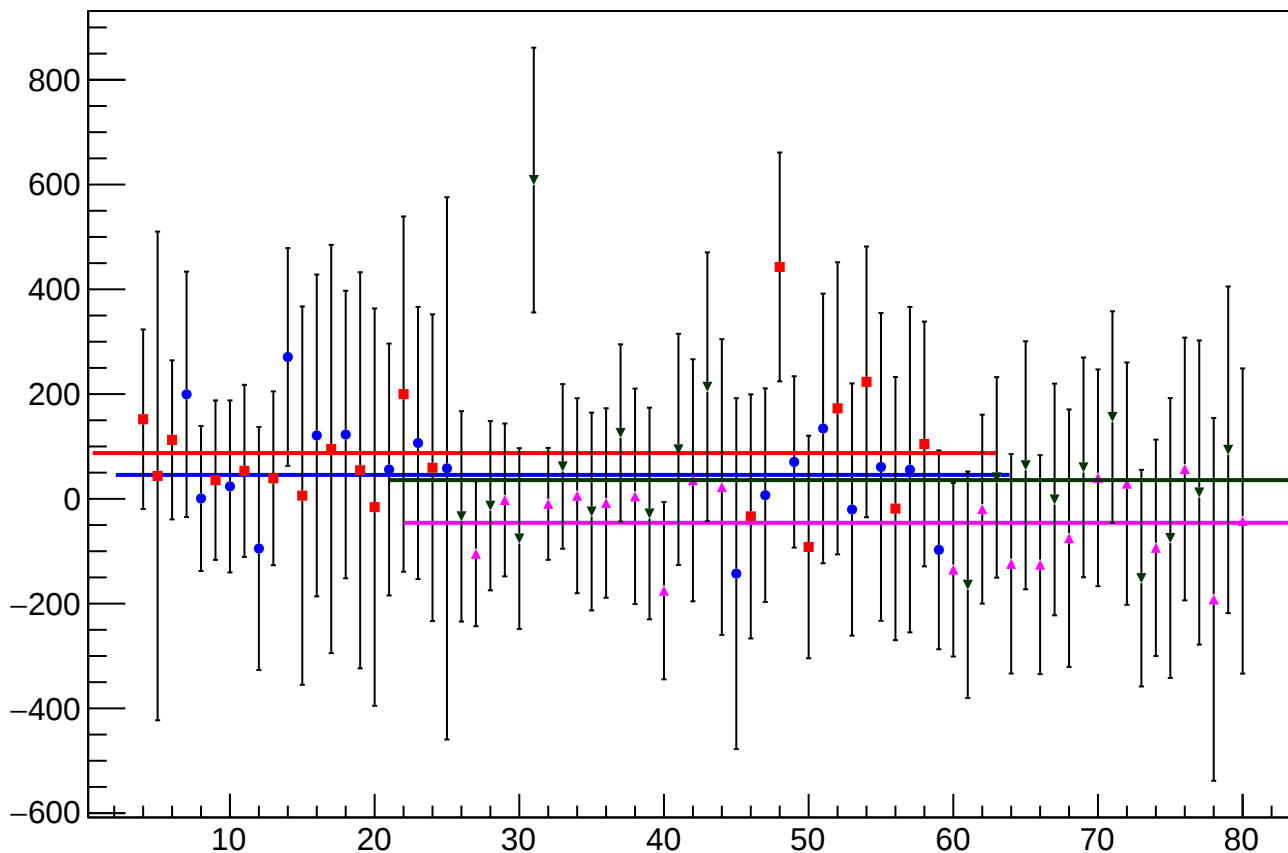
Right Out: 138.455 $\pm$ 0.037  $\chi^2$ /NDF: 5734578.9/18

Left In: 130.770 $\pm$ 0.029  $\chi^2$ /NDF: 1191479.2/19

144.992 $\pm$ 0.024  $\chi^2$ /NDF: 5815503.4/37

133.612 $\pm$ 0.023  $\chi^2$ /NDF: 6952927.8/38

# asym\_bcm\_dg\_us\_mean vs slug



Right In: 45.739+/-52.604  $\chi^2/\text{NDF}$ : 3.4/17

Left Out: 35.808+/-46.135  $\chi^2/\text{NDF}$ : 9.1/19

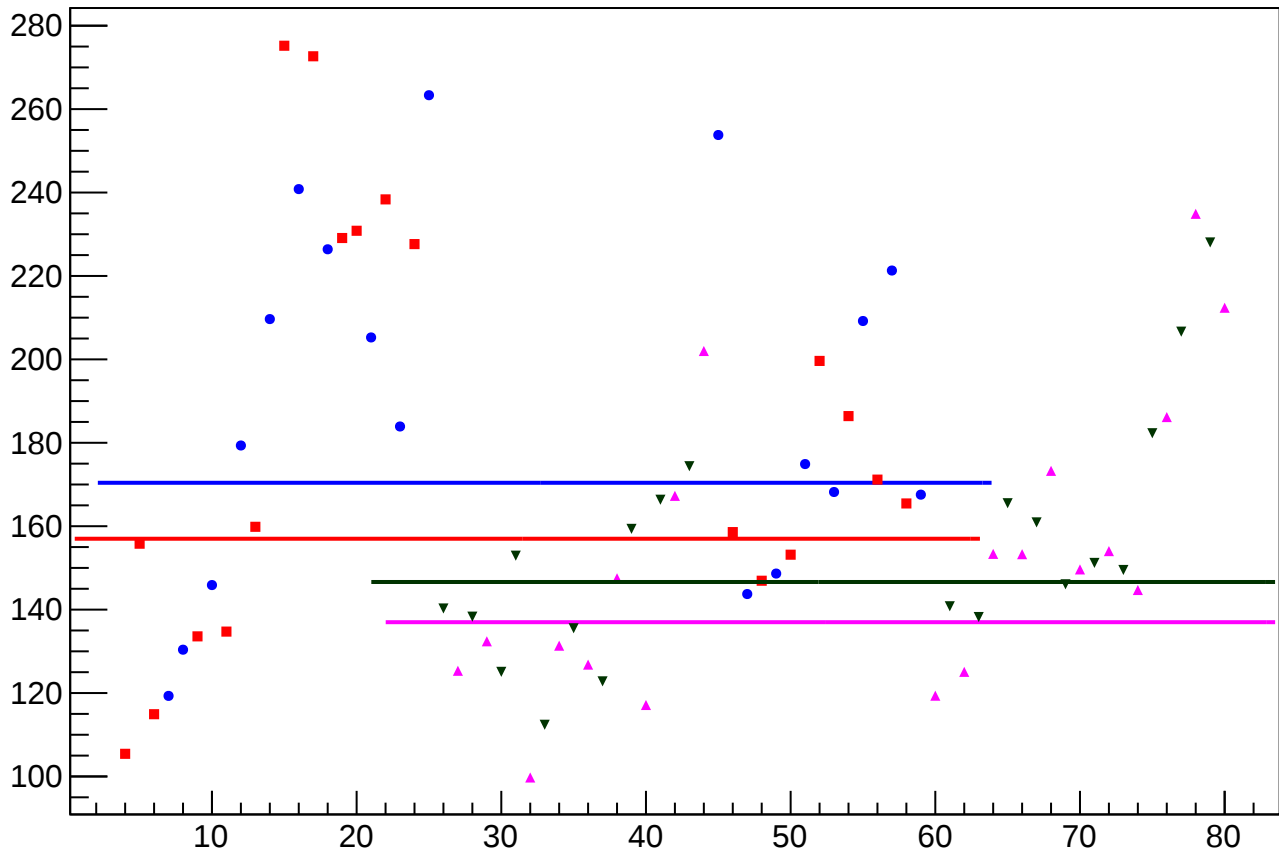
Right Out: 87.434+/-51.940  $\chi^2/\text{NDF}$ : 4.9/18

Left In: -45.687+/-41.995  $\chi^2/\text{NDF}$ : 2.6/19

40.126+/-34.685  $\chi^2/\text{NDF}$ : 12.6/37

6.935+/-32.656  $\chi^2/\text{NDF}$ : 11.4/38

# asym\_bcm\_dg\_us\_rms vs slug



Right In:  $170.412 \pm 0.037$   $\chi^2/\text{NDF}$ : 964671.4/17

Left Out:  $146.626 \pm 0.033$   $\chi^2/\text{NDF}$ : 513727.3/19

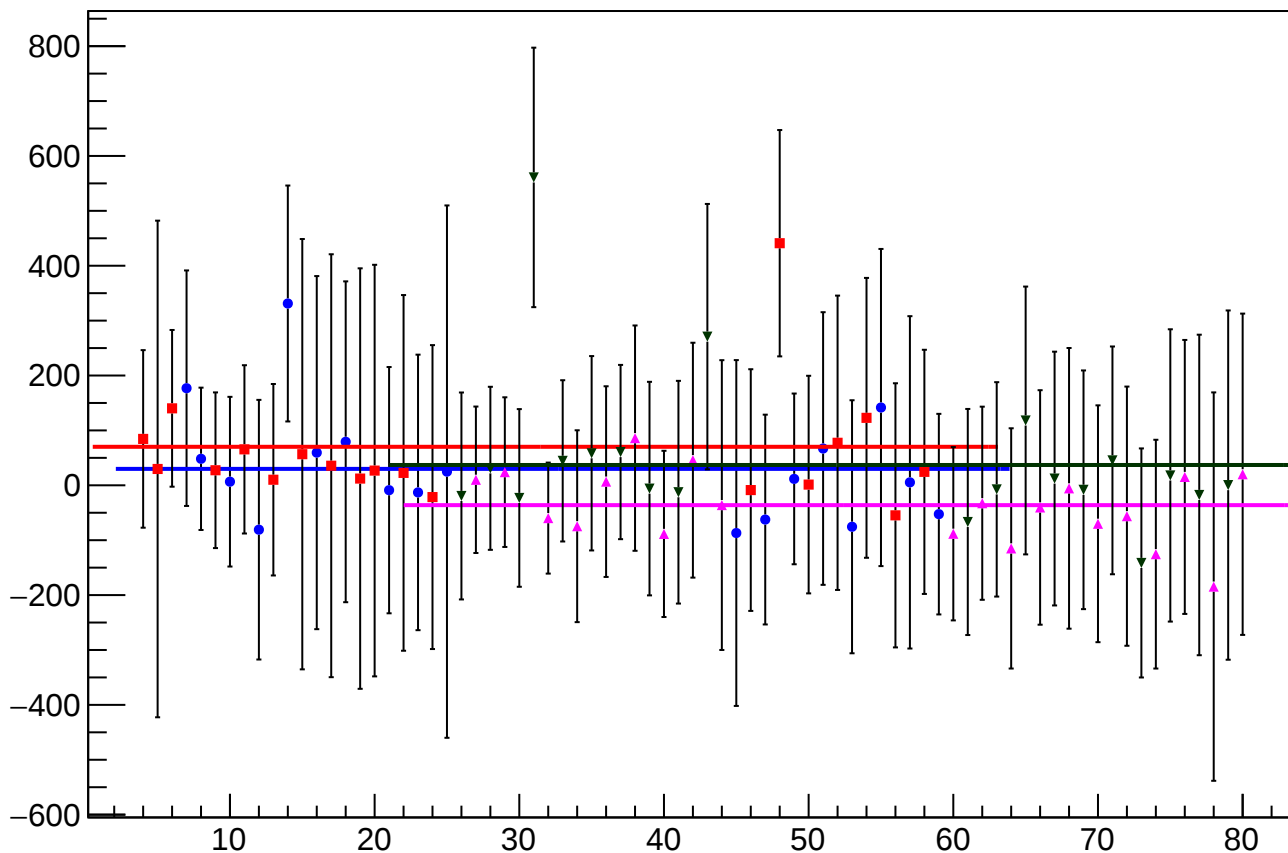
Right Out:  $156.997 \pm 0.037$   $\chi^2/\text{NDF}$ : 1276447.5/18

Left In:  $136.987 \pm 0.030$   $\chi^2/\text{NDF}$ : 931833.9/19

$156.967 \pm 0.025$   $\chi^2/\text{NDF}$ : 1709535.2/37

$144.897 \pm 0.023$   $\chi^2/\text{NDF}$ : 2387782.3/38

# asym\_bcm\_dg\_ds\_mean vs slug



Right In: 29.919+/-50.591  $\chi^2/\text{NDF}$ : 3.8/17

Left Out: 37.015+/-44.555  $\chi^2/\text{NDF}$ : 7.5/19

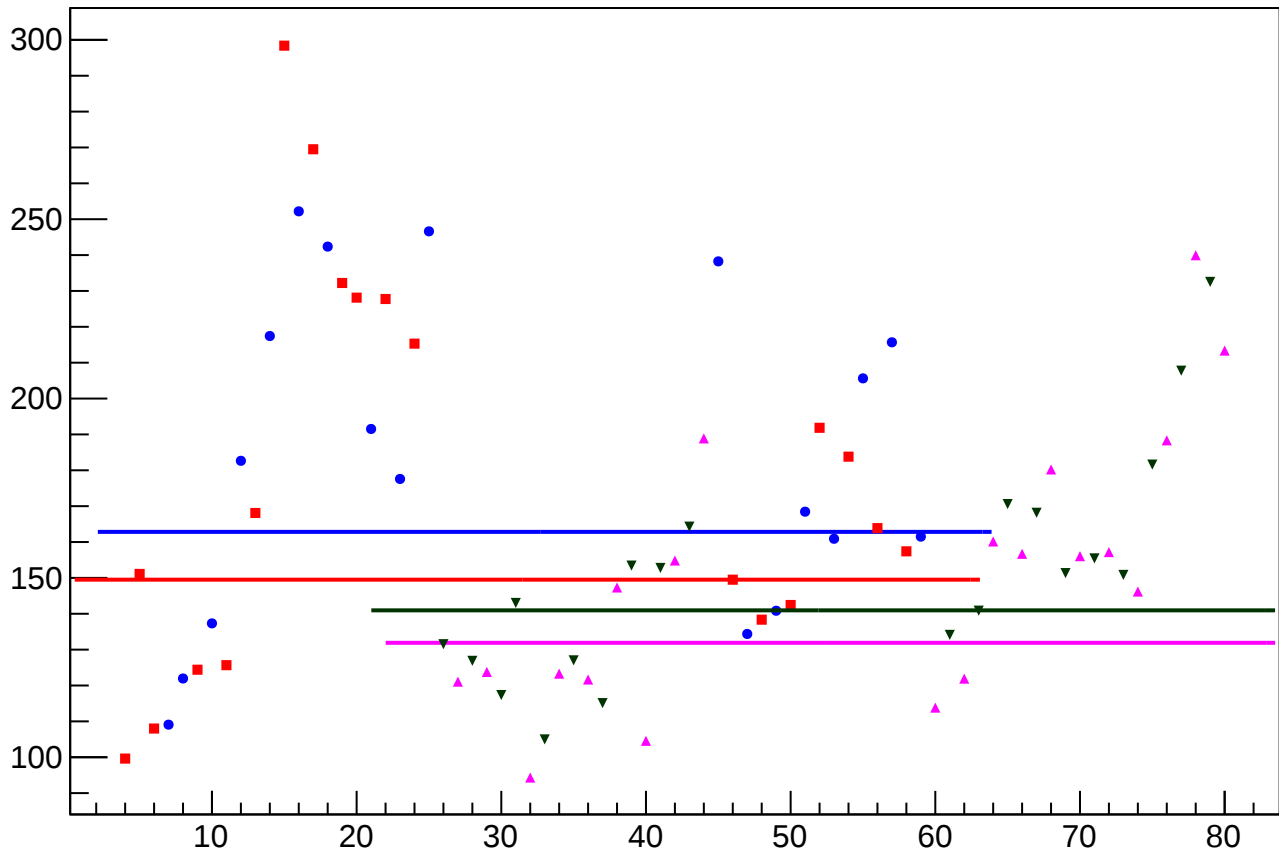
Right Out: 70.155+/-49.782  $\chi^2/\text{NDF}$ : 4.5/18

Left In: -36.149+/-40.622  $\chi^2/\text{NDF}$ : 1.8/19

33.916+/-33.437  $\chi^2/\text{NDF}$ : 11.3/37

6.341+/-31.473  $\chi^2/\text{NDF}$ : 9.0/38

# asym\_bcm\_dg\_ds\_rms vs slug



Right In:  $162.833 \pm 0.036$   $\chi^2/\text{NDF}$ : 1229021.5/17

Left Out:  $140.950 \pm 0.032$   $\chi^2/\text{NDF}$ : 680117.9/19

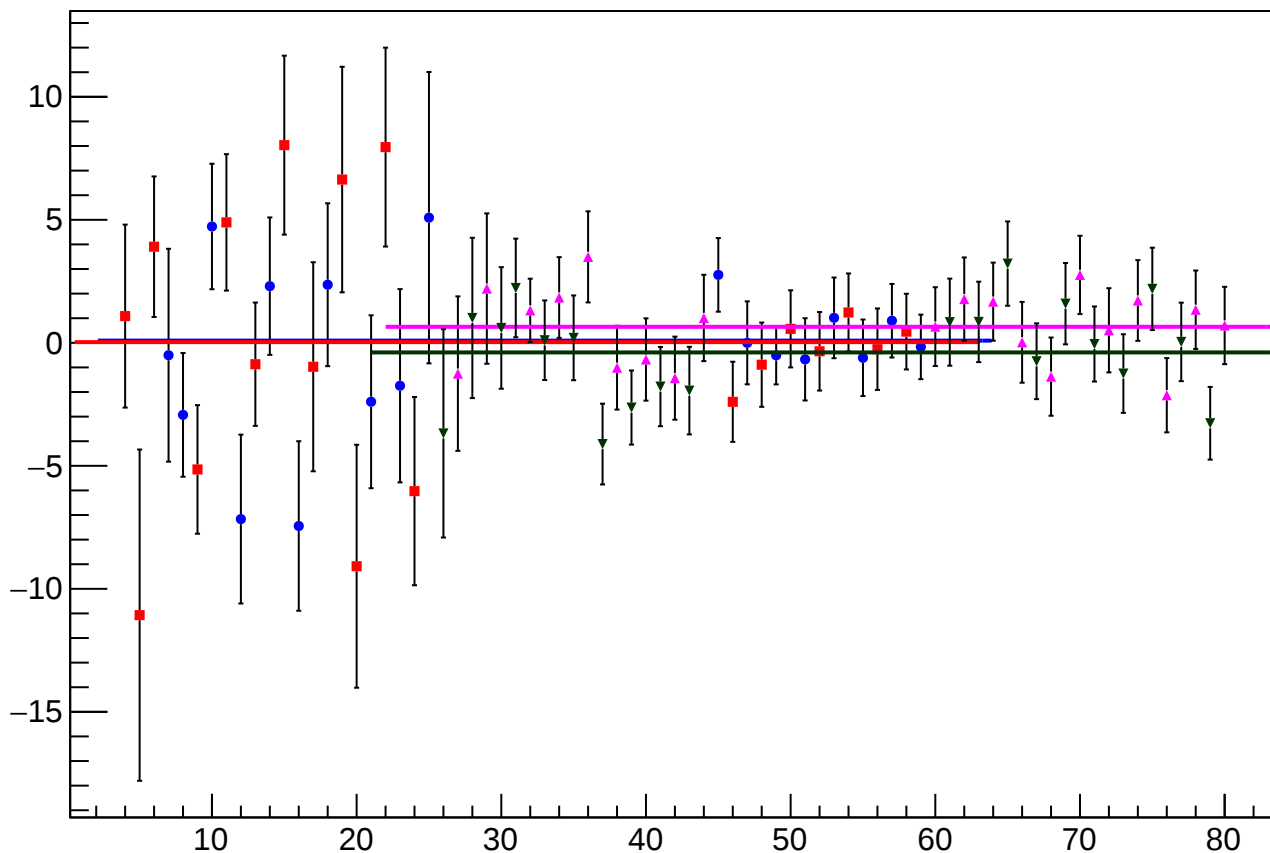
$150.509 \pm 0.024$   $\chi^2/\text{NDF}$ : 2119877.8/37

Right Out:  $149.507 \pm 0.035$   $\chi^2/\text{NDF}$ : 1490705.1/18

$138.940 \pm 0.022$   $\chi^2/\text{NDF}$ : 2807410.3/38

Left In:  $131.904 \pm 0.029$   $\chi^2/\text{NDF}$ : 1166603.9/19

# asym\_cav4bQ\_mean vs slug



Right In:  $0.089 \pm 0.466$   $\chi^2/\text{NDF}$ : 21.1/17

Left Out:  $-0.391 \pm 0.388$   $\chi^2/\text{NDF}$ : 25.3/19

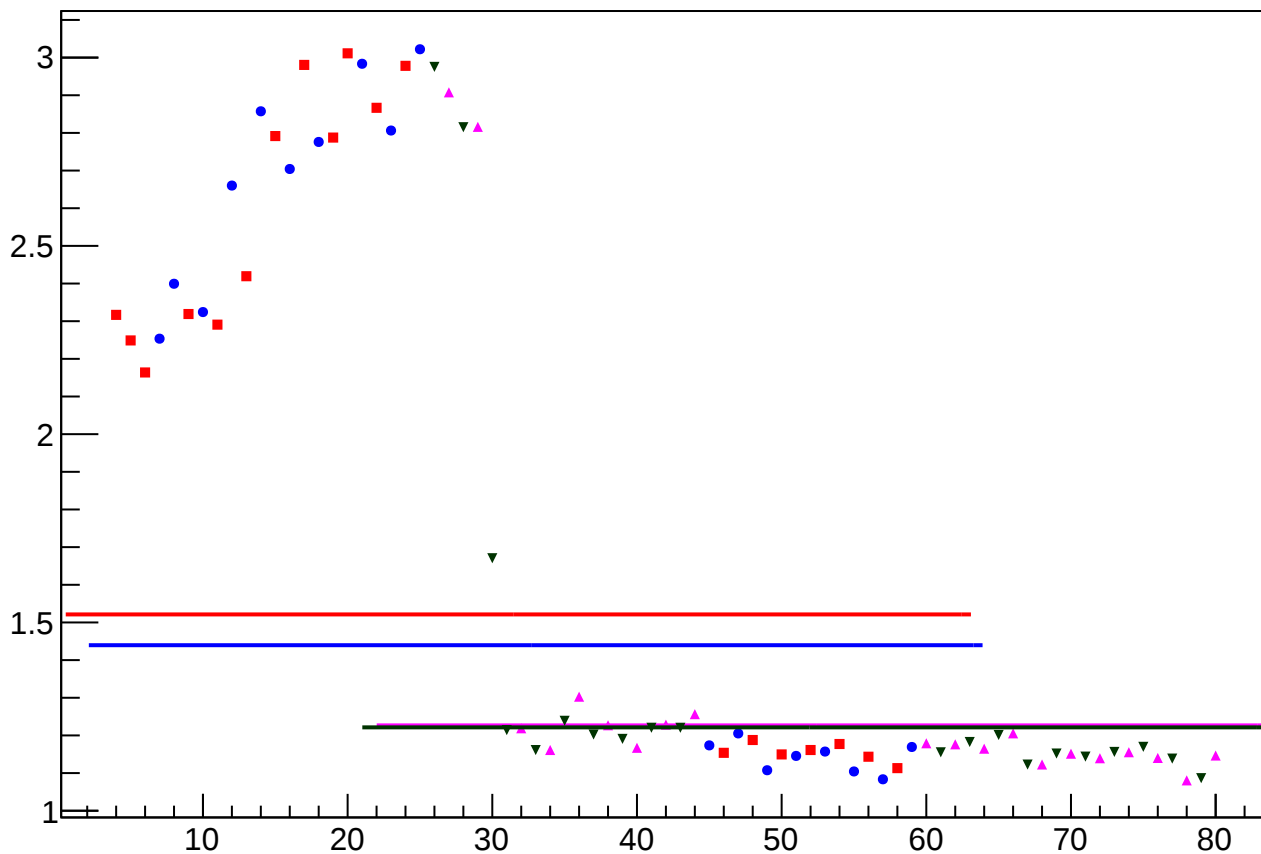
Right Out:  $0.028 \pm 0.520$   $\chi^2/\text{NDF}$ : 31.9/18

Left In:  $0.652 \pm 0.375$   $\chi^2/\text{NDF}$ : 15.3/19

$-0.194 \pm 0.298$   $\chi^2/\text{NDF}$ : 47.0/37

$0.438 \pm 0.304$   $\chi^2/\text{NDF}$ : 48.2/38

# asym\_cav4bQ\_rms vs slug



Right In: 1.440 $\pm$ 0.000  $\chi^2$ /NDF: 3409388.4/17

Left Out: 1.221 $\pm$ 0.000  $\chi^2$ /NDF:940822.7/19

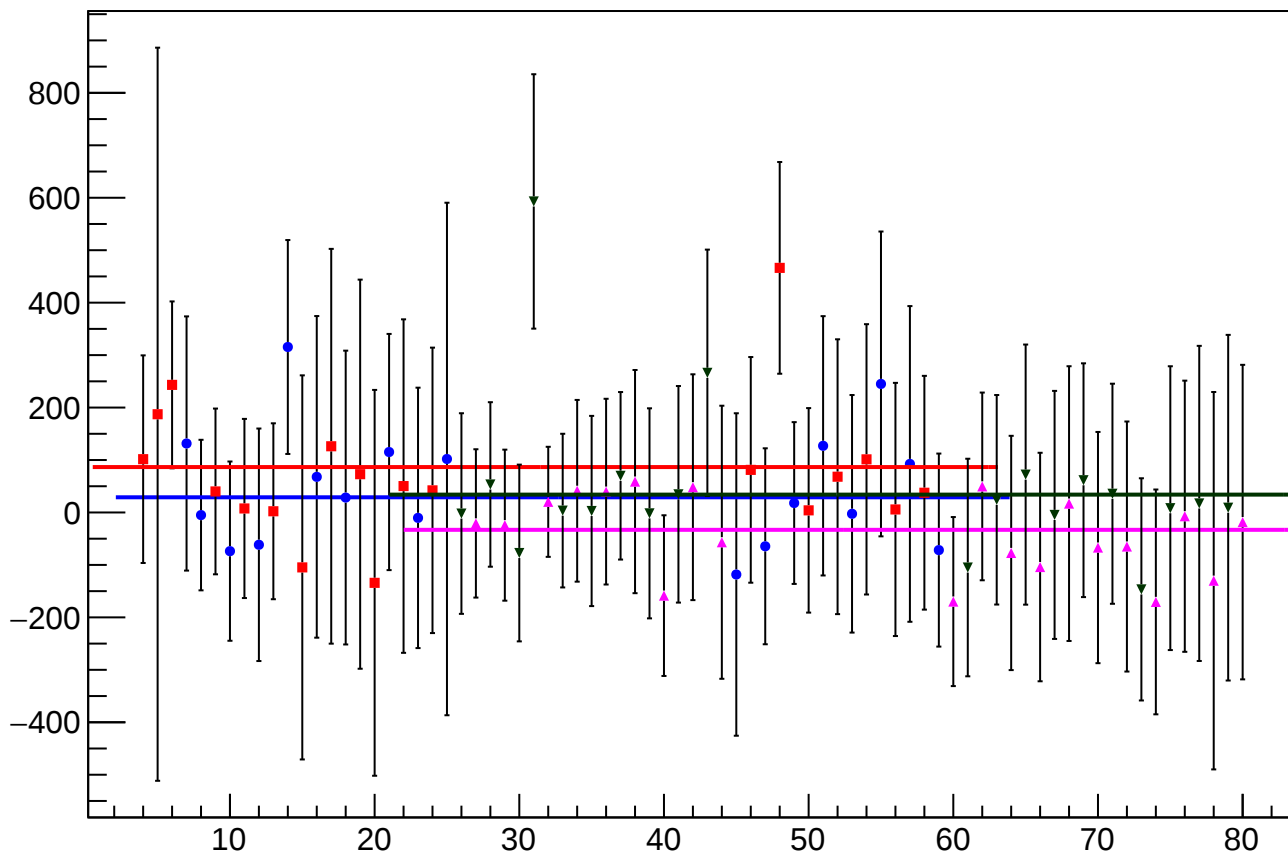
Right Out: 1.521 $\pm$ 0.000  $\chi^2$ /NDF: 2870549.2/18

Left In: 1.227 $\pm$ 0.000  $\chi^2$ /NDF:1181371.3/19

1.311 $\pm$ 0.000  $\chi^2$ /NDF: 4609459.0/37

1.328 $\pm$ 0.000  $\chi^2$ /NDF: 4474697.3/38

# asym\_cav4cQ\_mean vs slug



Right In: 28.930+/-51.478     $\chi^2/\text{NDF}$ : 4.5/17

Left Out: 34.030+/-45.428     $\chi^2/\text{NDF}$ : 8.2/19

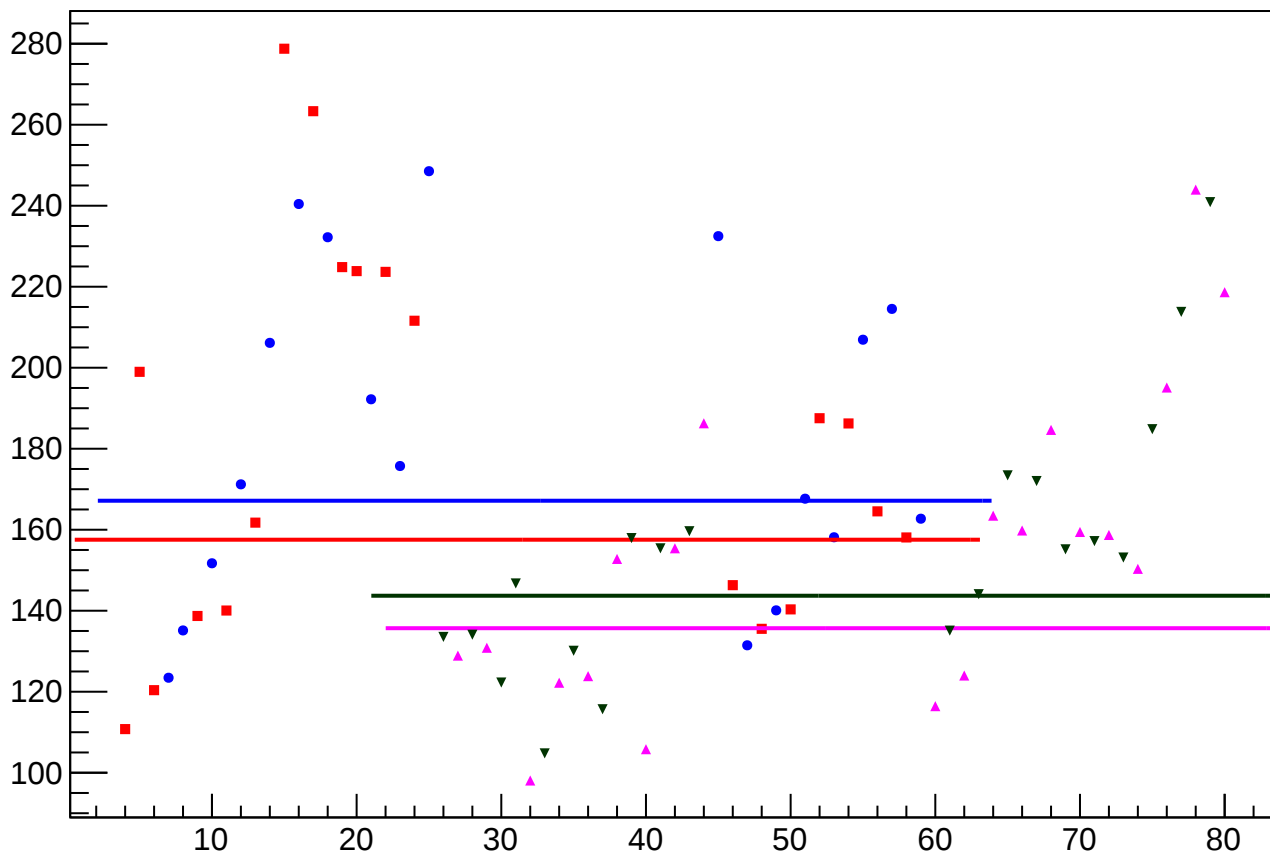
Right Out: 86.558+/-52.059     $\chi^2/\text{NDF}$ : 6.1/18

Left In: -33.091+/-41.717     $\chi^2/\text{NDF}$ : 3.3/19

31.797+/-34.062     $\chi^2/\text{NDF}$ : 12.7/37

13.697+/-32.554     $\chi^2/\text{NDF}$ : 12.6/38

# asym\_cav4cQ\_rms vs slug



Right In: 167.159+/-0.036  $\chi^2/\text{NDF}$ : 875808.6/17

Left Out: 143.701+/-0.032  $\chi^2/\text{NDF}$ : 693143.9/19

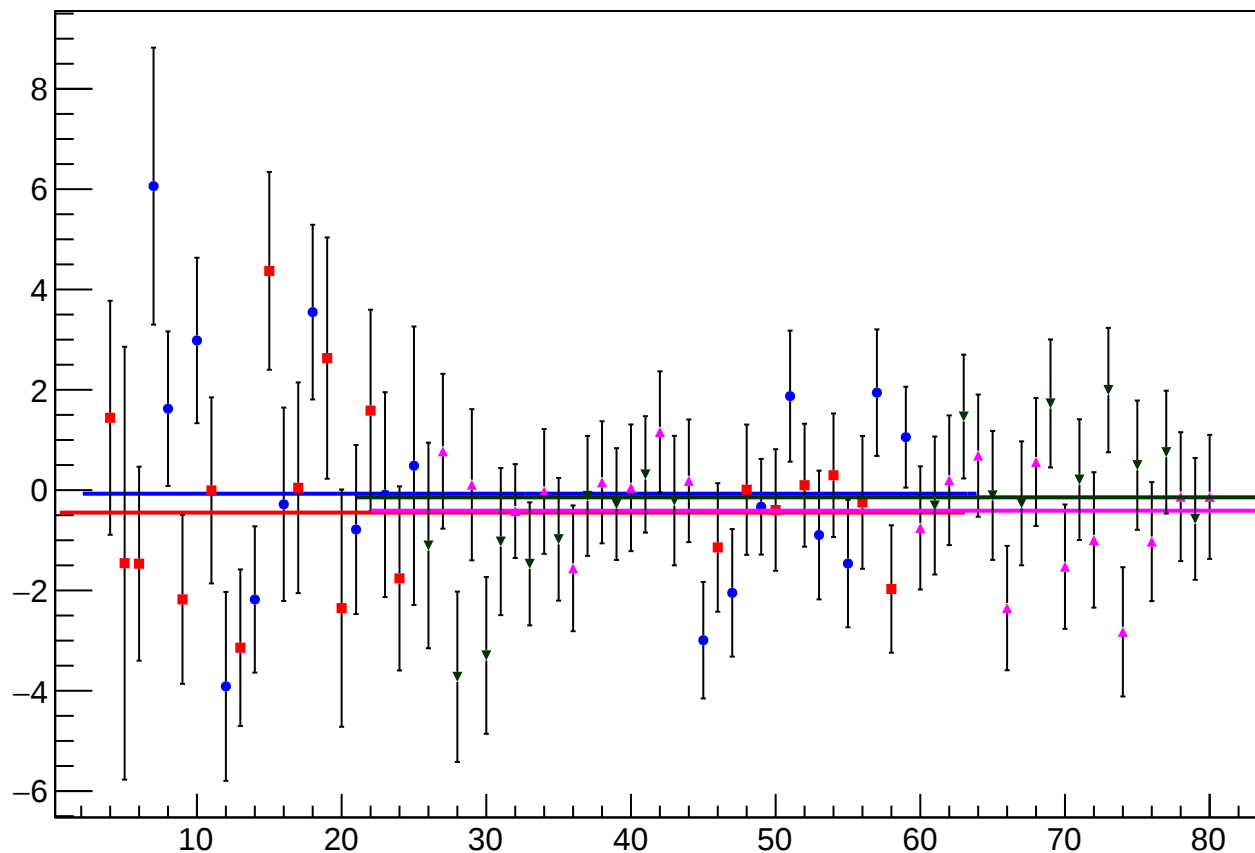
153.971+/-0.024  $\chi^2/\text{NDF}$ : 1802427.7/37

Right Out: 157.534+/-0.037  $\chi^2/\text{NDF}$ : 1049684.2/18

144.228+/-0.023  $\chi^2/\text{NDF}$ : 2384172.3/38

Left In: 135.684+/-0.029  $\chi^2/\text{NDF}$ : 1119929.3/19

# asym\_cav4dQ\_mean vs slug



Right In:  $-0.071 \pm 0.335$   $\chi^2/\text{NDF}$ : 36.8/17

Left Out:  $-0.144 \pm 0.289$   $\chi^2/\text{NDF}$ : 18.8/19

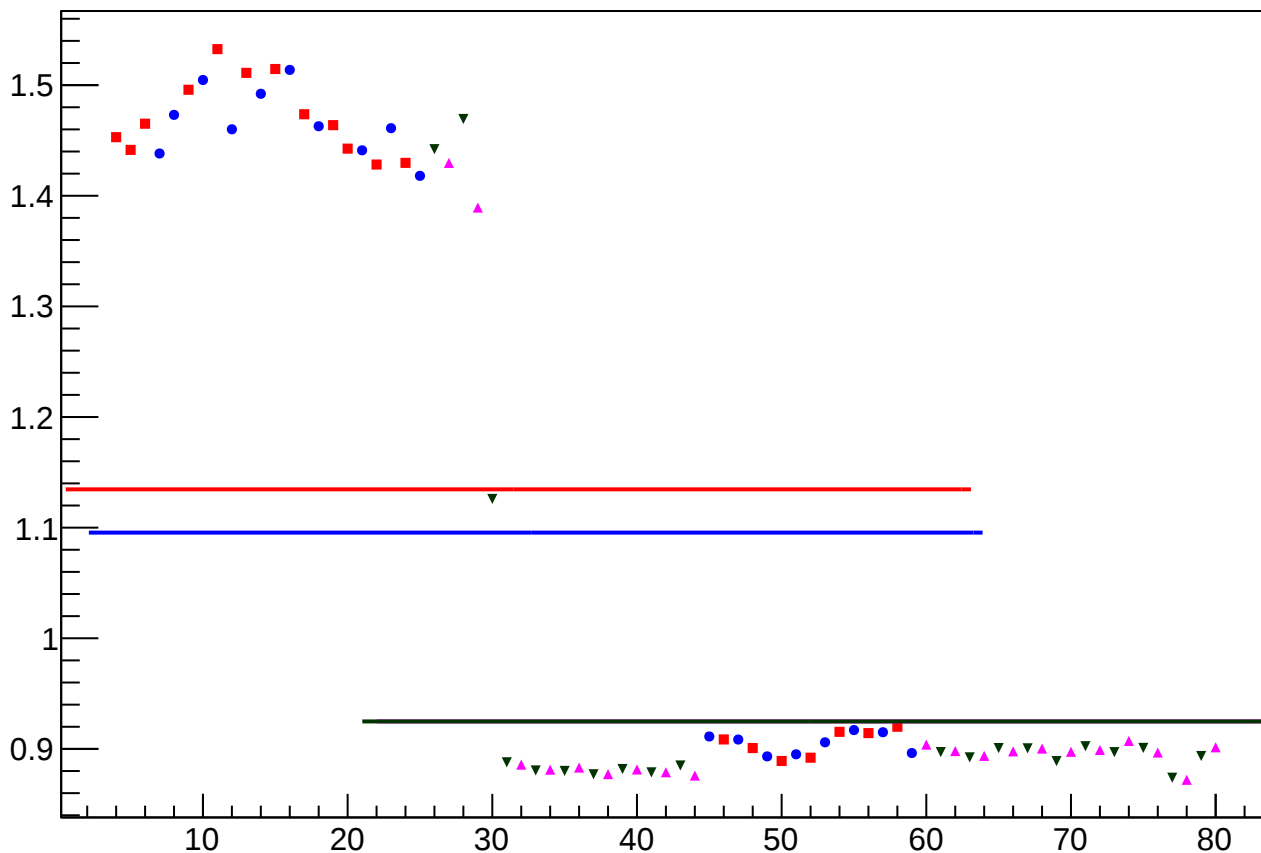
Right Out:  $-0.448 \pm 0.369$   $\chi^2/\text{NDF}$ : 17.4/18

Left In:  $-0.410 \pm 0.278$   $\chi^2/\text{NDF}$ : 12.9/19

$-0.113 \pm 0.219$   $\chi^2/\text{NDF}$ : 55.6/37

$-0.424 \pm 0.222$   $\chi^2/\text{NDF}$ : 30.3/38

# asym\_cav4dQ\_rms vs slug



Right In: 1.096+/-0.000  $\chi^2/\text{NDF}$ : 1288766.9/17

Left Out: 0.925+/-0.000  $\chi^2/\text{NDF}$ :396326.3/19

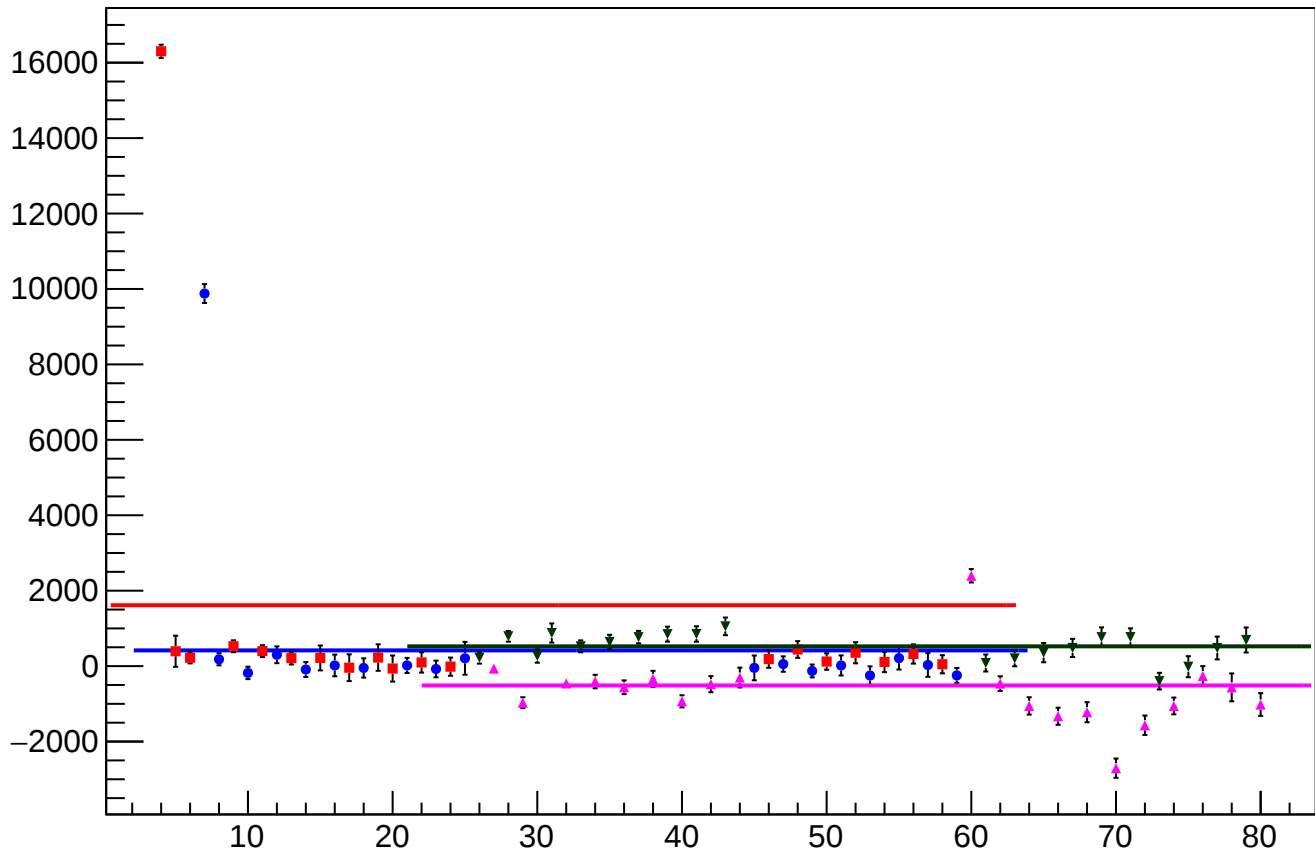
Right Out: 1.135+/-0.000  $\chi^2/\text{NDF}$ : 1161881.6/18

Left In: 0.925+/-0.000  $\chi^2/\text{NDF}$ :435511.6/19

0.997+/-0.000  $\chi^2/\text{NDF}$ : 1982410.4/37

1.001+/-0.000  $\chi^2/\text{NDF}$ : 2009145.0/38

# asym\_bcm0l02\_mean vs slug



Right In: 417.186+/-52.636  $\chi^2/\text{NDF}$ : 1507.9/17

Left Out: 524.373+/-46.136  $\chi^2/\text{NDF}$ : 54.1/19

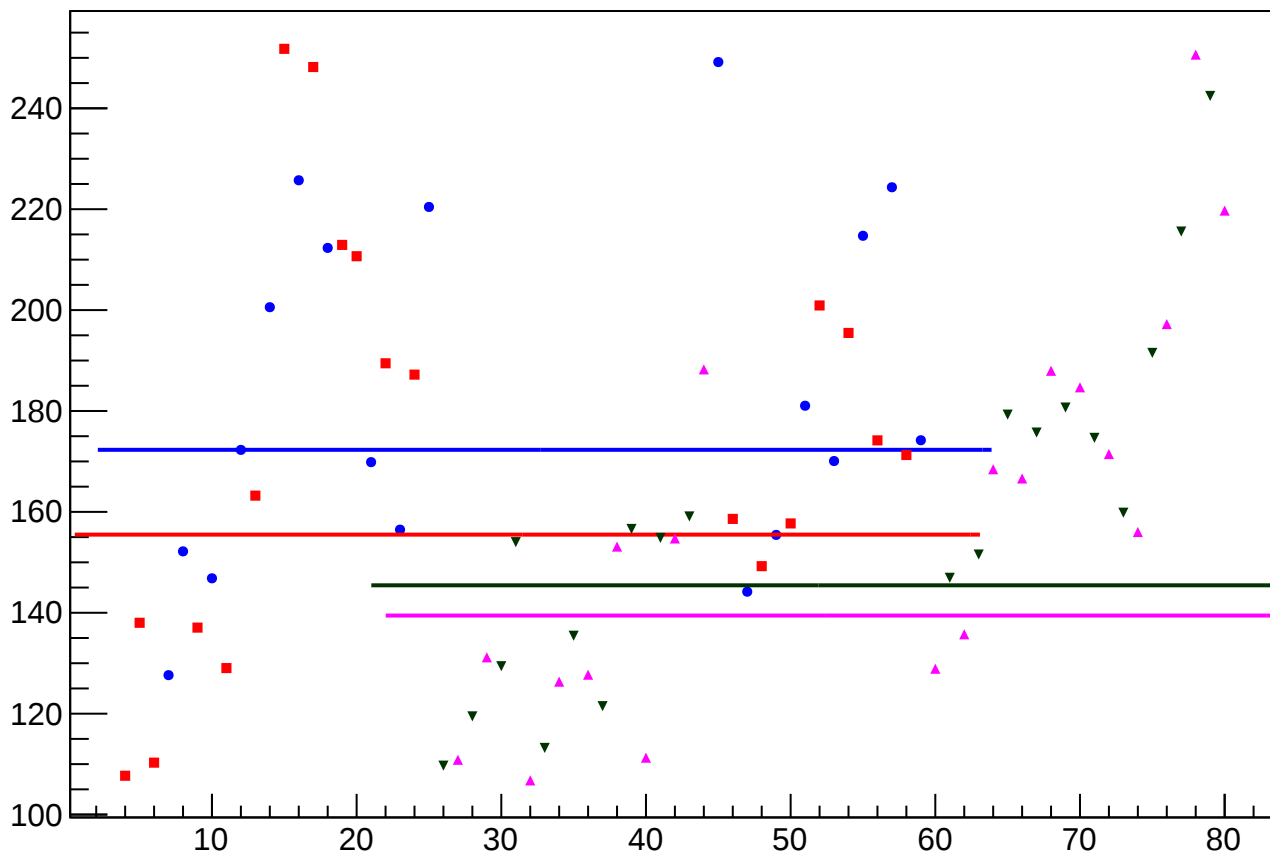
477.803+/-34.695  $\chi^2/\text{NDF}$ : 1564.4/37

Right Out: 1614.499+/-51.138  $\chi^2/\text{NDF}$ : 7665.3/18

363.727+/-32.829  $\chi^2/\text{NDF}$ : 9108.1/38

Left In: -513.107+/-42.817  $\chi^2/\text{NDF}$ : 425.2/19

# asym\_bcm0l02\_rms vs slug



Right In:  $172.303 \pm 0.037$   $\chi^2/\text{NDF}$ : 600813.3/17

Left Out:  $145.446 \pm 0.033$   $\chi^2/\text{NDF}$ : 814465.5/19

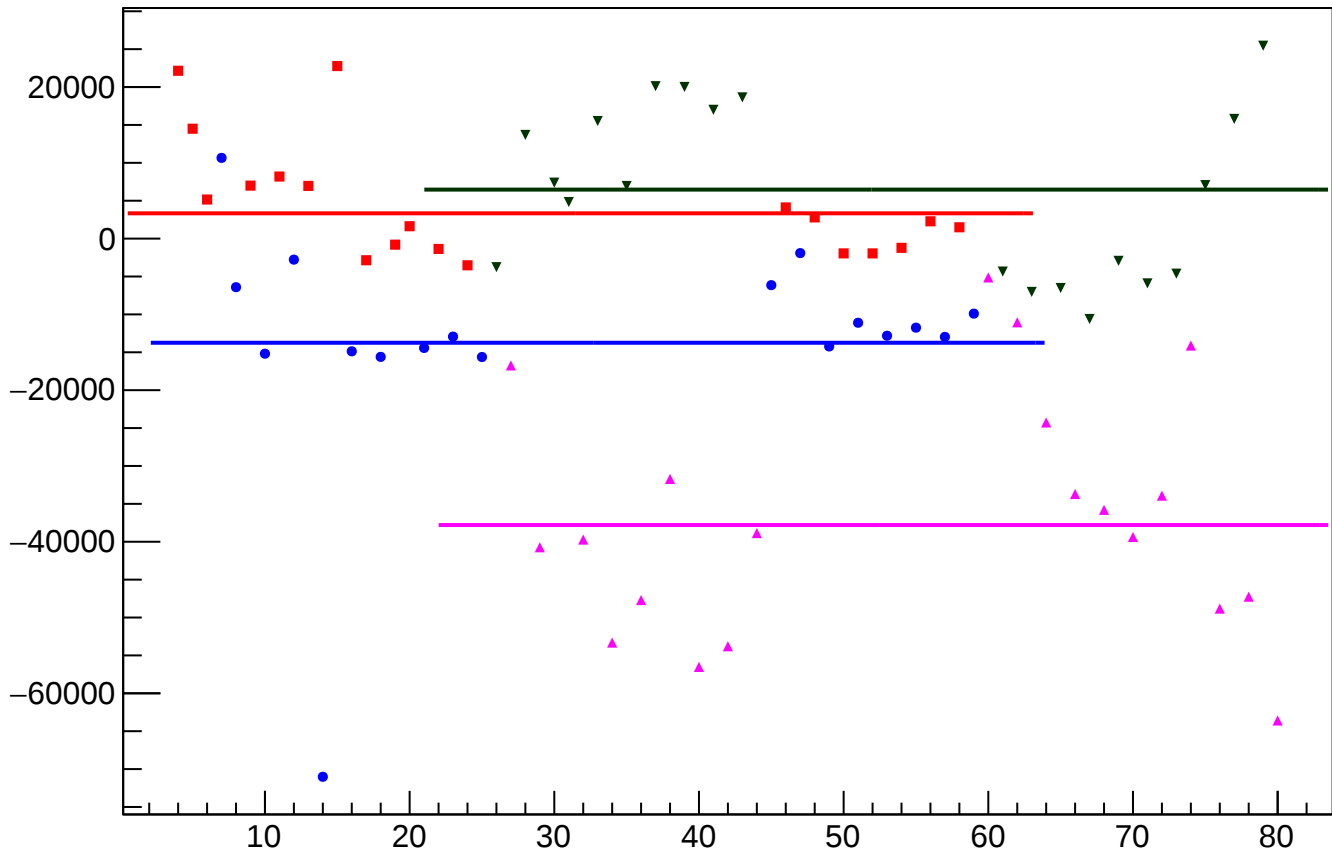
Right Out:  $155.494 \pm 0.036$   $\chi^2/\text{NDF}$ : 1018742.9/18

Left In:  $139.453 \pm 0.030$   $\chi^2/\text{NDF}$ : 1110322.4/19

$157.115 \pm 0.025$   $\chi^2/\text{NDF}$ : 1709764.1/37

$146.064 \pm 0.023$   $\chi^2/\text{NDF}$ : 2244746.6/38

# asym\_bpm2i01WS\_mean vs slug



Right In: -13741.376+/-32.053  $\chi^2/\text{NDF}$ : 222194.3/17

Left Out: 6467.182+/-29.345  $\chi^2/\text{NDF}$ : 151918.9/19

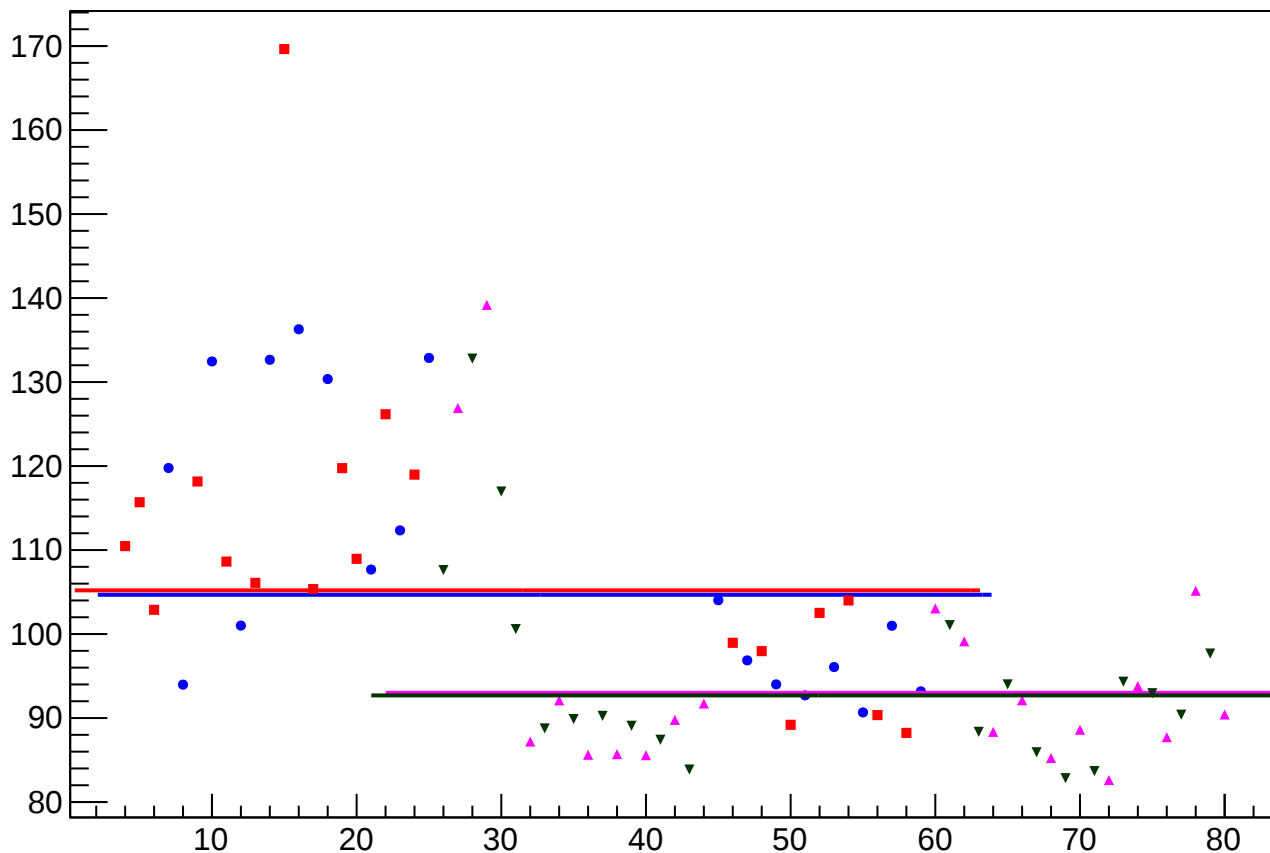
-2747.465+/-21.644  $\chi^2/\text{NDF}$ : 590363.6/37

Right Out: 3338.926+/-34.258  $\chi^2/\text{NDF}$ : 31361.1/18

-21038.858+/-21.865  $\chi^2/\text{NDF}$ : 1156287.9/38

Left In: -37795.574+/-28.402  $\chi^2/\text{NDF}$ : 270473.7/19

# asym\_bpm2i01WS\_rms vs slug



Right In: 104.677 $\pm$ 0.023  $\chi^2$ /NDF: 431749.6/17

Left Out: 92.695 $\pm$ 0.021  $\chi^2$ /NDF:253635.3/19

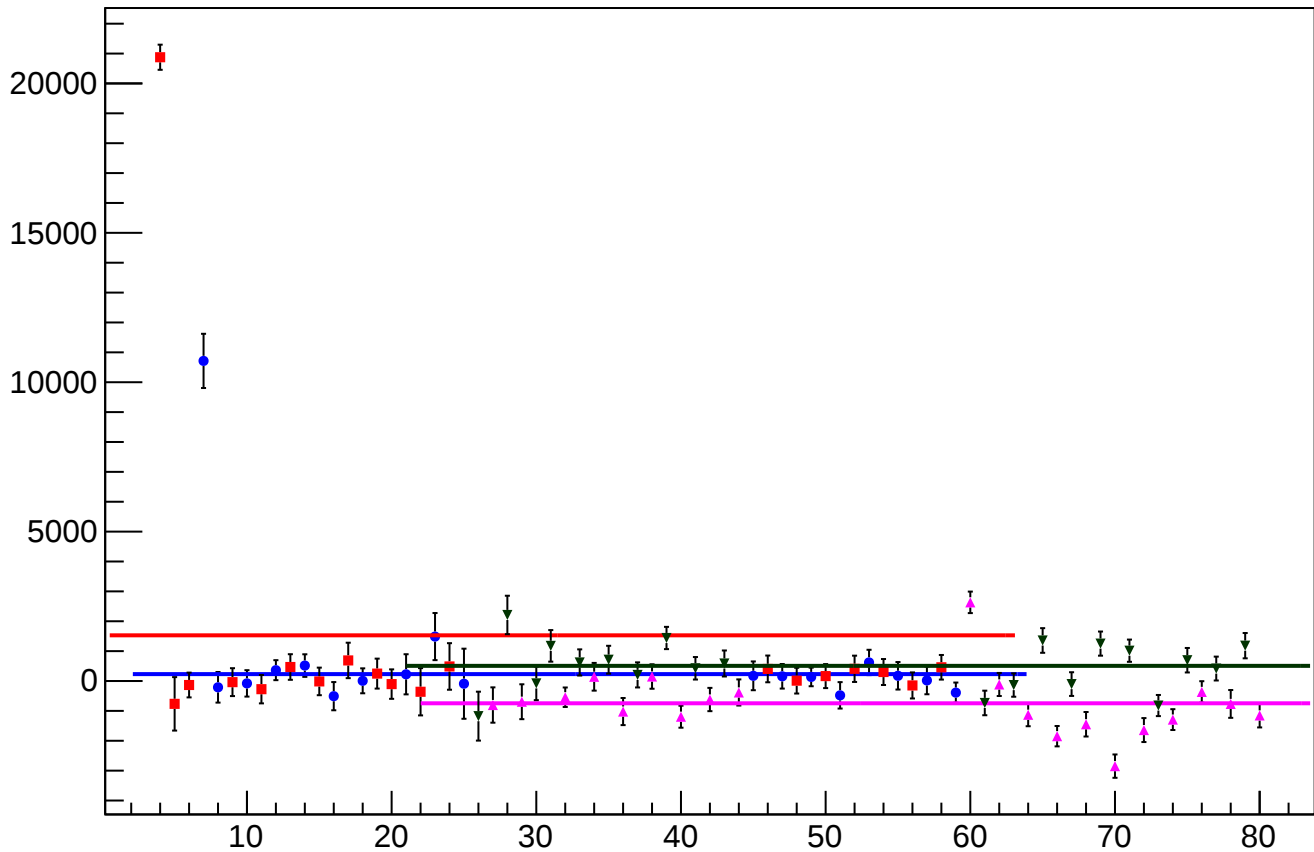
Right Out: 105.200 $\pm$ 0.024  $\chi^2$ /NDF: 336723.5/18

Left In: 92.998 $\pm$ 0.020  $\chi^2$ /NDF:376565.1/19

98.158 $\pm$ 0.015  $\chi^2$ /NDF: 837436.4/37

97.969 $\pm$ 0.015  $\chi^2$ /NDF: 863664.9/38

# asym\_bpm0i07WS\_mean vs slug



Right In: 230.965+/-105.235  $\chi^2/\text{NDF}$ : 148.0/17

Left Out: 507.369+/-95.539  $\chi^2/\text{NDF}$ : 61.7/19

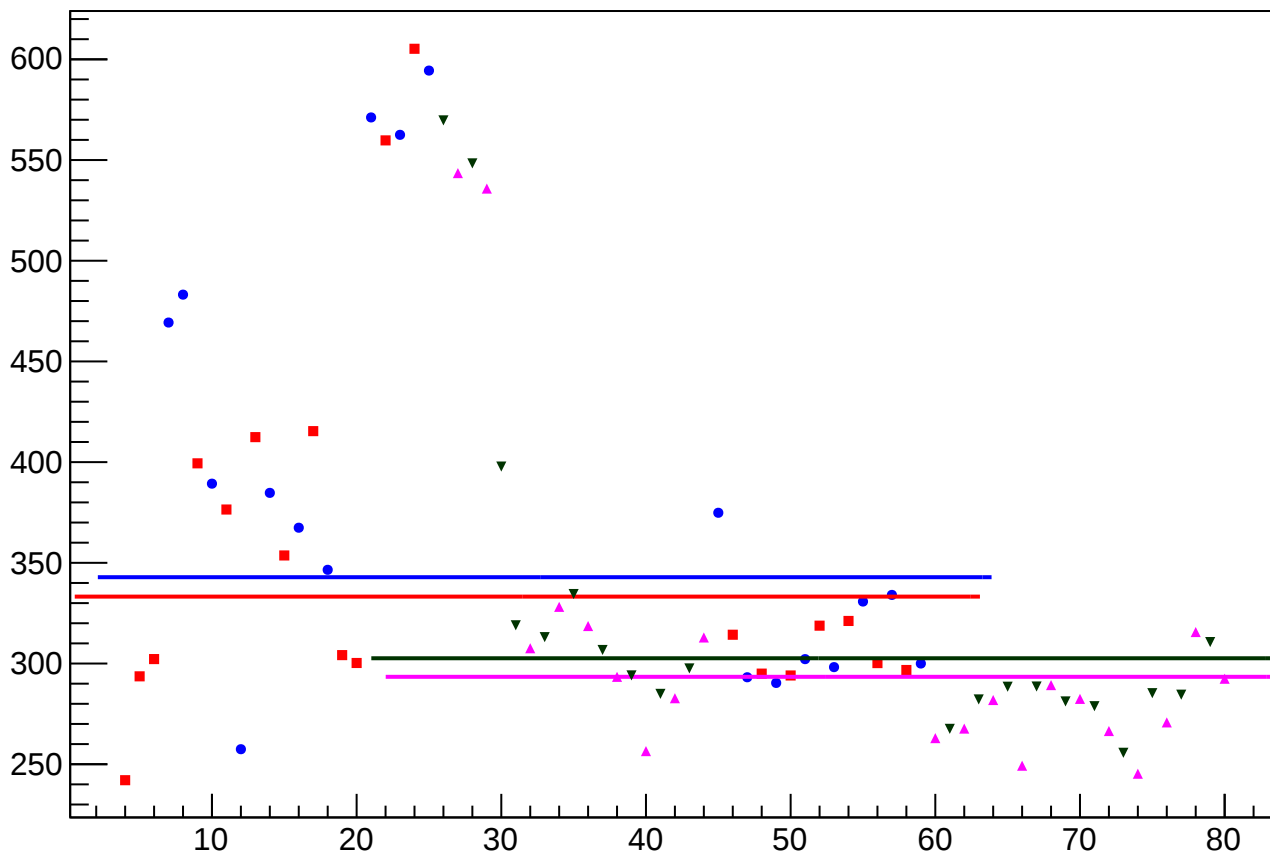
Right Out: 1529.045+/-108.949  $\chi^2/\text{NDF}$ : 2274.0/18

Left In: -745.667+/-89.360  $\chi^2/\text{NDF}$ : 155.3/19

382.485+/-70.736  $\chi^2/\text{NDF}$ : 213.4/37

169.168+/-69.092  $\chi^2/\text{NDF}$ : 2689.9/38

# asym\_bpm0i07WS\_rms vs slug



Right In: 342.865 $\pm$ 0.074  $\chi^2$ /NDF: 1018623.1/17

Left Out: 302.616 $\pm$ 0.068  $\chi^2$ /NDF:662256.6/19

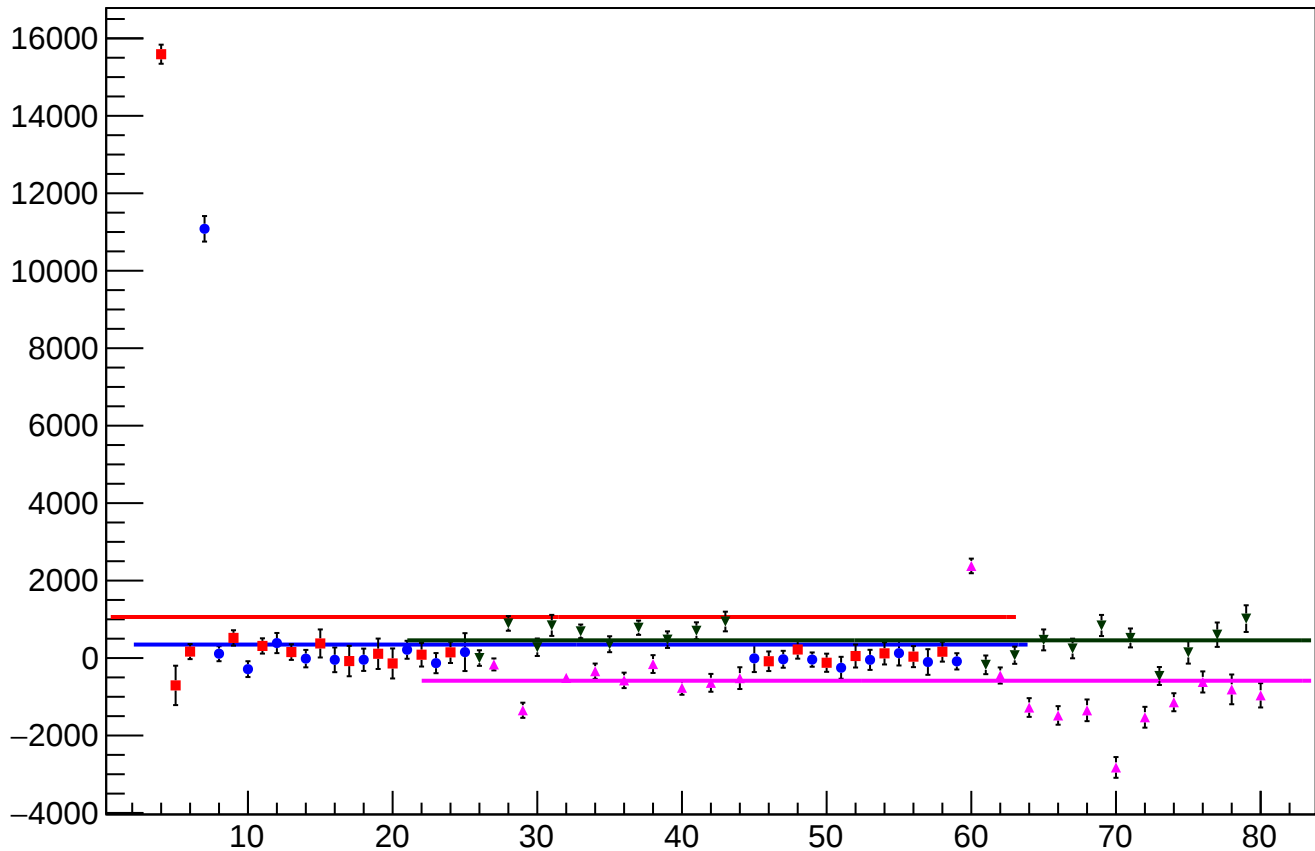
Right Out: 333.230 $\pm$ 0.077  $\chi^2$ /NDF: 768934.3/18

Left In: 293.404 $\pm$ 0.063  $\chi^2$ /NDF:869607.7/19

320.801 $\pm$ 0.050  $\chi^2$ /NDF: 1841255.5/37

309.421 $\pm$ 0.049  $\chi^2$ /NDF: 1798311.5/38

# asym\_bpm0l01WS\_mean vs slug



Right In: 348.196+/-59.644  $\chi^2/\text{NDF}$ : 1103.2/17

Left Out: 457.387+/-51.624  $\chi^2/\text{NDF}$ : 55.6/19

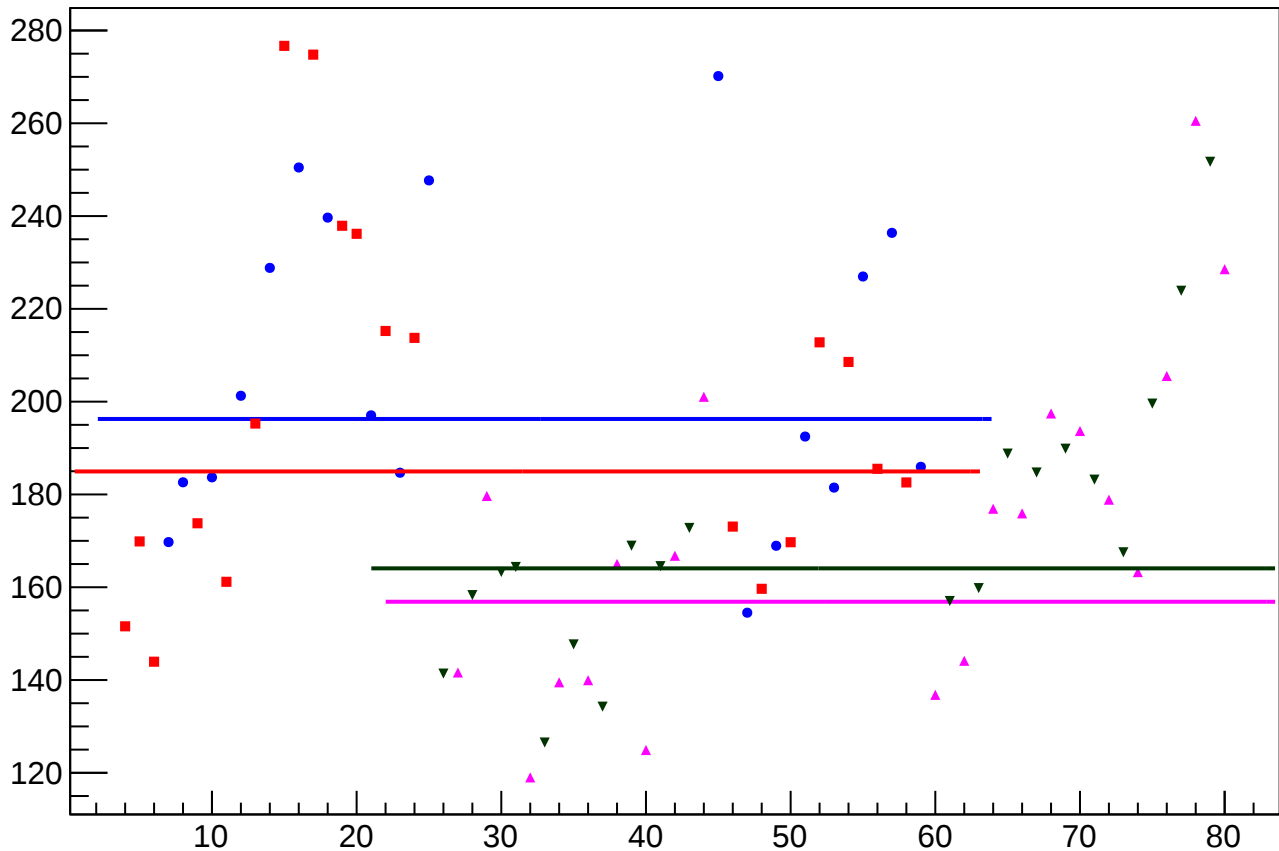
Right Out: 1059.962+/-60.034  $\chi^2/\text{NDF}$ : 3708.7/18

Left In: -585.661+/-47.810  $\chi^2/\text{NDF}$ : 395.2/19

410.621+/-39.034  $\chi^2/\text{NDF}$ : 1160.7/37

52.977+/-37.399  $\chi^2/\text{NDF}$ : 4563.7/38

asym\_bpm0l01WS\_rms vs slug



Right In: 196.269 $\pm$ 0.042  $\chi^2$ /NDF: 466122.9/17

Left Out: 164.068 $\pm$ 0.037  $\chi^2$ /NDF:480790.8/19

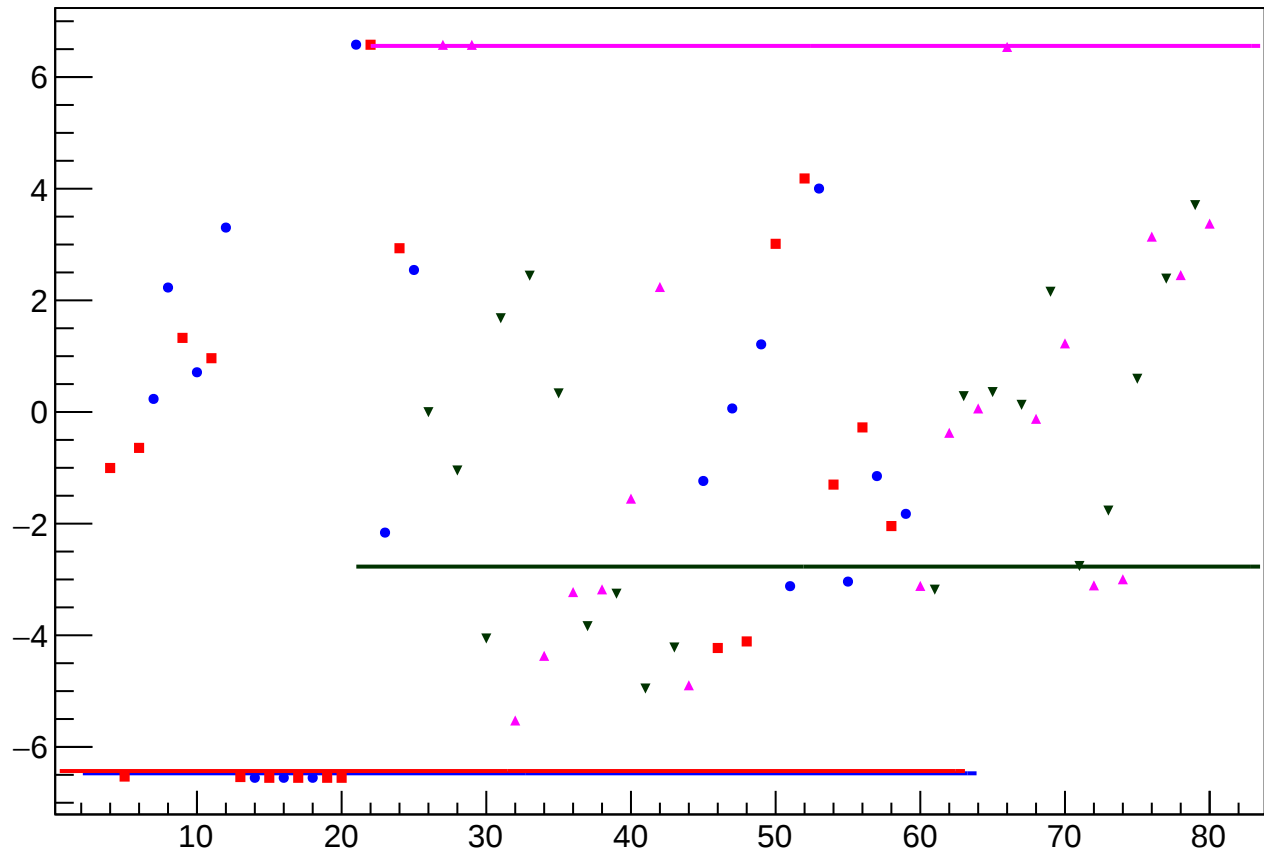
Right Out: 184.956 $\pm$ 0.042  $\chi^2$ /NDF: 580645.4/18

Left In: 156.872 $\pm$ 0.034  $\chi^2$ /NDF:839123.9/19

177.860 $\pm$ 0.028  $\chi^2$ /NDF: 1280175.5/37

167.771 $\pm$ 0.026  $\chi^2$ /NDF: 1687598.9/38

# yield\_cav4bX\_mean vs slug



Right In: -6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847949322838.5/17

-6.473+/-0.000  $\chi^2/\text{NDF}$ : 127848024486054.2/3

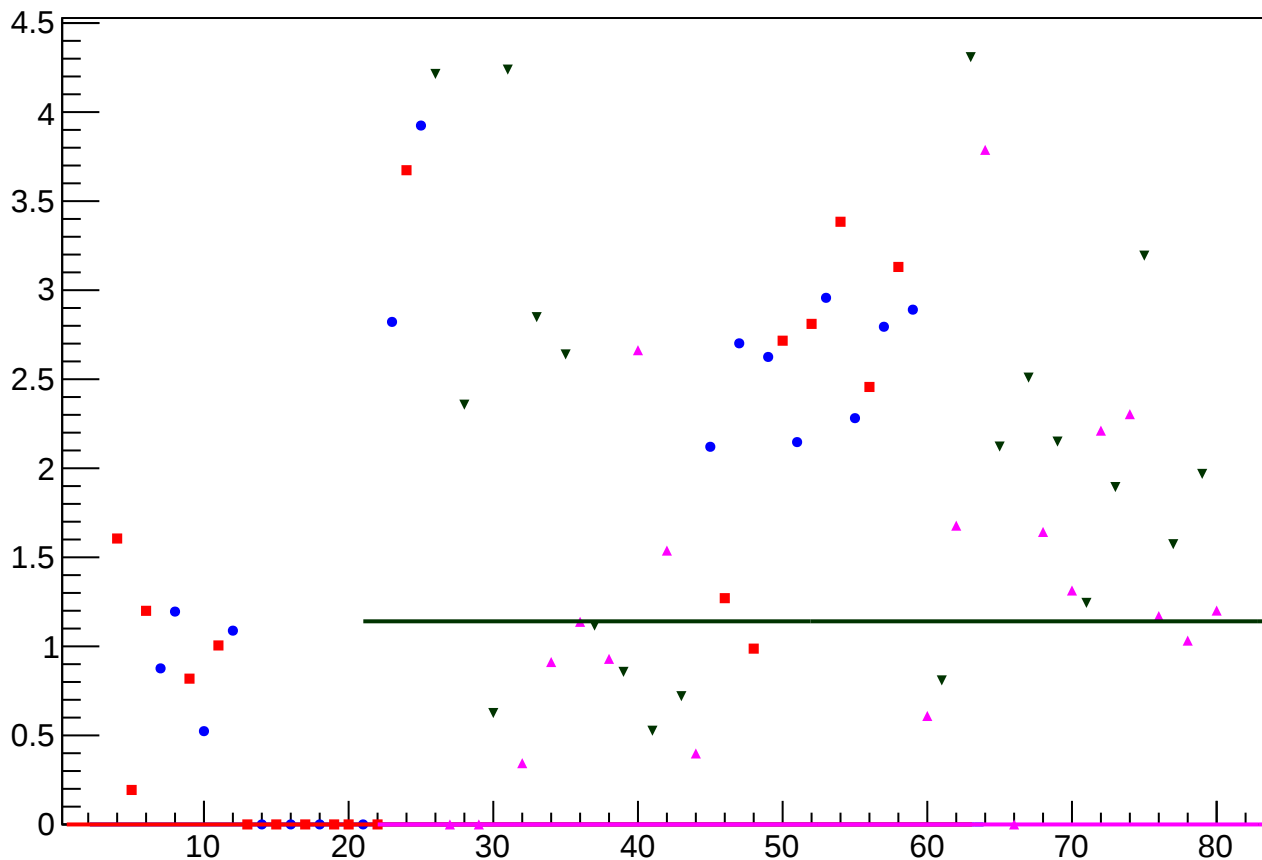
Left Out: -2.769+/-0.001  $\chi^2/\text{NDF}$ : 20704339.0/19

Right Out: -6.432+/-0.000  $\chi^2/\text{NDF}$ : 150837619676093.8/18

-6.196+/-0.000  $\chi^2/\text{NDF}$ : 446402756434177.0/3

Left In: 6.558+/-0.000  $\chi^2/\text{NDF}$ : 1586507052.4/19

# yield\_cav4bX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 11913804.6/17

Left Out: 1.141+/-0.000  $\chi^2/\text{NDF}$ : 4736436.0/19

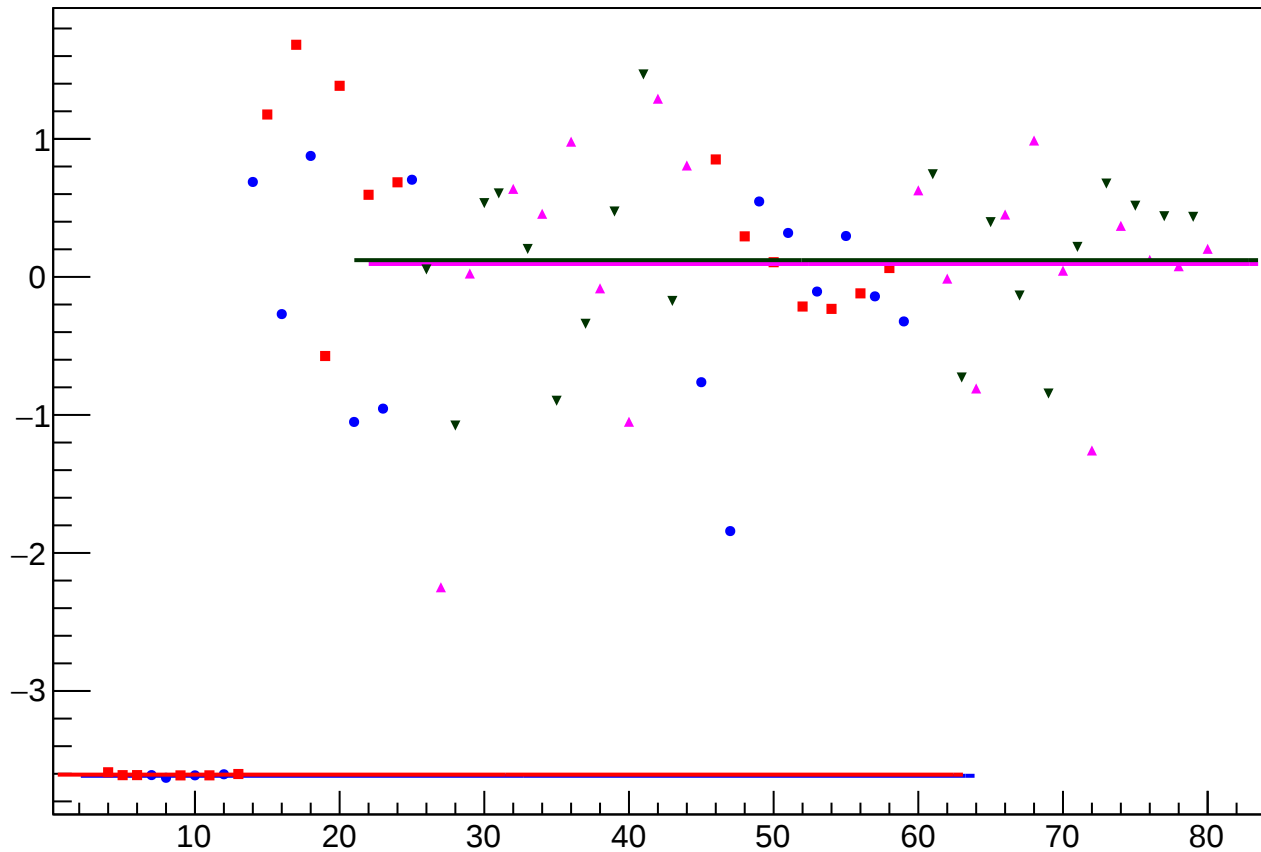
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9626570.5/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 12340226.6/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 26981318.1/37

0.000+/-0.000  $\chi^2/\text{NDF}$ : 21966881.5/38

# yield\_cav4bY\_mean vs slug



Right In:  $-3.614 \pm 0.000$   $\chi^2/\text{NDF}$ : 49086055221.8/17

Left Out:  $0.121 \pm 0.000$   $\chi^2/\text{NDF}$ : 10768161.2/19

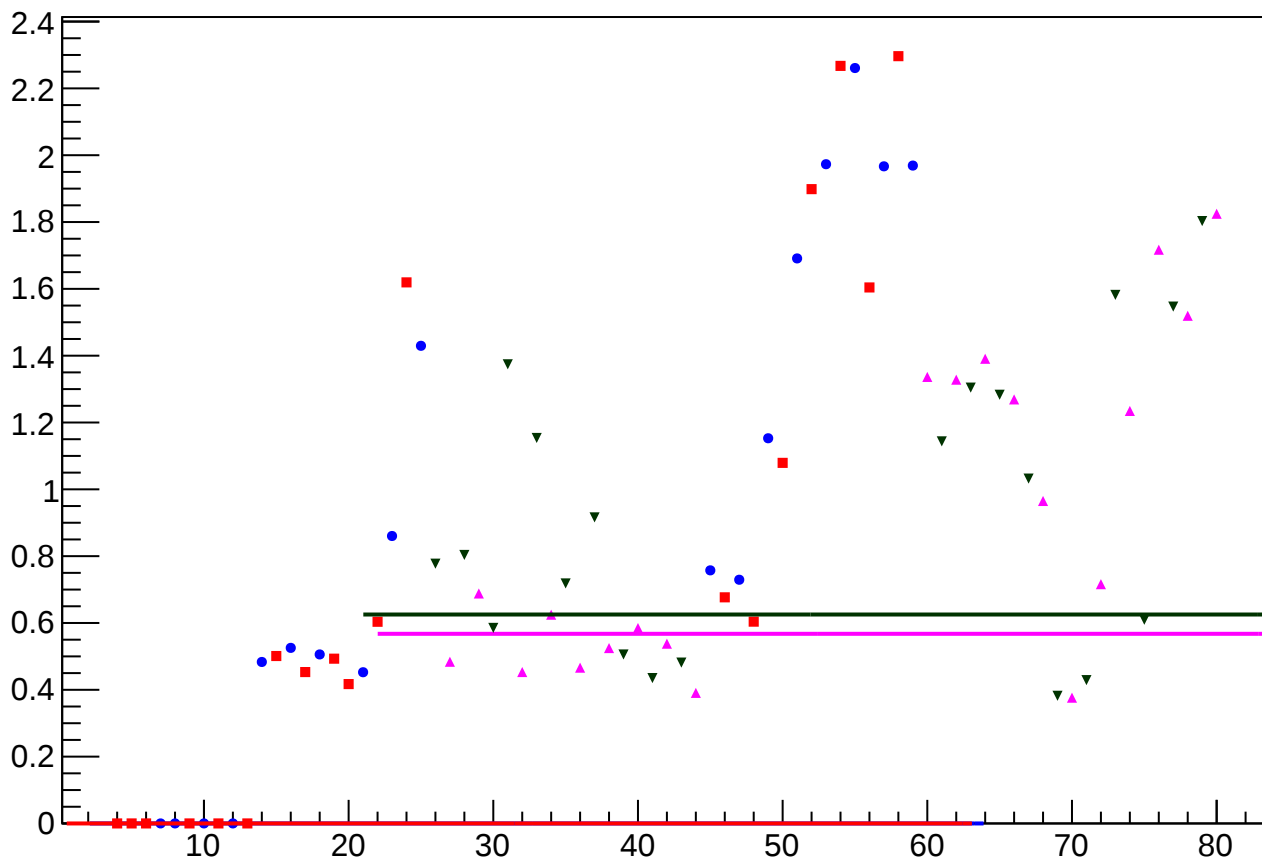
$-3.614 \pm 0.000$   $\chi^2/\text{NDF}$ : 49337363746.4/37

Right Out:  $-3.606 \pm 0.000$   $\chi^2/\text{NDF}$ : 37792758949.6/18

$-3.606 \pm 0.000$   $\chi^2/\text{NDF}$ : 38120078718.9/38

Left In:  $0.094 \pm 0.000$   $\chi^2/\text{NDF}$ : 21865308.2/19

# yield\_cav4bY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 13780215.8/17

Left Out: 0.625+/-0.000  $\chi^2/\text{NDF}$ :3217165.9/19

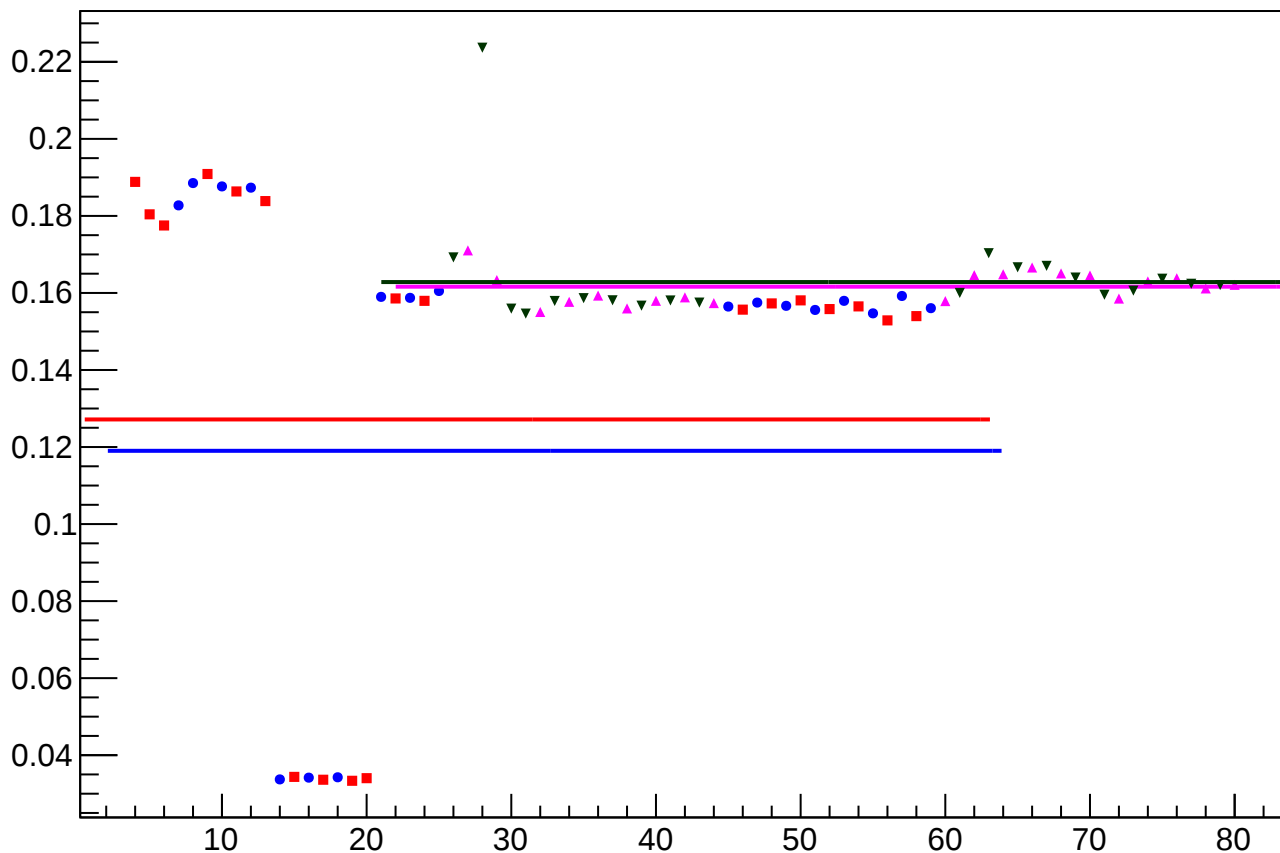
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 10531530.4/18

Left In: 0.568+/-0.000  $\chi^2/\text{NDF}$ :3651246.3/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 30473642.8/37

0.000+/-0.000  $\chi^2/\text{NDF}$ : 28557045.6/38

# yield\_cav4cX\_mean vs slug



Right In: 0.119 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 4974475463.8/17

Left Out: 0.163 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 103038435.6/19

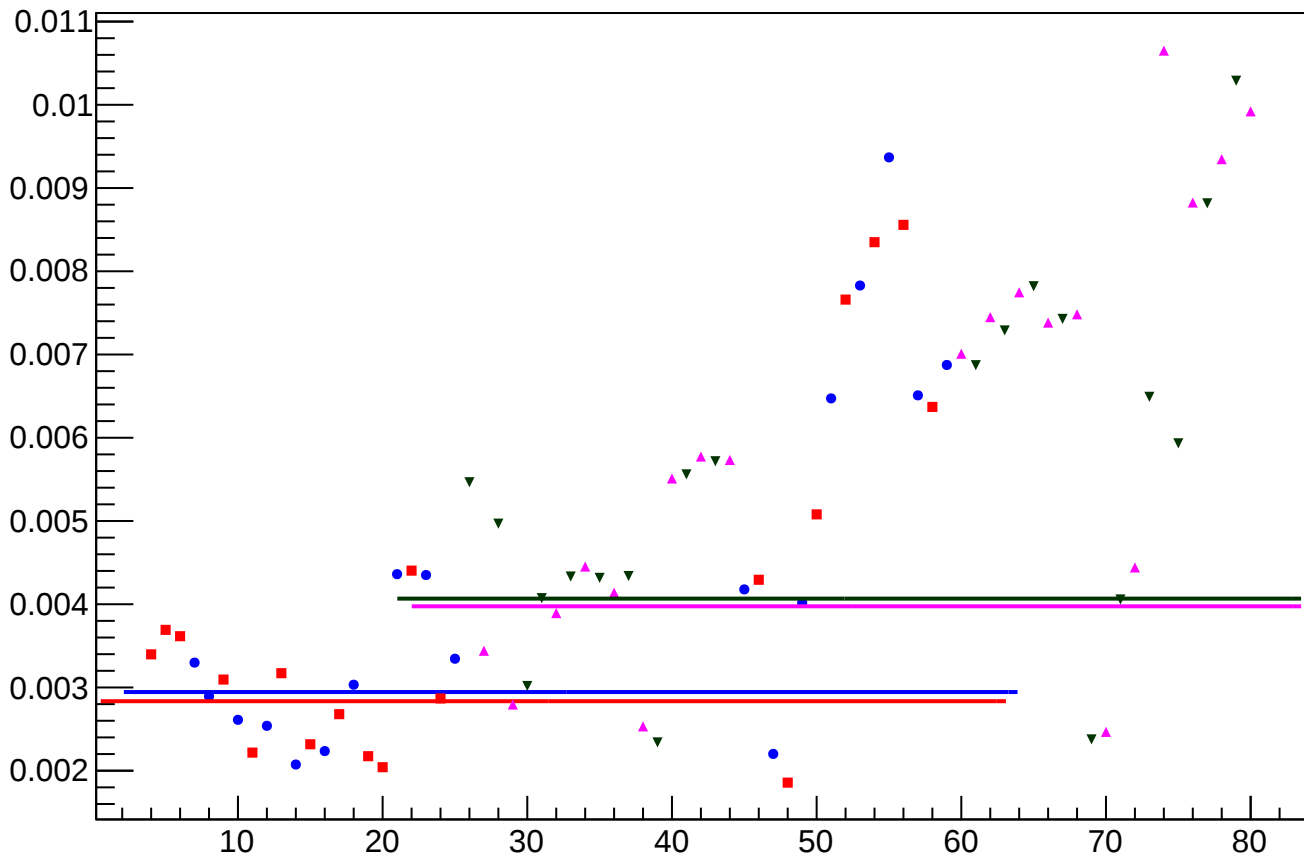
Right Out: 0.127 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 4426693928.8/18

Left In: 0.162 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 13460080.8/19

0.133 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 5735571776.4/37

0.139 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 4865336721.6/38

# yield\_cav4cX\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 2985281.5/17

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :3072700.1/19

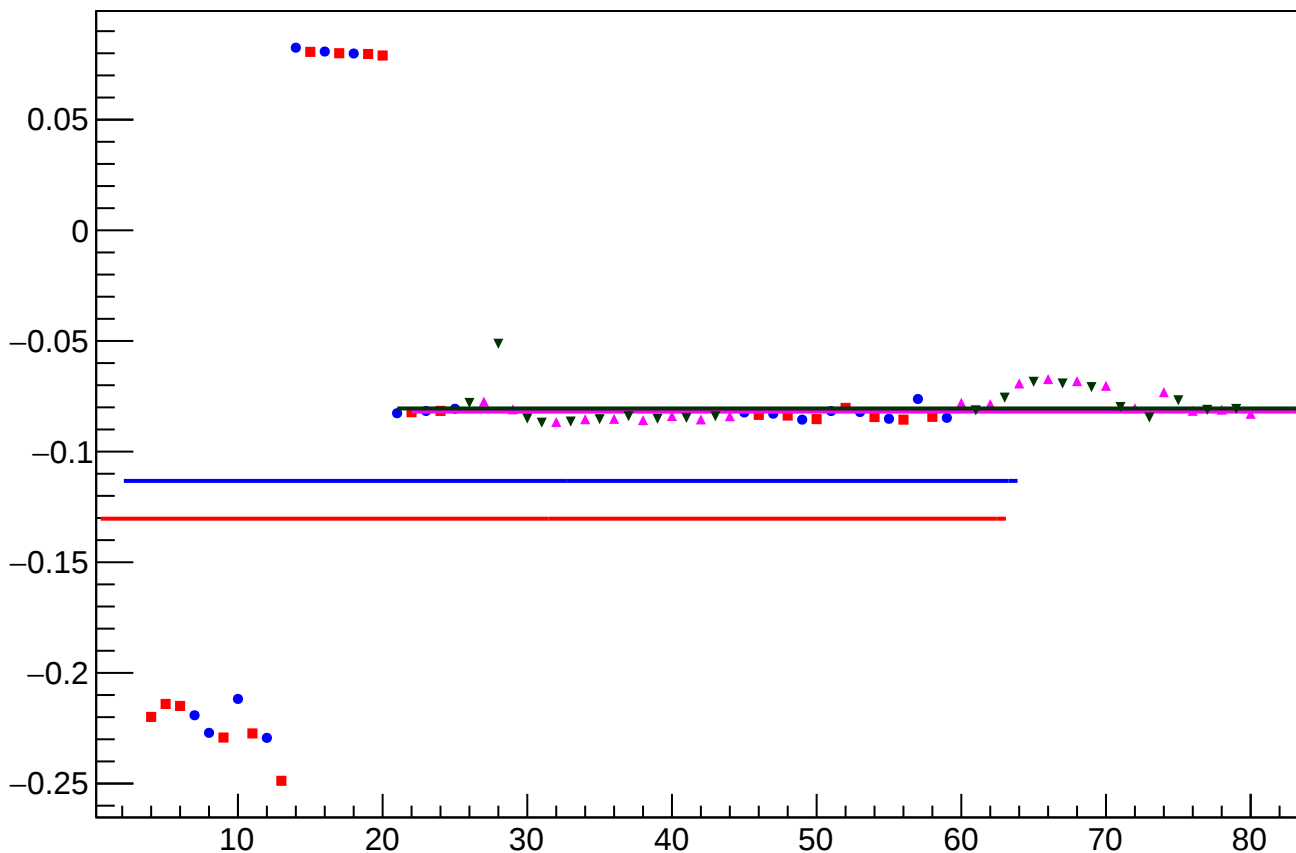
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 2697291.9/18

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :3666190.3/19

0.003+/-0.000  $\chi^2/\text{NDF}$ : 6921473.3/37

0.003+/-0.000  $\chi^2/\text{NDF}$ : 7293664.8/38

# yield\_cav4cY\_mean vs slug



Right In: -0.113+/-0.000  $\chi^2/\text{NDF}$ : 9694608559.9/17

Left Out: -0.081+/-0.000  $\chi^2/\text{NDF}$ : 41979352.7/19

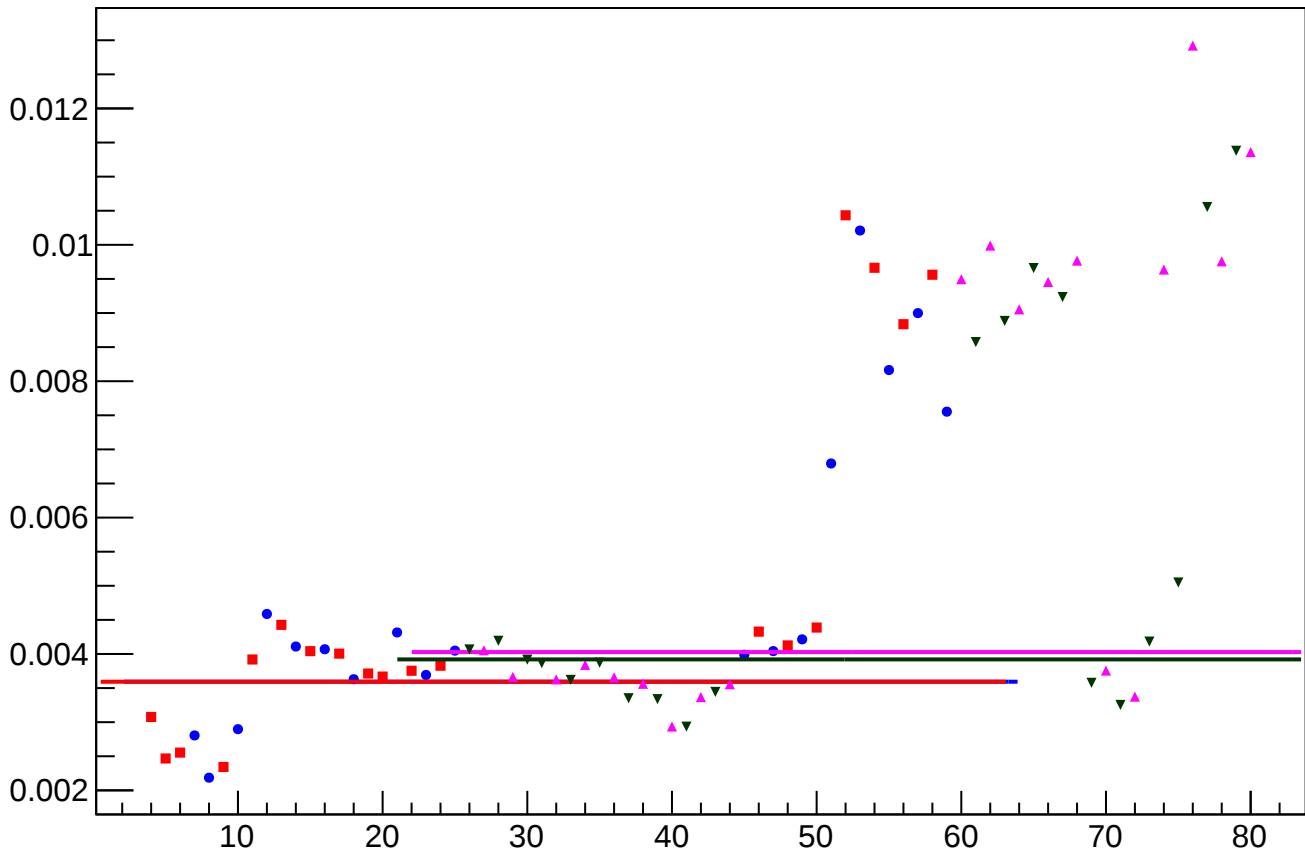
-0.099+/-0.000  $\chi^2/\text{NDF}$ : 10074181494.6/37

Right Out: -0.130+/-0.000  $\chi^2/\text{NDF}$ : 8867144829.5/18

-0.108+/-0.000  $\chi^2/\text{NDF}$ : 9563063670.6/38

Left In: -0.082+/-0.000  $\chi^2/\text{NDF}$ : 13356048.3/19

# yield\_cav4cY\_rms vs slug



Right In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 2636393.6/17

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :2212708.1/19

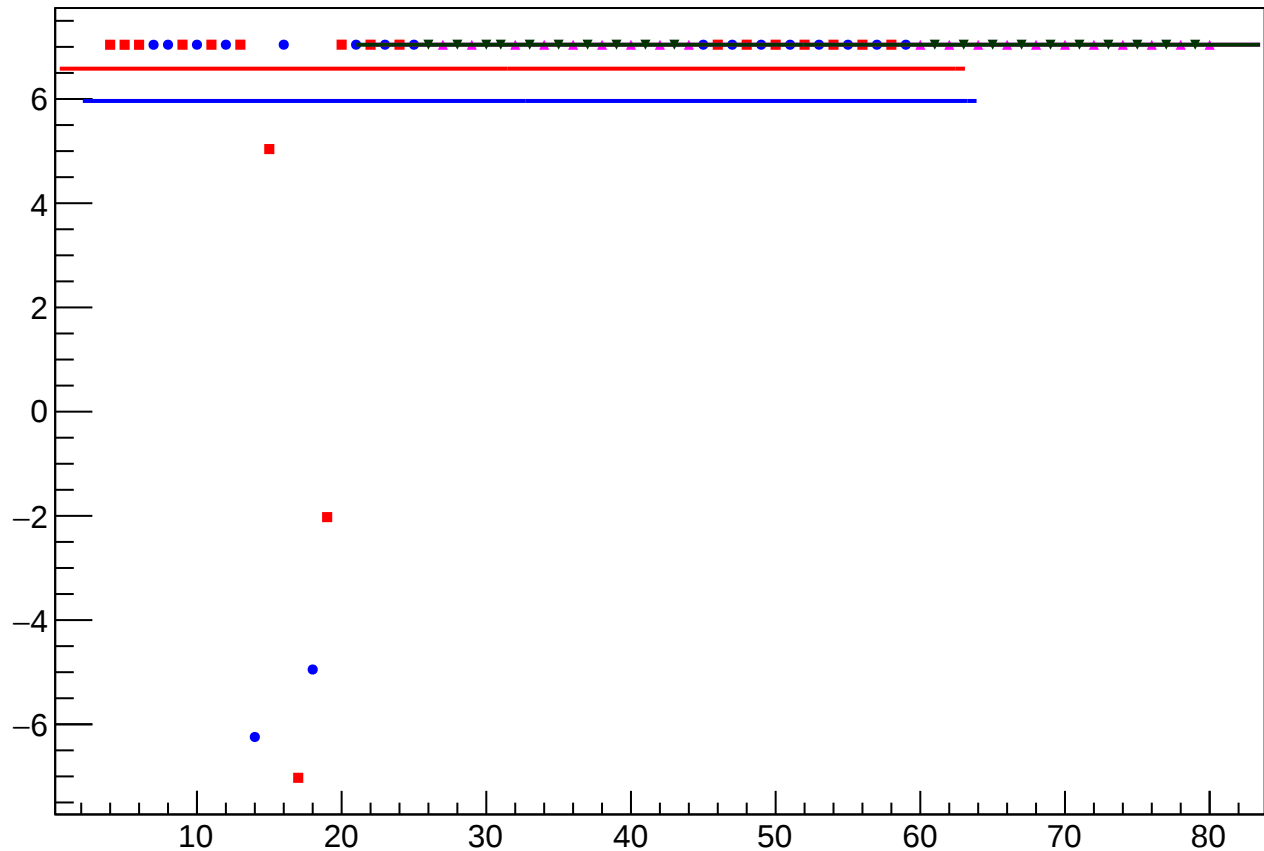
Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 2225355.5/18

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :3109178.3/19

0.004+/-0.000  $\chi^2/\text{NDF}$ : 4916545.0/37

0.004+/-0.000  $\chi^2/\text{NDF}$ : 5444881.2/38

# yield\_cav4dX\_mean vs slug



Right In: 5.962 $\pm$ 0.000  $\chi^2$ /NDF: 4616105002600912.0/17

Left Out: 7.042 $\pm$ 0.000  $\chi^2$ /NDF: 19142731.5/19

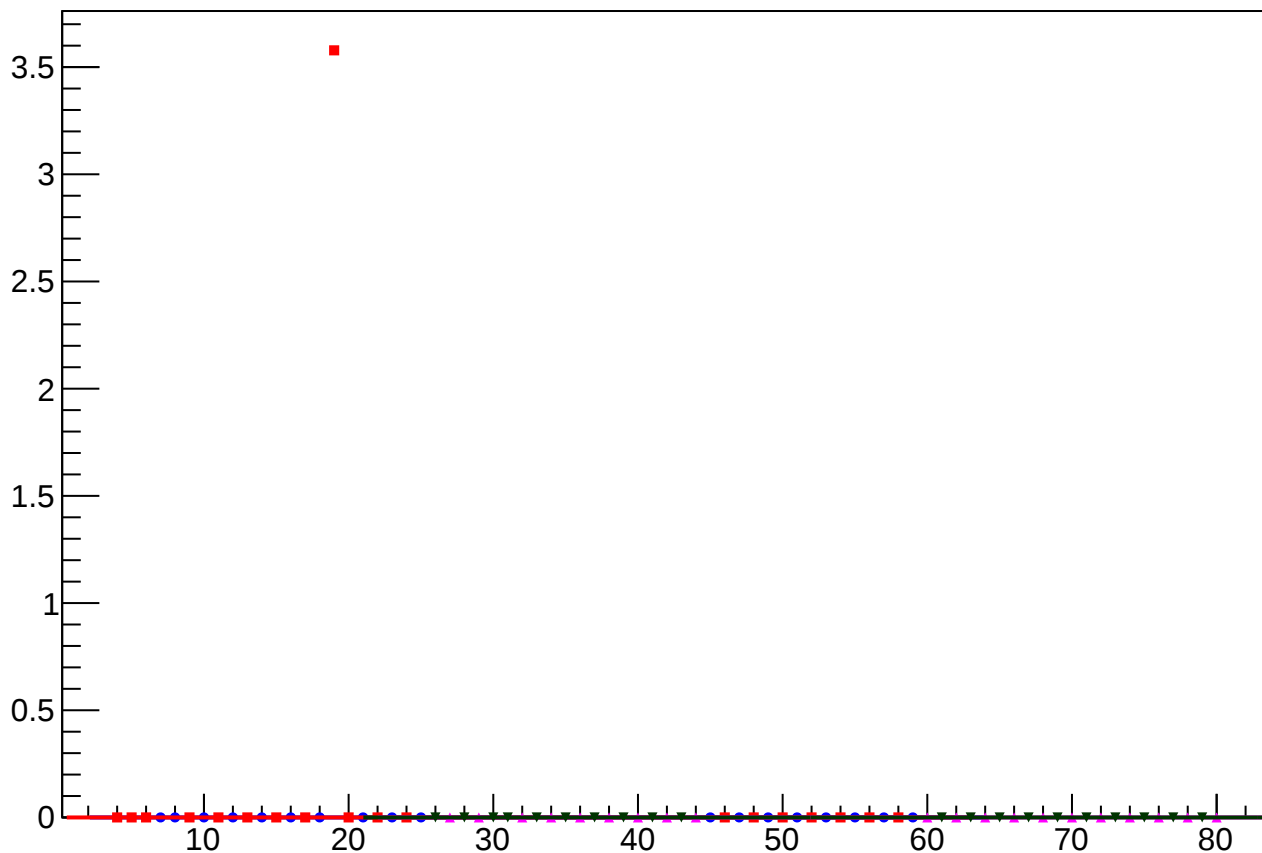
Right Out: 6.582 $\pm$ 0.000  $\chi^2$ /NDF: 1856853993700647.2/18

Left In: 7.042 $\pm$ 0.000  $\chi^2$ /NDF: 24856128.8/19

6.523 $\pm$ 0.000  $\chi^2$ /NDF: 4832386191683241.0/3

6.848 $\pm$ 0.000  $\chi^2$ /NDF: 1894276460305931.2/3

yield\_cav4dX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4282.3/17

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 1848.1/19

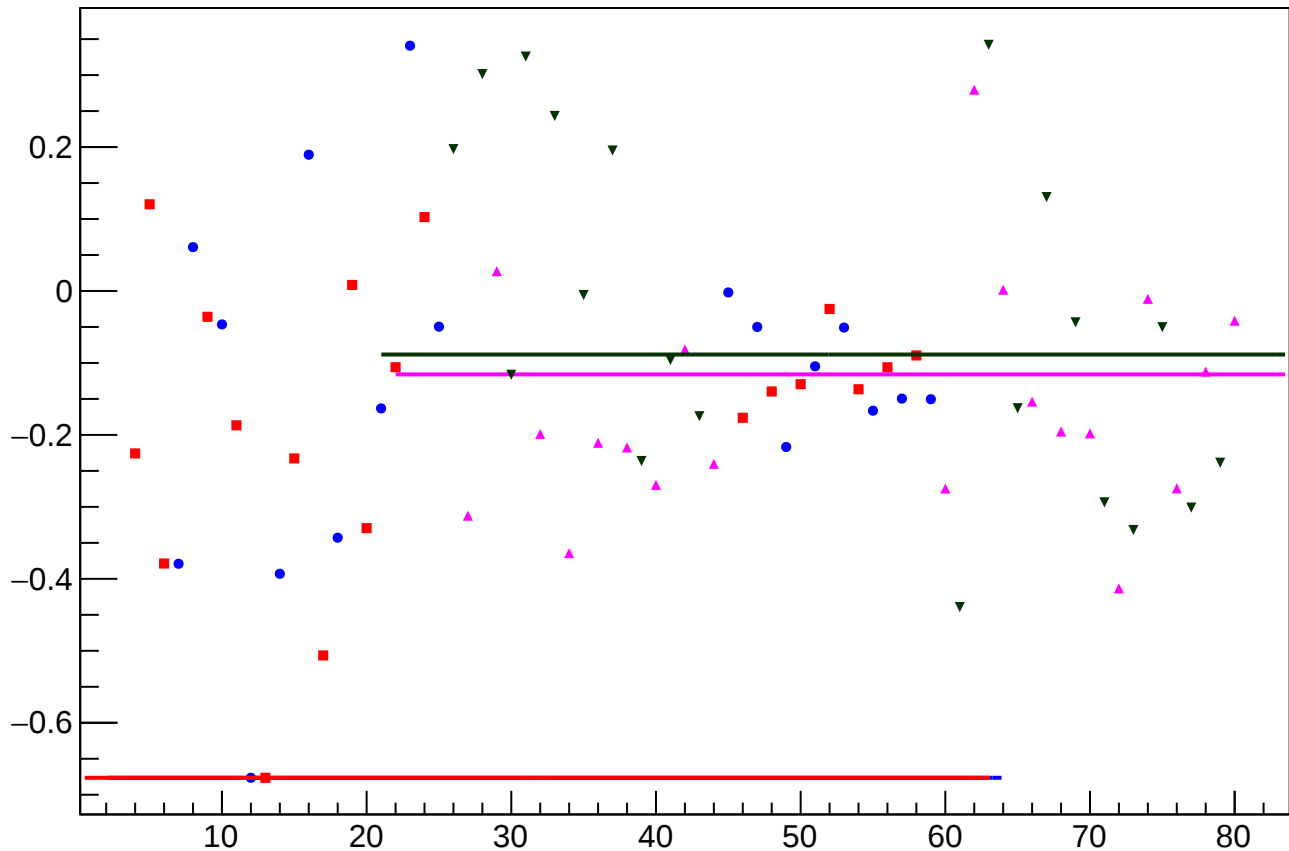
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 697661.6/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5588.9/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 8077.7/37

0.000+/-0.000  $\chi^2/\text{NDF}$ : 706799.7/38

# yield\_cav4dY\_mean vs slug



Right In: -0.676+/-0.000  $\chi^2/\text{NDF}$ : 266364367.2/17

Left Out: -0.088+/-0.000  $\chi^2/\text{NDF}$ : 36848839.6/19

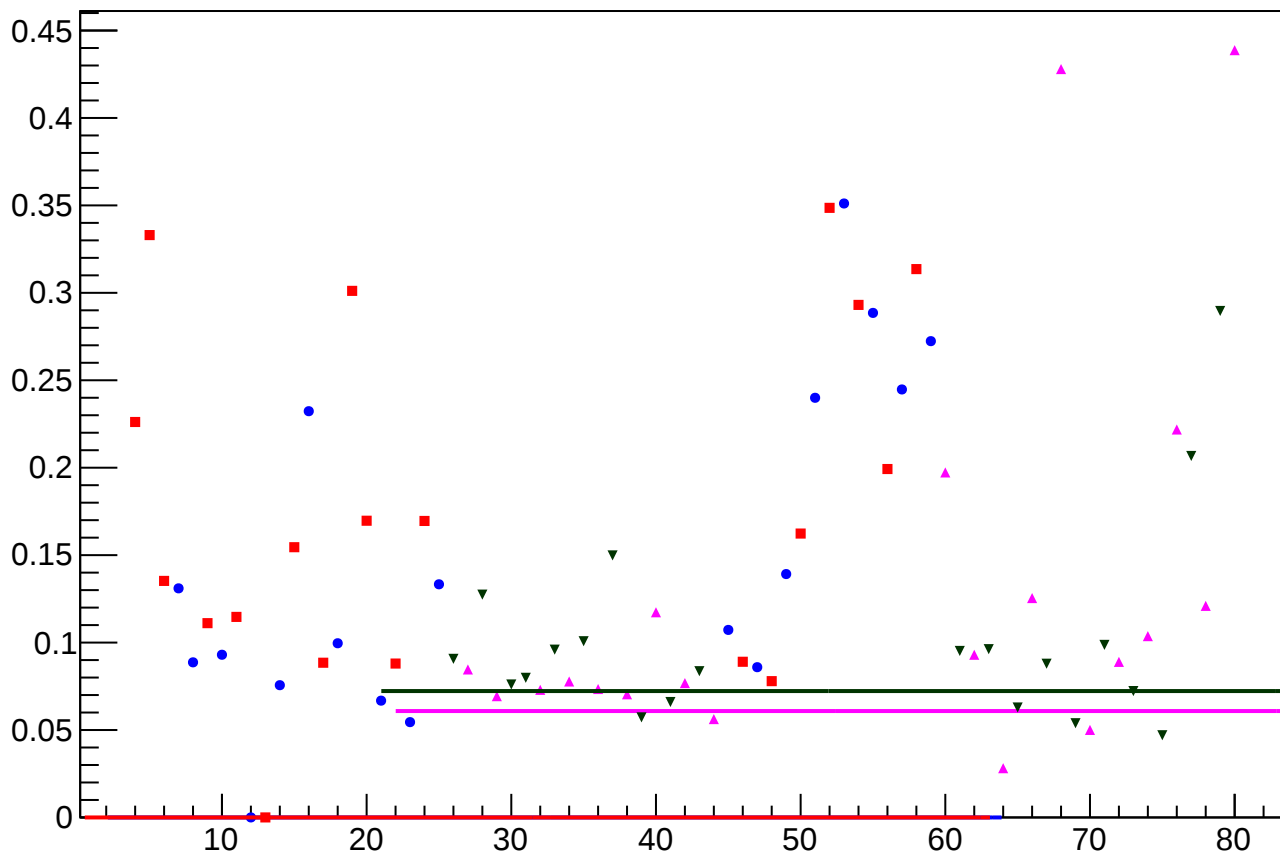
-0.676+/-0.000  $\chi^2/\text{NDF}$ : 685913857.8/37

Right Out: -0.676+/-0.000  $\chi^2/\text{NDF}$ : 102004552.0/18

-0.676+/-0.000  $\chi^2/\text{NDF}$ : 620143857.9/38

Left In: -0.116+/-0.000  $\chi^2/\text{NDF}$ : 29566751.0/19

# yield\_cav4dY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 16187995.6/17

Left Out: 0.072+/-0.000  $\chi^2/\text{NDF}$ : 1847074.4/19

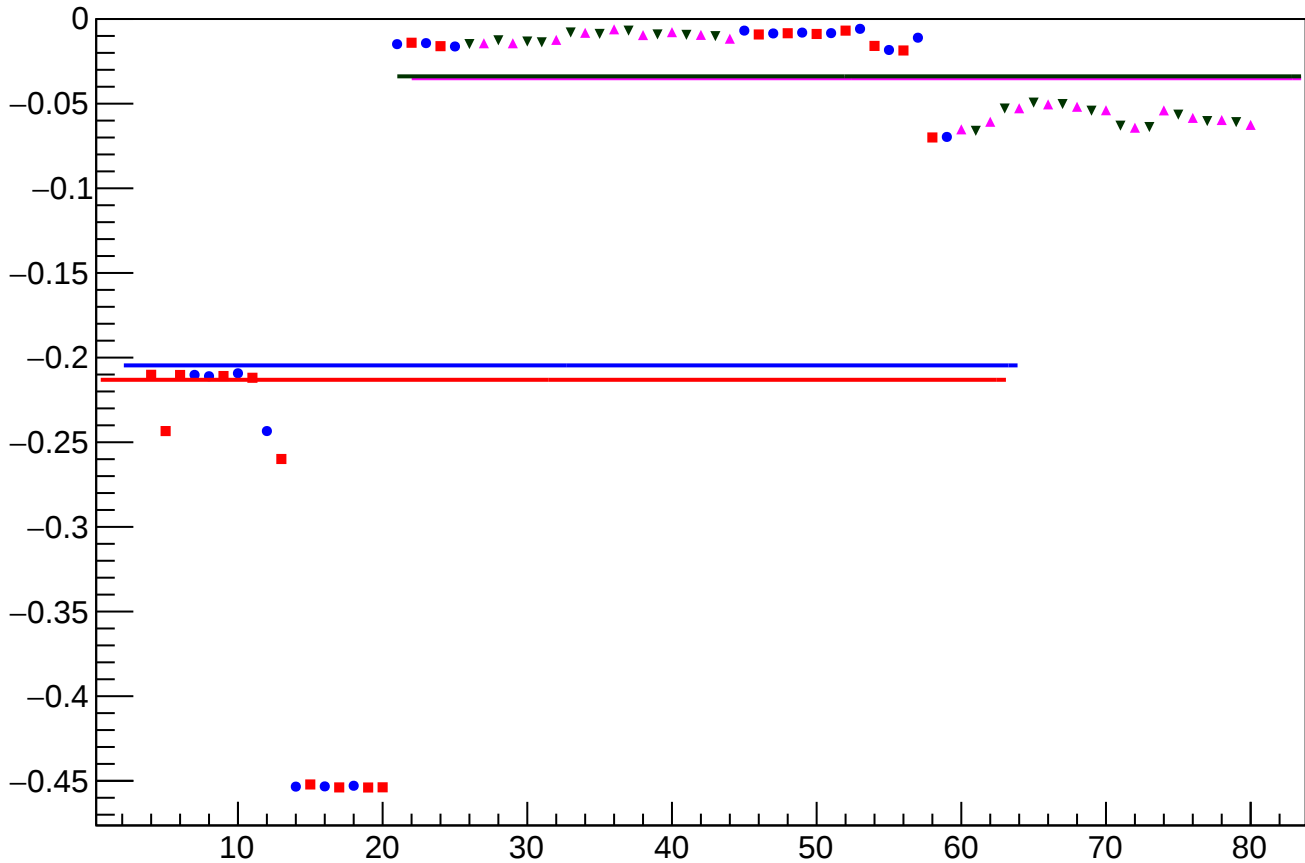
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 13760955.7/18

Left In: 0.061+/-0.000  $\chi^2/\text{NDF}$ : 4488176.8/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 29589526.8/37

0.000+/-0.000  $\chi^2/\text{NDF}$ : 29754999.6/38

# yield\_bpm4aX\_mean vs slug



Right In: -0.205+/-0.000  $\chi^2/\text{NDF}$ : 5539981697.6/17

Left Out: -0.034+/-0.000  $\chi^2/\text{NDF}$ : 65436672.9/19

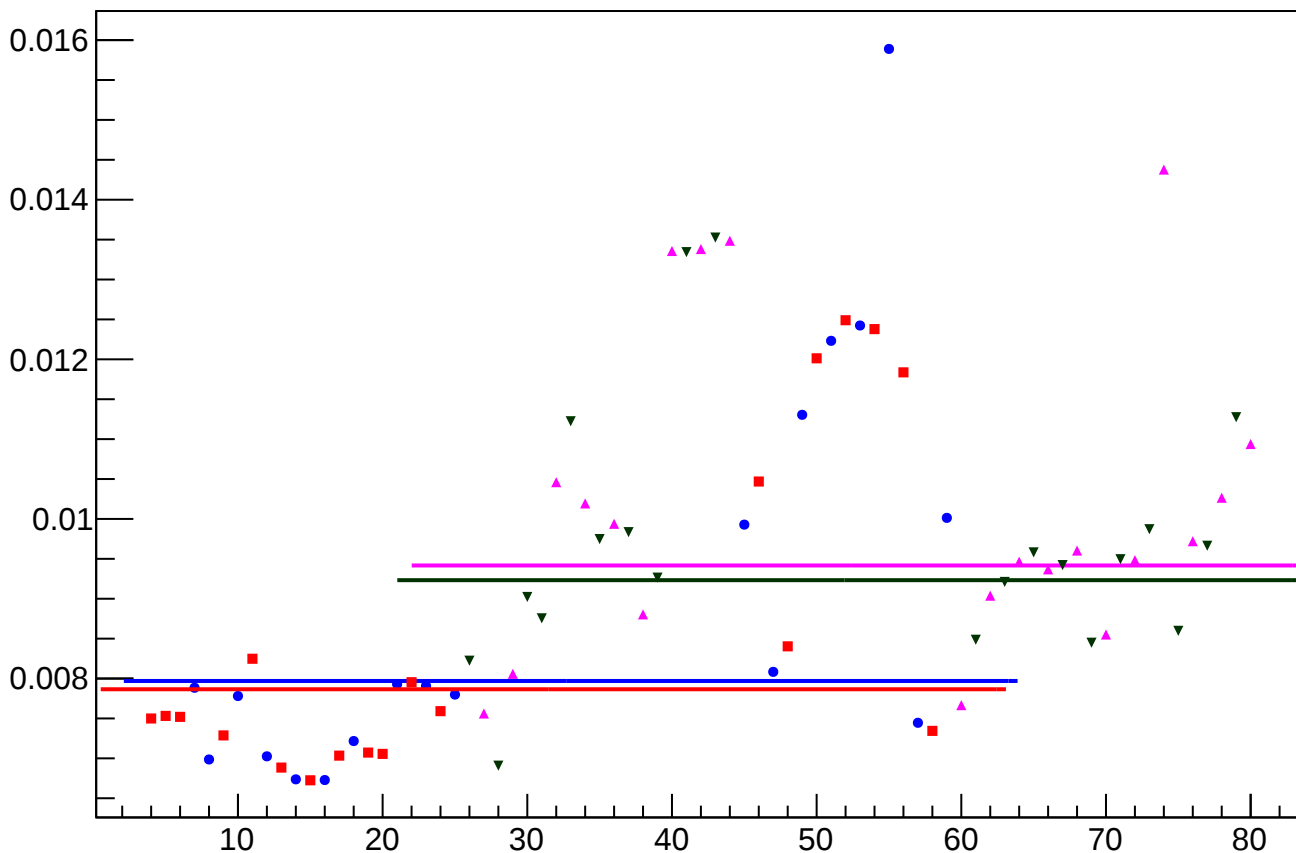
Right Out: -0.213+/-0.000  $\chi^2/\text{NDF}$ : 4142455601.5/18

Left In: -0.035+/-0.000  $\chi^2/\text{NDF}$ : 66559382.0/19

-0.134+/-0.000  $\chi^2/\text{NDF}$ : 7617838972.8/37

-0.135+/-0.000  $\chi^2/\text{NDF}$ : 6354924618.1/38

# yield\_bpm4aX\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 943742.9/17

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 475205.4/19

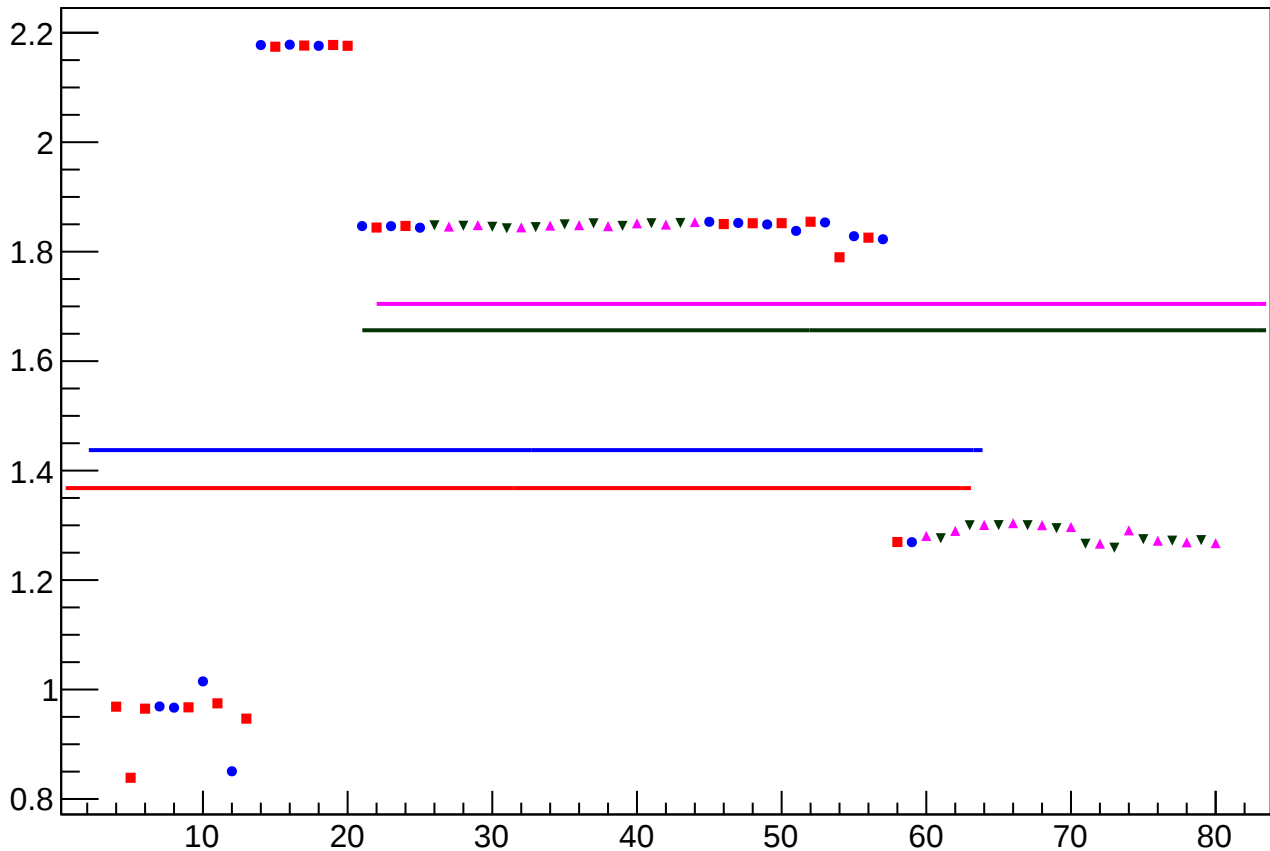
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 696189.4/18

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 648161.5/19

0.008+/-0.000  $\chi^2/\text{NDF}$ : 1639195.1/37

0.009+/-0.000  $\chi^2/\text{NDF}$ : 1669802.4/38

# yield\_bpm4aY\_mean vs slug



Right In: 1.437+/-0.000  $\chi^2/\text{NDF}$ : 14236590294.3/17

Left Out: 1.656+/-0.000  $\chi^2/\text{NDF}$ : 3052271673.9/19

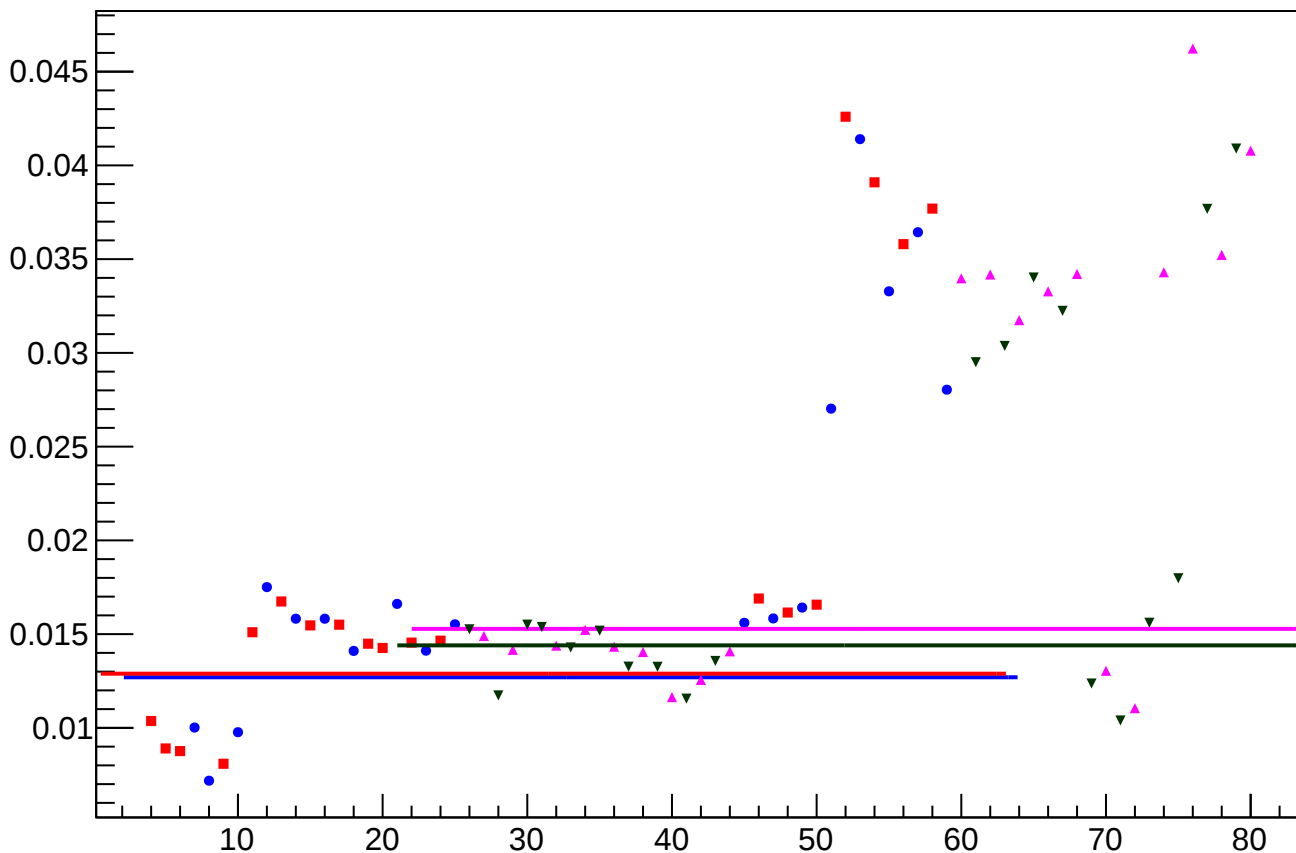
1.532+/-0.000  $\chi^2/\text{NDF}$ : 18423100065.7/37

Right Out: 1.368+/-0.000  $\chi^2/\text{NDF}$ : 12592500418.8/18

1.516+/-0.000  $\chi^2/\text{NDF}$ : 17309761993.1/38

Left In: 1.705+/-0.000  $\chi^2/\text{NDF}$ : 2307853215.0/19

# yield\_bpm4aY\_rms vs slug



Right In:  $0.013 \pm 0.000$   $\chi^2/\text{NDF}$ : 3534875.5/17

Left Out:  $0.014 \pm 0.000$   $\chi^2/\text{NDF}$ : 2160159.7/19

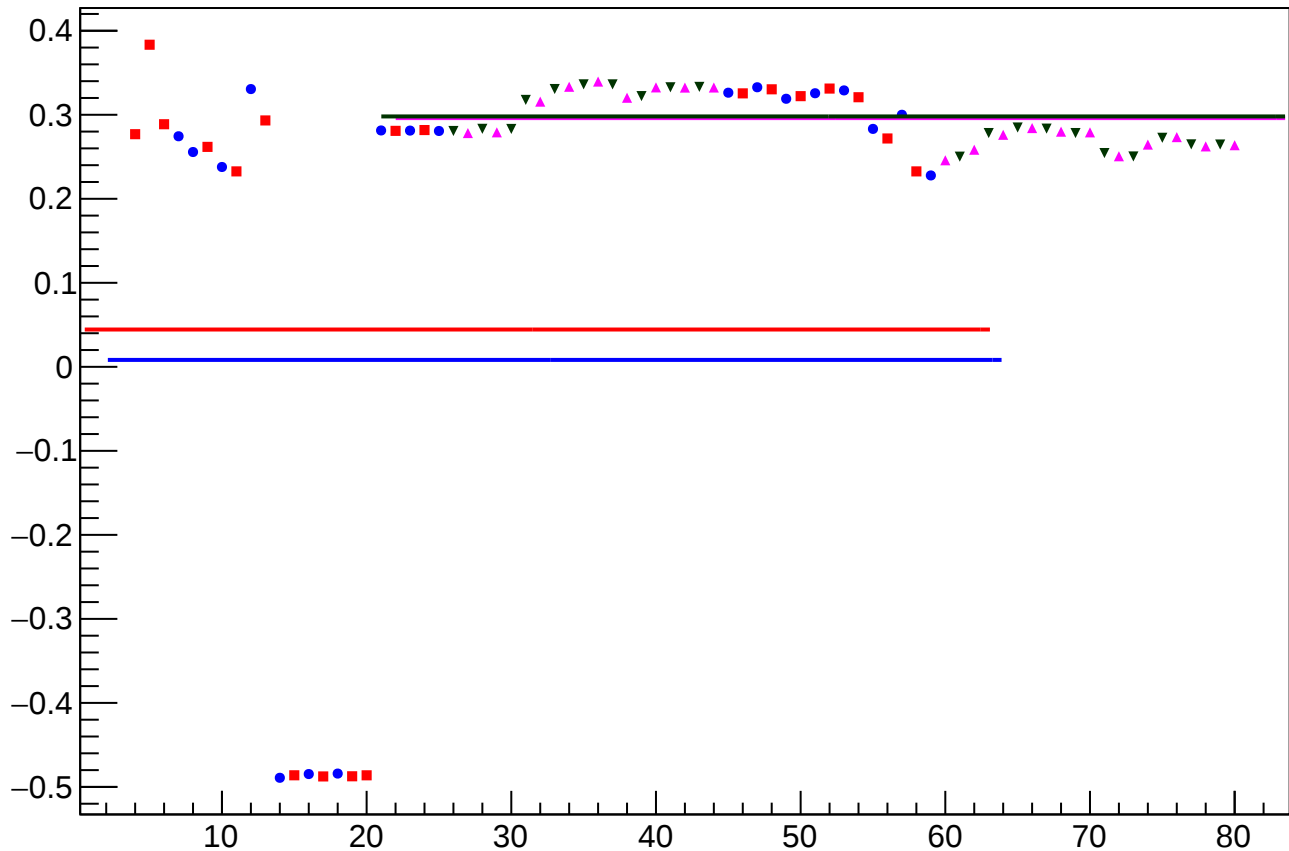
Right Out:  $0.013 \pm 0.000$   $\chi^2/\text{NDF}$ : 2814614.5/18

Left In:  $0.015 \pm 0.000$   $\chi^2/\text{NDF}$ : 2894879.0/19

$0.013 \pm 0.000$   $\chi^2/\text{NDF}$ : 5832106.9/37

$0.014 \pm 0.000$   $\chi^2/\text{NDF}$ : 5952481.4/38

# yield\_bpm4eX\_mean vs slug



Right In: 0.008 $\pm$ 0.000  $\chi^2$ /NDF: 3589016563.4/17

Left Out: 0.298 $\pm$ 0.000  $\chi^2$ /NDF:14389693.6/19

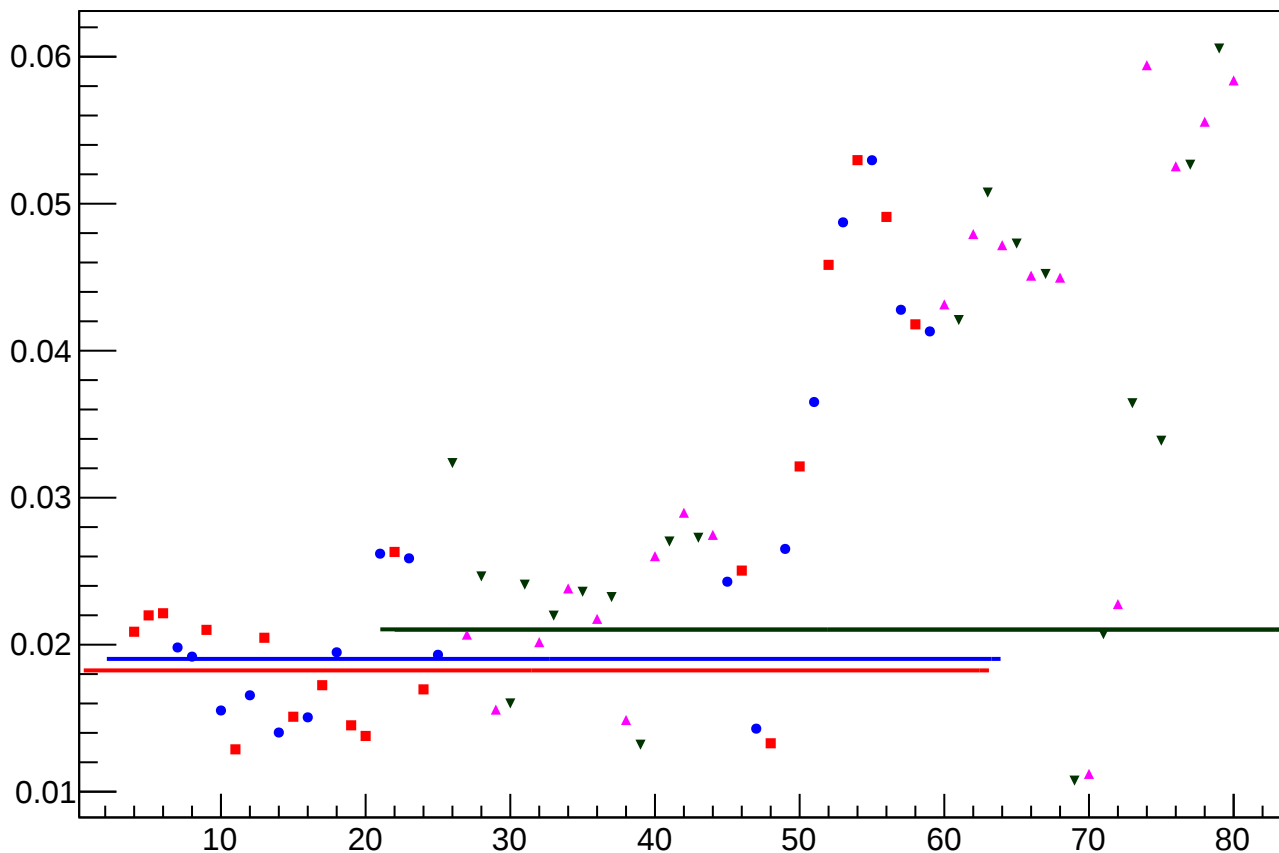
0.128 $\pm$ 0.000  $\chi^2$ /NDF: 4498608412.3/37

Right Out: 0.044 $\pm$ 0.000  $\chi^2$ /NDF: 3156873410.8/18

0.154 $\pm$ 0.000  $\chi^2$ /NDF: 3855828248.0/38

Left In: 0.296 $\pm$ 0.000  $\chi^2$ /NDF:13541875.2/19

# yield\_bpm4eX\_rms vs slug



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 2594784.8/17

Left Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 3763519.1/19

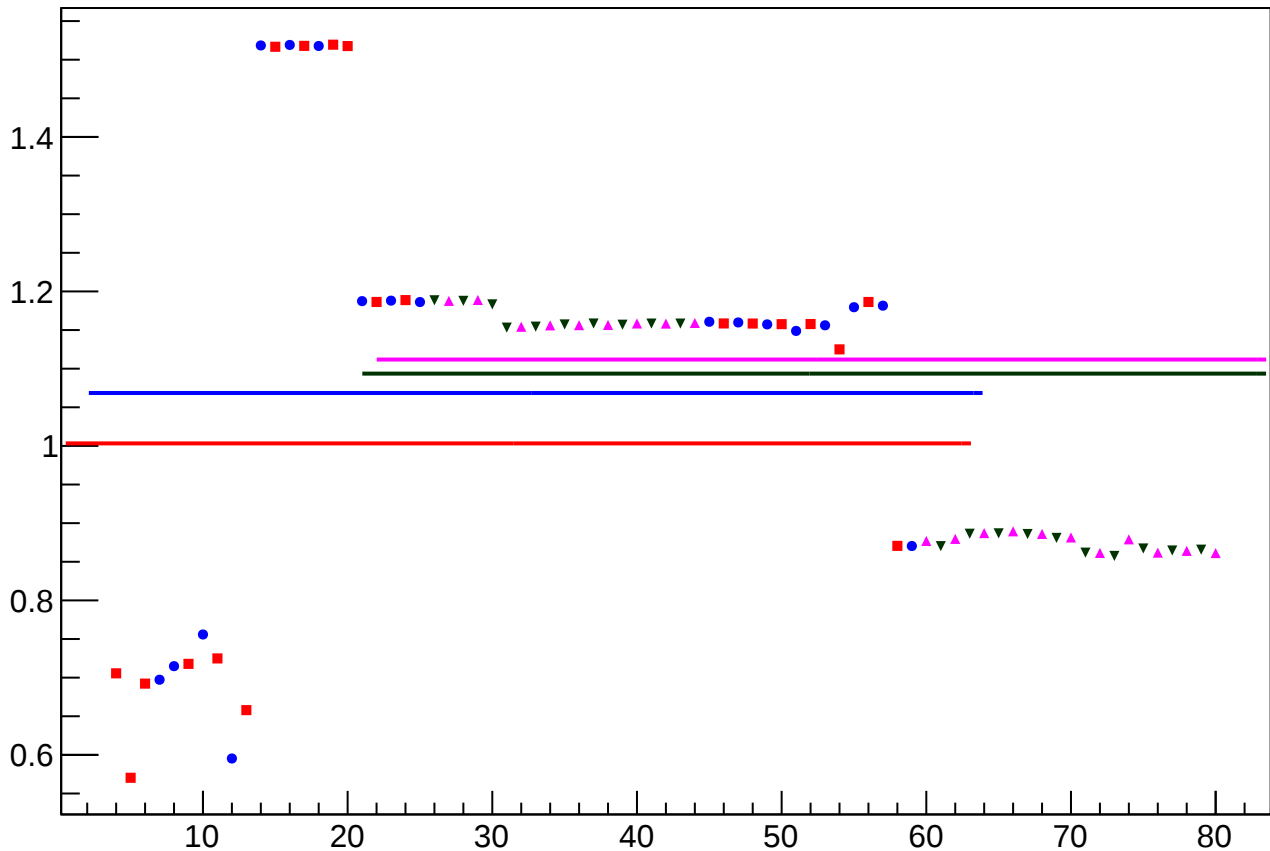
Right Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 2485378.5/18

Left In: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 4206920.8/19

0.020+/-0.000  $\chi^2/\text{NDF}$ : 6444458.2/37

0.019+/-0.000  $\chi^2/\text{NDF}$ : 6855945.3/38

# yield\_bpm4eY\_mean vs slug



Right In: 1.069+/-0.000  $\chi^2/\text{NDF}$ : 10548206682.3/17

Left Out: 1.094+/-0.000  $\chi^2/\text{NDF}$ :1451792750.1/19

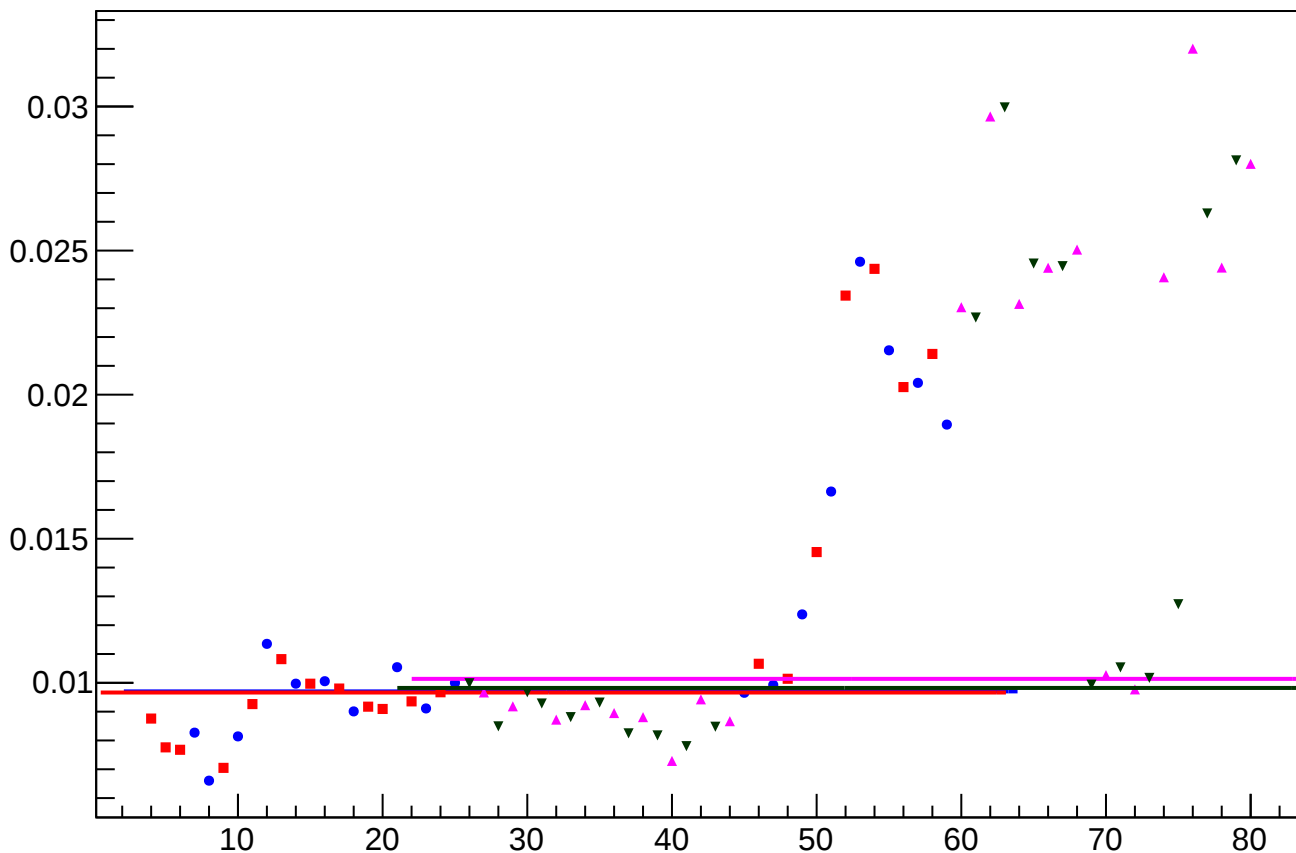
1.080+/-0.000  $\chi^2/\text{NDF}$ : 12029877496.9/37

Right Out: 1.003+/-0.000  $\chi^2/\text{NDF}$ : 10291656361.5/18

1.055+/-0.000  $\chi^2/\text{NDF}$ : 11895646994.5/38

Left In: 1.112+/-0.000  $\chi^2/\text{NDF}$ :1085696703.9/19

# yield\_bpm4eY\_rms vs slug



Right In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1905622.6/17

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ :2344695.2/19

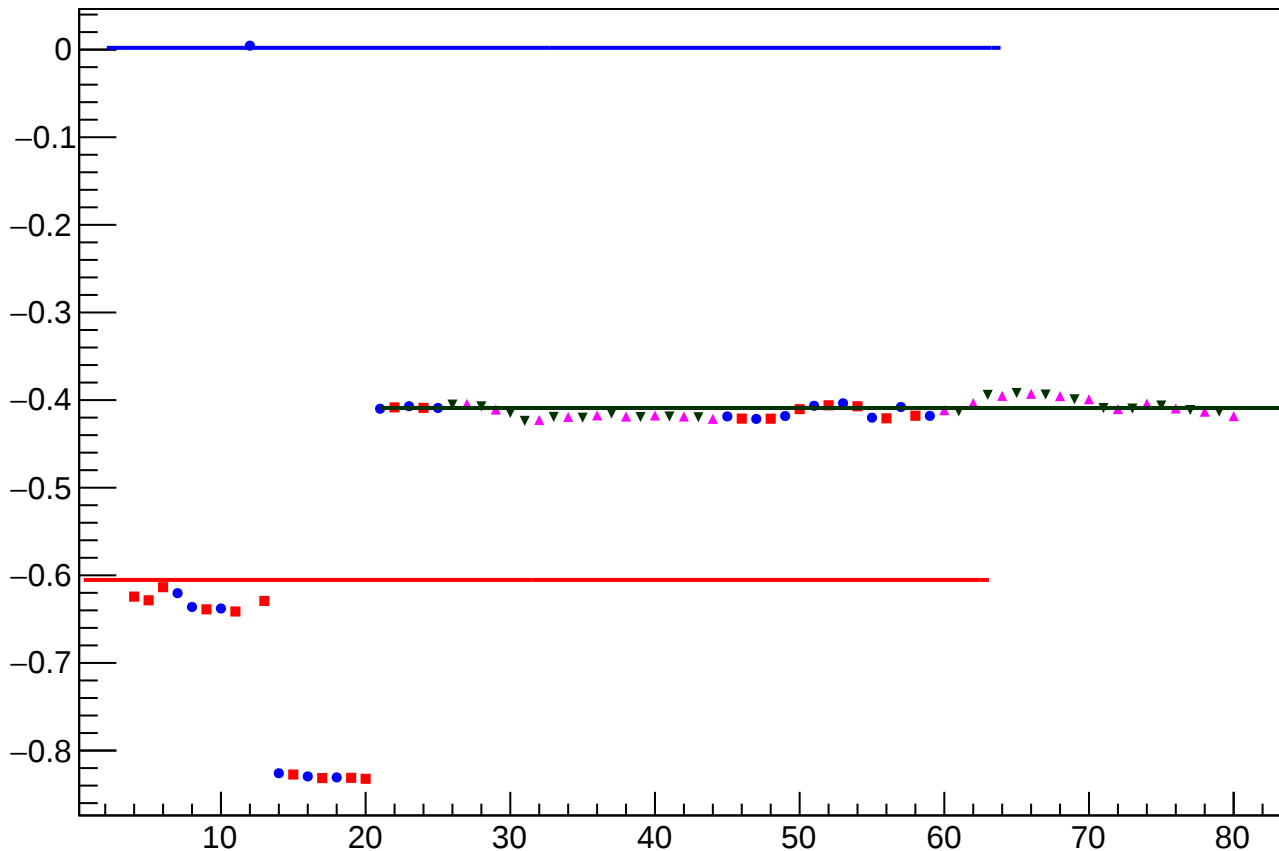
Right Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1597012.3/18

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ :3170148.2/19

0.010+/-0.000  $\chi^2/\text{NDF}$ : 4251676.7/37

0.010+/-0.000  $\chi^2/\text{NDF}$ : 4786924.9/38

# yield\_bpm4acX\_mean vs slug



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 59749781854.5/17

Left Out: -0.409 $\pm$ 0.000  $\chi^2$ /NDF: 9386615.6/19

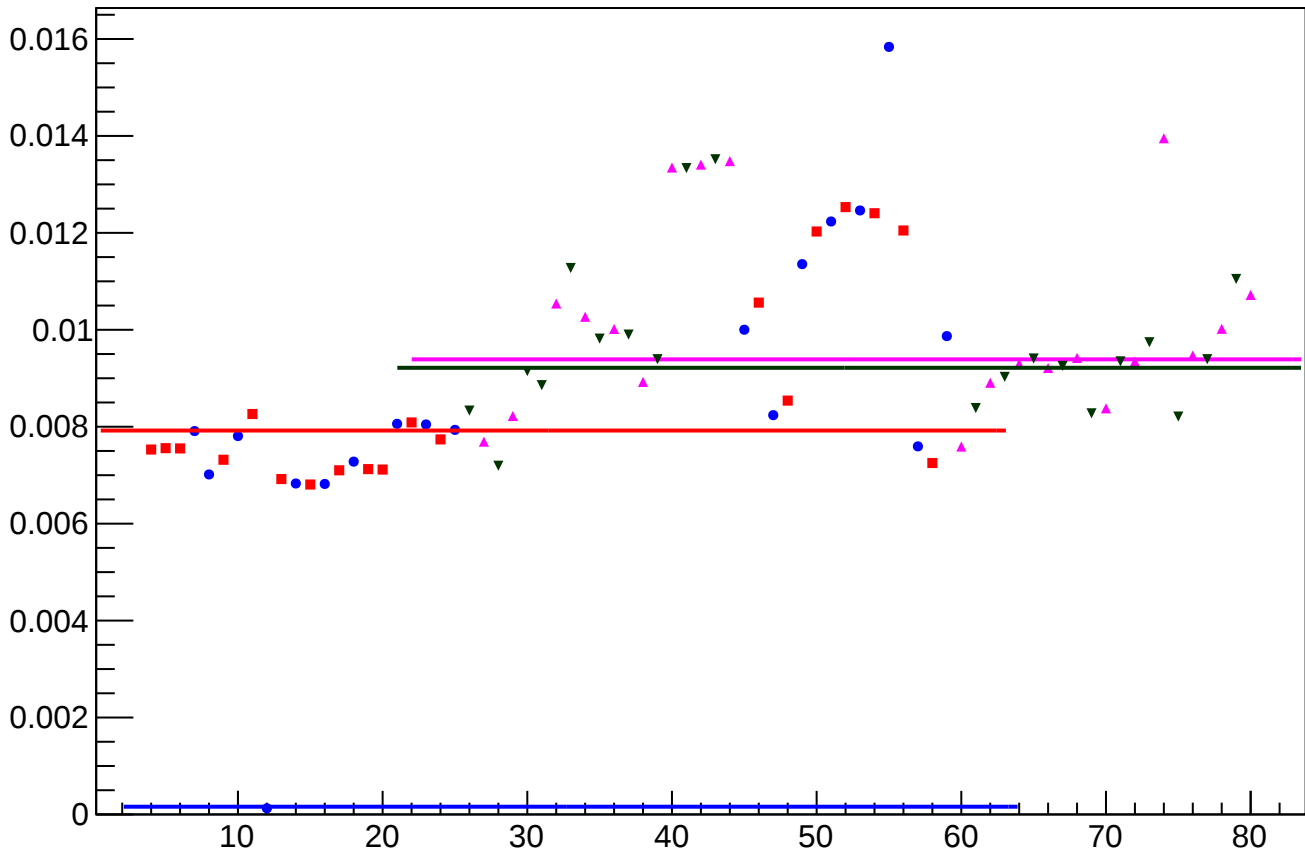
0.001 $\pm$ 0.000  $\chi^2$ /NDF: 79697984283.4/37

Right Out: -0.605 $\pm$ 0.000  $\chi^2$ /NDF: 3819629229.5/18

-0.518 $\pm$ 0.000  $\chi^2$ /NDF: 6426120304.3/38

Left In: -0.409 $\pm$ 0.000  $\chi^2$ /NDF: 9582785.2/19

# yield\_bpm4acX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 20262517.7/17

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :435676.1/19

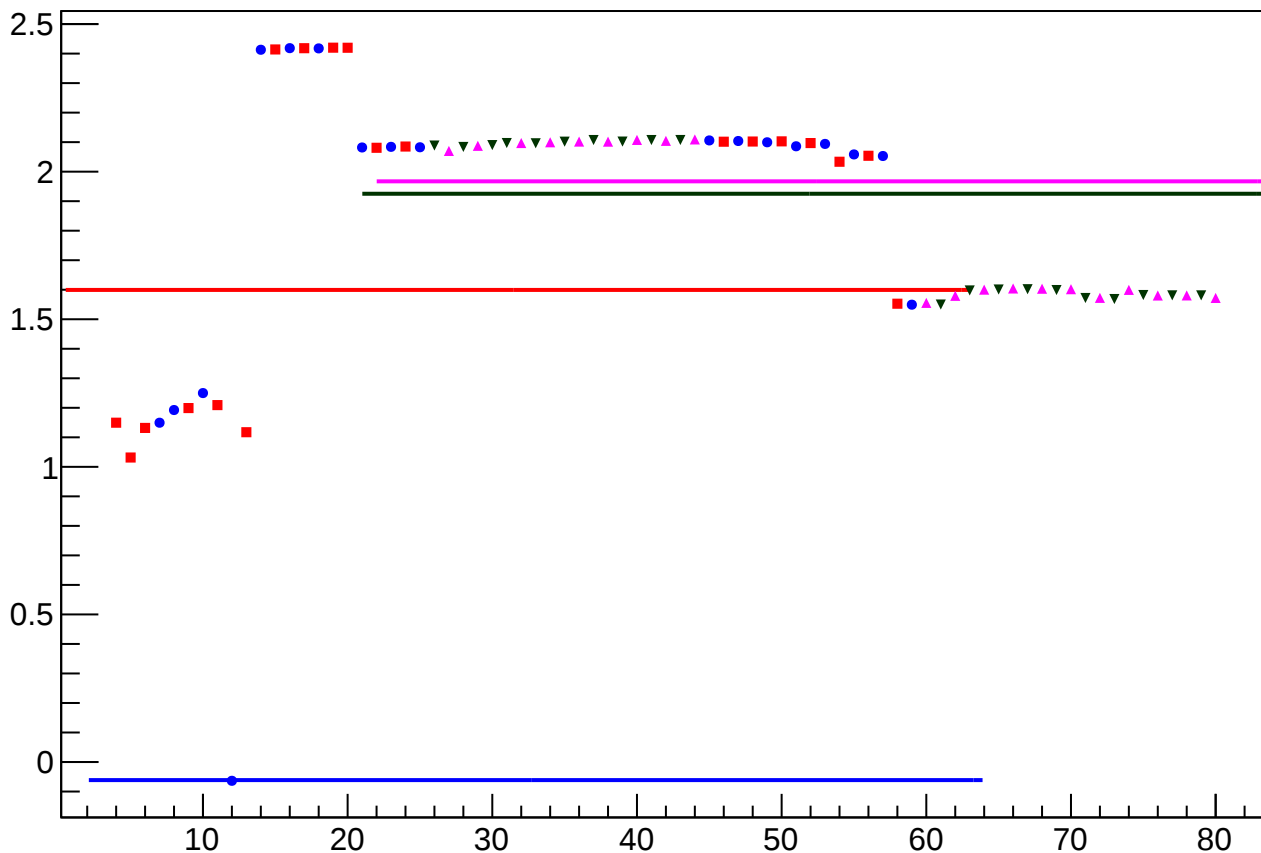
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 697414.3/18

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :614741.8/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 40056313.7/37

0.009+/-0.000  $\chi^2/\text{NDF}$ : 1603418.6/38

# yield\_bpm4acY\_mean vs slug



Right In: -0.061+/-0.000  $\chi^2/\text{NDF}$ : 171003968524.2/17

Left Out: 1.925+/-0.000  $\chi^2/\text{NDF}$ : 2415010761.4/19

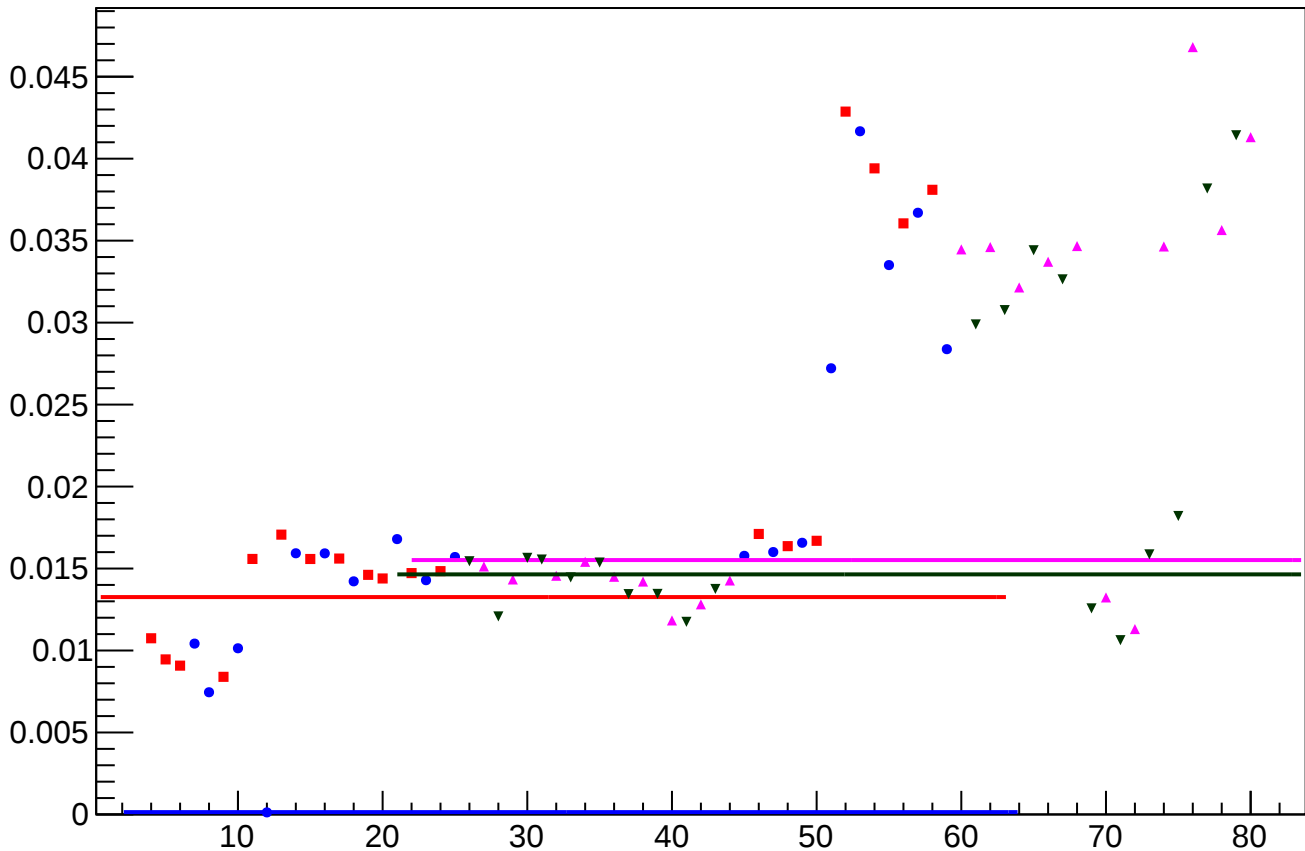
Right Out: 1.599+/-0.000  $\chi^2/\text{NDF}$ : 13096029057.2/18

Left In: 1.967+/-0.000  $\chi^2/\text{NDF}$ : 1821154348.8/19

-0.059+/-0.000  $\chi^2/\text{NDF}$ : 332668336474.8/37

1.763+/-0.000  $\chi^2/\text{NDF}$ : 17684574696.8/38

# yield\_bpm4acY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19632783.5/17

Left Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 2134417.3/19

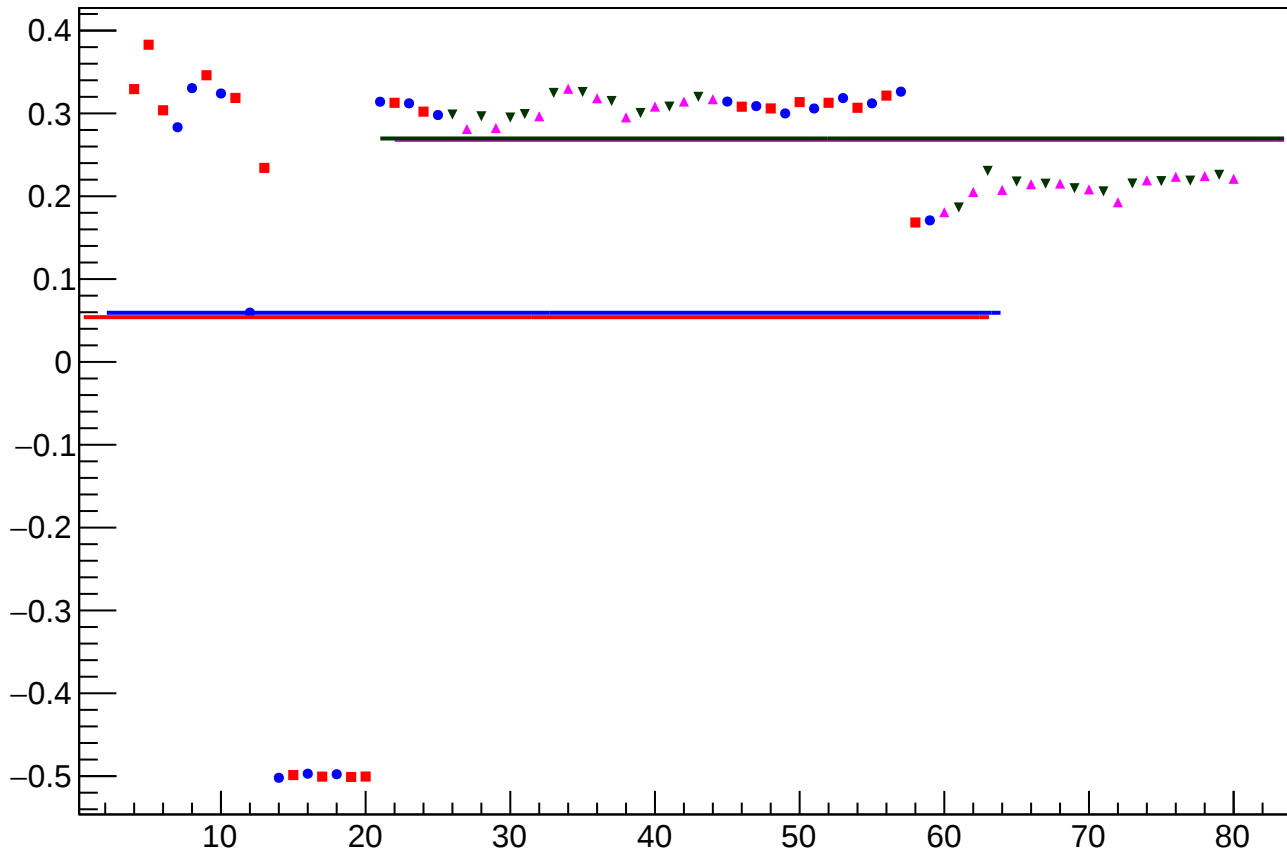
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 2690130.8/18

Left In: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 2878437.7/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 38740111.8/37

0.014+/-0.000  $\chi^2/\text{NDF}$ : 5776993.7/38

# yield\_bpm4ecX\_mean vs slug



Right In: 0.059+/-0.000  $\chi^2/\text{NDF}$ : 3888801914.2/17

Left Out: 0.270+/-0.000  $\chi^2/\text{NDF}$ :40391053.3/19

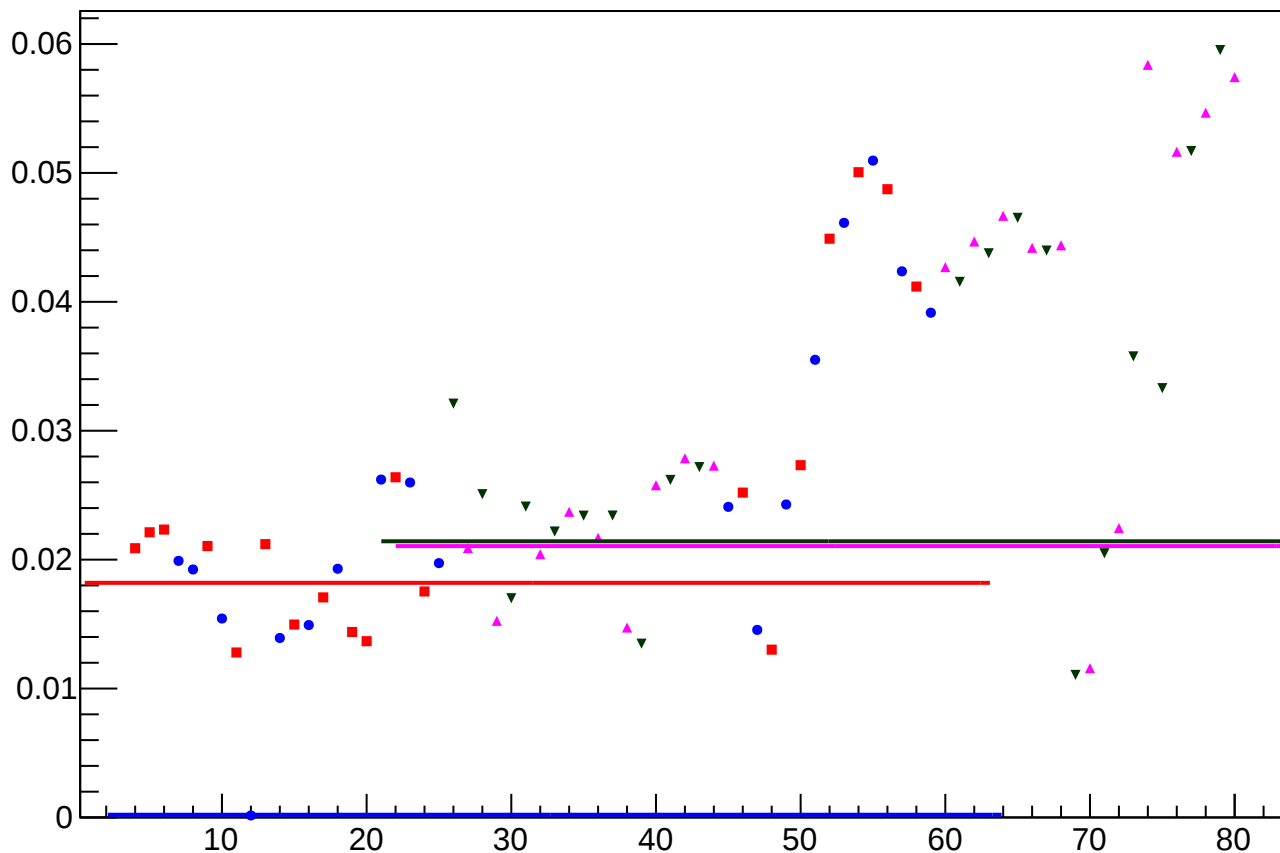
0.060+/-0.000  $\chi^2/\text{NDF}$ : 4719686133.4/37

Right Out: 0.054+/-0.000  $\chi^2/\text{NDF}$ : 3509628523.3/18

0.147+/-0.000  $\chi^2/\text{NDF}$ : 4047336034.2/38

Left In: 0.268+/-0.000  $\chi^2/\text{NDF}$ :38047456.3/19

# yield\_bpm4ecX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19749394.2/17

Left Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 3461155.1/19

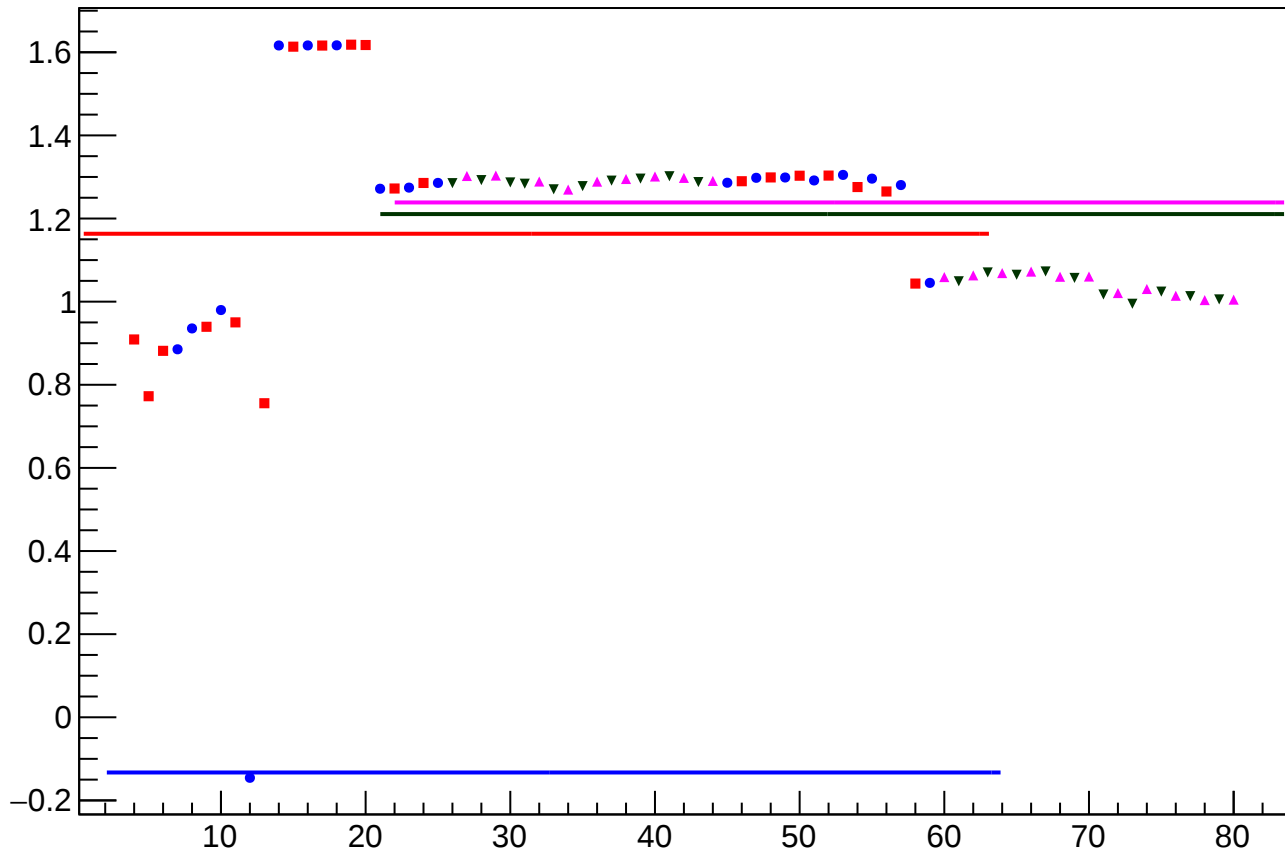
Right Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 2422437.2/18

Left In: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 4054632.3/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 39285039.5/37

0.019+/-0.000  $\chi^2/\text{NDF}$ : 6654451.1/38

# yield\_bpm4ecY\_mean vs slug



Right In: -0.133+/-0.000  $\chi^2$ /NDF: 169320914657.8/17

Left Out: 1.211+/-0.000  $\chi^2$ /NDF:1039796780.5/19

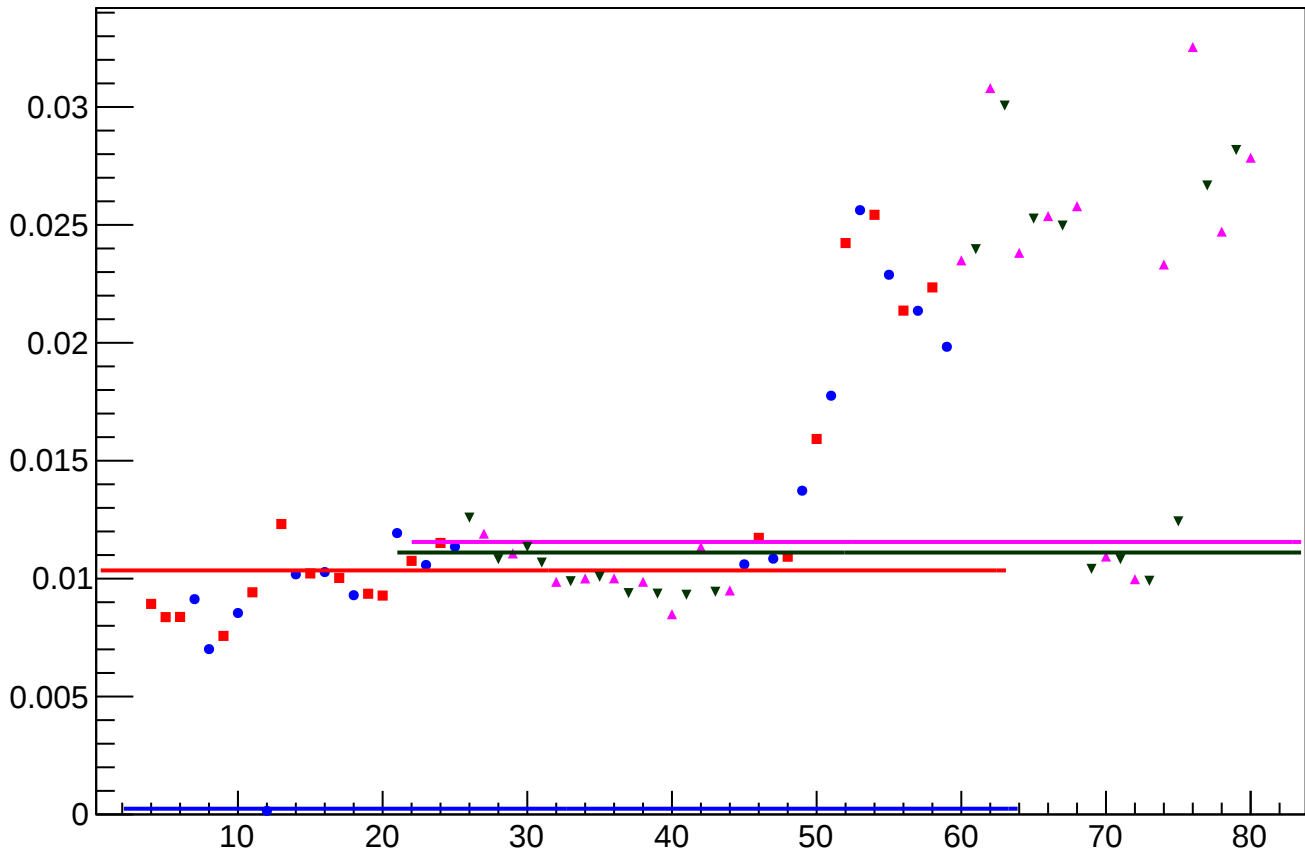
-0.123+/-0.000  $\chi^2$ /NDF: 297944421058.8/37

Right Out: 1.163+/-0.000  $\chi^2$ /NDF: 7253036603.9/18

1.198+/-0.000  $\chi^2$ /NDF: 8188810375.1/38

Left In: 1.239+/-0.000  $\chi^2$ /NDF:729963995.9/19

# yield\_bpm4ecY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19204976.4/17

Left Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 2010203.5/19

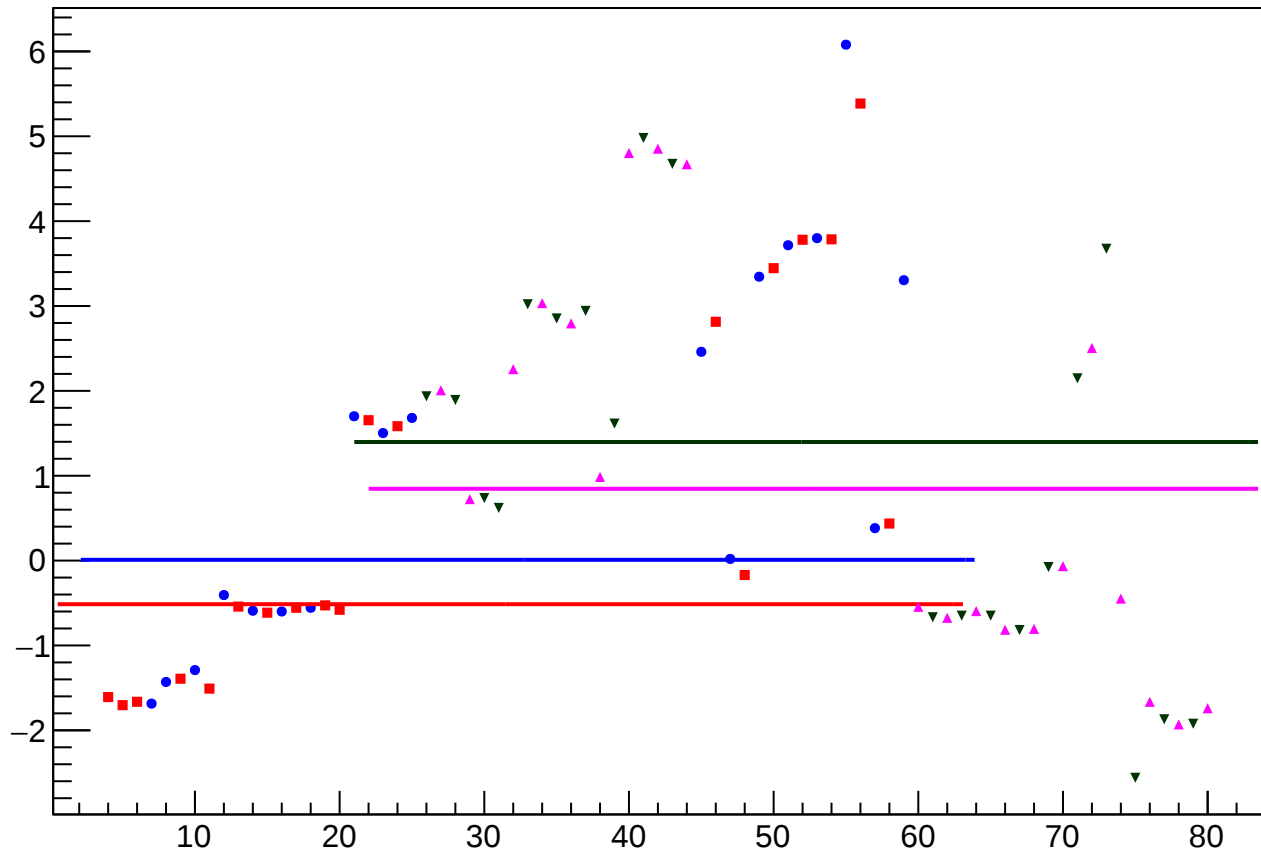
Right Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1619353.0/18

Left In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 2784875.9/19

0.000+/-0.000  $\chi^2/\text{NDF}$ : 37898350.9/37

0.011+/-0.000  $\chi^2/\text{NDF}$ : 4510044.5/38

# yield\_bpm1X\_mean vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 18135045883.2/17

Left Out: 1.397+/-0.000  $\chi^2/\text{NDF}$ : 3197597004.7/19

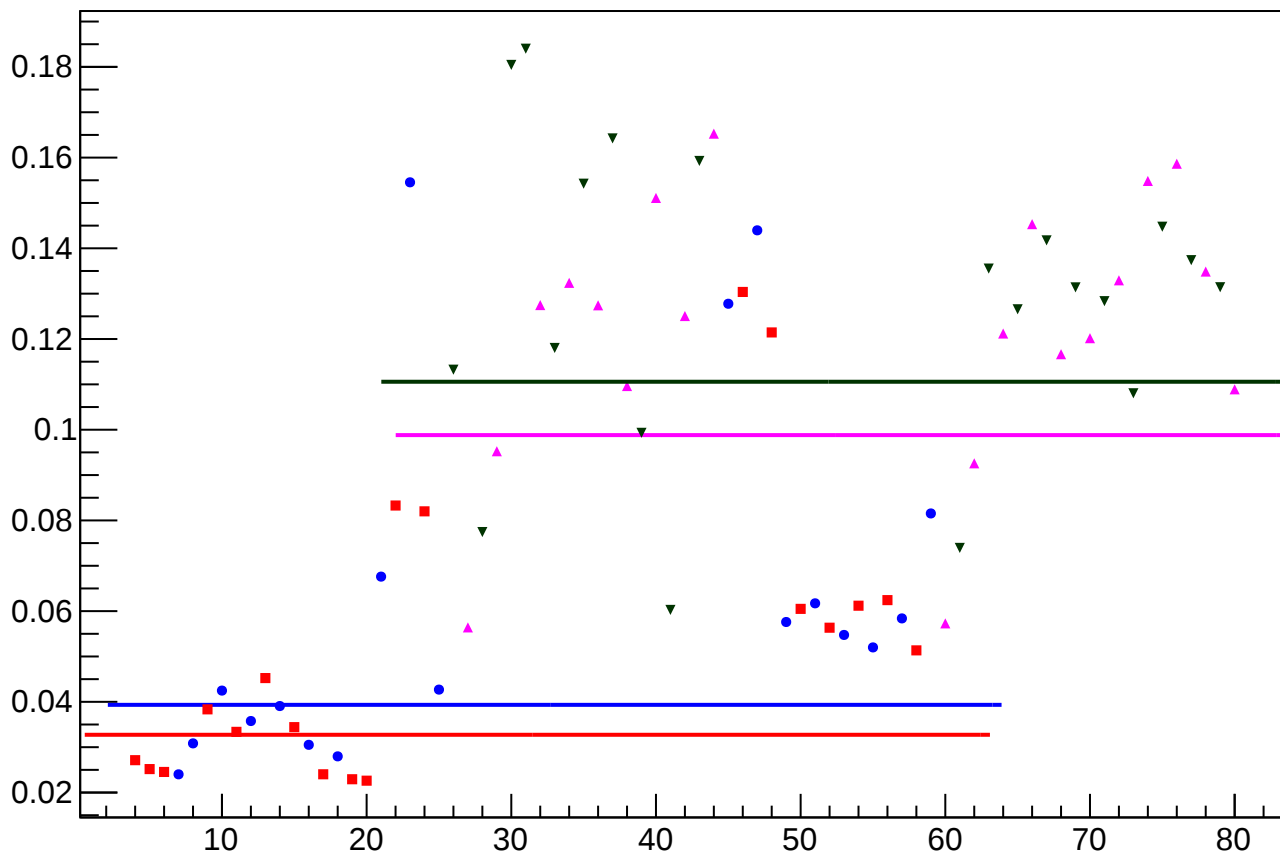
0.171+/-0.000  $\chi^2/\text{NDF}$ : 22400407544.4/37

Right Out: -0.514+/-0.000  $\chi^2/\text{NDF}$ : 14474436949.2/18

-0.351+/-0.000  $\chi^2/\text{NDF}$ : 18579839716.5/38

Left In: 0.846+/-0.000  $\chi^2/\text{NDF}$ : 2751357303.8/19

# yield\_bpm1X\_rms vs slug



Right In: 0.039+/-0.000  $\chi^2/\text{NDF}$ : 3078164.7/17

Left Out: 0.111+/-0.000  $\chi^2/\text{NDF}$ :1523135.5/19

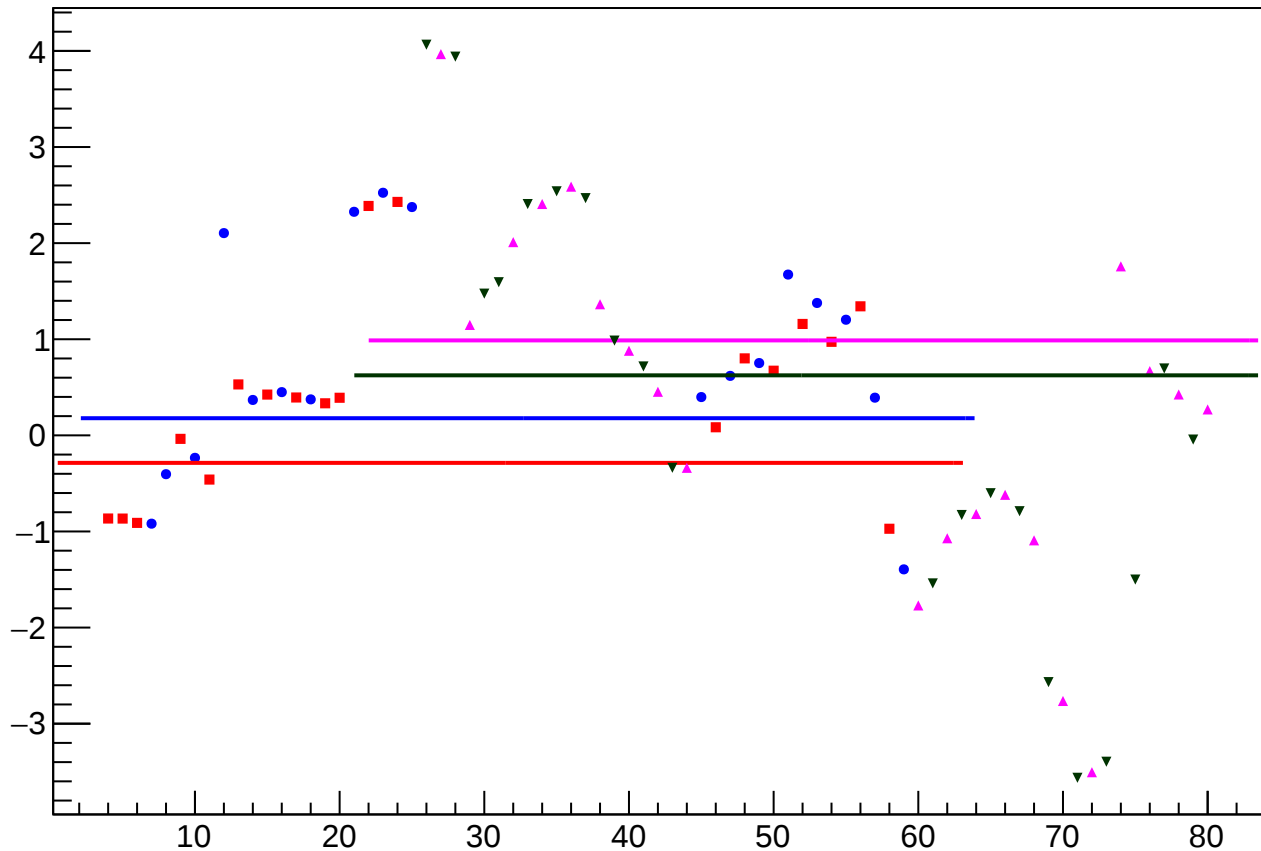
Right Out: 0.033+/-0.000  $\chi^2/\text{NDF}$ : 2838022.5/18

Left In: 0.099+/-0.000  $\chi^2/\text{NDF}$ :2122288.4/19

0.048+/-0.000  $\chi^2/\text{NDF}$ : 10227859.0/37

0.041+/-0.000  $\chi^2/\text{NDF}$ : 11350471.4/38

# yield\_bpm1Y\_mean vs slug



Right In:  $0.178 \pm 0.000$   $\chi^2/\text{NDF}$ : 9482704623.3/17

Left Out:  $0.624 \pm 0.000$   $\chi^2/\text{NDF}$ : 6416918361.9/19

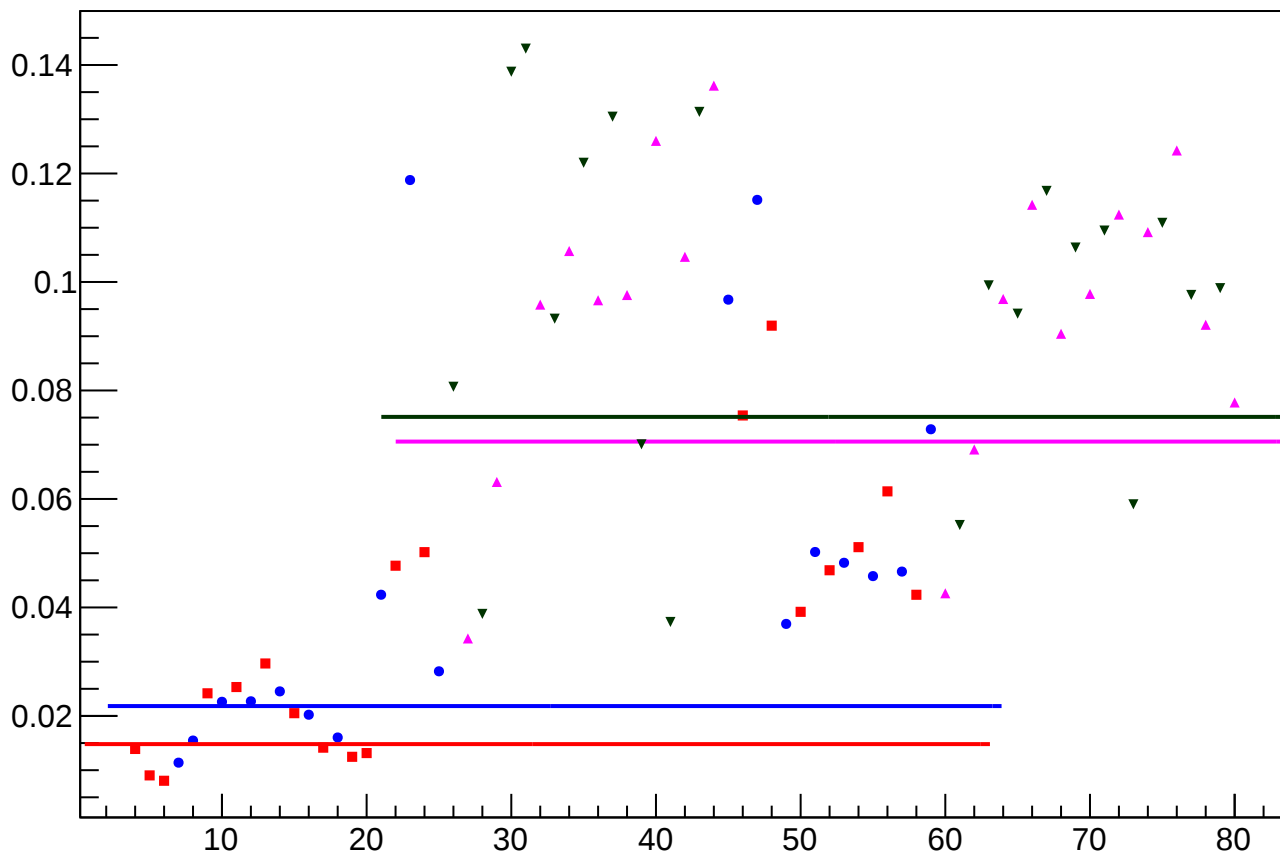
$0.218 \pm 0.000$   $\chi^2/\text{NDF}$ : 16115214664.9/37

Right Out:  $-0.286 \pm 0.000$   $\chi^2/\text{NDF}$ : 10734675455.5/18

$-0.205 \pm 0.000$   $\chi^2/\text{NDF}$ : 20617120559.3/38

Left In:  $0.988 \pm 0.000$   $\chi^2/\text{NDF}$ : 7615358013.6/19

yield\_bpm1Y\_rms vs slug



Right In: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 4669284.8/17

Left Out: 0.075+/-0.000  $\chi^2/\text{NDF}$ : 2587134.4/19

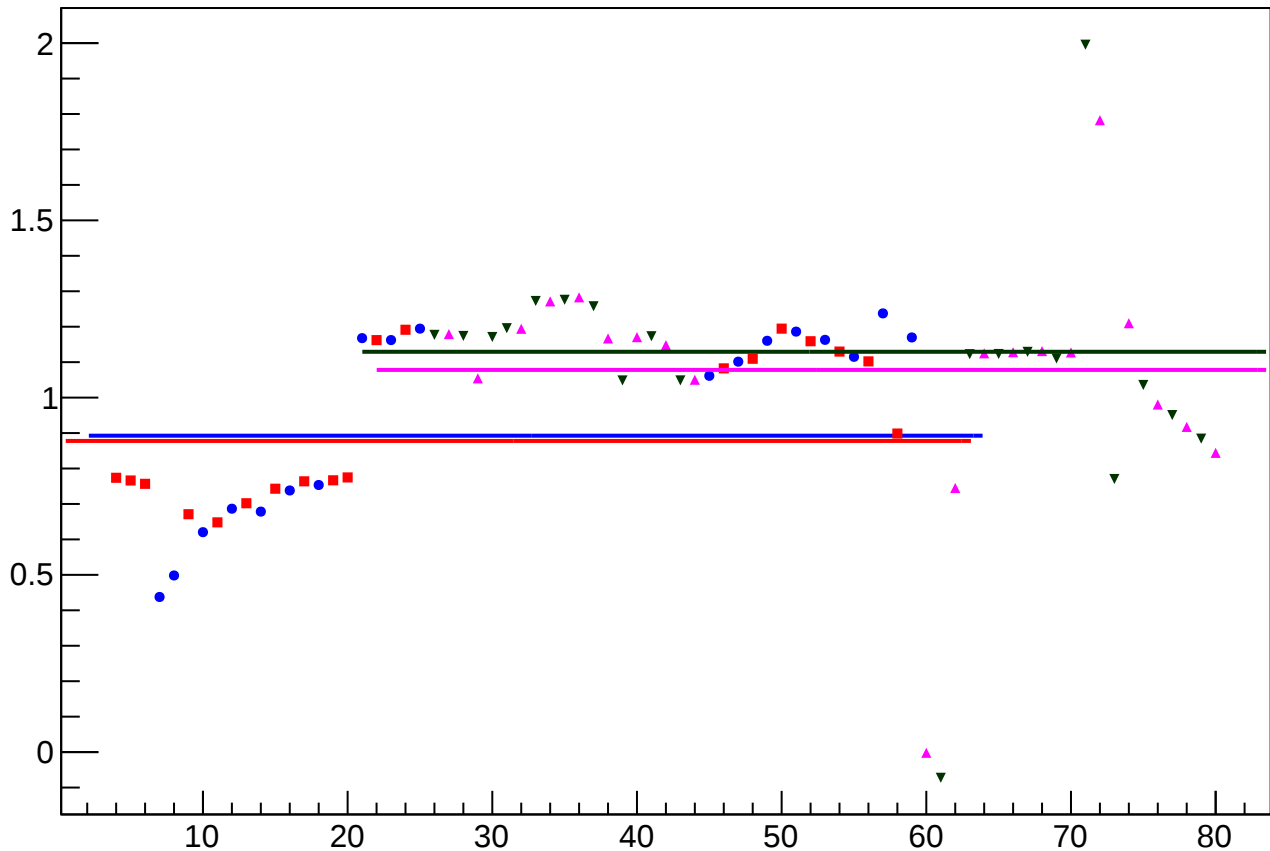
Right Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 4938559.5/18

Left In: 0.071+/-0.000  $\chi^2/\text{NDF}$ : 2978918.1/19

0.026+/-0.000  $\chi^2/\text{NDF}$ : 13415003.3/37

0.018+/-0.000  $\chi^2/\text{NDF}$ : 16602957.1/38

# yield\_bpm11X\_mean vs slug



Right In: 0.893 $\pm$ 0.000  $\chi^2$ /NDF: 1629156385.0/17

Left Out: 1.129 $\pm$ 0.000  $\chi^2$ /NDF: 2075124064.8/19

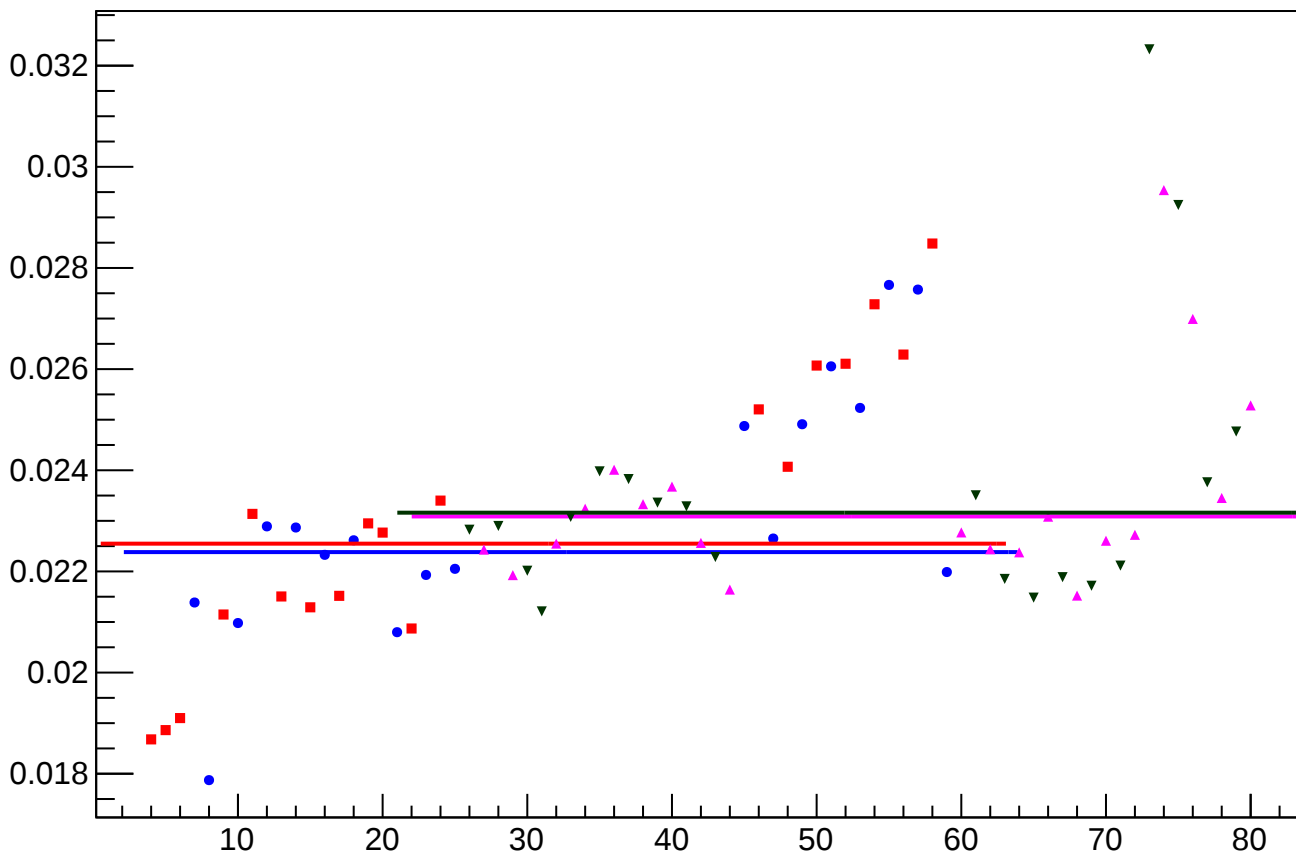
Right Out: 0.878 $\pm$ 0.000  $\chi^2$ /NDF: 761495098.5/18

Left In: 1.078 $\pm$ 0.000  $\chi^2$ /NDF: 1837269277.5/19

1.003 $\pm$ 0.000  $\chi^2$ /NDF: 4263240019.2/37

0.982 $\pm$ 0.000  $\chi^2$ /NDF: 2988429817.2/38

# yield\_bpm11X\_rms vs slug



Right In:  $0.022 \pm 0.000$   $\chi^2/\text{NDF}$ : 264611.3/17

Left Out:  $0.023 \pm 0.000$   $\chi^2/\text{NDF}$ : 157521.3/19

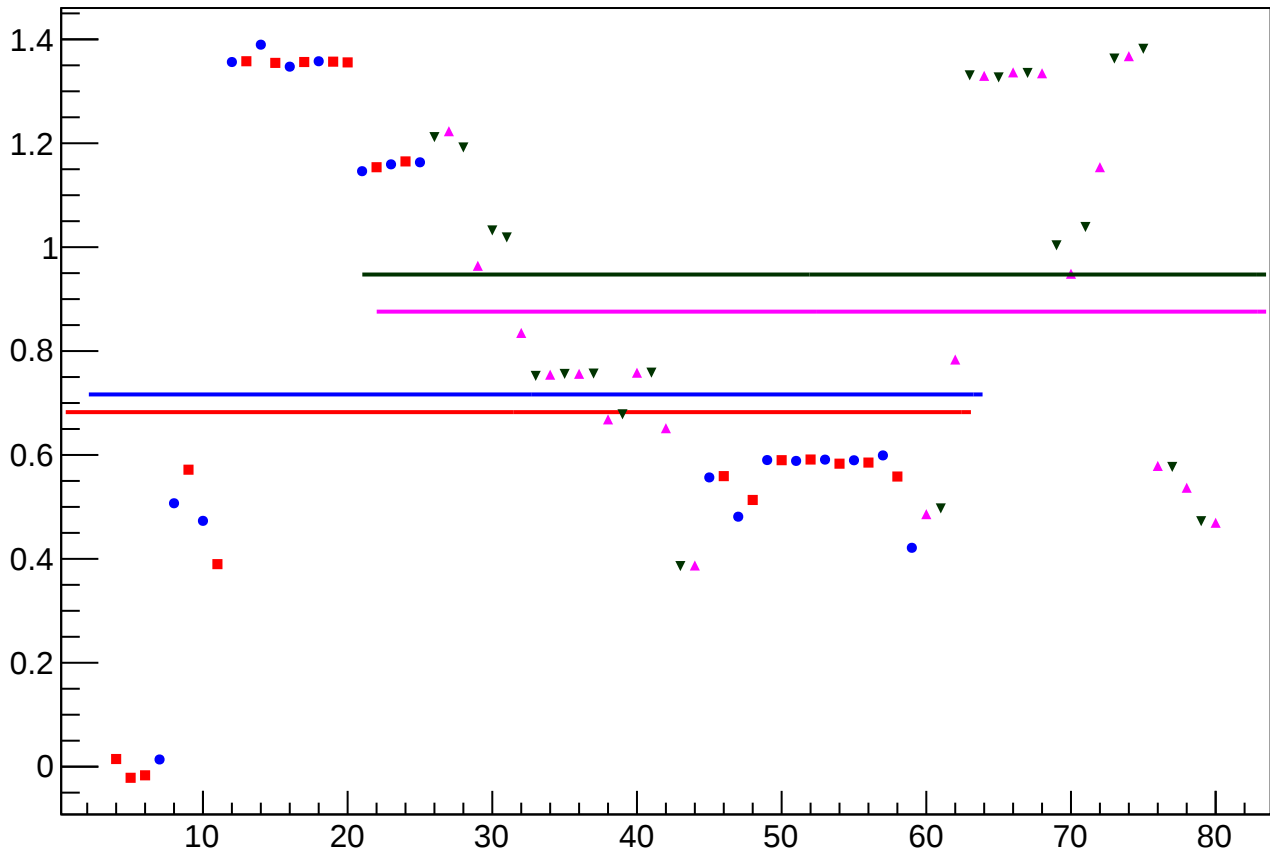
$0.023 \pm 0.000$   $\chi^2/\text{NDF}$ : 434256.9/37

Right Out:  $0.023 \pm 0.000$   $\chi^2/\text{NDF}$ : 246194.4/18

$0.023 \pm 0.000$   $\chi^2/\text{NDF}$ : 348646.1/38

Left In:  $0.023 \pm 0.000$   $\chi^2/\text{NDF}$ : 96829.6/19

# yield\_bpm11Y\_mean vs slug



Right In: 0.716+/-0.000  $\chi^2/\text{NDF}$ : 131330740430.7/17

Left Out: 0.947+/-0.000  $\chi^2/\text{NDF}$ : 91640840883.9/19

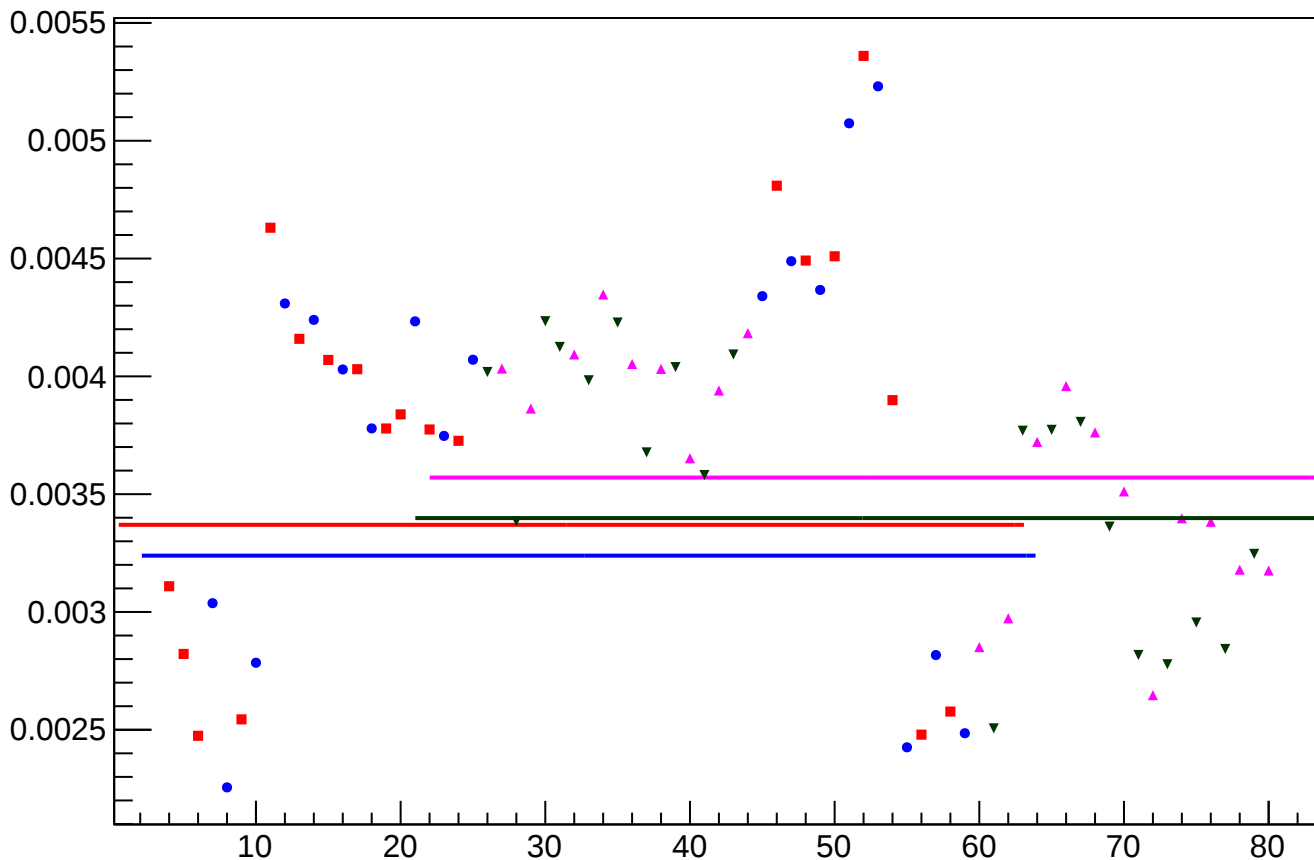
0.825+/-0.000  $\chi^2/\text{NDF}$ : 246843771839.4/37

Right Out: 0.682+/-0.000  $\chi^2/\text{NDF}$ : 168328456976.2/18

0.781+/-0.000  $\chi^2/\text{NDF}$ : 263234005779.1/38

Left In: 0.876+/-0.000  $\chi^2/\text{NDF}$ : 79801770981.4/19

# yield\_bpm11Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 1552802.4/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 491424.8/19

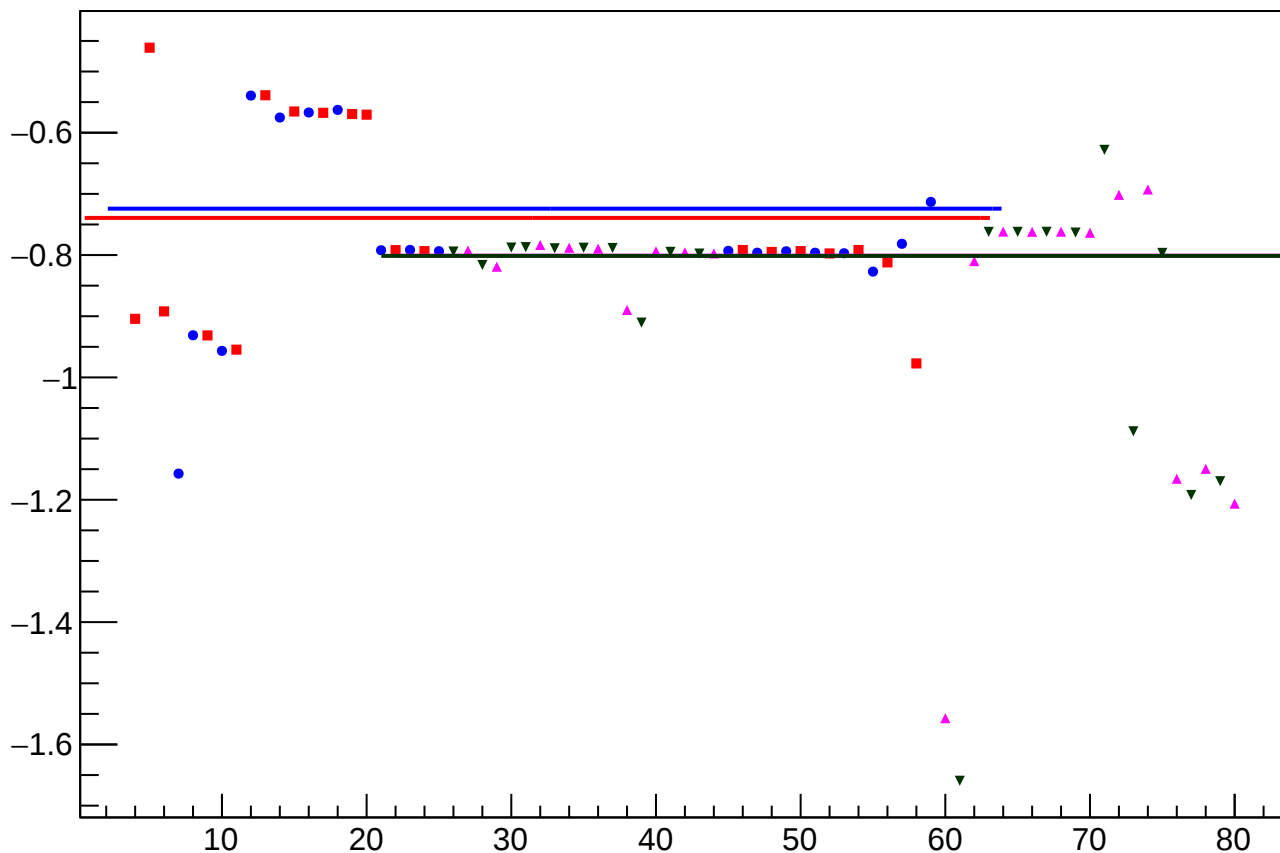
0.003+/-0.000  $\chi^2/\text{NDF}$ : 2066976.7/37

Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 1158167.7/18

0.003+/-0.000  $\chi^2/\text{NDF}$ : 1577910.7/38

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 387272.9/19

# yield\_bpm12X\_mean vs slug



Right In: -0.724+/-0.000  $\chi^2$ /NDF: 2243966662.4/17

Left Out: -0.801+/-0.000  $\chi^2$ /NDF: 905541417.0/19

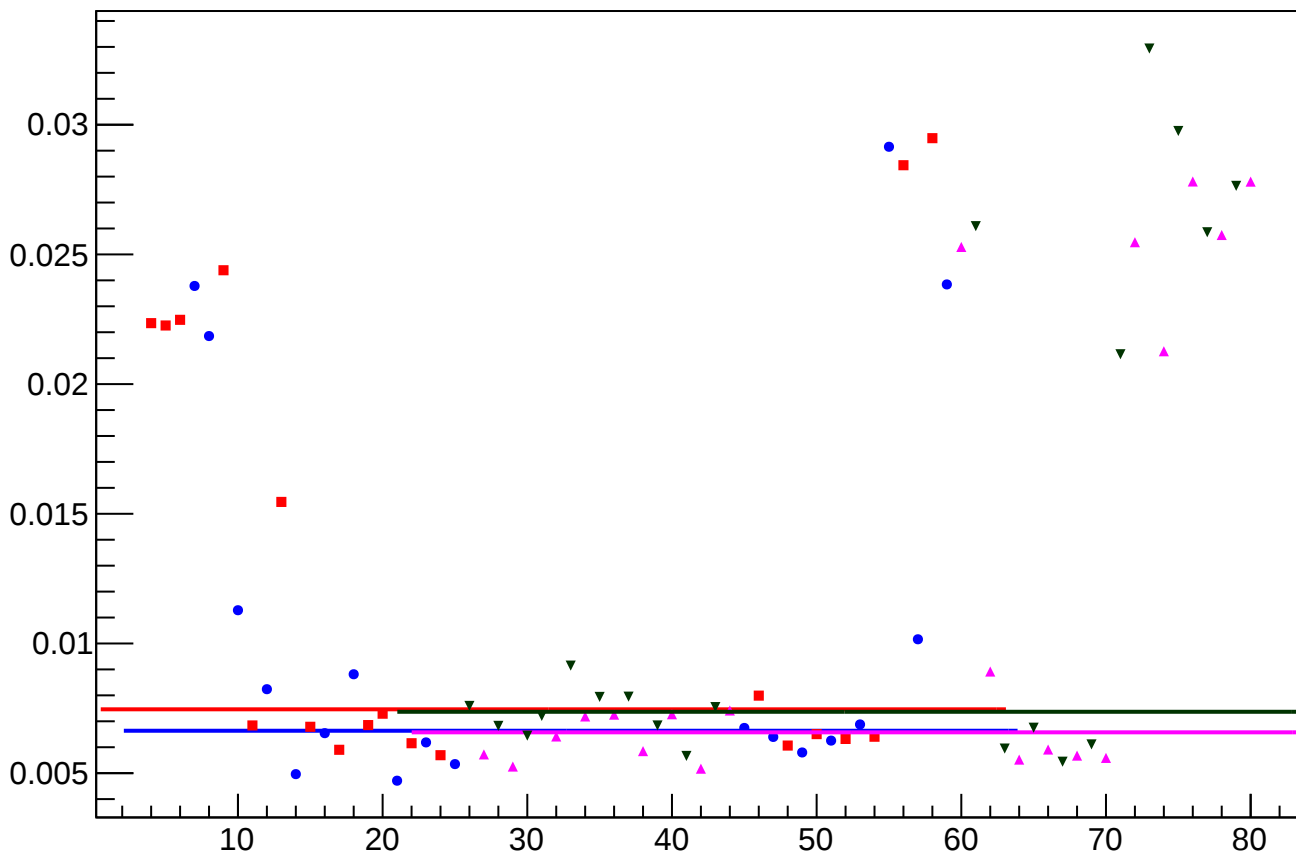
Right Out: -0.739+/-0.000  $\chi^2$ /NDF: 1945829237.2/18

Left In: -0.801+/-0.000  $\chi^2$ /NDF: 943545250.6/19

-0.758+/-0.000  $\chi^2$ /NDF: 3565932573.1/37

-0.776+/-0.000  $\chi^2$ /NDF: 3143853260.3/38

# yield\_bpm12X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3347518.2/17

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :3391413.6/19

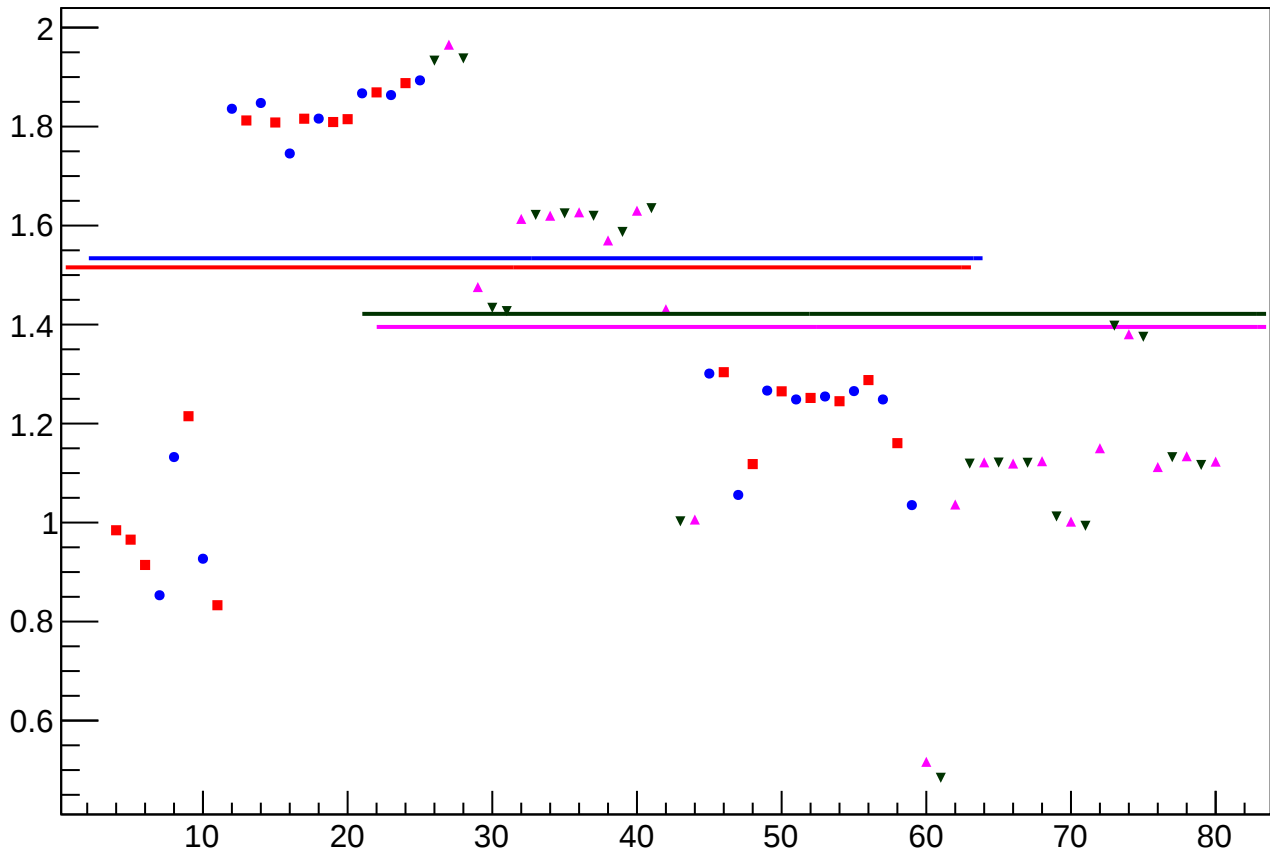
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3478880.3/18

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ :3531261.8/19

0.007+/-0.000  $\chi^2/\text{NDF}$ : 6813707.0/37

0.007+/-0.000  $\chi^2/\text{NDF}$ : 7115252.7/38

# yield\_bpm12Y\_mean vs slug



Right In: 1.534 $\pm$ 0.000  $\chi^2$ /NDF: 22395382646.2/17

Left Out: 1.422 $\pm$ 0.000  $\chi^2$ /NDF: 18181185845.2/19

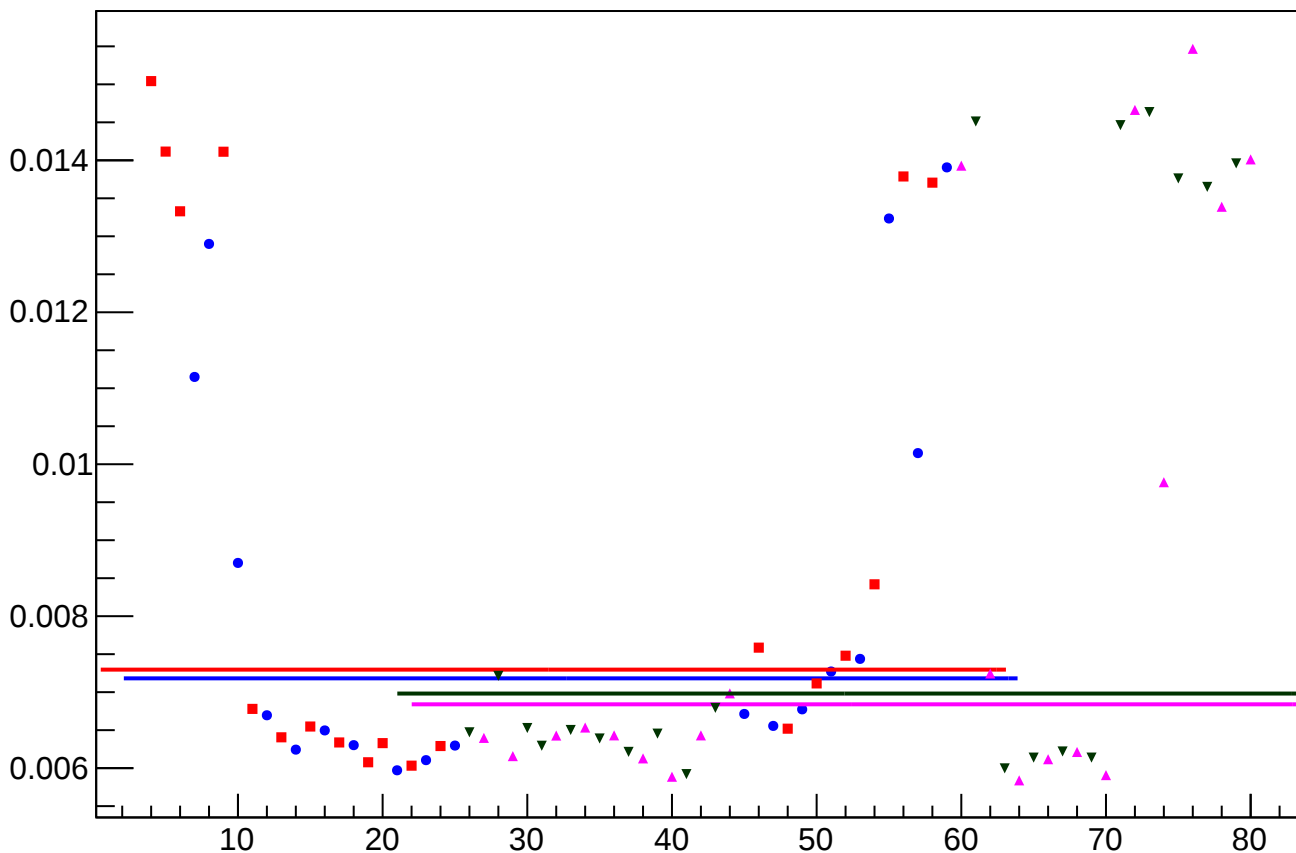
Right Out: 1.516 $\pm$ 0.000  $\chi^2$ /NDF: 21754735470.0/18

Left In: 1.395 $\pm$ 0.000  $\chi^2$ /NDF: 19863952301.3/19

1.479 $\pm$ 0.000  $\chi^2$ /NDF: 41746662128.9/37

1.448 $\pm$ 0.000  $\chi^2$ /NDF: 42919531163.3/38

# yield\_bpm12Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 1305539.8/17

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :1644881.3/19

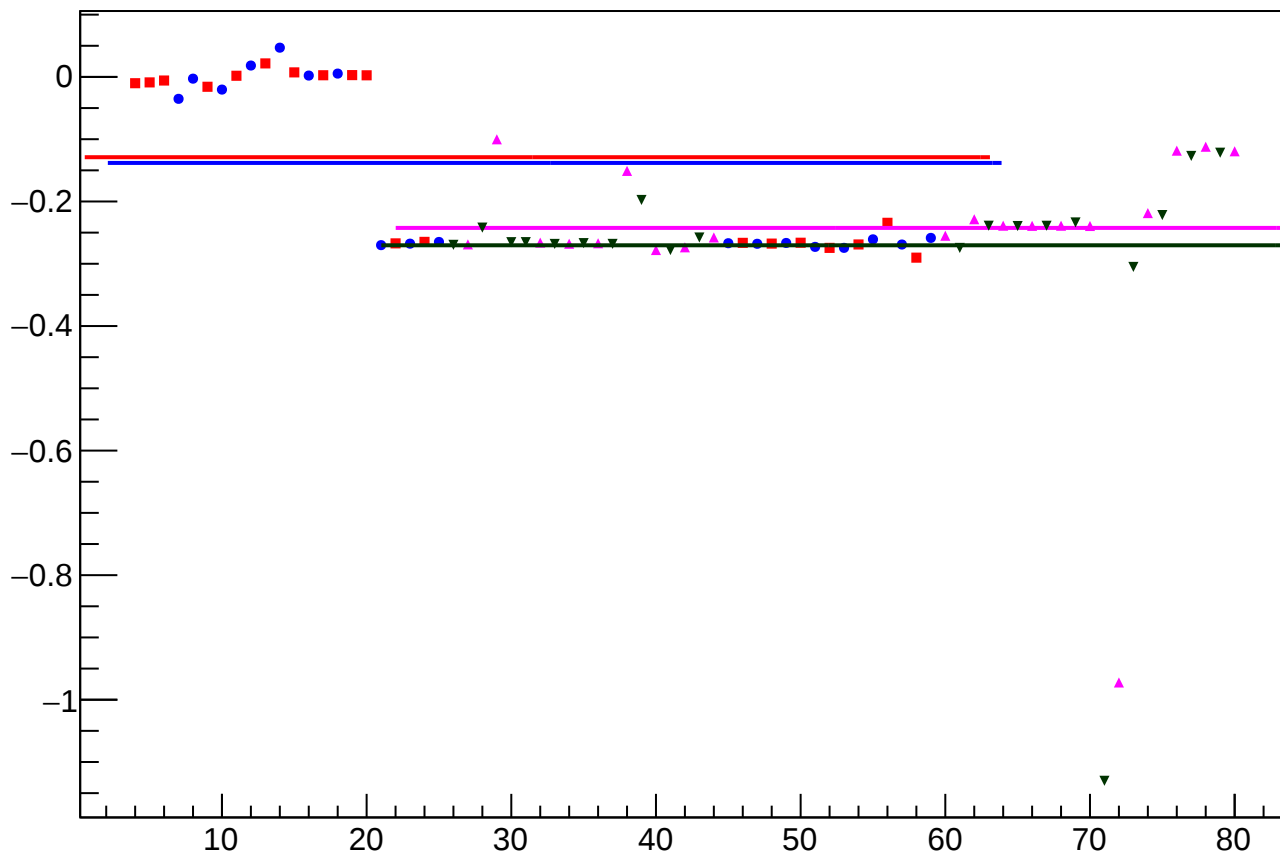
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 1457854.6/18

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ :1576323.6/19

0.007+/-0.000  $\chi^2/\text{NDF}$ : 2957835.3/37

0.007+/-0.000  $\chi^2/\text{NDF}$ : 3071616.0/38

# yield\_bpm16X\_mean vs slug



Right In:  $-0.138 \pm 0.000$   $\chi^2/\text{NDF}: 7275574194.7/17$

Left Out:  $-0.270 \pm 0.000$   $\chi^2/\text{NDF}: 6008077952.5/19$

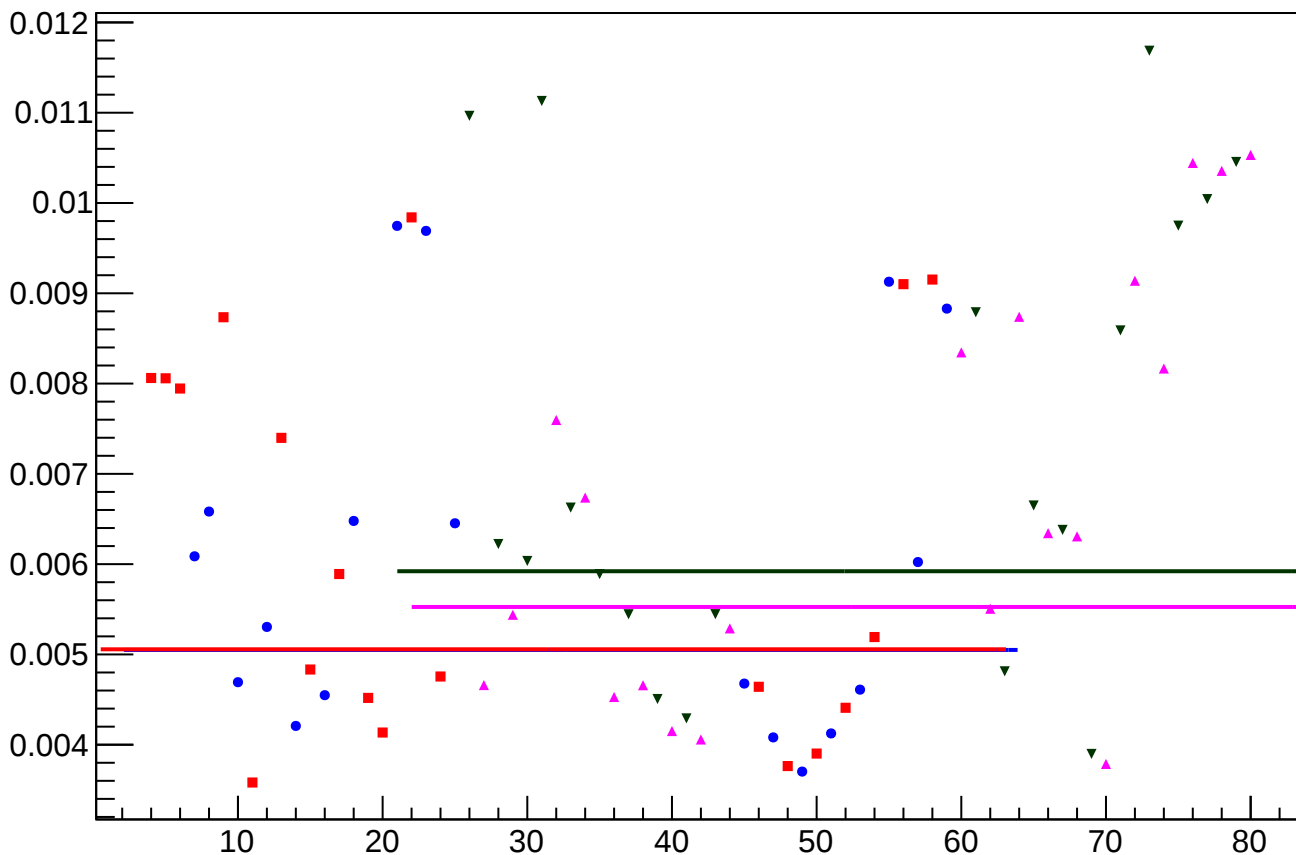
Right Out:  $-0.129 \pm 0.000$   $\chi^2/\text{NDF}: 5878929515.5/18$

Left In:  $-0.242 \pm 0.000$   $\chi^2/\text{NDF}: 3782841071.2/19$

$-0.191 \pm 0.000$   $\chi^2/\text{NDF}: 15873721282.9/37$

$-0.184 \pm 0.000$   $\chi^2/\text{NDF}: 11678380057.1/38$

# yield\_bpm16X\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1664372.1/17

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ :1901578.3/19

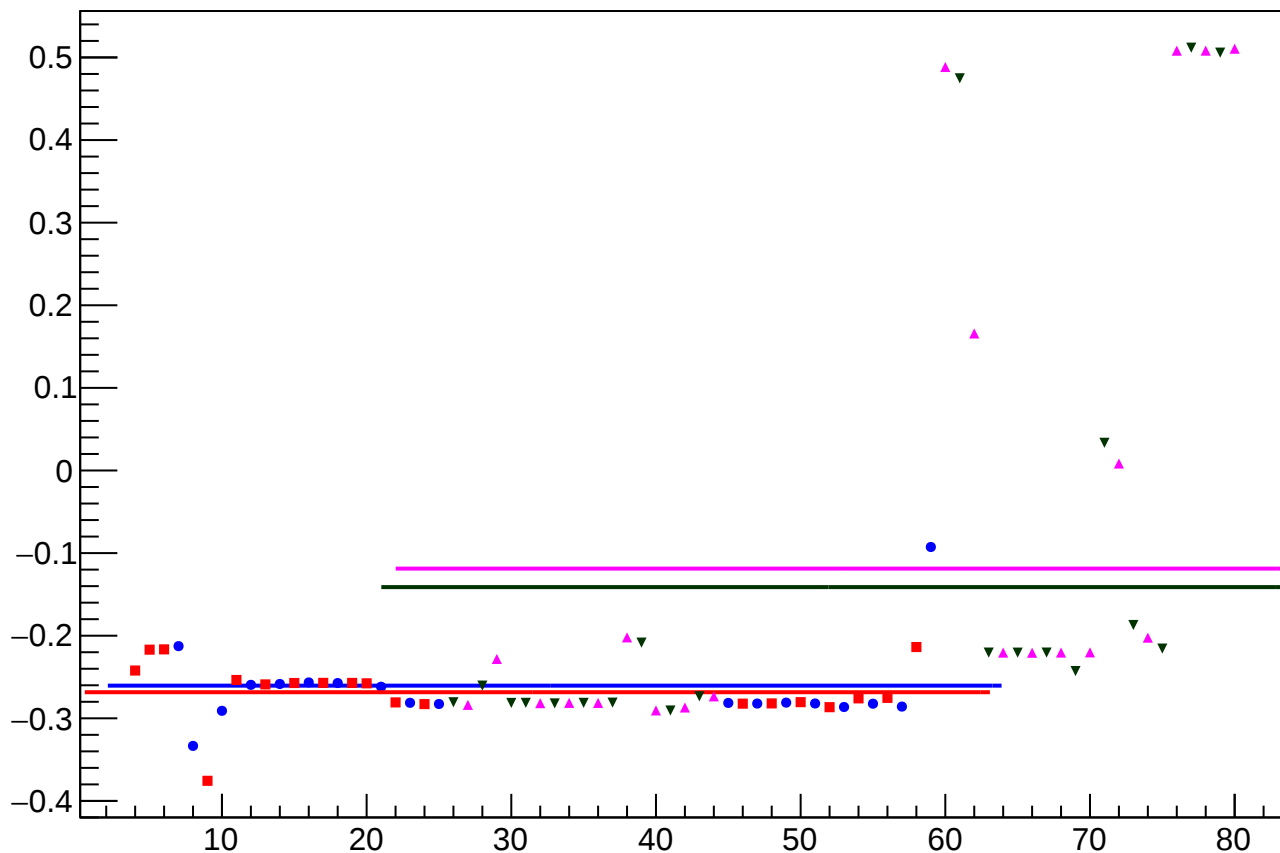
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1822469.4/18

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :1877886.5/19

0.005+/-0.000  $\chi^2/\text{NDF}$ : 3790996.6/37

0.005+/-0.000  $\chi^2/\text{NDF}$ : 3769239.4/38

# yield\_bpm16Y\_mean vs slug



Right In:  $-0.260 \pm 0.000$   $\chi^2/\text{NDF}$ : 6878369368.1/17

Left Out:  $-0.141 \pm 0.000$   $\chi^2/\text{NDF}$ : 82526869473.7/19

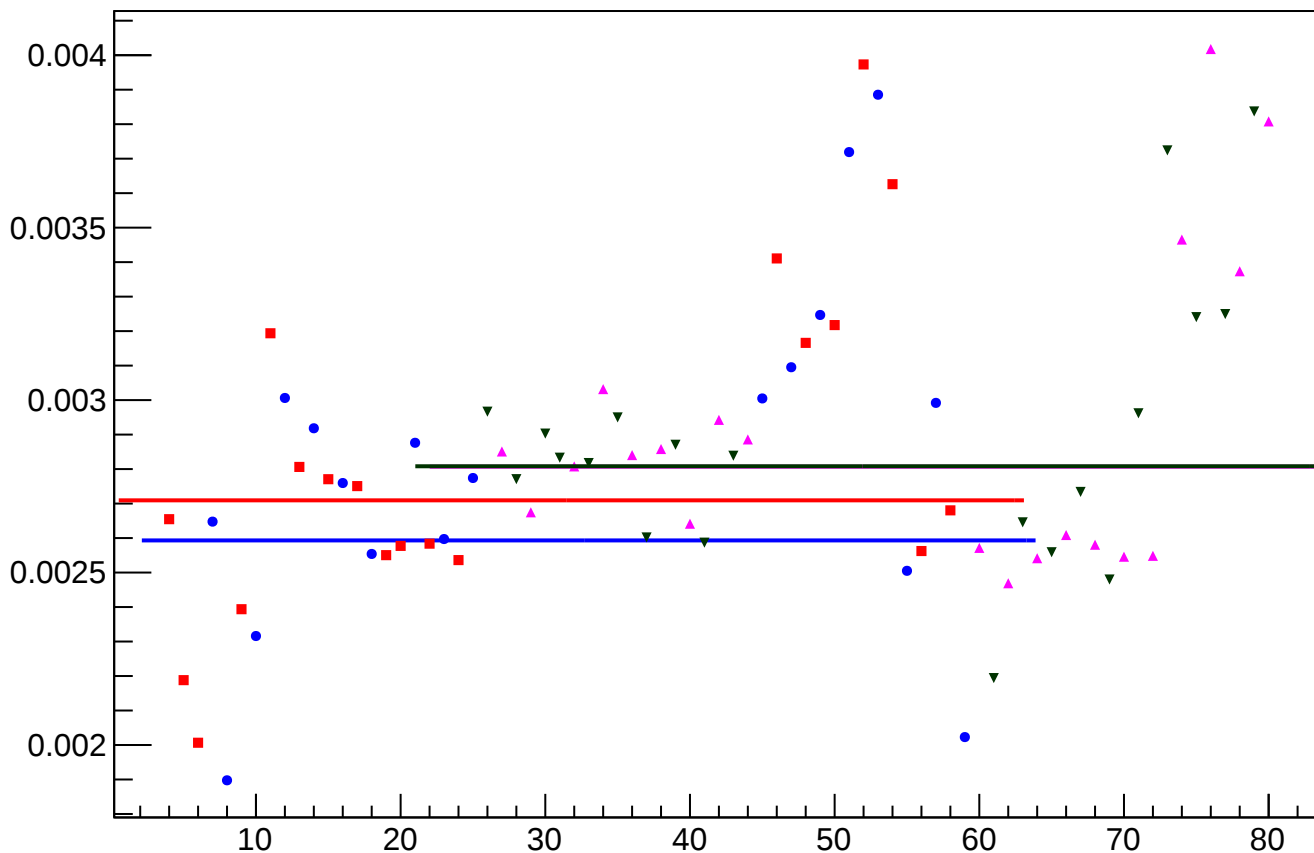
Right Out:  $-0.268 \pm 0.000$   $\chi^2/\text{NDF}$ : 2185355194.4/18

Left In:  $-0.119 \pm 0.000$   $\chi^2/\text{NDF}$ : 92793275521.2/19

$-0.207 \pm 0.000$   $\chi^2/\text{NDF}$ : 99316314435.0/37

$-0.192 \pm 0.000$   $\chi^2/\text{NDF}$ : 109657917588.8/38

# yield\_bpm16Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 774114.6/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 290934.6/19

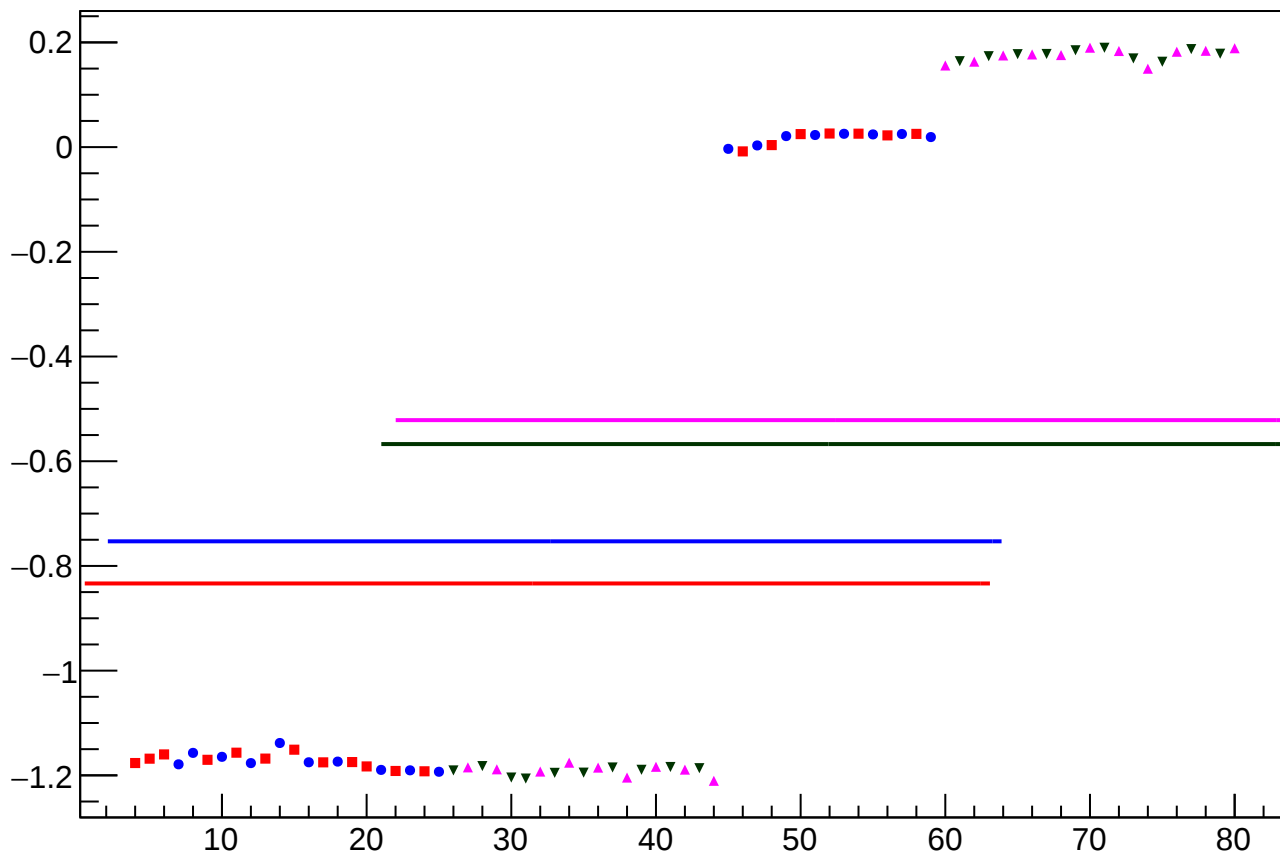
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 476230.4/18

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 310748.2/19

0.003+/-0.000  $\chi^2/\text{NDF}$ : 1129441.5/37

0.003+/-0.000  $\chi^2/\text{NDF}$ : 799458.3/38

# yield\_bpm2i01X\_mean vs slug



Right In: -0.753+/-0.000  $\chi^2/\text{NDF}$ : 63524502695.2/17

Left Out: -0.567+/-0.000  $\chi^2/\text{NDF}$ : 69104711070.6/19

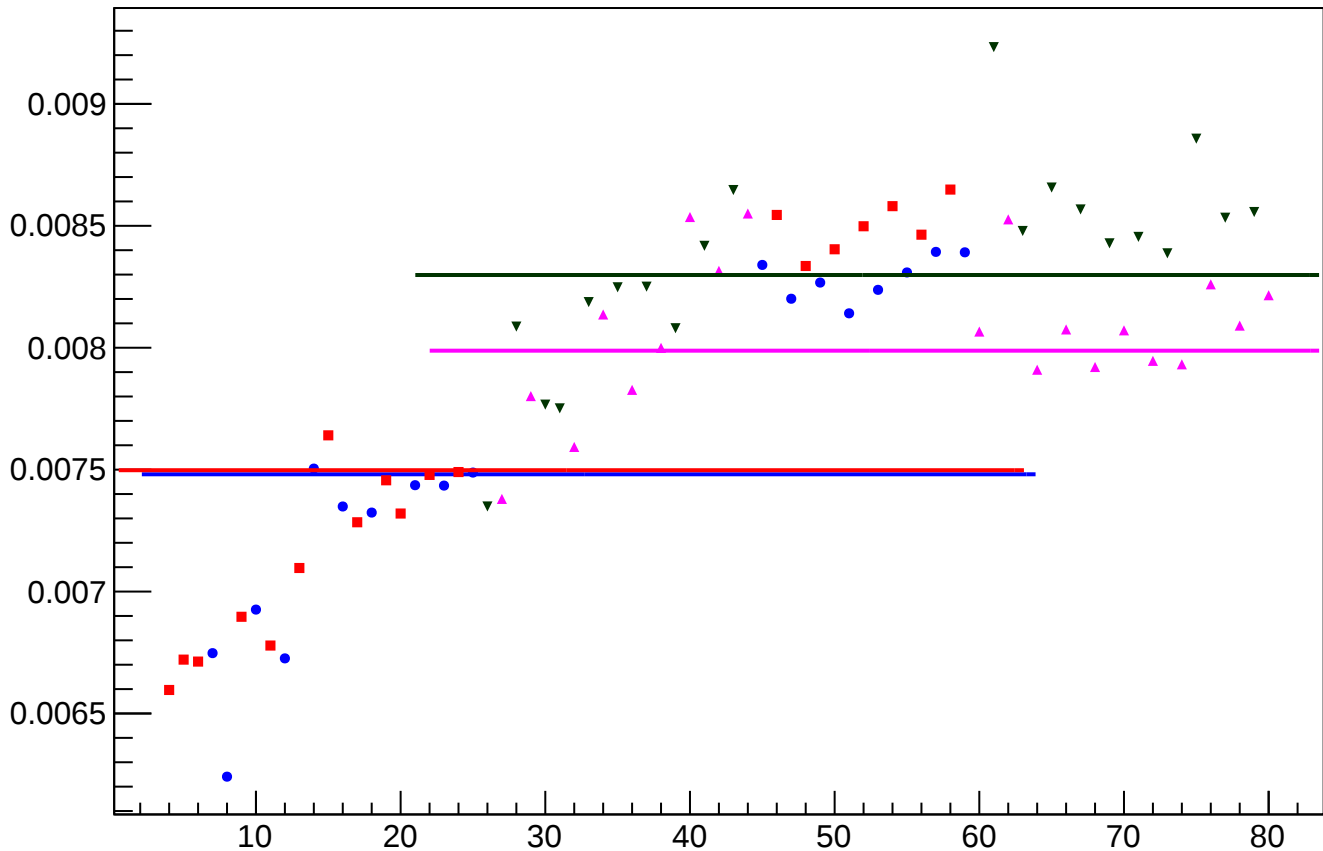
Right Out: -0.833+/-0.000  $\chi^2/\text{NDF}$ : 50332816661.3/18

Left In: -0.521+/-0.000  $\chi^2/\text{NDF}$ : 80904248488.9/19

-0.673+/-0.000  $\chi^2/\text{NDF}$ : 135561136767.3/37

-0.678+/-0.000  $\chi^2/\text{NDF}$ : 139727255451.0/38

# yield\_bpm2i01X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 196084.4/17

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 46702.5/19

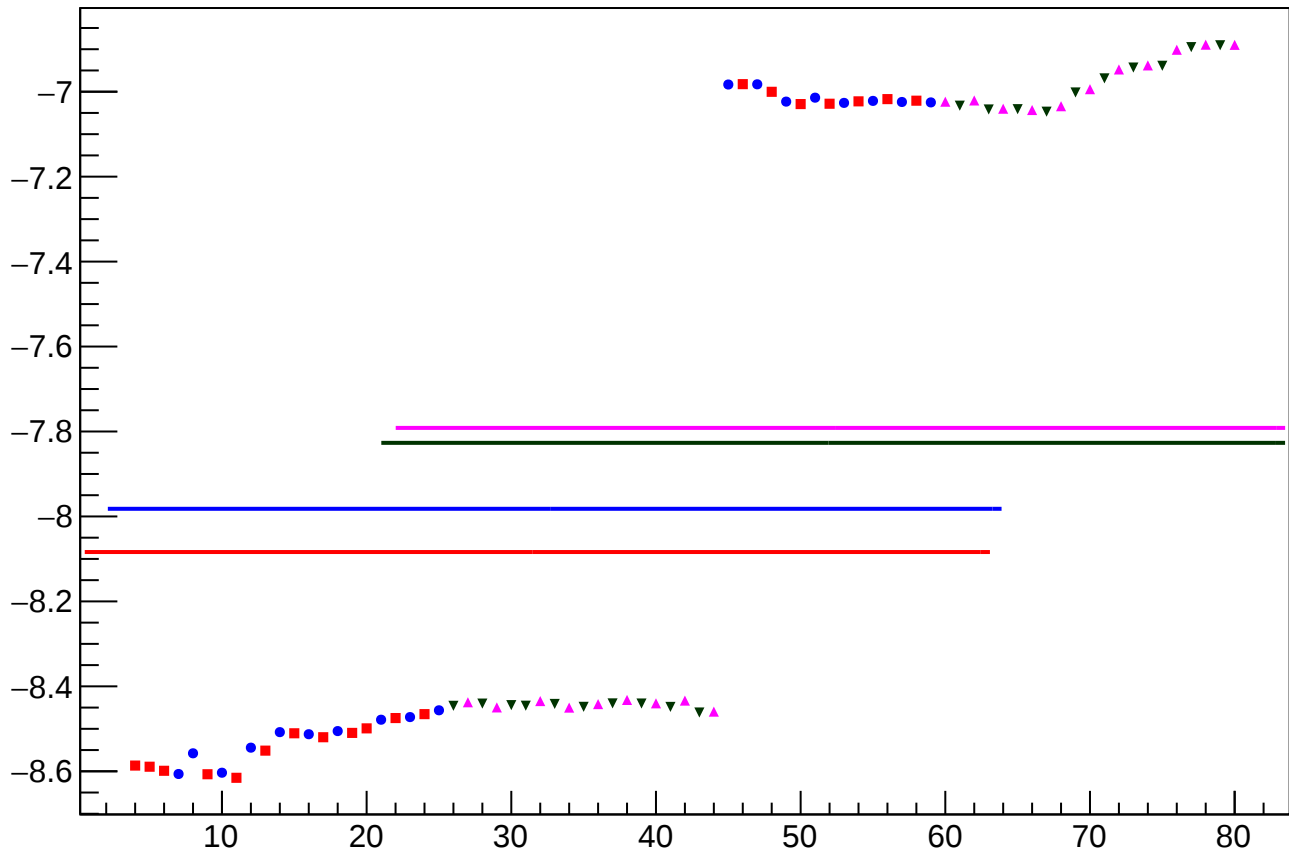
0.008+/-0.000  $\chi^2/\text{NDF}$ : 356304.1/37

Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 167417.2/18

0.008+/-0.000  $\chi^2/\text{NDF}$ : 243571.2/38

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 34221.3/19

# yield\_bpm2i01Y\_mean vs slug



Right In: -7.982+/-0.000  $\chi^2$ /NDF: 116524136897.0/17

Left Out: -7.827+/-0.000  $\chi^2$ /NDF: 94431738227.8/19

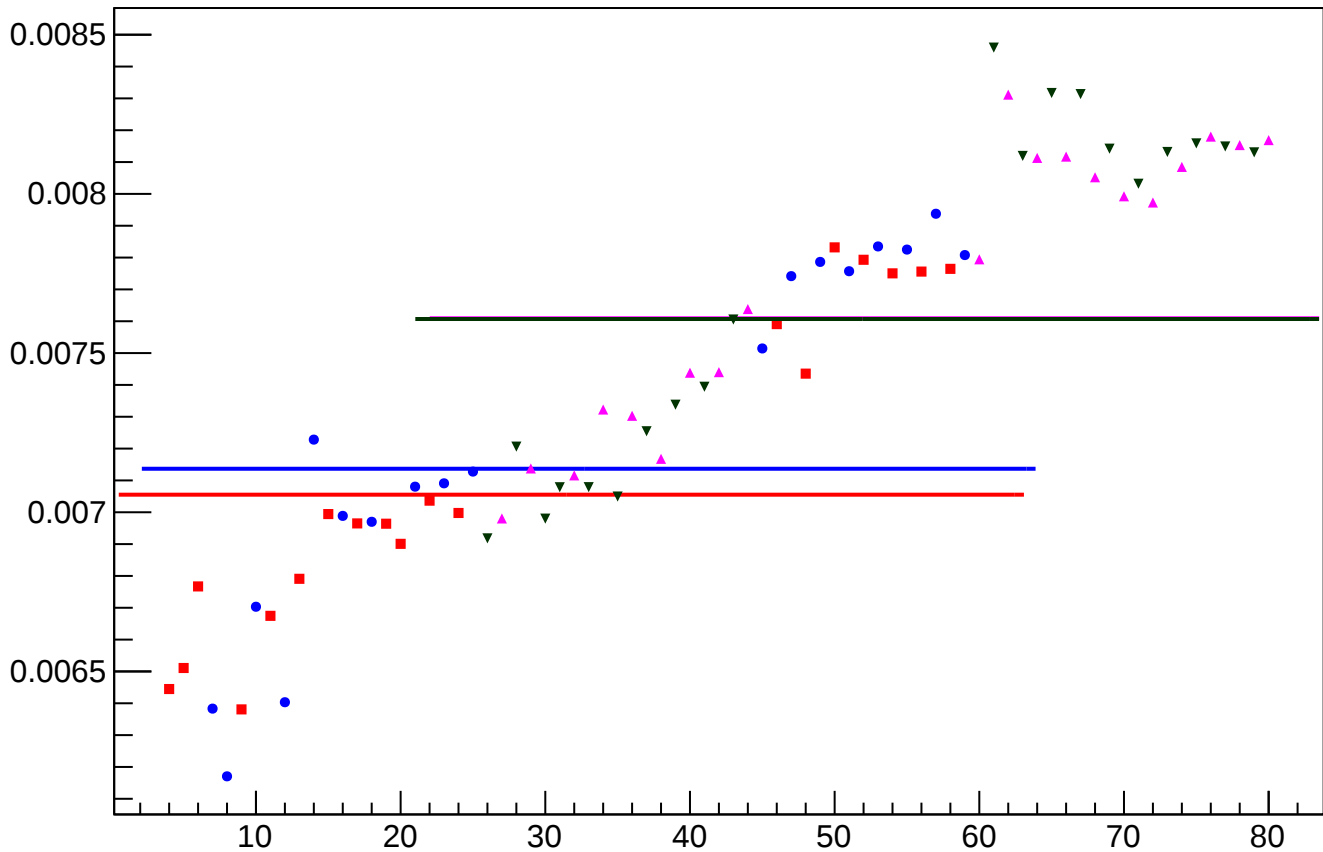
-7.912+/-0.000  $\chi^2$ /NDF: 213333593054.1/37

Right Out: -8.084+/-0.000  $\chi^2$ /NDF: 99506540389.5/18

-7.940+/-0.000  $\chi^2$ /NDF: 210864340984.4/38

Left In: -7.792+/-0.000  $\chi^2$ /NDF: 102970617431.0/19

# yield\_bpm2i01Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 141394.2/17

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 97110.0/19

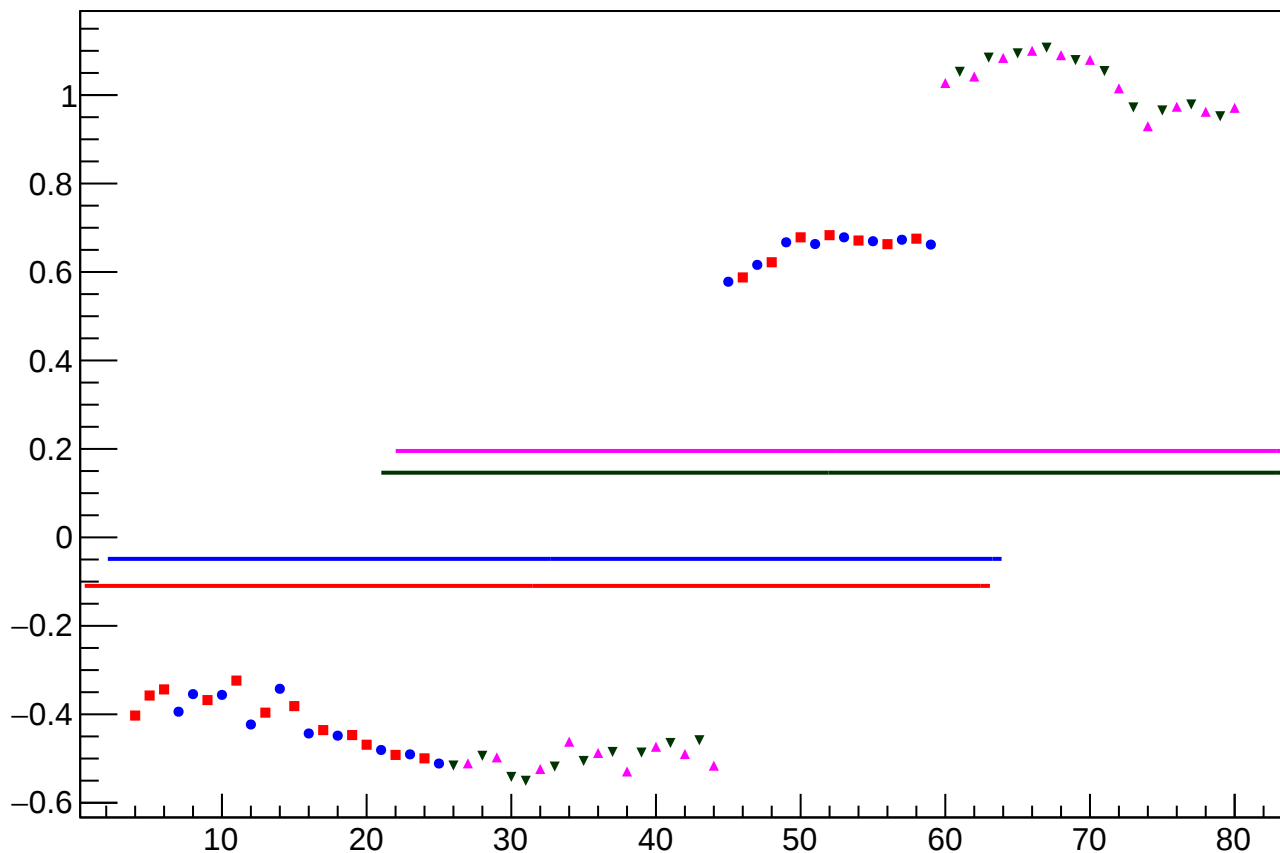
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 88863.4/18

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 79284.5/19

0.007+/-0.000  $\chi^2/\text{NDF}$ : 282140.0/37

0.007+/-0.000  $\chi^2/\text{NDF}$ : 228482.1/38

# yield\_bpm2i02X\_mean vs slug



Right In: -0.049+/-0.000  $\chi^2/\text{NDF}$ : 7806391272.8/17

Left Out: 0.146+/-0.000  $\chi^2/\text{NDF}$ :12754255735.0/19

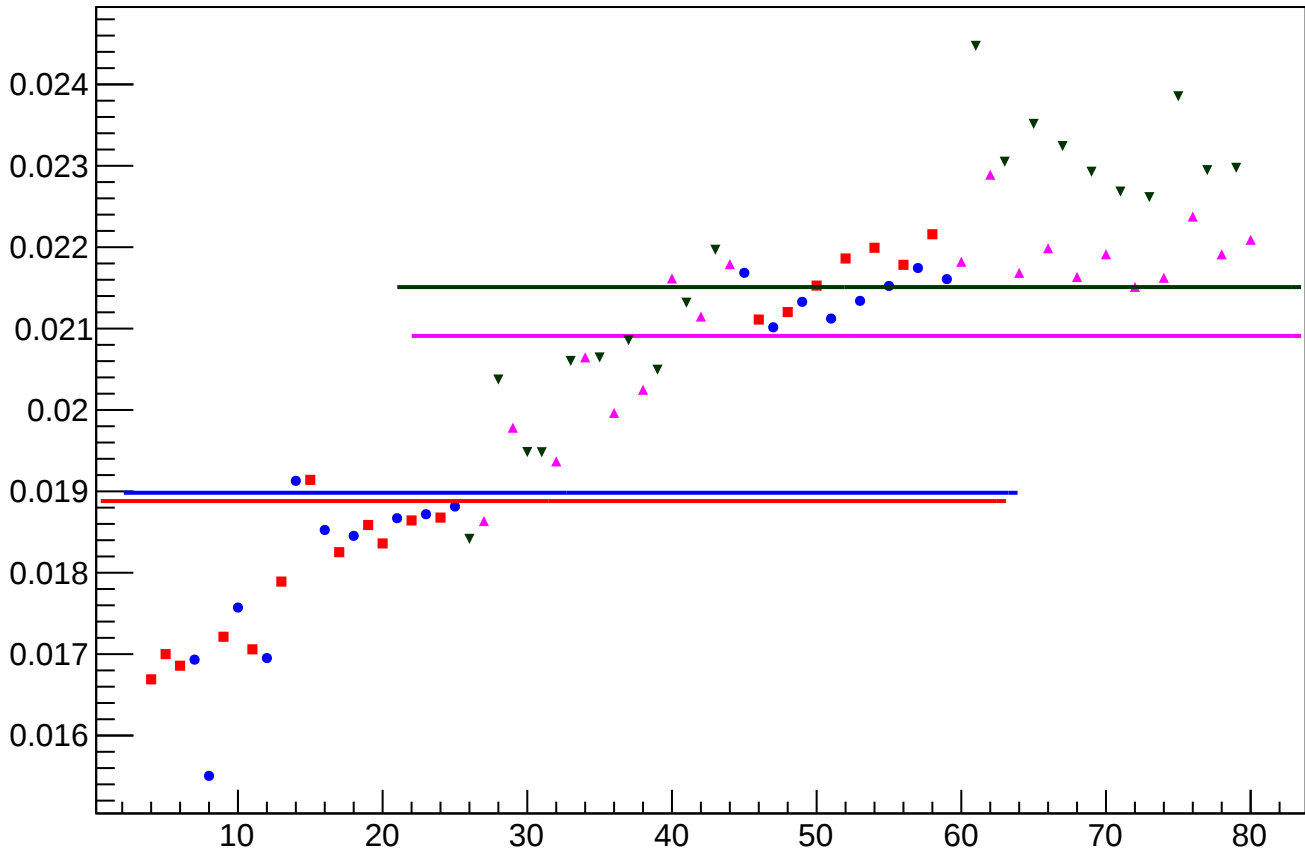
Right Out: -0.110+/-0.000  $\chi^2/\text{NDF}$ : 6259069670.0/18

Left In: 0.195+/-0.000  $\chi^2/\text{NDF}$ :14737113002.4/19

0.033+/-0.000  $\chi^2/\text{NDF}$ : 21048751707.5/37

0.036+/-0.000  $\chi^2/\text{NDF}$ : 22225931093.6/38

# yield\_bpm2i02X\_rms vs slug



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 254927.5/17

Left Out: 0.022+/-0.000  $\chi^2/\text{NDF}$ :116137.5/19

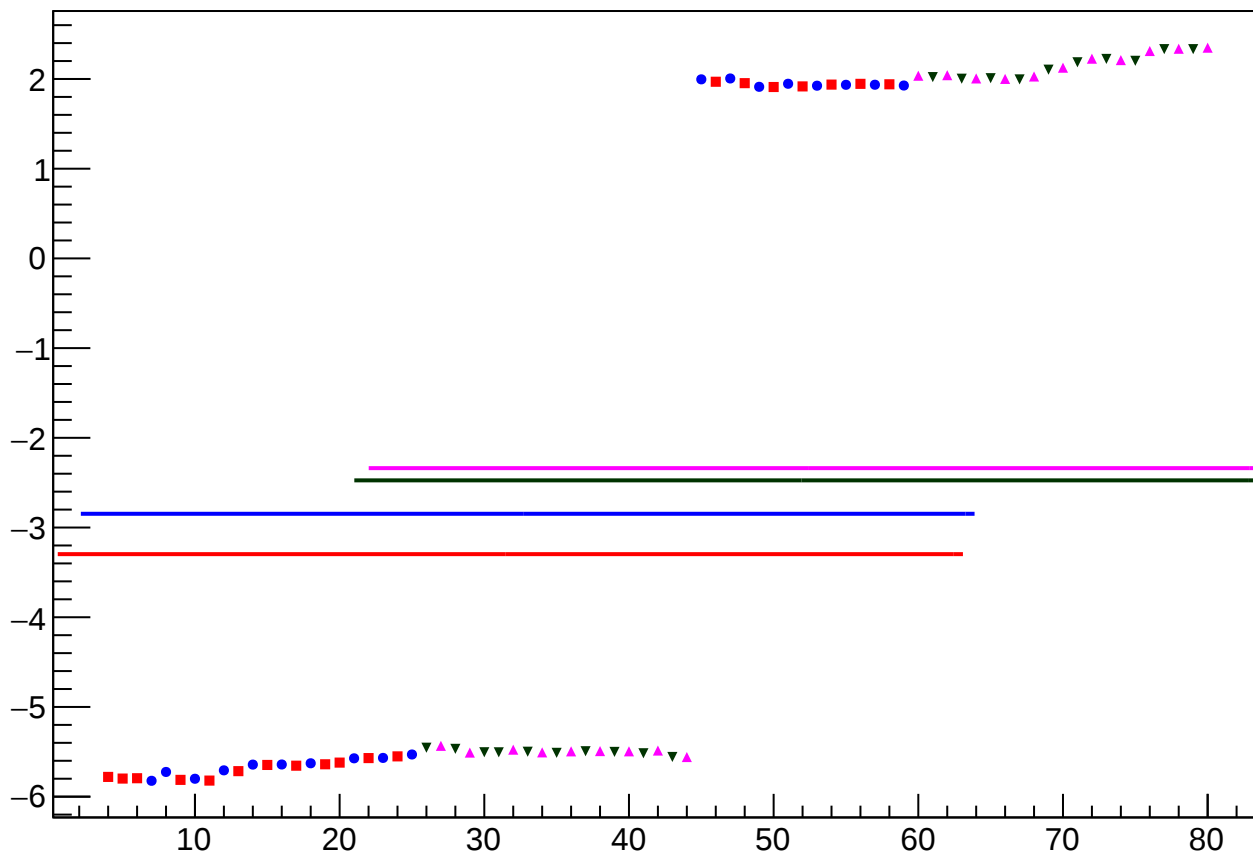
0.020+/-0.000  $\chi^2/\text{NDF}$ : 535320.6/37

Right Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 190553.3/18

0.020+/-0.000  $\chi^2/\text{NDF}$ : 375014.0/38

Left In: 0.021+/-0.000  $\chi^2/\text{NDF}$ :75652.3/19

# yield\_bpm2i02Y\_mean vs slug



Right In: -2.847+/-0.000  $\chi^2/\text{NDF}$ : 988085675921.2/17

Left Out: -2.474+/-0.000  $\chi^2/\text{NDF}$ : 859271957143.2/19

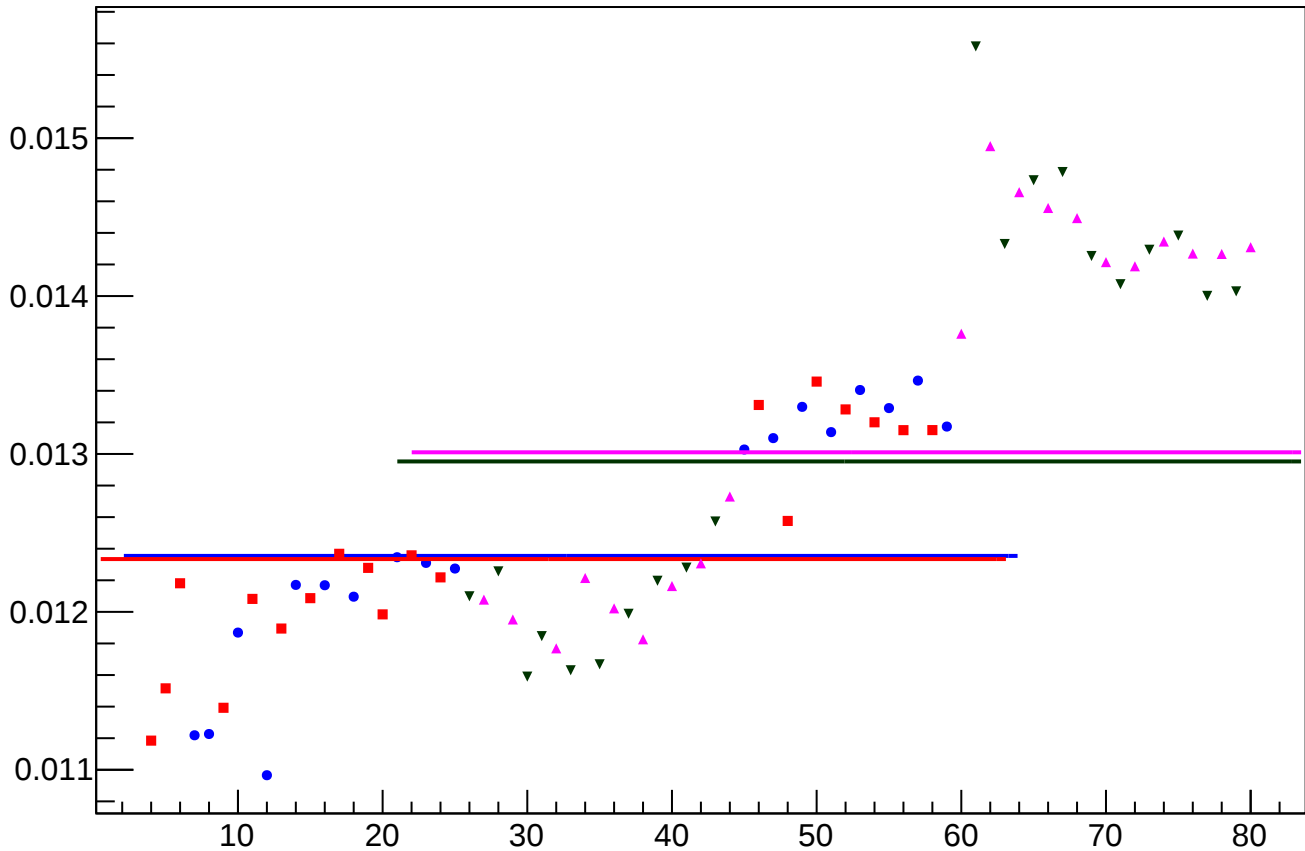
Right Out: -3.297+/-0.000  $\chi^2/\text{NDF}$ : 819050975647.4/18

Left In: -2.338+/-0.000  $\chi^2/\text{NDF}$ : 931511726682.3/19

-2.676+/-0.000  $\chi^2/\text{NDF}$ : 1851984555870.6/37

-2.814+/-0.000  $\chi^2/\text{NDF}$ : 1780584018462.7/38

# yield\_bpm2i02Y\_rms vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 89844.3/17

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :181667.4/19

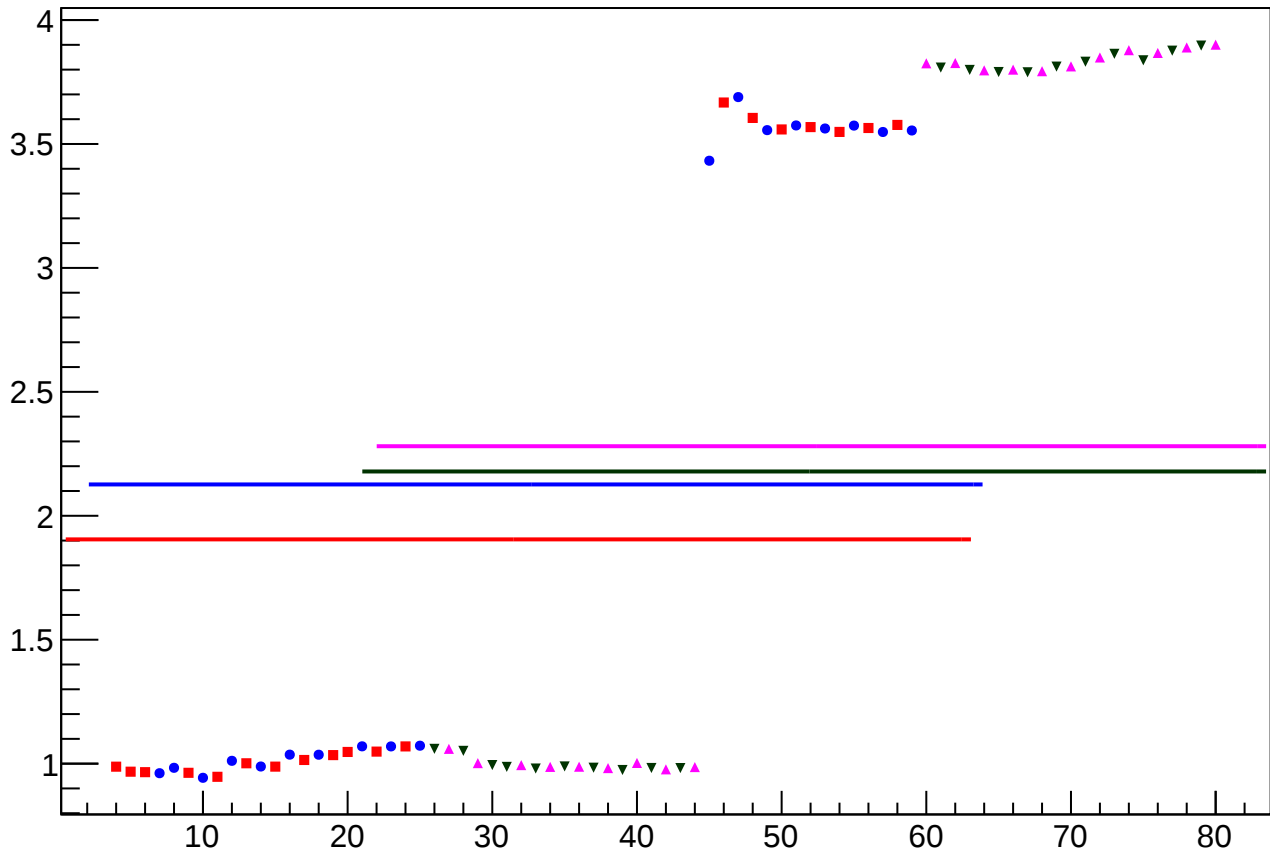
Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 54886.5/18

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :175101.1/19

0.013+/-0.000  $\chi^2/\text{NDF}$ : 295374.1/37

0.013+/-0.000  $\chi^2/\text{NDF}$ : 259853.1/38

# yield\_bpm1i04X\_mean vs slug



Right In: 2.126+/-0.000  $\chi^2/\text{NDF}$ : 292632575878.4/17

Left Out: 2.179+/-0.000  $\chi^2/\text{NDF}$ : 318402990560.2/19

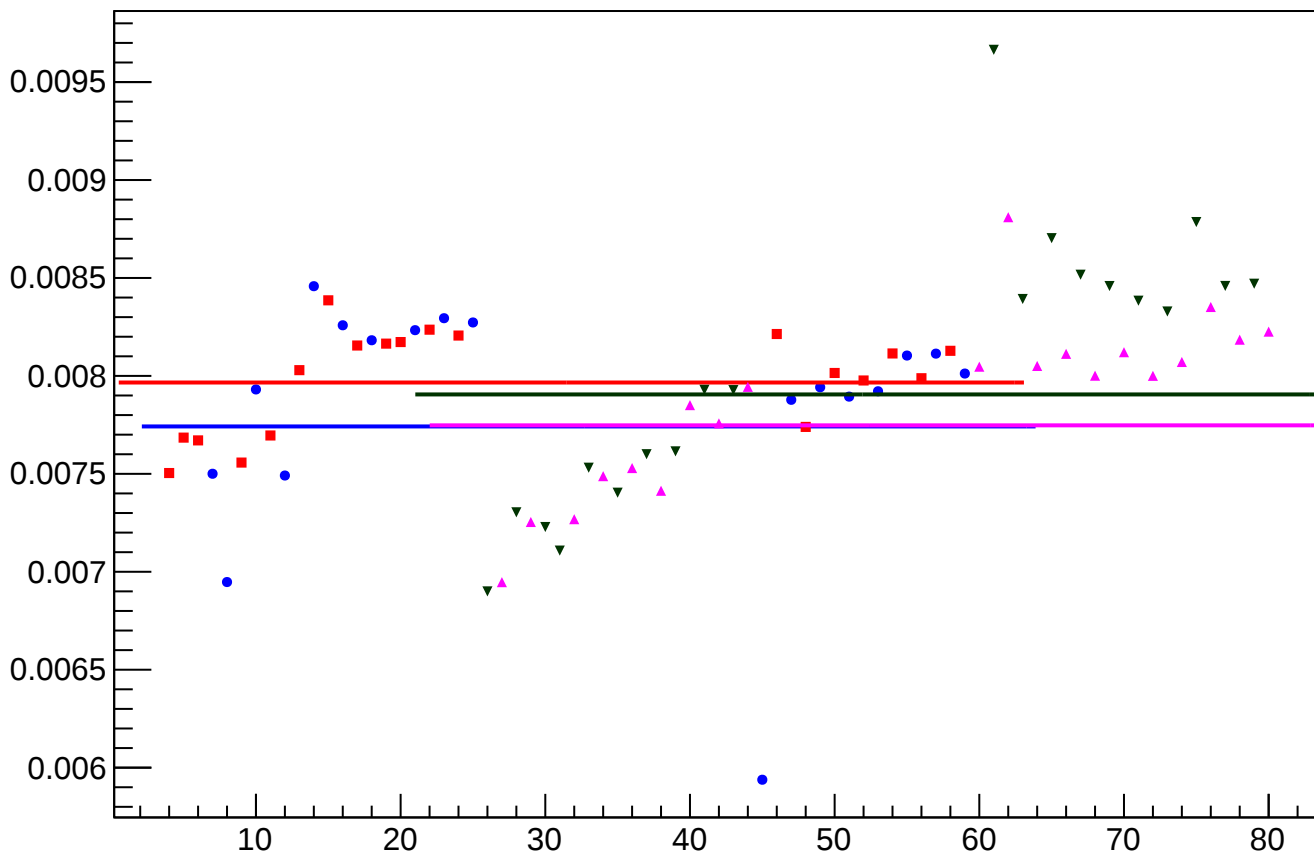
2.151+/-0.000  $\chi^2/\text{NDF}$ : 611272692802.2/37

Right Out: 1.905+/-0.000  $\chi^2/\text{NDF}$ : 236022966001.2/18

2.109+/-0.000  $\chi^2/\text{NDF}$ : 614822571424.8/38

Left In: 2.281+/-0.000  $\chi^2/\text{NDF}$ : 366901374944.2/19

# yield\_bpm1i04X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 178907.2/17

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :131887.9/19

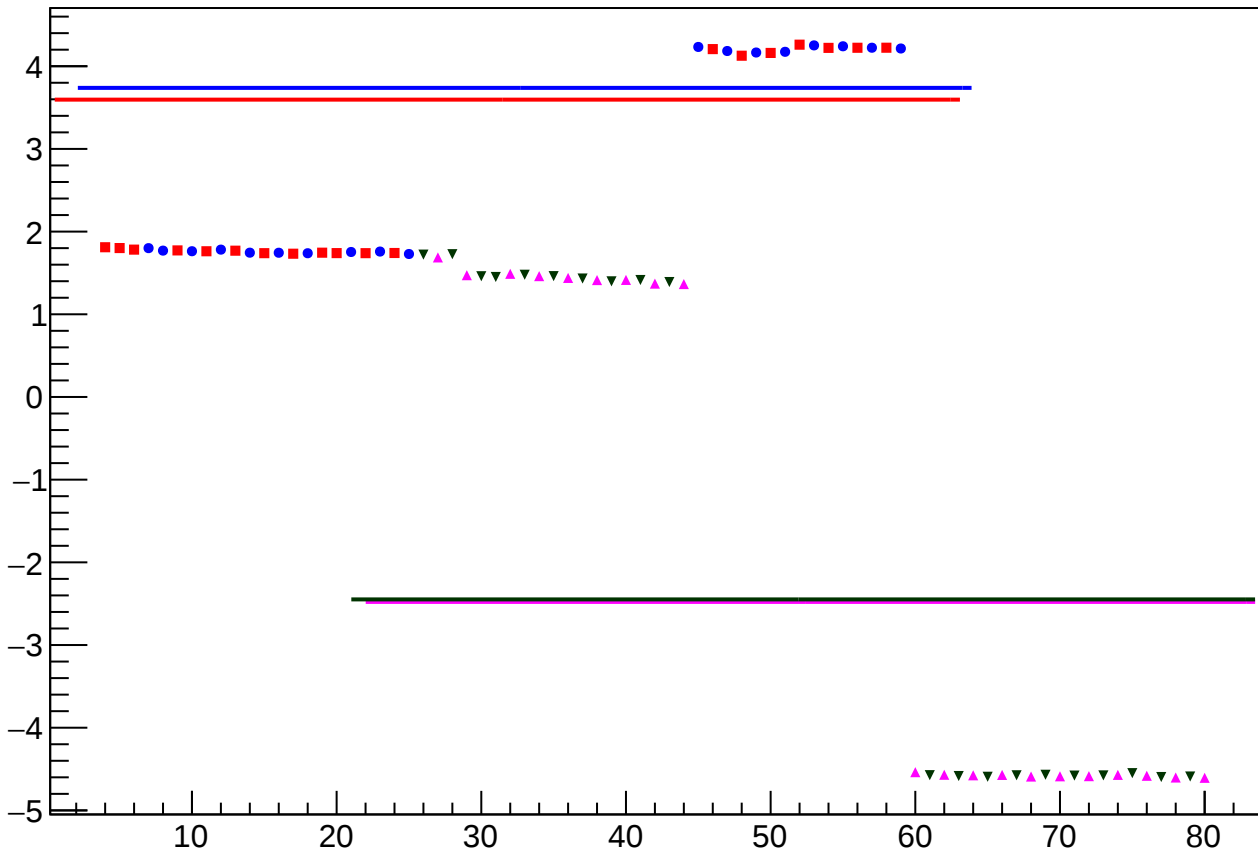
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 20073.5/18

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :78389.7/19

0.008+/-0.000  $\chi^2/\text{NDF}$ : 315420.6/37

0.008+/-0.000  $\chi^2/\text{NDF}$ : 106517.8/38

# yield\_bpm1i04Y\_mean vs slug



Right In: 3.738+/-0.000  $\chi^2/\text{NDF}$ : 502669373965.6/17

Left Out: -2.448+/-0.000  $\chi^2/\text{NDF}$ : 3748448596050.6/19

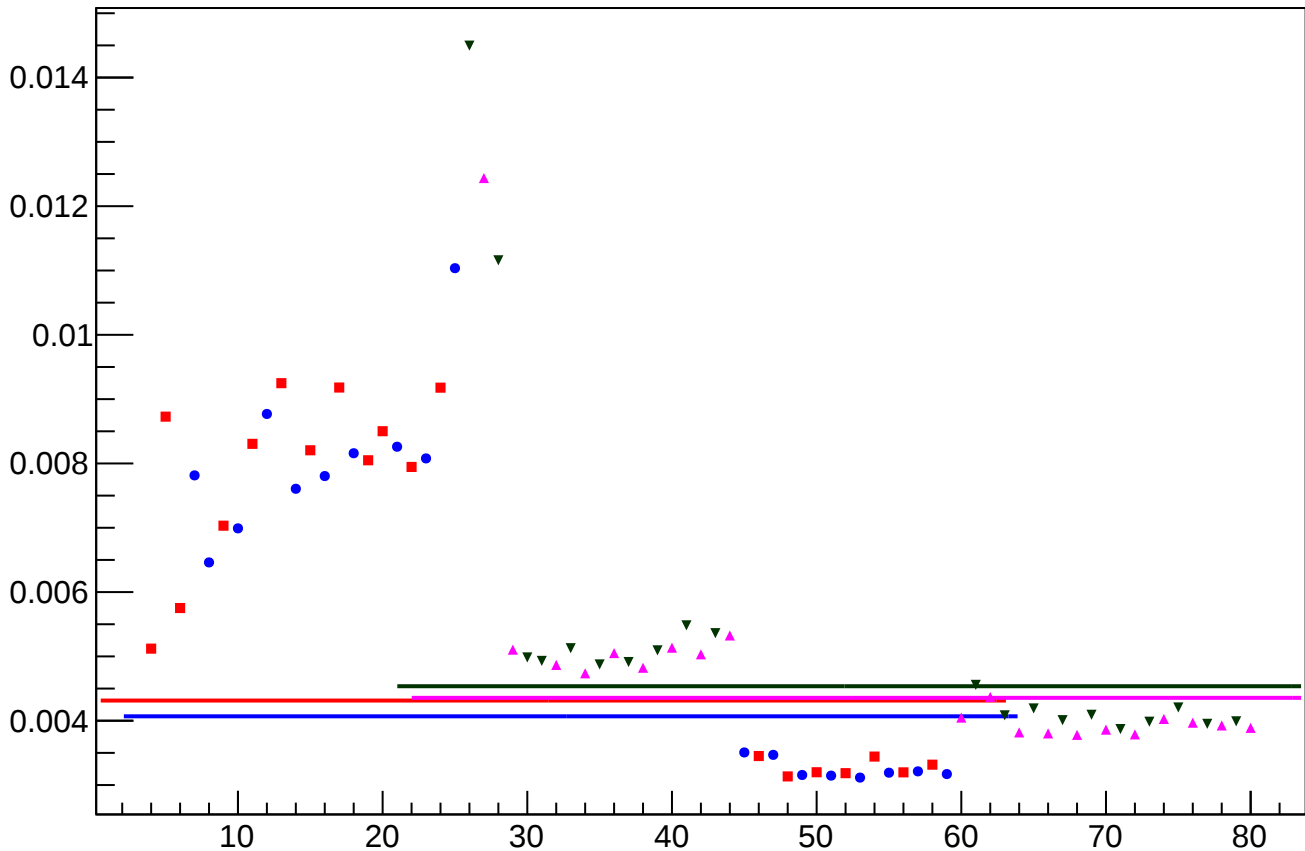
0.921+/-0.000  $\chi^2/\text{NDF}$ : 13653894988313.0/37

Right Out: 3.596+/-0.000  $\chi^2/\text{NDF}$ : 468031292414.6/18

0.185+/-0.000  $\chi^2/\text{NDF}$ : 13624955775031.9/38

Left In: -2.479+/-0.000  $\chi^2/\text{NDF}$ : 4441467241584.9/19

# yield\_bpm1i04Y\_rms vs slug



Right In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 3401724.5/17

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ :1143707.5/19

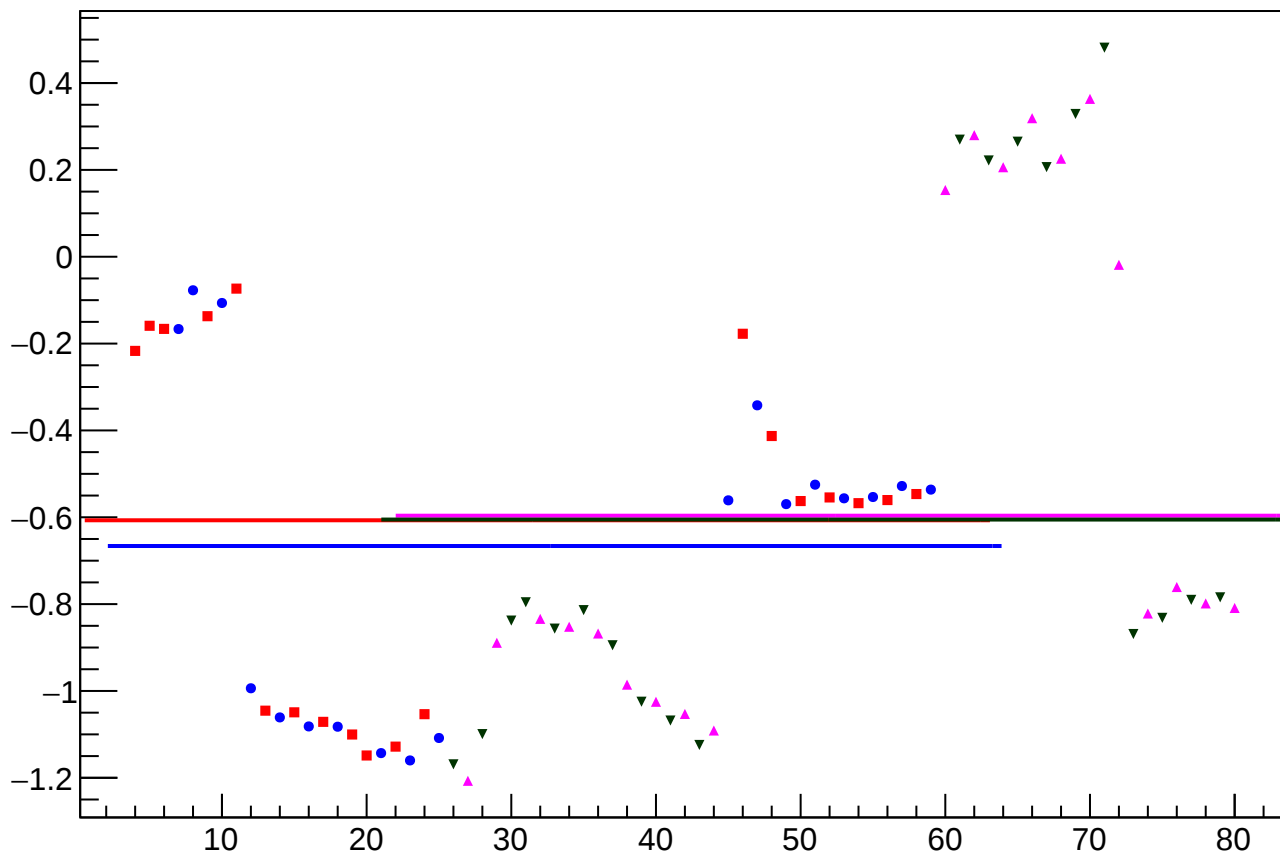
0.004+/-0.000  $\chi^2/\text{NDF}$ : 4652971.9/37

Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 3241260.9/18

0.004+/-0.000  $\chi^2/\text{NDF}$ : 4159882.4/38

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :917794.6/19

# yield\_bpm0l01X\_mean vs slug



Right In: -0.666+/-0.000  $\chi^2/\text{NDF}$ : 19135534349.5/17

Left Out: -0.605+/-0.000  $\chi^2/\text{NDF}$ : 39904310167.5/19

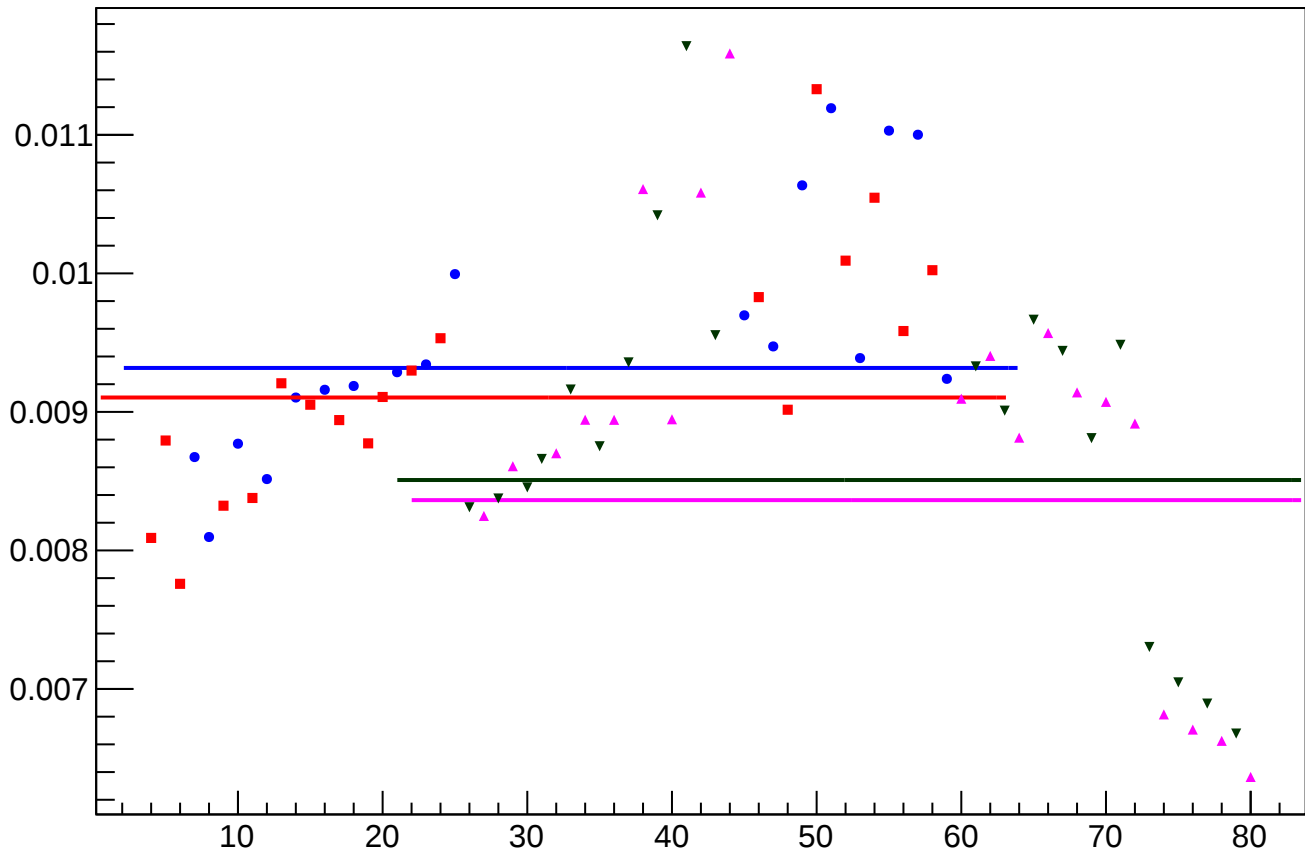
Right Out: -0.607+/-0.000  $\chi^2/\text{NDF}$ : 19217252419.4/18

Left In: -0.596+/-0.000  $\chi^2/\text{NDF}$ : 41102714930.9/19

-0.634+/-0.000  $\chi^2/\text{NDF}$ : 59283927019.7/37

-0.601+/-0.000  $\chi^2/\text{NDF}$ : 60327371150.8/38

yield\_bpm0l01X\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 165772.4/17

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 399501.6/19

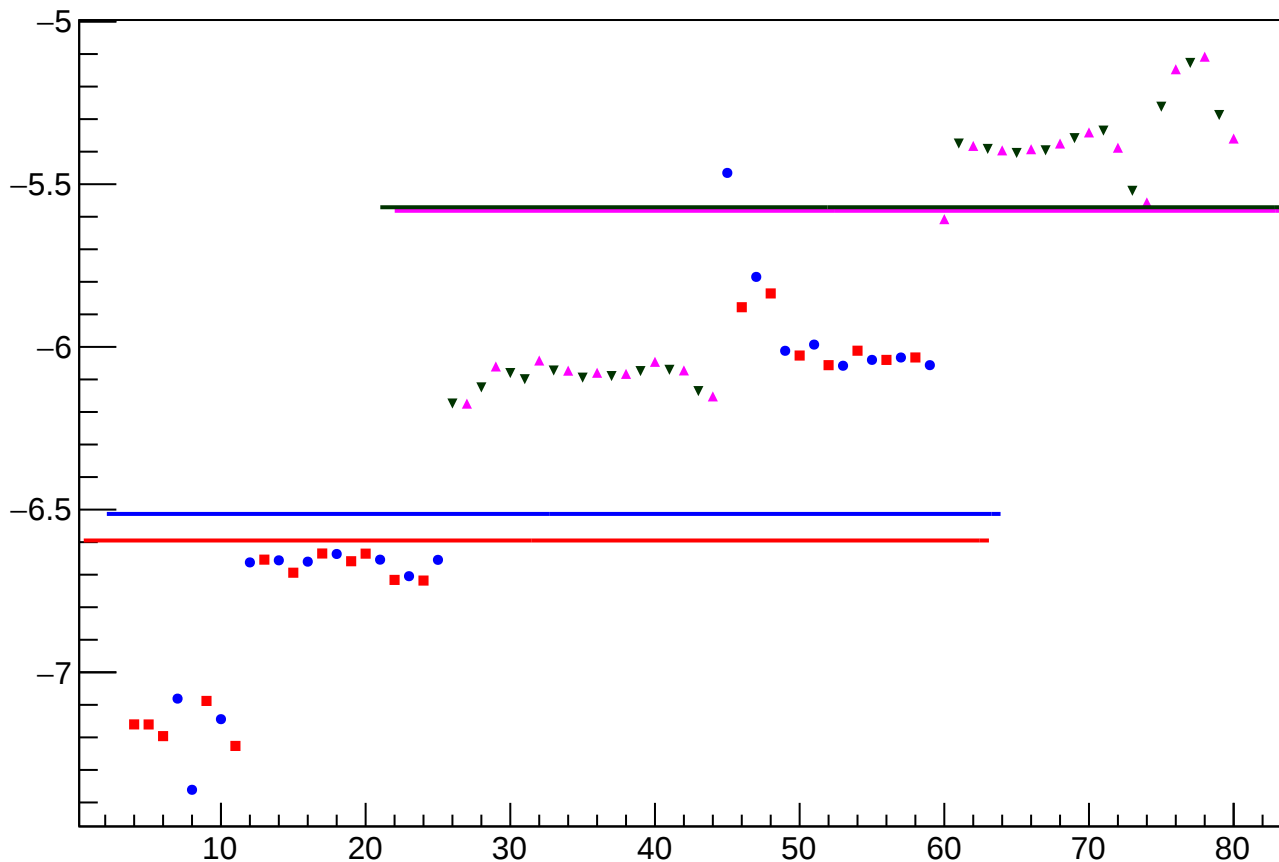
Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 159092.9/18

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 527293.2/19

0.009+/-0.000  $\chi^2/\text{NDF}$ : 651398.3/37

0.009+/-0.000  $\chi^2/\text{NDF}$ : 759316.2/38

yield\_bpm0l01Y\_mean vs slug



Right In: -6.513+/-0.000  $\chi^2/\text{NDF}$ : 34103178286.6/17

Left Out: -5.571+/-0.000  $\chi^2/\text{NDF}$ : 22657062909.7/19

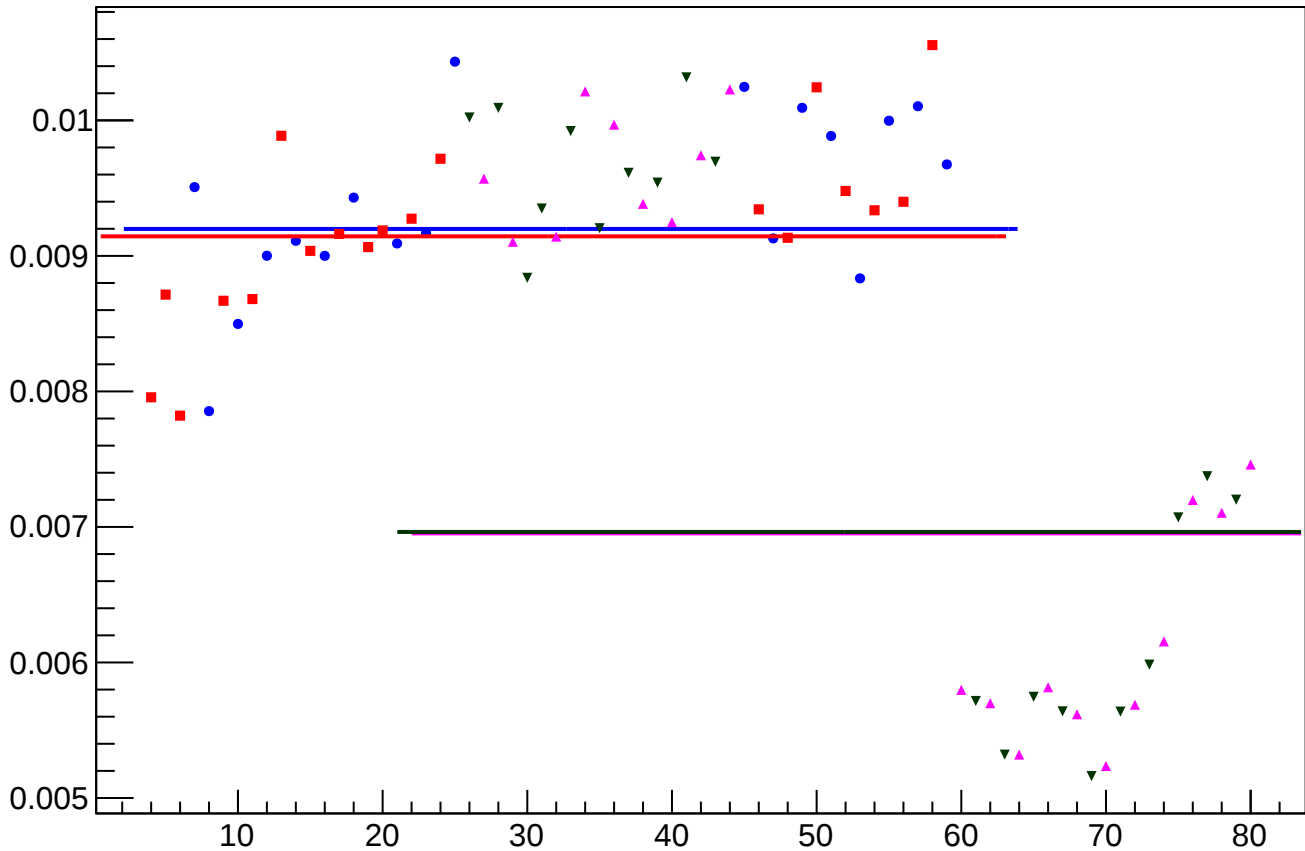
-5.945+/-0.000  $\chi^2/\text{NDF}$ : 125282468433.7/37

Right Out: -6.595+/-0.000  $\chi^2/\text{NDF}$ : 25777696502.6/18

-5.934+/-0.000  $\chi^2/\text{NDF}$ : 125915629490.8/38

Left In: -5.582+/-0.000  $\chi^2/\text{NDF}$ : 23965025592.7/19

# yield\_bpm0l01Y\_rms vs slug



Right In:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 120528.1/17

Left Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 1256193.4/19

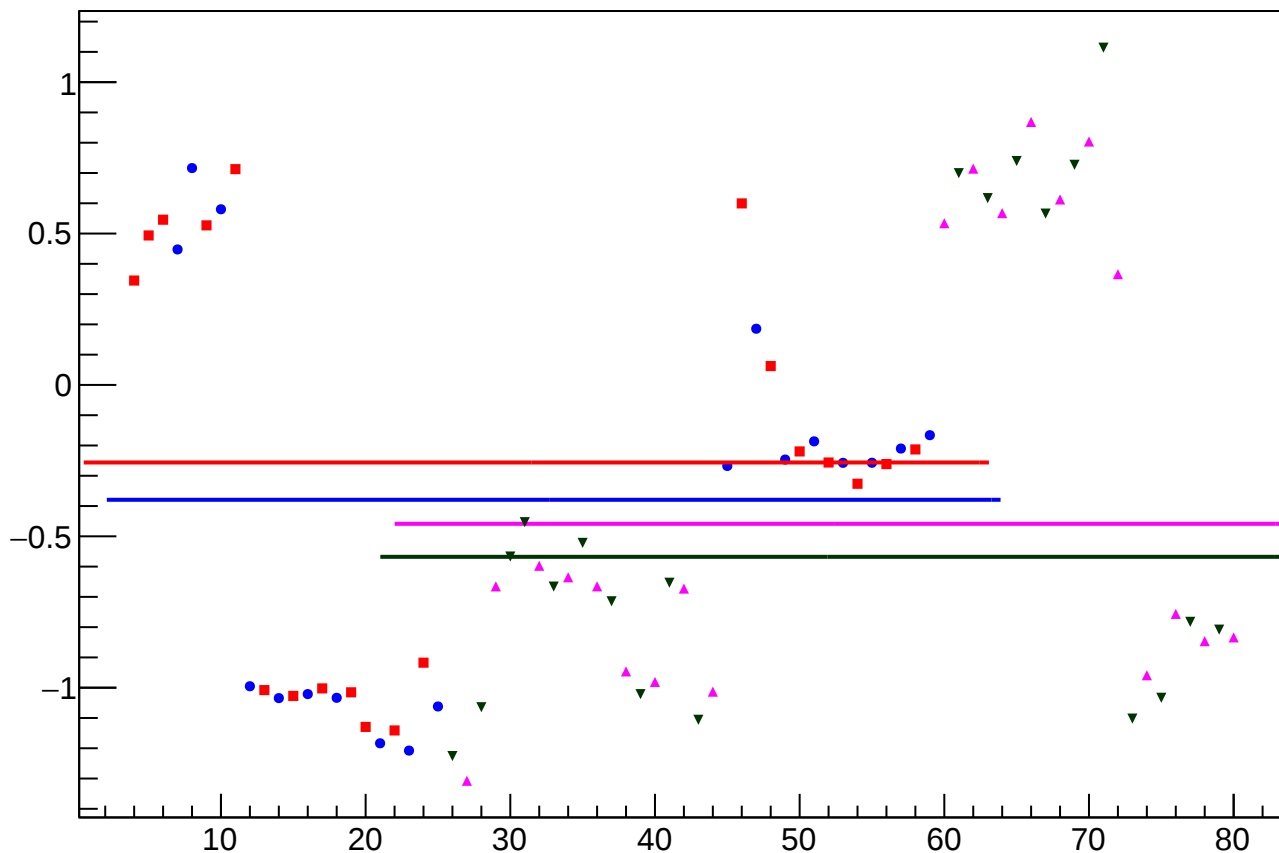
Right Out:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 101222.8/18

Left In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 1272676.2/19

$0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 2147976.6/37

$0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 2086938.6/38

# yield\_bpm0l02X\_mean vs slug



Right In:  $-0.379 \pm 0.000$   $\chi^2/\text{NDF}$ : 10136750548.1/17

Left Out:  $-0.568 \pm 0.000$   $\chi^2/\text{NDF}$ : 23164147530.5/19

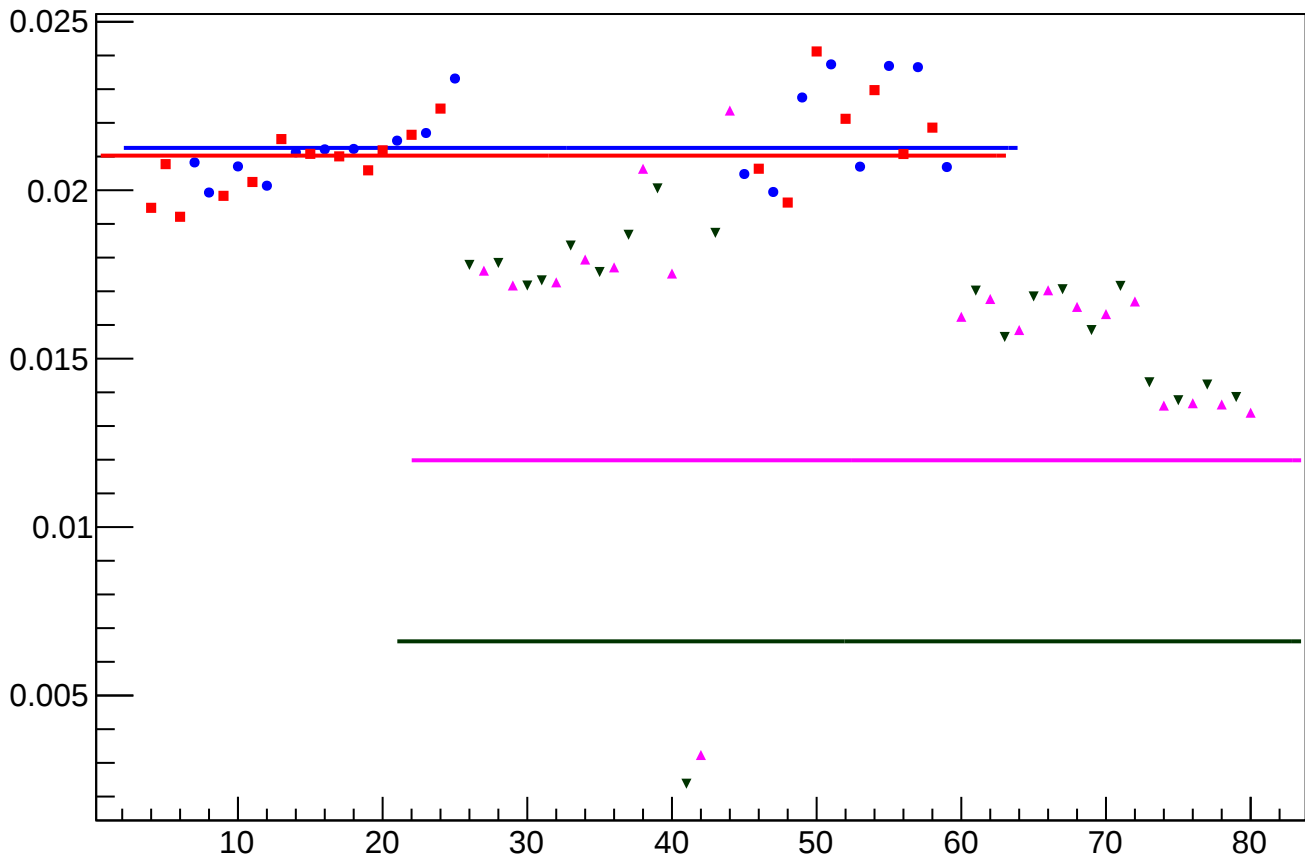
$-0.535 \pm 0.000$   $\chi^2/\text{NDF}$ : 34018162714.0/37

Right Out:  $-0.256 \pm 0.000$   $\chi^2/\text{NDF}$ : 10103342122.6/18

$-0.403 \pm 0.000$   $\chi^2/\text{NDF}$ : 32561300654.4/38

Left In:  $-0.459 \pm 0.000$   $\chi^2/\text{NDF}$ : 21800281389.6/19

# yield\_bpm0l02X\_rms vs slug



Right In: 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 64142.6/17

Left Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:10001470.6/19

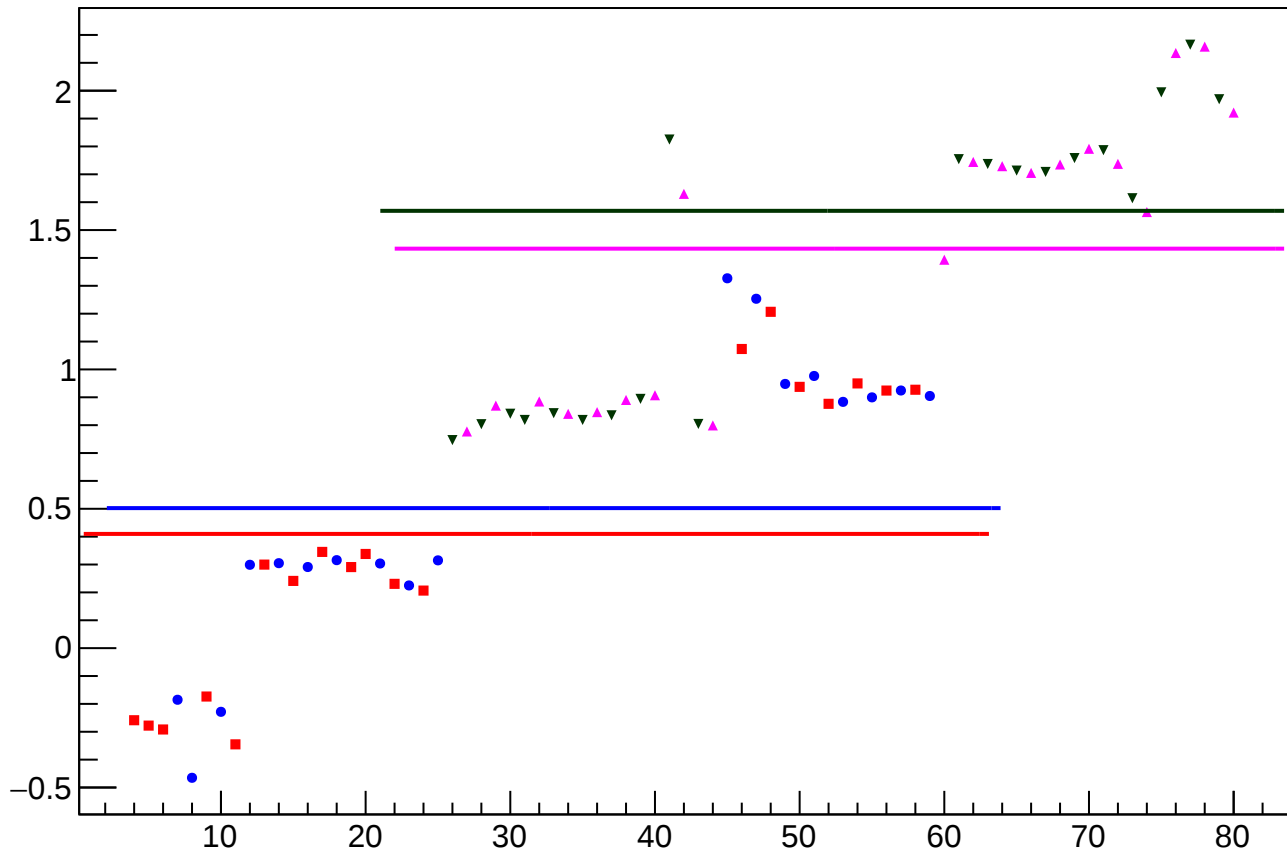
0.009 $\pm$ 0.000  $\chi^2$ /NDF: 18738516.2/37

Right Out: 0.021 $\pm$ 0.000  $\chi^2$ /NDF: 62886.6/18

0.014 $\pm$ 0.000  $\chi^2$ /NDF: 7414071.7/38

Left In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:4729255.4/19

# yield\_bpm0l02Y\_mean vs slug



Right In: 0.502 $\pm$ 0.000  $\chi^2$ /NDF: 19155654908.3/17

Left Out: 1.569 $\pm$ 0.000  $\chi^2$ /NDF: 25719563226.6/19

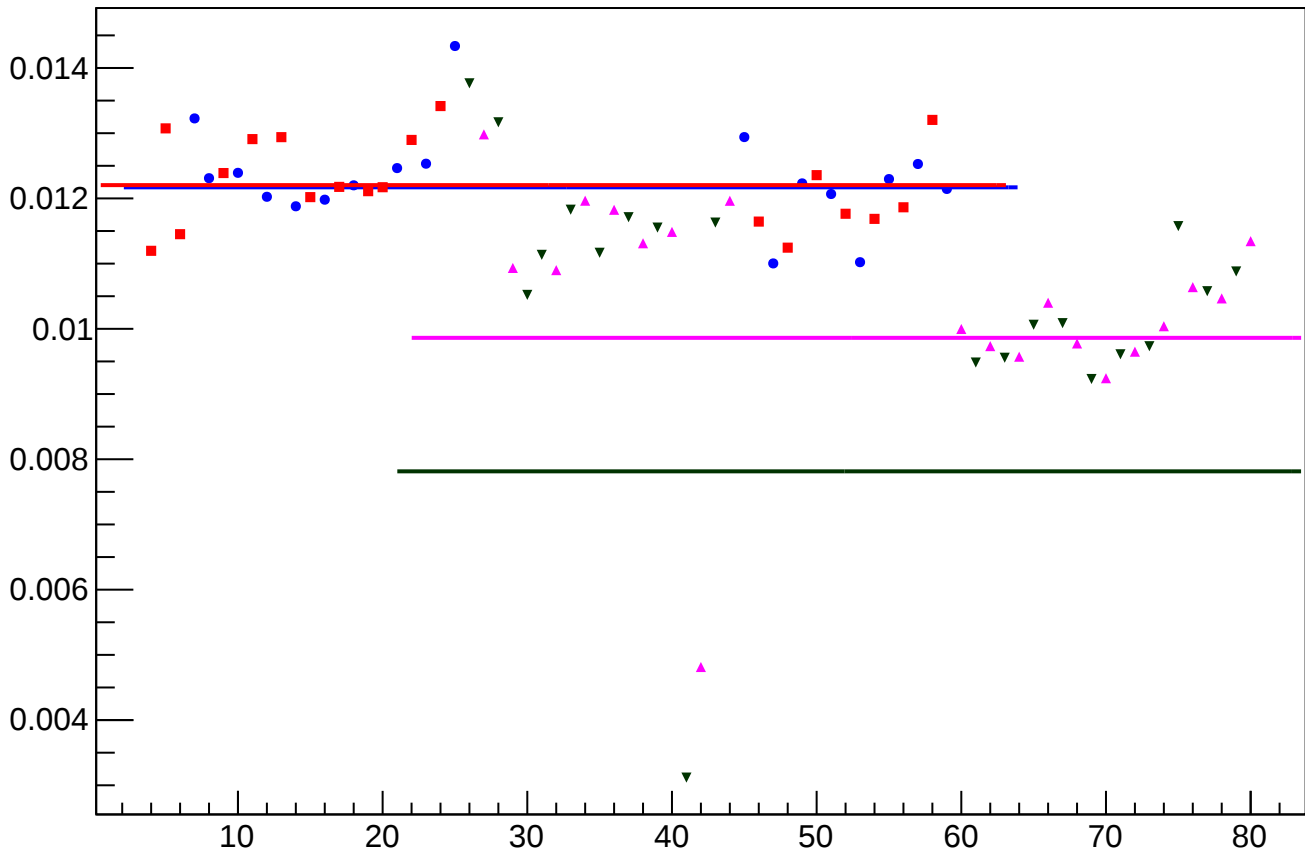
Right Out: 0.410 $\pm$ 0.000  $\chi^2$ /NDF: 16439315084.0/18

Left In: 1.433 $\pm$ 0.000  $\chi^2$ /NDF: 21828062181.8/19

1.191 $\pm$ 0.000  $\chi^2$ /NDF: 99122514260.8/37

1.047 $\pm$ 0.000  $\chi^2$ /NDF: 80433216935.9/38

# yield\_bpm0l02Y\_rms vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 45604.3/17

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 3842126.8/19

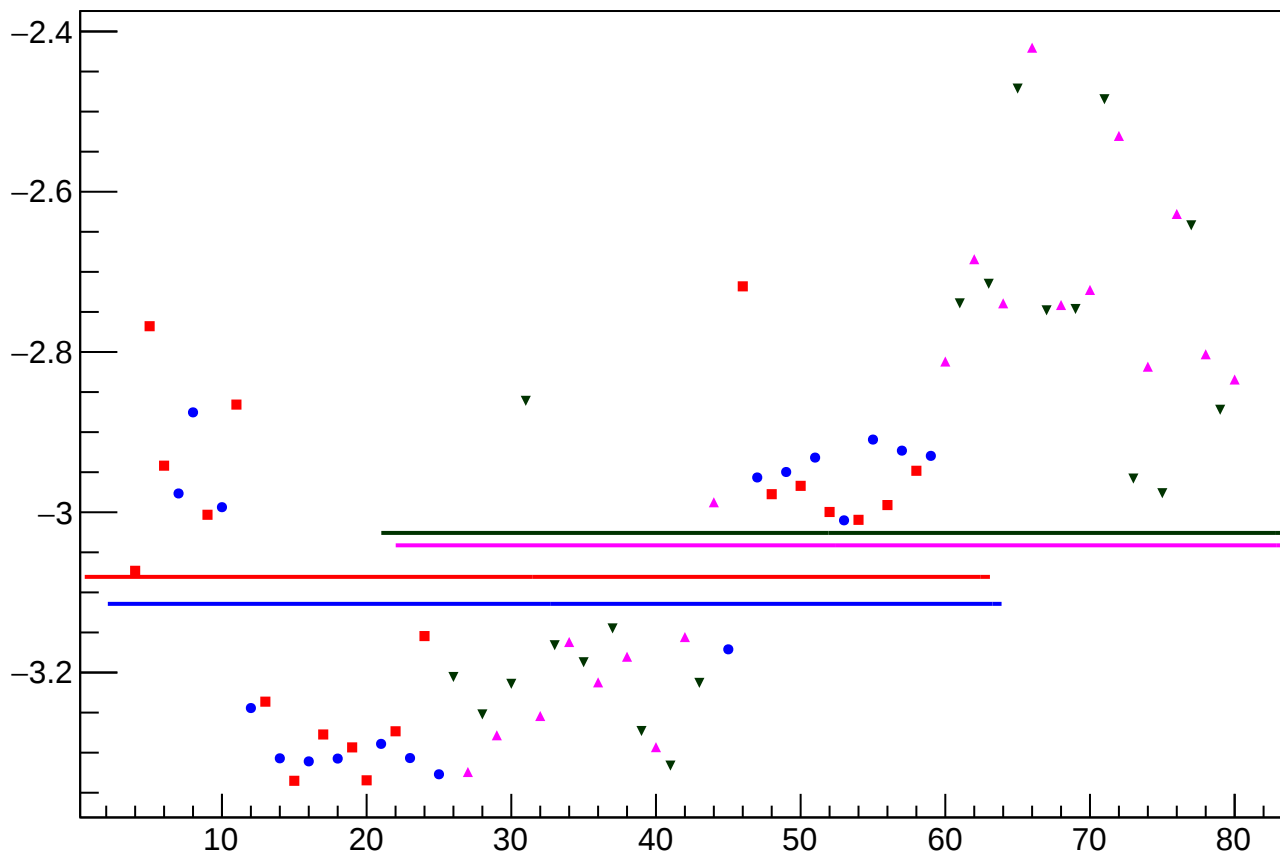
0.009+/-0.000  $\chi^2/\text{NDF}$ : 5696873.7/37

Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 53181.0/18

0.011+/-0.000  $\chi^2/\text{NDF}$ : 1513383.2/38

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1018641.1/19

# yield\_bpm0l03X\_mean vs slug



Right In: -3.114+/-0.000  $\chi^2/\text{NDF}$ : 4627659924.1/17

Left Out: -3.026+/-0.000  $\chi^2/\text{NDF}$ : 11453162534.5/19

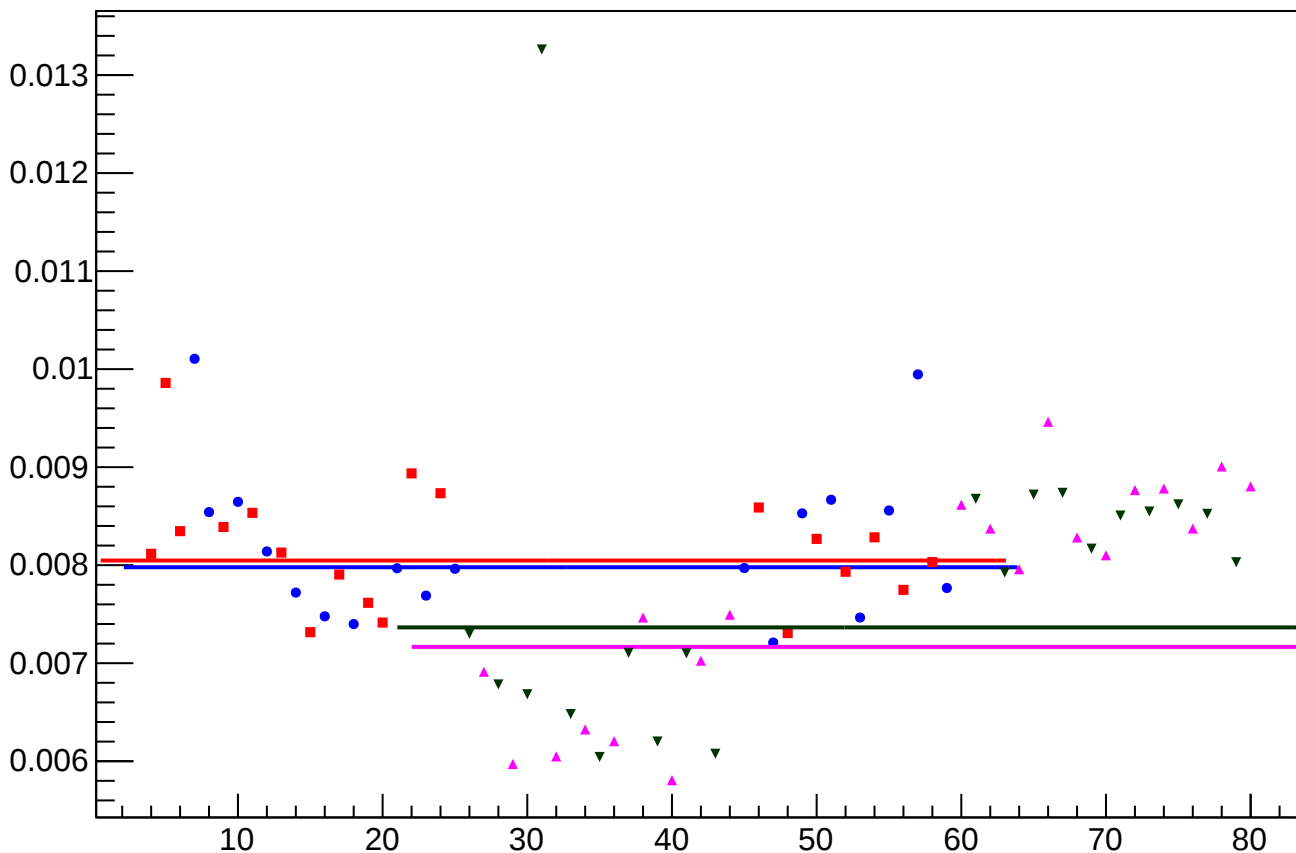
Right Out: -3.081+/-0.000  $\chi^2/\text{NDF}$ : 3839311184.0/18

Left In: -3.041+/-0.000  $\chi^2/\text{NDF}$ : 13573067548.1/19

-3.068+/-0.000  $\chi^2/\text{NDF}$ : 16697736332.9/37

-3.057+/-0.000  $\chi^2/\text{NDF}$ : 17530532626.9/38

# yield\_bpm0l03X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 95241.7/17

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 426285.9/19

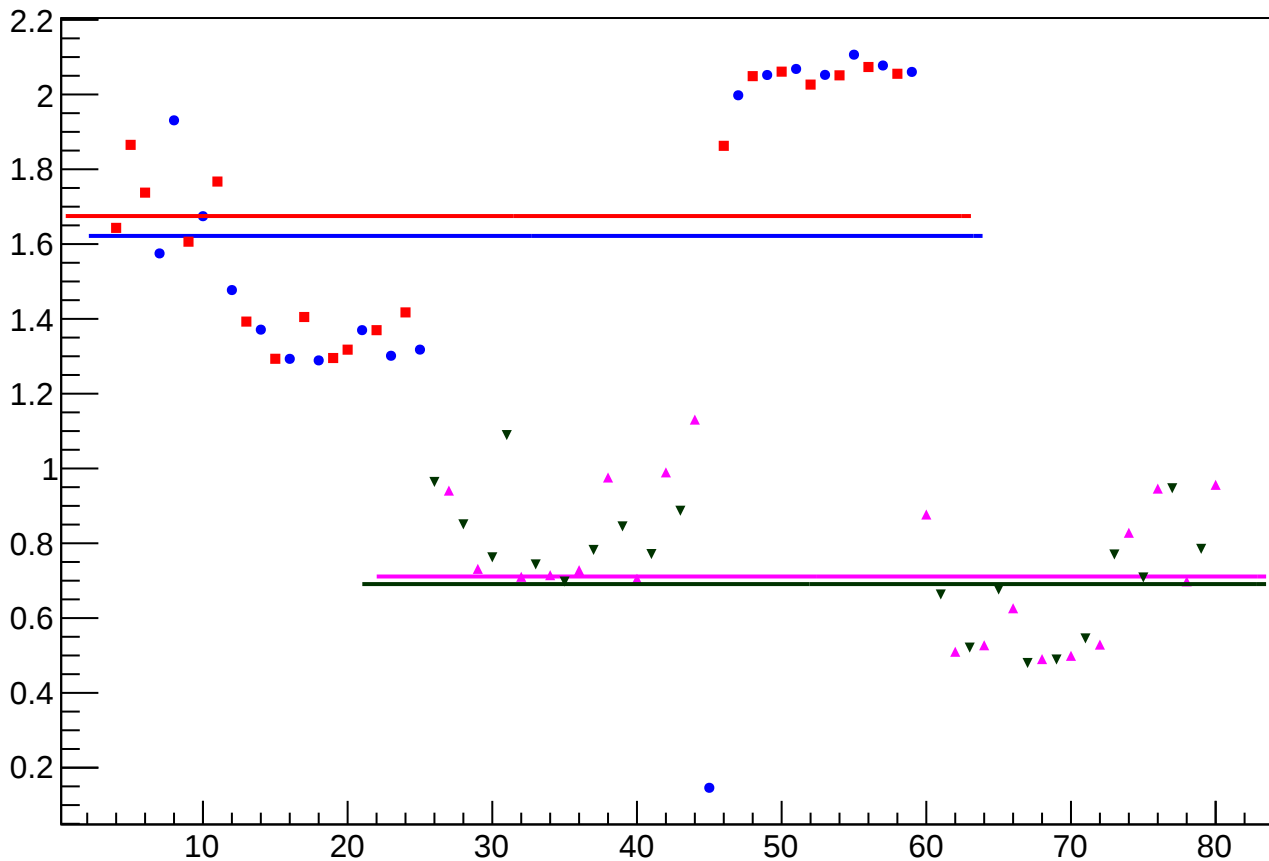
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 57509.8/18

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 479368.5/19

0.008+/-0.000  $\chi^2/\text{NDF}$ : 580806.5/37

0.008+/-0.000  $\chi^2/\text{NDF}$ : 655291.3/38

# yield\_bpm0l03Y\_mean vs slug



Right In: 1.622 $\pm$ 0.000  $\chi^2$ /NDF: 26006902897.9/17

Left Out: 0.691 $\pm$ 0.000  $\chi^2$ /NDF:3728638082.7/19

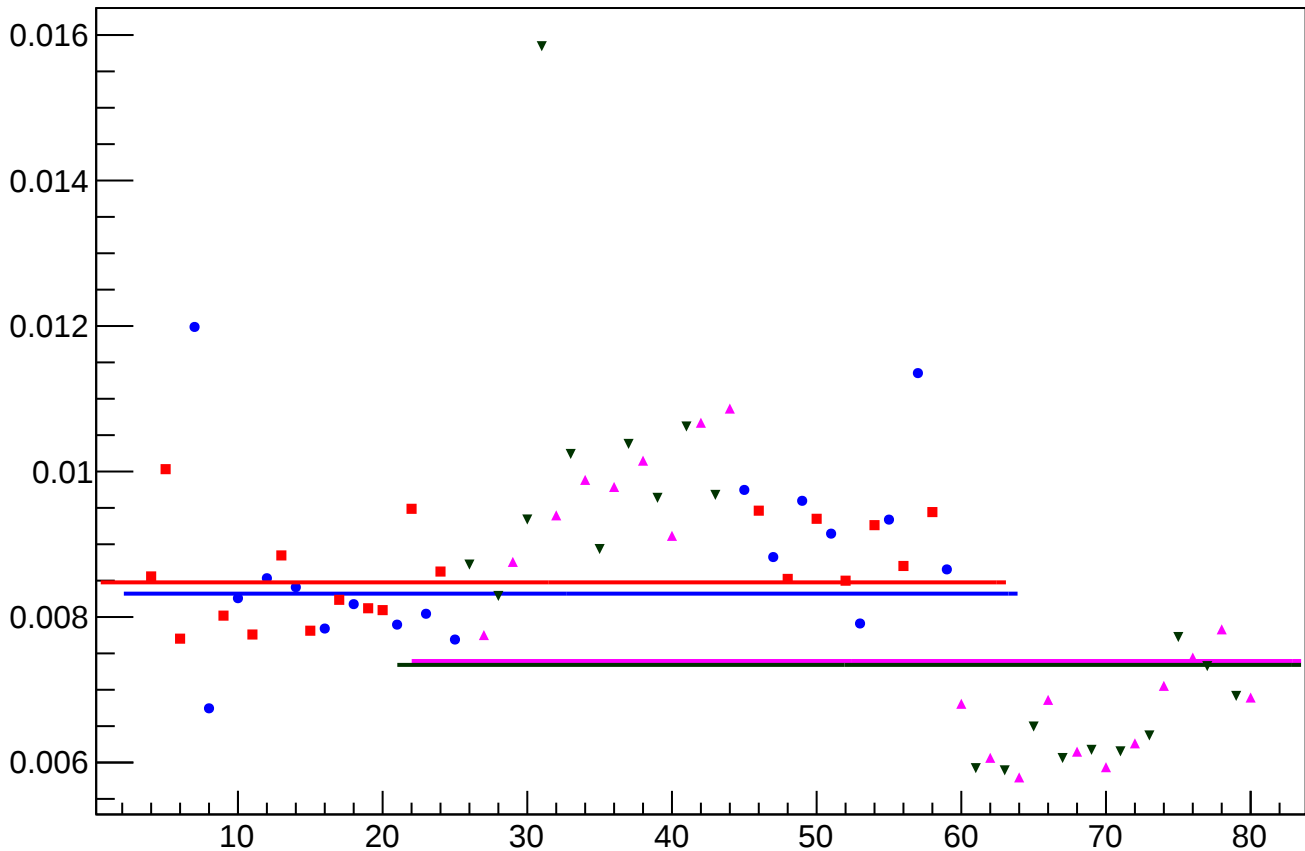
1.118 $\pm$ 0.000  $\chi^2$ /NDF: 93182925661.9/37

Right Out: 1.675 $\pm$ 0.000  $\chi^2$ /NDF: 9809193440.2/18

1.097 $\pm$ 0.000  $\chi^2$ /NDF: 79055697133.0/38

Left In: 0.711 $\pm$ 0.000  $\chi^2$ /NDF:5872379090.0/19

# yield\_bpm0l03Y\_rms vs slug



Right In: 0.008 $\pm$ 0.000  $\chi^2$ /NDF: 231289.2/17

Left Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 871778.4/19

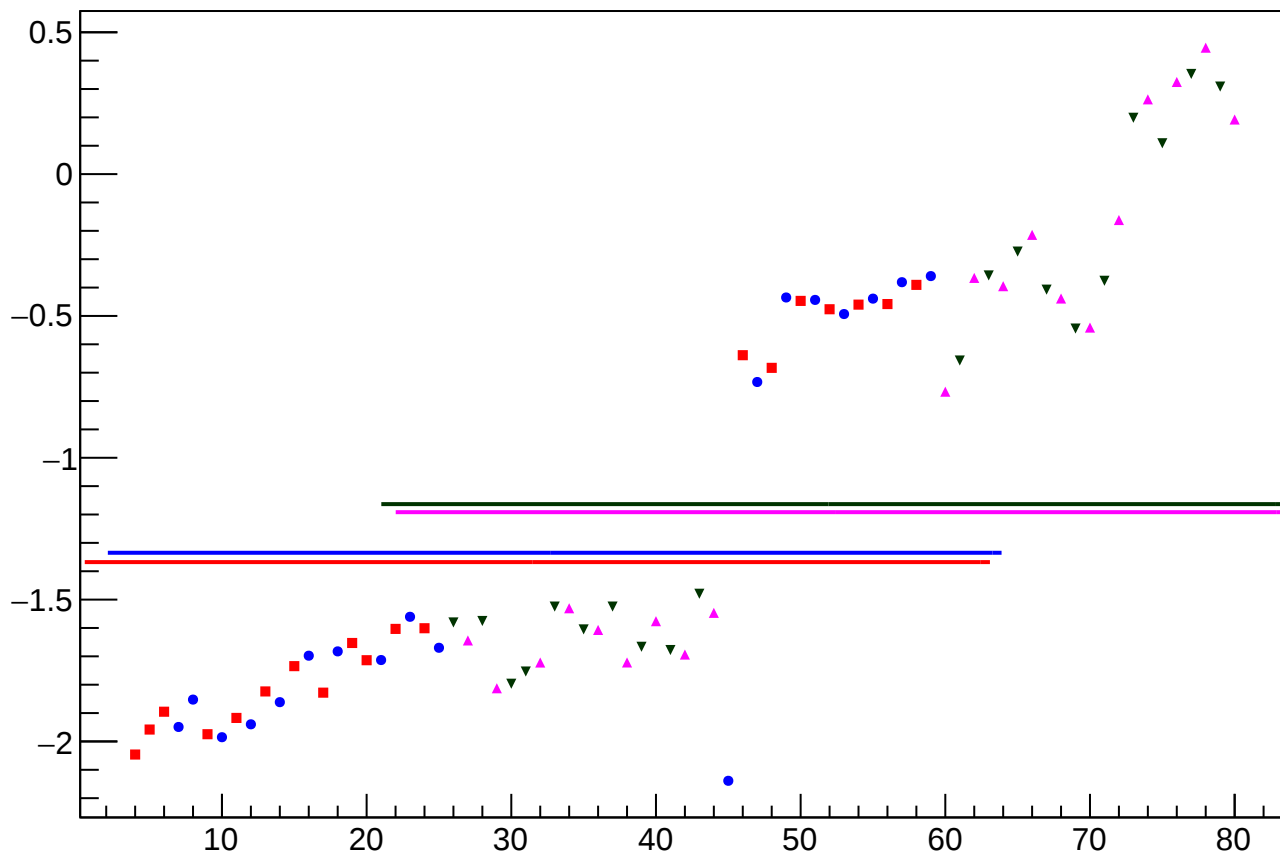
Right Out: 0.008 $\pm$ 0.000  $\chi^2$ /NDF: 80155.6/18

Left In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 740809.0/19

0.008 $\pm$ 0.000  $\chi^2$ /NDF: 1243504.0/37

0.008 $\pm$ 0.000  $\chi^2$ /NDF: 980379.5/38

# yield\_bpm0l04X\_mean vs slug



Right In: -1.335+/-0.000  $\chi^2/\text{NDF}$ : 38397269291.9/17

Left Out: -1.163+/-0.000  $\chi^2/\text{NDF}$ : 26369934241.8/19

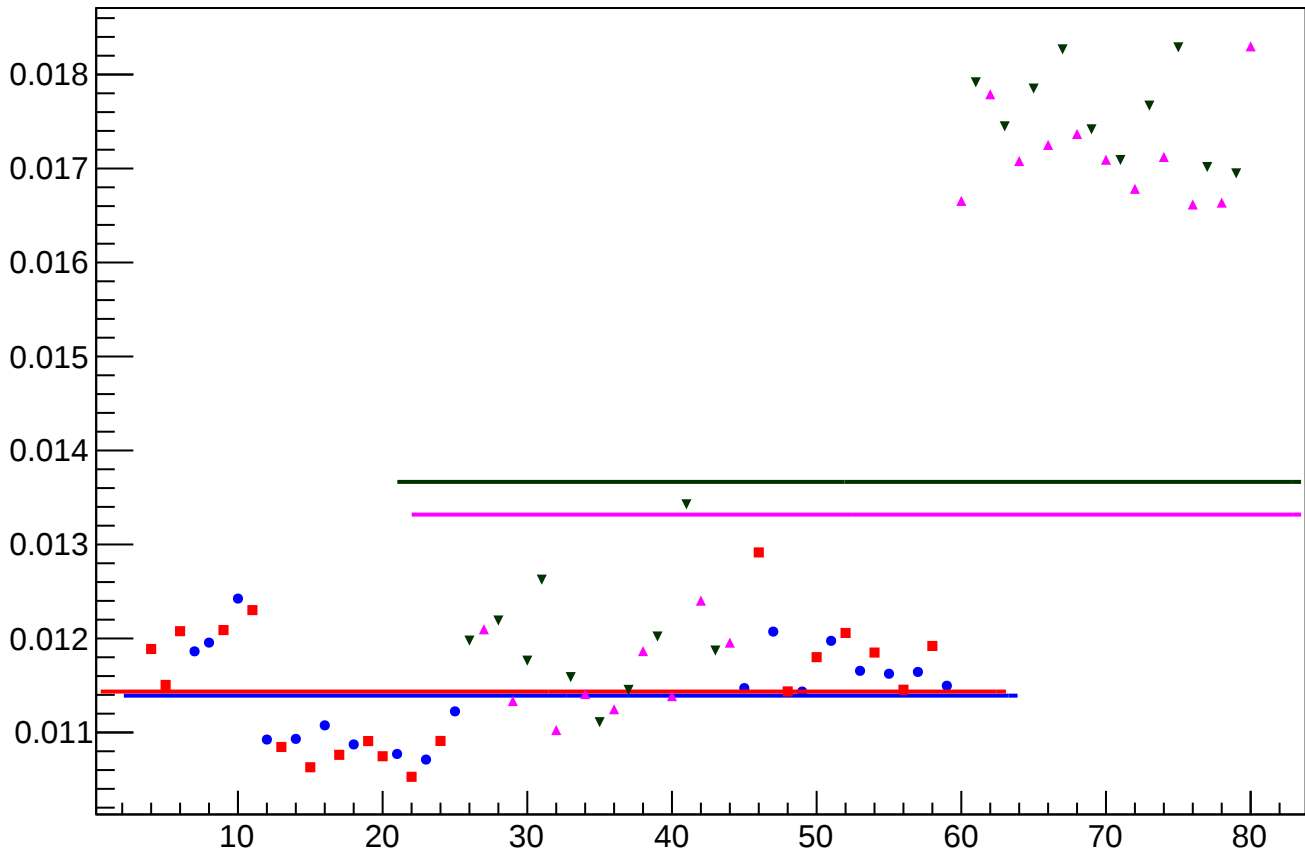
Right Out: -1.368+/-0.000  $\chi^2/\text{NDF}$ : 29057521992.7/18

Left In: -1.192+/-0.000  $\chi^2/\text{NDF}$ : 33080274930.1/19

-1.269+/-0.000  $\chi^2/\text{NDF}$ : 65728104456.4/37

-1.289+/-0.000  $\chi^2/\text{NDF}$ : 63175730377.4/38

# yield\_bpm0l04X\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 41989.4/17

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 740367.6/19

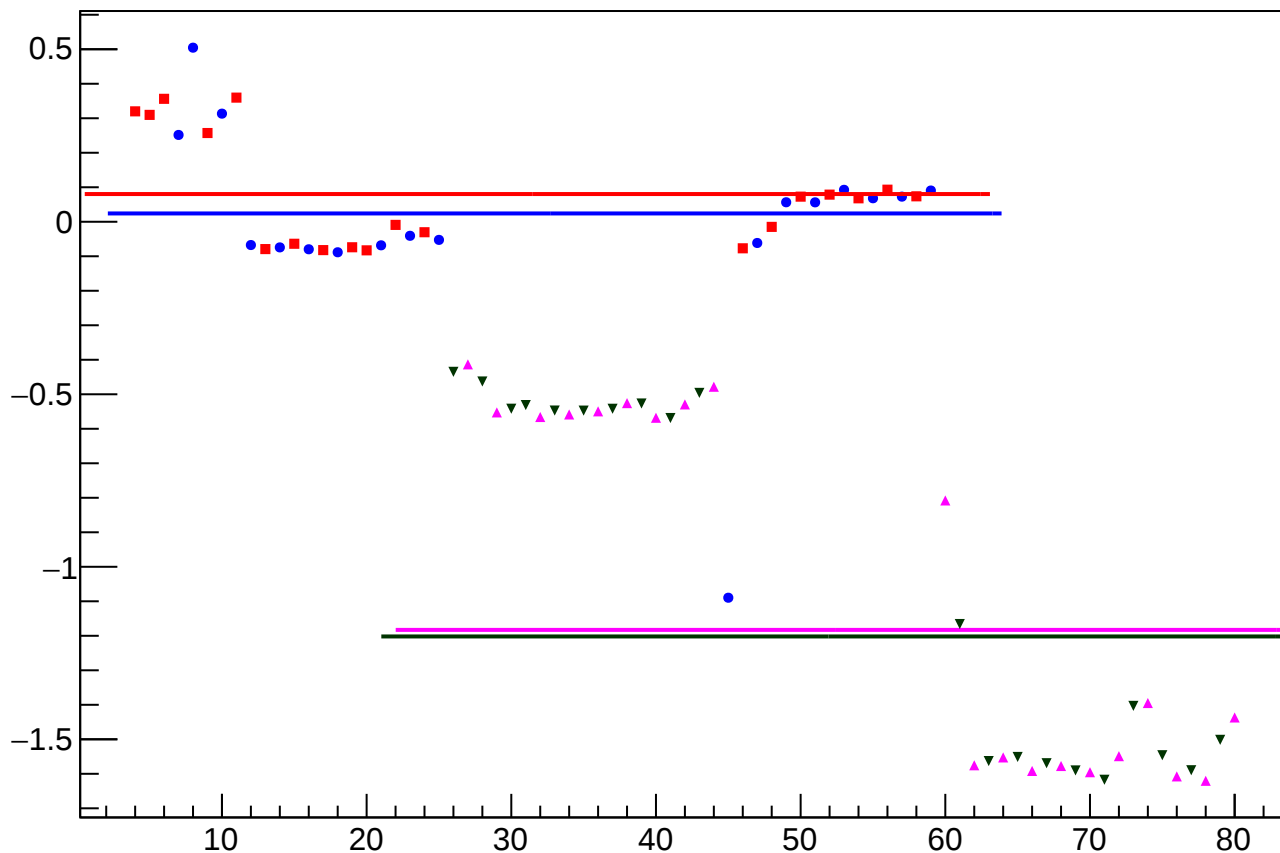
0.012+/-0.000  $\chi^2/\text{NDF}$ : 1120283.5/37

Right Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 65676.1/18

0.012+/-0.000  $\chi^2/\text{NDF}$ : 1133149.8/38

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 829943.5/19

# yield\_bpm0l04Y\_mean vs slug



Right In: 0.024+/-0.000  $\chi^2/\text{NDF}$ : 18234538167.9/17

Left Out: -1.202+/-0.000  $\chi^2/\text{NDF}$ : 56528102803.5/19

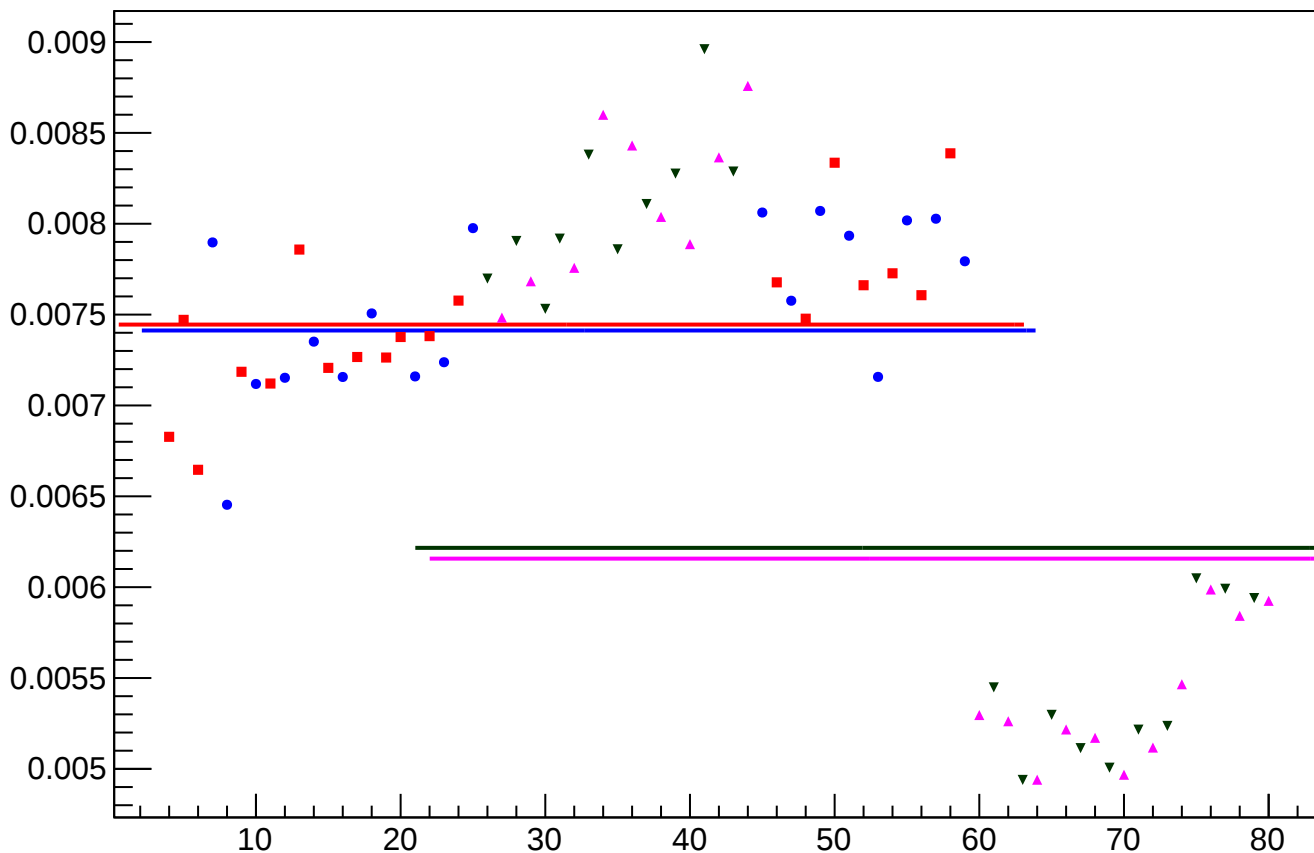
Right Out: 0.080+/-0.000  $\chi^2/\text{NDF}$ : 4561023053.2/18

Left In: -1.183+/-0.000  $\chi^2/\text{NDF}$ : 64957228684.4/19

-0.659+/-0.000  $\chi^2/\text{NDF}$ : 240788667072.7/37

-0.699+/-0.000  $\chi^2/\text{NDF}$ : 239545618257.6/38

# yield\_bpm0l04Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 91120.7/17

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 861895.0/19

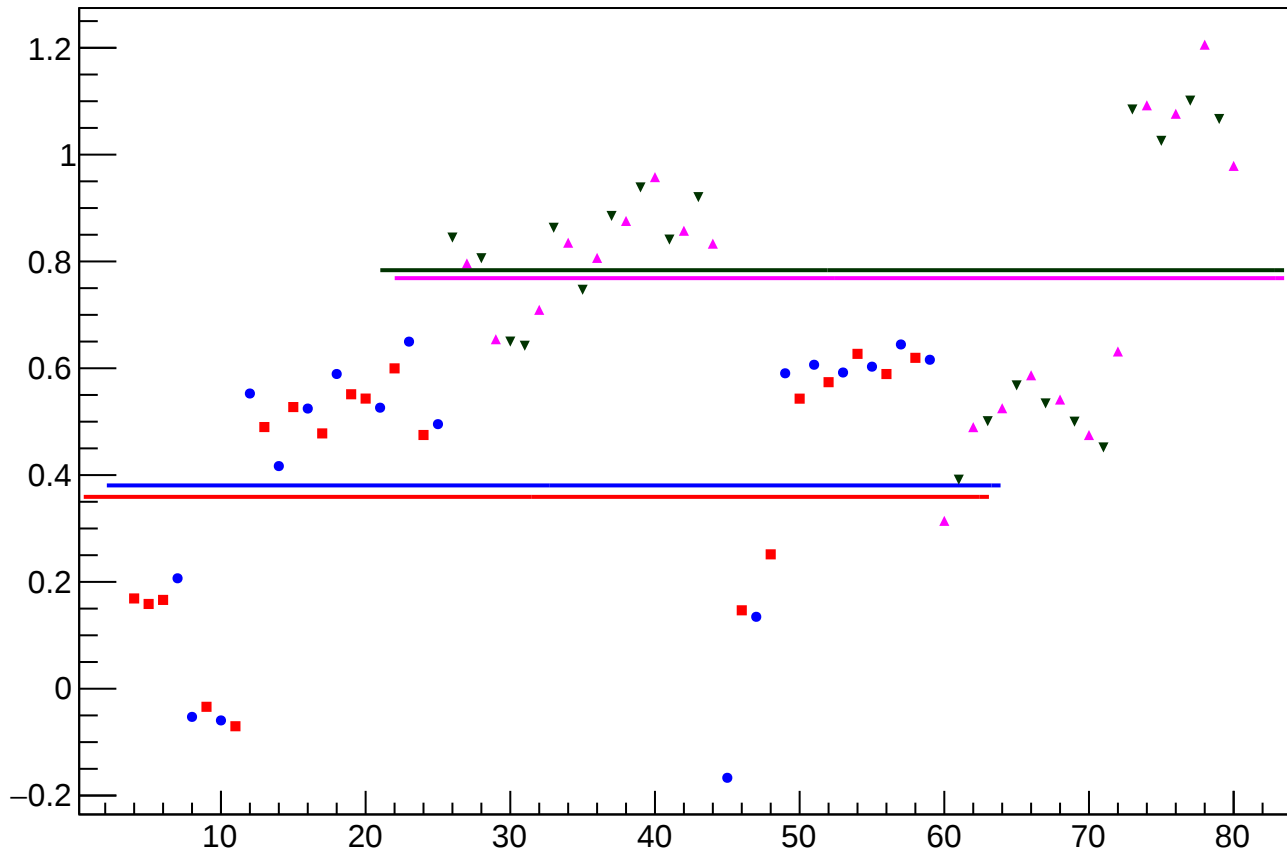
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 61122.7/18

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 908457.5/19

0.007+/-0.000  $\chi^2/\text{NDF}$ : 1269115.2/37

0.007+/-0.000  $\chi^2/\text{NDF}$ : 1323097.6/38

# yield\_bpm0l05X\_mean vs slug



Right In: 0.381+/-0.000  $\chi^2/\text{NDF}$ : 17766233664.3/17

Left Out: 0.784+/-0.000  $\chi^2/\text{NDF}$ : 9151299824.9/19

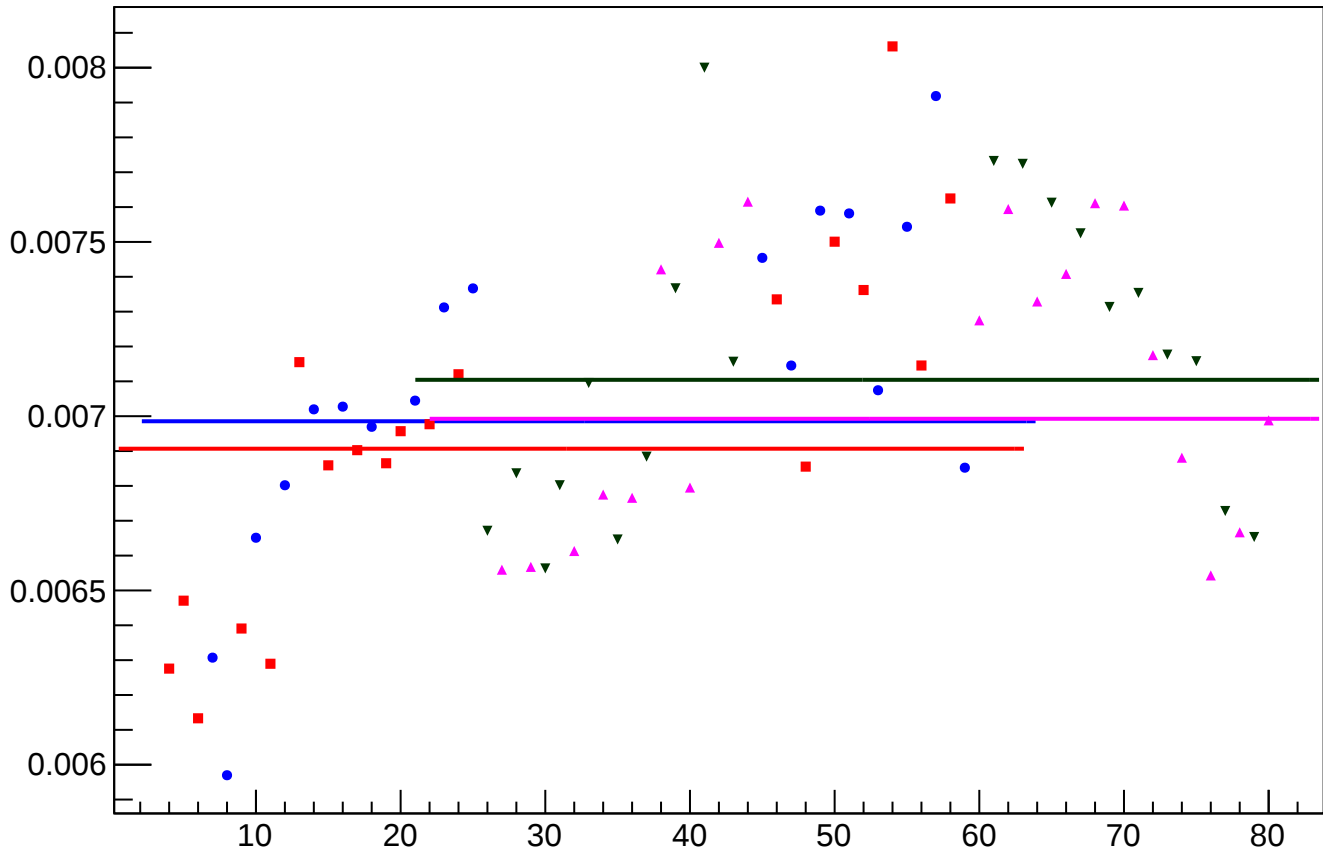
Right Out: 0.359+/-0.000  $\chi^2/\text{NDF}$ : 11904326957.3/18

Left In: 0.769+/-0.000  $\chi^2/\text{NDF}$ : 10721546953.5/19

0.571+/-0.000  $\chi^2/\text{NDF}$ : 44171501145.6/37

0.575+/-0.000  $\chi^2/\text{NDF}$ : 40548763990.6/38

# yield\_bpm0l05X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 107156.0/17

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 66388.4/19

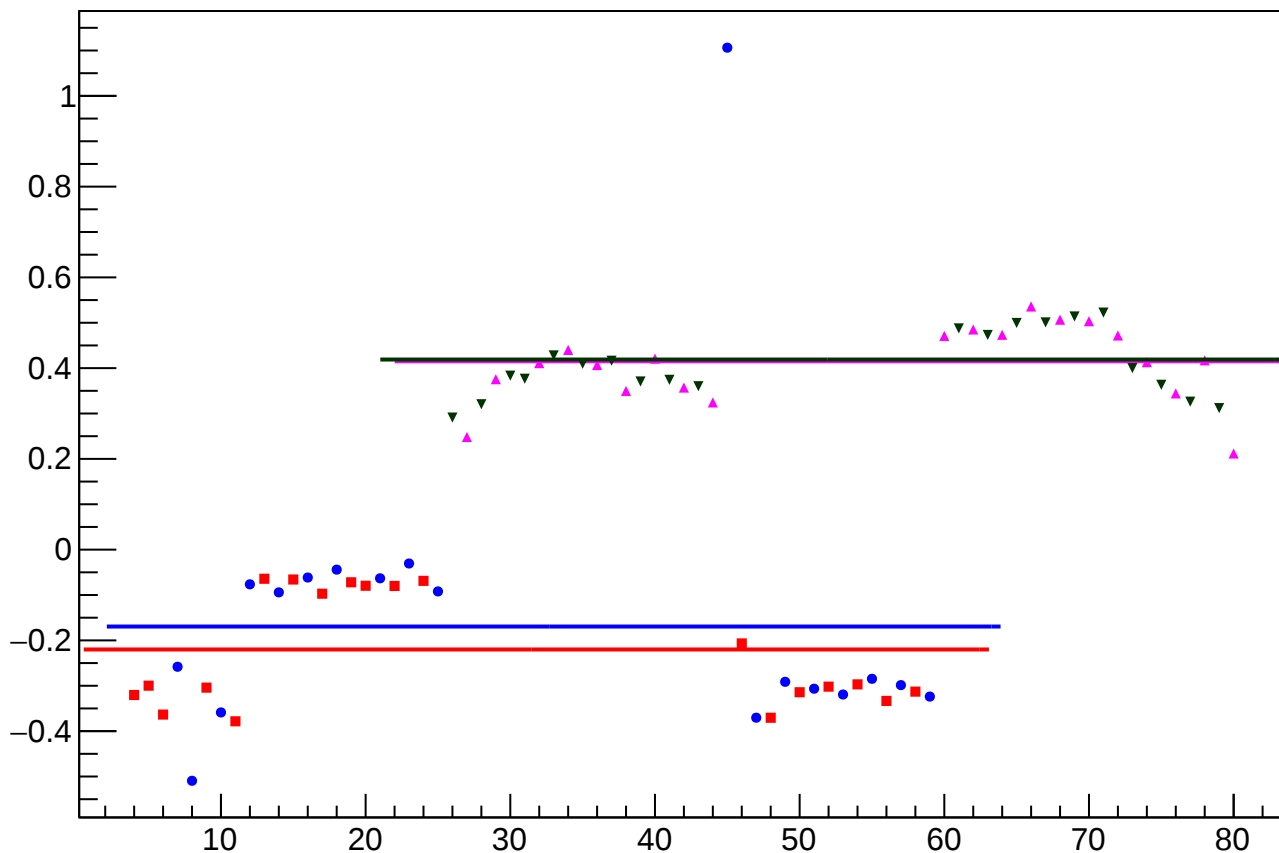
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 97555.6/18

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 72596.1/19

0.007+/-0.000  $\chi^2/\text{NDF}$ : 176548.6/37

0.007+/-0.000  $\chi^2/\text{NDF}$ : 171726.7/38

# yield\_bpm0l05Y\_mean vs slug



Right In: -0.169+/-0.000  $\chi^2/\text{NDF}$ : 37135565875.9/17

Left Out: 0.419+/-0.000  $\chi^2/\text{NDF}$ :2300390366.7/19

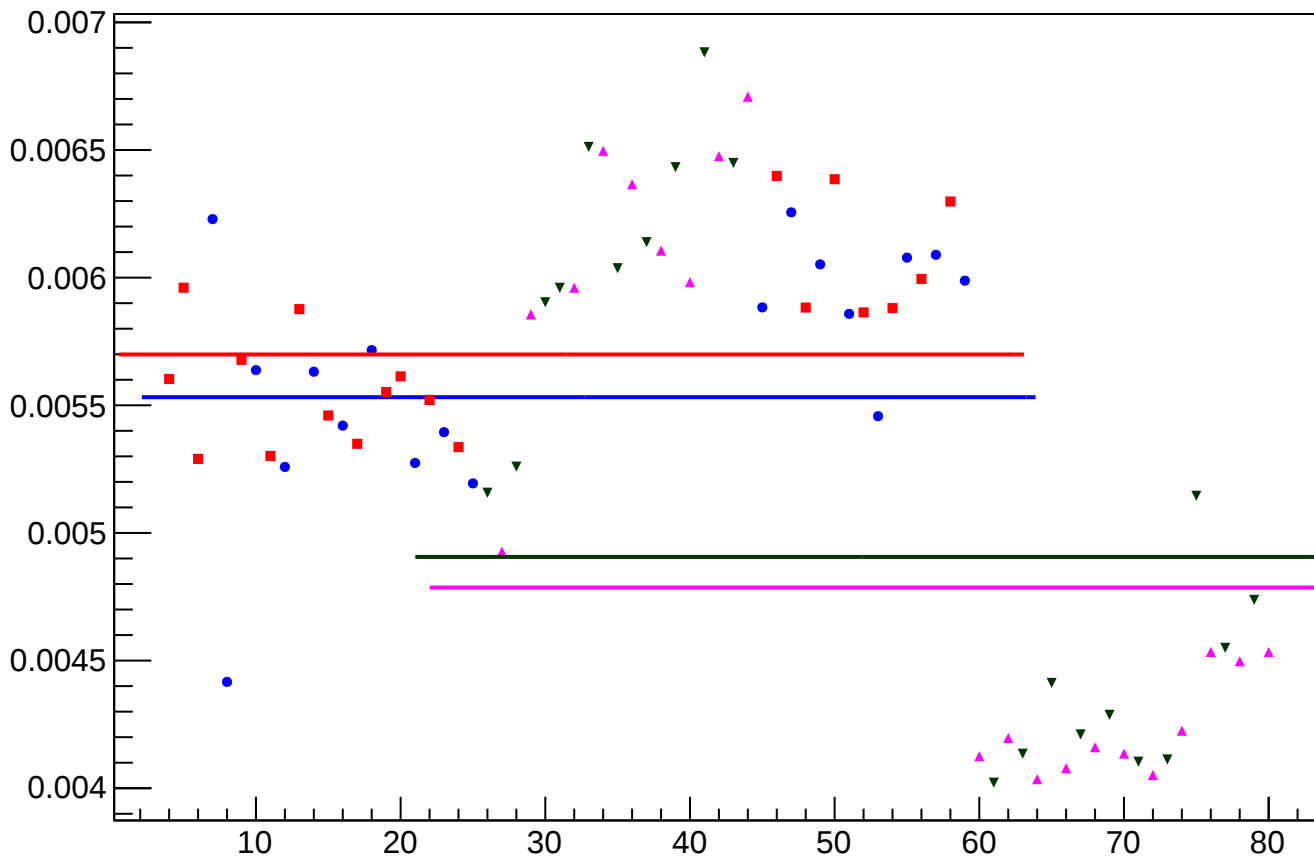
0.144+/-0.000  $\chi^2/\text{NDF}$ : 104413692601.0/37

Right Out: -0.220+/-0.000  $\chi^2/\text{NDF}$ : 4721801975.9/18

0.168+/-0.000  $\chi^2/\text{NDF}$ : 80692849871.2/38

Left In: 0.415+/-0.000  $\chi^2/\text{NDF}$ :3688220610.5/19

# yield\_bpm0l05Y\_rms vs slug



Right In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 186989.4/17

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 632999.4/19

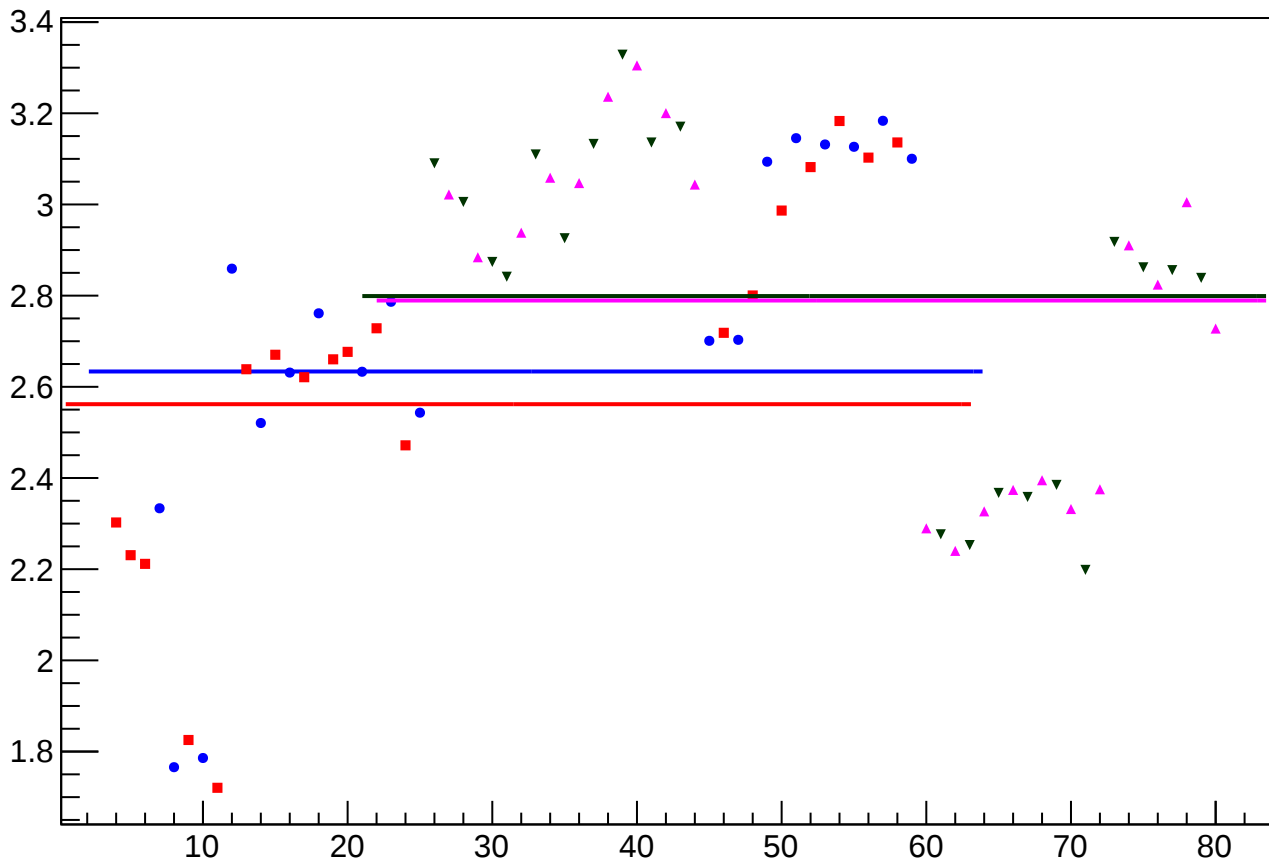
Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 66415.4/18

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 703213.4/19

0.005+/-0.000  $\chi^2/\text{NDF}$ : 966895.2/37

0.005+/-0.000  $\chi^2/\text{NDF}$ : 1068254.6/38

# yield\_bpm0l06X\_mean vs slug



Right In: 2.634+/-0.000  $\chi^2/\text{NDF}$ : 15879791998.3/17

Left Out: 2.799+/-0.000  $\chi^2/\text{NDF}$ :12909032227.7/19

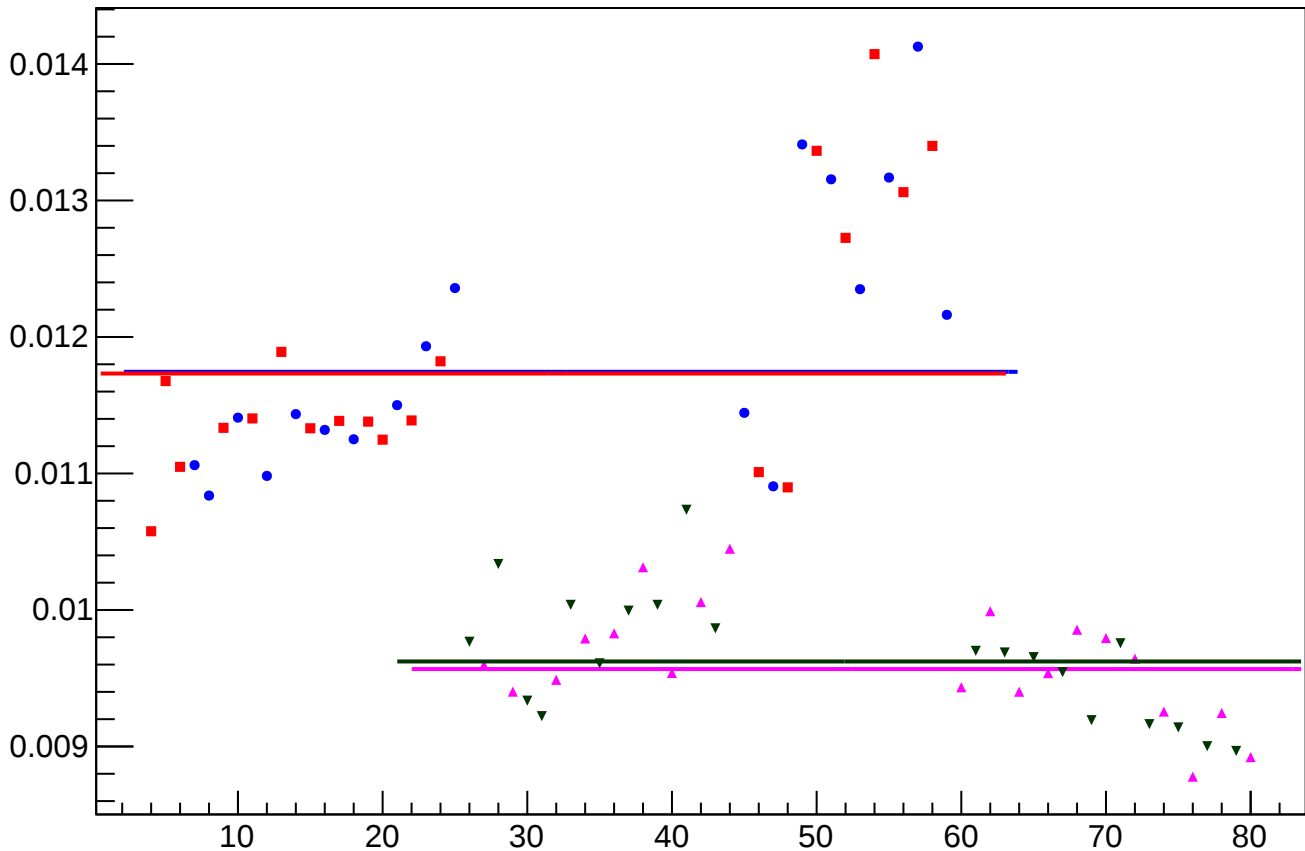
2.730+/-0.000  $\chi^2/\text{NDF}$ : 30051804176.6/37

Right Out: 2.562+/-0.000  $\chi^2/\text{NDF}$ : 12349960173.0/18

2.706+/-0.000  $\chi^2/\text{NDF}$ : 27848434469.5/38

Left In: 2.789+/-0.000  $\chi^2/\text{NDF}$ :13211404171.2/19

# yield\_bpm0l06X\_rms vs slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 117347.2/17

Left Out: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 45450.3/19

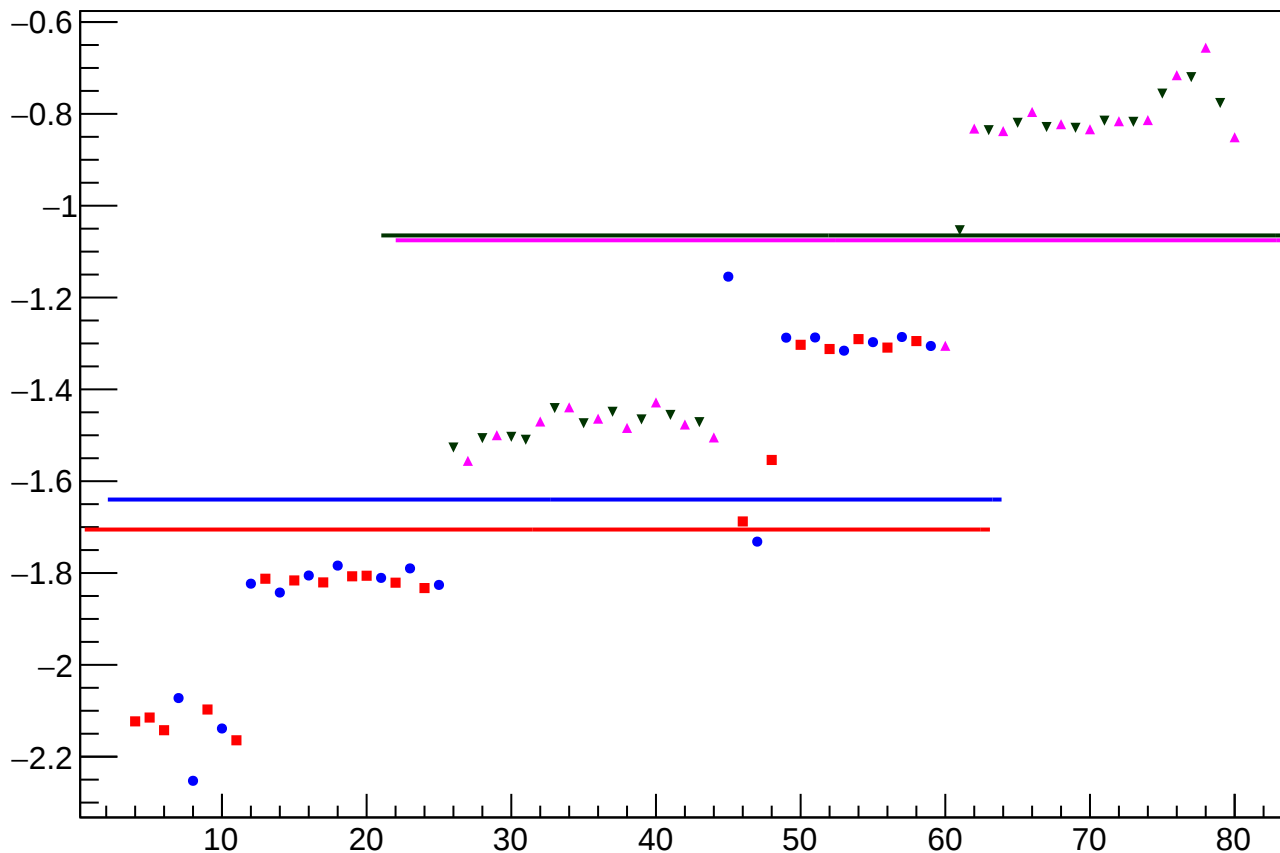
Right Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 107336.5/18

Left In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 37401.9/19

0.011 $\pm$ 0.000  $\chi^2$ /NDF: 578461.7/37

0.010 $\pm$ 0.000  $\chi^2$ /NDF: 559284.3/38

# yield\_bpm0l06Y\_mean vs slug



Right In:  $-1.640 \pm 0.000$   $\chi^2/\text{NDF}$ : 63862011114.5/17

Left Out:  $-1.065 \pm 0.000$   $\chi^2/\text{NDF}$ : 50182807189.0/19

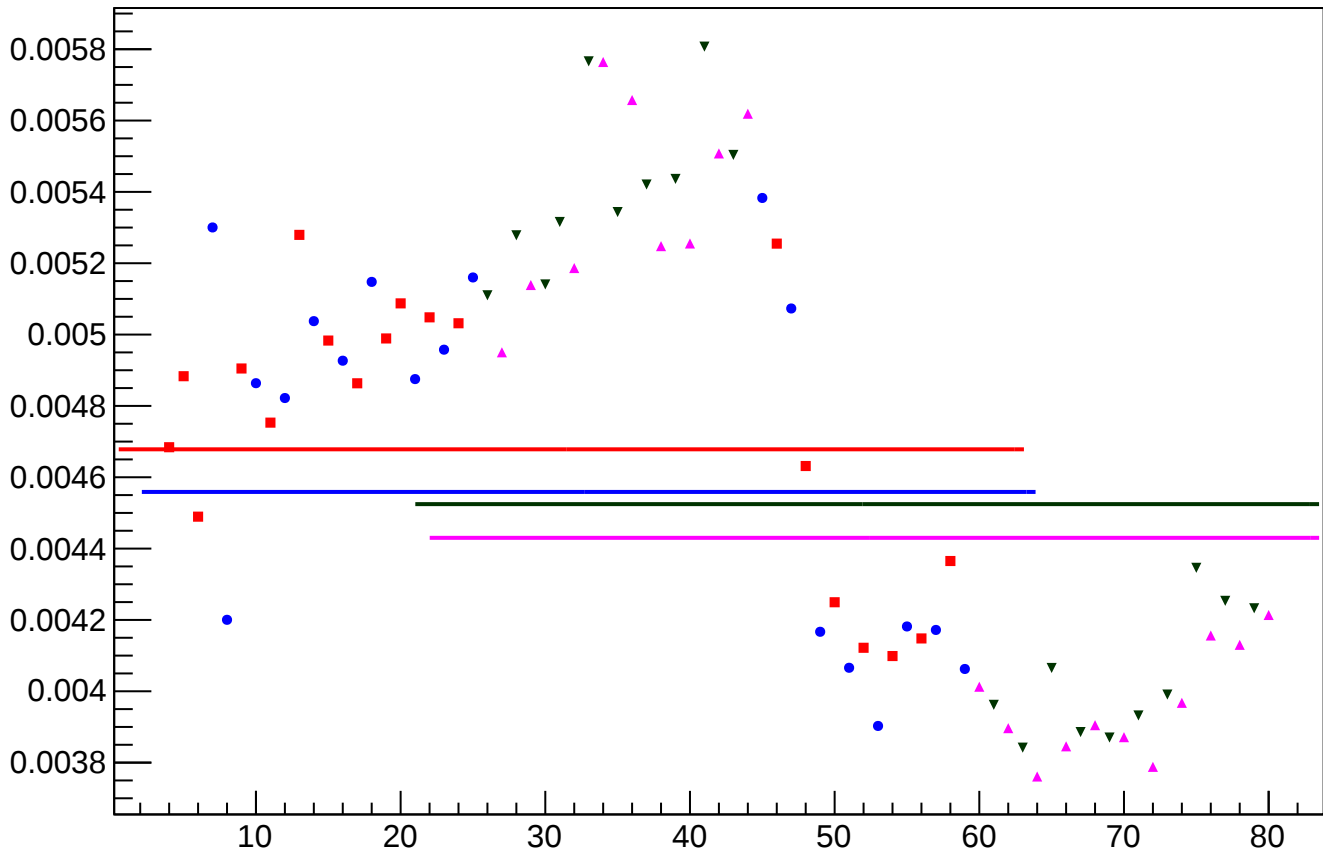
Right Out:  $-1.705 \pm 0.000$   $\chi^2/\text{NDF}$ : 45414052250.2/18

Left In:  $-1.075 \pm 0.000$   $\chi^2/\text{NDF}$ : 60702618116.5/19

$-1.364 \pm 0.000$   $\chi^2/\text{NDF}$ : 196959380240.1/37

$-1.355 \pm 0.000$   $\chi^2/\text{NDF}$ : 202759714493.5/38

# yield\_bpm0l06Y\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 228593.7/17

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ :456533.8/19

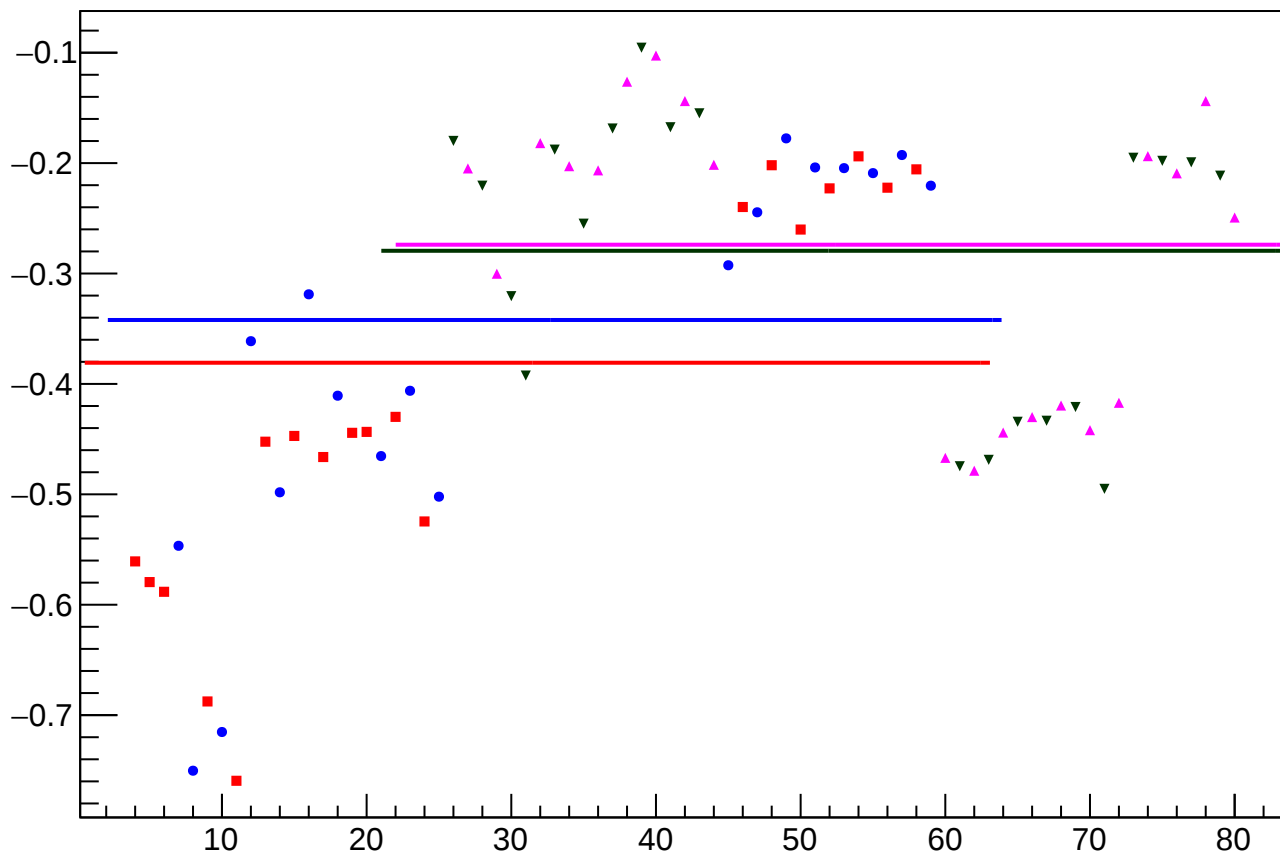
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 136426.0/18

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :495074.4/19

0.005+/-0.000  $\chi^2/\text{NDF}$ : 685713.0/37

0.005+/-0.000  $\chi^2/\text{NDF}$ : 661485.9/38

# yield\_bpm0l07X\_mean vs slug



Right In: -0.342+/-0.000  $\chi^2/\text{NDF}$ : 1669772673.5/17

Left Out: -0.279+/-0.000  $\chi^2/\text{NDF}$ : 766065995.2/19

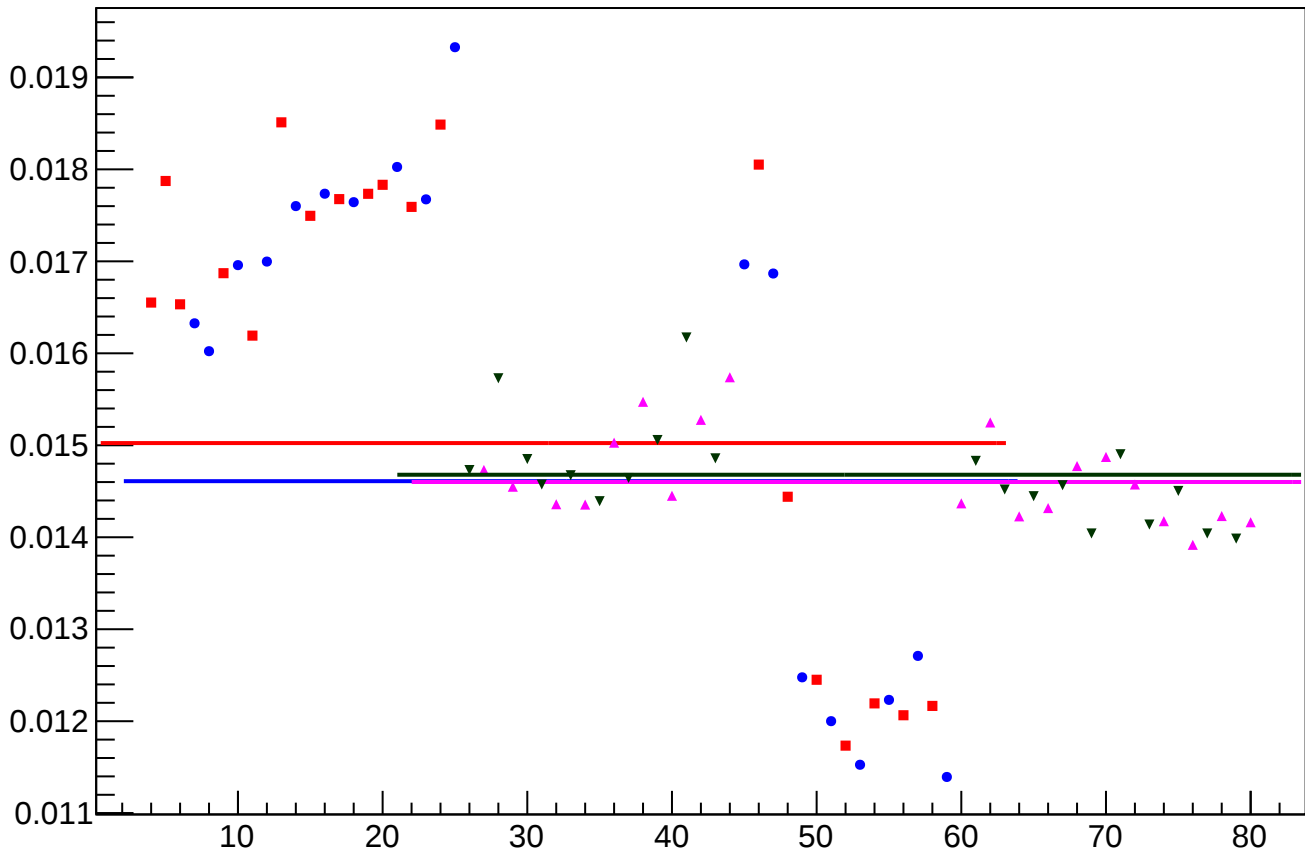
Right Out: -0.381+/-0.000  $\chi^2/\text{NDF}$ : 1387002500.9/18

Left In: -0.274+/-0.000  $\chi^2/\text{NDF}$ : 785849533.4/19

-0.311+/-0.000  $\chi^2/\text{NDF}$ : 2531974795.7/37

-0.321+/-0.000  $\chi^2/\text{NDF}$ : 2436895867.8/38

# yield\_bpm0l07X\_rms vs slug



Right In: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 711926.7/17

Left Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 26782.2/19

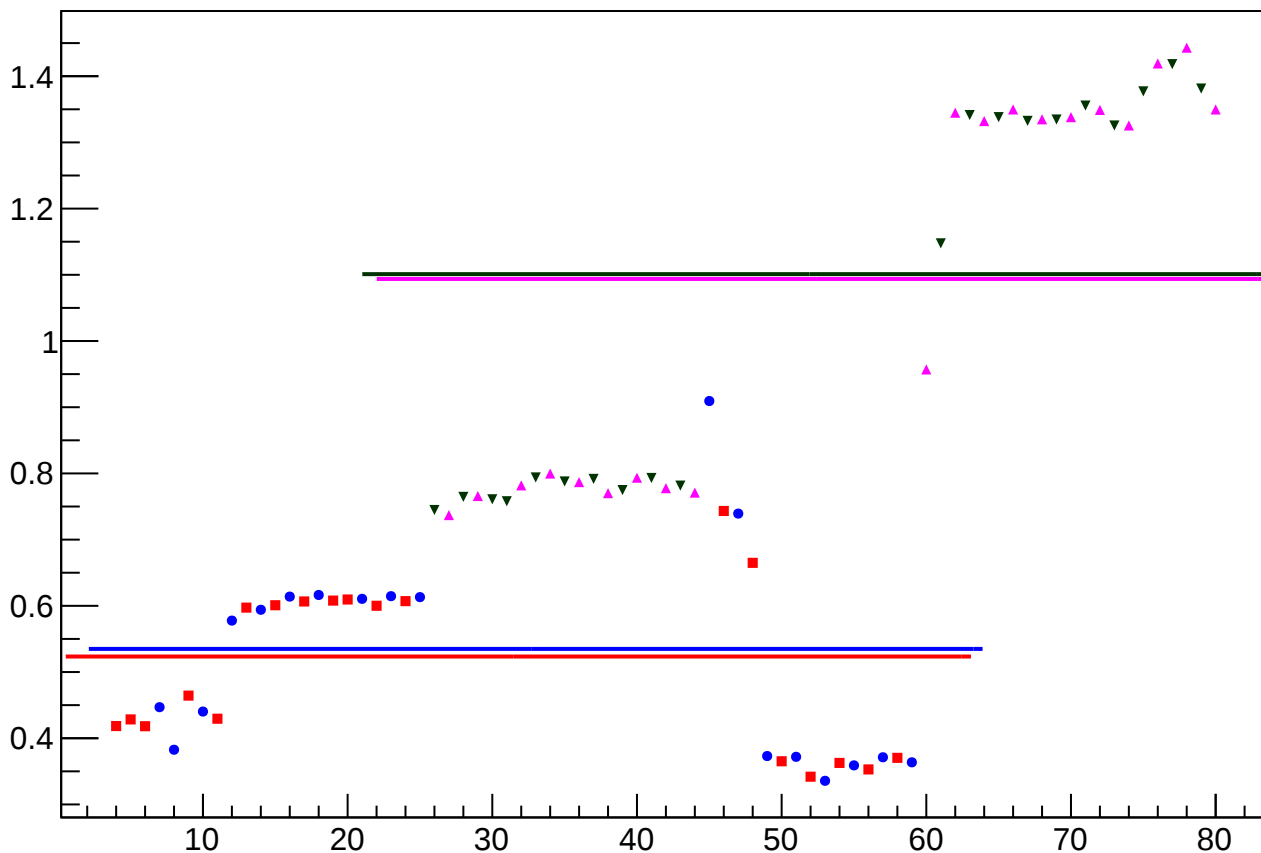
Right Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 573783.3/18

Left In: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 21350.7/19

0.015+/-0.000  $\chi^2/\text{NDF}$ : 738947.6/37

0.015+/-0.000  $\chi^2/\text{NDF}$ : 603406.6/38

# yield\_bpm0l07Y\_mean vs slug



Right In: 0.535+/-0.000  $\chi^2/\text{NDF}$ : 21231144094.8/17

Left Out: 1.101+/-0.000  $\chi^2/\text{NDF}$ : 91526374429.9/19

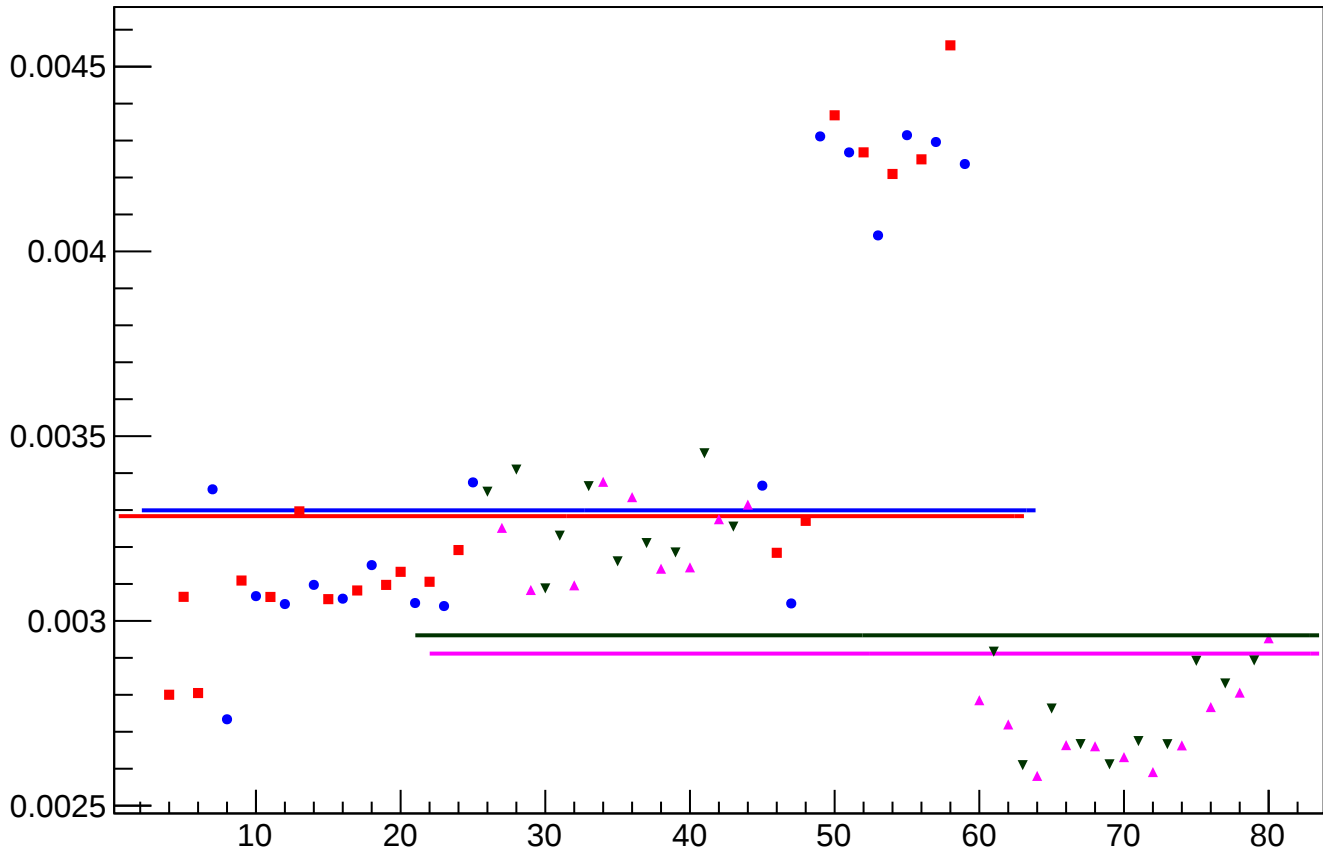
Right Out: 0.523+/-0.000  $\chi^2/\text{NDF}$ : 11523934099.1/18

Left In: 1.094+/-0.000  $\chi^2/\text{NDF}$ : 105586558319.3/19

0.839+/-0.000  $\chi^2/\text{NDF}$ : 282650119169.9/37

0.863+/-0.000  $\chi^2/\text{NDF}$ : 287111076461.1/38

# yield\_bpm0l07Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 497565.6/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :186119.6/19

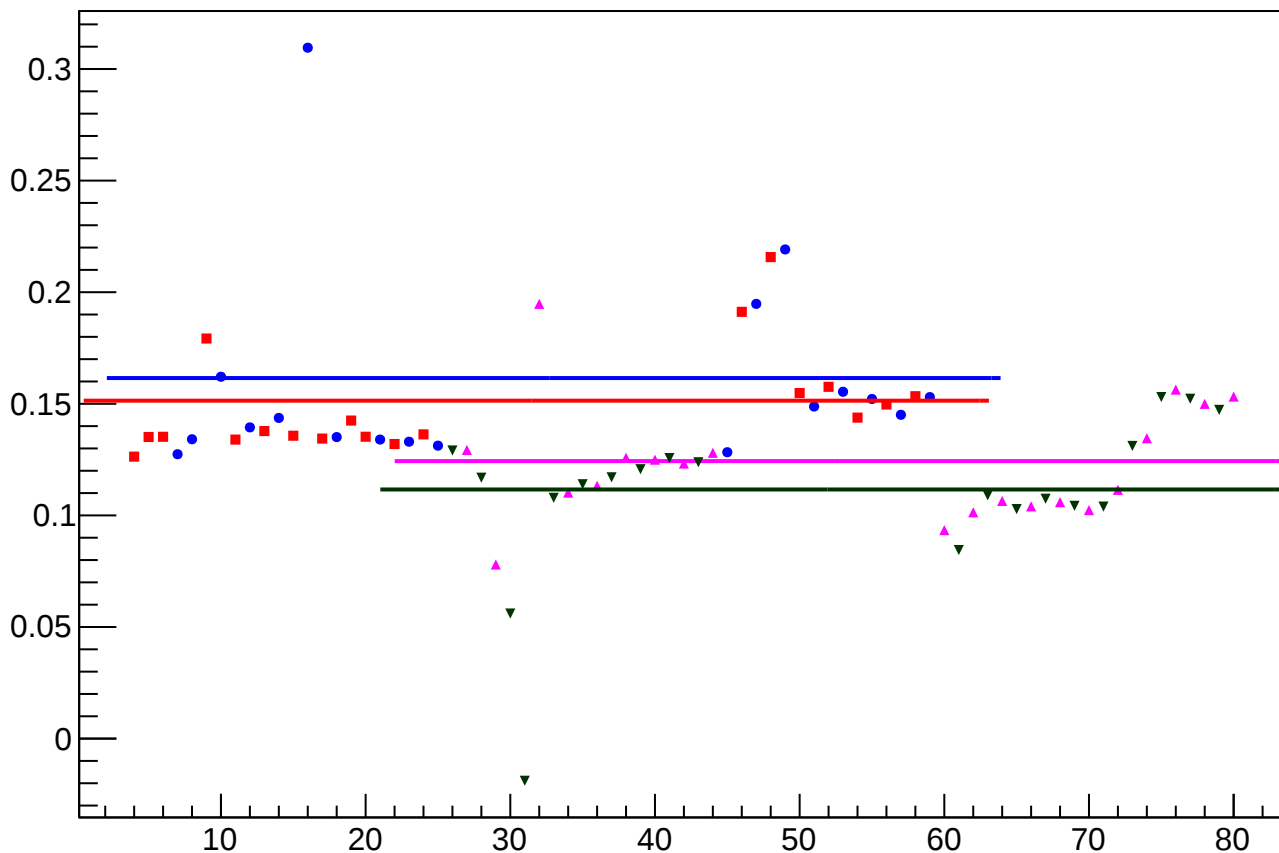
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 382277.8/18

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :183110.4/19

0.003+/-0.000  $\chi^2/\text{NDF}$ : 805011.8/37

0.003+/-0.000  $\chi^2/\text{NDF}$ : 710065.2/38

# yield\_bpm0l08X\_mean vs slug



Right In:  $0.162 \pm 0.000$   $\chi^2/\text{NDF}$ : 94764439.1/17

Left Out:  $0.112 \pm 0.000$   $\chi^2/\text{NDF}$ : 61013434.1/19

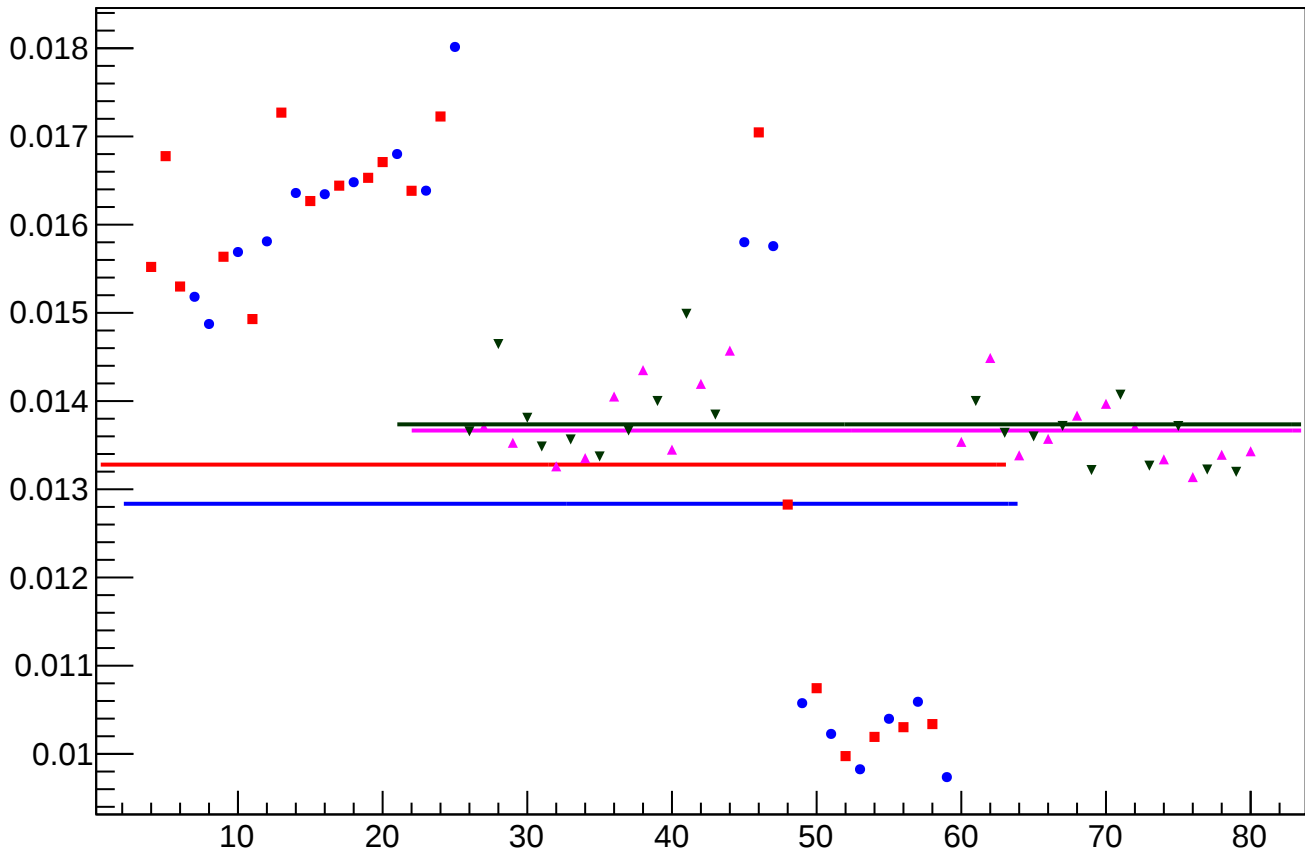
Right Out:  $0.151 \pm 0.000$   $\chi^2/\text{NDF}$ : 22463584.0/18

Left In:  $0.124 \pm 0.000$   $\chi^2/\text{NDF}$ : 51965648.9/19

$0.138 \pm 0.000$   $\chi^2/\text{NDF}$ : 228995958.3/37

$0.137 \pm 0.000$   $\chi^2/\text{NDF}$ : 94748489.7/38

# yield\_bpm0l08X\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 1088247.1/17

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 22442.4/19

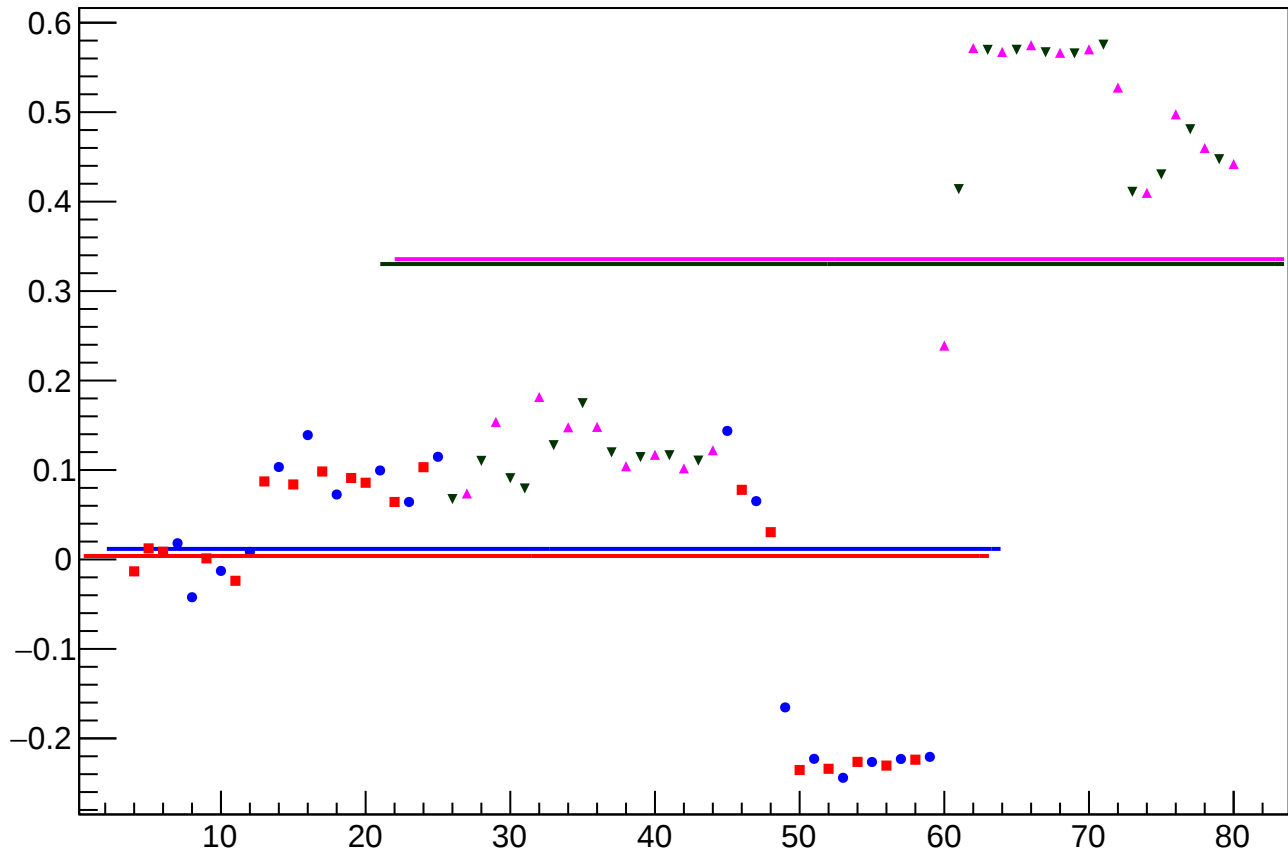
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 890007.3/18

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 18521.7/19

0.013+/-0.000  $\chi^2/\text{NDF}$ : 1158319.4/37

0.013+/-0.000  $\chi^2/\text{NDF}$ : 916805.1/38

# yield\_bpm0l08Y\_mean vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 12179192870.2/17

Left Out: 0.330+/-0.000  $\chi^2/\text{NDF}$ : 44960365779.3/19

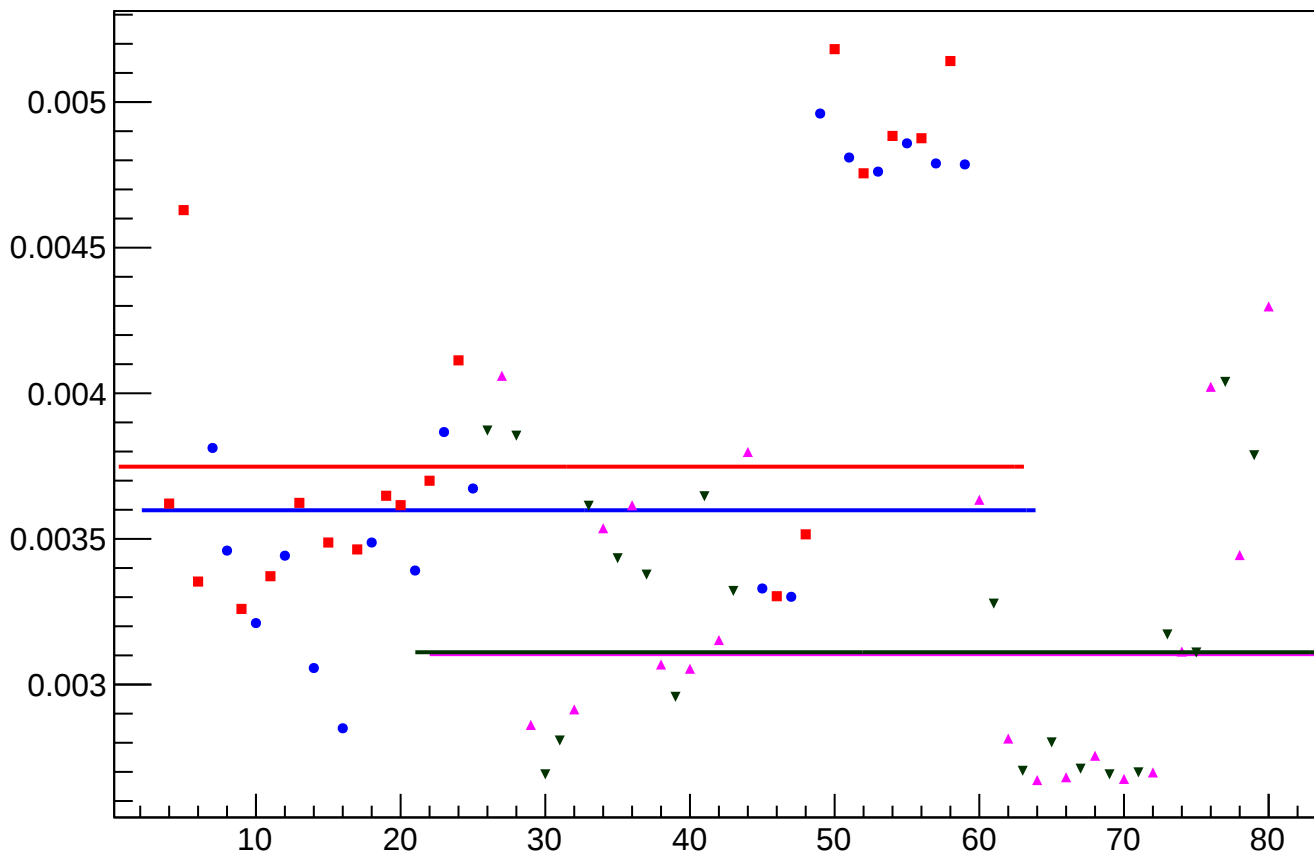
Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 7924148421.7/18

Left In: 0.336+/-0.000  $\chi^2/\text{NDF}$ : 44838411713.0/19

0.189+/-0.000  $\chi^2/\text{NDF}$ : 102637995798.1/37

0.212+/-0.000  $\chi^2/\text{NDF}$ : 97913063100.7/38

# yield\_bpm0l08Y\_rms vs slug



Right In: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 672957.8/17

Left Out: 0.003 $\pm$ 0.000  $\chi^2$ /NDF: 372933.1/19

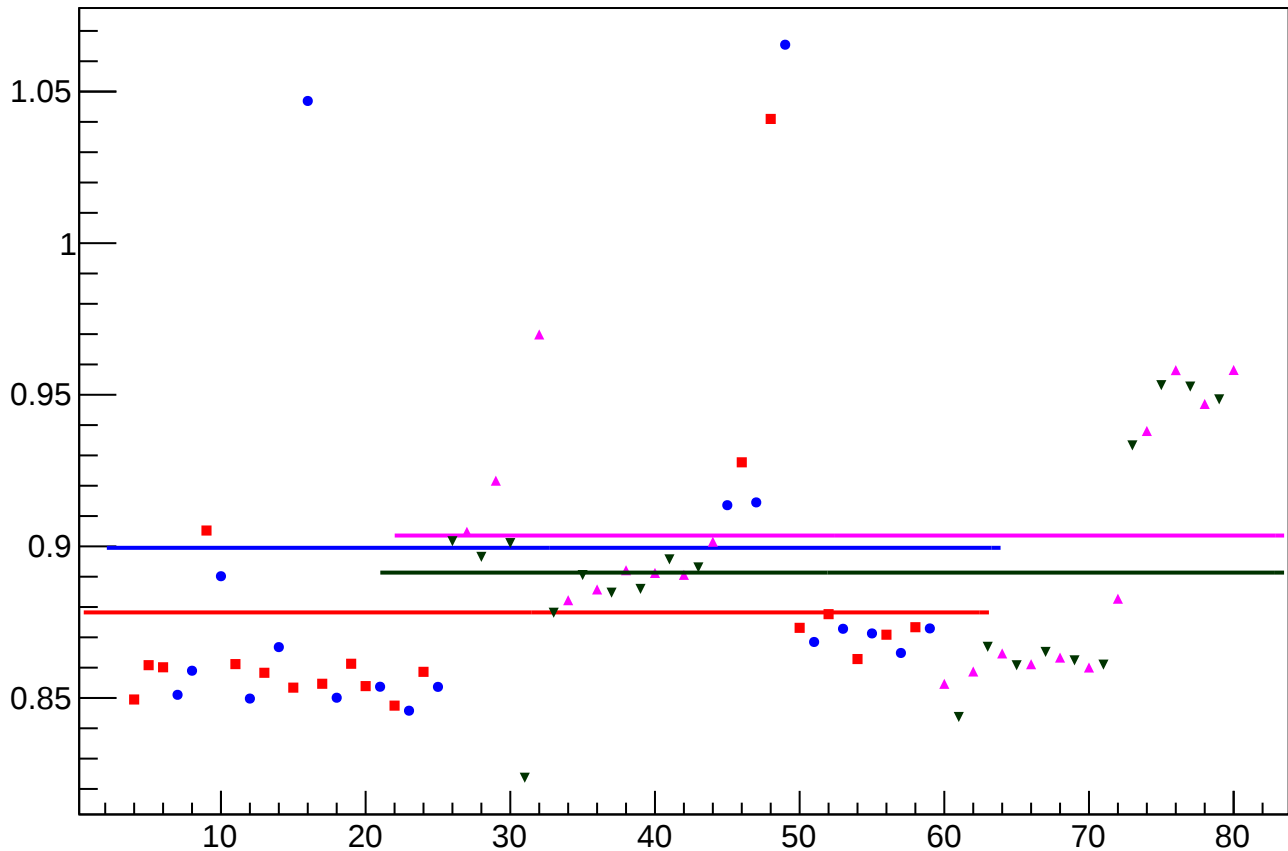
Right Out: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 427283.7/18

Left In: 0.003 $\pm$ 0.000  $\chi^2$ /NDF: 466120.2/19

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1259186.9/37

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1233410.3/38

# yield\_bpm0l09X\_mean vs slug



Right In: 0.900+/-0.000  $\chi^2/\text{NDF}$ : 324904340.4/17

Left Out: 0.891+/-0.000  $\chi^2/\text{NDF}$ : 62296918.3/19

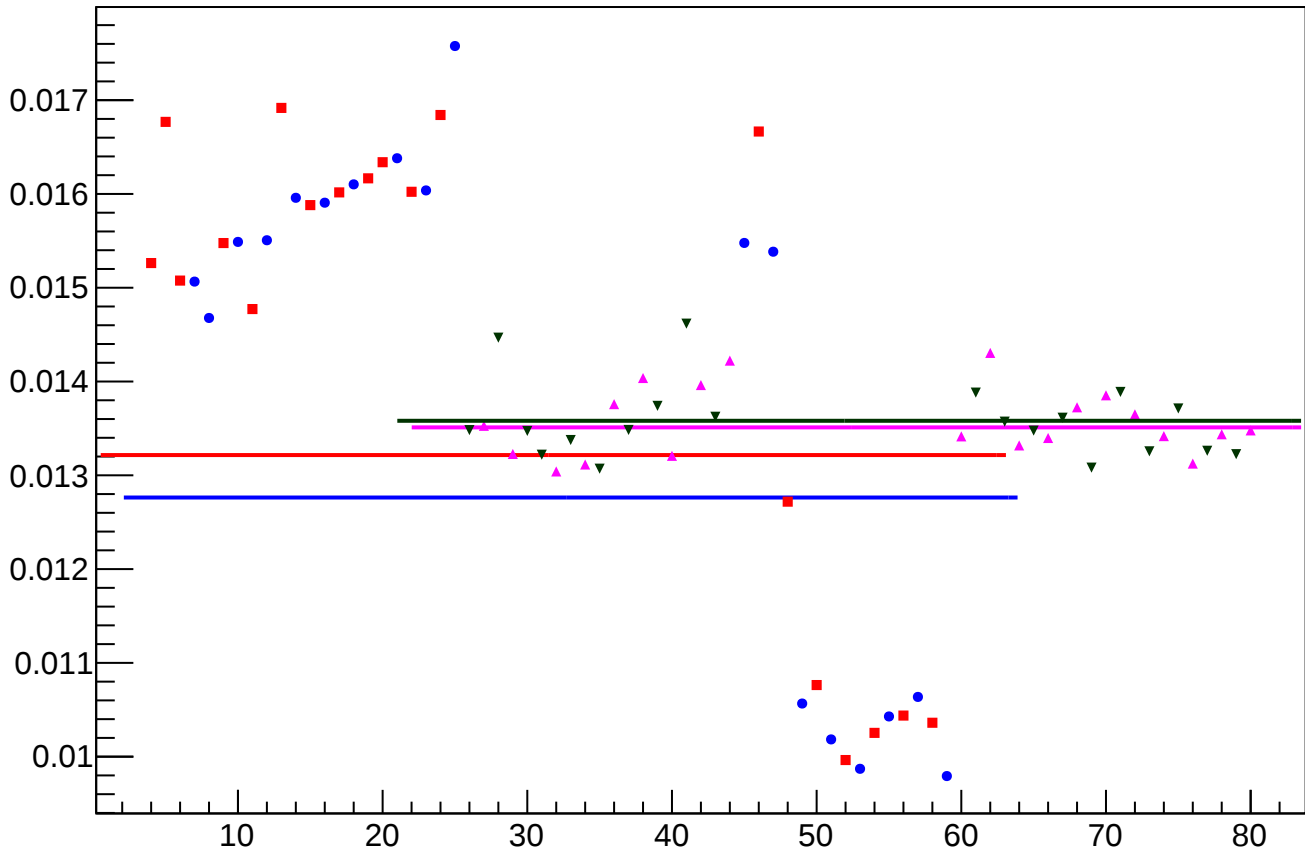
Right Out: 0.878+/-0.000  $\chi^2/\text{NDF}$ : 92356263.0/18

Left In: 0.904+/-0.000  $\chi^2/\text{NDF}$ : 85518463.9/19

0.896+/-0.000  $\chi^2/\text{NDF}$ : 389199776.9/37

0.892+/-0.000  $\chi^2/\text{NDF}$ : 195985992.5/38

# yield\_bpm0l09X\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 980141.4/17

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 18275.4/19

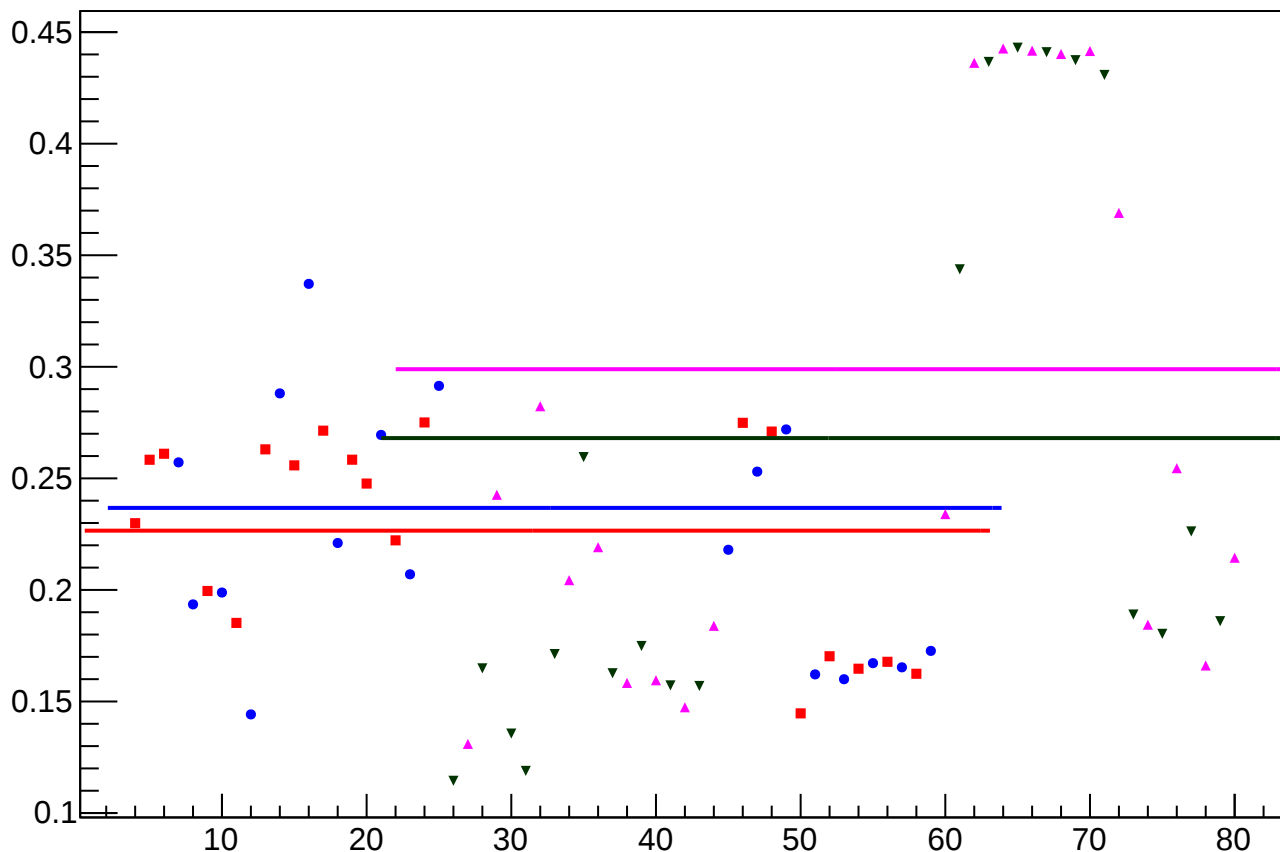
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 798846.8/18

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 15153.7/19

0.013+/-0.000  $\chi^2/\text{NDF}$ : 1038471.7/37

0.013+/-0.000  $\chi^2/\text{NDF}$ : 818907.4/38

# yield\_bpm0l09Y\_mean vs slug



Right In: 0.237 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2411617824.9/17

Left Out: 0.268 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 15757379538.7/19

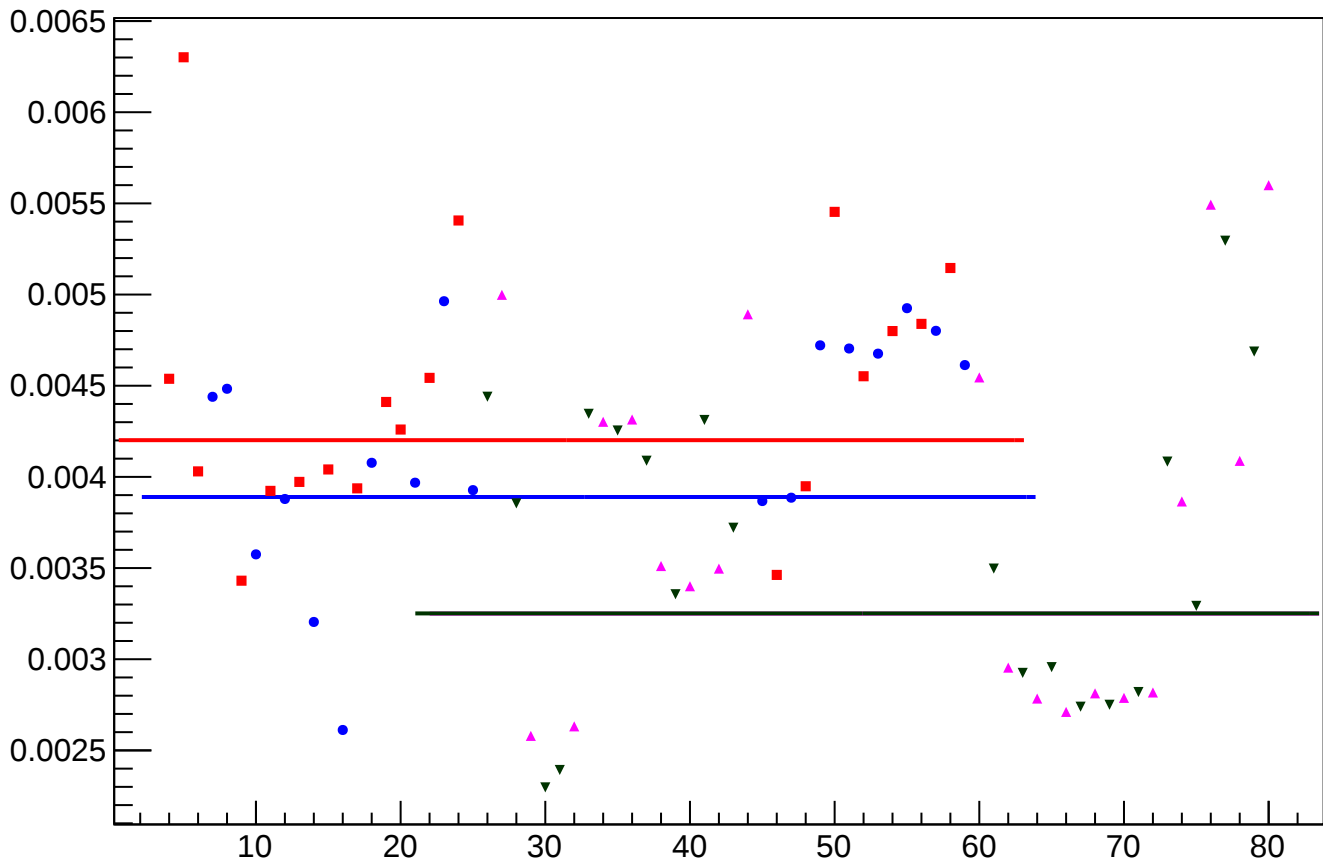
Right Out: 0.227 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 943883207.4/18

Left In: 0.299 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 12164600152.3/19

0.254 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 18542231705.2/37

0.273 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 14835730060.0/38

# yield\_bpm0l09Y\_rms vs slug



Right In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 695729.3/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 986684.7/19

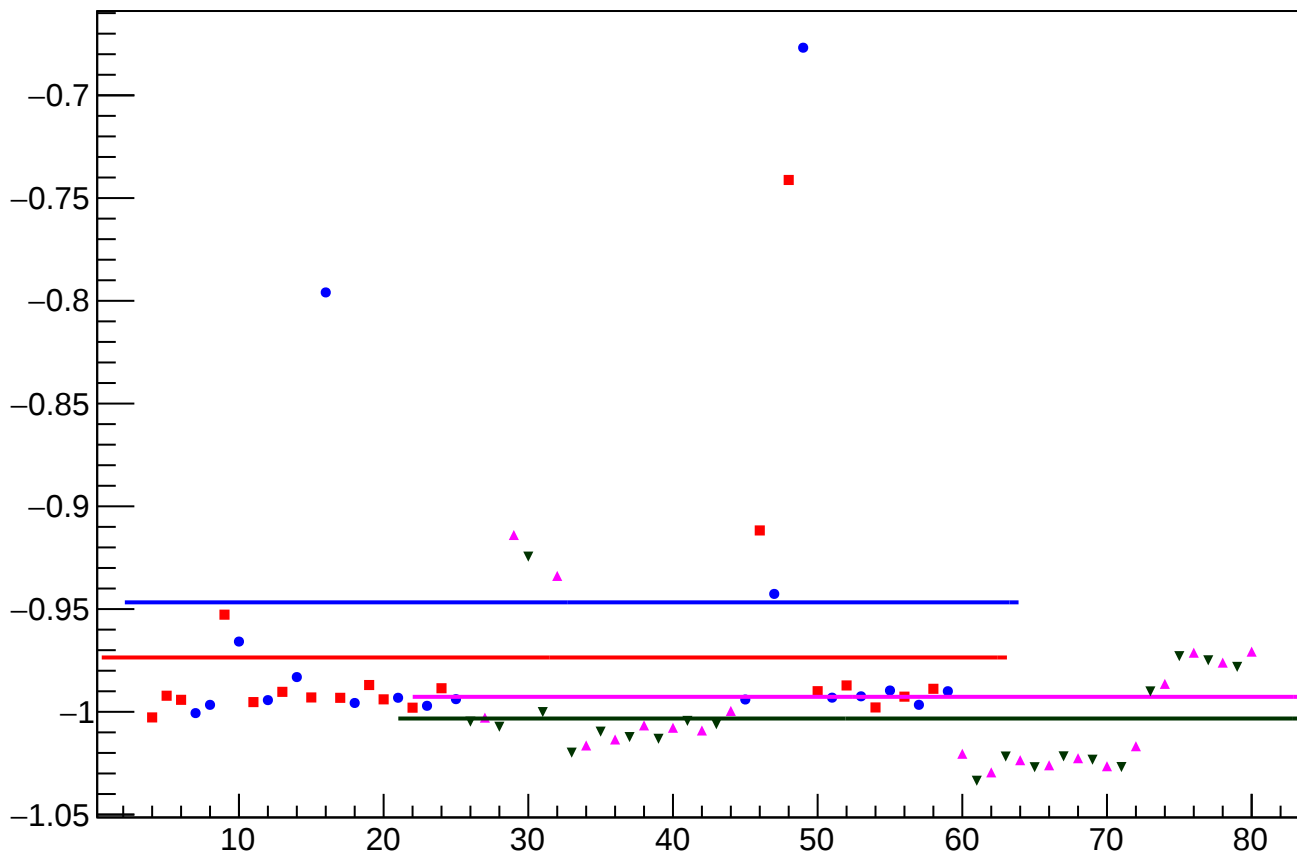
Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 341340.8/18

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 1259205.3/19

0.004+/-0.000  $\chi^2/\text{NDF}$ : 1993349.8/37

0.004+/-0.000  $\chi^2/\text{NDF}$ : 2197294.3/38

# yield\_bpm0l10X\_mean vs slug



Right In:  $-0.947 \pm 0.000$   $\chi^2/\text{NDF}$ : 662253046.3/17

Left Out:  $-1.003 \pm 0.000$   $\chi^2/\text{NDF}$ : 36578796.3/19

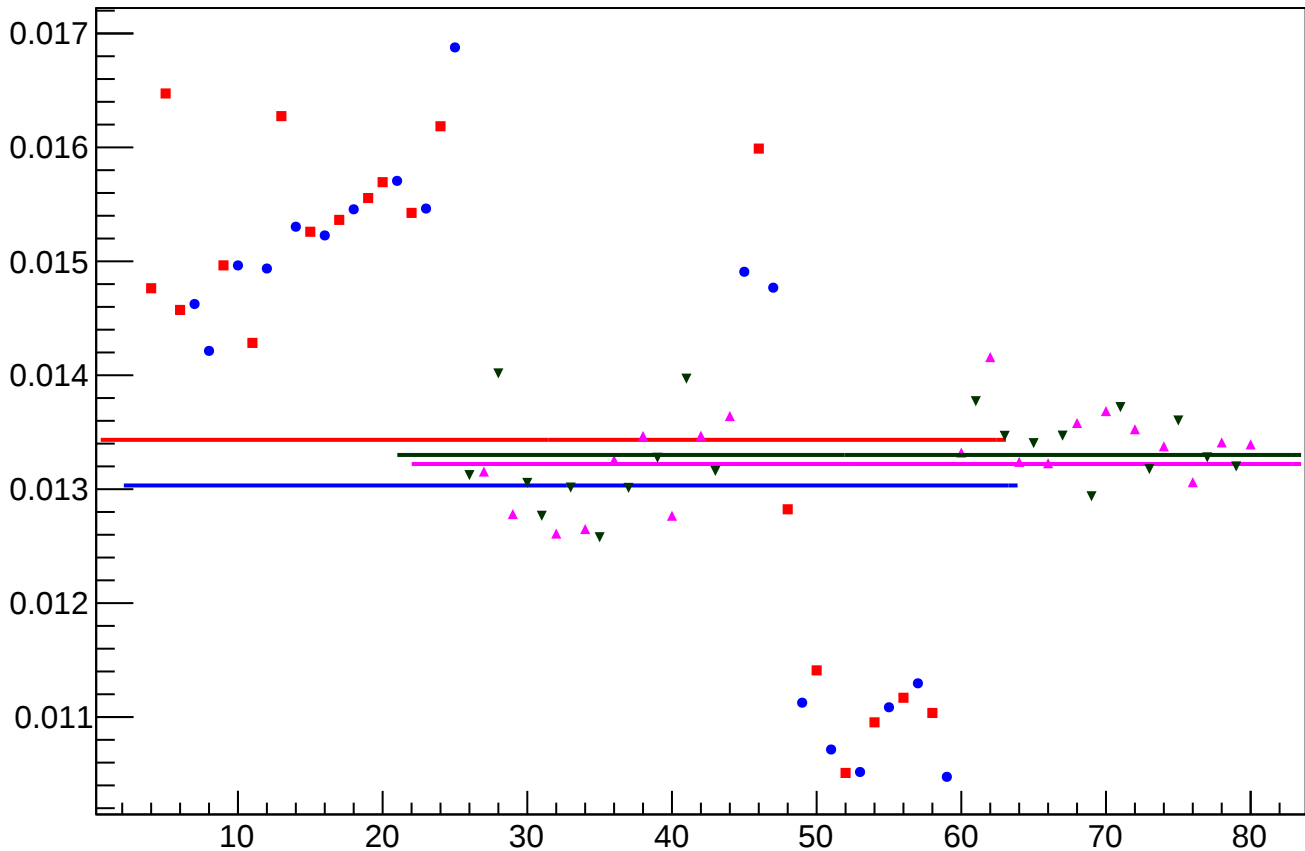
Right Out:  $-0.974 \pm 0.000$   $\chi^2/\text{NDF}$ : 174691792.1/18

Left In:  $-0.993 \pm 0.000$   $\chi^2/\text{NDF}$ : 78866261.3/19

$-0.974 \pm 0.000$   $\chi^2/\text{NDF}$ : 795314251.6/37

$-0.984 \pm 0.000$   $\chi^2/\text{NDF}$ : 263983098.8/38

# yield\_bpm0l10X\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 587832.0/17

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :16462.7/19

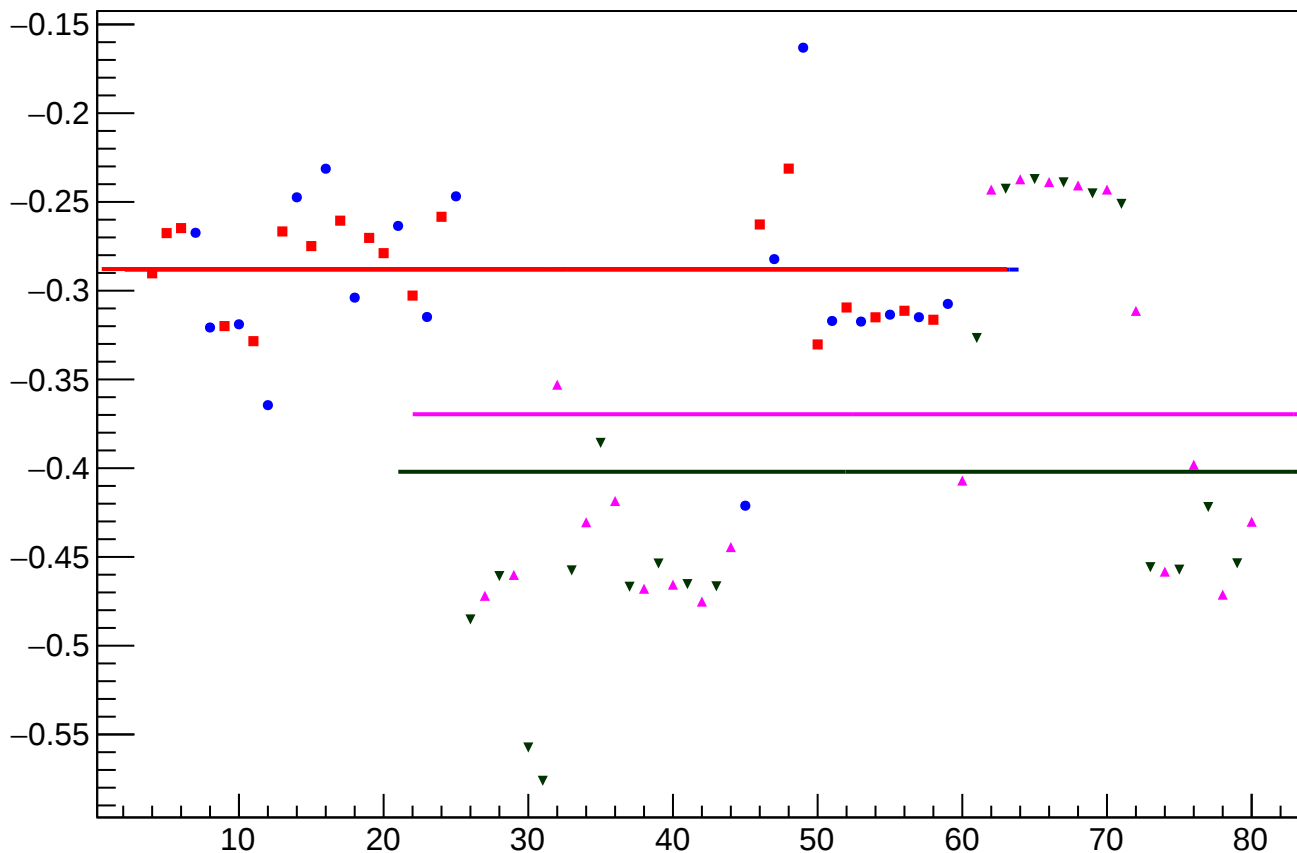
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 479245.1/18

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :18207.1/19

0.013+/-0.000  $\chi^2/\text{NDF}$ : 608628.6/37

0.013+/-0.000  $\chi^2/\text{NDF}$ : 500012.4/38

# yield\_bpm0l10Y\_mean vs slug



Right In: -0.288+/-0.000  $\chi^2/\text{NDF}$ : 2601289511.6/17

Left Out: -0.402+/-0.000  $\chi^2/\text{NDF}$ : 13798861334.8/19

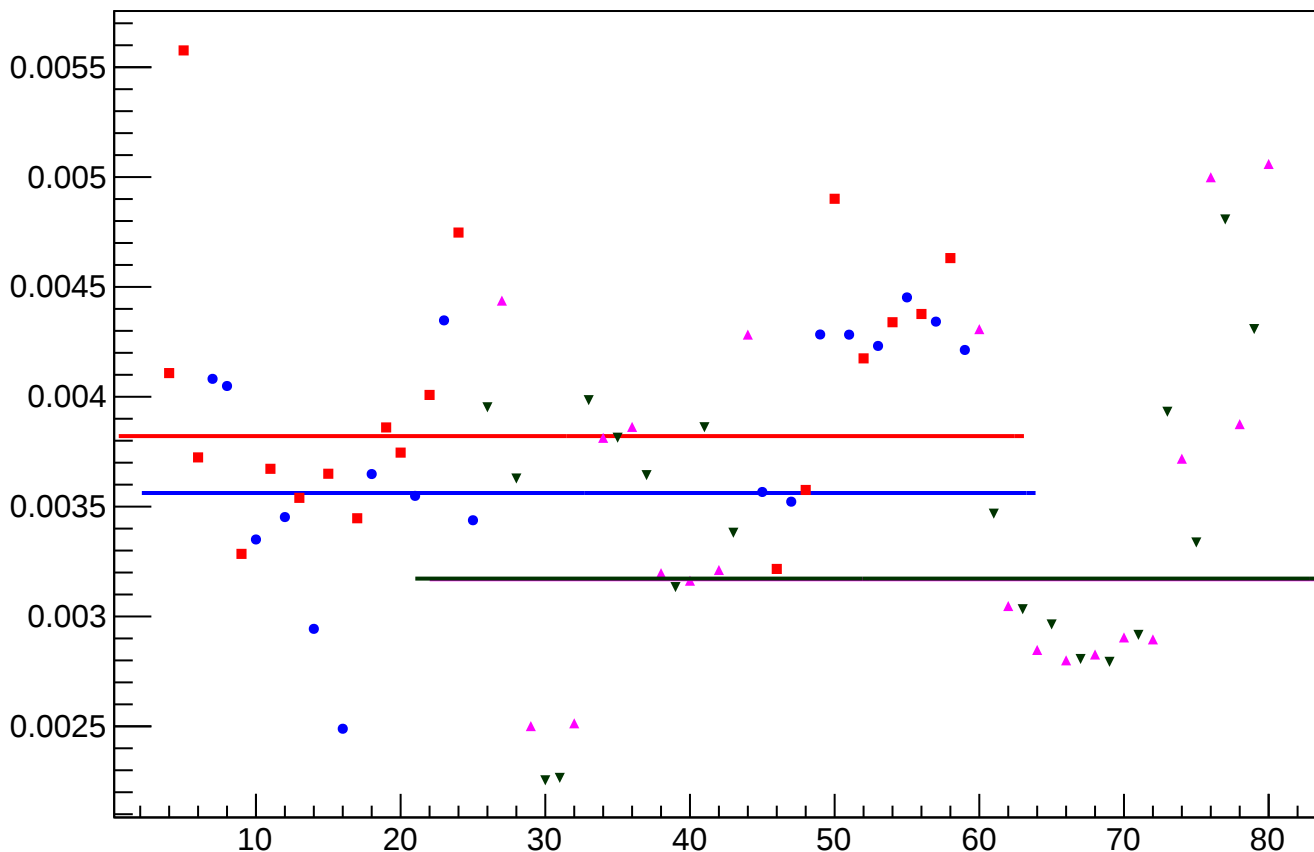
Right Out: -0.288+/-0.000  $\chi^2/\text{NDF}$ : 515794849.9/18

Left In: -0.370+/-0.000  $\chi^2/\text{NDF}$ : 9180380584.6/19

-0.349+/-0.000  $\chi^2/\text{NDF}$ : 22070752161.0/37

-0.338+/-0.000  $\chi^2/\text{NDF}$ : 12278876791.5/38

# yield\_bpm0l10Y\_rms vs slug



Right In: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 588741.6/17

Left Out: 0.003 $\pm$ 0.000  $\chi^2$ /NDF: 735910.3/19

Right Out: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 282191.6/18

Left In: 0.003 $\pm$ 0.000  $\chi^2$ /NDF: 939973.3/19

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1457326.5/37

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1549815.2/38