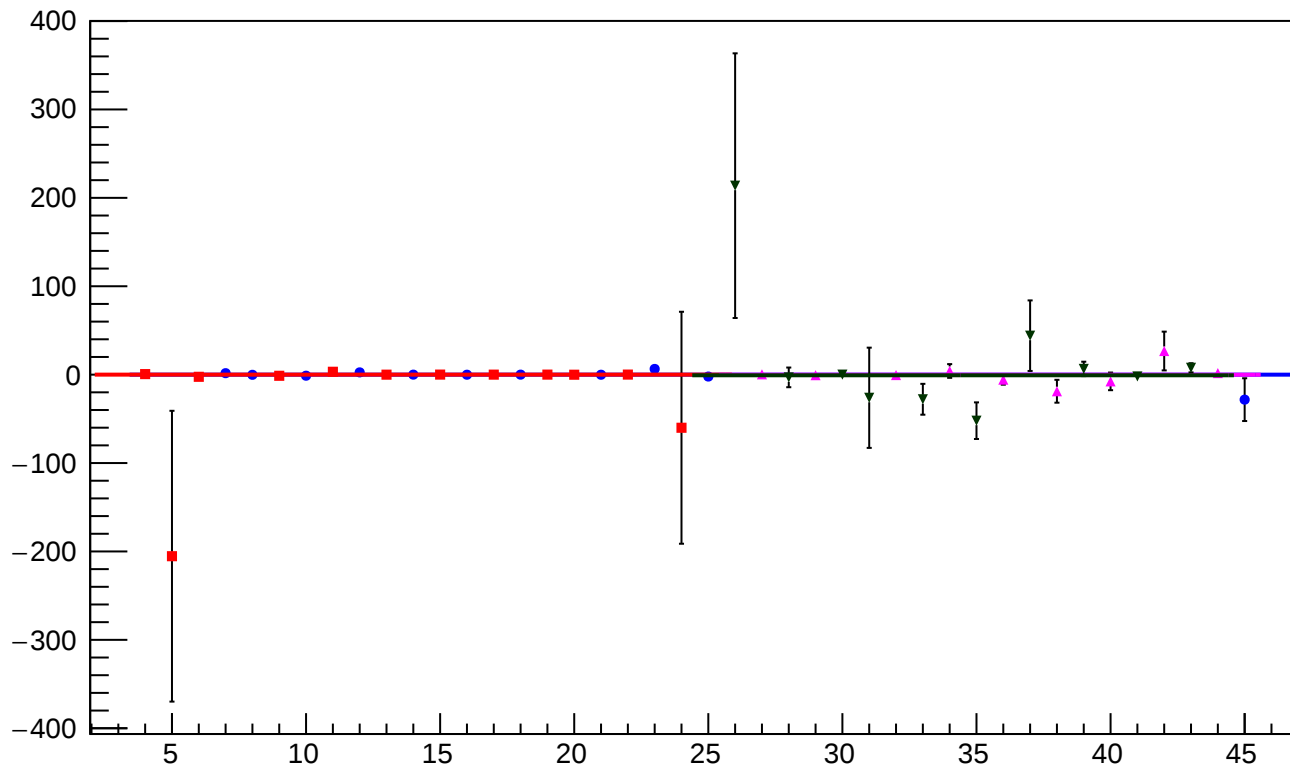


# diff\_cav4bX\_mean vs slug



Right In:  $-0.014 \pm 0.014$

Left Out:  $-0.705 \pm 1.554$

Right Out:  $0.017 \pm 0.016$

Left In:  $-0.086 \pm 0.168$

$\chi^2/\text{NDF}$ : 19.3/10

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

$\chi^2/\text{NDF}$ : 19.3/11

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

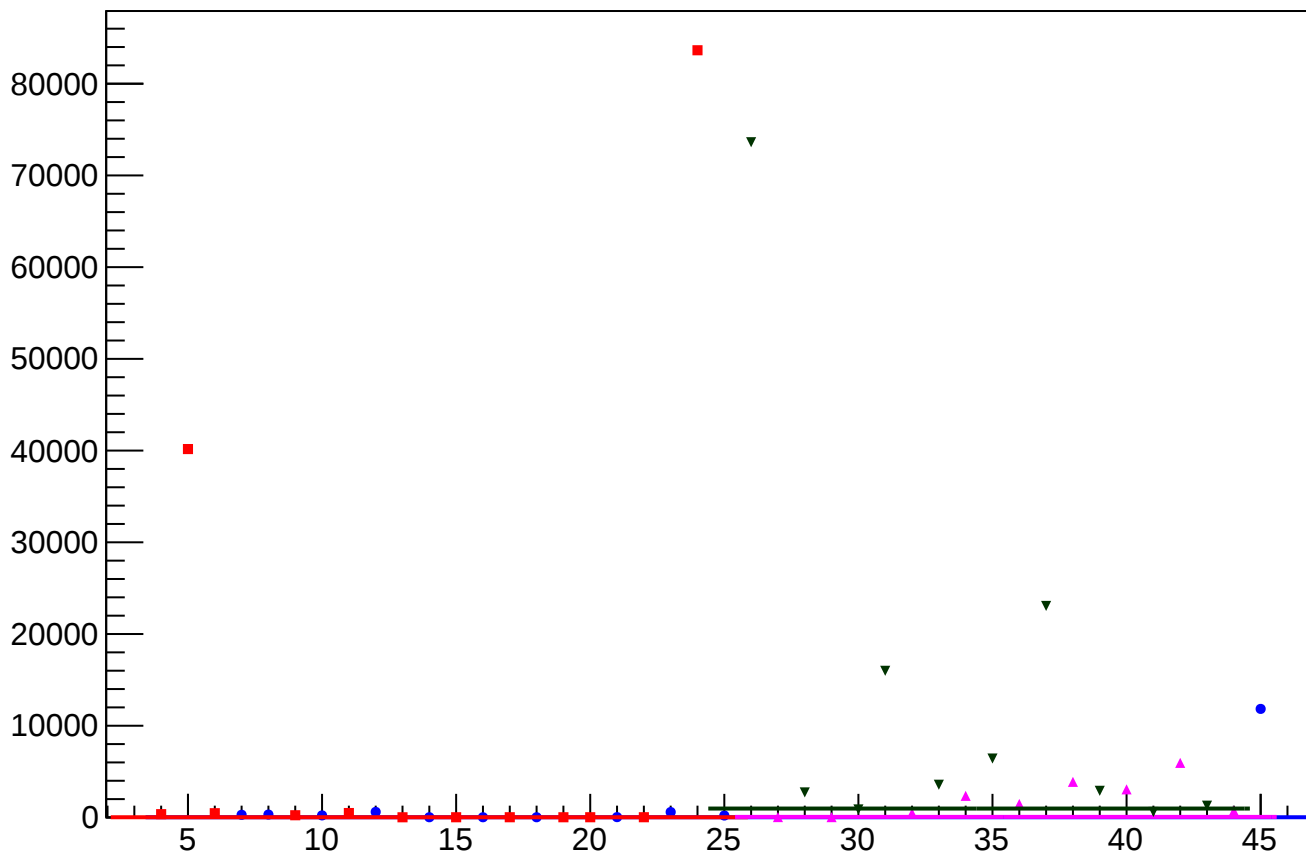
$-0.014 \pm 0.014$

$0.016 \pm 0.016$

$\chi^2/\text{NDF}$ : 35.6/20

$\chi^2/\text{NDF}$ : 35.2/20

# diff\_cav4bX\_rms vs slug



Right In: 22.403+/-0.010  $\chi^2/\text{NDF}$ : 1247279.6/10

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

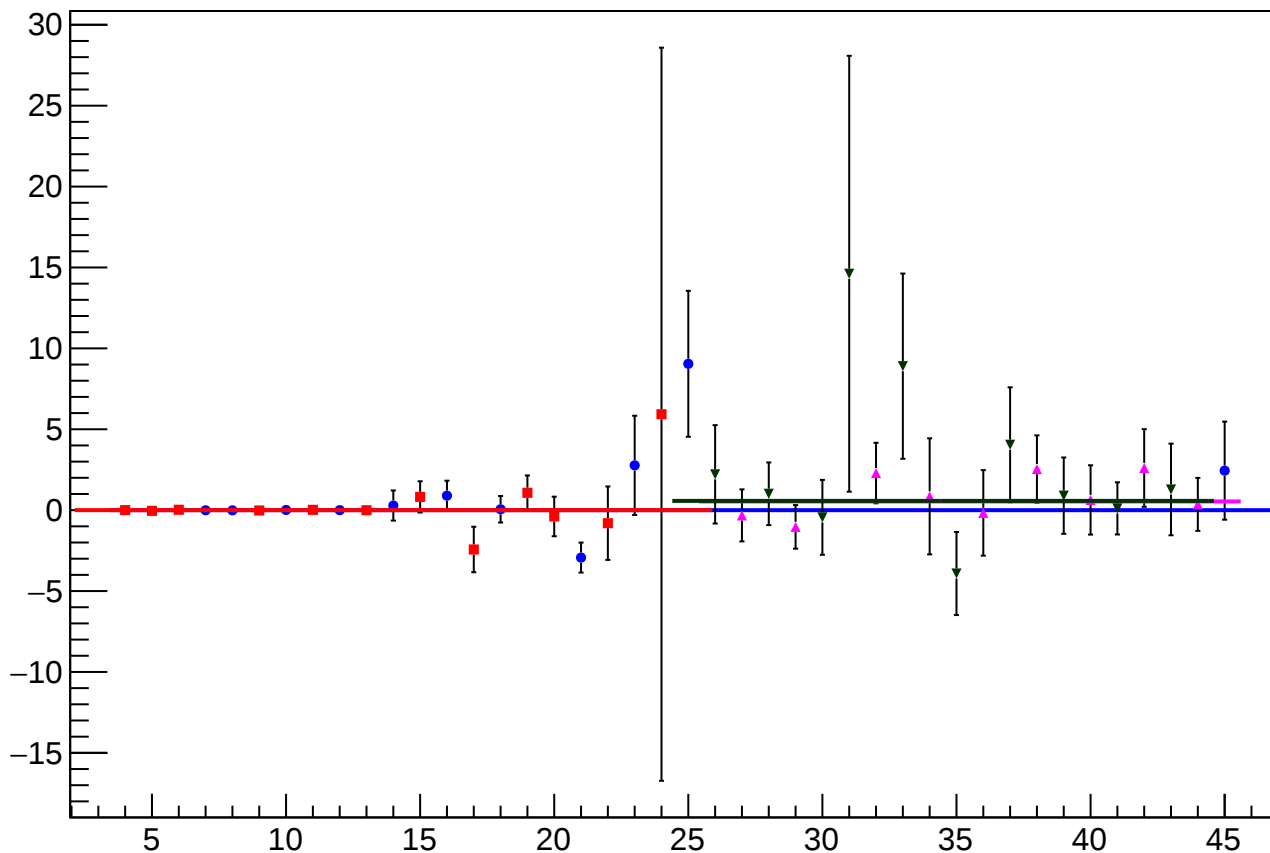
Right Out: 22.575+/-0.011  $\chi^2/\text{NDF}$ : 1409994.7/11

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

22.483+/-0.010  $\chi^2/\text{NDF}$ : 3637376.5/20

22.930+/-0.011  $\chi^2/\text{NDF}$ : 3088809.1/20

# diff\_cav4bY\_mean vs slug



Right In: -0.001 $\pm$ 0.006  $\chi^2/\text{NDF}$ : 18.8/10

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

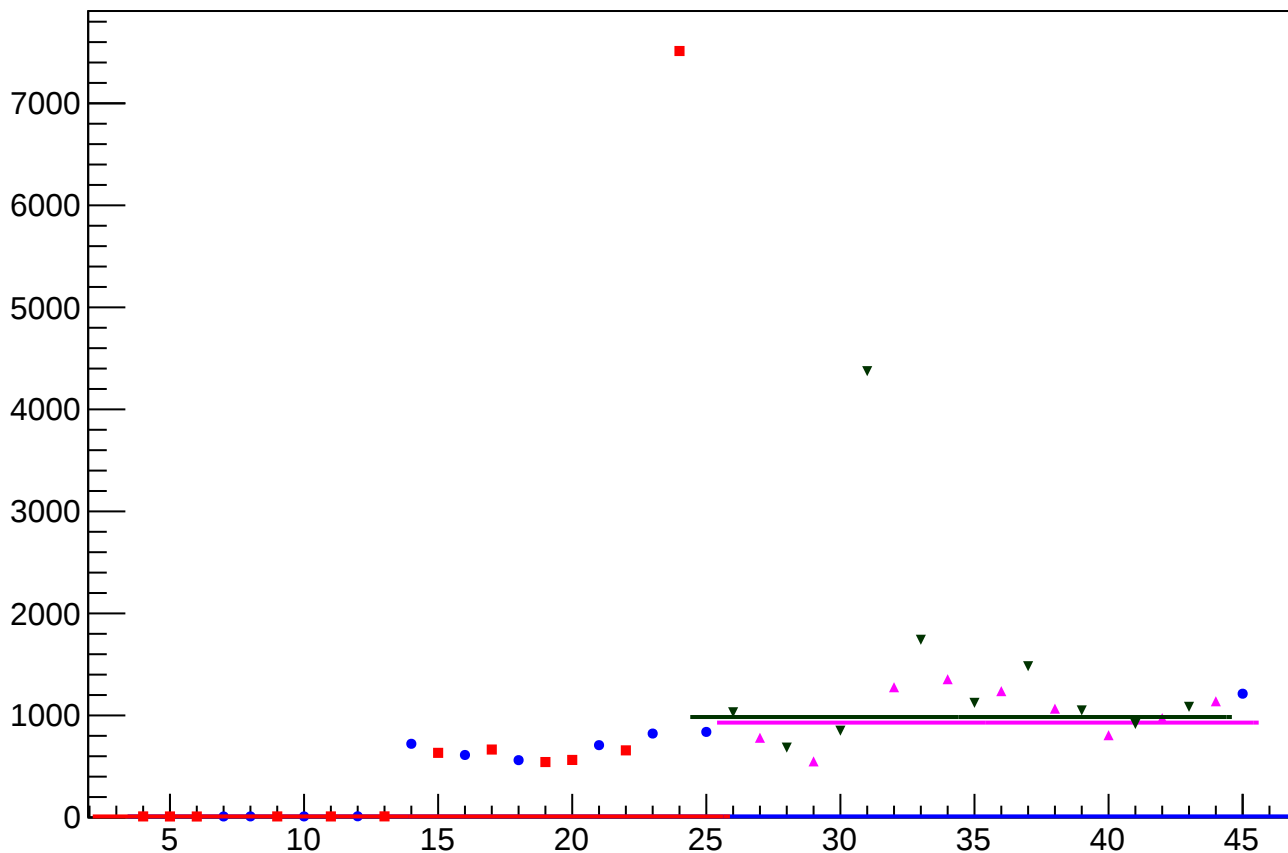
Right Out: 0.002 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 17.0/11

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

-0.001 $\pm$ 0.006  $\chi^2/\text{NDF}$ : 27.2/20

0.002 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 22.0/20

# diff\_cav4bY\_rms vs slug



Right In: 10.495+/-0.005  $\chi^2$ /NDF: 4592703.5/10

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

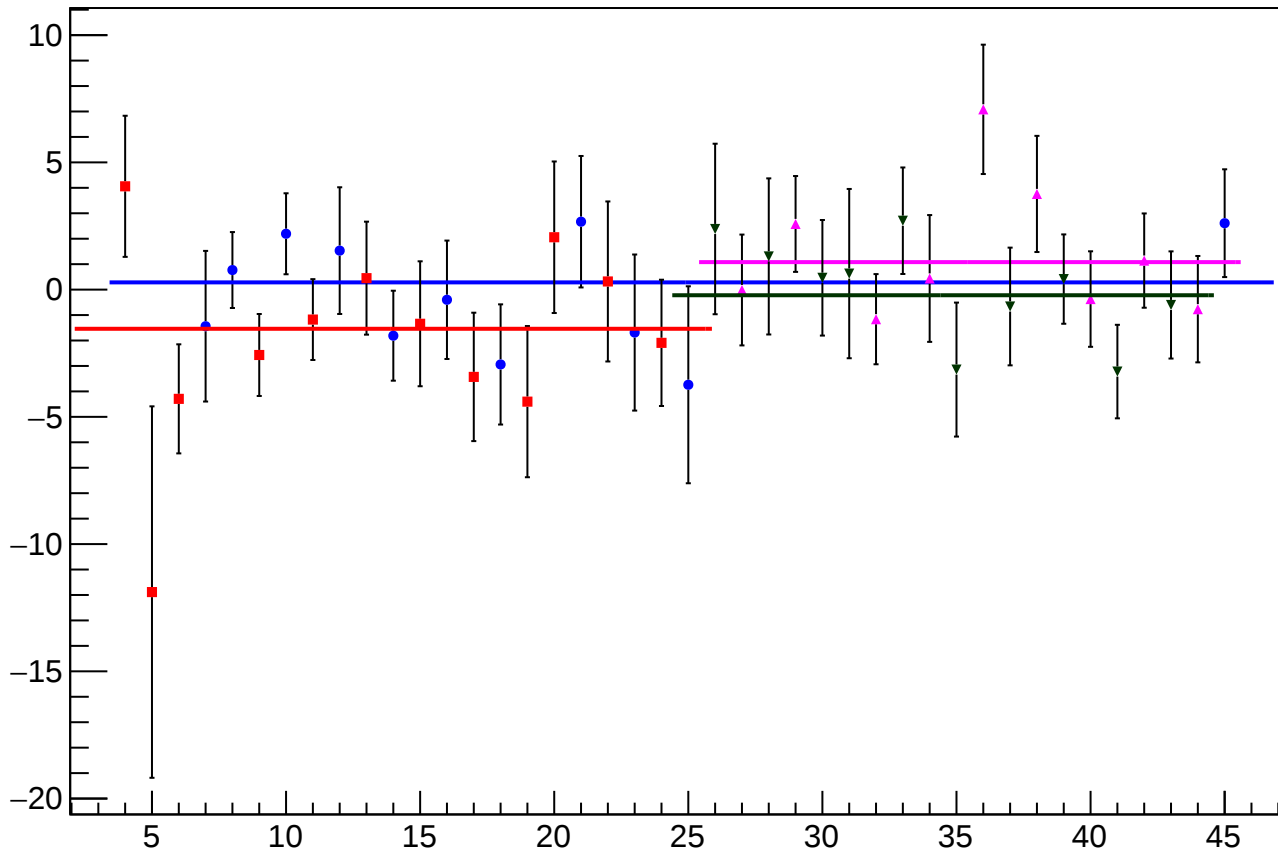
Right Out: 10.074+/-0.004  $\chi^2$ /NDF: 2563210.4/11

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

10.557+/-0.005  $\chi^2$ /NDF: 7742890.5/20

10.141+/-0.004  $\chi^2$ /NDF: 7038449.7/20

# diff\_cav4cX\_mean vs slug



Right In: 0.284 $\pm$ 0.652  $\chi^2$ /NDF: 9.0/10

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

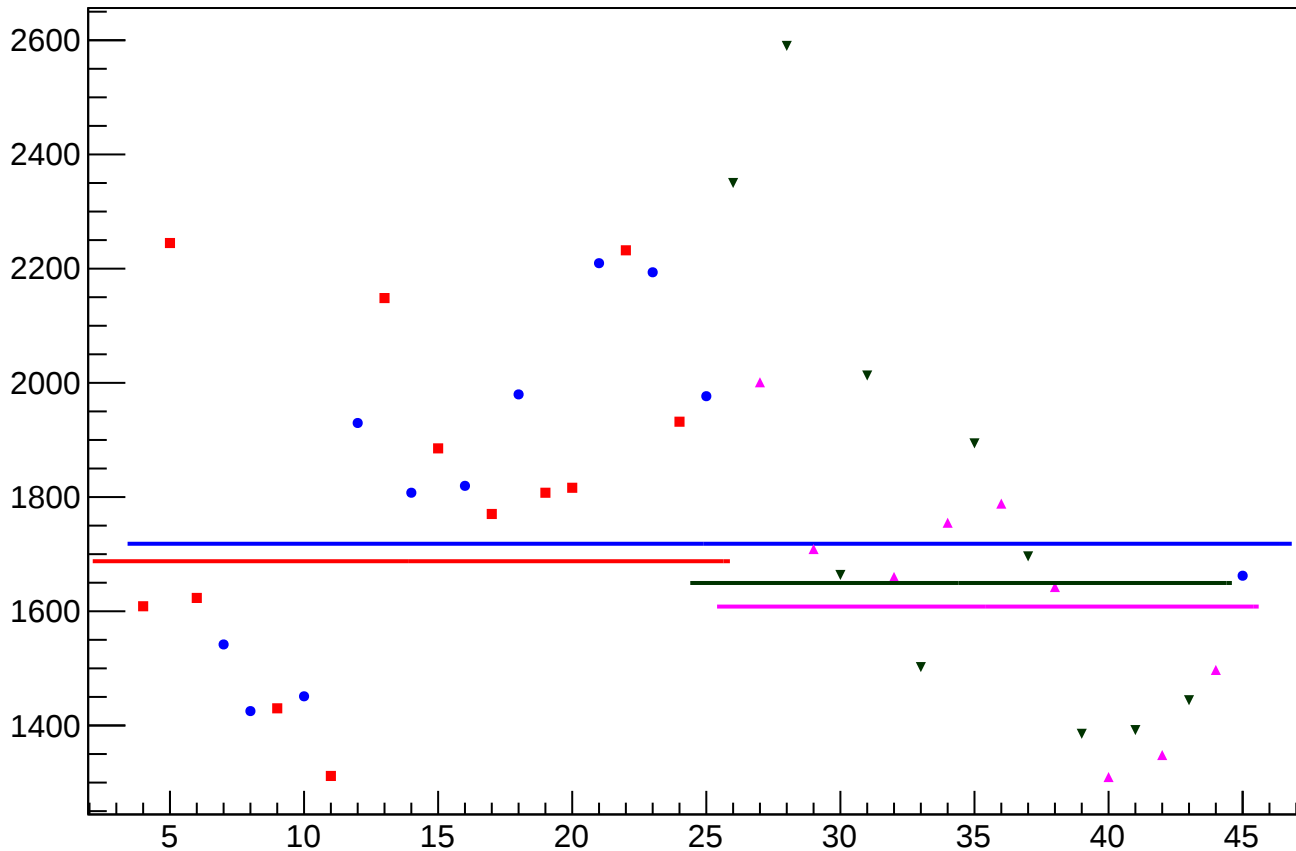
Right Out: -1.539 $\pm$ 0.680  $\chi^2$ /NDF: 12.4/11

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

0.059 $\pm$ 0.486  $\chi^2$ /NDF: 16.4/20

-0.242 $\pm$ 0.483  $\chi^2$ /NDF: 30.6/20

# diff\_cav4cX\_rms vs slug



Right In: 1718.238+/-0.461  $\chi^2$ /NDF: 319267.8/10

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

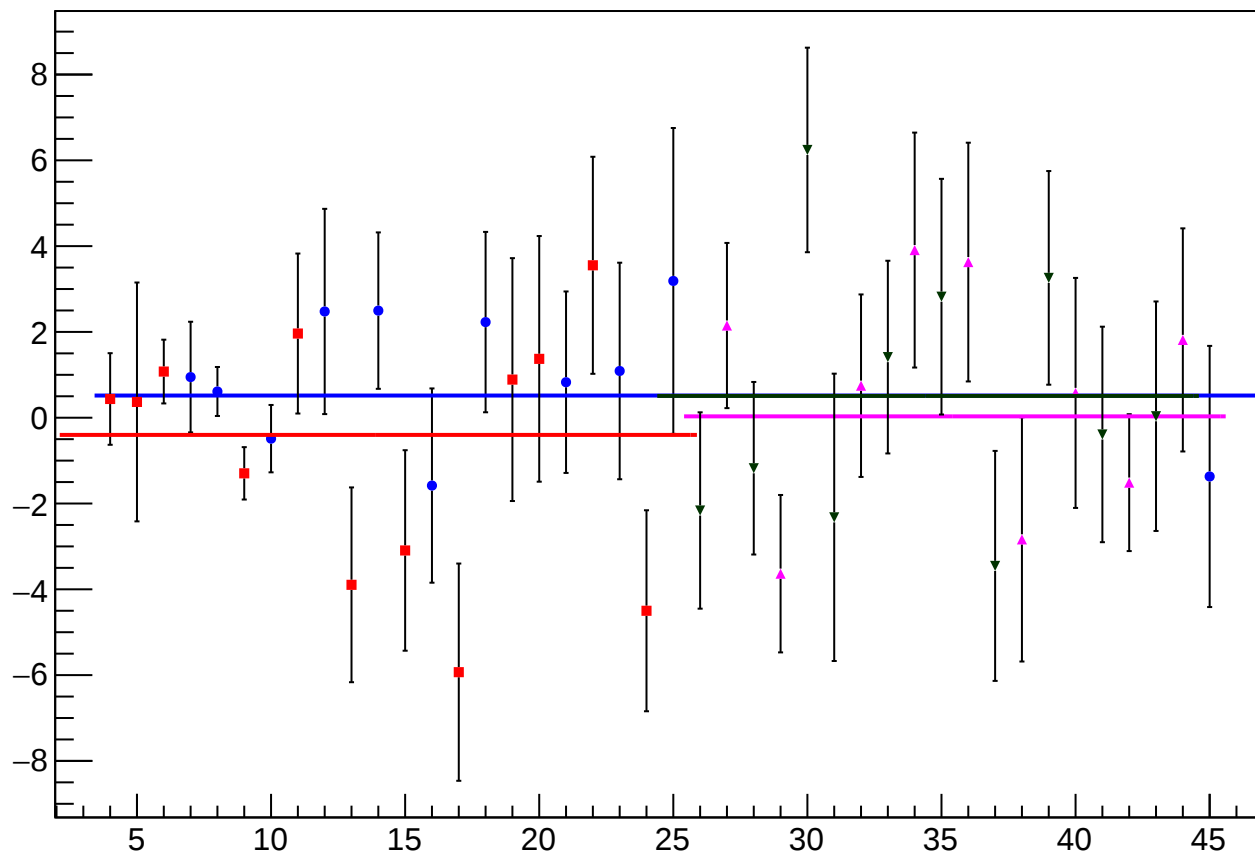
1687.659+/-0.344  $\chi^2$ /NDF: 760102.1/20

Right Out: 1687.646+/-0.481  $\chi^2$ /NDF: 366003.0/11

1648.317+/-0.342  $\chi^2$ /NDF: 565123.8/20

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

# diff\_cav4cY\_mean vs slug



Right In:  $0.517 \pm 0.385$   $\chi^2/\text{NDF}: 6.2/10$

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

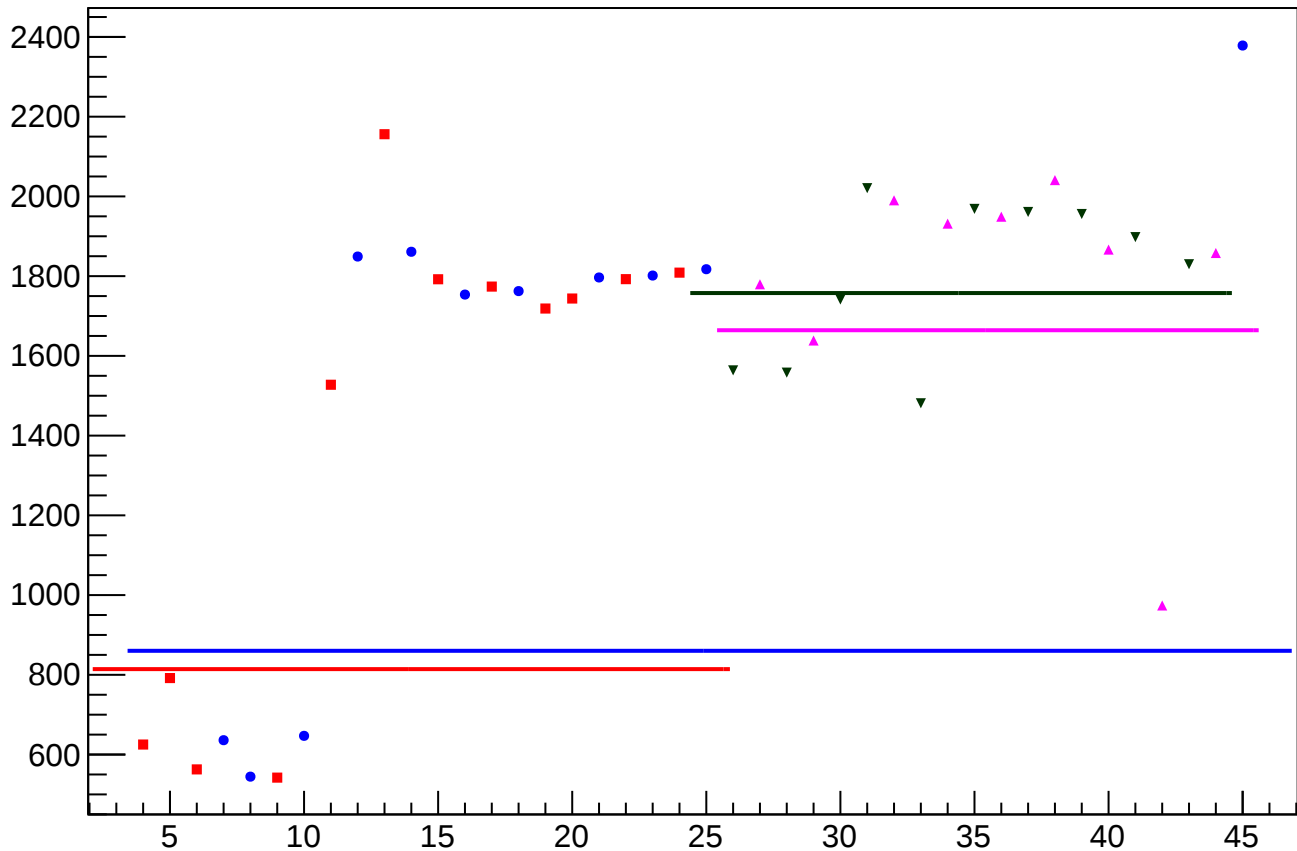
Right Out:  $-0.401 \pm 0.381$   $\chi^2/\text{NDF}: 23.0/11$

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

$0.515 \pm 0.345$   $\chi^2/\text{NDF}: 19.2/20$

$-0.309 \pm 0.338$   $\chi^2/\text{NDF}: 34.7/20$

# diff\_cav4cY\_rms vs slug



Right In: 860.224+/-0.272  $\chi^2/\text{NDF}$ : 3755407.7/10

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

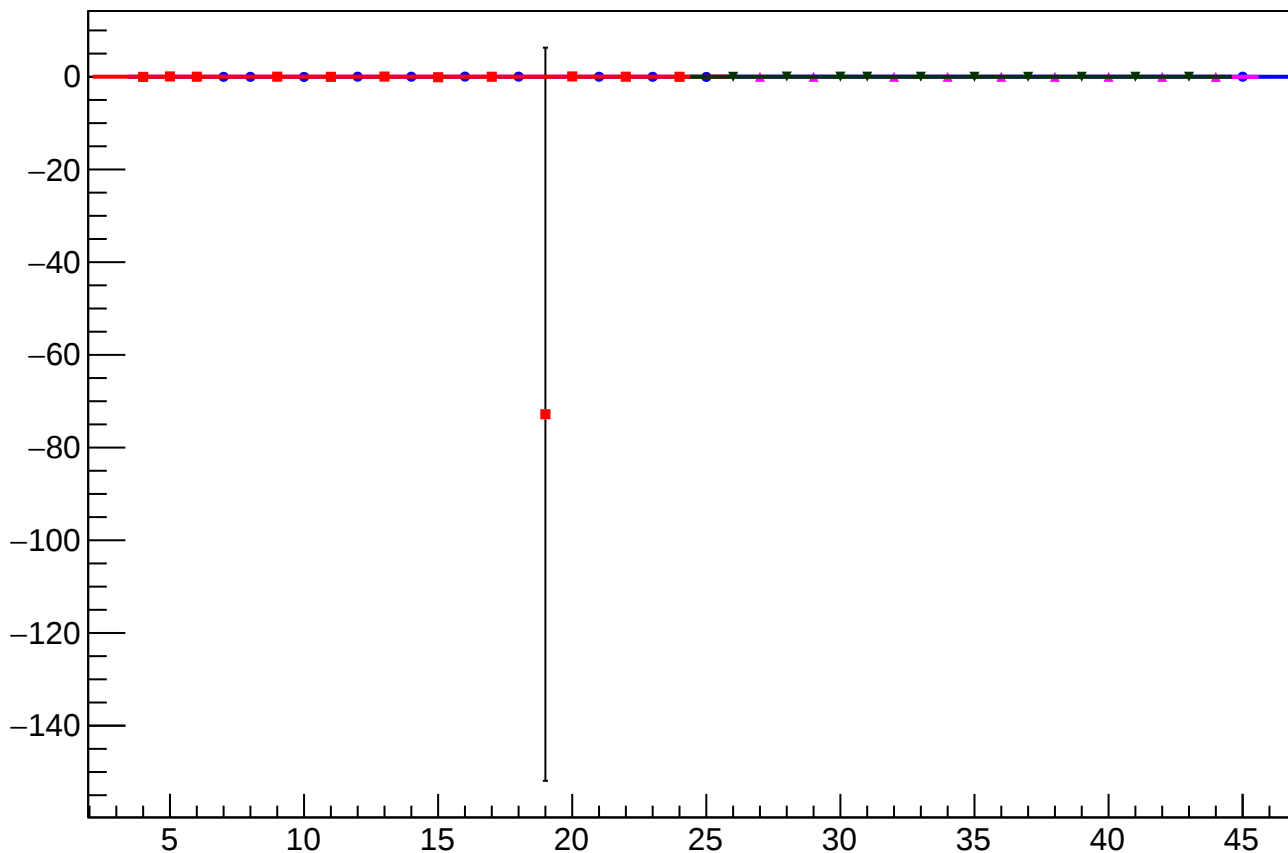
Right Out: 814.291+/-0.269  $\chi^2/\text{NDF}$ : 3392438.7/11

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

1034.936+/-0.244  $\chi^2/\text{NDF}$ : 5993521.8/20

994.163+/-0.239  $\chi^2/\text{NDF}$ : 6030555.9/20

# diff\_cav4dX\_mean vs slug



Right In: 0.001 $\pm$ 0.007  $\chi^2$ /NDF: 8.0/10

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

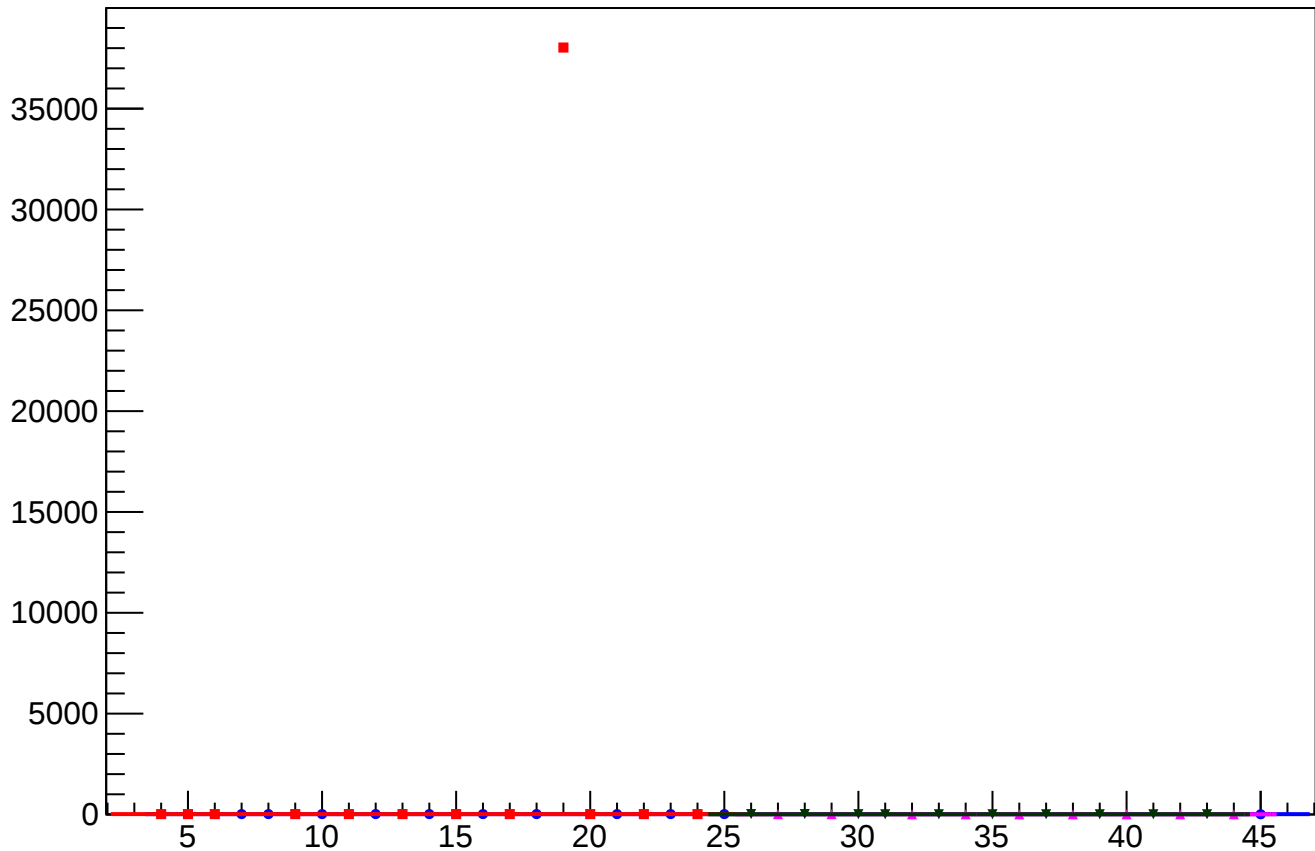
Right Out: 0.011 $\pm$ 0.008  $\chi^2$ /NDF: 11.3/11

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

0.001 $\pm$ 0.004  $\chi^2$ /NDF: 16.7/20

-0.000 $\pm$ 0.004  $\chi^2$ /NDF: 15.2/20

# diff\_cav4dX\_rms vs slug



Right In: 14.701 $\pm$ 0.005  $\chi^2$ /NDF: 798726.3/10

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

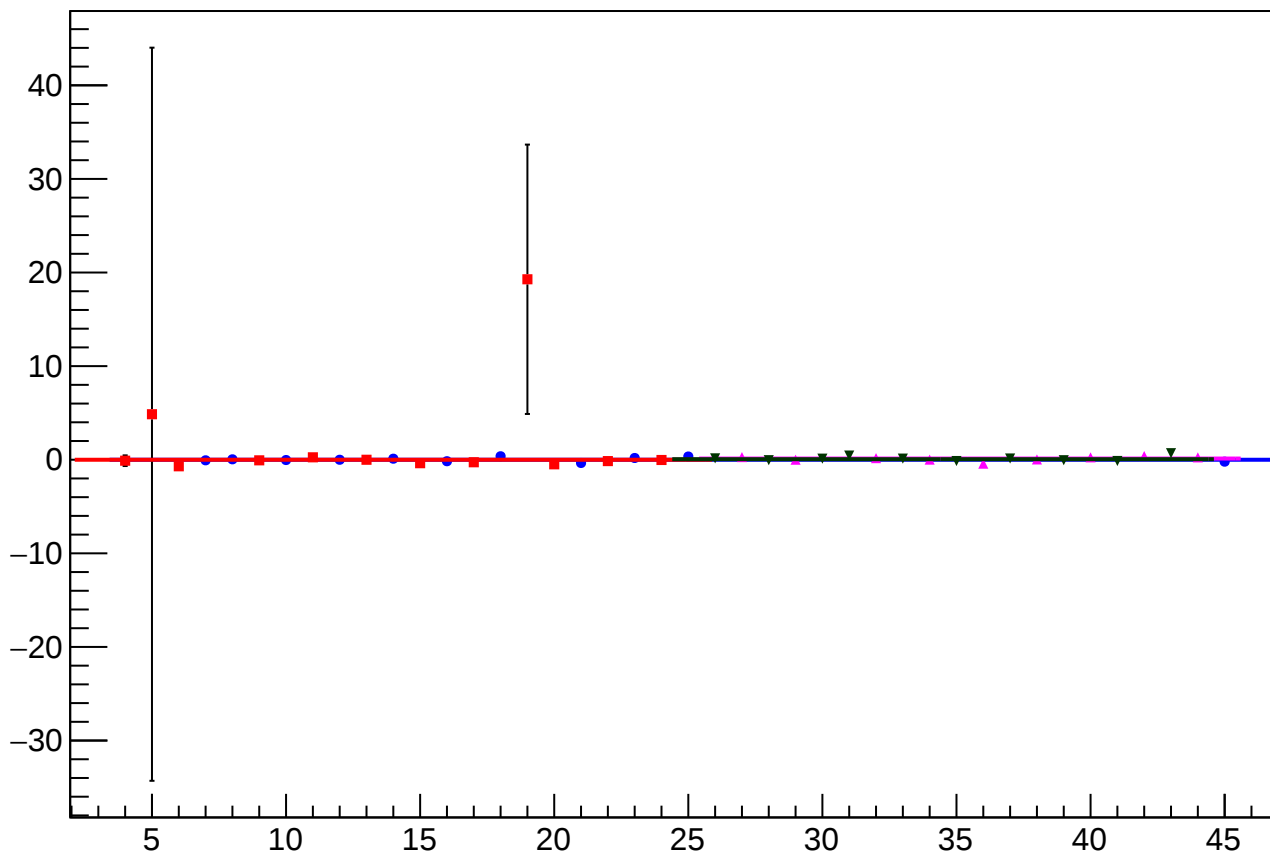
Right Out: 17.562 $\pm$ 0.006  $\chi^2$ /NDF: 466099.2/11

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

10.927 $\pm$ 0.003  $\chi^2$ /NDF: 2346561.5/20

11.088 $\pm$ 0.003  $\chi^2$ /NDF: 2890528.4/20

# diff\_cav4dY\_mean vs slug



Right In:  $-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 16.2/10

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

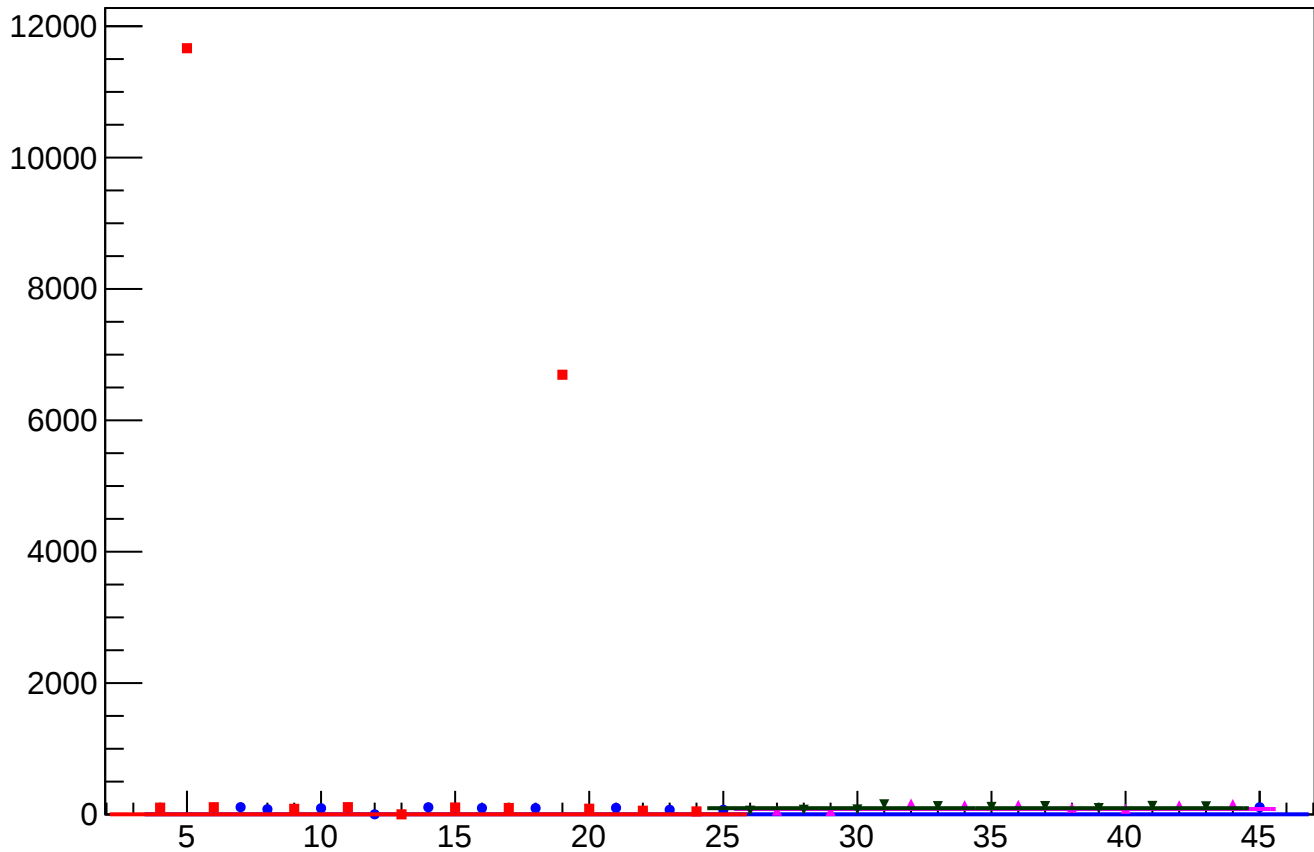
Right Out:  $-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 12.3/11

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

$-0.003 \pm 0.003$   $\chi^2/\text{NDF}$ : 28.7/20

$-0.002 \pm 0.003$   $\chi^2/\text{NDF}$ : 27.9/20

# diff\_cav4dY\_rms vs slug



Right In: 2.162+/-0.002  $\chi^2/\text{NDF}$ : 6466260.7/10

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

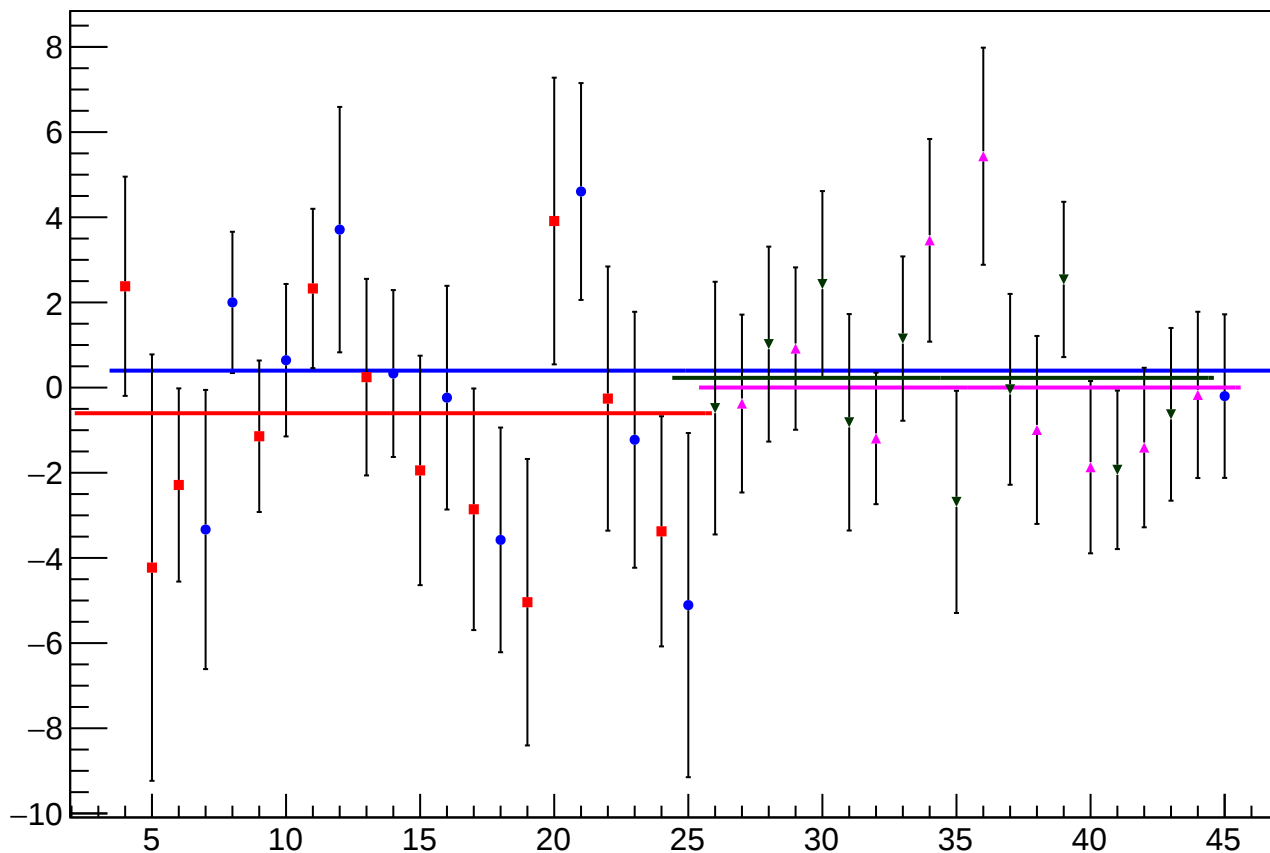
2.423+/-0.002  $\chi^2/\text{NDF}$ : 12049295.8/20

Right Out: 2.056+/-0.002  $\chi^2/\text{NDF}$ : 4218182.0/11

2.315+/-0.002  $\chi^2/\text{NDF}$ : 9885659.4/20

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

# diff\_bpm4aX\_mean vs slug



Right In:  $0.398 \pm 0.701$   $\chi^2/\text{NDF}$ : 10.9/10

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

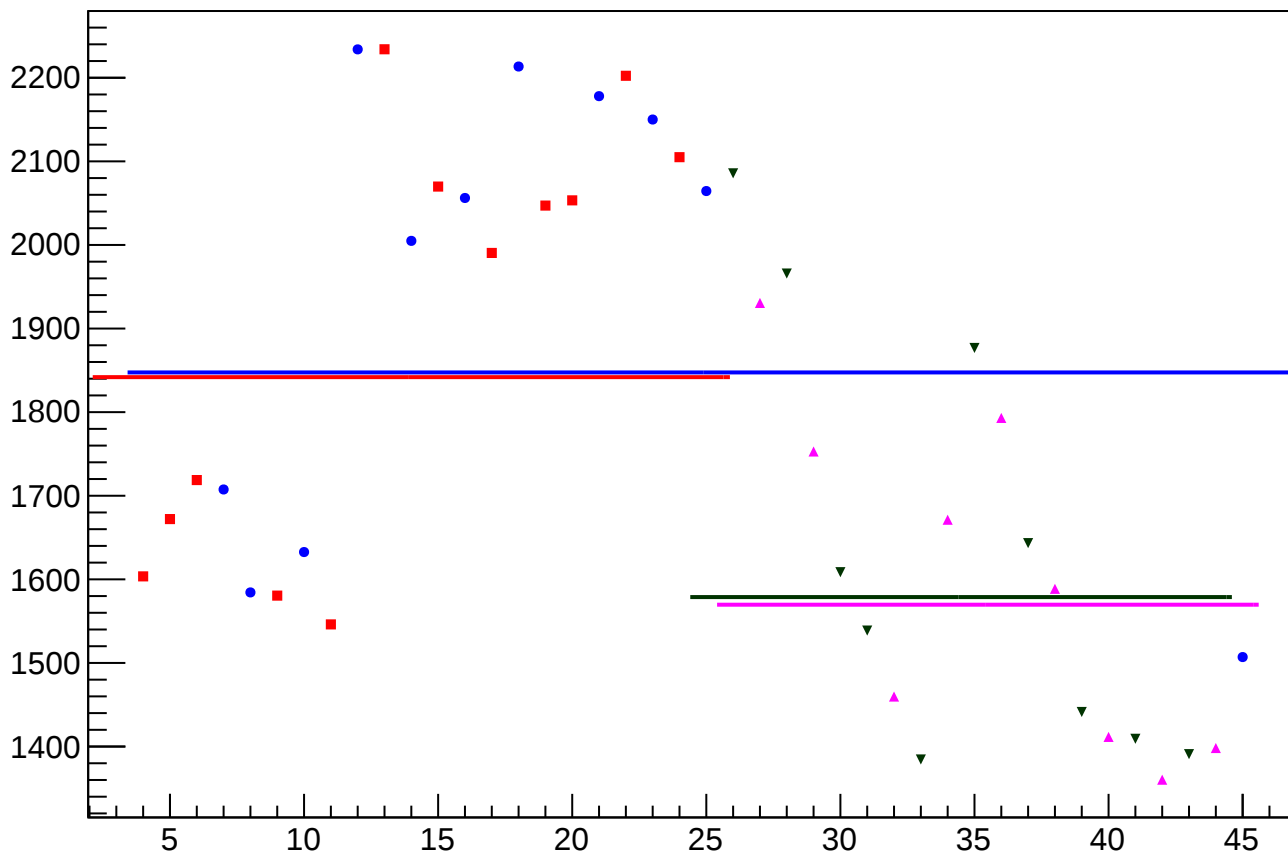
Right Out:  $-0.602 \pm 0.734$   $\chi^2/\text{NDF}$ : 10.6/11

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

$0.312 \pm 0.491$   $\chi^2/\text{NDF}$ : 16.9/20

$-0.271 \pm 0.494$   $\chi^2/\text{NDF}$ : 20.1/20

# diff\_bpm4aX\_rms vs slug



Right In:  $1847.507 \pm 0.496$   $\chi^2/\text{NDF}$ : 305388.8/10

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

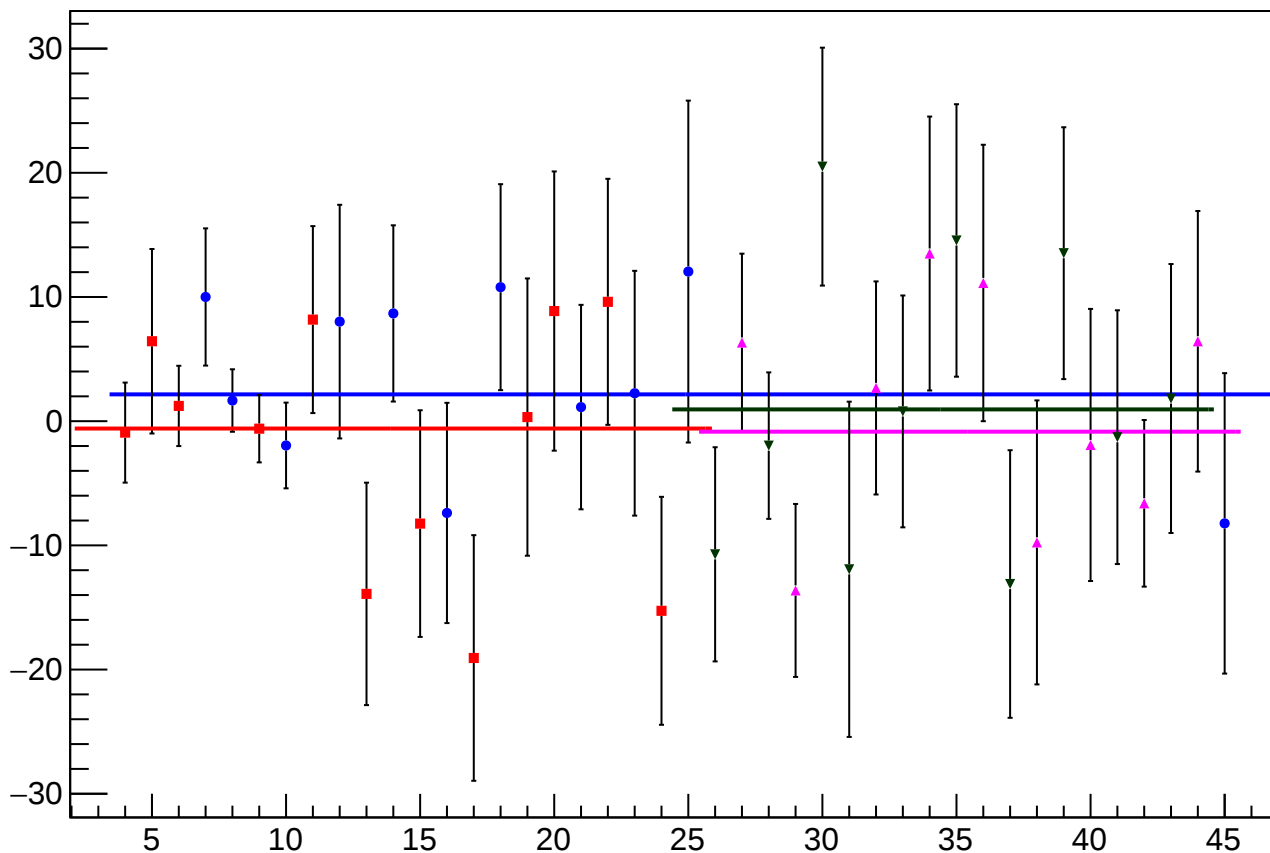
Right Out:  $1841.876 \pm 0.519$   $\chi^2/\text{NDF}$ : 257357.6/11

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

$1710.540 \pm 0.347$   $\chi^2/\text{NDF}$ : 664782.5/20

$1692.592 \pm 0.349$   $\chi^2/\text{NDF}$ : 568203.7/20

# diff\_bpm4aY\_mean vs slug



Right In: 2.159+/-1.643     $\chi^2/\text{NDF}$ : 8.2/10

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

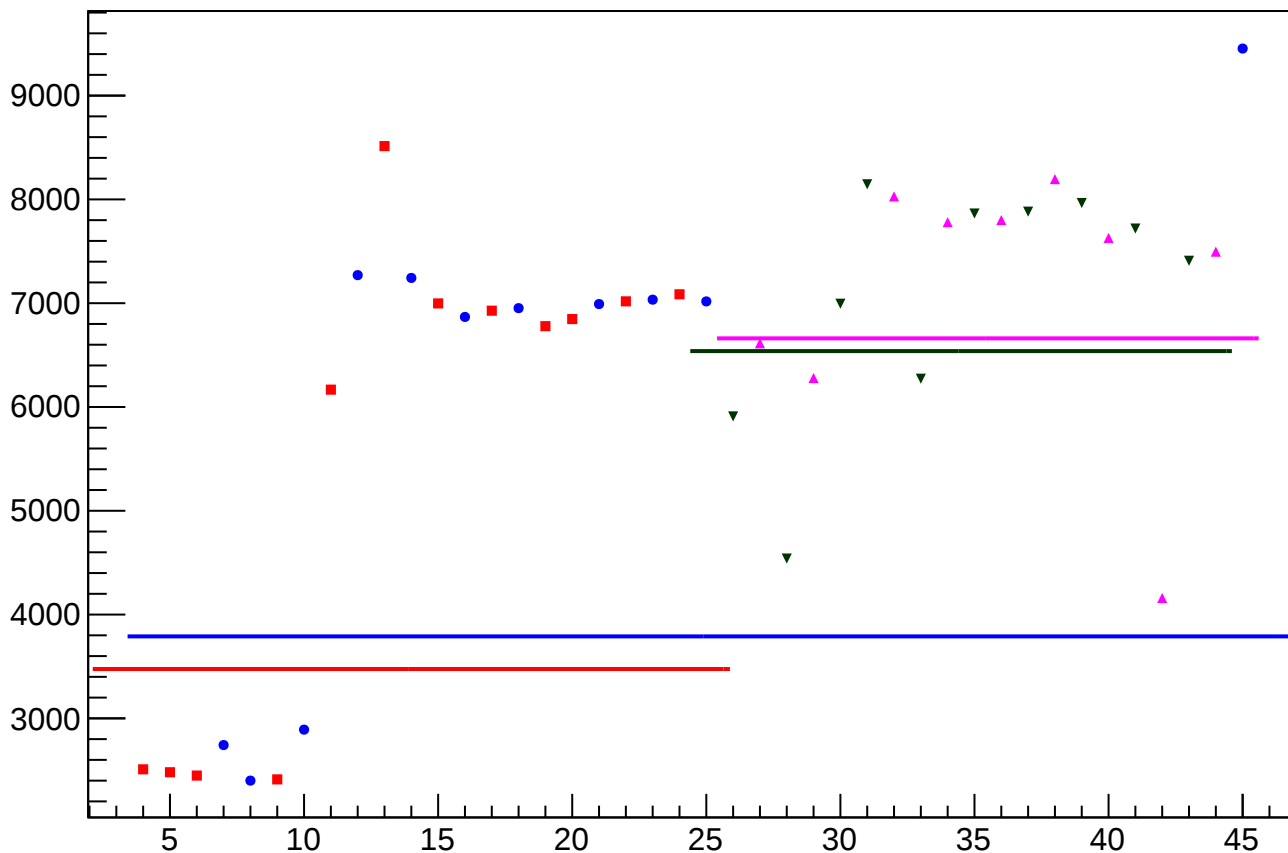
1.872+/-1.435     $\chi^2/\text{NDF}$ : 20.3/20

Right Out: -0.592+/-1.578     $\chi^2/\text{NDF}$ : 13.3/11

-0.649+/-1.388     $\chi^2/\text{NDF}$ : 22.6/20

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

# diff\_bpm4aY\_rms vs slug



Right In: 3789.751+/-1.162  $\chi^2/\text{NDF}$ : 3165259.3/10

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

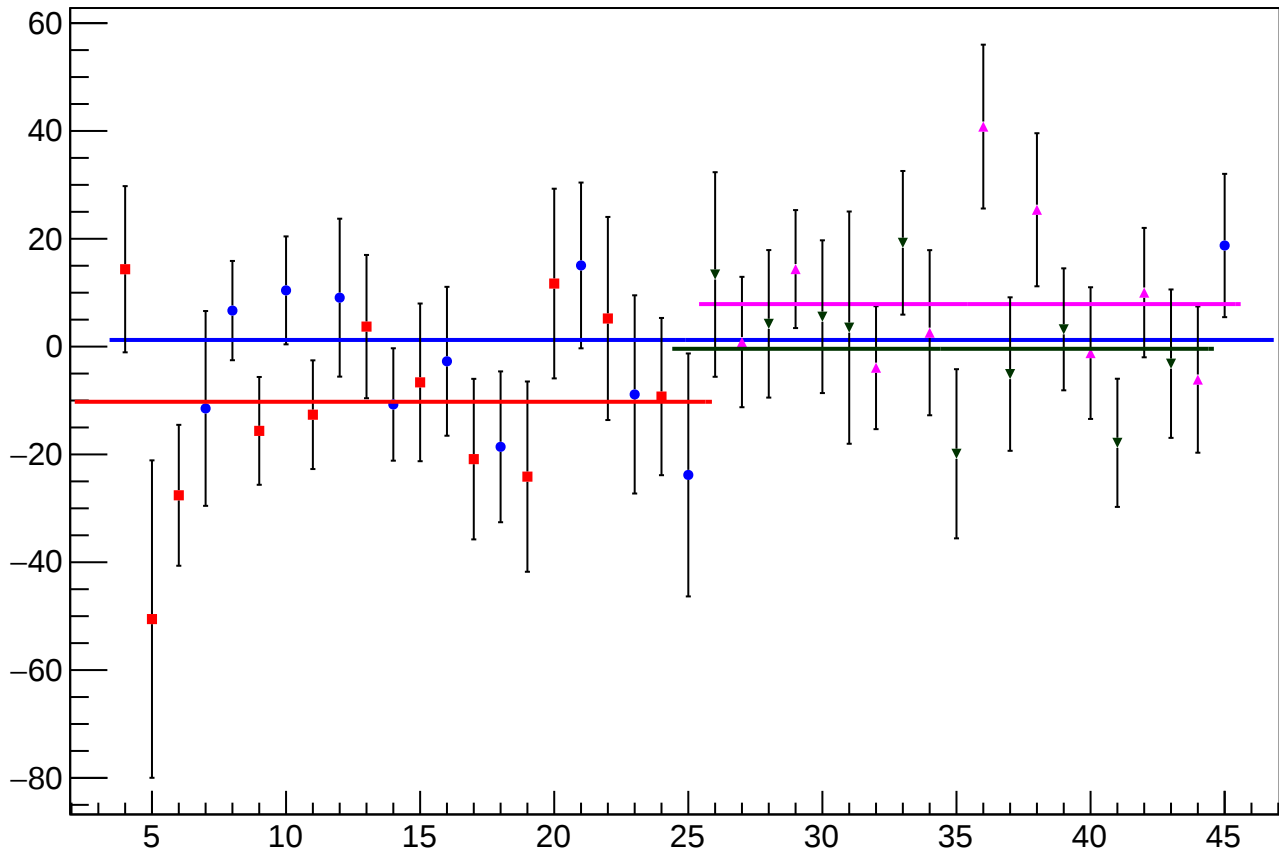
Right Out: 3475.466+/-1.116  $\chi^2/\text{NDF}$ : 3010113.2/11

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

4440.176+/-1.015  $\chi^2/\text{NDF}$ : 4904397.7/20

4195.933+/-0.982  $\chi^2/\text{NDF}$ : 5293785.6/20

# diff\_bpm4eX\_mean vs slug



Right In:  $1.234 \pm 3.957$   $\chi^2/\text{NDF}$ : 9.5/10

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

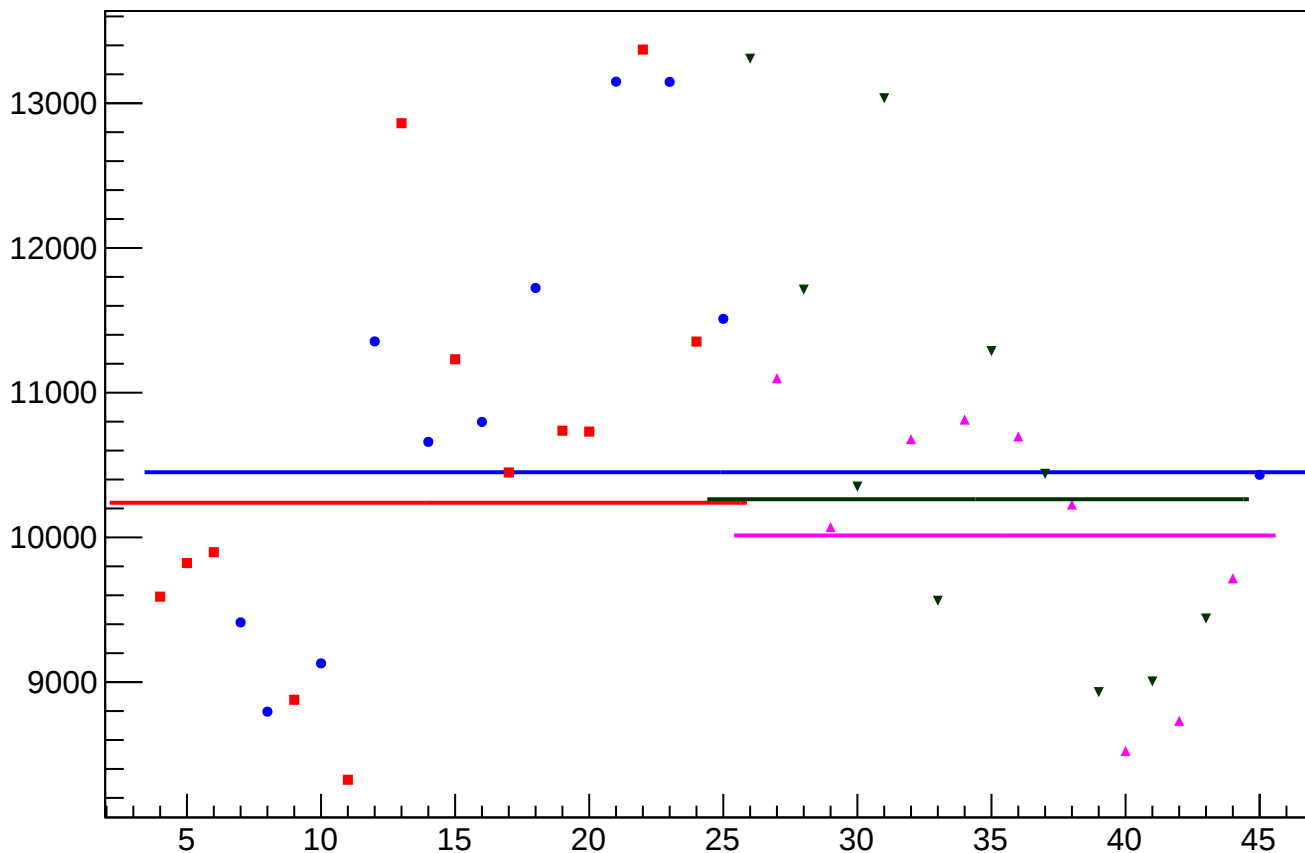
Right Out:  $-10.234 \pm 4.087$   $\chi^2/\text{NDF}$ : 11.1/11

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

$0.512 \pm 2.963$   $\chi^2/\text{NDF}$ : 16.5/20

$-1.516 \pm 2.944$   $\chi^2/\text{NDF}$ : 30.3/20

# diff\_bpm4eX\_rms vs slug



Right In: 10450.205 $\pm$ 2.798  $\chi^2$ /NDF: 241367.4/10

Left Out: 10263.647 $\pm$ 3.161  $\chi^2$ /NDF:178797.8/9

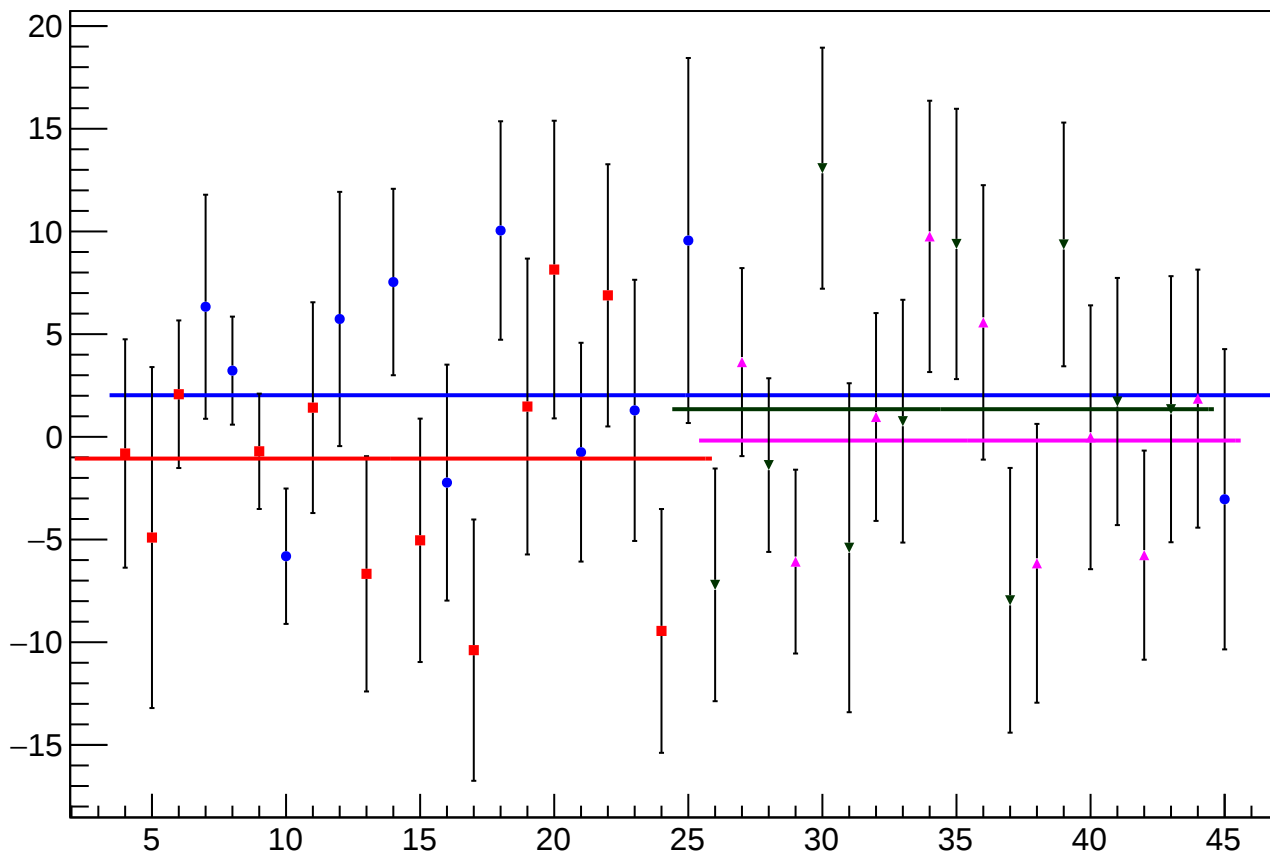
10368.240 $\pm$ 2.095  $\chi^2$ /NDF: 422118.6/20

Right Out: 10239.715 $\pm$ 2.890  $\chi^2$ /NDF: 272072.6/11

10130.782 $\pm$ 2.082  $\chi^2$ /NDF: 361514.5/20

Left In: 10013.319 $\pm$ 3.001  $\chi^2$ /NDF:86488.8/8

# diff\_bpm4eY\_mean vs slug



Right In:  $2.026 \pm 1.412$   $\chi^2/\text{NDF}: 12.6/10$

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

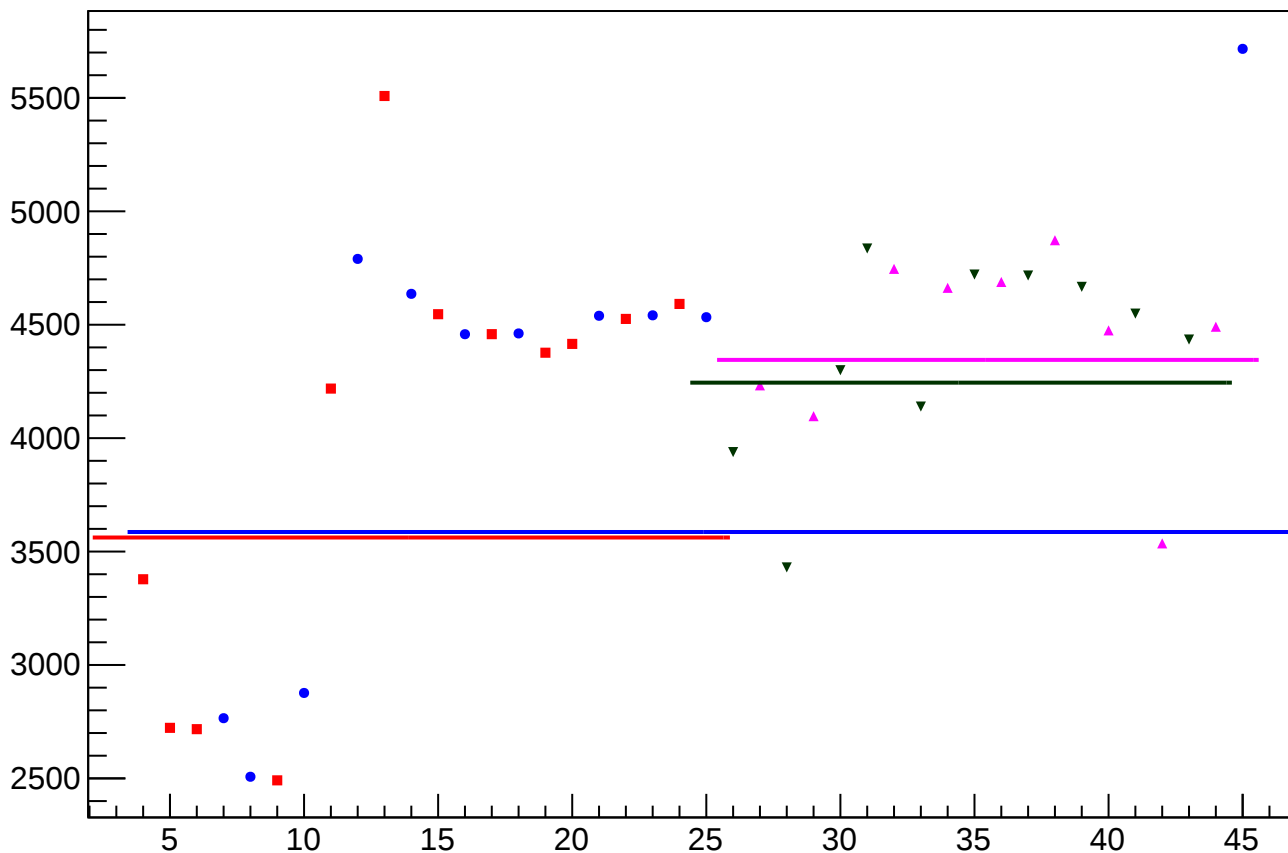
Right Out:  $-1.058 \pm 1.468$   $\chi^2/\text{NDF}: 10.1/11$

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

$1.778 \pm 1.126$   $\chi^2/\text{NDF}: 25.5/20$

$-0.719 \pm 1.150$   $\chi^2/\text{NDF}: 17.8/20$

diff\_bpm4eY\_rms vs slug



Right In: 3586.248+/-0.998  $\chi^2/\text{NDF}$ : 1059219.2/10

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

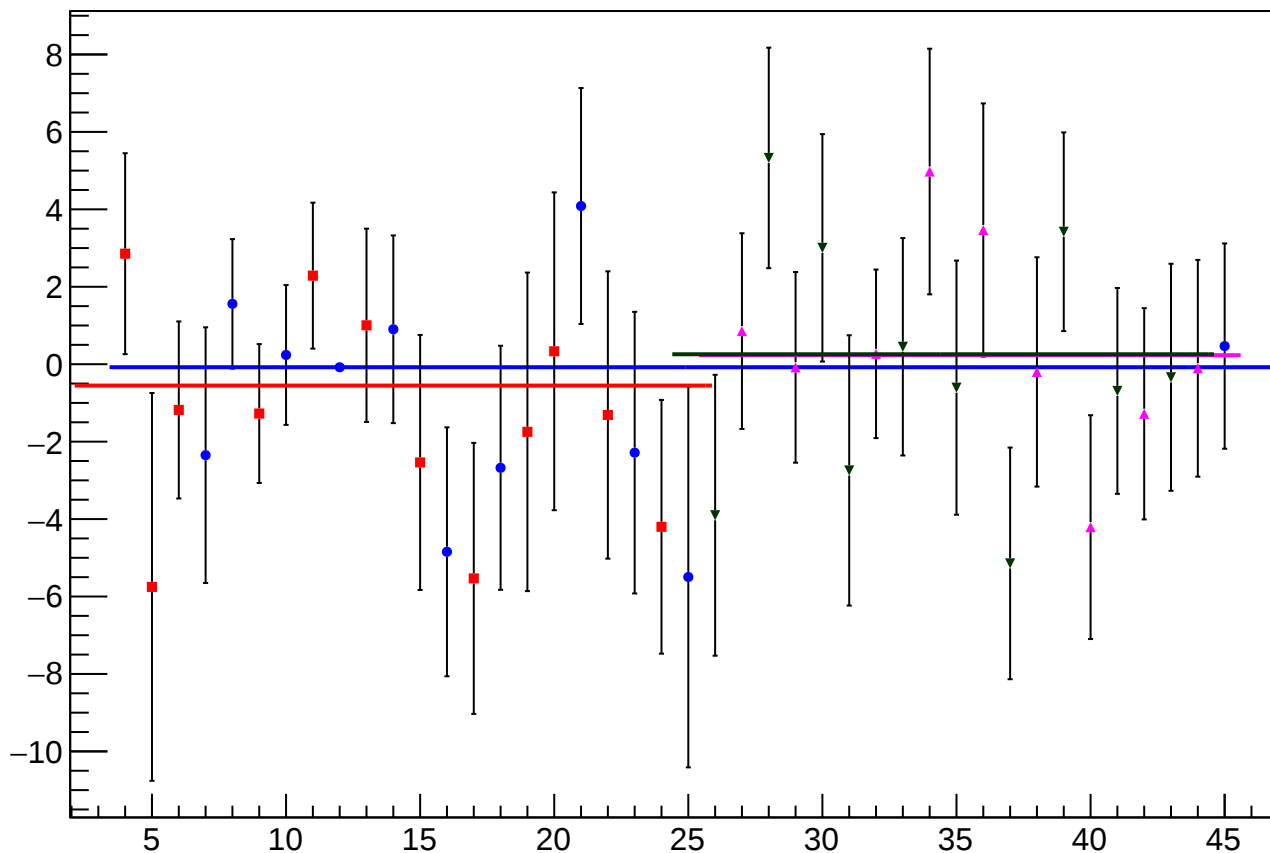
Right Out: 3561.943+/-1.038  $\chi^2/\text{NDF}$ : 941598.3/11

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

3826.000+/-0.796  $\chi^2/\text{NDF}$ : 1347674.7/20

3864.343+/-0.813  $\chi^2/\text{NDF}$ : 1255689.4/20

# diff\_bpm4acX\_mean vs slug



Right In:  $-0.078 \pm 0.060$   $\chi^2/\text{NDF}: 8.0/10$

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

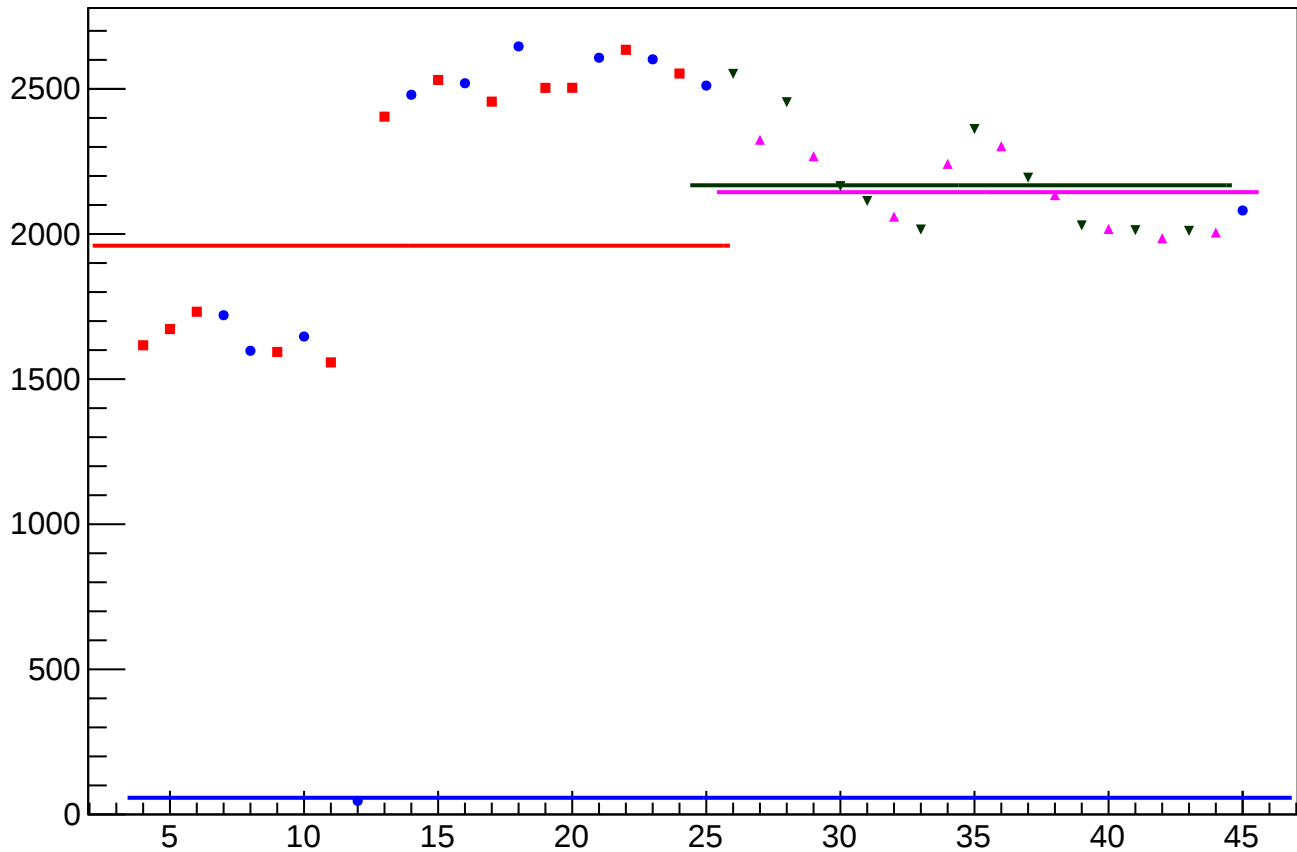
Right Out:  $-0.552 \pm 0.793$   $\chi^2/\text{NDF}: 9.5/11$

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

$-0.077 \pm 0.060$   $\chi^2/\text{NDF}: 19.2/20$

$-0.211 \pm 0.596$   $\chi^2/\text{NDF}: 15.9/20$

# diff\_bpm4acX\_rms vs slug



Right In: 57.470 $\pm$ 0.043  $\chi^2$ /NDF: 12379068.6/10

Left Out: 2167.933 $\pm$ 0.663  $\chi^2$ /NDF: 74393.9/9

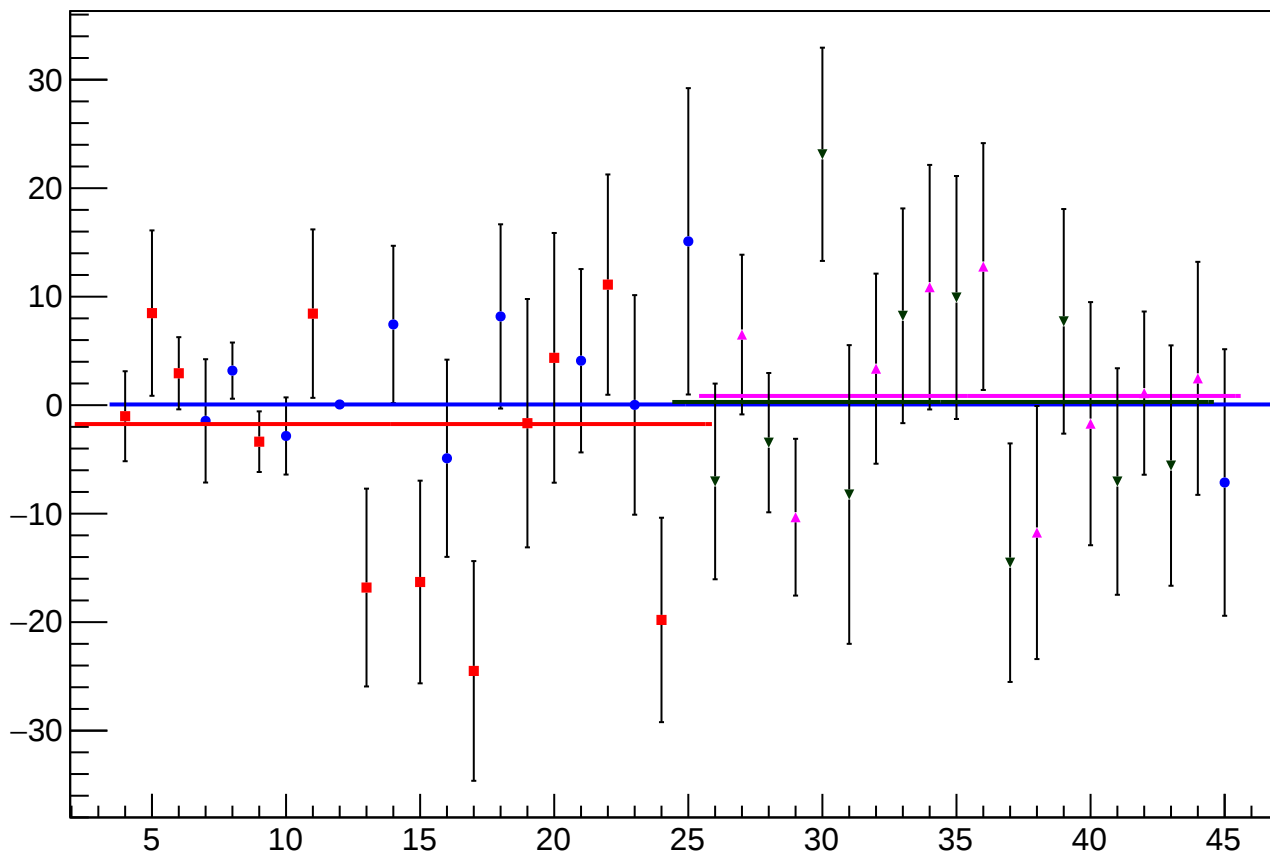
Right Out: 1959.862 $\pm$ 0.561  $\chi^2$ /NDF: 601394.1/11

Left In: 2144.257 $\pm$ 0.640  $\chi^2$ /NDF: 40455.1/8

66.129 $\pm$ 0.042  $\chi^2$ /NDF: 22554455.8/20

2039.939 $\pm$ 0.422  $\chi^2$ /NDF: 688823.6/20

# diff\_bpm4acY\_mean vs slug



Right In:  $0.065 \pm 0.052$   $\chi^2/\text{NDF}$ : 6.1/10

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

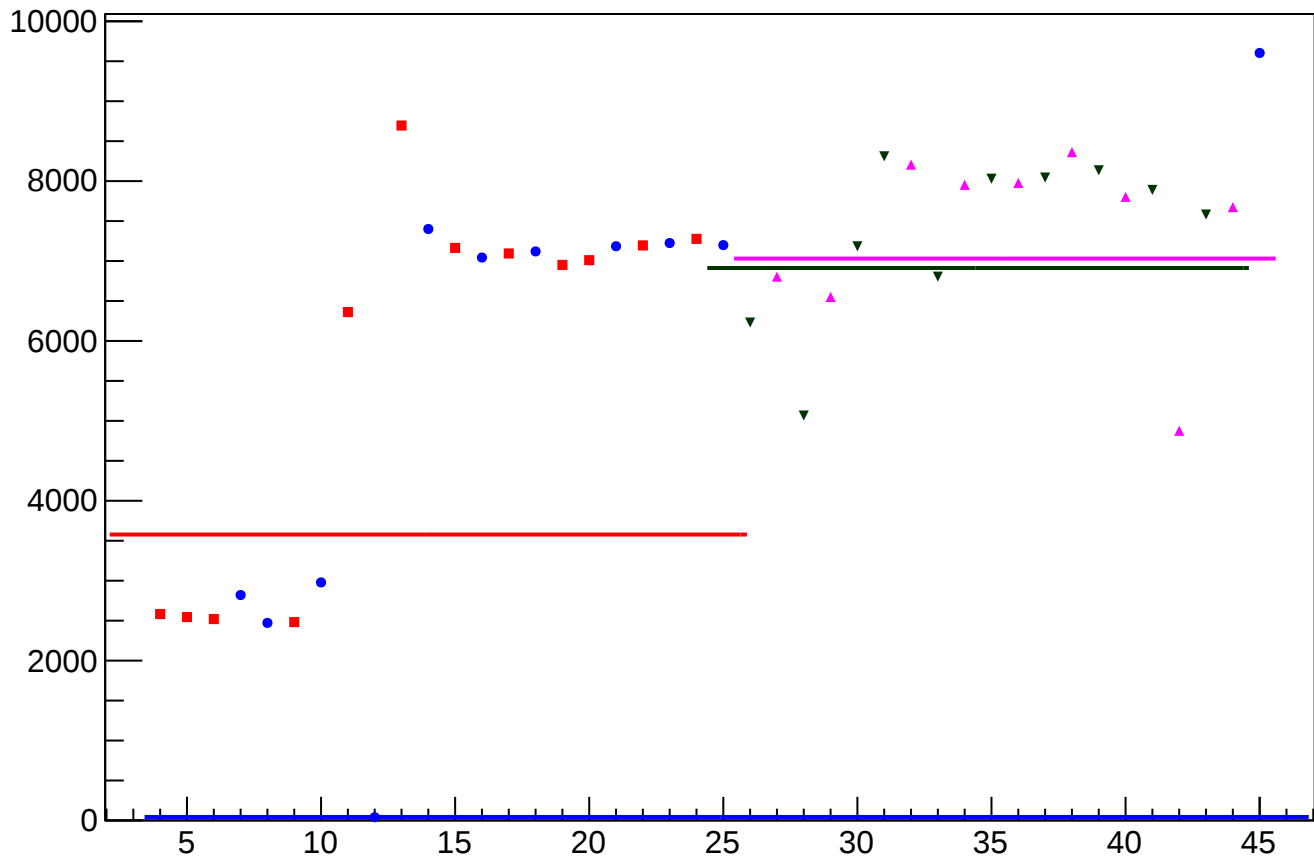
Right Out:  $-1.741 \pm 1.623$   $\chi^2/\text{NDF}$ : 21.6/11

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

$0.065 \pm 0.052$   $\chi^2/\text{NDF}$ : 17.4/20

$-1.168 \pm 1.432$   $\chi^2/\text{NDF}$ : 28.4/20

# diff\_bpm4acY\_rms vs slug



Right In: 43.803+/-0.037  $\chi^2/\text{NDF}$ : 12401200.4/10

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

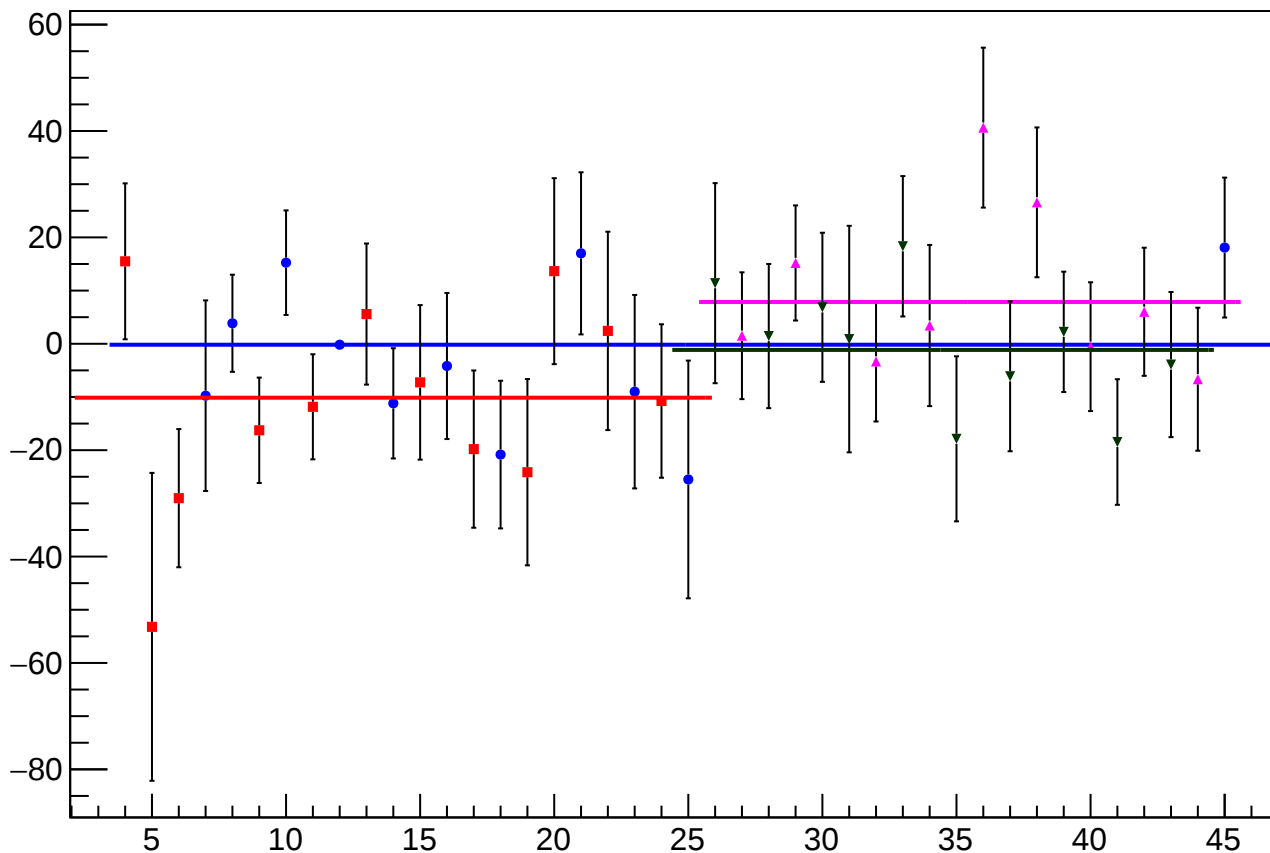
45.766+/-0.037  $\chi^2/\text{NDF}$ : 22627010.4/20

Right Out: 3577.880+/-1.147  $\chi^2/\text{NDF}$ : 2998842.2/11

4341.819+/-1.013  $\chi^2/\text{NDF}$ : 5283328.5/20

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

# diff\_bpm4ecX\_mean vs slug



Right In:  $-0.176 \pm 0.107$   $\chi^2/\text{NDF}$ : 11.1/10

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

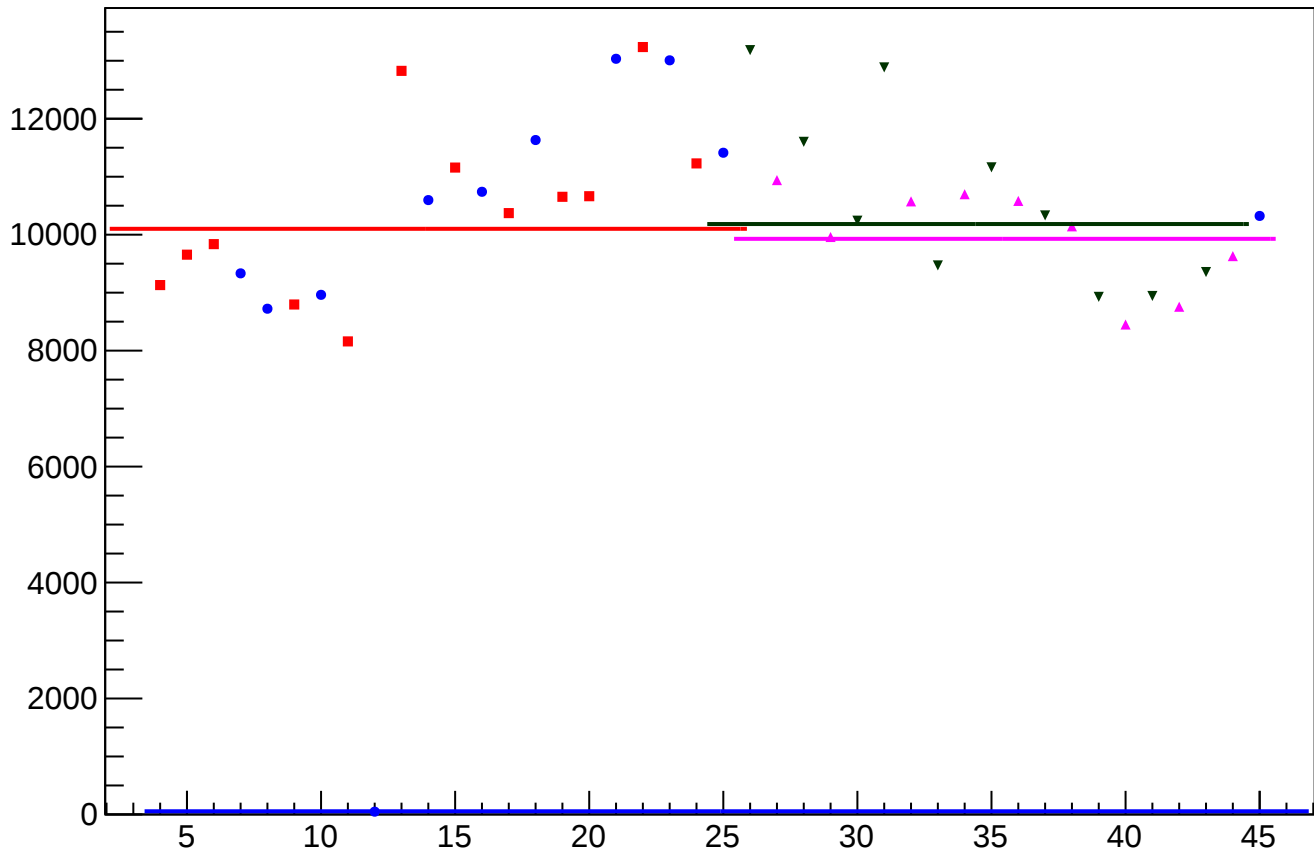
Right Out:  $-10.134 \pm 4.035$   $\chi^2/\text{NDF}$ : 12.6/11

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

$-0.177 \pm 0.106$   $\chi^2/\text{NDF}$ : 17.7/20

$-1.512 \pm 2.912$   $\chi^2/\text{NDF}$ : 32.2/20

# diff\_bpm4ecX\_rms vs slug



Right In: 55.031+/-0.075  $\chi^2/\text{NDF}$ : 12863405.8/10

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

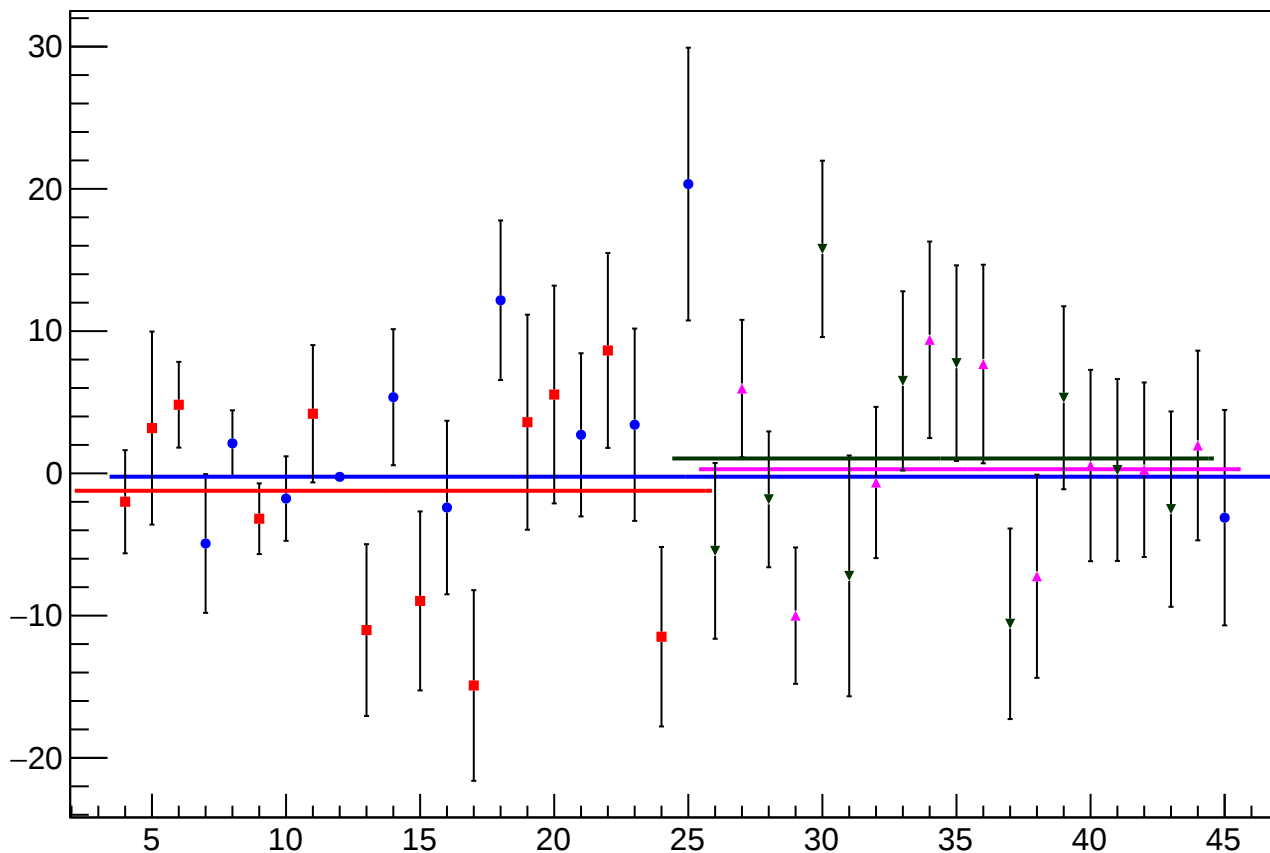
60.874+/-0.075  $\chi^2/\text{NDF}$ : 23467444.8/20

Right Out: 10101.257+/-2.853  $\chi^2/\text{NDF}$ : 290554.5/11

10018.480+/-2.059  $\chi^2/\text{NDF}$ : 372435.1/20

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

# diff\_bpm4ecY\_mean vs slug



Right In:  $-0.235 \pm 0.090$   $\chi^2/\text{NDF}$ : 13.9/10

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

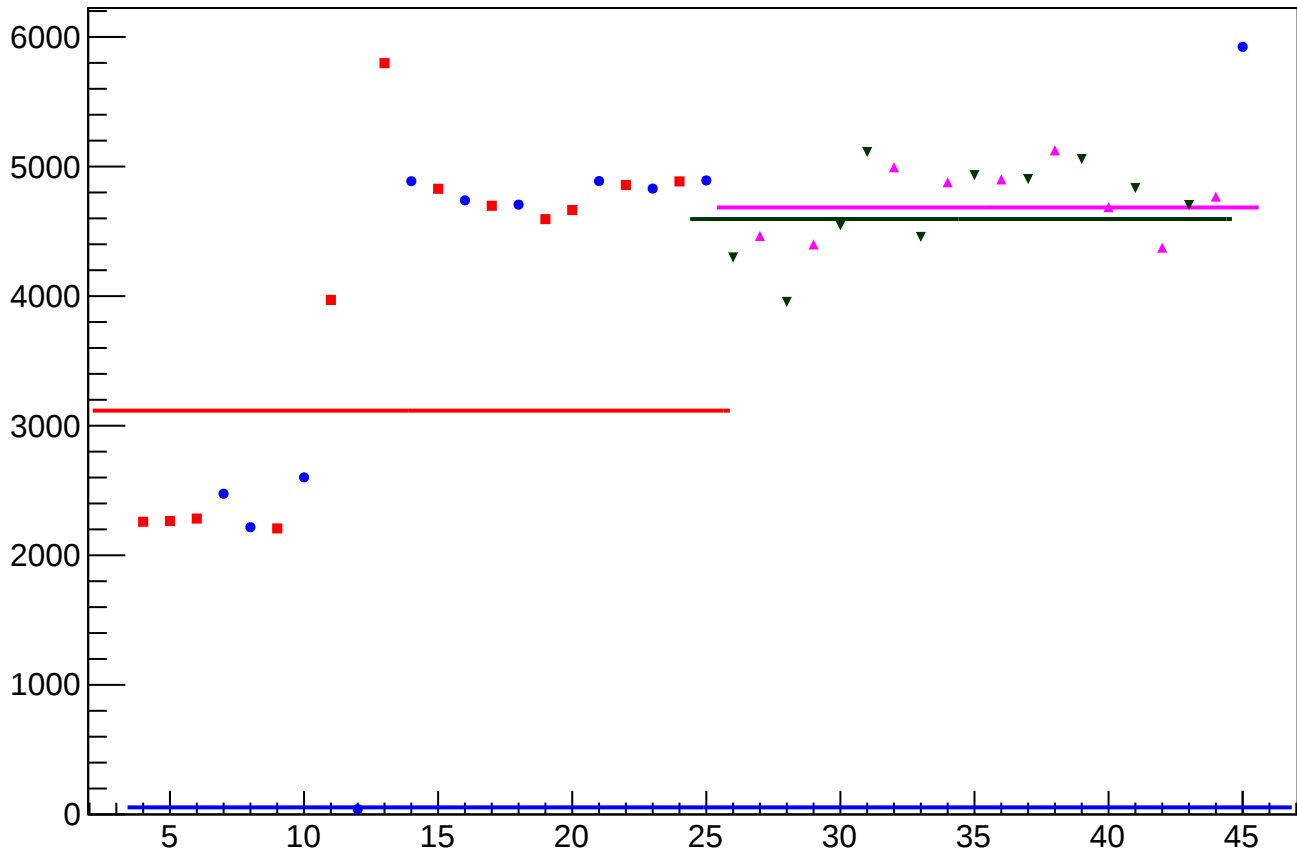
Right Out:  $-1.223 \pm 1.326$   $\chi^2/\text{NDF}$ : 20.6/11

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

$-0.232 \pm 0.090$   $\chi^2/\text{NDF}$ : 27.8/20

$-0.755 \pm 1.102$   $\chi^2/\text{NDF}$ : 31.1/20

diff\_bpm4ecY\_rms vs slug



Right In: 54.634+/-0.064  $\chi^2/\text{NDF}$ : 12470559.9/10

Left Out: 4595.004+/-1.418  $\chi^2/\text{NDF}$ : 71786.0/9

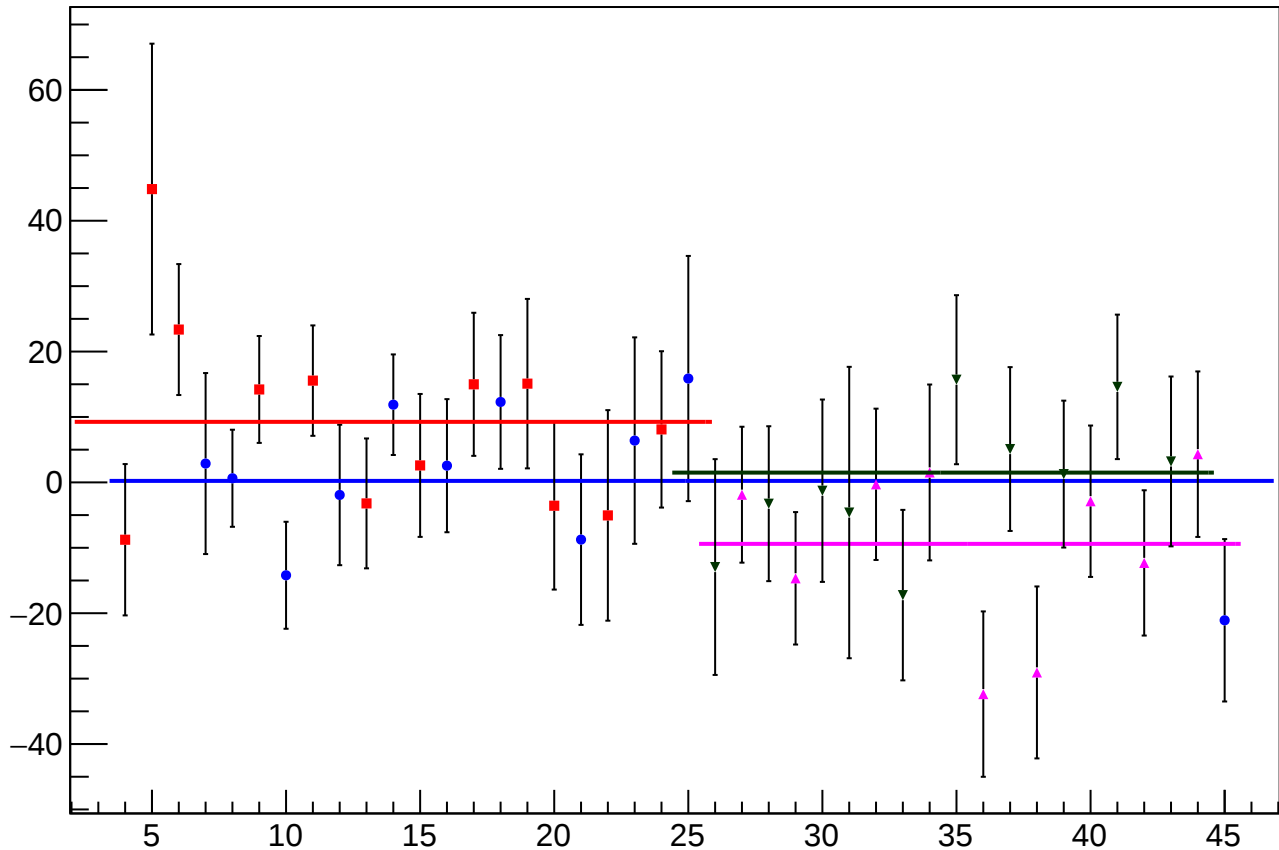
63.751+/-0.064  $\chi^2/\text{NDF}$ : 22768451.4/20

Right Out: 3116.348+/-0.938  $\chi^2/\text{NDF}$ : 1724845.4/11

3600.649+/-0.780  $\chi^2/\text{NDF}$ : 2622884.4/20

Left In: 4684.130+/-1.403  $\chi^2/\text{NDF}$ : 34622.6/8

# diff\_bpm1X\_mean vs slug



Right In:  $0.227 \pm 3.125$   $\chi^2/\text{NDF}$ : 11.2/10

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

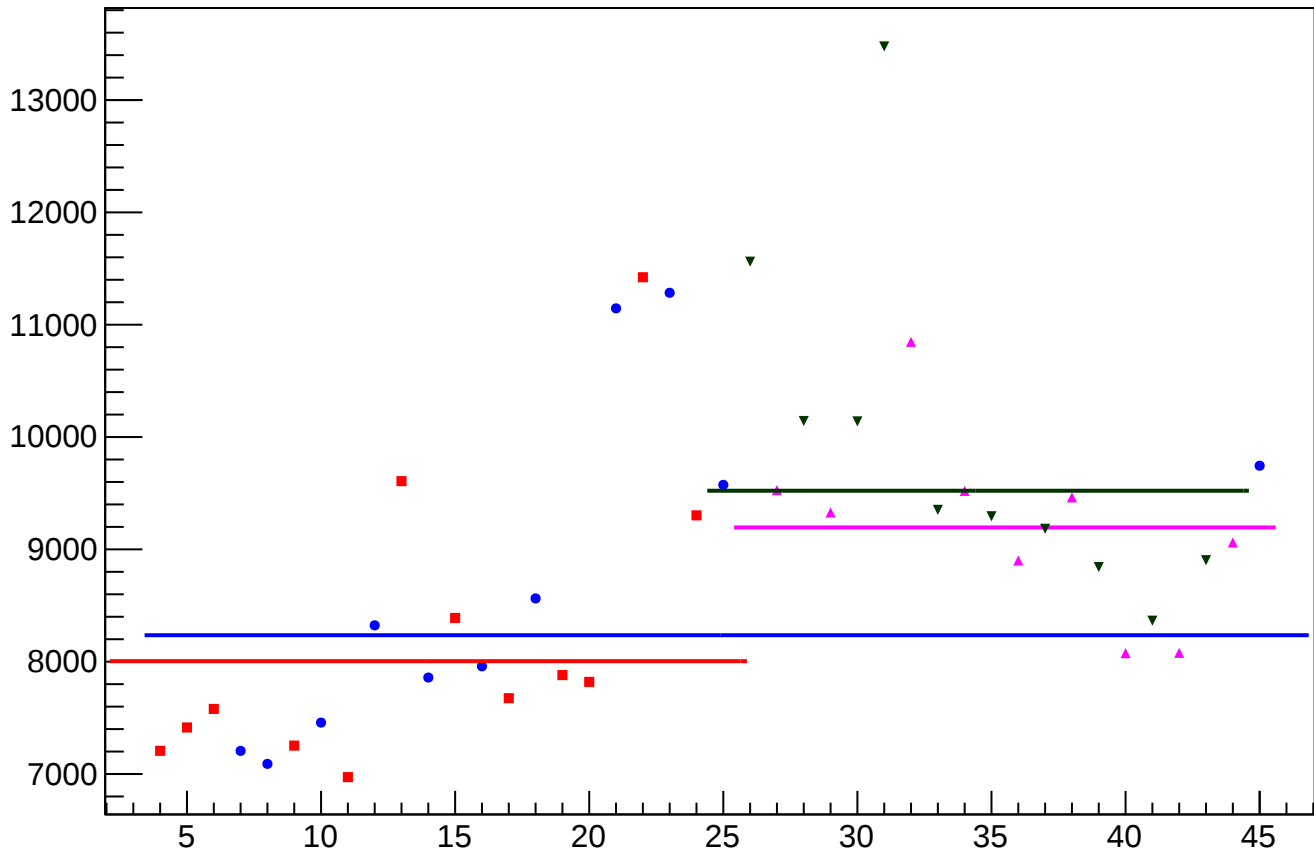
Right Out:  $9.254 \pm 3.190$   $\chi^2/\text{NDF}$ : 12.1/11

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

$0.687 \pm 2.495$   $\chi^2/\text{NDF}$ : 17.1/20

$1.767 \pm 2.468$   $\chi^2/\text{NDF}$ : 35.0/20

# diff\_bpm1X\_rms vs slug



Right In: 8235.762+/-2.210  $\chi^2/\text{NDF}$ : 299317.8/10

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

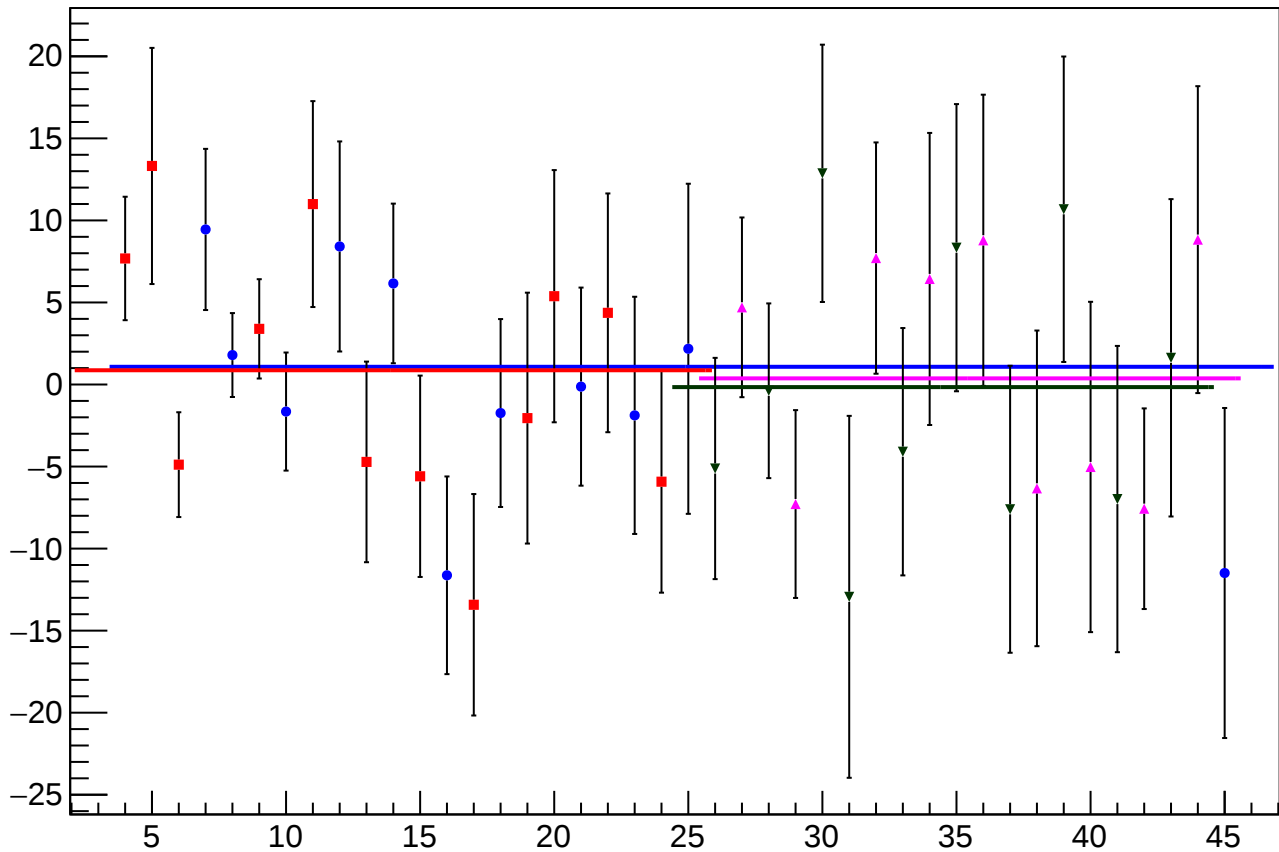
Right Out: 8004.585+/-2.255  $\chi^2/\text{NDF}$ : 232190.6/11

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

8702.346+/-1.764  $\chi^2/\text{NDF}$ : 561506.5/20

8482.474+/-1.745  $\chi^2/\text{NDF}$ : 429487.5/20

# diff\_bpm1Y\_mean vs slug



Right In:  $1.080 \pm 1.470$   $\chi^2/\text{NDF}$ : 12.4/10

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

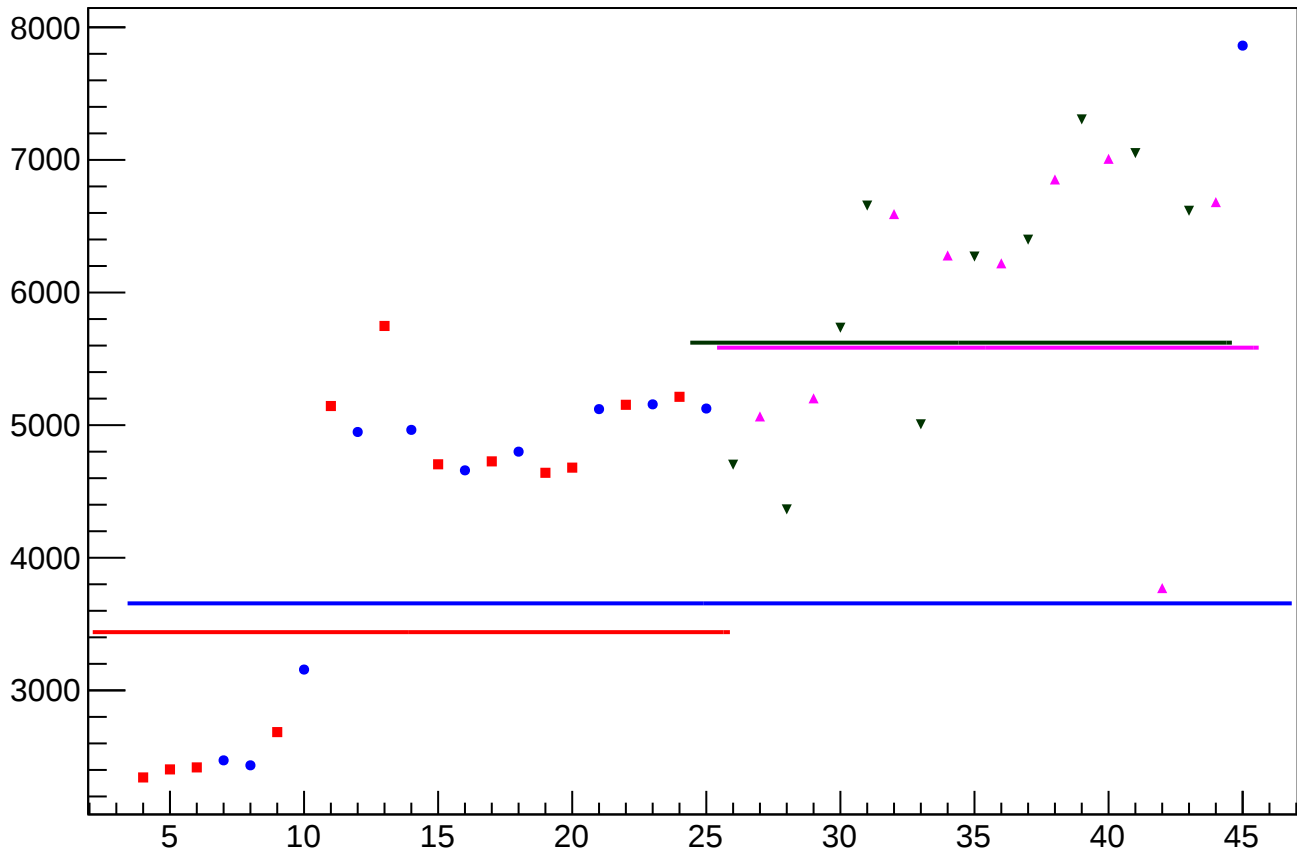
Right Out:  $0.868 \pm 1.454$   $\chi^2/\text{NDF}$ : 21.0/11

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

$0.763 \pm 1.268$   $\chi^2/\text{NDF}$ : 21.1/20

$0.738 \pm 1.249$   $\chi^2/\text{NDF}$ : 29.1/20

# diff\_bpm1Y\_rms vs slug



Right In: 3656.069 $\pm$ 1.039  $\chi^2$ /NDF: 1568863.9/10

Left Out: 5621.962 $\pm$ 1.772  $\chi^2$ /NDF: 340384.5/9

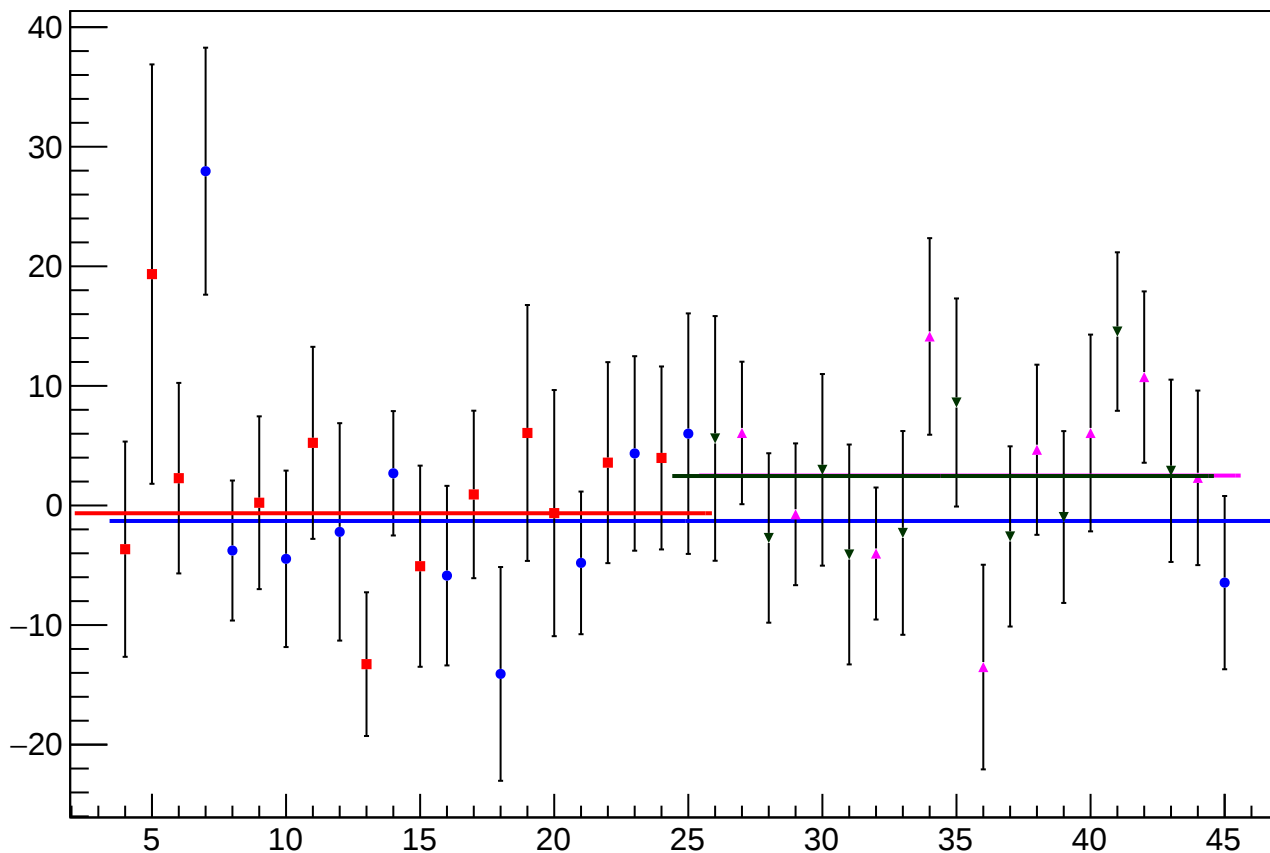
4159.336 $\pm$ 0.897  $\chi^2$ /NDF: 2824885.9/20

Right Out: 3439.033 $\pm$ 1.028  $\chi^2$ /NDF: 1480366.2/11

4001.990 $\pm$ 0.883  $\chi^2$ /NDF: 2990637.7/20

Left In: 5584.245 $\pm$ 1.724  $\chi^2$ /NDF: 368430.0/8

# diff\_bpm11X\_mean vs slug



Right In:  $-1.297 \pm 2.190$   $\chi^2/\text{NDF}$ : 13.3/10

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

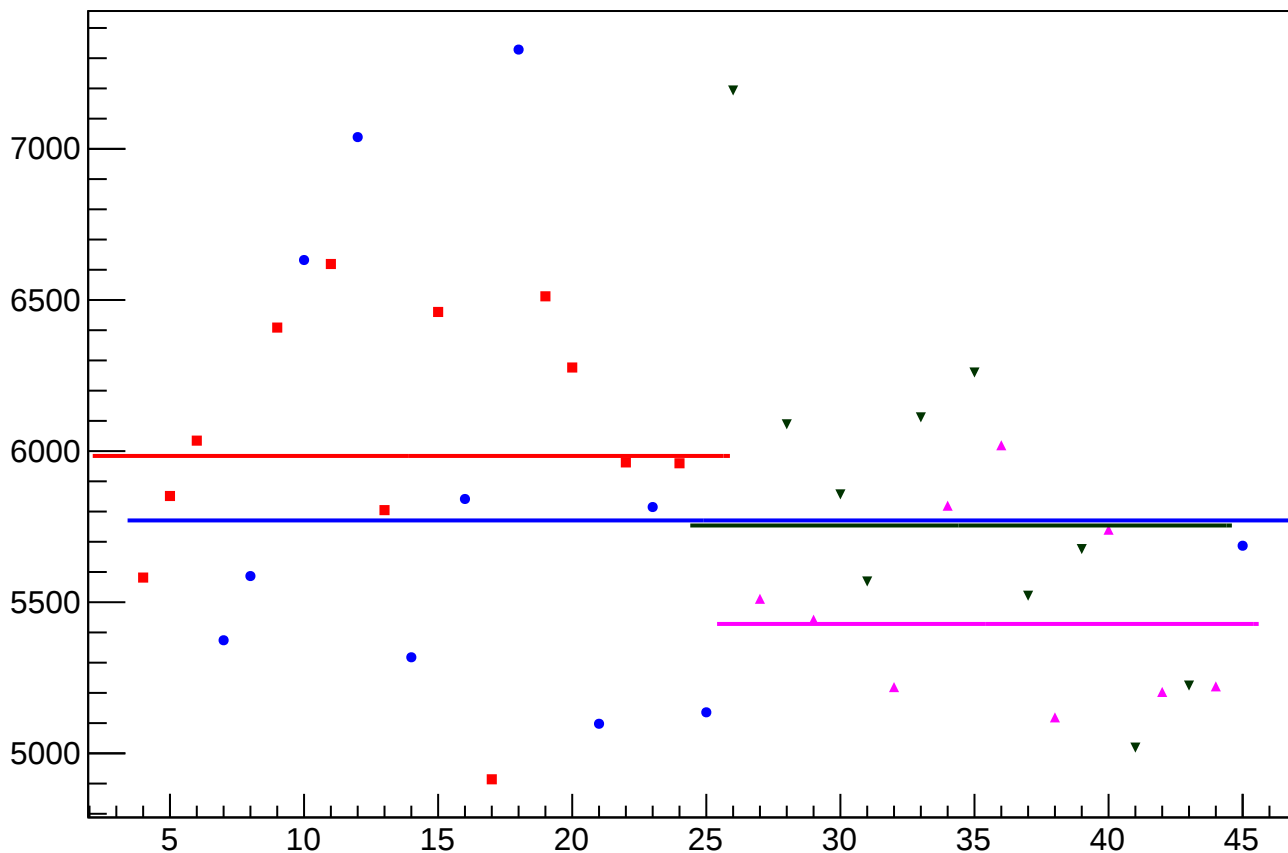
Right Out:  $-0.650 \pm 2.373$   $\chi^2/\text{NDF}$ : 7.8/11

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

$0.341 \pm 1.646$   $\chi^2/\text{NDF}$ : 20.5/20

$0.981 \pm 1.648$   $\chi^2/\text{NDF}$ : 17.9/20

# diff\_bpm11X\_rms vs slug



Right In: 5770.611+/-1.549  $\chi^2/\text{NDF}$ : 180970.4/10

Left Out: 5753.867+/-1.763  $\chi^2/\text{NDF}$ : 91874.6/9

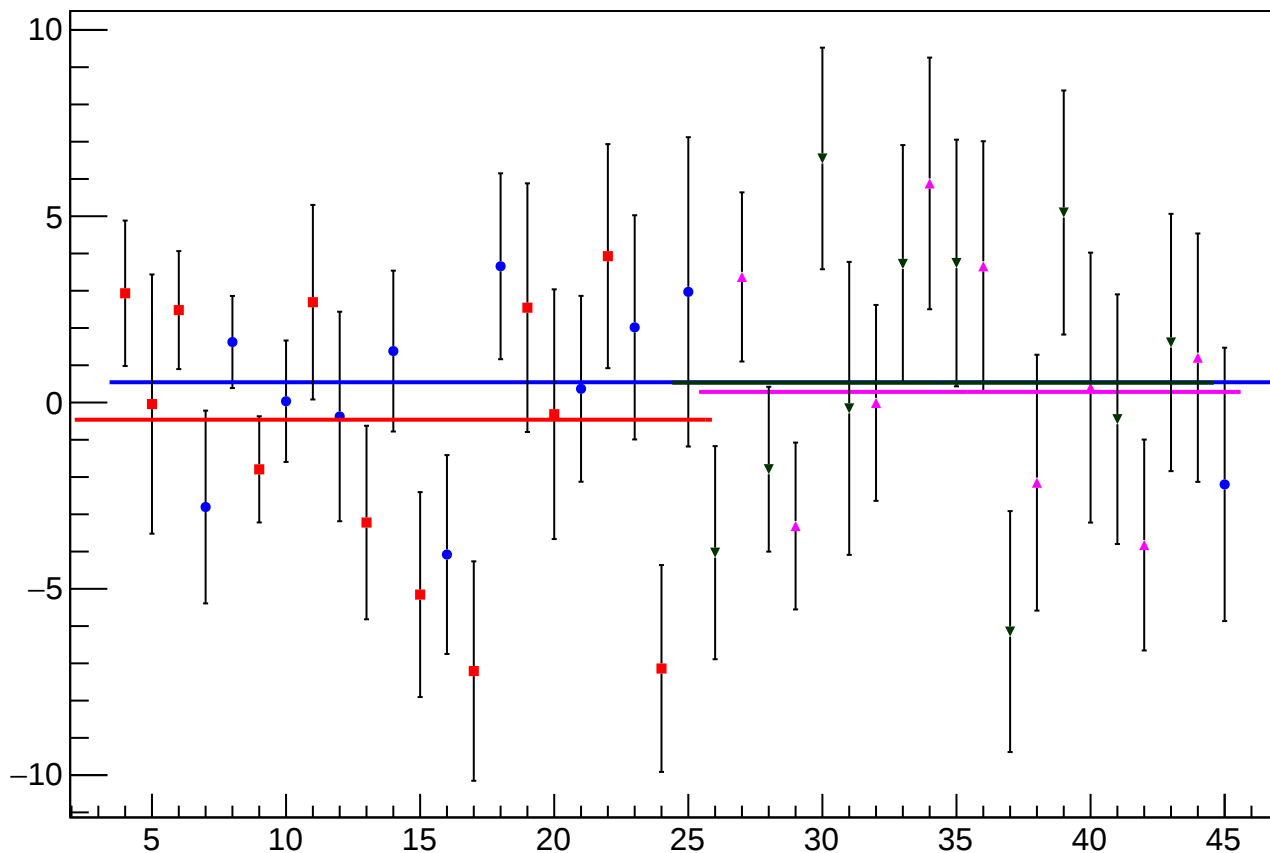
Right Out: 5983.998+/-1.678  $\chi^2/\text{NDF}$ : 85007.6/11

Left In: 5428.130+/-1.619  $\chi^2/\text{NDF}$ : 27568.5/8

5763.318+/-1.164  $\chi^2/\text{NDF}$ : 272895.9/20

5696.226+/-1.165  $\chi^2/\text{NDF}$ : 169410.4/20

# diff\_bpm11Y\_mean vs slug



Right In:  $0.544 \pm 0.670$   $\chi^2/\text{NDF}$ : 8.5/10

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

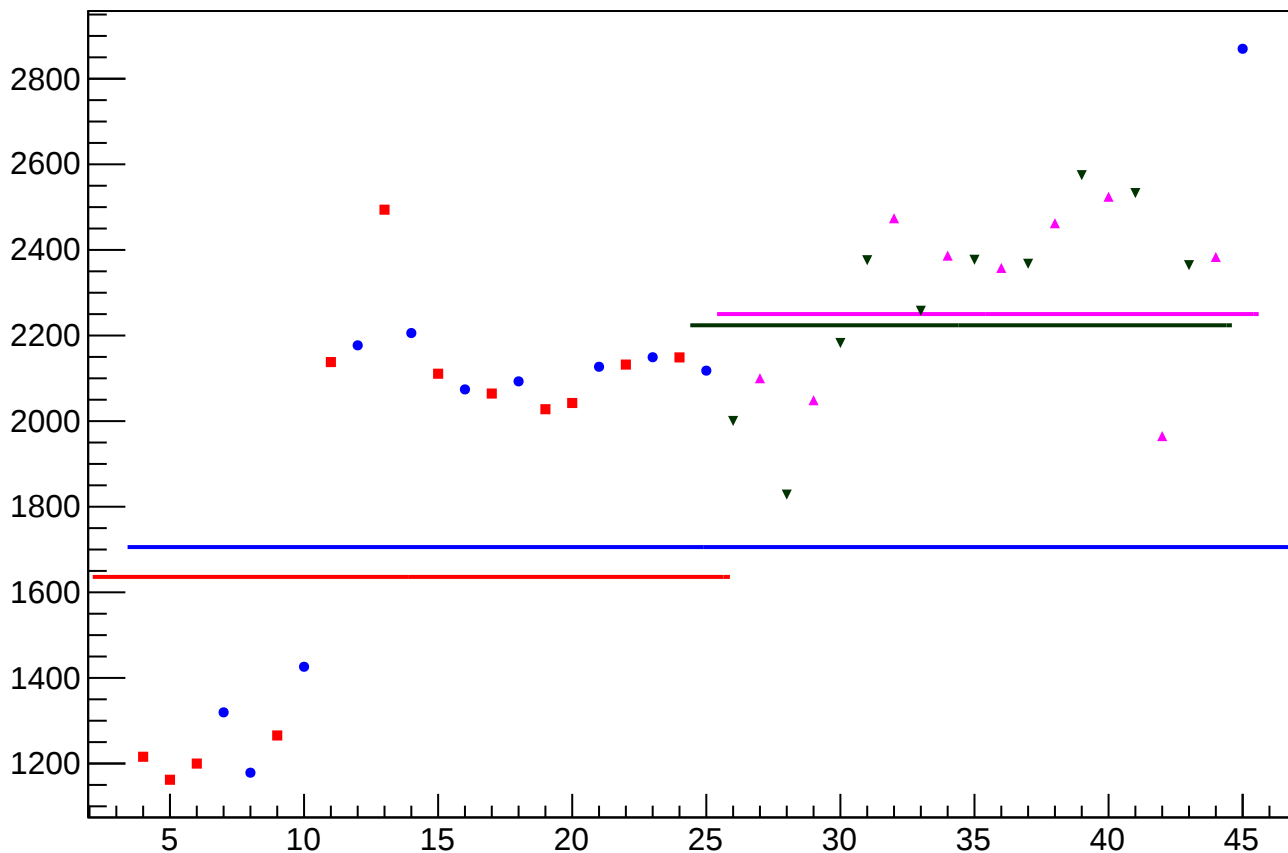
Right Out:  $-0.461 \pm 0.674$   $\chi^2/\text{NDF}$ : 26.8/11

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

$0.541 \pm 0.552$   $\chi^2/\text{NDF}$ : 24.6/20

$-0.214 \pm 0.551$   $\chi^2/\text{NDF}$ : 38.1/20

# diff\_bpm11Y\_rms vs slug



Right In: 1705.730+/-0.474  $\chi^2/\text{NDF}$ : 1038714.4/10

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

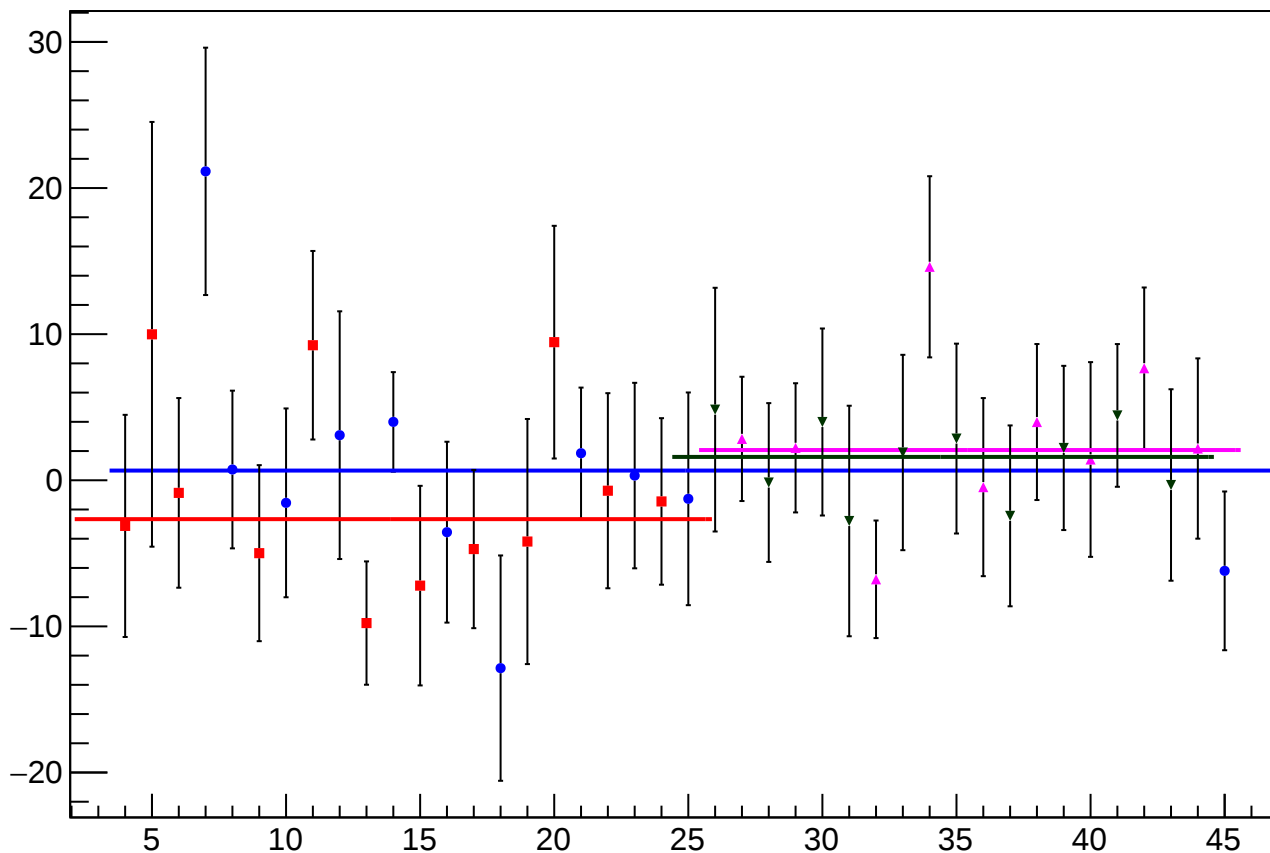
Right Out: 1636.018+/-0.477  $\chi^2/\text{NDF}$ : 990659.4/11

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

1872.434+/-0.390  $\chi^2/\text{NDF}$ : 1554651.5/20

1839.654+/-0.390  $\chi^2/\text{NDF}$ : 1627844.2/20

# diff\_bpm12X\_mean vs slug



Right In:  $0.664 \pm 1.709$   $\chi^2/\text{NDF}$ : 12.3/10

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

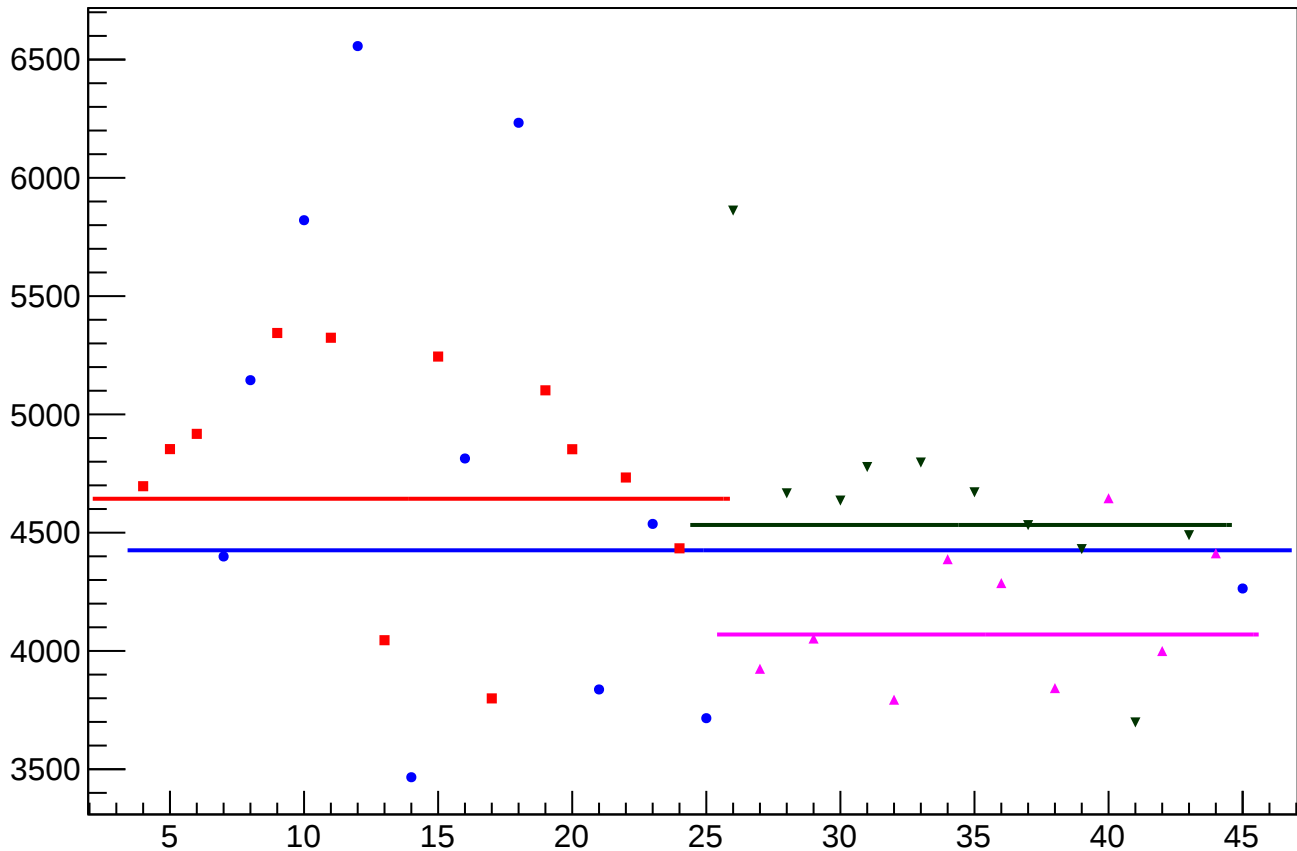
Right Out:  $-2.661 \pm 1.850$   $\chi^2/\text{NDF}$ : 10.3/11

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

$1.065 \pm 1.291$   $\chi^2/\text{NDF}$ : 14.0/20

$-0.124 \pm 1.260$   $\chi^2/\text{NDF}$ : 24.1/20

# diff\_bpm12X\_rms vs slug



Right In: 4425.493+/-1.208  $\chi^2/\text{NDF}$ : 587330.7/10

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

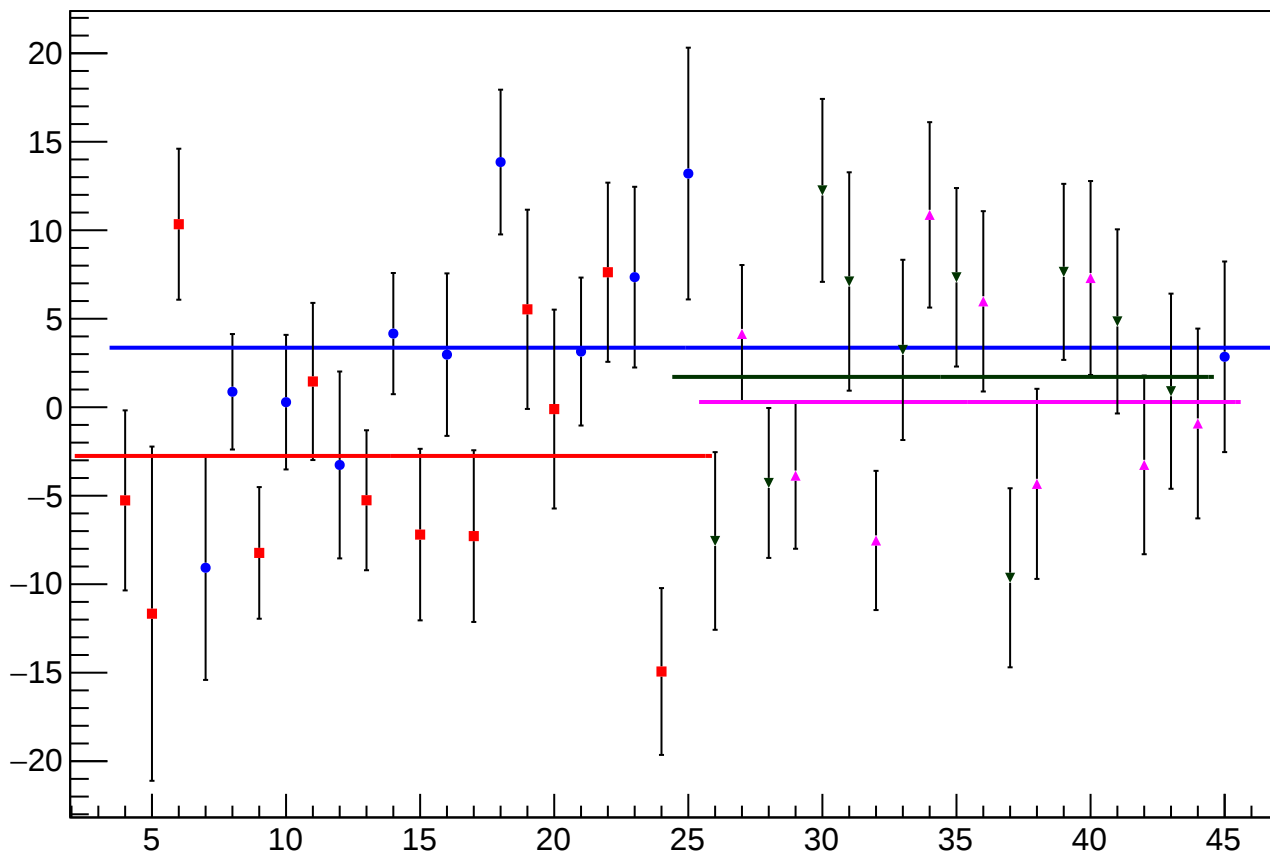
4471.493+/-0.913  $\chi^2/\text{NDF}$ : 708335.5/20

Right Out: 4643.387+/-1.308  $\chi^2/\text{NDF}$ : 168050.7/11

4335.713+/-0.891  $\chi^2/\text{NDF}$ : 315854.6/20

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

# diff\_bpm12Y\_mean vs slug



Right In:  $3.363 \pm 1.329$   $\chi^2/\text{NDF}$ : 15.8/10

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

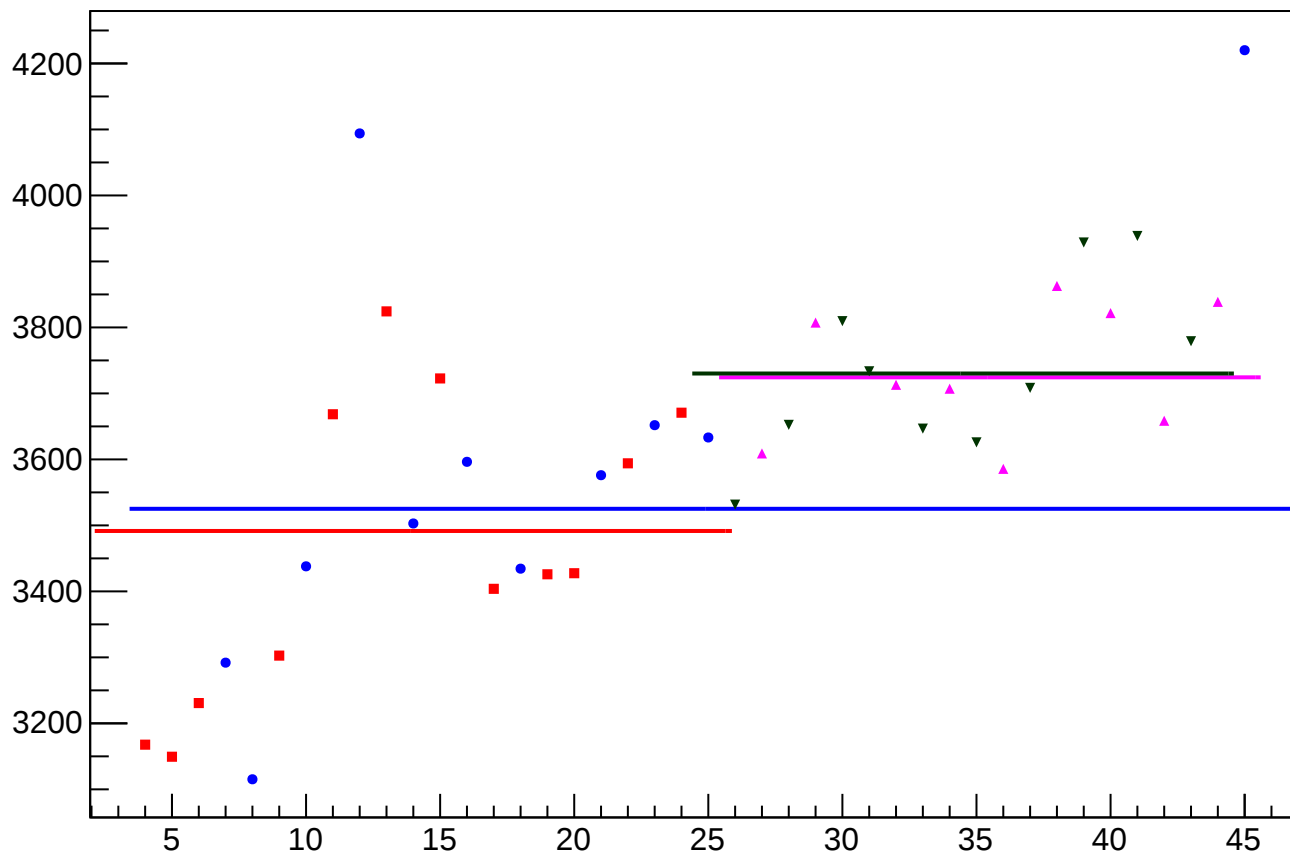
Right Out:  $-2.752 \pm 1.381$   $\chi^2/\text{NDF}$ : 29.0/11

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

$2.694 \pm 1.025$   $\chi^2/\text{NDF}$ : 35.0/20

$-1.422 \pm 1.037$   $\chi^2/\text{NDF}$ : 45.3/20

# diff\_bpm12Y\_rms vs slug



Right In: 3525.129+/-0.940  $\chi^2/\text{NDF}$ : 95386.3/10

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

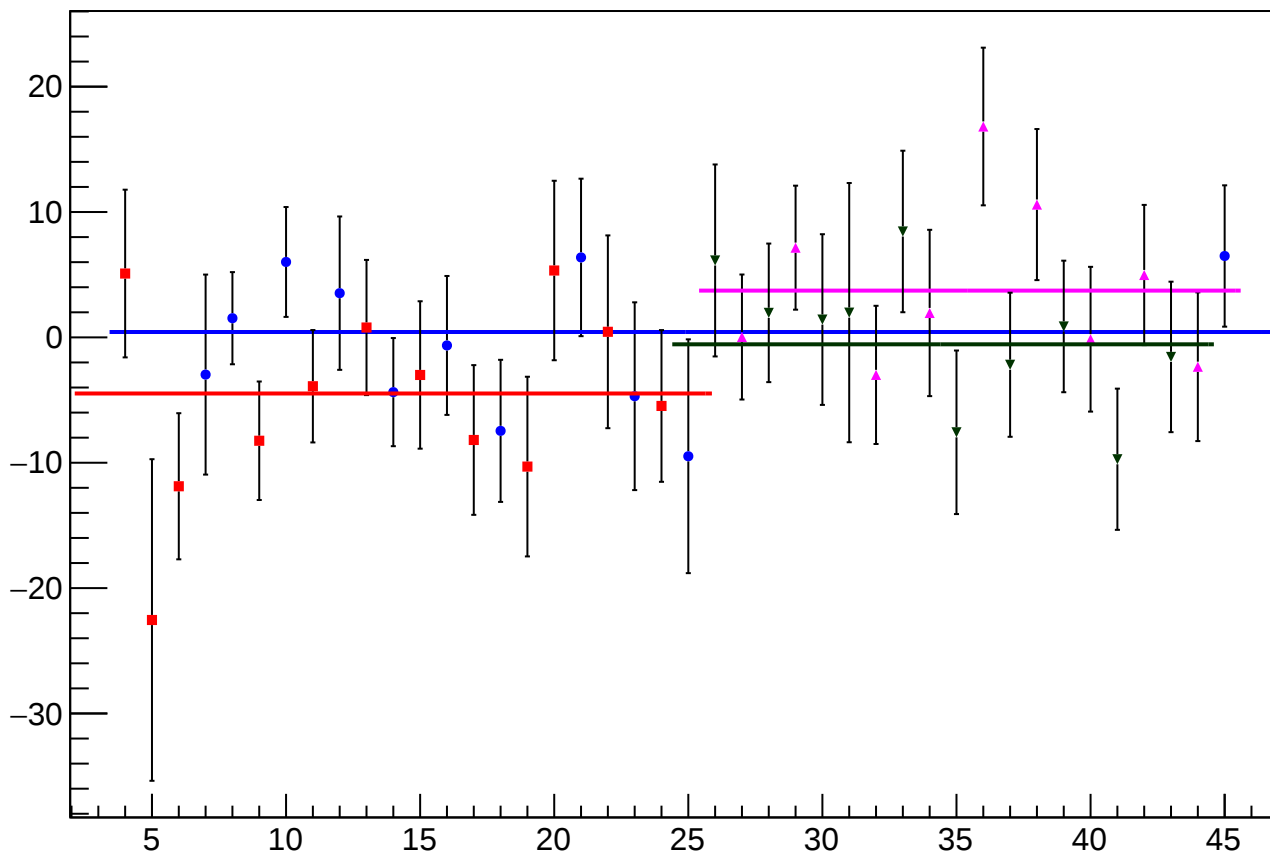
Right Out: 3491.537+/-0.977  $\chi^2/\text{NDF}$ : 50144.5/11

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

3608.284+/-0.724  $\chi^2/\text{NDF}$ : 126961.8/20

3593.180+/-0.733  $\chi^2/\text{NDF}$ : 82241.5/20

# diff\_bpm16X\_mean vs slug



Right In:  $0.429 \pm 1.639$   $\chi^2/\text{NDF}$ : 9.0/10

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

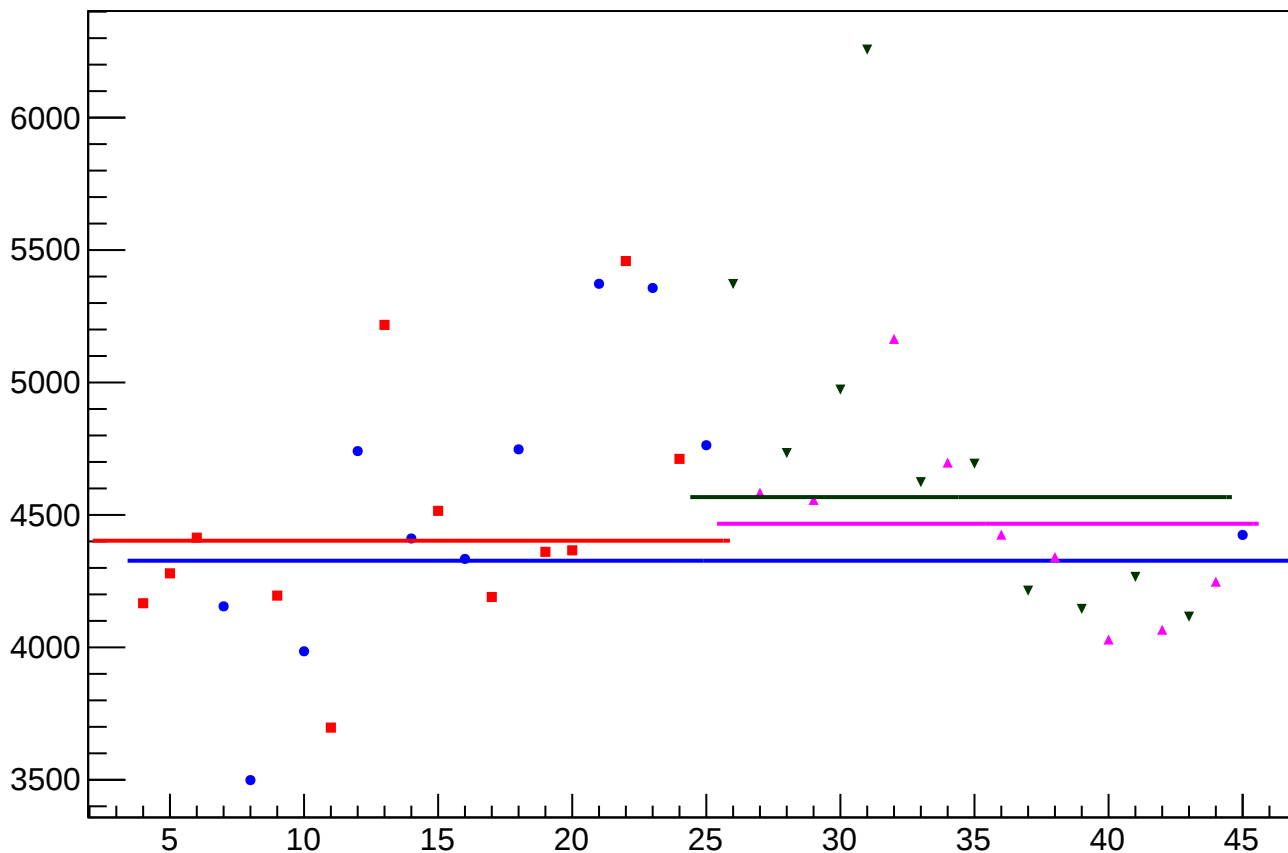
Right Out:  $-4.476 \pm 1.749$   $\chi^2/\text{NDF}$ : 10.7/11

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

$0.030 \pm 1.264$   $\chi^2/\text{NDF}$ : 16.2/20

$-0.690 \pm 1.284$   $\chi^2/\text{NDF}$ : 30.6/20

# diff\_bpm16X\_rms vs slug



Right In: 4327.165+/-1.159  $\chi^2/\text{NDF}$ : 233777.2/10

Left Out: 4567.308+/-1.402  $\chi^2/\text{NDF}$ :122824.8/9

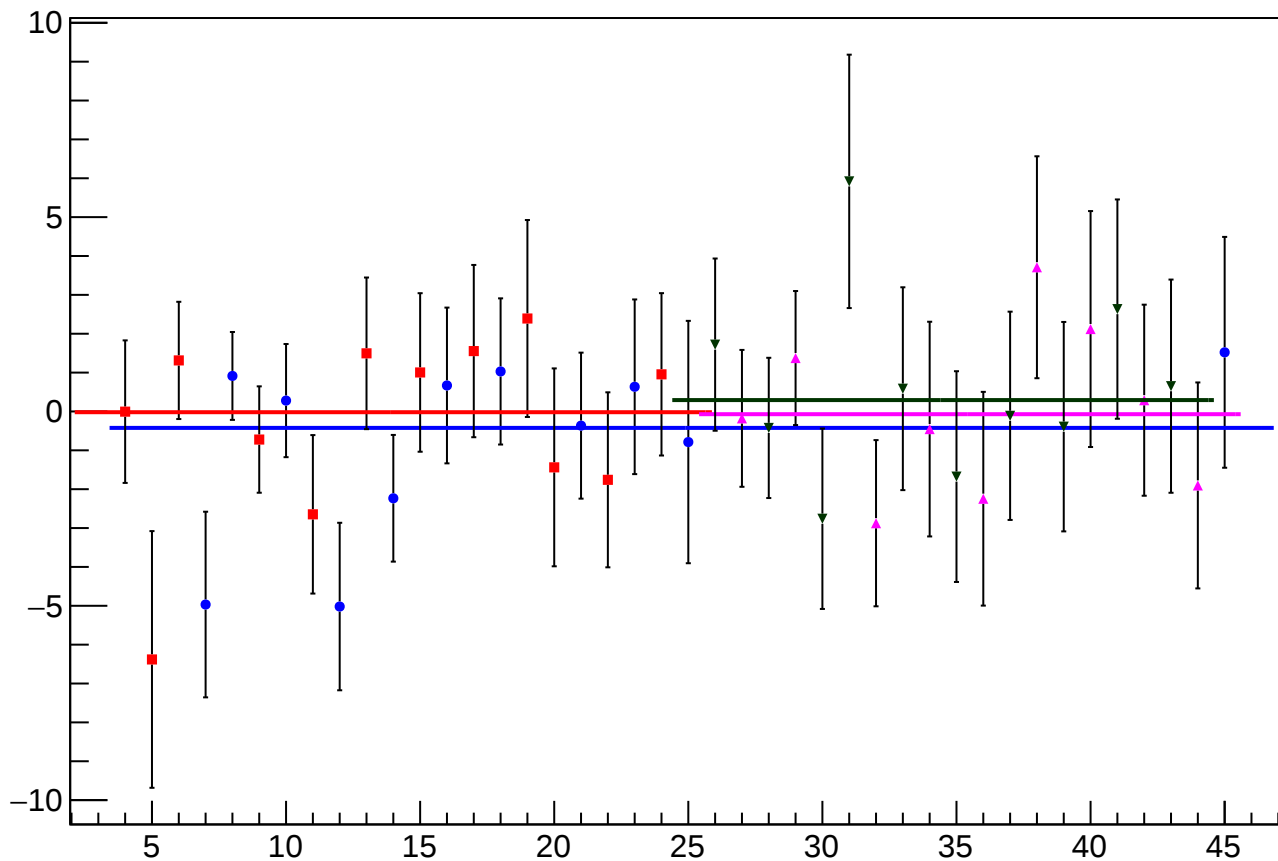
Right Out: 4402.778+/-1.237  $\chi^2/\text{NDF}$ : 148052.0/11

Left In: 4466.769+/-1.336  $\chi^2/\text{NDF}$ :61630.0/8

4424.634+/-0.893  $\chi^2/\text{NDF}$ : 374021.7/20

4432.296+/-0.908  $\chi^2/\text{NDF}$ : 210917.3/20

# diff\_bpm16Y\_mean vs slug



Right In:  $-0.423 \pm 0.555$   $\chi^2/\text{NDF}: 12.6/10$

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

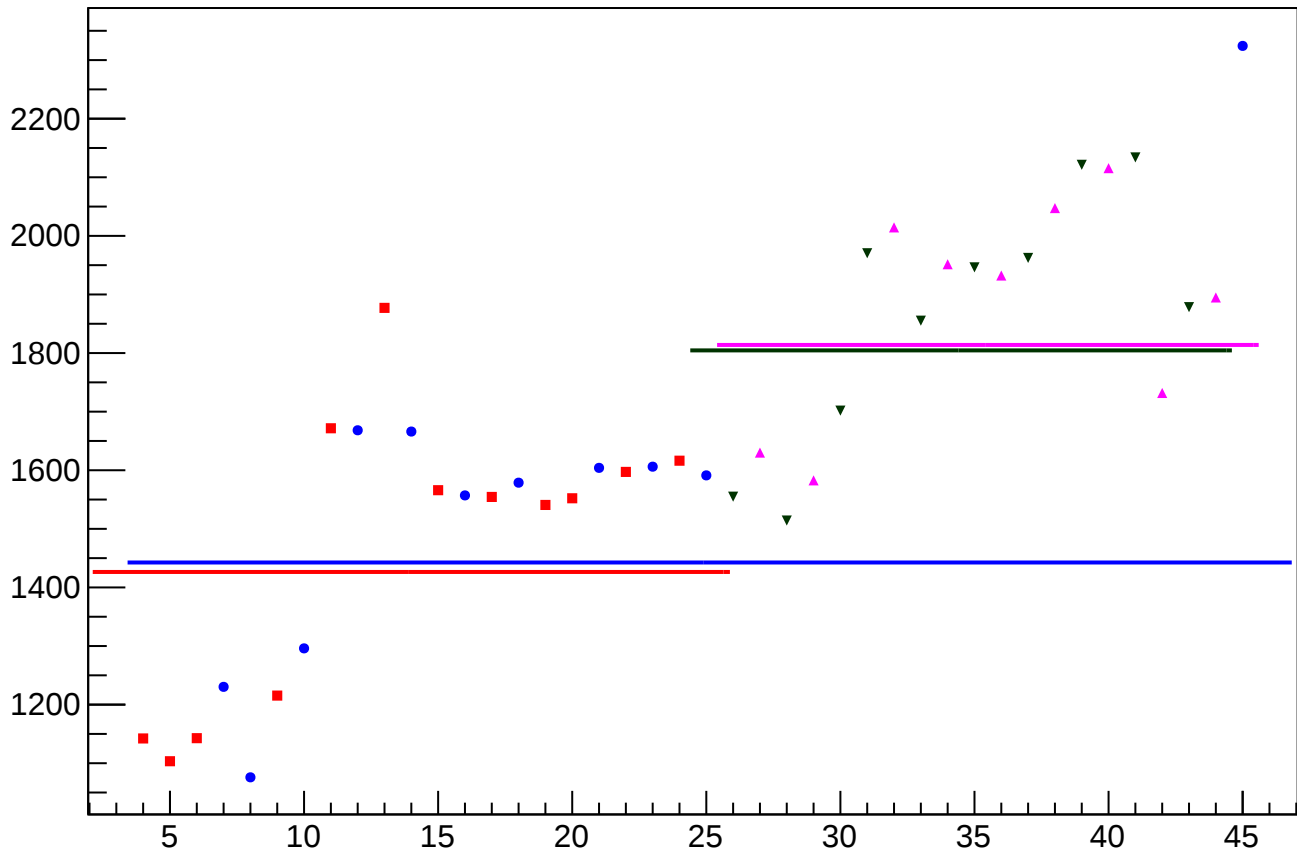
Right Out:  $-0.019 \pm 0.573$   $\chi^2/\text{NDF}: 9.8/11$

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

$-0.186 \pm 0.454$   $\chi^2/\text{NDF}: 19.8/20$

$-0.037 \pm 0.460$   $\chi^2/\text{NDF}: 15.7/20$

diff\_bpm16Y\_rms vs slug



Right In: 1442.578+/-0.392  $\chi^2/\text{NDF}$ : 529101.5/10

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

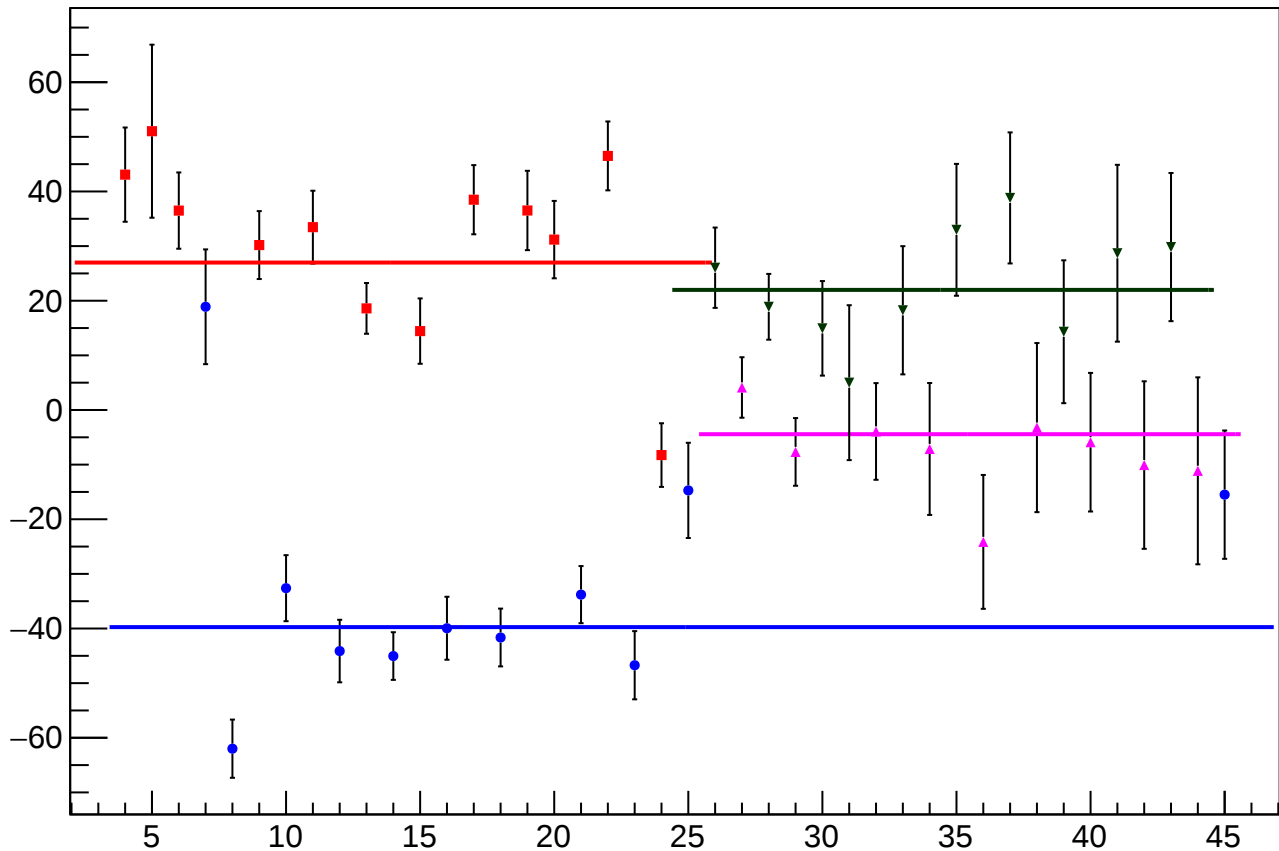
1562.431+/-0.321  $\chi^2/\text{NDF}$ : 966935.8/20

Right Out: 1426.417+/-0.405  $\chi^2/\text{NDF}$ : 374185.0/11

1564.139+/-0.325  $\chi^2/\text{NDF}$ : 820530.6/20

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

# diff\_bpm0l01X\_mean vs slug



Right In: -39.743 $\pm$ 1.816  $\chi^2$ /NDF: 67.2/10

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

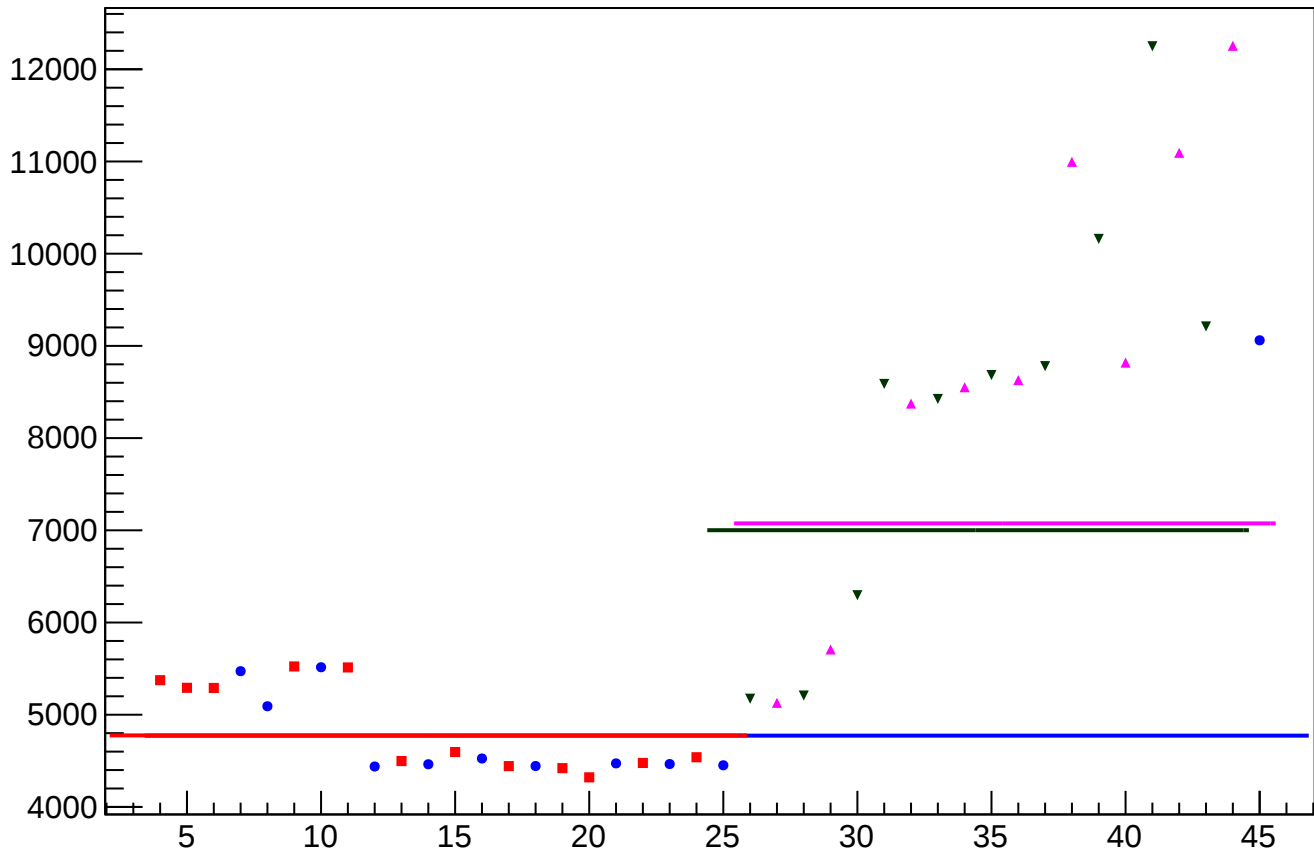
Right Out: 26.988 $\pm$ 1.893  $\chi^2$ /NDF: 68.1/11

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

-24.369 $\pm$ 1.573  $\chi^2$ /NDF: 361.5/20

18.517 $\pm$ 1.618  $\chi^2$ /NDF: 148.0/20

# diff\_bpm0l01X\_rms vs slug



Right In: 4773.281+/-1.284  $\chi^2/\text{NDF}$ : 355394.9/10

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

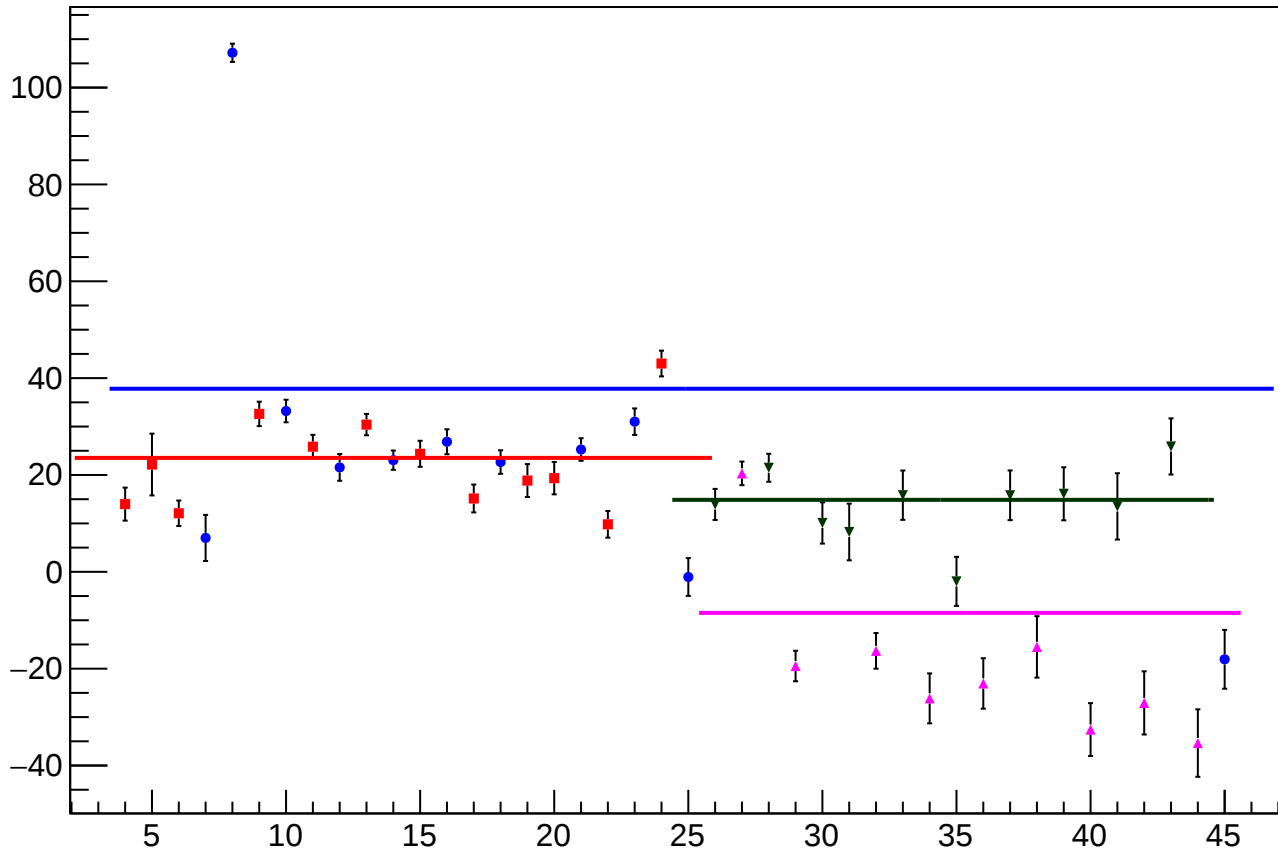
Right Out: 4775.916+/-1.339  $\chi^2/\text{NDF}$ : 111352.4/11

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

5328.182+/-1.113  $\chi^2/\text{NDF}$ : 1937059.3/20

5395.750+/-1.144  $\chi^2/\text{NDF}$ : 1843110.5/20

# diff\_bpm0l01Y\_mean vs slug



Right In: 37.808 $\pm$ 0.785  $\chi^2$ /NDF: 1766.6/10

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

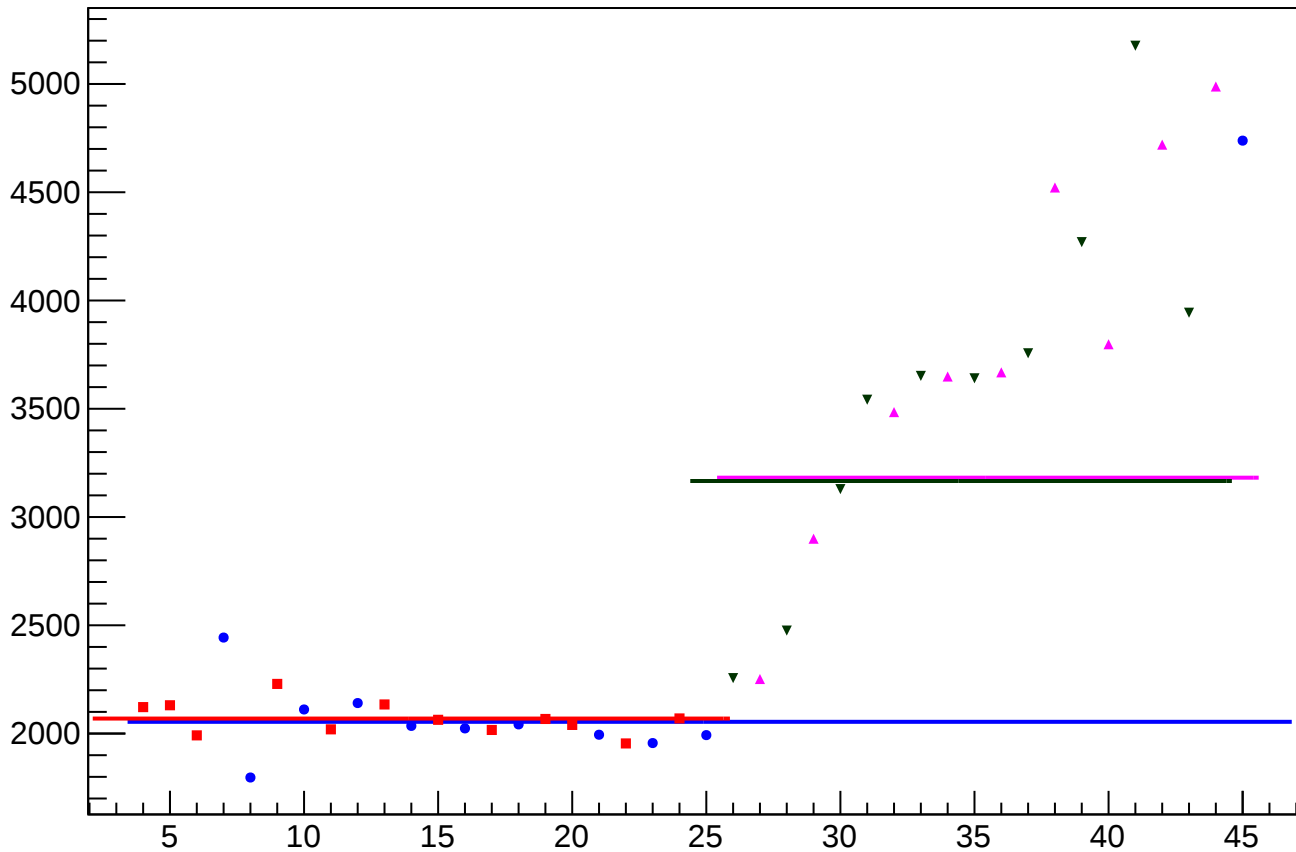
Right Out: 23.530 $\pm$ 0.818  $\chi^2$ /NDF: 140.9/11

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

32.393 $\pm$ 0.686  $\chi^2$ /NDF: 1991.0/20

15.259 $\pm$ 0.705  $\chi^2$ /NDF: 755.9/20

diff\_bpm0l01Y\_rms vs slug



Right In: 2054.180+/-0.555  $\chi^2/\text{NDF}$ : 449291.3/10

Left Out: 3166.393+/-0.999  $\chi^2/\text{NDF}$ : 635521.0/9

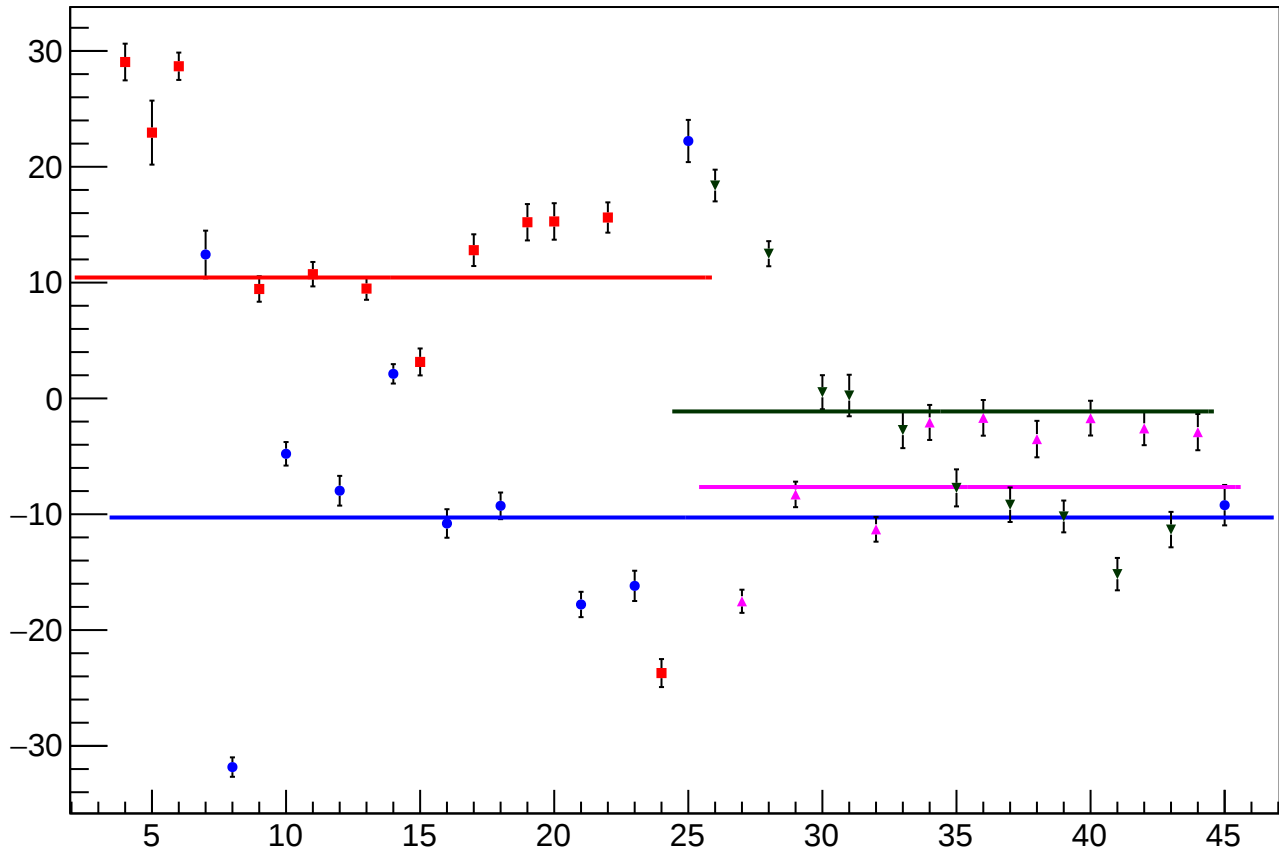
Right Out: 2069.229+/-0.579  $\chi^2/\text{NDF}$ : 17317.7/11

Left In: 3181.733+/-0.981  $\chi^2/\text{NDF}$ : 715443.9/8

2316.704+/-0.485  $\chi^2/\text{NDF}$ : 2032557.2/20

2356.663+/-0.498  $\chi^2/\text{NDF}$ : 1687472.9/20

# diff\_bpm2i01X\_mean vs slug



Right In:  $-10.281 \pm 0.351$   $\chi^2/\text{NDF}$ : 1420.7/10

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

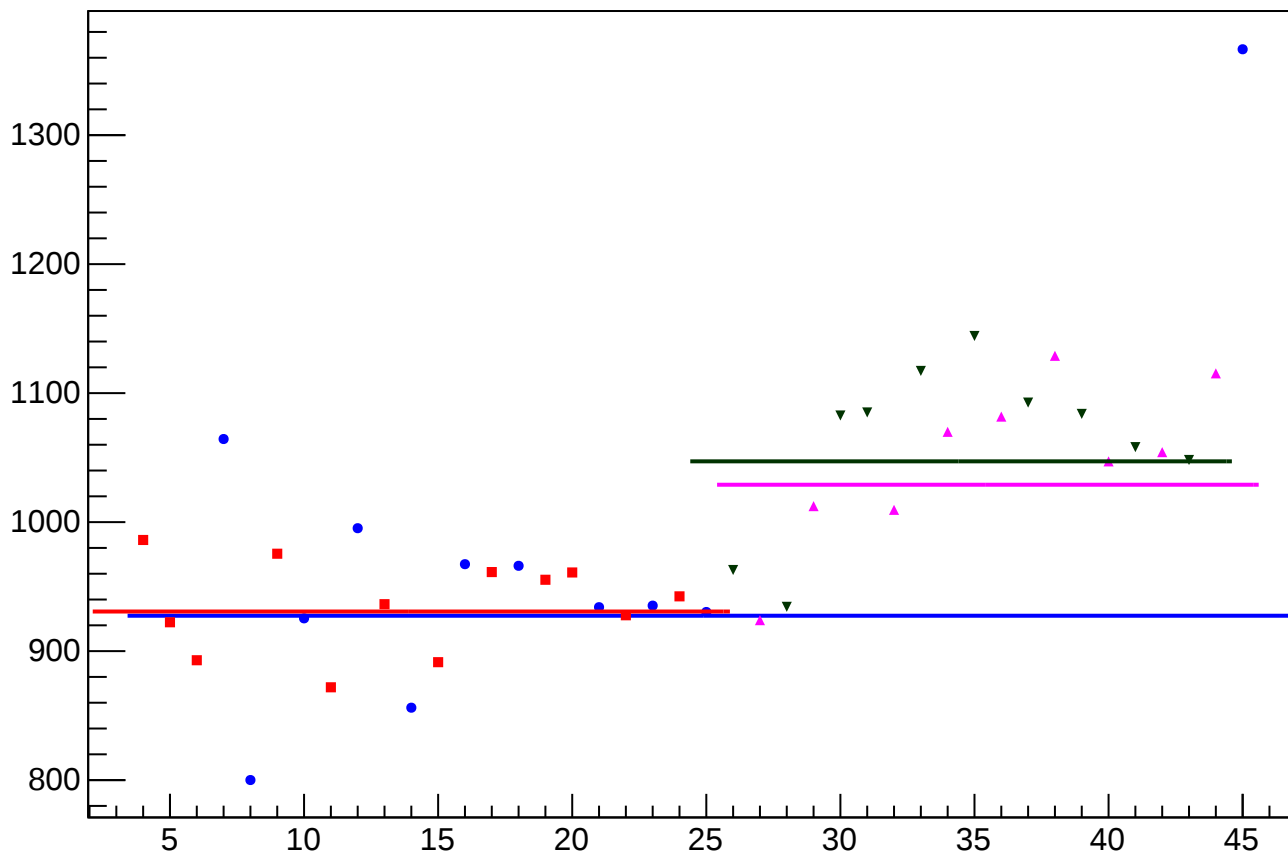
Right Out:  $10.440 \pm 0.368$   $\chi^2/\text{NDF}$ : 1273.2/11

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

$-6.845 \pm 0.277$   $\chi^2/\text{NDF}$ : 2275.4/20

$2.892 \pm 0.281$   $\chi^2/\text{NDF}$ : 2464.7/20

# diff\_bpm2i01X\_rms vs slug



Right In:  $927.436 \pm 0.248$   $\chi^2/\text{NDF}$ : 206361.0/10

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

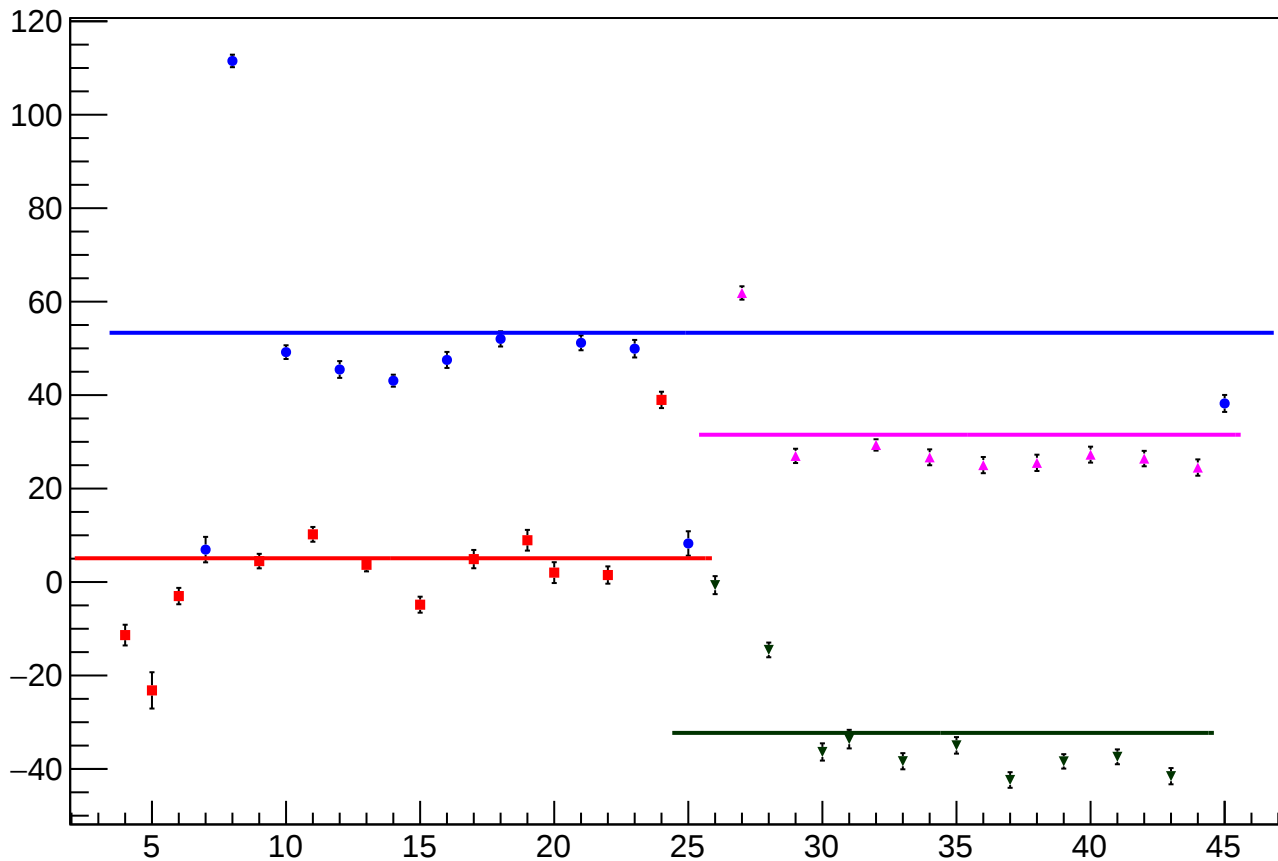
Right Out:  $930.706 \pm 0.260$   $\chi^2/\text{NDF}$ : 18818.7/11

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

$972.338 \pm 0.196$   $\chi^2/\text{NDF}$ : 339839.6/20

$971.716 \pm 0.199$   $\chi^2/\text{NDF}$ : 120471.7/20

# diff\_bpm2i01Y\_mean vs slug



Right In: 53.338+/-0.505  $\chi^2/\text{NDF}$ : 2644.3/10

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

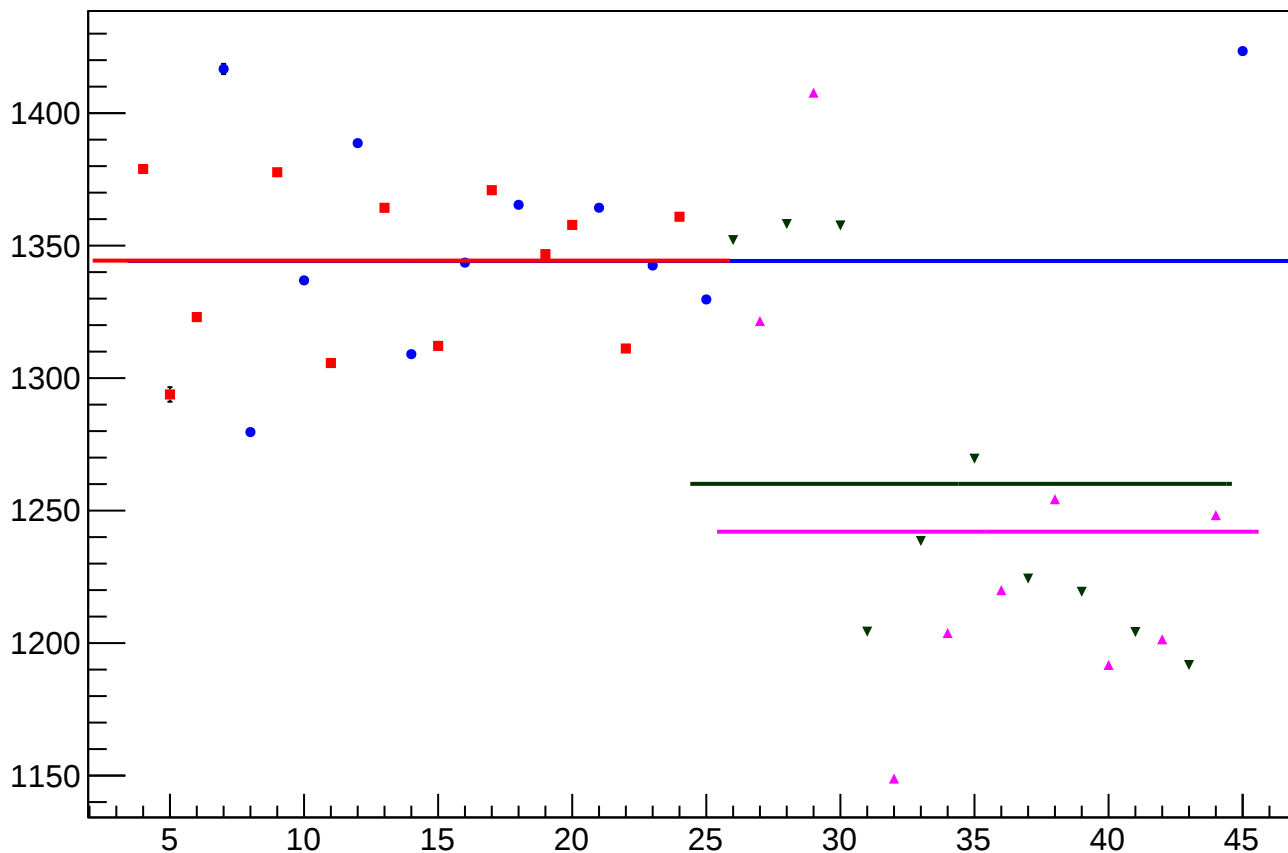
Right Out: 5.087+/-0.532  $\chi^2/\text{NDF}$ : 559.1/11

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

13.683+/-0.370  $\chi^2/\text{NDF}$ : 16445.5/20

18.490+/-0.373  $\chi^2/\text{NDF}$ : 2340.9/20

# diff\_bpm2i01Y\_rms vs slug



Right In:  $1344.211 \pm 0.357$   $\chi^2/\text{NDF}$ : 13352.1/10

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

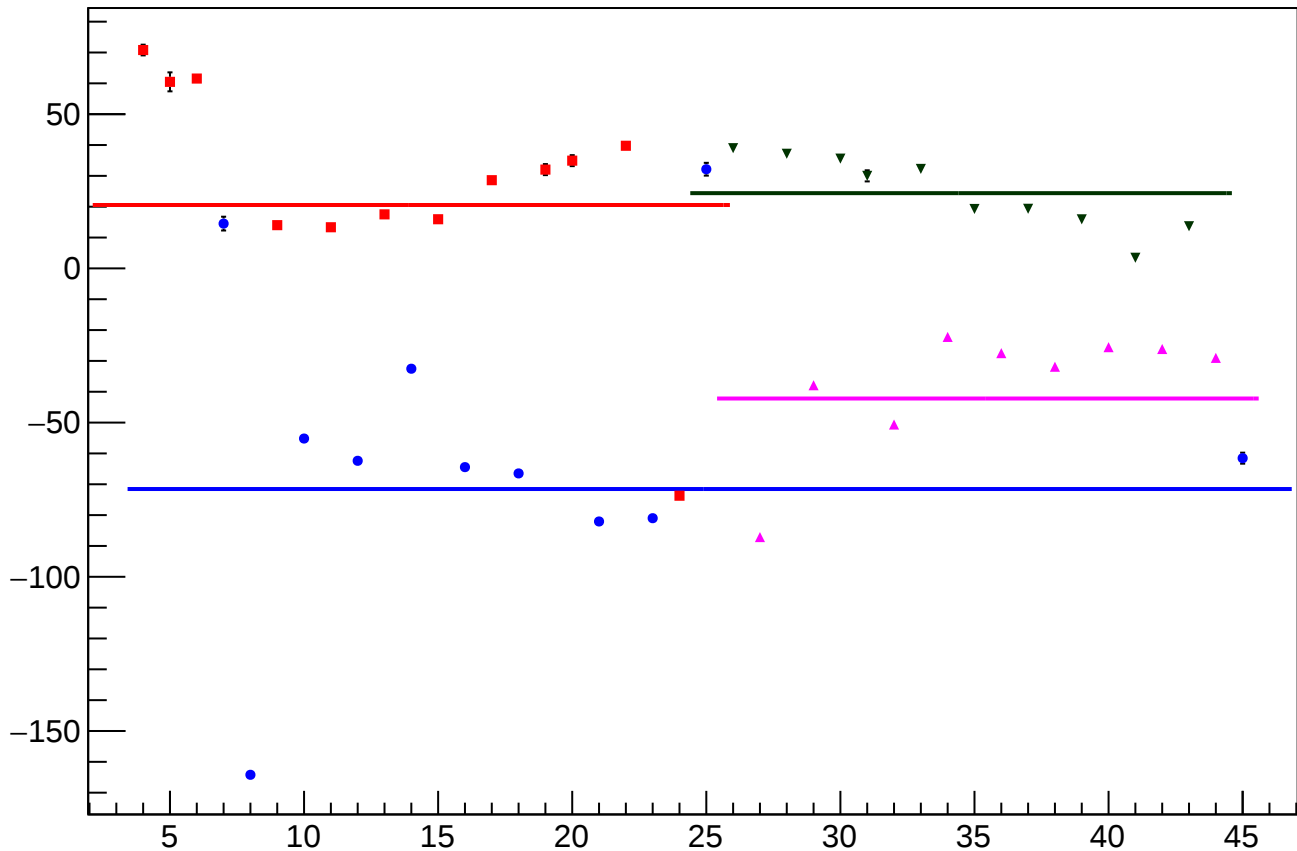
Right Out:  $1344.349 \pm 0.376$   $\chi^2/\text{NDF}$ : 5607.5/11

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

$1305.254 \pm 0.262$   $\chi^2/\text{NDF}$ : 66727.4/20

$1292.470 \pm 0.264$   $\chi^2/\text{NDF}$ : 88991.5/20

# diff\_bpm2i02X\_mean vs slug



Right In: -71.540 $\pm$ 0.398  $\chi^2$ /NDF: 15063.6/10

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

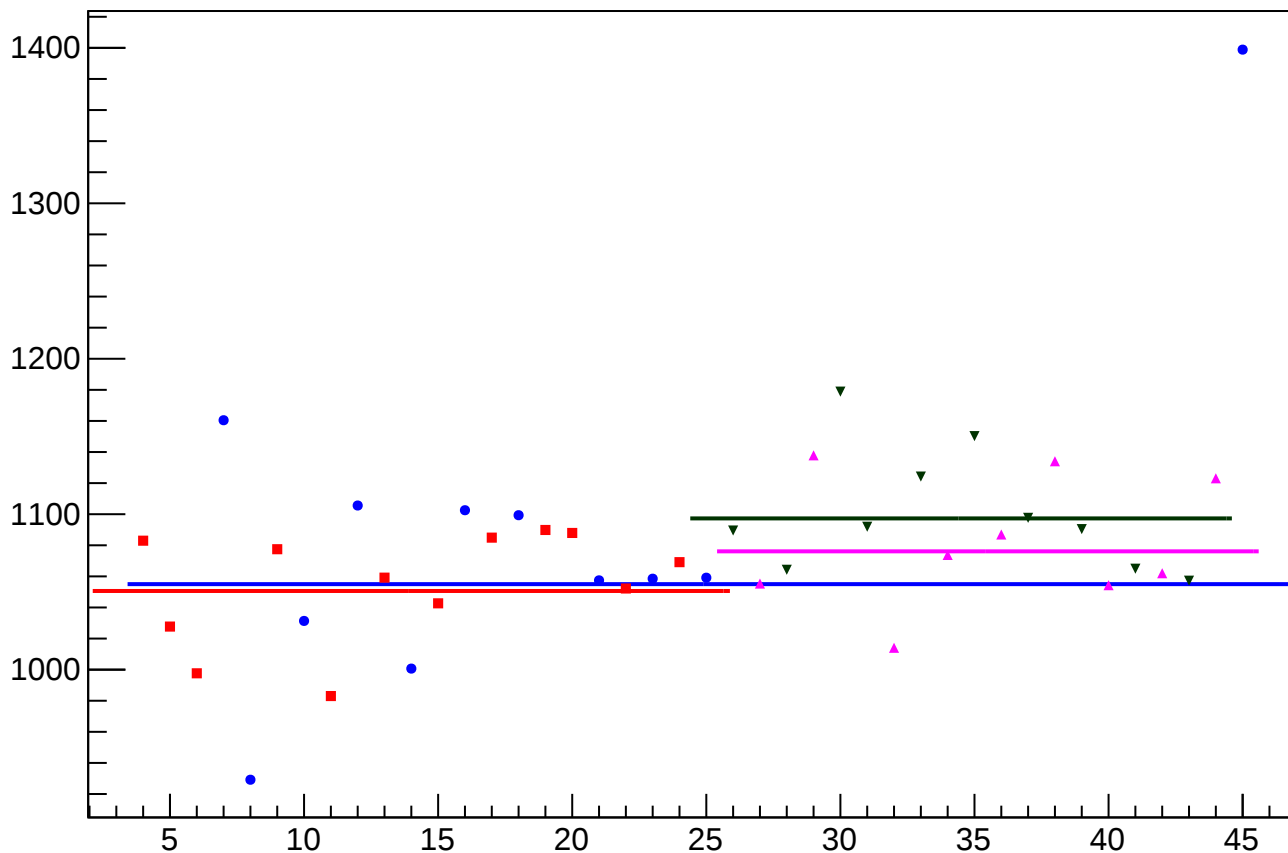
-31.851 $\pm$ 0.305  $\chi^2$ /NDF: 39733.4/20

Right Out: 20.554 $\pm$ 0.415  $\chi^2$ /NDF: 7076.4/11

-8.017 $\pm$ 0.306  $\chi^2$ /NDF: 19726.3/20

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

# diff\_bpm2i02X\_rms vs slug



Right In: 1055.012 $\pm$ 0.281  $\chi^2$ /NDF: 126219.1/10

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

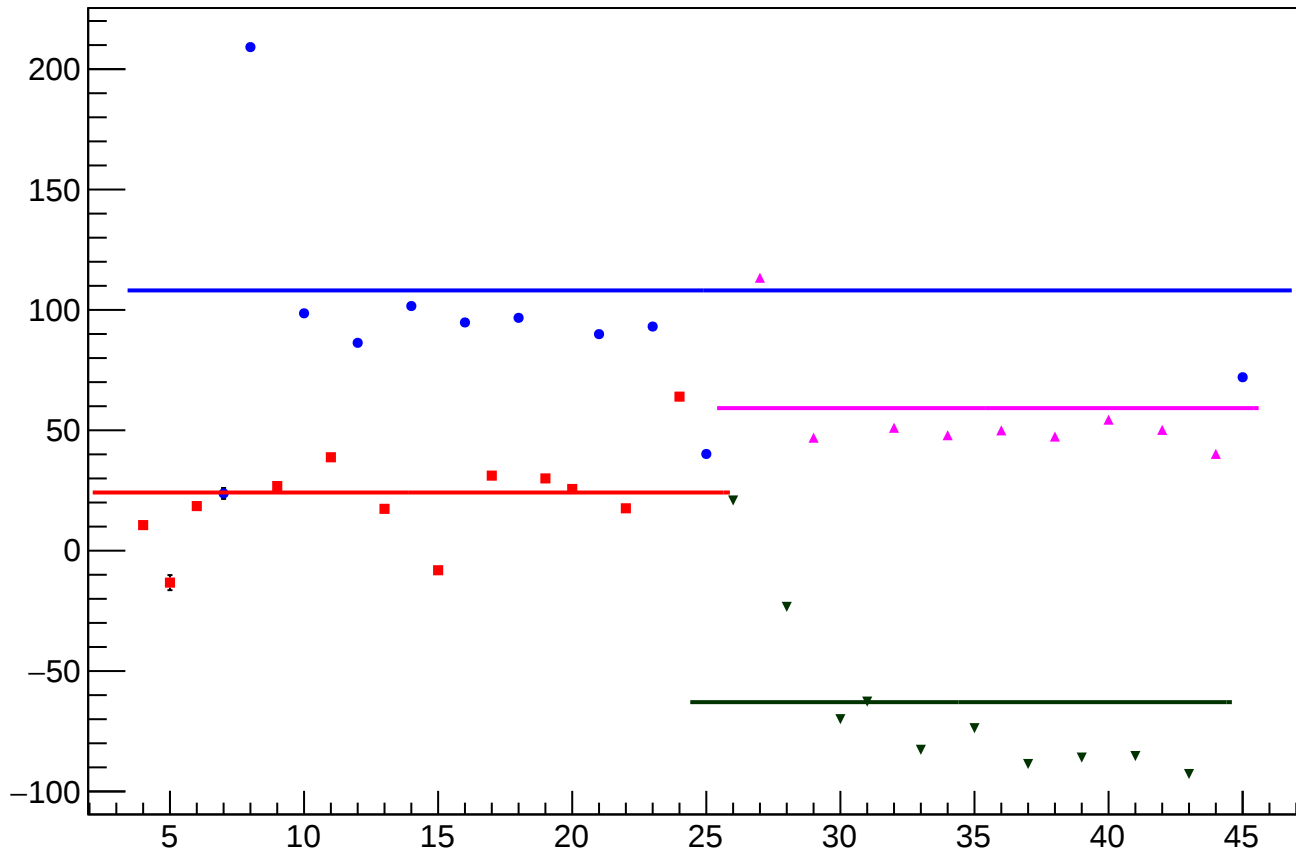
Right Out: 1050.613 $\pm$ 0.293  $\chi^2$ /NDF: 14851.7/11

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

1072.505 $\pm$ 0.215  $\chi^2$ /NDF: 147483.1/20

1062.221 $\pm$ 0.217  $\chi^2$ /NDF: 35798.9/20

# diff\_bpm2i02Y\_mean vs slug



Right In: 108.097 $\pm$ 0.403  $\chi^2$ /NDF: 13769.7/10

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

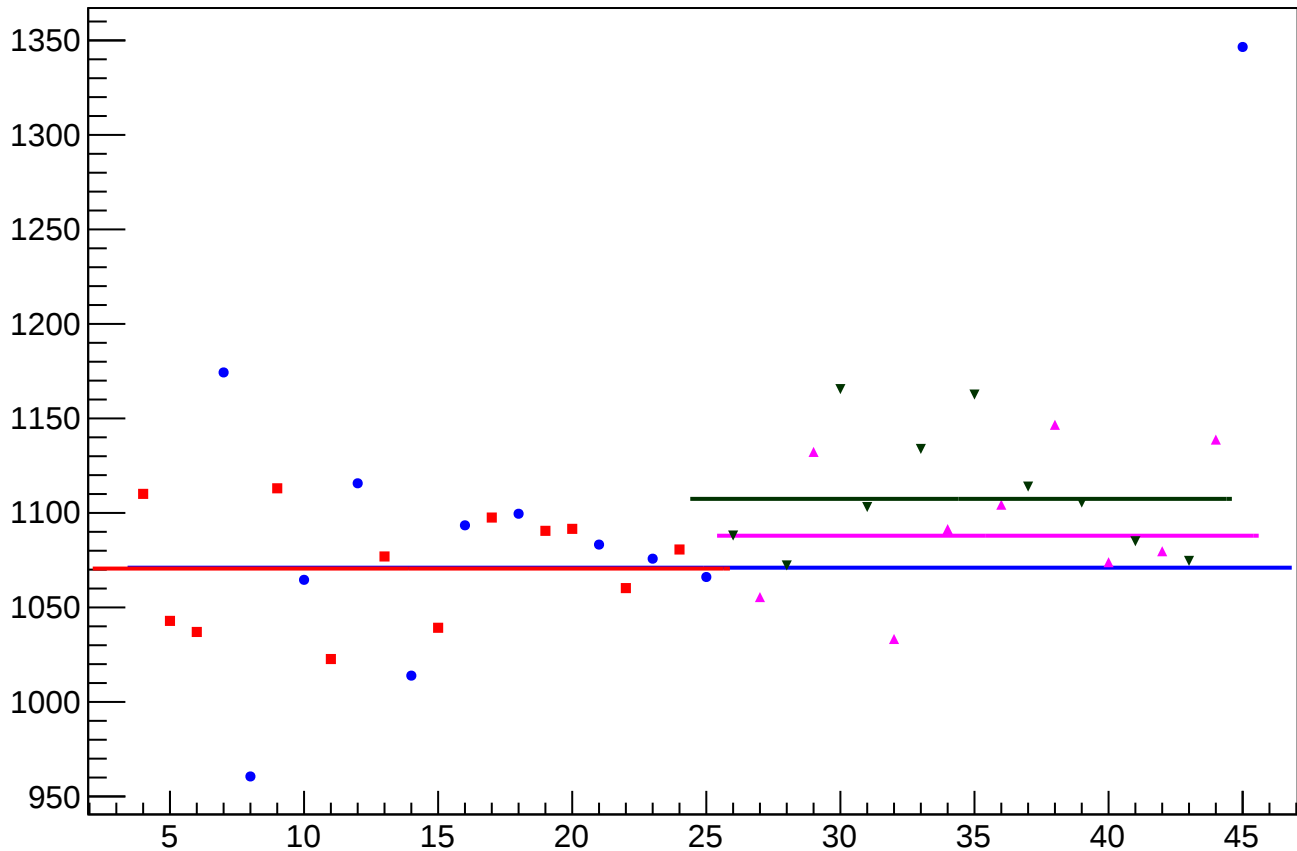
Right Out: 24.160 $\pm$ 0.423  $\chi^2$ /NDF: 1842.7/11

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

36.918 $\pm$ 0.308  $\chi^2$ /NDF: 93891.0/20

40.268 $\pm$ 0.311  $\chi^2$ /NDF: 7739.4/20

# diff\_bpm2i02Y\_rms vs slug



Right In: 1071.033+/-0.285  $\chi^2/\text{NDF}$ : 89926.0/10

Left Out: 1107.440+/-0.338  $\chi^2/\text{NDF}$ : 8902.6/9

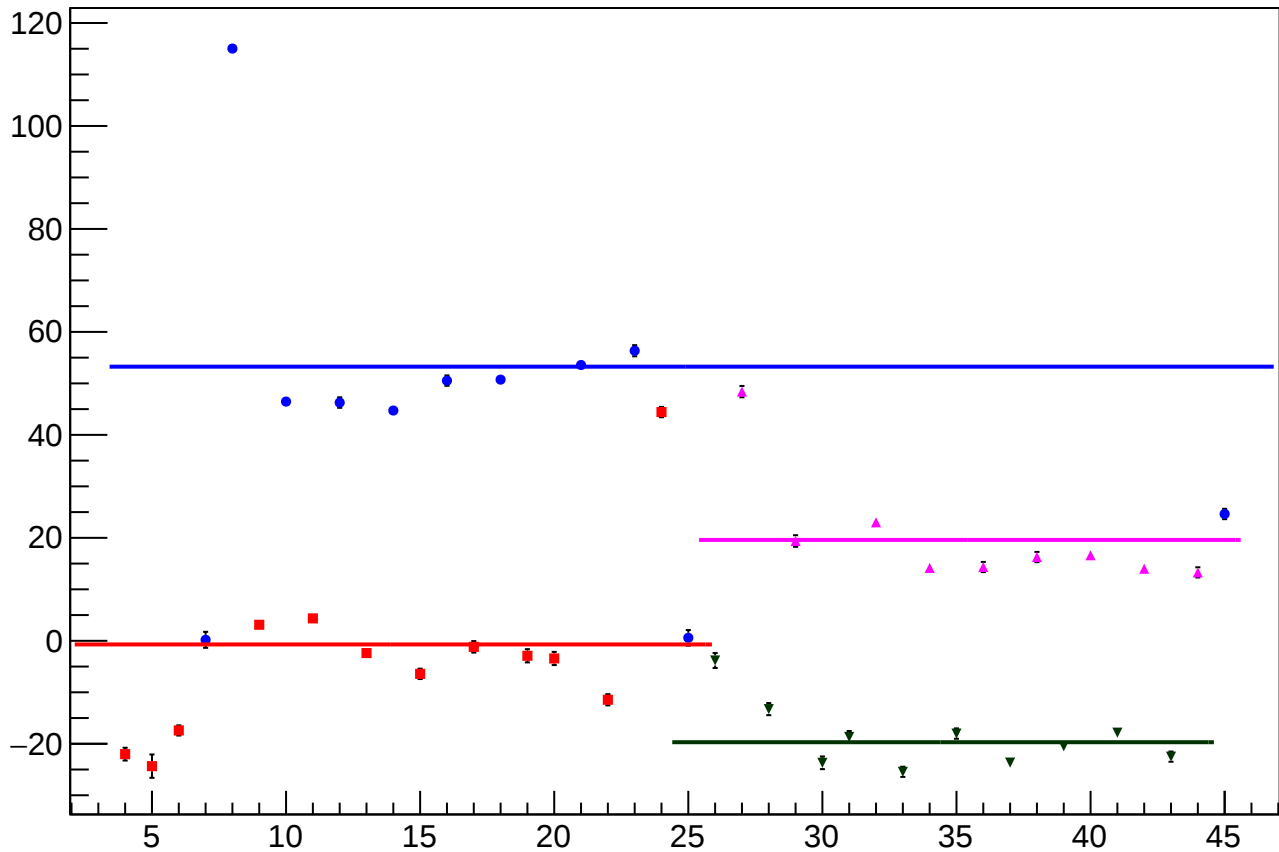
Right Out: 1070.566+/-0.299  $\chi^2/\text{NDF}$ : 10075.5/11

Left In: 1087.950+/-0.324  $\chi^2/\text{NDF}$ : 14406.0/8

1086.187+/-0.218  $\chi^2/\text{NDF}$ : 105608.4/20

1078.555+/-0.220  $\chi^2/\text{NDF}$ : 26034.0/20

# diff\_bpm1i04X\_mean vs slug



Right In: 53.247 $\pm$ 0.289  $\chi^2$ /NDF: 10092.7/10

Left Out: -19.696 $\pm$ 0.329  $\chi^2$ /NDF:226.0/9

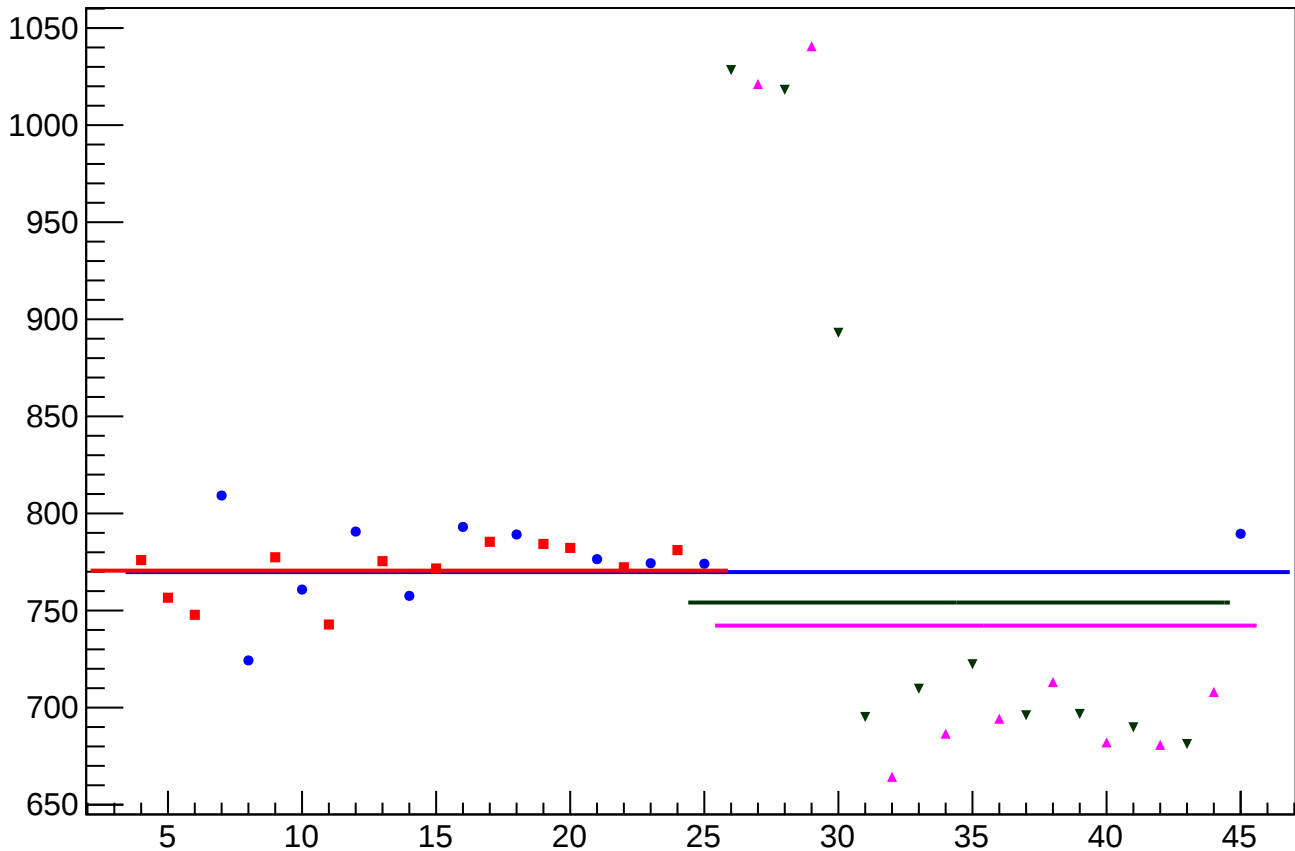
Right Out: -0.705 $\pm$ 0.304  $\chi^2$ /NDF: 2908.1/11

Left In: 19.595 $\pm$ 0.317  $\chi^2$ /NDF:863.4/8

21.514 $\pm$ 0.217  $\chi^2$ /NDF: 38052.0/20

9.024 $\pm$ 0.219  $\chi^2$ /NDF: 5906.6/20

# diff\_bpm1i04X\_rms vs slug



Right In: 769.797 $\pm$ 0.204  $\chi^2$ /NDF: 12947.6/10

Left Out: 754.119 $\pm$ 0.233  $\chi^2$ /NDF: 244495.9/9

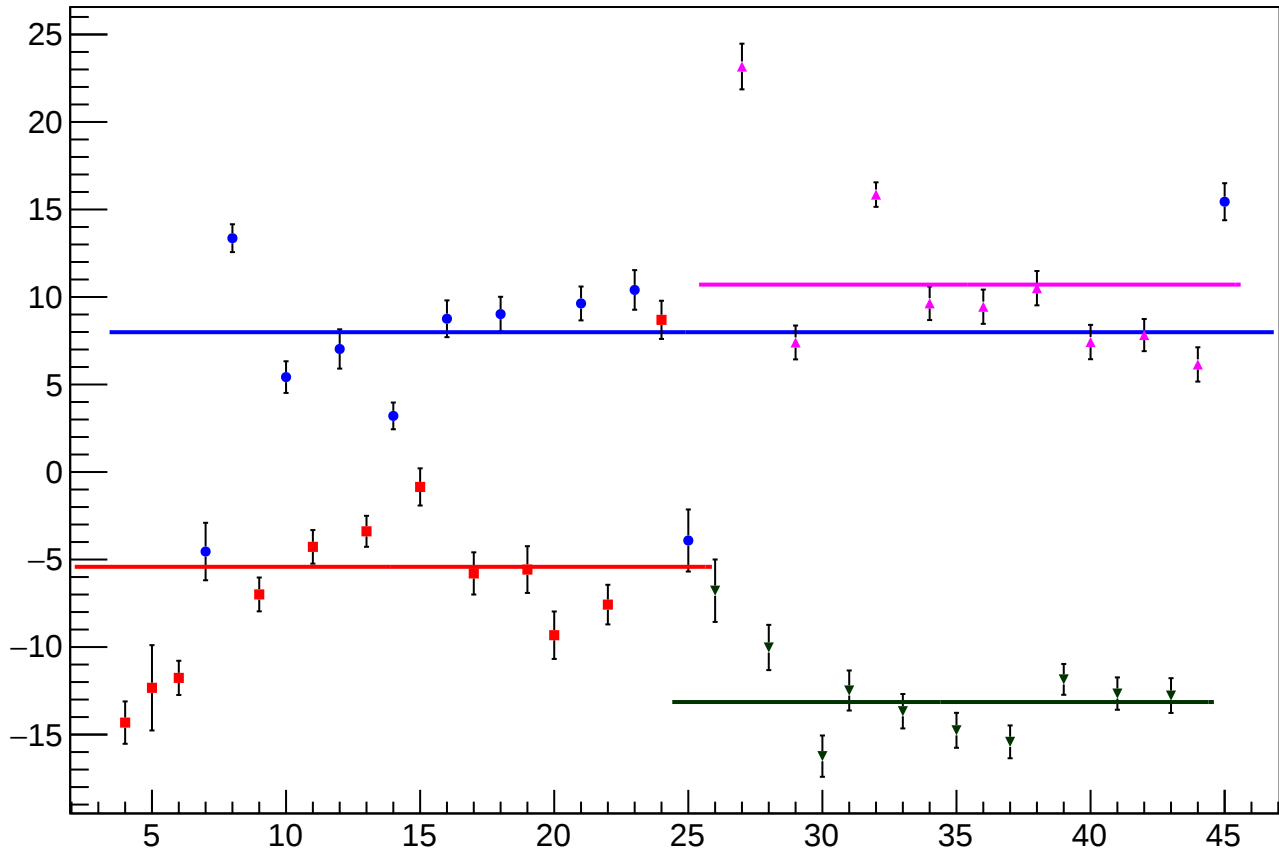
Right Out: 770.550 $\pm$ 0.215  $\chi^2$ /NDF: 4259.5/11

Left In: 742.240 $\pm$ 0.224  $\chi^2$ /NDF: 324033.0/8

762.976 $\pm$ 0.154  $\chi^2$ /NDF: 260006.1/20

756.982 $\pm$ 0.155  $\chi^2$ /NDF: 336596.7/20

# diff\_bpm1i04Y\_mean vs slug



Right In:  $7.989 \pm 0.306$   $\chi^2/\text{NDF}: 255.5/10$

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

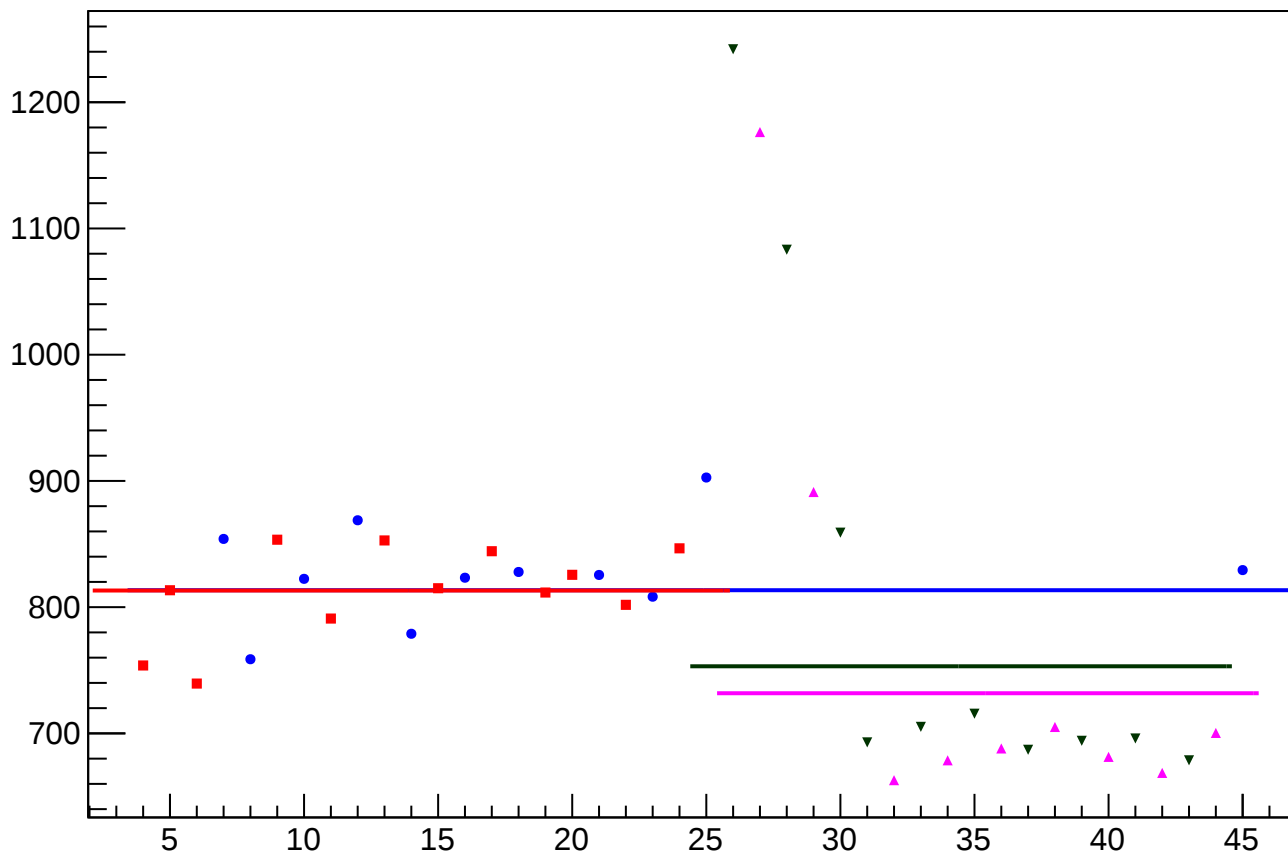
Right Out:  $-5.416 \pm 0.322$   $\chi^2/\text{NDF}: 311.5/11$

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

$-1.702 \pm 0.225$   $\chi^2/\text{NDF}: 2477.6/20$

$2.848 \pm 0.225$   $\chi^2/\text{NDF}: 1796.8/20$

# diff\_bpm1i04Y\_rms vs slug



Right In: 813.430+/-0.216  $\chi^2/\text{NDF}$ : 26292.7/10

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

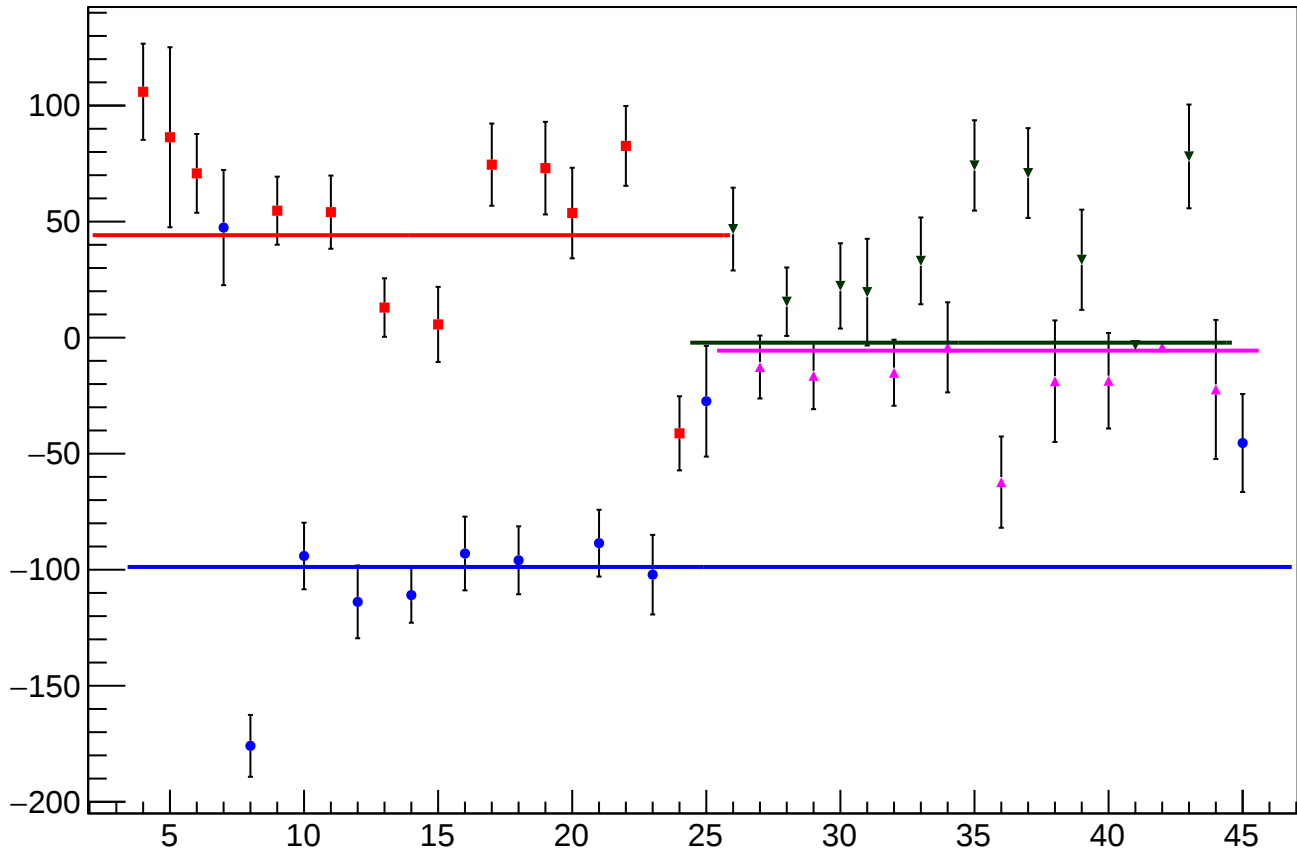
Right Out: 813.189+/-0.228  $\chi^2/\text{NDF}$ : 28331.0/11

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

785.790+/-0.159  $\chi^2/\text{NDF}$ : 409301.1/20

771.481+/-0.159  $\chi^2/\text{NDF}$ : 427664.8/20

# diff\_bpm0l02X\_mean vs slug



Right In:  $-98.807 \pm 4.763$   $\chi^2/\text{NDF}: 86.3/10$

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

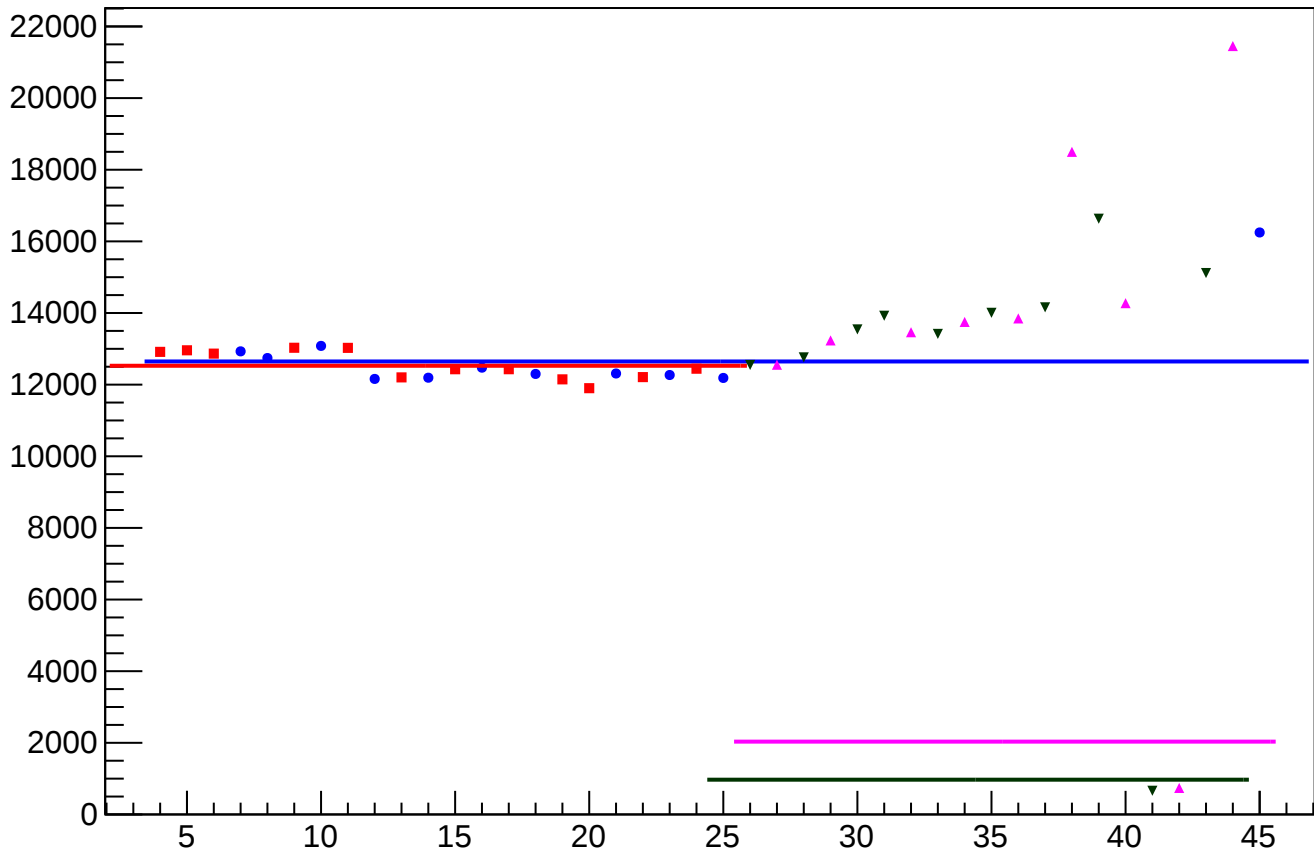
Right Out:  $44.144 \pm 4.946$   $\chi^2/\text{NDF}: 64.1/11$

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

$-6.028 \pm 0.952$   $\chi^2/\text{NDF}: 543.2/20$

$1.142 \pm 1.821$   $\chi^2/\text{NDF}: 162.6/20$

# diff\_bpm0l02X\_rms vs slug



Right In: 12646.996+/-3.368  $\chi^2/\text{NDF}$ : 69446.3/10

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

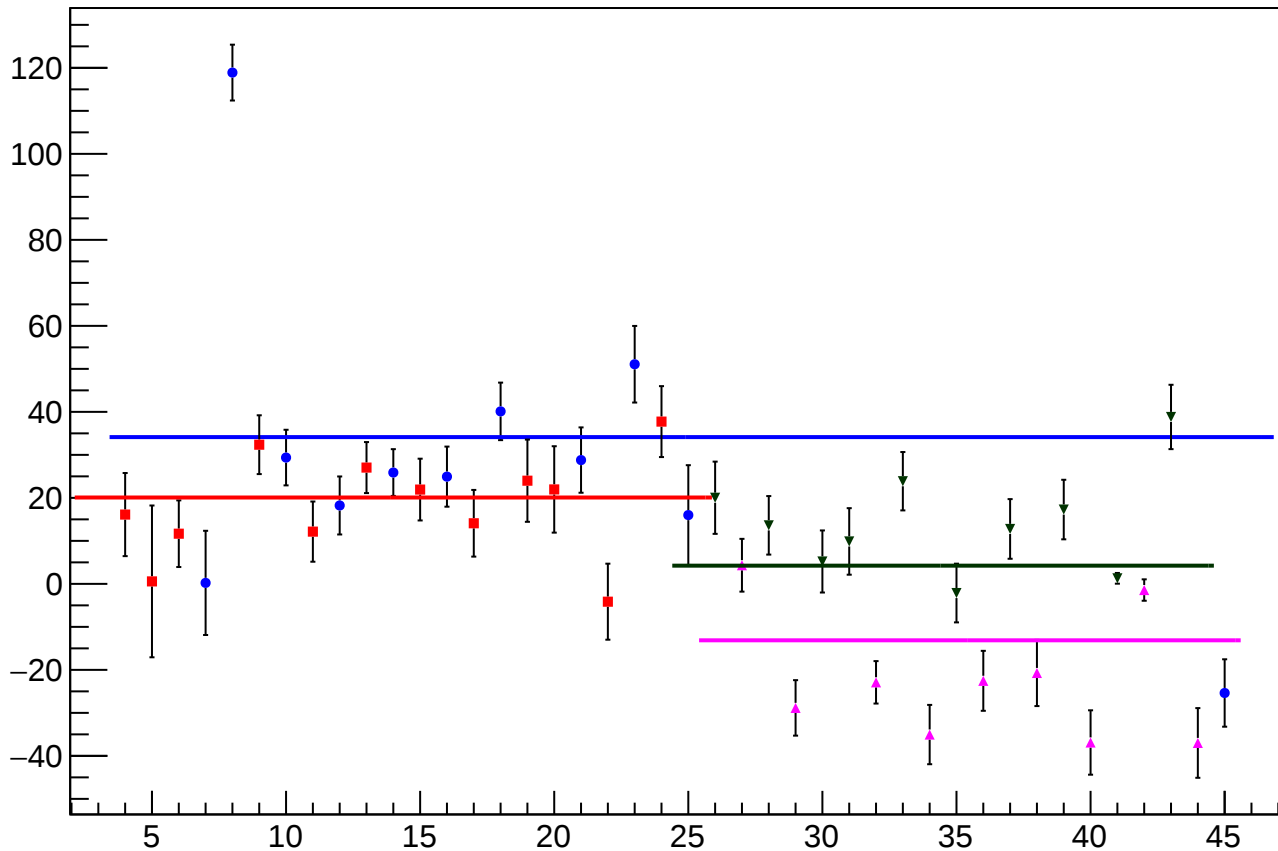
Right Out: 12527.068+/-3.497  $\chi^2/\text{NDF}$ : 11080.0/11

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

1437.316+/-0.673  $\chi^2/\text{NDF}$ : 20067380.1/20

3455.264+/-1.287  $\chi^2/\text{NDF}$ : 16085674.7/20

# diff\_bpm0l02Y\_mean vs slug



Right In: 34.131 $\pm$ 2.199  $\chi^2$ /NDF: 253.4/10

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

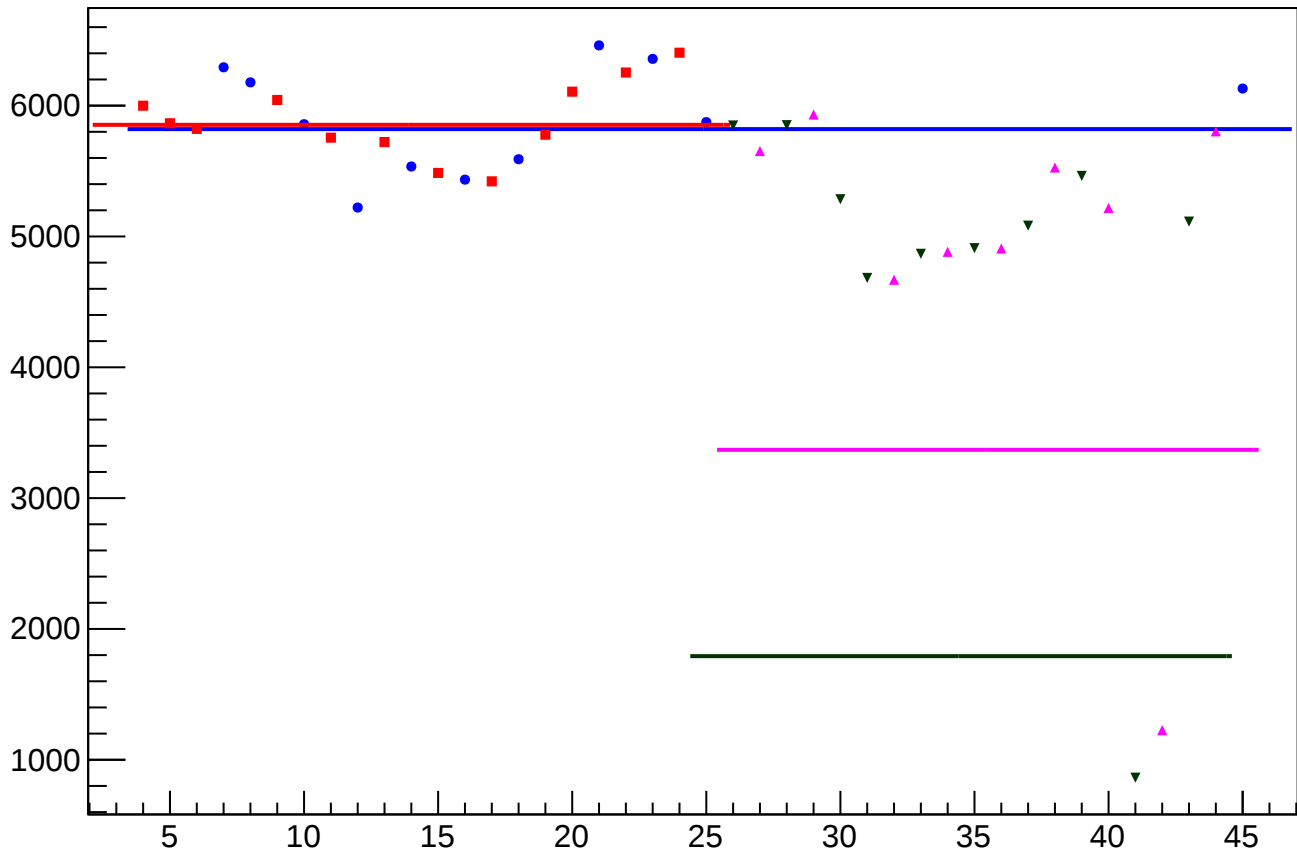
Right Out: 20.083 $\pm$ 2.324  $\chi^2$ /NDF: 21.4/11

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

10.262 $\pm$ 0.988  $\chi^2$ /NDF: 448.1/20

-1.516 $\pm$ 1.374  $\chi^2$ /NDF: 225.9/20

# diff\_bpm0l02Y\_rms vs slug



Right In: 5820.573+/-1.555  $\chi^2/\text{NDF}$ : 63606.2/10

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

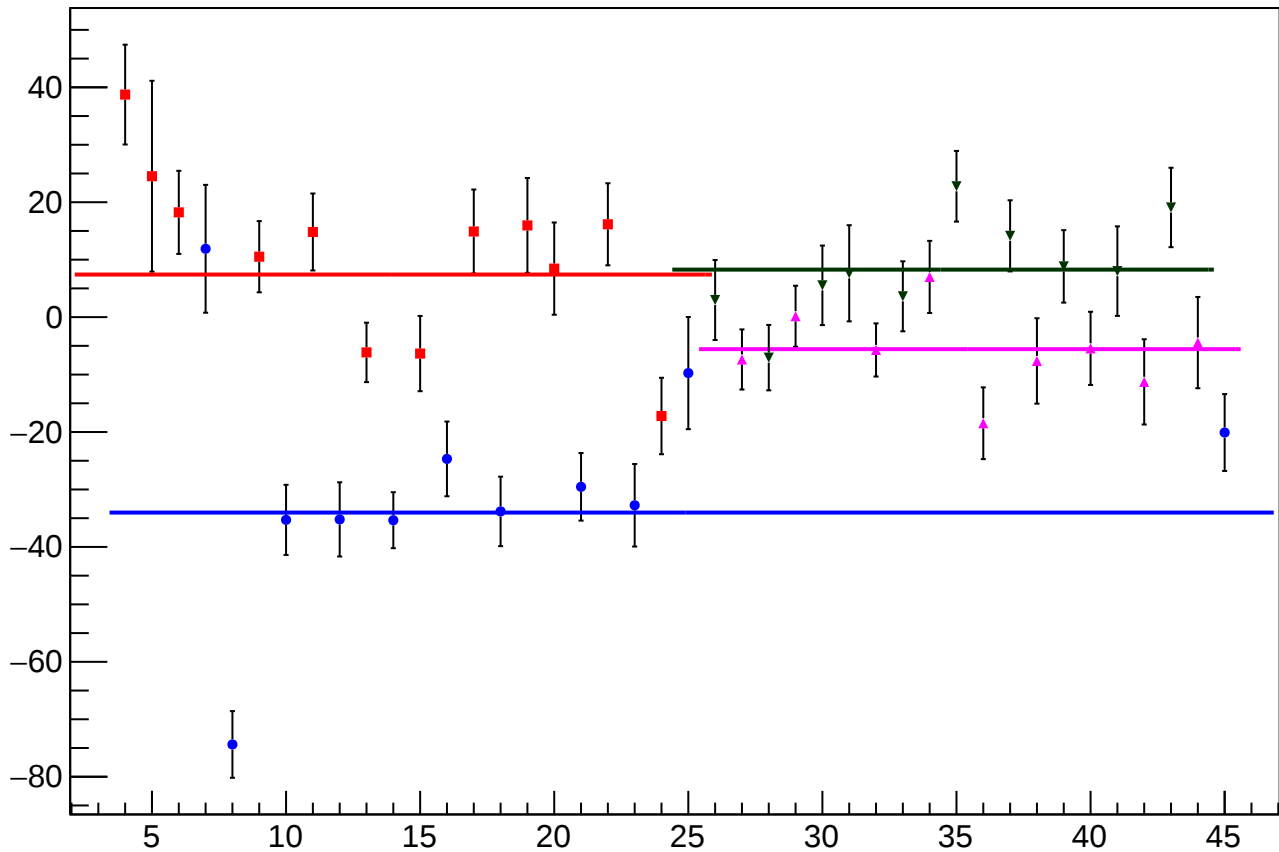
Right Out: 5853.344+/-1.643  $\chi^2/\text{NDF}$ : 29282.6/11

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

2604.291+/-0.698  $\chi^2/\text{NDF}$ : 10691828.4/20

4237.598+/-0.972  $\chi^2/\text{NDF}$ : 4381763.7/20

# diff\_bpm0l03X\_mean vs slug



Right In:  $-34.019 \pm 1.951$   $\chi^2/\text{NDF}$ : 78.8/10

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

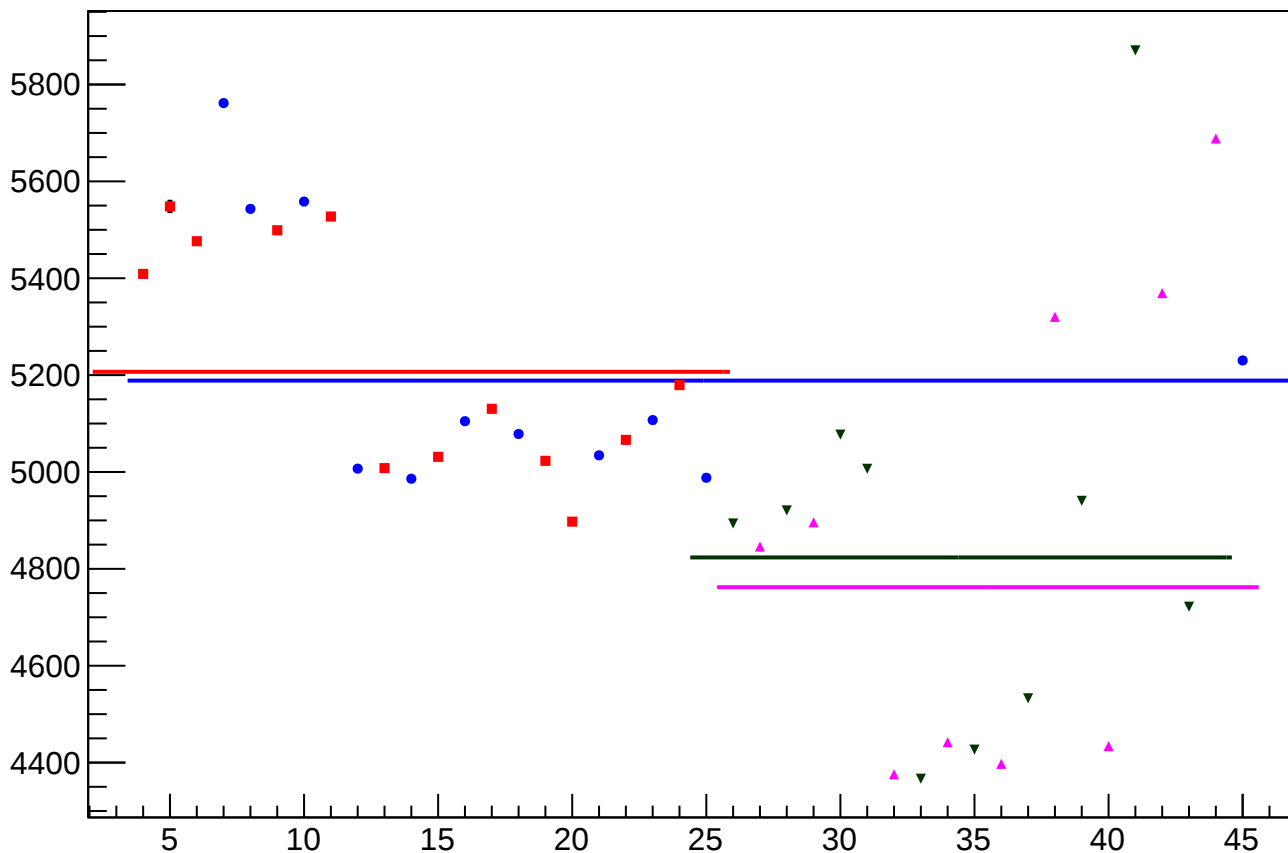
Right Out:  $7.409 \pm 2.058$   $\chi^2/\text{NDF}$ : 46.4/11

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

$-14.346 \pm 1.427$   $\chi^2/\text{NDF}$ : 314.9/20

$0.777 \pm 1.439$   $\chi^2/\text{NDF}$ : 77.0/20

# diff\_bpm0l03X\_rms vs slug



Right In: 5188.635 $\pm$ 1.379  $\chi^2$ /NDF: 28698.8/10

Left Out: 4823.564 $\pm$ 1.479  $\chi^2$ /NDF: 65634.4/9

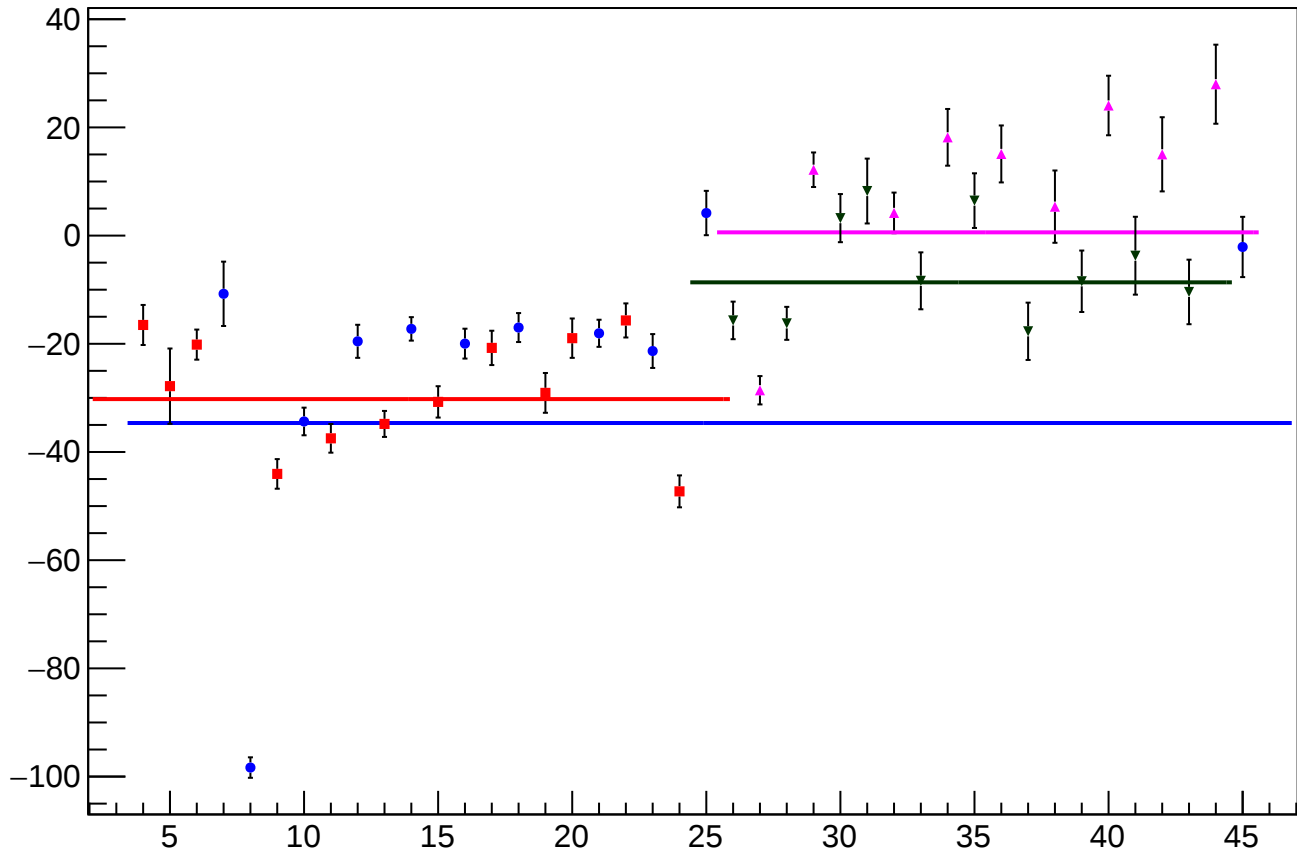
Right Out: 5206.838 $\pm$ 1.455  $\chi^2$ /NDF: 23121.5/11

Left In: 4762.141 $\pm$ 1.424  $\chi^2$ /NDF: 84948.8/8

5018.800 $\pm$ 1.009  $\chi^2$ /NDF: 126921.9/20

4979.679 $\pm$ 1.018  $\chi^2$ /NDF: 155774.3/20

# diff\_bpm0l03Y\_mean vs slug



Right In: -34.642 $\pm$ 0.844  $\chi^2$ /NDF: 1494.2/10

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

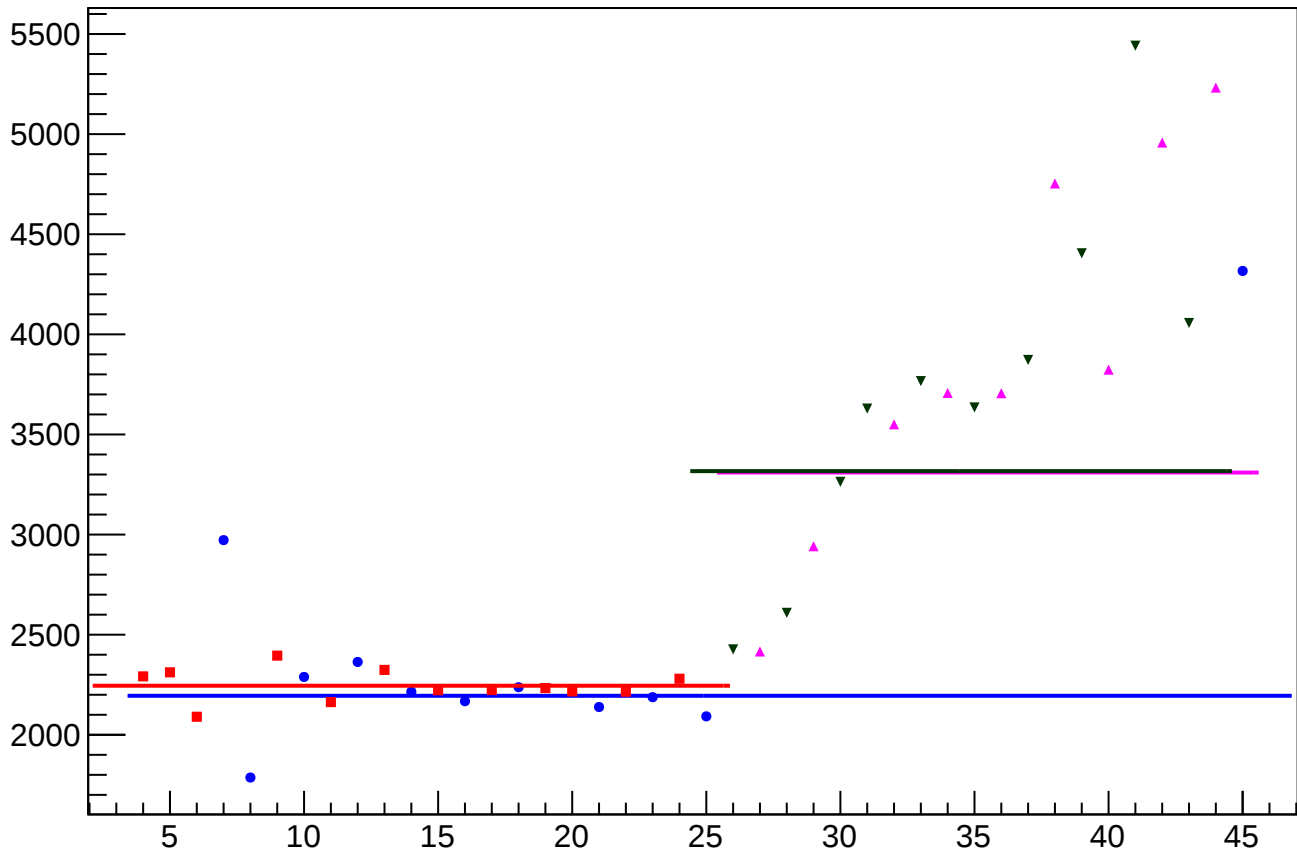
Right Out: -30.222 $\pm$ 0.893  $\chi^2$ /NDF: 136.9/11

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

-28.243 $\pm$ 0.733  $\chi^2$ /NDF: 1765.6/20

-21.664 $\pm$ 0.759  $\chi^2$ /NDF: 662.1/20

# diff\_bpm0l03Y\_rms vs slug



Right In: 2194.809+/-0.597  $\chi^2/\text{NDF}$ : 429175.5/10

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

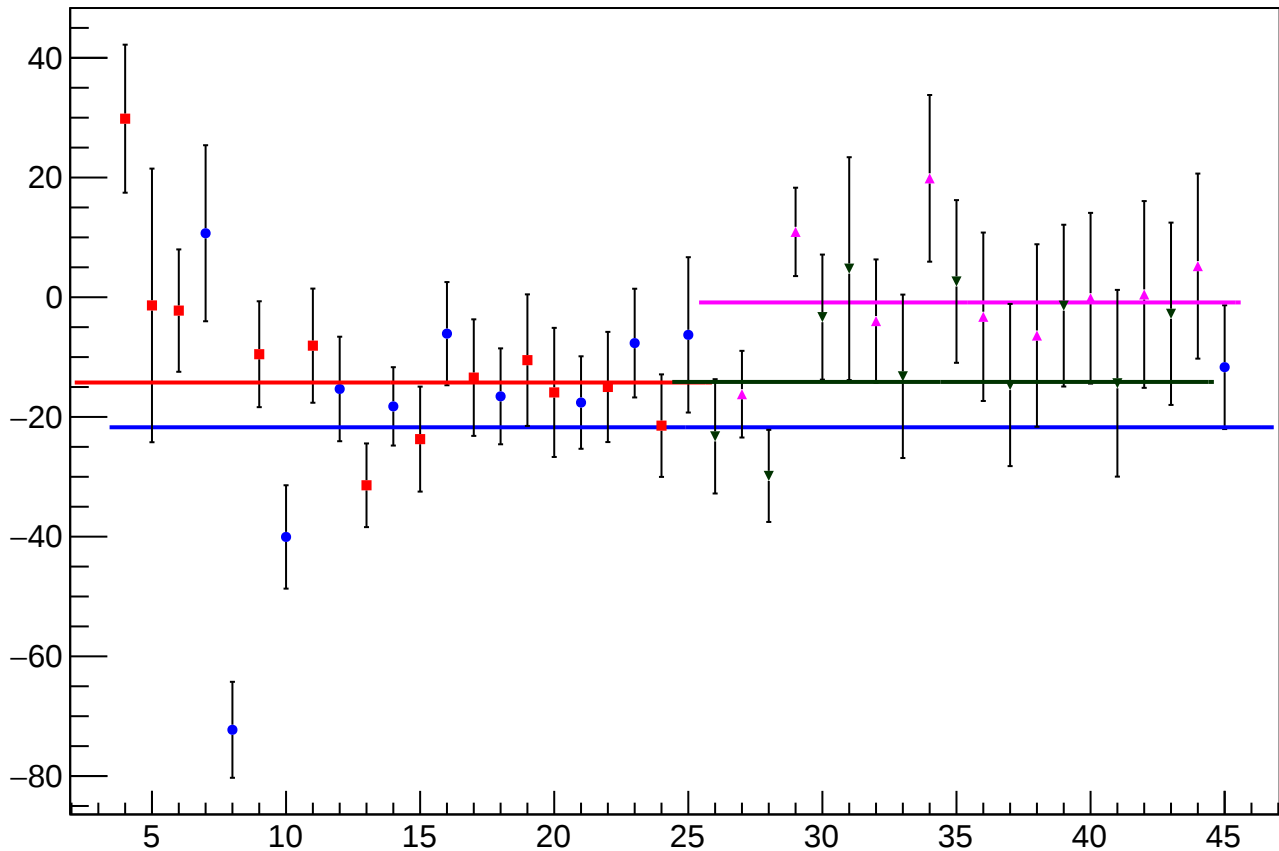
Right Out: 2245.118+/-0.631  $\chi^2/\text{NDF}$ : 17612.9/11

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

2470.963+/-0.518  $\chi^2/\text{NDF}$ : 1867276.2/20

2540.741+/-0.536  $\chi^2/\text{NDF}$ : 1462988.3/20

# diff\_bpm0l04X\_mean vs slug



Right In:  $-21.727 \pm 2.642$   $\chi^2/\text{NDF}$ : 58.7/10

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

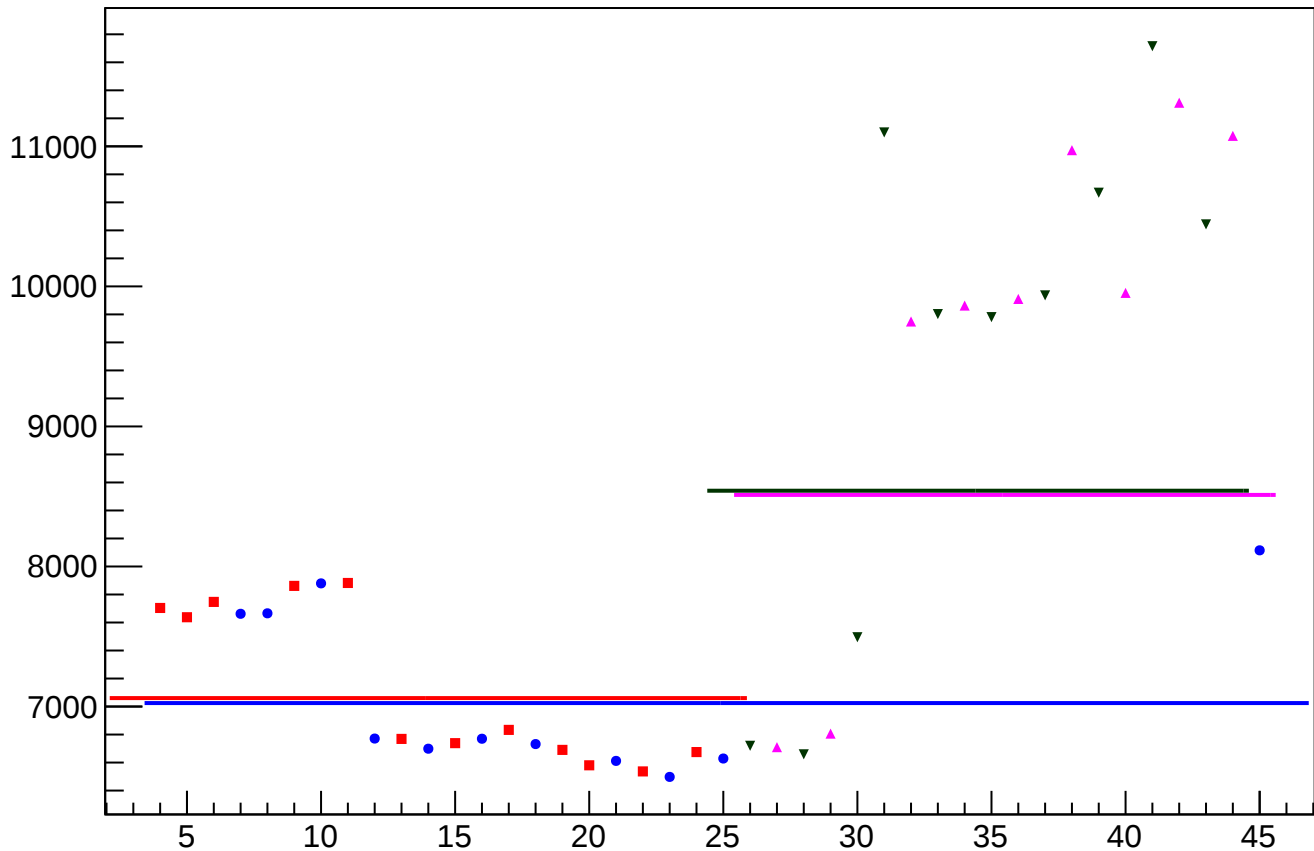
Right Out:  $-14.248 \pm 2.794$   $\chi^2/\text{NDF}$ : 23.2/11

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

$-19.239 \pm 2.165$   $\chi^2/\text{NDF}$ : 71.5/20

$-9.327 \pm 2.221$   $\chi^2/\text{NDF}$ : 41.3/20

# diff\_bpm0l04X\_rms vs slug



Right In: 7024.803+/-1.868  $\chi^2/\text{NDF}$ : 83743.3/10

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

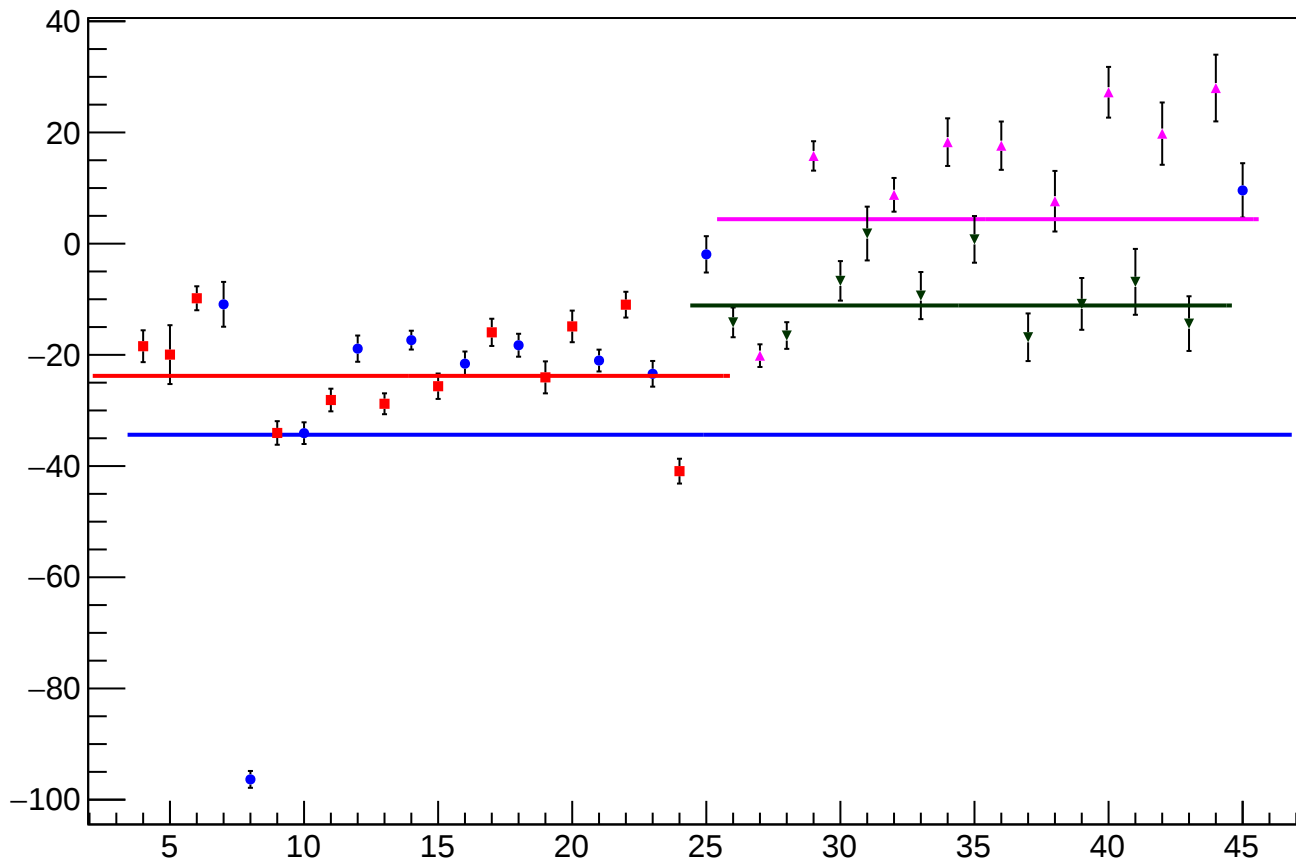
Right Out: 7060.304+/-1.976  $\chi^2/\text{NDF}$ : 70982.1/11

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

7522.649+/-1.531  $\chi^2/\text{NDF}$ : 768674.1/20

7593.993+/-1.571  $\chi^2/\text{NDF}$ : 759245.9/20

# diff\_bpm0l04Y\_mean vs slug



Right In:  $-34.367 \pm 0.657$   $\chi^2/\text{NDF}$ : 2199.3/10

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

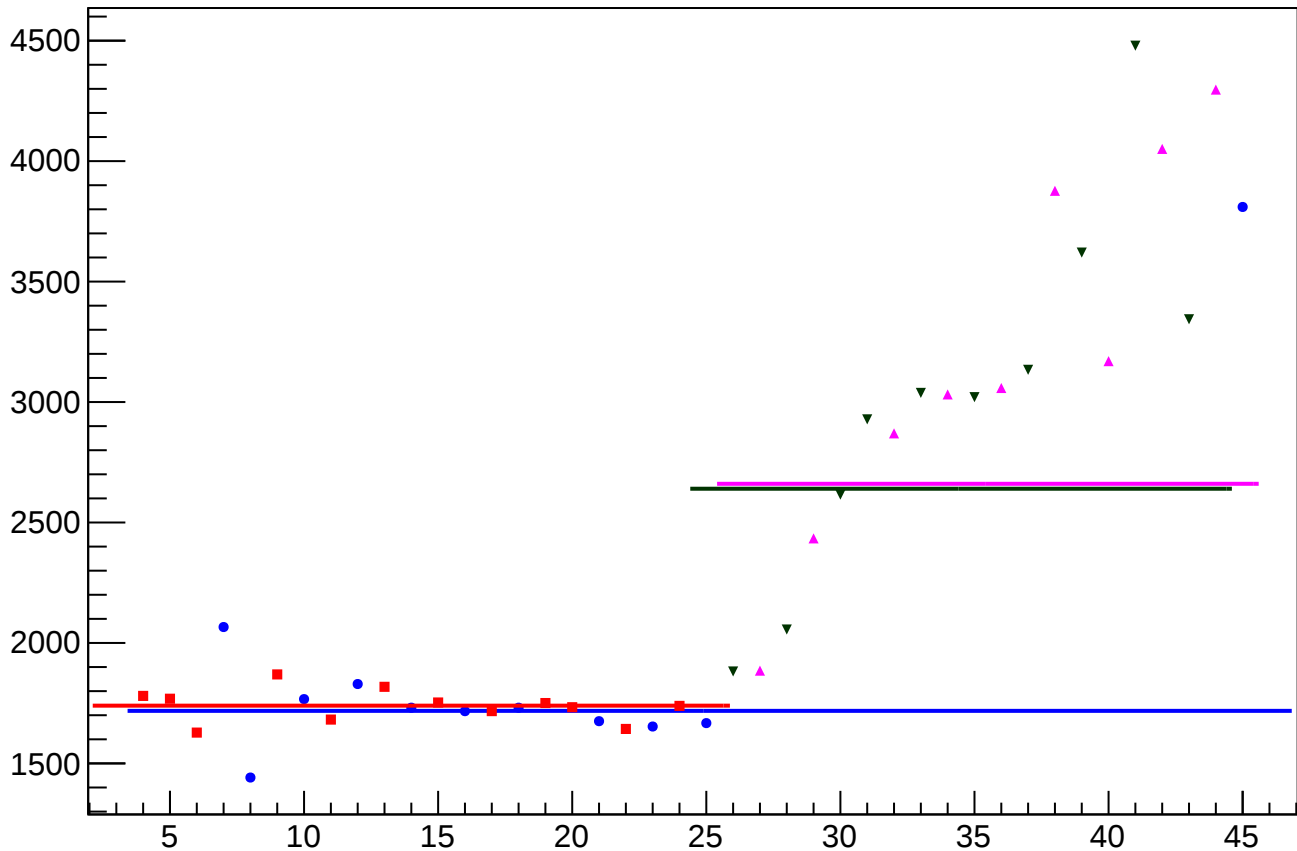
Right Out:  $-23.778 \pm 0.688$   $\chi^2/\text{NDF}$ : 191.1/11

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

$-28.864 \pm 0.574$   $\chi^2/\text{NDF}$ : 2521.6/20

$-16.452 \pm 0.592$   $\chi^2/\text{NDF}$ : 860.5/20

# diff\_bpm0l04Y\_rms vs slug



Right In: 1718.150+/-0.465     $\chi^2/\text{NDF}$ : 456078.0/10

Left Out: 2640.174+/-0.834     $\chi^2/\text{NDF}$ : 669513.9/9

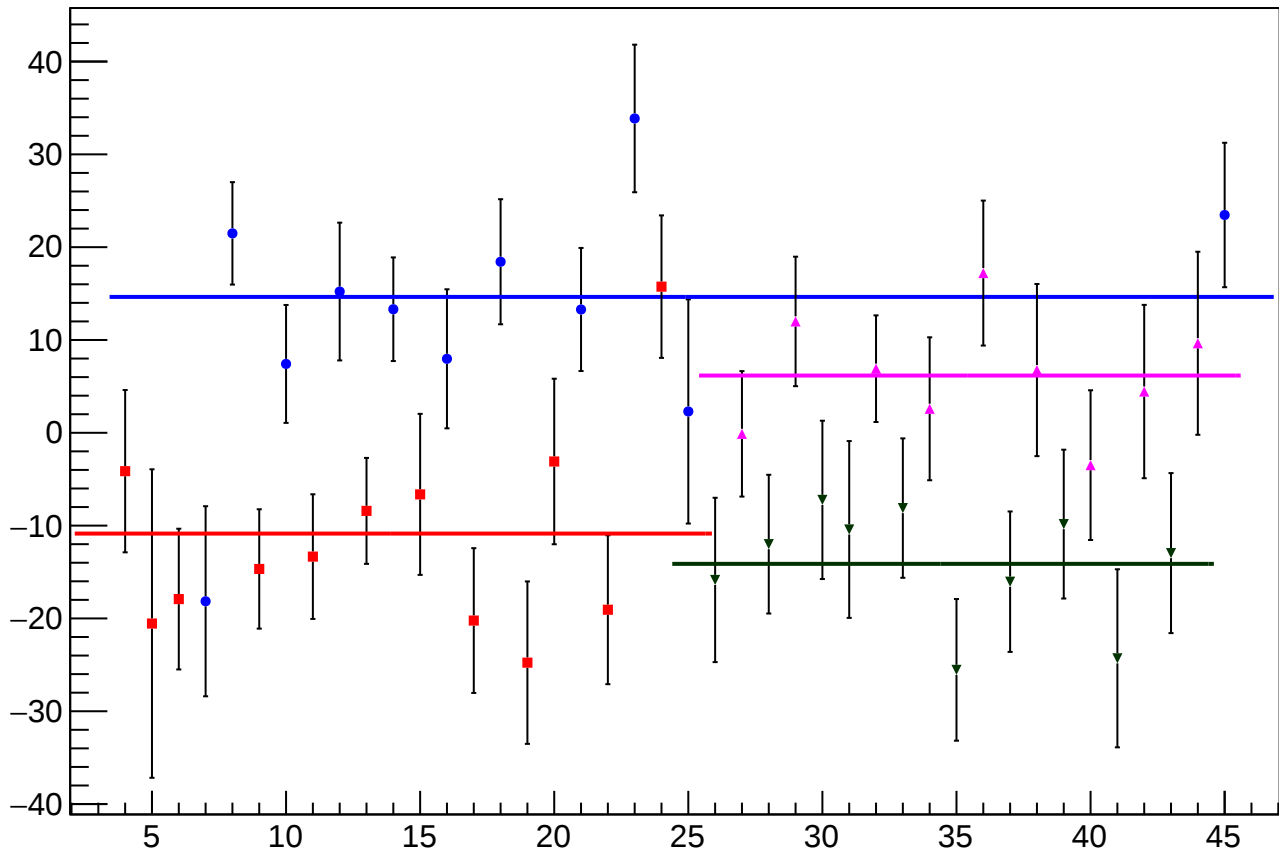
Right Out: 1739.740+/-0.487     $\chi^2/\text{NDF}$ : 22147.7/11

Left In: 2660.633+/-0.821     $\chi^2/\text{NDF}$ : 742100.2/8

1936.412+/-0.406     $\chi^2/\text{NDF}$ : 2057767.4/20

1979.192+/-0.419     $\chi^2/\text{NDF}$ : 1694724.2/20

# diff\_bpm0l05X\_mean vs slug



Right In:  $14.641 \pm 2.136$   $\chi^2/\text{NDF}: 22.5/10$

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

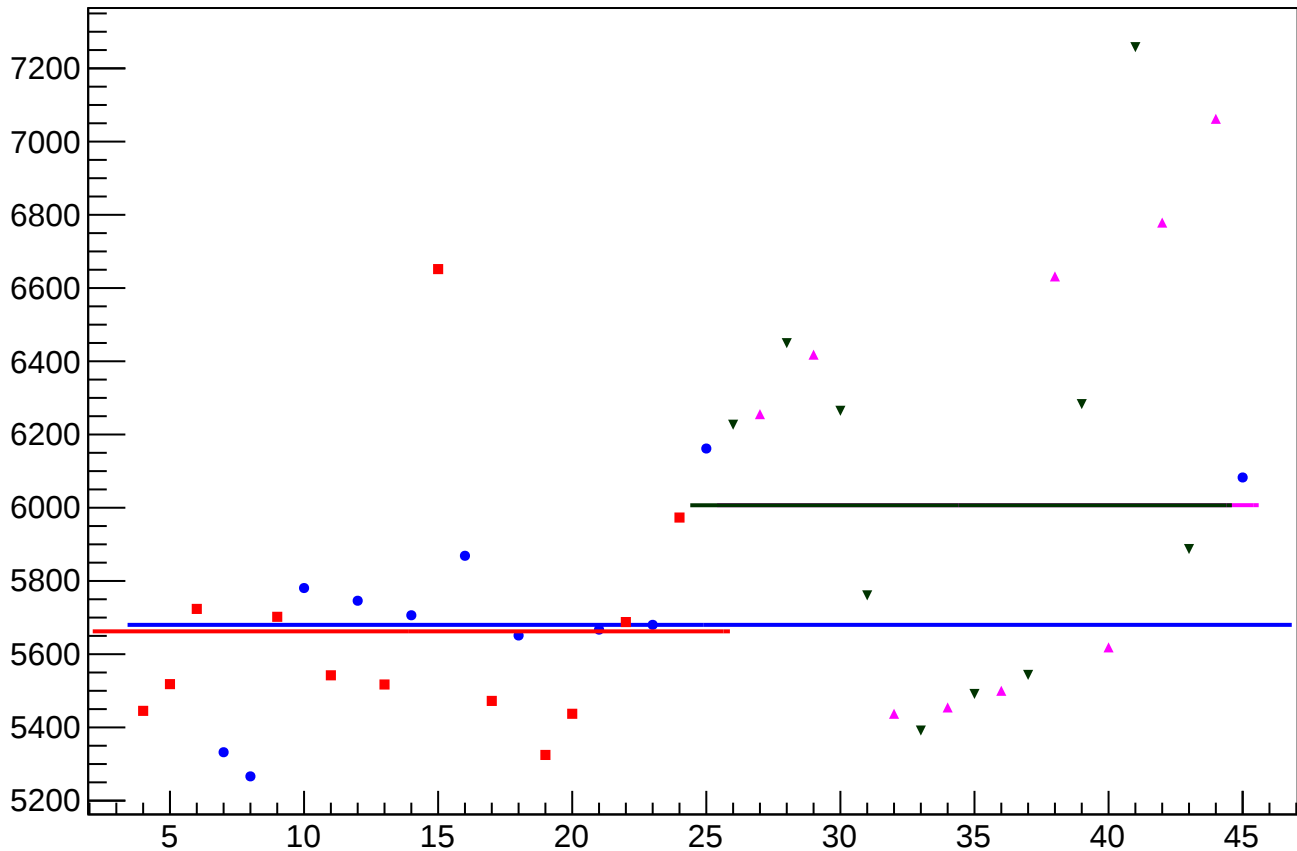
Right Out:  $-10.857 \pm 2.241$   $\chi^2/\text{NDF}: 20.5/11$

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

$3.063 \pm 1.651$   $\chi^2/\text{NDF}: 100.8/20$

$-3.410 \pm 1.681$   $\chi^2/\text{NDF}: 51.1/20$

# diff\_bpm0l05X\_rms vs slug



Right In: 5680.115+/-1.510  $\chi^2/\text{NDF}$ : 24105.1/10

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

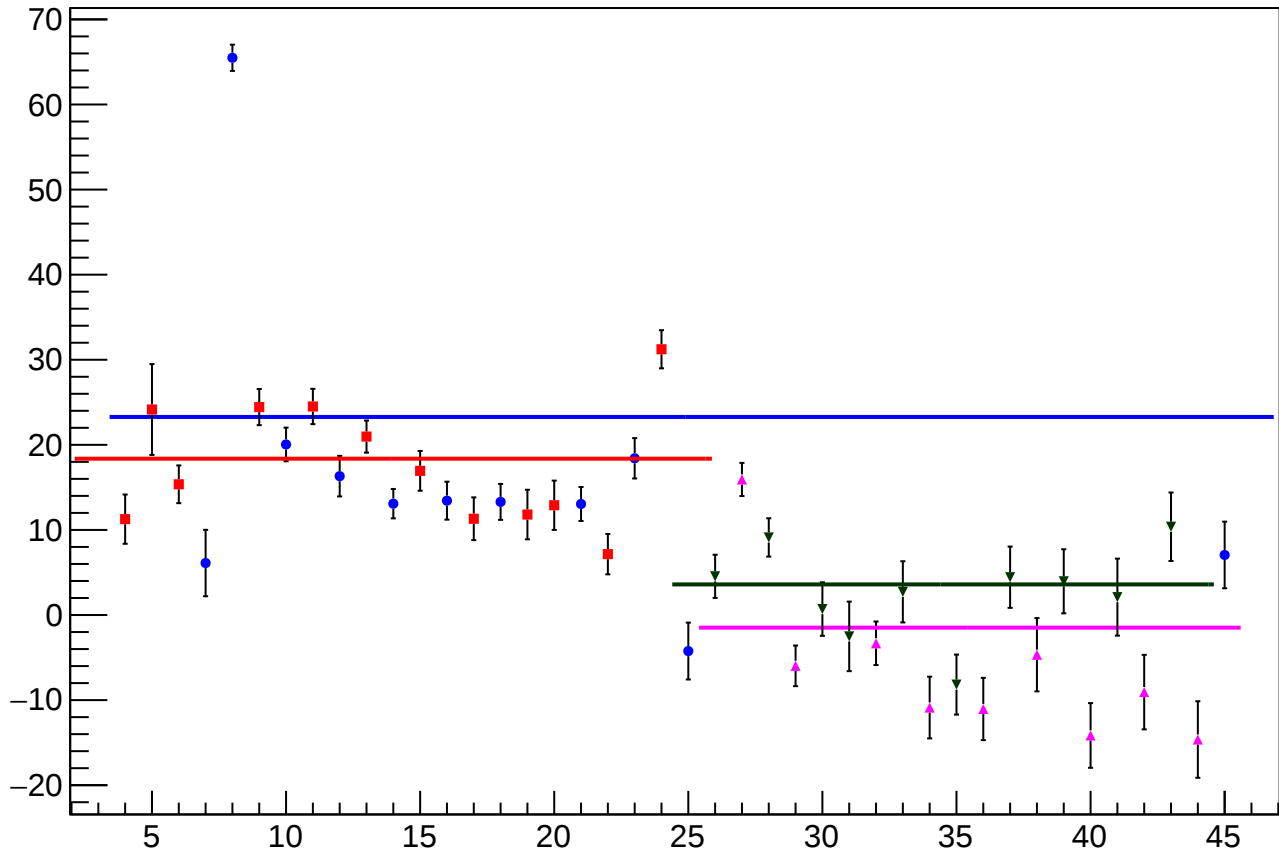
Right Out: 5662.385+/-1.585  $\chi^2/\text{NDF}$ : 38277.2/11

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

5811.604+/-1.167  $\chi^2/\text{NDF}$ : 121183.0/20

5813.118+/-1.189  $\chi^2/\text{NDF}$ : 157266.3/20

# diff\_bpm0l05Y\_mean vs slug



Right In: 23.278 $\pm$ 0.665  $\chi^2$ /NDF: 972.4/10

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

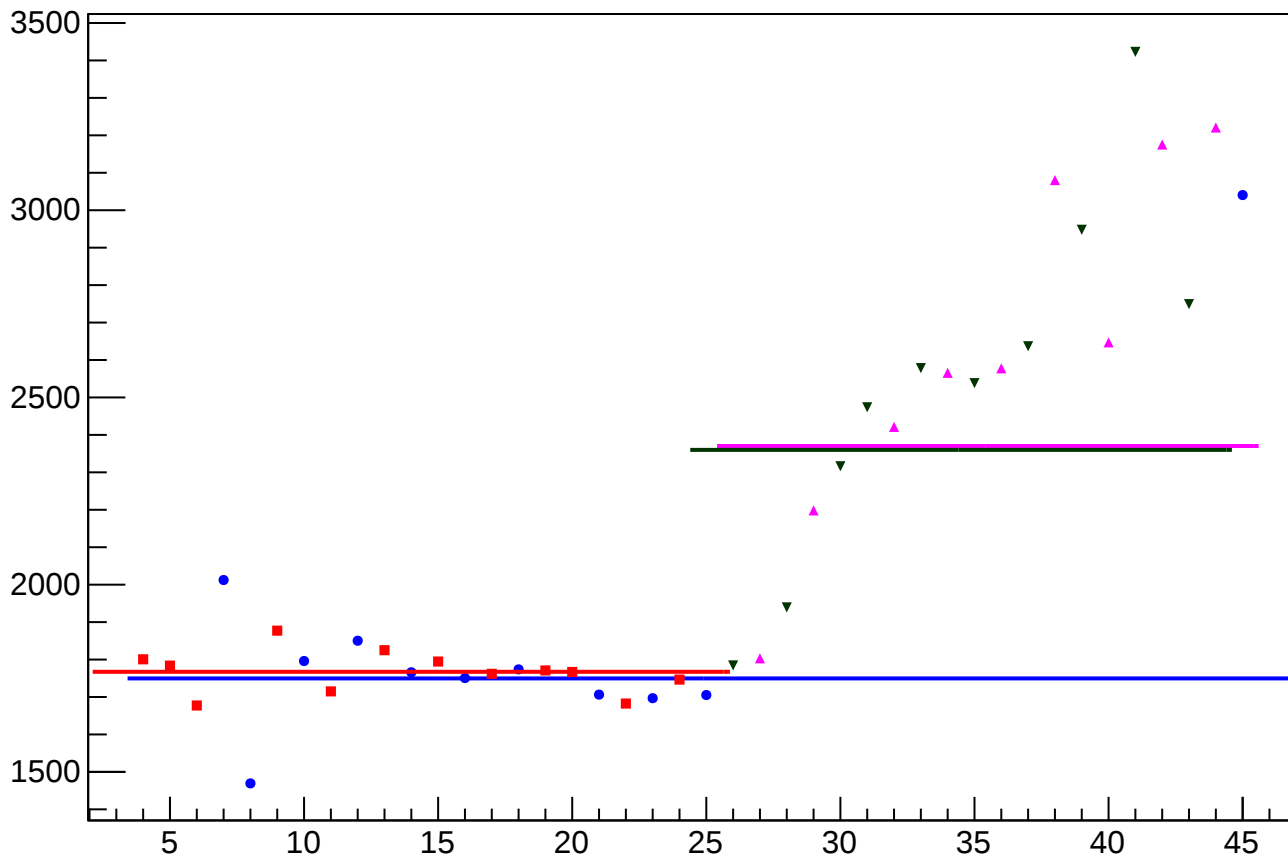
Right Out: 18.373 $\pm$ 0.699  $\chi^2$ /NDF: 100.0/11

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

17.546 $\pm$ 0.560  $\chi^2$ /NDF: 1251.0/20

12.005 $\pm$ 0.576  $\chi^2$ /NDF: 479.7/20

# diff\_bpm0l05Y\_rms vs slug



Right In: 1749.606 $\pm$ 0.470  $\chi^2$ /NDF: 299953.7/10

Left Out: 2359.972 $\pm$ 0.733  $\chi^2$ /NDF:376681.6/9

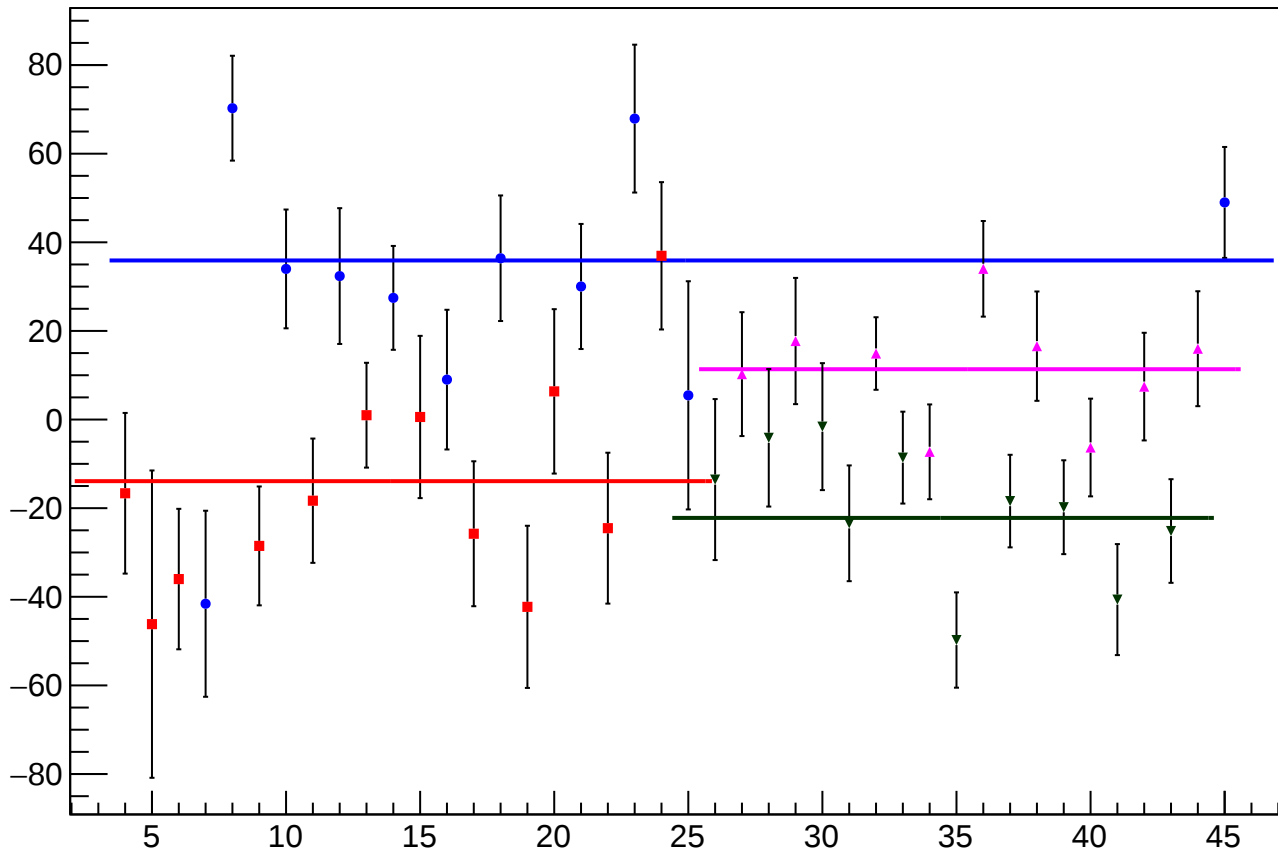
Right Out: 1767.340 $\pm$ 0.494  $\chi^2$ /NDF: 15091.3/11

Left In: 2370.321 $\pm$ 0.719  $\chi^2$ /NDF:396932.3/8

1927.358 $\pm$ 0.396  $\chi^2$ /NDF: 1167463.0/20

1960.700 $\pm$ 0.407  $\chi^2$ /NDF: 889766.9/20

# diff\_bpm0l06X\_mean vs slug



Right In:  $35.903 \pm 4.385$   $\chi^2/\text{NDF}: 31.9/10$

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

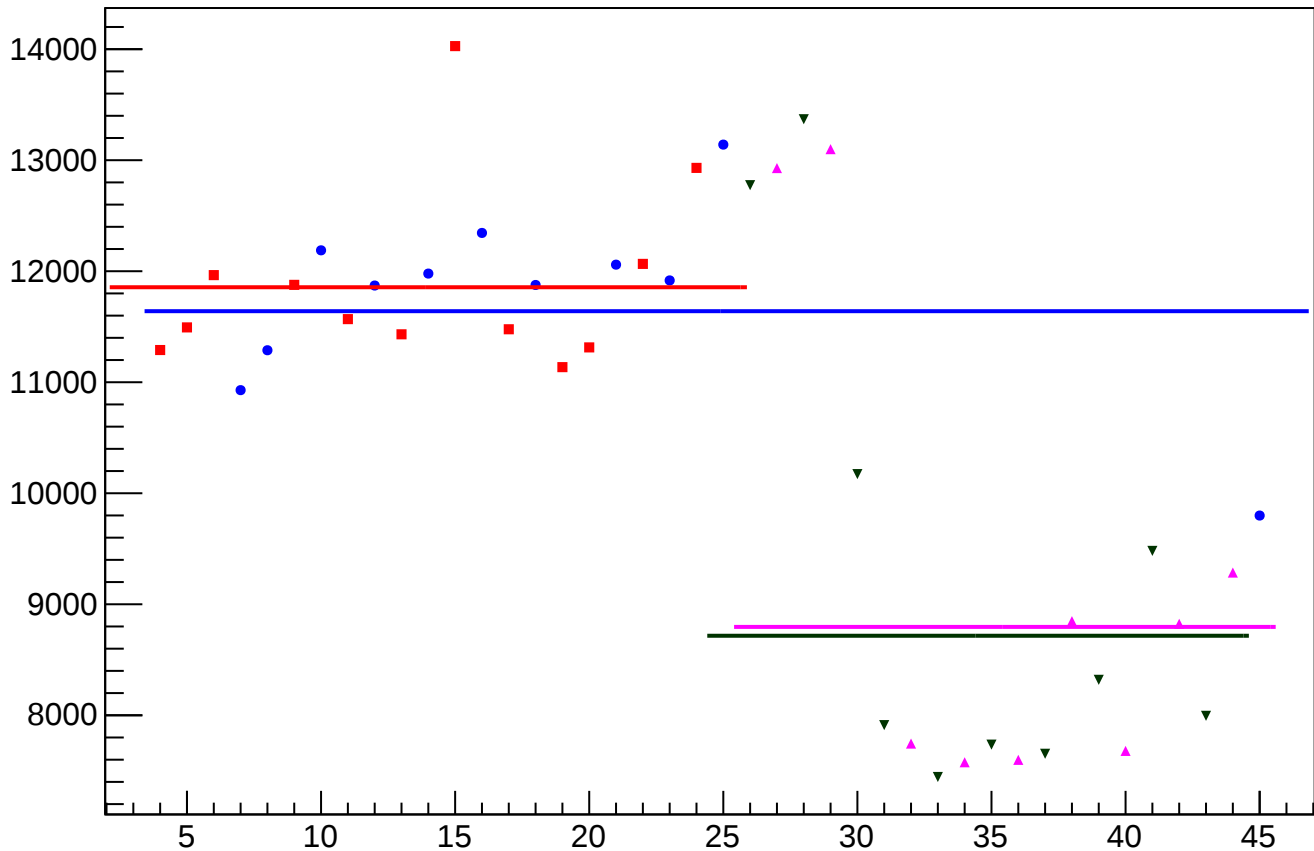
Right Out:  $-13.904 \pm 4.697$   $\chi^2/\text{NDF}: 20.2/11$

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

$3.062 \pm 2.891$   $\chi^2/\text{NDF}: 145.5/20$

$1.414 \pm 2.947$   $\chi^2/\text{NDF}: 48.5/20$

# diff\_bpm0l06X\_rms vs slug



Right In: 11640.016 $\pm$ 3.100  $\chi^2$ /NDF: 66441.4/10

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

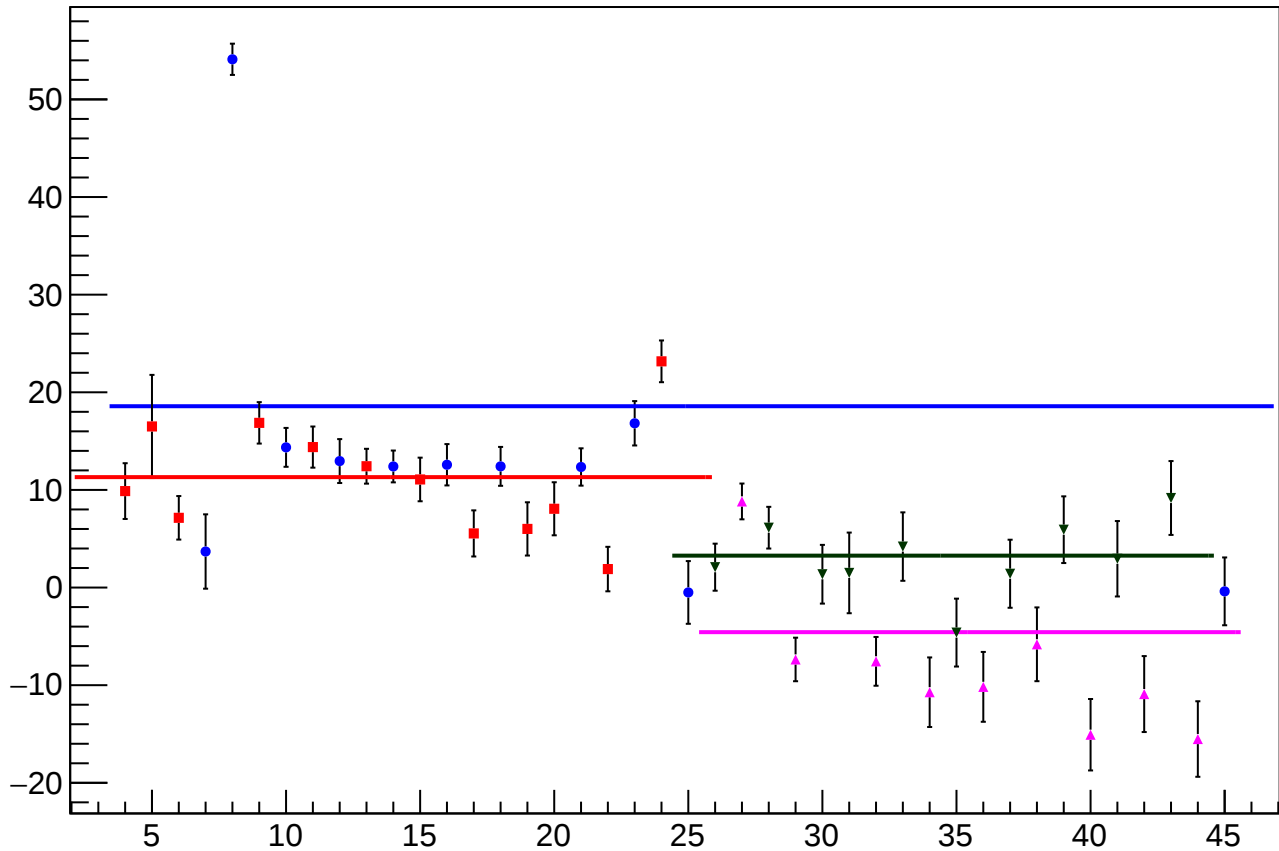
Right Out: 11855.642 $\pm$ 3.322  $\chi^2$ /NDF: 48354.6/11

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

9987.538 $\pm$ 2.044  $\chi^2$ /NDF: 962170.7/20

10000.514 $\pm$ 2.084  $\chi^2$ /NDF: 1027155.3/20

# diff\_bpm0l06Y\_mean vs slug



Right In: 18.573 $\pm$ 0.644  $\chi^2/\text{NDF}$ : 627.2/10

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

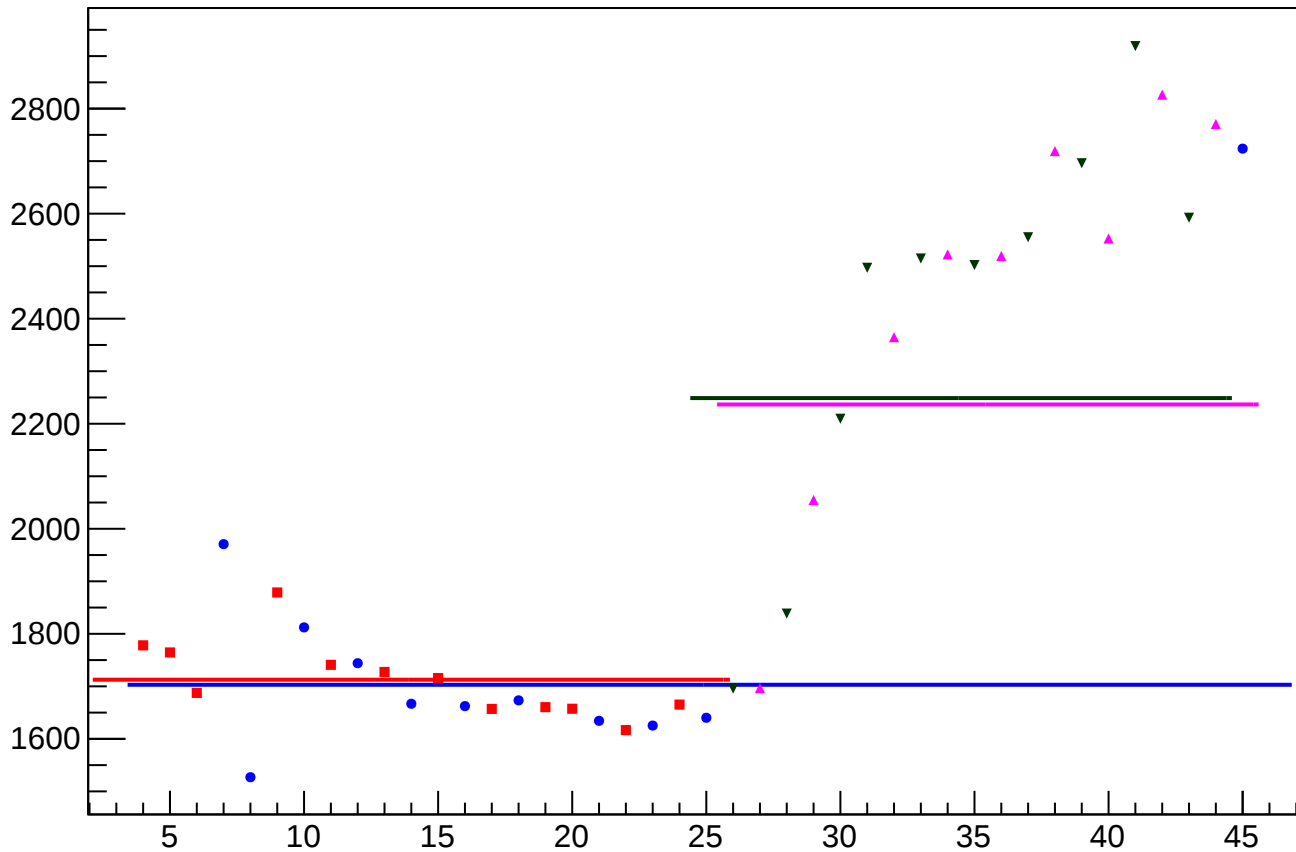
Right Out: 11.311 $\pm$ 0.677  $\chi^2/\text{NDF}$ : 73.1/11

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

13.989 $\pm$ 0.539  $\chi^2/\text{NDF}$ : 807.3/20

6.011 $\pm$ 0.553  $\chi^2/\text{NDF}$ : 337.6/20

# diff\_bpm0l06Y\_rms vs slug



Right In: 1702.973 $\pm$ 0.456  $\chi^2$ /NDF: 221386.9/10

Left Out: 2248.854 $\pm$ 0.697  $\chi^2$ /NDF: 335259.7/9

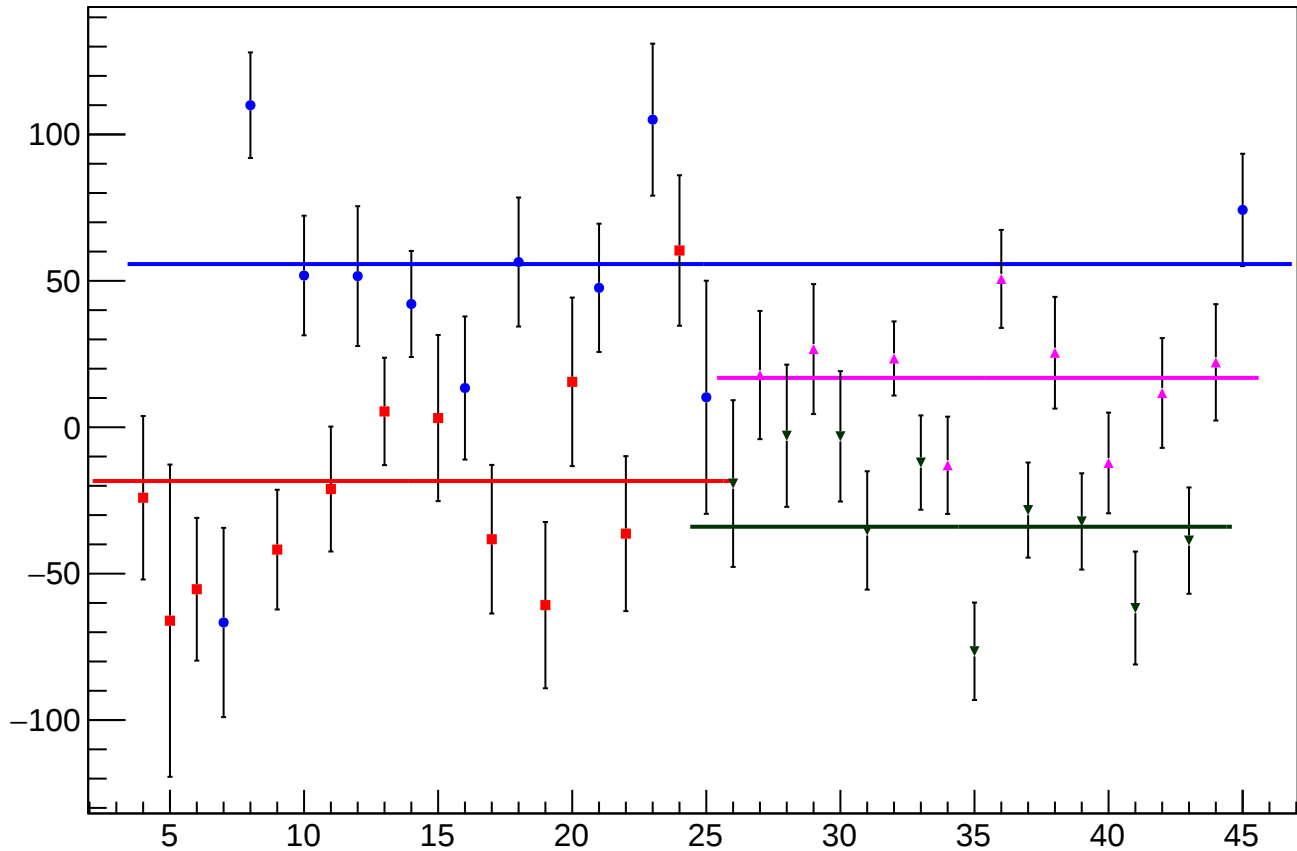
Right Out: 1712.647 $\pm$ 0.479  $\chi^2$ /NDF: 21464.2/11

Left In: 2236.692 $\pm$ 0.676  $\chi^2$ /NDF: 349030.8/8

1866.467 $\pm$ 0.381  $\chi^2$ /NDF: 986480.6/20

1887.555 $\pm$ 0.391  $\chi^2$ /NDF: 770585.0/20

# diff\_bpm0l07X\_mean vs slug



Right In: 55.731+/-6.760  $\chi^2/\text{NDF}$ : 33.0/10

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

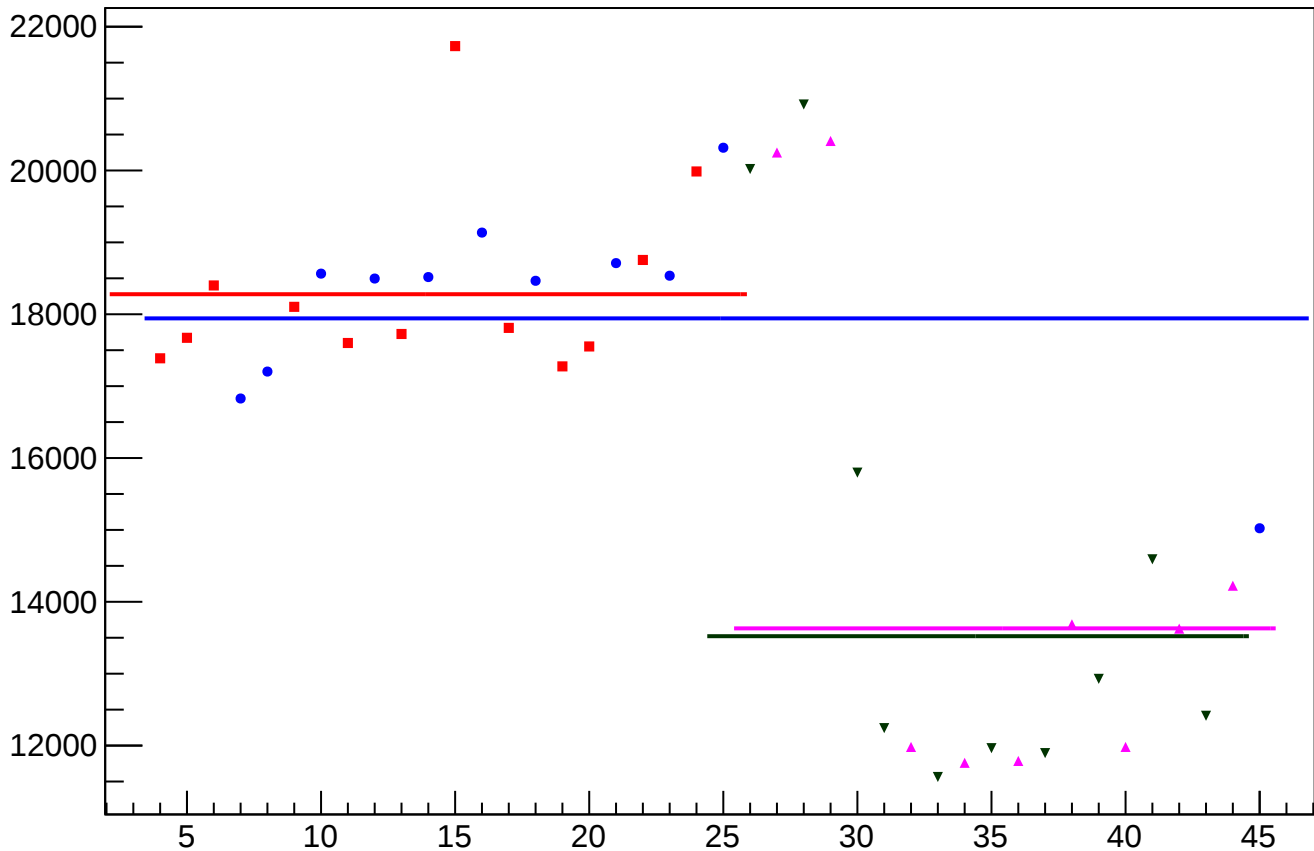
Right Out: -18.361+/-7.243  $\chi^2/\text{NDF}$ : 20.8/11

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

5.314+/-4.474  $\chi^2/\text{NDF}$ : 146.5/20

2.905+/-4.559  $\chi^2/\text{NDF}$ : 46.1/20

# diff\_bpm0l07X\_rms vs slug



Right In: 17942.657+/-4.780  $\chi^2/\text{NDF}$ : 73524.8/10

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

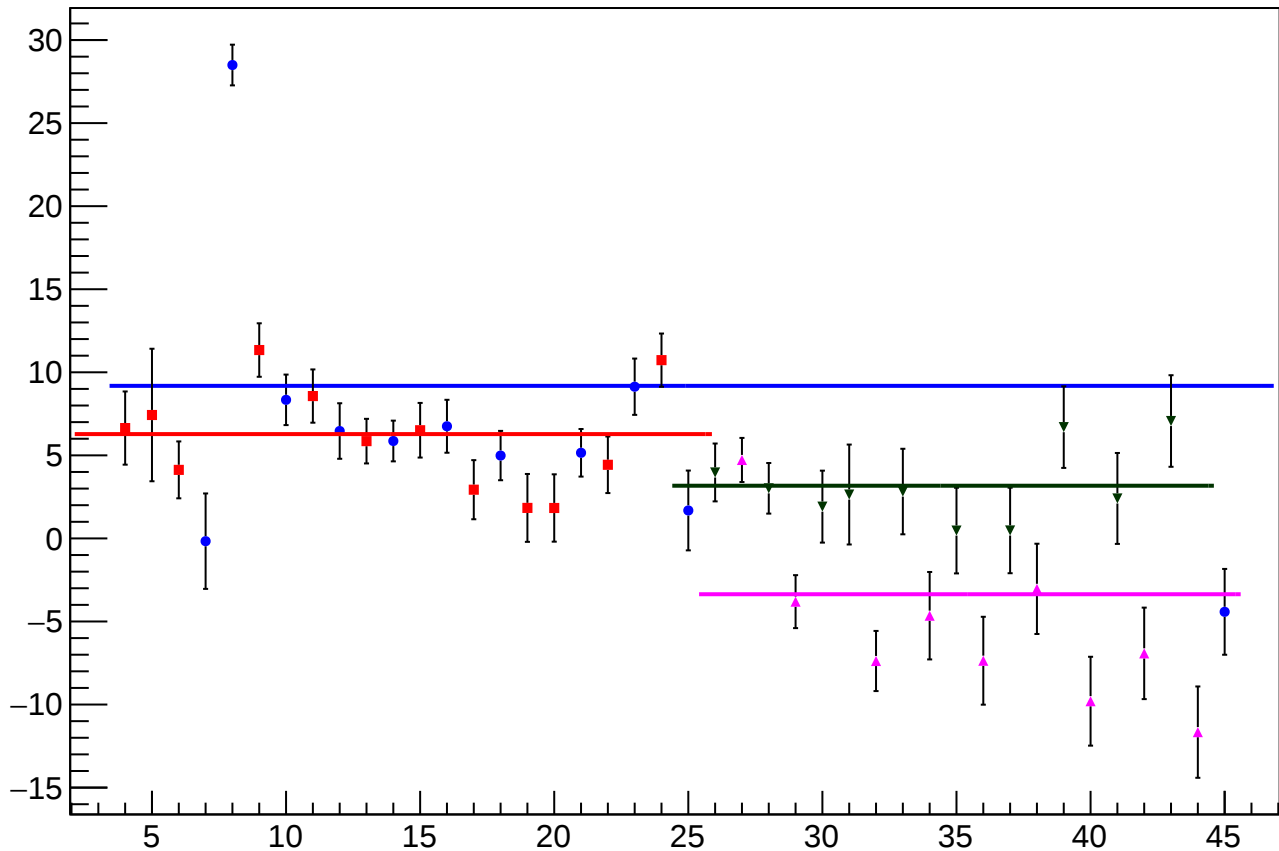
Right Out: 18278.807+/-5.121  $\chi^2/\text{NDF}$ : 49891.5/11

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

15457.808+/-3.163  $\chi^2/\text{NDF}$ : 956355.2/20

15472.092+/-3.224  $\chi^2/\text{NDF}$ : 1020563.3/20

# diff\_bpm0l07Y\_mean vs slug



Right In:  $9.184 \pm 0.485$   $\chi^2/\text{NDF}$ : 325.0/10

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

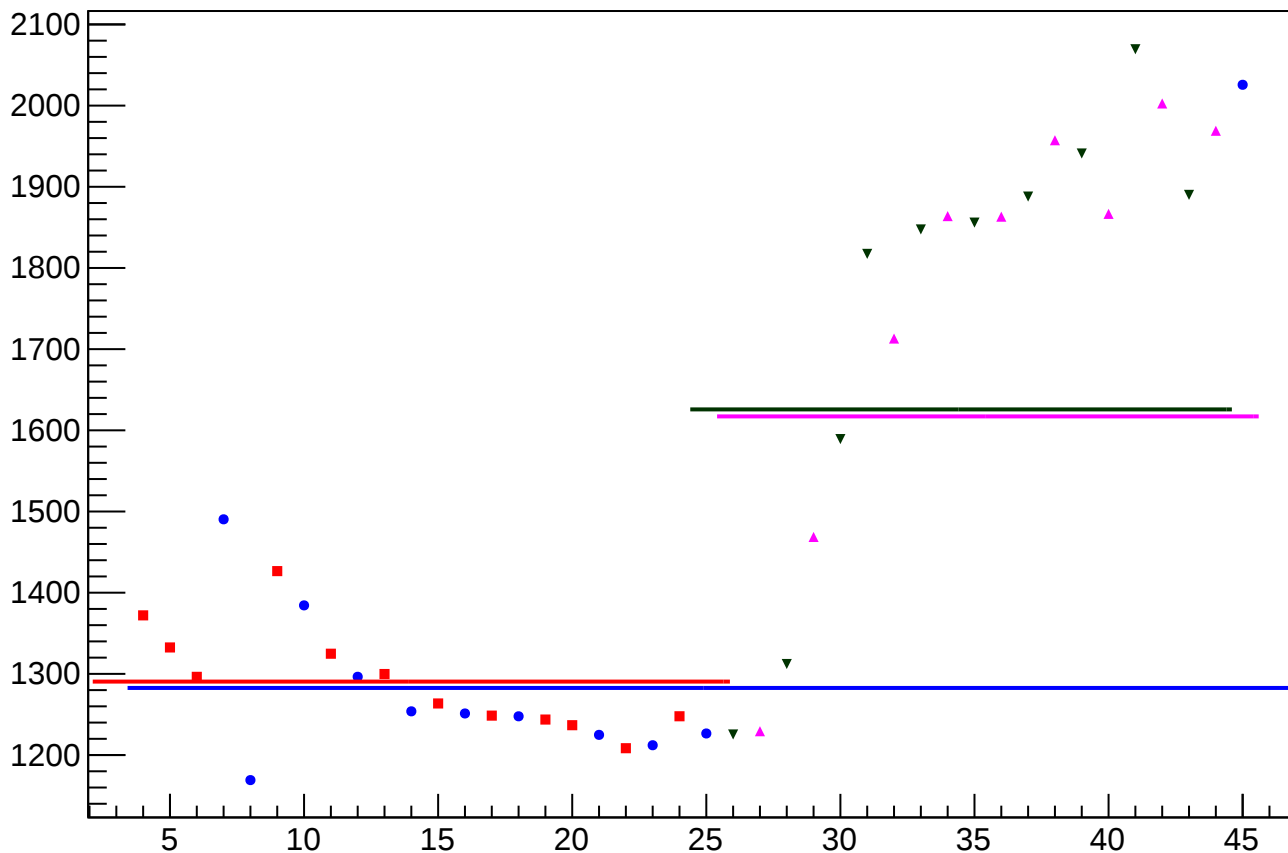
Right Out:  $6.280 \pm 0.510$   $\chi^2/\text{NDF}$ : 35.7/11

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

$7.281 \pm 0.401$   $\chi^2/\text{NDF}$ : 380.6/20

$2.882 \pm 0.410$   $\chi^2/\text{NDF}$ : 222.8/20

# diff\_bpm0l07Y\_rms vs slug



Right In: 1282.665+/-0.343  $\chi^2/\text{NDF}$ : 212991.7/10

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

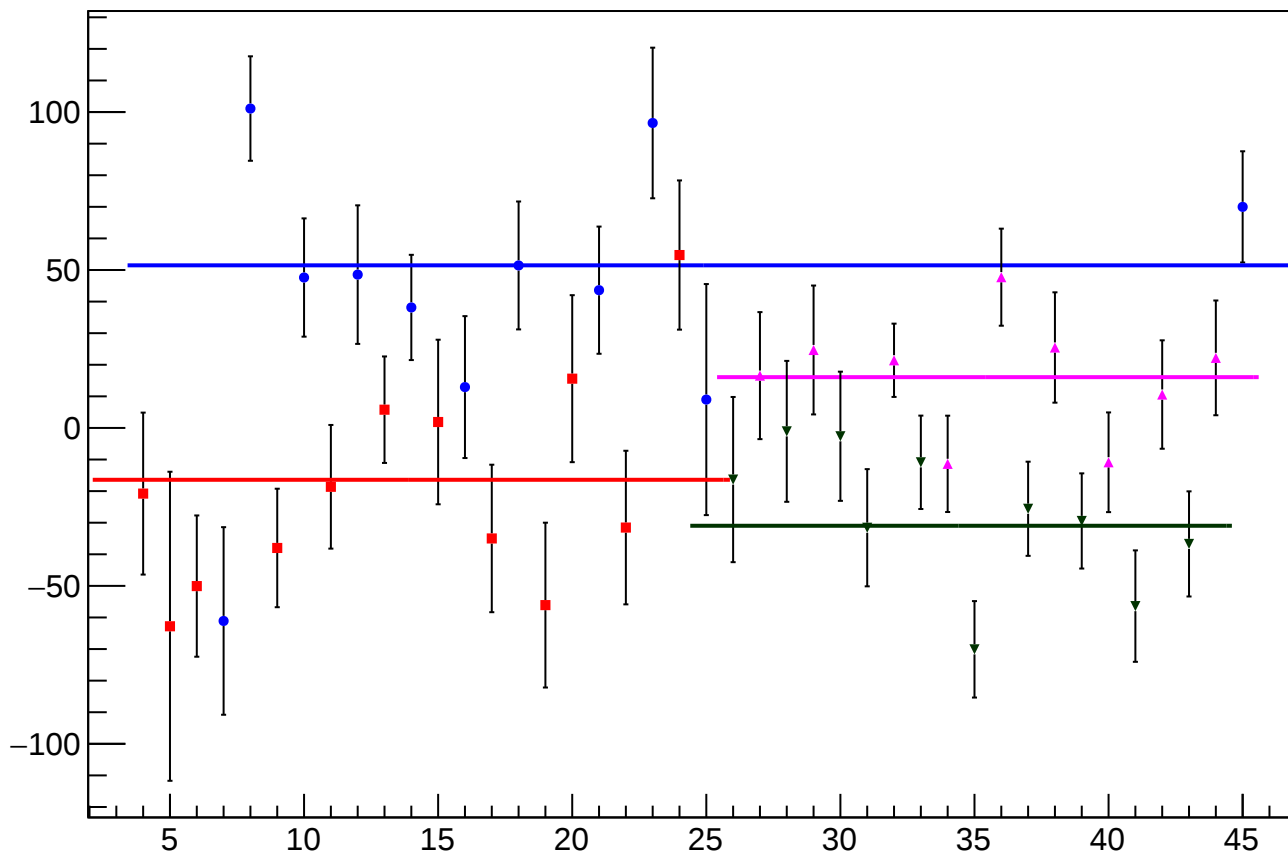
Right Out: 1290.505+/-0.361  $\chi^2/\text{NDF}$ : 28459.4/11

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

1391.258+/-0.284  $\chi^2/\text{NDF}$ : 884333.9/20

1405.665+/-0.290  $\chi^2/\text{NDF}$ : 666807.2/20

# diff\_bpm0l08X\_mean vs slug



Right In:  $51.479 \pm 6.208$   $\chi^2/\text{NDF}$ : 33.2/10

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

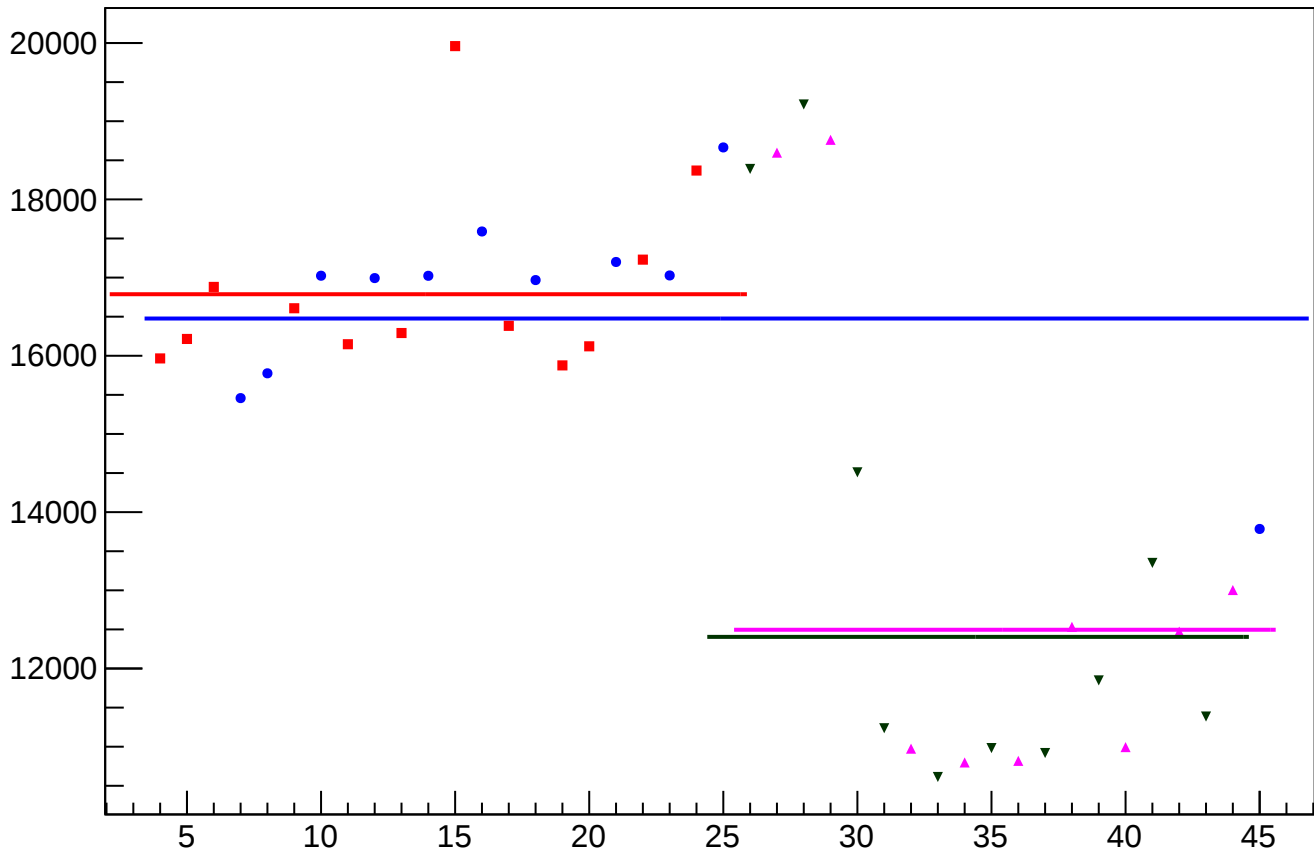
Right Out:  $-16.413 \pm 6.651$   $\chi^2/\text{NDF}$ : 20.6/11

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

$5.101 \pm 4.106$   $\chi^2/\text{NDF}$ : 147.2/20

$3.232 \pm 4.182$   $\chi^2/\text{NDF}$ : 46.4/20

# diff\_bpm0l08X\_rms vs slug



Right In: 16476.361+/-4.390  $\chi^2/\text{NDF}$ : 74567.2/10

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

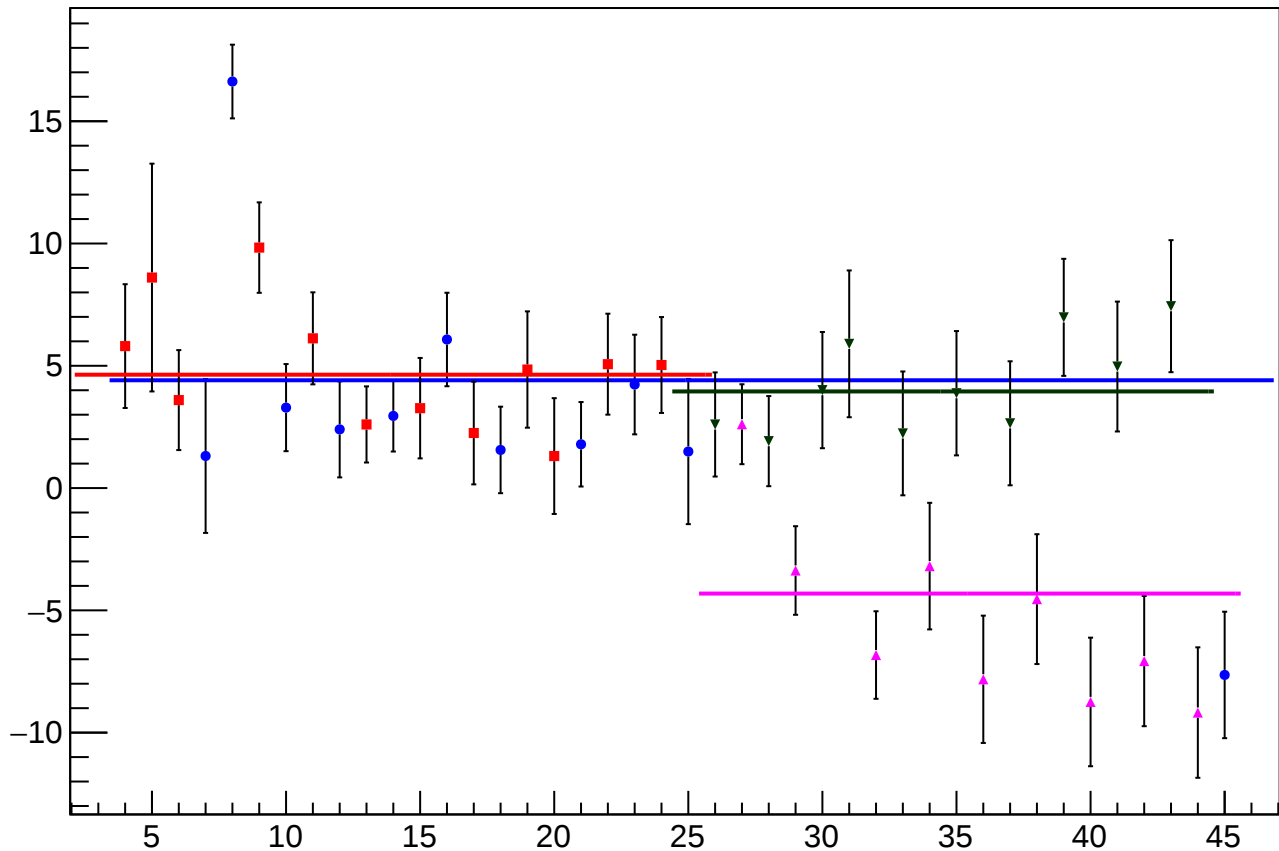
Right Out: 16787.169+/-4.703  $\chi^2/\text{NDF}$ : 50027.0/11

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

14185.959+/-2.903  $\chi^2/\text{NDF}$ : 961431.2/20

14192.532+/-2.957  $\chi^2/\text{NDF}$ : 1028893.6/20

# diff\_bpm0l08Y\_mean vs slug



Right In:  $4.408 \pm 0.575$   $\chi^2/\text{NDF}$ : 97.5/10

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

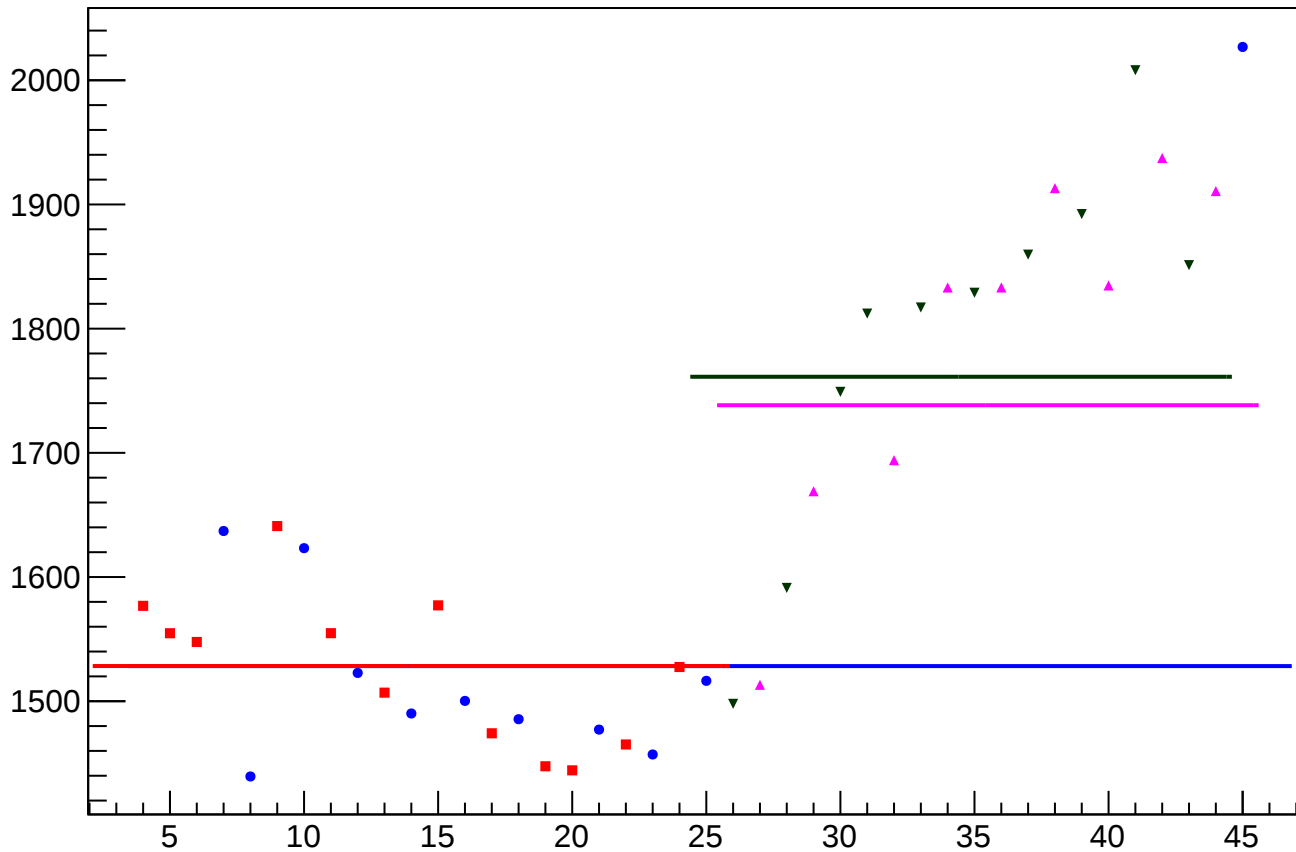
Right Out:  $4.636 \pm 0.604$   $\chi^2/\text{NDF}$ : 15.2/11

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

$4.242 \pm 0.459$   $\chi^2/\text{NDF}$ : 103.9/20

$1.024 \pm 0.466$   $\chi^2/\text{NDF}$ : 133.4/20

# diff\_bpm0l08Y\_rms vs slug



Right In: 1528.288 $\pm$ 0.407  $\chi^2$ /NDF: 96614.9/10

Left Out: 1761.262 $\pm$ 0.539  $\chi^2$ /NDF: 79141.5/9

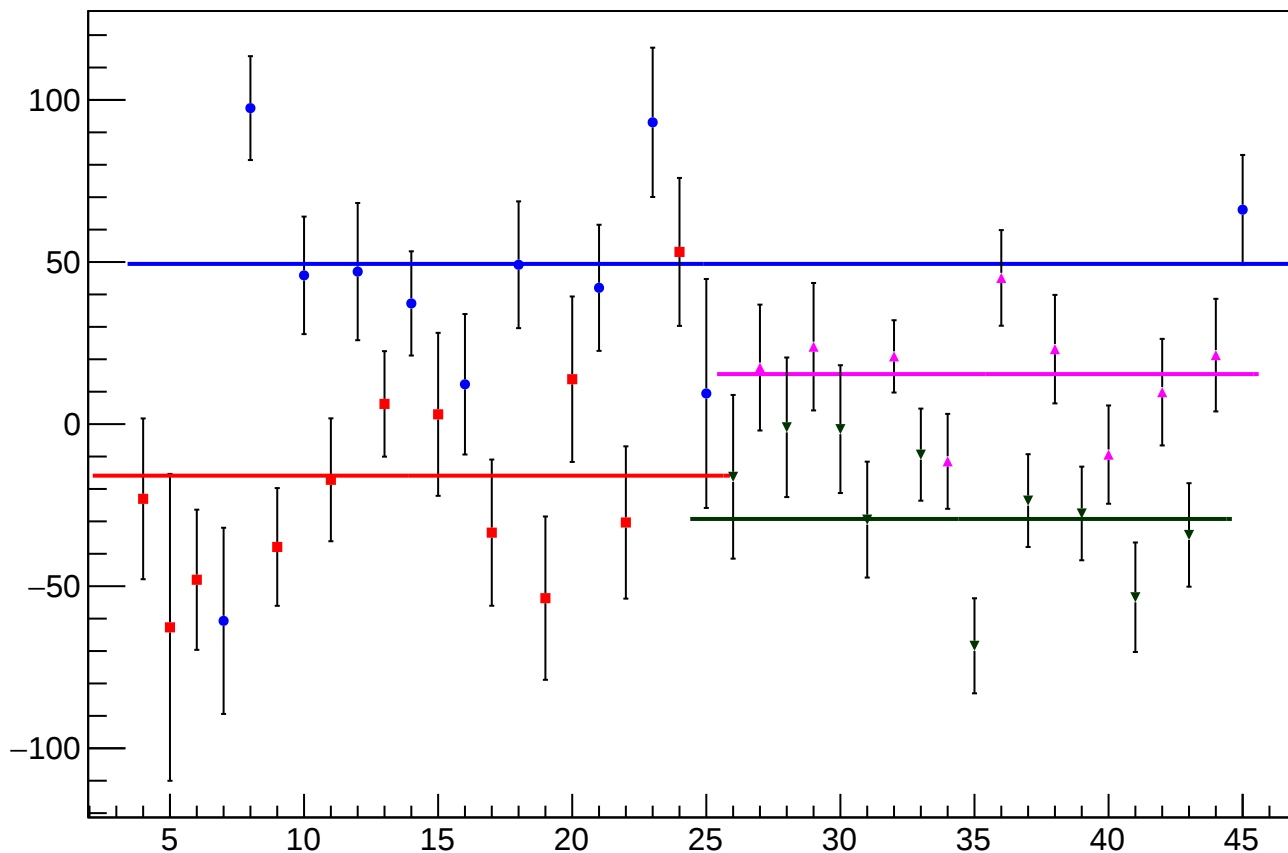
Right Out: 1528.347 $\pm$ 0.427  $\chi^2$ /NDF: 18336.6/11

Left In: 1738.335 $\pm$ 0.519  $\chi^2$ /NDF: 78331.9/8

1612.930 $\pm$ 0.325  $\chi^2$ /NDF: 294860.9/20

1613.100 $\pm$ 0.330  $\chi^2$ /NDF: 194307.4/20

# diff\_bpm0l09X\_mean vs slug



Right In: 49.425 $\pm$ 5.993  $\chi^2$ /NDF: 33.3/10

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

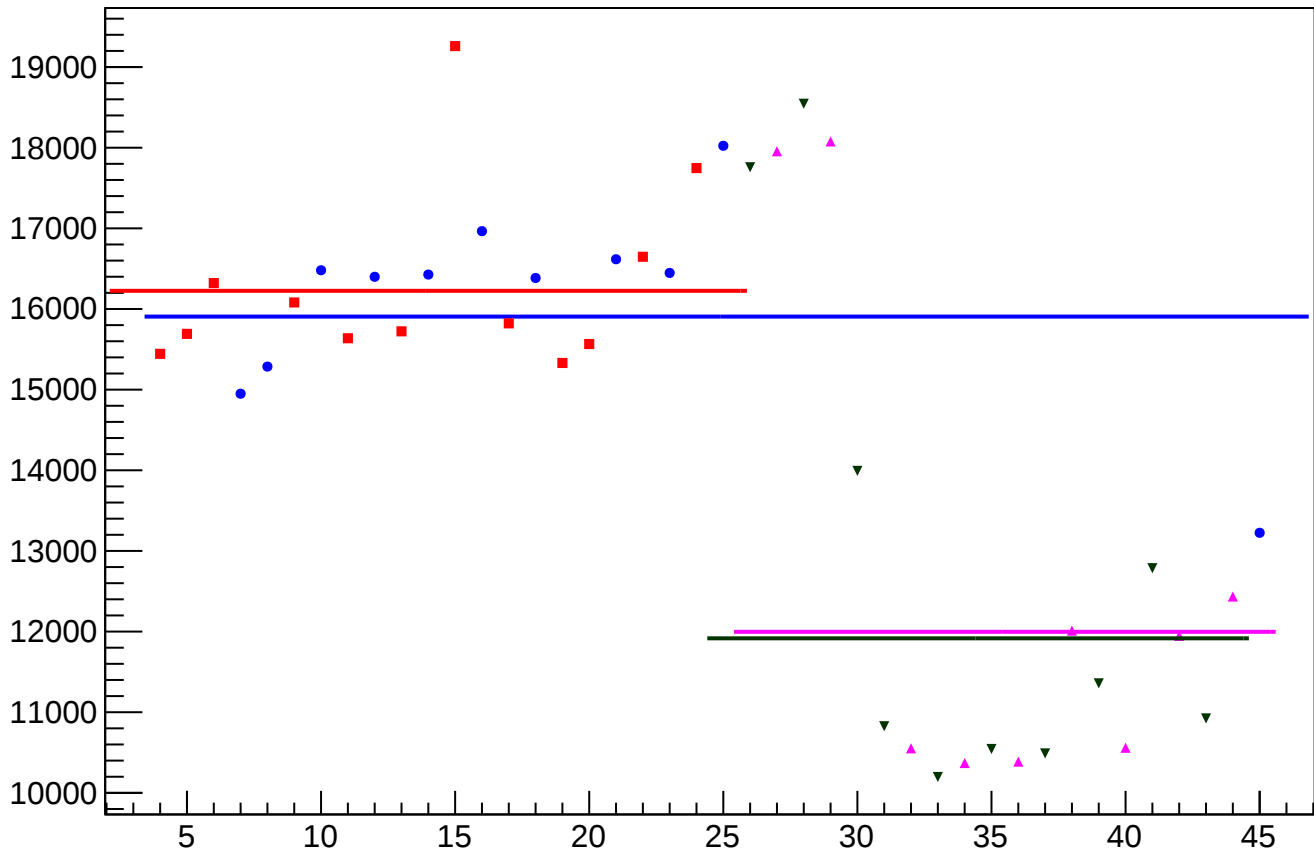
Right Out: -15.898 $\pm$ 6.429  $\chi^2$ /NDF: 20.9/11

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

4.982 $\pm$ 3.954  $\chi^2$ /NDF: 146.0/20

3.142 $\pm$ 4.027  $\chi^2$ /NDF: 46.3/20

# diff\_bpm0l09X\_rms vs slug



Right In: 15905.795+/-4.238  $\chi^2/\text{NDF}$ : 77777.1/10

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

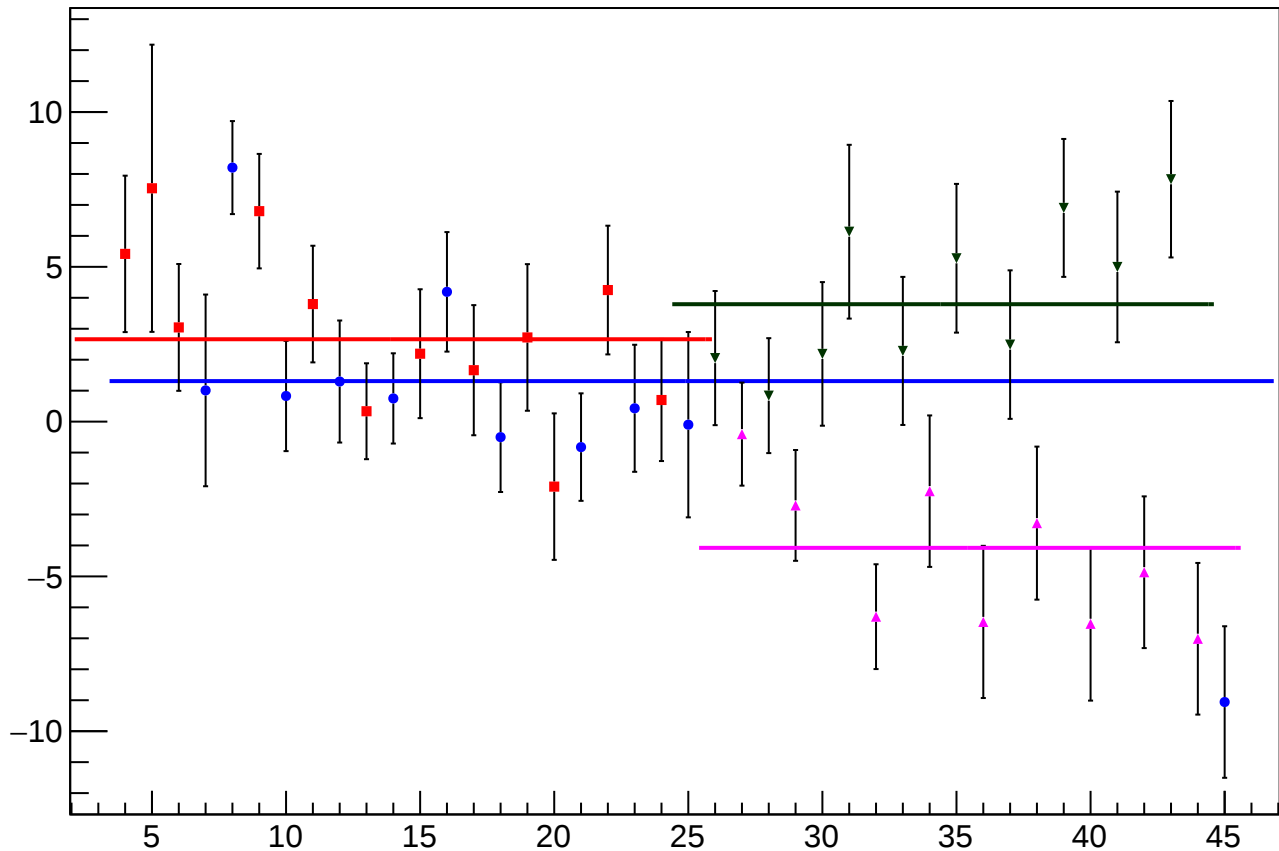
Right Out: 16225.365+/-4.546  $\chi^2/\text{NDF}$ : 49424.2/11

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

13652.265+/-2.796  $\chi^2/\text{NDF}$ : 987310.3/20

13656.061+/-2.847  $\chi^2/\text{NDF}$ : 1056277.9/20

# diff\_bpm0l09Y\_mean vs slug



Right In: 1.309 $\pm$ 0.575  $\chi^2$ /NDF: 44.4/10

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

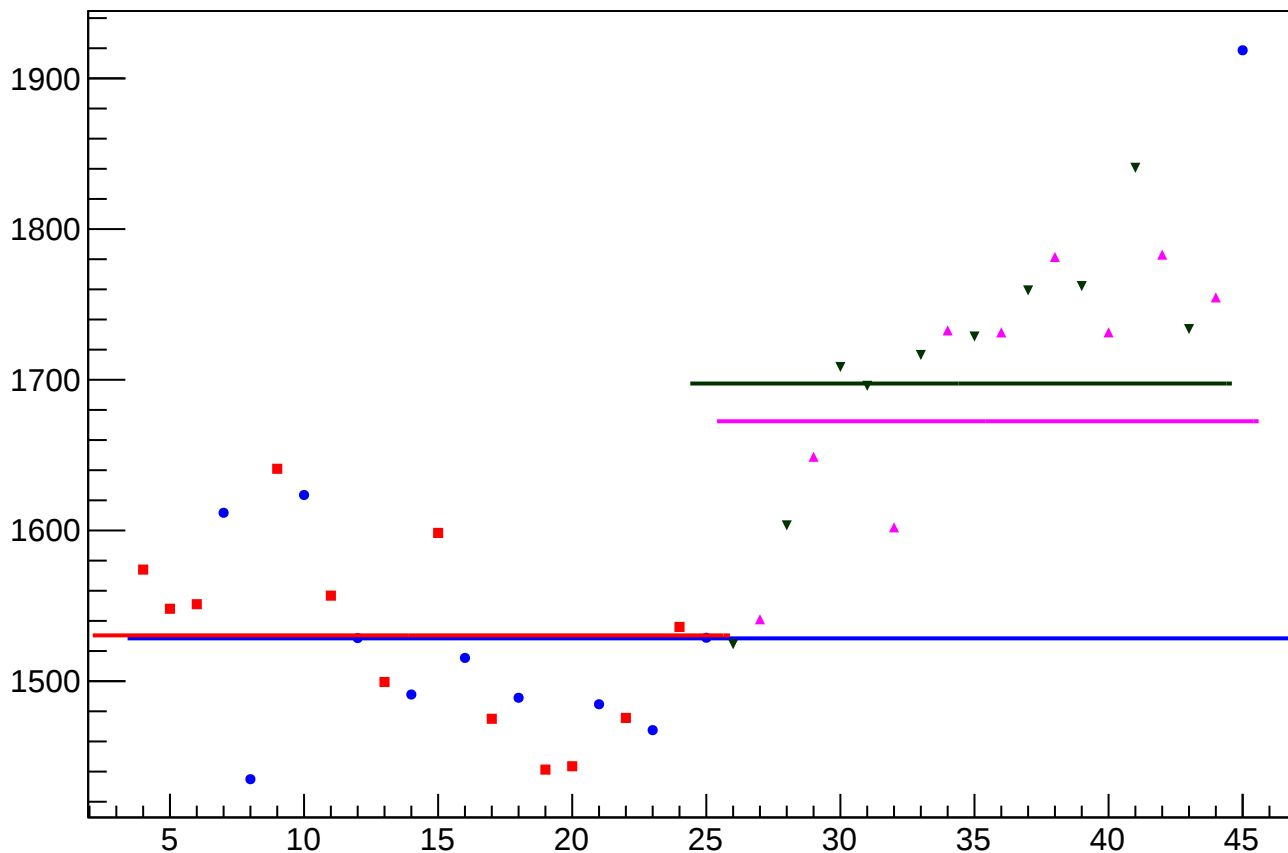
Right Out: 2.661 $\pm$ 0.605  $\chi^2$ /NDF: 15.9/11

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

2.256 $\pm$ 0.452  $\chi^2$ /NDF: 61.7/20

-0.197 $\pm$ 0.459  $\chi^2$ /NDF: 79.8/20

# diff\_bpm0l09Y\_rms vs slug



Right In:  $1528.407 \pm 0.407$   $\chi^2/\text{NDF}$ : 71141.6/10

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

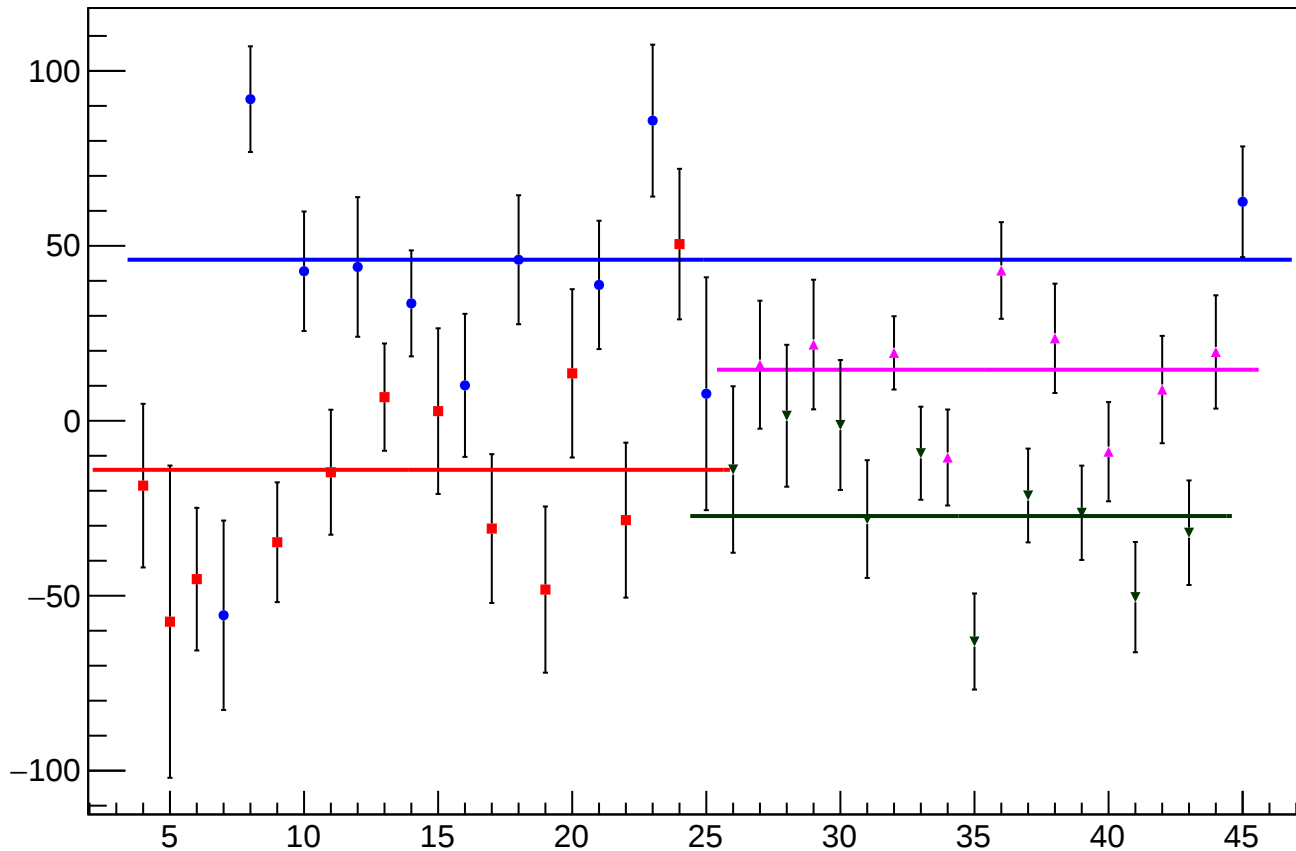
Right Out:  $1530.389 \pm 0.428$   $\chi^2/\text{NDF}$ : 19618.0/11

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

$1592.905 \pm 0.320$   $\chi^2/\text{NDF}$ : 165869.2/20

$1590.654 \pm 0.324$   $\chi^2/\text{NDF}$ : 96451.5/20

# diff\_bpm0l10X\_mean vs slug



Right In: 46.035 $\pm$ 5.646  $\chi^2$ /NDF: 33.1/10

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

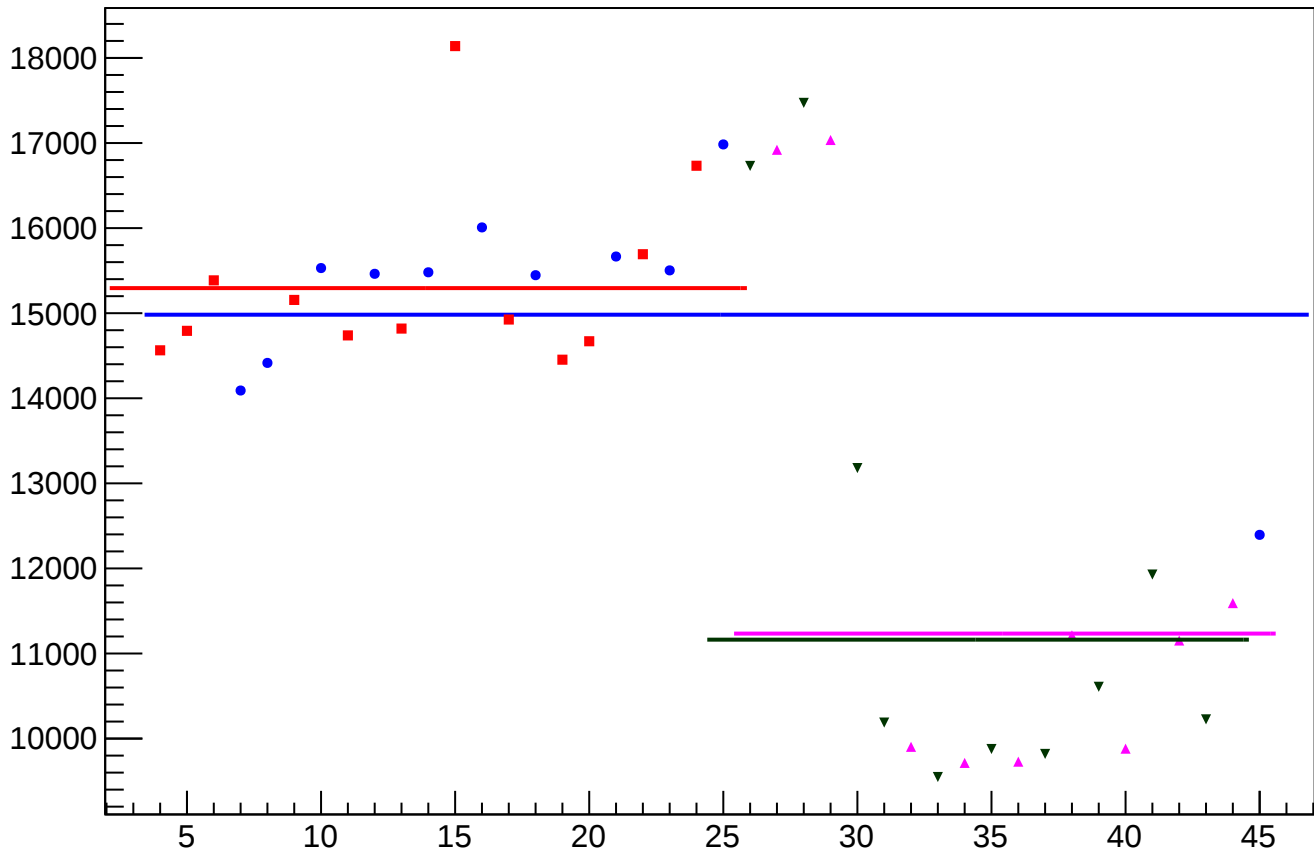
Right Out: -14.010 $\pm$ 6.060  $\chi^2$ /NDF: 20.6/11

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

4.464 $\pm$ 3.713  $\chi^2$ /NDF: 144.0/20

3.460 $\pm$ 3.781  $\chi^2$ /NDF: 45.4/20

# diff\_bpm0l10X\_rms vs slug



Right In: 14982.195+/-3.992  $\chi^2/\text{NDF}$ : 81305.4/10

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

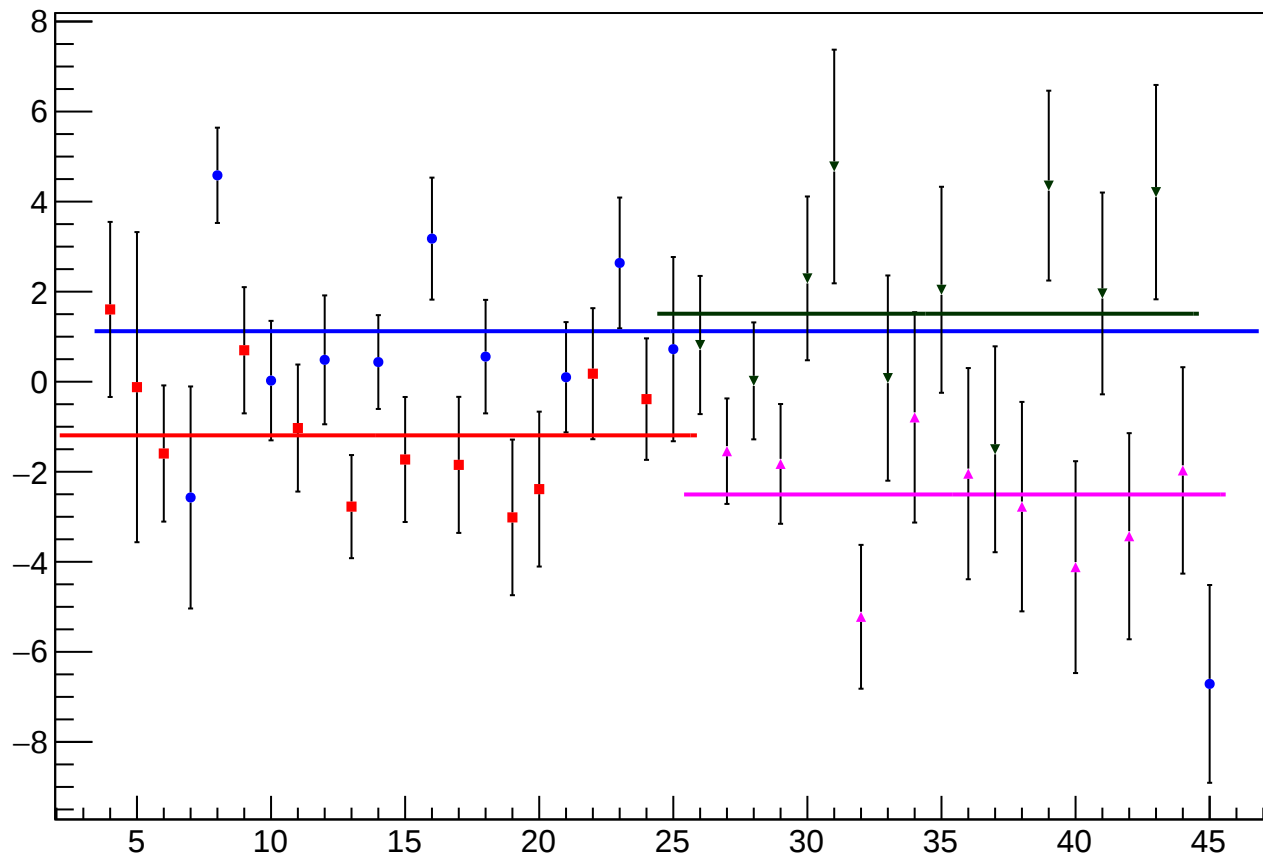
Right Out: 15294.772+/-4.285  $\chi^2/\text{NDF}$ : 49160.5/11

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

12814.869+/-2.626  $\chi^2/\text{NDF}$ : 1017039.9/20

12815.065+/-2.674  $\chi^2/\text{NDF}$ : 1086846.4/20

# diff\_bpm0l10Y\_mean vs slug



Right In:  $1.122 \pm 0.415$   $\chi^2/\text{NDF}$ : 31.3/10

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

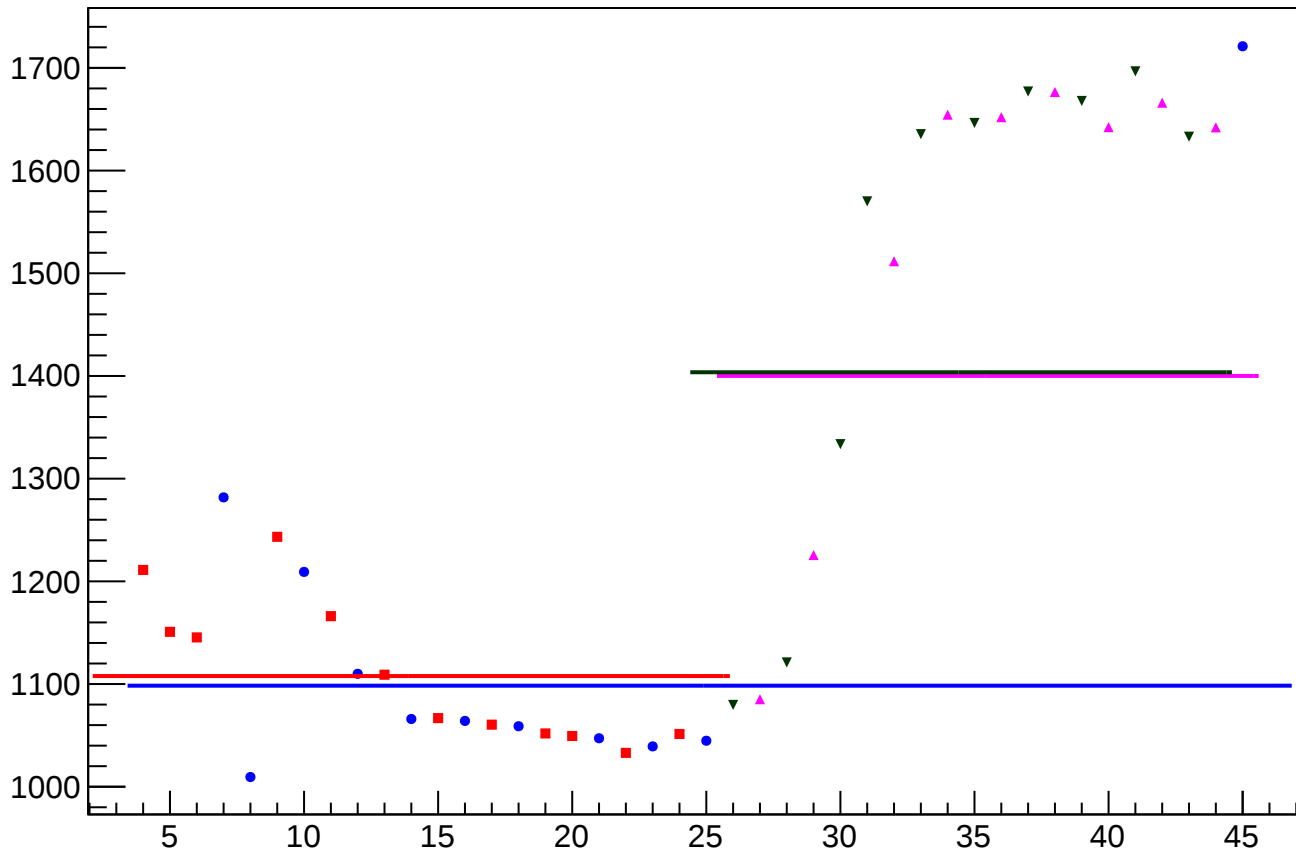
Right Out:  $-1.191 \pm 0.438$   $\chi^2/\text{NDF}$ : 9.1/11

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

$1.243 \pm 0.344$   $\chi^2/\text{NDF}$ : 40.2/20

$-1.650 \pm 0.353$   $\chi^2/\text{NDF}$ : 17.4/20

# diff\_bpm0l10Y\_rms vs slug



Right In: 1098.396+/-0.294  $\chi^2/\text{NDF}$ : 213381.3/10

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

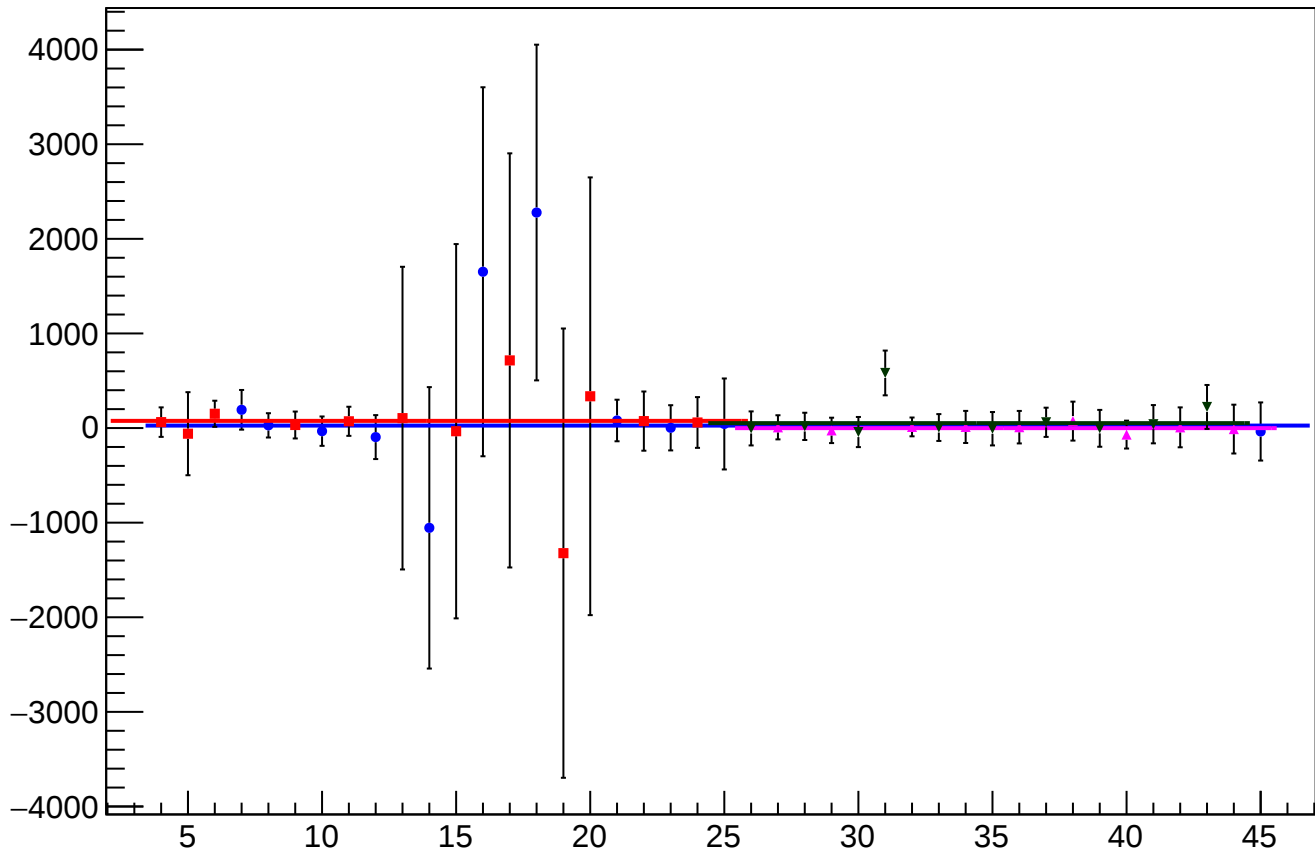
Right Out: 1107.774+/-0.310  $\chi^2/\text{NDF}$ : 46212.9/11

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

1194.010+/-0.243  $\chi^2/\text{NDF}$ : 902716.3/20

1209.871+/-0.250  $\chi^2/\text{NDF}$ : 691393.4/20

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



Right In: 26.104+/-71.140  $\chi^2/\text{NDF}$ : 4.0/10

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

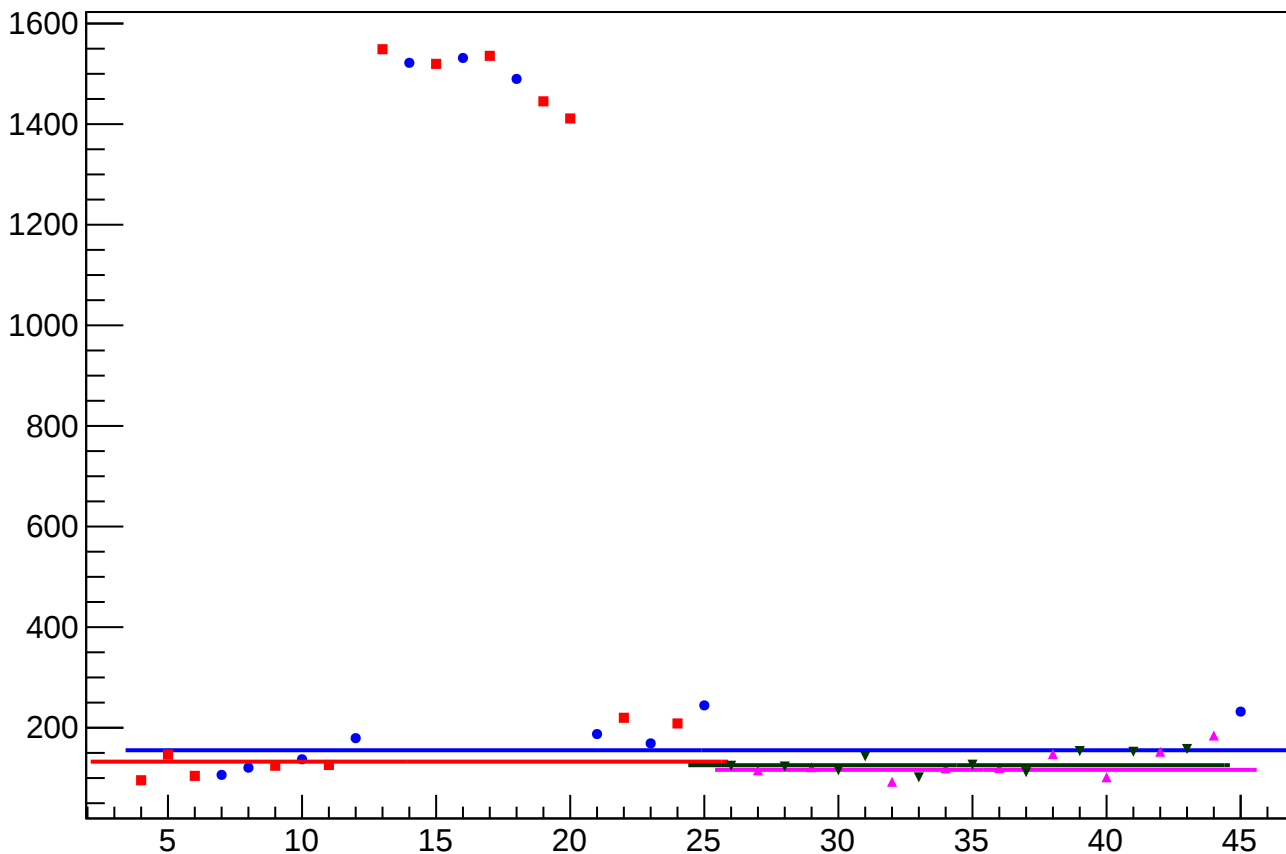
Right Out: 75.901+/-68.054  $\chi^2/\text{NDF}$ : 0.9/11

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

42.283+/-43.558  $\chi^2/\text{NDF}$ : 10.5/20

26.190+/-40.484  $\chi^2/\text{NDF}$ : 2.2/20

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



Right In: 155.277+/-0.050  $\chi^2/\text{NDF}$ : 4362119.0/10

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

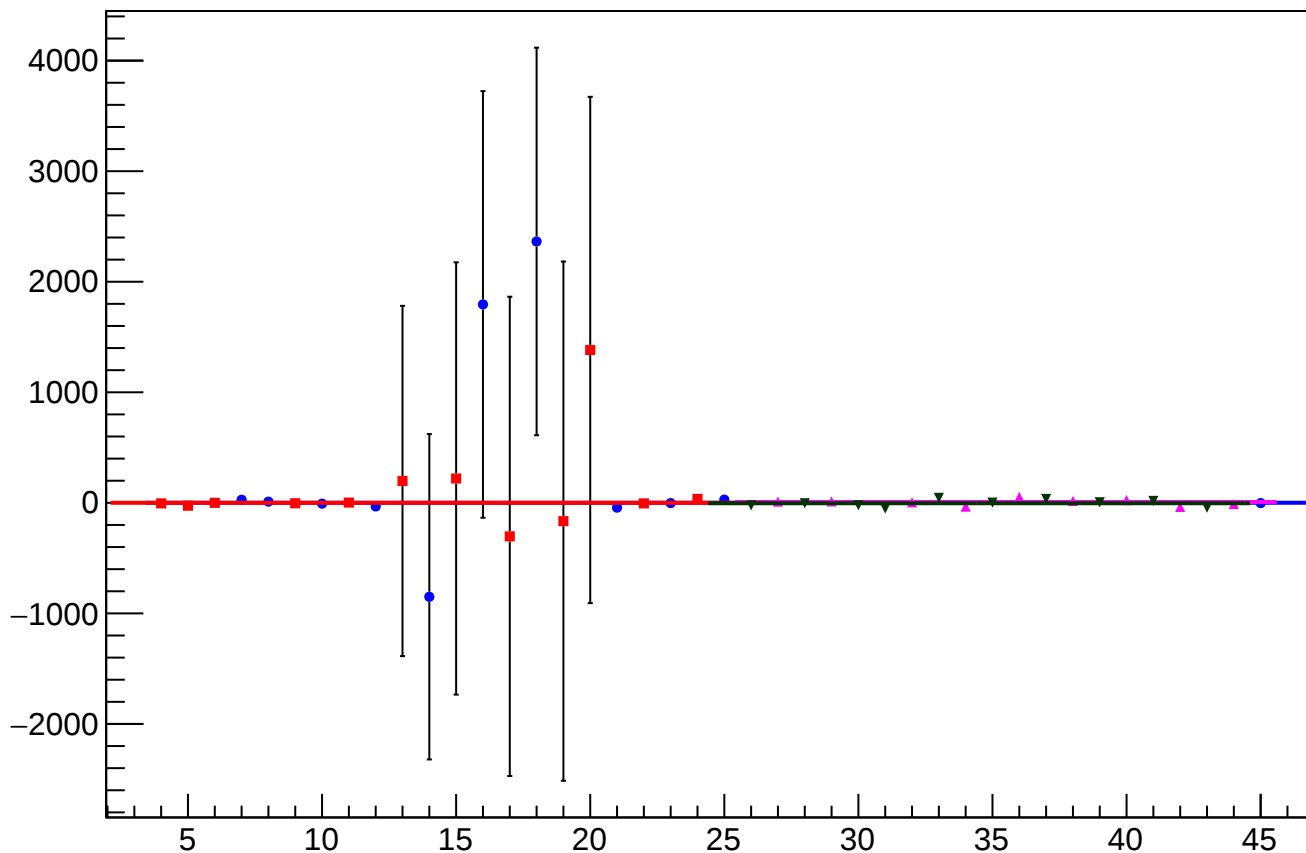
136.679+/-0.031  $\chi^2/\text{NDF}$ : 4789783.9/20

Right Out: 132.646+/-0.048  $\chi^2/\text{NDF}$ : 5120067.3/11

122.092+/-0.029  $\chi^2/\text{NDF}$ : 5578489.4/20

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: 0.705+/-5.941  $\chi^2/\text{NDF}$ : 11.8/10

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

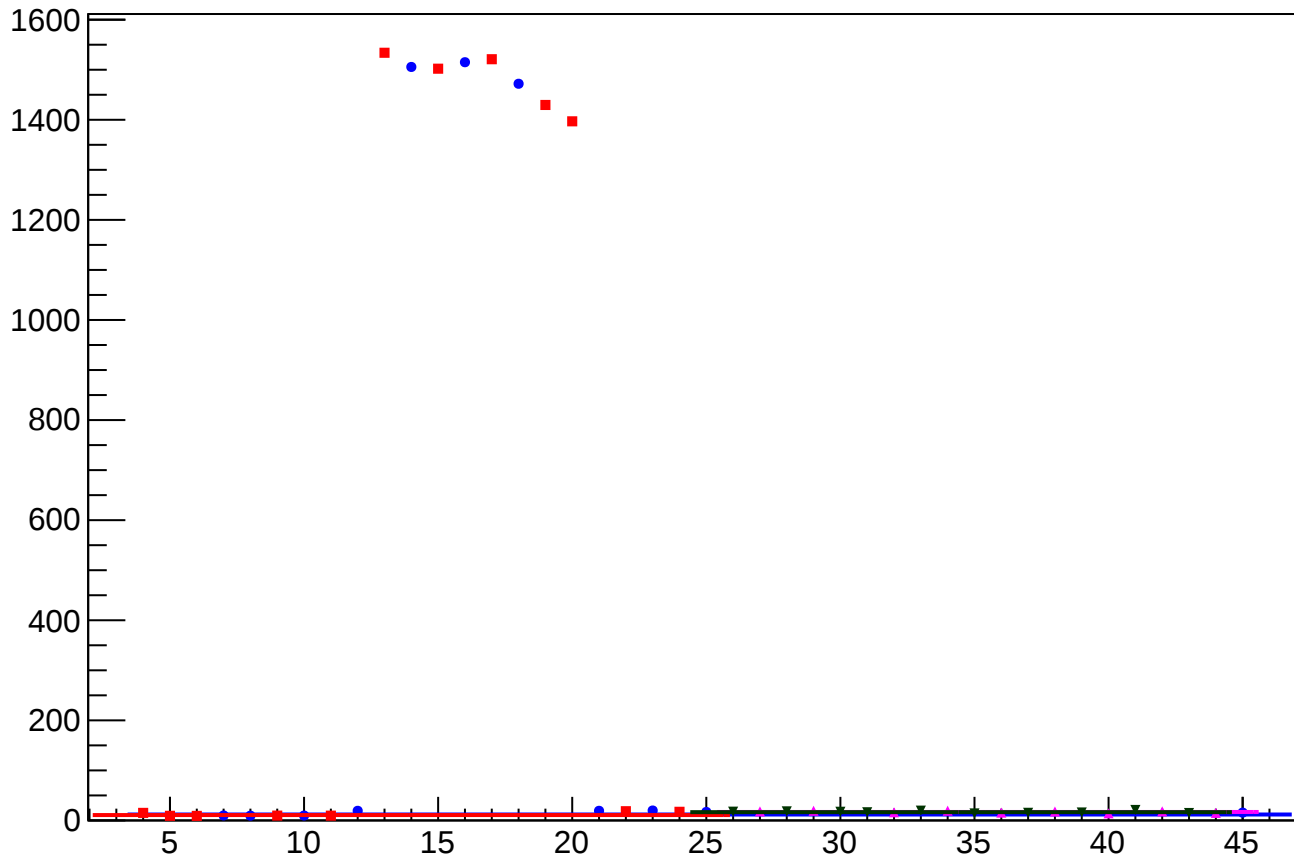
Right Out: 0.325+/-5.882  $\chi^2/\text{NDF}$ : 4.0/11

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

-1.030+/-4.640  $\chi^2/\text{NDF}$ : 26.6/20

3.129+/-4.615  $\chi^2/\text{NDF}$ : 15.1/20

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



Right In: 11.888+/-0.004  $\chi^2/\text{NDF}$ : 5439205.1/10

Left Out: 16.582+/-0.005  $\chi^2/\text{NDF}$ :133569.4/9

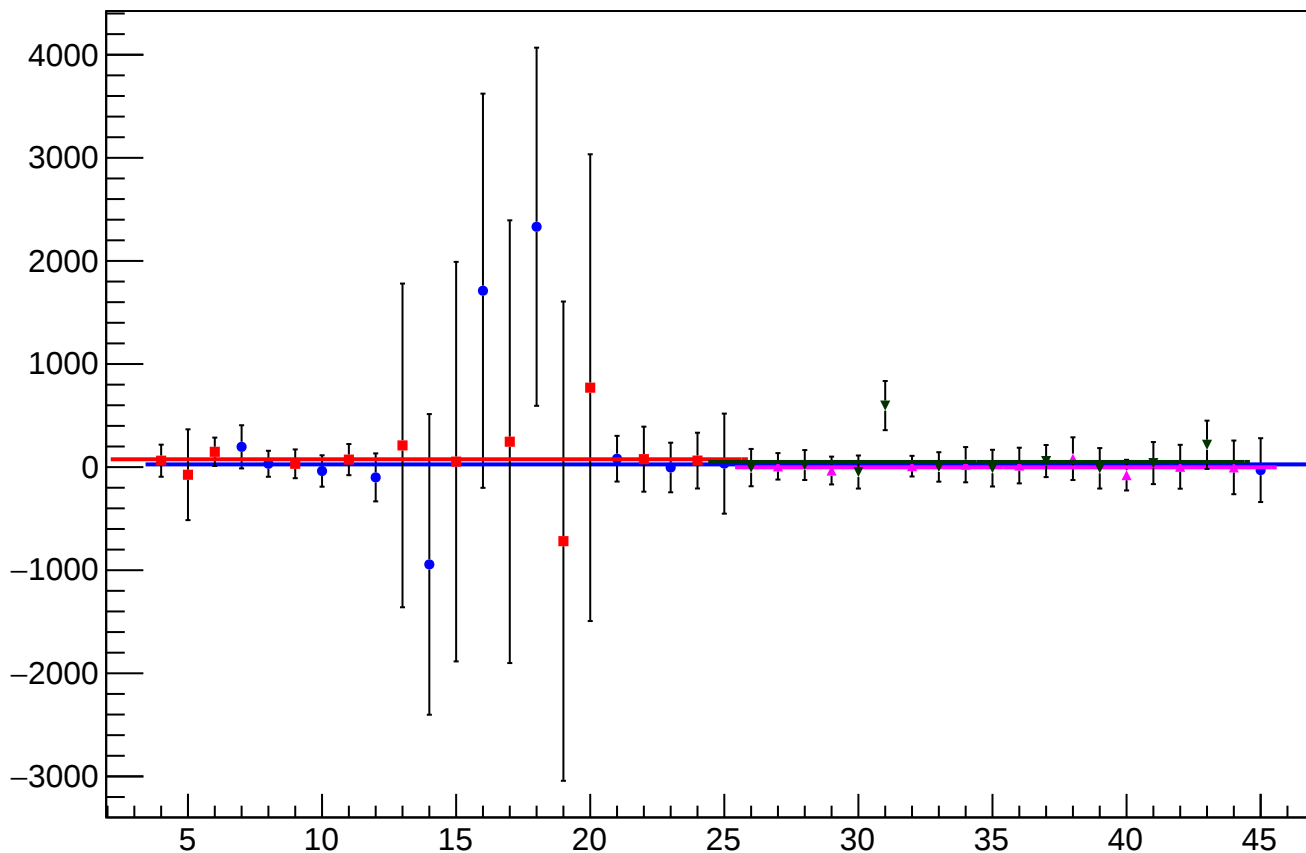
Right Out: 10.792+/-0.004  $\chi^2/\text{NDF}$ : 5922898.5/11

Left In: 16.955+/-0.005  $\chi^2/\text{NDF}$ :111170.8/8

13.718+/-0.003  $\chi^2/\text{NDF}$ : 6059640.5/20

13.162+/-0.003  $\chi^2/\text{NDF}$ : 6878357.5/20

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



Right In: 26.436+/-70.605  $\chi^2/\text{NDF}$ : 4.2/10

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

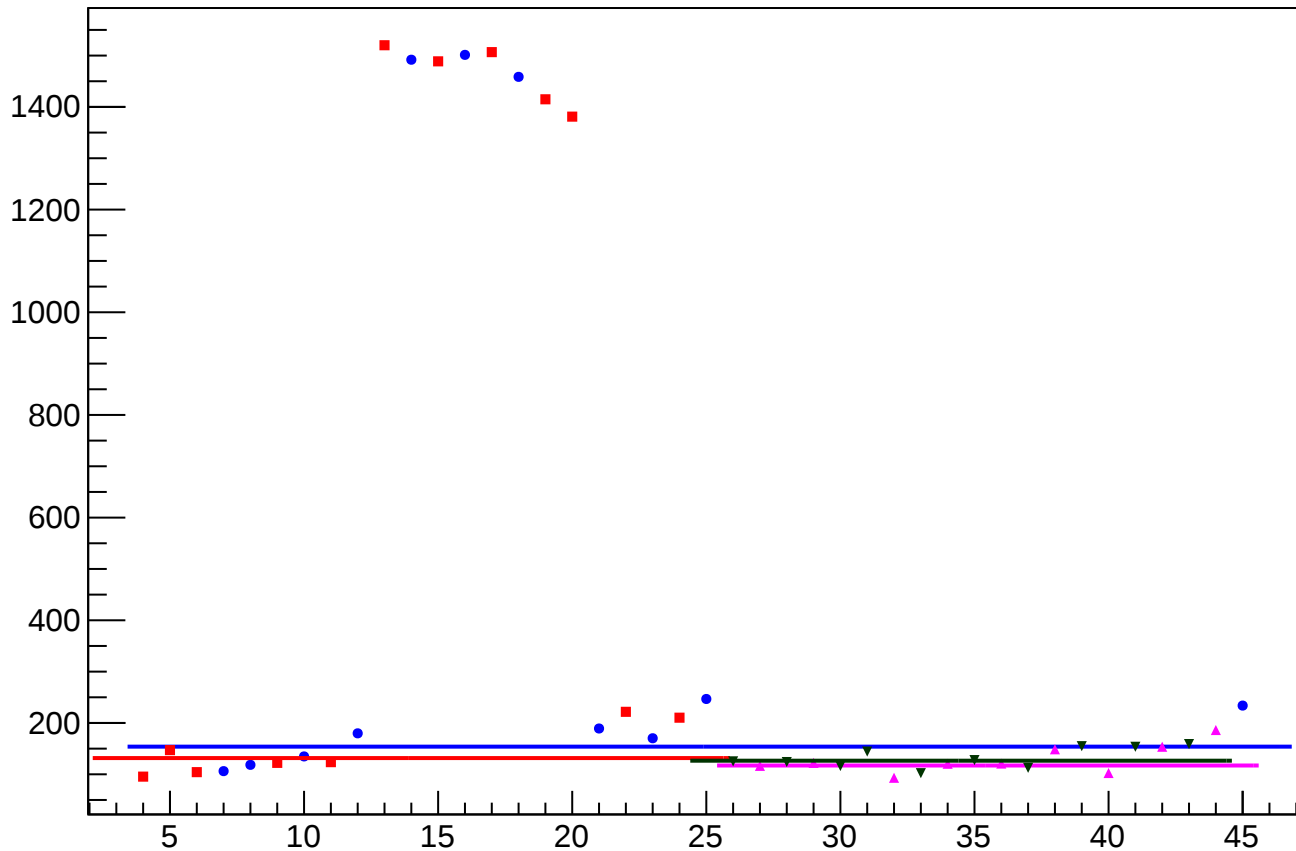
Right Out: 76.035+/-67.528  $\chi^2/\text{NDF}$ : 0.7/11

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

41.067+/-43.643  $\chi^2/\text{NDF}$ : 10.9/20

26.325+/-40.559  $\chi^2/\text{NDF}$ : 2.1/20

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



Right In: 153.876+/-0.050  $\chi^2/\text{NDF}$ : 4390602.2/10

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

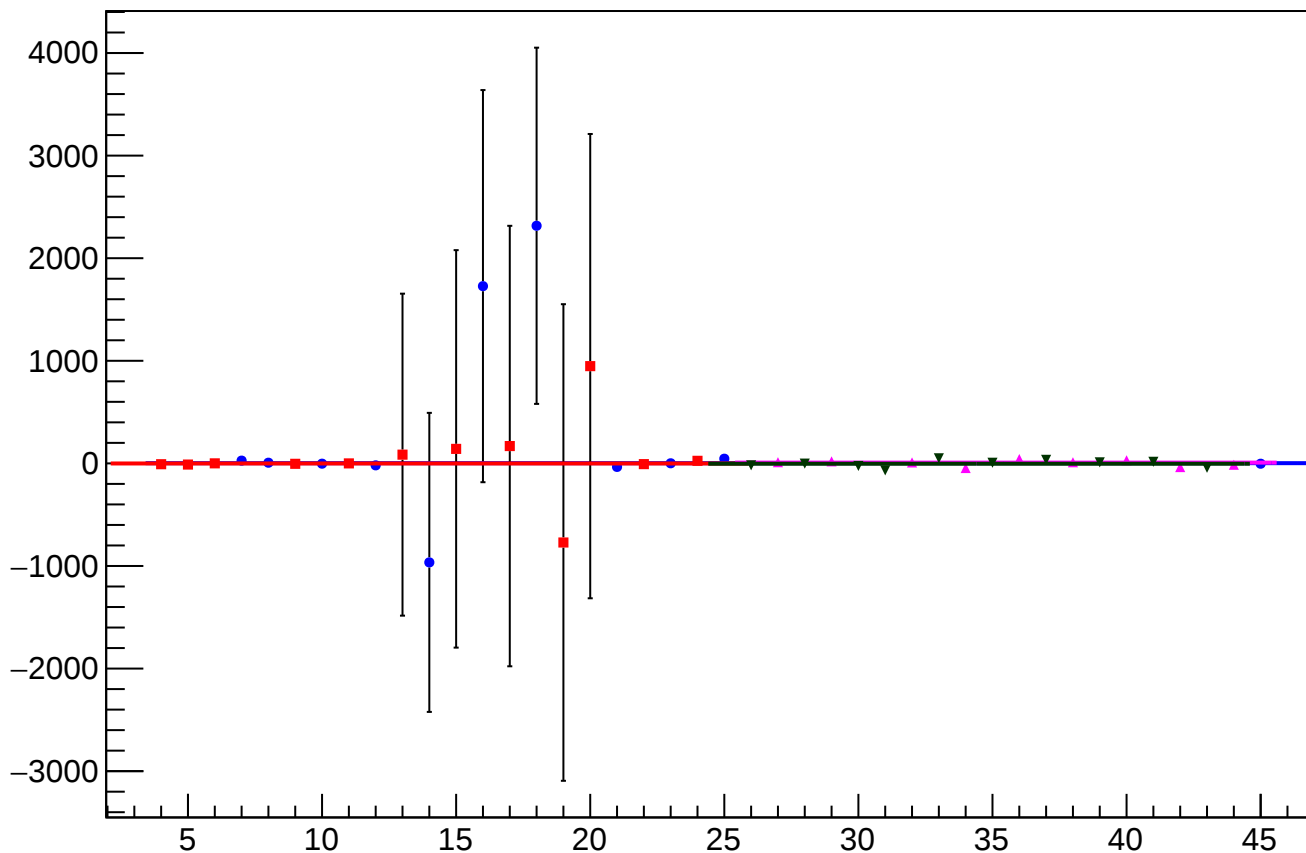
Right Out: 131.616+/-0.048  $\chi^2/\text{NDF}$ : 5120657.7/11

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

136.959+/-0.031  $\chi^2/\text{NDF}$ : 4785622.9/20

122.363+/-0.029  $\chi^2/\text{NDF}$ : 5564114.3/20

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



Right In: 2.208 $\pm$ 5.401  $\chi^2$ /NDF: 10.1/10

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

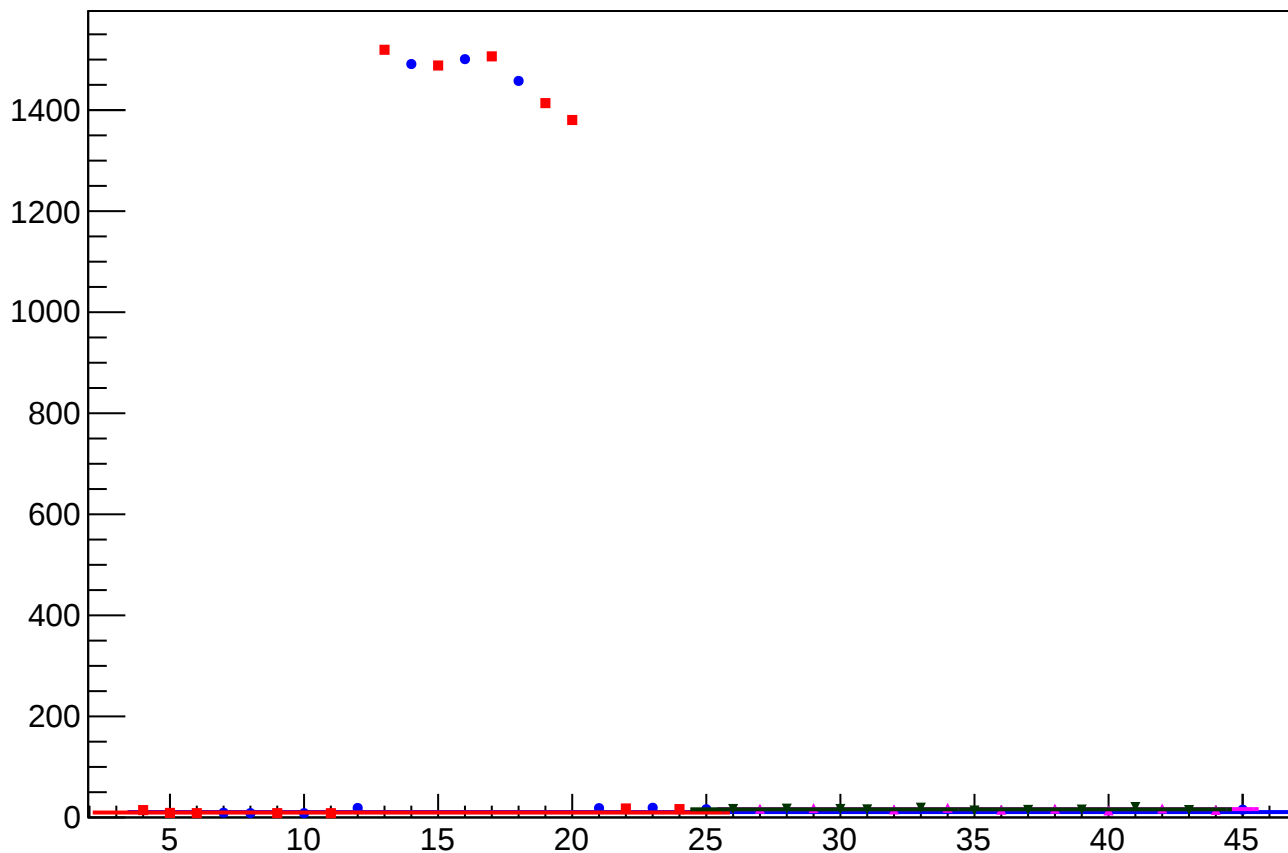
Right Out: -0.797 $\pm$ 5.364  $\chi^2$ /NDF: 2.2/11

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

0.242 $\pm$ 4.330  $\chi^2$ /NDF: 28.7/20

2.191 $\pm$ 4.313  $\chi^2$ /NDF: 14.4/20

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



Right In: 10.652 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 5631649.0/10

Left Out: 16.136 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 128057.2/9

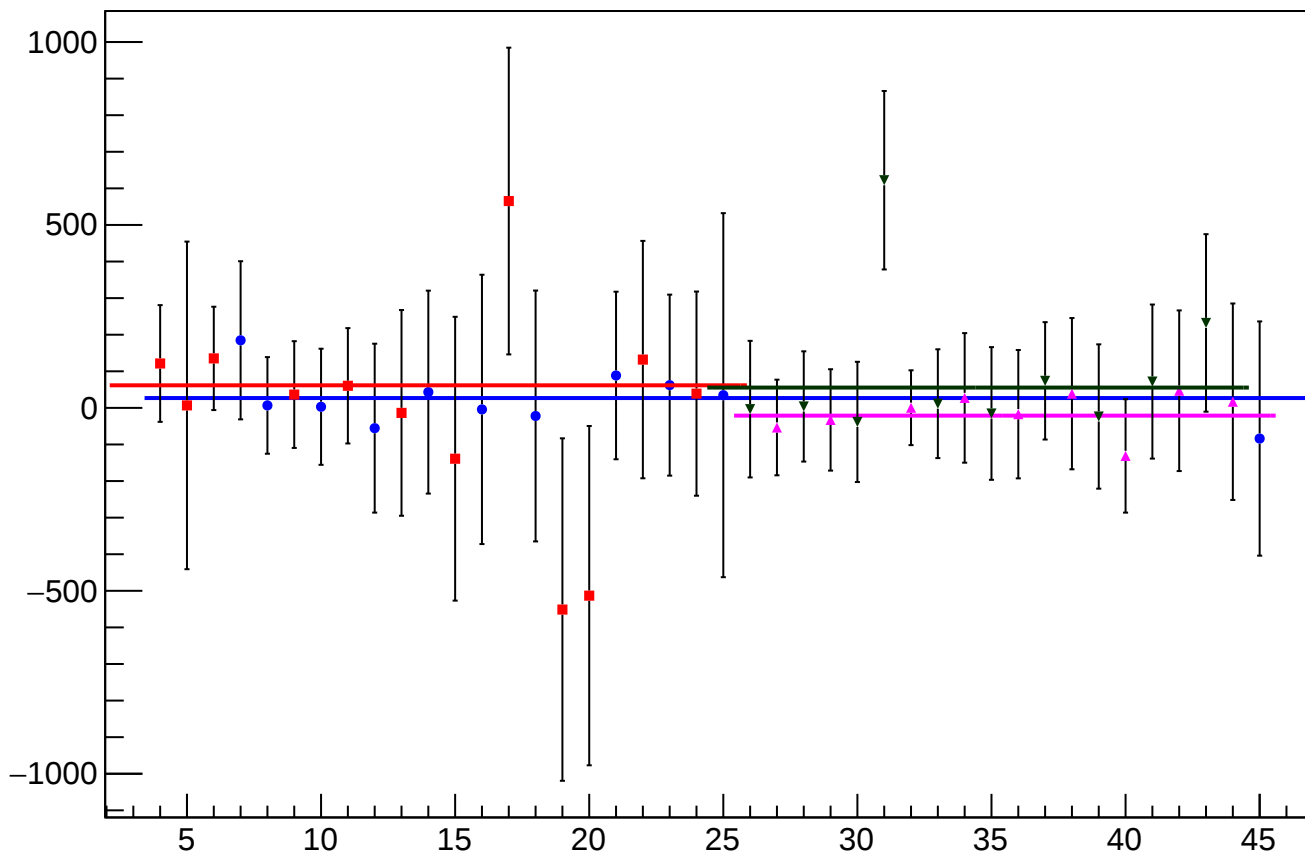
Right Out: 9.764 $\pm$ 0.004  $\chi^2/\text{NDF}$ : 6008777.0/11

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

12.611 $\pm$ 0.003  $\chi^2/\text{NDF}$ : 6496582.7/20

12.145 $\pm$ 0.003  $\chi^2/\text{NDF}$ : 7226698.4/20

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



Right In: 26.891+/-68.143  $\chi^2/\text{NDF}$ : 1.0/10

Left Out: 55.504+/-57.134  $\chi^2/\text{NDF}$ : 6.9/9

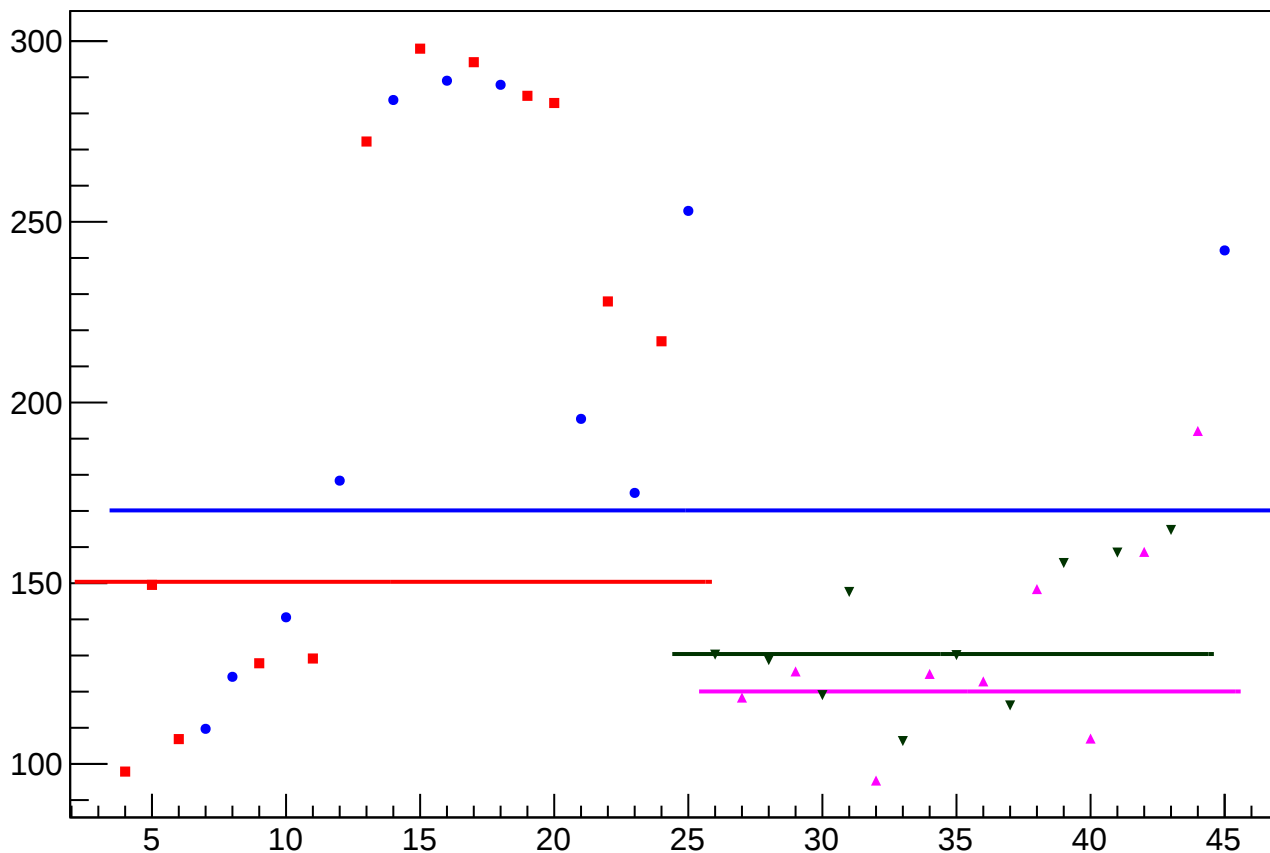
Right Out: 61.700+/-64.794  $\chi^2/\text{NDF}$ : 5.5/11

Left In: -21.169+/-51.965  $\chi^2/\text{NDF}$ : 0.9/8

43.693+/-43.781  $\chi^2/\text{NDF}$ : 7.9/20

11.269+/-40.538  $\chi^2/\text{NDF}$ : 7.4/20

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



Right In: 170.149 $\pm$ 0.048  $\chi^2$ /NDF: 1433401.2/10

Left Out: 130.412 $\pm$ 0.040  $\chi^2$ /NDF:196128.5/9

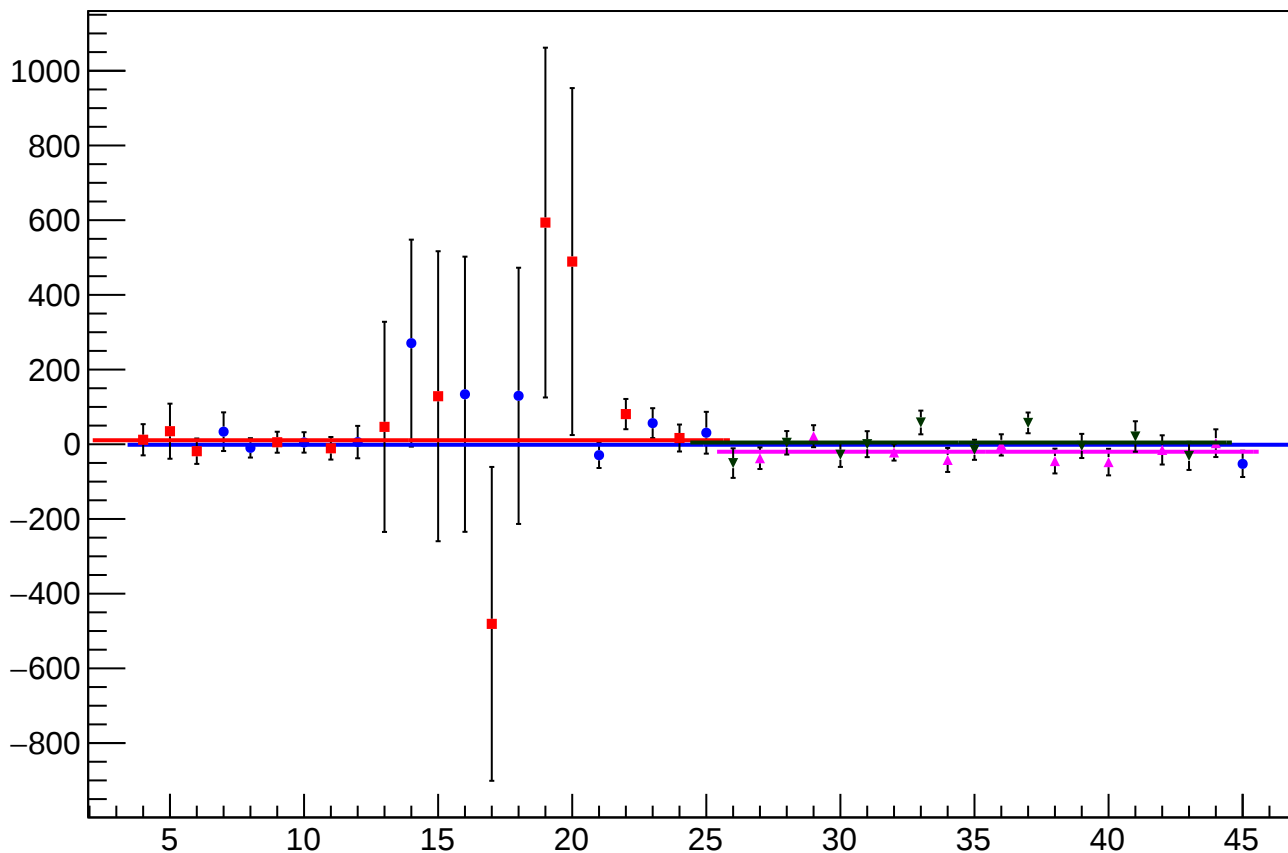
Right Out: 150.393 $\pm$ 0.046  $\chi^2$ /NDF: 1947233.7/11

Left In: 120.053 $\pm$ 0.037  $\chi^2$ /NDF:379558.3/8

146.815 $\pm$ 0.031  $\chi^2$ /NDF: 2028903.2/20

131.929 $\pm$ 0.029  $\chi^2$ /NDF: 2593651.5/20

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



Right In:  $-1.291 \pm 12.543$   $\chi^2/\text{NDF}$ : 7.1/10

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

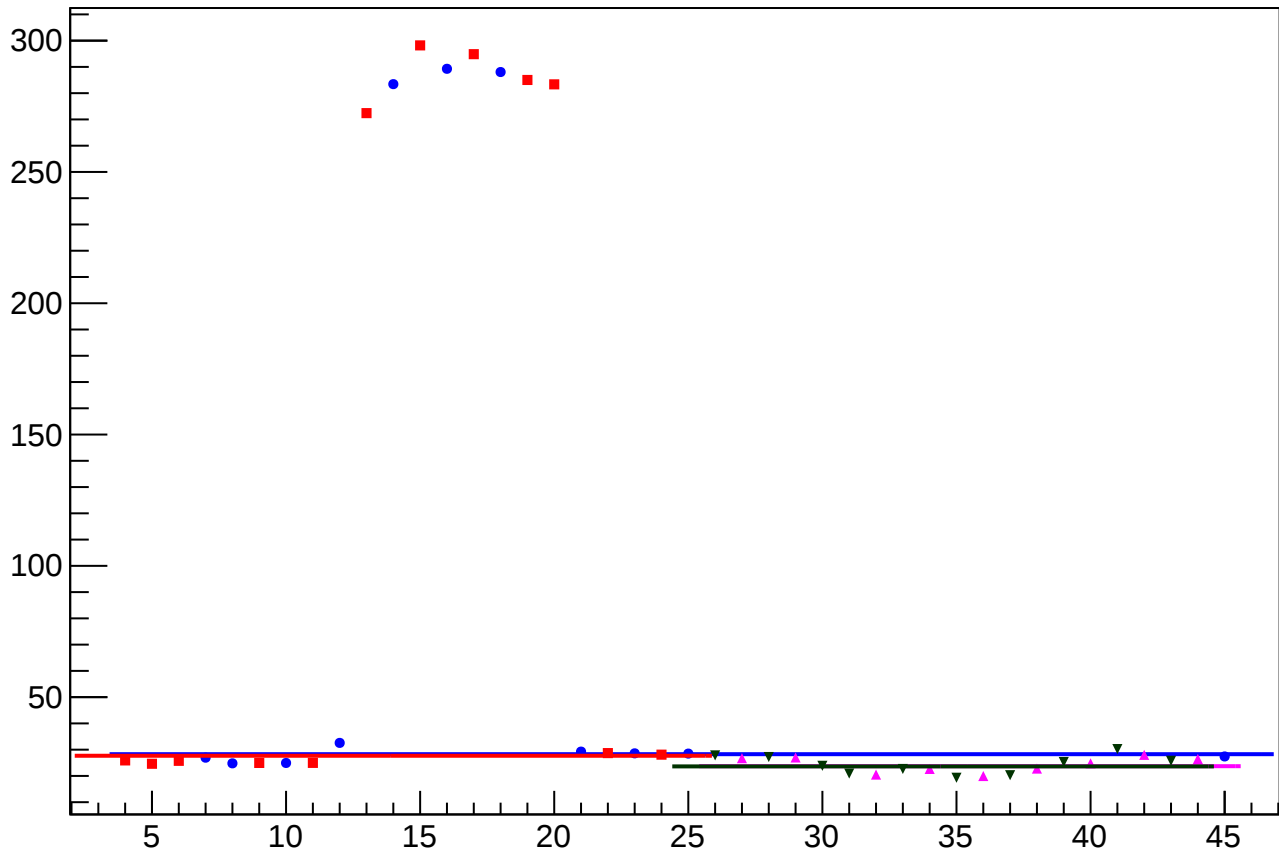
Right Out:  $10.797 \pm 13.610$   $\chi^2/\text{NDF}$ : 8.5/11

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

$2.279 \pm 7.979$   $\chi^2/\text{NDF}$ : 18.3/20

$-8.993 \pm 8.132$   $\chi^2/\text{NDF}$ : 16.6/20

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



Right In: 28.280+/-0.009  $\chi^2/\text{NDF}$ : 3937421.7/10

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

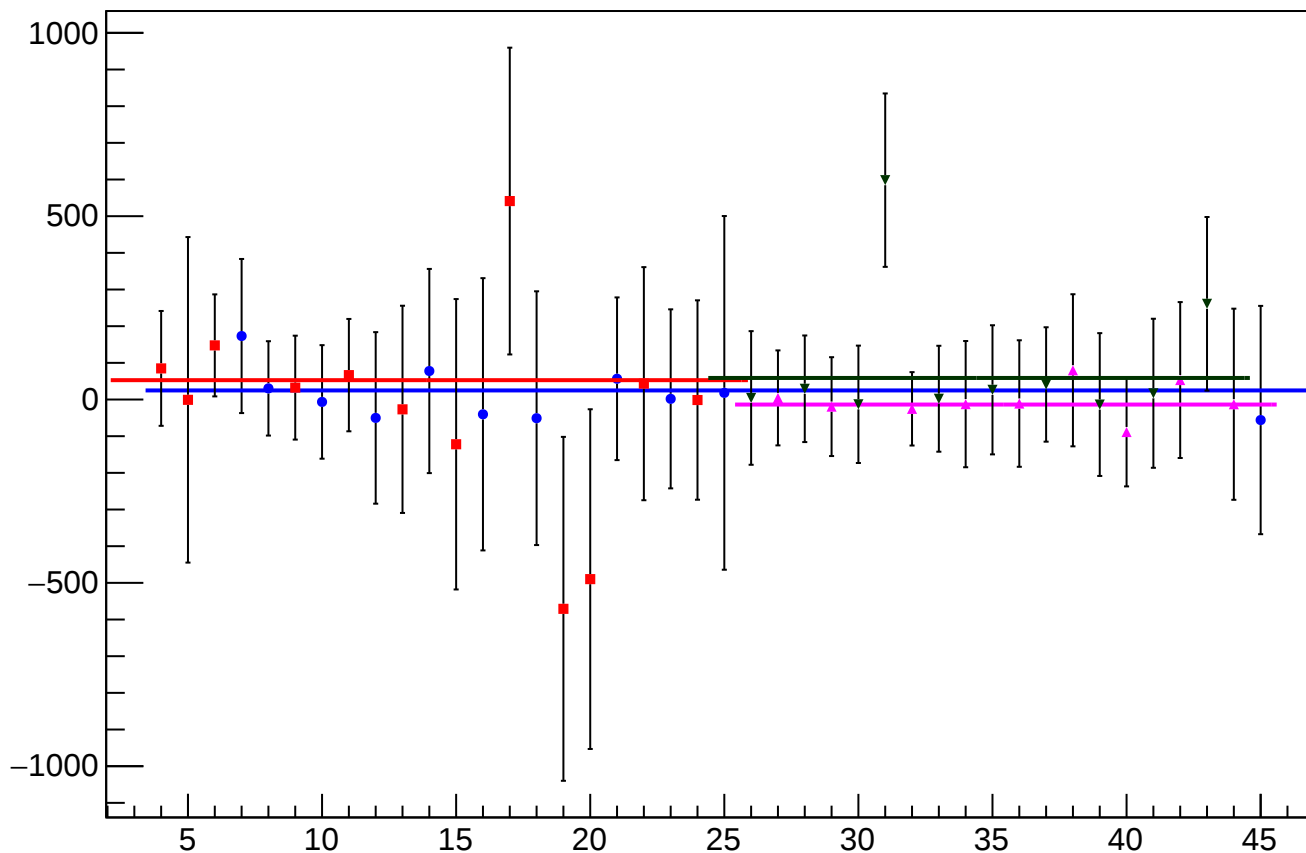
25.511+/-0.006  $\chi^2/\text{NDF}$ : 4308634.8/20

Right Out: 27.683+/-0.010  $\chi^2/\text{NDF}$ : 4553149.3/11

25.128+/-0.006  $\chi^2/\text{NDF}$ : 4828575.7/20

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: 24.784+/-66.929  $\chi^2/\text{NDF}$ : 0.9/10

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

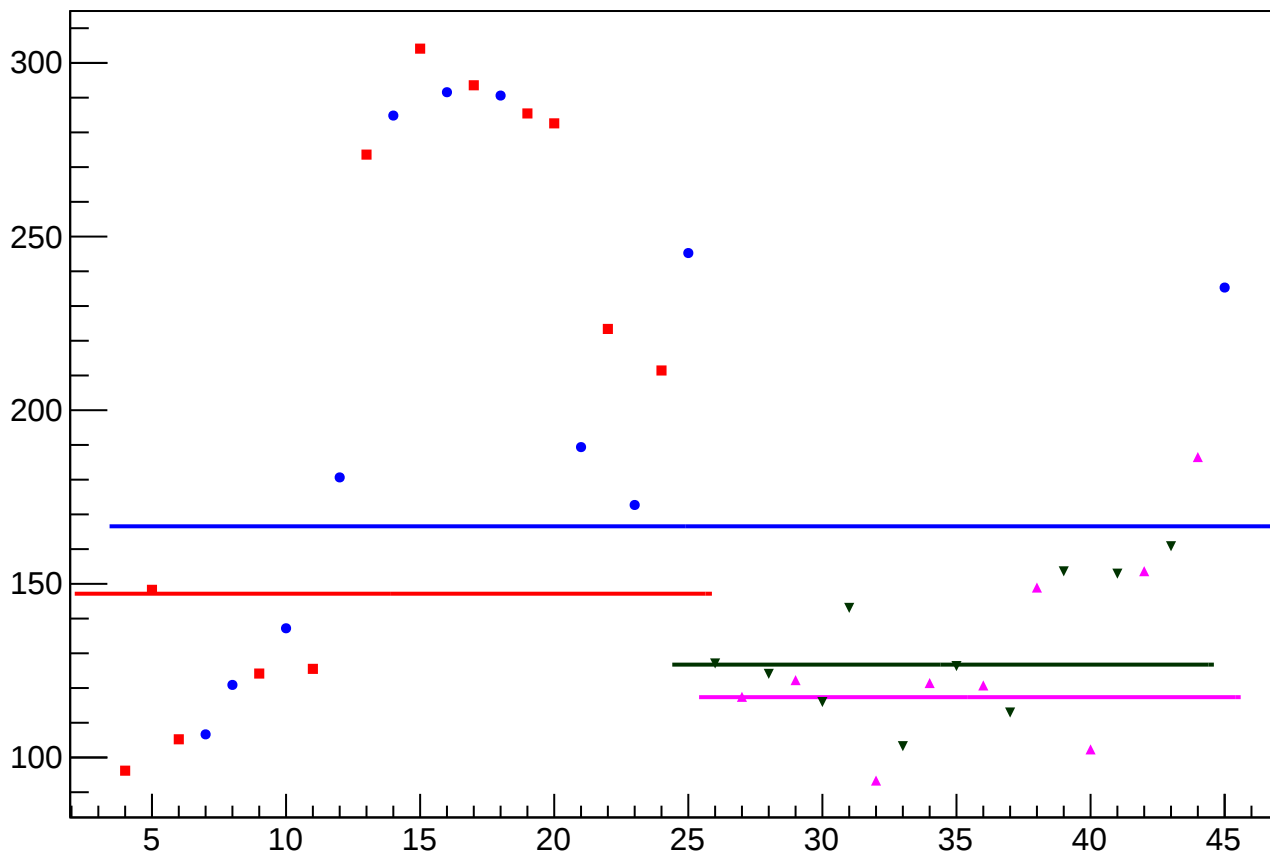
Right Out: 52.783+/-63.607  $\chi^2/\text{NDF}$ : 5.4/11

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

44.929+/-42.746  $\chi^2/\text{NDF}$ : 7.7/20

12.183+/-39.699  $\chi^2/\text{NDF}$ : 6.6/20

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



Right In: 166.570 $\pm$ 0.047  $\chi^2$ /NDF: 1511425.8/10

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

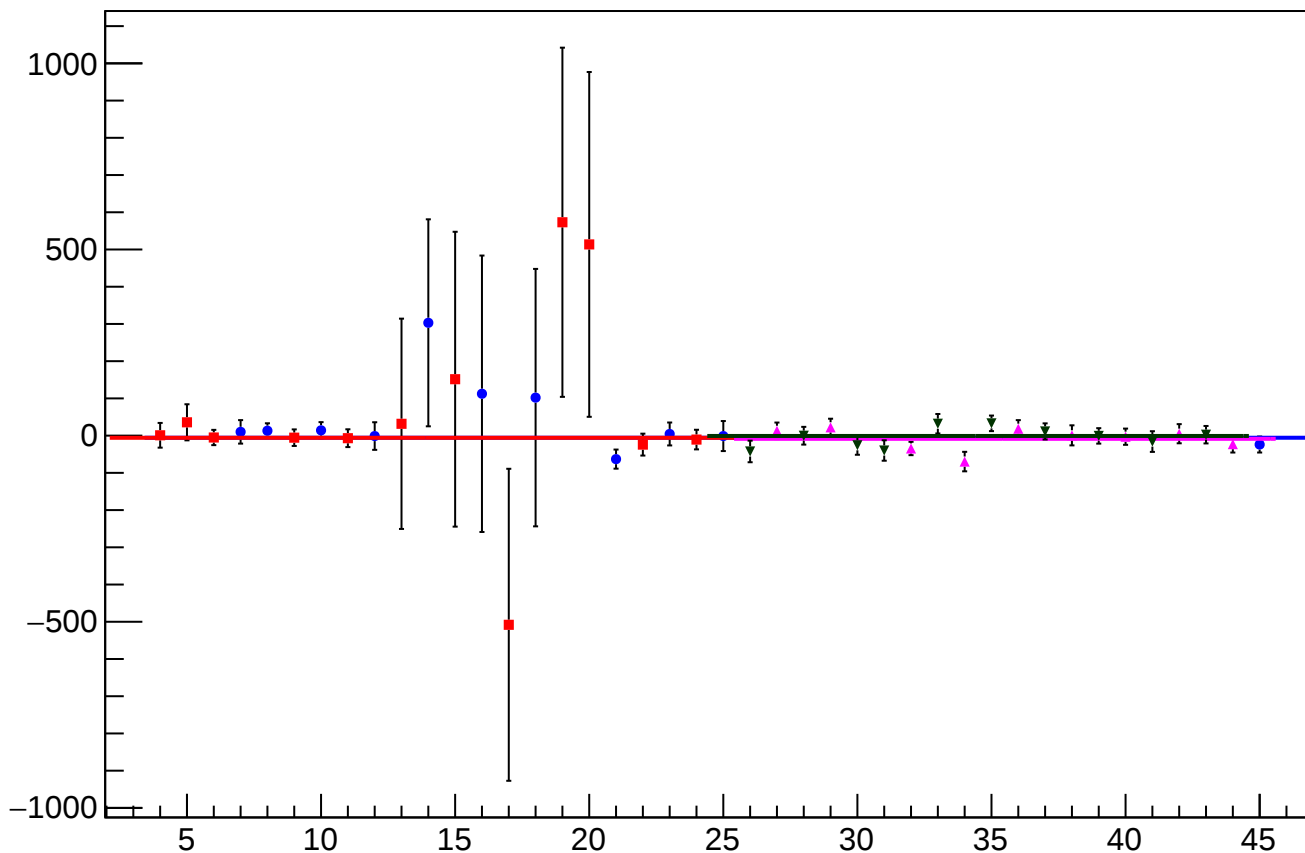
142.987 $\pm$ 0.030  $\chi^2$ /NDF: 2131311.6/20

Right Out: 147.160 $\pm$ 0.045  $\chi^2$ /NDF: 2017224.8/11

128.975 $\pm$ 0.028  $\chi^2$ /NDF: 2670539.4/20

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

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



Right In: -5.664+/-9.250  $\chi^2/\text{NDF}$ : 9.3/10

Left Out: -0.891+/-7.638  $\chi^2/\text{NDF}$ : 9.9/9

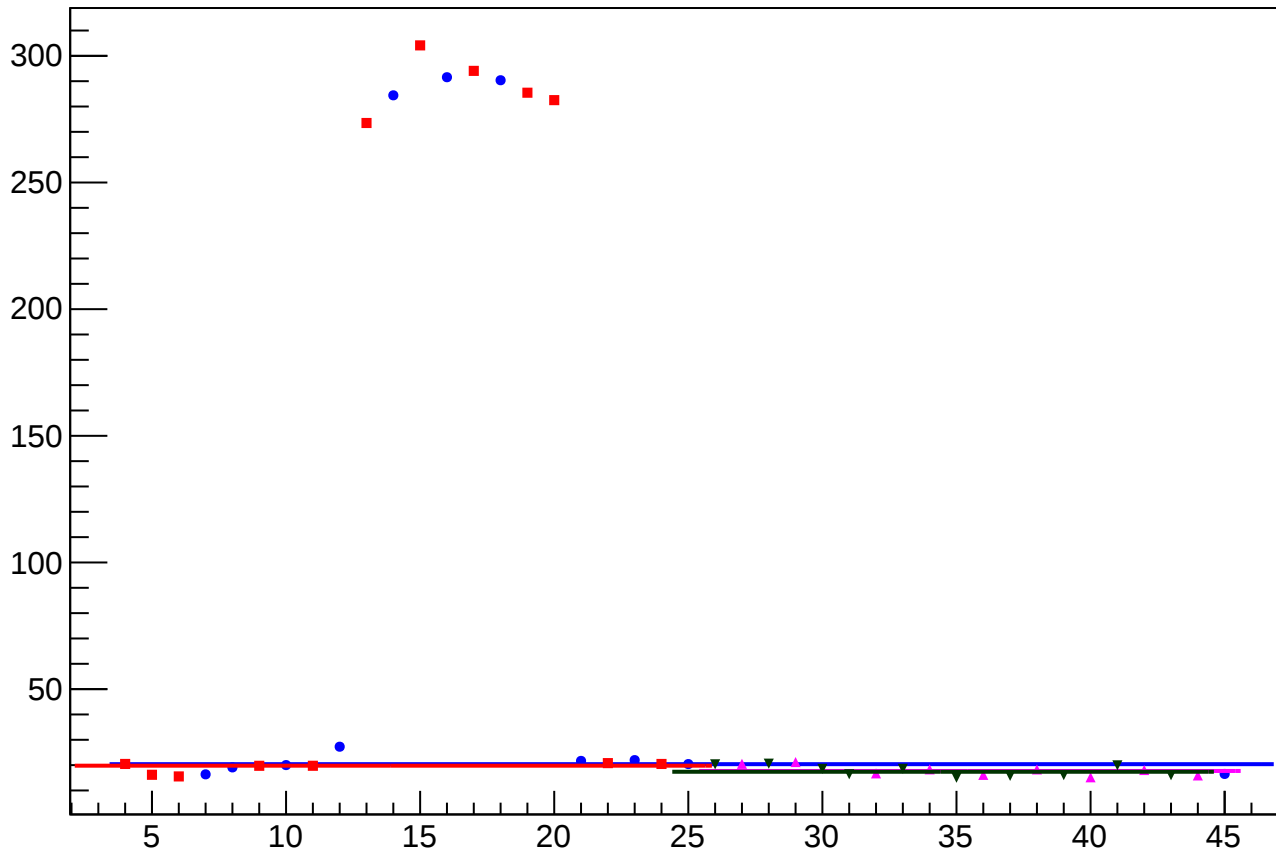
Right Out: -5.806+/-9.942  $\chi^2/\text{NDF}$ : 5.6/11

Left In: -8.626+/-7.603  $\chi^2/\text{NDF}$ : 12.5/8

-2.826+/-5.890  $\chi^2/\text{NDF}$ : 19.3/20

-7.586+/-6.040  $\chi^2/\text{NDF}$ : 18.2/20

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



Right In: 20.377+/-0.007  $\chi^2$ /NDF: 4275881.0/10

Left Out: 17.382+/-0.005  $\chi^2$ /NDF:136187.2/9

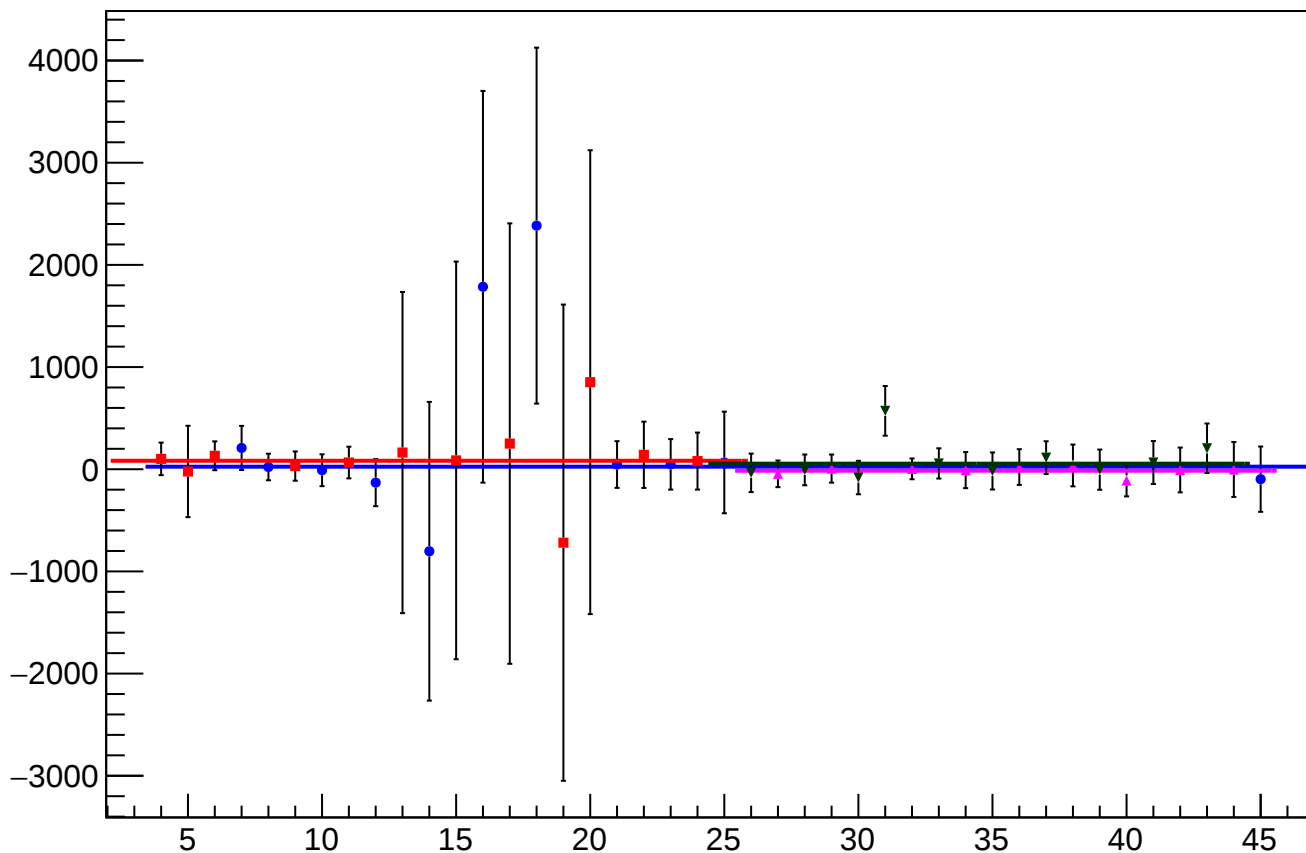
18.596+/-0.004  $\chi^2$ /NDF: 4536754.9/20

Right Out: 19.779+/-0.007  $\chi^2$ /NDF: 4888350.3/11

18.464+/-0.004  $\chi^2$ /NDF: 5077792.1/20

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

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



Right In: 24.984+/-72.334  $\chi^2/\text{NDF}$ : 4.4/10

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

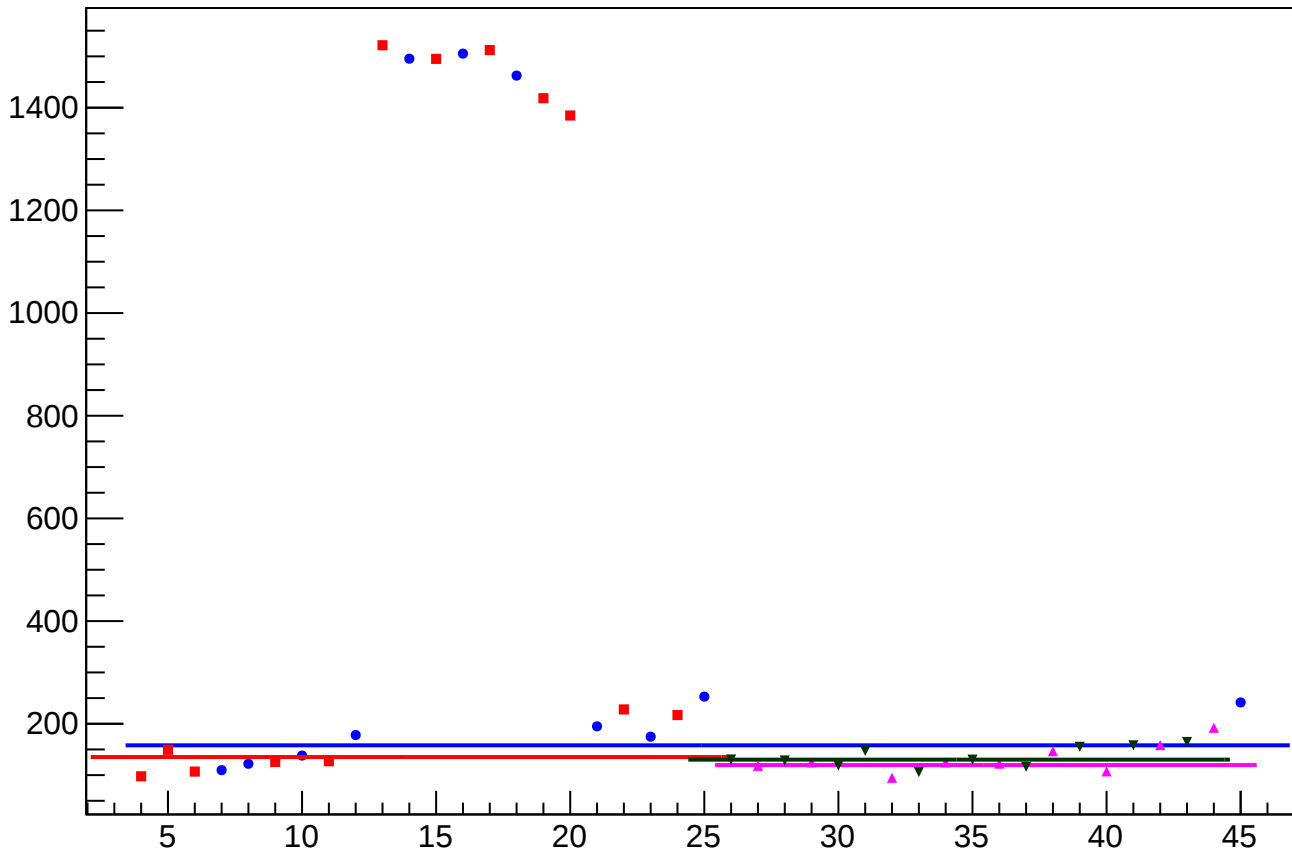
Right Out: 82.898+/-69.271  $\chi^2/\text{NDF}$ : 0.6/11

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

43.125+/-44.799  $\chi^2/\text{NDF}$ : 10.9/20

20.447+/-41.470  $\chi^2/\text{NDF}$ : 2.5/20

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



Right In: 158.034+/-0.051  $\chi^2/\text{NDF}$ : 4356427.1/10

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

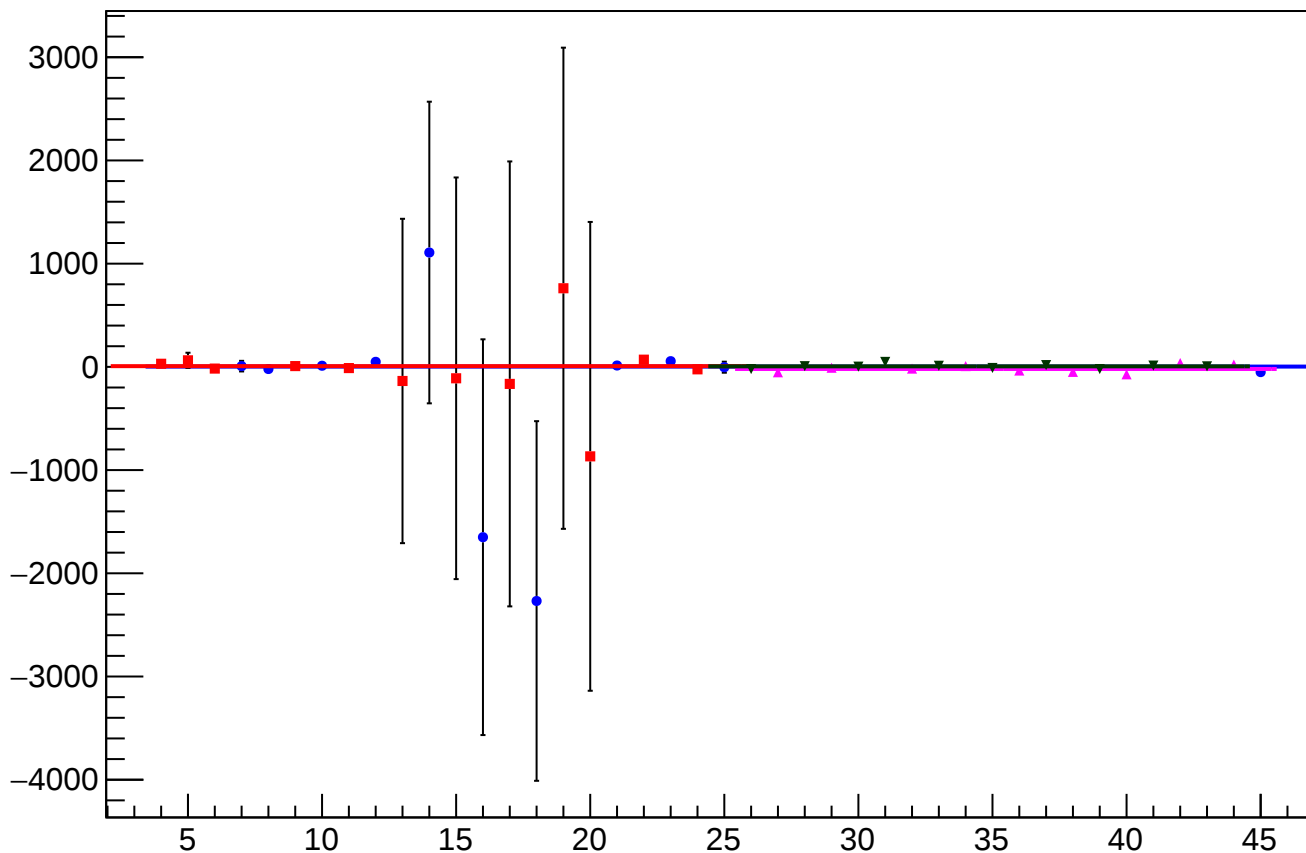
140.842+/-0.032  $\chi^2/\text{NDF}$ : 4736828.9/20

Right Out: 135.194+/-0.049  $\chi^2/\text{NDF}$ : 5104872.2/11

125.183+/-0.029  $\chi^2/\text{NDF}$ : 5550670.4/20

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

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



Right In: 2.799 $\pm$ 12.184  $\chi^2$ /NDF: 9.7/10

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

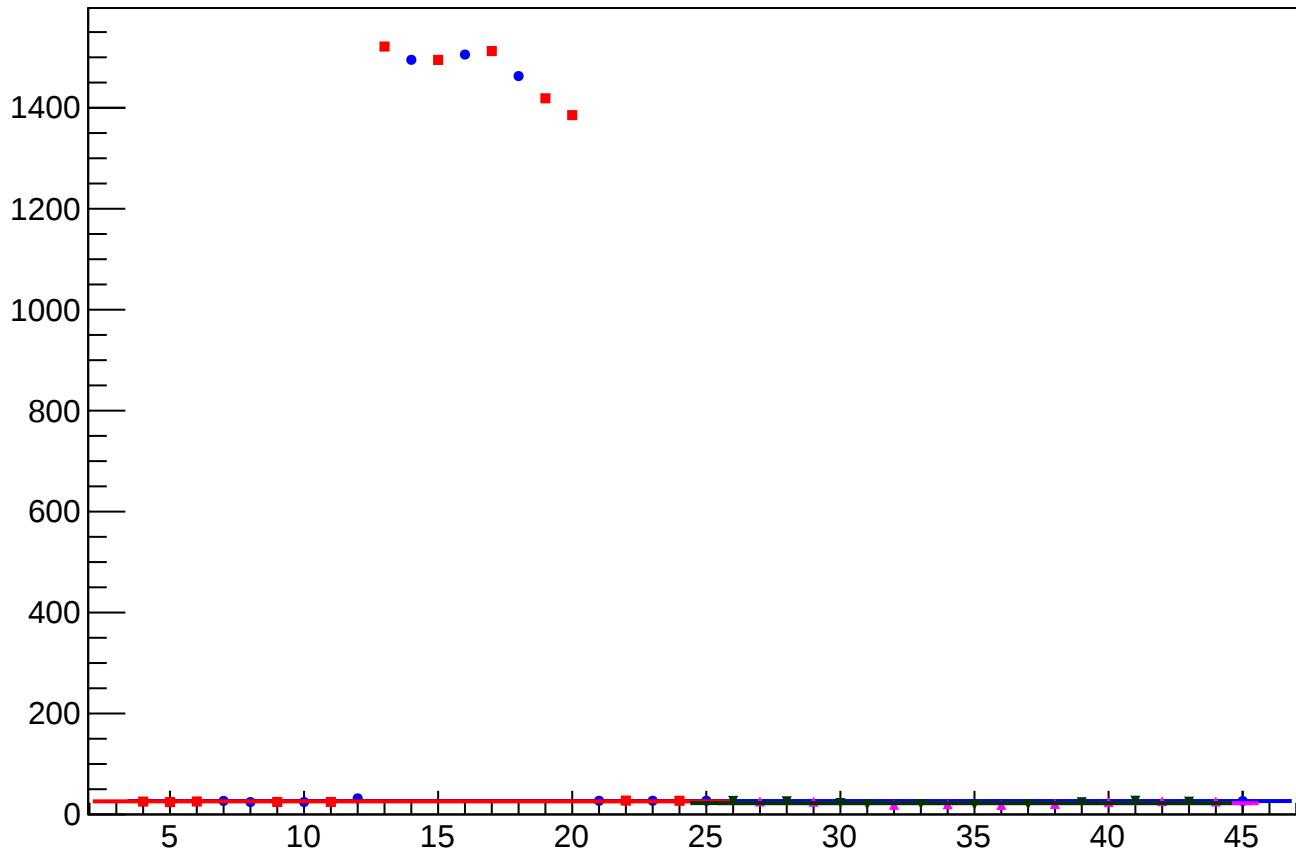
Right Out: 6.946 $\pm$ 13.410  $\chi^2$ /NDF: 5.5/11

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

4.220 $\pm$ 7.630  $\chi^2$ /NDF: 13.3/20

-11.326 $\pm$ 7.744  $\chi^2$ /NDF: 18.1/20

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



Right In: 26.583+/-0.009  $\chi^2/\text{NDF}$ : 4624006.2/10

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

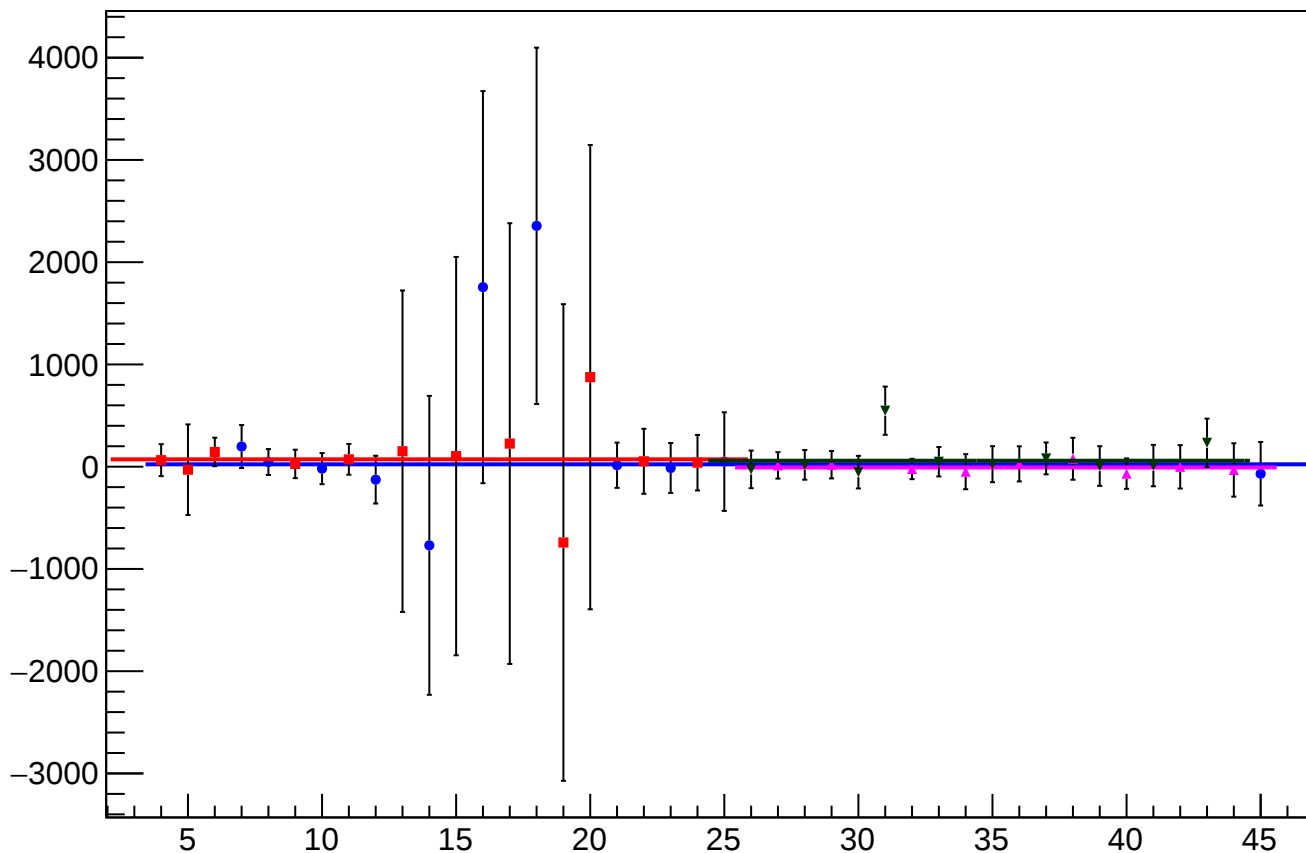
Right Out: 25.943+/-0.009  $\chi^2/\text{NDF}$ : 5346963.3/11

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

24.082+/-0.005  $\chi^2/\text{NDF}$ : 4955222.7/20

23.511+/-0.005  $\chi^2/\text{NDF}$ : 5639651.6/20

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



Right In: 23.252+/-70.762  $\chi^2/\text{NDF}$ : 4.2/10

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

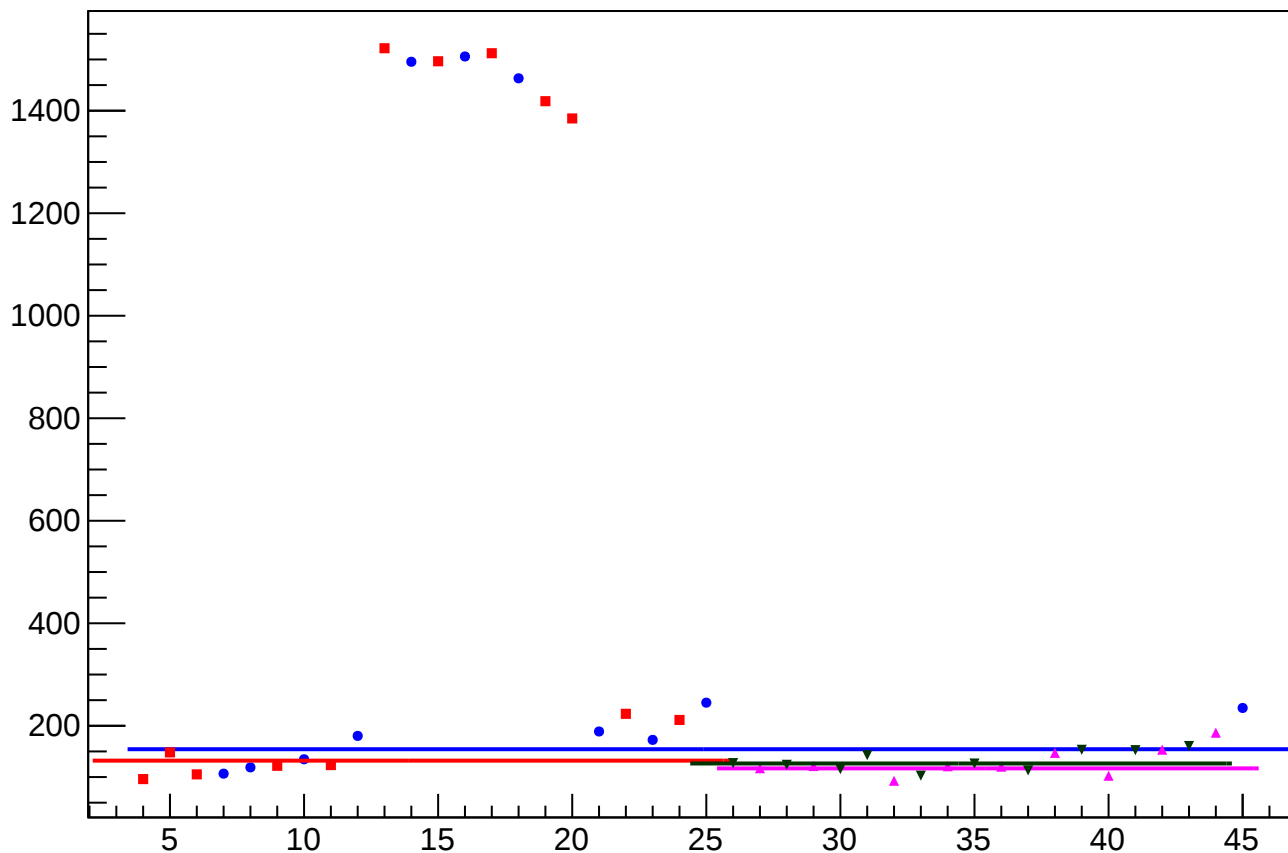
Right Out: 72.031+/-67.714  $\chi^2/\text{NDF}$ : 0.7/11

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

44.949+/-43.657  $\chi^2/\text{NDF}$ : 10.2/20

21.108+/-40.541  $\chi^2/\text{NDF}$ : 2.1/20

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



Right In: 154.304+/-0.050  $\chi^2/\text{NDF}$ : 4388931.7/10

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

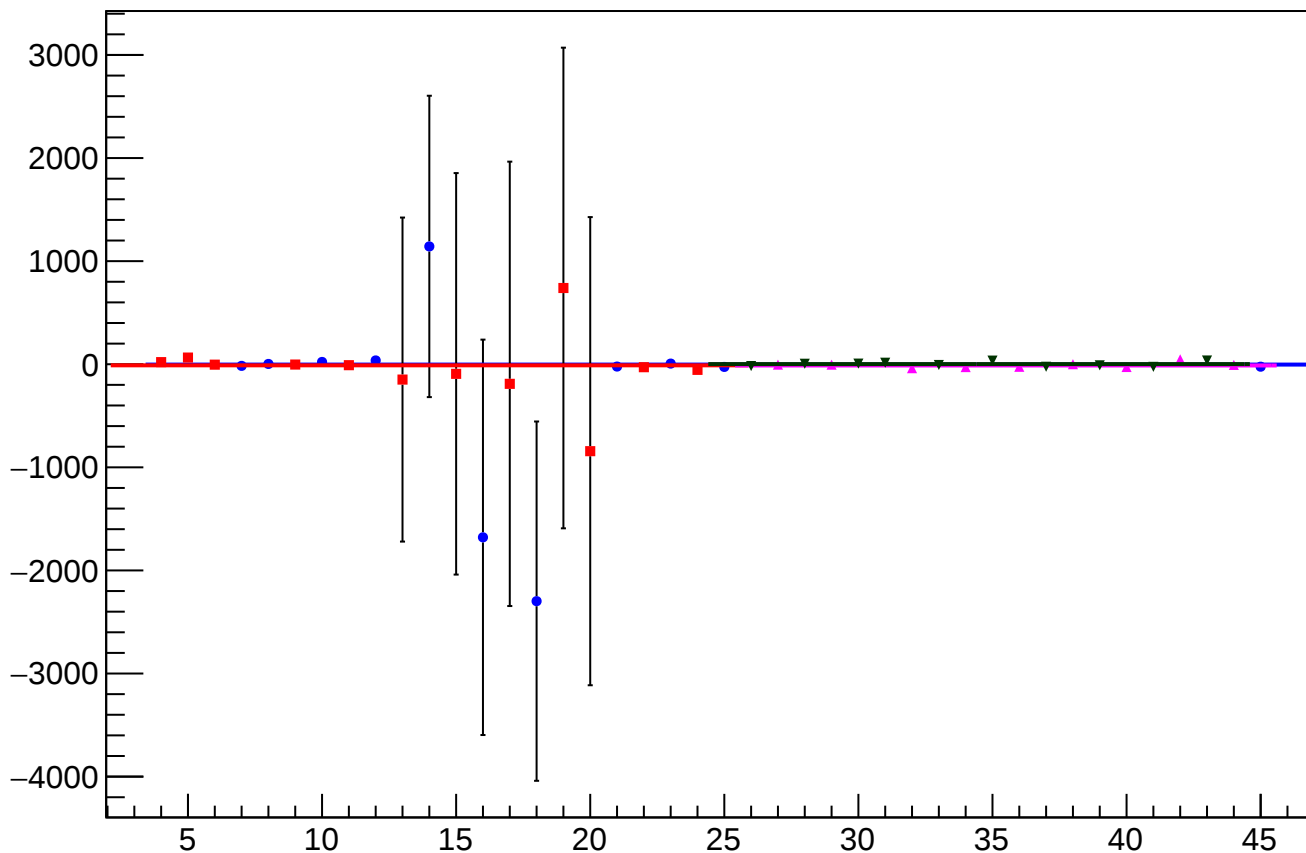
Right Out: 132.035+/-0.048  $\chi^2/\text{NDF}$ : 5119688.9/11

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

137.059+/-0.031  $\chi^2/\text{NDF}$ : 4782344.8/20

122.330+/-0.029  $\chi^2/\text{NDF}$ : 5570252.0/20

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



Right In:  $-3.281 \pm 8.730$   $\chi^2/\text{NDF: } 8.3/10$

Left Out:  $1.404 \pm 7.049$   $\chi^2/\text{NDF: } 9.5/9$

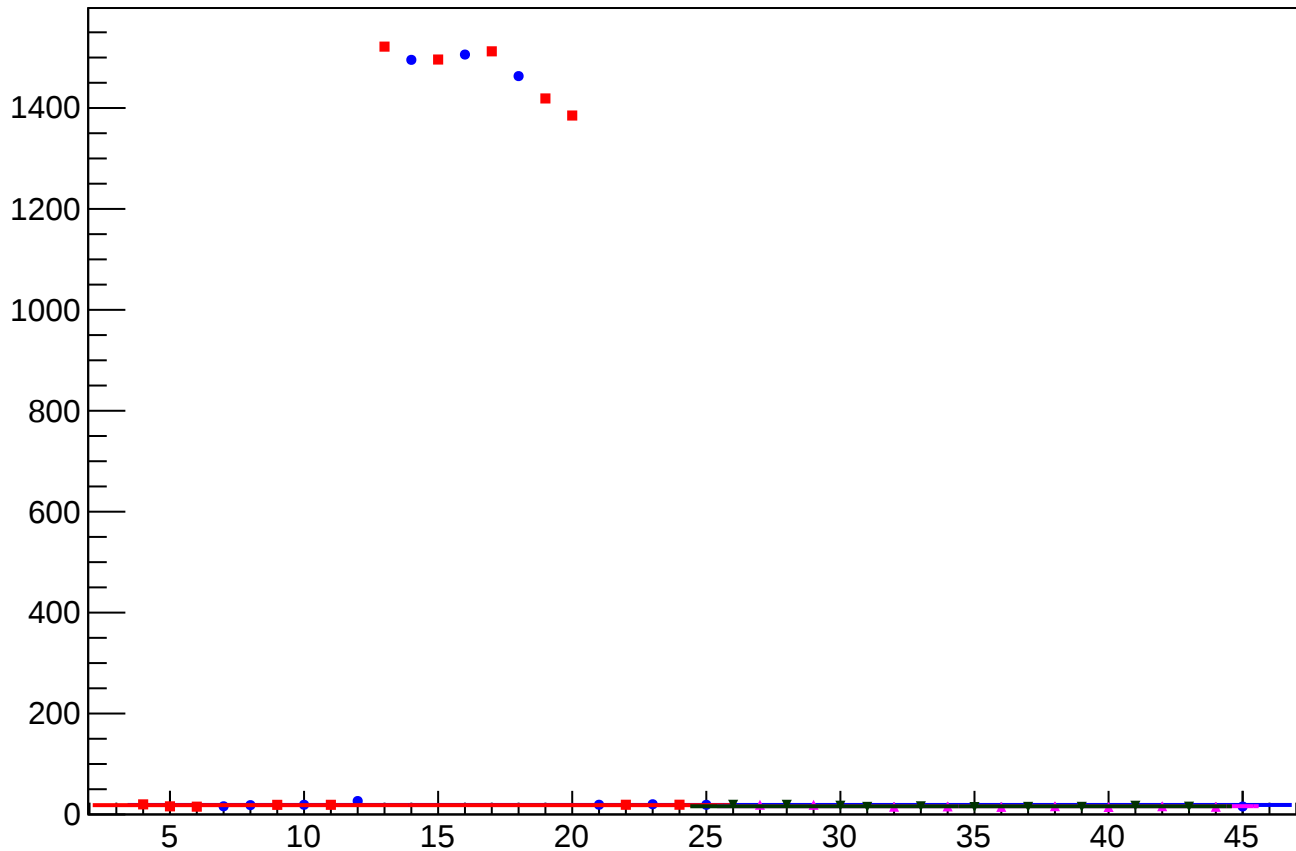
Right Out:  $-10.544 \pm 9.604$   $\chi^2/\text{NDF: } 7.4/11$

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

$-0.445 \pm 5.484$   $\chi^2/\text{NDF: } 18.0/20$

$-11.503 \pm 5.630$   $\chi^2/\text{NDF: } 18.9/20$

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



Right In:  $18.824 \pm 0.006$   $\chi^2/\text{NDF}$ : 4778574.8/10

Left Out:  $16.220 \pm 0.005$   $\chi^2/\text{NDF}$ : 97219.6/9

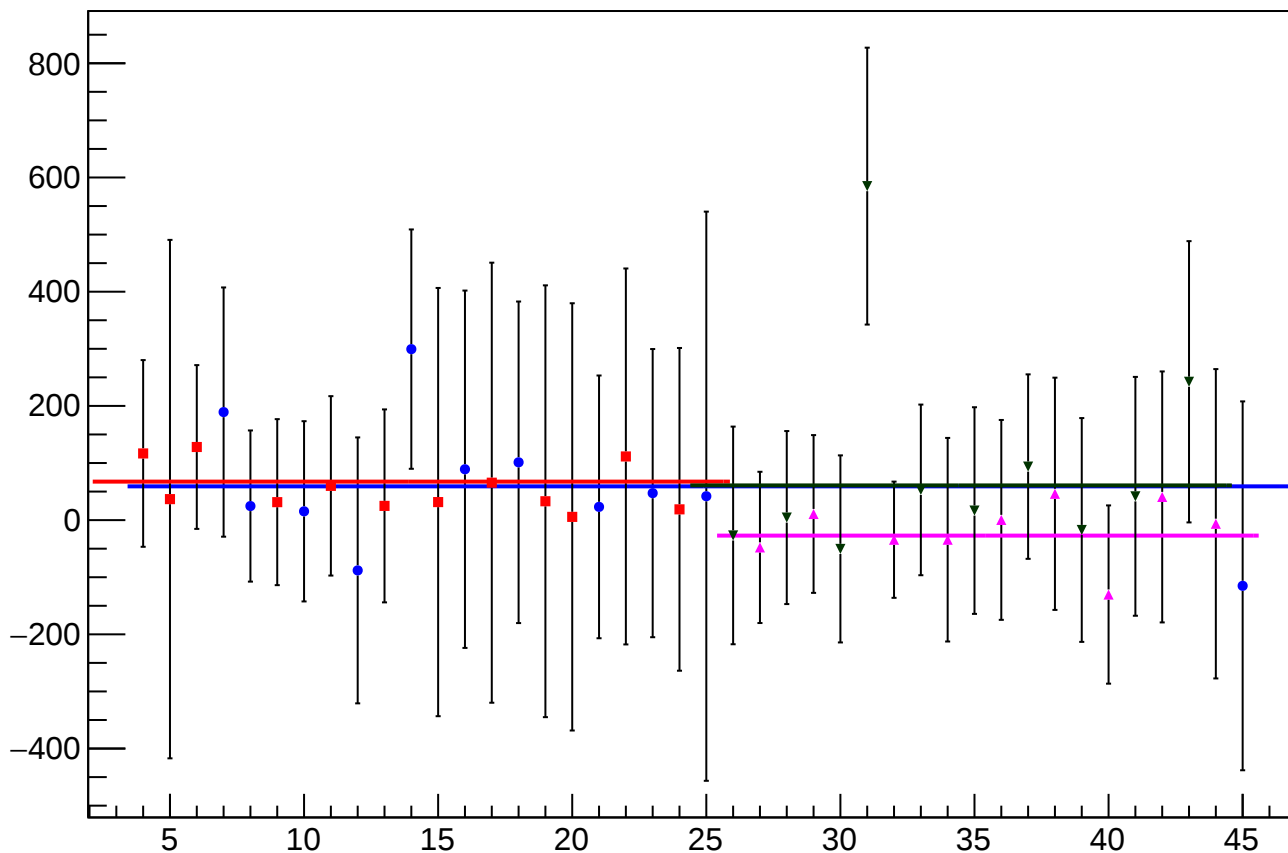
Right Out:  $18.441 \pm 0.007$   $\chi^2/\text{NDF}$ : 5449094.8/11

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

$17.248 \pm 0.004$   $\chi^2/\text{NDF}$ : 4983506.8/20

$17.089 \pm 0.004$   $\chi^2/\text{NDF}$ : 5613819.9/20

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



Right In: 59.131 $\pm$ 65.867  $\chi^2/\text{NDF}$ : 2.6/10

Left Out: 60.773 $\pm$ 57.310  $\chi^2/\text{NDF}$ : 6.3/9

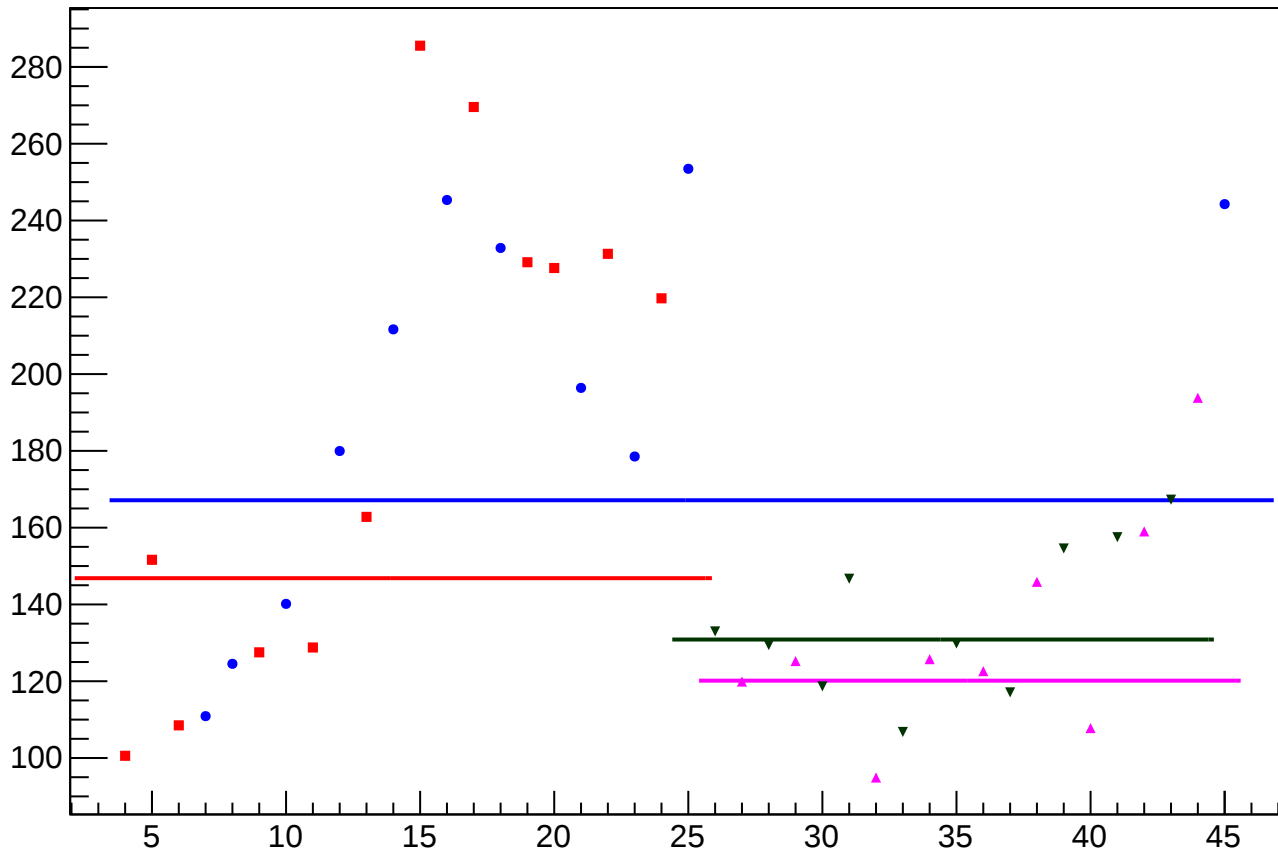
Right Out: 67.441 $\pm$ 61.599  $\chi^2/\text{NDF}$ : 0.5/11

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

60.066 $\pm$ 43.235  $\chi^2/\text{NDF}$ : 8.9/20

12.242 $\pm$ 39.738  $\chi^2/\text{NDF}$ : 2.7/20

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



Right In: 167.140+/-0.047  $\chi^2/\text{NDF}$ : 939313.3/10

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

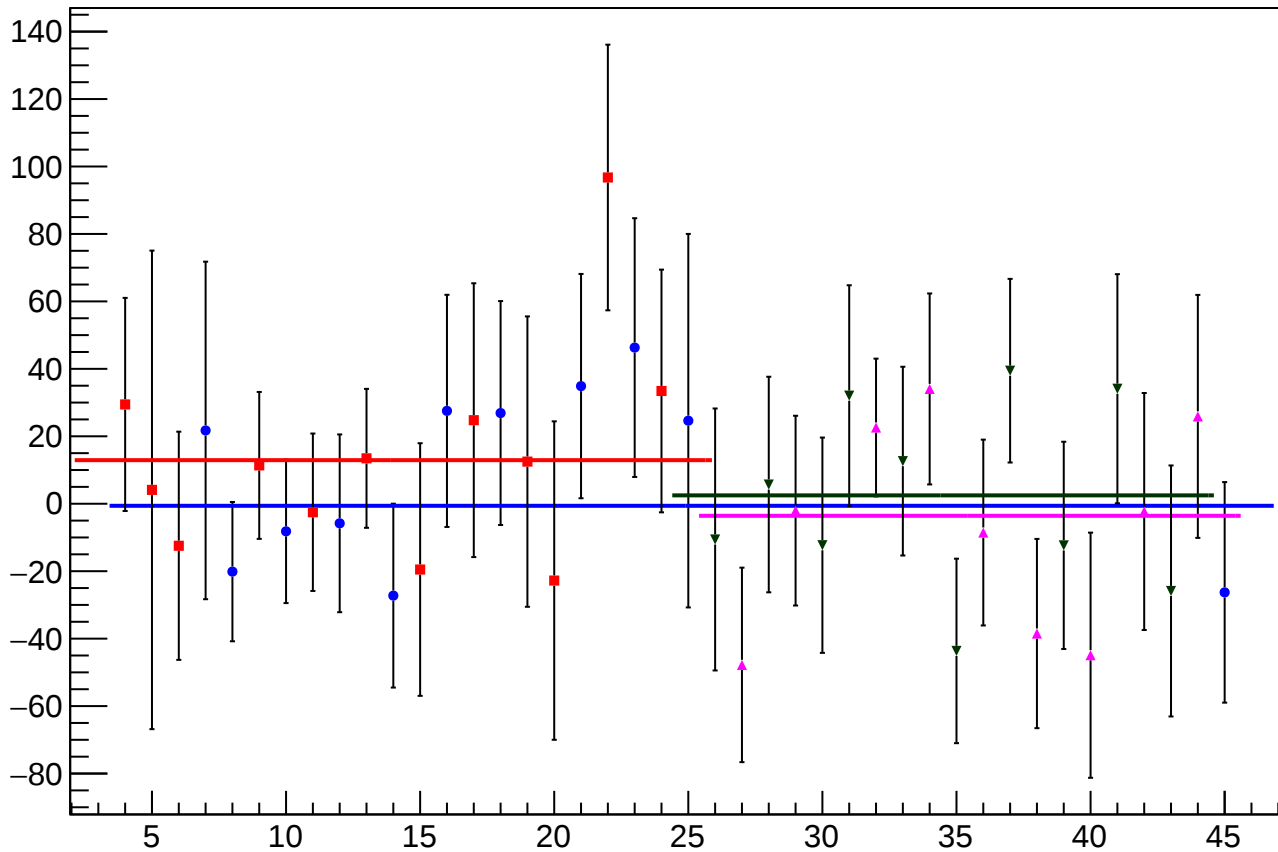
146.492+/-0.031  $\chi^2/\text{NDF}$ : 1476722.7/20

Right Out: 146.841+/-0.044  $\chi^2/\text{NDF}$ : 1312358.0/11

131.256+/-0.028  $\chi^2/\text{NDF}$ : 1914892.0/20

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:  $-0.608 \pm 9.005$   $\chi^2/\text{NDF}$ : 7.0/10

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

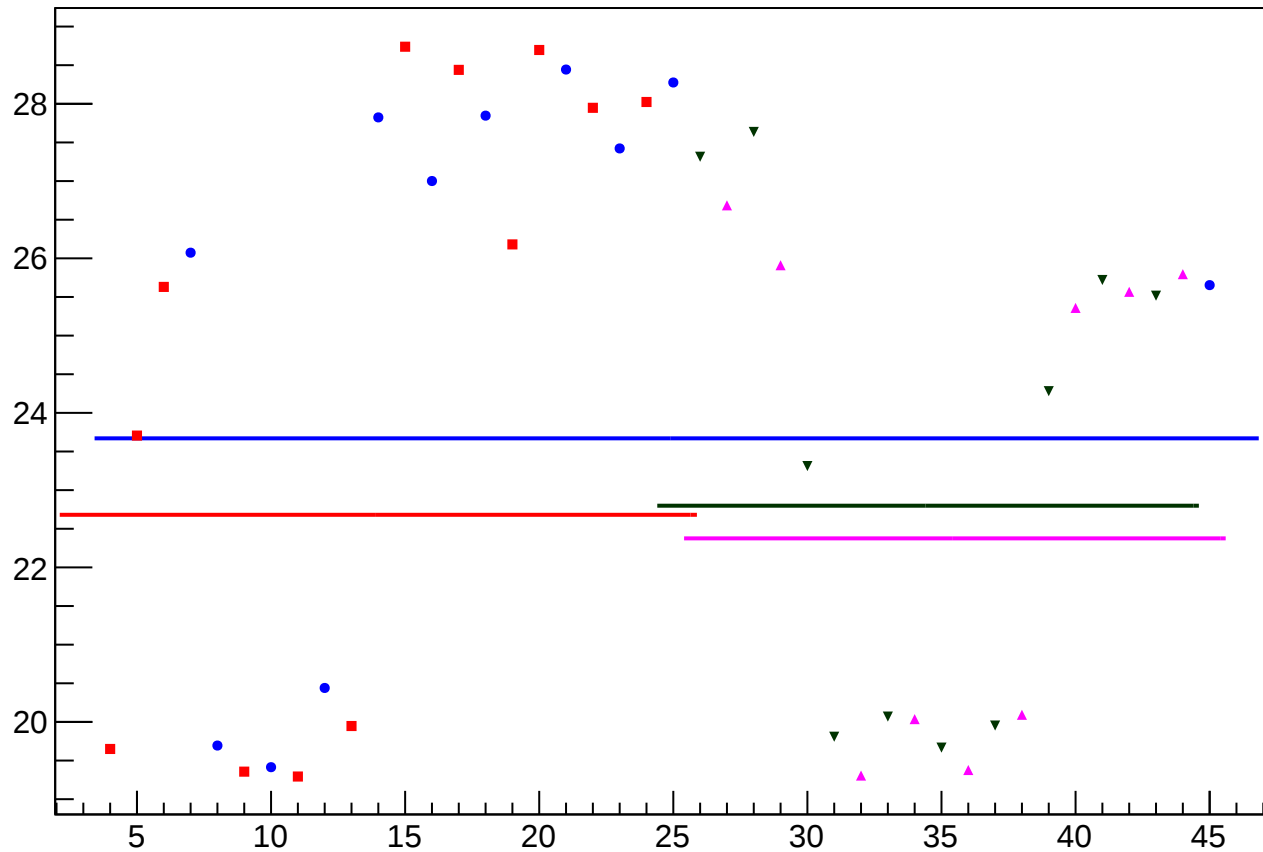
Right Out:  $12.920 \pm 9.091$   $\chi^2/\text{NDF}$ : 7.6/11

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

$0.788 \pm 6.667$   $\chi^2/\text{NDF}$ : 14.7/20

$5.052 \pm 6.574$   $\chi^2/\text{NDF}$ : 18.4/20

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



Right In: 23.670 $\pm$ 0.006  $\chi^2/\text{NDF}$ : 367125.7/10

Left Out: 22.798 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 187251.4/9

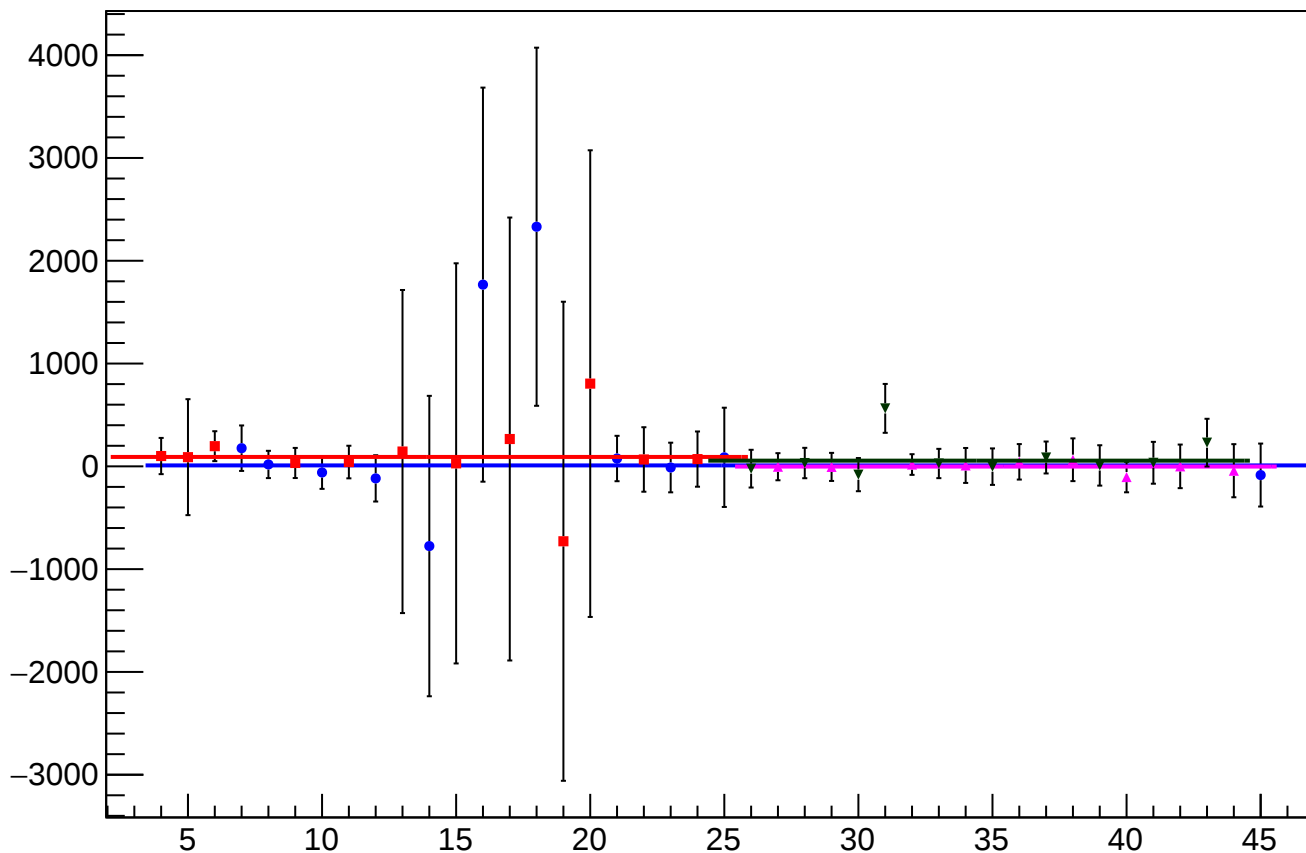
Right Out: 22.681 $\pm$ 0.006  $\chi^2/\text{NDF}$ : 376081.4/11

Left In: 22.376 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 220033.6/8

23.276 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 562850.3/20

22.535 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 597189.7/20

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



Right In: 9.090 $\pm$ 72.547  $\chi^2$ /NDF: 4.2/10

Left Out: 55.403 $\pm$ 55.677  $\chi^2$ /NDF: 6.3/9

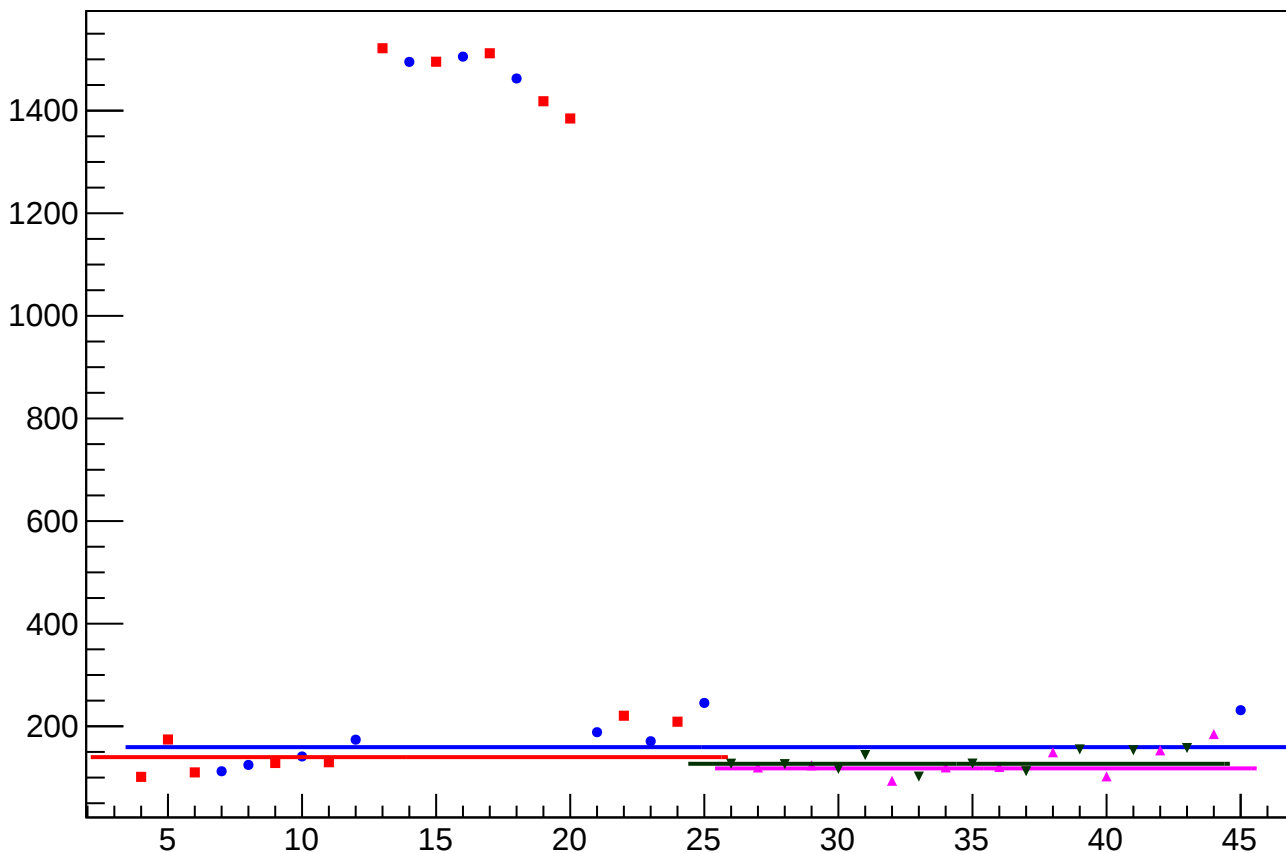
Right Out: 91.524 $\pm$ 71.755  $\chi^2$ /NDF: 1.0/11

Left In: -2.215 $\pm$ 51.031  $\chi^2$ /NDF: 0.7/8

38.236 $\pm$ 44.169  $\chi^2$ /NDF: 10.8/20

29.271 $\pm$ 41.587  $\chi^2$ /NDF: 2.9/20

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



Right In: 159.332 $\pm$ 0.051  $\chi^2$ /NDF: 4251679.9/10

Left Out: 126.898 $\pm$ 0.039  $\chi^2$ /NDF: 206102.9/9

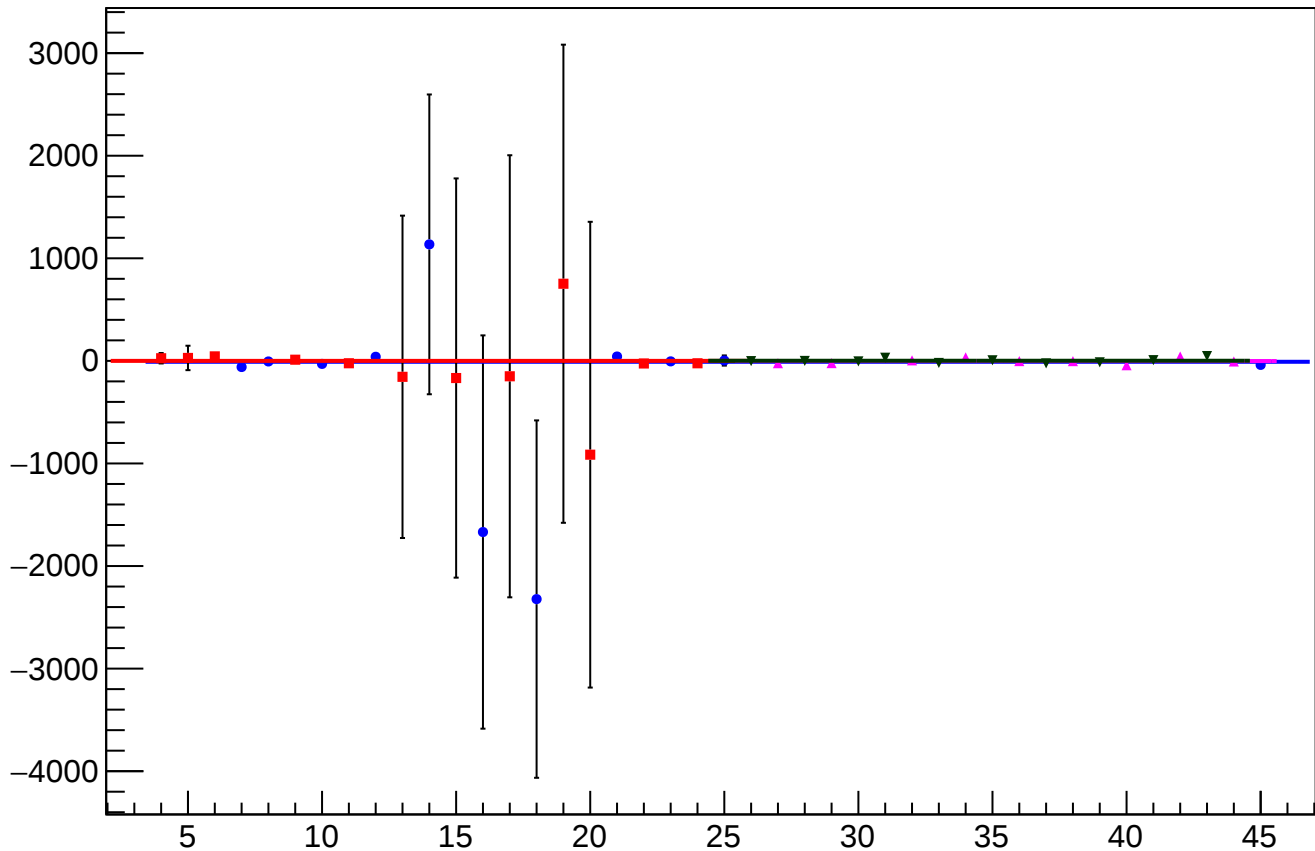
Right Out: 139.869 $\pm$ 0.051  $\chi^2$ /NDF: 5001746.3/11

Left In: 117.943 $\pm$ 0.036  $\chi^2$ /NDF: 376971.8/8

138.921 $\pm$ 0.031  $\chi^2$ /NDF: 4709350.2/20

125.308 $\pm$ 0.029  $\chi^2$ /NDF: 5502739.4/20

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



Right In: -8.859+/-11.411  $\chi^2/\text{NDF}$ : 10.5/10

Left Out: 1.170+/-9.255  $\chi^2/\text{NDF}$ : 5.3/9

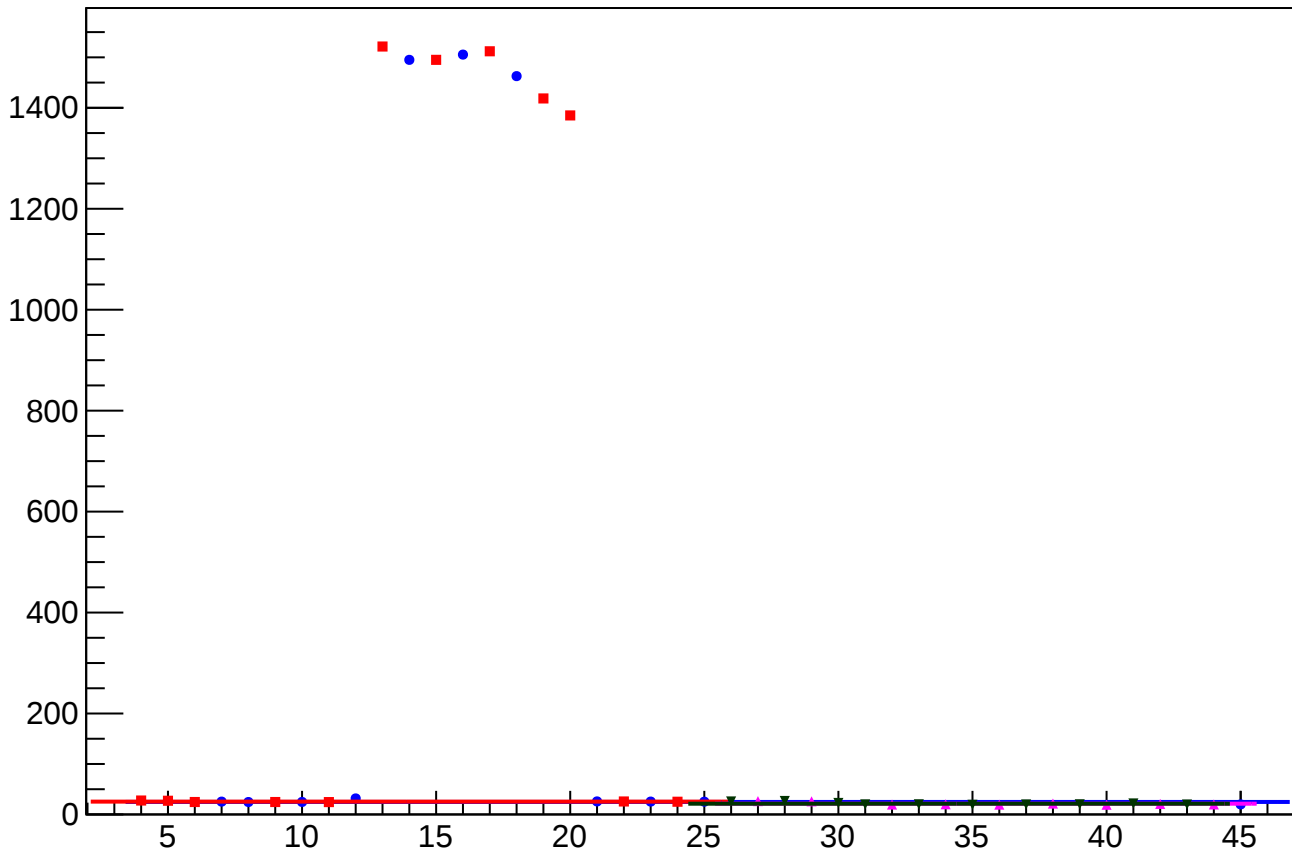
Right Out: -0.057+/-13.414  $\chi^2/\text{NDF}$ : 4.2/11

Left In: -1.613+/-9.046  $\chi^2/\text{NDF}$ : 7.3/8

-2.809+/-7.188  $\chi^2/\text{NDF}$ : 16.3/20

-1.127+/-7.500  $\chi^2/\text{NDF}$ : 11.6/20

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



Right In: 24.779+/-0.008  $\chi^2/\text{NDF}$ : 4711938.3/10

Left Out: 21.296+/-0.007  $\chi^2/\text{NDF}$ :129006.6/9

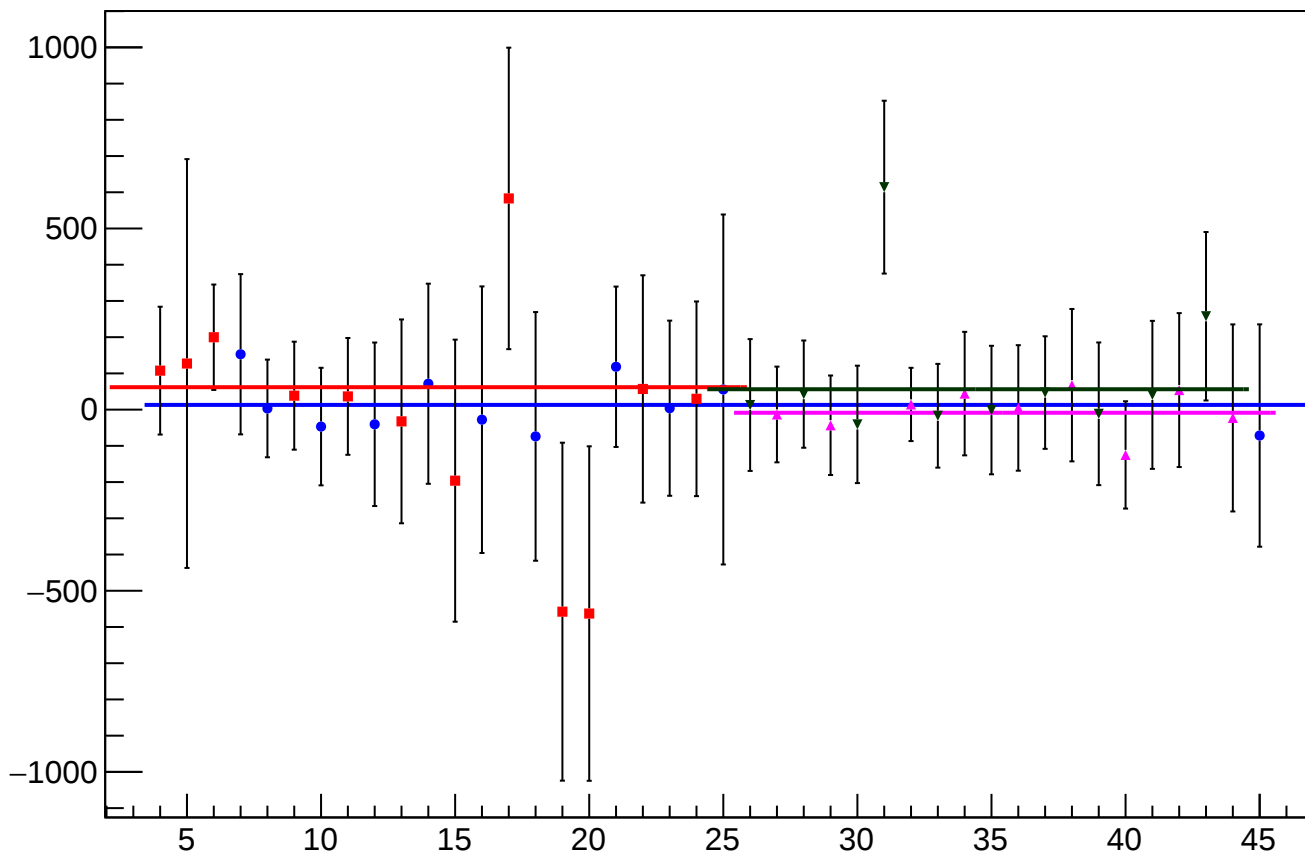
22.678+/-0.005  $\chi^2/\text{NDF}$ : 4953330.0/20

Right Out: 25.431+/-0.009  $\chi^2/\text{NDF}$ : 5346262.0/11

22.596+/-0.005  $\chi^2/\text{NDF}$ : 5636071.9/20

Left In: 21.307+/-0.006  $\chi^2/\text{NDF}$ :159863.8/8

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



Right In: 13.047+/-68.279  $\chi^2/\text{NDF}$ : 1.0/10

Left Out: 56.309+/-55.753  $\chi^2/\text{NDF}$ : 7.1/9

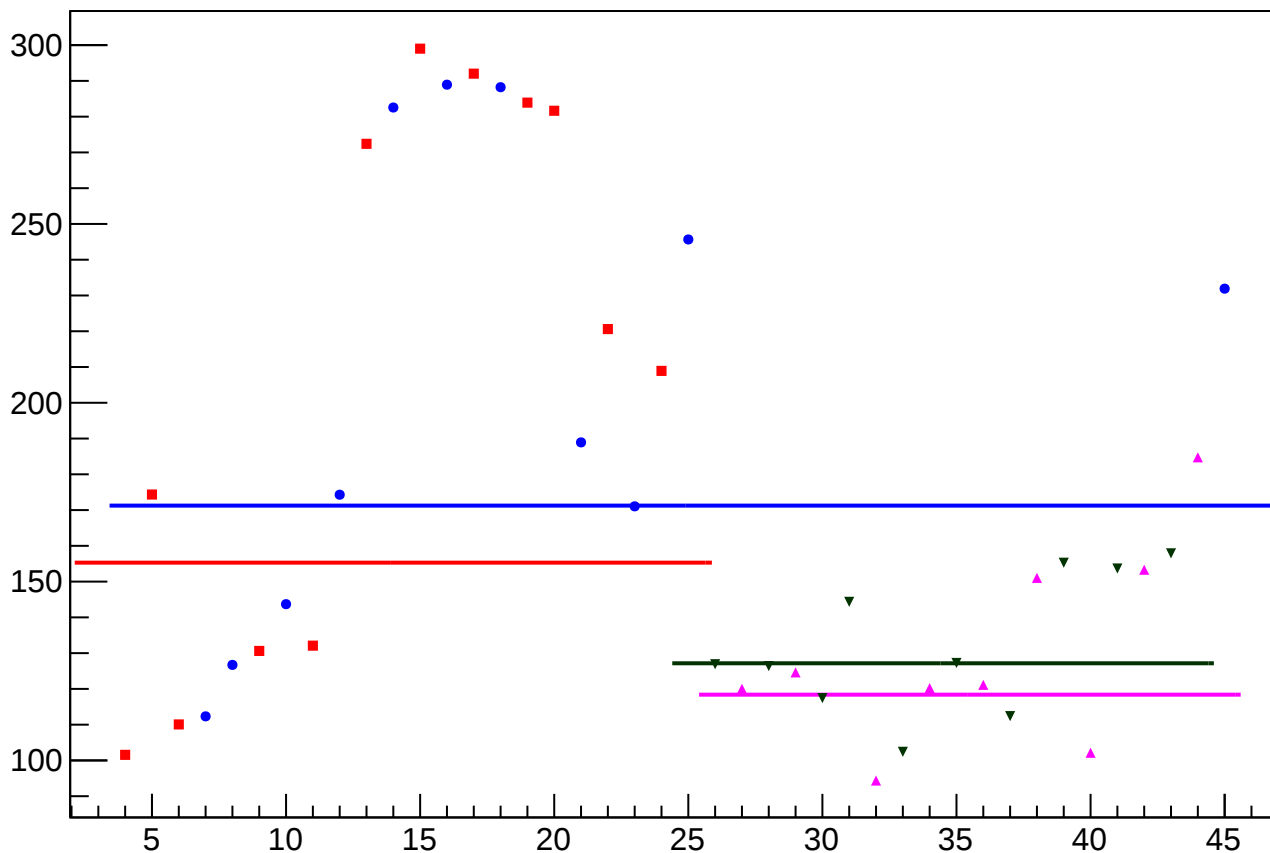
Right Out: 61.917+/-66.769  $\chi^2/\text{NDF}$ : 6.8/11

Left In: -8.655+/-51.217  $\chi^2/\text{NDF}$ : 1.1/8

39.003+/-43.185  $\chi^2/\text{NDF}$ : 8.4/20

17.488+/-40.638  $\chi^2/\text{NDF}$ : 8.5/20

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



Right In: 171.249 $\pm$ 0.048  $\chi^2$ /NDF: 1318503.1/10

Left Out: 127.165 $\pm$ 0.039  $\chi^2$ /NDF:204883.4/9

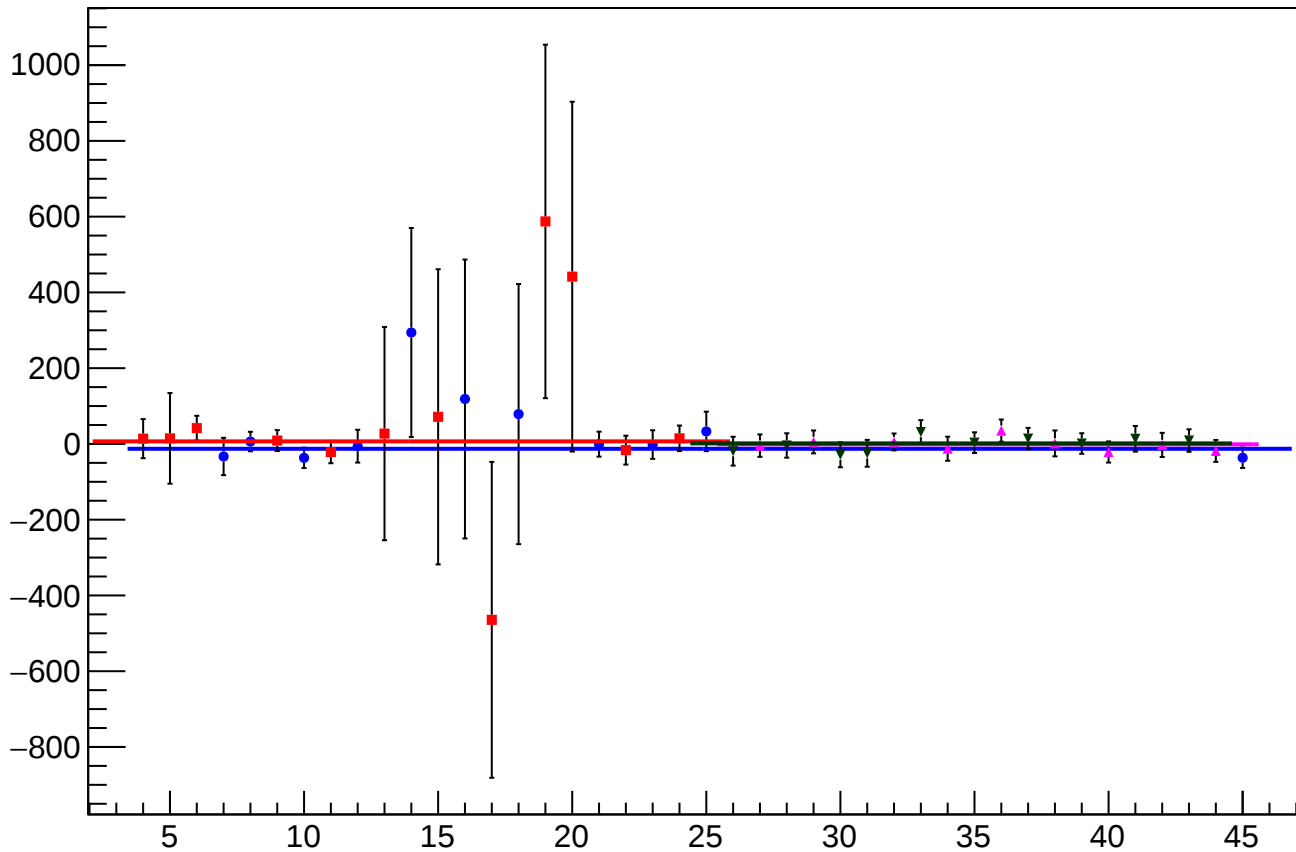
144.800 $\pm$ 0.031  $\chi^2$ /NDF: 2023587.1/20

Right Out: 155.299 $\pm$ 0.047  $\chi^2$ /NDF: 1780534.8/11

132.061 $\pm$ 0.029  $\chi^2$ /NDF: 2541765.3/20

Left In: 118.387 $\pm$ 0.036  $\chi^2$ /NDF:376424.8/8

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



Right In:  $-12.801 \pm 11.744$   $\chi^2/\text{NDF}$ : 4.8/10

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

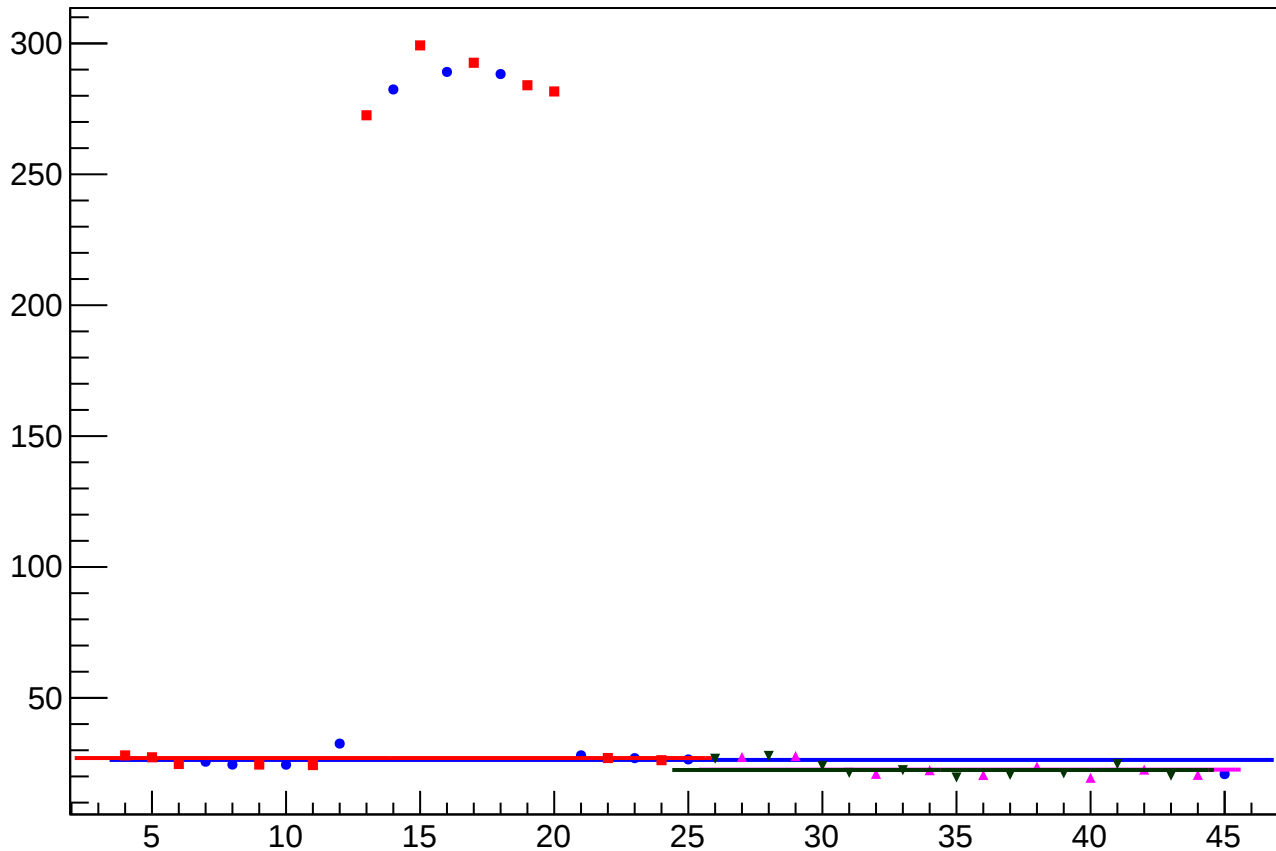
Right Out:  $6.763 \pm 13.545$   $\chi^2/\text{NDF}$ : 6.3/11

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

$-4.433 \pm 7.535$   $\chi^2/\text{NDF}$ : 8.6/20

$1.601 \pm 7.868$   $\chi^2/\text{NDF}$ : 9.2/20

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



Right In: 26.308+/-0.008  $\chi^2/\text{NDF}$ : 4054148.5/10

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

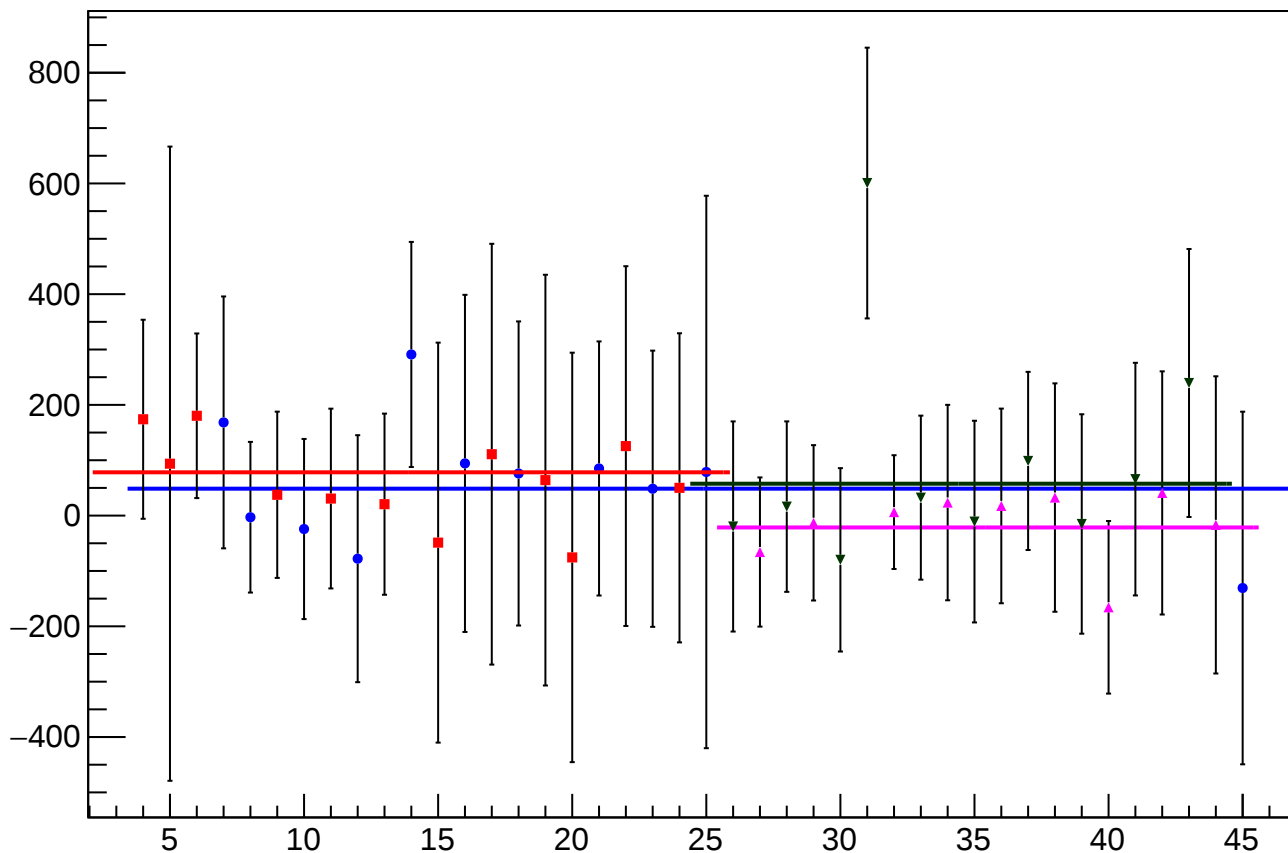
24.049+/-0.005  $\chi^2/\text{NDF}$ : 4322783.7/20

Right Out: 27.023+/-0.010  $\chi^2/\text{NDF}$ : 4568943.2/11

24.092+/-0.006  $\chi^2/\text{NDF}$ : 4878377.7/20

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

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



Right In: 48.624 $\pm$ 66.177  $\chi^2$ /NDF: 2.7/10

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

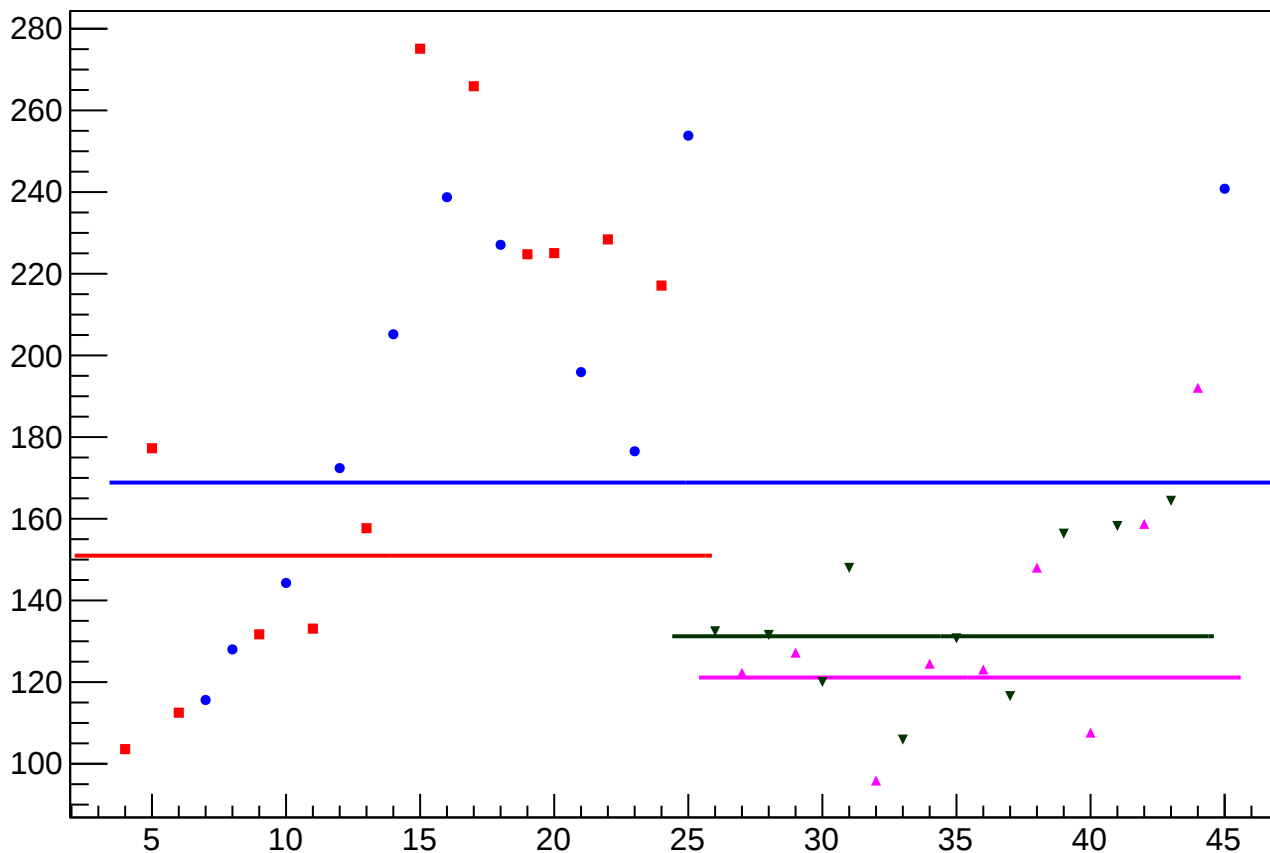
Right Out: 78.185 $\pm$ 63.204  $\chi^2$ /NDF: 1.4/11

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

53.737 $\pm$ 43.398  $\chi^2$ /NDF: 9.5/20

19.150 $\pm$ 40.336  $\chi^2$ /NDF: 4.2/20

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



Right In: 168.861+/-0.047  $\chi^2/\text{NDF}$ : 784699.7/10

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

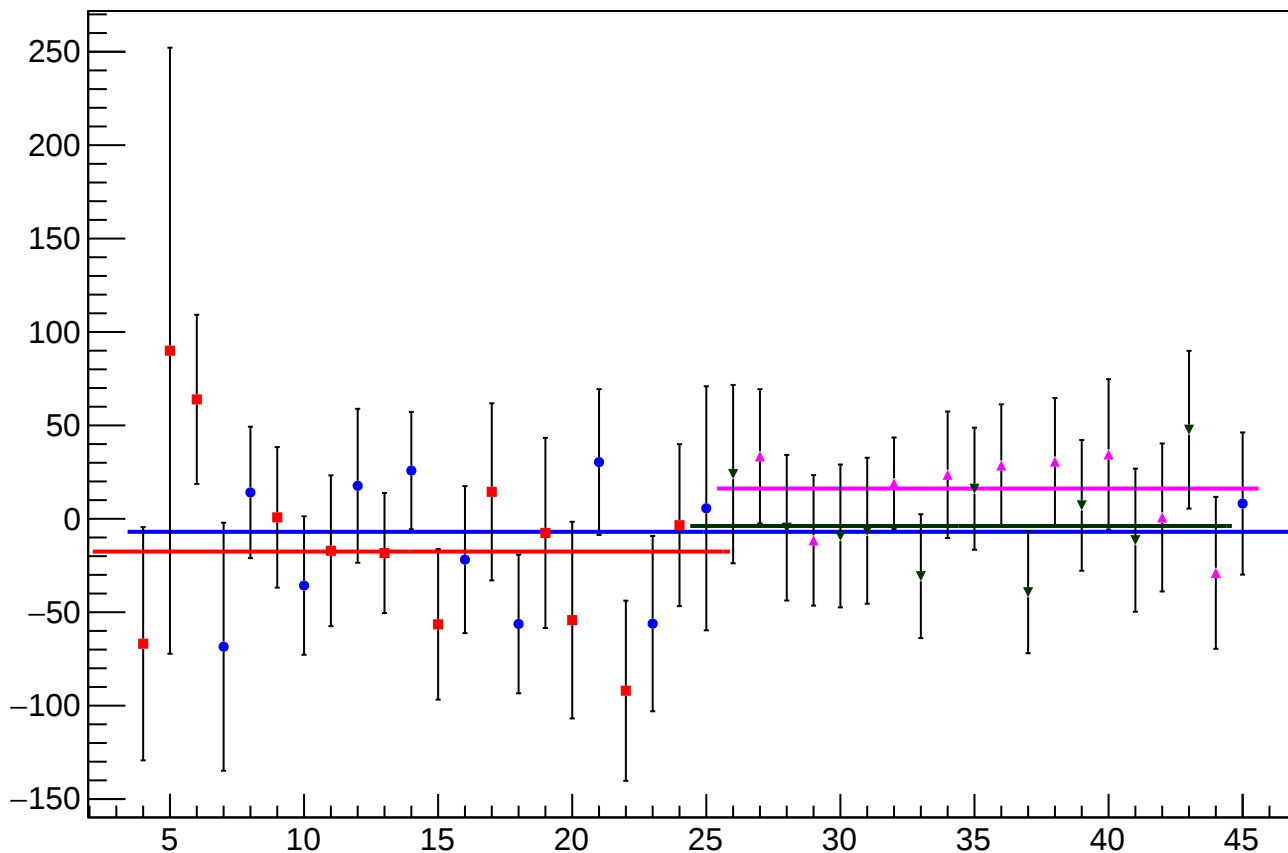
147.411+/-0.031  $\chi^2/\text{NDF}$ : 1349709.7/20

Right Out: 150.968+/-0.045  $\chi^2/\text{NDF}$ : 1141850.9/11

133.278+/-0.029  $\chi^2/\text{NDF}$ : 1779093.5/20

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: -6.962 $\pm$ 12.150  $\chi^2/\text{NDF}$ : 7.4/10

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

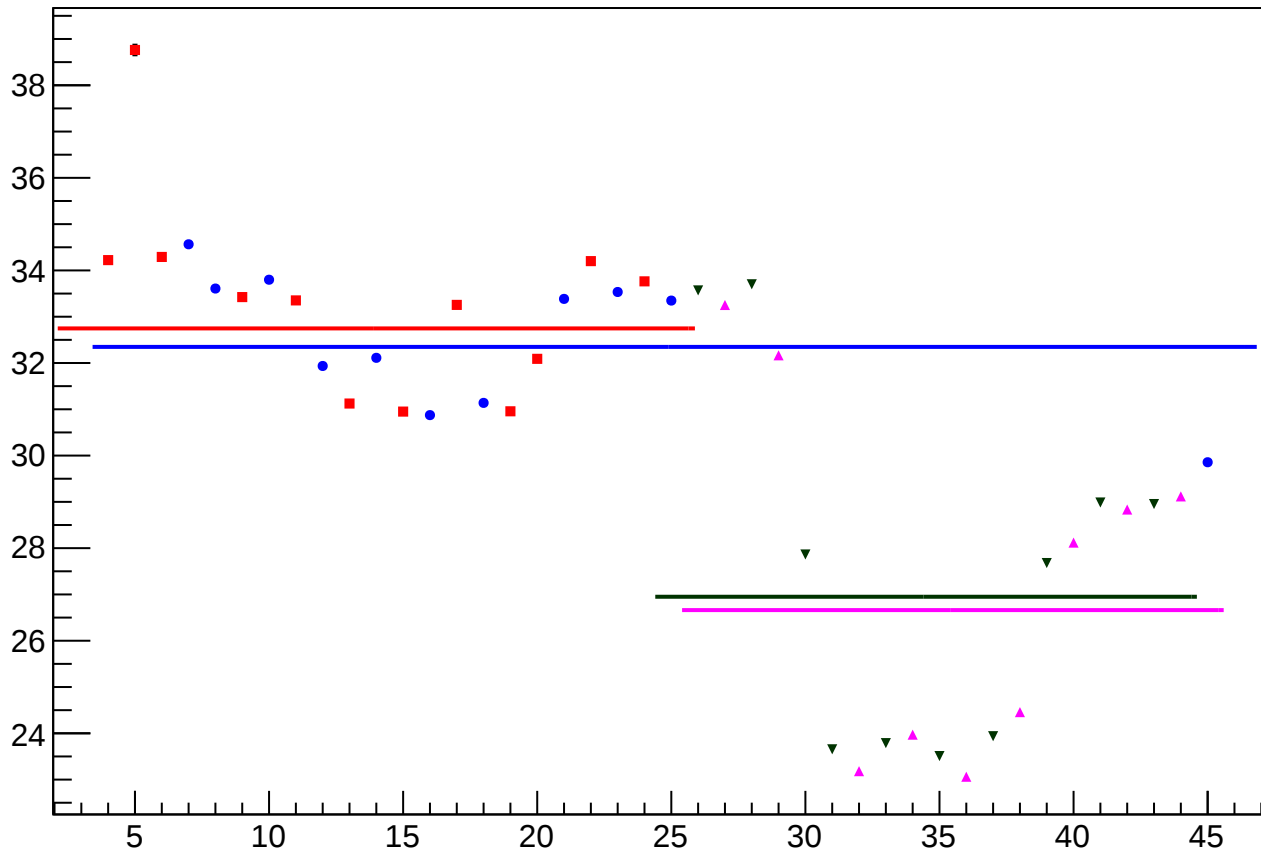
-5.346 $\pm$ 8.435  $\chi^2/\text{NDF}$ : 11.6/20

Right Out: -17.538 $\pm$ 13.085  $\chi^2/\text{NDF}$ : 8.9/11

1.720 $\pm$ 8.567  $\chi^2/\text{NDF}$ : 15.6/20

Left In: 16.171 $\pm$ 11.335  $\chi^2/\text{NDF}$ : 2.8/8

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



Right In: 32.348+/-0.009  $\chi^2/\text{NDF}$ : 24847.1/10

Left Out: 26.950+/-0.008  $\chi^2/\text{NDF}$ :182300.2/9

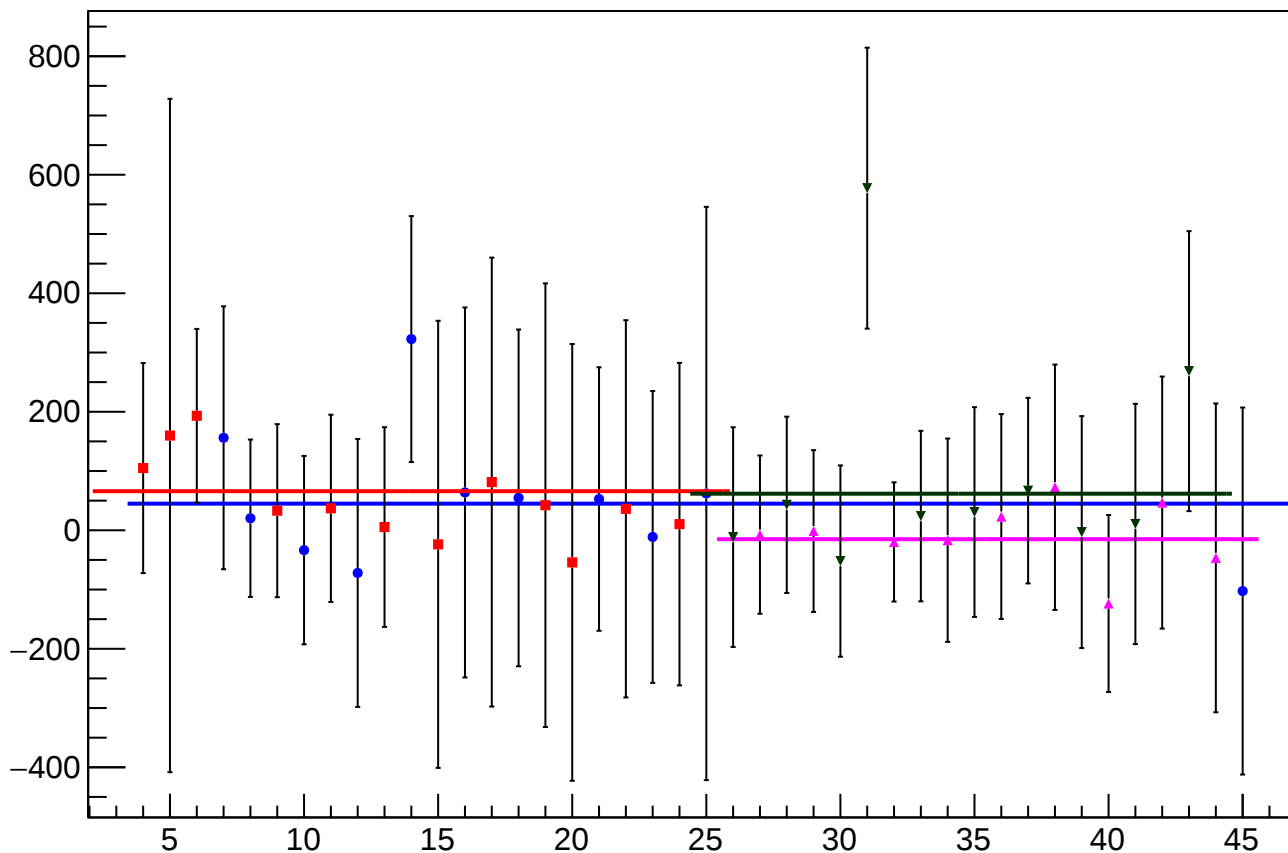
Right Out: 32.747+/-0.009  $\chi^2/\text{NDF}$ : 22297.5/11

Left In: 26.662+/-0.008  $\chi^2/\text{NDF}$ :218434.4/8

29.552+/-0.006  $\chi^2/\text{NDF}$ : 411623.6/20

29.271+/-0.006  $\chi^2/\text{NDF}$ : 487855.3/20

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



Right In: 44.938+/-65.450  $\chi^2/\text{NDF}$ : 2.9/10

Left Out: 61.733+/-55.913  $\chi^2/\text{NDF}$ : 6.4/9

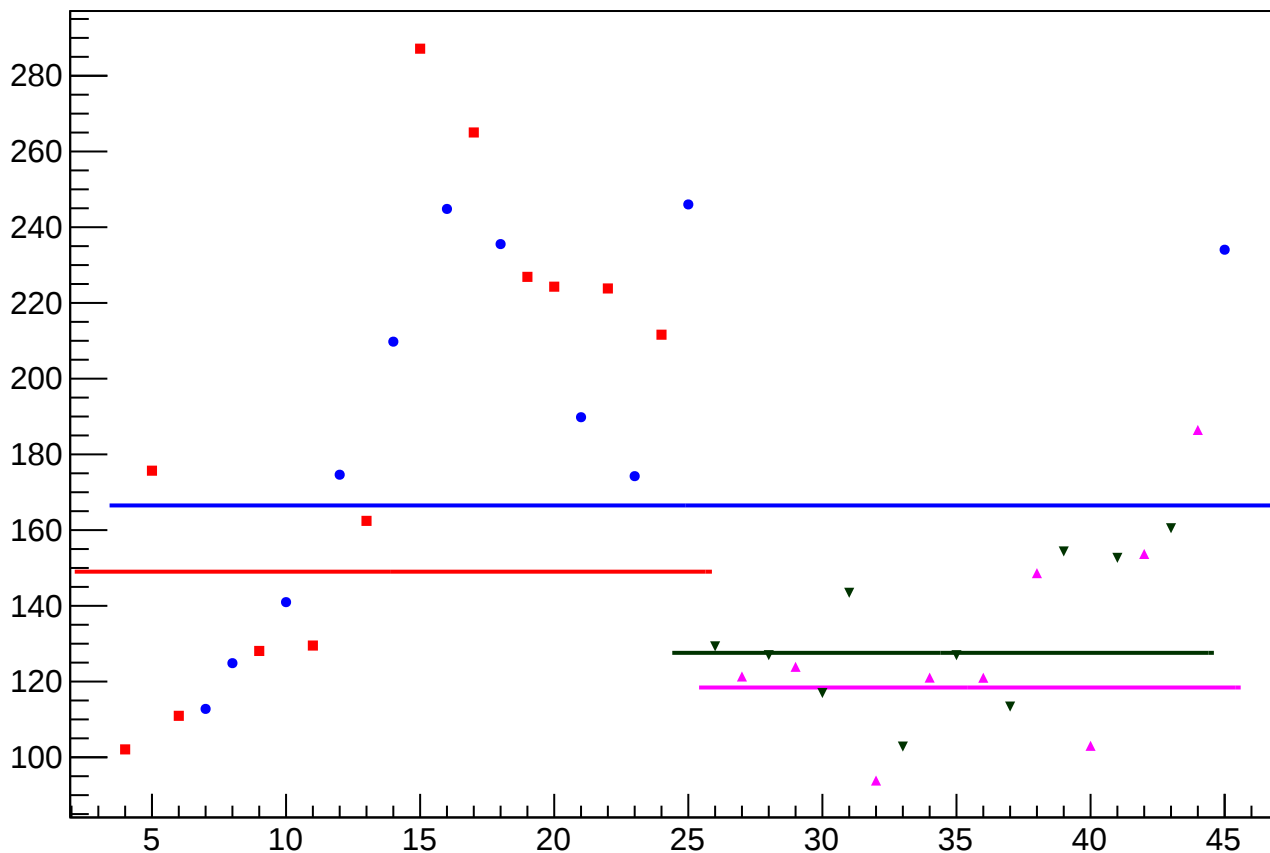
Right Out: 65.954+/-62.568  $\chi^2/\text{NDF}$ : 1.3/11

Left In: -15.022+/-51.235  $\chi^2/\text{NDF}$ : 0.9/8

54.648+/-42.512  $\chi^2/\text{NDF}$ : 9.4/20

17.481+/-39.641  $\chi^2/\text{NDF}$ : 3.1/20

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



Right In: 166.513+/-0.046  $\chi^2/\text{NDF}$ : 872172.9/10

Left Out: 127.584+/-0.040  $\chi^2/\text{NDF}$ : 200343.9/9

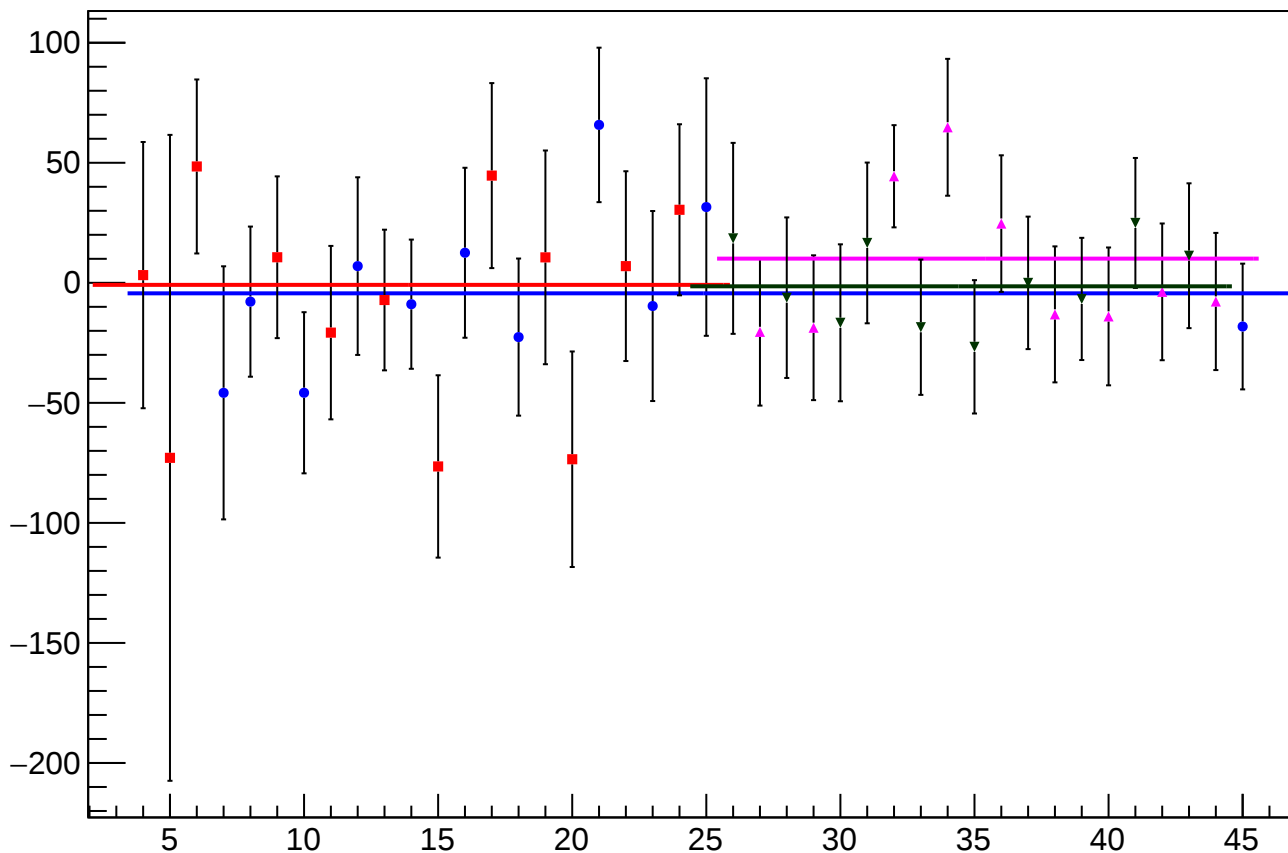
144.008+/-0.030  $\chi^2/\text{NDF}$ : 1481538.3/20

Right Out: 149.022+/-0.044  $\chi^2/\text{NDF}$ : 1205634.3/11

130.709+/-0.028  $\chi^2/\text{NDF}$ : 1871429.5/20

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:  $-4.380 \pm 10.247$   $\chi^2/\text{NDF}$ : 8.3/10

Left Out:  $-1.457 \pm 9.435$   $\chi^2/\text{NDF}$ : 3.1/9

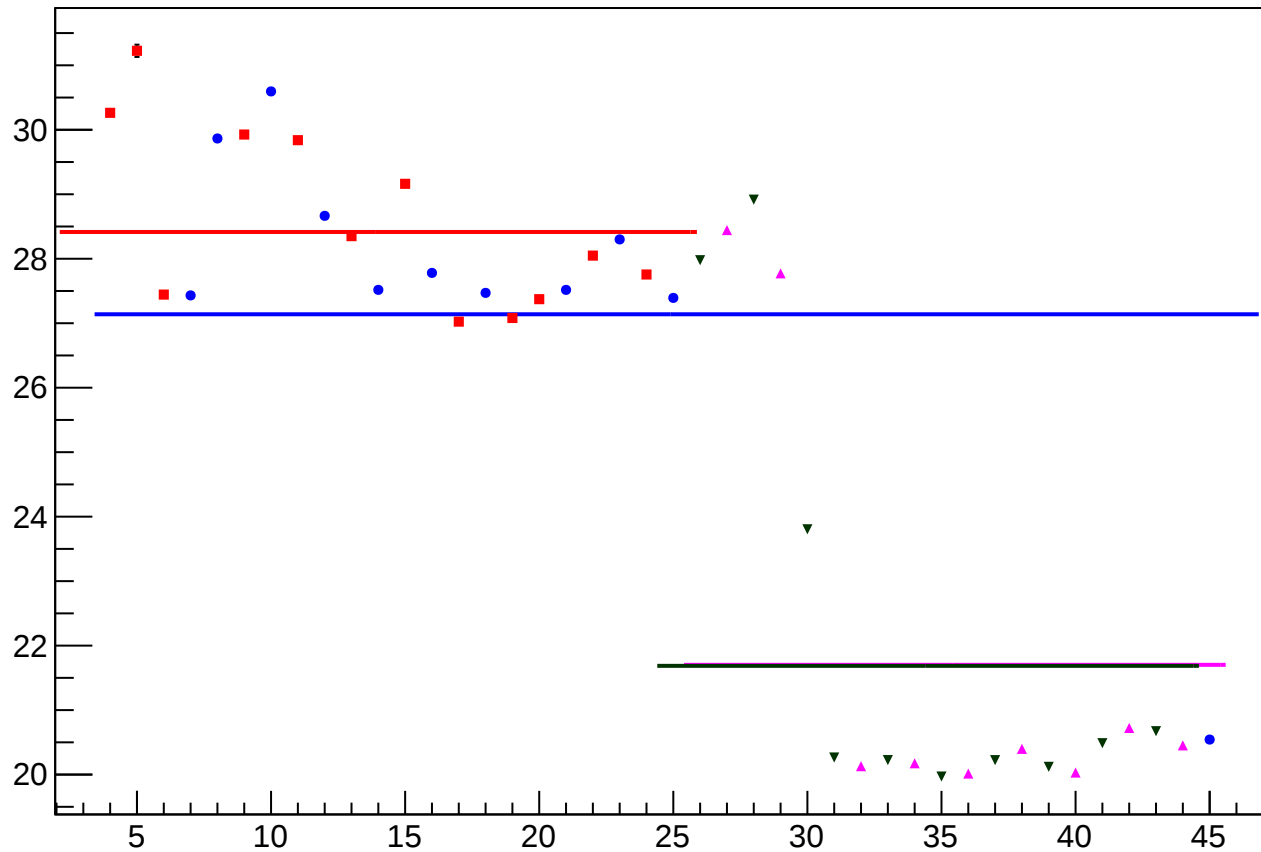
Right Out:  $-0.853 \pm 11.359$   $\chi^2/\text{NDF}$ : 11.5/11

Left In:  $10.080 \pm 9.225$   $\chi^2/\text{NDF}$ : 10.4/8

$-2.798 \pm 6.941$   $\chi^2/\text{NDF}$ : 11.5/20

$5.735 \pm 7.161$   $\chi^2/\text{NDF}$ : 22.5/20

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_rms vs slug



Right In: 27.139 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 170052.7/10

Left Out: 21.686 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 187956.4/9

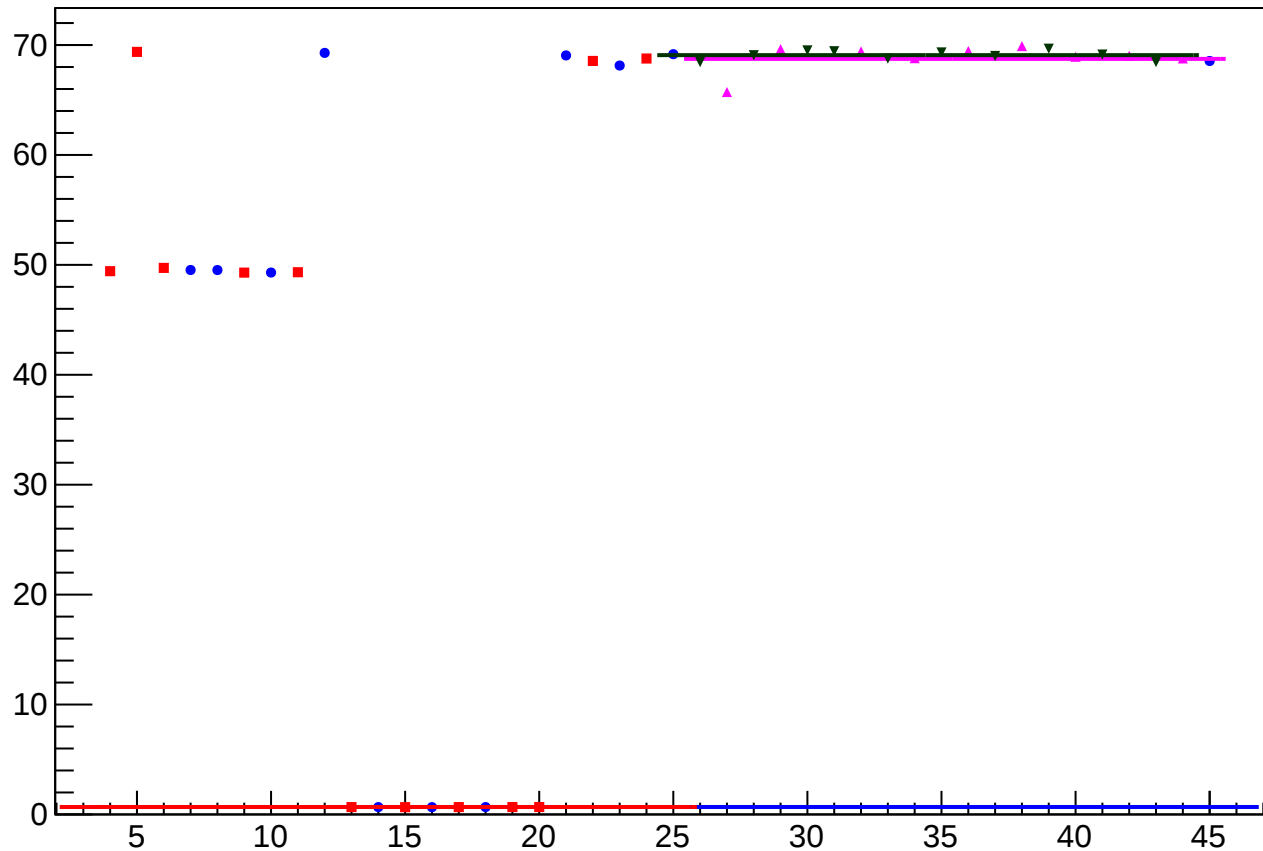
Right Out: 28.415 $\pm$ 0.008  $\chi^2/\text{NDF}$ : 18780.8/11

Left In: 21.702 $\pm$ 0.007  $\chi^2/\text{NDF}$ : 218285.8/8

24.188 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 664456.8/20

24.370 $\pm$ 0.005  $\chi^2/\text{NDF}$ : 658015.3/20

# yield\_bcm\_an\_ds\_mean vs slug



Right In: 0.679+/-0.000  $\chi^2/\text{NDF}$ : 557198391604.2/10

Left Out: 69.081+/-0.000  $\chi^2/\text{NDF}$ : 24626539.5/9

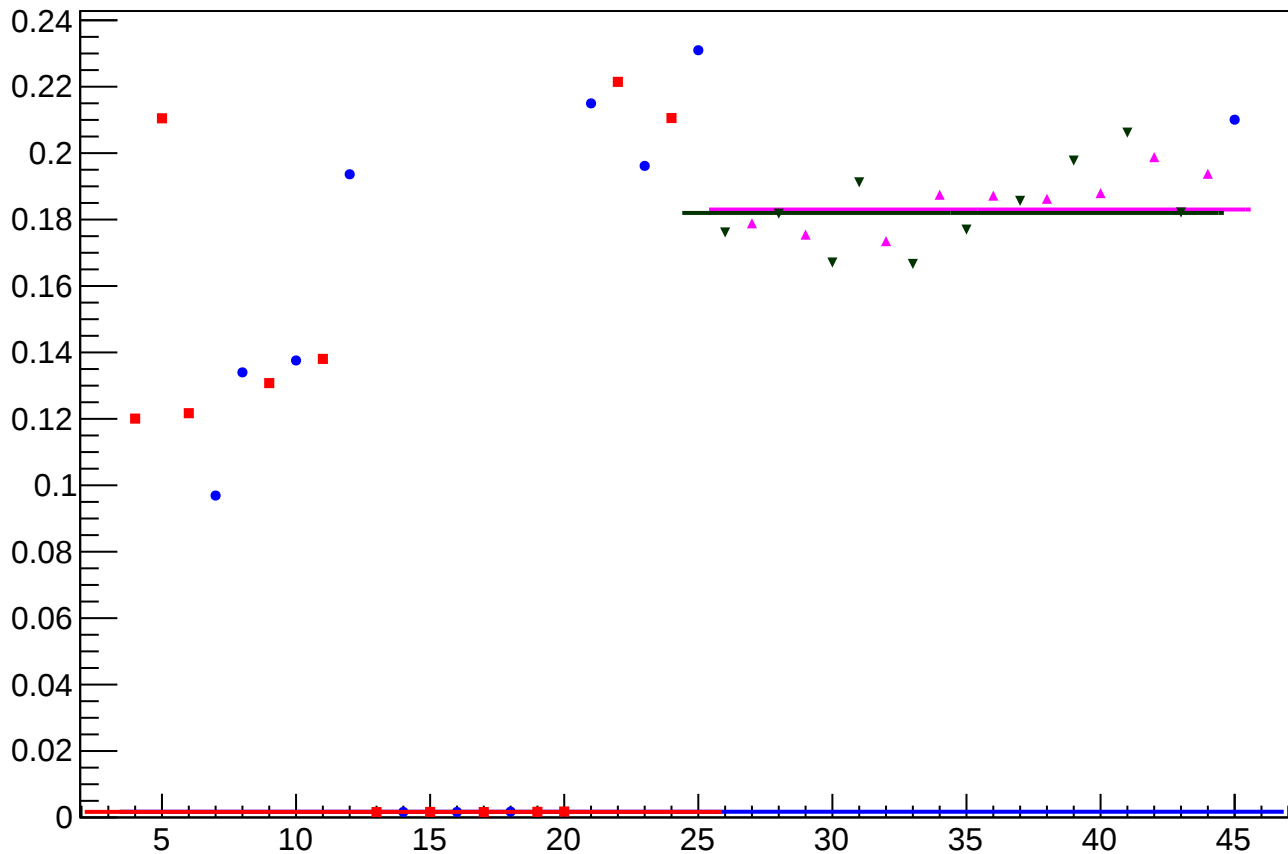
0.692+/-0.000  $\chi^2/\text{NDF}$ : 1286165572500.7/20

Right Out: 0.677+/-0.000  $\chi^2/\text{NDF}$ : 436954244556.0/11

0.689+/-0.000  $\chi^2/\text{NDF}$ : 1187166539776.8/20

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  $\chi^2/\text{NDF}$ : 8823937.9/10

Left Out: 0.182+/-0.000  $\chi^2/\text{NDF}$ : 43515.3/9

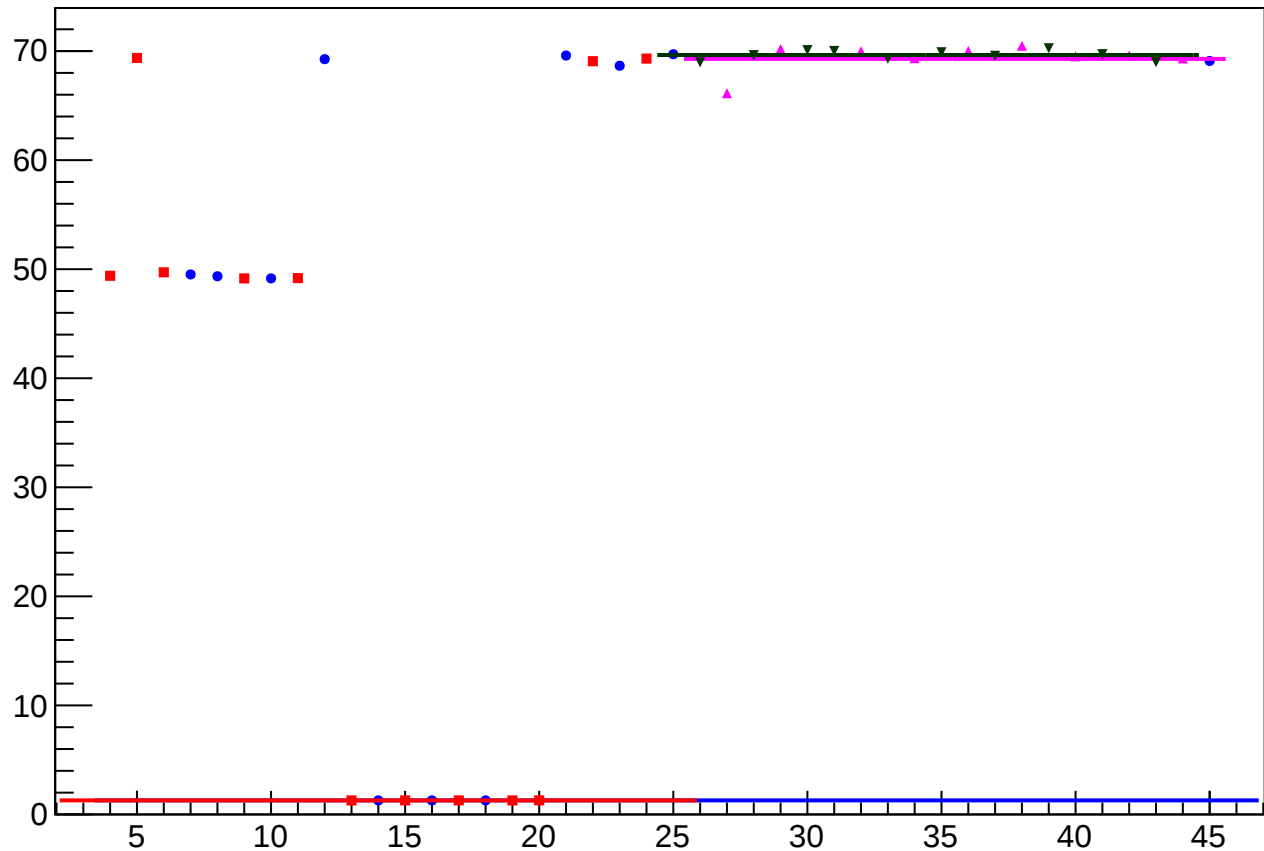
Right Out: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 6636068.7/11

Left In: 0.183+/-0.000  $\chi^2/\text{NDF}$ : 20451.6/8

0.002+/-0.000  $\chi^2/\text{NDF}$ : 18994015.6/20

0.002+/-0.000  $\chi^2/\text{NDF}$ : 17303496.1/20

# yield\_bcm\_an\_ds3\_mean vs slug



Right In: 1.290+/-0.000  $\chi^2/\text{NDF}$ : 553280866779.3/10

Left Out: 69.640+/-0.000  $\chi^2/\text{NDF}$ : 25576787.7/9

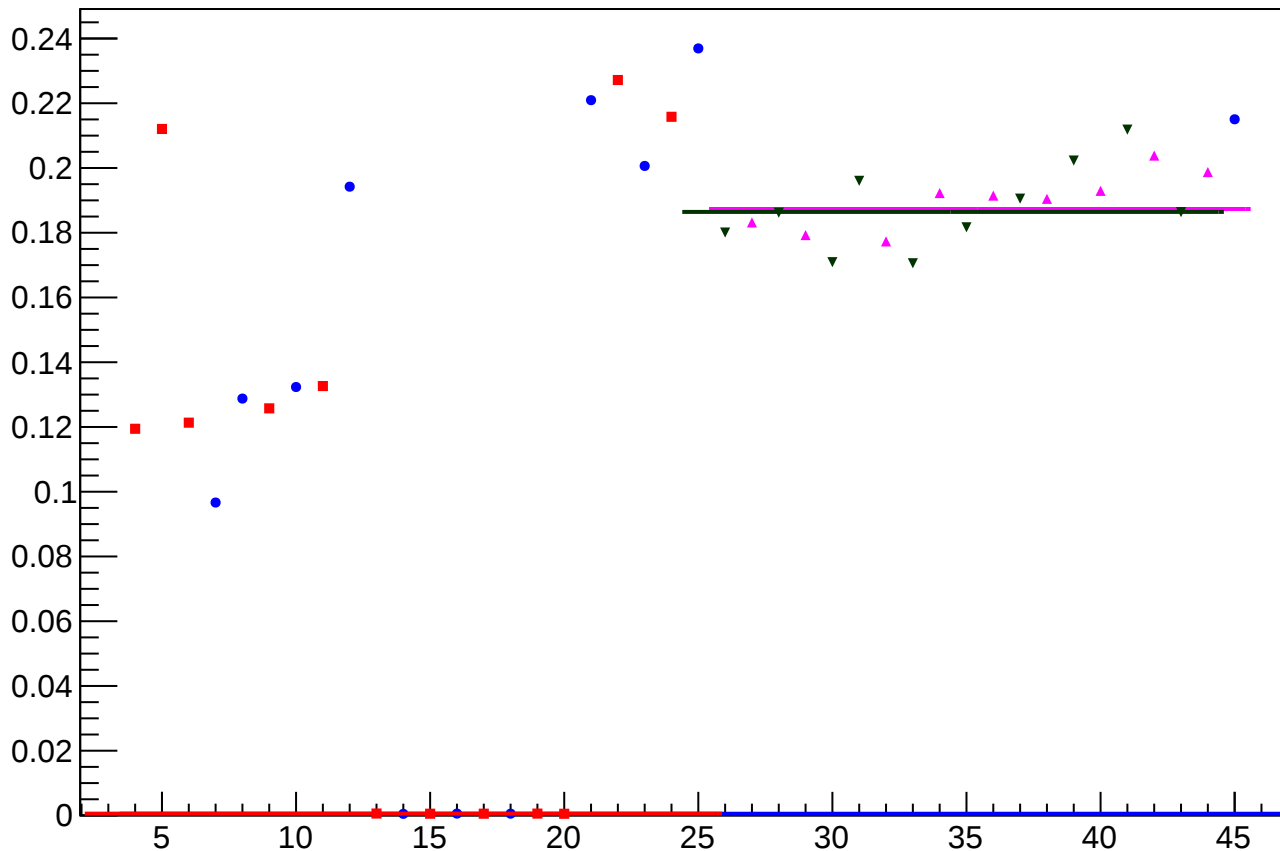
1.291+/-0.000  $\chi^2/\text{NDF}$ : 1246852492291.7/20

Right Out: 1.289+/-0.000  $\chi^2/\text{NDF}$ : 437398241389.8/11

1.291+/-0.000  $\chi^2/\text{NDF}$ : 1151926879684.4/20

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  $\chi^2/\text{NDF}$ : 8968184.0/10

Left Out: 0.186+/-0.000  $\chi^2/\text{NDF}$ : 44561.5/9

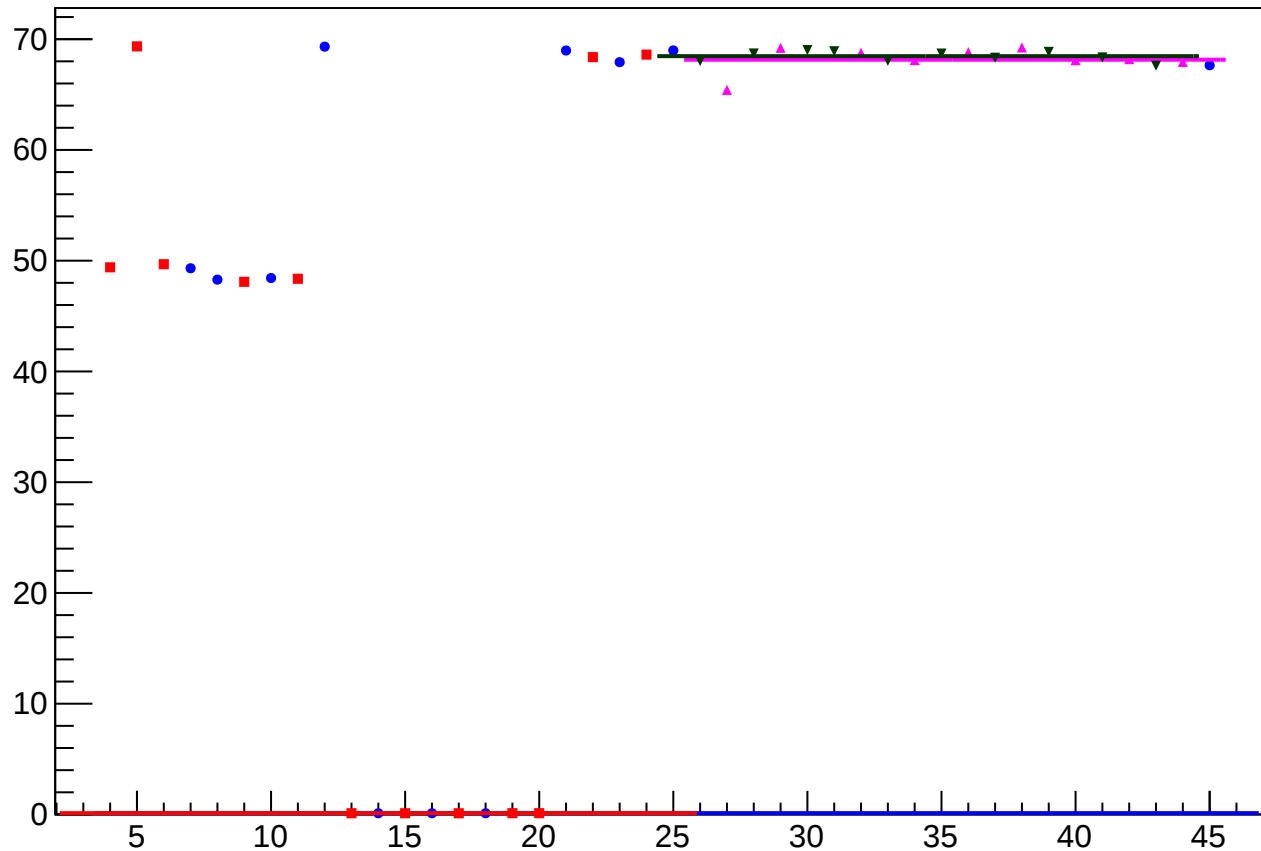
Right Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 6741519.4/11

Left In: 0.187+/-0.000  $\chi^2/\text{NDF}$ : 21623.6/8

0.001+/-0.000  $\chi^2/\text{NDF}$ : 19274004.5/20

0.001+/-0.000  $\chi^2/\text{NDF}$ : 17542176.6/20

# yield\_bcm\_an\_us\_mean vs slug



Right In: 0.120+/-0.000  $\chi^2/\text{NDF}$ : 580491414051.3/10

Left Out: 68.467+/-0.000  $\chi^2/\text{NDF}$ : 29247560.9/9

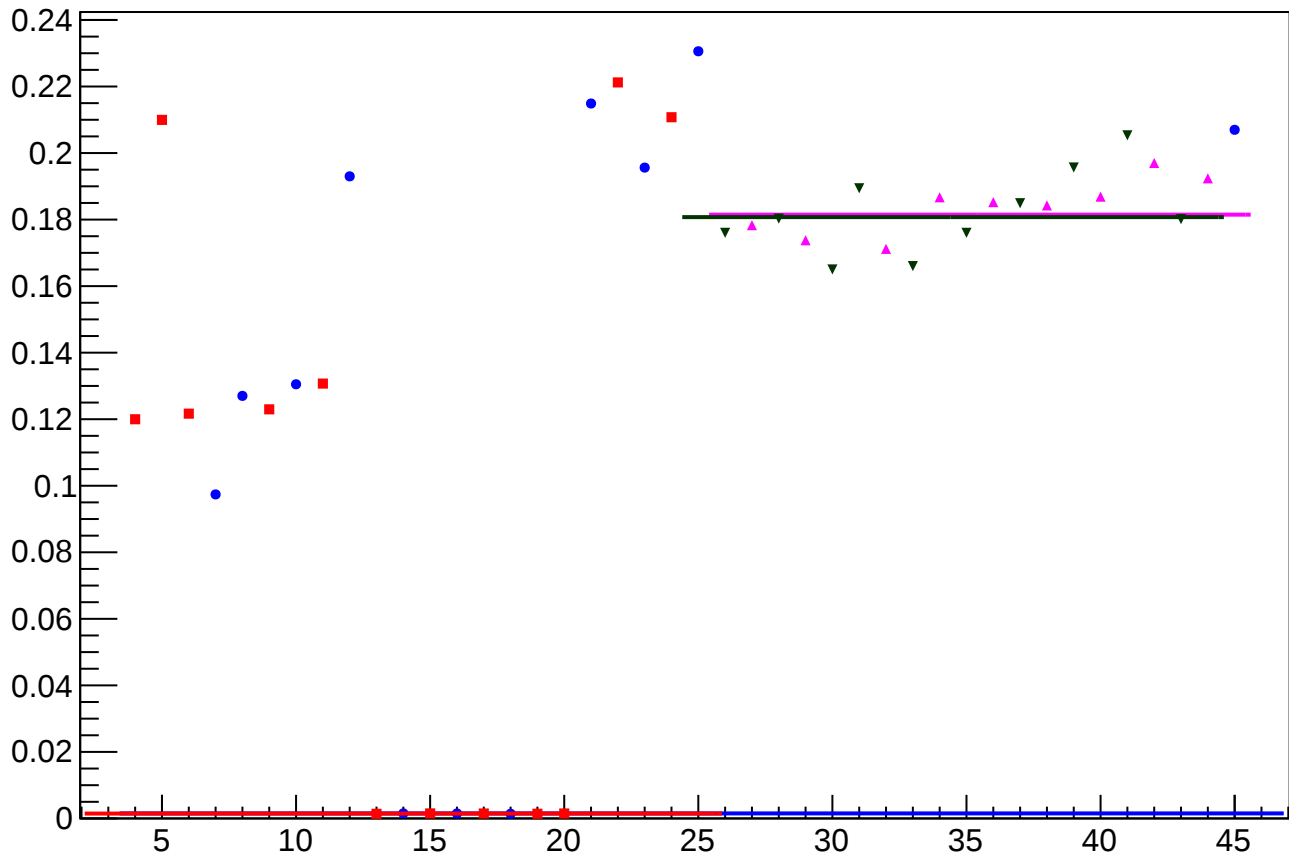
0.130+/-0.000  $\chi^2/\text{NDF}$ : 1317200596737.8/20

Right Out: 0.117+/-0.000  $\chi^2/\text{NDF}$ : 459272313715.4/11

0.126+/-0.000  $\chi^2/\text{NDF}$ : 1221260730064.0/20

Left In: 68.148+/-0.000  $\chi^2/\text{NDF}$ : 258150301.2/8

# yield\_bcm\_an\_us\_rms vs slug



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 8834372.7/10

Left Out: 0.181 $\pm$ 0.000  $\chi^2$ /NDF:43552.7/9

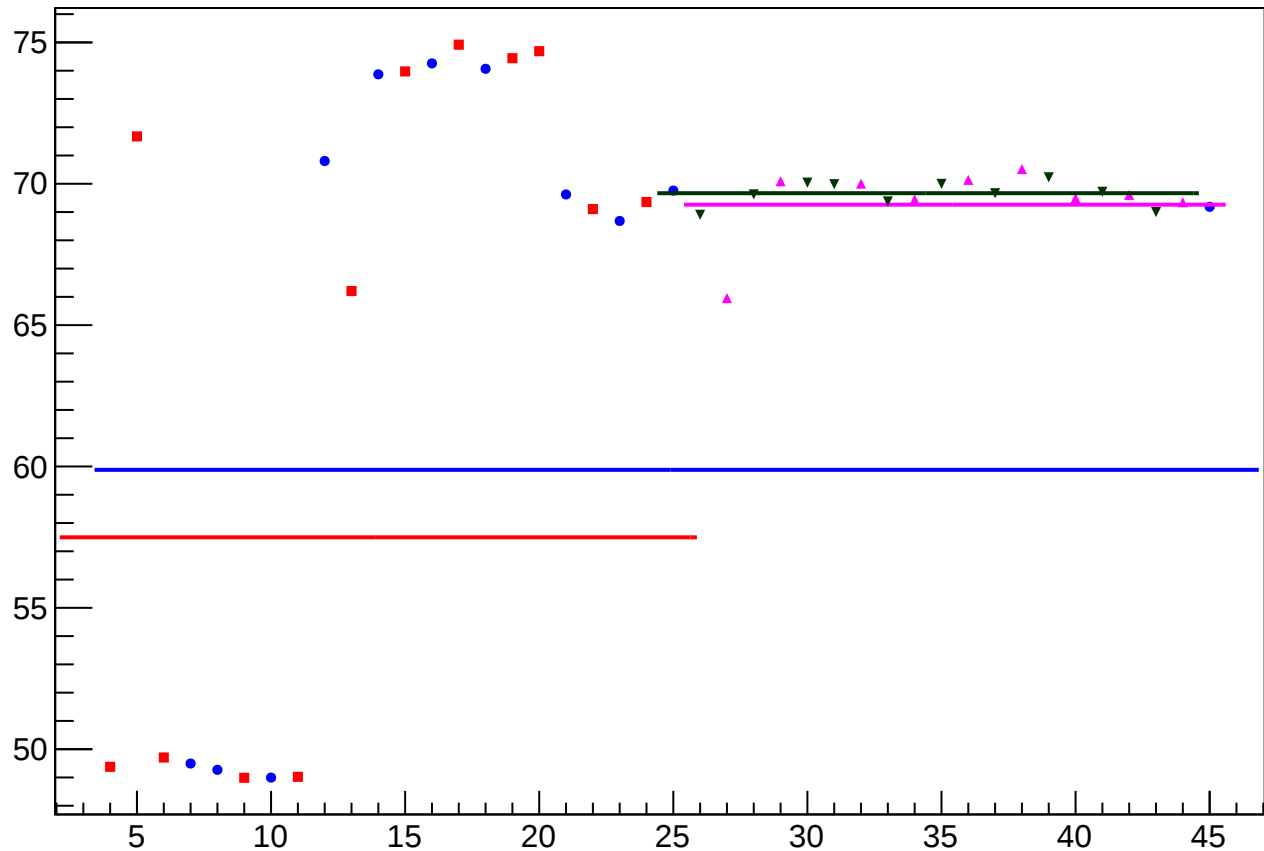
Right Out: 0.001 $\pm$ 0.000  $\chi^2$ /NDF: 6649150.6/11

Left In: 0.181 $\pm$ 0.000  $\chi^2$ /NDF:21535.2/8

0.002 $\pm$ 0.000  $\chi^2$ /NDF: 19009401.6/20

0.001 $\pm$ 0.000  $\chi^2$ /NDF: 17337221.0/20

# yield\_bcm\_dg\_us\_mean vs slug



Right In: 59.881 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 28276418399.2/10

Left Out: 69.667 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 24128815.3/9

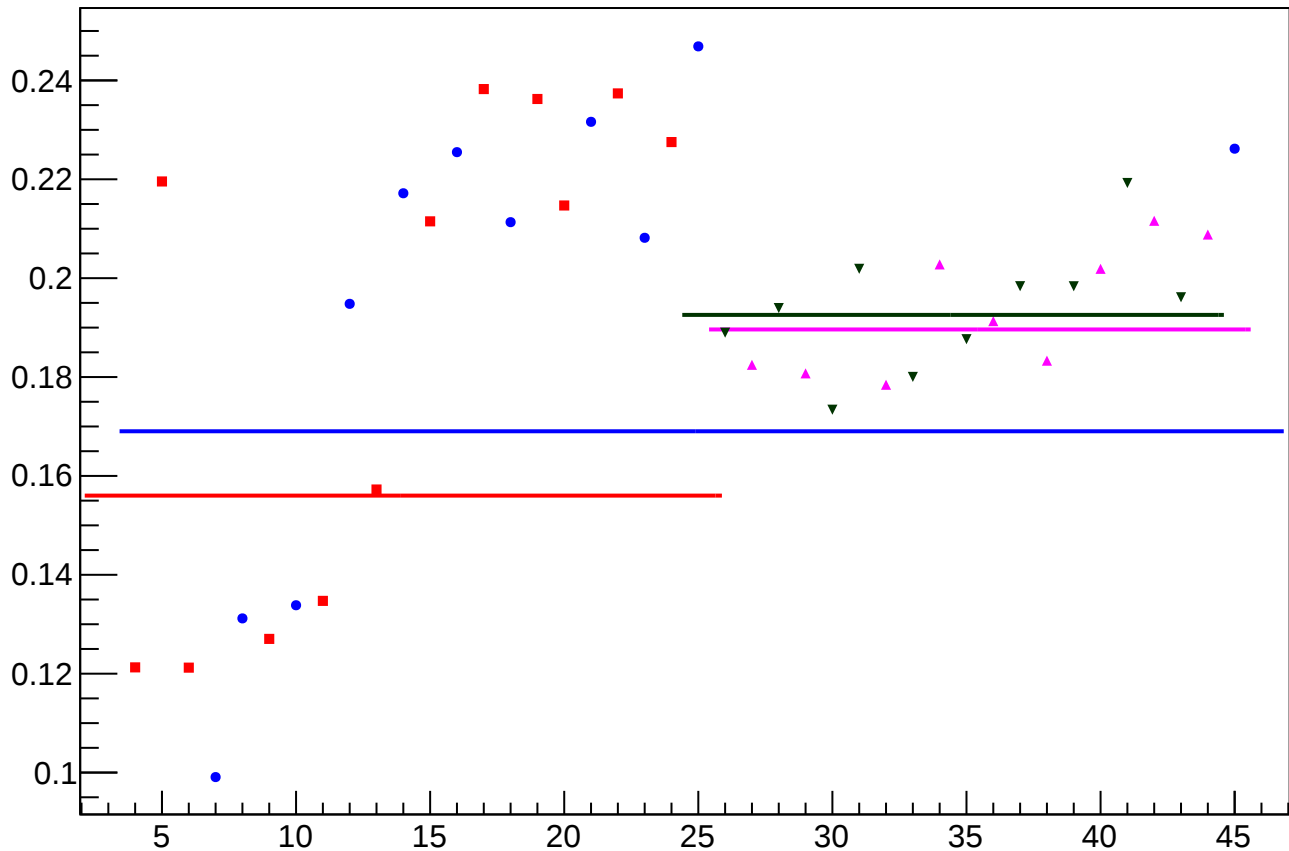
63.672 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 36472548763.1/20

Right Out: 57.494 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 25320800059.8/11

62.171 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 38184273749.2/20

Left In: 69.261 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 334097466.4/8

# yield\_bcm\_dg\_us\_rms vs slug



Right In: 0.169+/-0.000  $\chi^2/\text{NDF}$ : 994929.4/10

Left Out: 0.193+/-0.000  $\chi^2/\text{NDF}$ : 38713.5/9

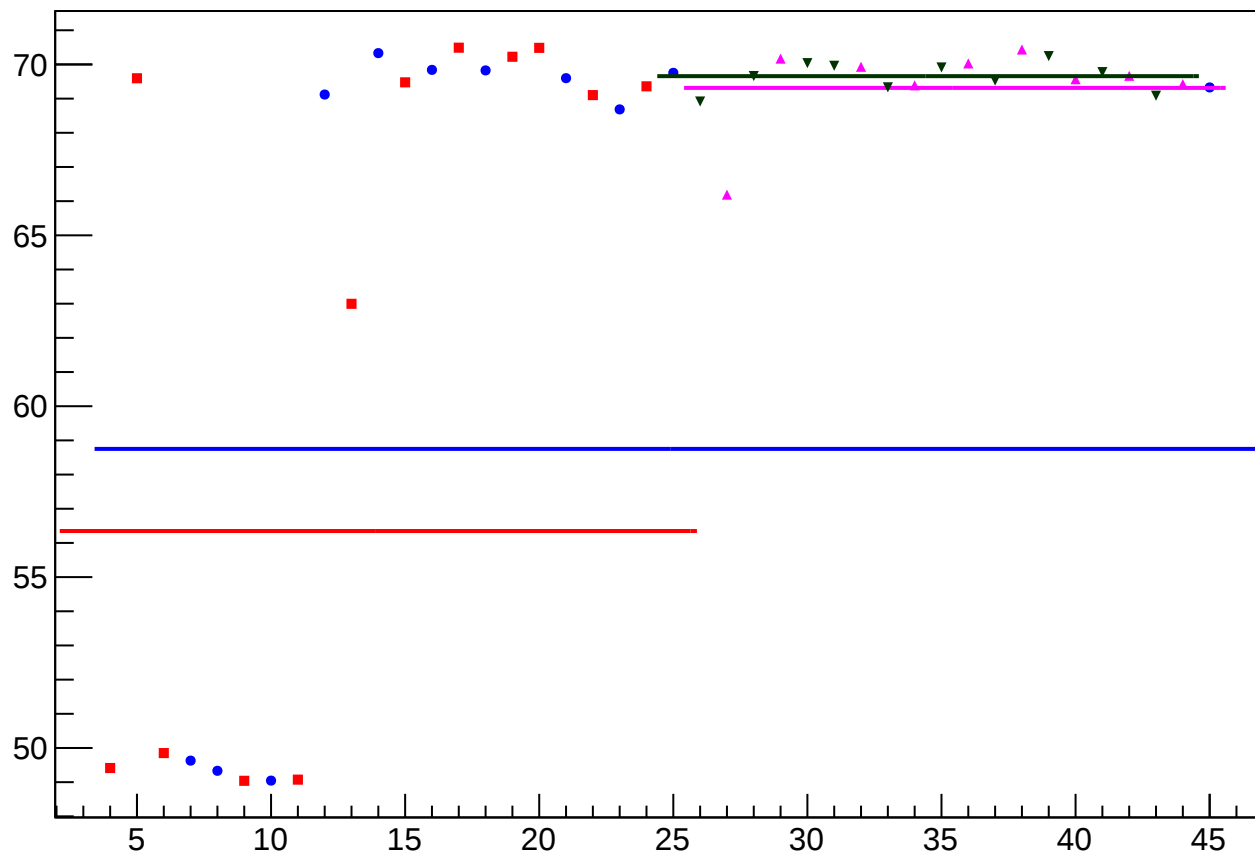
0.178+/-0.000  $\chi^2/\text{NDF}$ : 1128221.3/20

Right Out: 0.156+/-0.000  $\chi^2/\text{NDF}$ : 828596.5/11

0.169+/-0.000  $\chi^2/\text{NDF}$ : 1074393.7/20

Left In: 0.190+/-0.000  $\chi^2/\text{NDF}$ : 41377.7/8

# yield\_bcm\_dg\_ds\_mean vs slug



Right In: 58.751+/-0.000  $\chi^2/\text{NDF}$ : 23813876405.1/10

Left Out: 69.657+/-0.000  $\chi^2/\text{NDF}$ : 23922100.2/9

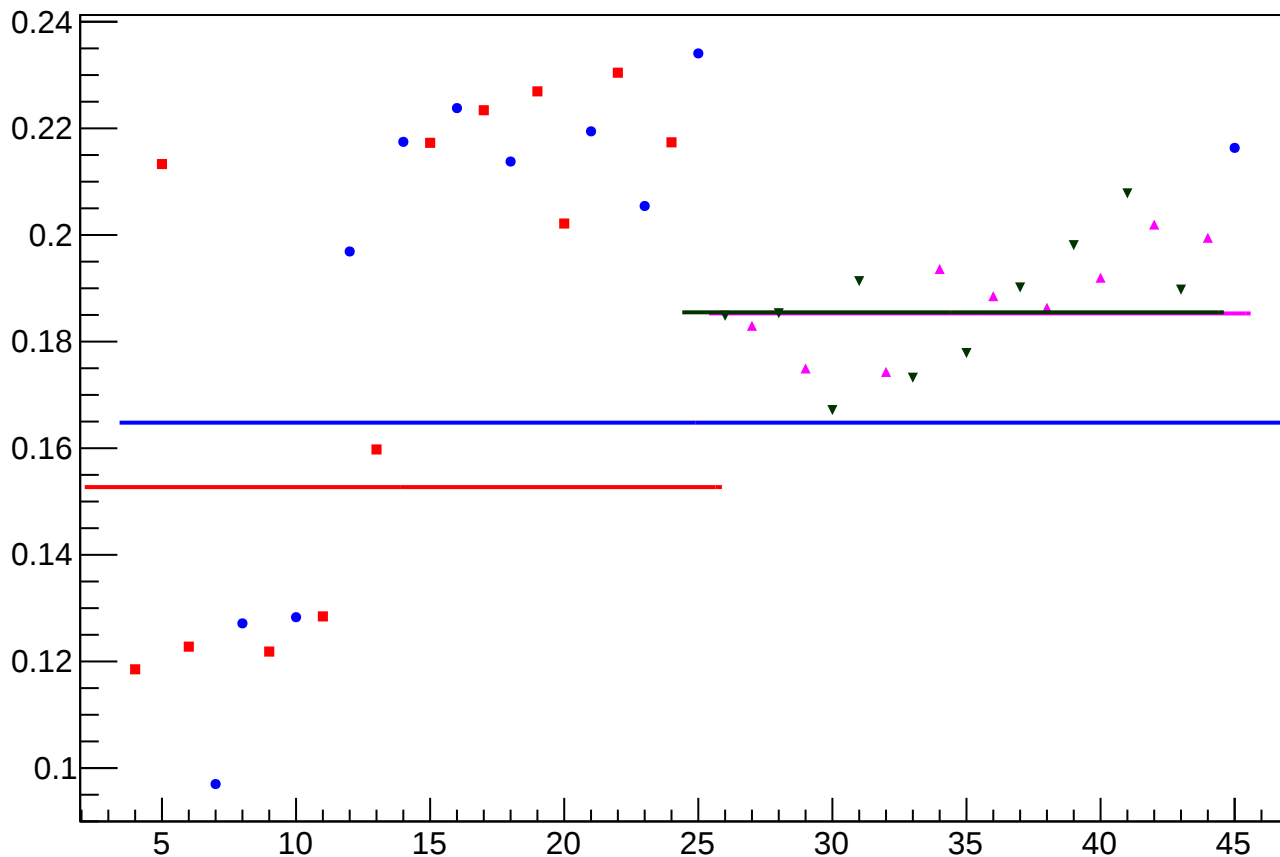
Right Out: 56.349+/-0.000  $\chi^2/\text{NDF}$ : 19763904601.6/11

Left In: 69.314+/-0.000  $\chi^2/\text{NDF}$ : 295096532.4/8

63.045+/-0.000  $\chi^2/\text{NDF}$ : 34671123598.1/20

61.521+/-0.000  $\chi^2/\text{NDF}$ : 36000165880.7/20

# yield\_bcm\_dg\_ds\_rms vs slug



Right In: 0.165+/-0.000  $\chi^2/\text{NDF}$ : 1045127.0/10

Left Out: 0.185+/-0.000  $\chi^2/\text{NDF}$ : 38669.2/9

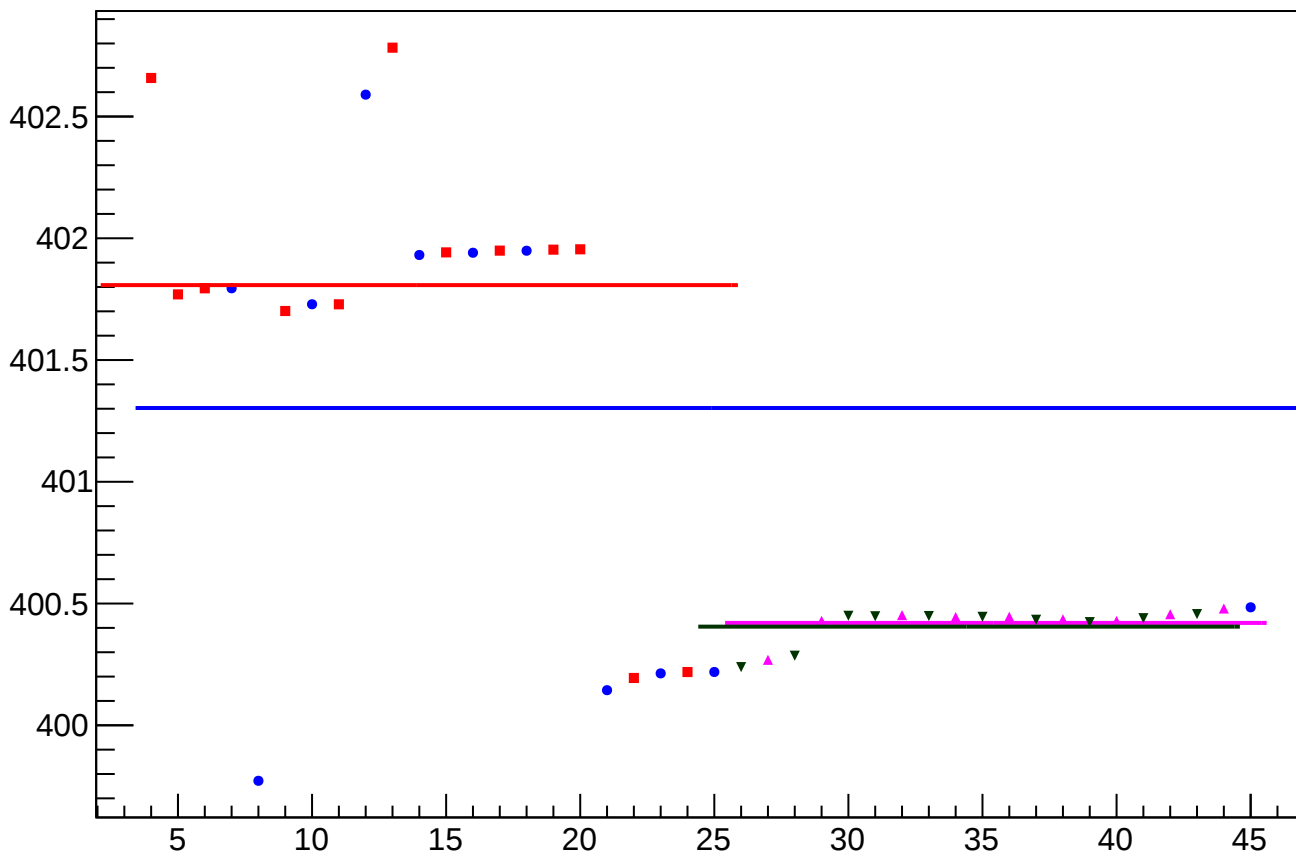
Right Out: 0.153+/-0.000  $\chi^2/\text{NDF}$ : 810658.6/11

Left In: 0.185+/-0.000  $\chi^2/\text{NDF}$ : 27905.0/8

0.173+/-0.000  $\chi^2/\text{NDF}$ : 1161813.4/20

0.166+/-0.000  $\chi^2/\text{NDF}$ : 1039842.9/20

# yield\_cav4bQ\_mean vs slug



Right In: 401.303+/-0.000  $\chi^2/\text{NDF}$ : 132640420510.7/10

Left Out: 400.405+/-0.000  $\chi^2/\text{NDF}$ : 614198257.0/9

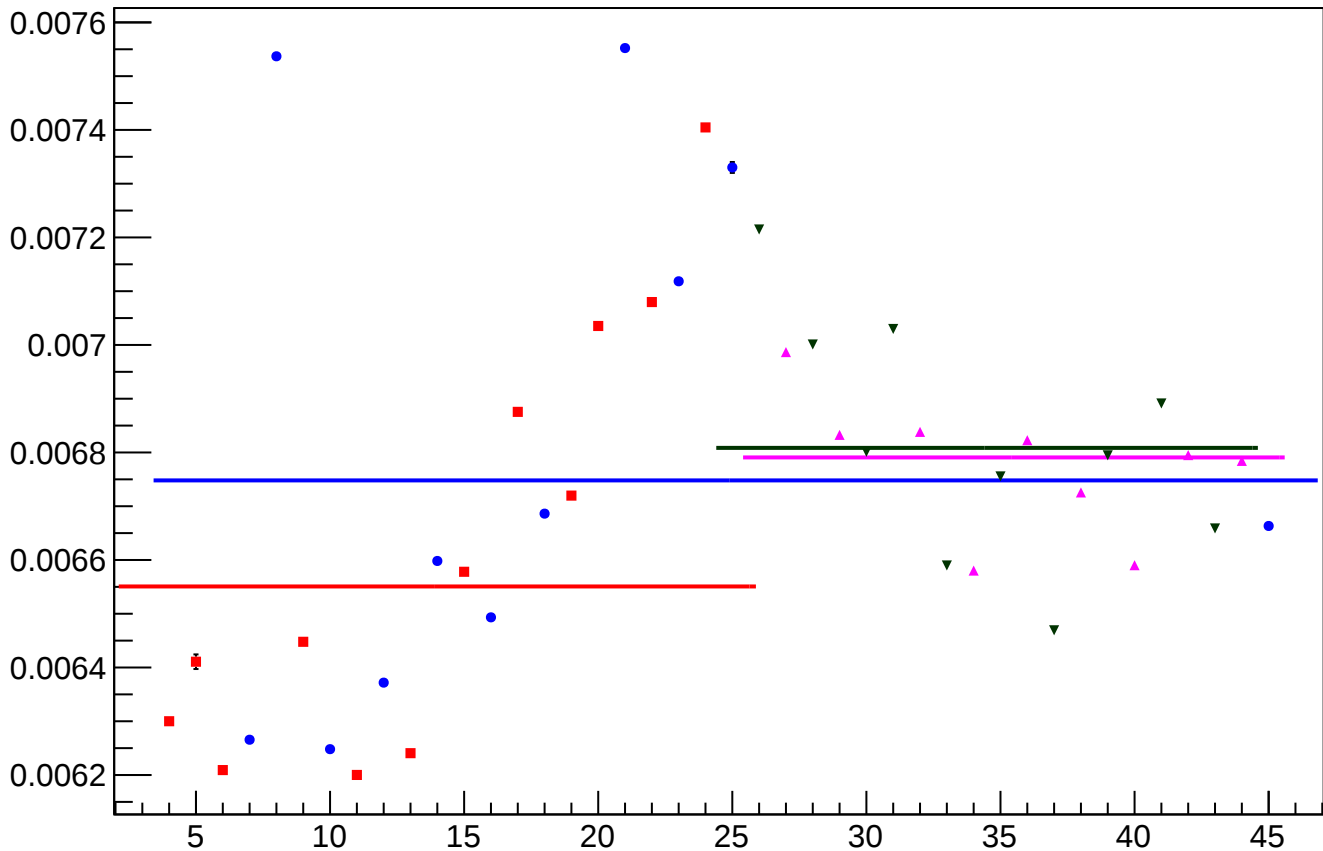
Right Out: 401.808+/-0.000  $\chi^2/\text{NDF}$ : 85007940378.6/11

Left In: 400.420+/-0.000  $\chi^2/\text{NDF}$ : 493859422.0/8

400.918+/-0.000  $\chi^2/\text{NDF}$ : 186681616684.6/20

401.181+/-0.000  $\chi^2/\text{NDF}$ : 214611072433.6/20

# yield\_cav4bQ\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 63201.8/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 9783.1/9

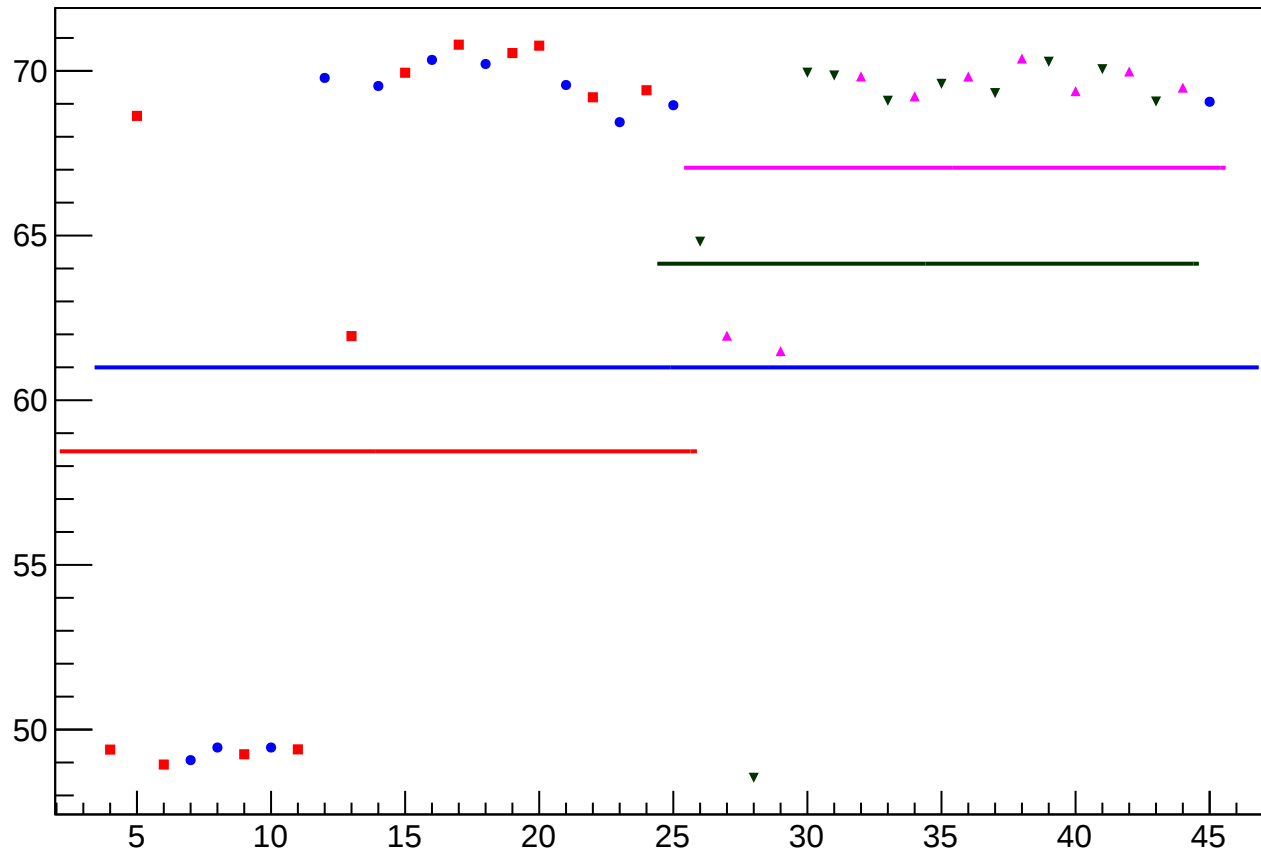
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 42109.3/11

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3544.3/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 73470.1/20

0.007+/-0.000  $\chi^2/\text{NDF}$ : 53382.8/20

# yield\_cav4cQ\_mean vs slug



Right In: 60.998+/-0.000  $\chi^2/\text{NDF}$ : 14541220941.1/10

Left Out: 64.145+/-0.000  $\chi^2/\text{NDF}$ : 8533420736.0/9

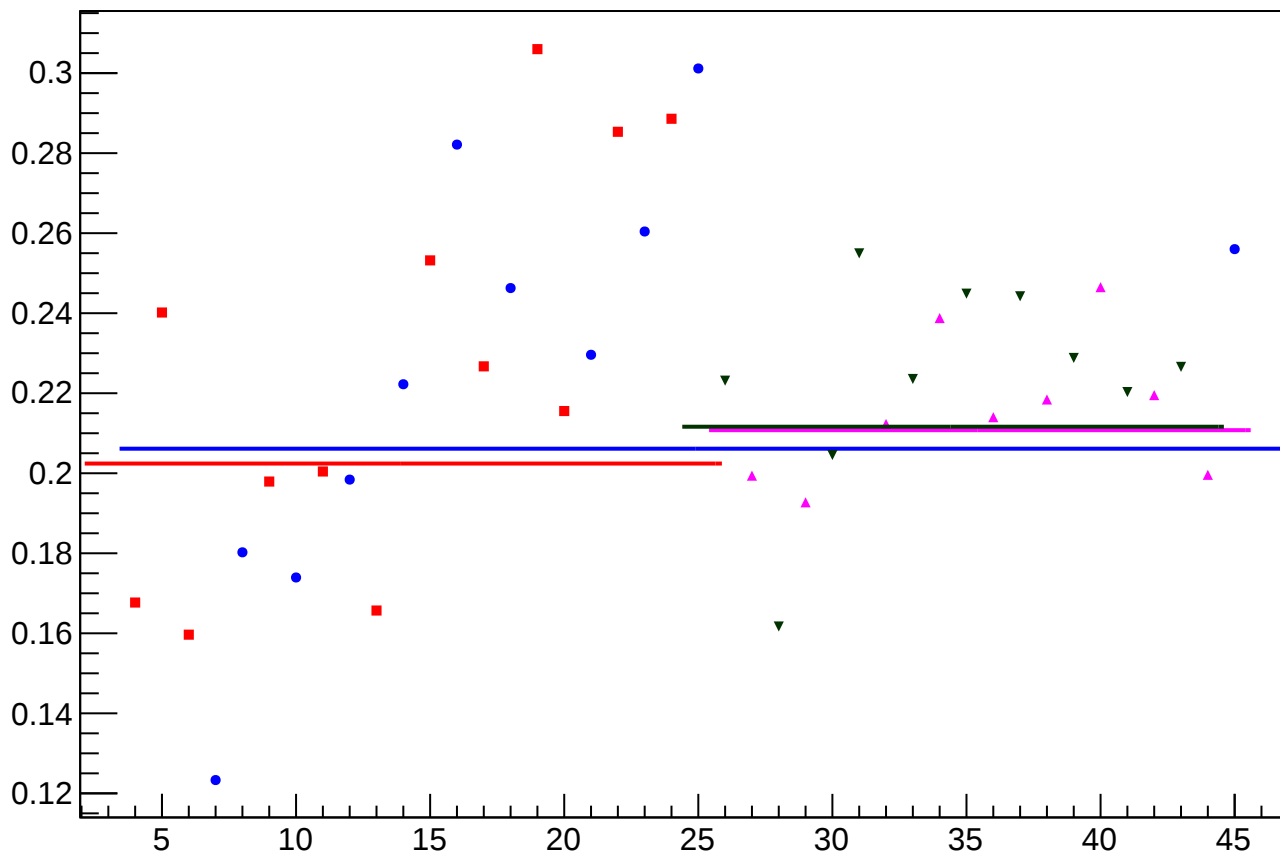
Right Out: 58.449+/-0.000  $\chi^2/\text{NDF}$ : 11367122273.9/11

Left In: 67.060+/-0.000  $\chi^2/\text{NDF}$ : 1652898078.7/8

62.329+/-0.000  $\chi^2/\text{NDF}$ : 23683944390.8/20

62.483+/-0.000  $\chi^2/\text{NDF}$ : 17514413635.6/20

# yield\_cav4cQ\_rms vs slug



Right In: 0.206 $\pm$ 0.000  $\chi^2$ /NDF: 555270.2/10

Left Out: 0.212 $\pm$ 0.000  $\chi^2$ /NDF: 201414.9/9

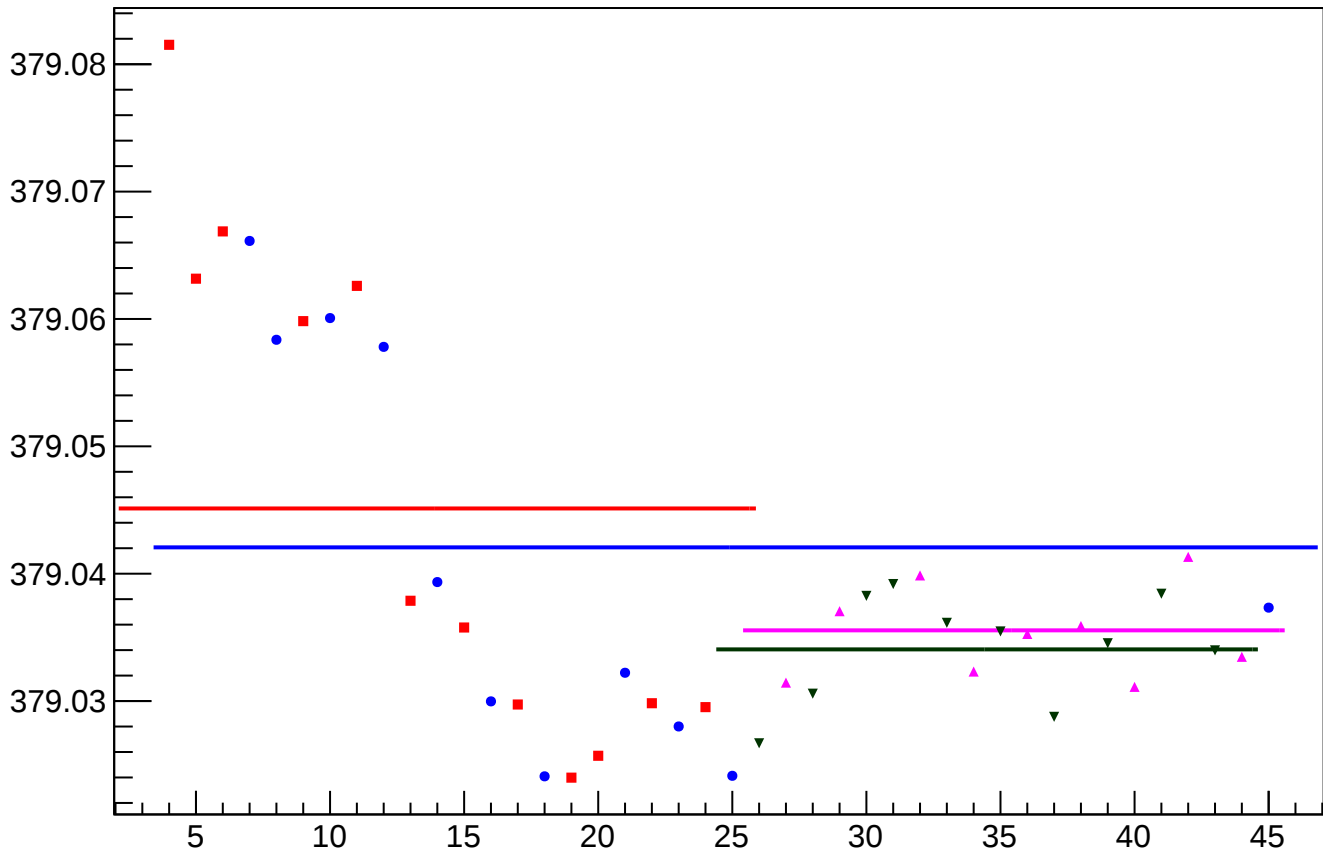
Right Out: 0.202 $\pm$ 0.000  $\chi^2$ /NDF: 477643.7/11

Left In: 0.211 $\pm$ 0.000  $\chi^2$ /NDF: 54593.1/8

0.208 $\pm$ 0.000  $\chi^2$ /NDF: 760392.5/20

0.206 $\pm$ 0.000  $\chi^2$ /NDF: 540674.0/20

# yield\_cav4dQ\_mean vs slug



Right In: 379.042 $\pm$ 0.000  $\chi^2$ /NDF: 28748833.7/10

Left Out: 379.034 $\pm$ 0.000  $\chi^2$ /NDF:1785889.4/9

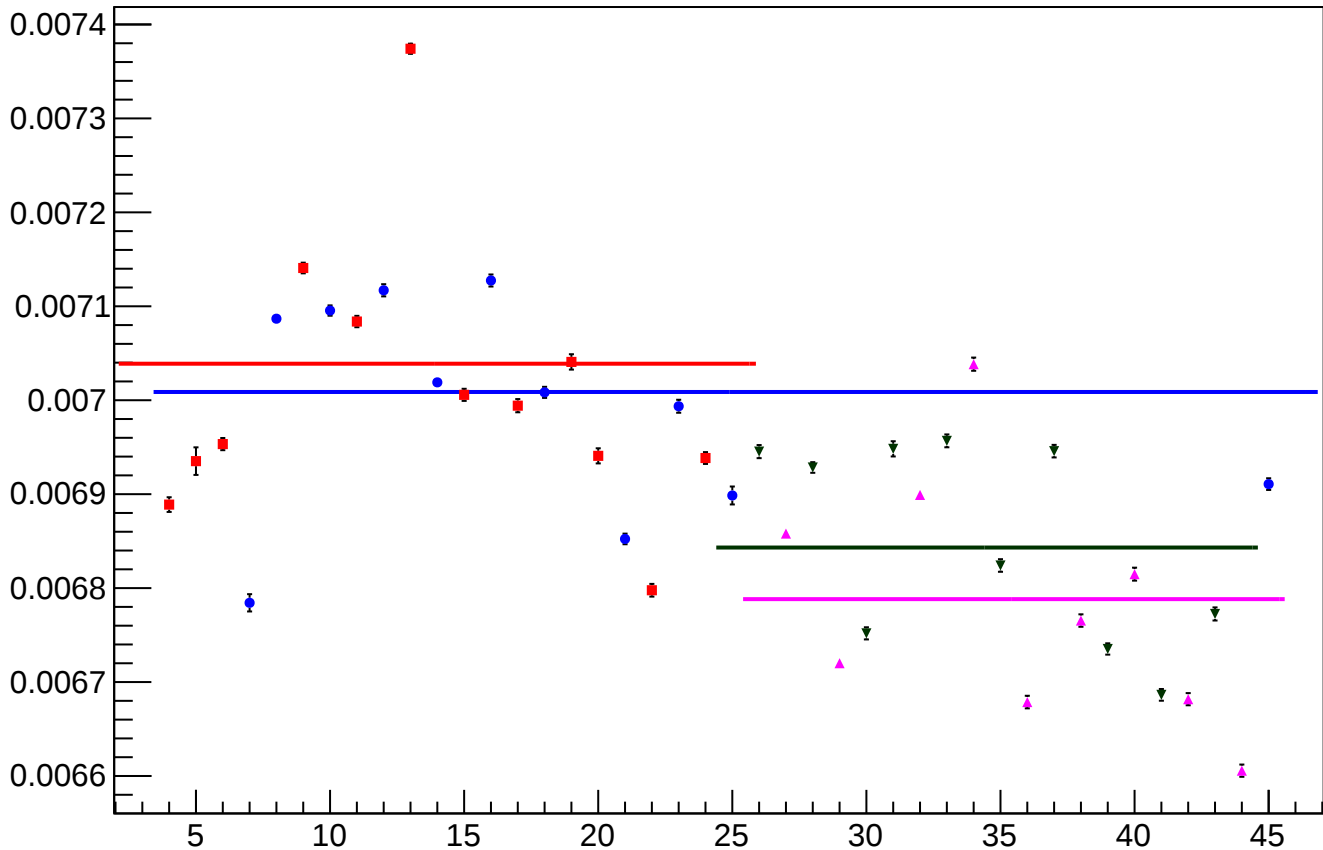
379.039 $\pm$ 0.000  $\chi^2$ /NDF: 34648090.5/20

Right Out: 379.045 $\pm$ 0.000  $\chi^2$ /NDF: 40922945.0/11

379.040 $\pm$ 0.000  $\chi^2$ /NDF: 48149907.4/20

Left In: 379.036 $\pm$ 0.000  $\chi^2$ /NDF:1460266.1/8

# yield\_cav4dQ\_rms vs slug



Right In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 2837.0/10

Left Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 2379.4/9

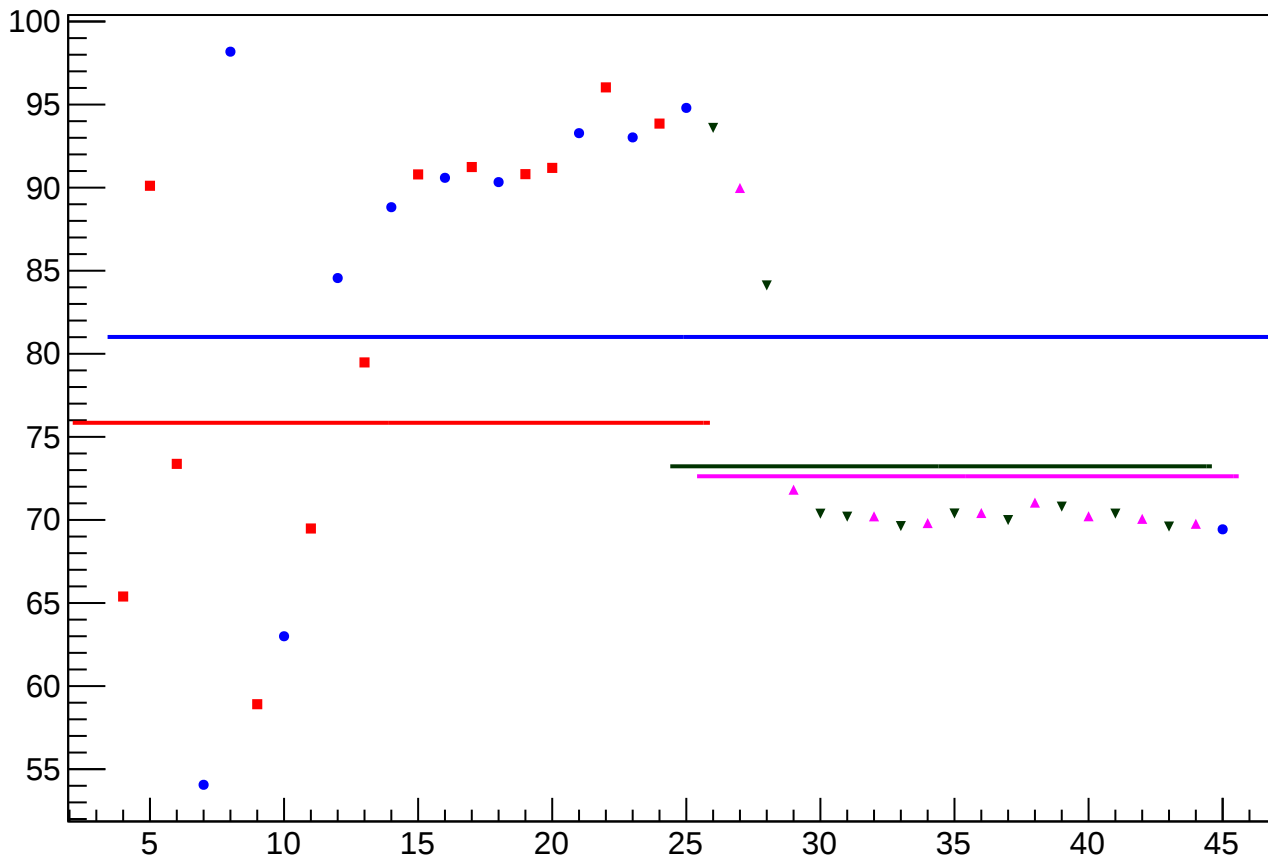
Right Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 6581.5/11

Left In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 3429.2/8

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 8732.0/20

$0.007 \pm 0.000$   $\chi^2/\text{NDF}$ : 17919.9/20

# yield\_bcm0l02\_mean vs slug



Right In: 81.013 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 16357758015.0/10

Left Out: 73.228 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3731942896.0/9

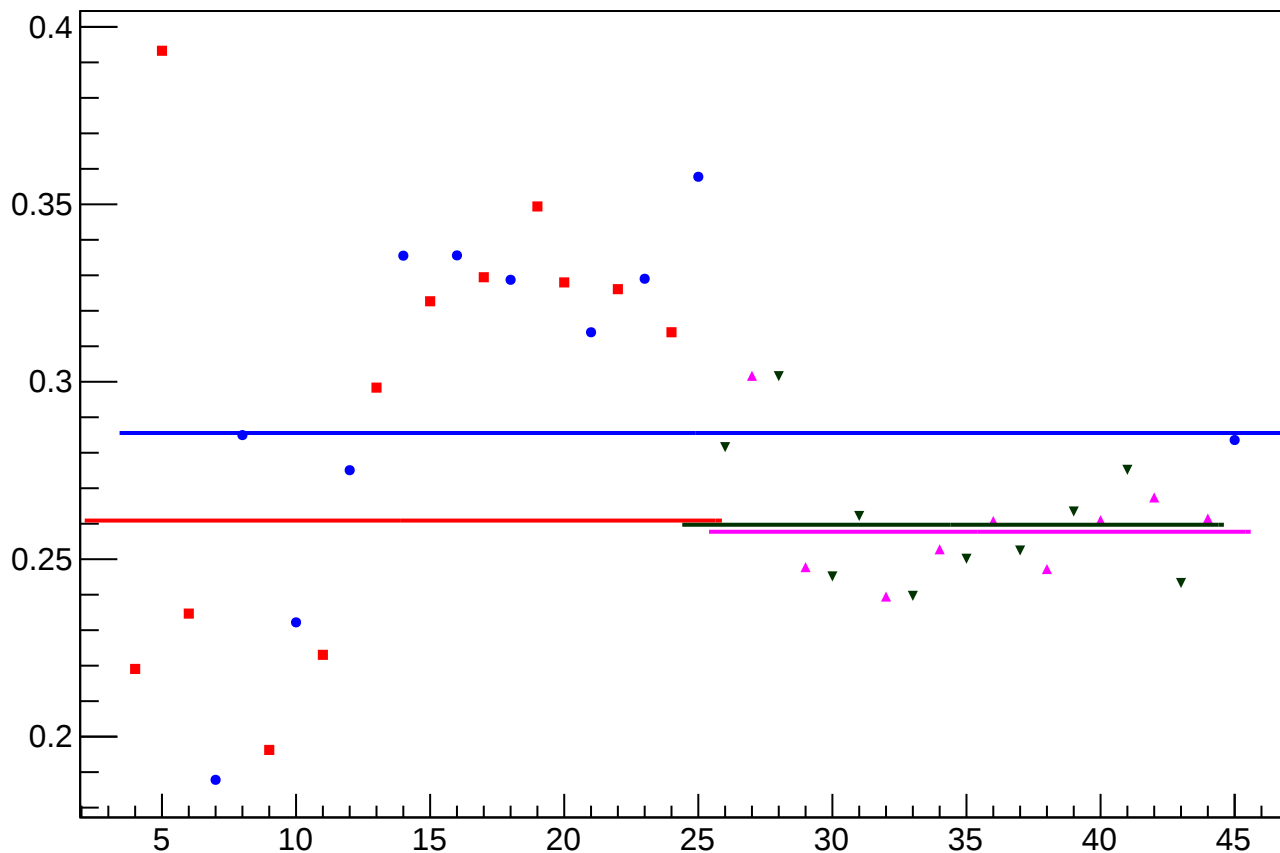
Right Out: 75.847 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 13482783083.5/11

Left In: 72.628 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2928852368.6/8

77.203 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 22353568107.1/20

74.237 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 16820864258.1/20

# yield\_bcm0l02\_rms vs slug



Right In:  $0.286 \pm 0.000$   $\chi^2/\text{NDF}$ : 344407.6/10

Left Out:  $0.260 \pm 0.000$   $\chi^2/\text{NDF}$ : 47918.7/9

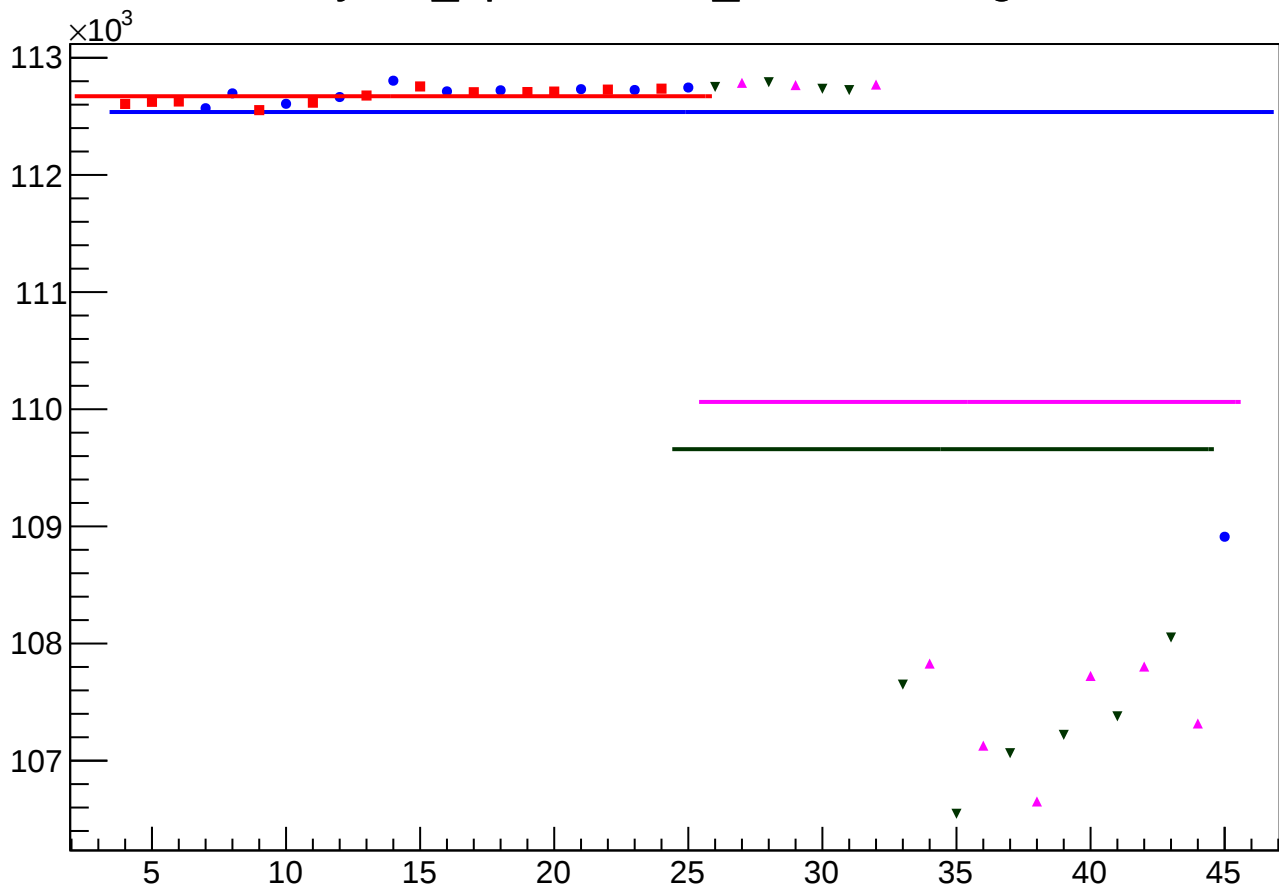
Right Out:  $0.261 \pm 0.000$   $\chi^2/\text{NDF}$ : 481520.7/11

Left In:  $0.258 \pm 0.000$   $\chi^2/\text{NDF}$ : 49167.8/8

$0.273 \pm 0.000$   $\chi^2/\text{NDF}$ : 442260.9/20

$0.259 \pm 0.000$   $\chi^2/\text{NDF}$ : 531474.4/20

# yield\_bpm2i01WS\_mean vs slug



Right In: 112537.174 $\pm$ 0.042  $\chi^2/\text{NDF}$ : 347304291.3/10

Left Out: 109659.144 $\pm$ 0.053  $\chi^2/\text{NDF}$ : 2686861752.7/9

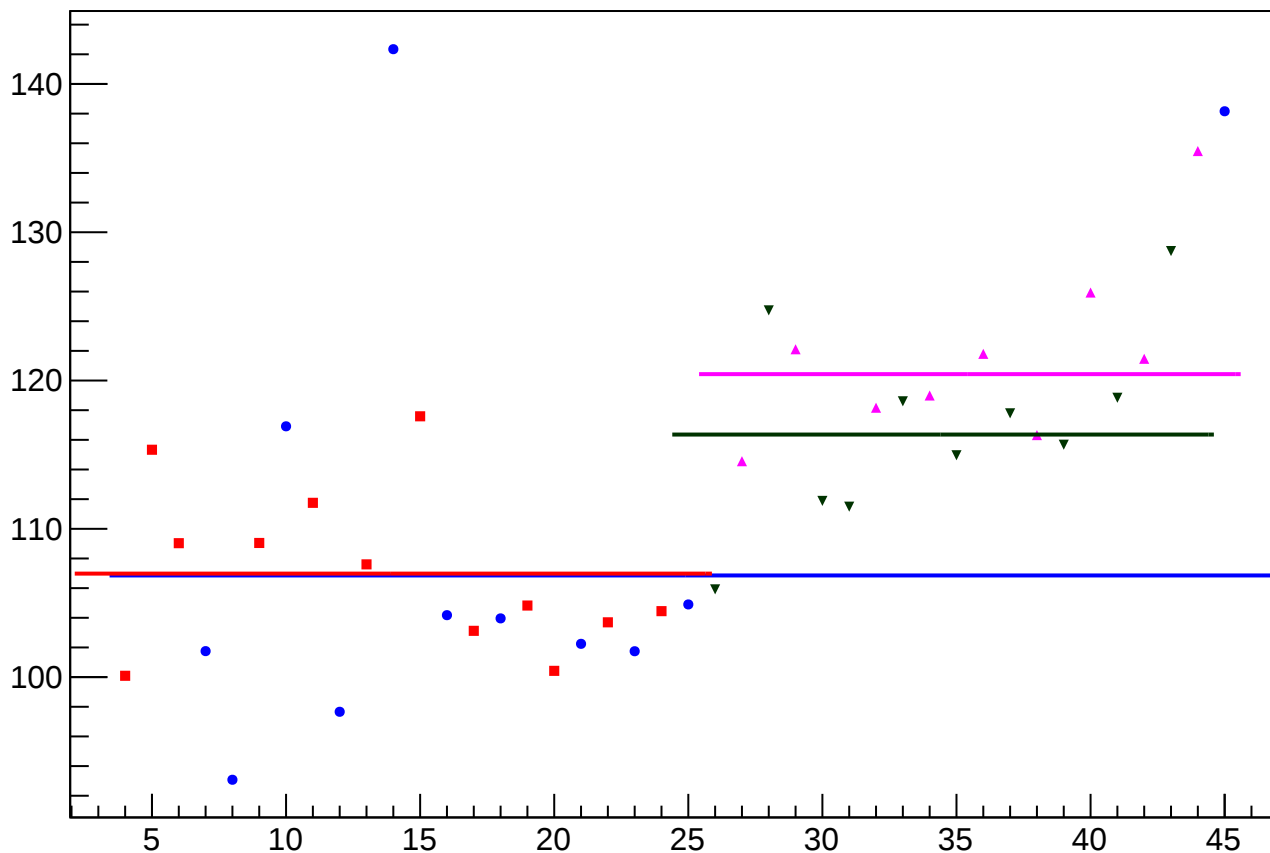
Right Out: 112671.936 $\pm$ 0.043  $\chi^2/\text{NDF}$ : 2021453.7/11

Left In: 110062.356 $\pm$ 0.053  $\chi^2/\text{NDF}$ : 2589754971.8/8

111437.586 $\pm$ 0.033  $\chi^2/\text{NDF}$ : 4868394544.3/20

111629.864 $\pm$ 0.034  $\chi^2/\text{NDF}$ : 4033450167.7/20

# yield\_bpm2i01WS\_rms vs slug



Right In: 106.856+/-0.029  $\chi^2/\text{NDF}$ : 239862.6/10

Left Out: 116.357+/-0.037  $\chi^2/\text{NDF}$ :26817.0/9

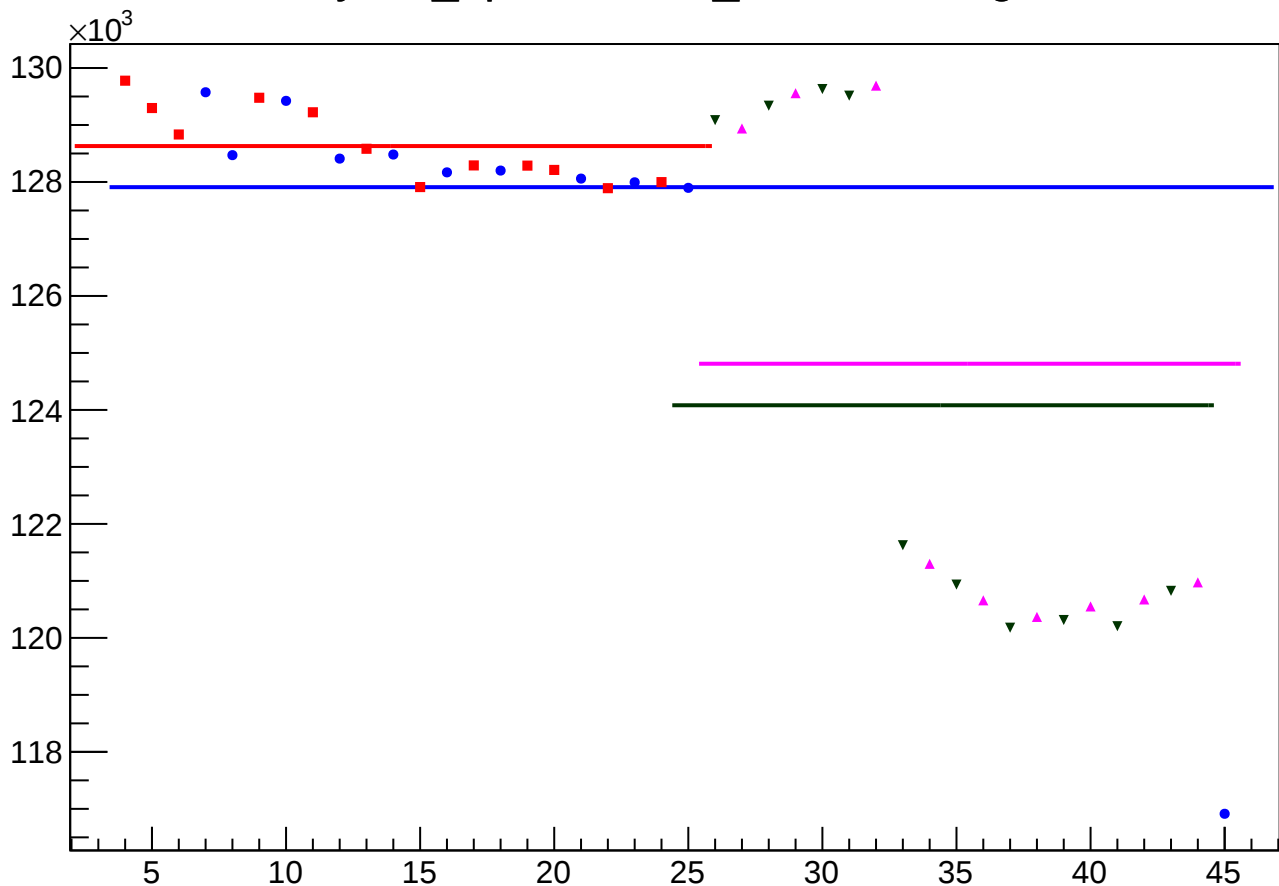
Right Out: 106.980+/-0.031  $\chi^2/\text{NDF}$ : 22698.2/11

Left In: 120.432+/-0.038  $\chi^2/\text{NDF}$ :18918.6/8

110.486+/-0.023  $\chi^2/\text{NDF}$ : 306662.4/20

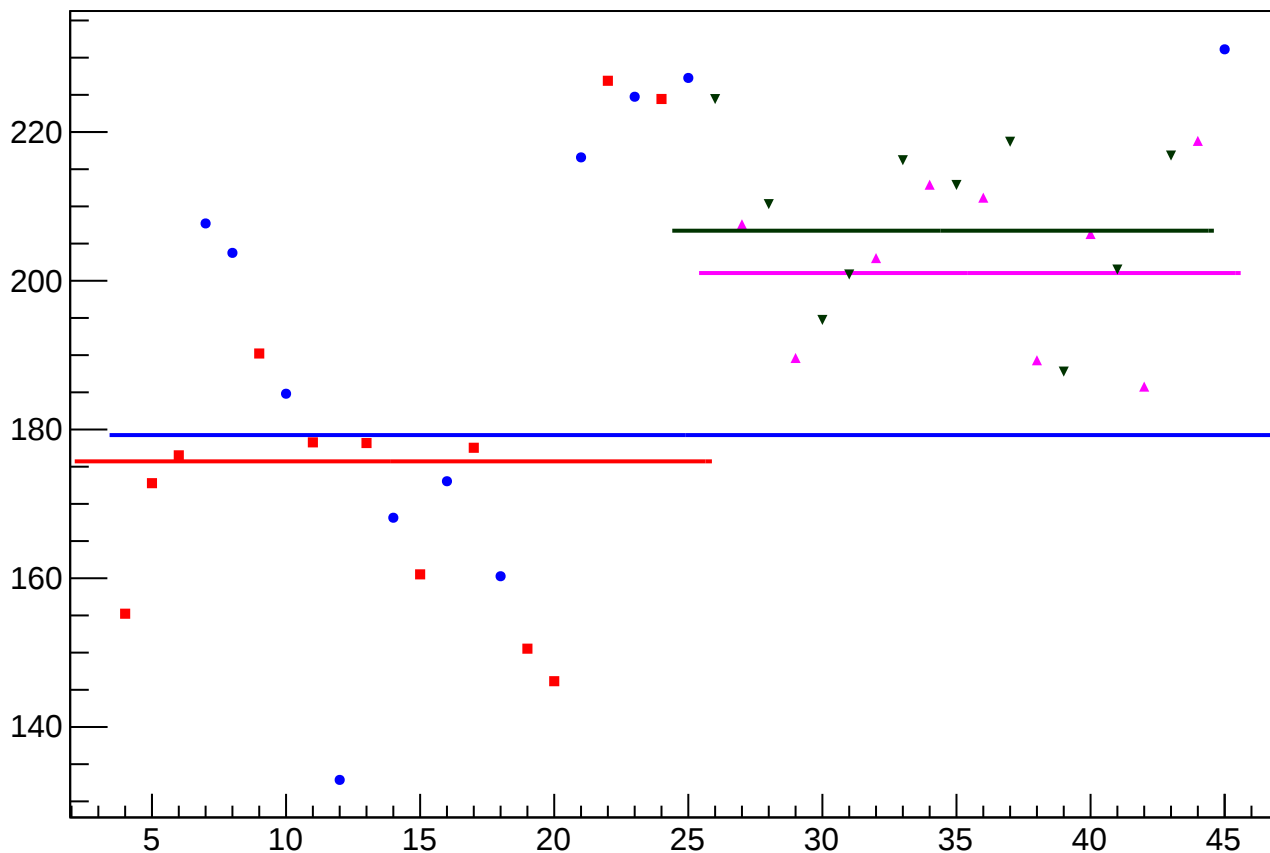
112.351+/-0.024  $\chi^2/\text{NDF}$ : 118232.8/20

# yield\_bpm0i07WS\_mean vs slug



|                                   |                                |                        |                                |
|-----------------------------------|--------------------------------|------------------------|--------------------------------|
| Right In: 127909.177 $\pm$ 0.069  | $\chi^2$ /NDF: 1334673950.7/10 |                        |                                |
| Left Out: 124081.986 $\pm$ 0.090  | $\chi^2$ /NDF: 2292578151.5/9  | 126490.548 $\pm$ 0.055 | $\chi^2$ /NDF: 4763862213.8/20 |
| Right Out: 128630.323 $\pm$ 0.071 | $\chi^2$ /NDF: 69976766.8/11   |                        |                                |
| Left In: 124810.637 $\pm$ 0.085   | $\chi^2$ /NDF: 2608172131.0/8  | 127060.460 $\pm$ 0.055 | $\chi^2$ /NDF: 3865360819.9/20 |

# yield\_bpm0i07WS\_rms vs slug



Right In: 179.252+/-0.049  $\chi^2/\text{NDF}$ : 374197.4/10

Left Out: 206.733+/-0.064  $\chi^2/\text{NDF}$ : 32612.0/9

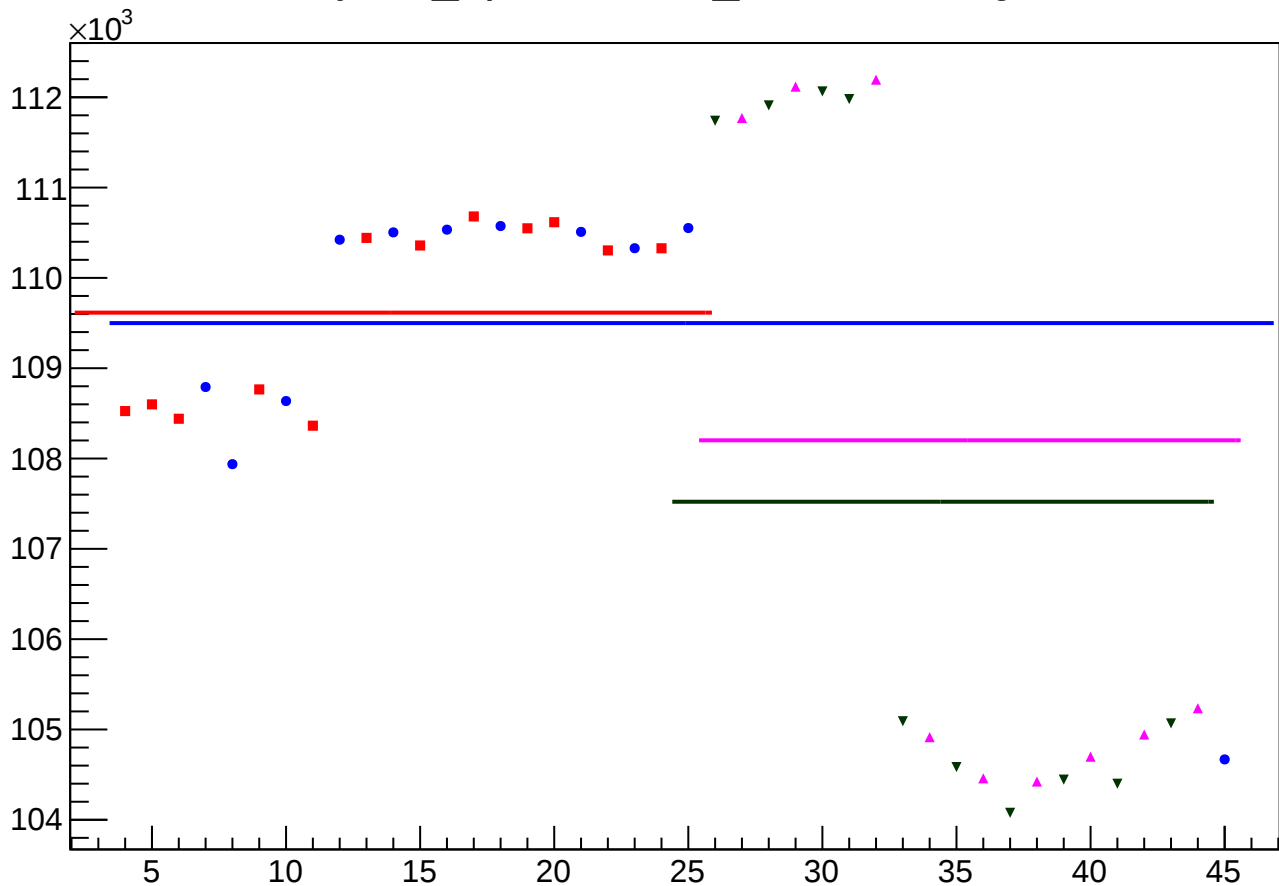
Right Out: 175.718+/-0.050  $\chi^2/\text{NDF}$ : 188443.6/11

Left In: 201.040+/-0.060  $\chi^2/\text{NDF}$ : 31613.0/8

189.438+/-0.039  $\chi^2/\text{NDF}$ : 524017.4/20

186.125+/-0.039  $\chi^2/\text{NDF}$ : 324402.7/20

# yield\_bpm0l01WS\_mean vs slug



Right In: 109499.528 $\pm$ 0.045  $\chi^2$ /NDF: 1109008309.1/10

Left Out: 107521.561 $\pm$ 0.049  $\chi^2$ /NDF: 5321162353.6/9

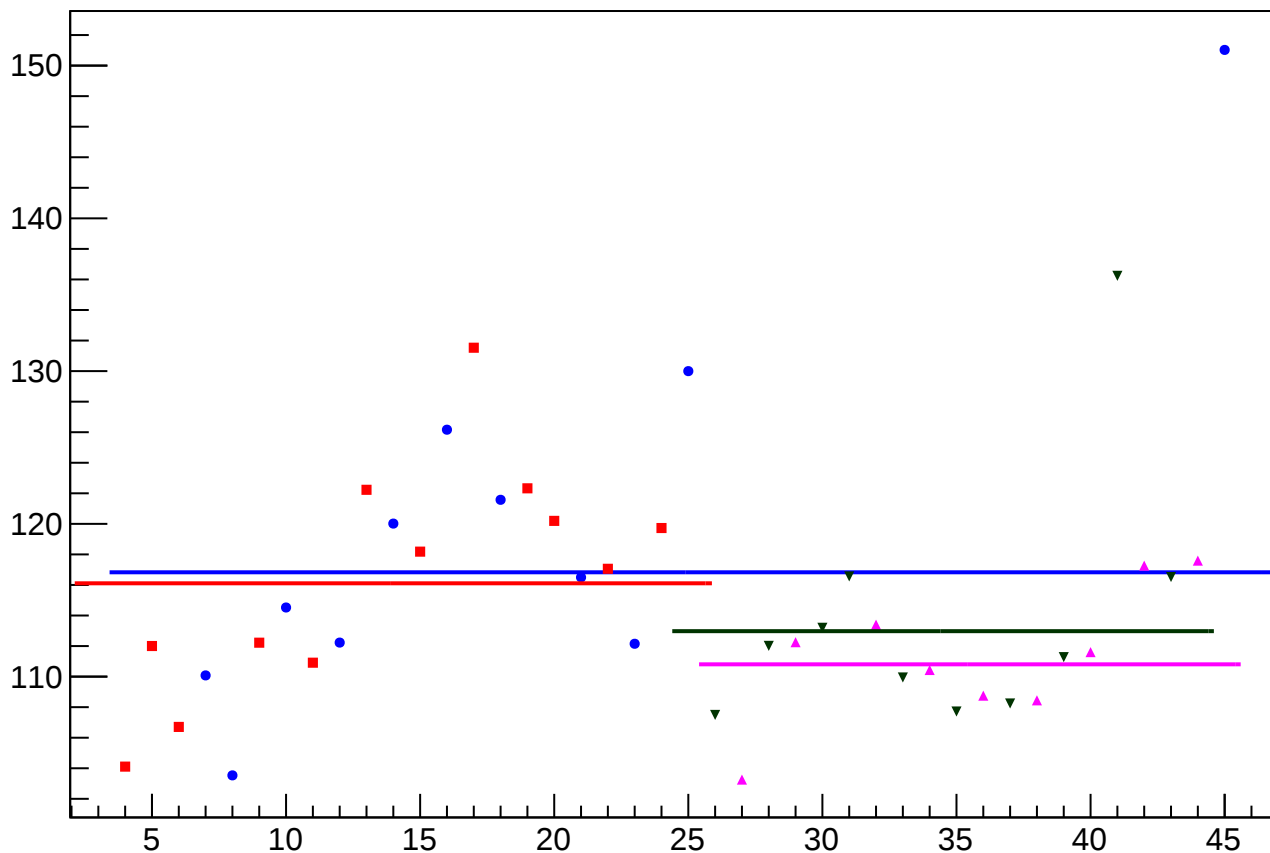
Right Out: 109615.412 $\pm$ 0.047  $\chi^2$ /NDF: 419274077.4/11

Left In: 108201.722 $\pm$ 0.047  $\chi^2$ /NDF: 5984849706.8/8

108610.400 $\pm$ 0.033  $\chi^2$ /NDF: 7313239491.4/20

108911.126 $\pm$ 0.033  $\chi^2$ /NDF: 6859871073.0/20

# yield\_bpm0l01WS\_rms vs slug



Right In: 116.829+/-0.032  $\chi^2/\text{NDF}$ : 105426.1/10

Left Out: 112.975+/-0.035  $\chi^2/\text{NDF}$ : 42849.8/9

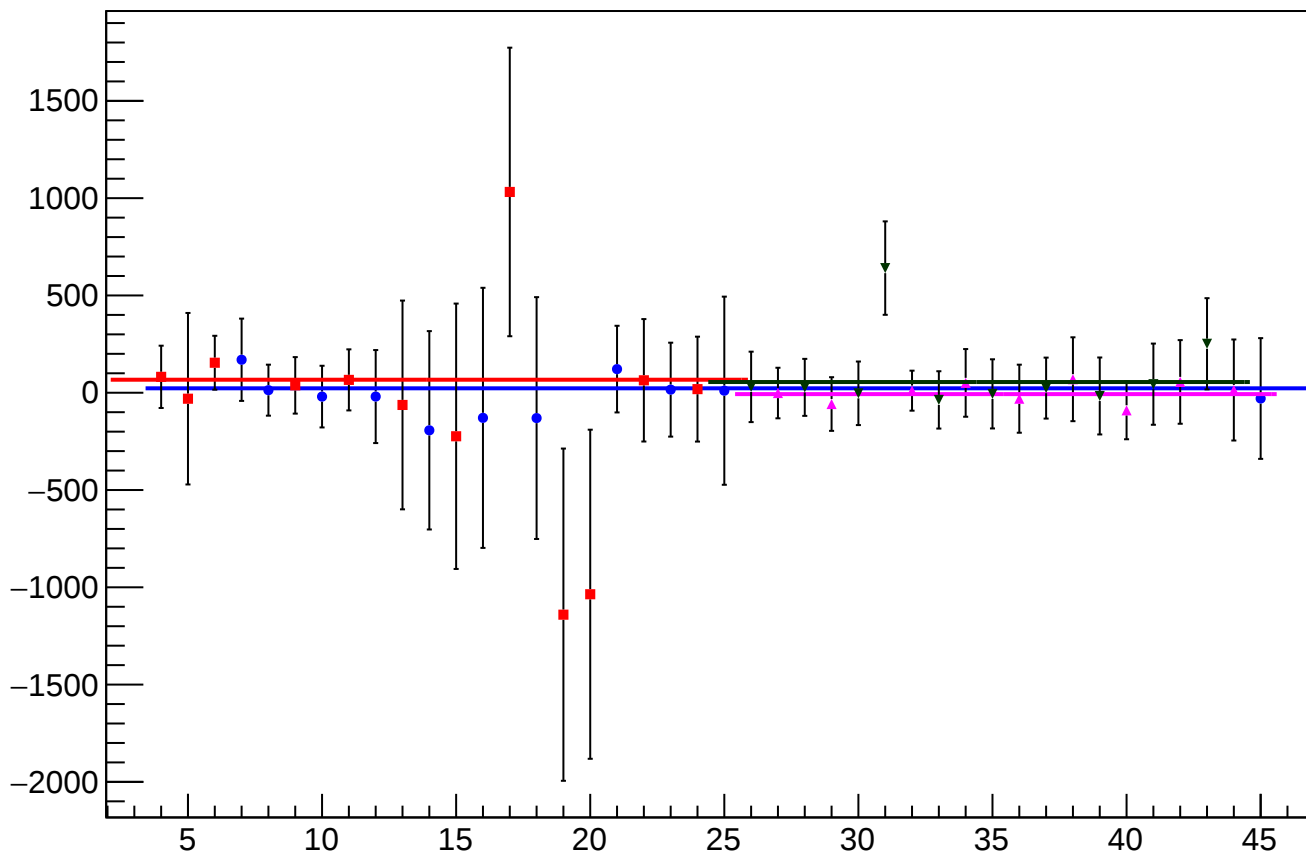
Right Out: 116.109+/-0.033  $\chi^2/\text{NDF}$ : 44081.8/11

Left In: 110.804+/-0.033  $\chi^2/\text{NDF}$ : 17542.1/8

115.097+/-0.023  $\chi^2/\text{NDF}$ : 154980.8/20

113.466+/-0.023  $\chi^2/\text{NDF}$ : 74457.3/20

# asym\_bcm\_an\_ds\_mean vs slug



Right In: 22.732+/-70.967  $\chi^2/\text{NDF}$ : 1.1/10

Left Out: 55.055+/-56.152  $\chi^2/\text{NDF}$ : 7.5/9

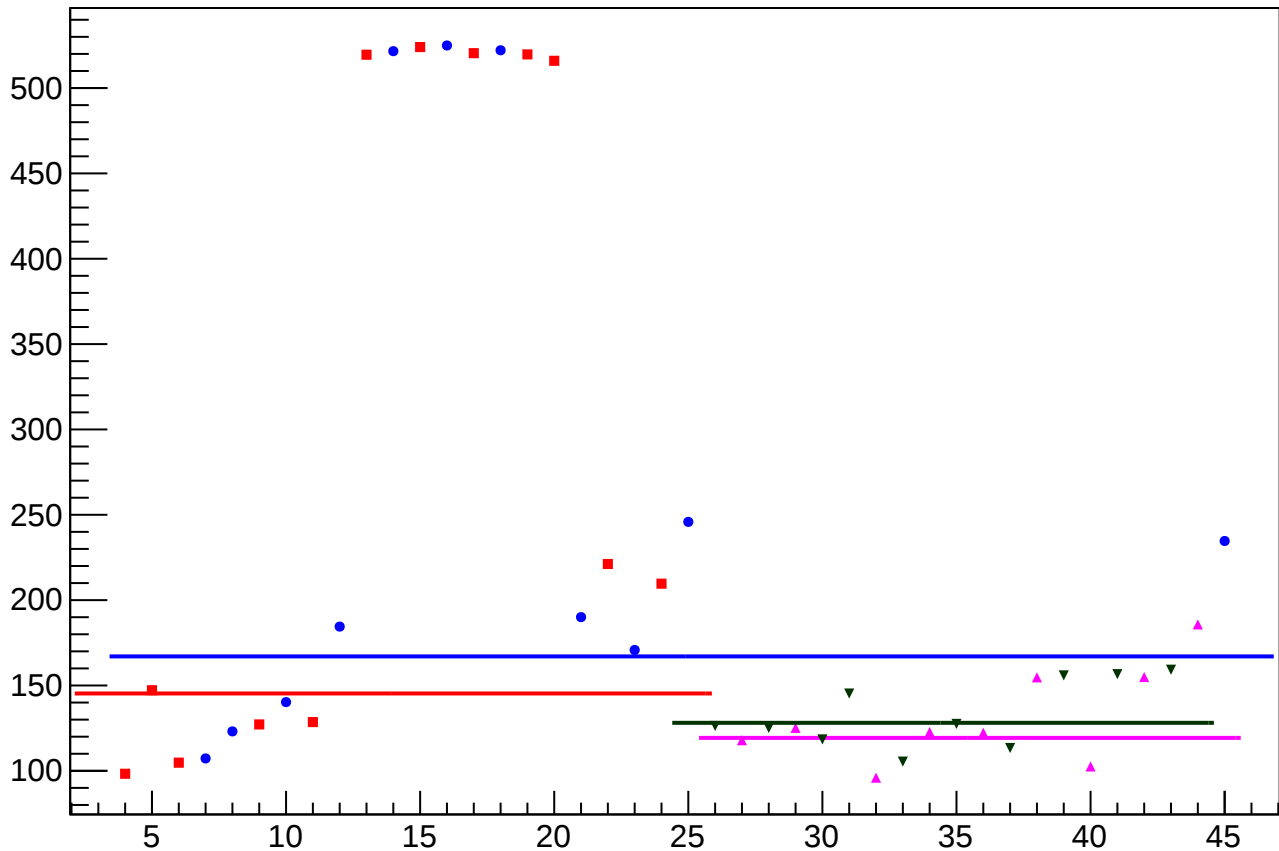
Right Out: 66.920+/-67.669  $\chi^2/\text{NDF}$ : 6.2/11

Left In: -7.075+/-51.612  $\chi^2/\text{NDF}$ : 0.8/8

42.610+/-44.035  $\chi^2/\text{NDF}$ : 8.7/20

20.139+/-41.038  $\chi^2/\text{NDF}$ : 7.7/20

# asym\_bcm\_an\_ds\_rms vs slug



Right In: 167.031+/-0.050  $\chi^2/\text{NDF}$ : 2816273.1/10

Left Out: 128.125+/-0.040  $\chi^2/\text{NDF}$ :195774.0/9

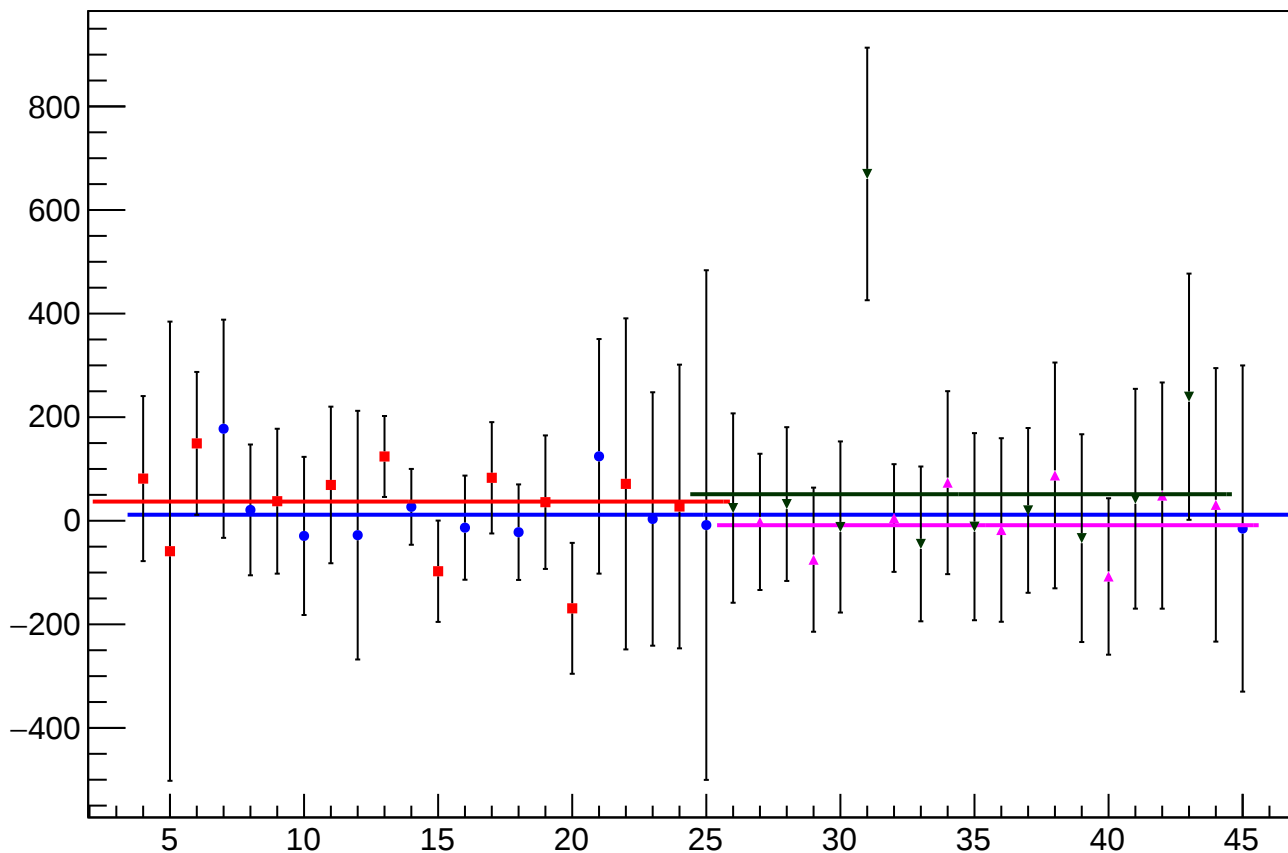
143.105+/-0.031  $\chi^2/\text{NDF}$ : 3381711.3/20

Right Out: 145.320+/-0.048  $\chi^2/\text{NDF}$ : 3498392.4/11

128.873+/-0.029  $\chi^2/\text{NDF}$ : 4059042.0/20

Left In: 119.305+/-0.036  $\chi^2/\text{NDF}$ :373767.5/8

# asym\_bcm\_an\_ds3\_mean vs slug



Right In:  $11.641 \pm 40.860$   $\chi^2/\text{NDF}$ : 1.2/10

Left Out:  $51.240 \pm 56.939$   $\chi^2/\text{NDF}$ : 8.0/9

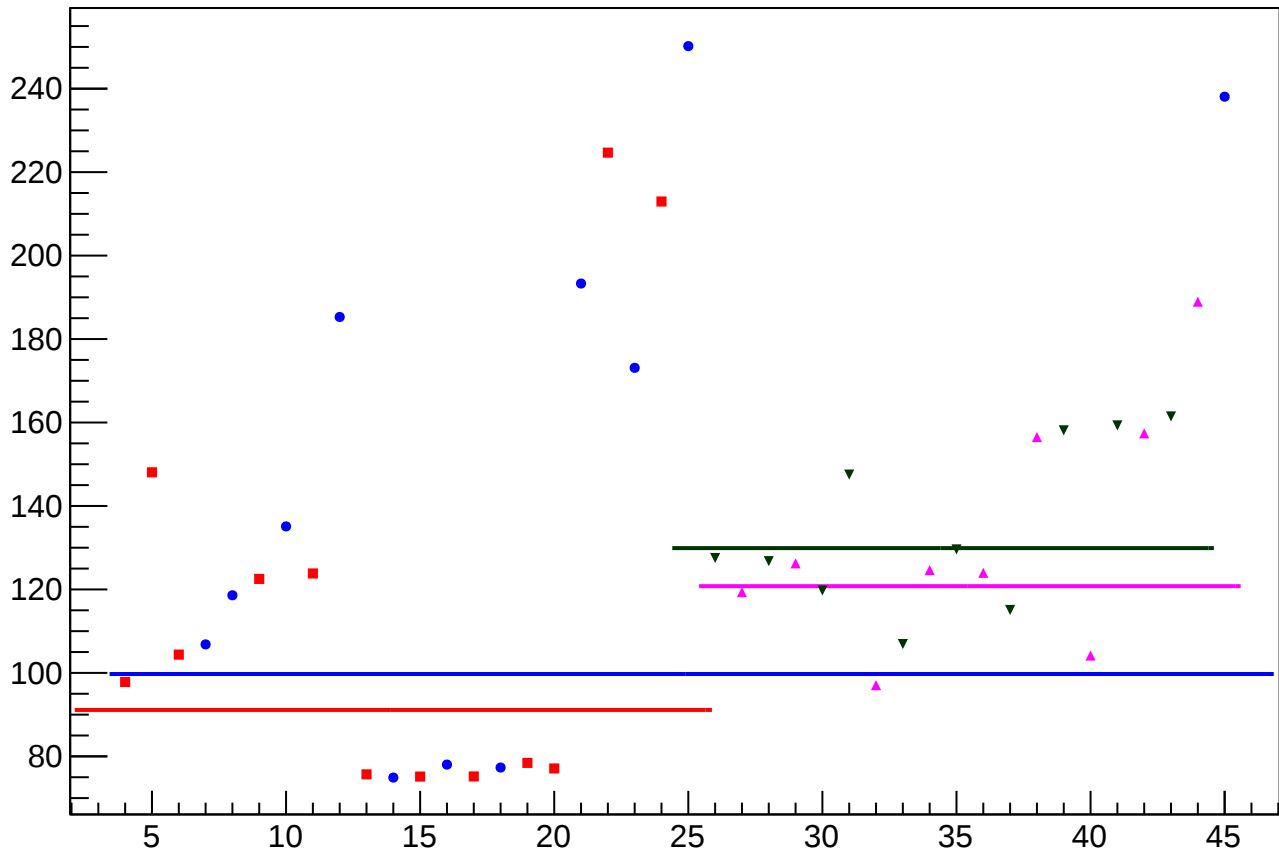
Right Out:  $37.031 \pm 38.001$   $\chi^2/\text{NDF}$ : 6.8/11

Left In:  $-8.590 \pm 52.268$   $\chi^2/\text{NDF}$ : 1.2/8

$25.102 \pm 33.197$   $\chi^2/\text{NDF}$ : 9.5/20

$21.255 \pm 30.736$   $\chi^2/\text{NDF}$ : 8.5/20

# asym\_bcm\_an\_ds3\_rms vs slug



Right In: 99.735+/-0.029  $\chi^2$ /NDF: 1943642.3/10

Left Out: 129.904+/-0.040  $\chi^2$ /NDF:197170.8/9

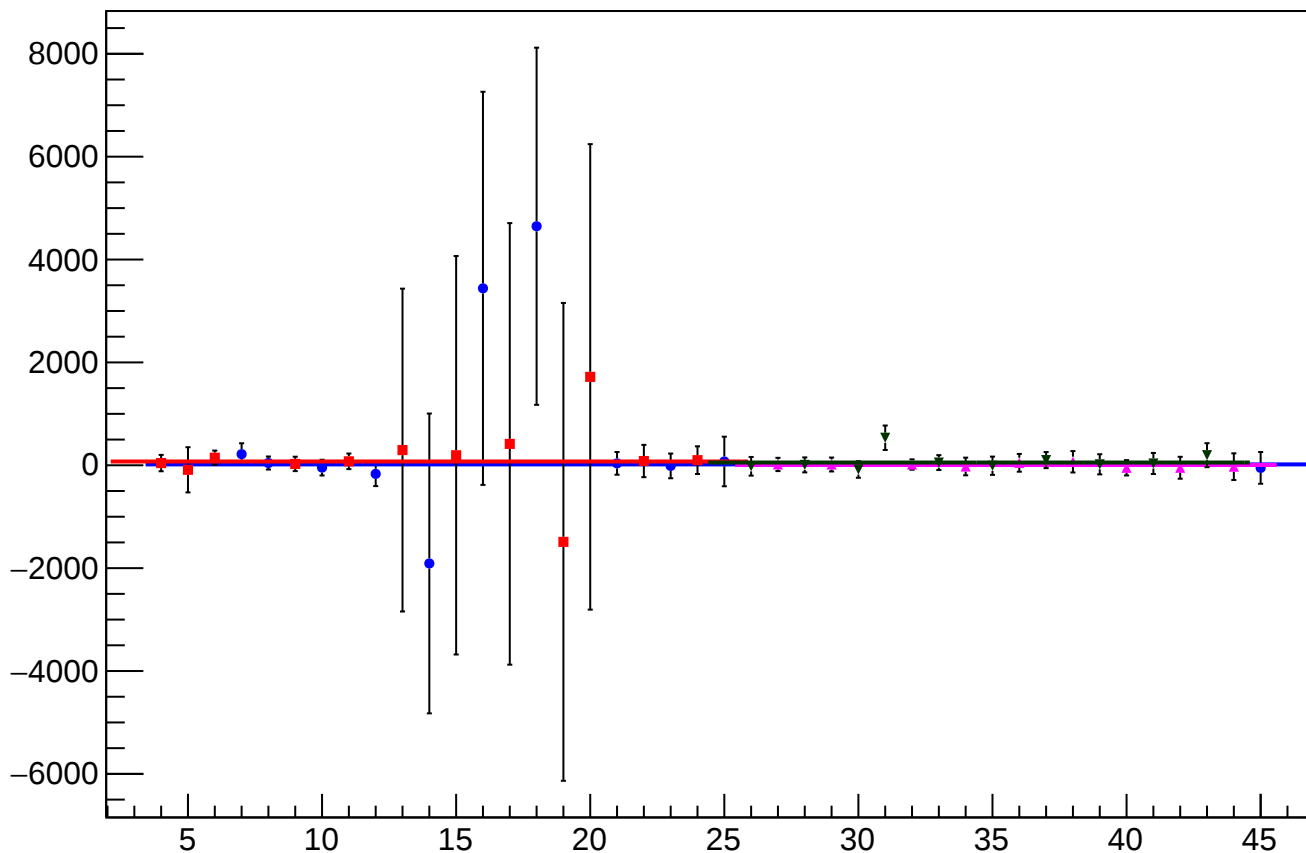
Right Out: 91.126+/-0.027  $\chi^2$ /NDF: 1213529.6/11

Left In: 120.786+/-0.037  $\chi^2$ /NDF:376487.8/8

109.990+/-0.023  $\chi^2$ /NDF: 2511427.4/20

101.382+/-0.022  $\chi^2$ /NDF: 2011347.2/20

# asym\_bcm\_an\_us\_mean vs slug



Right In: 17.119+/-71.002  $\chi^2/\text{NDF}$ : 4.8/10

Left Out: 53.832+/-55.648  $\chi^2/\text{NDF}$ : 5.7/9

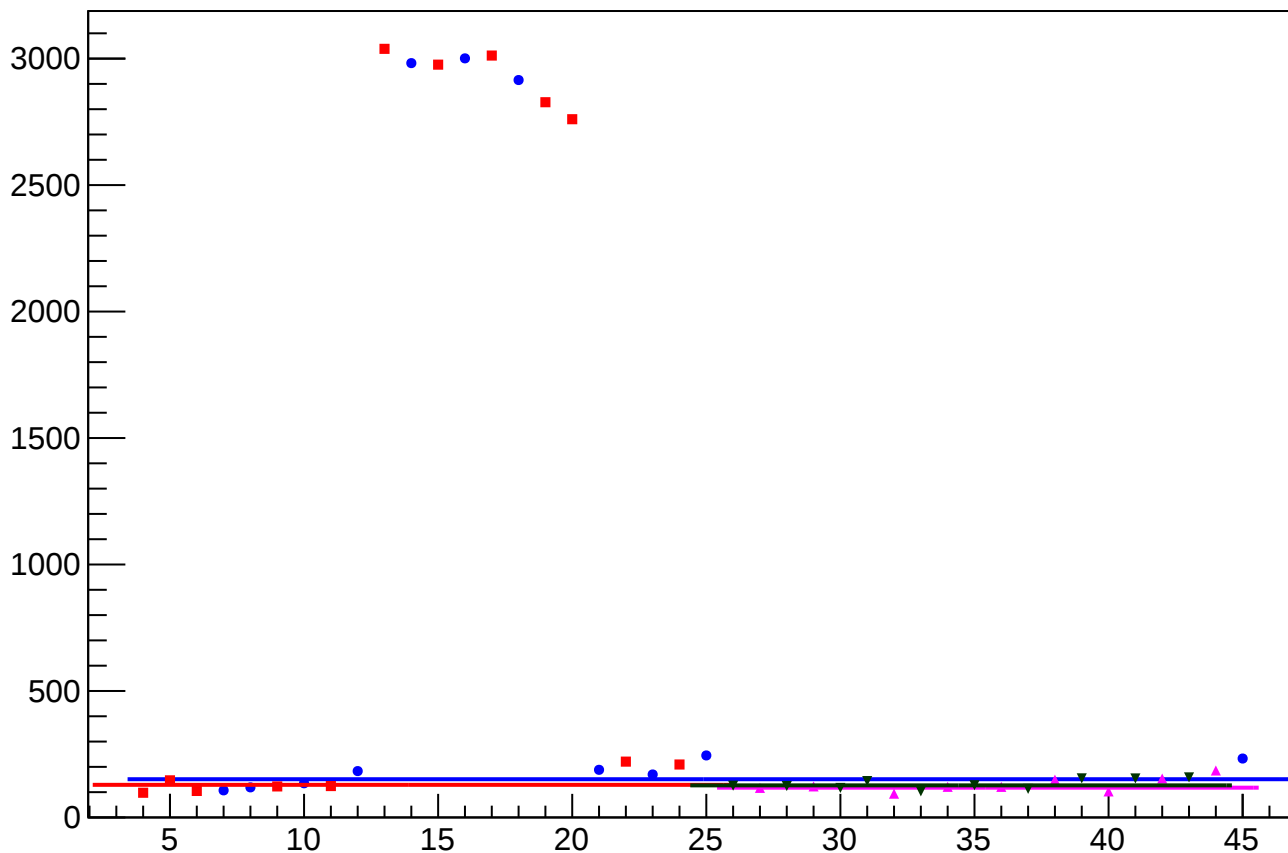
Right Out: 73.751+/-68.100  $\chi^2/\text{NDF}$ : 0.8/11

Left In: 5.189+/-50.929  $\chi^2/\text{NDF}$ : 0.4/8

39.862+/-43.799  $\chi^2/\text{NDF}$ : 10.7/20

29.781+/-40.785  $\chi^2/\text{NDF}$ : 1.9/20

# asym\_bcm\_an\_us\_rms vs slug



Right In: 151.154+/-0.050  $\chi^2/\text{NDF}$ : 4827681.6/10

Left Out: 126.861+/-0.039  $\chi^2/\text{NDF}$ : 201202.8/9

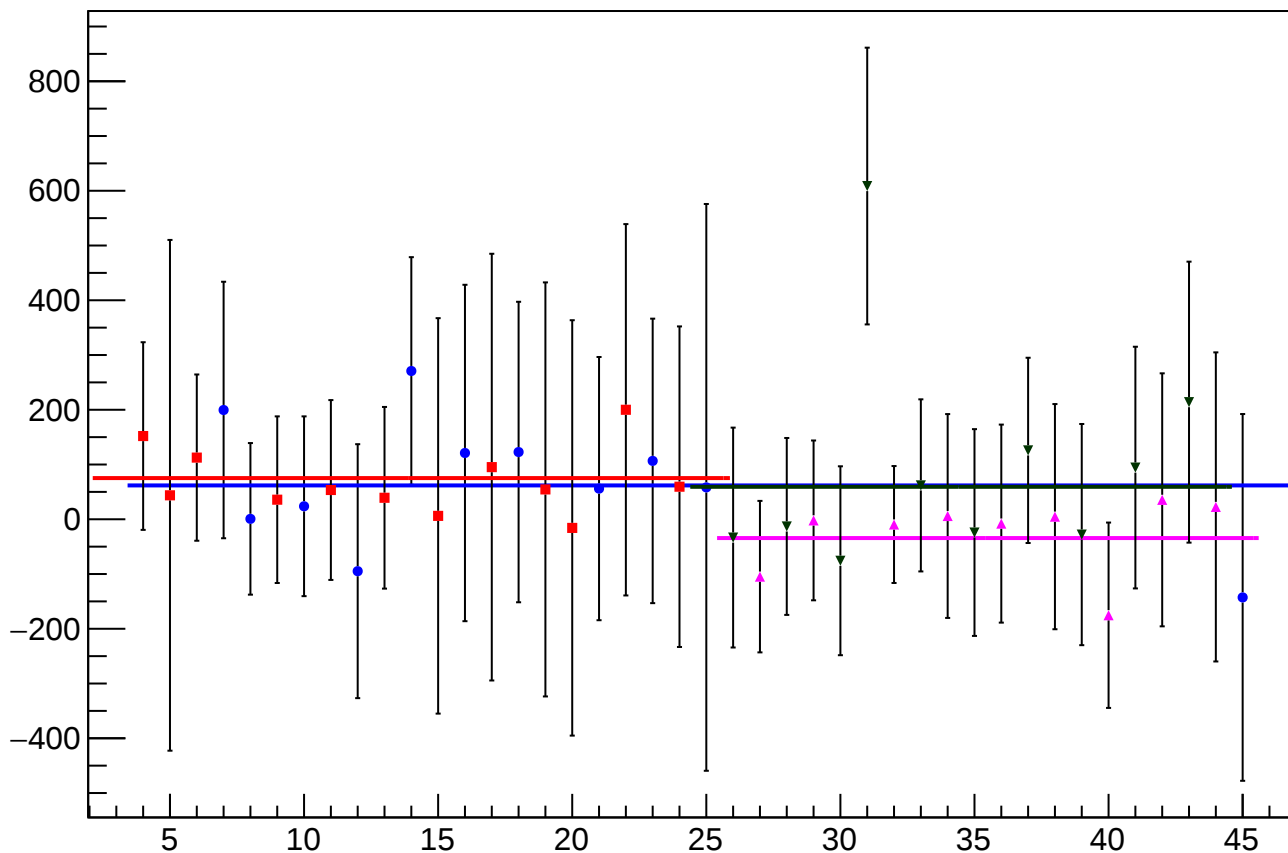
Right Out: 128.952+/-0.048  $\chi^2/\text{NDF}$ : 5549811.0/11

Left In: 117.710+/-0.036  $\chi^2/\text{NDF}$ : 374948.7/8

136.105+/-0.031  $\chi^2/\text{NDF}$ : 5173913.8/20

121.742+/-0.029  $\chi^2/\text{NDF}$ : 5959714.2/20

# asym\_bcm\_dg\_us\_mean vs slug



Right In:  $61.818 \pm 67.748$   $\chi^2/\text{NDF}: 2.6/10$

Left Out:  $59.318 \pm 60.188$   $\chi^2/\text{NDF}: 6.7/9$

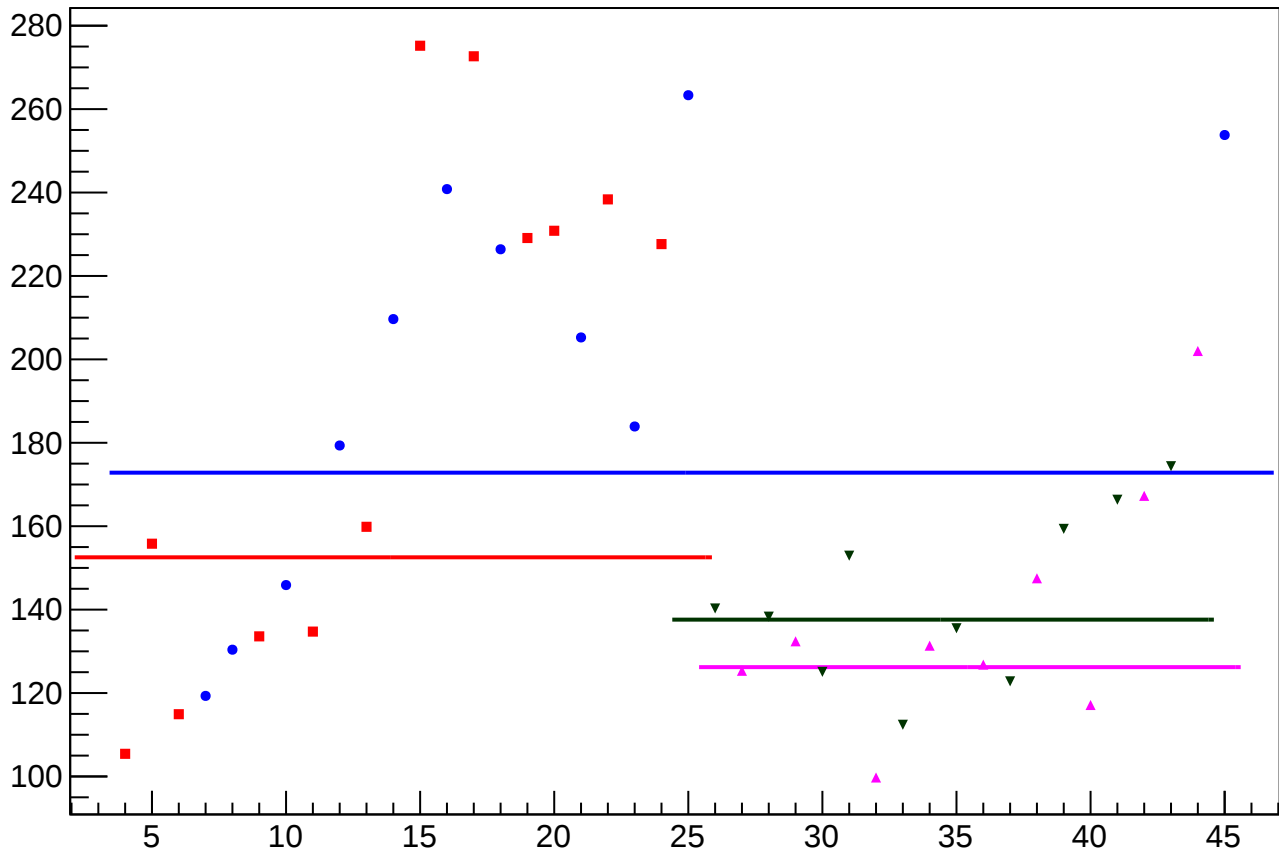
Right Out:  $75.223 \pm 63.607$   $\chi^2/\text{NDF}: 0.6/11$

Left In:  $-34.328 \pm 54.542$   $\chi^2/\text{NDF}: 1.3/8$

$60.421 \pm 44.996$   $\chi^2/\text{NDF}: 9.2/20$

$12.092 \pm 41.405$   $\chi^2/\text{NDF}: 3.6/20$

# asym\_bcm\_dg\_us\_rms vs slug



Right In: 172.836+/-0.048  $\chi^2/\text{NDF}$ : 802700.0/10

Left Out: 137.600+/-0.043  $\chi^2/\text{NDF}$ :183507.0/9

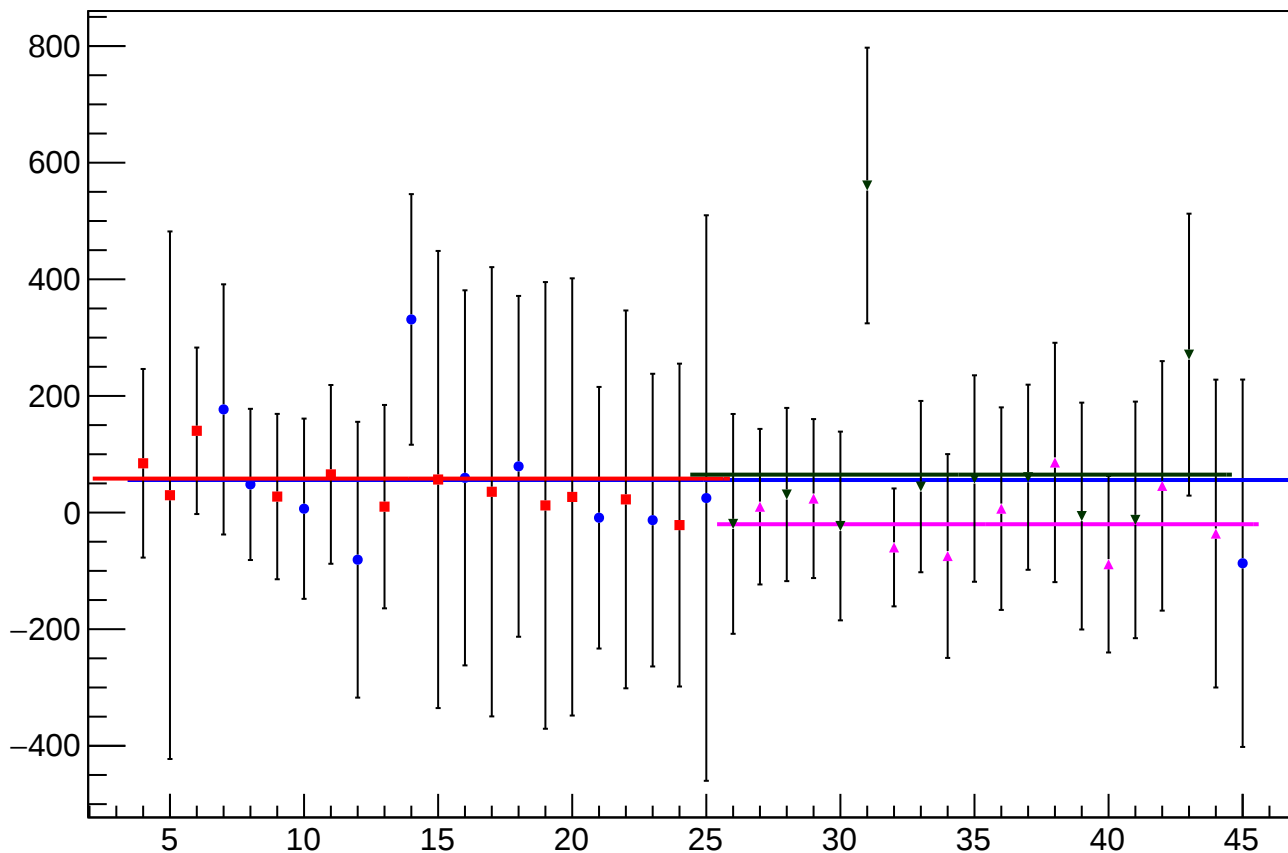
153.143+/-0.032  $\chi^2/\text{NDF}$ : 1288569.3/20

Right Out: 152.541+/-0.045  $\chi^2/\text{NDF}$ : 1180030.6/11

137.368+/-0.029  $\chi^2/\text{NDF}$ : 1740127.2/20

Left In: 126.212+/-0.039  $\chi^2/\text{NDF}$ :362614.3/8

# asym\_bcm\_dg\_ds\_mean vs slug



Right In: 55.831+/-65.361  $\chi^2/\text{NDF}$ : 2.8/10

Left Out: 65.067+/-56.313  $\chi^2/\text{NDF}$ : 6.0/9

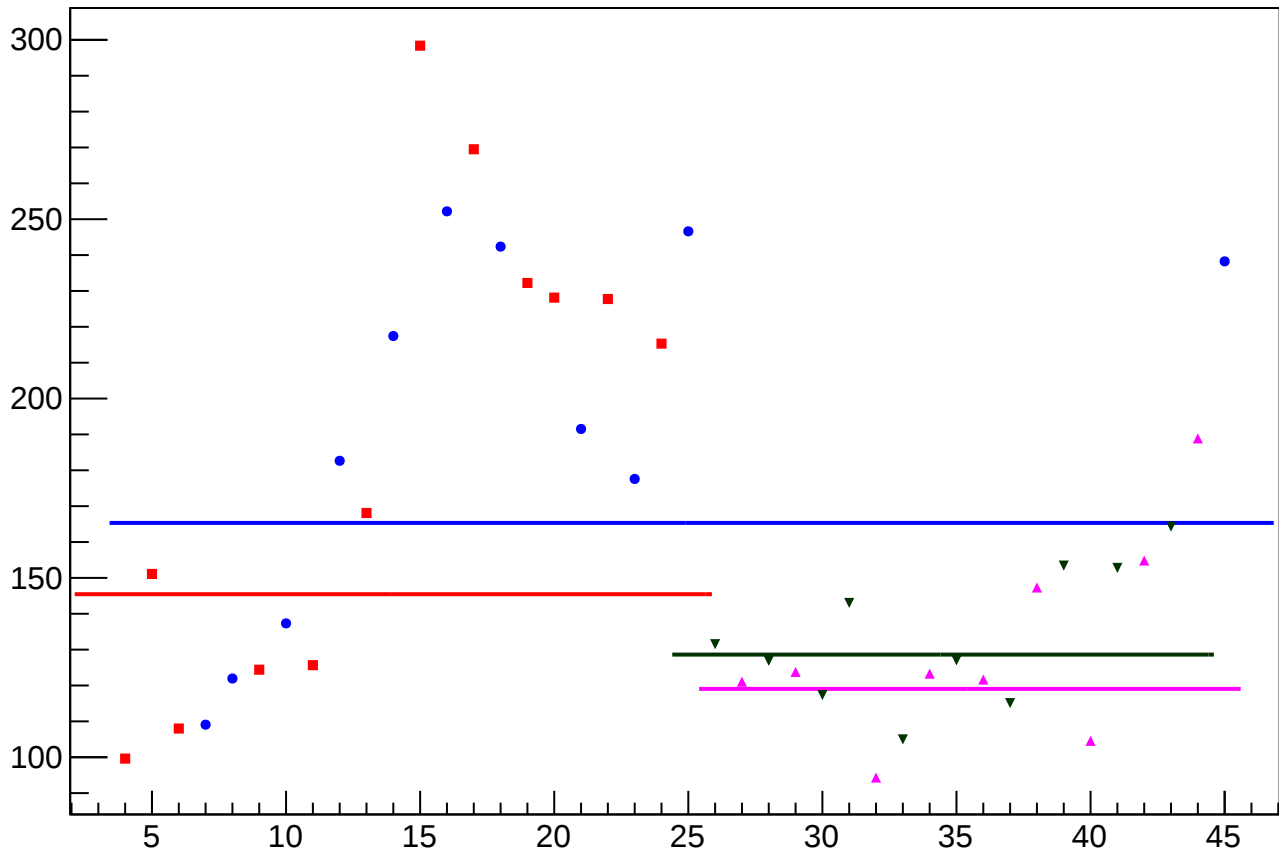
Right Out: 58.253+/-61.187  $\chi^2/\text{NDF}$ : 0.6/11

Left In: -19.993+/-51.483  $\chi^2/\text{NDF}$ : 1.0/8

61.132+/-42.663  $\chi^2/\text{NDF}$ : 8.8/20

12.440+/-39.393  $\chi^2/\text{NDF}$ : 2.6/20

# asym\_bcm\_dg\_ds\_rms vs slug



Right In: 165.328+/-0.046  $\chi^2/\text{NDF}$ : 1035617.7/10

Left Out: 128.616+/-0.040  $\chi^2/\text{NDF}$ : 188850.5/9

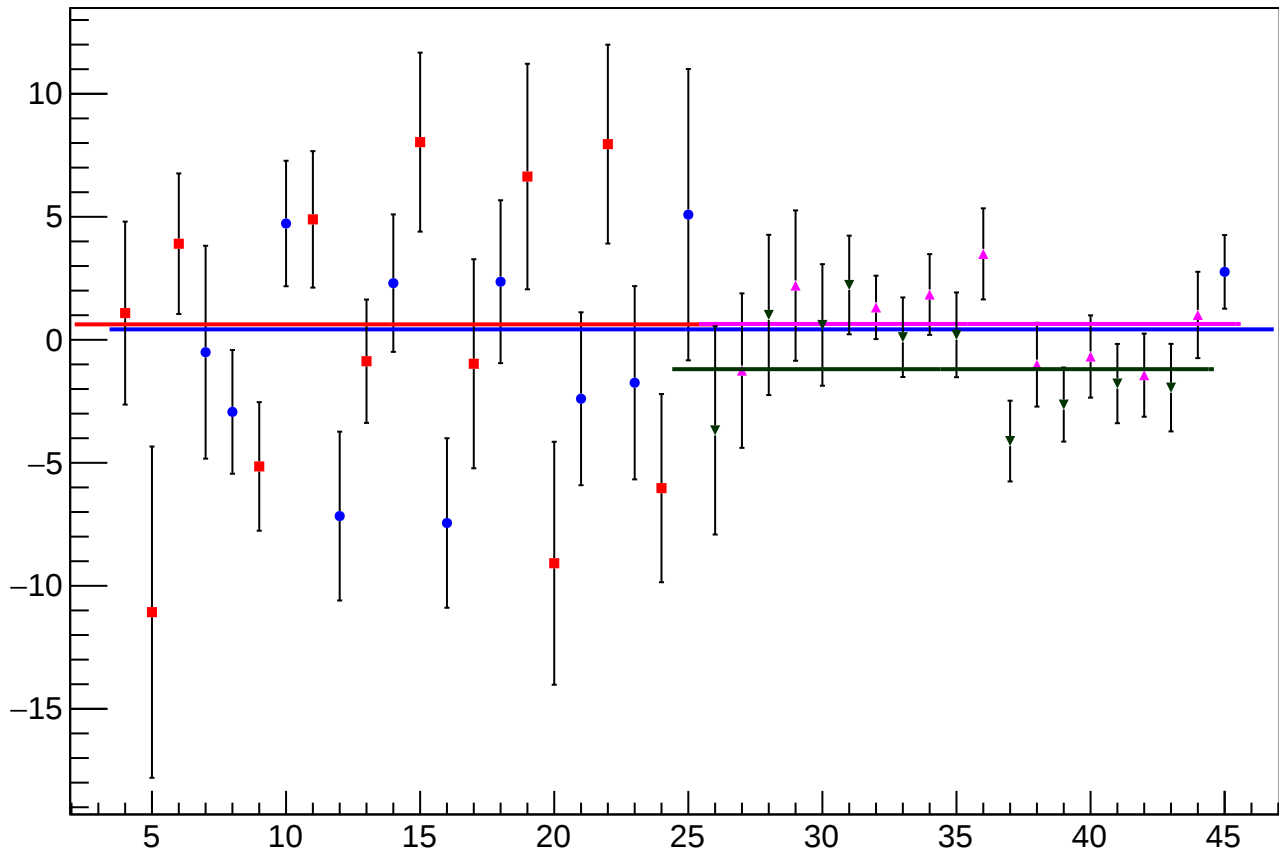
144.257+/-0.030  $\chi^2/\text{NDF}$ : 1586615.4/20

Right Out: 145.454+/-0.043  $\chi^2/\text{NDF}$ : 1377812.6/11

129.997+/-0.028  $\chi^2/\text{NDF}$ : 1972023.7/20

Left In: 119.054+/-0.036  $\chi^2/\text{NDF}$ : 376220.0/8

# asym\_cav4bQ\_mean vs slug



Right In:  $0.425 \pm 0.853$   $\chi^2/\text{NDF}$ : 19.6/10

Left Out:  $-1.193 \pm 0.598$   $\chi^2/\text{NDF}$ : 9.9/9

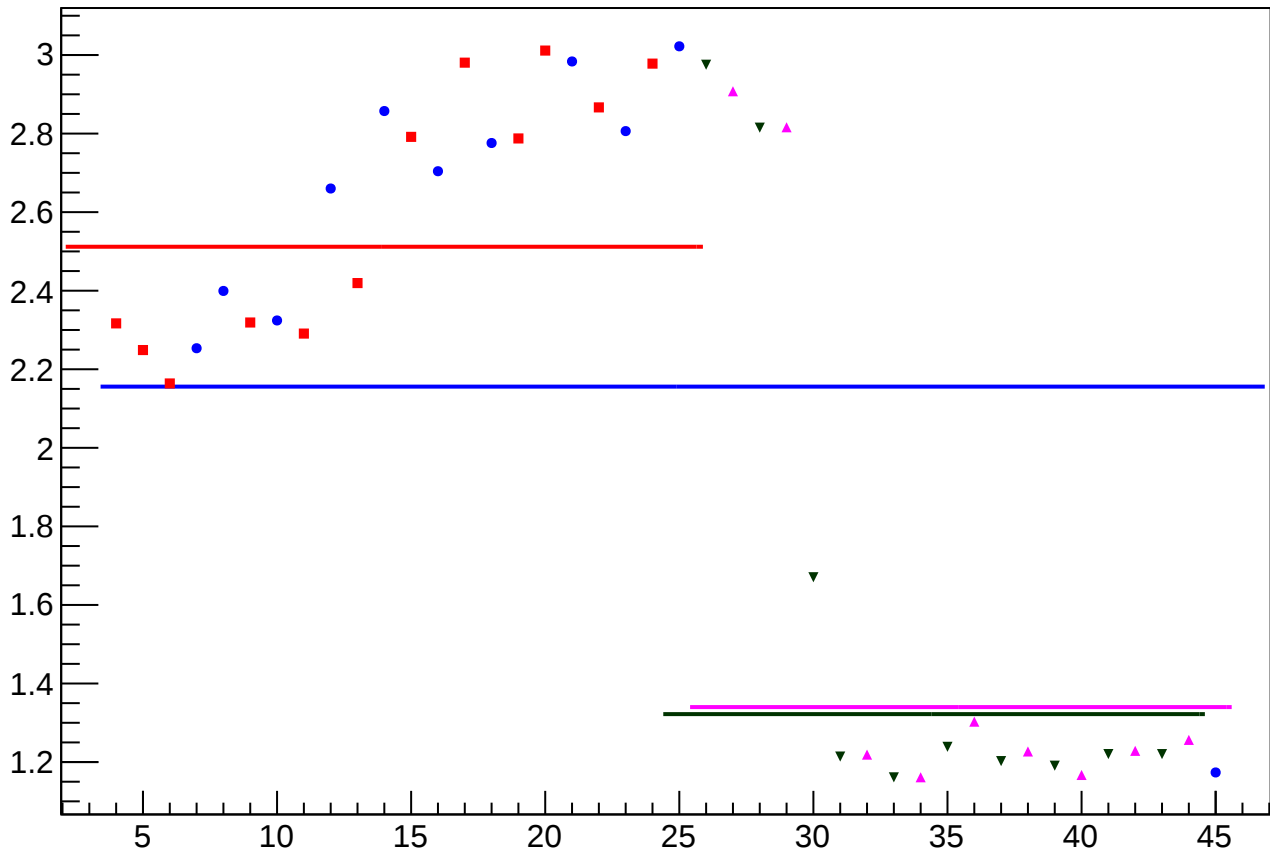
Right Out:  $0.628 \pm 0.999$   $\chi^2/\text{NDF}$ : 28.1/11

Left In:  $0.645 \pm 0.592$   $\chi^2/\text{NDF}$ : 6.9/8

$-0.660 \pm 0.490$   $\chi^2/\text{NDF}$ : 31.9/20

$0.640 \pm 0.509$   $\chi^2/\text{NDF}$ : 35.1/20

# asym\_cav4bQ\_rms vs slug



Right In: 2.156+/-0.001  $\chi^2/\text{NDF}$ : 1389784.1/10

Left Out: 1.322+/-0.000  $\chi^2/\text{NDF}$ : 835682.2/9

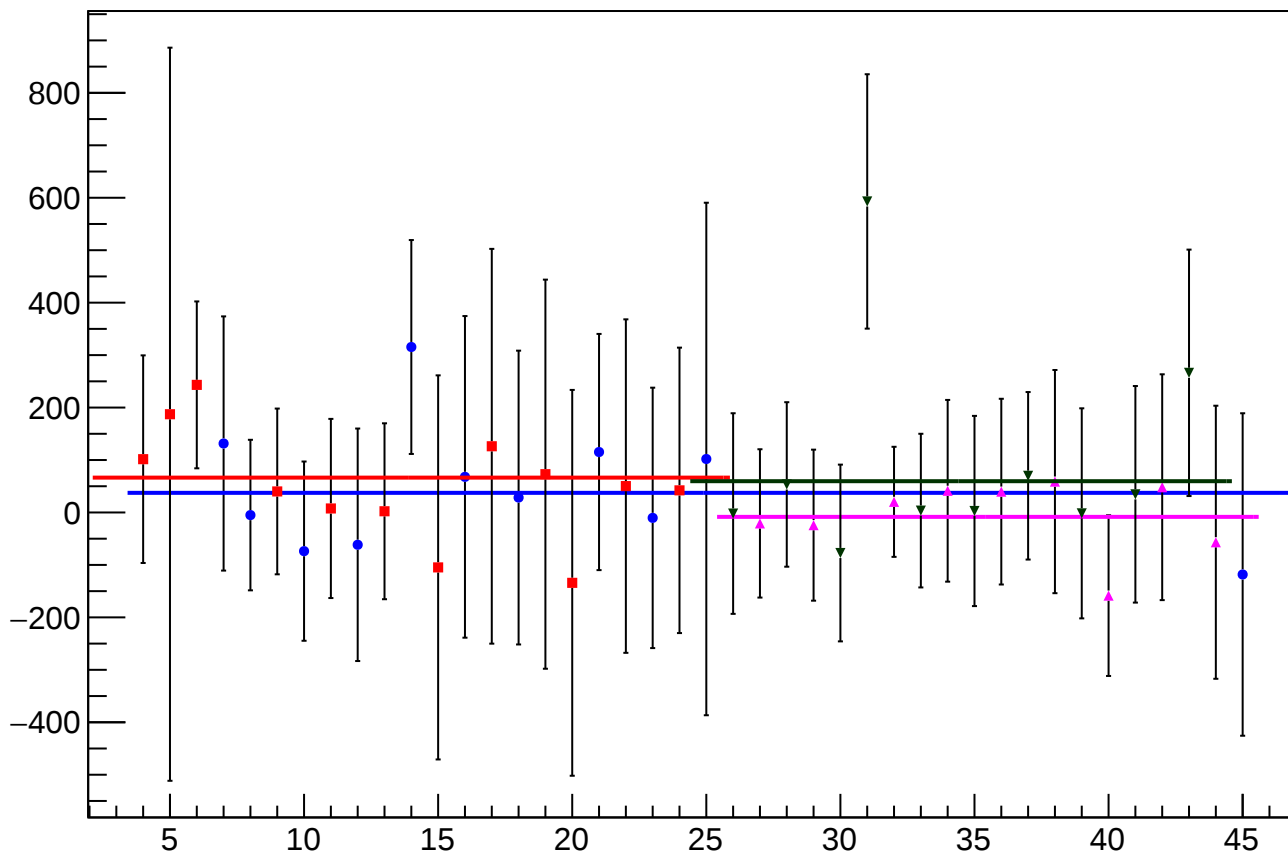
Right Out: 2.512+/-0.001  $\chi^2/\text{NDF}$ : 173540.5/11

Left In: 1.340+/-0.000  $\chi^2/\text{NDF}$ : 1050714.6/8

1.597+/-0.000  $\chi^2/\text{NDF}$ : 3506867.0/20

1.645+/-0.000  $\chi^2/\text{NDF}$ : 3260545.9/20

# asym\_cav4cQ\_mean vs slug



Right In: 37.421+/-67.672  $\chi^2/\text{NDF}$ : 3.2/10

Left Out: 59.618+/-57.448  $\chi^2/\text{NDF}$ : 6.7/9

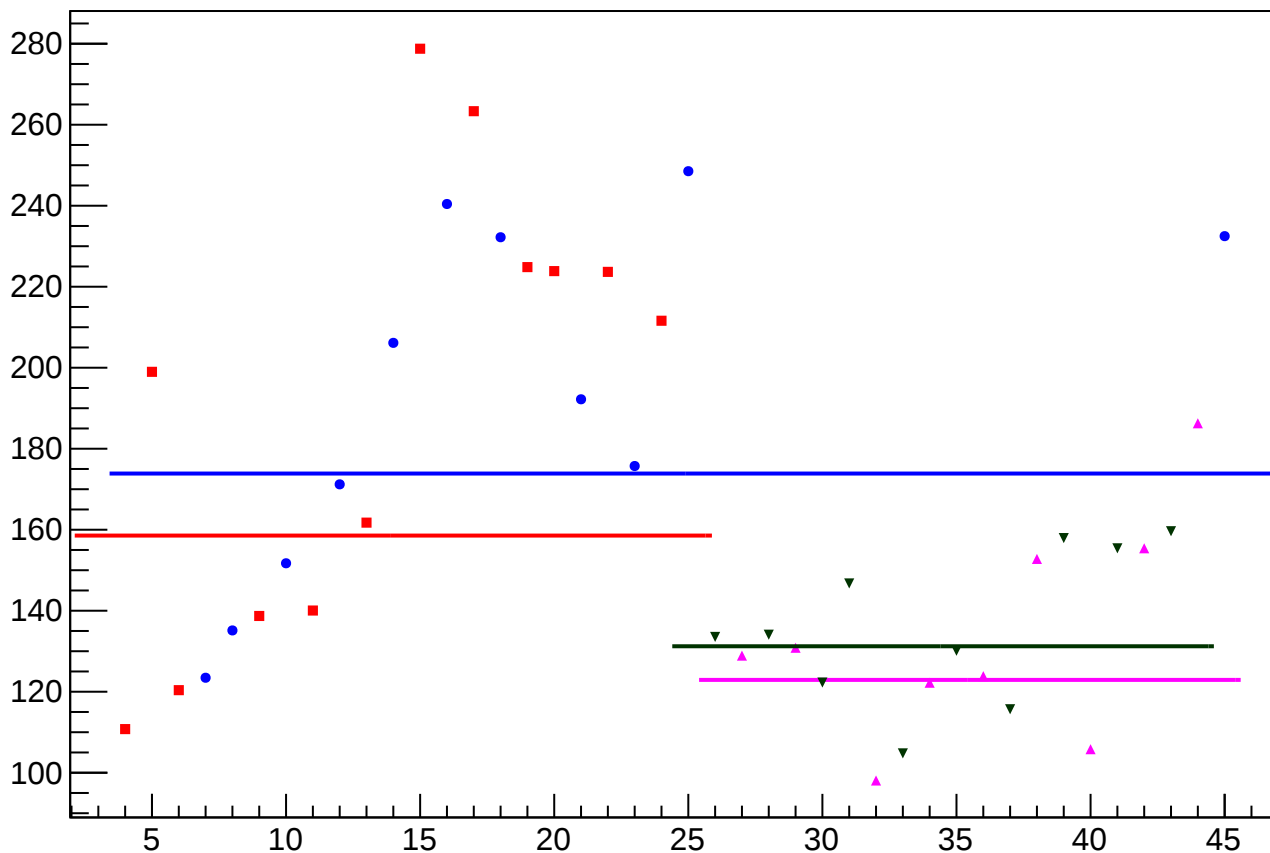
Right Out: 66.444+/-65.999  $\chi^2/\text{NDF}$ : 2.1/11

Left In: -8.384+/-53.045  $\chi^2/\text{NDF}$ : 1.4/8

50.321+/-43.796  $\chi^2/\text{NDF}$ : 10.0/20

20.983+/-41.346  $\chi^2/\text{NDF}$ : 4.3/20

# asym\_cav4cQ\_rms vs slug



Right In: 173.872+/-0.048     $\chi^2/\text{NDF}$ : 630165.3/10

Left Out: 131.224+/-0.041     $\chi^2/\text{NDF}$ :191308.6/9

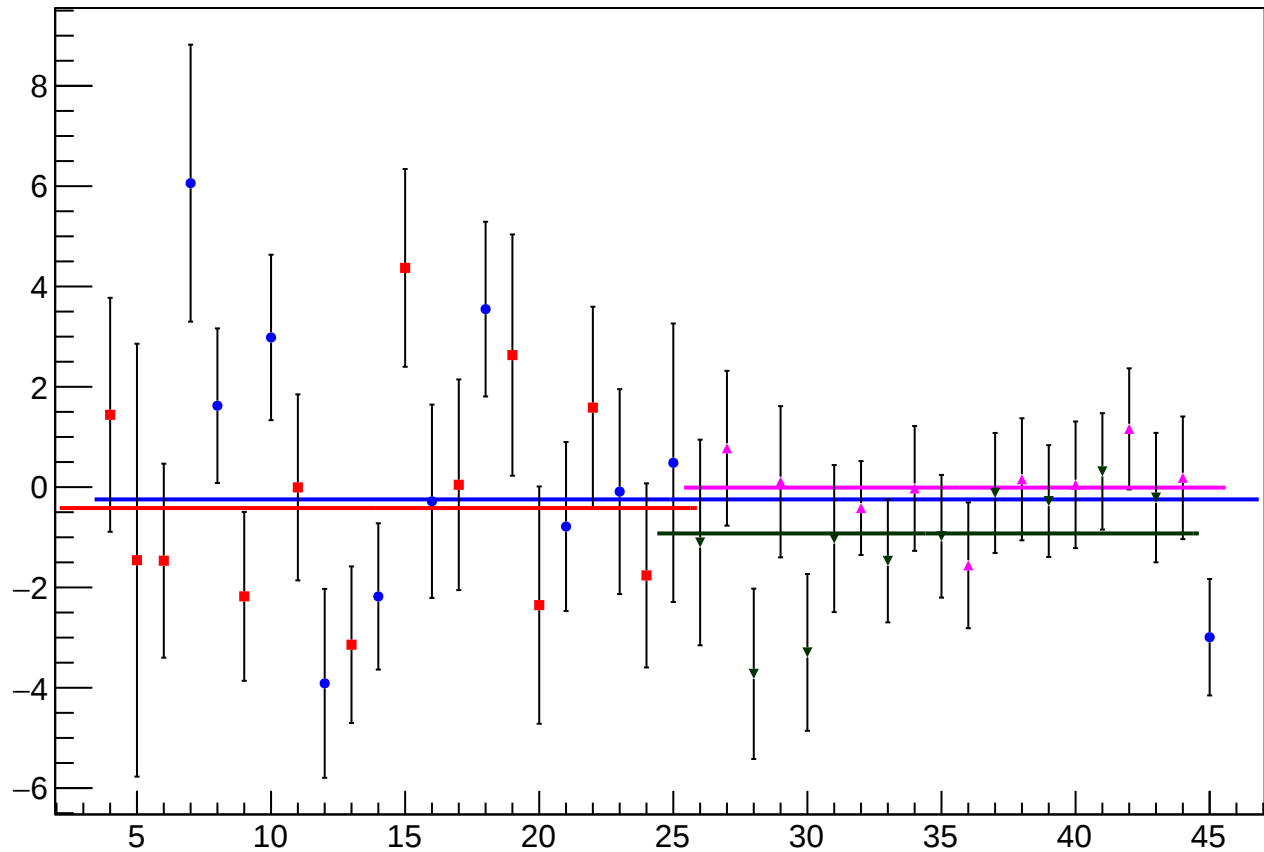
Right Out: 158.557+/-0.047     $\chi^2/\text{NDF}$ : 951673.3/11

Left In: 122.920+/-0.038     $\chi^2/\text{NDF}$ :350338.0/8

149.086+/-0.031     $\chi^2/\text{NDF}$ : 1283112.5/20

136.906+/-0.029     $\chi^2/\text{NDF}$ : 1656266.6/20

# asym\_cav4dQ\_mean vs slug



Right In:  $-0.245 \pm 0.517$   $\chi^2/\text{NDF}: 26.6/10$

Left Out:  $-0.924 \pm 0.421$   $\chi^2/\text{NDF}: 7.5/9$

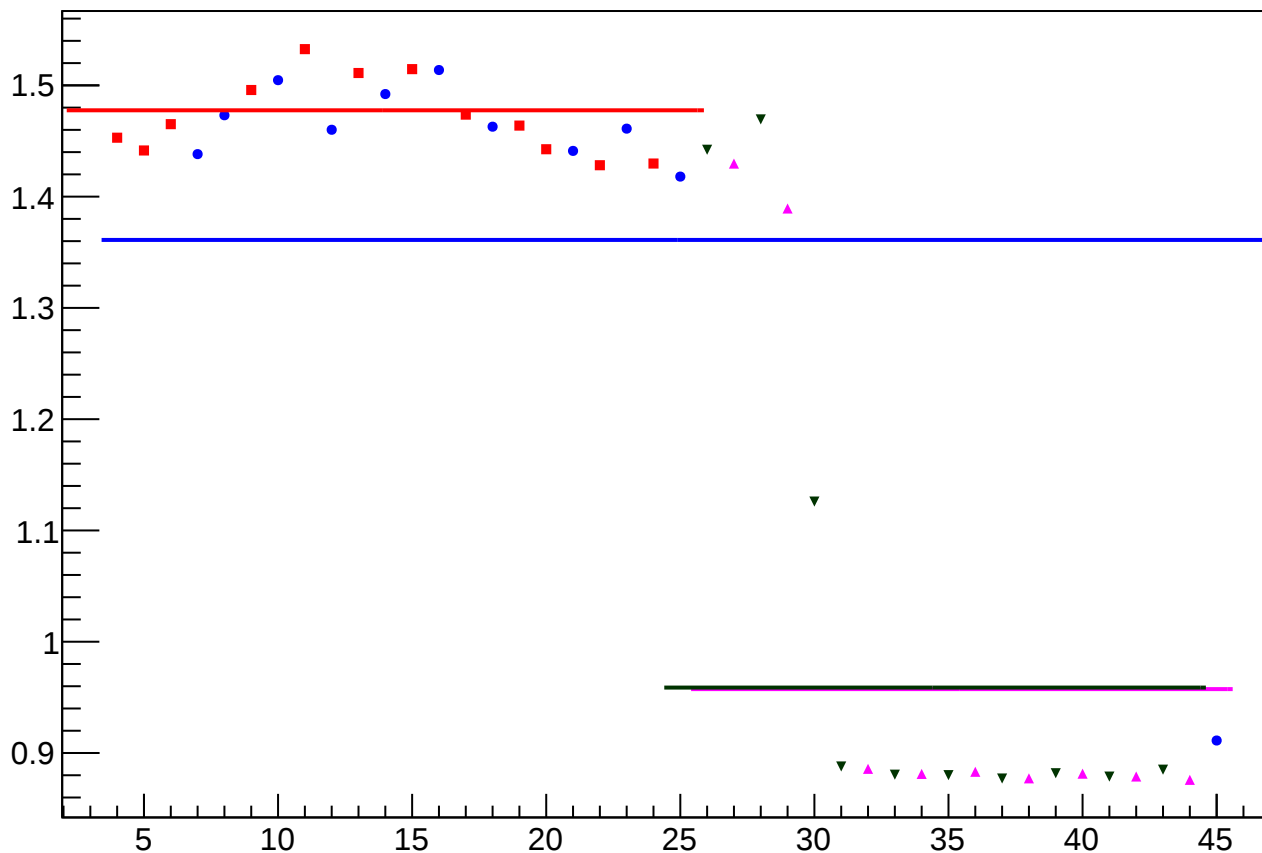
Right Out:  $-0.417 \pm 0.583$   $\chi^2/\text{NDF}: 14.9/11$

Left In:  $-0.010 \pm 0.410$   $\chi^2/\text{NDF}: 3.0/8$

$-0.653 \pm 0.327$   $\chi^2/\text{NDF}: 35.1/20$

$-0.145 \pm 0.336$   $\chi^2/\text{NDF}: 18.2/20$

# asym\_cav4dQ\_rms vs slug



Right In: 1.361+/-0.000  $\chi^2/\text{NDF}$ : 378906.3/10

Left Out: 0.959+/-0.000  $\chi^2/\text{NDF}$ : 370902.6/9

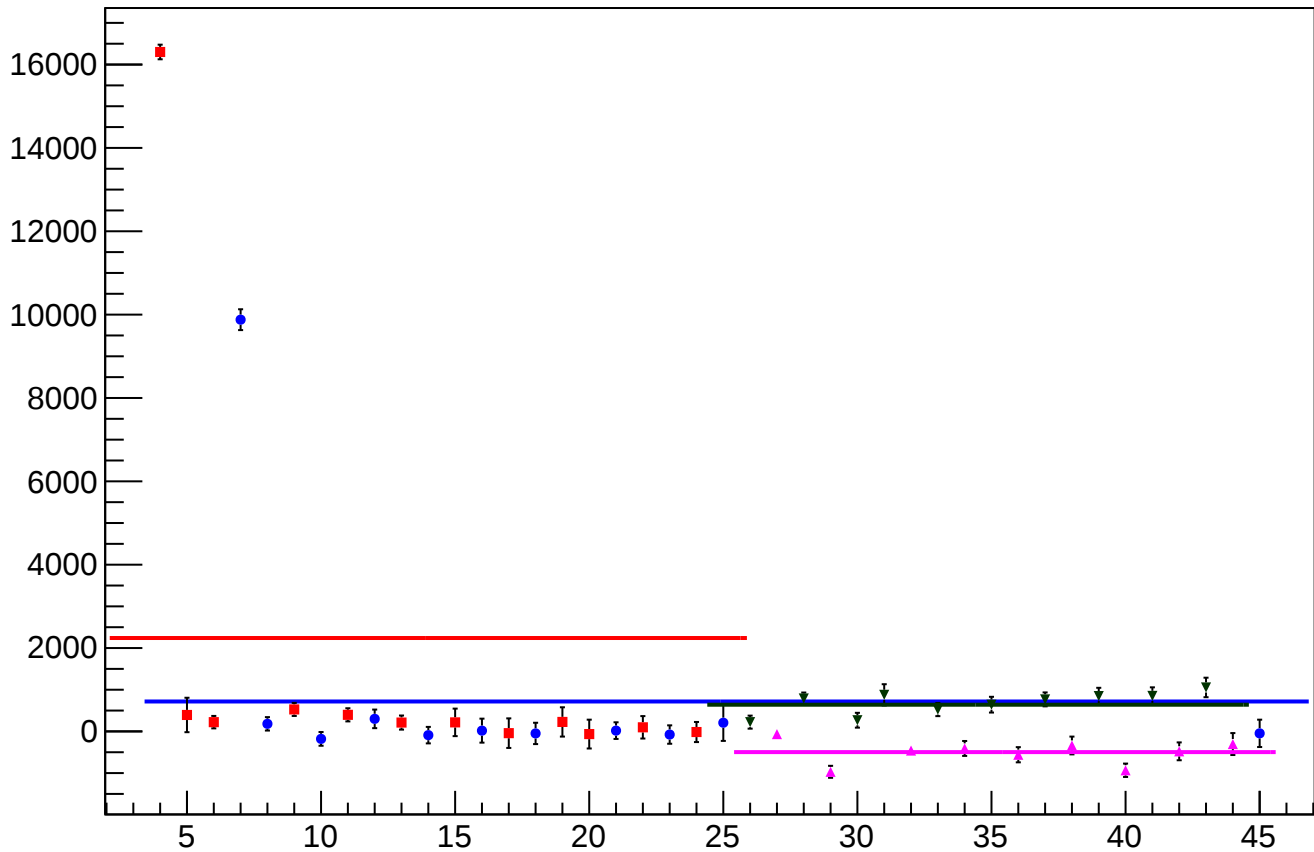
Right Out: 1.478+/-0.000  $\chi^2/\text{NDF}$ : 7139.1/11

Left In: 0.957+/-0.000  $\chi^2/\text{NDF}$ : 411162.2/8

1.119+/-0.000  $\chi^2/\text{NDF}$ : 1477142.7/20

1.130+/-0.000  $\chi^2/\text{NDF}$ : 1482401.4/20

# asym\_bcm0l02\_mean vs slug



Right In: 717.836+/-66.707  $\chi^2/\text{NDF}$ : 1451.2/10

Left Out: 640.376+/-56.927  $\chi^2/\text{NDF}$ : 19.9/9

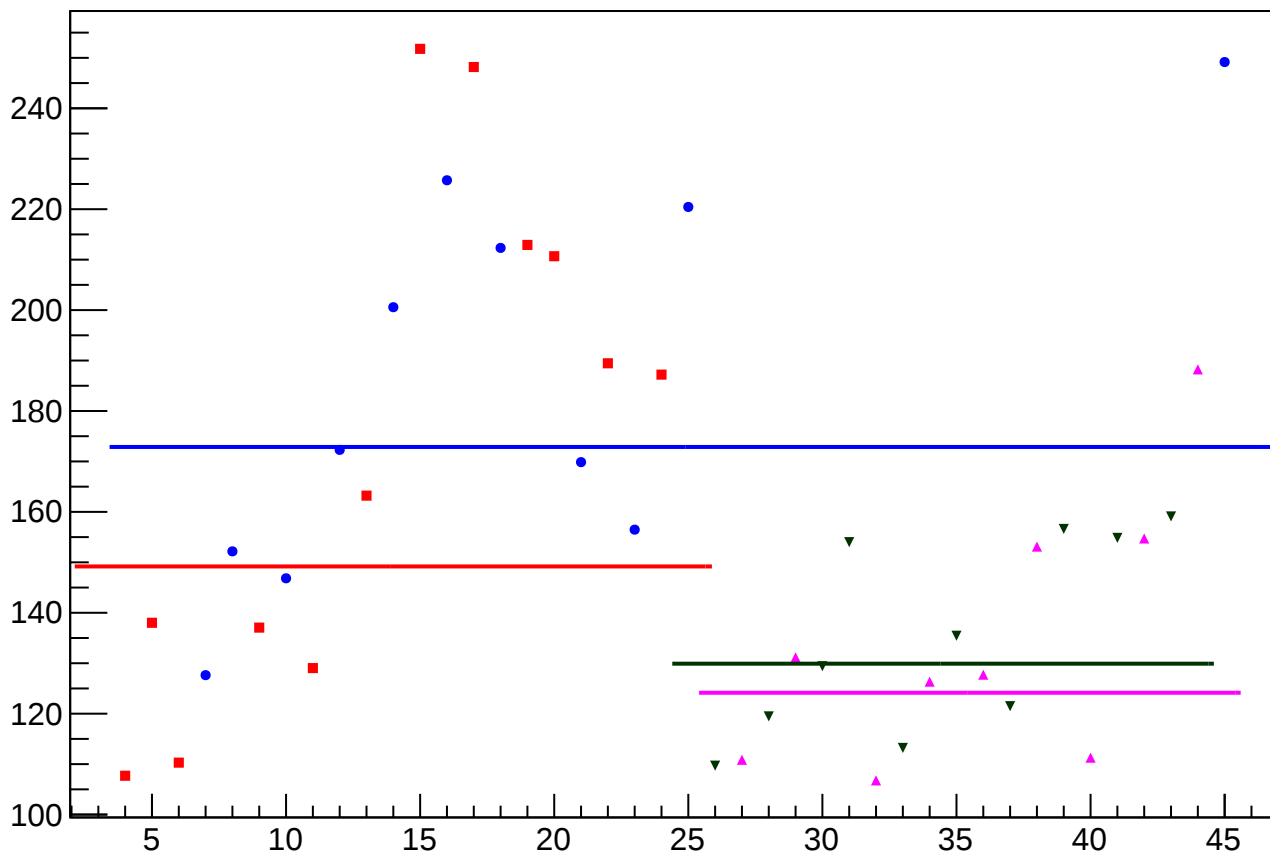
673.016+/-43.302  $\chi^2/\text{NDF}$ : 1471.9/20

Right Out: 2240.760+/-61.598  $\chi^2/\text{NDF}$ : 7330.5/11

675.639+/-40.312  $\chi^2/\text{NDF}$ : 8492.1/20

Left In: -496.812+/-53.314  $\chi^2/\text{NDF}$ : 32.4/8

# asym\_bcm0l02\_rms vs slug



Right In: 172.868+/-0.047  $\chi^2/\text{NDF}$ : 446388.7/10

Left Out: 129.911+/-0.040  $\chi^2/\text{NDF}$ :188039.4/9

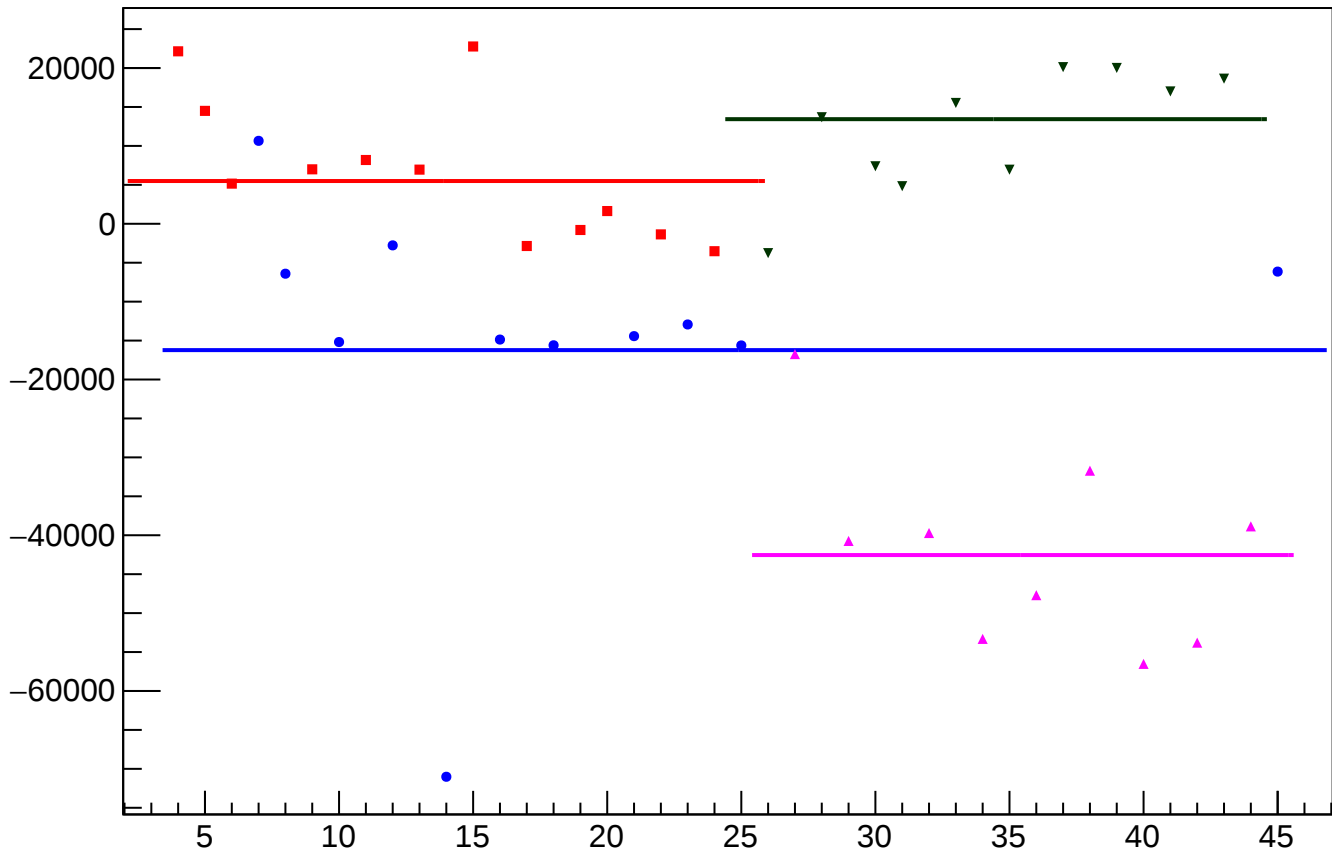
Right Out: 149.184+/-0.044  $\chi^2/\text{NDF}$ : 879836.6/11

Left In: 124.148+/-0.038  $\chi^2/\text{NDF}$ :285531.8/8

148.013+/-0.031  $\chi^2/\text{NDF}$ : 1114338.5/20

134.870+/-0.029  $\chi^2/\text{NDF}$ : 1354248.5/20

# asym\_bpm2i01WS\_mean vs slug



Right In: -16224.335+/-44.155  $\chi^2/\text{NDF}$ : 209674.4/10

Left Out: 13435.021+/-42.371  $\chi^2/\text{NDF}$ : 28229.6/9

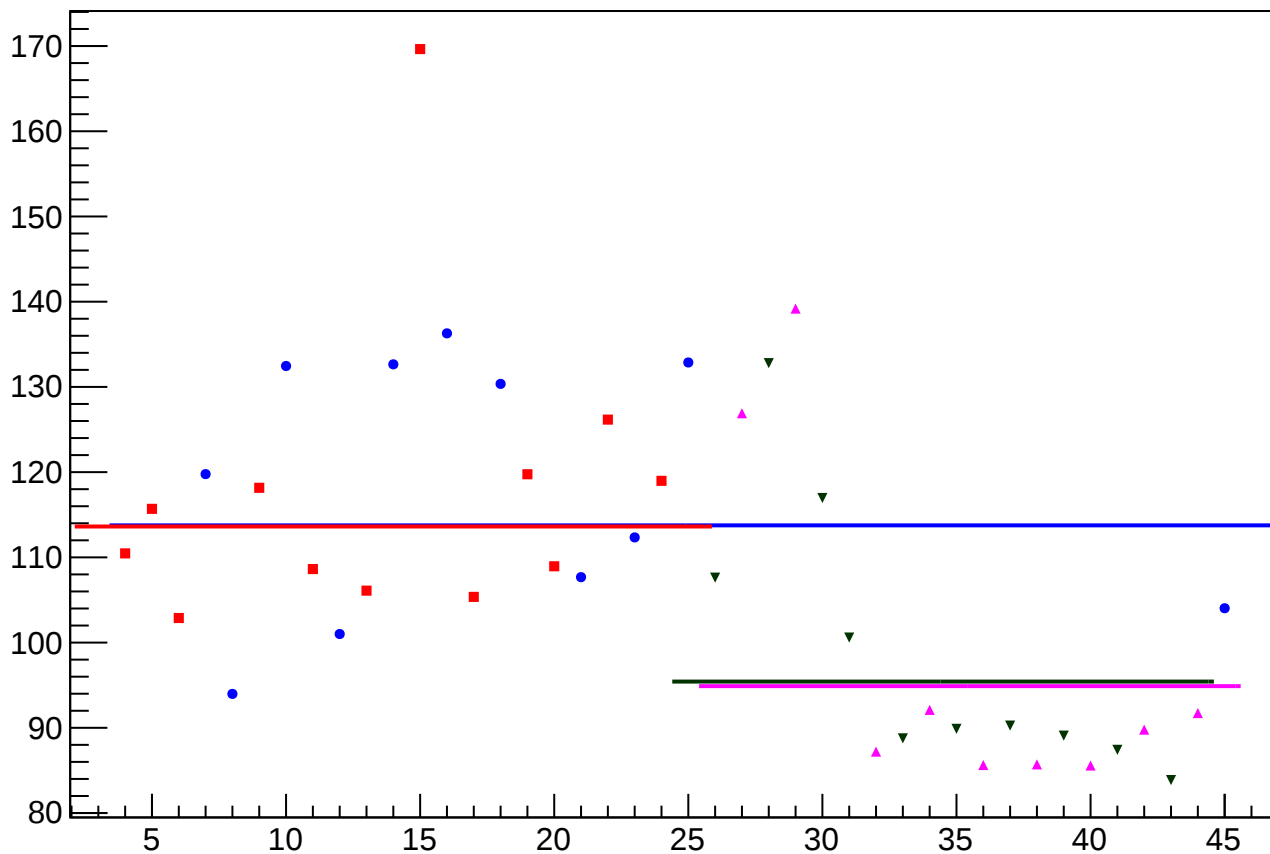
-783.615+/-30.572  $\chi^2/\text{NDF}$ : 472799.6/20

Right Out: 5490.592+/-46.372  $\chi^2/\text{NDF}$ : 24655.8/11

-21220.753+/-30.897  $\chi^2/\text{NDF}$ : 692733.1/20

Left In: -42544.240+/-41.432  $\chi^2/\text{NDF}$ : 71406.7/8

# asym\_bpm2i01WS\_rms vs slug



Right In: 113.756+/-0.031  $\chi^2/\text{NDF}$ : 245343.4/10

Left Out: 95.426+/-0.030  $\chi^2/\text{NDF}$ :200660.2/9

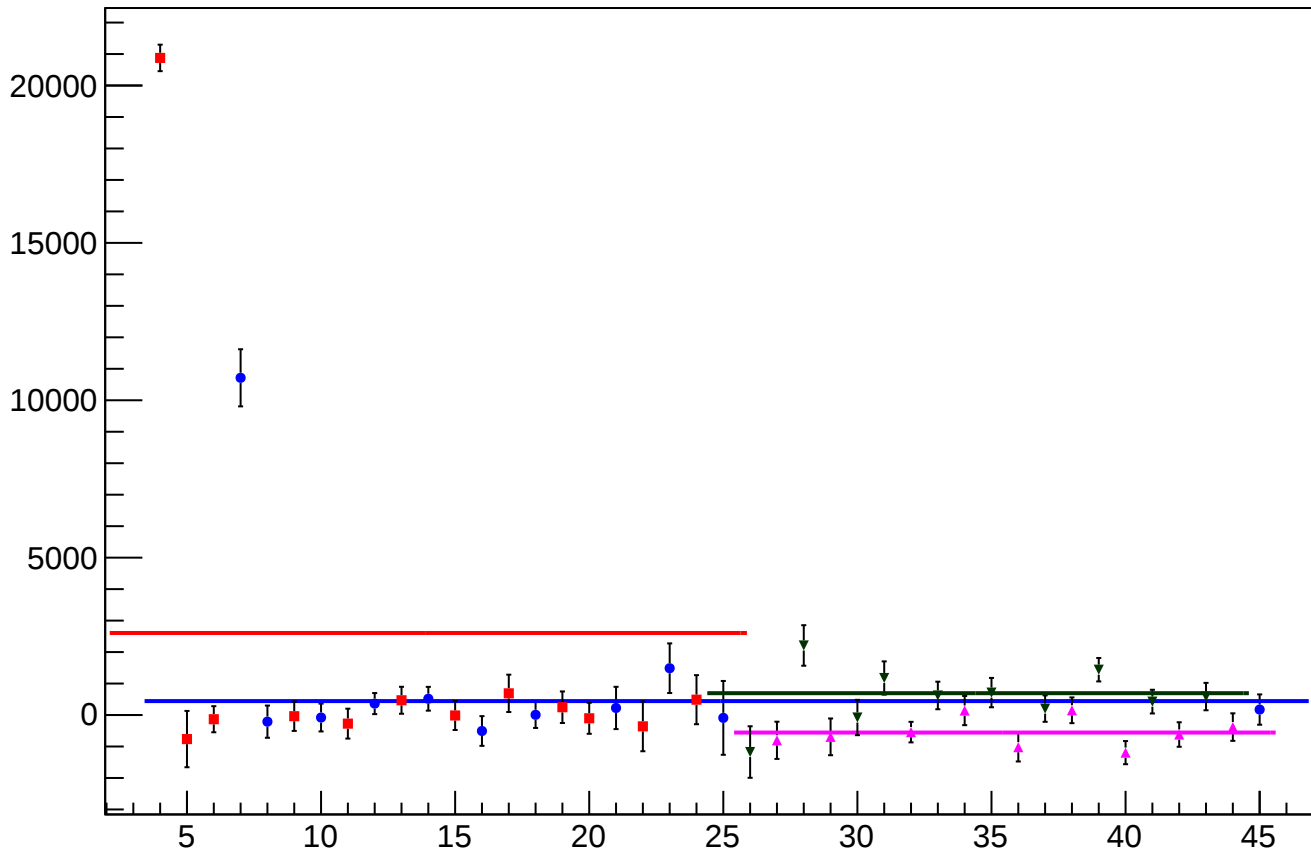
104.213+/-0.022  $\chi^2/\text{NDF}$ : 625444.5/20

Right Out: 113.621+/-0.033  $\chi^2/\text{NDF}$ : 162658.1/11

103.204+/-0.022  $\chi^2/\text{NDF}$ : 658763.4/20

Left In: 94.889+/-0.029  $\chi^2/\text{NDF}$ :314634.4/8

# asym\_bpm0i07WS\_mean vs slug



Right In: 442.597 $\pm$ 148.741  $\chi^2$ /NDF: 138.8/10

Left Out: 693.815 $\pm$ 147.932  $\chi^2$ /NDF: 19.5/9

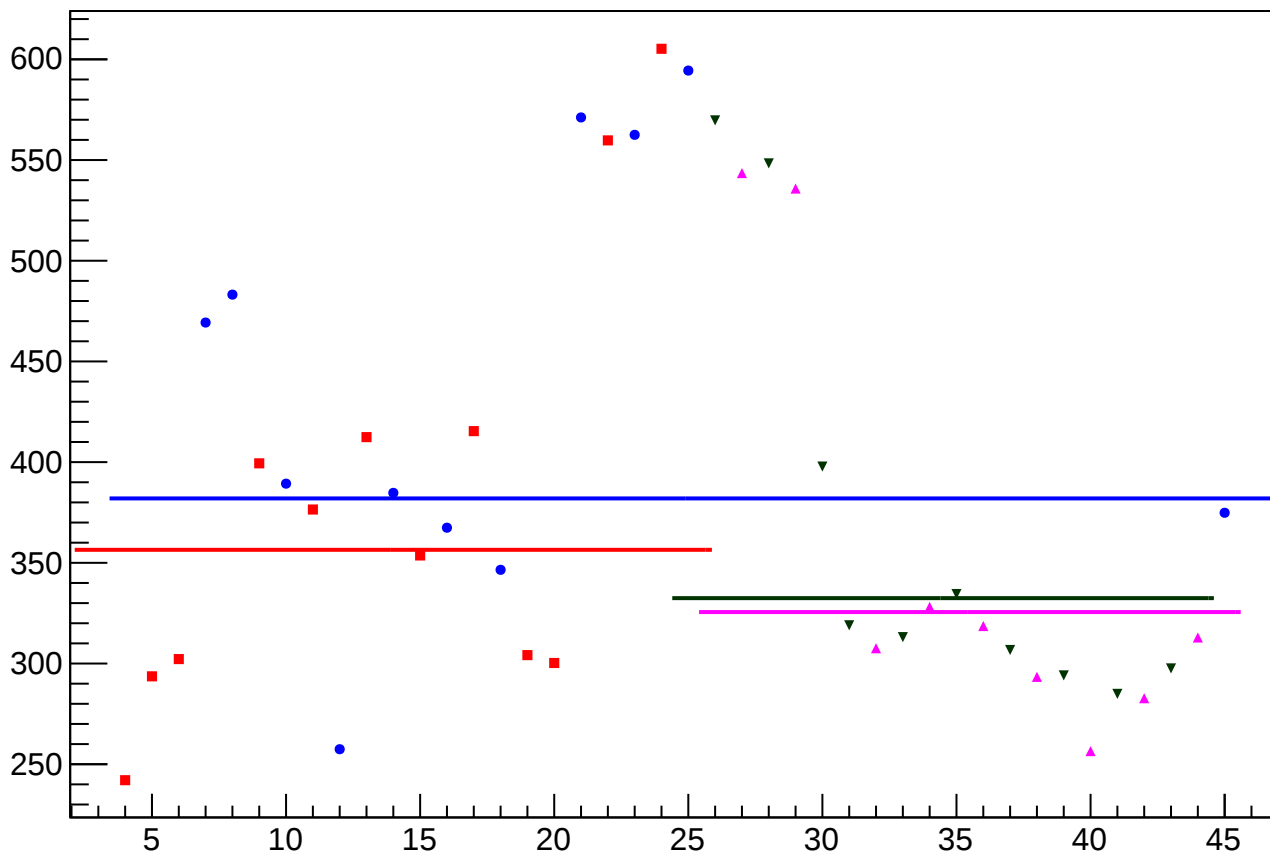
568.891 $\pm$ 104.889  $\chi^2$ /NDF: 159.7/20

Right Out: 2606.972 $\pm$ 147.343  $\chi^2$ /NDF: 2154.3/11

962.263 $\pm$ 102.093  $\chi^2$ /NDF: 2403.7/20

Left In: -556.564 $\pm$ 141.592  $\chi^2$ /NDF: 9.7/8

asym\_bpm0i07WS\_rms vs slug



Right In: 381.979+/-0.105  $\chi^2/\text{NDF}$ : 720616.1/10

Left Out: 332.466+/-0.105  $\chi^2/\text{NDF}$ : 498518.7/9

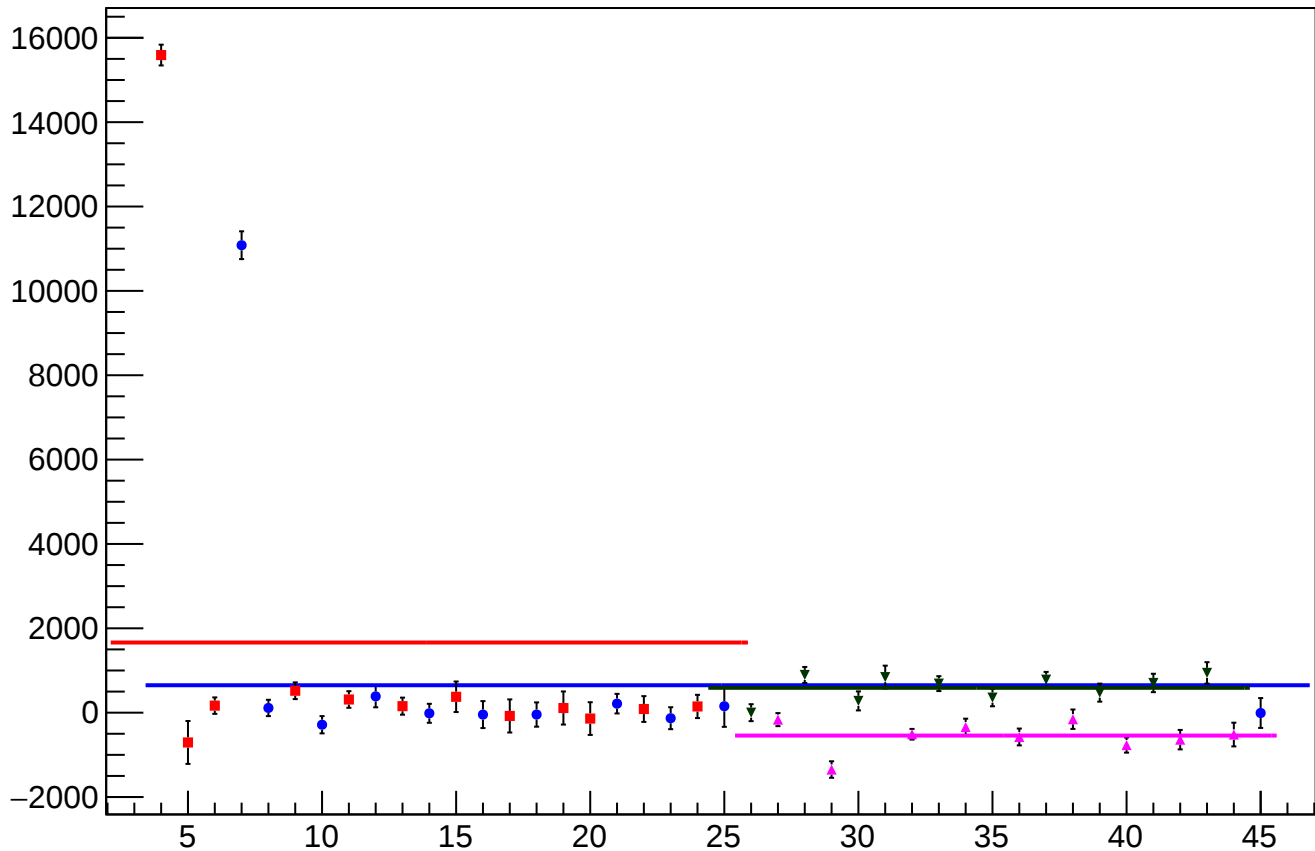
Right Out: 356.465+/-0.104  $\chi^2/\text{NDF}$ : 650032.0/11

Left In: 325.557+/-0.100  $\chi^2/\text{NDF}$ : 646591.2/8

357.087+/-0.074  $\chi^2/\text{NDF}$ : 1330547.2/20

340.396+/-0.072  $\chi^2/\text{NDF}$ : 1342377.4/20

# asym\_bpm0l01WS\_mean vs slug



Right In: 650.411+/-78.639  $\chi^2/\text{NDF}$ : 1067.6/10

Left Out: 589.690+/-66.057  $\chi^2/\text{NDF}$ : 19.1/9

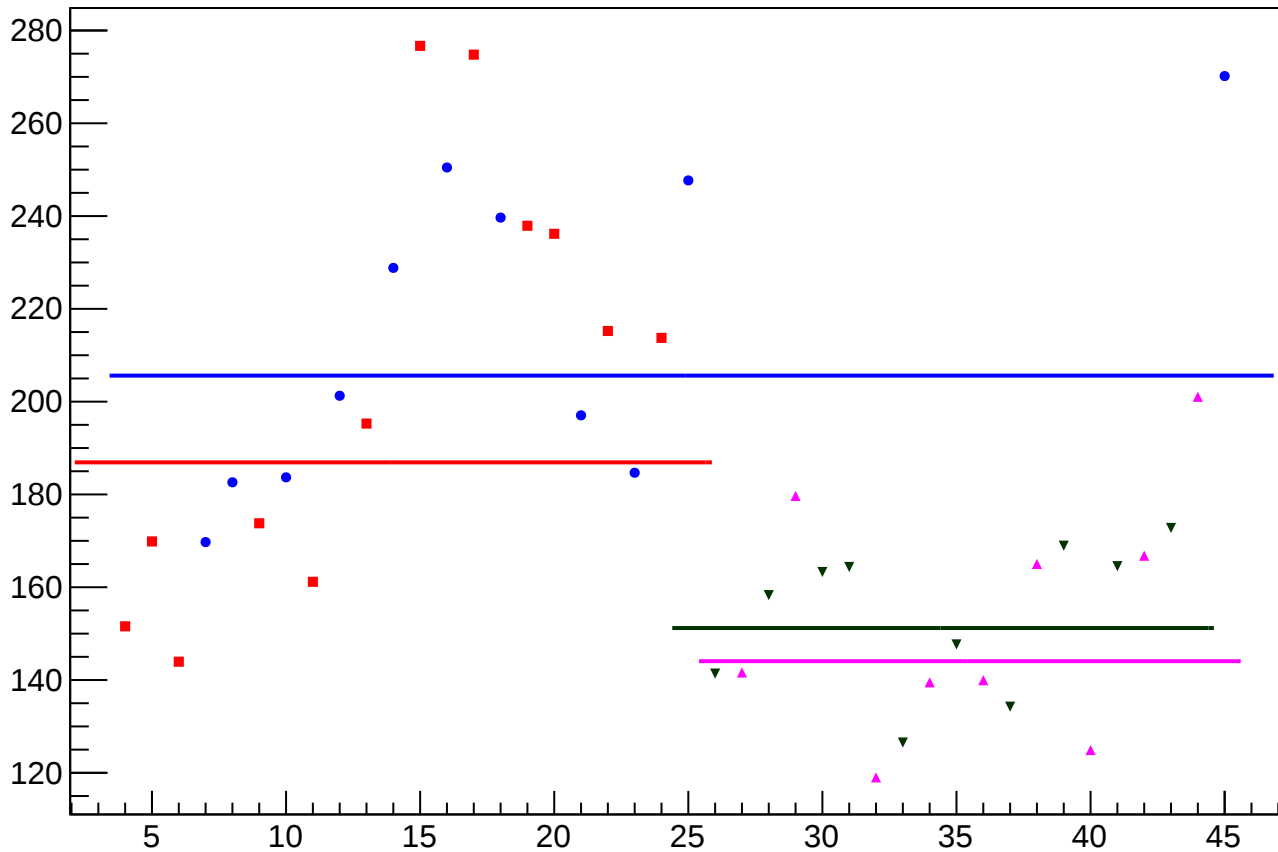
614.810+/-50.580  $\chi^2/\text{NDF}$ : 1087.1/20

Right Out: 1663.245+/-75.915  $\chi^2/\text{NDF}$ : 3538.6/11

335.495+/-47.902  $\chi^2/\text{NDF}$ : 4075.5/20

Left In: -542.908+/-61.747  $\chi^2/\text{NDF}$ : 28.6/8

# asym\_bpm0l01WS\_rms vs slug



Right In: 205.610 $\pm$ 0.056  $\chi^2$ /NDF: 261201.6/10

Left Out: 151.207 $\pm$ 0.047  $\chi^2$ /NDF:110209.2/9

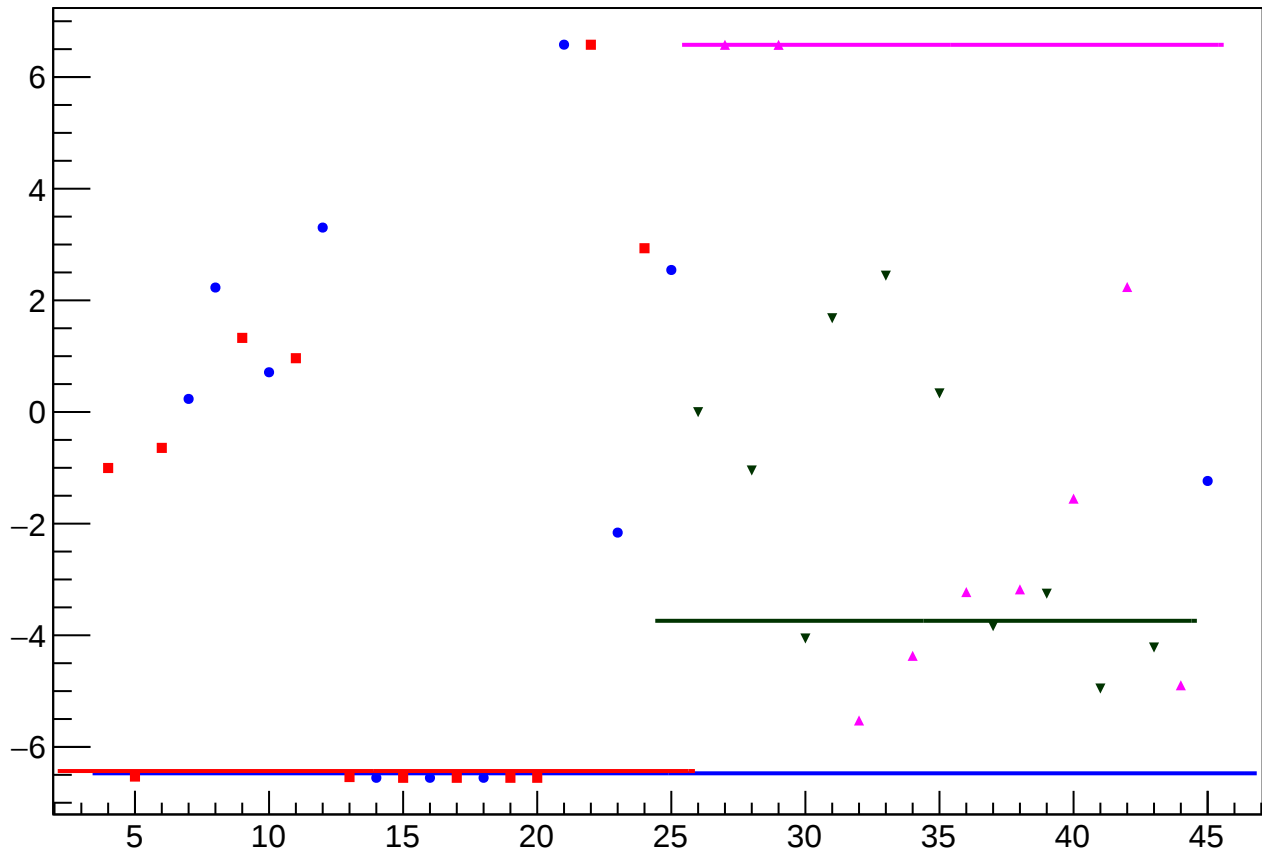
Right Out: 186.914 $\pm$ 0.054  $\chi^2$ /NDF: 512292.6/11

Left In: 144.061 $\pm$ 0.044  $\chi^2$ /NDF:287746.6/8

173.713 $\pm$ 0.036  $\chi^2$ /NDF: 932634.3/20

161.123 $\pm$ 0.034  $\chi^2$ /NDF: 1183580.4/20

# yield\_cav4bX\_mean vs slug



Right In: -6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847930592331.1/10

-6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847954975213.3/2

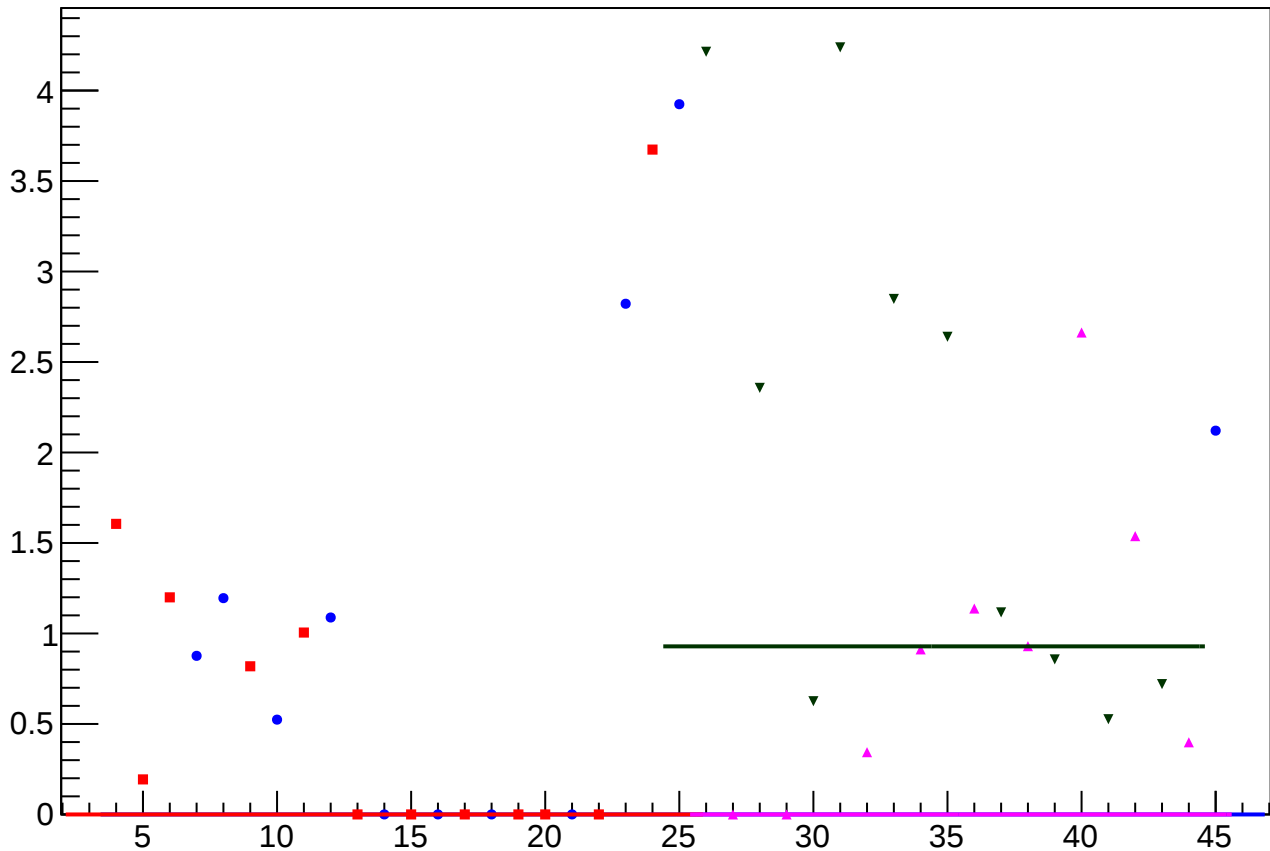
Left Out: -3.741+/-0.001  $\chi^2/\text{NDF}$ : 5731885.1/9

Right Out: -6.432+/-0.000  $\chi^2/\text{NDF}$ : 150837601506010.5/11

-6.315+/-0.000  $\chi^2/\text{NDF}$ : 297092111292693.0/2

Left In: 6.578+/-0.000  $\chi^2/\text{NDF}$ : 822807717.8/8

# yield\_cav4bX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5250530.2/10

Left Out: 0.929+/-0.000  $\chi^2/\text{NDF}$ :2482114.1/9

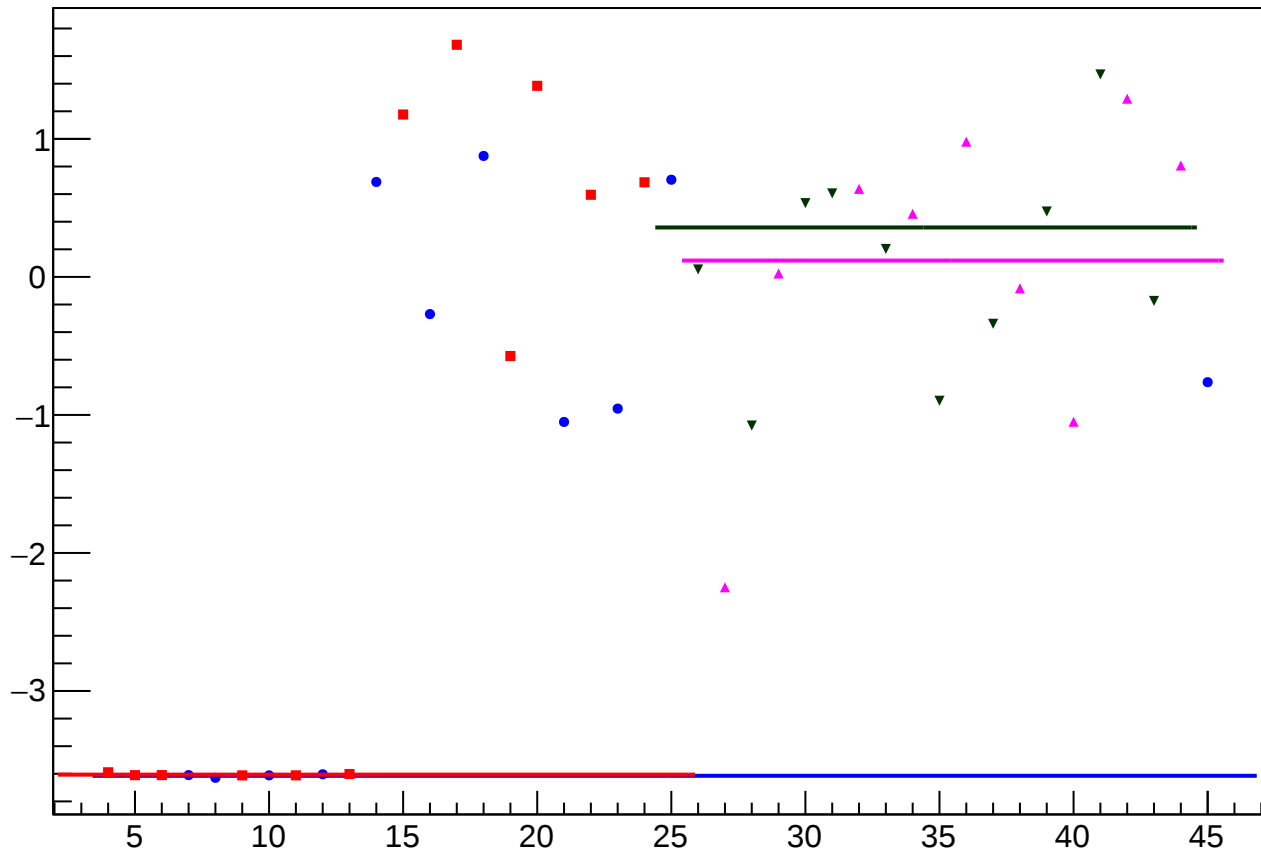
0.000+/-0.000  $\chi^2/\text{NDF}$ : 12042123.9/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4072994.8/11

0.000+/-0.000  $\chi^2/\text{NDF}$ : 8704537.8/20

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :4631448.1/8

# yield\_cav4bY\_mean vs slug



Right In: -3.614+/-0.000  $\chi^2/\text{NDF}$ : 49067712991.6/10

Left Out: 0.358+/-0.000  $\chi^2/\text{NDF}$ : 6673360.6/9

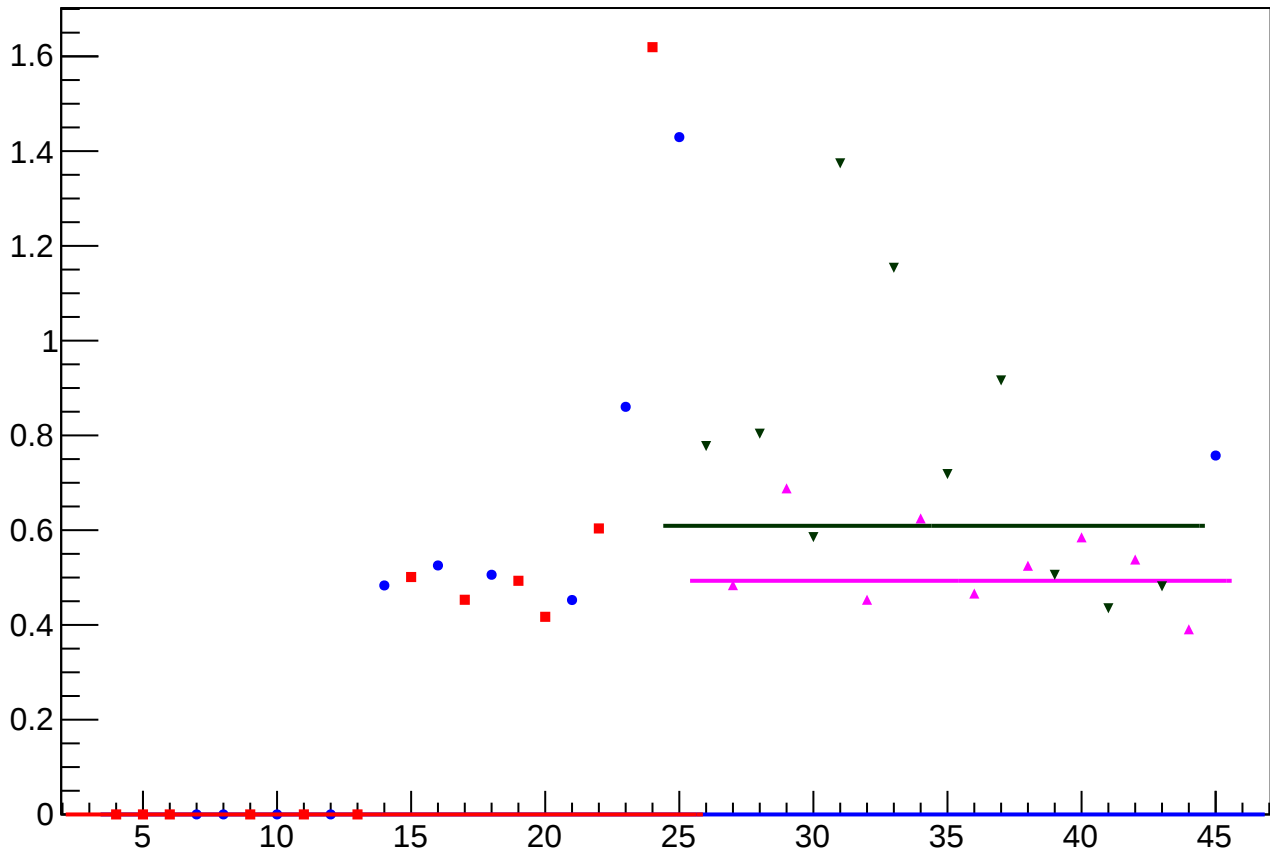
-3.614+/-0.000  $\chi^2/\text{NDF}$ : 49221954283.3/20

Right Out: -3.606+/-0.000  $\chi^2/\text{NDF}$ : 37750030407.7/11

-3.606+/-0.000  $\chi^2/\text{NDF}$ : 37989551775.5/20

Left In: 0.119+/-0.000  $\chi^2/\text{NDF}$ : 20120606.4/8

# yield\_cav4bY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 6661785.8/10

Left Out: 0.609+/-0.000  $\chi^2/\text{NDF}$ : 799340.0/9

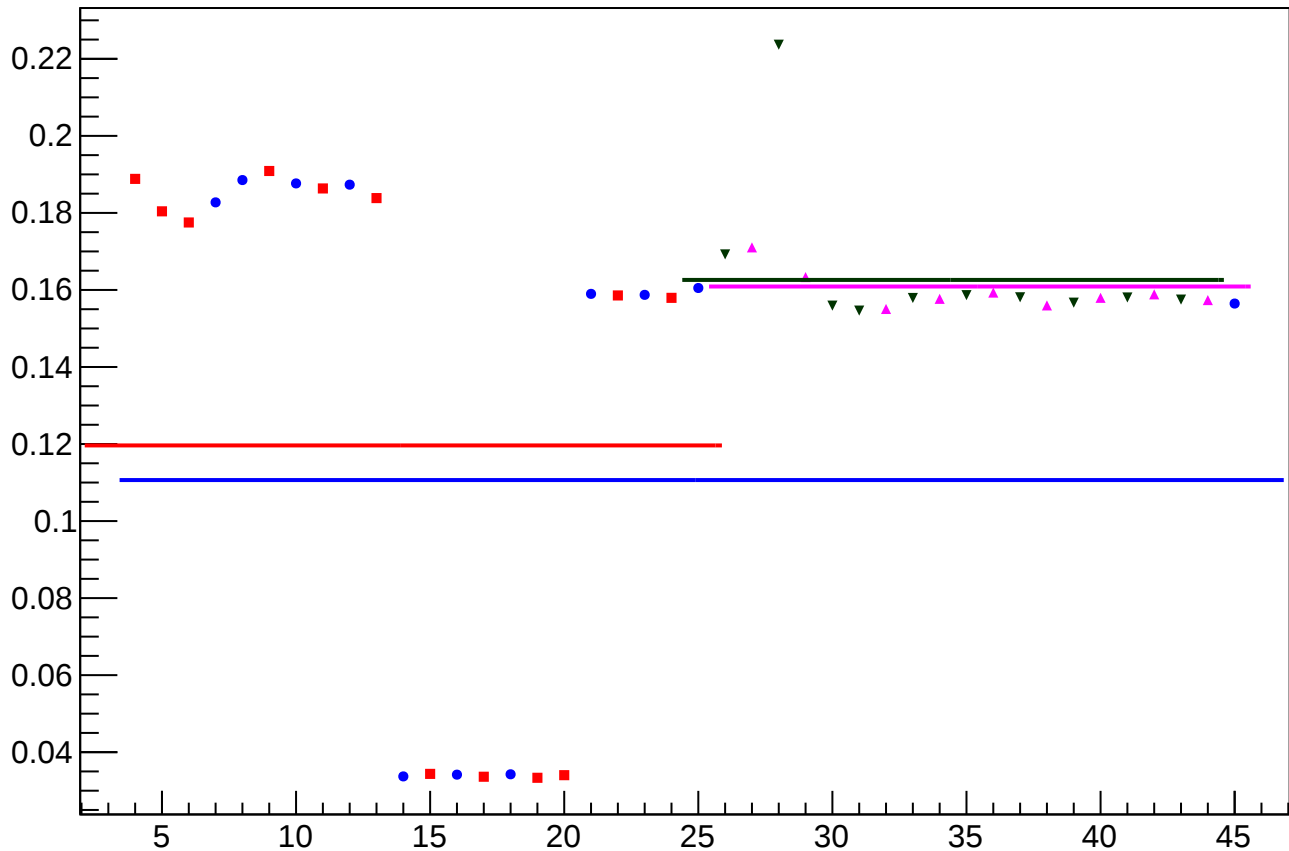
0.000+/-0.000  $\chi^2/\text{NDF}$ : 14399157.8/20

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4205917.4/11

0.000+/-0.000  $\chi^2/\text{NDF}$ : 12110750.7/20

Left In: 0.493+/-0.000  $\chi^2/\text{NDF}$ : 214040.2/8

# yield\_cav4cX\_mean vs slug



Right In: 0.111+/-0.000  $\chi^2/\text{NDF}$ : 4639721768.9/10

Left Out: 0.163+/-0.000  $\chi^2/\text{NDF}$ :101593637.2/9

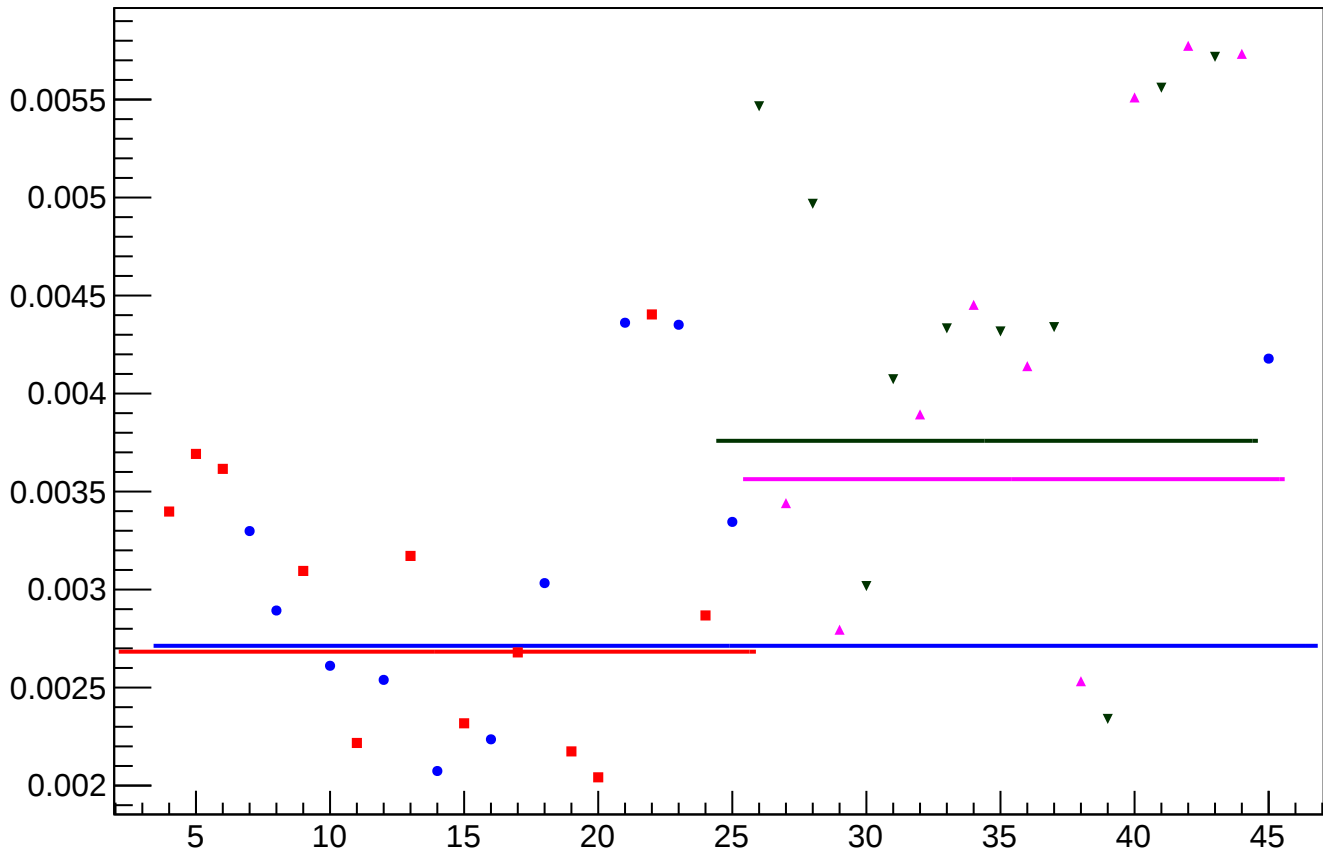
0.125+/-0.000  $\chi^2/\text{NDF}$ : 5377599727.7/20

Right Out: 0.120+/-0.000  $\chi^2/\text{NDF}$ : 4203649870.8/11

0.133+/-0.000  $\chi^2/\text{NDF}$ : 4659136980.3/20

Left In: 0.161+/-0.000  $\chi^2/\text{NDF}$ :11671584.7/8

# yield\_cav4cX\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 787482.2/10

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 884952.0/9

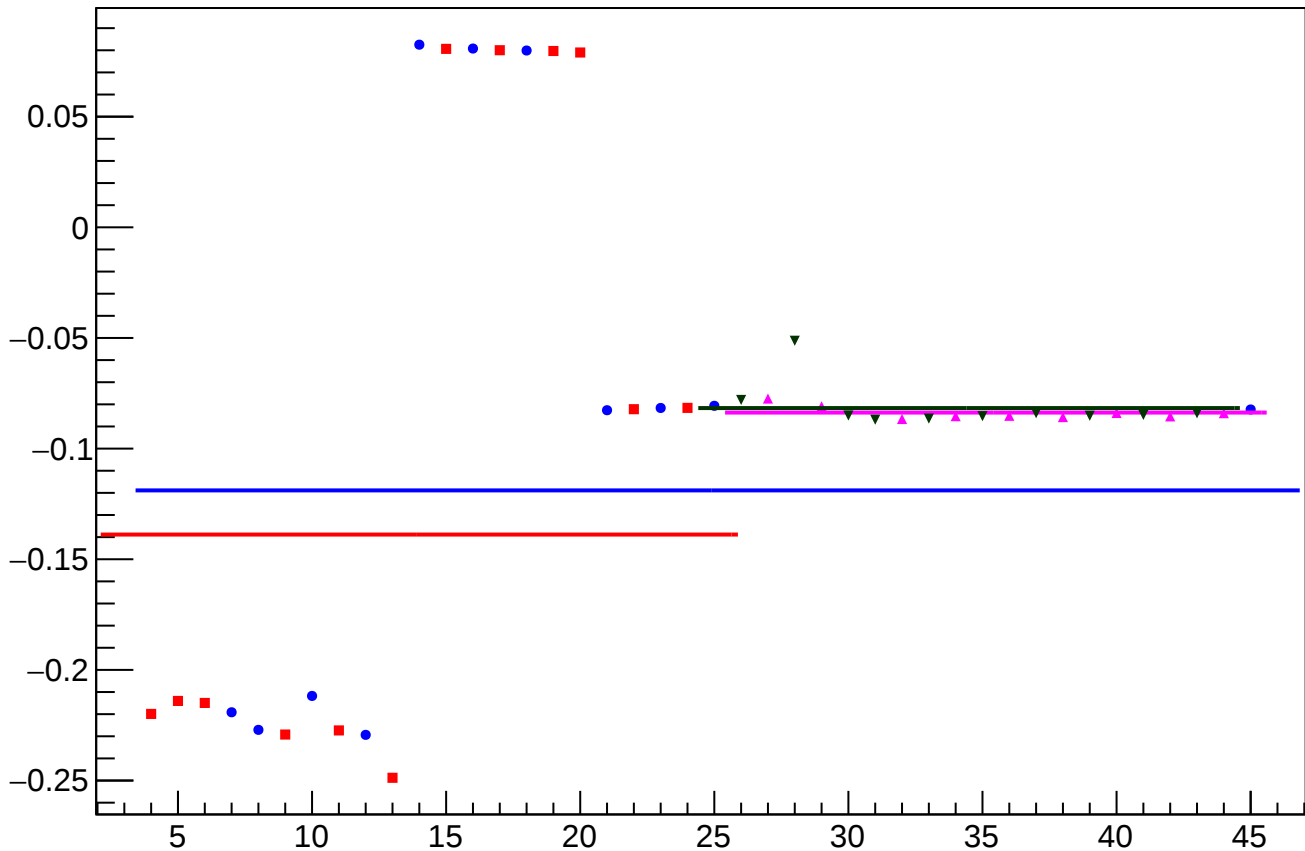
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 526292.2/11

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 752035.9/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 2187971.9/20

0.003+/-0.000  $\chi^2/\text{NDF}$ : 1682231.1/20

# yield\_cav4cY\_mean vs slug



Right In: -0.119+/-0.000  $\chi^2/\text{NDF}$ : 9574697444.9/10

Left Out: -0.082+/-0.000  $\chi^2/\text{NDF}$ : 35856752.9/9

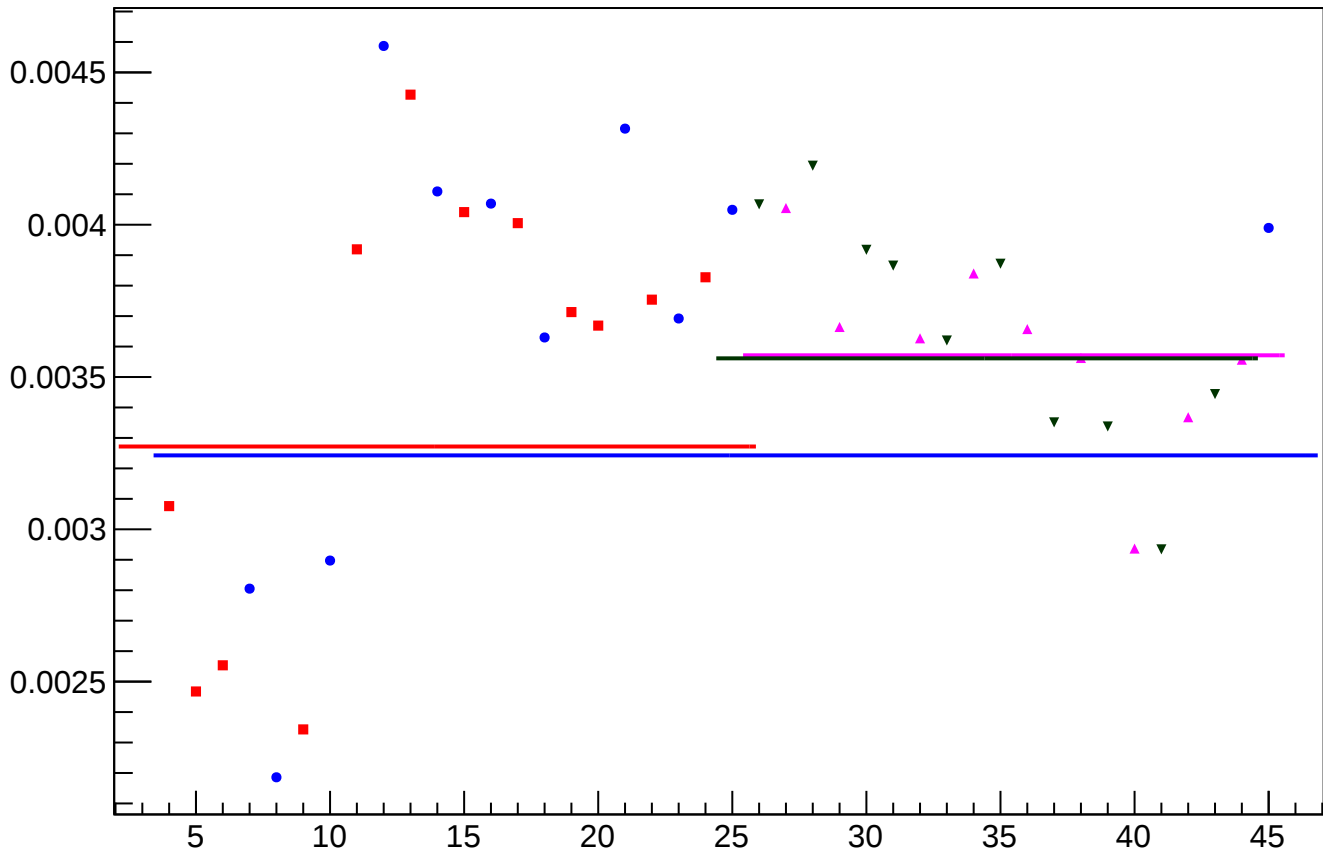
-0.104+/-0.000  $\chi^2/\text{NDF}$ : 9941941612.2/20

Right Out: -0.139+/-0.000  $\chi^2/\text{NDF}$ : 8617094052.4/11

-0.114+/-0.000  $\chi^2/\text{NDF}$ : 9341023197.5/20

Left In: -0.084+/-0.000  $\chi^2/\text{NDF}$ : 3521413.4/8

# yield\_cav4cY\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 860504.1/10

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :124023.6/9

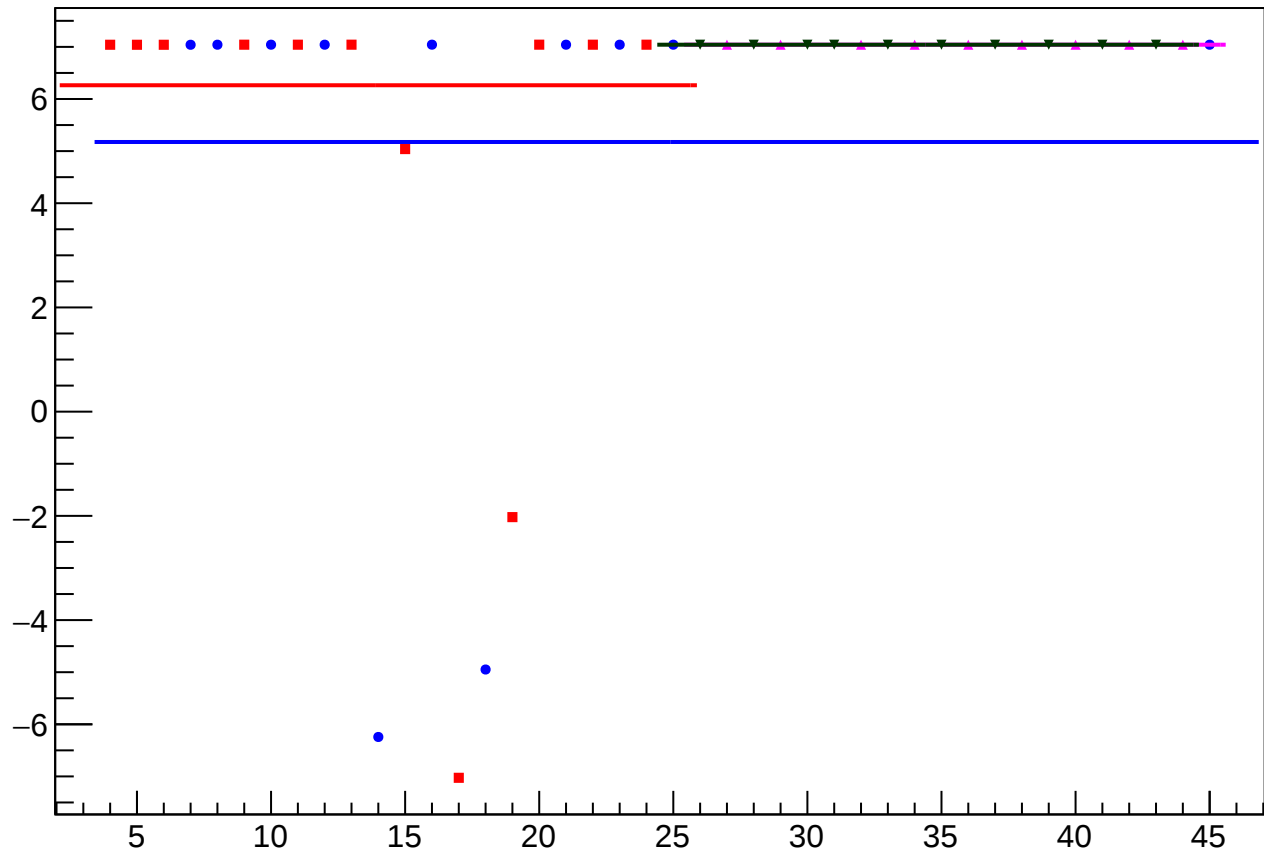
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 615311.7/11

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :79207.1/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 1033137.6/20

0.003+/-0.000  $\chi^2/\text{NDF}$ : 737035.1/20

# yield\_cav4dX\_mean vs slug



Right In: 5.175+/-0.000  $\chi^2/\text{NDF}$ : 4312427269846508.0/10

Left Out: 7.042+/-0.000  $\chi^2/\text{NDF}$ : 765209.6/9

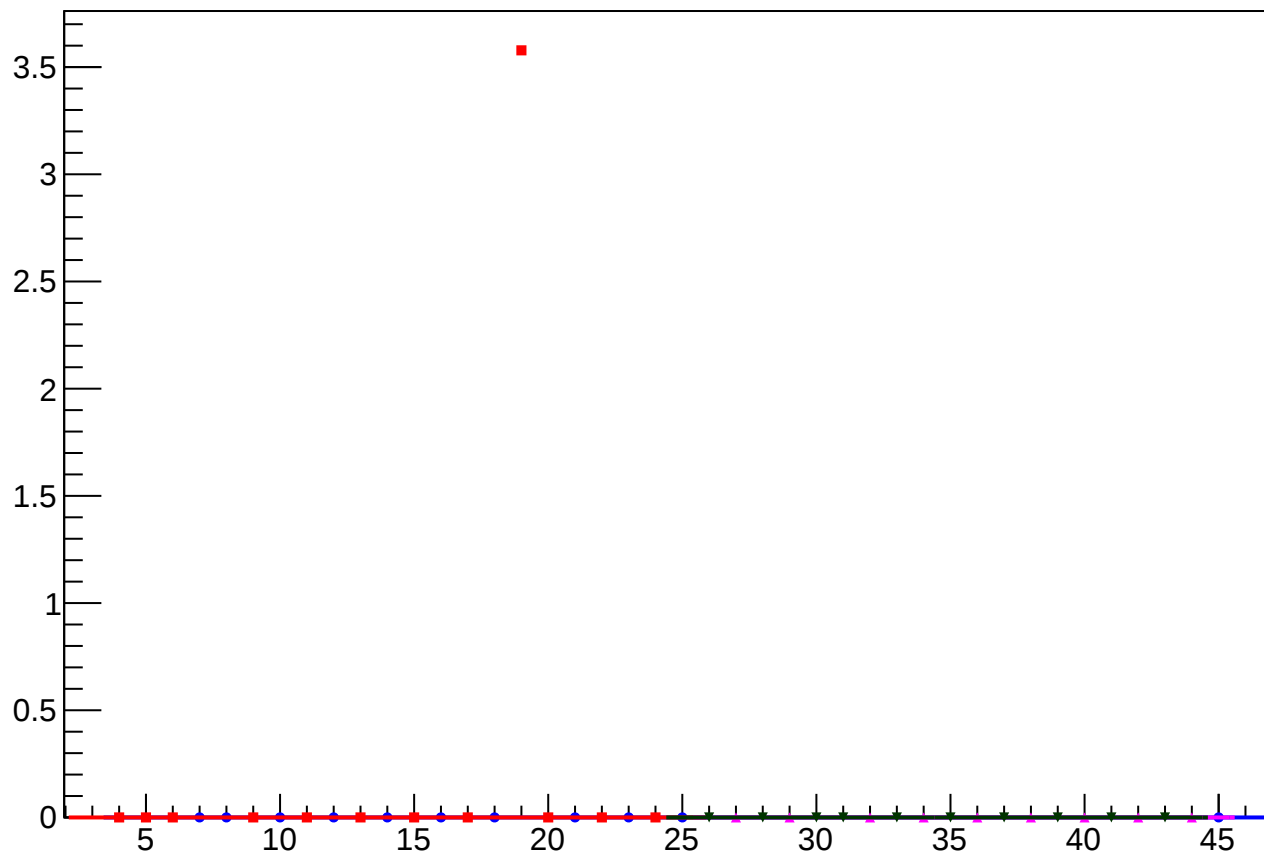
Right Out: 6.264+/-0.000  $\chi^2/\text{NDF}$ : 1812076141929126.0/11

Left In: 7.042+/-0.000  $\chi^2/\text{NDF}$ : 540646.4/8

6.099+/-0.000  $\chi^2/\text{NDF}$ : 4668734790911864.0/2

6.689+/-0.000  $\chi^2/\text{NDF}$ : 1871875312334204.2/2

yield\_cav4dX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2$ /NDF: 2589.6/10

Left Out: 0.000+/-0.000  $\chi^2$ /NDF:1535.6/9

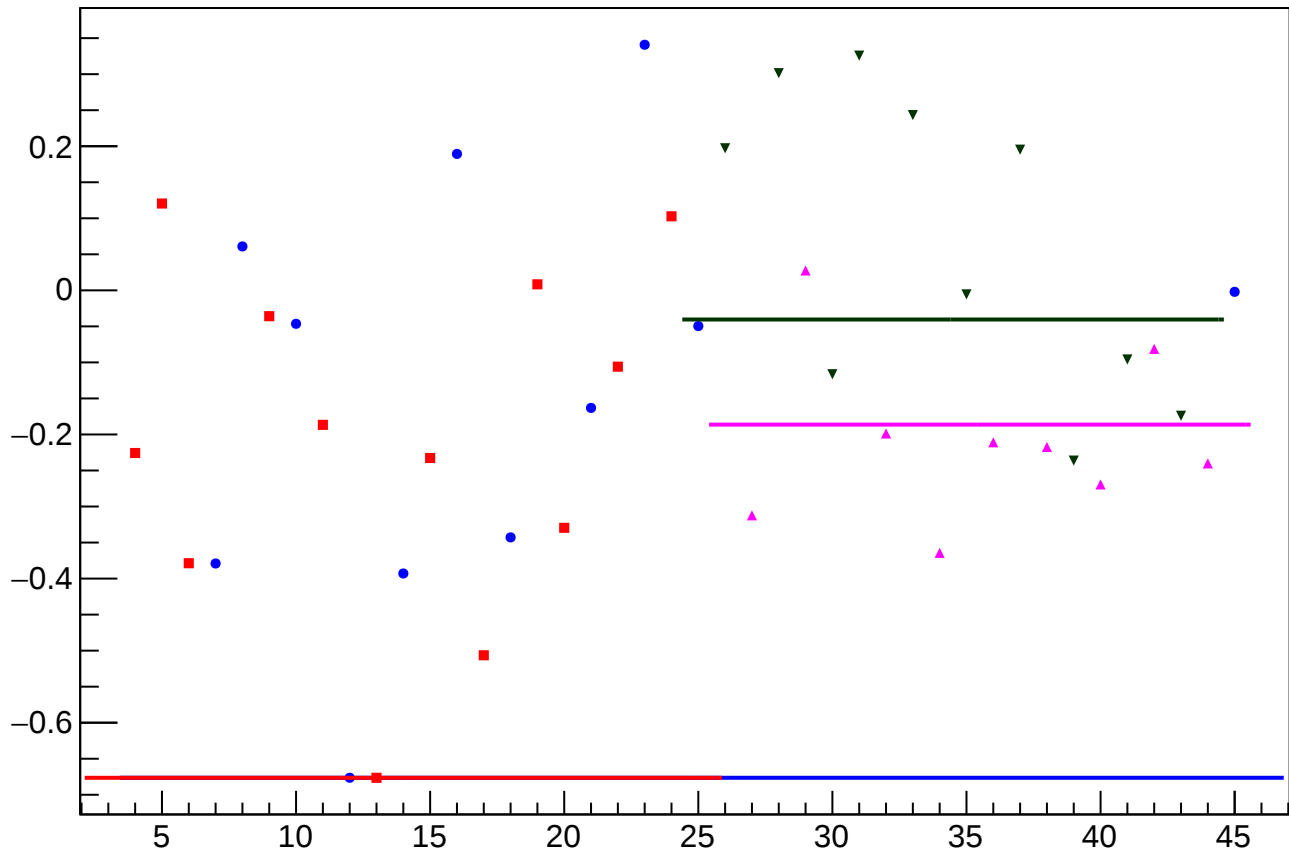
Right Out: 0.000+/-0.000  $\chi^2$ /NDF: 696528.7/11

Left In: 0.000+/-0.000  $\chi^2$ /NDF:1769.6/8

0.000+/-0.000  $\chi^2$ /NDF: 5103.0/20

0.000+/-0.000  $\chi^2$ /NDF: 701877.0/20

# yield\_cav4dY\_mean vs slug



Right In:  $-0.676 \pm 0.000$   $\chi^2/\text{NDF}$ : 230999296.0/10

Left Out:  $-0.040 \pm 0.000$   $\chi^2/\text{NDF}$ : 16704113.3/9

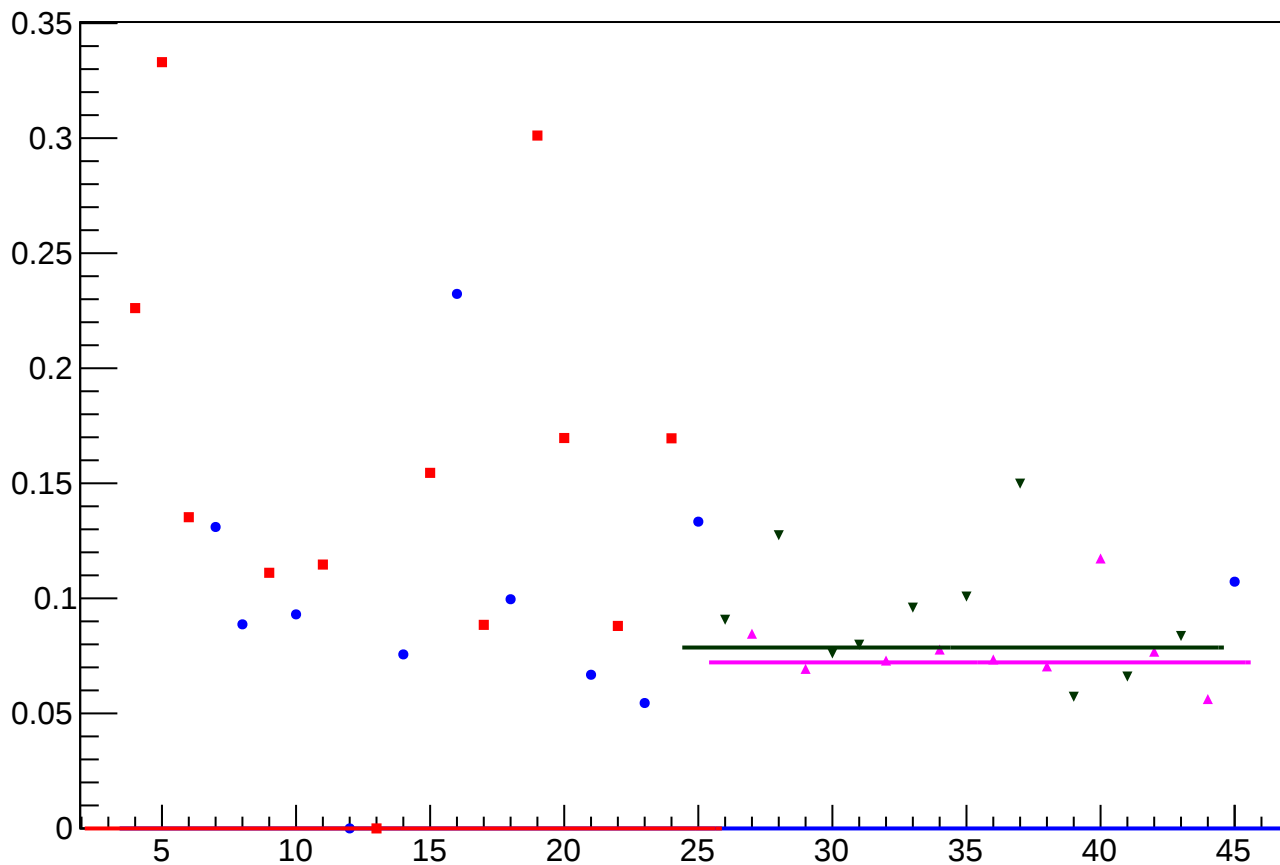
Right Out:  $-0.676 \pm 0.000$   $\chi^2/\text{NDF}$ : 65929973.4/11

Left In:  $-0.186 \pm 0.000$   $\chi^2/\text{NDF}$ : 8365095.9/8

$-0.676 \pm 0.000$   $\chi^2/\text{NDF}$ : 435738787.6/20

$-0.676 \pm 0.000$   $\chi^2/\text{NDF}$ : 231777462.6/20

# yield\_cav4dY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 9147966.9/10

Left Out: 0.079+/-0.000  $\chi^2/\text{NDF}$ : 452862.6/9

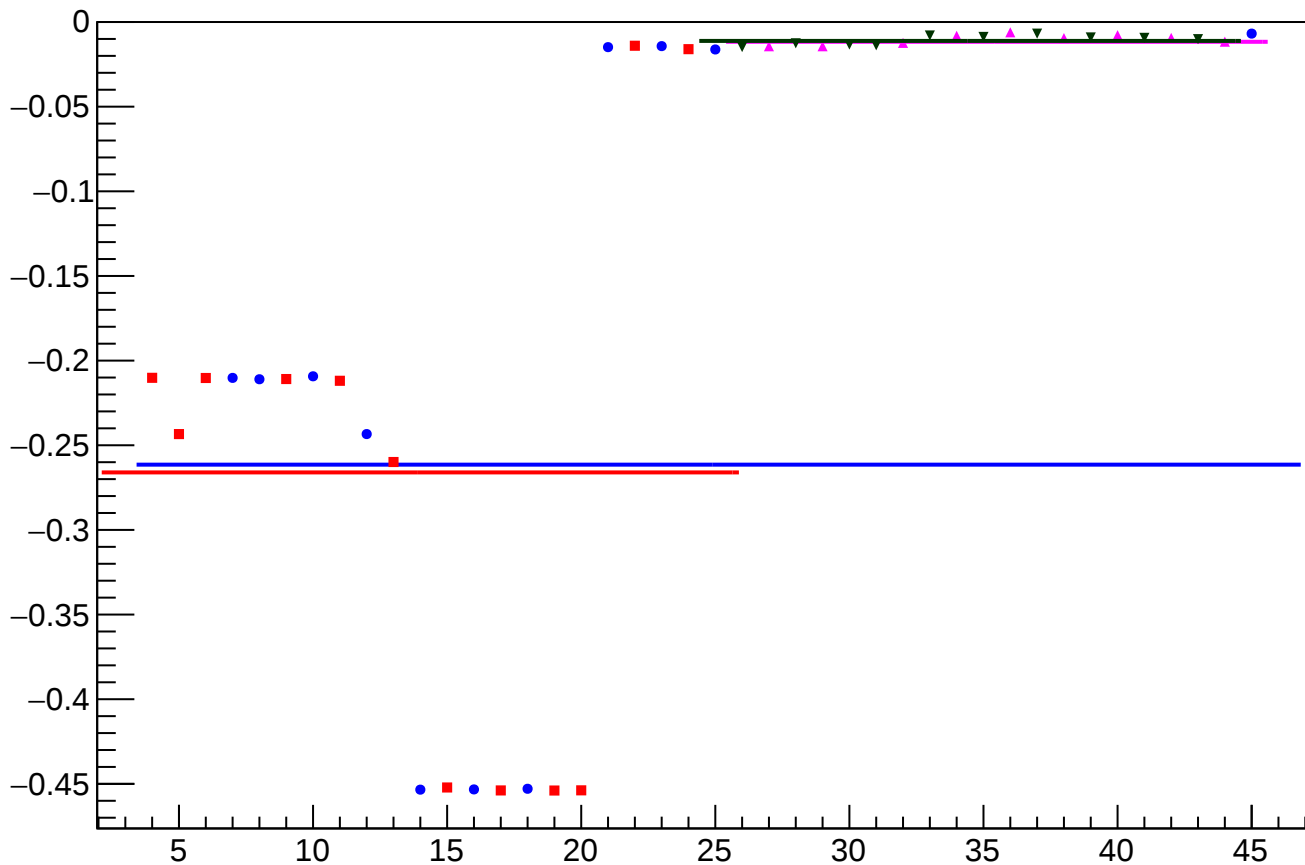
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 8085708.6/11

Left In: 0.072+/-0.000  $\chi^2/\text{NDF}$ : 192884.5/8

0.000+/-0.000  $\chi^2/\text{NDF}$ : 15347576.6/20

0.000+/-0.000  $\chi^2/\text{NDF}$ : 15103780.4/20

# yield\_bpm4aX\_mean vs slug



Right In: -0.261+/-0.000  $\chi^2/\text{NDF}$ : 3770552917.2/10

Left Out: -0.011+/-0.000  $\chi^2/\text{NDF}$ : 401443.1/9

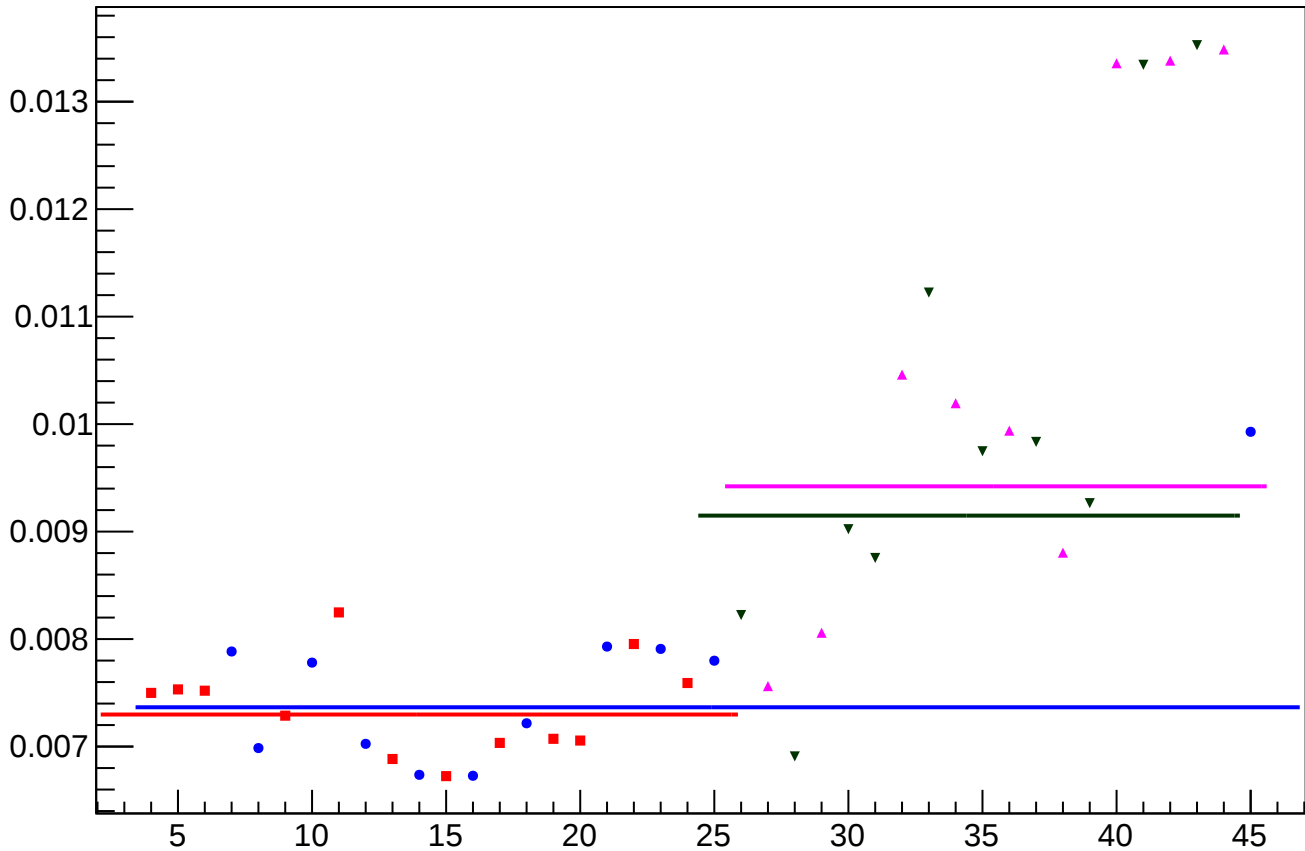
-0.181+/-0.000  $\chi^2/\text{NDF}$ : 6329586002.4/20

Right Out: -0.266+/-0.000  $\chi^2/\text{NDF}$ : 2610218769.9/11

-0.181+/-0.000  $\chi^2/\text{NDF}$ : 5191090935.7/20

Left In: -0.012+/-0.000  $\chi^2/\text{NDF}$ : 495469.4/8

# yield\_bpm4aX\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 138240.0/10

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 410320.9/9

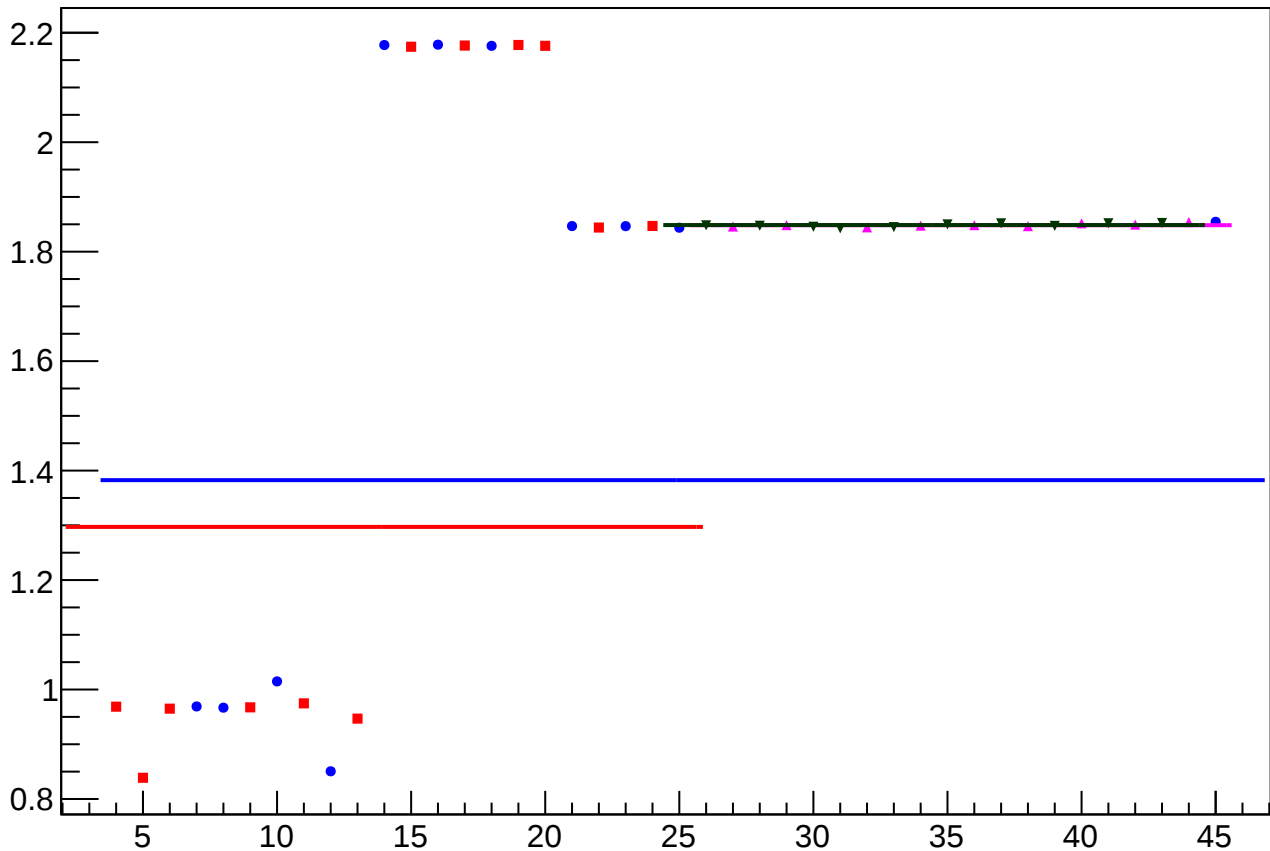
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 46835.5/11

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 449025.1/8

0.008+/-0.000  $\chi^2/\text{NDF}$ : 808308.1/20

0.008+/-0.000  $\chi^2/\text{NDF}$ : 855431.3/20

# yield\_bpm4aY\_mean vs slug



Right In: 1.383 $\pm$ 0.000  $\chi^2$ /NDF: 12948280589.1/10

Left Out: 1.849 $\pm$ 0.000  $\chi^2$ /NDF:239961.3/9

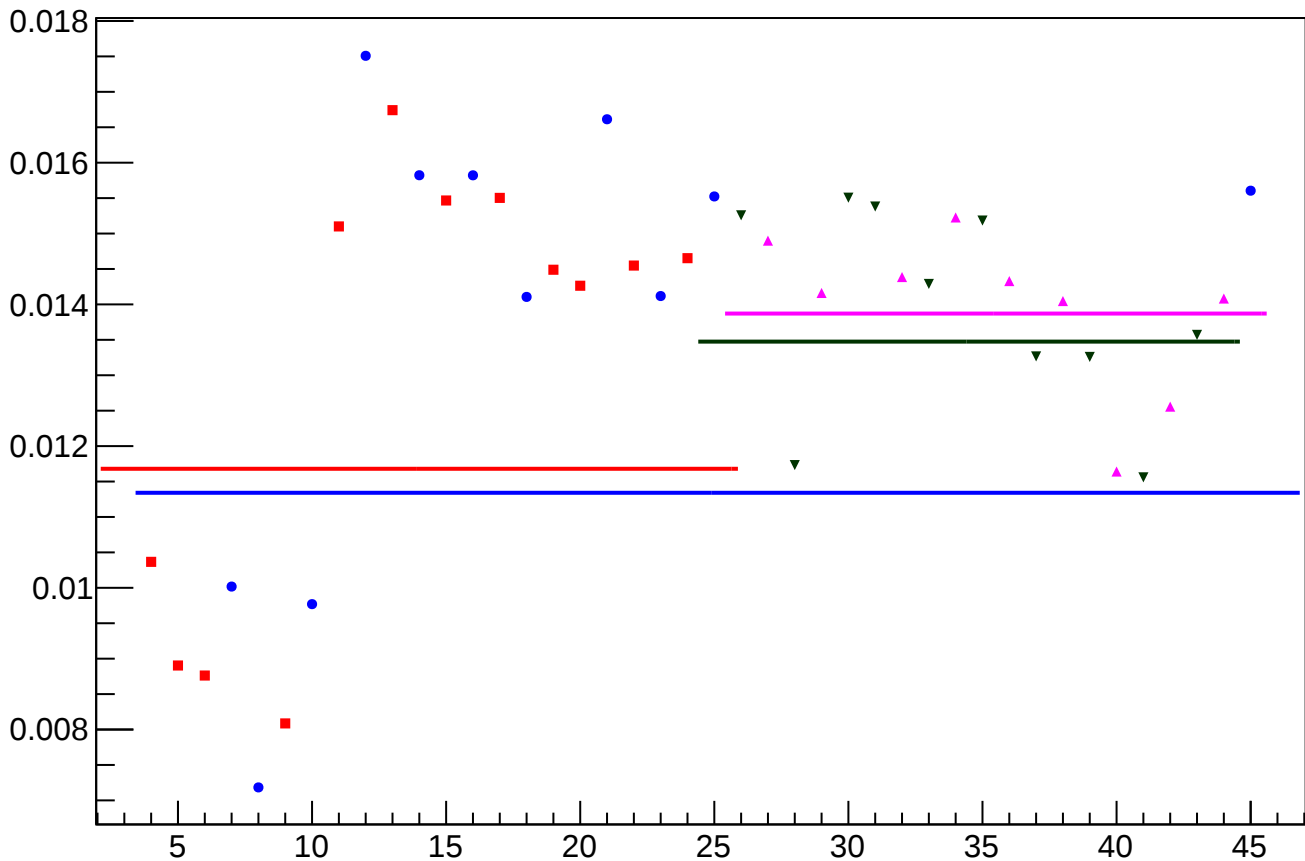
1.555 $\pm$ 0.000  $\chi^2$ /NDF: 16737519439.6/20

Right Out: 1.297 $\pm$ 0.000  $\chi^2$ /NDF: 10947439943.1/11

1.520 $\pm$ 0.000  $\chi^2$ /NDF: 16078471813.7/20

Left In: 1.848 $\pm$ 0.000  $\chi^2$ /NDF:226687.9/8

# yield\_bpm4aY\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 1396493.6/10

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :115364.2/9

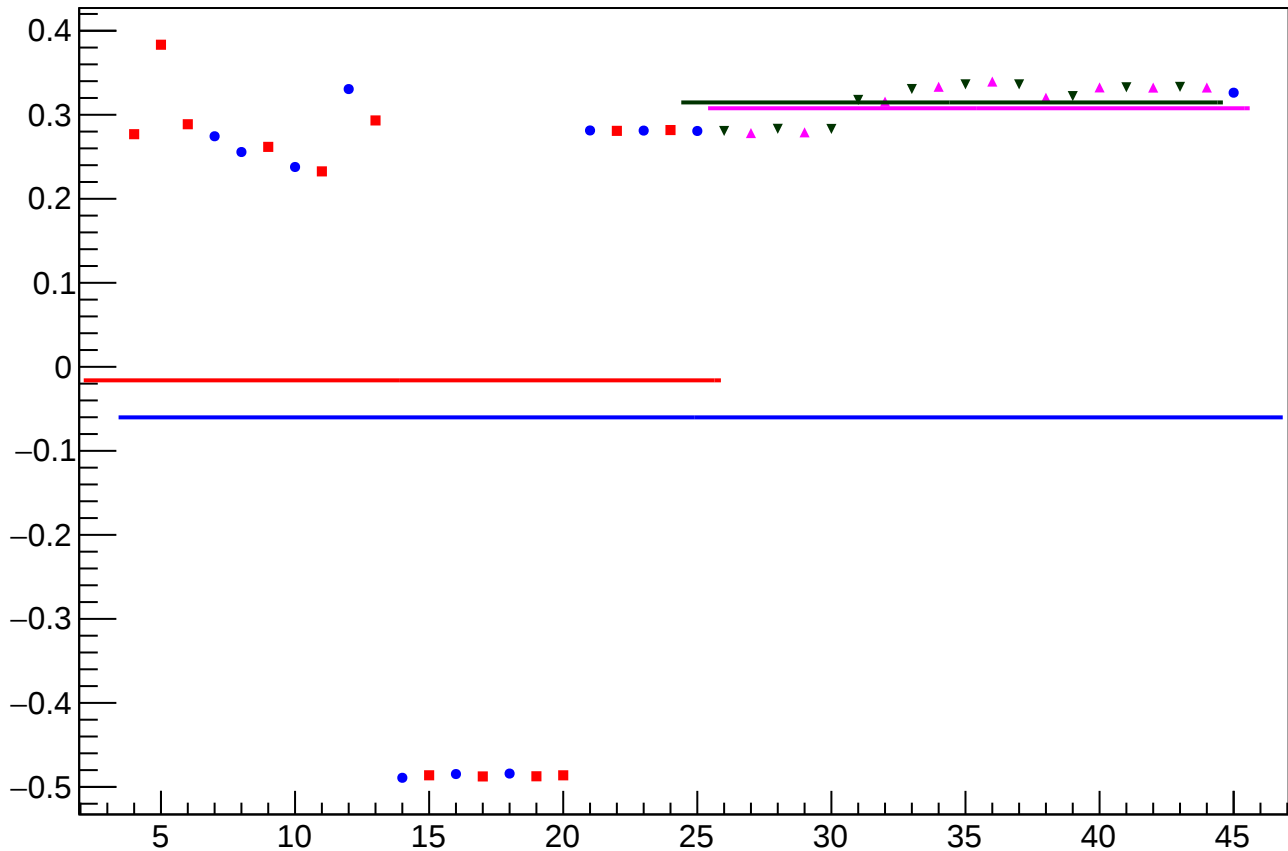
0.012+/-0.000  $\chi^2/\text{NDF}$ : 1670660.7/20

Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 930559.5/11

0.013+/-0.000  $\chi^2/\text{NDF}$ : 1159234.7/20

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :66613.9/8

# yield\_bpm4eX\_mean vs slug



Right In: -0.060+/-0.000  $\chi^2/\text{NDF}$ : 3043189519.7/10

Left Out: 0.315+/-0.000  $\chi^2/\text{NDF}$ :5189197.9/9

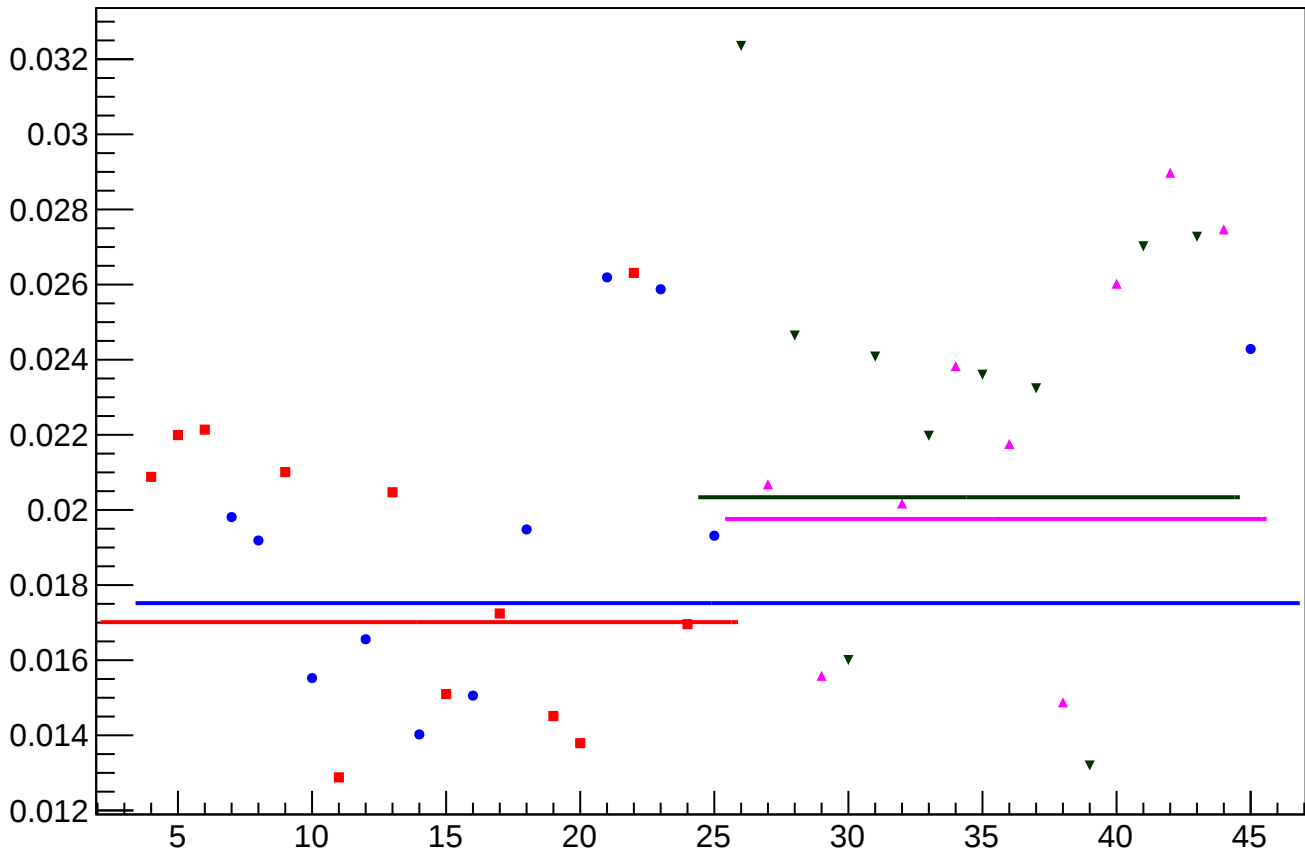
0.071+/-0.000  $\chi^2/\text{NDF}$ : 4081828253.9/20

Right Out: -0.016+/-0.000  $\chi^2/\text{NDF}$ : 2739143286.6/11

0.109+/-0.000  $\chi^2/\text{NDF}$ : 3571918724.8/20

Left In: 0.308+/-0.000  $\chi^2/\text{NDF}$ :7383992.6/8

# yield\_bpm4eX\_rms vs slug



Right In: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 572121.6/10

Left Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 733336.7/9

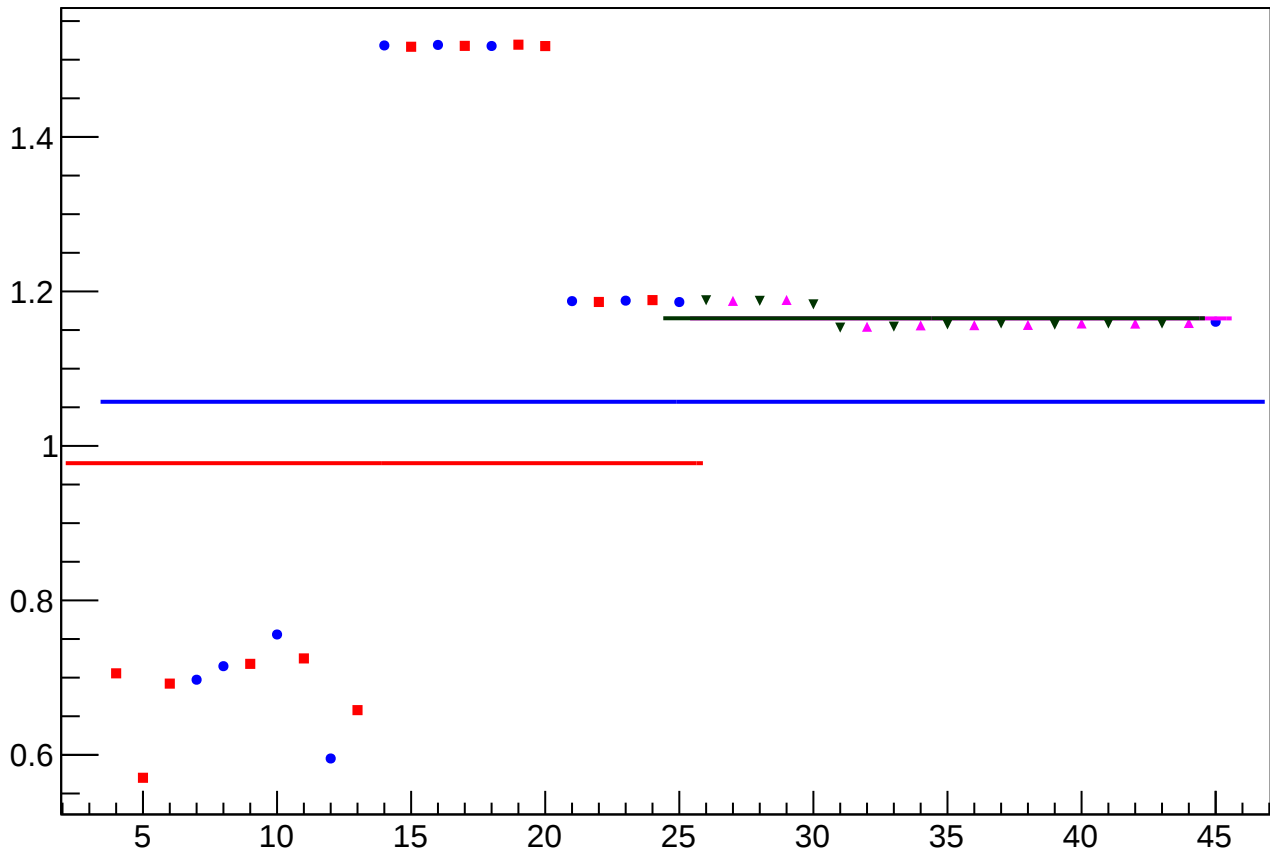
Right Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 541970.9/11

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 482021.9/8

0.019+/-0.000  $\chi^2/\text{NDF}$ : 1422381.6/20

0.018+/-0.000  $\chi^2/\text{NDF}$ : 1142766.7/20

# yield\_bpm4eY\_mean vs slug



Right In: 1.057+/-0.000  $\chi^2/\text{NDF}$ : 10340707784.3/10

Left Out: 1.165+/-0.000  $\chi^2/\text{NDF}$ :12143638.8/9

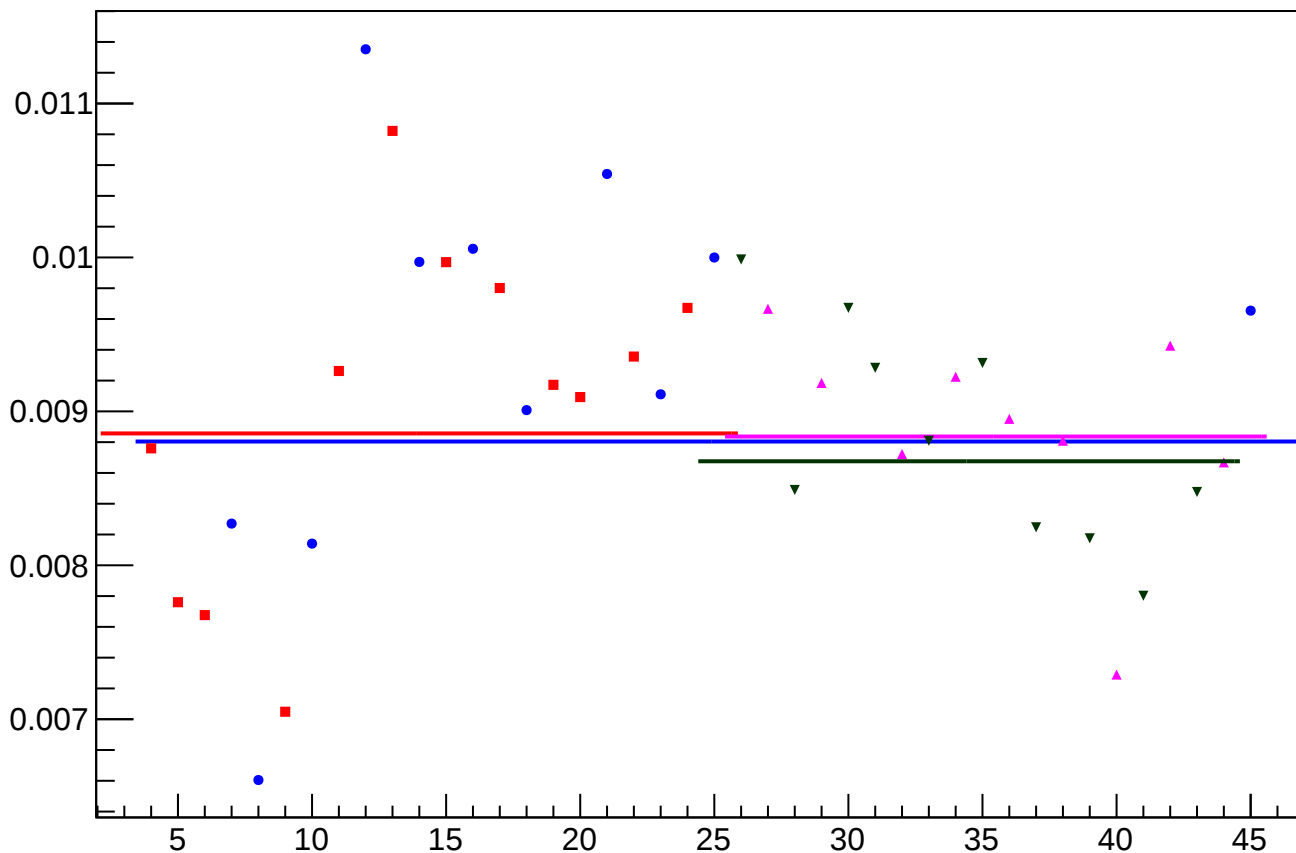
1.105+/-0.000  $\chi^2/\text{NDF}$ : 10794017432.0/20

Right Out: 0.978+/-0.000  $\chi^2/\text{NDF}$ : 9897401284.9/11

1.066+/-0.000  $\chi^2/\text{NDF}$ : 11191690261.5/20

Left In: 1.165+/-0.000  $\chi^2/\text{NDF}$ :13354823.7/8

yield\_bpm4eY\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 369466.3/10

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 57413.1/9

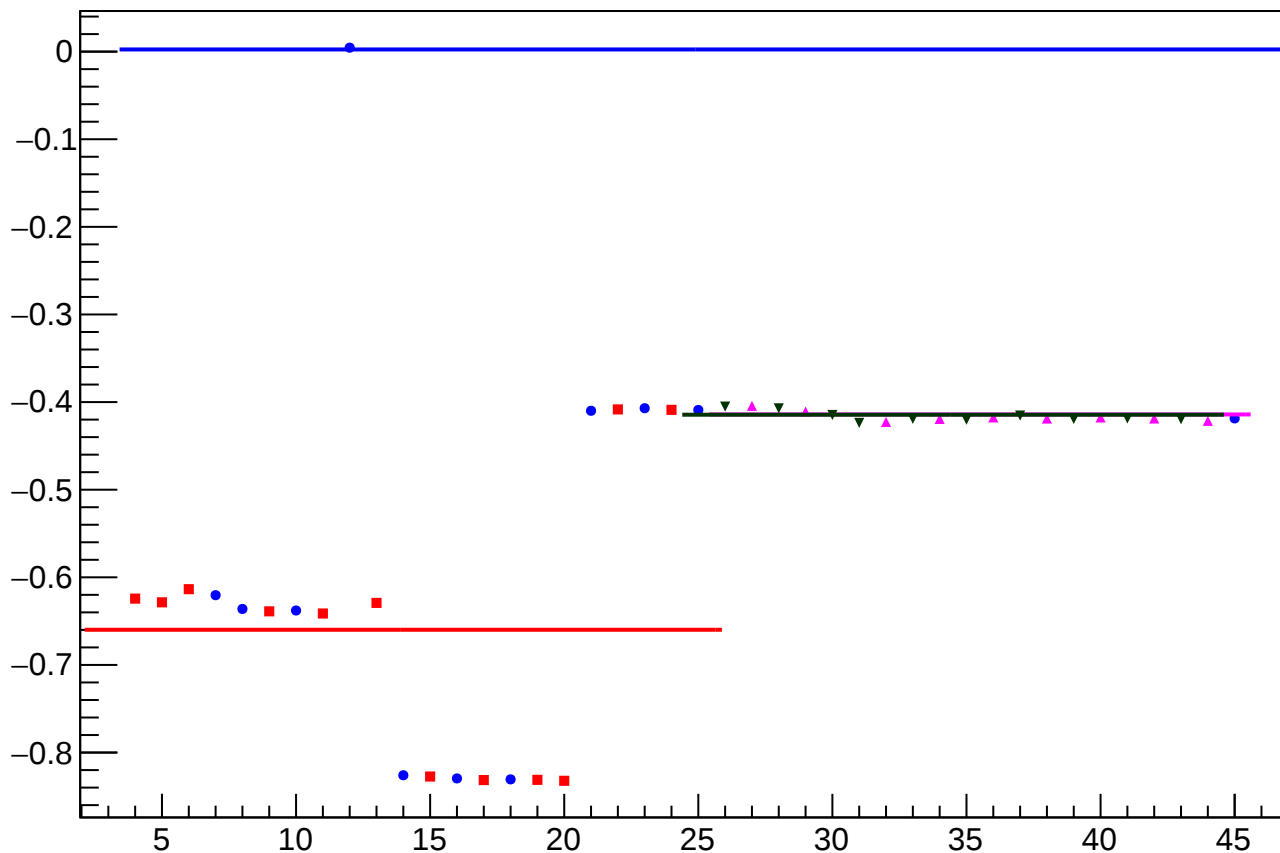
Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 223846.5/11

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 63755.7/8

0.009+/-0.000  $\chi^2/\text{NDF}$ : 428123.0/20

0.009+/-0.000  $\chi^2/\text{NDF}$ : 287631.7/20

# yield\_bpm4acX\_mean vs slug



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 52992468606.4/10

Left Out: -0.660+/-0.000  $\chi^2/\text{NDF}$ : 2260145.2/9

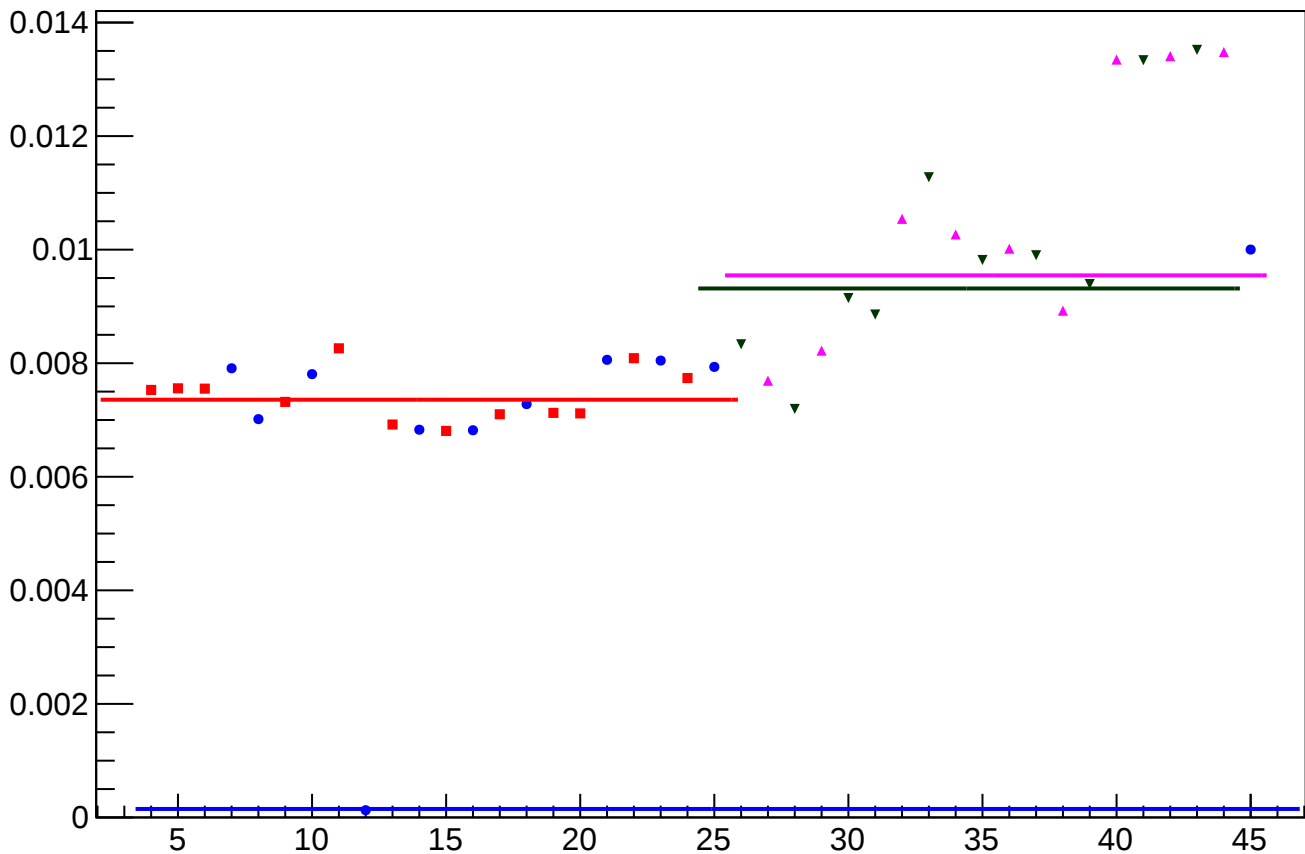
Right Out: -0.660+/-0.000  $\chi^2/\text{NDF}$ : 2254569212.9/11

Left In: -0.414+/-0.000  $\chi^2/\text{NDF}$ : 2651942.7/8

0.002+/-0.000  $\chi^2/\text{NDF}$ : 63109513129.0/20

-0.578+/-0.000  $\chi^2/\text{NDF}$ : 4616010360.0/20

# yield\_bpm4acX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 12324354.3/10

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 365508.7/9

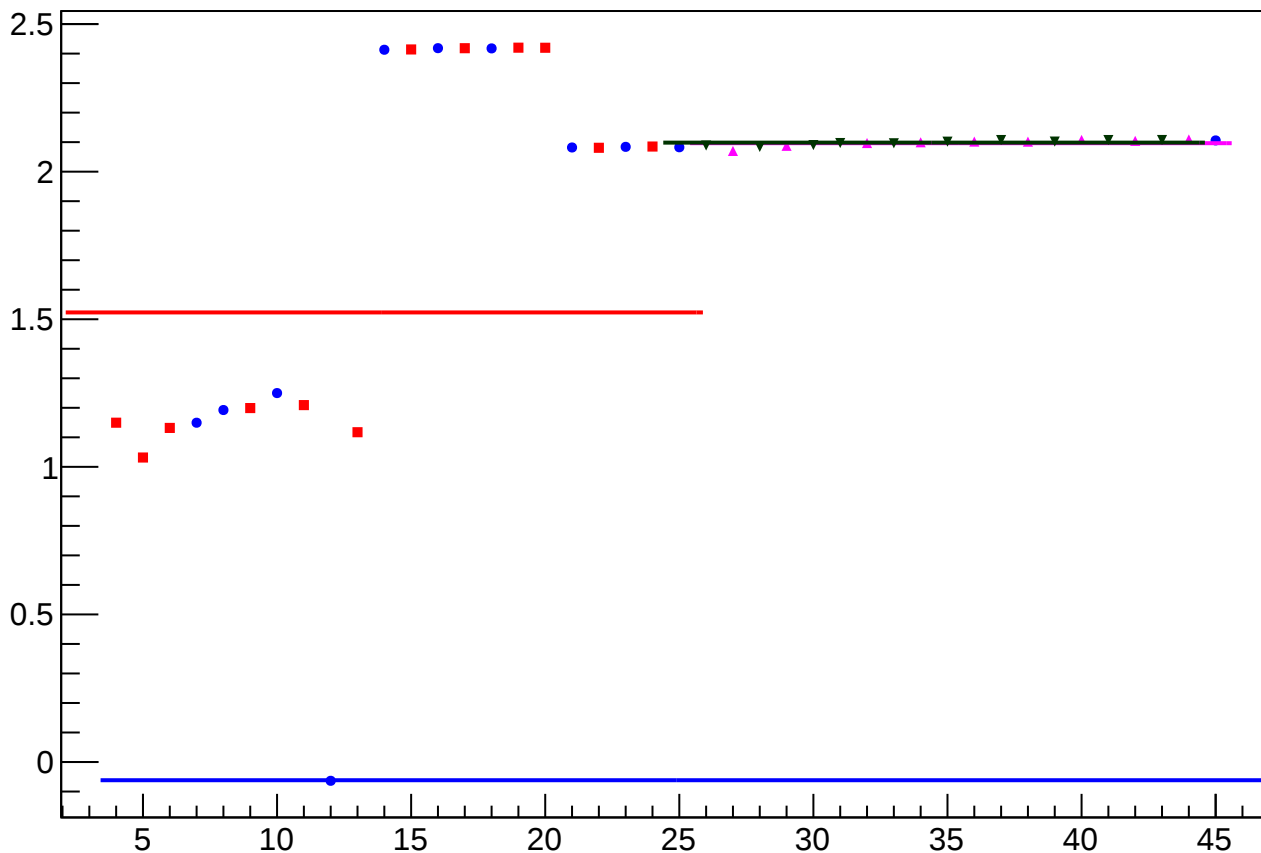
0.000+/-0.000  $\chi^2/\text{NDF}$ : 22471389.5/20

Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 46926.6/11

0.008+/-0.000  $\chi^2/\text{NDF}$ : 843383.6/20

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 421826.7/8

# yield\_bpm4acY\_mean vs slug



Right In: -0.062+/-0.000  $\chi^2/\text{NDF}$ : 138247343569.1/10

Left Out: 2.098+/-0.000  $\chi^2/\text{NDF}$ : 2018647.6/9

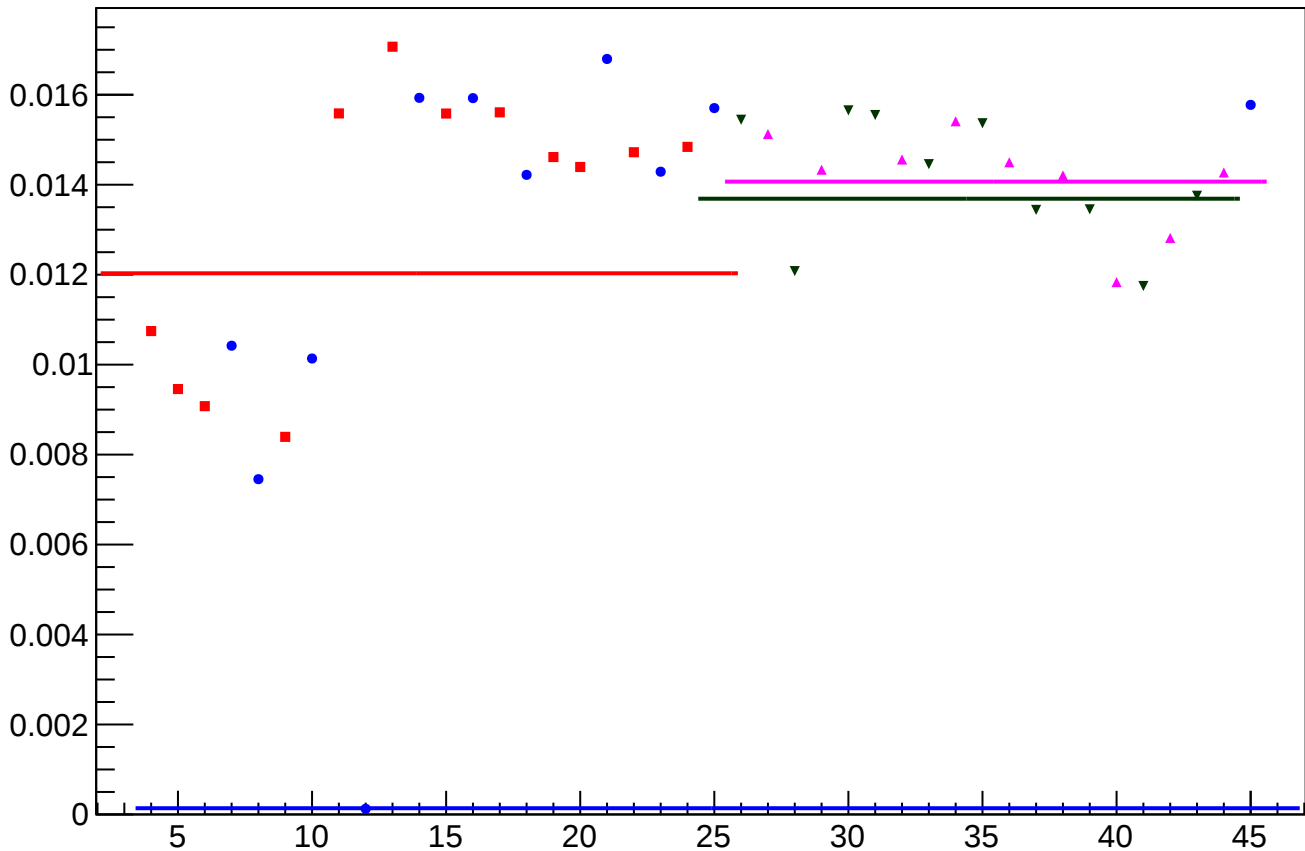
-0.060+/-0.000  $\chi^2/\text{NDF}$ : 263595677974.7/20

Right Out: 1.523+/-0.000  $\chi^2/\text{NDF}$ : 11362537231.2/11

1.759+/-0.000  $\chi^2/\text{NDF}$ : 16700944663.4/20

Left In: 2.096+/-0.000  $\chi^2/\text{NDF}$ : 3992542.9/8

# yield\_bpm4acY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 12065705.3/10

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 106273.7/9

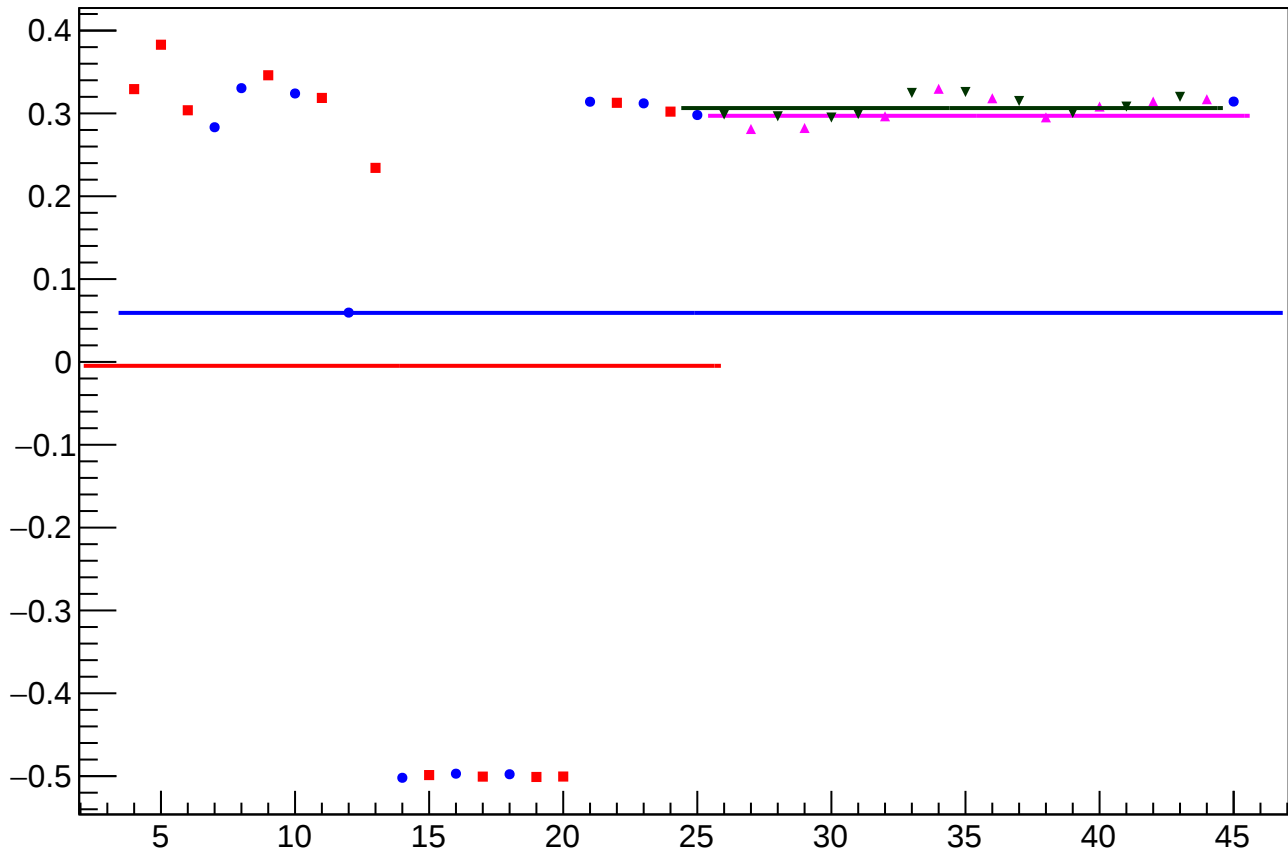
0.000+/-0.000  $\chi^2/\text{NDF}$ : 22037401.6/20

Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 858730.1/11

0.013+/-0.000  $\chi^2/\text{NDF}$ : 1056834.5/20

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  $\chi^2$ /NDF: 3605305759.4/10

Left Out: 0.306 $\pm$ 0.000  $\chi^2$ /NDF:1355327.7/9

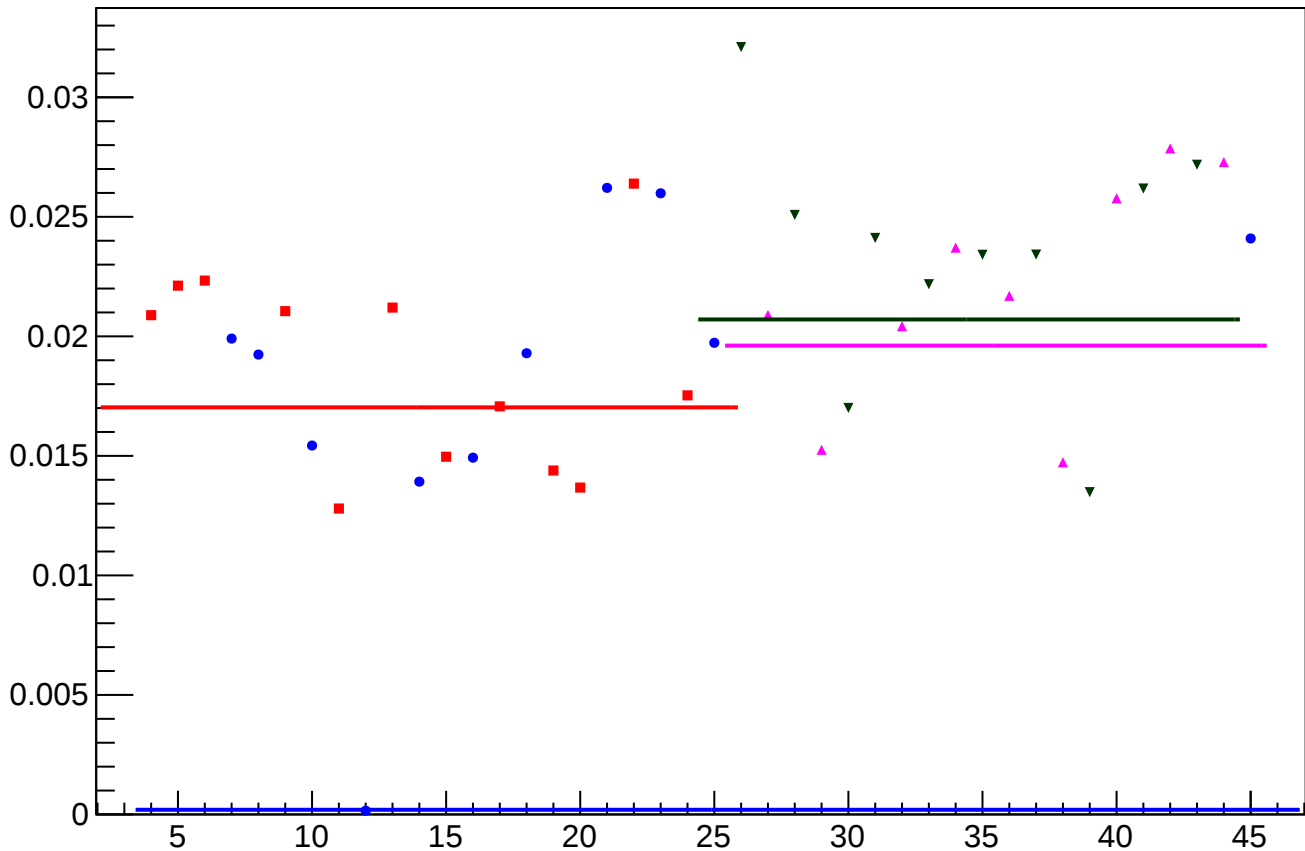
0.060 $\pm$ 0.000  $\chi^2$ /NDF: 4279354074.7/20

Right Out: -0.005 $\pm$ 0.000  $\chi^2$ /NDF: 3140963258.0/11

0.113 $\pm$ 0.000  $\chi^2$ /NDF: 3867908072.4/20

Left In: 0.297 $\pm$ 0.000  $\chi^2$ /NDF:3115046.5/8

# yield\_bpm4ecX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 12116660.5/10

Left Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 655279.7/9

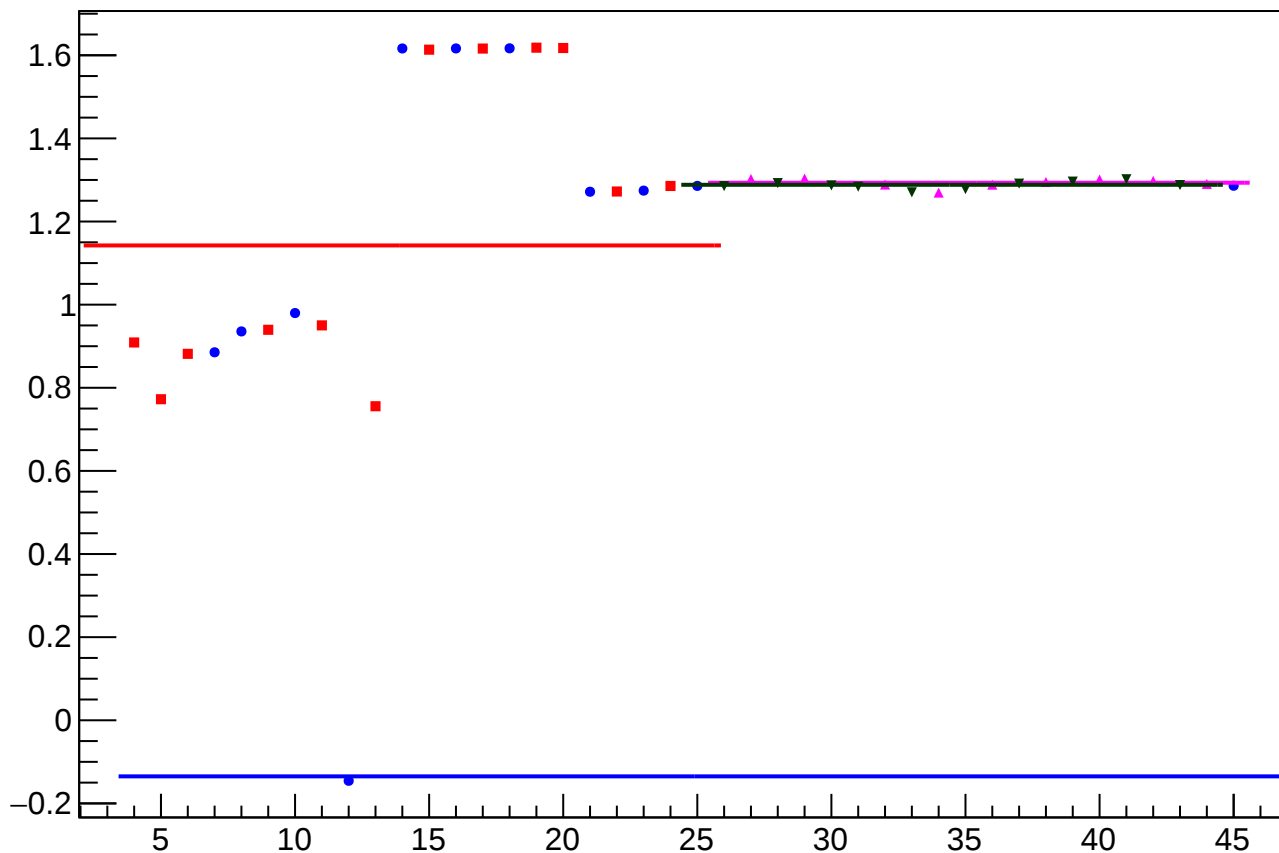
0.000+/-0.000  $\chi^2/\text{NDF}$ : 22030990.8/20

Right Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 584593.5/11

0.018+/-0.000  $\chi^2/\text{NDF}$ : 1184040.6/20

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 493445.7/8

# yield\_bpm4ecY\_mean vs slug



Right In: -0.135+/-0.000  $\chi^2/\text{NDF}$ : 141745487817.3/10

Left Out: 1.288+/-0.000  $\chi^2/\text{NDF}$ : 3982202.6/9

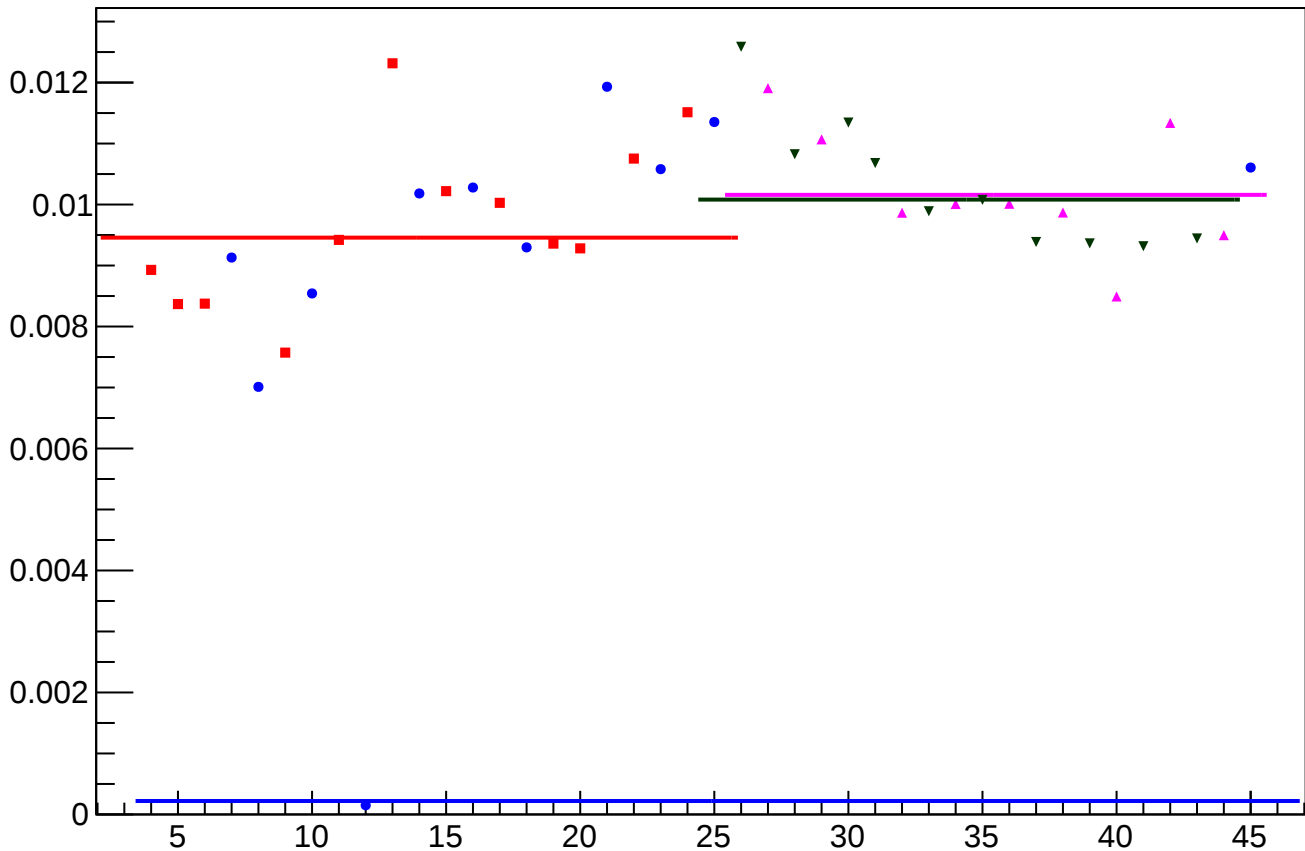
Right Out: 1.142+/-0.000  $\chi^2/\text{NDF}$ : 7015082012.3/11

Left In: 1.293+/-0.000  $\chi^2/\text{NDF}$ : 4686204.8/8

-0.127+/-0.000  $\chi^2/\text{NDF}$ : 242780184735.2/20

1.208+/-0.000  $\chi^2/\text{NDF}$ : 7688173381.3/20

# yield\_bpm4ecY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 11943764.2/10

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 82741.5/9

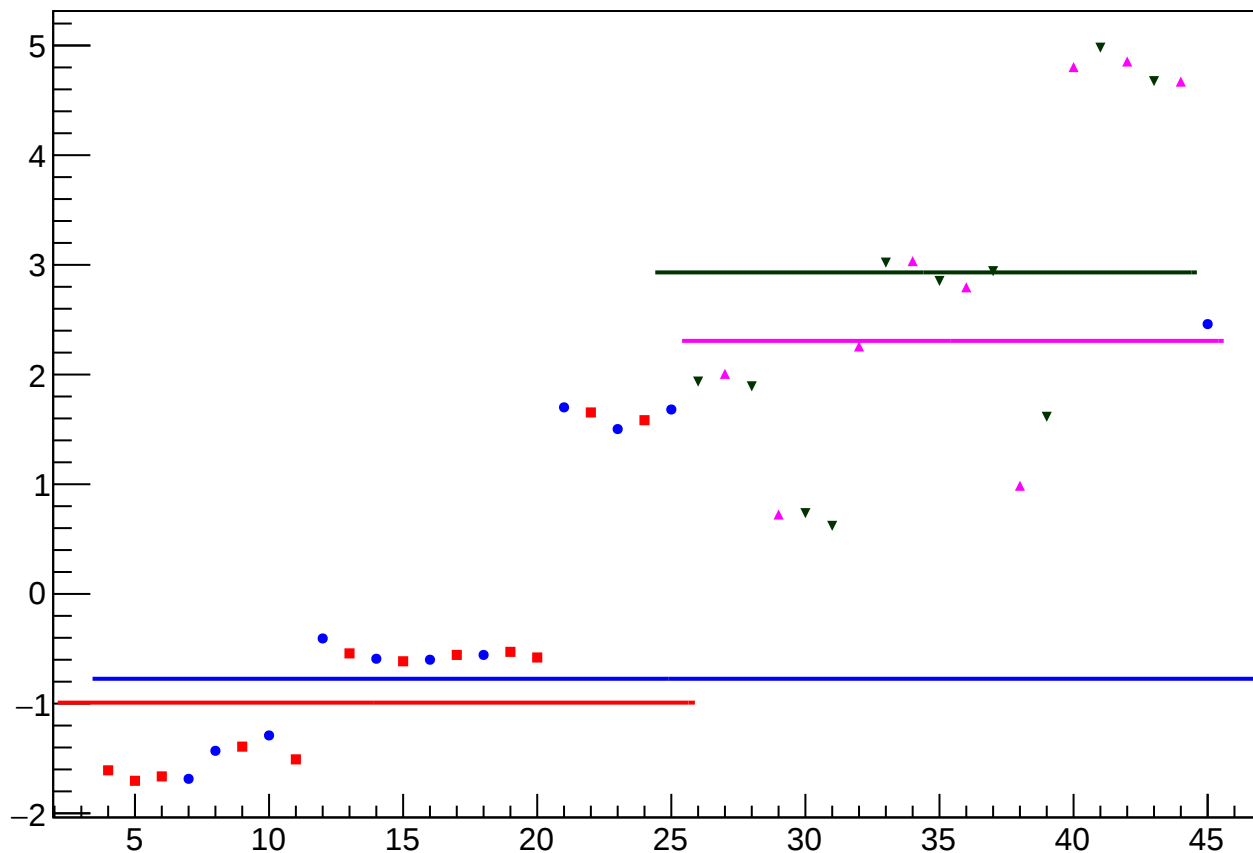
0.000+/-0.000  $\chi^2/\text{NDF}$ : 21725074.0/20

Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 269492.1/11

0.010+/-0.000  $\chi^2/\text{NDF}$ : 399347.5/20

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 100961.6/8

# yield\_bpm1X\_mean vs slug



Right In: -0.773+/-0.000  $\chi^2/\text{NDF}$ : 2427747023.8/10

Left Out: 2.931+/-0.000  $\chi^2/\text{NDF}$ : 696767729.4/9

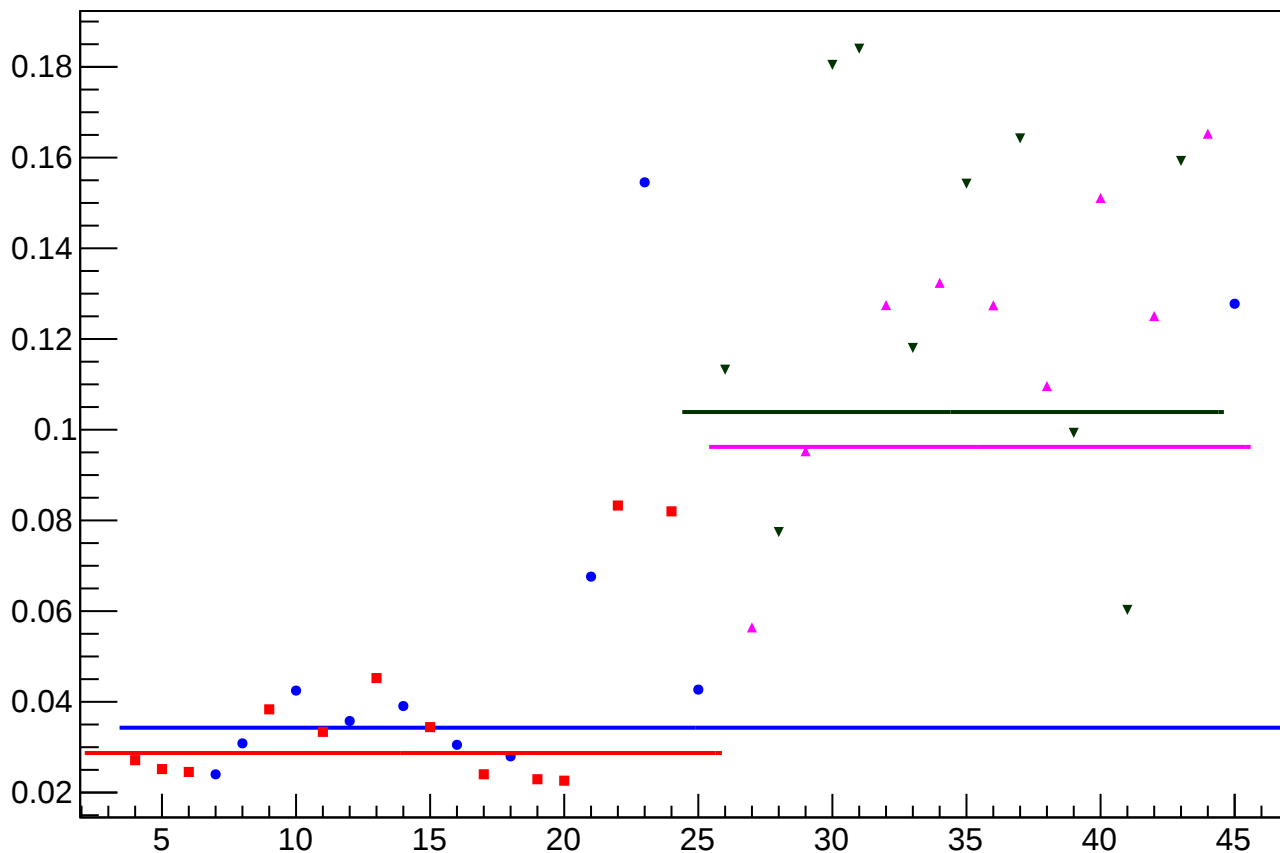
Right Out: -0.991+/-0.000  $\chi^2/\text{NDF}$ : 2016562689.3/11

Left In: 2.307+/-0.000  $\chi^2/\text{NDF}$ : 637059338.1/8

-0.486+/-0.000  $\chi^2/\text{NDF}$ : 7263126589.2/20

-0.755+/-0.000  $\chi^2/\text{NDF}$ : 6851319046.4/20

# yield\_bpm1X\_rms vs slug



Right In: 0.034+/-0.000  $\chi^2/\text{NDF}$ : 1567807.5/10

Left Out: 0.104+/-0.000  $\chi^2/\text{NDF}$ :1068598.5/9

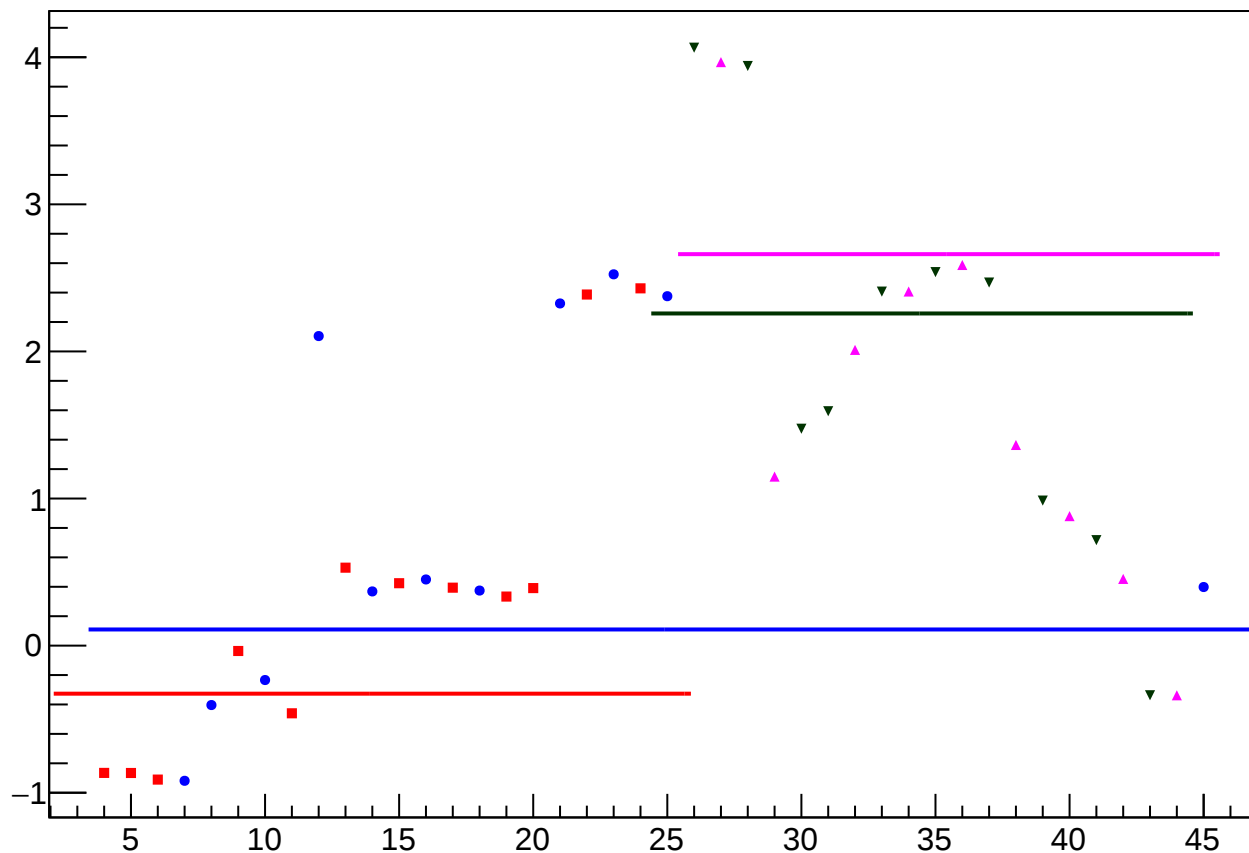
Right Out: 0.029+/-0.000  $\chi^2/\text{NDF}$ : 965052.5/11

Left In: 0.096+/-0.000  $\chi^2/\text{NDF}$ :1062303.0/8

0.040+/-0.000  $\chi^2/\text{NDF}$ : 5558195.1/20

0.034+/-0.000  $\chi^2/\text{NDF}$ : 5543066.1/20

# yield\_bpm1Y\_mean vs slug



Right In: 0.110 $\pm$ 0.000  $\chi^2$ /NDF: 8115753535.6/10

Left Out: 2.258 $\pm$ 0.000  $\chi^2$ /NDF:1464188140.1/9

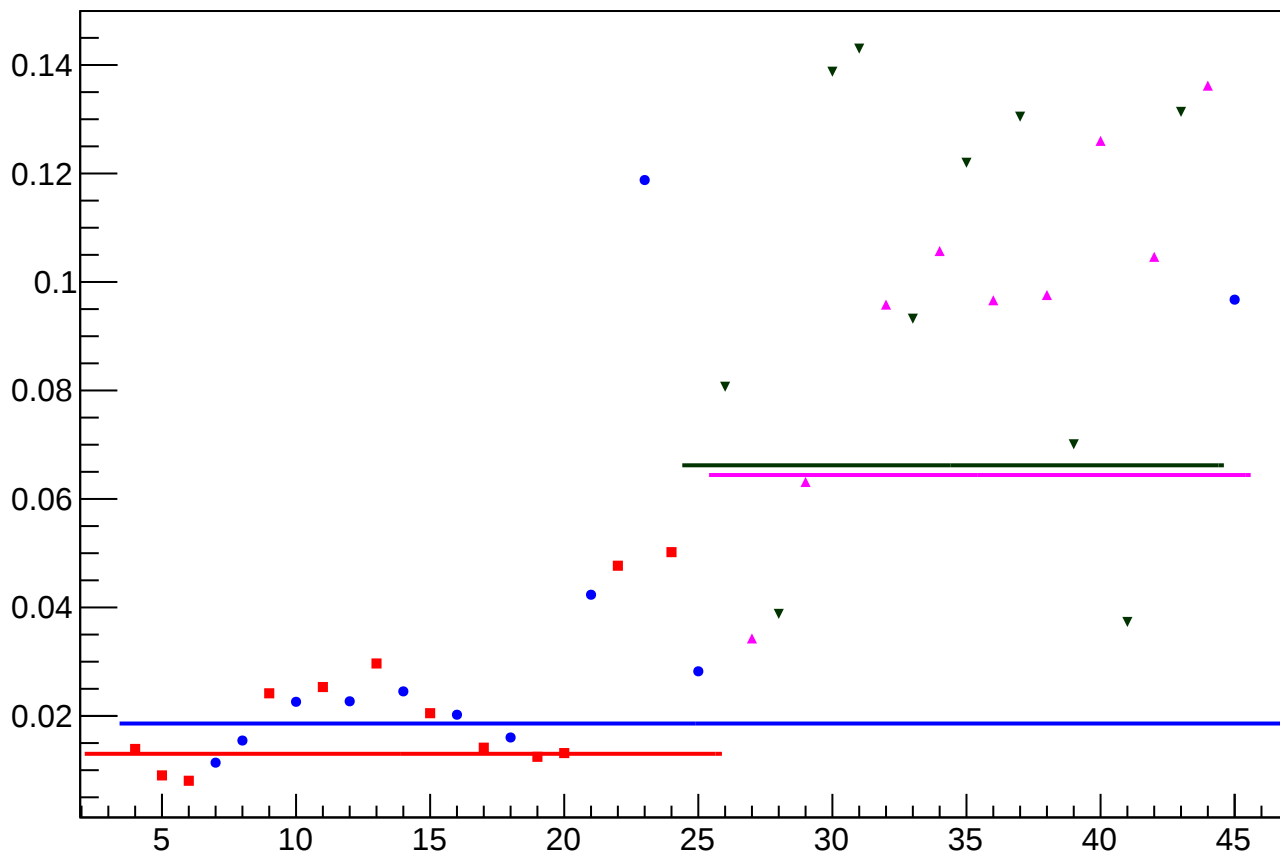
Right Out: -0.327 $\pm$ 0.000  $\chi^2$ /NDF: 9287320551.8/11

Left In: 2.661 $\pm$ 0.000  $\chi^2$ /NDF:1577506308.7/8

0.233 $\pm$ 0.000  $\chi^2$ /NDF: 12495394206.0/20

-0.214 $\pm$ 0.000  $\chi^2$ /NDF: 17842006985.6/20

# yield\_bpm1Y\_rms vs slug



Right In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 1944181.7/10

Left Out: 0.066+/-0.000  $\chi^2/\text{NDF}$ : 1777792.9/9

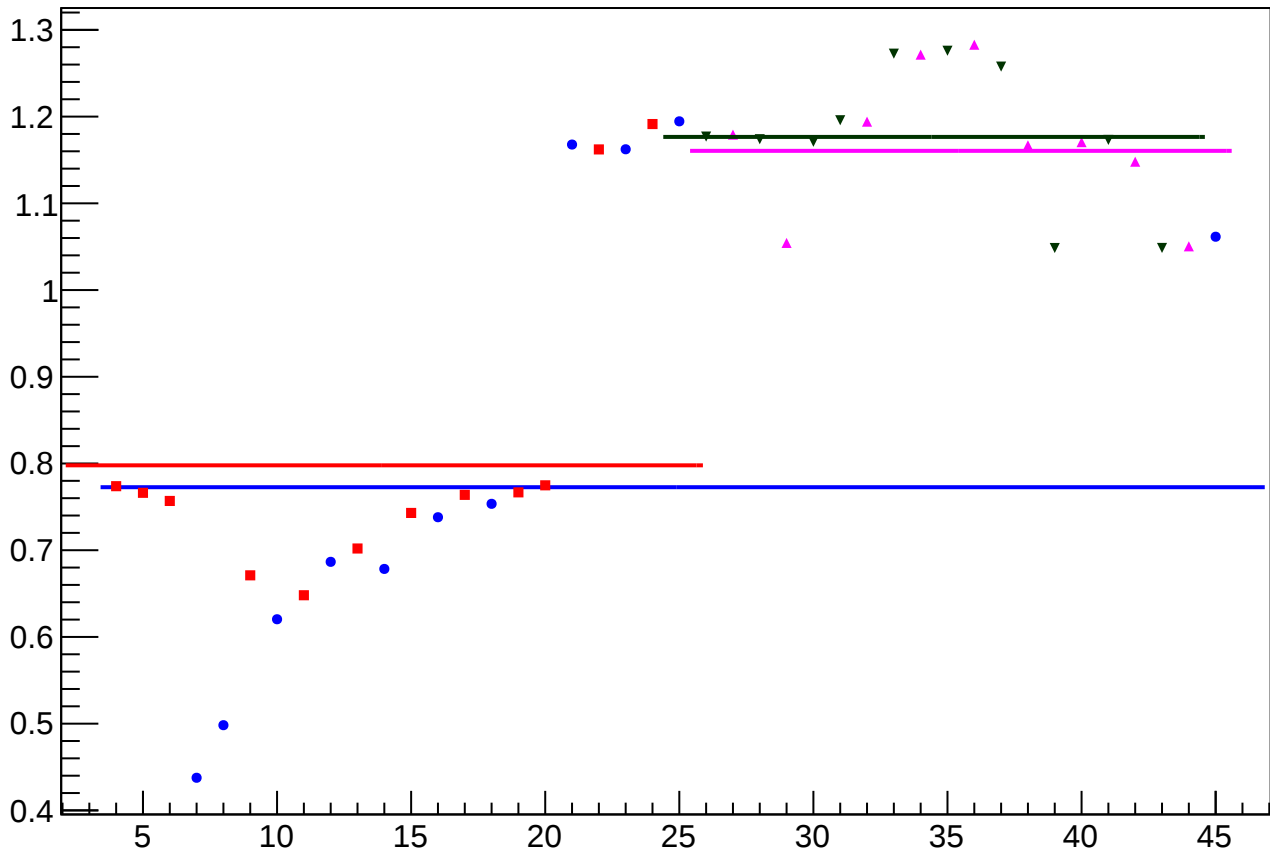
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 1857519.6/11

Left In: 0.064+/-0.000  $\chi^2/\text{NDF}$ : 1800340.3/8

0.021+/-0.000  $\chi^2/\text{NDF}$ : 6584990.5/20

0.015+/-0.000  $\chi^2/\text{NDF}$ : 7786654.5/20

# yield\_bpm11X\_mean vs slug



Right In: 0.773+/-0.000  $\chi^2/\text{NDF}$ : 930823208.2/10

Left Out: 1.177+/-0.000  $\chi^2/\text{NDF}$ : 56492661.1/9

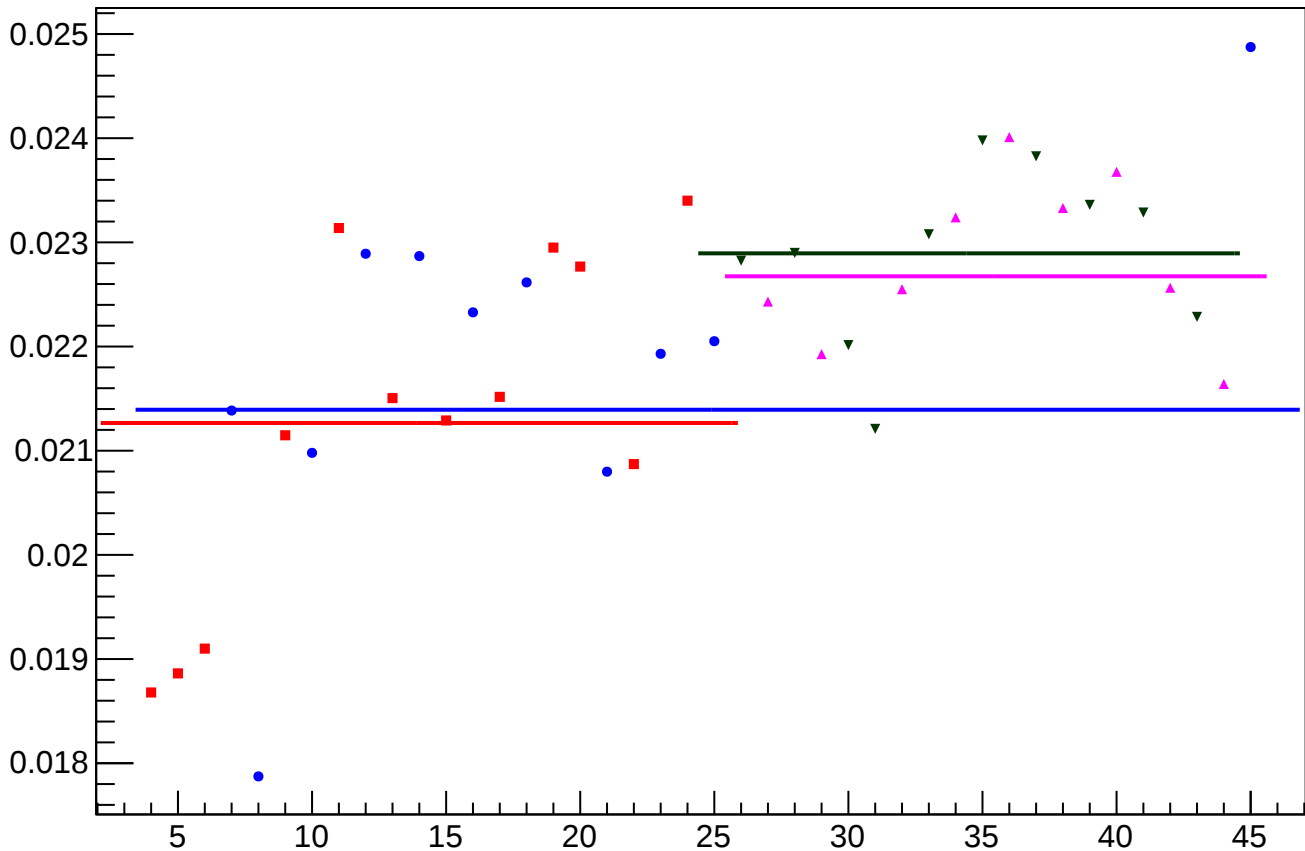
0.934+/-0.000  $\chi^2/\text{NDF}$ : 1951940558.3/20

Right Out: 0.798+/-0.000  $\chi^2/\text{NDF}$ : 394047843.5/11

0.956+/-0.000  $\chi^2/\text{NDF}$ : 1237441735.3/20

Left In: 1.161+/-0.000  $\chi^2/\text{NDF}$ : 58009580.0/8

# yield\_bpm11X\_rms vs slug



Right In: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 114156.2/10

Left Out: 0.023+/-0.000  $\chi^2/\text{NDF}$ :11436.5/9

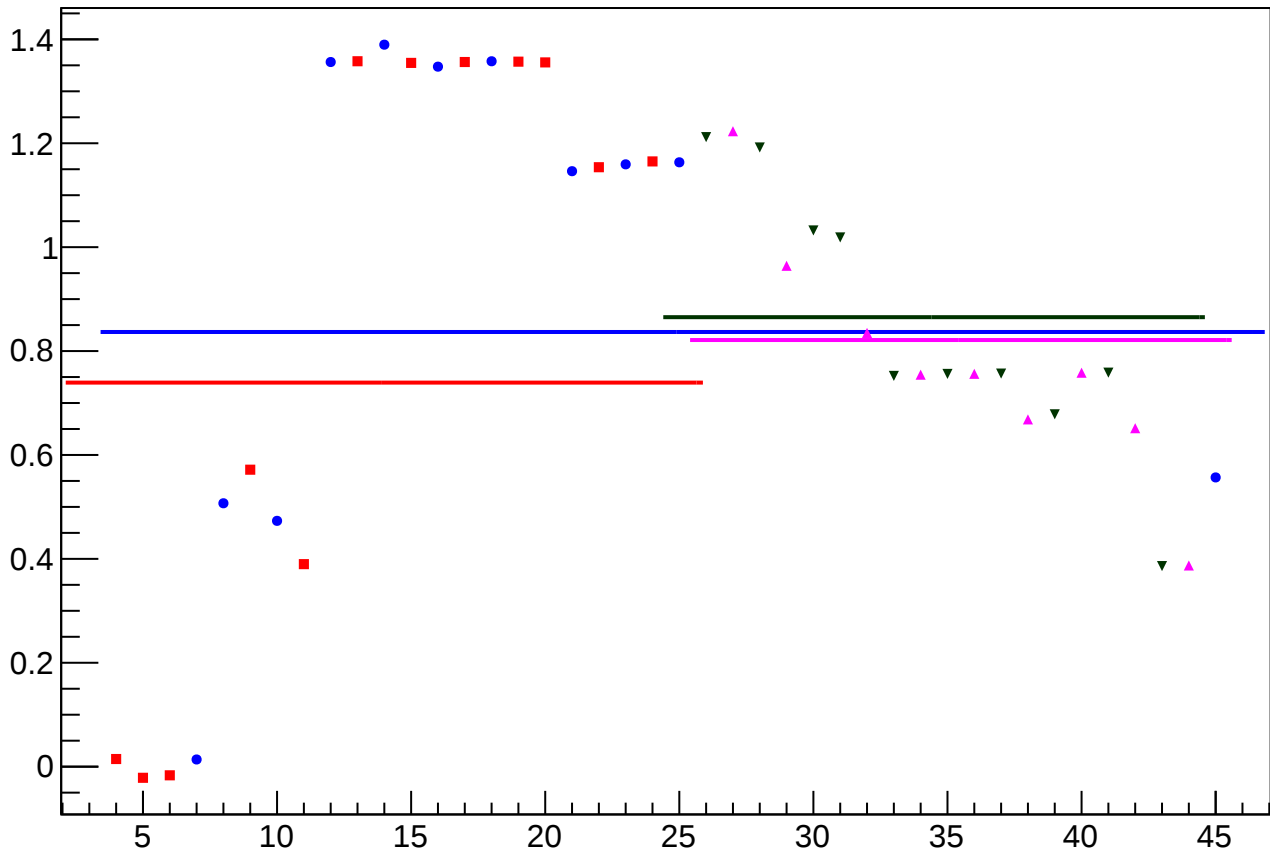
Right Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 58605.8/11

Left In: 0.023+/-0.000  $\chi^2/\text{NDF}$ :10426.9/8

0.022+/-0.000  $\chi^2/\text{NDF}$ : 152247.2/20

0.022+/-0.000  $\chi^2/\text{NDF}$ : 92716.4/20

# yield\_bpm11Y\_mean vs slug



Right In: 0.837 +/- 0.000  $\chi^2/\text{NDF}$ : 107432700207.8/10

Left Out: 0.865 +/- 0.000  $\chi^2/\text{NDF}$ : 19769026573.0/9

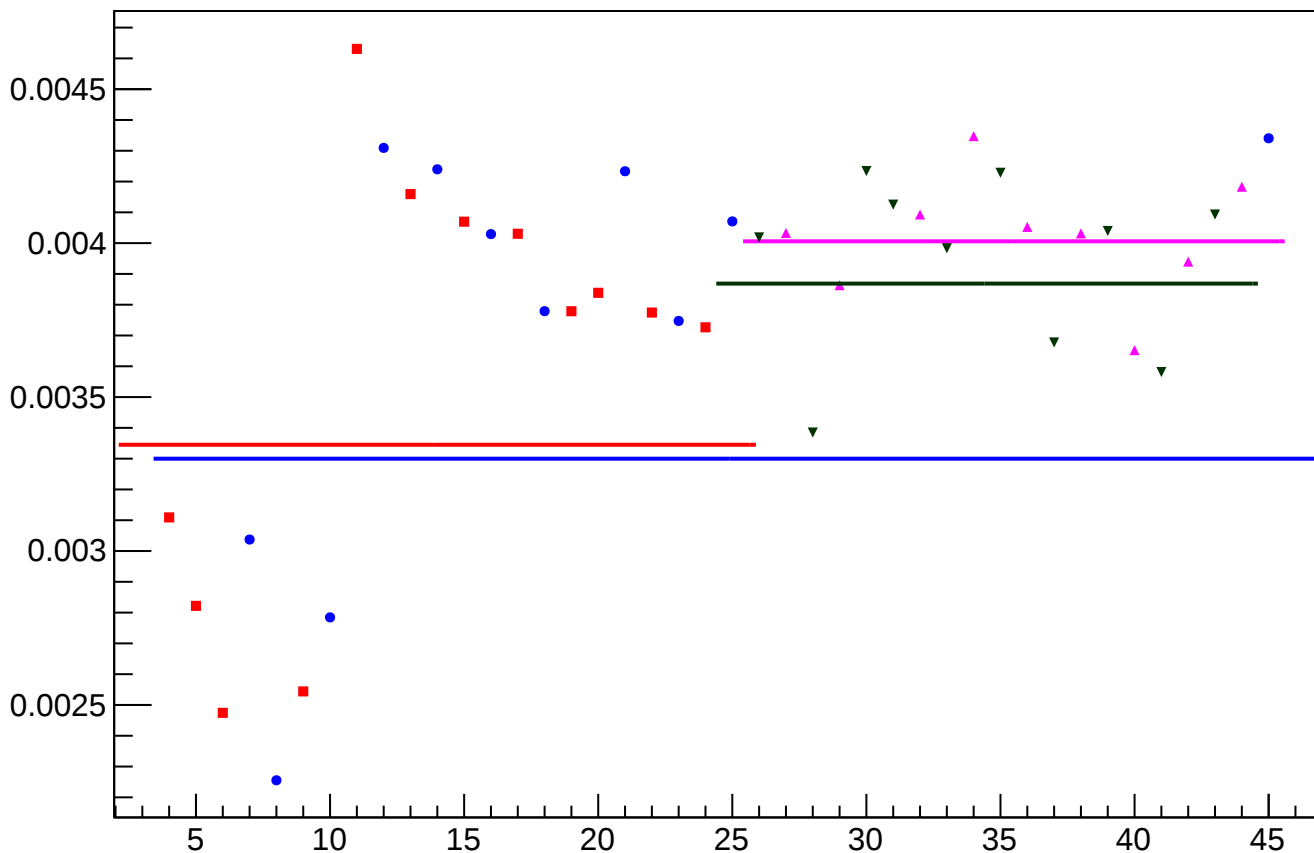
0.847 +/- 0.000  $\chi^2/\text{NDF}$ : 127375151949.3/20

Right Out: 0.739 +/- 0.000  $\chi^2/\text{NDF}$ : 163147236052.0/11

0.771 +/- 0.000  $\chi^2/\text{NDF}$ : 181465750729.8/20

Left In: 0.821 +/- 0.000  $\chi^2/\text{NDF}$ : 16931746791.3/8

# yield\_bpm11Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 819438.1/10

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 59617.0/9

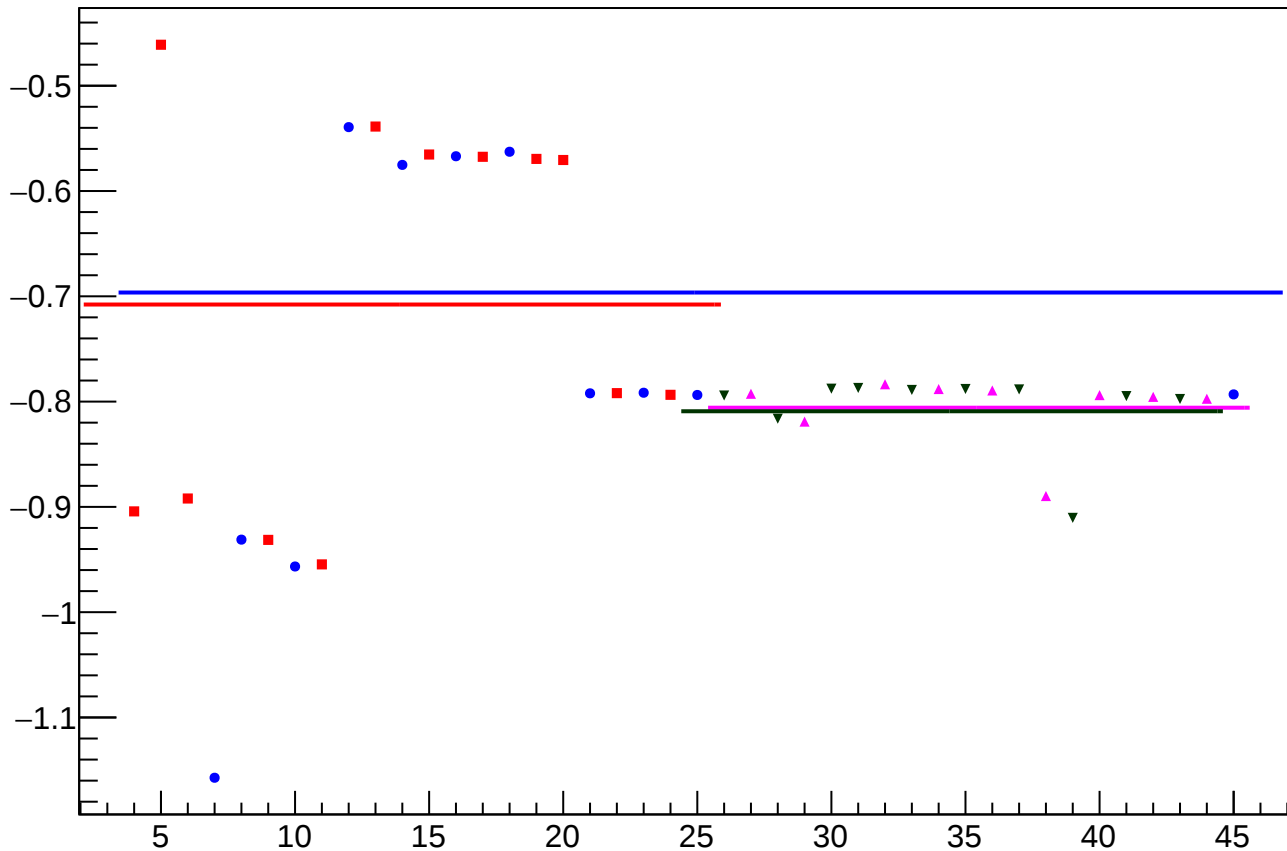
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 574504.0/11

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 20484.3/8

0.004+/-0.000  $\chi^2/\text{NDF}$ : 1017039.1/20

0.004+/-0.000  $\chi^2/\text{NDF}$ : 775301.1/20

# yield\_bpm12X\_mean vs slug



Right In: -0.696+/-0.000  $\chi^2/\text{NDF}$ : 1928887955.6/10

Left Out: -0.809+/-0.000  $\chi^2/\text{NDF}$ : 119027161.1/9

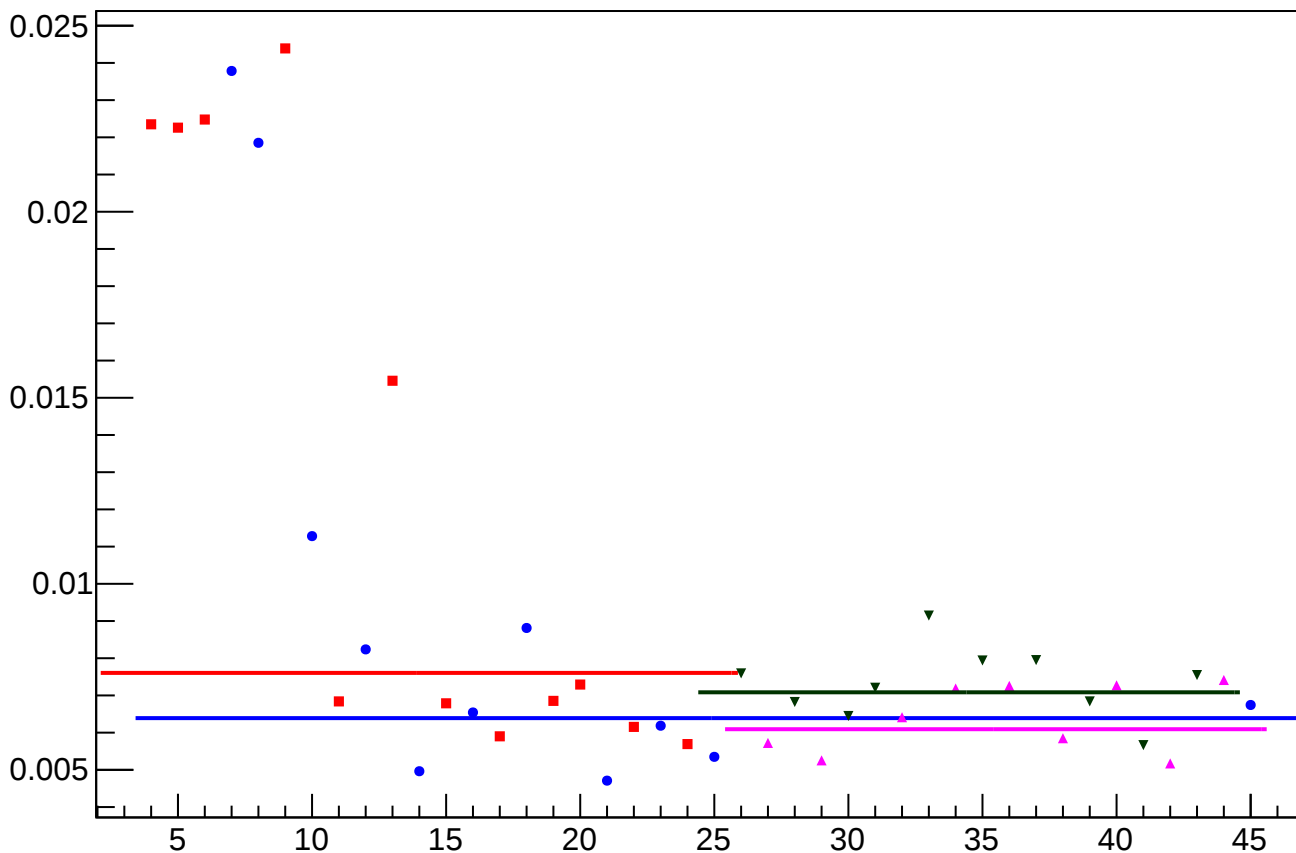
-0.742+/-0.000  $\chi^2/\text{NDF}$ : 2639520972.1/20

Right Out: -0.708+/-0.000  $\chi^2/\text{NDF}$ : 1719681121.8/11

-0.766+/-0.000  $\chi^2/\text{NDF}$ : 2234759325.0/20

Left In: -0.806+/-0.000  $\chi^2/\text{NDF}$ : 95429738.5/8

# yield\_bpm12X\_rms vs slug



Right In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1835648.7/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :128168.7/9

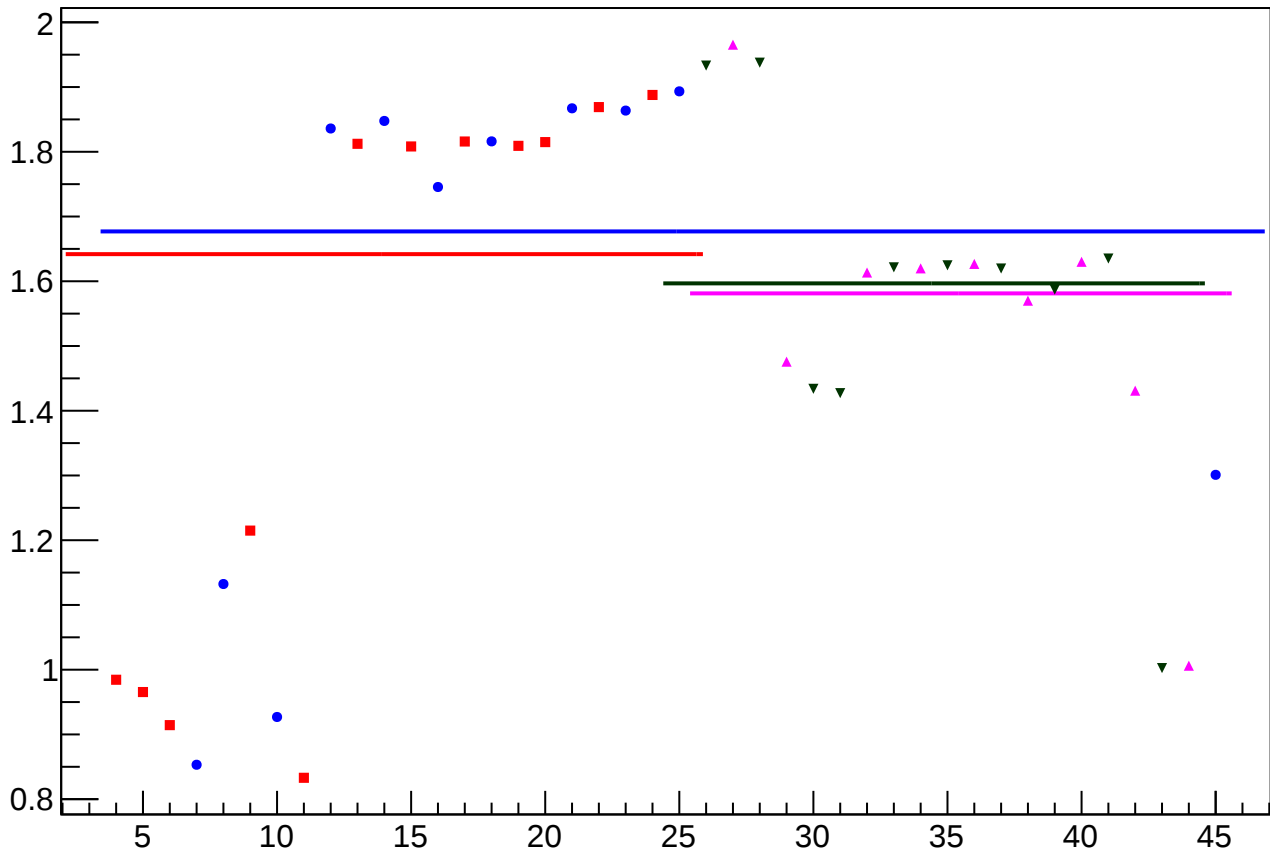
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 2293990.6/11

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :142266.3/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 2008611.8/20

0.007+/-0.000  $\chi^2/\text{NDF}$ : 2636442.6/20

# yield\_bpm12Y\_mean vs slug



Right In:  $1.677 \pm 0.000$   $\chi^2/\text{NDF}$ : 12916450159.1/10

Left Out:  $1.597 \pm 0.000$   $\chi^2/\text{NDF}$ : 6672070685.1/9

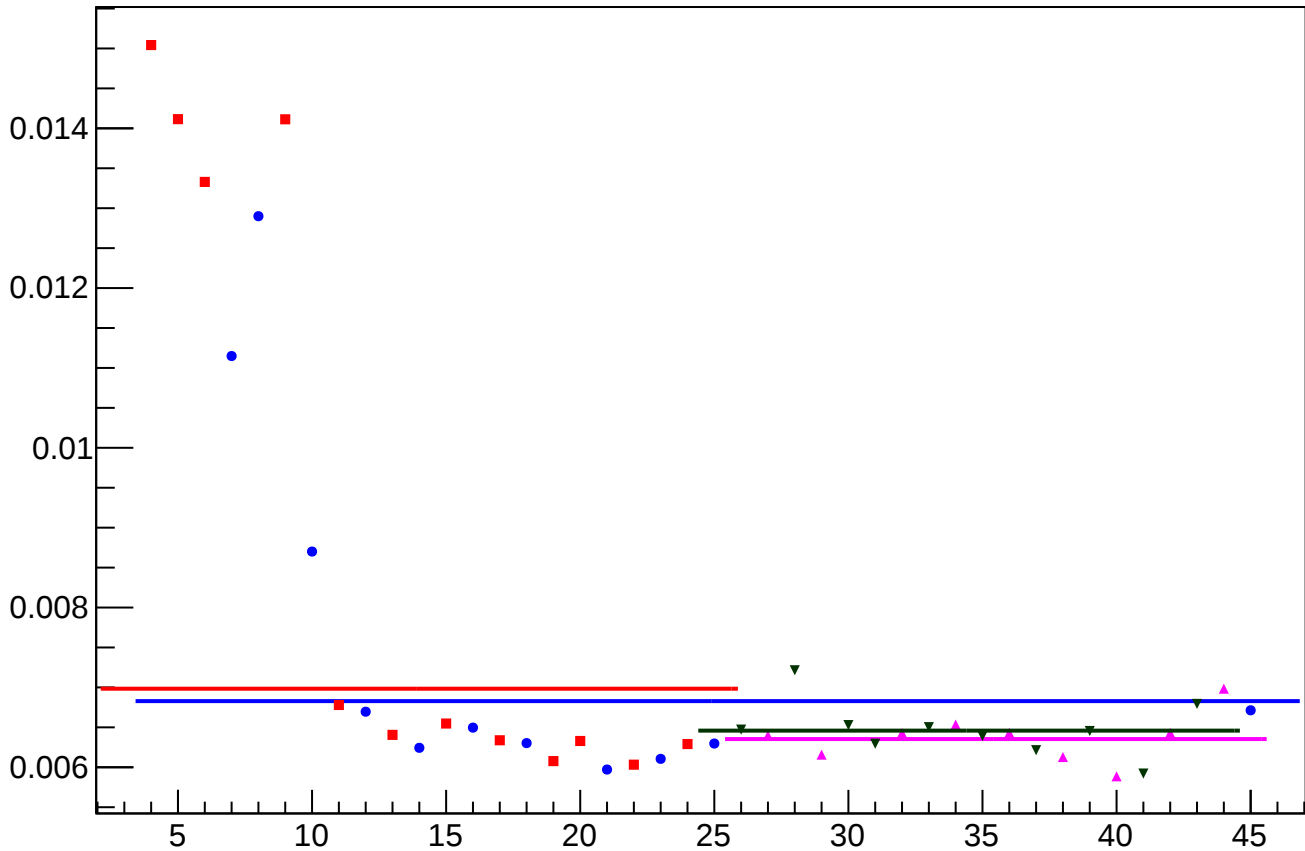
$1.639 \pm 0.000$   $\chi^2/\text{NDF}$ : 19989443061.8/20

Right Out:  $1.642 \pm 0.000$   $\chi^2/\text{NDF}$ : 15751478429.4/11

$1.610 \pm 0.000$   $\chi^2/\text{NDF}$ : 22726396070.1/20

Left In:  $1.581 \pm 0.000$   $\chi^2/\text{NDF}$ : 6756929993.8/8

# yield\_bpm12Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 601326.7/10

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 26704.2/9

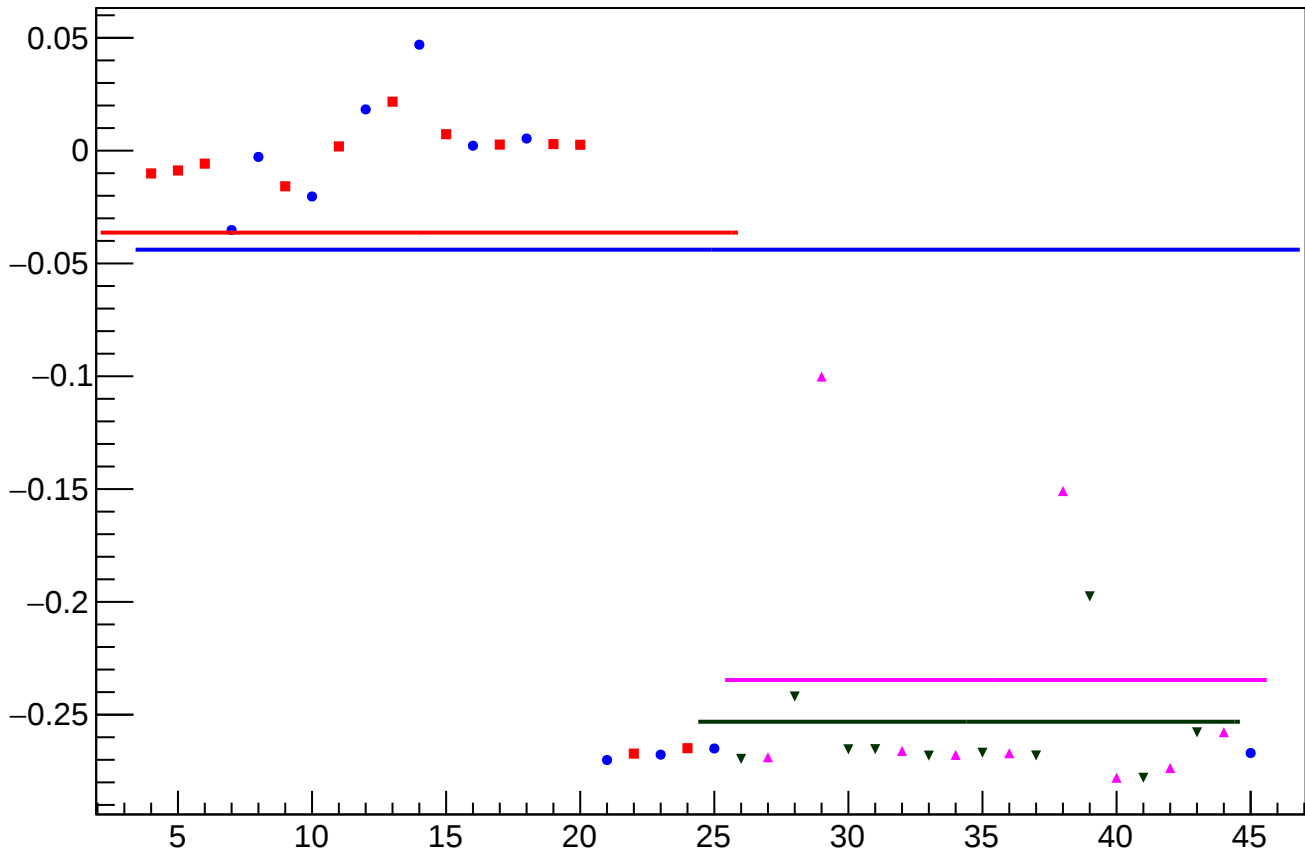
0.007+/-0.000  $\chi^2/\text{NDF}$ : 645035.0/20

Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 973579.9/11

0.007+/-0.000  $\chi^2/\text{NDF}$ : 1038404.7/20

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 17689.1/8

# yield\_bpm16X\_mean vs slug



Right In: -0.044+/-0.000  $\chi^2/\text{NDF}$ : 2769149607.4/10

Left Out: -0.253+/-0.000  $\chi^2/\text{NDF}$ : 114103318.3/9

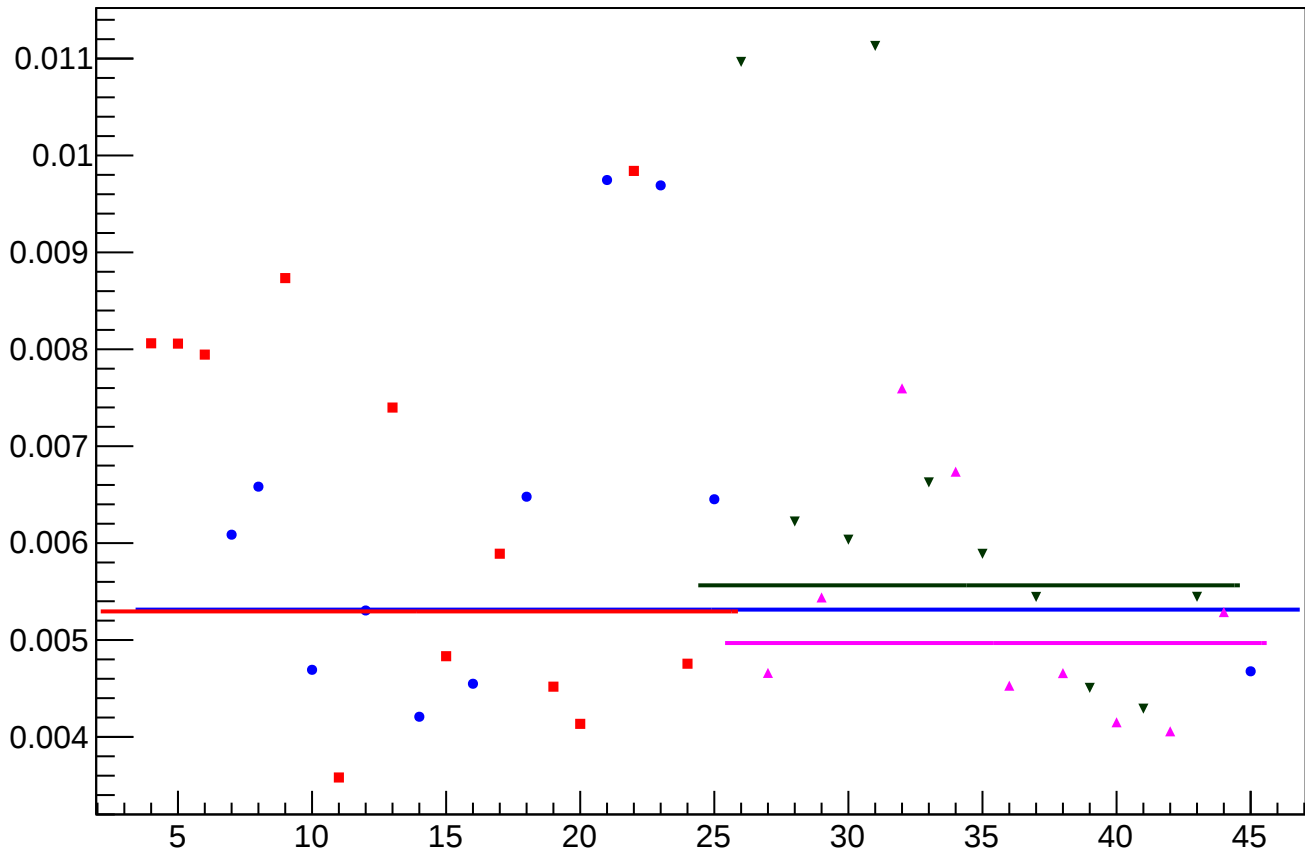
-0.129+/-0.000  $\chi^2/\text{NDF}$ : 6656516039.0/20

Right Out: -0.036+/-0.000  $\chi^2/\text{NDF}$ : 1742147509.6/11

-0.136+/-0.000  $\chi^2/\text{NDF}$ : 6337156972.7/20

Left In: -0.235+/-0.000  $\chi^2/\text{NDF}$ : 787599053.3/8

# yield\_bpm16X\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 830604.4/10

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 608011.7/9

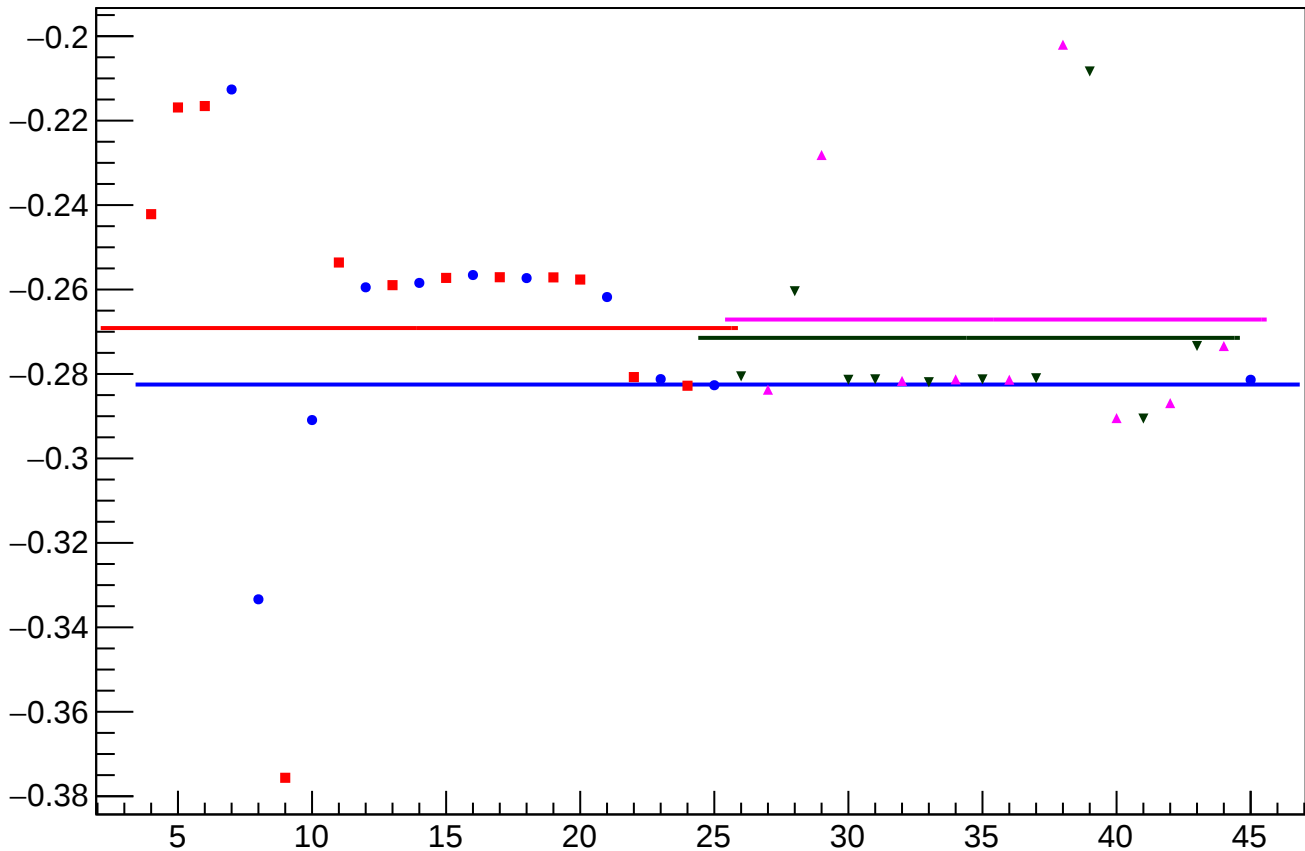
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1206788.4/11

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 366477.9/8

0.005+/-0.000  $\chi^2/\text{NDF}$ : 1449437.9/20

0.005+/-0.000  $\chi^2/\text{NDF}$ : 1593879.0/20

# yield\_bpm16Y\_mean vs slug



Right In: -0.282 $\pm$ 0.000  $\chi^2$ /NDF: 1067134488.4/10

Left Out: -0.271 $\pm$ 0.000  $\chi^2$ /NDF: 349277523.0/9

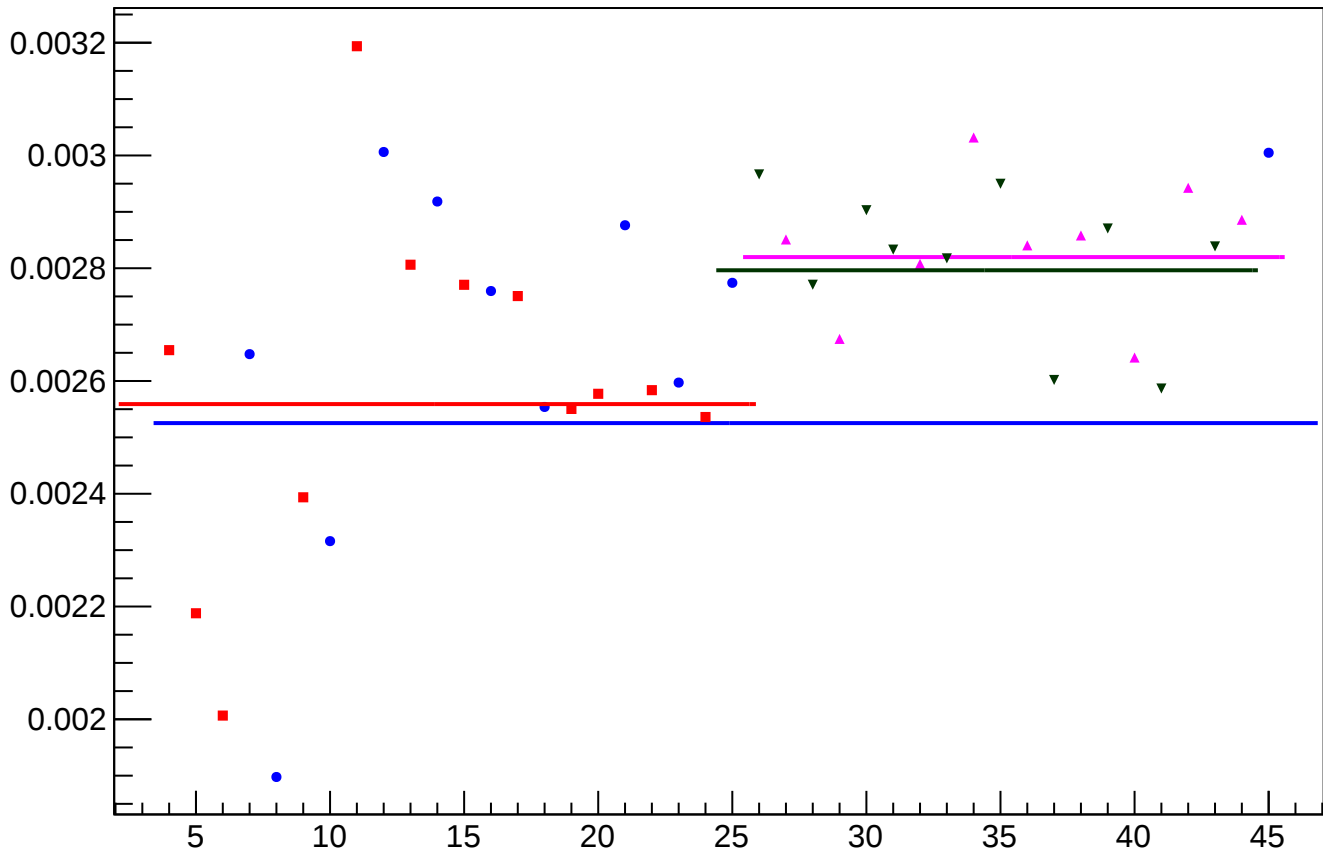
-0.278 $\pm$ 0.000  $\chi^2$ /NDF: 1465612502.0/20

Right Out: -0.269 $\pm$ 0.000  $\chi^2$ /NDF: 1935701786.6/11

-0.268 $\pm$ 0.000  $\chi^2$ /NDF: 2490971087.7/20

Left In: -0.267 $\pm$ 0.000  $\chi^2$ /NDF: 553669253.3/8

# yield\_bpm16Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 336961.0/10

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 22003.3/9

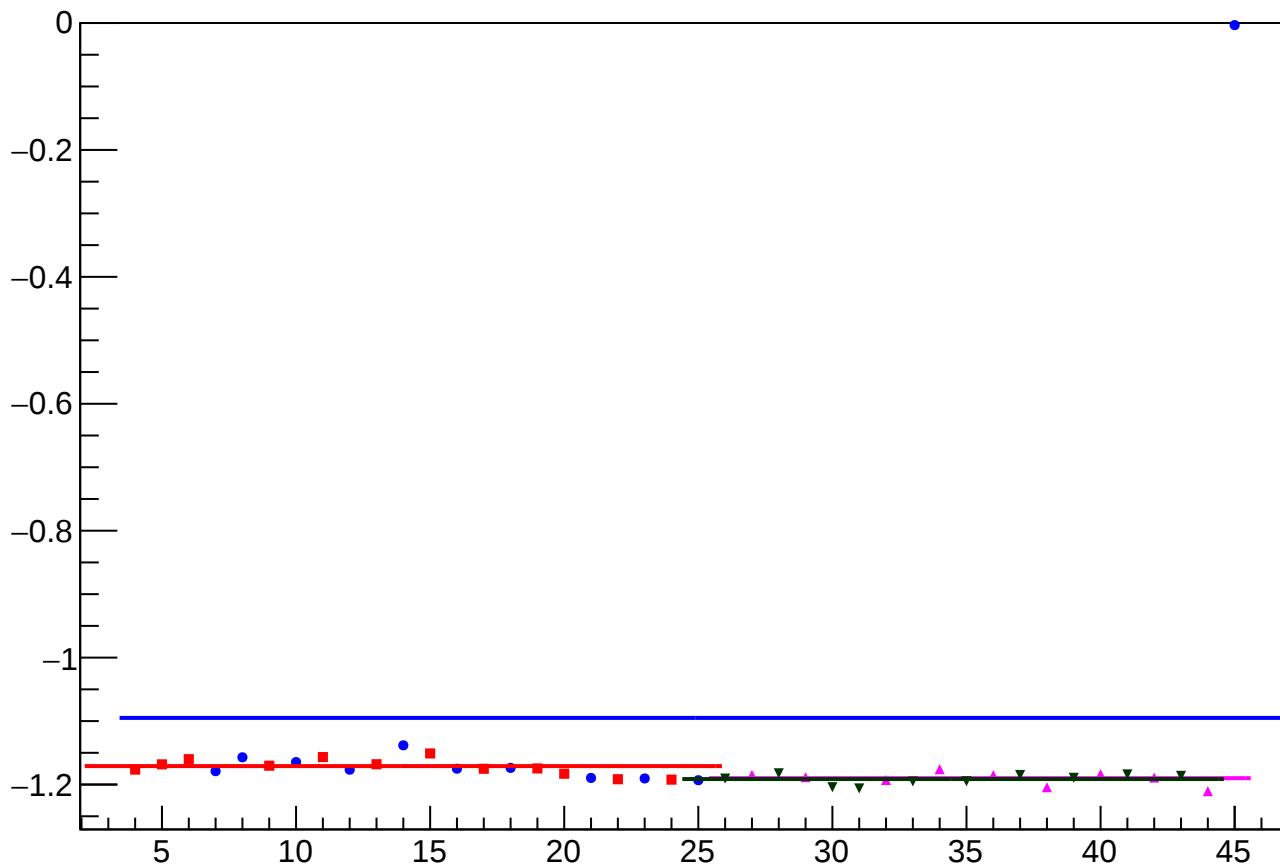
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 176456.4/11

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 16488.2/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 418150.8/20

0.003+/-0.000  $\chi^2/\text{NDF}$ : 246392.7/20

# yield\_bpm2i01X\_mean vs slug



Right In: -1.095+/-0.000  $\chi^2/\text{NDF}$ : 11097544167.7/10

Left Out: -1.191+/-0.000  $\chi^2/\text{NDF}$ : 4812748.3/9

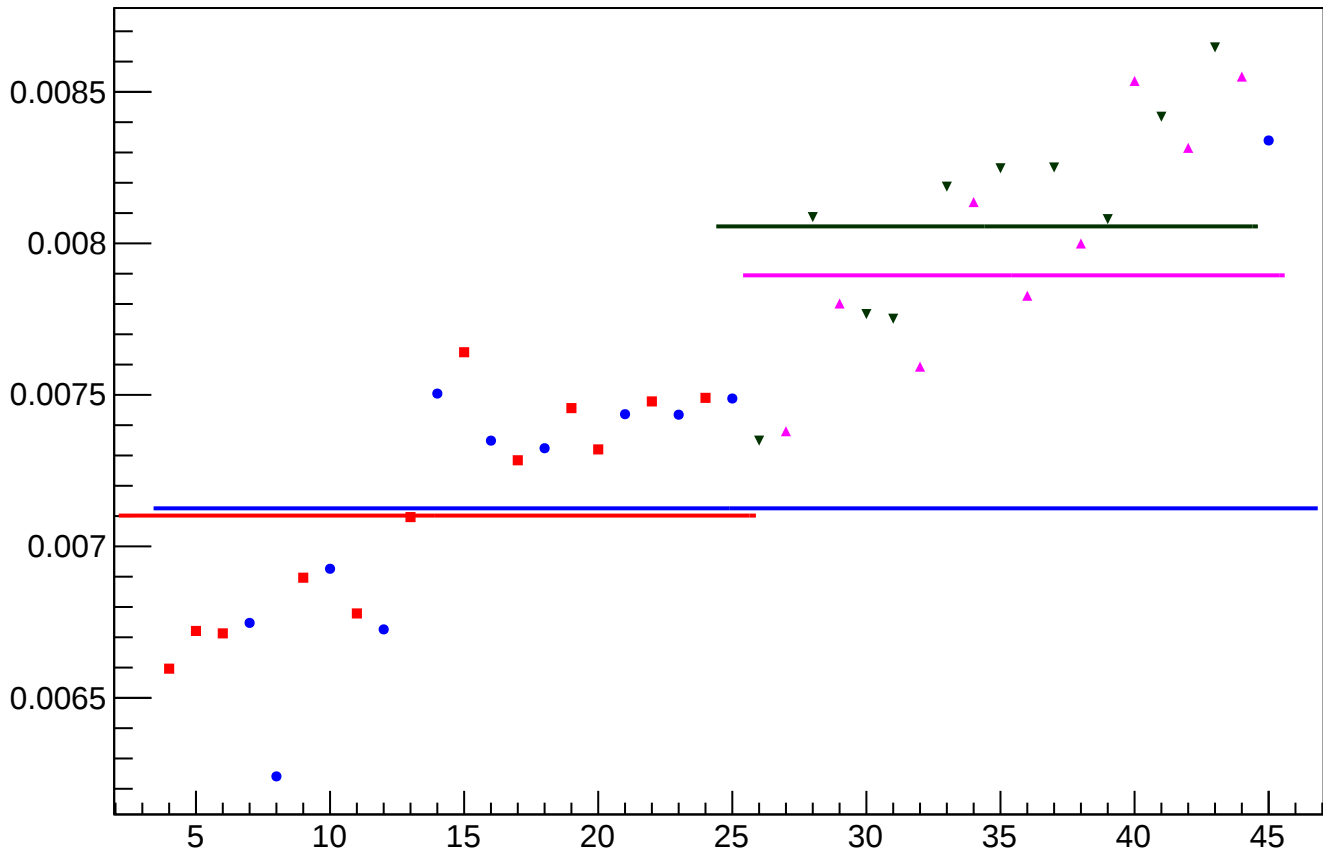
Right Out: -1.171+/-0.000  $\chi^2/\text{NDF}$ : 18815971.2/11

Left In: -1.190+/-0.000  $\chi^2/\text{NDF}$ : 6924812.0/8

-1.131+/-0.000  $\chi^2/\text{NDF}$ : 11575285189.3/20

-1.179+/-0.000  $\chi^2/\text{NDF}$ : 44529514.8/20

# yield\_bpm2i01X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 81966.8/10

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :19479.9/9

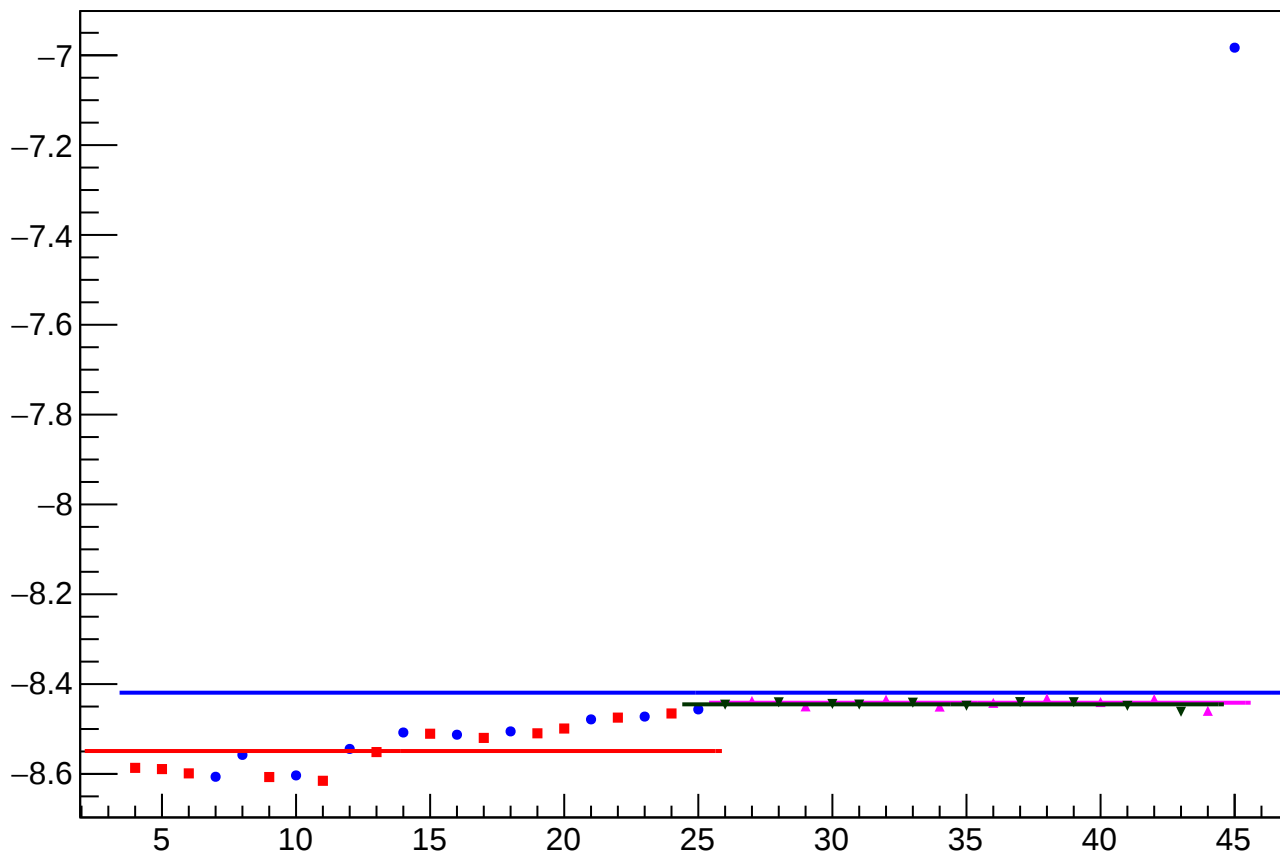
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 27872.8/11

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :26175.0/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 189625.9/20

0.007+/-0.000  $\chi^2/\text{NDF}$ : 119353.9/20

# yield\_bpm2i01Y\_mean vs slug



Right In: -8.419+/-0.000  $\chi^2/\text{NDF}$ : 24236296283.9/10

Left Out: -8.445+/-0.000  $\chi^2/\text{NDF}$ : 3367094.4/9

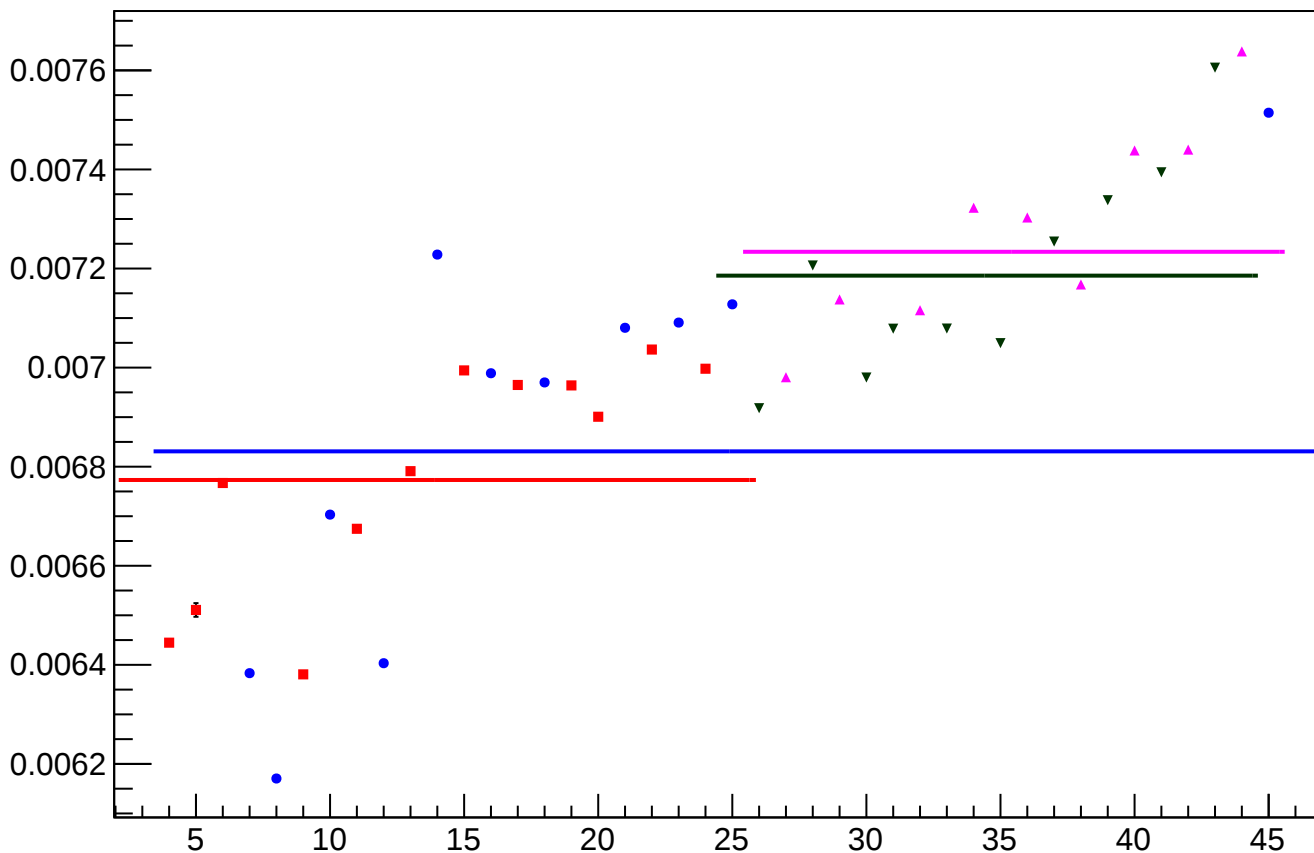
Right Out: -8.549+/-0.000  $\chi^2/\text{NDF}$ : 379238014.1/11

Left In: -8.441+/-0.000  $\chi^2/\text{NDF}$ : 7266938.1/8

-8.430+/-0.000  $\chi^2/\text{NDF}$ : 24281028898.4/20

-8.502+/-0.000  $\chi^2/\text{NDF}$ : 1088037359.2/20

# yield\_bpm2i01Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 50706.5/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 7631.6/9

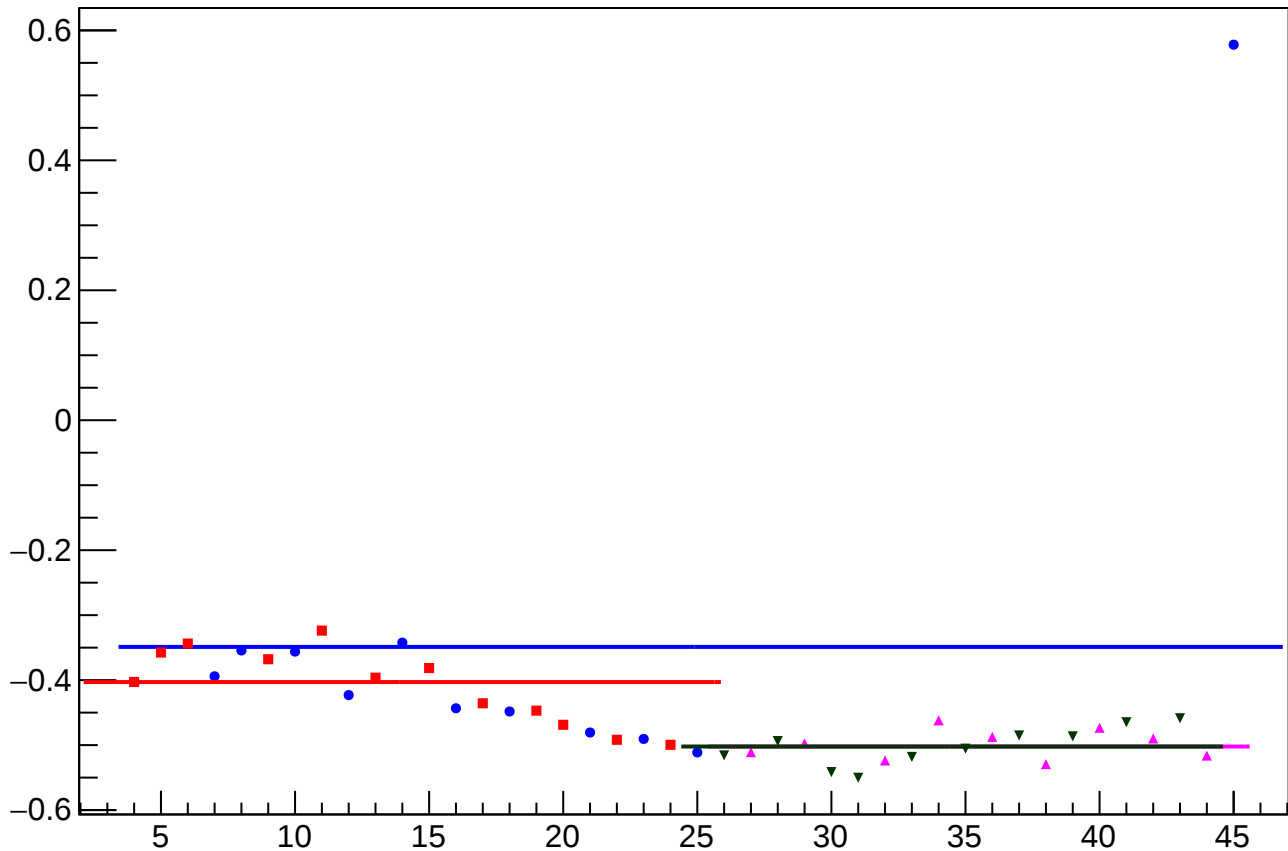
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 13957.5/11

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 7802.2/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 73802.0/20

0.007+/-0.000  $\chi^2/\text{NDF}$ : 47506.8/20

# yield\_bpm2i02X\_mean vs slug



Right In: -0.349+/-0.000  $\chi^2/\text{NDF}$ : 1242489985.9/10

Left Out: -0.502+/-0.000  $\chi^2/\text{NDF}$ : 9337230.3/9

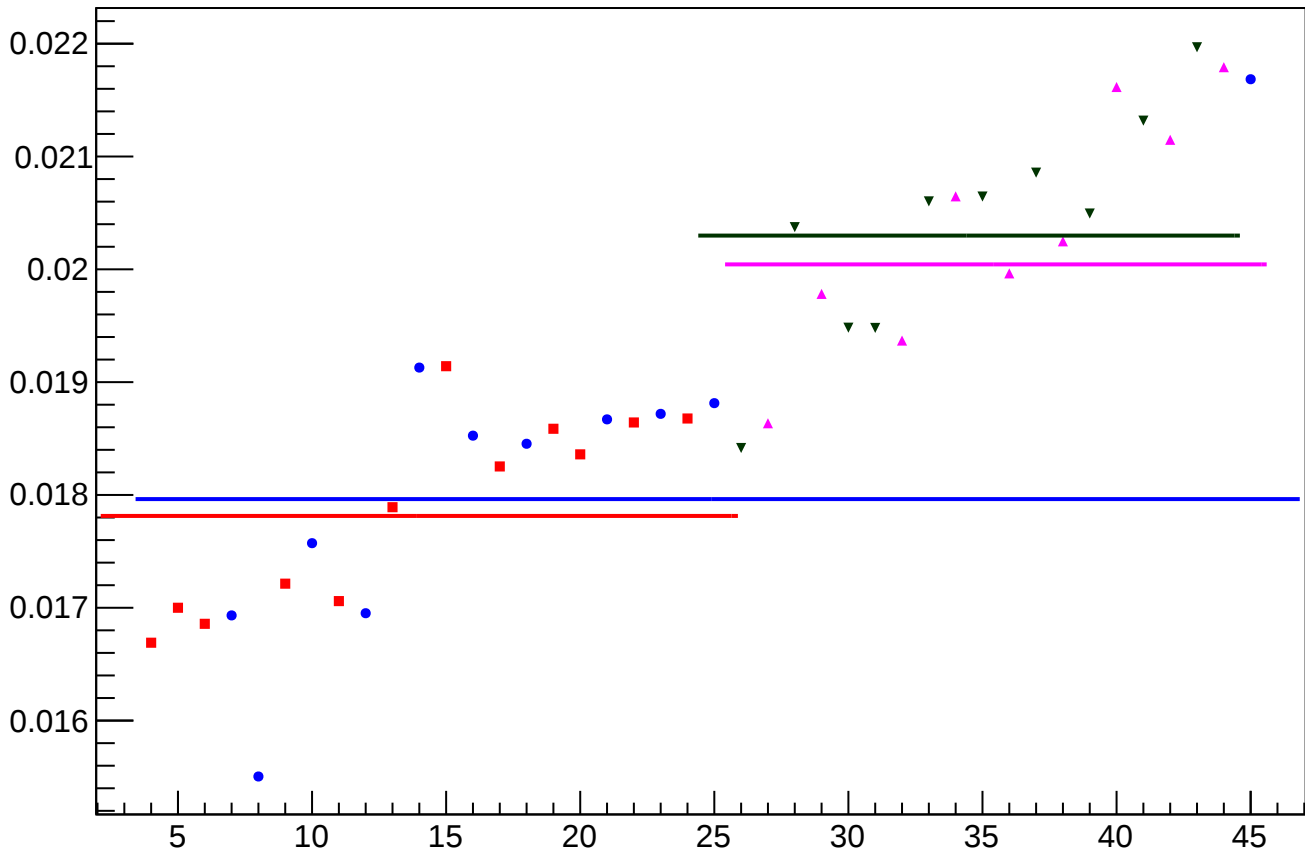
-0.406+/-0.000  $\chi^2/\text{NDF}$ : 1440521007.5/20

Right Out: -0.403+/-0.000  $\chi^2/\text{NDF}$ : 62429358.0/11

-0.444+/-0.000  $\chi^2/\text{NDF}$ : 148221853.9/20

Left In: -0.502+/-0.000  $\chi^2/\text{NDF}$ : 5607835.8/8

# yield\_bpm2i02X\_rms vs slug



Right In: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 102761.3/10

Left Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 22702.3/9

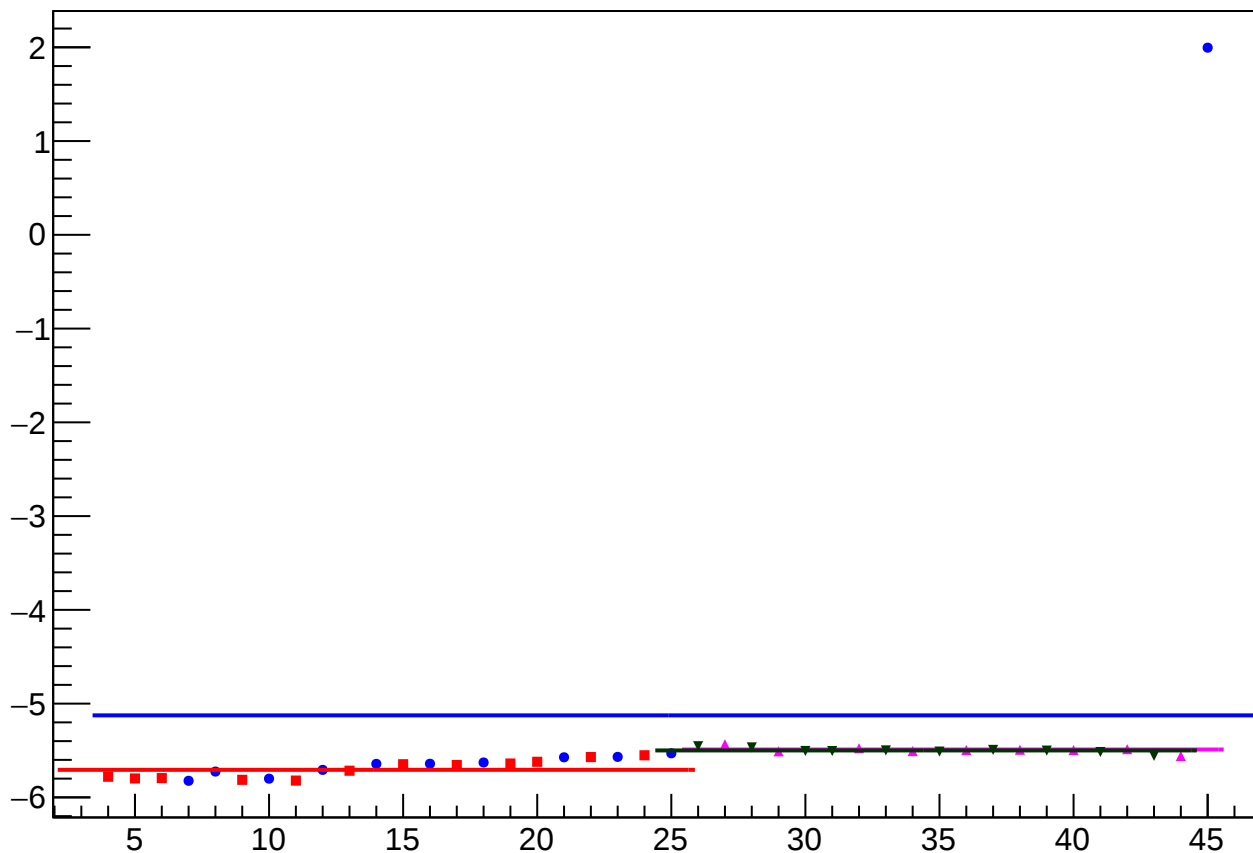
0.019+/-0.000  $\chi^2/\text{NDF}$ : 213048.5/20

Right Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 24742.8/11

0.019+/-0.000  $\chi^2/\text{NDF}$ : 133089.5/20

Left In: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 27295.1/8

# yield\_bpm2i02Y\_mean vs slug



Right In: -5.125+/-0.000  $\chi^2/\text{NDF}$ : 192729495692.6/10

Left Out: -5.499+/-0.000  $\chi^2/\text{NDF}$ : 23863148.1/9

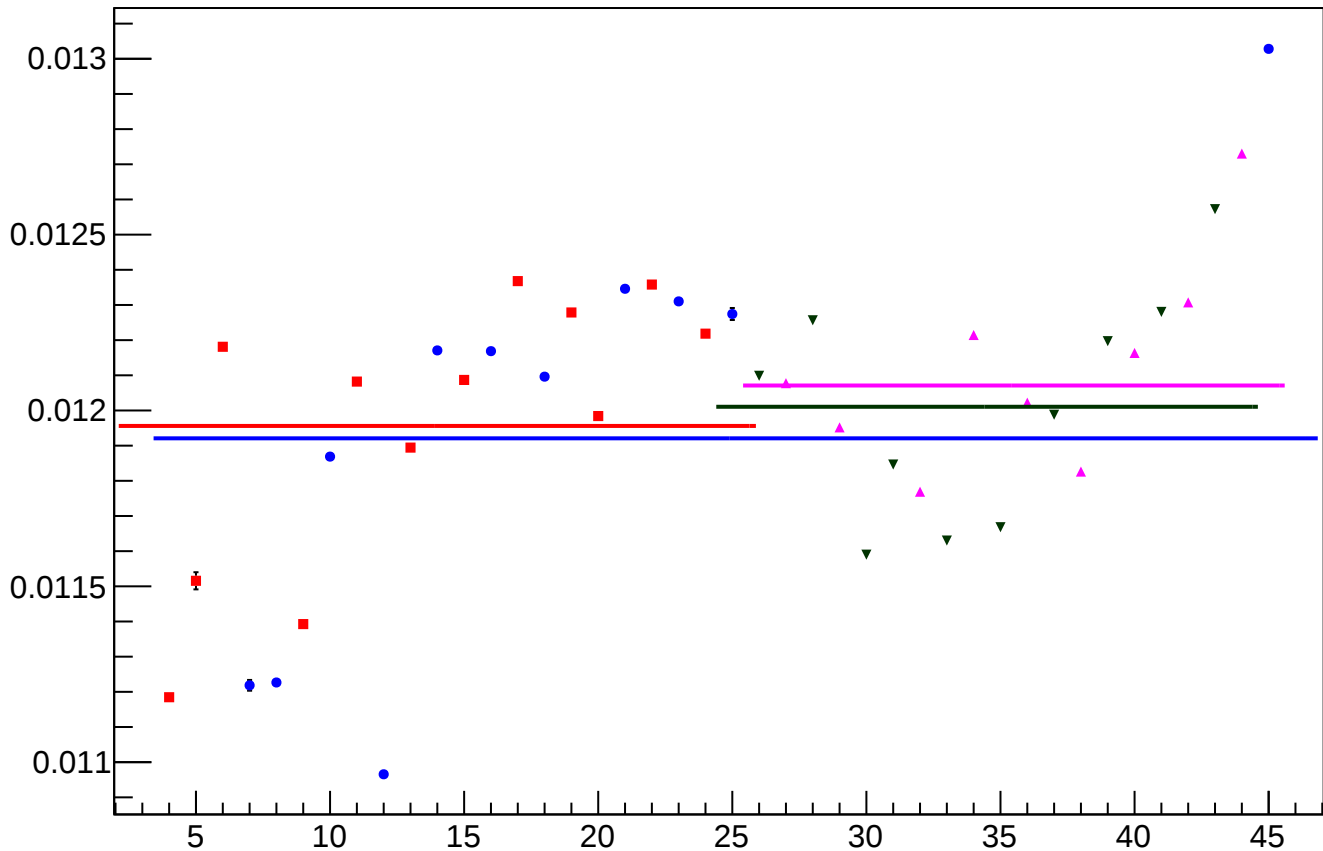
Right Out: -5.706+/-0.000  $\chi^2/\text{NDF}$ : 393392324.7/11

Left In: -5.490+/-0.000  $\chi^2/\text{NDF}$ : 37957034.6/8

-5.286+/-0.000  $\chi^2/\text{NDF}$ : 195719030565.1/20

-5.605+/-0.000  $\chi^2/\text{NDF}$ : 1402320546.3/20

# yield\_bpm2i02Y\_rms vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 31573.9/10

Left Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 6913.8/9

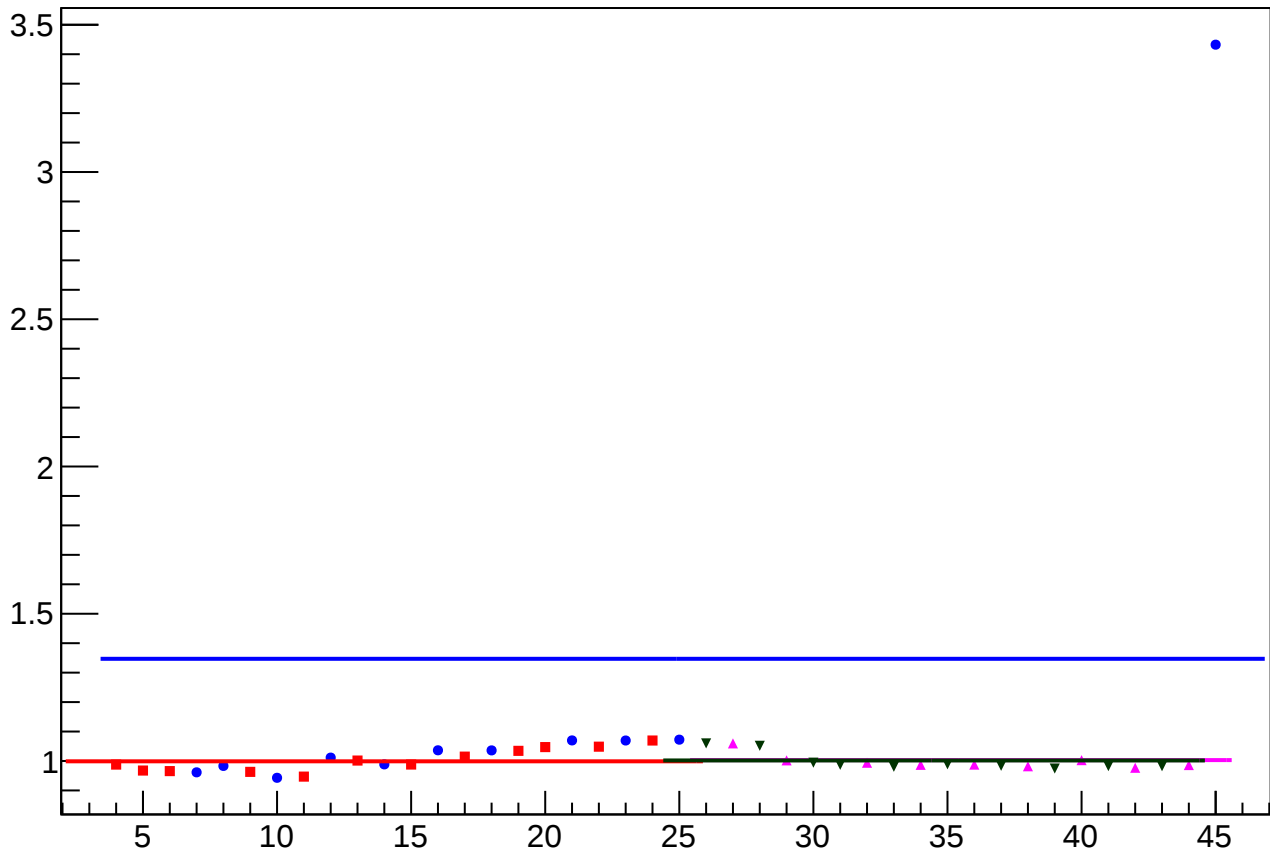
Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 11709.7/11

Left In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 5130.3/8

0.012+/-0.000  $\chi^2/\text{NDF}$ : 38829.1/20

0.012+/-0.000  $\chi^2/\text{NDF}$ : 17386.4/20

# yield\_bpm1i04X\_mean vs slug



Right In: 1.347 $\pm$ 0.000  $\chi^2$ /NDF: 84486167980.0/10

Left Out: 1.002 $\pm$ 0.000  $\chi^2$ /NDF:93267140.0/9

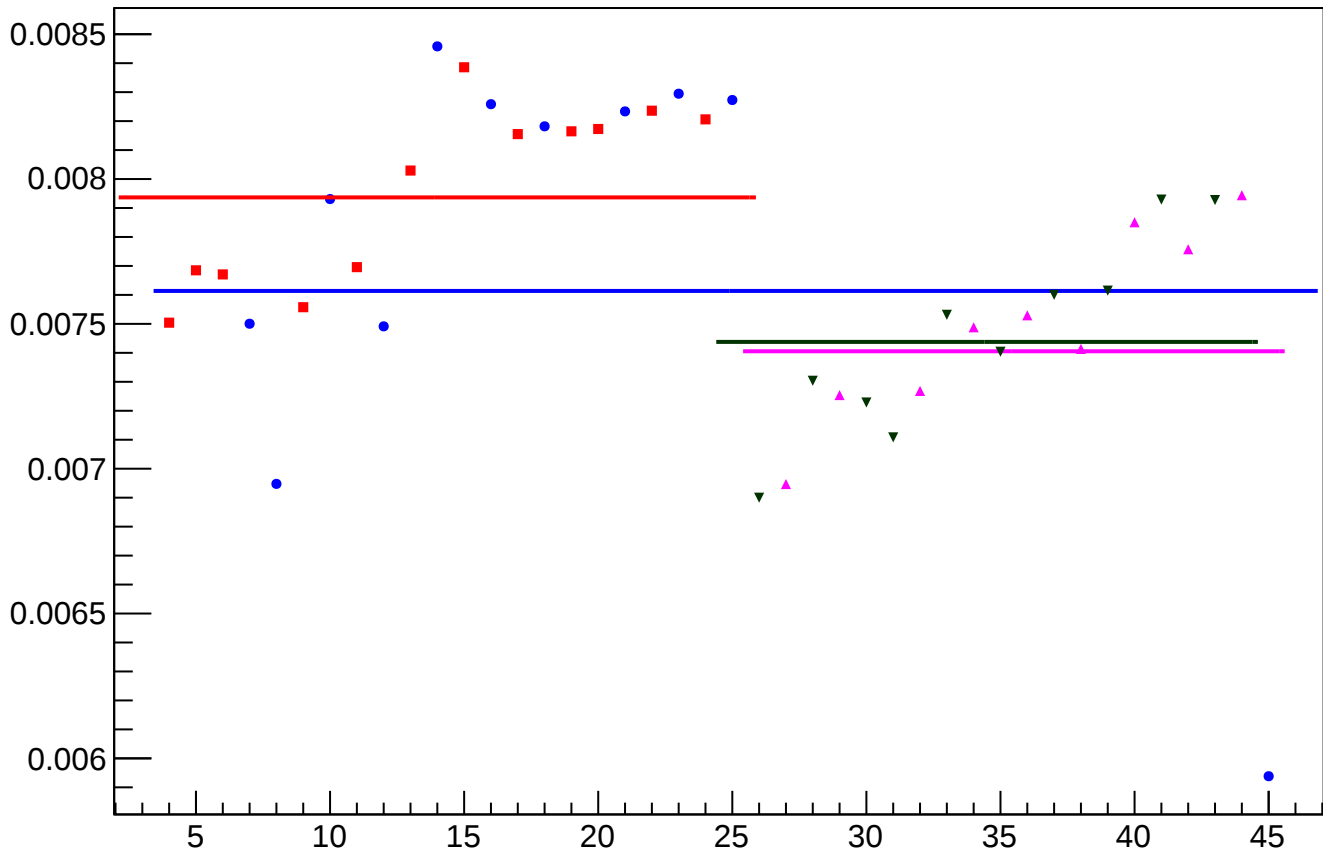
1.194 $\pm$ 0.000  $\chi^2$ /NDF: 90909835197.9/20

Right Out: 0.999 $\pm$ 0.000  $\chi^2$ /NDF: 147584109.7/11

1.001 $\pm$ 0.000  $\chi^2$ /NDF: 222254534.9/20

Left In: 1.003 $\pm$ 0.000  $\chi^2$ /NDF:73816796.1/8

# yield\_bpm1i04X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 166733.6/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 18100.0/9

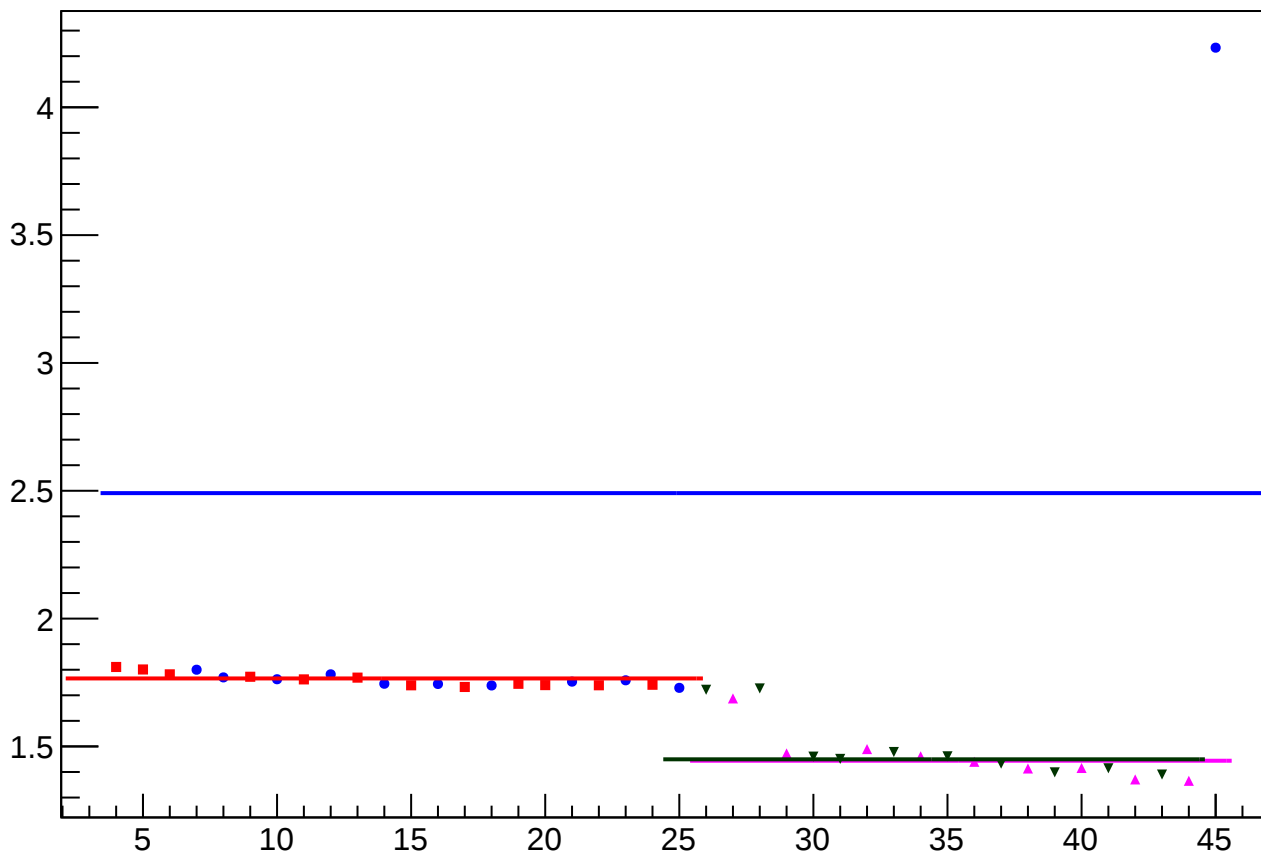
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 17438.8/11

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 18945.2/8

0.008+/-0.000  $\chi^2/\text{NDF}$ : 188123.8/20

0.008+/-0.000  $\chi^2/\text{NDF}$ : 64882.1/20

# yield\_bpm1i04Y\_mean vs slug



Right In: 2.491+/-0.000  $\chi^2/\text{NDF}$ : 187722467669.8/10

Left Out: 1.450+/-0.000  $\chi^2/\text{NDF}$ : 719591225.9/9

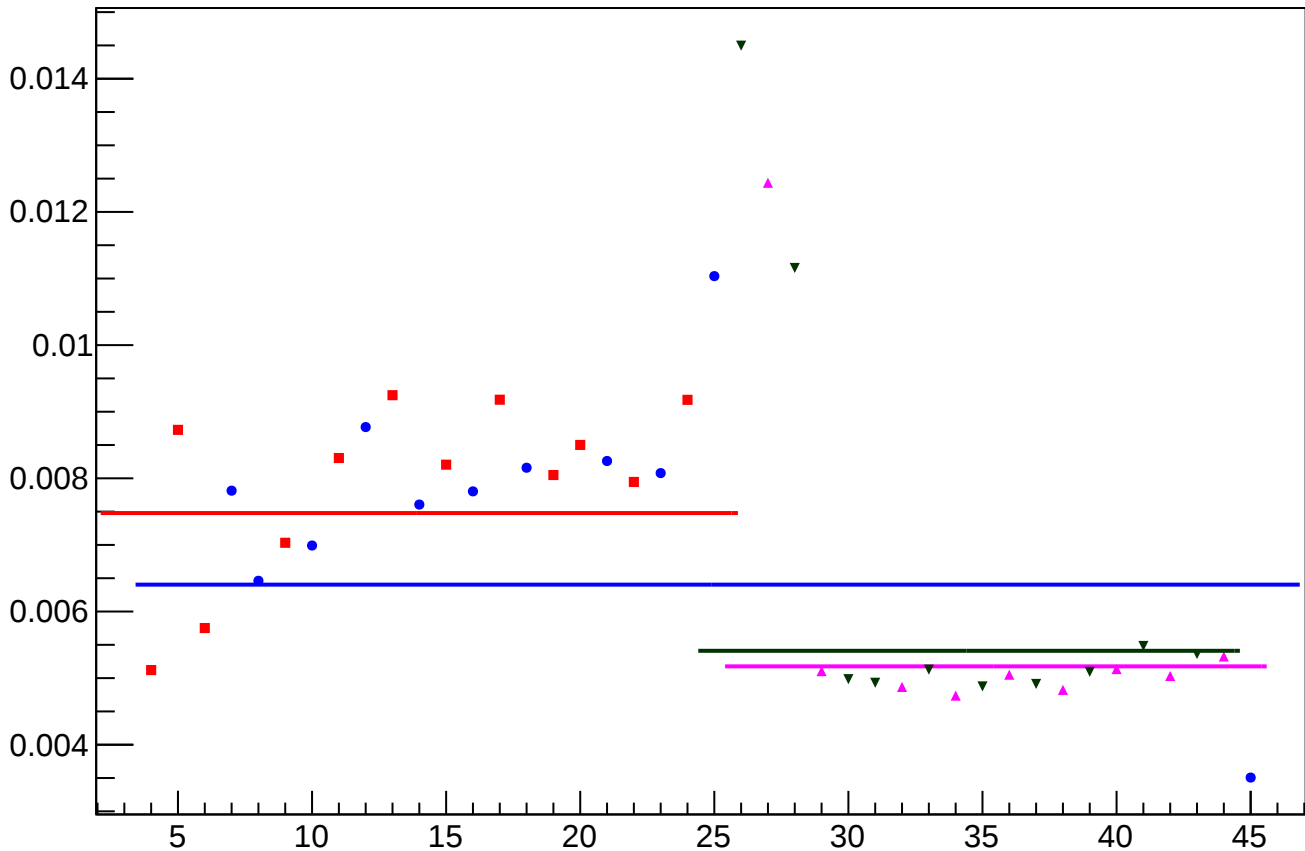
1.949+/-0.000  $\chi^2/\text{NDF}$ : 271386980473.4/20

Right Out: 1.766+/-0.000  $\chi^2/\text{NDF}$ : 62233931.0/11

1.559+/-0.000  $\chi^2/\text{NDF}$ : 7666019212.4/20

Left In: 1.444+/-0.000  $\chi^2/\text{NDF}$ : 633323170.8/8

# yield\_bpm1i04Y\_rms vs slug



Right In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1190177.2/10

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 753040.6/9

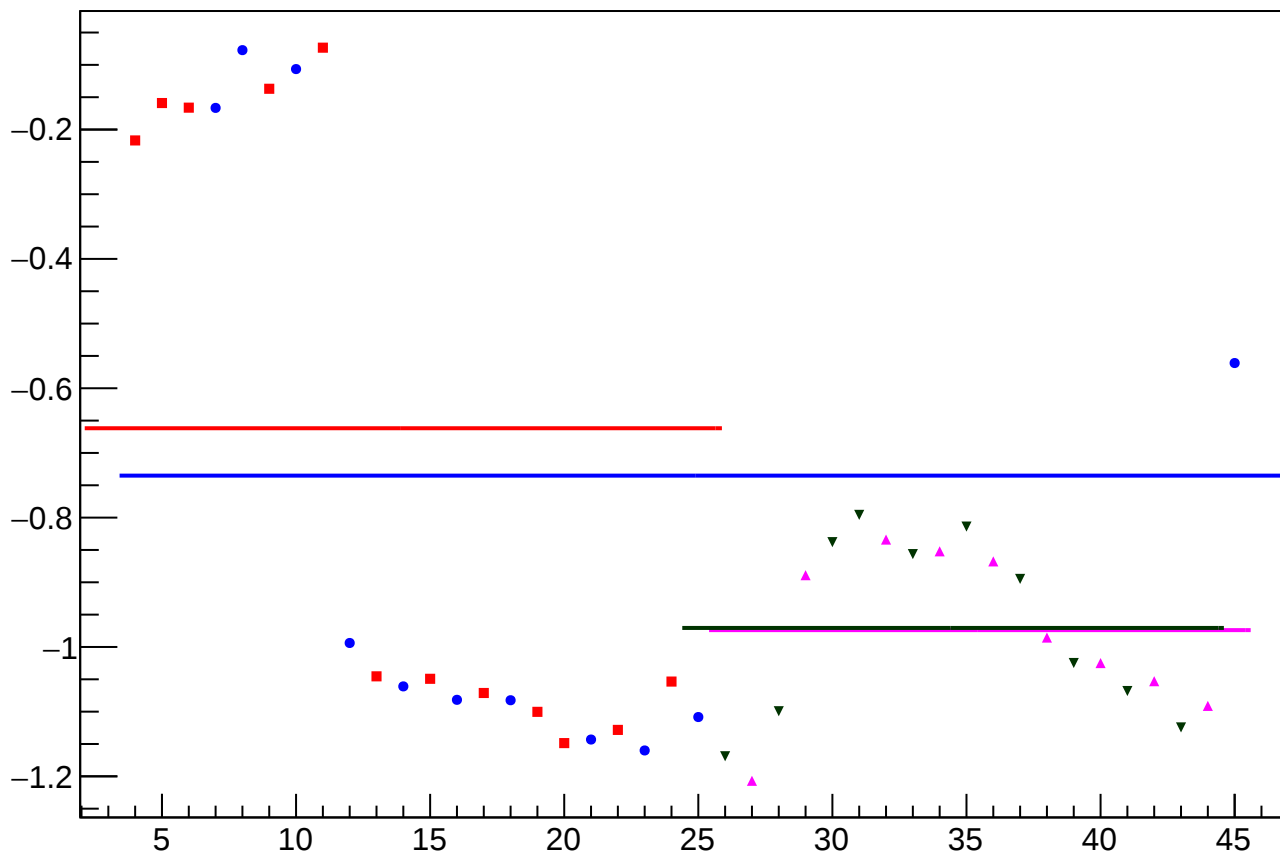
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 437086.3/11

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 514197.3/8

0.006+/-0.000  $\chi^2/\text{NDF}$ : 2094242.2/20

0.006+/-0.000  $\chi^2/\text{NDF}$ : 1664412.8/20

# yield\_bpm0l01X\_mean vs slug



Right In: -0.735+/-0.000  $\chi^2/\text{NDF}$ : 17639360348.0/10

Left Out: -0.971+/-0.000  $\chi^2/\text{NDF}$ : 1156218036.6/9

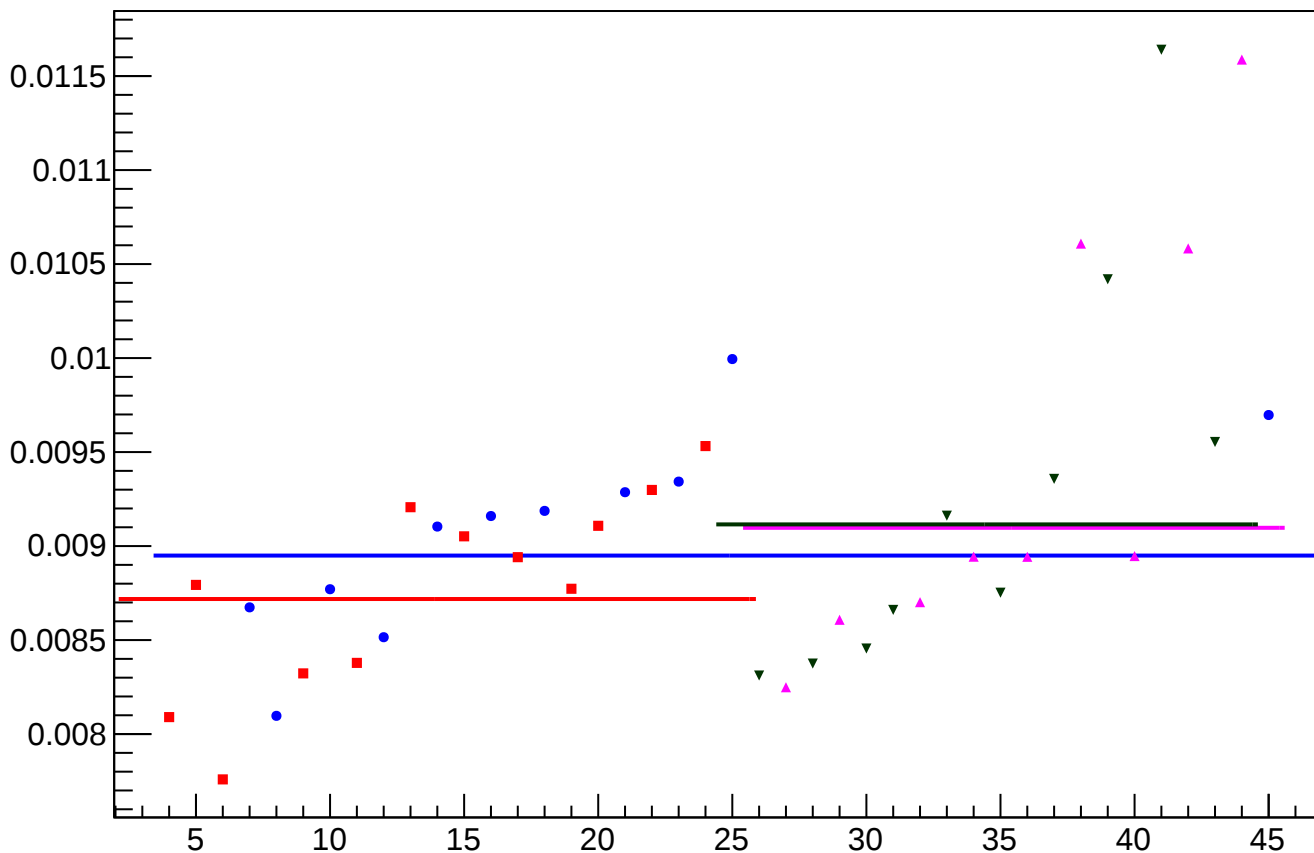
Right Out: -0.662+/-0.000  $\chi^2/\text{NDF}$ : 17756149128.0/11

Left In: -0.974+/-0.000  $\chi^2/\text{NDF}$ : 1225322966.4/8

-0.834+/-0.000  $\chi^2/\text{NDF}$ : 20790419906.6/20

-0.802+/-0.000  $\chi^2/\text{NDF}$ : 22542712477.8/20

# yield\_bpm0l01X\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 41728.9/10

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :104201.5/9

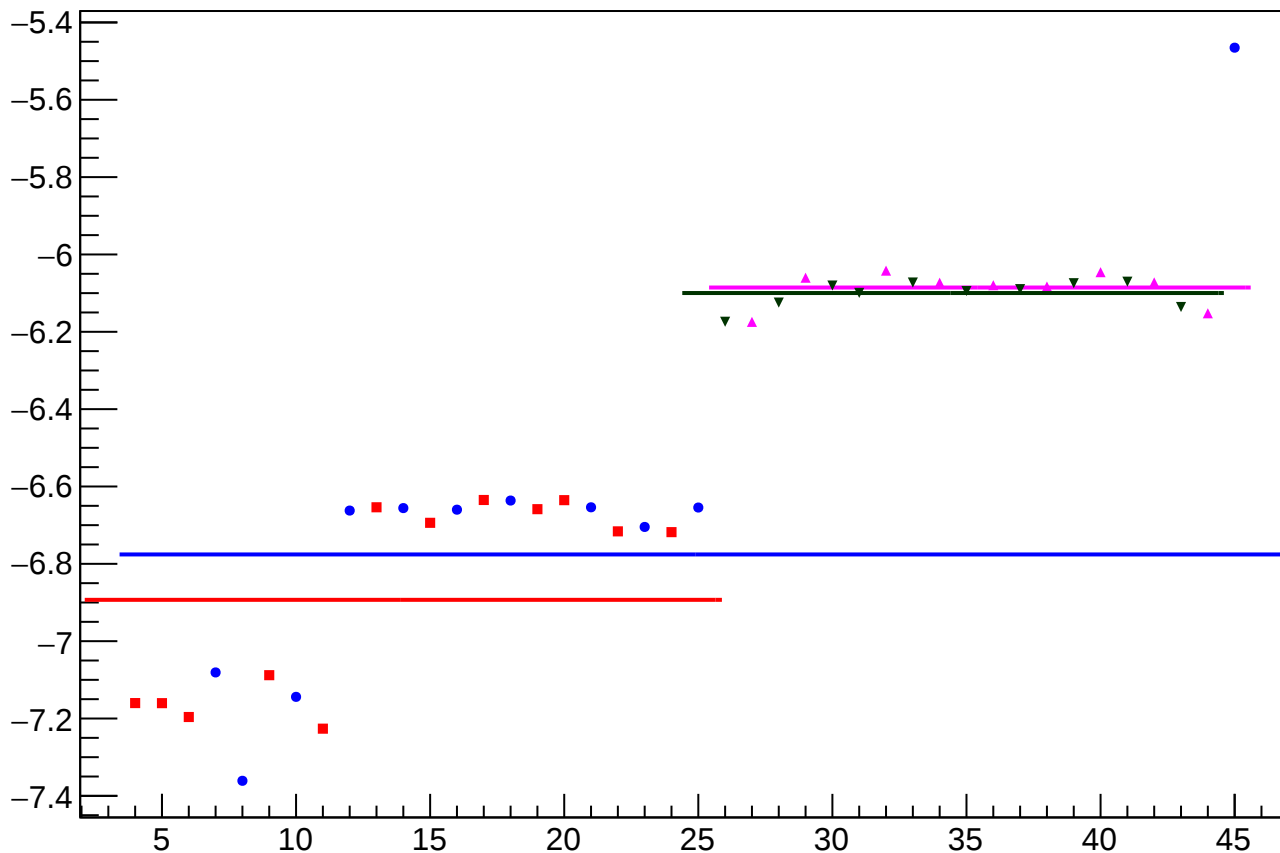
Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 47651.1/11

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :115547.6/8

0.009+/-0.000  $\chi^2/\text{NDF}$ : 147908.8/20

0.009+/-0.000  $\chi^2/\text{NDF}$ : 173689.1/20

# yield\_bpm0l01Y\_mean vs slug



Right In: -6.776+/-0.000  $\chi^2/\text{NDF}$ : 16500538604.4/10

Left Out: -6.100+/-0.000  $\chi^2/\text{NDF}$ : 52135577.5/9

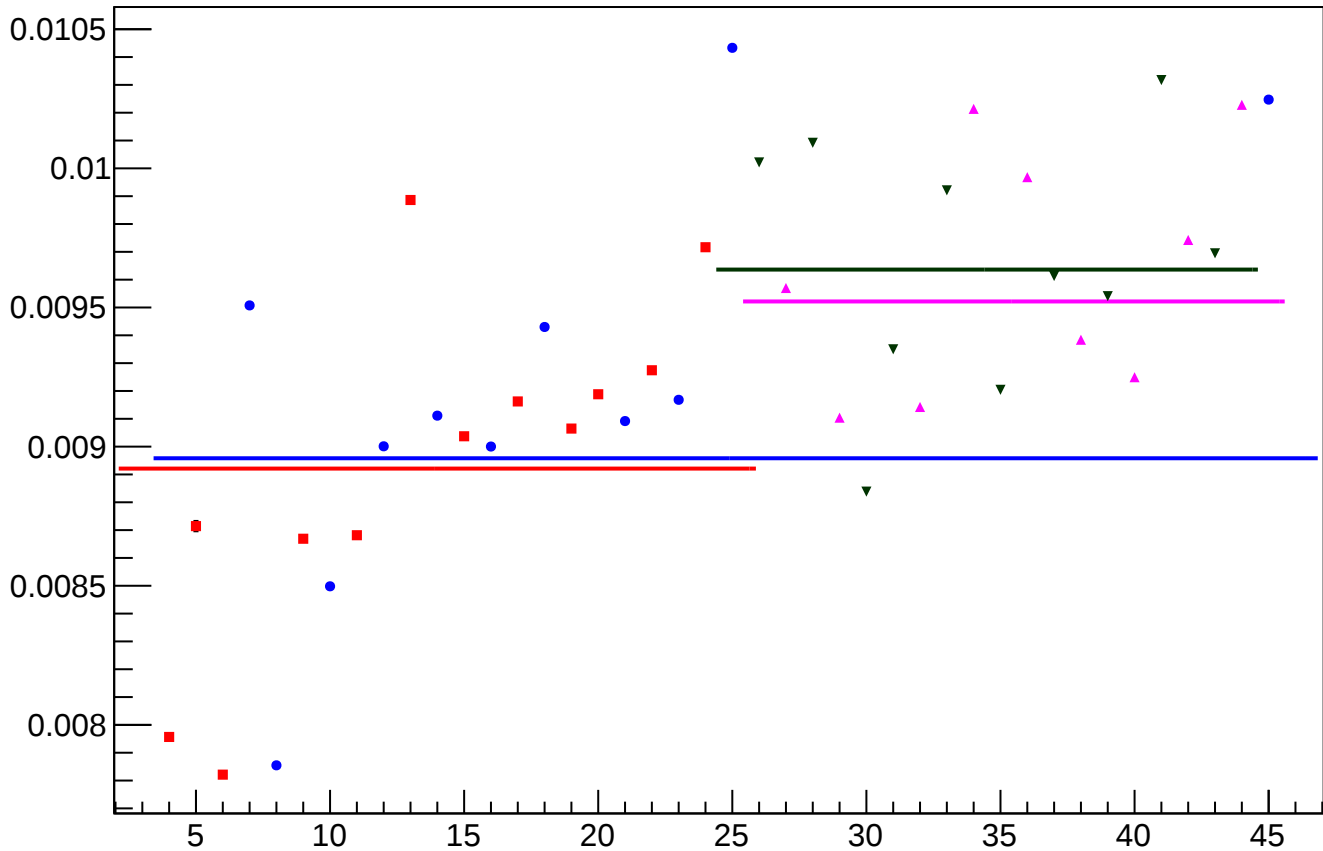
Right Out: -6.893+/-0.000  $\chi^2/\text{NDF}$ : 4705739160.1/11

Left In: -6.085+/-0.000  $\chi^2/\text{NDF}$ : 127997791.5/8

-6.509+/-0.000  $\chi^2/\text{NDF}$ : 31812548949.4/20

-6.537+/-0.000  $\chi^2/\text{NDF}$ : 26847724059.1/20

# yield\_bpm0l01Y\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 73061.5/10

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ :21331.0/9

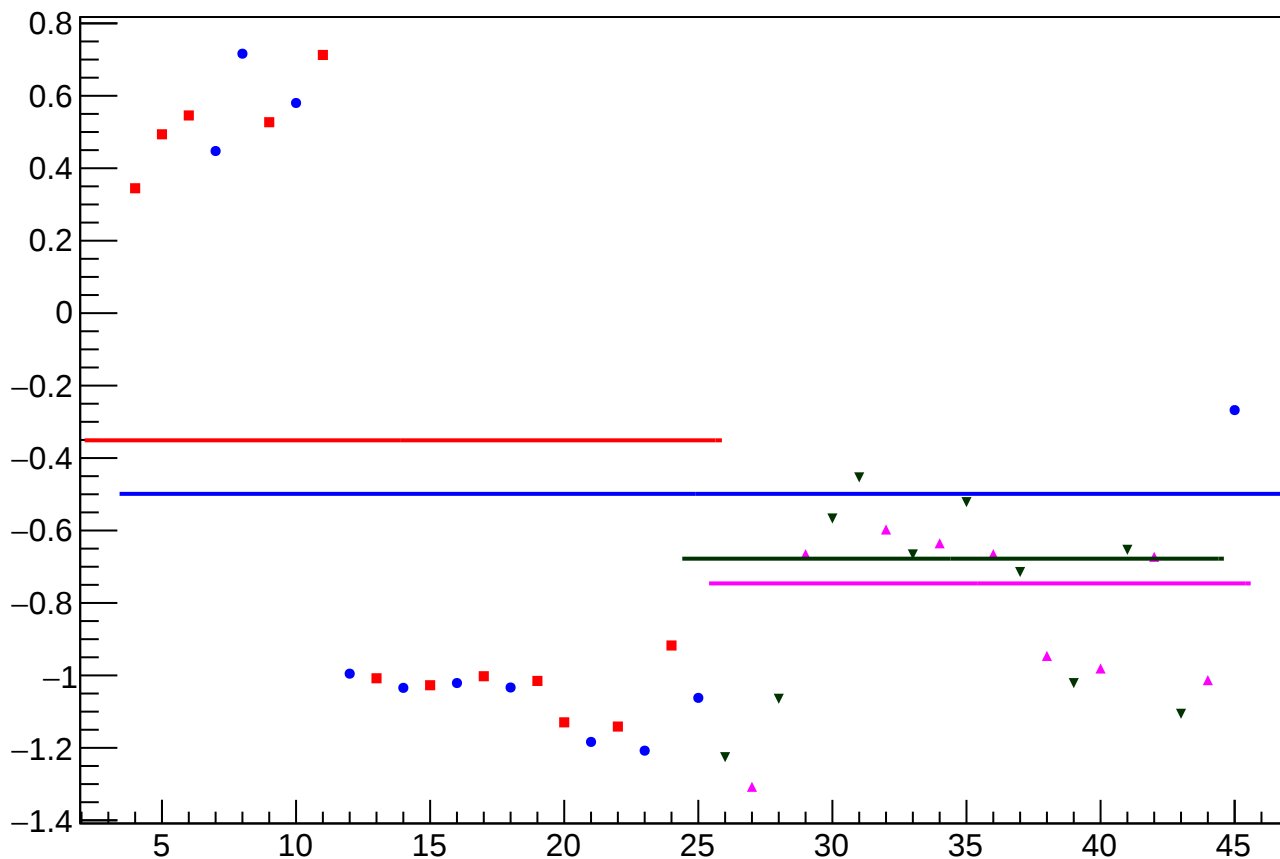
0.009+/-0.000  $\chi^2/\text{NDF}$ : 125099.1/20

Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 61199.2/11

0.009+/-0.000  $\chi^2/\text{NDF}$ : 104841.0/20

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ :19294.1/8

# yield\_bpm0l02X\_mean vs slug



Right In: -0.499+/-0.000  $\chi^2/\text{NDF}$ : 9302811947.8/10

Left Out: -0.678+/-0.000  $\chi^2/\text{NDF}$ :1358570765.2/9

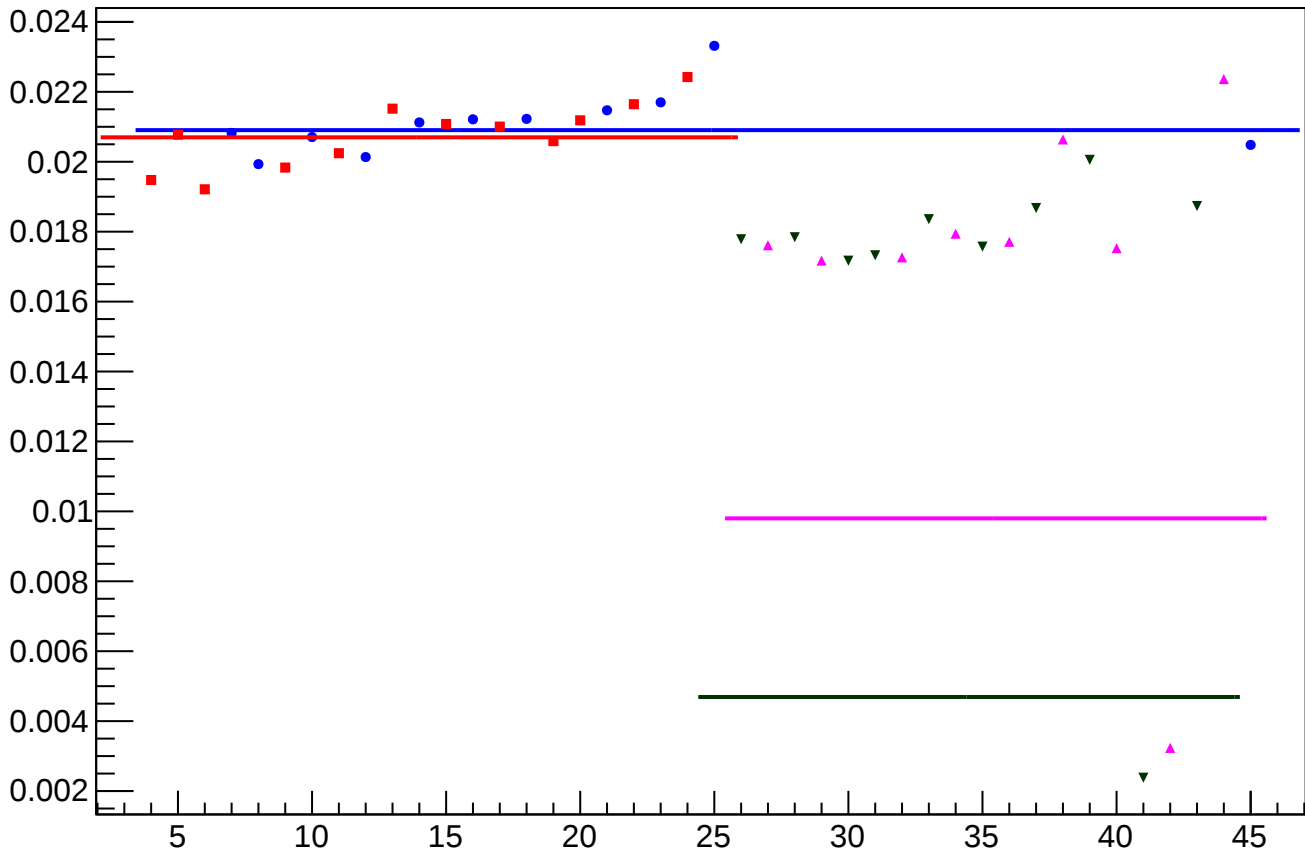
Right Out: -0.351+/-0.000  $\chi^2/\text{NDF}$ : 8987357685.6/11

Left In: -0.746+/-0.000  $\chi^2/\text{NDF}$ :1268707812.5/8

-0.652+/-0.000  $\chi^2/\text{NDF}$ : 11097387155.9/20

-0.629+/-0.000  $\chi^2/\text{NDF}$ : 11855779596.1/20

# yield\_bpm0l02X\_rms vs slug



Right In: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 15117.6/10

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 5998219.6/9

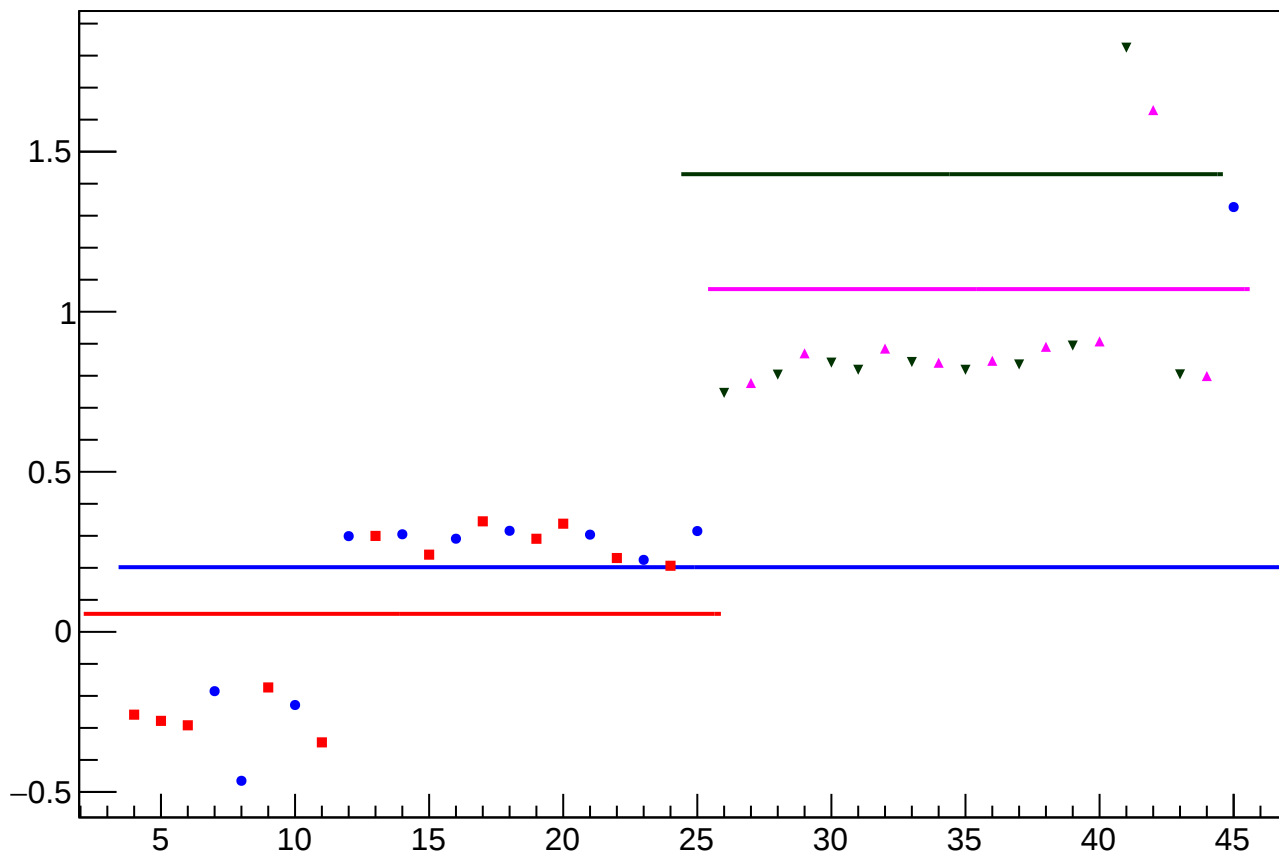
Right Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 25534.1/11

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 3818425.7/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 13173799.4/20

0.013+/-0.000  $\chi^2/\text{NDF}$ : 6280520.1/20

# yield\_bpm0l02Y\_mean vs slug



Right In: 0.202+/-0.000  $\chi^2/\text{NDF}$ : 8376699089.5/10

Left Out: 1.430+/-0.000  $\chi^2/\text{NDF}$ : 20131817794.8/9

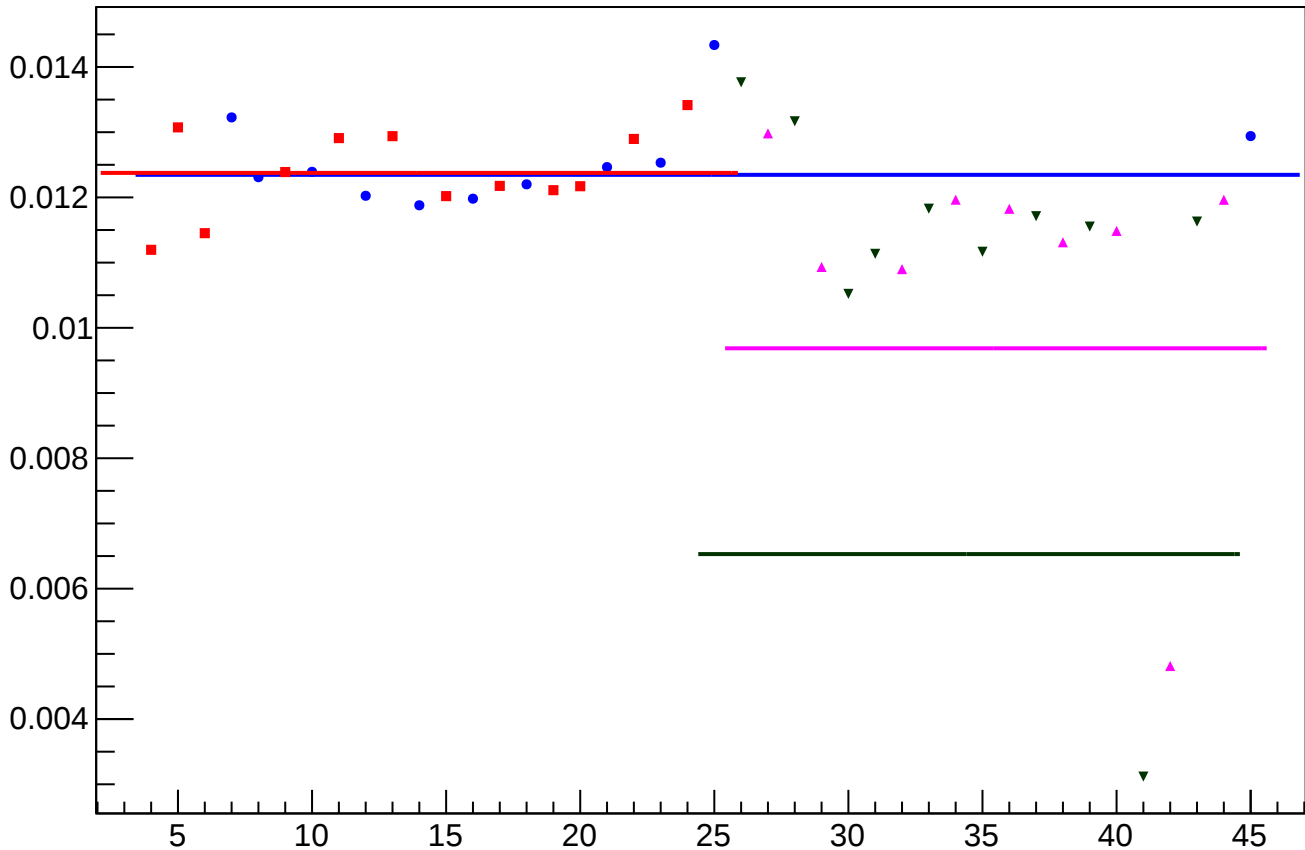
Right Out: 0.056+/-0.000  $\chi^2/\text{NDF}$ : 2963825797.0/11

Left In: 1.071+/-0.000  $\chi^2/\text{NDF}$ : 6285541515.9/8

1.003+/-0.000  $\chi^2/\text{NDF}$ : 72746054519.4/20

0.628+/-0.000  $\chi^2/\text{NDF}$ : 32468699998.0/20

# yield\_bpm0l02Y\_rms vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 19930.6/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3050338.6/9

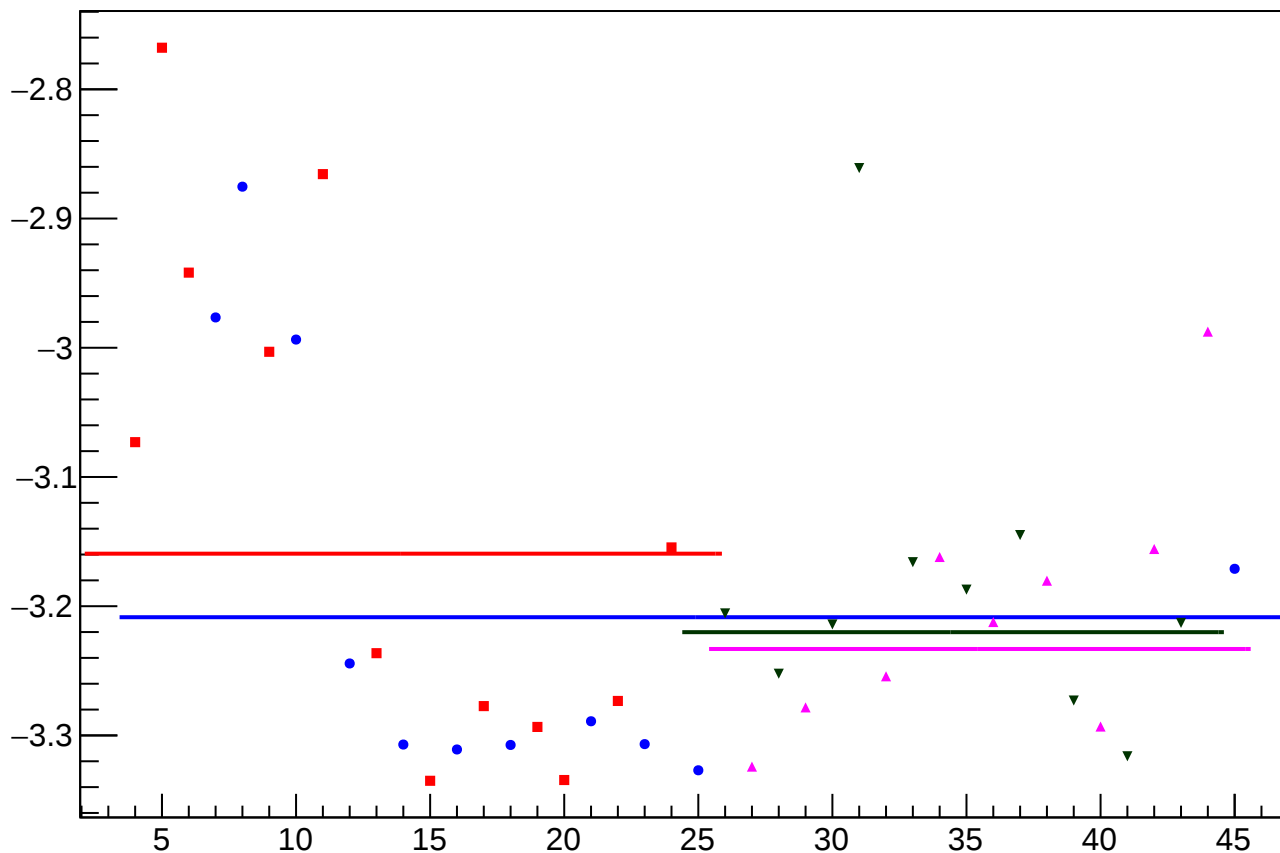
Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 31560.7/11

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 979026.7/8

0.009+/-0.000  $\chi^2/\text{NDF}$ : 5056220.6/20

0.011+/-0.000  $\chi^2/\text{NDF}$ : 1337163.9/20

# yield\_bpm0l03X\_mean vs slug



Right In: -3.209+/-0.000  $\chi^2/\text{NDF}$ : 2244196429.1/10

Left Out: -3.220+/-0.000  $\chi^2/\text{NDF}$ : 428312091.3/9

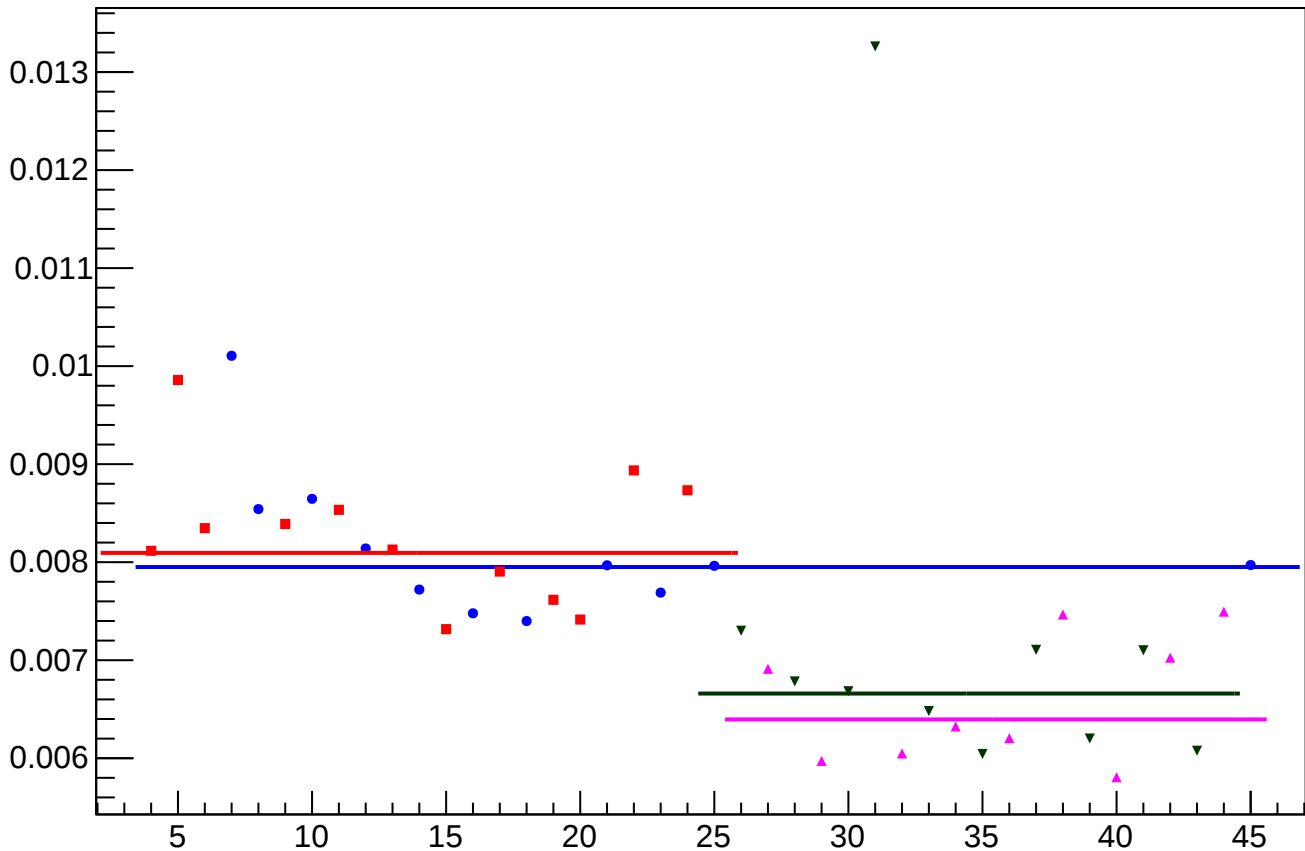
Right Out: -3.159+/-0.000  $\chi^2/\text{NDF}$ : 2193027591.1/11

Left In: -3.233+/-0.000  $\chi^2/\text{NDF}$ : 784509895.8/8

-3.214+/-0.000  $\chi^2/\text{NDF}$ : 2679019644.6/20

-3.203+/-0.000  $\chi^2/\text{NDF}$ : 3236900333.6/20

# yield\_bpm0l03X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 42387.1/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :169219.9/9

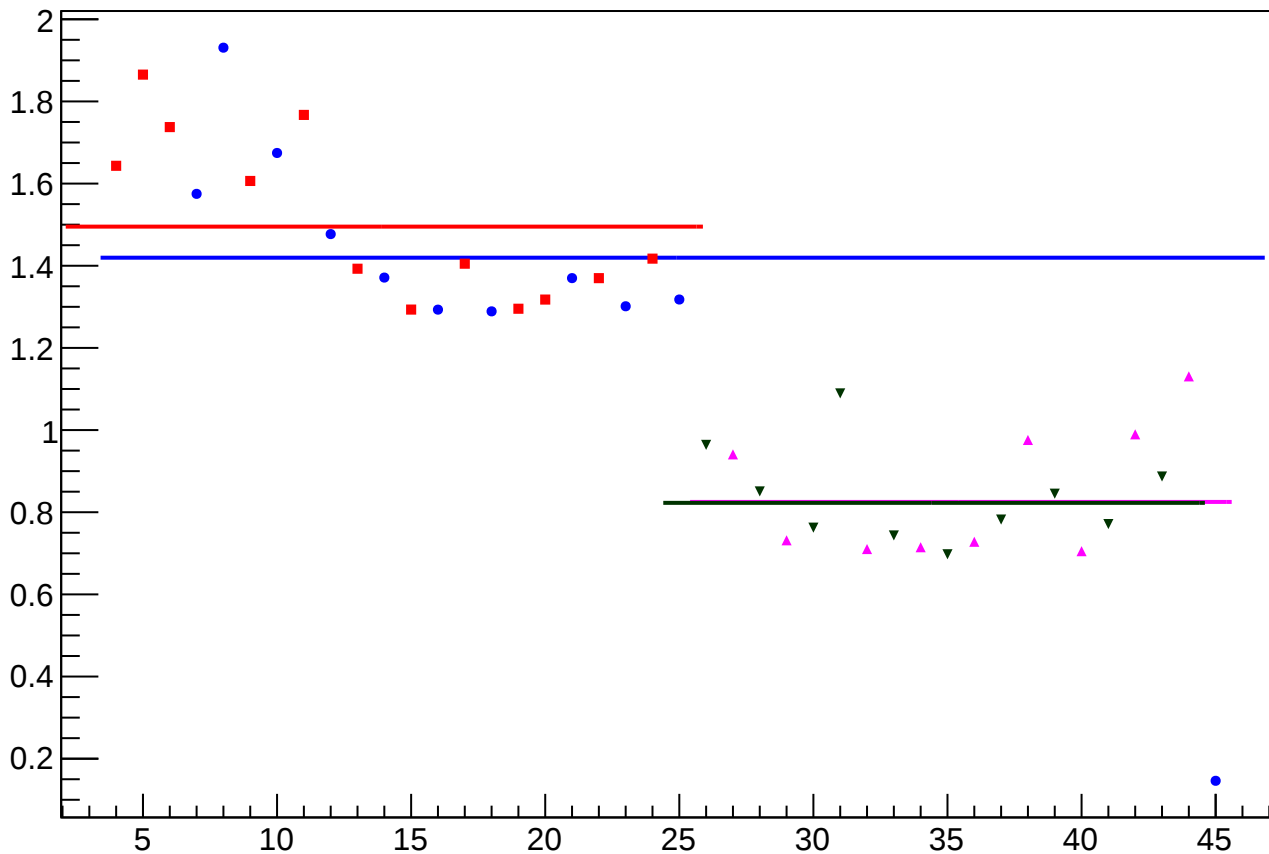
0.007+/-0.000  $\chi^2/\text{NDF}$ : 373744.1/20

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 41566.1/11

0.007+/-0.000  $\chi^2/\text{NDF}$ : 389176.4/20

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :72293.2/8

# yield\_bpm0l03Y\_mean vs slug



Right In: 1.420+/-0.000  $\chi^2/\text{NDF}$ : 14138472031.1/10

Left Out: 0.823+/-0.000  $\chi^2/\text{NDF}$ : 373202951.2/9

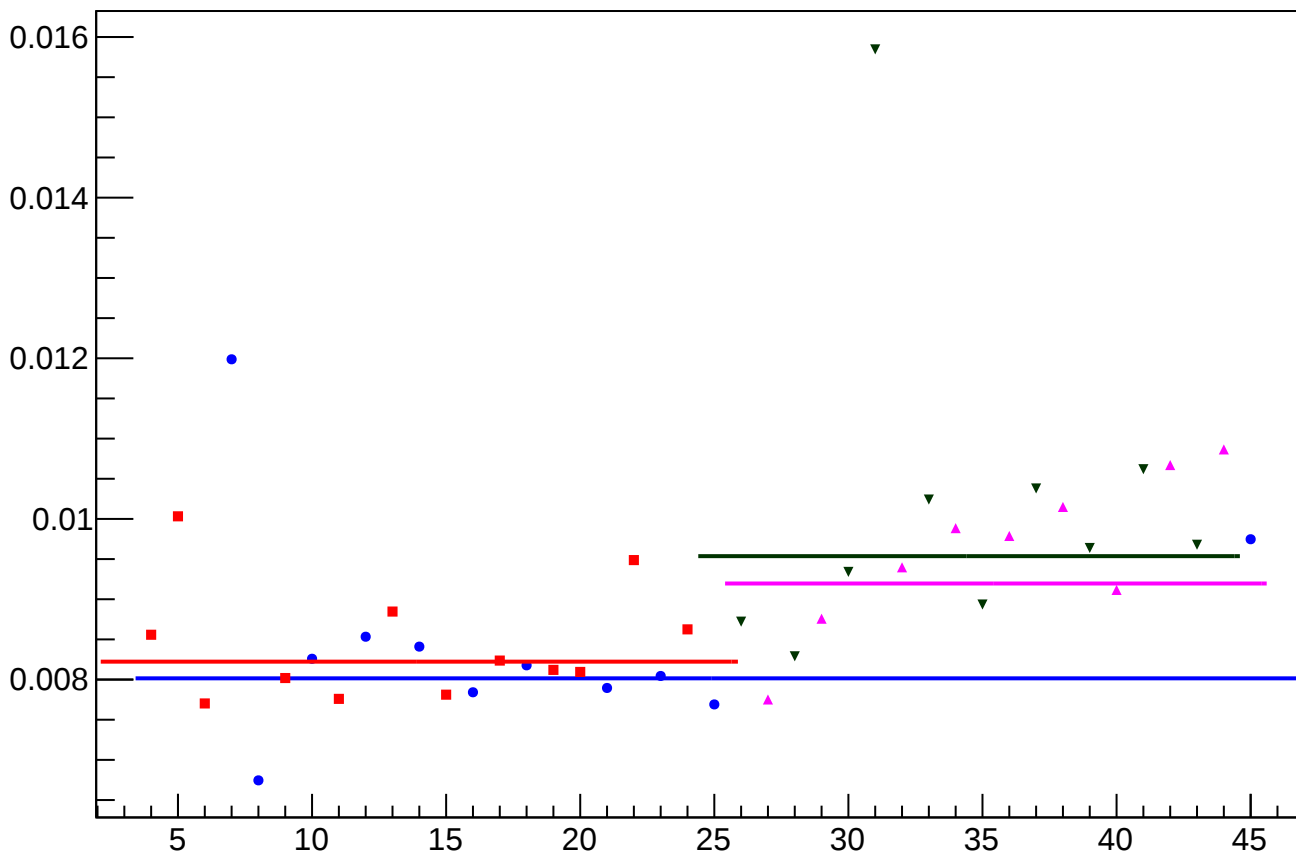
1.215+/-0.000  $\chi^2/\text{NDF}$ : 25764707201.9/20

Right Out: 1.495+/-0.000  $\chi^2/\text{NDF}$ : 2404671234.5/11

1.207+/-0.000  $\chi^2/\text{NDF}$ : 18079635182.4/20

Left In: 0.825+/-0.000  $\chi^2/\text{NDF}$ : 1054829783.2/8

# yield\_bpm0l03Y\_rms vs slug



Right In:  $0.008 \pm 0.000$   $\chi^2/\text{NDF}: 125262.1/10$

Left Out:  $0.010 \pm 0.000$   $\chi^2/\text{NDF}: 144258.2/9$

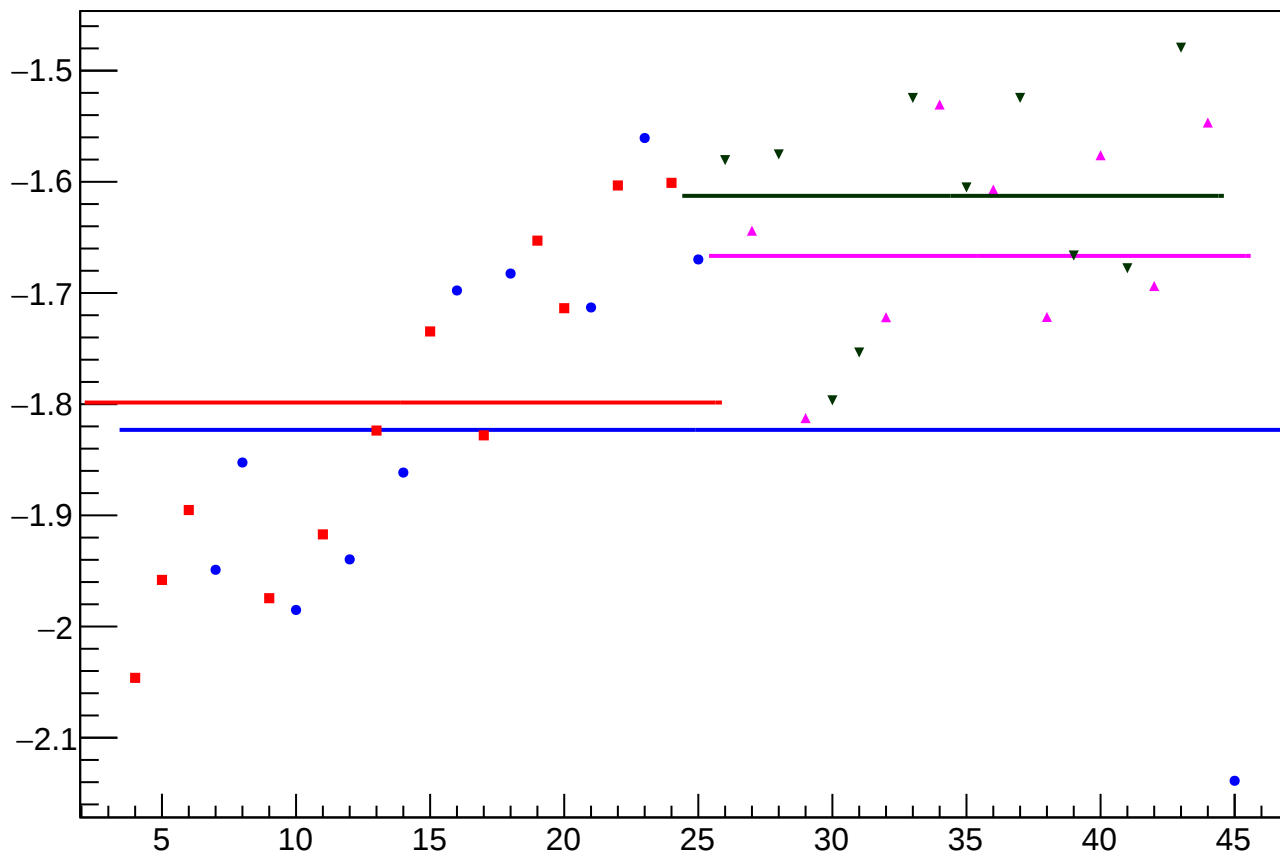
Right Out:  $0.008 \pm 0.000$   $\chi^2/\text{NDF}: 38168.5/11$

Left In:  $0.009 \pm 0.000$   $\chi^2/\text{NDF}: 103784.9/8$

$0.009 \pm 0.000$   $\chi^2/\text{NDF}: 415760.6/20$

$0.009 \pm 0.000$   $\chi^2/\text{NDF}: 203589.4/20$

# yield\_bpm0l04X\_mean vs slug



Right In: -1.823+/-0.000  $\chi^2/\text{NDF}$ : 1325528136.4/10

Left Out: -1.613+/-0.000  $\chi^2/\text{NDF}$ : 327148879.4/9

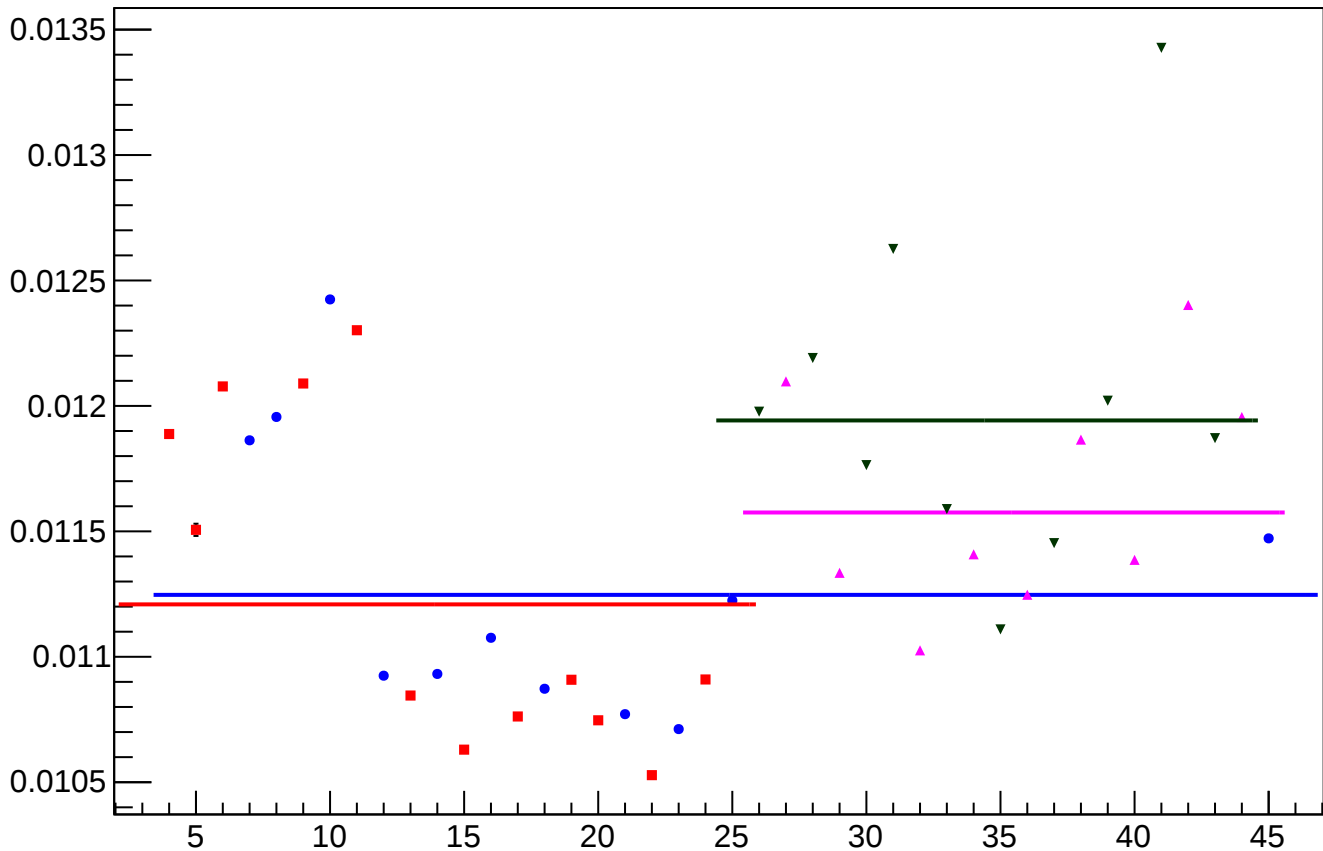
Right Out: -1.799+/-0.000  $\chi^2/\text{NDF}$ : 930787190.3/11

Left In: -1.667+/-0.000  $\chi^2/\text{NDF}$ : 344212253.5/8

-1.739+/-0.000  $\chi^2/\text{NDF}$ : 2626618912.3/20

-1.739+/-0.000  $\chi^2/\text{NDF}$ : 1669927282.1/20

# yield\_bpm0l04X\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 32704.6/10

Left Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ :25348.0/9

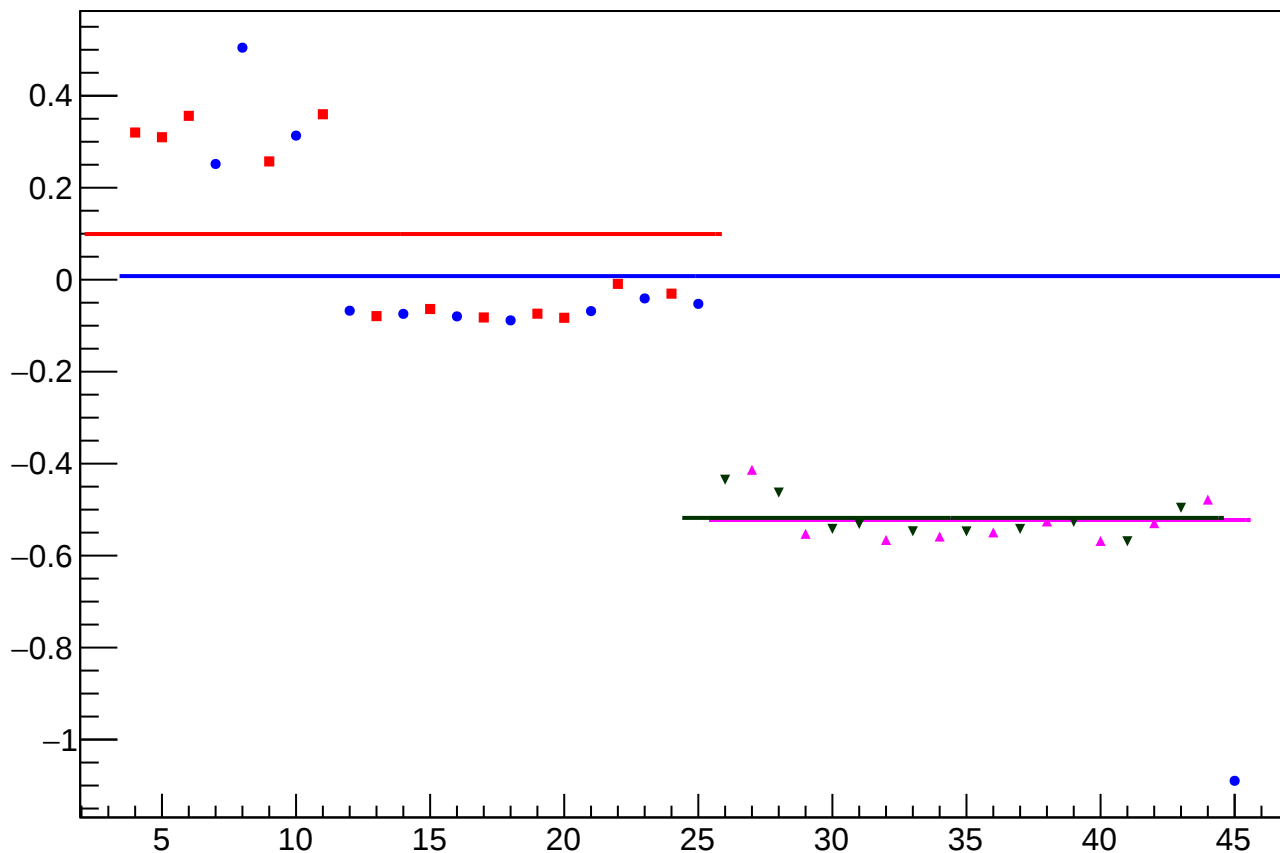
Right Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 41113.0/11

Left In: 0.012+/-0.000  $\chi^2/\text{NDF}$ :15888.6/8

0.012+/-0.000  $\chi^2/\text{NDF}$ : 79304.5/20

0.011+/-0.000  $\chi^2/\text{NDF}$ : 63092.4/20

# yield\_bpm0l04Y\_mean vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 17980853923.9/10

Left Out: -0.518+/-0.000  $\chi^2/\text{NDF}$ : 131878439.0/9

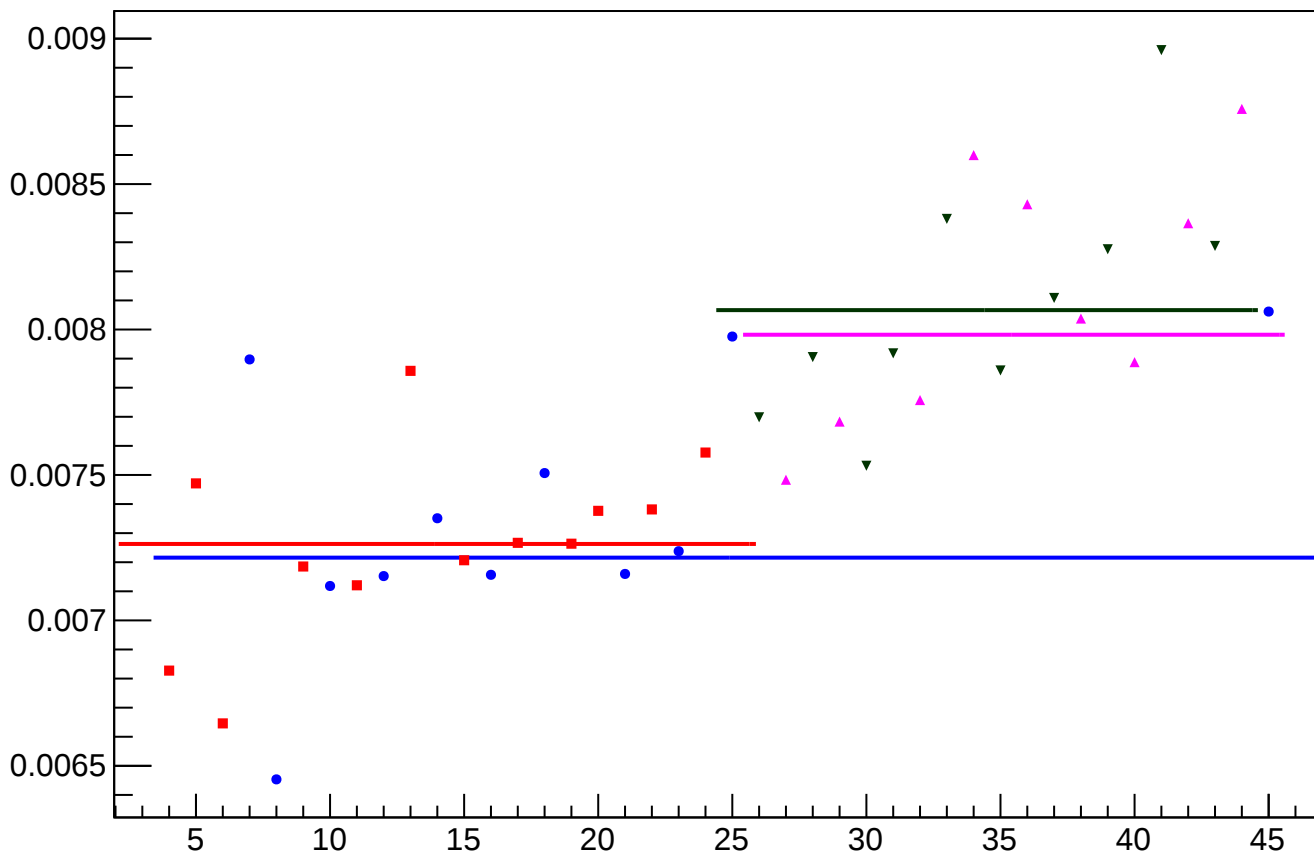
Right Out: 0.099+/-0.000  $\chi^2/\text{NDF}$ : 4238157293.7/11

Left In: -0.523+/-0.000  $\chi^2/\text{NDF}$ : 258155612.5/8

-0.189+/-0.000  $\chi^2/\text{NDF}$ : 31740977001.9/20

-0.166+/-0.000  $\chi^2/\text{NDF}$ : 23634495970.2/20

# yield\_bpm0l04Y\_rms vs slug



Right In:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}: 48552.1/10$

Left Out:  $0.008 \pm 0.000$   $\chi^2/\text{NDF}: 23022.1/9$

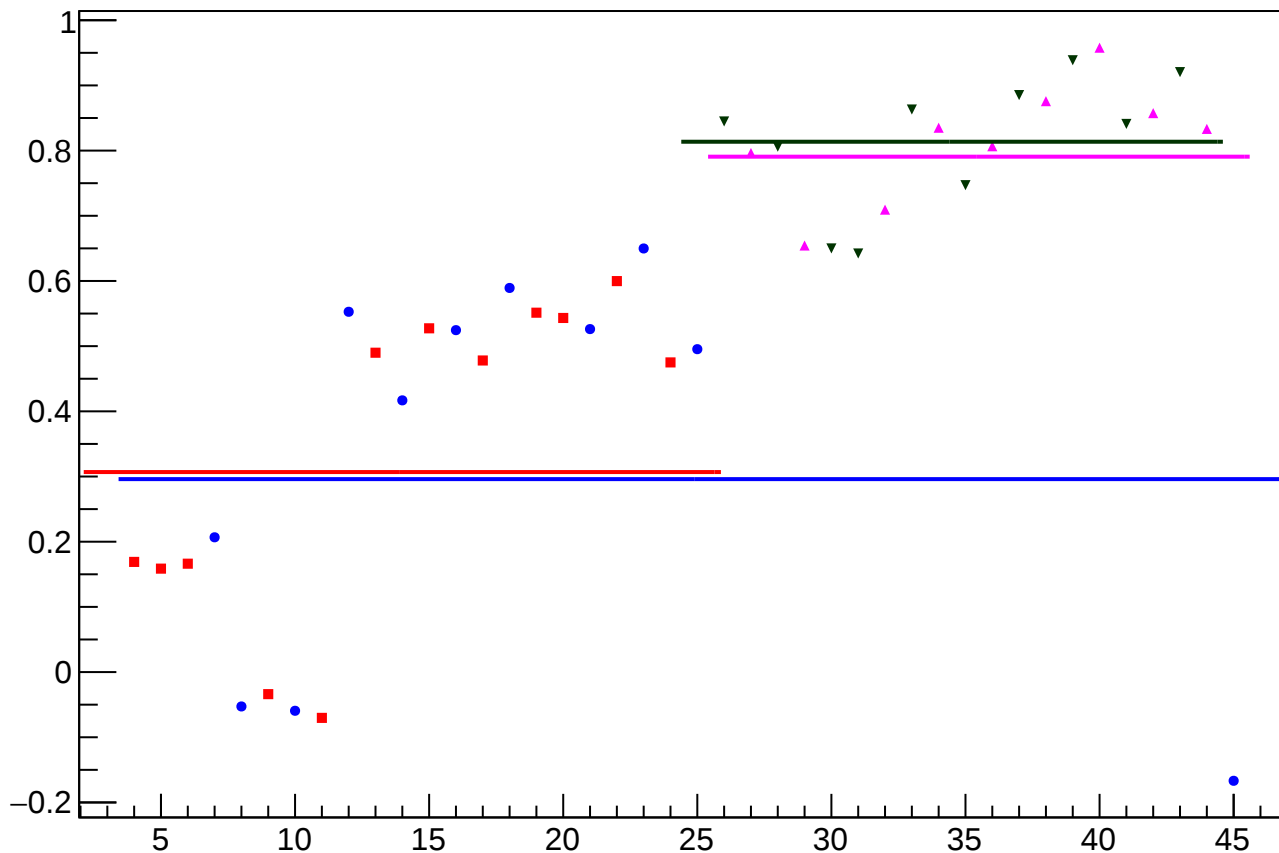
Right Out:  $0.007 \pm 0.000$   $\chi^2/\text{NDF}: 25457.6/11$

Left In:  $0.008 \pm 0.000$   $\chi^2/\text{NDF}: 29355.6/8$

$0.008 \pm 0.000$   $\chi^2/\text{NDF}: 142956.7/20$

$0.008 \pm 0.000$   $\chi^2/\text{NDF}: 106024.2/20$

# yield\_bpm0l05X\_mean vs slug



Right In: 0.296+/-0.000  $\chi^2/\text{NDF}$ : 12680437178.2/10

Left Out: 0.814+/-0.000  $\chi^2/\text{NDF}$ : 993349923.9/9

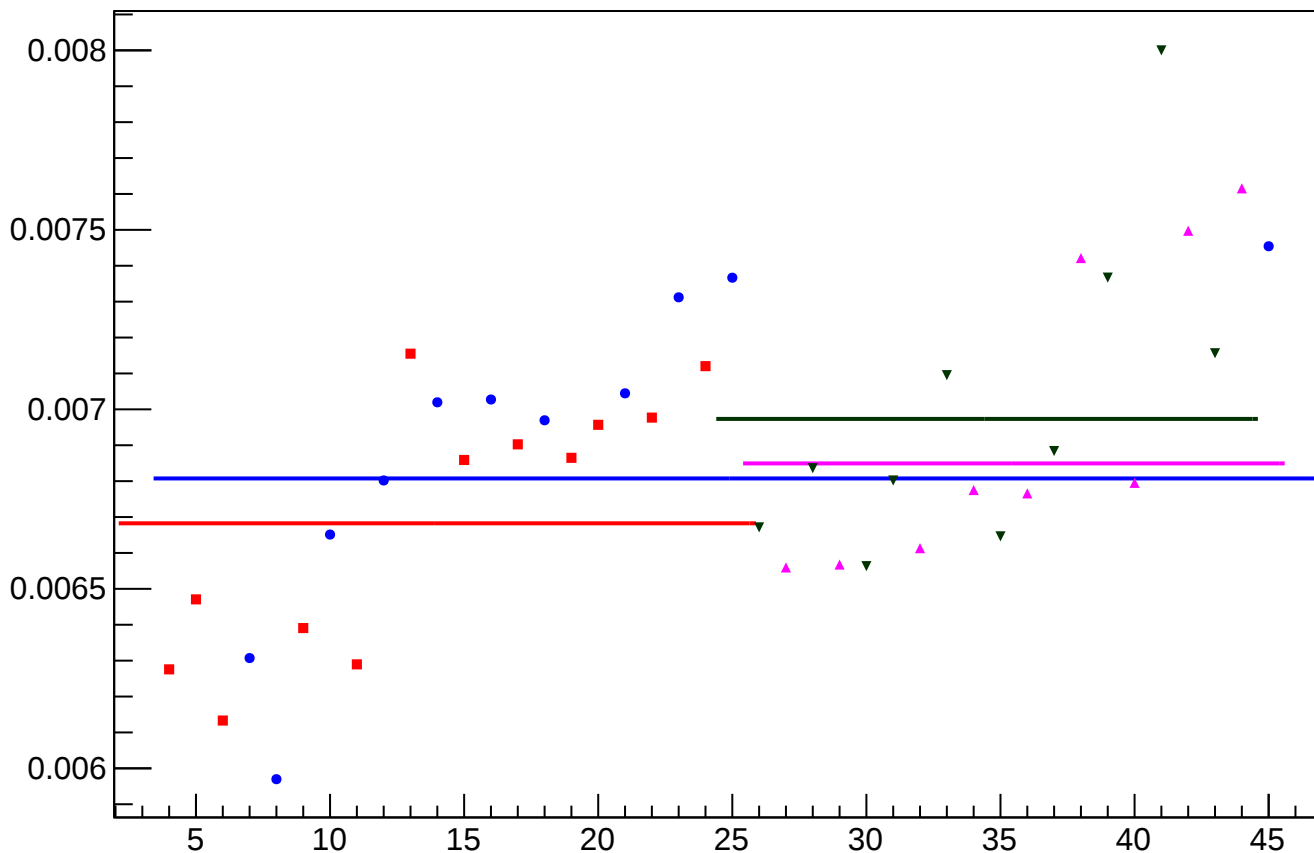
0.513+/-0.000  $\chi^2/\text{NDF}$ : 30359745434.7/20

Right Out: 0.307+/-0.000  $\chi^2/\text{NDF}$ : 8592627222.1/11

0.529+/-0.000  $\chi^2/\text{NDF}$ : 24464482887.9/20

Left In: 0.791+/-0.000  $\chi^2/\text{NDF}$ : 932399689.3/8

# yield\_bpm0l05X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 60444.5/10

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 32912.7/9

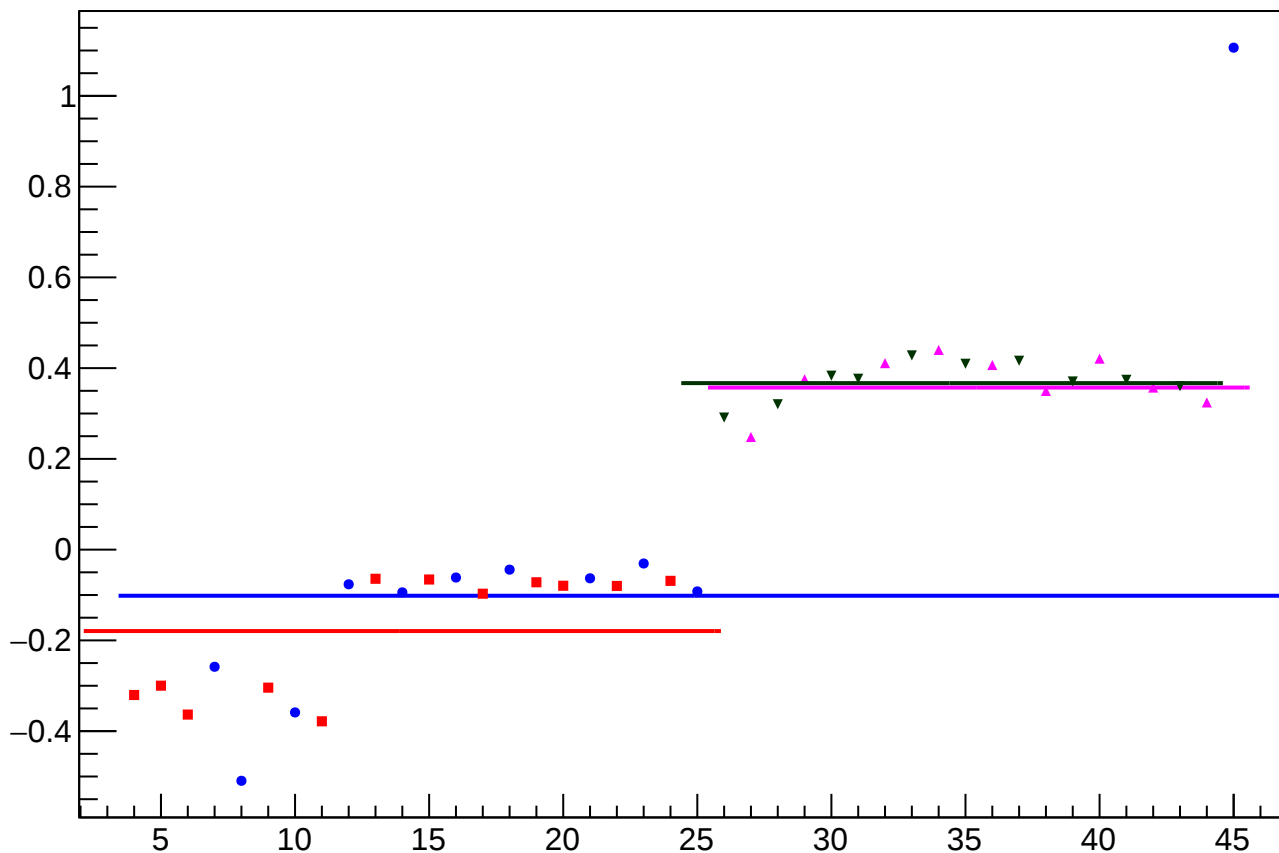
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 37923.0/11

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 33164.0/8

0.007+/-0.000  $\chi^2/\text{NDF}$ : 96783.4/20

0.007+/-0.000  $\chi^2/\text{NDF}$ : 74639.9/20

# yield\_bpm0l05Y\_mean vs slug



Right In: -0.102+/-0.000  $\chi^2/\text{NDF}$ : 33656873832.7/10

Left Out: 0.367+/-0.000  $\chi^2/\text{NDF}$ : 258003359.9/9

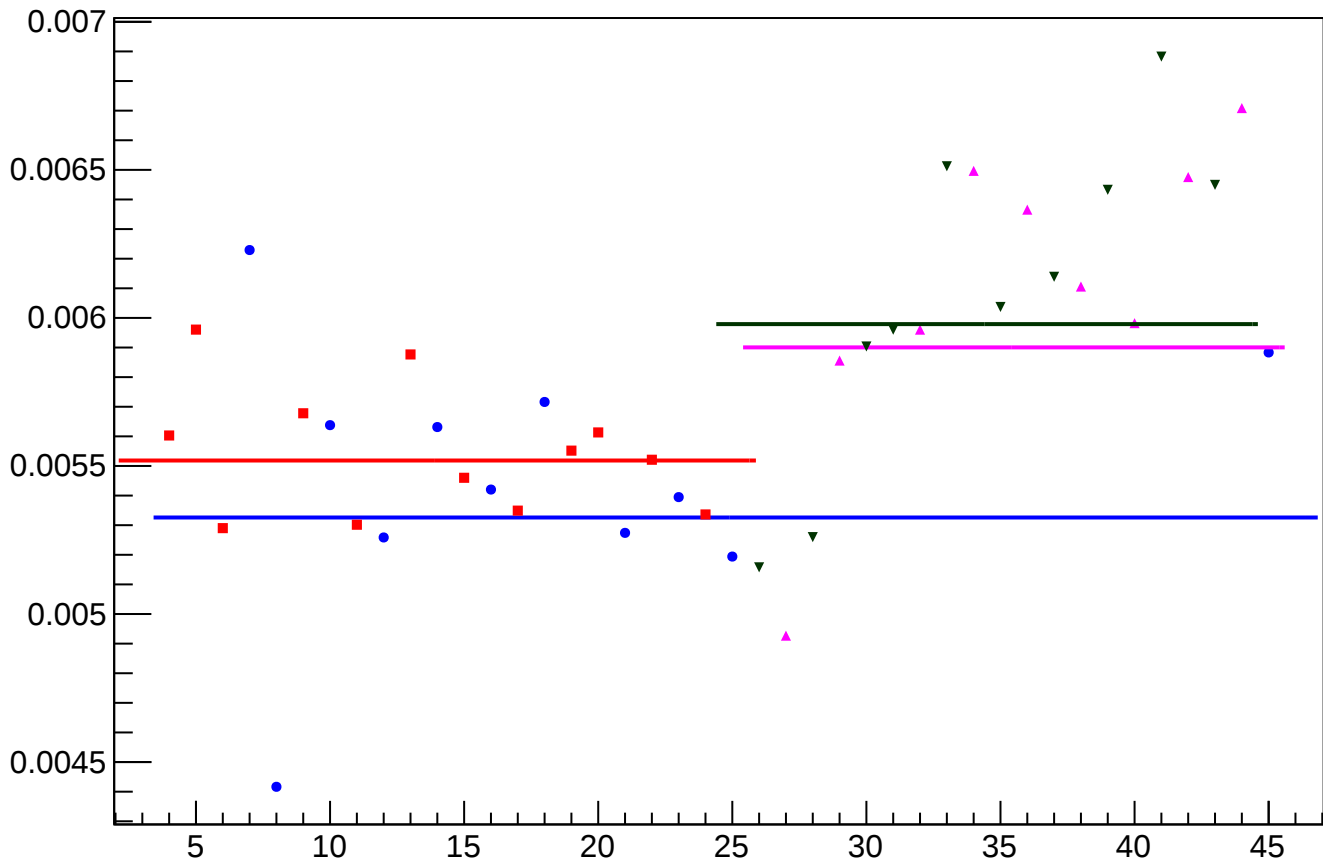
Right Out: -0.179+/-0.000  $\chi^2/\text{NDF}$ : 3508774818.6/11

Left In: 0.357+/-0.000  $\chi^2/\text{NDF}$ : 650314960.7/8

0.072+/-0.000  $\chi^2/\text{NDF}$ : 53392037921.3/20

0.056+/-0.000  $\chi^2/\text{NDF}$ : 29318238520.9/20

# yield\_bpm0l05Y\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 112441.1/10

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 84407.0/9

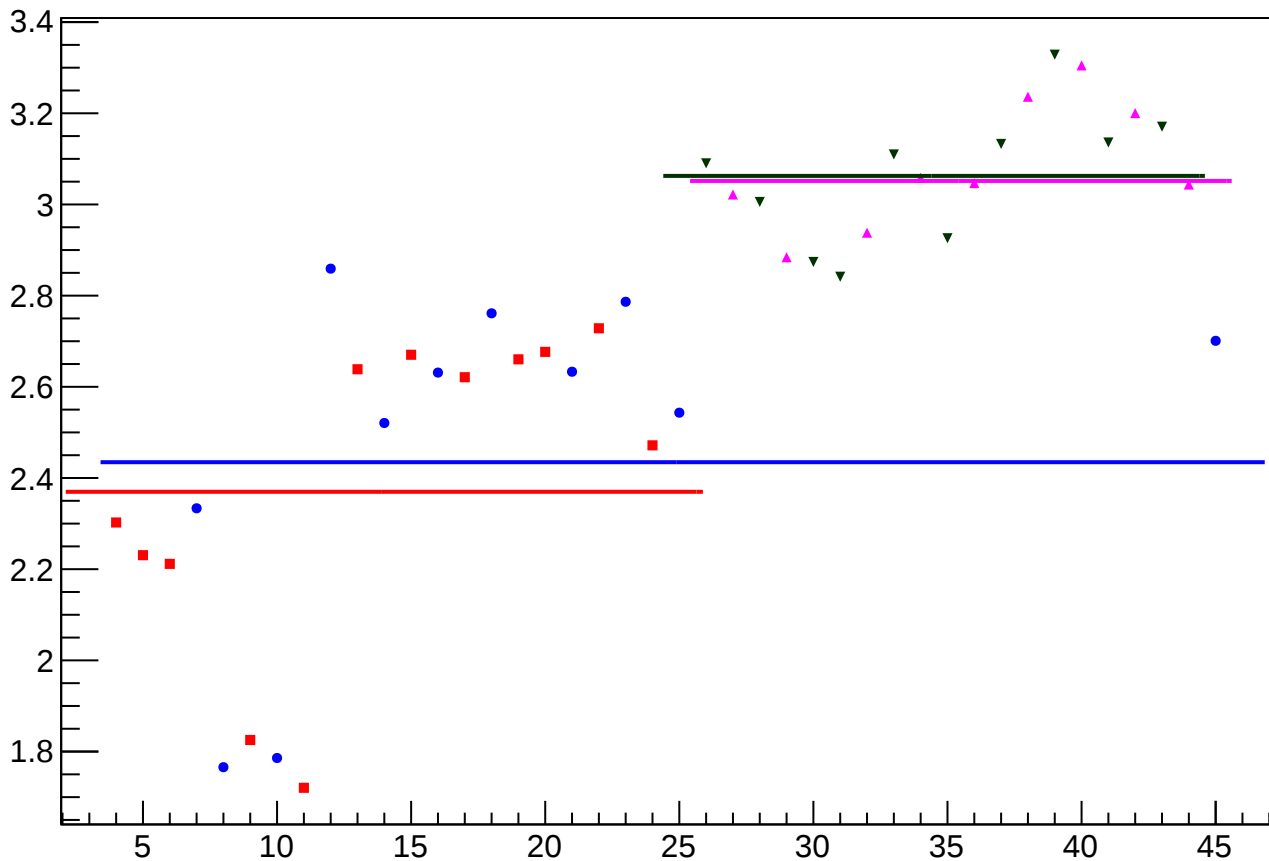
0.006+/-0.000  $\chi^2/\text{NDF}$ : 272513.1/20

Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 15882.5/11

0.006+/-0.000  $\chi^2/\text{NDF}$ : 142479.9/20

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 101099.8/8

# yield\_bpm0l06X\_mean vs slug



Right In: 2.435 $\pm$ 0.000  $\chi^2$ /NDF: 8627961998.3/10

Left Out: 3.063 $\pm$ 0.000  $\chi^2$ /NDF:1107067165.5/9

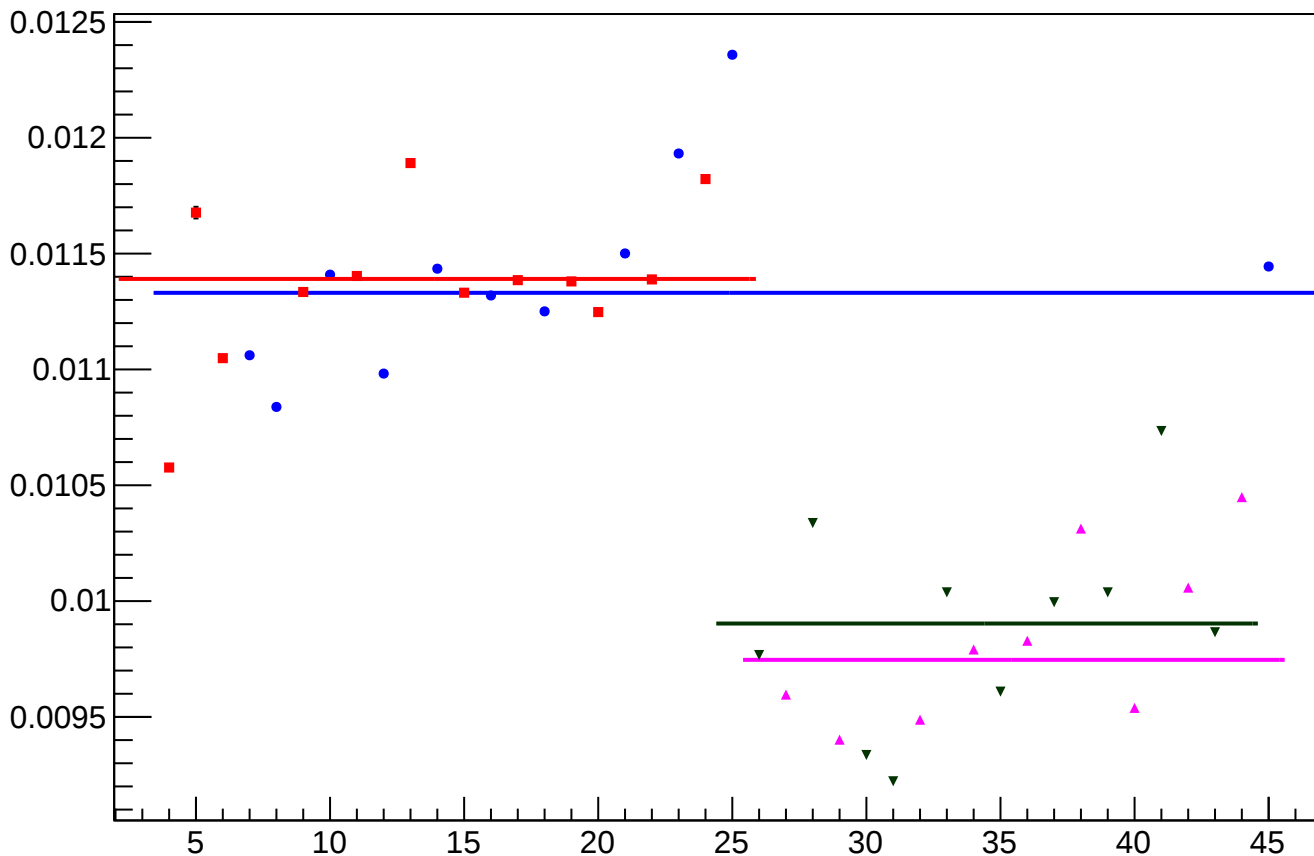
2.748 $\pm$ 0.000  $\chi^2$ /NDF: 20319456817.9/20

Right Out: 2.370 $\pm$ 0.000  $\chi^2$ /NDF: 6148614256.2/11

2.745 $\pm$ 0.000  $\chi^2$ /NDF: 19368331346.9/20

Left In: 3.052 $\pm$ 0.000  $\chi^2$ /NDF:1015989993.5/8

# yield\_bpm0l06X\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 11790.5/10

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ :18813.8/9

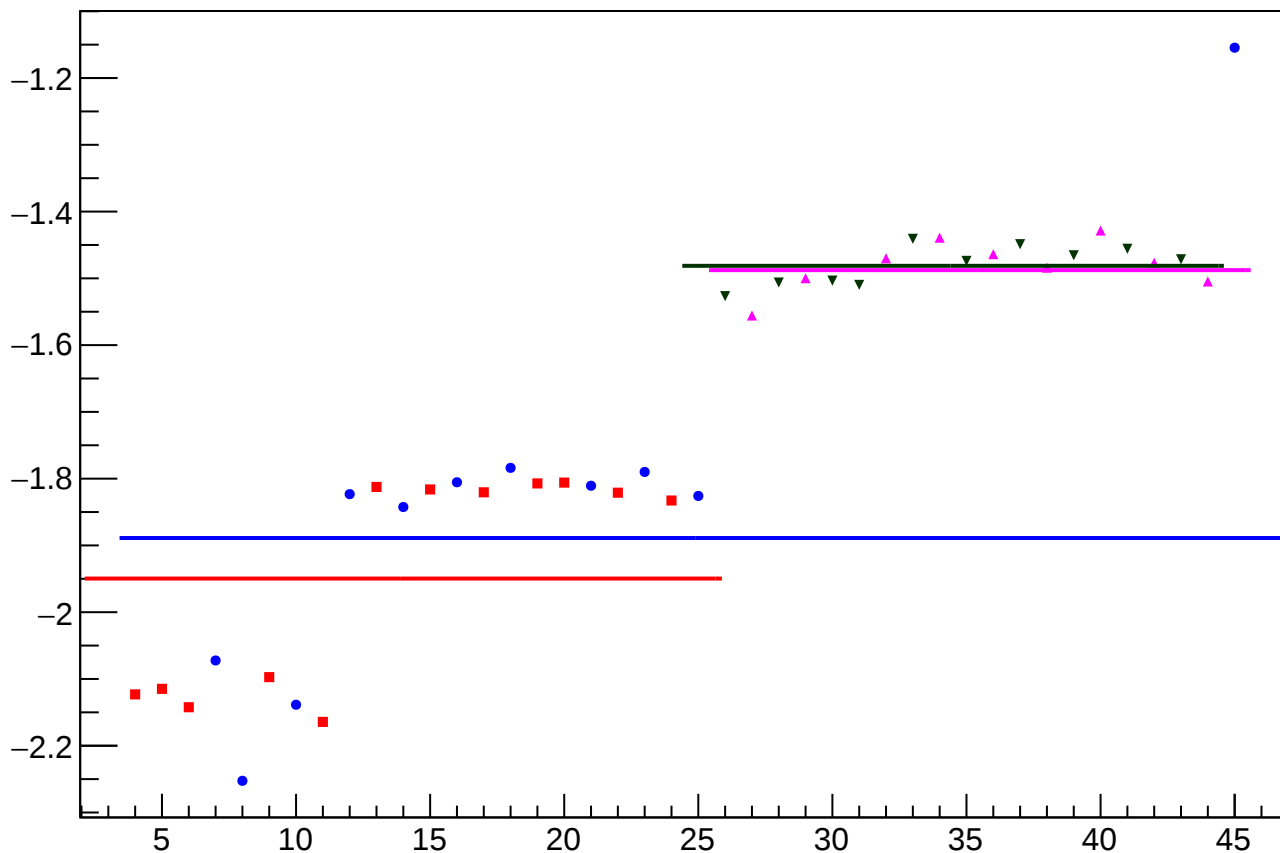
Right Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 10496.6/11

Left In: 0.010+/-0.000  $\chi^2/\text{NDF}$ :13193.9/8

0.011+/-0.000  $\chi^2/\text{NDF}$ : 139978.5/20

0.010+/-0.000  $\chi^2/\text{NDF}$ : 165650.4/20

# yield\_bpm0l06Y\_mean vs slug



Right In: -1.889+/-0.000  $\chi^2/\text{NDF}$ : 20568348618.9/10

Left Out: -1.481+/-0.000  $\chi^2/\text{NDF}$ :133314200.9/9

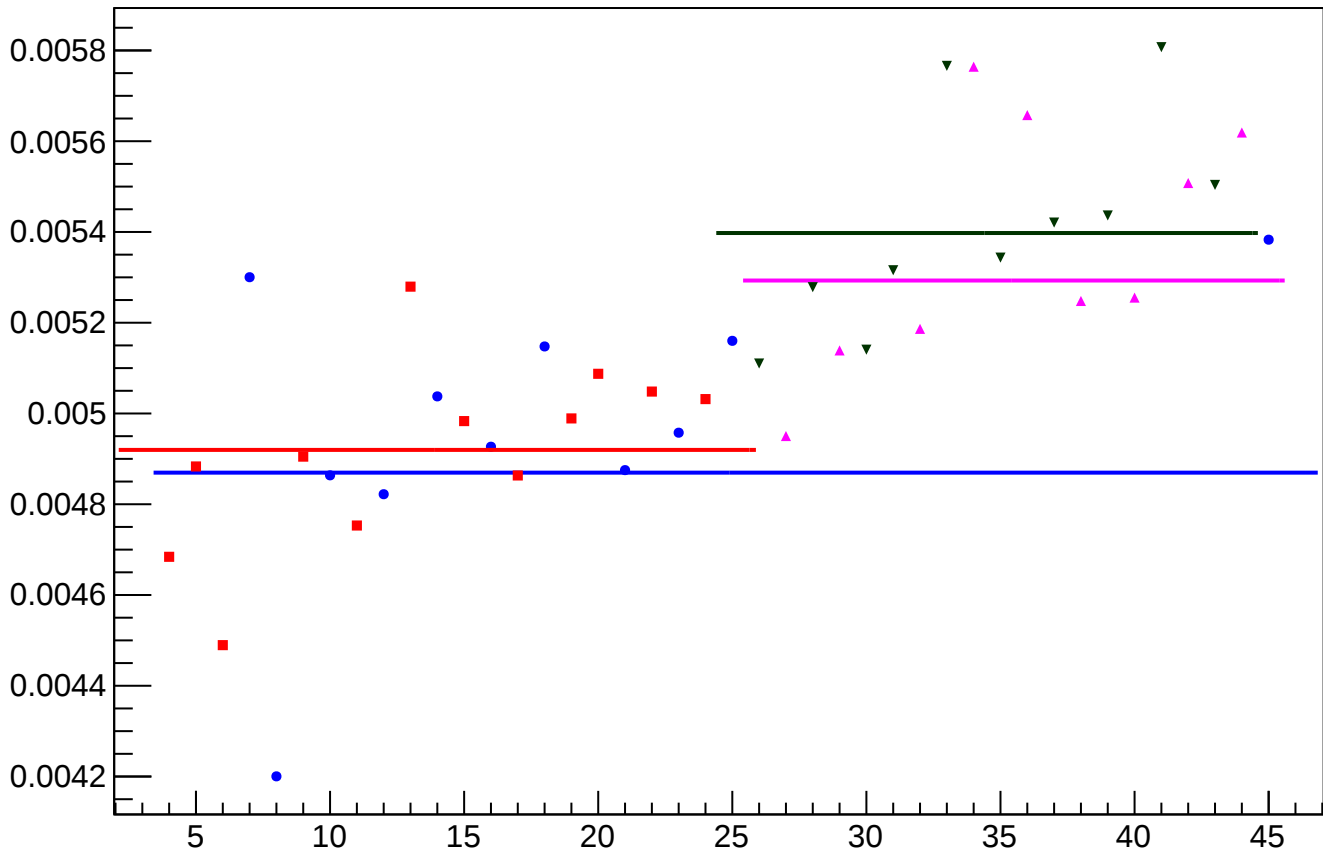
Right Out: -1.950+/-0.000  $\chi^2/\text{NDF}$ : 6176400274.4/11

Left In: -1.488+/-0.000  $\chi^2/\text{NDF}$ :281282296.5/8

-1.734+/-0.000  $\chi^2/\text{NDF}$ : 38877229219.0/20

-1.748+/-0.000  $\chi^2/\text{NDF}$ : 30067929937.4/20

# yield\_bpm0l06Y\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 66374.9/10

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ :16600.8/9

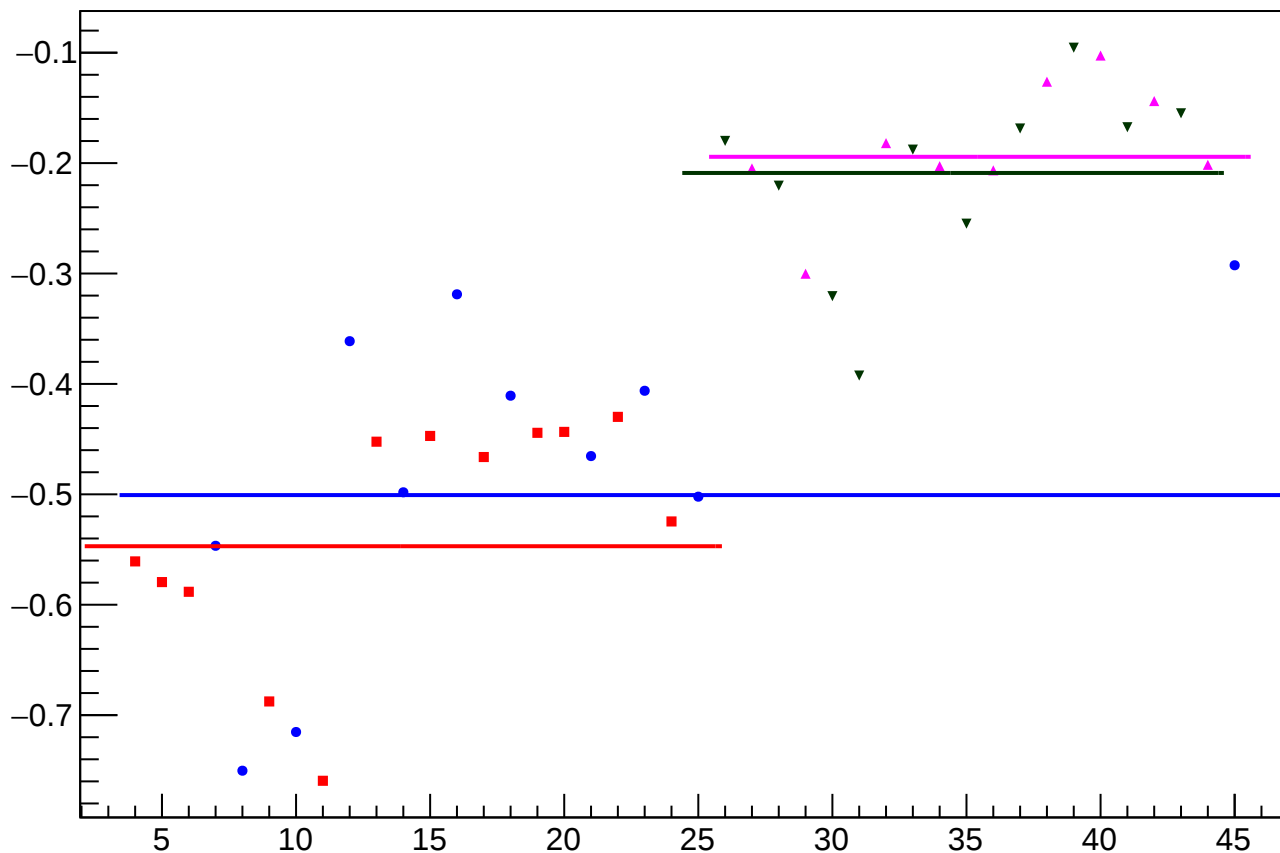
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 23832.0/11

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ :25779.4/8

0.005+/-0.000  $\chi^2/\text{NDF}$ : 143964.6/20

0.005+/-0.000  $\chi^2/\text{NDF}$ : 80447.8/20

# yield\_bpm0l07X\_mean vs slug



Right In: -0.501+/-0.000  $\chi^2$ /NDF: 569508837.9/10

Left Out: -0.547+/-0.000  $\chi^2$ /NDF: 145606796.2/9

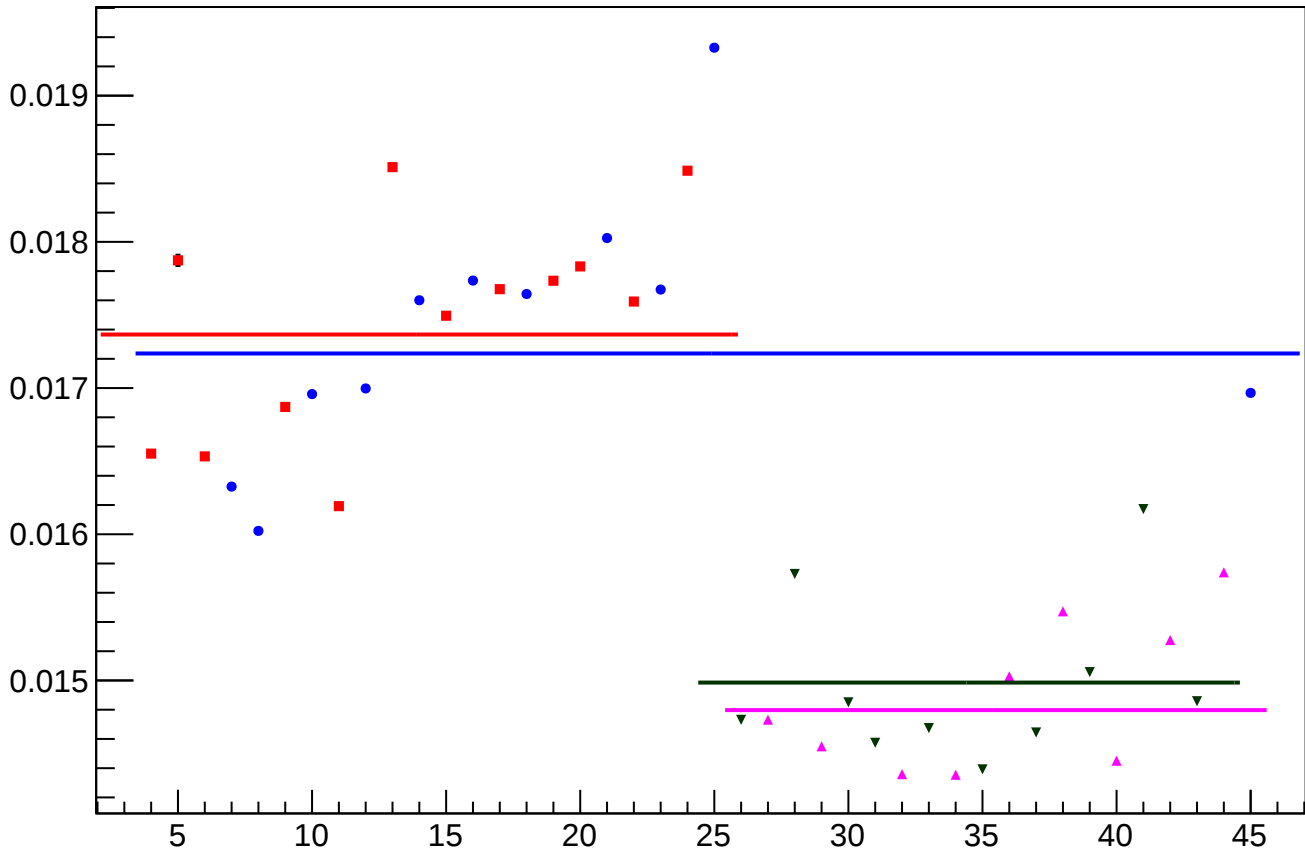
Right Out: -0.547+/-0.000  $\chi^2$ /NDF: 269735804.4/11

Left In: -0.194+/-0.000  $\chi^2$ /NDF: 81659796.5/8

-0.353+/-0.000  $\chi^2$ /NDF: 1714012738.7/20

-0.351+/-0.000  $\chi^2$ /NDF: 1761759597.4/20

# yield\_bpm0l07X\_rms vs slug



Right In: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 24452.8/10

Left Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ :13214.2/9

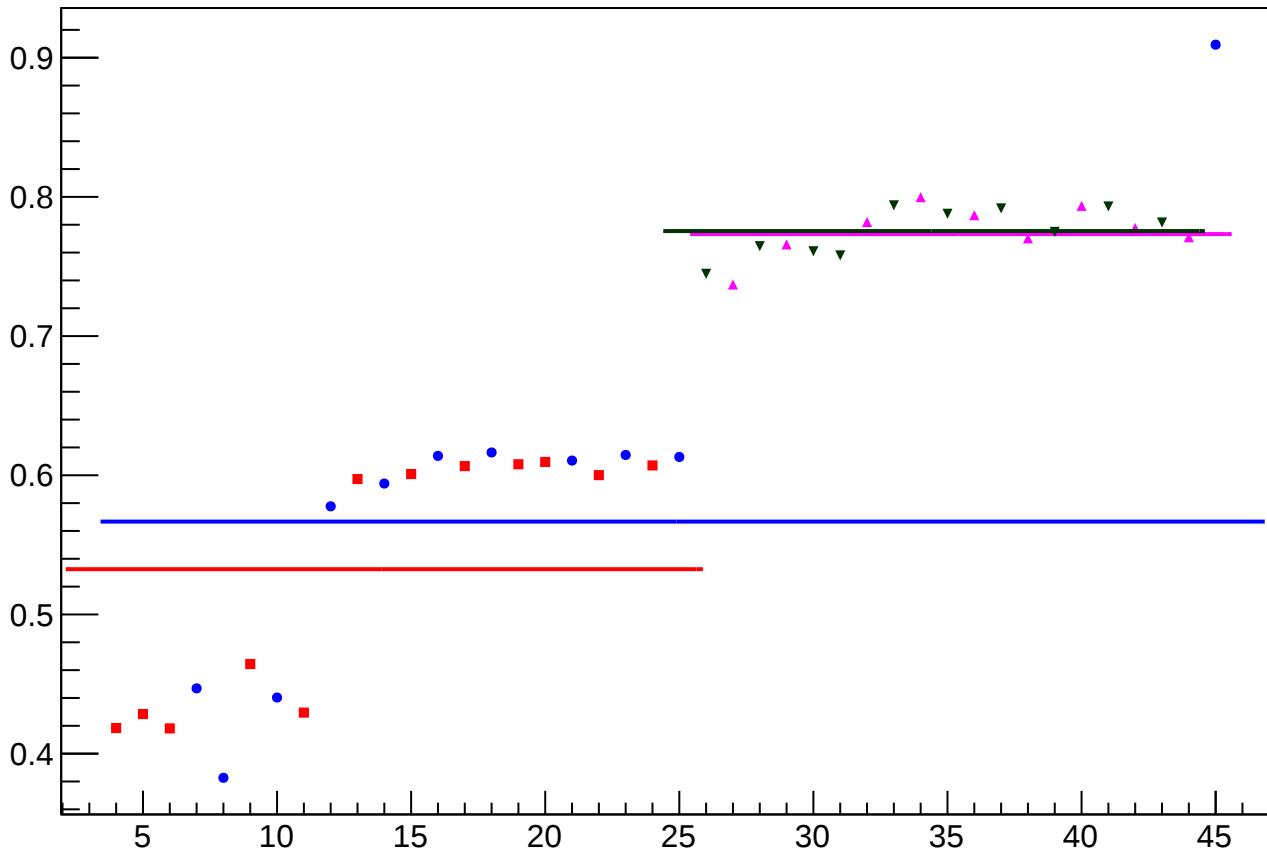
0.016+/-0.000  $\chi^2/\text{NDF}$ : 156583.8/20

Right Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 25208.5/11

0.016+/-0.000  $\chi^2/\text{NDF}$ : 185390.5/20

Left In: 0.015+/-0.000  $\chi^2/\text{NDF}$ :10554.2/8

# yield\_bpm0l07Y\_mean vs slug



Right In: 0.567 $\pm$ 0.000  $\chi^2$ /NDF: 12326708229.5/10

Left Out: 0.775 $\pm$ 0.000  $\chi^2$ /NDF: 122038329.5/9

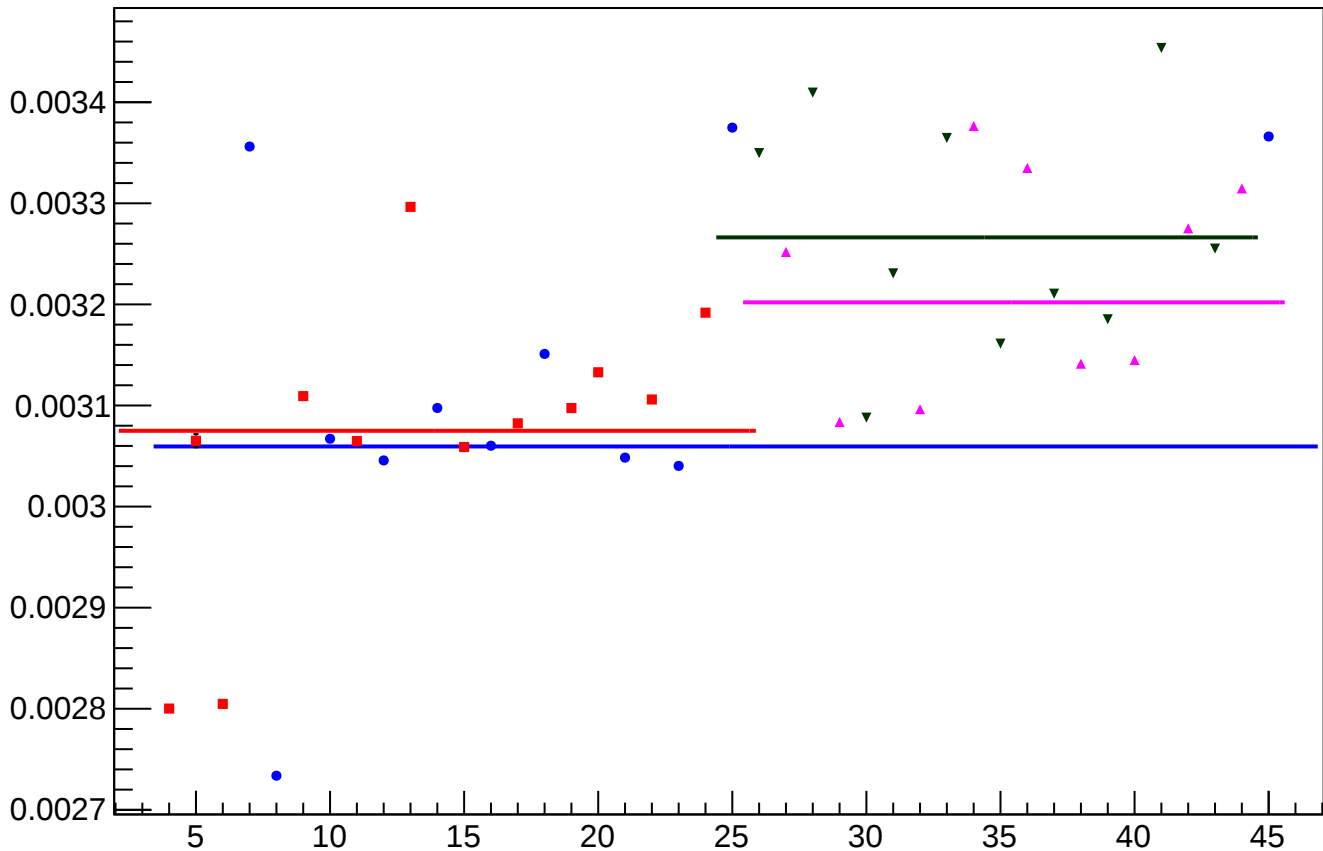
Right Out: 0.533 $\pm$ 0.000  $\chi^2$ /NDF: 4611310317.7/11

Left In: 0.773 $\pm$ 0.000  $\chi^2$ /NDF: 173800769.3/8

0.650 $\pm$ 0.000  $\chi^2$ /NDF: 25164826983.4/20

0.642 $\pm$ 0.000  $\chi^2$ /NDF: 21883350009.8/20

# yield\_bpm0l07Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 44212.6/10

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :12873.3/9

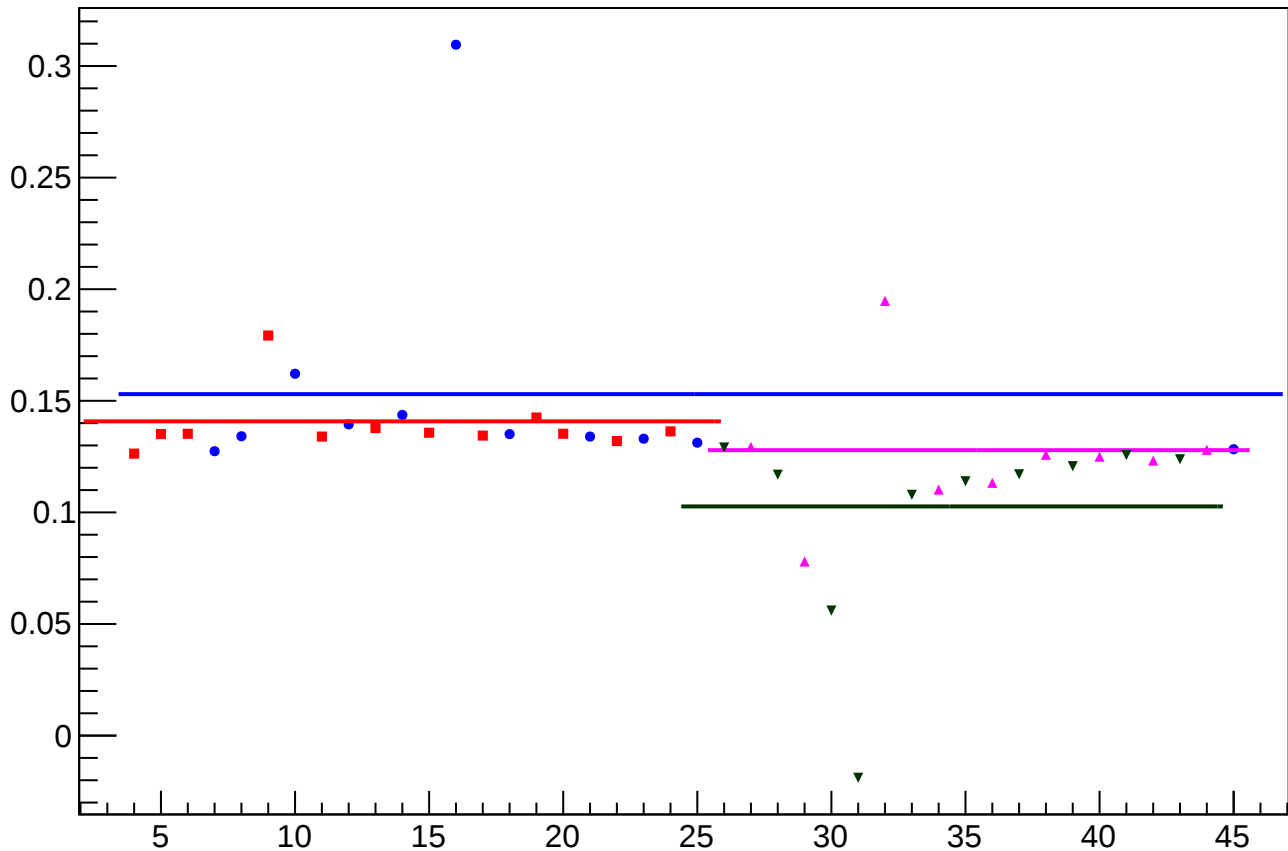
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 27152.3/11

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :11463.7/8

0.003+/-0.000  $\chi^2/\text{NDF}$ : 82051.8/20

0.003+/-0.000  $\chi^2/\text{NDF}$ : 48139.0/20

# yield\_bpm0l08X\_mean vs slug



Right In: 0.153+/-0.000  $\chi^2/\text{NDF}$ : 62081473.1/10

Left Out: 0.103+/-0.000  $\chi^2/\text{NDF}$ : 42575286.2/9

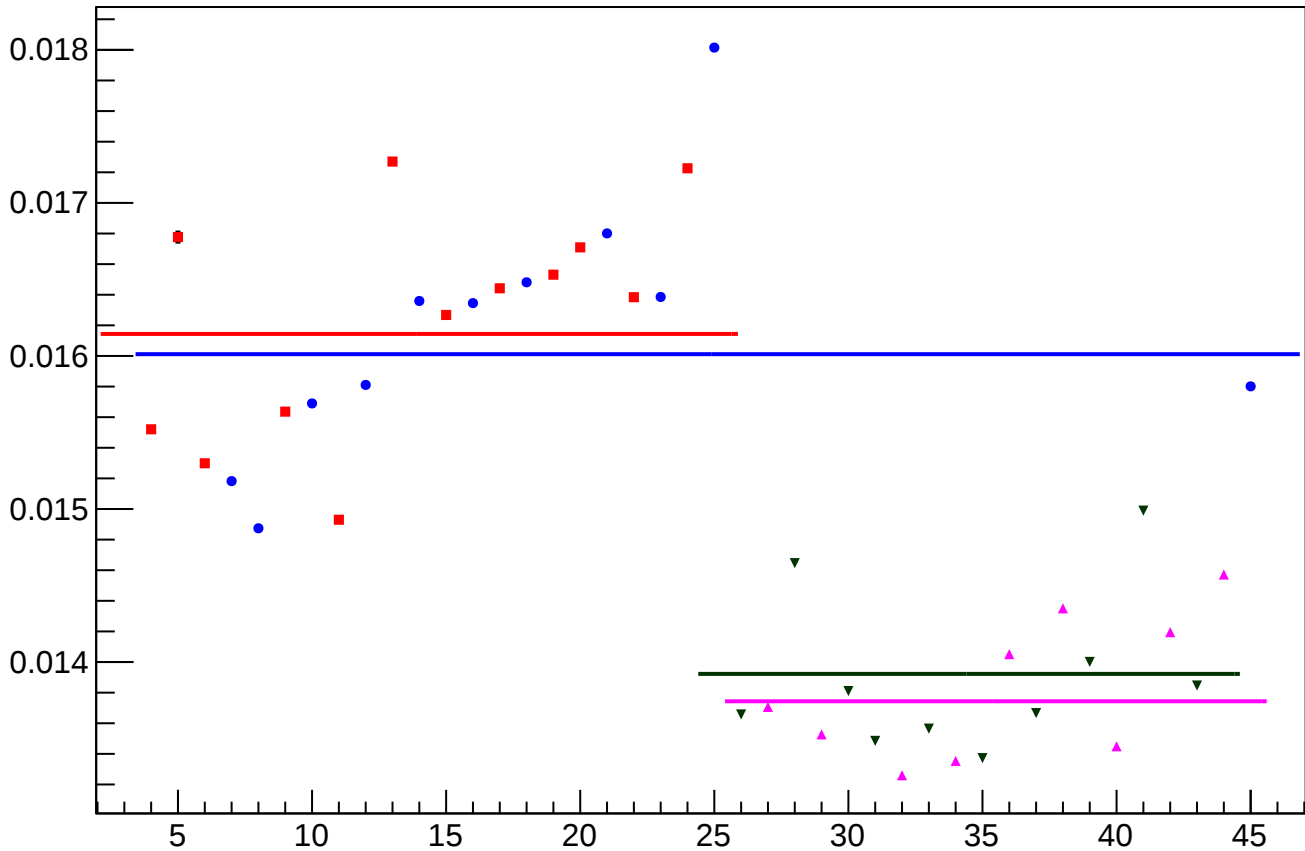
Right Out: 0.141+/-0.000  $\chi^2/\text{NDF}$ : 5462429.5/11

Left In: 0.128+/-0.000  $\chi^2/\text{NDF}$ : 35319224.9/8

0.128+/-0.000  $\chi^2/\text{NDF}$ : 139036639.3/20

0.134+/-0.000  $\chi^2/\text{NDF}$ : 42963769.6/20

# yield\_bpm0l08X\_rms vs slug



Right In: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 25311.8/10

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :13410.6/9

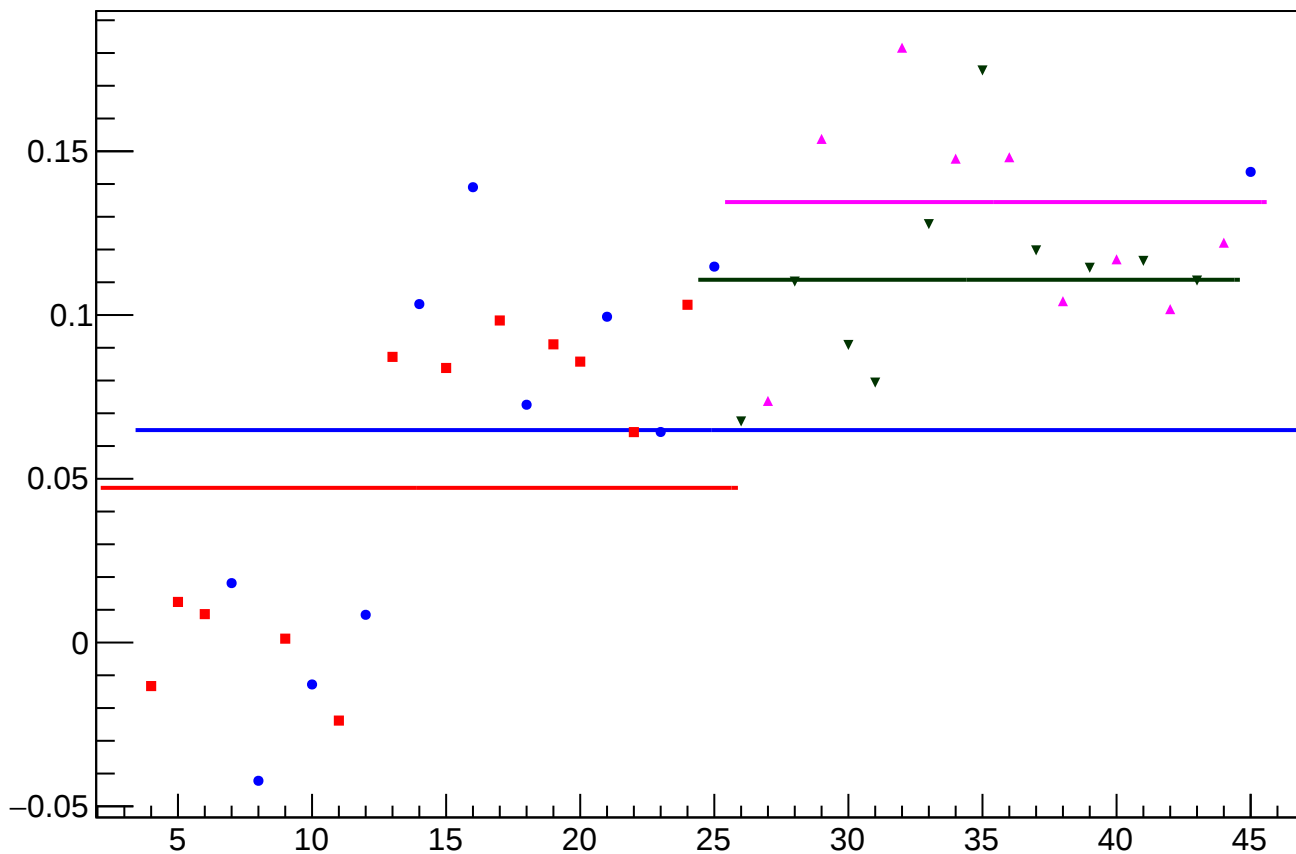
0.015+/-0.000  $\chi^2/\text{NDF}$ : 157257.8/20

Right Out: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 28739.5/11

0.015+/-0.000  $\chi^2/\text{NDF}$ : 190371.1/20

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ :10776.7/8

# yield\_bpm0l08Y\_mean vs slug



Right In: 0.065 $\pm$ 0.000  $\chi^2$ /NDF: 2454700478.5/10

Left Out: 0.111 $\pm$ 0.000  $\chi^2$ /NDF:325634113.5/9

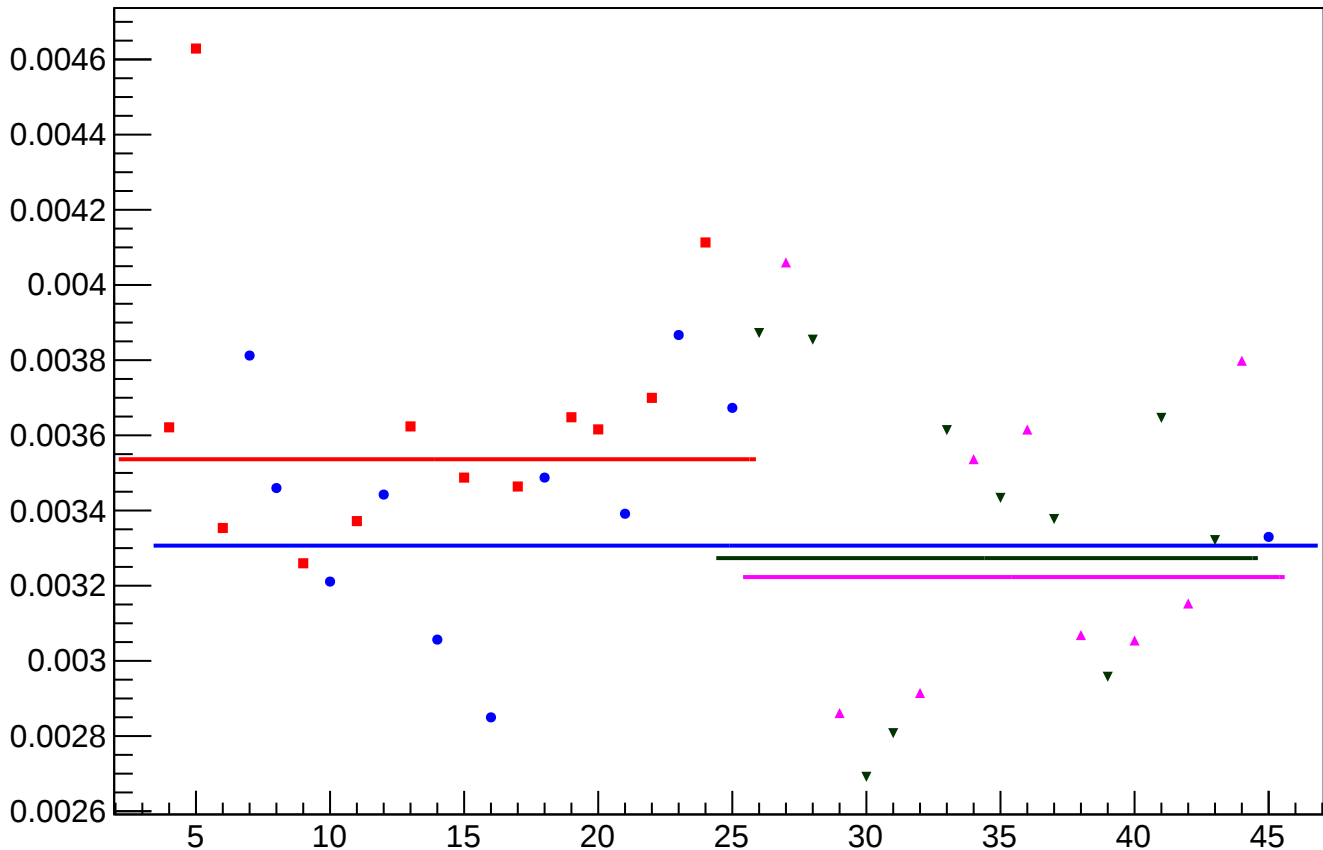
Right Out: 0.047 $\pm$ 0.000  $\chi^2$ /NDF: 1076949152.4/11

Left In: 0.134 $\pm$ 0.000  $\chi^2$ /NDF:584141111.2/8

0.085 $\pm$ 0.000  $\chi^2$ /NDF: 3338632848.3/20

0.093 $\pm$ 0.000  $\chi^2$ /NDF: 3545253692.6/20

# yield\_bpm0l08Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 88963.4/10

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :157067.3/9

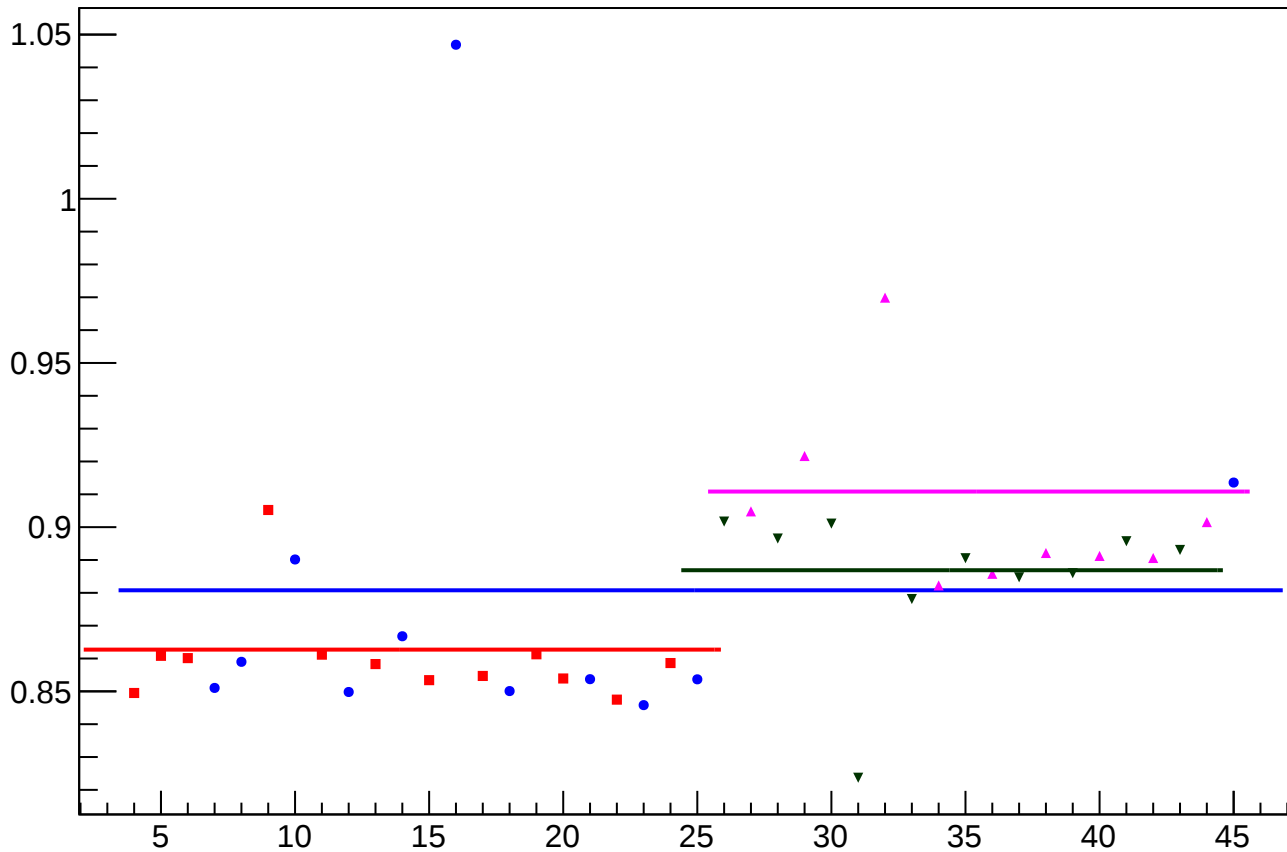
0.003+/-0.000  $\chi^2/\text{NDF}$ : 246615.3/20

Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 54073.0/11

0.003+/-0.000  $\chi^2/\text{NDF}$ : 265998.8/20

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :163315.9/8

# yield\_bpm0l09X\_mean vs slug



Right In:  $0.881 \pm 0.000$   $\chi^2/\text{NDF}: 81428701.3/10$

Left Out:  $0.887 \pm 0.000$   $\chi^2/\text{NDF}: 10371268.3/9$

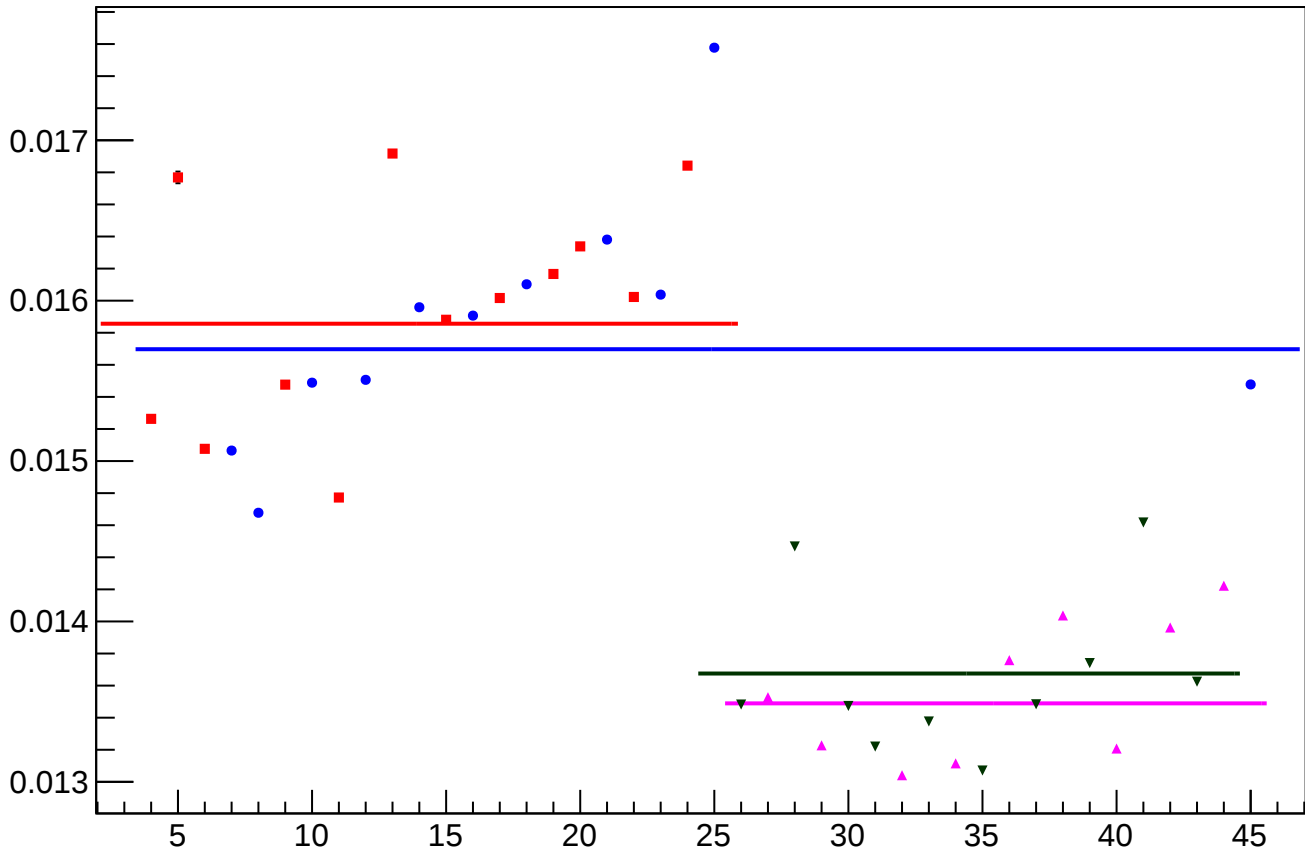
Right Out:  $0.863 \pm 0.000$   $\chi^2/\text{NDF}: 6919011.1/11$

Left In:  $0.911 \pm 0.000$   $\chi^2/\text{NDF}: 26013449.3/8$

$0.884 \pm 0.000$   $\chi^2/\text{NDF}: 92326238.1/20$

$0.890 \pm 0.000$   $\chi^2/\text{NDF}: 64357013.0/20$

# yield\_bpm0l09X\_rms vs slug



Right In: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 20382.9/10

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :13316.5/9

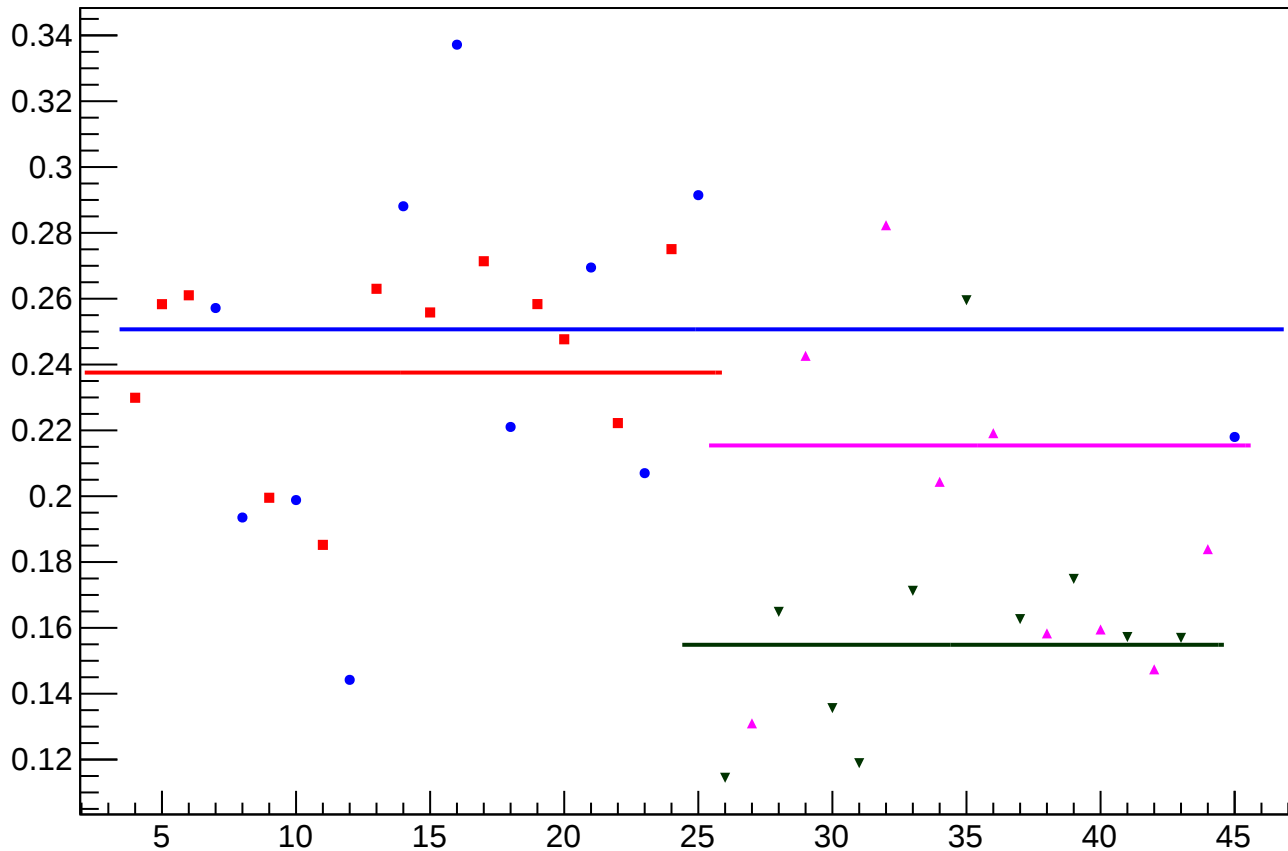
Right Out: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 24366.1/11

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :9868.2/8

0.015+/-0.000  $\chi^2/\text{NDF}$ : 148922.1/20

0.015+/-0.000  $\chi^2/\text{NDF}$ : 186238.7/20

# yield\_bpm0l09Y\_mean vs slug



Right In: 0.251+/-0.000  $\chi^2/\text{NDF}$ : 1652549494.1/10

Left Out: 0.155+/-0.000  $\chi^2/\text{NDF}$ : 491584814.3/9

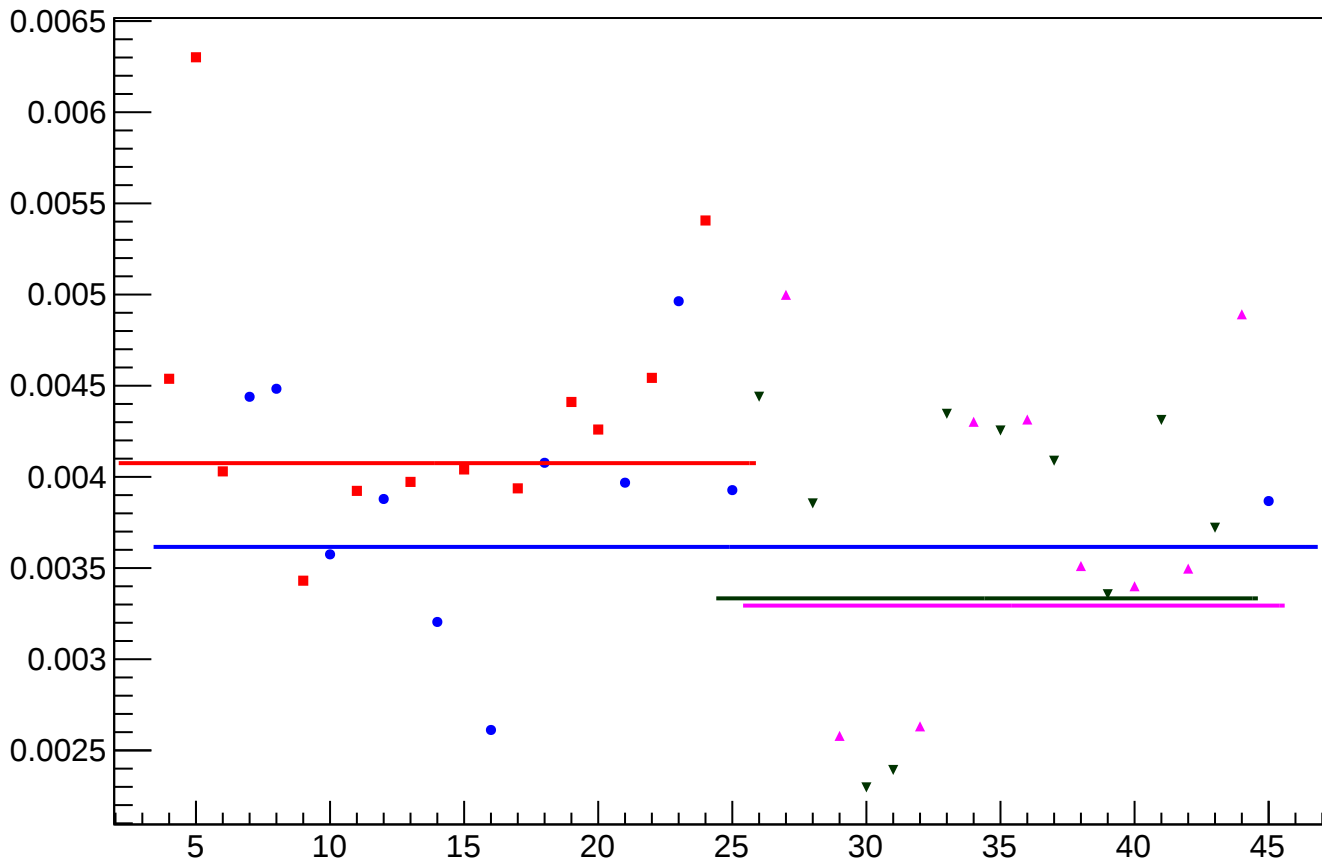
0.206+/-0.000  $\chi^2/\text{NDF}$ : 4215983610.4/20

Right Out: 0.238+/-0.000  $\chi^2/\text{NDF}$ : 338609573.2/11

0.225+/-0.000  $\chi^2/\text{NDF}$ : 1736812377.0/20

Left In: 0.215+/-0.000  $\chi^2/\text{NDF}$ : 1302153804.0/8

# yield\_bpm0l09Y\_rms vs slug



Right In: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 395823.3/10

Left Out: 0.003 $\pm$ 0.000  $\chi^2$ /NDF:596508.1/9

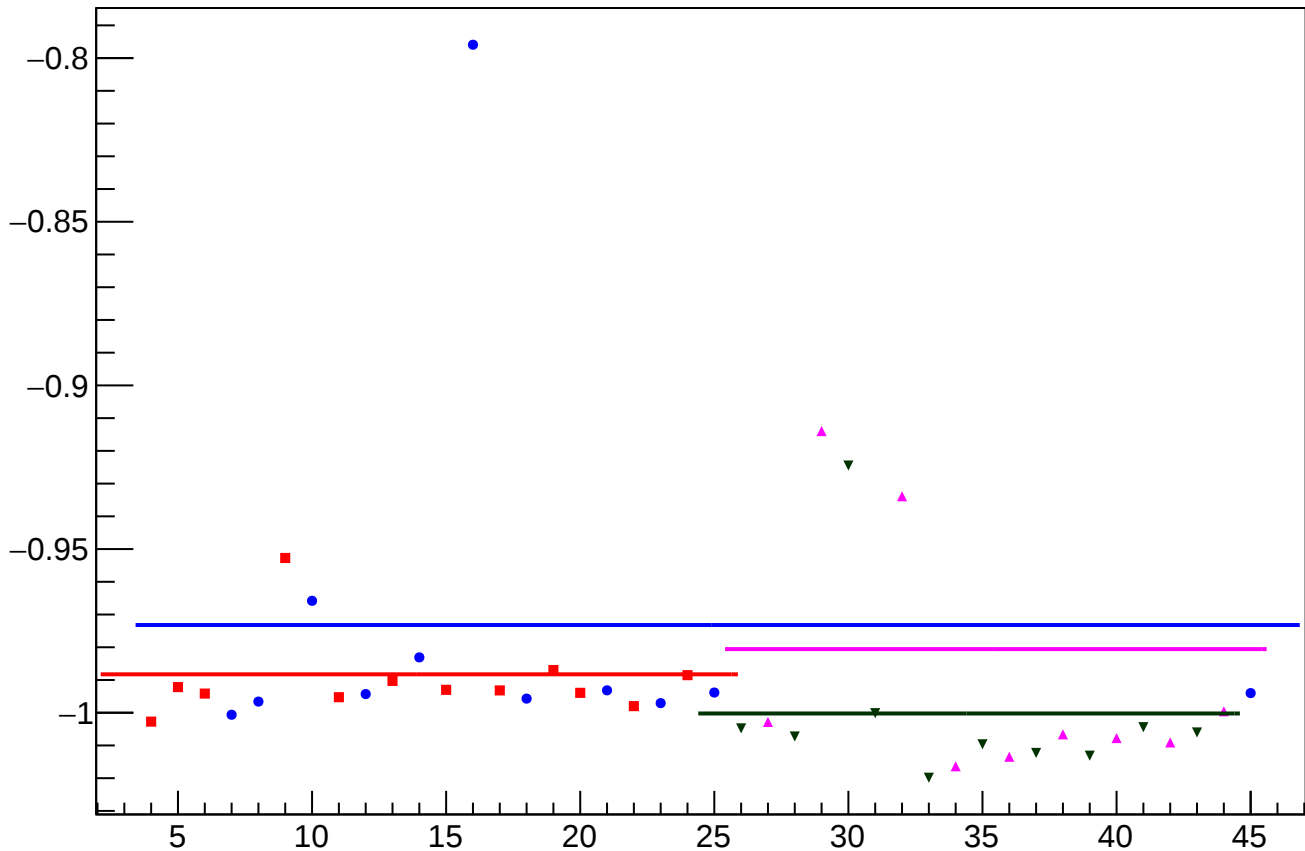
Right Out: 0.004 $\pm$ 0.000  $\chi^2$ /NDF: 164404.0/11

Left In: 0.003 $\pm$ 0.000  $\chi^2$ /NDF:624356.7/8

0.003 $\pm$ 0.000  $\chi^2$ /NDF: 1028265.4/20

0.004 $\pm$ 0.000  $\chi^2$ /NDF: 1027944.5/20

# yield\_bpm0l10X\_mean vs slug



Right In: -0.973+/-0.000  $\chi^2/\text{NDF}$ : 91156395.8/10

Left Out: -1.000+/-0.000  $\chi^2/\text{NDF}$ : 20984094.7/9

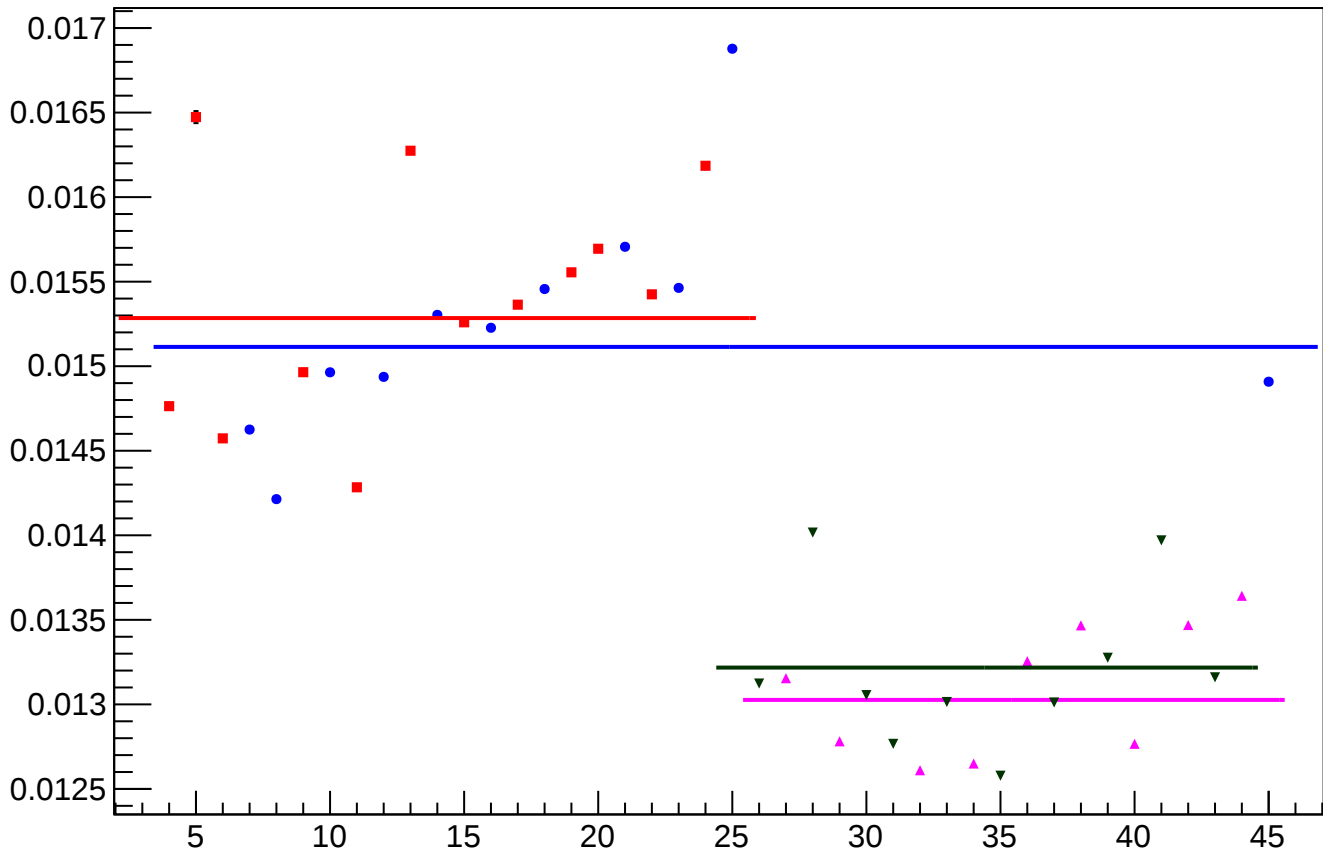
Right Out: -0.988+/-0.000  $\chi^2/\text{NDF}$ : 5195068.8/11

Left In: -0.981+/-0.000  $\chi^2/\text{NDF}$ : 51761164.5/8

-0.987+/-0.000  $\chi^2/\text{NDF}$ : 123183955.5/20

-0.984+/-0.000  $\chi^2/\text{NDF}$ : 57819891.2/20

# yield\_bpm0l10X\_rms vs slug



Right In: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 17227.6/10

Left Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ :12265.8/9

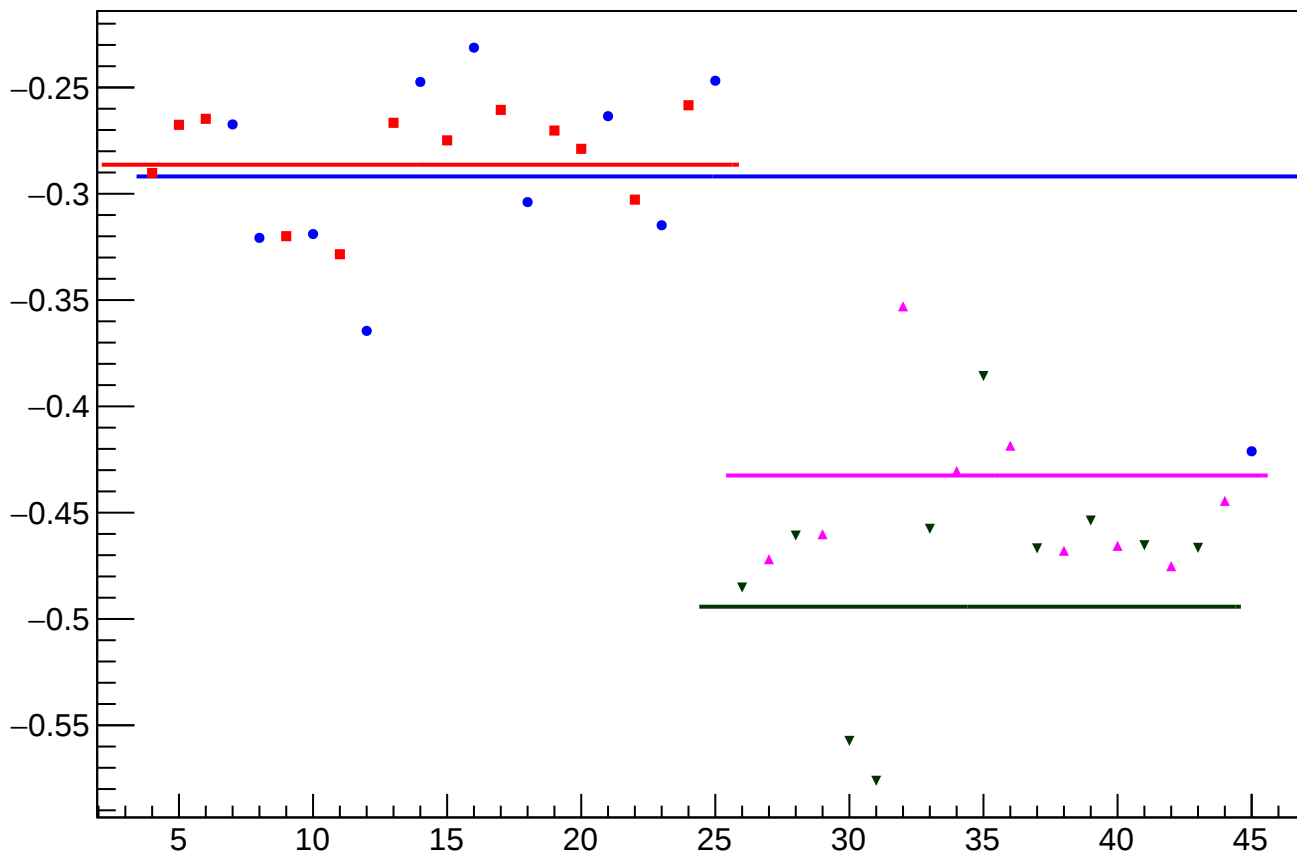
0.014+/-0.000  $\chi^2/\text{NDF}$ : 138279.1/20

Right Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 22407.0/11

0.014+/-0.000  $\chi^2/\text{NDF}$ : 179399.5/20

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ :8570.4/8

# yield\_bpm0l10Y\_mean vs slug



Right In: -0.292+/-0.000  $\chi^2/\text{NDF}$ : 1779579030.1/10

Left Out: -0.494+/-0.000  $\chi^2/\text{NDF}$ : 1568805763.5/9

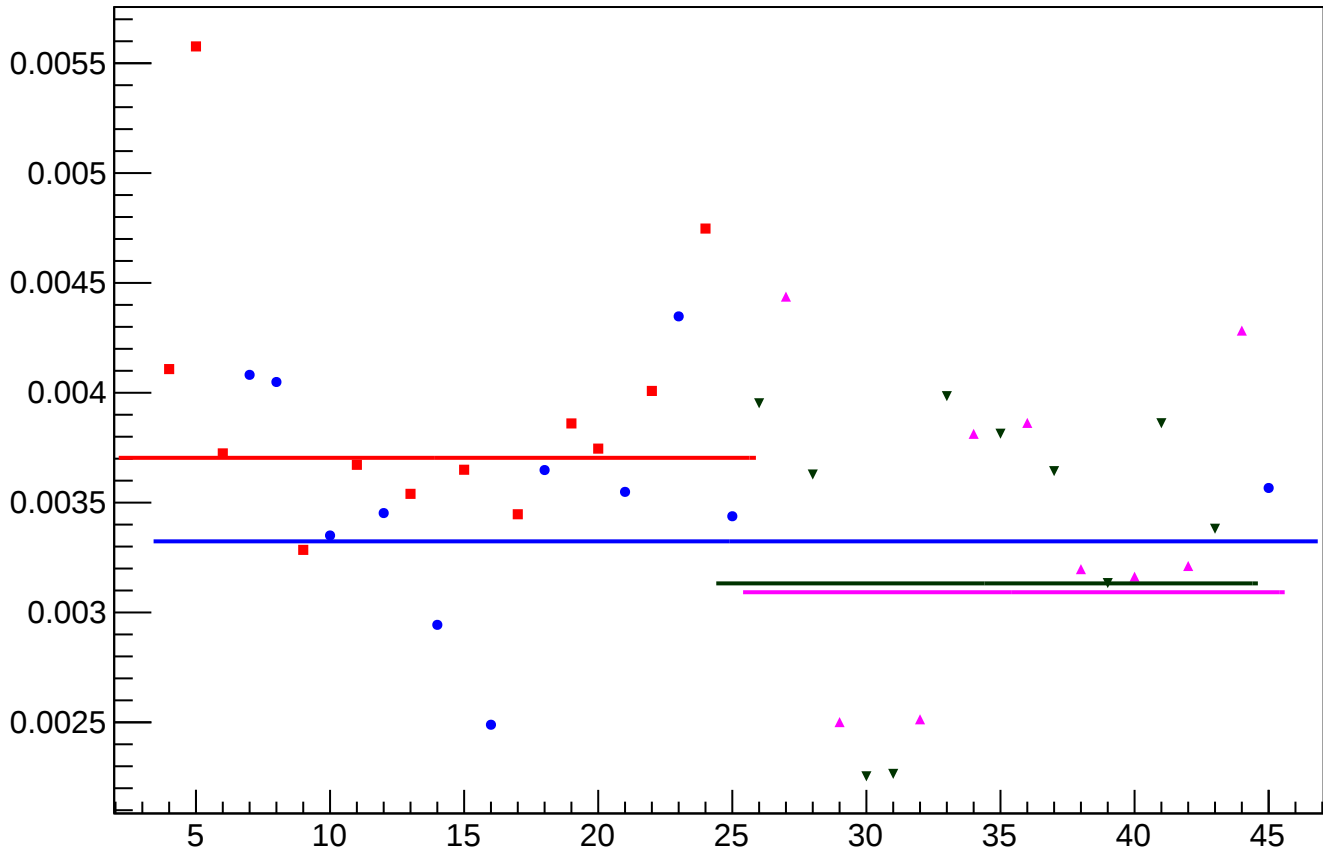
Right Out: -0.286+/-0.000  $\chi^2/\text{NDF}$ : 270487970.3/11

Left In: -0.433+/-0.000  $\chi^2/\text{NDF}$ : 1186728653.8/8

-0.383+/-0.000  $\chi^2/\text{NDF}$ : 14236516047.0/20

-0.368+/-0.000  $\chi^2/\text{NDF}$ : 6479295986.0/20

# yield\_bpm0l10Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 313372.2/10

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :463941.8/9

0.003+/-0.000  $\chi^2/\text{NDF}$ : 796782.5/20

Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 119237.1/11

0.003+/-0.000  $\chi^2/\text{NDF}$ : 767908.5/20

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :472745.5/8