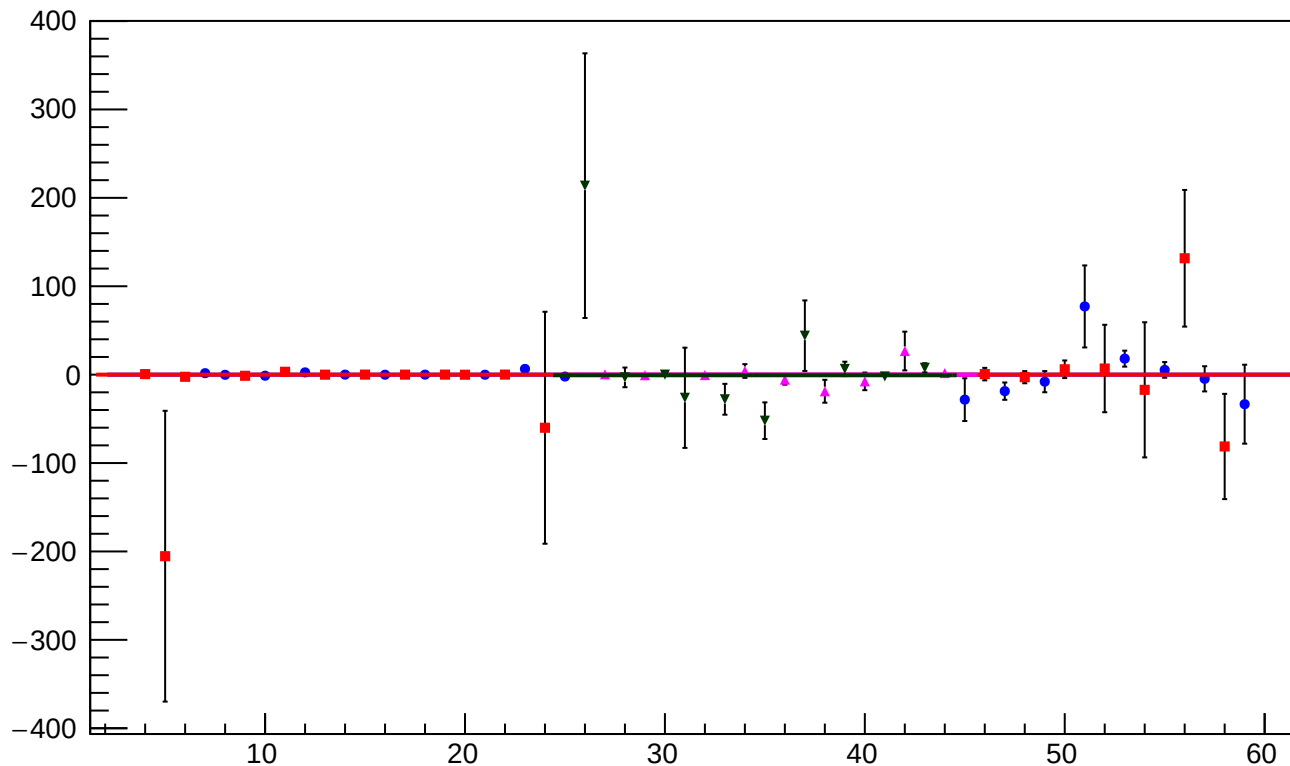


diff\_cav4bX\_mean vs slug



Right In:  $-0.014 \pm 0.014$

Left Out:  $-0.705 \pm 1.554$

Right Out:  $0.017 \pm 0.016$

Left In:  $-0.086 \pm 0.168$

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

$\chi^2/\text{NDF}: 16.1/9$

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

$\chi^2/\text{NDF}: 15.5/8$

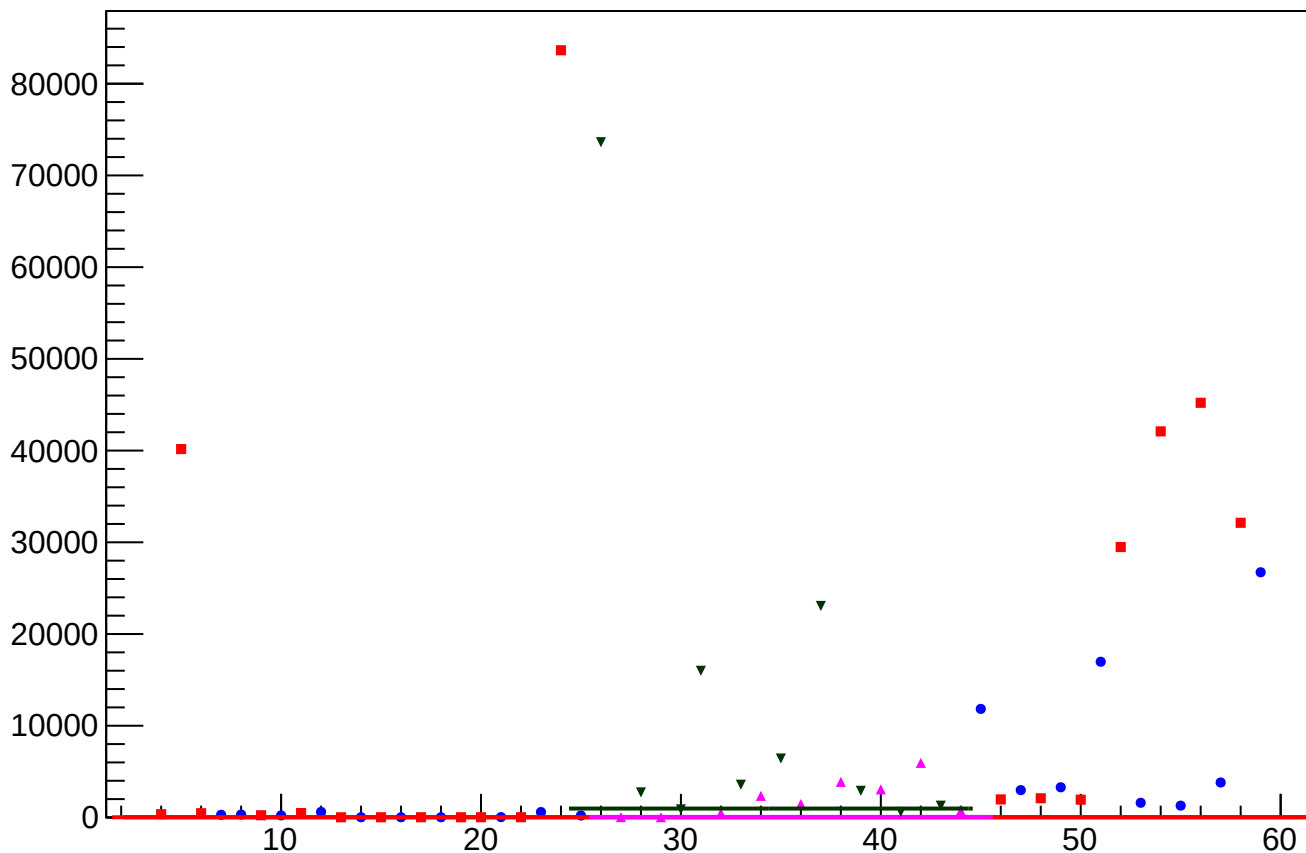
$-0.014 \pm 0.014$

$0.016 \pm 0.016$

$\chi^2/\text{NDF}: 47.5/27$

$\chi^2/\text{NDF}: 40.6/27$

# diff\_cav4bX\_rms vs slug



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

Left Out:  $971.291 \pm 1.099$   $\chi^2/\text{NDF}$ : 1644176.9/9

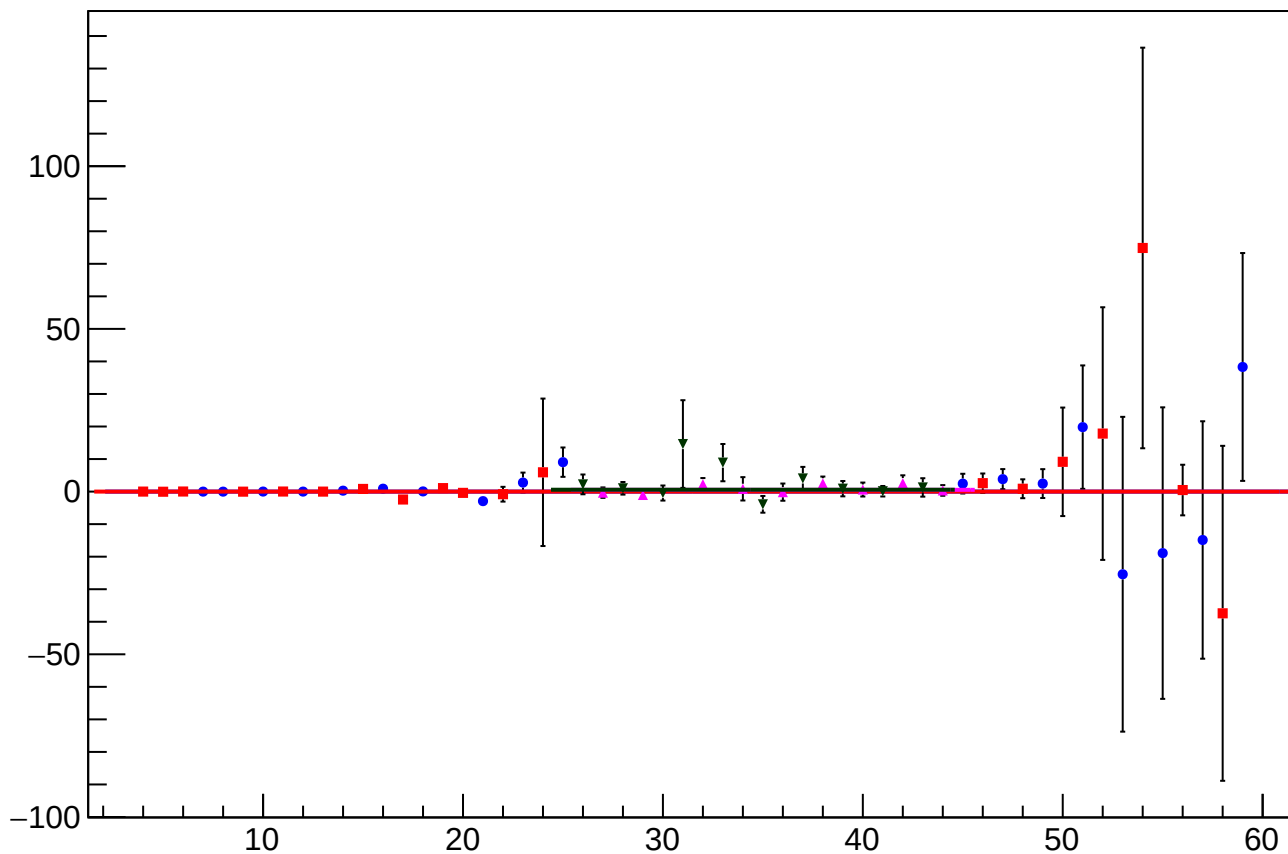
Right Out:  $22.611 \pm 0.011$   $\chi^2/\text{NDF}$ : 4395534.2/18

Left In:  $61.510 \pm 0.119$   $\chi^2/\text{NDF}$ : 1572648.7/8

$22.510 \pm 0.010$   $\chi^2/\text{NDF}$ : 5194489.9/27

$22.966 \pm 0.011$   $\chi^2/\text{NDF}$ : 6074153.0/27

# diff\_cav4bY\_mean vs slug



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

Left Out:  $0.573 \pm 0.812$   $\chi^2/\text{NDF}$ : 7.9/9

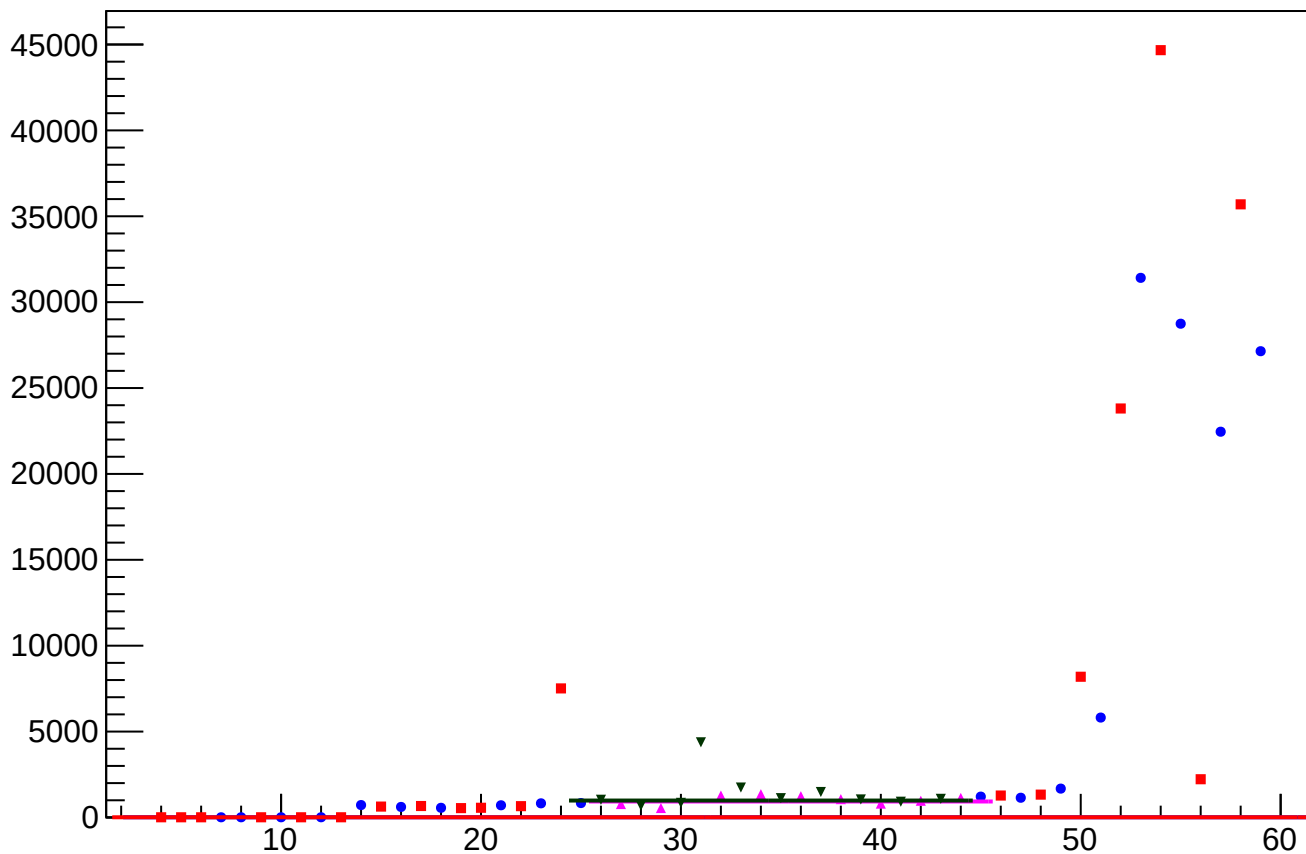
Right Out:  $0.002 \pm 0.005$   $\chi^2/\text{NDF}$ : 20.3/18

Left In:  $0.538 \pm 0.640$   $\chi^2/\text{NDF}$ : 4.3/8

$-0.001 \pm 0.006$   $\chi^2/\text{NDF}$ : 32.0/27

$0.002 \pm 0.005$   $\chi^2/\text{NDF}$ : 25.3/27

# diff\_cav4bY\_rms vs slug



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

Left Out: 984.552+/-0.574     $\chi^2/\text{NDF}$ : 269608.6/9

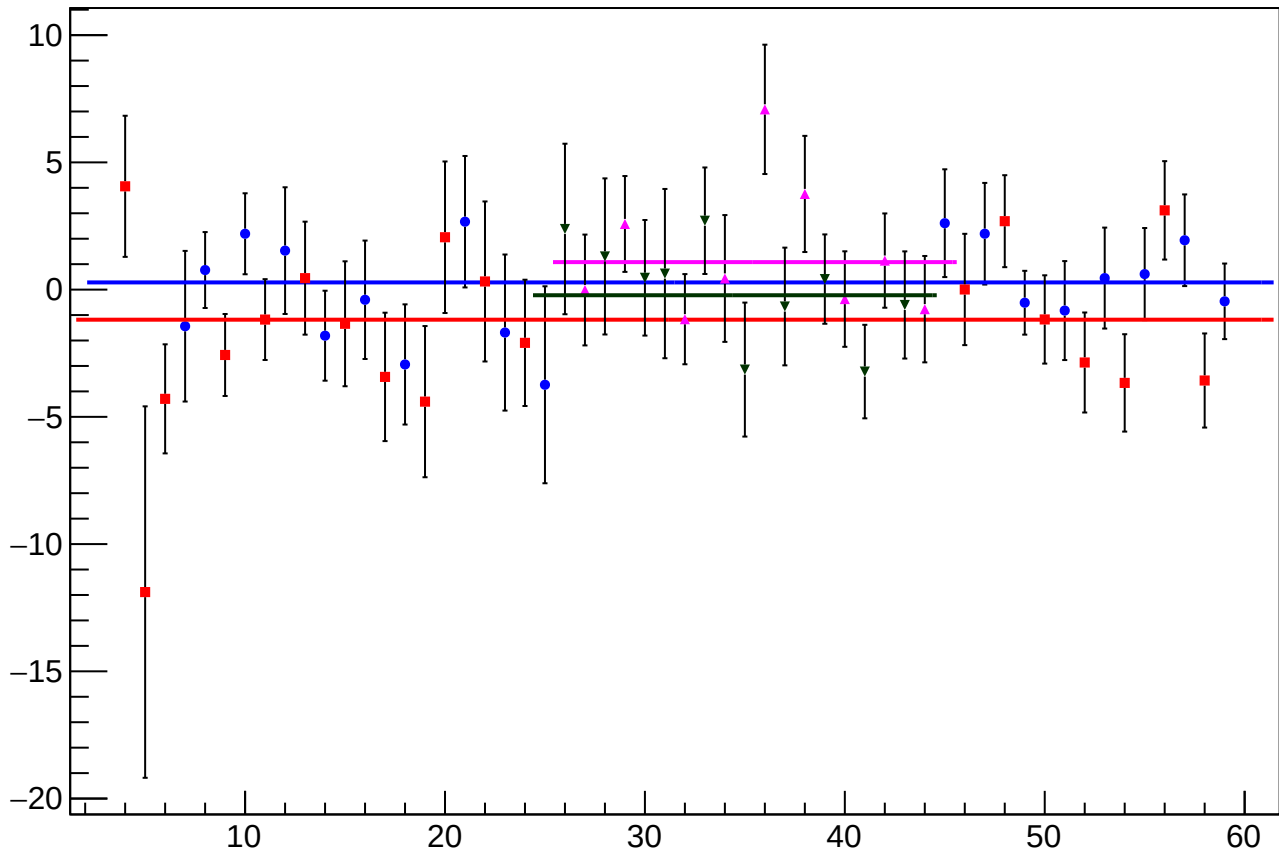
Right Out: 10.086+/-0.004     $\chi^2/\text{NDF}$ : 6750125.6/18

Left In: 929.625+/-0.453     $\chi^2/\text{NDF}$ : 348934.3/8

10.569+/-0.005     $\chi^2/\text{NDF}$ : 12109321.5/27

10.153+/-0.004     $\chi^2/\text{NDF}$ : 11225256.8/27

# diff\_cav4cX\_mean vs slug



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

Left Out:  $-0.221 \pm 0.728$   $\chi^2/\text{NDF}: 7.1/9$

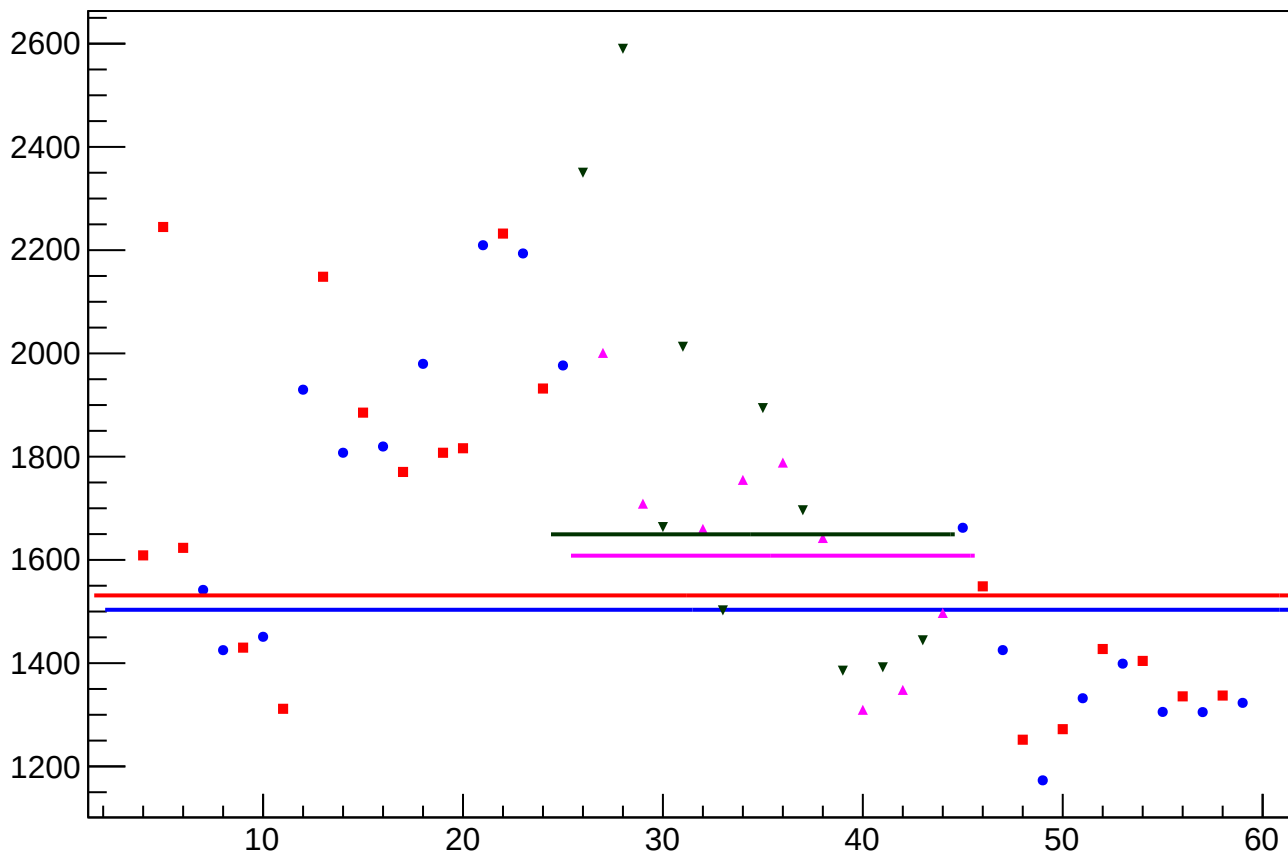
Right Out:  $-1.182 \pm 0.494$   $\chi^2/\text{NDF}: 26.5/18$

Left In:  $1.080 \pm 0.686$   $\chi^2/\text{NDF}: 10.9/8$

$0.141 \pm 0.386$   $\chi^2/\text{NDF}: 19.2/27$

$-0.411 \pm 0.401$   $\chi^2/\text{NDF}: 44.6/27$

# diff\_cav4cX\_rms vs slug



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

Left Out: 1649.544+/-0.515  $\chi^2/\text{NDF}$ : 430962.0/9

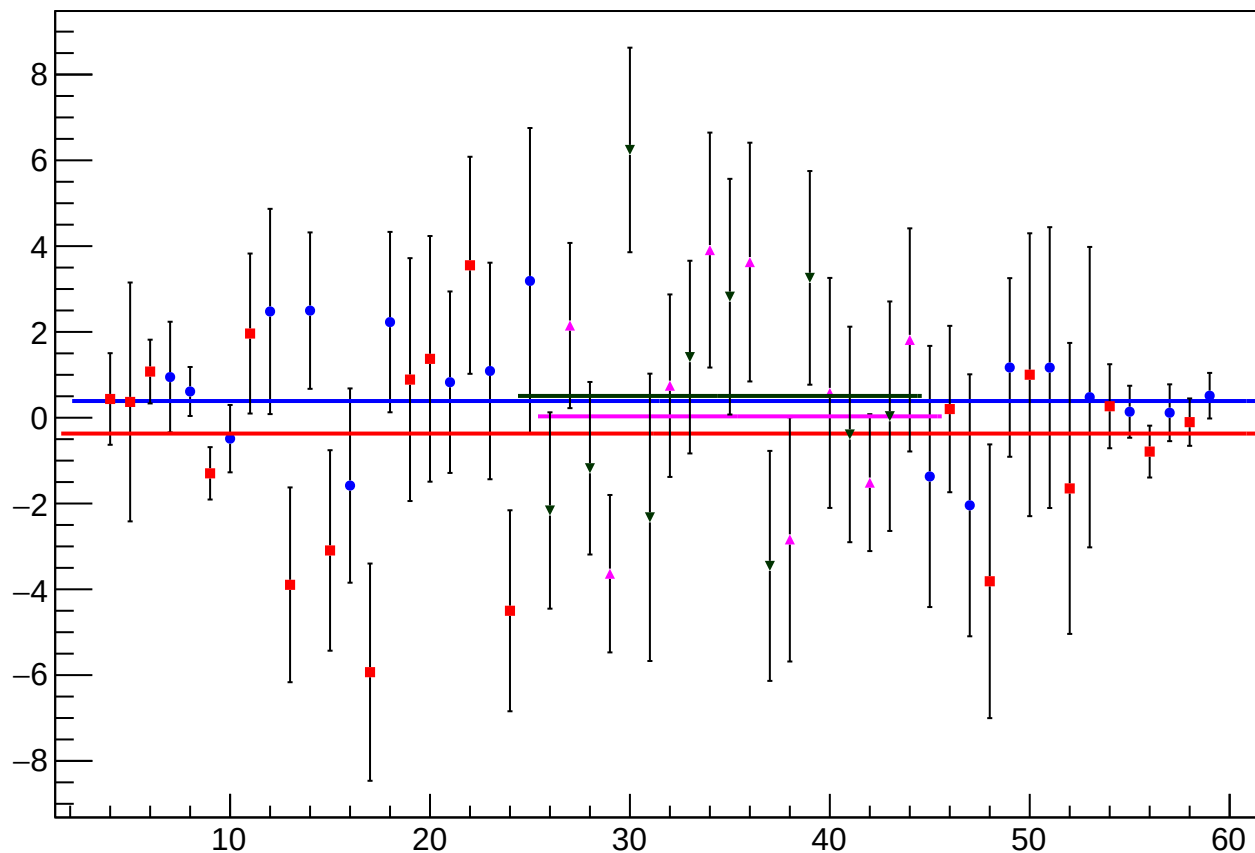
Right Out: 1531.211+/-0.349  $\chi^2/\text{NDF}$ : 621310.9/18

Left In: 1608.232+/-0.485  $\chi^2/\text{NDF}$ : 185602.9/8

1544.480+/-0.273  $\chi^2/\text{NDF}$ : 1265625.7/27

1557.474+/-0.283  $\chi^2/\text{NDF}$ : 823515.6/27

# diff\_cav4cY\_mean vs slug



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

Left Out:  $0.508 \pm 0.783$   $\chi^2/\text{NDF}$ : 13.0/9

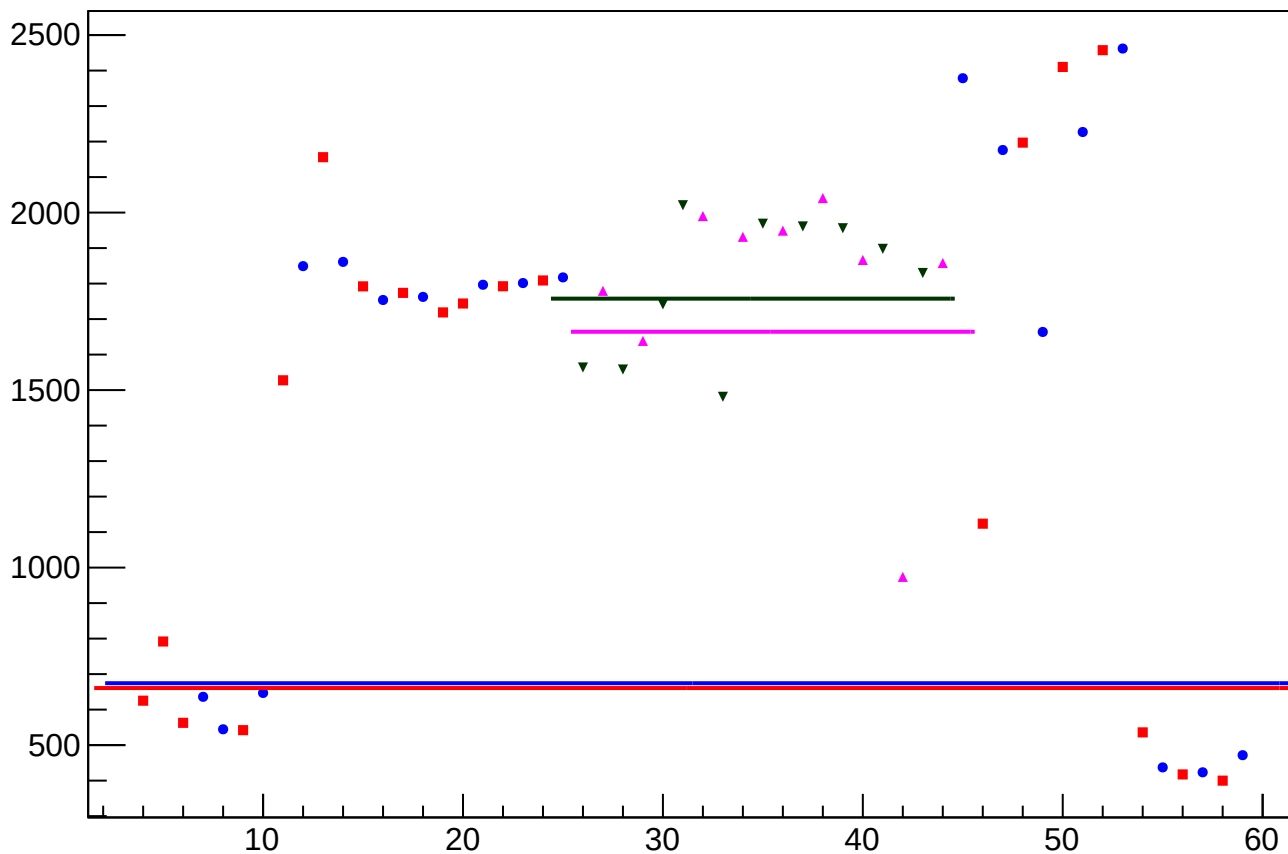
Right Out:  $-0.369 \pm 0.263$   $\chi^2/\text{NDF}$ : 25.7/18

Left In:  $0.032 \pm 0.735$   $\chi^2/\text{NDF}$ : 11.5/8

$0.400 \pm 0.239$   $\chi^2/\text{NDF}$ : 20.5/27

$-0.324 \pm 0.247$   $\chi^2/\text{NDF}$ : 37.4/27

# diff\_cav4cY\_rms vs slug



Right In: 674.323+/-0.178     $\chi^2/\text{NDF}$ : 7013232.4/17

Left Out: 1757.602+/-0.553     $\chi^2/\text{NDF}$ :120517.6/9

Right Out: 660.761+/-0.186     $\chi^2/\text{NDF}$ : 6222915.7/18

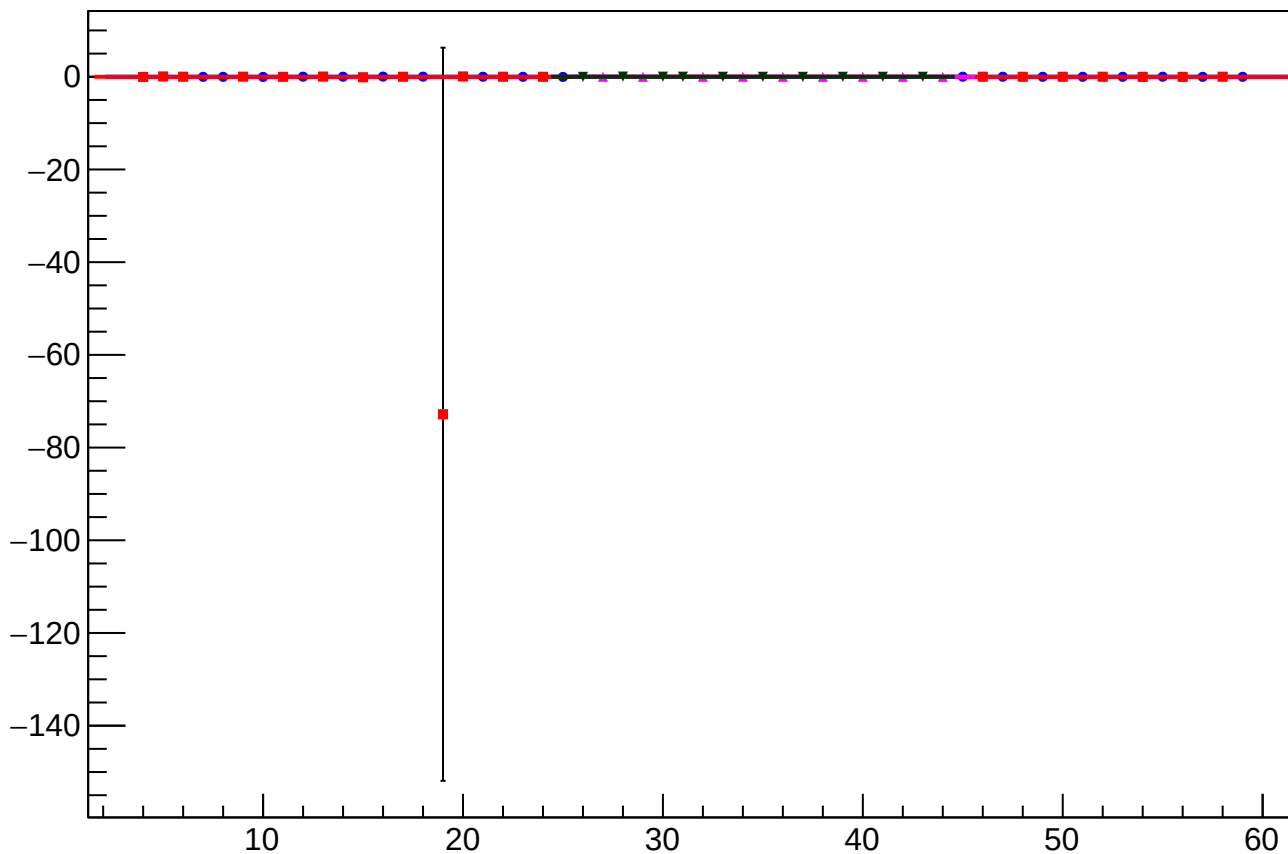
Left In: 1664.321+/-0.519     $\chi^2/\text{NDF}$ :526488.2/8

775.717+/-0.169     $\chi^2/\text{NDF}$ : 10606960.4/27

774.458+/-0.175     $\chi^2/\text{NDF}$ : 10059741.3/27



# diff\_cav4dX\_mean vs slug



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

Left Out: 0.001 $\pm$ 0.004  $\chi^2$ /NDF: 8.6/9

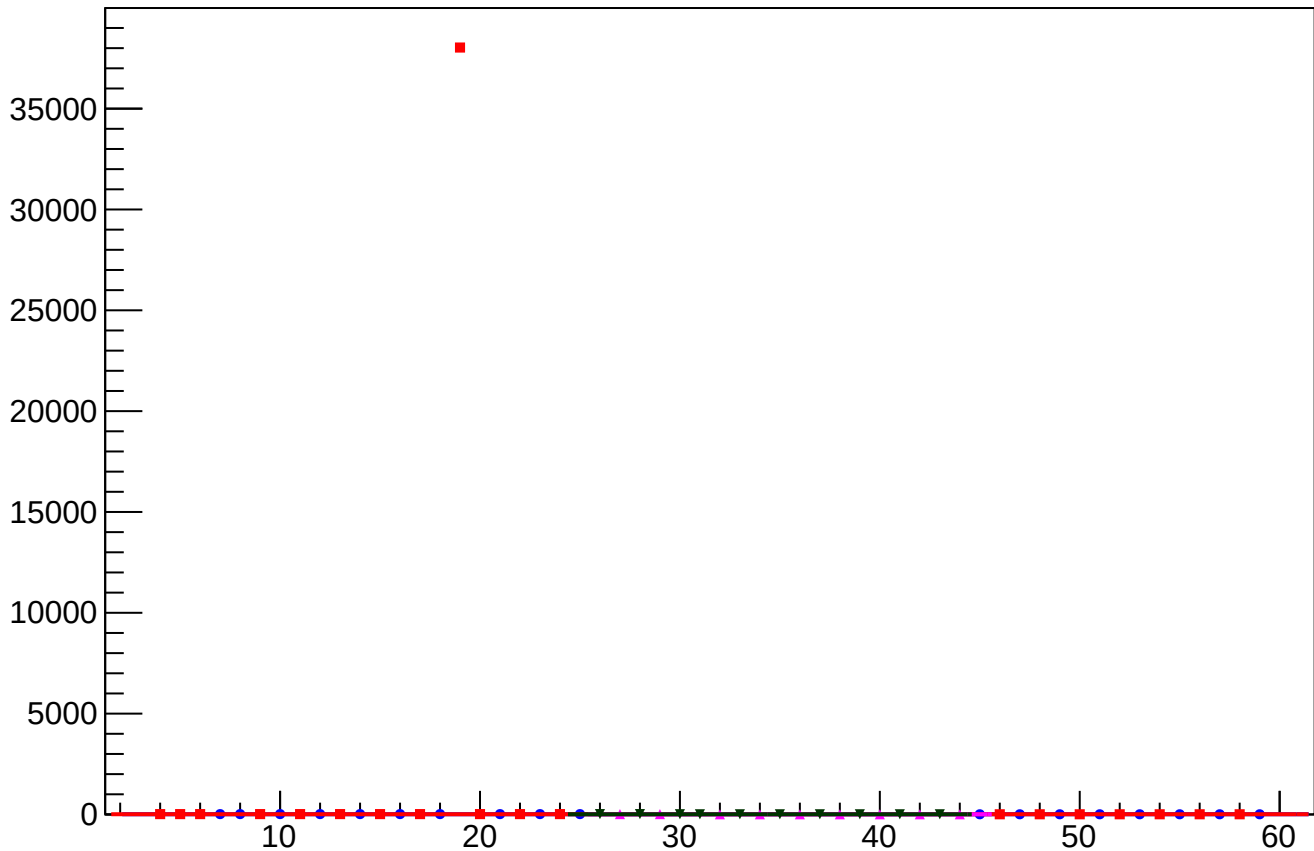
Right Out: 0.002 $\pm$ 0.004  $\chi^2$ /NDF: 20.0/18

Left In: -0.003 $\pm$ 0.004  $\chi^2$ /NDF: 1.2/8

0.000 $\pm$ 0.003  $\chi^2$ /NDF: 20.6/27

-0.001 $\pm$ 0.003  $\chi^2$ /NDF: 22.1/27

# diff\_cav4dX\_rms vs slug



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

Left Out: 9.339+/-0.003     $\chi^2$ /NDF:592494.4/9

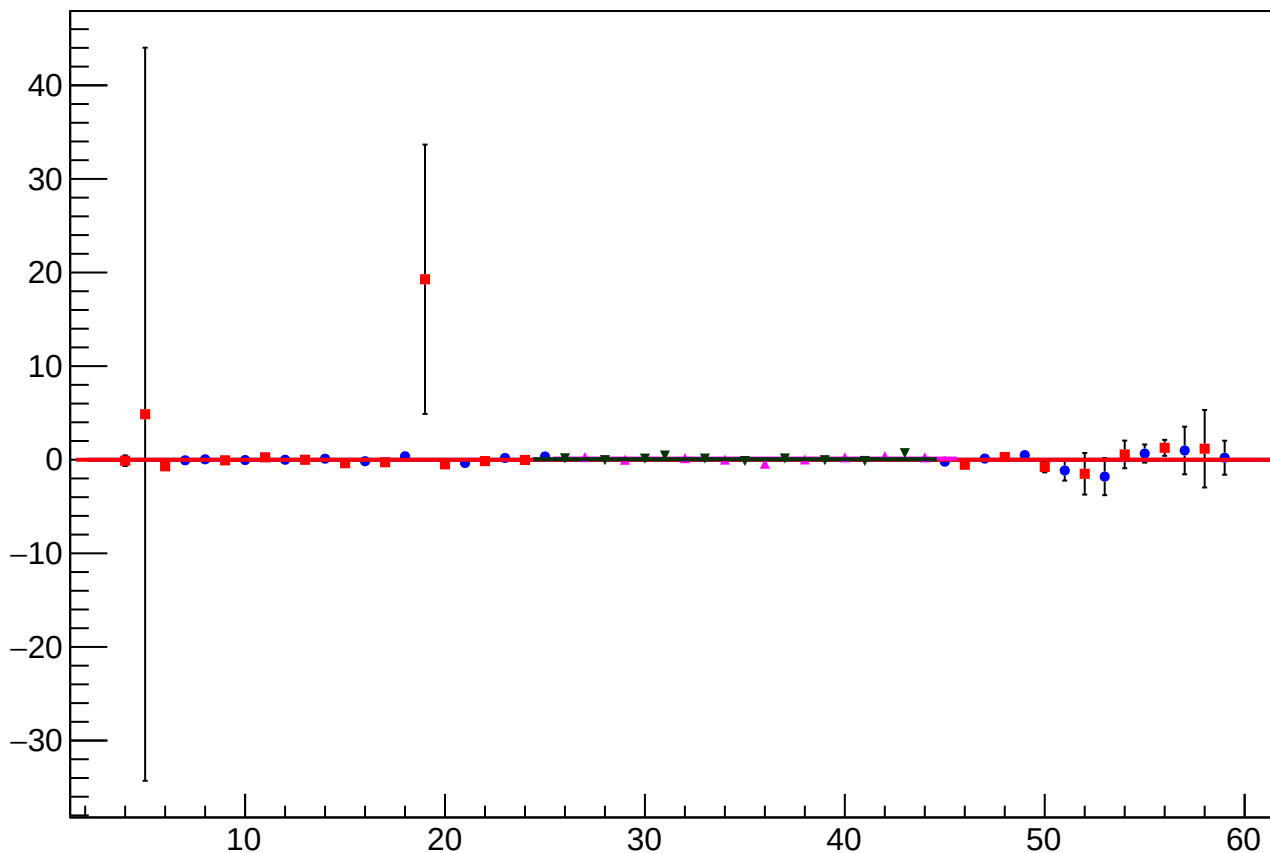
10.061+/-0.002     $\chi^2$ /NDF: 2647186.9/27

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

10.228+/-0.002     $\chi^2$ /NDF: 3191158.6/27

Left In: 9.359+/-0.003     $\chi^2$ /NDF:755521.7/8

# diff\_cav4dY\_mean vs slug



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

Left Out:  $0.055 \pm 0.058$   $\chi^2/\text{NDF}$ : 11.5/9

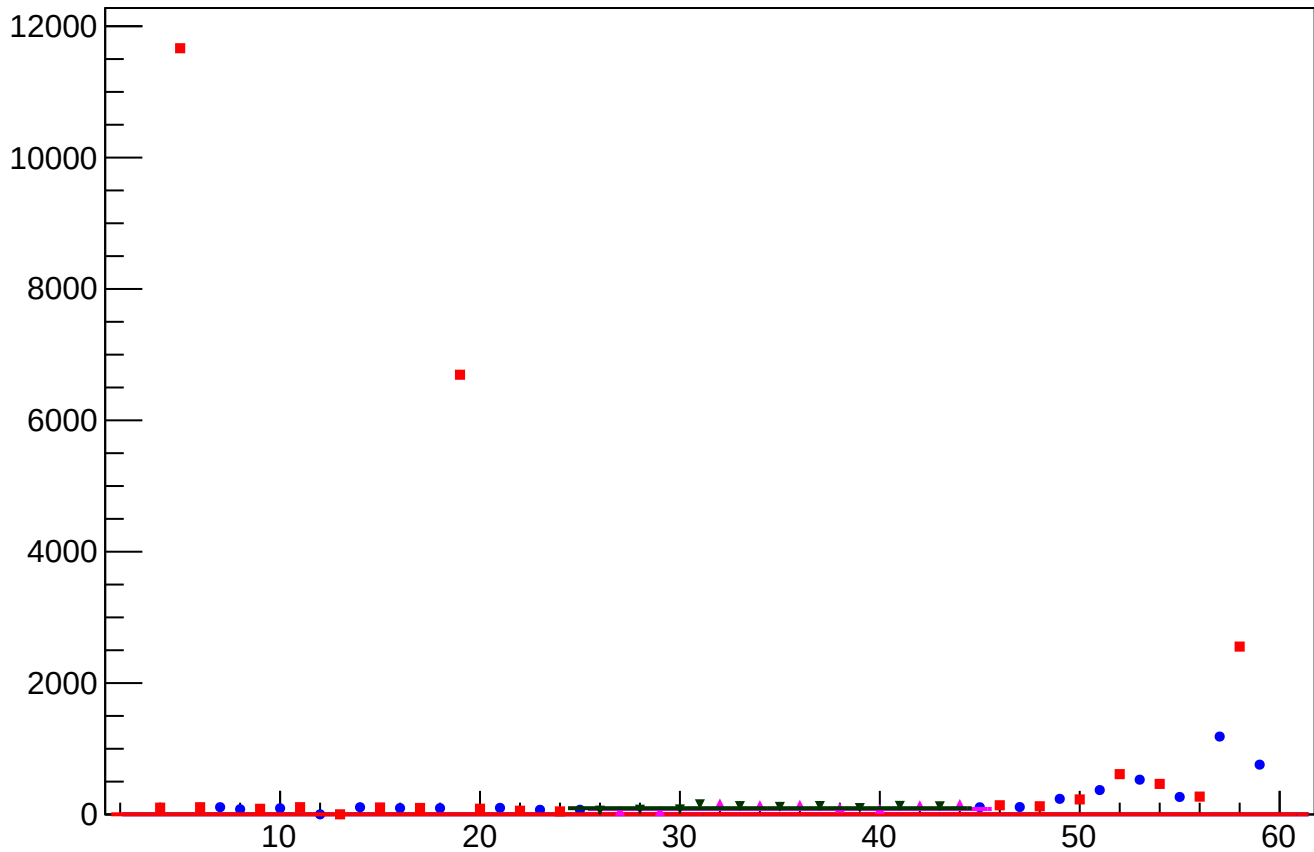
Right Out:  $-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 21.1/18

Left In:  $0.127 \pm 0.053$   $\chi^2/\text{NDF}$ : 9.8/8

$-0.002 \pm 0.003$   $\chi^2/\text{NDF}$ : 33.4/27

$-0.002 \pm 0.003$   $\chi^2/\text{NDF}$ : 36.7/27

# diff\_cav4dY\_rms vs slug



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

Left Out: 95.280+/-0.041     $\chi^2/\text{NDF}$ : 442454.1/9

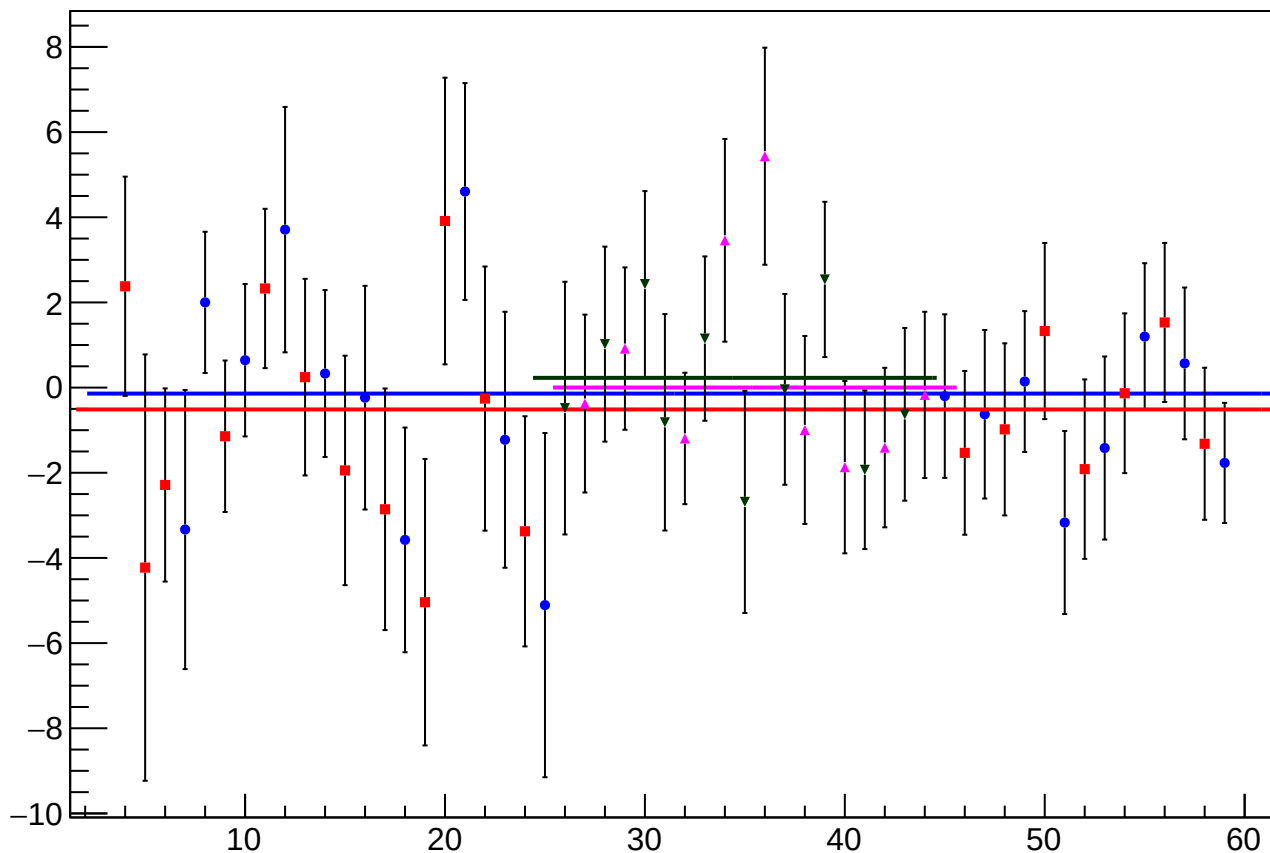
Right Out: 2.101+/-0.002     $\chi^2/\text{NDF}$ : 6716516.3/18

Left In: 82.887+/-0.038     $\chi^2/\text{NDF}$ : 1078939.0/8

2.476+/-0.002     $\chi^2/\text{NDF}$ : 14737612.2/27

2.360+/-0.002     $\chi^2/\text{NDF}$ : 12378852.0/27

# diff\_bpm4aX\_mean vs slug



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

$-0.018 \pm 0.397$   $\chi^2/\text{NDF}: 22.2/27$

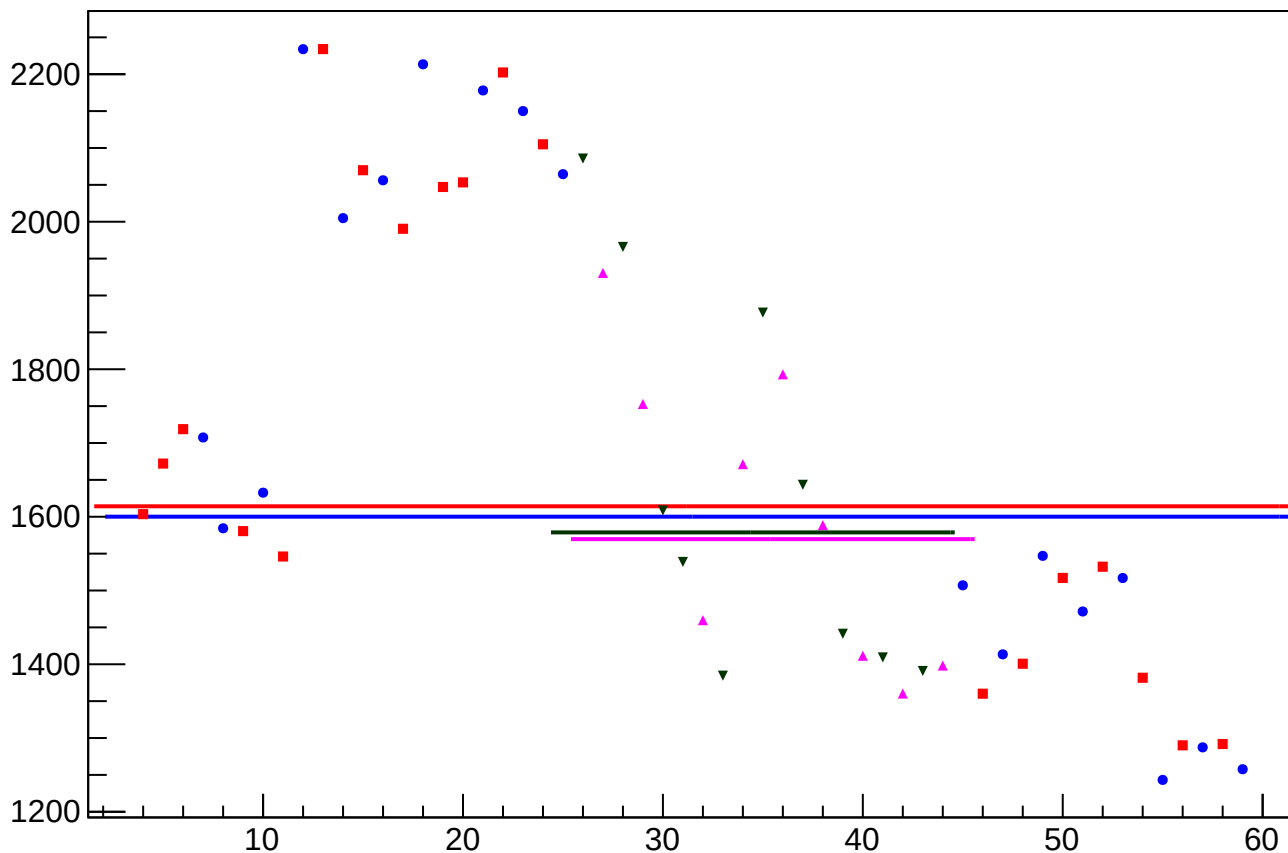
Left Out:  $0.229 \pm 0.687$   $\chi^2/\text{NDF}: 6.0/9$

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

$-0.319 \pm 0.409$   $\chi^2/\text{NDF}: 23.1/27$

Left In:  $0.002 \pm 0.666$   $\chi^2/\text{NDF}: 9.1/8$

# diff\_bpm4aX\_rms vs slug



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

Left Out:  $1578.790 \pm 0.486$   $\chi^2/\text{NDF}: 209553.9/9$

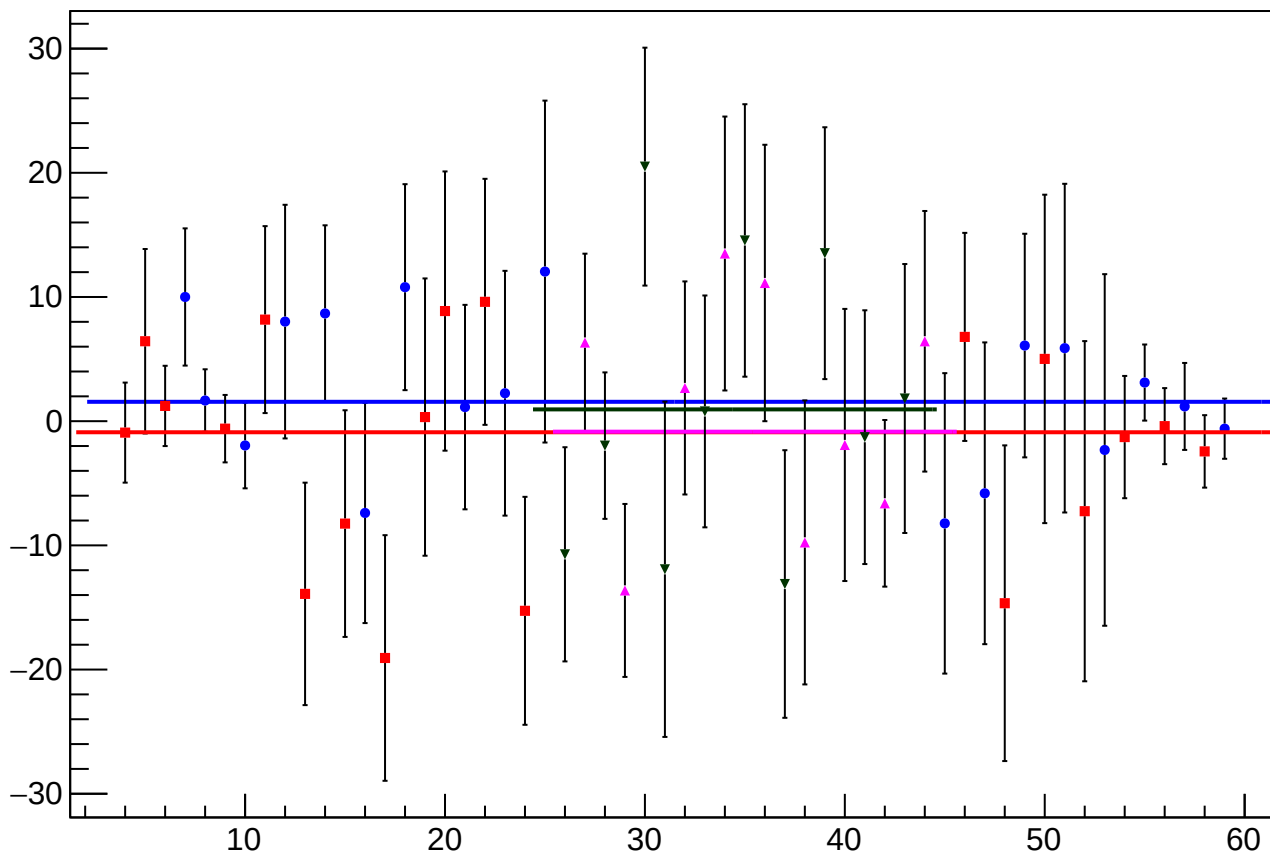
Right Out:  $1614.182 \pm 0.367$   $\chi^2/\text{NDF}: 670373.5/18$

Left In:  $1569.664 \pm 0.471$   $\chi^2/\text{NDF}: 160150.1/8$

$1593.017 \pm 0.280$   $\chi^2/\text{NDF}: 1060592.2/27$

$1597.376 \pm 0.290$   $\chi^2/\text{NDF}: 836079.5/27$

# diff\_bpm4aY\_mean vs slug



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

Left Out:  $0.949 \pm 2.951$   $\chi^2/\text{NDF}$ : 12.0/9

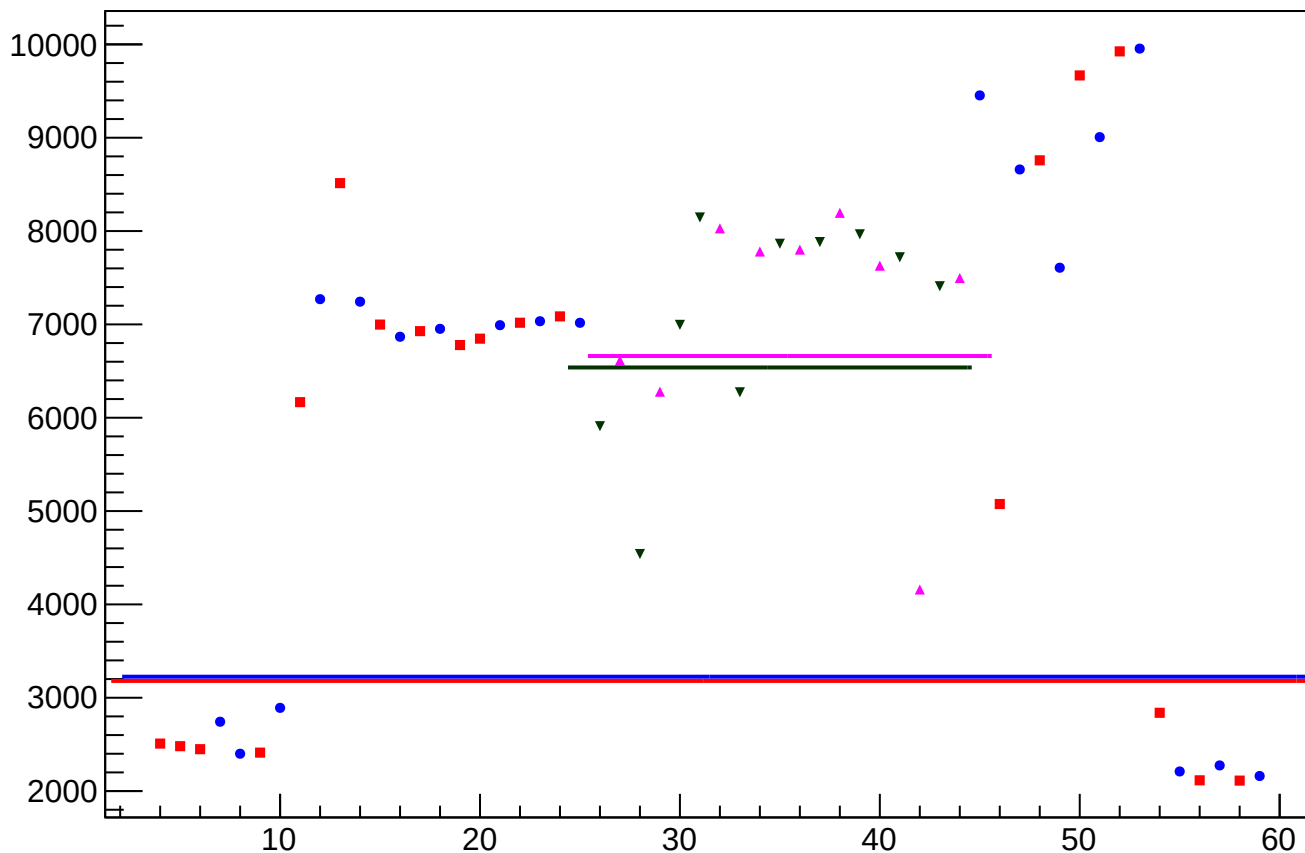
Right Out:  $-0.892 \pm 1.197$   $\chi^2/\text{NDF}$ : 16.1/18

Left In:  $-0.846 \pm 2.920$   $\chi^2/\text{NDF}$ : 9.2/8

$1.480 \pm 1.070$   $\chi^2/\text{NDF}$ : 22.2/27

$-0.885 \pm 1.107$   $\chi^2/\text{NDF}$ : 25.3/27

# diff\_bpm4aY\_rms vs slug



Right In: 3225.359+/-0.812  $\chi^2/\text{NDF}$ : 5860780.1/17

Left Out: 6538.498+/-2.087  $\chi^2/\text{NDF}$ :414494.7/9

Right Out: 3180.260+/-0.846  $\chi^2/\text{NDF}$ : 5053490.5/18

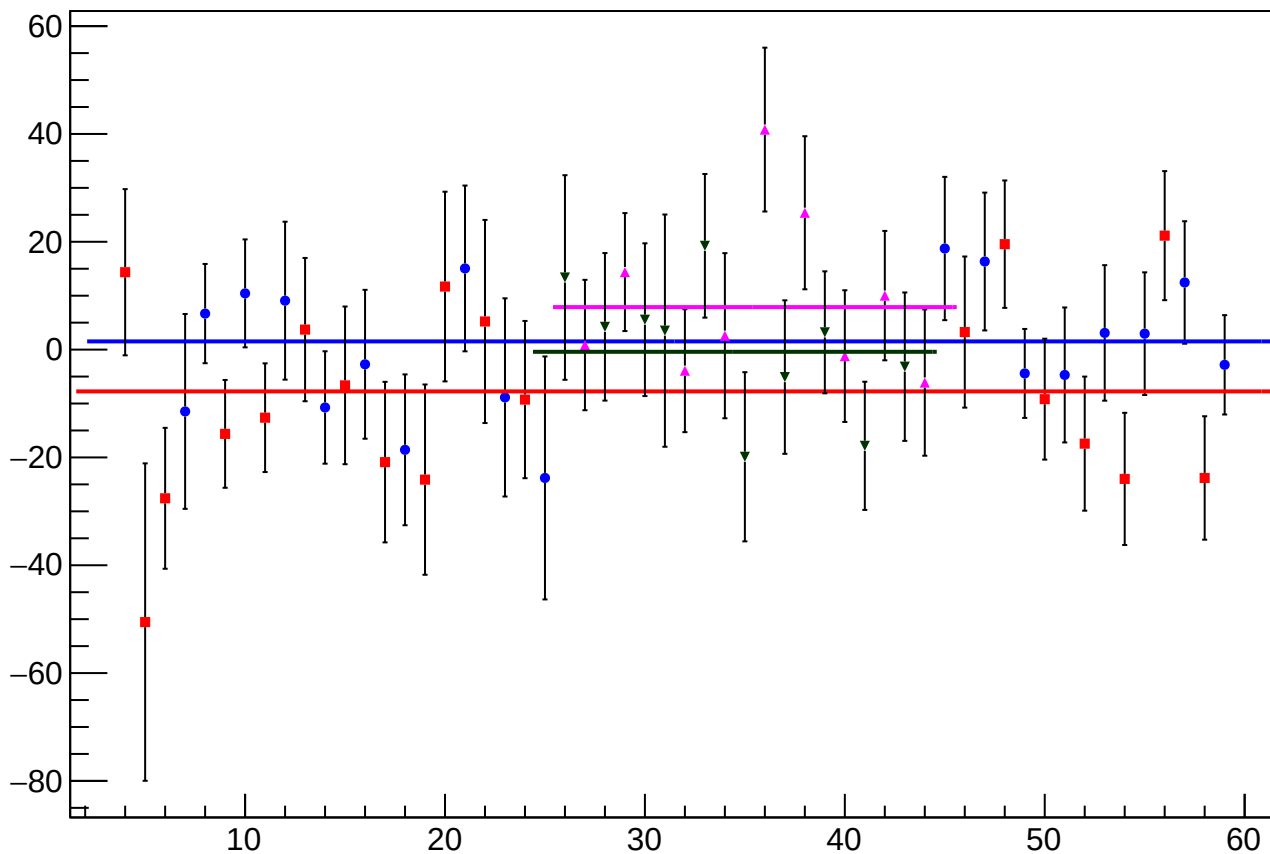
Left In: 6661.262+/-2.064  $\chi^2/\text{NDF}$ :440852.9/8

3661.067+/-0.757  $\chi^2/\text{NDF}$ : 8464732.9/27

3680.965+/-0.783  $\chi^2/\text{NDF}$ : 7928528.8/27



# diff\_bpm4eX\_mean vs slug



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

Left Out:  $-0.408 \pm 4.470$   $\chi^2/\text{NDF}: 7.0/9$

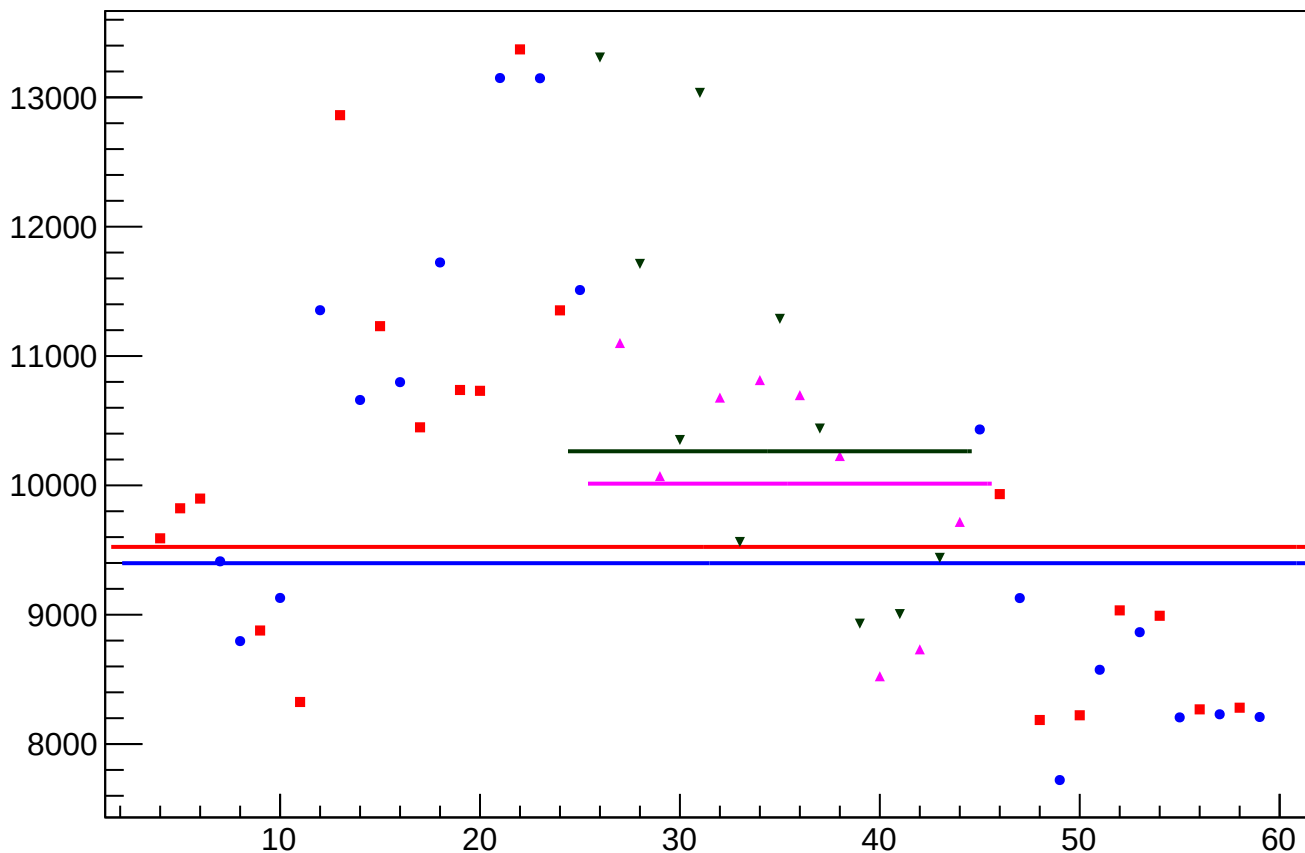
Right Out:  $-7.752 \pm 3.046$   $\chi^2/\text{NDF}: 27.5/18$

Left In:  $7.884 \pm 4.244$   $\chi^2/\text{NDF}: 9.7/8$

$0.968 \pm 2.392$   $\chi^2/\text{NDF}: 19.9/27$

$-2.437 \pm 2.474$   $\chi^2/\text{NDF}: 46.3/27$

# diff\_bpm4eX\_rms vs slug



Right In: 9398.368+/-2.003  $\chi^2/\text{NDF}$ : 554872.2/17

Left Out: 10263.647+/-3.161  $\chi^2/\text{NDF}$ :178797.8/9

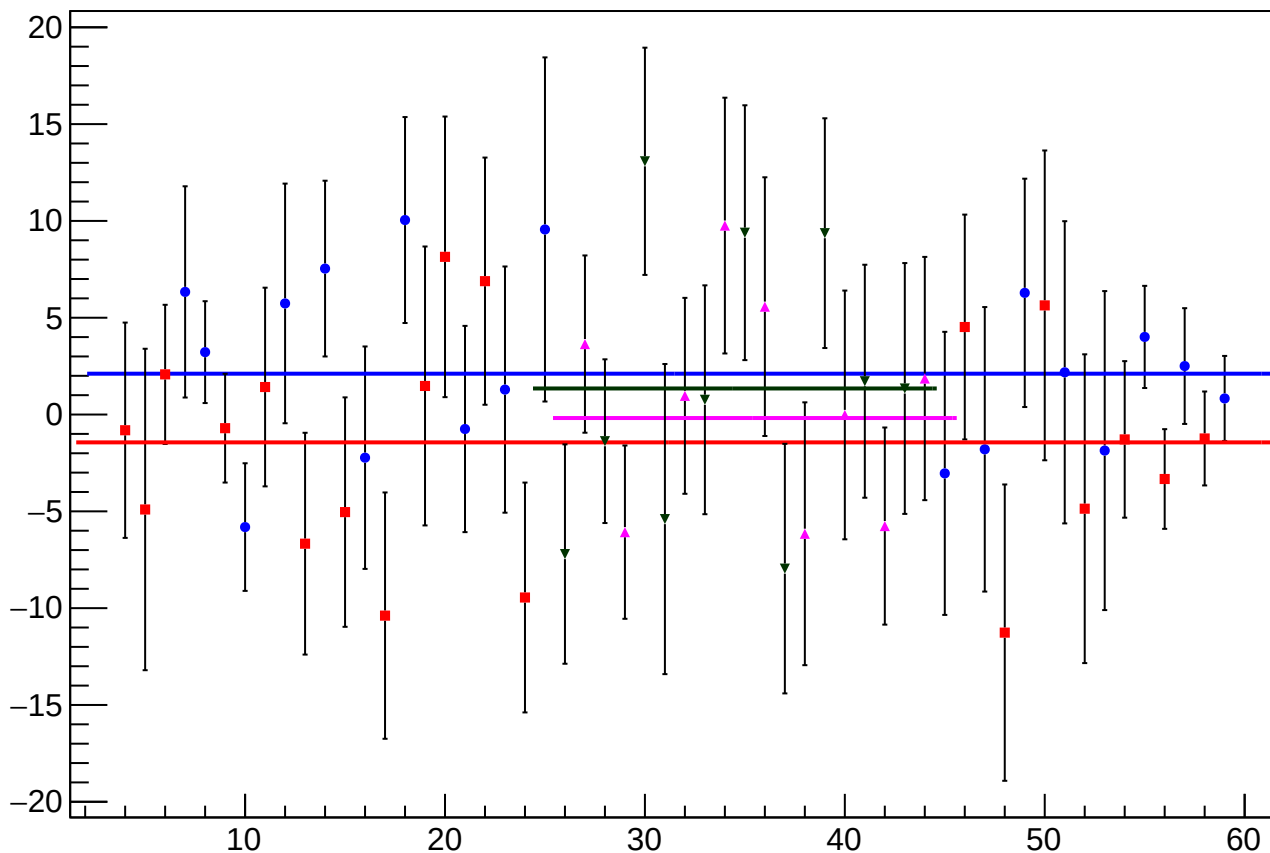
Right Out: 9524.317+/-2.154  $\chi^2/\text{NDF}$ : 440161.2/18

Left In: 10013.319+/-3.001  $\chi^2/\text{NDF}$ :86488.8/8

9646.276+/-1.692  $\chi^2/\text{NDF}$ : 787149.5/27

9690.546+/-1.750  $\chi^2/\text{NDF}$ : 544176.6/27

# diff\_bpm4eY\_mean vs slug



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

Left Out:  $1.346 \pm 1.865$   $\chi^2/\text{NDF}$ : 12.8/9

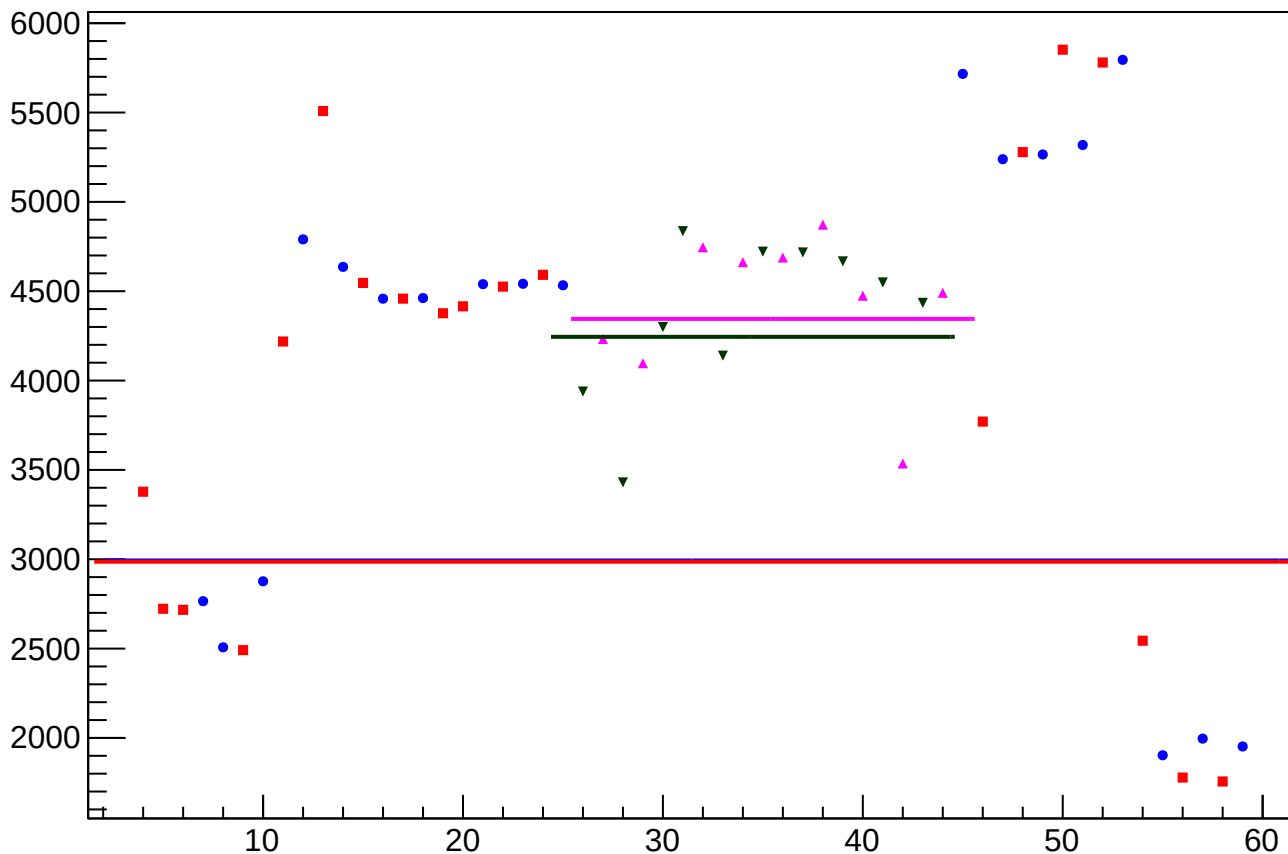
Right Out:  $-1.438 \pm 1.040$   $\chi^2/\text{NDF}$ : 14.4/18

Left In:  $-0.180 \pm 1.851$   $\chi^2/\text{NDF}$ : 7.6/8

$1.945 \pm 0.867$   $\chi^2/\text{NDF}$ : 27.5/27

$-1.136 \pm 0.907$   $\chi^2/\text{NDF}$ : 22.3/27

diff\_bpm4eY\_rms vs slug



Right In: 2993.228+/-0.692  $\chi^2/\text{NDF}$ : 3318124.3/17

Left Out: 4244.655+/-1.319  $\chi^2/\text{NDF}$ :130015.1/9

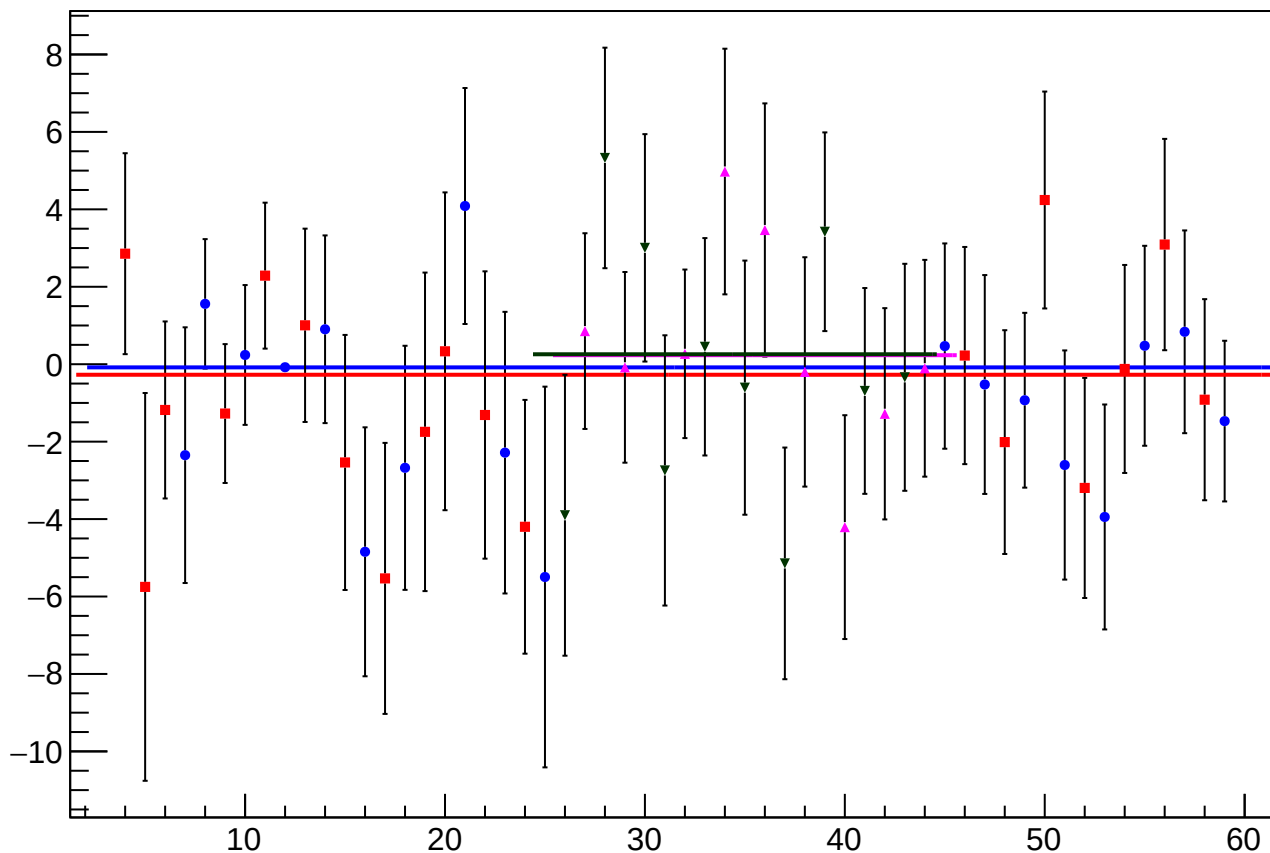
Right Out: 2986.116+/-0.736  $\chi^2/\text{NDF}$ : 2945634.2/18

Left In: 4345.018+/-1.309  $\chi^2/\text{NDF}$ :94341.4/8

3263.539+/-0.613  $\chi^2/\text{NDF}$ : 4153873.7/27

3312.326+/-0.641  $\chi^2/\text{NDF}$ : 3859255.6/27

# diff\_bpm4acX\_mean vs slug



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

Left Out:  $0.257 \pm 0.937$   $\chi^2/\text{NDF}: 11.1/9$

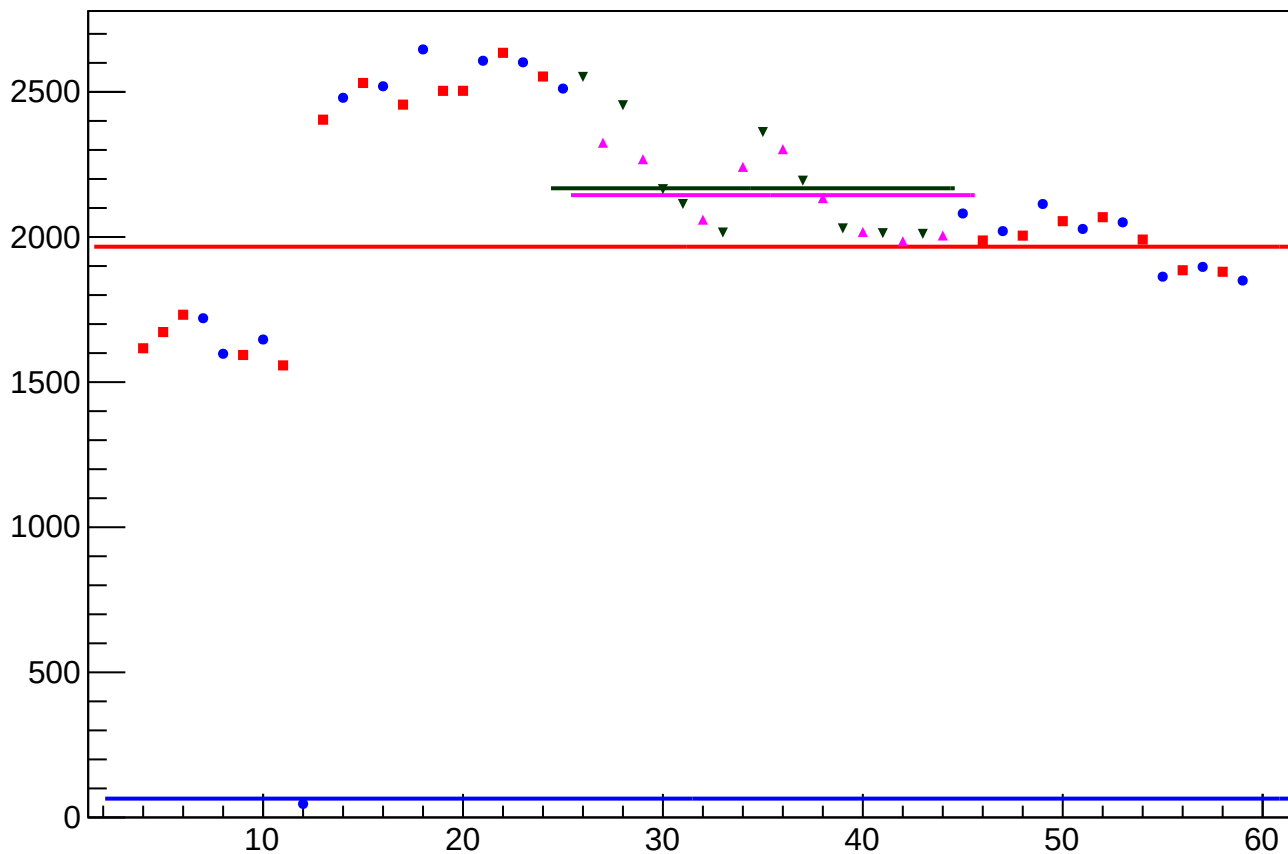
Right Out:  $-0.272 \pm 0.631$   $\chi^2/\text{NDF}: 15.3/18$

Left In:  $0.233 \pm 0.905$   $\chi^2/\text{NDF}: 6.0/8$

$-0.080 \pm 0.060$   $\chi^2/\text{NDF}: 22.5/27$

$-0.107 \pm 0.518$   $\chi^2/\text{NDF}: 21.5/27$

# diff\_bpm4acX\_rms vs slug



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

Left Out: 2167.933+/-0.663  $\chi^2/\text{NDF}$ : 74393.9/9

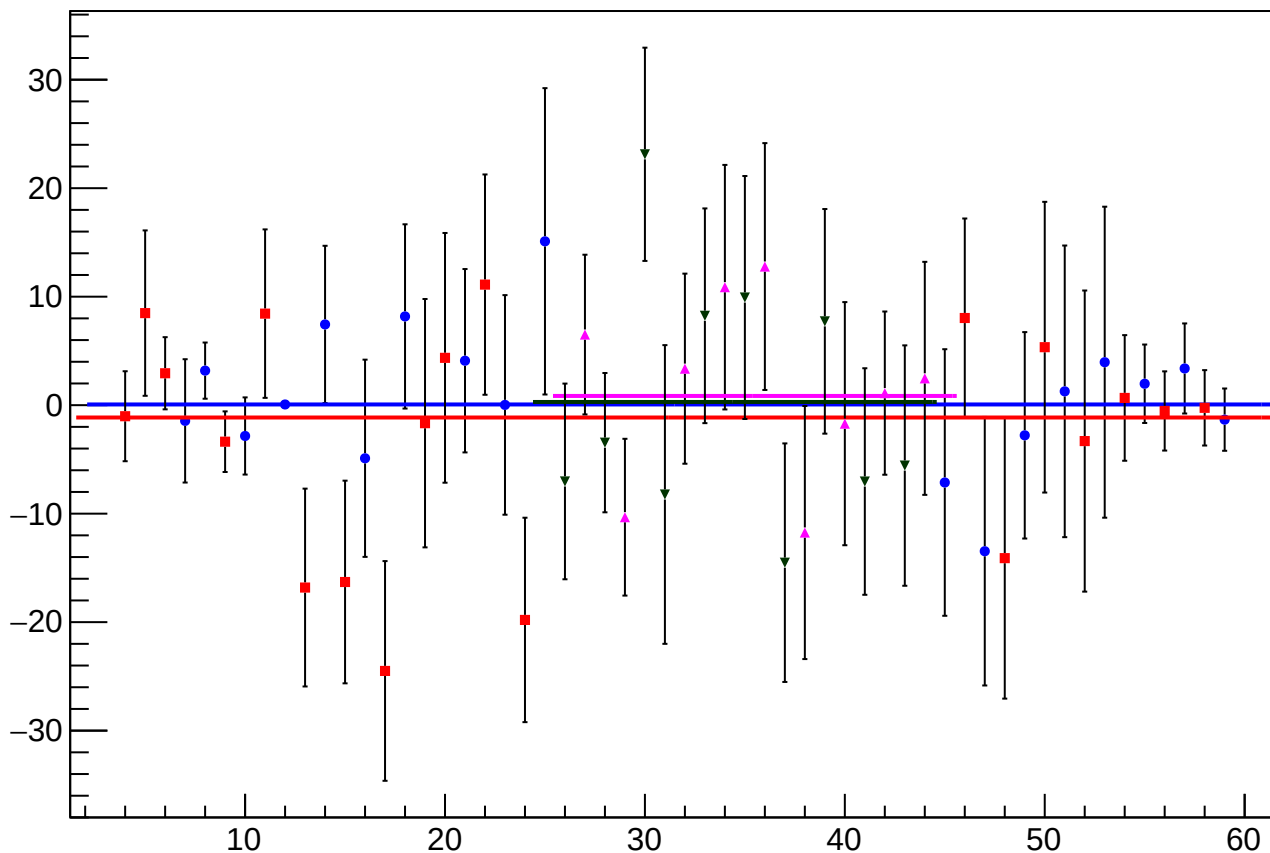
Right Out: 1966.634+/-0.446  $\chi^2/\text{NDF}$ : 610680.3/18

Left In: 2144.257+/-0.640  $\chi^2/\text{NDF}$ : 40455.1/8

73.512+/-0.042  $\chi^2/\text{NDF}$ : 30362872.9/27

2024.766+/-0.366  $\chi^2/\text{NDF}$ : 702966.0/27

# diff\_bpm4acY\_mean vs slug



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

Left Out:  $0.294 \pm 3.082$   $\chi^2/\text{NDF}: 11.3/9$

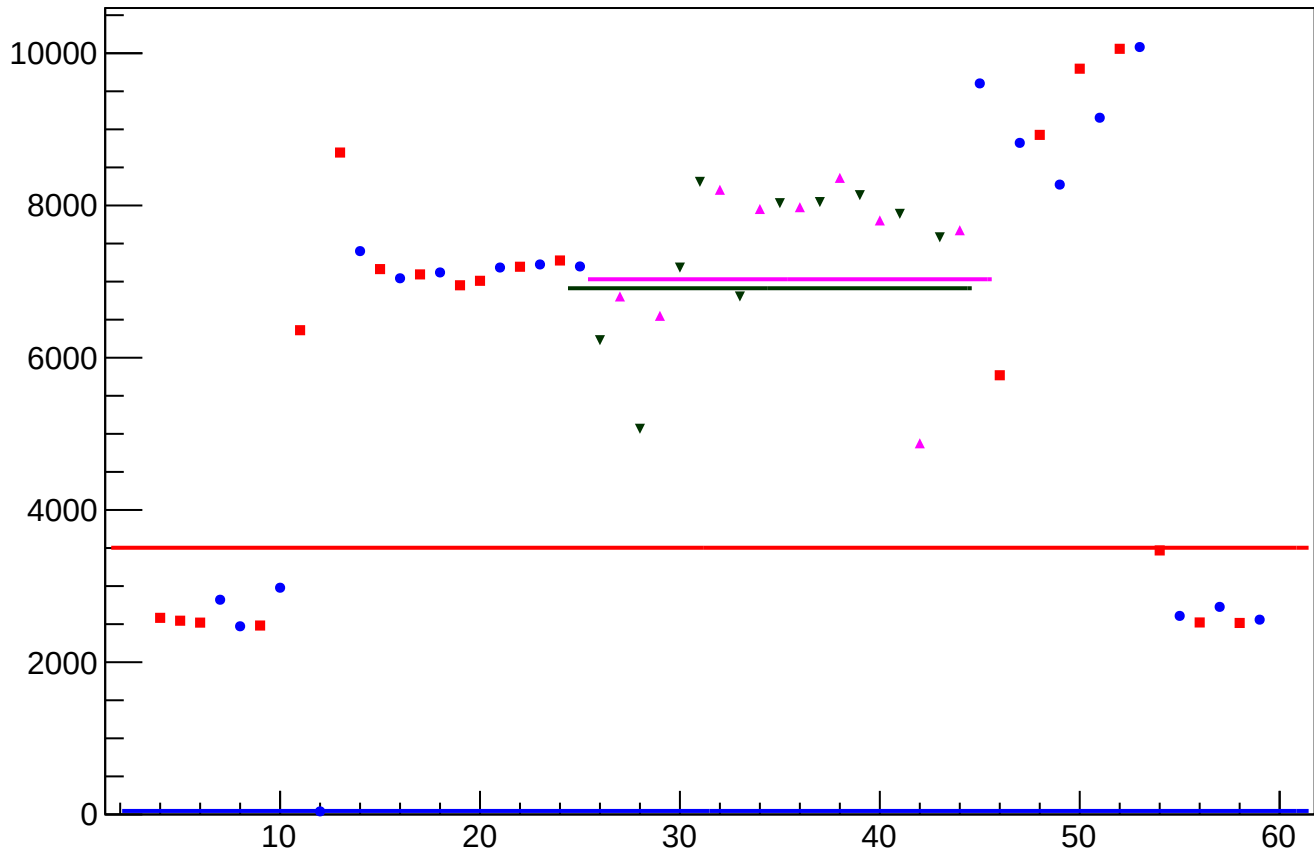
Right Out:  $-1.137 \pm 1.295$   $\chi^2/\text{NDF}: 24.2/18$

Left In:  $0.850 \pm 3.044$   $\chi^2/\text{NDF}: 6.2/8$

$0.065 \pm 0.052$   $\chi^2/\text{NDF}: 19.9/27$

$-0.833 \pm 1.192$   $\chi^2/\text{NDF}: 30.8/27$

# diff\_bpm4acY\_rms vs slug



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

Left Out: 6912.690+/-2.179  $\chi^2/\text{NDF}$ : 293013.4/9

48.217+/-0.037  $\chi^2/\text{NDF}$ : 30395546.5/27

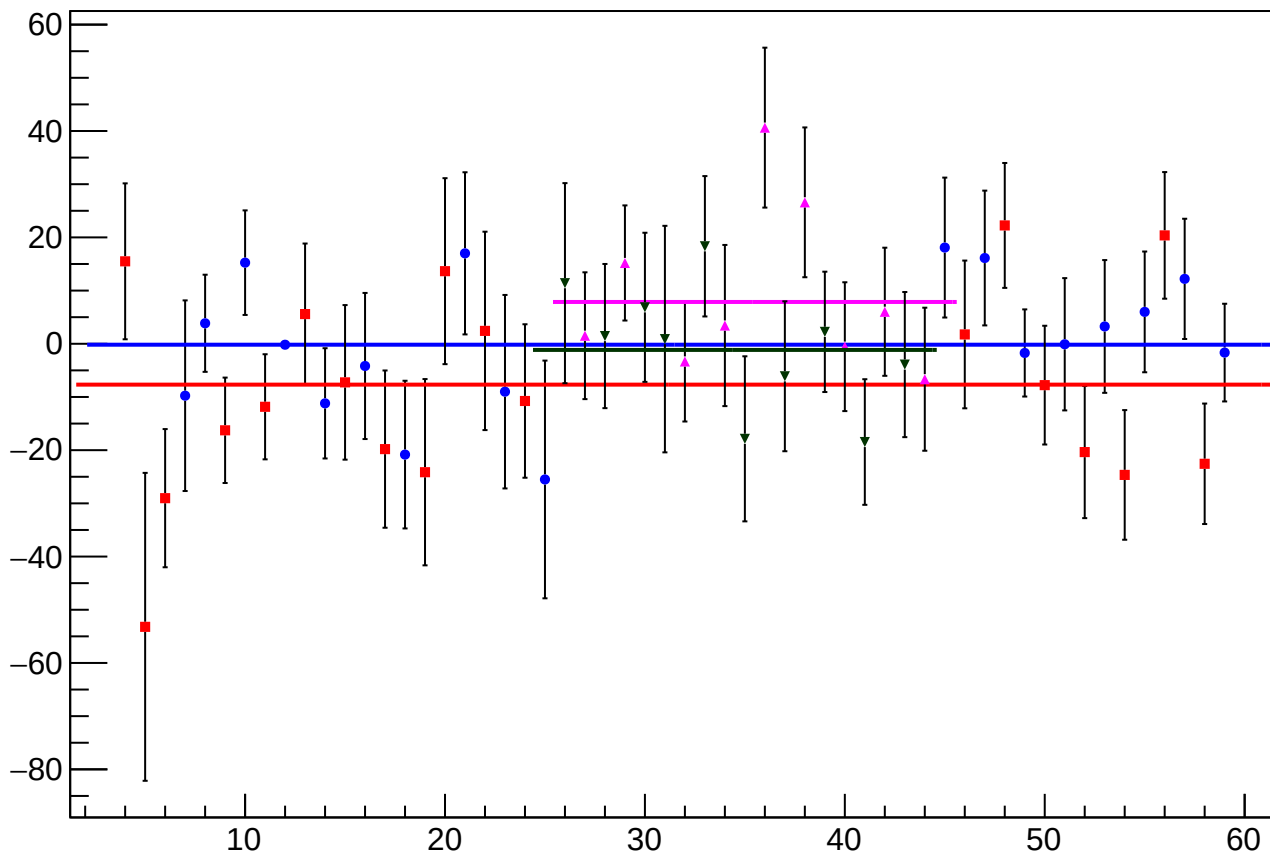
Right Out: 3503.720+/-0.916  $\chi^2/\text{NDF}$ : 4669685.2/18

4044.304+/-0.843  $\chi^2/\text{NDF}$ : 7223650.9/27

Left In: 7030.739+/-2.153  $\chi^2/\text{NDF}$ : 280908.8/8



# diff\_bpm4ecX\_mean vs slug



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

Left Out:  $-1.154 \pm 4.434$   $\chi^2/\text{NDF}: 6.6/9$

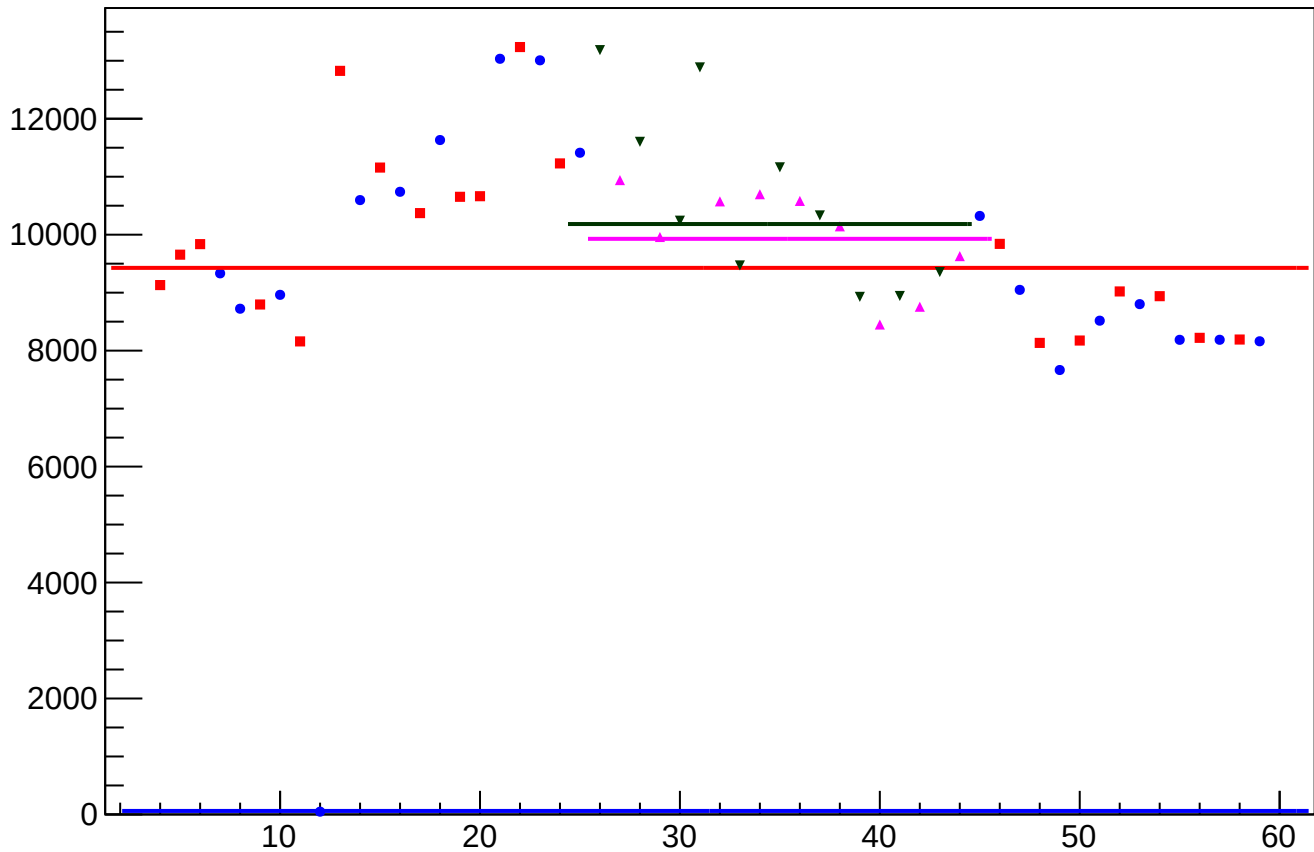
Right Out:  $-7.679 \pm 3.015$   $\chi^2/\text{NDF}: 30.2/18$

Left In:  $7.861 \pm 4.207$   $\chi^2/\text{NDF}: 10.0/8$

$-0.174 \pm 0.106$   $\chi^2/\text{NDF}: 21.0/27$

$-2.405 \pm 2.451$   $\chi^2/\text{NDF}: 49.2/27$

# diff\_bpm4ecX\_rms vs slug



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

Left Out: 10183.674+/-3.135  $\chi^2$ /NDF:173145.0/9

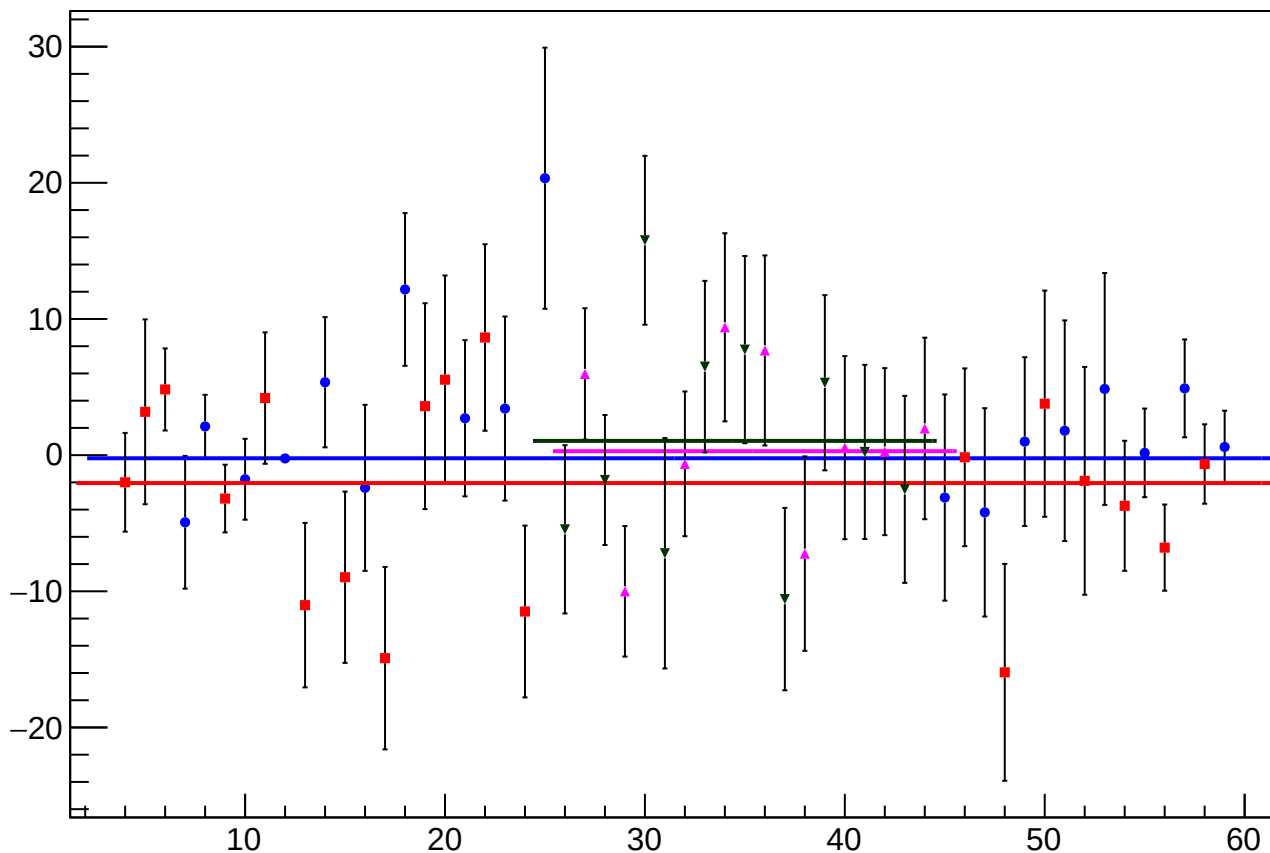
Right Out: 9427.549+/-2.132  $\chi^2$ /NDF: 447350.4/18

Left In: 9928.487+/-2.975  $\chi^2$ /NDF:80123.6/8

66.573+/-0.075  $\chi^2$ /NDF: 31714217.8/27

9597.569+/-1.733  $\chi^2$ /NDF: 546206.9/27

# diff\_bpm4ecY\_mean vs slug



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

Left Out:  $1.047 \pm 2.006$   $\chi^2/\text{NDF}$ : 13.5/9

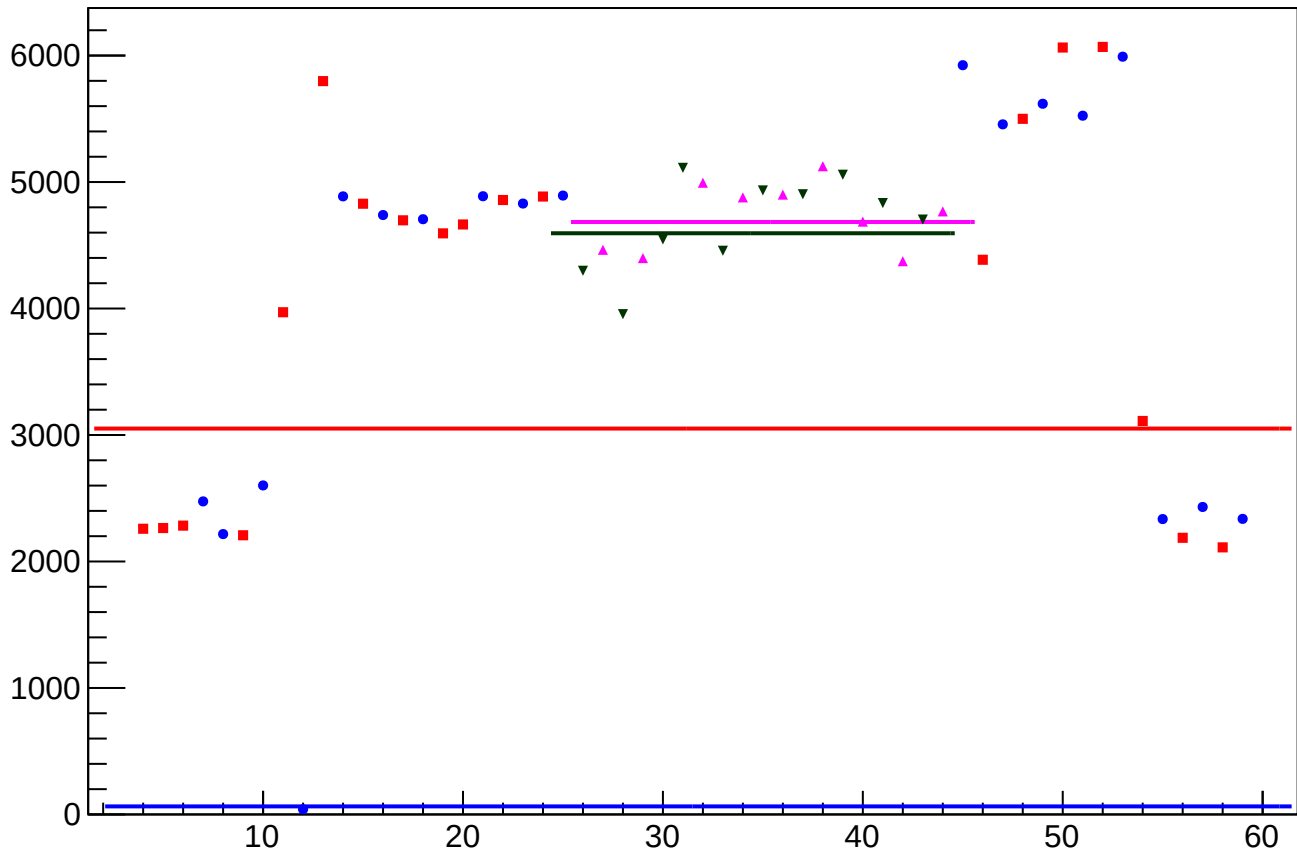
Right Out:  $-2.049 \pm 1.055$   $\chi^2/\text{NDF}$ : 27.2/18

Left In:  $0.291 \pm 1.984$   $\chi^2/\text{NDF}$ : 10.1/8

$-0.227 \pm 0.090$   $\chi^2/\text{NDF}$ : 30.7/27

$-1.533 \pm 0.932$   $\chi^2/\text{NDF}$ : 38.3/27

diff\_bpm4ecY\_rms vs slug



Right In: 63.702 $\pm$ 0.064  $\chi^2$ /NDF: 20268366.8/17

Left Out: 4595.004 $\pm$ 1.418  $\chi^2$ /NDF: 71786.0/9

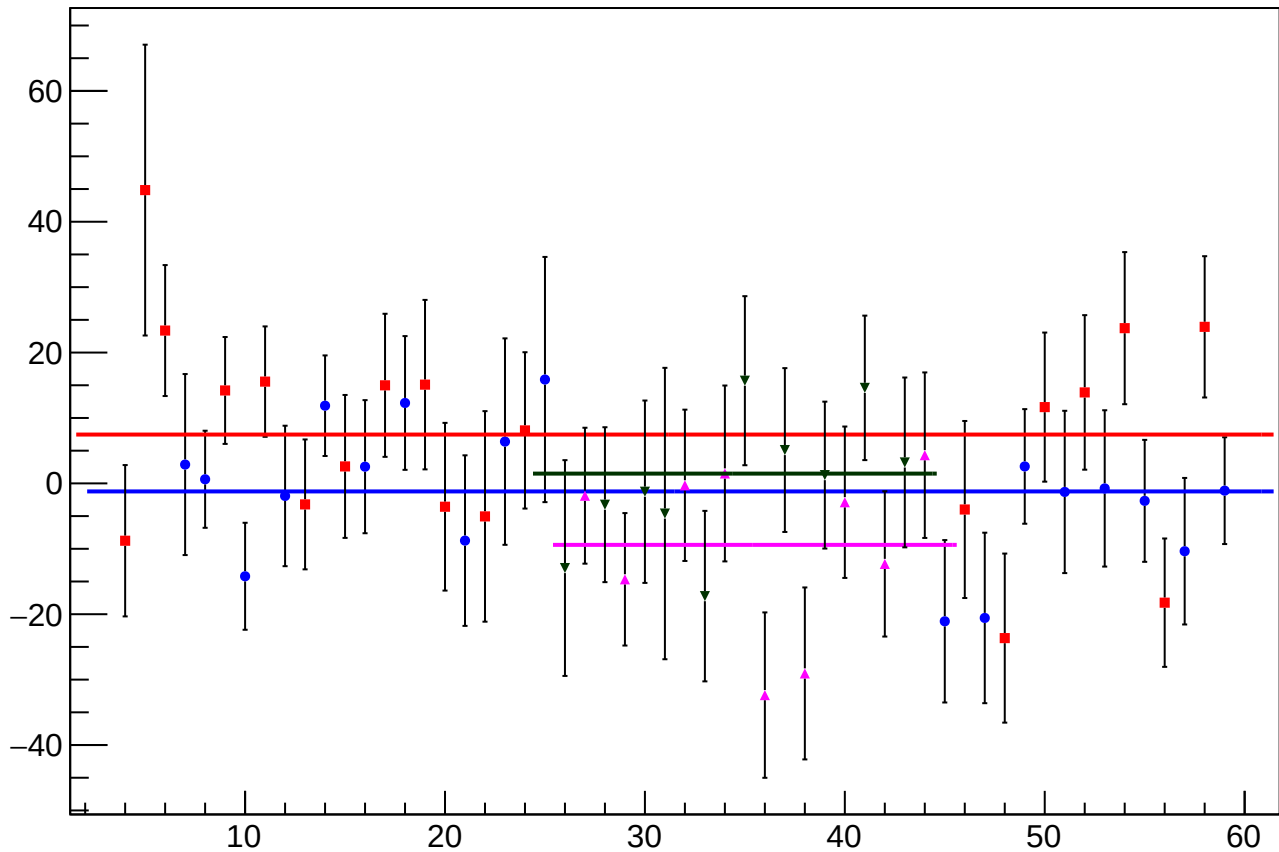
Right Out: 3050.872 $\pm$ 0.746  $\chi^2$ /NDF: 2882138.2/18

Left In: 4684.130 $\pm$ 1.403  $\chi^2$ /NDF: 34622.6/8

72.773 $\pm$ 0.063  $\chi^2$ /NDF: 30525514.4/27

3411.225 $\pm$ 0.659  $\chi^2$ /NDF: 3973491.3/27

# diff\_bpm1X\_mean vs slug



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

Left Out:  $1.495 \pm 4.142$   $\chi^2/\text{NDF}$ : 5.8/9

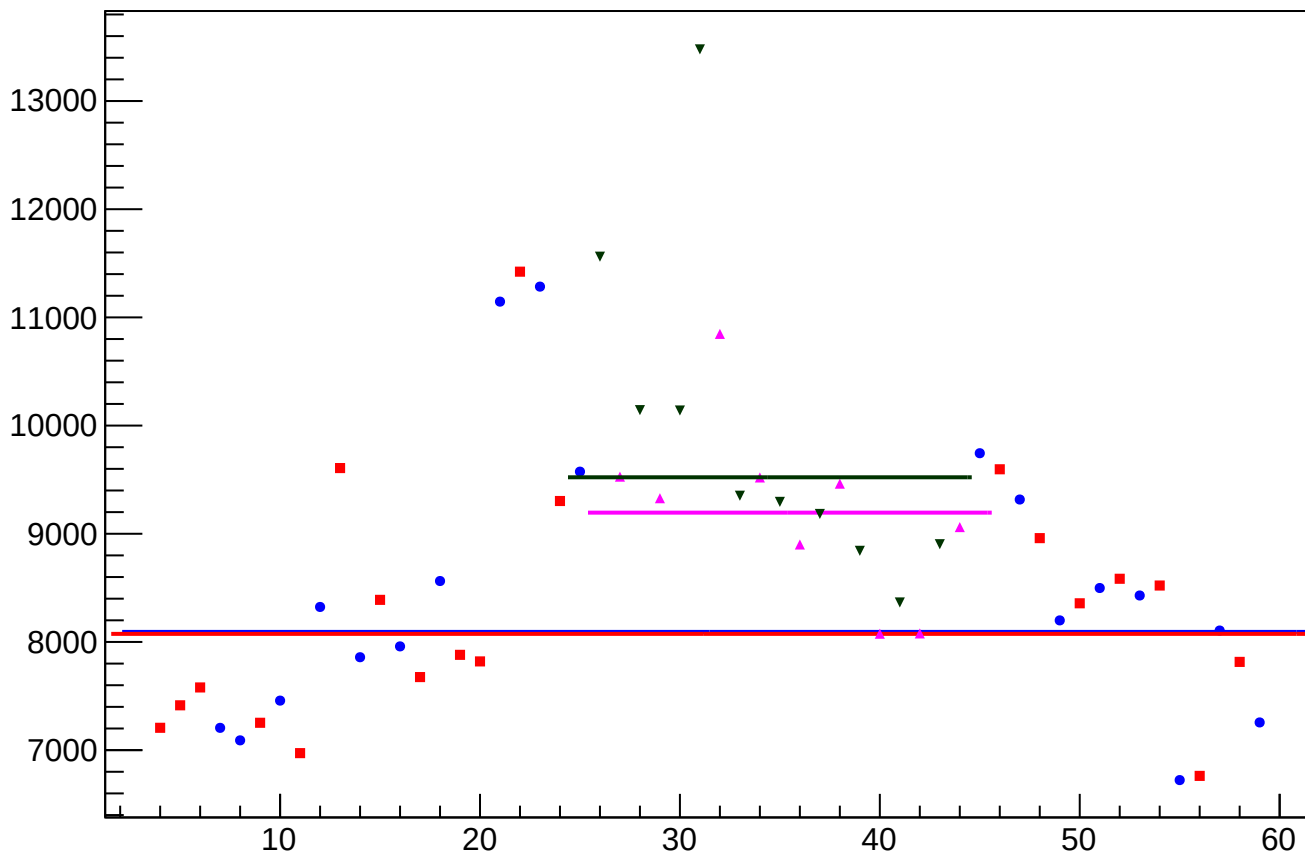
Right Out:  $7.465 \pm 2.574$   $\chi^2/\text{NDF}$ : 30.5/18

Left In:  $-9.400 \pm 3.896$   $\chi^2/\text{NDF}$ : 9.2/8

$-0.531 \pm 2.096$   $\chi^2/\text{NDF}$ : 20.7/27

$2.340 \pm 2.147$   $\chi^2/\text{NDF}$ : 52.7/27

# diff\_bpm1X\_rms vs slug



Right In: 8092.852+/-1.719  $\chi^2/\text{NDF}$ : 389353.1/17

Left Out: 9522.004+/-2.929  $\chi^2/\text{NDF}$ :139291.8/9

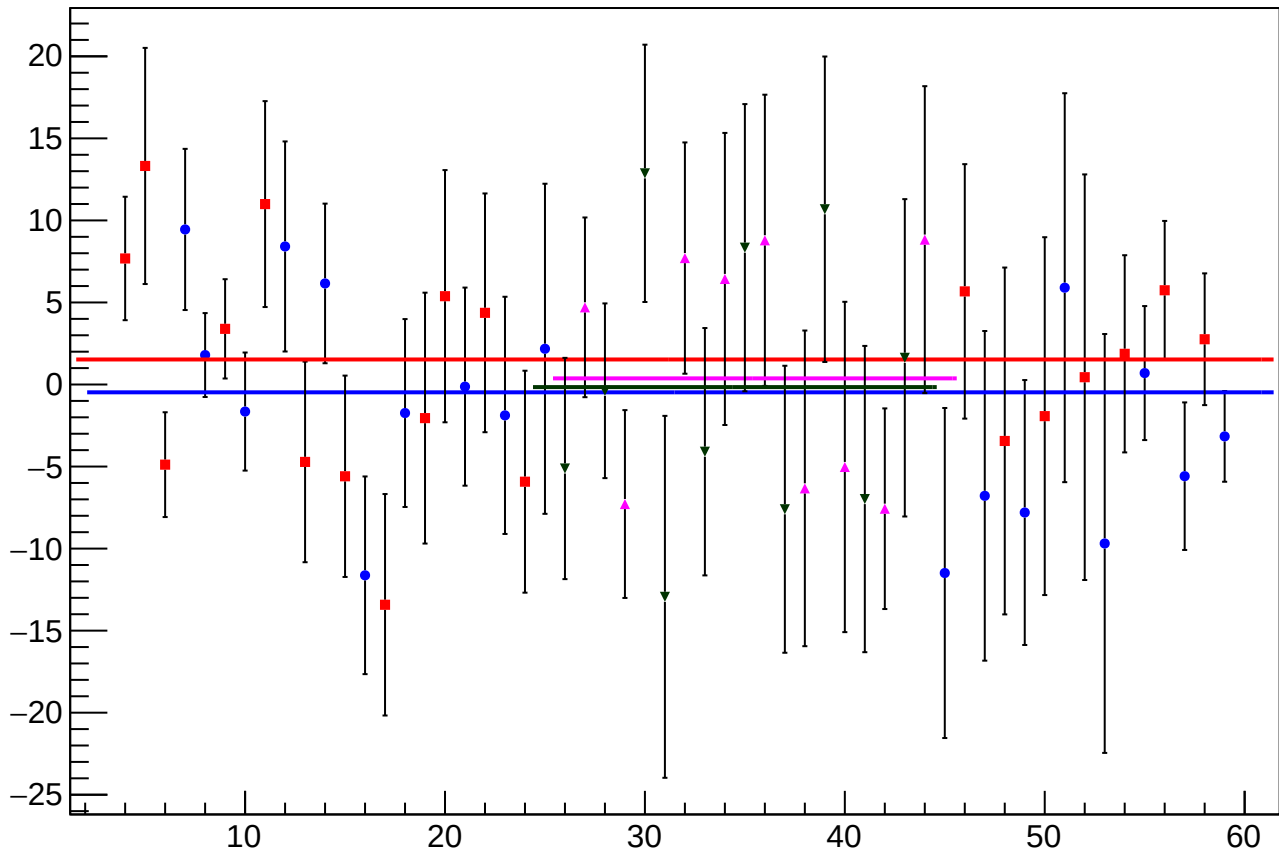
Right Out: 8074.654+/-1.820  $\chi^2/\text{NDF}$ : 312658.9/18

Left In: 9195.242+/-2.755  $\chi^2/\text{NDF}$ :85448.4/8

8458.875+/-1.482  $\chi^2/\text{NDF}$ : 705757.7/27

8415.182+/-1.518  $\chi^2/\text{NDF}$ : 513311.7/27

# diff\_bpm1Y\_mean vs slug



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

Left Out:  $-0.158 \pm 2.506$   $\chi^2/\text{NDF}: 8.5/9$

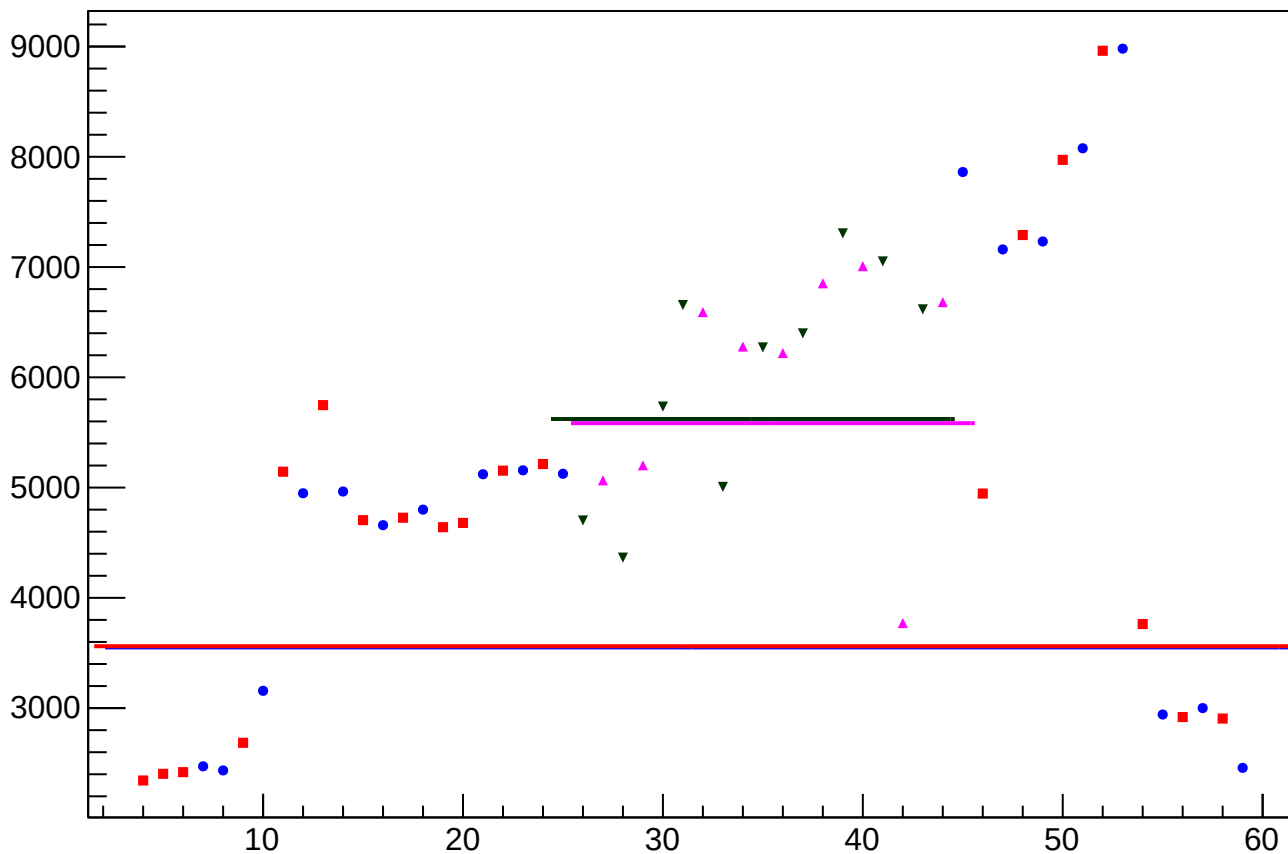
Right Out:  $1.525 \pm 1.232$   $\chi^2/\text{NDF}: 22.9/18$

Left In:  $0.374 \pm 2.438$   $\chi^2/\text{NDF}: 8.1/8$

$-0.420 \pm 1.054$   $\chi^2/\text{NDF}: 26.4/27$

$1.291 \pm 1.099$   $\chi^2/\text{NDF}: 31.2/27$

# diff\_bpm1Y\_rms vs slug



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

Left Out: 5621.962+/-1.772  $\chi^2/\text{NDF}$ :340384.5/9

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

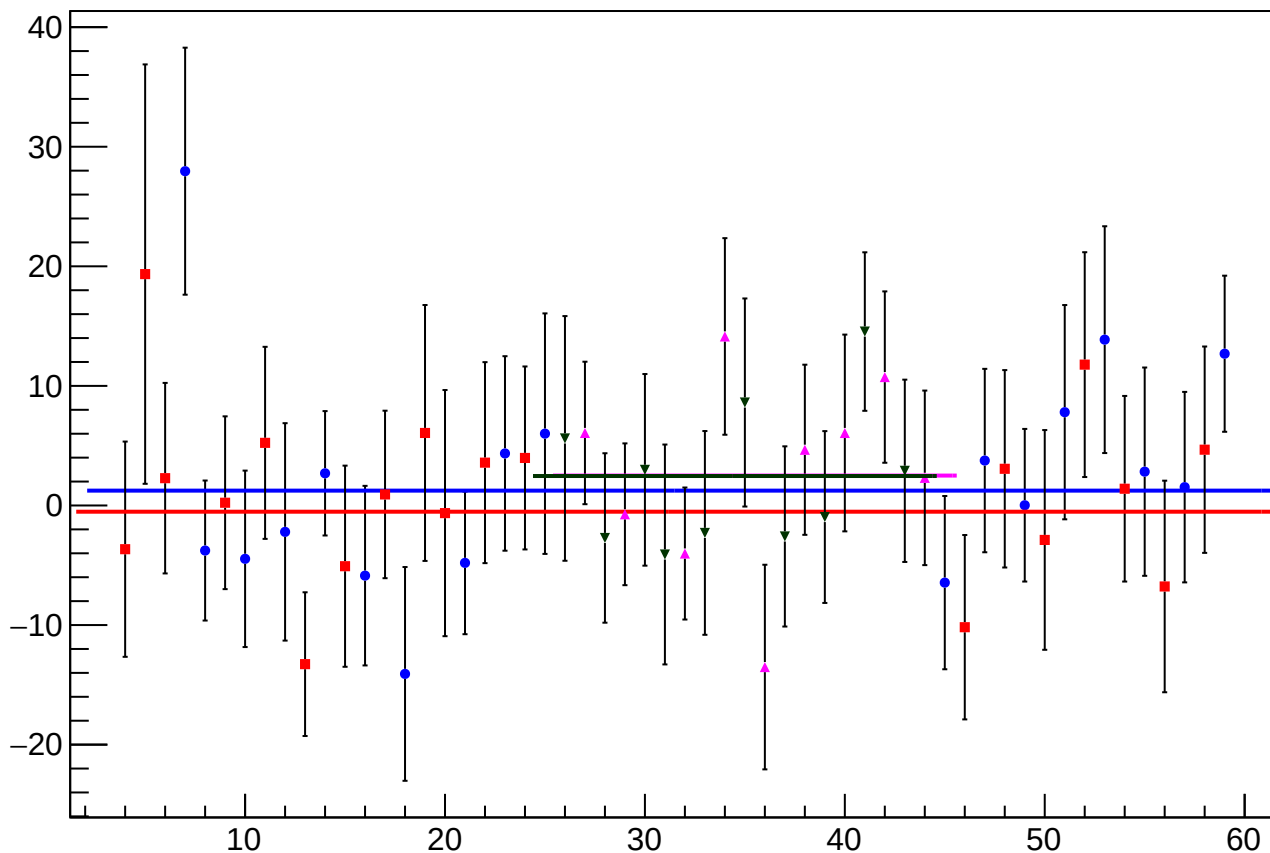
Left In: 5584.245+/-1.724  $\chi^2/\text{NDF}$ :368430.0/8

3916.570+/-0.745  $\chi^2/\text{NDF}$ : 4759359.6/27

3972.561+/-0.777  $\chi^2/\text{NDF}$ : 4083479.7/27



# diff\_bpm11X\_mean vs slug



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

Left Out:  $2.463 \pm 2.494$   $\chi^2/\text{NDF}$ : 6.0/9

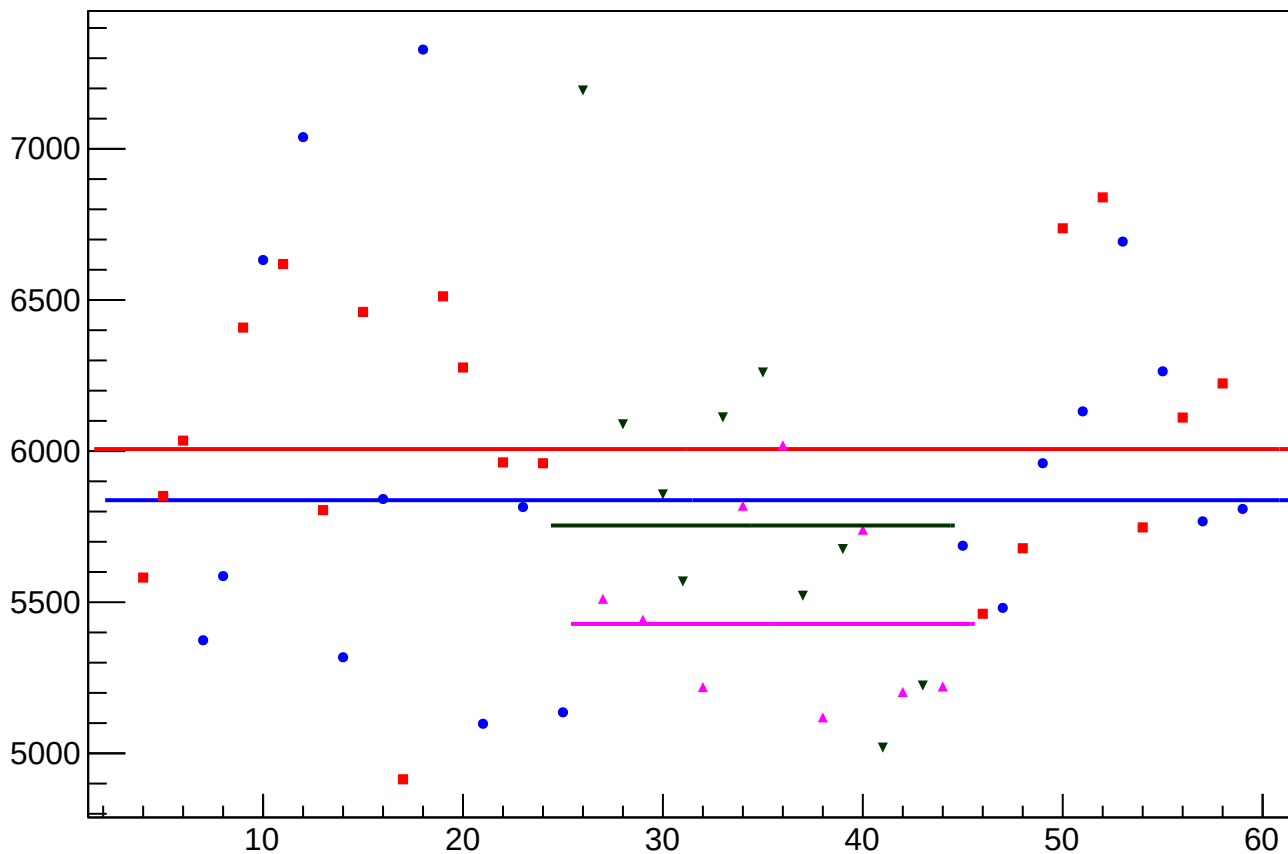
Right Out:  $-0.521 \pm 1.907$   $\chi^2/\text{NDF}$ : 12.3/18

Left In:  $2.501 \pm 2.290$   $\chi^2/\text{NDF}$ : 9.2/8

$1.645 \pm 1.433$   $\chi^2/\text{NDF}$ : 26.3/27

$0.716 \pm 1.465$   $\chi^2/\text{NDF}$ : 22.5/27

# diff\_bpm11X\_rms vs slug



Right In: 5837.587 $\pm$ 1.239  $\chi^2$ /NDF: 211311.8/17

Left Out: 5753.867 $\pm$ 1.763  $\chi^2$ /NDF:91874.6/9

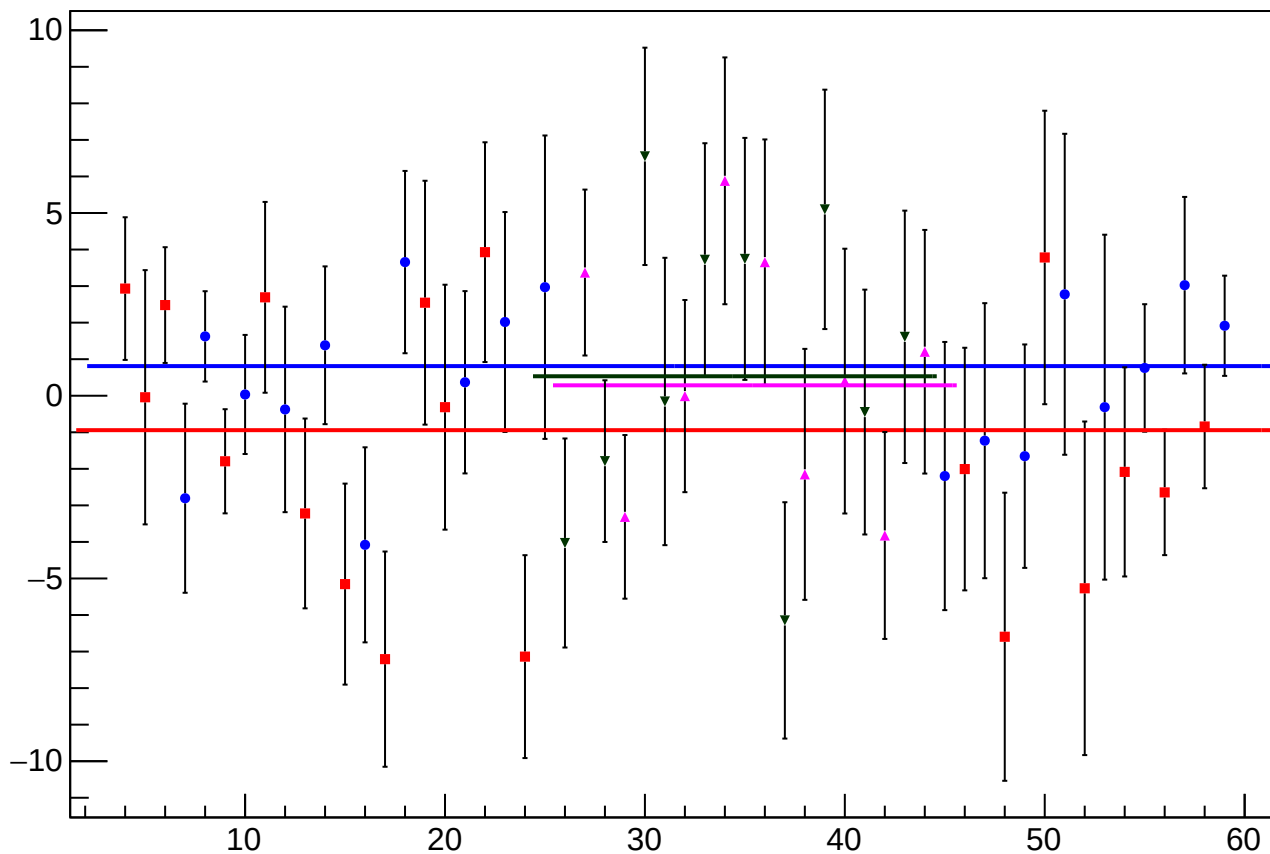
Right Out: 6006.736 $\pm$ 1.348  $\chi^2$ /NDF: 130455.1/18

Left In: 5428.130 $\pm$ 1.619  $\chi^2$ /NDF:27568.5/8

5809.927 $\pm$ 1.013  $\chi^2$ /NDF: 304696.0/27

5769.874 $\pm$ 1.036  $\chi^2$ /NDF: 233434.3/27

# diff\_bpm11Y\_mean vs slug



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

Left Out:  $0.533 \pm 0.973$   $\chi^2/\text{NDF}$ : 16.1/9

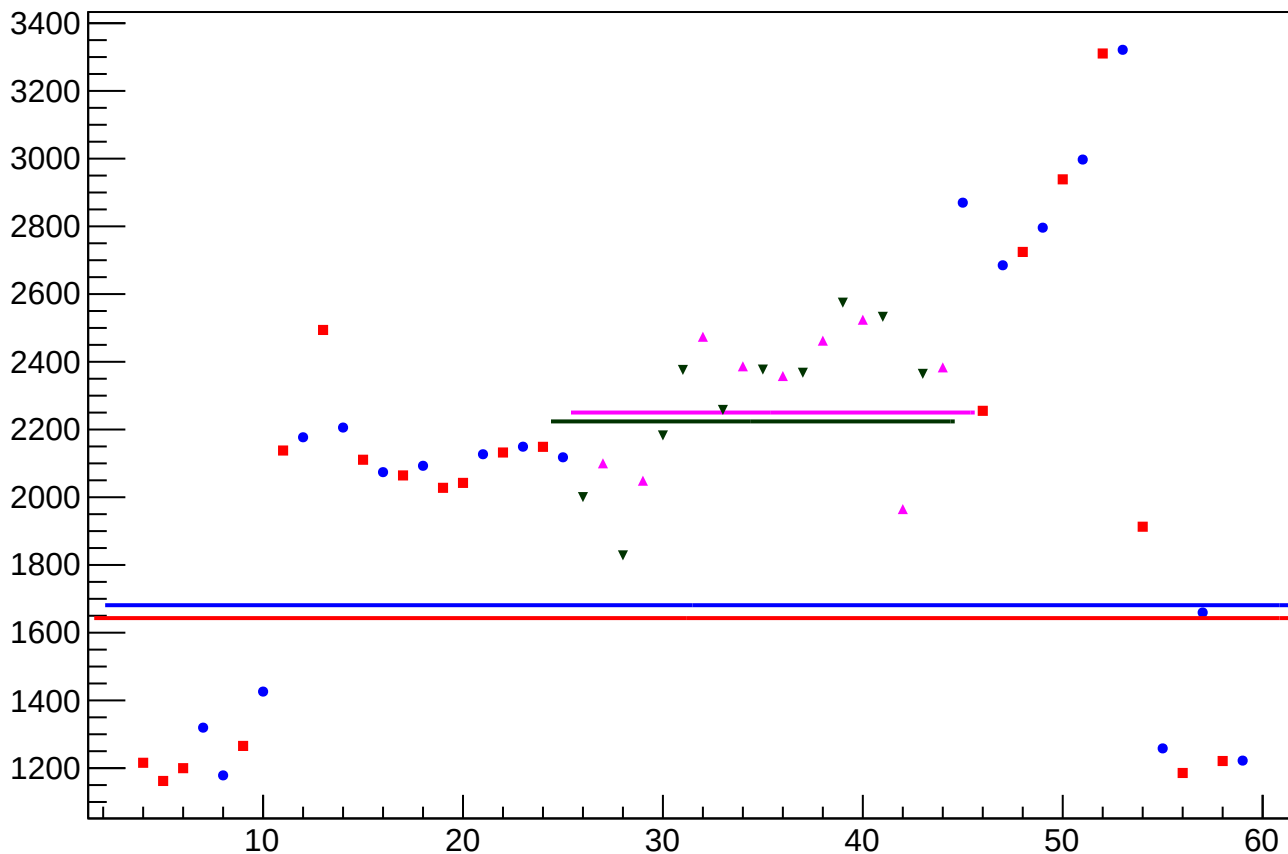
Right Out:  $-0.942 \pm 0.553$   $\chi^2/\text{NDF}$ : 32.9/18

Left In:  $0.285 \pm 0.958$   $\chi^2/\text{NDF}$ : 10.9/8

$0.747 \pm 0.467$   $\chi^2/\text{NDF}$ : 27.5/27

$-0.636 \pm 0.479$   $\chi^2/\text{NDF}$ : 45.1/27

# diff\_bpm11Y\_rms vs slug



Right In: 1681.167+/-0.376  $\chi^2/\text{NDF}$ : 2212913.1/17

Left Out: 2223.927+/-0.688  $\chi^2/\text{NDF}$ :131291.4/9

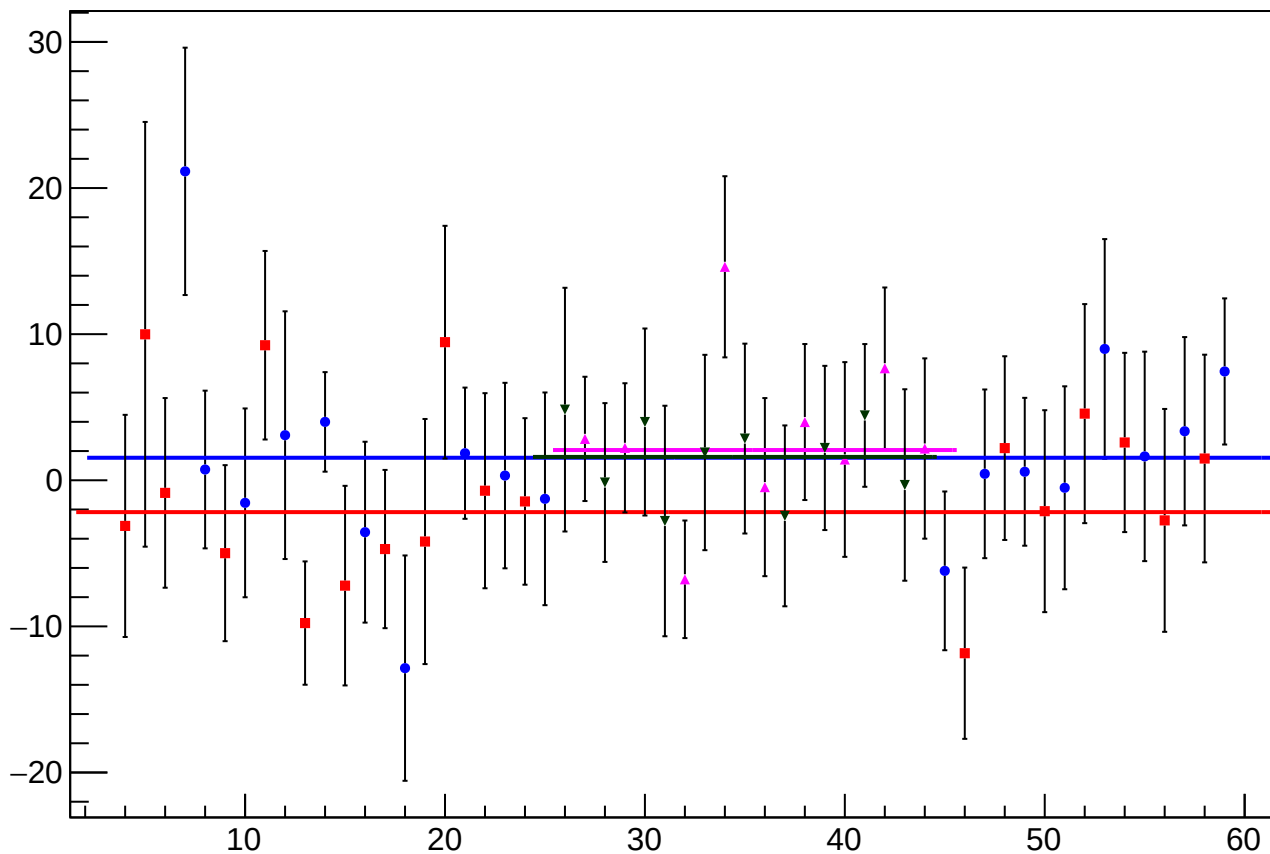
Right Out: 1643.071+/-0.391  $\chi^2/\text{NDF}$ : 1969332.5/18

Left In: 2250.163+/-0.677  $\chi^2/\text{NDF}$ :87324.1/8

1806.061+/-0.330  $\chi^2/\text{NDF}$ : 2823159.2/27

1794.712+/-0.338  $\chi^2/\text{NDF}$ : 2659709.5/27

diff\_bpm12X\_mean vs slug



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

Left Out:  $1.599 \pm 1.970$   $\chi^2/\text{NDF}$ : 1.6/9

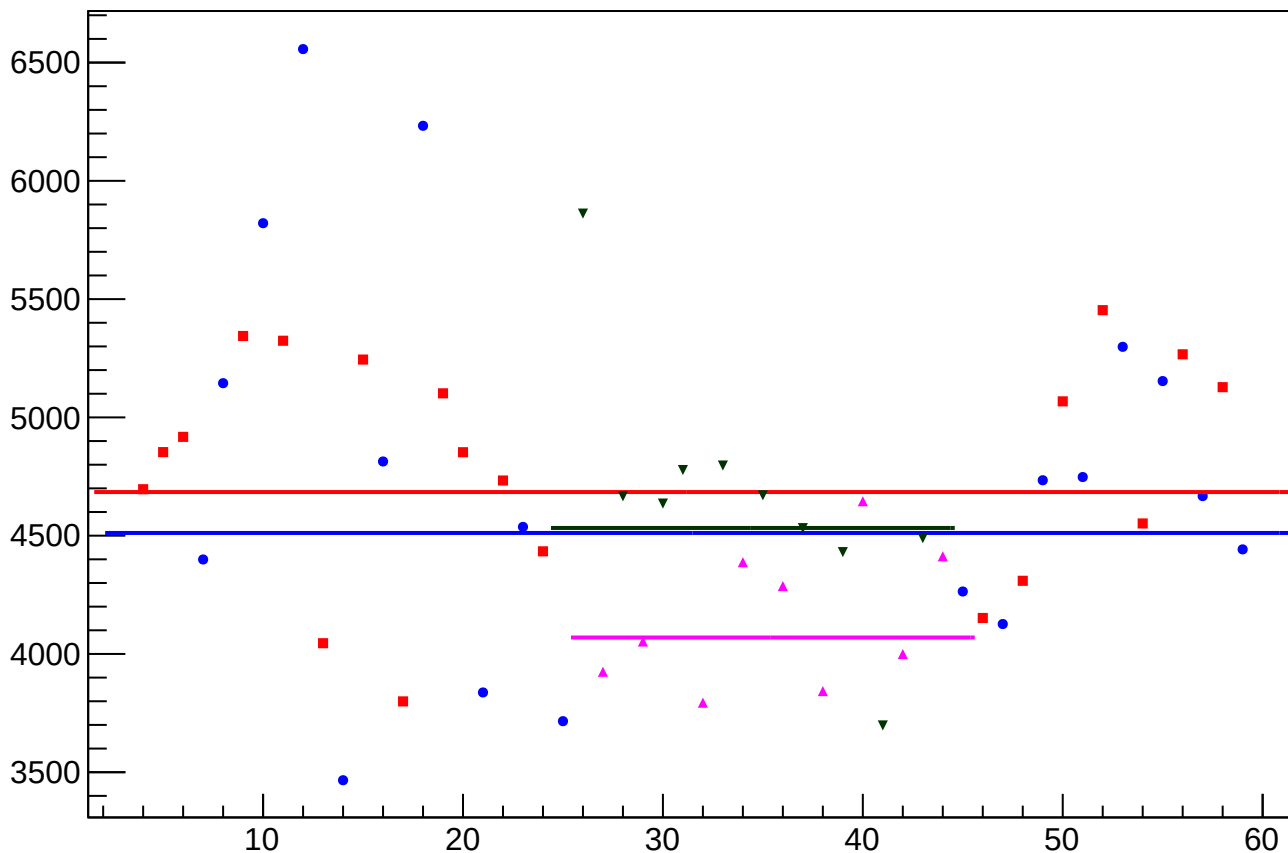
Right Out:  $-2.180 \pm 1.492$   $\chi^2/\text{NDF}$ : 15.2/18

Left In:  $2.070 \pm 1.721$   $\chi^2/\text{NDF}$ : 10.3/8

$1.560 \pm 1.124$   $\chi^2/\text{NDF}$ : 16.8/27

$-0.355 \pm 1.127$   $\chi^2/\text{NDF}$ : 29.0/27

# diff\_bpm12X\_rms vs slug



Right In: 4511.494+/-0.968  $\chi^2/\text{NDF}$ : 646999.1/17

Left Out: 4532.597+/-1.393  $\chi^2/\text{NDF}$ :117630.8/9

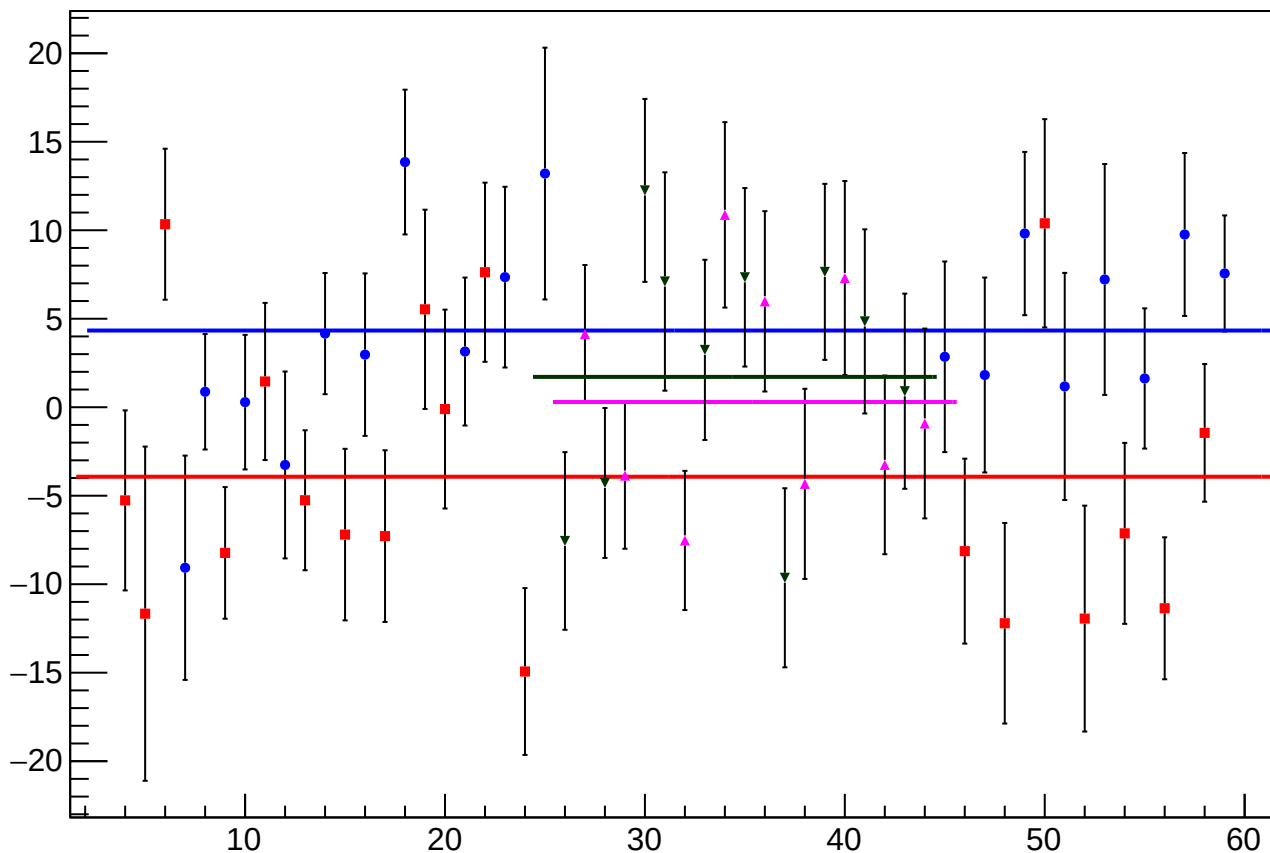
Right Out: 4684.391+/-1.055  $\chi^2/\text{NDF}$ : 240230.9/18

Left In: 4069.536+/-1.217  $\chi^2/\text{NDF}$ :44608.7/8

4518.369+/-0.795  $\chi^2/\text{NDF}$ : 764784.7/27

4420.397+/-0.797  $\chi^2/\text{NDF}$ : 430585.6/27

# diff\_bpm12Y\_mean vs slug



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

Left Out:  $1.714 \pm 1.609$   $\chi^2/\text{NDF}$ : 18.5/9

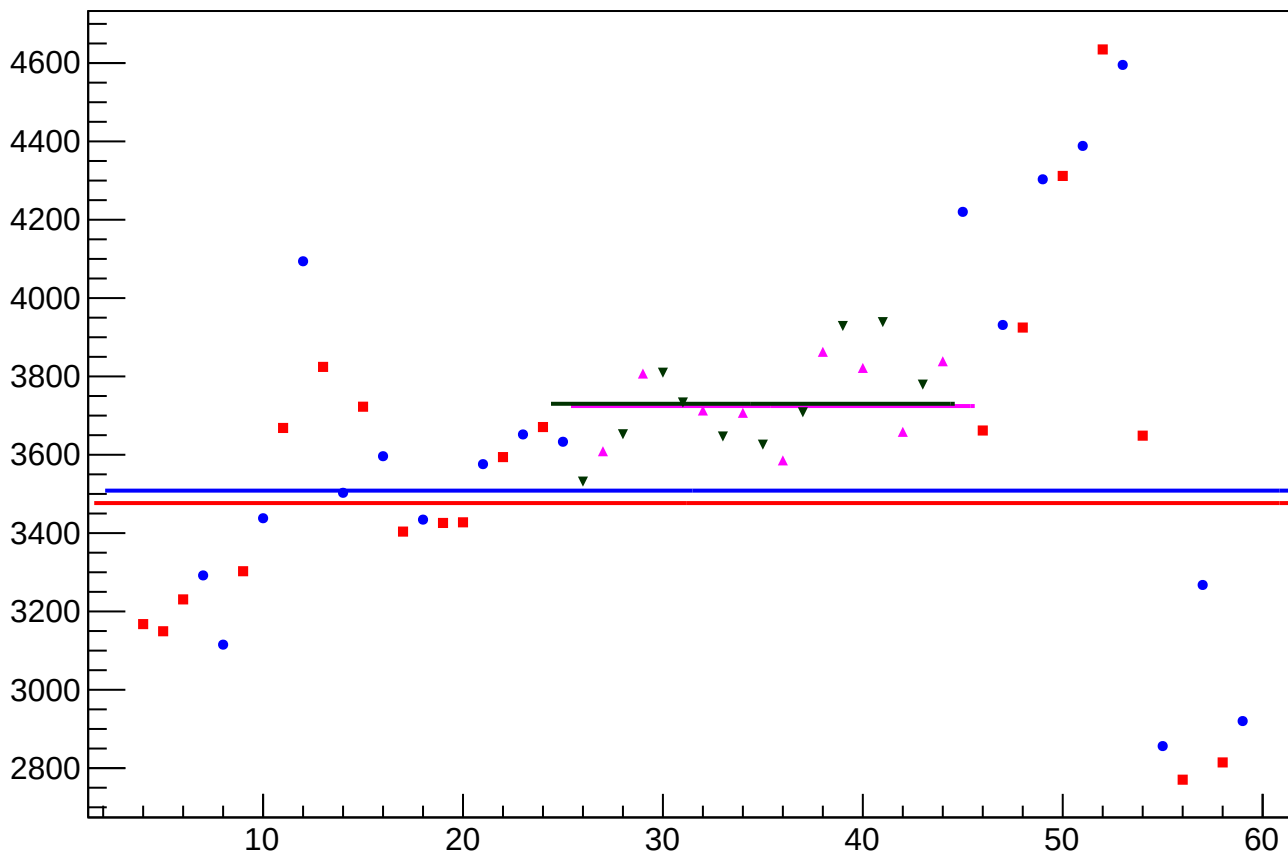
Right Out:  $-3.927 \pm 1.110$   $\chi^2/\text{NDF}$ : 44.2/18

Left In:  $0.295 \pm 1.569$   $\chi^2/\text{NDF}$ : 14.2/8

$3.546 \pm 0.882$   $\chi^2/\text{NDF}$ : 41.6/27

$-2.519 \pm 0.906$   $\chi^2/\text{NDF}$ : 63.3/27

# diff\_bpm12Y\_rms vs slug



Right In: 3508.449+/-0.746  $\chi^2/\text{NDF}$ : 384135.9/17

Left Out: 3730.162+/-1.138  $\chi^2/\text{NDF}$ :12266.4/9

3575.141+/-0.624  $\chi^2/\text{NDF}$ : 422960.1/27

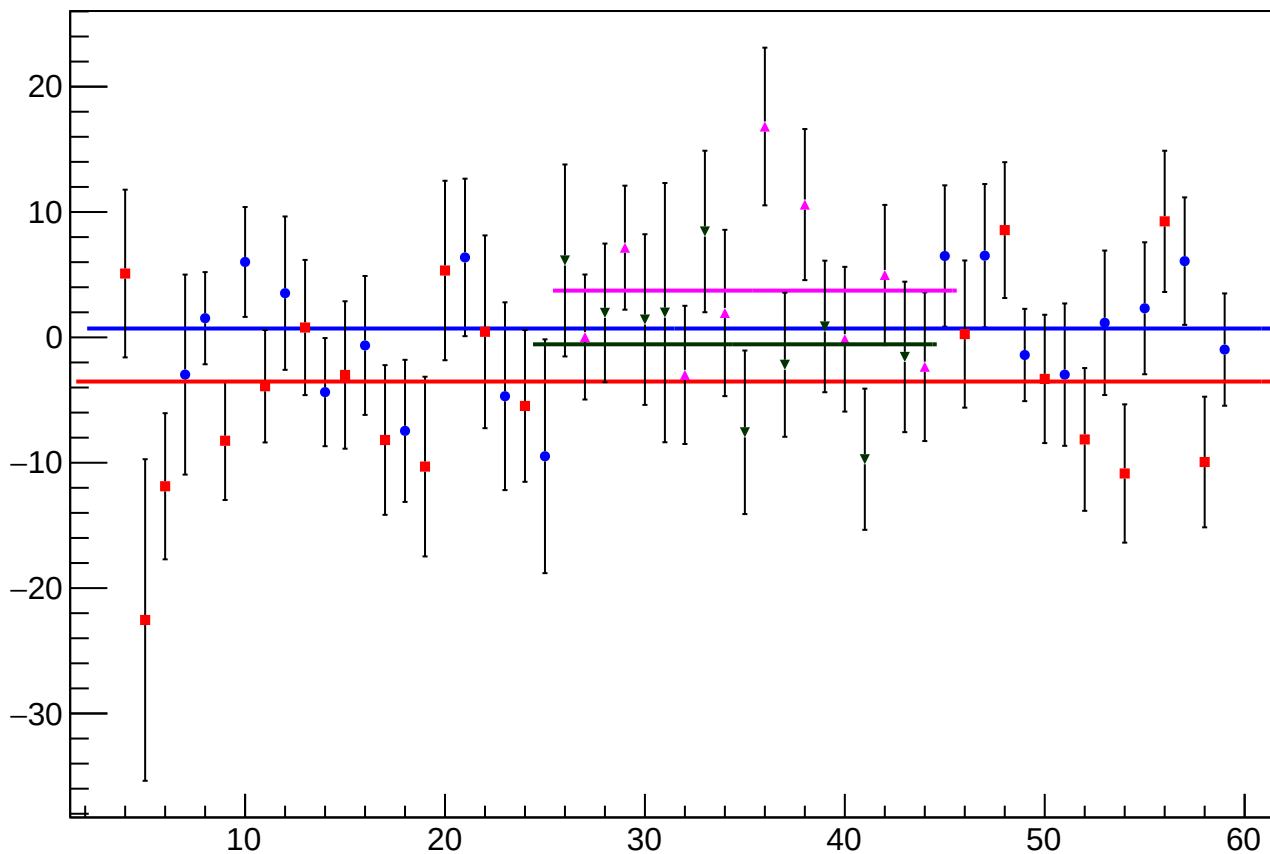
Right Out: 3476.662+/-0.785  $\chi^2/\text{NDF}$ : 293750.8/18

3559.254+/-0.641  $\chi^2/\text{NDF}$ : 334258.0/27

Left In: 3724.365+/-1.110  $\chi^2/\text{NDF}$ :7290.6/8



# diff\_bpm16X\_mean vs slug



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

Left Out:  $-0.553 \pm 1.983$   $\chi^2/\text{NDF}: 7.1/9$

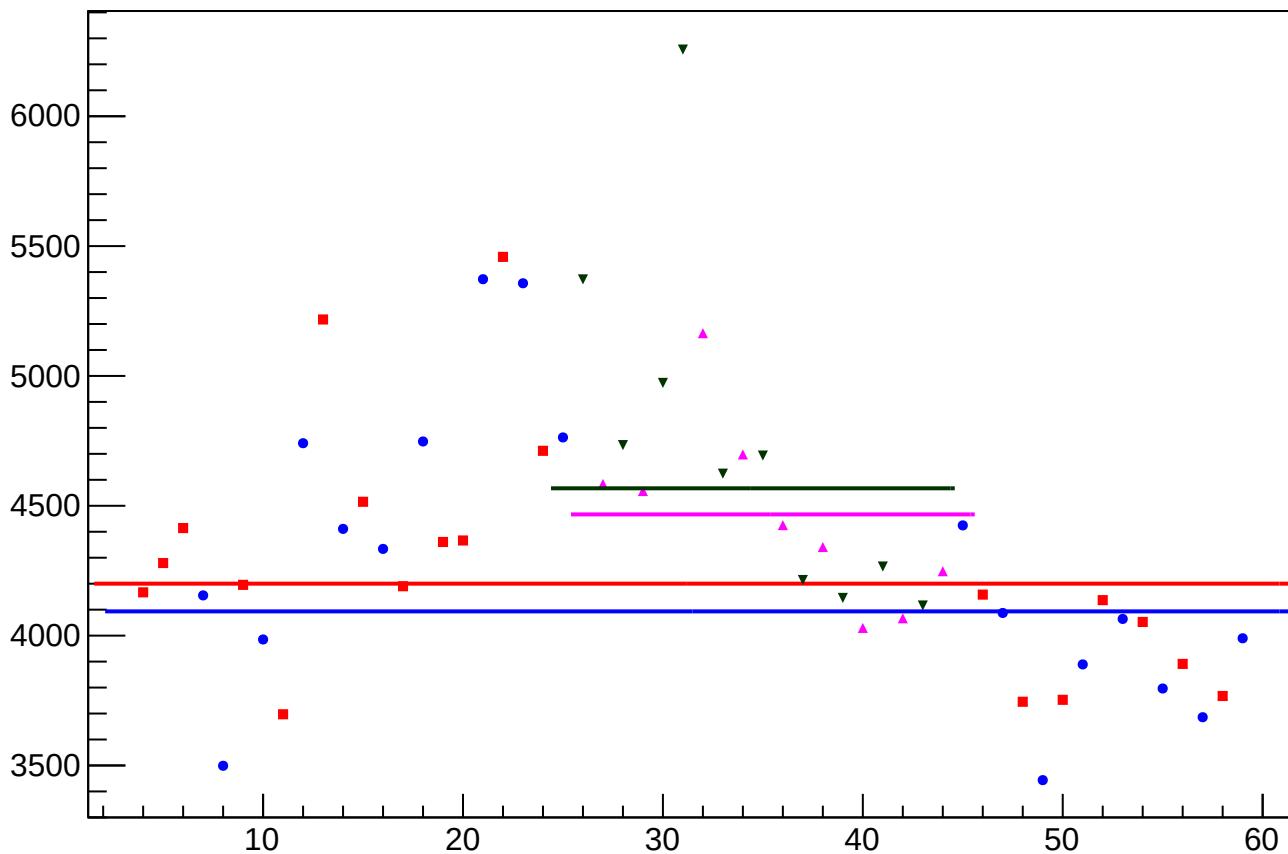
Right Out:  $-3.522 \pm 1.336$   $\chi^2/\text{NDF}: 25.4/18$

Left In:  $3.732 \pm 1.890$   $\chi^2/\text{NDF}: 9.8/8$

$0.358 \pm 1.045$   $\chi^2/\text{NDF}: 19.5/27$

$-1.105 \pm 1.091$   $\chi^2/\text{NDF}: 45.0/27$

# diff\_bpm16X\_rms vs slug



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

Left Out: 4567.308 $\pm$ 1.402  $\chi^2$ /NDF:122824.8/9

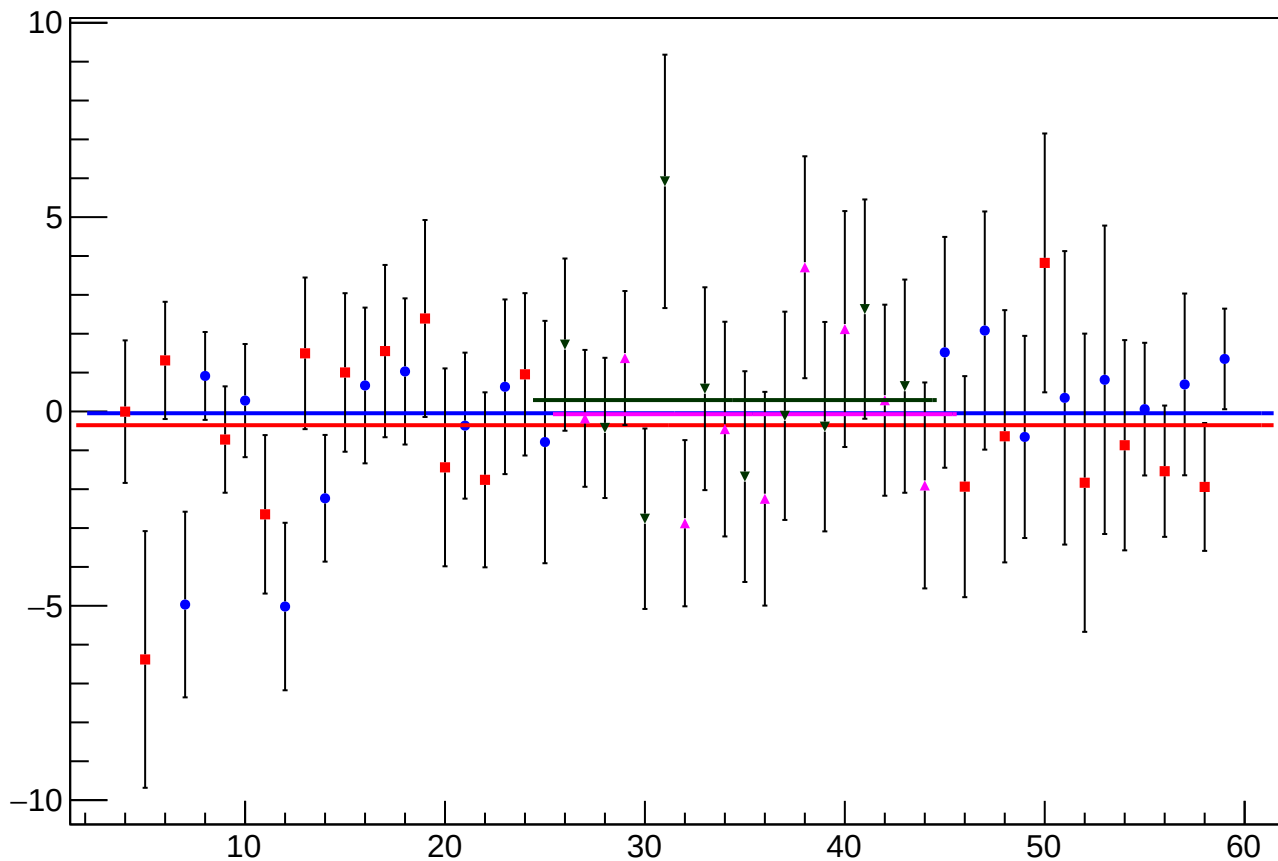
4224.843 $\pm$ 0.739  $\chi^2$ /NDF: 565042.3/27

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

4288.972 $\pm$ 0.771  $\chi^2$ /NDF: 314035.9/27

Left In: 4466.769 $\pm$ 1.336  $\chi^2$ /NDF:61630.0/8

# diff\_bpm16Y\_mean vs slug



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

Left Out:  $0.293 \pm 0.788$   $\chi^2/\text{NDF}: 6.6/9$

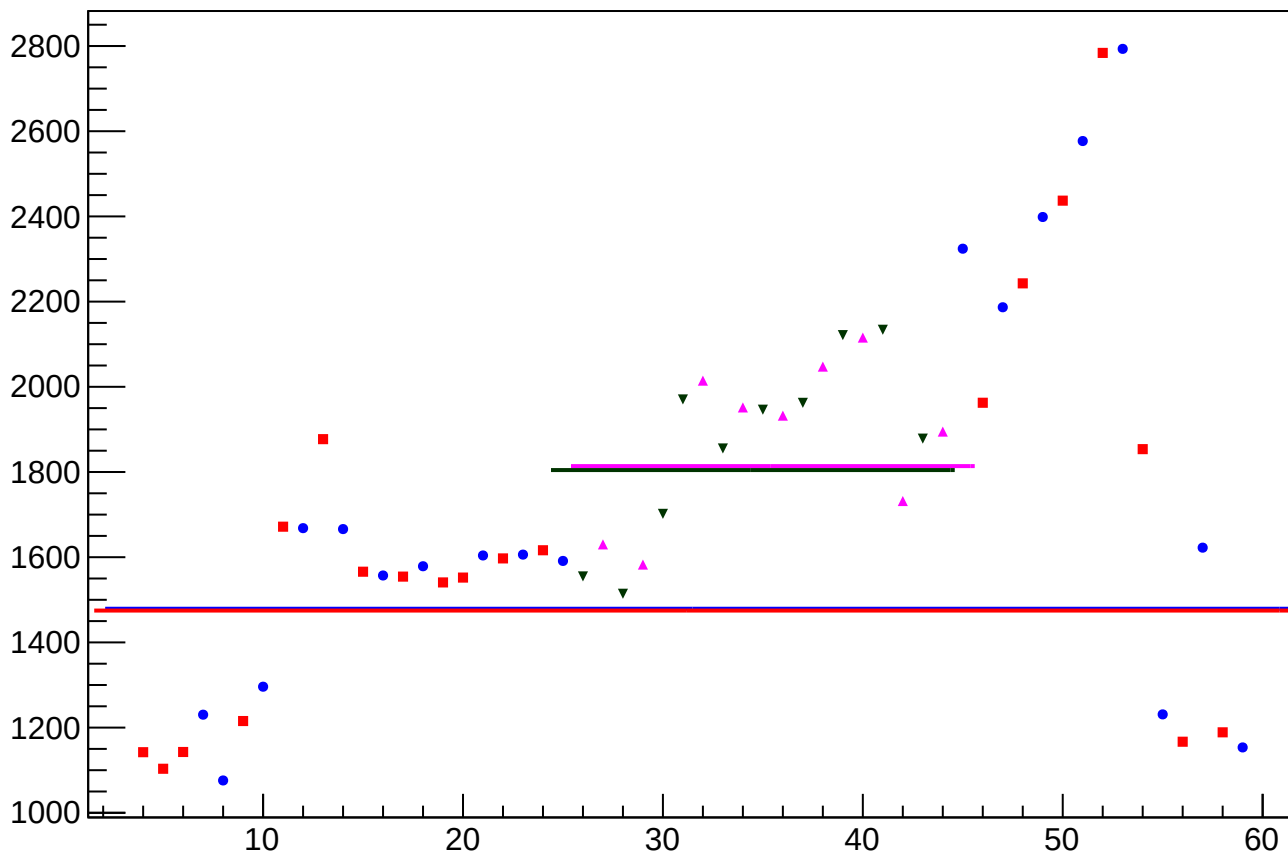
Right Out:  $-0.354 \pm 0.483$   $\chi^2/\text{NDF}: 13.6/18$

Left In:  $-0.070 \pm 0.771$   $\chi^2/\text{NDF}: 5.8/8$

$0.040 \pm 0.396$   $\chi^2/\text{NDF}: 21.7/27$

$-0.274 \pm 0.410$   $\chi^2/\text{NDF}: 19.6/27$

# diff\_bpm16Y\_rms vs slug



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

Left Out: 1804.555+/-0.557  $\chi^2/\text{NDF}$ :155790.9/9

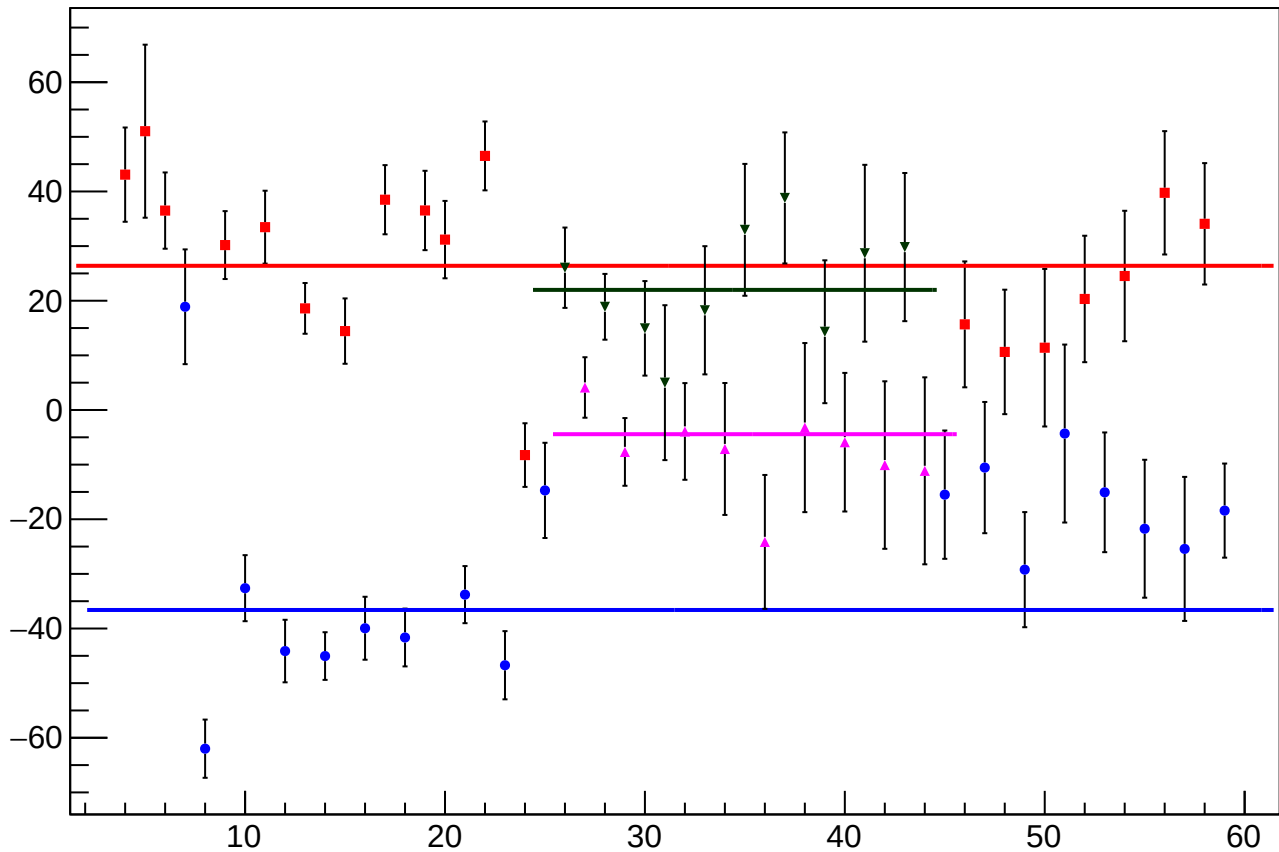
Right Out: 1474.750+/-0.342  $\chi^2/\text{NDF}$ : 1125200.2/18

Left In: 1813.858+/-0.546  $\chi^2/\text{NDF}$ :121240.8/8

1561.231+/-0.280  $\chi^2/\text{NDF}$ : 1870045.6/27

1570.347+/-0.290  $\chi^2/\text{NDF}$ : 1523915.5/27

# diff\_bpm0l01X\_mean vs slug



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

Left Out:  $21.984 \pm 3.153$   $\chi^2/\text{NDF}$ : 6.4/9

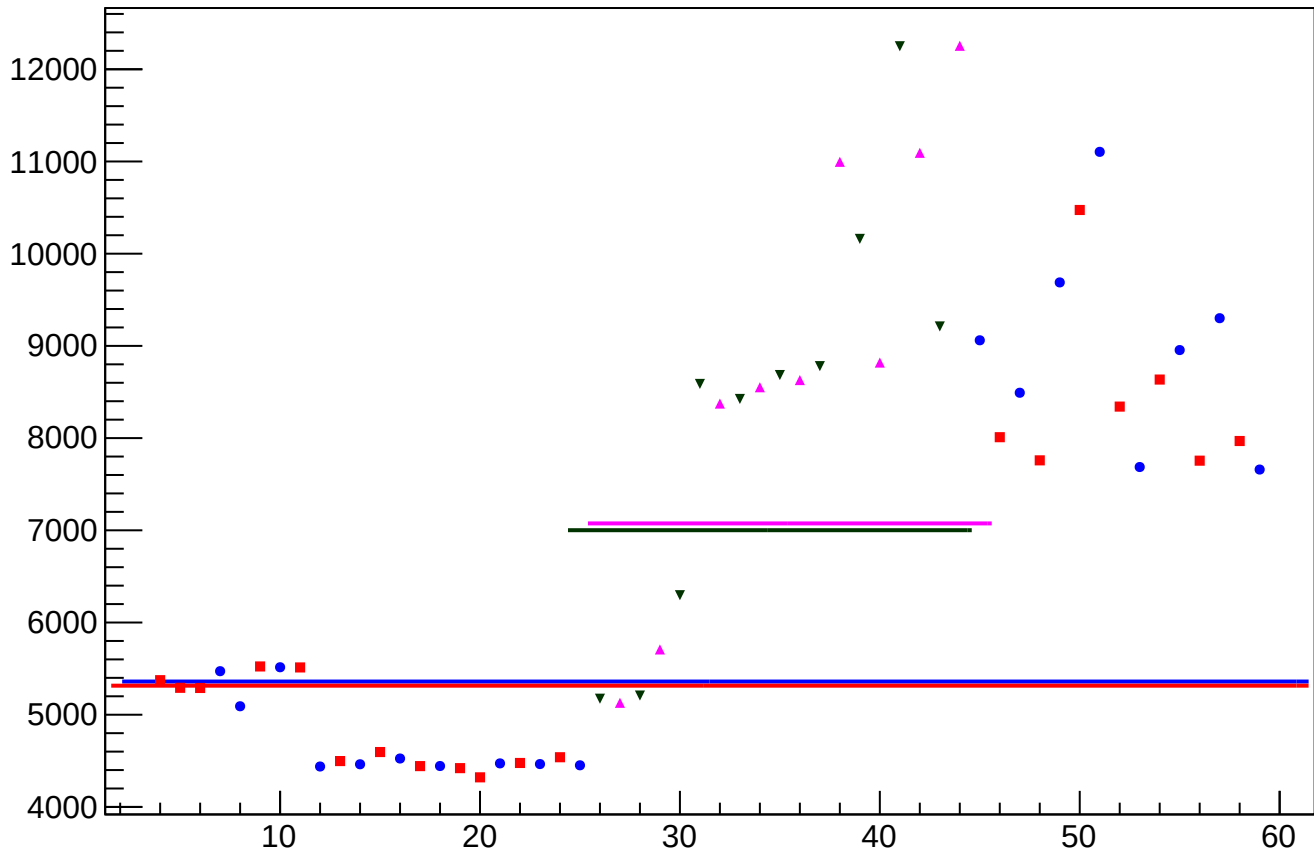
Right Out:  $26.394 \pm 1.742$   $\chi^2/\text{NDF}$ : 74.2/18

Left In:  $-4.429 \pm 3.116$   $\chi^2/\text{NDF}$ : 5.6/8

$-23.722 \pm 1.479$   $\chi^2/\text{NDF}$ : 365.6/27

$19.053 \pm 1.520$   $\chi^2/\text{NDF}$ : 154.4/27

# diff\_bpm0l01X\_rms vs slug



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

Left Out: 7001.132+/-2.229  $\chi^2/\text{NDF}$ : 831756.0/9

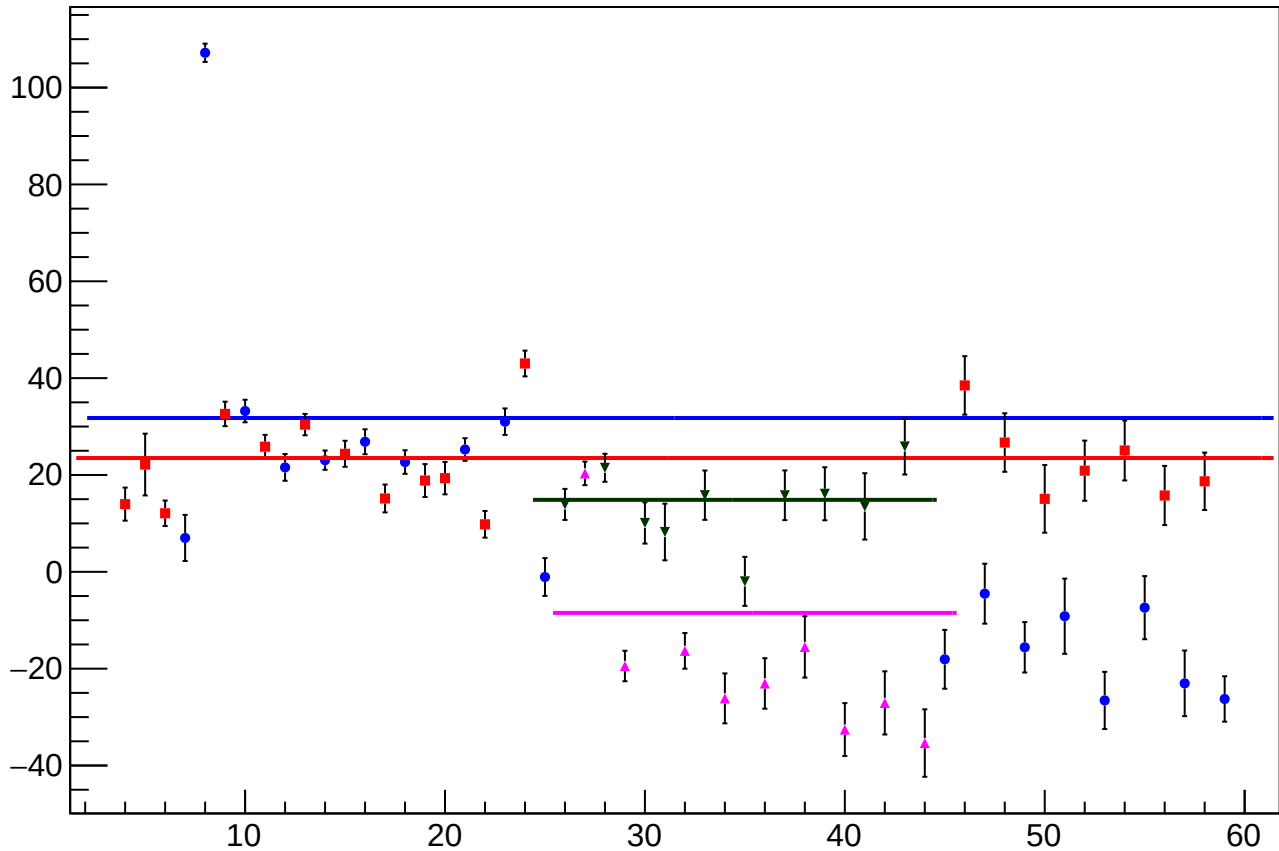
5720.891+/-1.045  $\chi^2/\text{NDF}$ : 3114465.1/27

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

5734.169+/-1.075  $\chi^2/\text{NDF}$ : 2652469.1/27

Left In: 7074.809+/-2.203  $\chi^2/\text{NDF}$ : 936436.4/8

# diff\_bpm0l01Y\_mean vs slug



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

Left Out: 14.865 $\pm$ 1.412  $\chi^2$ /NDF:22.7/9

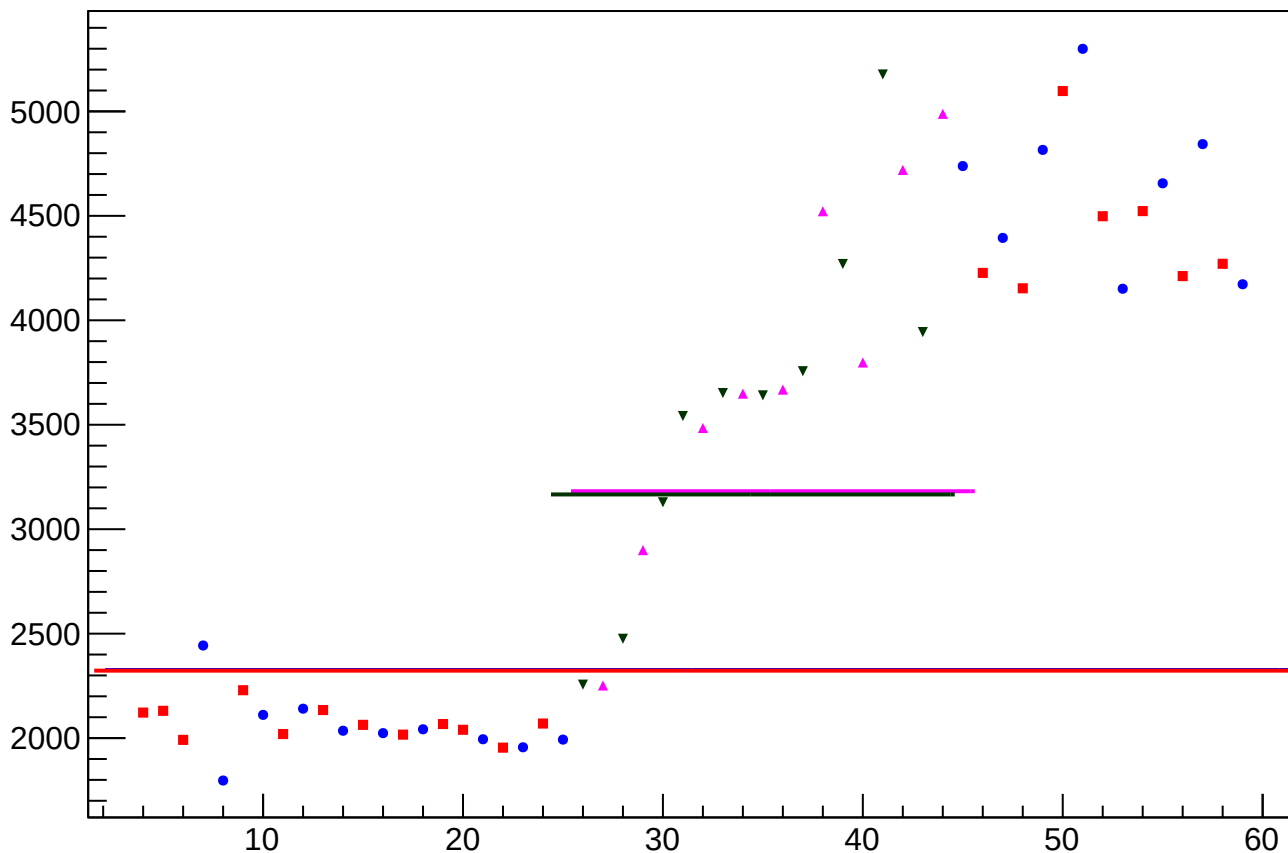
Right Out: 23.500 $\pm$ 0.773  $\chi^2$ /NDF: 151.3/18

Left In: -8.480 $\pm$ 1.387  $\chi^2$ /NDF:219.8/8

28.120 $\pm$ 0.656  $\chi^2$ /NDF: 2458.2/27

15.924 $\pm$ 0.675  $\chi^2$ /NDF: 777.0/27

# diff\_bpm0l01Y\_rms vs slug



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

Left Out: 3166.393 $\pm$ 0.999  $\chi^2$ /NDF:635521.0/9

2507.428 $\pm$ 0.464  $\chi^2$ /NDF: 3887390.5/27

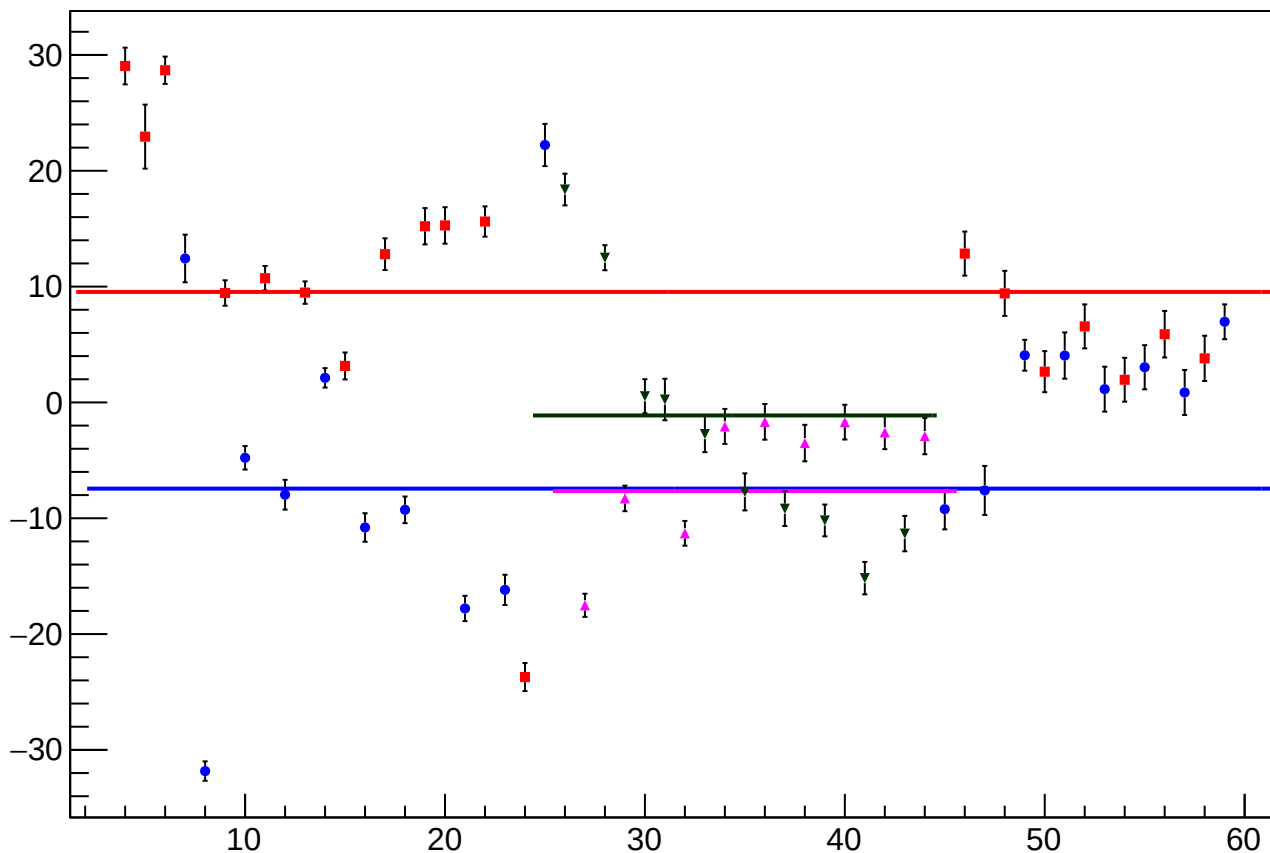
Right Out: 2322.918 $\pm$ 0.546  $\chi^2$ /NDF: 1810759.5/18

2526.368 $\pm$ 0.477  $\chi^2$ /NDF: 3111616.3/27

Left In: 3181.733 $\pm$ 0.981  $\chi^2$ /NDF:715443.9/8



# diff\_bpm2i01X\_mean vs slug



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

Left Out:  $-1.124 \pm 0.453$   $\chi^2/\text{NDF}: 599.1/9$

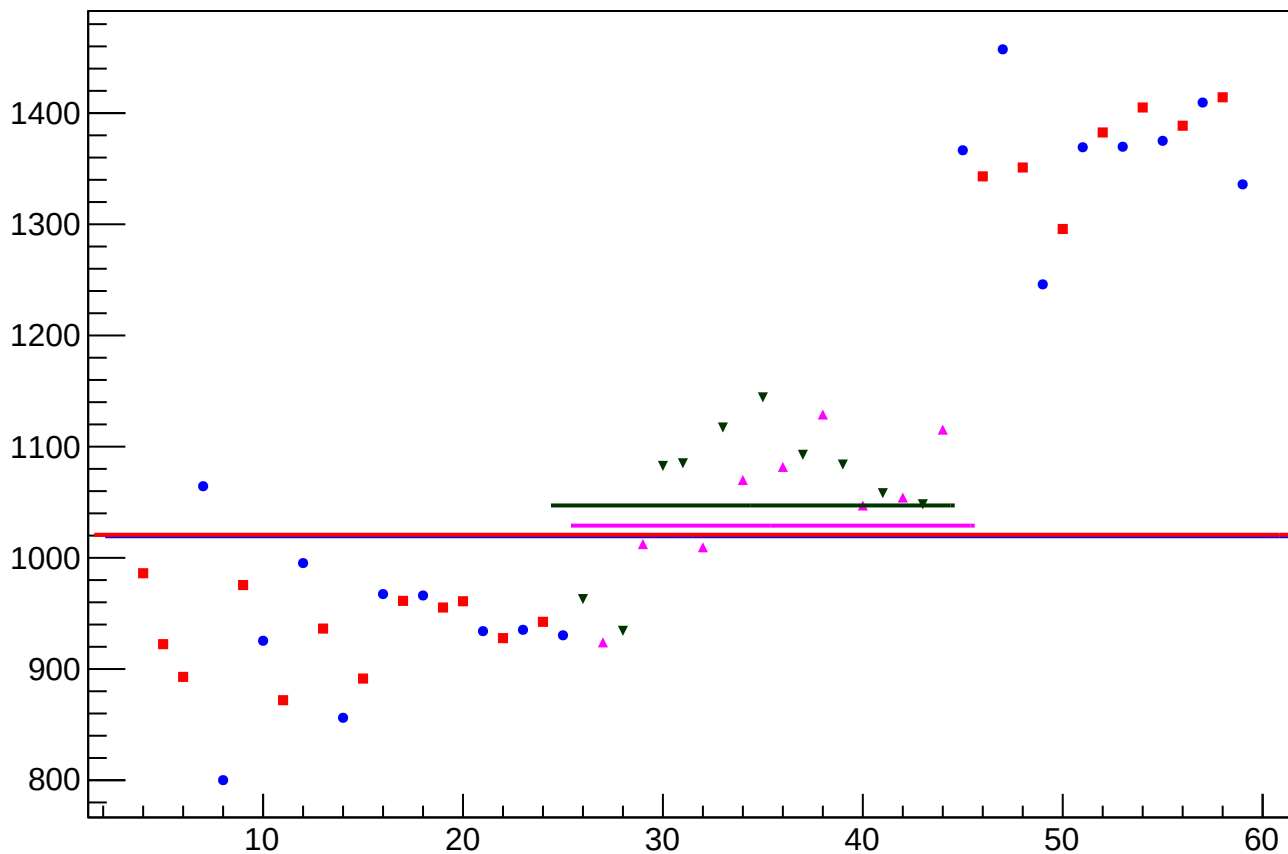
Right Out:  $9.540 \pm 0.328$   $\chi^2/\text{NDF}: 1327.8/18$

Left In:  $-7.649 \pm 0.435$   $\chi^2/\text{NDF}: 182.1/8$

$-5.426 \pm 0.256$   $\chi^2/\text{NDF}: 2485.6/27$

$3.312 \pm 0.262$   $\chi^2/\text{NDF}: 2507.2/27$

# diff\_bpm2i01X\_rms vs slug



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

Left Out: 1047.121+/-0.320  $\chi^2/\text{NDF}$ :46145.4/9

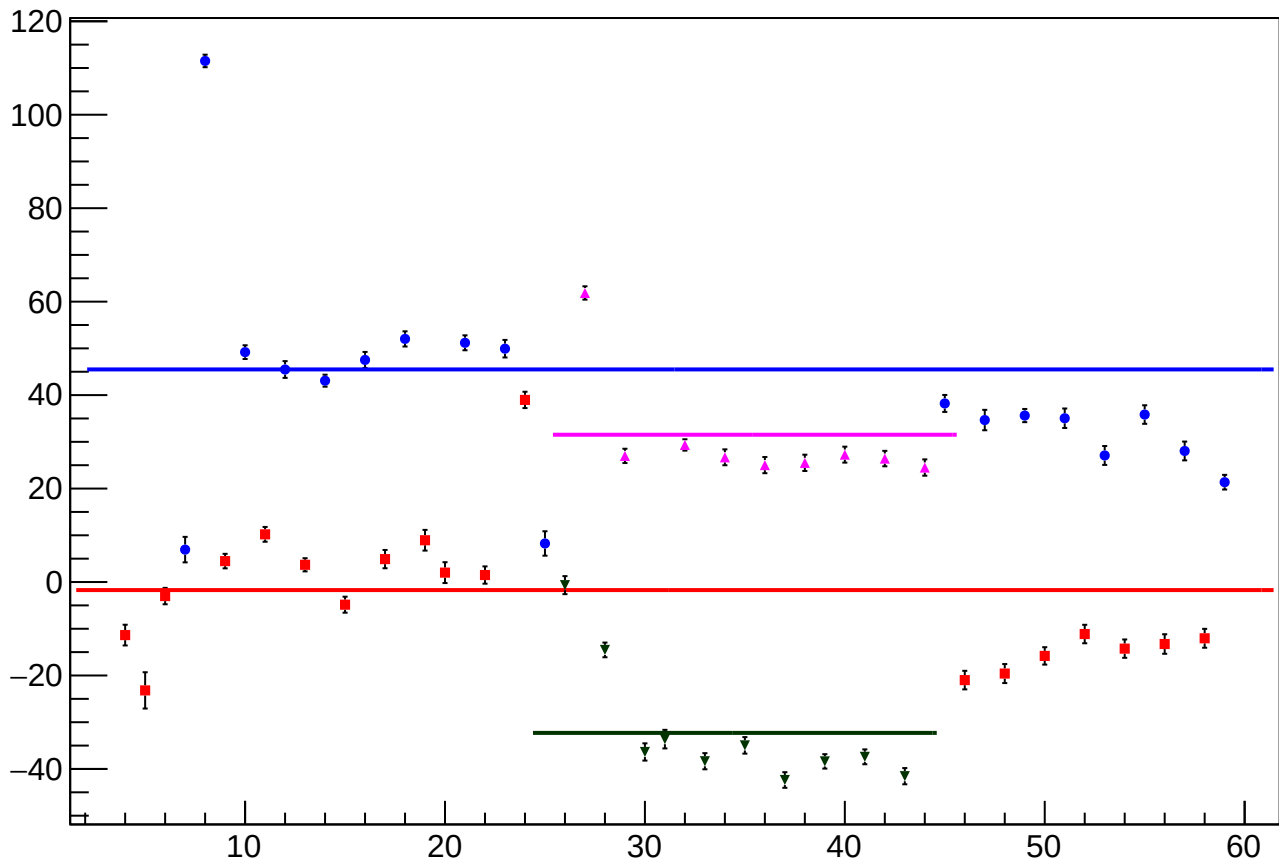
Right Out: 1020.749+/-0.232  $\chi^2/\text{NDF}$ : 605072.5/18

Left In: 1028.985+/-0.307  $\chi^2/\text{NDF}$ :42067.0/8

1028.262+/-0.181  $\chi^2/\text{NDF}$ : 904120.1/27

1023.733+/-0.185  $\chi^2/\text{NDF}$ : 647597.5/27

# diff\_bpm2i01Y\_mean vs slug



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

Left Out: -32.284+/-0.544  $\chi^2/\text{NDF}$ : 507.1/9

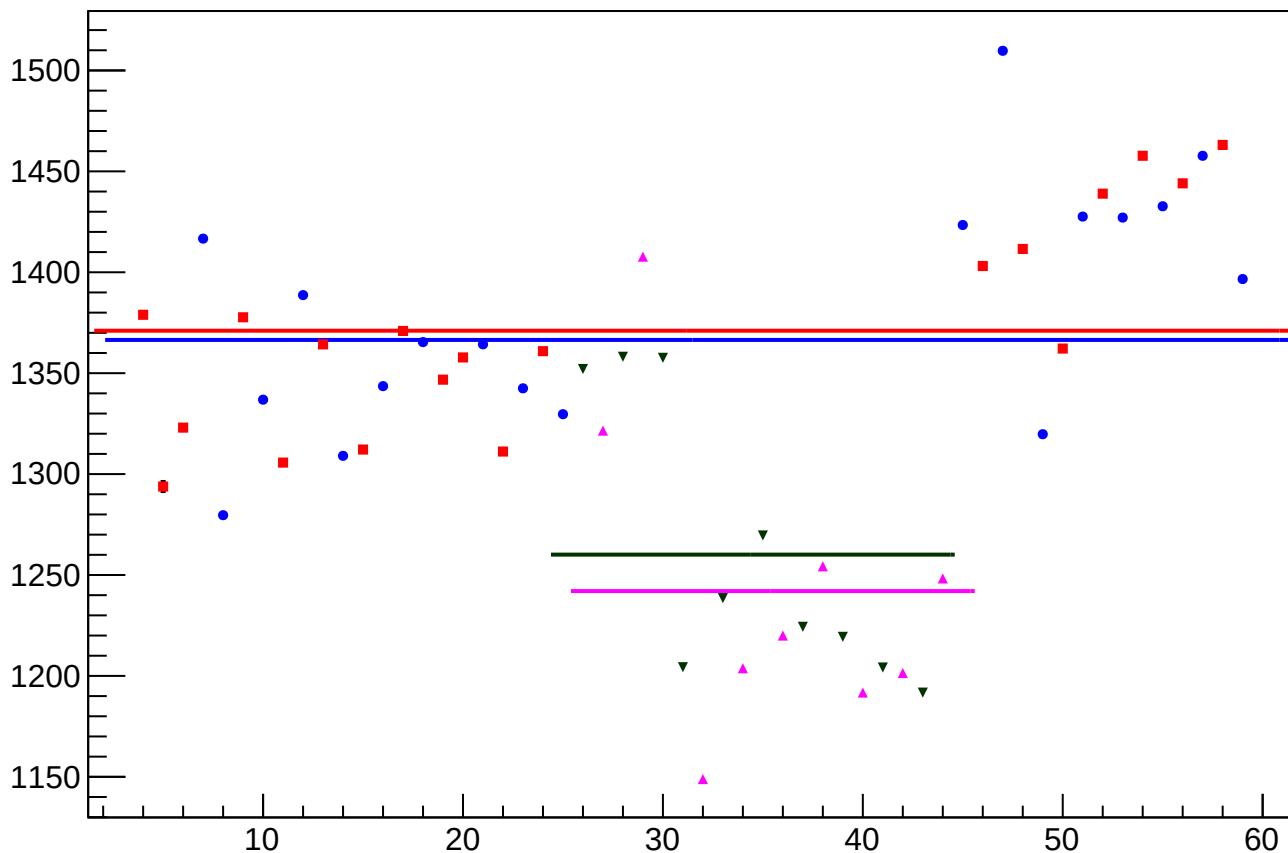
Right Out: -1.724+/-0.434  $\chi^2/\text{NDF}$ : 1071.7/18

Left In: 31.519+/-0.524  $\chi^2/\text{NDF}$ : 528.5/8

17.507+/-0.326  $\chi^2/\text{NDF}$ : 16990.6/27

11.793+/-0.334  $\chi^2/\text{NDF}$ : 3986.6/27

# diff\_bpm2i01Y\_rms vs slug



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

Left Out:  $1260.097 \pm 0.385$   $\chi^2/\text{NDF}$ : 27715.7/9

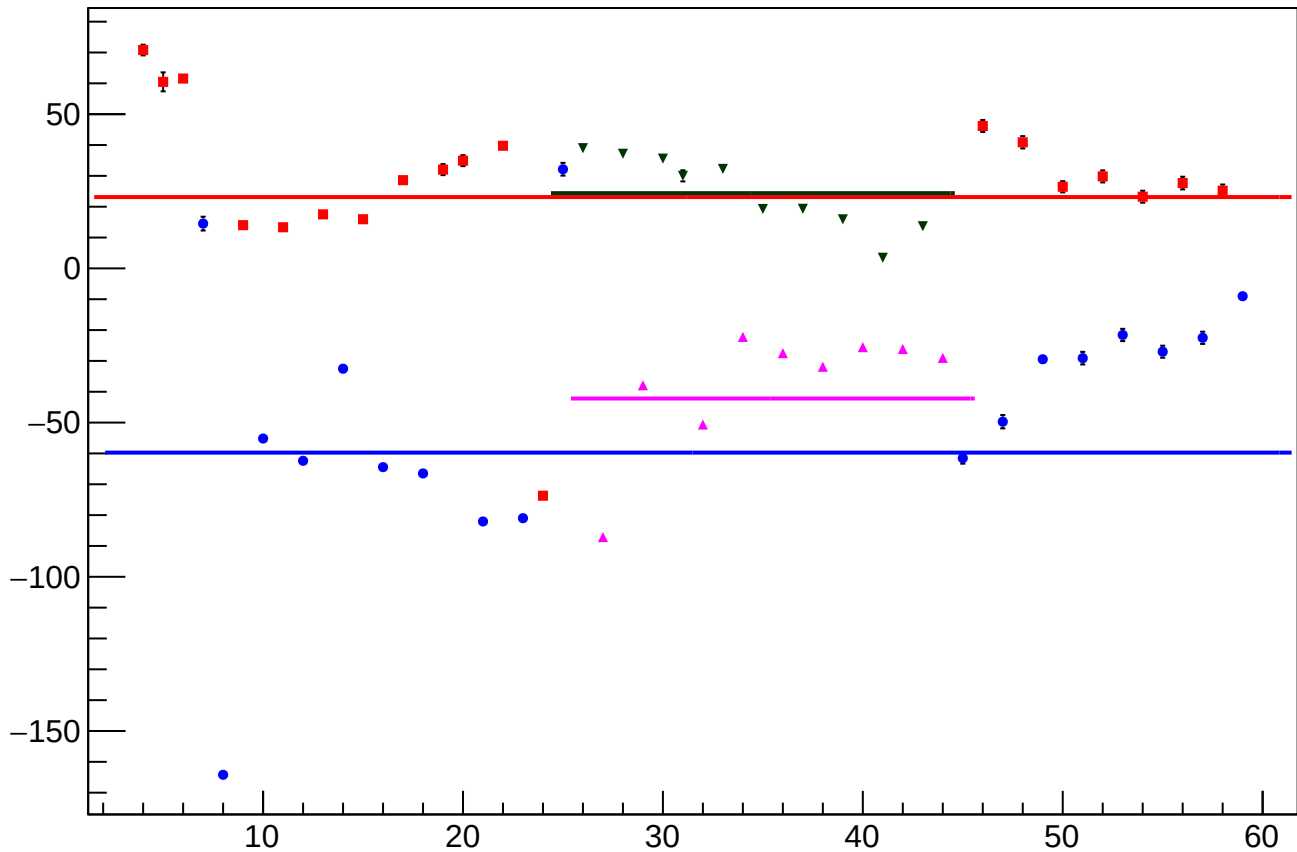
Right Out:  $1371.055 \pm 0.307$   $\chi^2/\text{NDF}$ : 24860.5/18

Left In:  $1242.040 \pm 0.371$   $\chi^2/\text{NDF}$ : 45832.2/8

$1328.195 \pm 0.231$   $\chi^2/\text{NDF}$ : 115285.9/27

$1318.595 \pm 0.236$   $\chi^2/\text{NDF}$ : 142578.3/27

# diff\_bpm2i02X\_mean vs slug



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

Left Out: 24.394 $\pm$ 0.474  $\chi^2$ /NDF:609.0/9

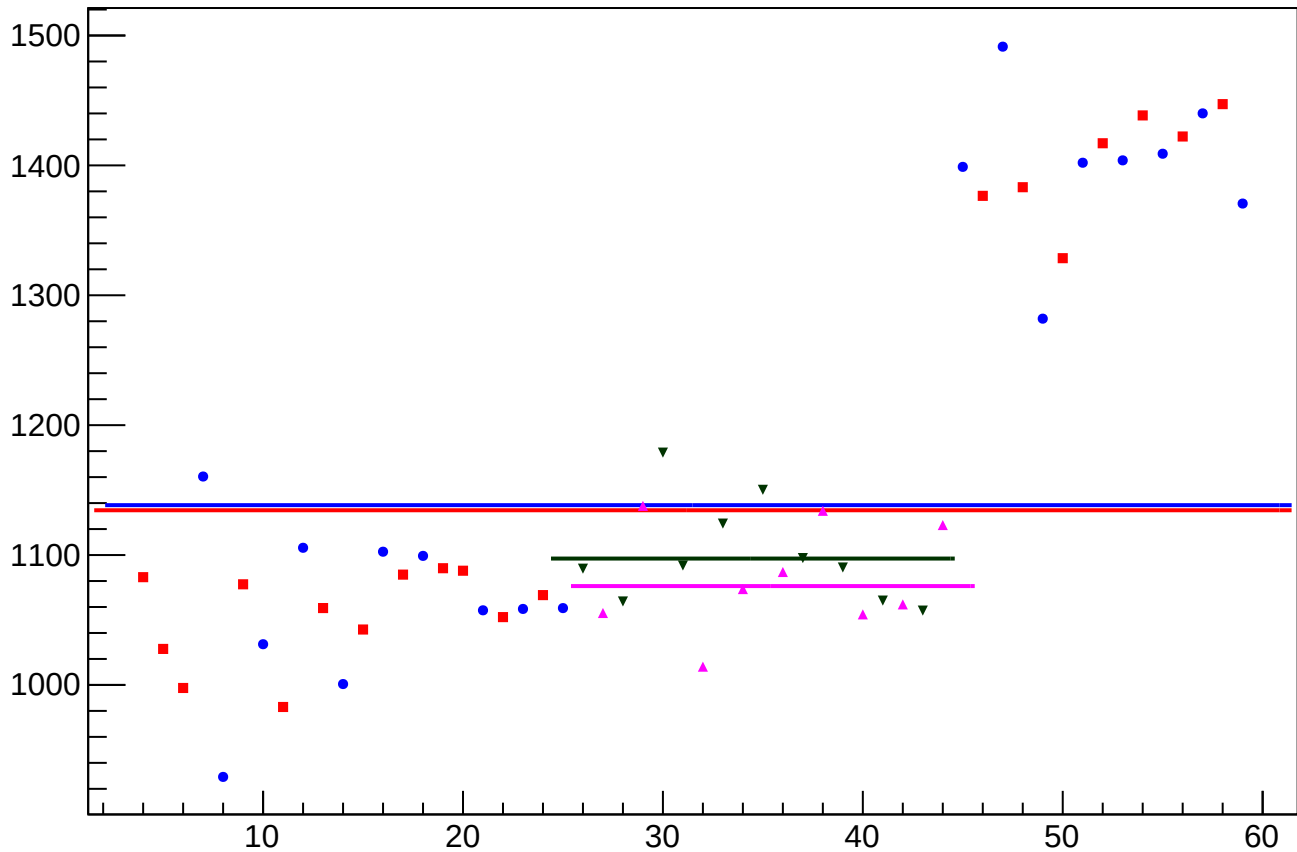
-30.772 $\pm$ 0.278  $\chi^2$ /NDF: 40065.9/27

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

-2.248 $\pm$ 0.283  $\chi^2$ /NDF: 22260.4/27

Left In: -42.193 $\pm$ 0.454  $\chi^2$ /NDF:2243.7/8

# diff\_bpm2i02X\_rms vs slug



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

Left Out:  $1097.296 \pm 0.335$   $\chi^2/\text{NDF}$ : 11915.4/9

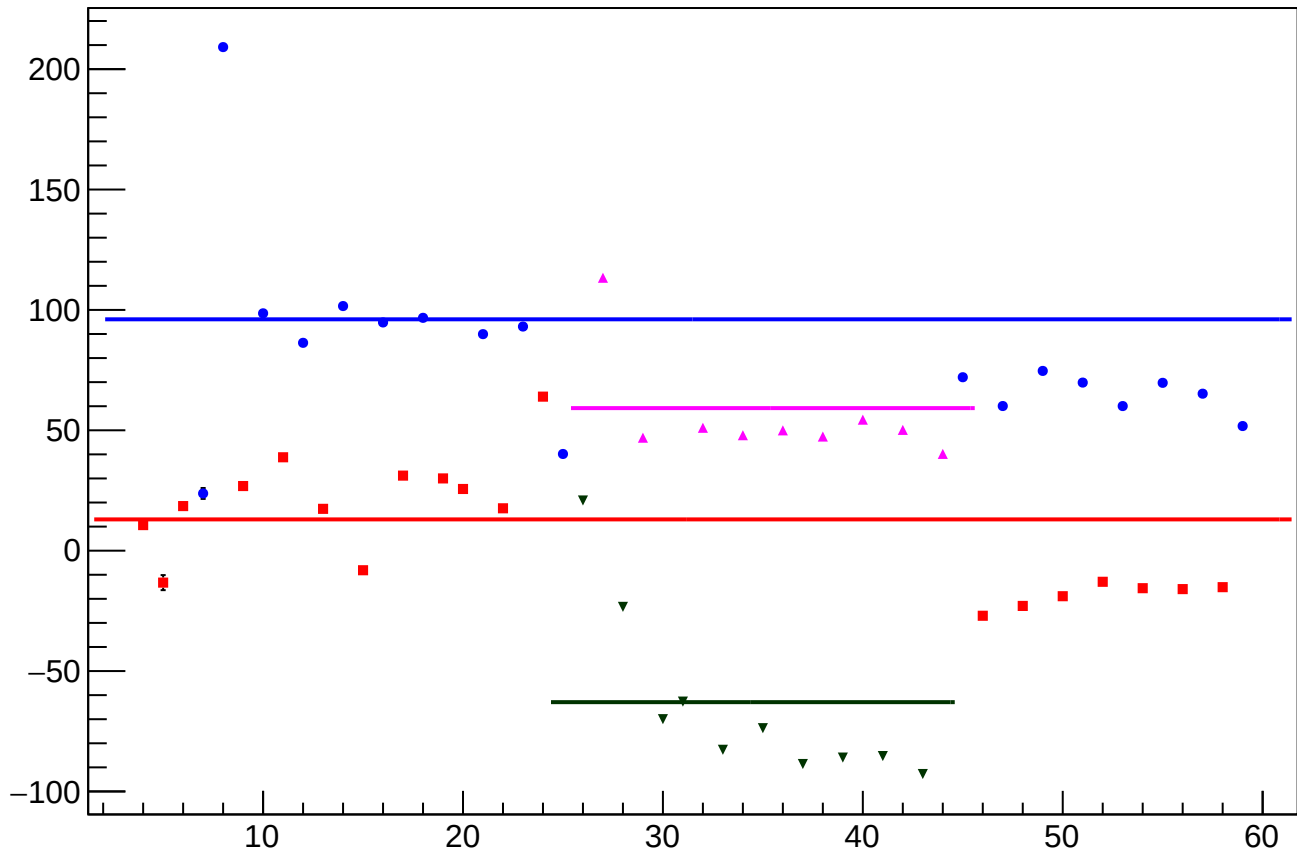
Right Out:  $1134.479 \pm 0.256$   $\chi^2/\text{NDF}$ : 360721.2/18

Left In:  $1076.108 \pm 0.321$   $\chi^2/\text{NDF}$ : 17511.2/8

$1124.256 \pm 0.196$   $\chi^2/\text{NDF}$ : 509876.7/27

$1111.804 \pm 0.200$   $\chi^2/\text{NDF}$ : 398454.2/27

# diff\_bpm2i02Y\_mean vs slug



Right In: 96.096 $\pm$ 0.343  $\chi^2$ /NDF: 17116.6/17

Left Out: -62.914 $\pm$ 0.478  $\chi^2$ /NDF: 5328.9/9

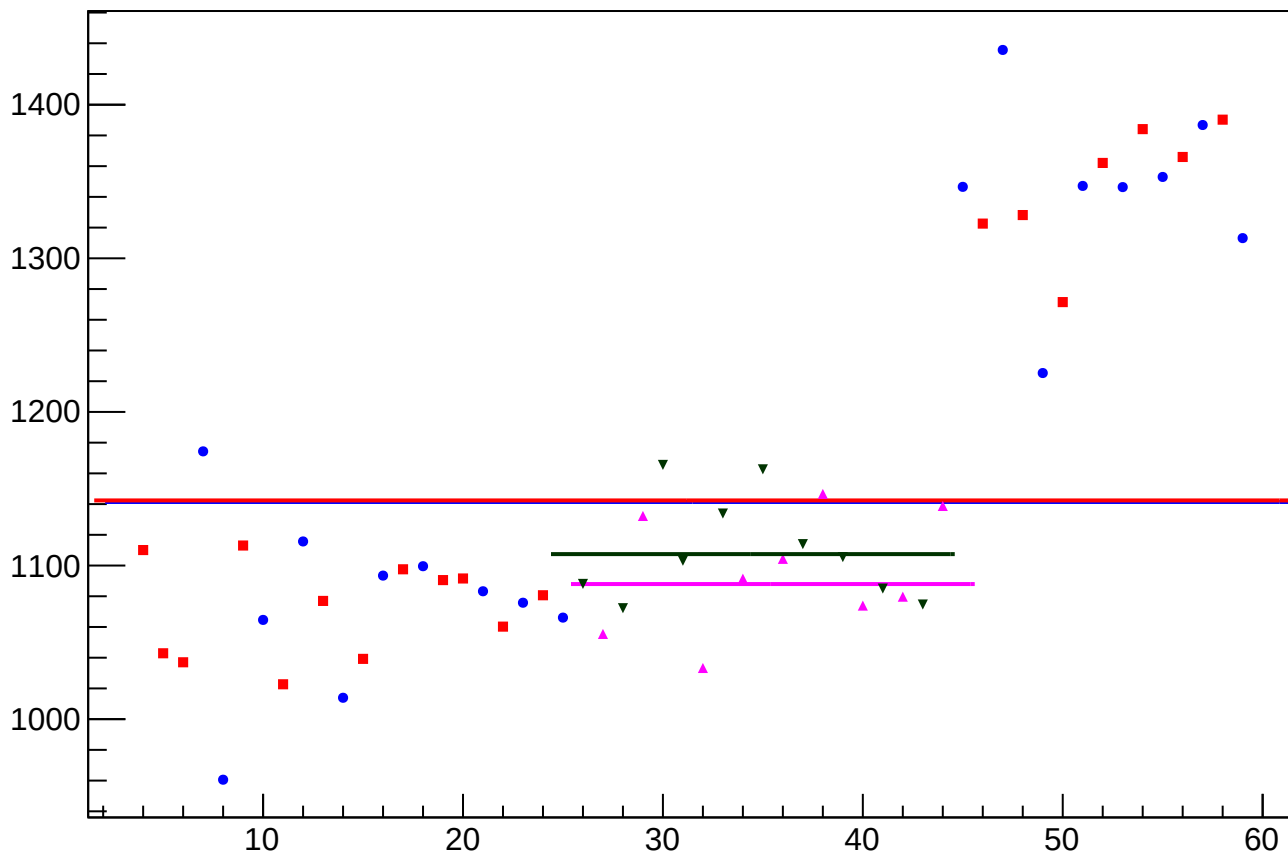
Right Out: 12.992 $\pm$ 0.363  $\chi^2$ /NDF: 4541.3/18

Left In: 59.213 $\pm$ 0.459  $\chi^2$ /NDF: 2740.6/8

42.040 $\pm$ 0.279  $\chi^2$ /NDF: 95557.2/27

30.807 $\pm$ 0.285  $\chi^2$ /NDF: 13521.9/27

# diff\_bpm2i02Y\_rms vs slug



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

Left Out: 1107.440 $\pm$ 0.338  $\chi^2$ /NDF:8902.6/9

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

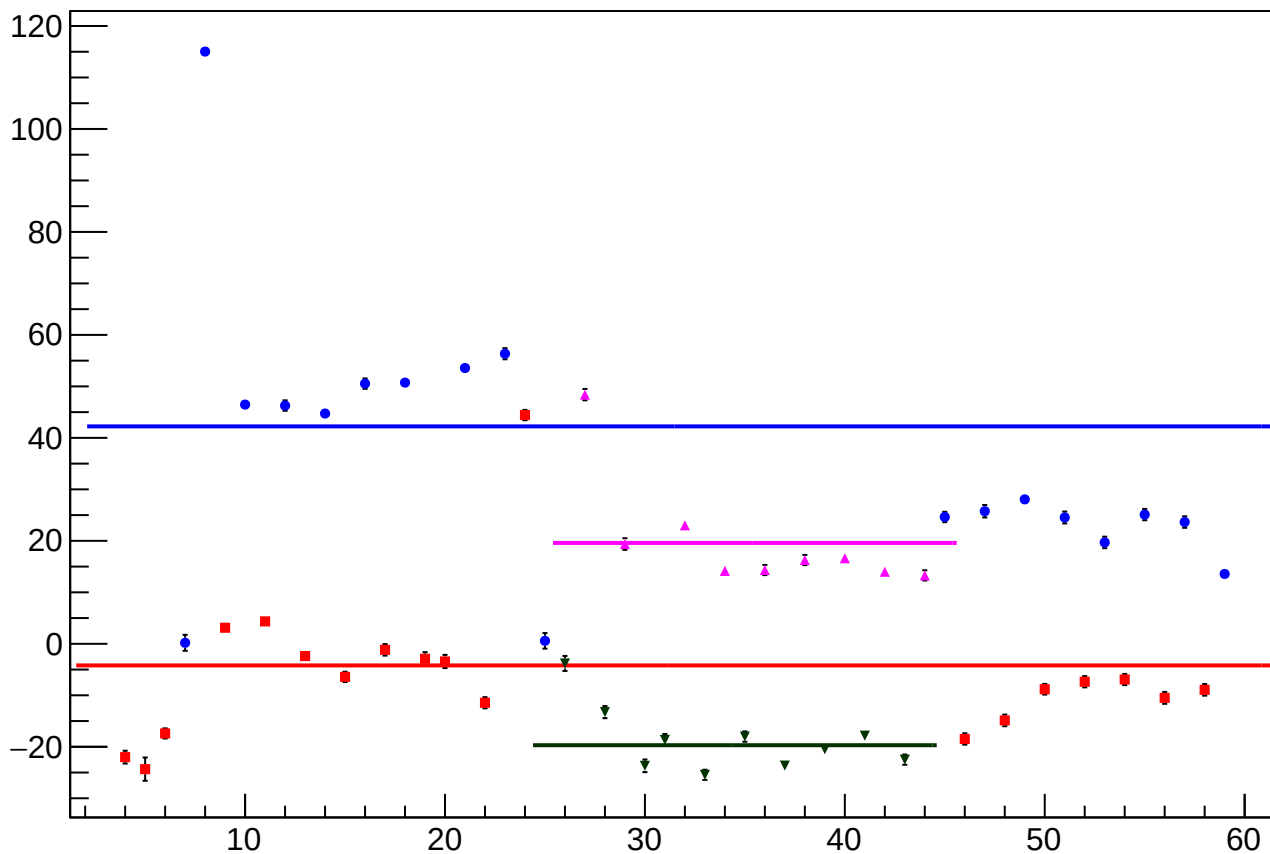
Left In: 1087.950 $\pm$ 0.324  $\chi^2$ /NDF:14406.0/8

1129.842 $\pm$ 0.197  $\chi^2$ /NDF: 344870.3/27

1121.407 $\pm$ 0.201  $\chi^2$ /NDF: 267931.0/27



# diff\_bpm1i04X\_mean vs slug



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

Left Out: -19.696+/-0.329  $\chi^2/\text{NDF}$ : 226.0/9

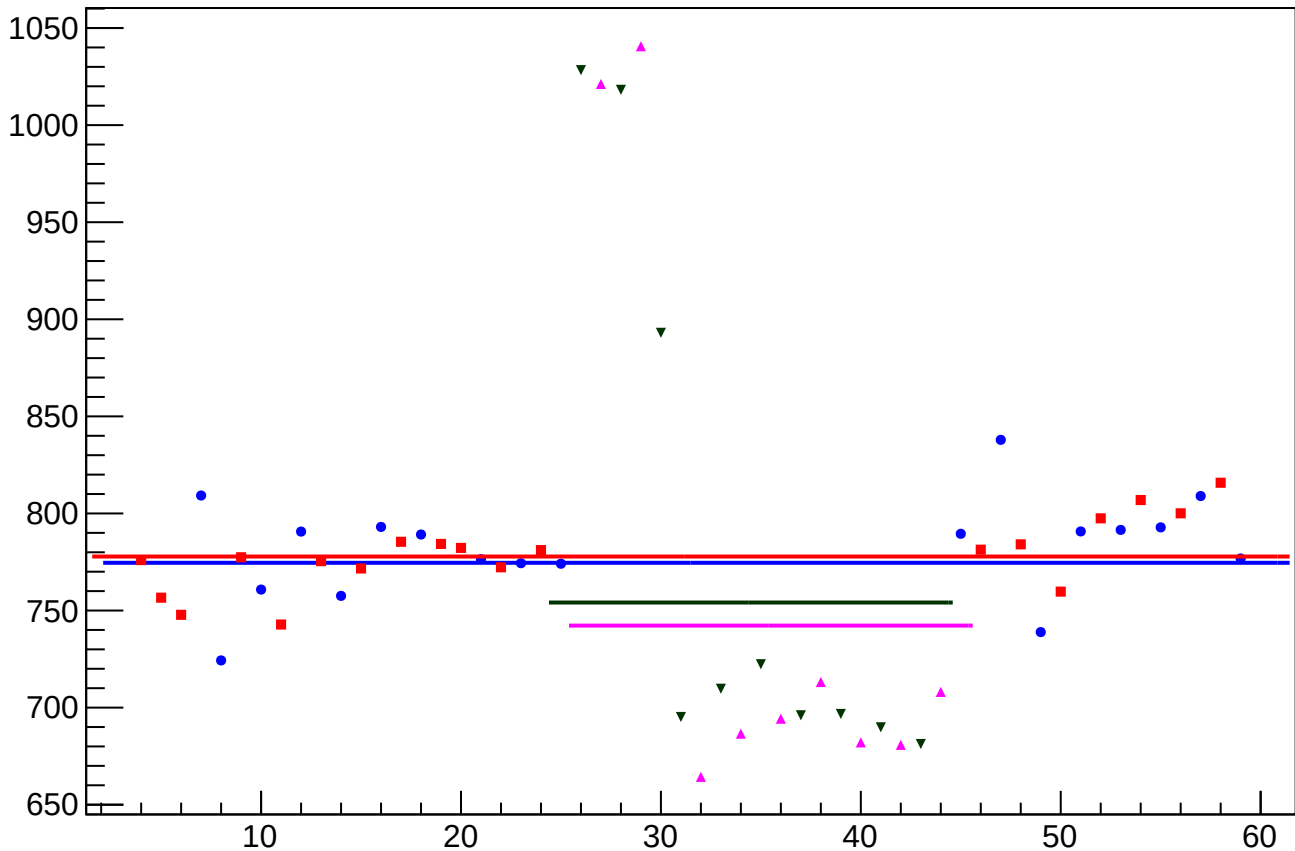
Right Out: -4.198+/-0.246  $\chi^2/\text{NDF}$ : 3378.3/18

Left In: 19.595+/-0.317  $\chi^2/\text{NDF}$ : 863.4/8

21.815+/-0.189  $\chi^2/\text{NDF}$ : 38237.1/27

4.733+/-0.194  $\chi^2/\text{NDF}$ : 7759.7/27

# diff\_bpm1i04X\_rms vs slug



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

Left Out: 754.119+/-0.233  $\chi^2/\text{NDF}$ : 244495.9/9

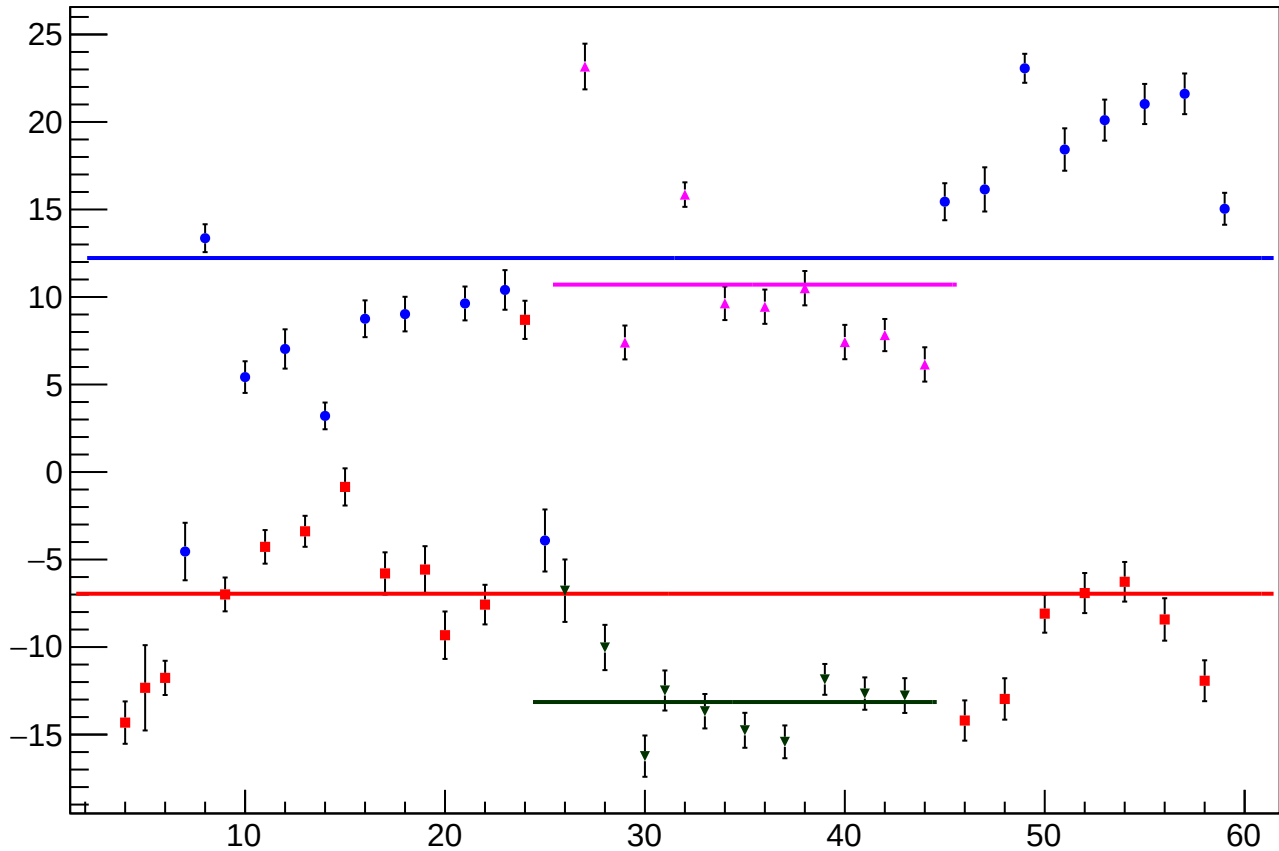
Right Out: 777.816+/-0.174  $\chi^2/\text{NDF}$ : 11180.5/18

Left In: 742.240+/-0.224  $\chi^2/\text{NDF}$ : 324033.0/8

767.836+/-0.134  $\chi^2/\text{NDF}$ : 276036.1/27

764.462+/-0.137  $\chi^2/\text{NDF}$ : 350944.4/27

# diff\_bpm1i04Y\_mean vs slug



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

Left Out:  $-13.141 \pm 0.333$   $\chi^2/\text{NDF}: 37.1/9$

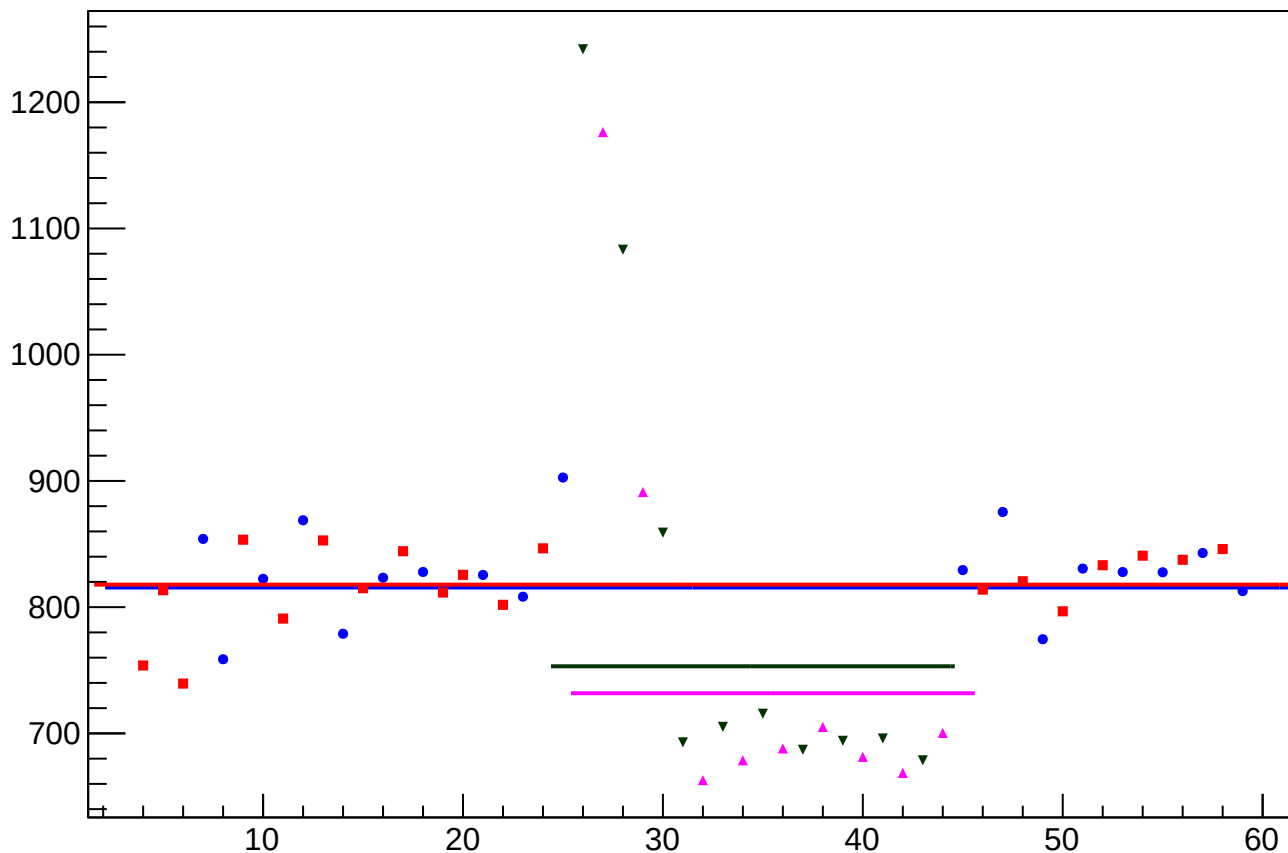
Right Out:  $-6.954 \pm 0.259$   $\chi^2/\text{NDF}: 420.8/18$

Left In:  $10.708 \pm 0.314$   $\chi^2/\text{NDF}: 202.2/8$

$3.375 \pm 0.196$   $\chi^2/\text{NDF}: 4657.3/27$

$0.192 \pm 0.200$   $\chi^2/\text{NDF}: 2503.5/27$

# diff\_bpm1i04Y\_rms vs slug



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

Left Out:  $753.162 \pm 0.235$   $\chi^2/\text{NDF}$ : 347457.9/9

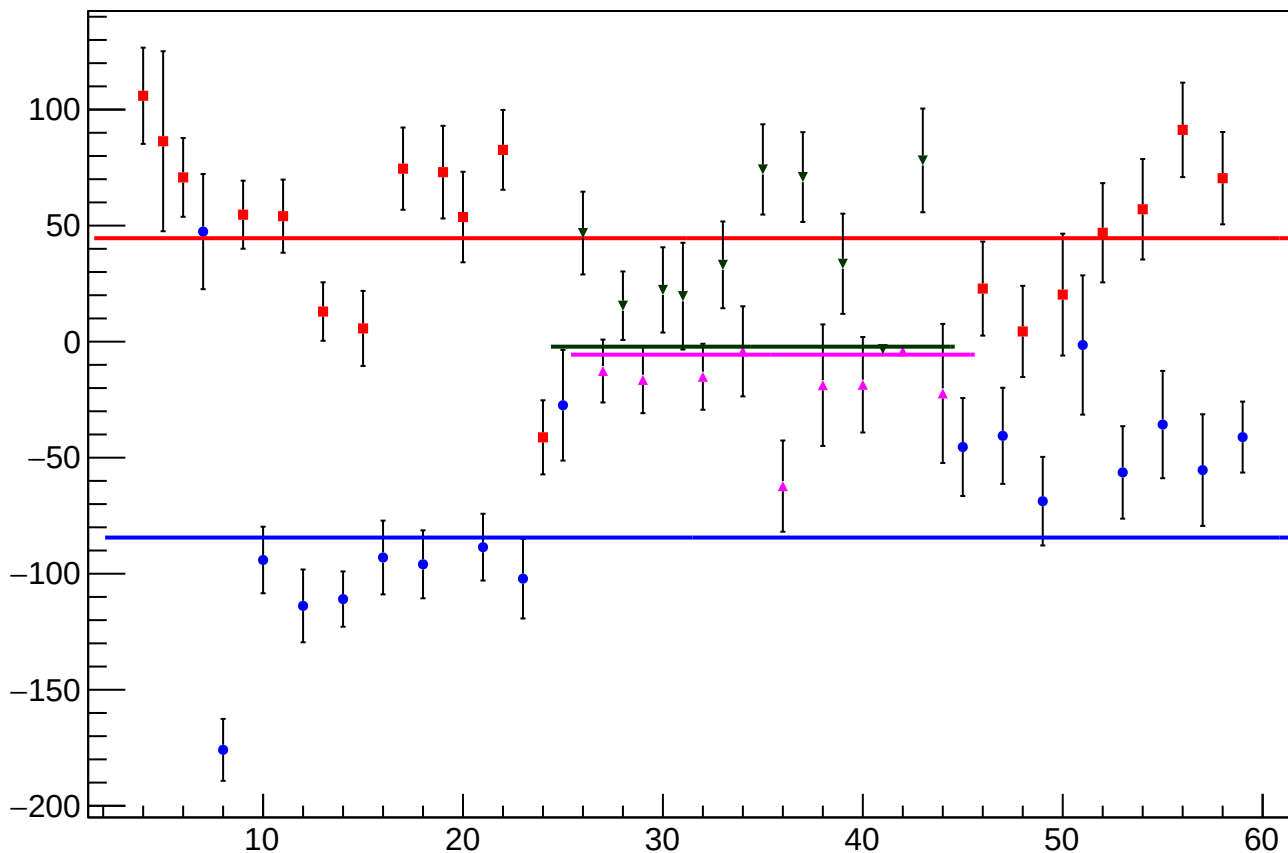
Right Out:  $817.840 \pm 0.183$   $\chi^2/\text{NDF}$ : 32410.2/18

Left In:  $731.813 \pm 0.222$   $\chi^2/\text{NDF}$ : 333966.6/8

$793.795 \pm 0.139$   $\chi^2/\text{NDF}$ : 430951.6/27

$783.035 \pm 0.141$   $\chi^2/\text{NDF}$ : 455609.1/27

# diff\_bpm0l02X\_mean vs slug



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

Left Out:  $-2.165 \pm 0.972$   $\chi^2/\text{NDF}: 61.6/9$

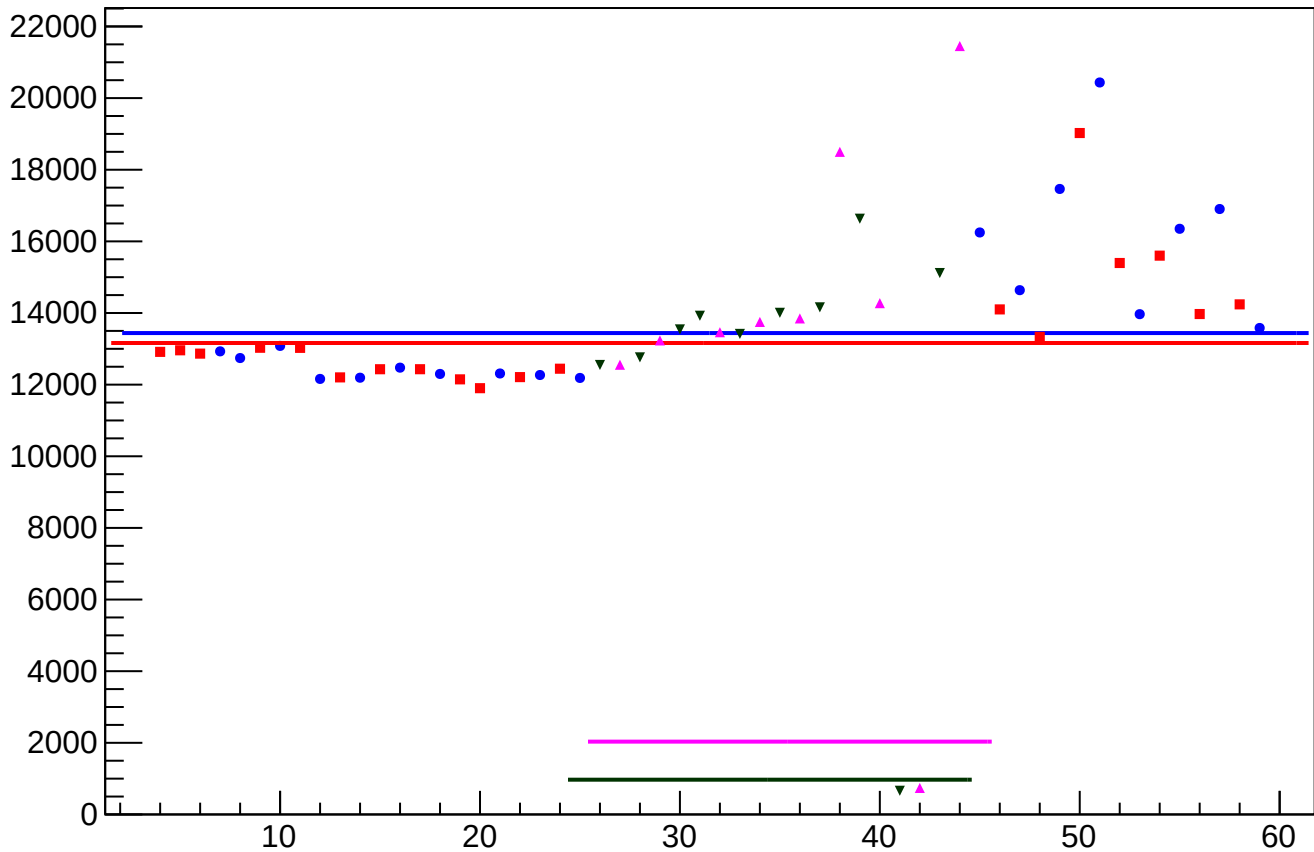
Right Out:  $44.573 \pm 4.203$   $\chi^2/\text{NDF}: 77.6/18$

Left In:  $-5.599 \pm 1.958$   $\chi^2/\text{NDF}: 11.1/8$

$-6.622 \pm 0.945$   $\chi^2/\text{NDF}: 573.9/27$

$3.350 \pm 1.775$   $\chi^2/\text{NDF}: 205.7/27$

# diff\_bpm0l02X\_rms vs slug



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

Left Out: 970.582+/-0.687  $\chi^2/\text{NDF}$ :8456735.2/9

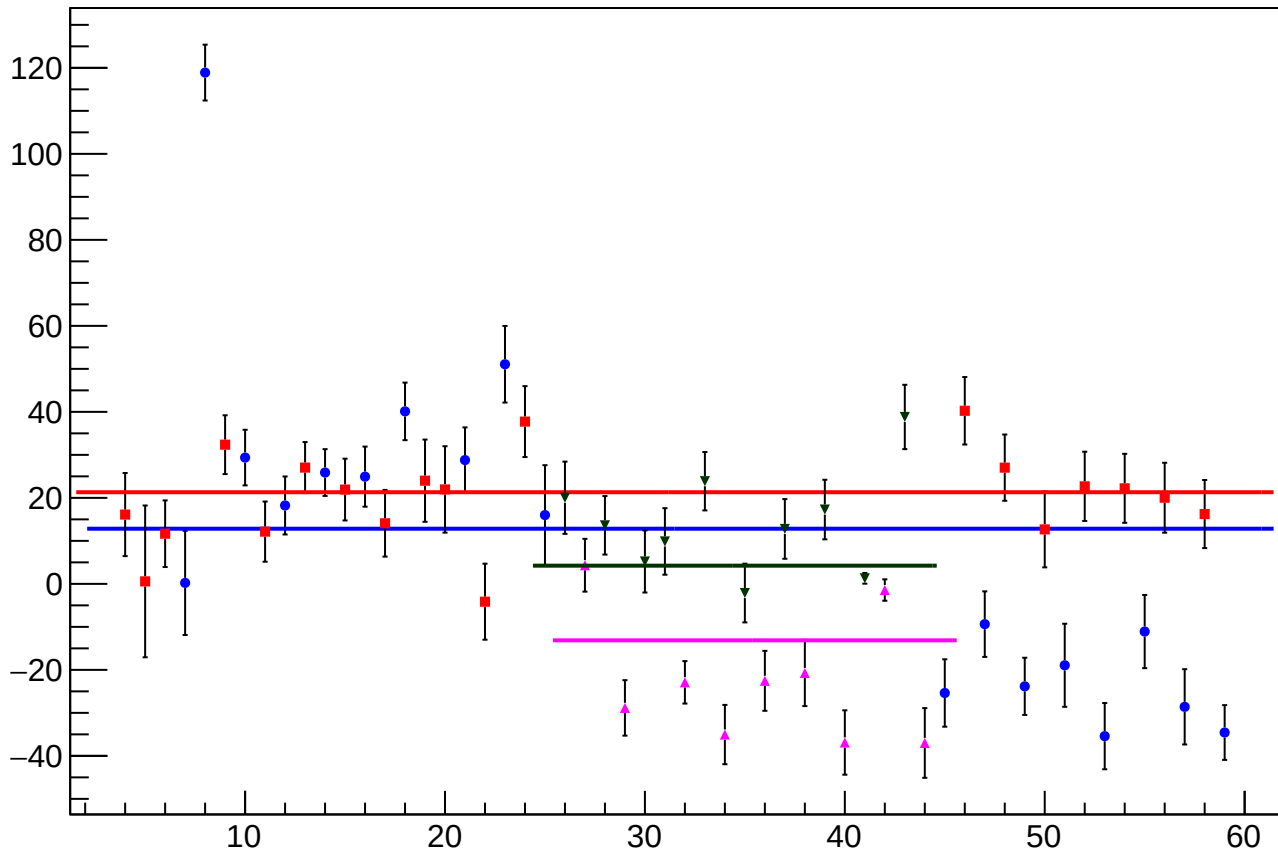
1646.322+/-0.668  $\chi^2/\text{NDF}$ : 26705126.3/27

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

4018.314+/-1.255  $\chi^2/\text{NDF}$ : 20019445.9/27

Left In: 2033.232+/-1.385  $\chi^2/\text{NDF}$ :8290377.8/8

# diff\_bpm0l02Y\_mean vs slug



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

Left Out:  $4.234 \pm 1.105$   $\chi^2/\text{NDF}$ : 47.2/9

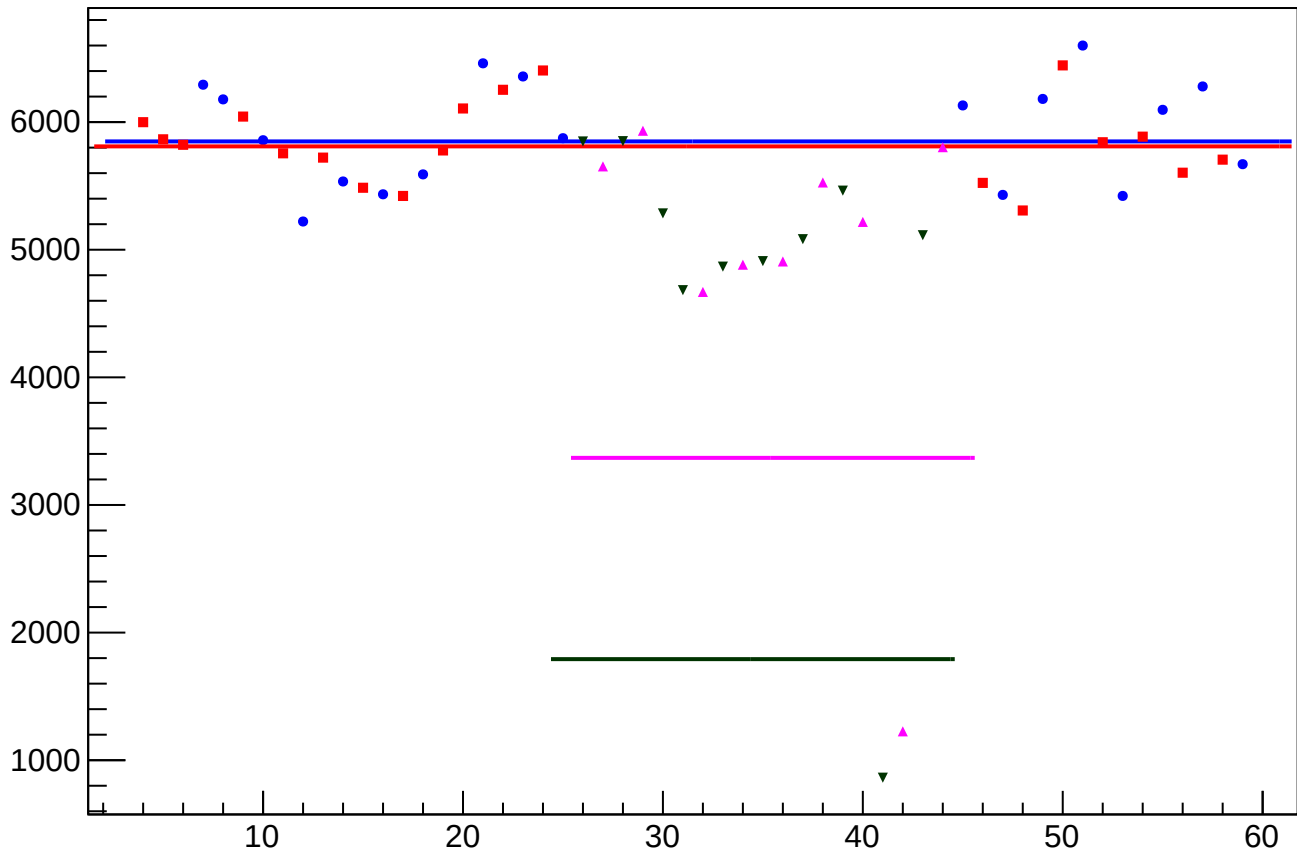
Right Out:  $21.314 \pm 1.847$   $\chi^2/\text{NDF}$ : 29.5/18

Left In:  $-13.126 \pm 1.704$   $\chi^2/\text{NDF}$ : 71.6/8

$6.680 \pm 0.935$   $\chi^2/\text{NDF}$ : 586.2/27

$2.708 \pm 1.252$   $\chi^2/\text{NDF}$ : 289.0/27

# diff\_bpm0l02Y\_rms vs slug



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

Left Out: 1792.038+/-0.782  $\chi^2/\text{NDF}$ : 5271430.0/9

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

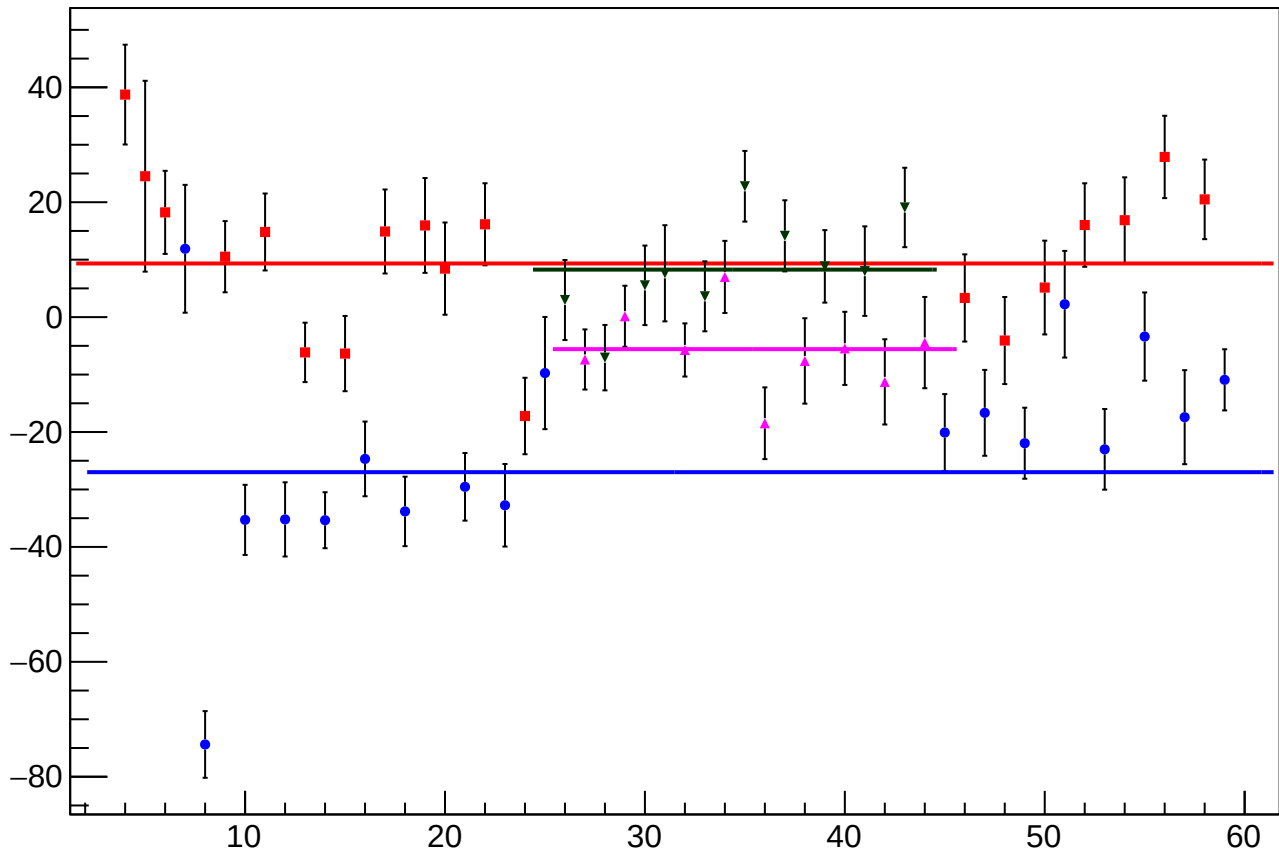
Left In: 3369.133+/-1.205  $\chi^2/\text{NDF}$ : 2866176.4/8

2946.577+/-0.661  $\chi^2/\text{NDF}$ : 13040068.9/27

4491.223+/-0.886  $\chi^2/\text{NDF}$ : 4806173.9/27



# diff\_bpm0l03X\_mean vs slug



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

Left Out:  $8.269 \pm 2.091$   $\chi^2/\text{NDF}$ : 17.5/9

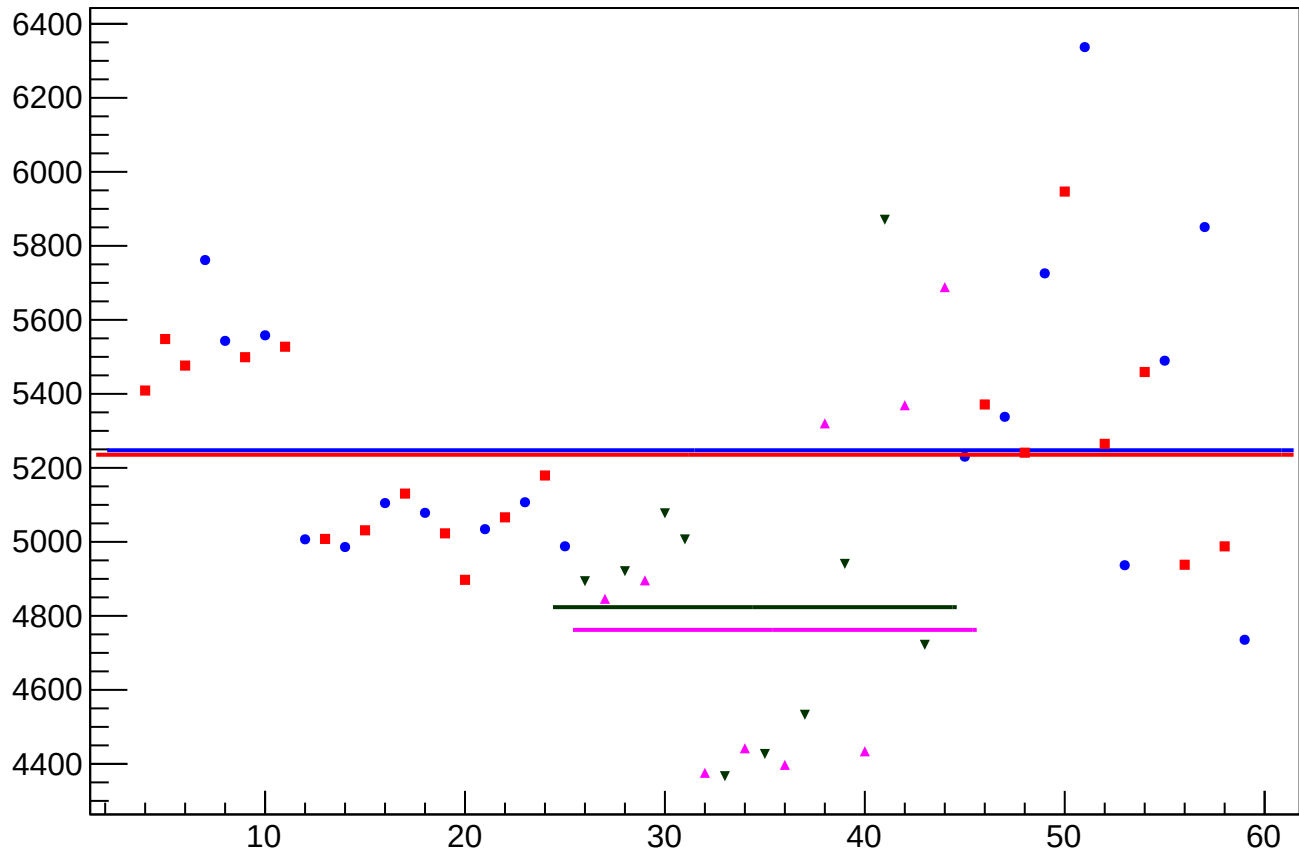
Right Out:  $9.337 \pm 1.659$   $\chi^2/\text{NDF}$ : 62.4/18

Left In:  $-5.574 \pm 2.014$   $\chi^2/\text{NDF}$ : 10.3/8

$-14.287 \pm 1.255$   $\chi^2/\text{NDF}$ : 323.8/27

$3.307 \pm 1.281$   $\chi^2/\text{NDF}$ : 105.3/27

# diff\_bpm0l03X\_rms vs slug



Right In: 5247.571+/-1.110  $\chi^2/\text{NDF}$ : 105629.3/17

Left Out: 4823.564+/-1.479  $\chi^2/\text{NDF}$ : 65634.4/9

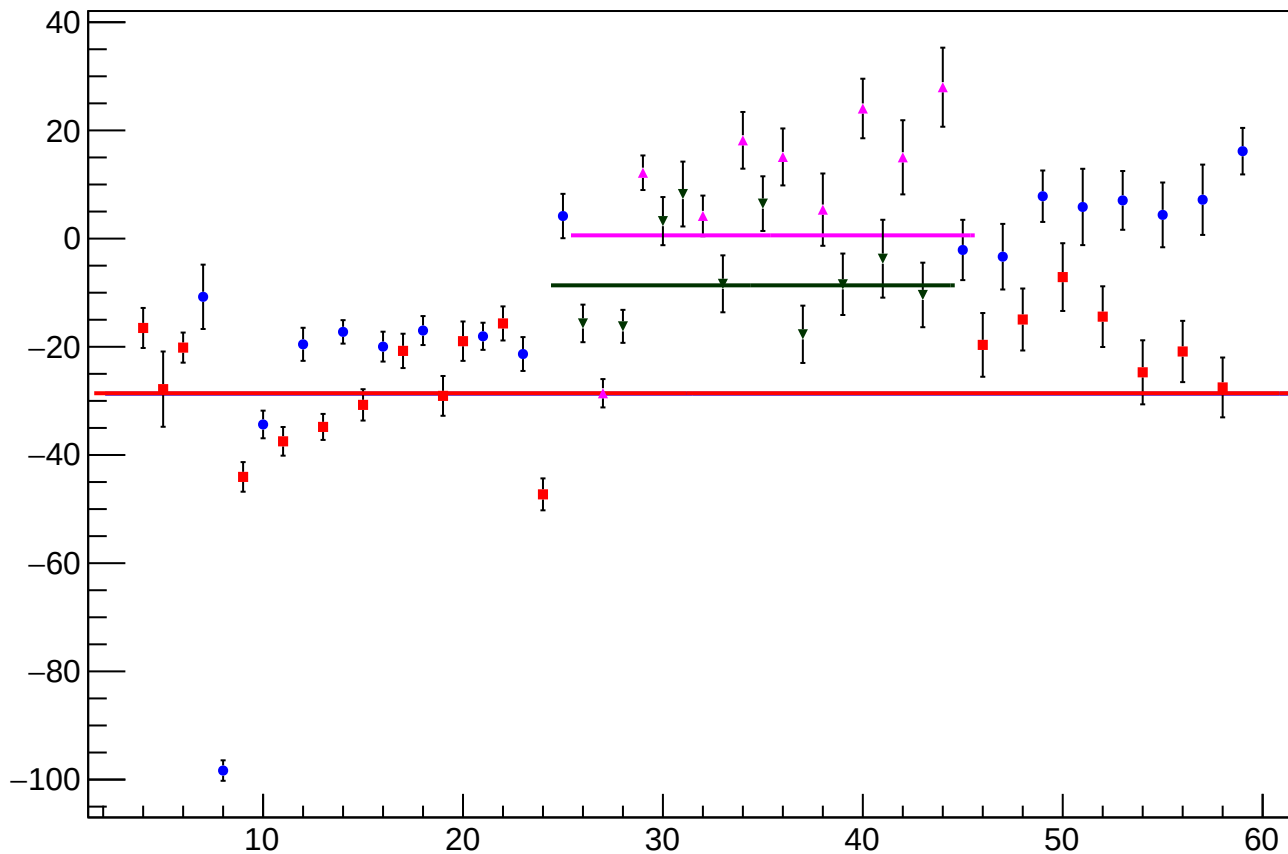
Right Out: 5235.469+/-1.173  $\chi^2/\text{NDF}$ : 47165.0/18

Left In: 4762.141+/-1.424  $\chi^2/\text{NDF}$ : 84948.8/8

5094.826+/-0.888  $\chi^2/\text{NDF}$ : 223852.3/27

5044.050+/-0.906  $\chi^2/\text{NDF}$ : 197913.9/27

# diff\_bpm0l03Y\_mean vs slug



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

Left Out: -8.640 $\pm$ 1.477  $\chi^2$ /NDF: 37.8/9

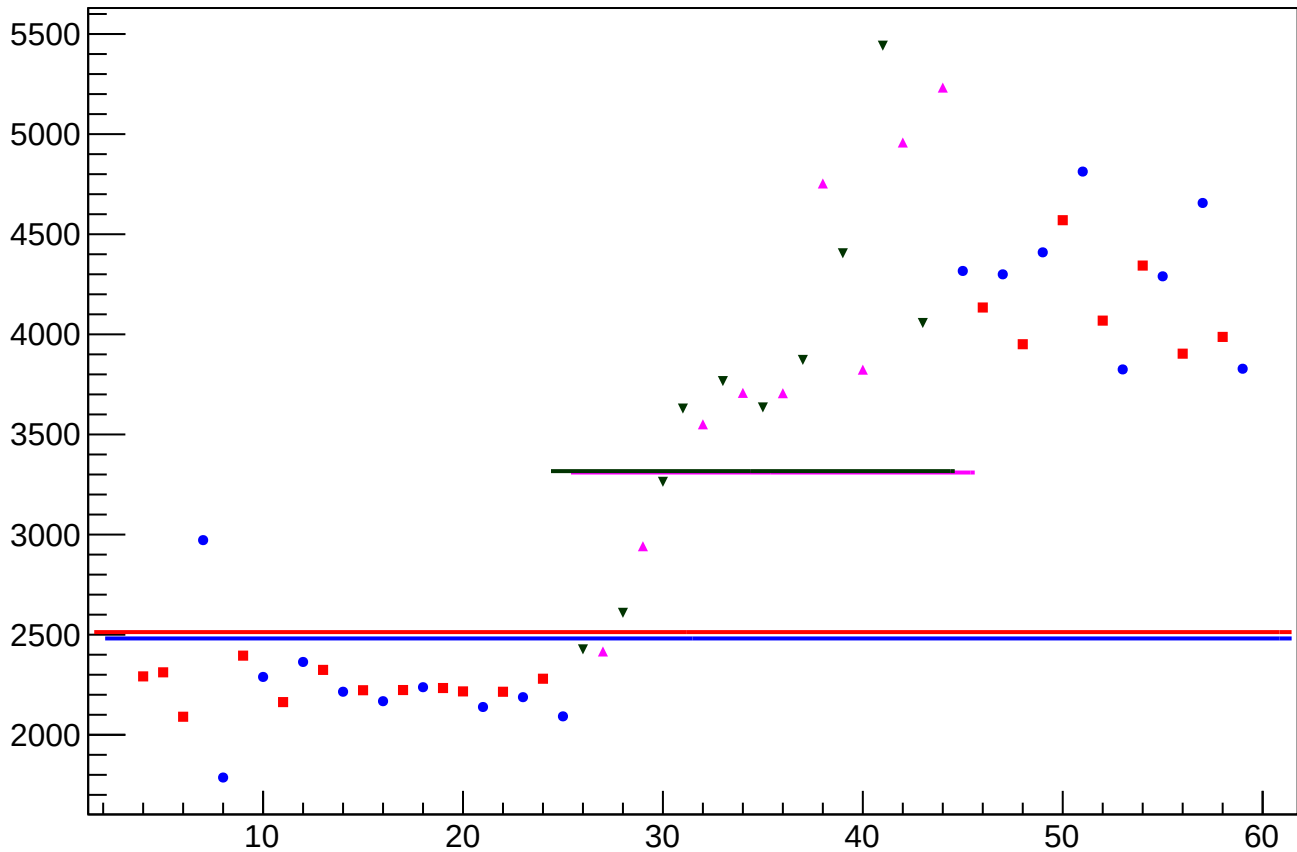
Right Out: -28.584 $\pm$ 0.826  $\chi^2$ /NDF: 168.7/18

Left In: 0.601 $\pm$ 1.440  $\chi^2$ /NDF: 194.1/8

-24.275 $\pm$ 0.691  $\chi^2$ /NDF: 2038.7/27

-21.351 $\pm$ 0.717  $\chi^2$ /NDF: 671.8/27

# diff\_bpm0l03Y\_rms vs slug



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

Left Out: 3316.868+/-1.044  $\chi^2/\text{NDF}$ :568076.0/9

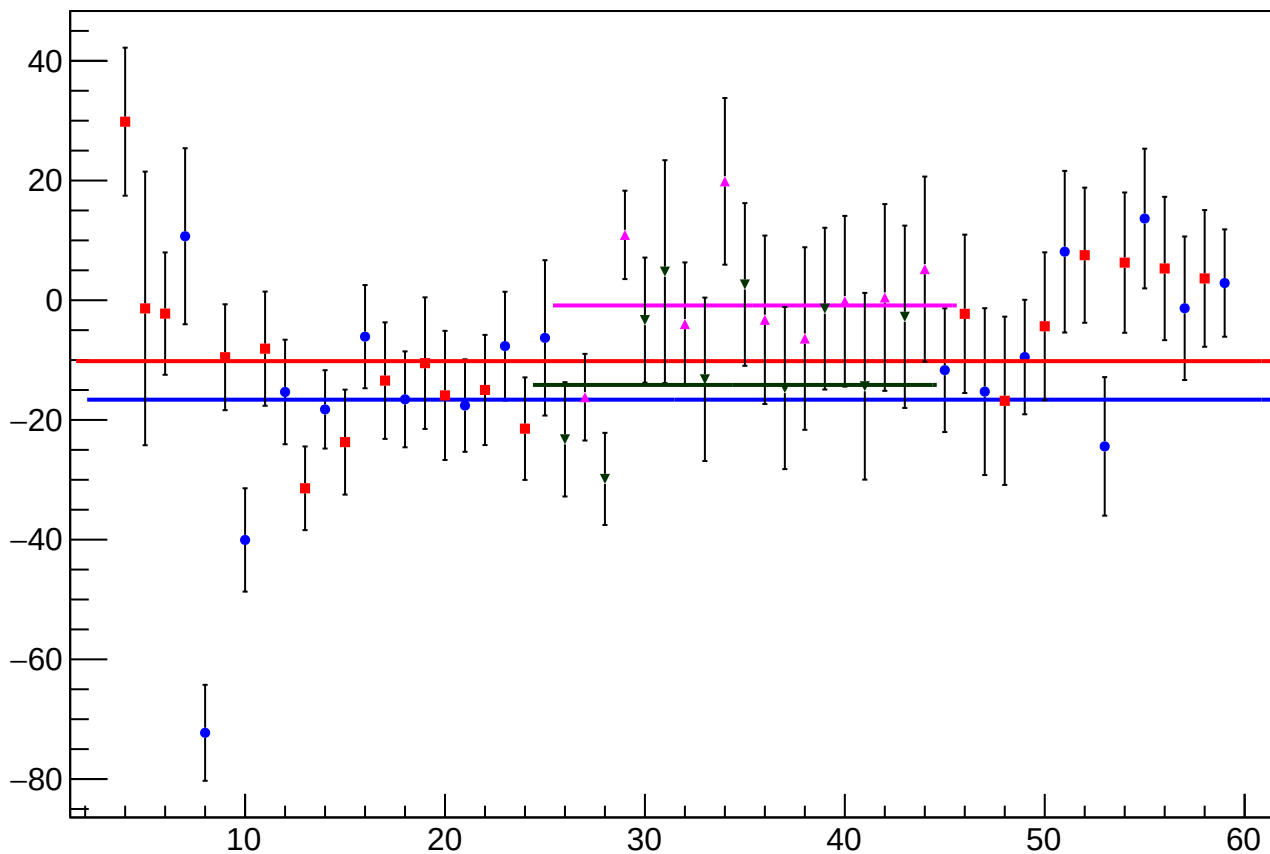
2664.156+/-0.489  $\chi^2/\text{NDF}$ : 3180432.2/27

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

2710.452+/-0.507  $\chi^2/\text{NDF}$ : 2414700.1/27

Left In: 3309.905+/-1.018  $\chi^2/\text{NDF}$ :655131.6/8

# diff\_bpm0l04X\_mean vs slug



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

Left Out:  $-14.150 \pm 3.779$   $\chi^2/\text{NDF}$ : 10.2/9

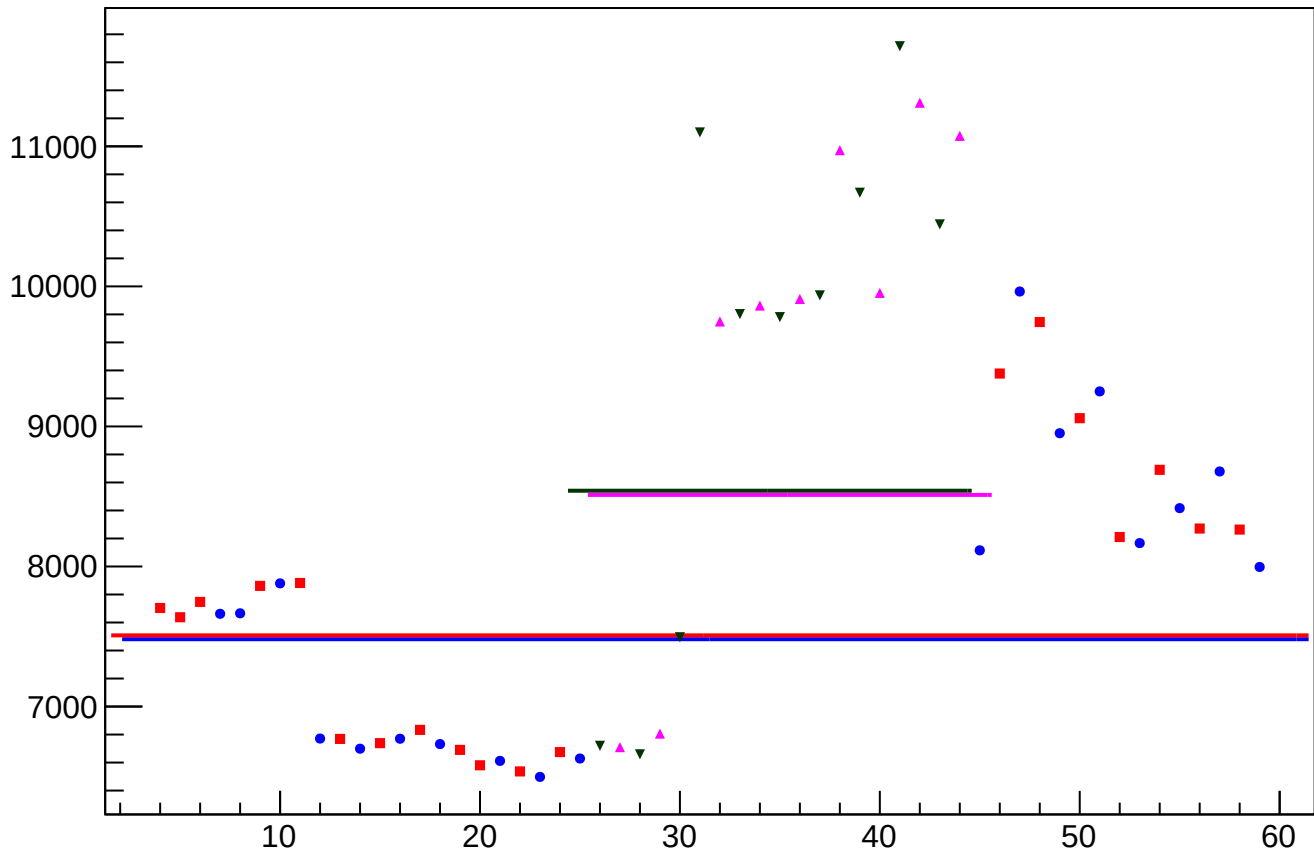
Right Out:  $-10.172 \pm 2.389$   $\chi^2/\text{NDF}$ : 33.7/18

Left In:  $-0.870 \pm 3.662$   $\chi^2/\text{NDF}$ : 9.7/8

$-15.971 \pm 1.928$   $\chi^2/\text{NDF}$ : 90.3/27

$-7.395 \pm 2.001$   $\chi^2/\text{NDF}$ : 47.8/27

# diff\_bpm0l04X\_rms vs slug



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

Left Out: 8541.053+/-2.672  $\chi^2/\text{NDF}$ : 468689.9/9

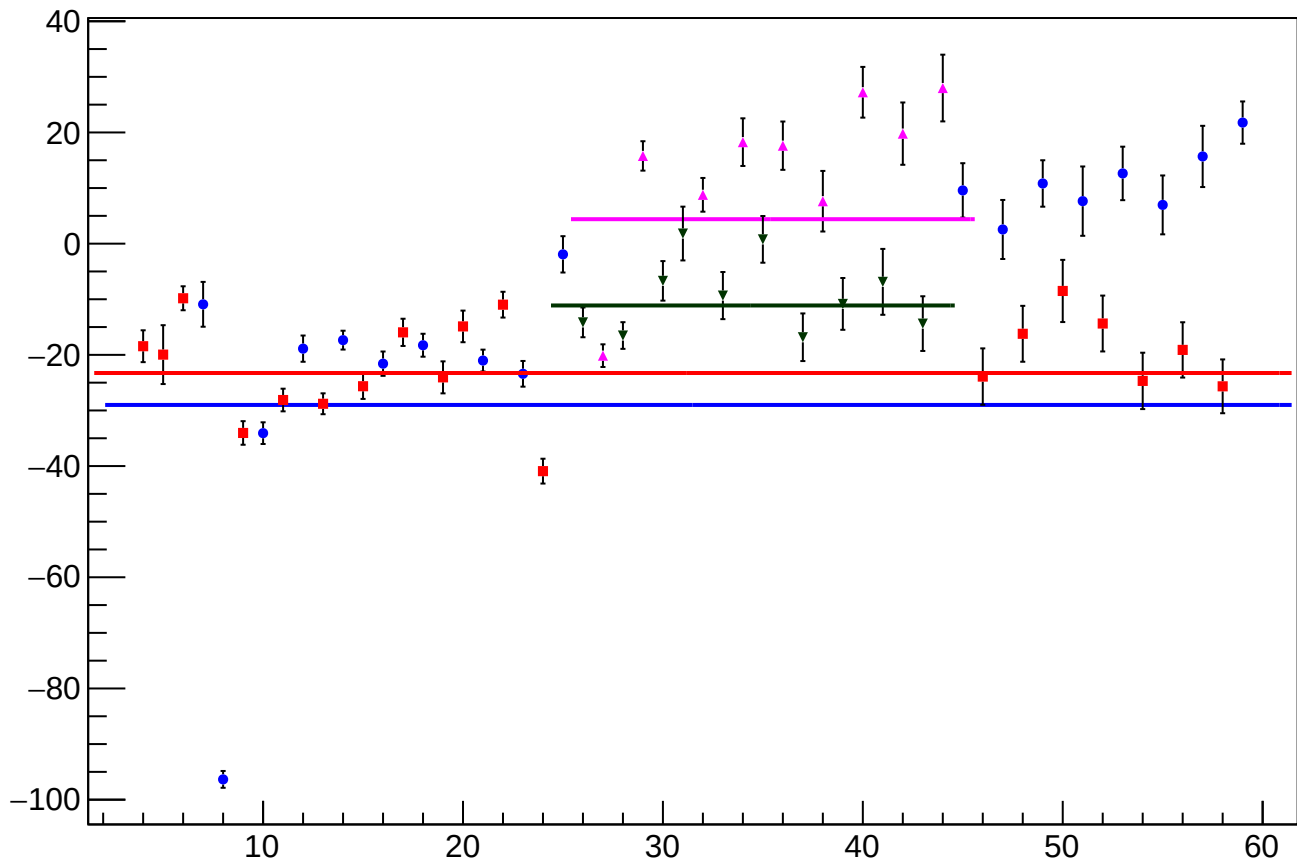
Right Out: 7508.240+/-1.689  $\chi^2/\text{NDF}$ : 289453.4/18

Left In: 8511.059+/-2.590  $\chi^2/\text{NDF}$ : 489873.9/8

7756.709+/-1.363  $\chi^2/\text{NDF}$ : 920018.3/27

7807.592+/-1.415  $\chi^2/\text{NDF}$ : 884521.2/27

# diff\_bpm0l04Y\_mean vs slug



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

Left Out:  $-11.117 \pm 1.180$   $\chi^2/\text{NDF}$ : 26.0/9

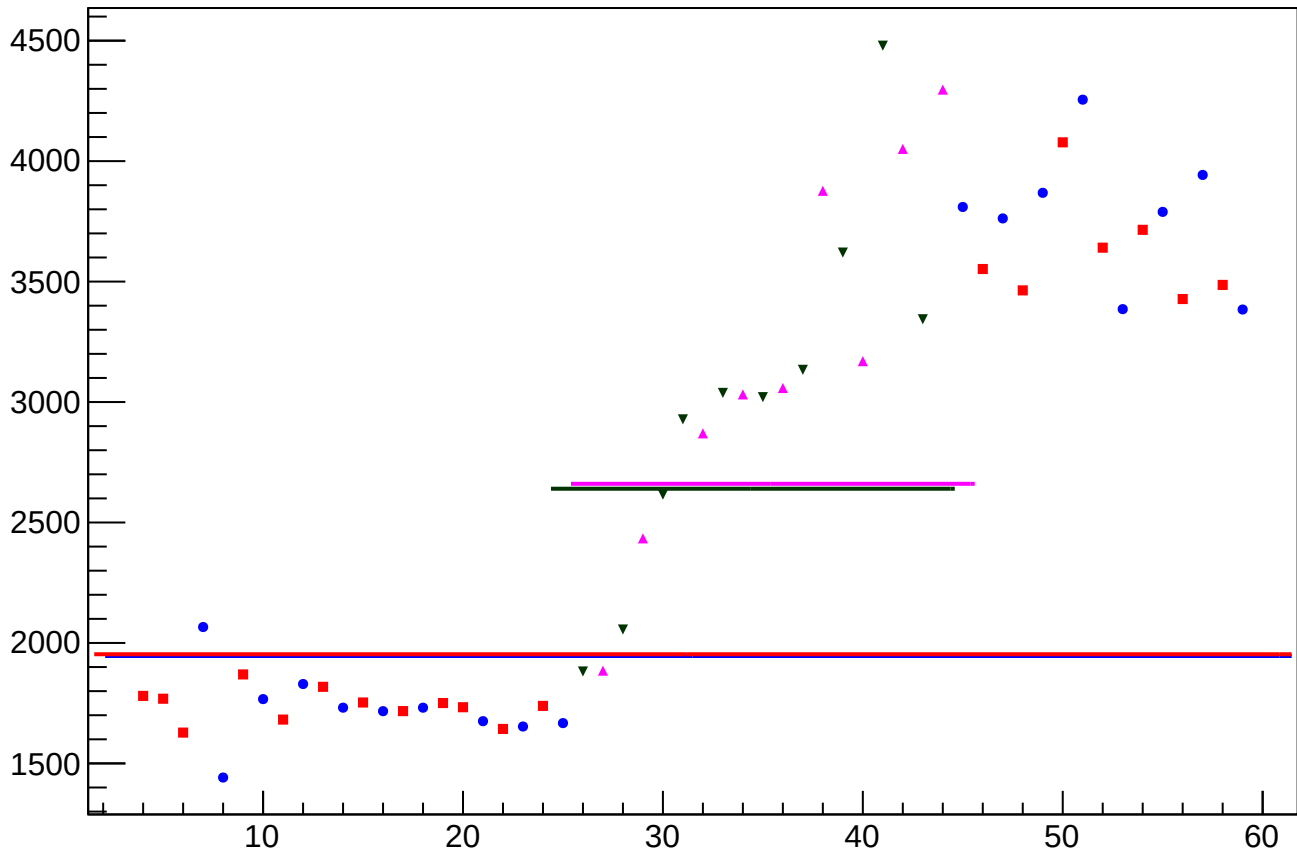
Right Out:  $-23.263 \pm 0.648$   $\chi^2/\text{NDF}$ : 204.8/18

Left In:  $4.400 \pm 1.161$   $\chi^2/\text{NDF}$ : 233.8/8

$-25.153 \pm 0.548$   $\chi^2/\text{NDF}$ : 2998.4/27

$-16.696 \pm 0.566$   $\chi^2/\text{NDF}$ : 871.2/27

# diff\_bpm0l04Y\_rms vs slug



Right In: 1945.876 $\pm$ 0.437  $\chi^2$ /NDF: 2599522.0/17

Left Out: 2640.174 $\pm$ 0.834  $\chi^2$ /NDF:669513.9/9

2095.462 $\pm$ 0.387  $\chi^2$ /NDF: 3812340.0/27

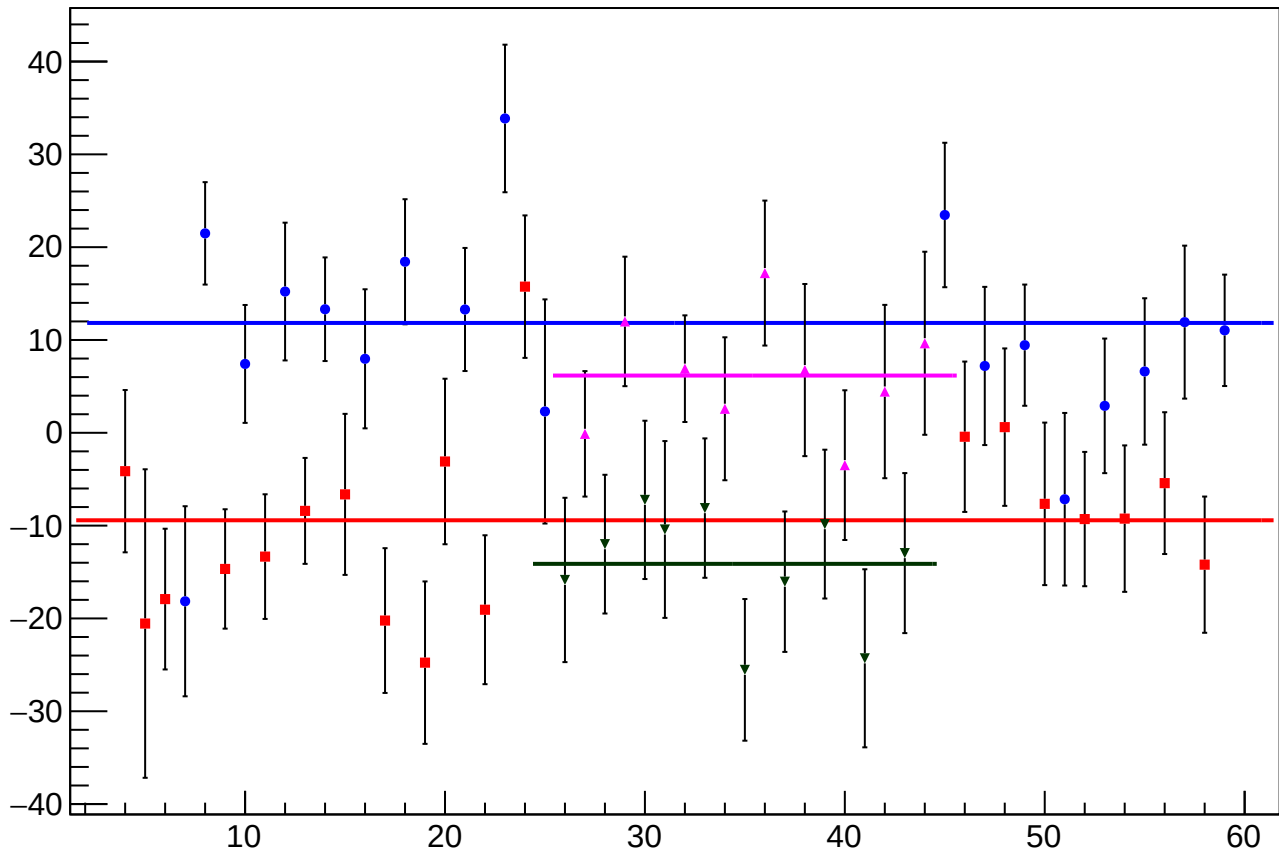
Right Out: 1953.157 $\pm$ 0.458  $\chi^2$ /NDF: 1725858.1/18

2121.094 $\pm$ 0.400  $\chi^2$ /NDF: 3033940.4/27

Left In: 2660.633 $\pm$ 0.821  $\chi^2$ /NDF:742100.2/8



# diff\_bpm0l05X\_mean vs slug



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

Left Out:  $-14.120 \pm 2.602$   $\chi^2/\text{NDF}$ : 5.3/9

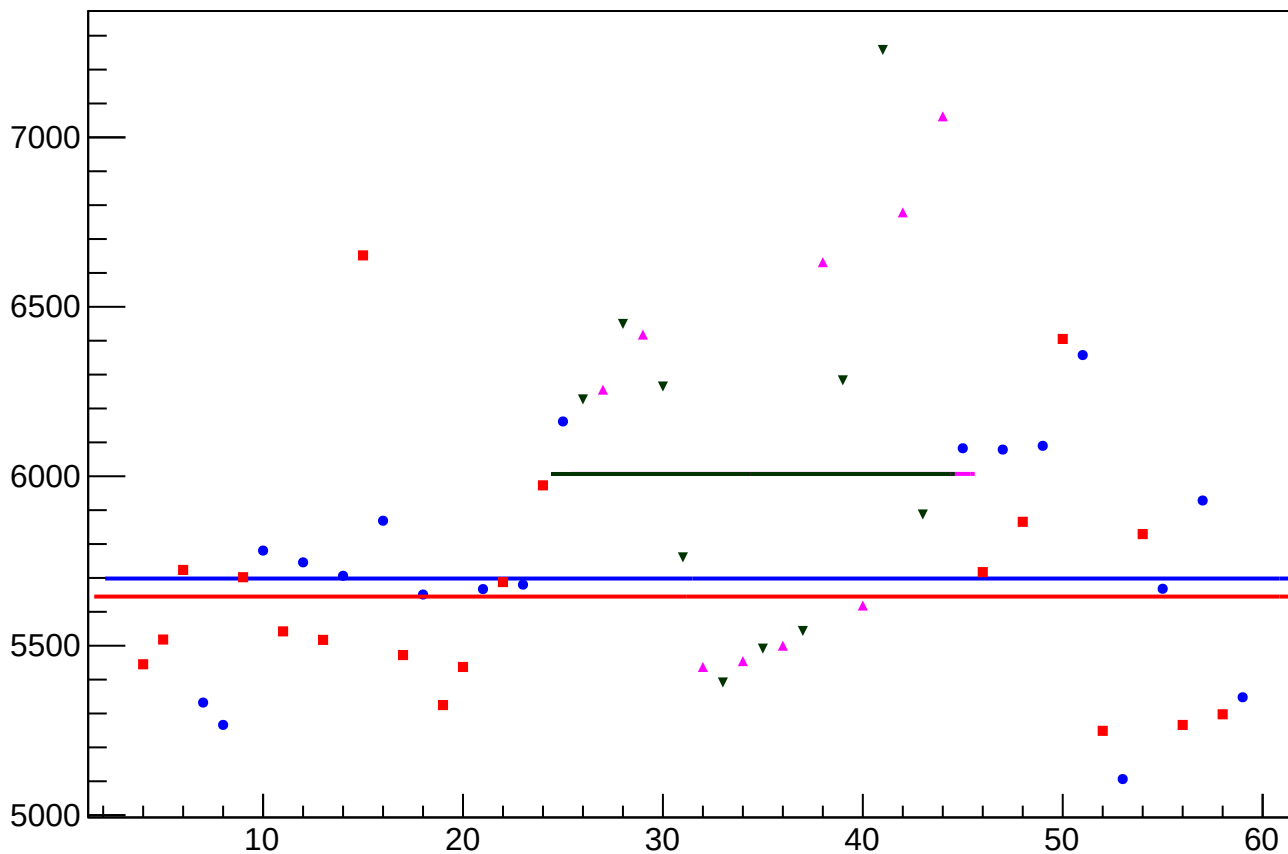
Right Out:  $-9.425 \pm 1.790$   $\chi^2/\text{NDF}$ : 24.3/18

Left In:  $6.168 \pm 2.542$   $\chi^2/\text{NDF}$ : 5.4/8

$4.065 \pm 1.424$   $\chi^2/\text{NDF}$ : 105.8/27

$-4.257 \pm 1.464$   $\chi^2/\text{NDF}$ : 54.8/27

# diff\_bpm0l05X\_rms vs slug



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

Left Out: 6006.744+/-1.840  $\chi^2/\text{NDF}$ : 78250.5/9

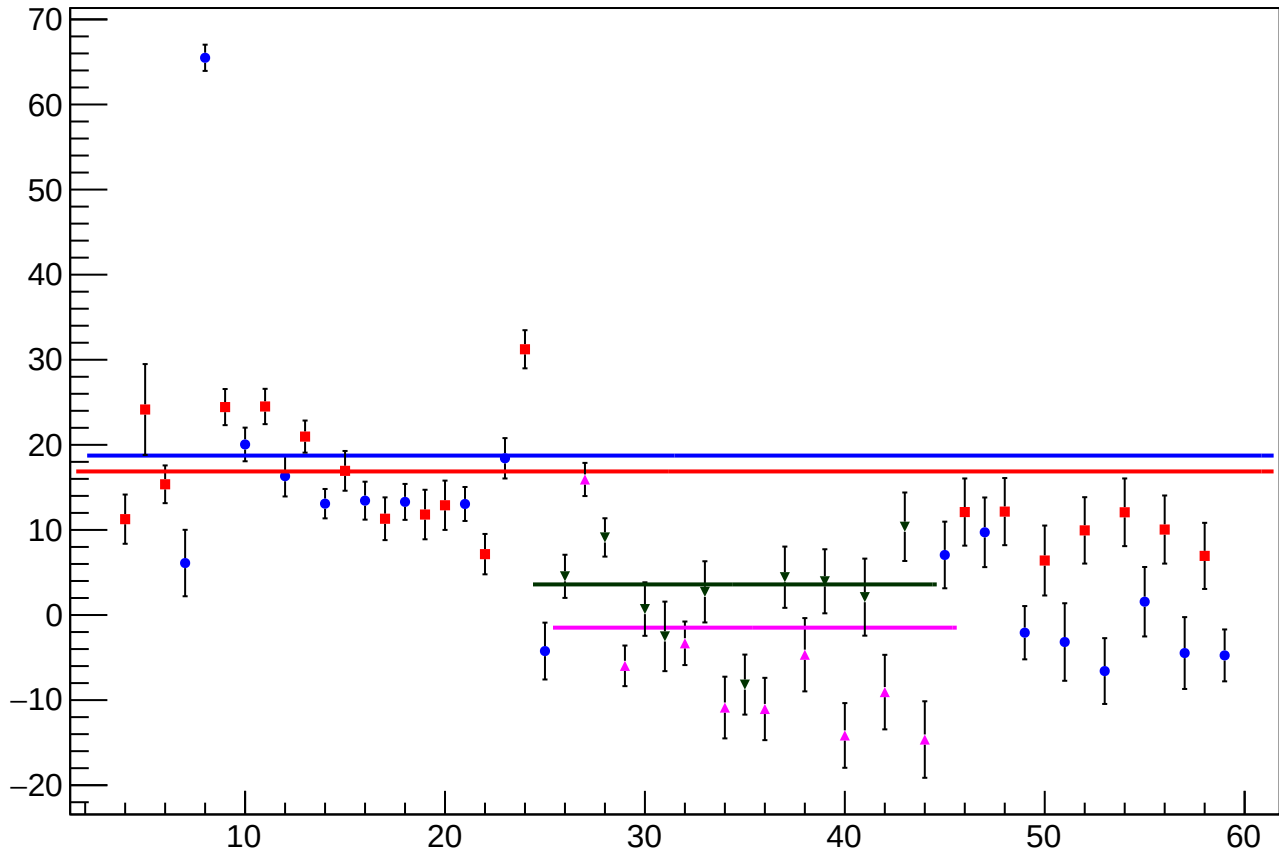
Right Out: 5644.999+/-1.266  $\chi^2/\text{NDF}$ : 71475.4/18

Left In: 6007.013+/-1.798  $\chi^2/\text{NDF}$ : 98309.1/8

5790.622+/-1.007  $\chi^2/\text{NDF}$ : 165162.3/27

5764.990+/-1.035  $\chi^2/\text{NDF}$ : 196899.9/27

# diff\_bpm0l05Y\_mean vs slug



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

Left Out:  $3.596 \pm 1.037$   $\chi^2/\text{NDF}: 23.4/9$

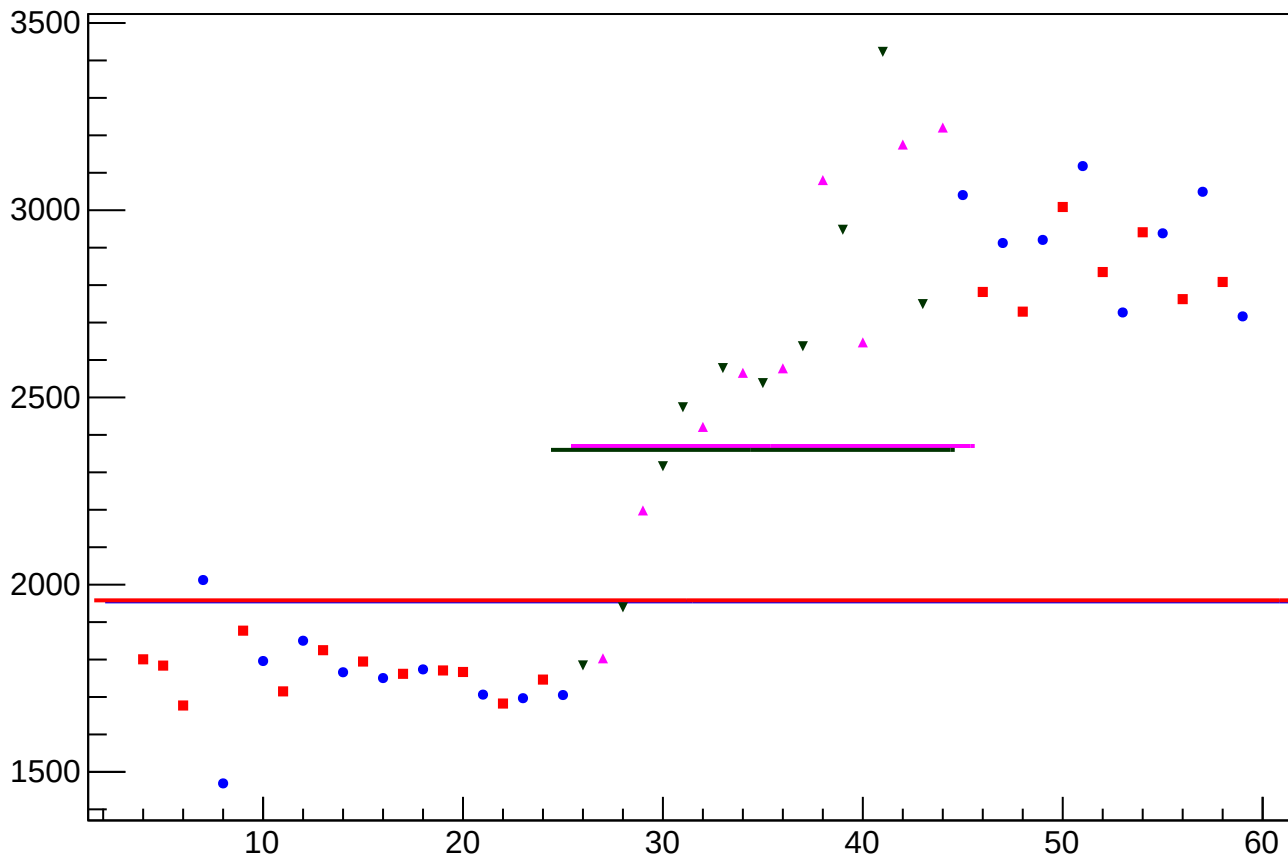
Right Out:  $16.874 \pm 0.633$   $\chi^2/\text{NDF}: 128.0/18$

Left In:  $-1.484 \pm 1.017$   $\chi^2/\text{NDF}: 120.7/8$

$14.926 \pm 0.520$   $\chi^2/\text{NDF}: 1424.2/27$

$11.744 \pm 0.538$   $\chi^2/\text{NDF}: 483.6/27$

# diff\_bpm0l05Y\_rms vs slug



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

Left Out: 2359.972+/-0.733     $\chi^2/\text{NDF}$ : 376681.6/9

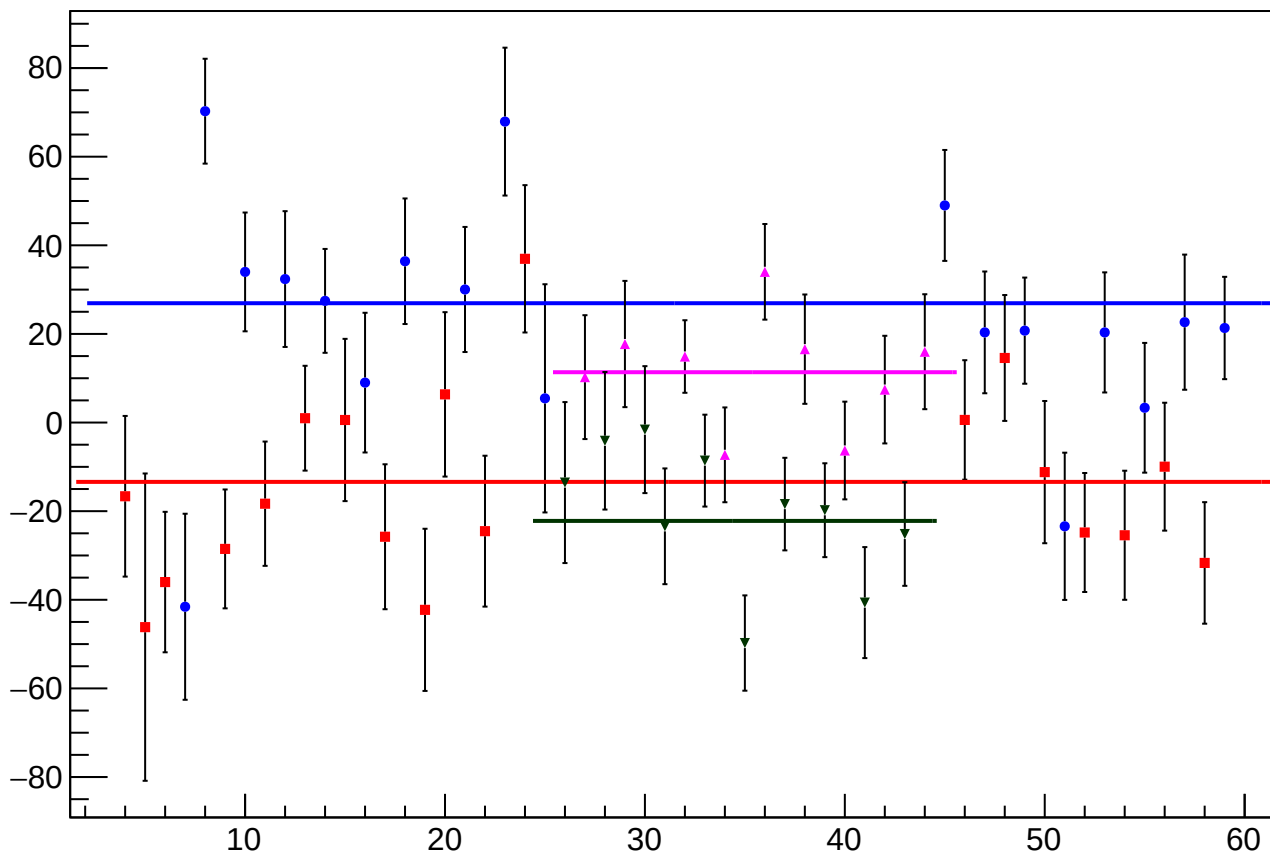
Right Out: 1958.115+/-0.448     $\chi^2/\text{NDF}$ : 858074.3/18

Left In: 2370.321+/-0.719     $\chi^2/\text{NDF}$ : 396932.3/8

2057.227+/-0.368     $\chi^2/\text{NDF}$ : 1980053.3/27

2073.296+/-0.380     $\chi^2/\text{NDF}$ : 1491825.3/27

# diff\_bpm0l06X\_mean vs slug



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

Left Out:  $-22.199 \pm 3.845$   $\chi^2/\text{NDF}$ : 14.4/9

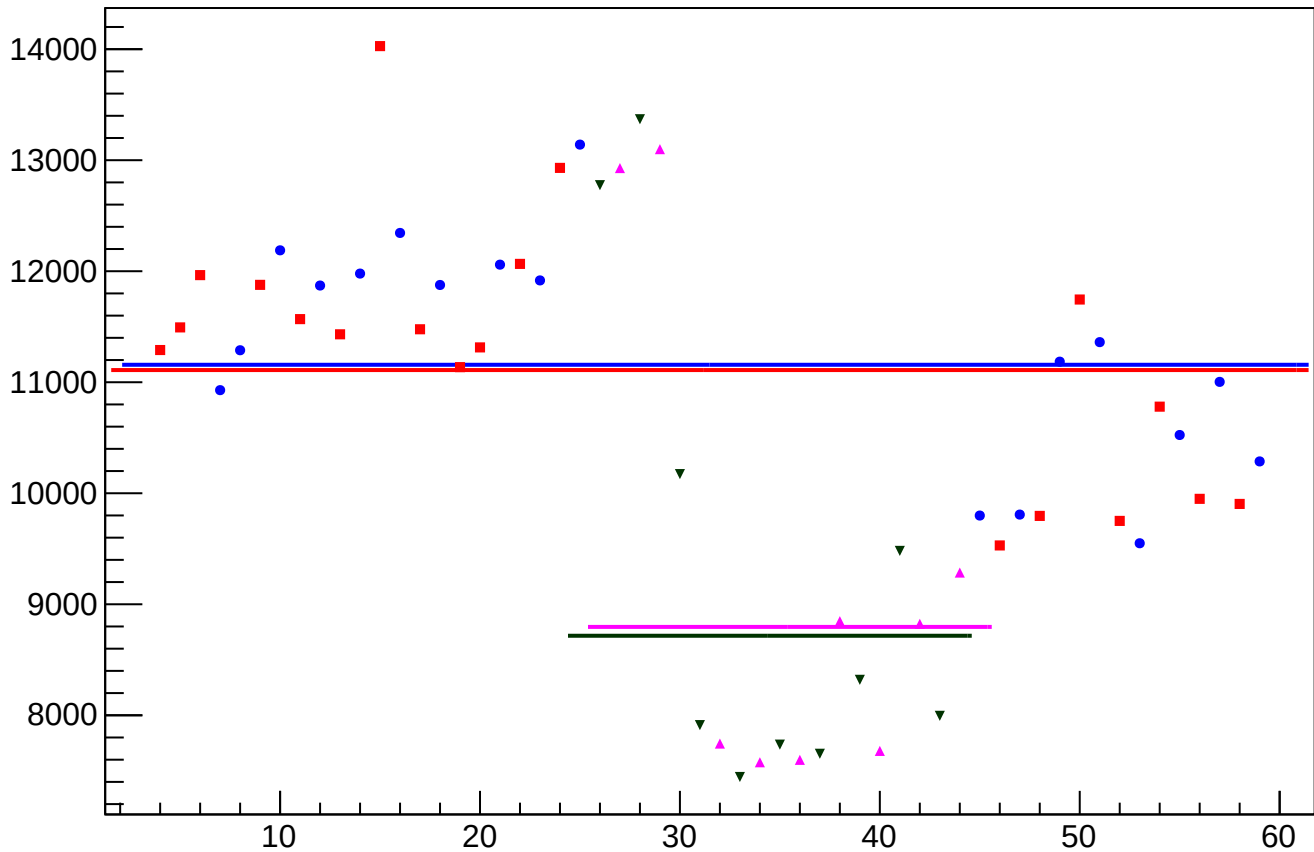
Right Out:  $-13.392 \pm 3.535$   $\chi^2/\text{NDF}$ : 28.4/18

Left In:  $11.359 \pm 3.785$   $\chi^2/\text{NDF}$ : 10.8/8

$5.828 \pm 2.520$   $\chi^2/\text{NDF}$ : 156.4/27

$-1.861 \pm 2.583$   $\chi^2/\text{NDF}$ : 62.1/27

# diff\_bpm0l06X\_rms vs slug



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

Left Out:  $8716.427 \pm 2.719$   $\chi^2/\text{NDF}$ : 393127.4/9

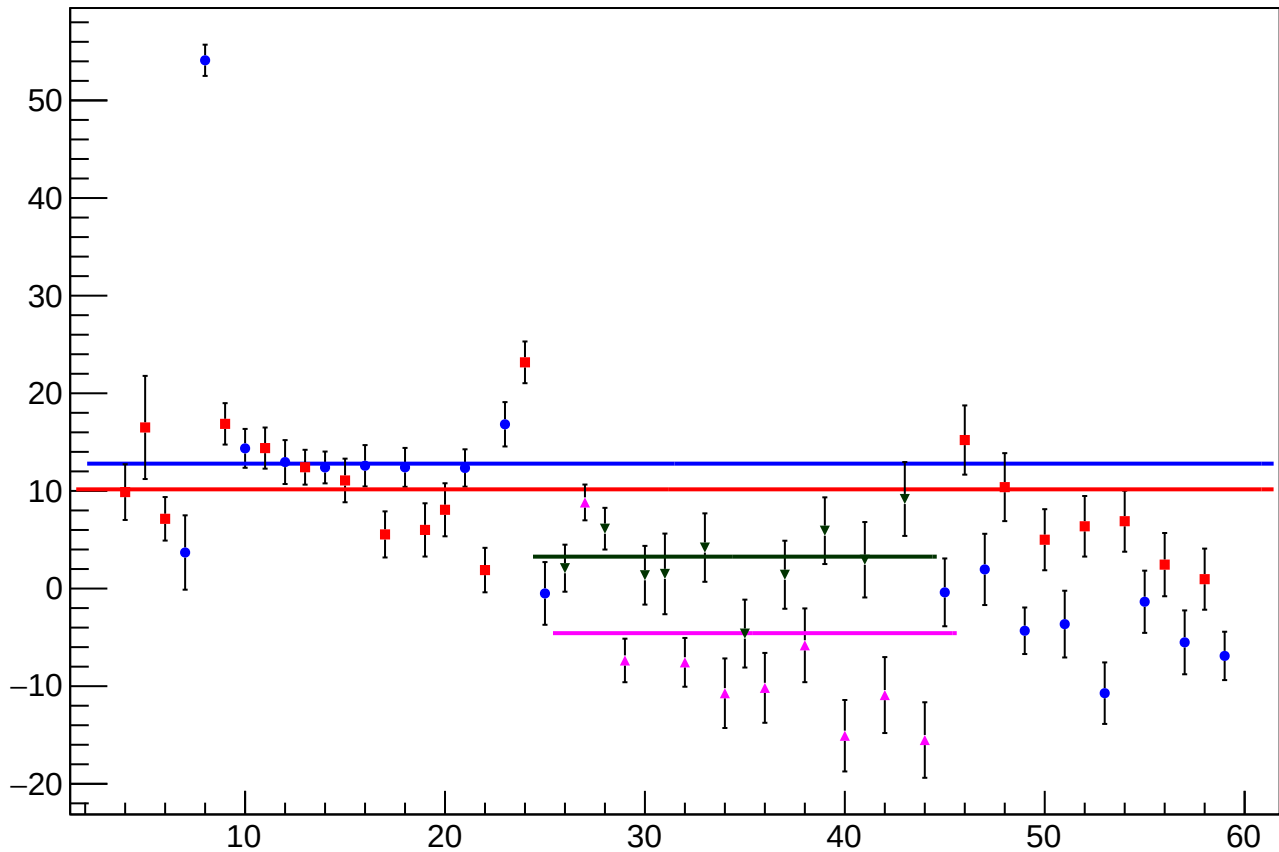
$10108.905 \pm 1.782$   $\chi^2/\text{NDF}$ : 1006541.4/27

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

$10031.874 \pm 1.827$   $\chi^2/\text{NDF}$ : 1059884.5/27

Left In:  $8796.116 \pm 2.676$   $\chi^2/\text{NDF}$ : 464333.7/8

# diff\_bpm0l06Y\_mean vs slug



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

Left Out: 3.269 $\pm$ 0.986  $\chi^2$ /NDF: 11.2/9

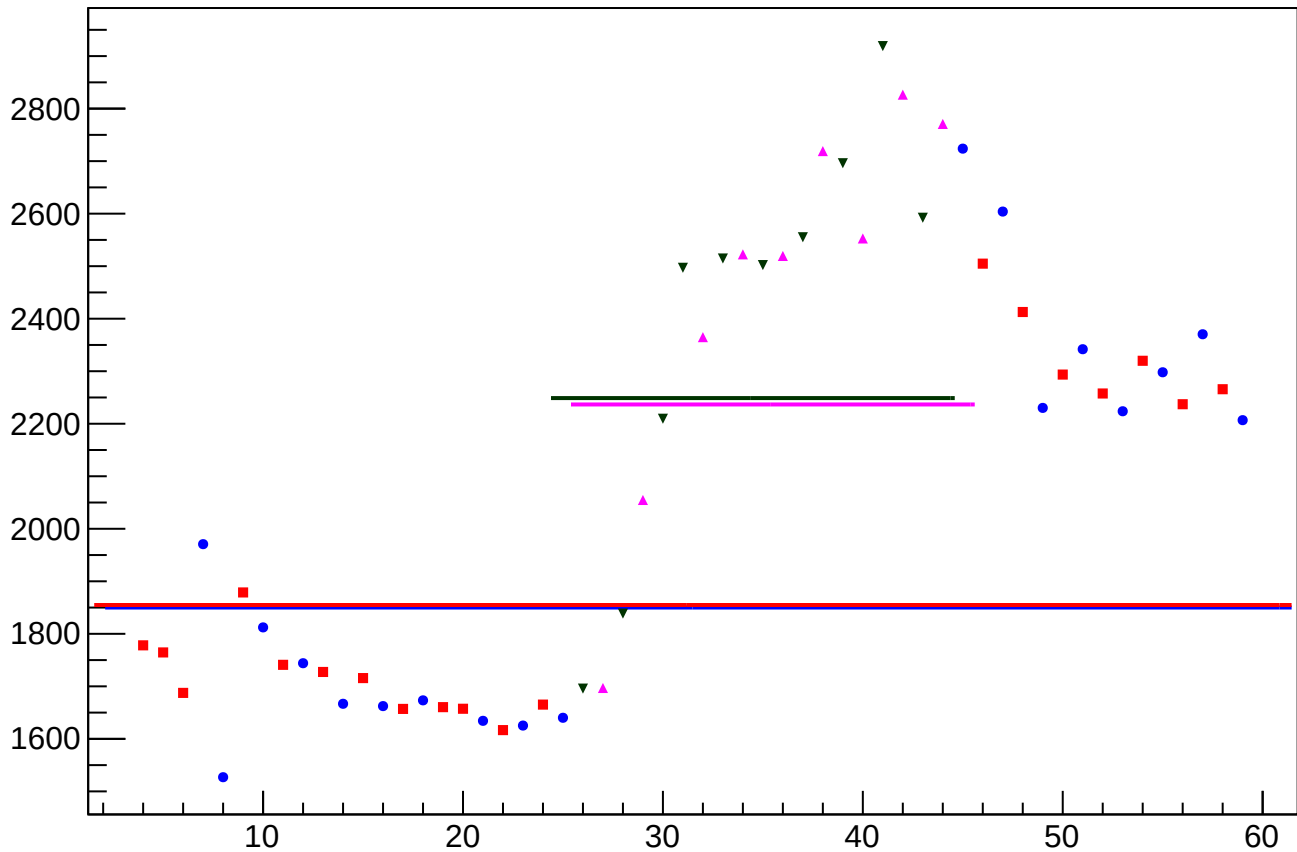
Right Out: 10.162 $\pm$ 0.592  $\chi^2$ /NDF: 97.7/18

Left In: -4.569 $\pm$ 0.956  $\chi^2$ /NDF: 80.8/8

10.476 $\pm$ 0.486  $\chi^2$ /NDF: 1042.9/27

6.078 $\pm$ 0.504  $\chi^2$ /NDF: 349.9/27

# diff\_bpm0l06Y\_rms vs slug



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

Left Out: 2248.854+/-0.697  $\chi^2/\text{NDF}$ :335259.7/9

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

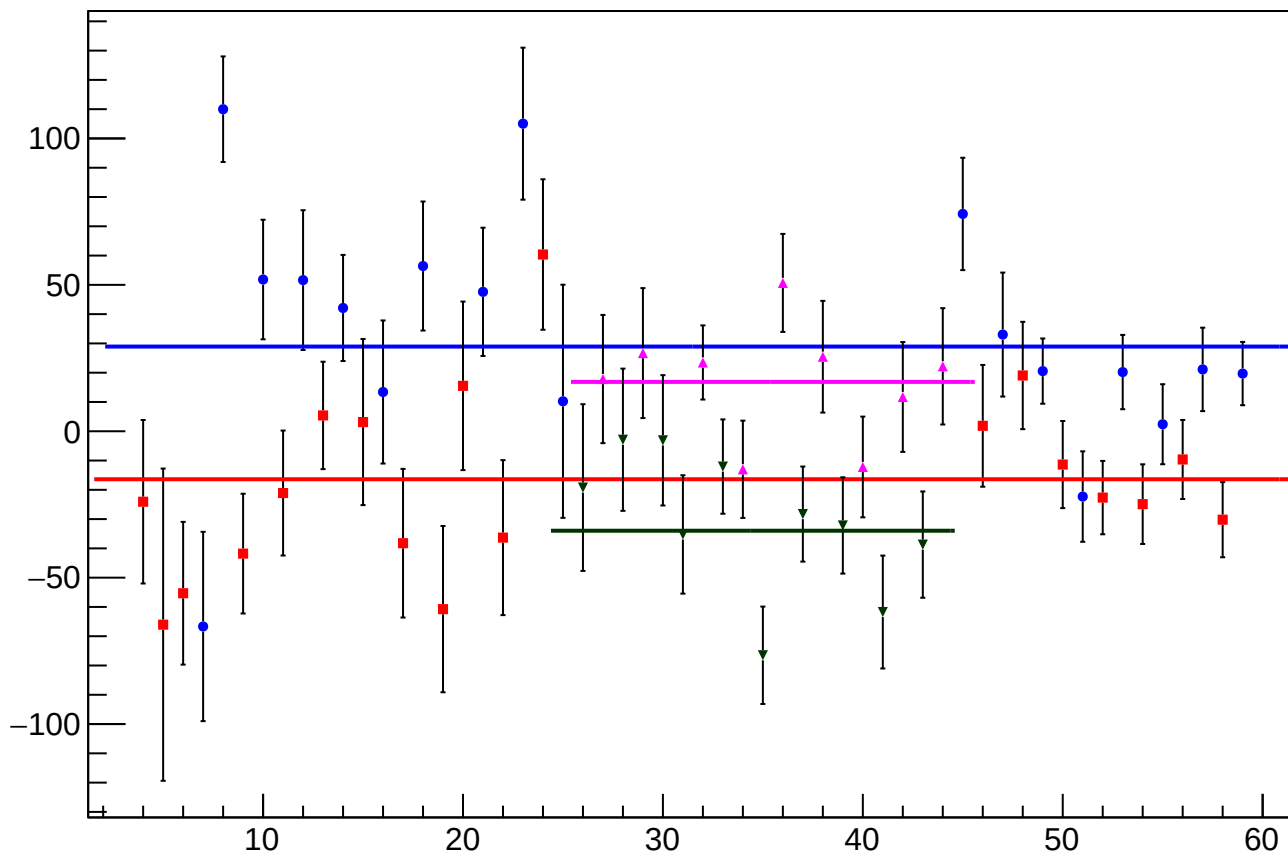
Left In: 2236.692+/-0.676  $\chi^2/\text{NDF}$ :349030.8/8

1947.122+/-0.344  $\chi^2/\text{NDF}$ : 1246051.6/27

1960.717+/-0.356  $\chi^2/\text{NDF}$ : 987391.5/27



# diff\_bpm0l07X\_mean vs slug



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

Left Out:  $-33.973 \pm 5.967$   $\chi^2/\text{NDF}: 14.5/9$

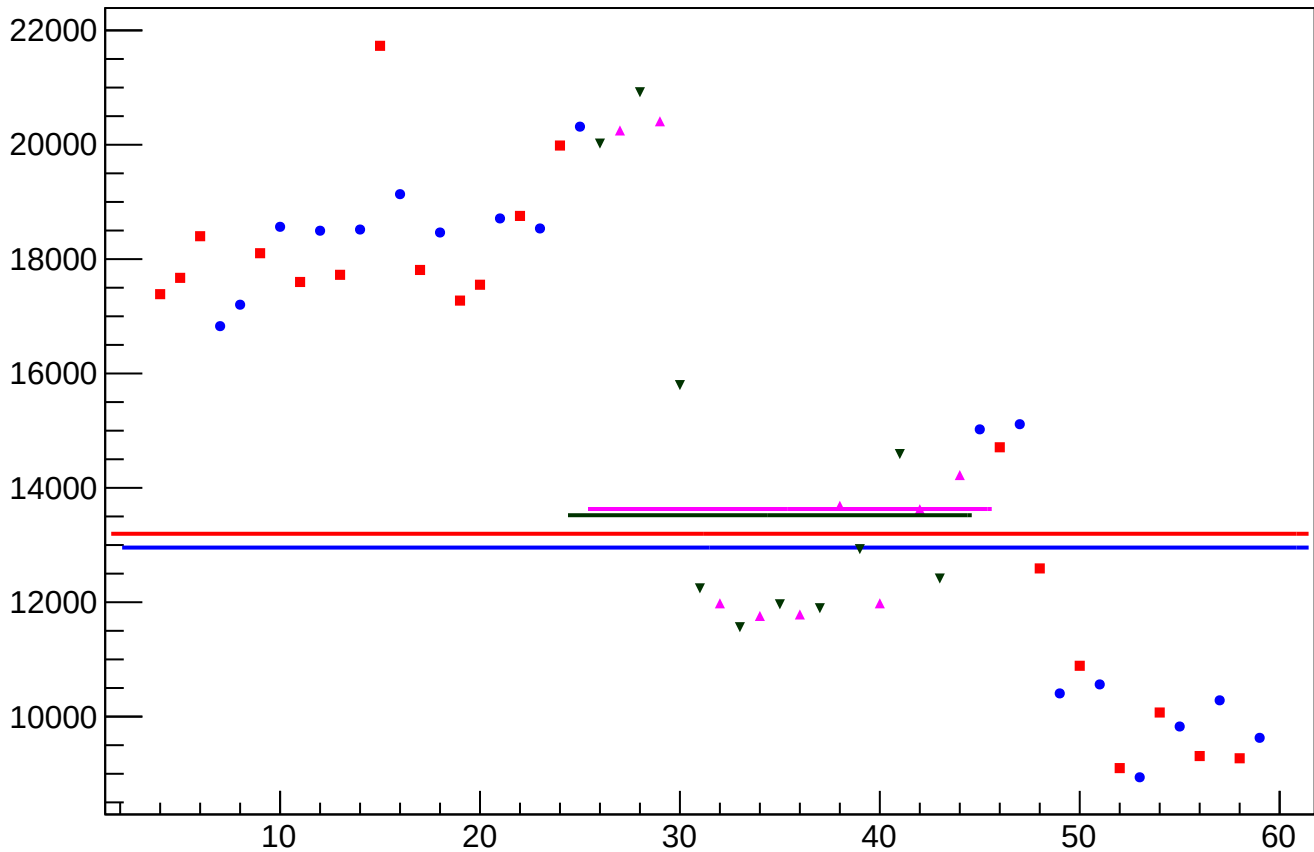
Right Out:  $-16.388 \pm 4.377$   $\chi^2/\text{NDF}: 27.5/18$

Left In:  $16.860 \pm 5.867$   $\chi^2/\text{NDF}: 11.0/8$

$9.189 \pm 3.343$   $\chi^2/\text{NDF}: 156.3/27$

$-4.499 \pm 3.508$   $\chi^2/\text{NDF}: 59.2/27$

# diff\_bpm0l07X\_rms vs slug



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

Left Out: 13521.564+/-4.220  $\chi^2/\text{NDF}$ : 402050.4/9

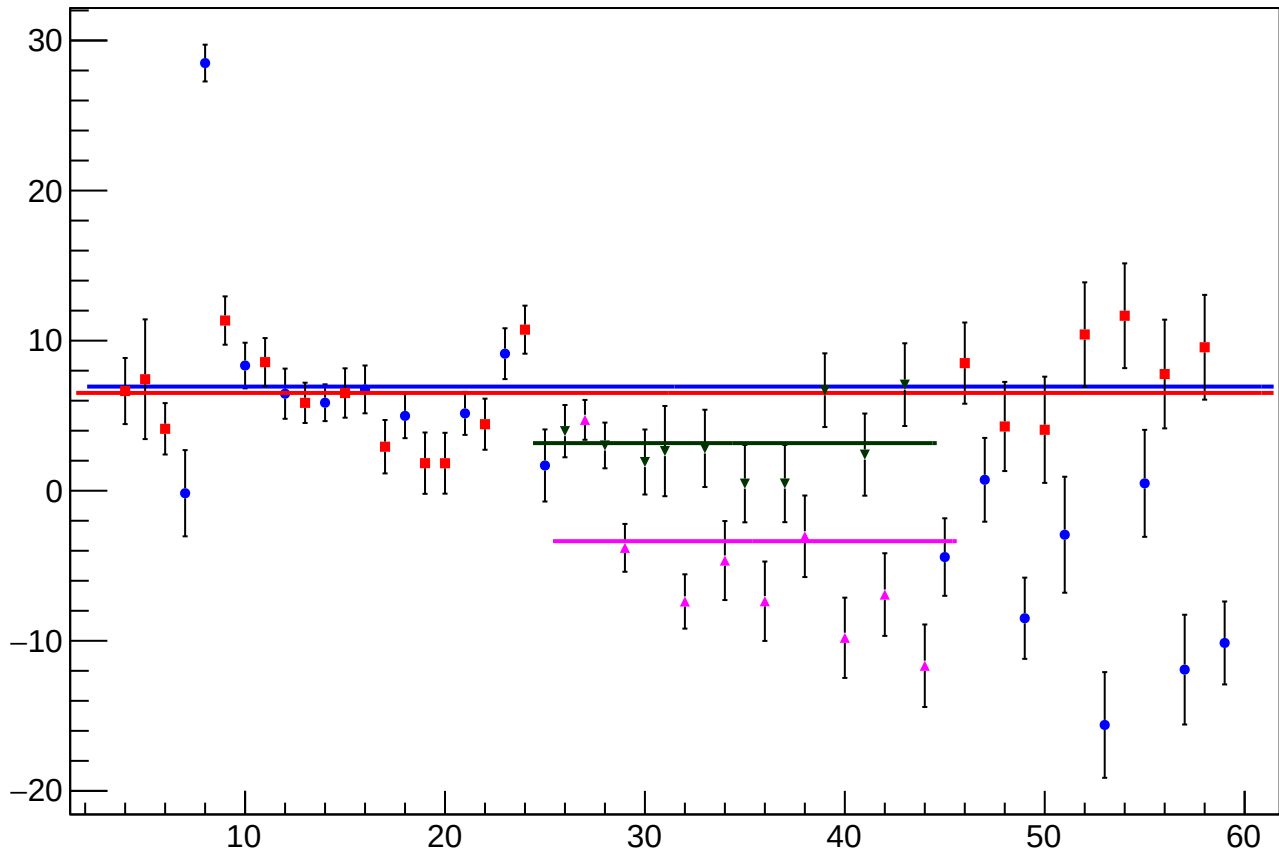
13133.398+/-2.364  $\chi^2/\text{NDF}$ : 2315016.8/27

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

13352.071+/-2.481  $\chi^2/\text{NDF}$ : 2247972.0/27

Left In: 13630.347+/-4.149  $\chi^2/\text{NDF}$ : 473215.4/8

# diff\_bpm0l07Y\_mean vs slug



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

Left Out:  $3.172 \pm 0.713$   $\chi^2/\text{NDF}$ : 6.9/9

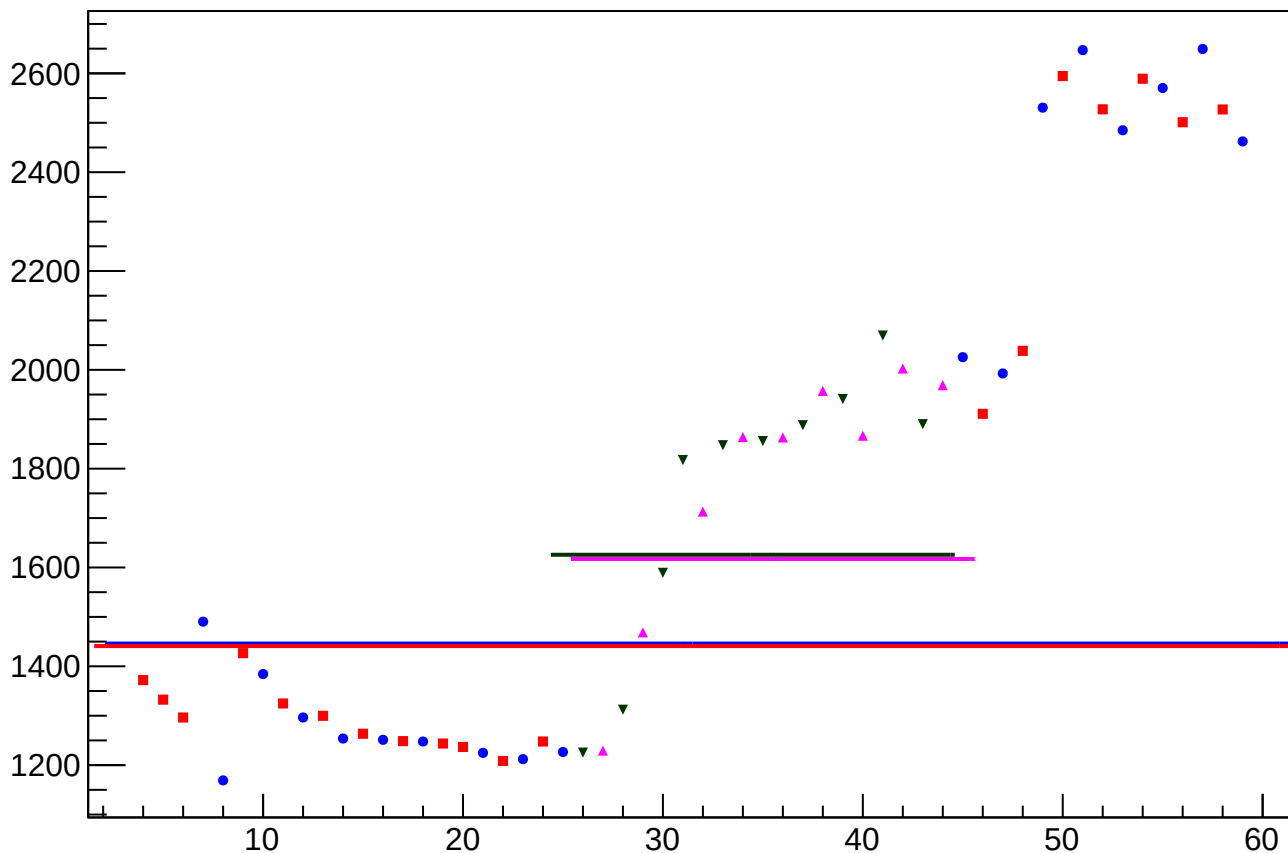
Right Out:  $6.517 \pm 0.472$   $\chi^2/\text{NDF}$ : 41.8/18

Left In:  $-3.360 \pm 0.691$   $\chi^2/\text{NDF}$ : 61.2/8

$5.867 \pm 0.380$   $\chi^2/\text{NDF}$ : 526.5/27

$3.380 \pm 0.390$   $\chi^2/\text{NDF}$ : 242.3/27

# diff\_bpm0l07Y\_rms vs slug



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

Left Out: 1625.778+/-0.504  $\chi^2/\text{NDF}$ : 354649.3/9

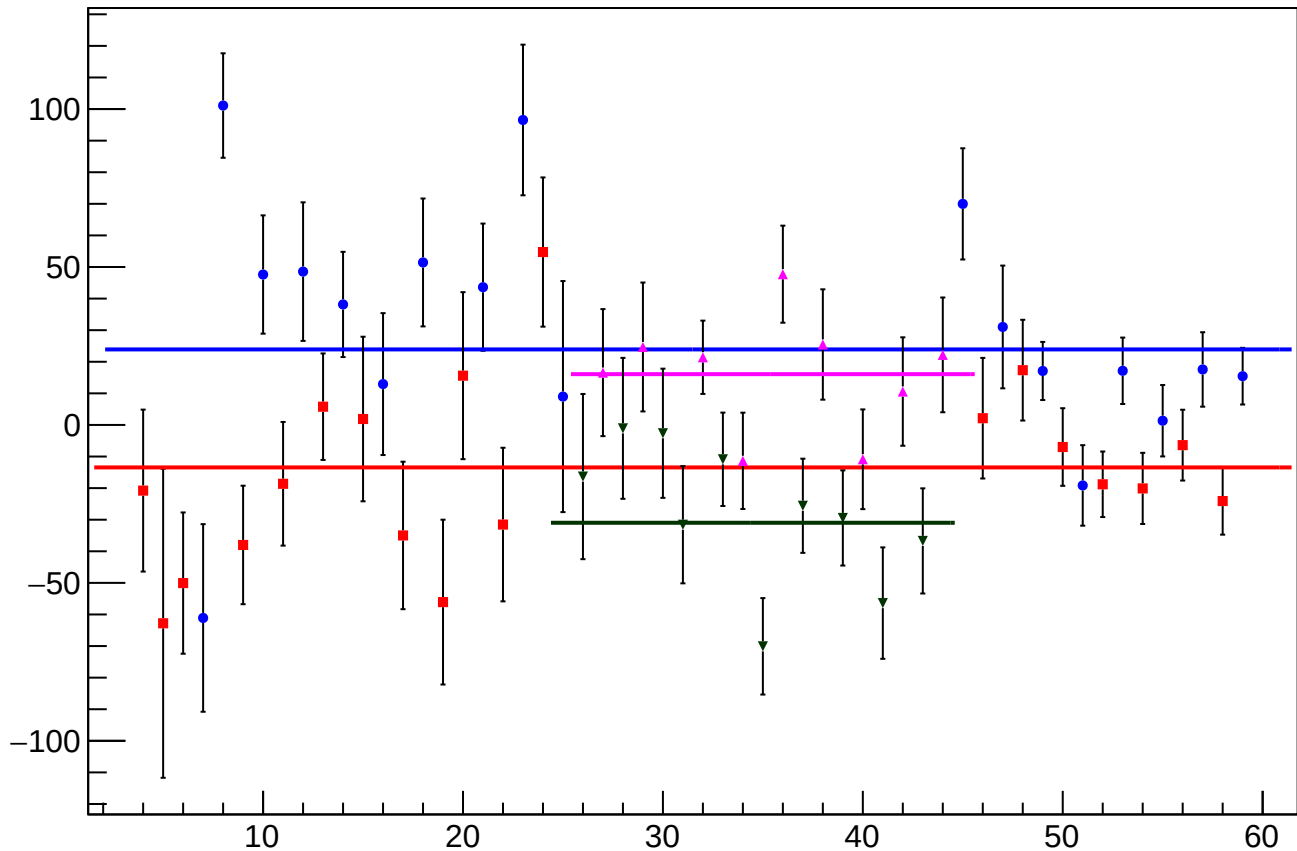
Right Out: 1440.962+/-0.333  $\chi^2/\text{NDF}$ : 1333198.7/18

Left In: 1617.160+/-0.489  $\chi^2/\text{NDF}$ : 349190.4/8

1497.171+/-0.269  $\chi^2/\text{NDF}$ : 2337105.4/27

1496.922+/-0.275  $\chi^2/\text{NDF}$ : 1771061.1/27

# diff\_bpm0l08X\_mean vs slug



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

Left Out:  $-30.968 \pm 5.475$   $\chi^2/\text{NDF}: 14.8/9$

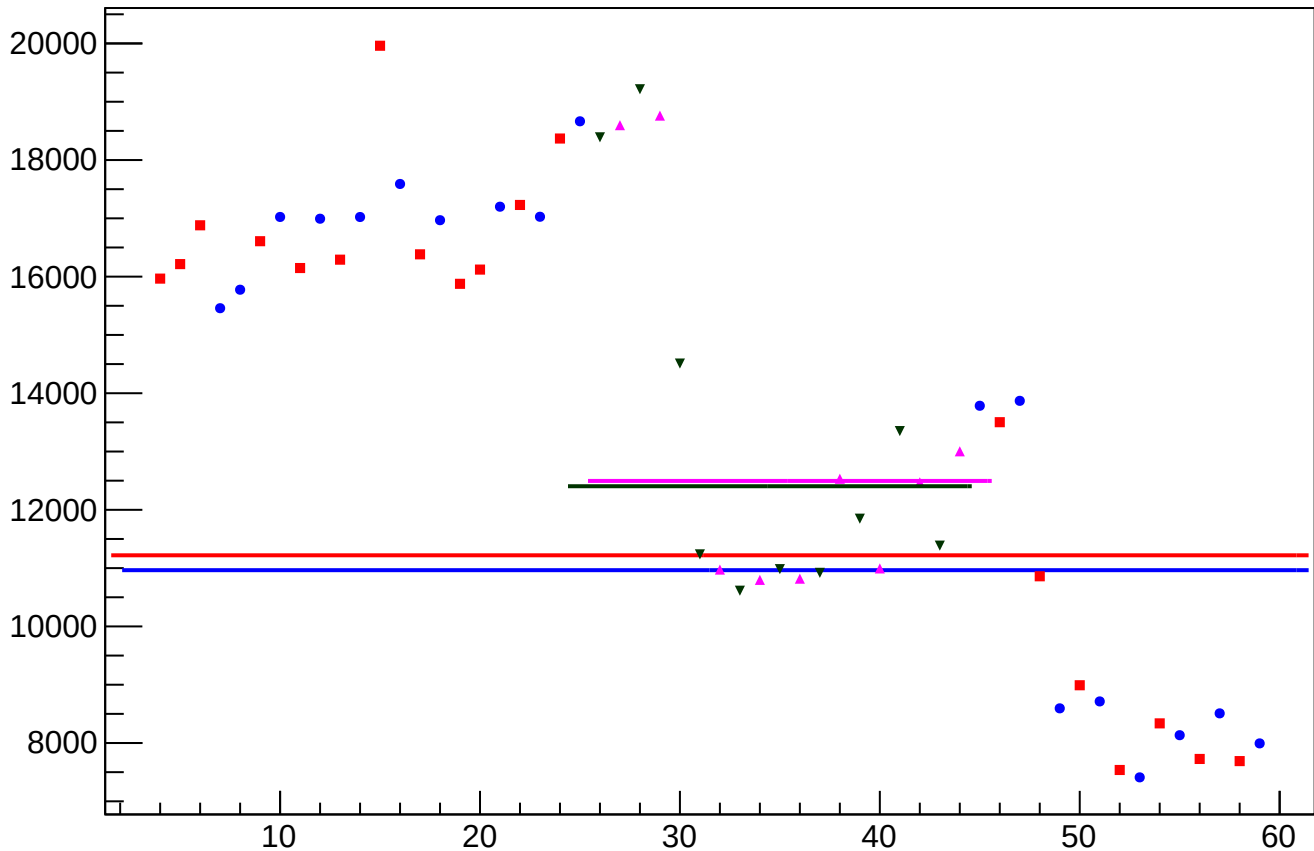
Right Out:  $-13.450 \pm 3.783$   $\chi^2/\text{NDF}: 27.5/18$

Left In:  $16.079 \pm 5.379$   $\chi^2/\text{NDF}: 11.3/8$

$8.180 \pm 2.931$   $\chi^2/\text{NDF}: 157.1/27$

$-3.677 \pm 3.094$   $\chi^2/\text{NDF}: 59.0/27$

# diff\_bpm0l08X\_rms vs slug



Right In: 10964.744+/-2.454  $\chi^2/\text{NDF}$ : 2550839.7/17

Left Out: 12404.651+/-3.871  $\chi^2/\text{NDF}$ : 402870.2/9

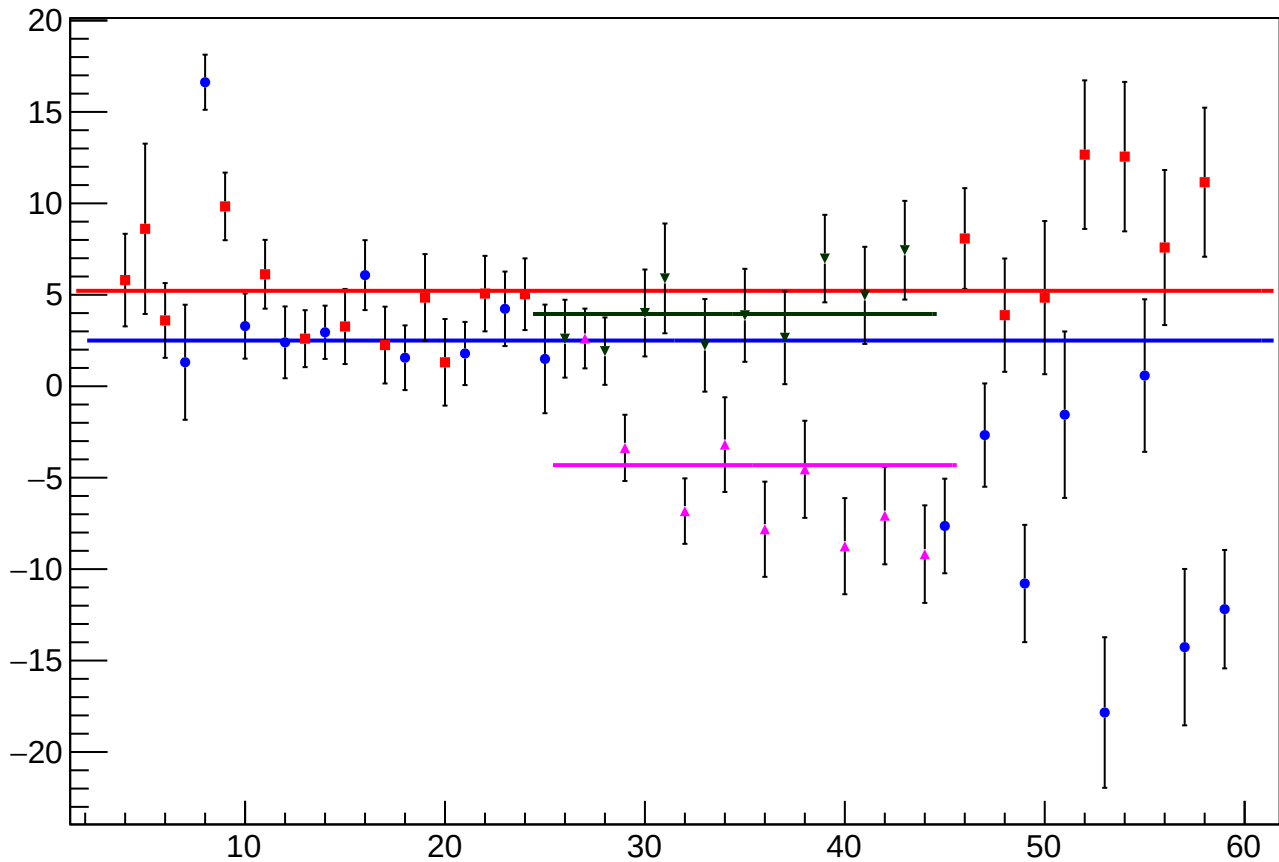
11377.419+/-2.072  $\chi^2/\text{NDF}$ : 3052412.2/27

Right Out: 11219.959+/-2.675  $\chi^2/\text{NDF}$ : 2343952.2/18

11642.193+/-2.188  $\chi^2/\text{NDF}$ : 2894733.6/27

Left In: 12495.729+/-3.803  $\chi^2/\text{NDF}$ : 475508.8/8

# diff\_bpm0l08Y\_mean vs slug



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

Left Out:  $3.951 \pm 0.762$   $\chi^2/\text{NDF}$ : 6.2/9

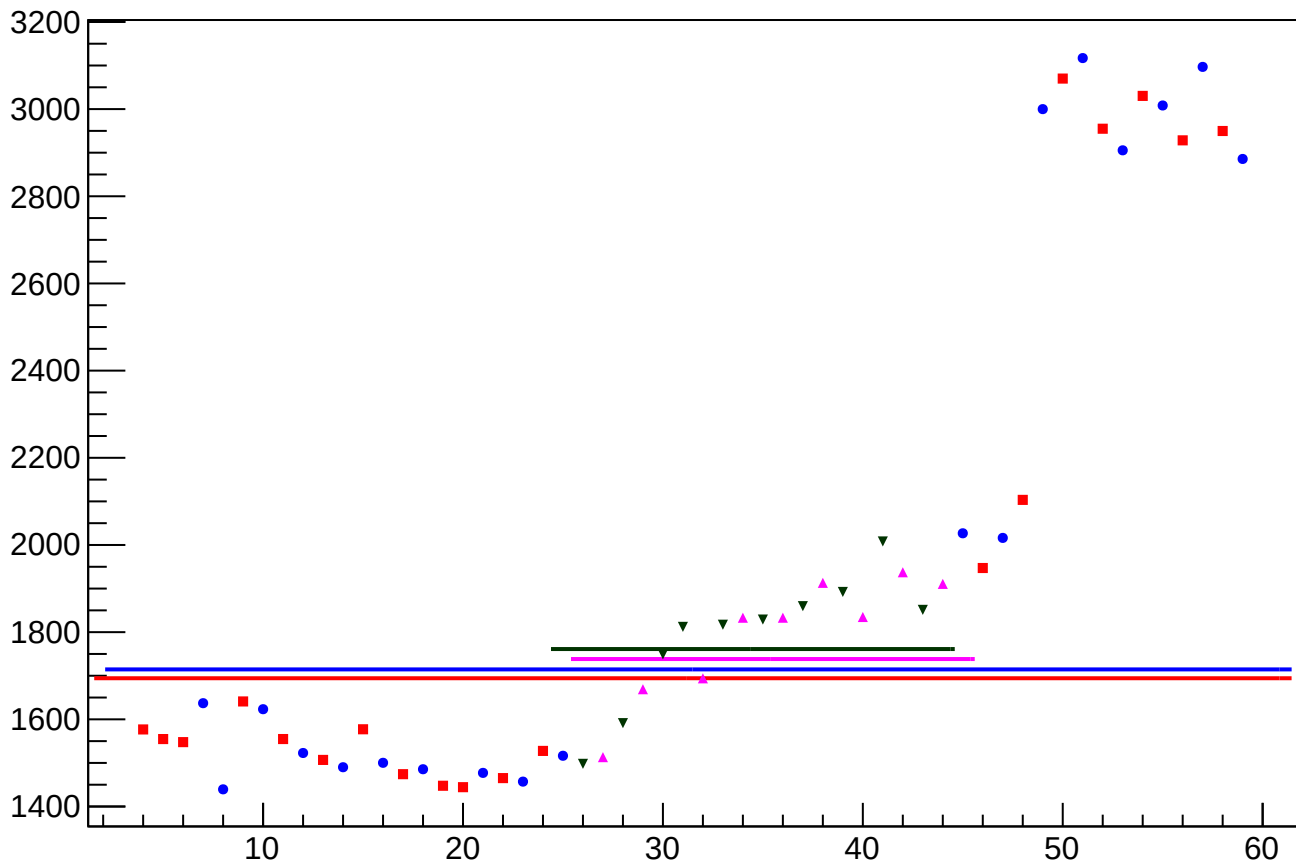
Right Out:  $5.218 \pm 0.553$   $\chi^2/\text{NDF}$ : 26.5/18

Left In:  $-4.314 \pm 0.734$   $\chi^2/\text{NDF}$ : 29.5/8

$2.973 \pm 0.435$   $\chi^2/\text{NDF}$ : 199.0/27

$1.768 \pm 0.442$   $\chi^2/\text{NDF}$ : 163.5/27

# diff\_bpm0l08Y\_rms vs slug



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

Left Out: 1761.262+/-0.539  $\chi^2/\text{NDF}$ : 79141.5/9

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

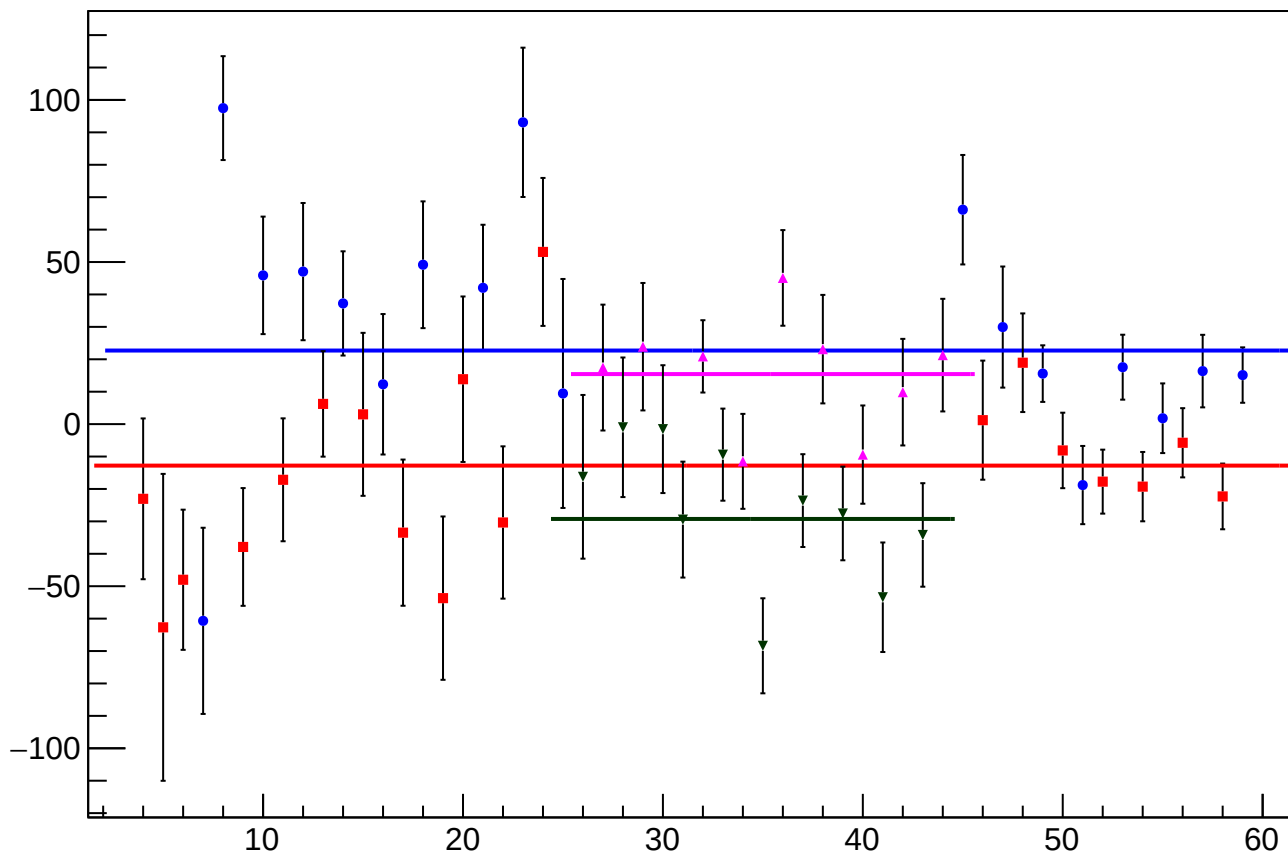
Left In: 1738.335+/-0.519  $\chi^2/\text{NDF}$ : 78331.9/8

1729.794+/-0.308  $\chi^2/\text{NDF}$ : 1754967.1/27

1710.215+/-0.312  $\chi^2/\text{NDF}$ : 1285699.1/27



# diff\_bpm0l09X\_mean vs slug



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

Left Out:  $-29.254 \pm 5.260$   $\chi^2/\text{NDF}: 15.3/9$

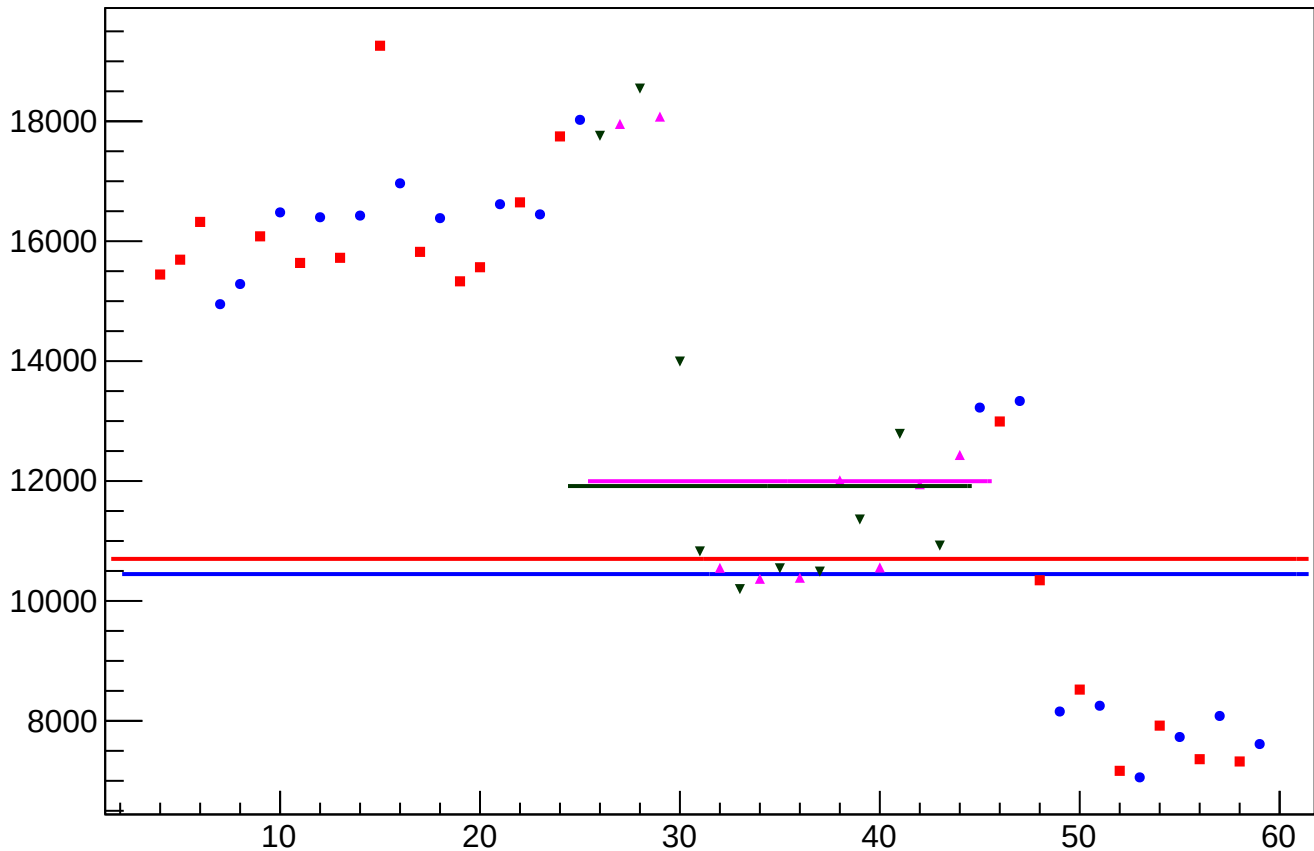
Right Out:  $-12.799 \pm 3.618$   $\chi^2/\text{NDF}: 28.2/18$

Left In:  $15.435 \pm 5.166$   $\chi^2/\text{NDF}: 11.0/8$

$7.932 \pm 2.805$   $\chi^2/\text{NDF}: 156.1/27$

$-3.506 \pm 2.964$   $\chi^2/\text{NDF}: 59.2/27$

# diff\_bpm0l09X\_rms vs slug



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

Left Out: 11916.247+/-3.720  $\chi^2/\text{NDF}$ : 408966.2/9

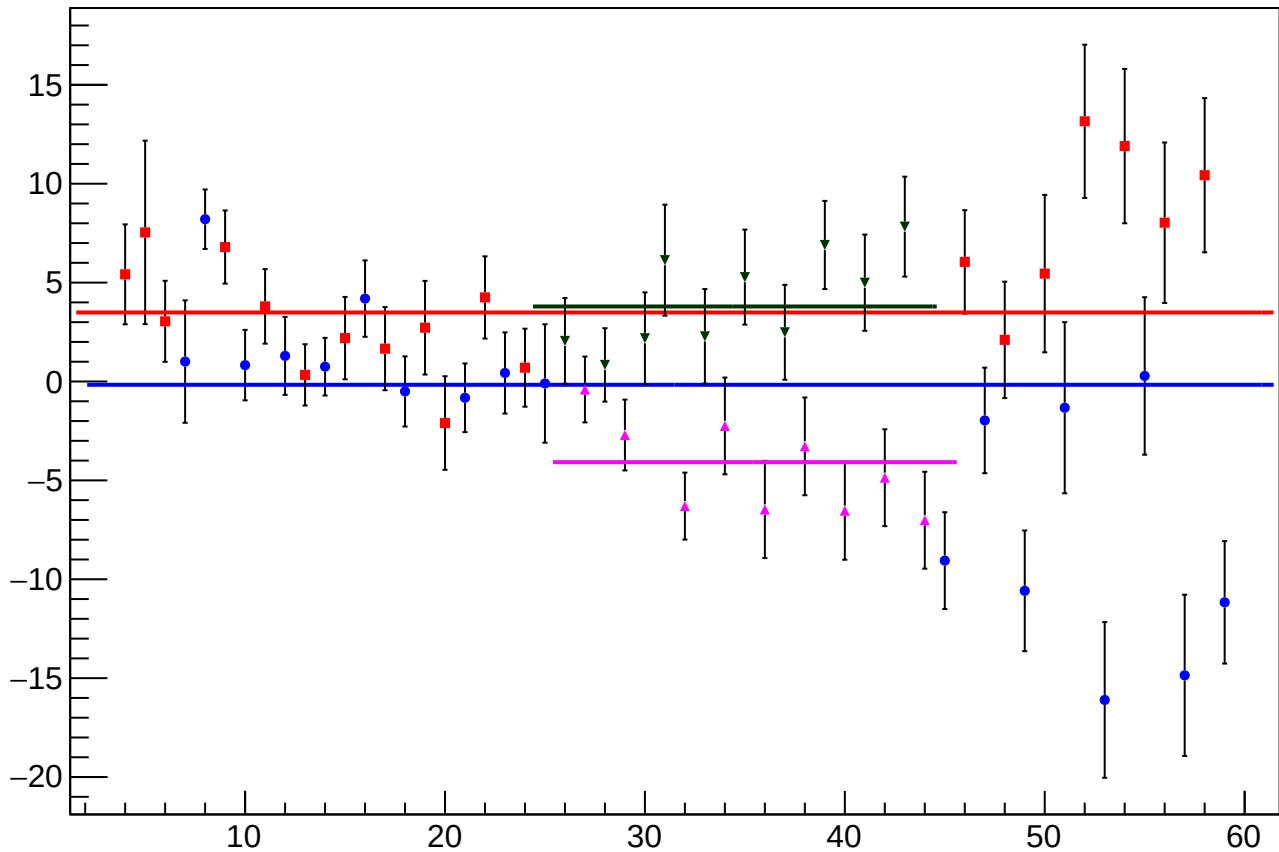
10865.430+/-1.983  $\chi^2/\text{NDF}$ : 3175118.0/27

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

11127.955+/-2.096  $\chi^2/\text{NDF}$ : 3004054.7/27

Left In: 11997.213+/-3.653  $\chi^2/\text{NDF}$ : 481131.3/8

# diff\_bpm0l09Y\_mean vs slug



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

Left Out:  $3.793 \pm 0.732$   $\chi^2/\text{NDF}: 10.2/9$

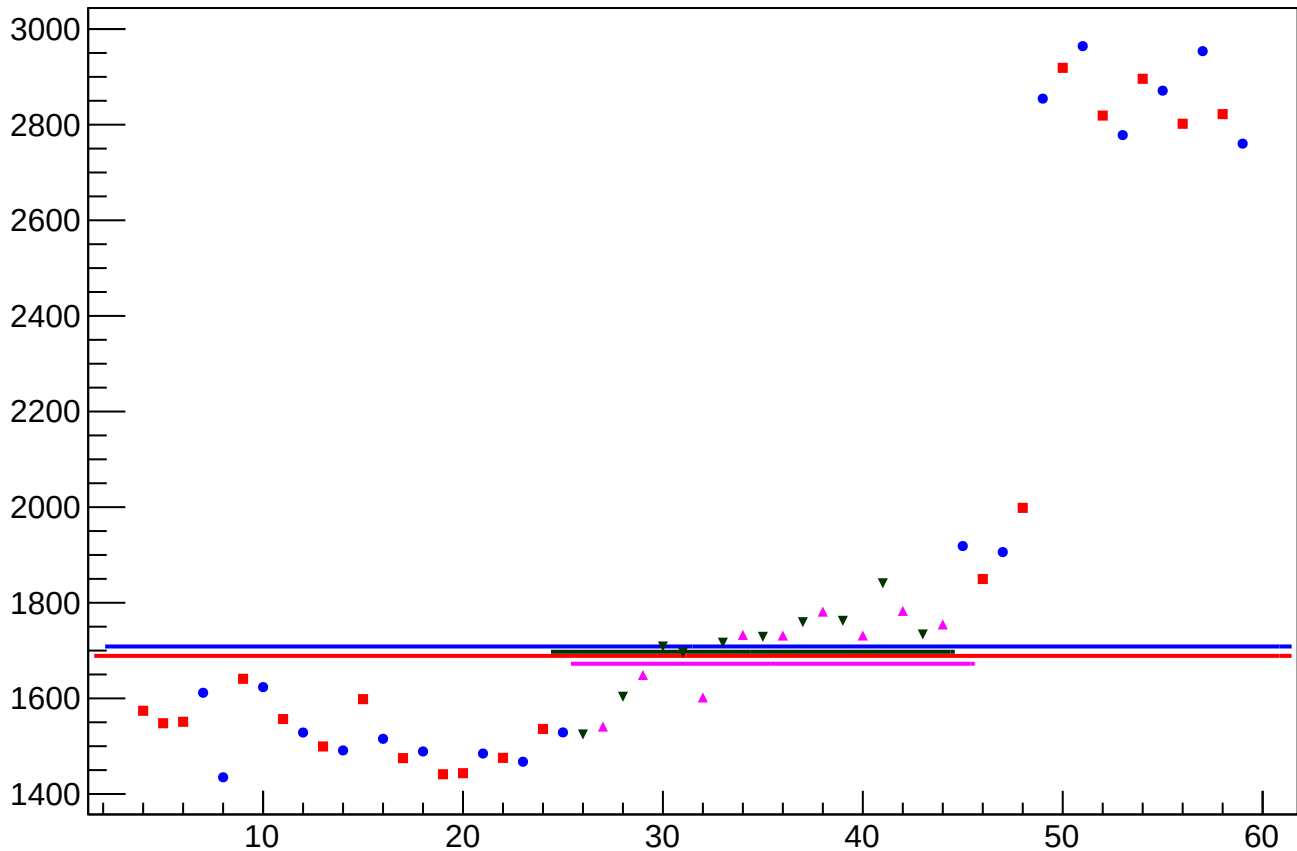
Right Out:  $3.490 \pm 0.549$   $\chi^2/\text{NDF}: 34.4/18$

Left In:  $-4.078 \pm 0.705$   $\chi^2/\text{NDF}: 11.3/8$

$1.180 \pm 0.427$   $\chi^2/\text{NDF}: 134.7/27$

$0.631 \pm 0.433$   $\chi^2/\text{NDF}: 117.5/27$

# diff\_bpm0l09Y\_rms vs slug



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

Left Out: 1697.515+/-0.518  $\chi^2/\text{NDF}$ : 28748.0/9

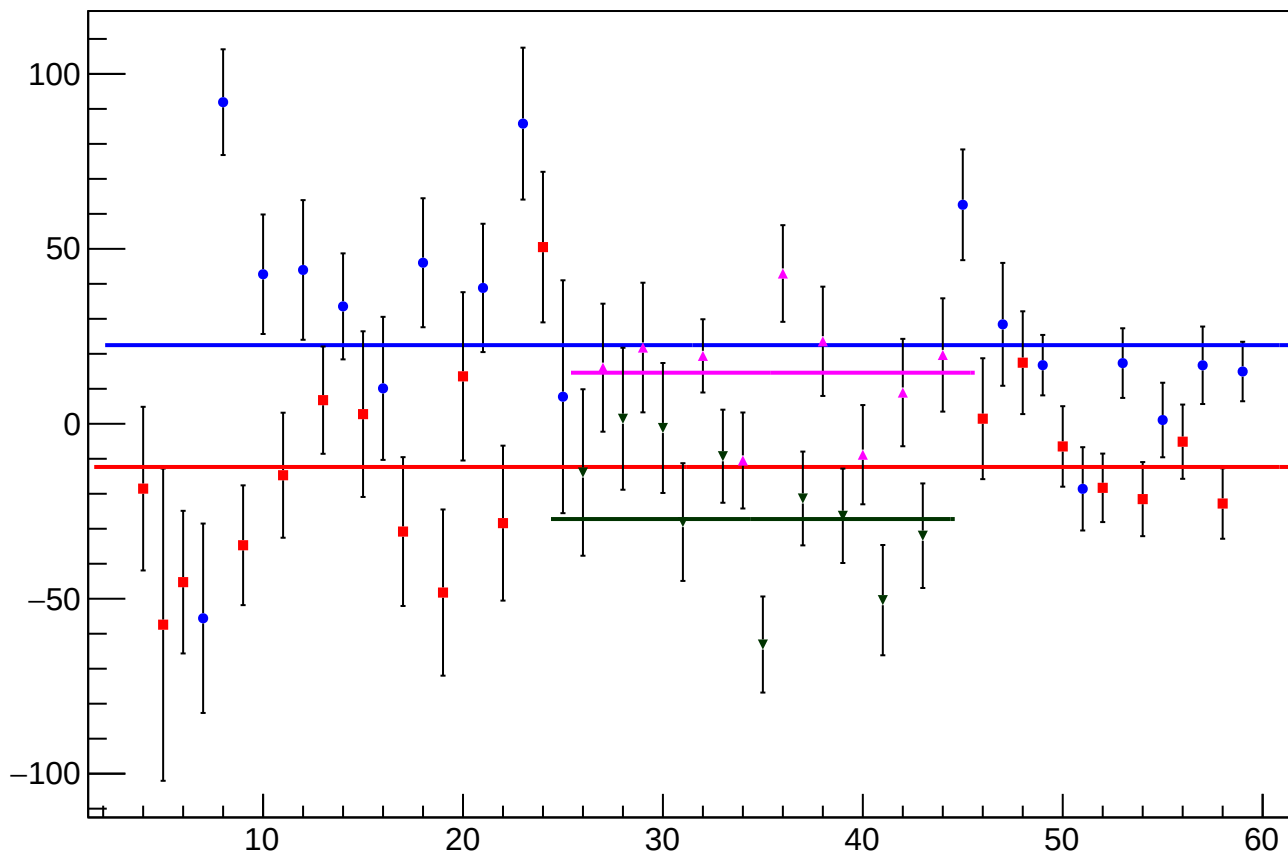
1704.804+/-0.302  $\chi^2/\text{NDF}$ : 1493642.5/27

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

1682.701+/-0.306  $\chi^2/\text{NDF}$ : 1089297.6/27

Left In: 1672.485+/-0.498  $\chi^2/\text{NDF}$ : 29989.7/8

# diff\_bpm0l10X\_mean vs slug



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

Left Out:  $-27.224 \pm 4.929$   $\chi^2/\text{NDF}: 15.4/9$

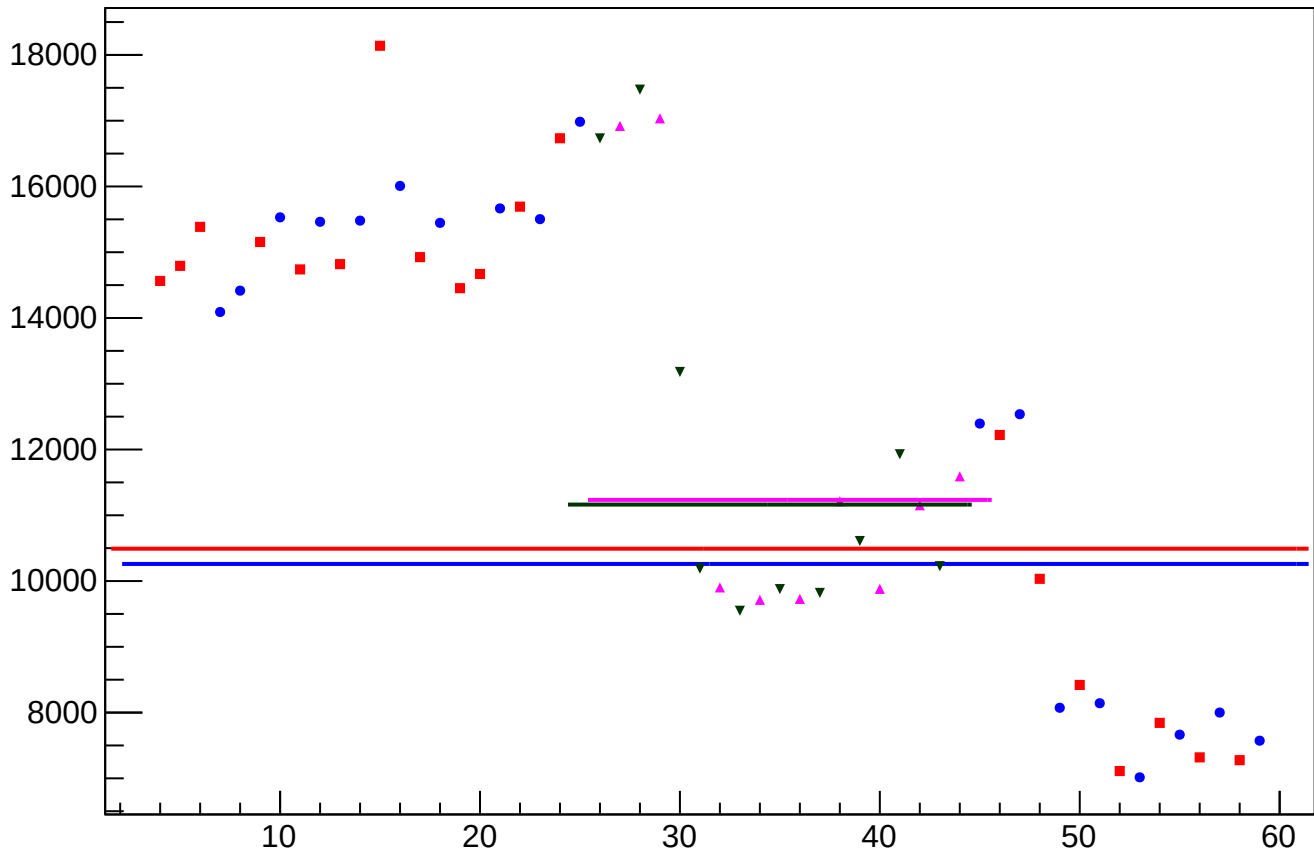
Right Out:  $-12.340 \pm 3.516$   $\chi^2/\text{NDF}: 28.3/18$

Left In:  $14.599 \pm 4.839$   $\chi^2/\text{NDF}: 11.2/8$

$7.563 \pm 2.700$   $\chi^2/\text{NDF}: 154.8/27$

$-3.029 \pm 2.845$   $\chi^2/\text{NDF}: 59.8/27$

# diff\_bpm0l10X\_rms vs slug



Right In: 10260.138+/-2.282  $\chi^2/\text{NDF}$ : 2319999.2/17

Left Out: 11162.780+/-3.486  $\chi^2/\text{NDF}$ : 416378.4/9

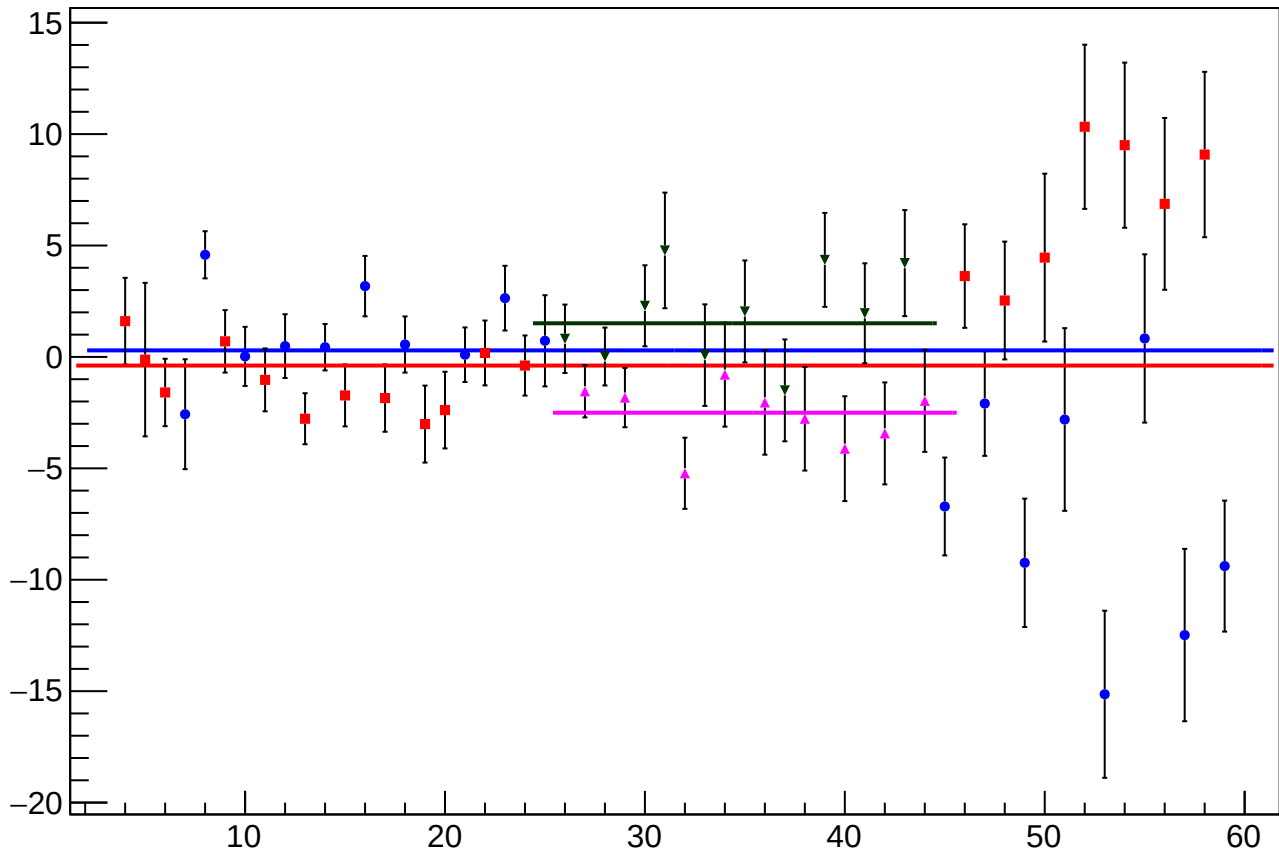
10531.029+/-1.910  $\chi^2/\text{NDF}$ : 2783312.4/27

Right Out: 10492.088+/-2.487  $\chi^2/\text{NDF}$ : 2138865.4/18

10748.532+/-2.011  $\chi^2/\text{NDF}$ : 2658906.1/27

Left In: 11234.076+/-3.421  $\chi^2/\text{NDF}$ : 489264.7/8

# diff\_bpm0l10Y\_mean vs slug



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

Left Out:  $1.510 \pm 0.615$   $\chi^2/\text{NDF}$ : 8.6/9

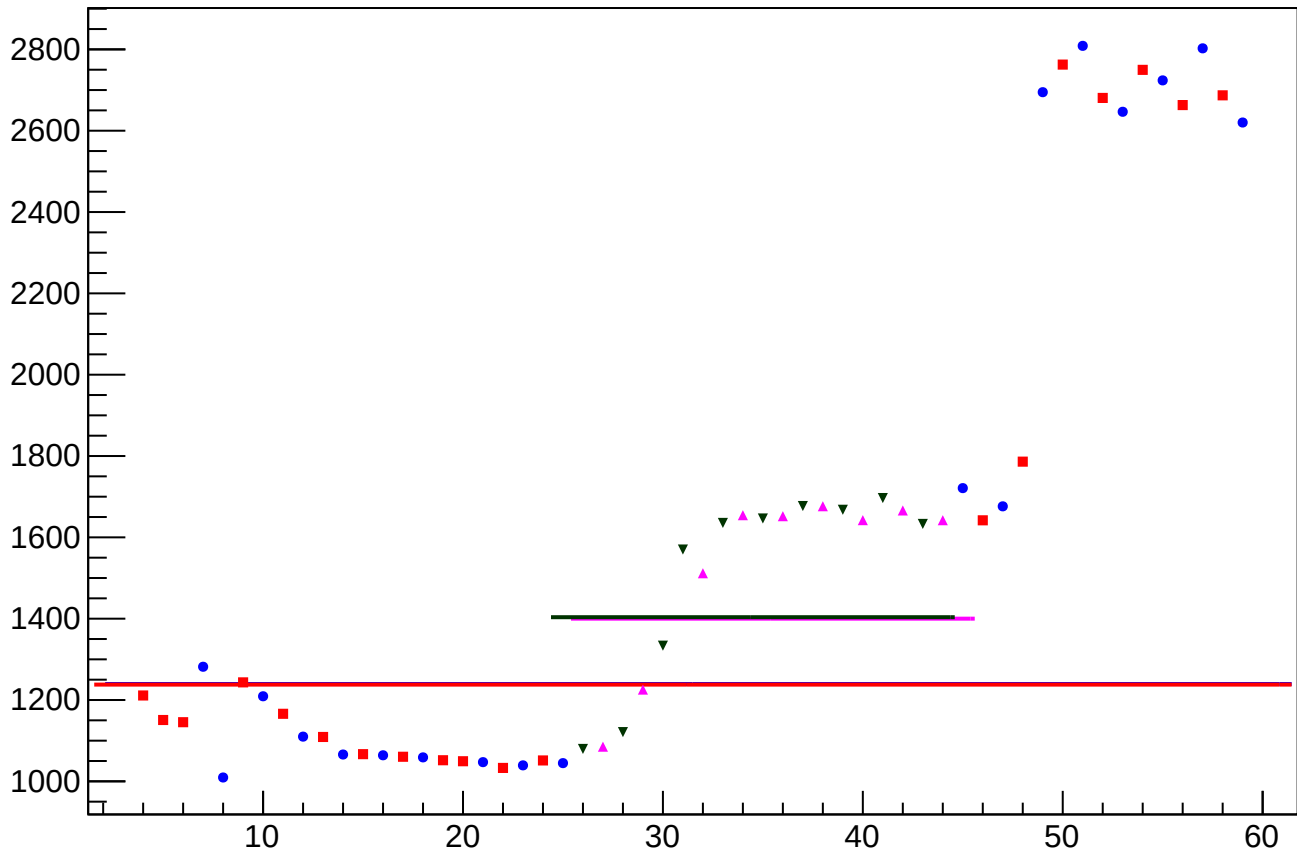
Right Out:  $-0.388 \pm 0.412$   $\chi^2/\text{NDF}$ : 44.0/18

Left In:  $-2.504 \pm 0.598$   $\chi^2/\text{NDF}$ : 5.1/8

$0.646 \pm 0.331$   $\chi^2/\text{NDF}$ : 98.0/27

$-1.069 \pm 0.339$   $\chi^2/\text{NDF}$ : 57.6/27

# diff\_bpm0l10Y\_rms vs slug



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

Left Out: 1403.619+/-0.435  $\chi^2/\text{NDF}$ :351032.7/9

1286.905+/-0.234  $\chi^2/\text{NDF}$ : 3128048.5/27

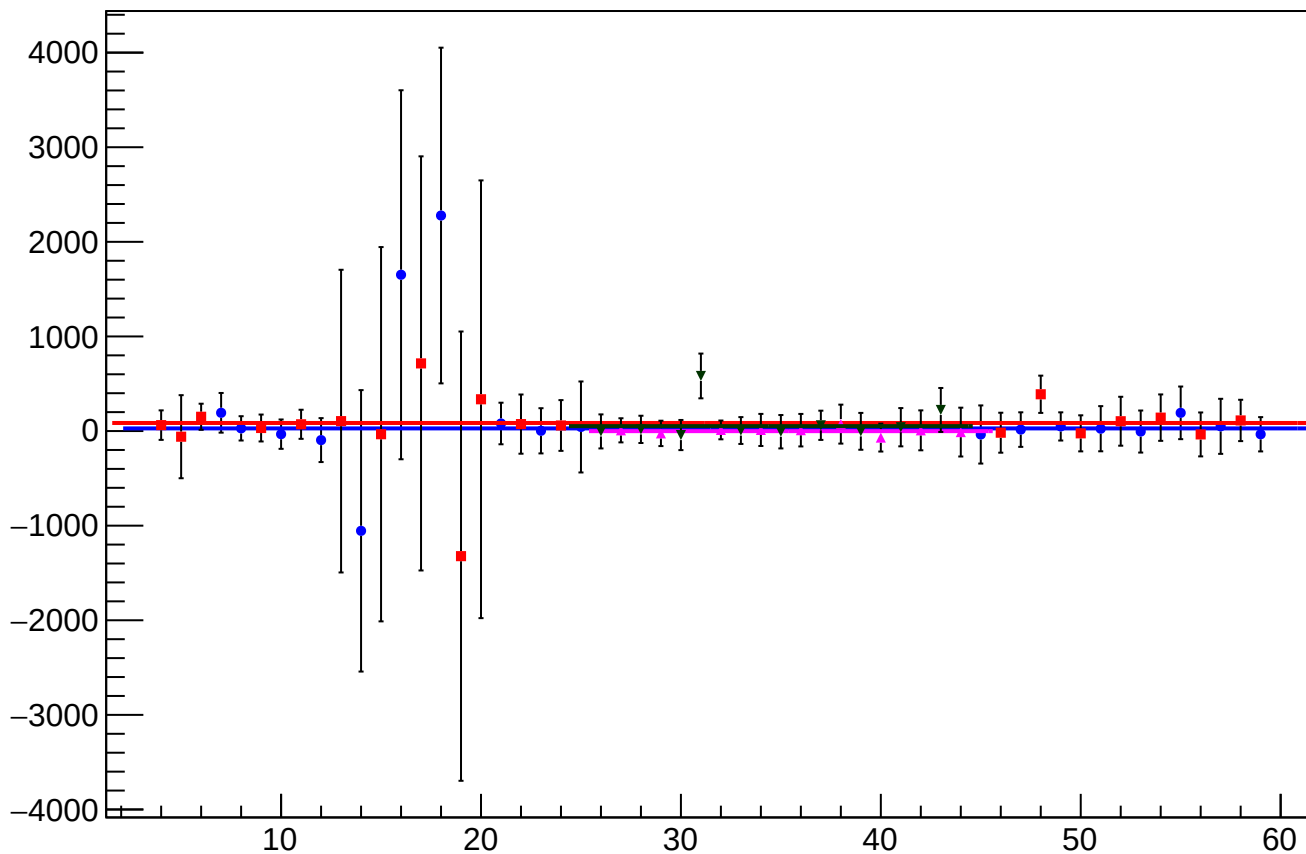
Right Out: 1237.907+/-0.291  $\chi^2/\text{NDF}$ : 1914347.8/18

1290.082+/-0.240  $\chi^2/\text{NDF}$ : 2348300.6/27

Left In: 1400.046+/-0.423  $\chi^2/\text{NDF}$ :334198.8/8



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



Right In: 27.874+/-52.297  $\chi^2/\text{NDF}$ : 4.5/17

Left Out: 51.986+/-55.093  $\chi^2/\text{NDF}$ : 6.4/9

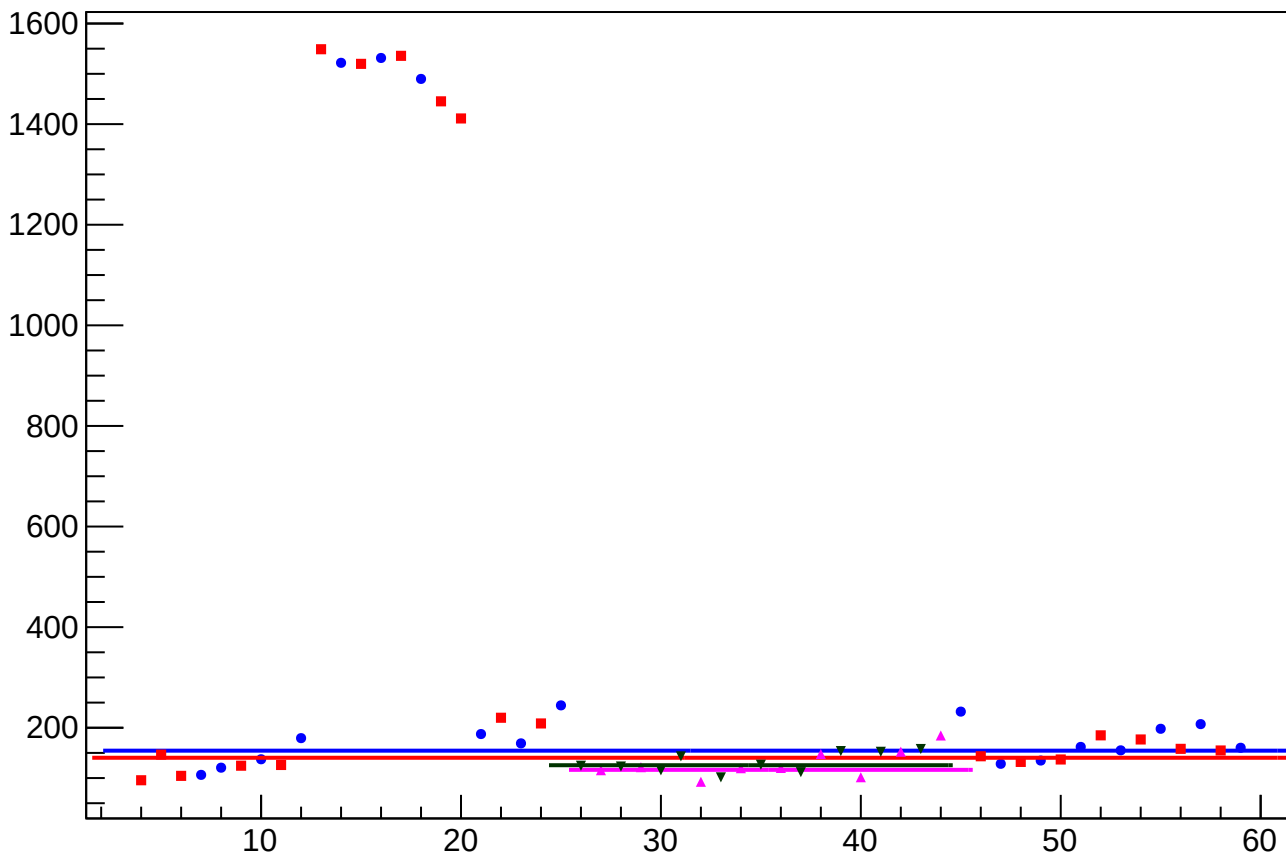
Right Out: 85.325+/-52.506  $\chi^2/\text{NDF}$ : 4.3/18

Left In: -1.037+/-50.364  $\chi^2/\text{NDF}$ : 0.4/8

39.303+/-37.929  $\chi^2/\text{NDF}$ : 11.0/27

40.347+/-36.346  $\chi^2/\text{NDF}$ : 6.1/27

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



Right In: 154.452+/-0.037  $\chi^2/\text{NDF}$ : 4556738.2/17

Left Out: 125.526+/-0.039  $\chi^2/\text{NDF}$ : 209010.8/9

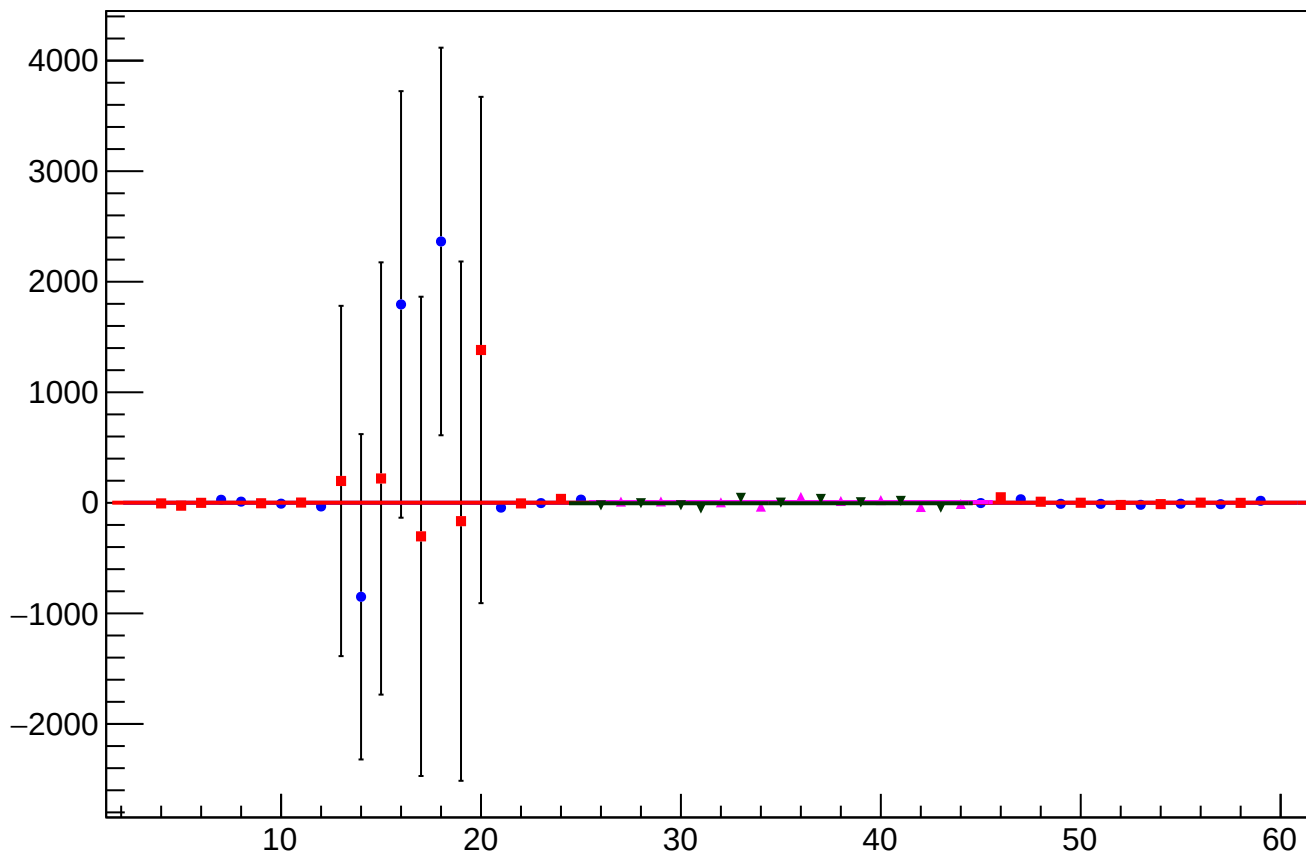
140.741+/-0.027  $\chi^2/\text{NDF}$ : 5055763.0/27

Right Out: 140.345+/-0.037  $\chi^2/\text{NDF}$ : 5274055.6/18

127.828+/-0.026  $\chi^2/\text{NDF}$ : 5876277.4/27

Left In: 116.311+/-0.036  $\chi^2/\text{NDF}$ : 383966.9/8

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: -3.746+/-7.432     $\chi^2/\text{NDF}$ : 14.5/9

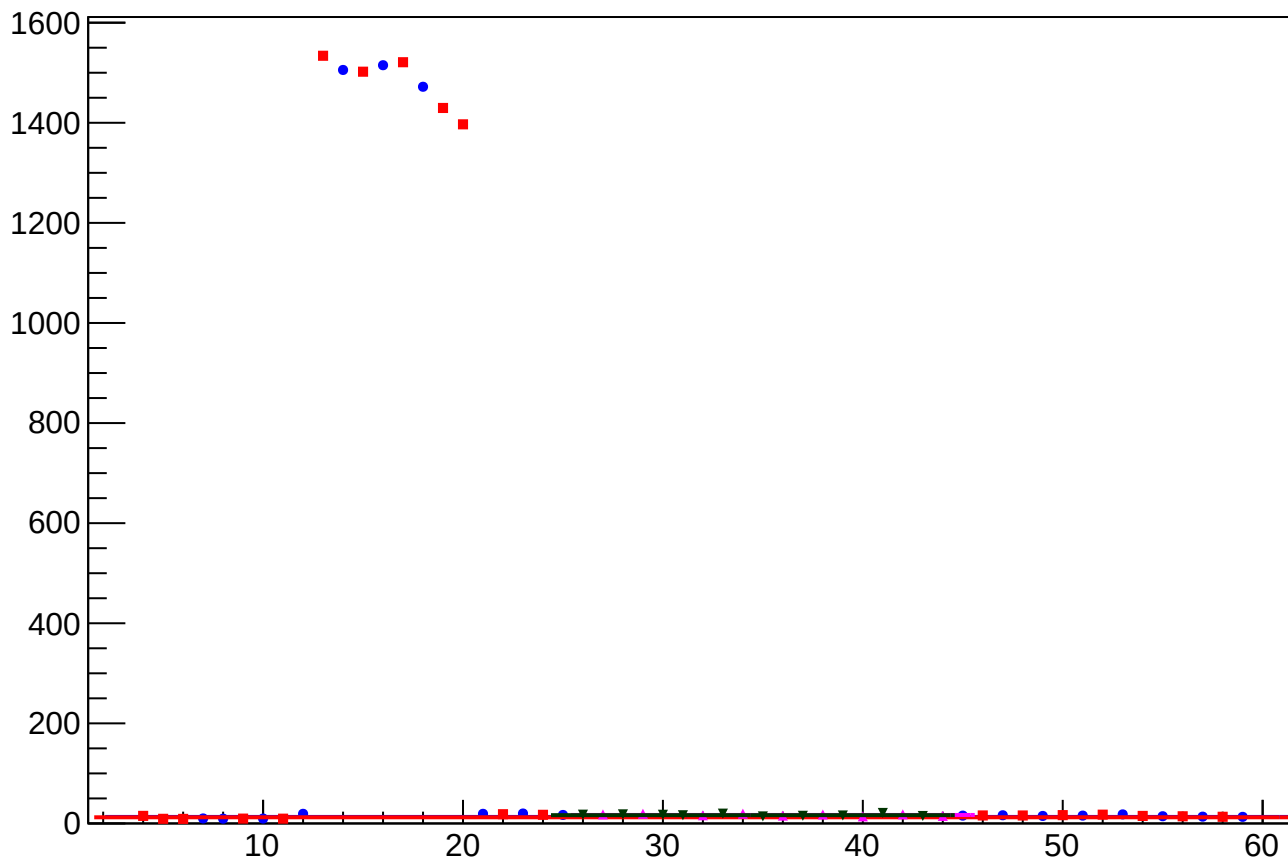
Right Out: 1.382+/-4.789     $\chi^2/\text{NDF}$ : 9.5/18

Left In: 7.617+/-7.442     $\chi^2/\text{NDF}$ : 10.5/8

-0.622+/-3.920     $\chi^2/\text{NDF}$ : 31.4/27

3.207+/-4.027     $\chi^2/\text{NDF}$ : 20.5/27

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: 16.582 $\pm$ 0.005  $\chi^2$ /NDF:133569.4/9

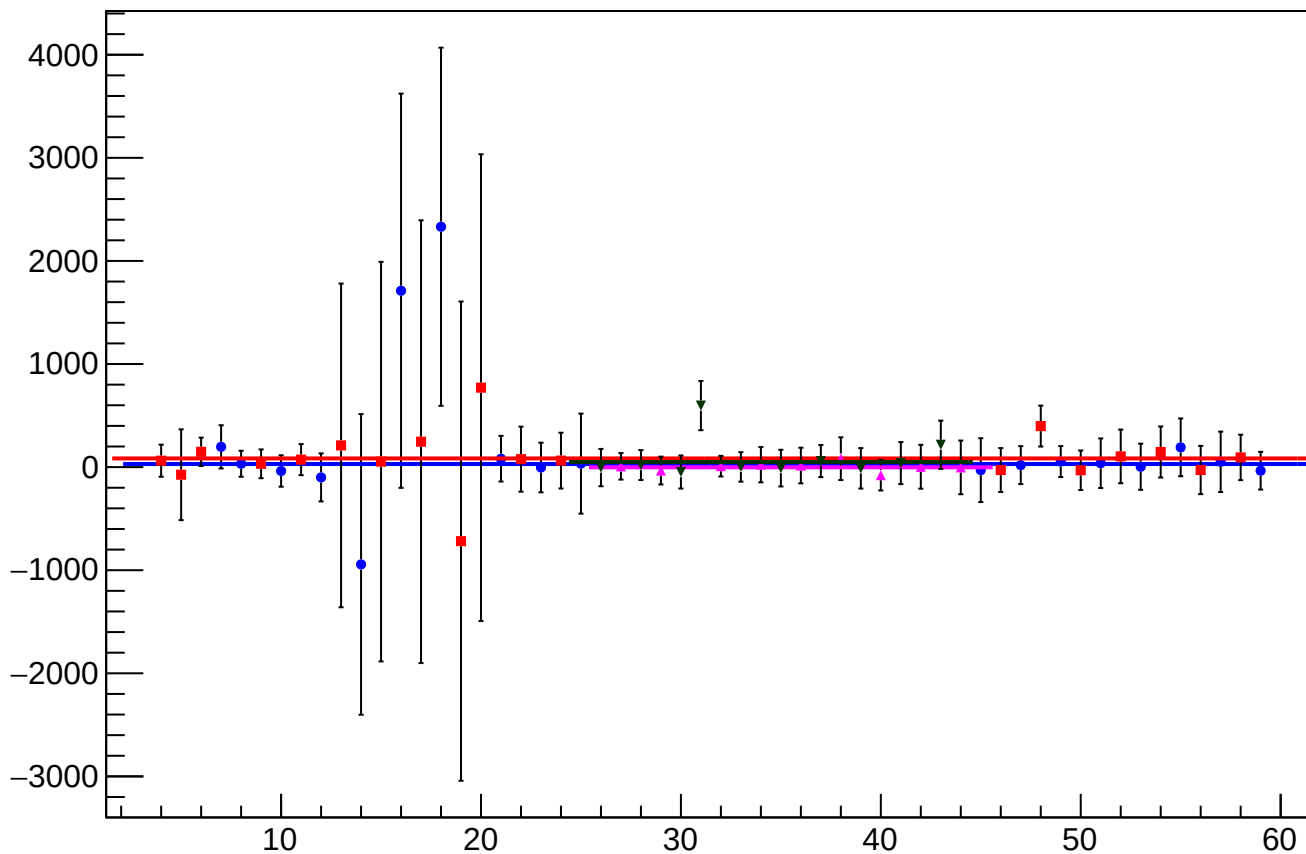
Right Out: 12.312 $\pm$ 0.003  $\chi^2$ /NDF: 6373010.7/18

Left In: 16.955 $\pm$ 0.005  $\chi^2$ /NDF:111170.8/8

14.006 $\pm$ 0.003  $\chi^2$ /NDF: 6162211.1/27

13.672 $\pm$ 0.003  $\chi^2$ /NDF: 7034761.9/27

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



Right In: 30.011+/-52.267     $\chi^2/\text{NDF}$ : 4.7/17

Left Out: 50.113+/-55.521     $\chi^2/\text{NDF}$ : 6.6/9

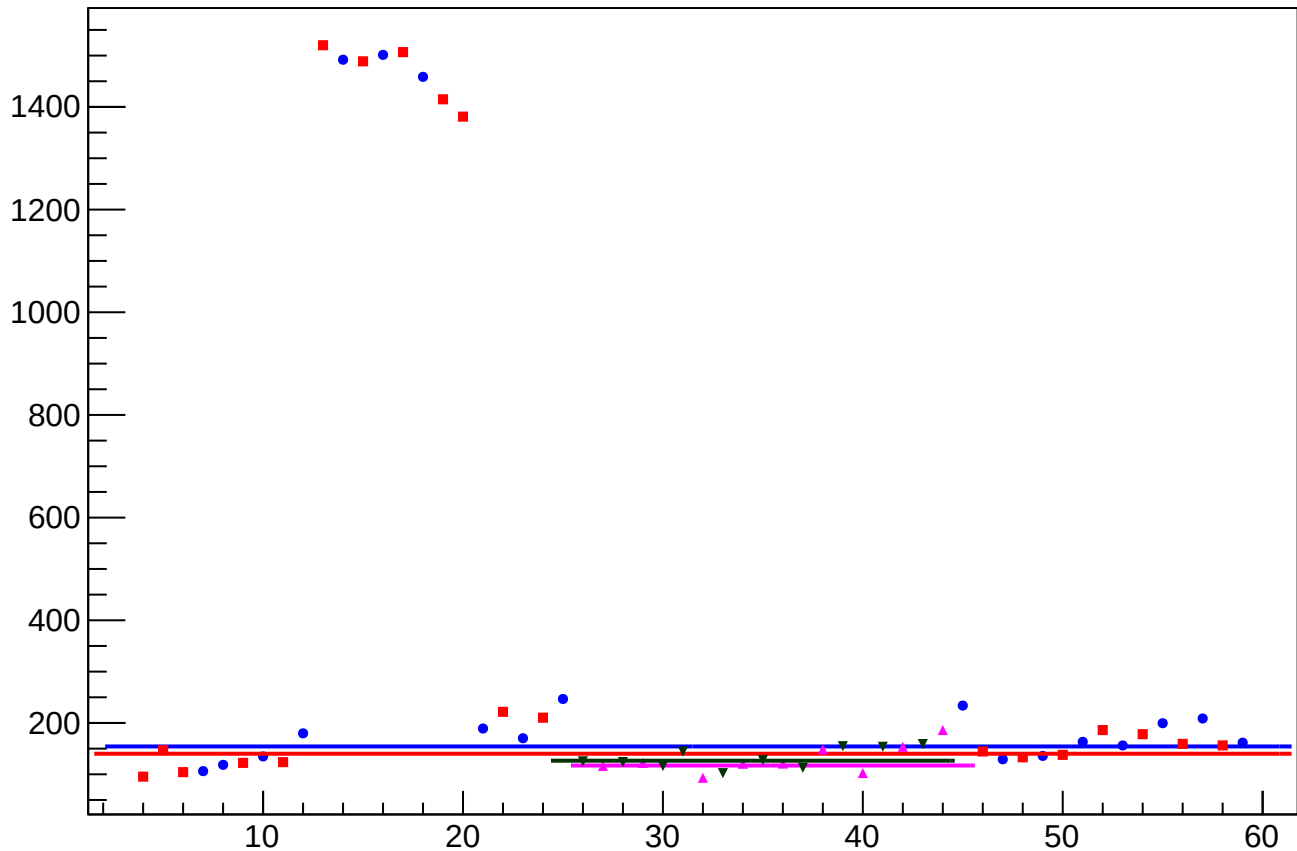
Right Out: 84.316+/-52.424     $\chi^2/\text{NDF}$ : 4.2/18

Left In: -1.728+/-50.729     $\chi^2/\text{NDF}$ : 0.5/8

39.456+/-38.057     $\chi^2/\text{NDF}$ : 11.4/27

39.880+/-36.455     $\chi^2/\text{NDF}$ : 6.1/27

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



Right In: 154.234+/-0.037  $\chi^2/\text{NDF}$ : 4584859.8/17

Left Out: 126.498+/-0.039  $\chi^2/\text{NDF}$ : 209198.2/9

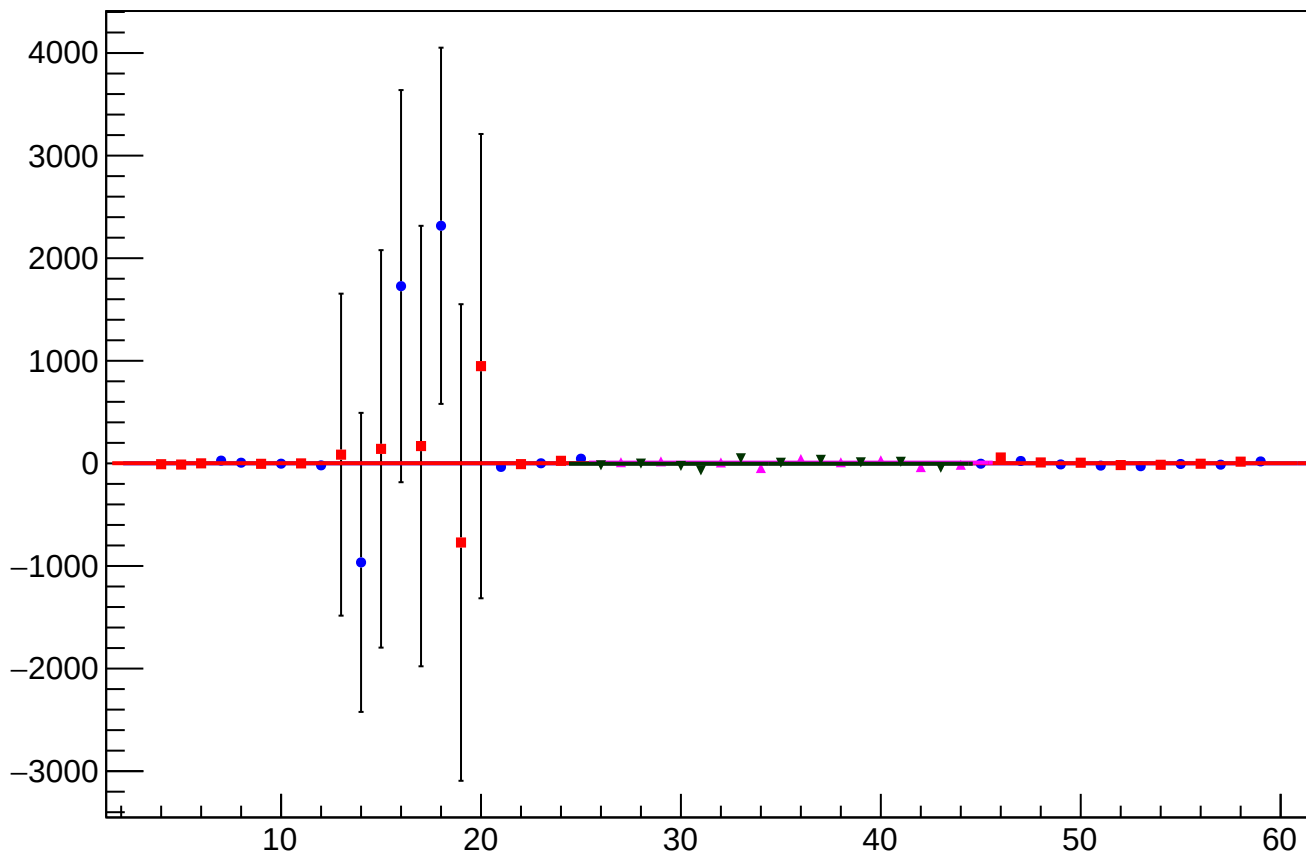
141.203+/-0.027  $\chi^2/\text{NDF}$ : 5058680.8/27

Right Out: 140.050+/-0.037  $\chi^2/\text{NDF}$ : 5289912.8/18

128.220+/-0.026  $\chi^2/\text{NDF}$ : 5871865.1/27

Left In: 117.142+/-0.036  $\chi^2/\text{NDF}$ : 384721.1/8

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: -3.293 $\pm$ 7.243  $\chi^2$ /NDF:18.2/9

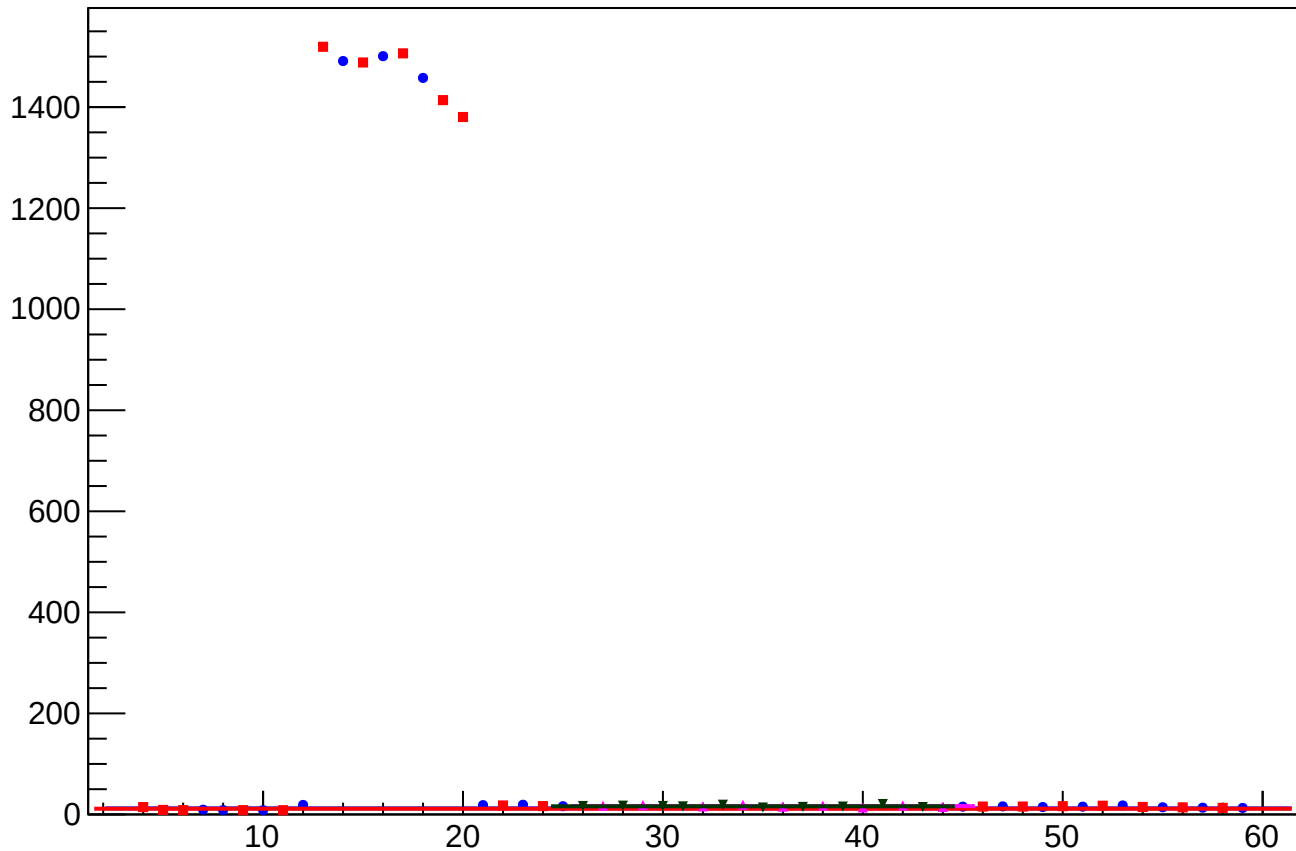
Right Out: 1.782 $\pm$ 4.470  $\chi^2$ /NDF: 10.1/18

Left In: 7.660 $\pm$ 7.257  $\chi^2$ /NDF:11.3/8

-0.382 $\pm$ 3.707  $\chi^2$ /NDF: 34.4/27

3.399 $\pm$ 3.806  $\chi^2$ /NDF: 21.9/27

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: 16.136 $\pm$ 0.005  $\chi^2$ /NDF:128057.2/9

13.093 $\pm$ 0.003  $\chi^2$ /NDF: 6667769.4/27

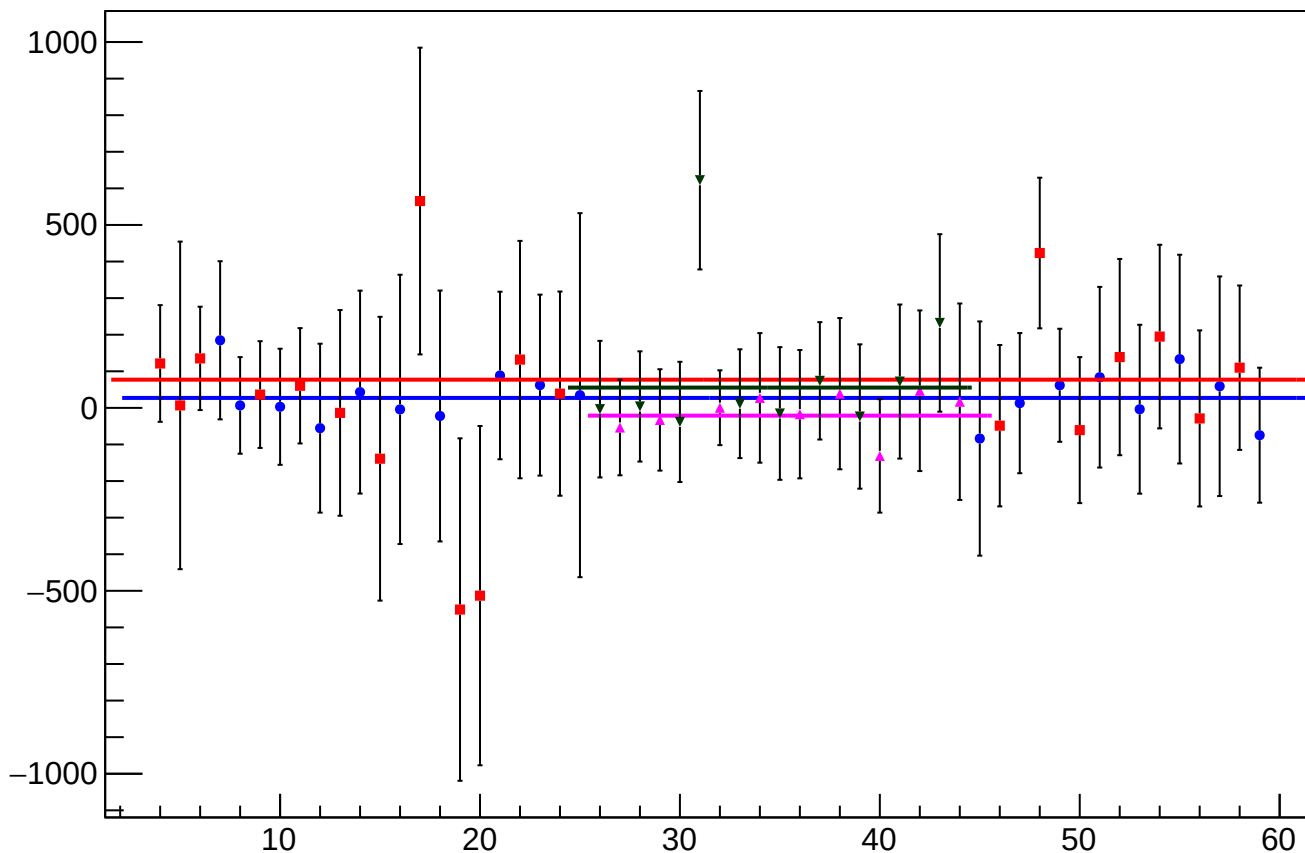
Right Out: 11.361 $\pm$ 0.003  $\chi^2$ /NDF: 6645877.2/18

12.775 $\pm$ 0.003  $\chi^2$ /NDF: 7476375.6/27

Left In: 16.504 $\pm$ 0.005  $\chi^2$ /NDF:102198.9/8



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: 55.504 $\pm$ 57.134  $\chi^2$ /NDF: 6.9/9

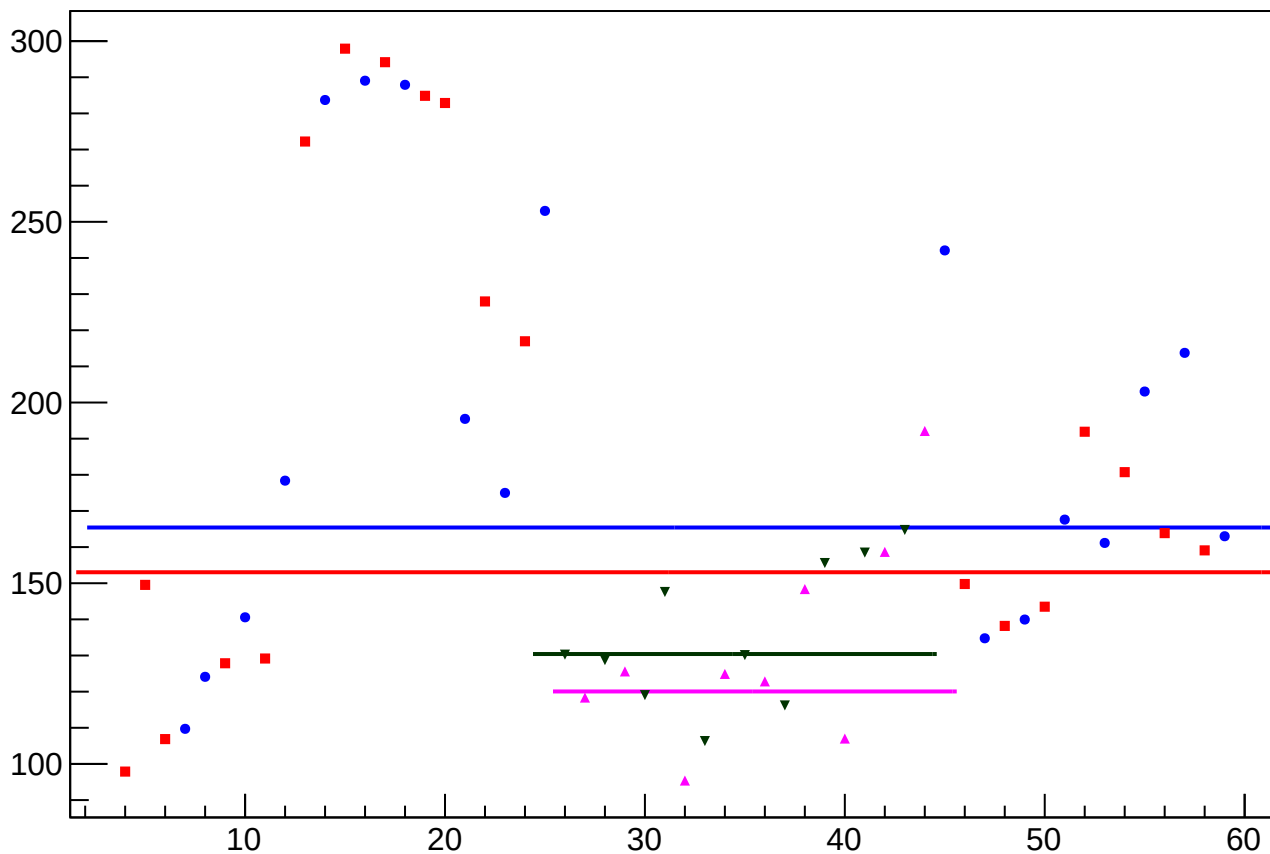
Right Out: 77.113 $\pm$ 51.687  $\chi^2$ /NDF: 9.7/18

Left In: -21.169 $\pm$ 51.965  $\chi^2$ /NDF: 0.9/8

39.988 $\pm$ 38.382  $\chi^2$ /NDF: 8.6/27

28.236 $\pm$ 36.646  $\chi^2$ /NDF: 12.4/27

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



Right In: 165.419+/-0.037  $\chi^2/\text{NDF}$ : 1636400.3/17

Left Out: 130.412+/-0.040  $\chi^2/\text{NDF}$ :196128.5/9

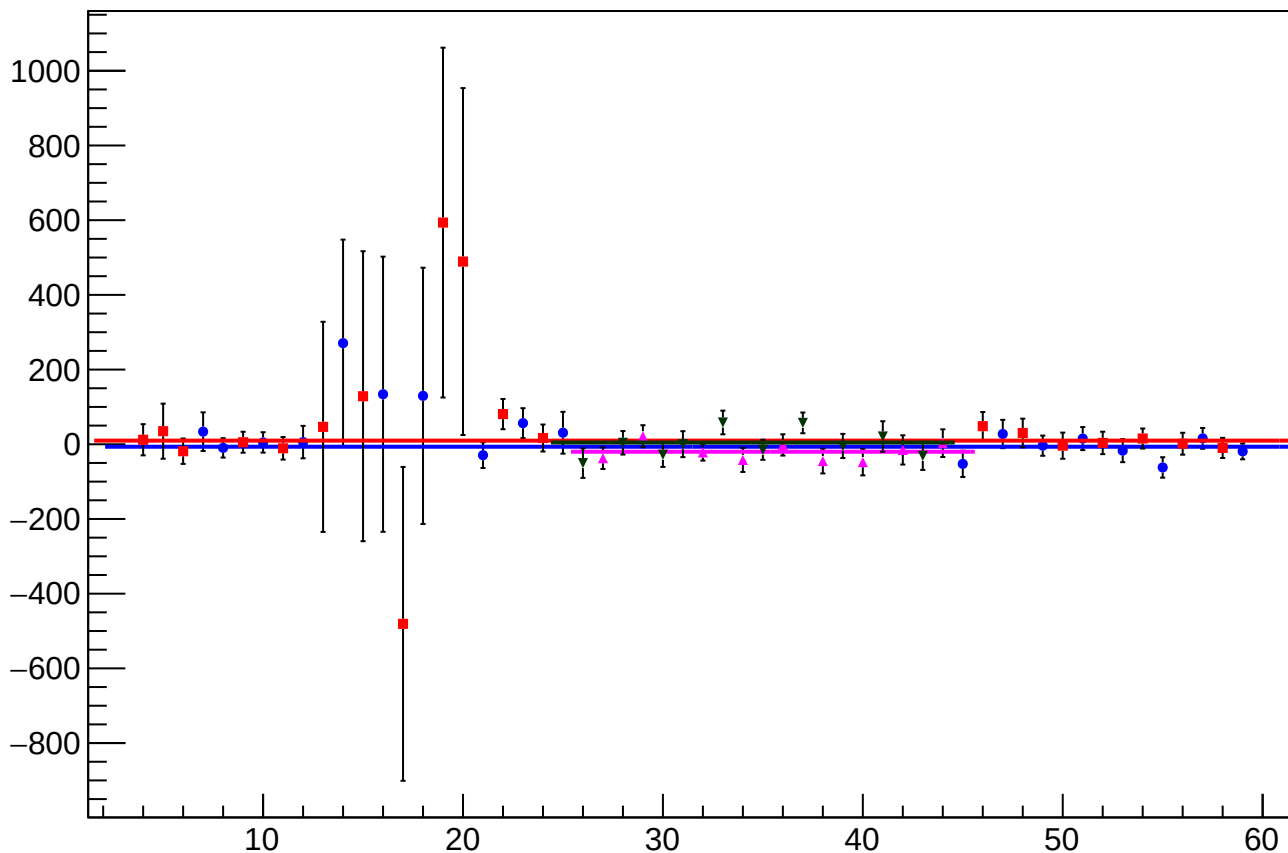
149.620+/-0.027  $\chi^2/\text{NDF}$ : 2244527.2/27

Right Out: 153.039+/-0.037  $\chi^2/\text{NDF}$ : 2037868.3/18

136.635+/-0.026  $\chi^2/\text{NDF}$ : 2822528.3/27

Left In: 120.053+/-0.037  $\chi^2/\text{NDF}$ :379558.3/8

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



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

Left Out:  $4.706 \pm 10.341$   $\chi^2/\text{NDF}$ : 11.1/9

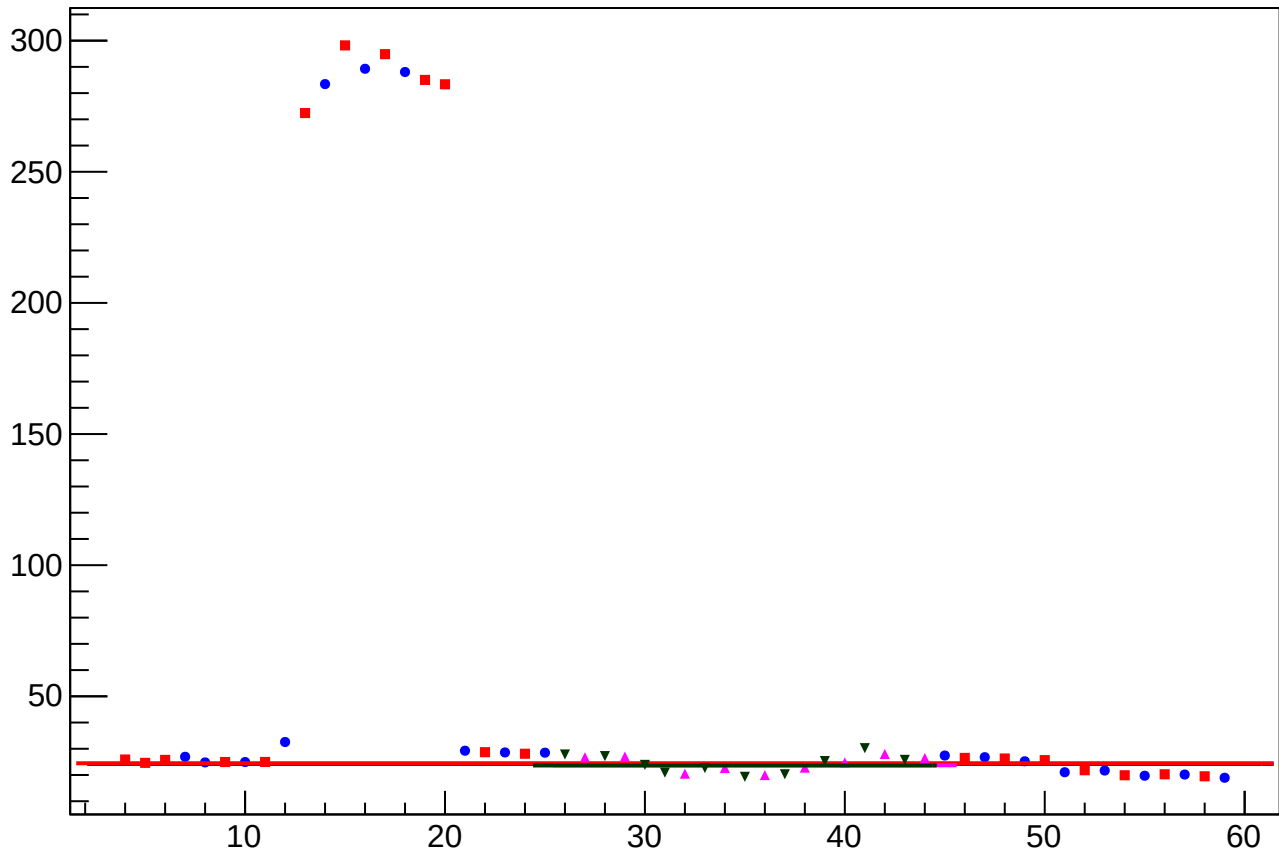
Right Out:  $9.755 \pm 8.898$   $\chi^2/\text{NDF}$ : 10.7/18

Left In:  $-19.983 \pm 10.142$   $\chi^2/\text{NDF}$ : 4.8/8

$-2.305 \pm 6.360$   $\chi^2/\text{NDF}$ : 25.6/27

$-3.180 \pm 6.689$   $\chi^2/\text{NDF}$ : 20.3/27

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: 23.629+/-0.007  $\chi^2/\text{NDF}$ :207433.9/9

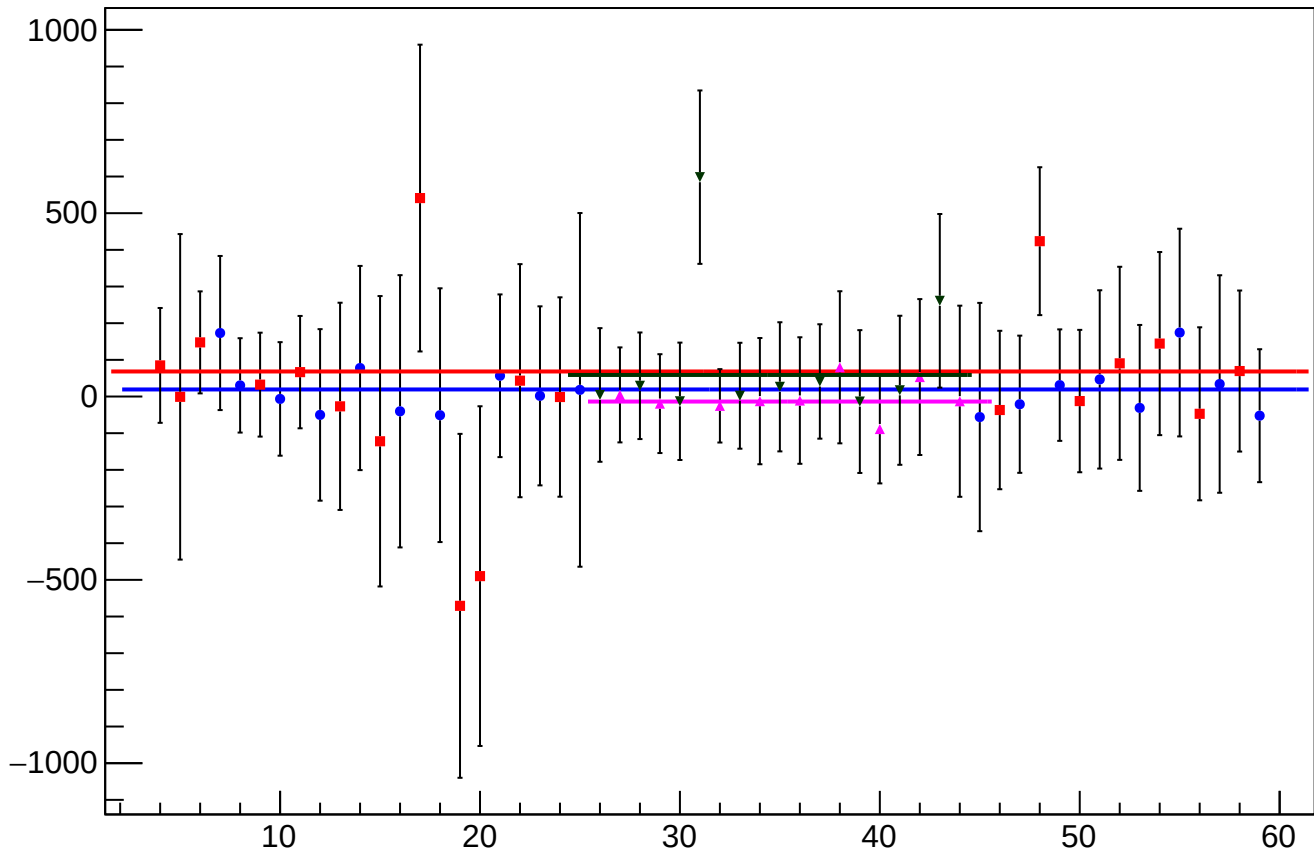
24.000+/-0.004  $\chi^2/\text{NDF}$ : 4624628.8/27

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

24.137+/-0.005  $\chi^2/\text{NDF}$ : 5032117.4/27

Left In: 23.710+/-0.007  $\chi^2/\text{NDF}$ :165851.2/8

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: 58.807+/-55.552  $\chi^2/\text{NDF}$ : 6.6/9

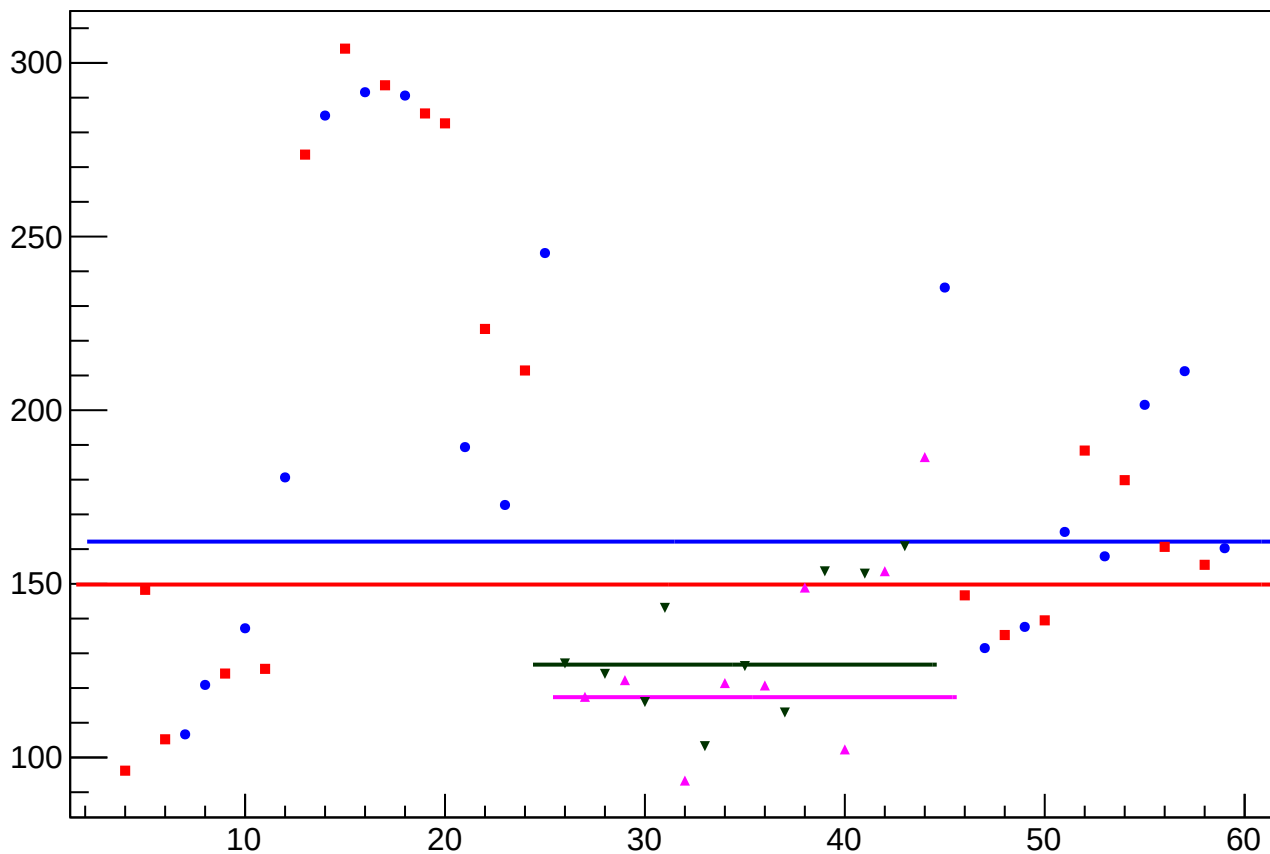
Right Out: 68.308+/-50.710  $\chi^2/\text{NDF}$ : 9.3/18

Left In: -13.722+/-50.809  $\chi^2/\text{NDF}$ : 0.6/8

37.316+/-37.534  $\chi^2/\text{NDF}$ : 8.4/27

27.373+/-35.892  $\chi^2/\text{NDF}$ : 11.2/27

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



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

Left Out:  $126.741 \pm 0.039$   $\chi^2/\text{NDF}$ : 200512.0/9

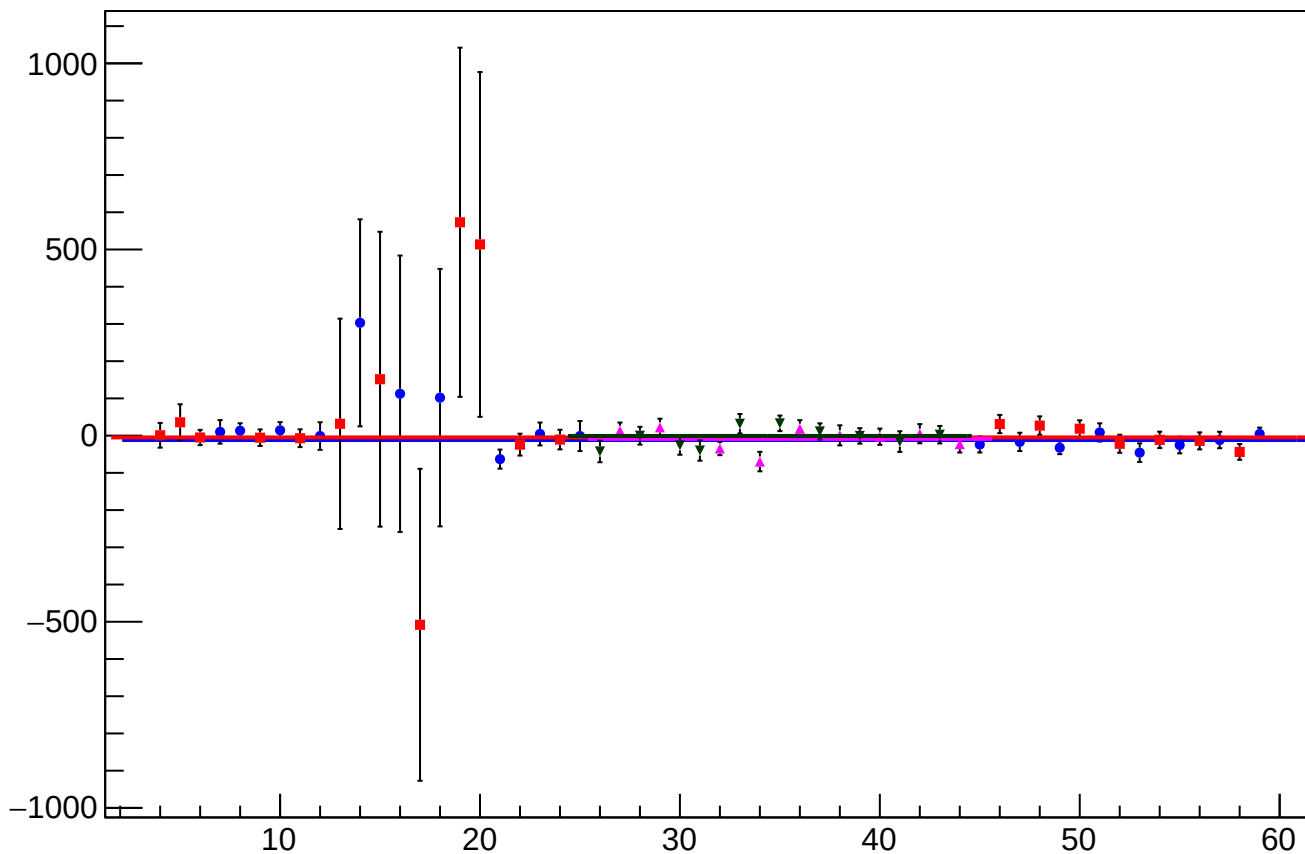
Right Out:  $149.803 \pm 0.036$   $\chi^2/\text{NDF}$ : 2114602.4/18

Left In:  $117.371 \pm 0.036$   $\chi^2/\text{NDF}$ : 385529.6/8

$145.994 \pm 0.027$   $\chi^2/\text{NDF}$ : 2363160.2/27

$133.619 \pm 0.025$   $\chi^2/\text{NDF}$ : 2908364.6/27

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: -0.891 $\pm$ 7.638  $\chi^2$ /NDF: 9.9/9

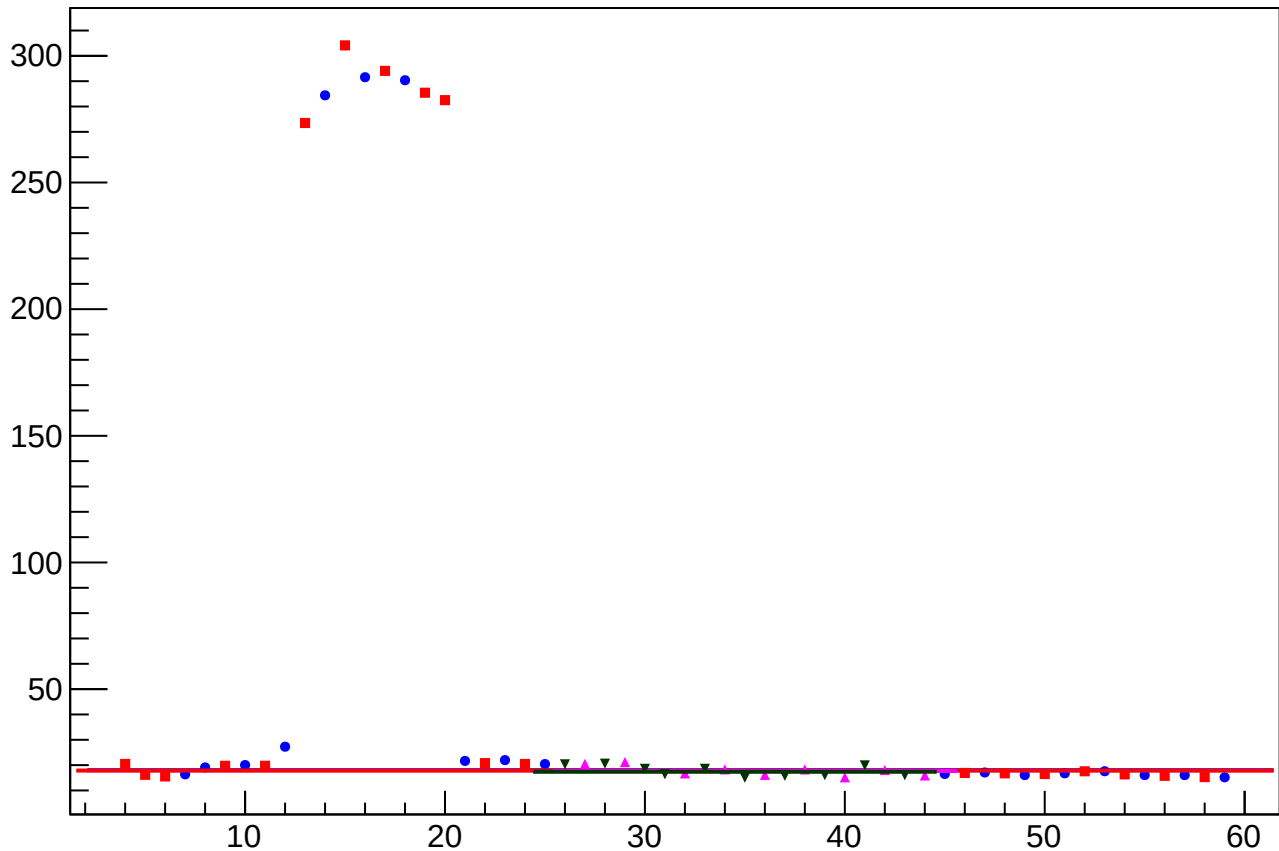
Right Out: -4.846 $\pm$ 6.550  $\chi^2$ /NDF: 14.7/18

Left In: -8.626 $\pm$ 7.603  $\chi^2$ /NDF: 12.5/8

-7.553 $\pm$ 4.735  $\chi^2$ /NDF: 26.1/27

-6.456 $\pm$ 4.962  $\chi^2$ /NDF: 27.3/27

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: 17.382 $\pm$ 0.005  $\chi^2$ /NDF:136187.2/9

17.755 $\pm$ 0.003  $\chi^2$ /NDF: 4669147.4/27

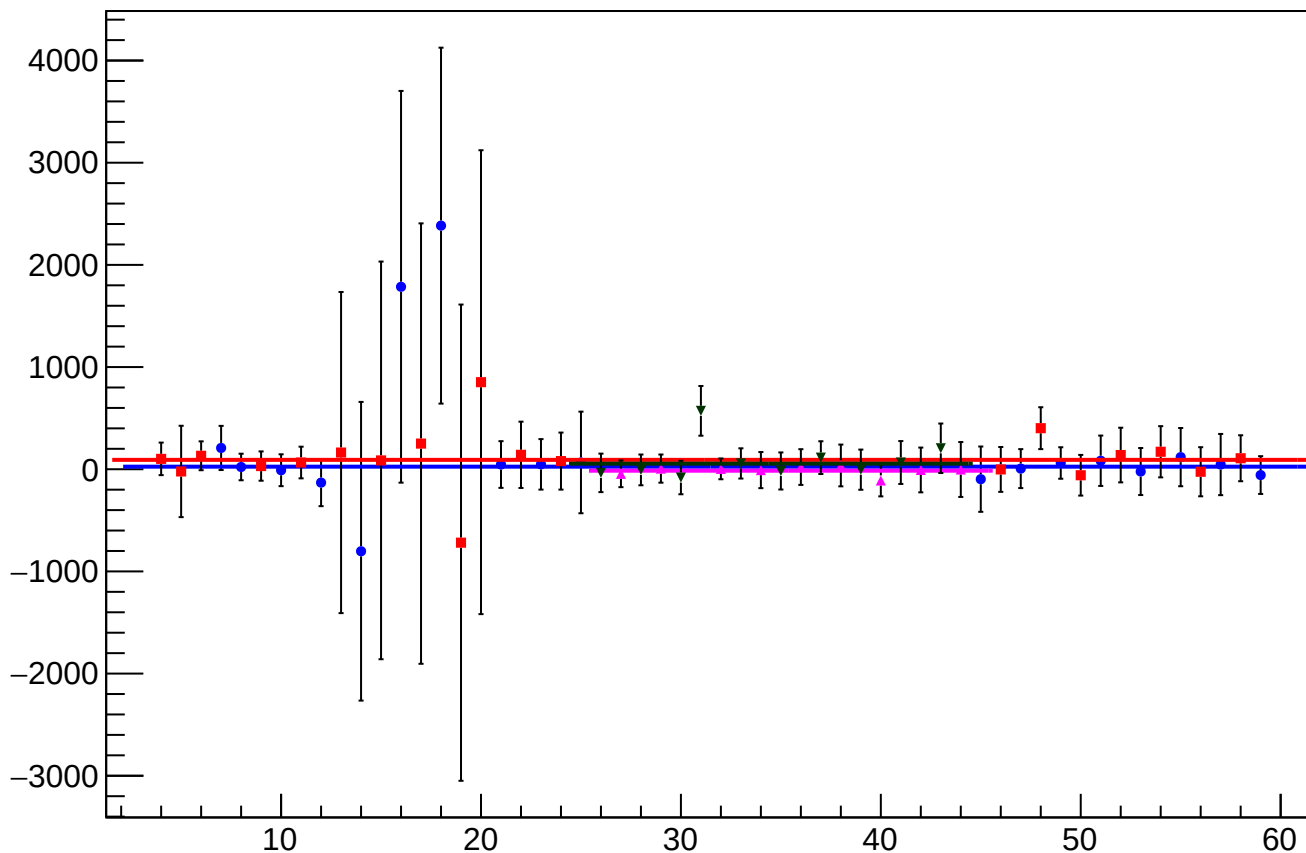
Right Out: 17.855 $\pm$ 0.005  $\chi^2$ /NDF: 5034119.1/18

17.787 $\pm$ 0.004  $\chi^2$ /NDF: 5168598.9/27

Left In: 17.695 $\pm$ 0.005  $\chi^2$ /NDF:133973.4/8



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: 54.414+/-57.060  $\chi^2/\text{NDF}$ : 6.4/9

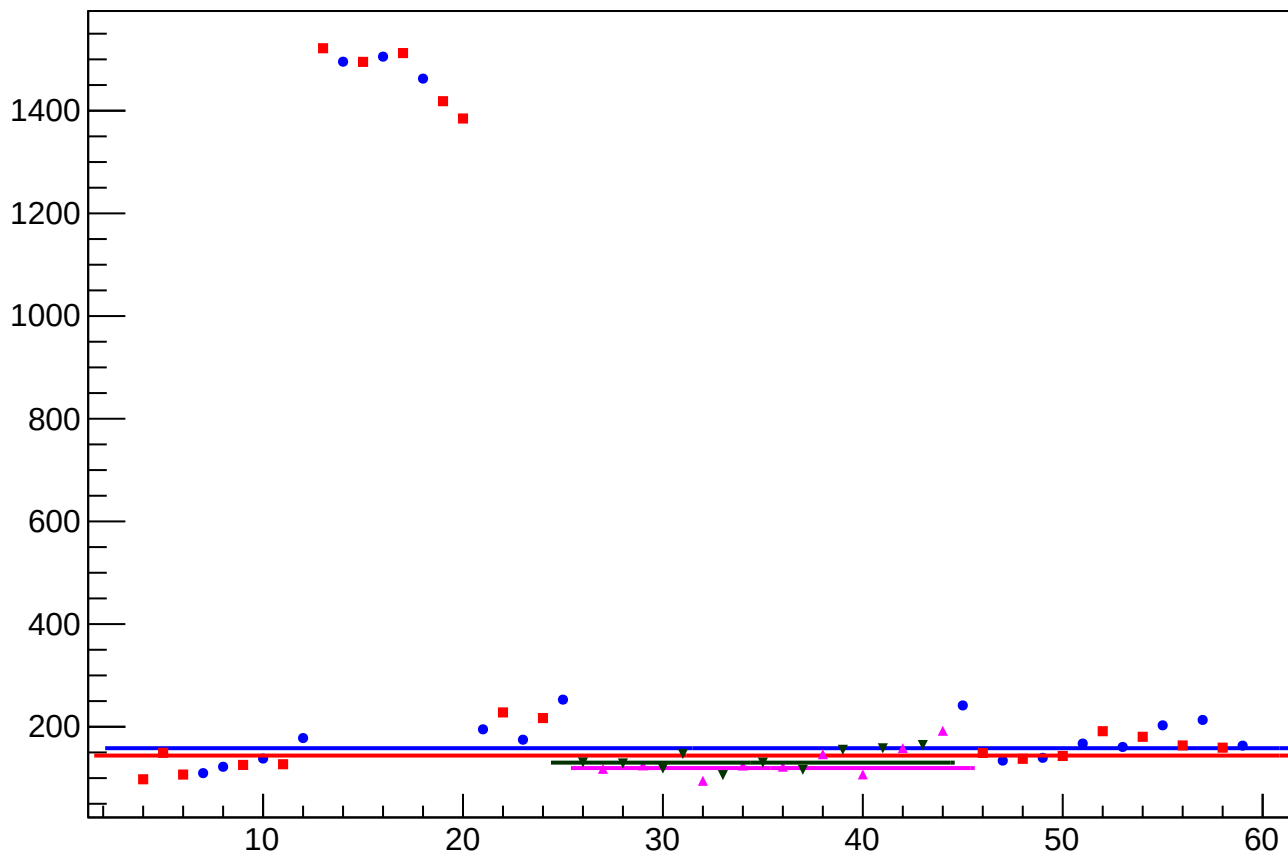
Right Out: 91.771+/-53.823  $\chi^2/\text{NDF}$ : 4.0/18

Left In: -14.439+/-51.773  $\chi^2/\text{NDF}$ : 0.6/8

38.833+/-39.043  $\chi^2/\text{NDF}$ : 11.4/27

36.605+/-37.313  $\chi^2/\text{NDF}$ : 6.7/27

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



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

Left Out:  $130.144 \pm 0.040$   $\chi^2/\text{NDF}$ : 197118.8/9

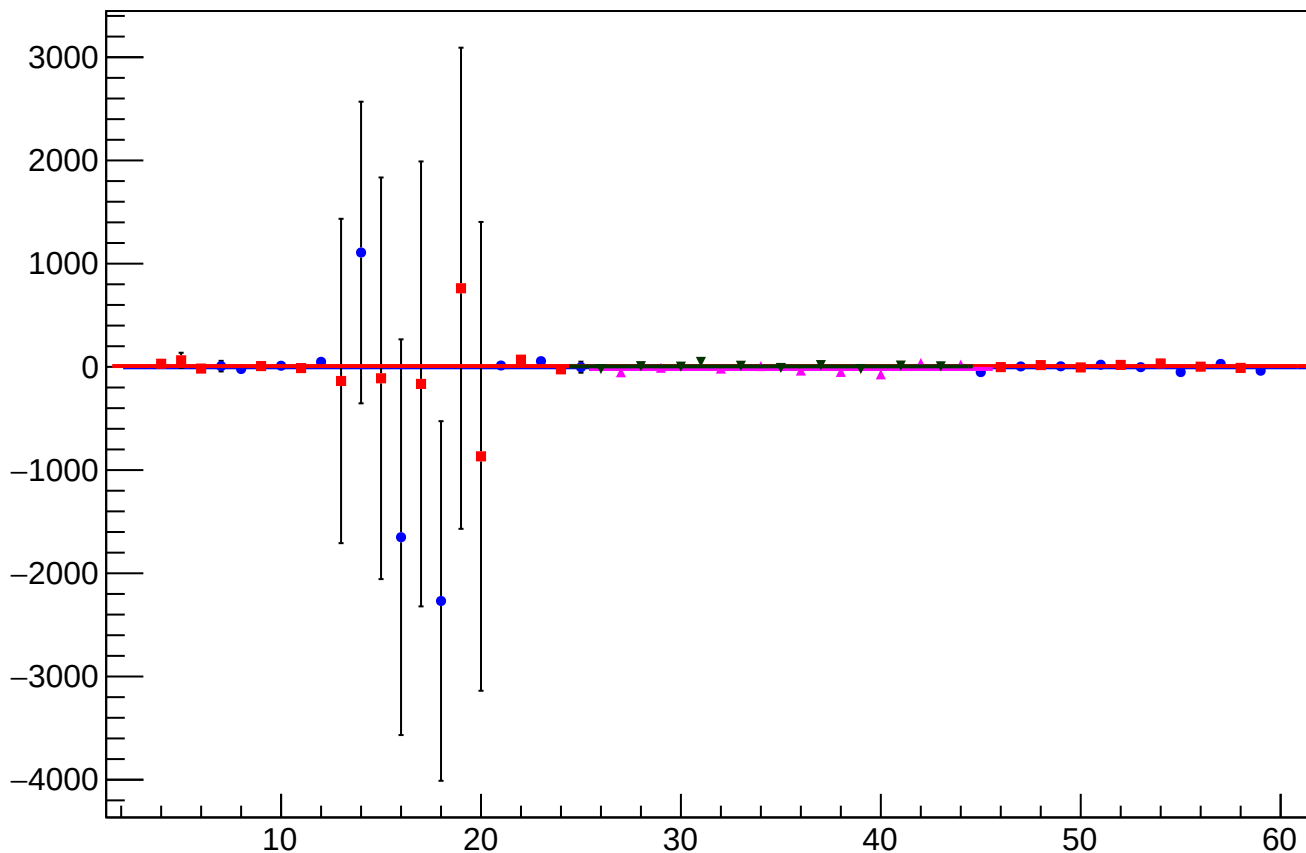
Right Out:  $143.939 \pm 0.038$   $\chi^2/\text{NDF}$ : 5267987.5/18

Left In:  $119.590 \pm 0.037$   $\chi^2/\text{NDF}$ : 380691.2/8

$145.105 \pm 0.028$   $\chi^2/\text{NDF}$ : 4994656.3/27

$131.292 \pm 0.026$   $\chi^2/\text{NDF}$ : 5861275.4/27

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



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

Left Out: 5.137+/-9.787  $\chi^2$ /NDF: 3.6/9

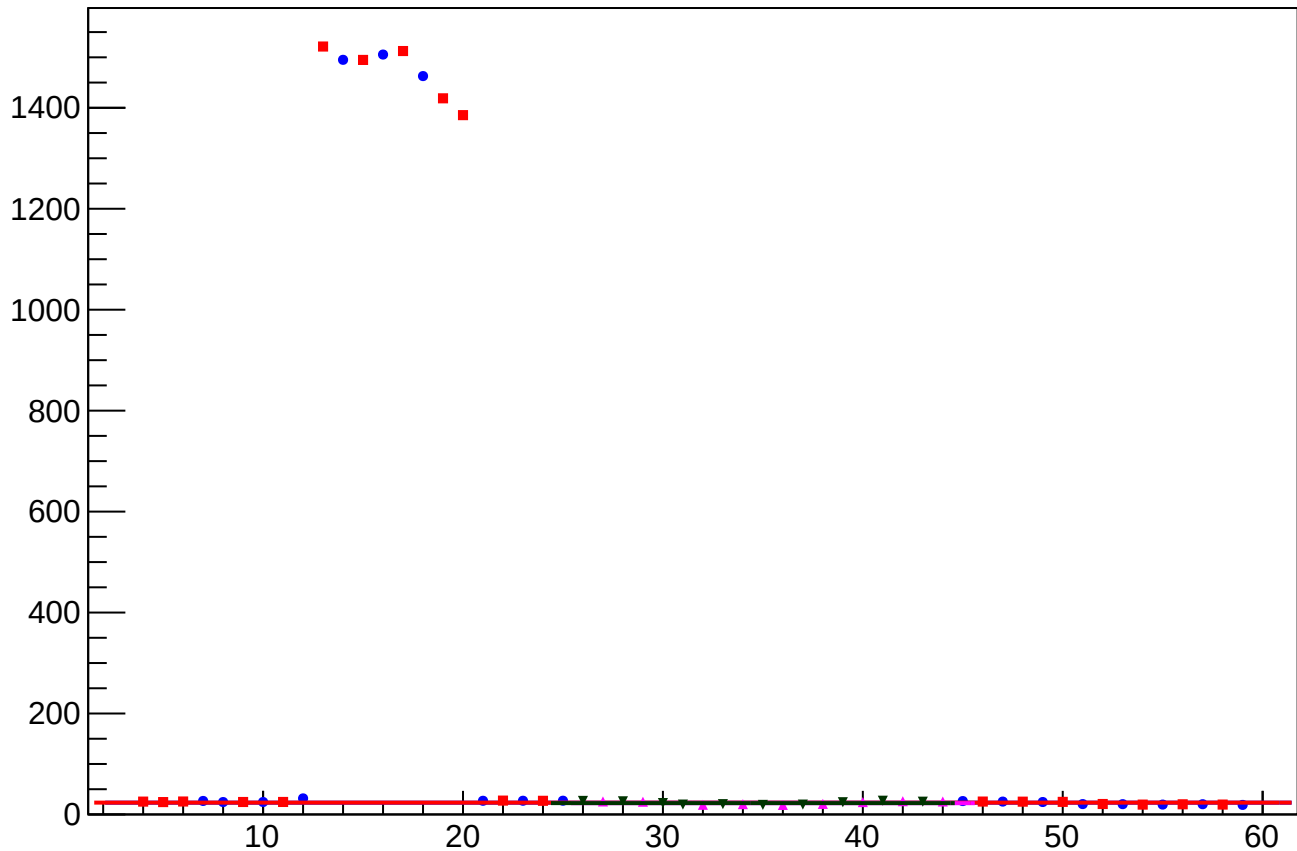
Right Out: 7.973+/-8.718  $\chi^2$ /NDF: 7.3/18

Left In: -20.467+/-9.485  $\chi^2$ /NDF: 9.8/8

-0.451+/-6.136  $\chi^2$ /NDF: 21.7/27

-5.051+/-6.419  $\chi^2$ /NDF: 22.0/27

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: 22.469+/-0.007  $\chi^2/\text{NDF}$ :192593.7/9

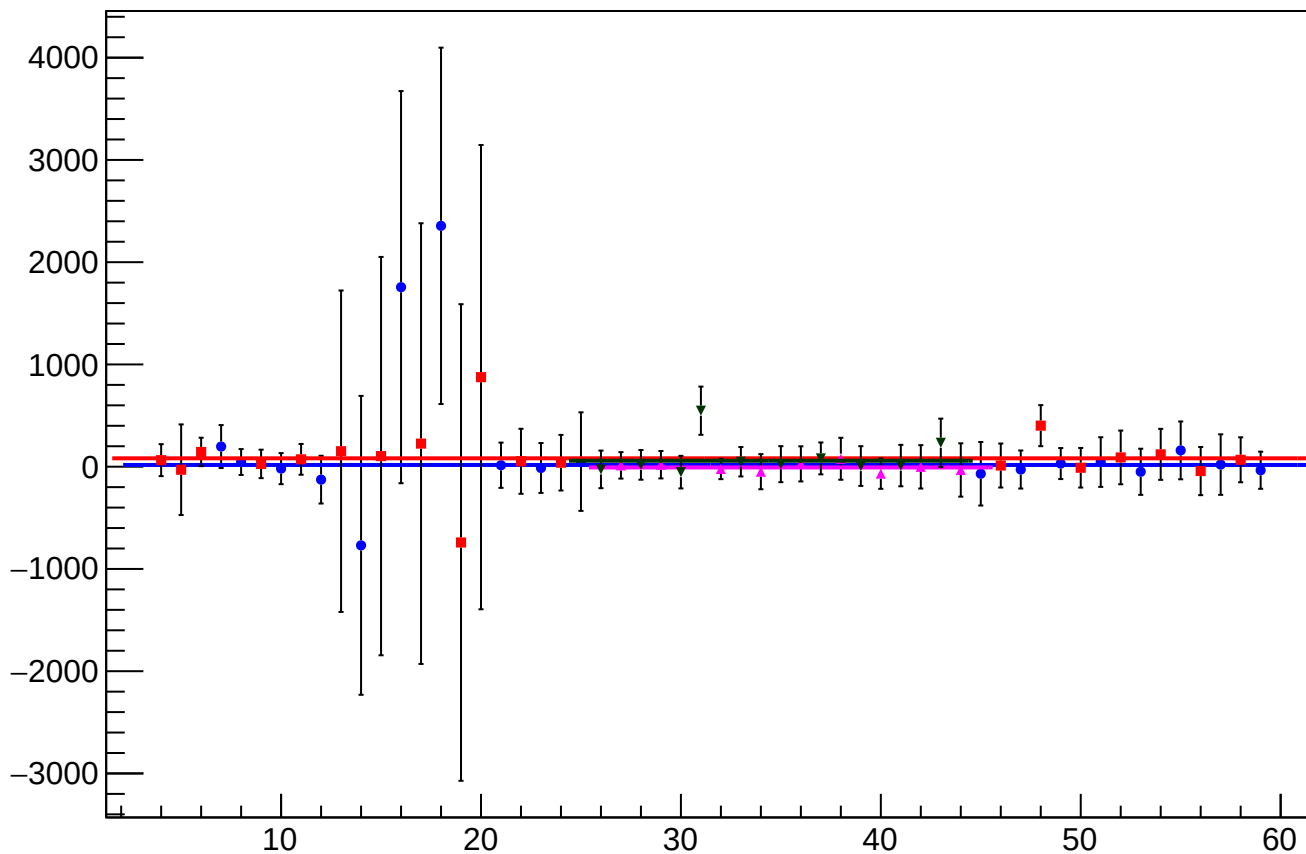
Right Out: 23.445+/-0.006  $\chi^2/\text{NDF}$ : 5561556.7/18

Left In: 22.294+/-0.007  $\chi^2/\text{NDF}$ :193997.0/8

22.995+/-0.004  $\chi^2/\text{NDF}$ : 5167356.7/27

22.918+/-0.005  $\chi^2/\text{NDF}$ : 5771503.3/27

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: 58.282+/-55.472  $\chi^2/\text{NDF}$ : 5.8/9

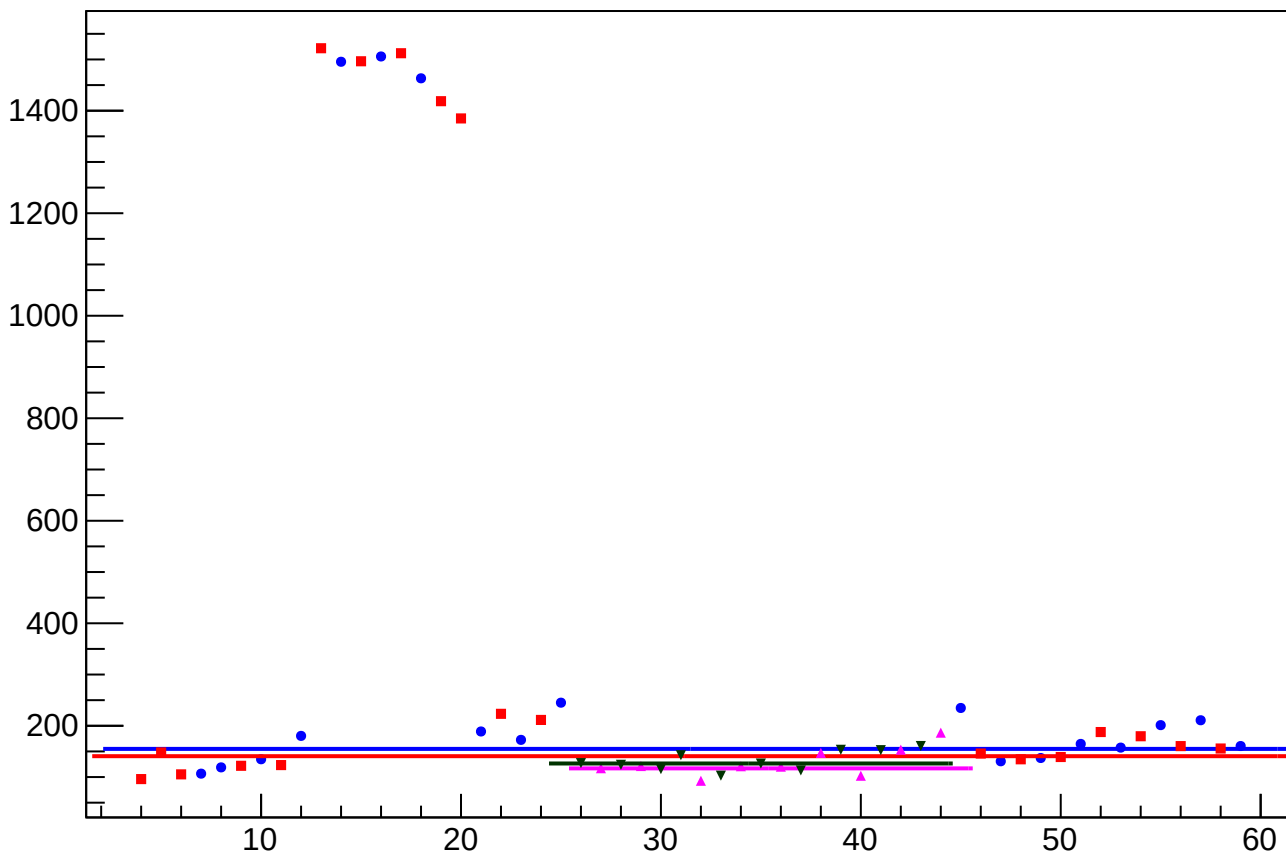
Right Out: 81.906+/-52.666  $\chi^2/\text{NDF}$ : 3.9/18

Left In: -7.345+/-50.616  $\chi^2/\text{NDF}$ : 0.5/8

36.467+/-38.126  $\chi^2/\text{NDF}$ : 10.9/27

35.510+/-36.494  $\chi^2/\text{NDF}$ : 5.9/27

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



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

Left Out:  $126.462 \pm 0.039$   $\chi^2/\text{NDF}$ : 201645.3/9

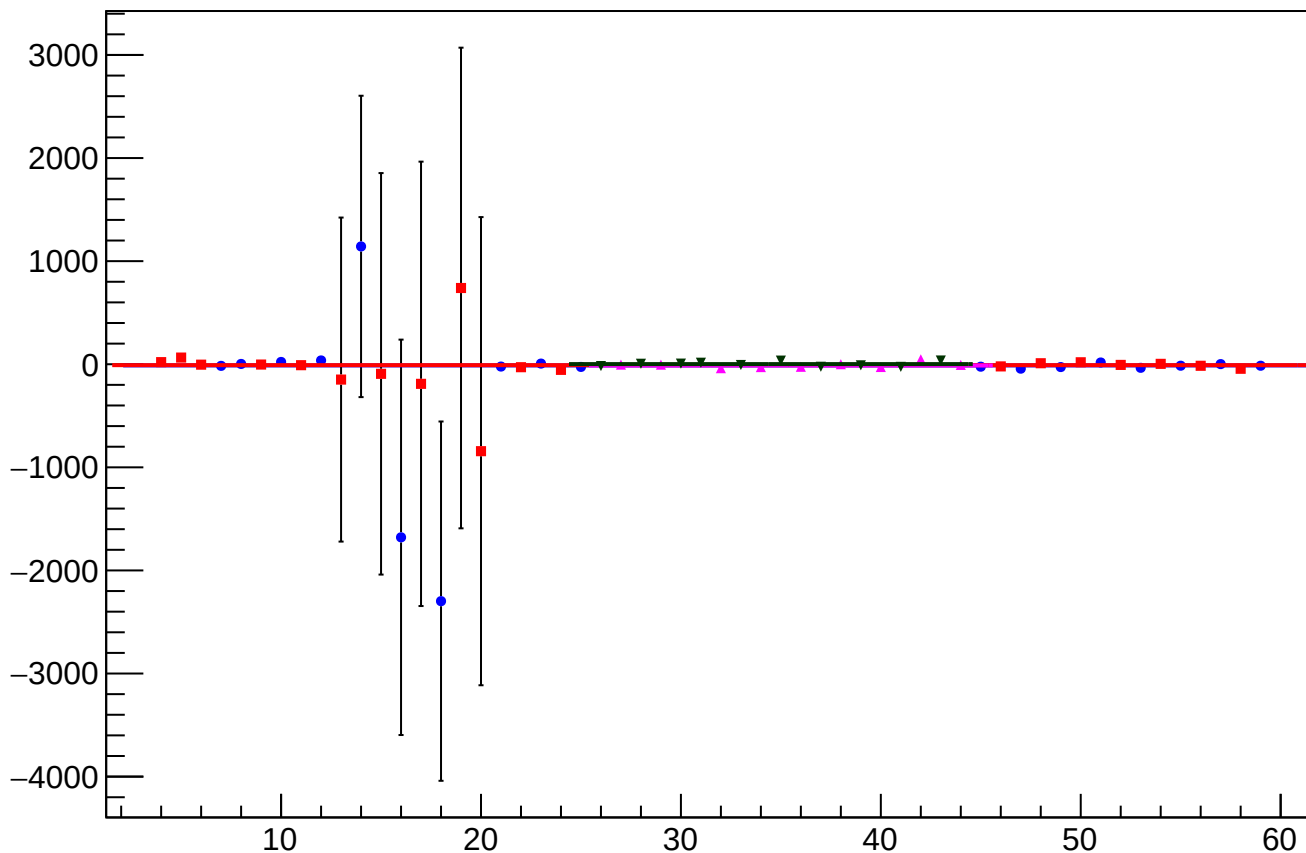
Right Out:  $140.710 \pm 0.037$   $\chi^2/\text{NDF}$ : 5291988.7/18

Left In:  $116.908 \pm 0.036$   $\chi^2/\text{NDF}$ : 386526.1/8

$141.491 \pm 0.027$   $\chi^2/\text{NDF}$ : 5060492.5/27

$128.336 \pm 0.026$   $\chi^2/\text{NDF}$ : 5890873.0/27

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: 1.404 $\pm$ 7.049  $\chi^2$ /NDF: 9.5/9

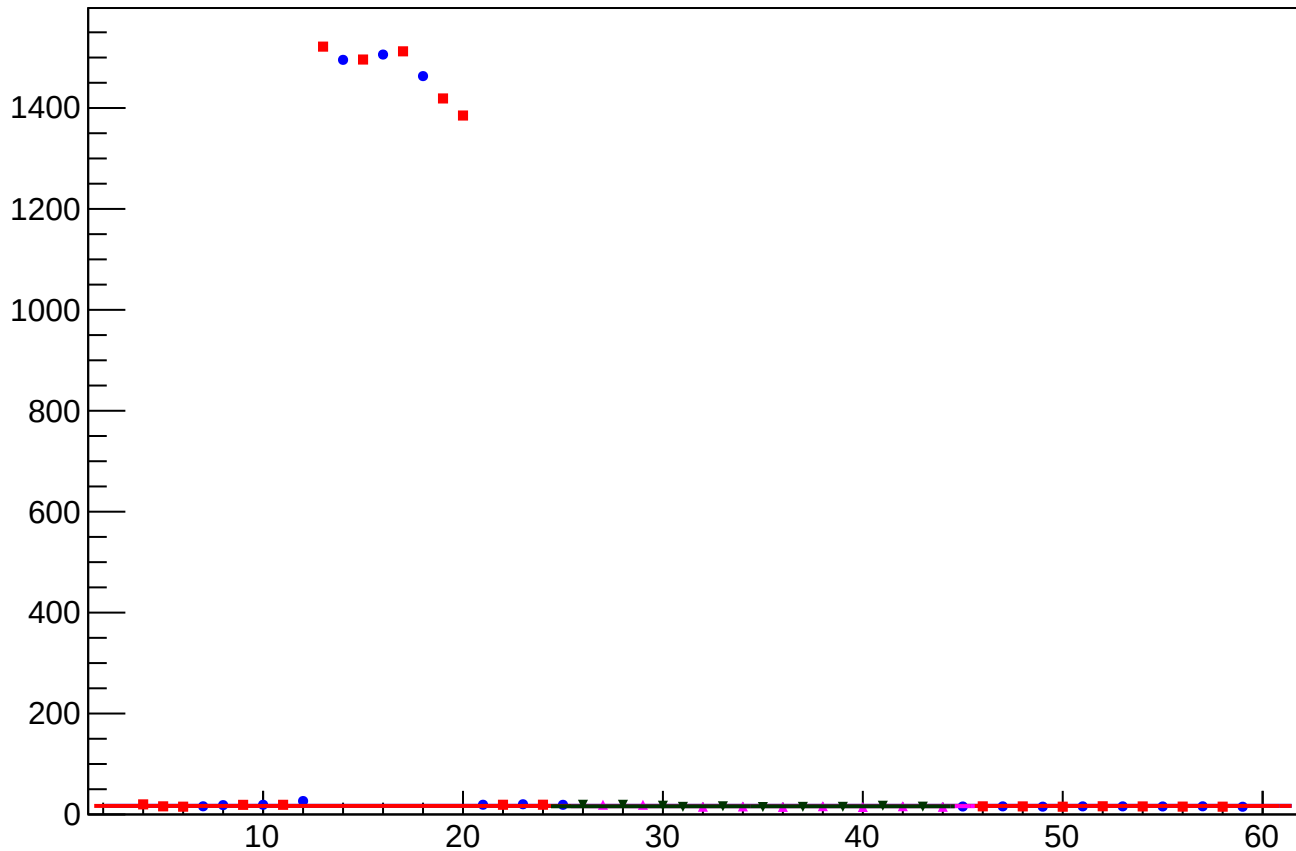
Right Out: -8.864 $\pm$ 6.293  $\chi^2$ /NDF: 13.3/18

Left In: -12.005 $\pm$ 6.949  $\chi^2$ /NDF: 11.5/8

-6.219 $\pm$ 4.466  $\chi^2$ /NDF: 26.4/27

-10.279 $\pm$ 4.665  $\chi^2$ /NDF: 24.9/27

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: 16.220+/-0.005  $\chi^2/\text{NDF}$ :97219.6/9

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

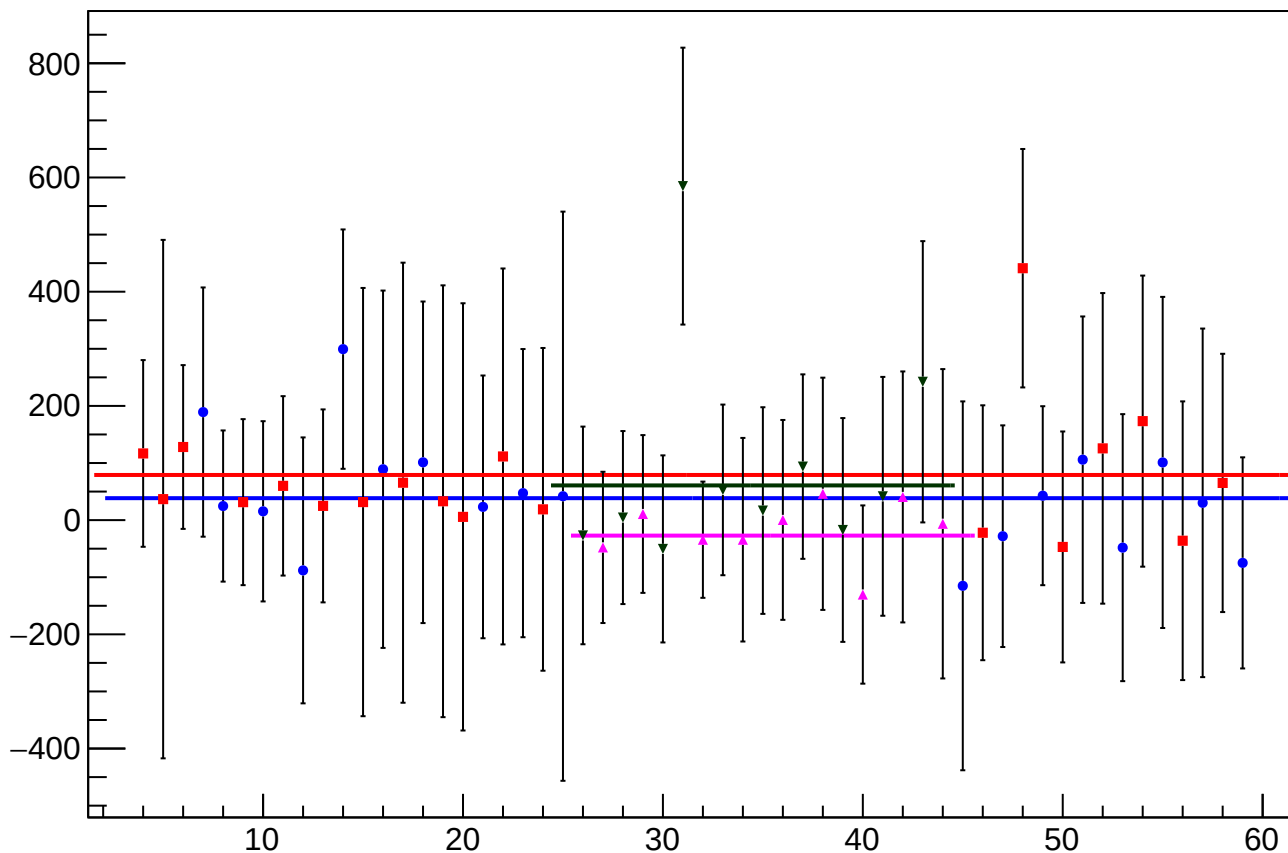
Left In: 16.381+/-0.005  $\chi^2/\text{NDF}$ :104335.4/8

16.743+/-0.003  $\chi^2/\text{NDF}$ : 5037628.2/27

16.677+/-0.003  $\chi^2/\text{NDF}$ : 5650892.3/27



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: 60.773+/-57.310  $\chi^2/\text{NDF}$ : 6.3/9

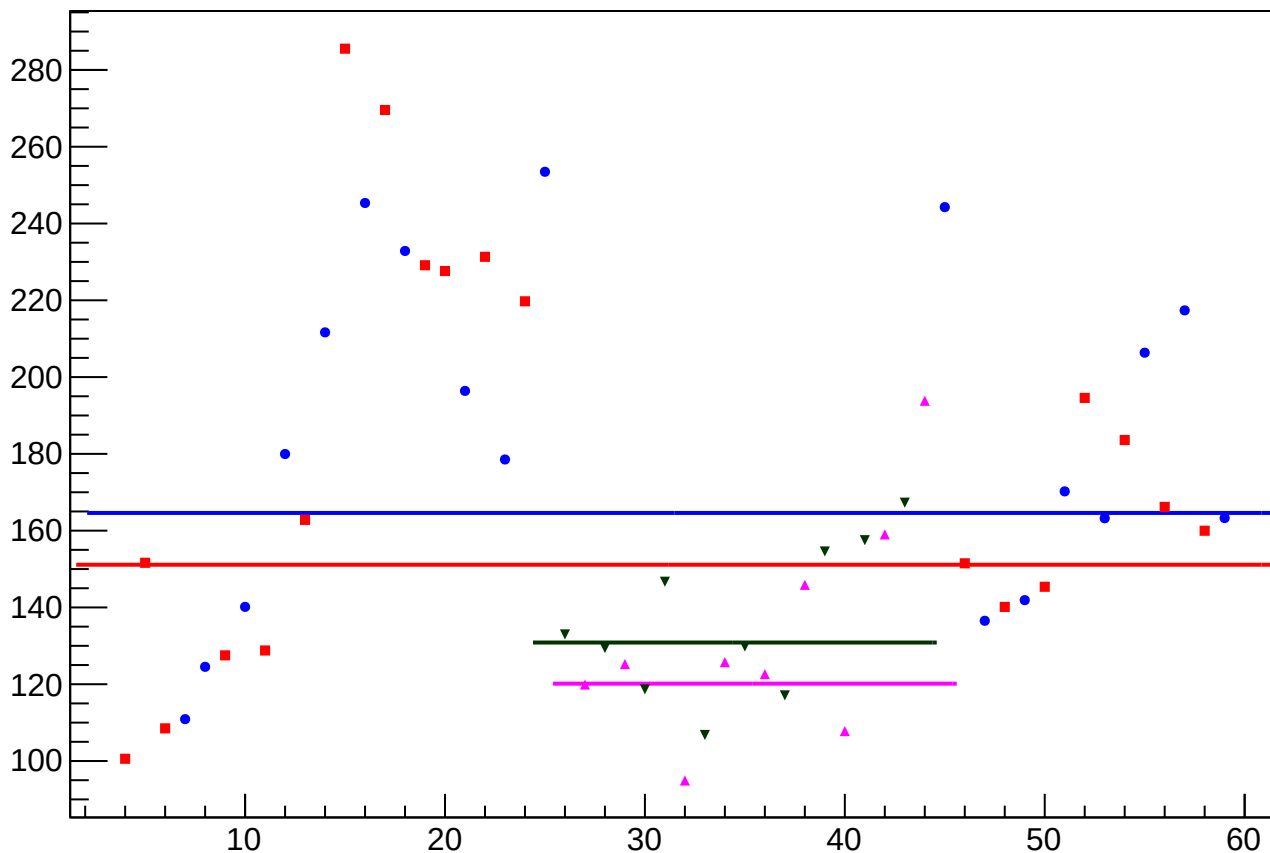
Right Out: 79.078+/-50.233  $\chi^2/\text{NDF}$ : 4.5/18

Left In: -27.106+/-52.008  $\chi^2/\text{NDF}$ : 0.8/8

48.324+/-38.116  $\chi^2/\text{NDF}$ : 9.8/27

27.828+/-36.131  $\chi^2/\text{NDF}$ : 7.5/27

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



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

Left Out: 130.861+/-0.041  $\chi^2/\text{NDF}$ :192101.4/9

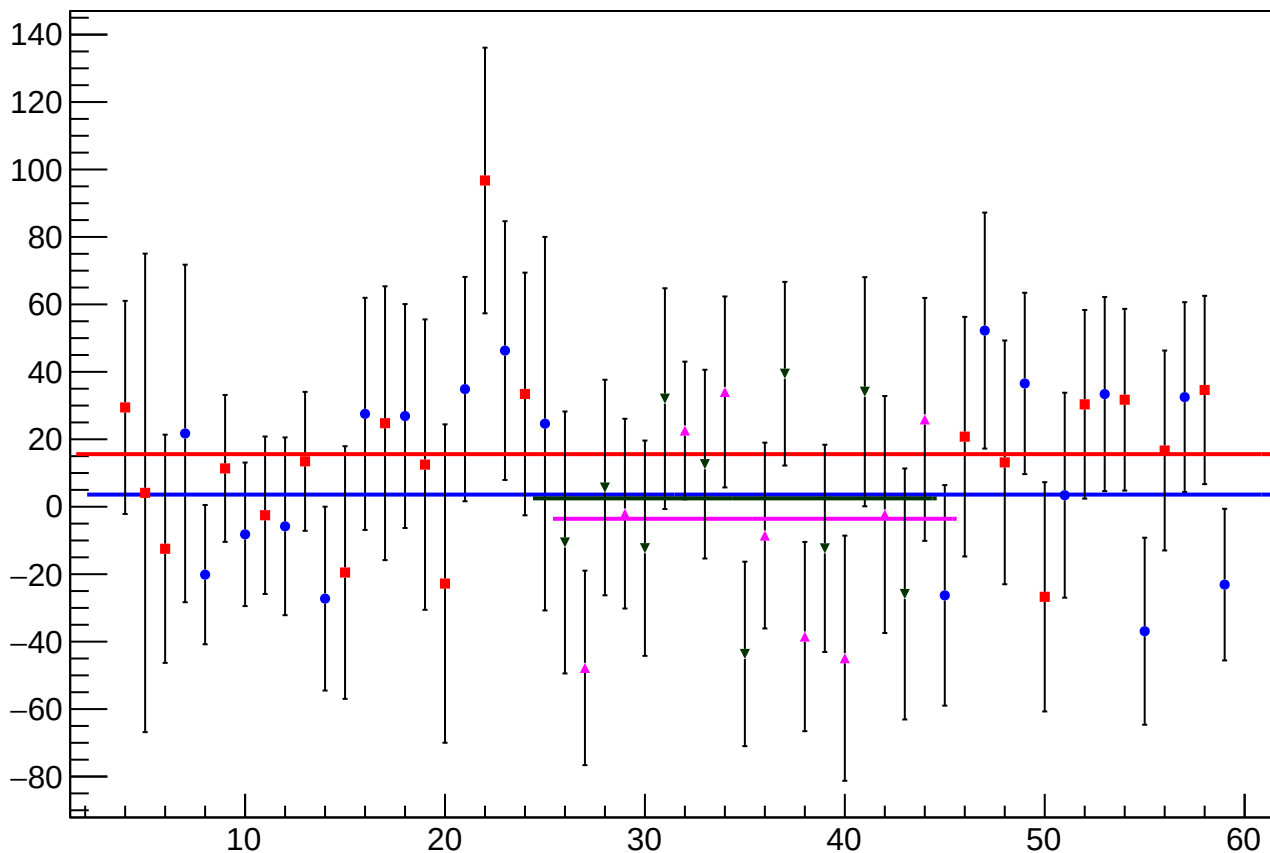
149.684+/-0.027  $\chi^2/\text{NDF}$ : 1707490.2/27

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

136.173+/-0.026  $\chi^2/\text{NDF}$ : 2173752.1/27

Left In: 120.147+/-0.037  $\chi^2/\text{NDF}$ :383255.1/8

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:  $2.482 \pm 9.918$   $\chi^2/\text{NDF}: 7.7/9$

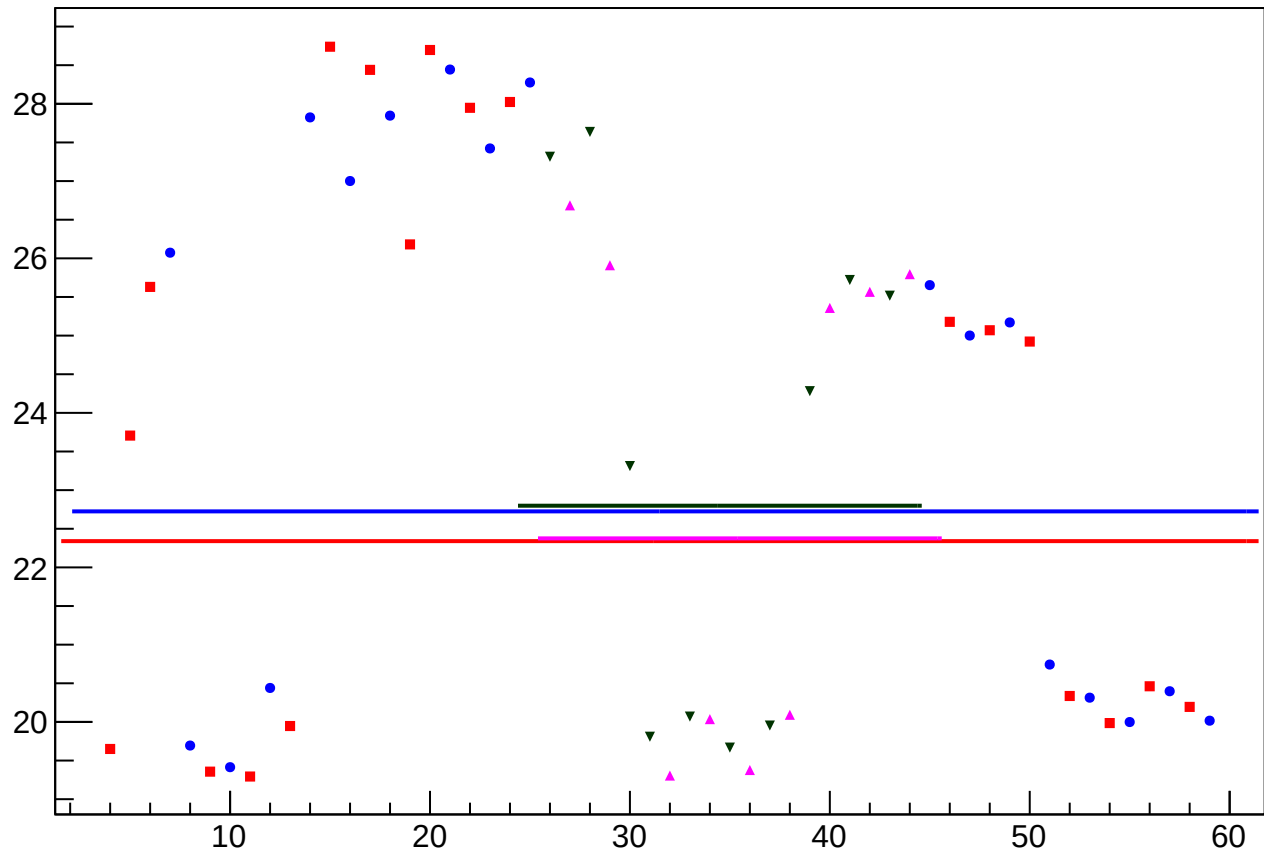
Right Out:  $15.596 \pm 7.143$   $\chi^2/\text{NDF}: 10.3/18$

Left In:  $-3.573 \pm 9.519$   $\chi^2/\text{NDF}: 9.3/8$

$3.243 \pm 5.632$   $\chi^2/\text{NDF}: 24.0/27$

$8.691 \pm 5.713$   $\chi^2/\text{NDF}: 22.2/27$

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



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

Left Out: 22.798+/-0.007  $\chi^2$ /NDF:187251.4/9

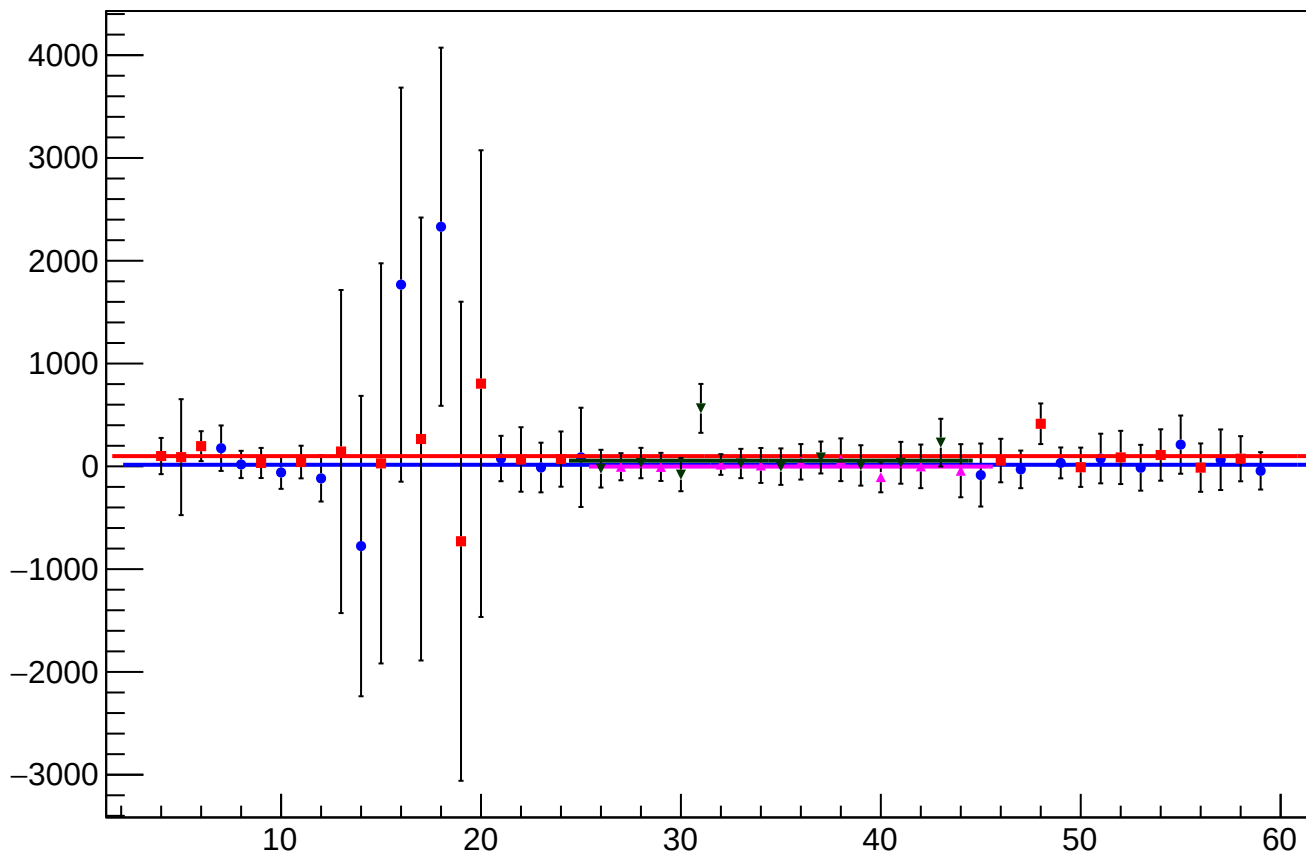
22.749+/-0.004  $\chi^2$ /NDF: 686100.7/27

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

22.353+/-0.004  $\chi^2$ /NDF: 680059.7/27

Left In: 22.376+/-0.007  $\chi^2$ /NDF:220033.6/8

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: 55.403+/-55.677  $\chi^2/\text{NDF}$ : 6.3/9

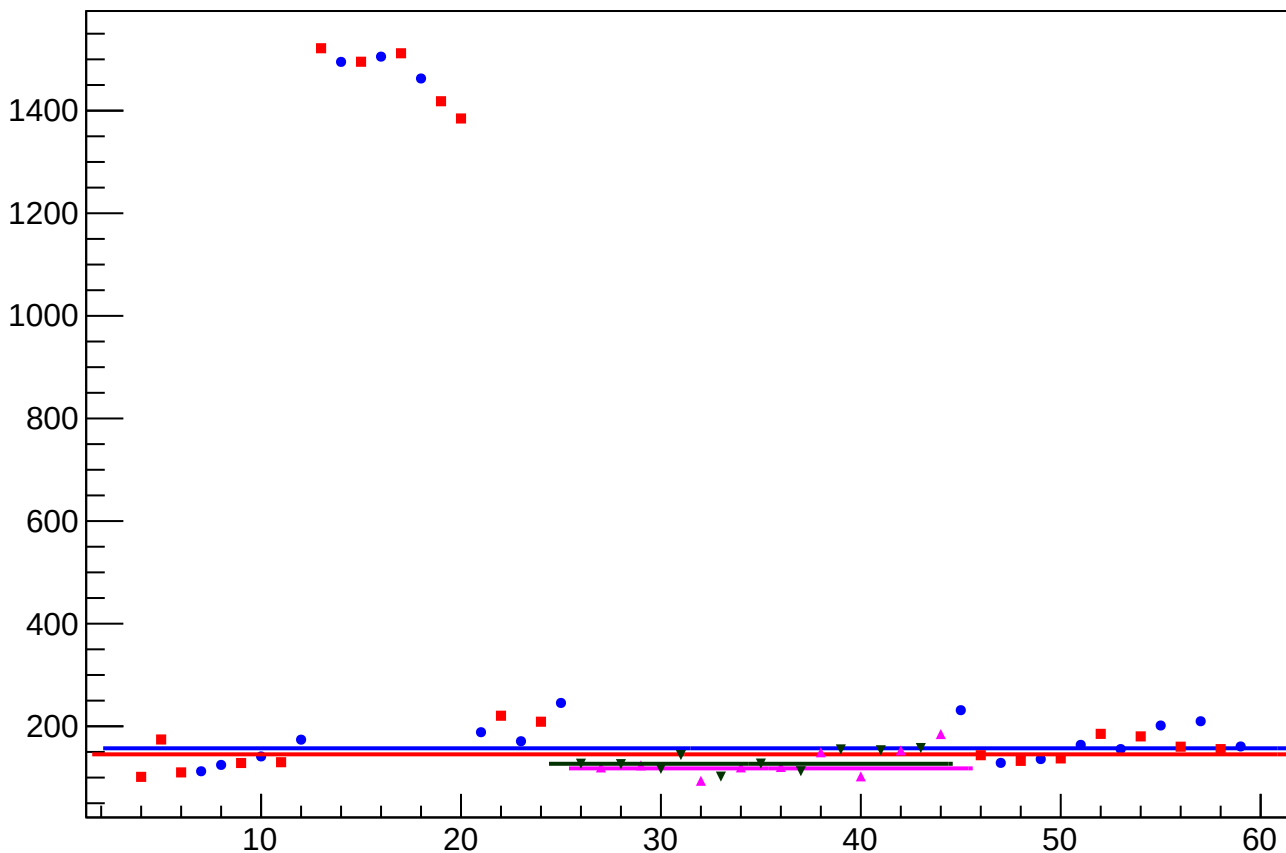
Right Out: 99.514+/-54.286  $\chi^2/\text{NDF}$ : 4.2/18

Left In: -2.215+/-51.031  $\chi^2/\text{NDF}$ : 0.7/8

34.317+/-38.396  $\chi^2/\text{NDF}$ : 11.6/27

45.509+/-37.182  $\chi^2/\text{NDF}$ : 6.8/27

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: 126.898+/-0.039  $\chi^2/\text{NDF}$ :206102.9/9

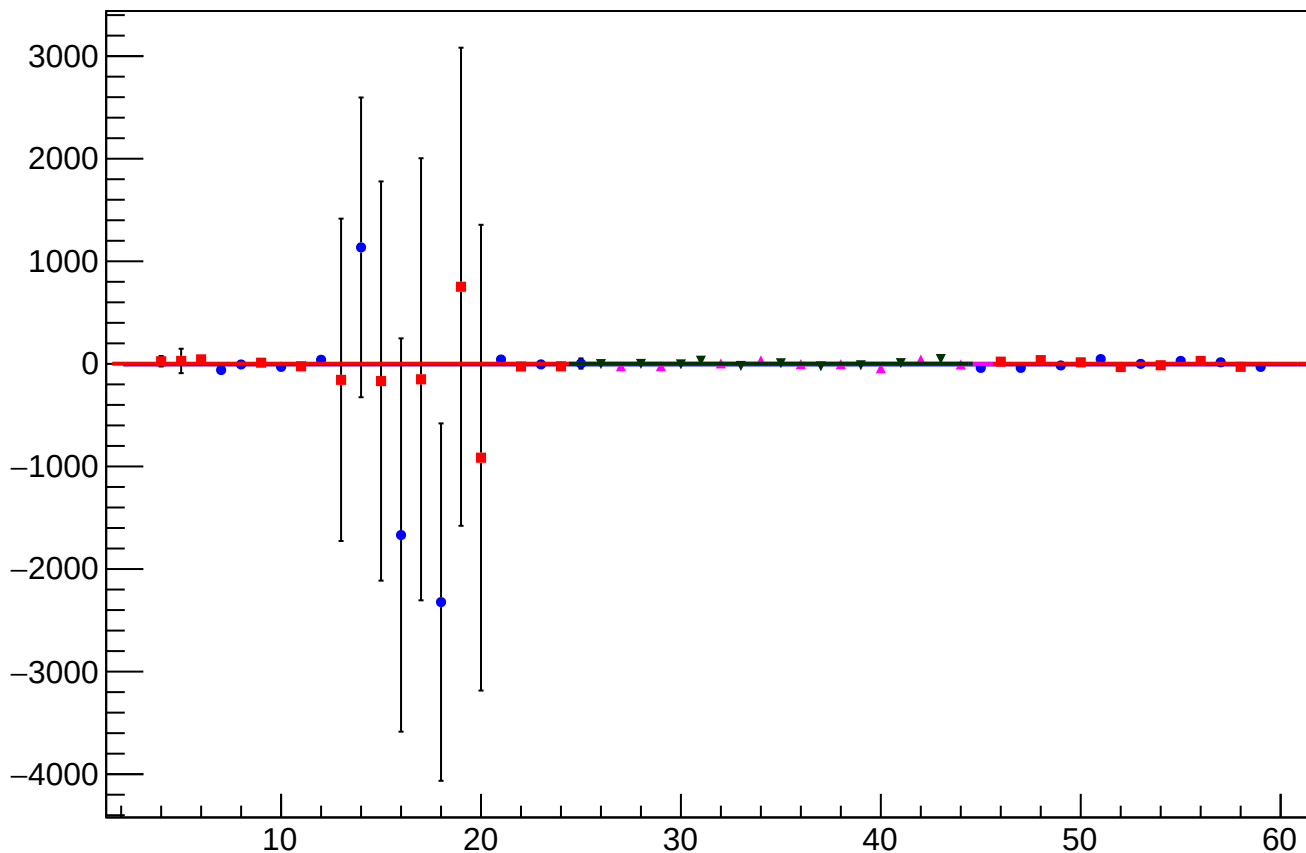
142.731+/-0.027  $\chi^2/\text{NDF}$ : 4971276.5/27

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

130.777+/-0.026  $\chi^2/\text{NDF}$ : 5770734.7/27

Left In: 117.943+/-0.036  $\chi^2/\text{NDF}$ :376971.8/8

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



Right In: -5.662 $\pm$ 7.390  $\chi^2$ /NDF: 18.7/17

Left Out: 1.170 $\pm$ 9.255  $\chi^2$ /NDF: 5.3/9

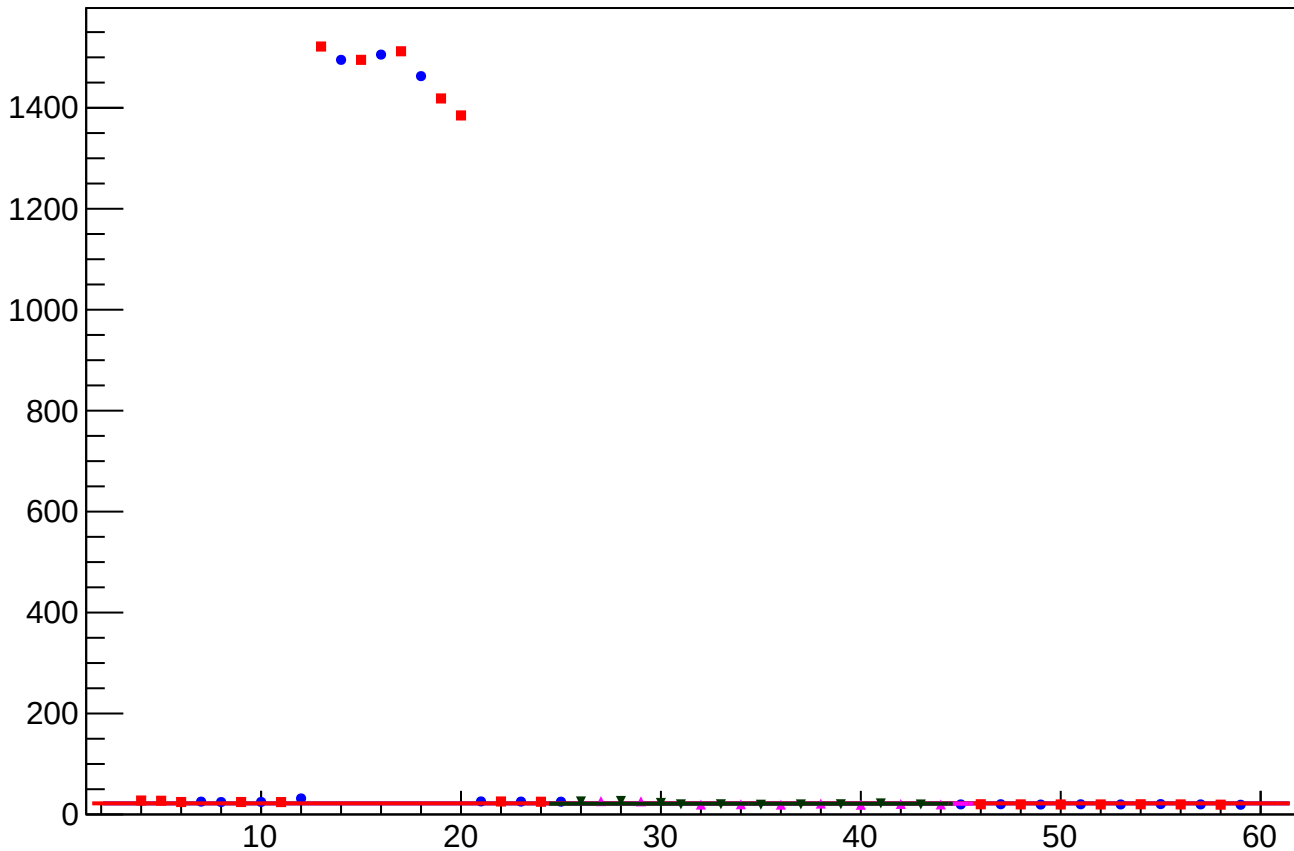
Right Out: 1.722 $\pm$ 8.261  $\chi^2$ /NDF: 10.4/18

Left In: -1.613 $\pm$ 9.046  $\chi^2$ /NDF: 7.3/8

-3.003 $\pm$ 5.775  $\chi^2$ /NDF: 24.4/27

0.205 $\pm$ 6.100  $\chi^2$ /NDF: 17.7/27

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: 21.296 $\pm$ 0.007  $\chi^2$ /NDF: 129006.6/9

21.676 $\pm$ 0.004  $\chi^2$ /NDF: 5066282.7/27

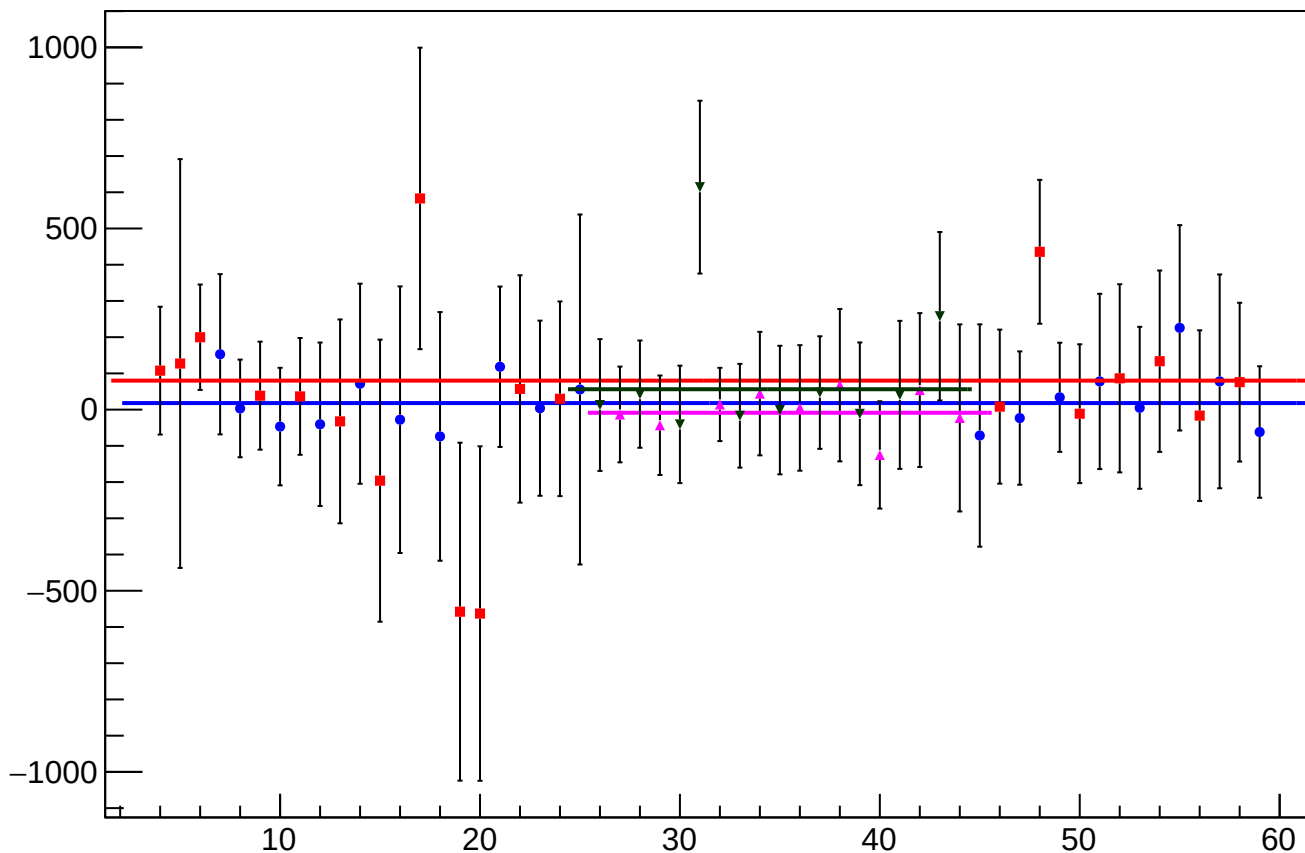
Right Out: 21.987 $\pm$ 0.006  $\chi^2$ /NDF: 5559967.3/18

21.678 $\pm$ 0.004  $\chi^2$ /NDF: 5725992.1/27

Left In: 21.307 $\pm$ 0.006  $\chi^2$ /NDF: 159863.8/8



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: 56.309 $\pm$ 55.753  $\chi^2$ /NDF: 7.1/9

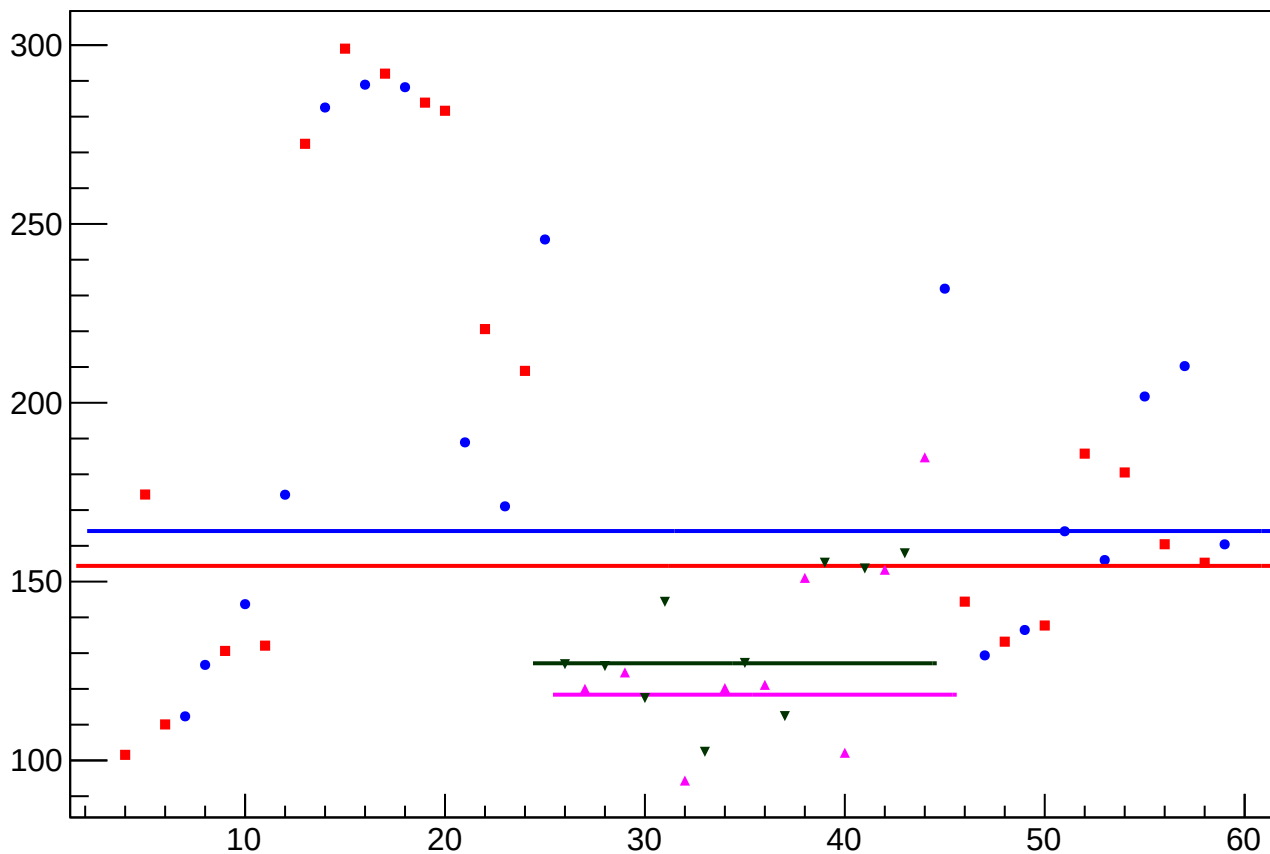
Right Out: 80.043 $\pm$ 52.081  $\chi^2$ /NDF: 10.6/18

Left In: -8.655 $\pm$ 51.217  $\chi^2$ /NDF: 1.1/8

35.633 $\pm$ 37.764  $\chi^2$ /NDF: 9.3/27

34.952 $\pm$ 36.518  $\chi^2$ /NDF: 13.1/27

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



Right In: 164.140+/-0.036  $\chi^2/\text{NDF}$ : 1566554.6/17

Left Out: 127.165+/-0.039  $\chi^2/\text{NDF}$ : 204883.4/9

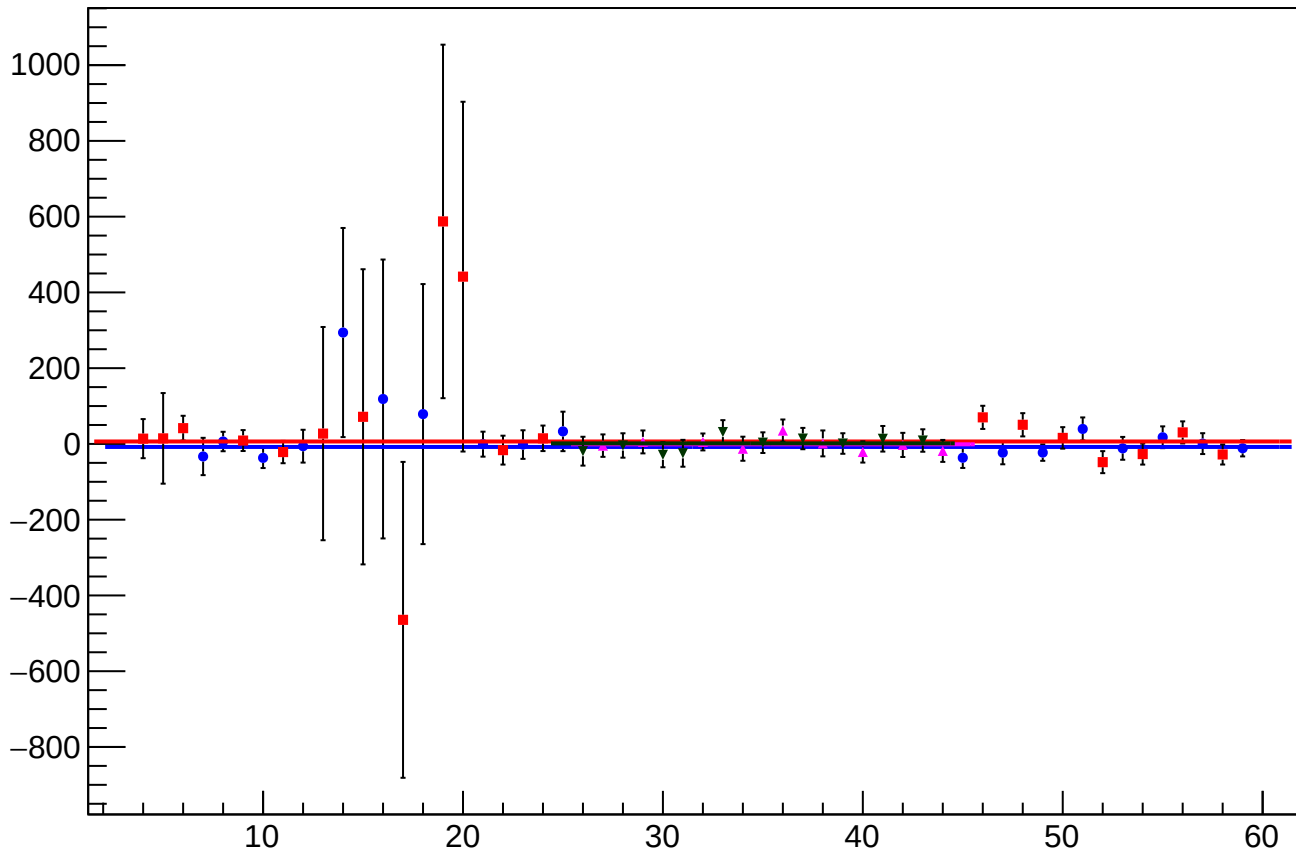
147.176+/-0.027  $\chi^2/\text{NDF}$ : 2247505.1/27

Right Out: 154.395+/-0.037  $\chi^2/\text{NDF}$ : 1875575.3/18

136.090+/-0.026  $\chi^2/\text{NDF}$ : 2737989.7/27

Left In: 118.387+/-0.036  $\chi^2/\text{NDF}$ : 376424.8/8

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



Right In: -7.981+/-7.603  $\chi^2/\text{NDF}$ : 9.0/17

Left Out: 1.423+/-9.824  $\chi^2/\text{NDF}$ : 3.0/9

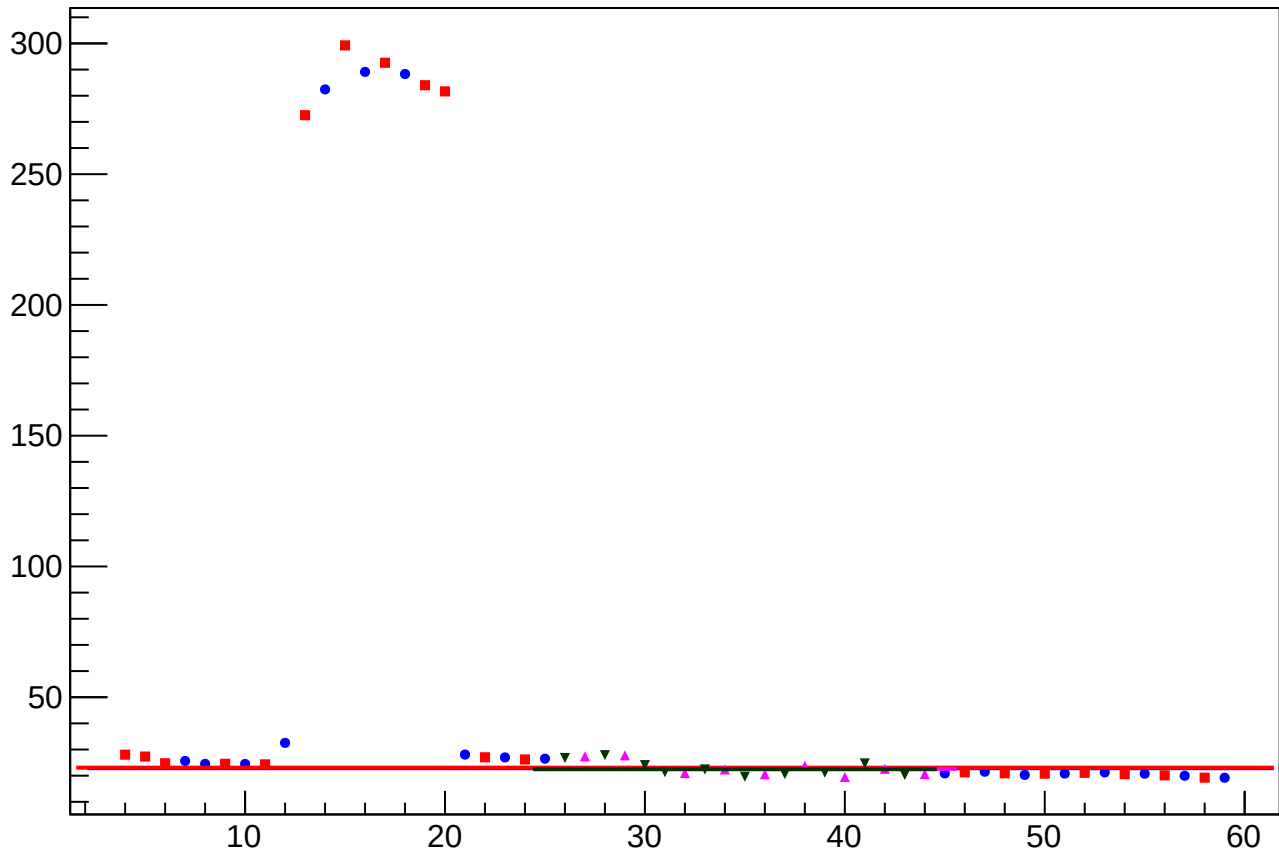
Right Out: 6.463+/-8.479  $\chi^2/\text{NDF}$ : 20.1/18

Left In: -1.028+/-9.666  $\chi^2/\text{NDF}$ : 2.7/8

-4.458+/-6.013  $\chi^2/\text{NDF}$ : 12.6/27

3.206+/-6.374  $\chi^2/\text{NDF}$ : 23.1/27

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: 22.469+/-0.007  $\chi^2/\text{NDF}$ : 142902.0/9

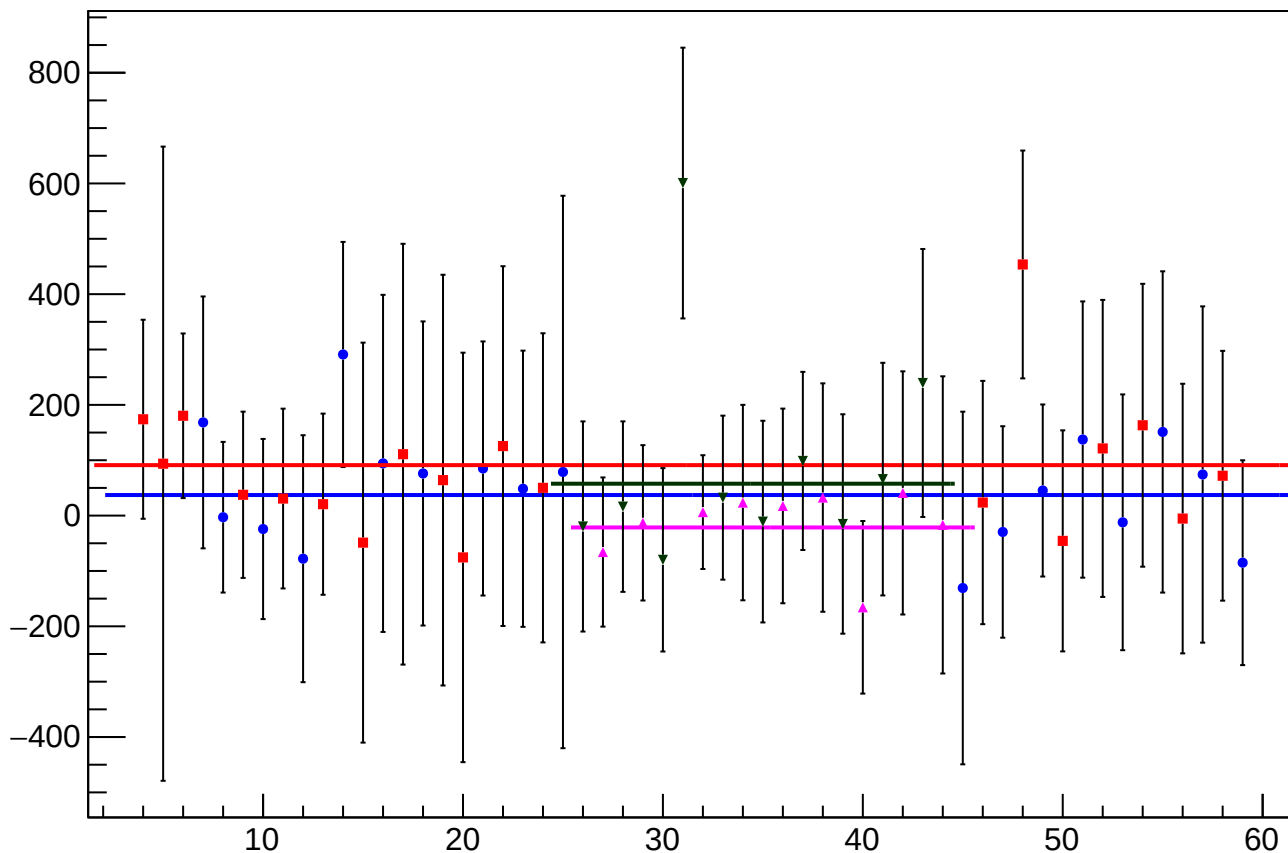
Right Out: 23.069+/-0.006  $\chi^2/\text{NDF}$ : 4856723.7/18

Left In: 22.600+/-0.007  $\chi^2/\text{NDF}$ : 168139.0/8

22.710+/-0.004  $\chi^2/\text{NDF}$ : 4508333.2/27

22.865+/-0.005  $\chi^2/\text{NDF}$ : 5027519.4/27

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



Right In: 37.153 $\pm$ 51.038  $\chi^2$ /NDF: 3.7/17

Left Out: 57.595 $\pm$ 57.484  $\chi^2$ /NDF:6.8/9

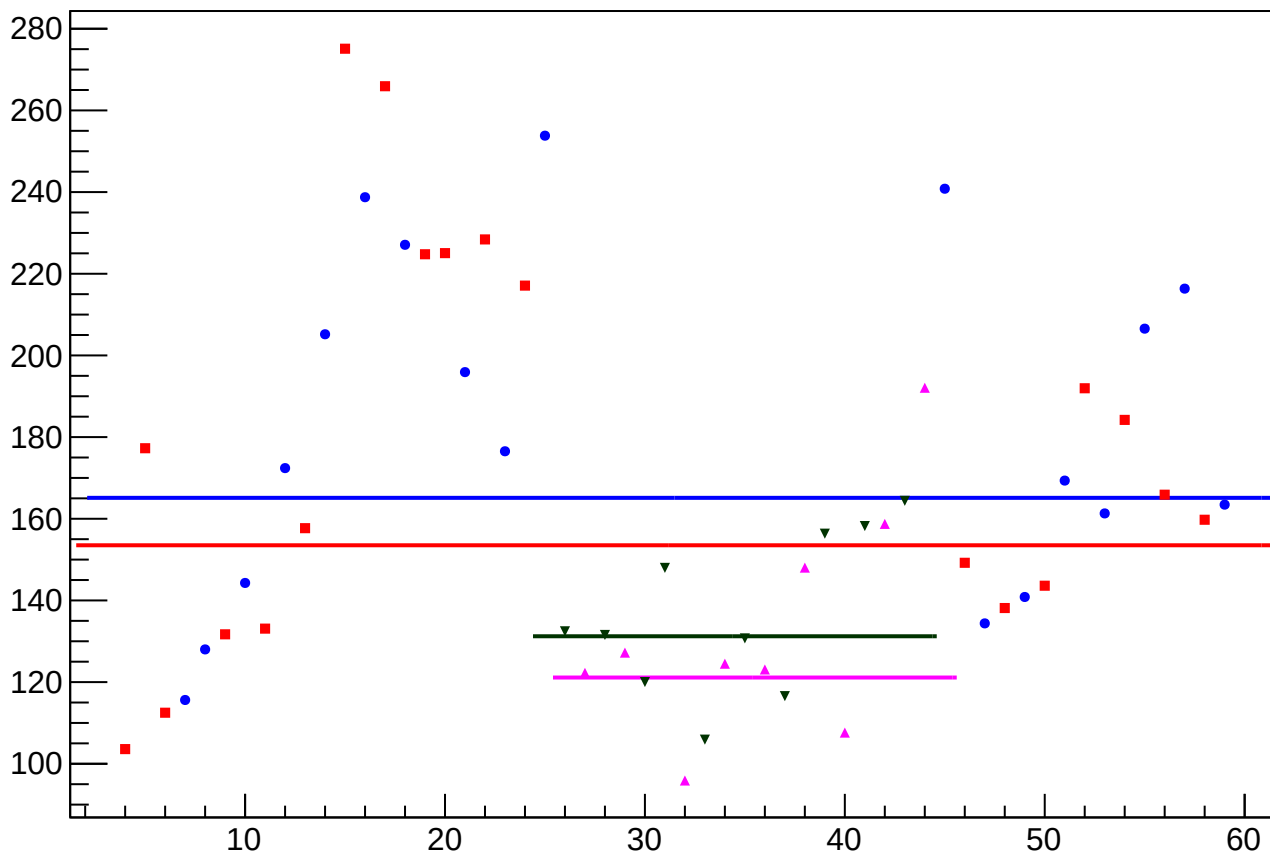
Right Out: 91.157 $\pm$ 50.934  $\chi^2$ /NDF: 5.3/18

Left In: -21.418 $\pm$ 52.393  $\chi^2$ /NDF:1.3/8

46.164 $\pm$ 38.166  $\chi^2$ /NDF: 10.6/27

36.460 $\pm$ 36.521  $\chi^2$ /NDF: 9.0/27

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: 131.227+/-0.041  $\chi^2/\text{NDF}$ : 196358.6/9

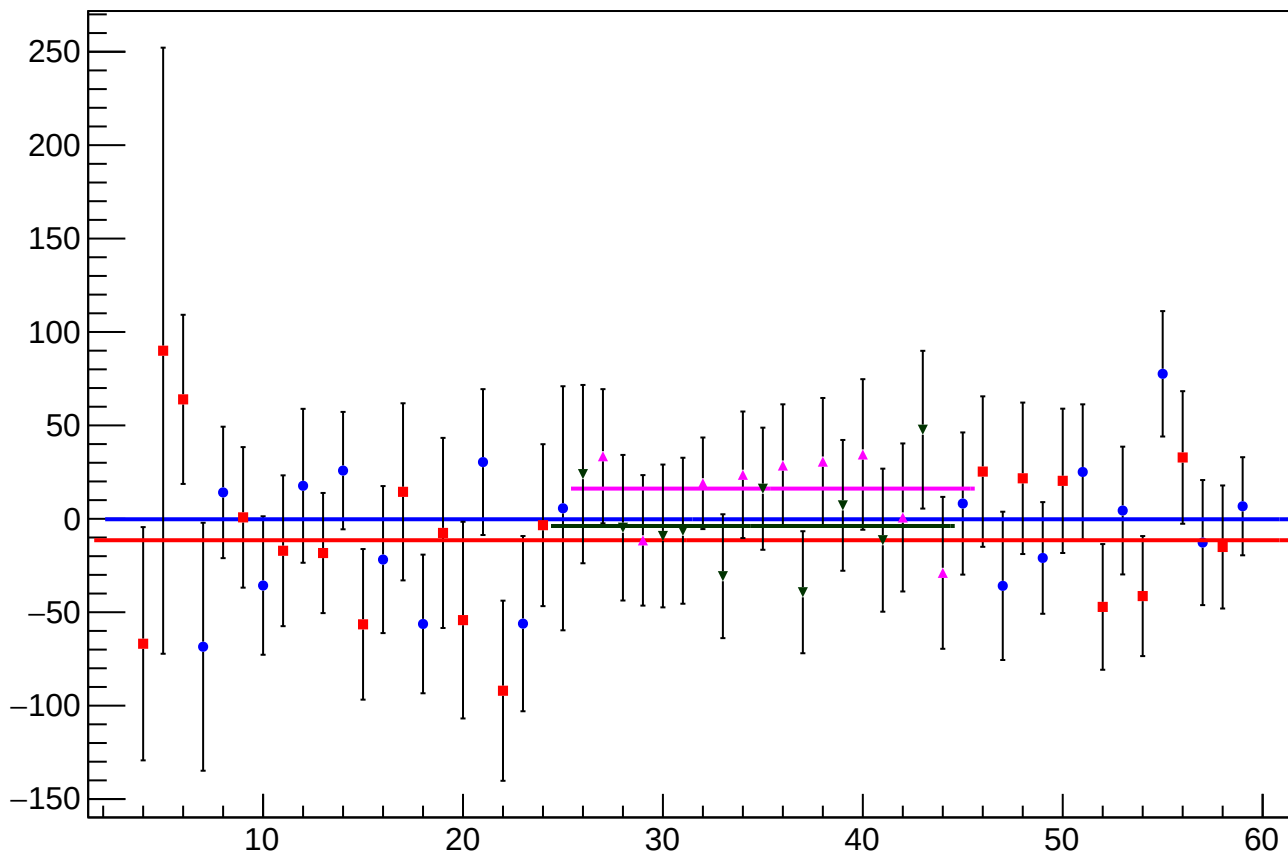
150.182+/-0.027  $\chi^2/\text{NDF}$ : 1575929.4/27

Right Out: 153.509+/-0.036  $\chi^2/\text{NDF}$ : 1238601.8/18

137.772+/-0.026  $\chi^2/\text{NDF}$ : 2004415.2/27

Left In: 121.121+/-0.037  $\chi^2/\text{NDF}$ : 372893.0/8

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:  $-3.842 \pm 11.719$   $\chi^2/\text{NDF}: 4.2/9$

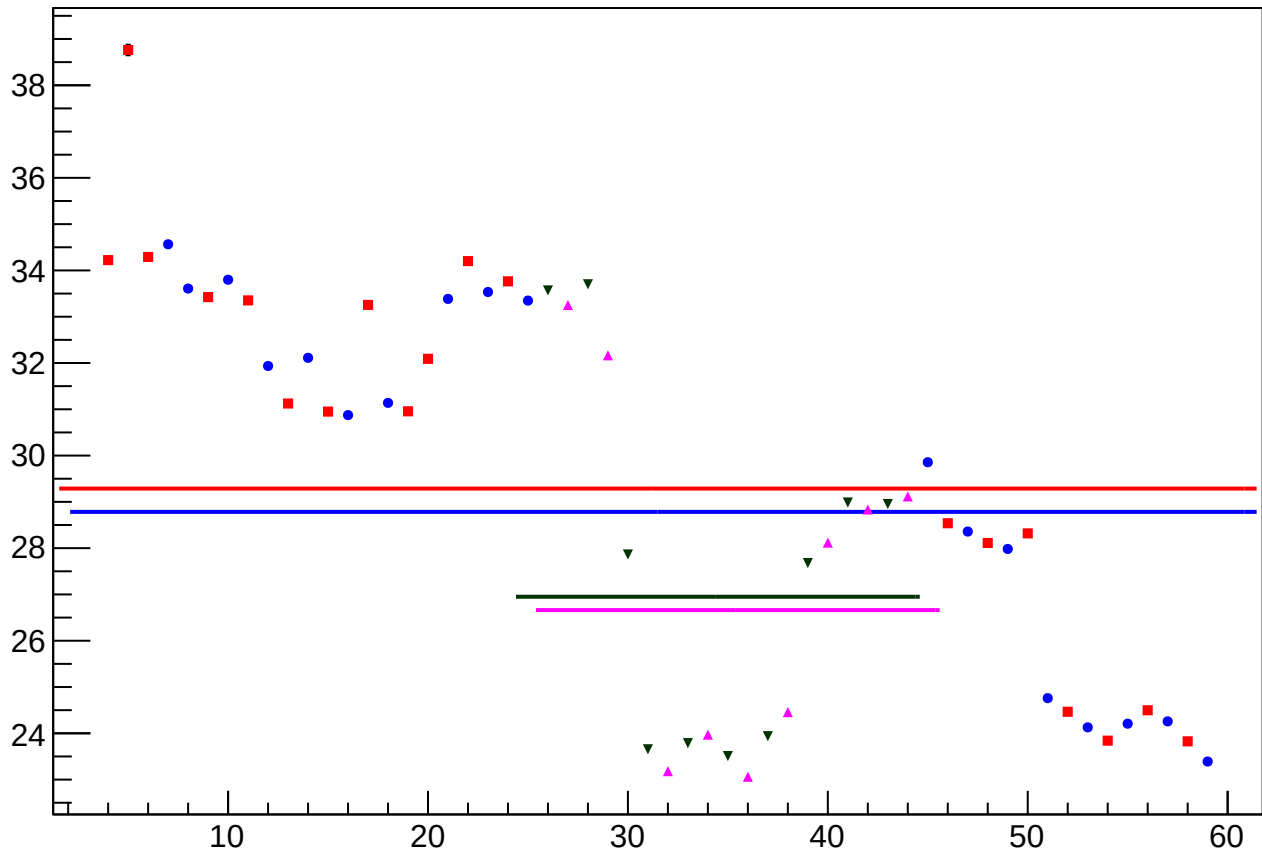
Right Out:  $-11.462 \pm 9.405$   $\chi^2/\text{NDF}: 14.9/18$

Left In:  $16.171 \pm 11.335$   $\chi^2/\text{NDF}: 2.8/8$

$-1.509 \pm 6.958$   $\chi^2/\text{NDF}: 19.3/27$

$-0.195 \pm 7.238$   $\chi^2/\text{NDF}: 21.3/27$

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: 26.950 $\pm$ 0.008  $\chi^2$ /NDF:182300.2/9

28.138 $\pm$ 0.005  $\chi^2$ /NDF: 632500.9/27

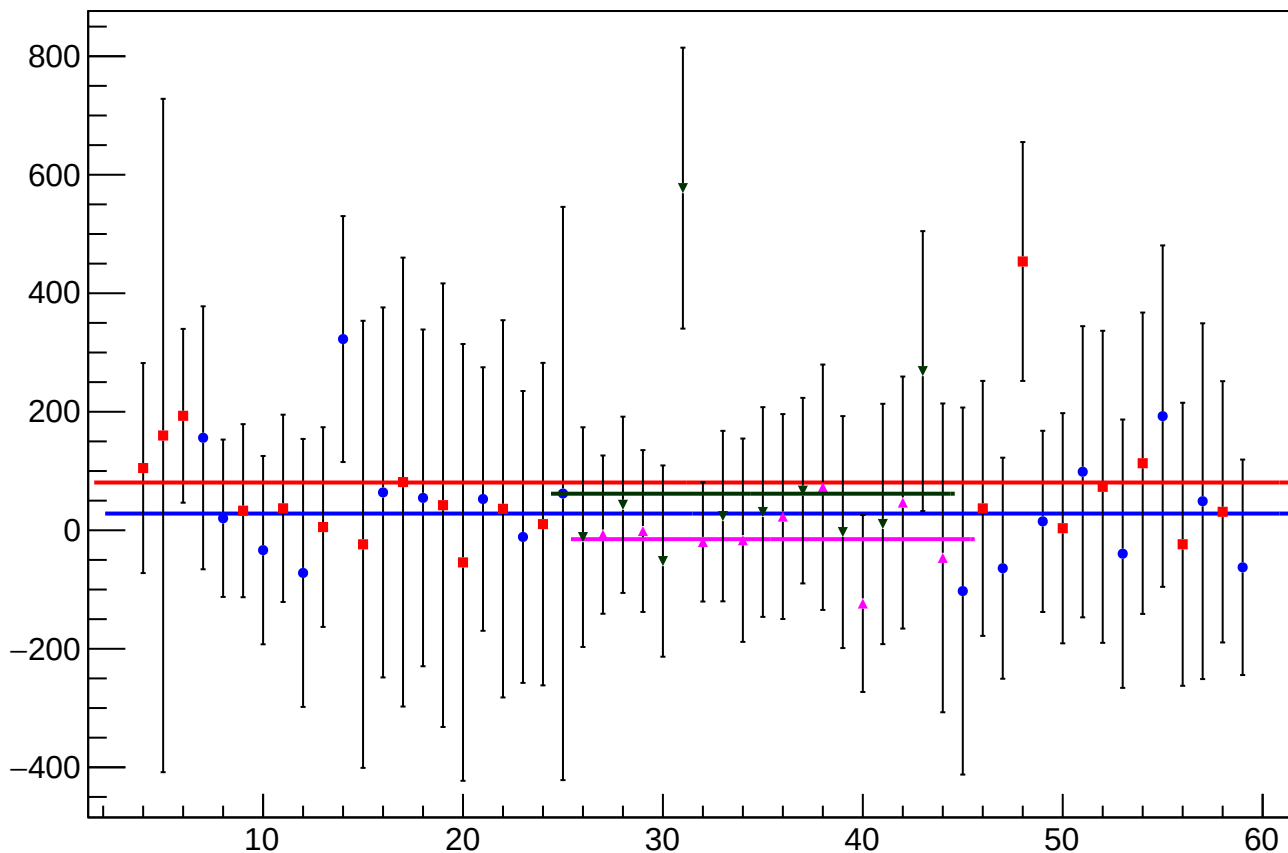
Right Out: 29.288 $\pm$ 0.007  $\chi^2$ /NDF: 355757.4/18

28.217 $\pm$ 0.005  $\chi^2$ /NDF: 637760.3/27

Left In: 26.662 $\pm$ 0.008  $\chi^2$ /NDF:218434.4/8



asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_mean vs slug



Right In: 28.225 $\pm$ 50.353  $\chi^2/\text{NDF}$ : 3.9/17

Left Out: 61.733 $\pm$ 55.913  $\chi^2/\text{NDF}$ : 6.4/9

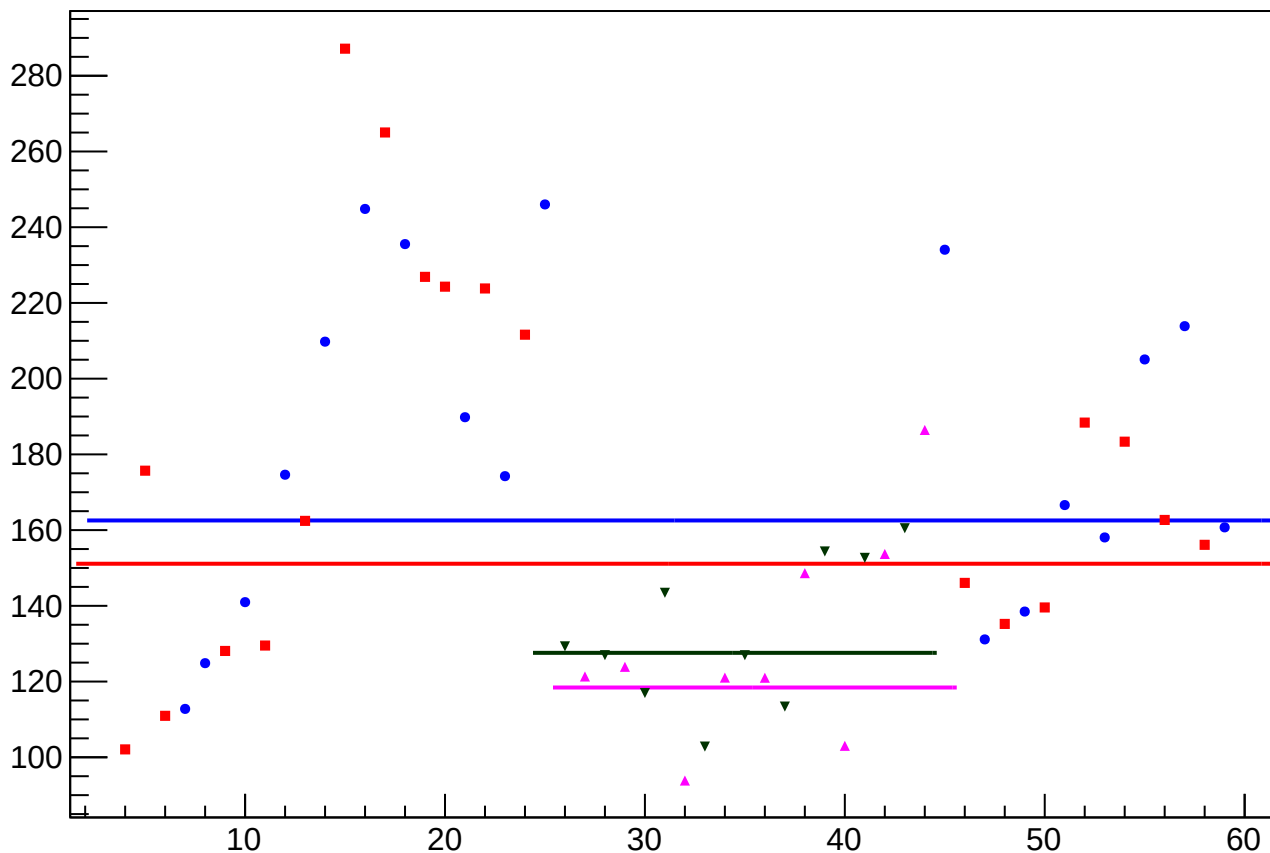
Right Out: 80.614 $\pm$ 50.242  $\chi^2/\text{NDF}$ : 5.2/18

Left In: -15.022 $\pm$ 51.235  $\chi^2/\text{NDF}$ : 0.9/8

43.231 $\pm$ 37.417  $\chi^2/\text{NDF}$ : 10.6/27

33.732 $\pm$ 35.873  $\chi^2/\text{NDF}$ : 7.8/27

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_avg\_rms vs slug



Right In: 162.548+/-0.036  $\chi^2/\text{NDF}$ : 1089314.8/17

Left Out: 127.584+/-0.040  $\chi^2/\text{NDF}$ : 200343.9/9

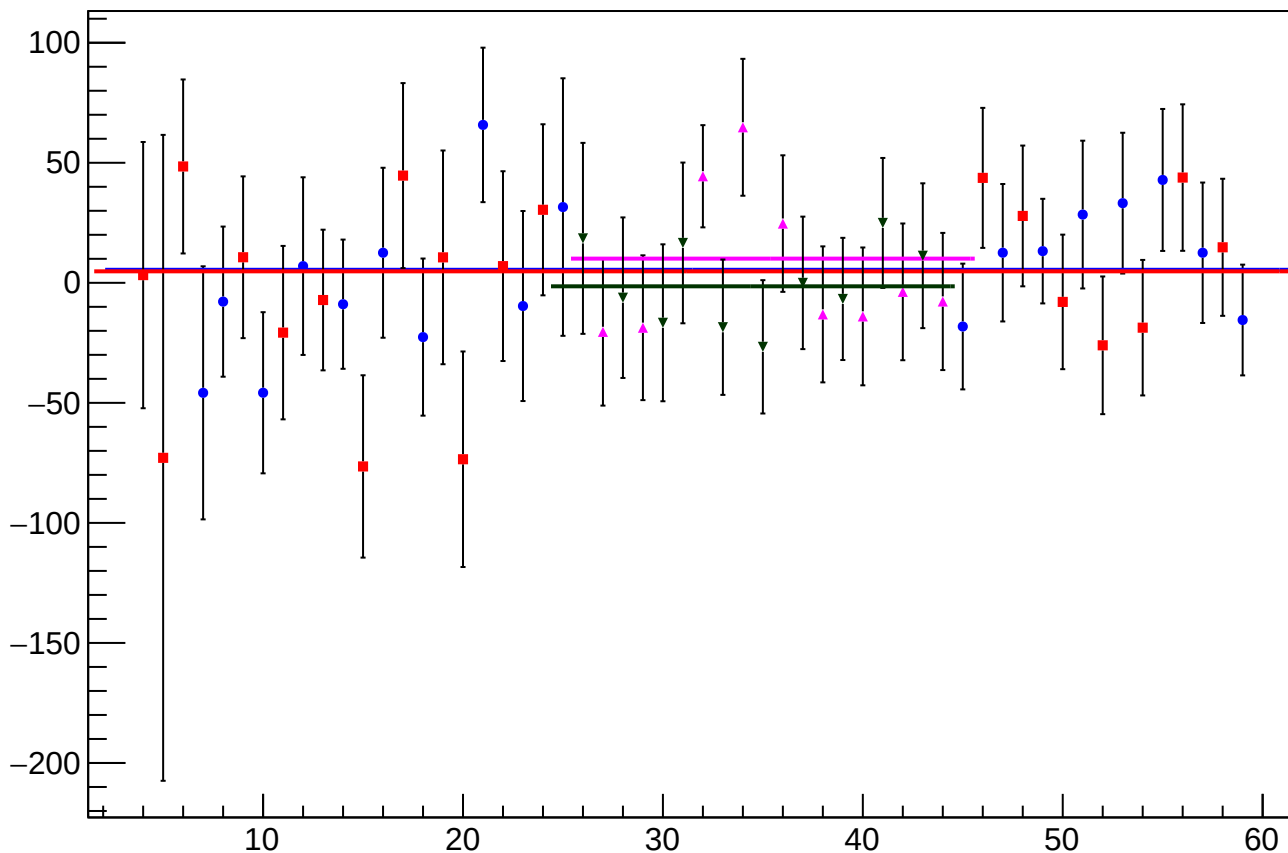
146.891+/-0.026  $\chi^2/\text{NDF}$ : 1721502.4/27

Right Out: 151.117+/-0.036  $\chi^2/\text{NDF}$ : 1306443.7/18

135.093+/-0.025  $\chi^2/\text{NDF}$ : 2101036.6/27

Left In: 118.429+/-0.036  $\chi^2/\text{NDF}$ : 379567.1/8

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_mean vs slug



Right In: 5.427 $\pm$ 7.205  $\chi^2$ /NDF: 13.4/17

Left Out: -1.457 $\pm$ 9.435  $\chi^2$ /NDF:3.1/9

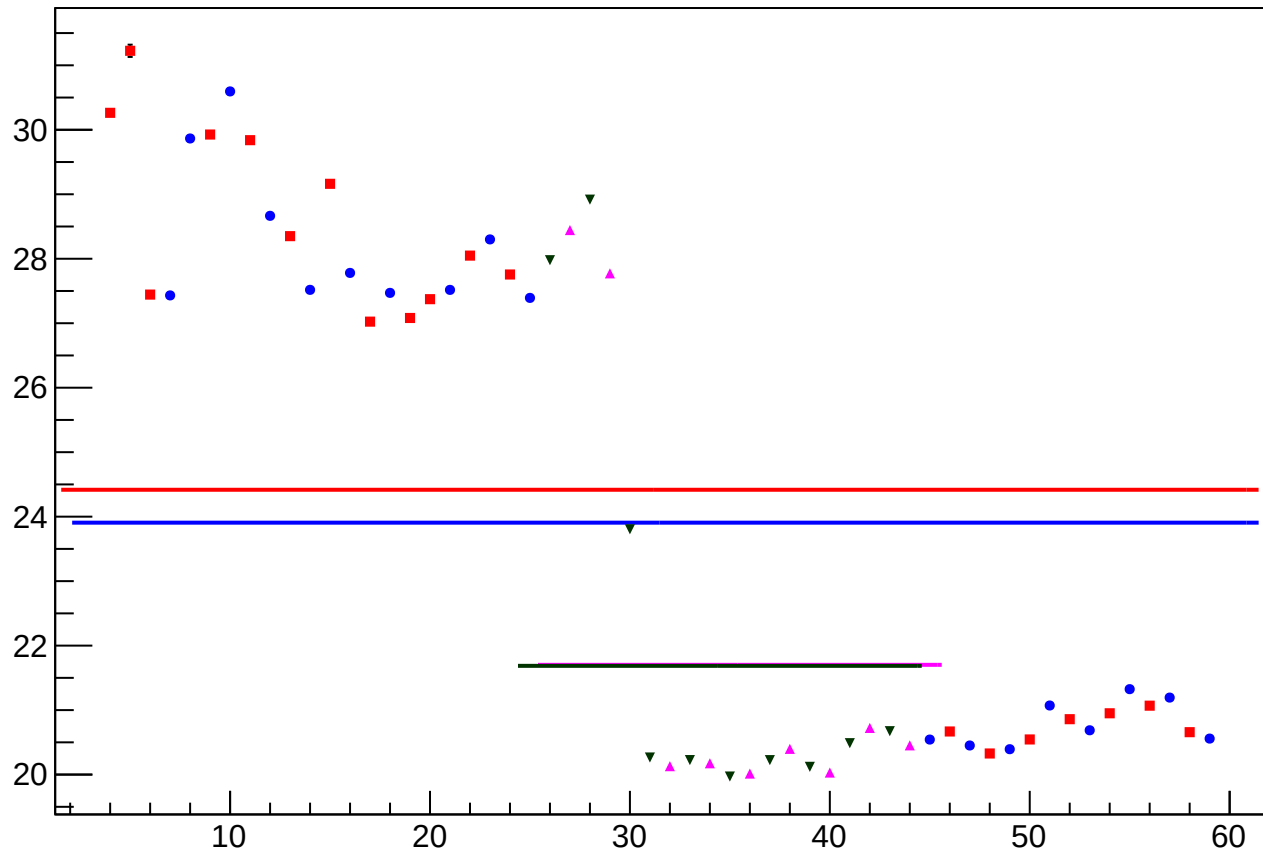
Right Out: 4.784 $\pm$ 7.872  $\chi^2$ /NDF: 17.9/18

Left In: 10.080 $\pm$ 9.225  $\chi^2$ /NDF:10.4/8

2.892 $\pm$ 5.726  $\chi^2$ /NDF: 16.8/27

7.015 $\pm$ 5.988  $\chi^2$ /NDF: 28.6/27

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_rms vs slug



Right In: 23.907+/-0.005  $\chi^2/\text{NDF}$ : 565903.0/17

Left Out: 21.686+/-0.007  $\chi^2/\text{NDF}$ : 187956.4/9

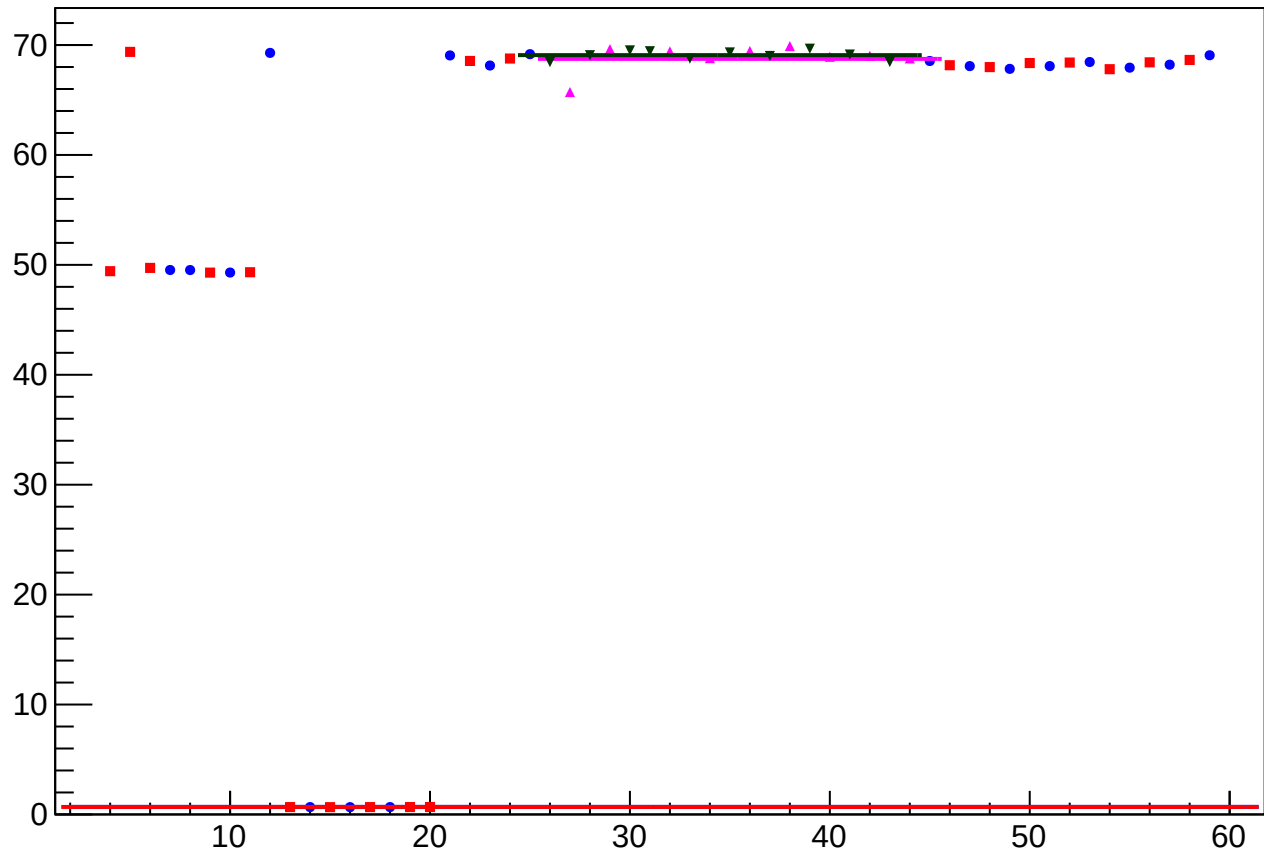
Right Out: 24.417+/-0.006  $\chi^2/\text{NDF}$ : 496476.9/18

Left In: 21.702+/-0.007  $\chi^2/\text{NDF}$ : 218285.8/8

23.089+/-0.004  $\chi^2/\text{NDF}$ : 823832.0/27

23.273+/-0.004  $\chi^2/\text{NDF}$ : 815008.2/27

# yield\_bcm\_an\_ds\_mean vs slug



Right In: 0.688+/-0.000  $\chi^2/\text{NDF}$ : 1036988220984.6/17

Left Out: 69.081+/-0.000  $\chi^2/\text{NDF}$ : 24626539.5/9

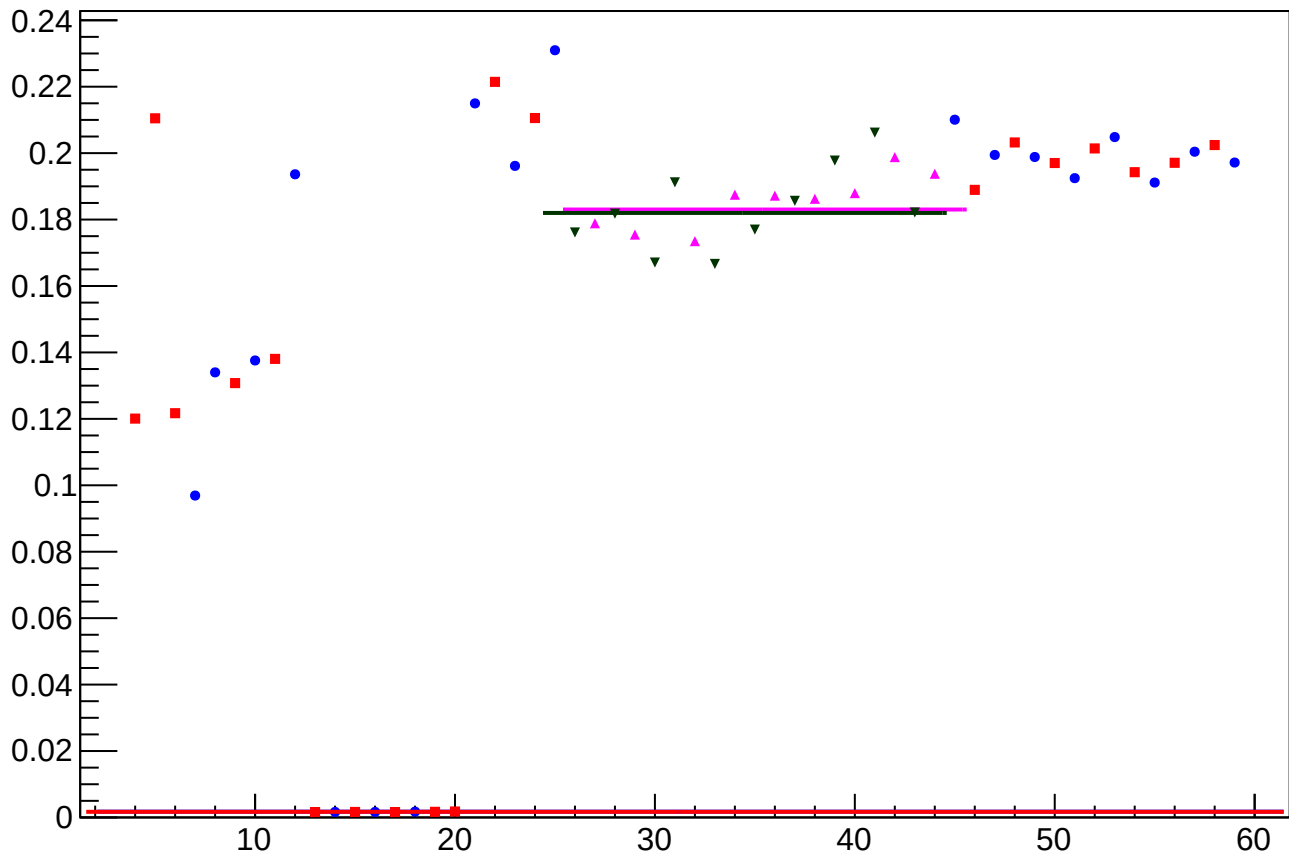
0.701+/-0.000  $\chi^2/\text{NDF}$ : 1765771739604.0/27

Right Out: 0.684+/-0.000  $\chi^2/\text{NDF}$ : 845851789818.6/18

0.695+/-0.000  $\chi^2/\text{NDF}$ : 1595929855184.6/27

Left In: 68.740+/-0.000  $\chi^2/\text{NDF}$ : 294550476.4/8

# yield\_bcm\_an\_ds\_rms vs slug



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 16897571.8/17

Left Out: 0.182+/-0.000  $\chi^2/\text{NDF}$ : 43515.3/9

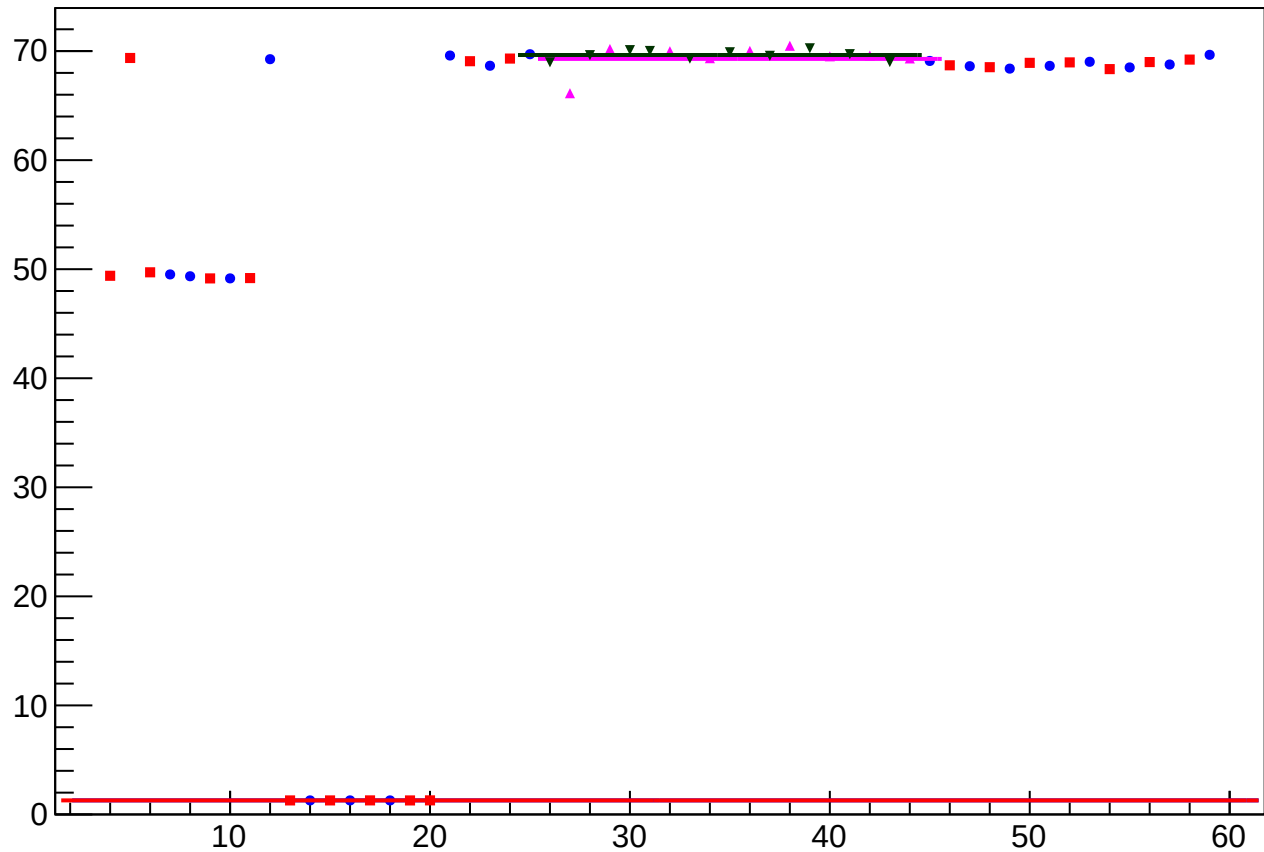
0.002+/-0.000  $\chi^2/\text{NDF}$ : 27064841.9/27

Right Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 13510450.3/18

0.002+/-0.000  $\chi^2/\text{NDF}$ : 24175804.5/27

Left In: 0.183+/-0.000  $\chi^2/\text{NDF}$ : 20451.6/8

# yield\_bcm\_an\_ds3\_mean vs slug



Right In: 1.291+/-0.000  $\chi^2/\text{NDF}$ : 1010041068715.0/17

Left Out: 69.640+/-0.000  $\chi^2/\text{NDF}$ : 25576787.7/9

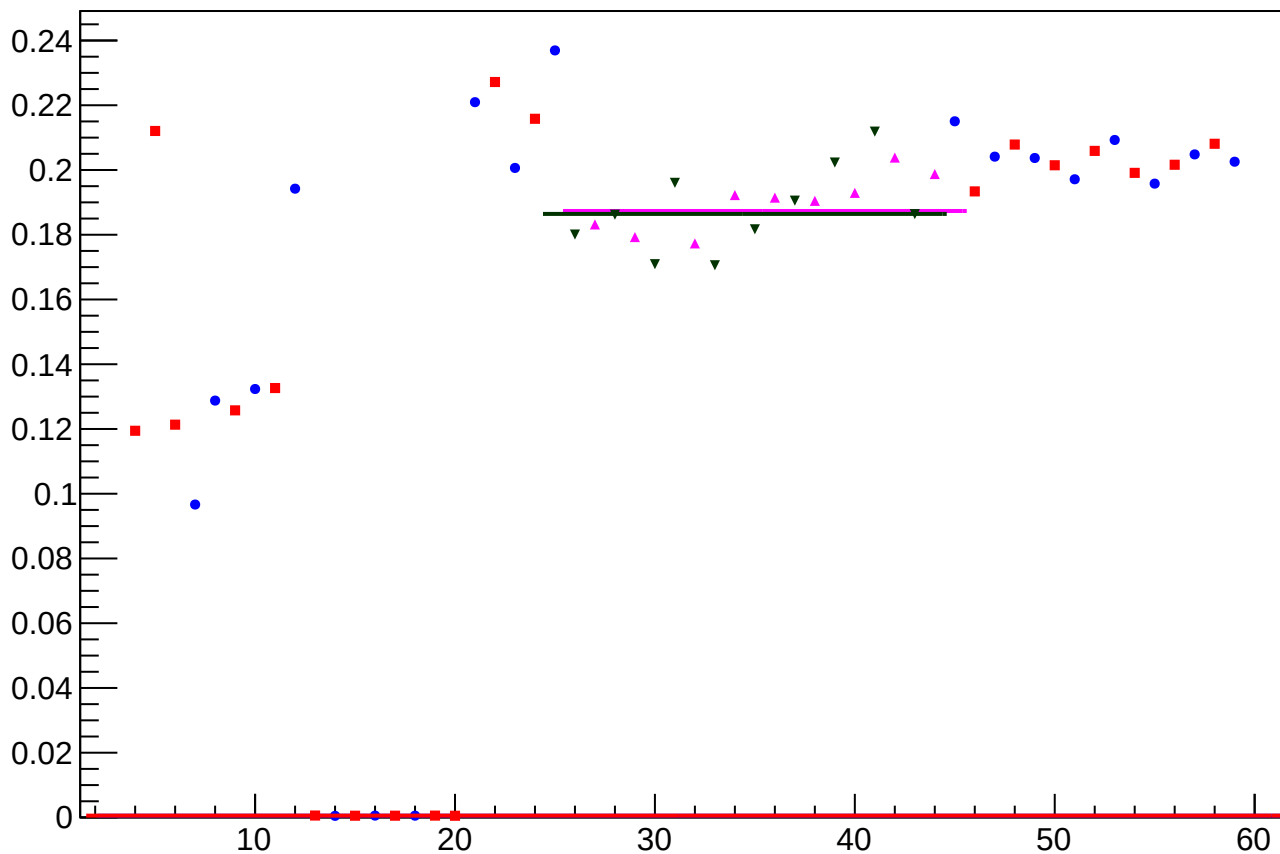
1.292+/-0.000  $\chi^2/\text{NDF}$ : 1703595952244.1/27

Right Out: 1.290+/-0.000  $\chi^2/\text{NDF}$ : 826763948171.6/18

1.291+/-0.000  $\chi^2/\text{NDF}$ : 1541278304150.2/27

Left In: 69.283+/-0.000  $\chi^2/\text{NDF}$ : 304578930.7/8

# yield\_bcm\_an\_ds3\_rms vs slug



Right In: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 17142253.8/17

Left Out: 0.186+/-0.000  $\chi^2/\text{NDF}$ :44561.5/9

Right Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 13695888.0/18

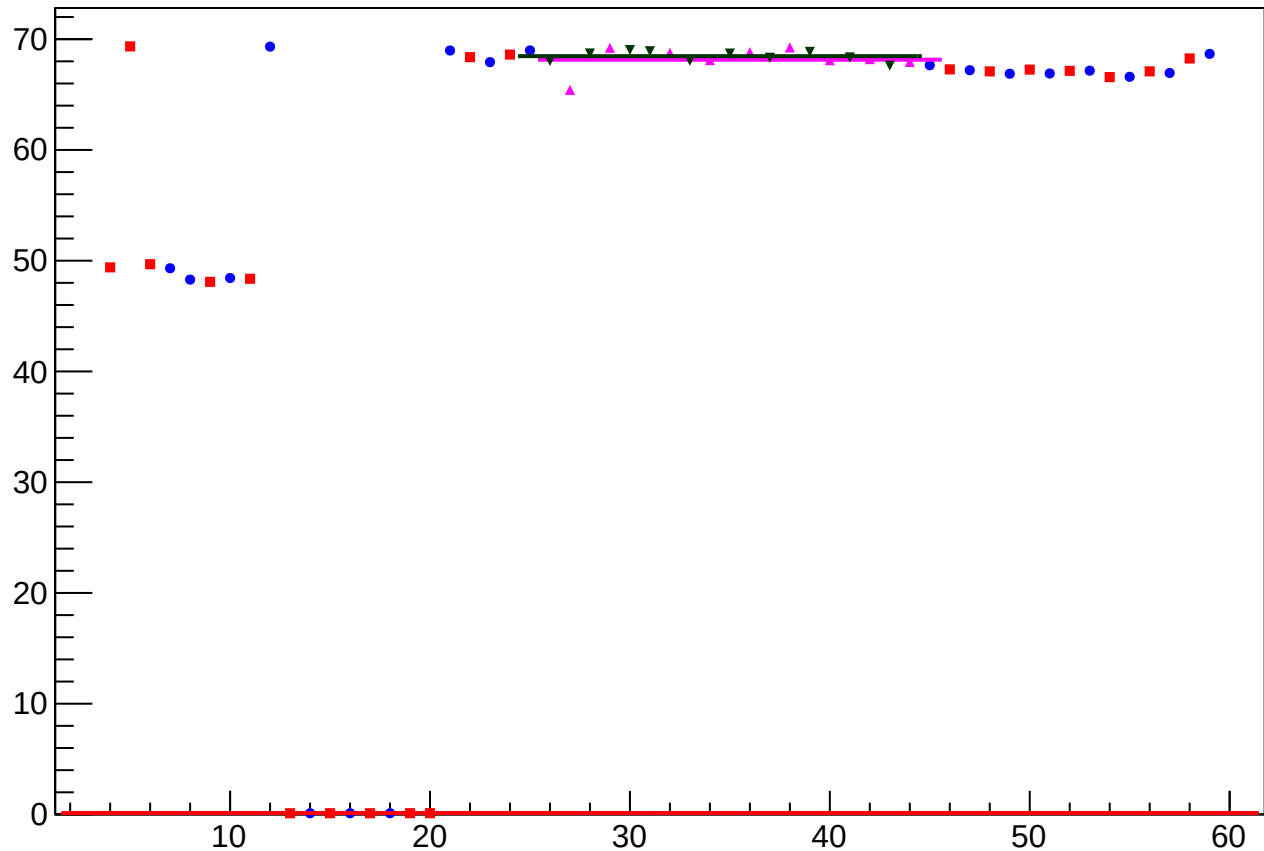
Left In: 0.187+/-0.000  $\chi^2/\text{NDF}$ :21623.6/8

0.001+/-0.000  $\chi^2/\text{NDF}$ : 27447801.9/27

0.001+/-0.000  $\chi^2/\text{NDF}$ : 24496310.8/27



# yield\_bcm\_an\_us\_mean vs slug



Right In: 0.126+/-0.000  $\chi^2/\text{NDF}$ : 1070197088852.4/17

Left Out: 68.467+/-0.000  $\chi^2/\text{NDF}$ : 29247560.9/9

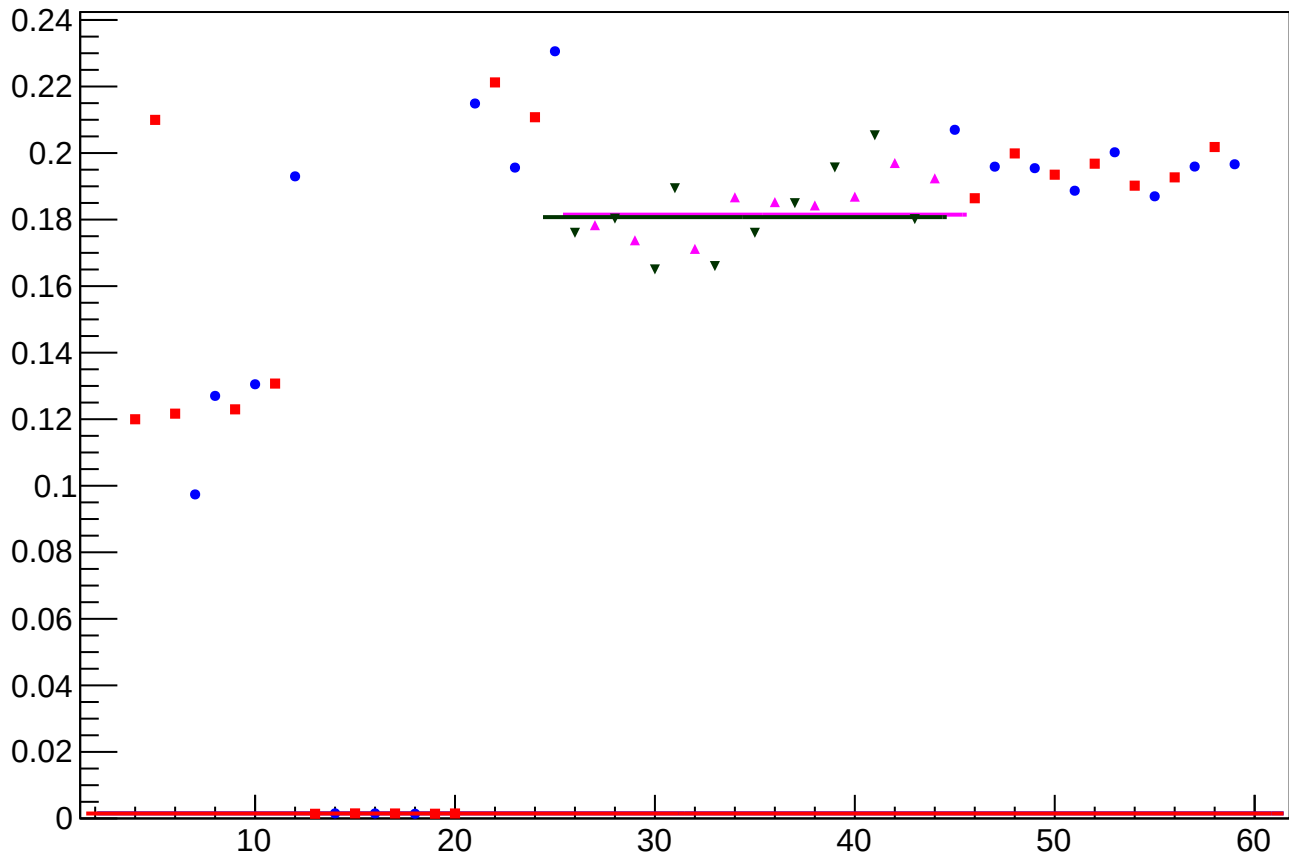
0.137+/-0.000  $\chi^2/\text{NDF}$ : 1806757880279.4/27

Right Out: 0.122+/-0.000  $\chi^2/\text{NDF}$ : 876428994690.6/18

0.130+/-0.000  $\chi^2/\text{NDF}$ : 1638310077274.9/27

Left In: 68.148+/-0.000  $\chi^2/\text{NDF}$ : 258150301.2/8

# yield\_bcm\_an\_us\_rms vs slug



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 16922209.8/17

Left Out: 0.181+/-0.000  $\chi^2/\text{NDF}$ : 43552.7/9

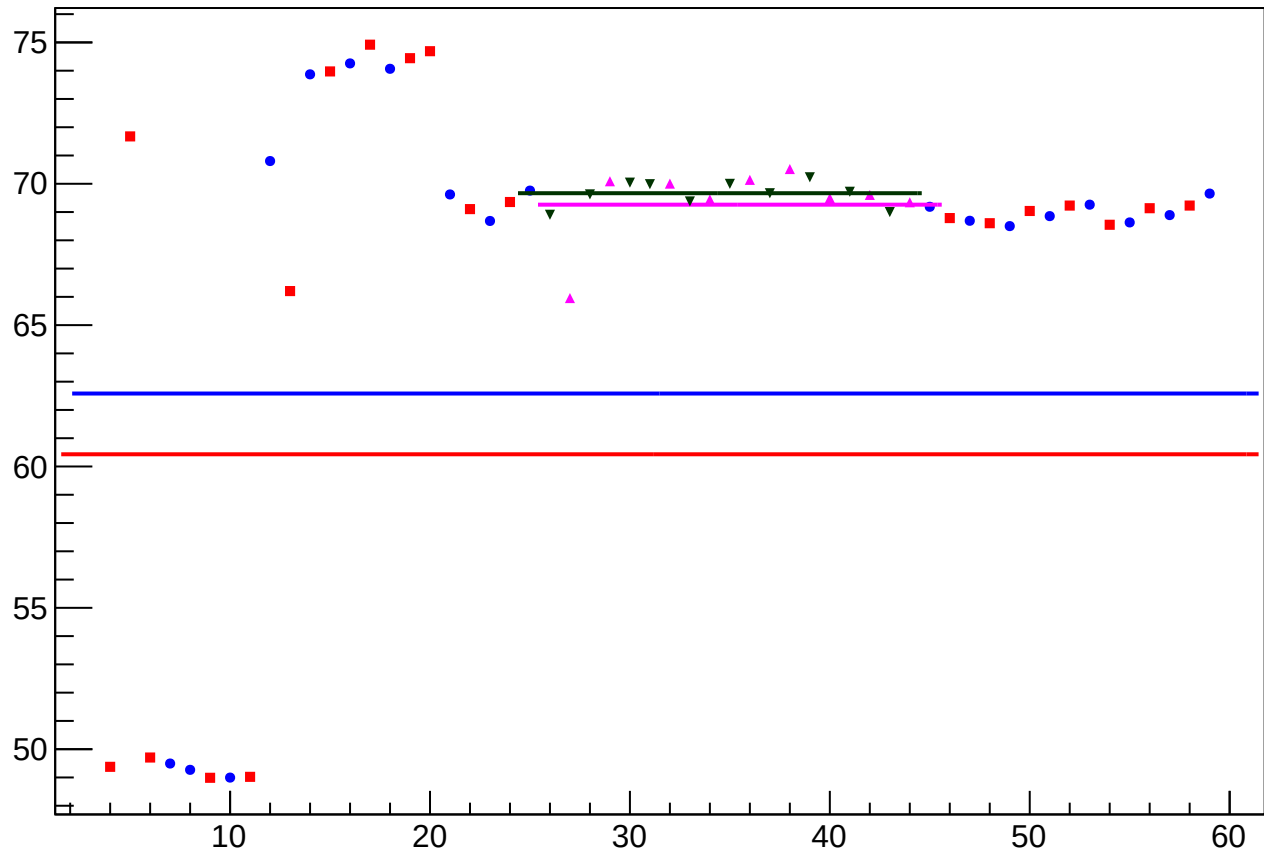
Right Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 13535654.6/18

Left In: 0.181+/-0.000  $\chi^2/\text{NDF}$ : 21535.2/8

0.002+/-0.000  $\chi^2/\text{NDF}$ : 27095002.6/27

0.002+/-0.000  $\chi^2/\text{NDF}$ : 24222093.5/27

# yield\_bcm\_dg\_us\_mean vs slug



Right In: 62.581+/-0.000  $\chi^2/\text{NDF}$ : 33681231971.4/17

Left Out: 69.667+/-0.000  $\chi^2/\text{NDF}$ :24128815.3/9

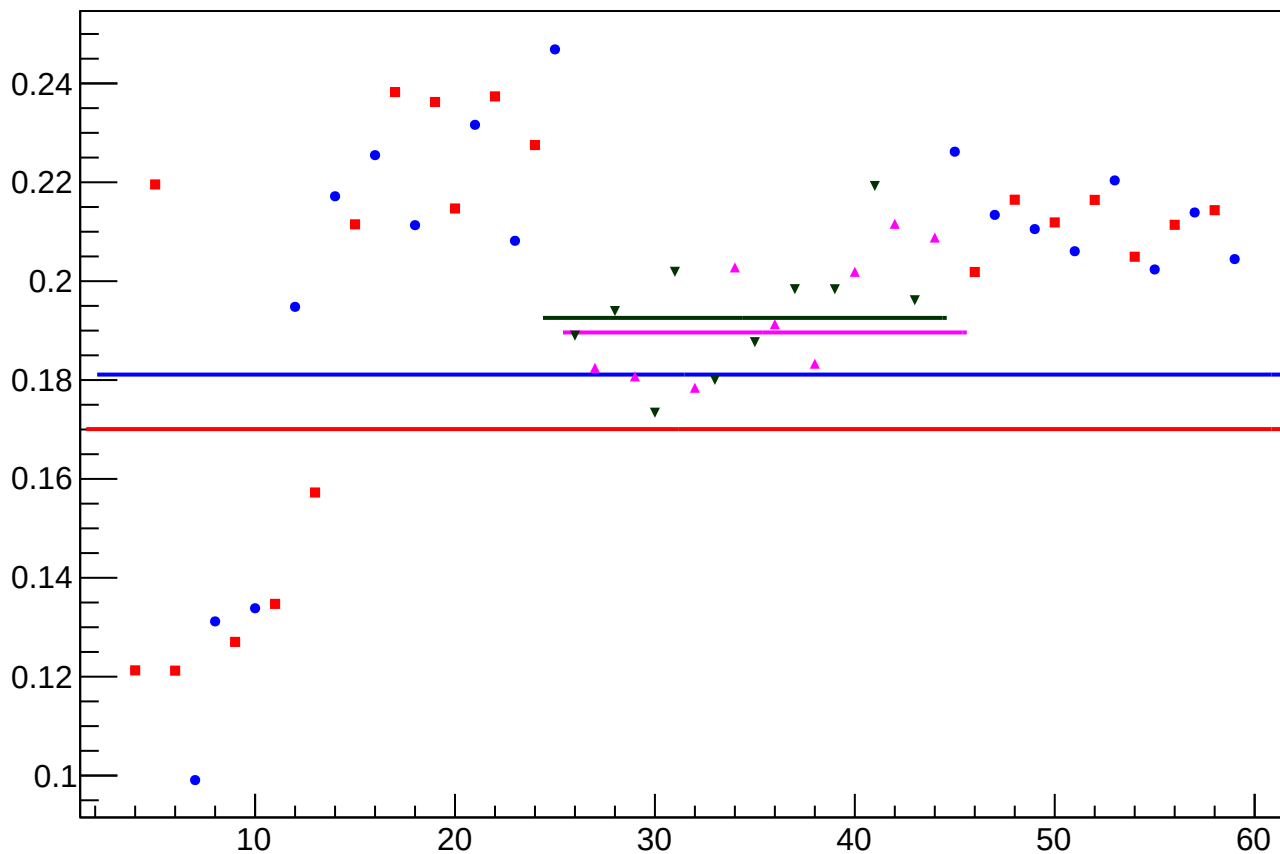
64.759+/-0.000  $\chi^2/\text{NDF}$ : 38549660768.3/27

Right Out: 60.432+/-0.000  $\chi^2/\text{NDF}$ : 32977972131.8/18

63.337+/-0.000  $\chi^2/\text{NDF}$ : 41168301883.0/27

Left In: 69.261+/-0.000  $\chi^2/\text{NDF}$ :334097466.4/8

yield\_bcm\_dg\_us\_rms vs slug



Right In: 0.181+/-0.000  $\chi^2/\text{NDF}$ : 1216212.6/17

Left Out: 0.193+/-0.000  $\chi^2/\text{NDF}$ : 38713.5/9

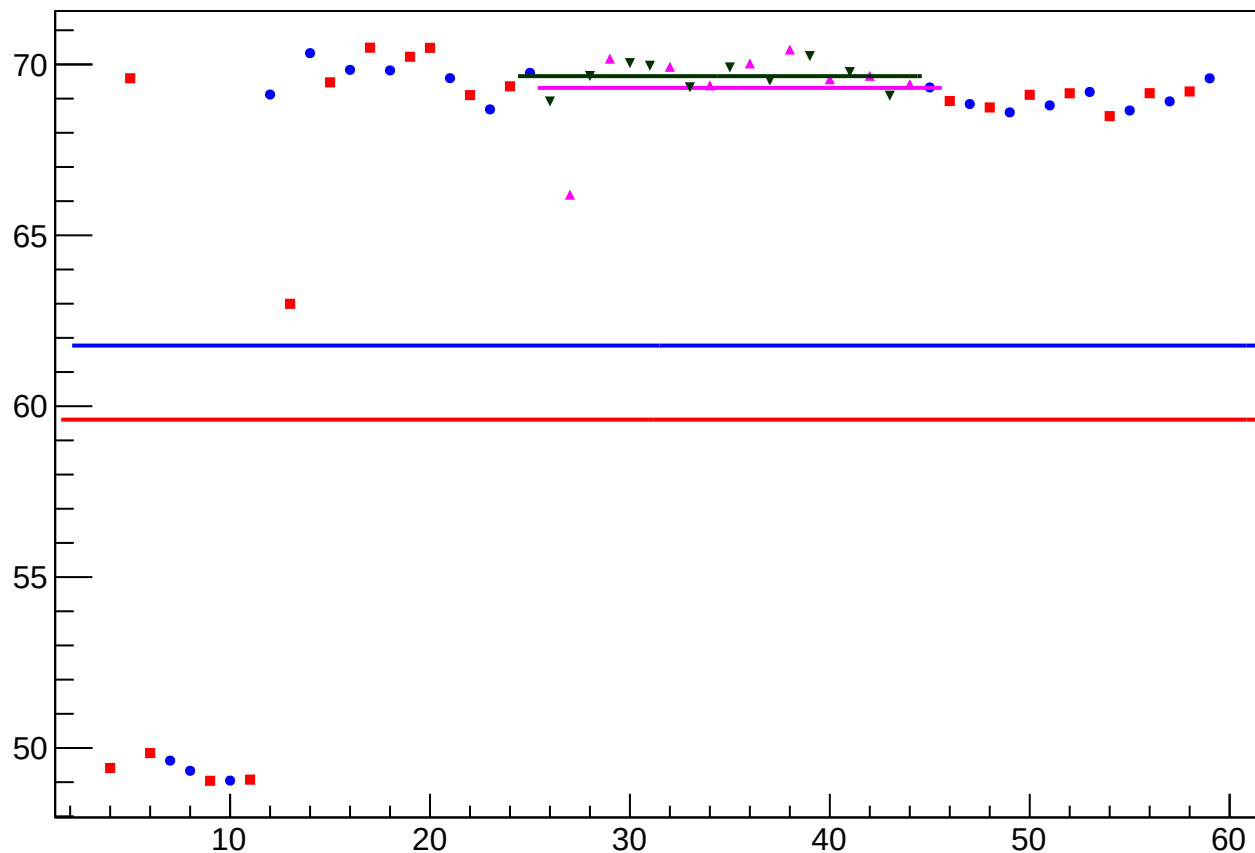
Right Out: 0.170+/-0.000  $\chi^2/\text{NDF}$ : 1183604.4/18

Left In: 0.190+/-0.000  $\chi^2/\text{NDF}$ : 41377.7/8

0.185+/-0.000  $\chi^2/\text{NDF}$ : 1280289.4/27

0.177+/-0.000  $\chi^2/\text{NDF}$ : 1301996.7/27

# yield\_bcm\_dg\_ds\_mean vs slug



Right In: 61.774+/-0.000  $\chi^2/\text{NDF}$ : 30968593880.6/17

Left Out: 69.657+/-0.000  $\chi^2/\text{NDF}$ : 23922100.2/9

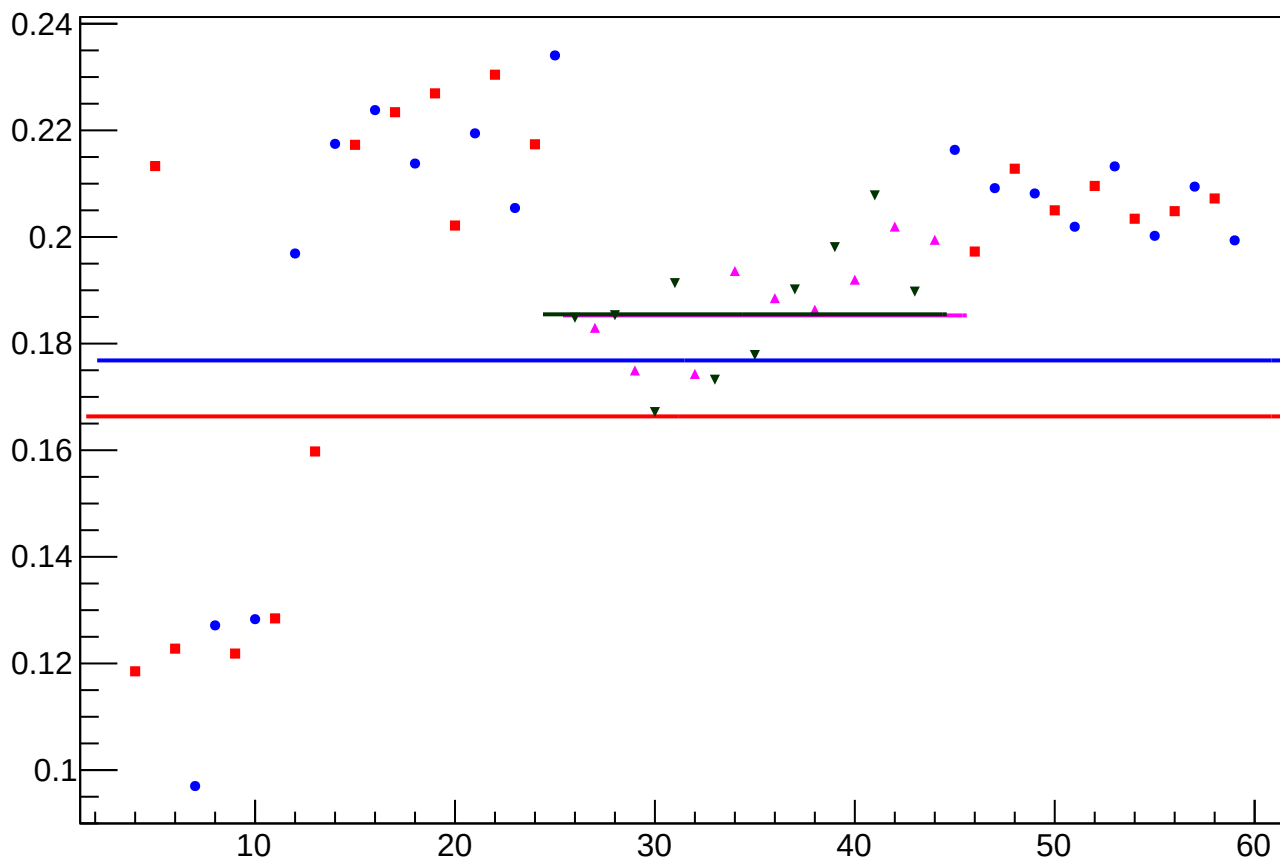
Right Out: 59.608+/-0.000  $\chi^2/\text{NDF}$ : 29547406430.8/18

Left In: 69.314+/-0.000  $\chi^2/\text{NDF}$ : 295096532.4/8

64.248+/-0.000  $\chi^2/\text{NDF}$ : 37398910791.6/27

62.809+/-0.000  $\chi^2/\text{NDF}$ : 39803059205.3/27

# yield\_bcm\_dg\_ds\_rms vs slug



Right In: 0.177+/-0.000  $\chi^2/\text{NDF}$ : 1276663.3/17

Left Out: 0.185+/-0.000  $\chi^2/\text{NDF}$ : 38669.2/9

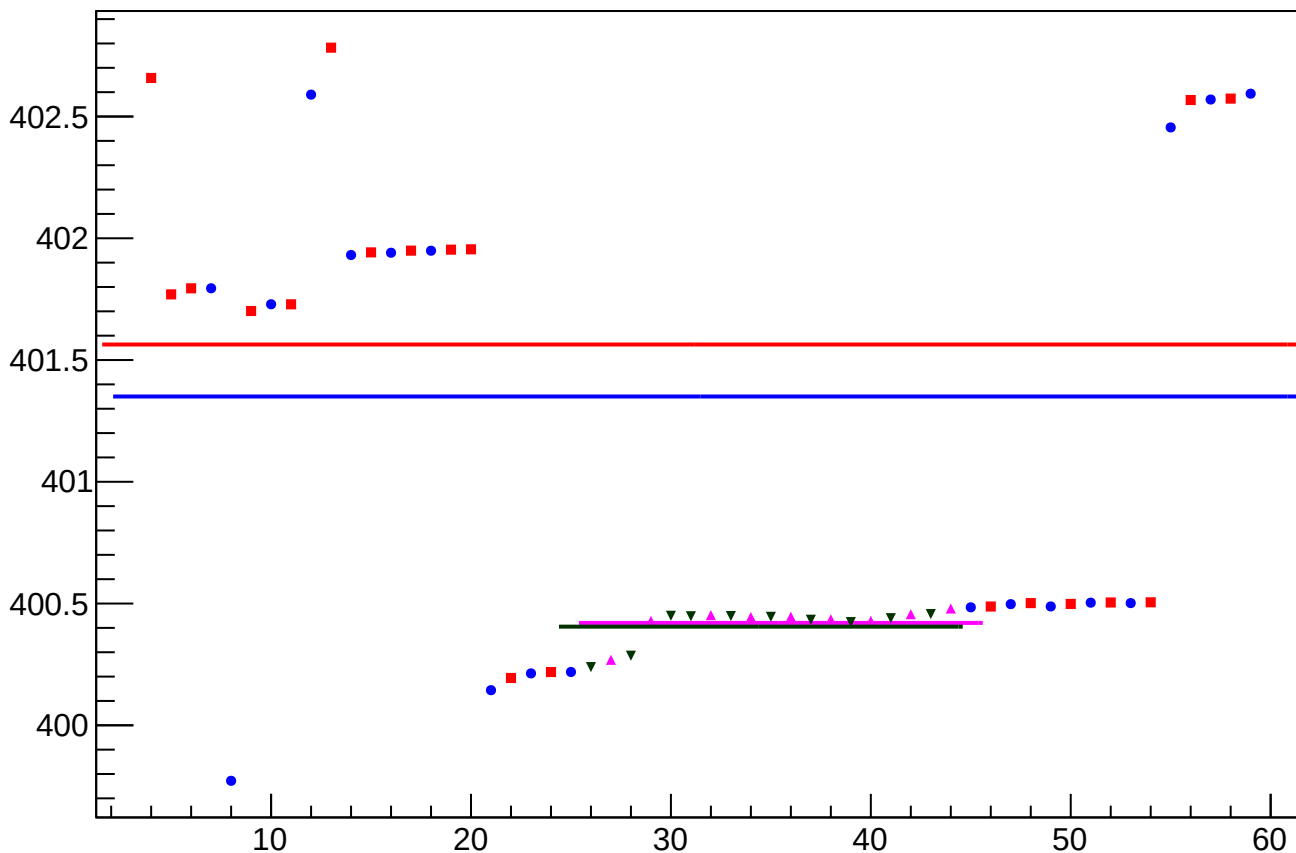
Right Out: 0.166+/-0.000  $\chi^2/\text{NDF}$ : 1156468.8/18

Left In: 0.185+/-0.000  $\chi^2/\text{NDF}$ : 27905.0/8

0.180+/-0.000  $\chi^2/\text{NDF}$ : 1330752.8/27

0.173+/-0.000  $\chi^2/\text{NDF}$ : 1260221.6/27

# yield\_cav4bQ\_mean vs slug



Right In: 401.350 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 235093599906.3/17

Left Out: 400.405 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 614198257.0/9

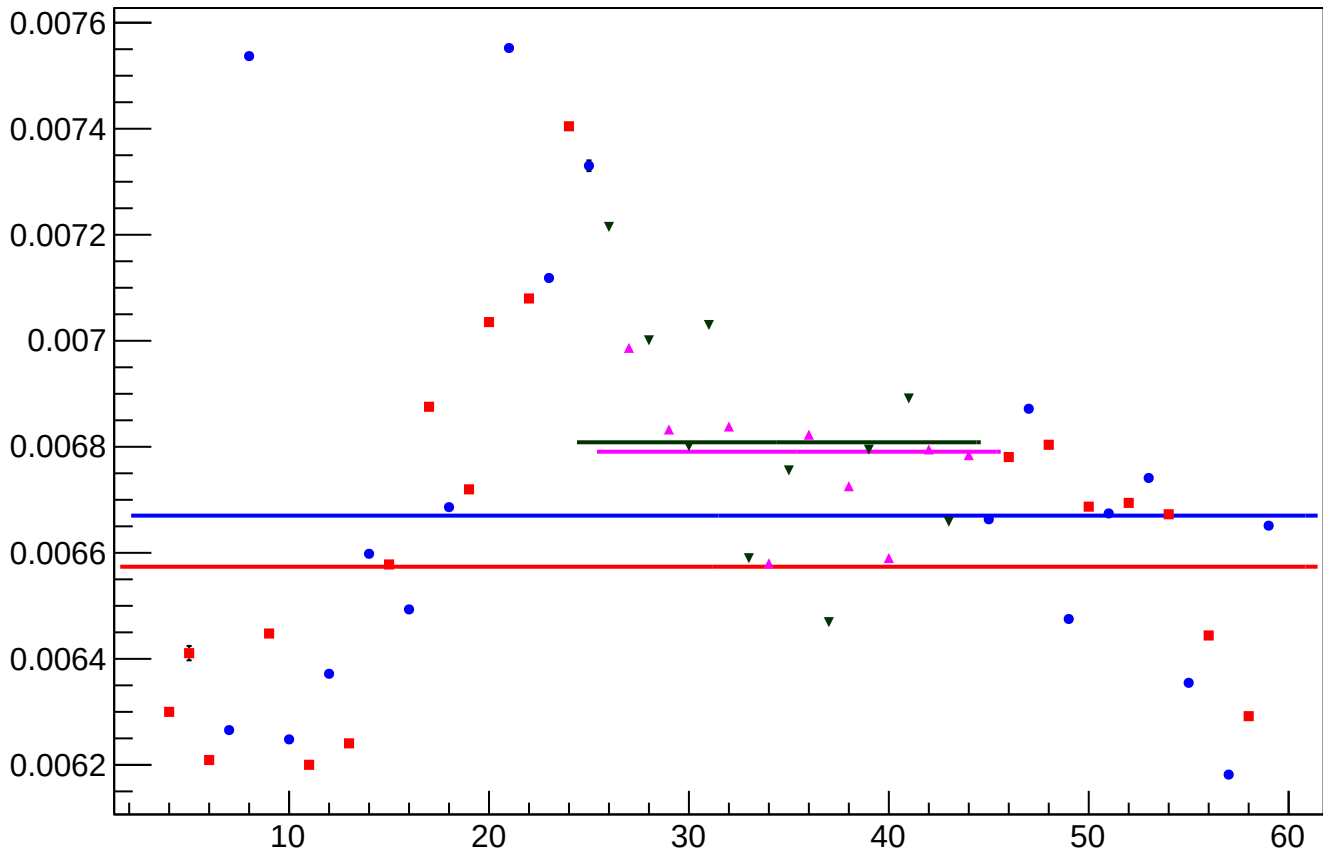
Right Out: 401.564 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 183973928948.5/18

Left In: 400.420 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 493859422.0/8

401.052 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 306665492491.8/27

401.168 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 288978402652.4/27

# yield\_cav4bQ\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 76682.3/17

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 9783.1/9

0.007+/-0.000  $\chi^2/\text{NDF}$ : 89505.9/27

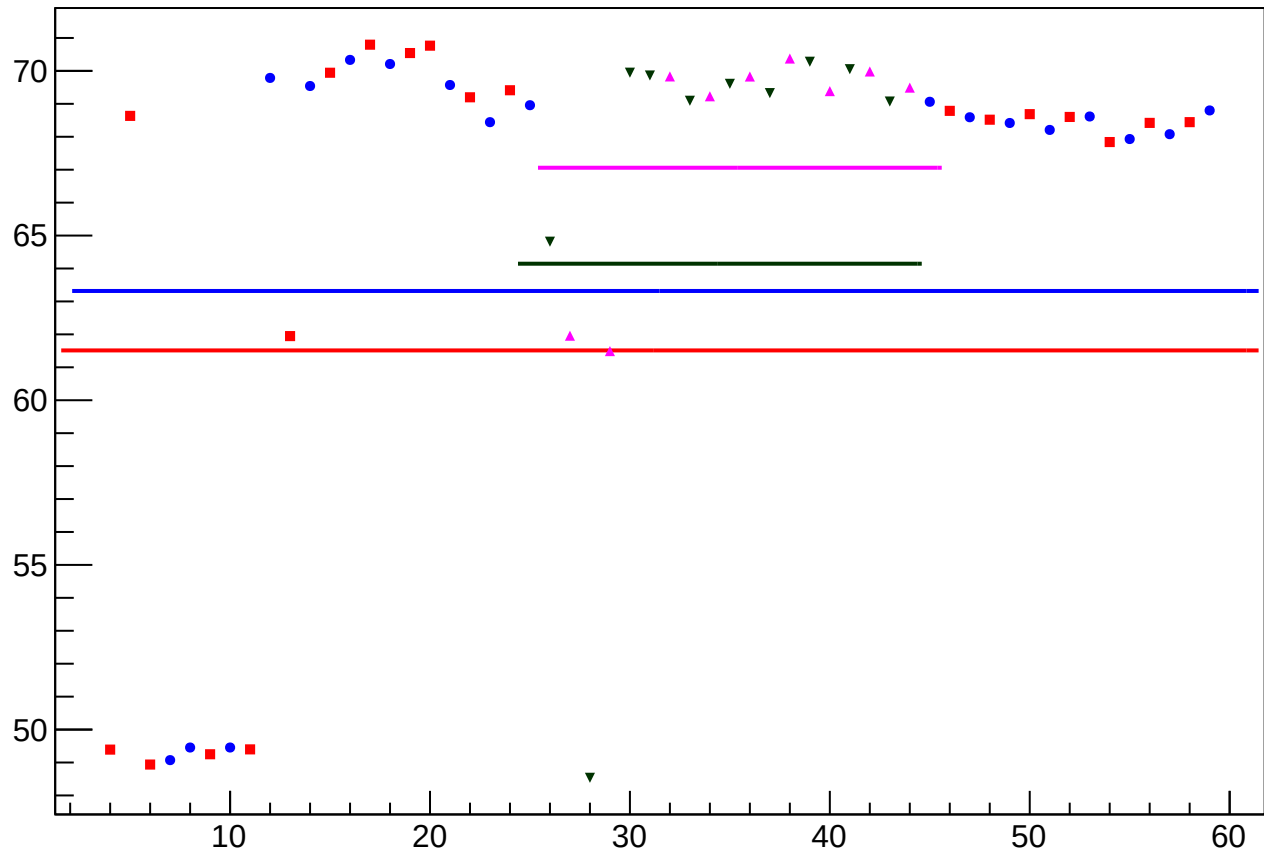
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 47681.9/18

0.007+/-0.000  $\chi^2/\text{NDF}$ : 58751.4/27

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3544.3/8



# yield\_cav4cQ\_mean vs slug



Right In: 63.318+/-0.000  $\chi^2/\text{NDF}$ : 17047377048.9/17

Left Out: 64.145+/-0.000  $\chi^2/\text{NDF}$ : 8533420736.0/9

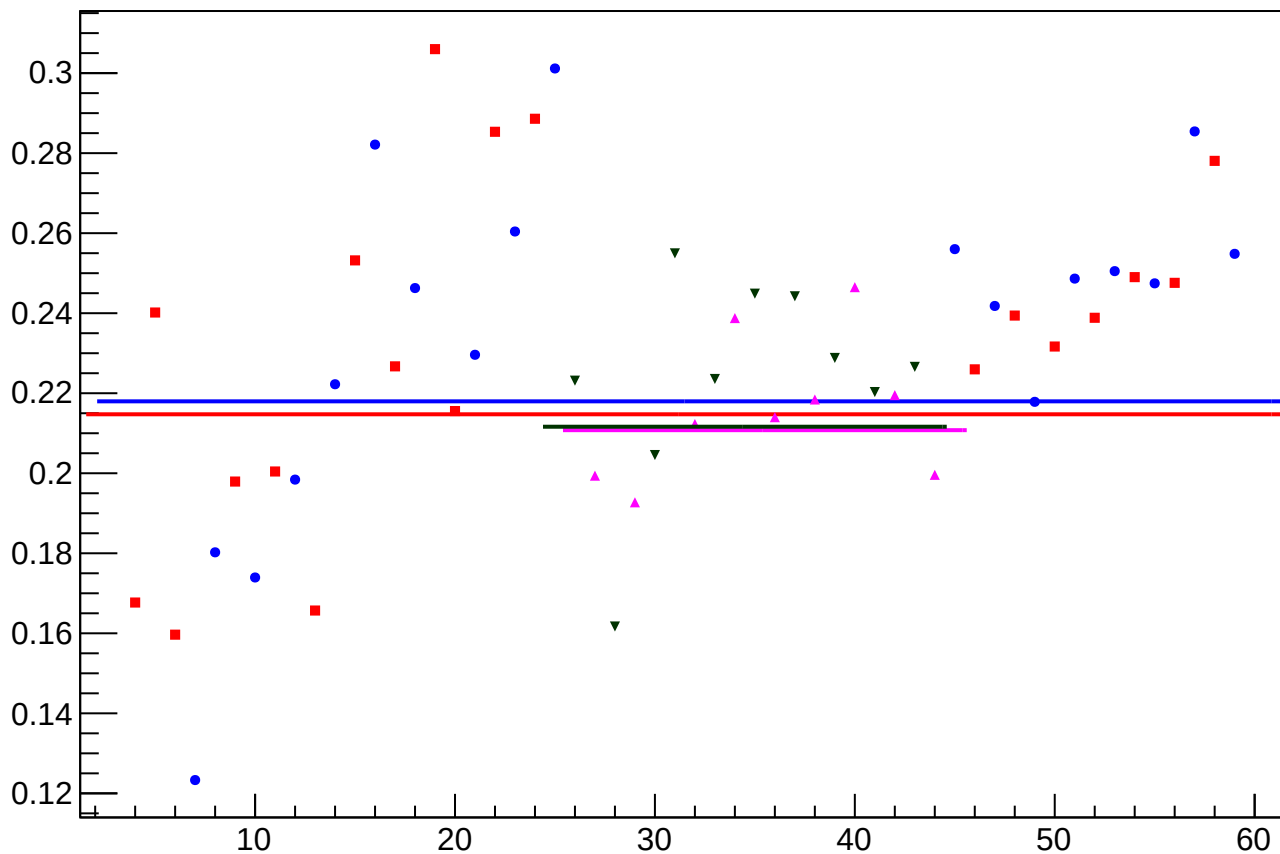
63.595+/-0.000  $\chi^2/\text{NDF}$ : 25629365421.4/27

Right Out: 61.513+/-0.000  $\chi^2/\text{NDF}$ : 15349624825.1/18

63.619+/-0.000  $\chi^2/\text{NDF}$ : 19178916230.9/27

Left In: 67.060+/-0.000  $\chi^2/\text{NDF}$ : 1652898078.7/8

# yield\_cav4cQ\_rms vs slug



Right In:  $0.218 \pm 0.000$   $\chi^2/\text{NDF}$ : 734629.1/17

Left Out:  $0.212 \pm 0.000$   $\chi^2/\text{NDF}$ : 201414.9/9

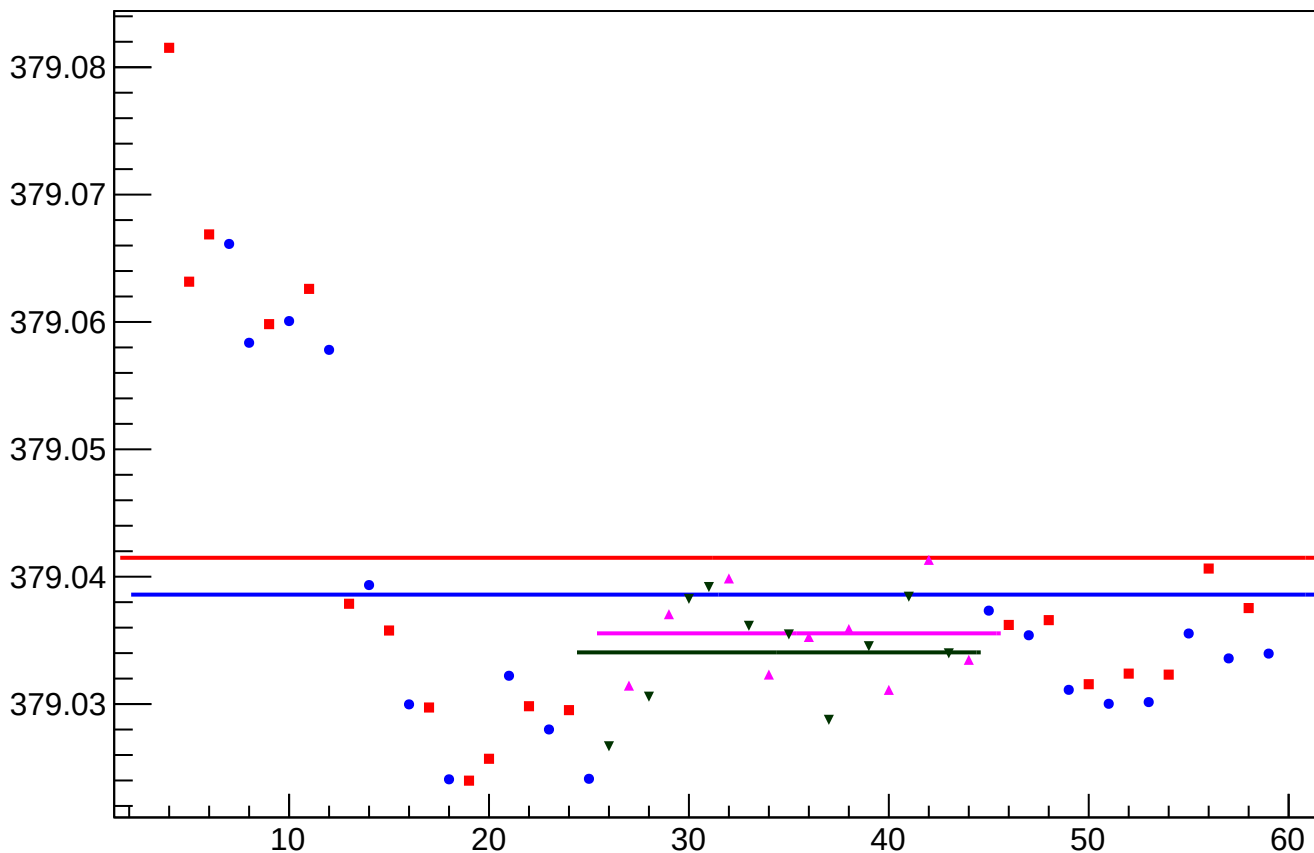
Right Out:  $0.215 \pm 0.000$   $\chi^2/\text{NDF}$ : 631176.3/18

Left In:  $0.211 \pm 0.000$   $\chi^2/\text{NDF}$ : 54593.1/8

$0.216 \pm 0.000$   $\chi^2/\text{NDF}$ : 941747.9/27

$0.213 \pm 0.000$   $\chi^2/\text{NDF}$ : 687997.2/27

# yield\_cav4dQ\_mean vs slug



Right In:  $379.039 \pm 0.000$   $\chi^2/\text{NDF}$ : 33775812.8/17

Left Out:  $379.034 \pm 0.000$   $\chi^2/\text{NDF}$ : 1785889.4/9

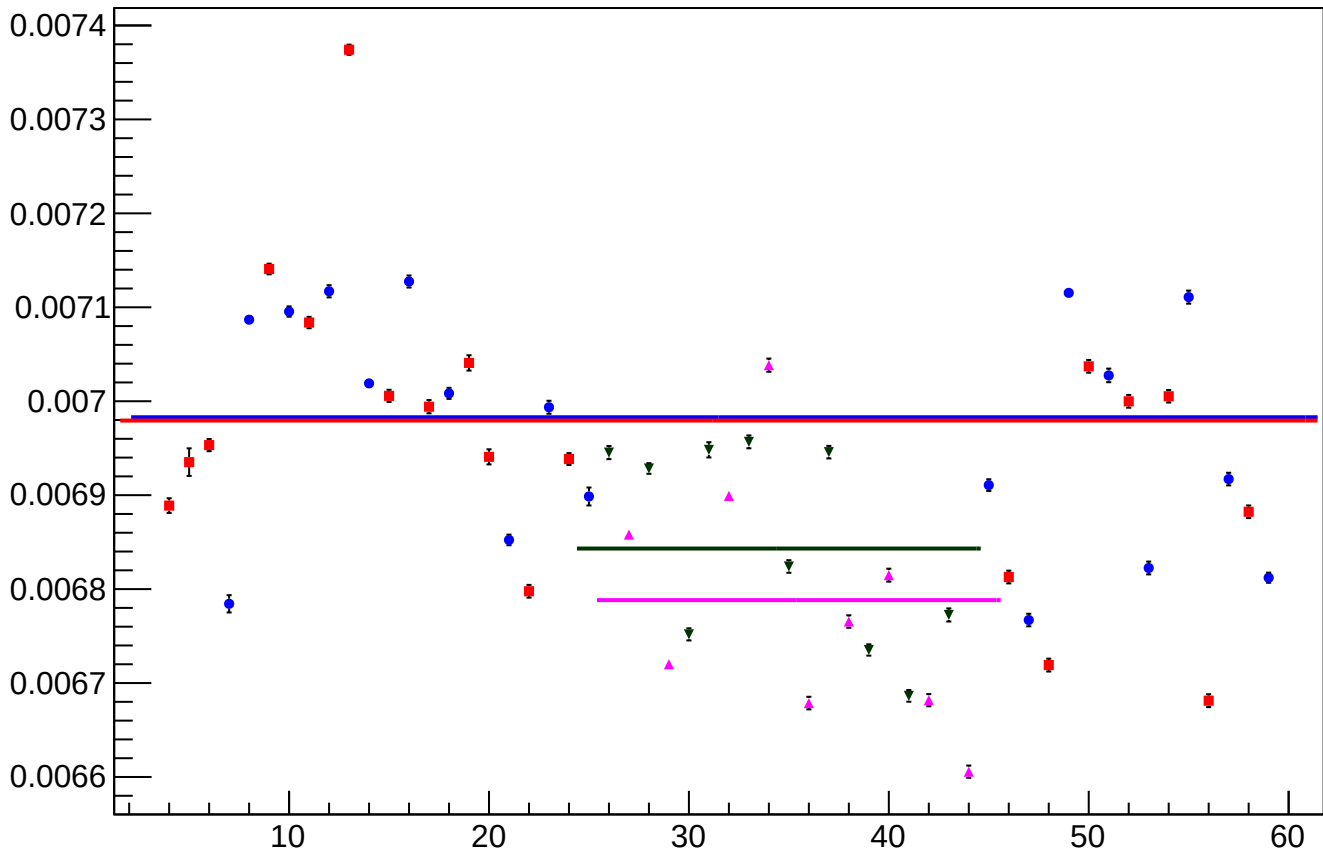
Right Out:  $379.041 \pm 0.000$   $\chi^2/\text{NDF}$ : 46280794.1/18

Left In:  $379.036 \pm 0.000$   $\chi^2/\text{NDF}$ : 1460266.1/8

$379.037 \pm 0.000$   $\chi^2/\text{NDF}$ : 37144148.0/27

$379.039 \pm 0.000$   $\chi^2/\text{NDF}$ : 50443854.4/27

# yield\_cav4dQ\_rms vs slug



Right In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 6696.3/17

Left Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:2379.4/9

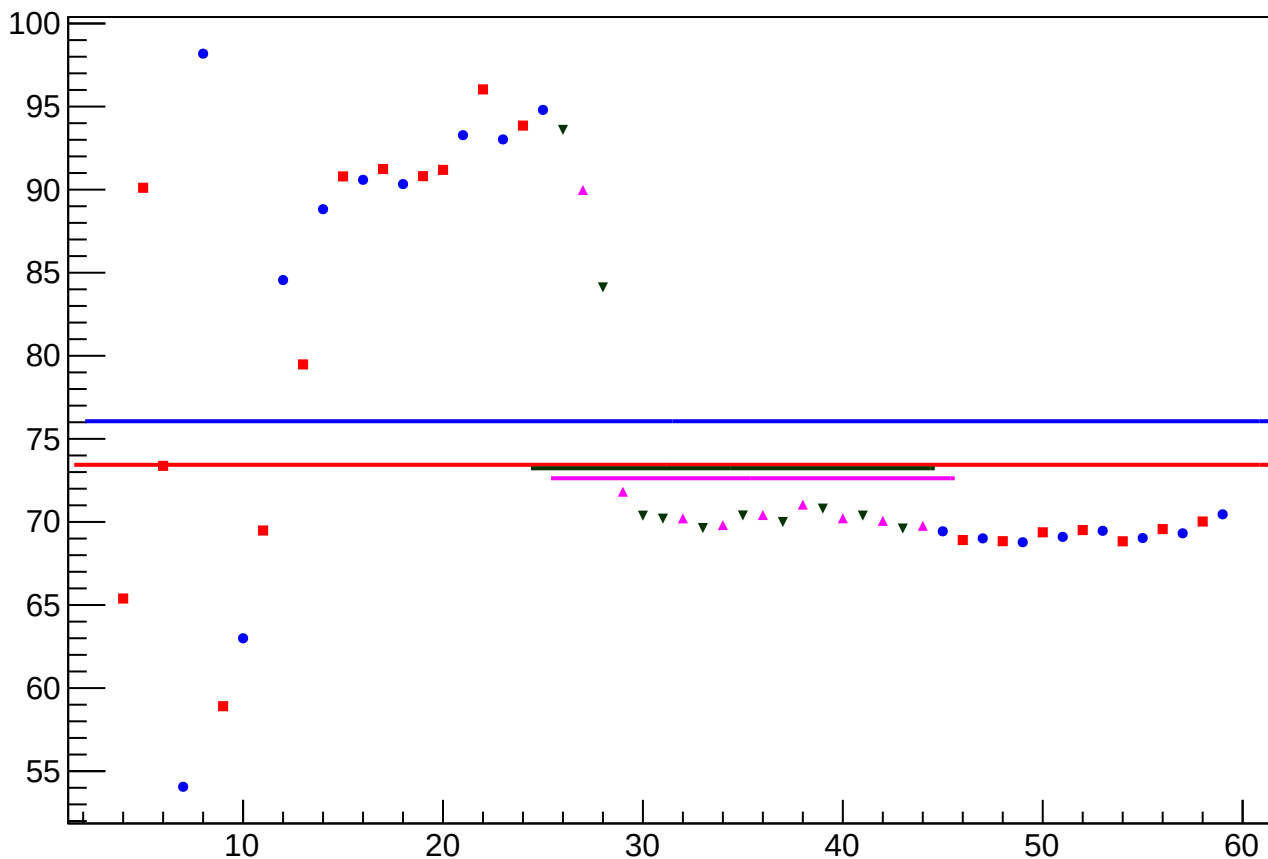
Right Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 11747.2/18

Left In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:3429.2/8

0.007 $\pm$ 0.000  $\chi^2$ /NDF: 12080.0/27

0.007 $\pm$ 0.000  $\chi^2$ /NDF: 20788.3/27

# yield\_bcm0l02\_mean vs slug



Right In: 76.061+/-0.000  $\chi^2/\text{NDF}$ : 20787602024.2/17

Left Out: 73.228+/-0.000  $\chi^2/\text{NDF}$ : 3731942896.0/9

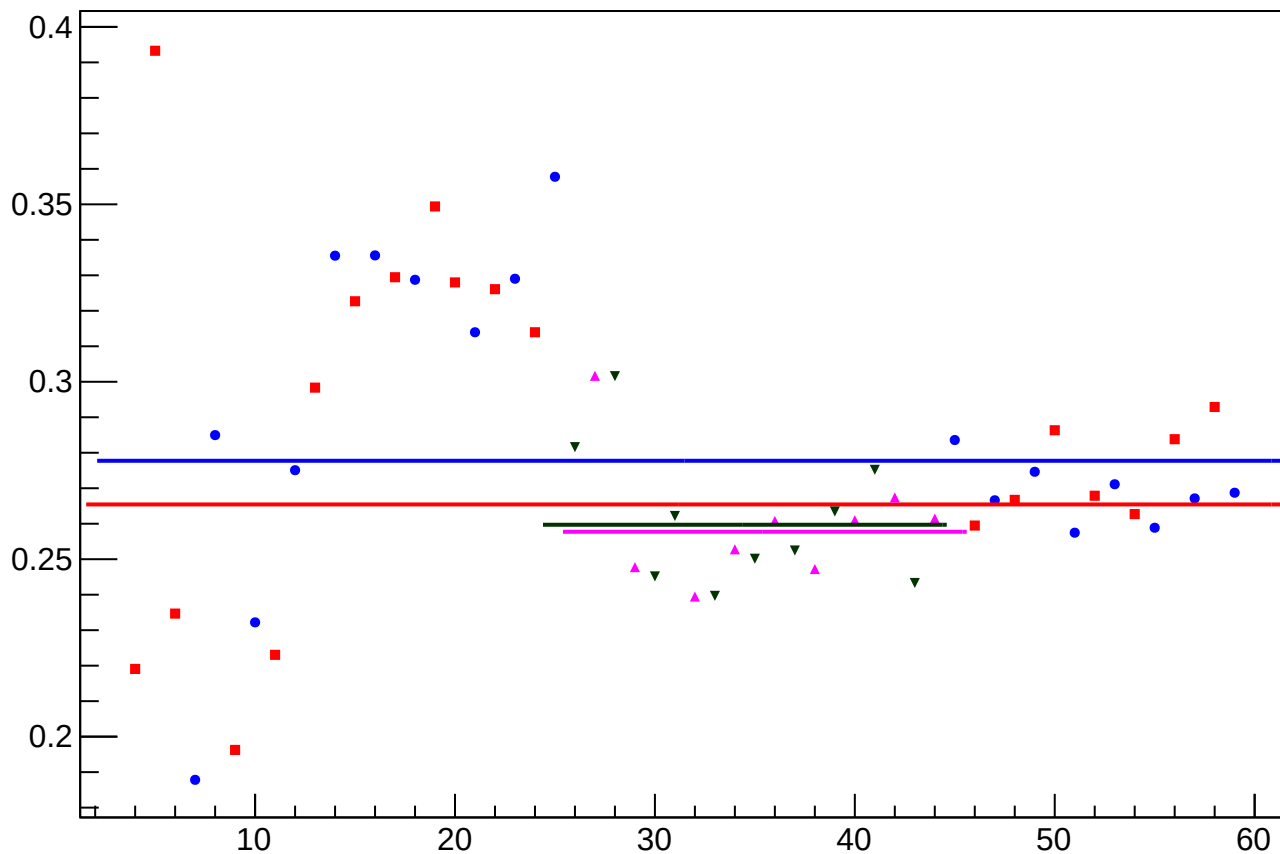
Right Out: 73.439+/-0.000  $\chi^2/\text{NDF}$ : 14741427319.0/18

Left In: 72.628+/-0.000  $\chi^2/\text{NDF}$ : 2928852368.6/8

75.053+/-0.000  $\chi^2/\text{NDF}$ : 24898004310.3/27

73.125+/-0.000  $\chi^2/\text{NDF}$ : 17702079499.7/27

# yield\_bcm0l02\_rms vs slug



Right In: 0.278+/-0.000  $\chi^2/\text{NDF}$ : 370245.0/17

Left Out: 0.260+/-0.000  $\chi^2/\text{NDF}$ : 47918.7/9

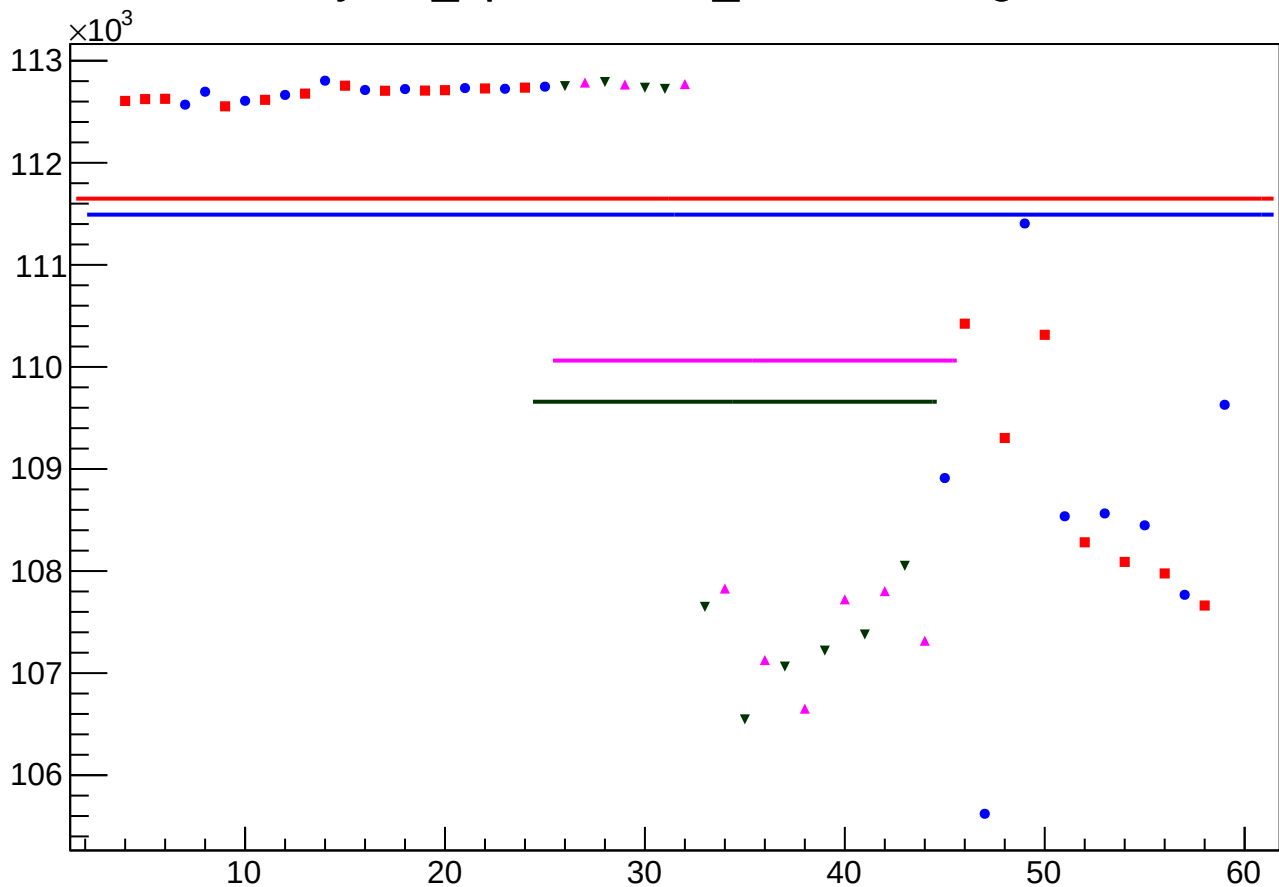
Right Out: 0.265+/-0.000  $\chi^2/\text{NDF}$ : 503582.7/18

Left In: 0.258+/-0.000  $\chi^2/\text{NDF}$ : 49167.8/8

0.271+/-0.000  $\chi^2/\text{NDF}$ : 448795.2/27

0.262+/-0.000  $\chi^2/\text{NDF}$ : 558478.3/27

# yield\_bpm2i01WS\_mean vs slug



Right In: 111492.185 $\pm$ 0.035  $\chi^2$ /NDF: 3171680490.6/17

Left Out: 109659.144 $\pm$ 0.053  $\chi^2$ /NDF: 2686861752.7/9

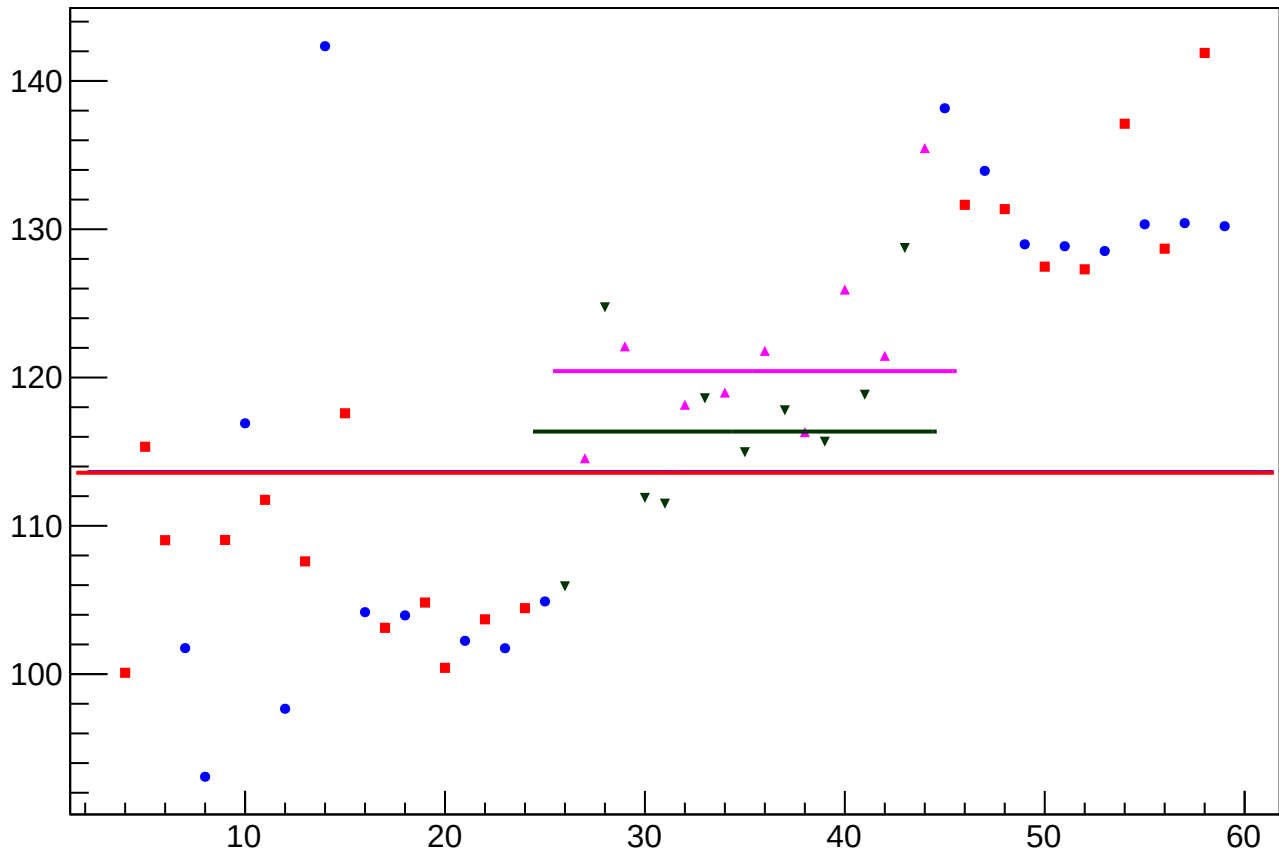
Right Out: 111648.935 $\pm$ 0.037  $\chi^2$ /NDF: 2298631932.7/18

Left In: 110062.356 $\pm$ 0.053  $\chi^2$ /NDF: 2589754971.8/8

110934.262 $\pm$ 0.029  $\chi^2$ /NDF: 6696150268.6/27

111128.129 $\pm$ 0.031  $\chi^2$ /NDF: 5484341194.9/27

# yield\_bpm2i01WS\_rms vs slug



Right In: 113.620+/-0.025  $\chi^2/\text{NDF}$ : 422351.8/17

Left Out: 116.357+/-0.037  $\chi^2/\text{NDF}$ : 26817.0/9

Right Out: 113.579+/-0.026  $\chi^2/\text{NDF}$ : 206805.2/18

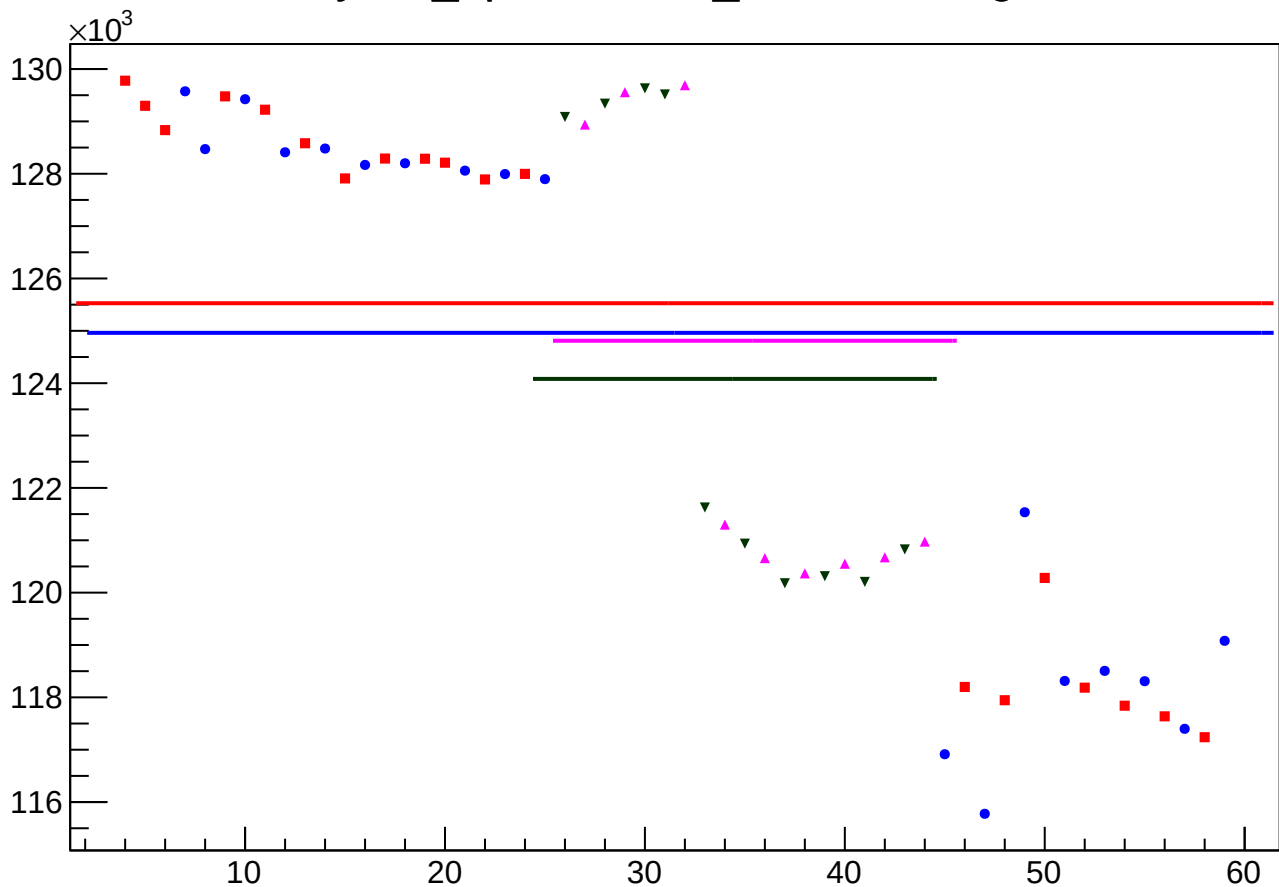
Left In: 120.432+/-0.038  $\chi^2/\text{NDF}$ : 18918.6/8

114.453+/-0.021  $\chi^2/\text{NDF}$ : 452905.6/27

115.829+/-0.022  $\chi^2/\text{NDF}$ : 247955.6/27



# yield\_bpm0i07WS\_mean vs slug



Right In: 124961.680 $\pm$ 0.057  $\chi^2$ /NDF: 7216201458.1/17

Left Out: 124081.986 $\pm$ 0.090  $\chi^2$ /NDF: 2292578151.5/9

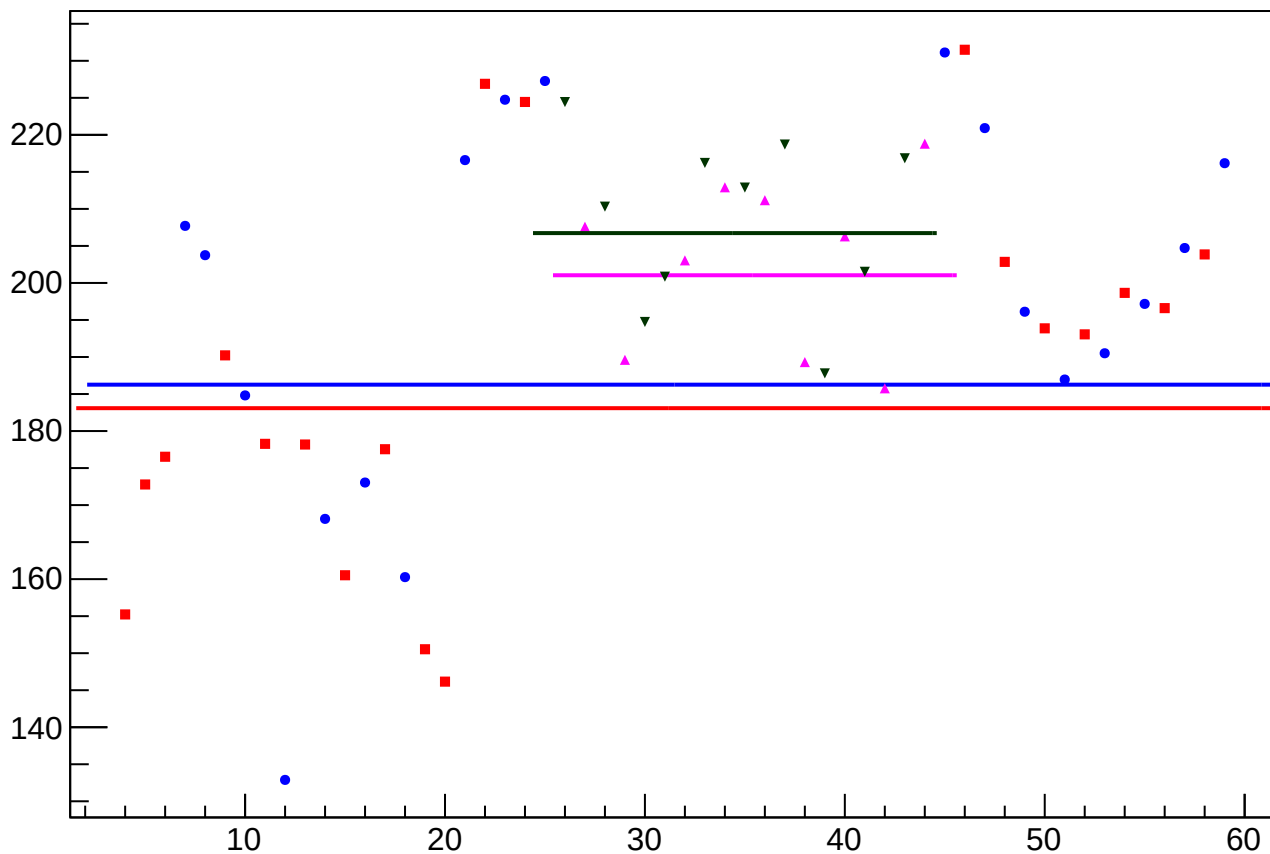
Right Out: 125527.018 $\pm$ 0.060  $\chi^2$ /NDF: 6545248421.9/18

Left In: 124810.637 $\pm$ 0.085  $\chi^2$ /NDF: 2608172131.0/8

124711.411 $\pm$ 0.048  $\chi^2$ /NDF: 9577052624.4/27

125291.486 $\pm$ 0.049  $\chi^2$ /NDF: 9201009309.6/27

# yield\_bpm0i07WS\_rms vs slug



Right In: 186.263 $\pm$ 0.040  $\chi^2$ /NDF: 462392.0/17

Left Out: 206.733 $\pm$ 0.064  $\chi^2$ /NDF: 32612.0/9

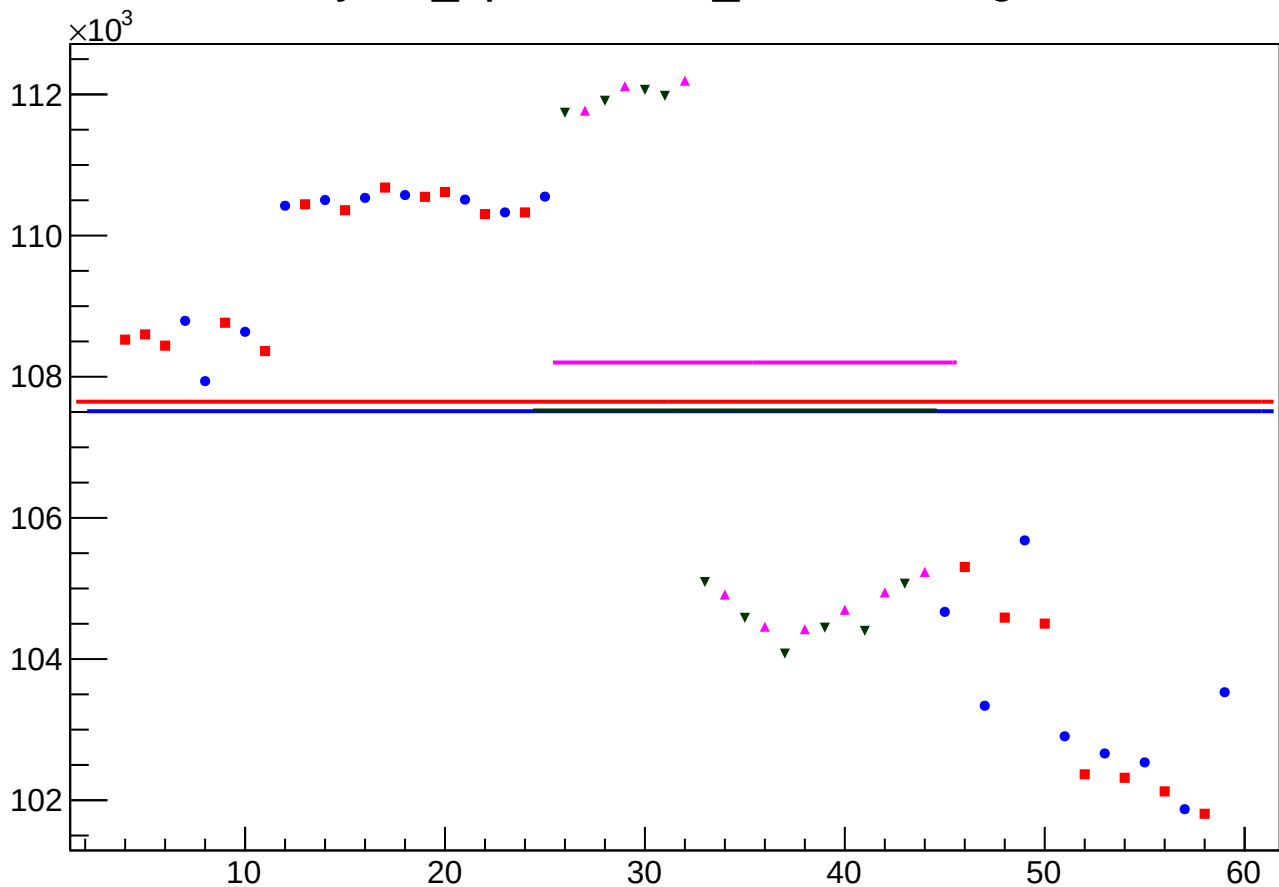
Right Out: 183.088 $\pm$ 0.042  $\chi^2$ /NDF: 276420.3/18

Left In: 201.040 $\pm$ 0.060  $\chi^2$ /NDF: 31613.0/8

192.087 $\pm$ 0.034  $\chi^2$ /NDF: 568938.7/27

188.990 $\pm$ 0.034  $\chi^2$ /NDF: 367797.1/27

# yield\_bpm0l01WS\_mean vs slug



Right In: 107511.375 $\pm$ 0.037  $\chi^2$ /NDF: 7545366390.6/17

Left Out: 107521.561 $\pm$ 0.049  $\chi^2$ /NDF: 5321162353.6/9

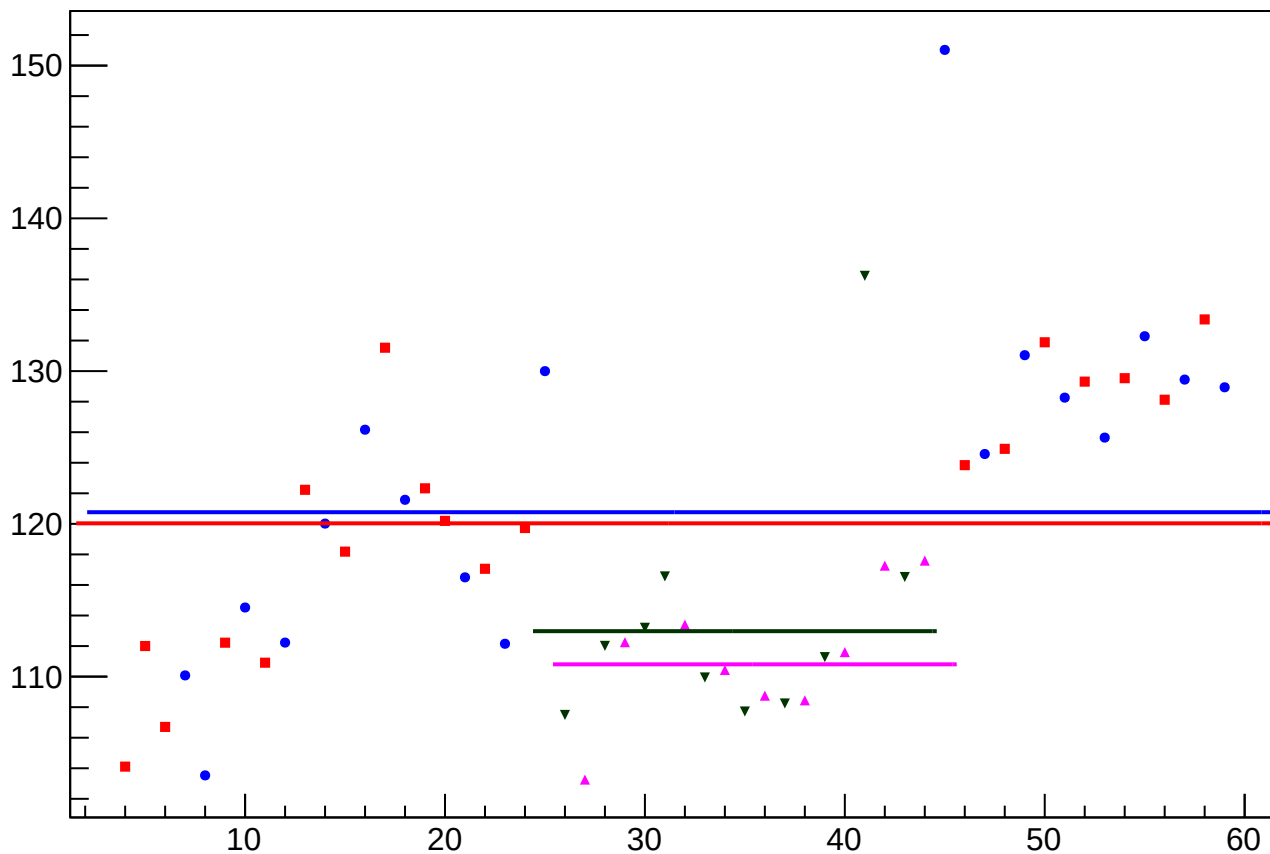
Right Out: 107646.372 $\pm$ 0.039  $\chi^2$ /NDF: 6547636060.9/18

Left In: 108201.722 $\pm$ 0.047  $\chi^2$ /NDF: 5984849706.8/8

107514.985 $\pm$ 0.029  $\chi^2$ /NDF: 12866556209.3/2

107872.817 $\pm$ 0.030  $\chi^2$ /NDF: 12615492820.7/2

# yield\_bpm0l01WS\_rms vs slug



Right In:  $120.763 \pm 0.026$   $\chi^2/\text{NDF}$ : 155732.1/17

Left Out:  $112.975 \pm 0.035$   $\chi^2/\text{NDF}$ : 42849.8/9

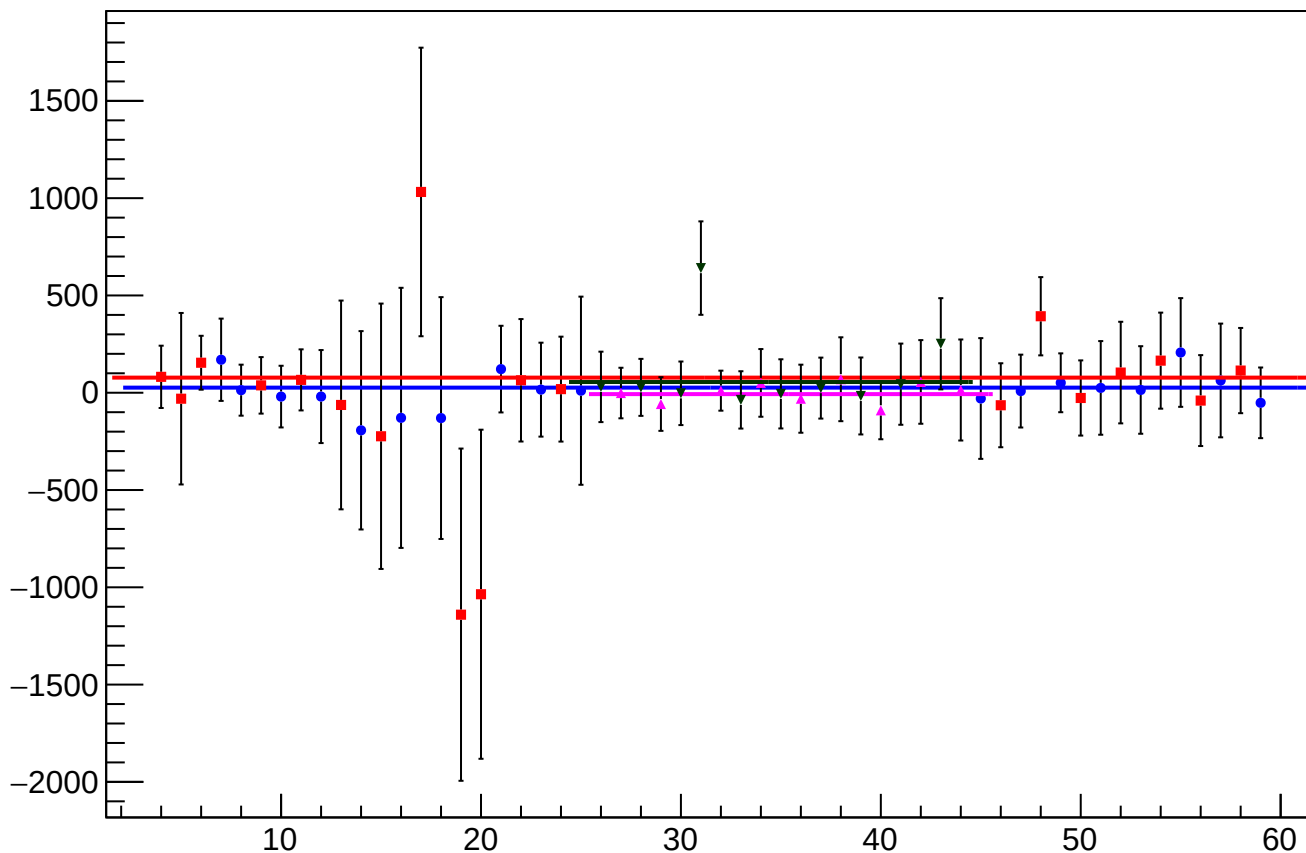
Right Out:  $120.035 \pm 0.028$   $\chi^2/\text{NDF}$ : 93920.3/18

Left In:  $110.804 \pm 0.033$   $\chi^2/\text{NDF}$ : 17542.1/8

$118.003 \pm 0.021$   $\chi^2/\text{NDF}$ : 230691.2/27

$116.271 \pm 0.021$   $\chi^2/\text{NDF}$ : 157322.5/27

# asym\_bcm\_an\_ds\_mean vs slug



Right In: 26.246+/-52.510  $\chi^2/\text{NDF}$ : 1.8/17

Left Out: 55.055+/-56.152  $\chi^2/\text{NDF}$ : 7.5/9

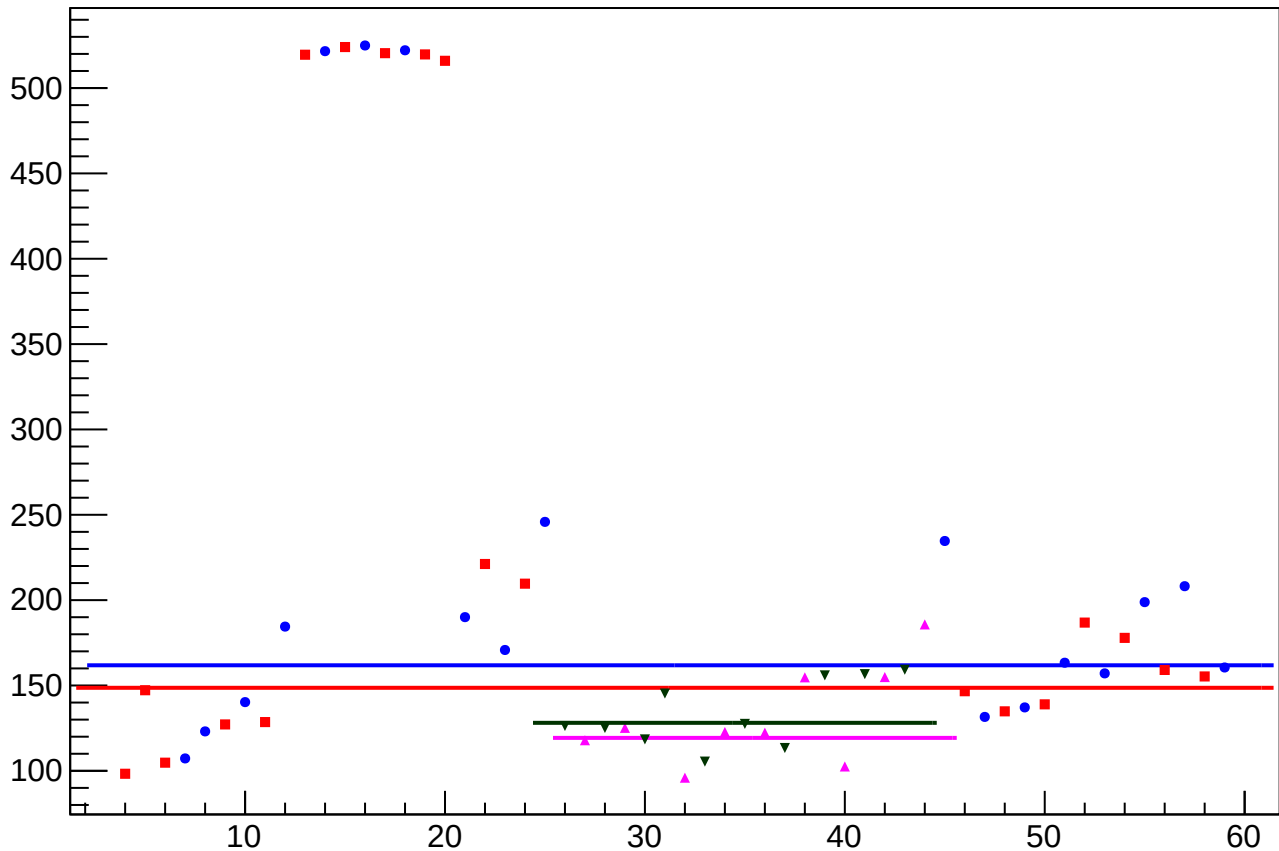
Right Out: 77.703+/-52.586  $\chi^2/\text{NDF}$ : 9.8/18

Left In: -7.075+/-51.612  $\chi^2/\text{NDF}$ : 0.8/8

39.686+/-38.353  $\chi^2/\text{NDF}$ : 9.4/27

34.521+/-36.835  $\chi^2/\text{NDF}$ : 11.9/27

# asym\_bcm\_an\_ds\_rms vs slug



Right In: 161.835+/-0.037  $\chi^2/\text{NDF}$ : 3018868.1/17

Left Out: 128.125+/-0.040  $\chi^2/\text{NDF}$ :195774.0/9

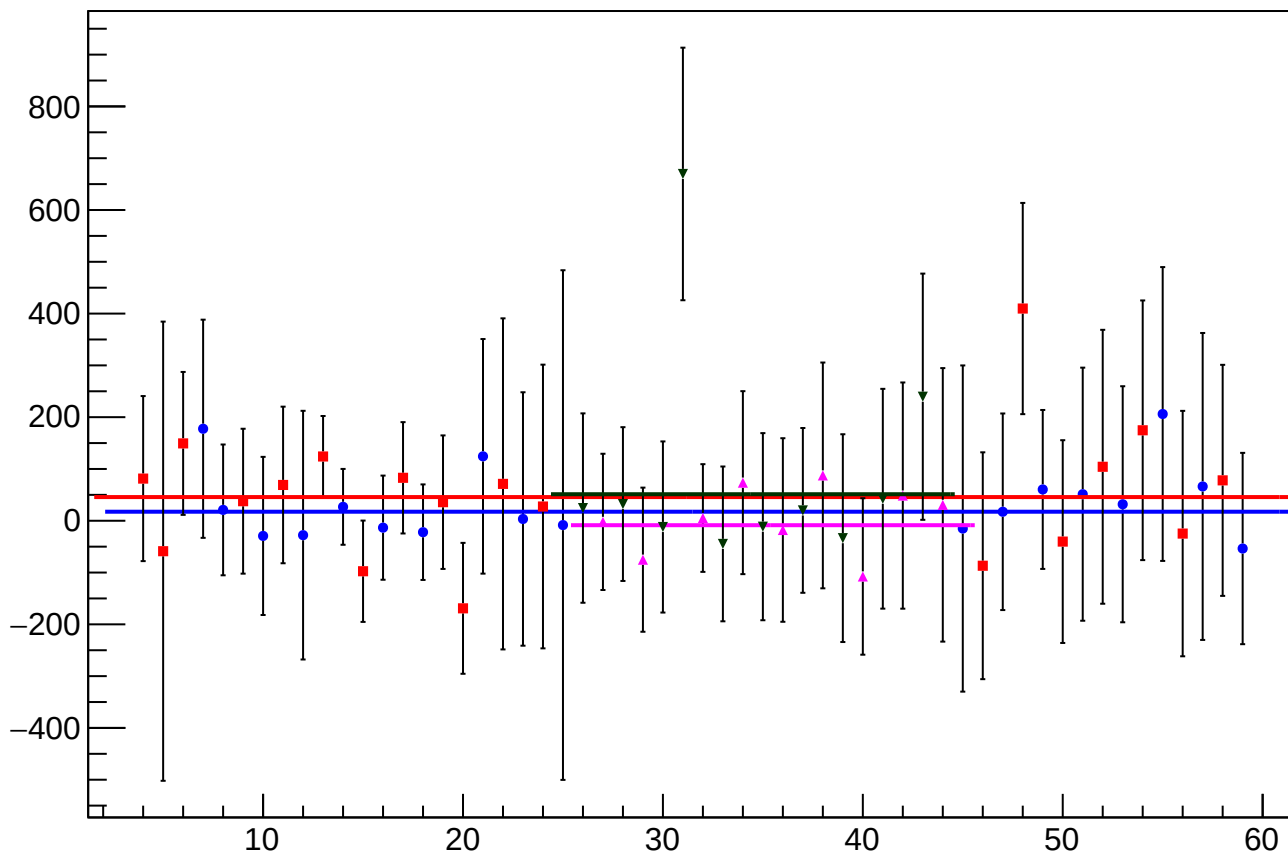
146.108+/-0.027  $\chi^2/\text{NDF}$ : 3599157.5/27

Right Out: 148.646+/-0.037  $\chi^2/\text{NDF}$ : 3594583.0/18

133.701+/-0.026  $\chi^2/\text{NDF}$ : 4285501.2/27

Left In: 119.305+/-0.036  $\chi^2/\text{NDF}$ :373767.5/8

# asym\_bcm\_an\_ds3\_mean vs slug



Right In: 17.458 $\pm$ 36.313  $\chi^2/\text{NDF}$ : 2.0/17

Left Out: 51.240 $\pm$ 56.939  $\chi^2/\text{NDF}$ : 8.0/9

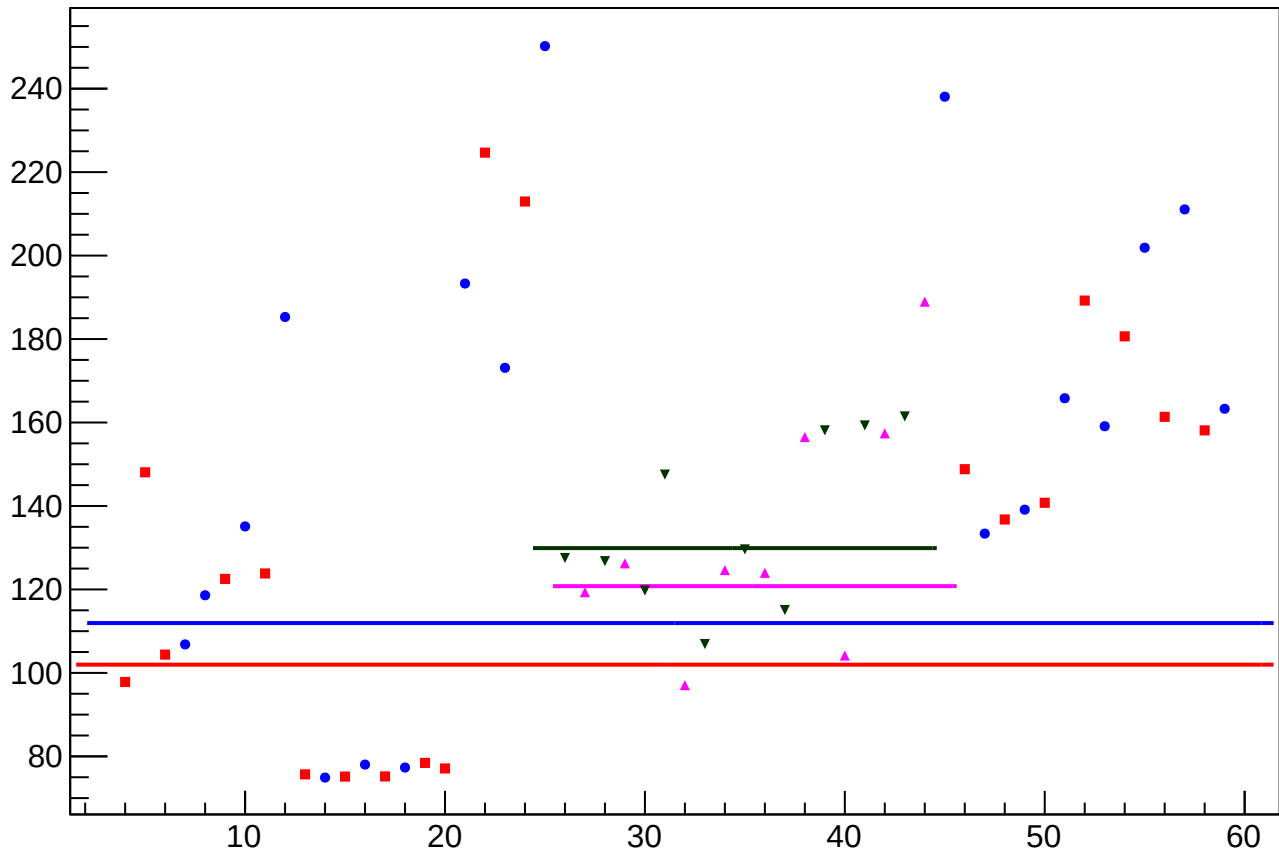
Right Out: 45.735 $\pm$ 34.677  $\chi^2/\text{NDF}$ : 11.0/18

Left In: -8.590 $\pm$ 52.268  $\chi^2/\text{NDF}$ : 1.2/8

27.226 $\pm$ 30.617  $\chi^2/\text{NDF}$ : 10.2/27

29.131 $\pm$ 28.896  $\chi^2/\text{NDF}$ : 13.0/27

# asym\_bcm\_an\_ds3\_rms vs slug



Right In: 111.942+/-0.026  $\chi^2/\text{NDF}$ : 2972725.0/17

Left Out: 129.904+/-0.040  $\chi^2/\text{NDF}$ :197170.8/9

117.135+/-0.022  $\chi^2/\text{NDF}$ : 3311375.9/27

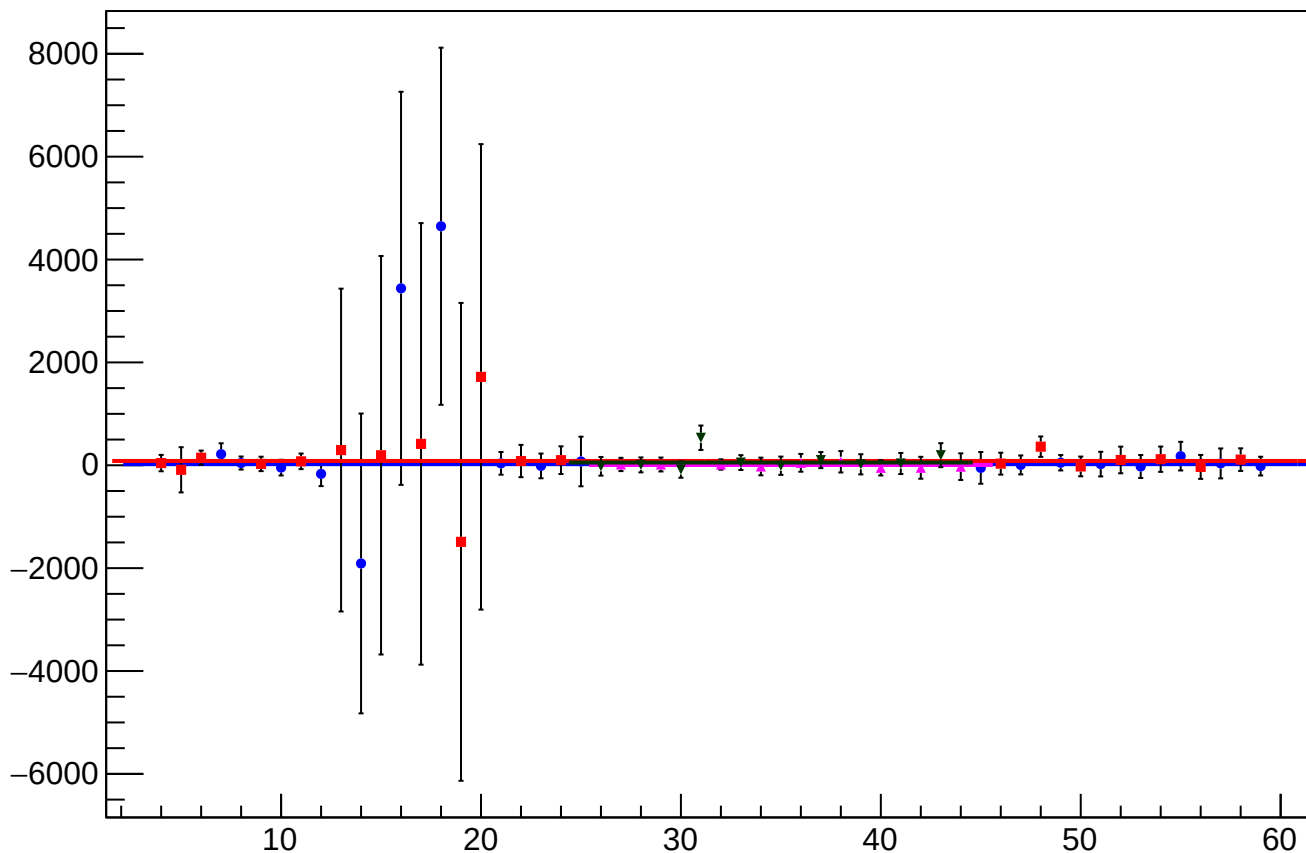
Right Out: 101.974+/-0.025  $\chi^2/\text{NDF}$ : 2271871.2/18

107.723+/-0.020  $\chi^2/\text{NDF}$ : 2828266.6/27

Left In: 120.786+/-0.037  $\chi^2/\text{NDF}$ :376487.8/8



# asym\_bcm\_an\_us\_mean vs slug



Right In: 21.772 $\pm$ 52.365  $\chi^2$ /NDF: 5.3/17

Left Out: 53.832 $\pm$ 55.648  $\chi^2$ /NDF: 5.7/9

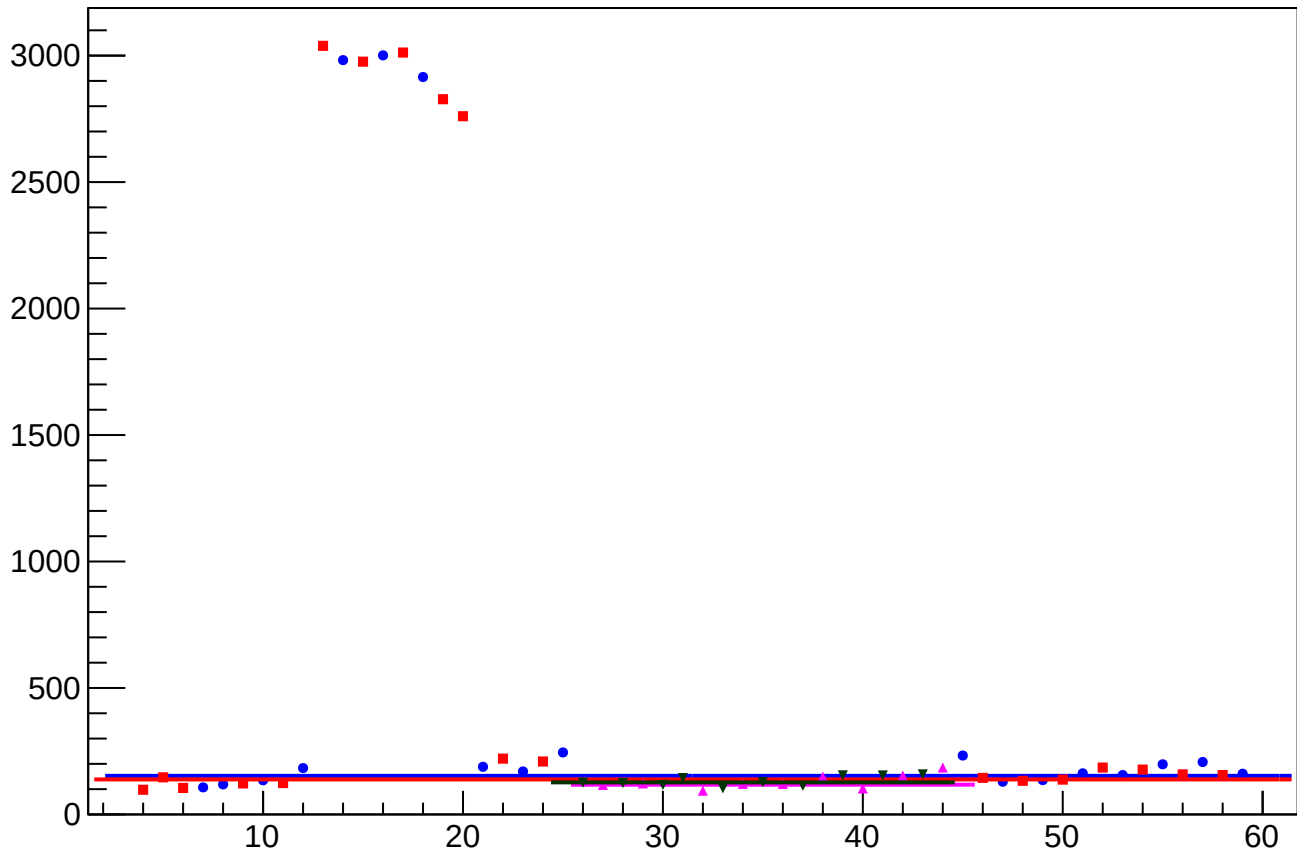
Right Out: 84.092 $\pm$ 52.636  $\chi^2$ /NDF: 3.5/18

Left In: 5.189 $\pm$ 50.929  $\chi^2$ /NDF: 0.4/8

36.828 $\pm$ 38.136  $\chi^2$ /NDF: 11.1/27

43.340 $\pm$ 36.601  $\chi^2$ /NDF: 5.0/27

# asym\_bcm\_an\_us\_rms vs slug



Right In: 152.628+/-0.037  $\chi^2/\text{NDF}$ : 5017627.8/17

Left Out: 126.861+/-0.039  $\chi^2/\text{NDF}$ : 201202.8/9

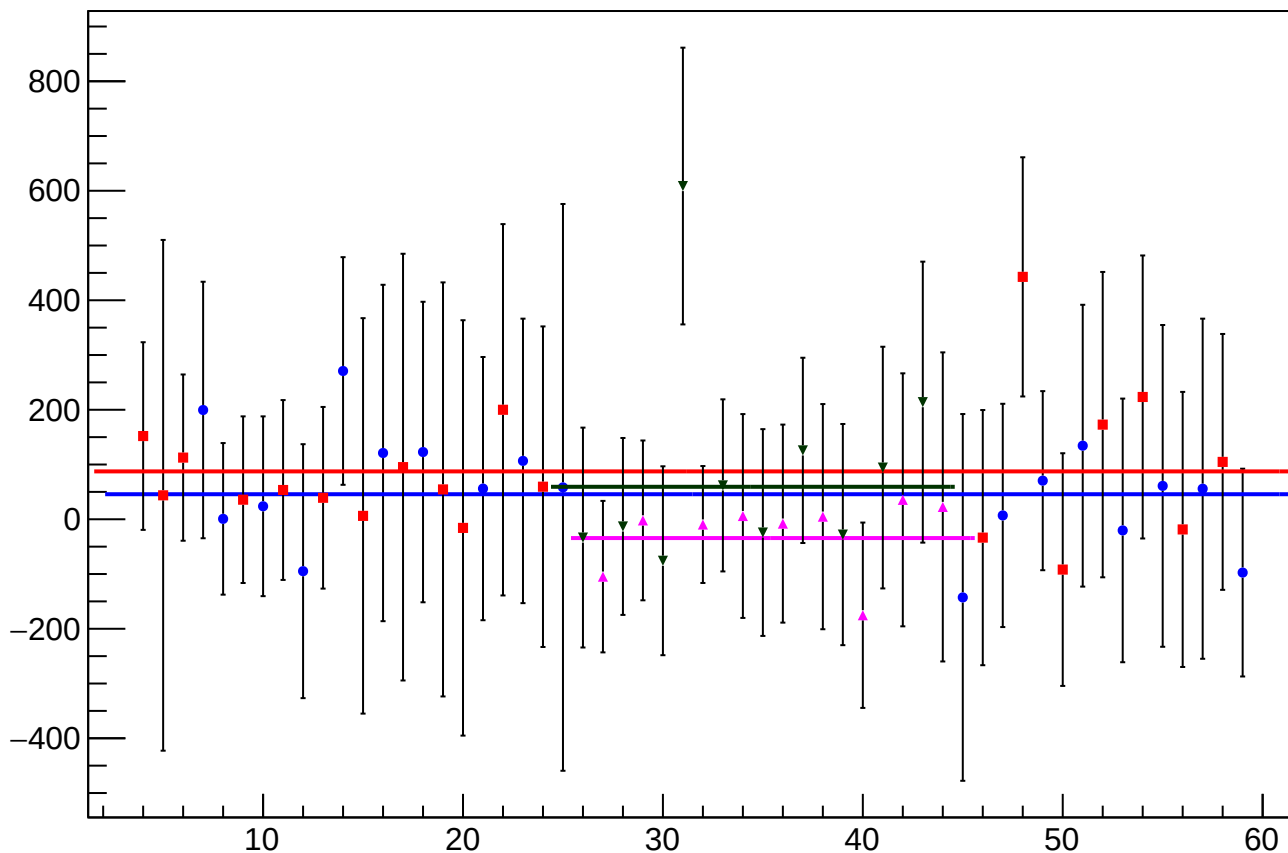
140.527+/-0.027  $\chi^2/\text{NDF}$ : 5446256.8/27

Right Out: 138.455+/-0.037  $\chi^2/\text{NDF}$ : 5734578.9/18

127.741+/-0.026  $\chi^2/\text{NDF}$ : 6269984.3/27

Left In: 117.710+/-0.036  $\chi^2/\text{NDF}$ : 374948.7/8

# asym\_bcm\_dg\_us\_mean vs slug



Right In: 45.739 $\pm$ 52.604  $\chi^2$ /NDF: 3.4/17

Left Out: 59.318 $\pm$ 60.188  $\chi^2$ /NDF:6.7/9

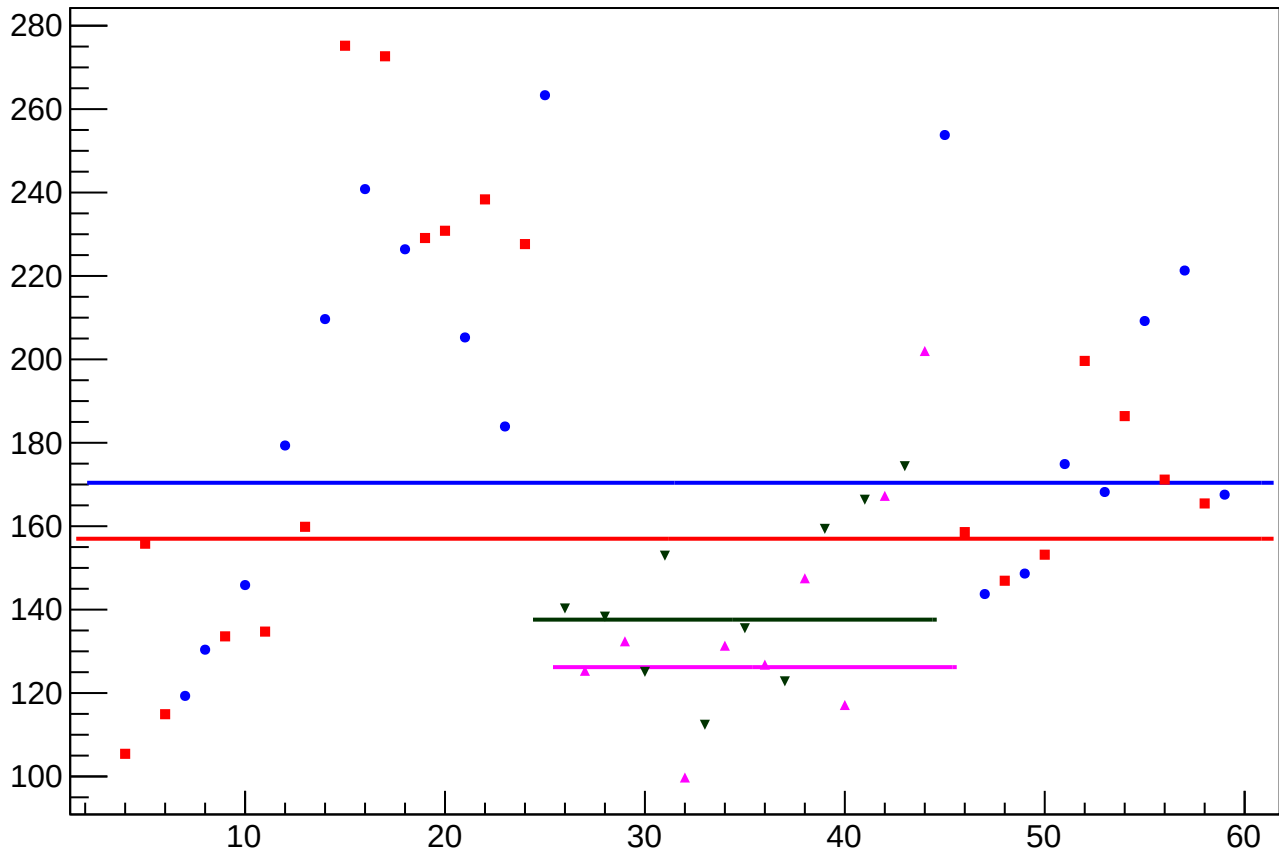
Right Out: 87.434 $\pm$ 51.940  $\chi^2$ /NDF: 4.9/18

Left In: -34.328 $\pm$ 54.542  $\chi^2$ /NDF:1.3/8

51.619 $\pm$ 39.608  $\chi^2$ /NDF: 10.1/27

29.527 $\pm$ 37.614  $\chi^2$ /NDF: 8.8/27

# asym\_bcm\_dg\_us\_rms vs slug



Right In: 170.412 $\pm$ 0.037  $\chi^2$ /NDF: 964671.4/17

Left Out: 137.600 $\pm$ 0.043  $\chi^2$ /NDF:183507.0/9

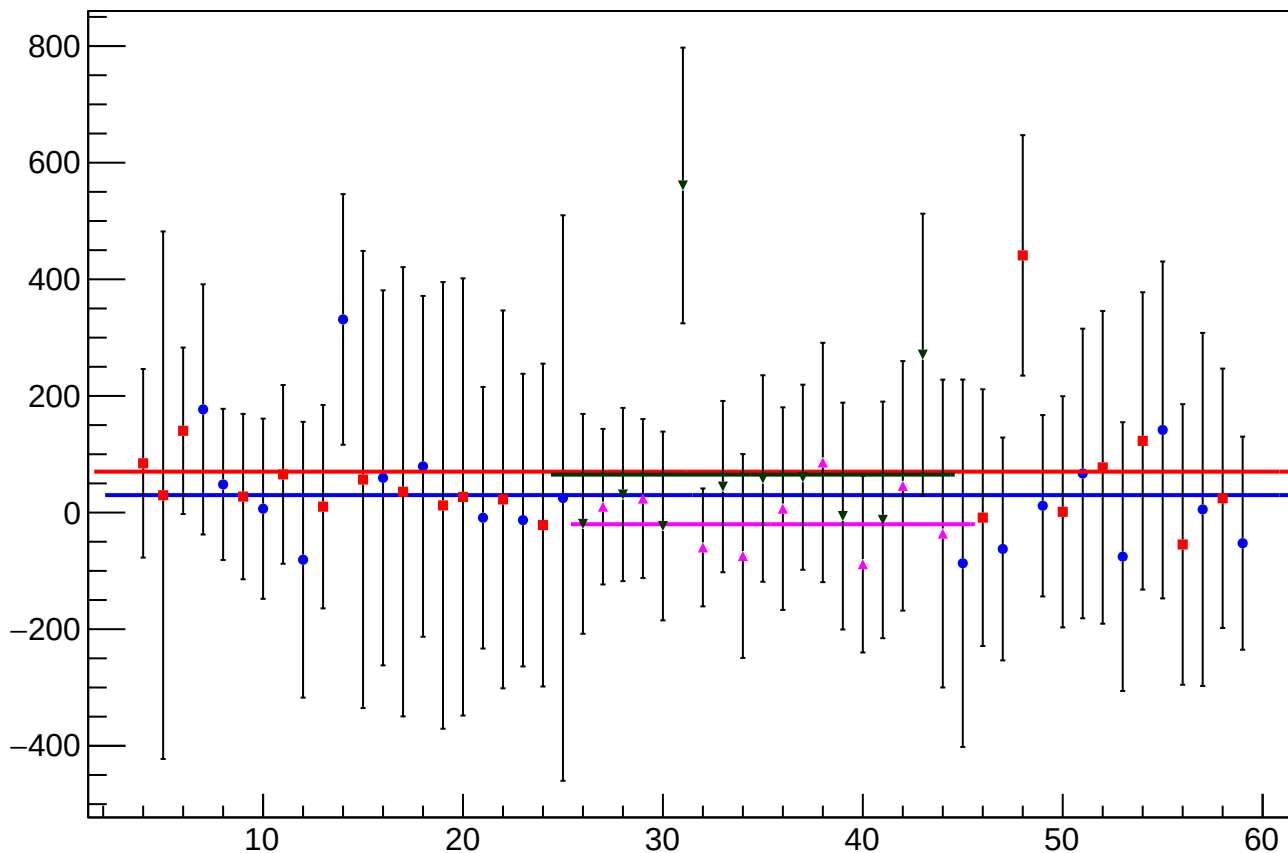
156.202 $\pm$ 0.028  $\chi^2$ /NDF: 1485163.6/27

Right Out: 156.997 $\pm$ 0.037  $\chi^2$ /NDF: 1276447.5/18

142.356 $\pm$ 0.027  $\chi^2$ /NDF: 1973199.2/27

Left In: 126.212 $\pm$ 0.039  $\chi^2$ /NDF:362614.3/8

# asym\_bcm\_dg\_ds\_mean vs slug



Right In: 29.919+/-50.591  $\chi^2/\text{NDF}$ : 3.8/17

Left Out: 65.067+/-56.313  $\chi^2/\text{NDF}$ : 6.0/9

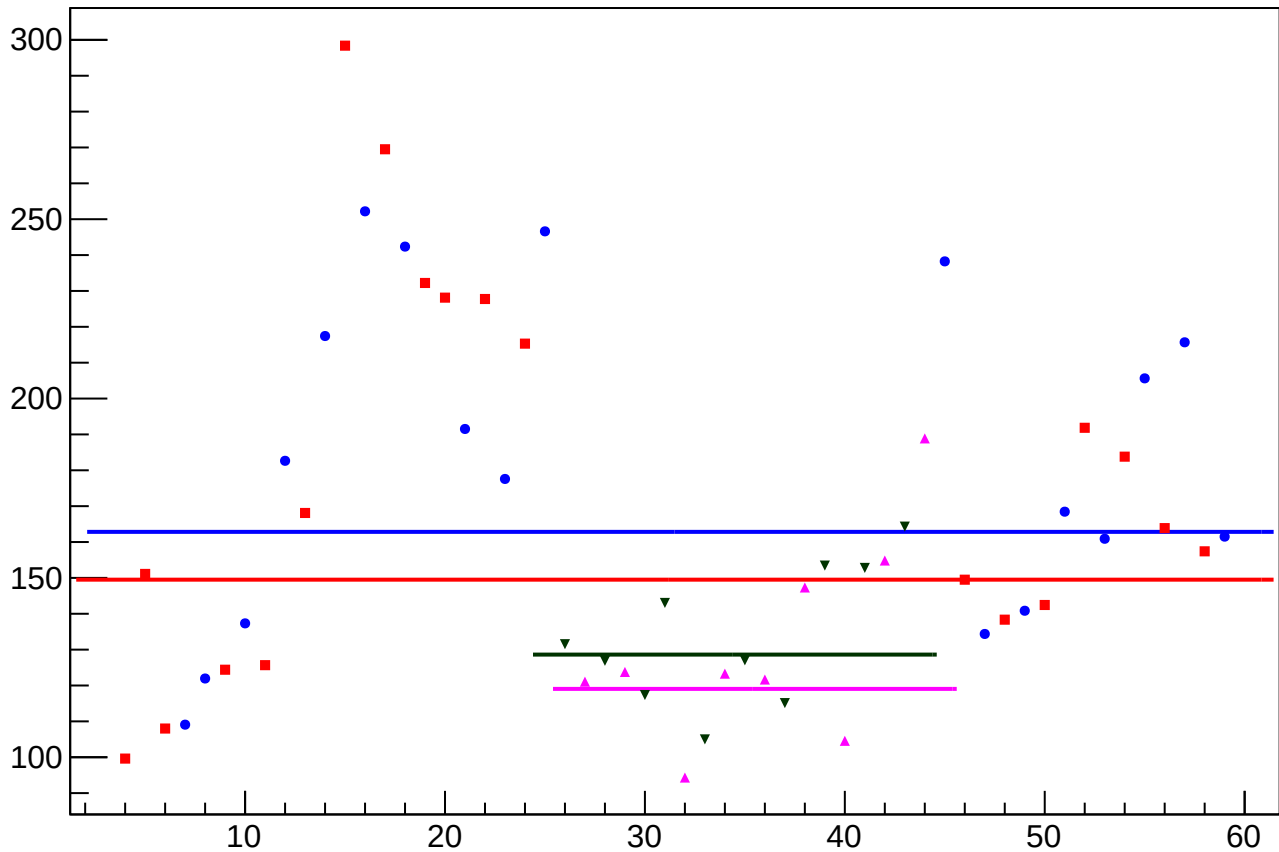
Right Out: 70.155+/-49.782  $\chi^2/\text{NDF}$ : 4.5/18

Left In: -19.993+/-51.483  $\chi^2/\text{NDF}$ : 1.0/8

45.617+/-37.634  $\chi^2/\text{NDF}$ : 10.0/27

26.594+/-35.787  $\chi^2/\text{NDF}$ : 7.1/27

# asym\_bcm\_dg\_ds\_rms vs slug



Right In: 162.833+/-0.036  $\chi^2/\text{NDF}$ : 1229021.5/17

Left Out: 128.616+/-0.040  $\chi^2/\text{NDF}$ :188850.5/9

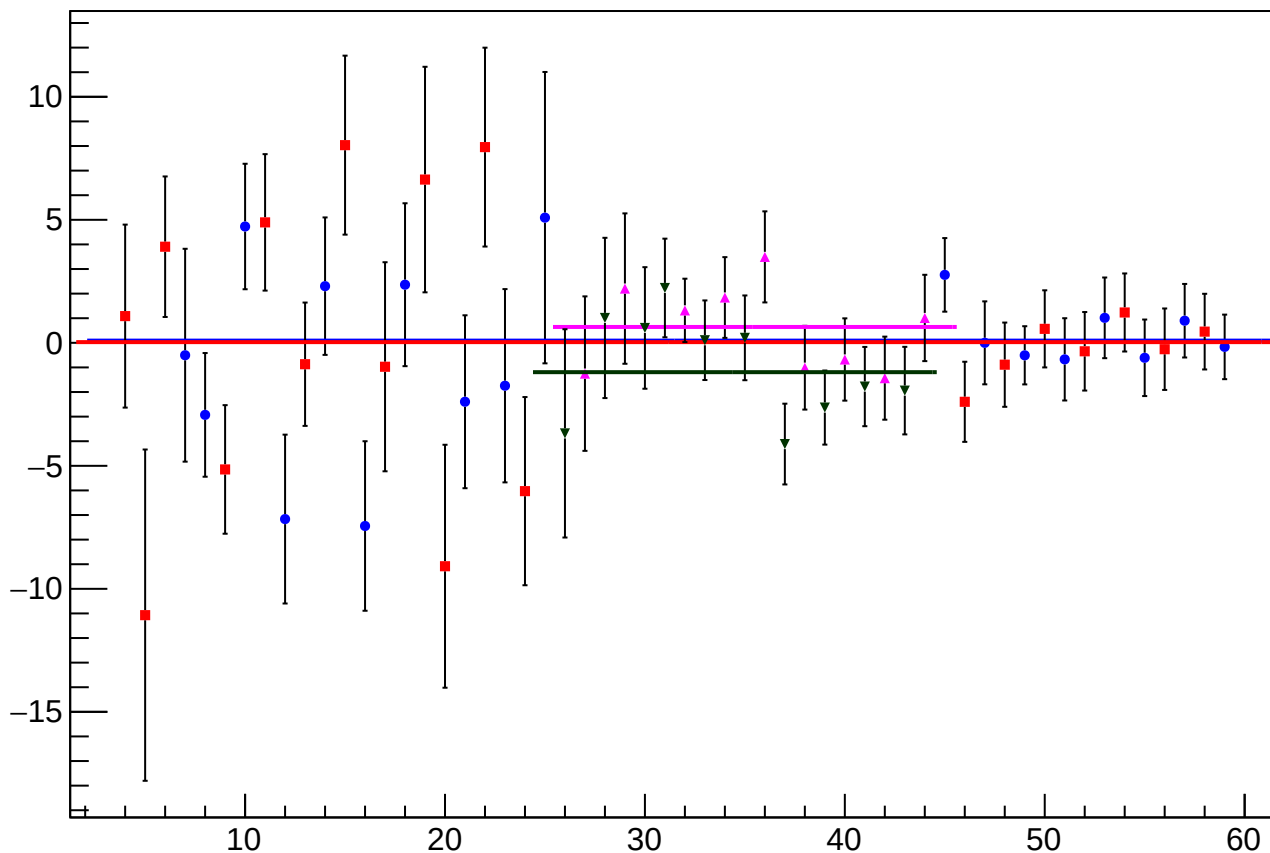
Right Out: 149.507+/-0.035  $\chi^2/\text{NDF}$ : 1490705.1/18

Left In: 119.054+/-0.036  $\chi^2/\text{NDF}$ :376220.0/8

147.551+/-0.027  $\chi^2/\text{NDF}$ : 1826484.9/27

134.792+/-0.025  $\chi^2/\text{NDF}$ : 2228553.1/27

# asym\_cav4bQ\_mean vs slug



Right In: 0.089 $\pm$ 0.466  $\chi^2$ /NDF: 21.1/17

Left Out: -1.193 $\pm$ 0.598  $\chi^2$ /NDF: 9.9/9

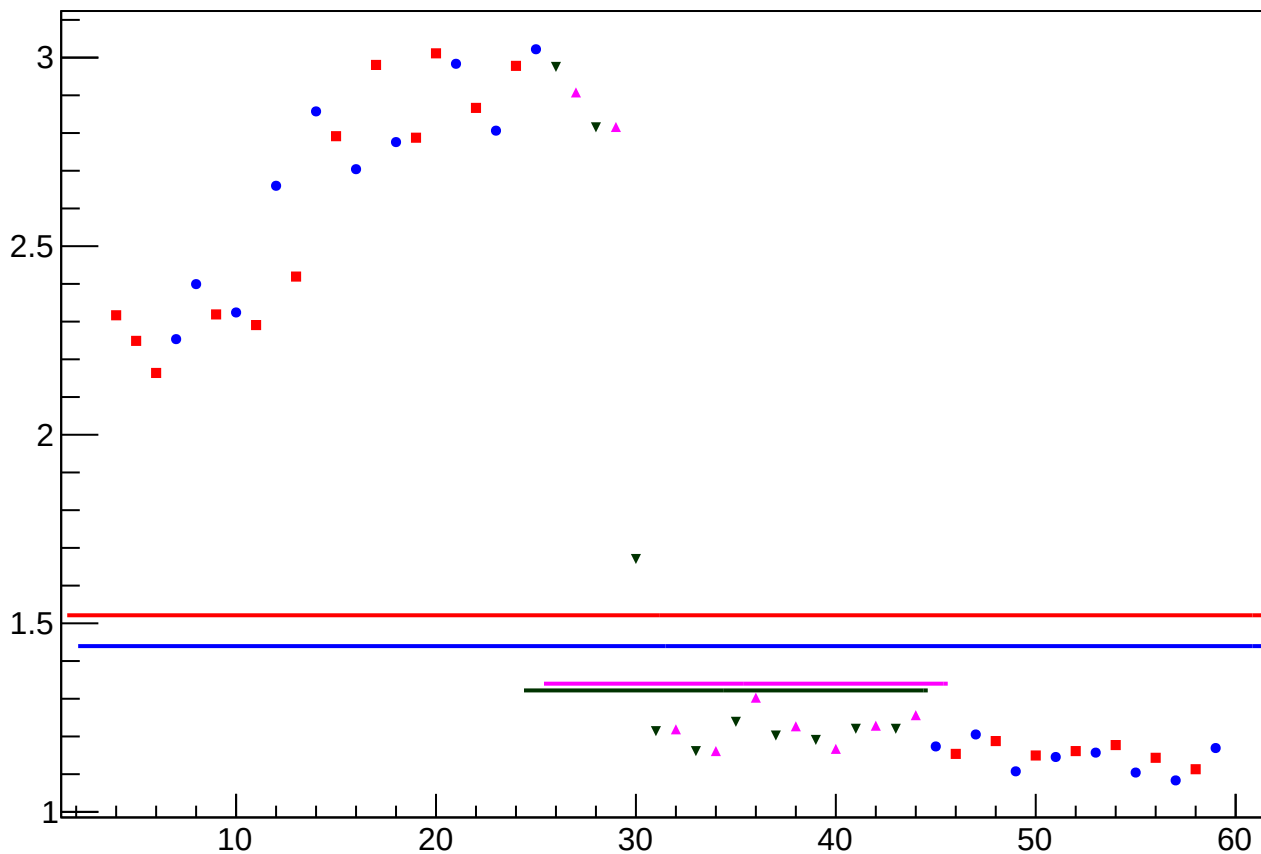
Right Out: 0.028 $\pm$ 0.520  $\chi^2$ /NDF: 31.9/18

Left In: 0.645 $\pm$ 0.592  $\chi^2$ /NDF: 6.9/8

-0.394 $\pm$ 0.367  $\chi^2$ /NDF: 33.9/27

0.296 $\pm$ 0.391  $\chi^2$ /NDF: 39.4/27

# asym\_cav4bQ\_rms vs slug



Right In: 1.440+/-0.000  $\chi^2/\text{NDF}$ : 3409388.4/17

Left Out: 1.322+/-0.000  $\chi^2/\text{NDF}$ : 835682.2/9

Right Out: 1.521+/-0.000  $\chi^2/\text{NDF}$ : 2870549.2/18

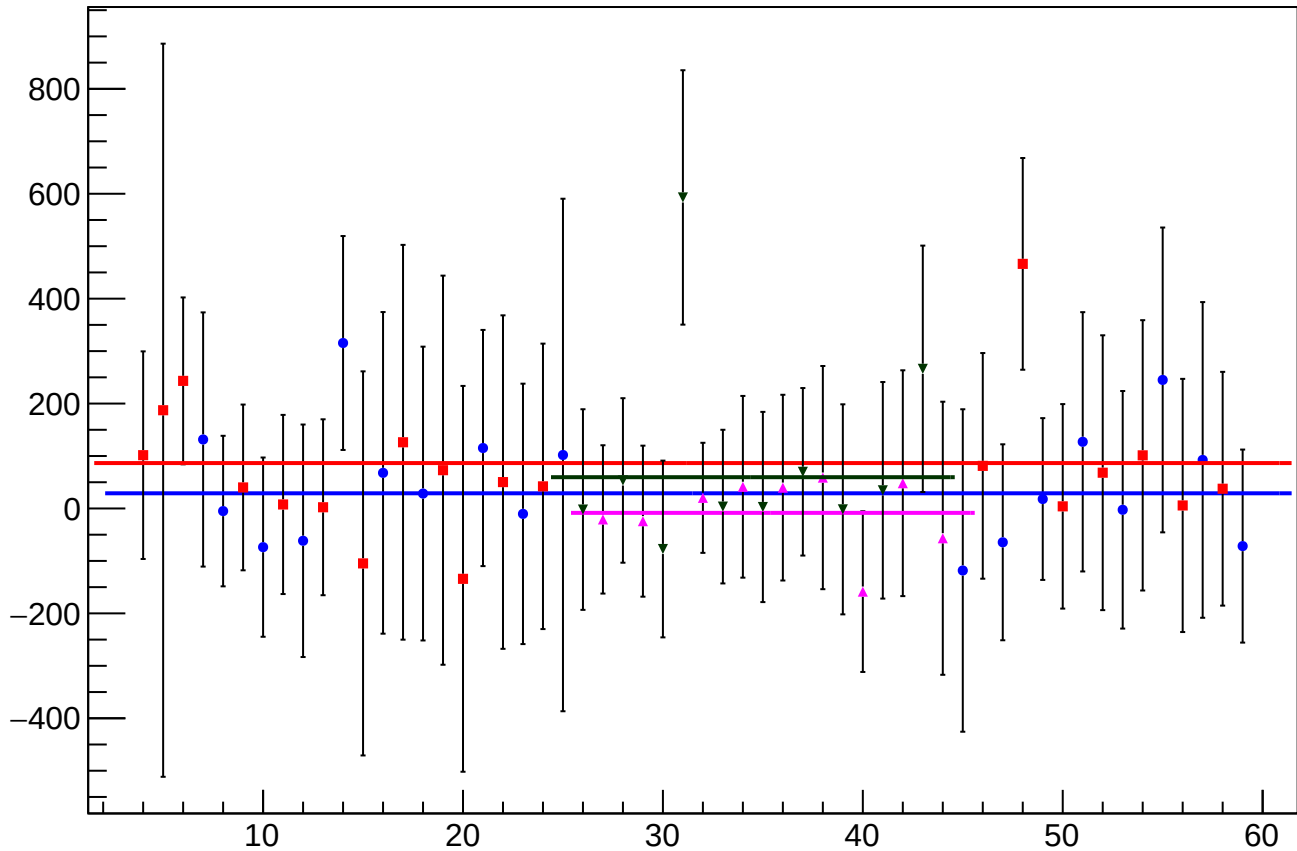
Left In: 1.340+/-0.000  $\chi^2/\text{NDF}$ : 1050714.6/8

1.395+/-0.000  $\chi^2/\text{NDF}$ : 4293134.2/27

1.442+/-0.000  $\chi^2/\text{NDF}$ : 4027255.9/27



# asym\_cav4cQ\_mean vs slug



Right In: 28.930 $\pm$ 51.478  $\chi^2$ /NDF: 4.5/17

Left Out: 59.618 $\pm$ 57.448  $\chi^2$ /NDF: 6.7/9

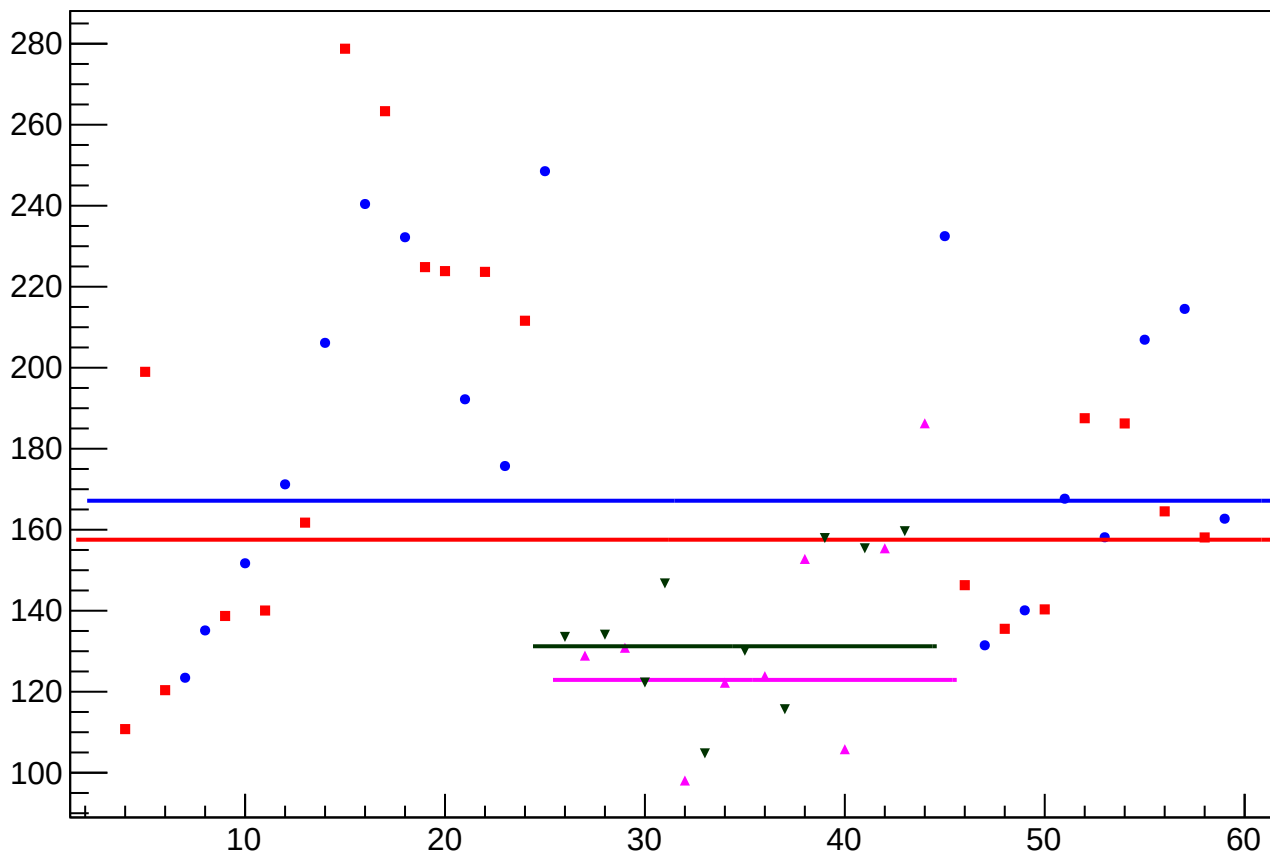
Right Out: 86.558 $\pm$ 52.059  $\chi^2$ /NDF: 6.1/18

Left In: -8.384 $\pm$ 53.045  $\chi^2$ /NDF: 1.4/8

42.597 $\pm$ 38.338  $\chi^2$ /NDF: 11.4/27

39.978 $\pm$ 37.155  $\chi^2$ /NDF: 9.2/27

# asym\_cav4cQ\_rms vs slug



Right In:  $167.159 \pm 0.036$   $\chi^2/\text{NDF}$ : 875808.6/17

Left Out:  $131.224 \pm 0.041$   $\chi^2/\text{NDF}$ : 191308.6/9

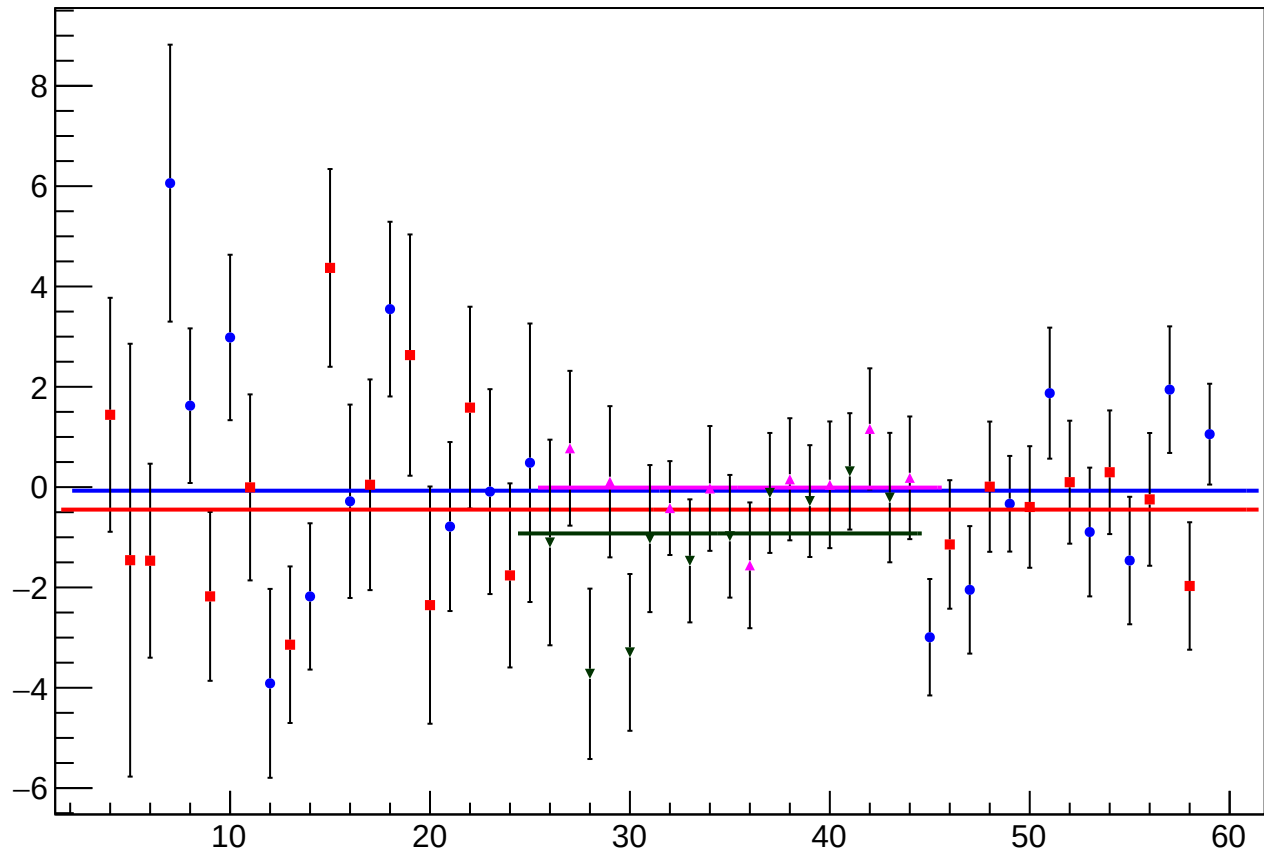
Right Out:  $157.534 \pm 0.037$   $\chi^2/\text{NDF}$ : 1049684.2/18

Left In:  $122.920 \pm 0.038$   $\chi^2/\text{NDF}$ : 350338.0/8

$151.155 \pm 0.027$   $\chi^2/\text{NDF}$ : 1501147.9/27

$140.552 \pm 0.026$   $\chi^2/\text{NDF}$ : 1833819.7/27

# asym\_cav4dQ\_mean vs slug



Right In:  $-0.071 \pm 0.335$   $\chi^2/\text{NDF}: 36.8/17$

Left Out:  $-0.924 \pm 0.421$   $\chi^2/\text{NDF}: 7.5/9$

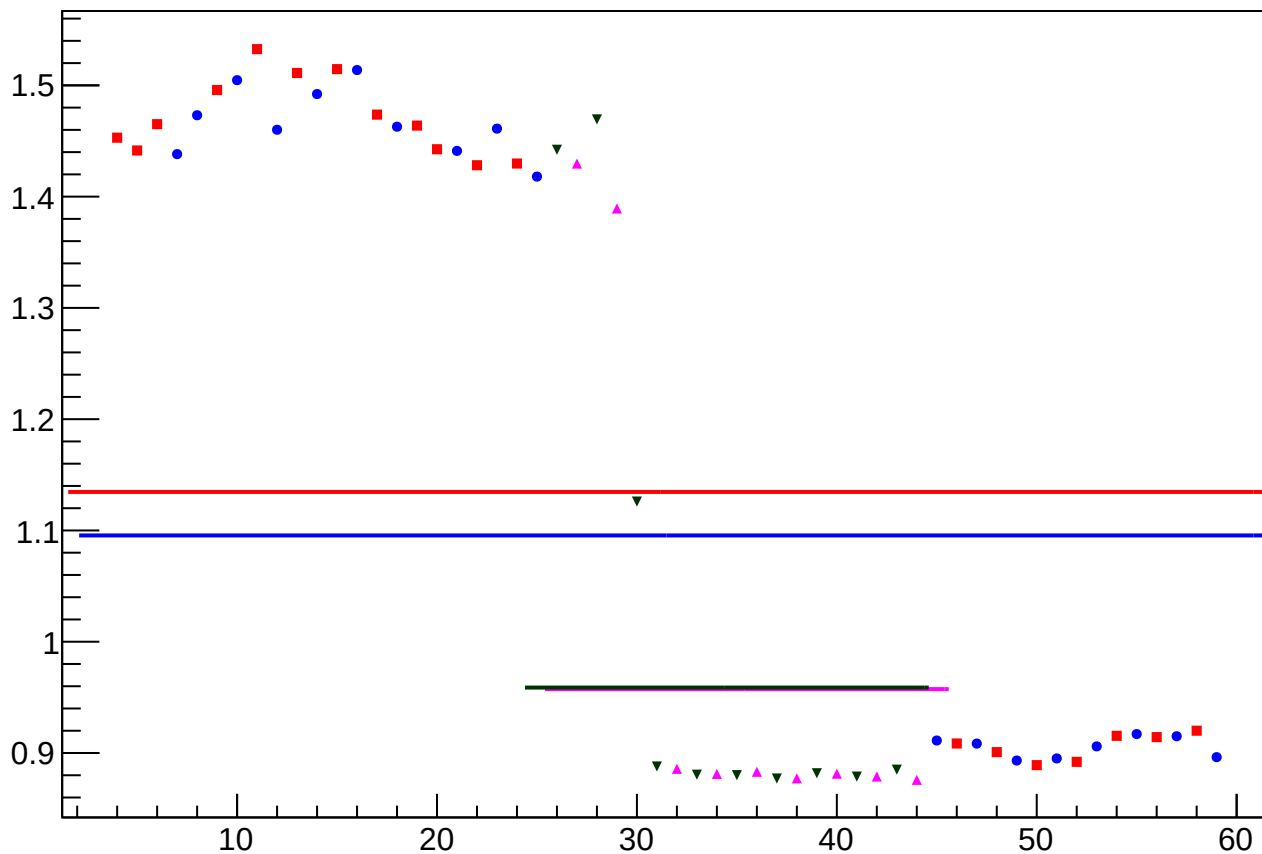
$-0.402 \pm 0.262$   $\chi^2/\text{NDF}: 46.8/27$

Right Out:  $-0.448 \pm 0.369$   $\chi^2/\text{NDF}: 17.4/18$

$-0.252 \pm 0.274$   $\chi^2/\text{NDF}: 21.0/27$

Left In:  $-0.010 \pm 0.410$   $\chi^2/\text{NDF}: 3.0/8$

# asym\_cav4dQ\_rms vs slug



Right In: 1.096+/-0.000  $\chi^2/\text{NDF}$ : 1288766.9/17

Left Out: 0.959+/-0.000  $\chi^2/\text{NDF}$ : 370902.6/9

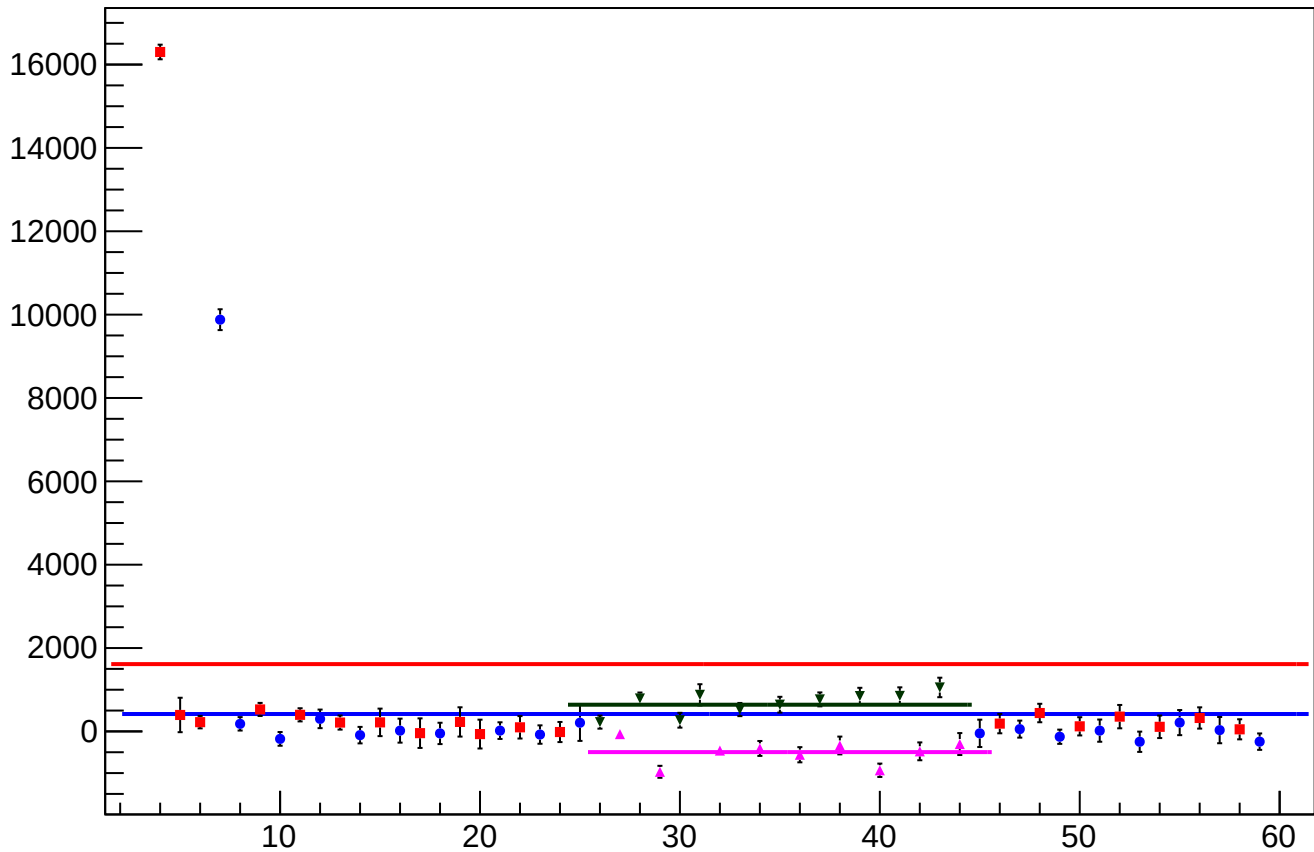
Right Out: 1.135+/-0.000  $\chi^2/\text{NDF}$ : 1161881.6/18

Left In: 0.957+/-0.000  $\chi^2/\text{NDF}$ : 411162.2/8

1.042+/-0.000  $\chi^2/\text{NDF}$ : 1788655.4/27

1.055+/-0.000  $\chi^2/\text{NDF}$ : 1779185.7/27

# asym\_bcm0l02\_mean vs slug



Right In: 417.186+/-52.636  $\chi^2$ /NDF: 1507.9/17

Left Out: 640.376+/-56.927  $\chi^2$ /NDF:19.9/9

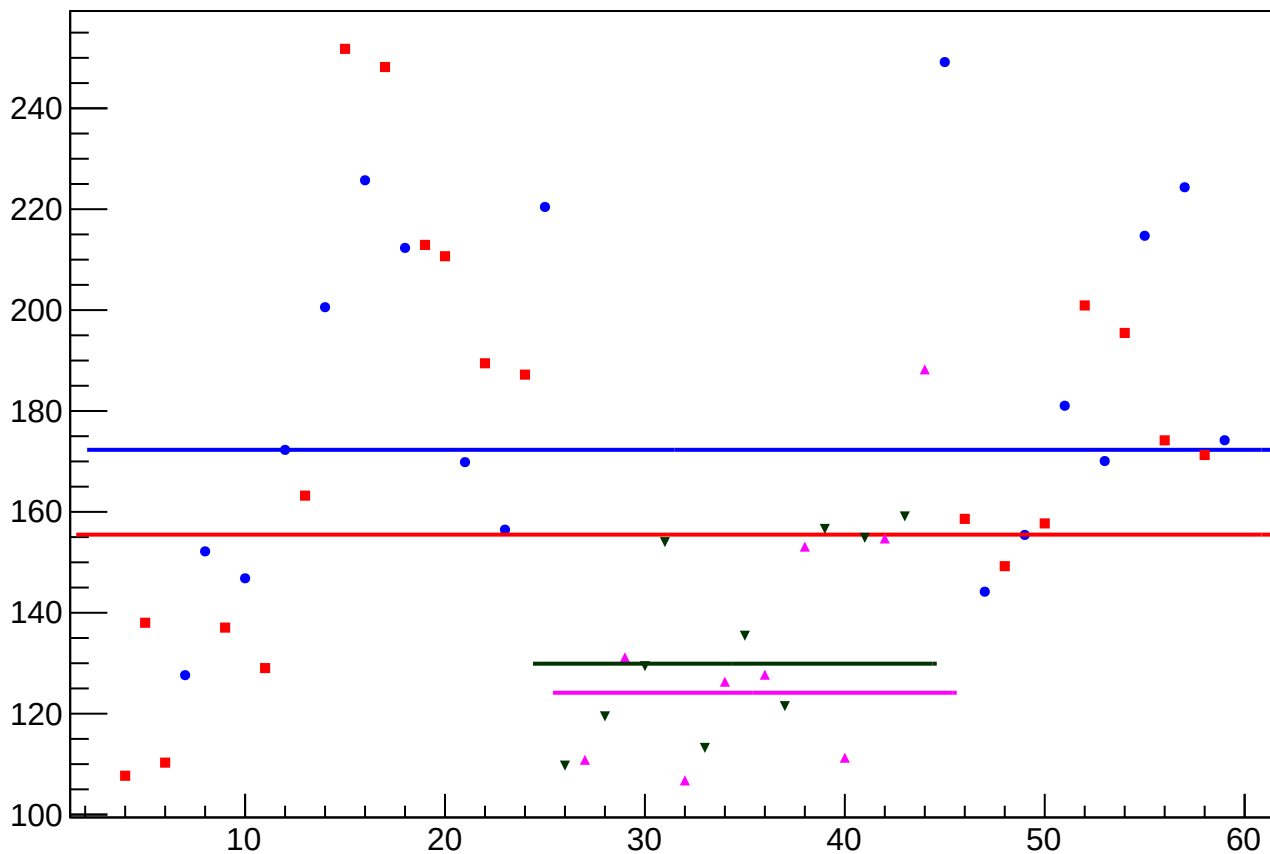
Right Out: 1614.499+/-51.138  $\chi^2$ /NDF: 7665.3/18

Left In: -496.812+/-53.314  $\chi^2$ /NDF:32.4/8

520.053+/-38.647  $\chi^2$ /NDF: 1536.2/27

602.805+/-36.905  $\chi^2$ /NDF: 8514.5/27

# asym\_bcm0l02\_rms vs slug



Right In: 172.303+/-0.037  $\chi^2/\text{NDF}$ : 600813.3/17

Left Out: 129.911+/-0.040  $\chi^2/\text{NDF}$ :188039.4/9

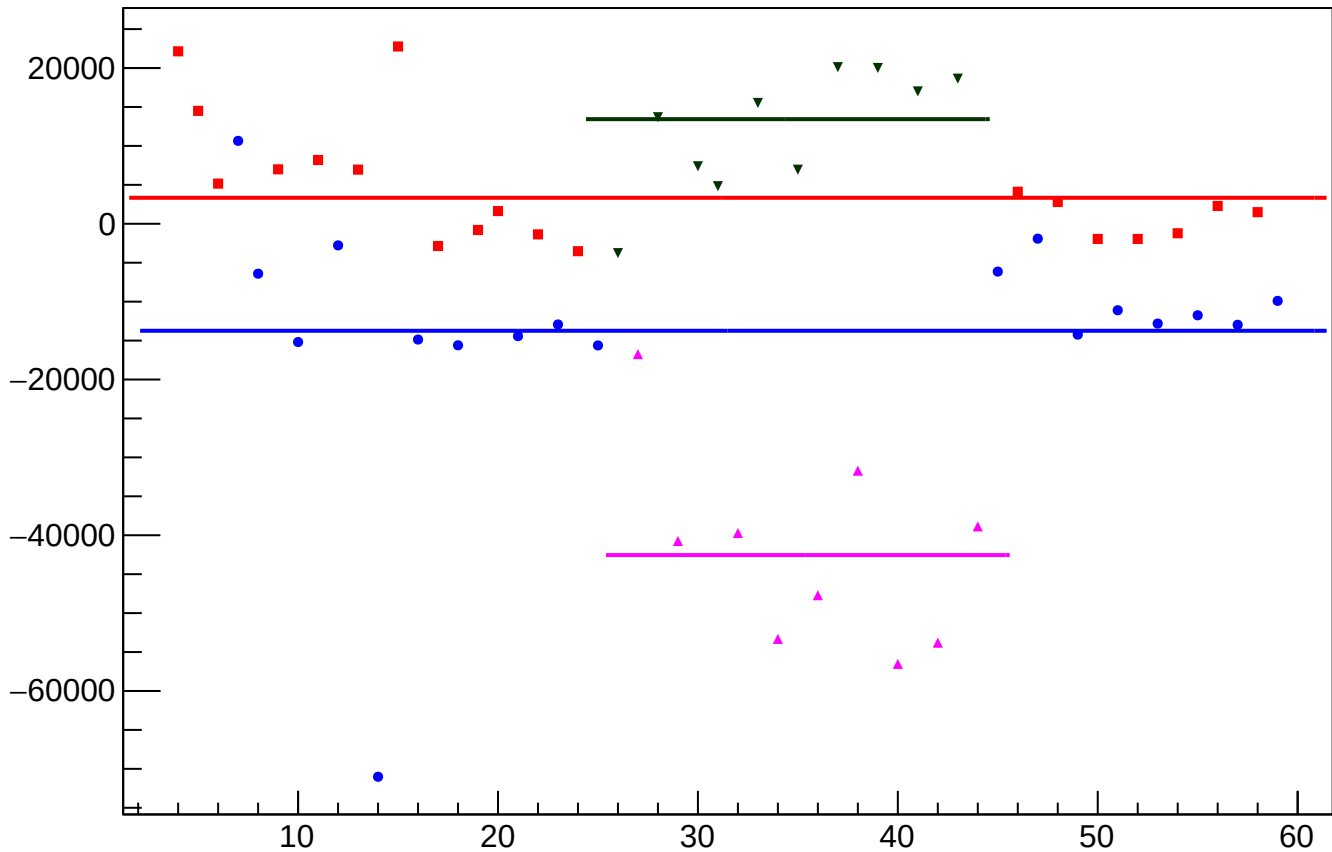
152.765+/-0.027  $\chi^2/\text{NDF}$ : 1386784.9/27

Right Out: 155.494+/-0.036  $\chi^2/\text{NDF}$ : 1018742.9/18

140.474+/-0.026  $\chi^2/\text{NDF}$ : 1664347.1/27

Left In: 124.148+/-0.038  $\chi^2/\text{NDF}$ :285531.8/8

# asym\_bpm2i01WS\_mean vs slug



Right In: -13741.376+/-32.053  $\chi^2/\text{NDF}$ : 222194.3/17

Left Out: 13435.021+/-42.371  $\chi^2/\text{NDF}$ : 28229.6/9

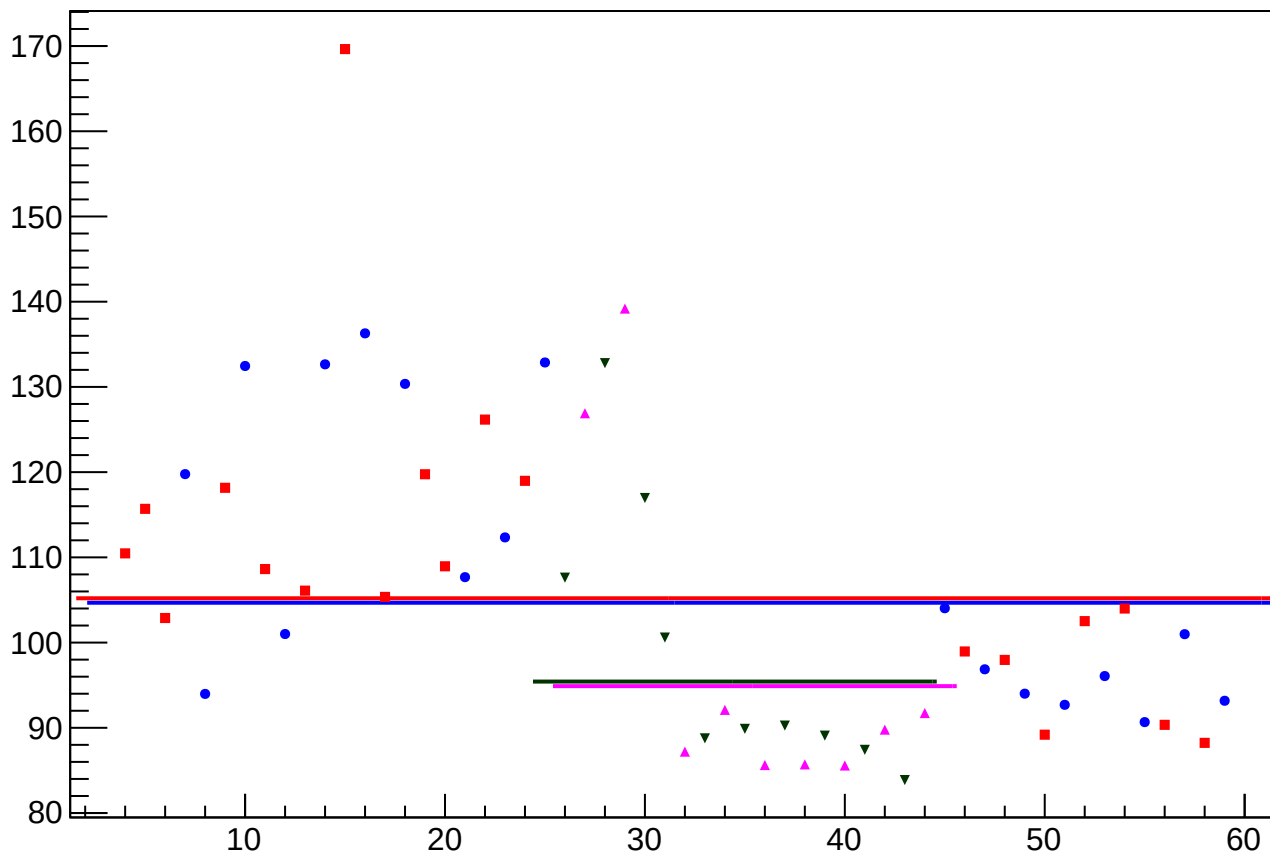
-3850.011+/-25.563  $\chi^2/\text{NDF}$ : 512071.9/27

Right Out: 3338.926+/-34.258  $\chi^2/\text{NDF}$ : 31361.1/18

-15292.004+/-26.402  $\chi^2/\text{NDF}$ : 831177.5/27

Left In: -42544.240+/-41.432  $\chi^2/\text{NDF}$ : 71406.7/8

# asym\_bpm2i01WS\_rms vs slug



Right In: 104.677 $\pm$ 0.023  $\chi^2$ /NDF: 431749.6/17

Left Out: 95.426 $\pm$ 0.030  $\chi^2$ /NDF:200660.2/9

Right Out: 105.200 $\pm$ 0.024  $\chi^2$ /NDF: 336723.5/18

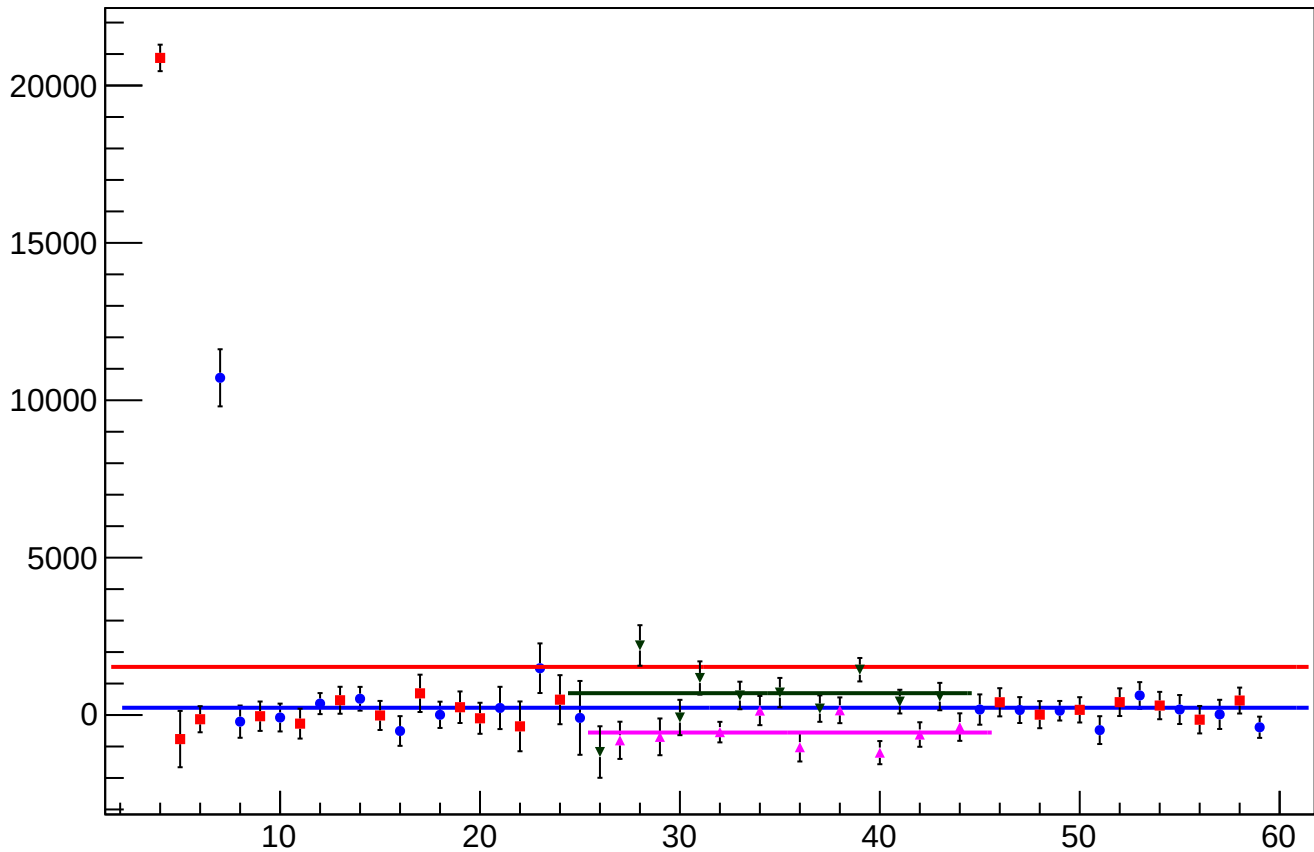
Left In: 94.889 $\pm$ 0.029  $\chi^2$ /NDF:314634.4/8

101.310 $\pm$ 0.018  $\chi^2$ /NDF: 693051.0/27

101.013 $\pm$ 0.019  $\chi^2$ /NDF: 724932.8/27



# asym\_bpm0i07WS\_mean vs slug



Right In: 230.965 $\pm$ 105.235  $\chi^2/\text{NDF}: 148.0/17$

Left Out: 693.815 $\pm$ 147.932  $\chi^2/\text{NDF}: 19.5/9$

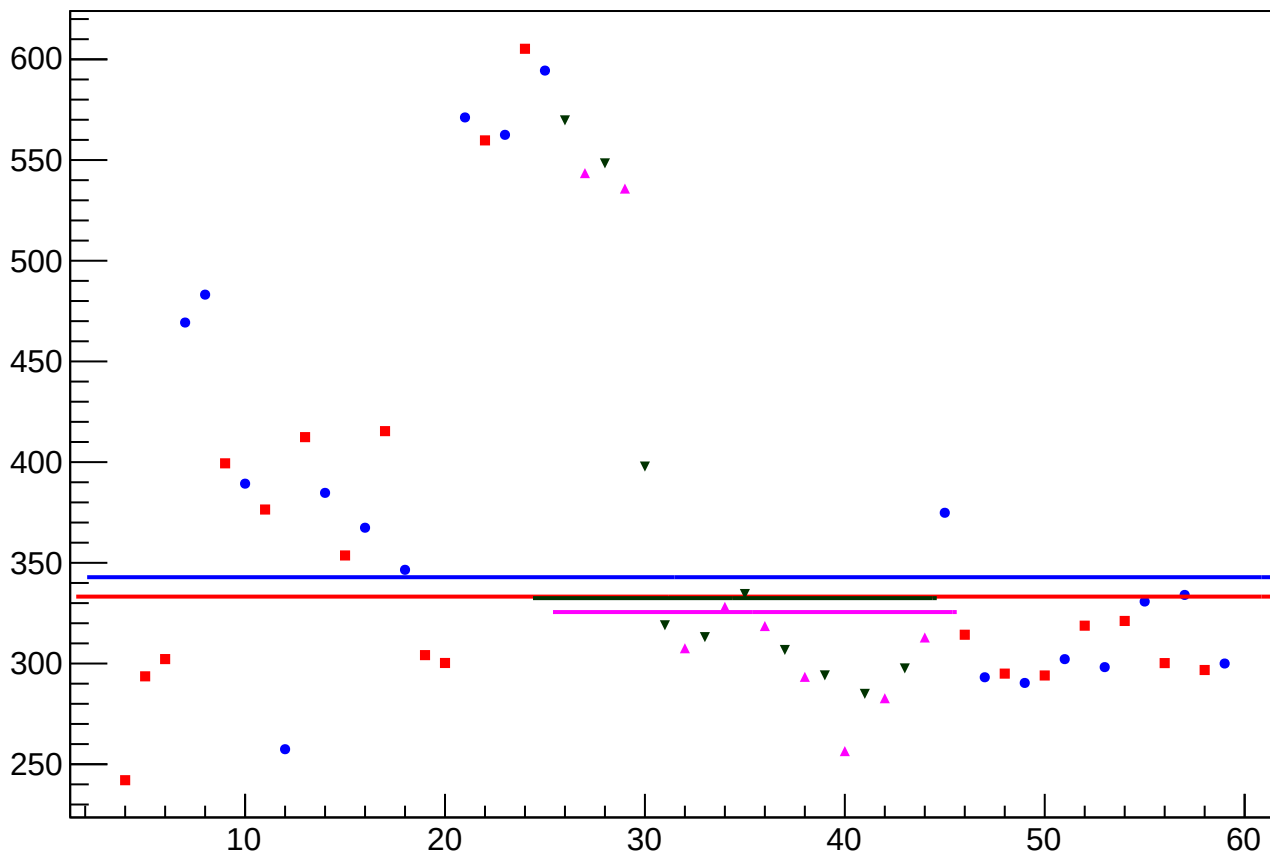
386.490 $\pm$ 85.751  $\chi^2/\text{NDF}: 173.9/27$

Right Out: 1529.045 $\pm$ 108.949  $\chi^2/\text{NDF}: 2274.0/18$

753.441 $\pm$ 86.346  $\chi^2/\text{NDF}: 2420.0/27$

Left In: -556.564 $\pm$ 141.592  $\chi^2/\text{NDF}: 9.7/8$

asym\_bpm0i07WS\_rms vs slug



Right In: 342.865 $\pm$ 0.074  $\chi^2$ /NDF: 1018623.1/17

Left Out: 332.466 $\pm$ 0.105  $\chi^2$ /NDF: 498518.7/9

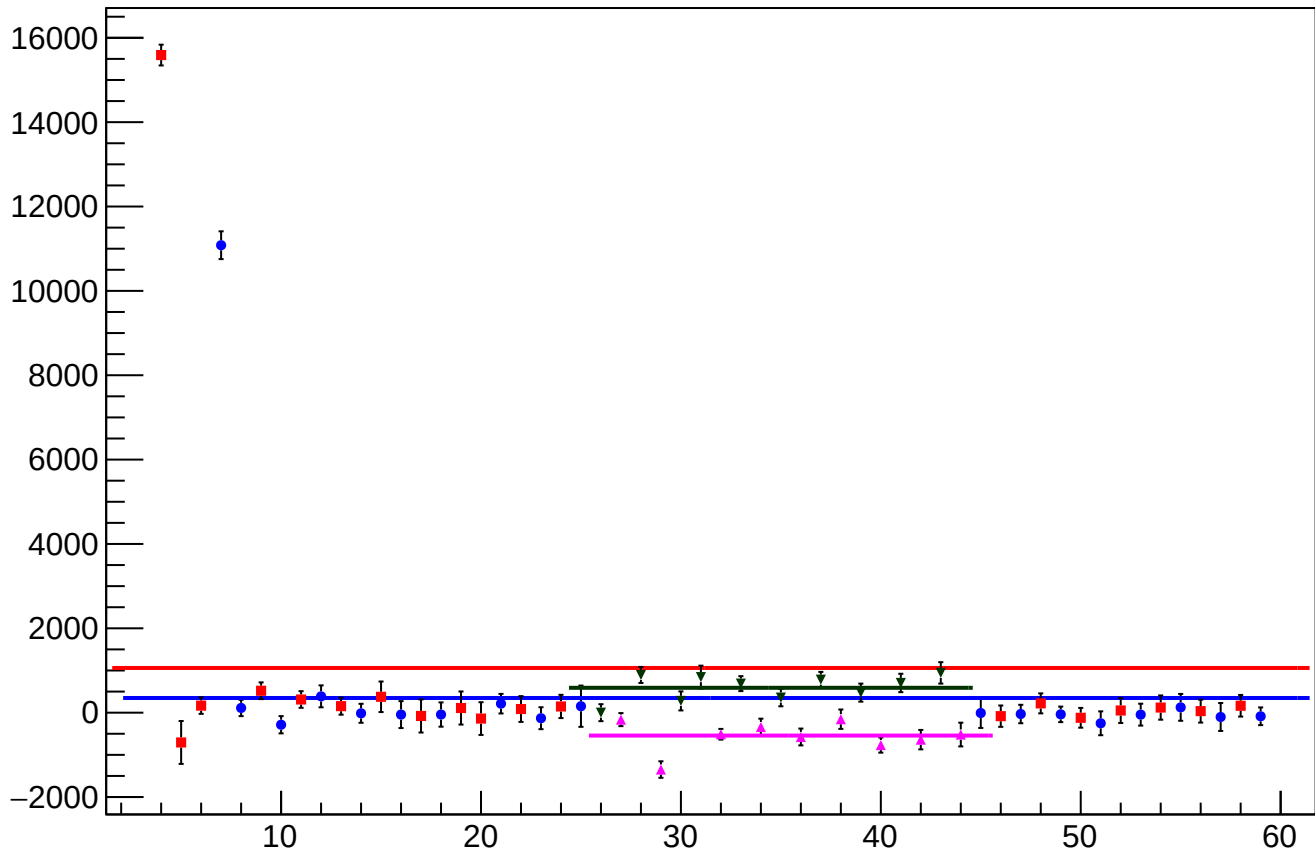
Right Out: 333.230 $\pm$ 0.077  $\chi^2$ /NDF: 768934.3/18

Left In: 325.557 $\pm$ 0.100  $\chi^2$ /NDF: 646591.2/8

339.371 $\pm$ 0.061  $\chi^2$ /NDF: 1523704.2/27

330.377 $\pm$ 0.061  $\chi^2$ /NDF: 1419215.0/27

# asym\_bpm0l01WS\_mean vs slug



Right In: 348.196+/-59.644  $\chi^2/\text{NDF}$ : 1103.2/17

Left Out: 589.690+/-66.057  $\chi^2/\text{NDF}$ : 19.1/9

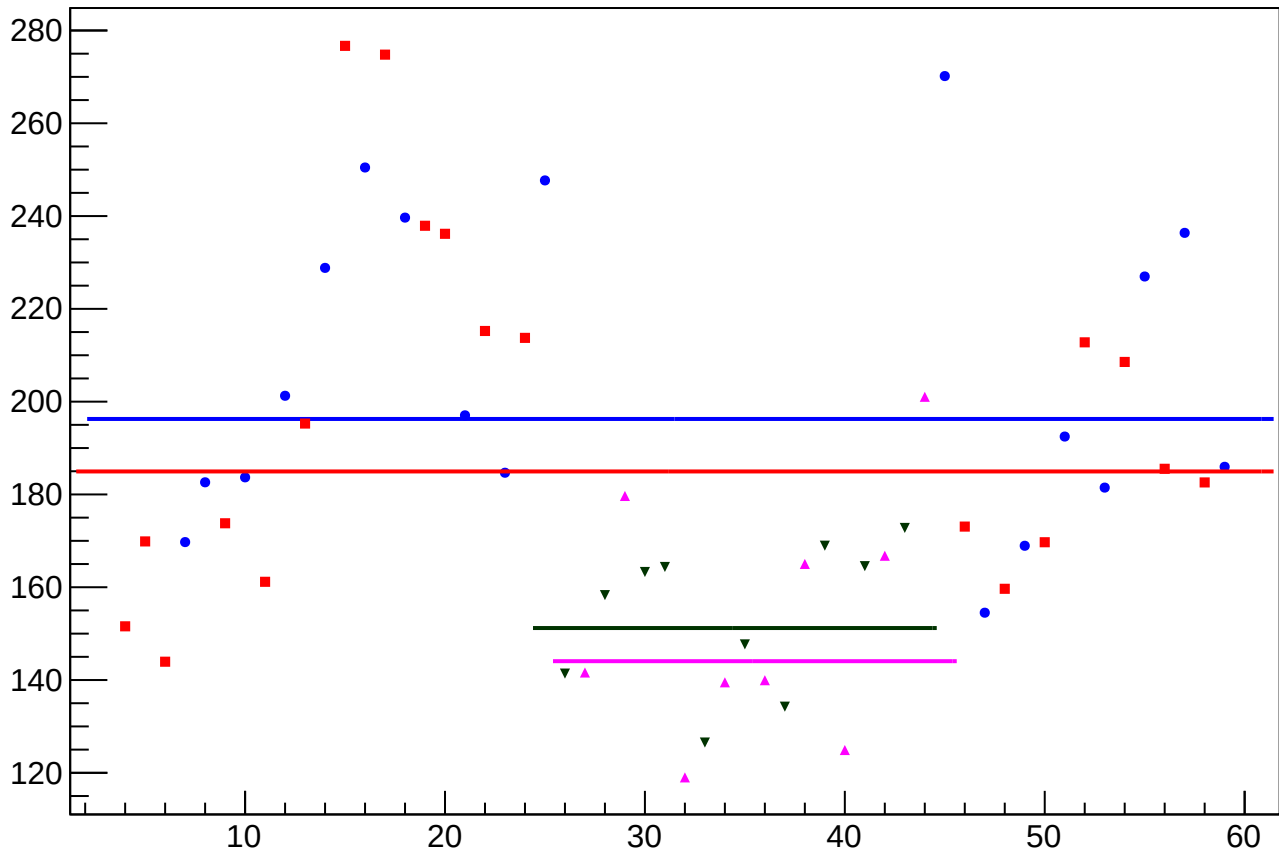
456.655+/-44.269  $\chi^2/\text{NDF}$ : 1129.7/27

Right Out: 1059.962+/-60.034  $\chi^2/\text{NDF}$ : 3708.7/18

281.064+/-43.044  $\chi^2/\text{NDF}$ : 4083.8/27

Left In: -542.908+/-61.747  $\chi^2/\text{NDF}$ : 28.6/8

asym\_bpm0l01WS\_rms vs slug



Right In:  $196.269 \pm 0.042$   $\chi^2/\text{NDF}: 466122.9/17$

Left Out:  $151.207 \pm 0.047$   $\chi^2/\text{NDF}: 110209.2/9$

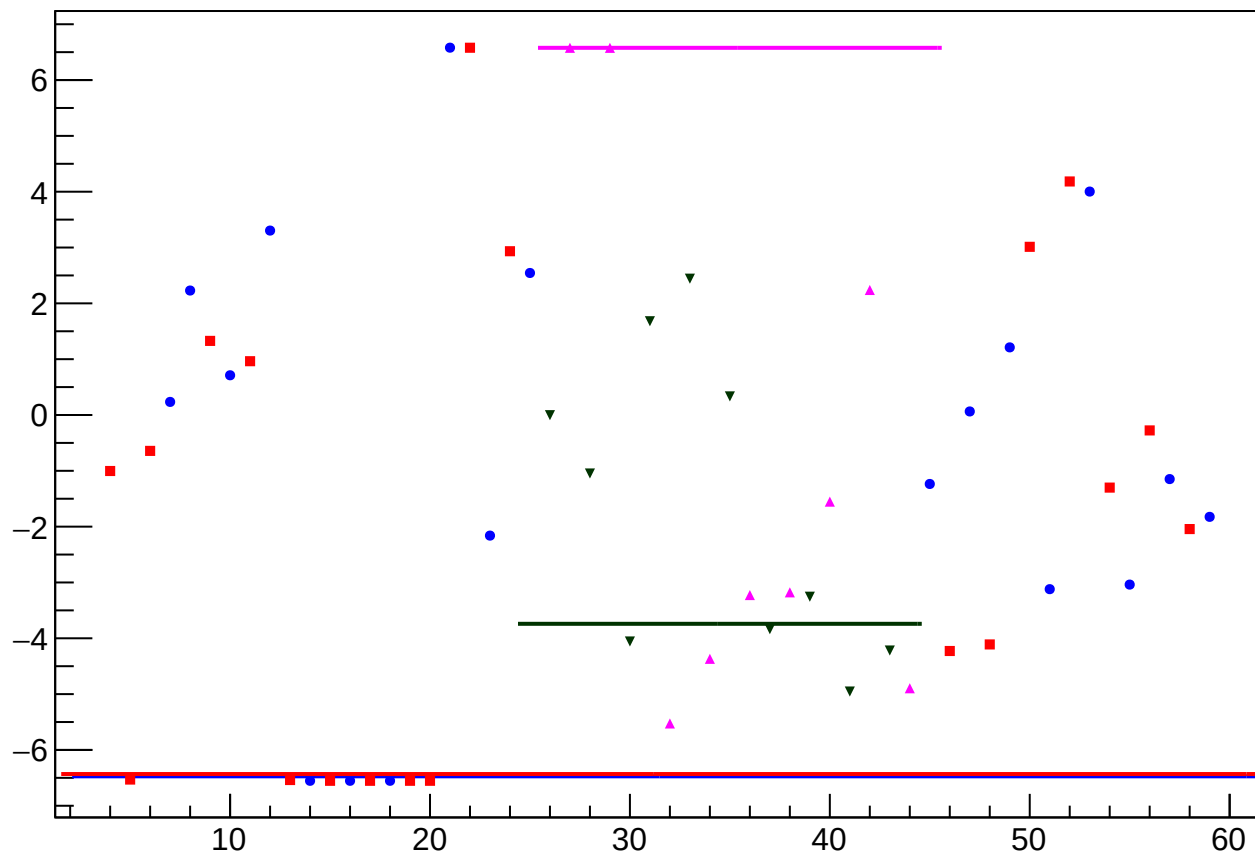
Right Out:  $184.956 \pm 0.042$   $\chi^2/\text{NDF}: 580645.4/18$

Left In:  $144.061 \pm 0.044$   $\chi^2/\text{NDF}: 287746.6/8$

$176.031 \pm 0.031$   $\chi^2/\text{NDF}: 1089046.4/27$

$165.084 \pm 0.030$   $\chi^2/\text{NDF}: 1319372.7/27$

# yield\_cav4bX\_mean vs slug



Right In: -6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847949322838.5/17

Left Out: -3.741+/-0.001  $\chi^2/\text{NDF}$ : 5731885.1/9

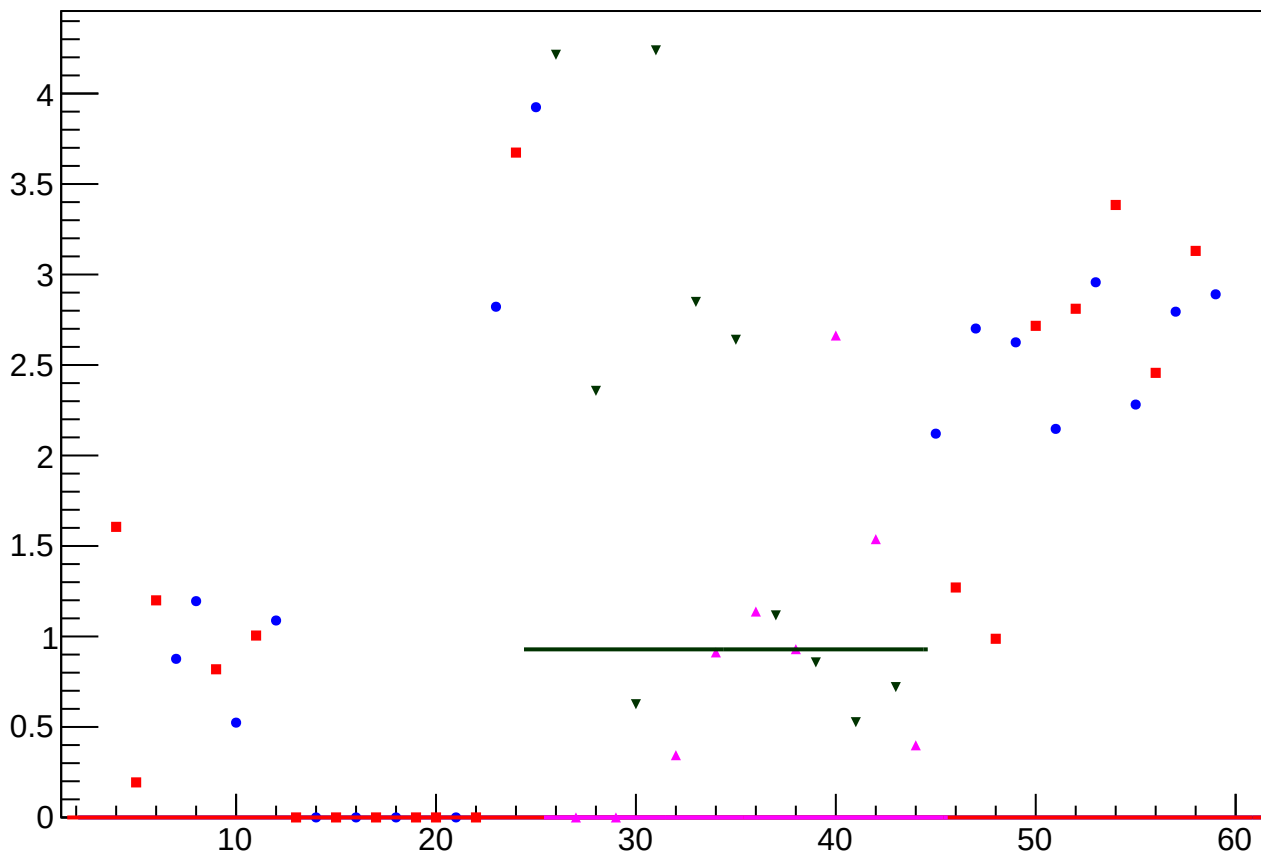
Right Out: -6.432+/-0.000  $\chi^2/\text{NDF}$ : 150837619676093.8/18

Left In: 6.578+/-0.000  $\chi^2/\text{NDF}$ : 822807717.8/8

-6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847973705720.4/2

-6.315+/-0.000  $\chi^2/\text{NDF}$ : 297092128770845.5/2

# yield\_cav4bX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 11913804.6/17

Left Out: 0.929+/-0.000  $\chi^2/\text{NDF}$ :2482114.1/9

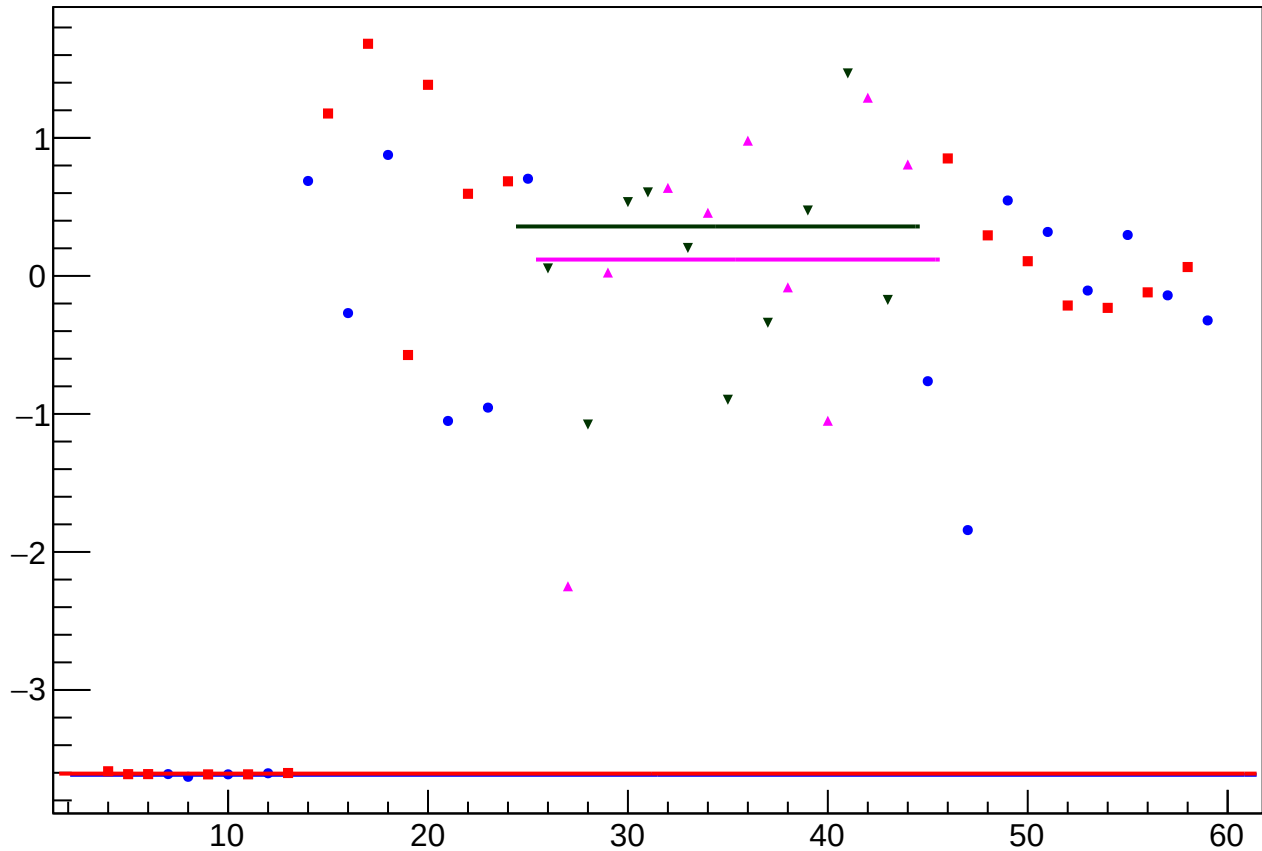
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9626570.5/18

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :4631448.1/8

0.000+/-0.000  $\chi^2/\text{NDF}$ : 18705398.2/27

0.000+/-0.000  $\chi^2/\text{NDF}$ : 14258113.2/27

# yield\_cav4bY\_mean vs slug



Right In: -3.614+/-0.000  $\chi^2/\text{NDF}$ : 49086055221.8/17

-3.614+/-0.000  $\chi^2/\text{NDF}$ : 49240296512.7/27

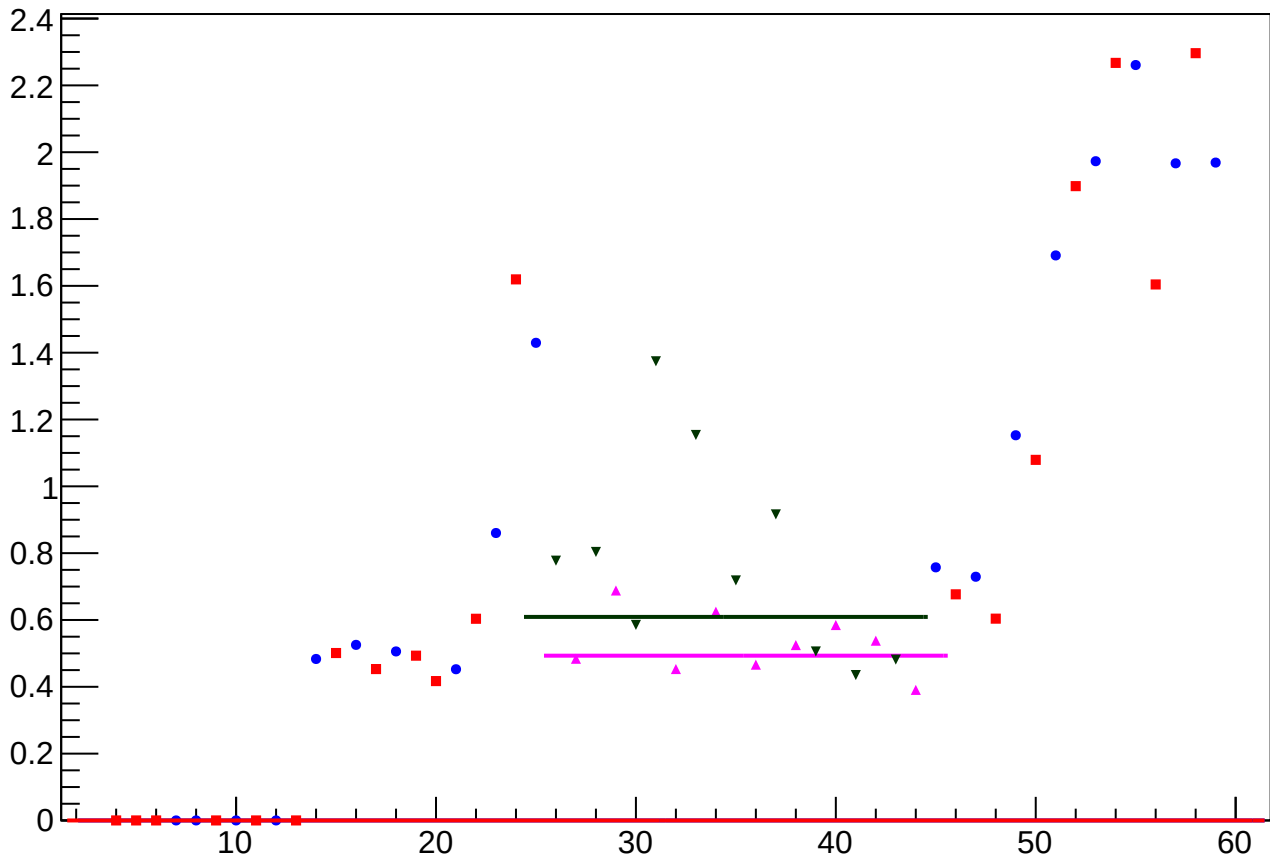
Left Out: 0.358+/-0.000  $\chi^2/\text{NDF}$ : 6673360.6/9

Right Out: -3.606+/-0.000  $\chi^2/\text{NDF}$ : 37792758949.6/18

-3.606+/-0.000  $\chi^2/\text{NDF}$ : 38032280315.7/27

Left In: 0.119+/-0.000  $\chi^2/\text{NDF}$ : 20120606.4/8

# yield\_cav4bY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 13780215.8/17

Left Out: 0.609+/-0.000  $\chi^2/\text{NDF}$ : 799340.0/9

0.000+/-0.000  $\chi^2/\text{NDF}$ : 21517587.7/27

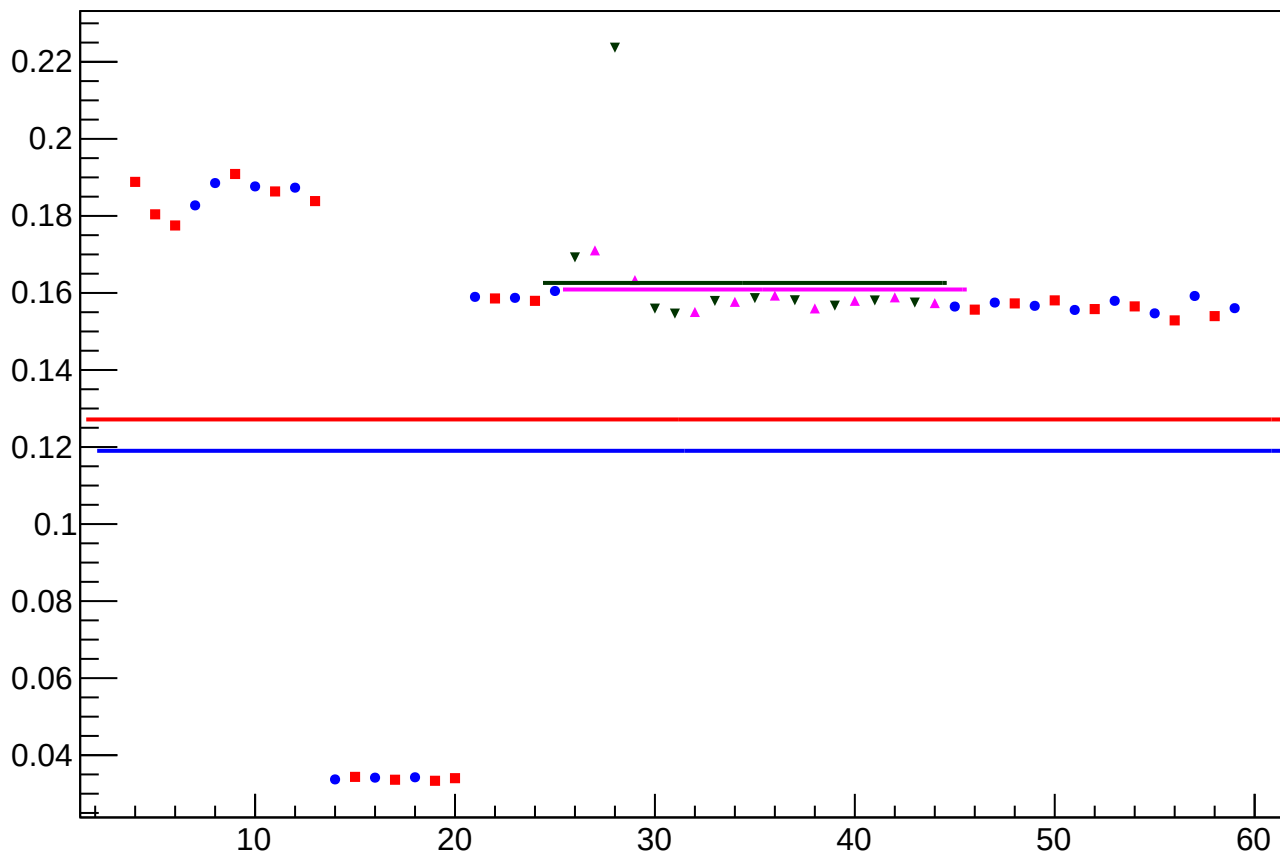
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 10531530.4/18

0.000+/-0.000  $\chi^2/\text{NDF}$ : 18436363.6/27

Left In: 0.493+/-0.000  $\chi^2/\text{NDF}$ : 214040.2/8



# yield\_cav4cX\_mean vs slug



Right In: 0.119+/-0.000  $\chi^2/\text{NDF}$ : 4974475463.8/17

Left Out: 0.163+/-0.000  $\chi^2/\text{NDF}$ :101593637.2/9

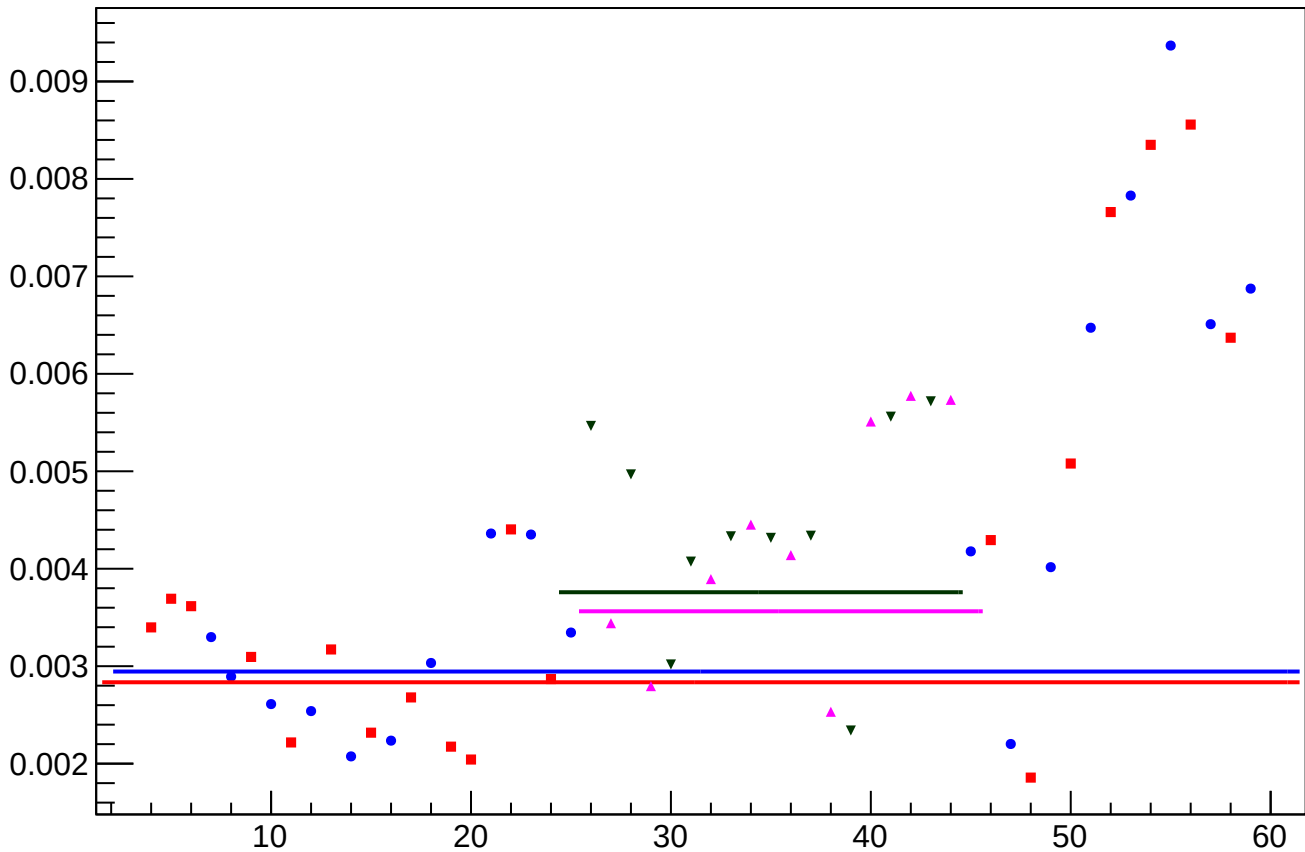
Right Out: 0.127+/-0.000  $\chi^2/\text{NDF}$ : 4426693928.8/18

Left In: 0.161+/-0.000  $\chi^2/\text{NDF}$ :11671584.7/8

0.129+/-0.000  $\chi^2/\text{NDF}$ : 5547092229.2/27

0.137+/-0.000  $\chi^2/\text{NDF}$ : 4756144251.6/27

# yield\_cav4cX\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 2985281.5/17

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :884952.0/9

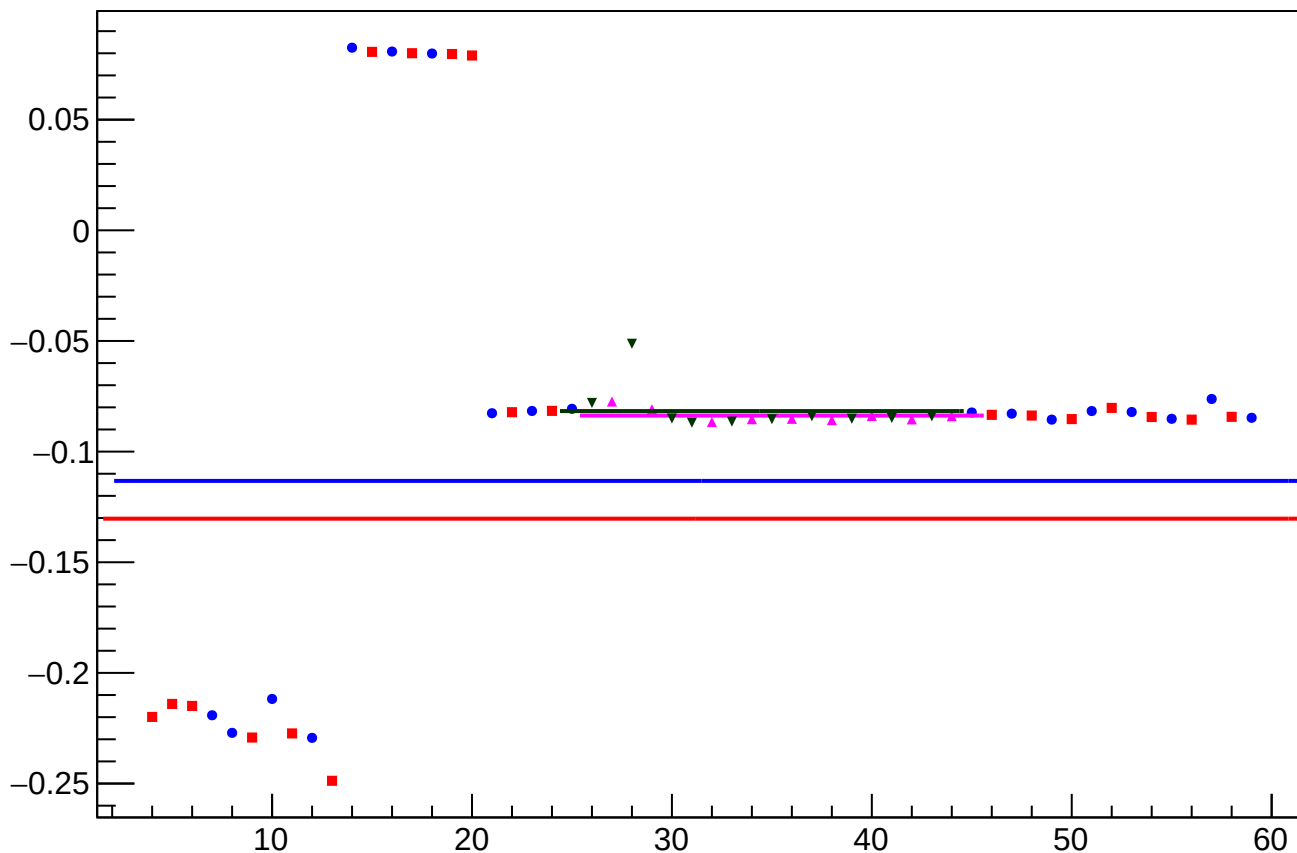
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 2697291.9/18

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :752035.9/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 4198553.0/27

0.003+/-0.000  $\chi^2/\text{NDF}$ : 3745493.6/27

# yield\_cav4cY\_mean vs slug



Right In: -0.113+/-0.000  $\chi^2/\text{NDF}$ : 9694608559.9/17

Left Out: -0.082+/-0.000  $\chi^2/\text{NDF}$ : 35856752.9/9

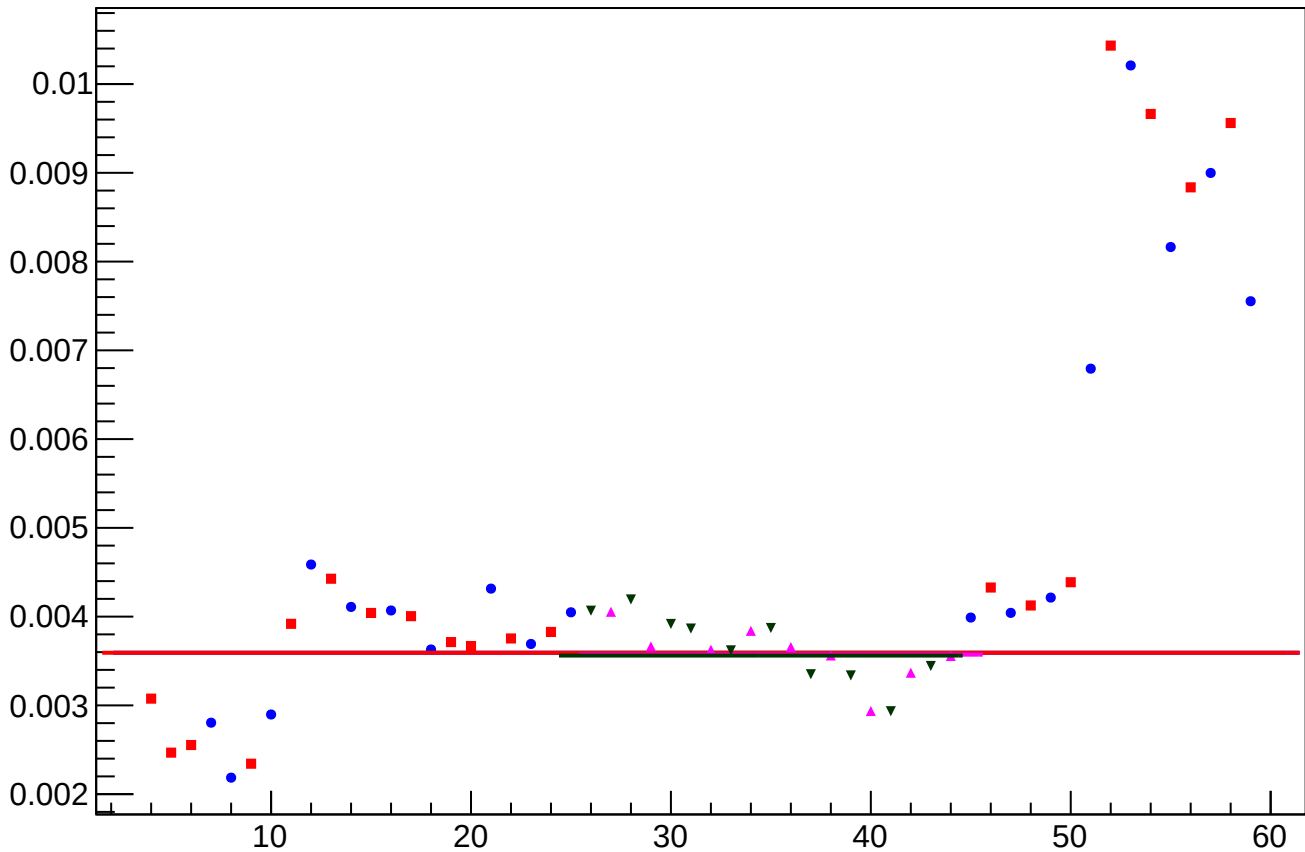
Right Out: -0.130+/-0.000  $\chi^2/\text{NDF}$ : 8867144829.5/18

Left In: -0.084+/-0.000  $\chi^2/\text{NDF}$ : 3521413.4/8

-0.102+/-0.000  $\chi^2/\text{NDF}$ : 9985183177.8/27

-0.112+/-0.000  $\chi^2/\text{NDF}$ : 9423504960.0/27

# yield\_cav4cY\_rms vs slug



Right In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 2636393.6/17

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :124023.6/9

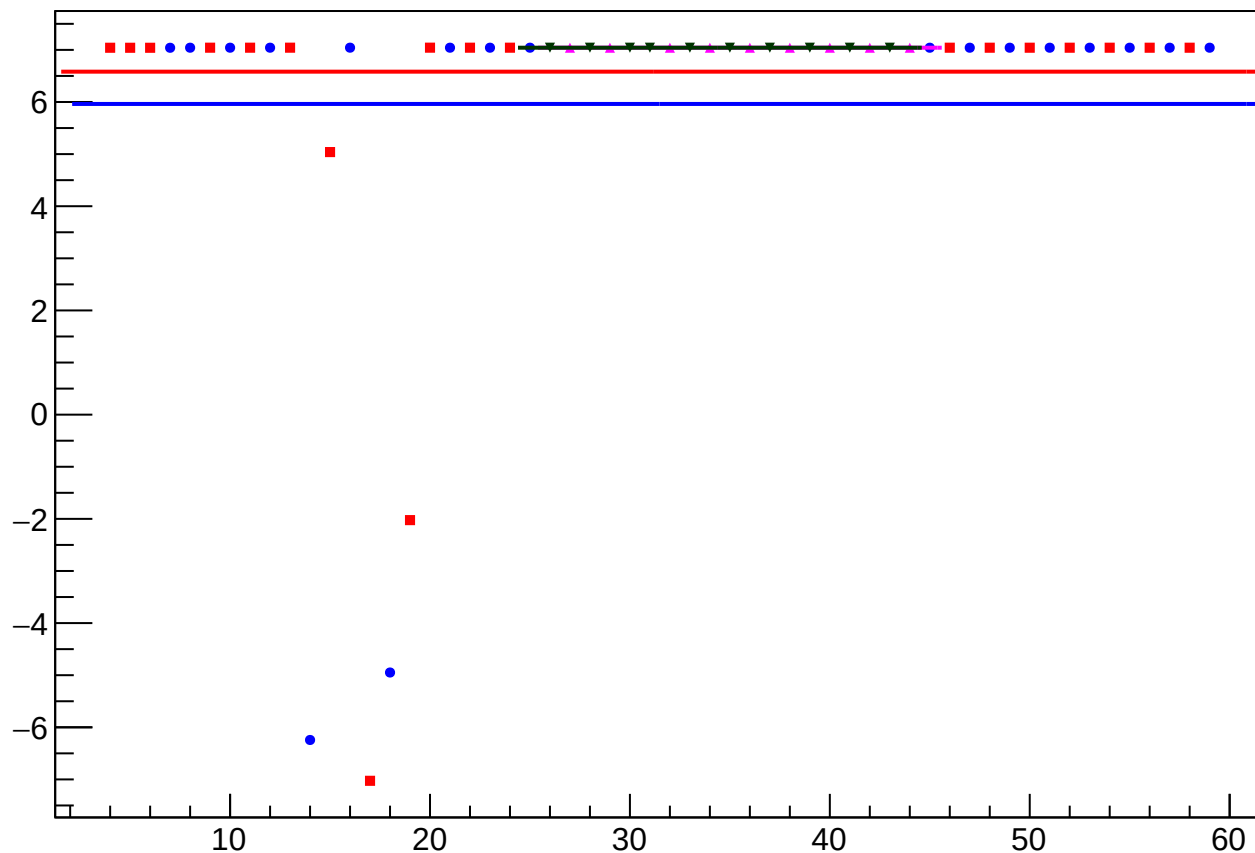
Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 2225355.5/18

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :79207.1/8

0.004+/-0.000  $\chi^2/\text{NDF}$ : 2760945.5/27

0.004+/-0.000  $\chi^2/\text{NDF}$ : 2304802.2/27

# 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: 765209.6/9

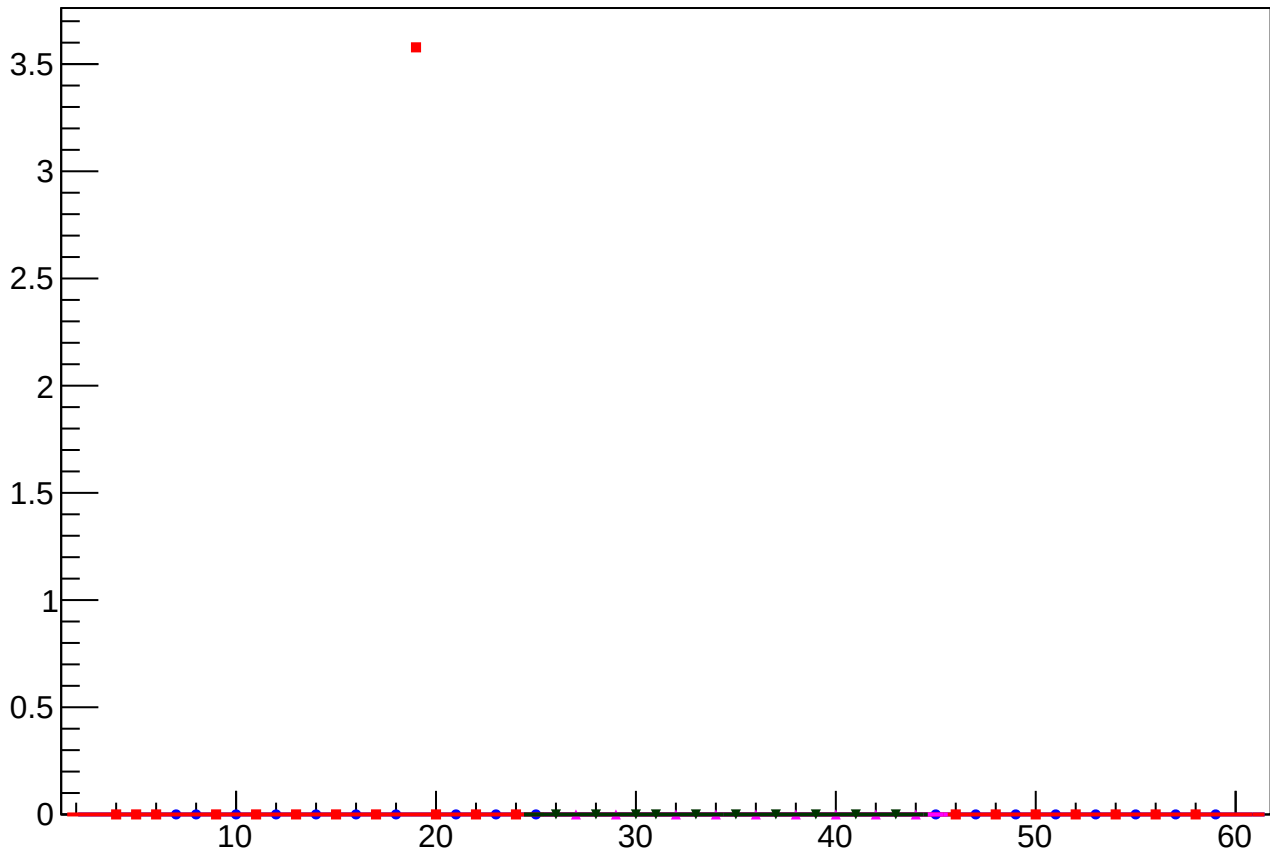
Right Out: 6.582 $\pm$ 0.000  $\chi^2$ /NDF: 1856853993700647.2/18

Left In: 7.042 $\pm$ 0.000  $\chi^2$ /NDF: 540646.4/8

6.353 $\pm$ 0.000  $\chi^2$ /NDF: 4766650092102185.0/2

6.773 $\pm$ 0.000  $\chi^2$ /NDF: 1883741373495517.2/2

yield\_cav4dX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4282.3/17

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ :1535.6/9

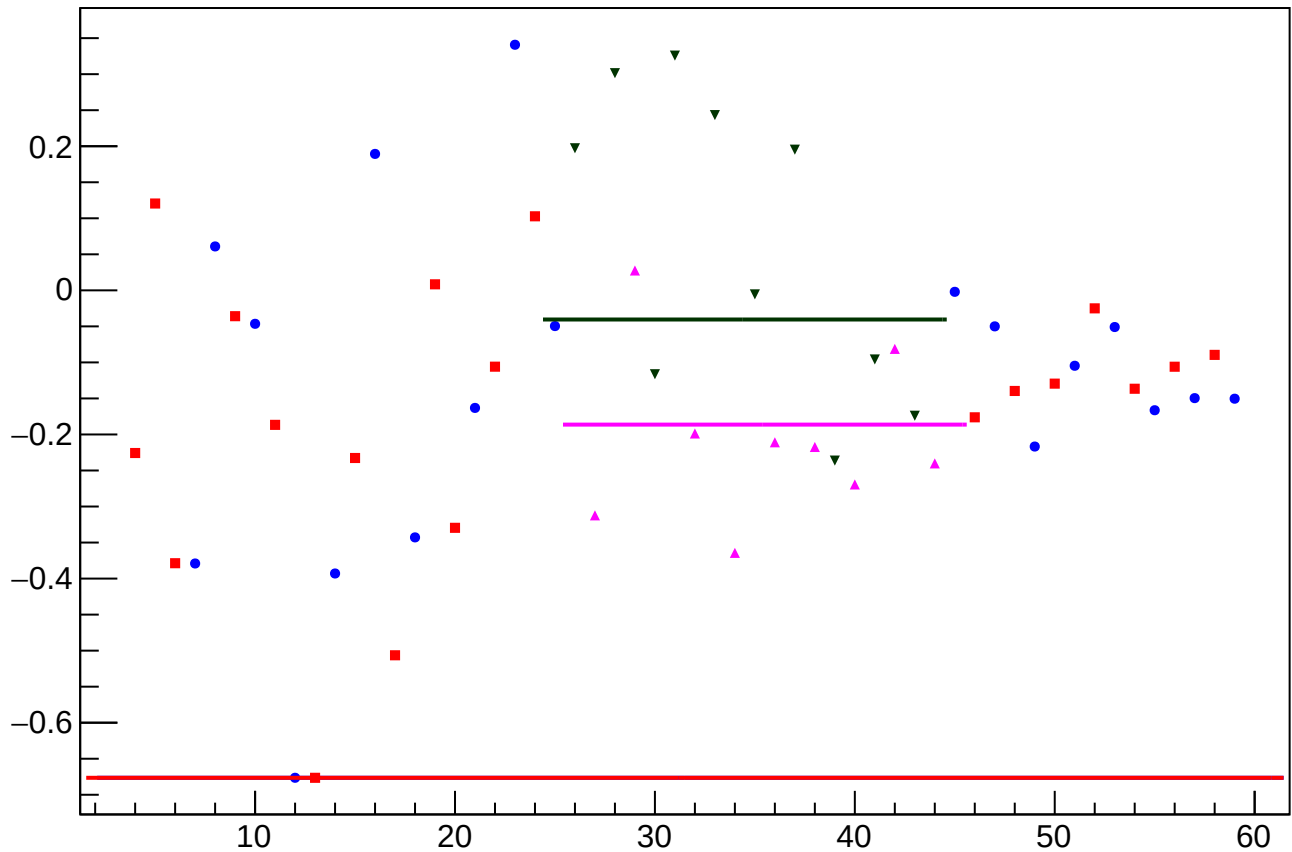
0.000+/-0.000  $\chi^2/\text{NDF}$ : 7188.1/27

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 697661.6/18

0.000+/-0.000  $\chi^2/\text{NDF}$ : 702863.5/27

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :1769.6/8

# yield\_cav4dY\_mean vs slug



Right In: -0.676+/-0.000  $\chi^2/\text{NDF}$ : 266364367.2/17

Left Out: -0.040+/-0.000  $\chi^2/\text{NDF}$ : 16704113.3/9

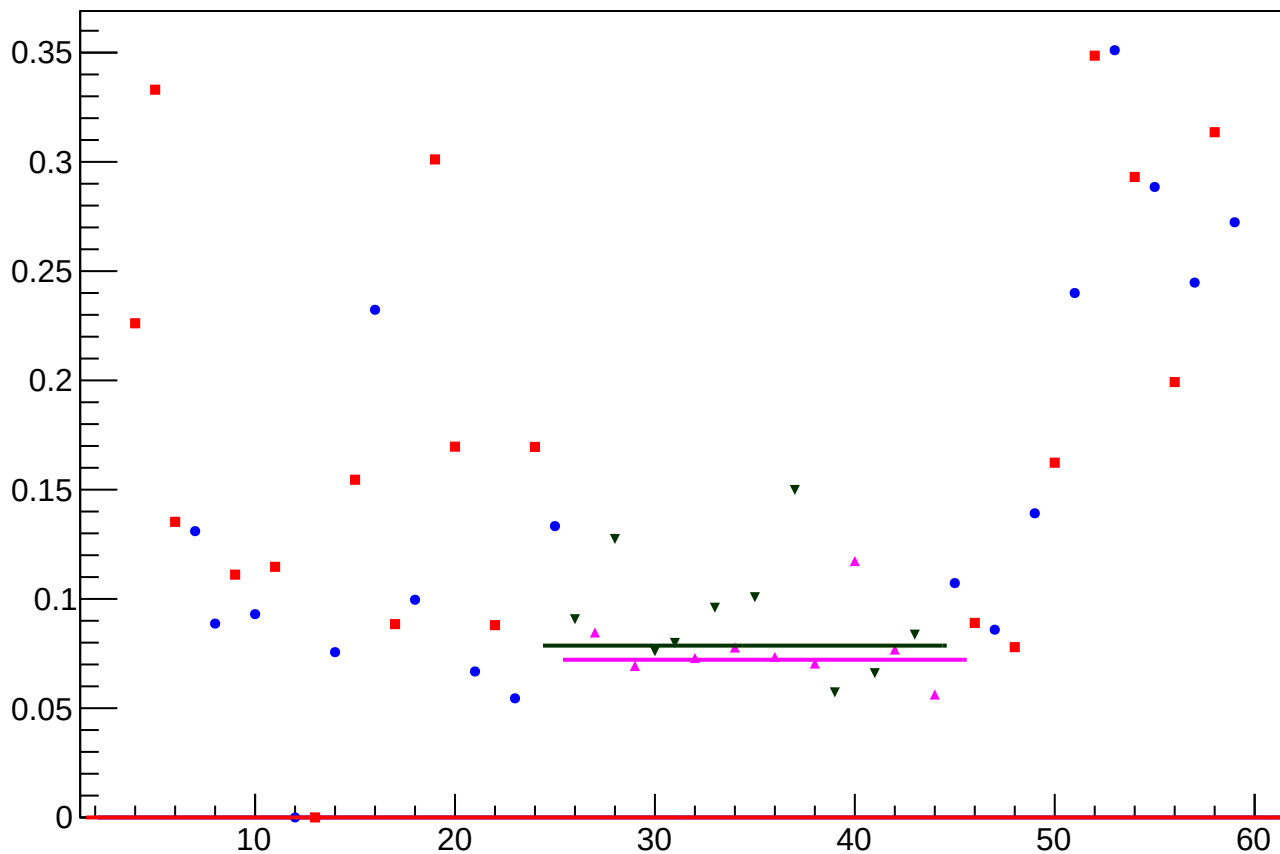
Right Out: -0.676+/-0.000  $\chi^2/\text{NDF}$ : 102004552.0/18

Left In: -0.186+/-0.000  $\chi^2/\text{NDF}$ : 8365095.9/8

-0.676+/-0.000  $\chi^2/\text{NDF}$ : 471103830.9/27

-0.676+/-0.000  $\chi^2/\text{NDF}$ : 267852009.8/27

# yield\_cav4dY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 16187995.6/17

Left Out: 0.079+/-0.000  $\chi^2/\text{NDF}$ : 452862.6/9

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 13760955.7/18

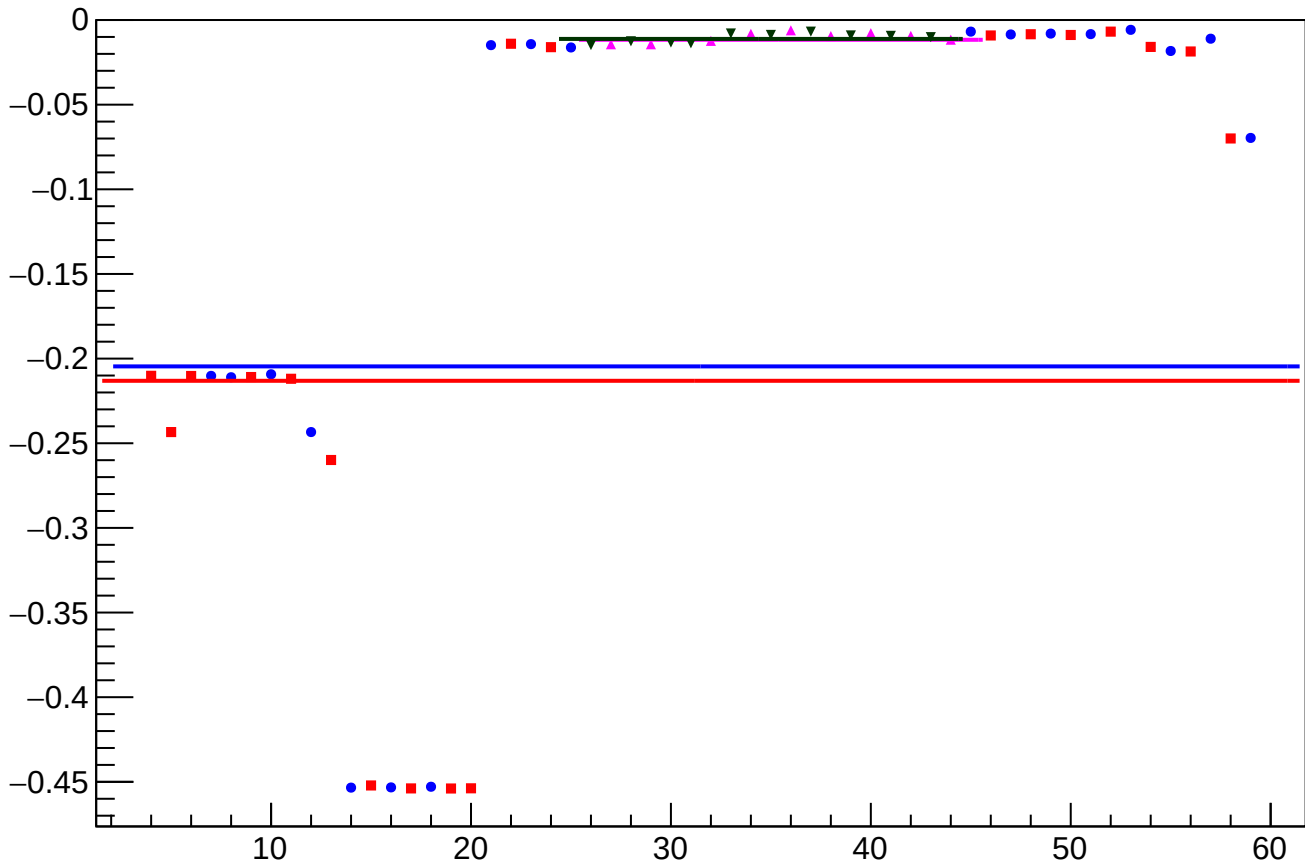
Left In: 0.072+/-0.000  $\chi^2/\text{NDF}$ : 192884.5/8

0.000+/-0.000  $\chi^2/\text{NDF}$ : 22387603.4/27

0.000+/-0.000  $\chi^2/\text{NDF}$ : 20779025.4/27



# yield\_bpm4aX\_mean vs slug



Right In: -0.205+/-0.000  $\chi^2/\text{NDF}$ : 5539981697.6/17

Left Out: -0.011+/-0.000  $\chi^2/\text{NDF}$ : 401443.1/9

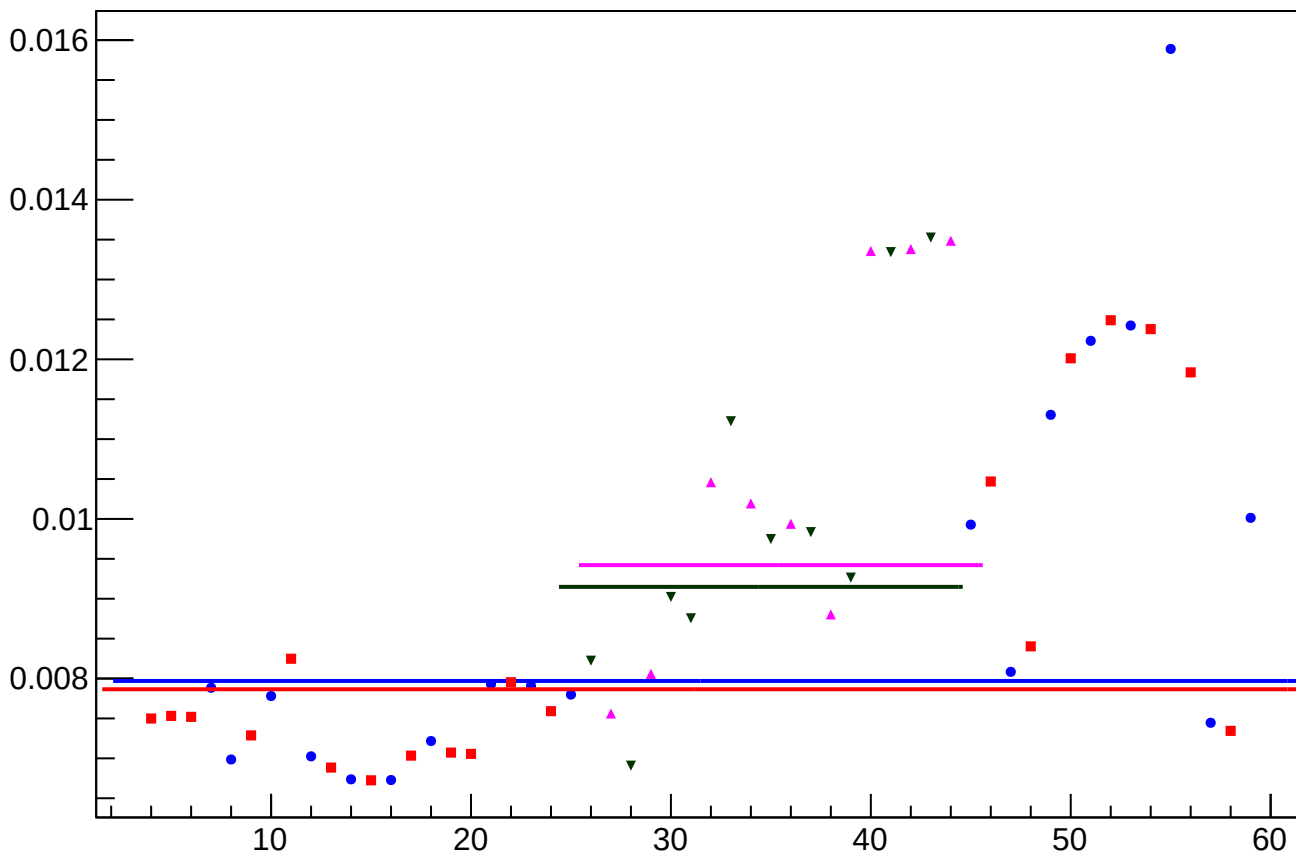
-0.153+/-0.000  $\chi^2/\text{NDF}$ : 7193544532.1/27

Right Out: -0.213+/-0.000  $\chi^2/\text{NDF}$ : 4142455601.5/18

-0.157+/-0.000  $\chi^2/\text{NDF}$ : 5890713652.9/27

Left In: -0.012+/-0.000  $\chi^2/\text{NDF}$ : 495469.4/8

# yield\_bpm4aX\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 943742.9/17

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 410320.9/9

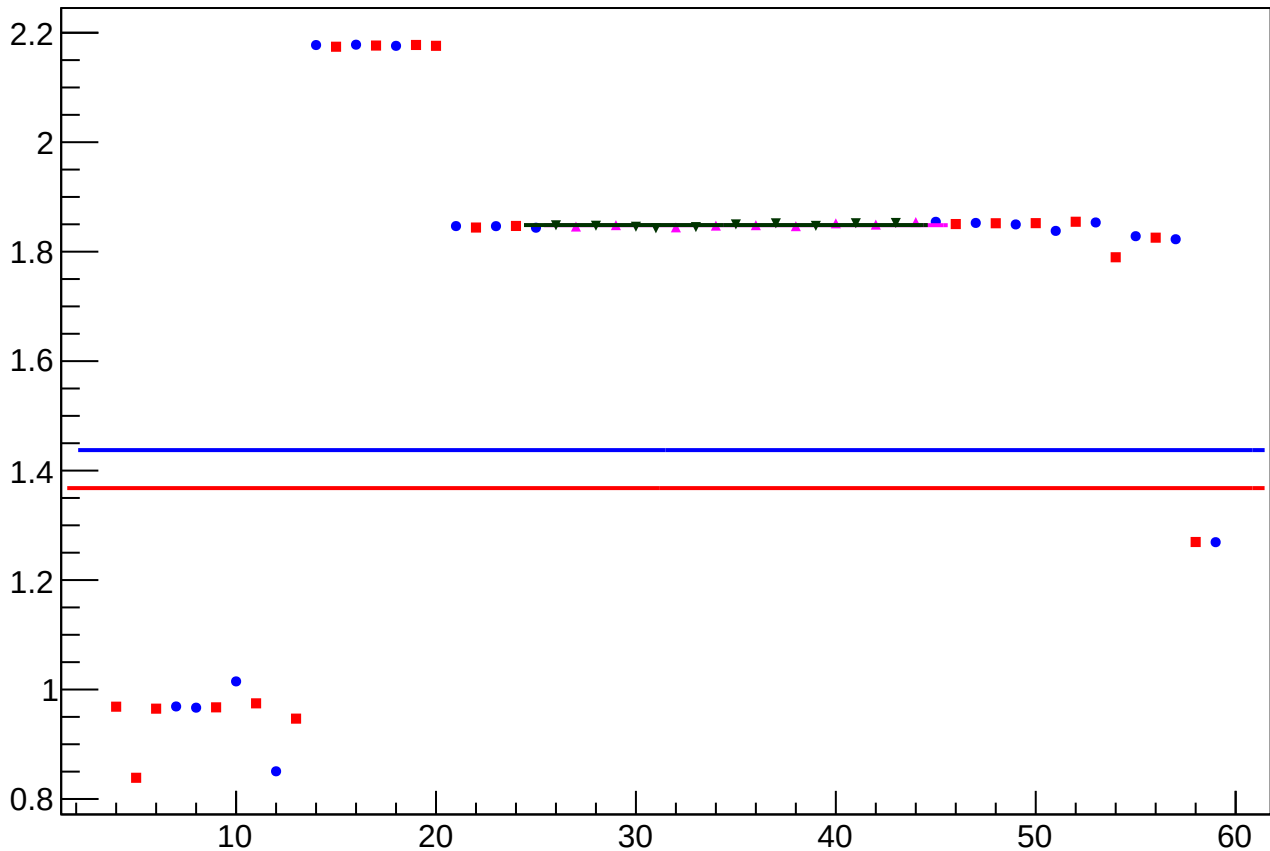
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 696189.4/18

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 449025.1/8

0.008+/-0.000  $\chi^2/\text{NDF}$ : 1476912.3/27

0.008+/-0.000  $\chi^2/\text{NDF}$ : 1353668.9/27

# yield\_bpm4aY\_mean vs slug



Right In: 1.437 $\pm$ 0.000  $\chi^2$ /NDF: 14236590294.3/17

Left Out: 1.849 $\pm$ 0.000  $\chi^2$ /NDF:239961.3/9

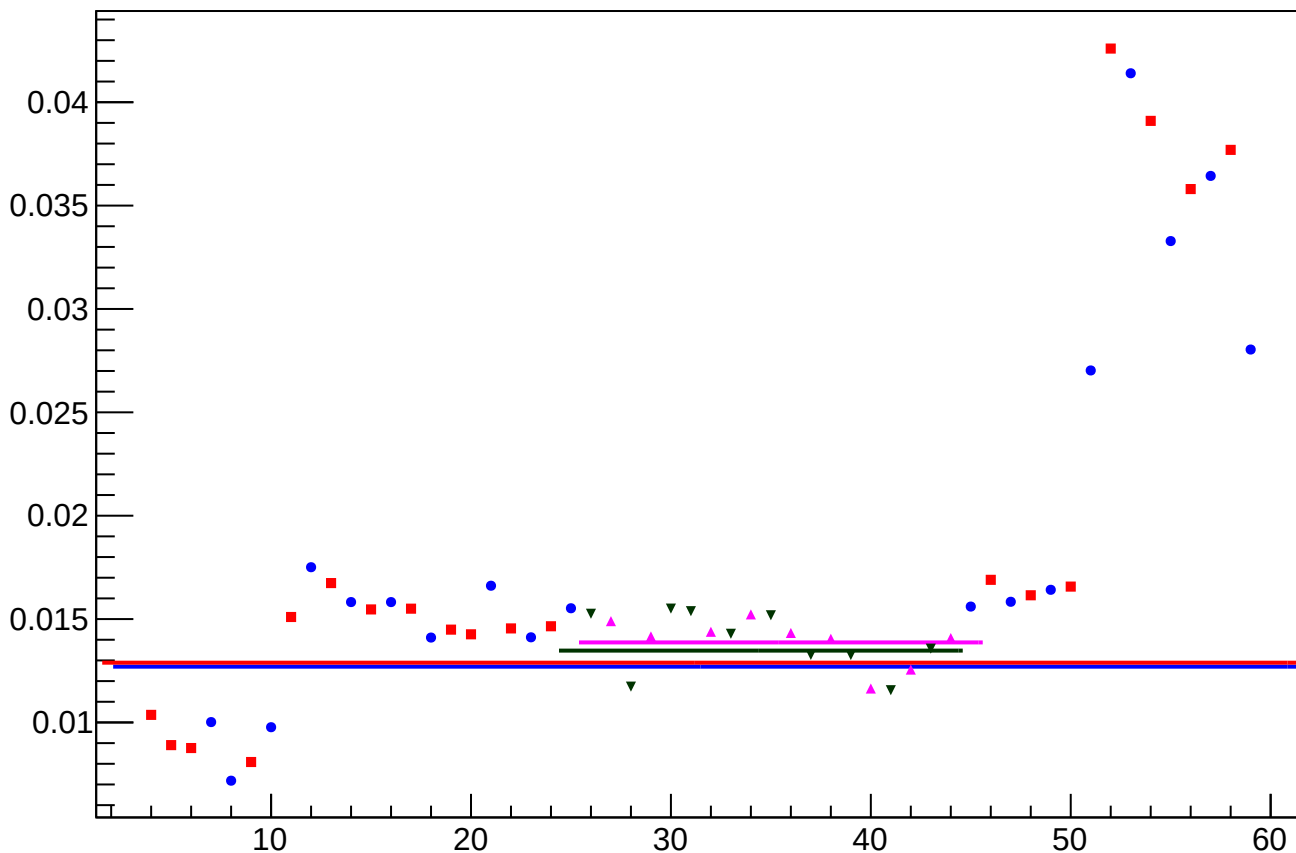
1.576 $\pm$ 0.000  $\chi^2$ /NDF: 17345202850.9/27

Right Out: 1.368 $\pm$ 0.000  $\chi^2$ /NDF: 12592500418.8/18

1.546 $\pm$ 0.000  $\chi^2$ /NDF: 16714472907.0/27

Left In: 1.848 $\pm$ 0.000  $\chi^2$ /NDF:226687.9/8

# yield\_bpm4aY\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 3534875.5/17

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :115364.2/9

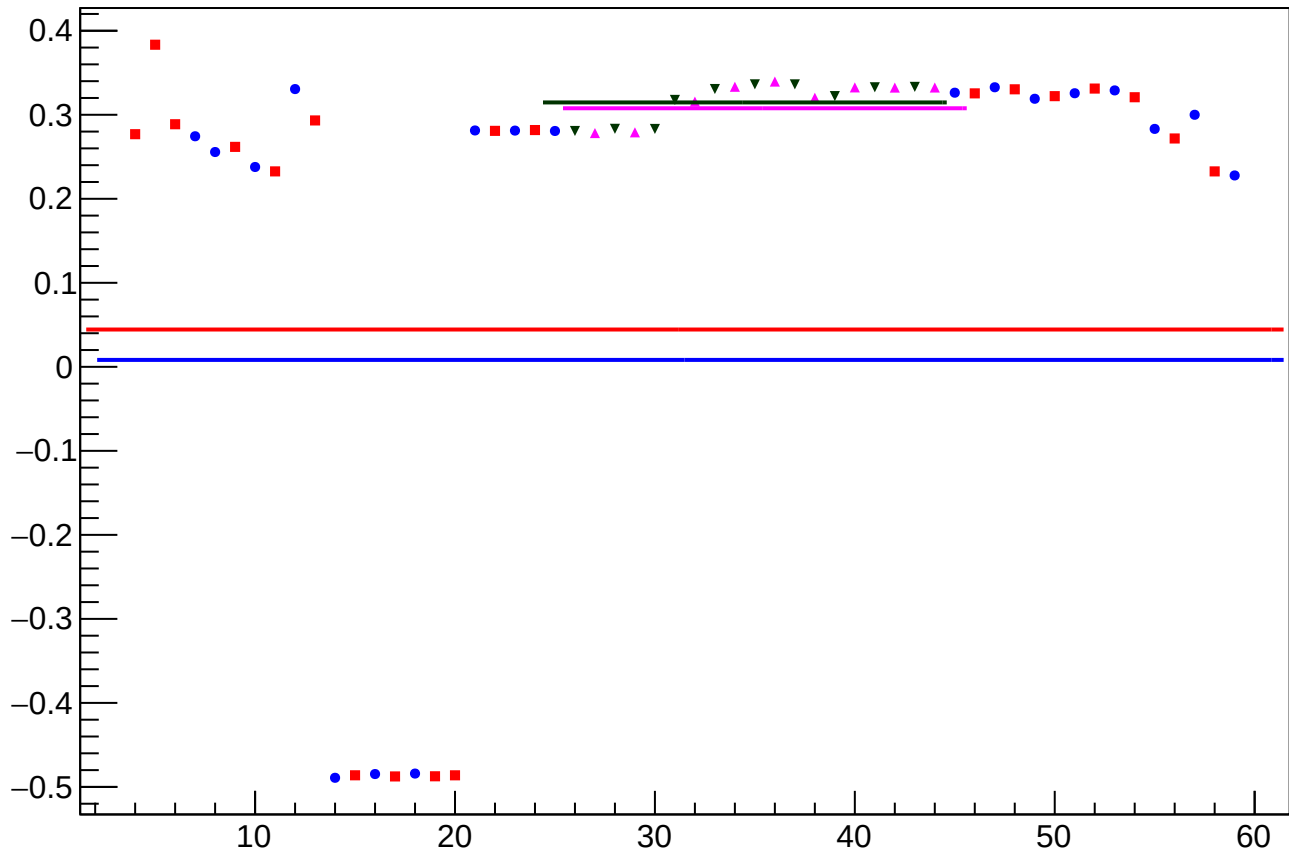
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 2814614.5/18

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :66613.9/8

0.013+/-0.000  $\chi^2/\text{NDF}$ : 3672406.4/27

0.013+/-0.000  $\chi^2/\text{NDF}$ : 2915541.4/27

# yield\_bpm4eX\_mean vs slug



Right In: 0.008 $\pm$ 0.000  $\chi^2$ /NDF: 3589016563.4/17

Left Out: 0.315 $\pm$ 0.000  $\chi^2$ /NDF: 5189197.9/9

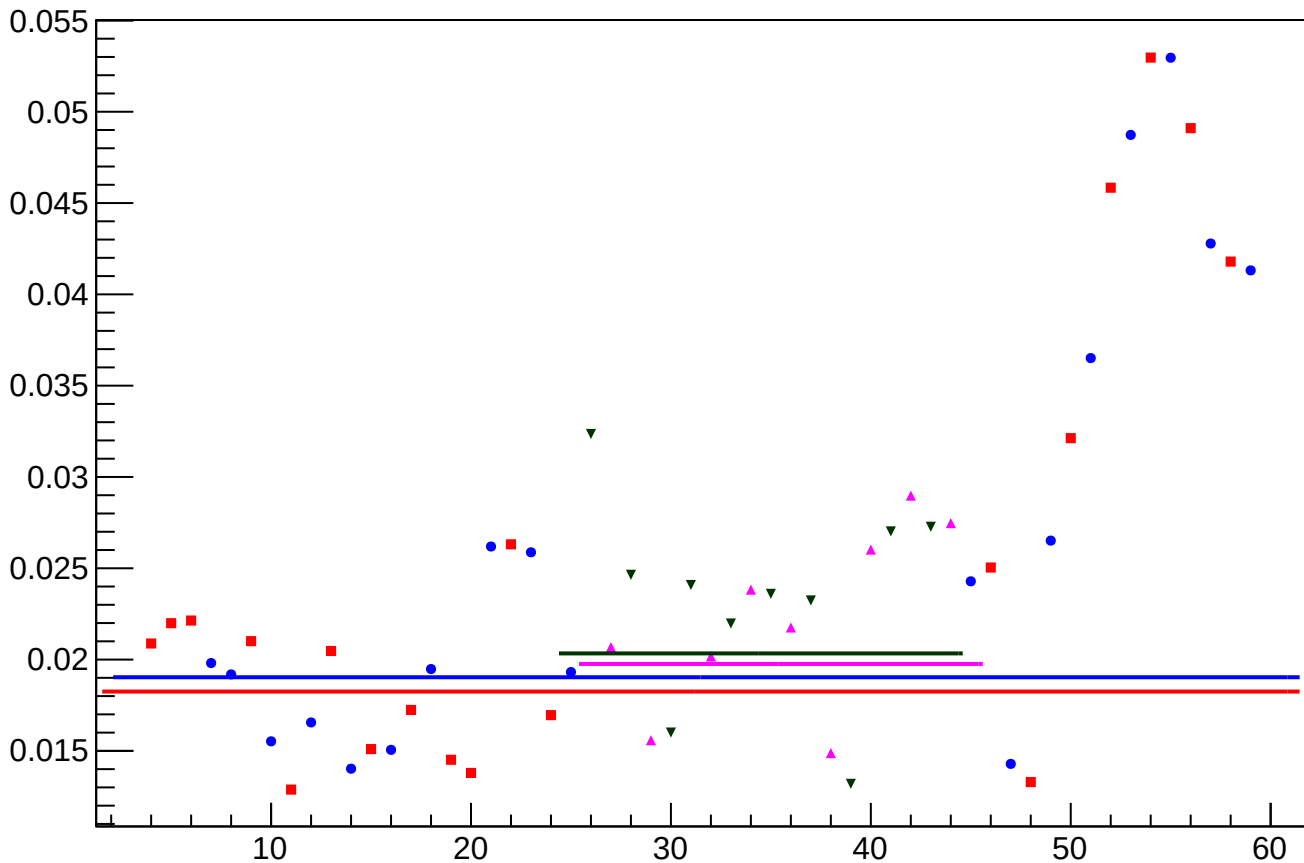
Right Out: 0.044 $\pm$ 0.000  $\chi^2$ /NDF: 3156873410.8/18

Left In: 0.308 $\pm$ 0.000  $\chi^2$ /NDF: 7383992.6/8

0.102 $\pm$ 0.000  $\chi^2$ /NDF: 4331811545.5/27

0.134 $\pm$ 0.000  $\chi^2$ /NDF: 3750796734.7/27

# yield\_bpm4eX\_rms vs slug



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 2594784.8/17

Left Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 733336.7/9

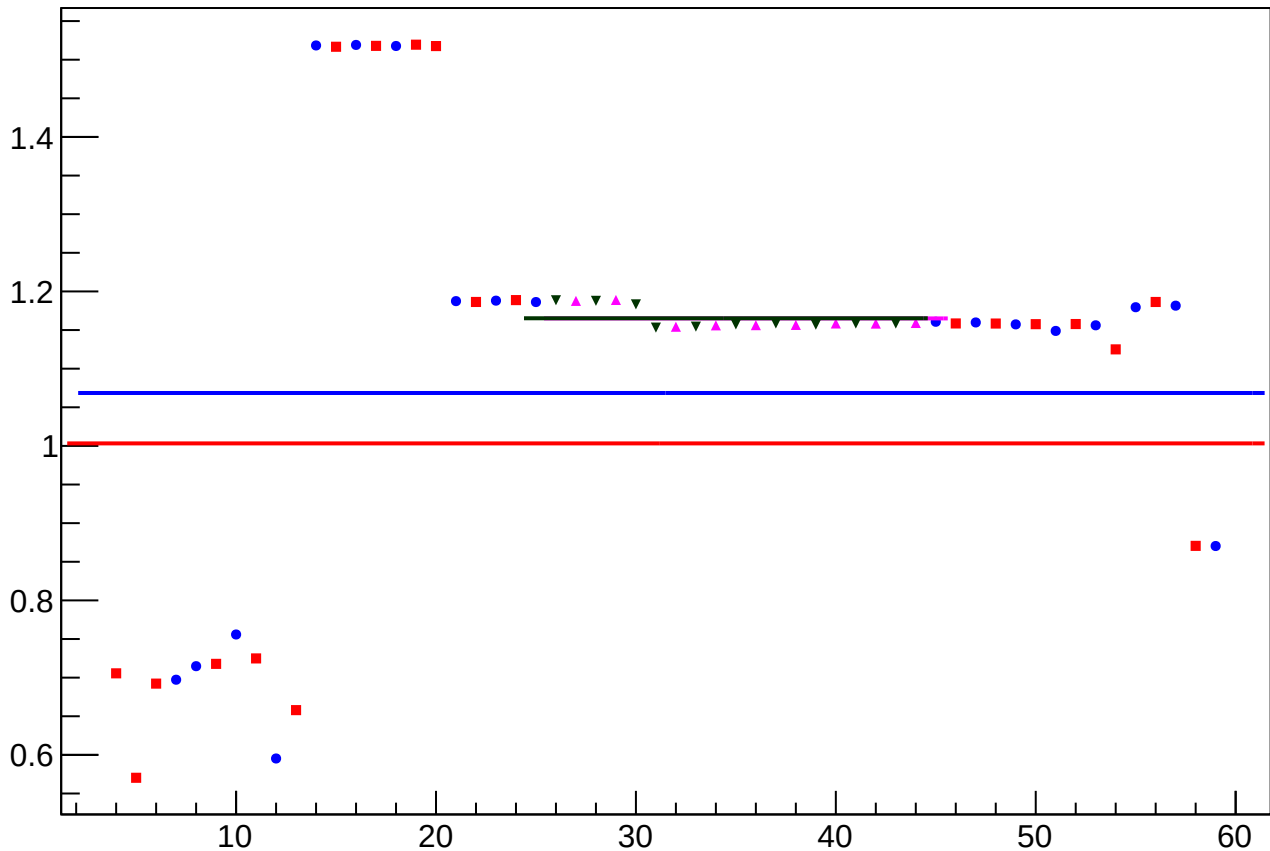
Right Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 2485378.5/18

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 482021.9/8

0.019+/-0.000  $\chi^2/\text{NDF}$ : 3354902.4/27

0.019+/-0.000  $\chi^2/\text{NDF}$ : 3005982.7/27

# yield\_bpm4eY\_mean vs slug



Right In: 1.069+/-0.000  $\chi^2/\text{NDF}$ : 10548206682.3/17

Left Out: 1.165+/-0.000  $\chi^2/\text{NDF}$ :12143638.8/9

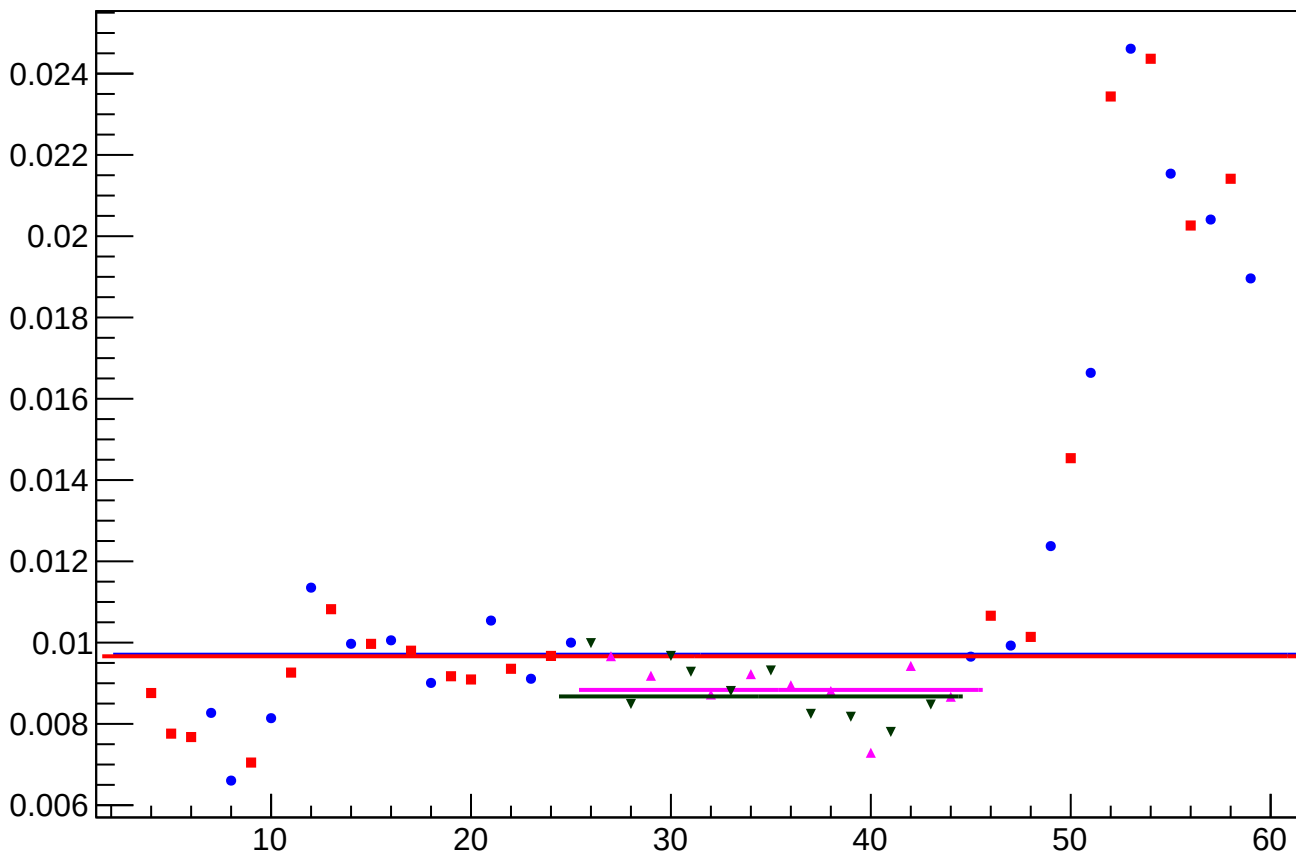
1.107+/-0.000  $\chi^2/\text{NDF}$ : 10940450058.7/27

Right Out: 1.003+/-0.000  $\chi^2/\text{NDF}$ : 10291656361.5/18

1.073+/-0.000  $\chi^2/\text{NDF}$ : 11336338227.9/27

Left In: 1.165+/-0.000  $\chi^2/\text{NDF}$ :13354823.7/8

# yield\_bpm4eY\_rms vs slug



Right In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1905622.6/17

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 57413.1/9

0.009+/-0.000  $\chi^2/\text{NDF}$ : 2048714.4/27

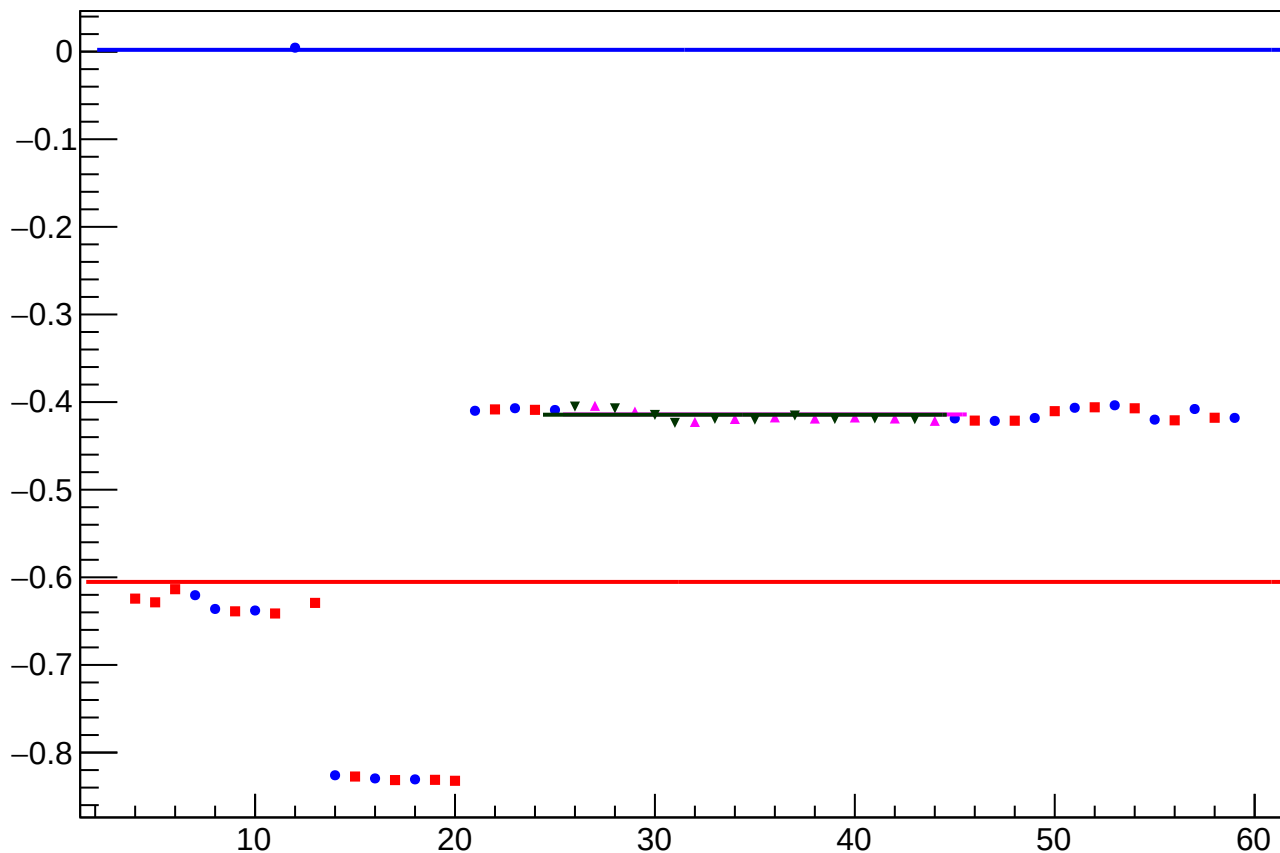
Right Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1597012.3/18

0.009+/-0.000  $\chi^2/\text{NDF}$ : 1714637.6/27

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 63755.7/8



# yield\_bpm4acX\_mean vs slug



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 59749781854.5/17

Left Out: -0.414+/-0.000  $\chi^2/\text{NDF}$ : 2260145.2/9

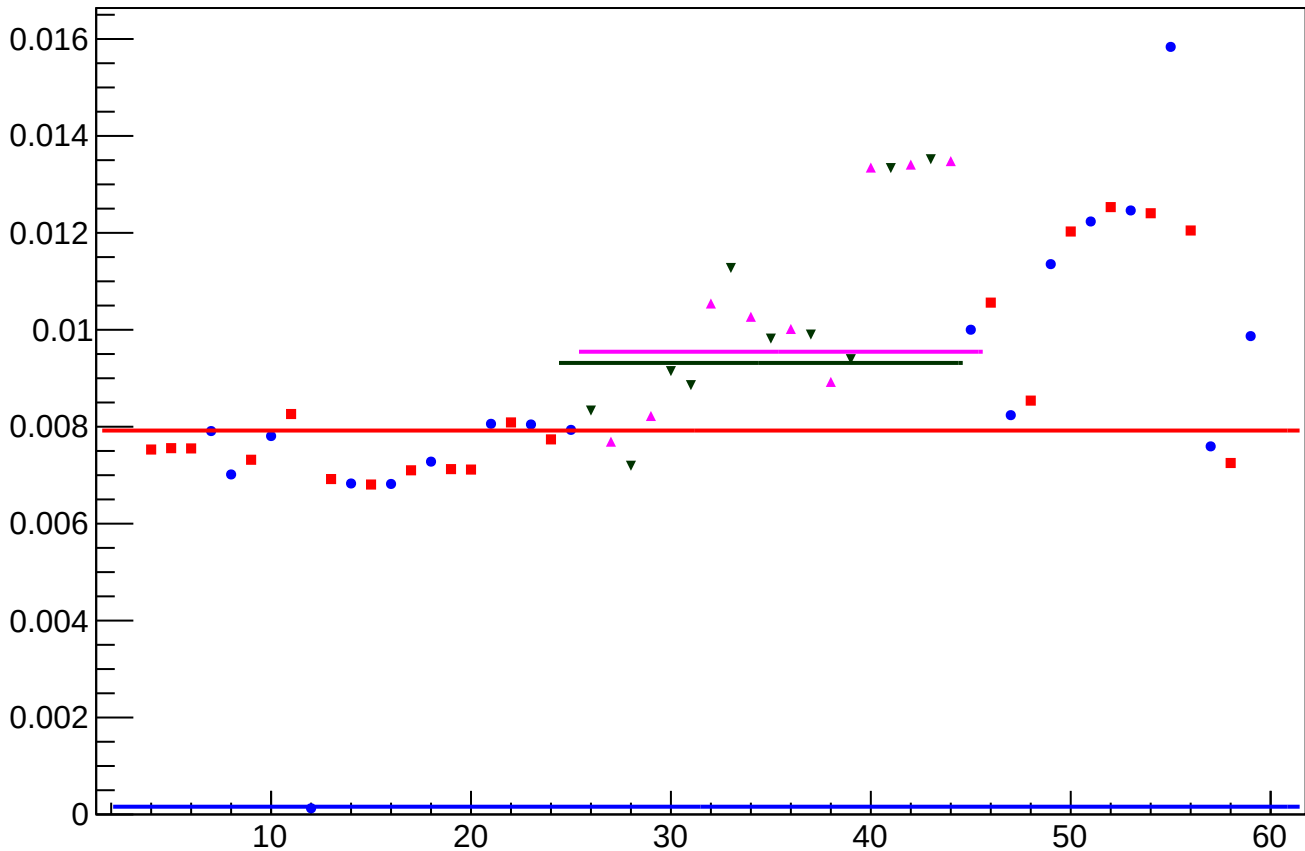
Right Out: -0.605+/-0.000  $\chi^2/\text{NDF}$ : 3819629229.5/18

Left In: -0.414+/-0.000  $\chi^2/\text{NDF}$ : 2651942.7/8

0.001+/-0.000  $\chi^2/\text{NDF}$ : 69845584013.1/27

-0.552+/-0.000  $\chi^2/\text{NDF}$ : 5364049950.4/27

# yield\_bpm4acX\_rms vs slug



Right In: 0.000 $\pm$ 0.000  $\chi^2$ /NDF: 20262517.7/17

Left Out: 0.009 $\pm$ 0.000  $\chi^2$ /NDF: 365508.7/9

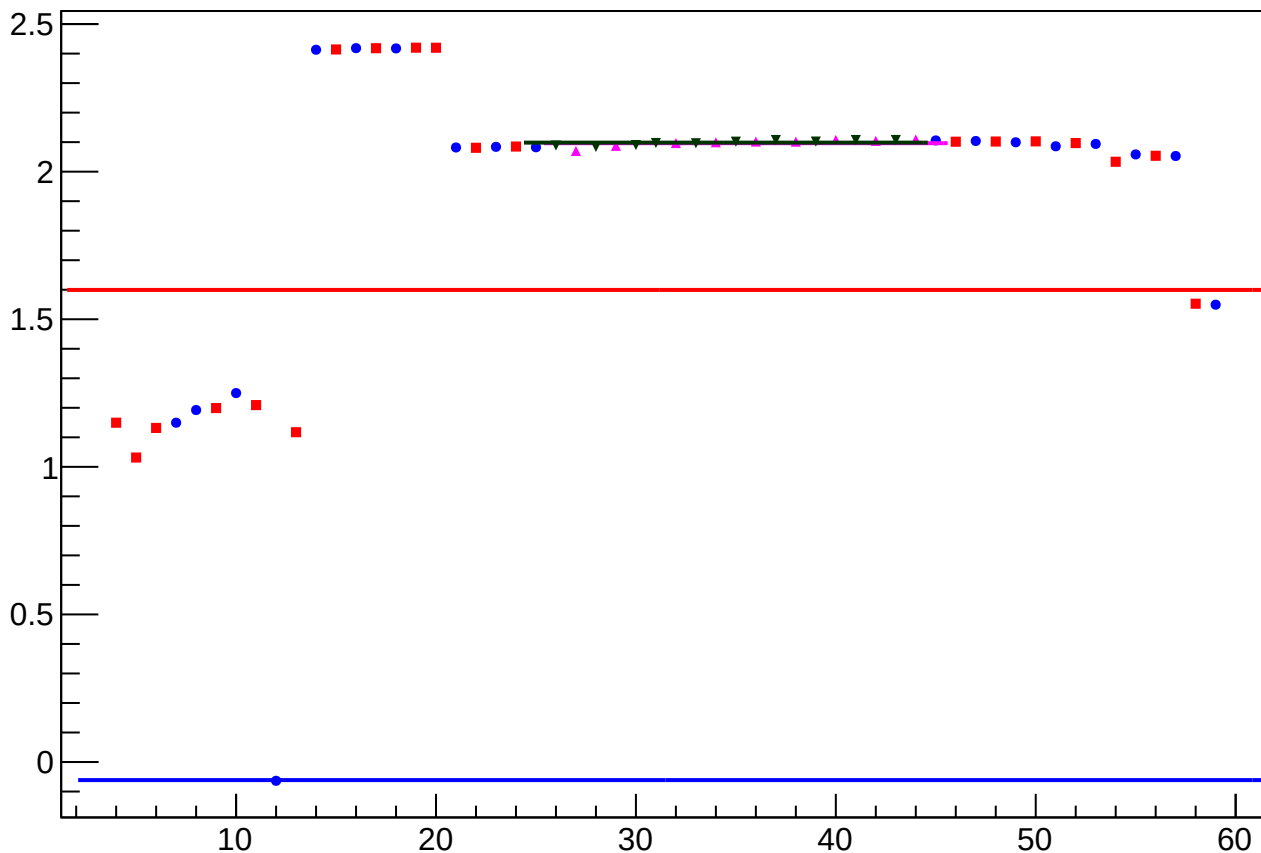
0.000 $\pm$ 0.000  $\chi^2$ /NDF: 30387463.3/27

Right Out: 0.008 $\pm$ 0.000  $\chi^2$ /NDF: 697414.3/18

0.008 $\pm$ 0.000  $\chi^2$ /NDF: 1342400.2/27

Left In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF: 421826.7/8

# yield\_bpm4acY\_mean vs slug



Right In: -0.061+/-0.000  $\chi^2/\text{NDF}$ : 171003968524.2/17

Left Out: 2.098+/-0.000  $\chi^2/\text{NDF}$ : 2018647.6/9

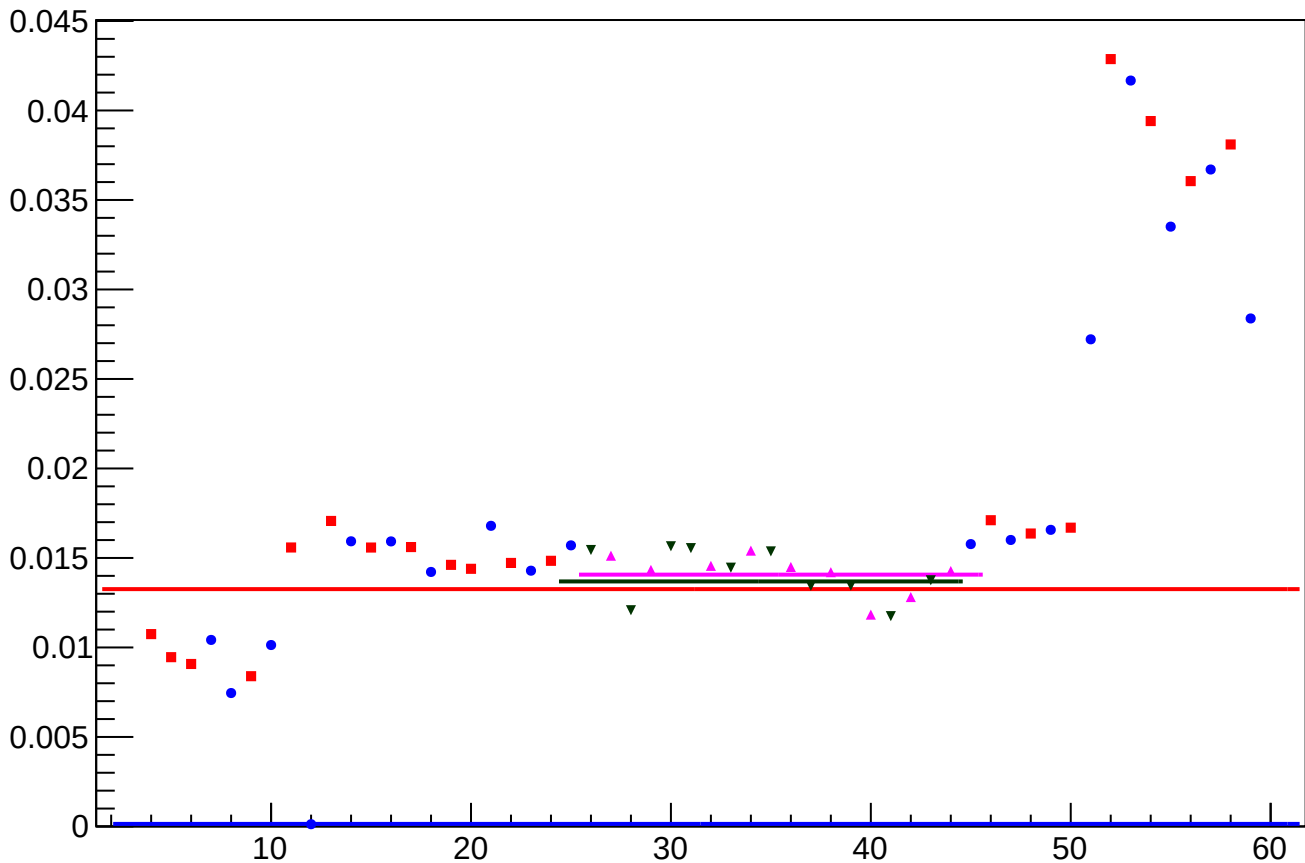
Right Out: 1.599+/-0.000  $\chi^2/\text{NDF}$ : 13096029057.2/18

Left In: 2.096+/-0.000  $\chi^2/\text{NDF}$ : 3992542.9/8

-0.060+/-0.000  $\chi^2/\text{NDF}$ : 296304498173.8/27

1.786+/-0.000  $\chi^2/\text{NDF}$ : 17353231620.0/27

# yield\_bpm4acY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19632783.5/17

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :106273.7/9

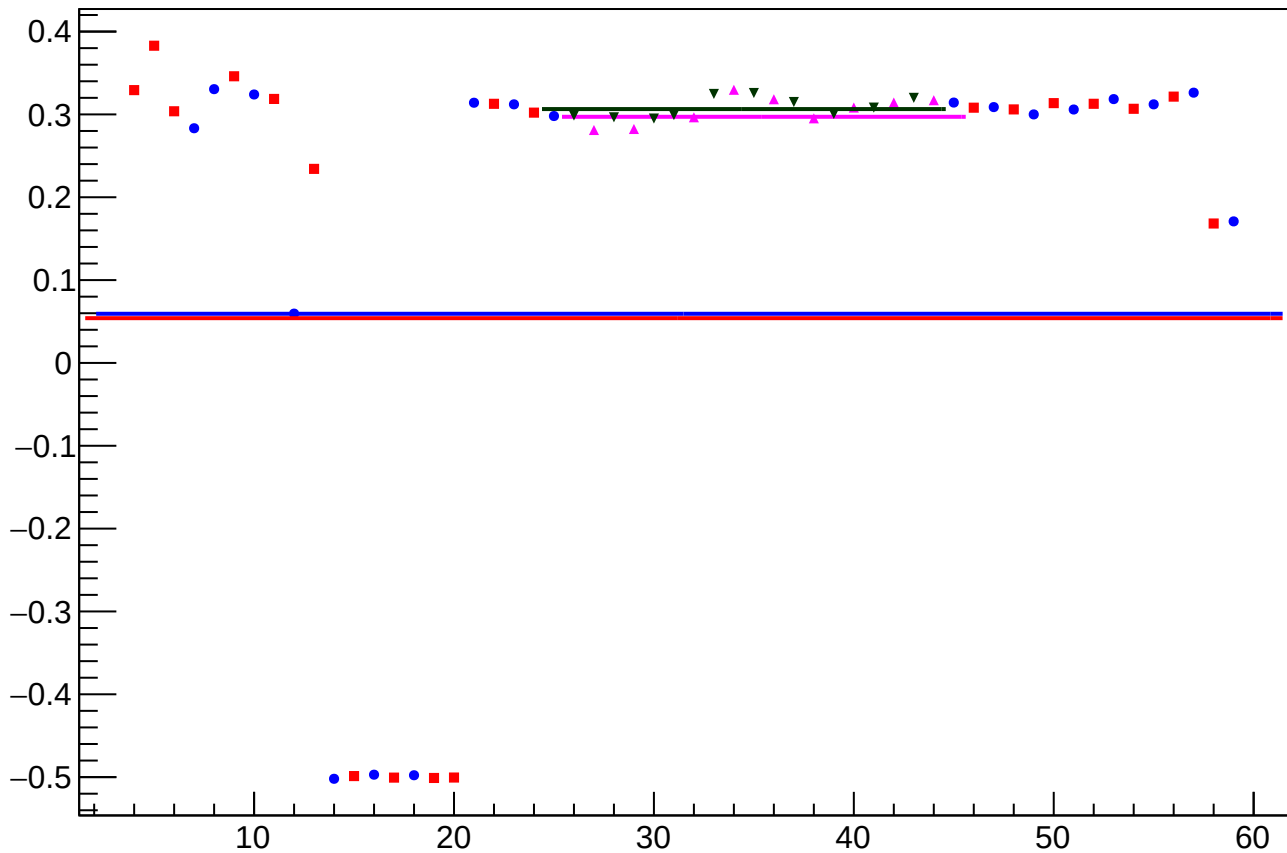
0.000+/-0.000  $\chi^2/\text{NDF}$ : 29598399.4/27

Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 2690130.8/18

0.014+/-0.000  $\chi^2/\text{NDF}$ : 2776025.3/27

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :63357.4/8

# yield\_bpm4ecX\_mean vs slug



Right In: 0.059 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3888801914.2/17

Left Out: 0.306 $\pm$ 0.000  $\chi^2/\text{NDF}$ :1355327.7/9

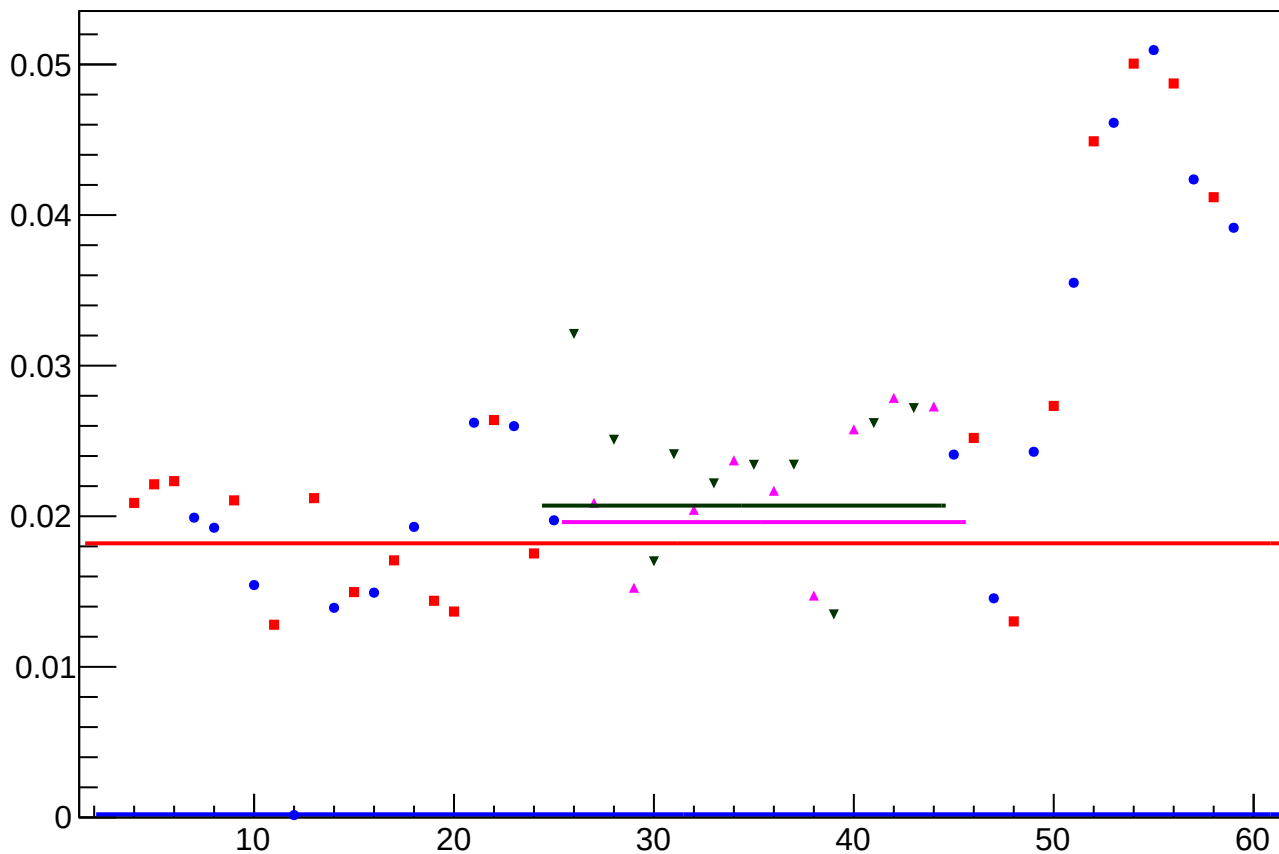
0.060 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 4562094865.7/27

Right Out: 0.054 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3509628523.3/18

0.137 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 4020634949.3/27

Left In: 0.297 $\pm$ 0.000  $\chi^2/\text{NDF}$ :3115046.5/8

# yield\_bpm4ecX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19749394.2/17

Left Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 655279.7/9

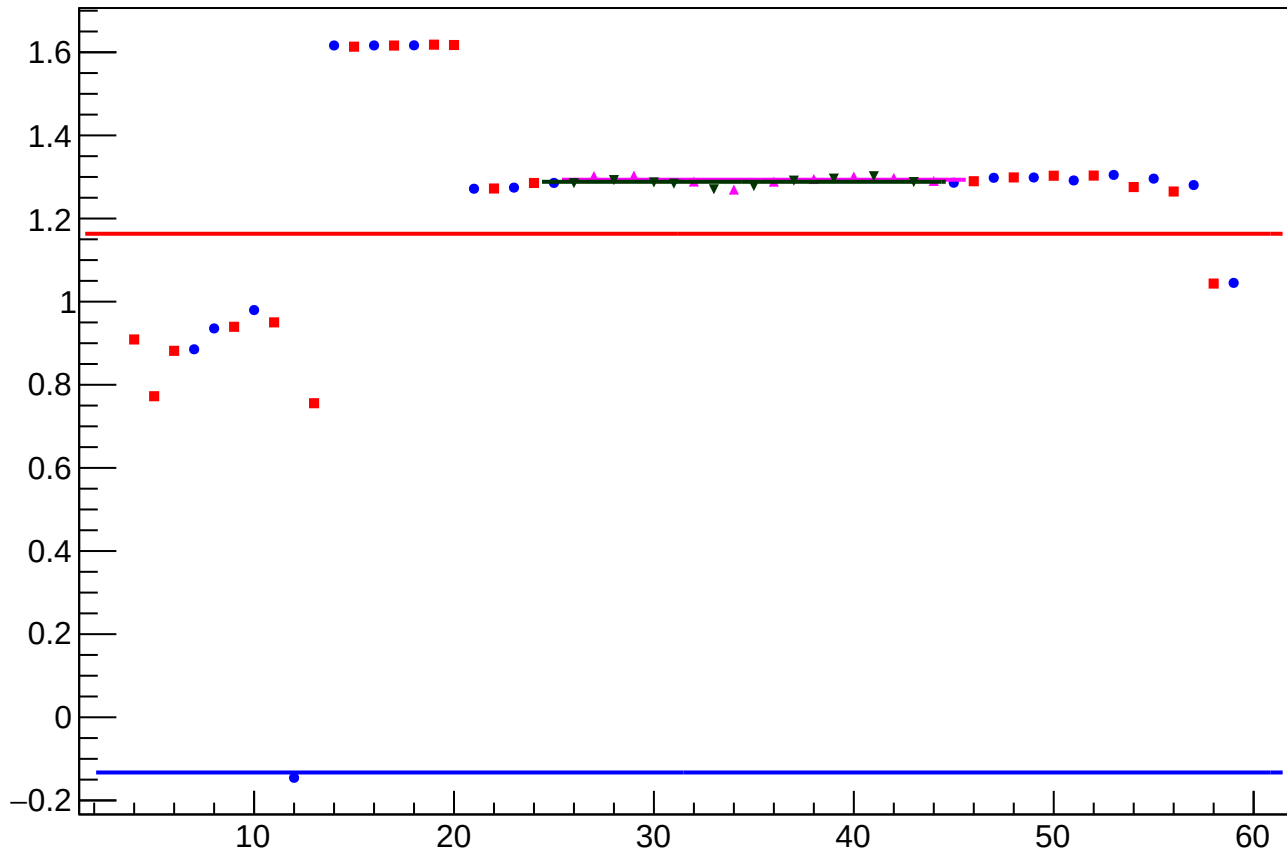
Right Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 2422437.2/18

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 493445.7/8

0.000+/-0.000  $\chi^2/\text{NDF}$ : 29650339.4/27

0.019+/-0.000  $\chi^2/\text{NDF}$ : 2950043.4/27

# yield\_bpm4ecY\_mean vs slug



Right In: -0.133+/-0.000  $\chi^2/\text{NDF}$ : 169320914657.8/17

Left Out: 1.288+/-0.000  $\chi^2/\text{NDF}$ : 3982202.6/9

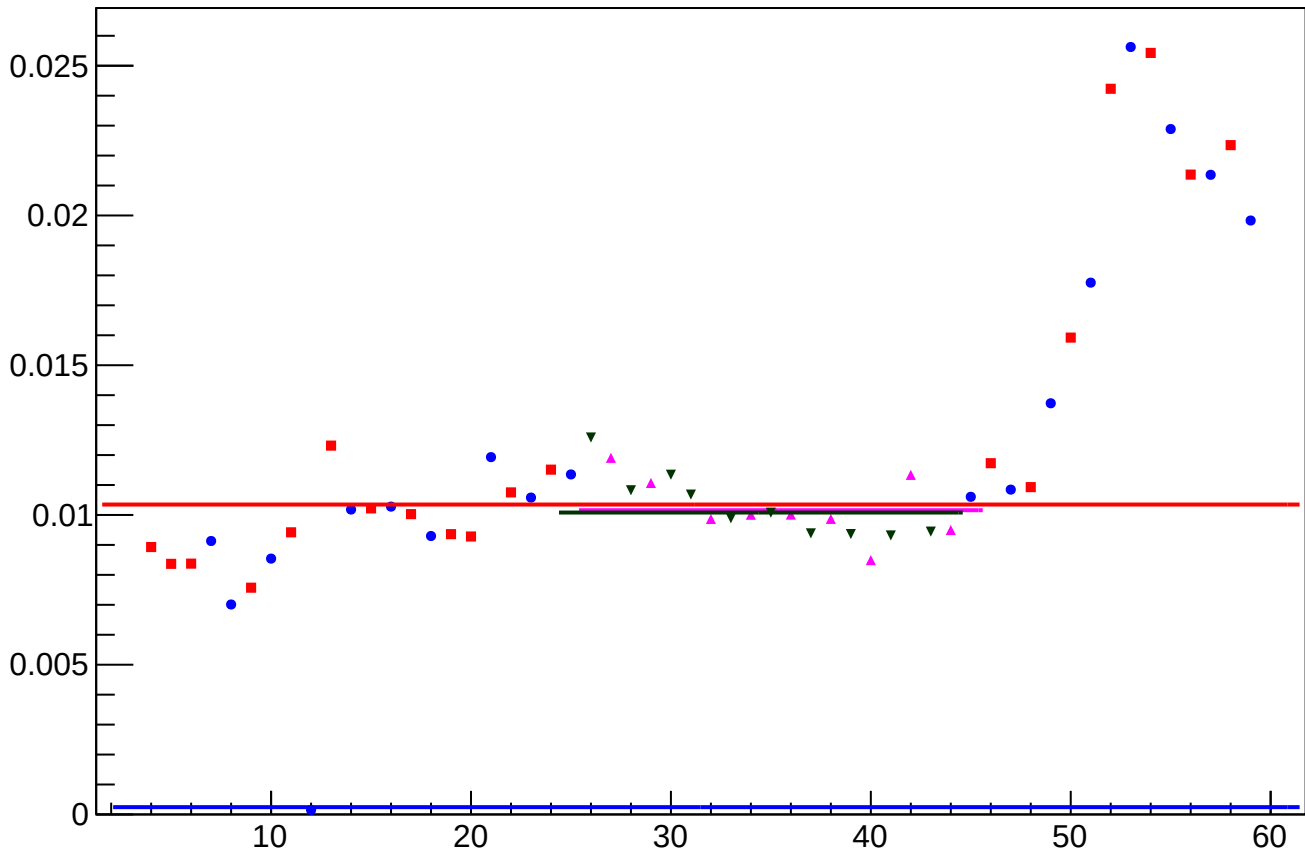
-0.125+/-0.000  $\chi^2/\text{NDF}$ : 270055399852.1/27

Right Out: 1.163+/-0.000  $\chi^2/\text{NDF}$ : 7253036603.9/18

1.215+/-0.000  $\chi^2/\text{NDF}$ : 7790290493.6/27

Left In: 1.293+/-0.000  $\chi^2/\text{NDF}$ : 4686204.8/8

# yield\_bpm4ecY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 19204976.4/17

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 82741.5/9

Right Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 1619353.0/18

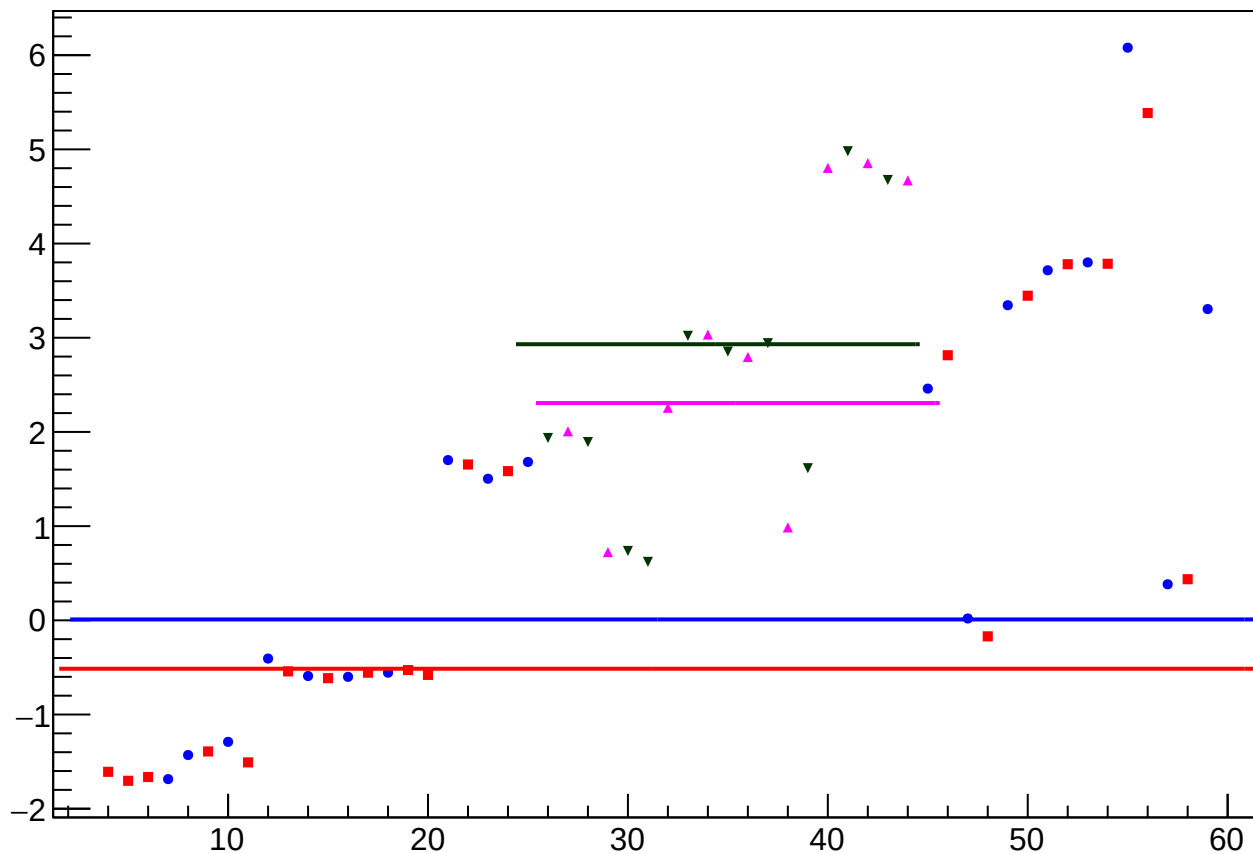
Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 100961.6/8

0.000+/-0.000  $\chi^2/\text{NDF}$ : 28940448.6/27

0.010+/-0.000  $\chi^2/\text{NDF}$ : 1722576.1/27



# yield\_bpm1X\_mean vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 18135045883.2/17

Left Out: 2.931+/-0.000  $\chi^2/\text{NDF}$ : 696767729.4/9

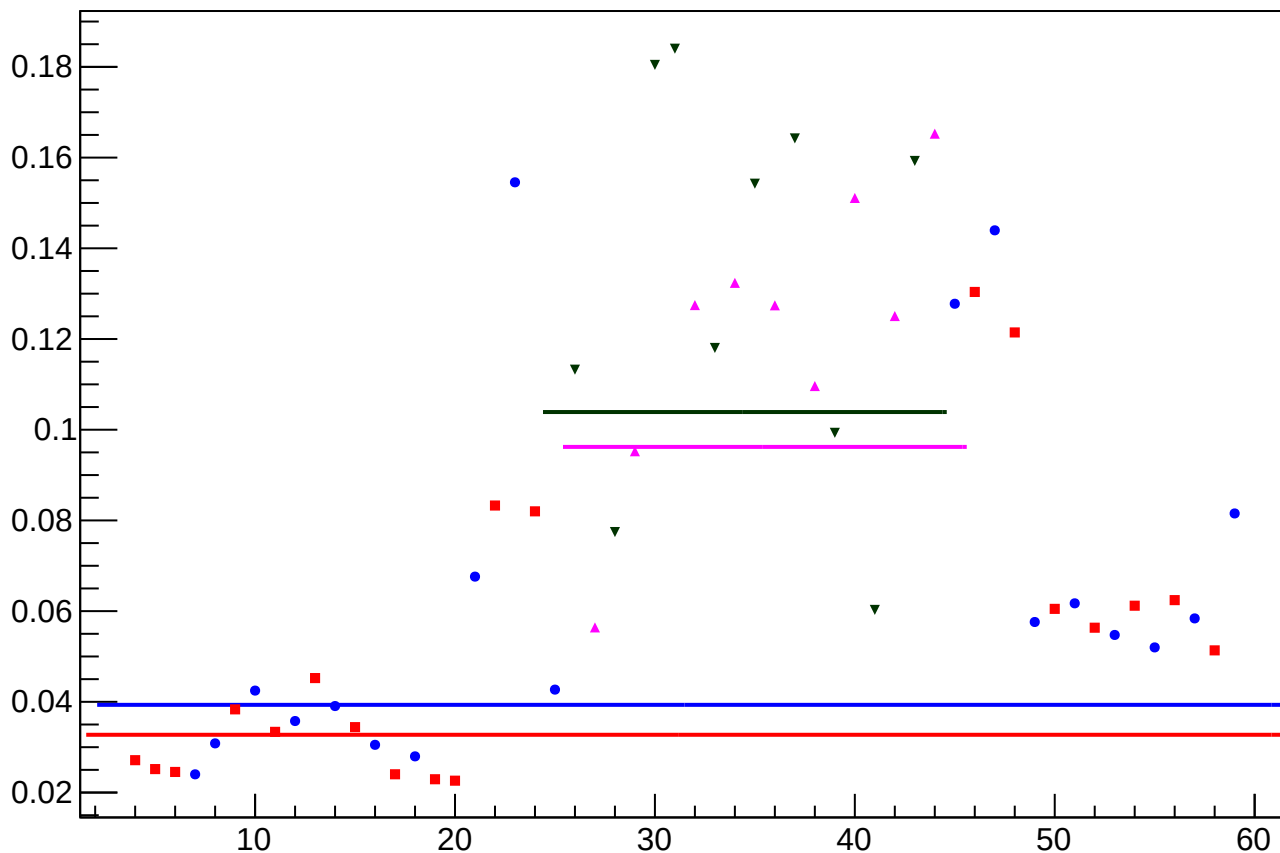
Right Out: -0.514+/-0.000  $\chi^2/\text{NDF}$ : 14474436949.2/18

Left In: 2.307+/-0.000  $\chi^2/\text{NDF}$ : 637059338.1/8

0.197+/-0.000  $\chi^2/\text{NDF}$ : 21443650243.9/27

-0.335+/-0.000  $\chi^2/\text{NDF}$ : 18209459546.8/27

# yield\_bpm1X\_rms vs slug



Right In: 0.039+/-0.000  $\chi^2/\text{NDF}$ : 3078164.7/17

Left Out: 0.104+/-0.000  $\chi^2/\text{NDF}$ :1068598.5/9

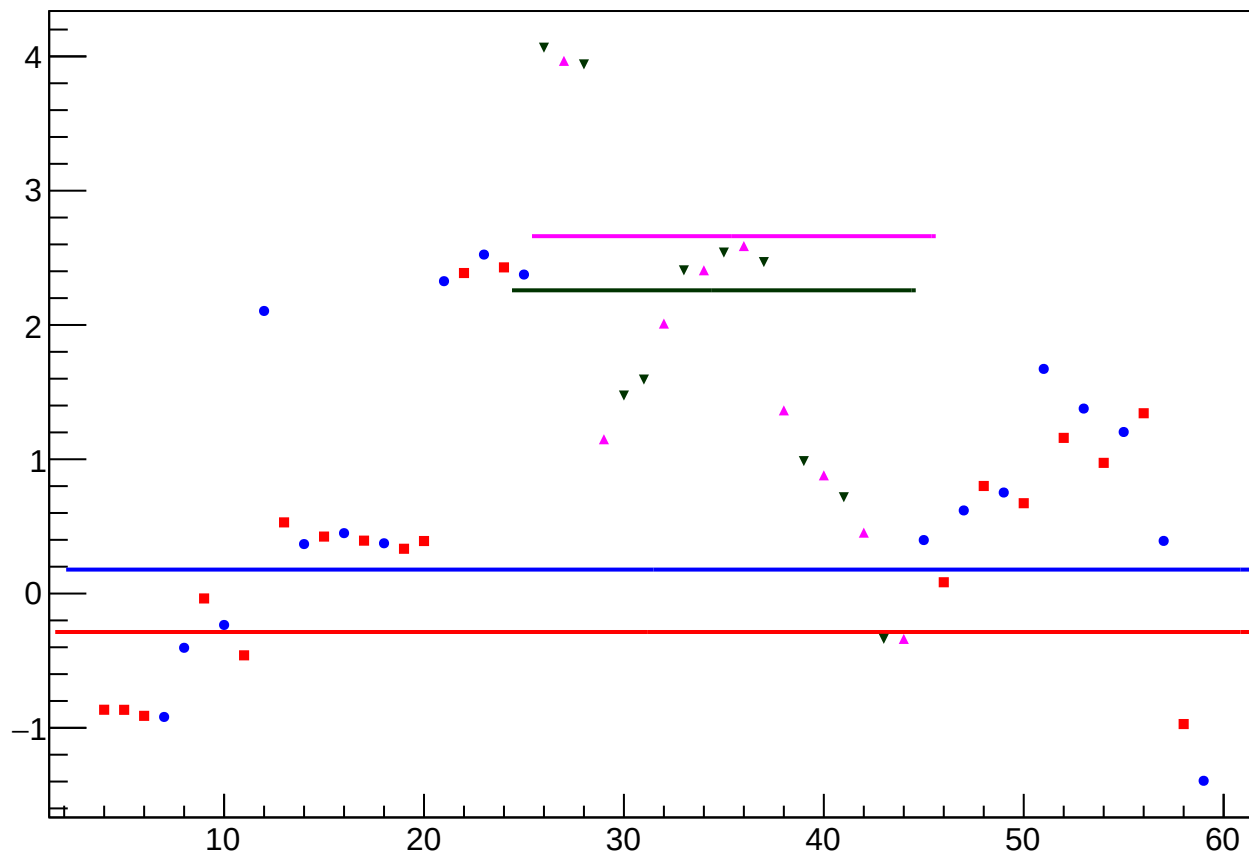
Right Out: 0.033+/-0.000  $\chi^2/\text{NDF}$ : 2838022.5/18

Left In: 0.096+/-0.000  $\chi^2/\text{NDF}$ :1062303.0/8

0.043+/-0.000  $\chi^2/\text{NDF}$ : 6697166.4/27

0.037+/-0.000  $\chi^2/\text{NDF}$ : 7037422.9/27

# yield\_bpm1Y\_mean vs slug



Right In:  $0.178 \pm 0.000$   $\chi^2/\text{NDF}$ : 9482704623.3/17

Left Out:  $2.258 \pm 0.000$   $\chi^2/\text{NDF}$ : 1464188140.1/9

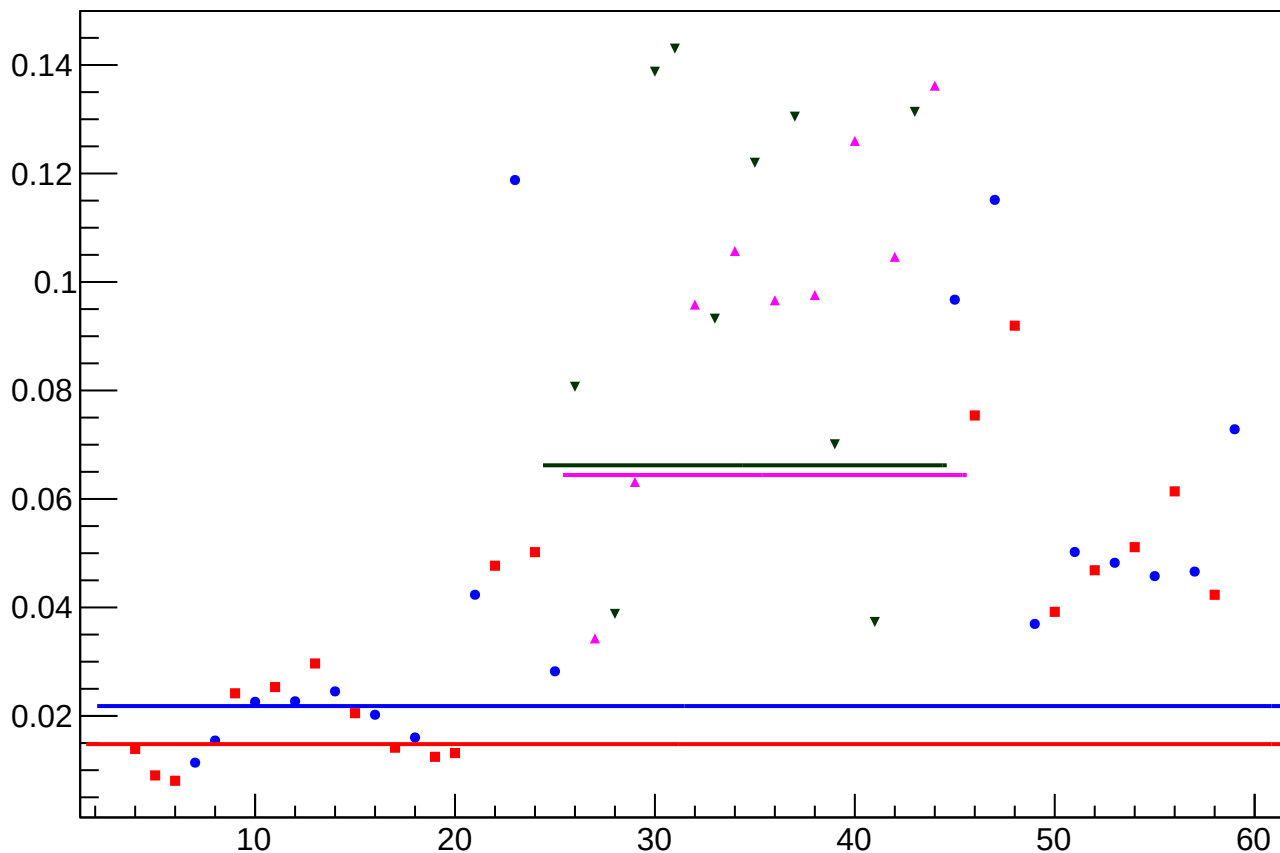
Right Out:  $-0.286 \pm 0.000$   $\chi^2/\text{NDF}$ : 10734675455.5/18

Left In:  $2.661 \pm 0.000$   $\chi^2/\text{NDF}$ : 1577506308.7/8

$0.285 \pm 0.000$   $\chi^2/\text{NDF}$ : 13695883323.5/27

$-0.181 \pm 0.000$   $\chi^2/\text{NDF}$ : 19114684573.4/27

# yield\_bpm1Y\_rms vs slug



Right In: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 4669284.8/17

Left Out: 0.066+/-0.000  $\chi^2/\text{NDF}$ :1777792.9/9

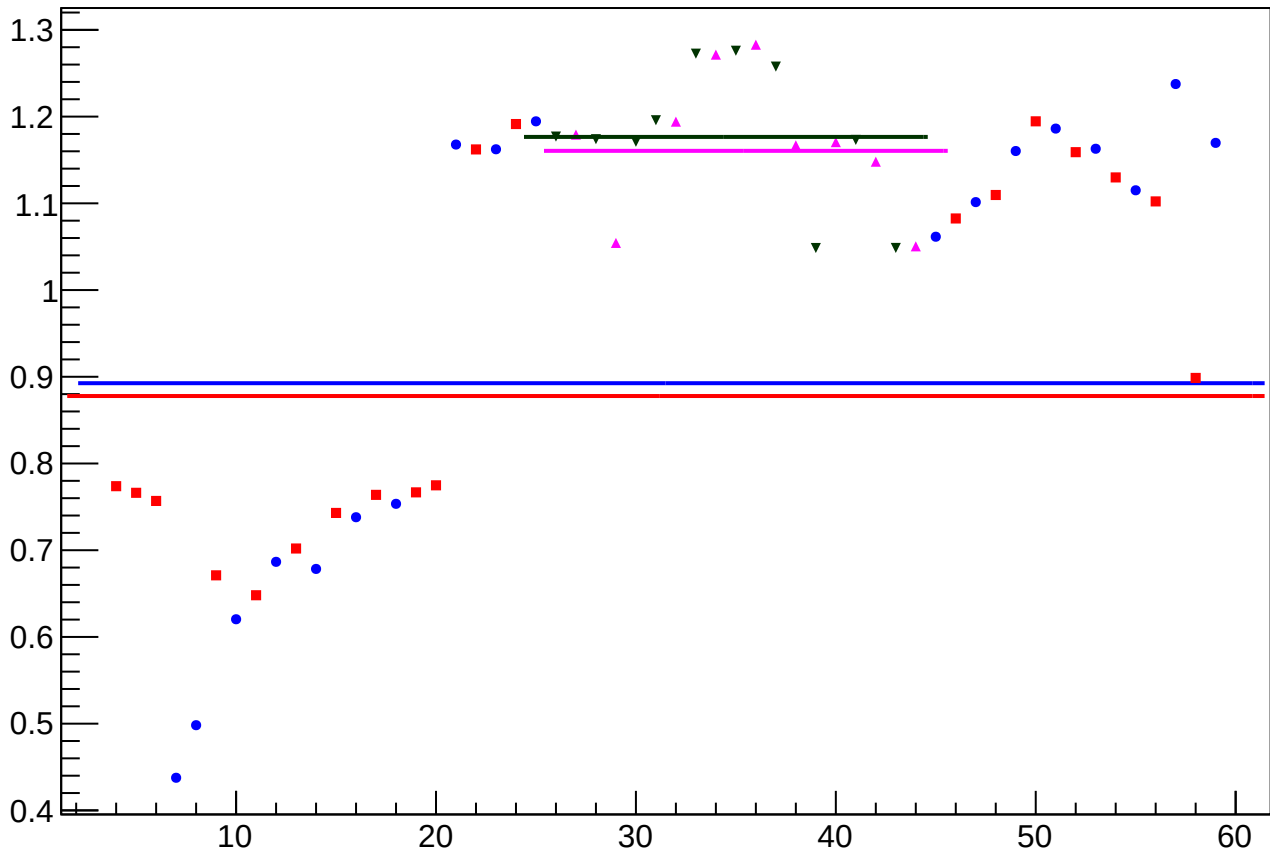
Right Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 4938559.5/18

Left In: 0.064+/-0.000  $\chi^2/\text{NDF}$ :1800340.3/8

0.024+/-0.000  $\chi^2/\text{NDF}$ : 8951352.8/27

0.017+/-0.000  $\chi^2/\text{NDF}$ : 10592340.7/27

# yield\_bpm11X\_mean vs slug



Right In: 0.893+/-0.000  $\chi^2/\text{NDF}$ : 1629156385.0/17

Left Out: 1.177+/-0.000  $\chi^2/\text{NDF}$ : 56492661.1/9

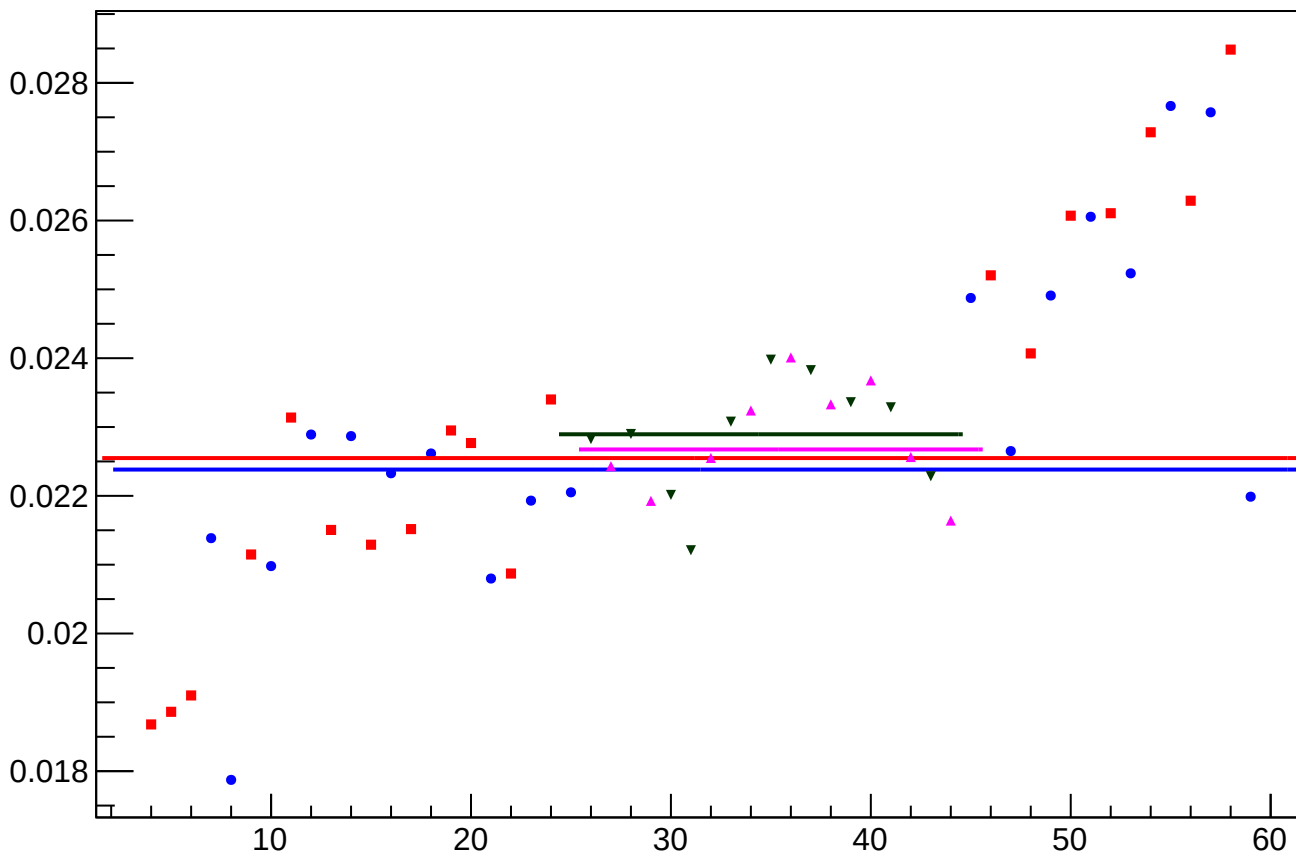
0.982+/-0.000  $\chi^2/\text{NDF}$ : 2229637418.2/27

Right Out: 0.878+/-0.000  $\chi^2/\text{NDF}$ : 761495098.5/18

0.980+/-0.000  $\chi^2/\text{NDF}$ : 1358856083.0/27

Left In: 1.161+/-0.000  $\chi^2/\text{NDF}$ : 58009580.0/8

# yield\_bpm11X\_rms vs slug



Right In: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 264611.3/17

Left Out: 0.023+/-0.000  $\chi^2/\text{NDF}$ :11436.5/9

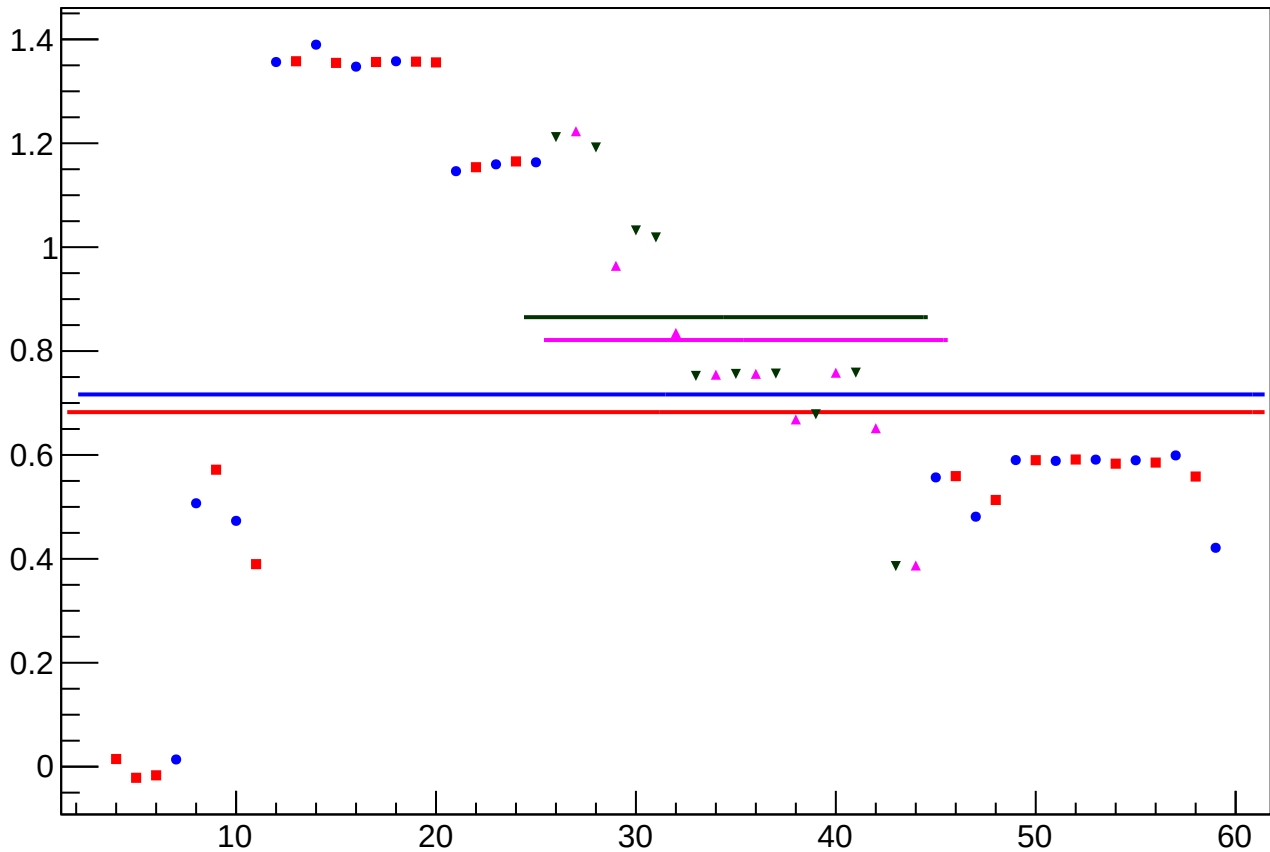
Right Out: 0.023+/-0.000  $\chi^2/\text{NDF}$ : 246194.4/18

Left In: 0.023+/-0.000  $\chi^2/\text{NDF}$ :10426.9/8

0.023+/-0.000  $\chi^2/\text{NDF}$ : 279592.0/27

0.023+/-0.000  $\chi^2/\text{NDF}$ : 256833.7/27

# yield\_bpm11Y\_mean vs slug



Right In: 0.716 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 131330740430.7/17

Left Out: 0.865 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 19769026573.0/9

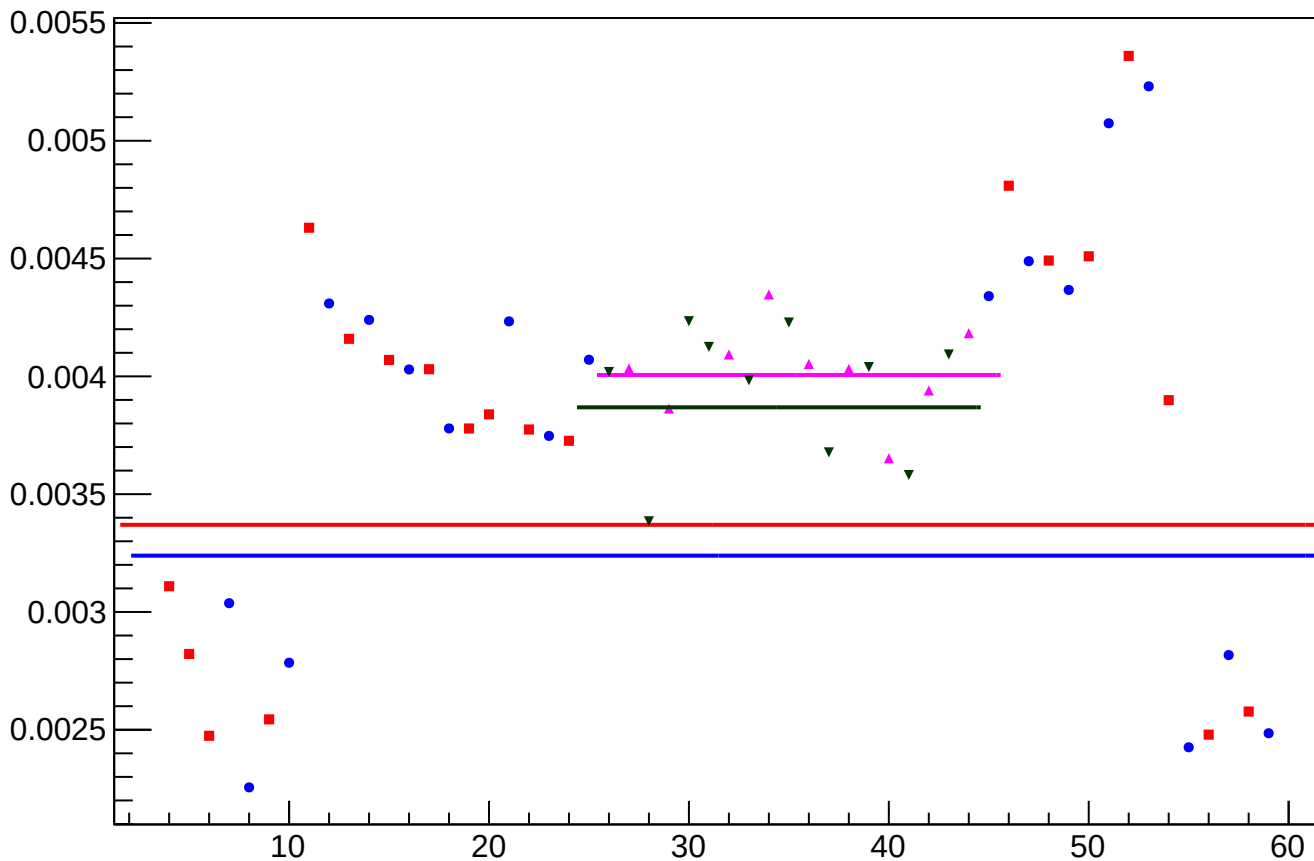
0.755 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 156608950952.9/27

Right Out: 0.682 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 168328456976.2/18

0.724 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 189843785657.4/27

Left In: 0.821 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 16931746791.3/8

# yield\_bpm11Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 1552802.4/17

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 59617.0/9

Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 1158167.7/18

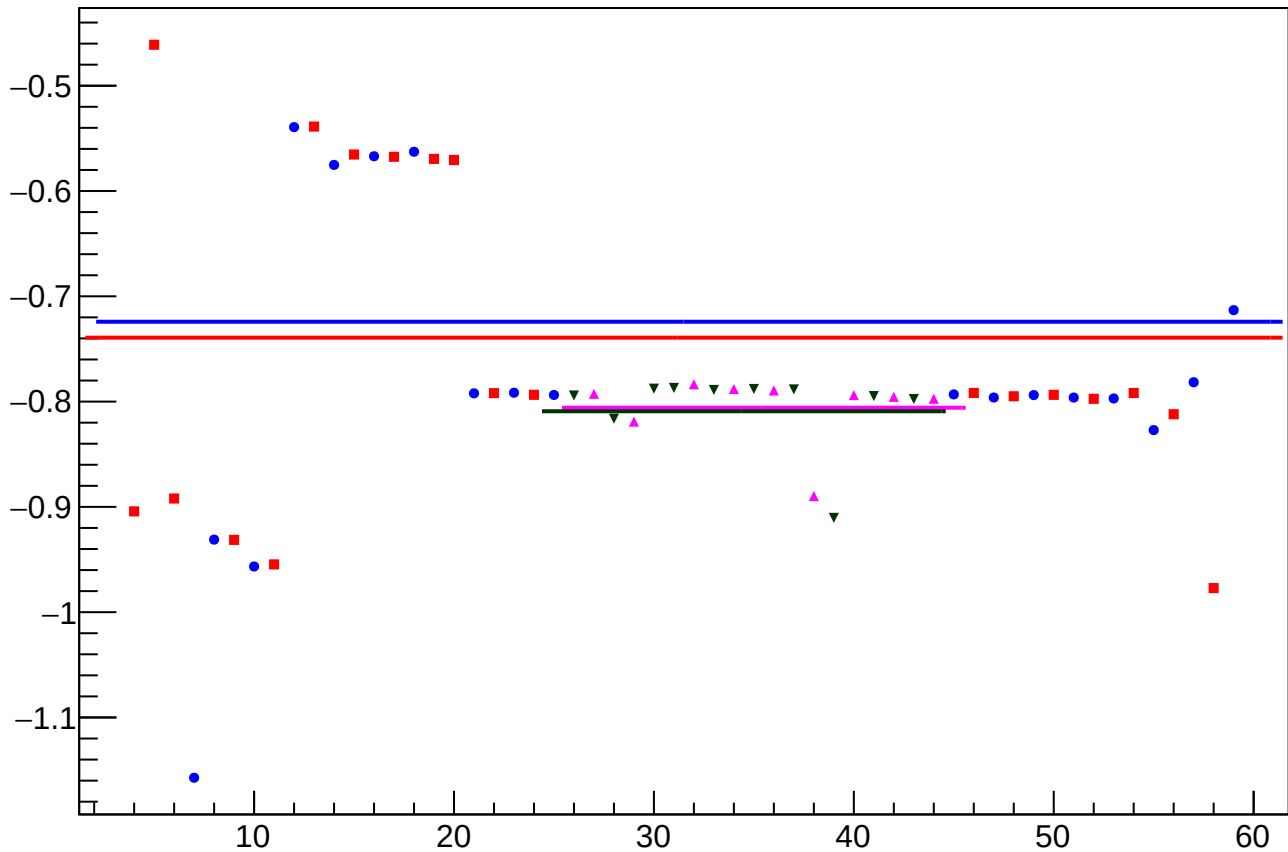
Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 20484.3/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 1809794.4/27

0.004+/-0.000  $\chi^2/\text{NDF}$ : 1371102.2/27



# yield\_bpm12X\_mean vs slug



Right In: -0.724+/-0.000  $\chi^2/\text{NDF}$ : 2243966662.4/17

Left Out: -0.809+/-0.000  $\chi^2/\text{NDF}$ : 119027161.1/9

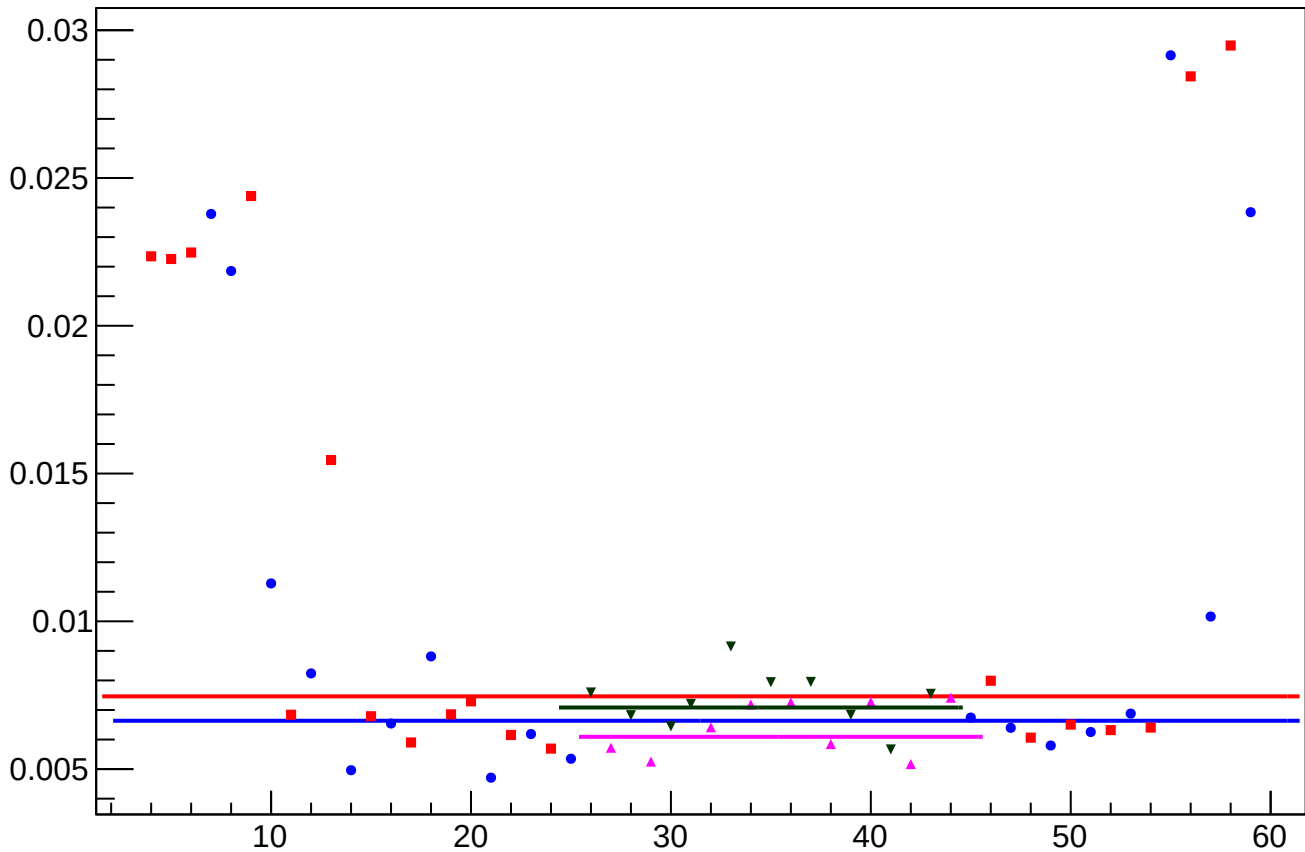
-0.752+/-0.000  $\chi^2/\text{NDF}$ : 2744002813.8/27

Right Out: -0.739+/-0.000  $\chi^2/\text{NDF}$ : 1945829237.2/18

-0.772+/-0.000  $\chi^2/\text{NDF}$ : 2285973903.9/27

Left In: -0.806+/-0.000  $\chi^2/\text{NDF}$ : 95429738.5/8

# yield\_bpm12X\_rms vs slug



Right In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 3347518.2/17

Left Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 128168.7/9

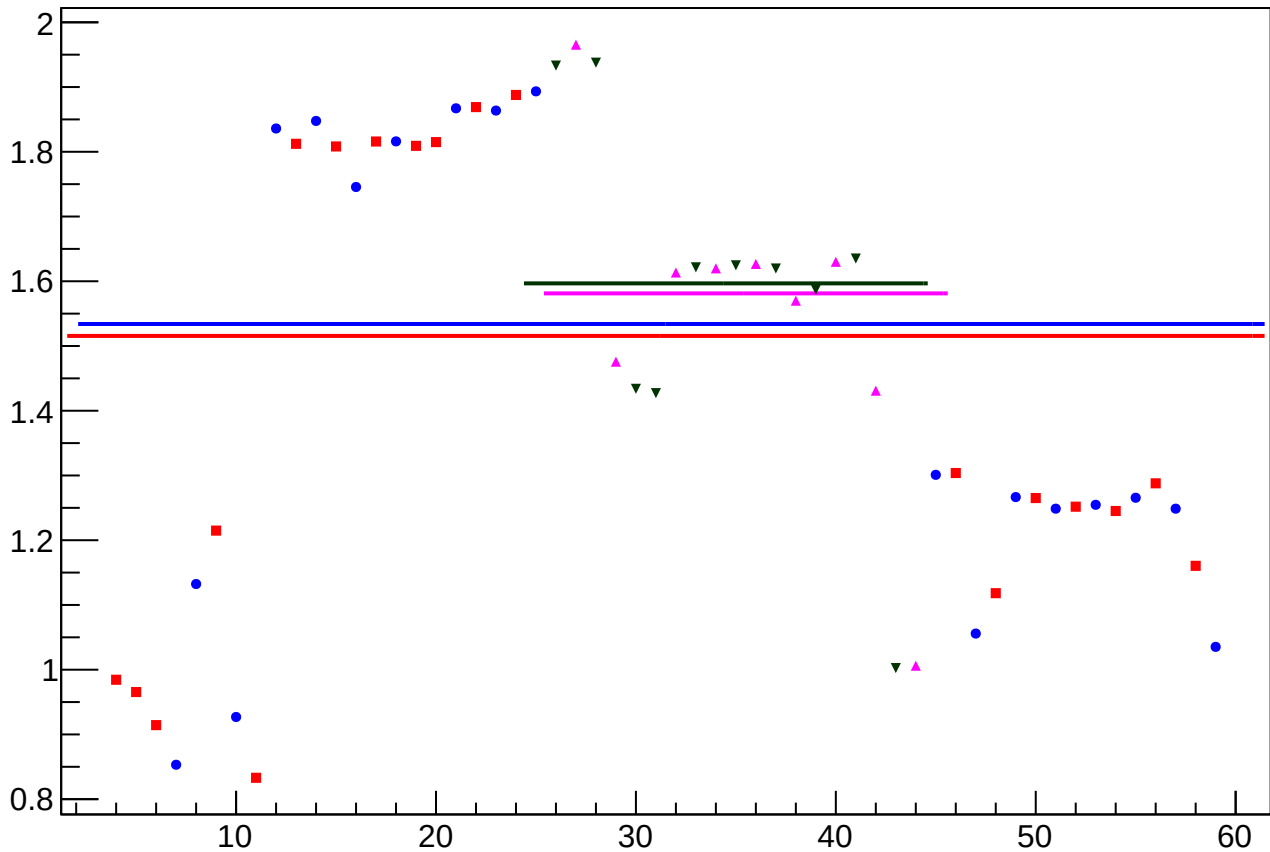
Right Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 3478880.3/18

Left In:  $0.006 \pm 0.000$   $\chi^2/\text{NDF}$ : 142266.3/8

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 3496902.0/27

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 3828603.0/27

# yield\_bpm12Y\_mean vs slug



Right In: 1.534 $\pm$ 0.000  $\chi^2$ /NDF: 22395382646.2/17

Left Out: 1.597 $\pm$ 0.000  $\chi^2$ /NDF: 6672070685.1/9

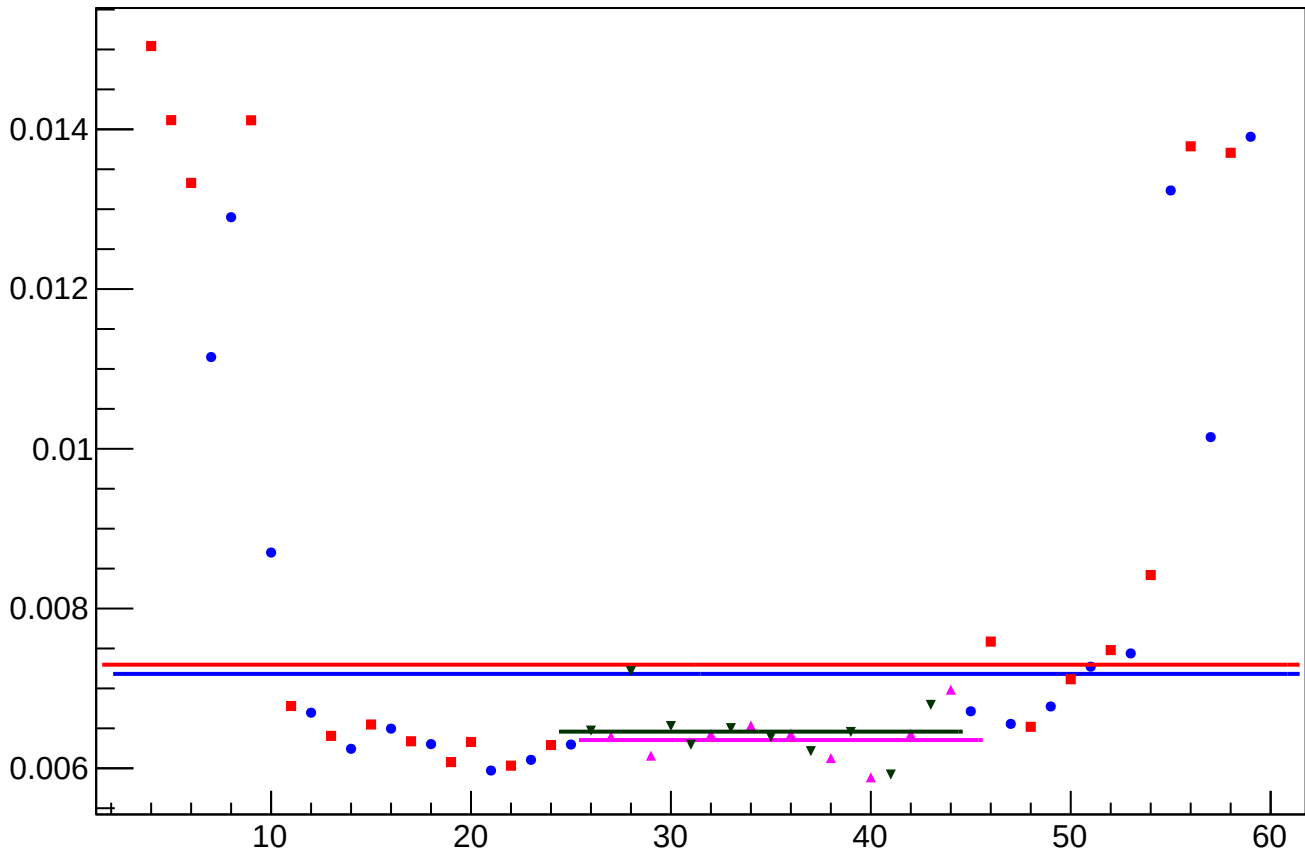
1.558 $\pm$ 0.000  $\chi^2$ /NDF: 29352990769.4/27

Right Out: 1.516 $\pm$ 0.000  $\chi^2$ /NDF: 21754735470.0/18

1.545 $\pm$ 0.000  $\chi^2$ /NDF: 28817717980.4/27

Left In: 1.581 $\pm$ 0.000  $\chi^2$ /NDF: 6756929993.8/8

# yield\_bpm12Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 1305539.8/17

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 26704.2/9

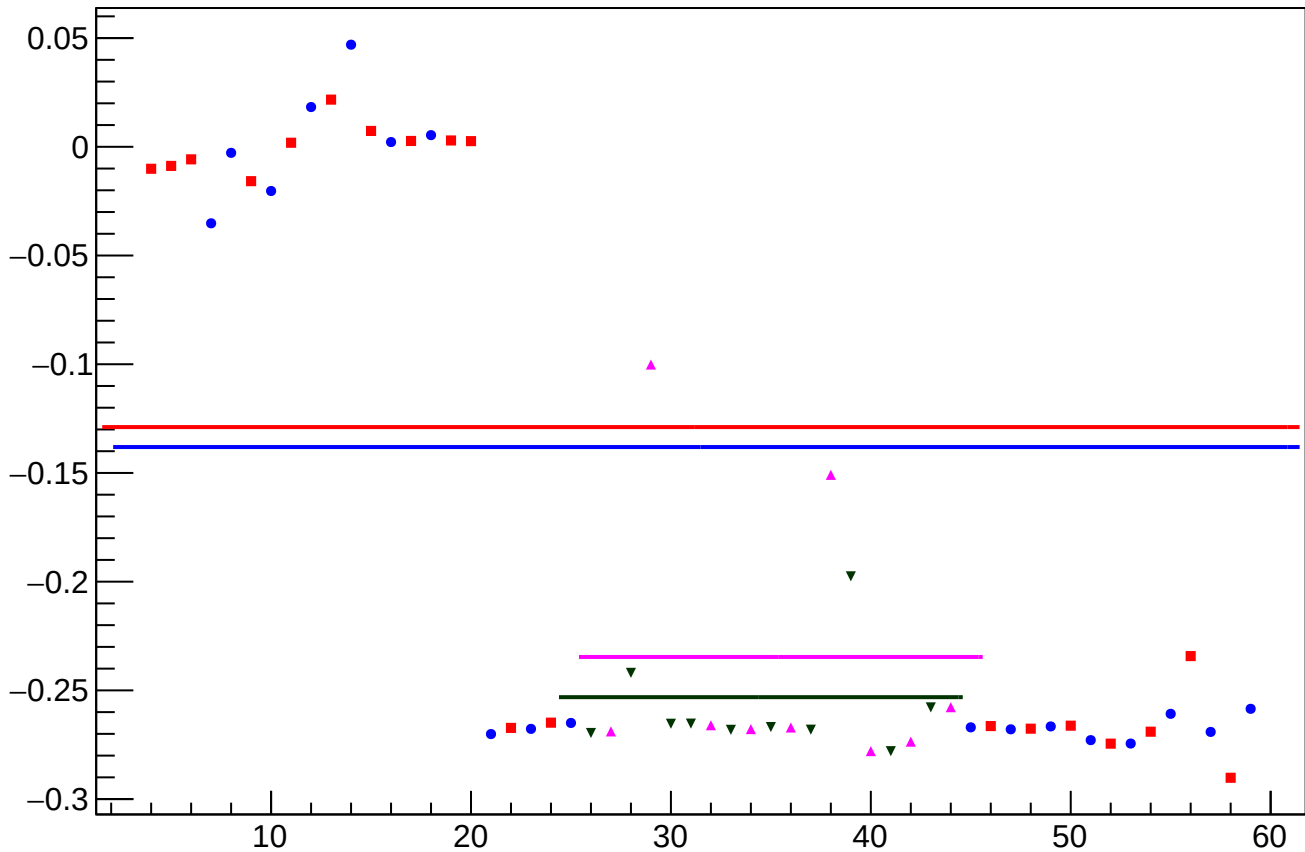
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 1457854.6/18

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 17689.1/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 1408034.5/27

0.007+/-0.000  $\chi^2/\text{NDF}$ : 1601711.0/27

# yield\_bpm16X\_mean vs slug



Right In: -0.138+/-0.000  $\chi^2/\text{NDF}$ : 7275574194.7/17

Left Out: -0.253+/-0.000  $\chi^2/\text{NDF}$ : 114103318.3/9

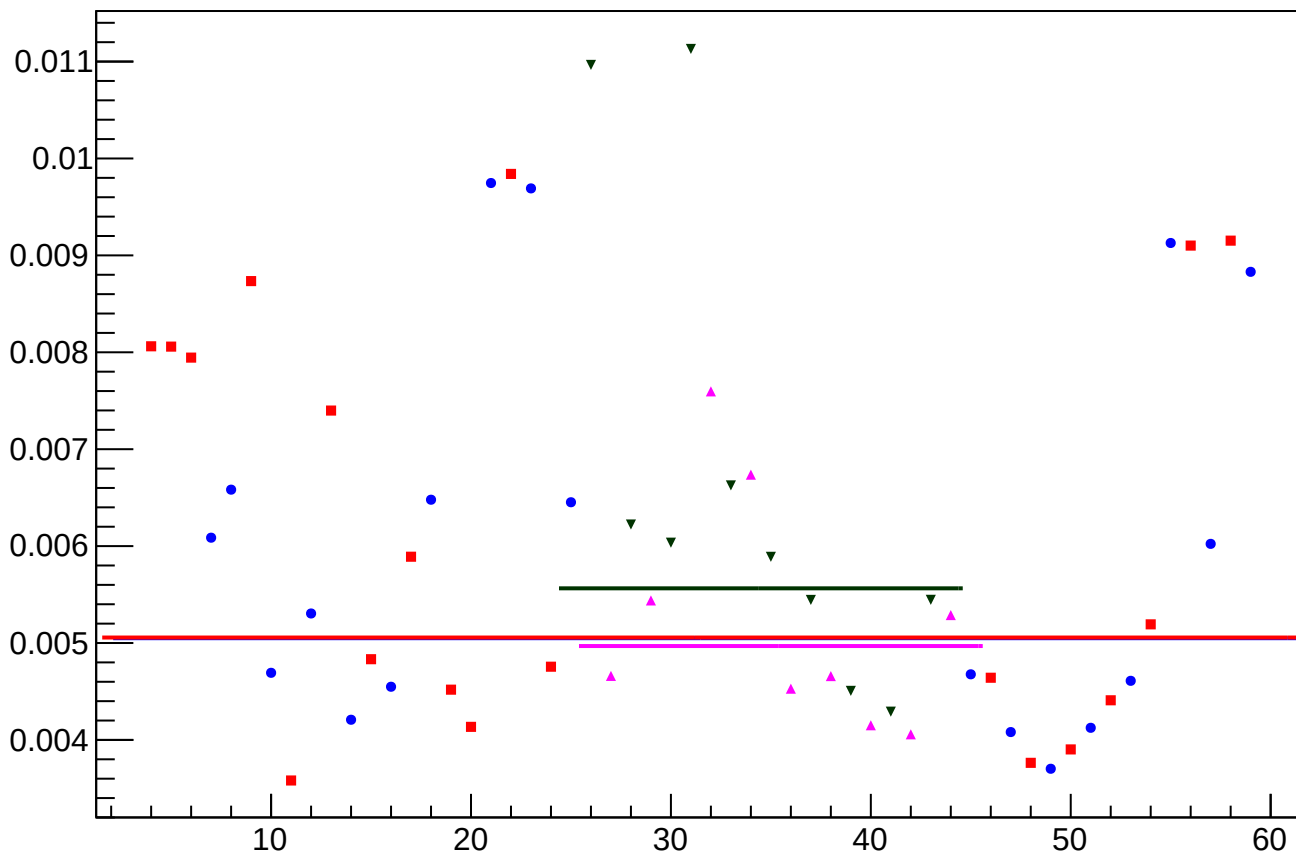
-0.171+/-0.000  $\chi^2/\text{NDF}$ : 8763655323.2/27

Right Out: -0.129+/-0.000  $\chi^2/\text{NDF}$ : 5878929515.5/18

-0.169+/-0.000  $\chi^2/\text{NDF}$ : 8021310641.6/27

Left In: -0.235+/-0.000  $\chi^2/\text{NDF}$ : 787599053.3/8

# yield\_bpm16X\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1664372.1/17

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 608011.7/9

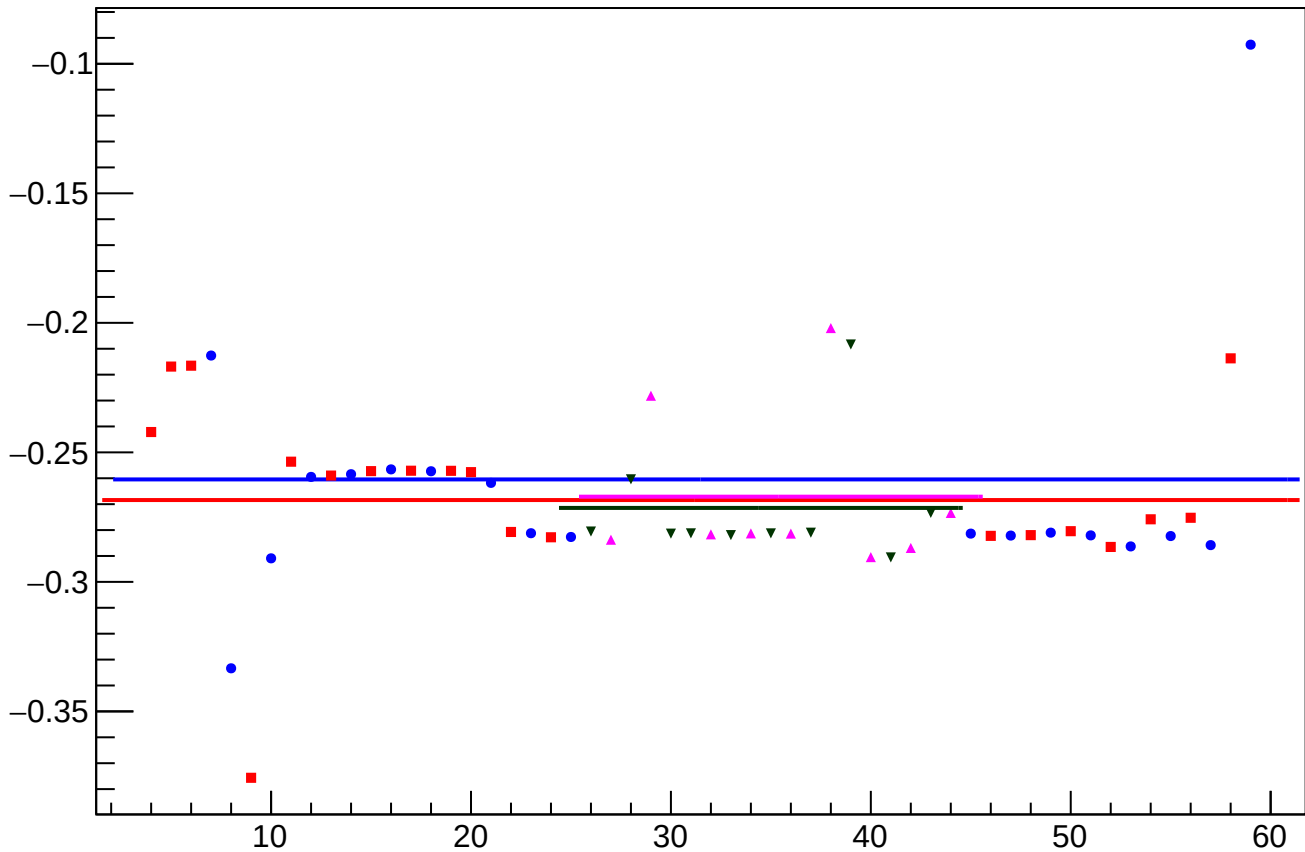
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1822469.4/18

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 366477.9/8

0.005+/-0.000  $\chi^2/\text{NDF}$ : 2327340.0/27

0.005+/-0.000  $\chi^2/\text{NDF}$ : 2190816.5/27

# yield\_bpm16Y\_mean vs slug



Right In: -0.260+/-0.000  $\chi^2/\text{NDF}$ : 6878369368.1/17

Left Out: -0.271+/-0.000  $\chi^2/\text{NDF}$ : 349277523.0/9

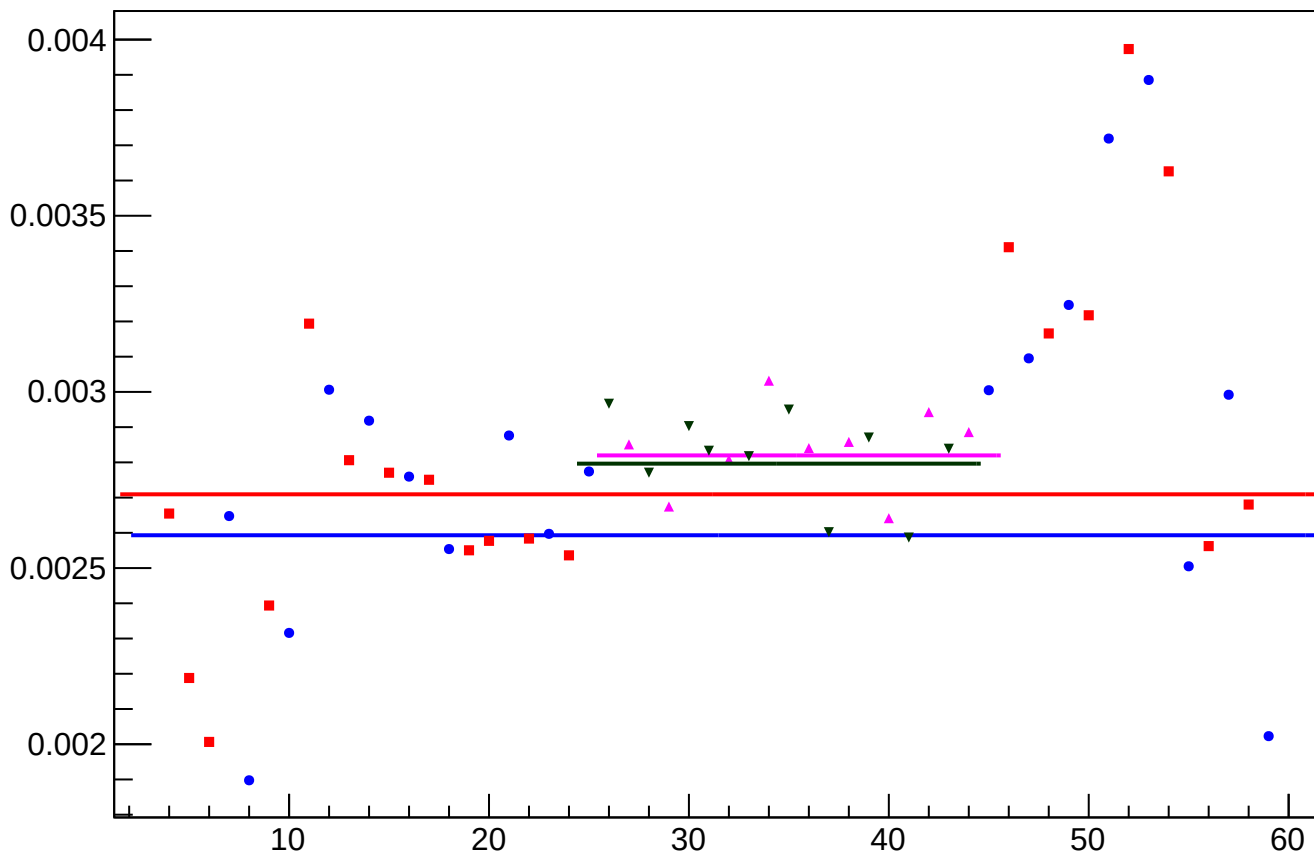
-0.264+/-0.000  $\chi^2/\text{NDF}$ : 7283546031.1/27

Right Out: -0.268+/-0.000  $\chi^2/\text{NDF}$ : 2185355194.4/18

-0.268+/-0.000  $\chi^2/\text{NDF}$ : 2739780214.9/27

Left In: -0.267+/-0.000  $\chi^2/\text{NDF}$ : 553669253.3/8

# yield\_bpm16Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 774114.6/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 22003.3/9

Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 476230.4/18

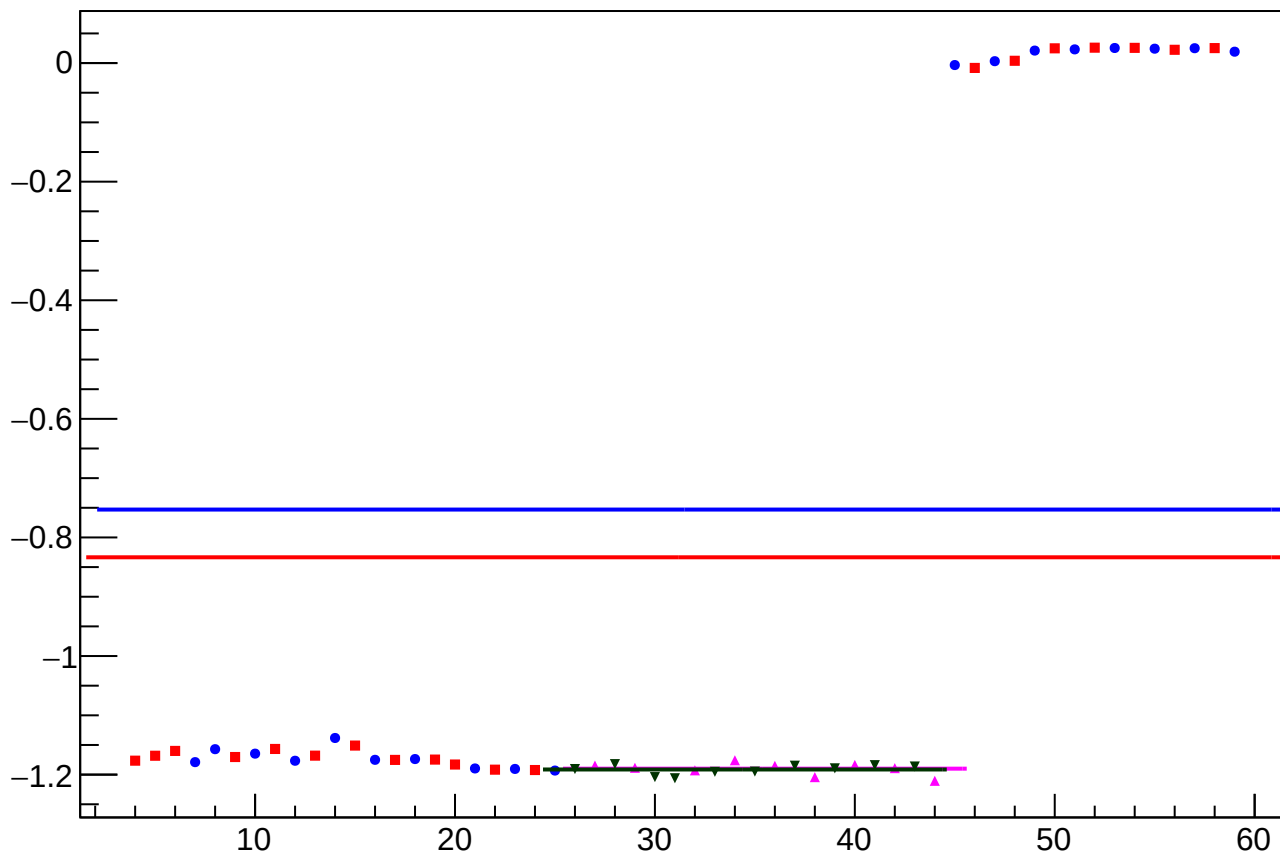
Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 16488.2/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 834279.6/27

0.003+/-0.000  $\chi^2/\text{NDF}$ : 503566.0/27



# yield\_bpm2i01X\_mean vs slug



Right In: -0.753+/-0.000  $\chi^2/\text{NDF}$ : 63524502695.2/17

Left Out: -1.191+/-0.000  $\chi^2/\text{NDF}$ : 4812748.3/9

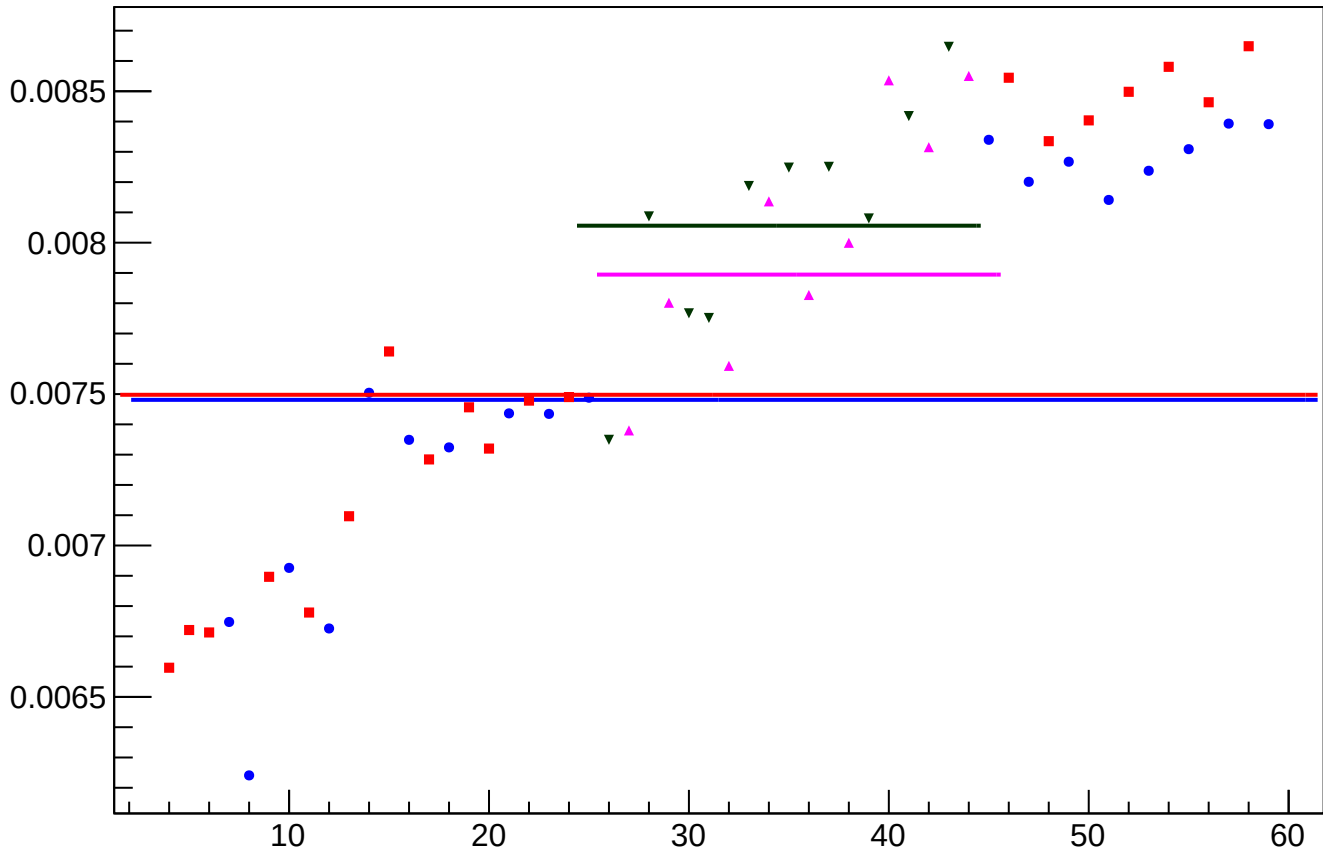
Right Out: -0.833+/-0.000  $\chi^2/\text{NDF}$ : 50332816661.3/18

Left In: -1.190+/-0.000  $\chi^2/\text{NDF}$ : 6924812.0/8

-0.880+/-0.000  $\chi^2/\text{NDF}$ : 74568147850.9/27

-0.953+/-0.000  $\chi^2/\text{NDF}$ : 57819304686.5/27

# yield\_bpm2i01X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 196084.4/17

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :19479.9/9

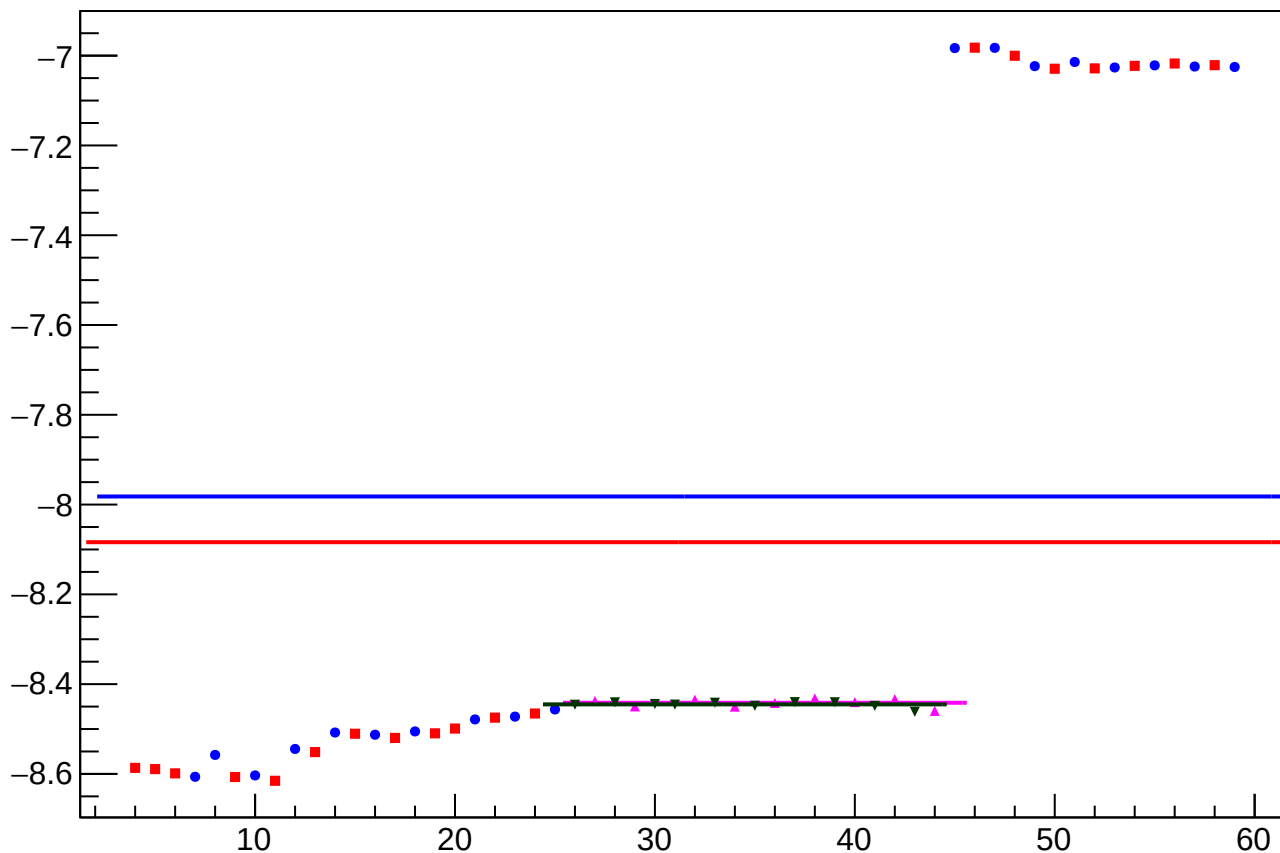
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 167417.2/18

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :26175.0/8

0.008+/-0.000  $\chi^2/\text{NDF}$ : 253563.8/27

0.008+/-0.000  $\chi^2/\text{NDF}$ : 212132.0/27

# yield\_bpm2i01Y\_mean vs slug



Right In: -7.982+/-0.000  $\chi^2/\text{NDF}$ : 116524136897.0/17

Left Out: -8.445+/-0.000  $\chi^2/\text{NDF}$ : 3367094.4/9

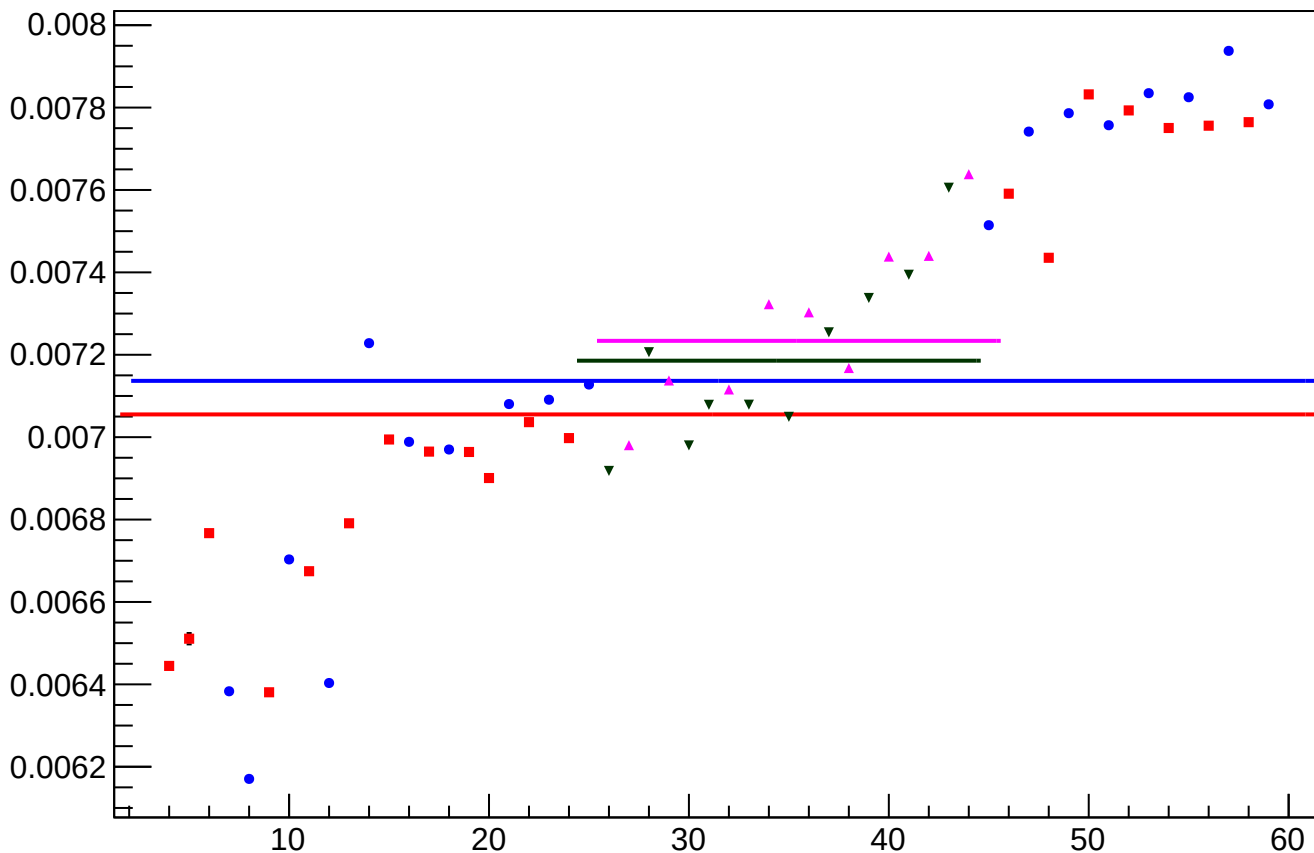
Right Out: -8.084+/-0.000  $\chi^2/\text{NDF}$ : 99506540389.5/18

Left In: -8.441+/-0.000  $\chi^2/\text{NDF}$ : 7266938.1/8

-8.131+/-0.000  $\chi^2/\text{NDF}$ : 131628550952.5/27

-8.209+/-0.000  $\chi^2/\text{NDF}$ : 108462619081.0/27

# yield\_bpm2i01Y\_rms vs slug



Right In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 141394.2/17

Left Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 7631.6/9

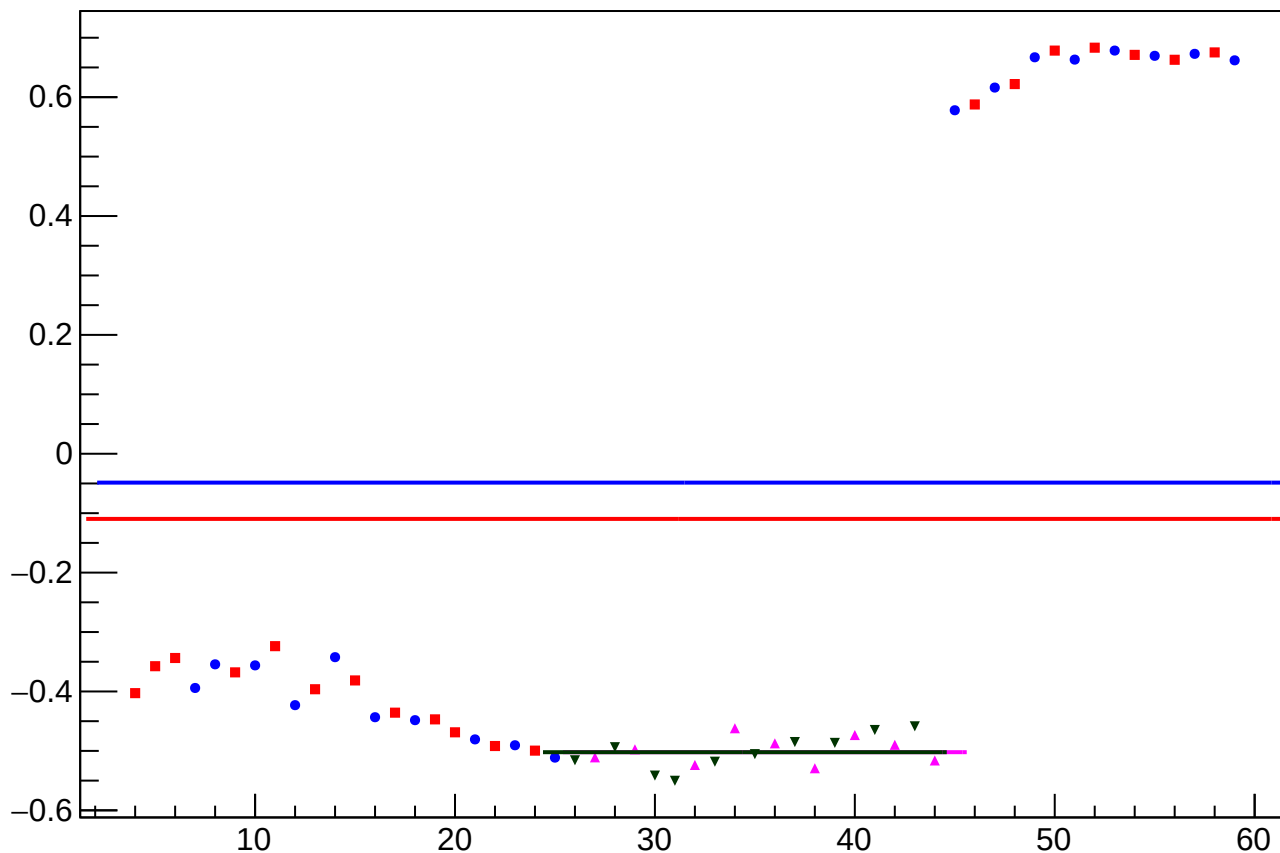
Right Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 88863.4/18

Left In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 7802.2/8

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 149363.7/27

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 101125.8/27

# yield\_bpm2i02X\_mean vs slug



Right In: -0.049+/-0.000  $\chi^2/\text{NDF}$ : 7806391272.8/17

Left Out: -0.502+/-0.000  $\chi^2/\text{NDF}$ : 9337230.3/9

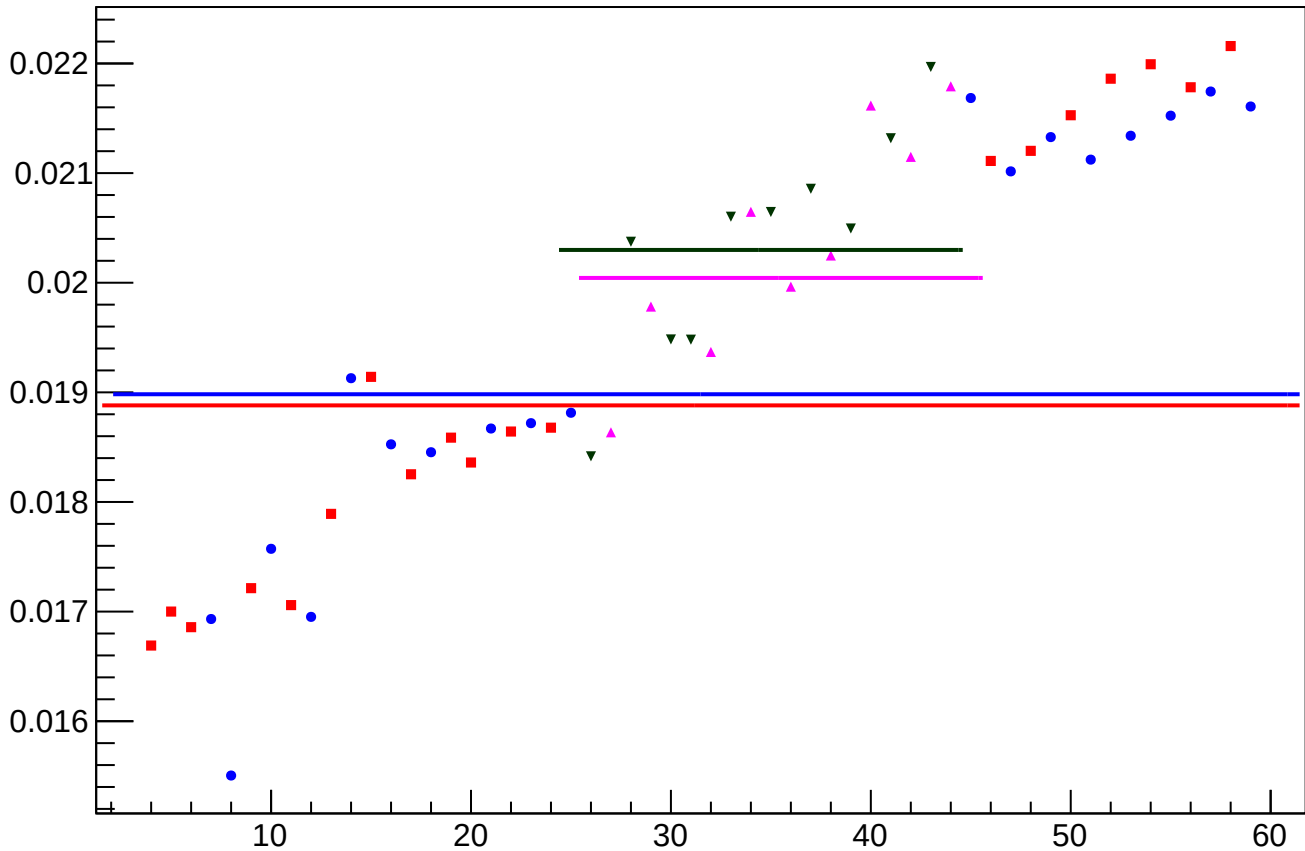
Right Out: -0.110+/-0.000  $\chi^2/\text{NDF}$ : 6259069670.0/18

Left In: -0.502+/-0.000  $\chi^2/\text{NDF}$ : 5607835.8/8

-0.182+/-0.000  $\chi^2/\text{NDF}$ : 9672151302.5/27

-0.240+/-0.000  $\chi^2/\text{NDF}$ : 7681166274.7/27

# yield\_bpm2i02X\_rms vs slug



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 254927.5/17

Left Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ :22702.3/9

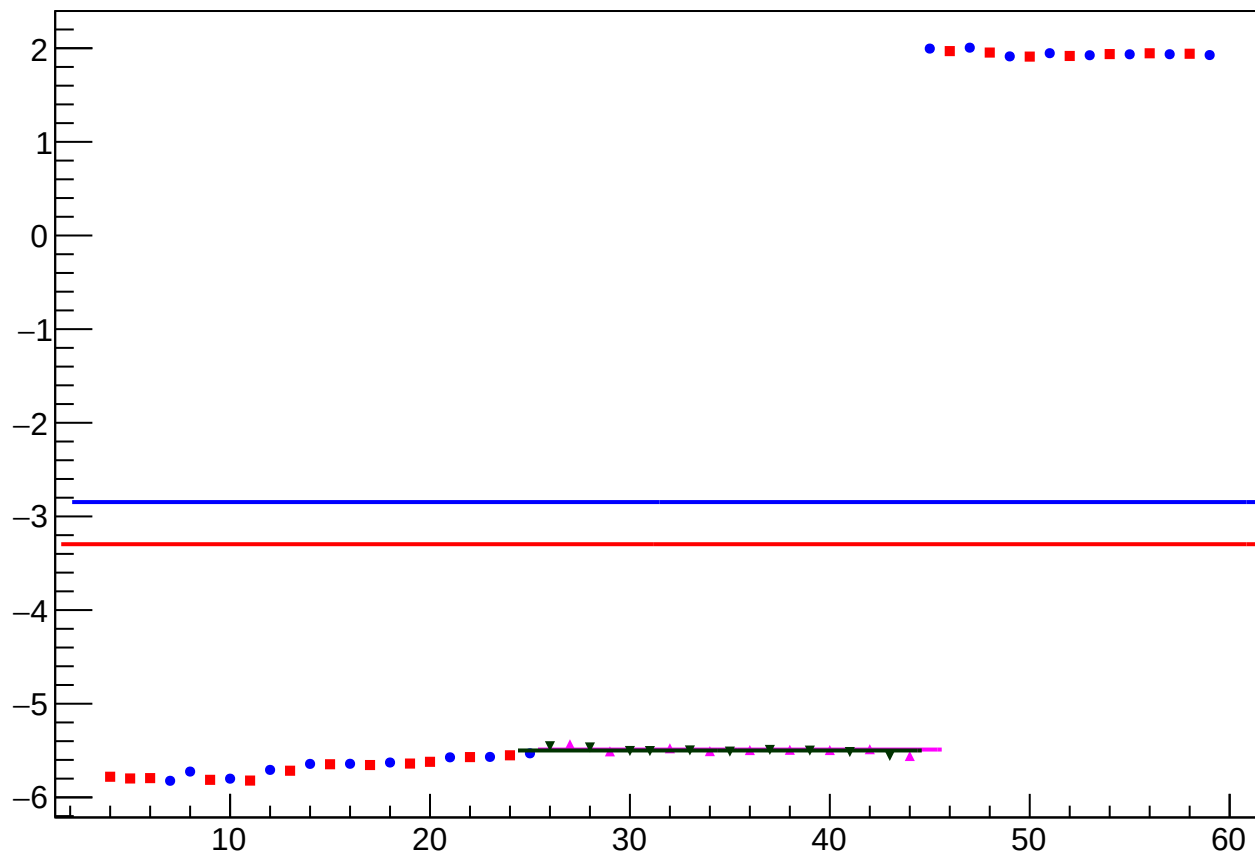
0.019+/-0.000  $\chi^2/\text{NDF}$ : 308900.6/27

Right Out: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 190553.3/18

0.019+/-0.000  $\chi^2/\text{NDF}$ : 242705.6/27

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ :27295.1/8

# yield\_bpm2i02Y\_mean vs slug



Right In: -2.847+/-0.000  $\chi^2/\text{NDF}$ : 988085675921.2/17

Left Out: -5.499+/-0.000  $\chi^2/\text{NDF}$ : 23863148.1/9

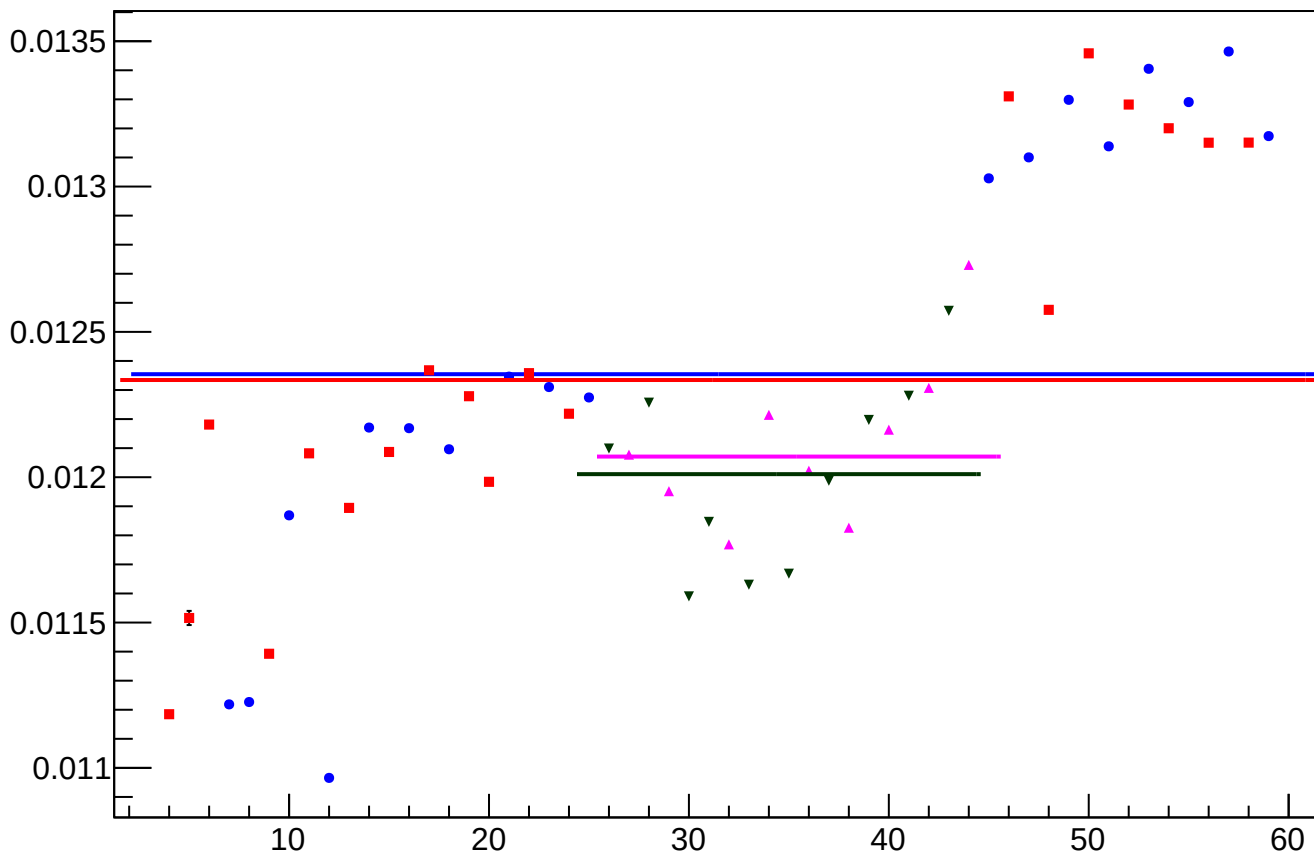
Right Out: -3.297+/-0.000  $\chi^2/\text{NDF}$ : 819050975647.4/18

Left In: -5.490+/-0.000  $\chi^2/\text{NDF}$ : 37957034.6/8

-3.741+/-0.000  $\chi^2/\text{NDF}$ : 1161212108131.2/27

-4.115+/-0.000  $\chi^2/\text{NDF}$ : 935583615686.5/27

# yield\_bpm2i02Y\_rms vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 89844.3/17

Left Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 6913.8/9

Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 54886.5/18

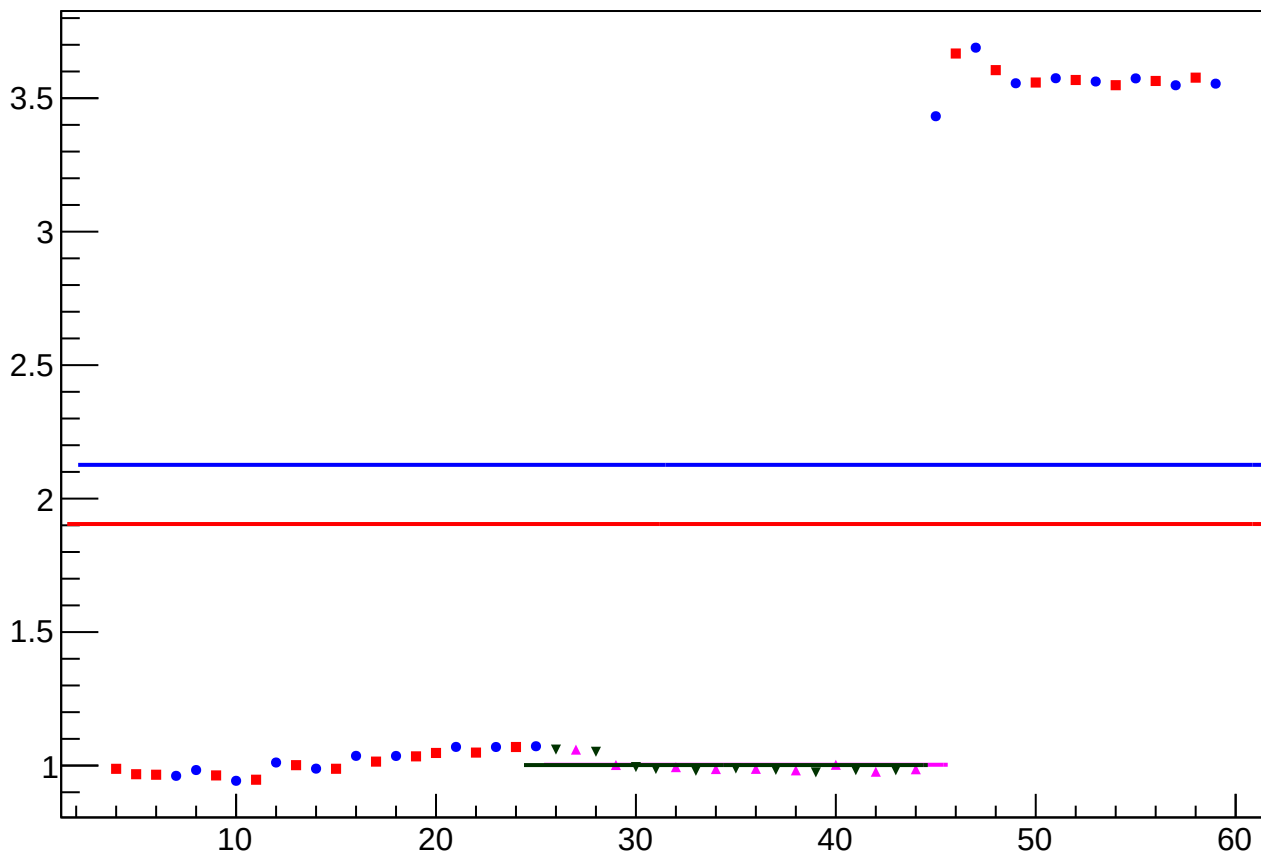
Left In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 5130.3/8

0.012+/-0.000  $\chi^2/\text{NDF}$ : 102575.9/27

0.012+/-0.000  $\chi^2/\text{NDF}$ : 63378.1/27



# yield\_bpm1i04X\_mean vs slug



Right In: 2.126+/-0.000  $\chi^2/\text{NDF}$ : 292632575878.4/17

Left Out: 1.002+/-0.000  $\chi^2/\text{NDF}$ : 93267140.0/9

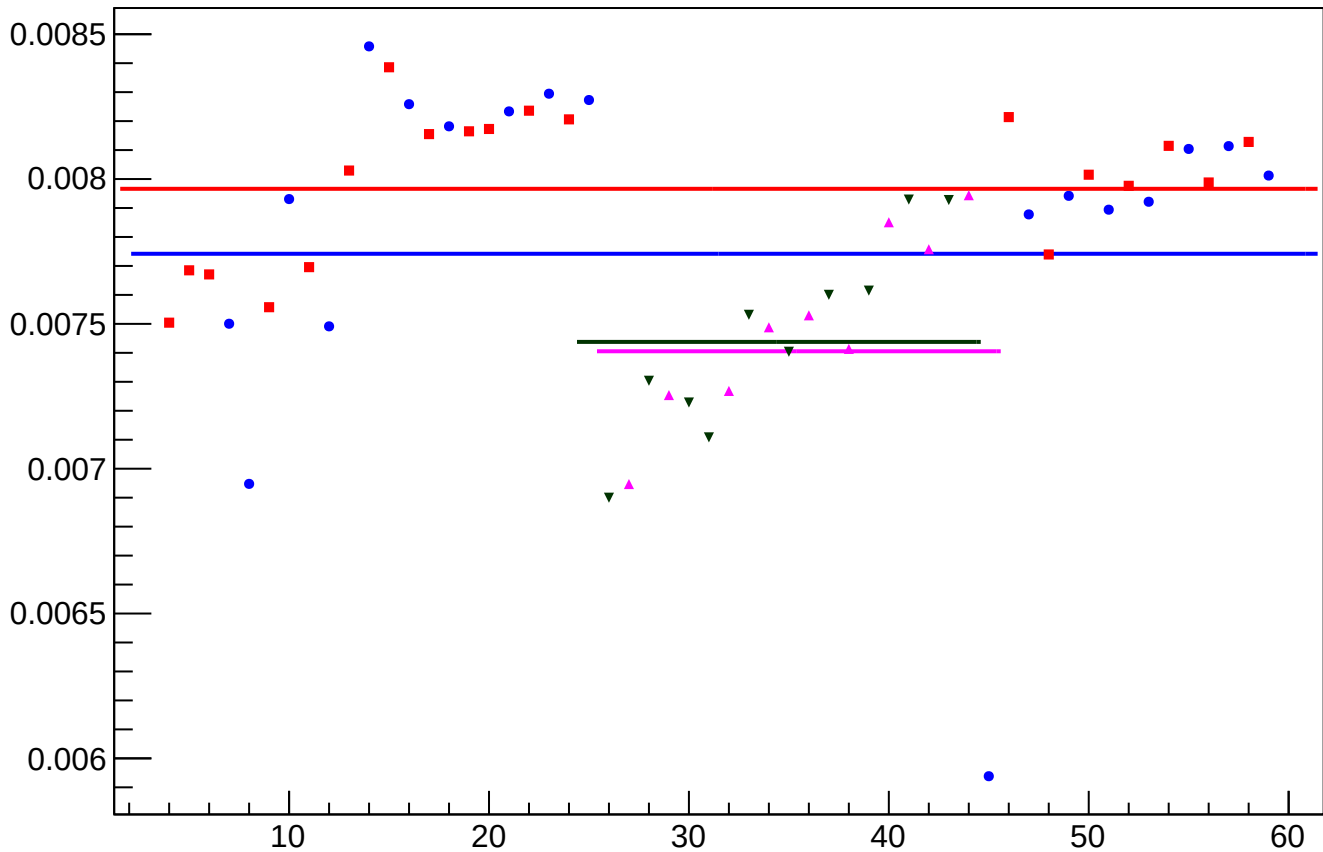
1.742+/-0.000  $\chi^2/\text{NDF}$ : 372281087984.6/27

Right Out: 1.905+/-0.000  $\chi^2/\text{NDF}$ : 236022966001.2/18

1.549+/-0.000  $\chi^2/\text{NDF}$ : 285910532016.1/27

Left In: 1.003+/-0.000  $\chi^2/\text{NDF}$ : 73816796.1/8

# yield\_bpm1i04X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 178907.2/17

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :18100.0/9

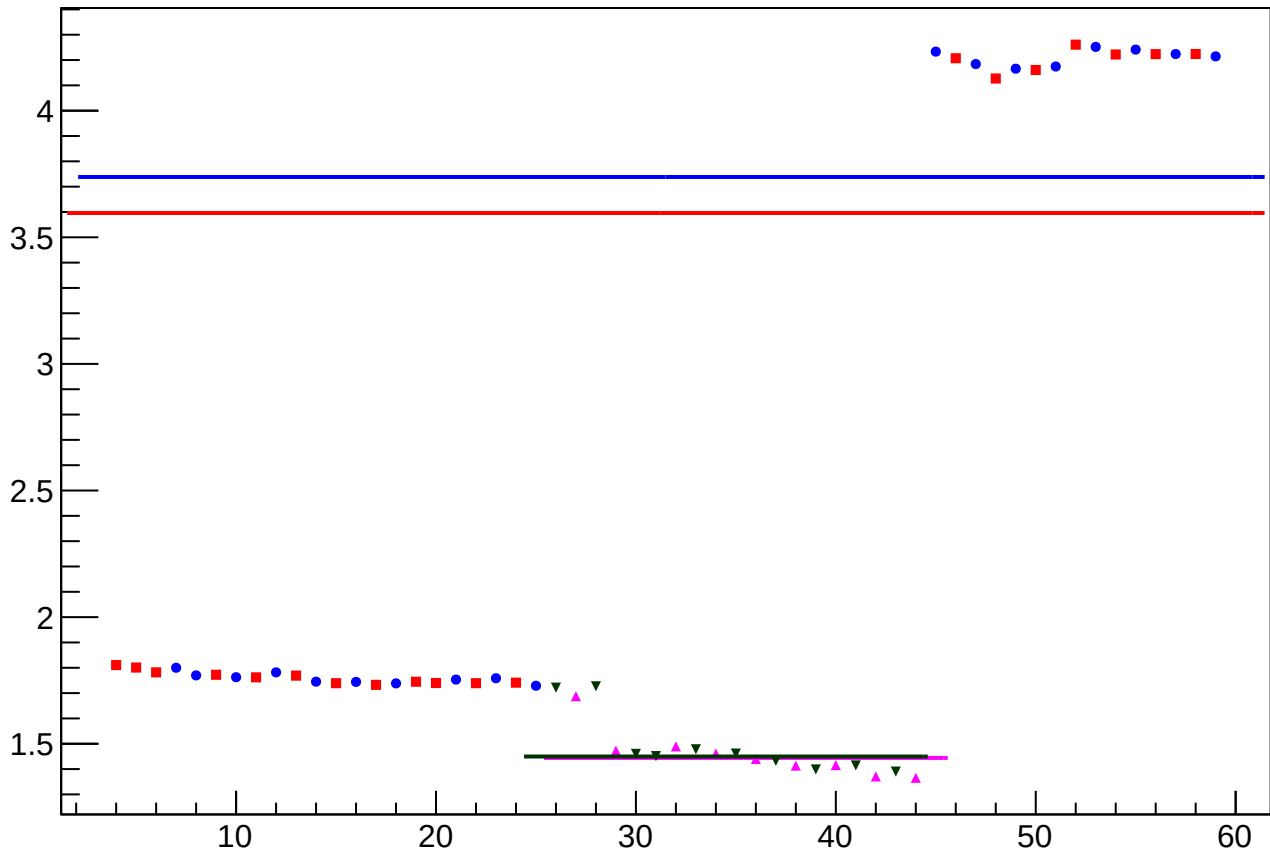
0.008+/-0.000  $\chi^2/\text{NDF}$ : 208649.9/27

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 20073.5/18

0.008+/-0.000  $\chi^2/\text{NDF}$ : 77558.7/27

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ :18945.2/8

# yield\_bpm1i04Y\_mean vs slug



Right In: 3.738+/-0.000  $\chi^2/\text{NDF}$ : 502669373965.6/17

Left Out: 1.450+/-0.000  $\chi^2/\text{NDF}$ : 719591225.9/9

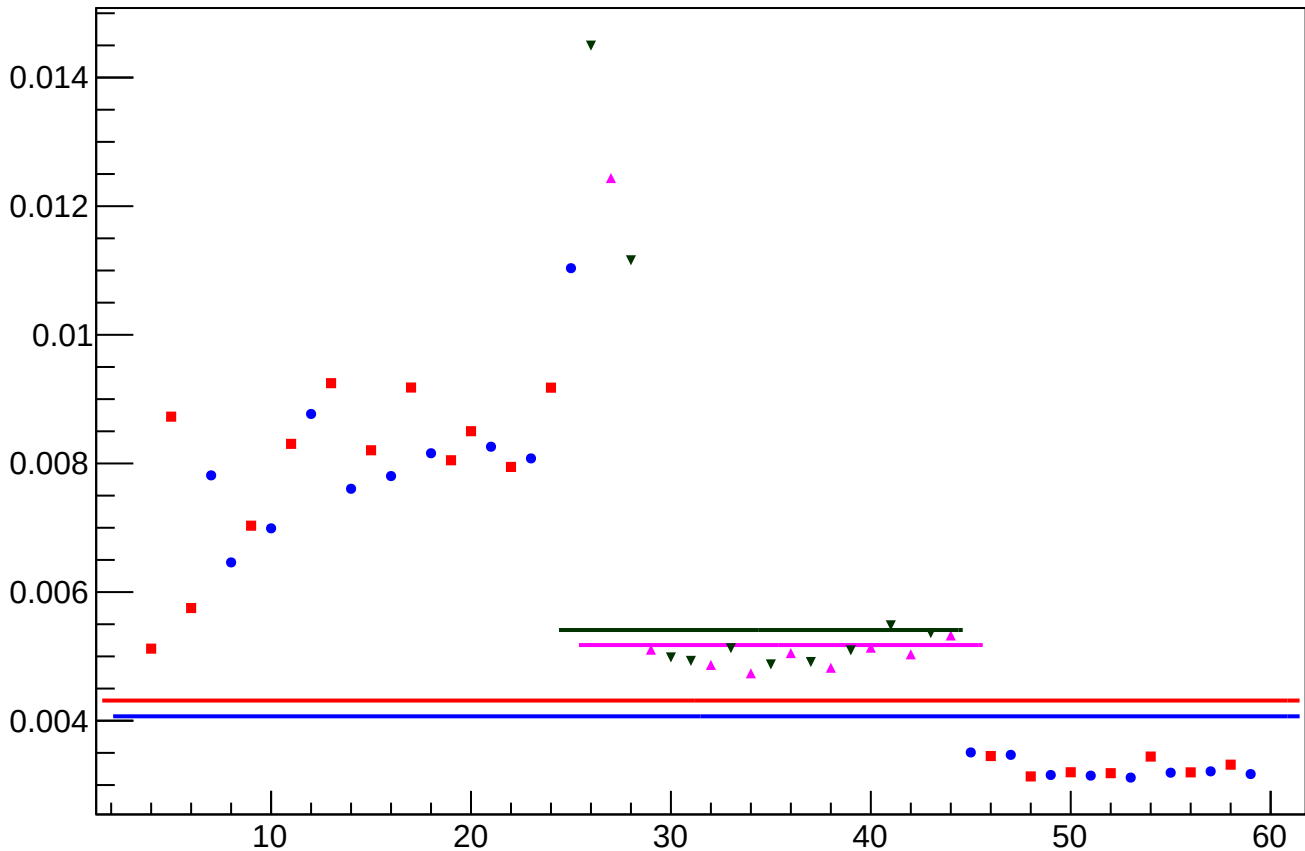
3.216+/-0.000  $\chi^2/\text{NDF}$ : 1148100410090.5/27

Right Out: 3.596+/-0.000  $\chi^2/\text{NDF}$ : 468031292414.6/18

2.931+/-0.000  $\chi^2/\text{NDF}$ : 1070152254073.2/27

Left In: 1.444+/-0.000  $\chi^2/\text{NDF}$ : 633323170.8/8

# yield\_bpm1i04Y\_rms vs slug



Right In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 3401724.5/17

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 753040.6/9

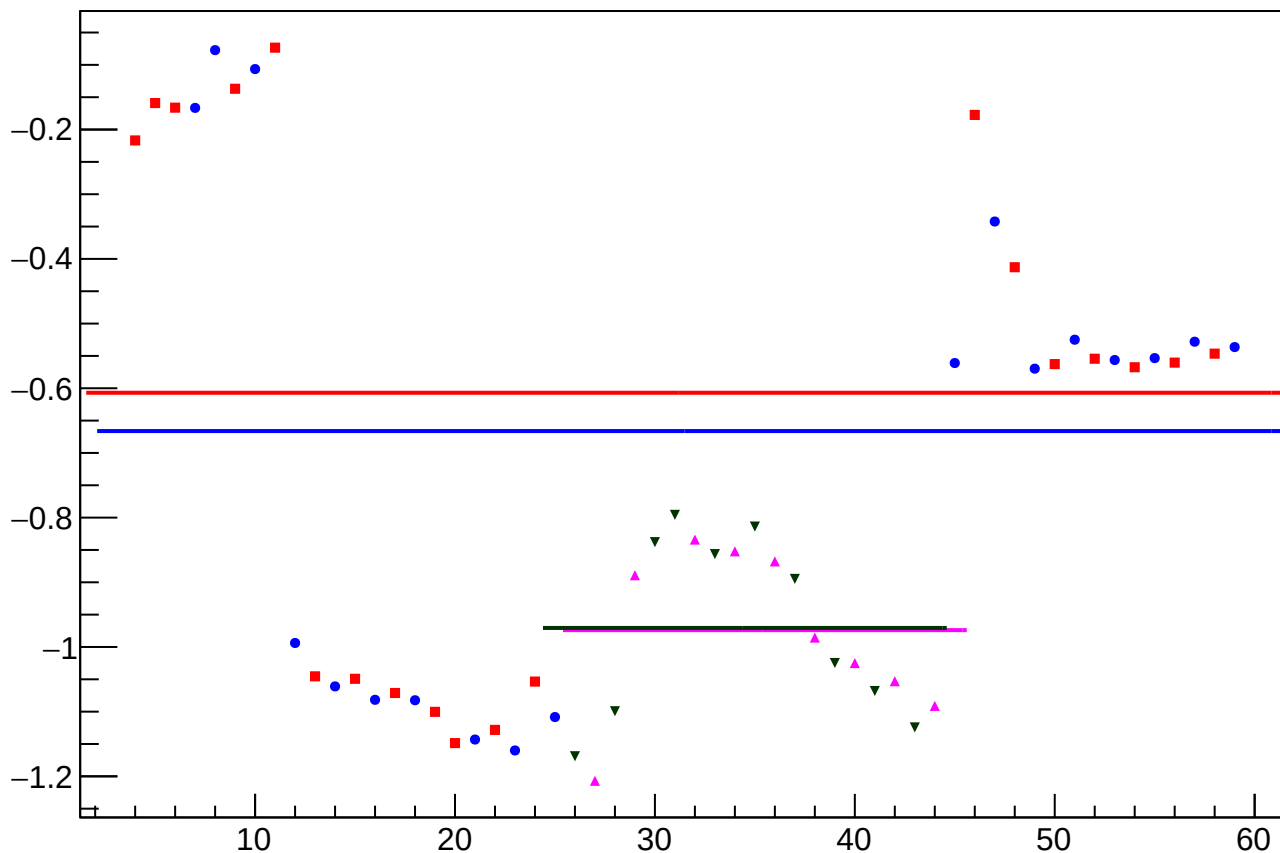
Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 3241260.9/18

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 514197.3/8

0.004+/-0.000  $\chi^2/\text{NDF}$ : 4597940.7/27

0.005+/-0.000  $\chi^2/\text{NDF}$ : 3948793.8/27

# yield\_bpm0l01X\_mean vs slug



Right In: -0.666+/-0.000  $\chi^2/\text{NDF}$ : 19135534349.5/17

Left Out: -0.971+/-0.000  $\chi^2/\text{NDF}$ : 1156218036.6/9

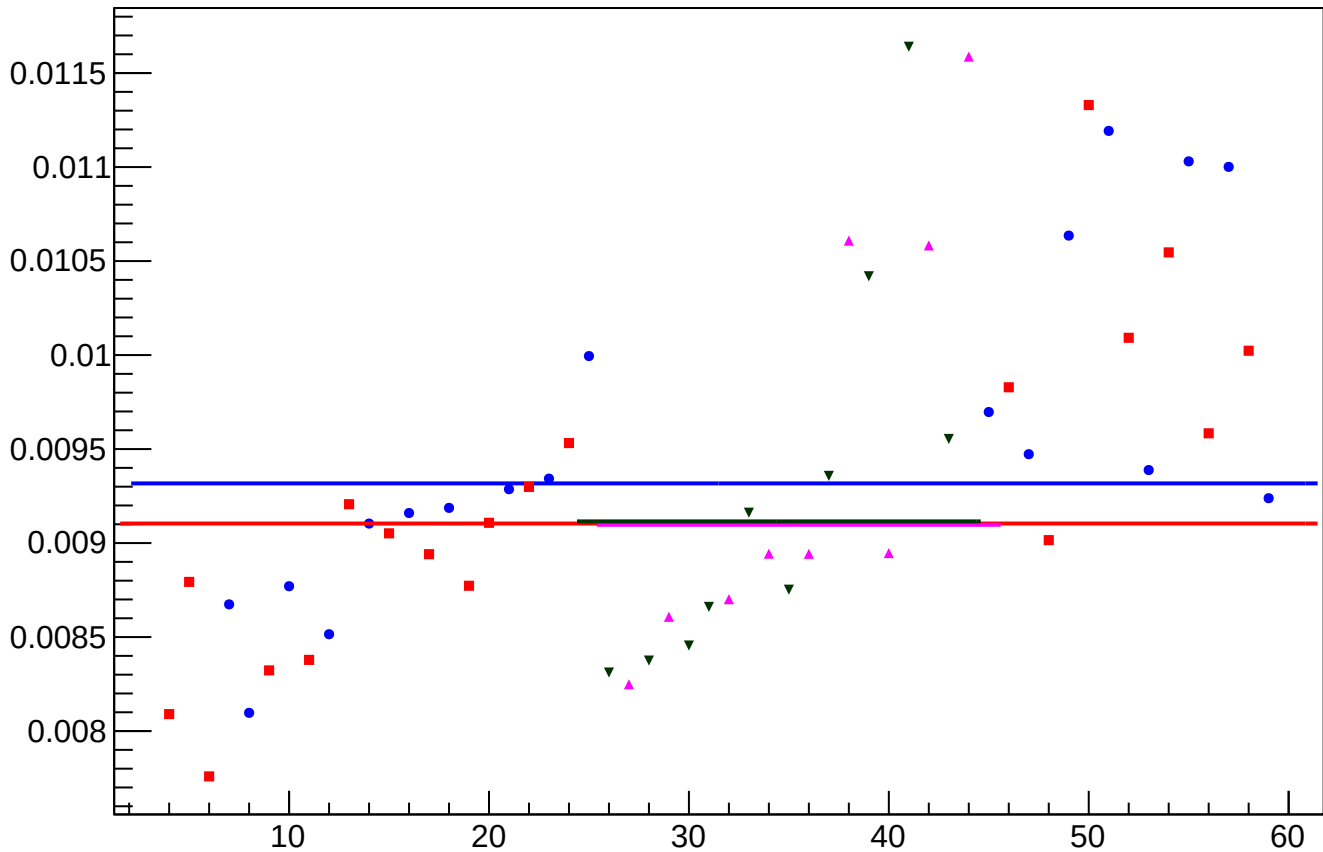
Right Out: -0.607+/-0.000  $\chi^2/\text{NDF}$ : 19217252419.4/18

Left In: -0.974+/-0.000  $\chi^2/\text{NDF}$ : 1225322966.4/8

-0.767+/-0.000  $\chi^2/\text{NDF}$ : 24135041558.0/27

-0.740+/-0.000  $\chi^2/\text{NDF}$ : 26130634276.3/27

# yield\_bpm0l01X\_rms vs slug



Right In:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 165772.4/17

Left Out:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 104201.5/9

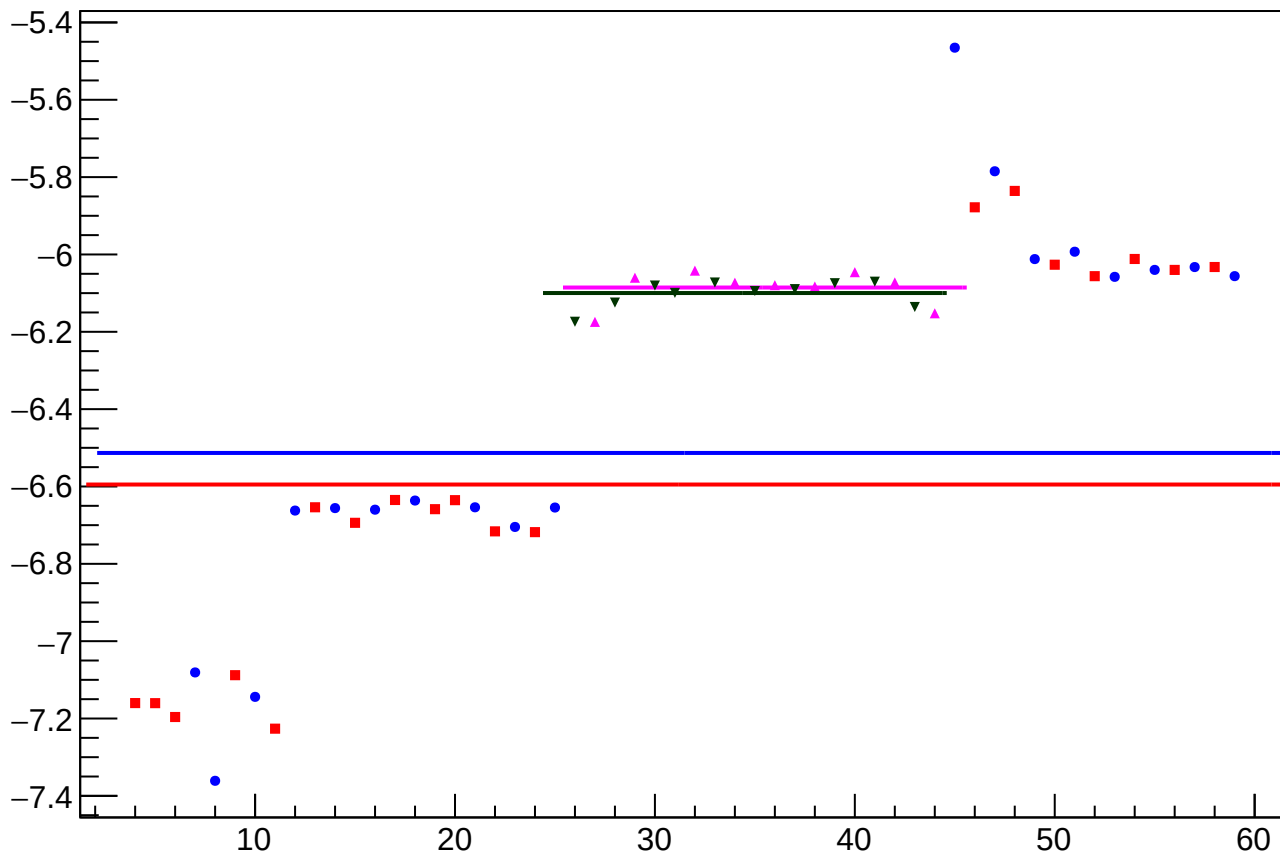
$0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 273362.1/27

Right Out:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 159092.9/18

$0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 274644.4/27

Left In:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}$ : 115547.6/8

# yield\_bpm0l01Y\_mean vs slug



Right In: -6.513+/-0.000  $\chi^2/\text{NDF}$ : 34103178286.6/17

Left Out: -6.100+/-0.000  $\chi^2/\text{NDF}$ : 52135577.5/9

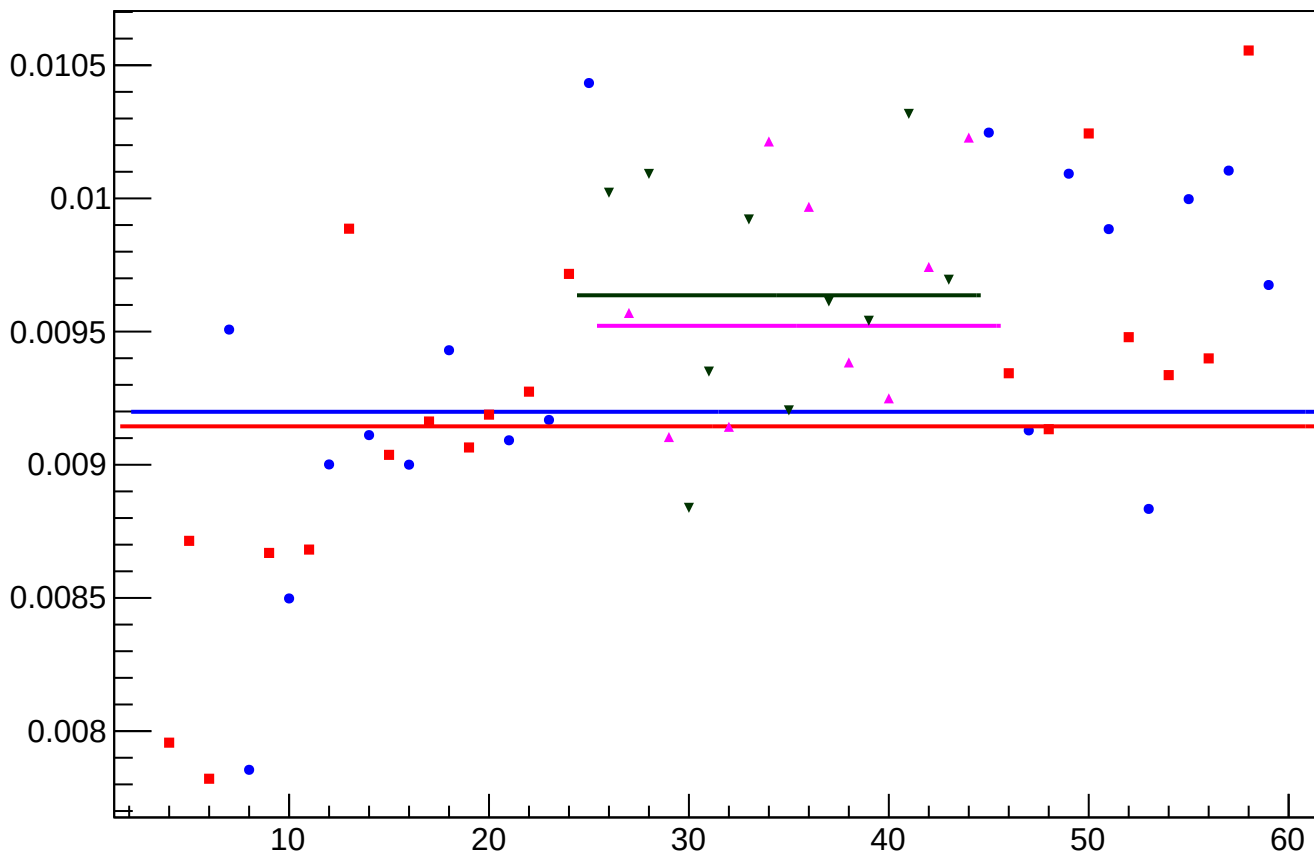
Right Out: -6.595+/-0.000  $\chi^2/\text{NDF}$ : 25777696502.6/18

Left In: -6.085+/-0.000  $\chi^2/\text{NDF}$ : 127997791.5/8

-6.389+/-0.000  $\chi^2/\text{NDF}$ : 40743714602.1/27

-6.418+/-0.000  $\chi^2/\text{NDF}$ : 36139837226.9/27

# yield\_bpm0l01Y\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 120528.1/17

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 21331.0/9

Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 101222.8/18

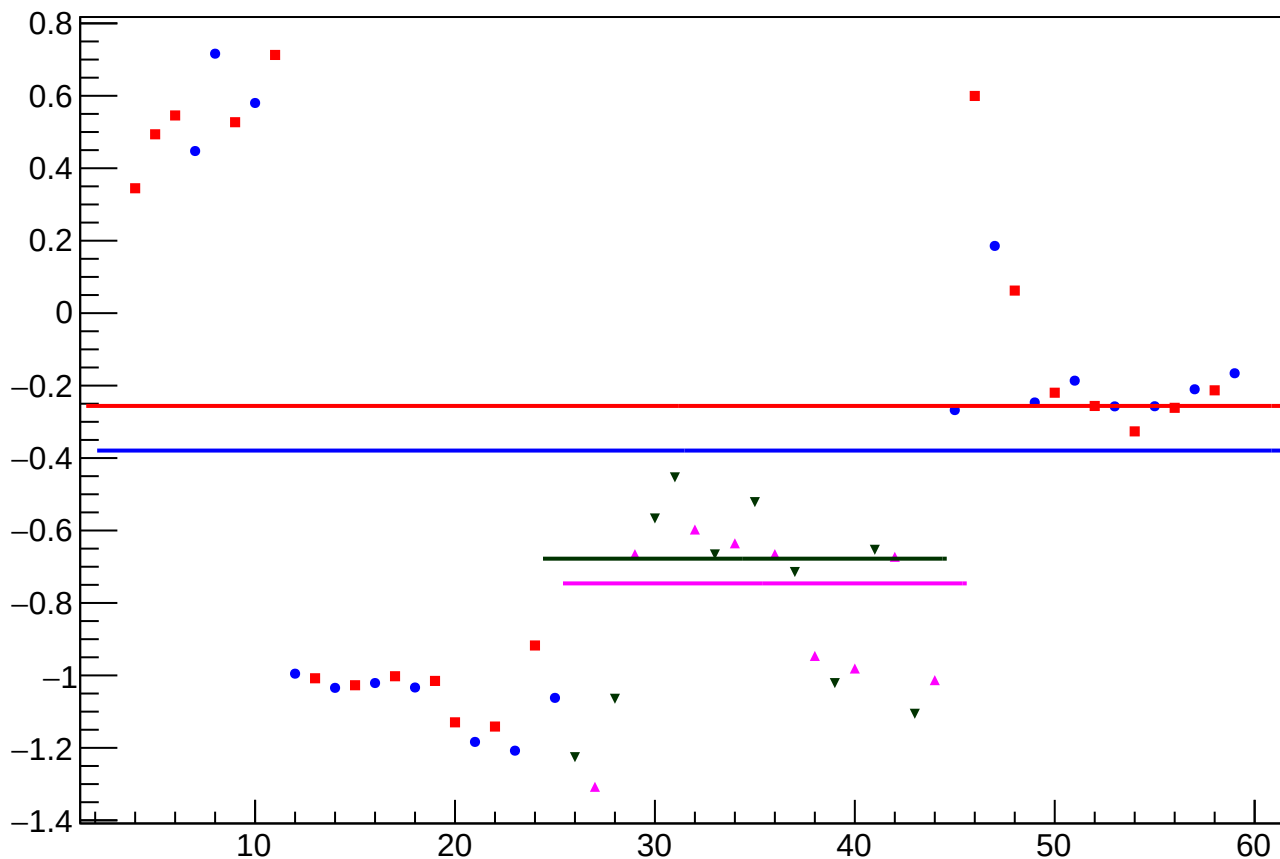
Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 19294.1/8

0.009+/-0.000  $\chi^2/\text{NDF}$ : 156600.0/27

0.009+/-0.000  $\chi^2/\text{NDF}$ : 131753.2/27



# yield\_bpm0l02X\_mean vs slug



Right In:  $-0.379 \pm 0.000$   $\chi^2/\text{NDF}$ : 10136750548.1/17

Left Out:  $-0.678 \pm 0.000$   $\chi^2/\text{NDF}$ : 1358570765.2/9

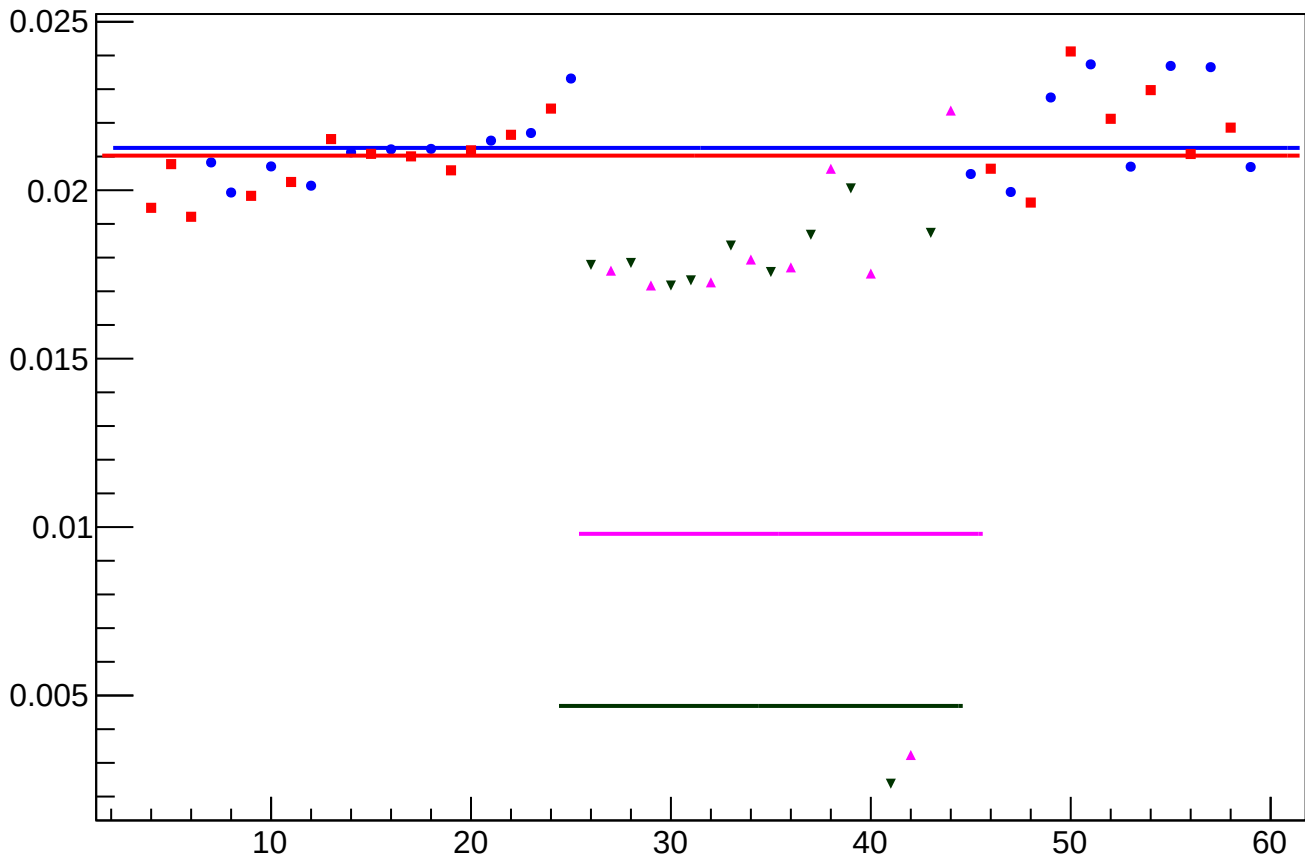
Right Out:  $-0.256 \pm 0.000$   $\chi^2/\text{NDF}$ : 10103342122.6/18

Left In:  $-0.746 \pm 0.000$   $\chi^2/\text{NDF}$ : 1268707812.5/8

$-0.617 \pm 0.000$   $\chi^2/\text{NDF}$ : 13229506606.6/27

$-0.556 \pm 0.000$   $\chi^2/\text{NDF}$ : 14606105073.6/27

# yield\_bpm0l02X\_rms vs slug



Right In:  $0.021 \pm 0.000$   $\chi^2/\text{NDF}$ : 64142.6/17

Left Out:  $0.005 \pm 0.000$   $\chi^2/\text{NDF}$ : 5998219.6/9

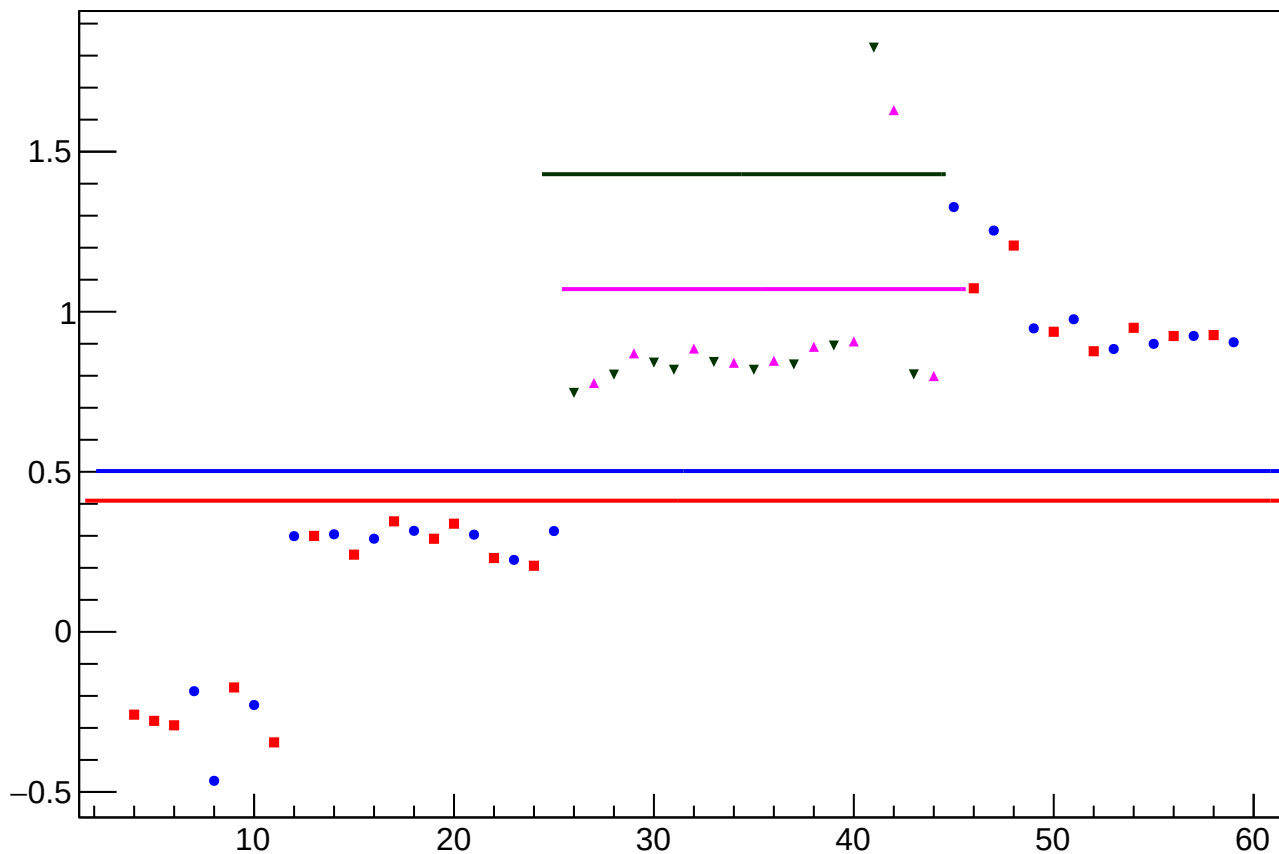
Right Out:  $0.021 \pm 0.000$   $\chi^2/\text{NDF}$ : 62886.6/18

Left In:  $0.010 \pm 0.000$   $\chi^2/\text{NDF}$ : 3818425.7/8

$0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 16750163.1/27

$0.014 \pm 0.000$   $\chi^2/\text{NDF}$ : 7278929.0/27

# yield\_bpm0l02Y\_mean vs slug



Right In: 0.502 $\pm$ 0.000  $\chi^2$ /NDF: 19155654908.3/17

Left Out: 1.430 $\pm$ 0.000  $\chi^2$ /NDF: 20131817794.8/9

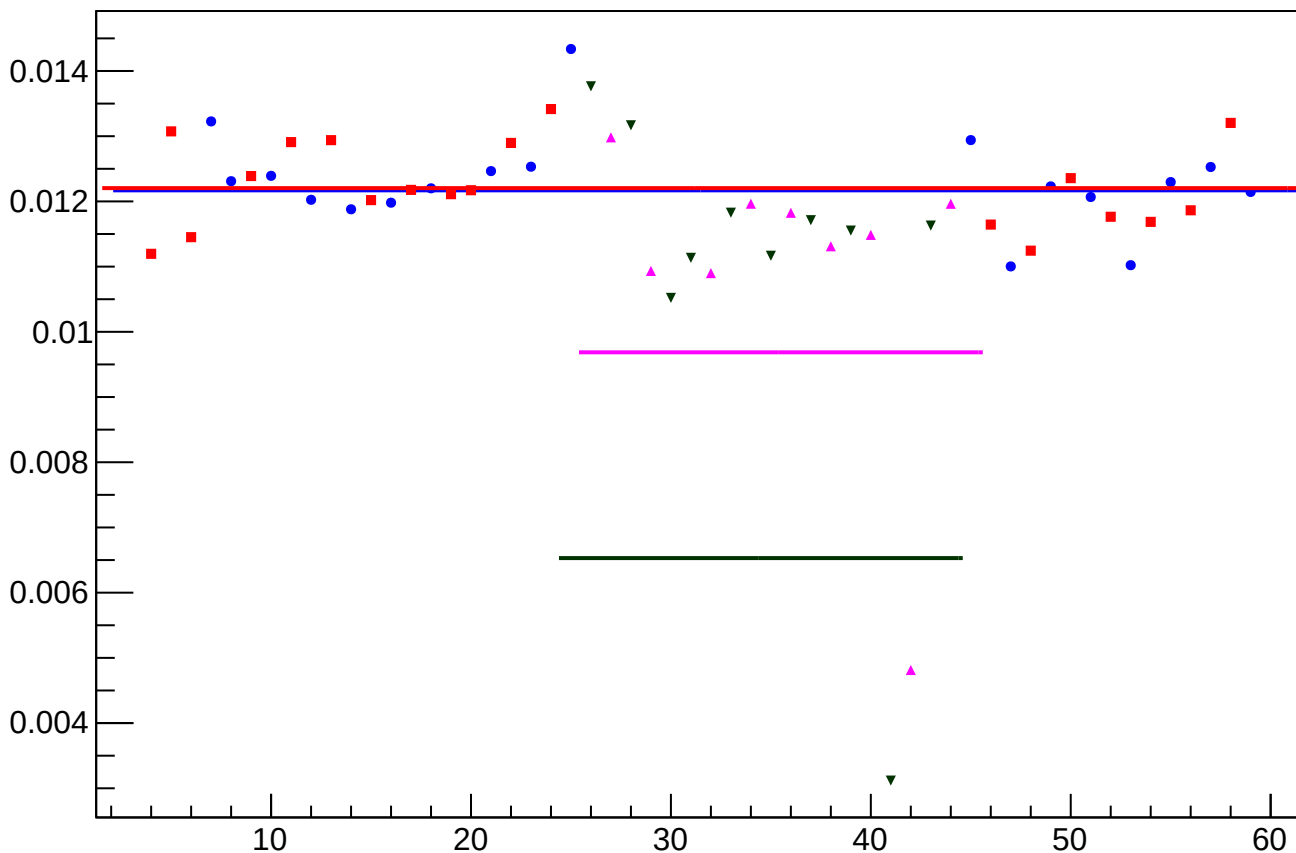
Right Out: 0.410 $\pm$ 0.000  $\chi^2$ /NDF: 16439315084.0/18

Left In: 1.071 $\pm$ 0.000  $\chi^2$ /NDF: 6285541515.9/8

0.997 $\pm$ 0.000  $\chi^2$ /NDF: 73183549237.5/27

0.703 $\pm$ 0.000  $\chi^2$ /NDF: 35260930863.6/27

# yield\_bpm0l02Y\_rms vs slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 45604.3/17

Left Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:3050338.6/9

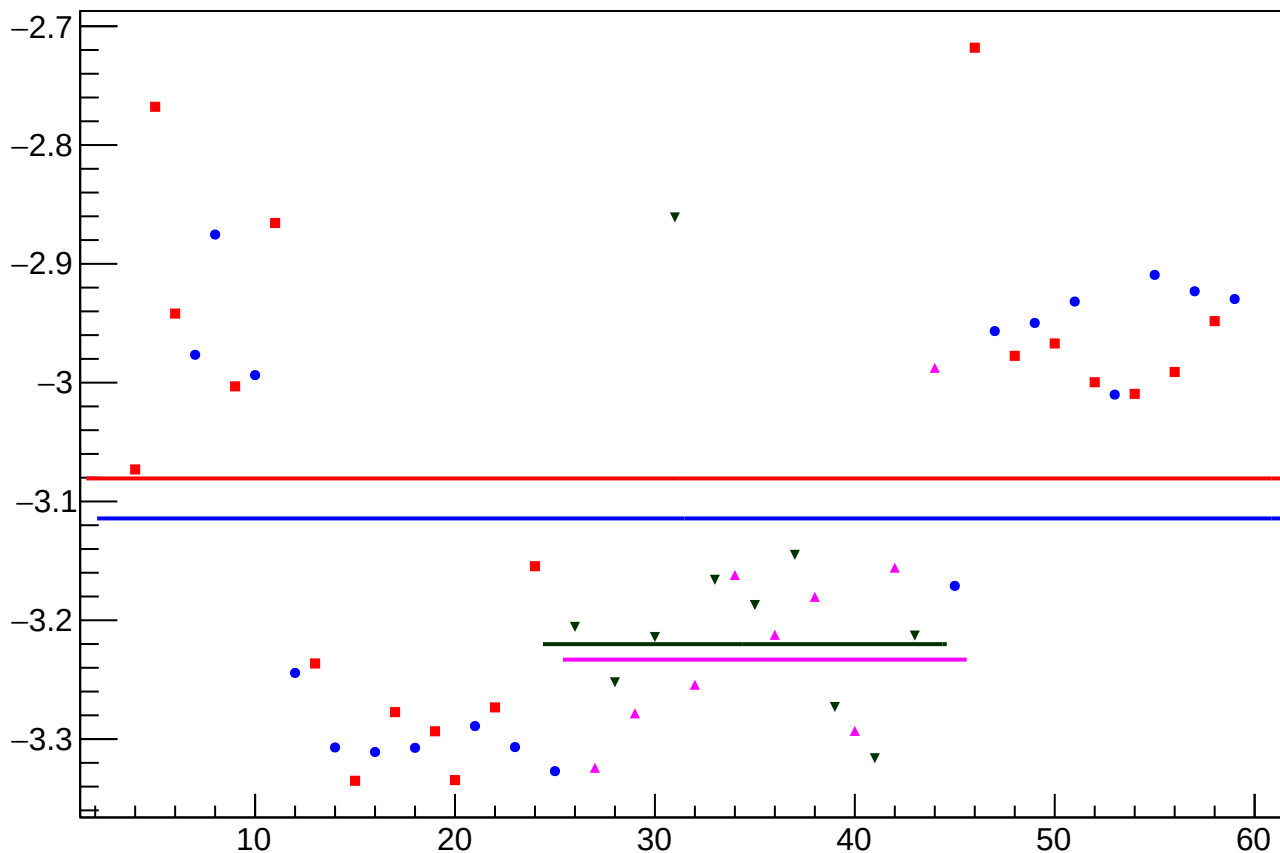
Right Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 53181.0/18

Left In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:979026.7/8

0.009 $\pm$ 0.000  $\chi^2$ /NDF: 5603874.8/27

0.011 $\pm$ 0.000  $\chi^2$ /NDF: 1396161.6/27

# yield\_bpm0l03X\_mean vs slug



Right In: -3.114+/-0.000  $\chi^2/\text{NDF}$ : 4627659924.1/17

Left Out: -3.220+/-0.000  $\chi^2/\text{NDF}$ : 428312091.3/9

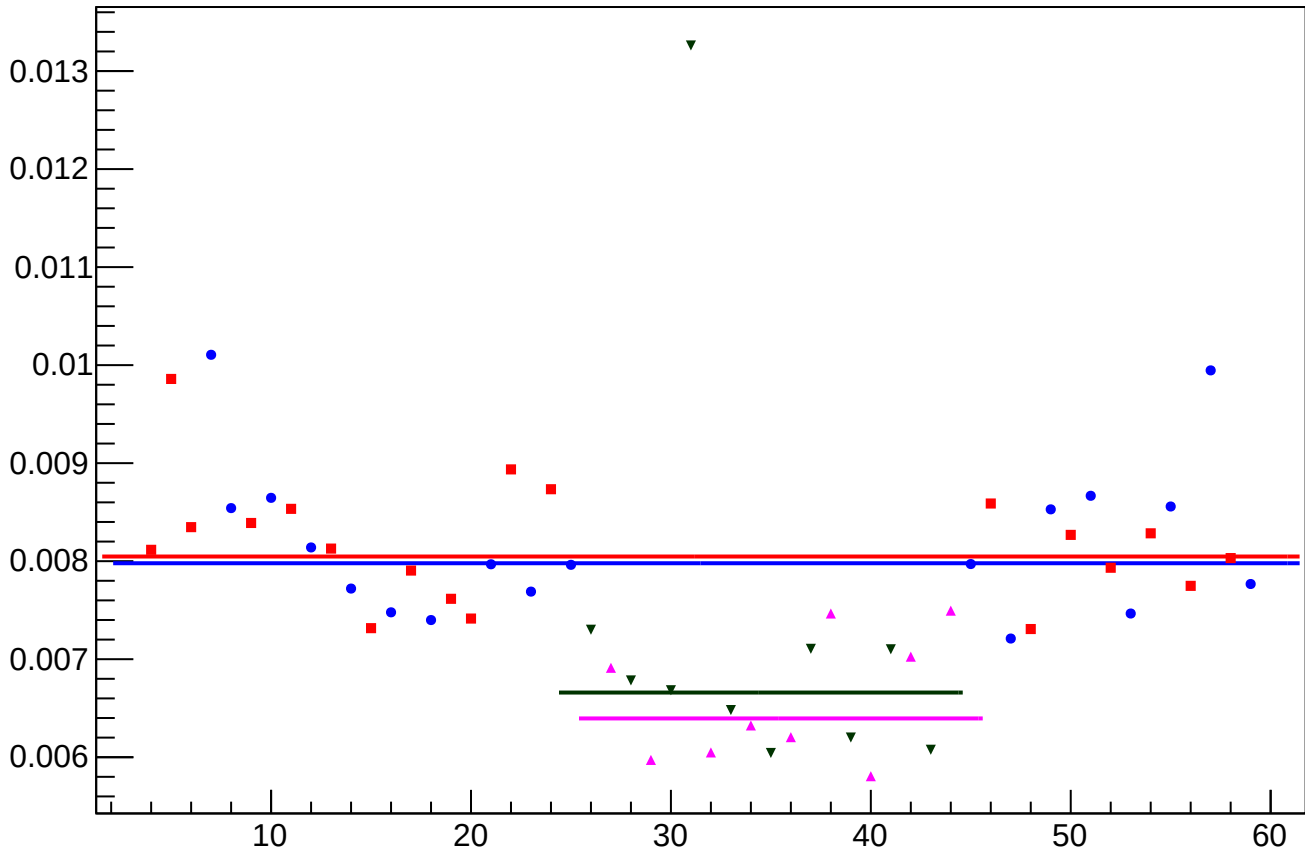
Right Out: -3.081+/-0.000  $\chi^2/\text{NDF}$ : 3839311184.0/18

Left In: -3.233+/-0.000  $\chi^2/\text{NDF}$ : 784509895.8/8

-3.156+/-0.000  $\chi^2/\text{NDF}$ : 5724116446.8/27

-3.154+/-0.000  $\chi^2/\text{NDF}$ : 6059142621.1/27

# yield\_bpm0l03X\_rms vs slug



Right In: 0.008 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 95241.7/17

Left Out: 0.007 $\pm$ 0.000  $\chi^2/\text{NDF}$ :169219.9/9

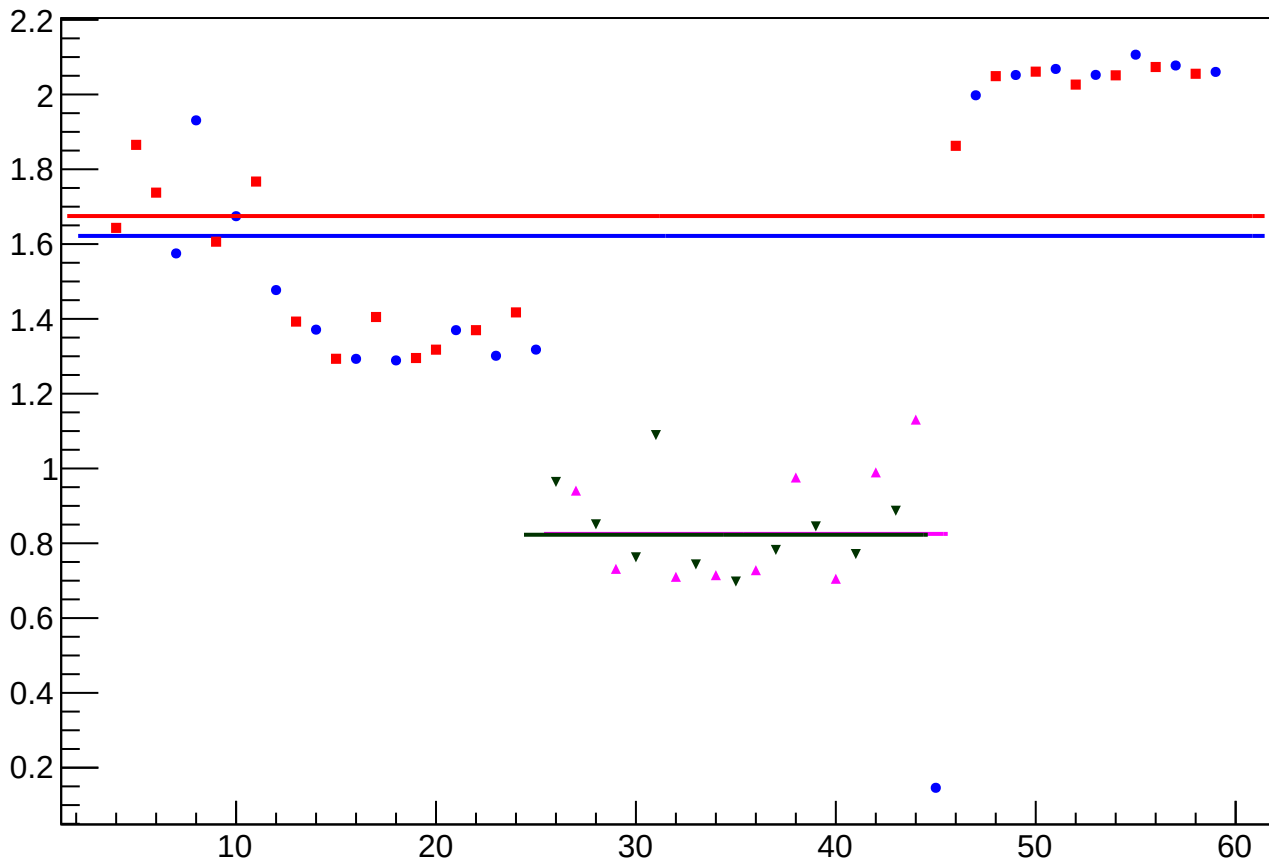
Right Out: 0.008 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 57509.8/18

Left In: 0.006 $\pm$ 0.000  $\chi^2/\text{NDF}$ :72293.2/8

0.007 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 472196.6/27

0.007 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 466718.1/27

# yield\_bpm0l03Y\_mean vs slug



Right In: 1.622+/-0.000  $\chi^2/\text{NDF}$ : 26006902897.9/17

Left Out: 0.823+/-0.000  $\chi^2/\text{NDF}$ : 373202951.2/9

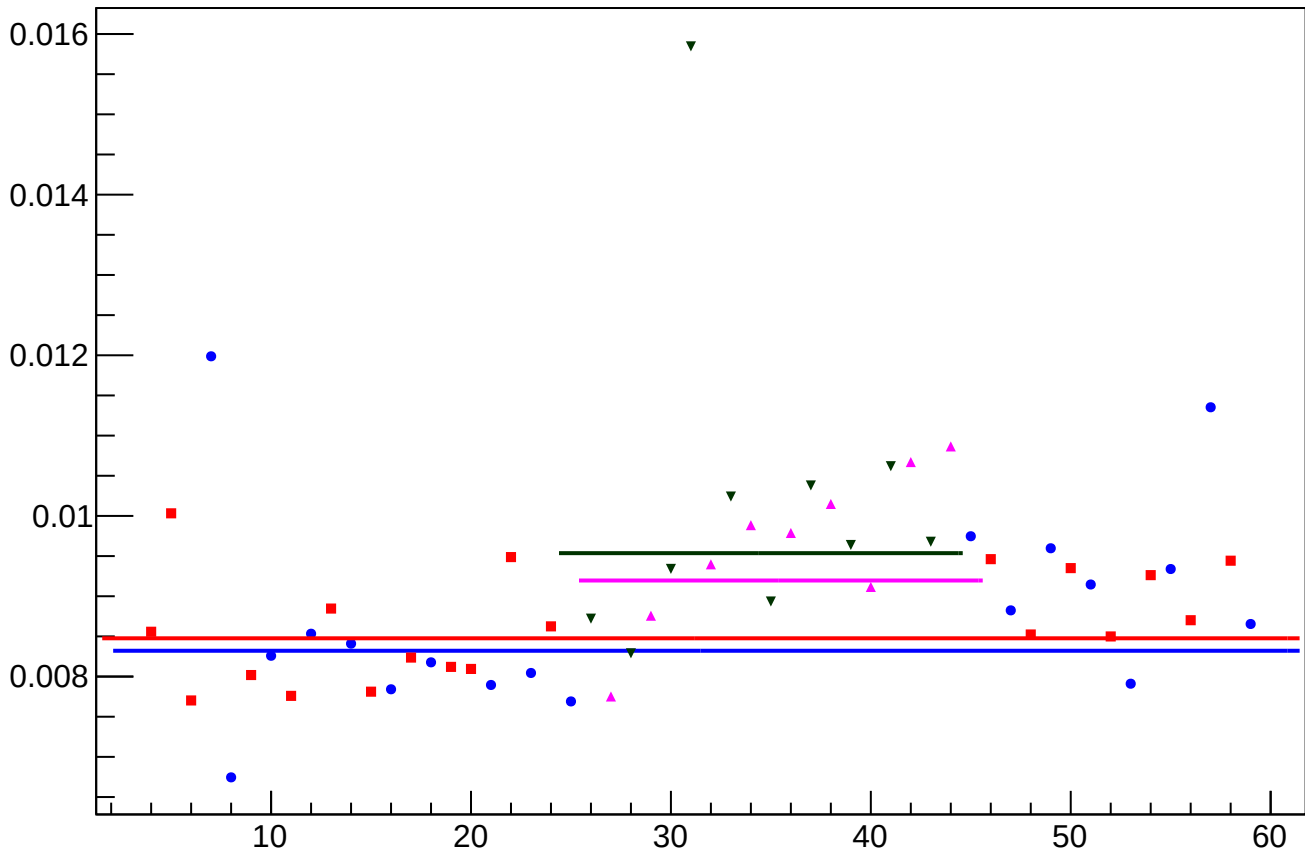
1.412+/-0.000  $\chi^2/\text{NDF}$ : 49022135471.2/27

Right Out: 1.675+/-0.000  $\chi^2/\text{NDF}$ : 9809193440.2/18

1.391+/-0.000  $\chi^2/\text{NDF}$ : 38358386944.6/27

Left In: 0.825+/-0.000  $\chi^2/\text{NDF}$ : 1054829783.2/8

# yield\_bpm0l03Y\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 231289.2/17

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ :144258.2/9

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 80155.6/18

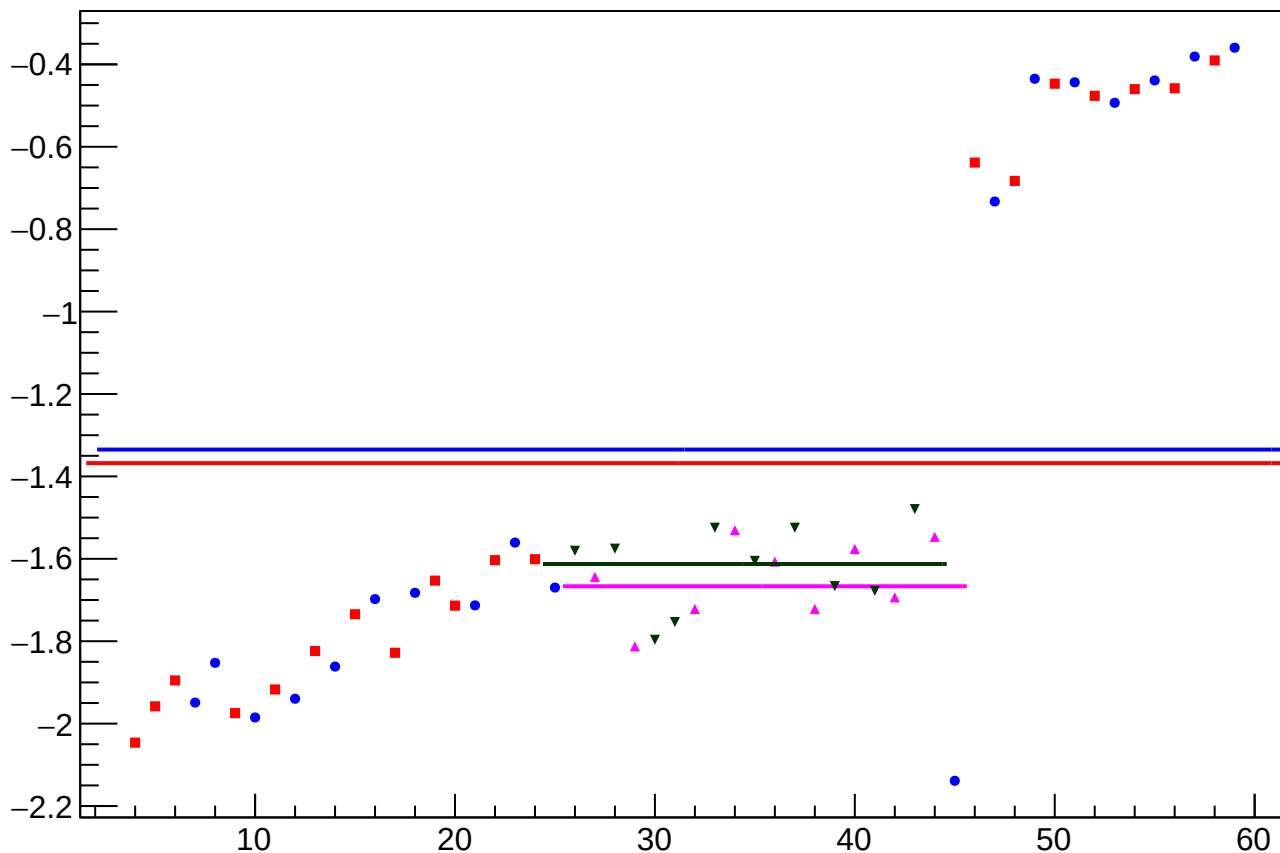
Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :103784.9/8

0.009+/-0.000  $\chi^2/\text{NDF}$ : 480309.5/27

0.009+/-0.000  $\chi^2/\text{NDF}$ : 223369.7/27



# yield\_bpm0l04X\_mean vs slug



Right In: -1.335+/-0.000  $\chi^2/\text{NDF}$ : 38397269291.9/17

Left Out: -1.613+/-0.000  $\chi^2/\text{NDF}$ : 327148879.4/9

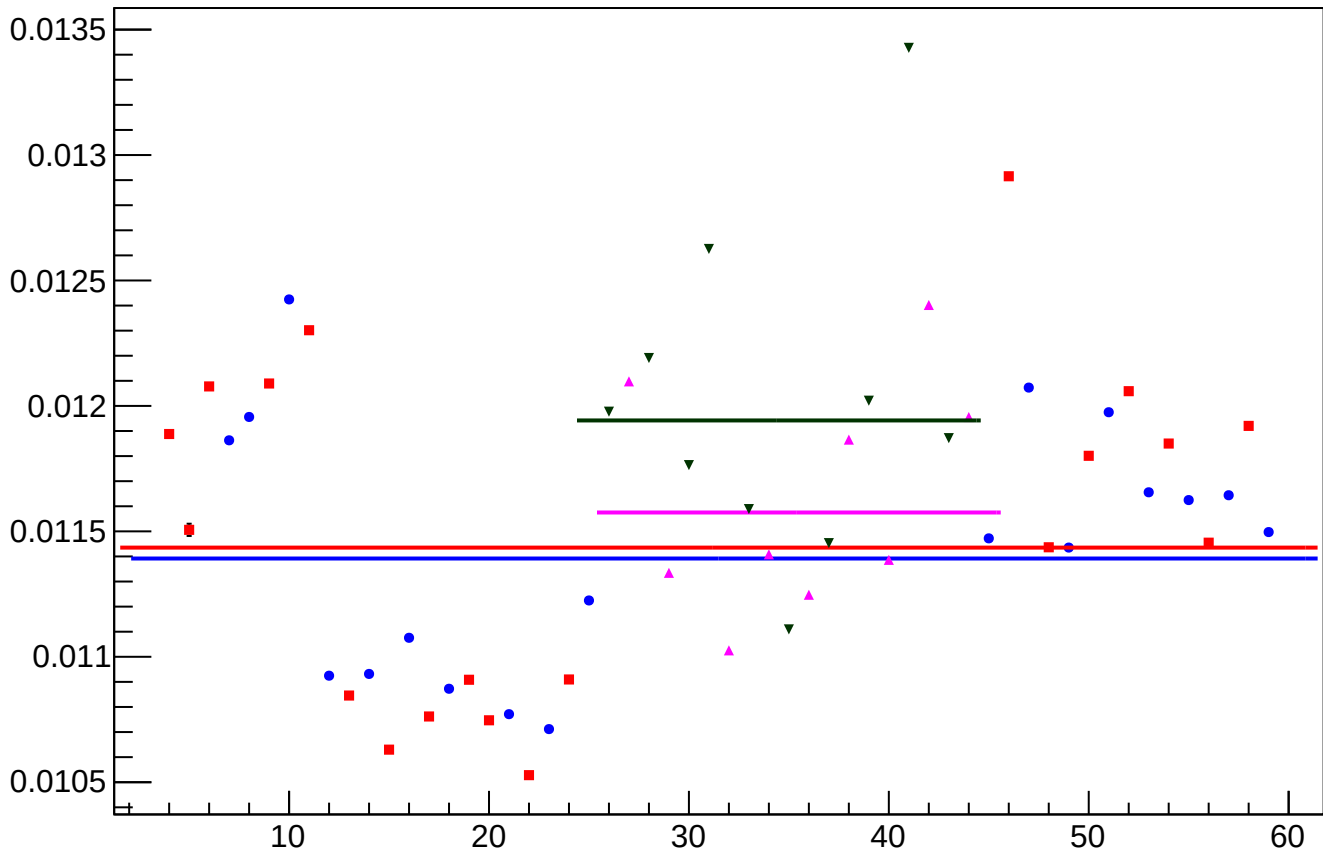
Right Out: -1.368+/-0.000  $\chi^2/\text{NDF}$ : 29057521992.7/18

Left In: -1.667+/-0.000  $\chi^2/\text{NDF}$ : 344212253.5/8

-1.418+/-0.000  $\chi^2/\text{NDF}$ : 40702342287.1/27

-1.475+/-0.000  $\chi^2/\text{NDF}$ : 31789658219.0/27

# yield\_bpm0l04X\_rms vs slug



Right In: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 41989.4/17

Left Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:25348.0/9

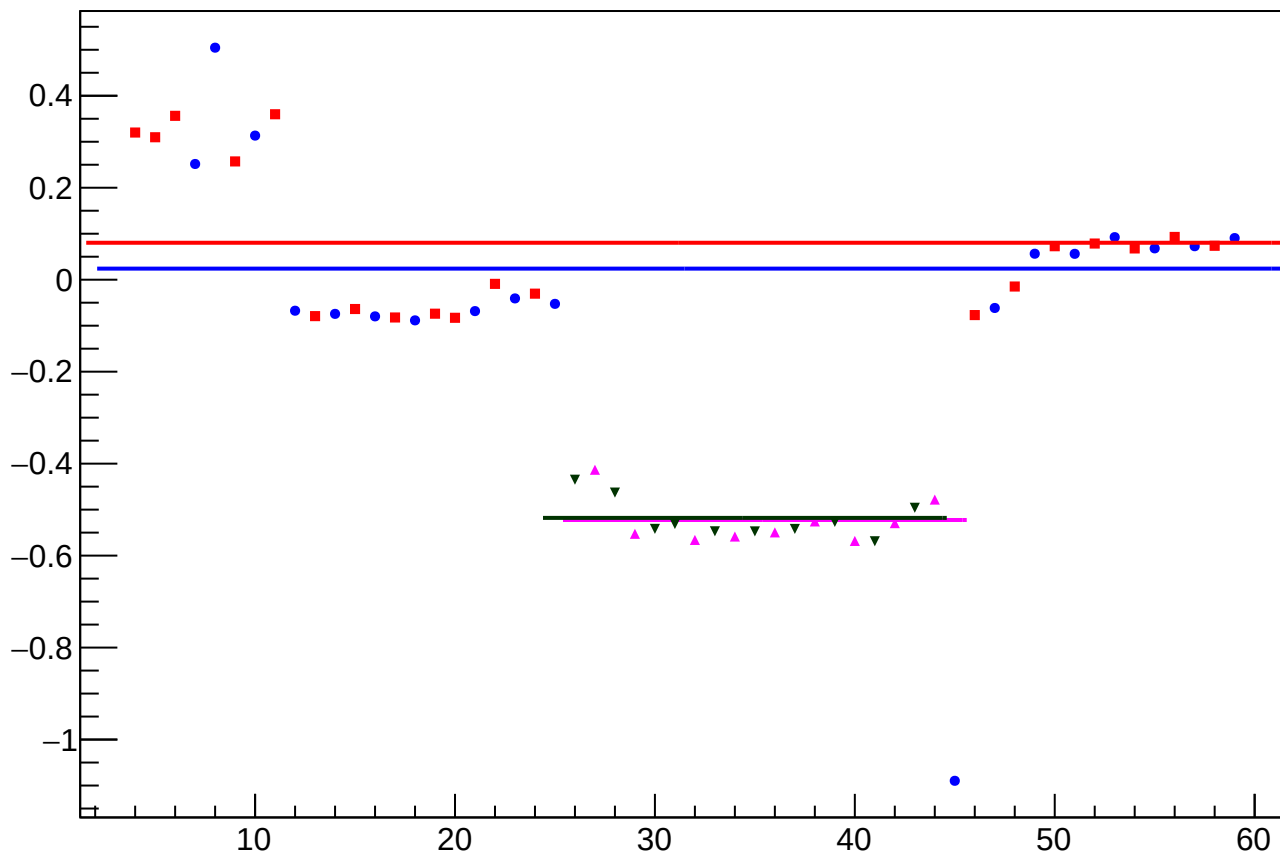
Right Out: 0.011 $\pm$ 0.000  $\chi^2$ /NDF: 65676.1/18

Left In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:15888.6/8

0.012 $\pm$ 0.000  $\chi^2$ /NDF: 82870.3/27

0.011 $\pm$ 0.000  $\chi^2$ /NDF: 82612.4/27

# yield\_bpm0l04Y\_mean vs slug



Right In: 0.024+/-0.000  $\chi^2/\text{NDF}$ : 18234538167.9/17

Left Out: -0.518+/-0.000  $\chi^2/\text{NDF}$ : 131878439.0/9

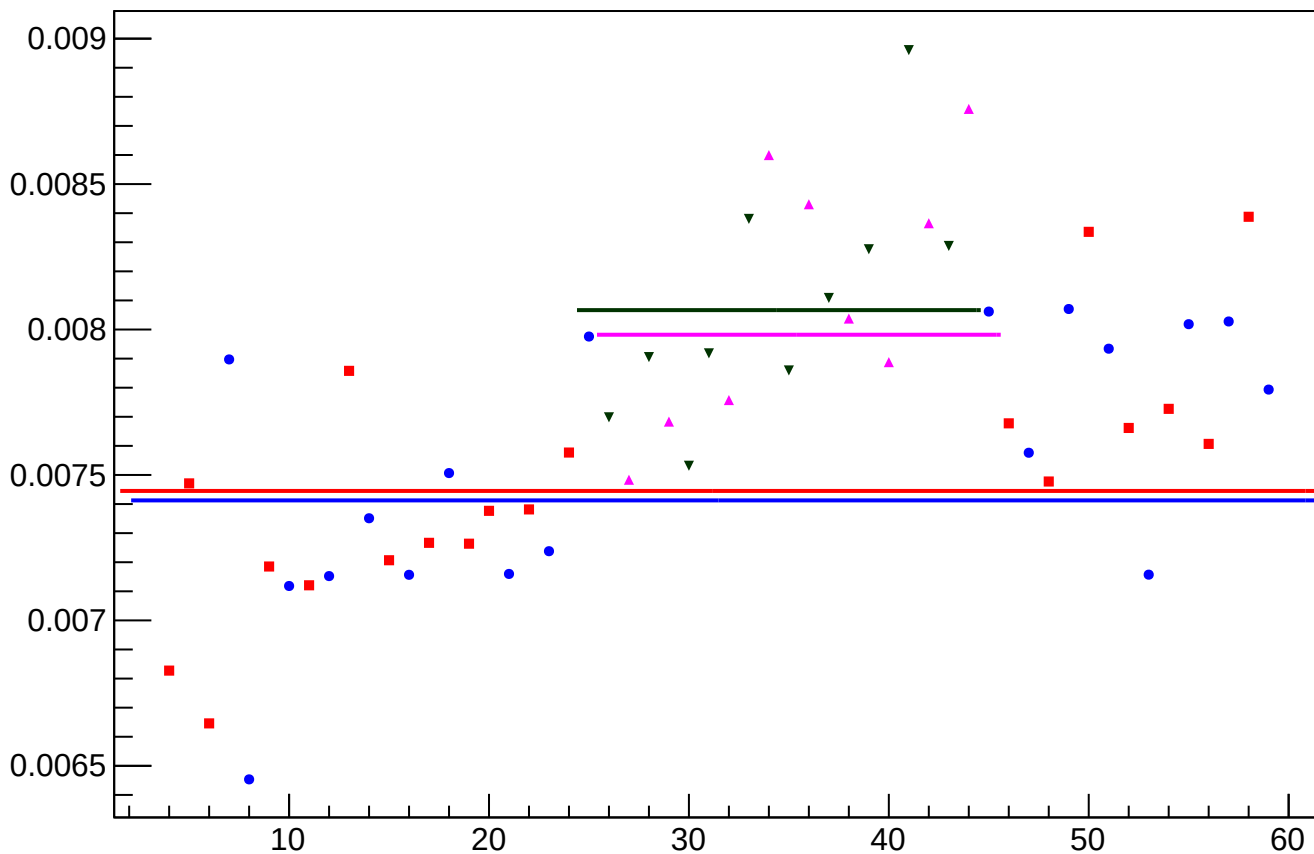
Right Out: 0.080+/-0.000  $\chi^2/\text{NDF}$ : 4561023053.2/18

Left In: -0.523+/-0.000  $\chi^2/\text{NDF}$ : 258155612.5/8

-0.130+/-0.000  $\chi^2/\text{NDF}$ : 34948307283.5/27

-0.121+/-0.000  $\chi^2/\text{NDF}$ : 25726324769.2/27

# yield\_bpm0l04Y\_rms vs slug



Right In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 91120.7/17

Left Out:  $0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 23022.1/9

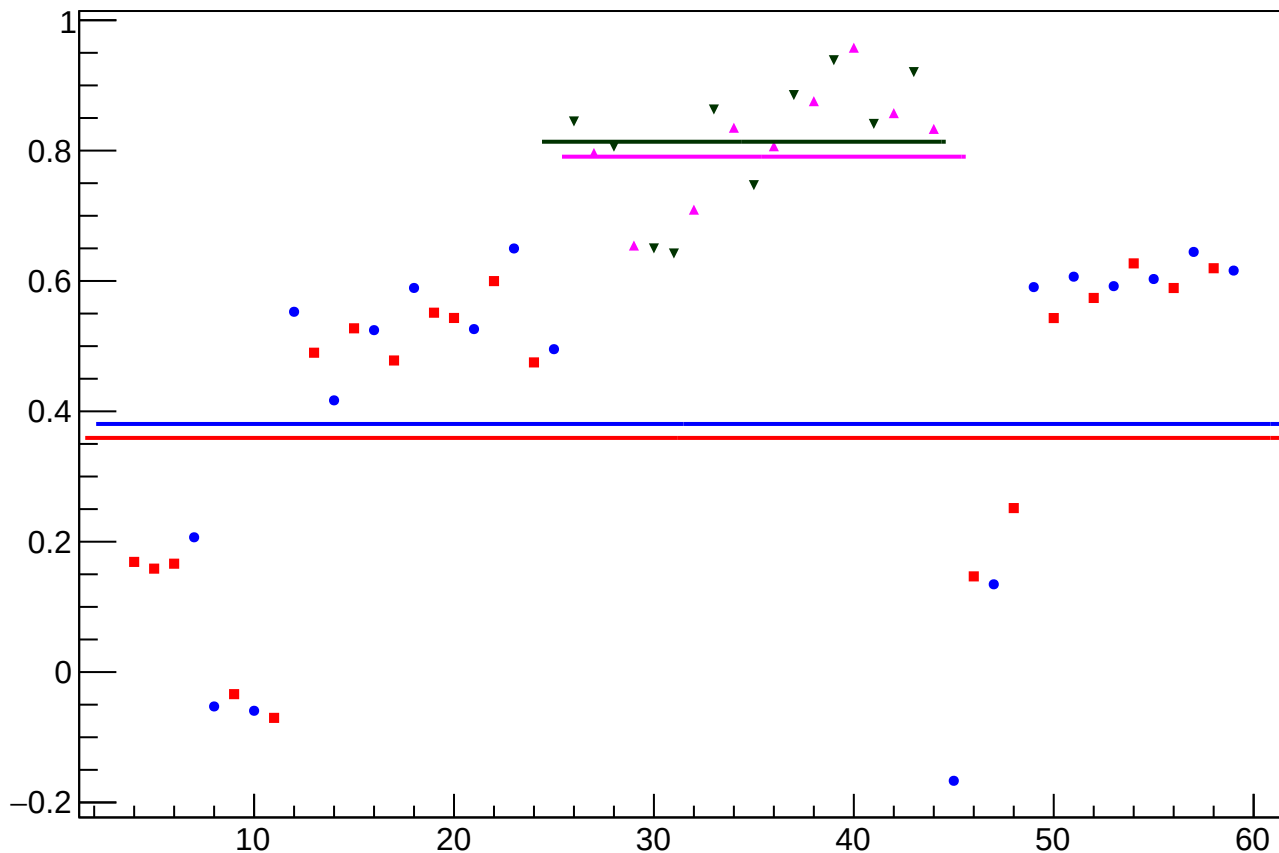
Right Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 61122.7/18

Left In:  $0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 29355.6/8

$0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 162435.2/27

$0.008 \pm 0.000$   $\chi^2/\text{NDF}$ : 123655.3/27

# yield\_bpm0l05X\_mean vs slug



Right In: 0.381 $\pm$ 0.000  $\chi^2$ /NDF: 17766233664.3/17

Left Out: 0.814 $\pm$ 0.000  $\chi^2$ /NDF: 993349923.9/9

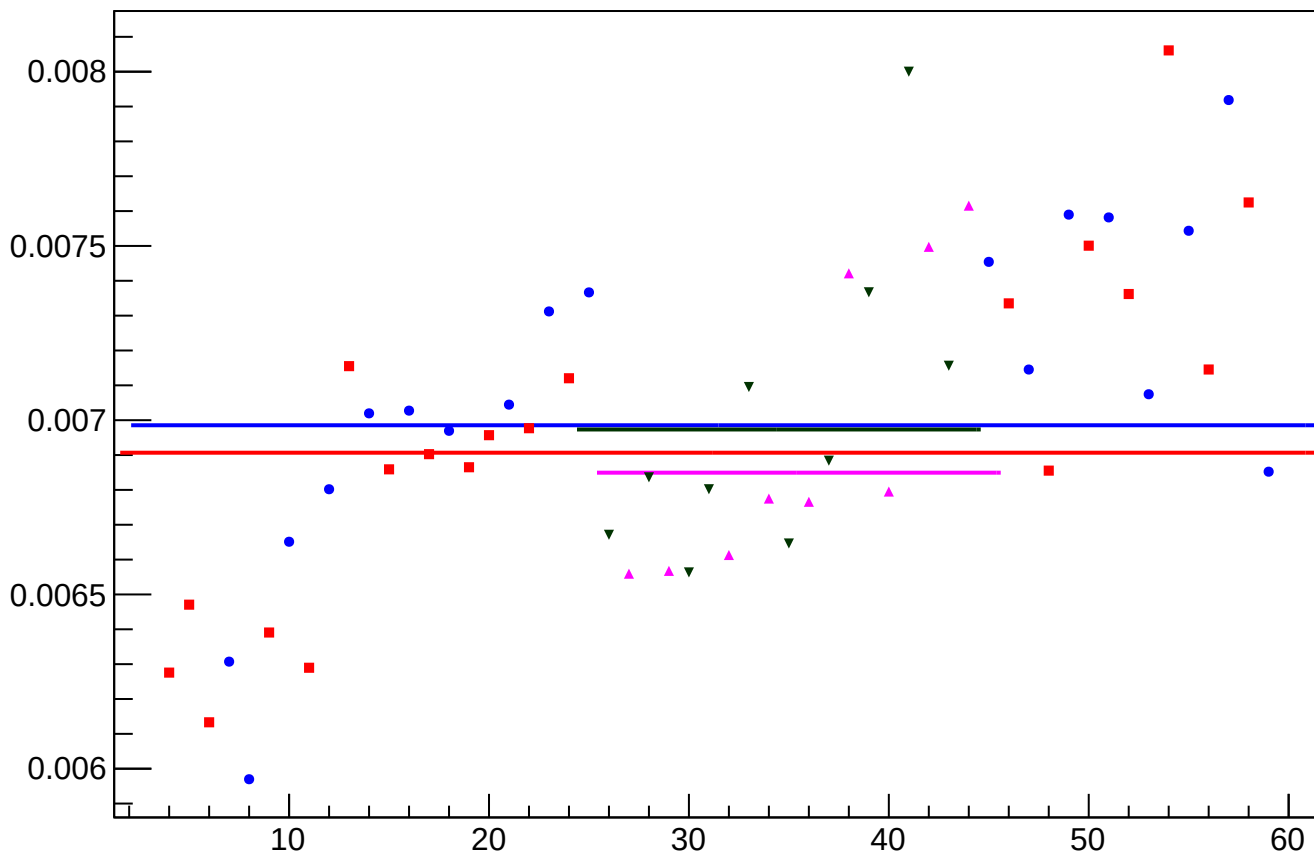
Right Out: 0.359 $\pm$ 0.000  $\chi^2$ /NDF: 11904326957.3/18

Left In: 0.791 $\pm$ 0.000  $\chi^2$ /NDF: 932399689.3/8

0.521 $\pm$ 0.000  $\chi^2$ /NDF: 32371794687.2/27

0.518 $\pm$ 0.000  $\chi^2$ /NDF: 26723520562.7/27

# yield\_bpm0l05X\_rms vs slug



Right In: 0.007+/-0.000     $\chi^2/\text{NDF}$ : 107156.0/17

Left Out: 0.007+/-0.000     $\chi^2/\text{NDF}$ : 32912.7/9

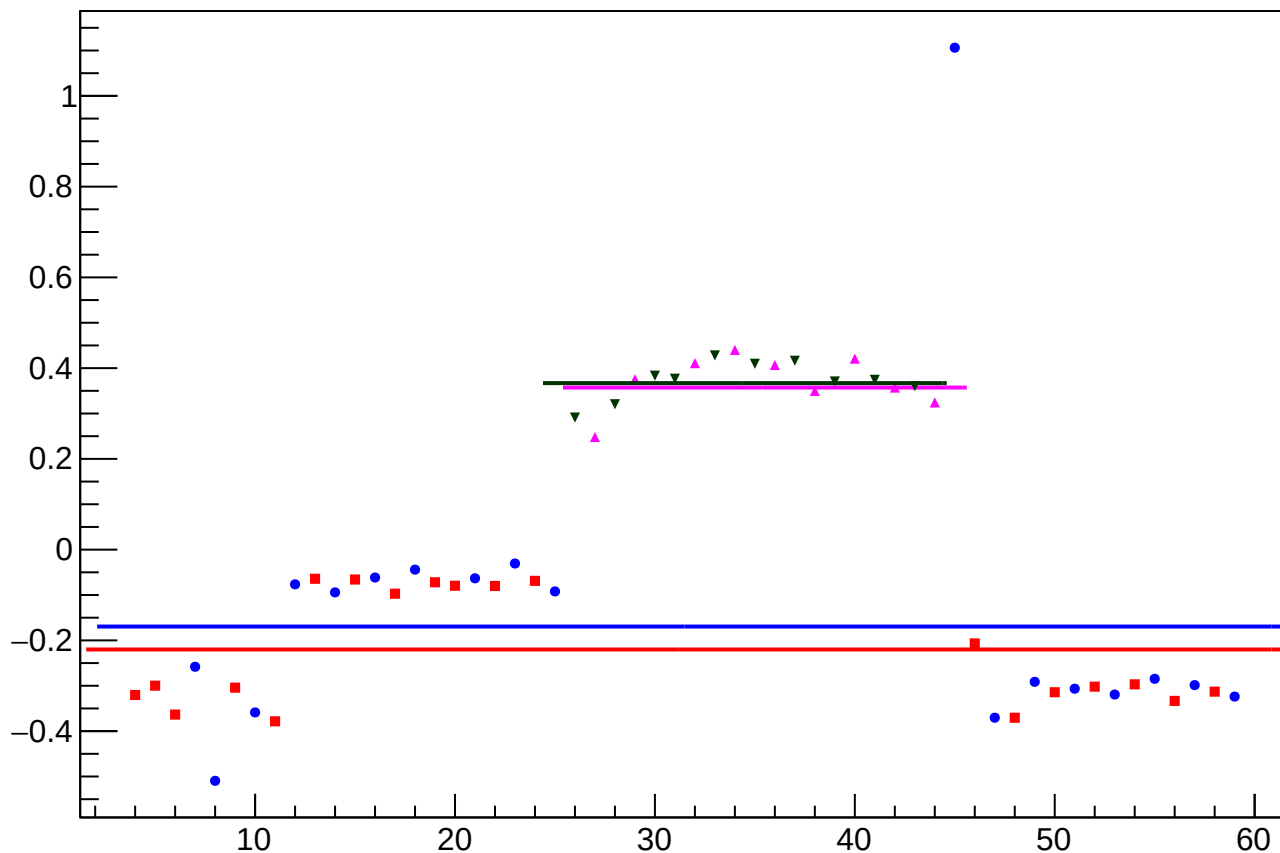
Right Out: 0.007+/-0.000     $\chi^2/\text{NDF}$ : 97555.6/18

Left In: 0.007+/-0.000     $\chi^2/\text{NDF}$ : 33164.0/8

0.007+/-0.000     $\chi^2/\text{NDF}$ : 140090.1/27

0.007+/-0.000     $\chi^2/\text{NDF}$ : 131209.4/27

# yield\_bpm0l05Y\_mean vs slug



Right In: -0.169+/-0.000  $\chi^2/\text{NDF}$ : 37135565875.9/17

Left Out: 0.367+/-0.000  $\chi^2/\text{NDF}$ :258003359.9/9

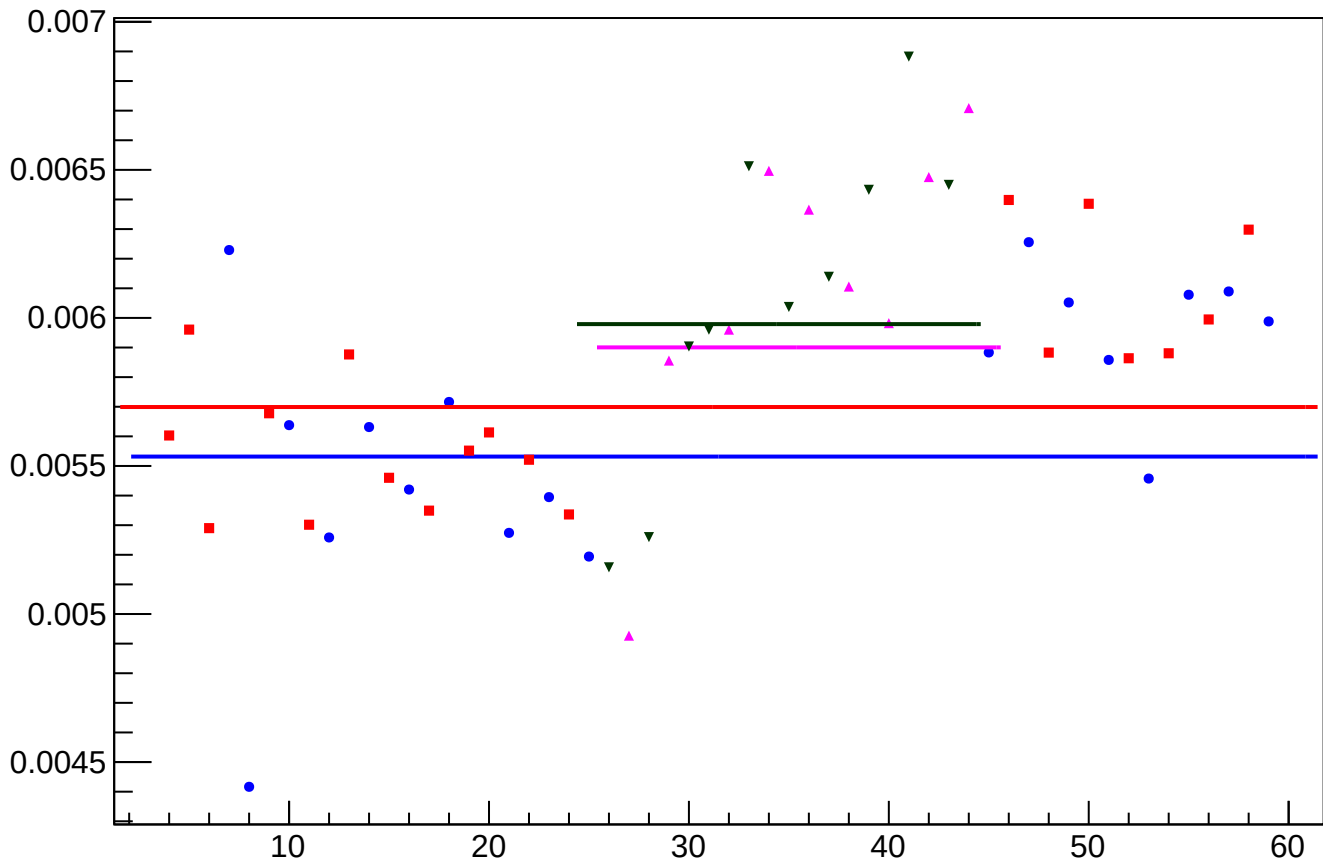
Right Out: -0.220+/-0.000  $\chi^2/\text{NDF}$ : 4721801975.9/18

Left In: 0.357+/-0.000  $\chi^2/\text{NDF}$ :650314960.7/8

-0.016+/-0.000  $\chi^2/\text{NDF}$ : 66394712013.1/27

-0.020+/-0.000  $\chi^2/\text{NDF}$ : 39216459163.8/27

# yield\_bpm0l05Y\_rms vs slug



Right In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 186989.4/17

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 84407.0/9

Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 66415.4/18

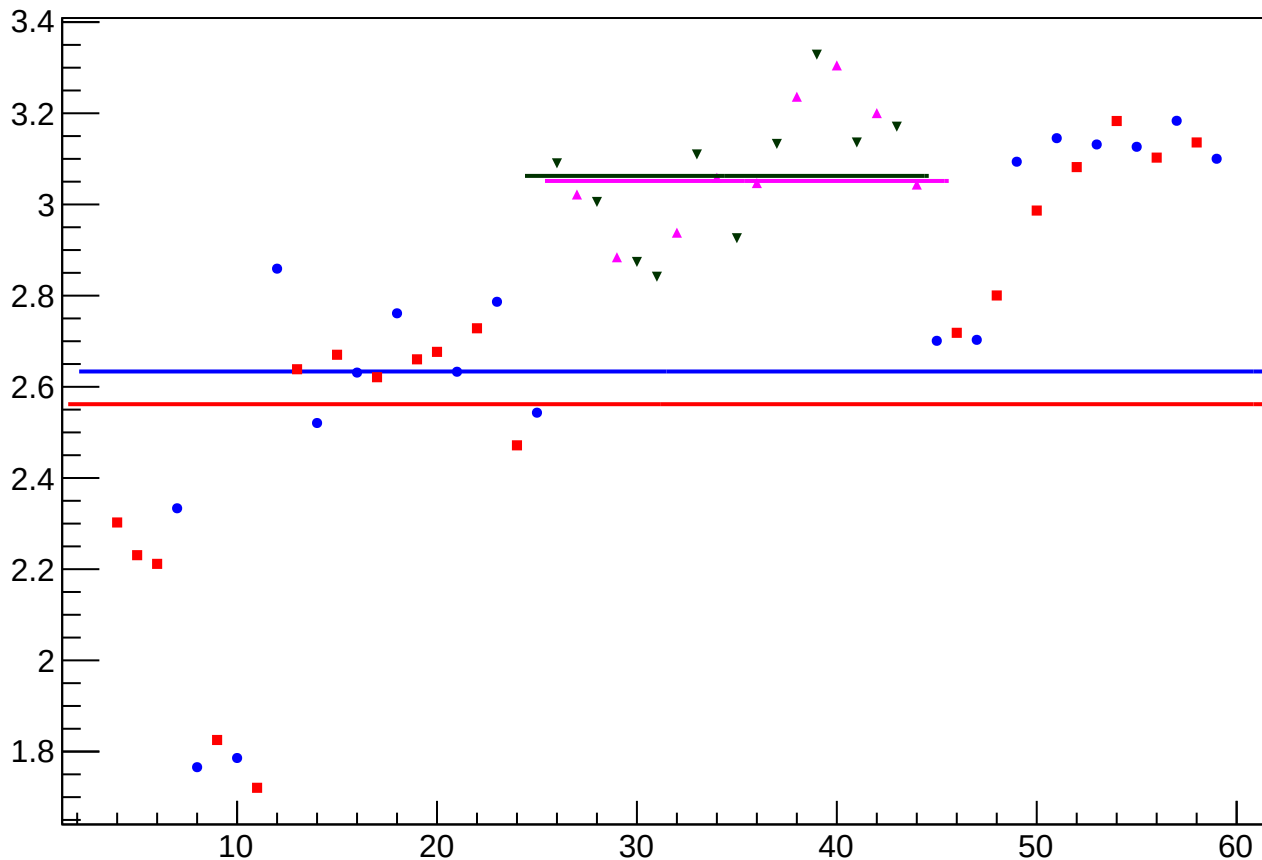
Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 101099.8/8

0.006+/-0.000  $\chi^2/\text{NDF}$ : 311729.5/27

0.006+/-0.000  $\chi^2/\text{NDF}$ : 175753.9/27



# yield\_bpm0l06X\_mean vs slug



Right In: 2.634 $\pm$ 0.000  $\chi^2$ /NDF: 15879791998.3/17

Left Out: 3.063 $\pm$ 0.000  $\chi^2$ /NDF: 1107067165.5/9

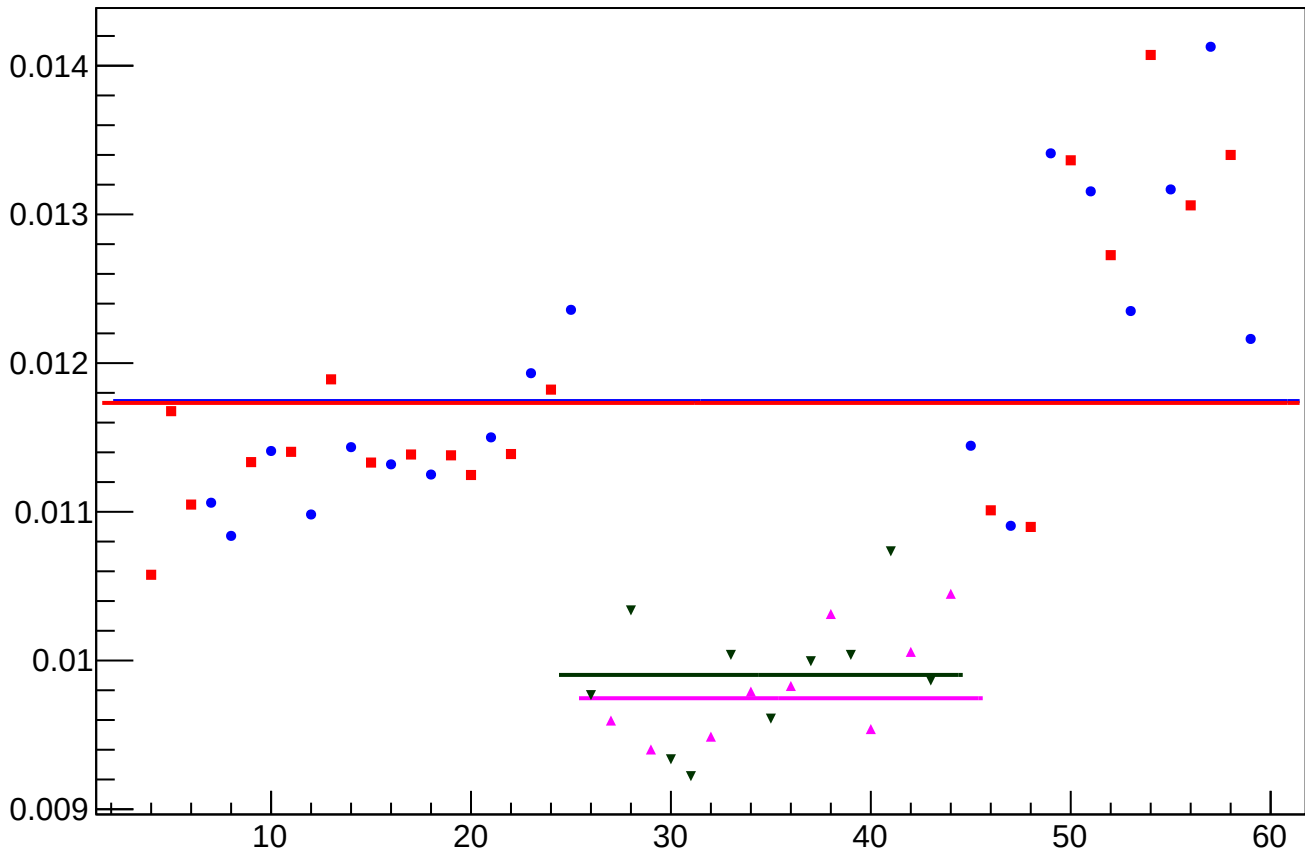
Right Out: 2.562 $\pm$ 0.000  $\chi^2$ /NDF: 12349960173.0/18

Left In: 3.052 $\pm$ 0.000  $\chi^2$ /NDF: 1015989993.5/8

2.807 $\pm$ 0.000  $\chi^2$ /NDF: 22872650104.7/27

2.785 $\pm$ 0.000  $\chi^2$ /NDF: 20992817728.8/27

# 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:18813.8/9

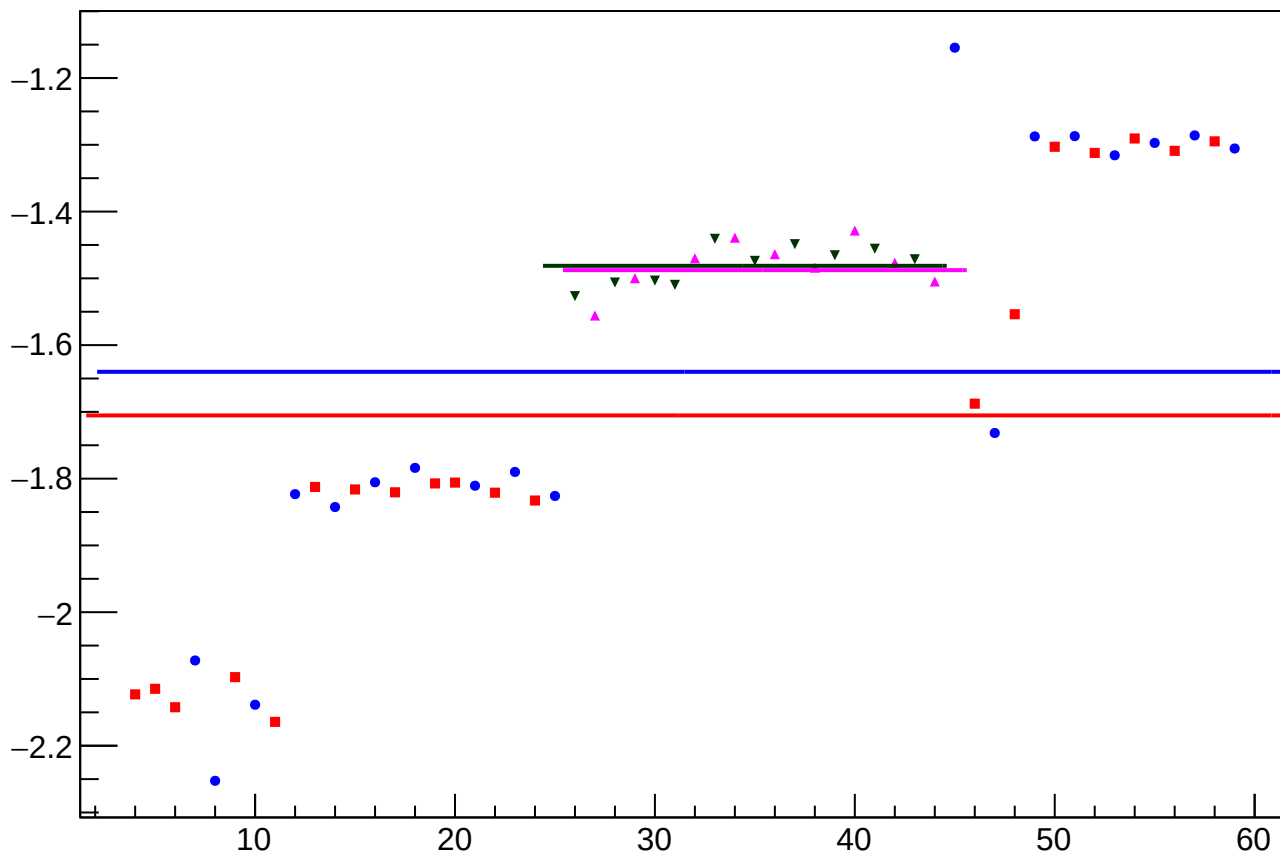
0.011 $\pm$ 0.000  $\chi^2$ /NDF: 353105.7/27

Right Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 107336.5/18

0.011 $\pm$ 0.000  $\chi^2$ /NDF: 371456.9/27

Left In: 0.010 $\pm$ 0.000  $\chi^2$ /NDF:13193.9/8

# yield\_bpm0l06Y\_mean vs slug



Right In: -1.640+/-0.000  $\chi^2/\text{NDF}$ : 63862011114.5/17

Left Out: -1.481+/-0.000  $\chi^2/\text{NDF}$ :133314200.9/9

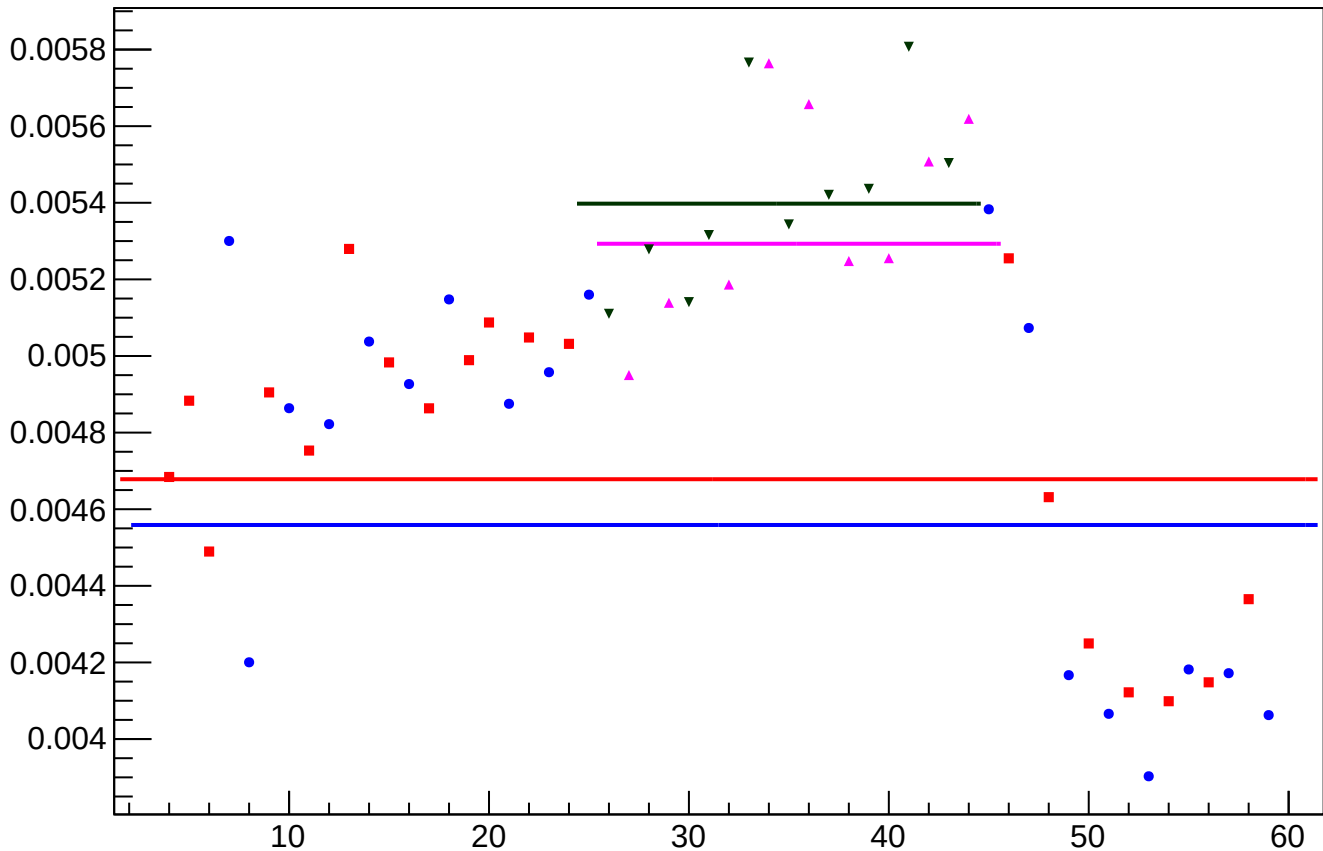
Right Out: -1.705+/-0.000  $\chi^2/\text{NDF}$ : 45414052250.2/18

Left In: -1.488+/-0.000  $\chi^2/\text{NDF}$ :281282296.5/8

-1.600+/-0.000  $\chi^2/\text{NDF}$ : 67314307192.8/27

-1.638+/-0.000  $\chi^2/\text{NDF}$ : 52108957574.7/27

# yield\_bpm0l06Y\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 228593.7/17

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ :16600.8/9

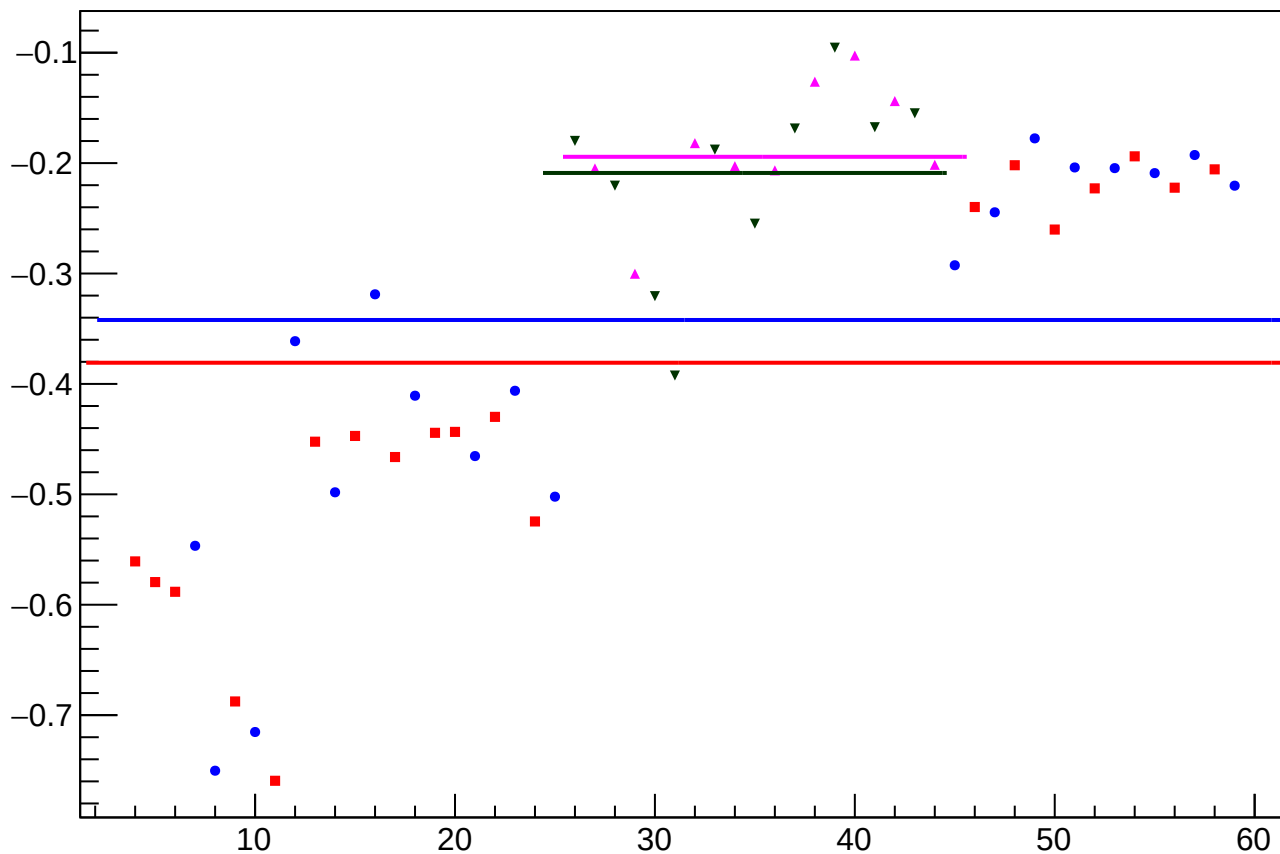
0.005+/-0.000  $\chi^2/\text{NDF}$ : 430582.6/27

Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 136426.0/18

0.005+/-0.000  $\chi^2/\text{NDF}$ : 264592.5/27

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ :25779.4/8

# yield\_bpm0l07X\_mean vs slug



Right In: -0.342+/-0.000  $\chi^2/\text{NDF}$ : 1669772673.5/17

Left Out: -0.209+/-0.000  $\chi^2/\text{NDF}$ :145606796.2/9

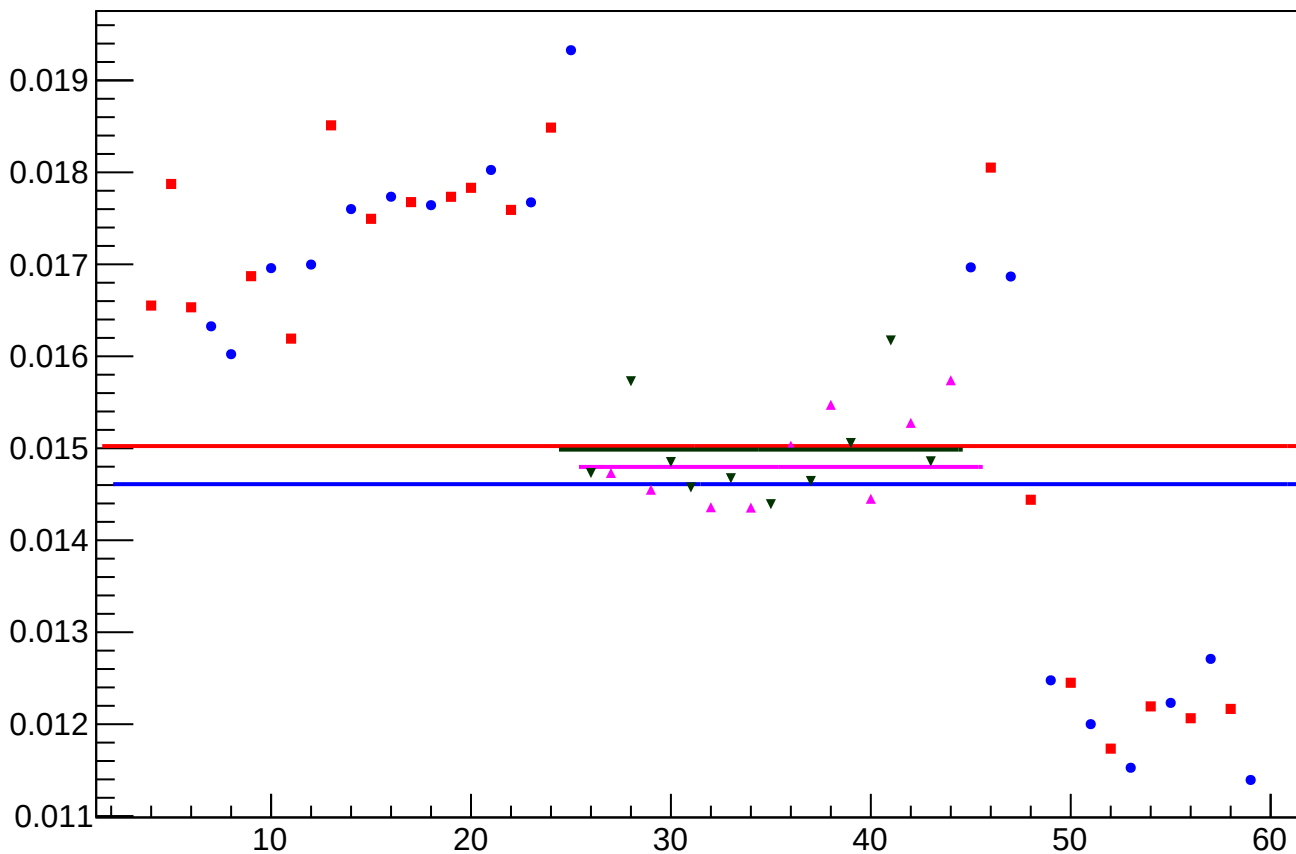
Right Out: -0.381+/-0.000  $\chi^2/\text{NDF}$ : 1387002500.9/18

Left In: -0.194+/-0.000  $\chi^2/\text{NDF}$ :81659796.5/8

-0.299+/-0.000  $\chi^2/\text{NDF}$ : 2100611581.4/27

-0.310+/-0.000  $\chi^2/\text{NDF}$ : 2018587664.6/27

# yield\_bpm0l07X\_rms vs slug



Right In: 0.015 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 711926.7/17

Left Out: 0.015 $\pm$ 0.000  $\chi^2/\text{NDF}$ :13214.2/9

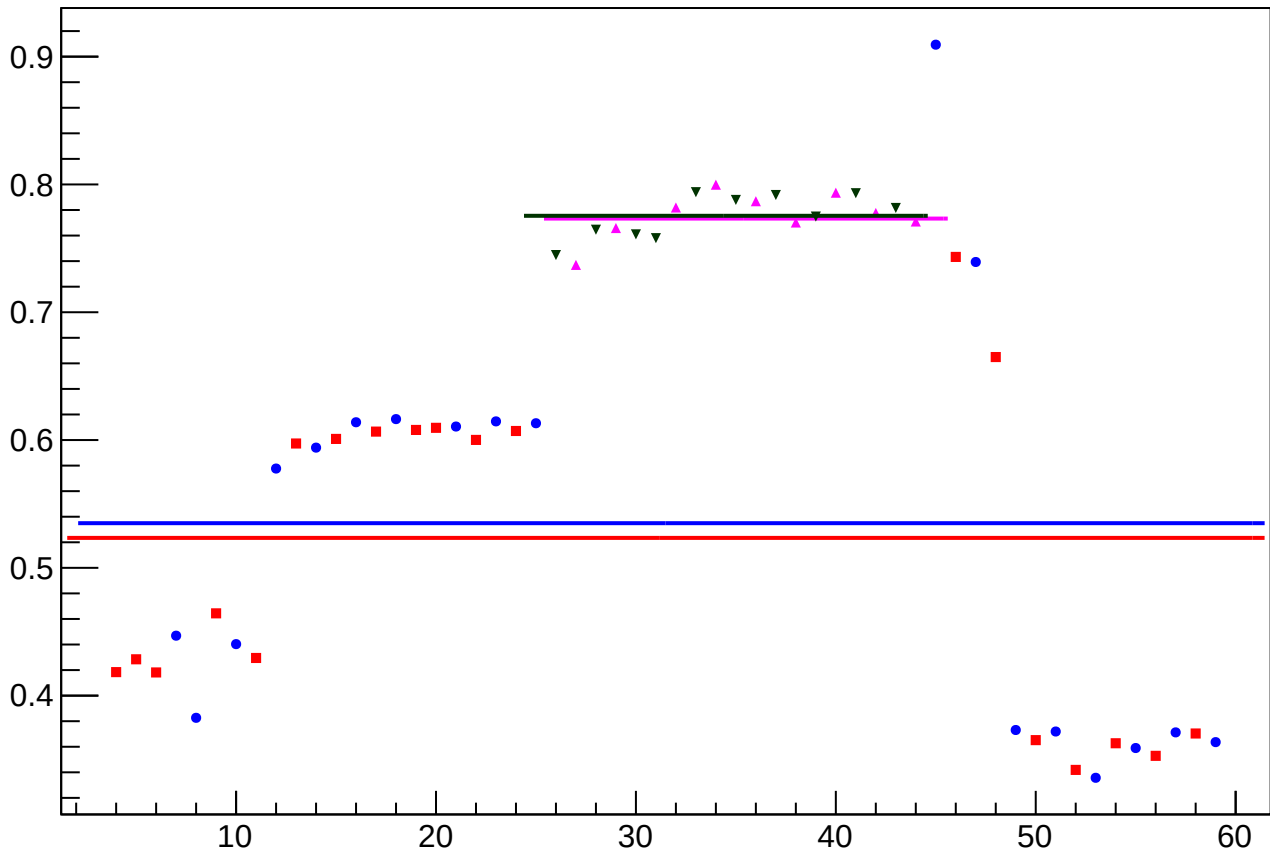
Right Out: 0.015 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 573783.3/18

Left In: 0.015 $\pm$ 0.000  $\chi^2/\text{NDF}$ :10554.2/8

0.015 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 729680.1/27

0.015 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 585962.7/27

# yield\_bpm0l07Y\_mean vs slug



Right In: 0.535 $\pm$ 0.000  $\chi^2$ /NDF: 21231144094.8/17

Left Out: 0.775 $\pm$ 0.000  $\chi^2$ /NDF:122038329.5/9

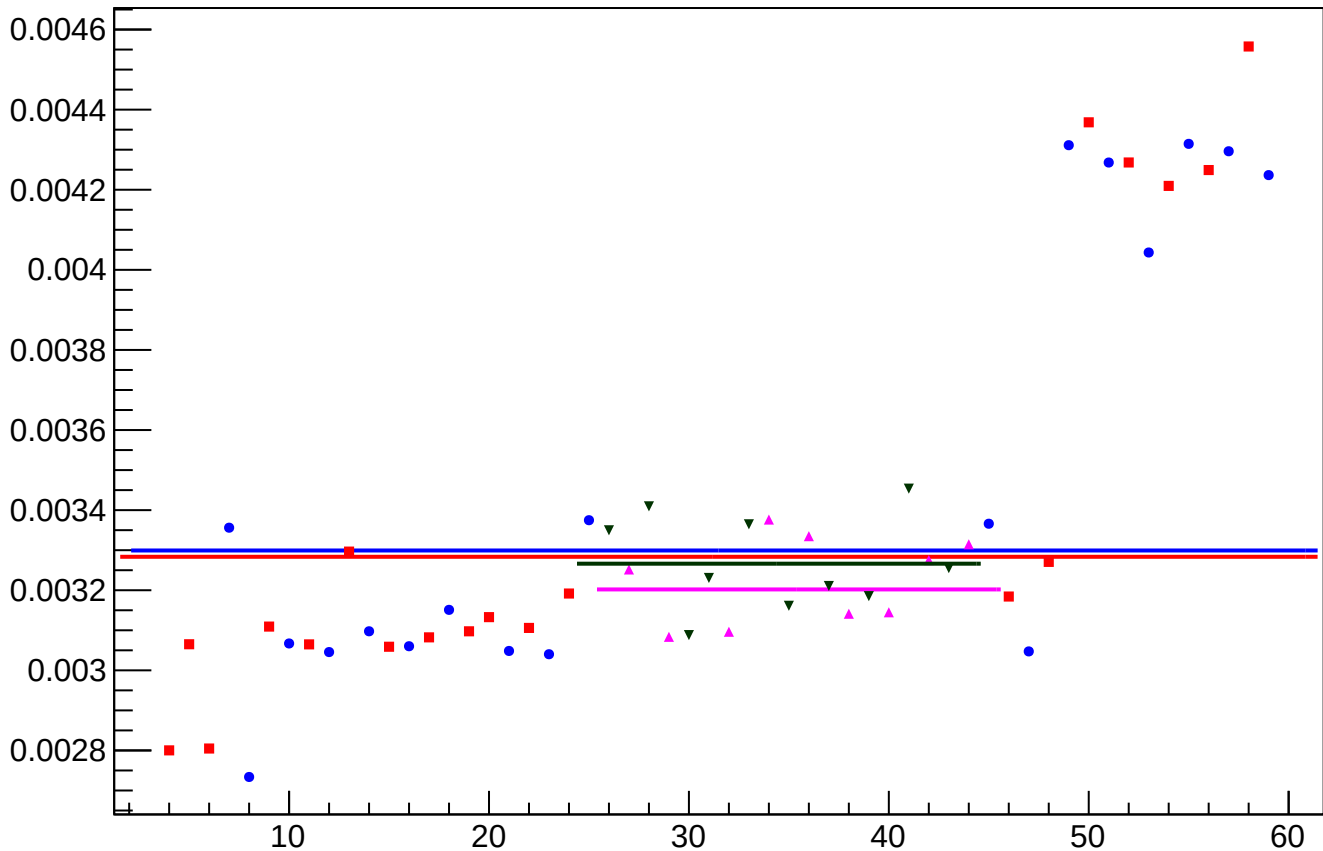
0.614 $\pm$ 0.000  $\chi^2$ /NDF: 40160443713.1/27

Right Out: 0.523 $\pm$ 0.000  $\chi^2$ /NDF: 11523934099.1/18

0.619 $\pm$ 0.000  $\chi^2$ /NDF: 32542319982.5/27

Left In: 0.773 $\pm$ 0.000  $\chi^2$ /NDF:173800769.3/8

# yield\_bpm0l07Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 497565.6/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :12873.3/9

0.003+/-0.000  $\chi^2/\text{NDF}$ : 511146.3/27

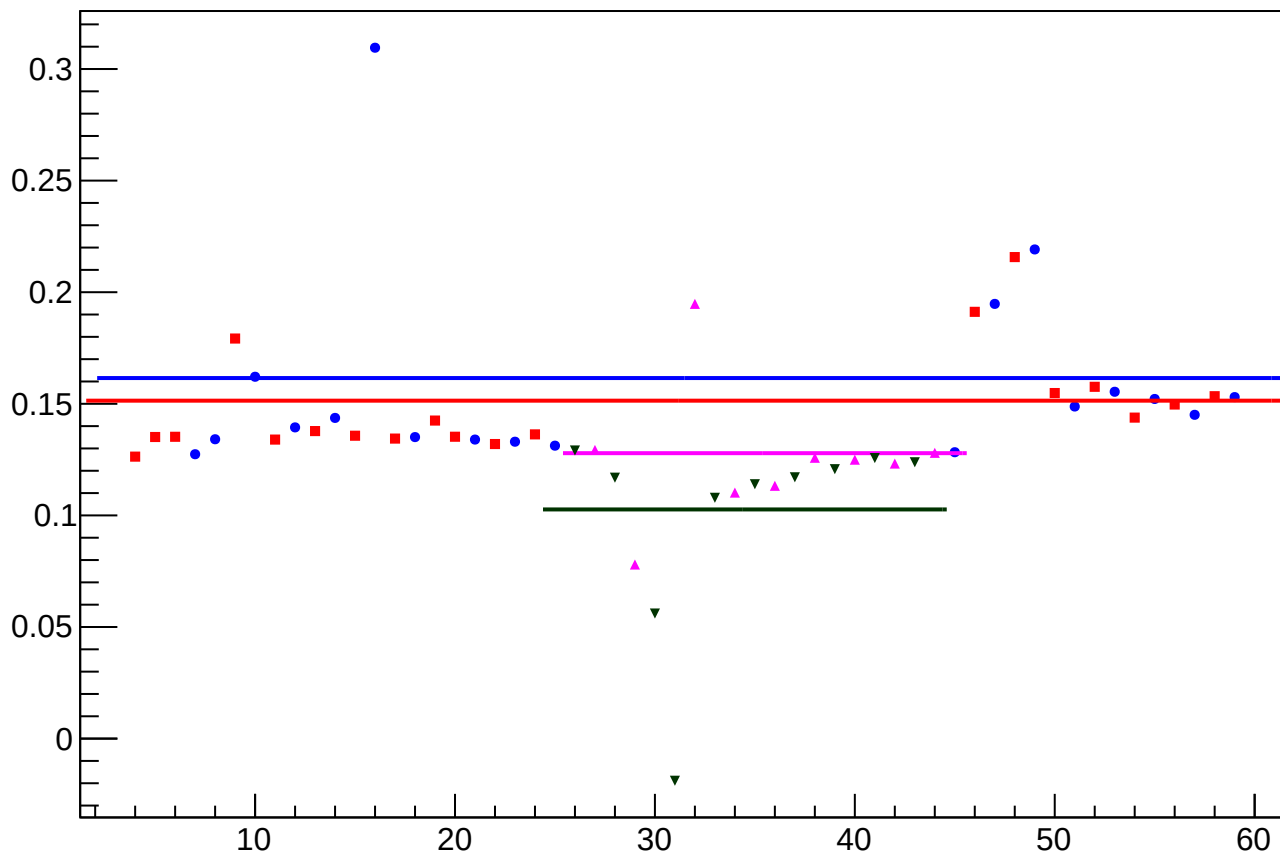
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 382277.8/18

0.003+/-0.000  $\chi^2/\text{NDF}$ : 398178.1/27

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :11463.7/8



# yield\_bpm0l08X\_mean vs slug



Right In:  $0.162 \pm 0.000$   $\chi^2/\text{NDF}$ : 94764439.1/17

Left Out:  $0.103 \pm 0.000$   $\chi^2/\text{NDF}$ : 42575286.2/9

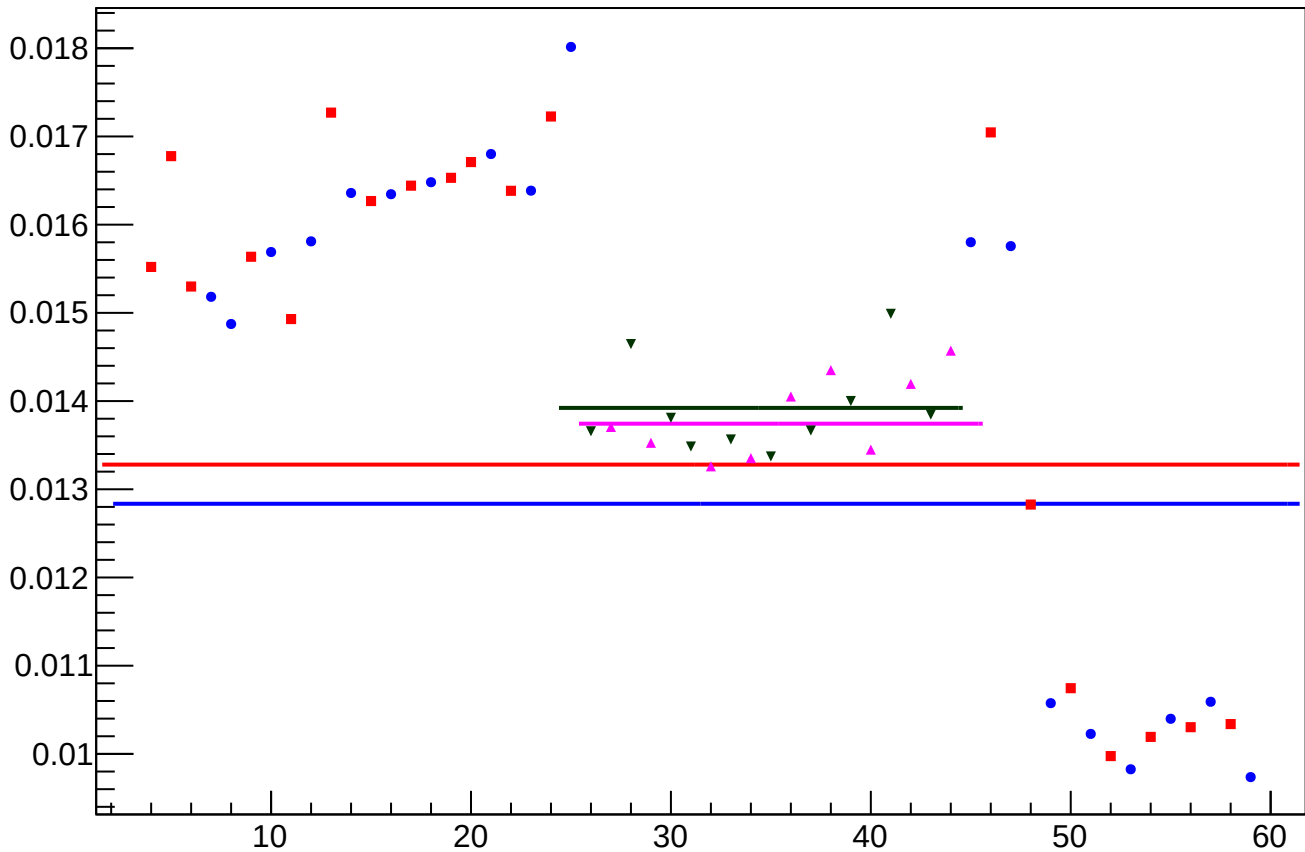
Right Out:  $0.151 \pm 0.000$   $\chi^2/\text{NDF}$ : 22463584.0/18

Left In:  $0.128 \pm 0.000$   $\chi^2/\text{NDF}$ : 35319224.9/8

$0.144 \pm 0.000$   $\chi^2/\text{NDF}$ : 203787209.8/27

$0.143 \pm 0.000$   $\chi^2/\text{NDF}$ : 68213782.0/27

# yield\_bpm0l08X\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 1088247.1/17

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :13410.6/9

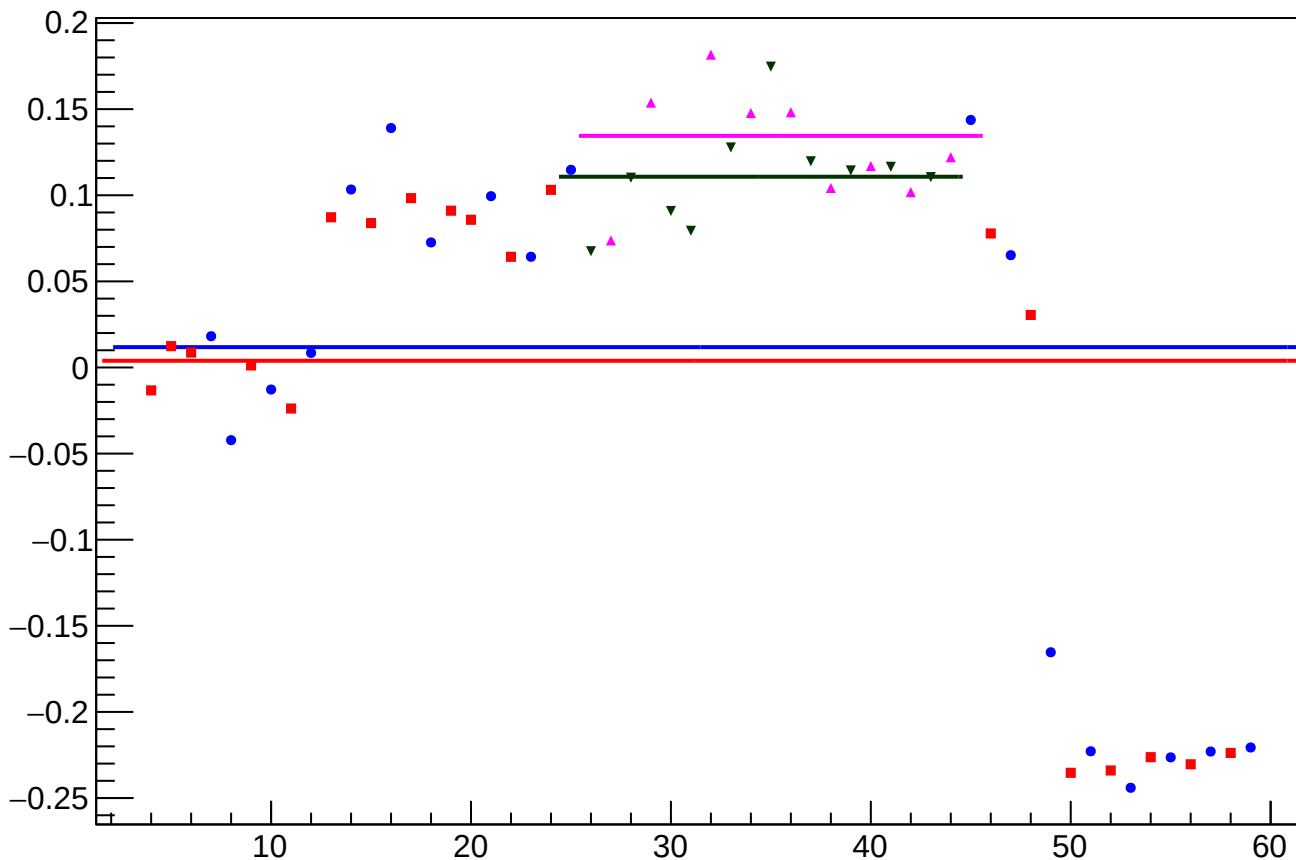
0.013+/-0.000  $\chi^2/\text{NDF}$ : 1146961.0/27

Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 890007.3/18

0.013+/-0.000  $\chi^2/\text{NDF}$ : 908893.9/27

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :10776.7/8

# yield\_bpm0l08Y\_mean vs slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 12179192870.2/17

Left Out: 0.111 $\pm$ 0.000  $\chi^2$ /NDF: 325634113.5/9

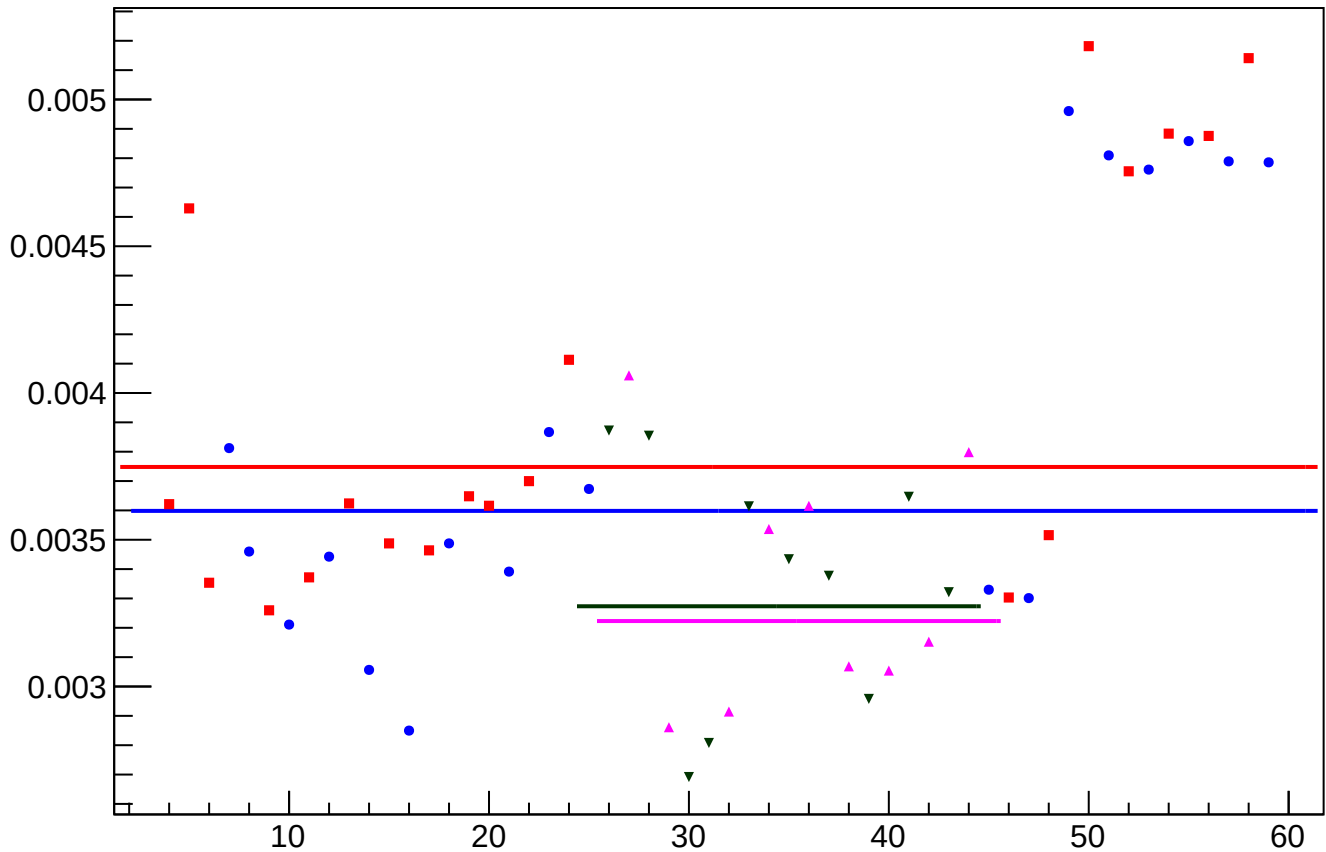
0.048 $\pm$ 0.000  $\chi^2$ /NDF: 15409928131.2/27

Right Out: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 7924148421.7/18

0.062 $\pm$ 0.000  $\chi^2$ /NDF: 13437775708.0/27

Left In: 0.134 $\pm$ 0.000  $\chi^2$ /NDF: 584141111.2/8

# yield\_bpm0l08Y\_rms vs slug



Right In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 672957.8/17

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :157067.3/9

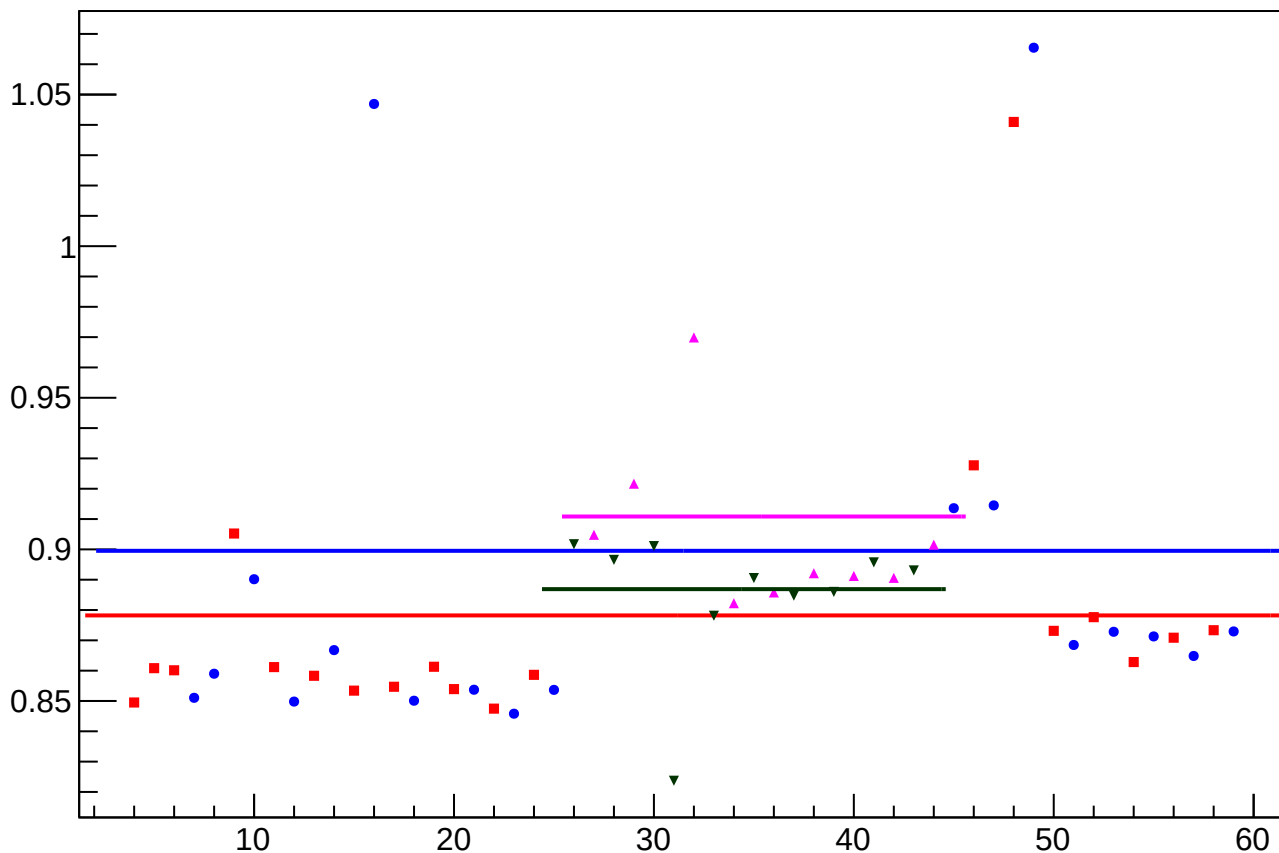
0.003+/-0.000  $\chi^2/\text{NDF}$ : 892679.4/27

Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 427283.7/18

0.004+/-0.000  $\chi^2/\text{NDF}$ : 749959.9/27

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :163315.9/8

# yield\_bpm0l09X\_mean vs slug



Right In: 0.900+/-0.000  $\chi^2/\text{NDF}$ : 324904340.4/17

Left Out: 0.887+/-0.000  $\chi^2/\text{NDF}$ : 10371268.3/9

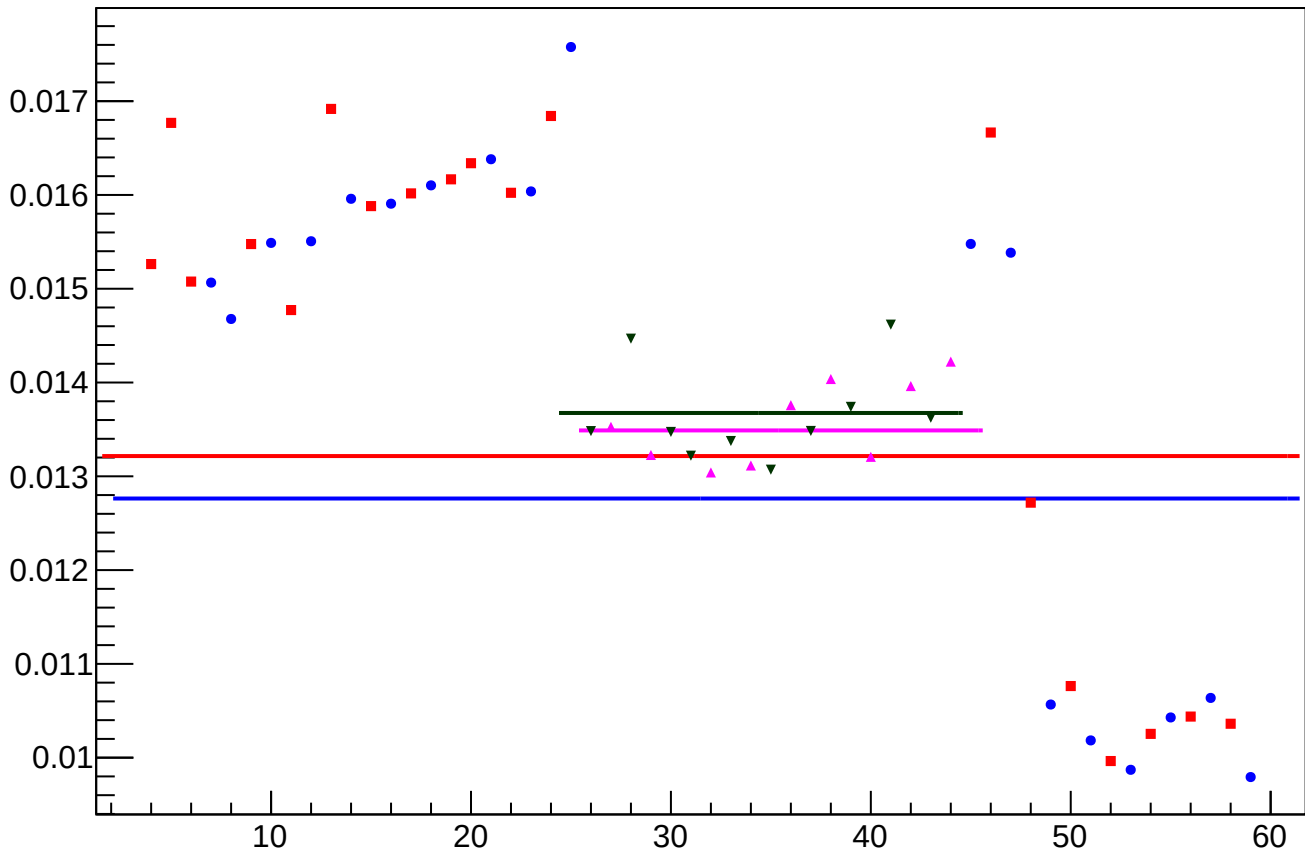
Right Out: 0.878+/-0.000  $\chi^2/\text{NDF}$ : 92356263.0/18

Left In: 0.911+/-0.000  $\chi^2/\text{NDF}$ : 26013449.3/8

0.896+/-0.000  $\chi^2/\text{NDF}$ : 338427896.5/27

0.890+/-0.000  $\chi^2/\text{NDF}$ : 138995393.1/27

# yield\_bpm0l09X\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 980141.4/17

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :13316.5/9

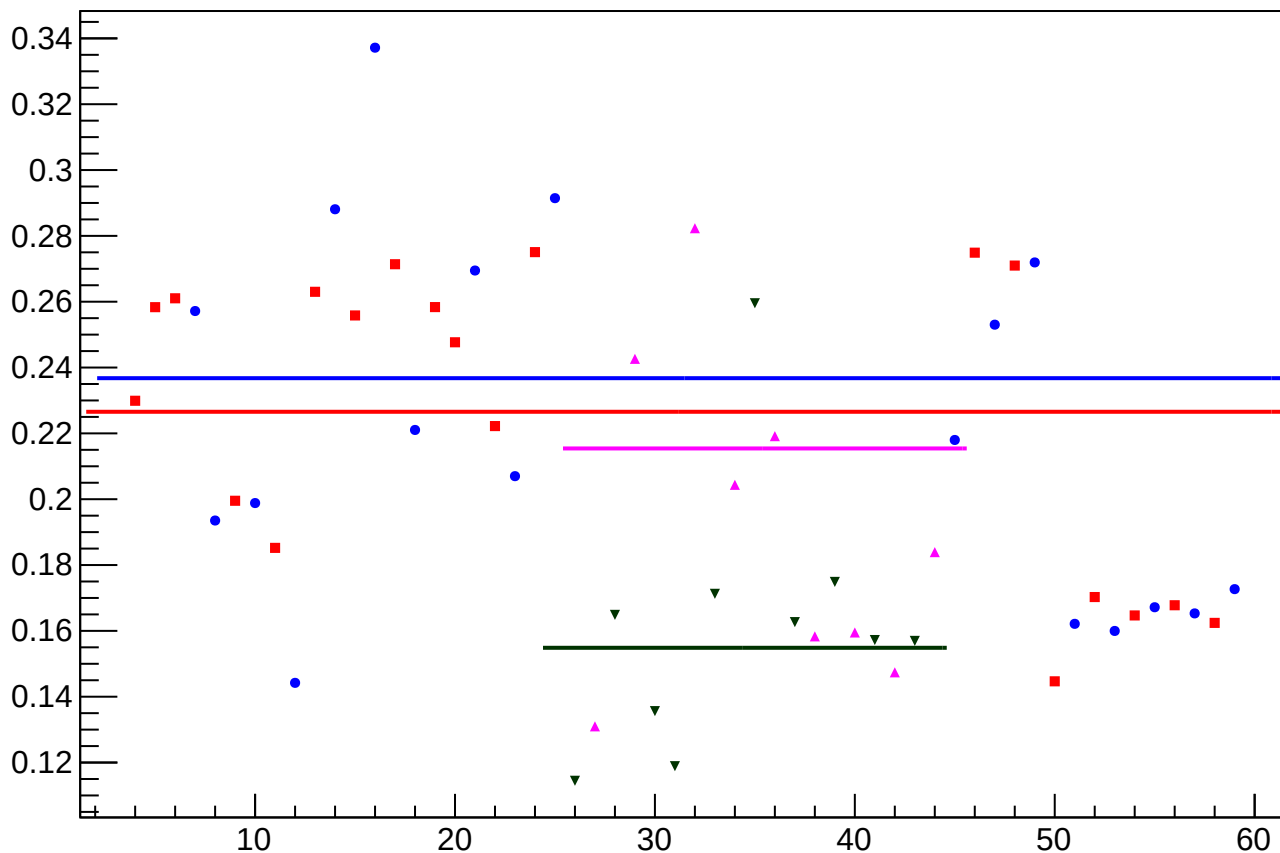
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 798846.8/18

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :9868.2/8

0.013+/-0.000  $\chi^2/\text{NDF}$ : 1026297.4/27

0.013+/-0.000  $\chi^2/\text{NDF}$ : 811613.0/27

# yield\_bpm0l09Y\_mean vs slug



Right In: 0.237+/-0.000  $\chi^2/\text{NDF}$ : 2411617824.9/17

Left Out: 0.155+/-0.000  $\chi^2/\text{NDF}$ :491584814.3/9

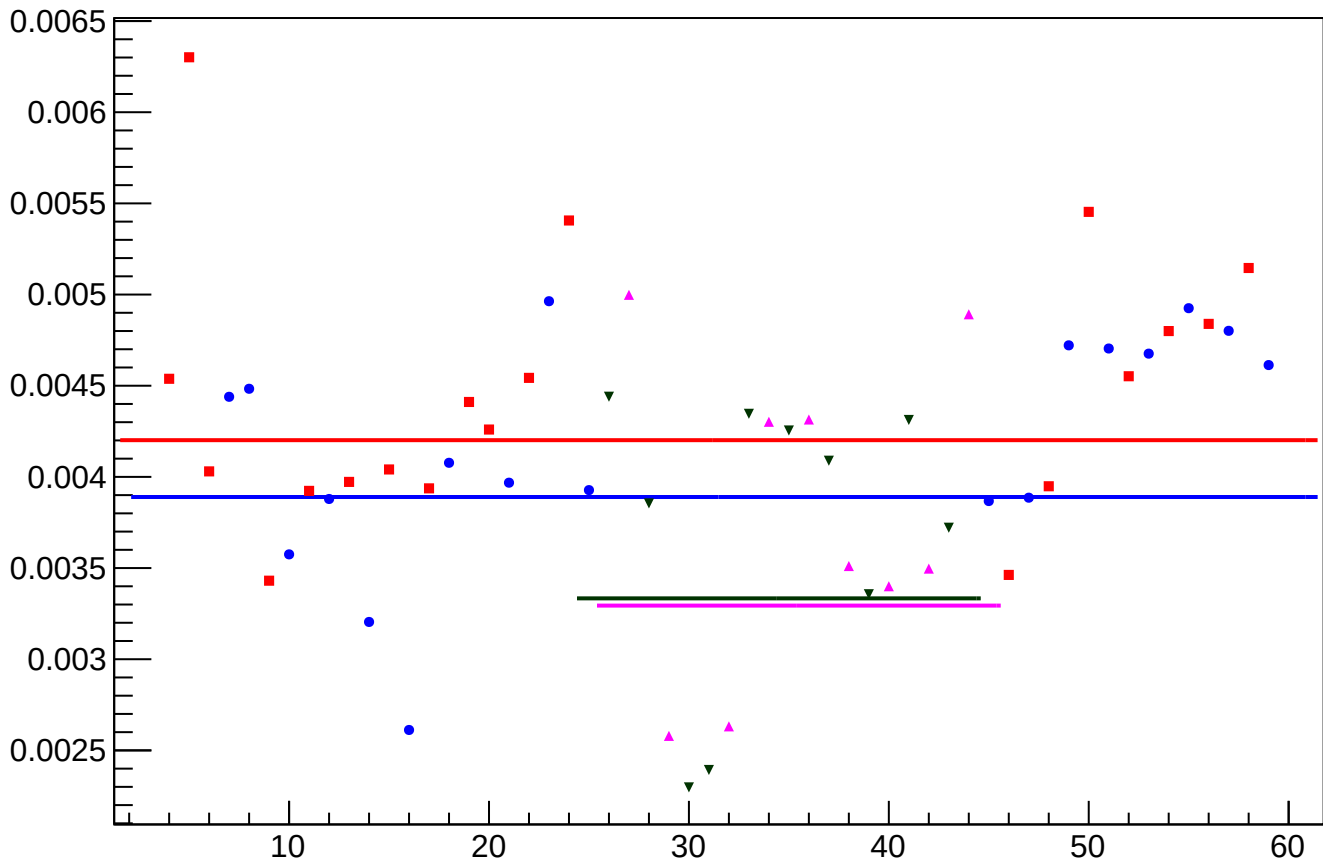
Right Out: 0.227+/-0.000  $\chi^2/\text{NDF}$ : 943883207.4/18

Left In: 0.215+/-0.000  $\chi^2/\text{NDF}$ :1302153804.0/8

0.205+/-0.000  $\chi^2/\text{NDF}$ : 4641915424.5/27

0.221+/-0.000  $\chi^2/\text{NDF}$ : 2275938240.1/27

# yield\_bpm0l09Y\_rms vs slug



Right In:  $0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 695729.3/17

Left Out:  $0.003 \pm 0.000$   $\chi^2/\text{NDF}$ : 596508.1/9

Right Out:  $0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 341340.8/18

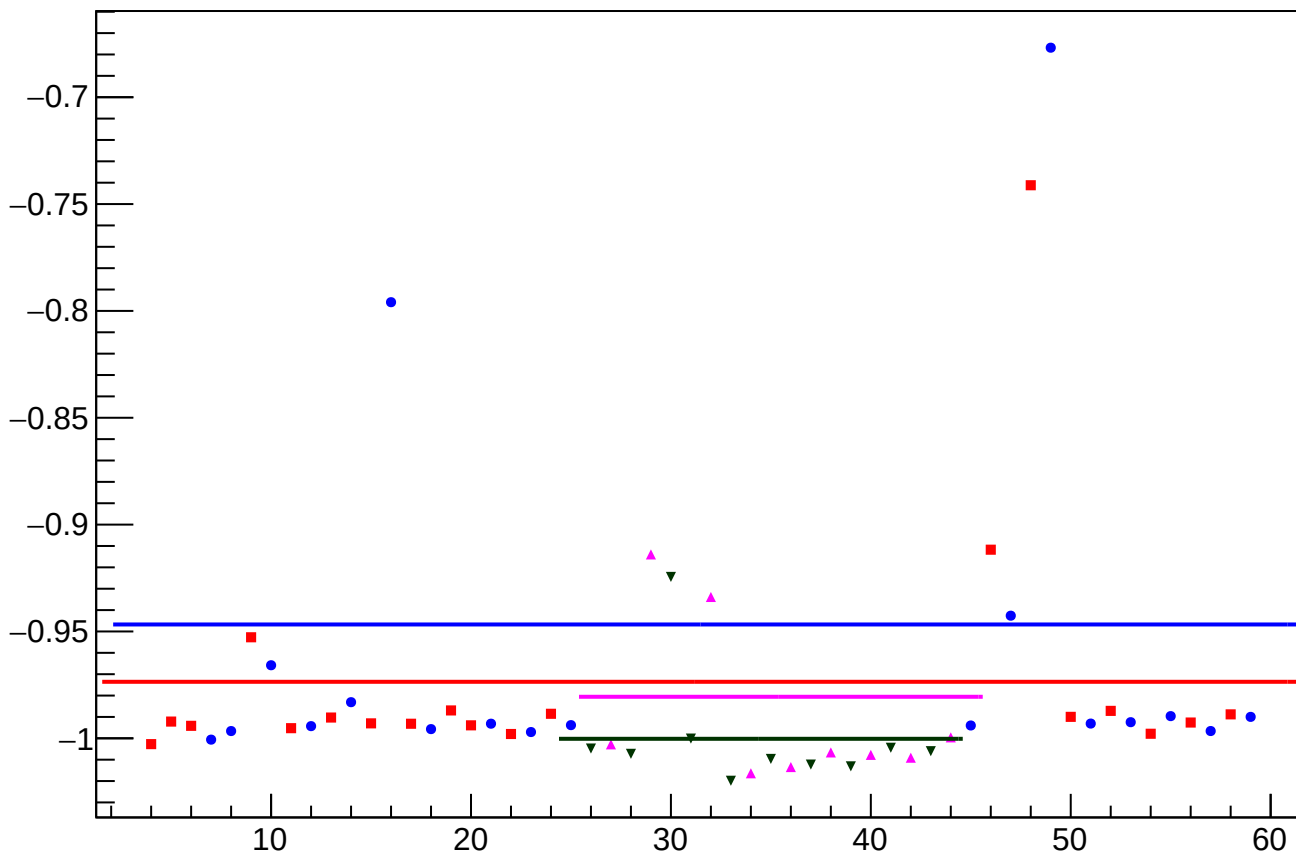
Left In:  $0.003 \pm 0.000$   $\chi^2/\text{NDF}$ : 624356.7/8

$0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 1452415.6/27

$0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 1362039.5/27



# yield\_bpm0l10X\_mean vs slug



Right In: -0.947+/-0.000  $\chi^2/\text{NDF}$ : 662253046.3/17

Left Out: -1.000+/-0.000  $\chi^2/\text{NDF}$ : 20984094.7/9

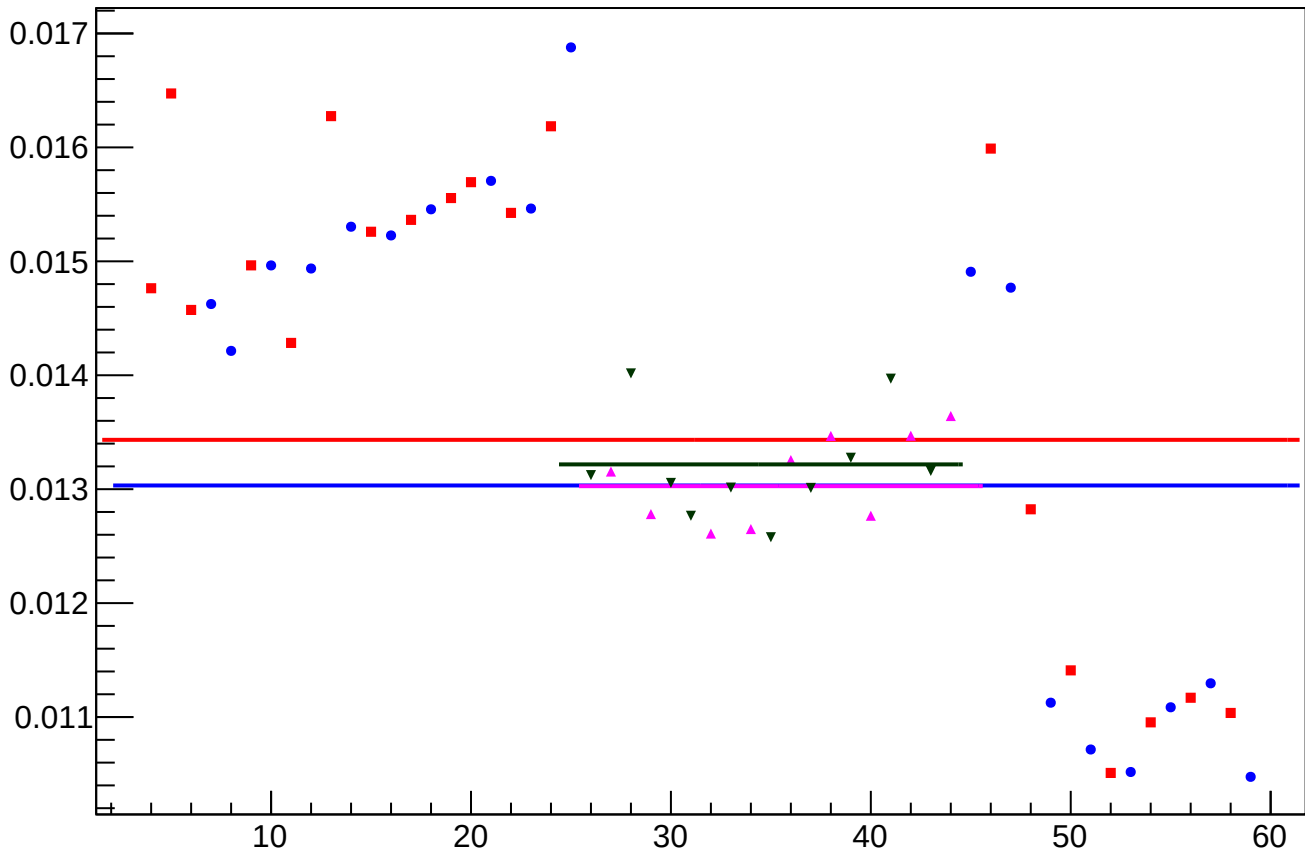
Right Out: -0.974+/-0.000  $\chi^2/\text{NDF}$ : 174691792.1/18

Left In: -0.981+/-0.000  $\chi^2/\text{NDF}$ : 51761164.5/8

-0.964+/-0.000  $\chi^2/\text{NDF}$ : 741872230.5/27

-0.976+/-0.000  $\chi^2/\text{NDF}$ : 227439471.3/27

# yield\_bpm0l10X\_rms vs slug



Right In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 587832.0/17

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :12265.8/9

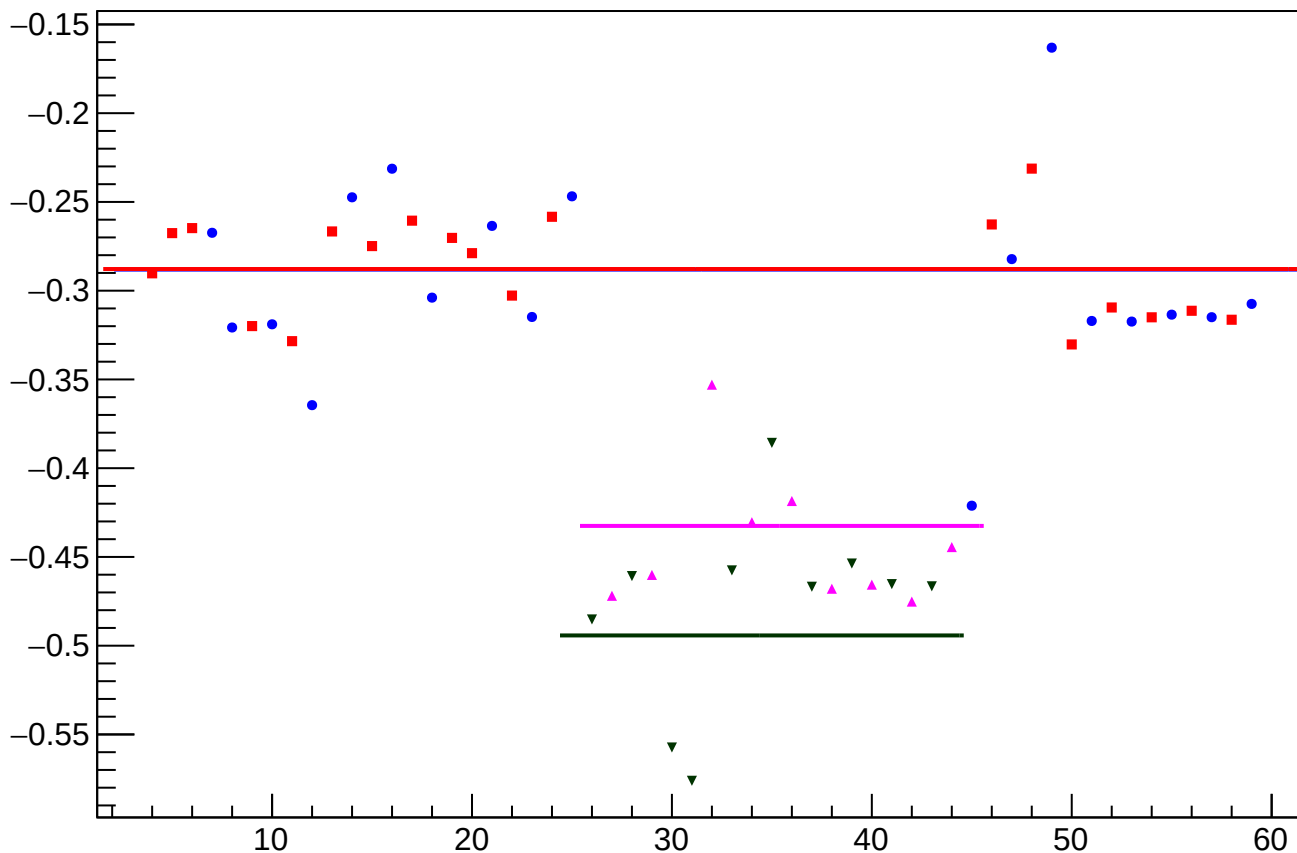
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 479245.1/18

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :8570.4/8

0.013+/-0.000  $\chi^2/\text{NDF}$ : 601500.4/27

0.013+/-0.000  $\chi^2/\text{NDF}$ : 494459.1/27

# yield\_bpm0l10Y\_mean vs slug



Right In: -0.288+/-0.000  $\chi^2/\text{NDF}$ : 2601289511.6/17

Left Out: -0.494+/-0.000  $\chi^2/\text{NDF}$ :1568805763.5/9

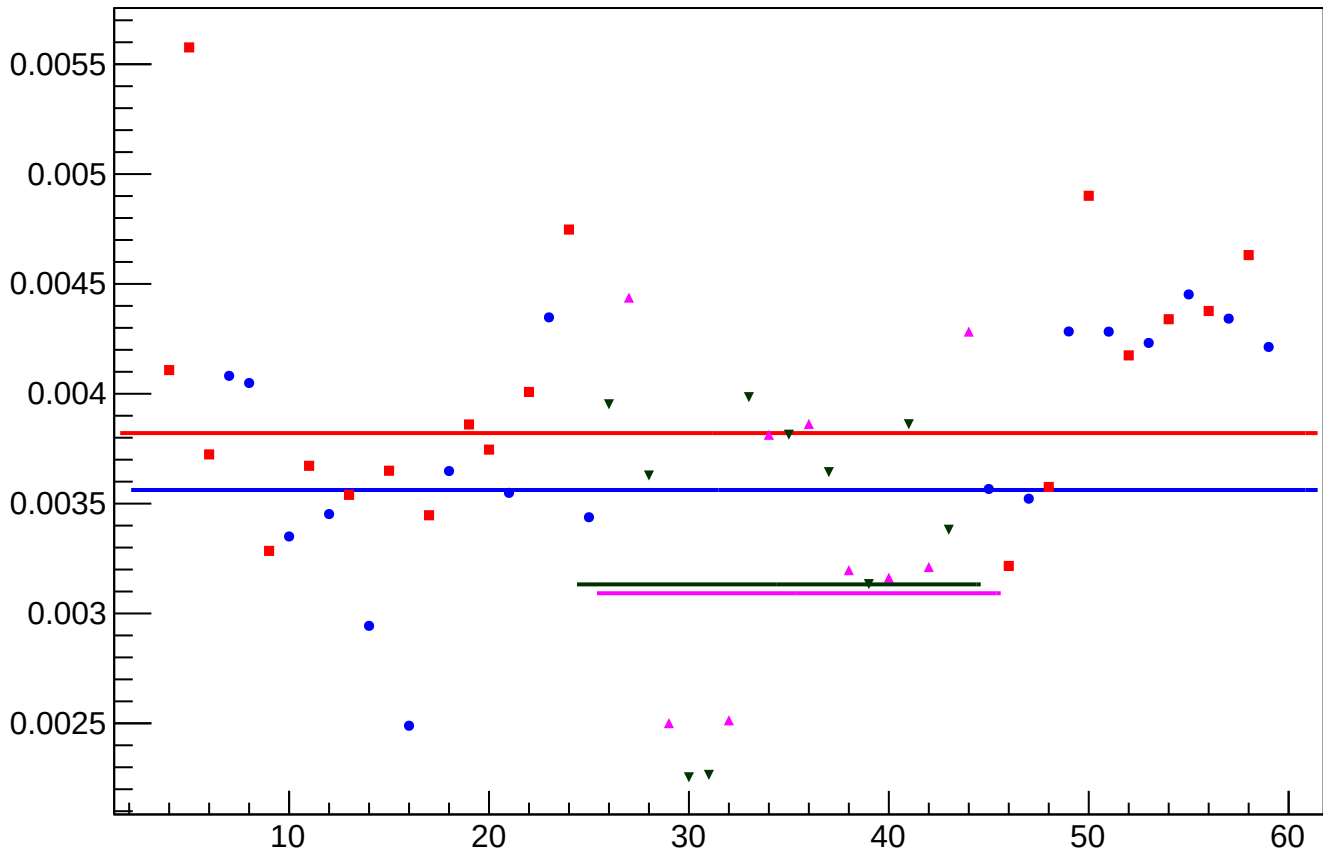
Right Out: -0.288+/-0.000  $\chi^2/\text{NDF}$ : 515794849.9/18

Left In: -0.433+/-0.000  $\chi^2/\text{NDF}$ :1186728653.8/8

-0.365+/-0.000  $\chi^2/\text{NDF}$ : 17120922802.6/27

-0.354+/-0.000  $\chi^2/\text{NDF}$ : 7706811534.8/27

# 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: 463941.8/9

Right Out: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 282191.6/18

Left In: 0.003 $\pm$ 0.000  $\chi^2$ /NDF: 472745.5/8

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1165216.3/27

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1059565.4/27