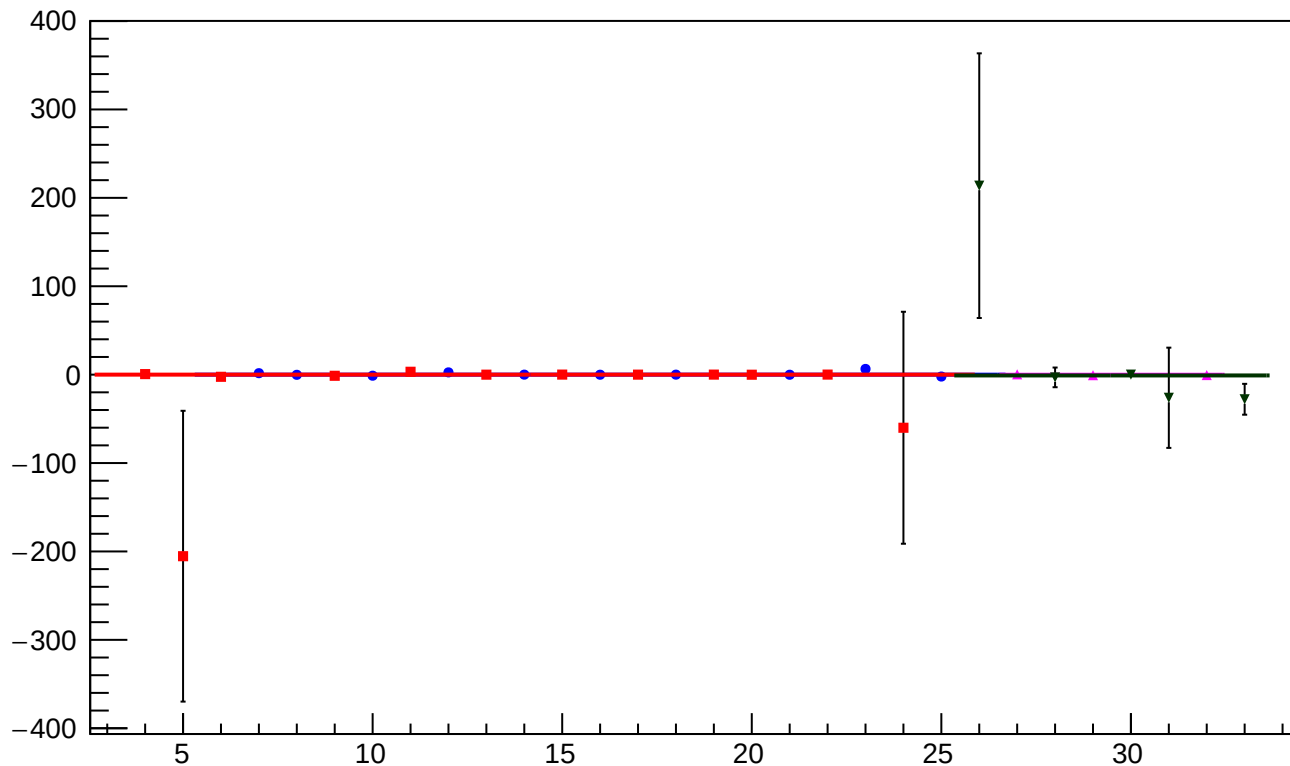


diff\_cav4bX\_mean vs slug



Right In:  $-0.014 \pm 0.014$

$\chi^2/\text{NDF}: 18.0/9$

Left Out:  $-0.895 \pm 2.849$

$\chi^2/\text{NDF}: 4.8/4$

Right Out:  $0.017 \pm 0.016$

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

Left In:  $-0.111 \pm 0.170$

$\chi^2/\text{NDF}: 8.0/2$

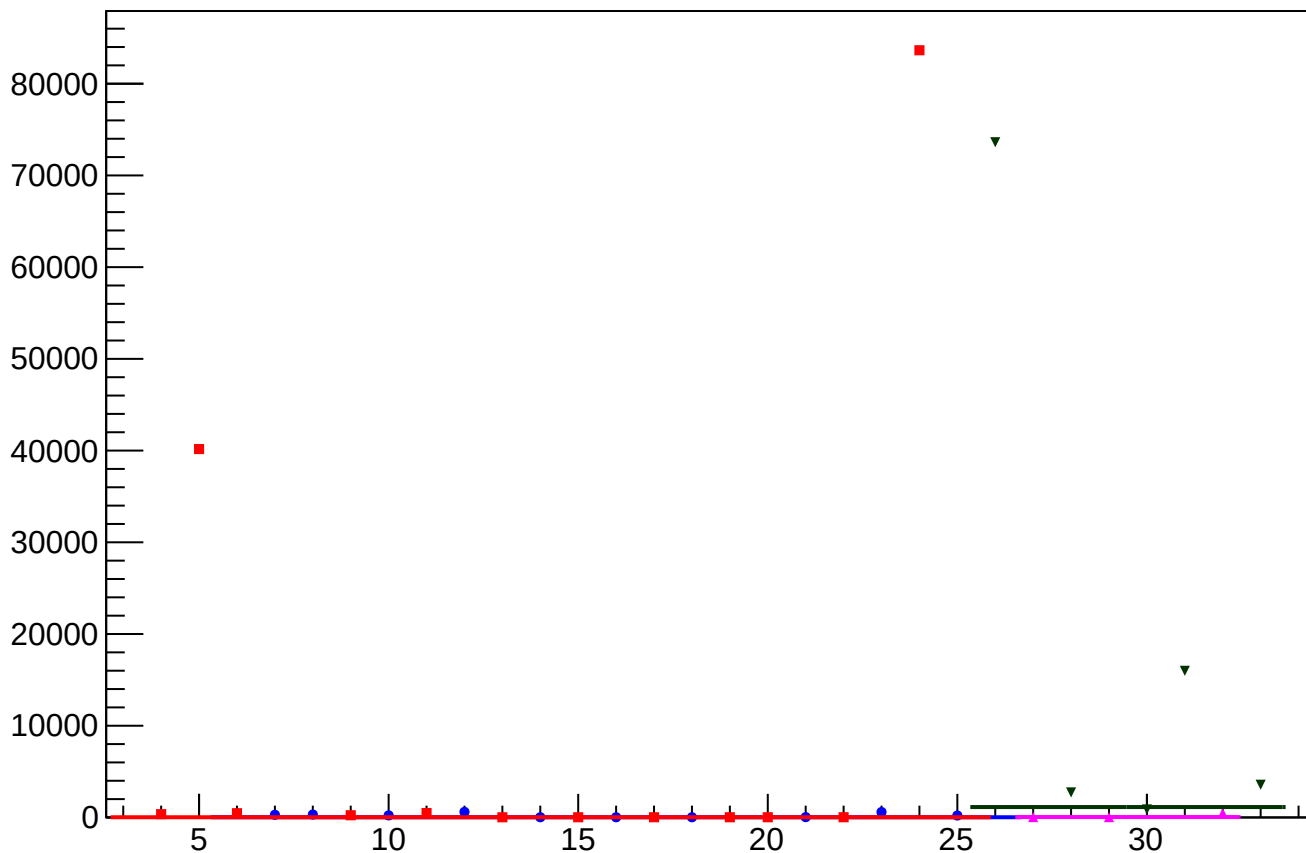
$-0.014 \pm 0.014$

$\chi^2/\text{NDF}: 22.8/14$

$0.016 \pm 0.016$

$\chi^2/\text{NDF}: 27.9/14$

# diff\_cav4bX\_rms vs slug



Right In: 22.399+/-0.010  $\chi^2$ /NDF: 770487.0/9

Left Out: 1134.189+/-2.014  $\chi^2$ /NDF: 701055.7/4

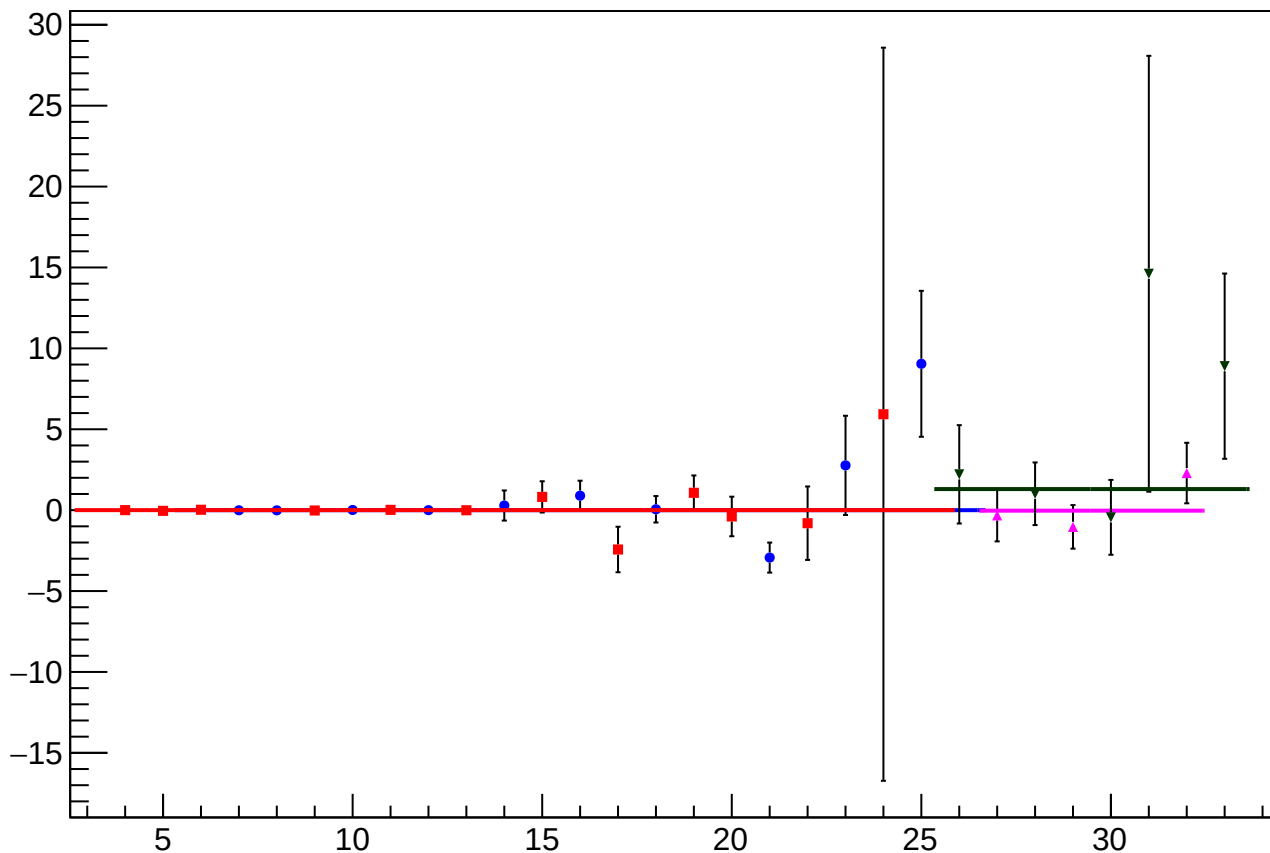
Right Out: 22.575+/-0.011  $\chi^2$ /NDF: 1409994.7/11

Left In: 45.954+/-0.120  $\chi^2$ /NDF: 242833.4/2

22.427+/-0.010  $\chi^2$ /NDF: 1776129.2/14

22.784+/-0.011  $\chi^2$ /NDF: 1690395.9/14

# diff\_cav4bY\_mean vs slug



Right In:  $-0.001 \pm 0.006$   $\chi^2/\text{NDF}: 18.2/9$

Left Out:  $1.303 \pm 1.293$   $\chi^2/\text{NDF}: 3.4/4$

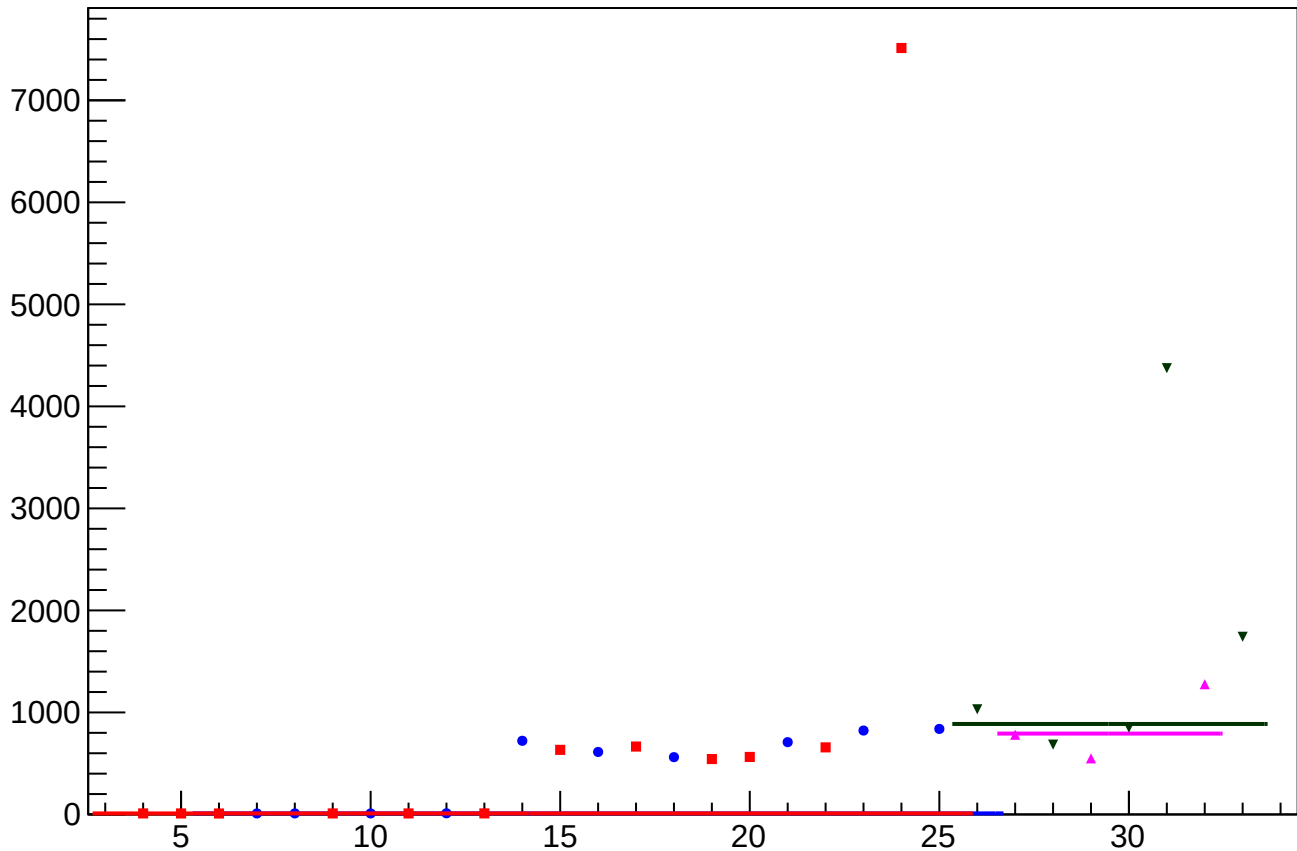
Right Out:  $0.002 \pm 0.005$   $\chi^2/\text{NDF}: 17.0/11$

Left In:  $-0.032 \pm 0.904$   $\chi^2/\text{NDF}: 2.1/2$

$-0.001 \pm 0.006$   $\chi^2/\text{NDF}: 22.6/14$

$0.002 \pm 0.005$   $\chi^2/\text{NDF}: 19.1/14$

# diff\_cav4bY\_rms vs slug



Right In: 10.490+/-0.005  $\chi^2/\text{NDF}$ : 4277929.6/9

Left Out: 887.026+/-0.914  $\chi^2/\text{NDF}$ : 205488.1/4

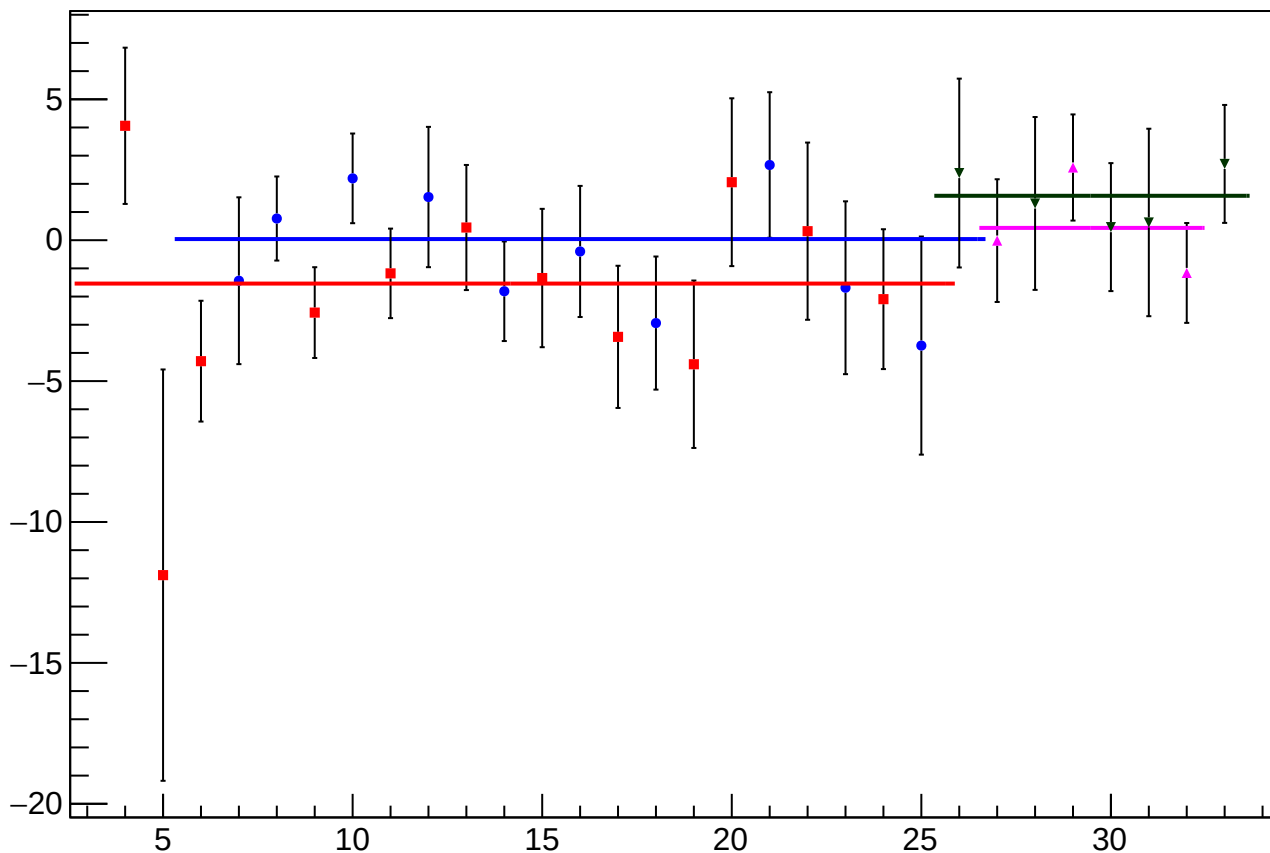
Right Out: 10.074+/-0.004  $\chi^2/\text{NDF}$ : 2563210.4/11

Left In: 792.701+/-0.639  $\chi^2/\text{NDF}$ : 199026.3/2

10.512+/-0.005  $\chi^2/\text{NDF}$ : 5402456.9/14

10.103+/-0.004  $\chi^2/\text{NDF}$ : 4261653.0/14

# diff\_cav4cX\_mean vs slug



Right In:  $0.040 \pm 0.686$   $\chi^2/\text{NDF}$ : 7.7/9

Left Out:  $1.576 \pm 1.188$   $\chi^2/\text{NDF}$ : 0.7/4

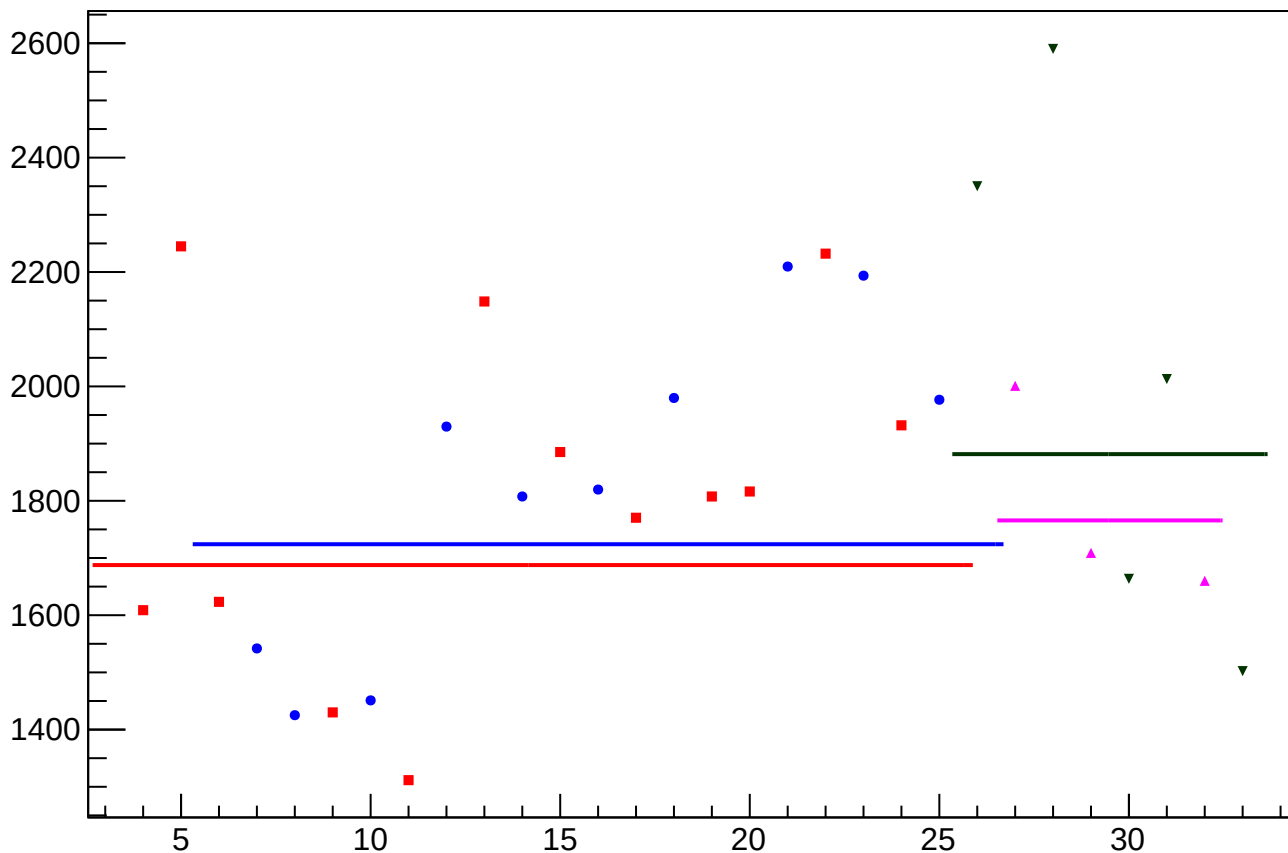
Right Out:  $-1.539 \pm 0.680$   $\chi^2/\text{NDF}$ : 12.4/11

Left In:  $0.437 \pm 1.110$   $\chi^2/\text{NDF}$ : 2.2/2

$0.424 \pm 0.594$   $\chi^2/\text{NDF}$ : 9.6/14

$-1.000 \pm 0.580$   $\chi^2/\text{NDF}$ : 16.8/14

# diff\_cav4cX\_rms vs slug



Right In: 1724.107+/-0.485  $\chi^2/\text{NDF}$ : 317724.0/9

Left Out: 1881.598+/-0.840  $\chi^2/\text{NDF}$ : 233064.3/4

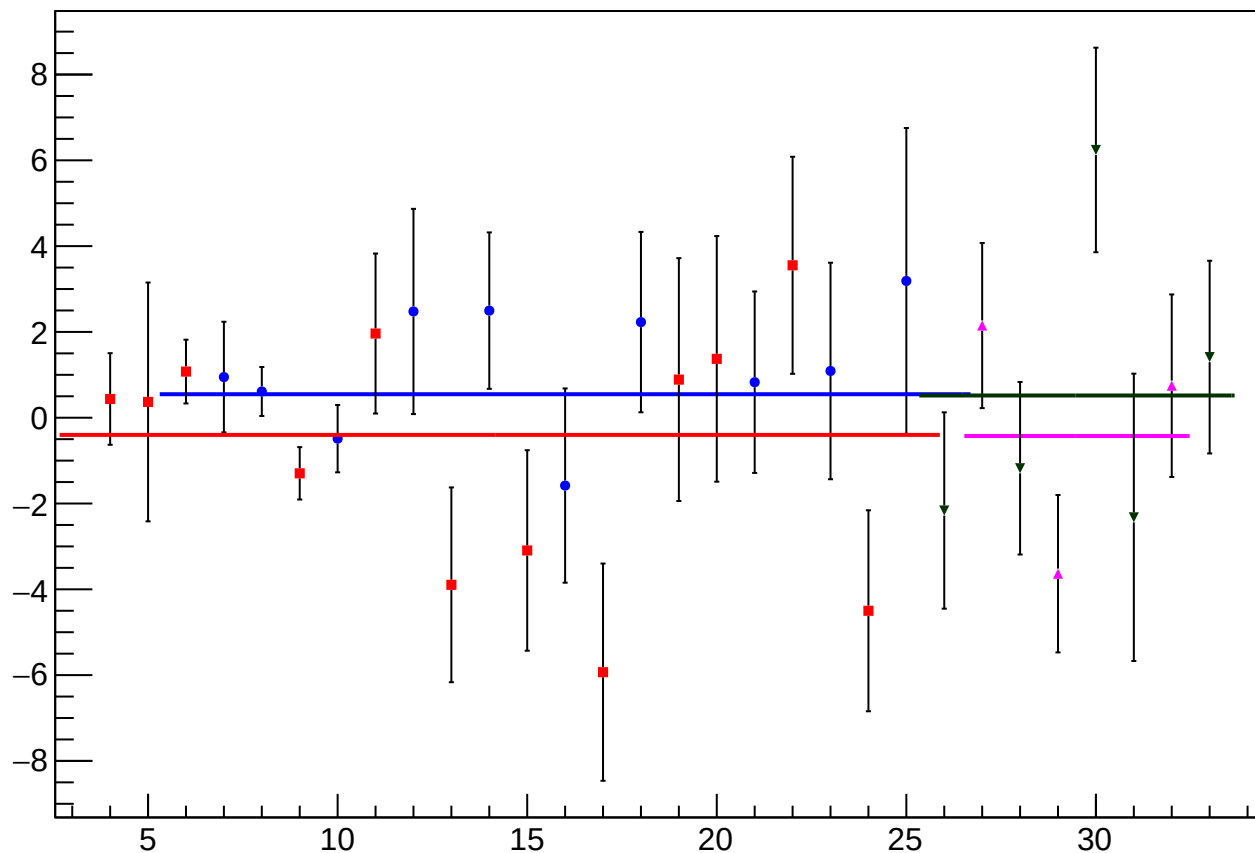
Right Out: 1687.646+/-0.481  $\chi^2/\text{NDF}$ : 366003.0/11

Left In: 1765.716+/-0.785  $\chi^2/\text{NDF}$ : 32271.2/2

1763.440+/-0.420  $\chi^2/\text{NDF}$ : 577138.7/14

1708.934+/-0.410  $\chi^2/\text{NDF}$ : 405467.0/14

# diff\_cav4cY\_mean vs slug



Right In: 0.548 $\pm$ 0.388  $\chi^2$ /NDF: 5.8/9

Left Out: 0.518 $\pm$ 1.053  $\chi^2$ /NDF:8.7/4

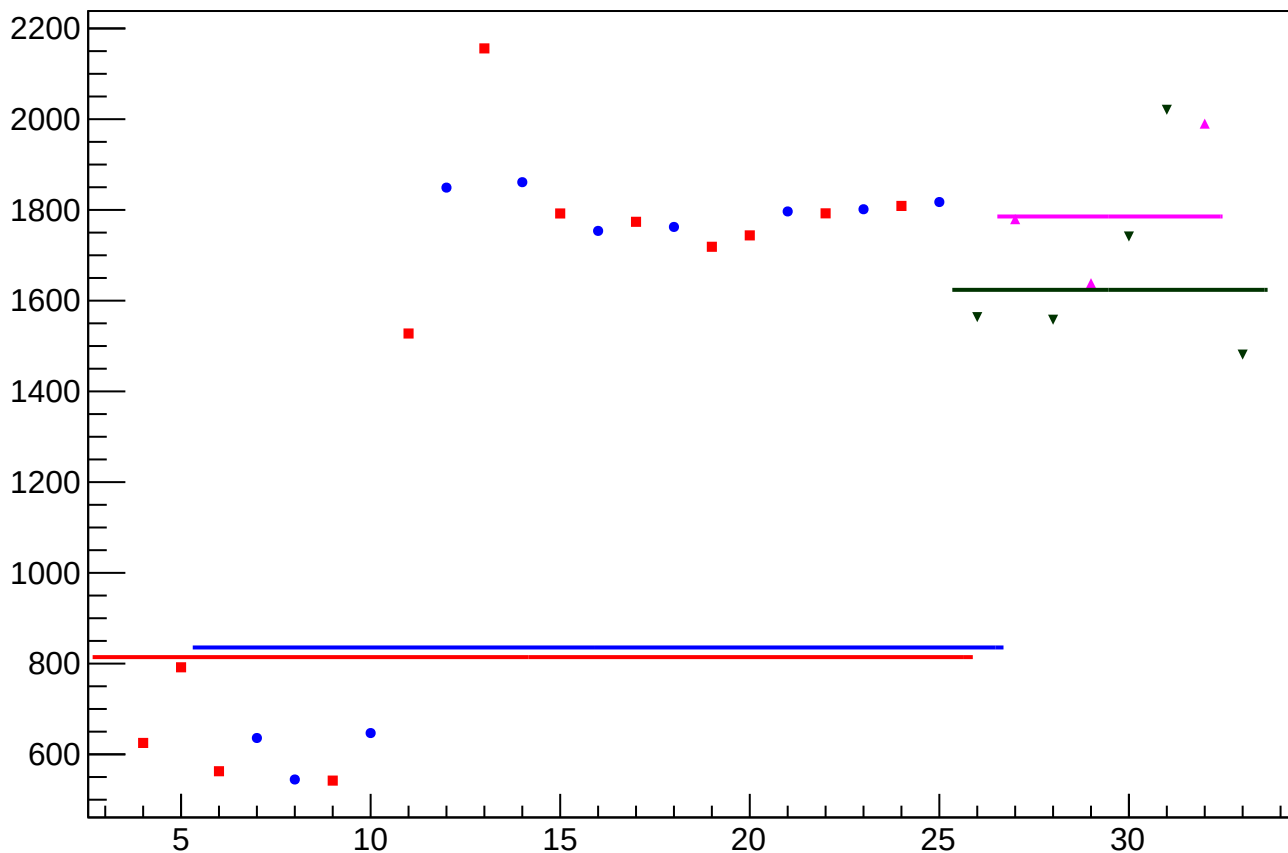
Right Out: -0.401 $\pm$ 0.381  $\chi^2$ /NDF: 23.0/11

Left In: -0.426 $\pm$ 1.127  $\chi^2$ /NDF:5.2/2

0.544 $\pm$ 0.364  $\chi^2$ /NDF: 14.5/14

-0.403 $\pm$ 0.361  $\chi^2$ /NDF: 28.1/14

# diff\_cav4cY\_rms vs slug



Right In: 835.566+/-0.274  $\chi^2/\text{NDF}$ : 3249765.2/9

Left Out: 1623.838+/-0.745  $\chi^2/\text{NDF}$ :44552.9/4

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

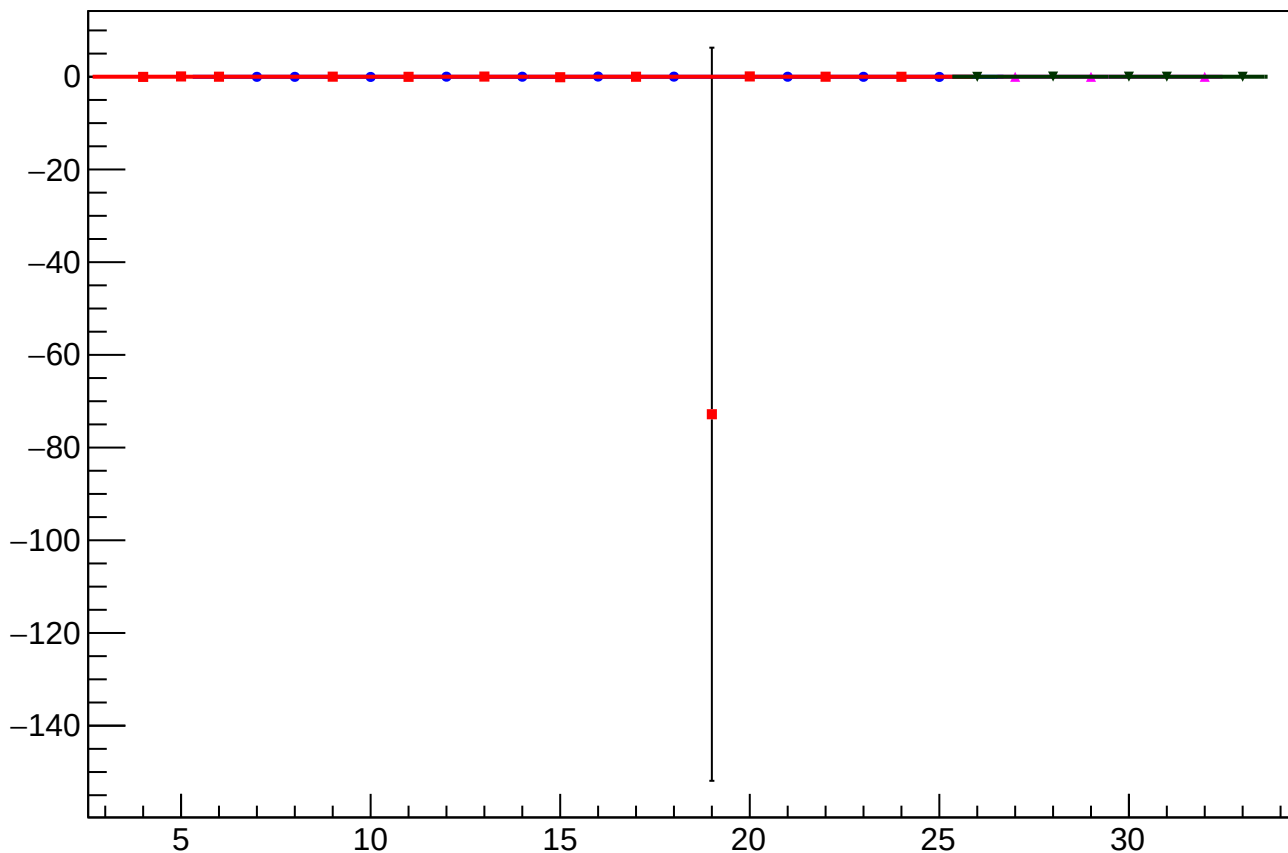
Left In: 1785.523+/-0.797  $\chi^2/\text{NDF}$ :31372.4/2

929.728+/-0.257  $\chi^2/\text{NDF}$ : 4280817.6/14

913.742+/-0.255  $\chi^2/\text{NDF}$ : 4757801.5/14



# diff\_cav4dX\_mean vs slug



Right In: -0.005 $\pm$ 0.008  $\chi^2$ /NDF: 5.9/9

Left Out: 0.012 $\pm$ 0.007  $\chi^2$ /NDF: 4.3/4

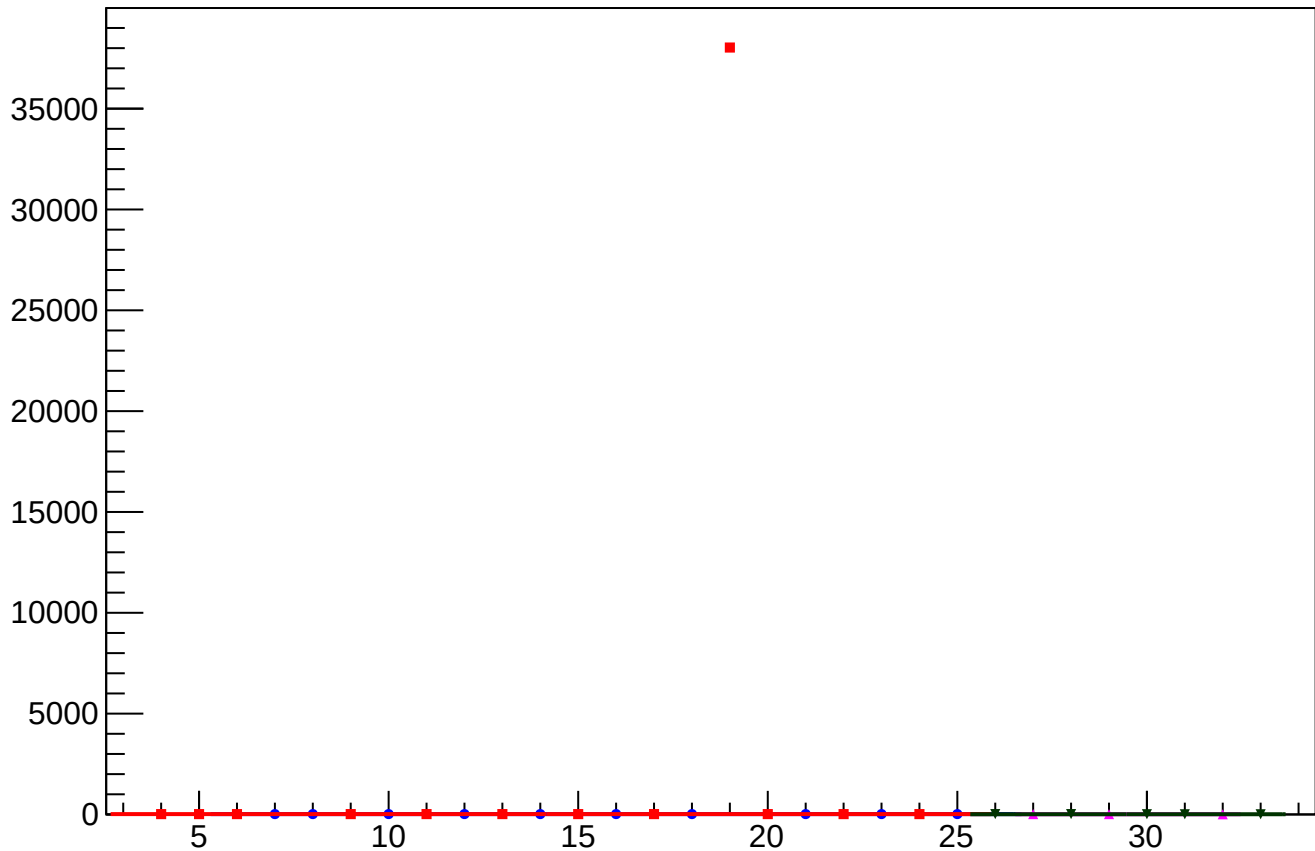
Right Out: 0.011 $\pm$ 0.008  $\chi^2$ /NDF: 11.3/11

Left In: -0.001 $\pm$ 0.008  $\chi^2$ /NDF: 0.0/2

0.004 $\pm$ 0.005  $\chi^2$ /NDF: 12.8/14

0.005 $\pm$ 0.005  $\chi^2$ /NDF: 12.7/14

# diff\_cav4dX\_rms vs slug



Right In: 17.551 $\pm$ 0.006  $\chi^2$ /NDF: 2298.7/9

Left Out: 10.859 $\pm$ 0.005  $\chi^2$ /NDF: 460170.4/4

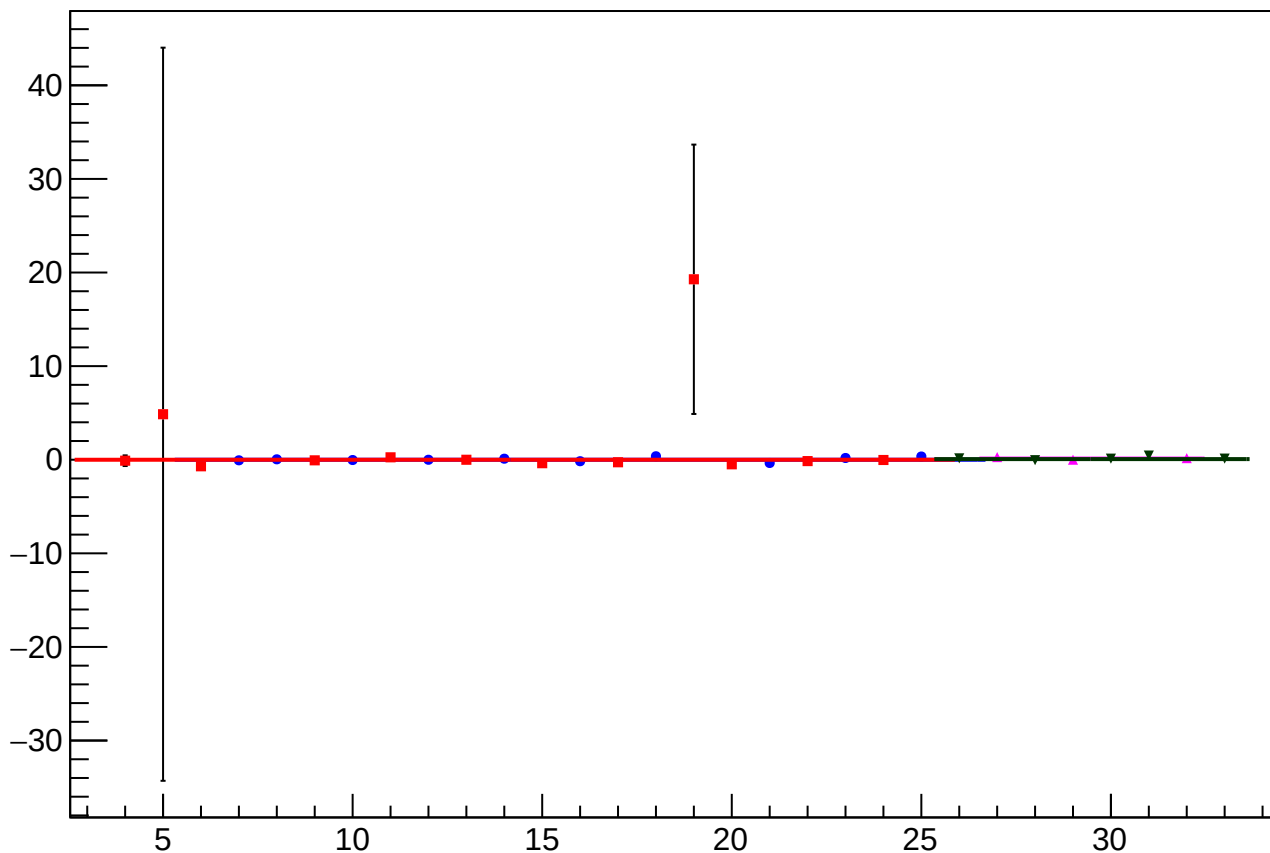
Right Out: 17.562 $\pm$ 0.006  $\chi^2$ /NDF: 466099.2/11

Left In: 11.269 $\pm$ 0.005  $\chi^2$ /NDF: 571019.6/2

13.918 $\pm$ 0.004  $\chi^2$ /NDF: 1237017.9/14

14.231 $\pm$ 0.004  $\chi^2$ /NDF: 1695711.3/14

# diff\_cav4dY\_mean vs slug



Right In: -0.003+/-0.003  $\chi^2/\text{NDF}$ : 15.0/9

Left Out: 0.067+/-0.077  $\chi^2/\text{NDF}$ : 2.4/4

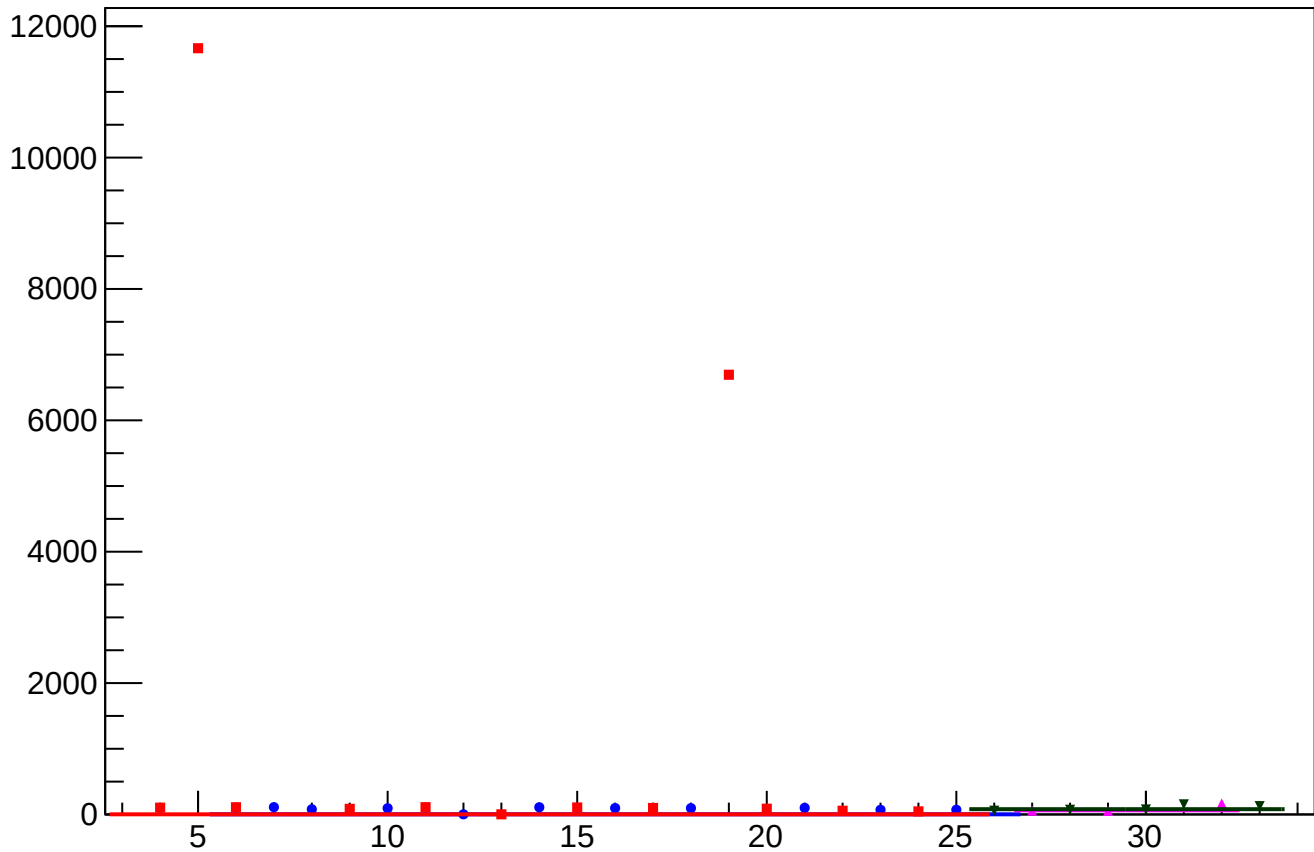
Right Out: -0.003+/-0.003  $\chi^2/\text{NDF}$ : 12.3/11

Left In: 0.125+/-0.065  $\chi^2/\text{NDF}$ : 4.3/2

-0.003+/-0.003  $\chi^2/\text{NDF}$ : 18.3/14

-0.002+/-0.003  $\chi^2/\text{NDF}$ : 20.4/14

# diff\_cav4dY\_rms vs slug



Right In: 2.134+/-0.002  $\chi^2/\text{NDF}$ : 5844248.7/9

Left Out: 80.209+/-0.054  $\chi^2/\text{NDF}$ : 212874.4/4

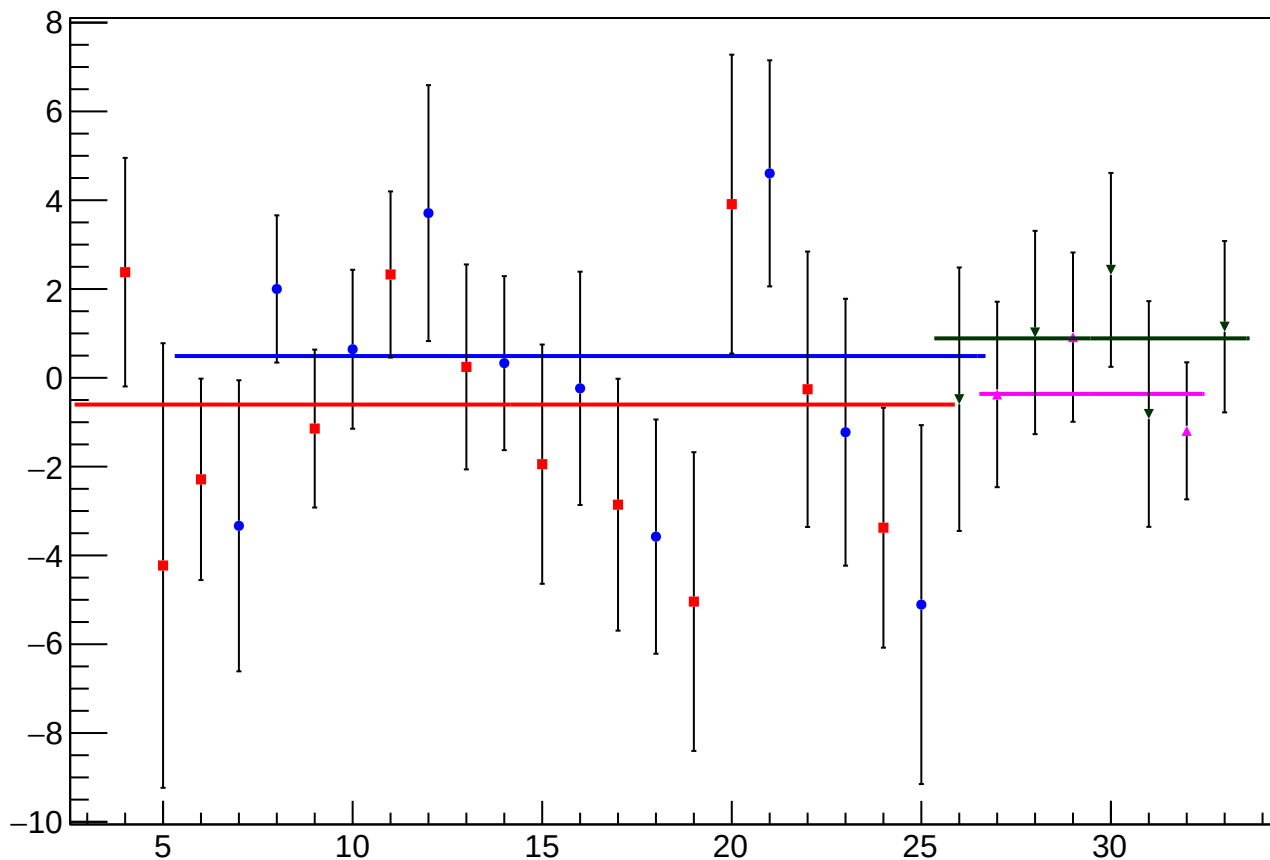
2.261+/-0.002  $\chi^2/\text{NDF}$ : 8136545.9/14

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

2.186+/-0.002  $\chi^2/\text{NDF}$ : 6254547.5/14

Left In: 62.414+/-0.046  $\chi^2/\text{NDF}$ : 309966.5/2

# diff\_bpm4aX\_mean vs slug



Right In:  $0.490 \pm 0.753$   $\chi^2/\text{NDF}$ : 10.8/9

Left Out:  $0.888 \pm 1.033$   $\chi^2/\text{NDF}$ : 1.2/4

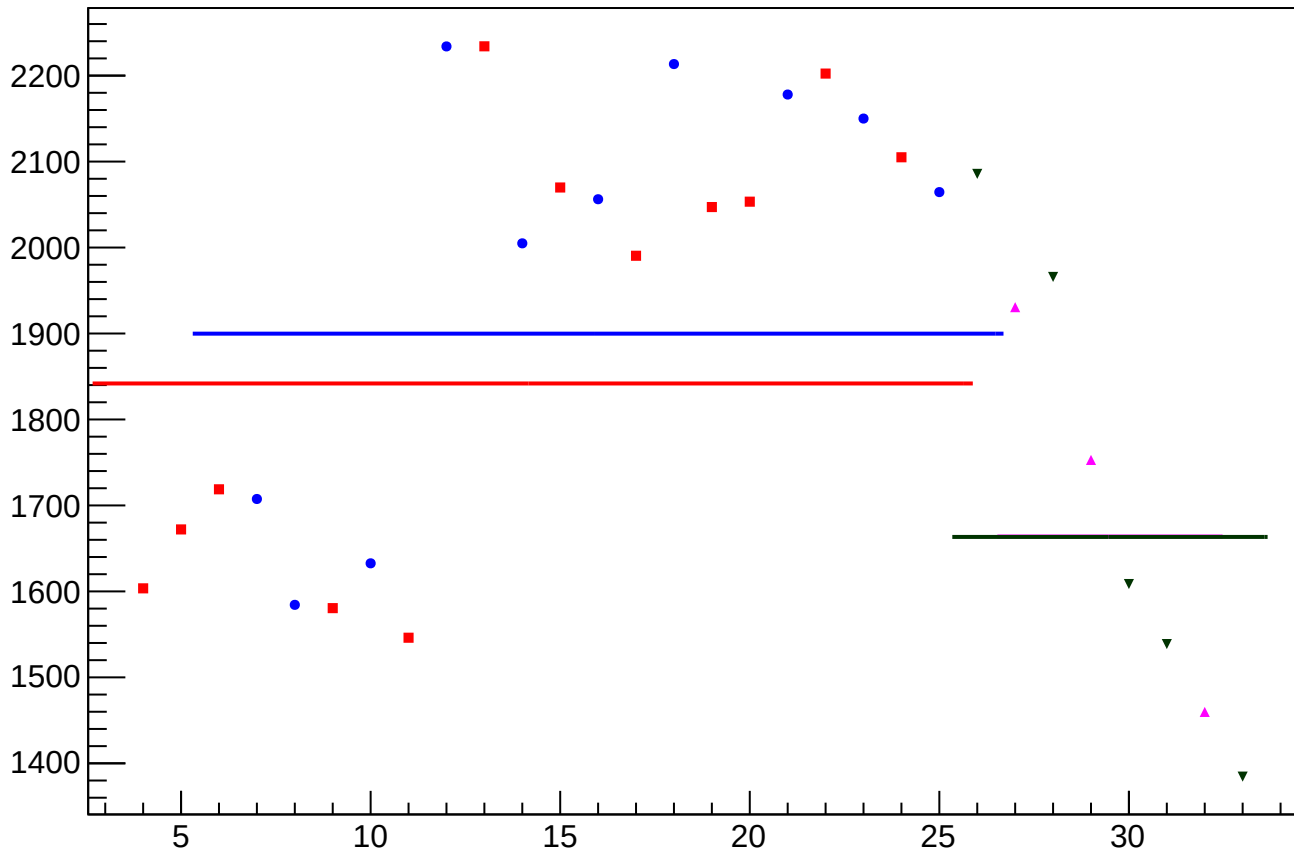
Right Out:  $-0.602 \pm 0.734$   $\chi^2/\text{NDF}$ : 10.6/11

Left In:  $-0.363 \pm 1.040$   $\chi^2/\text{NDF}$ : 0.7/2

$0.628 \pm 0.608$   $\chi^2/\text{NDF}$ : 12.0/14

$-0.522 \pm 0.600$   $\chi^2/\text{NDF}$ : 11.4/14

diff\_bpm4aX\_rms vs slug



Right In: 1899.826+/-0.532  $\chi^2/\text{NDF}$ : 232868.5/9

Left Out: 1663.361+/-0.730  $\chi^2/\text{NDF}$ :123263.5/4

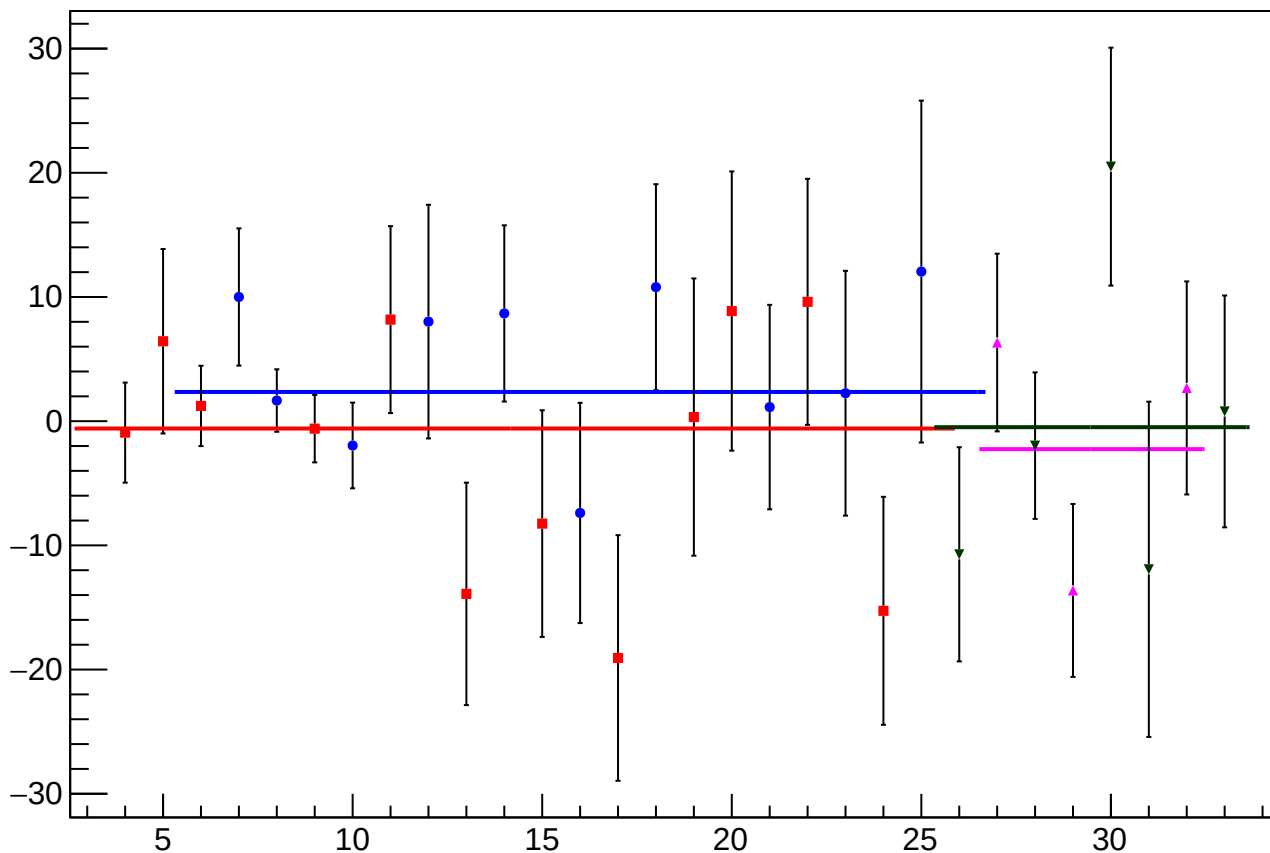
1817.776+/-0.430  $\chi^2/\text{NDF}$ : 424599.2/14

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

1782.659+/-0.424  $\chi^2/\text{NDF}$ : 368415.3/14

Left In: 1663.860+/-0.736  $\chi^2/\text{NDF}$ :71965.8/2

# diff\_bpm4aY\_mean vs slug



Right In:  $2.354 \pm 1.658$   $\chi^2/\text{NDF}: 7.5/9$

Left Out:  $-0.483 \pm 3.778$   $\chi^2/\text{NDF}: 7.0/4$

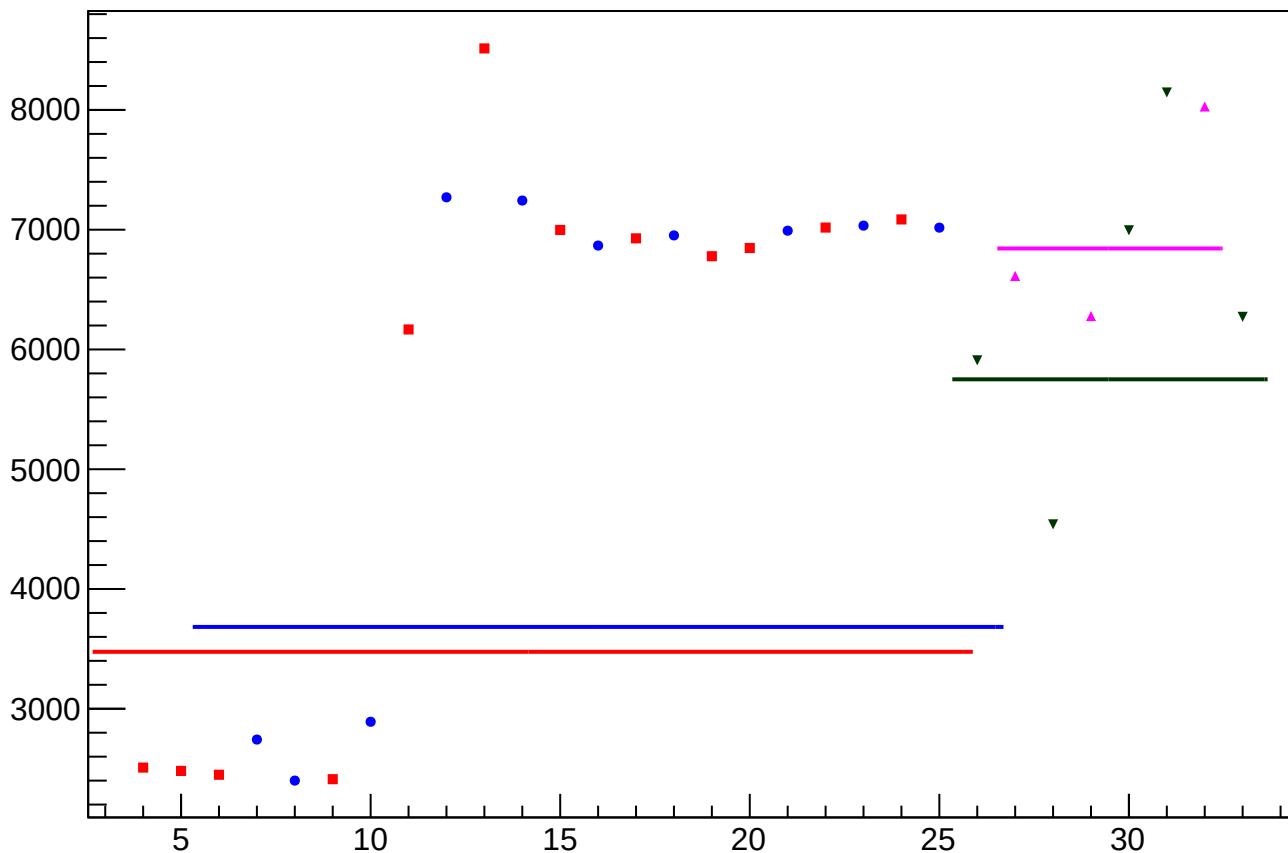
Right Out:  $-0.592 \pm 1.578$   $\chi^2/\text{NDF}: 13.3/11$

Left In:  $-2.251 \pm 4.314$   $\chi^2/\text{NDF}: 4.4/2$

$1.895 \pm 1.518$   $\chi^2/\text{NDF}: 14.9/14$

$-0.788 \pm 1.482$   $\chi^2/\text{NDF}: 17.9/14$

diff\_bpm4aY\_rms vs slug



Right In: 3683.292+/-1.173  $\chi^2/\text{NDF}$ : 2718531.0/9

Left Out: 5750.732+/-2.671  $\chi^2/\text{NDF}$ :187994.2/4

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

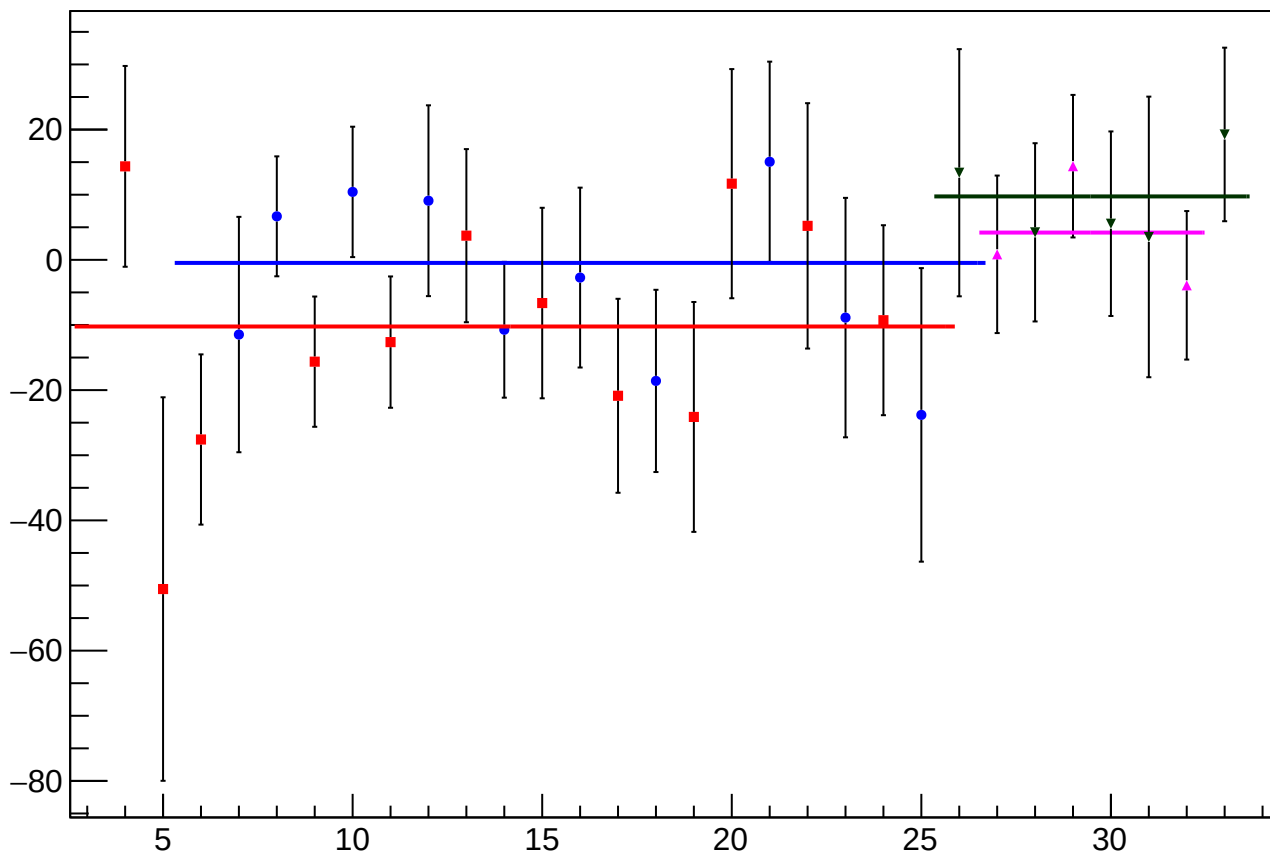
Left In: 6843.256+/-3.050  $\chi^2/\text{NDF}$ :53384.0/2

4017.328+/-1.074  $\chi^2/\text{NDF}$ : 3408758.7/14

3873.089+/-1.048  $\chi^2/\text{NDF}$ : 4138644.1/14



# diff\_bpm4eX\_mean vs slug



Right In:  $-0.470 \pm 4.145$   $\chi^2/\text{NDF}$ : 7.6/9

Left Out:  $9.737 \pm 6.919$   $\chi^2/\text{NDF}$ : 0.9/4

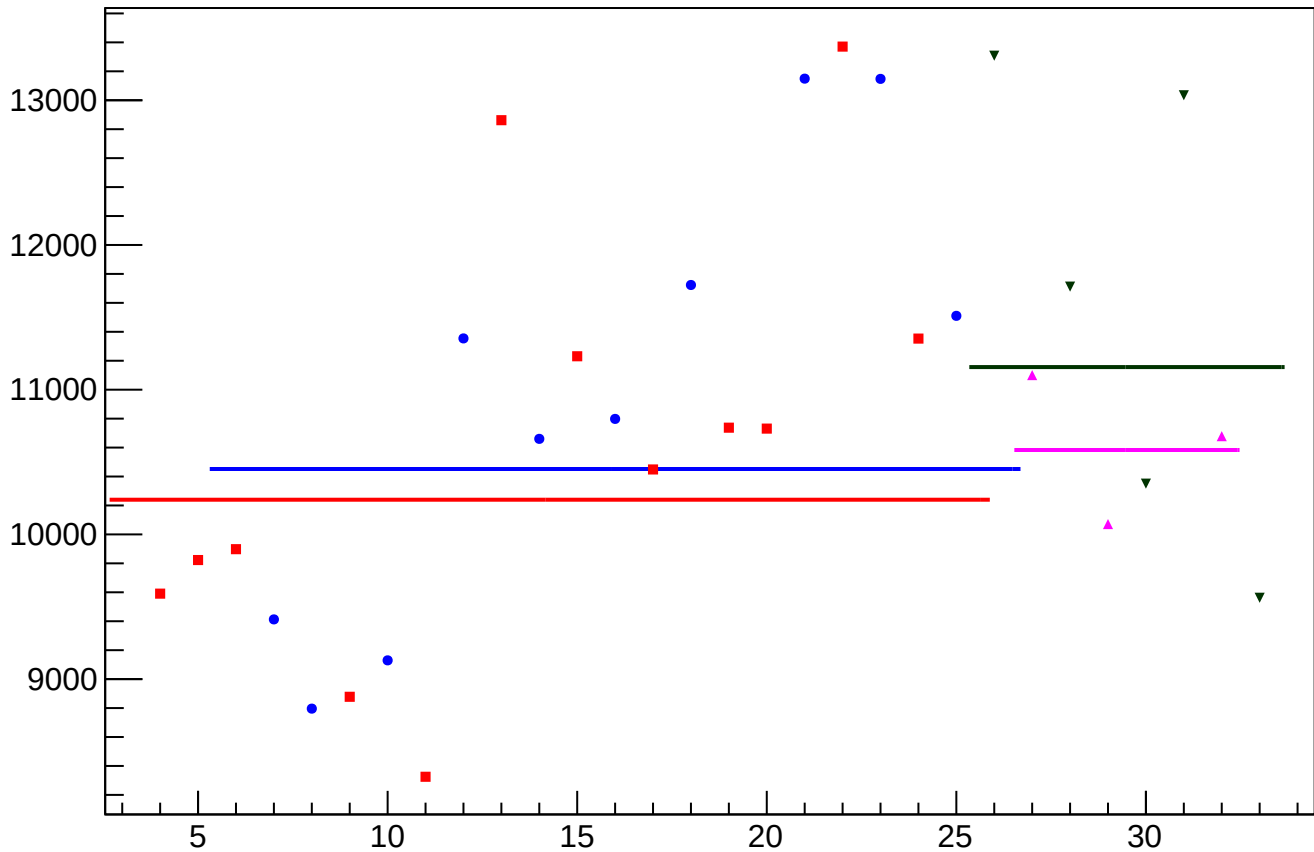
Right Out:  $-10.234 \pm 4.087$   $\chi^2/\text{NDF}$ : 11.1/11

Left In:  $4.187 \pm 6.610$   $\chi^2/\text{NDF}$ : 1.4/2

$2.225 \pm 3.555$   $\chi^2/\text{NDF}$ : 10.0/14

$-6.246 \pm 3.476$   $\chi^2/\text{NDF}$ : 15.9/14

diff\_bpm4eX\_rms vs slug



Right In: 10451.949+/-2.931  $\chi^2/\text{NDF}$ : 241363.4/9

Left Out: 11156.265+/-4.892  $\chi^2/\text{NDF}$ : 79325.1/4

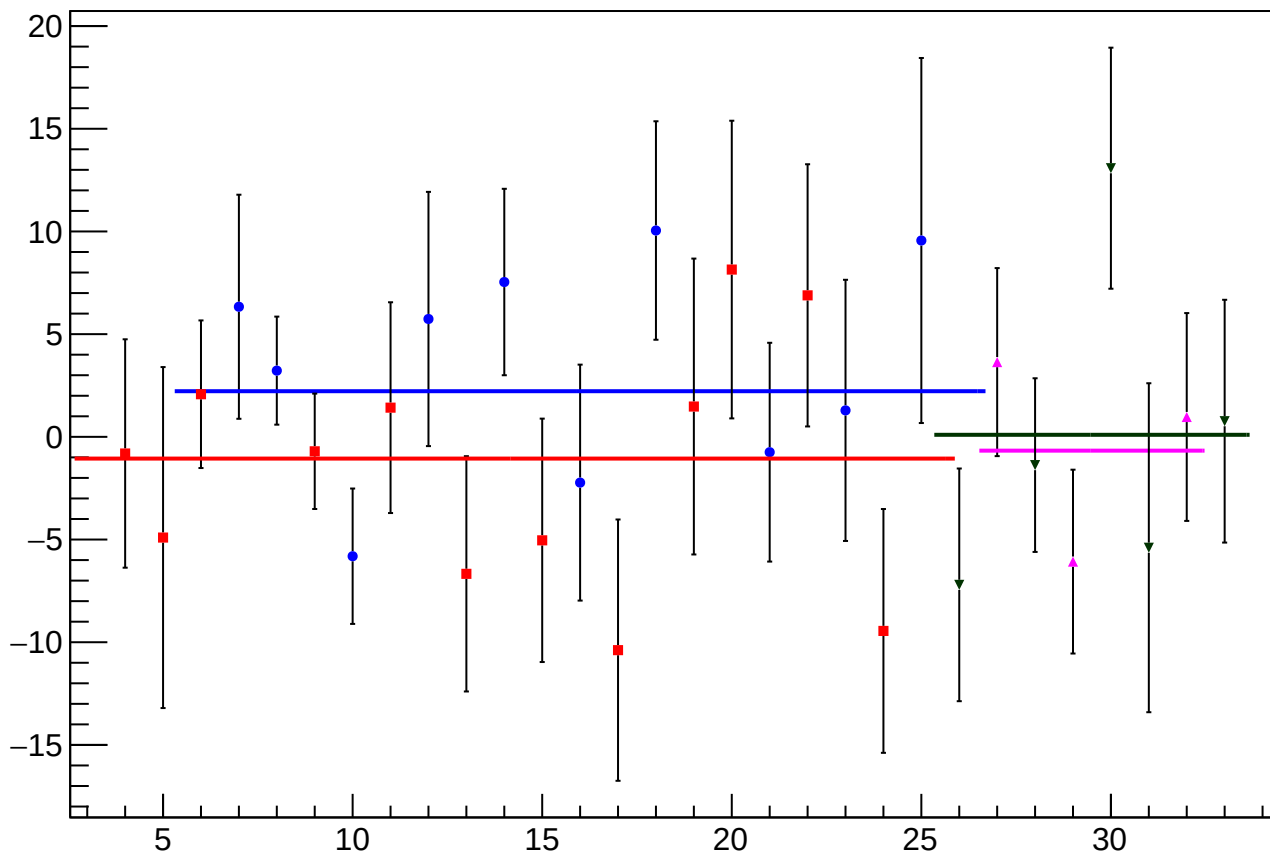
10637.954+/-2.514  $\chi^2/\text{NDF}$ : 335941.1/14

Right Out: 10239.715+/-2.890  $\chi^2/\text{NDF}$ : 272072.6/11

10334.721+/-2.458  $\chi^2/\text{NDF}$ : 284160.1/14

Left In: 10583.268+/-4.674  $\chi^2/\text{NDF}$ : 8179.2/2

# diff\_bpm4eY\_mean vs slug



Right In:  $2.222 \pm 1.439$   $\chi^2/\text{NDF}: 12.1/9$

Left Out:  $0.099 \pm 2.497$   $\chi^2/\text{NDF}: 7.2/4$

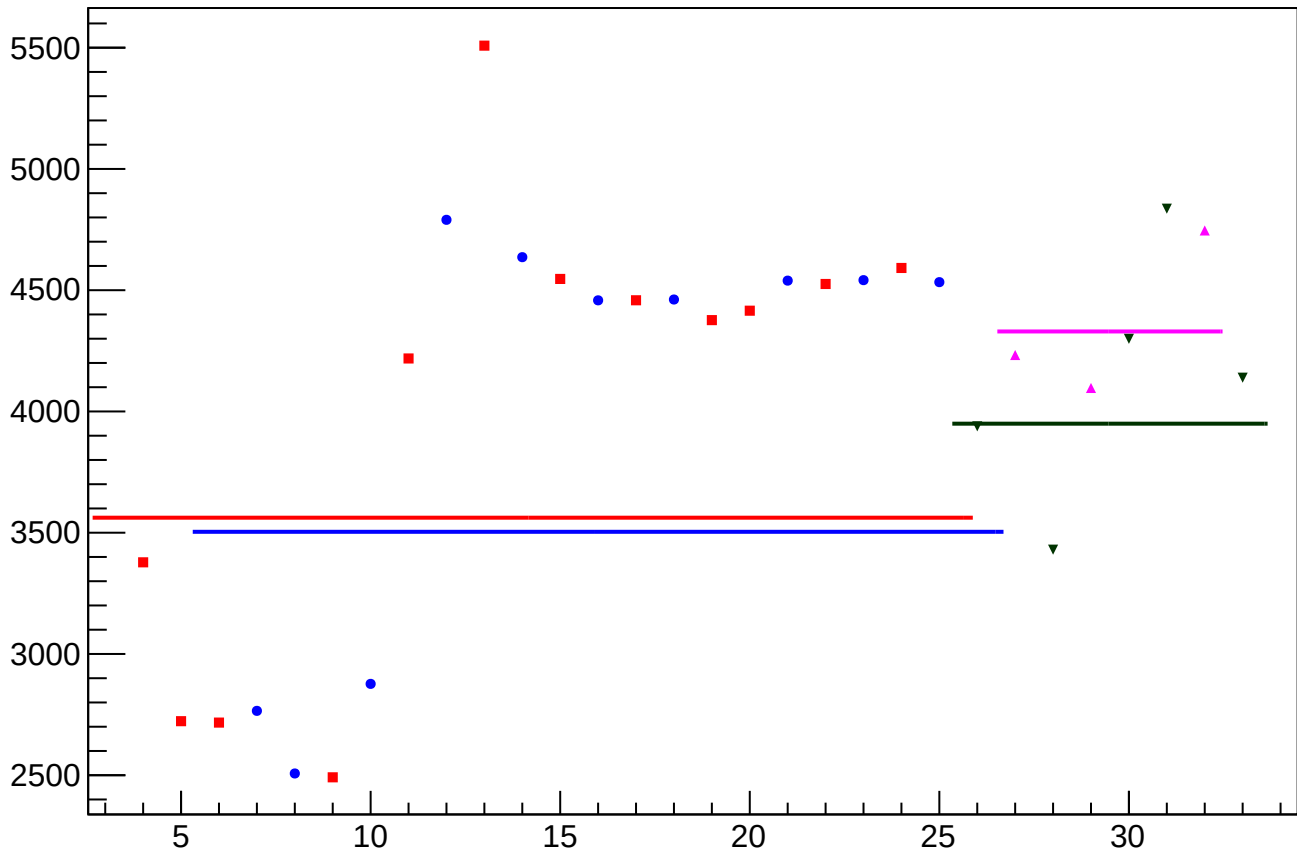
Right Out:  $-1.058 \pm 1.468$   $\chi^2/\text{NDF}: 10.1/11$

Left In:  $-0.672 \pm 2.705$   $\chi^2/\text{NDF}: 2.4/2$

$1.693 \pm 1.247$   $\chi^2/\text{NDF}: 19.8/14$

$-0.970 \pm 1.290$   $\chi^2/\text{NDF}: 12.5/14$

# diff\_bpm4eY\_rms vs slug



Right In: 3503.752+/-1.017  $\chi^2/\text{NDF}$ : 882846.4/9

Left Out: 3949.615+/-1.766  $\chi^2/\text{NDF}$ : 63882.2/4

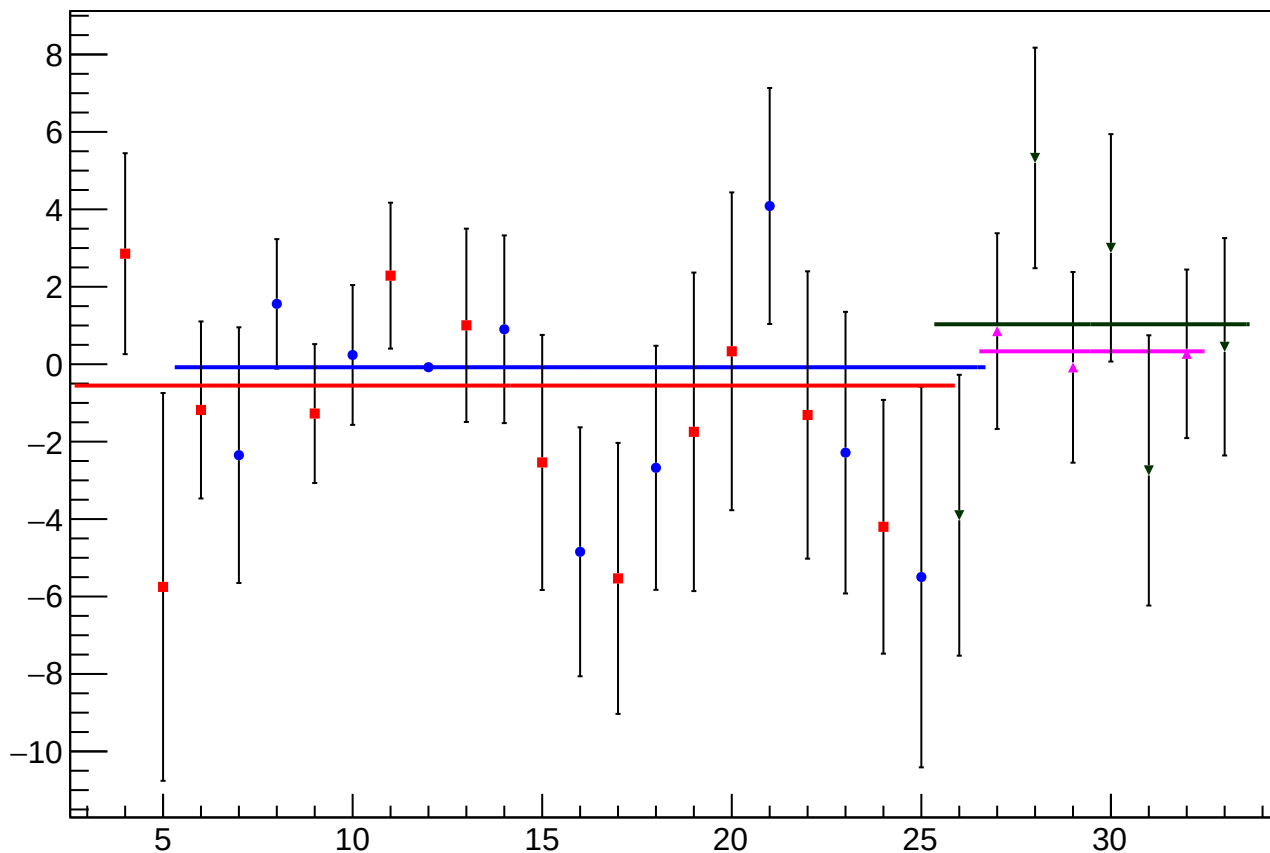
3614.866+/-0.881  $\chi^2/\text{NDF}$ : 994600.3/14

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

3736.710+/-0.912  $\chi^2/\text{NDF}$ : 1086012.1/14

Left In: 4329.869+/-1.912  $\chi^2/\text{NDF}$ : 19869.4/2

# diff\_bpm4acX\_mean vs slug



Right In:  $-0.078 \pm 0.060$   $\chi^2/\text{NDF}: 8.0/9$

Left Out:  $1.032 \pm 1.381$   $\chi^2/\text{NDF}: 5.8/4$

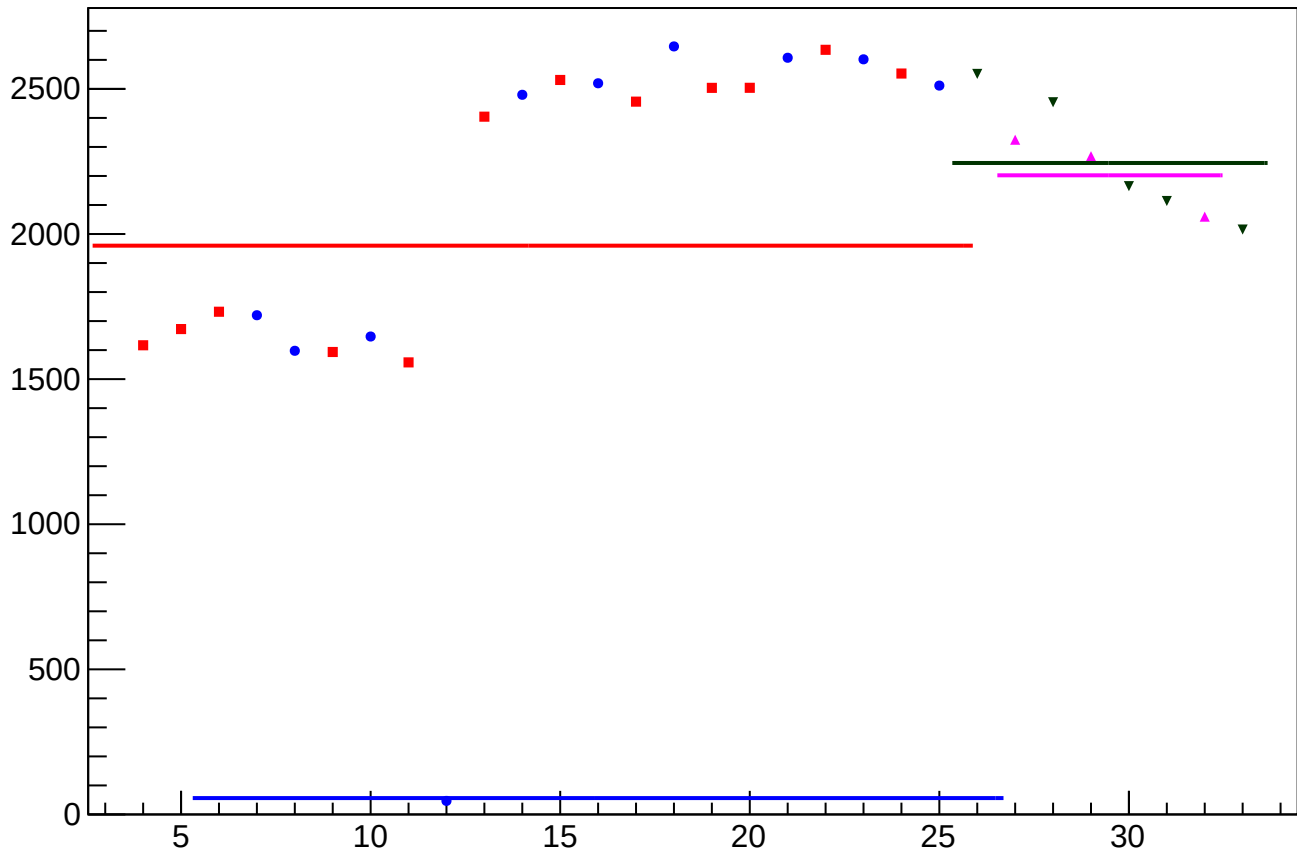
Right Out:  $-0.552 \pm 0.793$   $\chi^2/\text{NDF}: 9.5/11$

Left In:  $0.333 \pm 1.370$   $\chi^2/\text{NDF}: 0.1/2$

$-0.076 \pm 0.060$   $\chi^2/\text{NDF}: 14.4/14$

$-0.330 \pm 0.686$   $\chi^2/\text{NDF}: 9.9/14$

# diff\_bpm4acX\_rms vs slug



Right In: 56.427 $\pm$ 0.043  $\chi^2$ /NDF: 11213241.4/9

Left Out: 2244.773 $\pm$ 0.977  $\chi^2$ /NDF: 42757.3/4

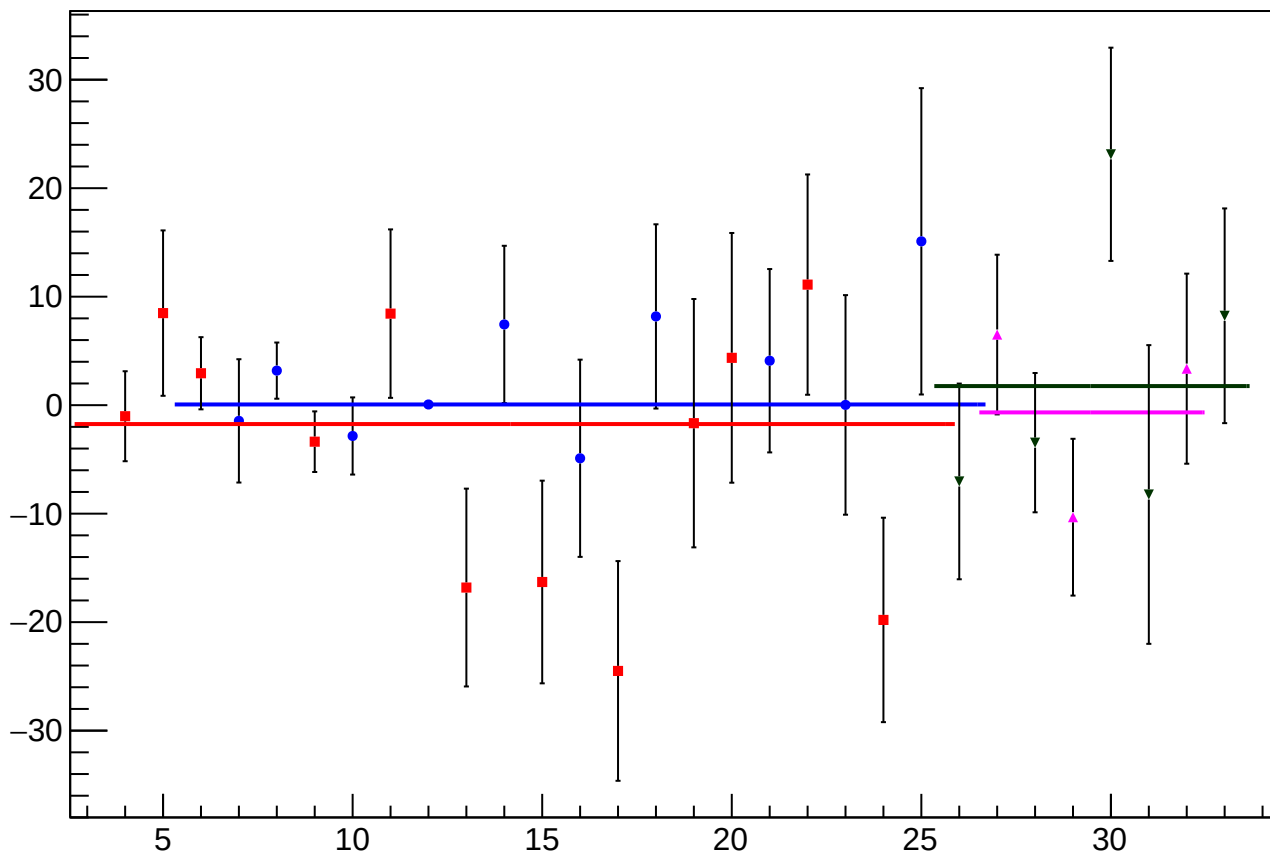
Right Out: 1959.862 $\pm$ 0.561  $\chi^2$ /NDF: 601394.1/11

Left In: 2202.281 $\pm$ 0.969  $\chi^2$ /NDF: 14704.0/2

60.573 $\pm$ 0.043  $\chi^2$ /NDF: 16267200.1/14

2020.663 $\pm$ 0.485  $\chi^2$ /NDF: 662988.5/14

# diff\_bpm4acY\_mean vs slug



Right In:  $0.065 \pm 0.052$   $\chi^2/\text{NDF}$ : 5.8/9

Left Out:  $1.760 \pm 4.003$   $\chi^2/\text{NDF}$ : 7.3/4

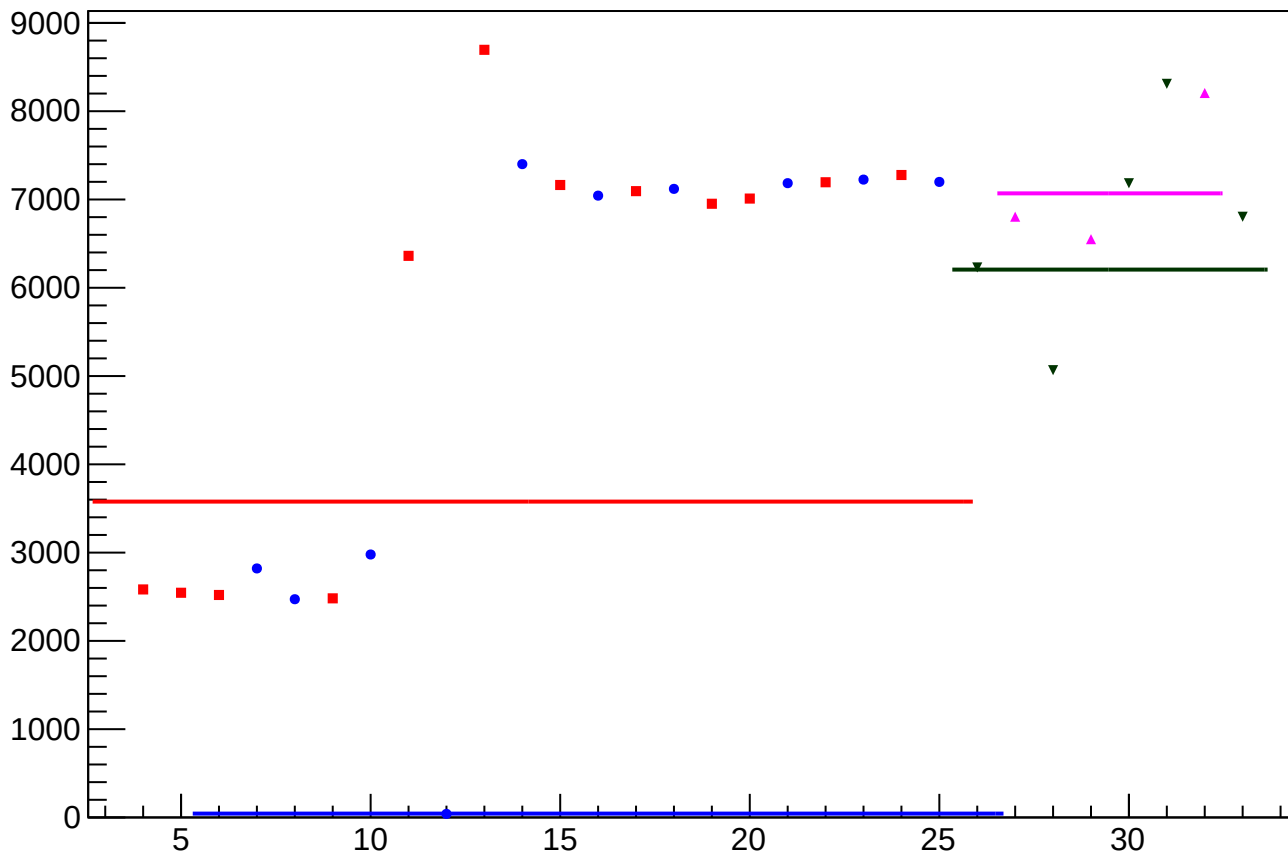
Right Out:  $-1.741 \pm 1.623$   $\chi^2/\text{NDF}$ : 21.6/11

Left In:  $-0.667 \pm 4.444$   $\chi^2/\text{NDF}$ : 2.9/2

$0.066 \pm 0.052$   $\chi^2/\text{NDF}$ : 13.3/14

$-1.615 \pm 1.524$   $\chi^2/\text{NDF}$ : 24.6/14

# diff\_bpm4acY\_rms vs slug



Right In: 43.632+/-0.037  $\chi^2$ /NDF: 11190271.5/9

Left Out: 6205.897+/-2.831  $\chi^2$ /NDF:136847.1/4

44.675+/-0.037  $\chi^2$ /NDF: 16064889.7/14

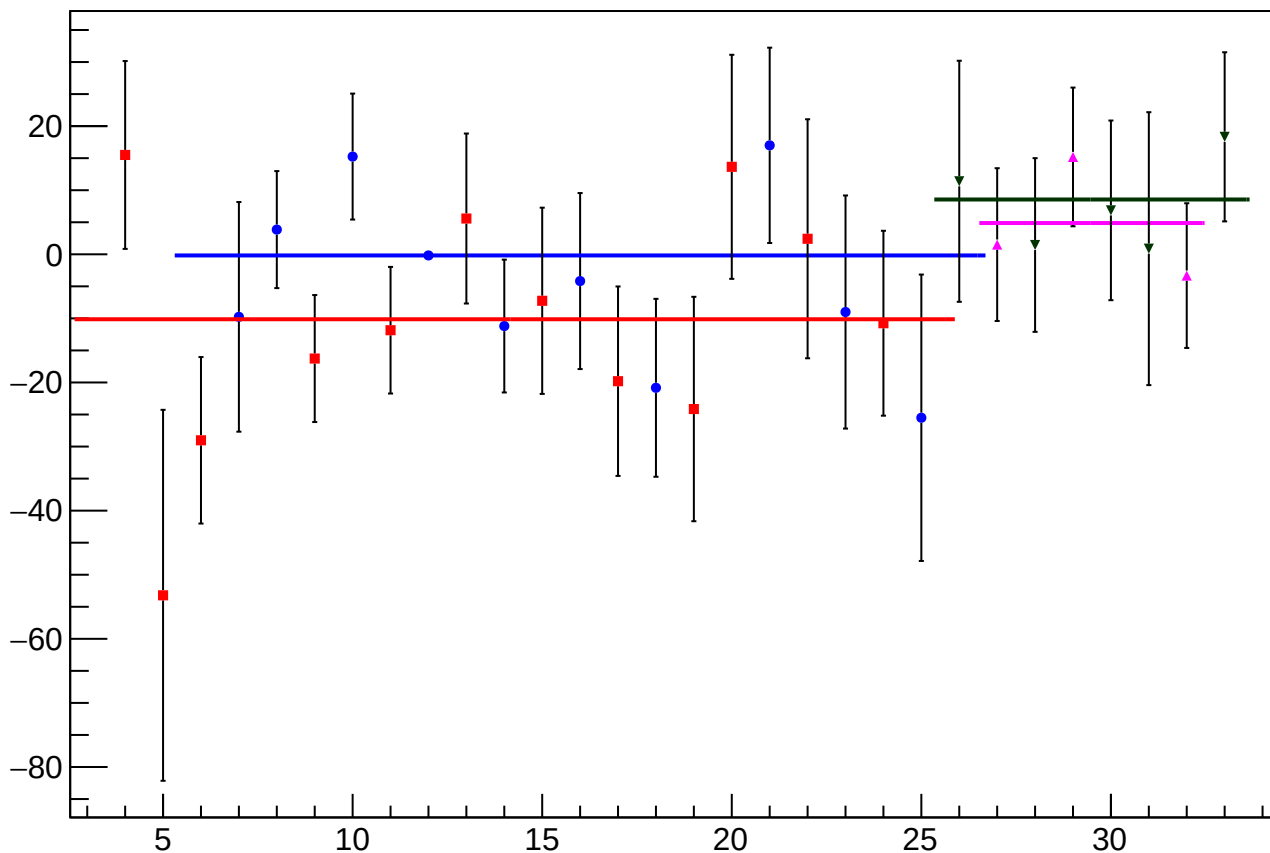
Right Out: 3577.880+/-1.147  $\chi^2$ /NDF: 2998842.2/11

3988.689+/-1.078  $\chi^2$ /NDF: 4134914.0/14

Left In: 7069.399+/-3.142  $\chi^2$ /NDF:46582.3/2



# diff\_bpm4ecX\_mean vs slug



Right In: -0.178 $\pm$ 0.107  $\chi^2/\text{NDF}$ : 9.2/9

Left Out: 8.552 $\pm$ 6.850  $\chi^2/\text{NDF}$ :1.0/4

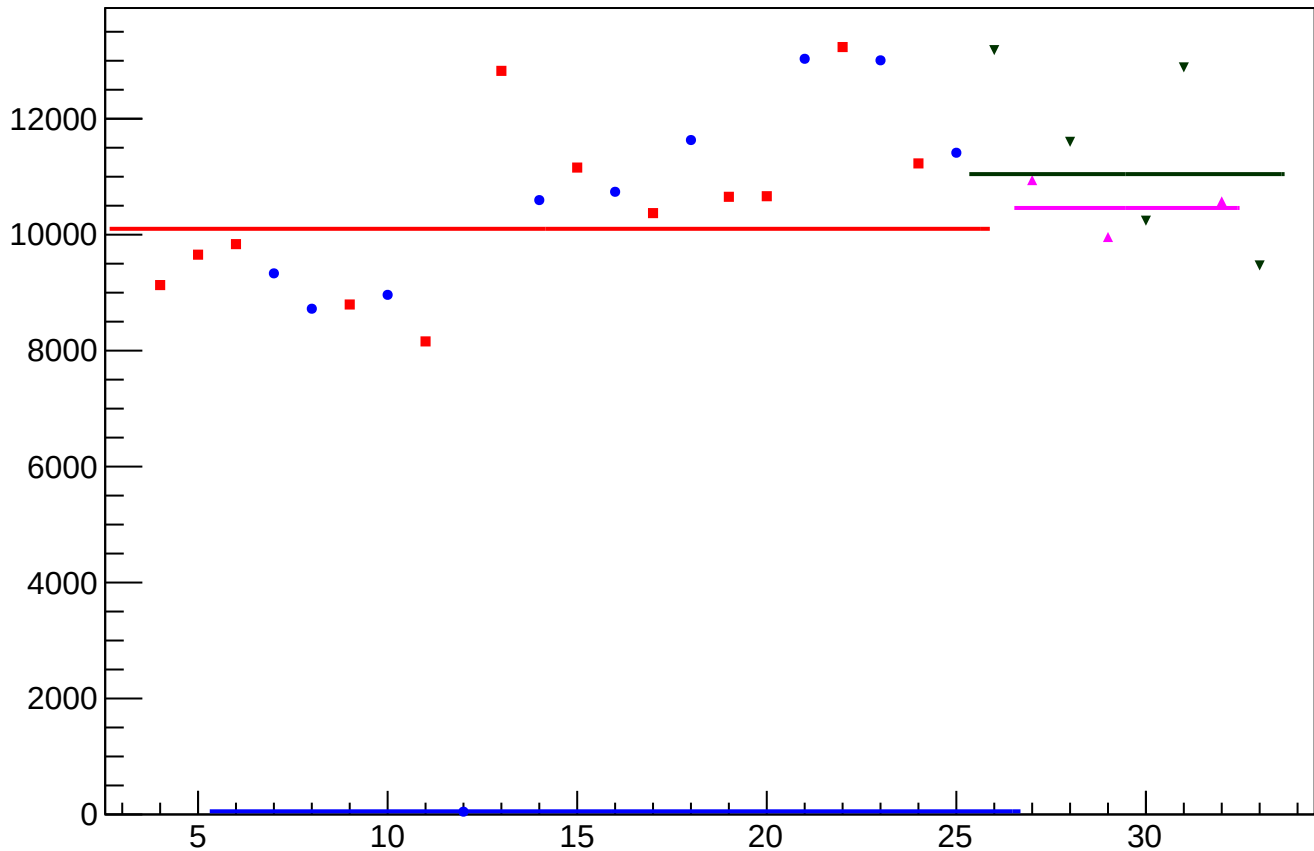
Right Out: -10.134 $\pm$ 4.035  $\chi^2/\text{NDF}$ : 12.6/11

Left In: 4.880 $\pm$ 6.534  $\chi^2/\text{NDF}$ :1.5/2

-0.176 $\pm$ 0.107  $\chi^2/\text{NDF}$ : 11.8/14

-5.989 $\pm$ 3.433  $\chi^2/\text{NDF}$ : 18.0/14

# diff\_bpm4ecX\_rms vs slug



Right In: 54.358+/-0.075  $\chi^2/\text{NDF}$ : 11644039.7/9

Left Out: 11044.825+/-4.844  $\chi^2/\text{NDF}$ : 79250.4/4

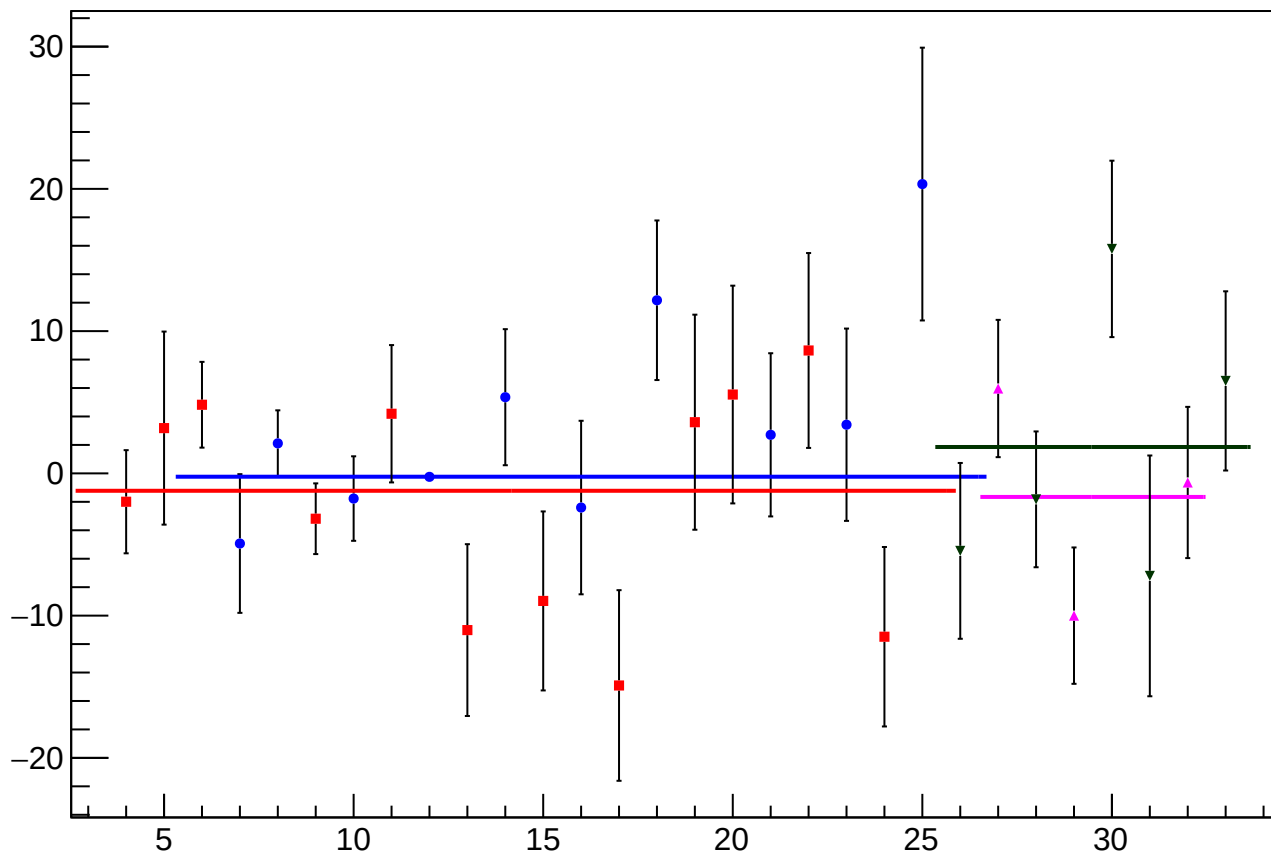
57.015+/-0.075  $\chi^2/\text{NDF}$ : 16870905.9/14

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

10200.530+/-2.427  $\chi^2/\text{NDF}$ : 302676.6/14

Left In: 10460.841+/-4.620  $\chi^2/\text{NDF}$ : 7736.5/2

# diff\_bpm4ecY\_mean vs slug



Right In:  $-0.234 \pm 0.090$   $\chi^2/\text{NDF}$ : 13.8/9

Left Out:  $1.855 \pm 2.719$   $\chi^2/\text{NDF}$ : 8.7/4

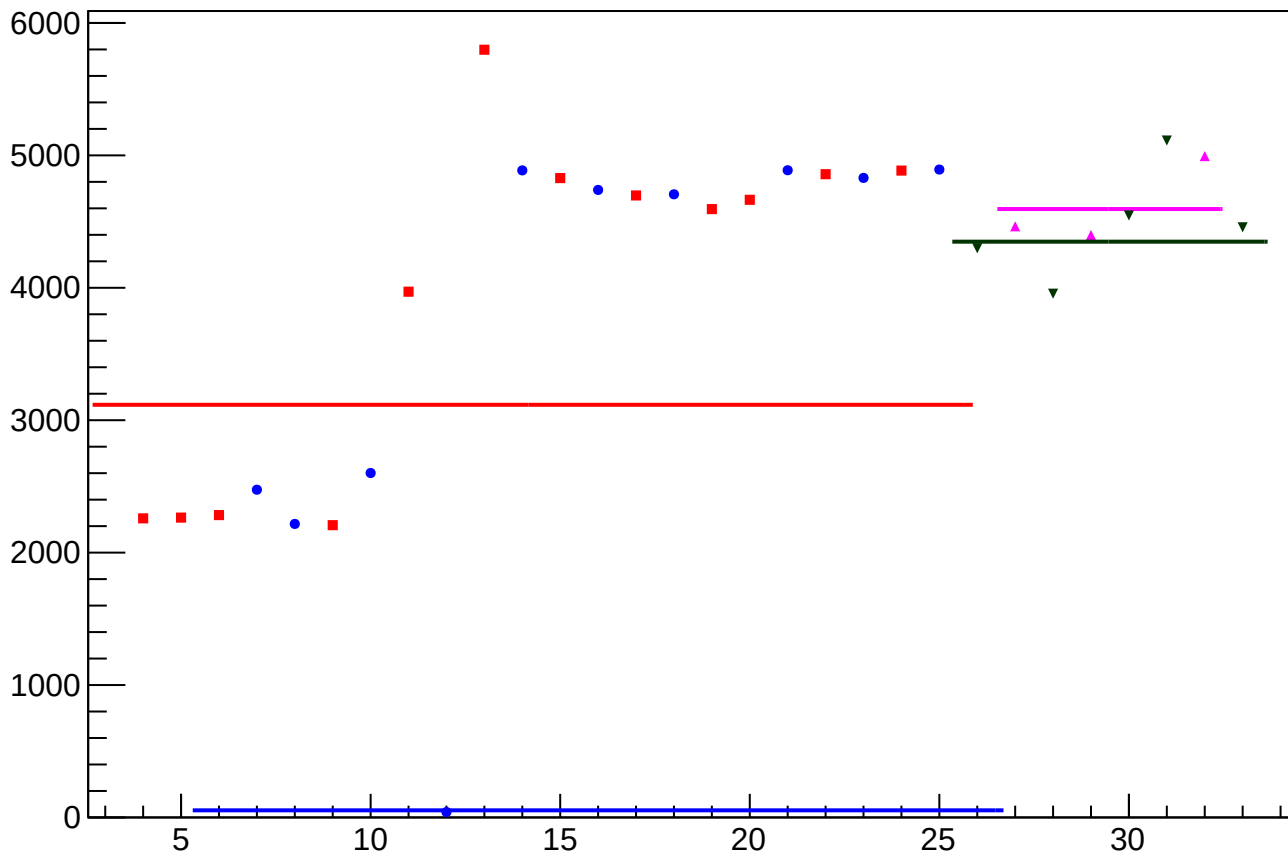
Right Out:  $-1.223 \pm 1.326$   $\chi^2/\text{NDF}$ : 20.6/11

Left In:  $-1.656 \pm 2.865$   $\chi^2/\text{NDF}$ : 5.6/2

$-0.232 \pm 0.090$   $\chi^2/\text{NDF}$ : 23.1/14

$-1.300 \pm 1.203$   $\chi^2/\text{NDF}$ : 26.2/14

# diff\_bpm4ecY\_rms vs slug



Right In: 53.805+/-0.064  $\chi^2/\text{NDF}$ : 11269015.3/9

Left Out: 4348.349+/-1.923  $\chi^2/\text{NDF}$ : 32604.1/4

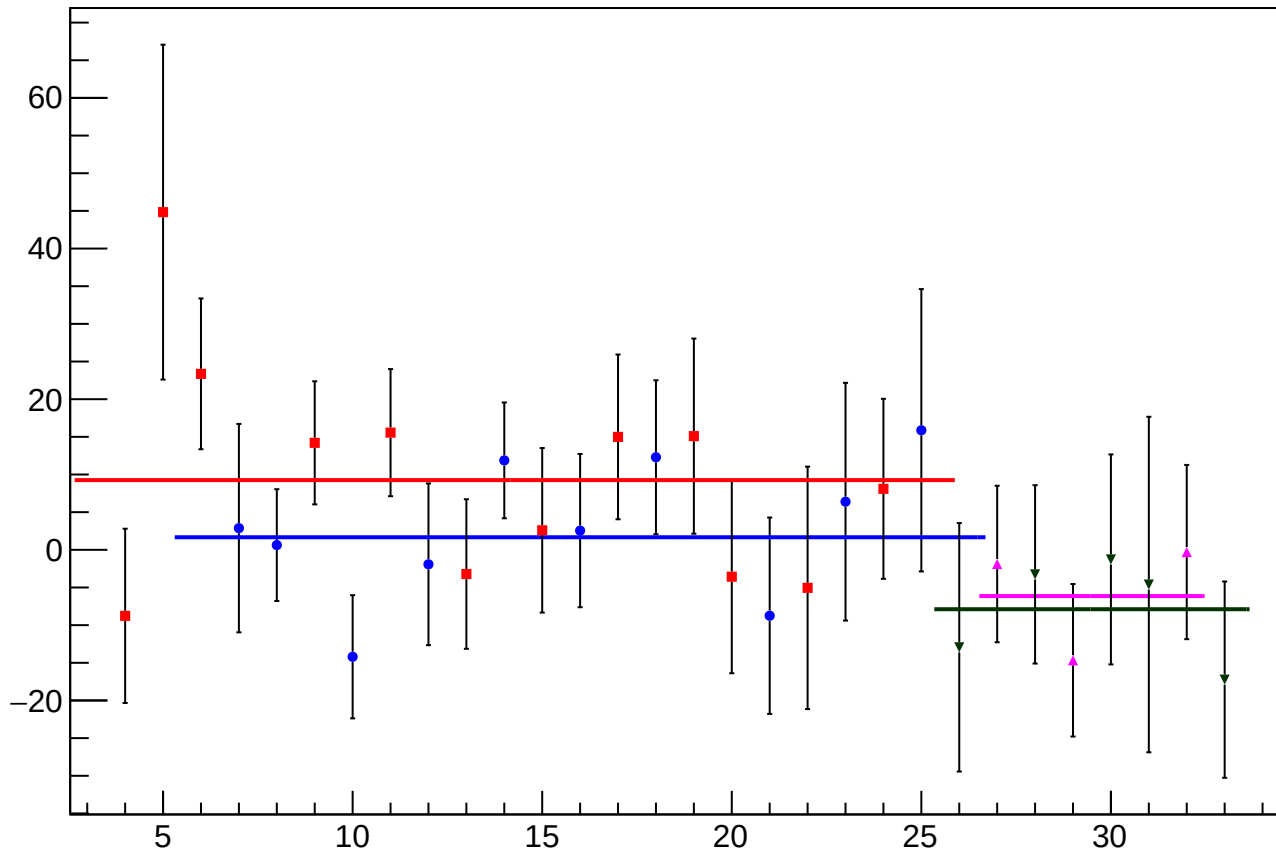
Right Out: 3116.348+/-0.938  $\chi^2/\text{NDF}$ : 1724845.4/11

Left In: 4594.893+/-2.026  $\chi^2/\text{NDF}$ : 16117.1/2

58.502+/-0.064  $\chi^2/\text{NDF}$ : 16284607.6/14

3377.317+/-0.851  $\chi^2/\text{NDF}$ : 2179738.4/14

# diff\_bpm1X\_mean vs slug



Right In:  $1.669 \pm 3.229$   $\chi^2/\text{NDF}: 8.1/9$

Left Out:  $-7.886 \pm 6.474$   $\chi^2/\text{NDF}: 1.0/4$

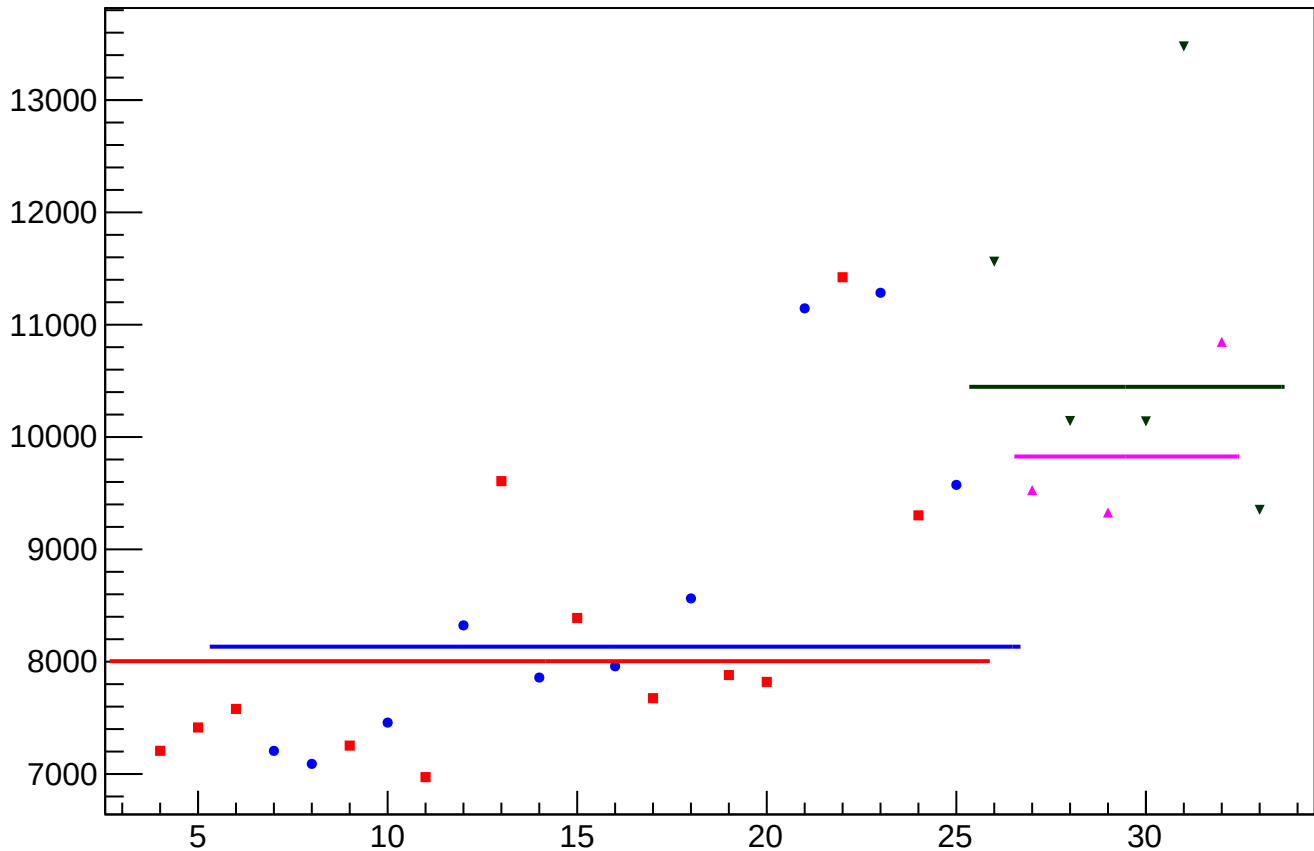
Right Out:  $9.254 \pm 3.190$   $\chi^2/\text{NDF}: 12.1/11$

Left In:  $-6.141 \pm 6.143$   $\chi^2/\text{NDF}: 1.1/2$

$-0.234 \pm 2.890$   $\chi^2/\text{NDF}: 10.8/14$

$5.985 \pm 2.831$   $\chi^2/\text{NDF}: 18.2/14$

# diff\_bpm1X\_rms vs slug



Right In: 8133.661+/-2.283  $\chi^2/\text{NDF}$ : 267771.2/9

Left Out: 10447.011+/-4.578  $\chi^2/\text{NDF}$ : 62566.0/4

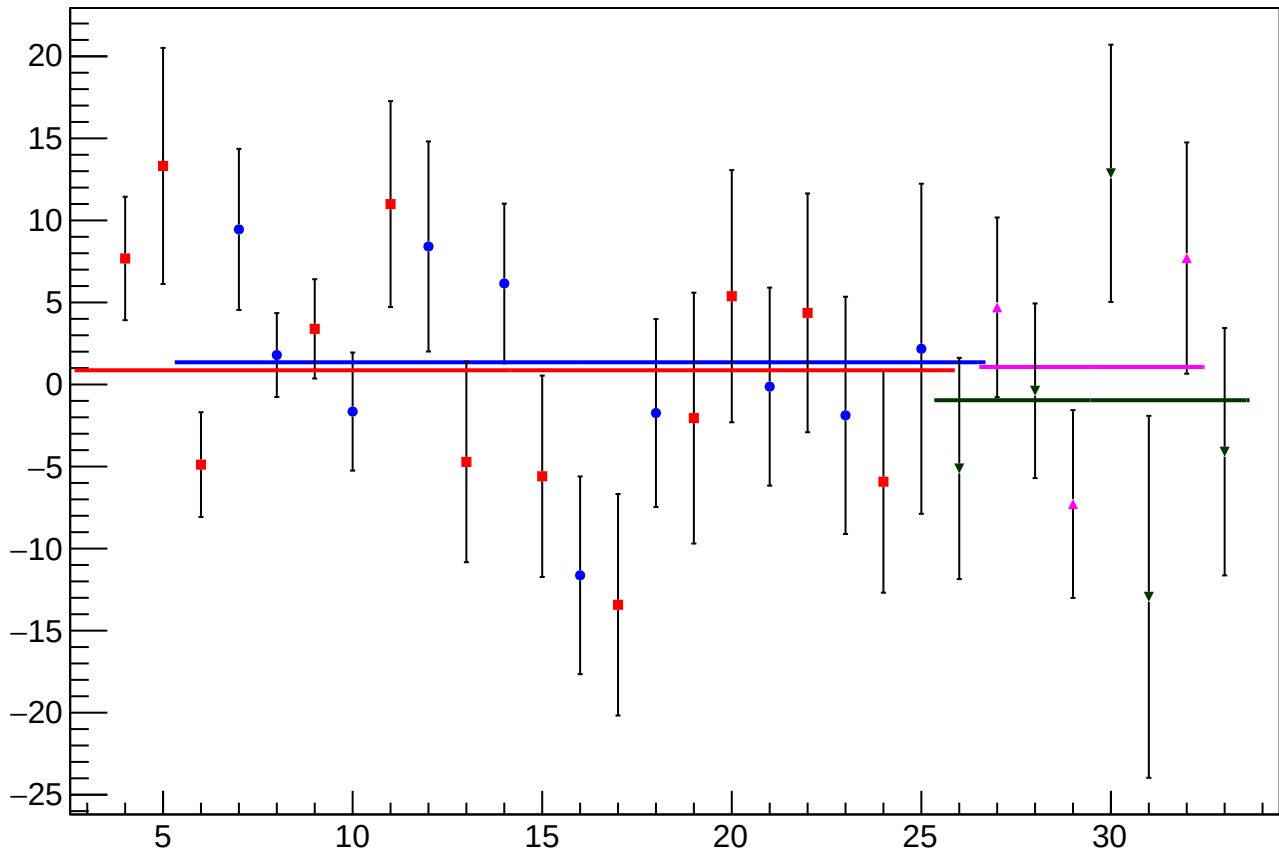
8594.502+/-2.043  $\chi^2/\text{NDF}$ : 534814.2/14

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

8391.529+/-2.002  $\chi^2/\text{NDF}$ : 392873.6/14

Left In: 9826.897+/-4.344  $\chi^2/\text{NDF}$ : 22075.4/2

# diff\_bpm1Y\_mean vs slug



Right In: 1.354 $\pm$ 1.486  $\chi^2$ /NDF: 10.8/9

Left Out: -0.958 $\pm$ 3.172  $\chi^2$ /NDF:4.9/4

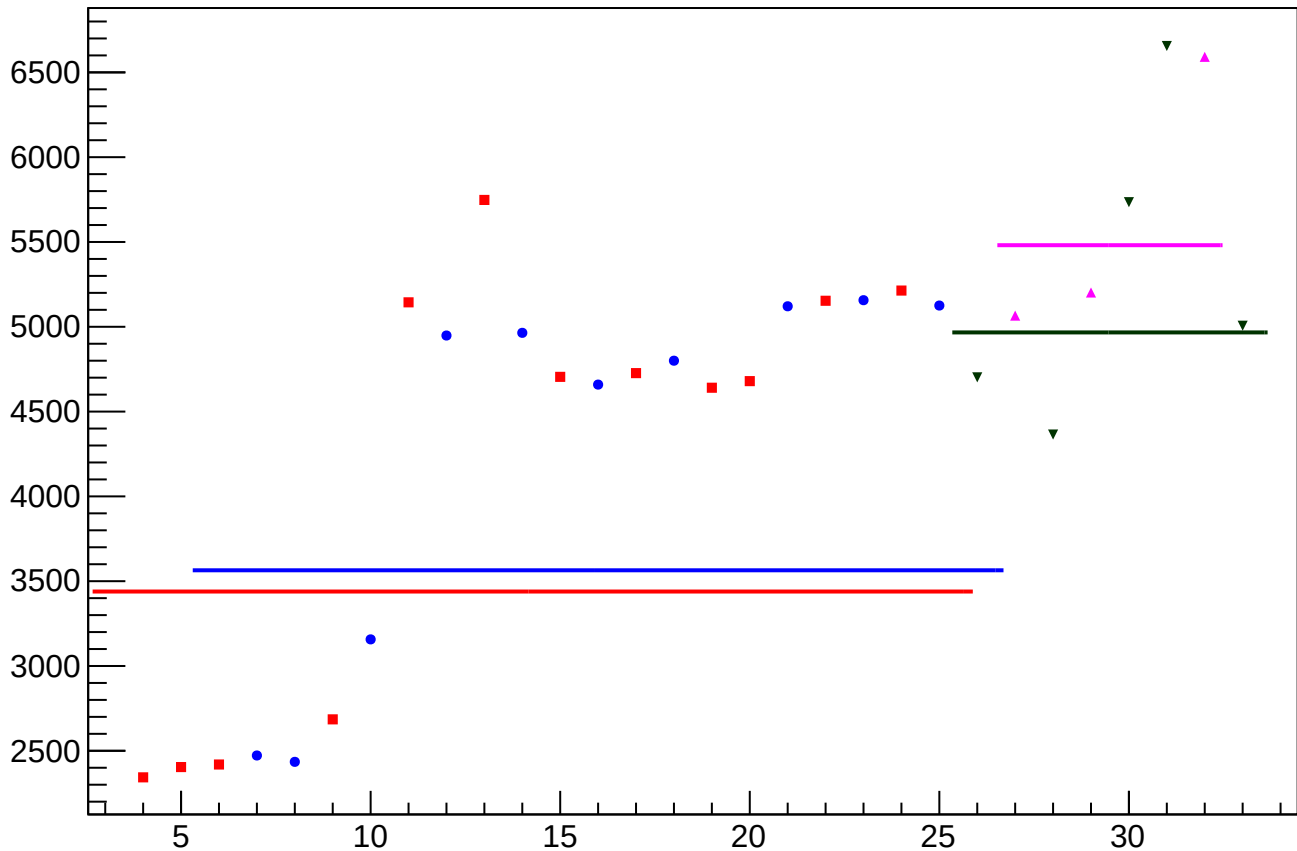
Right Out: 0.868 $\pm$ 1.454  $\chi^2$ /NDF: 21.0/11

Left In: 1.067 $\pm$ 3.450  $\chi^2$ /NDF:3.5/2

0.938 $\pm$ 1.346  $\chi^2$ /NDF: 16.1/14

0.898 $\pm$ 1.340  $\chi^2$ /NDF: 24.4/14

# diff\_bpm1Y\_rms vs slug



Right In: 3564.243+/-1.051  $\chi^2/\text{NDF}$ : 1211443.4/9

Left Out: 4966.751+/-2.243  $\chi^2/\text{NDF}$ : 94801.9/4

3816.619+/-0.952  $\chi^2/\text{NDF}$ : 1626826.4/14

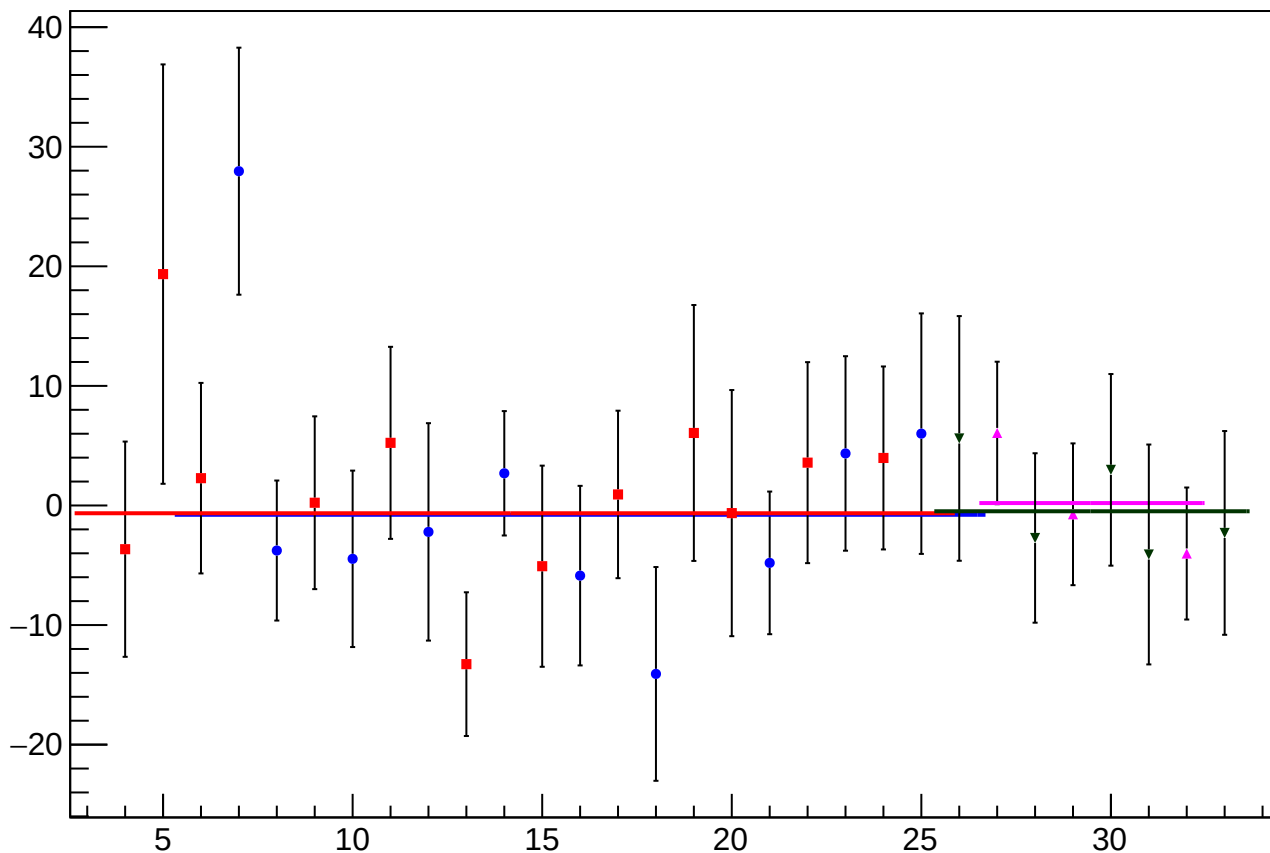
Right Out: 3439.033+/-1.028  $\chi^2/\text{NDF}$ : 1480366.2/11

3747.151+/-0.948  $\chi^2/\text{NDF}$ : 2141167.8/14

Left In: 5481.039+/-2.440  $\chi^2/\text{NDF}$ : 65915.0/2



# diff\_bpm11X\_mean vs slug



Right In:  $-0.778 \pm 2.298$   $\chi^2/\text{NDF}$ : 12.7/9

Left Out:  $-0.485 \pm 3.762$   $\chi^2/\text{NDF}$ : 0.8/4

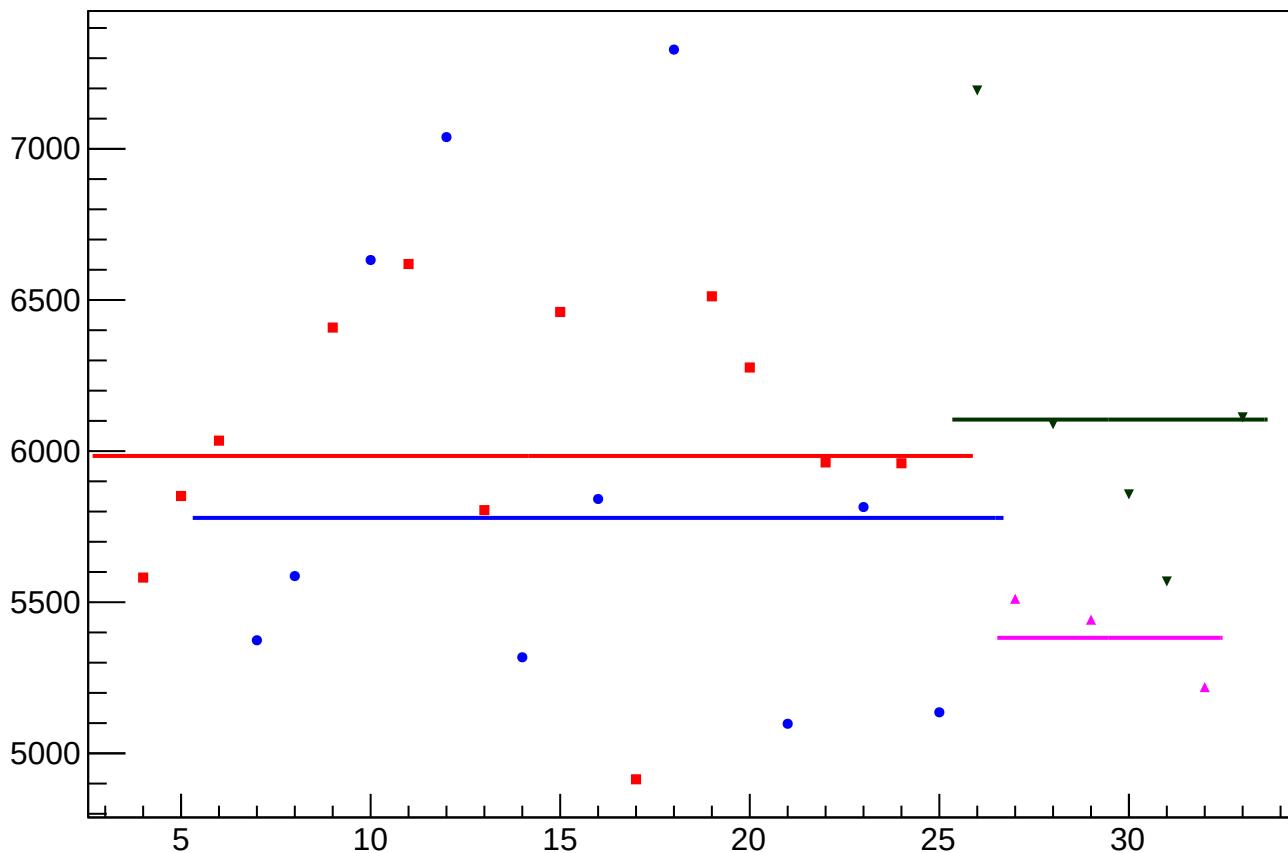
Right Out:  $-0.650 \pm 2.373$   $\chi^2/\text{NDF}$ : 7.8/11

Left In:  $0.202 \pm 3.344$   $\chi^2/\text{NDF}$ : 1.6/2

$-0.698 \pm 1.961$   $\chi^2/\text{NDF}$ : 13.5/14

$-0.365 \pm 1.935$   $\chi^2/\text{NDF}$ : 9.5/14

# diff\_bpm11X\_rms vs slug



Right In: 5779.030+/-1.625  $\chi^2/\text{NDF}$ : 180676.8/9

Left Out: 6104.337+/-2.660  $\chi^2/\text{NDF}$ : 31363.0/4

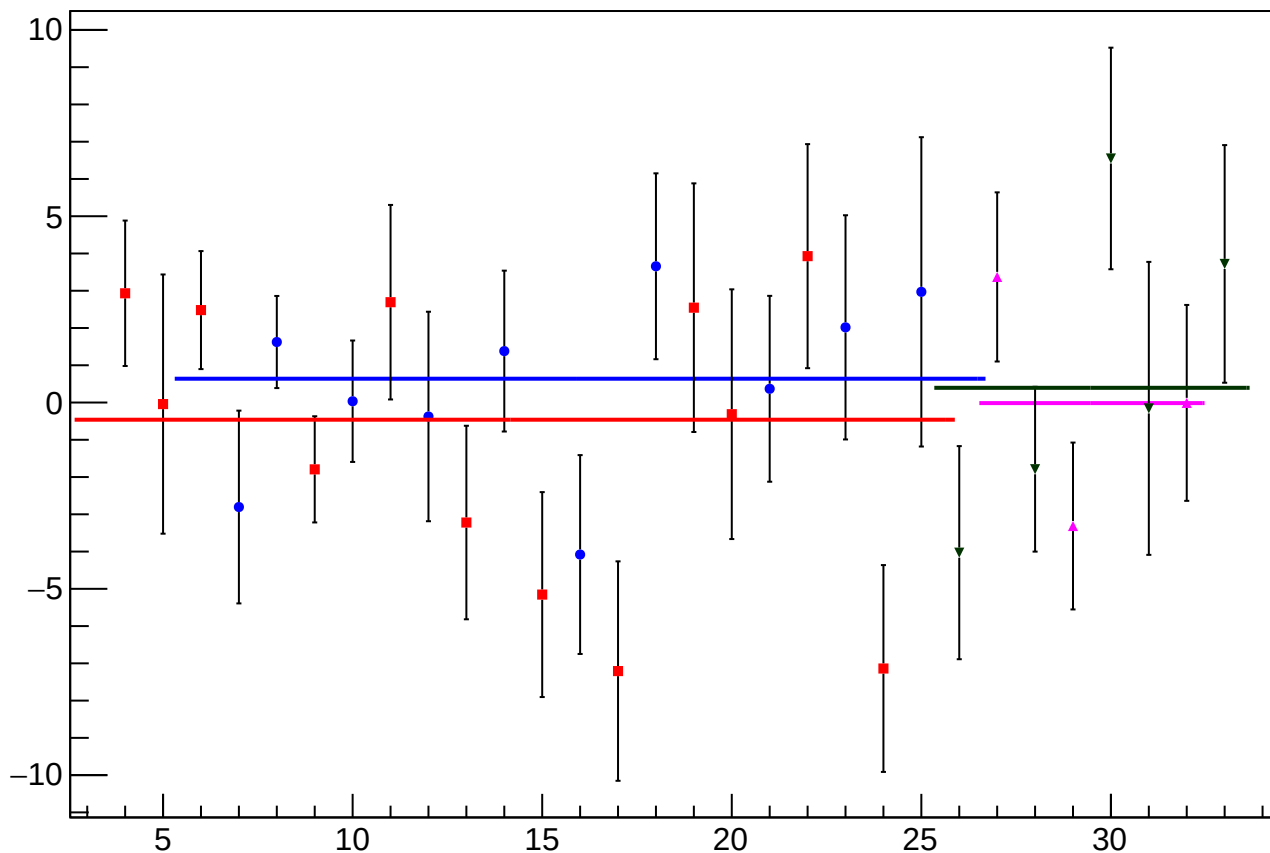
Right Out: 5983.998+/-1.678  $\chi^2/\text{NDF}$ : 85007.6/11

Left In: 5382.210+/-2.364  $\chi^2/\text{NDF}$ : 2890.9/2

5867.428+/-1.387  $\chi^2/\text{NDF}$ : 222930.6/14

5782.468+/-1.368  $\chi^2/\text{NDF}$ : 130988.0/14

# diff\_bpm11Y\_mean vs slug



Right In:  $0.639 \pm 0.682$   $\chi^2/\text{NDF}$ : 7.9/9

Left Out:  $0.395 \pm 1.288$   $\chi^2/\text{NDF}$ : 8.8/4

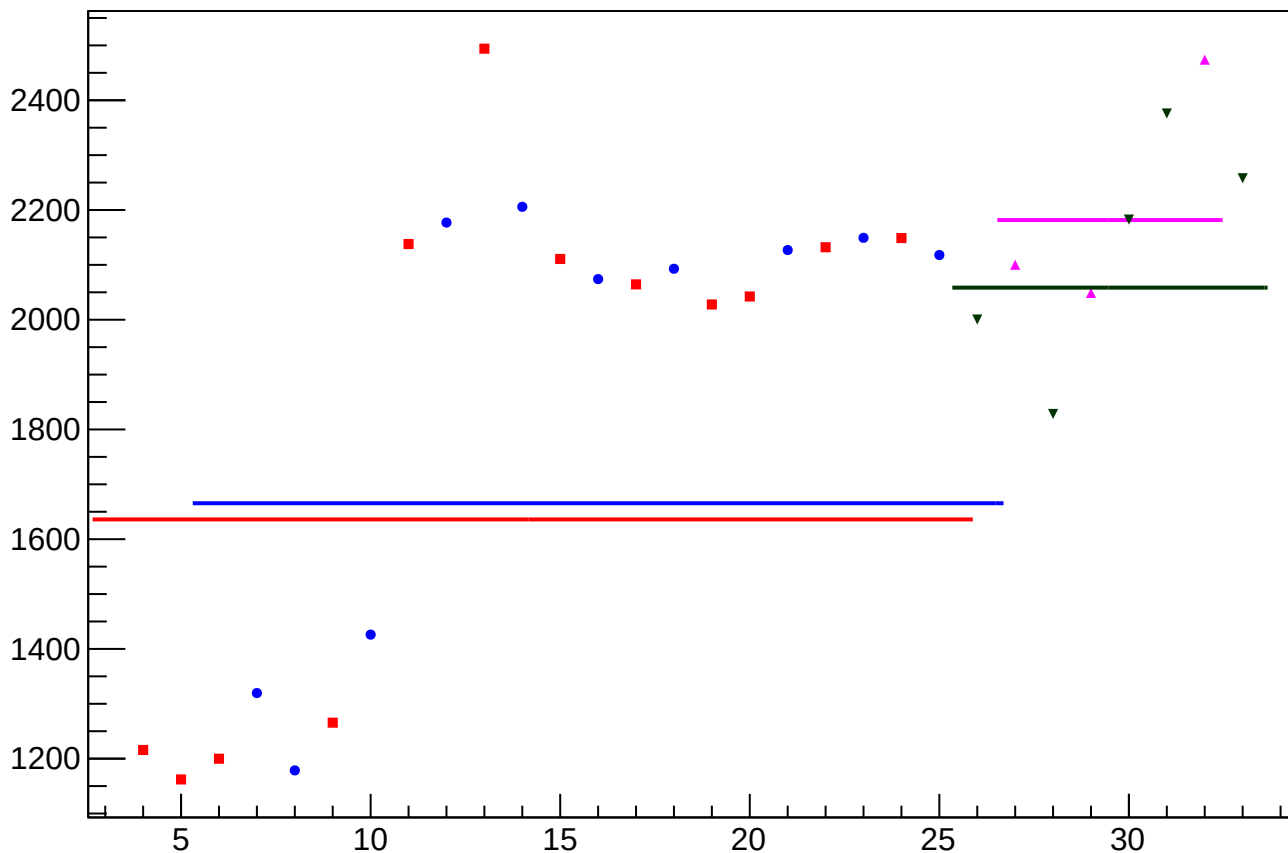
Right Out:  $-0.461 \pm 0.674$   $\chi^2/\text{NDF}$ : 26.8/11

Left In:  $-0.015 \pm 1.363$   $\chi^2/\text{NDF}$ : 4.4/2

$0.586 \pm 0.602$   $\chi^2/\text{NDF}$ : 16.7/14

$-0.374 \pm 0.604$   $\chi^2/\text{NDF}$ : 31.3/14

# diff\_bpm11Y\_rms vs slug



Right In: 1665.539+/-0.482  $\chi^2/\text{NDF}$ : 830367.8/9

Left Out: 2058.510+/-0.911  $\chi^2/\text{NDF}$ : 46828.8/4

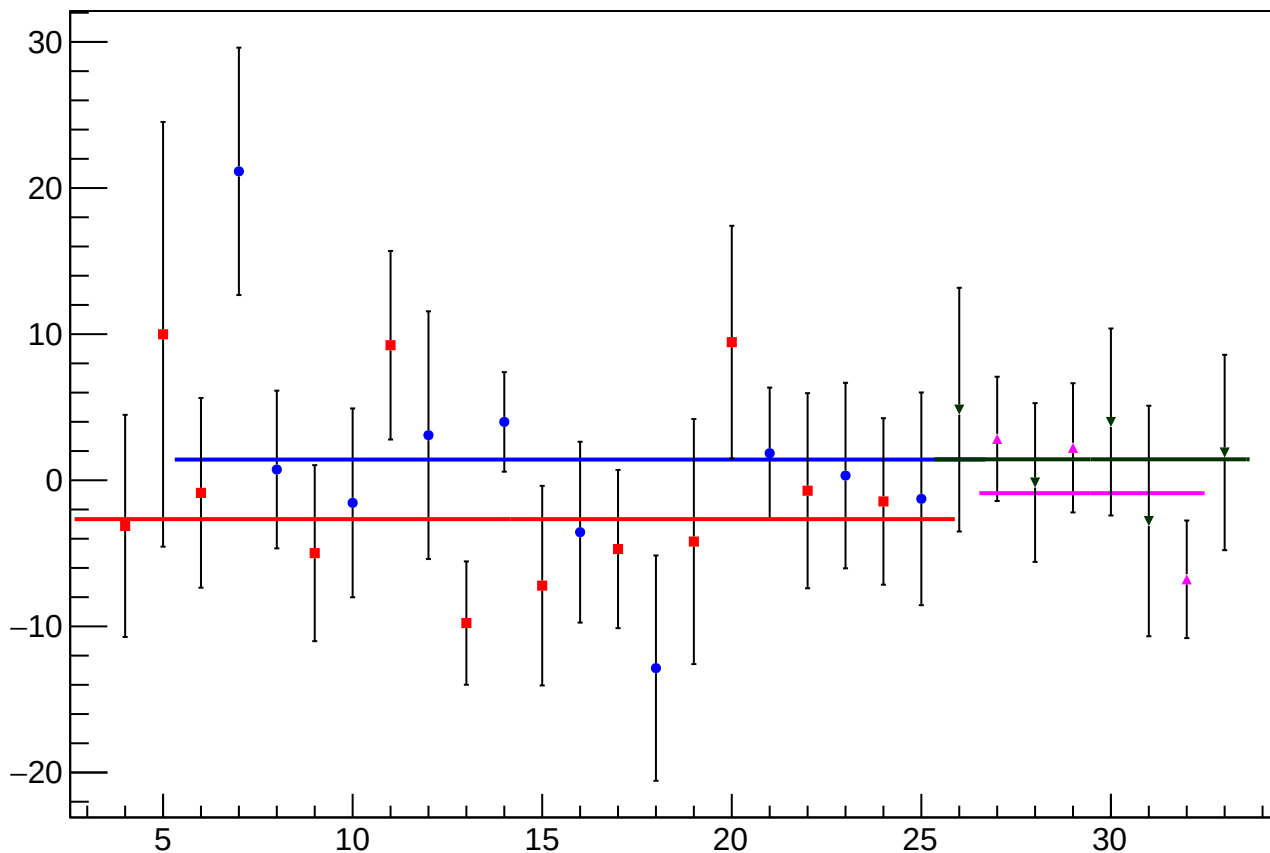
Right Out: 1636.018+/-0.477  $\chi^2/\text{NDF}$ : 990659.4/11

Left In: 2181.675+/-0.964  $\chi^2/\text{NDF}$ : 34340.7/2

1751.527+/-0.426  $\chi^2/\text{NDF}$ : 1022635.2/14

1743.337+/-0.427  $\chi^2/\text{NDF}$ : 1282467.7/14

# diff\_bpm12X\_mean vs slug



Right In:  $1.418 \pm 1.800$   $\chi^2/\text{NDF}: 10.5/9$

Left Out:  $1.435 \pm 3.000$   $\chi^2/\text{NDF}: 0.7/4$

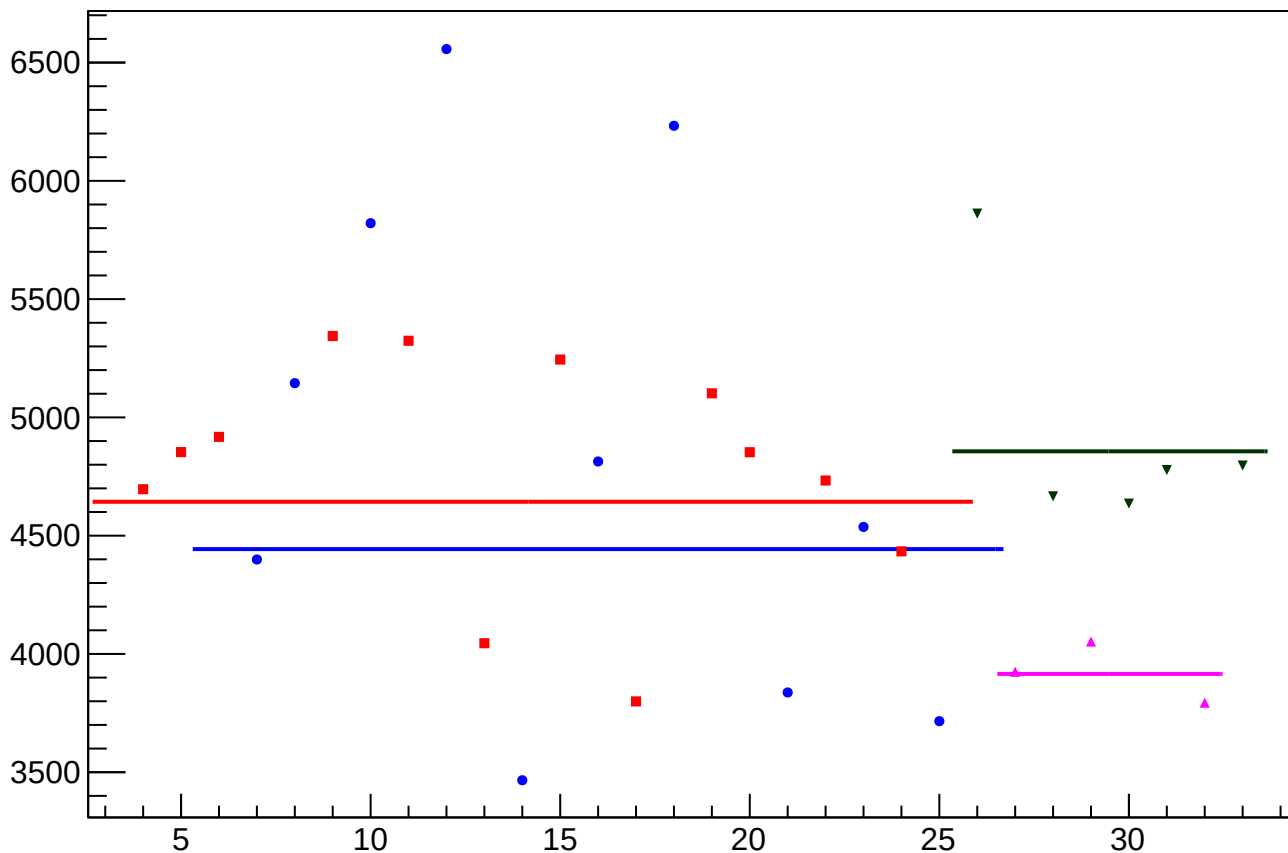
Right Out:  $-2.661 \pm 1.850$   $\chi^2/\text{NDF}: 10.3/11$

Left In:  $-0.883 \pm 2.438$   $\chi^2/\text{NDF}: 3.4/2$

$1.423 \pm 1.544$   $\chi^2/\text{NDF}: 11.2/14$

$-2.011 \pm 1.474$   $\chi^2/\text{NDF}: 14.0/14$

# diff\_bpm12X\_rms vs slug



Right In: 4443.230+/-1.273  $\chi^2/\text{NDF}$ : 585369.1/9

Left Out: 4856.524+/-2.121  $\chi^2/\text{NDF}$ :34237.9/4

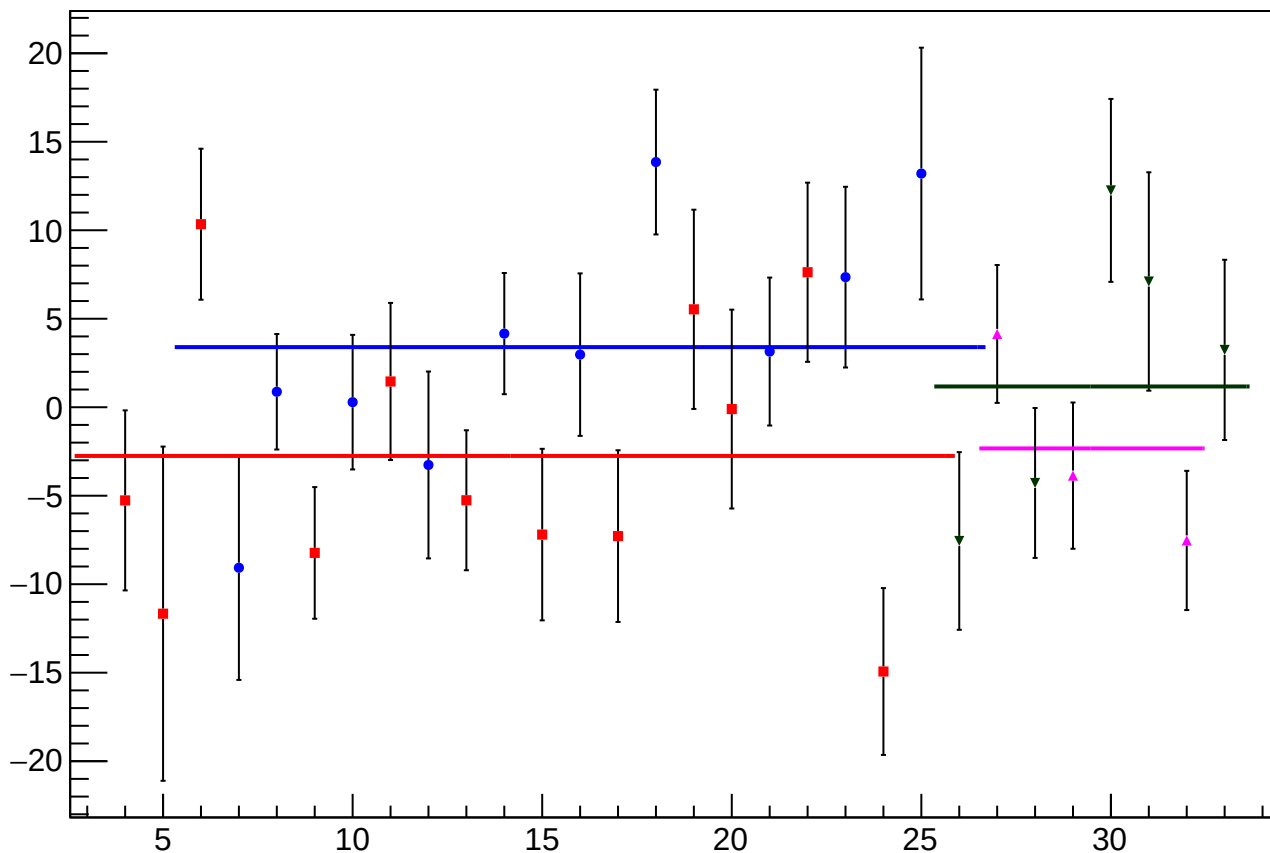
4552.652+/-1.092  $\chi^2/\text{NDF}$ : 647512.7/14

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

4377.496+/-1.042  $\chi^2/\text{NDF}$ : 284906.0/14

Left In: 3915.611+/-1.724  $\chi^2/\text{NDF}$ :3753.2/2

# diff\_bpm12Y\_mean vs slug



Right In:  $3.397 \pm 1.371$   $\chi^2/\text{NDF}: 15.8/9$

Left Out:  $1.172 \pm 2.249$   $\chi^2/\text{NDF}: 10.4/4$

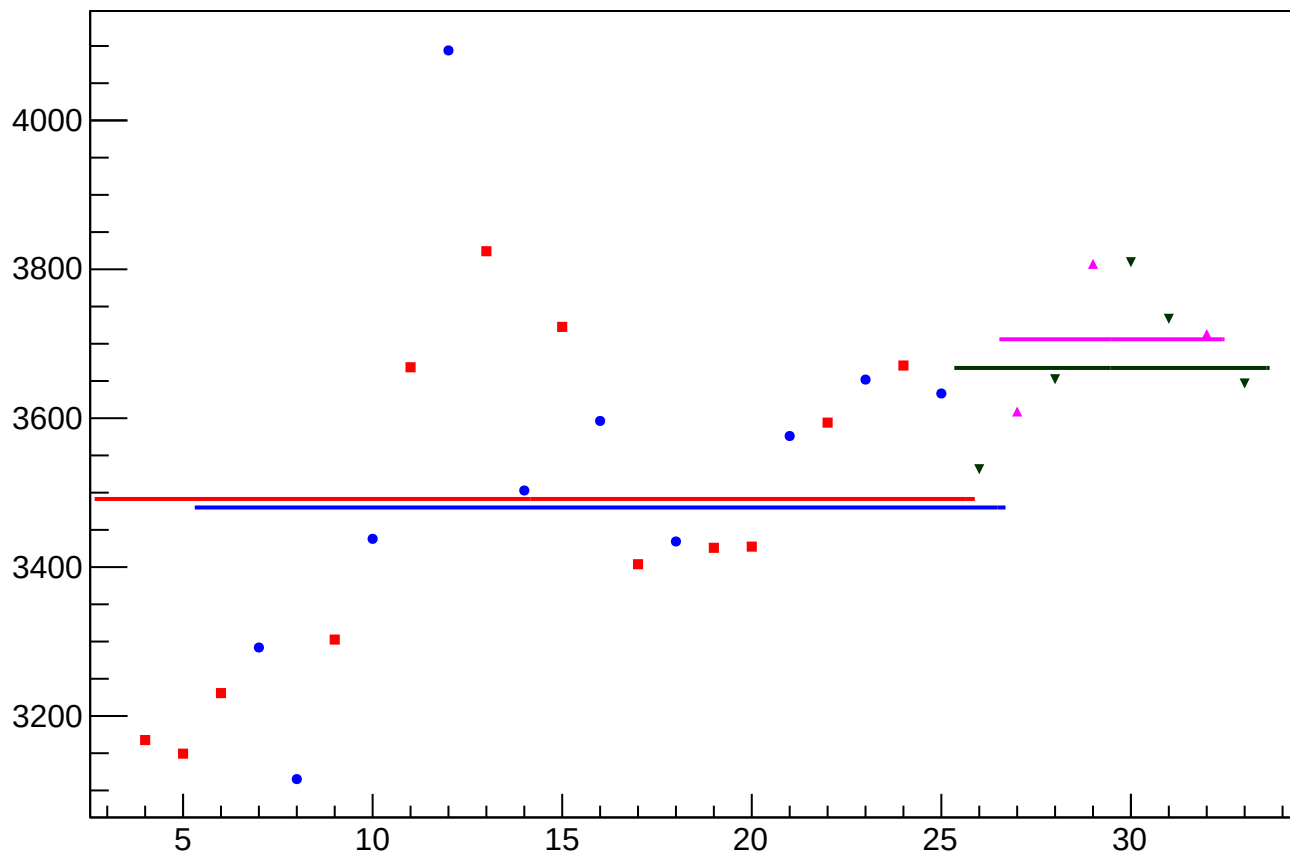
Right Out:  $-2.752 \pm 1.381$   $\chi^2/\text{NDF}: 29.0/11$

Left In:  $-2.328 \pm 2.299$   $\chi^2/\text{NDF}: 4.6/2$

$2.794 \pm 1.171$   $\chi^2/\text{NDF}: 26.9/14$

$-2.640 \pm 1.184$   $\chi^2/\text{NDF}: 33.7/14$

diff\_bpm12Y\_rms vs slug



Right In: 3480.066+/-0.970  $\chi^2/\text{NDF}$ : 59916.3/9

Left Out: 3667.518+/-1.590  $\chi^2/\text{NDF}$ : 3266.5/4

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

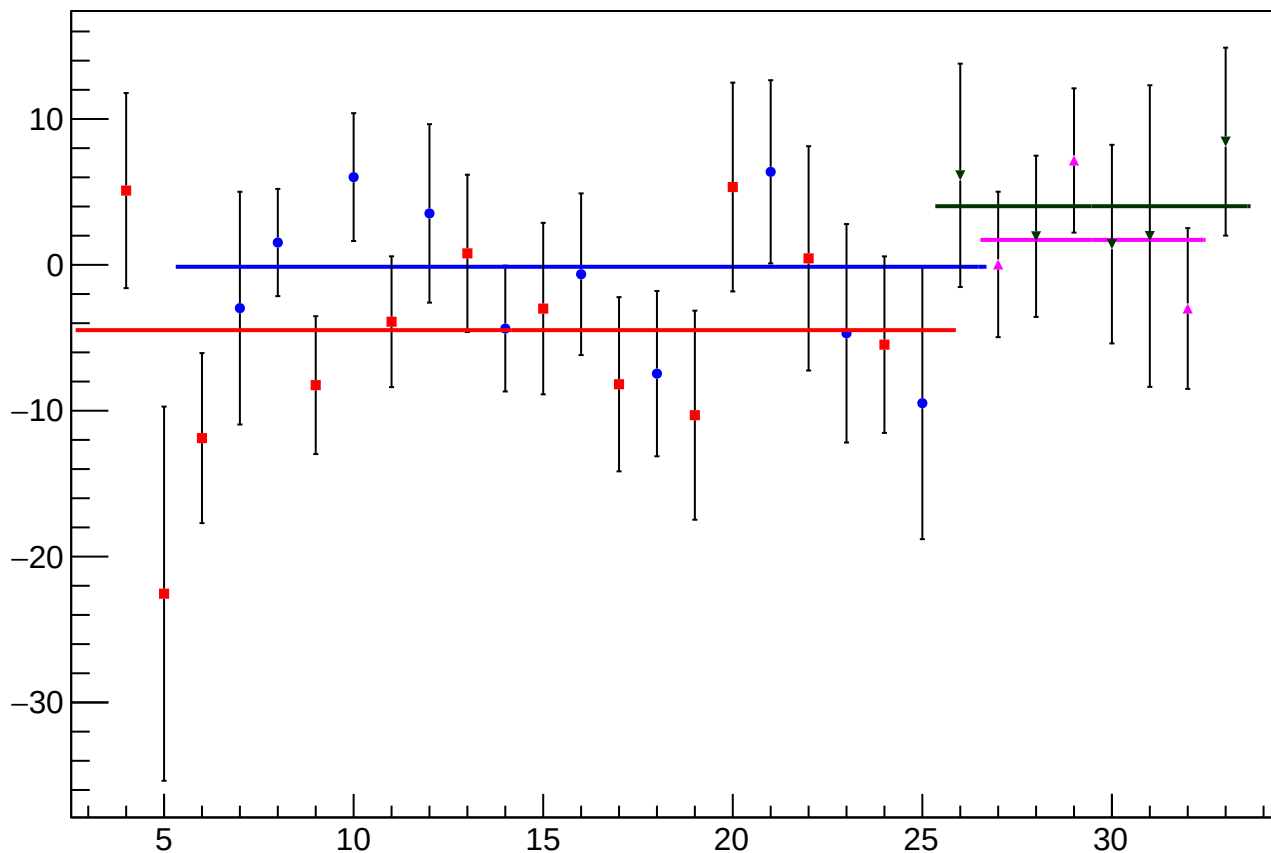
Left In: 3706.013+/-1.626  $\chi^2/\text{NDF}$ : 2448.5/2

3530.867+/-0.828  $\chi^2/\text{NDF}$ : 73310.9/14

3548.407+/-0.837  $\chi^2/\text{NDF}$ : 65378.3/14



# diff\_bpm16X\_mean vs slug



Right In:  $-0.131 \pm 1.713$   $\chi^2/\text{NDF}$ : 7.7/9

Left Out:  $4.021 \pm 3.089$   $\chi^2/\text{NDF}$ : 0.9/4

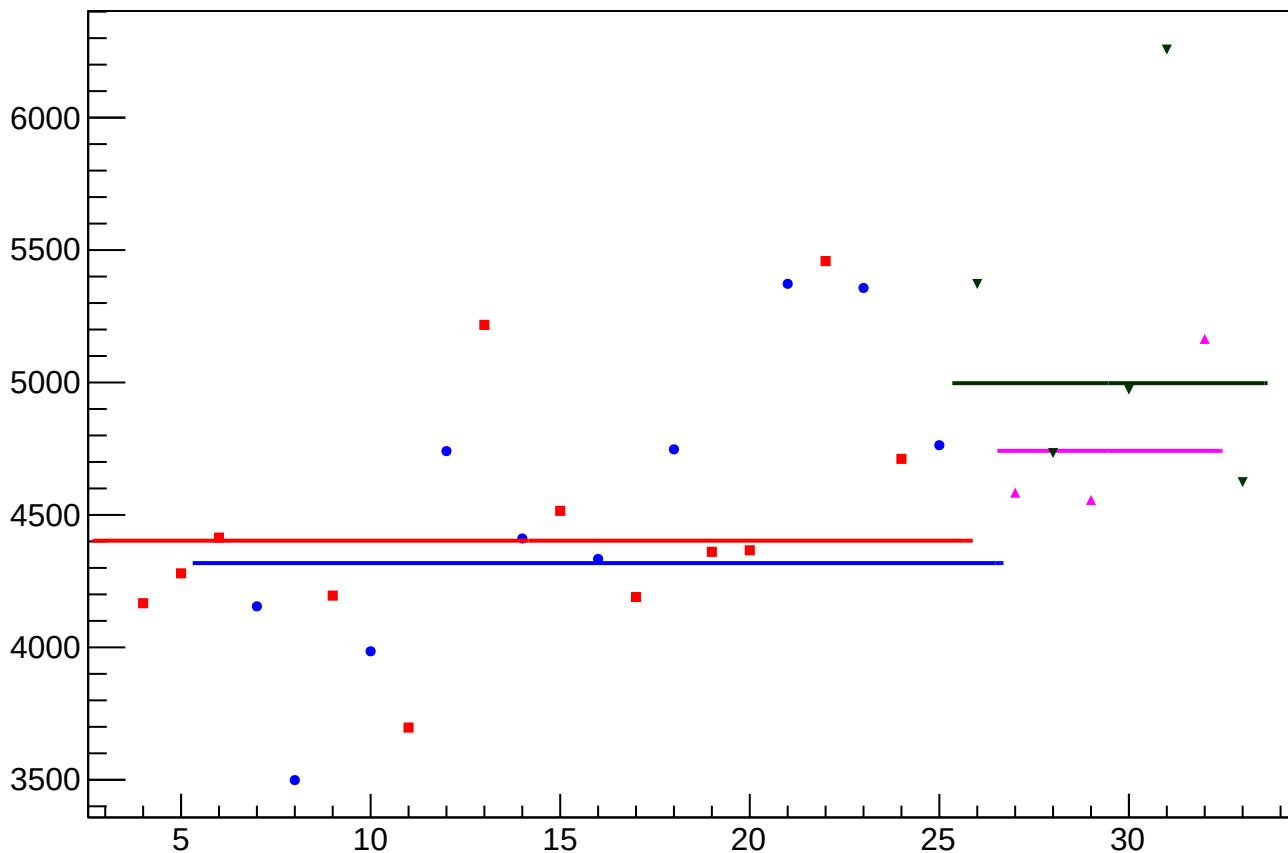
Right Out:  $-4.476 \pm 1.749$   $\chi^2/\text{NDF}$ : 10.7/11

Left In:  $1.712 \pm 2.961$   $\chi^2/\text{NDF}$ : 2.1/2

$0.846 \pm 1.498$   $\chi^2/\text{NDF}$ : 10.0/14

$-2.876 \pm 1.506$   $\chi^2/\text{NDF}$ : 16.0/14

diff\_bpm16X\_rms vs slug



Right In: 4318.170+/-1.212  $\chi^2/\text{NDF}$ : 233125.4/9

Left Out: 4997.442+/-2.184  $\chi^2/\text{NDF}$ : 45765.4/4

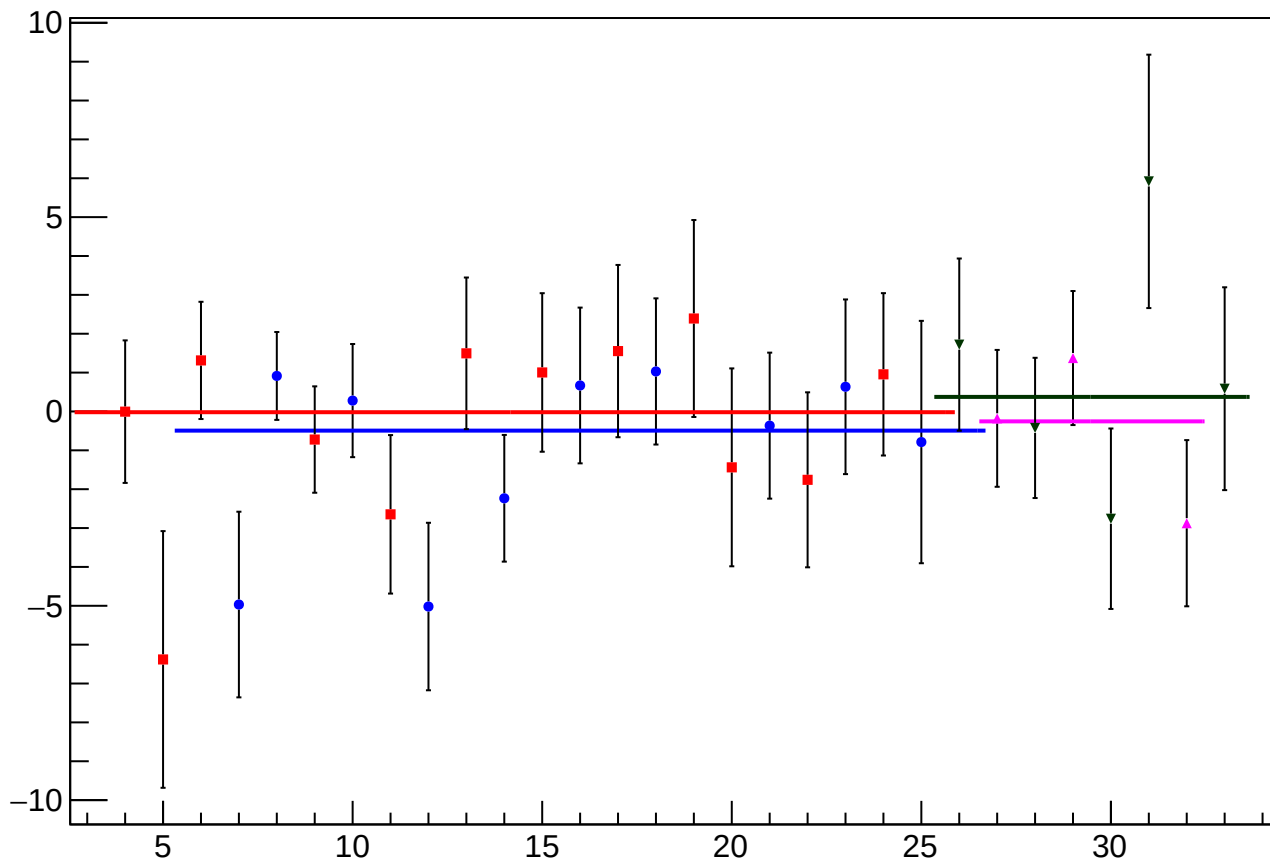
Right Out: 4402.778+/-1.237  $\chi^2/\text{NDF}$ : 148052.0/11

Left In: 4741.898+/-2.094  $\chi^2/\text{NDF}$ : 16573.7/2

4478.008+/-1.059  $\chi^2/\text{NDF}$ : 352861.0/14

4490.455+/-1.065  $\chi^2/\text{NDF}$ : 184070.7/14

# diff\_bpm16Y\_mean vs slug



Right In:  $-0.493 \pm 0.565$   $\chi^2/\text{NDF}$ : 12.1/9

Left Out:  $0.375 \pm 1.033$   $\chi^2/\text{NDF}$ : 5.3/4

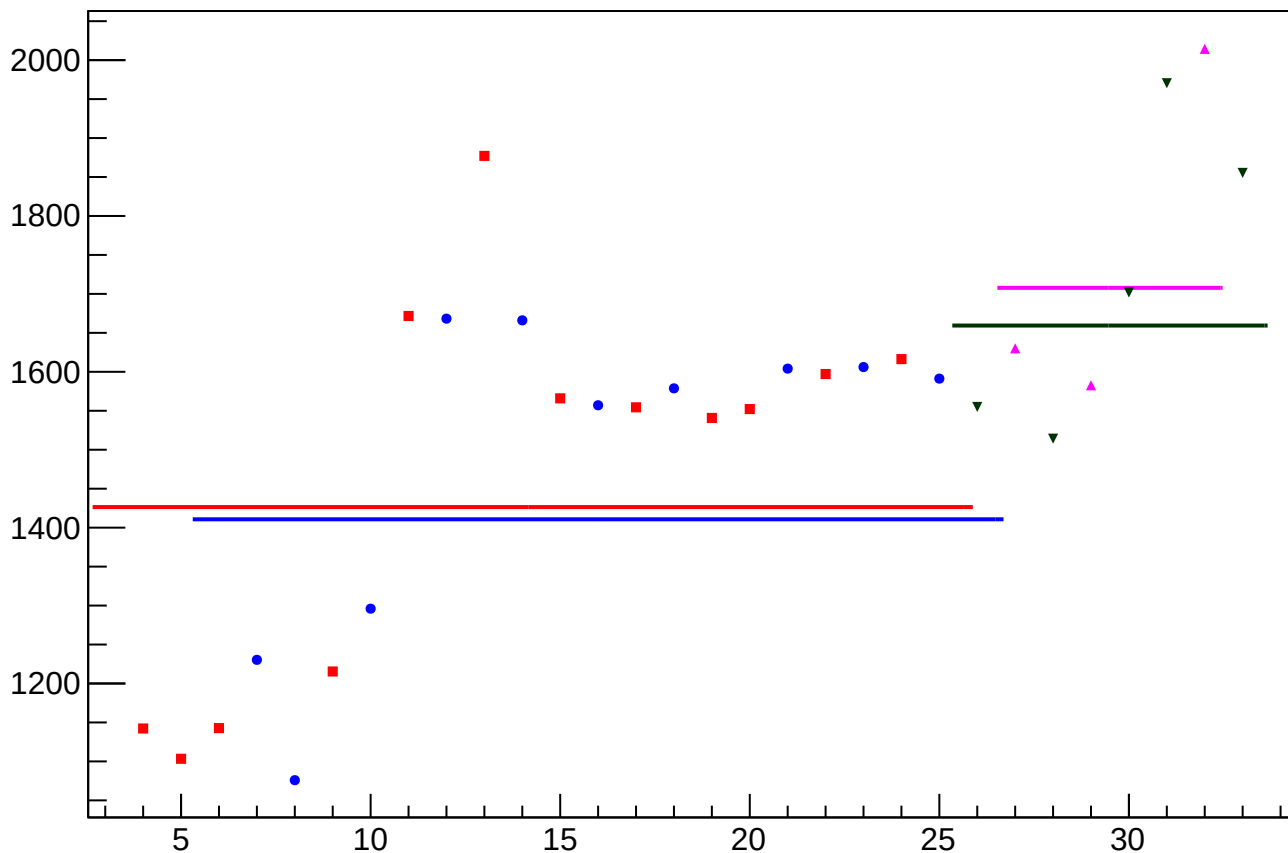
Right Out:  $-0.019 \pm 0.573$   $\chi^2/\text{NDF}$ : 9.8/11

Left In:  $-0.255 \pm 1.067$   $\chi^2/\text{NDF}$ : 2.4/2

$-0.293 \pm 0.495$   $\chi^2/\text{NDF}$ : 18.0/14

$-0.072 \pm 0.505$   $\chi^2/\text{NDF}$ : 12.2/14

# diff\_bpm16Y\_rms vs slug



Right In: 1410.712 $\pm$ 0.399  $\chi^2$ /NDF: 346456.4/9

Left Out: 1659.391 $\pm$ 0.730  $\chi^2$ /NDF:47534.8/4

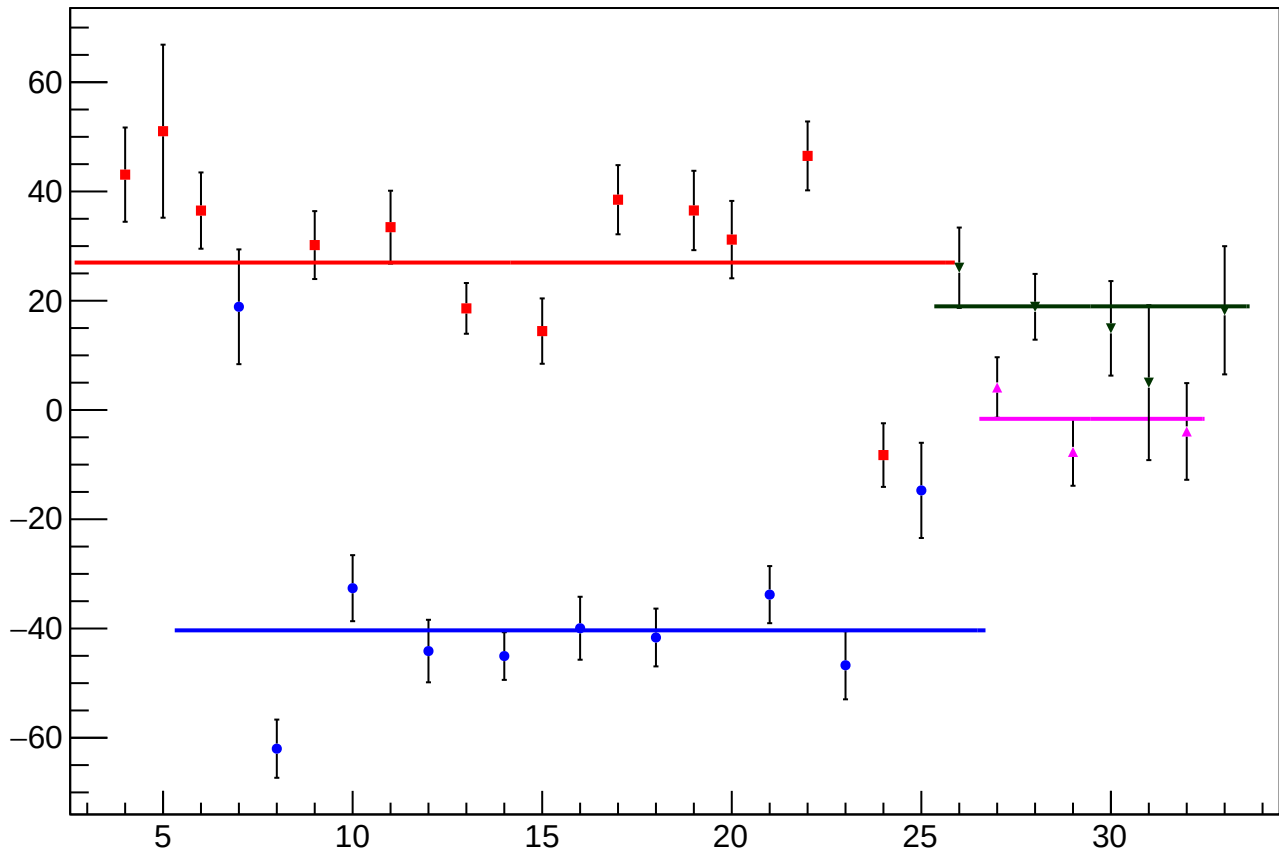
Right Out: 1426.417 $\pm$ 0.405  $\chi^2$ /NDF: 374185.0/11

Left In: 1707.773 $\pm$ 0.755  $\chi^2$ /NDF:55560.8/2

1467.925 $\pm$ 0.350  $\chi^2$ /NDF: 483259.7/14

1489.343 $\pm$ 0.357  $\chi^2$ /NDF: 537616.0/14

# diff\_bpm0l01X\_mean vs slug



Right In:  $-40.337 \pm 1.838$   $\chi^2/\text{NDF}$ : 62.9/9

Left Out:  $18.972 \pm 3.735$   $\chi^2/\text{NDF}$ : 2.1/4

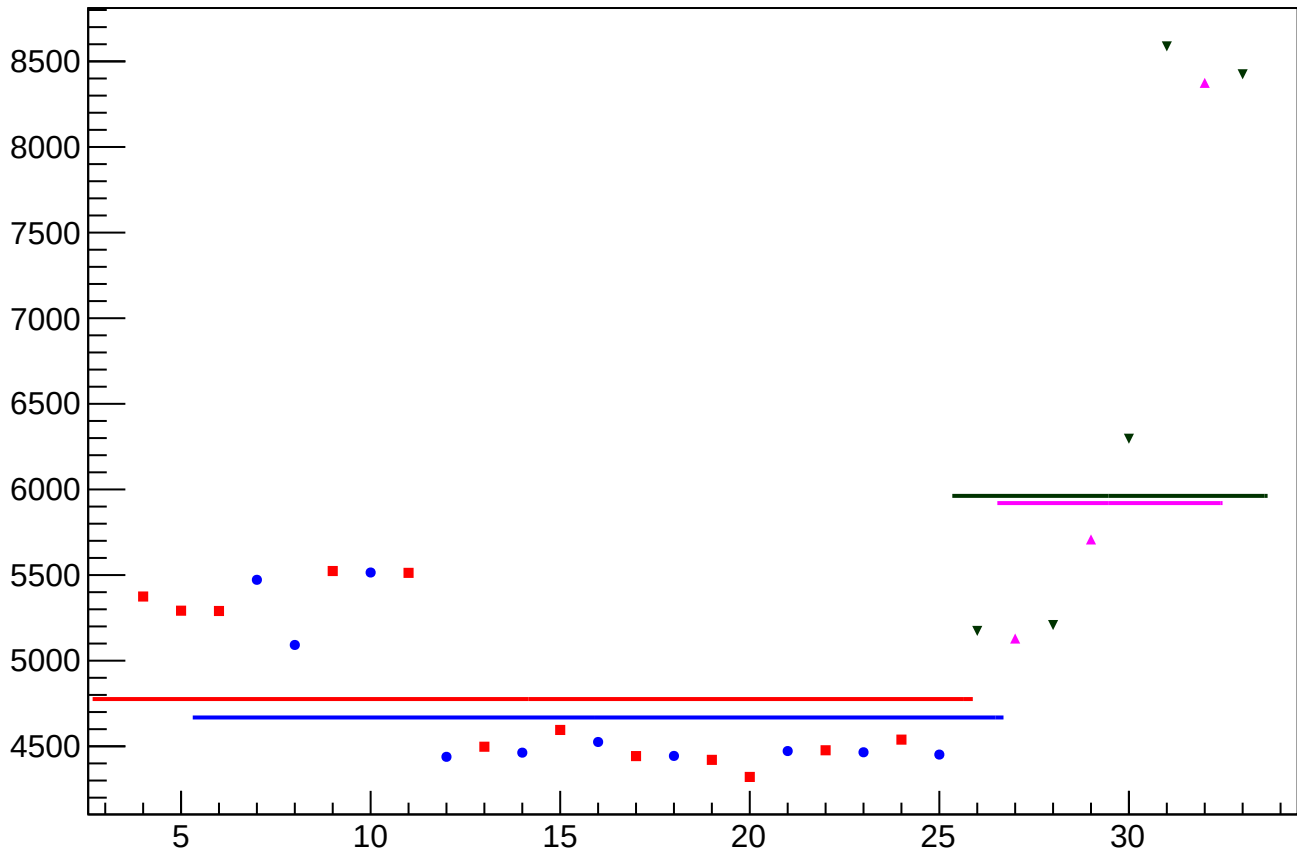
Right Out:  $26.988 \pm 1.893$   $\chi^2/\text{NDF}$ : 68.1/11

Left In:  $-1.617 \pm 3.741$   $\chi^2/\text{NDF}$ : 2.1/2

$-28.776 \pm 1.649$   $\chi^2/\text{NDF}$ : 268.0/14

$21.157 \pm 1.689$   $\chi^2/\text{NDF}$ : 116.7/14

# diff\_bpm0l01X\_rms vs slug



Right In: 4668.263+/-1.300  $\chi^2/\text{NDF}$ : 82261.6/9

Left Out: 5920.450+/-2.641  $\chi^2/\text{NDF}$ : 214013.0/4

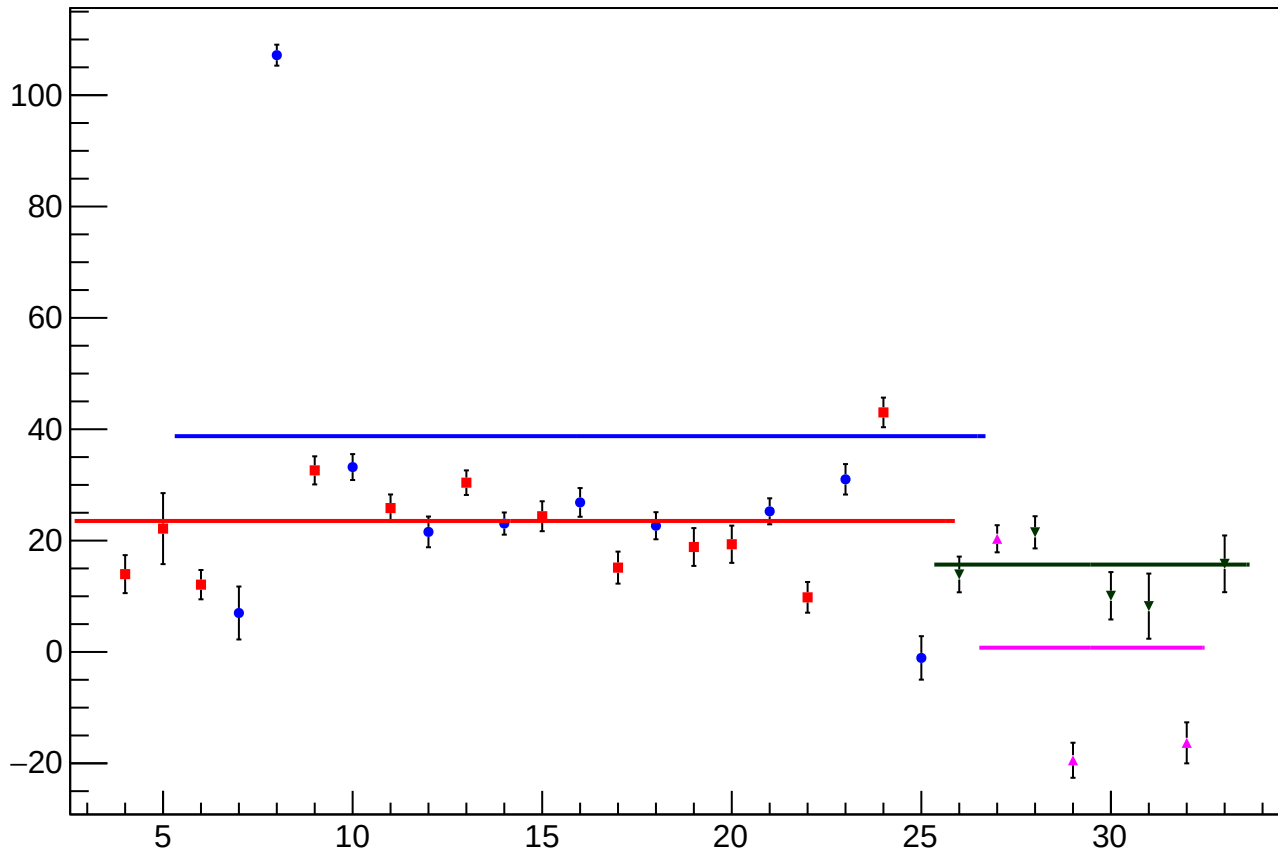
4920.534+/-1.166  $\chi^2/\text{NDF}$ : 489587.8/14

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

5009.174+/-1.194  $\chi^2/\text{NDF}$ : 457347.1/14

Left In: 5920.333+/-2.645  $\chi^2/\text{NDF}$ : 197000.1/2

# diff\_bpm0l01Y\_mean vs slug



Right In: 38.757 $\pm$ 0.792  $\chi^2/\text{NDF}$ : 1680.6/9

Left Out: 15.691 $\pm$ 1.715  $\chi^2/\text{NDF}$ : 7.7/4

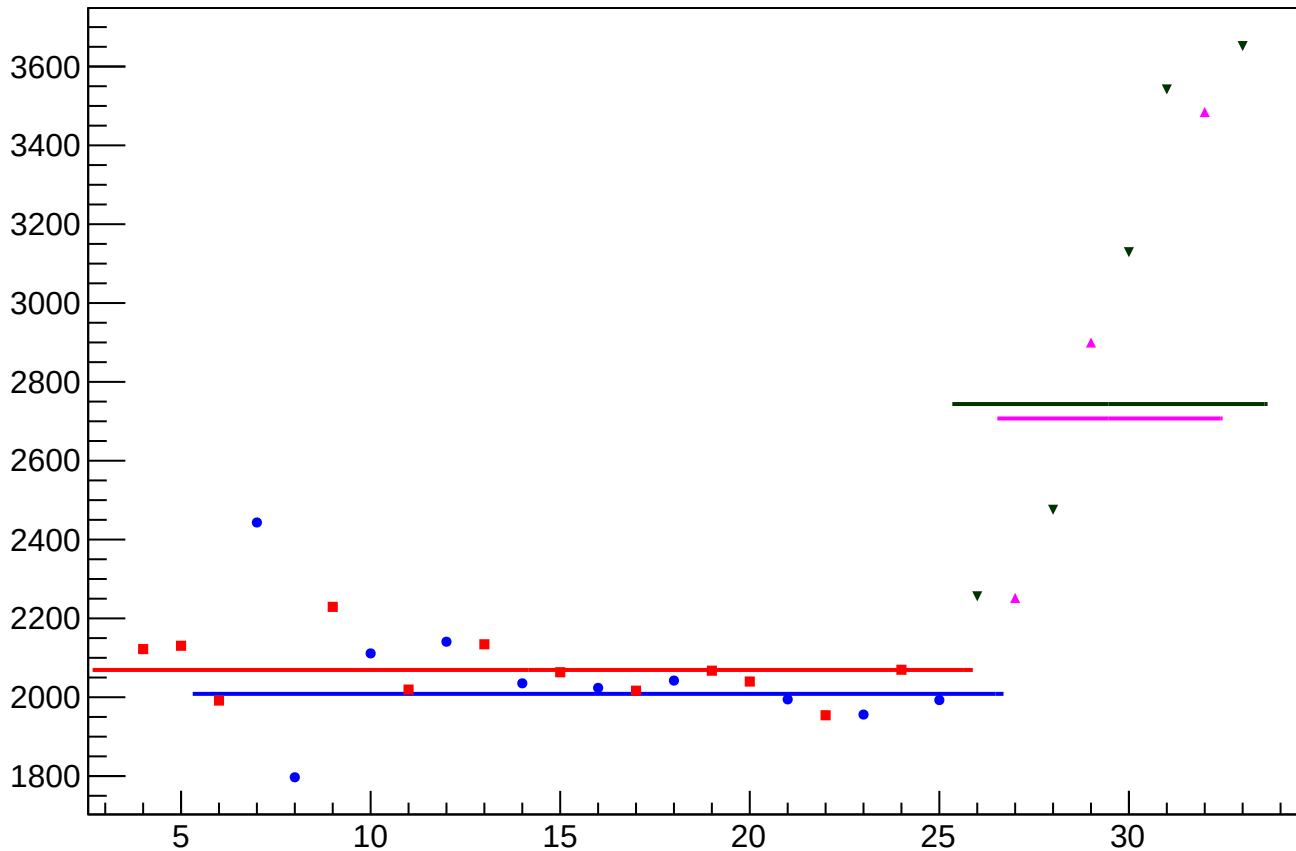
Right Out: 23.530 $\pm$ 0.818  $\chi^2/\text{NDF}$ : 140.9/11

Left In: 0.767 $\pm$ 1.707  $\chi^2/\text{NDF}$ : 127.3/2

34.706 $\pm$ 0.719  $\chi^2/\text{NDF}$ : 1837.4/14

19.275 $\pm$ 0.738  $\chi^2/\text{NDF}$ : 412.7/14

# diff\_bpm0l01Y\_rms vs slug



Right In: 2008.589+/-0.560  $\chi^2/\text{NDF}$ : 52078.5/9

Left Out: 2743.774+/-1.213  $\chi^2/\text{NDF}$ : 180644.6/4

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

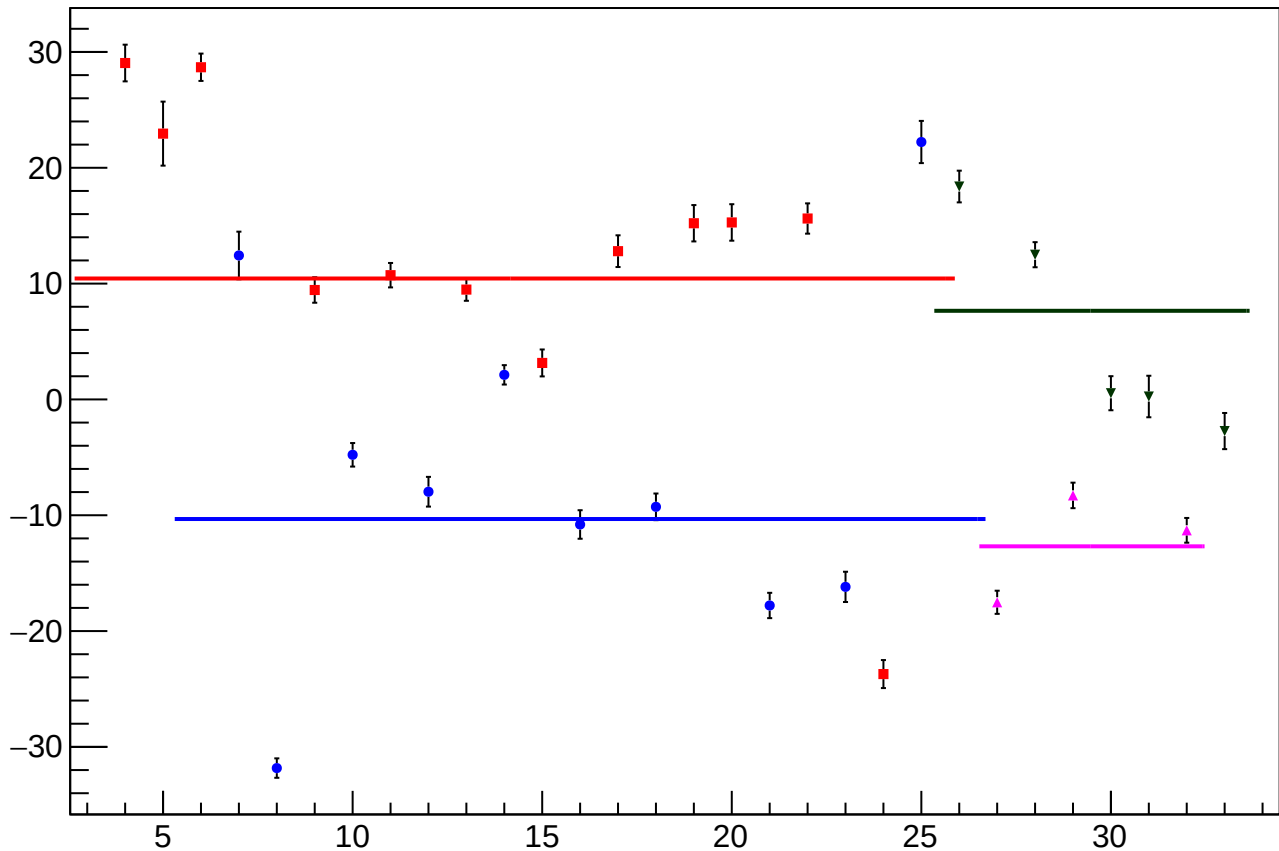
Left In: 2707.167+/-1.207  $\chi^2/\text{NDF}$ : 166503.8/2

2137.712+/-0.508  $\chi^2/\text{NDF}$ : 535706.4/14

2188.462+/-0.522  $\chi^2/\text{NDF}$ : 410916.4/14



# diff\_bpm2i01X\_mean vs slug



Right In:  $-10.326 \pm 0.358$   $\chi^2/\text{NDF}: 1420.3/9$

Left Out:  $7.652 \pm 0.624$   $\chi^2/\text{NDF}: 166.1/4$

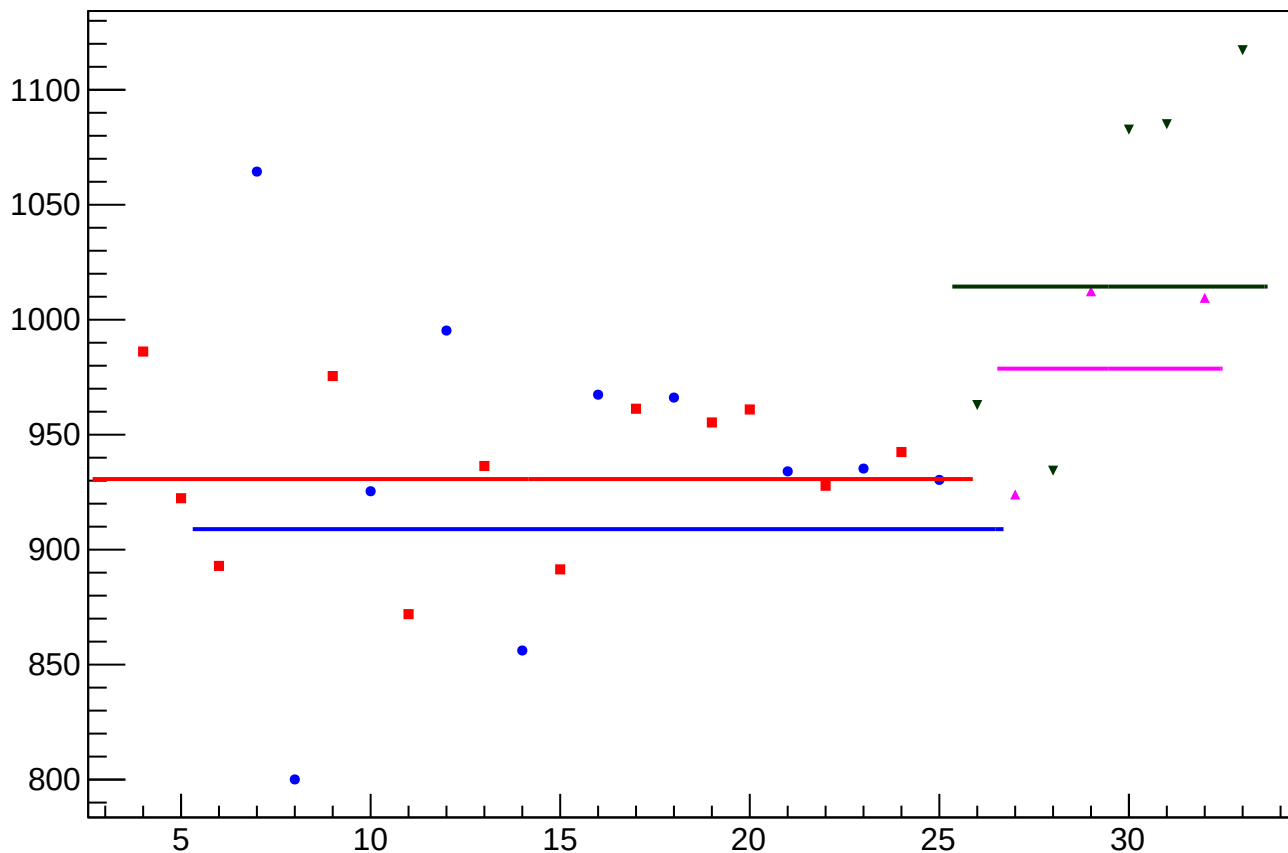
Right Out:  $10.440 \pm 0.368$   $\chi^2/\text{NDF}: 1273.2/11$

Left In:  $-12.684 \pm 0.608$   $\chi^2/\text{NDF}: 41.0/2$

$-5.870 \pm 0.311$   $\chi^2/\text{NDF}: 2211.0/14$

$4.248 \pm 0.315$   $\chi^2/\text{NDF}: 2372.7/14$

# diff\_bpm2i01X\_rms vs slug



Right In: 908.921+/-0.253  $\chi^2/\text{NDF}$ : 74231.9/9

Left Out: 1014.416+/-0.441  $\chi^2/\text{NDF}$ : 29841.1/4

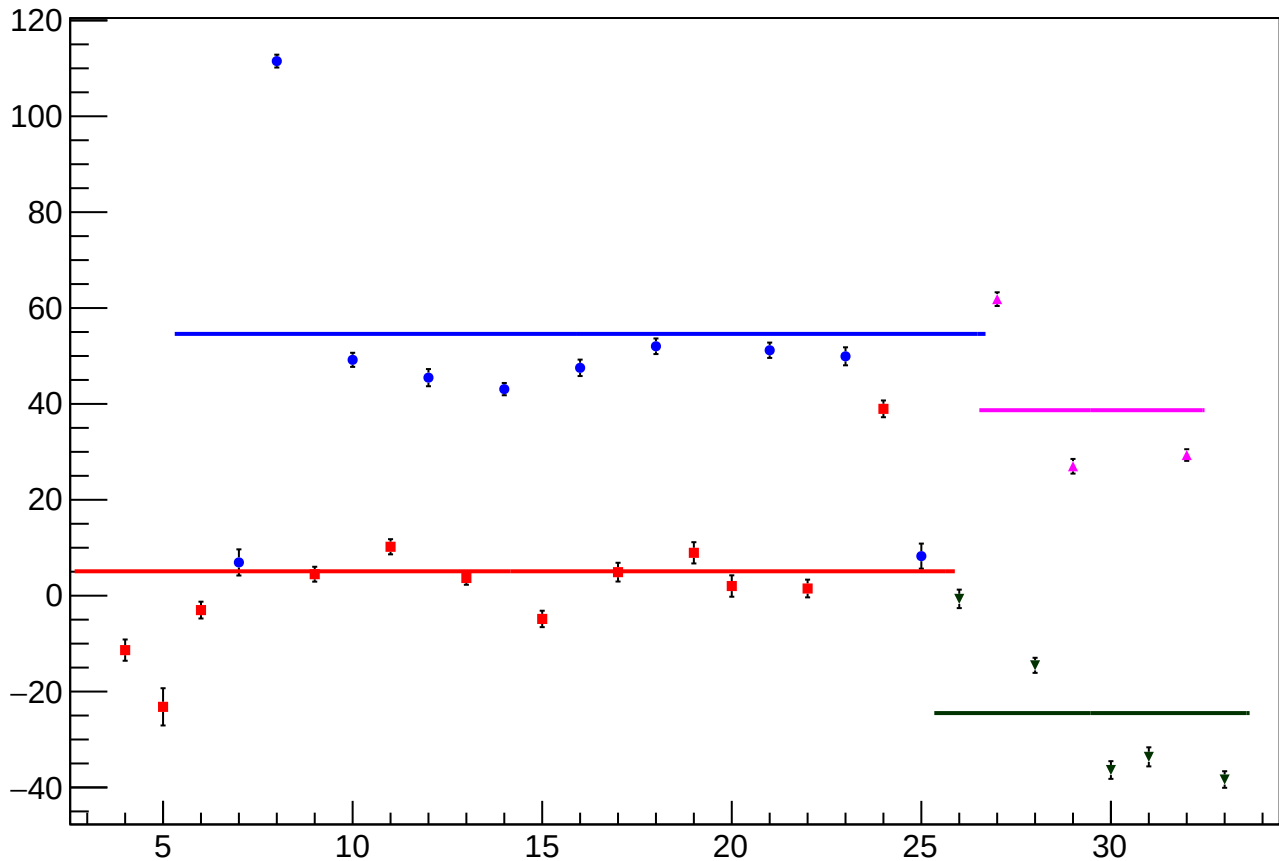
Right Out: 930.706+/-0.260  $\chi^2/\text{NDF}$ : 18818.7/11

Left In: 978.724+/-0.430  $\chi^2/\text{NDF}$ : 9532.5/2

935.071+/-0.220  $\chi^2/\text{NDF}$ : 147089.8/14

943.564+/-0.223  $\chi^2/\text{NDF}$ : 37479.2/14

# diff\_bpm2i01Y\_mean vs slug



Right In: 54.607 $\pm$ 0.526  $\chi^2$ /NDF: 2569.1/9

Left Out: -24.488 $\pm$ 0.802  $\chi^2$ /NDF: 319.6/4

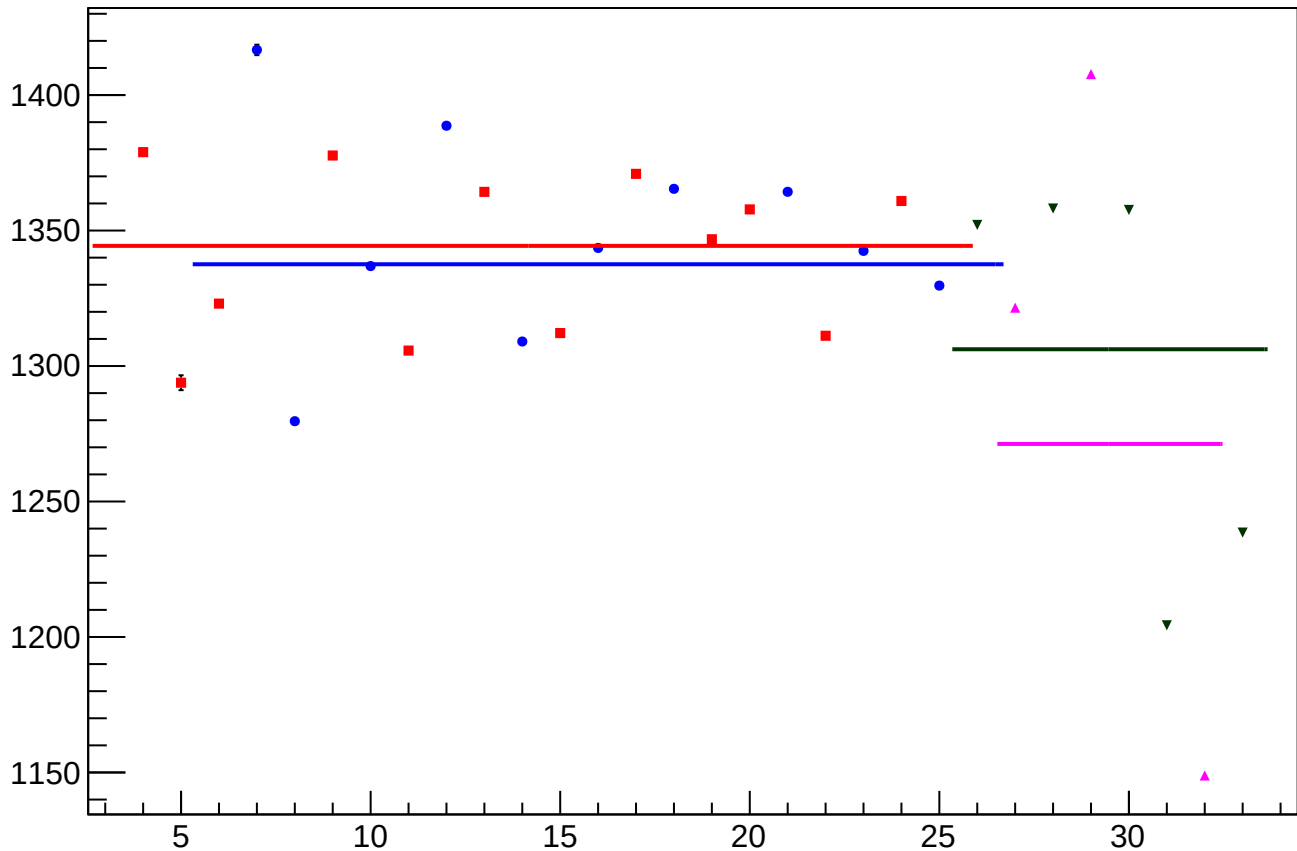
Right Out: 5.087 $\pm$ 0.532  $\chi^2$ /NDF: 559.1/11

Left In: 38.689 $\pm$ 0.792  $\chi^2$ /NDF: 380.6/2

30.815 $\pm$ 0.440  $\chi^2$ /NDF: 9686.4/14

15.530 $\pm$ 0.441  $\chi^2$ /NDF: 2181.1/14

# diff\_bpm2i01Y\_rms vs slug



Right In:  $1337.560 \pm 0.372$   $\chi^2/\text{NDF}: 9226.5/9$

Left Out:  $1306.188 \pm 0.567$   $\chi^2/\text{NDF}: 13177.3/4$

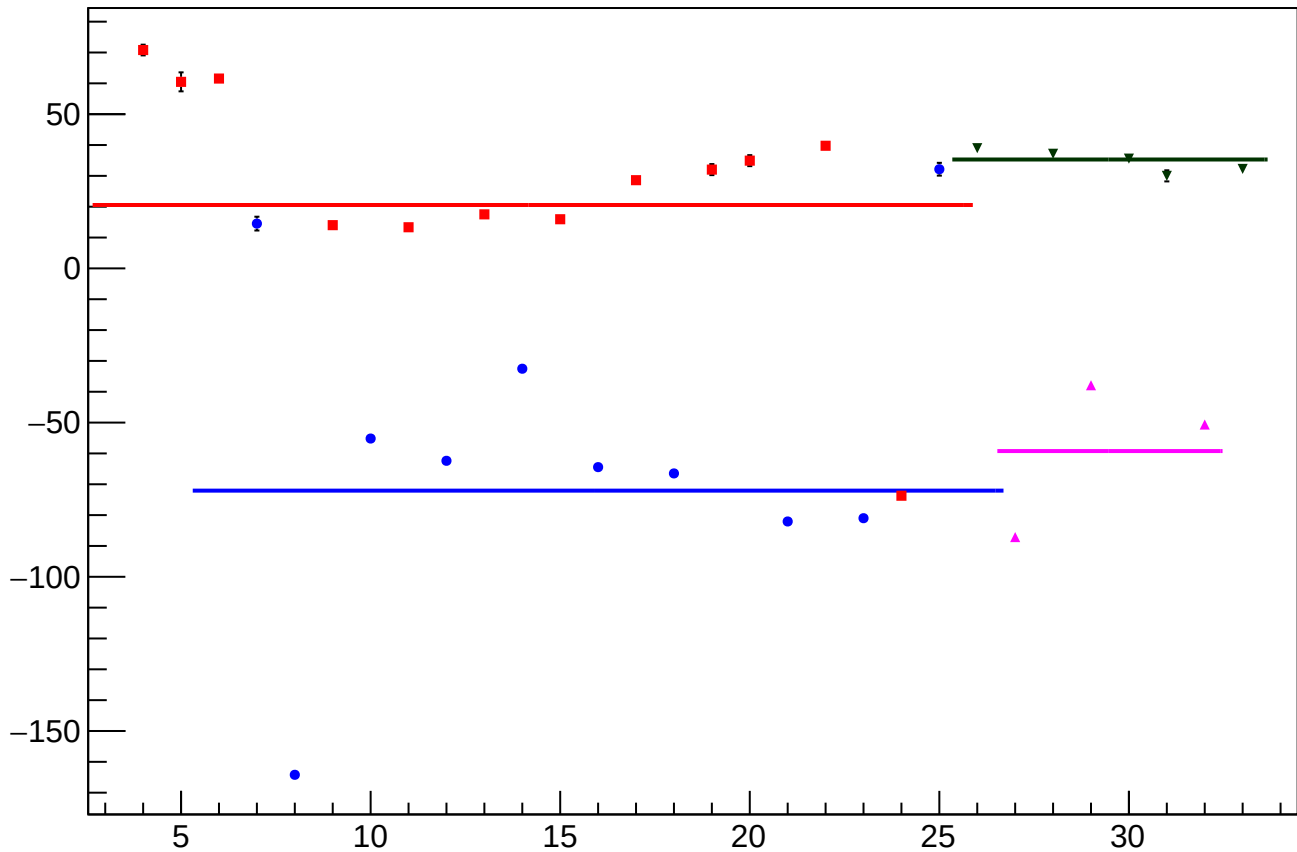
Right Out:  $1344.349 \pm 0.376$   $\chi^2/\text{NDF}: 5607.5/11$

Left In:  $1271.248 \pm 0.560$   $\chi^2/\text{NDF}: 38709.7/2$

$1328.123 \pm 0.311$   $\chi^2/\text{NDF}: 24542.6/14$

$1321.631 \pm 0.312$   $\chi^2/\text{NDF}: 56067.0/14$

# diff\_bpm2i02X\_mean vs slug



Right In: -72.062 $\pm$ 0.408  $\chi^2$ /NDF: 15030.6/9

Left Out: 35.306 $\pm$ 0.678  $\chi^2$ /NDF: 20.3/4

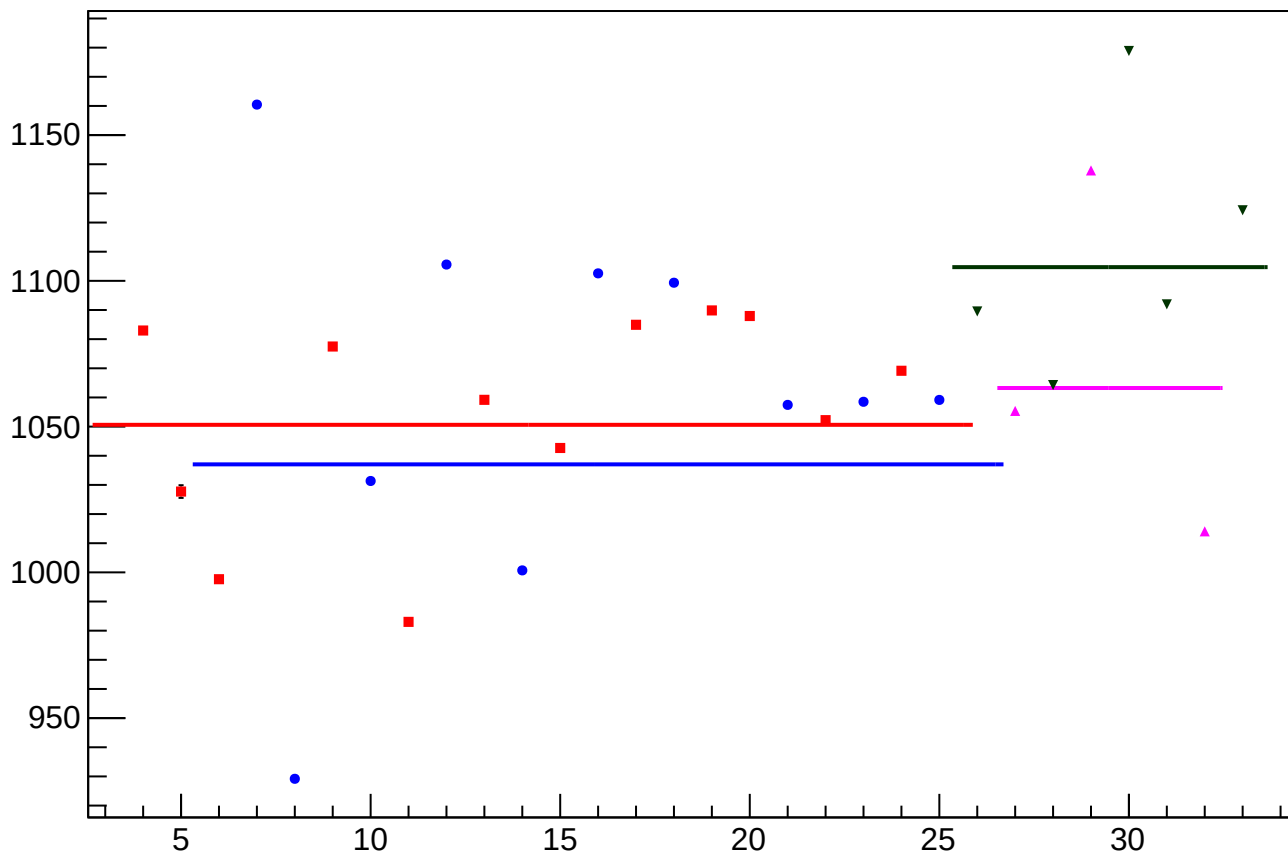
Right Out: 20.554 $\pm$ 0.415  $\chi^2$ /NDF: 7076.4/11

Left In: -59.232 $\pm$ 0.661  $\chi^2$ /NDF: 960.1/2

-43.484 $\pm$ 0.350  $\chi^2$ /NDF: 33478.6/14

-2.032 $\pm$ 0.351  $\chi^2$ /NDF: 18496.9/14

# diff\_bpm2i02X\_rms vs slug



Right In: 1037.049 $\pm$ 0.289  $\chi^2$ /NDF: 48151.7/9

Left Out: 1104.704 $\pm$ 0.479  $\chi^2$ /NDF: 7052.4/4

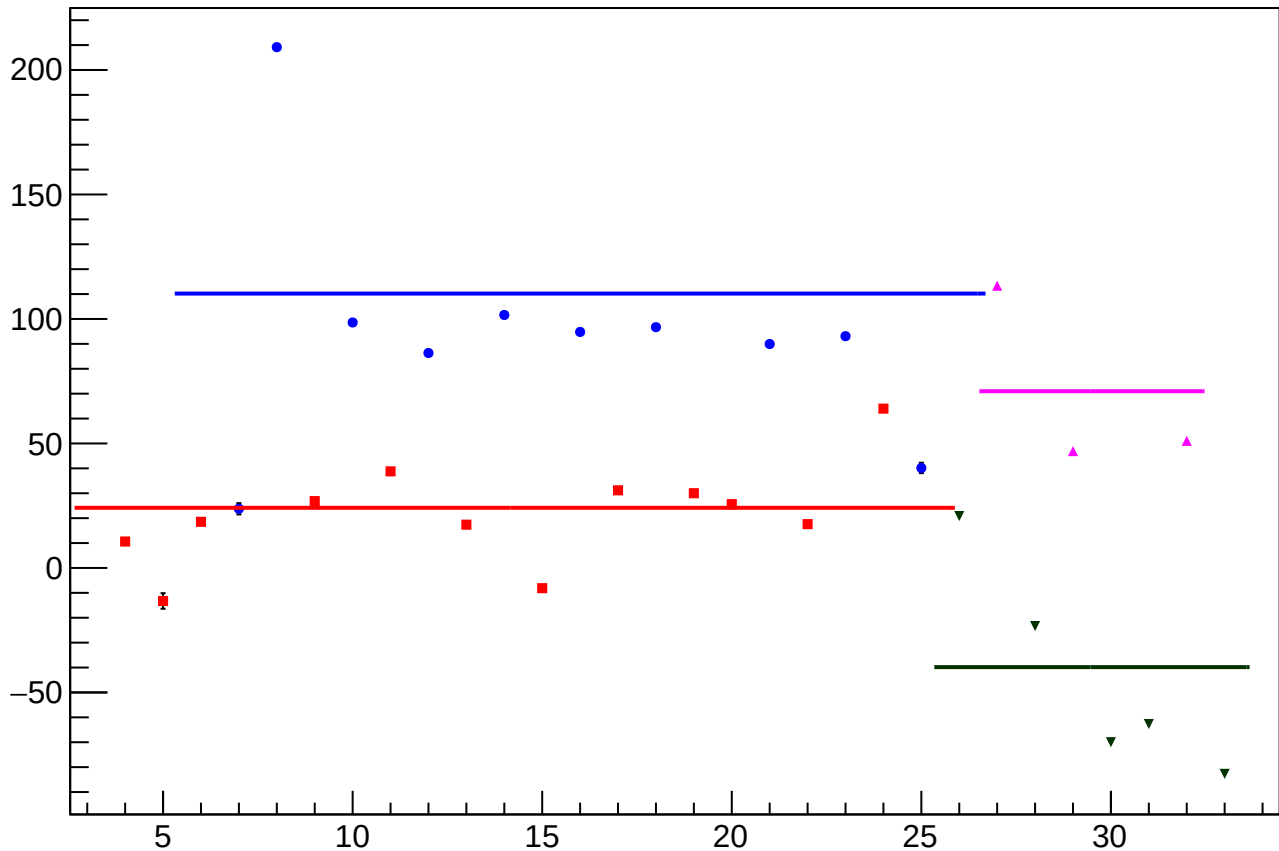
Right Out: 1050.613 $\pm$ 0.293  $\chi^2$ /NDF: 14851.7/11

Left In: 1063.241 $\pm$ 0.467  $\chi^2$ /NDF: 11583.2/2

1055.056 $\pm$ 0.247  $\chi^2$ /NDF: 69837.7/14

1054.187 $\pm$ 0.248  $\chi^2$ /NDF: 26959.0/14

# diff\_bpm2i02Y\_mean vs slug



Right In: 110.199 $\pm$ 0.415  $\chi^2$ /NDF: 13303.9/9

Left Out: -39.829 $\pm$ 0.680  $\chi^2$ /NDF:2968.1/4

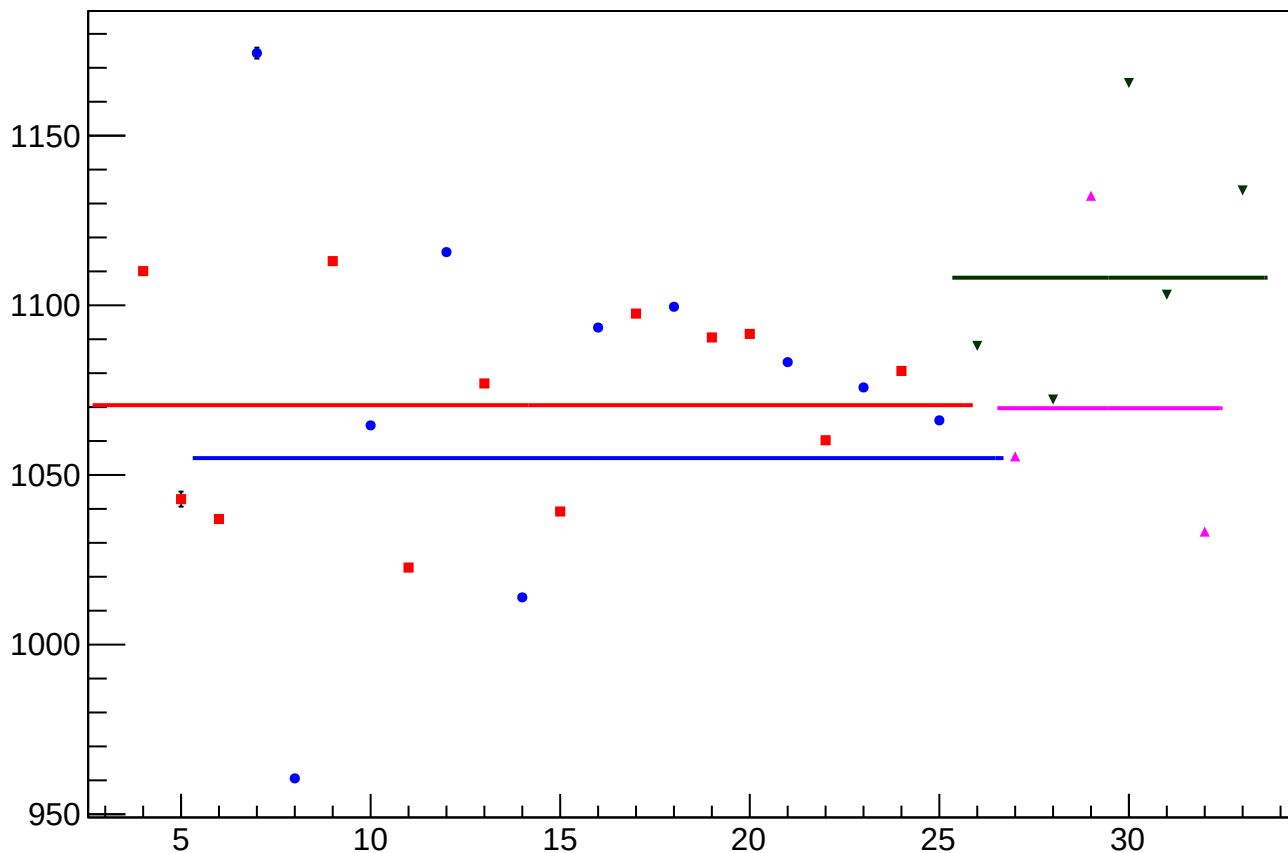
Right Out: 24.160 $\pm$ 0.423  $\chi^2$ /NDF: 1842.7/11

Left In: 70.976 $\pm$ 0.664  $\chi^2$ /NDF:2095.9/2

69.439 $\pm$ 0.354  $\chi^2$ /NDF: 51775.7/14

37.671 $\pm$ 0.357  $\chi^2$ /NDF: 7474.2/14

# diff\_bpm2i02Y\_rms vs slug



Right In: 1054.969+/-0.293  $\chi^2/\text{NDF}$ : 35538.9/9

Left Out: 1108.140+/-0.480  $\chi^2/\text{NDF}$ : 5183.9/4

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

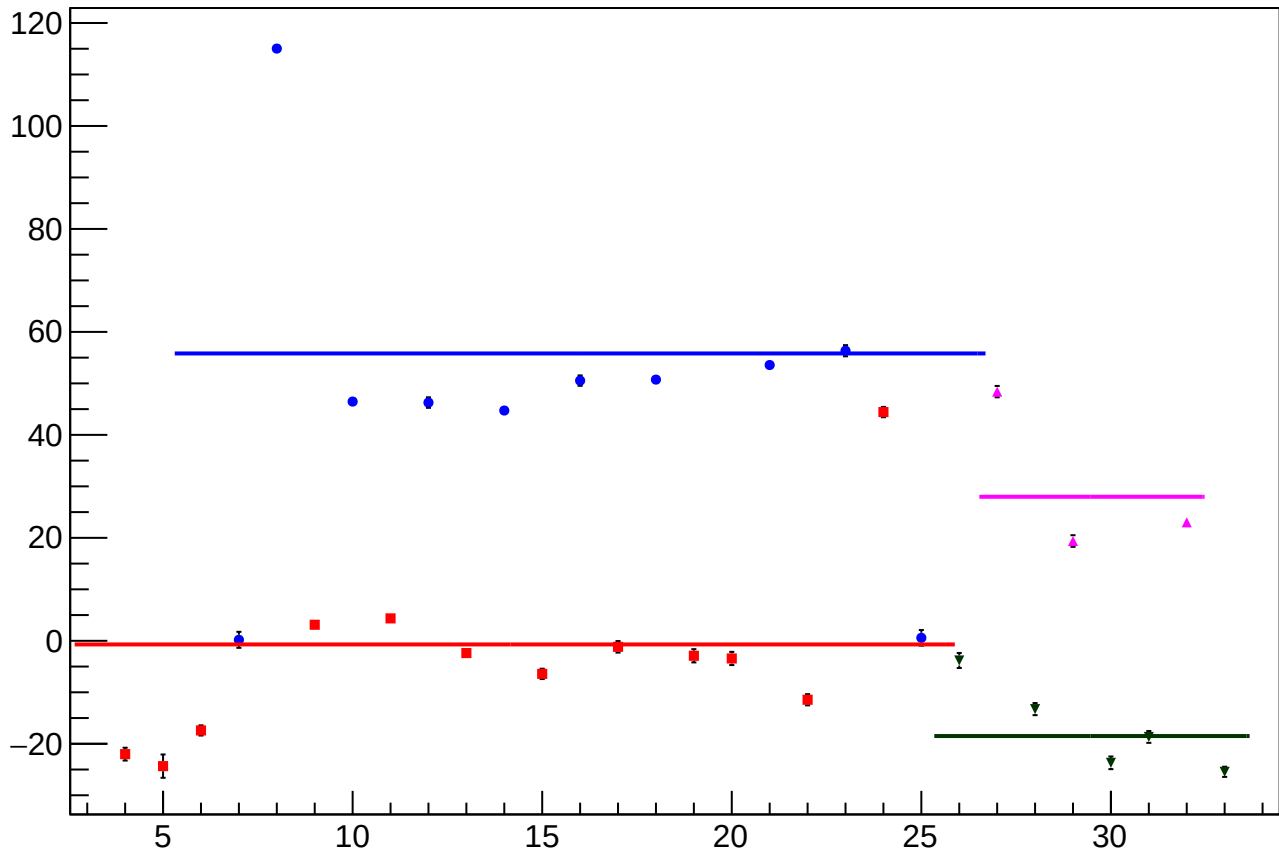
Left In: 1069.676+/-0.470  $\chi^2/\text{NDF}$ : 7706.5/2

1069.414+/-0.250  $\chi^2/\text{NDF}$ : 49641.6/14

1070.309+/-0.252  $\chi^2/\text{NDF}$ : 17784.6/14



# diff\_bpm1i04X\_mean vs slug



Right In: 55.815 $\pm$ 0.302  $\chi^2$ /NDF: 9212.6/9

Left Out: -18.497 $\pm$ 0.525  $\chi^2$ /NDF:187.7/4

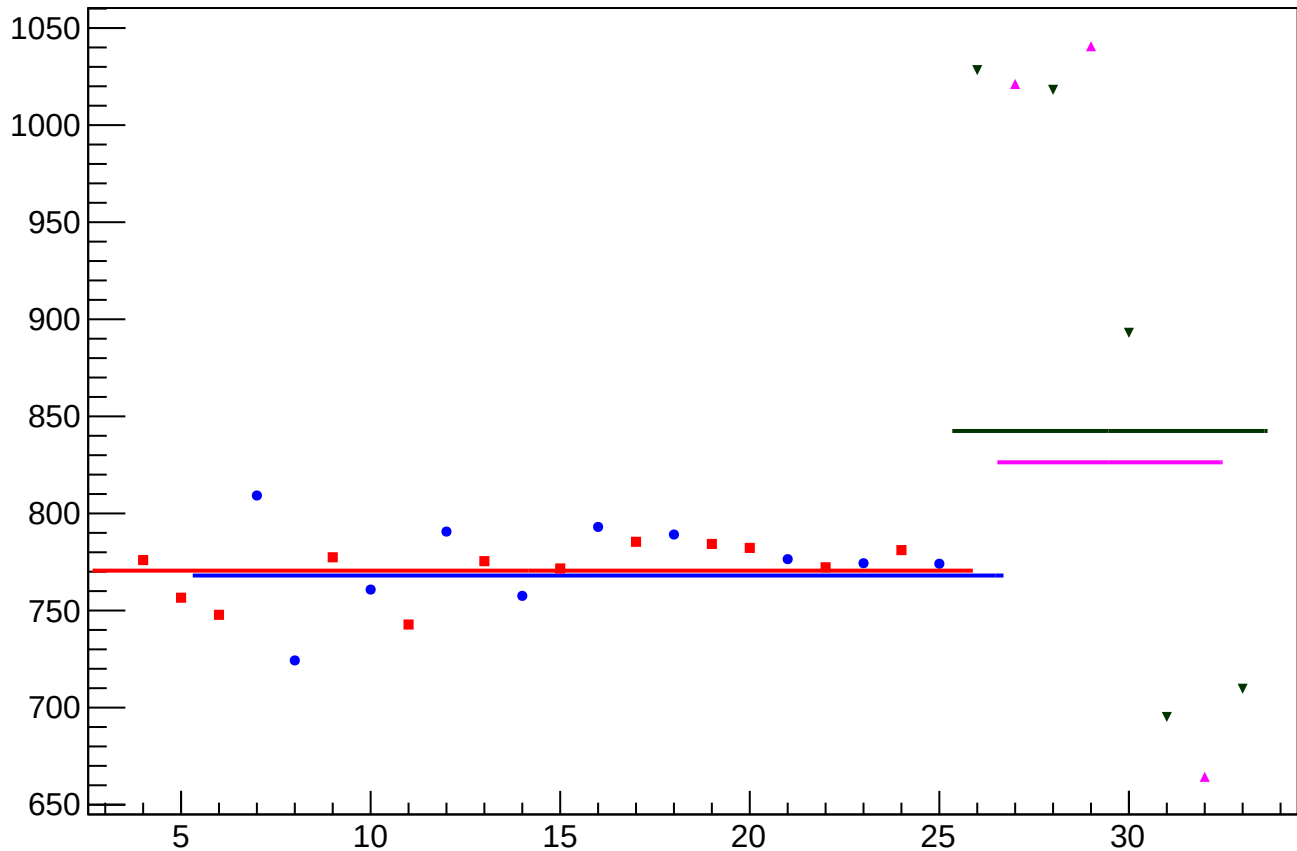
Right Out: -0.705 $\pm$ 0.304  $\chi^2$ /NDF: 2908.1/11

Left In: 27.979 $\pm$ 0.524  $\chi^2$ /NDF:451.2/2

37.374 $\pm$ 0.261  $\chi^2$ /NDF: 24467.0/14

6.515 $\pm$ 0.263  $\chi^2$ /NDF: 5598.1/14

# diff\_bpm1i04X\_rms vs slug



Right In: 768.028+/-0.213  $\chi^2/\text{NDF}$ : 12111.2/9

Left Out: 842.479+/-0.371  $\chi^2/\text{NDF}$ :149195.4/4

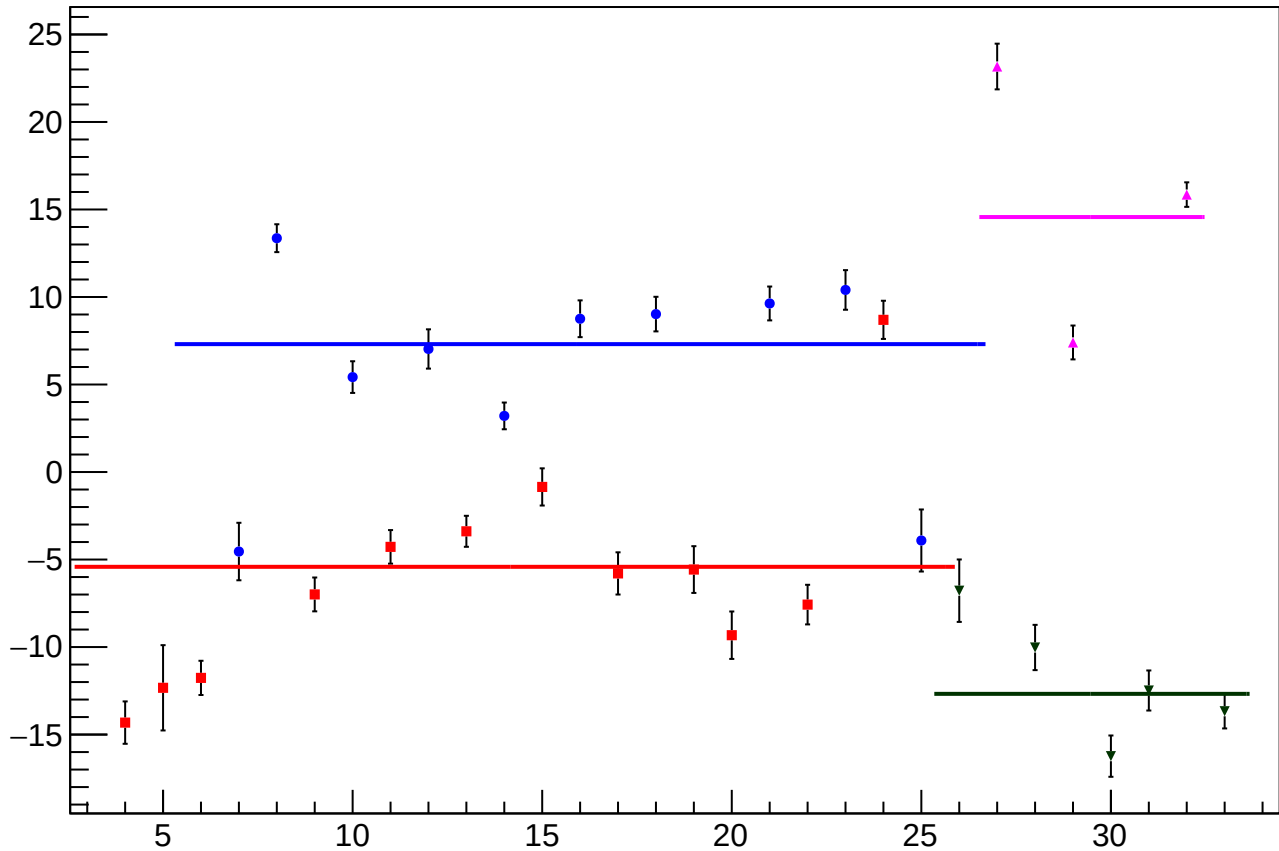
Right Out: 770.550+/-0.215  $\chi^2/\text{NDF}$ : 4259.5/11

Left In: 826.333+/-0.371  $\chi^2/\text{NDF}$ :241024.5/2

786.503+/-0.185  $\chi^2/\text{NDF}$ : 191554.3/14

784.591+/-0.186  $\chi^2/\text{NDF}$ : 262217.6/14

# diff\_bpm1i04Y\_mean vs slug



Right In:  $7.307 \pm 0.320$   $\chi^2/\text{NDF}$ : 201.3/9

Left Out:  $-12.674 \pm 0.540$   $\chi^2/\text{NDF}$ : 25.3/4

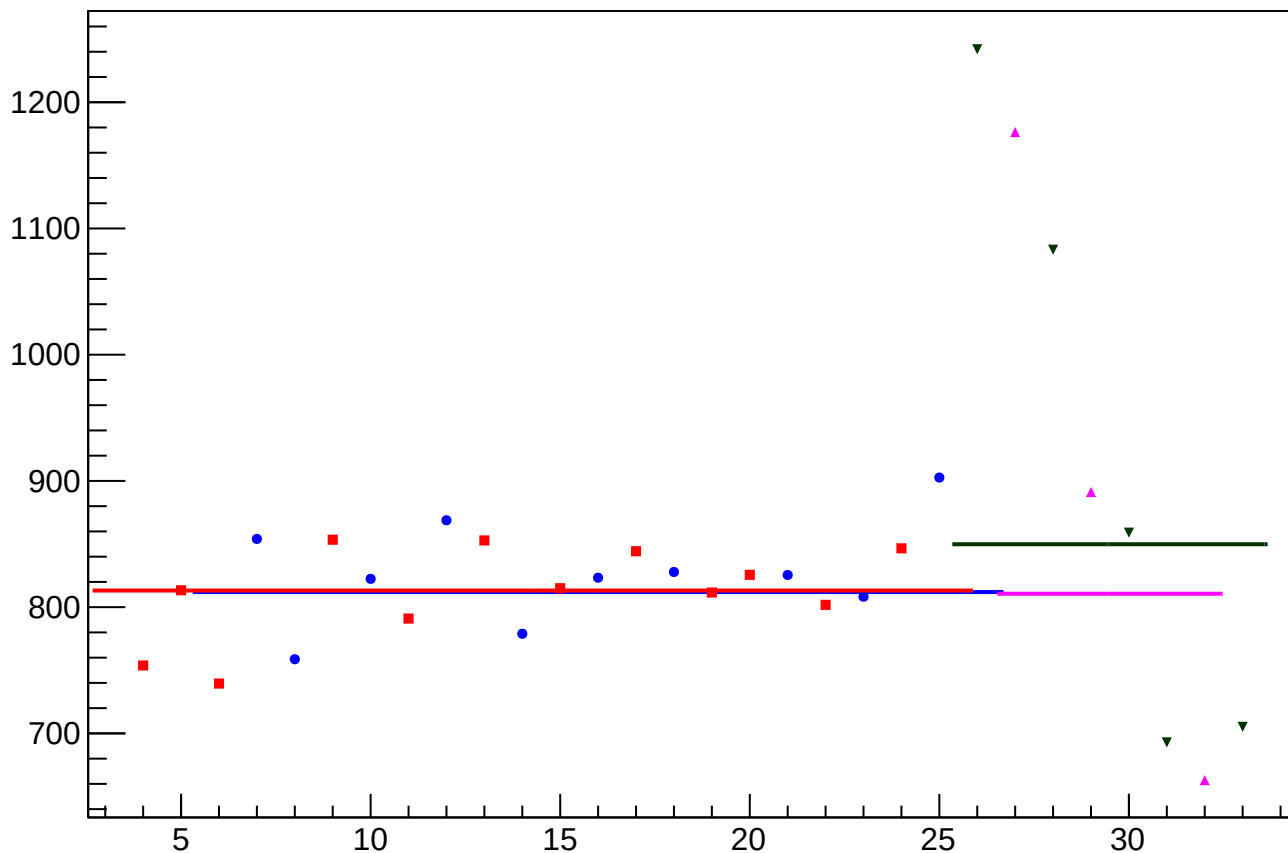
Right Out:  $-5.416 \pm 0.322$   $\chi^2/\text{NDF}$ : 311.5/11

Left In:  $14.568 \pm 0.520$   $\chi^2/\text{NDF}$ : 101.6/2

$2.121 \pm 0.275$   $\chi^2/\text{NDF}$ : 1239.7/14

$0.122 \pm 0.274$   $\chi^2/\text{NDF}$ : 1478.9/14

# diff\_bpm1i04Y\_rms vs slug



Right In: 811.972 $\pm$ 0.226  $\chi^2$ /NDF: 25796.5/9

Left Out: 849.847 $\pm$ 0.382  $\chi^2$ /NDF: 242728.5/4

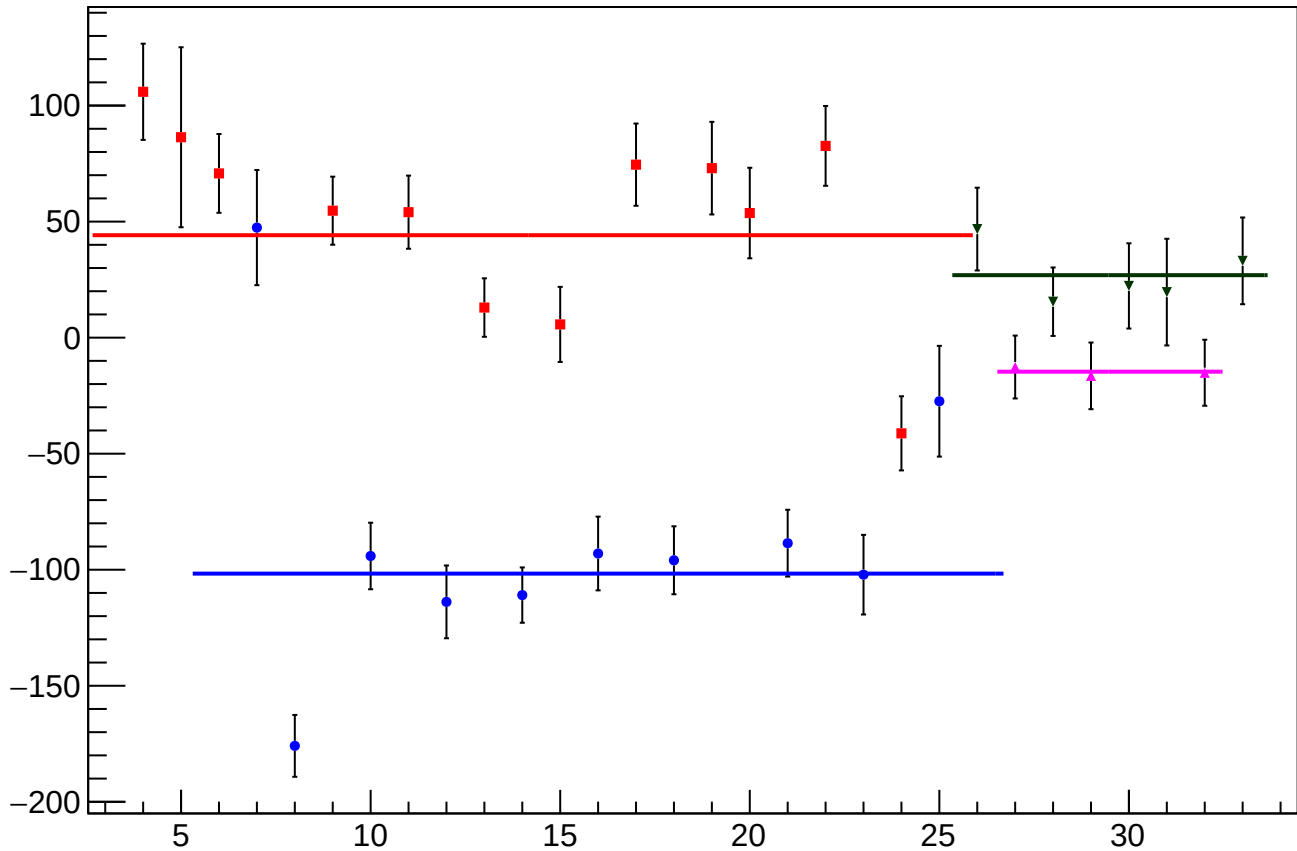
Right Out: 813.189 $\pm$ 0.228  $\chi^2$ /NDF: 28331.0/11

Left In: 810.637 $\pm$ 0.368  $\chi^2$ /NDF: 259706.3/2

821.802 $\pm$ 0.195  $\chi^2$ /NDF: 275805.3/14

812.481 $\pm$ 0.194  $\chi^2$ /NDF: 288072.1/14

# diff\_bpm0l02X\_mean vs slug



Right In: -101.672 $\pm$ 4.889  $\chi^2$ /NDF: 79.6/9

Left Out: 26.921 $\pm$ 8.042  $\chi^2$ /NDF: 2.1/4

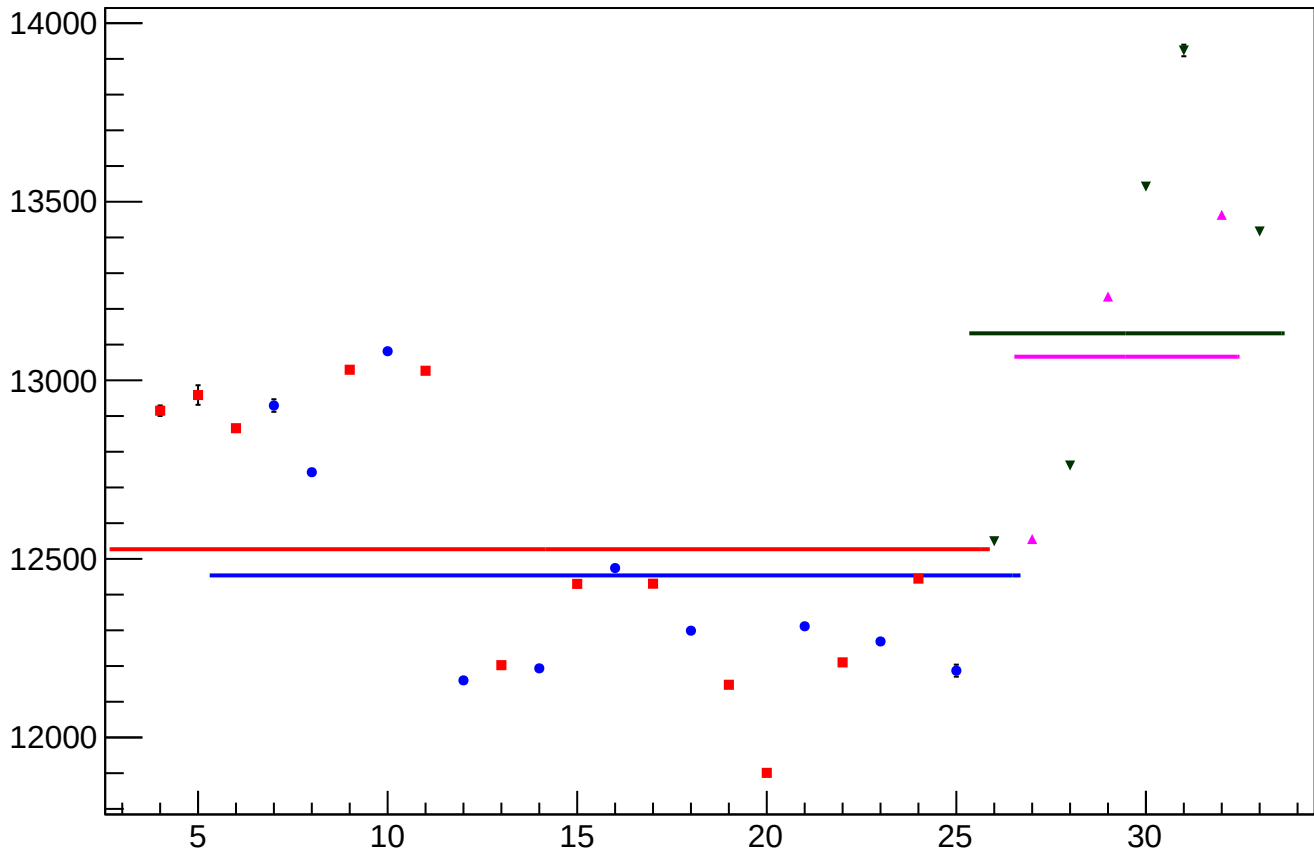
Right Out: 44.144 $\pm$ 4.946  $\chi^2$ /NDF: 64.1/11

Left In: -14.669 $\pm$ 8.101  $\chi^2$ /NDF: 0.0/2

-66.977 $\pm$ 4.177  $\chi^2$ /NDF: 268.4/14

28.175 $\pm$ 4.221  $\chi^2$ /NDF: 102.5/14

# diff\_bpm0l02X\_rms vs slug



Right In: 12453.727+/-3.457  $\chi^2/\text{NDF}$ : 8070.4/9

Left Out: 13131.581+/-5.687  $\chi^2/\text{NDF}$ : 7231.1/4

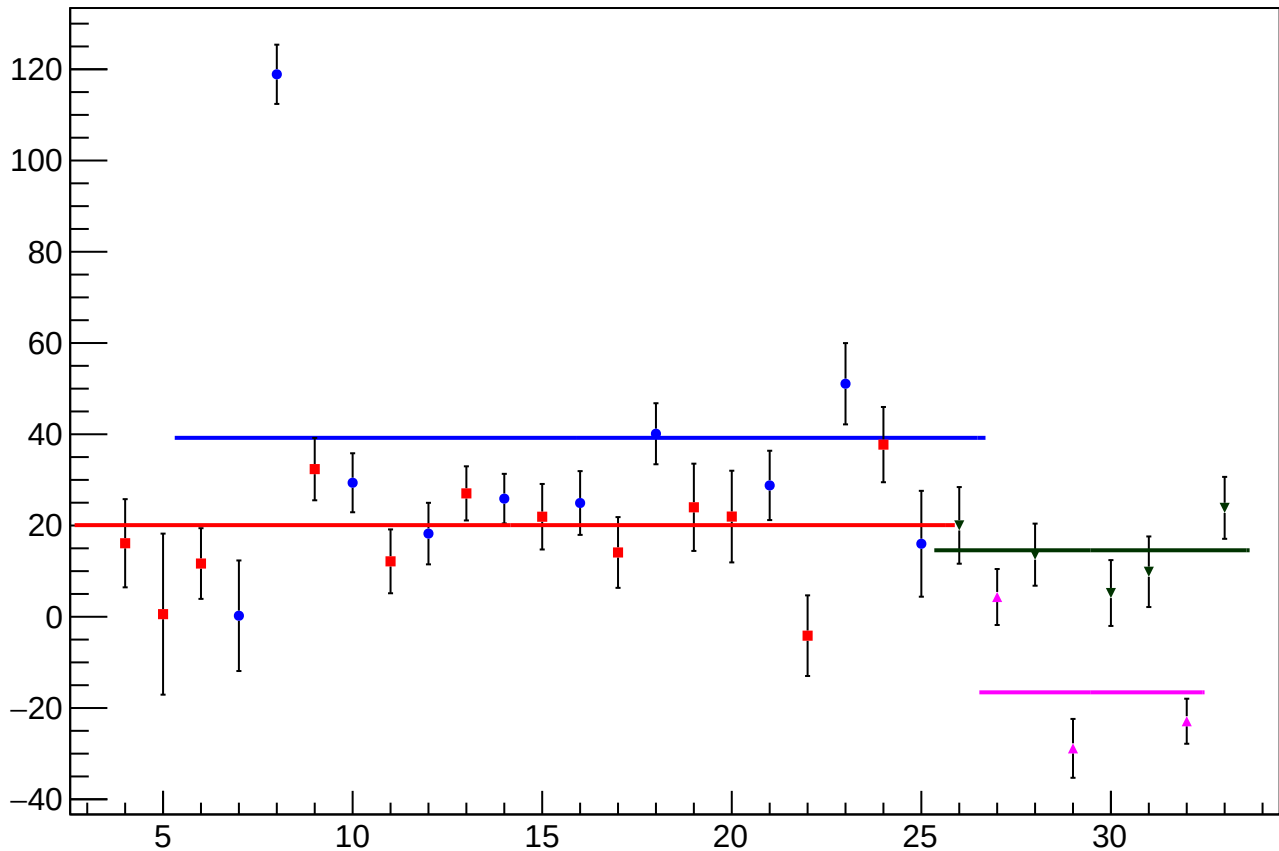
12636.617+/-2.954  $\chi^2/\text{NDF}$ : 25676.1/14

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

12673.428+/-2.985  $\chi^2/\text{NDF}$ : 22204.6/14

Left In: 13066.128+/-5.728  $\chi^2/\text{NDF}$ : 4673.4/2

# diff\_bpm0l02Y\_mean vs slug



Right In:  $39.218 \pm 2.292$   $\chi^2/\text{NDF}: 190.8/9$

Left Out:  $14.573 \pm 3.272$   $\chi^2/\text{NDF}: 4.4/4$

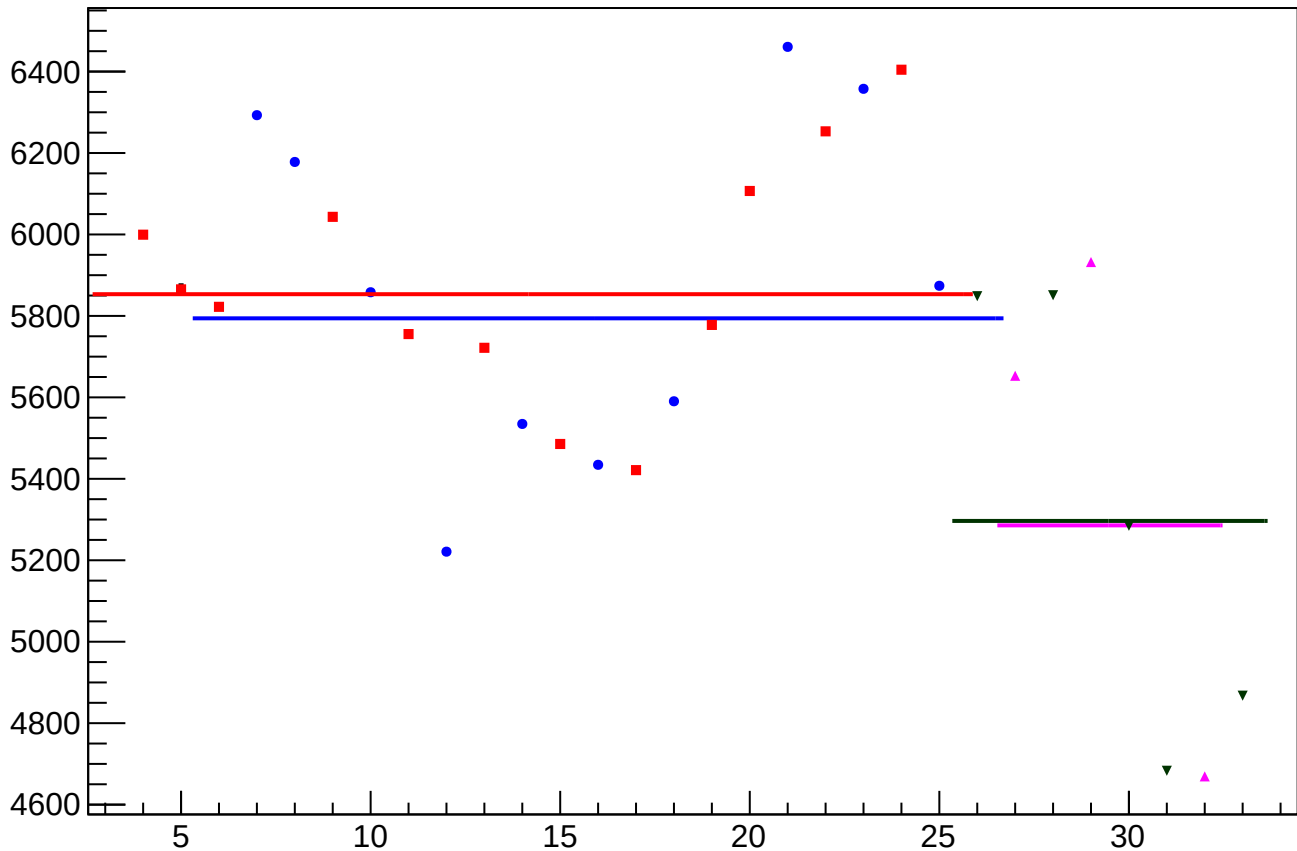
Right Out:  $20.083 \pm 2.324$   $\chi^2/\text{NDF}: 21.4/11$

Left In:  $-16.564 \pm 3.303$   $\chi^2/\text{NDF}: 16.9/2$

$31.109 \pm 1.877$   $\chi^2/\text{NDF}: 233.2/14$

$7.950 \pm 1.901$   $\chi^2/\text{NDF}: 120.6/14$

# diff\_bpm0l02Y\_rms vs slug



Right In: 5794.071+/-1.620  $\chi^2/\text{NDF}$ : 60209.2/9

Left Out: 5296.591+/-2.314  $\chi^2/\text{NDF}$ : 42467.9/4

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

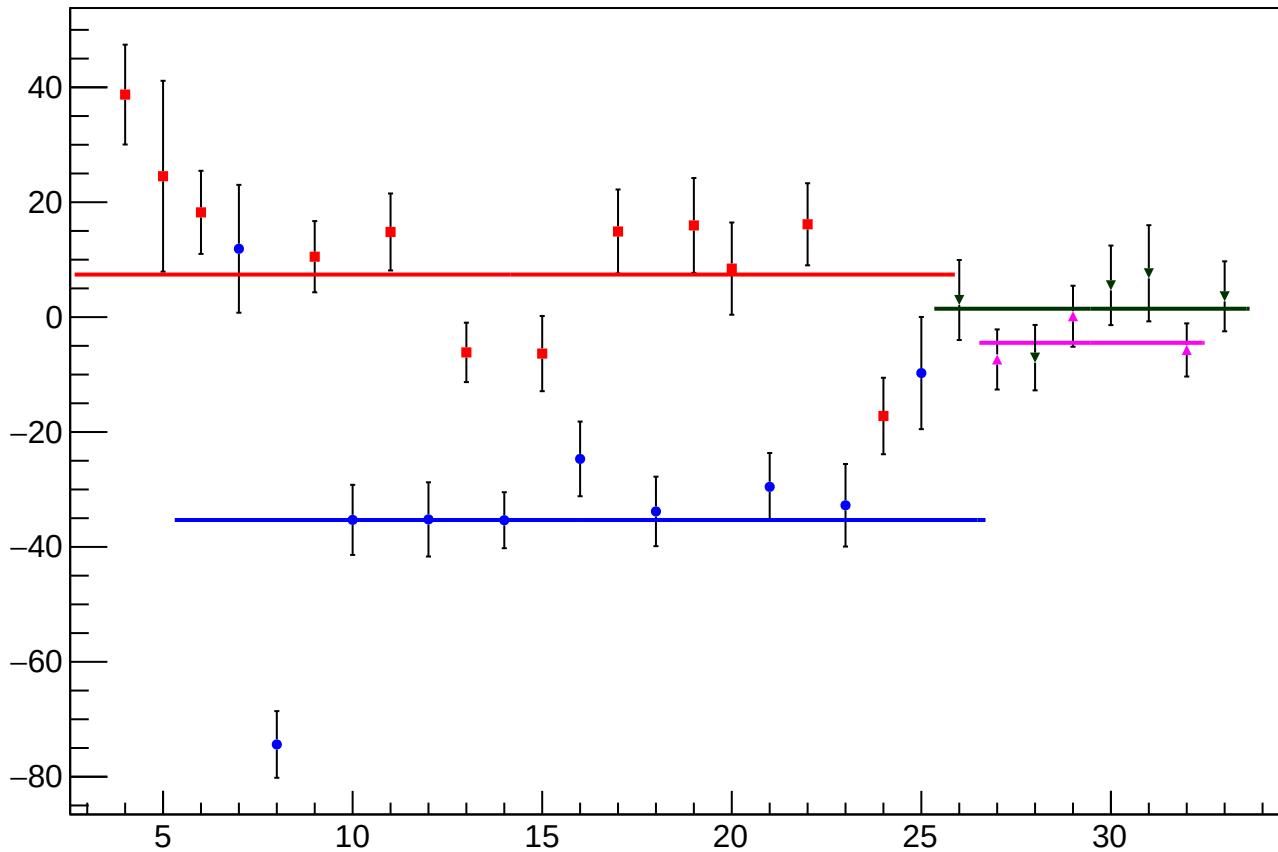
Left In: 5285.690+/-2.336  $\chi^2/\text{NDF}$ : 58444.8/2

5630.394+/-1.327  $\chi^2/\text{NDF}$ : 133690.4/14

5665.408+/-1.344  $\chi^2/\text{NDF}$ : 127231.2/14



# diff\_bpm0l03X\_mean vs slug



Right In: -35.314 +/- 2.039  $\chi^2/\text{NDF}$ : 74.0/9

Left Out: 1.460 +/- 2.968  $\chi^2/\text{NDF}$ : 3.3/4

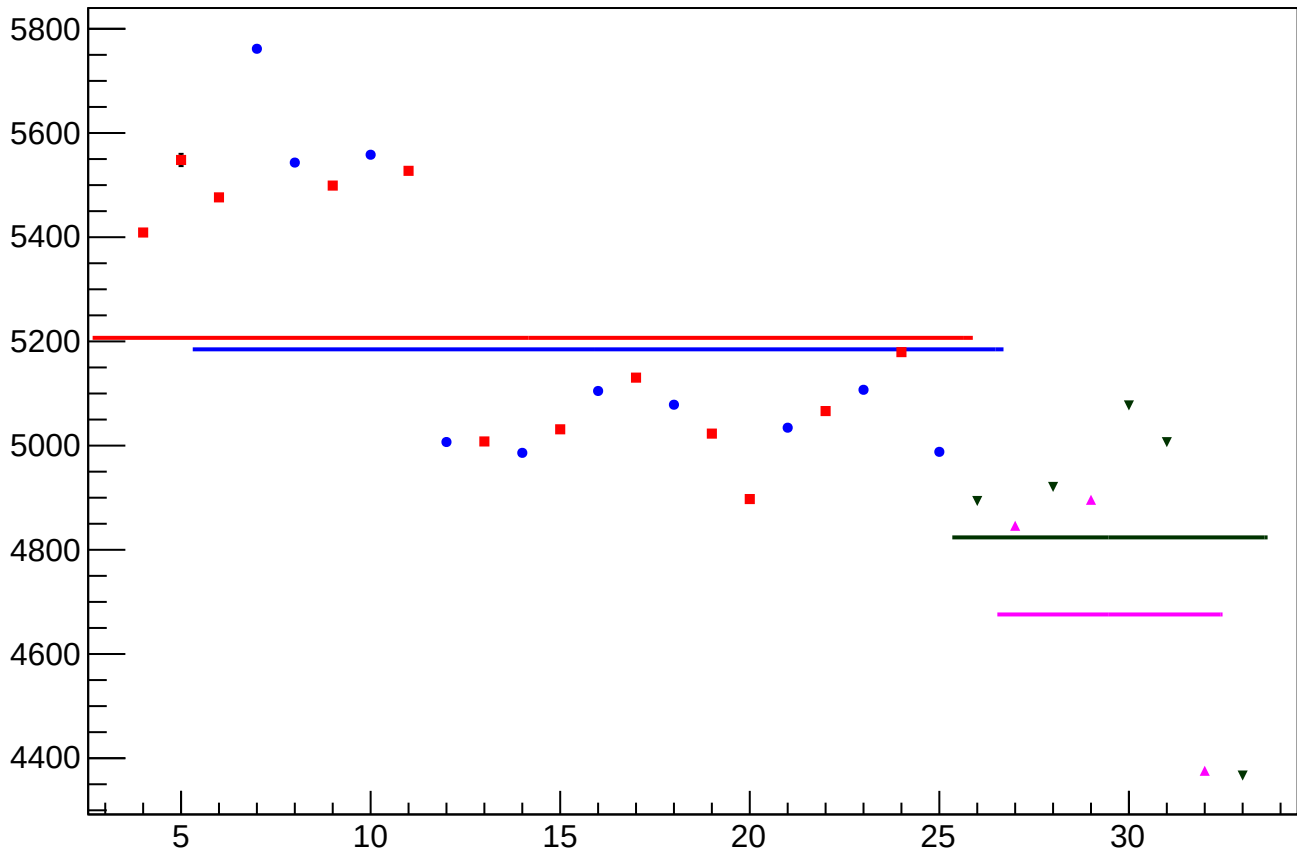
Right Out: 7.409 +/- 2.058  $\chi^2/\text{NDF}$ : 46.4/11

Left In: -4.472 +/- 2.902  $\chi^2/\text{NDF}$ : 1.1/2

-23.519 +/- 1.681  $\chi^2/\text{NDF}$ : 181.6/14

3.434 +/- 1.679  $\chi^2/\text{NDF}$ : 58.7/14

# diff\_bpm0l03X\_rms vs slug



Right In: 5184.765 $\pm$ 1.442  $\chi^2$ /NDF: 28614.1/9

Left Out: 4823.824 $\pm$ 2.098  $\chi^2$ /NDF: 15675.4/4

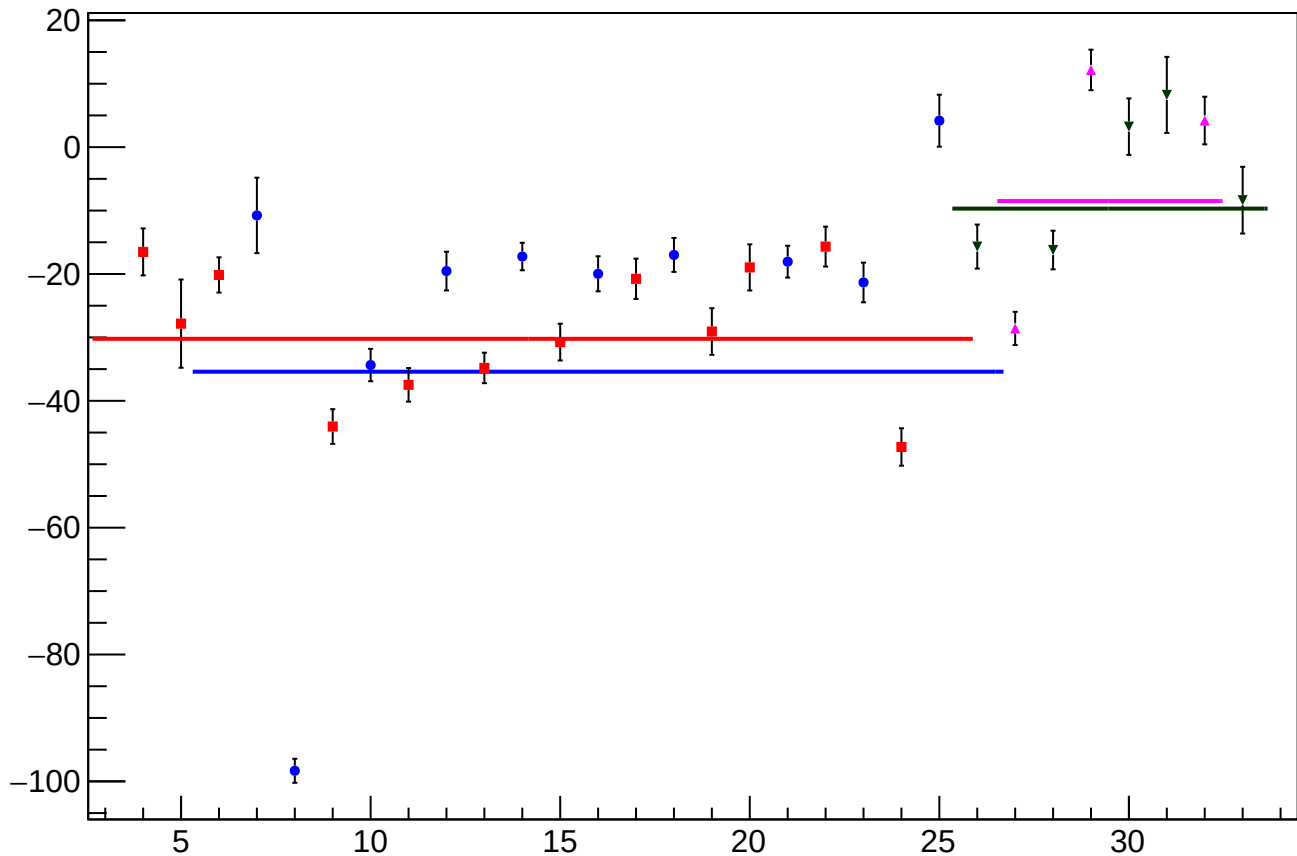
Right Out: 5206.838 $\pm$ 1.455  $\chi^2$ /NDF: 23121.5/11

Left In: 4675.912 $\pm$ 2.052  $\chi^2$ /NDF: 13966.6/2

5068.992 $\pm$ 1.188  $\chi^2$ /NDF: 64385.9/14

5029.207 $\pm$ 1.187  $\chi^2$ /NDF: 81624.1/14

# diff\_bpm0l03Y\_mean vs slug



Right In:  $-35.407 \pm 0.854$   $\chi^2/\text{NDF}$ : 1459.3/9

Left Out:  $-9.691 \pm 1.810$   $\chi^2/\text{NDF}$ : 25.0/4

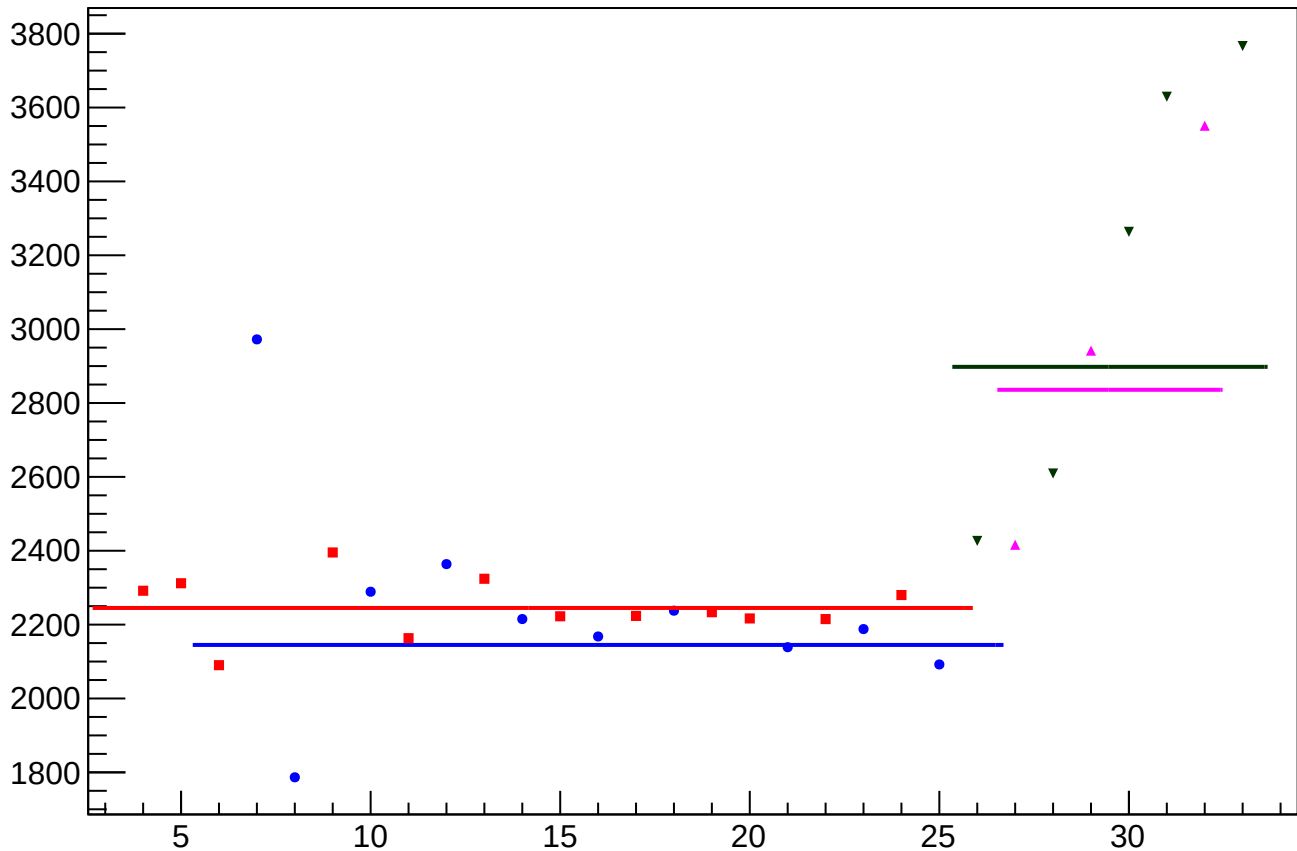
Right Out:  $-30.222 \pm 0.893$   $\chi^2/\text{NDF}$ : 136.9/11

Left In:  $-8.498 \pm 1.783$   $\chi^2/\text{NDF}$ : 112.1/2

$-30.728 \pm 0.772$   $\chi^2/\text{NDF}$ : 1649.3/14

$-25.869 \pm 0.798$   $\chi^2/\text{NDF}$ : 367.7/14

# diff\_bpm0l03Y\_rms vs slug



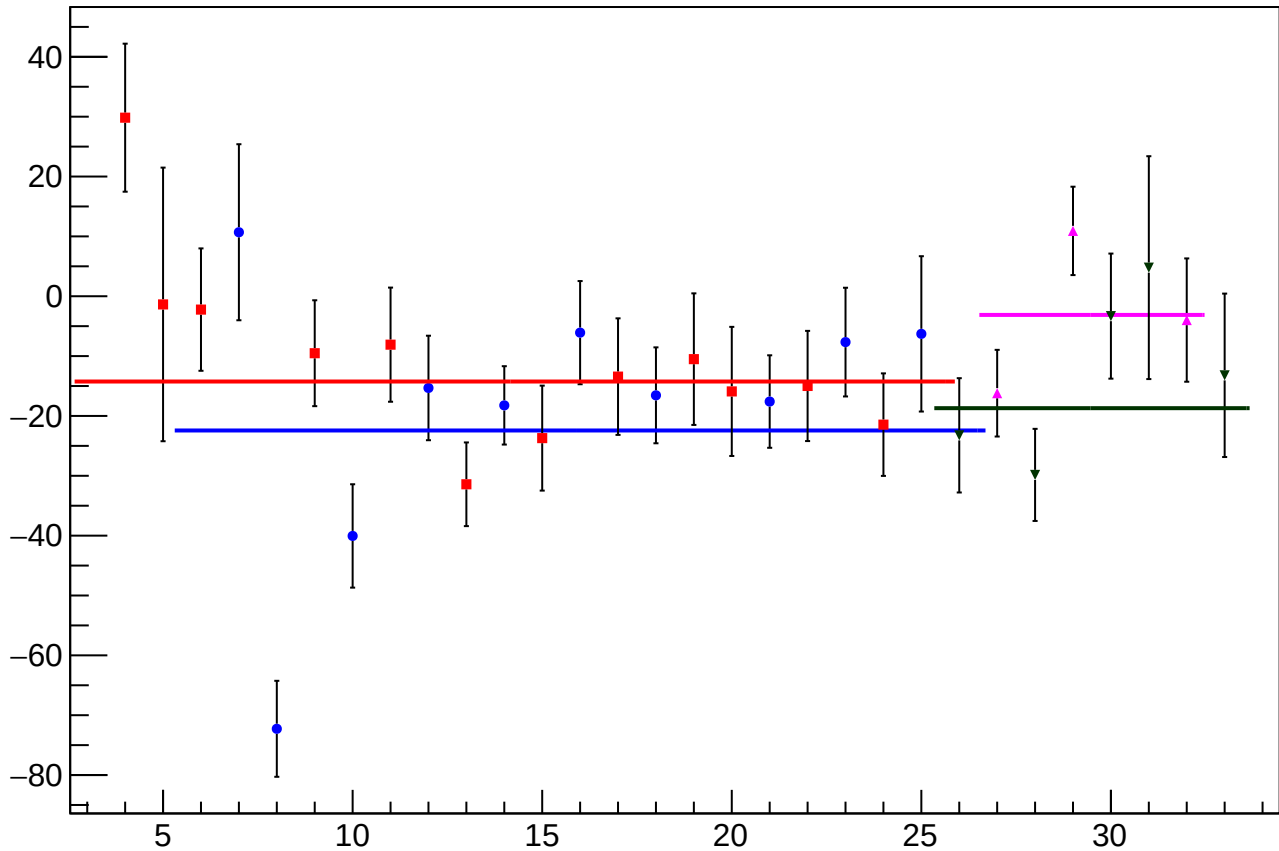
Right In:  $2144.990 \pm 0.604$   $\chi^2/\text{NDF}$ : 132365.7/9

Left Out:  $2281.981 \pm 0.546$   $\chi^2/\text{NDF}$ : 567908.4/14

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

Left In:  $2835.791 \pm 1.261$   $\chi^2/\text{NDF}$ : 125999.5/2

# diff\_bpm0l04X\_mean vs slug



Right In: -22.429 $\pm$ 2.733  $\chi^2$ /NDF: 57.7/9

Left Out: -18.702 $\pm$ 4.700  $\chi^2$ /NDF: 6.2/4

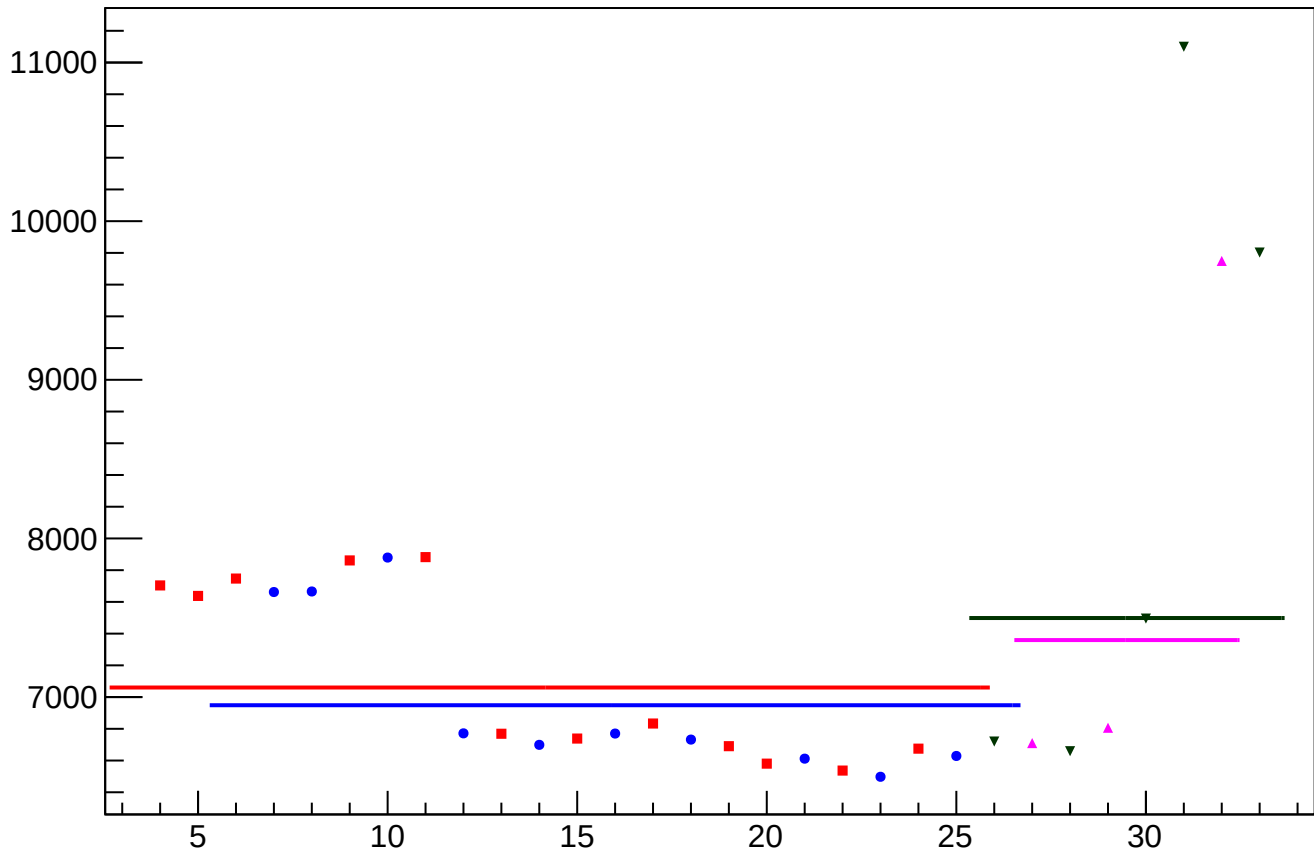
Right Out: -14.248 $\pm$ 2.794  $\chi^2$ /NDF: 23.2/11

Left In: -3.121 $\pm$ 4.620  $\chi^2$ /NDF: 6.9/2

-21.487 $\pm$ 2.363  $\chi^2$ /NDF: 64.4/14

-11.269 $\pm$ 2.391  $\chi^2$ /NDF: 34.3/14

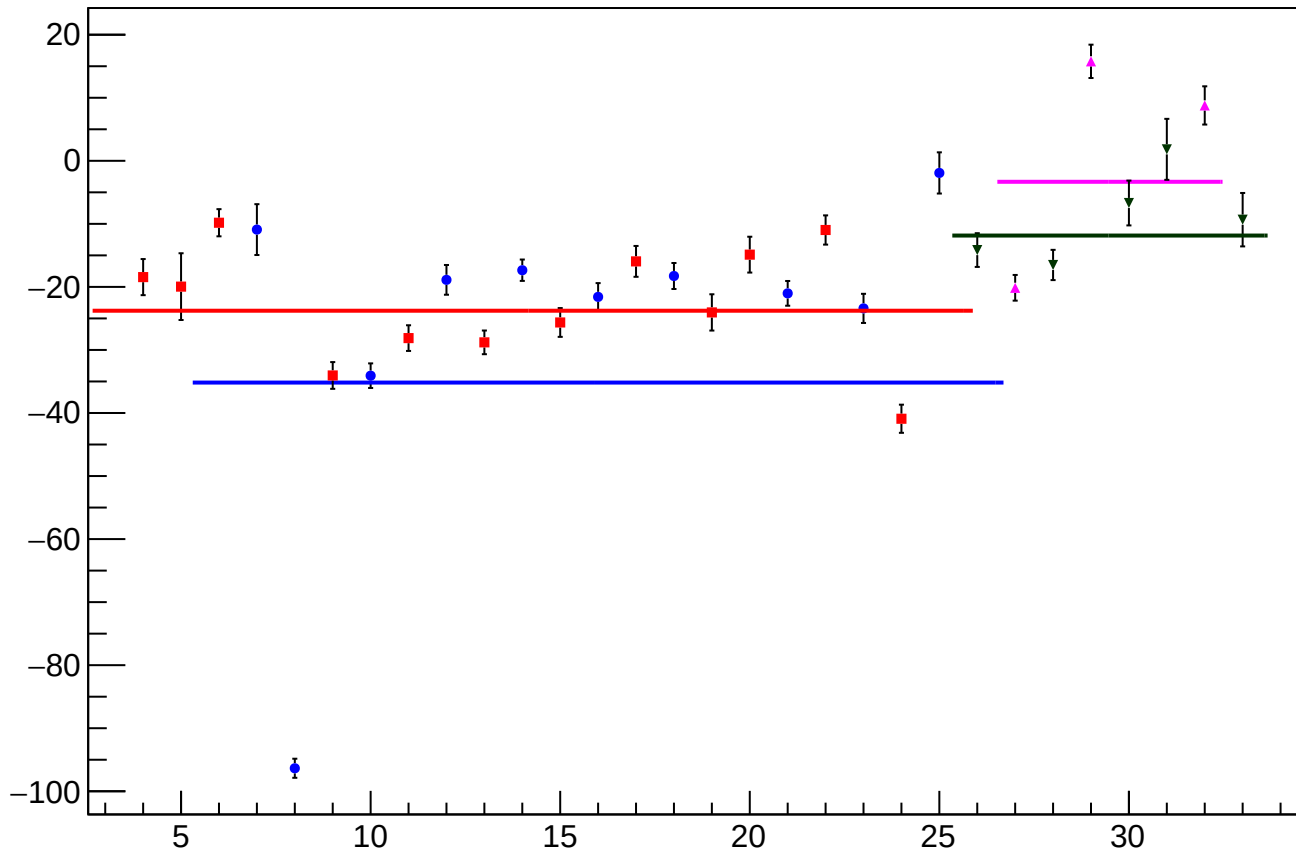
# diff\_bpm0l04X\_rms vs slug



Right In: 6948.614+/-1.933  $\chi^2/\text{NDF}$ : 59940.1/9  
 Left Out: 7498.334+/-3.324  $\chi^2/\text{NDF}$ : 168885.4/4  
 Right Out: 7060.304+/-1.976  $\chi^2/\text{NDF}$ : 70982.1/11  
 Left In: 7359.355+/-3.267  $\chi^2/\text{NDF}$ : 134955.7/2

7087.511+/-1.671  $\chi^2/\text{NDF}$ : 249270.0/14  
 7140.370+/-1.691  $\chi^2/\text{NDF}$ : 212073.0/14

# diff\_bpm0l04Y\_mean vs slug



Right In:  $-35.174 \pm 0.663$   $\chi^2/\text{NDF}$ : 2117.2/9

Left Out:  $-11.855 \pm 1.427$   $\chi^2/\text{NDF}$ : 15.0/4

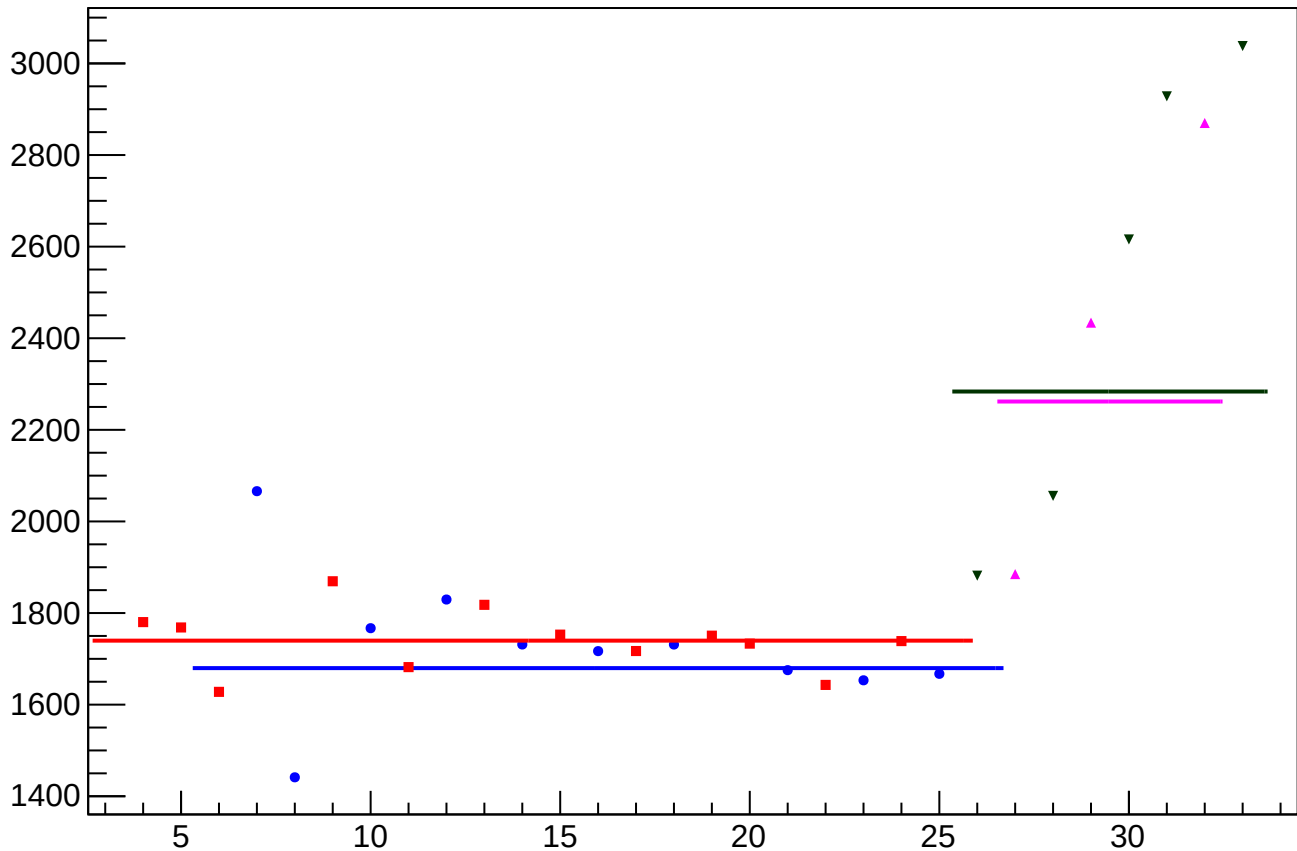
Right Out:  $-23.778 \pm 0.688$   $\chi^2/\text{NDF}$ : 191.1/11

Left In:  $-3.328 \pm 1.425$   $\chi^2/\text{NDF}$ : 136.2/2

$-31.033 \pm 0.601$   $\chi^2/\text{NDF}$ : 2351.8/14

$-19.908 \pm 0.620$   $\chi^2/\text{NDF}$ : 494.4/14

# diff\_bpm0l04Y\_rms vs slug



Right In: 1679.752+/-0.469  $\chi^2/\text{NDF}$ : 84058.4/9

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

1787.006+/-0.425  $\chi^2/\text{NDF}$ : 558243.5/14

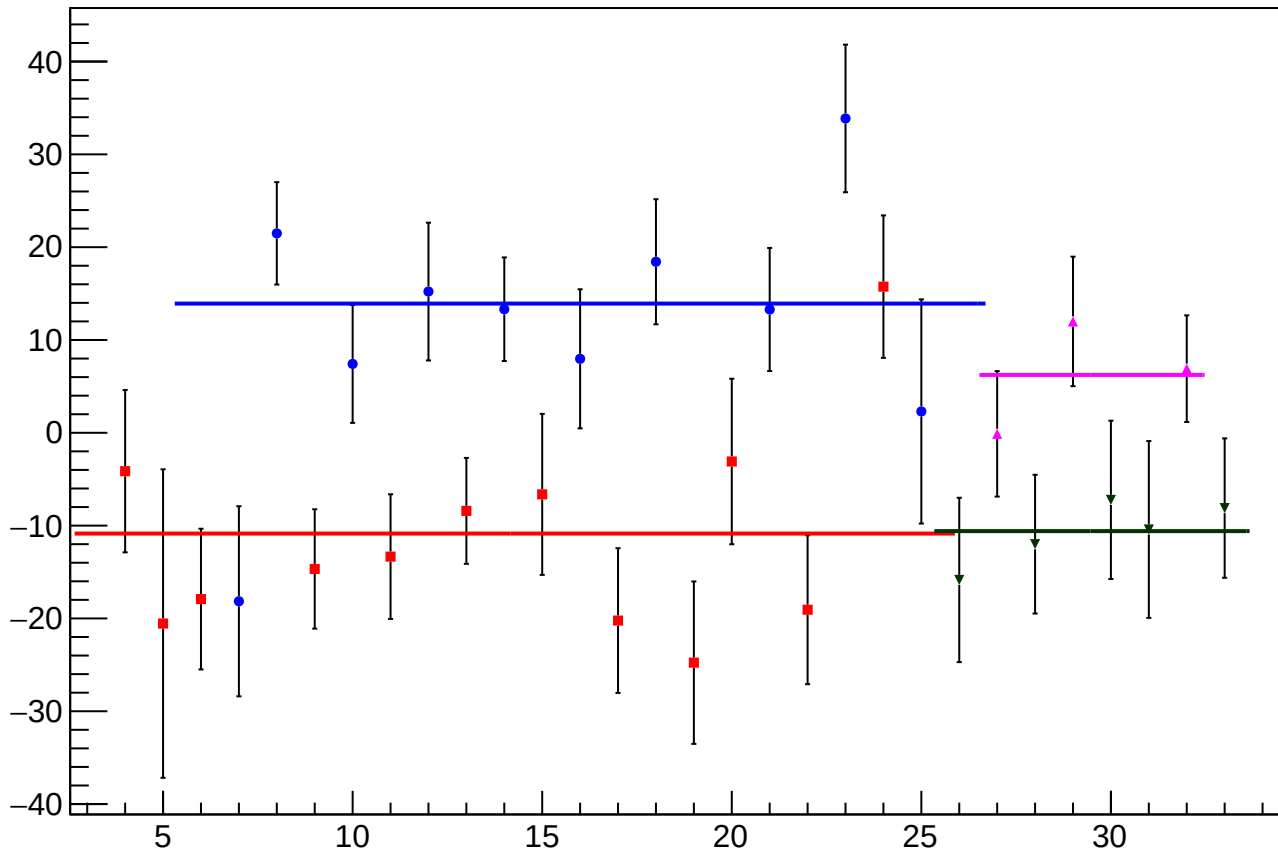
1838.561+/-0.438  $\chi^2/\text{NDF}$ : 397123.5/14

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

Left In: 2261.838+/-1.008  $\chi^2/\text{NDF}$ : 157266.6/2



# diff\_bpm0l05X\_mean vs slug



Right In:  $13.922 \pm 2.221$   $\chi^2/\text{NDF}: 21.1/9$

Left Out:  $-10.593 \pm 3.697$   $\chi^2/\text{NDF}: 0.7/4$

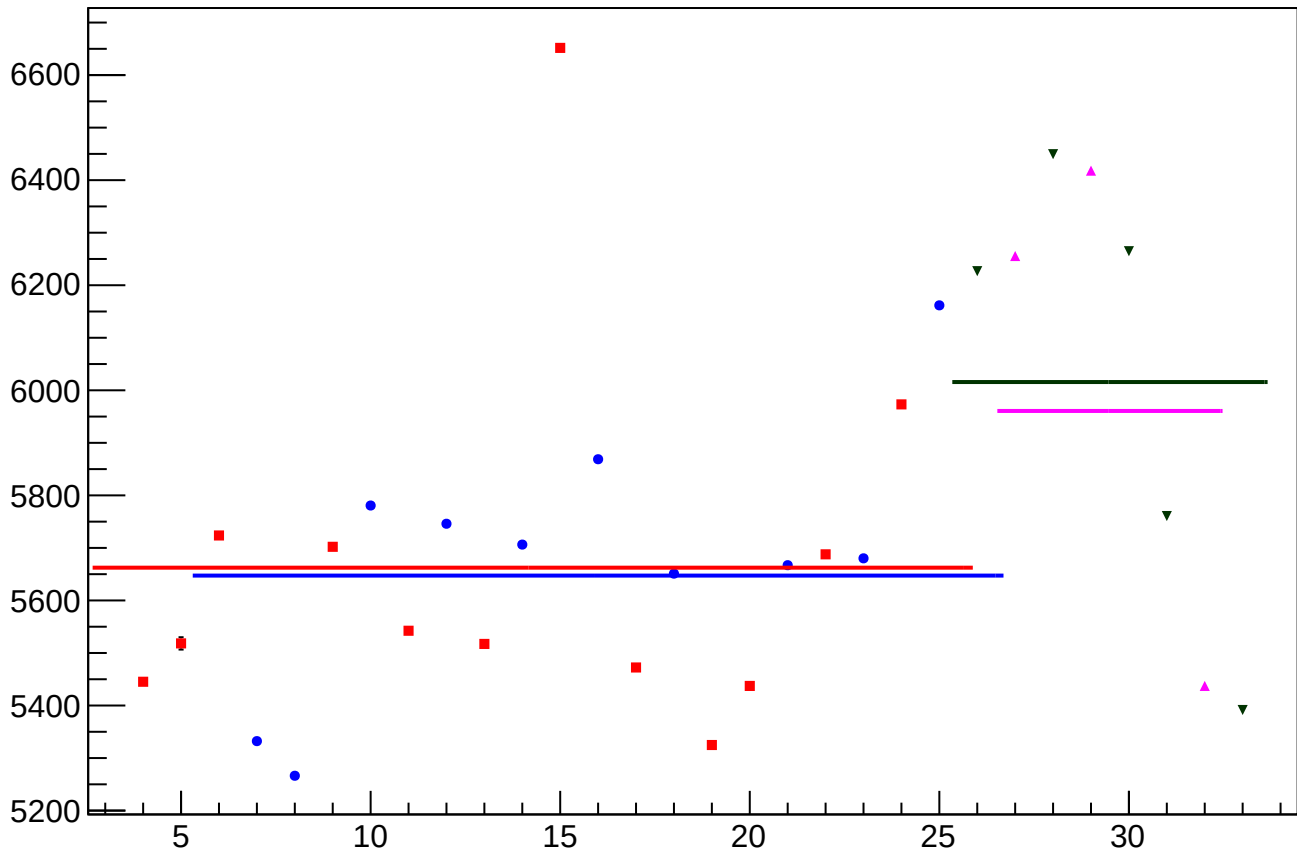
Right Out:  $-10.857 \pm 2.241$   $\chi^2/\text{NDF}: 20.5/11$

Left In:  $6.234 \pm 3.708$   $\chi^2/\text{NDF}: 1.6/2$

$7.420 \pm 1.904$   $\chi^2/\text{NDF}: 54.0/14$

$-6.283 \pm 1.918$   $\chi^2/\text{NDF}: 37.6/14$

# diff\_bpm0l05X\_rms vs slug



Right In: 5647.317+/-1.571  $\chi^2/\text{NDF}$ : 18317.5/9

Left Out: 6015.737+/-2.614  $\chi^2/\text{NDF}$ : 24833.4/4

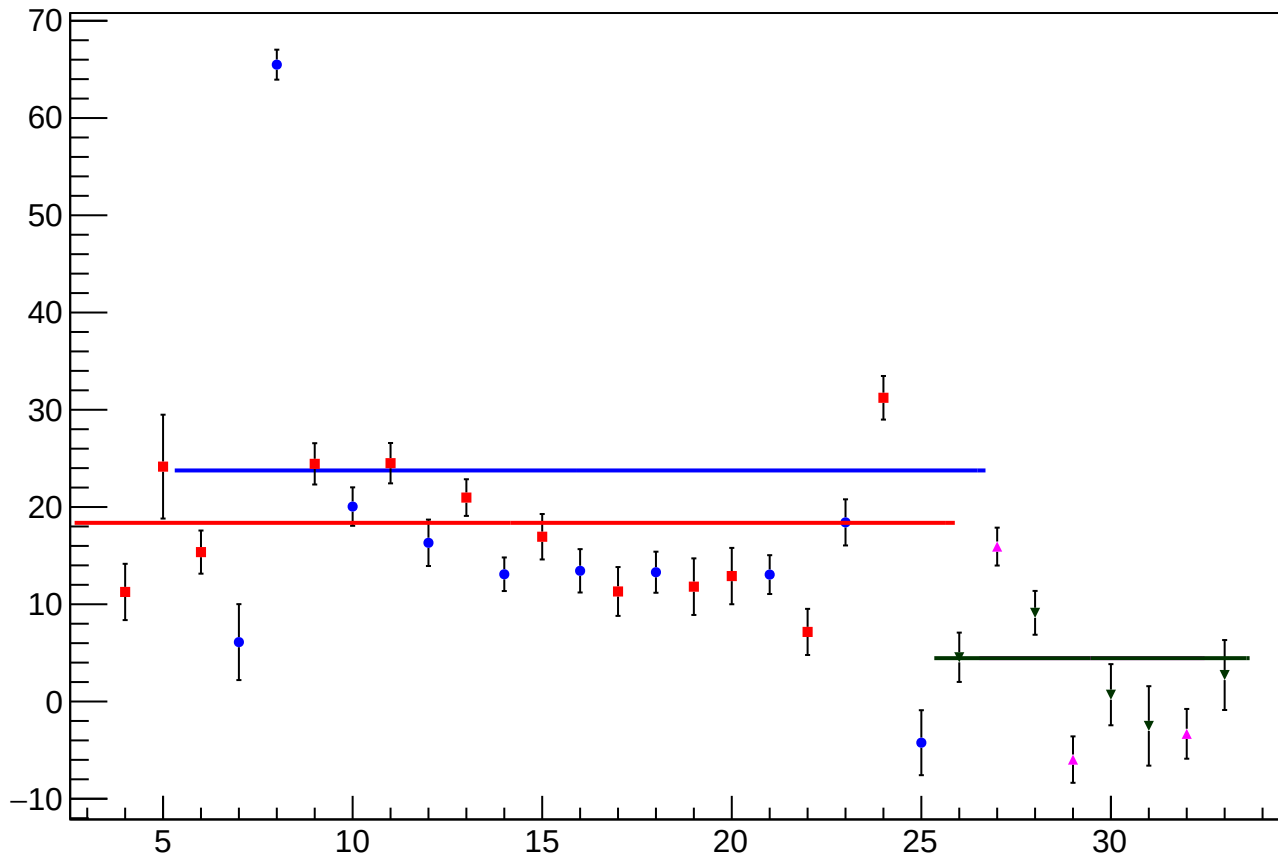
Right Out: 5662.385+/-1.585  $\chi^2/\text{NDF}$ : 38277.2/11

Left In: 5960.689+/-2.622  $\chi^2/\text{NDF}$ : 29001.5/2

5745.041+/-1.346  $\chi^2/\text{NDF}$ : 57744.8/14

5742.213+/-1.356  $\chi^2/\text{NDF}$ : 76758.6/14

# diff\_bpm0l05Y\_mean vs slug



Right In: 23.760 $\pm$ 0.675  $\chi^2$ /NDF: 954.7/9

Left Out: 4.458 $\pm$ 1.301  $\chi^2$ /NDF: 8.8/4

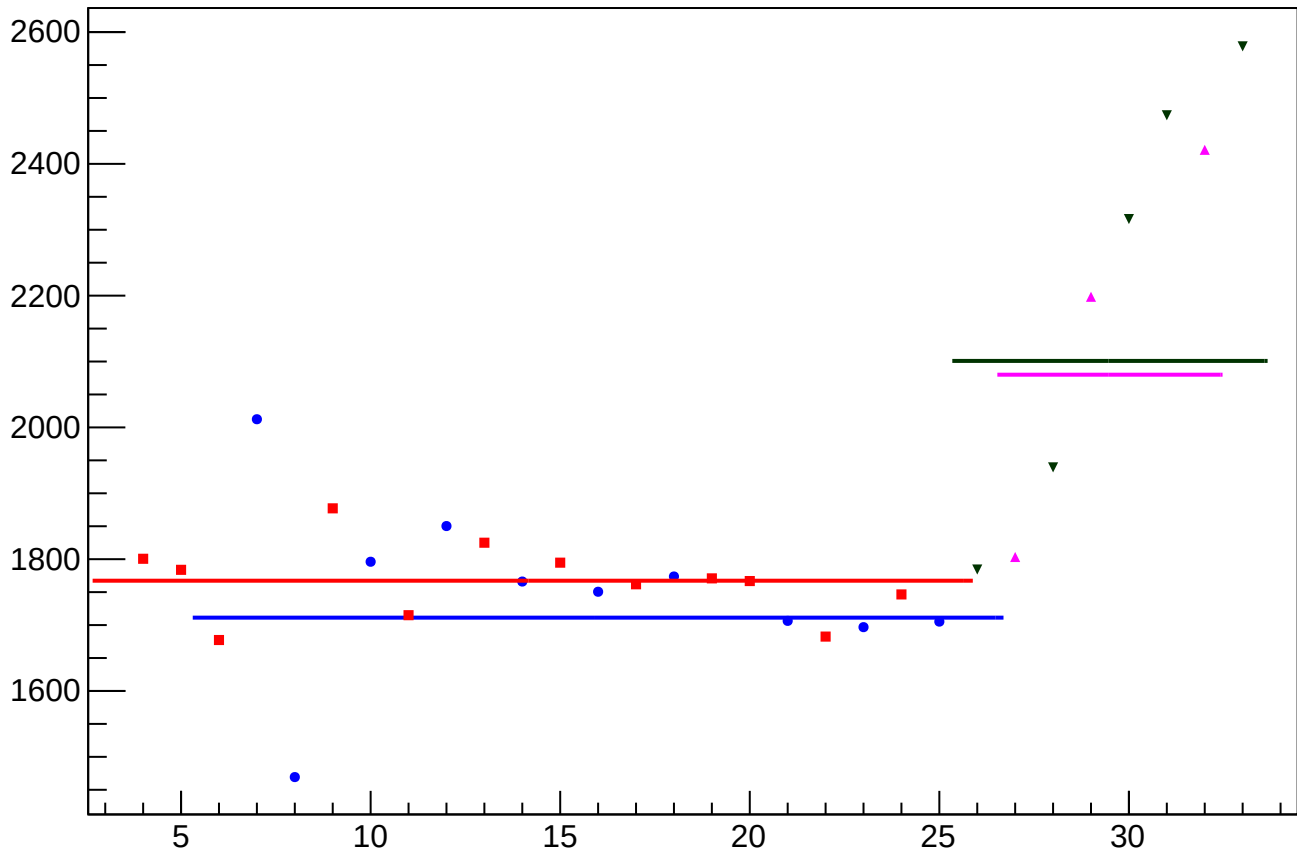
19.669 $\pm$ 0.599  $\chi^2$ /NDF: 1137.0/14

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

15.255 $\pm$ 0.615  $\chi^2$ /NDF: 251.9/14

Left In: 4.463 $\pm$ 1.300  $\chi^2$ /NDF: 63.0/2

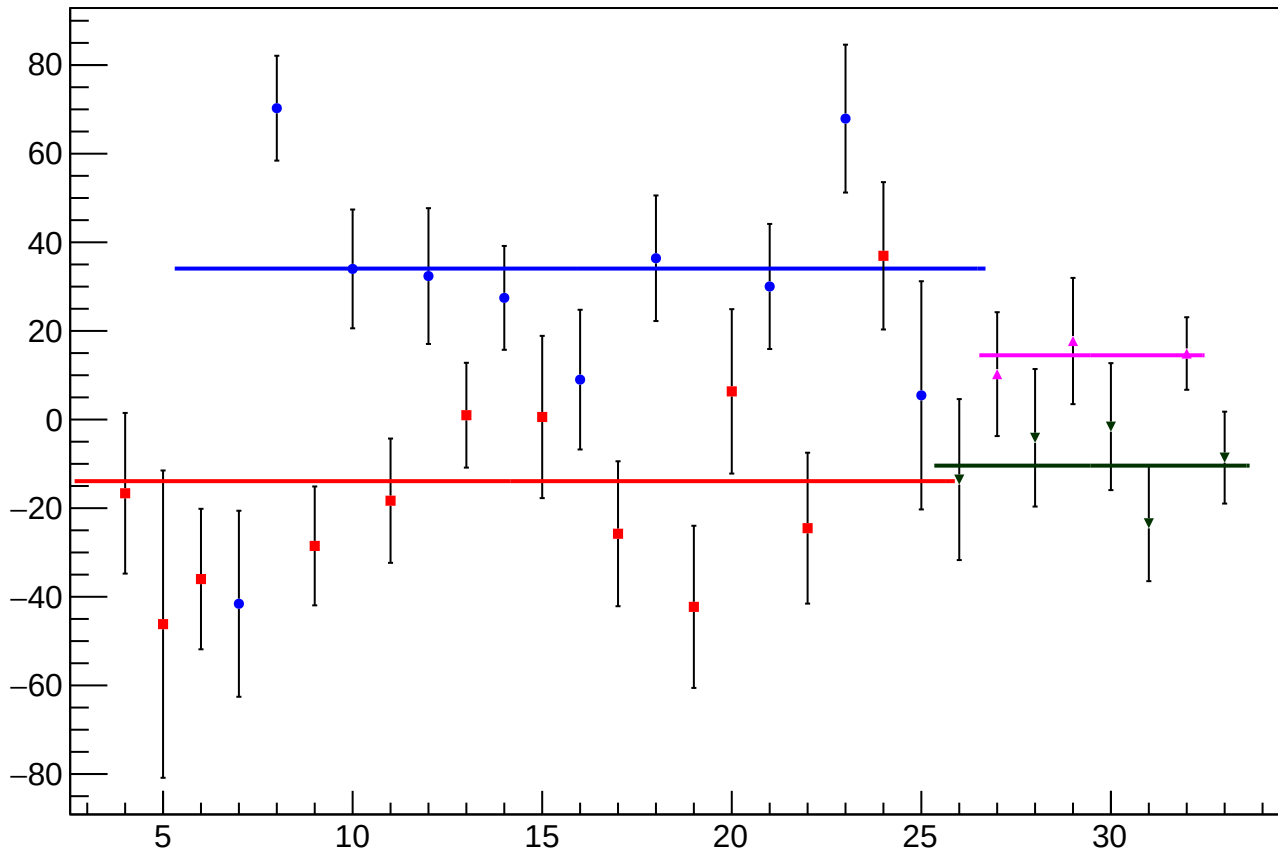
# diff\_bpm0l05Y\_rms vs slug



Right In: 1711.281+/-0.477  $\chi^2/\text{NDF}$ : 76136.9/9  
 Left Out: 2100.925+/-0.920  $\chi^2/\text{NDF}$ :102755.2/4  
 Right Out: 1767.340+/-0.494  $\chi^2/\text{NDF}$ : 15091.3/11  
 Left In: 2080.013+/-0.919  $\chi^2/\text{NDF}$ :80837.6/2

1793.861+/-0.424  $\chi^2/\text{NDF}$ : 320264.2/14  
 1837.416+/-0.435  $\chi^2/\text{NDF}$ : 185710.2/14

# diff\_bpm0l06X\_mean vs slug



Right In:  $34.072 \pm 4.681$   $\chi^2/\text{NDF}$ : 30.7/9

Left Out:  $-10.401 \pm 6.062$   $\chi^2/\text{NDF}$ : 1.6/4

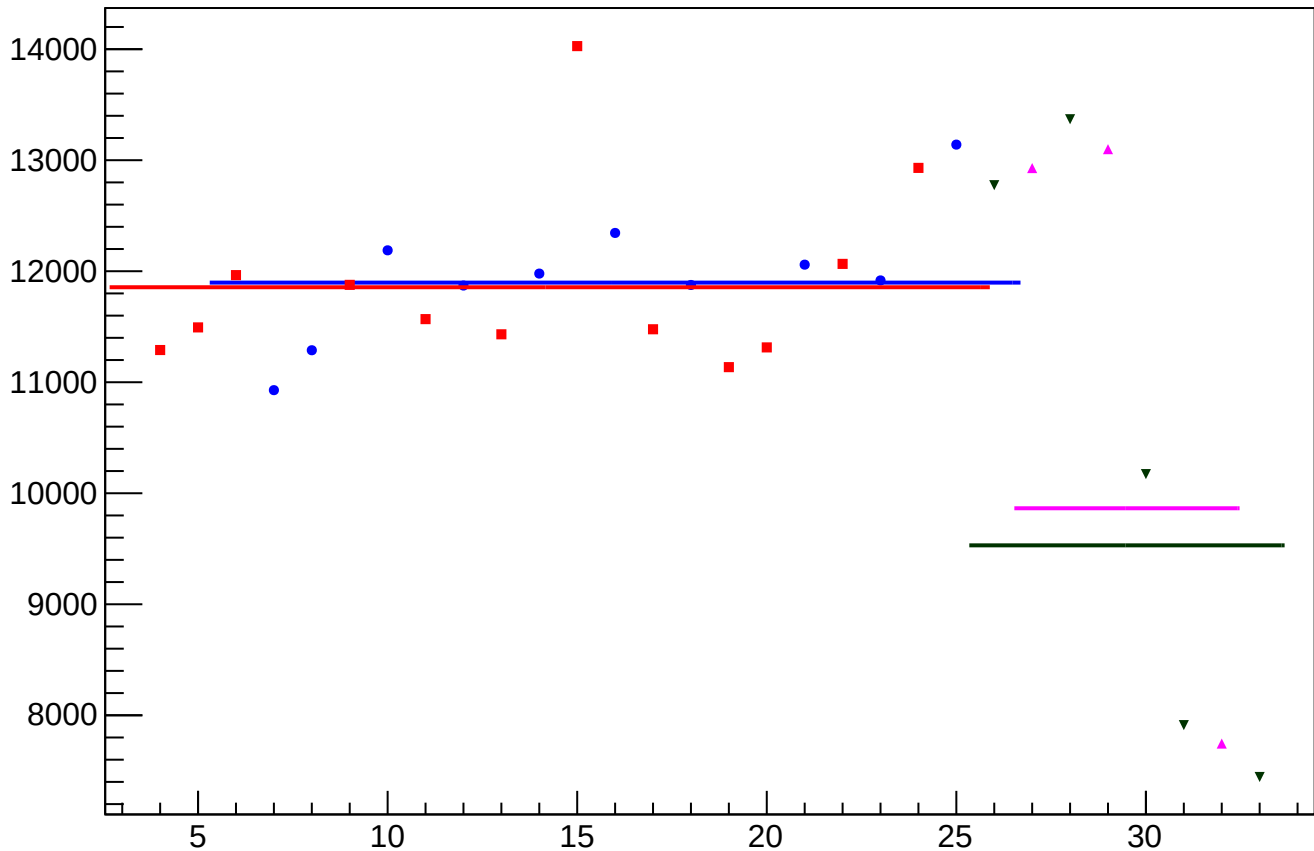
Right Out:  $-13.904 \pm 4.697$   $\chi^2/\text{NDF}$ : 20.2/11

Left In:  $14.505 \pm 6.329$   $\chi^2/\text{NDF}$ : 0.1/2

$17.458 \pm 3.705$   $\chi^2/\text{NDF}$ : 66.0/14

$-3.812 \pm 3.772$   $\chi^2/\text{NDF}$ : 33.3/14

# diff\_bpm0l06X\_rms vs slug



Right In: 11897.425+/-3.310  $\chi^2/\text{NDF}$ : 17144.3/9

Left Out: 9530.753+/-4.286  $\chi^2/\text{NDF}$ :301829.4/4

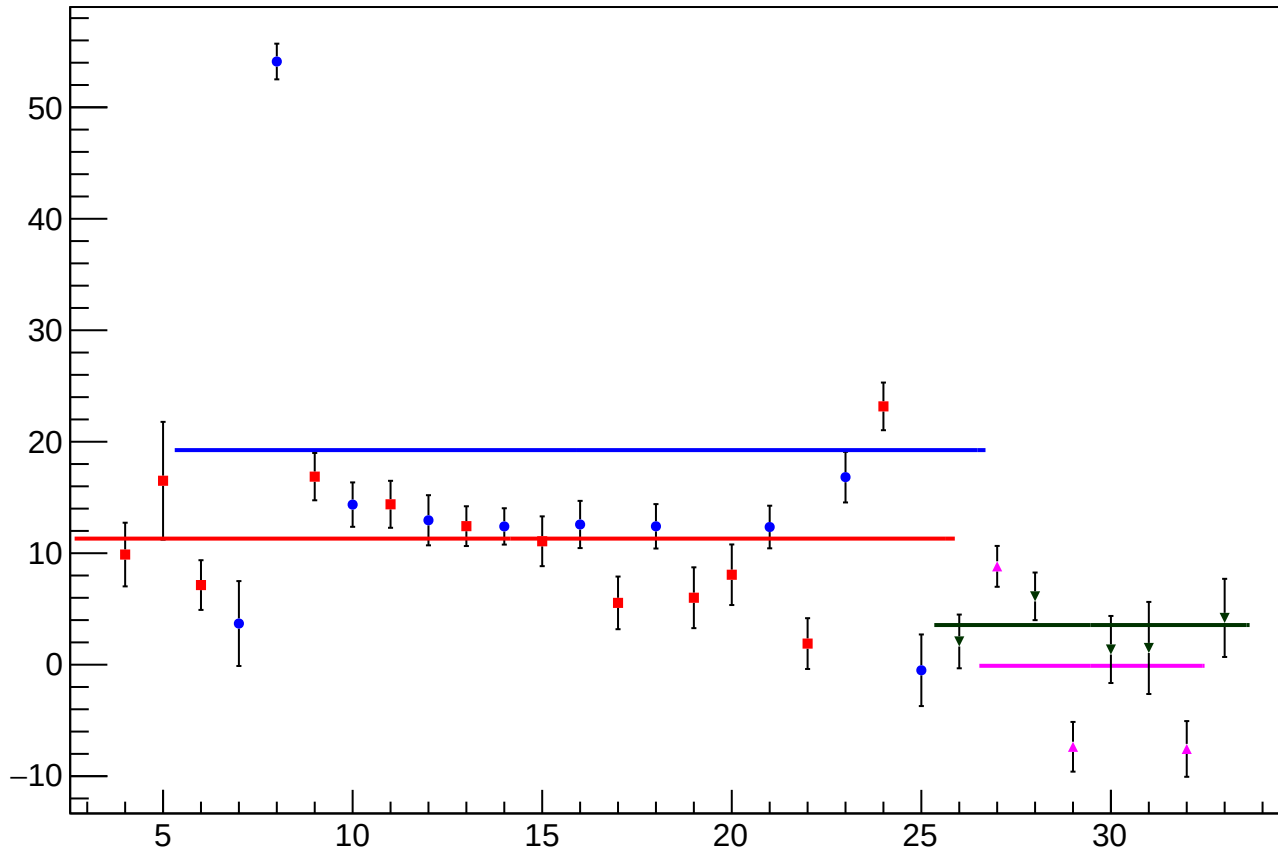
Right Out: 11855.642+/-3.322  $\chi^2/\text{NDF}$ : 48354.6/11

Left In: 9864.707+/-4.475  $\chi^2/\text{NDF}$ :333303.5/2

11013.310+/-2.620  $\chi^2/\text{NDF}$ : 509949.8/14

11148.433+/-2.667  $\chi^2/\text{NDF}$ : 509282.7/14

# diff\_bpm0l06Y\_mean vs slug



Right In: 19.249 $\pm$ 0.656  $\chi^2/\text{NDF}$ : 596.3/9

Left Out: 3.557 $\pm$ 1.248  $\chi^2/\text{NDF}$ : 2.6/4

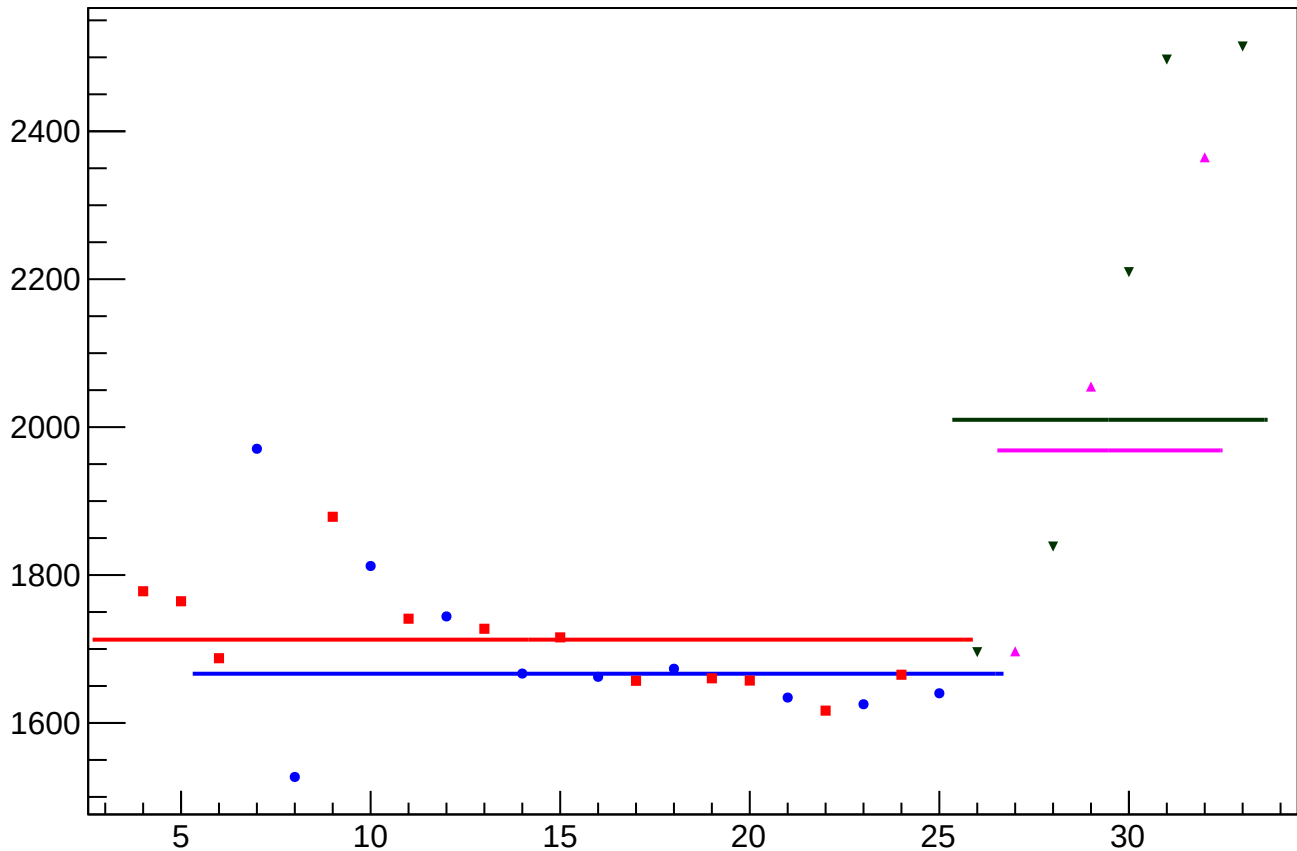
Right Out: 11.311 $\pm$ 0.677  $\chi^2/\text{NDF}$ : 73.1/11

Left In: -0.100 $\pm$ 1.232  $\chi^2/\text{NDF}$ : 43.2/2

15.854 $\pm$ 0.581  $\chi^2/\text{NDF}$ : 722.8/14

8.665 $\pm$ 0.593  $\chi^2/\text{NDF}$ : 182.2/14

# diff\_bpm0l06Y\_rms vs slug



Right In: 1666.575+/-0.464  $\chi^2/\text{NDF}$ : 42439.0/9

Left Out: 2009.922+/-0.883  $\chi^2/\text{NDF}$ : 124972.6/4

Right Out: 1712.647+/-0.479  $\chi^2/\text{NDF}$ : 21464.2/11

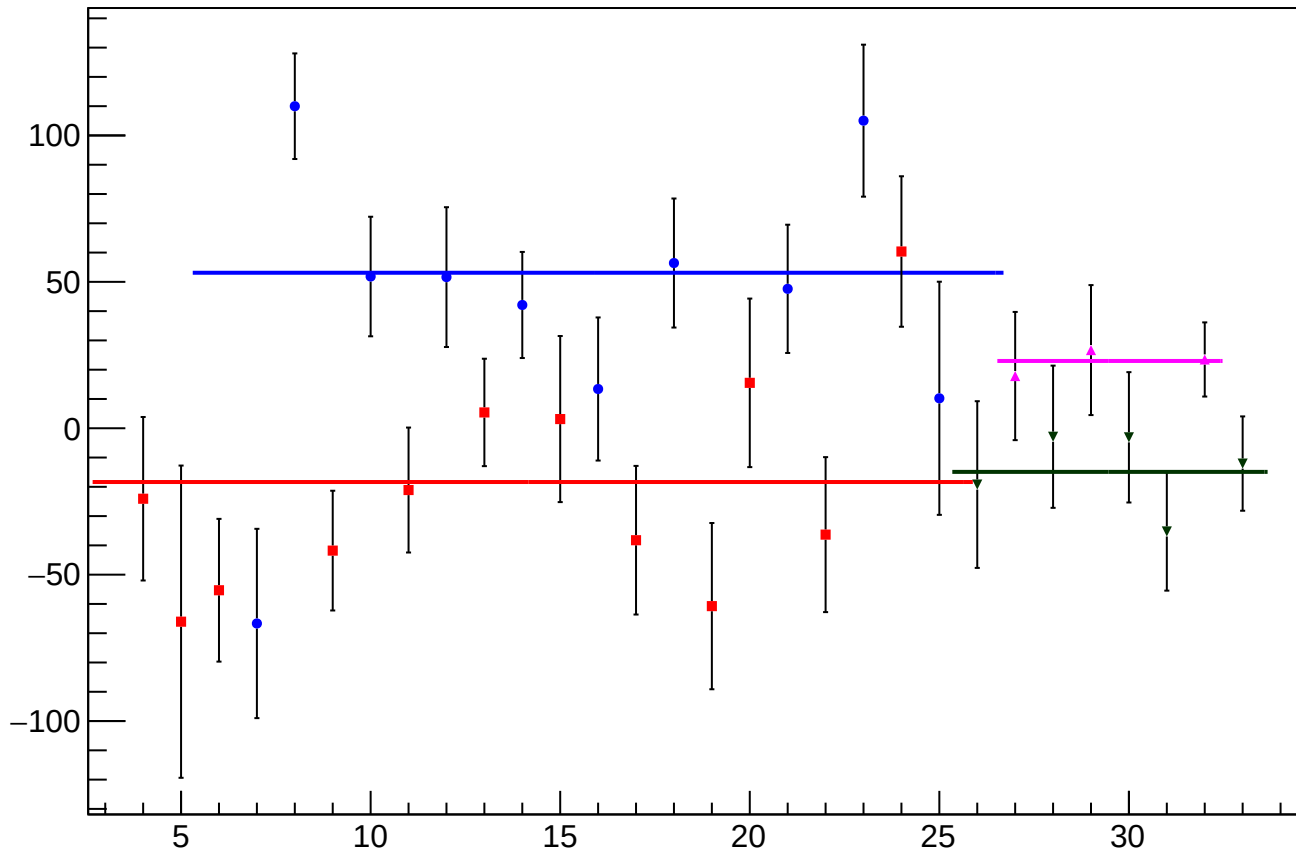
Left In: 1968.505+/-0.871  $\chi^2/\text{NDF}$ : 97227.7/2

1740.860+/-0.411  $\chi^2/\text{NDF}$ : 286021.9/14

1771.974+/-0.419  $\chi^2/\text{NDF}$ : 184949.1/14



# diff\_bpm0l07X\_mean vs slug



Right In: 53.110 $\pm$ 7.223  $\chi^2$ /NDF: 31.9/9

Left Out: -14.899 $\pm$ 9.428  $\chi^2$ /NDF: 1.6/4

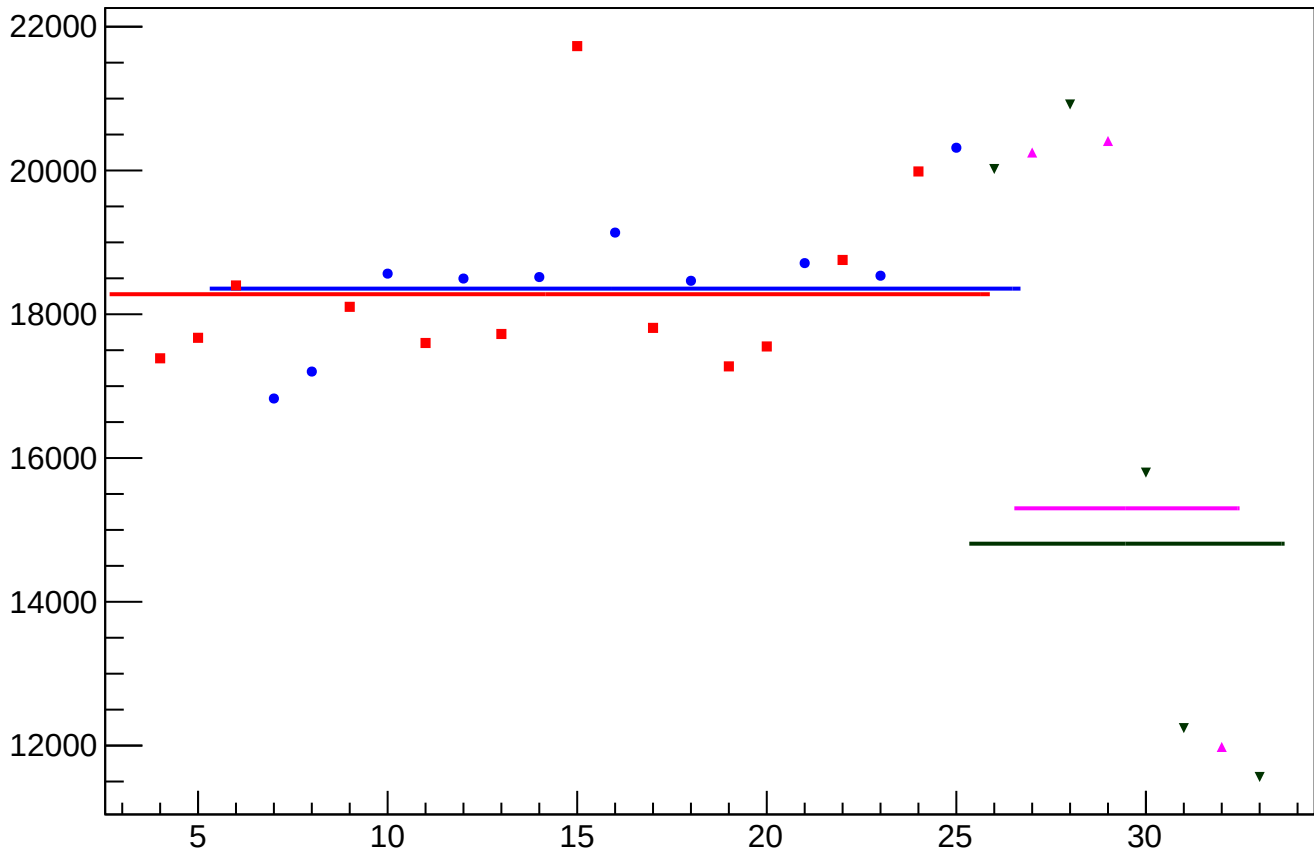
Right Out: -18.361 $\pm$ 7.243  $\chi^2$ /NDF: 20.8/11

Left In: 22.982 $\pm$ 9.829  $\chi^2$ /NDF: 0.1/2

27.955 $\pm$ 5.734  $\chi^2$ /NDF: 66.3/14

-3.812 $\pm$ 5.831  $\chi^2$ /NDF: 32.3/14

# diff\_bpm0l07X\_rms vs slug



Right In: 18356.519+/-5.108  $\chi^2/\text{NDF}$ : 20645.2/9

Left Out: 14808.417+/-6.667  $\chi^2/\text{NDF}$ :310983.7/4

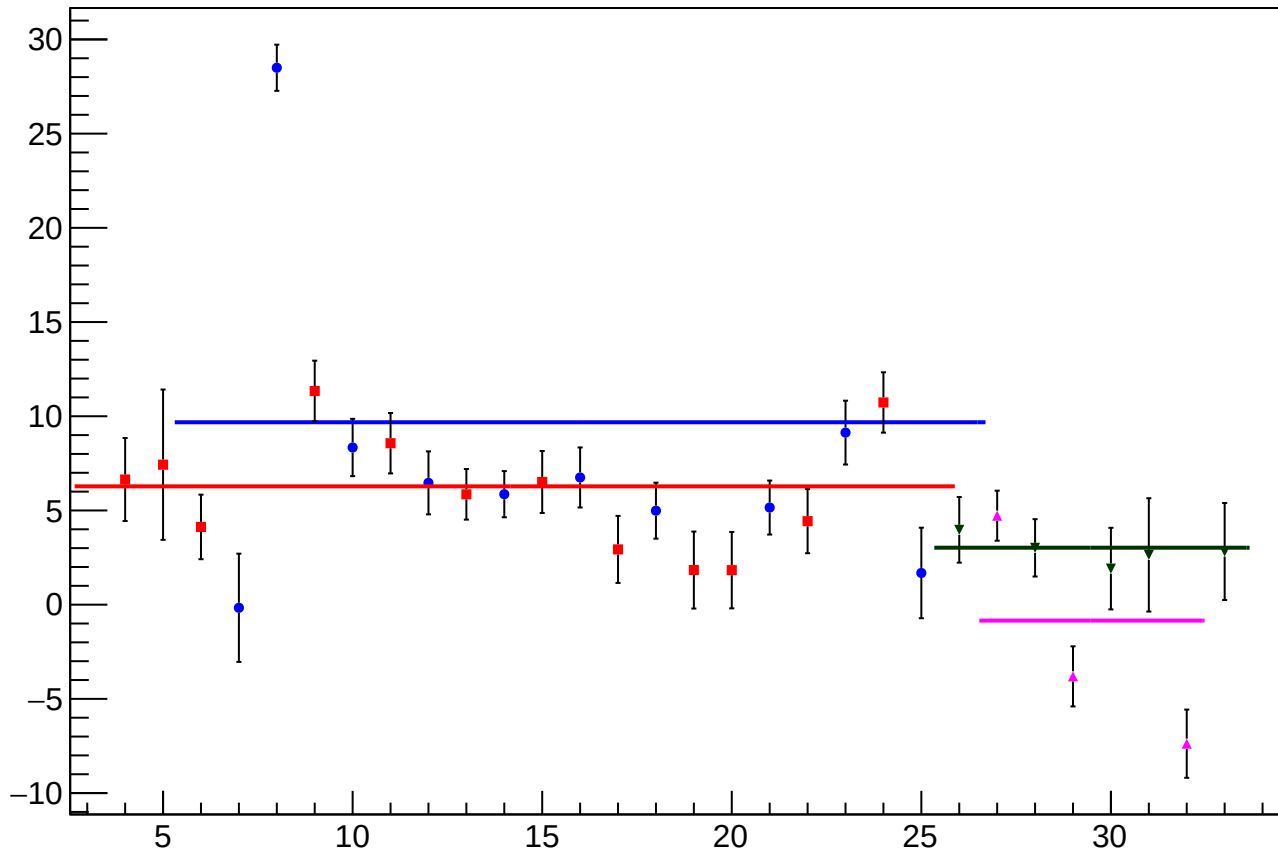
Right Out: 18278.807+/-5.121  $\chi^2/\text{NDF}$ : 49891.5/11

Left In: 15300.410+/-6.950  $\chi^2/\text{NDF}$ :345648.4/2

17044.178+/-4.055  $\chi^2/\text{NDF}$ : 510107.7/14

17230.672+/-4.123  $\chi^2/\text{NDF}$ : 514567.3/14

# diff\_bpm0l07Y\_mean vs slug



Right In:  $9.681 \pm 0.494$   $\chi^2/\text{NDF}$ : 296.3/9

Left Out:  $3.024 \pm 0.900$   $\chi^2/\text{NDF}$ : 0.6/4

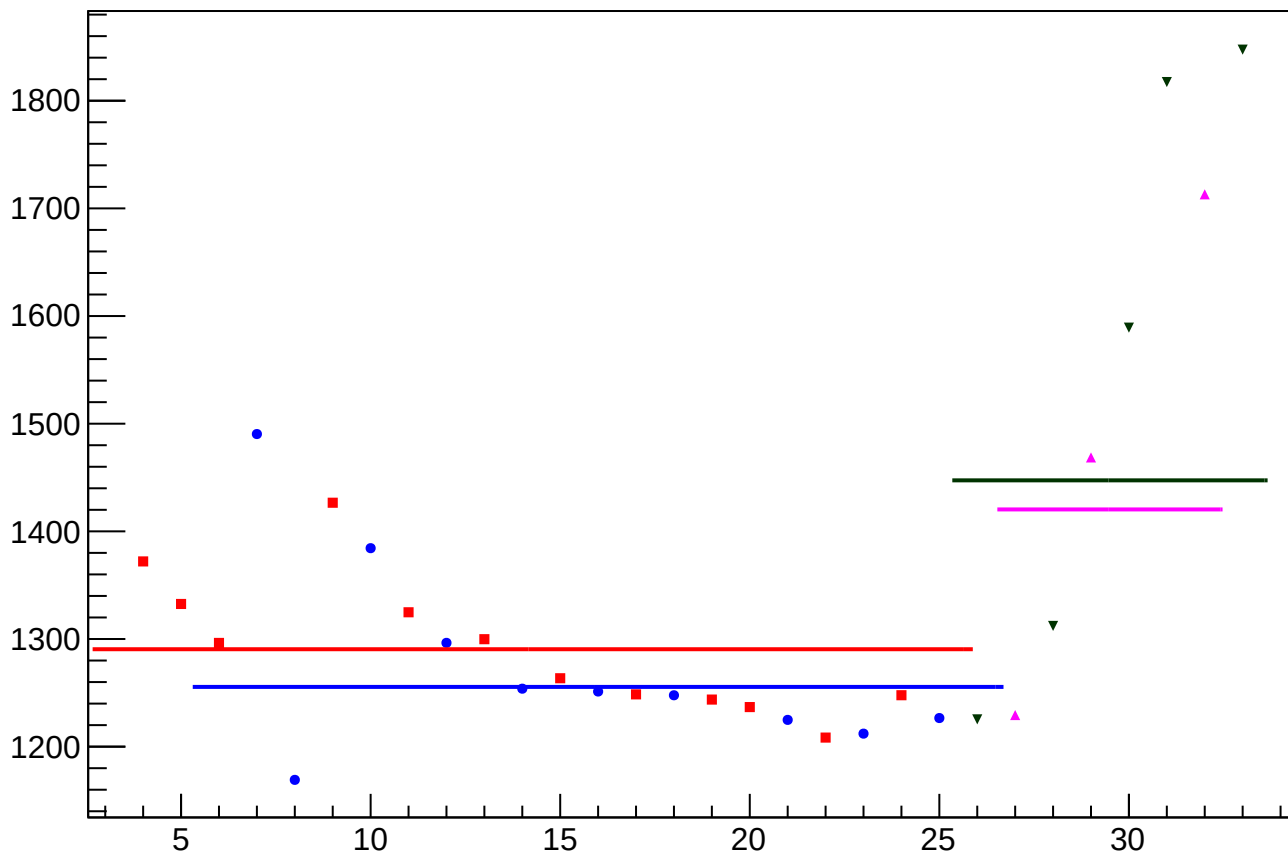
Right Out:  $6.280 \pm 0.510$   $\chi^2/\text{NDF}$ : 35.7/11

Left In:  $-0.846 \pm 0.889$   $\chi^2/\text{NDF}$ : 34.1/2

$8.140 \pm 0.433$   $\chi^2/\text{NDF}$ : 338.9/14

$4.515 \pm 0.442$   $\chi^2/\text{NDF}$ : 118.1/14

# diff\_bpm0l07Y\_rms vs slug



Right In: 1255.503+/-0.349  $\chi^2/\text{NDF}$ : 41466.5/9

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

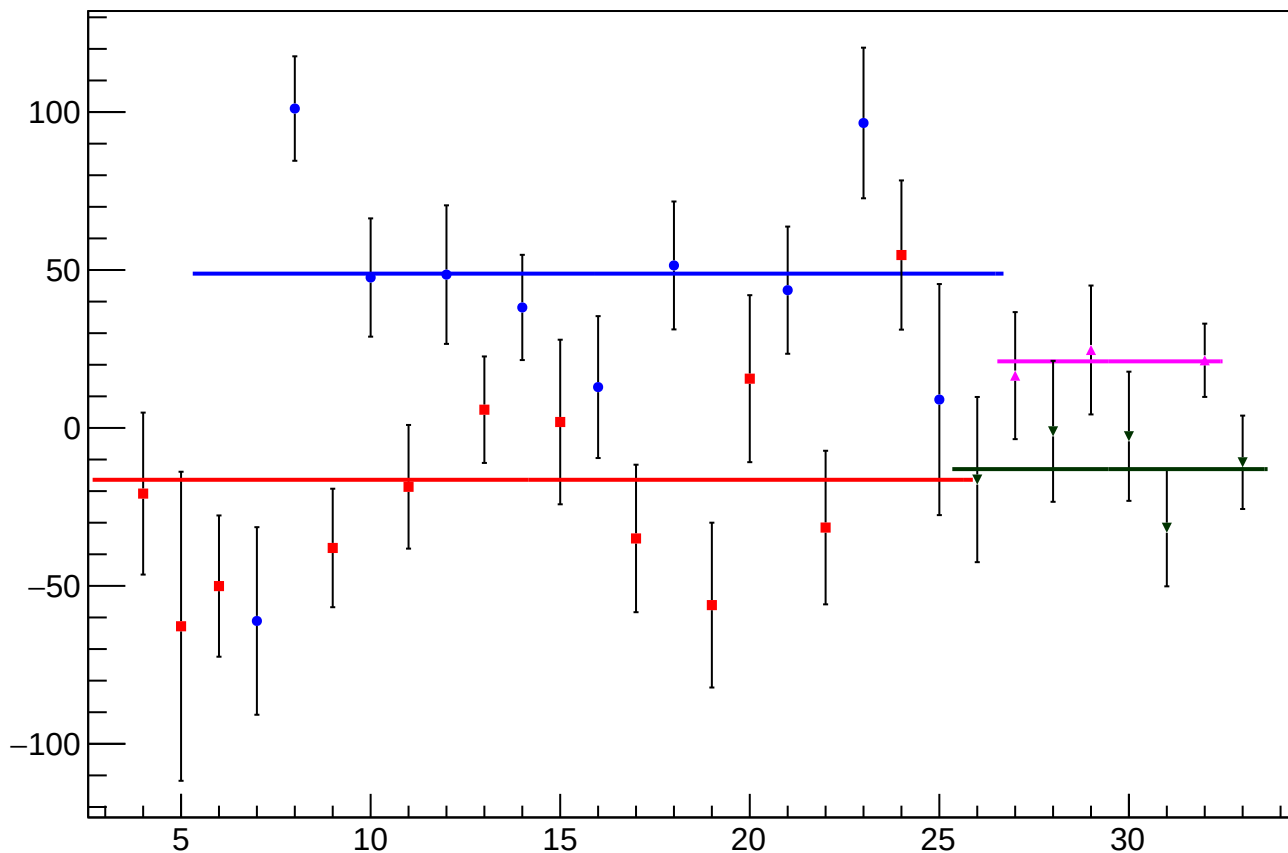
Right Out: 1290.505+/-0.361  $\chi^2/\text{NDF}$ : 28459.4/11

Left In: 1420.358+/-0.628  $\chi^2/\text{NDF}$ : 95526.3/2

1299.938+/-0.306  $\chi^2/\text{NDF}$ : 246811.3/14

1322.680+/-0.313  $\chi^2/\text{NDF}$ : 156100.4/14

# diff\_bpm0l08X\_mean vs slug



Right In:  $48.850 \pm 6.634$   $\chi^2/\text{NDF}: 31.9/9$

Left Out:  $-13.033 \pm 8.657$   $\chi^2/\text{NDF}: 1.6/4$

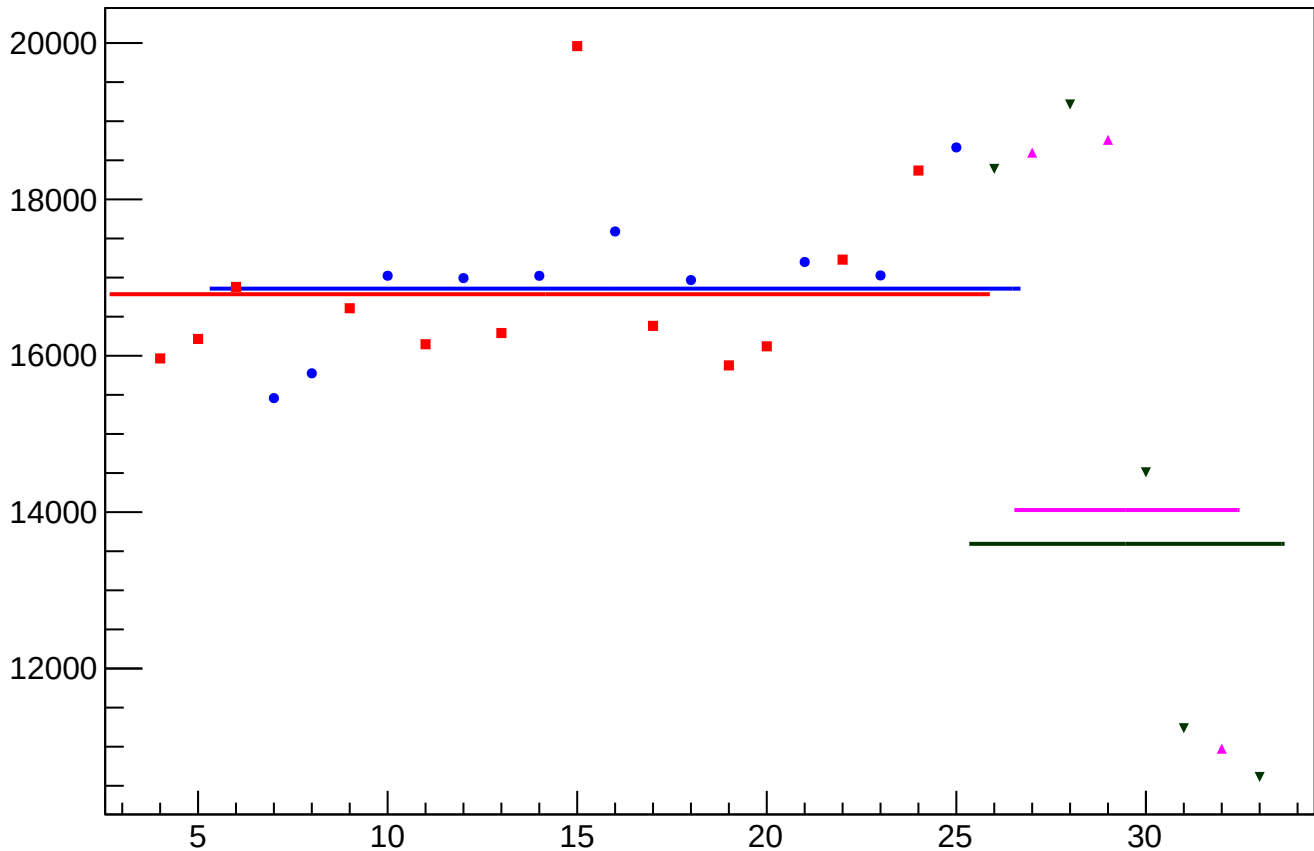
Right Out:  $-16.413 \pm 6.651$   $\chi^2/\text{NDF}: 20.6/11$

Left In:  $21.080 \pm 9.014$   $\chi^2/\text{NDF}: 0.1/2$

$25.953 \pm 5.266$   $\chi^2/\text{NDF}: 65.7/14$

$-3.196 \pm 5.352$   $\chi^2/\text{NDF}: 31.9/14$

# diff\_bpm0l08X\_rms vs slug



Right In:  $16858.609 \pm 4.691$   $\chi^2/\text{NDF}$ : 21176.8/9

Left Out:  $13594.513 \pm 6.121$   $\chi^2/\text{NDF}$ : 311884.8/4

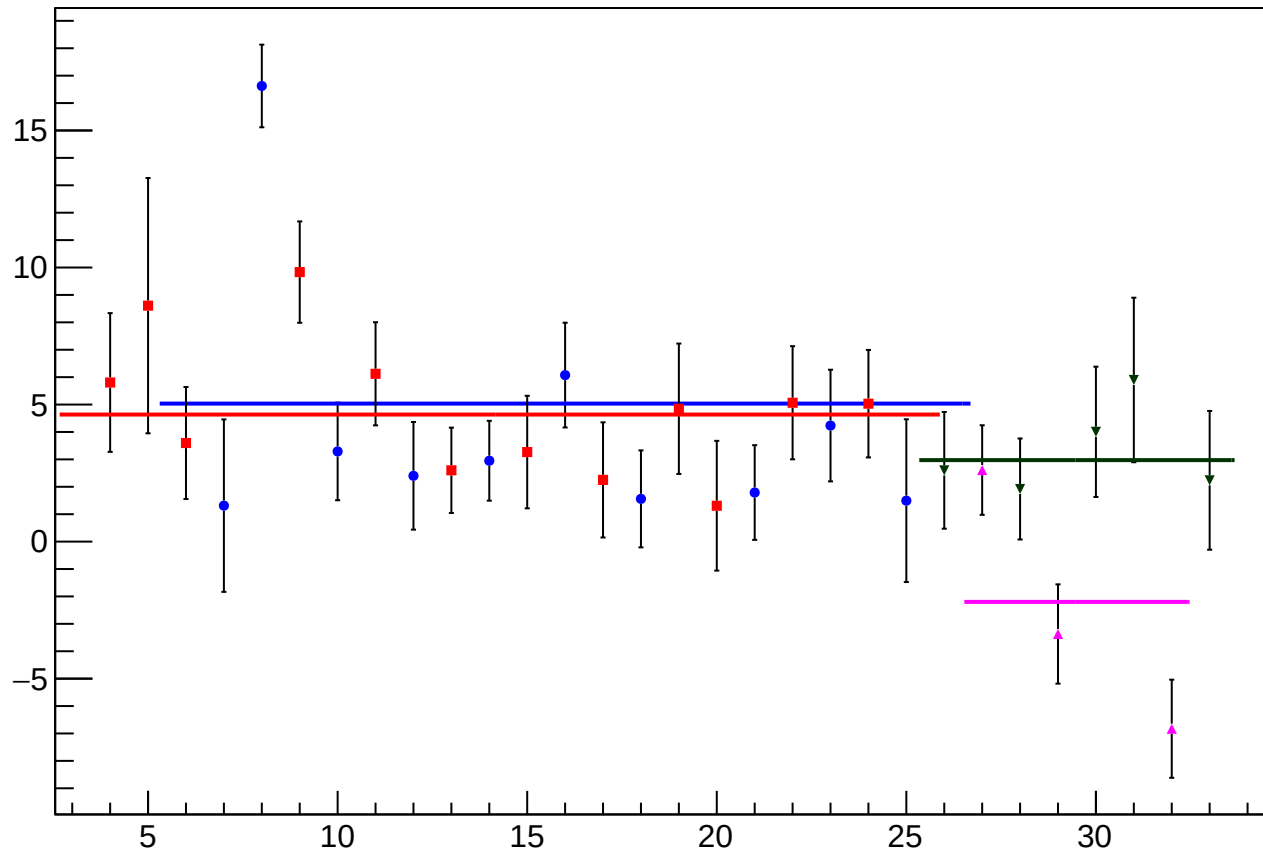
$15650.879 \pm 3.723$   $\chi^2/\text{NDF}$ : 512207.5/14

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

$15814.100 \pm 3.784$   $\chi^2/\text{NDF}$ : 520977.1/14

Left In:  $14026.990 \pm 6.374$   $\chi^2/\text{NDF}$ : 349533.5/2

diff\_bpm0l08Y\_mean vs slug



Right In:  $5.036 \pm 0.590$   $\chi^2/\text{NDF}$ : 74.6/9

Left Out:  $2.973 \pm 1.021$   $\chi^2/\text{NDF}$ : 1.6/4

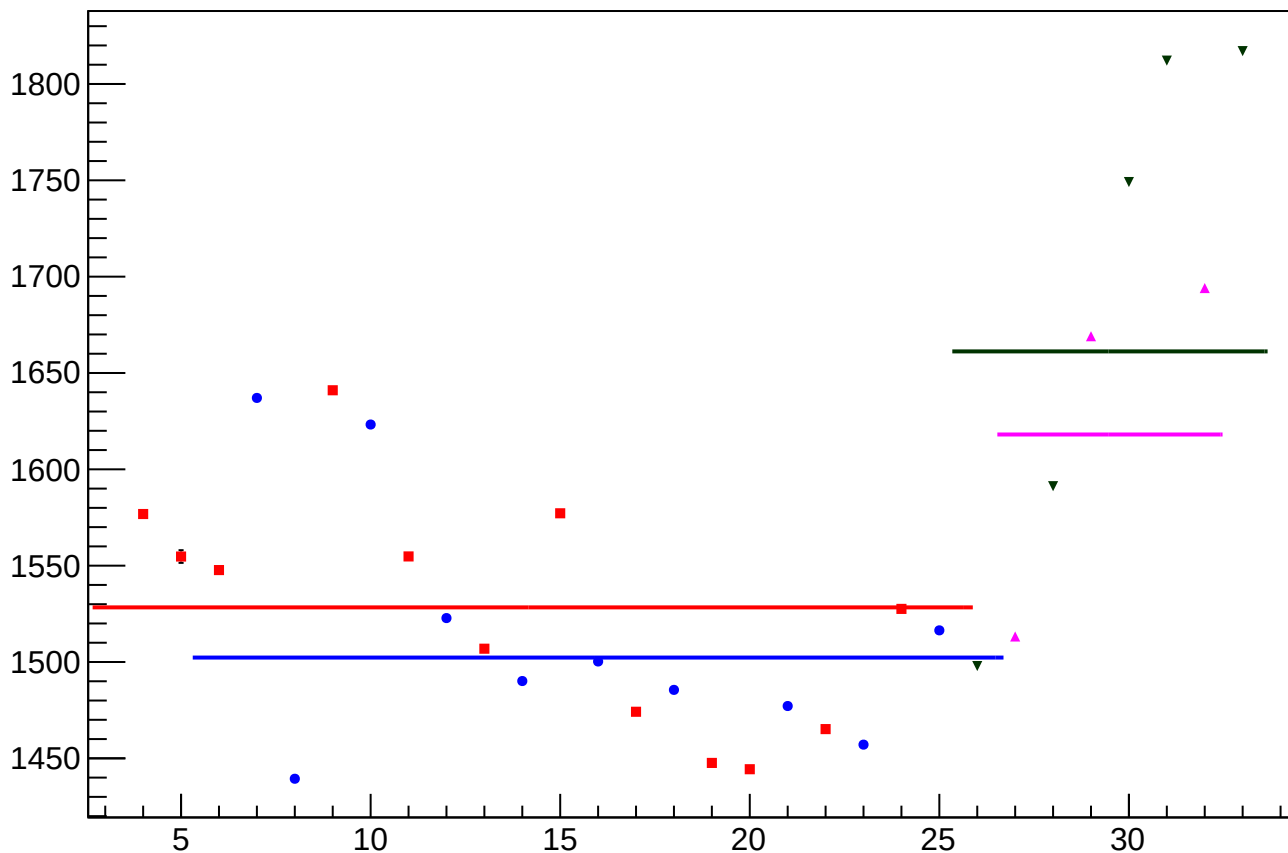
Right Out:  $4.636 \pm 0.604$   $\chi^2/\text{NDF}$ : 15.2/11

Left In:  $-2.199 \pm 1.004$   $\chi^2/\text{NDF}$ : 15.8/2

$4.519 \pm 0.511$   $\chi^2/\text{NDF}$ : 79.2/14

$2.821 \pm 0.517$   $\chi^2/\text{NDF}$ : 65.0/14

# diff\_bpm0l08Y\_rms vs slug



Right In: 1502.304+/-0.417  $\chi^2/\text{NDF}$ : 18372.8/9

Left Out: 1661.205+/-0.722  $\chi^2/\text{NDF}$ : 30024.2/4

Right Out: 1528.347+/-0.427  $\chi^2/\text{NDF}$ : 18336.6/11

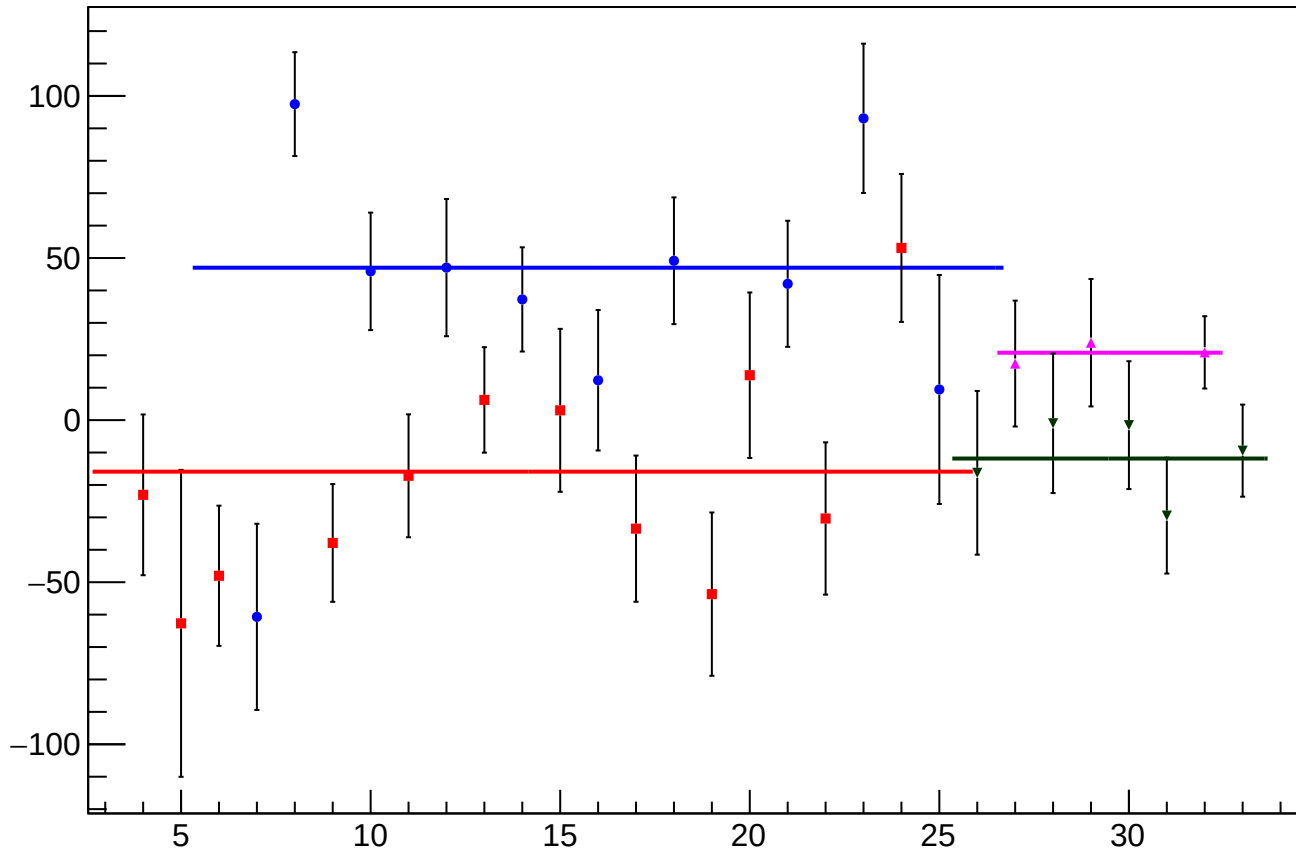
Left In: 1618.081+/-0.710  $\chi^2/\text{NDF}$ : 13423.1/2

1542.105+/-0.361  $\chi^2/\text{NDF}$ : 84703.4/14

1552.168+/-0.366  $\chi^2/\text{NDF}$ : 43486.8/14



# diff\_bpm0l09X\_mean vs slug



Right In: 47.015+/-6.411  $\chi^2/\text{NDF}$ : 32.1/9

Left Out: -11.850+/-8.338  $\chi^2/\text{NDF}$ : 1.6/4

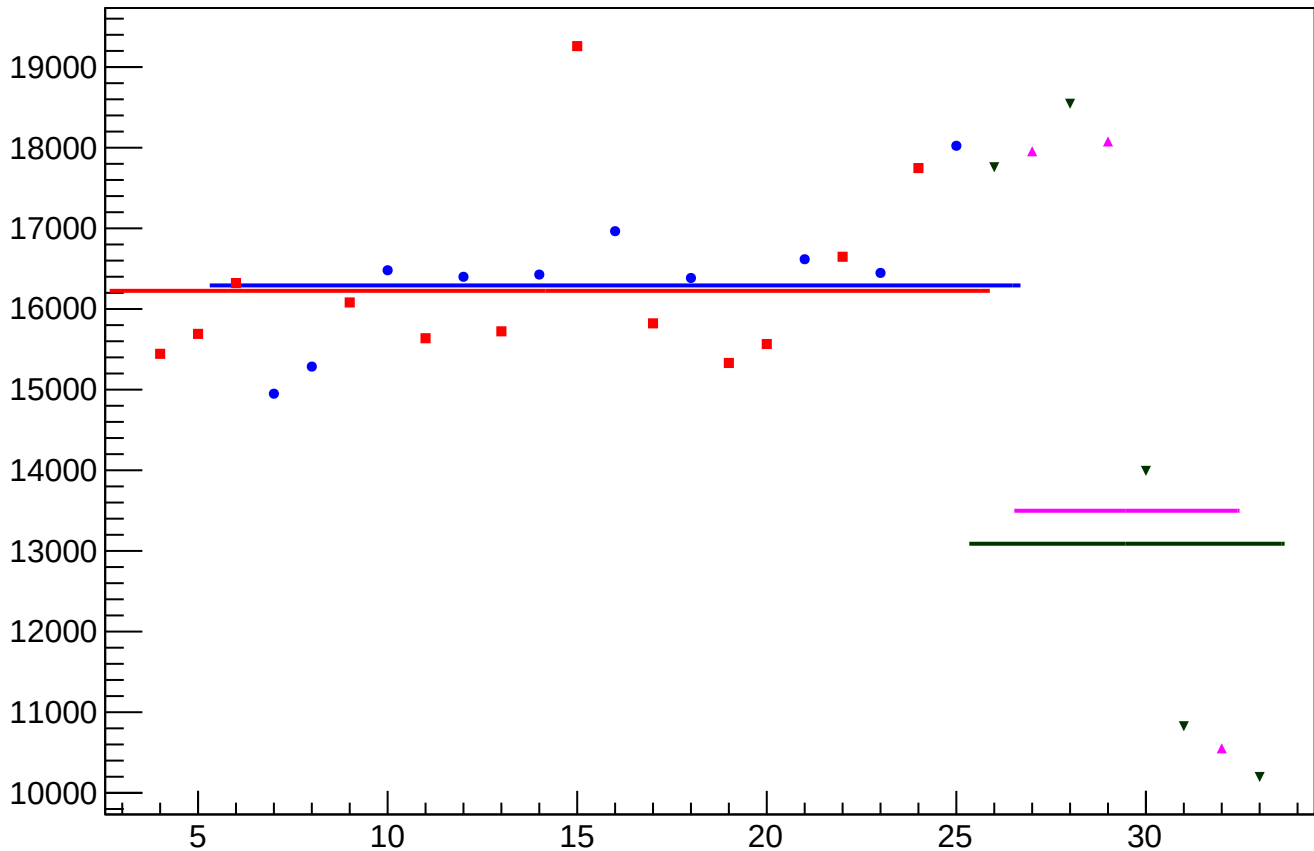
Right Out: -15.898+/-6.429  $\chi^2/\text{NDF}$ : 20.9/11

Left In: 20.789+/-8.678  $\chi^2/\text{NDF}$ : 0.1/2

25.146+/-5.082  $\chi^2/\text{NDF}$ : 65.0/14

-2.898+/-5.166  $\chi^2/\text{NDF}$ : 32.5/14

# diff\_bpm0l09X\_rms vs slug



Right In: 16292.193+/-4.533  $\chi^2/\text{NDF}$ : 20100.0/9

Left Out: 13089.127+/-5.896  $\chi^2/\text{NDF}$ :315981.7/4

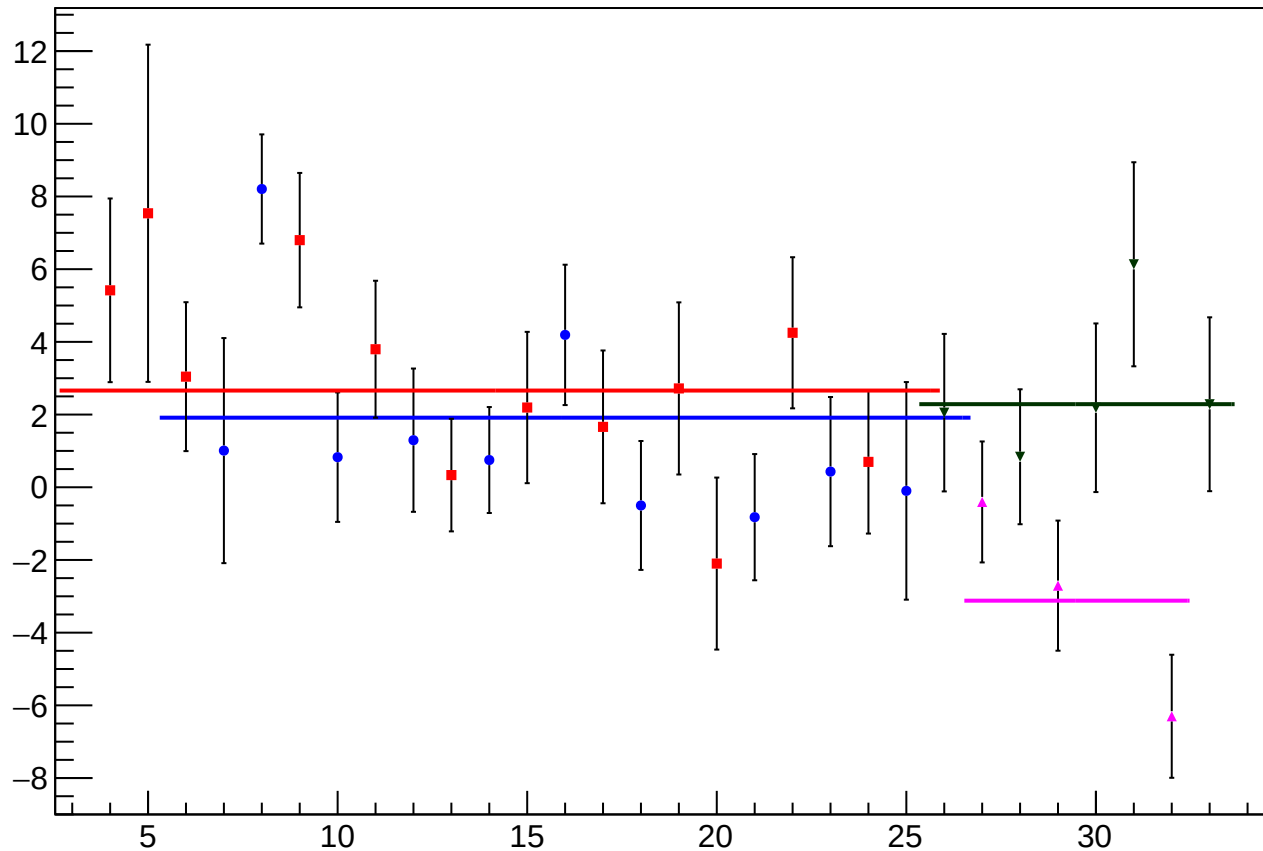
15102.198+/-3.594  $\chi^2/\text{NDF}$ : 521568.3/14

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

15258.977+/-3.653  $\chi^2/\text{NDF}$ : 530475.2/14

Left In: 13498.104+/-6.136  $\chi^2/\text{NDF}$ :353504.5/2

# diff\_bpm0l09Y\_mean vs slug



Right In:  $1.914 \pm 0.592$   $\chi^2/\text{NDF}: 25.4/9$

Left Out:  $2.286 \pm 1.005$   $\chi^2/\text{NDF}: 2.5/4$

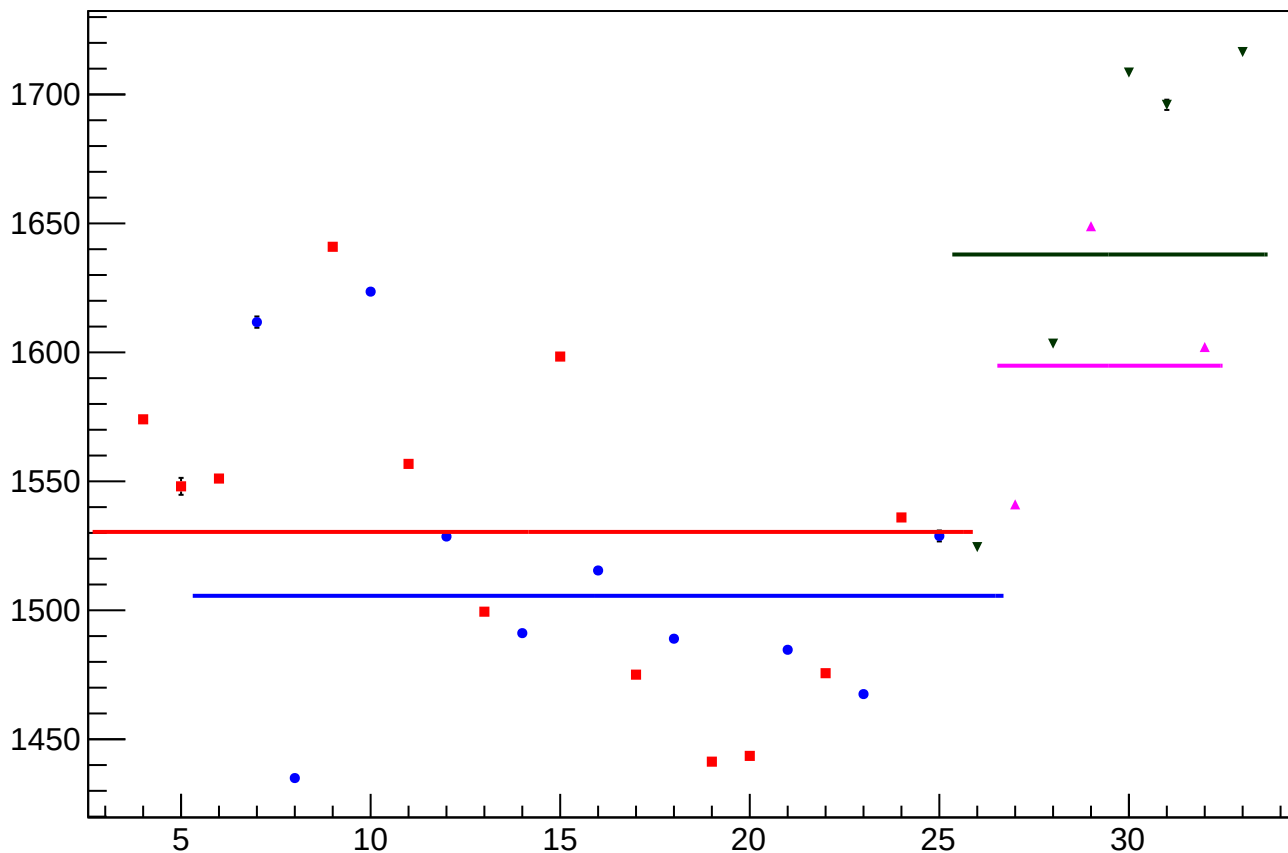
Right Out:  $2.661 \pm 0.605$   $\chi^2/\text{NDF}: 15.9/11$

Left In:  $-3.120 \pm 0.989$   $\chi^2/\text{NDF}: 6.2/2$

$2.010 \pm 0.510$   $\chi^2/\text{NDF}: 28.0/14$

$1.088 \pm 0.516$   $\chi^2/\text{NDF}: 47.0/14$

# diff\_bpm0l09Y\_rms vs slug



Right In: 1505.616+/-0.418  $\chi^2/\text{NDF}$ : 17340.1/9

Left Out: 1637.952+/-0.710  $\chi^2/\text{NDF}$ : 11035.4/4

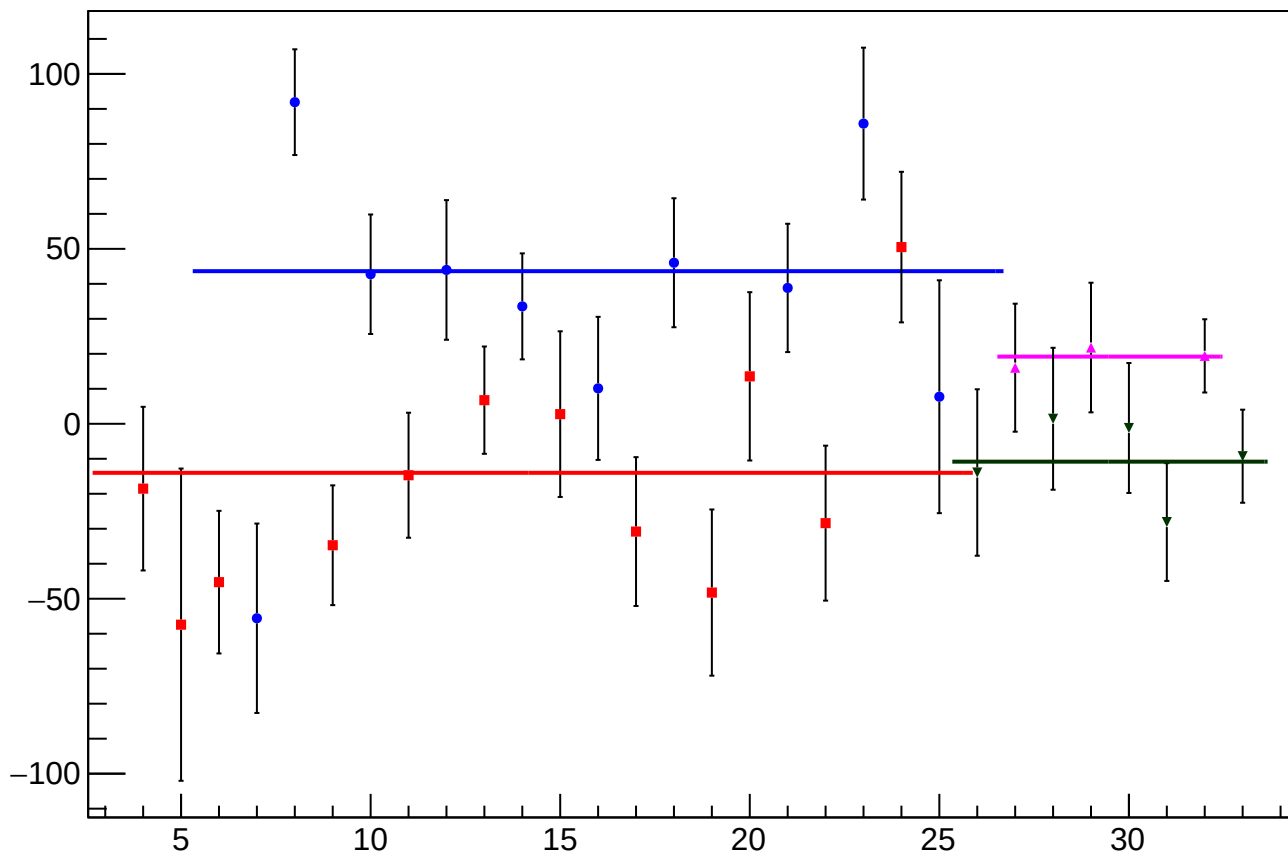
Right Out: 1530.389+/-0.428  $\chi^2/\text{NDF}$ : 19618.0/11

Left In: 1594.836+/-0.699  $\chi^2/\text{NDF}$ : 3950.4/2

1539.685+/-0.360  $\chi^2/\text{NDF}$ : 54143.9/14

1547.924+/-0.365  $\chi^2/\text{NDF}$ : 29750.2/14

# diff\_bpm0l10X\_mean vs slug



Right In:  $43.620 \pm 6.044$   $\chi^2/\text{NDF}: 31.8/9$

Left Out:  $-10.821 \pm 7.837$   $\chi^2/\text{NDF}: 1.7/4$

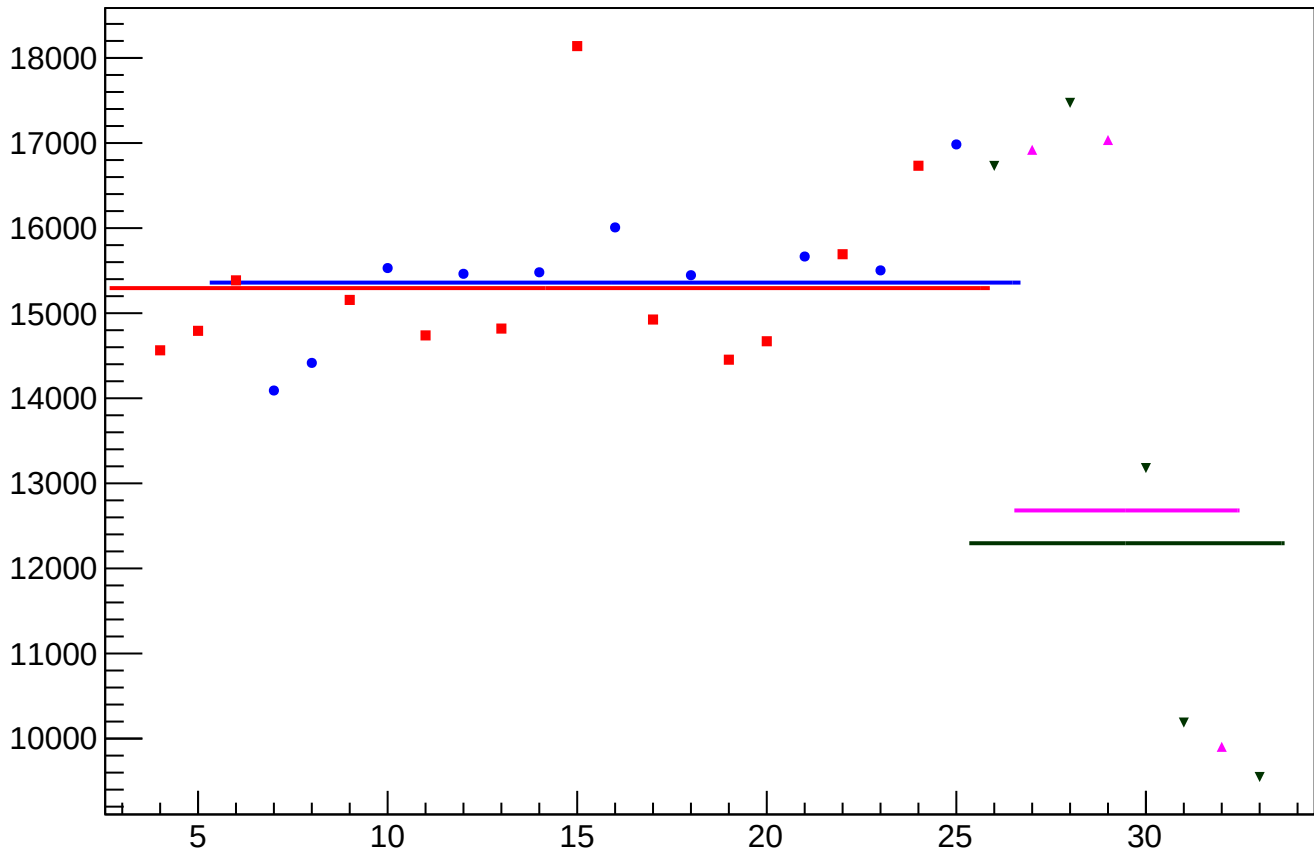
Right Out:  $-14.010 \pm 6.060$   $\chi^2/\text{NDF}: 20.6/11$

Left In:  $19.201 \pm 8.157$   $\chi^2/\text{NDF}: 0.1/2$

$23.318 \pm 4.786$   $\chi^2/\text{NDF}: 63.8/14$

$-2.200 \pm 4.864$   $\chi^2/\text{NDF}: 31.3/14$

# diff\_bpm0l10X\_rms vs slug



Right In:  $15359.560 \pm 4.274$   $\chi^2/\text{NDF}$ : 20044.9/9

Left Out:  $12296.111 \pm 5.542$   $\chi^2/\text{NDF}$ : 320998.1/4

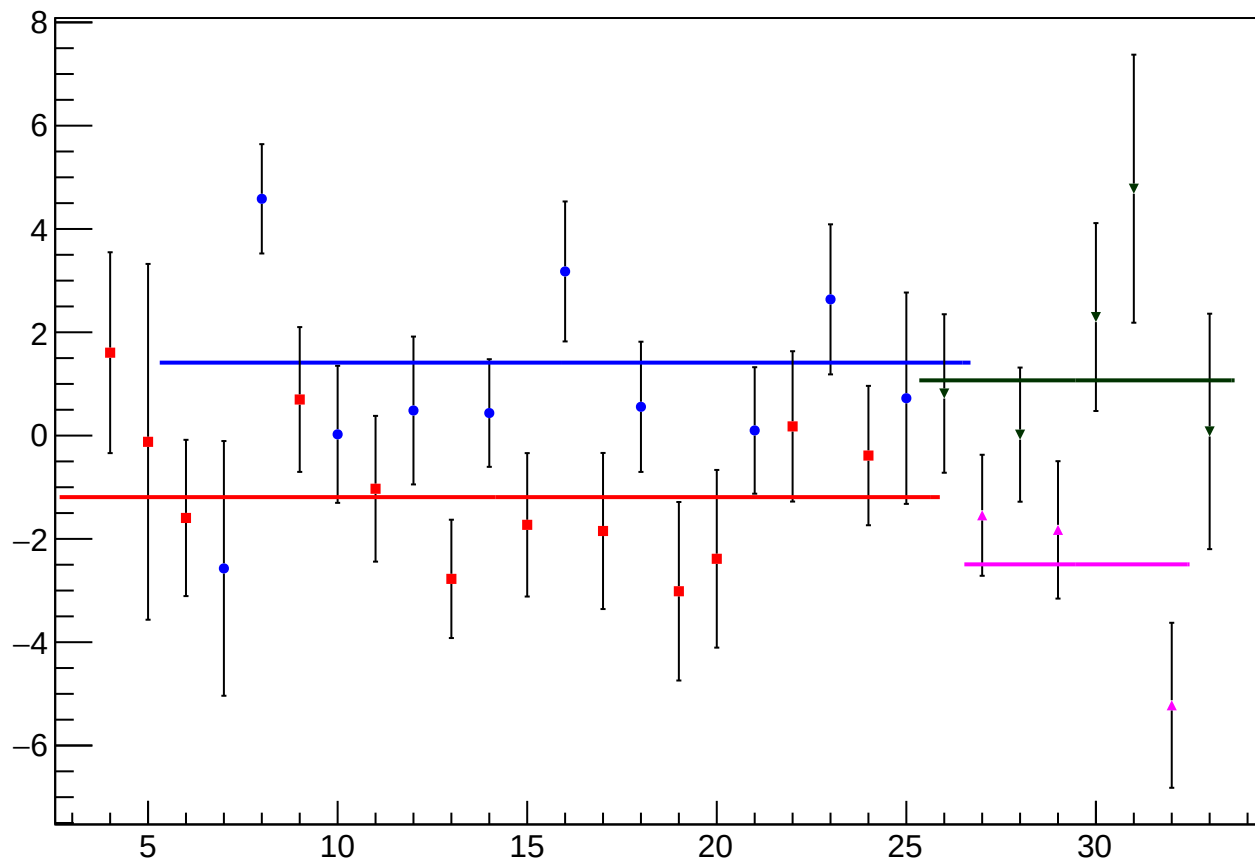
$14217.133 \pm 3.384$   $\chi^2/\text{NDF}$ : 532670.5/14

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

$14365.429 \pm 3.440$   $\chi^2/\text{NDF}$ : 540214.6/14

Left In:  $12681.429 \pm 5.768$   $\chi^2/\text{NDF}$ : 358776.5/2

# diff\_bpm0l10Y\_mean vs slug



Right In:  $1.412 \pm 0.423$   $\chi^2/\text{NDF}$ : 18.1/9

Left Out:  $1.069 \pm 0.776$   $\chi^2/\text{NDF}$ : 3.4/4

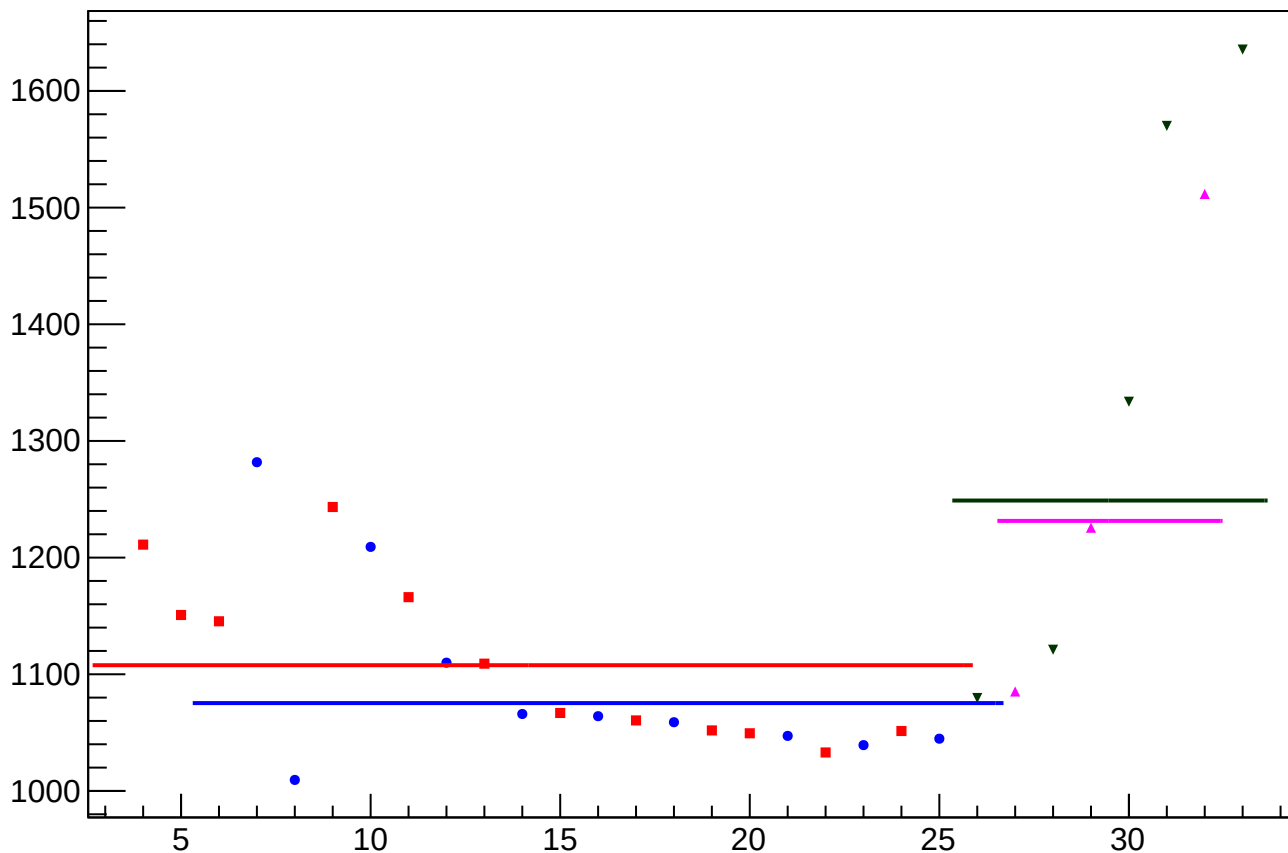
Right Out:  $-1.191 \pm 0.438$   $\chi^2/\text{NDF}$ : 9.1/11

Left In:  $-2.493 \pm 0.770$   $\chi^2/\text{NDF}$ : 3.8/2

$1.334 \pm 0.371$   $\chi^2/\text{NDF}$ : 21.6/14

$-1.510 \pm 0.381$   $\chi^2/\text{NDF}$ : 15.1/14

# diff\_bpm0l10Y\_rms vs slug



Right In: 1075.302+/-0.299  $\chi^2/\text{NDF}$ : 46677.3/9

Left Out: 1248.923+/-0.549  $\chi^2/\text{NDF}$ :136233.9/4

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

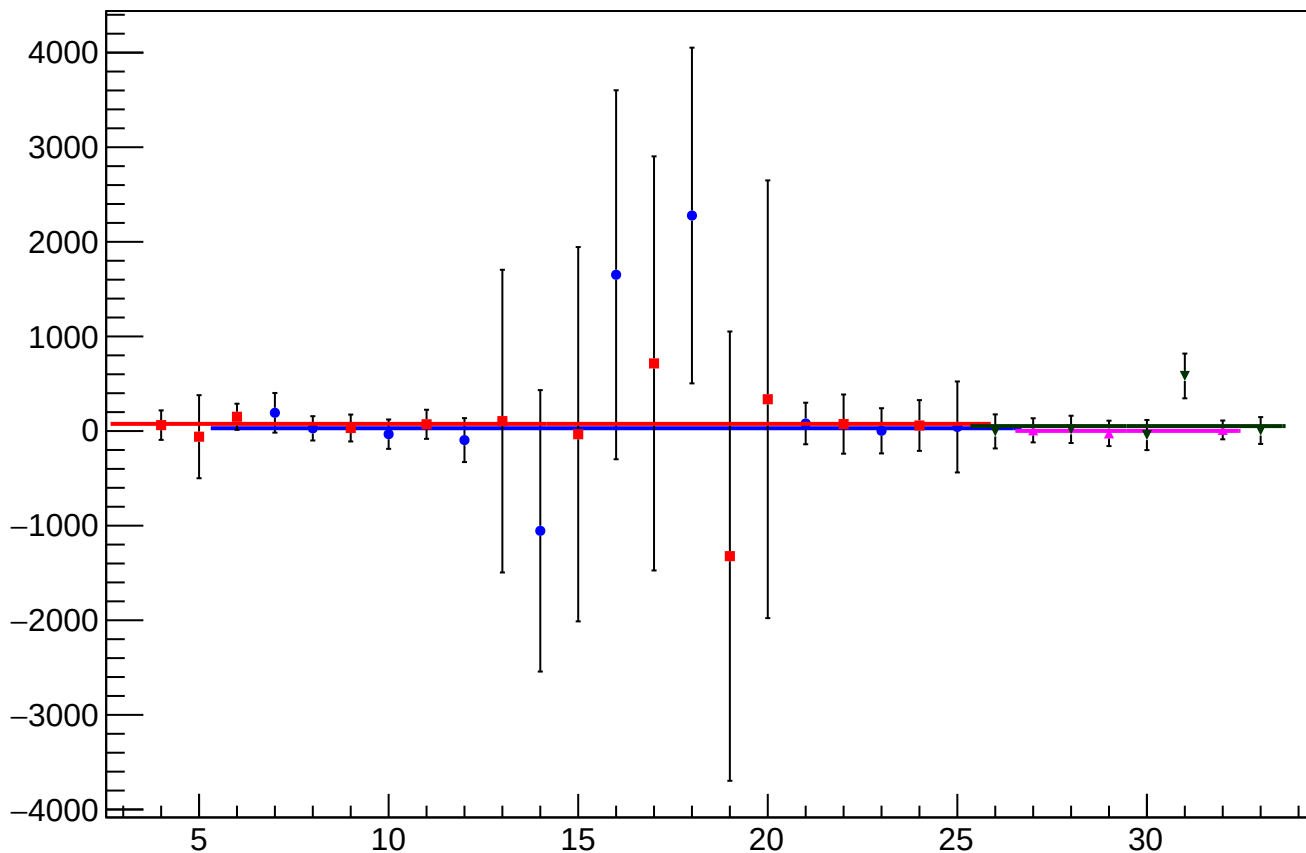
Left In: 1231.466+/-0.545  $\chi^2/\text{NDF}$ :92763.2/2

1115.080+/-0.263  $\chi^2/\text{NDF}$ : 260108.7/14

1138.008+/-0.269  $\chi^2/\text{NDF}$ : 177950.3/14



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



Right In: 29.643 +/- 73.127  $\chi^2/\text{NDF}$ : 4.0/9

Left Out: 52.449 +/- 73.303  $\chi^2/\text{NDF}$ : 5.6/4

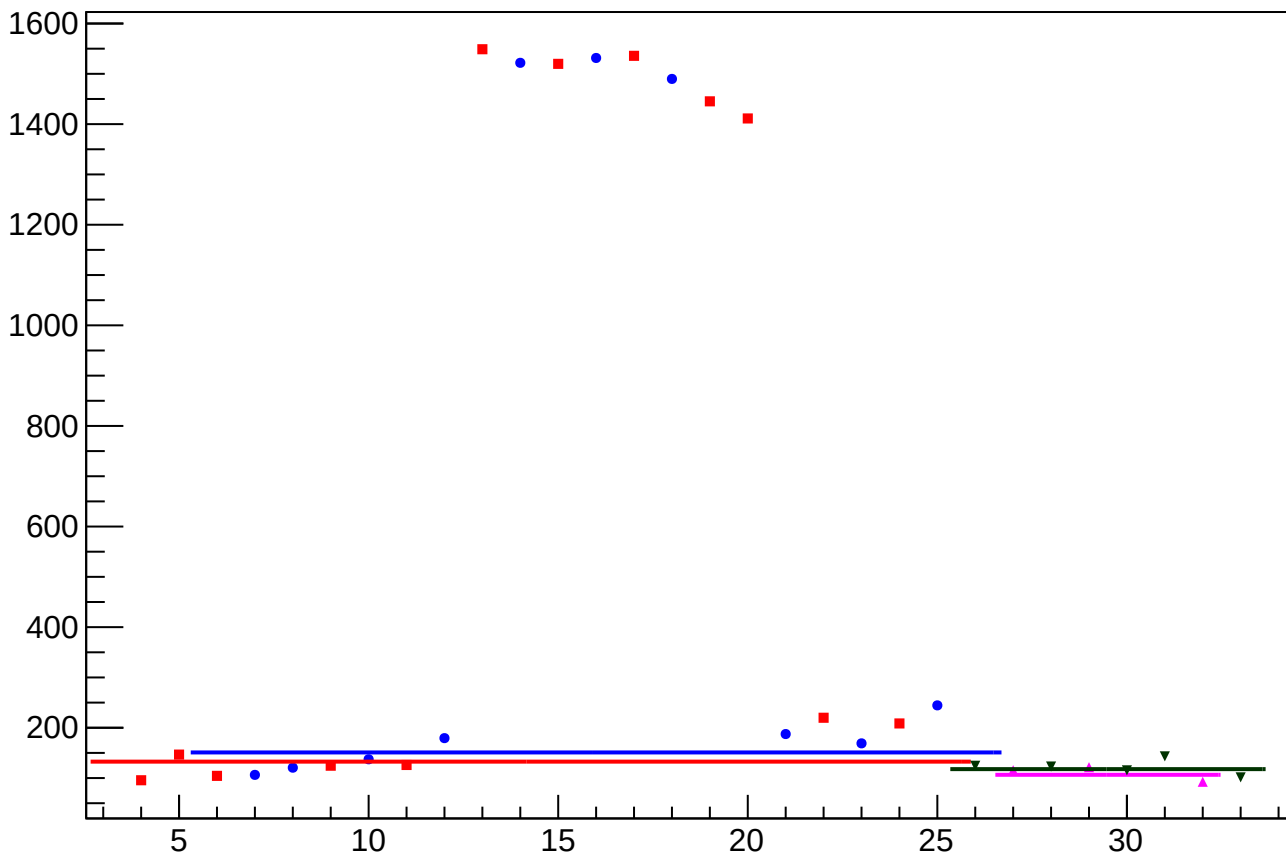
Right Out: 75.901 +/- 68.054  $\chi^2/\text{NDF}$ : 0.9/11

Left In: 1.459 +/- 67.656  $\chi^2/\text{NDF}$ : 0.1/2

41.018 +/- 51.771  $\chi^2/\text{NDF}$ : 9.6/14

38.462 +/- 47.980  $\chi^2/\text{NDF}$ : 1.6/14

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



Right In: 150.926+/-0.052  $\chi^2/\text{NDF}$ : 4230041.1/9

Left Out: 117.758+/-0.052  $\chi^2/\text{NDF}$ : 55476.9/4

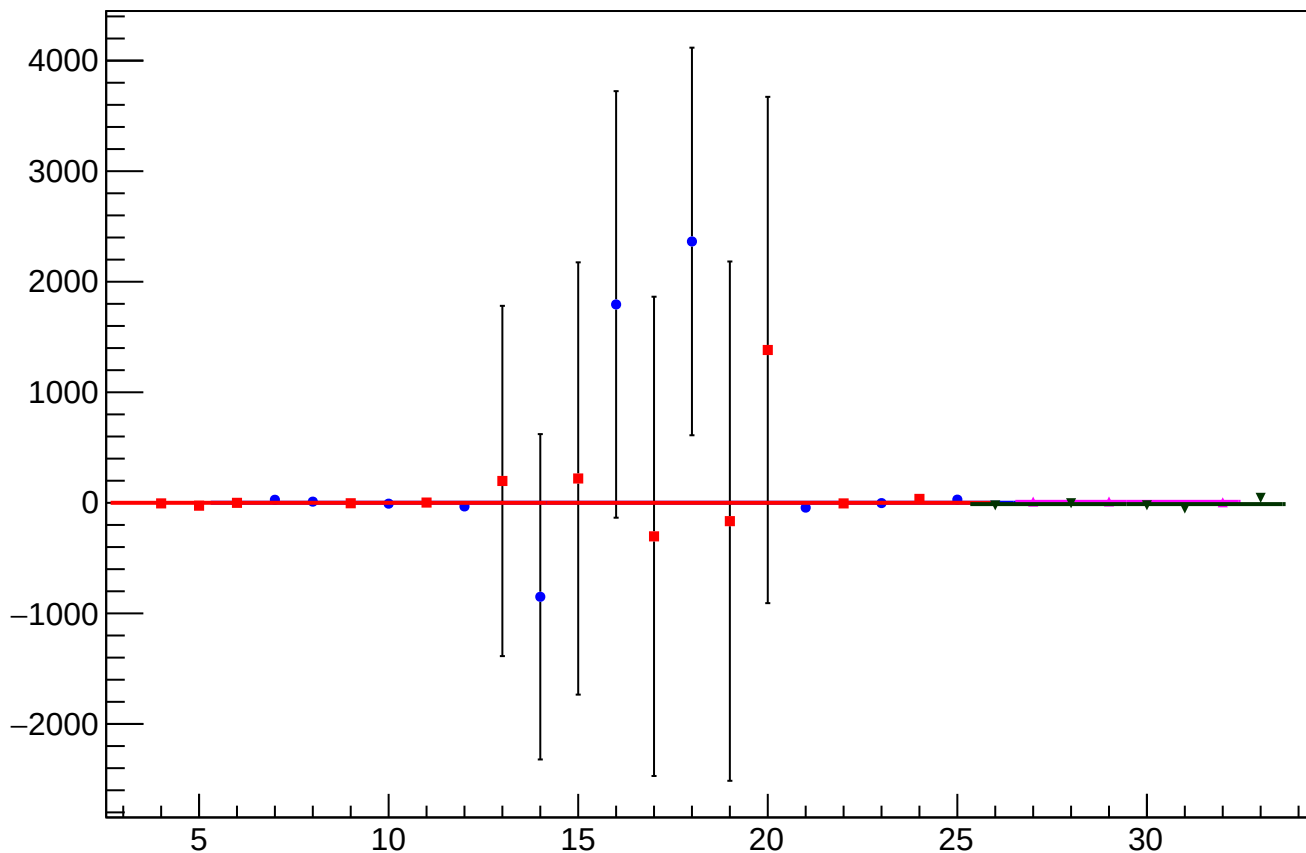
134.382+/-0.037  $\chi^2/\text{NDF}$ : 4490744.2/14

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

119.485+/-0.034  $\chi^2/\text{NDF}$ : 5343445.1/14

Left In: 106.477+/-0.048  $\chi^2/\text{NDF}$ : 74646.8/2

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



Right In: 0.955+/-6.198     $\chi^2/\text{NDF}$ : 11.8/9

Left Out: -11.375+/-11.229     $\chi^2/\text{NDF}$ : 6.6/4

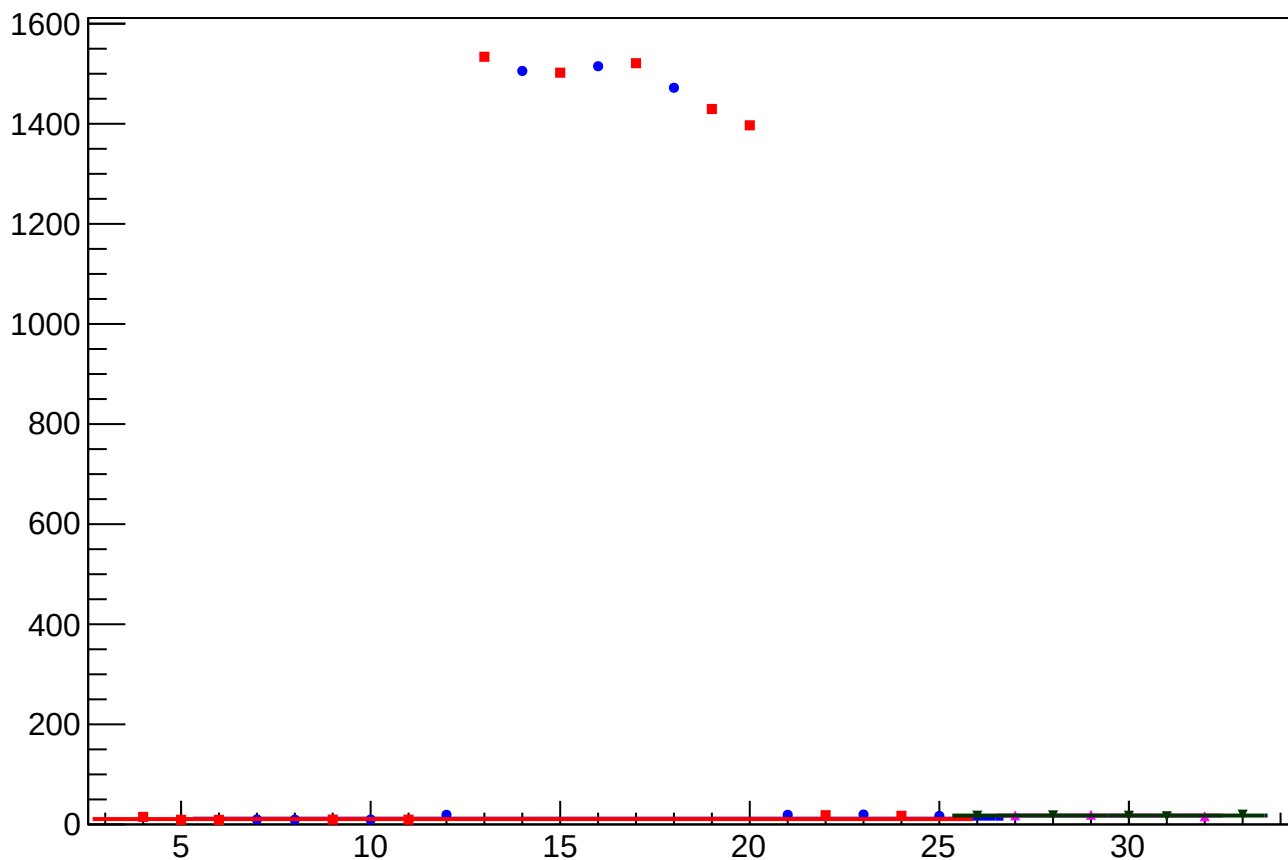
Right Out: 0.325+/-5.882     $\chi^2/\text{NDF}$ : 4.0/11

Left In: 9.072+/-11.358     $\chi^2/\text{NDF}$ : 0.1/2

-1.924+/-5.426     $\chi^2/\text{NDF}$ : 19.3/14

2.175+/-5.223     $\chi^2/\text{NDF}$ : 4.5/14

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



Right In: 11.555+/-0.004  $\chi^2/\text{NDF}$ : 5368102.9/9

Left Out: 17.805+/-0.008  $\chi^2/\text{NDF}$ :14695.6/4

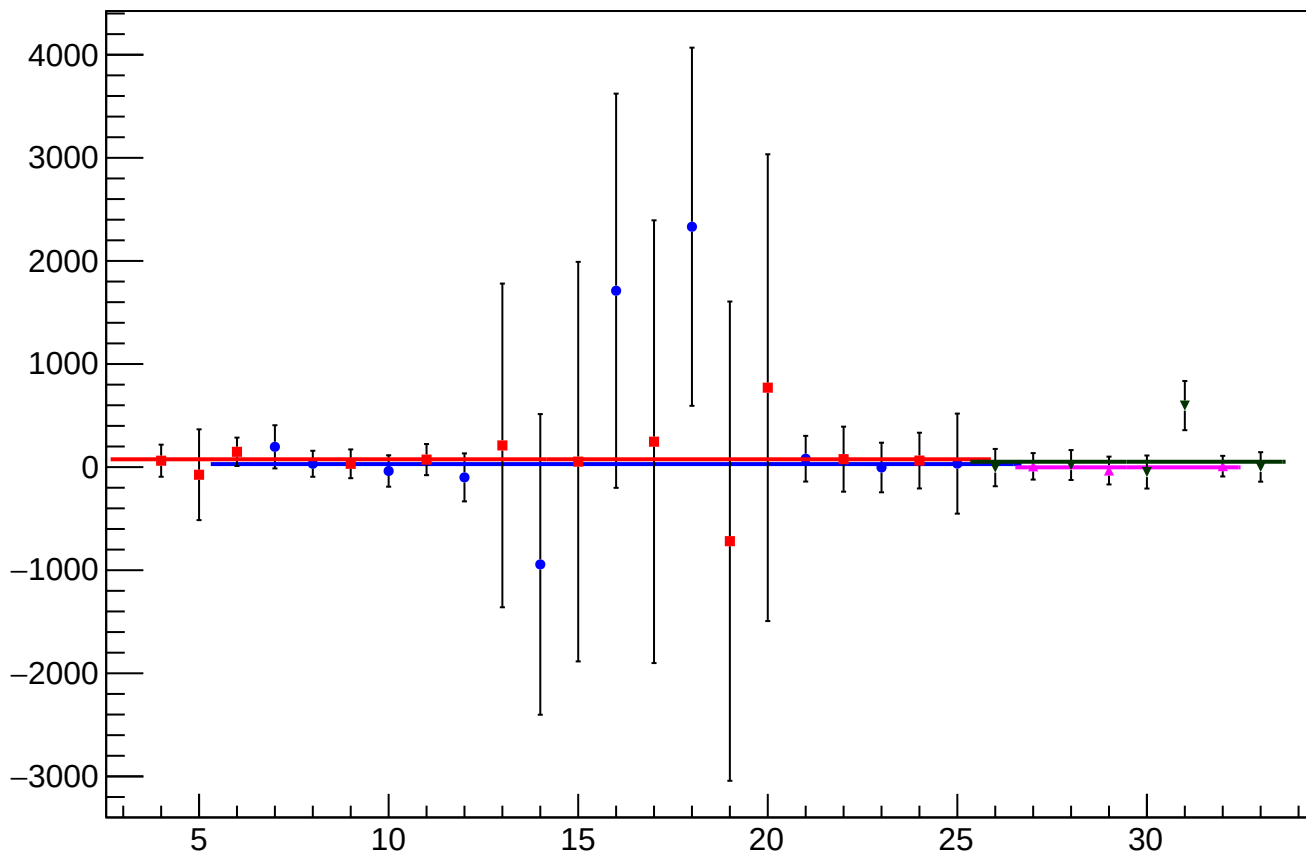
Right Out: 10.792+/-0.004  $\chi^2/\text{NDF}$ : 5922898.5/11

Left In: 17.787+/-0.008  $\chi^2/\text{NDF}$ :23366.1/2

13.015+/-0.004  $\chi^2/\text{NDF}$ : 5857756.3/14

12.272+/-0.004  $\chi^2/\text{NDF}$ : 6544421.6/14

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



Right In: 29.483 $\pm$ 72.516  $\chi^2/\text{NDF}$ : 4.2/9

Left Out: 52.072 $\pm$ 73.848  $\chi^2/\text{NDF}$ : 5.9/4

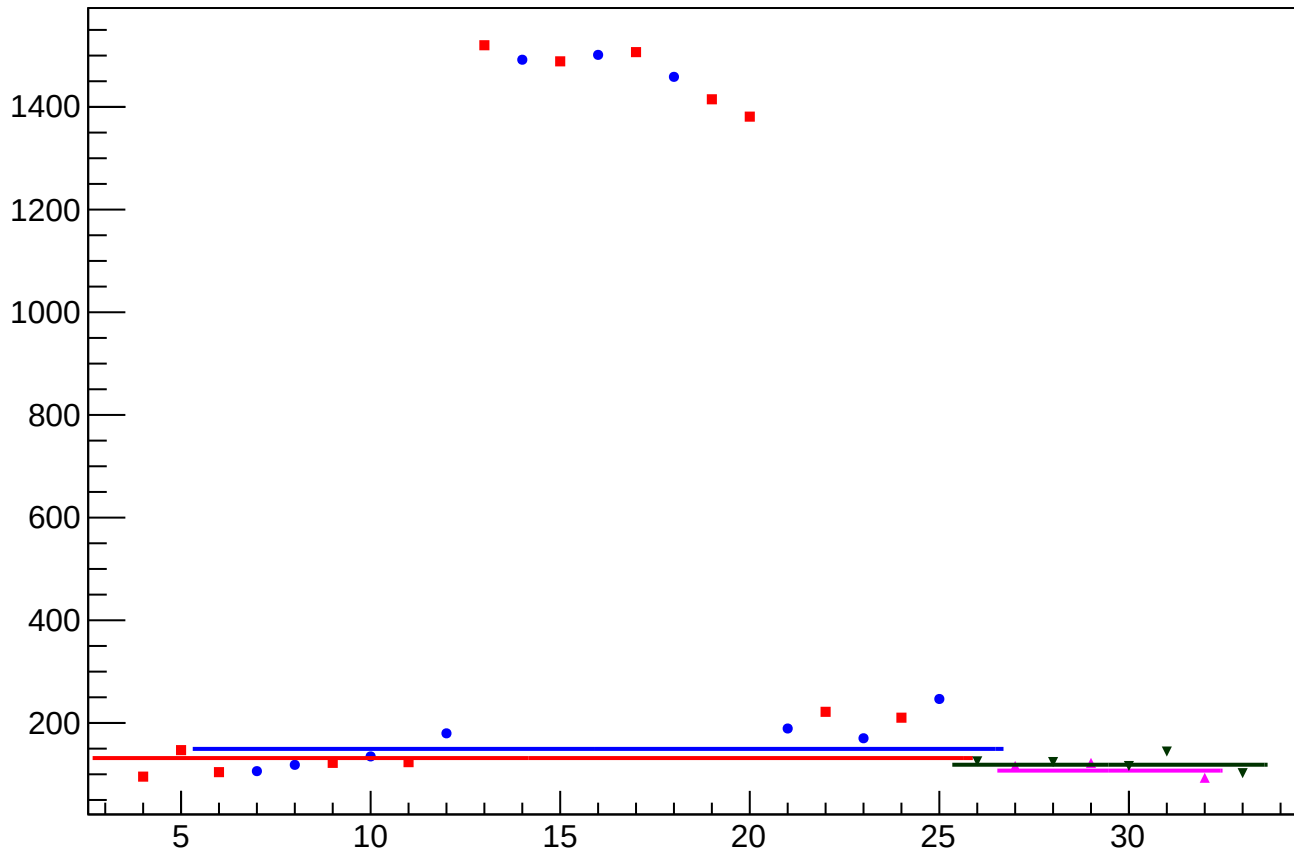
Right Out: 76.035 $\pm$ 67.528  $\chi^2/\text{NDF}$ : 0.7/11

Left In: -1.926 $\pm$ 68.106  $\chi^2/\text{NDF}$ : 0.1/2

40.572 $\pm$ 51.741  $\chi^2/\text{NDF}$ : 10.1/14

37.387 $\pm$ 47.953  $\chi^2/\text{NDF}$ : 1.5/14

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



Right In: 149.490 $\pm$ 0.051  $\chi^2$ /NDF: 4249870.3/9

Left Out: 118.633 $\pm$ 0.052  $\chi^2$ /NDF: 55344.0/4

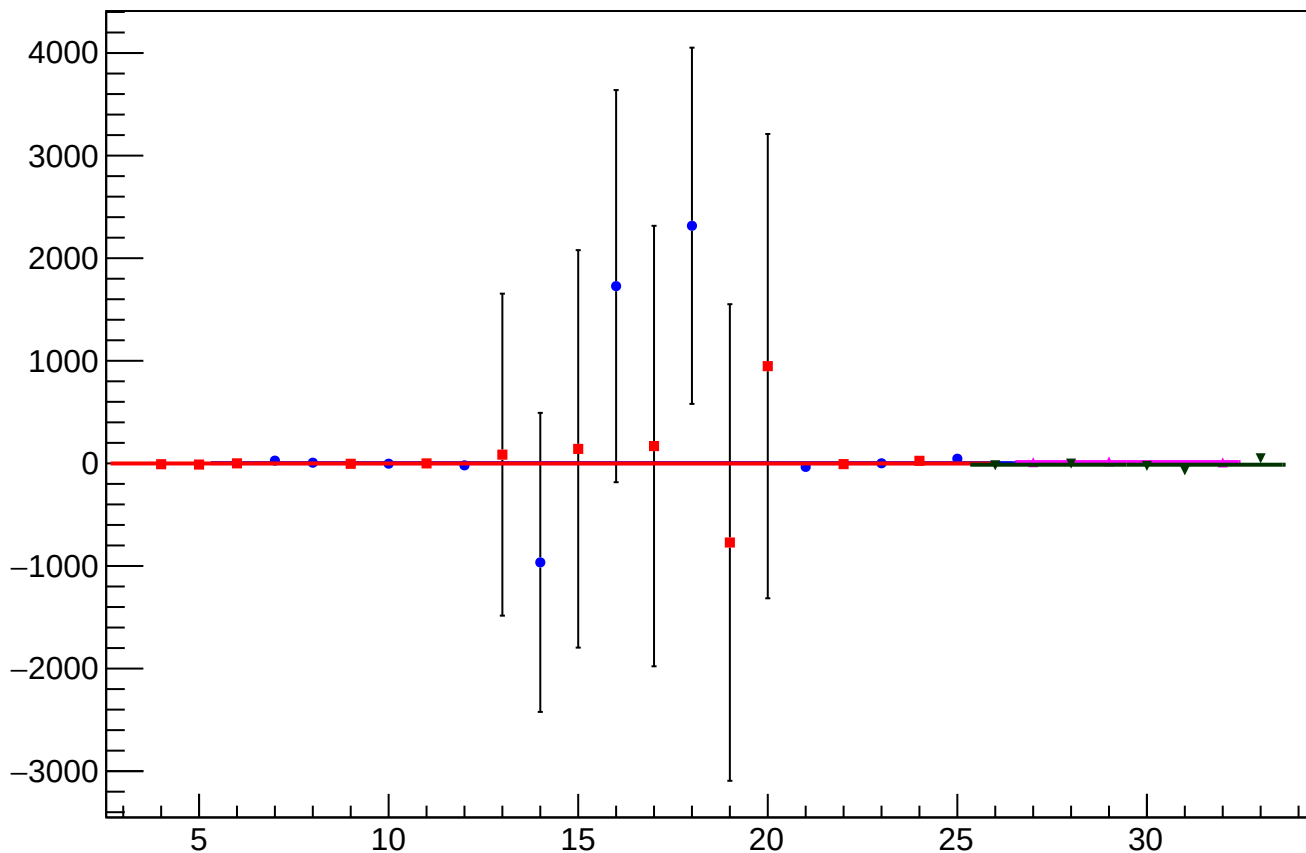
134.342 $\pm$ 0.037  $\chi^2$ /NDF: 4482990.0/14

Right Out: 131.616 $\pm$ 0.048  $\chi^2$ /NDF: 5120657.7/11

119.502 $\pm$ 0.034  $\chi^2$ /NDF: 5324786.2/14

Left In: 107.180 $\pm$ 0.048  $\chi^2$ /NDF: 74300.8/2

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



Right In: 2.611+/-5.597  $\chi^2/\text{NDF}$ : 10.1/9

Left Out: -12.853+/-10.863  $\chi^2/\text{NDF}$ : 9.7/4

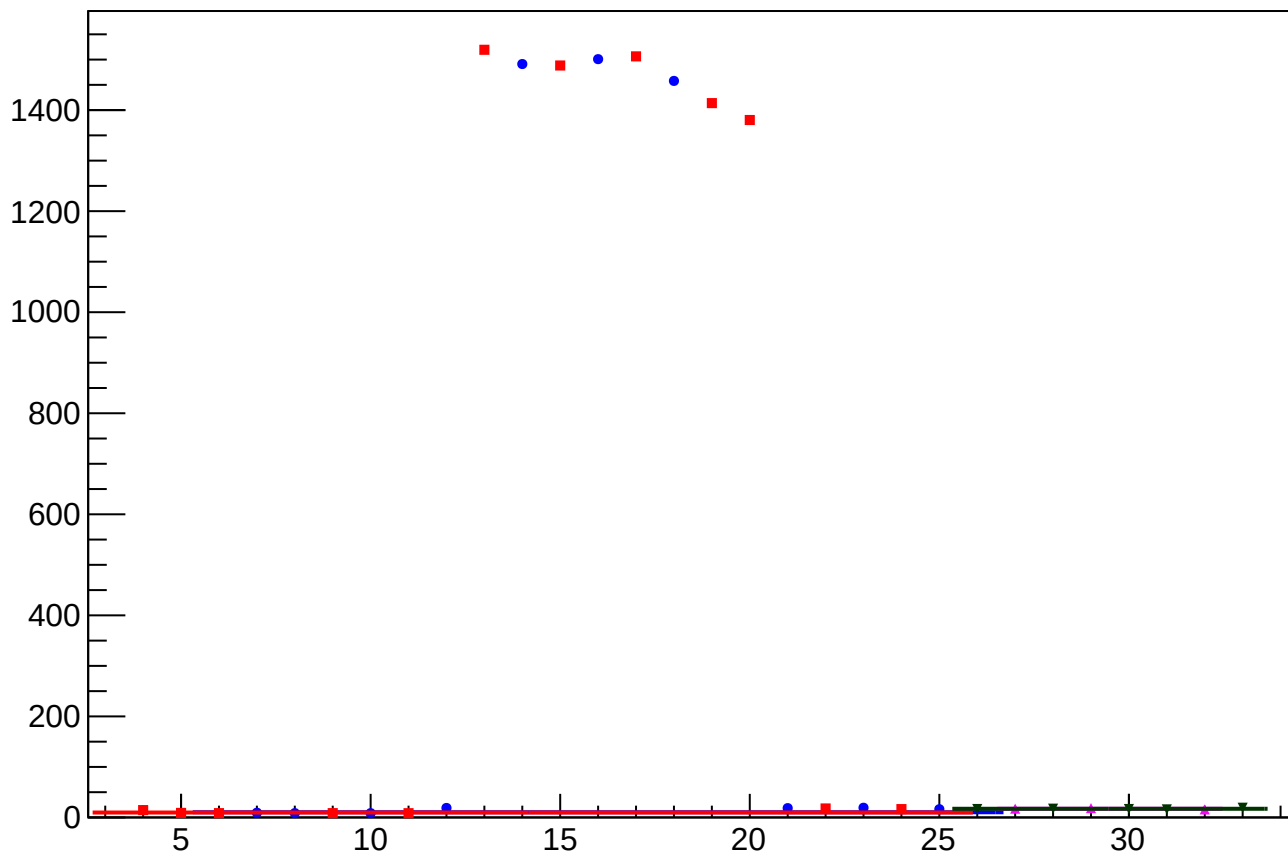
Right Out: -0.797+/-5.364  $\chi^2/\text{NDF}$ : 2.2/11

Left In: 12.897+/-10.984  $\chi^2/\text{NDF}$ : 0.2/2

-0.633+/-4.976  $\chi^2/\text{NDF}$ : 21.3/14

1.840+/-4.820  $\chi^2/\text{NDF}$ : 3.6/14

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



Right In: 10.298+/-0.004  $\chi^2/\text{NDF}$ : 5515958.7/9

Left Out: 17.183+/-0.008  $\chi^2/\text{NDF}$ :16480.8/4

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

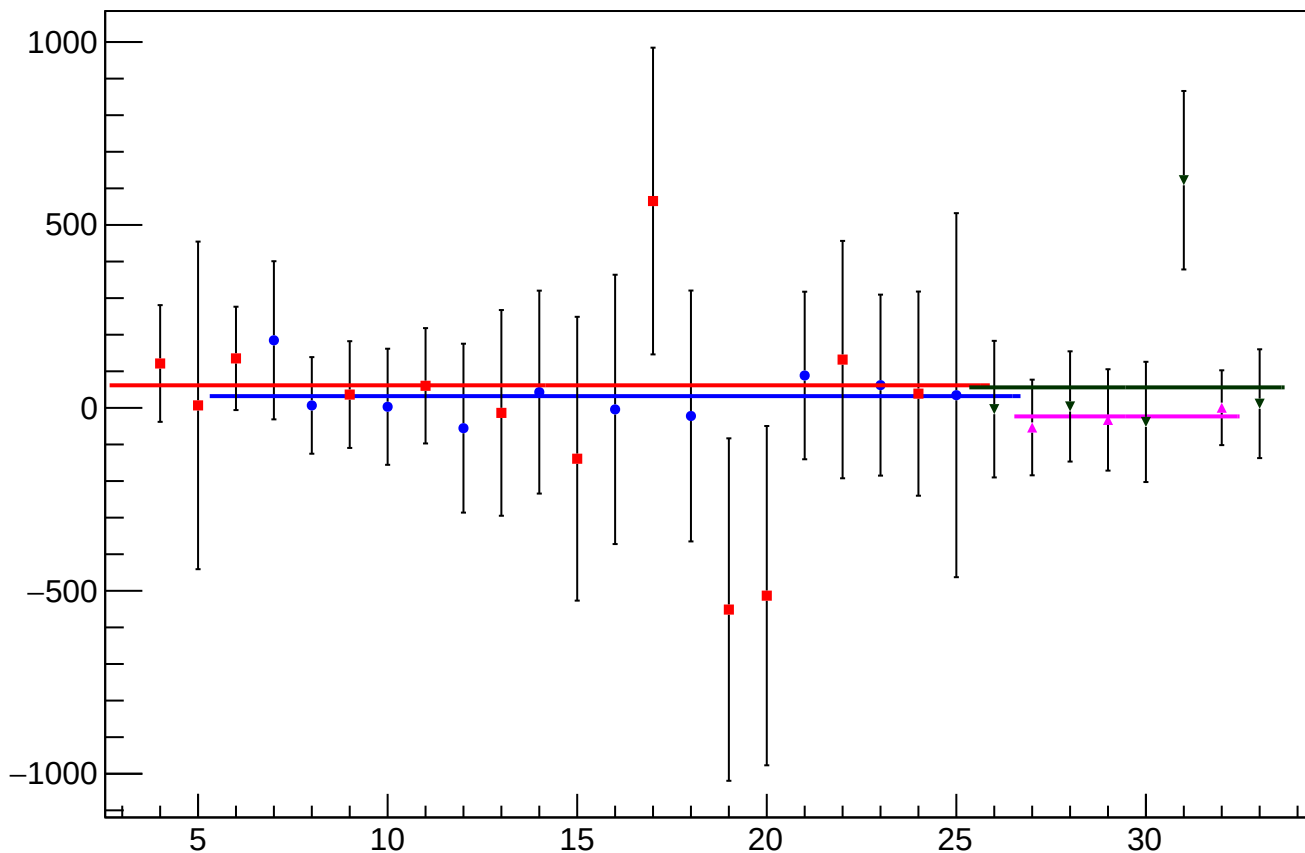
Left In: 17.164+/-0.008  $\chi^2/\text{NDF}$ :18609.0/2

11.742+/-0.004  $\chi^2/\text{NDF}$ : 6167362.4/14

11.189+/-0.003  $\chi^2/\text{NDF}$ : 6760463.1/14



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



Right In:  $32.145 \pm 69.741$   $\chi^2/\text{NDF}: 0.8/9$

Left Out:  $56.060 \pm 76.291$   $\chi^2/\text{NDF}: 6.0/4$

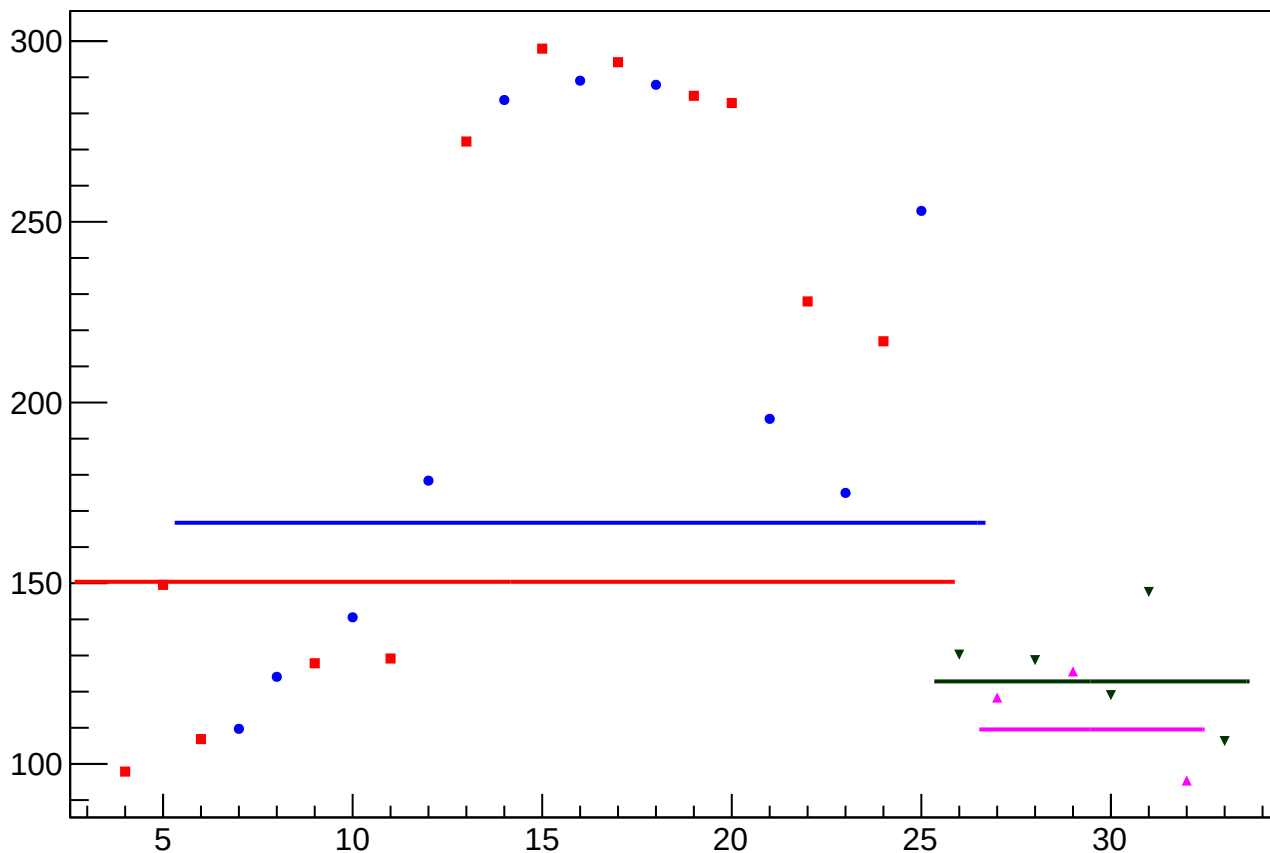
Right Out:  $61.700 \pm 64.794$   $\chi^2/\text{NDF}: 5.5/11$

Left In:  $-23.292 \pm 69.623$   $\chi^2/\text{NDF}: 0.1/2$

$43.032 \pm 51.474$   $\chi^2/\text{NDF}: 6.9/14$

$22.254 \pm 47.432$   $\chi^2/\text{NDF}: 6.5/14$

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



Right In: 166.735+/-0.049  $\chi^2/\text{NDF}$ : 1327603.0/9

Left Out: 122.836+/-0.054  $\chi^2/\text{NDF}$ : 52496.2/4

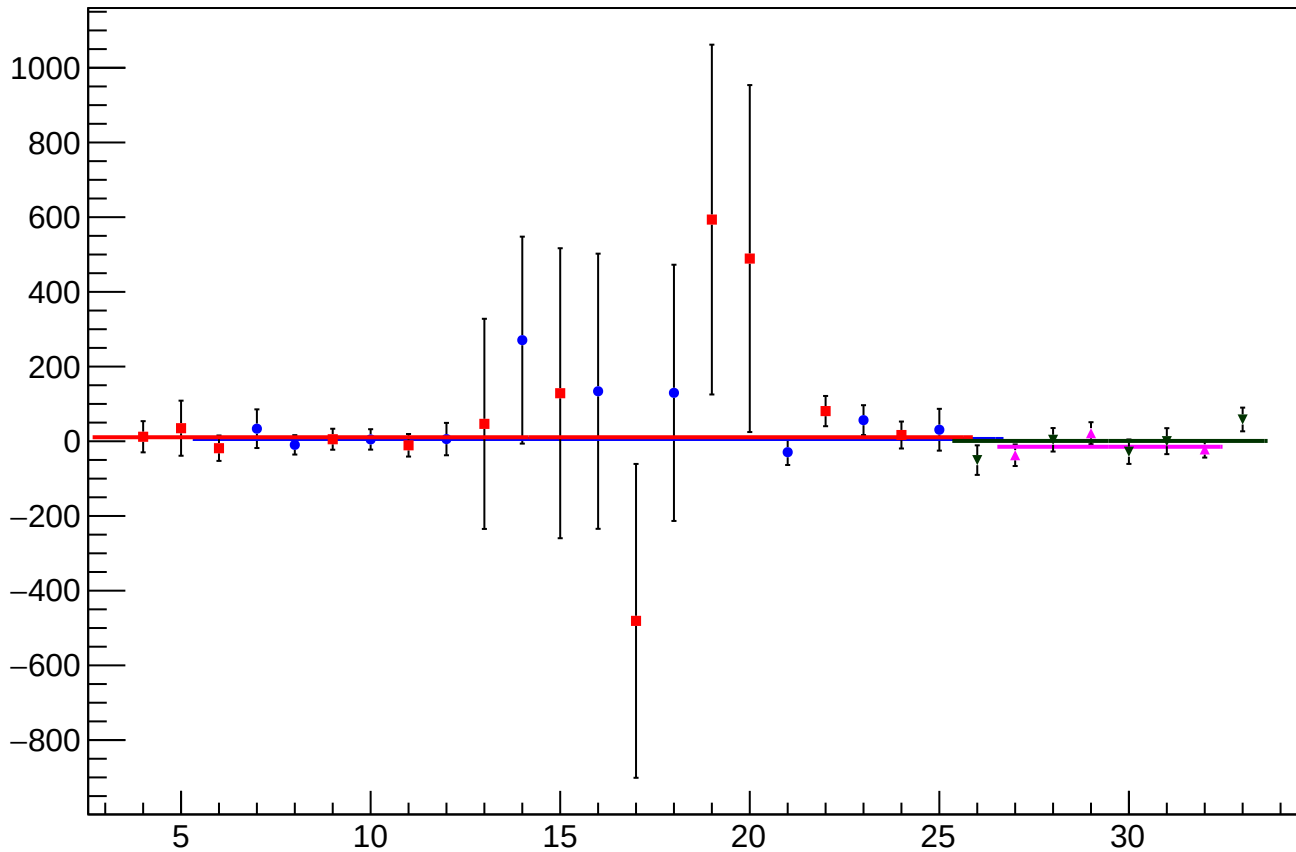
146.751+/-0.036  $\chi^2/\text{NDF}$ : 1740833.4/14

Right Out: 150.393+/-0.046  $\chi^2/\text{NDF}$ : 1947233.7/11

131.434+/-0.034  $\chi^2/\text{NDF}$ : 2390372.2/14

Left In: 109.545+/-0.049  $\chi^2/\text{NDF}$ : 74223.0/2

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



Right In:  $6.162 \pm 13.425$   $\chi^2/\text{NDF}: 4.7/9$

Left Out:  $0.902 \pm 15.068$   $\chi^2/\text{NDF}: 5.7/4$

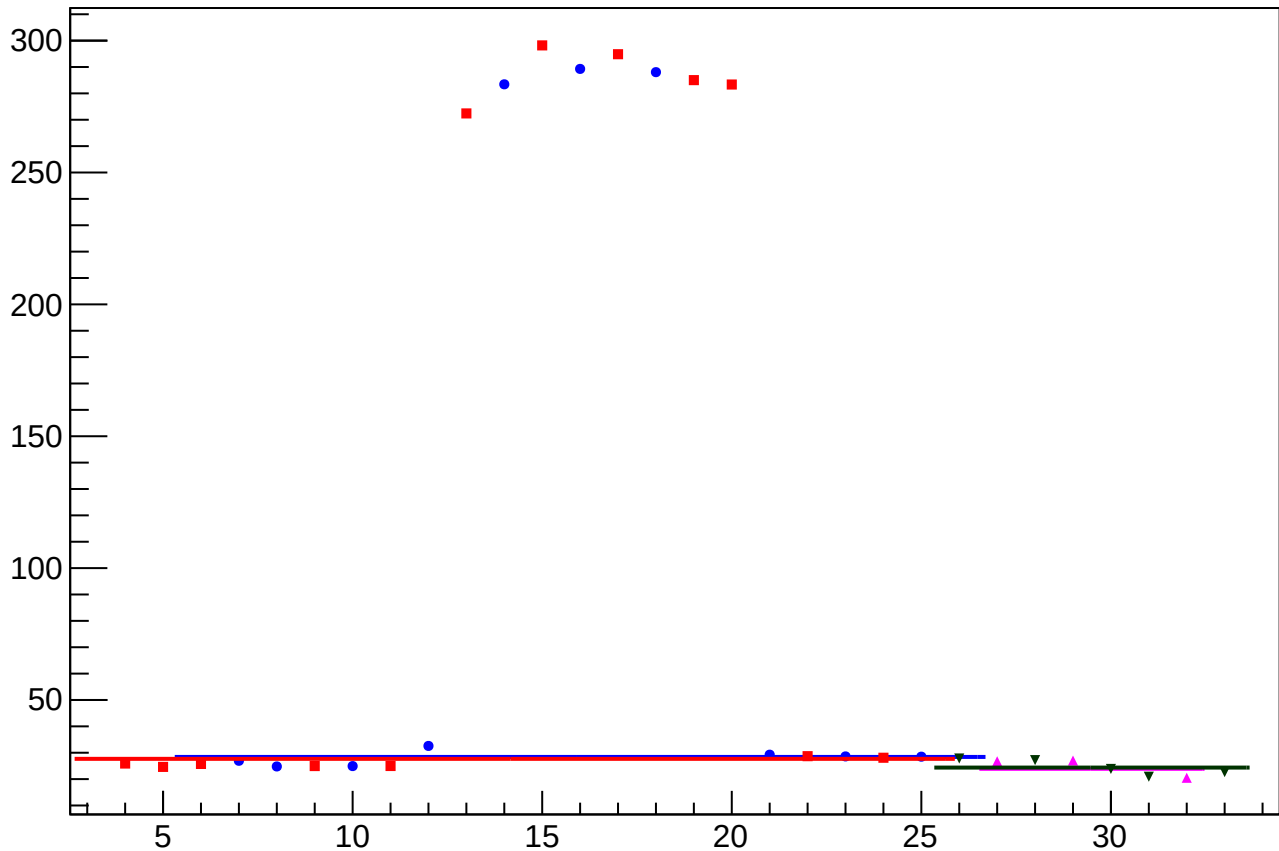
Right Out:  $10.797 \pm 13.610$   $\chi^2/\text{NDF}: 8.5/11$

Left In:  $-14.711 \pm 15.001$   $\chi^2/\text{NDF}: 2.2/2$

$3.834 \pm 10.024$   $\chi^2/\text{NDF}: 10.5/14$

$-0.720 \pm 10.080$   $\chi^2/\text{NDF}: 12.3/14$

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



Right In: 28.406+/-0.009  $\chi^2/\text{NDF}$ : 3936040.7/9

Left Out: 24.371+/-0.011  $\chi^2/\text{NDF}$ : 57550.8/4

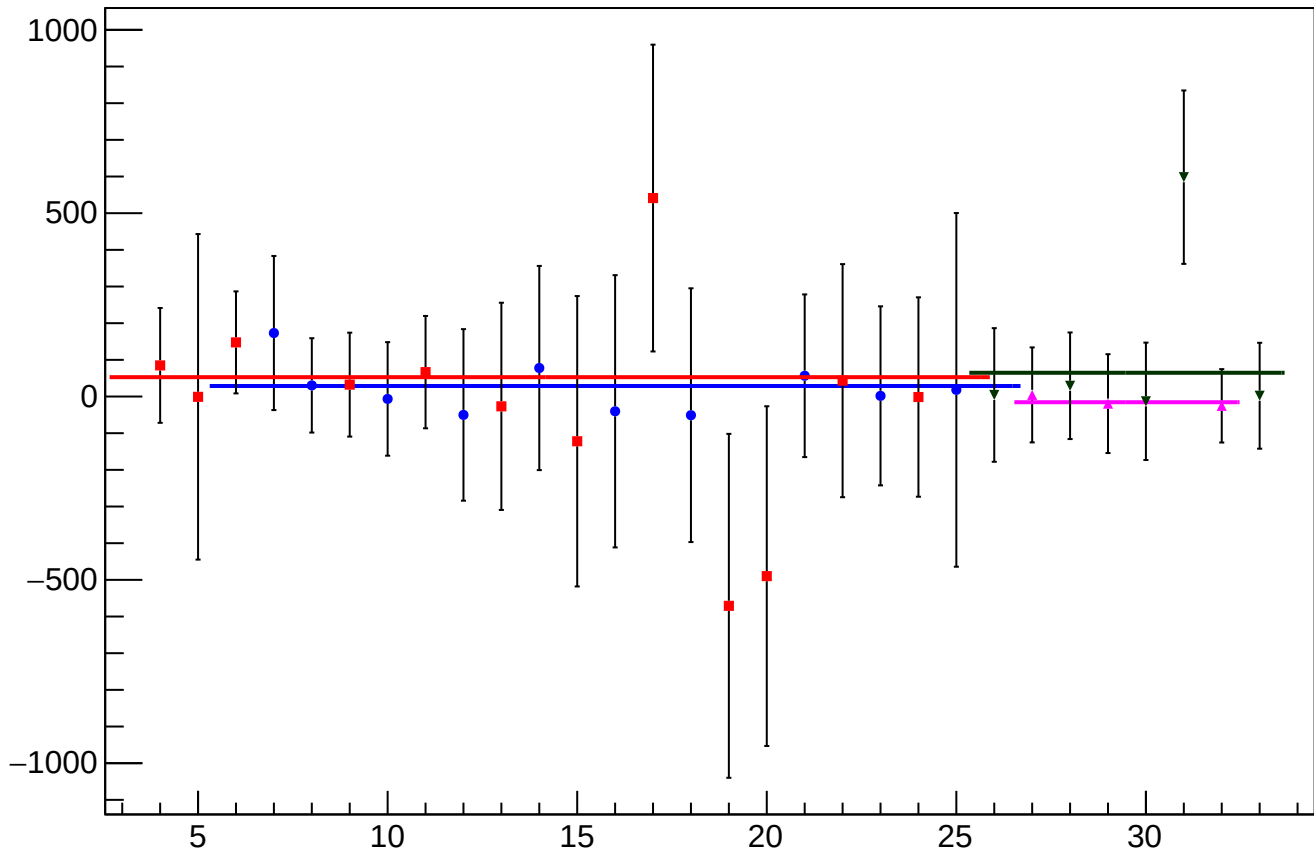
Right Out: 27.683+/-0.010  $\chi^2/\text{NDF}$ : 4553149.3/11

Left In: 23.883+/-0.011  $\chi^2/\text{NDF}$ : 90204.2/2

26.621+/-0.007  $\chi^2/\text{NDF}$ : 4073549.4/14

25.967+/-0.007  $\chi^2/\text{NDF}$ : 4713748.1/14

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



Right In: 28.697 $\pm$ 68.531  $\chi^2$ /NDF: 0.8/9

Left Out: 64.775 $\pm$ 74.067  $\chi^2$ /NDF:5.7/4

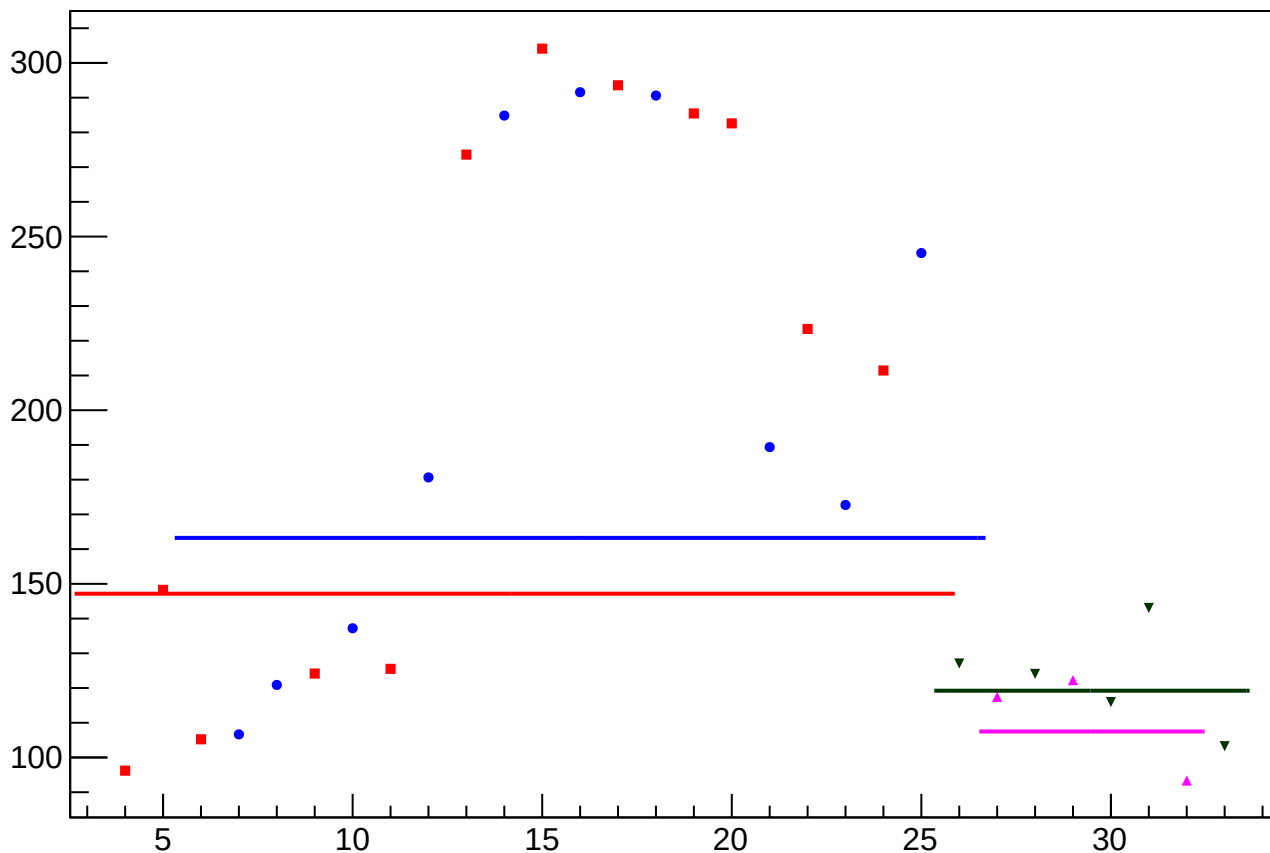
Right Out: 52.783 $\pm$ 63.607  $\chi^2$ /NDF: 5.4/11

Left In: -15.548 $\pm$ 68.283  $\chi^2$ /NDF:0.0/2

45.337 $\pm$ 50.302  $\chi^2$ /NDF: 6.6/14

21.037 $\pm$ 46.542  $\chi^2$ /NDF: 5.9/14

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



Right In: 163.238+/-0.048  $\chi^2/\text{NDF}$ : 1409159.9/9

Left Out: 119.225+/-0.052  $\chi^2/\text{NDF}$ : 51565.6/4

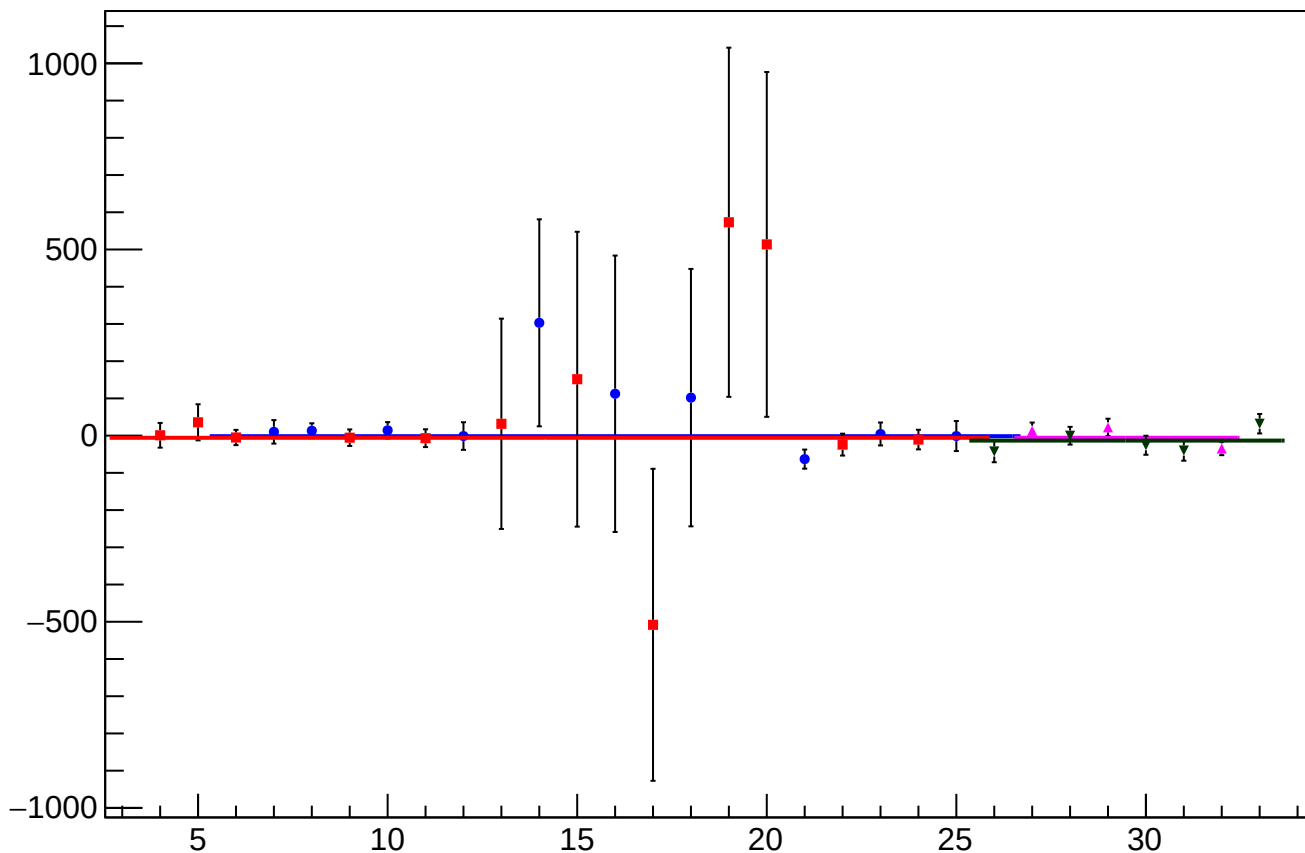
142.938+/-0.036  $\chi^2/\text{NDF}$ : 1841221.6/14

Right Out: 147.160+/-0.045  $\chi^2/\text{NDF}$ : 2017224.8/11

128.725+/-0.033  $\chi^2/\text{NDF}$ : 2454640.8/14

Left In: 107.481+/-0.048  $\chi^2/\text{NDF}$ : 75822.2/2

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



Right In:  $-1.518 \pm 10.249$   $\chi^2/\text{NDF}: 8.4/9$

Left Out:  $-13.348 \pm 11.722$   $\chi^2/\text{NDF}: 5.5/4$

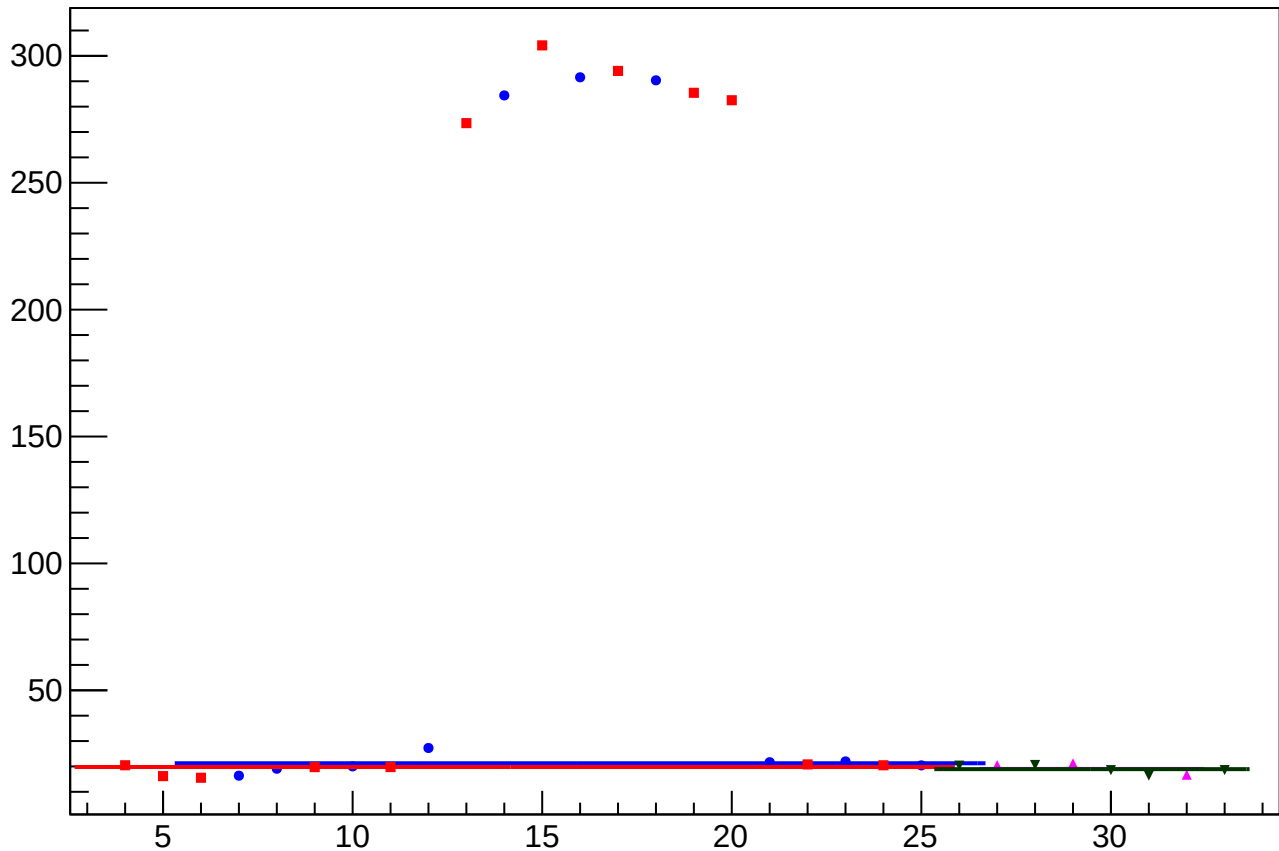
Right Out:  $-5.806 \pm 9.942$   $\chi^2/\text{NDF}: 5.6/11$

Left In:  $-5.681 \pm 11.948$   $\chi^2/\text{NDF}: 4.7/2$

$-6.643 \pm 7.716$   $\chi^2/\text{NDF}: 14.5/14$

$-5.755 \pm 7.642$   $\chi^2/\text{NDF}: 10.3/14$

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



Right In: 21.255+/-0.007  $\chi^2/\text{NDF}$ : 4196684.5/9

Left Out: 18.932+/-0.008  $\chi^2/\text{NDF}$ : 32230.1/4

20.248+/-0.005  $\chi^2/\text{NDF}$ : 4273452.8/14

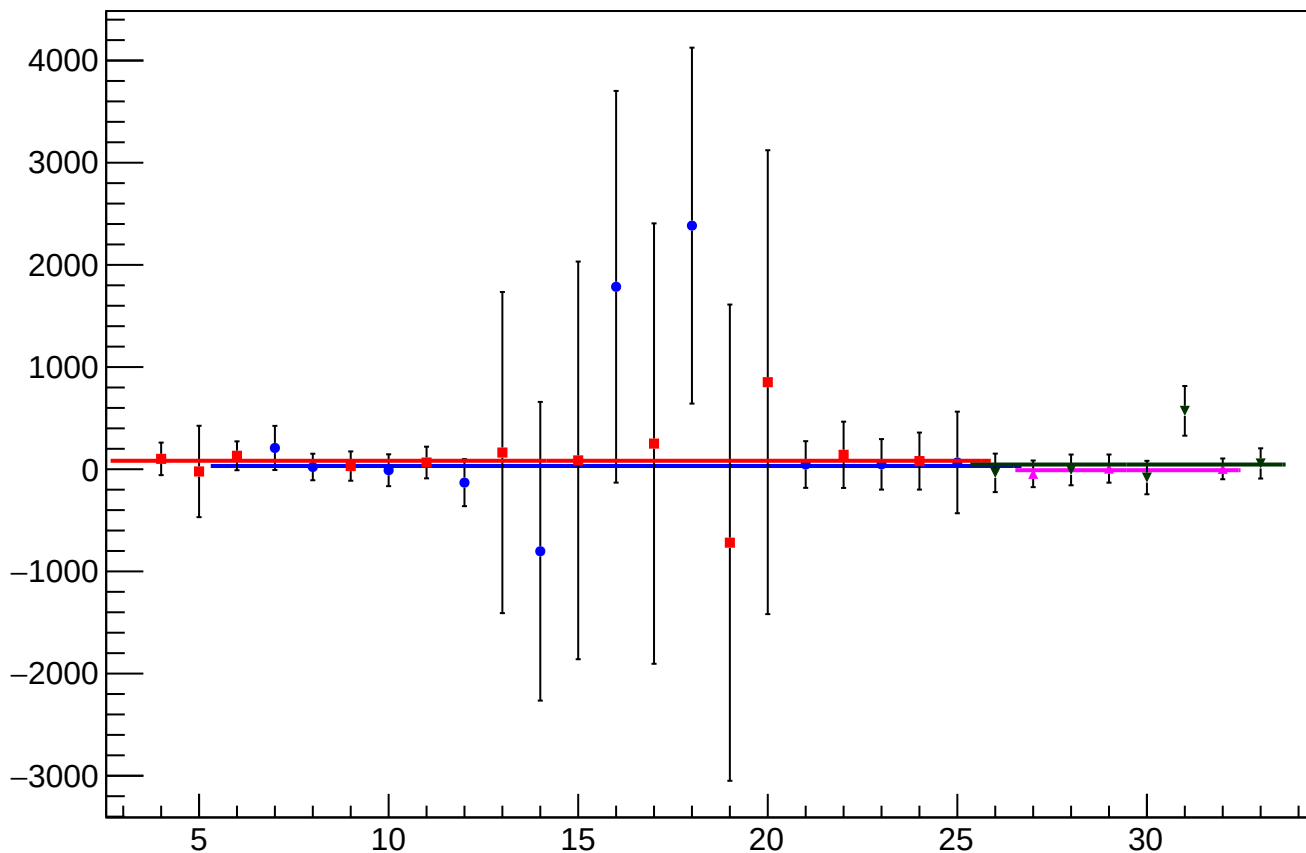
Right Out: 19.779+/-0.007  $\chi^2/\text{NDF}$ : 4888350.3/11

19.470+/-0.005  $\chi^2/\text{NDF}$ : 4952344.6/14

Left In: 19.023+/-0.008  $\chi^2/\text{NDF}$ : 59260.2/2



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



Right In:  $31.584 \pm 74.262$   $\chi^2/\text{NDF}$ : 4.2/9

Left Out:  $46.044 \pm 76.192$   $\chi^2/\text{NDF}$ : 5.6/4

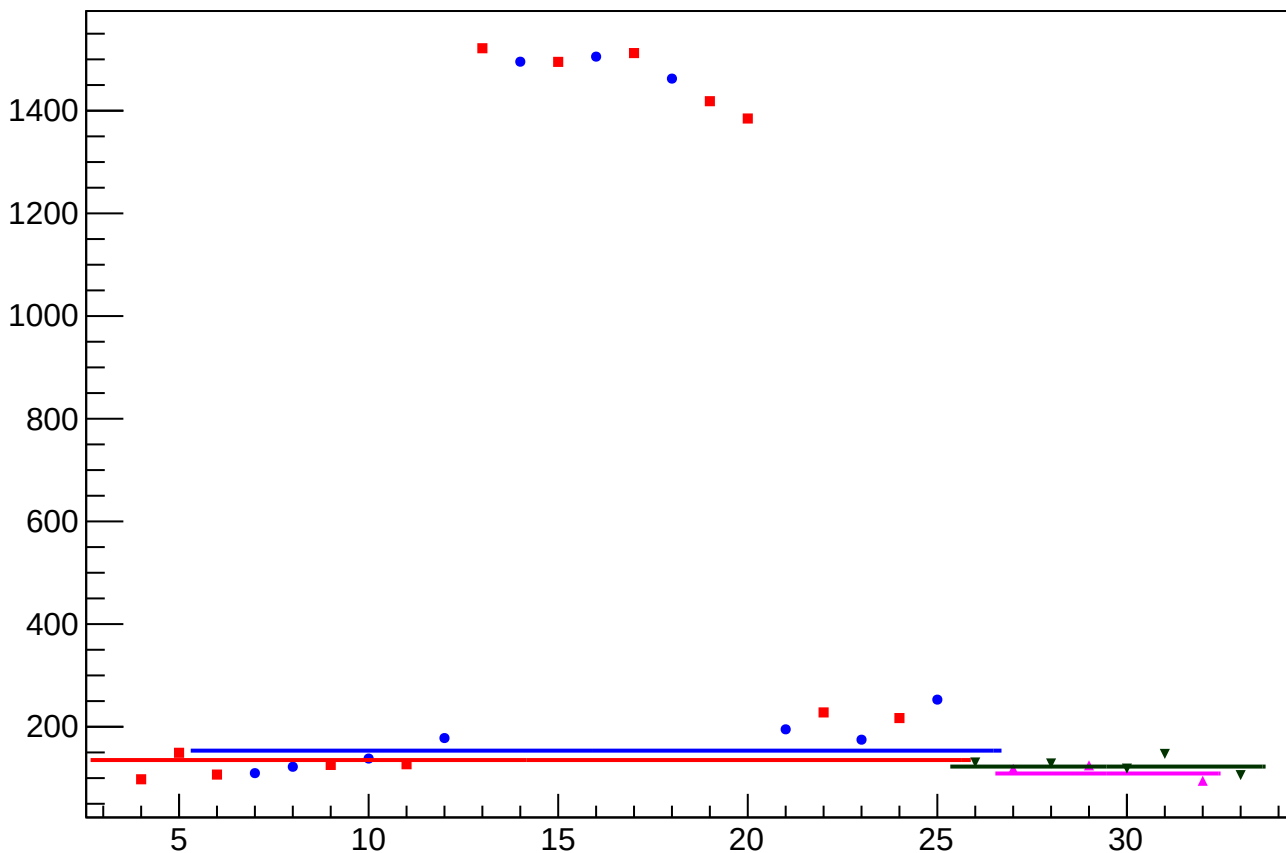
Right Out:  $82.898 \pm 69.271$   $\chi^2/\text{NDF}$ : 0.6/11

Left In:  $-9.408 \pm 69.298$   $\chi^2/\text{NDF}$ : 0.1/2

$38.629 \pm 53.180$   $\chi^2/\text{NDF}$ : 9.9/14

$36.763 \pm 48.991$   $\chi^2/\text{NDF}$ : 1.6/14

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



Right In: 153.522 $\pm$ 0.053  $\chi^2$ /NDF: 4212358.6/9

Left Out: 122.475 $\pm$ 0.054  $\chi^2$ /NDF: 53900.9/4

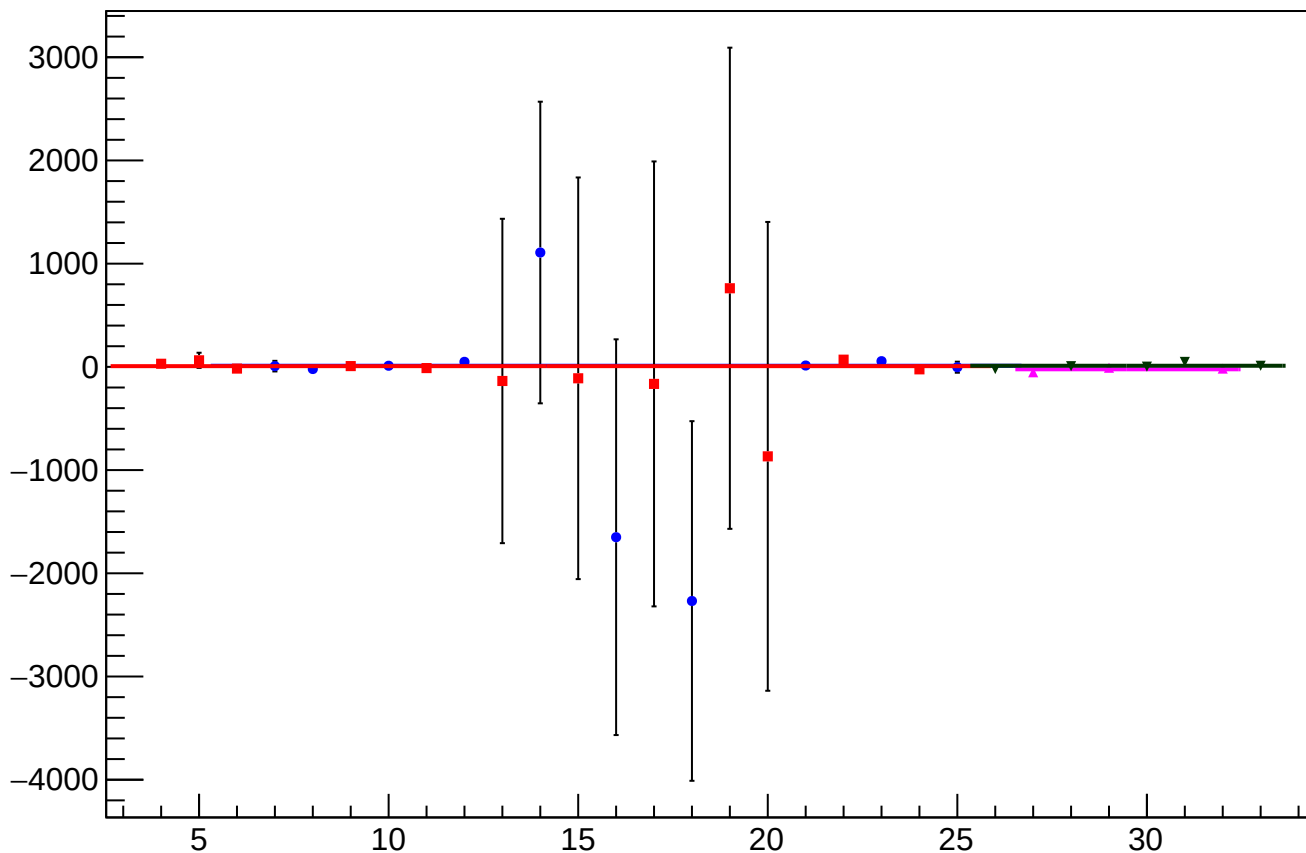
138.397 $\pm$ 0.038  $\chi^2$ /NDF: 4436564.3/14

Right Out: 135.194 $\pm$ 0.049  $\chi^2$ /NDF: 5104872.2/11

122.102 $\pm$ 0.035  $\chi^2$ /NDF: 5322892.6/14

Left In: 109.001 $\pm$ 0.049  $\chi^2$ /NDF: 75096.5/2

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



Right In: 10.773+/-13.060  $\chi^2/\text{NDF}$ : 6.8/9

Left Out: 10.798+/-14.108  $\chi^2/\text{NDF}$ : 2.1/4

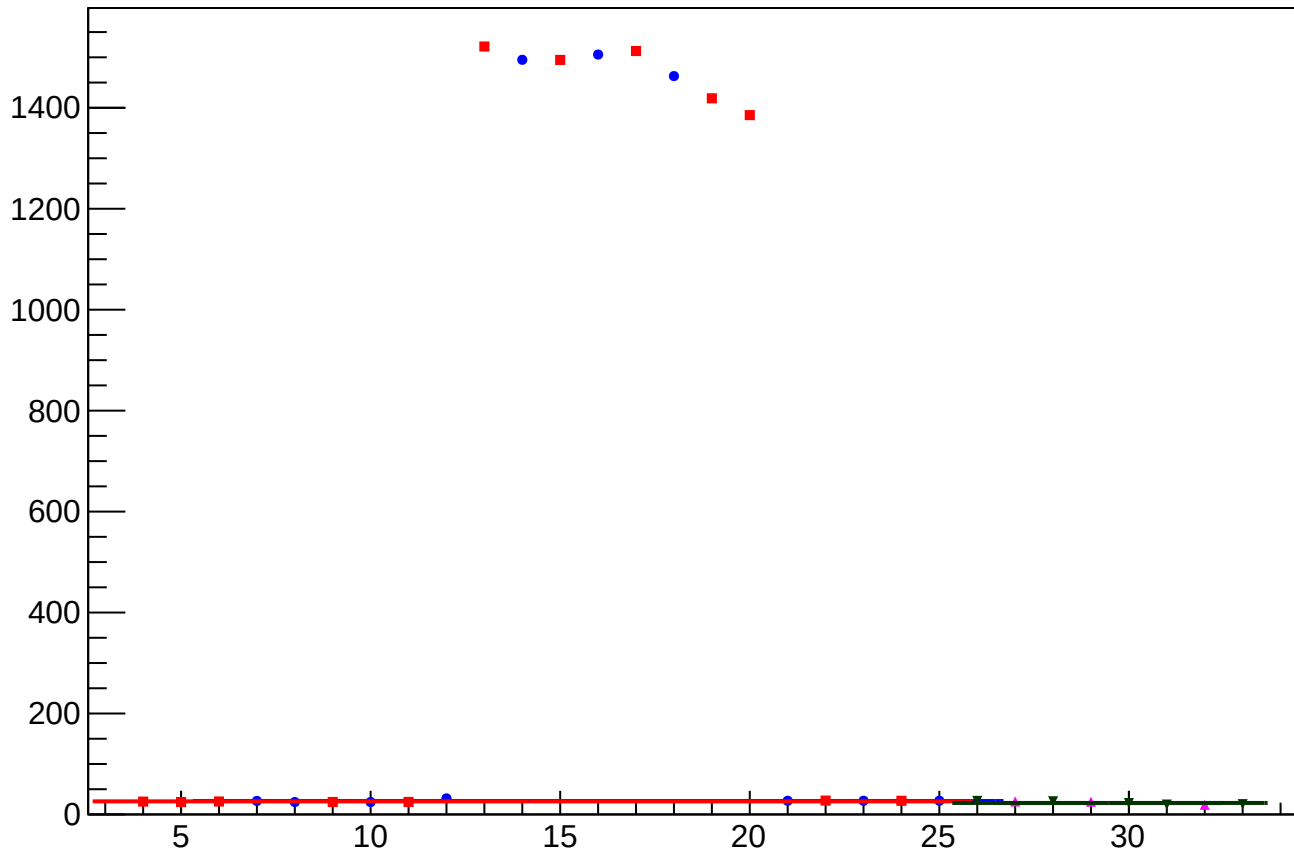
Right Out: 6.946+/-13.410  $\chi^2/\text{NDF}$ : 5.5/11

Left In: -23.609+/-14.080  $\chi^2/\text{NDF}$ : 1.5/2

10.785+/-9.584  $\chi^2/\text{NDF}$ : 8.9/14

-7.587+/-9.710  $\chi^2/\text{NDF}$ : 9.4/14

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



Right In: 26.593+/-0.009  $\chi^2/\text{NDF}$ : 4623998.2/9

Left Out: 22.800+/-0.010  $\chi^2/\text{NDF}$ : 79027.6/4

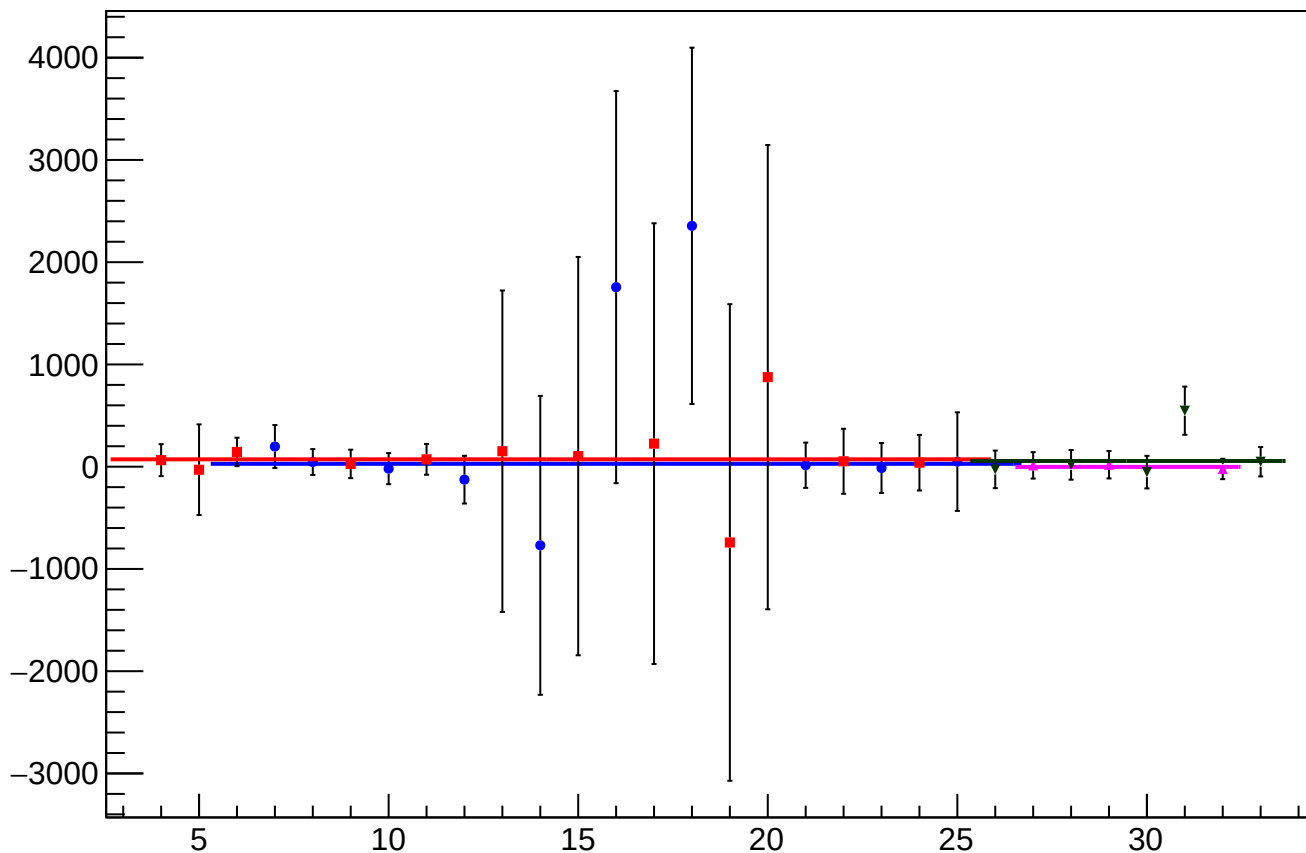
Right Out: 25.943+/-0.009  $\chi^2/\text{NDF}$ : 5346963.3/11

Left In: 22.474+/-0.010  $\chi^2/\text{NDF}$ : 100294.3/2

24.843+/-0.007  $\chi^2/\text{NDF}$ : 4780845.9/14

24.293+/-0.007  $\chi^2/\text{NDF}$ : 5510918.6/14

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



Right In: 28.299+/-72.672  $\chi^2/\text{NDF}$ : 4.1/9

Left Out: 55.748+/-73.955  $\chi^2/\text{NDF}$ : 5.1/4

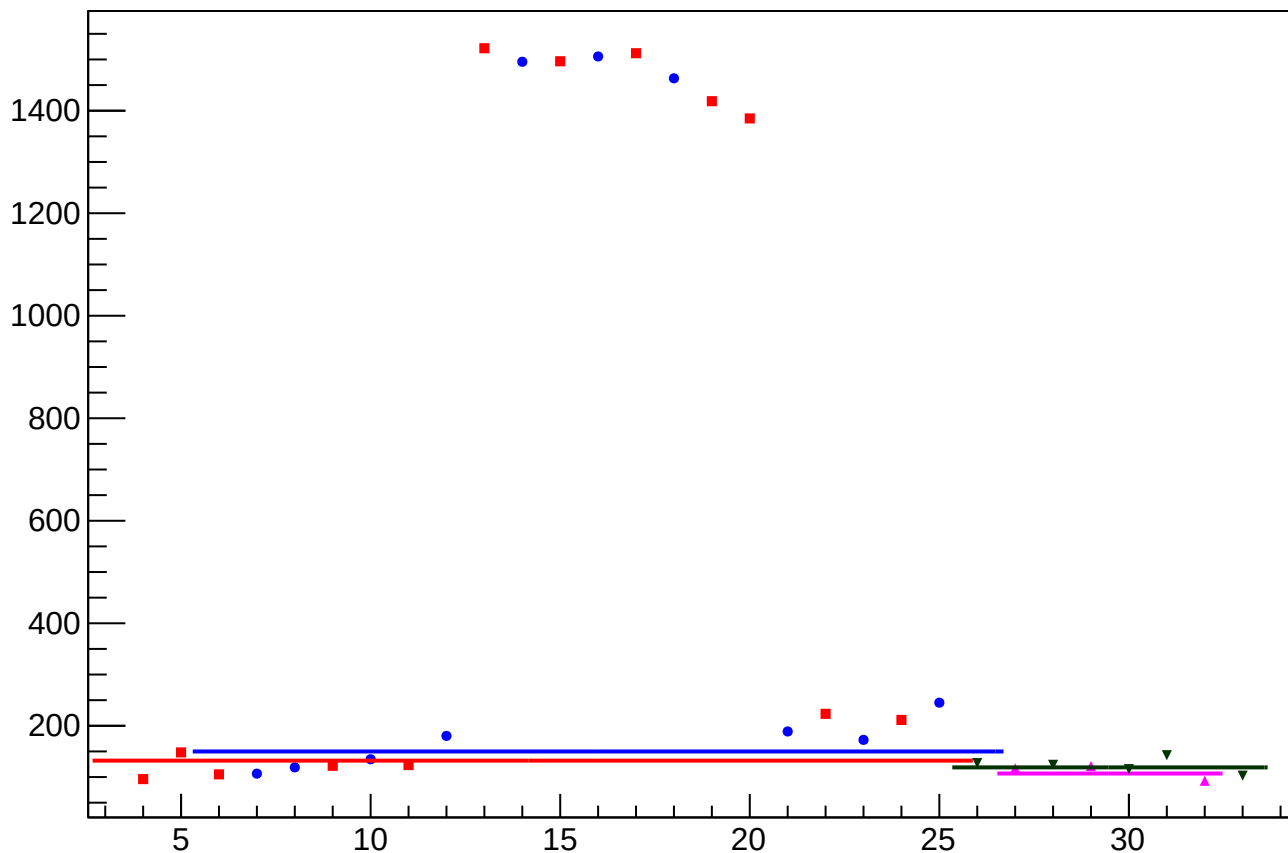
Right Out: 72.031+/-67.714  $\chi^2/\text{NDF}$ : 0.7/11

Left In: -1.940+/-67.946  $\chi^2/\text{NDF}$ : 0.1/2

41.784+/-51.834  $\chi^2/\text{NDF}$ : 9.3/14

35.172+/-47.963  $\chi^2/\text{NDF}$ : 1.4/14

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



Right In: 149.902 $\pm$ 0.051  $\chi^2$ /NDF: 4247419.3/9

Left Out: 118.849 $\pm$ 0.052  $\chi^2$ /NDF: 53001.0/4

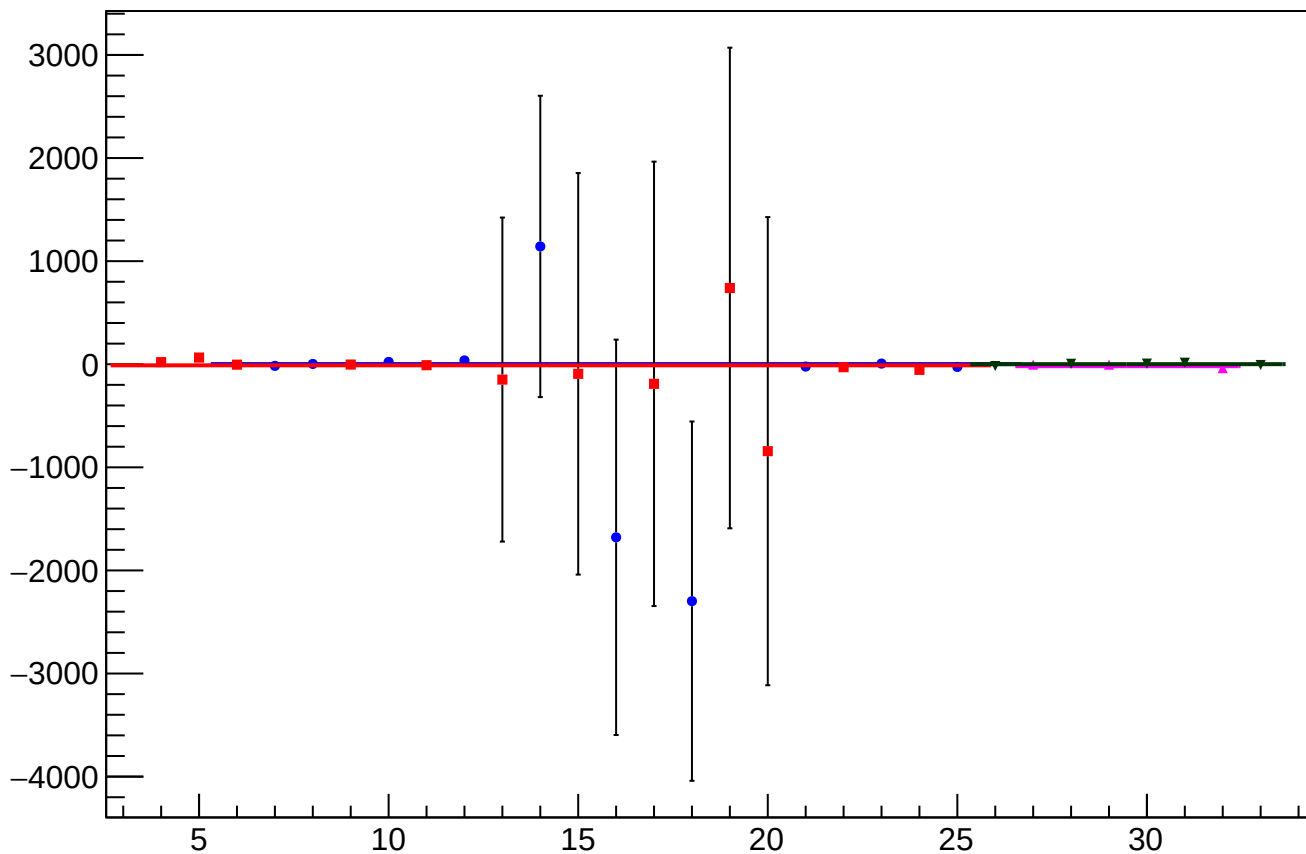
Right Out: 132.035 $\pm$ 0.048  $\chi^2$ /NDF: 5119688.9/11

Left In: 106.915 $\pm$ 0.048  $\chi^2$ /NDF: 76968.1/2

134.647 $\pm$ 0.037  $\chi^2$ /NDF: 4479812.7/14

119.518 $\pm$ 0.034  $\chi^2$ /NDF: 5333807.7/14

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



Right In: 1.423+/-9.681  $\chi^2/\text{NDF}$ : 7.1/9

Left Out: 0.747+/-10.677  $\chi^2/\text{NDF}$ : 1.0/4

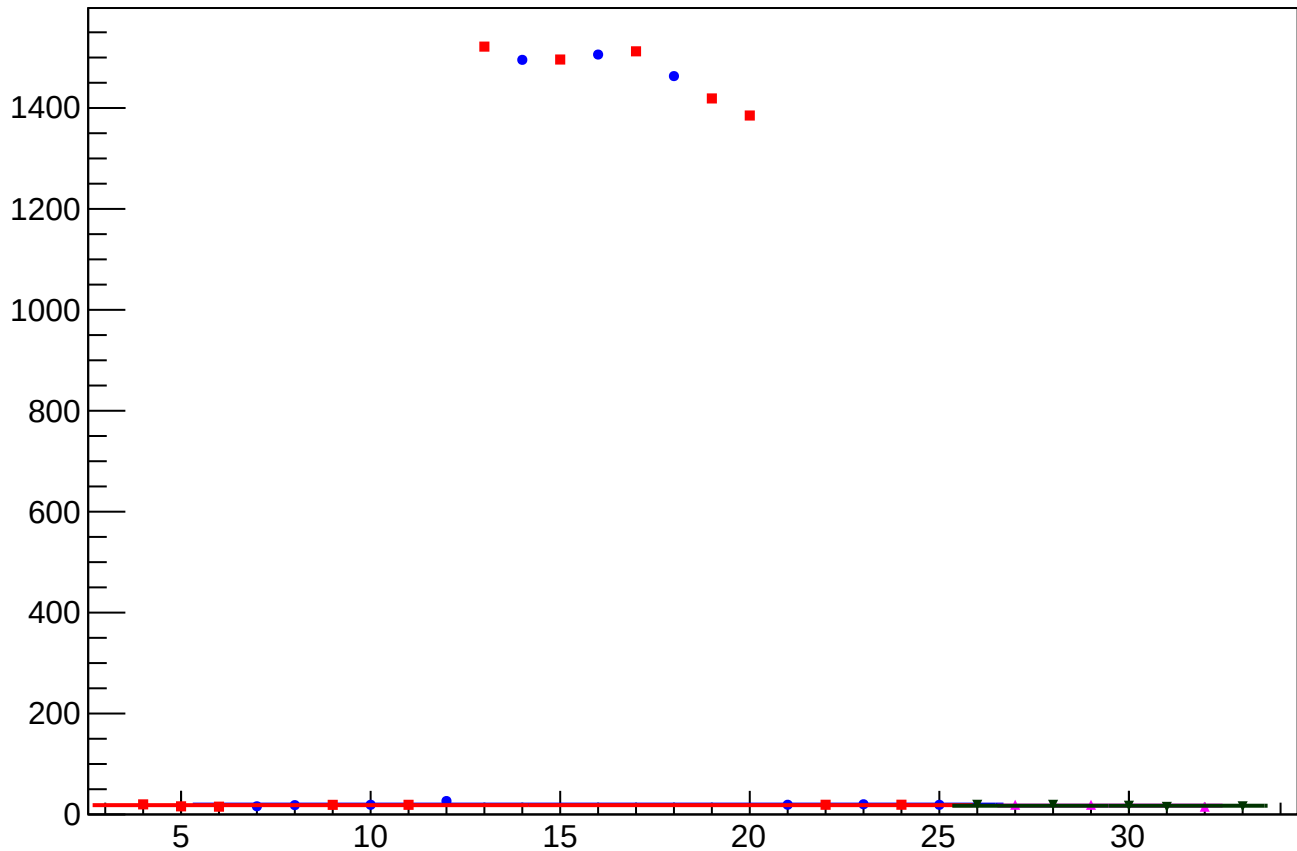
Right Out: -10.544+/-9.604  $\chi^2/\text{NDF}$ : 7.4/11

Left In: -19.220+/-10.916  $\chi^2/\text{NDF}$ : 2.5/2

1.118+/-7.172  $\chi^2/\text{NDF}$ : 8.1/14

-14.330+/-7.211  $\chi^2/\text{NDF}$ : 10.3/14

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



Right In: 19.527+/-0.007  $\chi^2/\text{NDF}$ : 4722121.9/9

Left Out: 17.305+/-0.008  $\chi^2/\text{NDF}$ : 44596.9/4

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

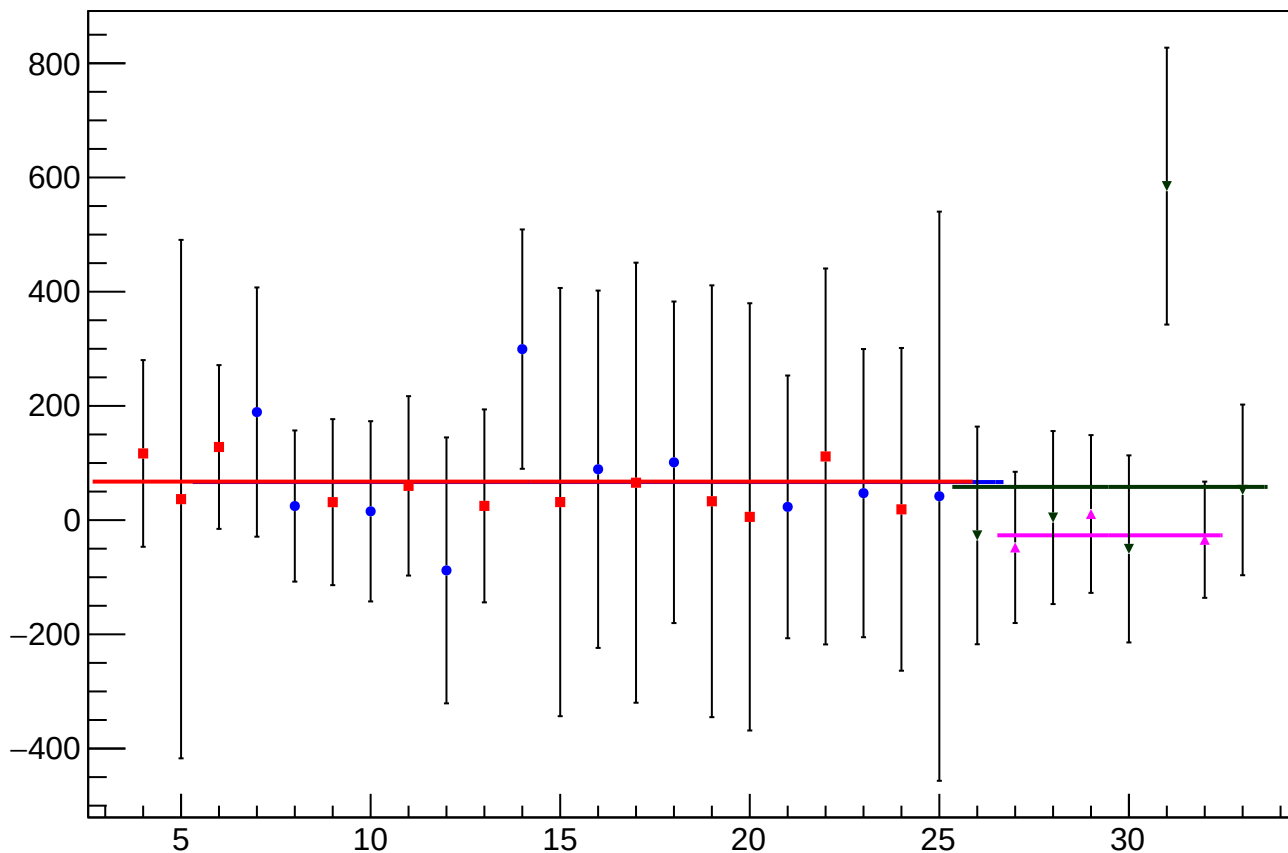
Left In: 17.490+/-0.008  $\chi^2/\text{NDF}$ : 60394.3/2

18.525+/-0.005  $\chi^2/\text{NDF}$ : 4814281.8/14

18.026+/-0.005  $\chi^2/\text{NDF}$ : 5518037.0/14



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



Right In: 66.691+/-67.281  $\chi^2/\text{NDF}$ : 2.3/9

Left Out: 58.173+/-76.654  $\chi^2/\text{NDF}$ : 5.5/4

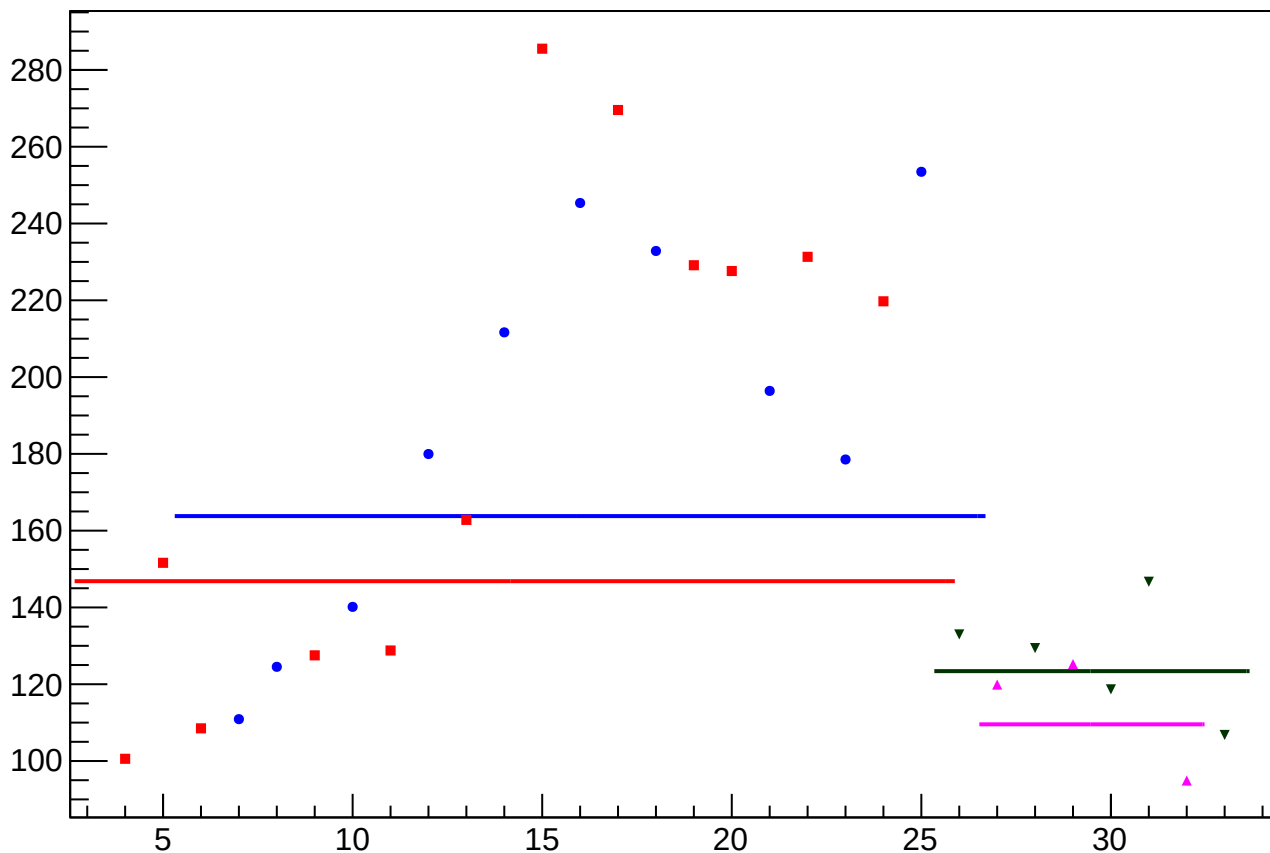
Right Out: 67.441+/-61.599  $\chi^2/\text{NDF}$ : 0.5/11

Left In: -26.577+/-69.672  $\chi^2/\text{NDF}$ : 0.1/2

62.984+/-50.566  $\chi^2/\text{NDF}$ : 7.8/14

26.193+/-46.149  $\chi^2/\text{NDF}$ : 1.6/14

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



Right In: 163.792+/-0.048  $\chi^2/\text{NDF}$ : 820296.7/9

Left Out: 123.408+/-0.054  $\chi^2/\text{NDF}$ : 53058.0/4

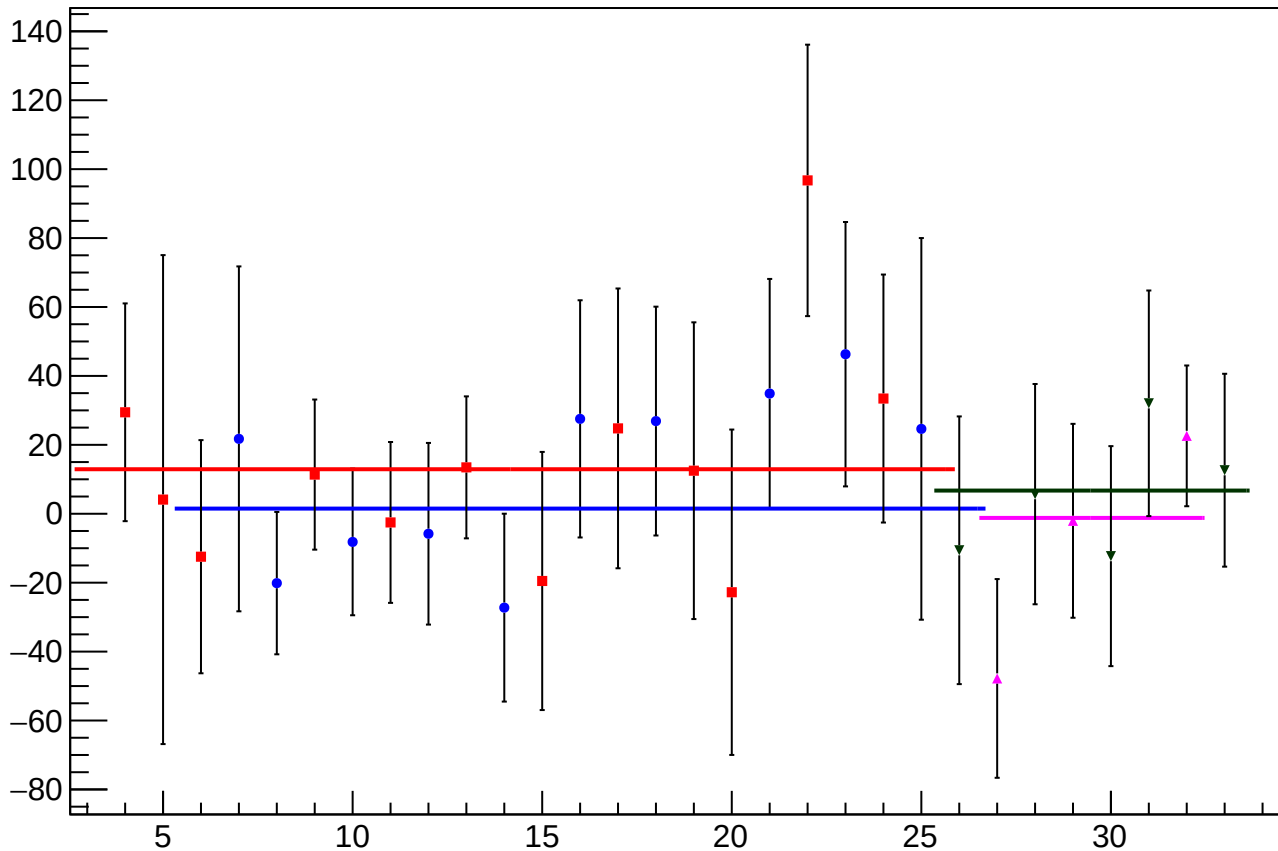
146.219+/-0.036  $\chi^2/\text{NDF}$ : 1186903.2/14

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

130.482+/-0.033  $\chi^2/\text{NDF}$ : 1713312.1/14

Left In: 109.554+/-0.049  $\chi^2/\text{NDF}$ : 79445.5/2

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



Right In:  $1.499 \pm 9.367$   $\chi^2/\text{NDF}$ : 6.4/9

Left Out:  $6.730 \pm 14.384$   $\chi^2/\text{NDF}$ : 1.2/4

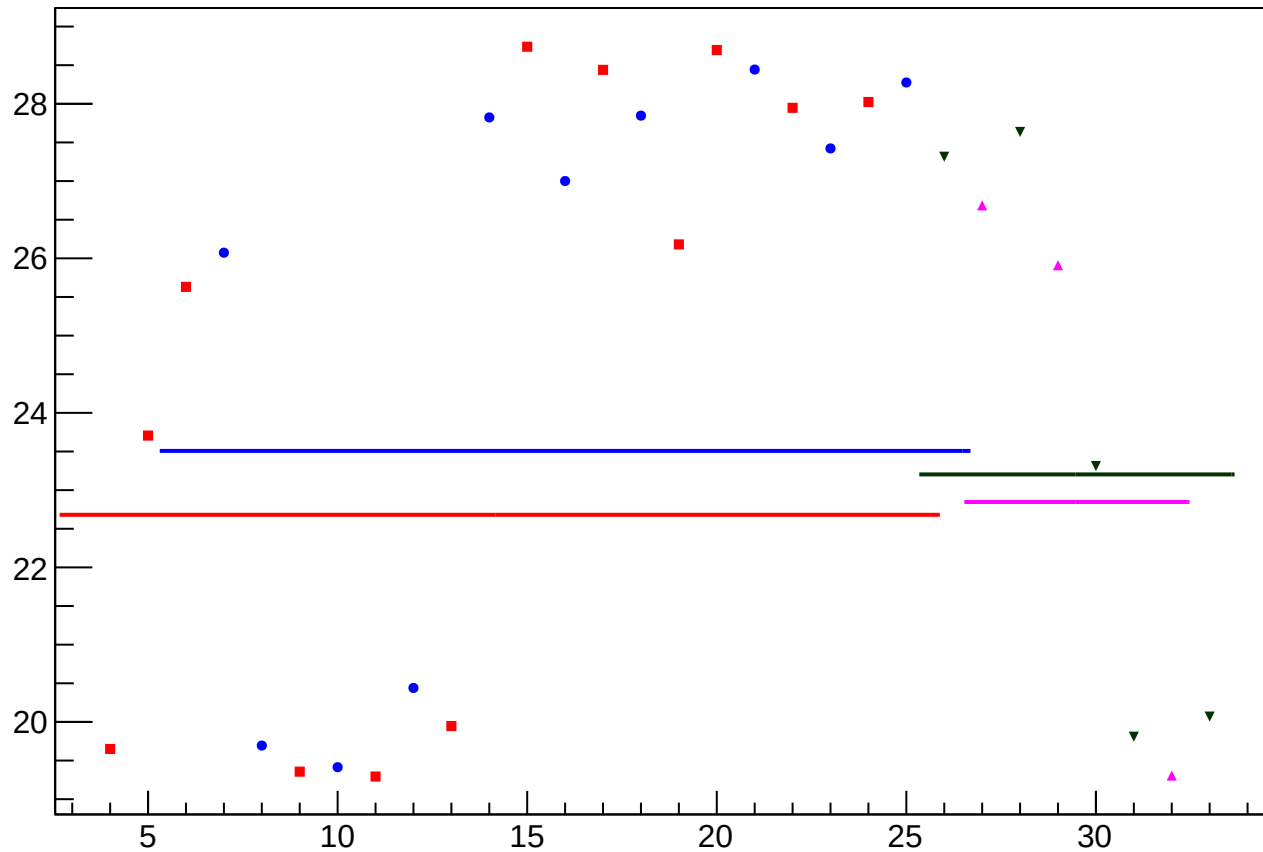
Right Out:  $12.920 \pm 9.091$   $\chi^2/\text{NDF}$ : 7.6/11

Left In:  $-1.205 \pm 14.339$   $\chi^2/\text{NDF}$ : 4.0/2

$3.056 \pm 7.849$   $\chi^2/\text{NDF}$ : 7.7/14

$8.870 \pm 7.678$   $\chi^2/\text{NDF}$ : 12.2/14

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



Right In: 23.508+/-0.007  $\chi^2/\text{NDF}$ : 359166.3/9

Left Out: 23.203+/-0.010  $\chi^2/\text{NDF}$ : 107505.7/4

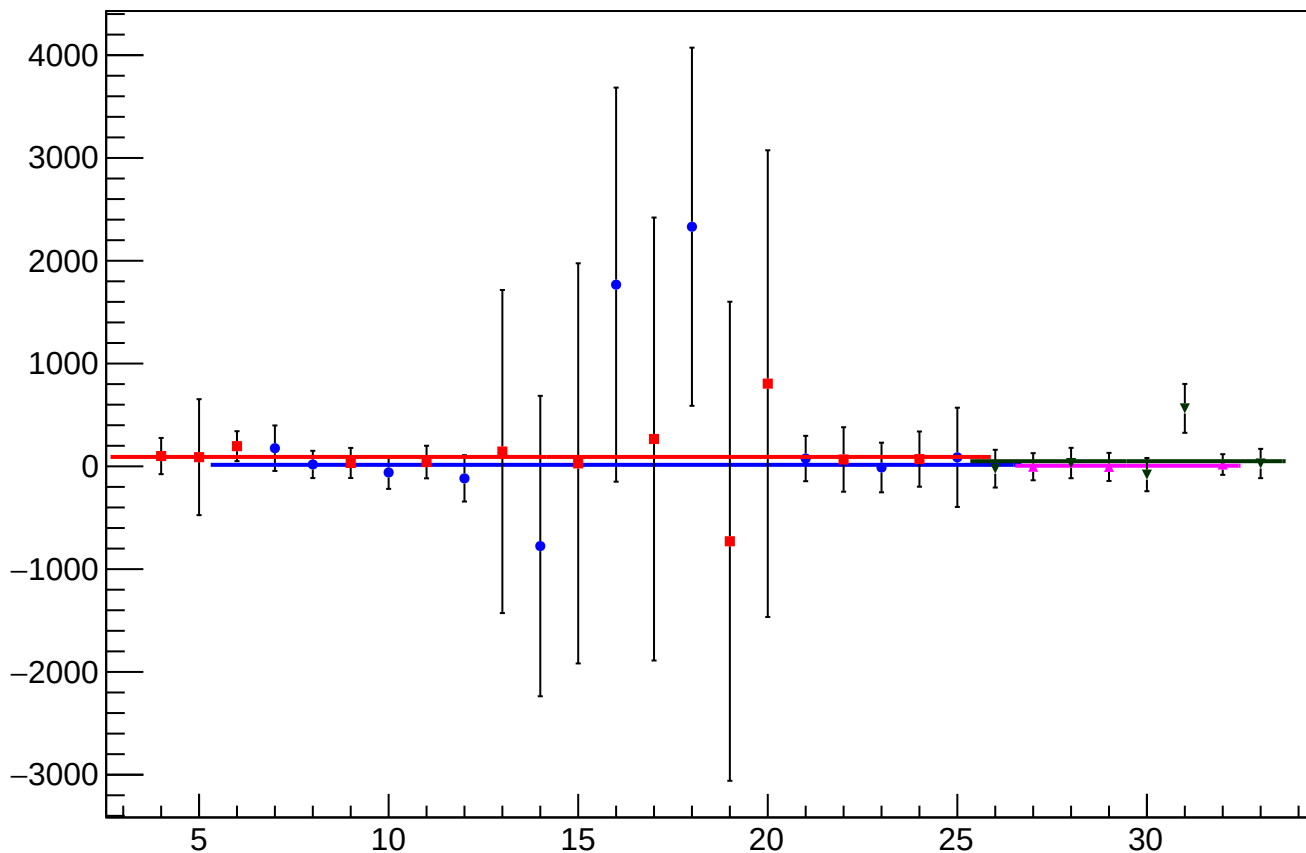
23.417+/-0.006  $\chi^2/\text{NDF}$ : 467299.9/14

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

22.728+/-0.005  $\chi^2/\text{NDF}$ : 495578.5/14

Left In: 22.847+/-0.010  $\chi^2/\text{NDF}$ : 119306.3/2

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



Right In: 14.663+/-74.671  $\chi^2/\text{NDF}$ : 4.1/9

Left Out: 50.063+/-74.381  $\chi^2/\text{NDF}$ : 5.5/4

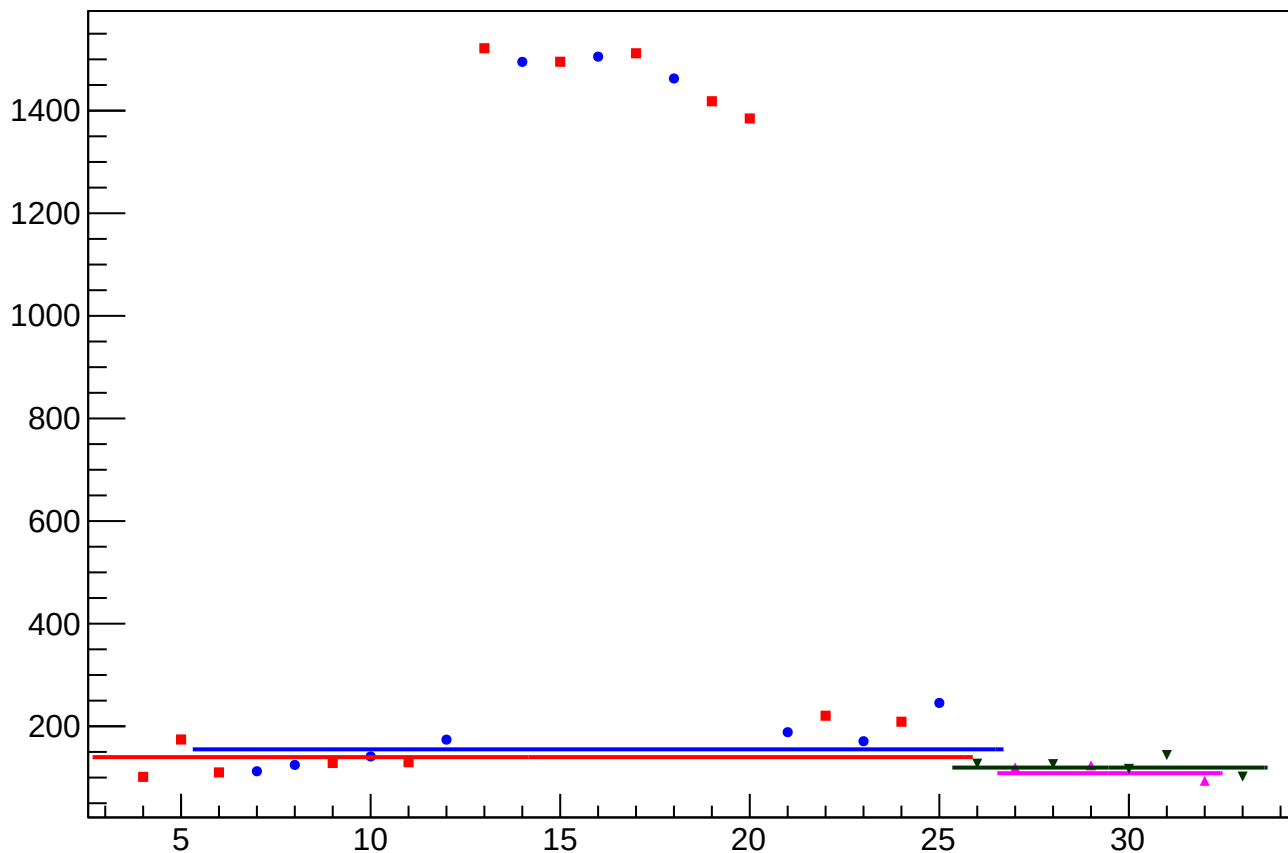
Right Out: 91.524+/-71.755  $\chi^2/\text{NDF}$ : 1.0/11

Left In: 5.953+/-68.989  $\chi^2/\text{NDF}$ : 0.0/2

32.432+/-52.697  $\chi^2/\text{NDF}$ : 9.7/14

47.057+/-49.732  $\chi^2/\text{NDF}$ : 1.8/14

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



Right In: 155.050+/-0.053  $\chi^2/\text{NDF}$ : 4134456.6/9

Left Out: 119.479+/-0.053  $\chi^2/\text{NDF}$ : 59613.7/4

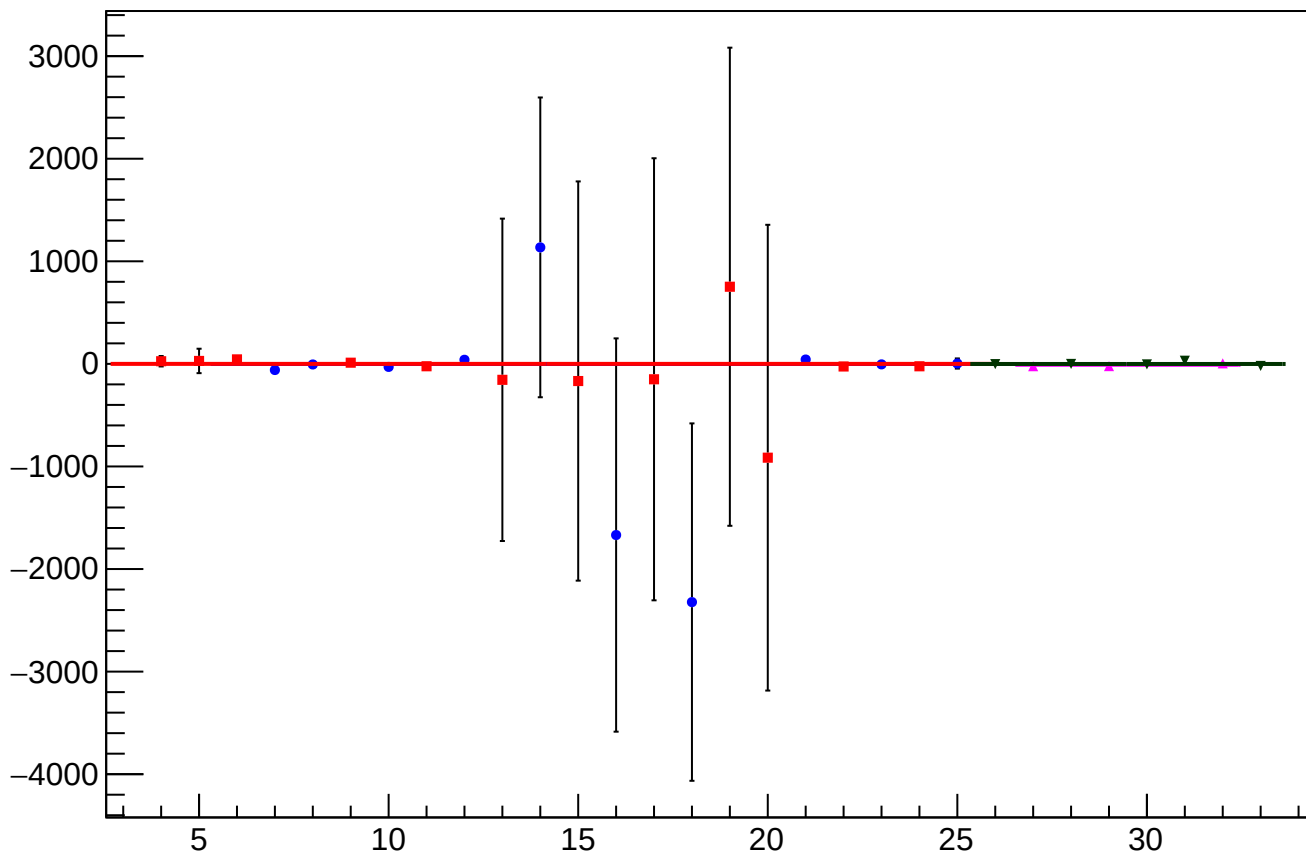
Right Out: 139.869+/-0.051  $\chi^2/\text{NDF}$ : 5001746.3/11

Left In: 108.593+/-0.049  $\chi^2/\text{NDF}$ : 82795.7/2

137.195+/-0.037  $\chi^2/\text{NDF}$ : 4421880.5/14

123.617+/-0.035  $\chi^2/\text{NDF}$ : 5281994.7/14

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



Right In: -1.253+/-12.766  $\chi^2/\text{NDF}$ : 8.8/9

Left Out: -0.977+/-14.142  $\chi^2/\text{NDF}$ : 1.4/4

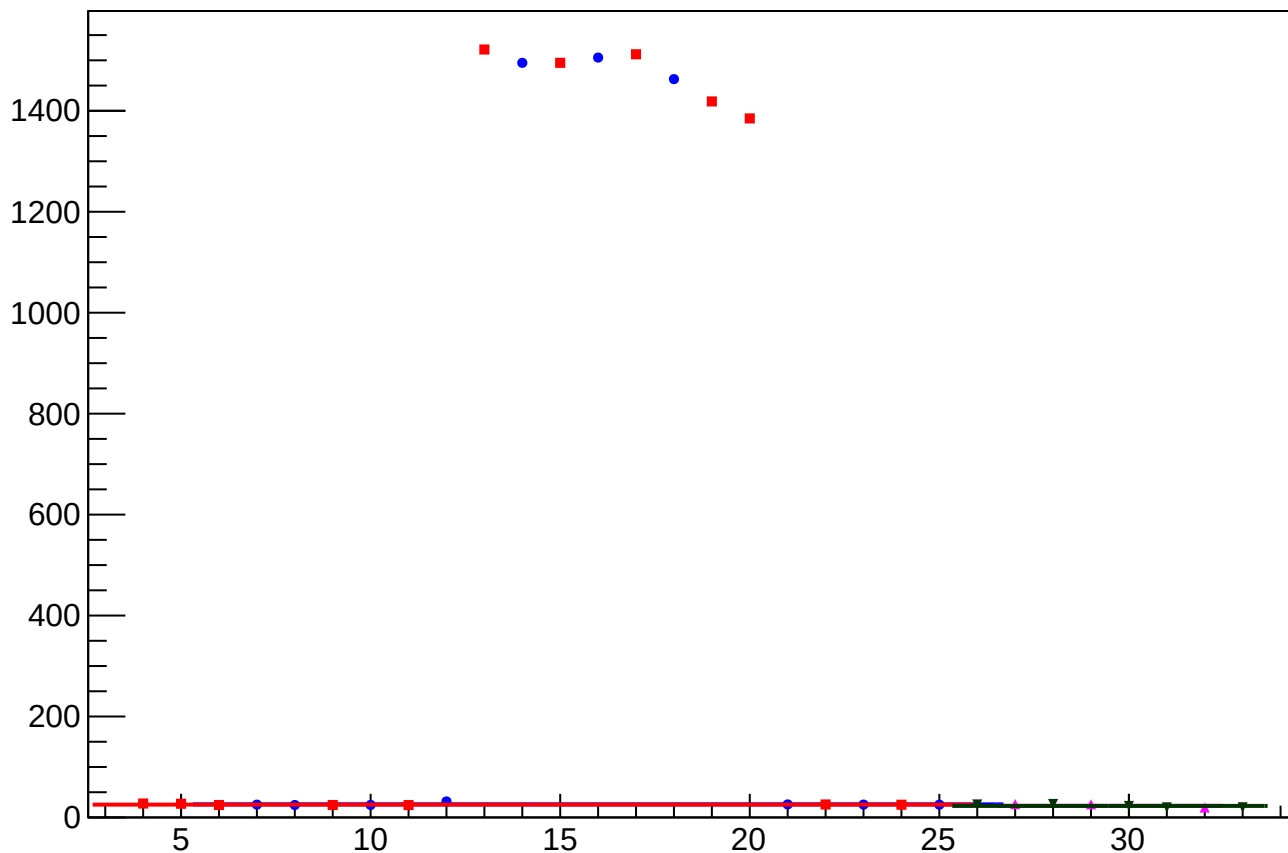
Right Out: -0.057+/-13.414  $\chi^2/\text{NDF}$ : 4.2/11

Left In: -9.102+/-14.442  $\chi^2/\text{NDF}$ : 0.9/2

-1.129+/-9.476  $\chi^2/\text{NDF}$ : 10.2/14

-4.246+/-9.829  $\chi^2/\text{NDF}$ : 5.4/14

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



Right In: 25.998 $\pm$ 0.009  $\chi^2$ /NDF: 4621099.1/9

Left Out: 22.853 $\pm$ 0.010  $\chi^2$ /NDF: 77130.4/4

Right Out: 25.431 $\pm$ 0.009  $\chi^2$ /NDF: 5346262.0/11

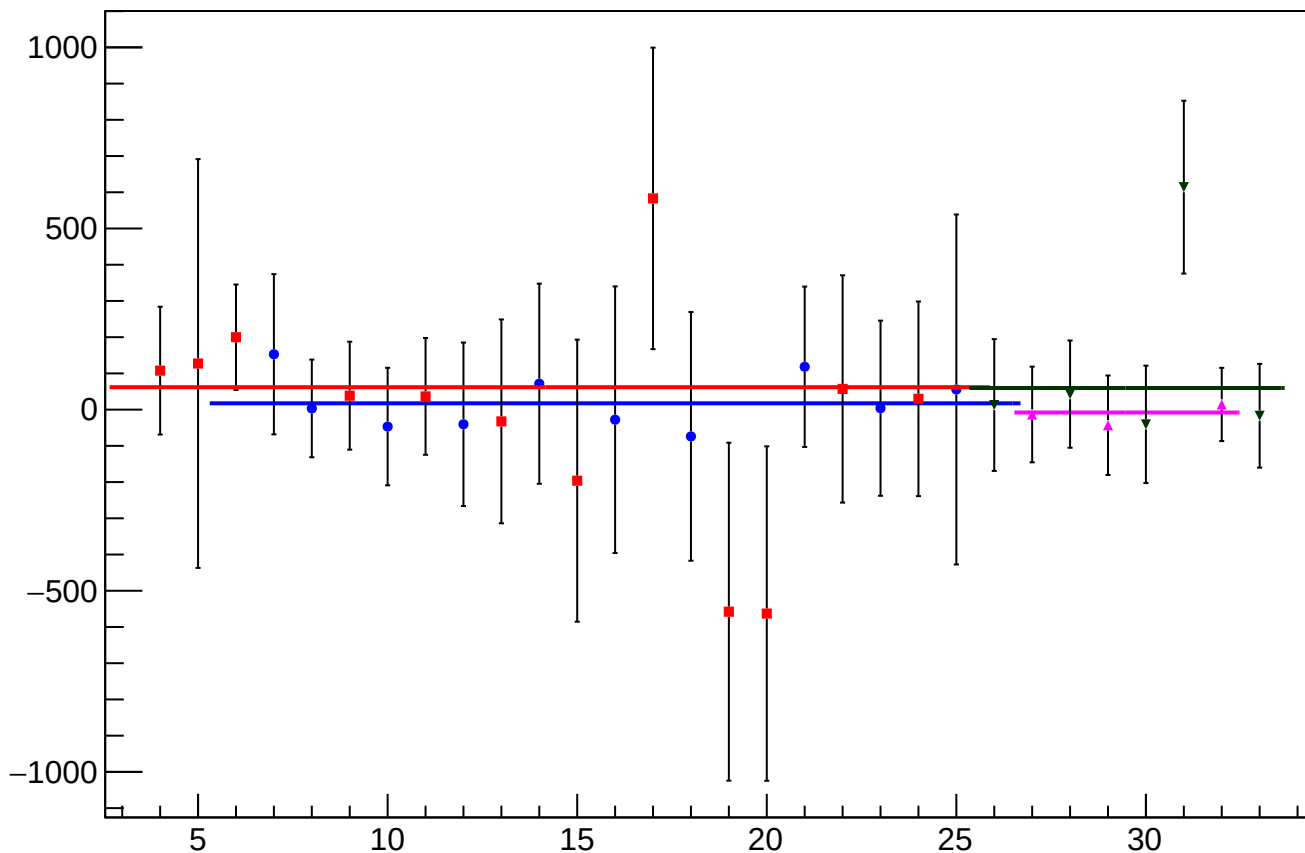
Left In: 23.057 $\pm$ 0.010  $\chi^2$ /NDF: 102278.2/2

24.586 $\pm$ 0.007  $\chi^2$ /NDF: 4752737.7/14

24.331 $\pm$ 0.007  $\chi^2$ /NDF: 5477560.8/14



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



Right In: 17.450+/-70.034  $\chi^2/\text{NDF}$ : 0.9/9

Left Out: 59.652+/-74.484  $\chi^2/\text{NDF}$ : 6.2/4

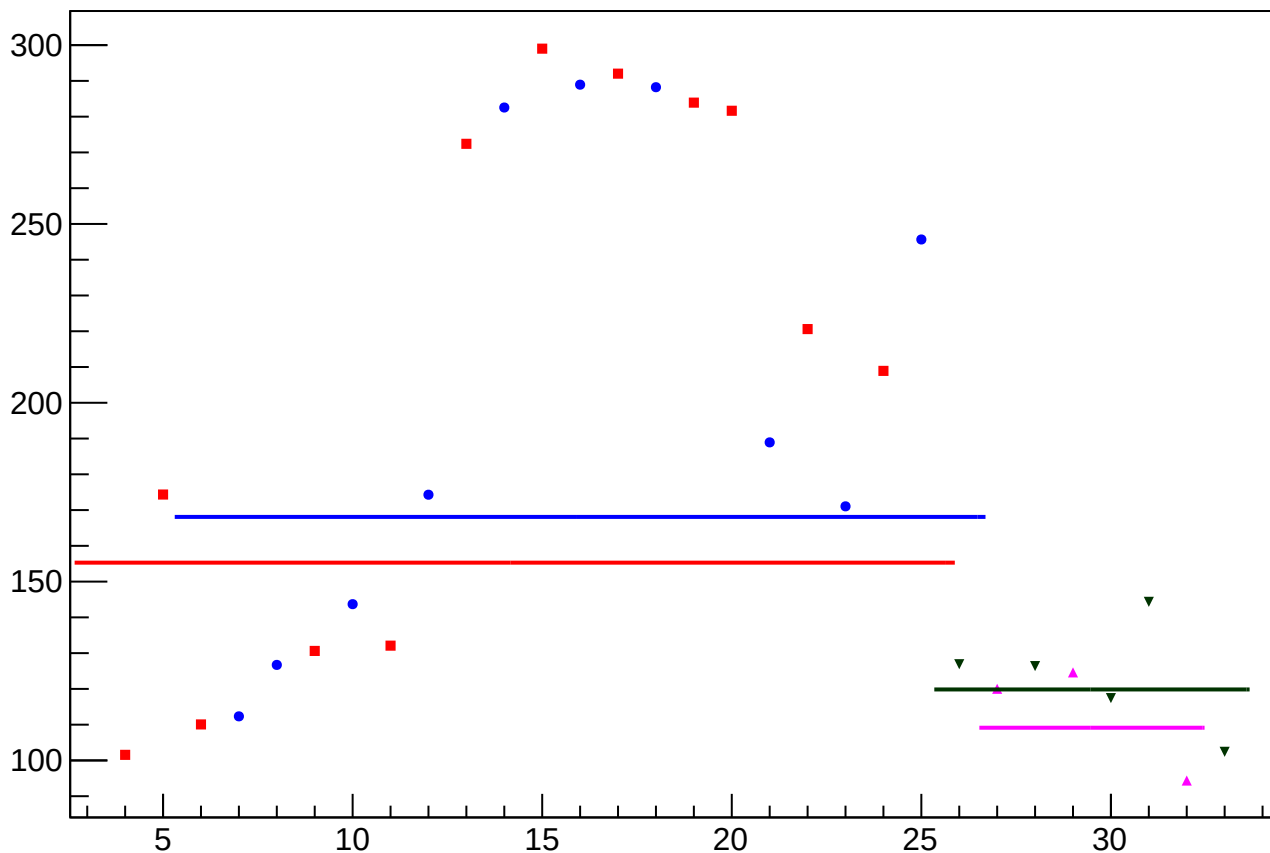
Right Out: 61.917+/-66.769  $\chi^2/\text{NDF}$ : 6.8/11

Left In: -7.958+/-69.317  $\chi^2/\text{NDF}$ : 0.1/2

37.253+/-51.022  $\chi^2/\text{NDF}$ : 7.3/14

28.287+/-48.088  $\chi^2/\text{NDF}$ : 7.4/14

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



Right In: 168.090+/-0.050  $\chi^2/\text{NDF}$ : 1236302.5/9

Left Out: 119.845+/-0.053  $\chi^2/\text{NDF}$ : 58074.1/4

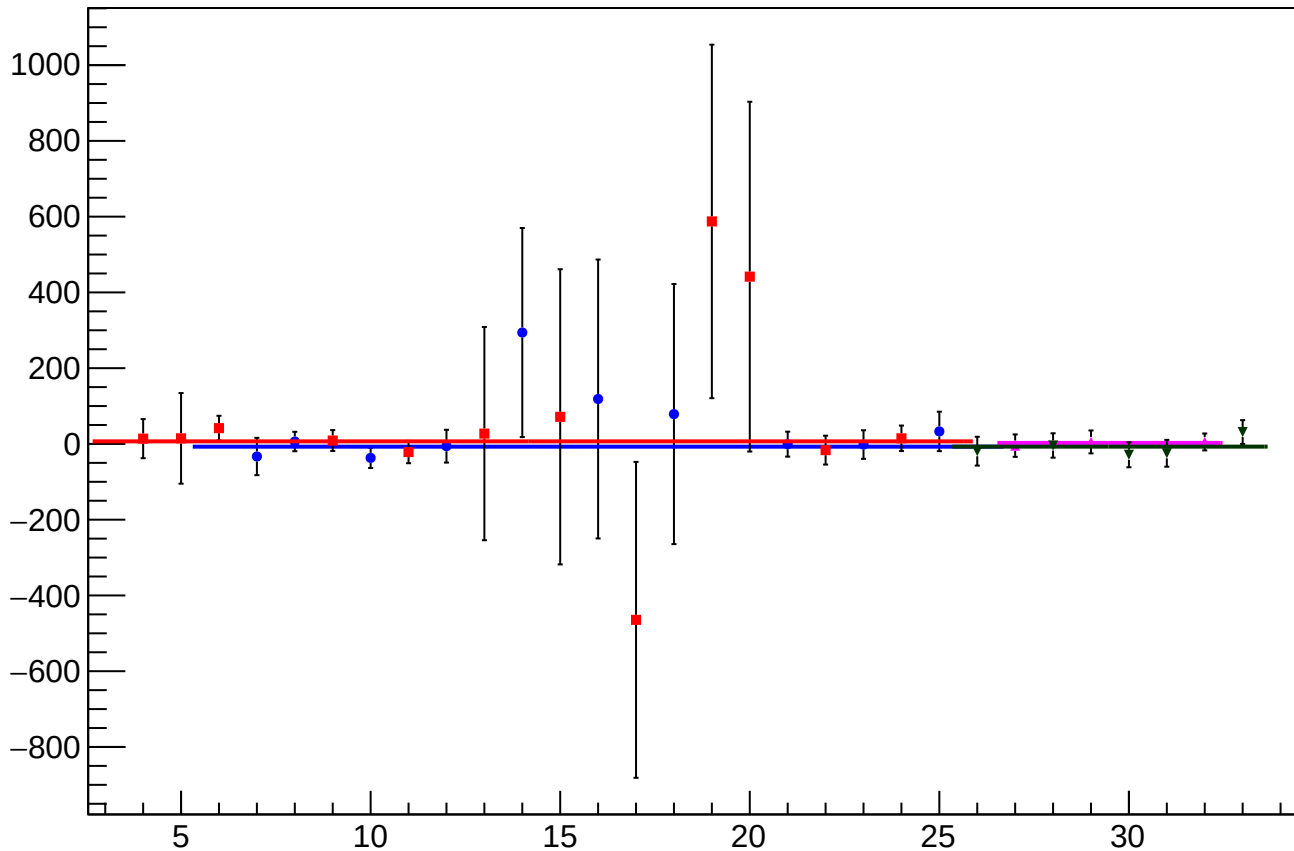
145.452+/-0.036  $\chi^2/\text{NDF}$ : 1739742.2/14

Right Out: 155.299+/-0.047  $\chi^2/\text{NDF}$ : 1780534.8/11

133.086+/-0.034  $\chi^2/\text{NDF}$ : 2322101.8/14

Left In: 109.145+/-0.049  $\chi^2/\text{NDF}$ : 81627.2/2

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



Right In: -7.237+/-13.049  $\chi^2/\text{NDF}$ : 3.8/9

Left Out: -7.122+/-15.103  $\chi^2/\text{NDF}$ : 2.3/4

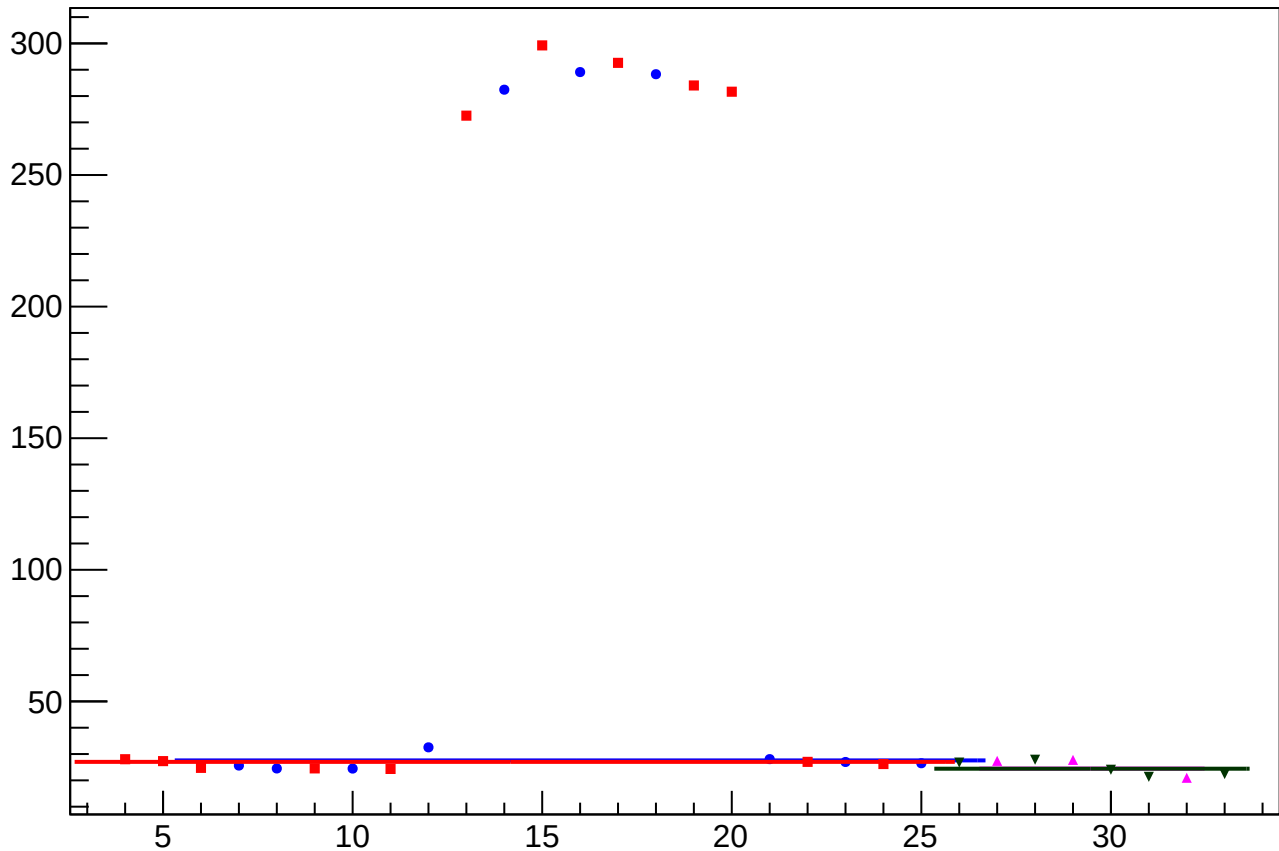
Right Out: 6.763+/-13.545  $\chi^2/\text{NDF}$ : 6.3/11

Left In: 2.628+/-15.361  $\chi^2/\text{NDF}$ : 0.1/2

-7.188+/-9.874  $\chi^2/\text{NDF}$ : 6.1/14

4.955+/-10.160  $\chi^2/\text{NDF}$ : 6.4/14

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



Right In: 27.582 $\pm$ 0.009  $\chi^2$ /NDF: 3953856.3/9

Left Out: 24.428 $\pm$ 0.011  $\chi^2$ /NDF: 53847.6/4

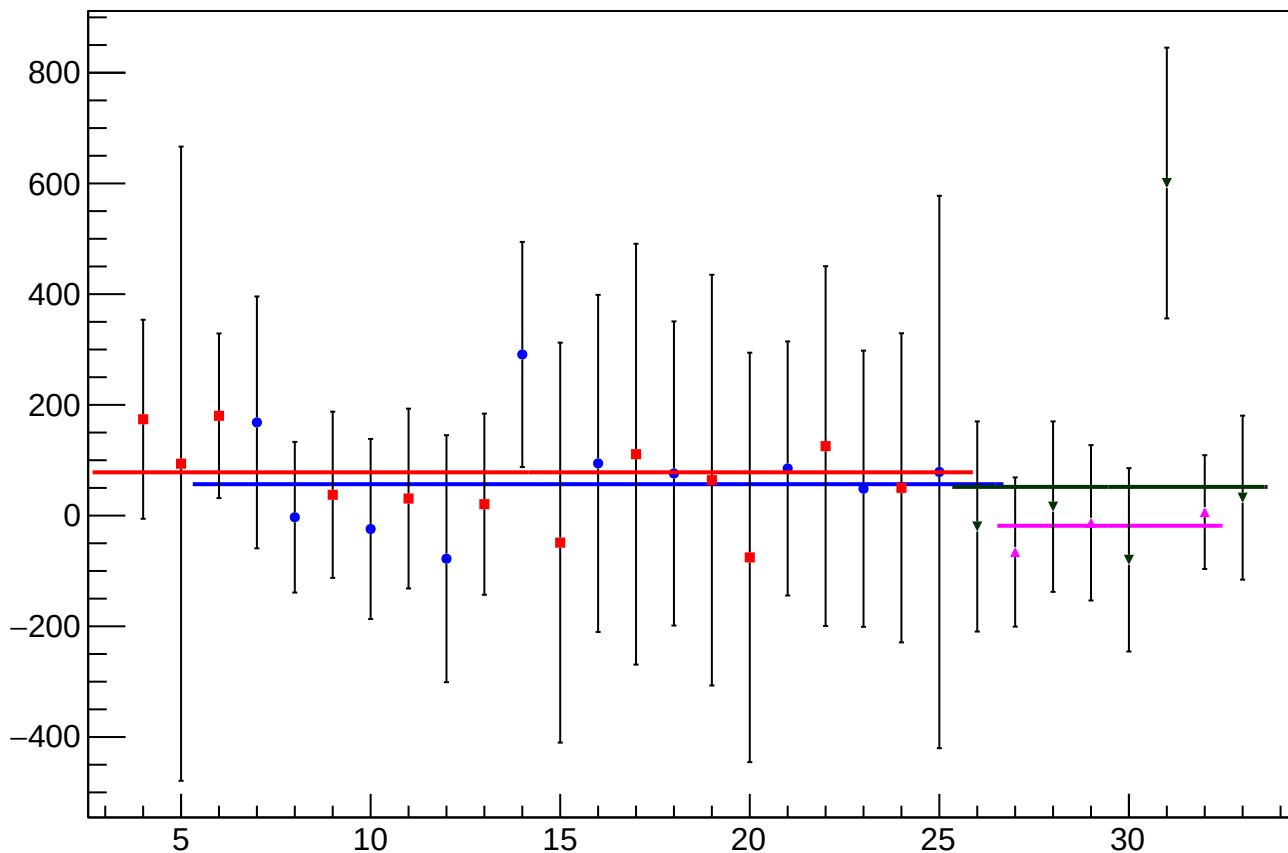
26.234 $\pm$ 0.007  $\chi^2$ /NDF: 4057644.6/14

Right Out: 27.023 $\pm$ 0.010  $\chi^2$ /NDF: 4568943.2/11

25.906 $\pm$ 0.007  $\chi^2$ /NDF: 4692360.8/14

Left In: 24.470 $\pm$ 0.011  $\chi^2$ /NDF: 92334.7/2

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



Right In: 56.719 $\pm$ 67.654  $\chi^2$ /NDF: 2.4/9

Left Out: 51.853 $\pm$ 76.995  $\chi^2$ /NDF:5.9/4

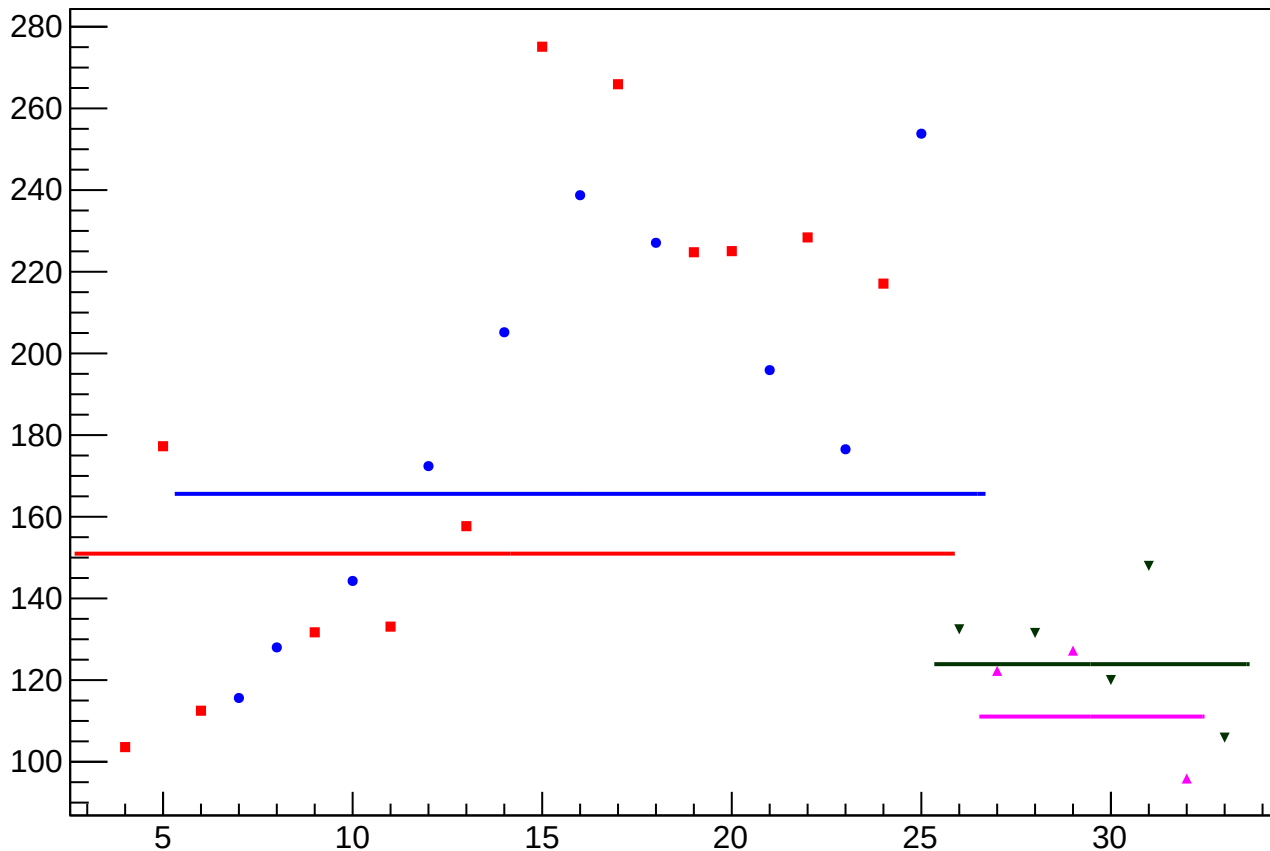
Right Out: 78.185 $\pm$ 63.204  $\chi^2$ /NDF: 1.4/11

Left In: -18.383 $\pm$ 70.608  $\chi^2$ /NDF:0.2/2

54.599 $\pm$ 50.822  $\chi^2$ /NDF: 8.3/14

35.228 $\pm$ 47.093  $\chi^2$ /NDF: 2.6/14

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



Right In: 165.614 $\pm$ 0.048  $\chi^2/\text{NDF}$ : 678005.1/9

Left Out: 123.905 $\pm$ 0.054  $\chi^2/\text{NDF}$ : 58953.1/4

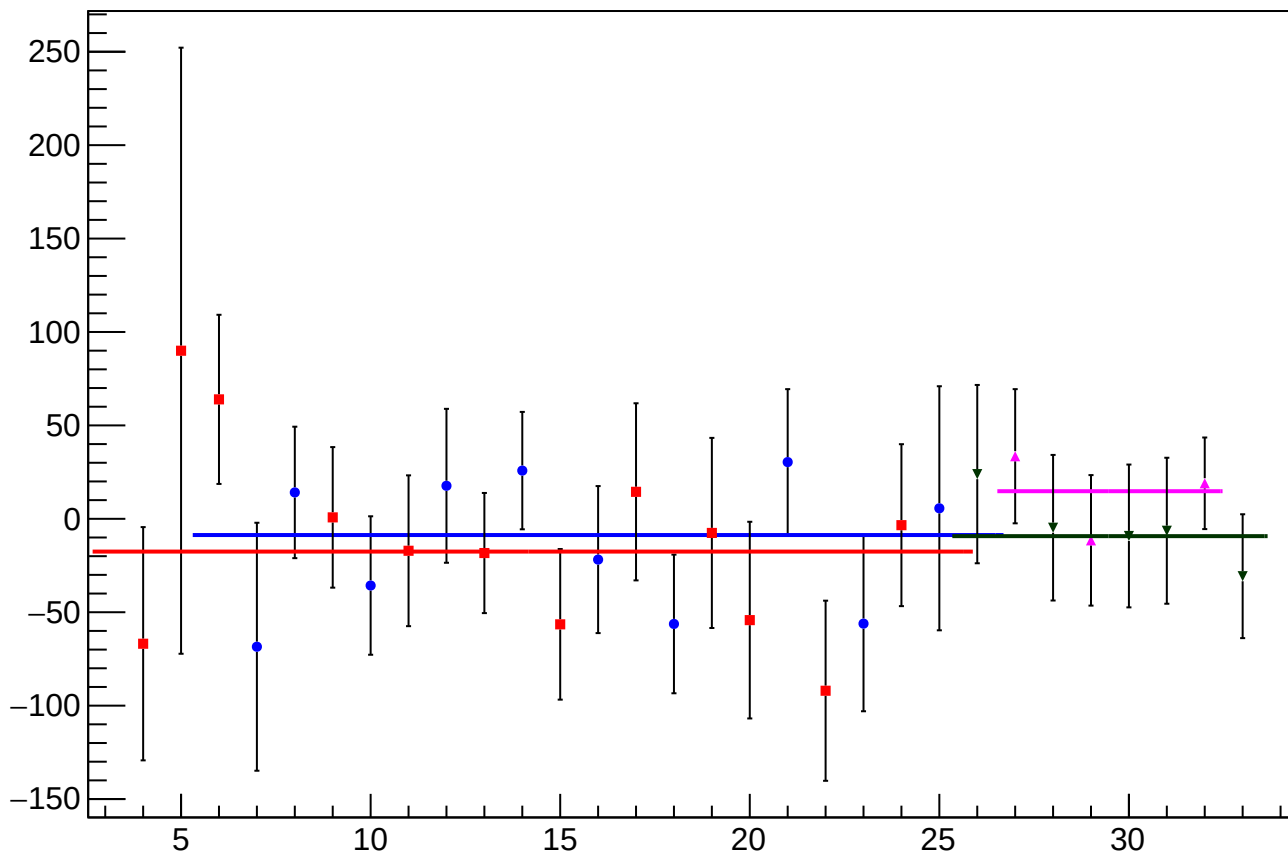
147.442 $\pm$ 0.036  $\chi^2/\text{NDF}$ : 1068151.8/14

Right Out: 150.968 $\pm$ 0.045  $\chi^2/\text{NDF}$ : 1141850.9/11

133.221 $\pm$ 0.033  $\chi^2/\text{NDF}$ : 1580205.9/14

Left In: 111.073 $\pm$ 0.050  $\chi^2/\text{NDF}$ : 83889.4/2

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



Right In:  $-8.681 \pm 12.821$   $\chi^2/\text{NDF}$ : 7.2/9

Left Out:  $-9.273 \pm 17.284$   $\chi^2/\text{NDF}$ : 0.9/4

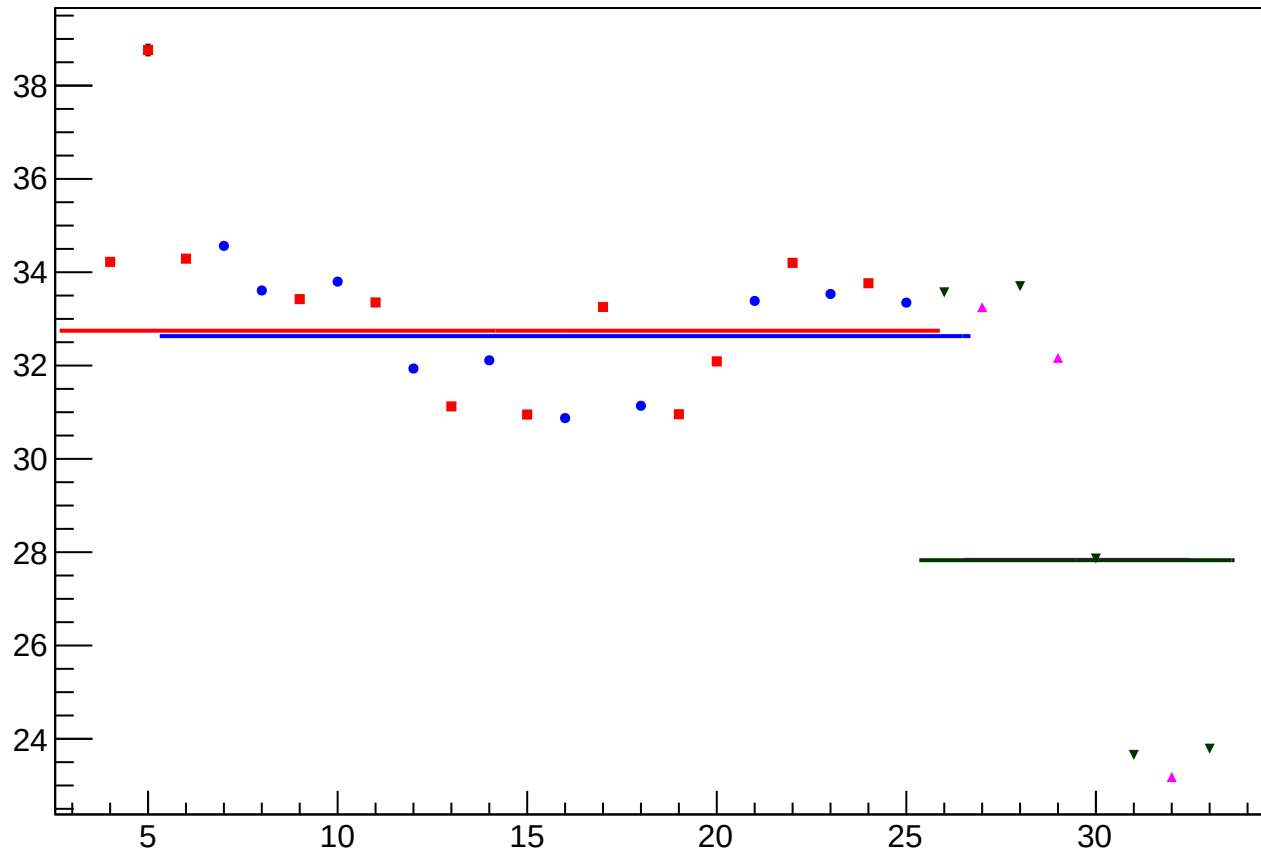
Right Out:  $-17.538 \pm 13.085$   $\chi^2/\text{NDF}$ : 8.9/11

Left In:  $14.778 \pm 17.515$   $\chi^2/\text{NDF}$ : 0.9/2

$-8.891 \pm 10.297$   $\chi^2/\text{NDF}$ : 8.1/14

$-5.962 \pm 10.483$   $\chi^2/\text{NDF}$ : 12.0/14

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



Right In: 32.631+/-0.009  $\chi^2/\text{NDF}$ : 15297.1/9

Left Out: 27.829+/-0.012  $\chi^2/\text{NDF}$ :126900.5/4

Right Out: 32.747+/-0.009  $\chi^2/\text{NDF}$ : 22297.5/11

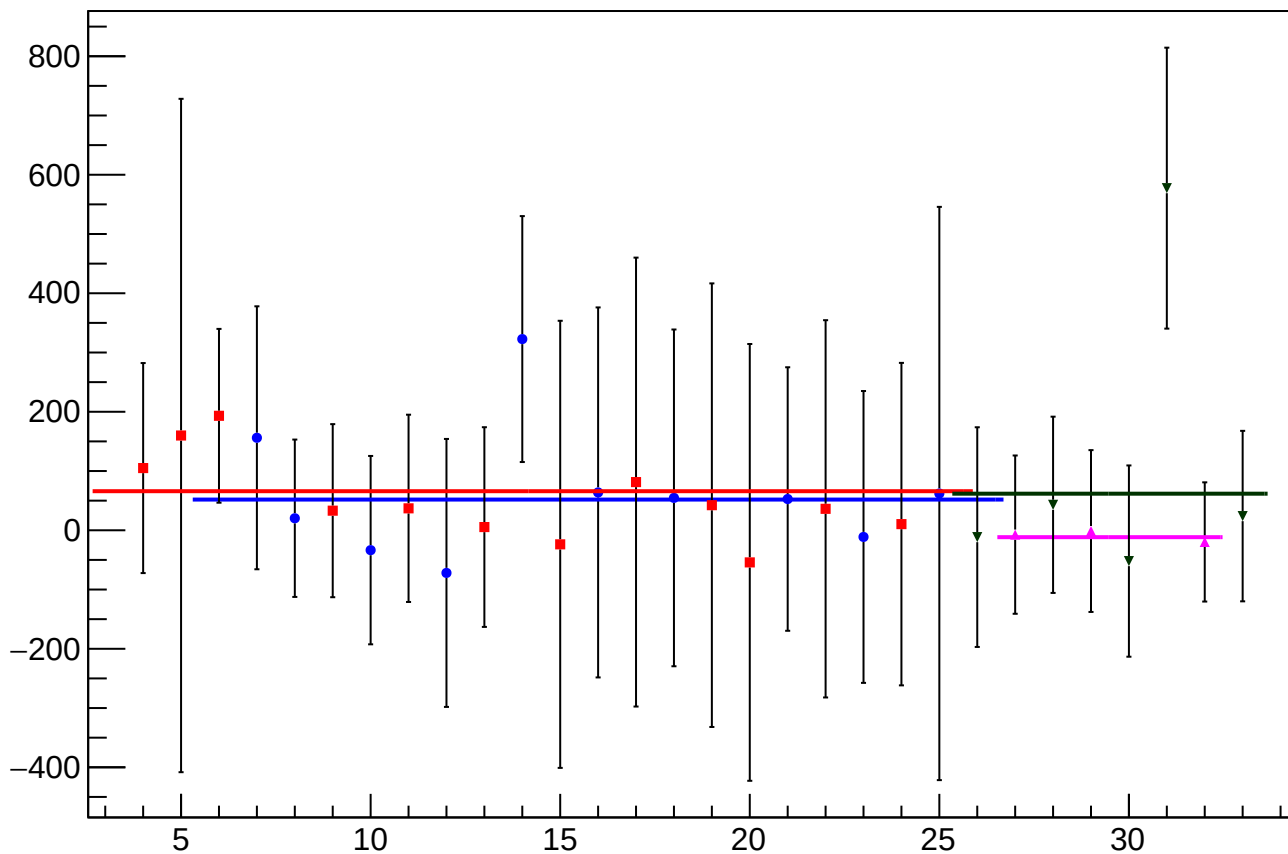
Left In: 27.837+/-0.012  $\chi^2/\text{NDF}$ :148357.9/2

30.926+/-0.007  $\chi^2/\text{NDF}$ : 241780.9/14

30.988+/-0.007  $\chi^2/\text{NDF}$ : 271536.6/14



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



Right In: 51.834+/-66.963  $\chi^2/\text{NDF}$ : 2.6/9

Left Out: 61.757+/-74.783  $\chi^2/\text{NDF}$ : 5.5/4

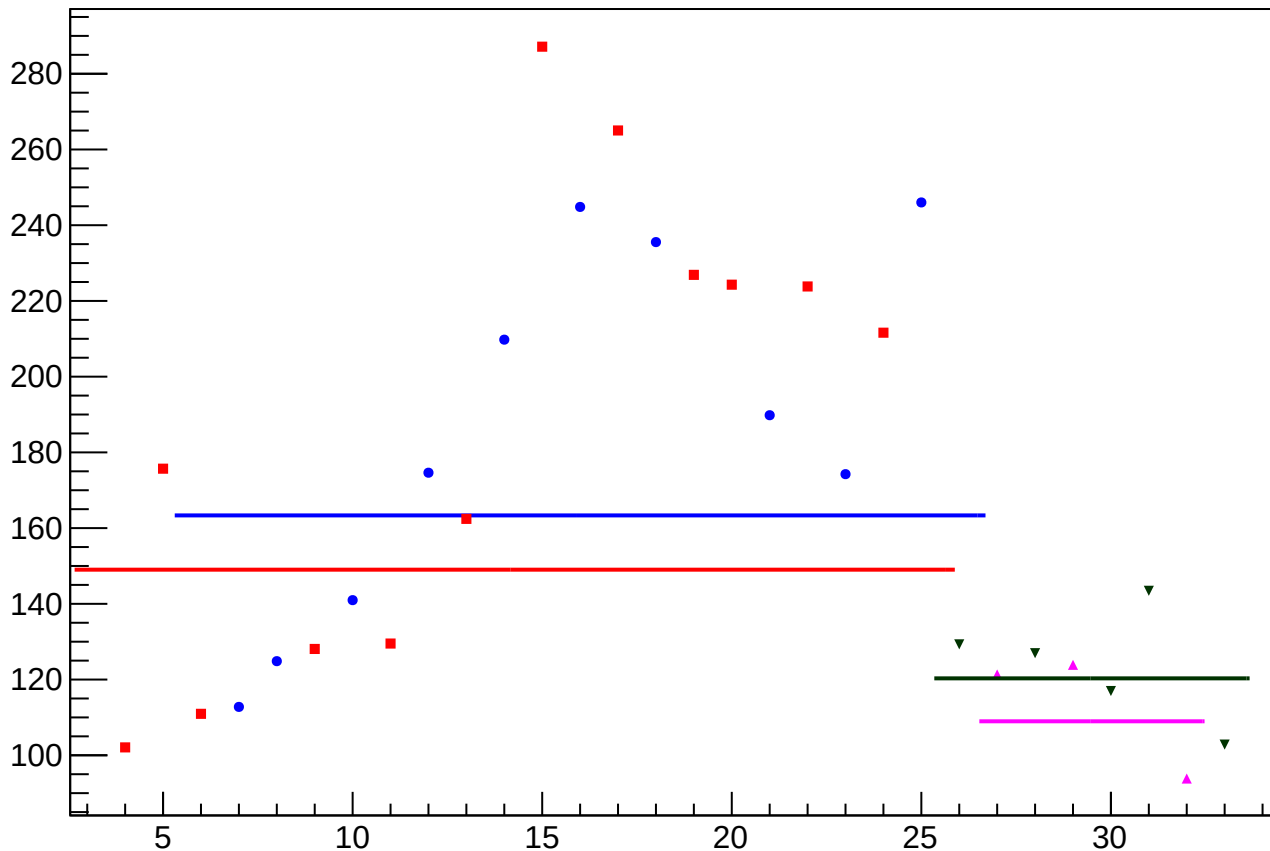
Right Out: 65.954+/-62.568  $\chi^2/\text{NDF}$ : 1.3/11

Left In: -11.634+/-69.254  $\chi^2/\text{NDF}$ : 0.0/2

56.250+/-49.886  $\chi^2/\text{NDF}$ : 8.1/14

31.085+/-46.427  $\chi^2/\text{NDF}$ : 2.0/14

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



Right In: 163.355+/-0.047  $\chi^2/\text{NDF}$ : 772602.2/9

Left Out: 120.316+/-0.053  $\chi^2/\text{NDF}$ : 58144.2/4

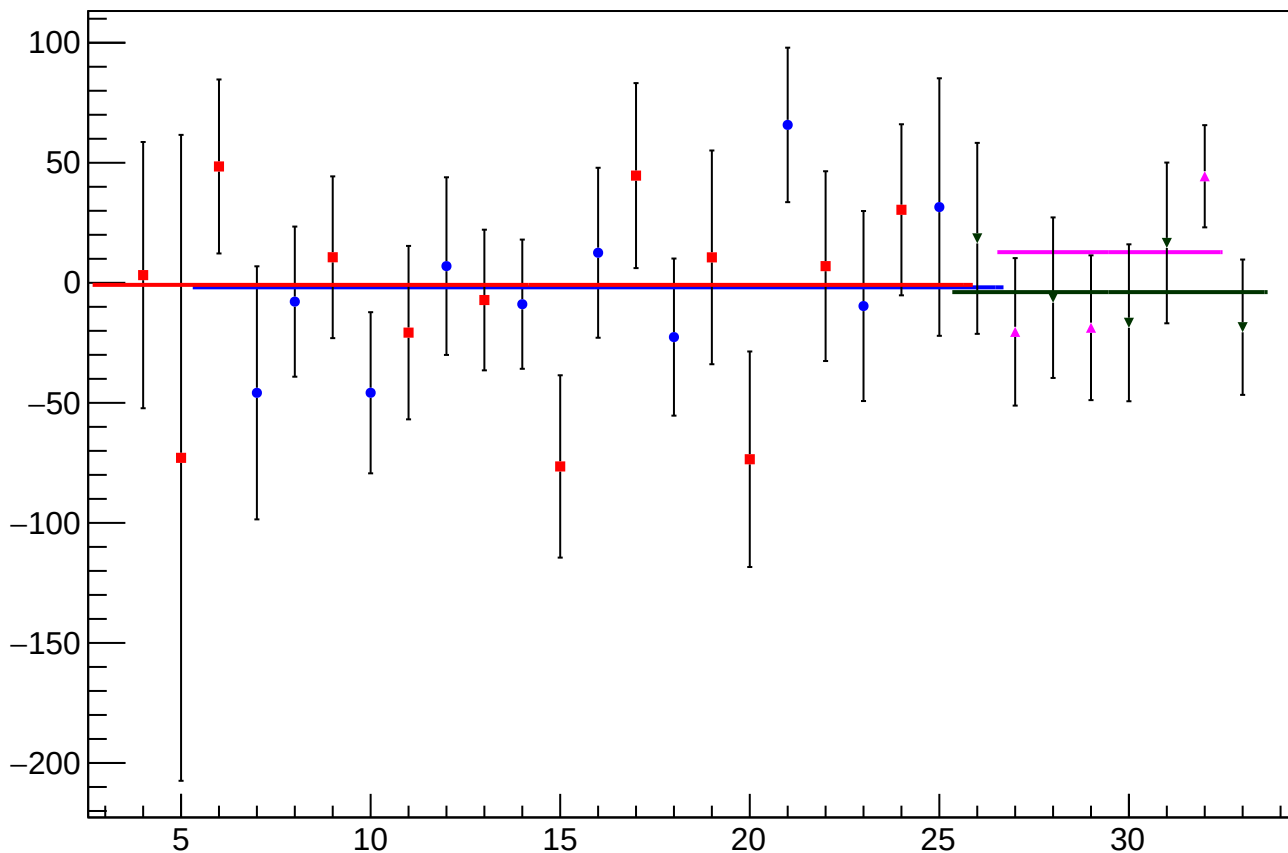
144.203+/-0.035  $\chi^2/\text{NDF}$ : 1198399.1/14

Right Out: 149.022+/-0.044  $\chi^2/\text{NDF}$ : 1205634.3/11

131.024+/-0.033  $\chi^2/\text{NDF}$ : 1660041.6/14

Left In: 108.974+/-0.049  $\chi^2/\text{NDF}$ : 86175.2/2

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



Right In:  $-1.881 \pm 11.135$   $\chi^2/\text{NDF}$ : 8.0/9

Left Out:  $-3.872 \pm 14.722$   $\chi^2/\text{NDF}$ : 1.1/4

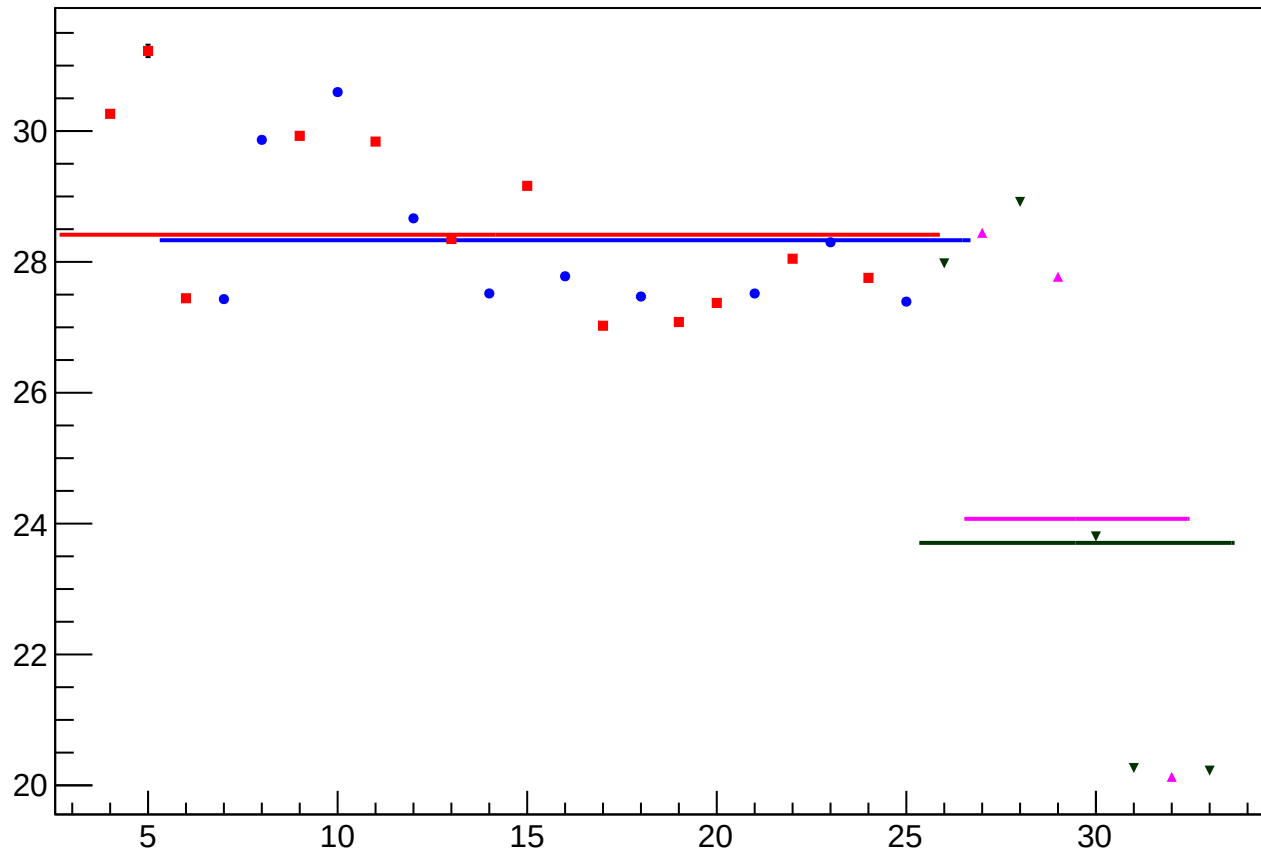
Right Out:  $-0.853 \pm 11.359$   $\chi^2/\text{NDF}$ : 11.5/11

Left In:  $12.769 \pm 15.134$   $\chi^2/\text{NDF}$ : 4.5/2

$-2.605 \pm 8.881$   $\chi^2/\text{NDF}$ : 9.1/14

$4.056 \pm 9.085$   $\chi^2/\text{NDF}$ : 16.4/14

asym\_bcm\_cav4cQ\_bcm\_dg\_ds\_agg\_dd\_rms vs slug



Right In:  $28.331 \pm 0.008$   $\chi^2/\text{NDF}: 20249.2/9$

Left Out:  $23.706 \pm 0.010$   $\chi^2/\text{NDF}: 123302.4/4$

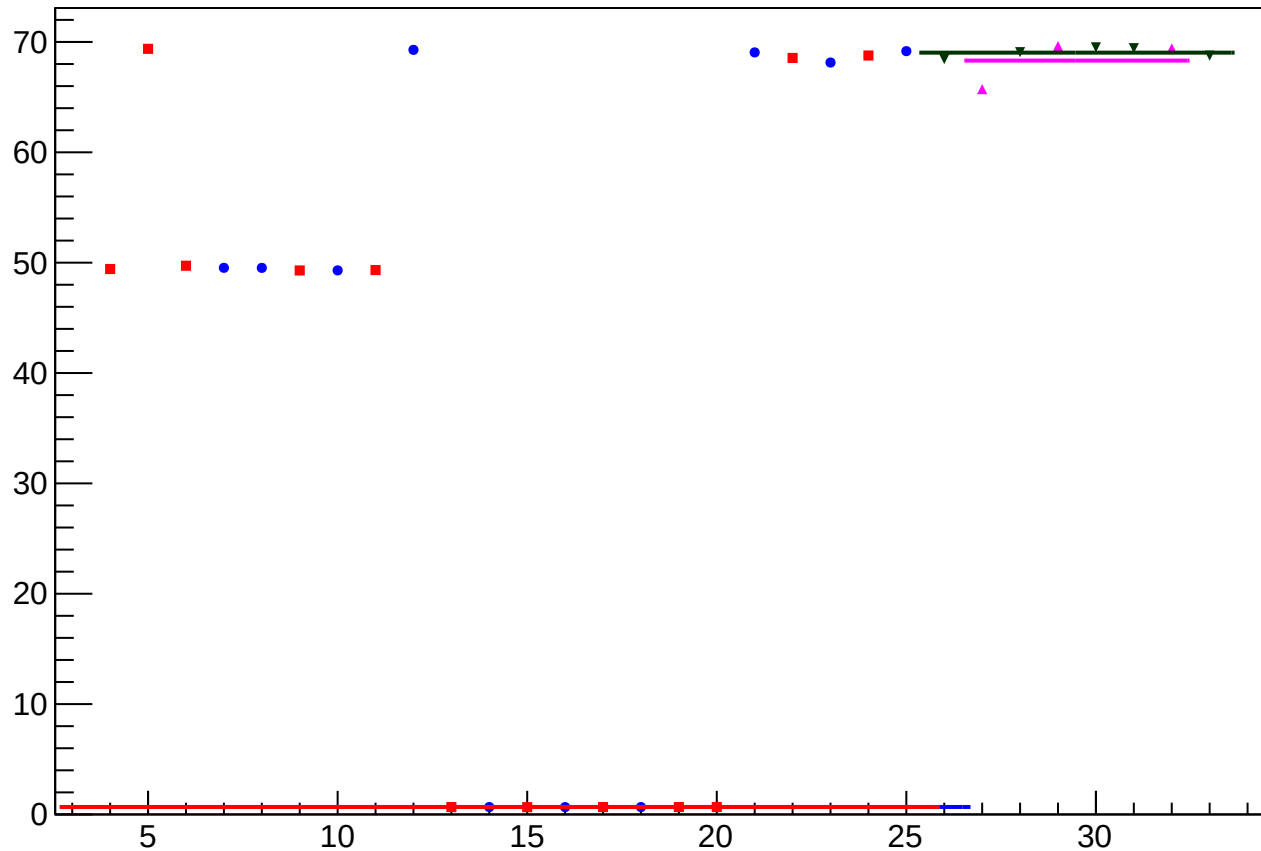
Right Out:  $28.415 \pm 0.008$   $\chi^2/\text{NDF}: 18780.8/11$

Left In:  $24.073 \pm 0.011$   $\chi^2/\text{NDF}: 139237.2/2$

$26.648 \pm 0.006$   $\chi^2/\text{NDF}: 269140.1/14$

$26.850 \pm 0.006$   $\chi^2/\text{NDF}: 263339.8/14$

# yield\_bcm\_an\_ds\_mean vs slug



Right In: 0.678 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 493978436701.3/9

Left Out: 69.032 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 12438736.6/4

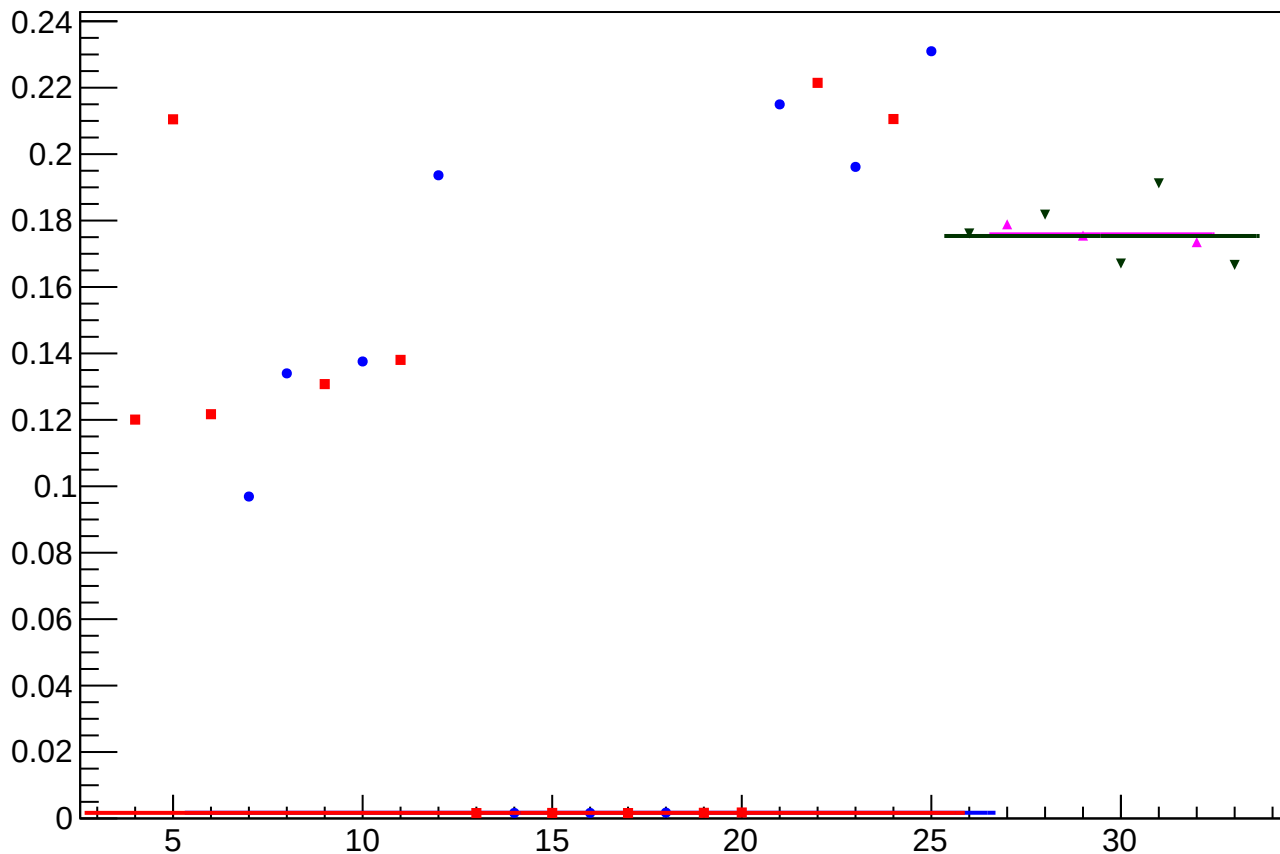
0.685 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 875929374986.9/14

Right Out: 0.677 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 436954244556.0/11

0.683 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 804771838420.9/14

Left In: 68.312 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 251512556.2/2

# yield\_bcm\_an\_ds\_rms vs slug



Right In: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 7632381.8/9

Left Out: 0.175 $\pm$ 0.000  $\chi^2$ /NDF:11879.1/4

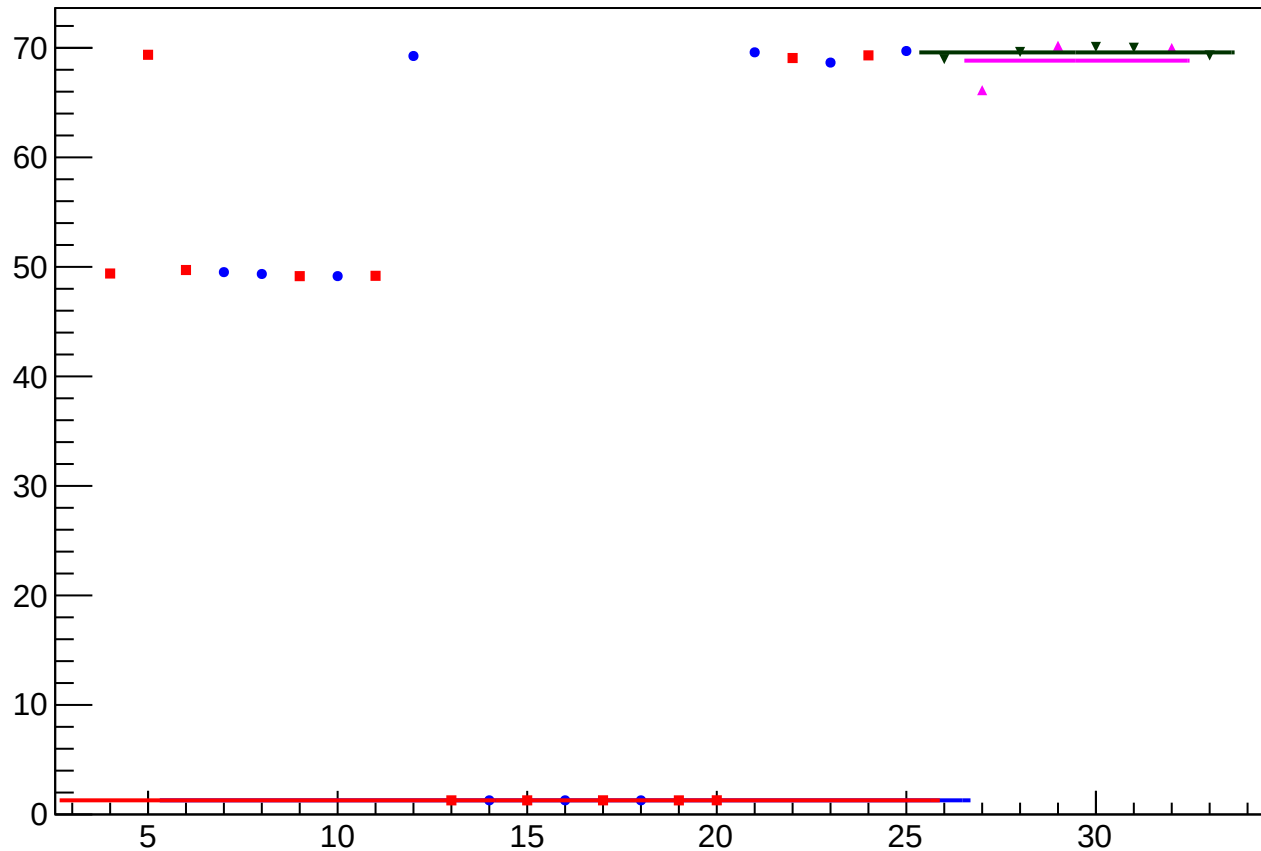
Right Out: 0.002 $\pm$ 0.000  $\chi^2$ /NDF: 6636068.7/11

Left In: 0.176 $\pm$ 0.000  $\chi^2$ /NDF:792.2/2

0.002 $\pm$ 0.000  $\chi^2$ /NDF: 12573644.4/14

0.002 $\pm$ 0.000  $\chi^2$ /NDF: 11511795.7/14

# yield\_bcm\_an\_ds3\_mean vs slug



Right In: 1.290+/-0.000  $\chi^2/\text{NDF}$ : 493068682652.8/9

Left Out: 69.585+/-0.000  $\chi^2/\text{NDF}$ :12987314.9/4

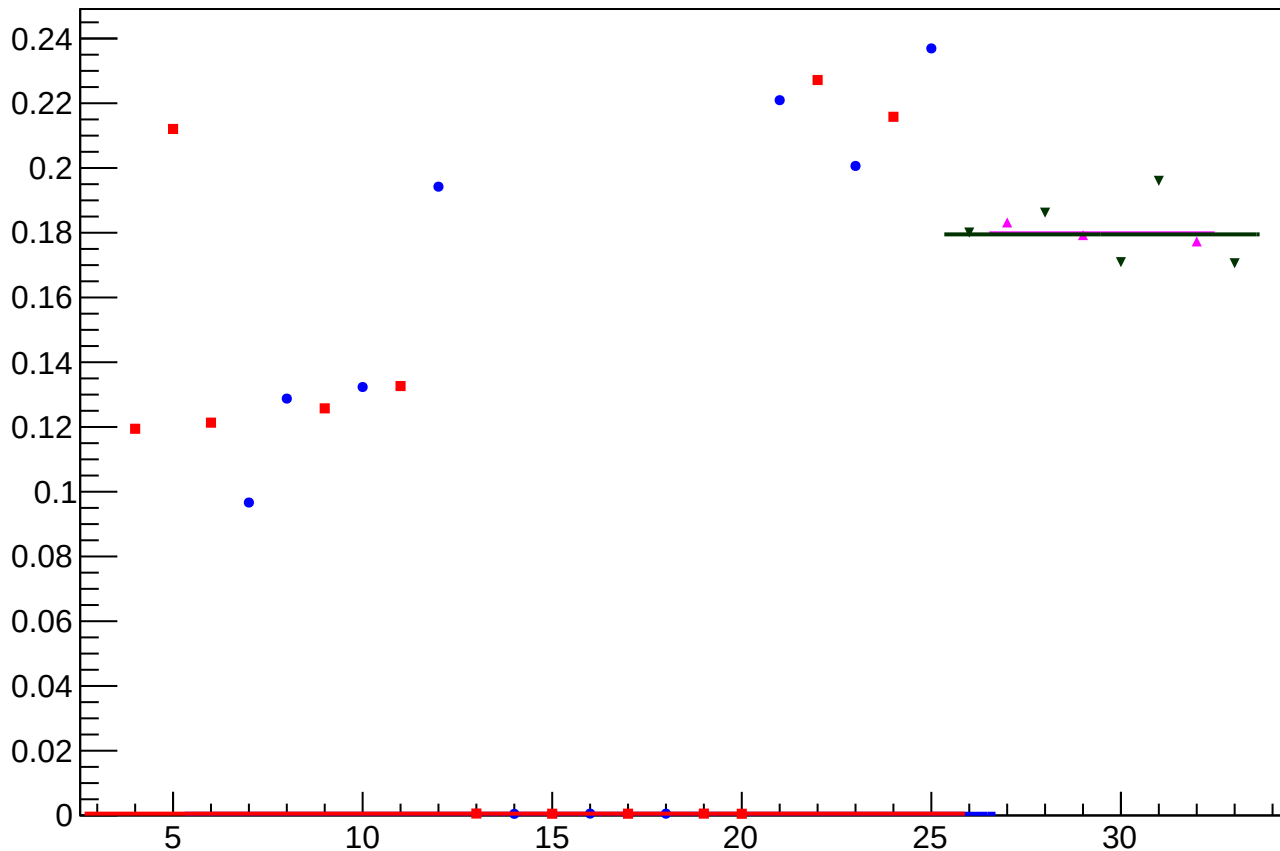
Right Out: 1.289+/-0.000  $\chi^2/\text{NDF}$ : 437398241389.8/11

Left In: 68.834+/-0.000  $\chi^2/\text{NDF}$ :259852696.0/2

1.291+/-0.000  $\chi^2/\text{NDF}$ : 856847994123.2/14

1.290+/-0.000  $\chi^2/\text{NDF}$ : 788174113253.3/14

# yield\_bcm\_an\_ds3\_rms vs slug



Right In: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 7762890.0/9

Left Out: 0.179+/-0.000  $\chi^2/\text{NDF}$ :12177.2/4

0.001+/-0.000  $\chi^2/\text{NDF}$ : 12771001.2/14

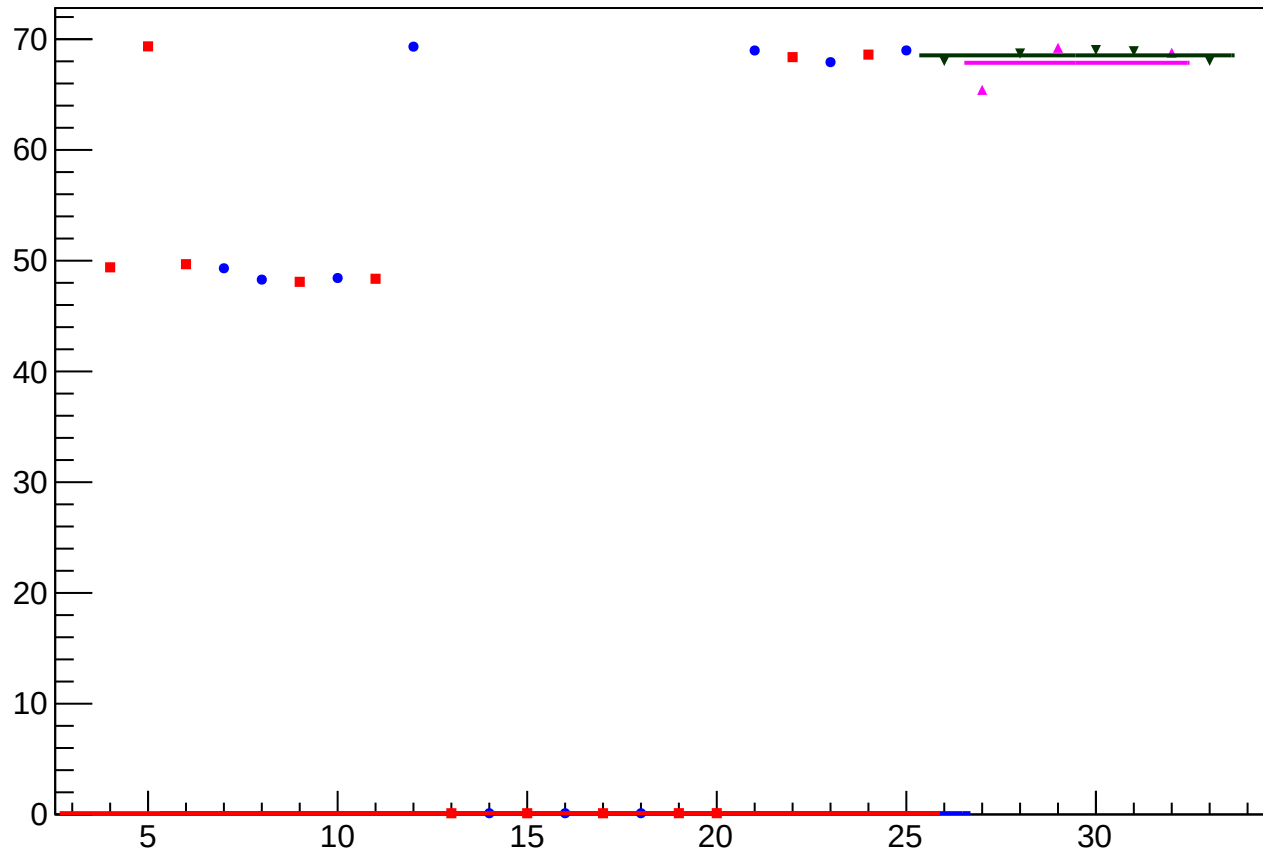
Right Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 6741519.4/11

0.001+/-0.000  $\chi^2/\text{NDF}$ : 11679987.7/14

Left In: 0.180+/-0.000  $\chi^2/\text{NDF}$ :909.4/2



# yield\_bcm\_an\_us\_mean vs slug



Right In: 0.119+/-0.000  $\chi^2/\text{NDF}$ : 516062815172.8/9

Left Out: 68.540+/-0.000  $\chi^2/\text{NDF}$ :14498688.5/4

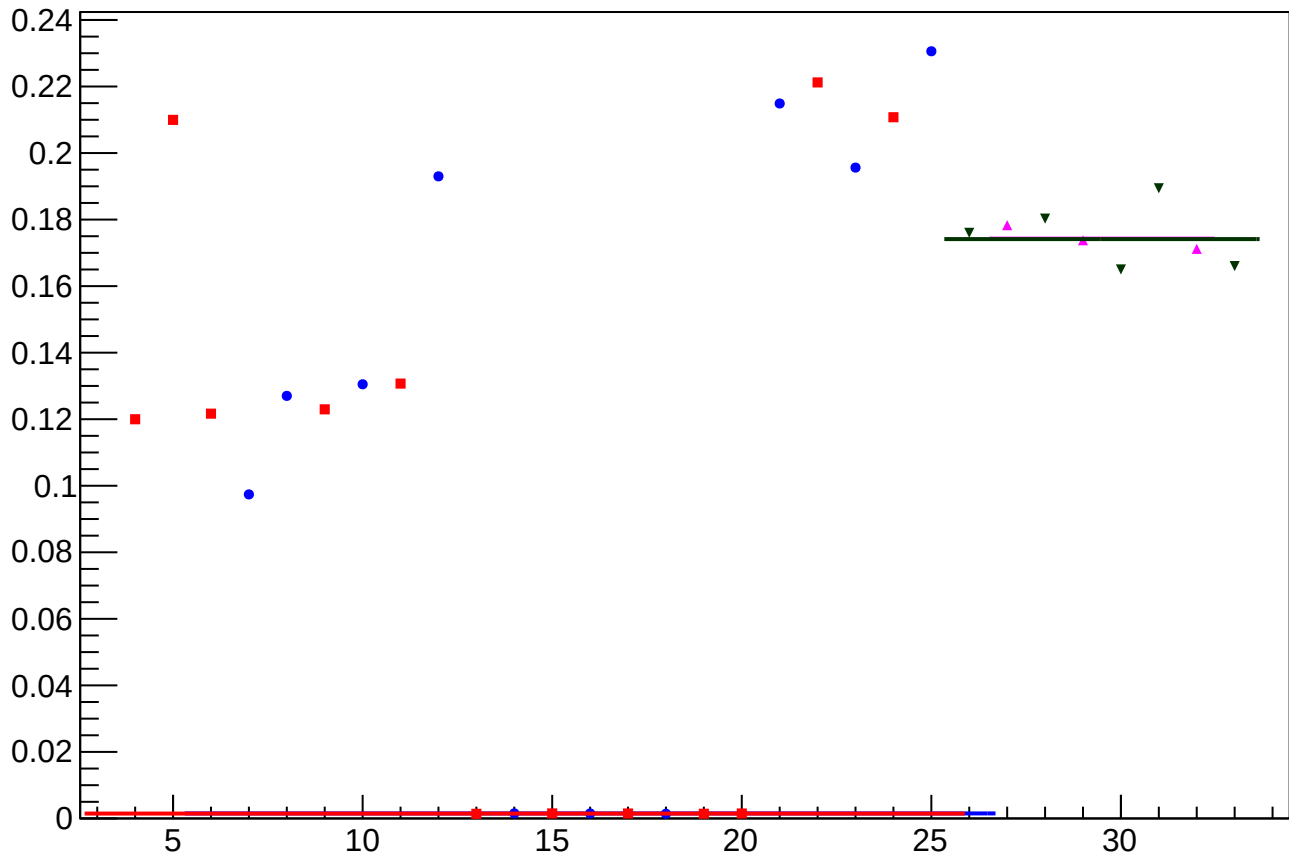
Right Out: 0.117+/-0.000  $\chi^2/\text{NDF}$ : 459272313715.4/11

Left In: 67.869+/-0.000  $\chi^2/\text{NDF}$ :226535776.2/2

0.124+/-0.000  $\chi^2/\text{NDF}$ : 902571071193.5/14

0.121+/-0.000  $\chi^2/\text{NDF}$ : 834815559206.8/14

# yield\_bcm\_an\_us\_rms vs slug



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 7641271.5/9

Left Out: 0.174+/-0.000  $\chi^2/\text{NDF}$ :11850.9/4

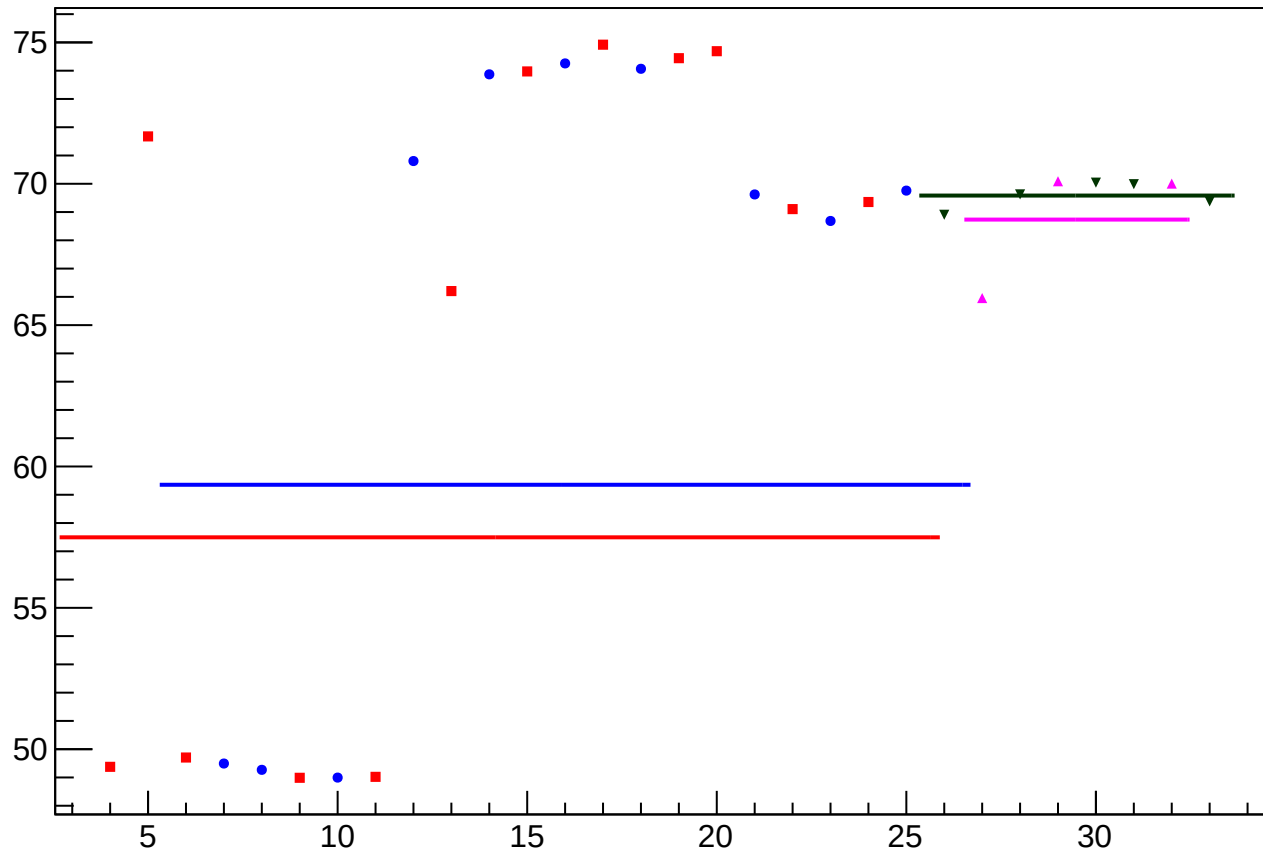
0.002+/-0.000  $\chi^2/\text{NDF}$ : 12573703.4/14

Right Out: 0.001+/-0.000  $\chi^2/\text{NDF}$ : 6649150.6/11

0.001+/-0.000  $\chi^2/\text{NDF}$ : 11533948.5/14

Left In: 0.174+/-0.000  $\chi^2/\text{NDF}$ :1412.8/2

# yield\_bcm\_dg\_us\_mean vs slug



Right In: 59.353+/-0.000  $\chi^2/\text{NDF}$ : 27193338504.5/9

Left Out: 69.583+/-0.000  $\chi^2/\text{NDF}$ :11784678.1/4

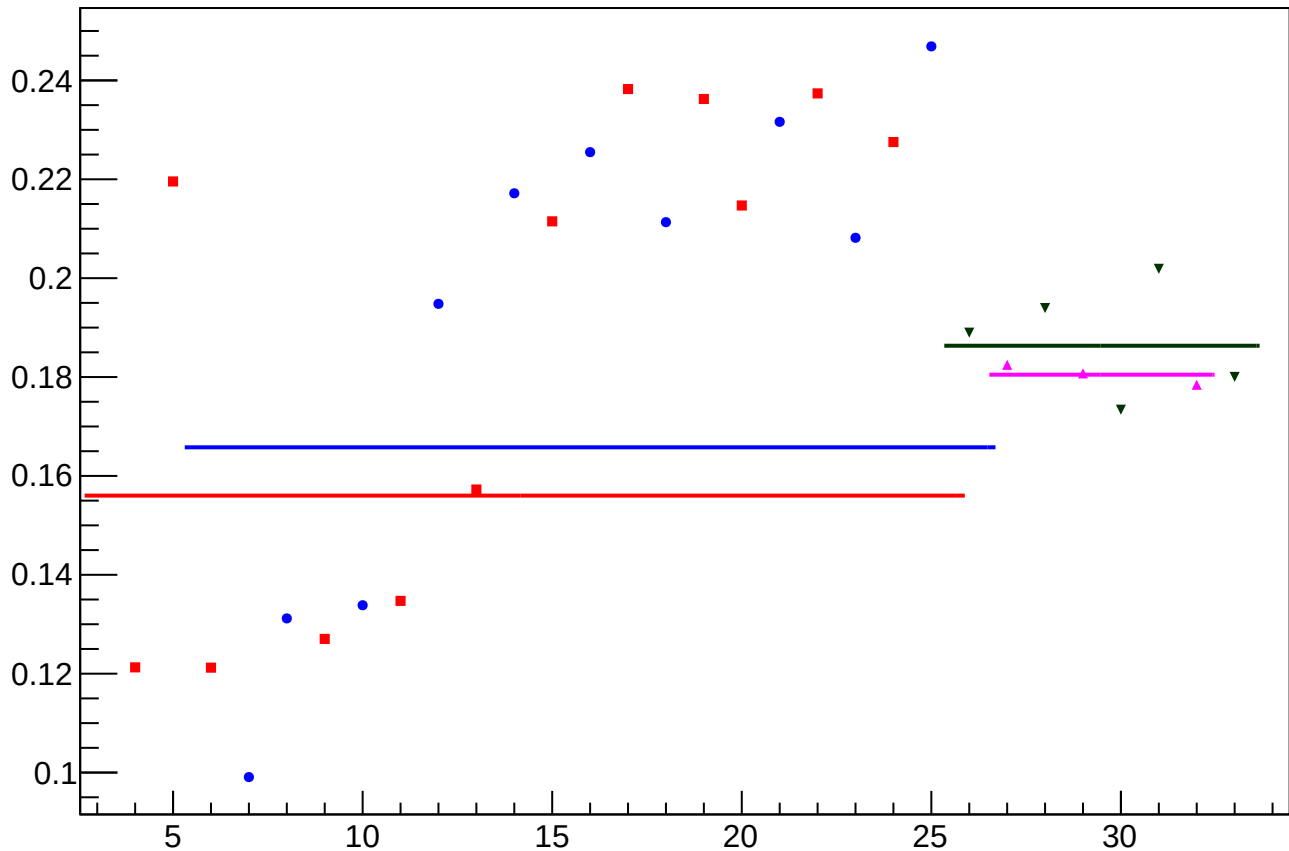
61.990+/-0.000  $\chi^2/\text{NDF}$ : 32830000909.0/14

Right Out: 57.494+/-0.000  $\chi^2/\text{NDF}$ : 25320800059.8/11

60.305+/-0.000  $\chi^2/\text{NDF}$ : 32790221058.3/14

Left In: 68.733+/-0.000  $\chi^2/\text{NDF}$ :276660169.6/2

# yield\_bcm\_dg\_us\_rms vs slug



Right In: 0.166+/-0.000  $\chi^2/\text{NDF}$ : 913187.1/9

Left Out: 0.186+/-0.000  $\chi^2/\text{NDF}$ : 13496.1/4

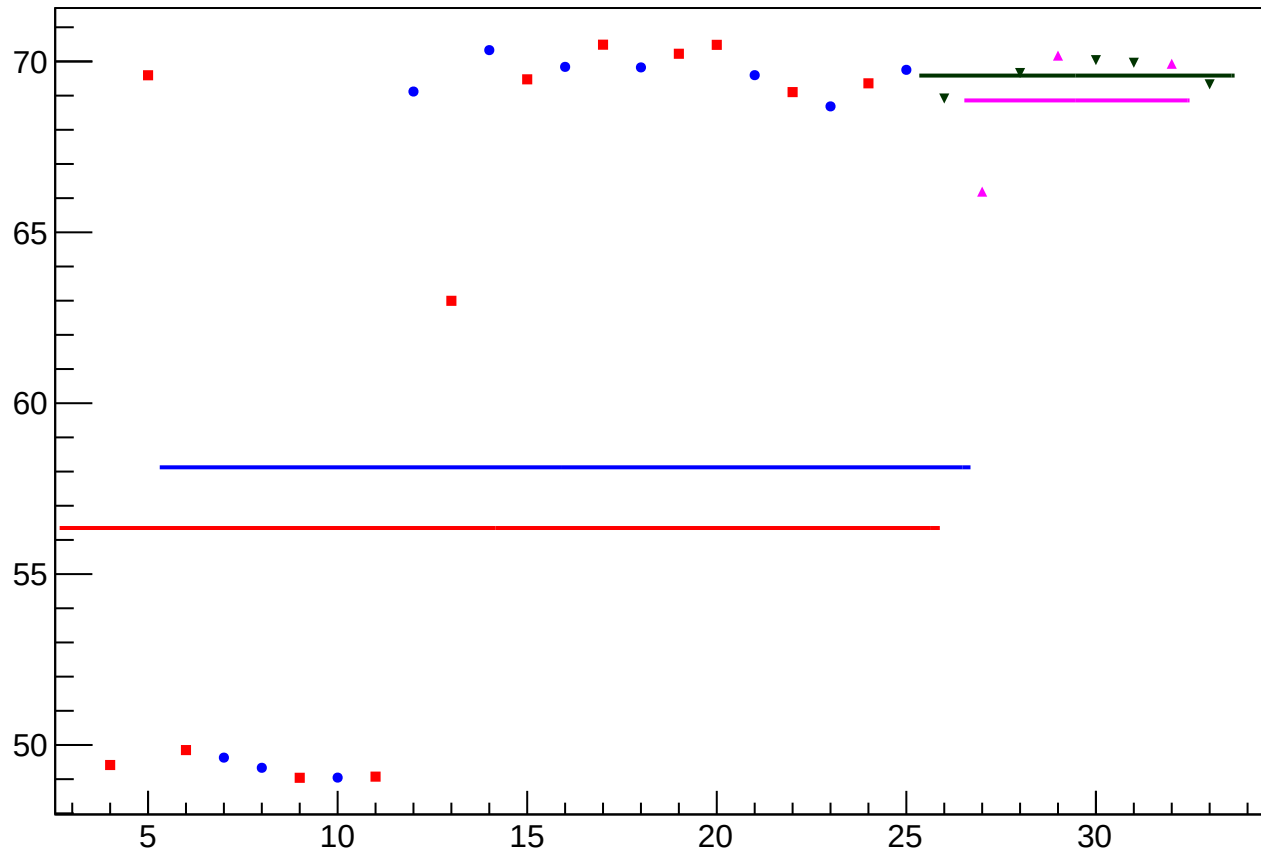
Right Out: 0.156+/-0.000  $\chi^2/\text{NDF}$ : 828596.5/11

Left In: 0.180+/-0.000  $\chi^2/\text{NDF}$ : 423.1/2

0.171+/-0.000  $\chi^2/\text{NDF}$ : 972070.6/14

0.162+/-0.000  $\chi^2/\text{NDF}$ : 897155.7/14

# yield\_bcm\_dg\_ds\_mean vs slug



Right In: 58.124+/-0.000  $\chi^2/\text{NDF}$ : 22280726970.9/9

Left Out: 69.586+/-0.000  $\chi^2/\text{NDF}$ : 12543970.3/4

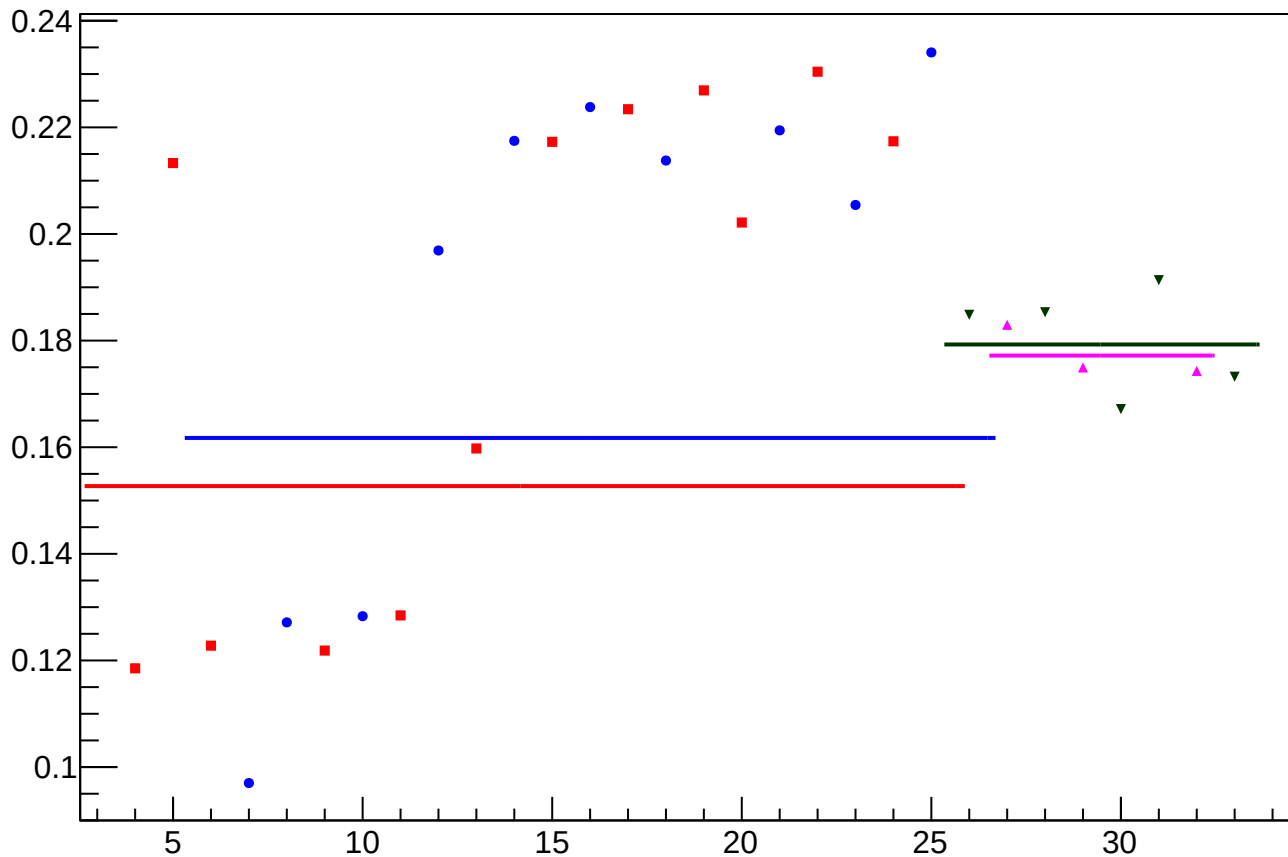
61.151+/-0.000  $\chi^2/\text{NDF}$ : 29869161708.5/14

Right Out: 56.349+/-0.000  $\chi^2/\text{NDF}$ : 19763904601.6/11

59.468+/-0.000  $\chi^2/\text{NDF}$ : 29293724745.9/14

Left In: 68.859+/-0.000  $\chi^2/\text{NDF}$ : 250974494.2/2

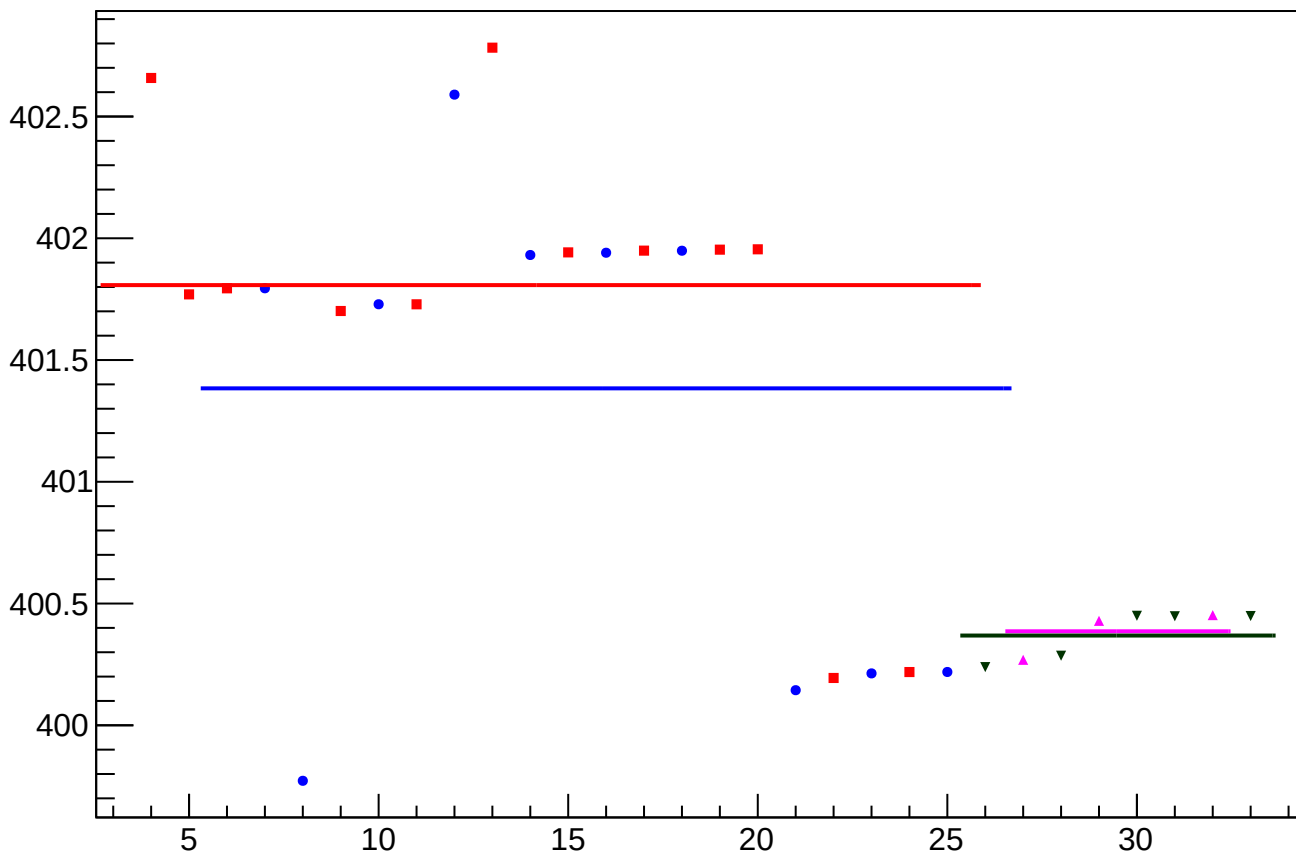
# yield\_bcm\_dg\_ds\_rms vs slug



0.166 $\pm$ 0.000  $\chi^2$ /NDF: 1019496.8/14

0.159 $\pm$ 0.000  $\chi^2$ /NDF: 884105.5/14

# yield\_cav4bQ\_mean vs slug



Right In: 401.384+/-0.000  $\chi^2/\text{NDF}$ : 122440333667.5/9

Left Out: 400.369+/-0.000  $\chi^2/\text{NDF}$ : 463637489.4/4

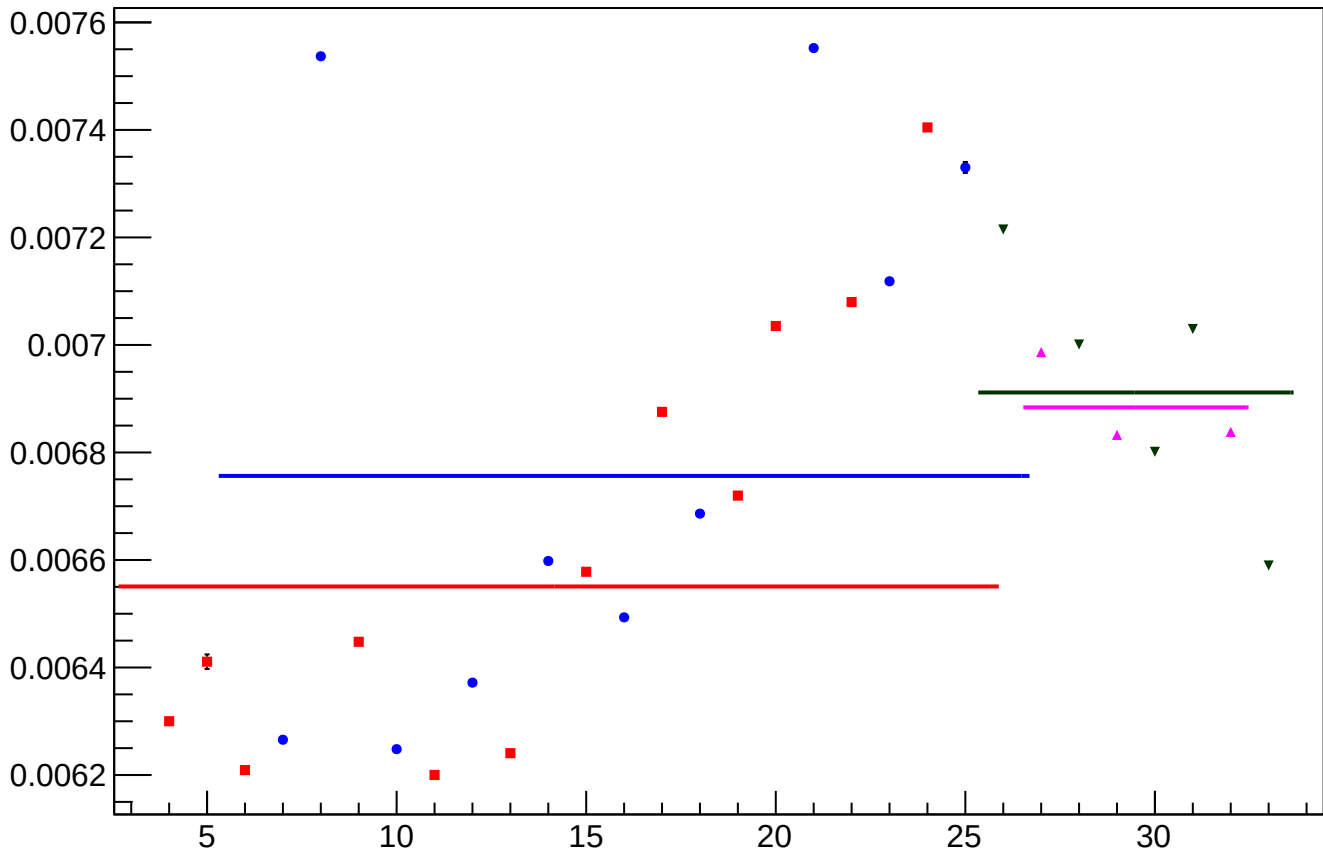
401.096+/-0.000  $\chi^2/\text{NDF}$ : 164023314993.7/14

Right Out: 401.808+/-0.000  $\chi^2/\text{NDF}$ : 85007940378.6/11

401.424+/-0.000  $\chi^2/\text{NDF}$ : 166325100089.5/14

Left In: 400.386+/-0.000  $\chi^2/\text{NDF}$ : 358325930.1/2

# yield\_cav4bQ\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 62983.1/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :4932.9/4

0.007+/-0.000  $\chi^2/\text{NDF}$ : 69838.0/14

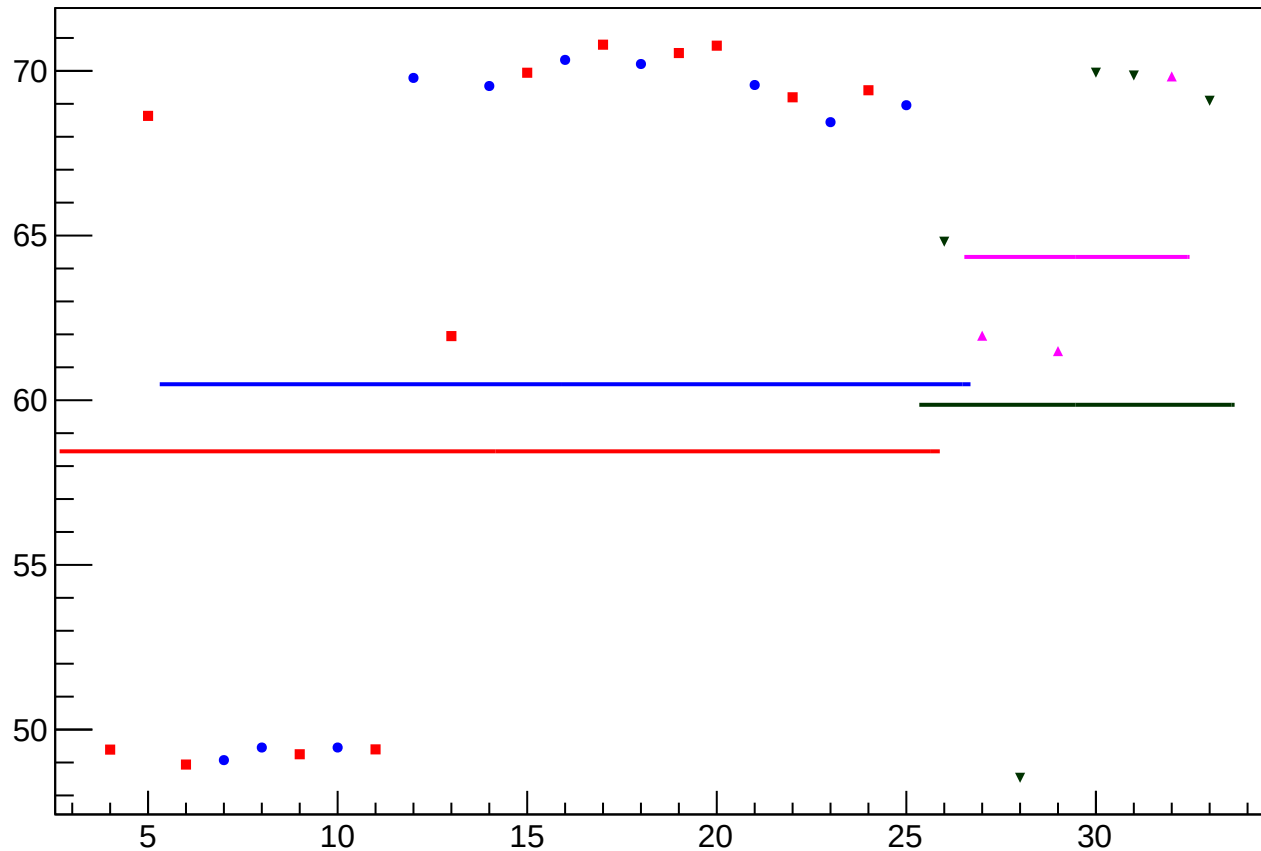
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 42109.3/11

0.007+/-0.000  $\chi^2/\text{NDF}$ : 51547.9/14

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ :545.4/2



# yield\_cav4cQ\_mean vs slug



Right In: 60.486 $\pm$ 0.000  $\chi^2$ /NDF: 13941426151.6/9

Left Out: 59.862 $\pm$ 0.000  $\chi^2$ /NDF: 5976613011.5/4

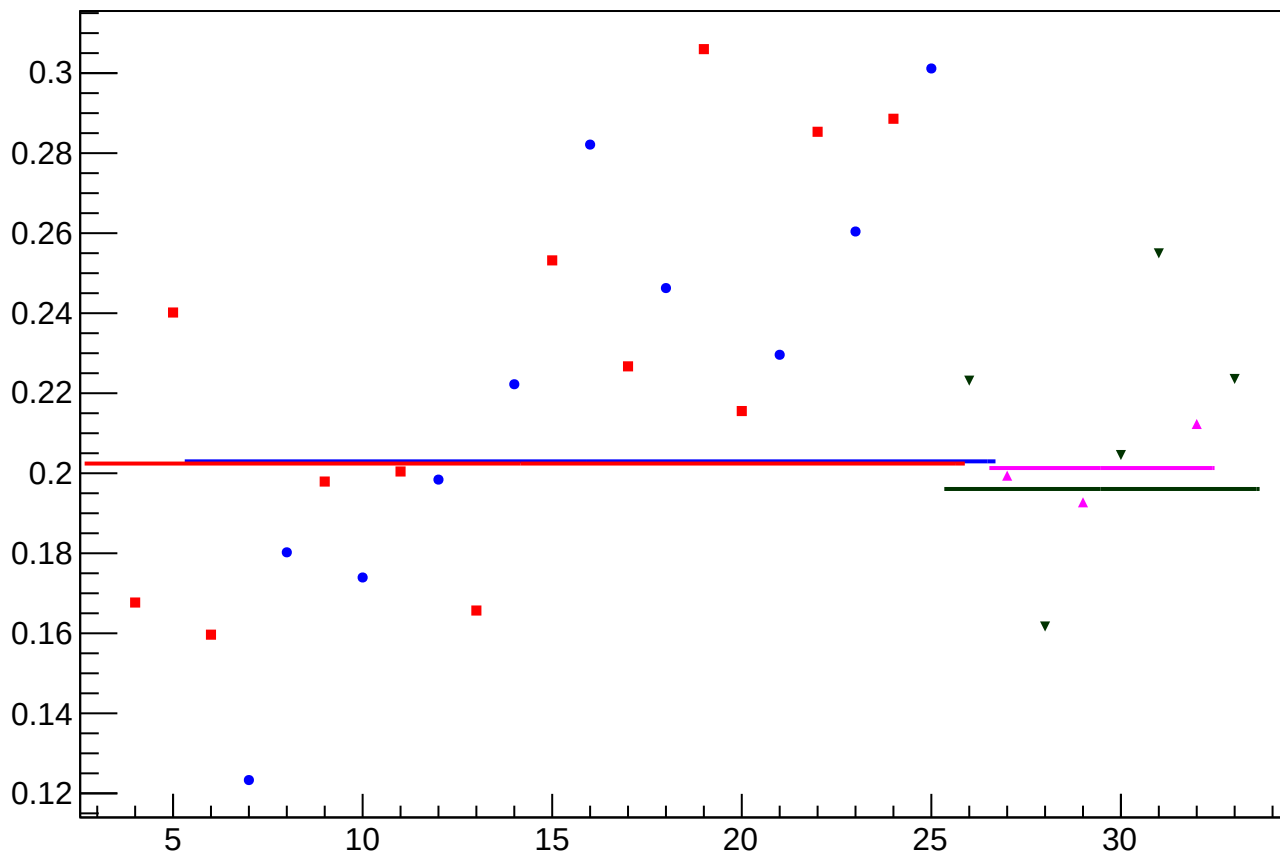
60.295 $\pm$ 0.000  $\chi^2$ /NDF: 19934336659.7/14

Right Out: 58.449 $\pm$ 0.000  $\chi^2$ /NDF: 11367122273.9/11

60.246 $\pm$ 0.000  $\chi^2$ /NDF: 13558519590.5/14

Left In: 64.351 $\pm$ 0.000  $\chi^2$ /NDF: 818552558.4/2

# yield\_cav4cQ\_rms vs slug



Right In: 0.203 $\pm$ 0.000  $\chi^2$ /NDF: 509389.5/9

Left Out: 0.196 $\pm$ 0.000  $\chi^2$ /NDF:125326.7/4

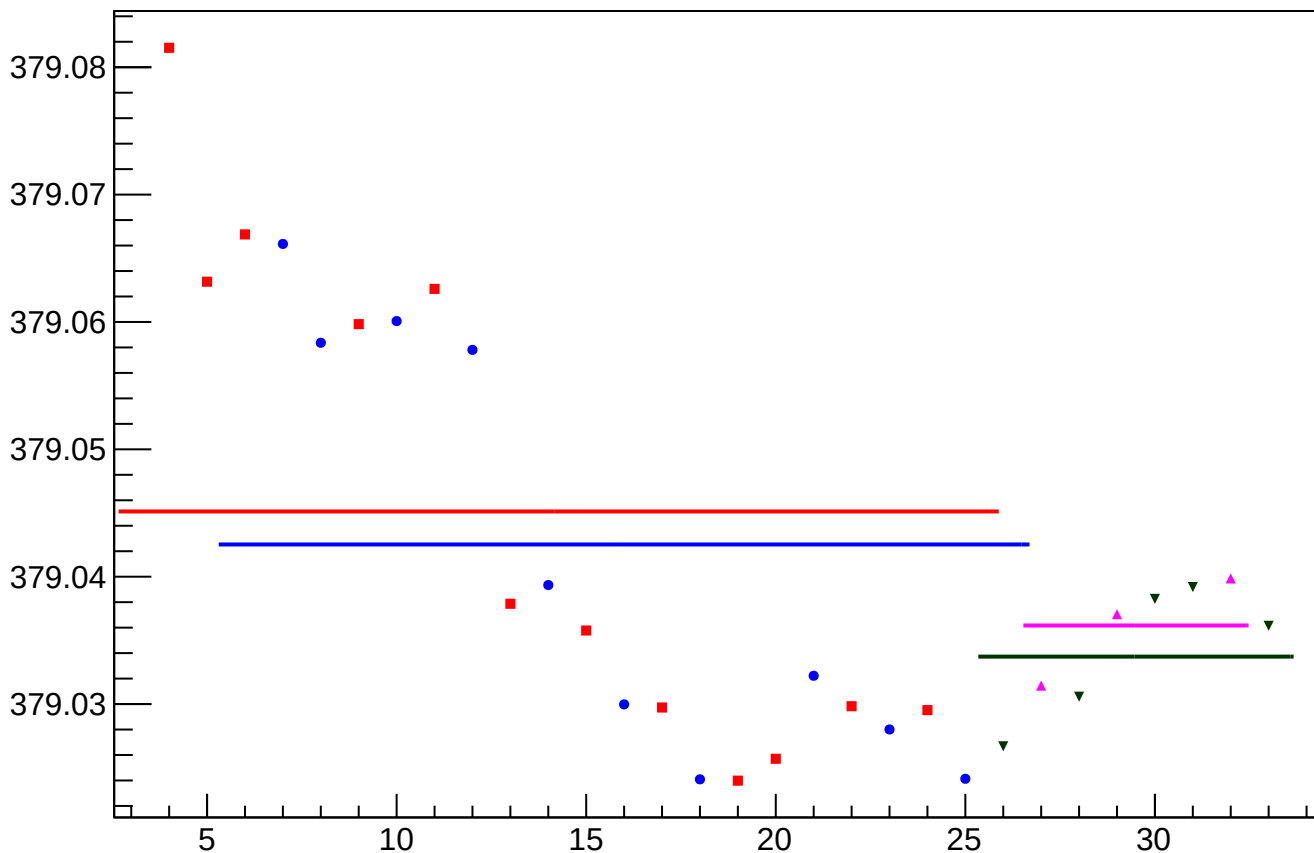
Right Out: 0.202 $\pm$ 0.000  $\chi^2$ /NDF: 477643.7/11

Left In: 0.201 $\pm$ 0.000  $\chi^2$ /NDF:7443.2/2

0.201 $\pm$ 0.000  $\chi^2$ /NDF: 638703.8/14

0.202 $\pm$ 0.000  $\chi^2$ /NDF: 485186.3/14

# yield\_cav4dQ\_mean vs slug



Right In: 379.043+/-0.000  $\chi^2/\text{NDF}$ : 28431706.3/9

Left Out: 379.034+/-0.000  $\chi^2/\text{NDF}$ : 1196752.5/4

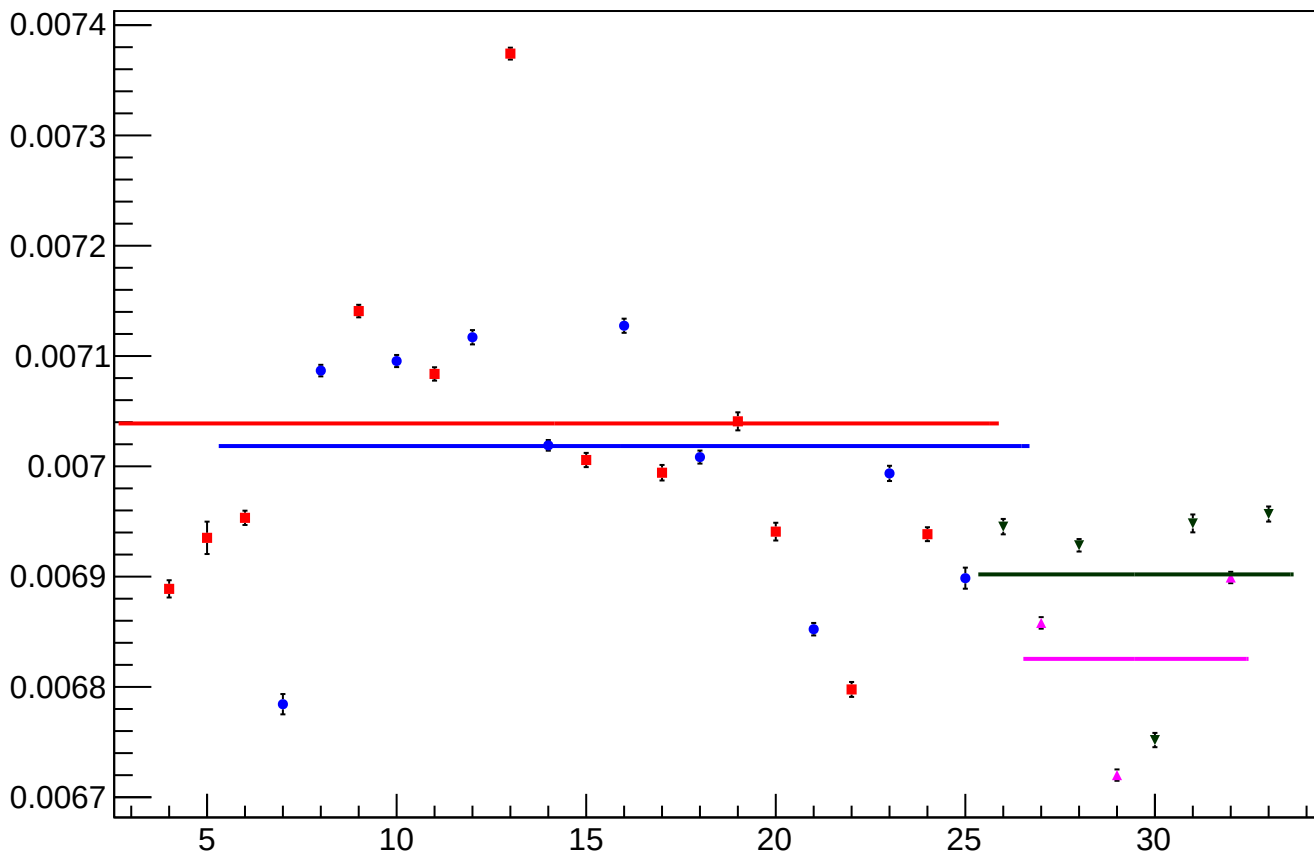
Right Out: 379.045+/-0.000  $\chi^2/\text{NDF}$ : 40922945.0/11

Left In: 379.036+/-0.000  $\chi^2/\text{NDF}$ : 678322.7/2

379.040+/-0.000  $\chi^2/\text{NDF}$ : 32675930.4/14

379.042+/-0.000  $\chi^2/\text{NDF}$ : 44729297.5/14

# yield\_cav4dQ\_rms vs slug



Right In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 2564.7/9

Left Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:693.9/4

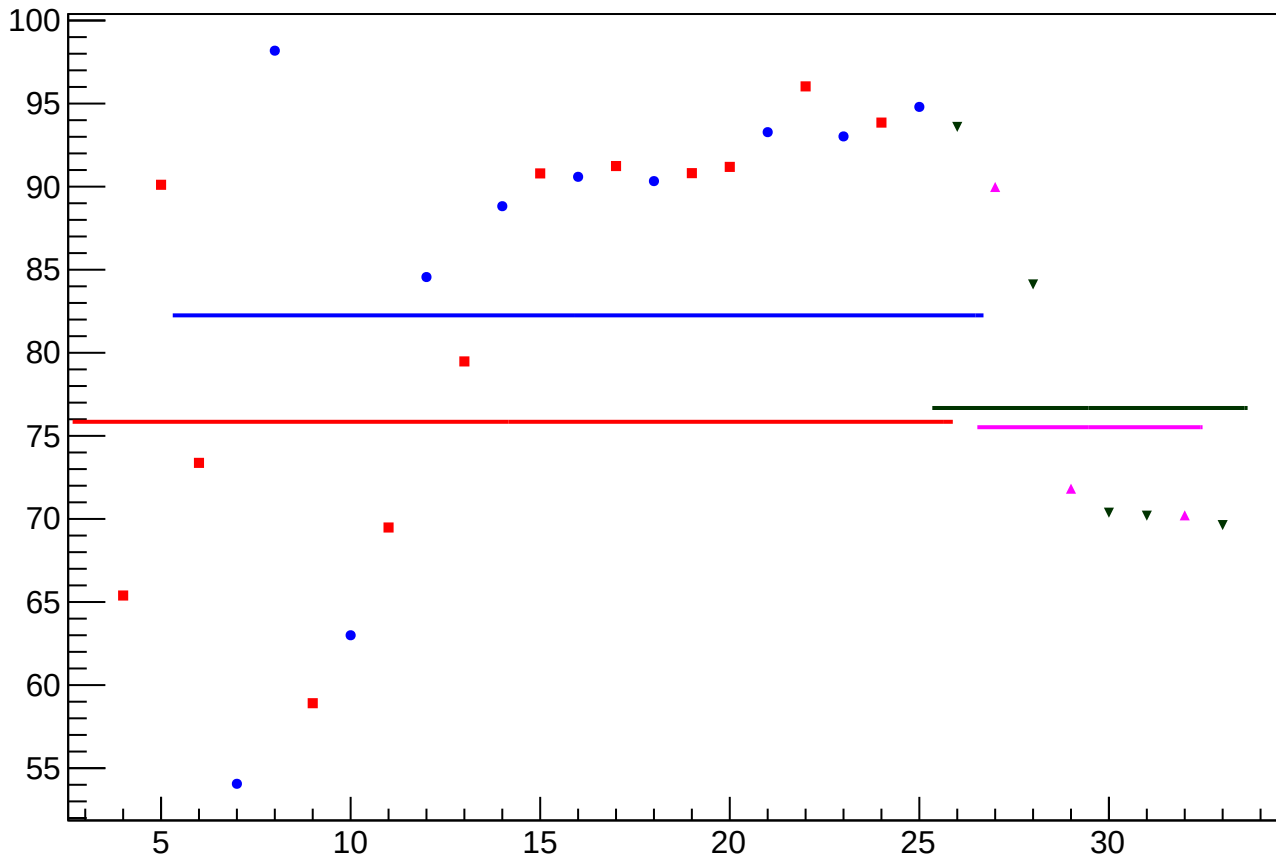
Right Out: 0.007 $\pm$ 0.000  $\chi^2$ /NDF: 6581.5/11

Left In: 0.007 $\pm$ 0.000  $\chi^2$ /NDF:661.4/2

0.007 $\pm$ 0.000  $\chi^2$ /NDF: 4323.0/14

0.007 $\pm$ 0.000  $\chi^2$ /NDF: 10799.2/14

# yield\_bcm0l02\_mean vs slug



Right In: 82.252+/-0.000  $\chi^2/\text{NDF}$ : 15262784556.8/9

Left Out: 76.678+/-0.000  $\chi^2/\text{NDF}$ : 2972536241.2/4

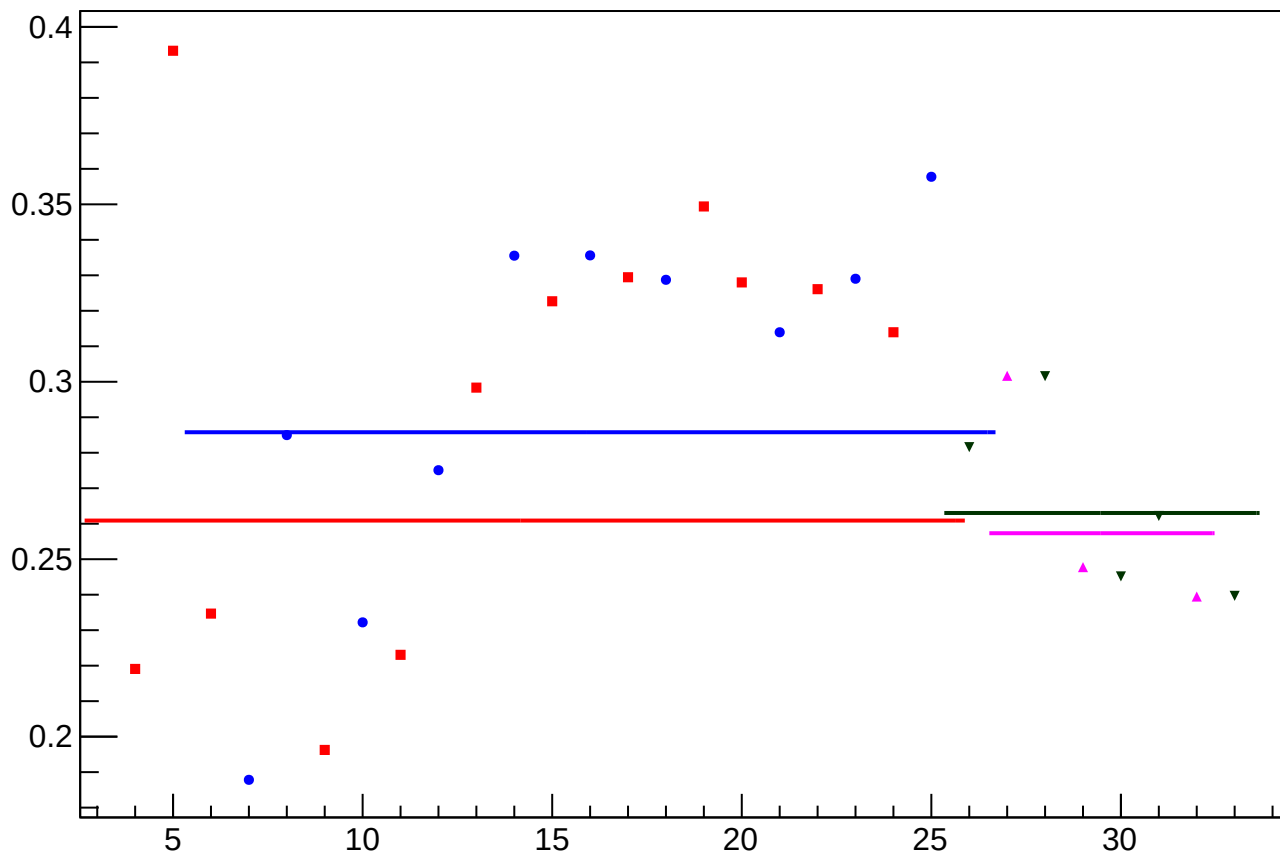
Right Out: 75.847+/-0.000  $\chi^2/\text{NDF}$ : 13482783083.5/11

Left In: 75.521+/-0.000  $\chi^2/\text{NDF}$ : 2373140725.6/2

80.414+/-0.000  $\chi^2/\text{NDF}$ : 18941778091.8/14

75.745+/-0.000  $\chi^2/\text{NDF}$ : 15858549130.6/14

# yield\_bcm0l02\_rms vs slug



Right In: 0.286+/-0.000  $\chi^2/\text{NDF}$ : 344343.4/9

Left Out: 0.263+/-0.000  $\chi^2/\text{NDF}$ : 37055.6/4

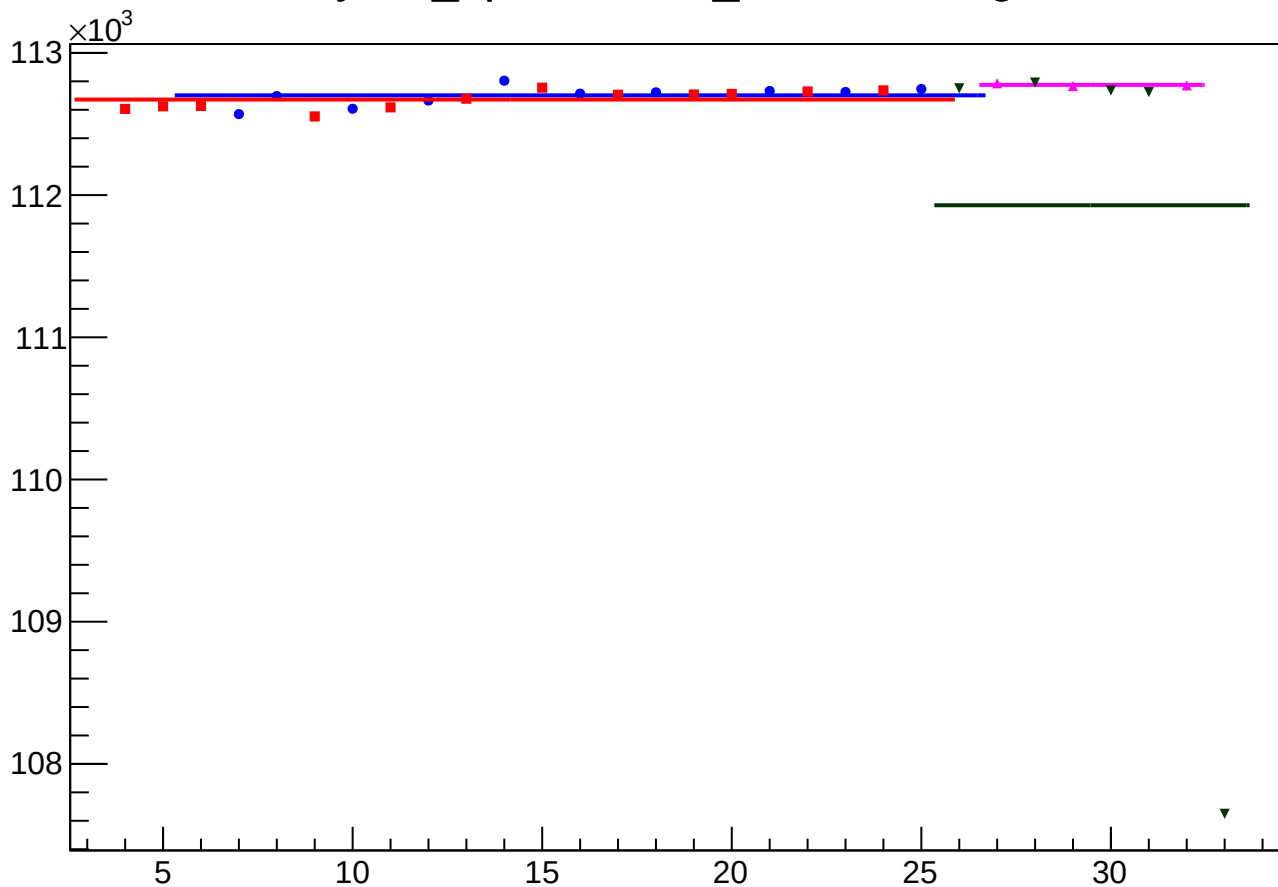
Right Out: 0.261+/-0.000  $\chi^2/\text{NDF}$ : 481520.7/11

Left In: 0.257+/-0.000  $\chi^2/\text{NDF}$ : 45266.2/2

0.278+/-0.000  $\chi^2/\text{NDF}$ : 404935.6/14

0.260+/-0.000  $\chi^2/\text{NDF}$ : 527413.3/14

# yield\_bpm2i01WS\_mean vs slug



Right In: 112701.637 $\pm$ 0.042  $\chi^2$ /NDF: 1698384.2/9

Left Out: 111928.691 $\pm$ 0.073  $\chi^2$ /NDF: 656576363.4/4

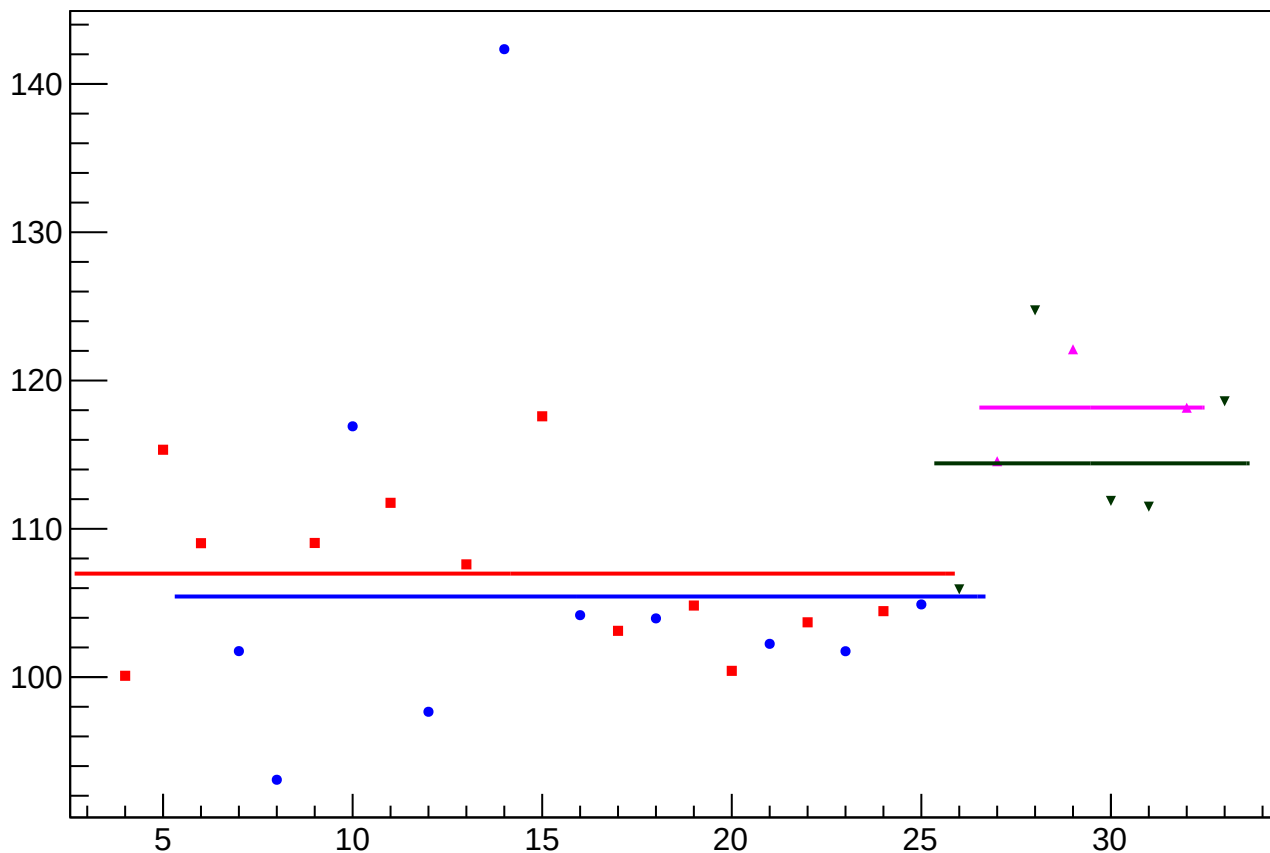
112507.332 $\pm$ 0.037  $\chi^2$ /NDF: 741546042.8/14

Right Out: 112671.936 $\pm$ 0.043  $\chi^2$ /NDF: 2021453.7/11

112697.534 $\pm$ 0.038  $\chi^2$ /NDF: 3433809.9/14

Left In: 112775.136 $\pm$ 0.076  $\chi^2$ /NDF: 11816.8/2

# yield\_bpm2i01WS\_rms vs slug



Right In: 105.436 $\pm$ 0.030  $\chi^2$ /NDF: 188338.4/9

Left Out: 114.415 $\pm$ 0.052  $\chi^2$ /NDF: 17168.6/4

Right Out: 106.980 $\pm$ 0.031  $\chi^2$ /NDF: 22698.2/11

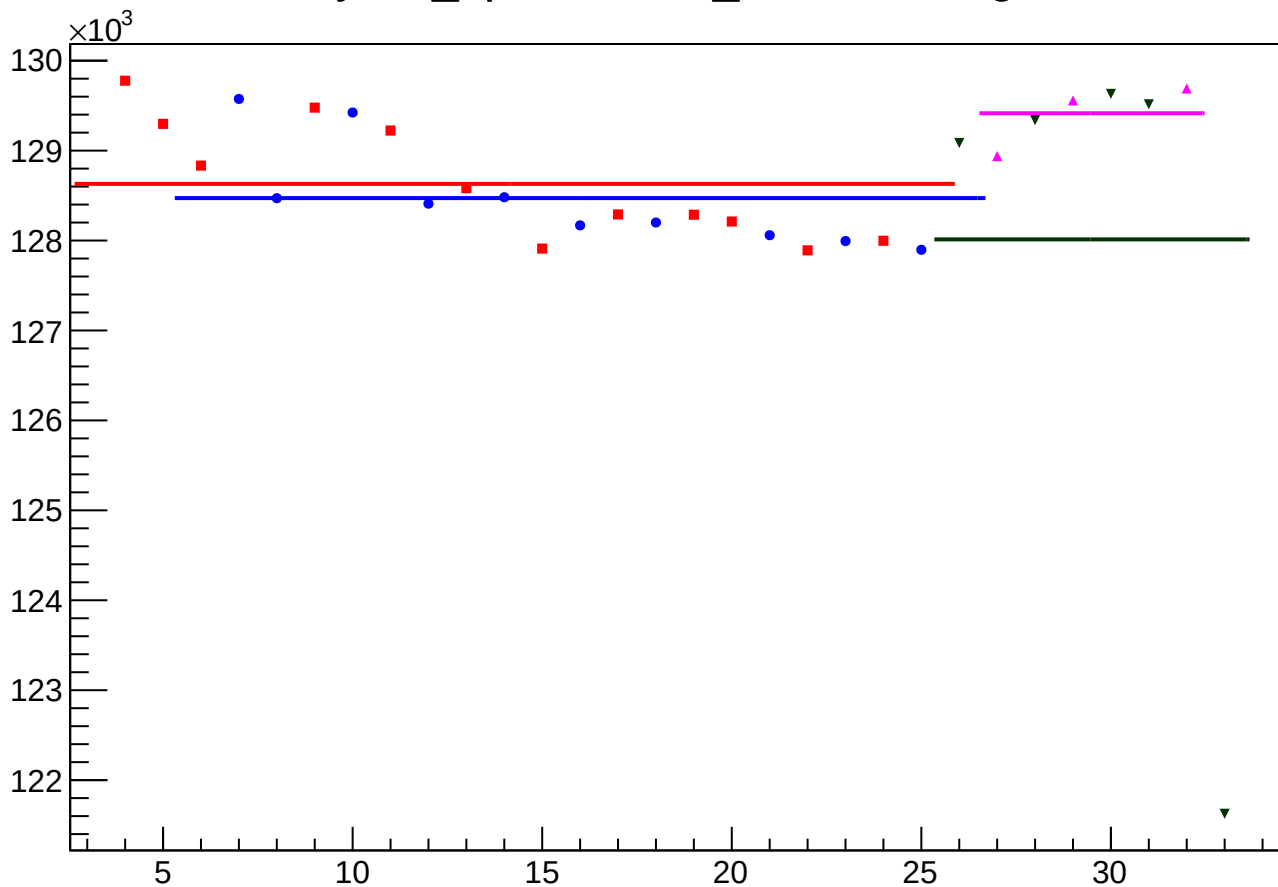
Left In: 118.178 $\pm$ 0.053  $\chi^2$ /NDF: 3228.9/2

107.693 $\pm$ 0.026  $\chi^2$ /NDF: 227981.9/14

109.757 $\pm$ 0.027  $\chi^2$ /NDF: 58905.9/14



# yield\_bpm0i07WS\_mean vs slug



Right In: 128471.922 $\pm$ 0.071  $\chi^2$ /NDF: 39310525.0/9

Left Out: 128012.739 $\pm$ 0.130  $\chi^2$ /NDF: 528814284.7/4

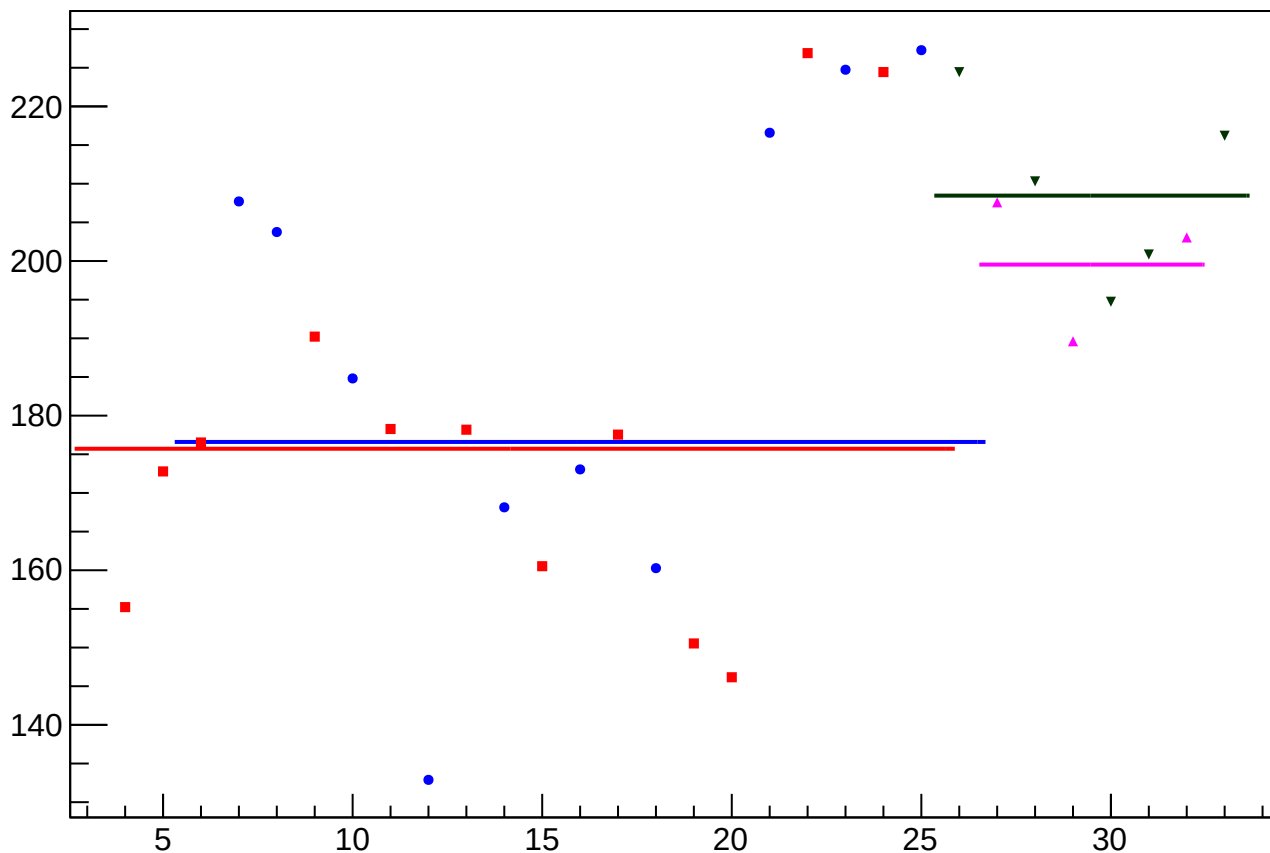
128366.744 $\pm$ 0.062  $\chi^2$ /NDF: 577743070.0/14

Right Out: 128630.323 $\pm$ 0.071  $\chi^2$ /NDF: 69976766.8/11

128824.158 $\pm$ 0.062  $\chi^2$ /NDF: 106684137.1/14

Left In: 129415.545 $\pm$ 0.124  $\chi^2$ /NDF: 6572856.7/2

# yield\_bpm0i07WS\_rms vs slug



Right In:  $176.597 \pm 0.050$   $\chi^2/\text{NDF}$ : 316543.8/9

Left Out:  $208.460 \pm 0.092$   $\chi^2/\text{NDF}$ : 12789.9/4

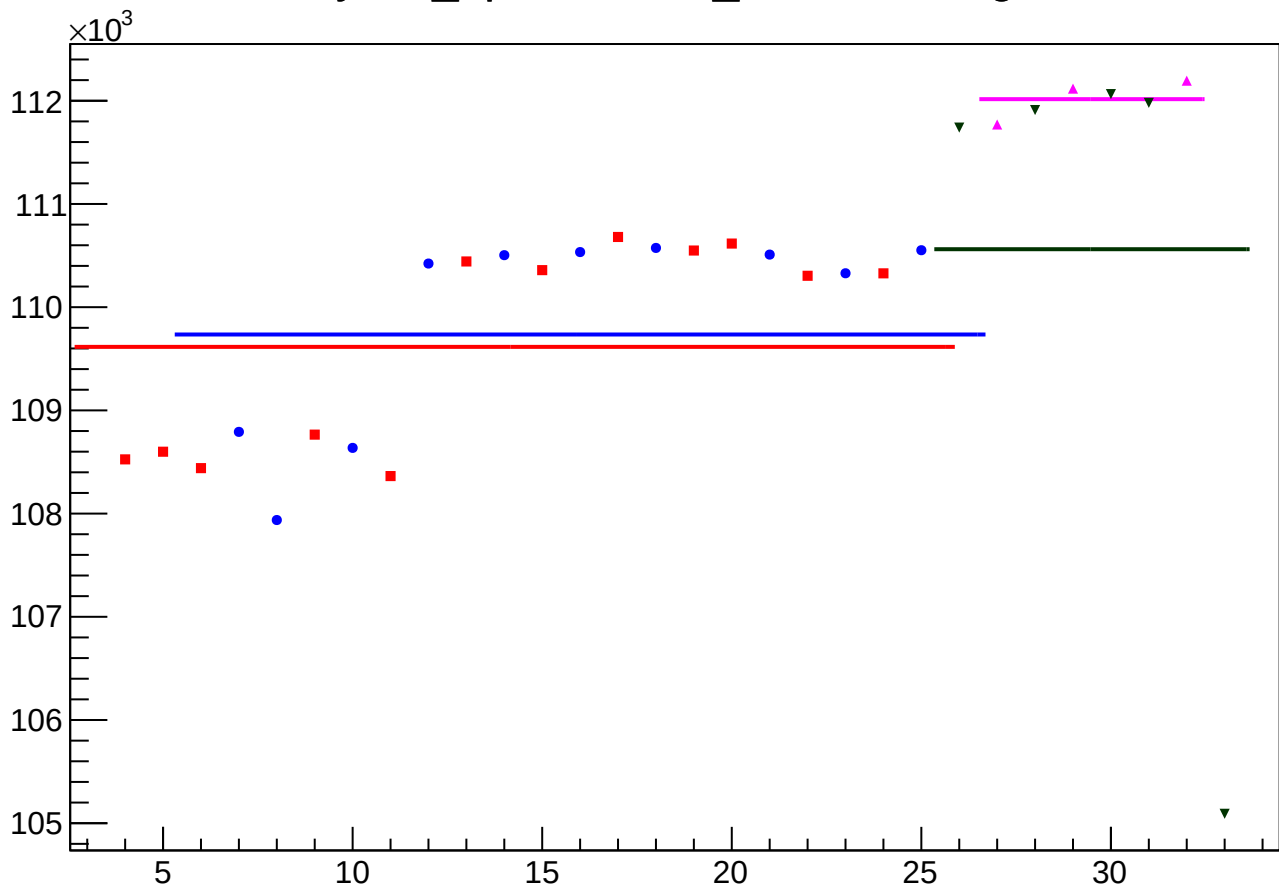
Right Out:  $175.718 \pm 0.050$   $\chi^2/\text{NDF}$ : 188443.6/11

Left In:  $199.538 \pm 0.088$   $\chi^2/\text{NDF}$ : 7722.1/2

$183.895 \pm 0.044$   $\chi^2/\text{NDF}$ : 421959.3/14

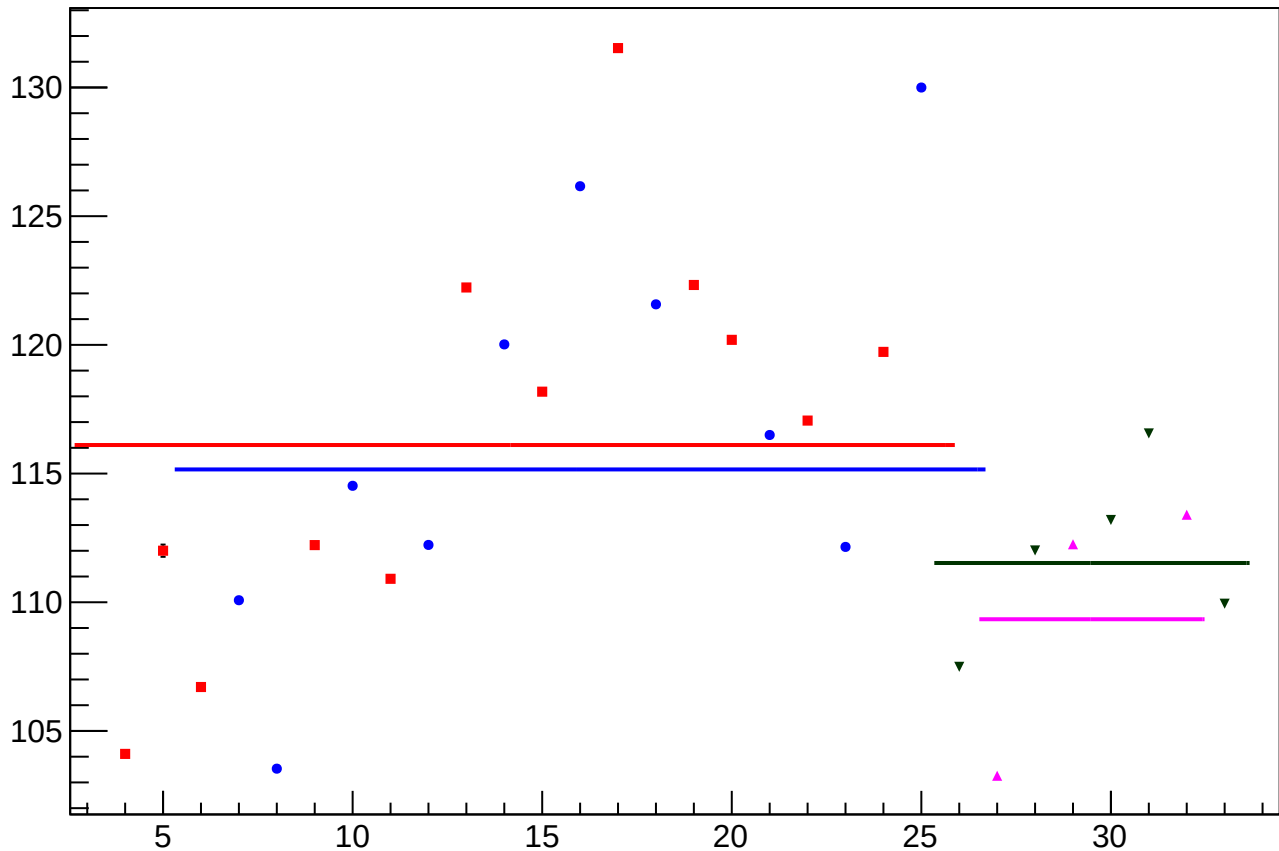
$181.598 \pm 0.044$   $\chi^2/\text{NDF}$ : 251625.6/14

# yield\_bpm0l01WS\_mean vs slug



|                               |                                      |                    |                                       |
|-------------------------------|--------------------------------------|--------------------|---------------------------------------|
| Right In: 109735.295+/-0.046  | $\chi^2/\text{NDF}$ : 537097563.8/9  | 109982.840+/-0.038 | $\chi^2/\text{NDF}$ : 2156773746.7/14 |
| Left Out: 110561.696+/-0.070  | $\chi^2/\text{NDF}$ : 1521735592.6/4 |                    |                                       |
| Right Out: 109615.412+/-0.047 | $\chi^2/\text{NDF}$ : 419274077.4/11 | 110383.519+/-0.039 | $\chi^2/\text{NDF}$ : 1270841698.0/14 |
| Left In: 112015.620+/-0.068   | $\chi^2/\text{NDF}$ : 7665748.9/2    |                    |                                       |

# yield\_bpm0l01WS\_rms vs slug



Right In:  $115.160 \pm 0.032$   $\chi^2/\text{NDF}$ : 48108.4/9

Left Out:  $111.526 \pm 0.049$   $\chi^2/\text{NDF}$ : 3189.7/4

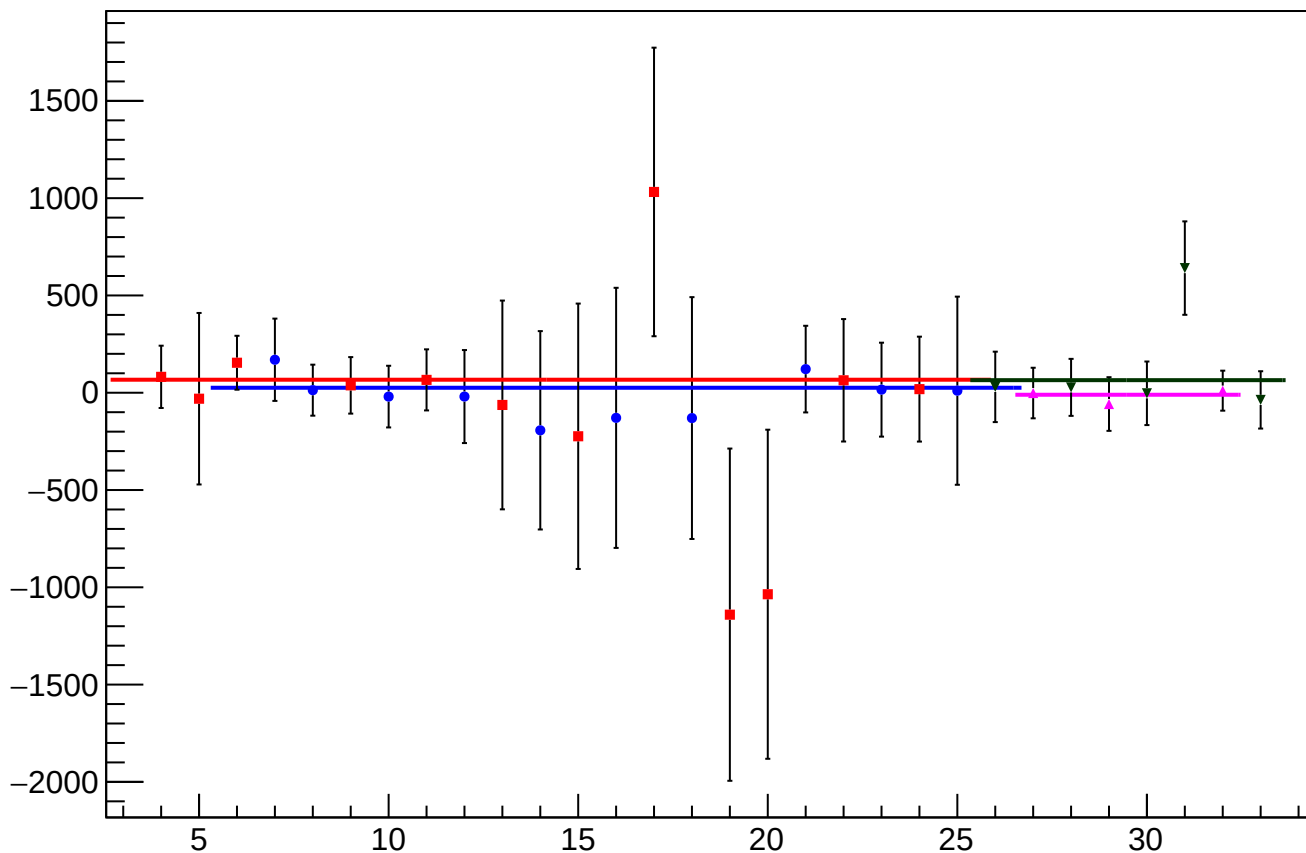
Right Out:  $116.109 \pm 0.033$   $\chi^2/\text{NDF}$ : 44081.8/11

Left In:  $109.340 \pm 0.048$   $\chi^2/\text{NDF}$ : 9250.5/2

$114.072 \pm 0.027$   $\chi^2/\text{NDF}$ : 55087.7/14

$113.943 \pm 0.027$   $\chi^2/\text{NDF}$ : 66756.3/14

# asym\_bcm\_an\_ds\_mean vs slug



Right In: 25.622+/-72.900  $\chi^2/\text{NDF}$ : 1.1/9

Left Out: 64.645+/-74.947  $\chi^2/\text{NDF}$ : 6.5/4

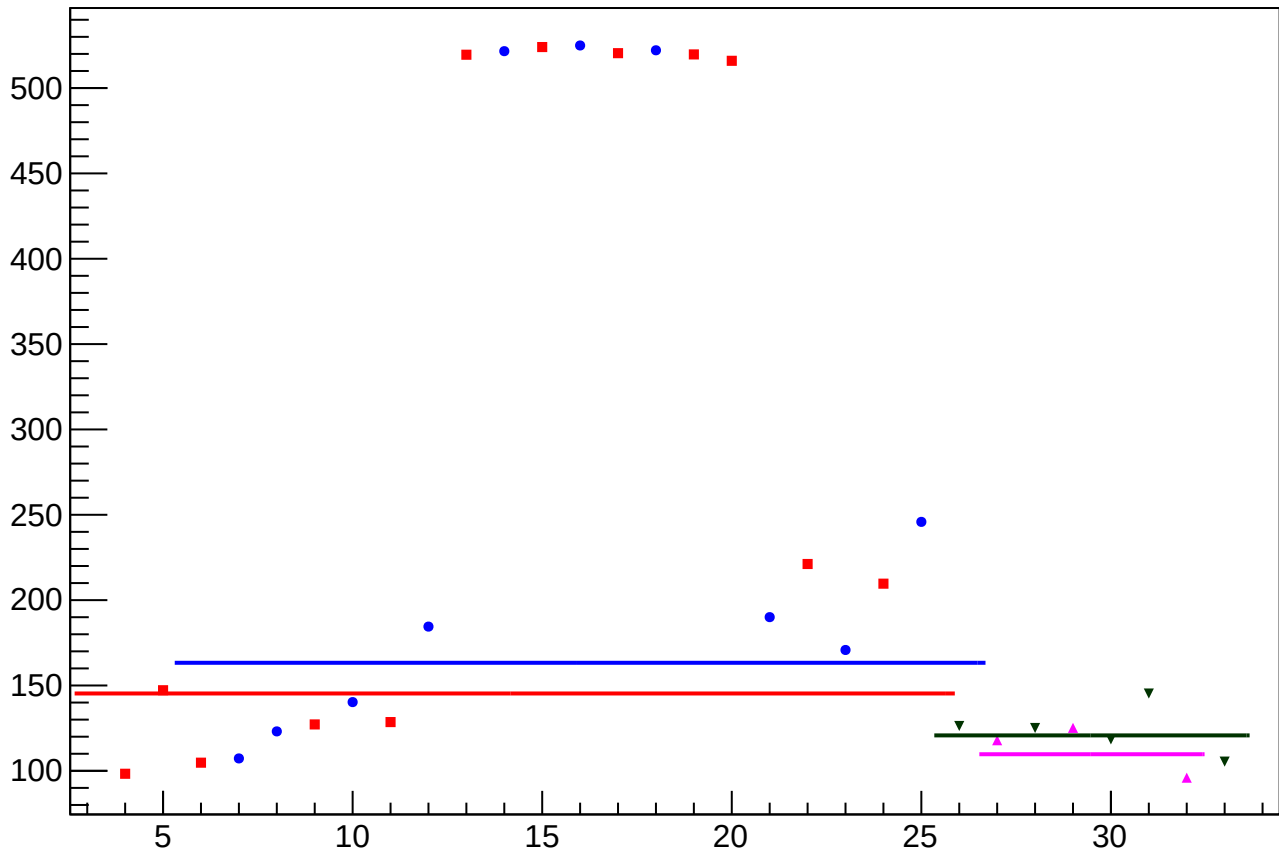
Right Out: 66.920+/-67.669  $\chi^2/\text{NDF}$ : 6.2/11

Left In: -10.358+/-69.600  $\chi^2/\text{NDF}$ : 0.2/2

44.593+/-52.257  $\chi^2/\text{NDF}$ : 7.7/14

29.368+/-48.517  $\chi^2/\text{NDF}$ : 7.0/14

# asym\_bcm\_an\_ds\_rms vs slug



Right In: 163.298+/-0.052  $\chi^2/\text{NDF}$ : 2716025.4/9

Left Out: 120.762+/-0.053  $\chi^2/\text{NDF}$ : 46636.4/4

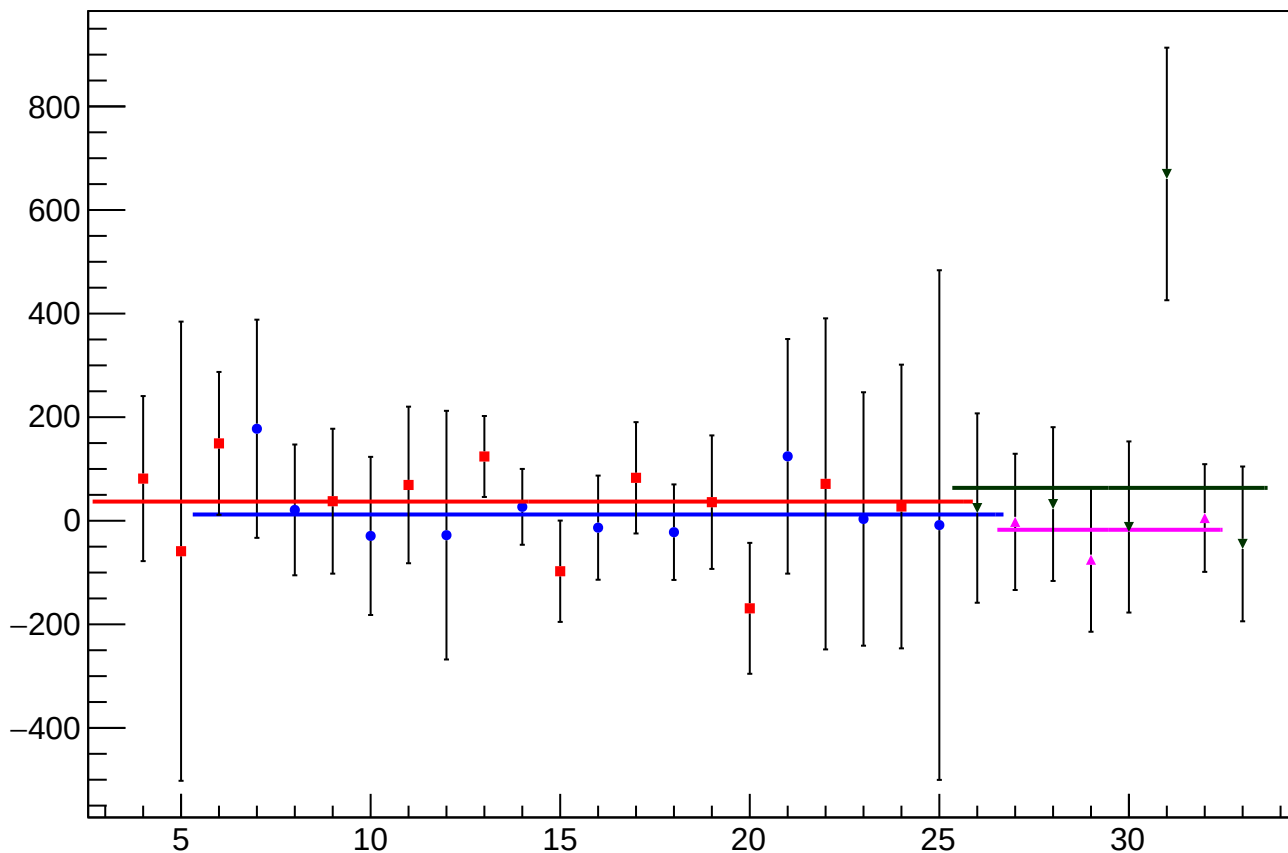
142.619+/-0.037  $\chi^2/\text{NDF}$ : 3093700.0/14

Right Out: 145.320+/-0.048  $\chi^2/\text{NDF}$ : 3498392.4/11

128.023+/-0.034  $\chi^2/\text{NDF}$ : 3836108.1/14

Left In: 109.724+/-0.049  $\chi^2/\text{NDF}$ : 68797.2/2

# asym\_bcm\_an\_ds3\_mean vs slug



Right In: 12.098 $\pm$ 41.208  $\chi^2$ /NDF: 1.2/9

Left Out: 63.483 $\pm$ 75.914  $\chi^2$ /NDF: 7.0/4

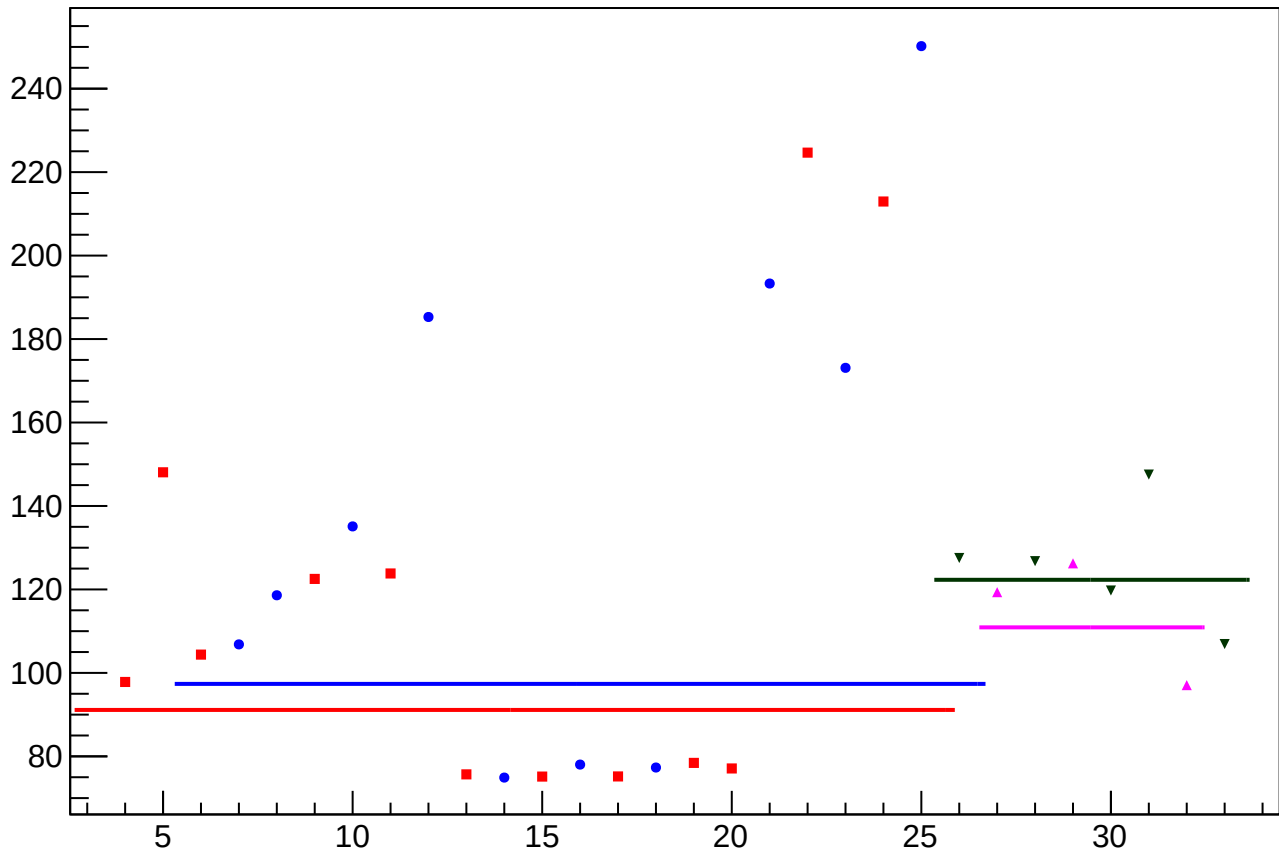
Right Out: 37.031 $\pm$ 38.001  $\chi^2$ /NDF: 6.8/11

Left In: -17.429 $\pm$ 70.367  $\chi^2$ /NDF: 0.2/2

23.793 $\pm$ 36.216  $\chi^2$ /NDF: 8.6/14

24.734 $\pm$ 33.437  $\chi^2$ /NDF: 7.5/14

# asym\_bcm\_an\_ds3\_rms vs slug



Right In: 97.366+/-0.029  $\chi^2/\text{NDF}$ : 1551052.0/9

Left Out: 122.310+/-0.054  $\chi^2/\text{NDF}$ : 46540.9/4

103.043+/-0.026  $\chi^2/\text{NDF}$ : 1764378.4/14

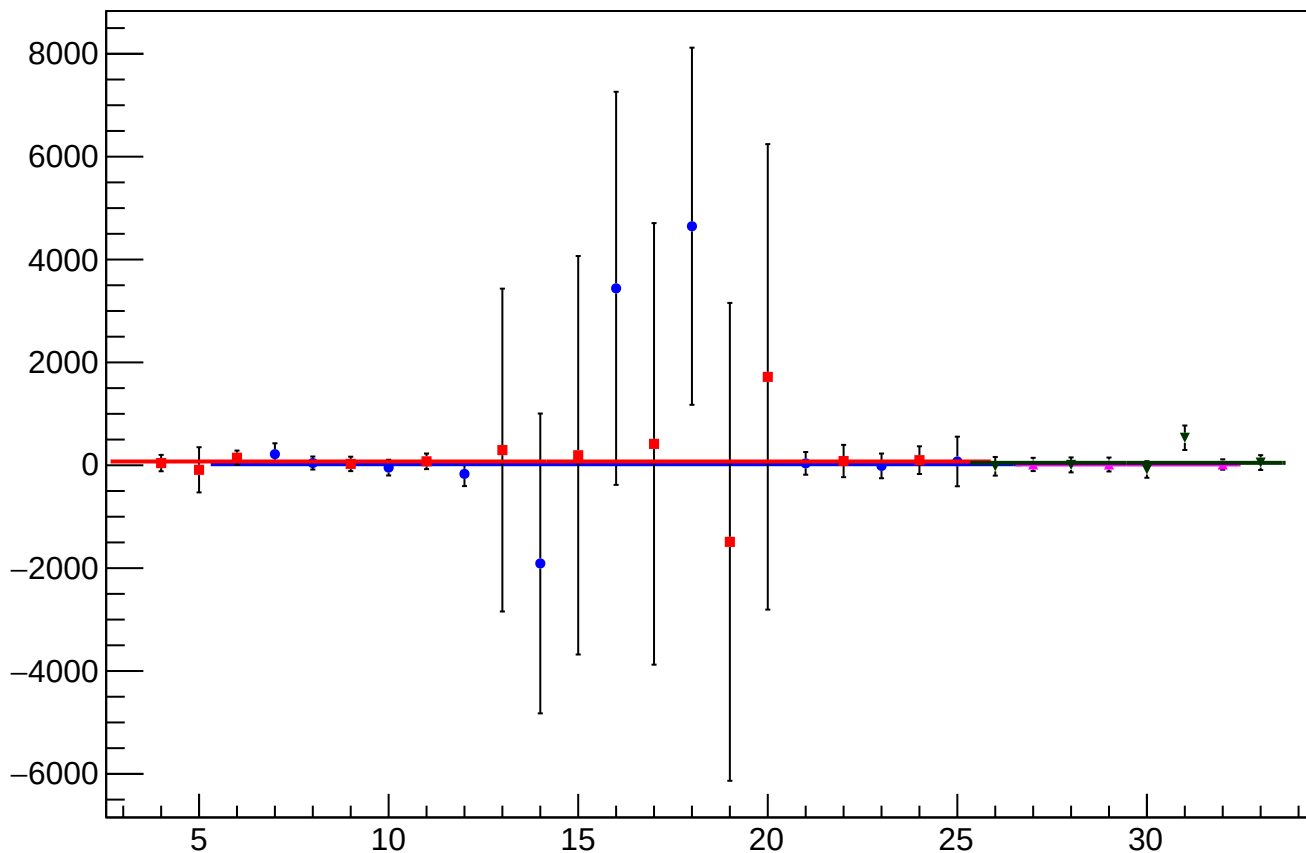
Right Out: 91.126+/-0.027  $\chi^2/\text{NDF}$ : 1213529.6/11

95.593+/-0.024  $\chi^2/\text{NDF}$ : 1403933.8/14

Left In: 110.911+/-0.050  $\chi^2/\text{NDF}$ : 67985.6/2



# asym\_bcm\_an\_us\_mean vs slug



Right In: 20.924+/-72.964  $\chi^2/\text{NDF}$ : 4.8/9

Left Out: 47.265+/-74.126  $\chi^2/\text{NDF}$ : 5.1/4

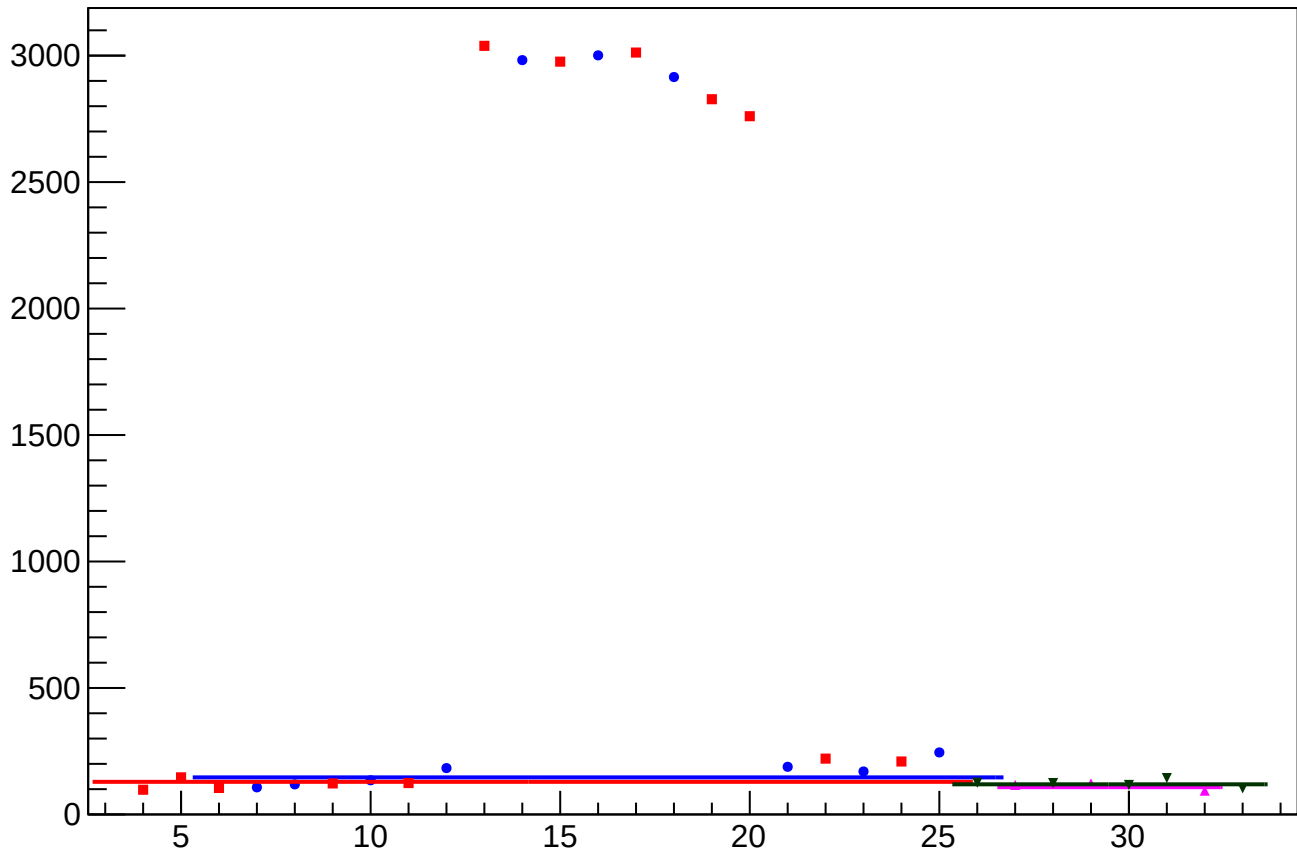
Right Out: 73.751+/-68.100  $\chi^2/\text{NDF}$ : 0.8/11

Left In: 15.287+/-68.477  $\chi^2/\text{NDF}$ : 0.0/2

33.886+/-51.999  $\chi^2/\text{NDF}$ : 9.9/14

44.681+/-48.287  $\chi^2/\text{NDF}$ : 1.2/14

# asym\_bcm\_an\_us\_rms vs slug



Right In: 146.572 $\pm$ 0.052  $\chi^2$ /NDF: 4679005.5/9

Left Out: 119.159 $\pm$ 0.052  $\chi^2$ /NDF: 51594.1/4

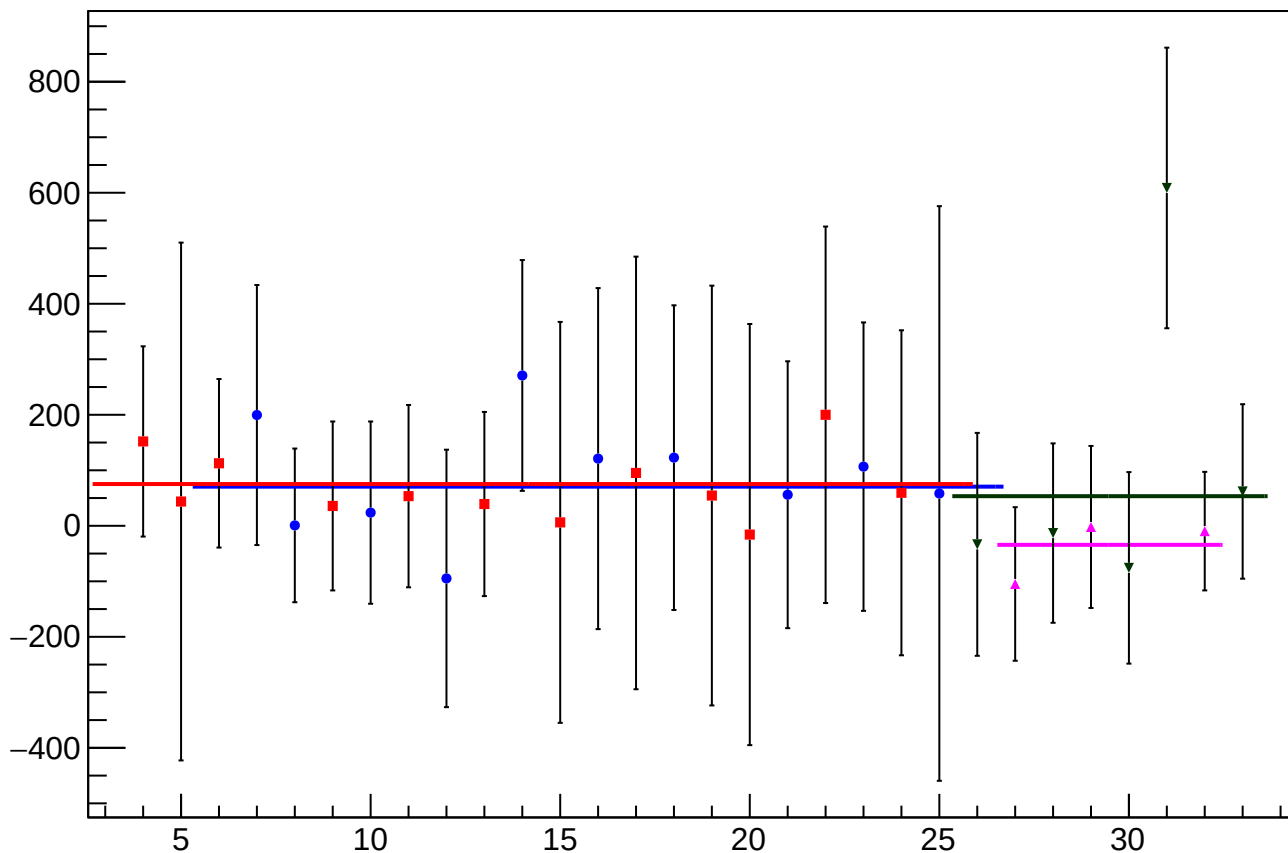
133.082 $\pm$ 0.037  $\chi^2$ /NDF: 4869529.6/14

Right Out: 128.952 $\pm$ 0.048  $\chi^2$ /NDF: 5549811.0/11

118.469 $\pm$ 0.034  $\chi^2$ /NDF: 5716757.8/14

Left In: 107.870 $\pm$ 0.048  $\chi^2$ /NDF: 71638.9/2

# asym\_bcm\_dg\_us\_mean vs slug



Right In:  $70.544 \pm 69.178$   $\chi^2/\text{NDF}: 2.2/9$

Left Out:  $53.368 \pm 80.886$   $\chi^2/\text{NDF}: 5.7/4$

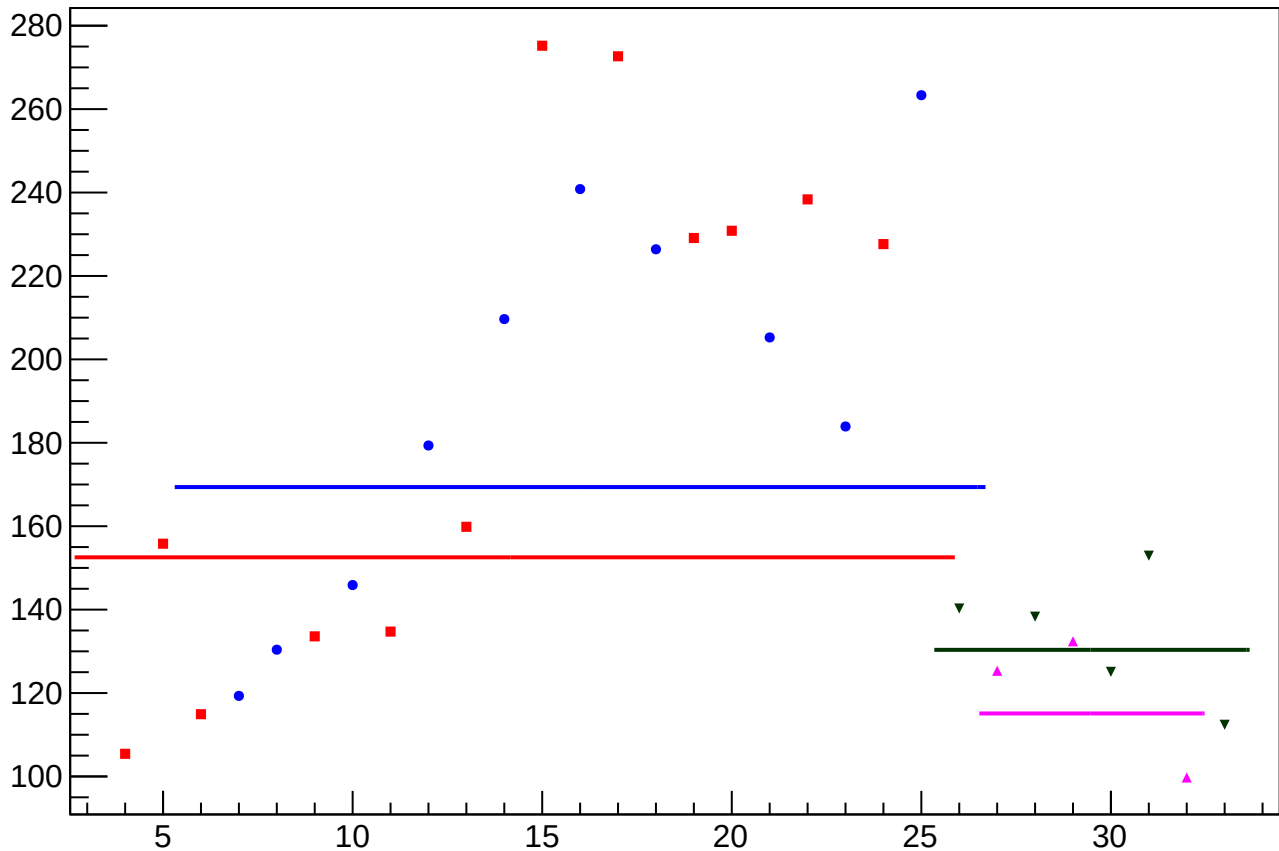
Right Out:  $75.223 \pm 63.607$   $\chi^2/\text{NDF}: 0.6/11$

Left In:  $-34.310 \pm 73.148$   $\chi^2/\text{NDF}: 0.4/2$

$63.288 \pm 52.573$   $\chi^2/\text{NDF}: 7.9/14$

$28.061 \pm 47.998$   $\chi^2/\text{NDF}: 2.3/14$

# asym\_bcm\_dg\_us\_rms vs slug



Right In: 169.383+/-0.049  $\chi^2/\text{NDF}$ : 680872.4/9

Left Out: 130.356+/-0.057  $\chi^2/\text{NDF}$ : 53685.2/4

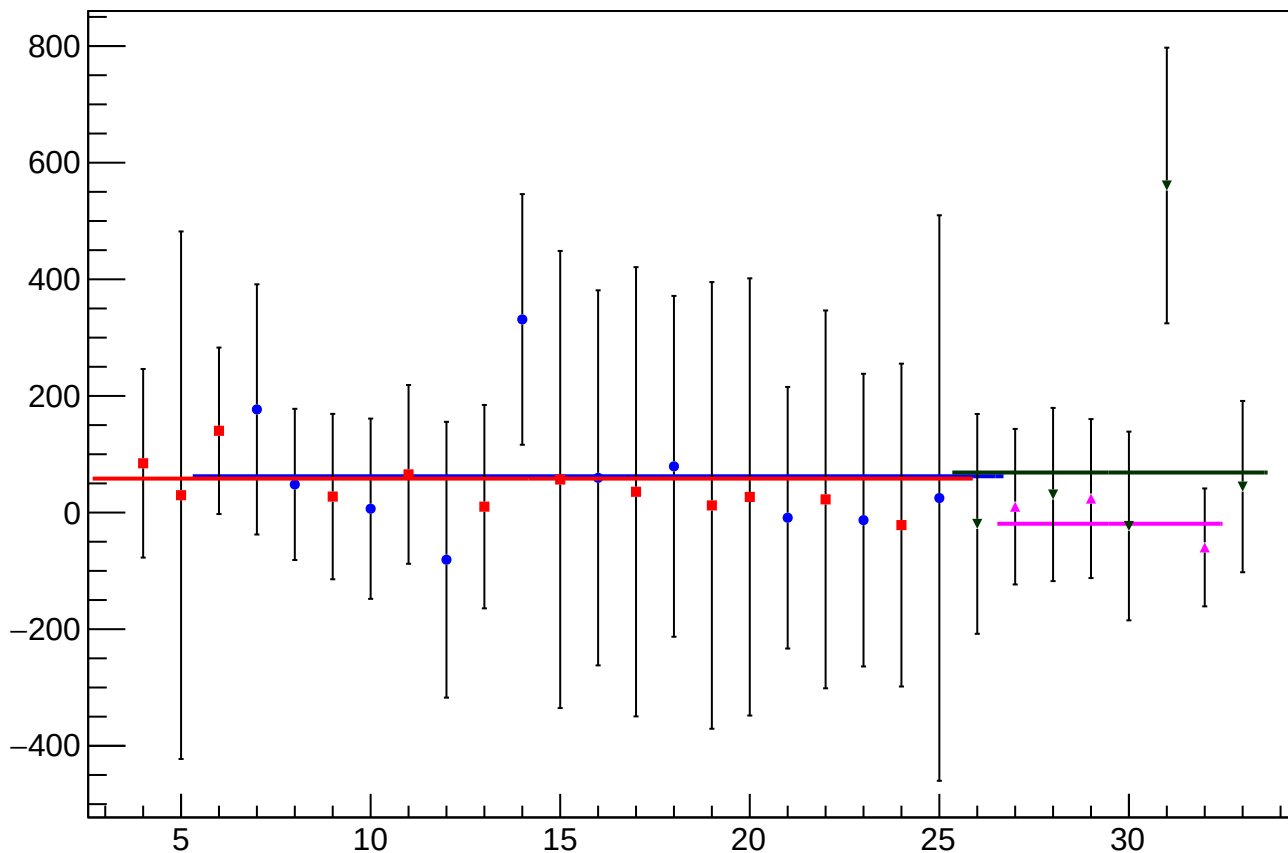
152.896+/-0.037  $\chi^2/\text{NDF}$ : 1003452.3/14

Right Out: 152.541+/-0.045  $\chi^2/\text{NDF}$ : 1180030.6/11

136.425+/-0.034  $\chi^2/\text{NDF}$ : 1558616.2/14

Left In: 115.111+/-0.052  $\chi^2/\text{NDF}$ : 80382.4/2

# asym\_bcm\_dg\_ds\_mean vs slug



Right In: 62.253+/-66.815  $\chi^2/\text{NDF}$ : 2.6/9

Left Out: 68.681+/-75.397  $\chi^2/\text{NDF}$ : 5.0/4

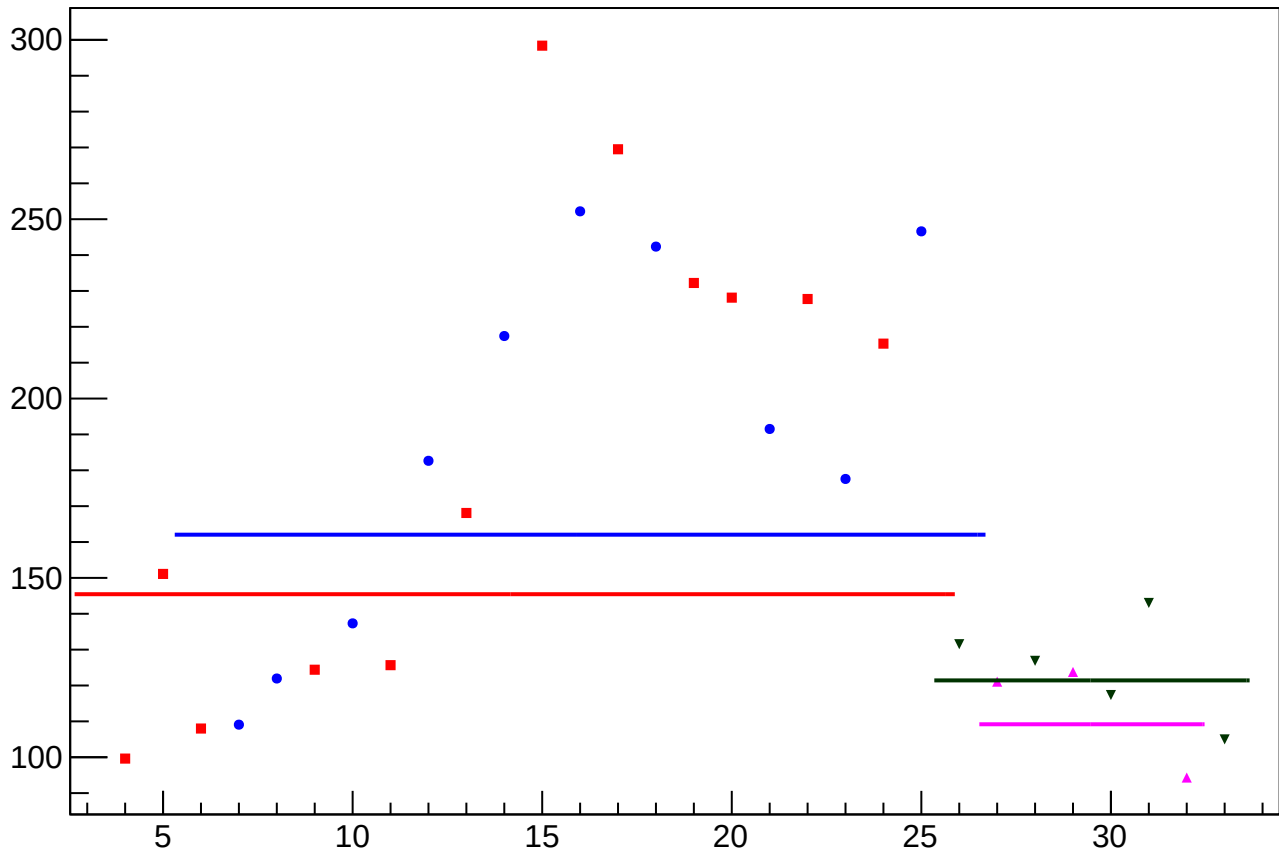
Right Out: 58.253+/-61.187  $\chi^2/\text{NDF}$ : 0.6/11

Left In: -19.182+/-69.365  $\chi^2/\text{NDF}$ : 0.3/2

65.081+/-50.005  $\chi^2/\text{NDF}$ : 7.5/14

24.367+/-45.886  $\chi^2/\text{NDF}$ : 1.6/14

# asym\_bcm\_dg\_ds\_rms vs slug



Right In: 162.048+/-0.047  $\chi^2/\text{NDF}$ : 923631.2/9

Left Out: 121.421+/-0.053  $\chi^2/\text{NDF}$ :51477.1/4

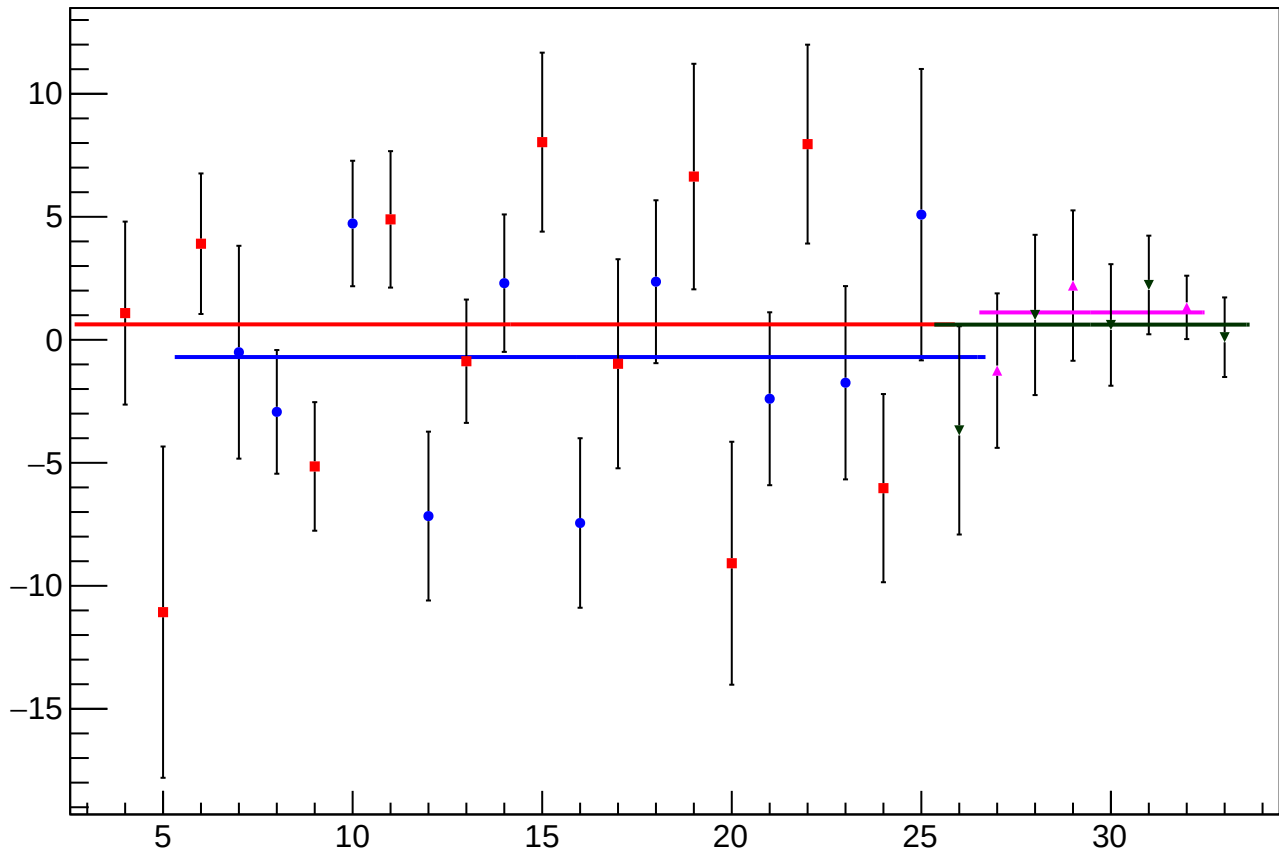
144.177+/-0.035  $\chi^2/\text{NDF}$ : 1300366.5/14

Right Out: 145.454+/-0.043  $\chi^2/\text{NDF}$ : 1377812.6/11

129.586+/-0.032  $\chi^2/\text{NDF}$ : 1767157.1/14

Left In: 109.191+/-0.049  $\chi^2/\text{NDF}$ :81938.6/2

# asym\_cav4bQ\_mean vs slug



Right In:  $-0.701 \pm 1.038$   $\chi^2/\text{NDF}$ : 16.0/9

Left Out:  $0.618 \pm 1.029$   $\chi^2/\text{NDF}$ : 1.8/4

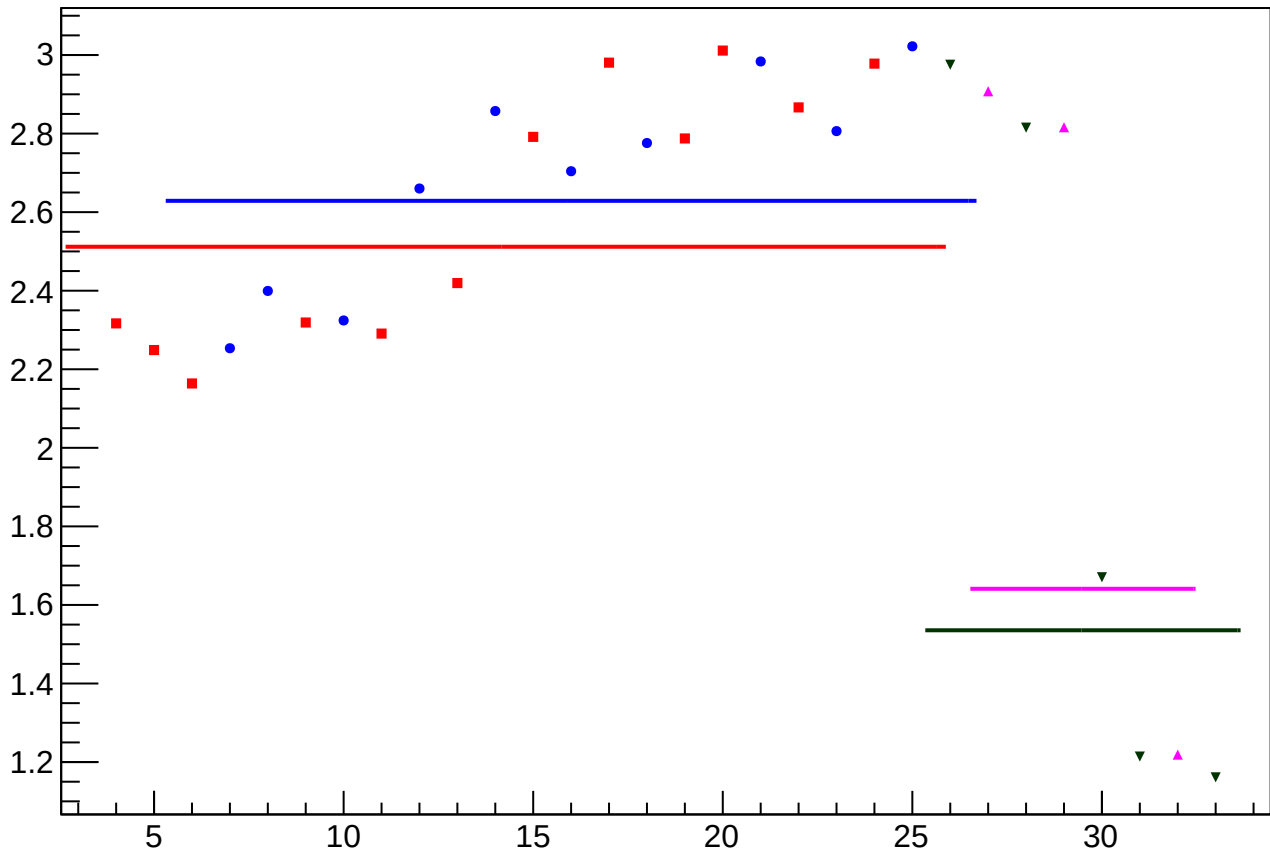
Right Out:  $0.628 \pm 0.999$   $\chi^2/\text{NDF}$ : 28.1/11

Left In:  $1.113 \pm 1.111$   $\chi^2/\text{NDF}$ : 0.7/2

$-0.035 \pm 0.731$   $\chi^2/\text{NDF}$ : 18.6/14

$0.845 \pm 0.743$   $\chi^2/\text{NDF}$ : 29.0/14

# asym\_cav4bQ\_rms vs slug



Right In: 2.629 $\pm$ 0.001  $\chi^2$ /NDF: 111982.4/9

Left Out: 1.535 $\pm$ 0.001  $\chi^2$ /NDF: 704603.6/4

Right Out: 2.512 $\pm$ 0.001  $\chi^2$ /NDF: 173540.5/11

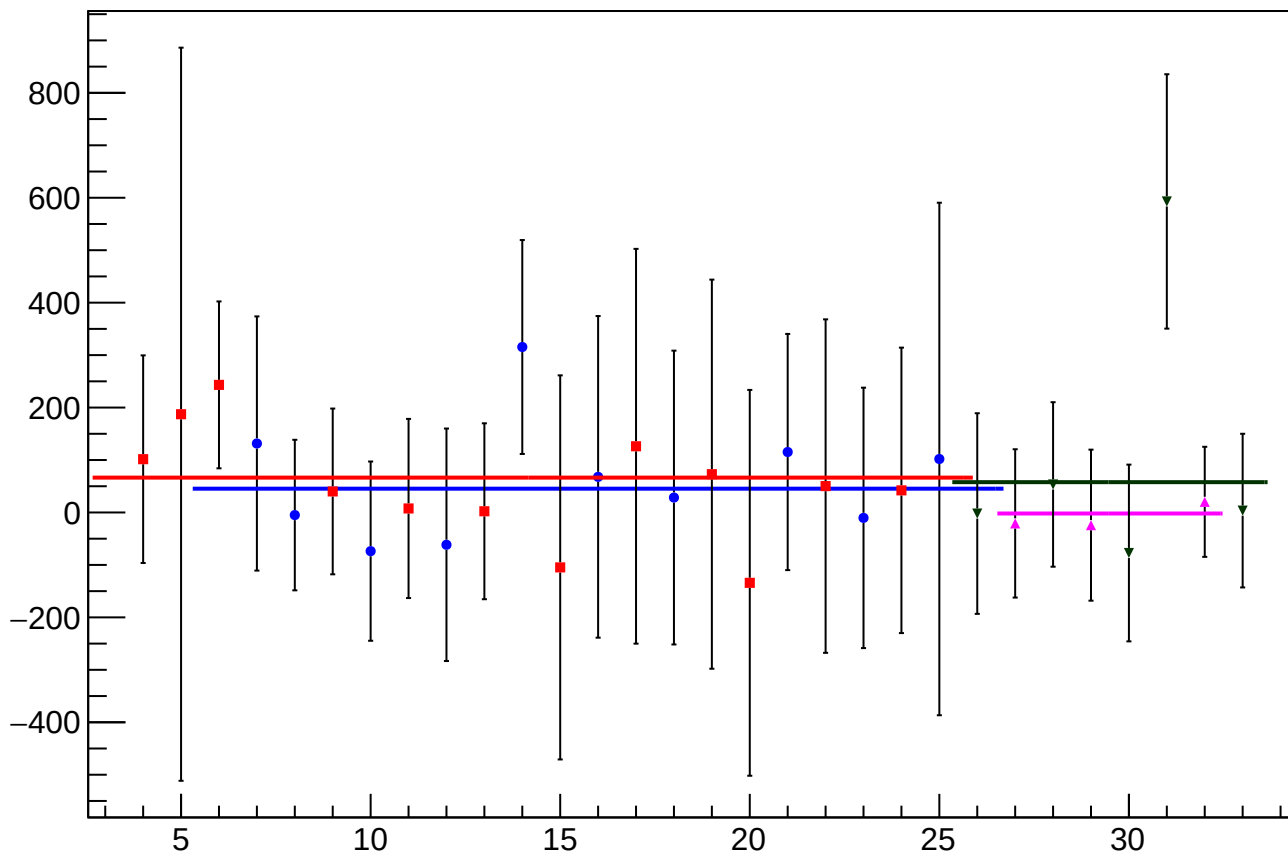
Left In: 1.641 $\pm$ 0.001  $\chi^2$ /NDF: 835730.5/2

2.077 $\pm$ 0.001  $\chi^2$ /NDF: 1935983.4/14

2.122 $\pm$ 0.001  $\chi^2$ /NDF: 1688808.5/14



# asym\_cav4cQ\_mean vs slug



Right In: 45.350+/-69.374  $\chi^2/\text{NDF}$ : 2.9/9

Left Out: 57.788+/-77.419  $\chi^2/\text{NDF}$ : 5.7/4

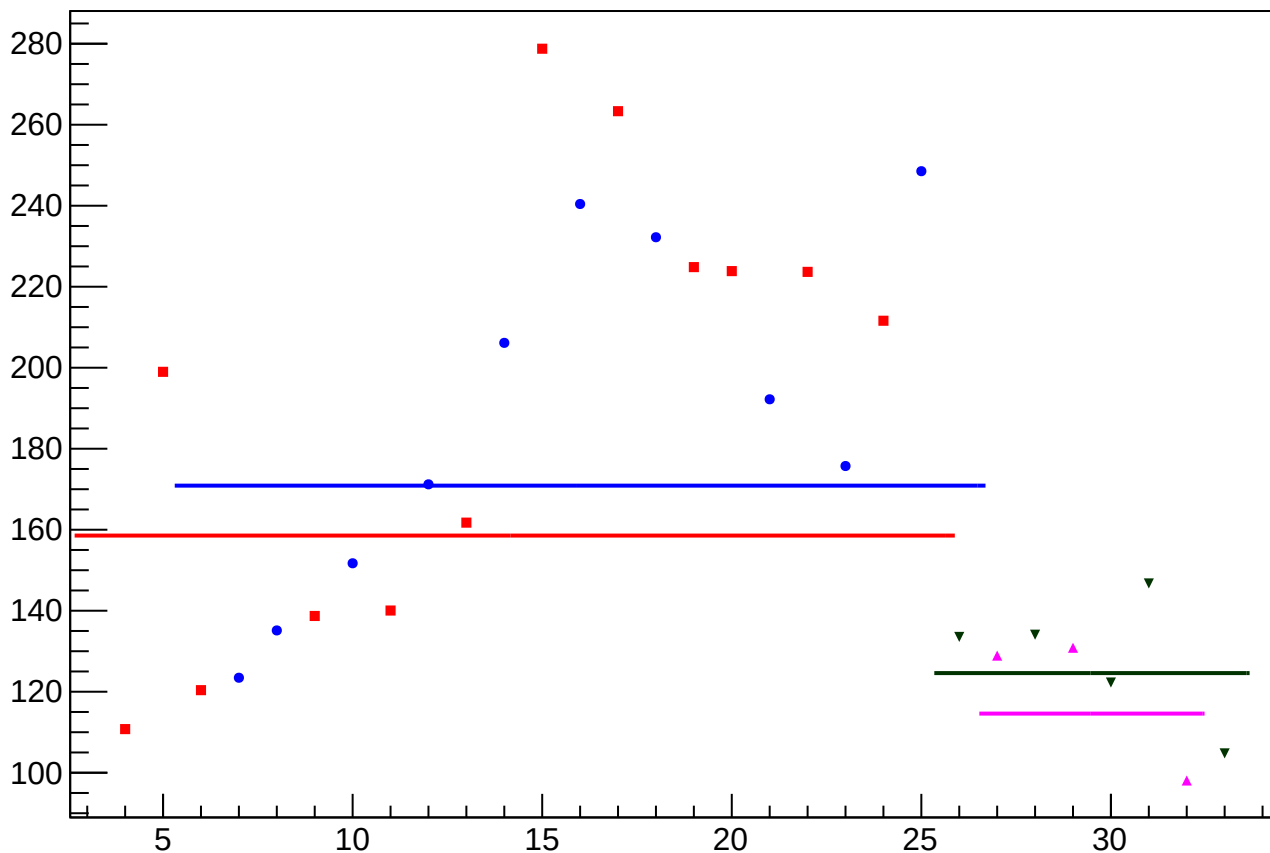
Right Out: 66.444+/-65.999  $\chi^2/\text{NDF}$ : 2.1/11

Left In: -1.950+/-72.717  $\chi^2/\text{NDF}$ : 0.1/2

50.890+/-51.666  $\chi^2/\text{NDF}$ : 8.7/14

35.551+/-48.871  $\chi^2/\text{NDF}$ : 2.7/14

# asym\_cav4cQ\_rms vs slug



Right In: 170.886+/-0.049  $\chi^2/\text{NDF}$ : 553736.6/9

Left Out: 124.602+/-0.055  $\chi^2/\text{NDF}$ : 65348.6/4

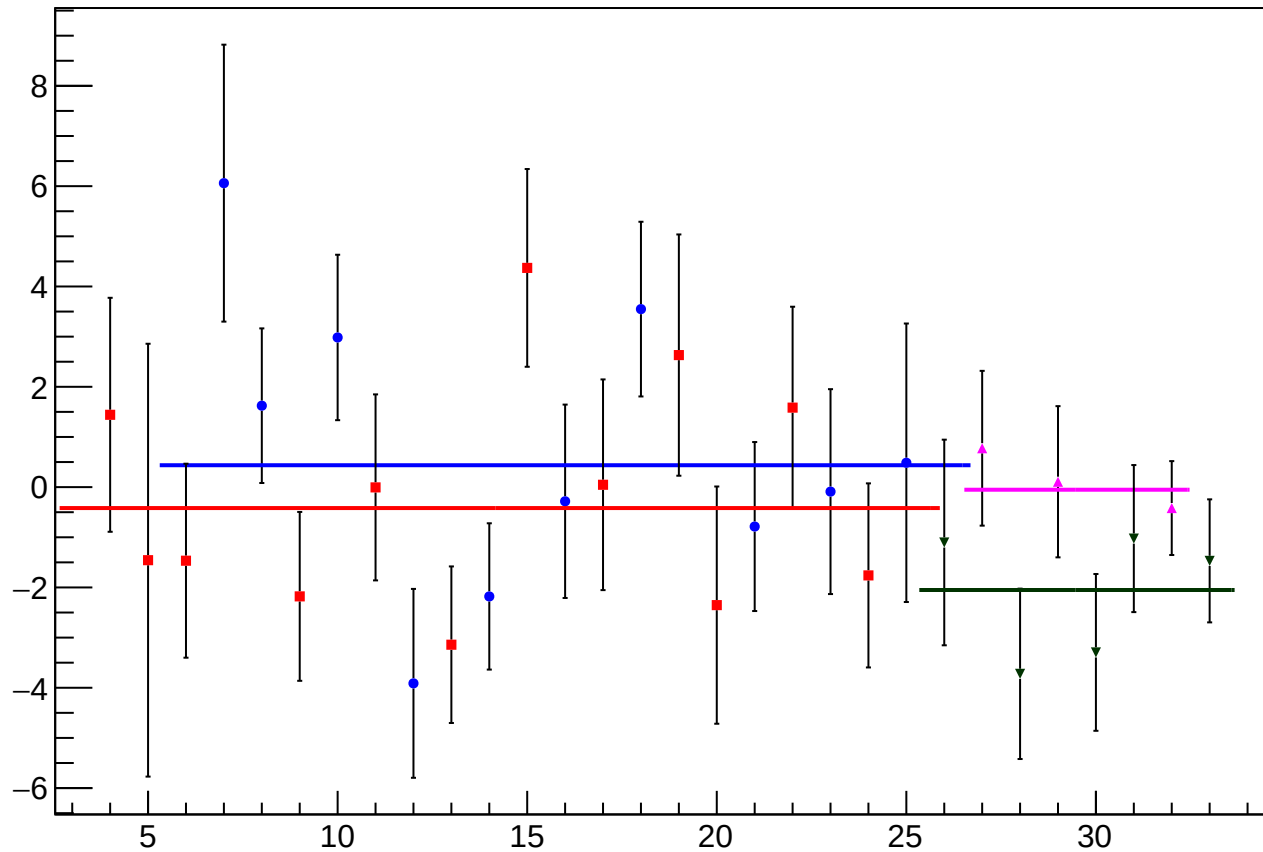
150.273+/-0.037  $\chi^2/\text{NDF}$ : 1015558.2/14

Right Out: 158.557+/-0.047  $\chi^2/\text{NDF}$ : 951673.3/11

138.702+/-0.035  $\chi^2/\text{NDF}$ : 1447991.9/14

Left In: 114.600+/-0.051  $\chi^2/\text{NDF}$ : 95599.4/2

# asym\_cav4dQ\_mean vs slug



Right In: 0.437 $\pm$ 0.578     $\chi^2/\text{NDF}$ : 19.6/9

Left Out: -2.051 $\pm$ 0.686     $\chi^2/\text{NDF}$ : 2.5/4

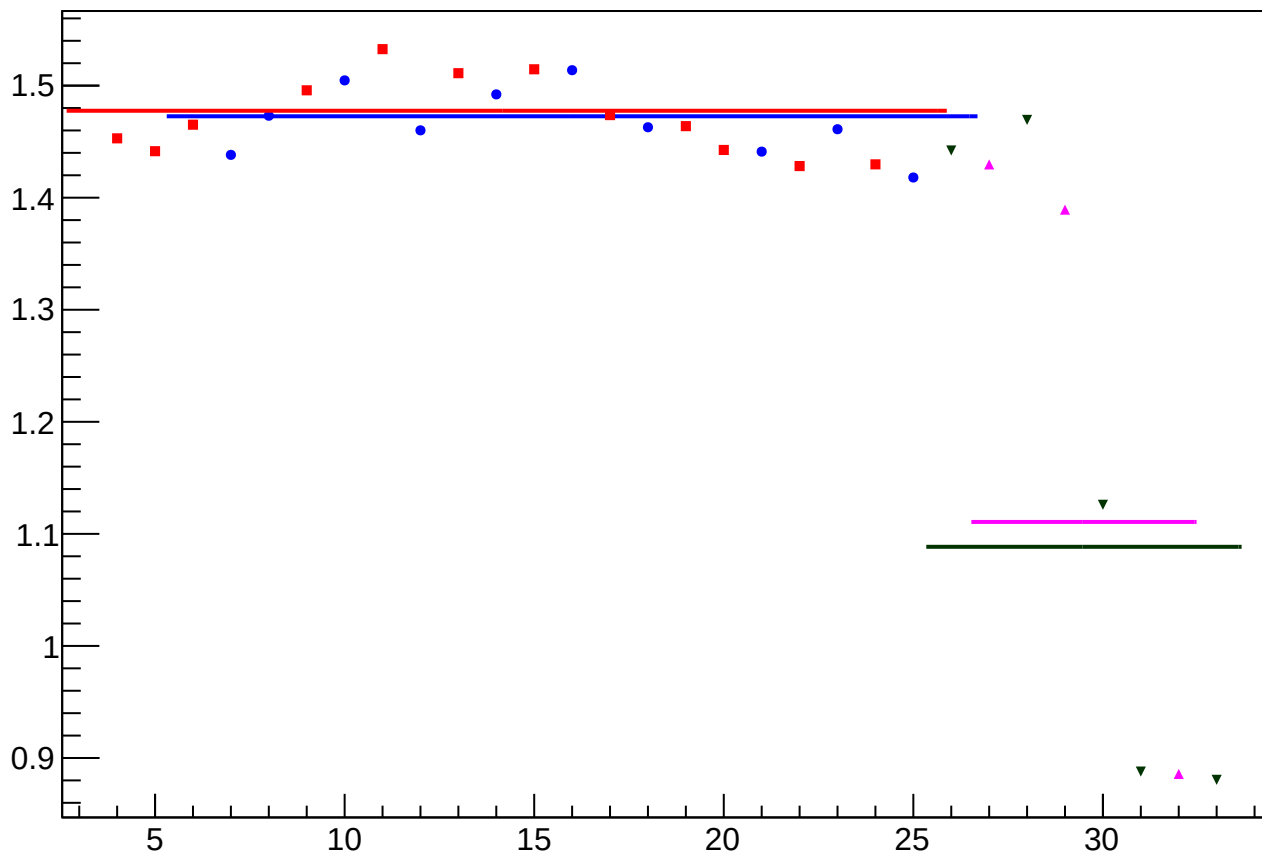
Right Out: -0.417 $\pm$ 0.583     $\chi^2/\text{NDF}$ : 14.9/11

Left In: -0.052 $\pm$ 0.707     $\chi^2/\text{NDF}$ : 0.5/2

-0.596 $\pm$ 0.442     $\chi^2/\text{NDF}$ : 29.8/14

-0.269 $\pm$ 0.450     $\chi^2/\text{NDF}$ : 15.5/14

# asym\_cav4dQ\_rms vs slug



Right In: 1.473+/-0.000  $\chi^2/\text{NDF}$ : 4027.5/9

Left Out: 1.088+/-0.000  $\chi^2/\text{NDF}$ :256261.3/4

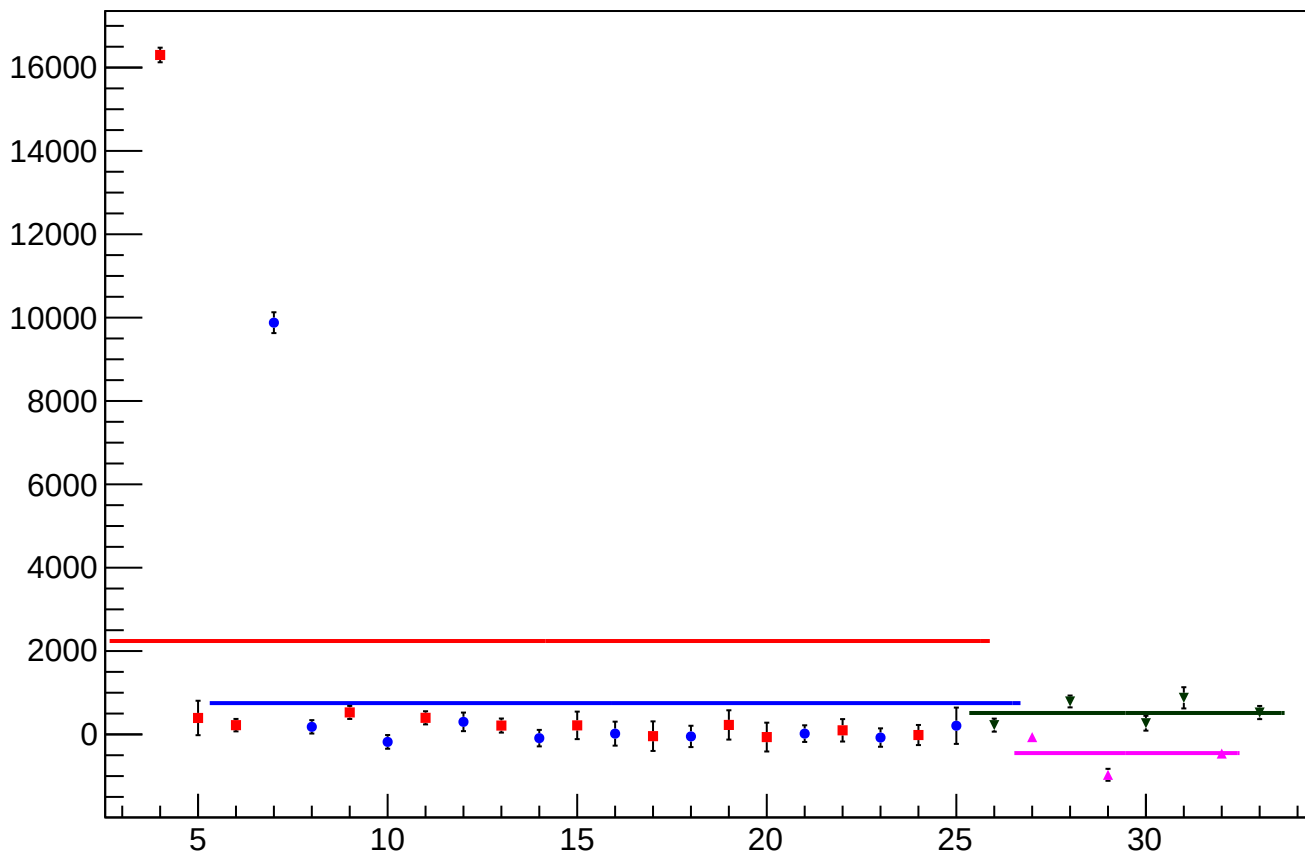
Right Out: 1.478+/-0.000  $\chi^2/\text{NDF}$ : 7139.1/11

Left In: 1.111+/-0.000  $\chi^2/\text{NDF}$ :269349.3/2

1.313+/-0.000  $\chi^2/\text{NDF}$ : 627046.5/14

1.329+/-0.000  $\chi^2/\text{NDF}$ : 597162.2/14

# asym\_bcm0l02\_mean vs slug



Right In: 750.803+/-68.130  $\chi^2/\text{NDF}$ : 1445.6/9

Left Out: 513.909+/-75.088  $\chi^2/\text{NDF}$ : 11.2/4

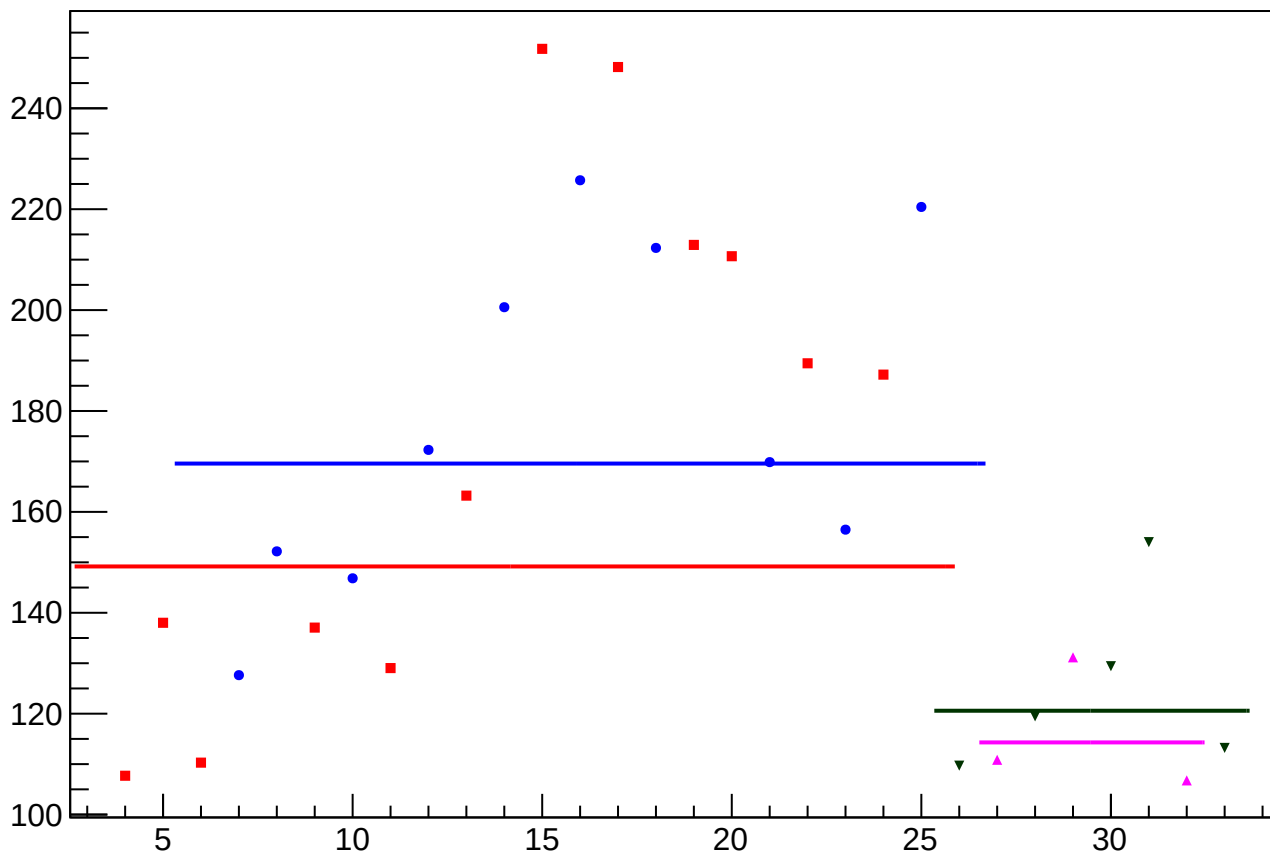
Right Out: 2240.760+/-61.598  $\chi^2/\text{NDF}$ : 7330.5/11

Left In: -448.295+/-71.879  $\chi^2/\text{NDF}$ : 23.1/2

643.839+/-50.456  $\chi^2/\text{NDF}$ : 1462.2/14

1102.131+/-46.773  $\chi^2/\text{NDF}$ : 8160.5/14

# asym\_bcm0l02\_rms vs slug



Right In: 169.579+/-0.048     $\chi^2/\text{NDF}$ : 333569.7/9

Left Out: 120.582+/-0.053     $\chi^2/\text{NDF}$ : 53585.7/4

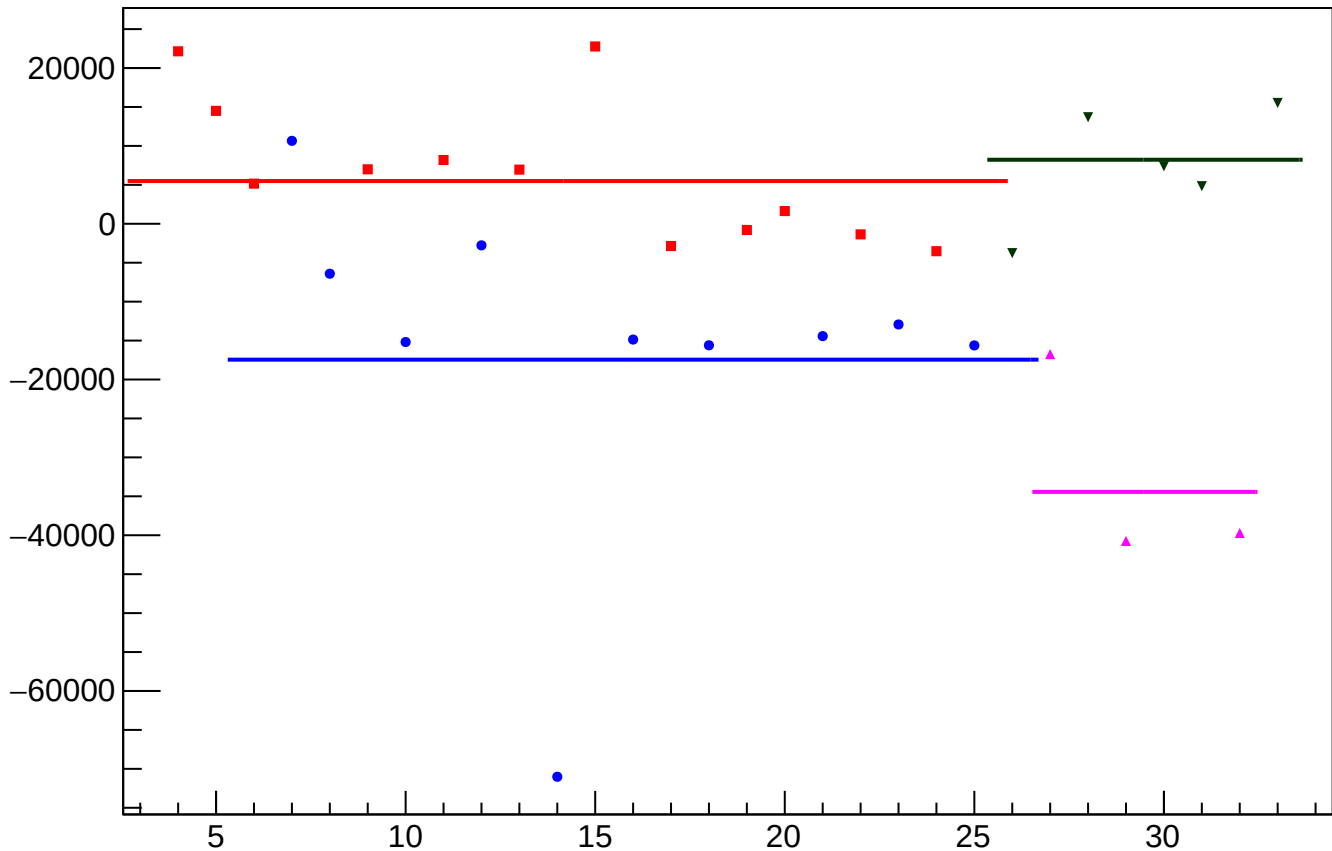
147.455+/-0.036     $\chi^2/\text{NDF}$ : 854216.4/14

Right Out: 149.184+/-0.044     $\chi^2/\text{NDF}$ : 879836.6/11

134.414+/-0.033     $\chi^2/\text{NDF}$ : 1189242.5/14

Left In: 114.303+/-0.051     $\chi^2/\text{NDF}$ : 37866.7/2

# asym\_bpm2i01WS\_mean vs slug



Right In: -17450.855+/-46.763  $\chi^2/\text{NDF}$ : 203331.0/9

Left Out: 8224.097+/-68.272  $\chi^2/\text{NDF}$ :10885.2/4

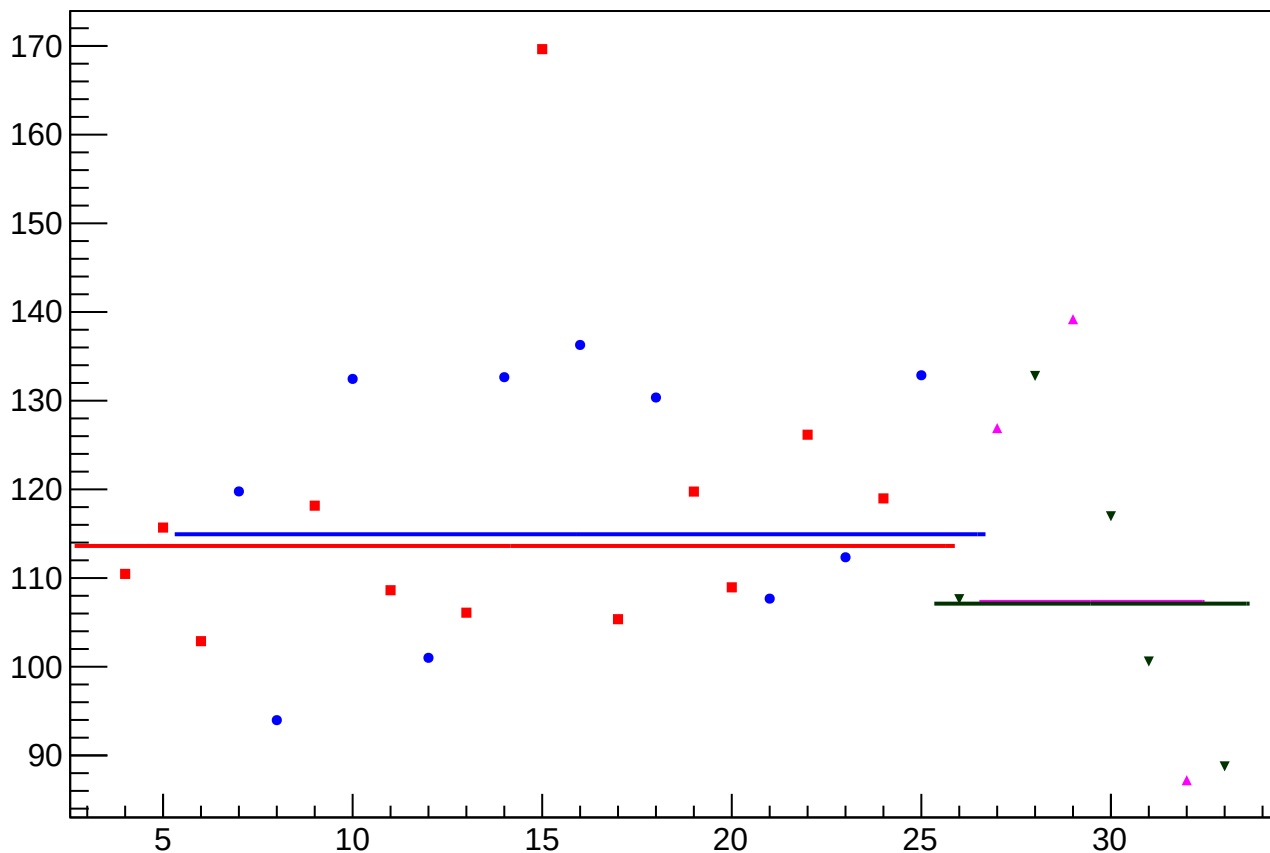
-9251.795+/-38.581  $\chi^2/\text{NDF}$ : 310480.8/14

Right Out: 5490.592+/-46.372  $\chi^2/\text{NDF}$ : 24655.8/11

-6626.866+/-38.700  $\chi^2/\text{NDF}$ : 269568.5/14

Left In: -34430.992+/-70.244  $\chi^2/\text{NDF}$ :19954.5/2

# asym\_bpm2i01WS\_rms vs slug



Right In: 114.939+/-0.033  $\chi^2/\text{NDF}$ : 233540.9/9

Left Out: 107.116+/-0.048  $\chi^2/\text{NDF}$ :101740.8/4

Right Out: 113.621+/-0.033  $\chi^2/\text{NDF}$ : 162658.1/11

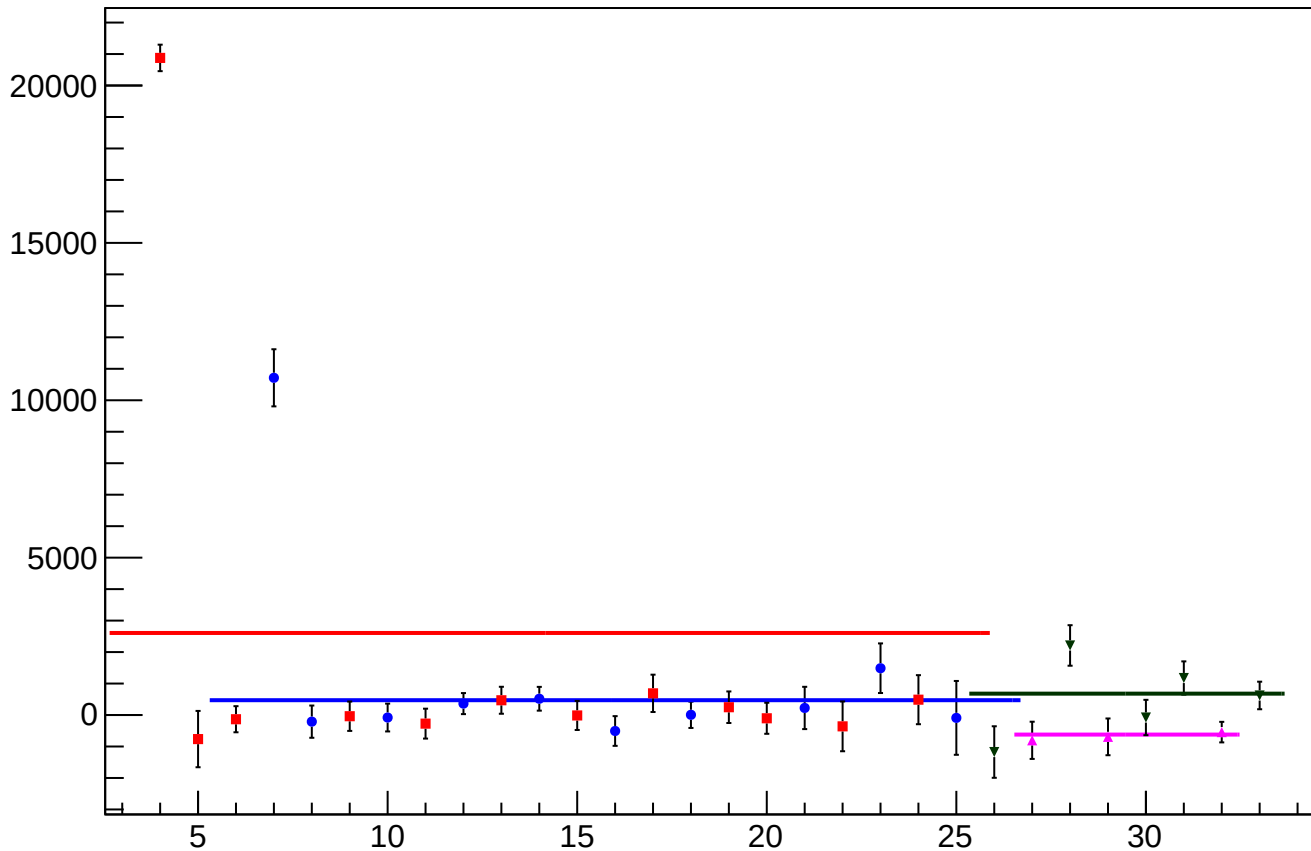
Left In: 107.309+/-0.050  $\chi^2/\text{NDF}$ :212586.0/2

112.441+/-0.027  $\chi^2/\text{NDF}$ : 353157.1/14

111.705+/-0.027  $\chi^2/\text{NDF}$ : 386488.9/14



# asym\_bpm0i07WS\_mean vs slug



Right In: 470.960+/-156.387  $\chi^2/\text{NDF}$ : 138.4/9

Left Out: 679.175+/-250.963  $\chi^2/\text{NDF}$ : 13.5/4

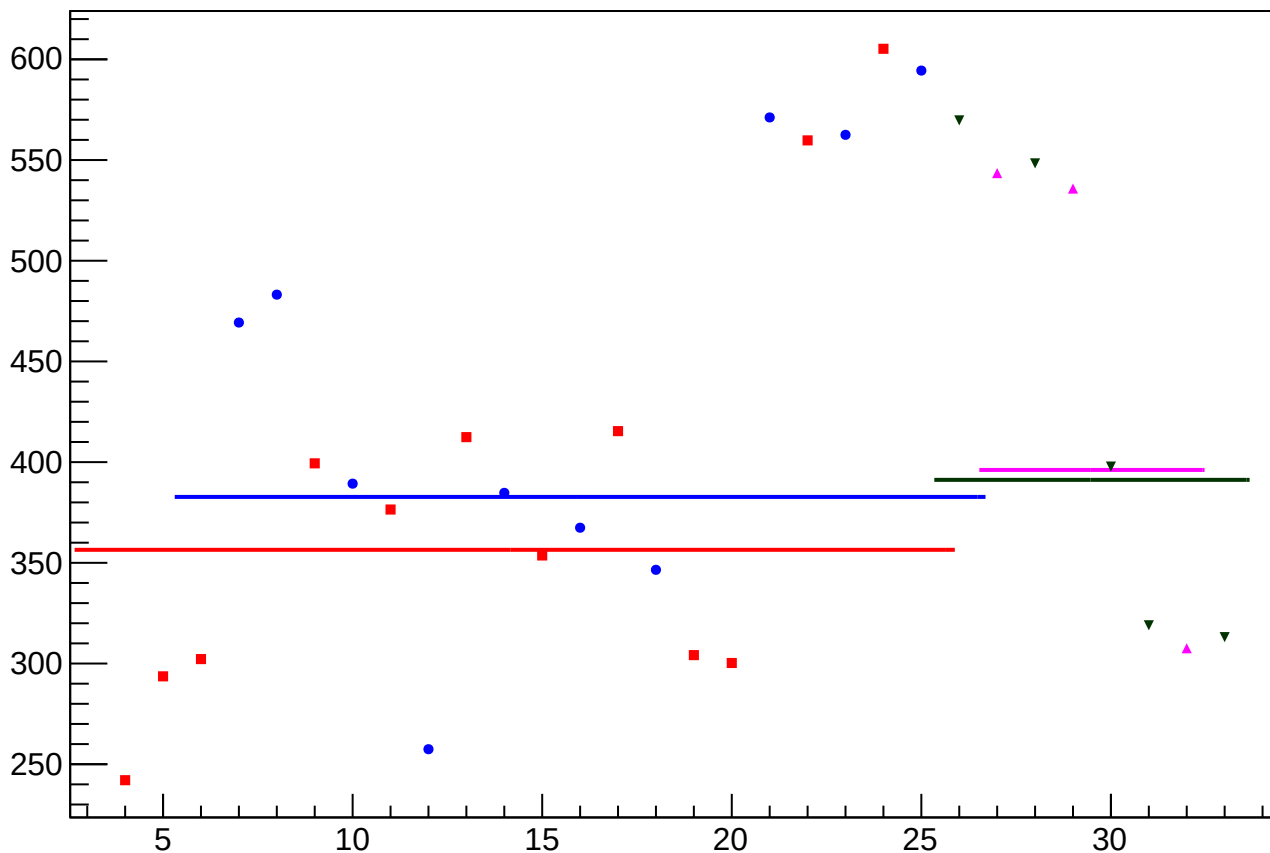
529.198+/-132.726  $\chi^2/\text{NDF}$ : 152.4/14

Right Out: 2606.972+/-147.343  $\chi^2/\text{NDF}$ : 2154.3/11

1806.348+/-127.772  $\chi^2/\text{NDF}$ : 2273.5/14

Left In: -621.201+/-256.566  $\chi^2/\text{NDF}$ : 0.2/2

# asym\_bpm0i07WS\_rms vs slug



Right In: 382.730+/-0.111  $\chi^2/\text{NDF}$ : 720132.6/9

Left Out: 391.200+/-0.177  $\chi^2/\text{NDF}$ :315491.7/4

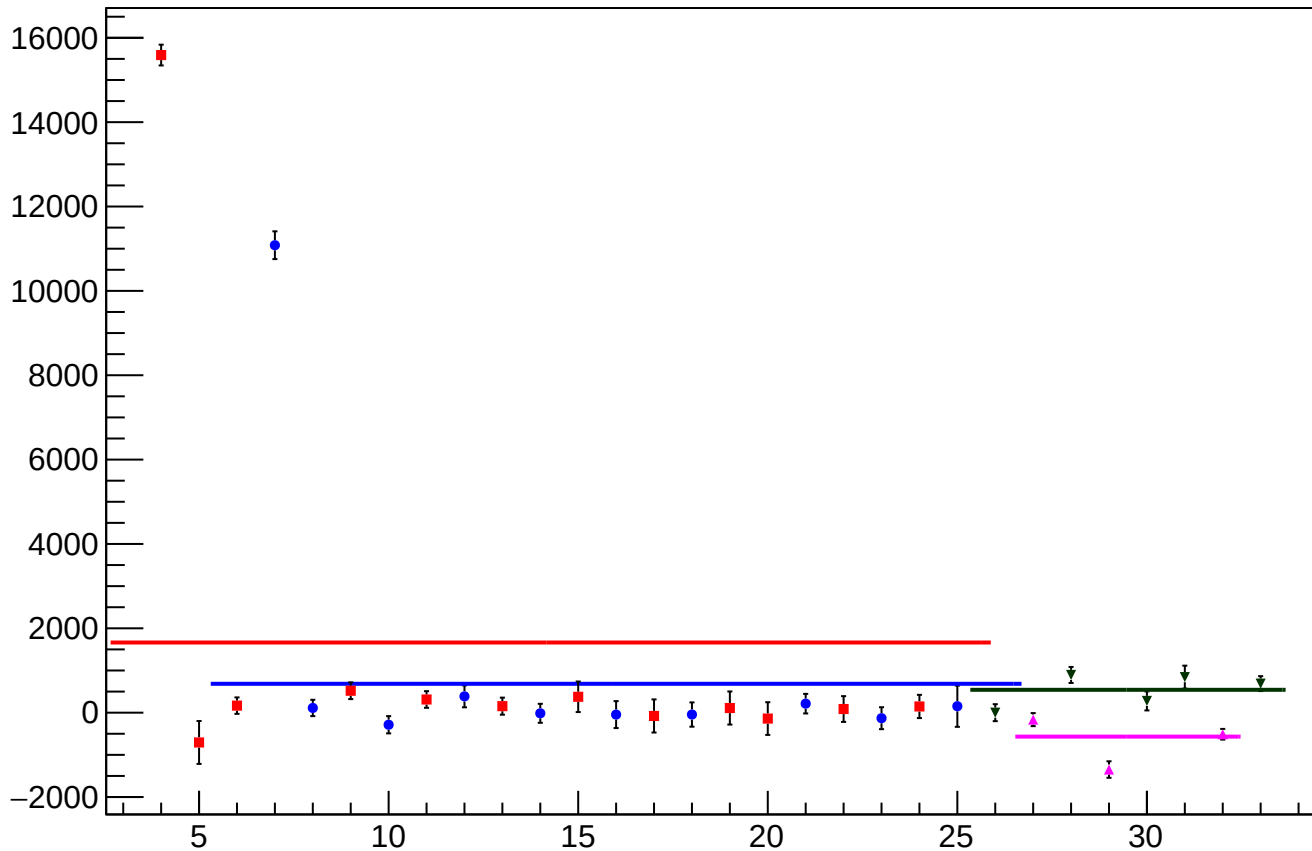
Right Out: 356.465+/-0.104  $\chi^2/\text{NDF}$ : 650032.0/11

Left In: 396.120+/-0.181  $\chi^2/\text{NDF}$ :386170.3/2

385.099+/-0.094  $\chi^2/\text{NDF}$ : 1037265.1/14

366.300+/-0.090  $\chi^2/\text{NDF}$ : 1072131.7/14

# asym\_bpm0l01WS\_mean vs slug



Right In:  $684.597 \pm 80.654$   $\chi^2/\text{NDF}: 1063.9/9$

Left Out:  $542.152 \pm 92.155$   $\chi^2/\text{NDF}: 14.0/4$

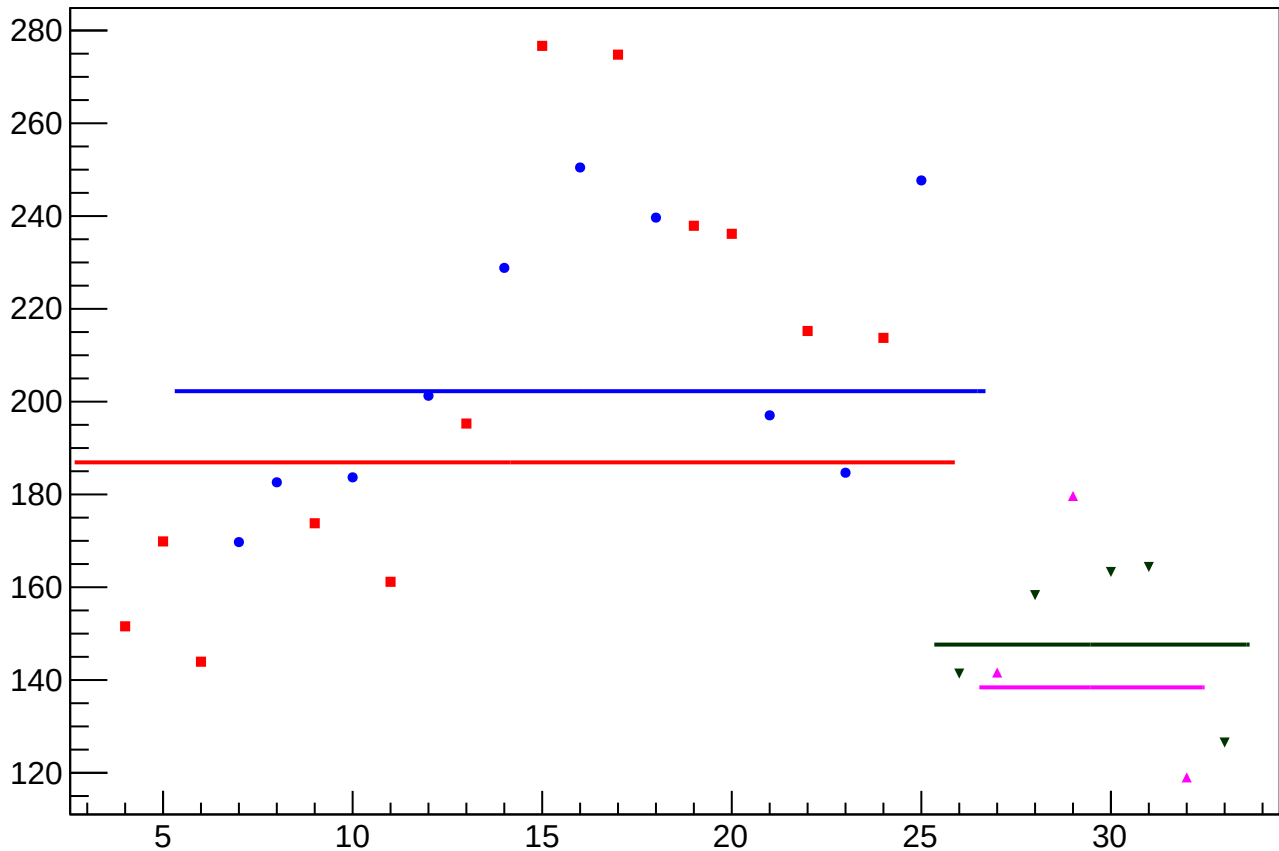
$622.812 \pm 60.693$   $\chi^2/\text{NDF}: 1079.3/14$

Right Out:  $1663.245 \pm 75.915$   $\chi^2/\text{NDF}: 3538.6/11$

$706.585 \pm 57.375$   $\chi^2/\text{NDF}: 3931.8/14$

Left In:  $-567.813 \pm 87.620$   $\chi^2/\text{NDF}: 22.9/2$

# asym\_bpm0l01WS\_rms vs slug



Right In: 202.258+/-0.057  $\chi^2/\text{NDF}$ : 191196.0/9

Left Out: 147.638+/-0.065  $\chi^2/\text{NDF}$ : 54029.5/4

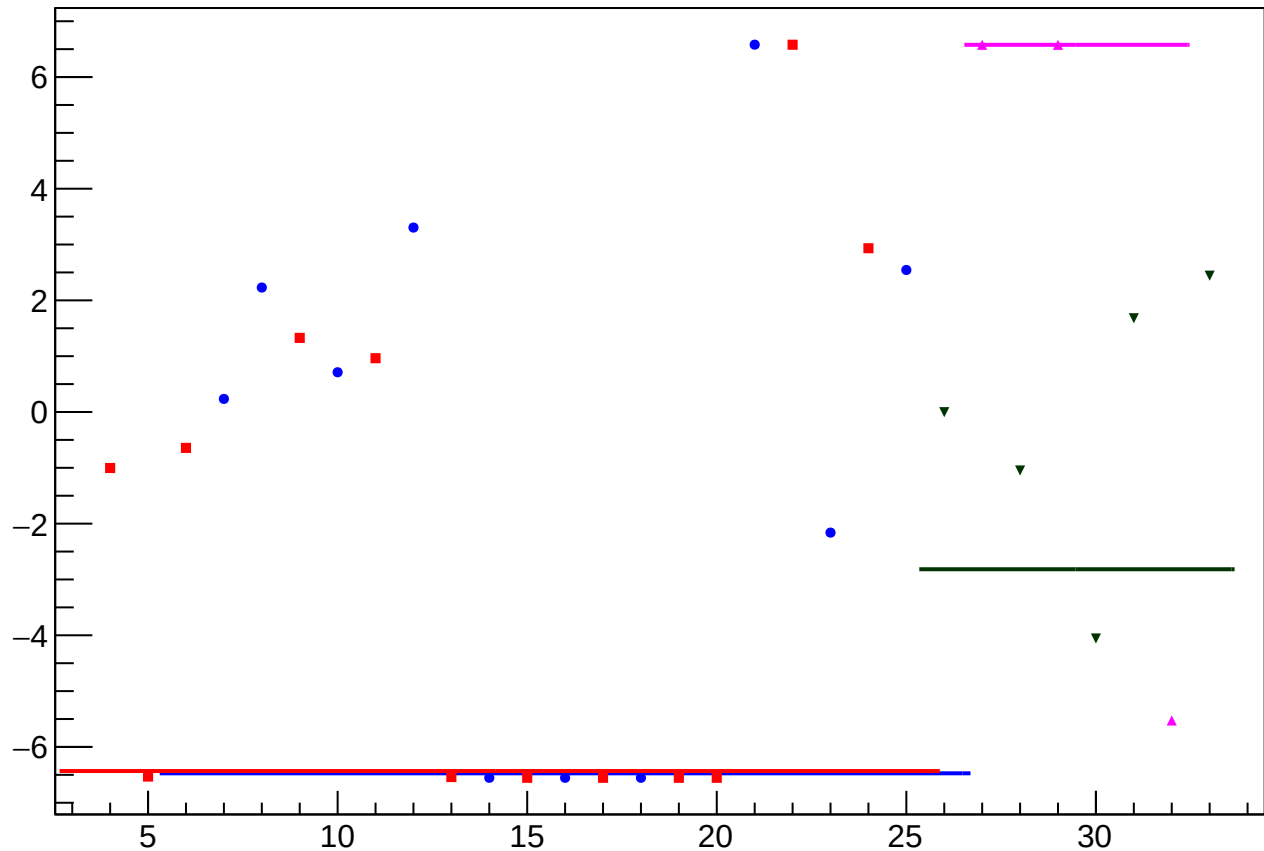
178.567+/-0.043  $\chi^2/\text{NDF}$ : 643061.1/14

Right Out: 186.914+/-0.054  $\chi^2/\text{NDF}$ : 512292.6/11

166.120+/-0.041  $\chi^2/\text{NDF}$ : 998868.3/14

Left In: 138.420+/-0.062  $\chi^2/\text{NDF}$ : 136632.9/2

# yield\_cav4bX\_mean vs slug



Right In: -6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847927584822.3/9

Left Out: -2.817+/-0.001  $\chi^2/\text{NDF}$ : 2899001.5/4

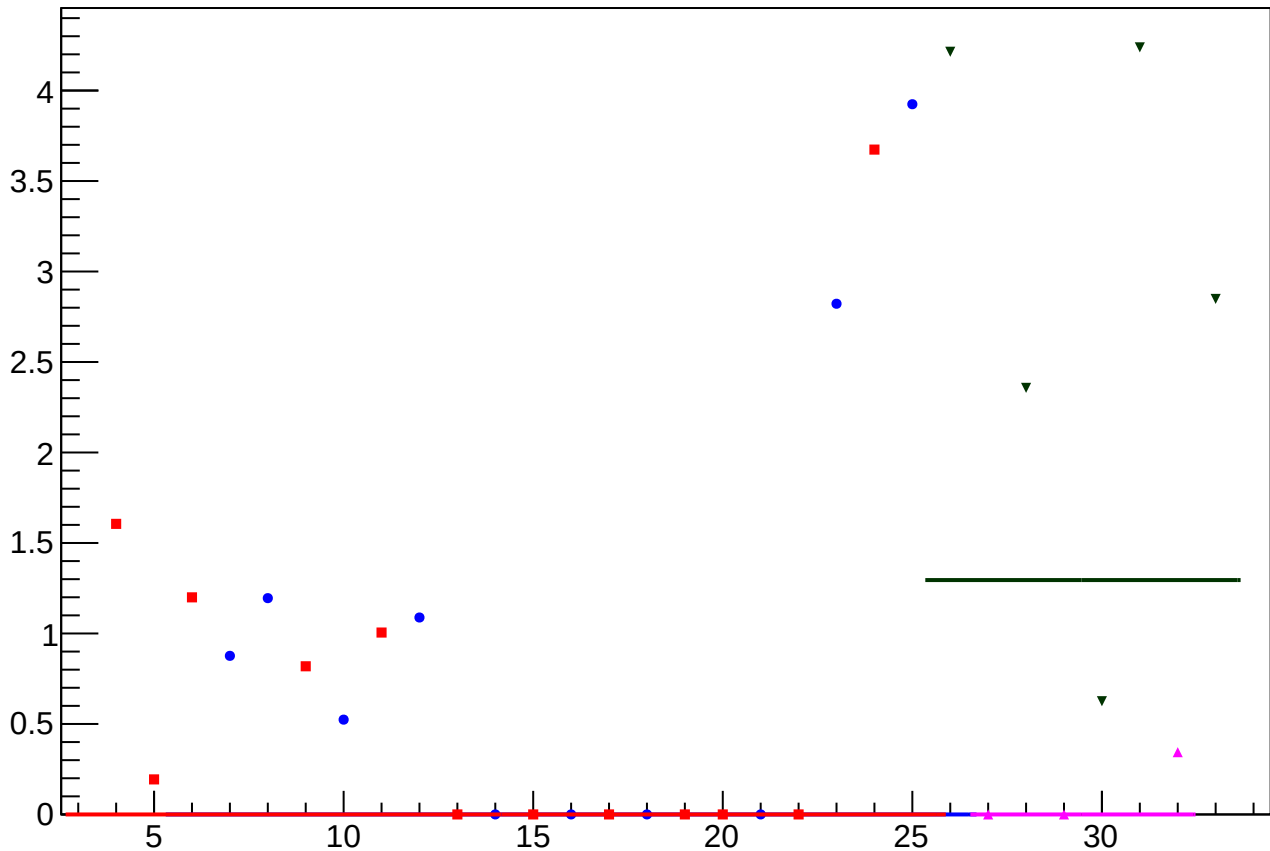
Right Out: -6.432+/-0.000  $\chi^2/\text{NDF}$ : 150837601506010.5/11

Left In: 6.578+/-0.000  $\chi^2/\text{NDF}$ : 375316971.6/2

-6.473+/-0.000  $\chi^2/\text{NDF}$ : 127847939394822.2/1

-6.315+/-0.000  $\chi^2/\text{NDF}$ : 297092087619733.9/1

# yield\_cav4bX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4264427.3/9

Left Out: 1.295+/-0.001  $\chi^2/\text{NDF}$ :1657366.6/4

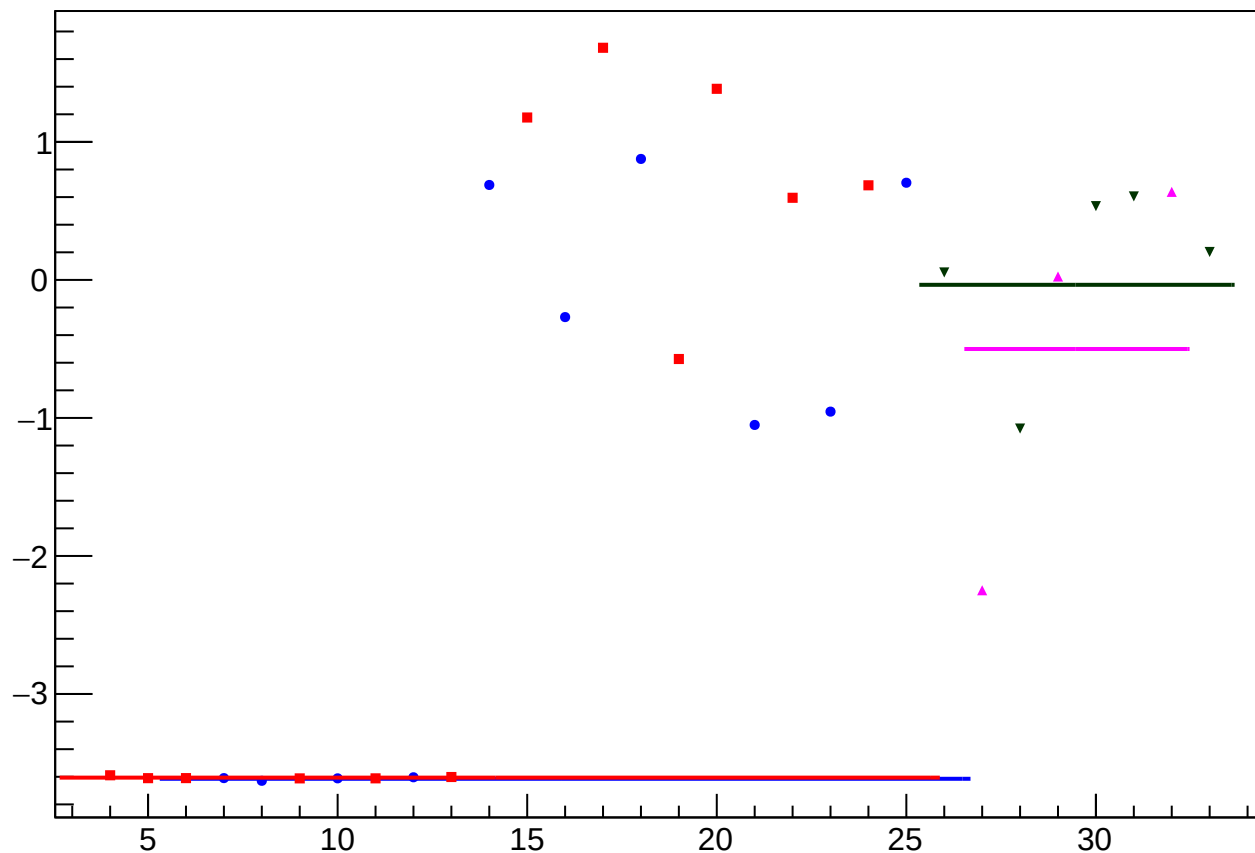
0.000+/-0.000  $\chi^2/\text{NDF}$ : 8158146.2/14

Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4072994.8/11

0.000+/-0.000  $\chi^2/\text{NDF}$ : 4679173.8/14

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ :606139.1/2

# yield\_cav4bY\_mean vs slug



Right In: -3.614+/-0.000  $\chi^2/\text{NDF}$ : 49061627309.8/9

Left Out: -0.035+/-0.001  $\chi^2/\text{NDF}$ : 1233577.8/4

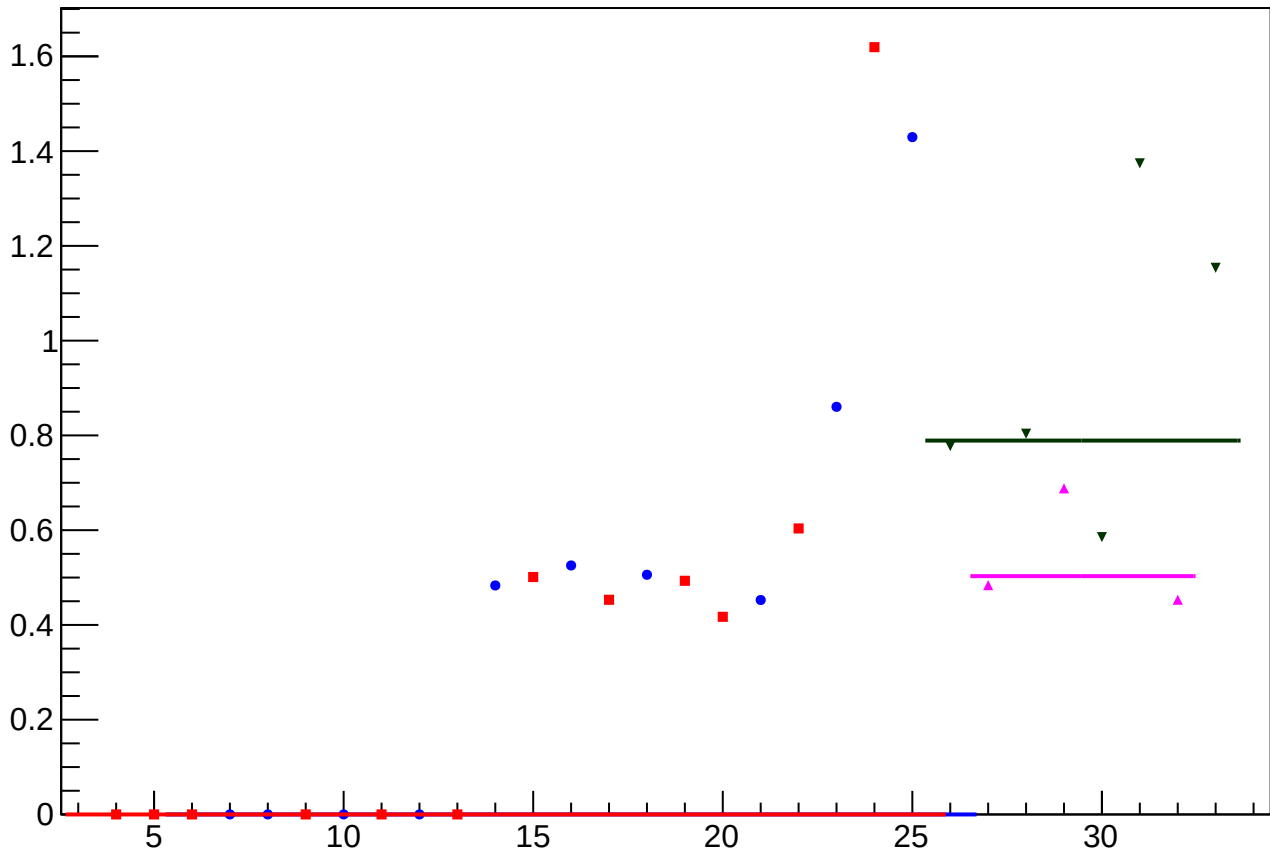
Right Out: -3.606+/-0.000  $\chi^2/\text{NDF}$ : 37750030407.7/11

Left In: -0.500+/-0.000  $\chi^2/\text{NDF}$ : 11520543.0/2

-3.614+/-0.000  $\chi^2/\text{NDF}$ : 49099376254.1/14

-3.606+/-0.000  $\chi^2/\text{NDF}$ : 37824659626.8/14

# yield\_cav4bY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 5803105.9/9

Left Out: 0.789+/-0.000  $\chi^2/\text{NDF}$ : 268434.8/4

0.000+/-0.000  $\chi^2/\text{NDF}$ : 9621003.0/14

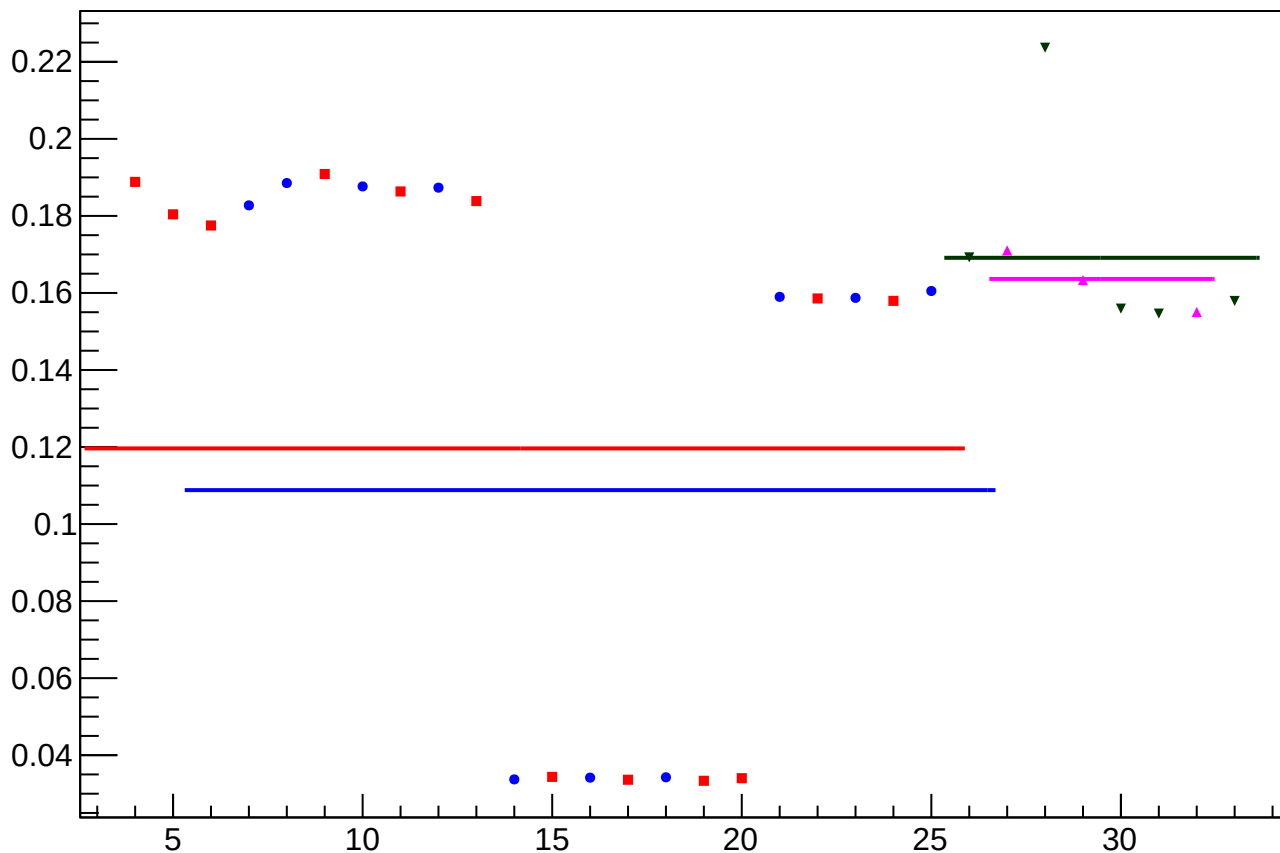
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 4205917.4/11

0.000+/-0.000  $\chi^2/\text{NDF}$ : 7606634.2/14

Left In: 0.503+/-0.000  $\chi^2/\text{NDF}$ : 91101.1/2



# yield\_cav4cX\_mean vs slug



Right In: 0.109 $\pm$ 0.000  $\chi^2$ /NDF: 4567388624.2/9

Left Out: 0.169 $\pm$ 0.000  $\chi^2$ /NDF: 90495908.8/4

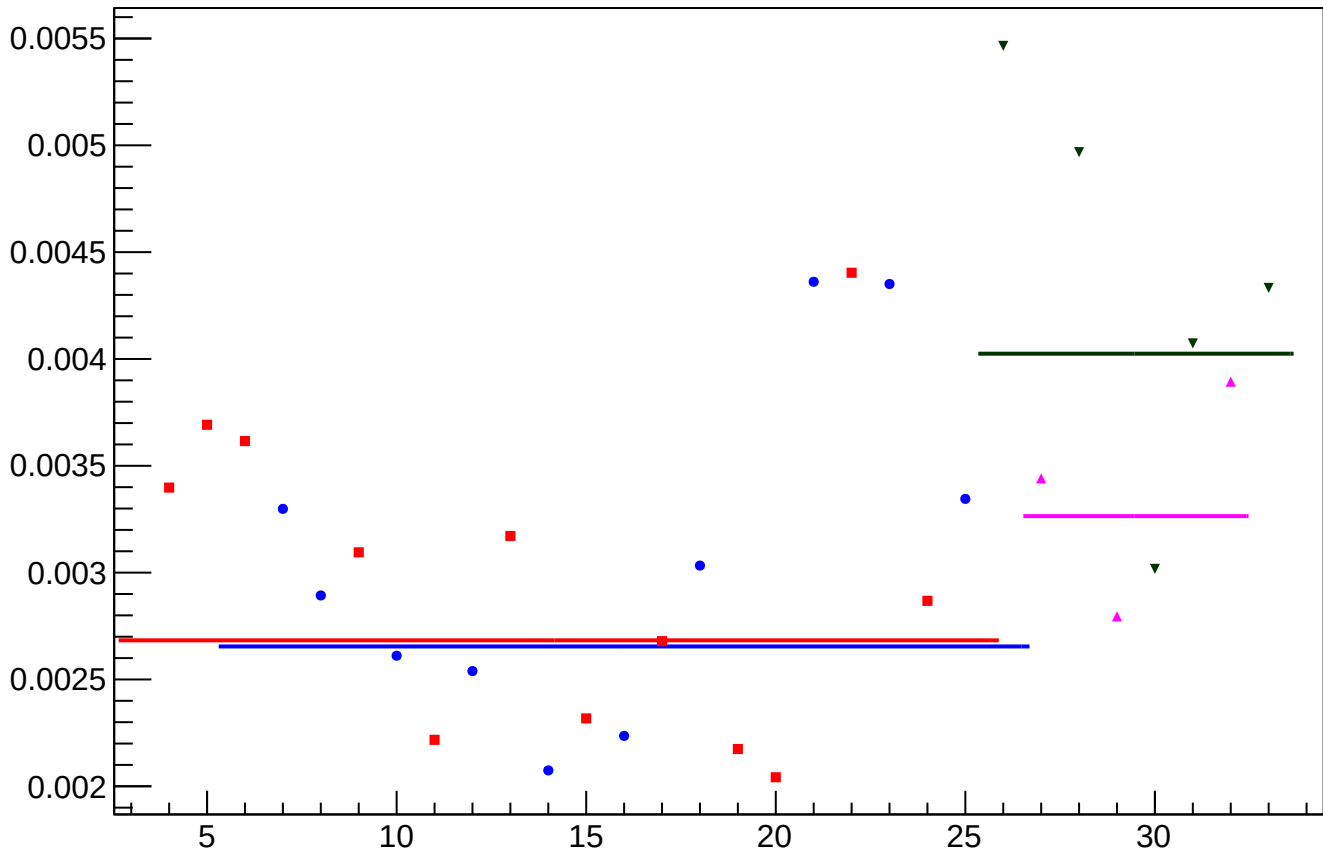
Right Out: 0.120 $\pm$ 0.000  $\chi^2$ /NDF: 4203649870.8/11

Left In: 0.164 $\pm$ 0.000  $\chi^2$ /NDF: 7637838.5/2

0.118 $\pm$ 0.000  $\chi^2$ /NDF: 5103664703.5/14

0.129 $\pm$ 0.000  $\chi^2$ /NDF: 4542884882.7/14

# yield\_cav4cX\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 639601.2/9

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :226368.9/4

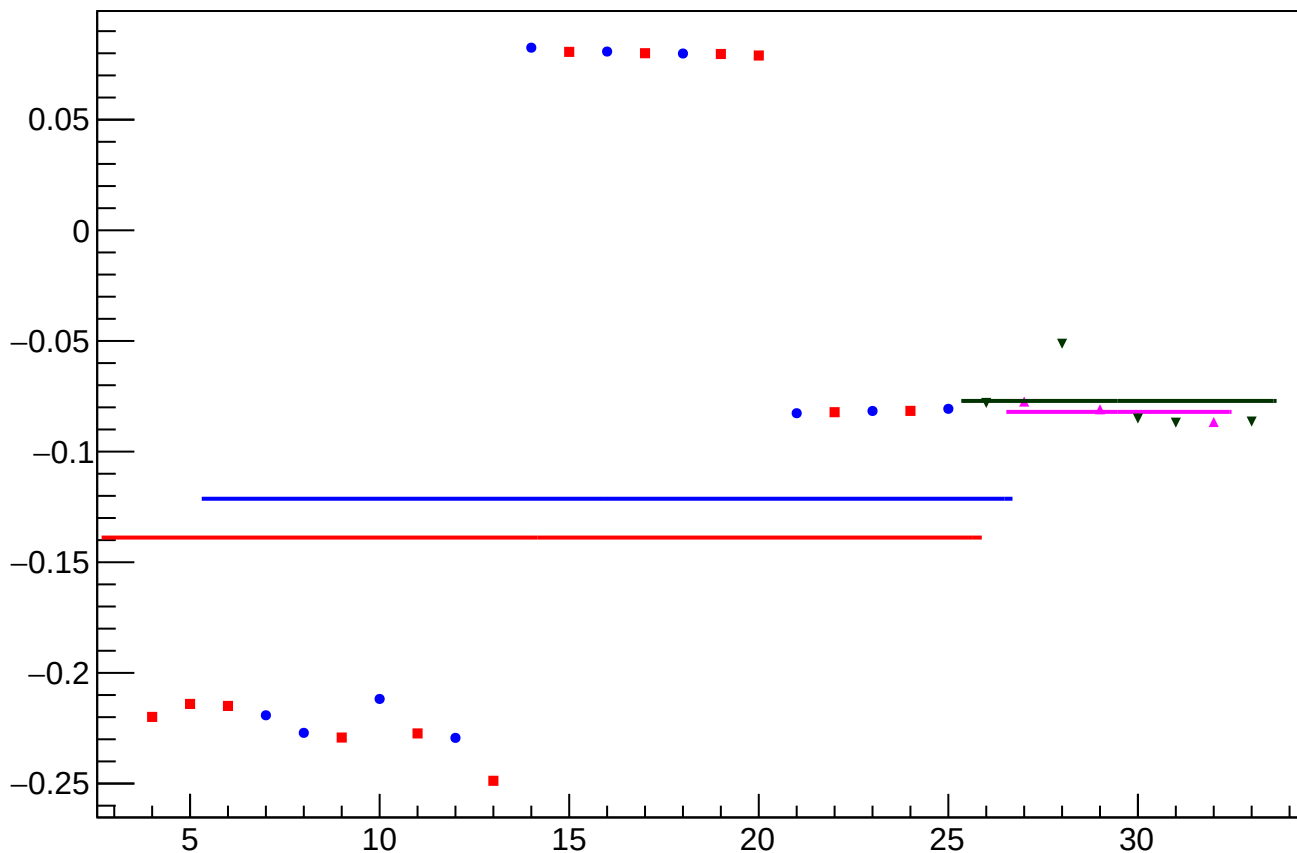
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 526292.2/11

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :89944.4/2

0.003+/-0.000  $\chi^2/\text{NDF}$ : 1326205.8/14

0.003+/-0.000  $\chi^2/\text{NDF}$ : 732000.1/14

# yield\_cav4cY\_mean vs slug



Right In: -0.121+/-0.000  $\chi^2/\text{NDF}$ : 9521473366.6/9

Left Out: -0.077+/-0.000  $\chi^2/\text{NDF}$ :30332623.3/4

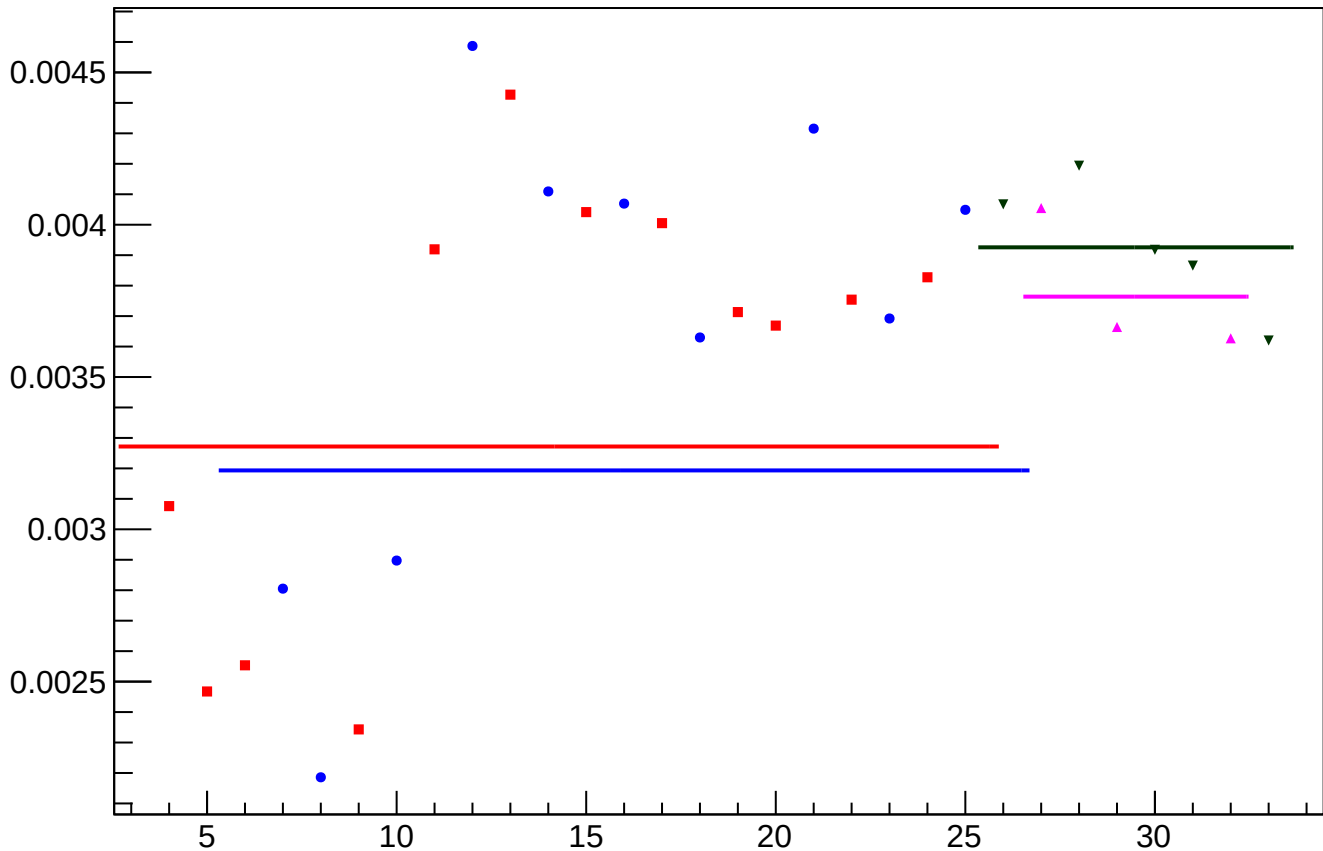
Right Out: -0.139+/-0.000  $\chi^2/\text{NDF}$ : 8617094052.4/11

Left In: -0.082+/-0.000  $\chi^2/\text{NDF}$ :2565901.1/2

-0.112+/-0.000  $\chi^2/\text{NDF}$ : 9791911950.7/14

-0.125+/-0.000  $\chi^2/\text{NDF}$ : 9042473090.9/14

# yield\_cav4cY\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 816109.2/9

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :13150.0/4

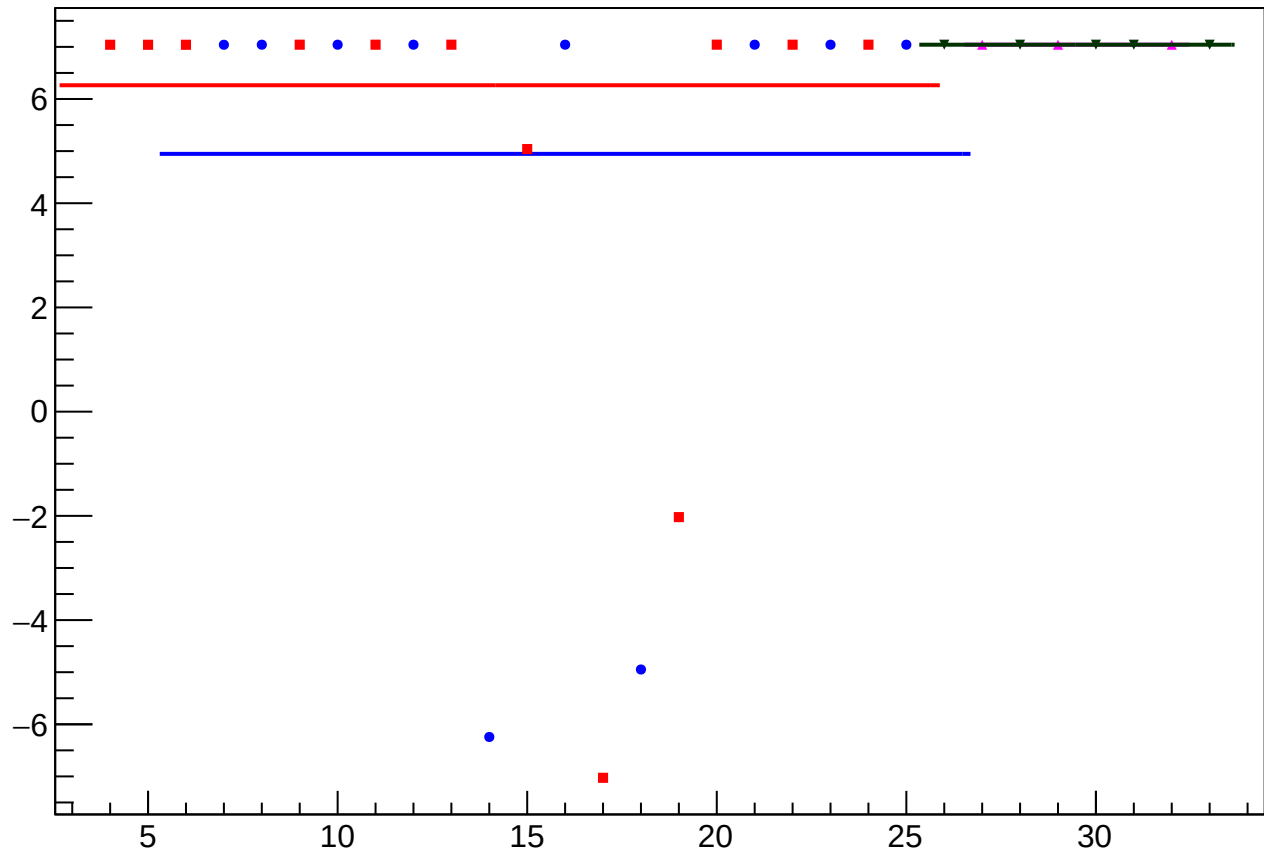
0.003+/-0.000  $\chi^2/\text{NDF}$ : 961090.7/14

Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 615311.7/11

0.003+/-0.000  $\chi^2/\text{NDF}$ : 690973.2/14

Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :12176.3/2

# yield\_cav4dX\_mean vs slug



Right In: 4.947+/-0.000  $\chi^2/\text{NDF}$ : 4224474165211712.0/9

Left Out: 7.042+/-0.000  $\chi^2/\text{NDF}$ : 670367.9/4

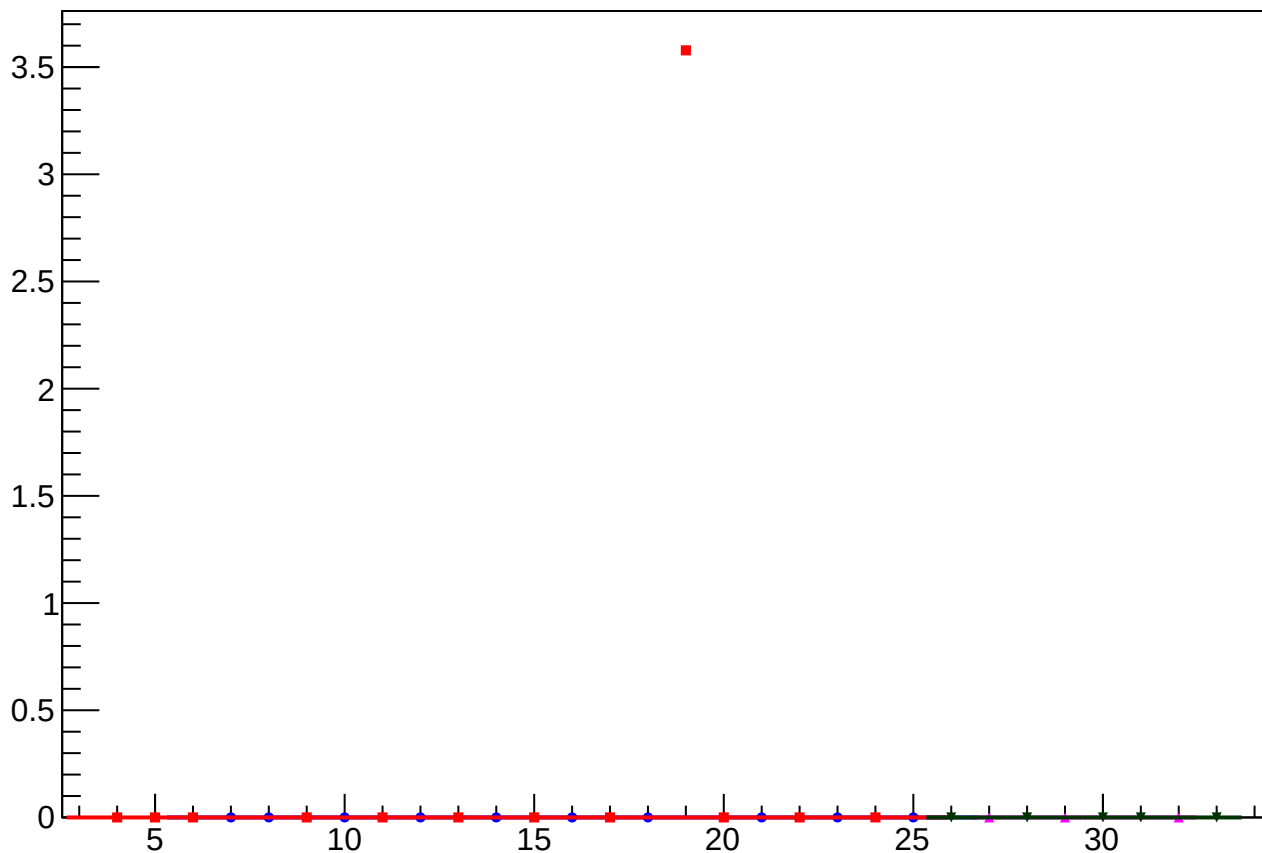
Right Out: 6.264+/-0.000  $\chi^2/\text{NDF}$ : 1812076141929126.0/11

Left In: 7.042+/-0.000  $\chi^2/\text{NDF}$ : 157858.0/2

5.668+/-0.000  $\chi^2/\text{NDF}$ : 4502482722043309.0/1

6.540+/-0.000  $\chi^2/\text{NDF}$ : 1850914661638385.8/1

yield\_cav4dX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 2529.8/9

Left Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 631.6/4

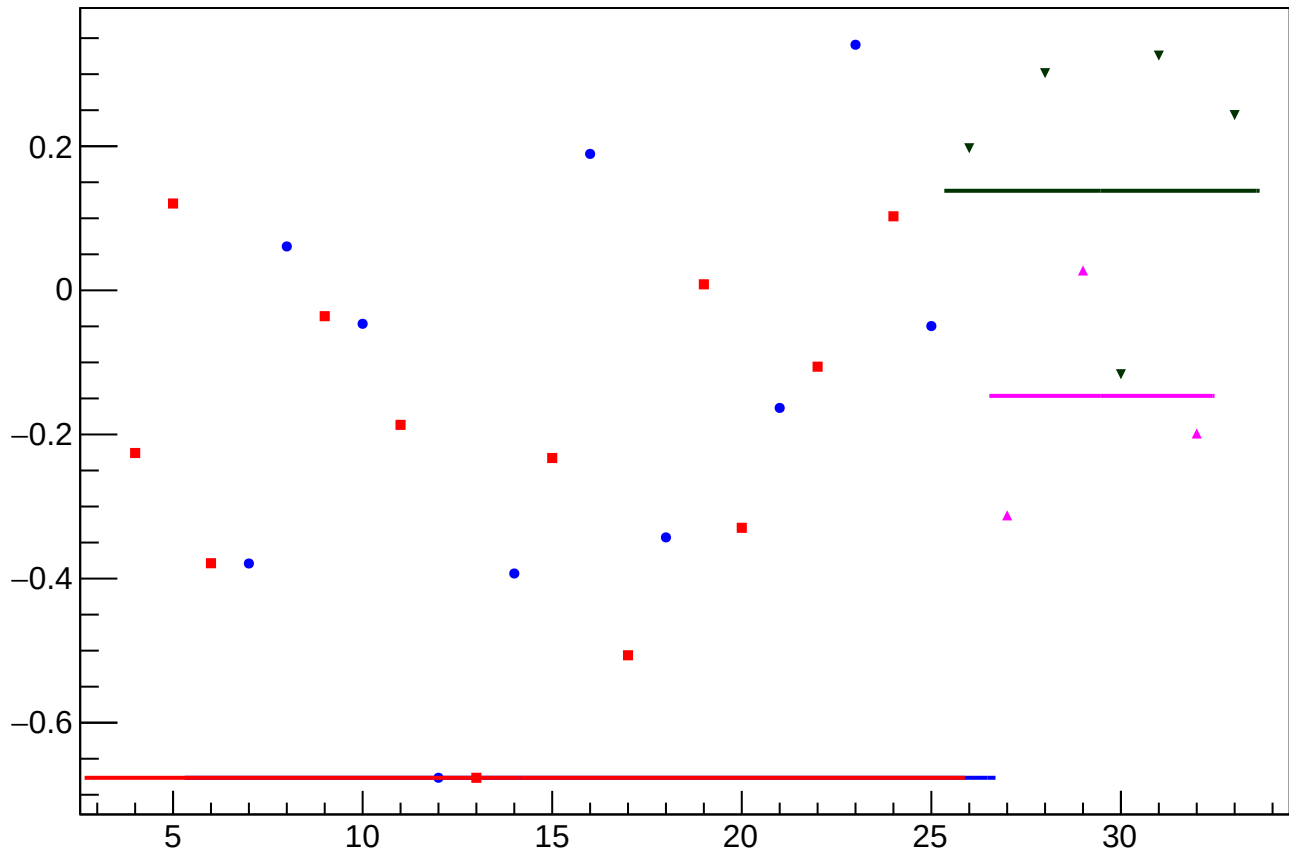
Right Out: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 696528.7/11

Left In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 186.8/2

0.000+/-0.000  $\chi^2/\text{NDF}$ : 3584.1/14

0.000+/-0.000  $\chi^2/\text{NDF}$ : 698949.4/14

# yield\_cav4dY\_mean vs slug



Right In: -0.676+/-0.000  $\chi^2/\text{NDF}$ : 214817629.7/9

Left Out: 0.138+/-0.000  $\chi^2/\text{NDF}$ : 5485571.3/4

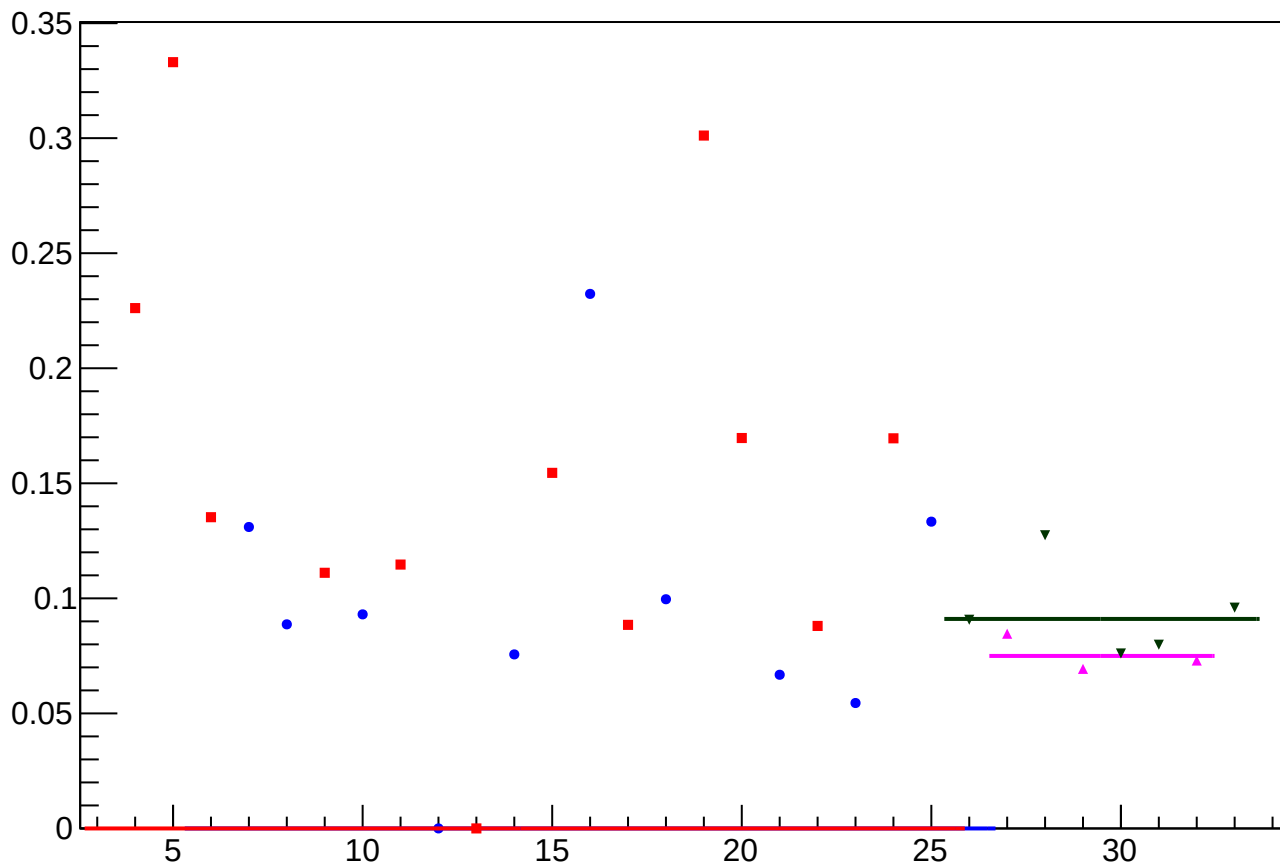
Right Out: -0.676+/-0.000  $\chi^2/\text{NDF}$ : 65929973.4/11

Left In: -0.146+/-0.000  $\chi^2/\text{NDF}$ : 5406001.7/2

-0.676+/-0.000  $\chi^2/\text{NDF}$ : 327698053.9/14

-0.676+/-0.000  $\chi^2/\text{NDF}$ : 146505124.1/14

# yield\_cav4dY\_rms vs slug



Right In: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 8329805.9/9

Left Out: 0.091 $\pm$ 0.000  $\chi^2/\text{NDF}$ :102213.0/4

Right Out: 0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 8085708.6/11

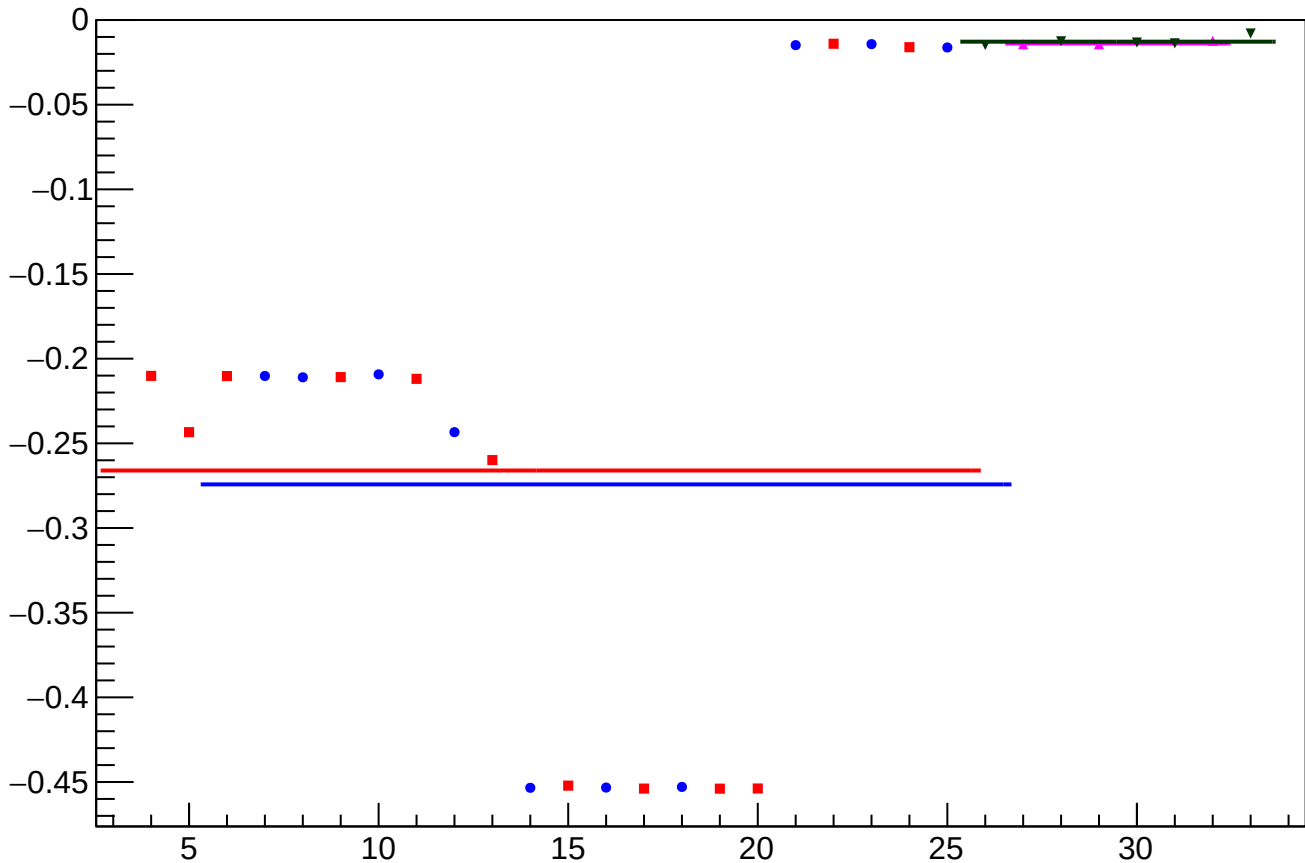
Left In: 0.075 $\pm$ 0.000  $\chi^2/\text{NDF}$ :21452.7/2

0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 11114659.5/14

0.000 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 11114416.3/14



# yield\_bpm4aX\_mean vs slug



Right In: -0.274+/-0.000  $\chi^2/\text{NDF}$ : 3355082930.6/9

Left Out: -0.013+/-0.000  $\chi^2/\text{NDF}$ : 129404.5/4

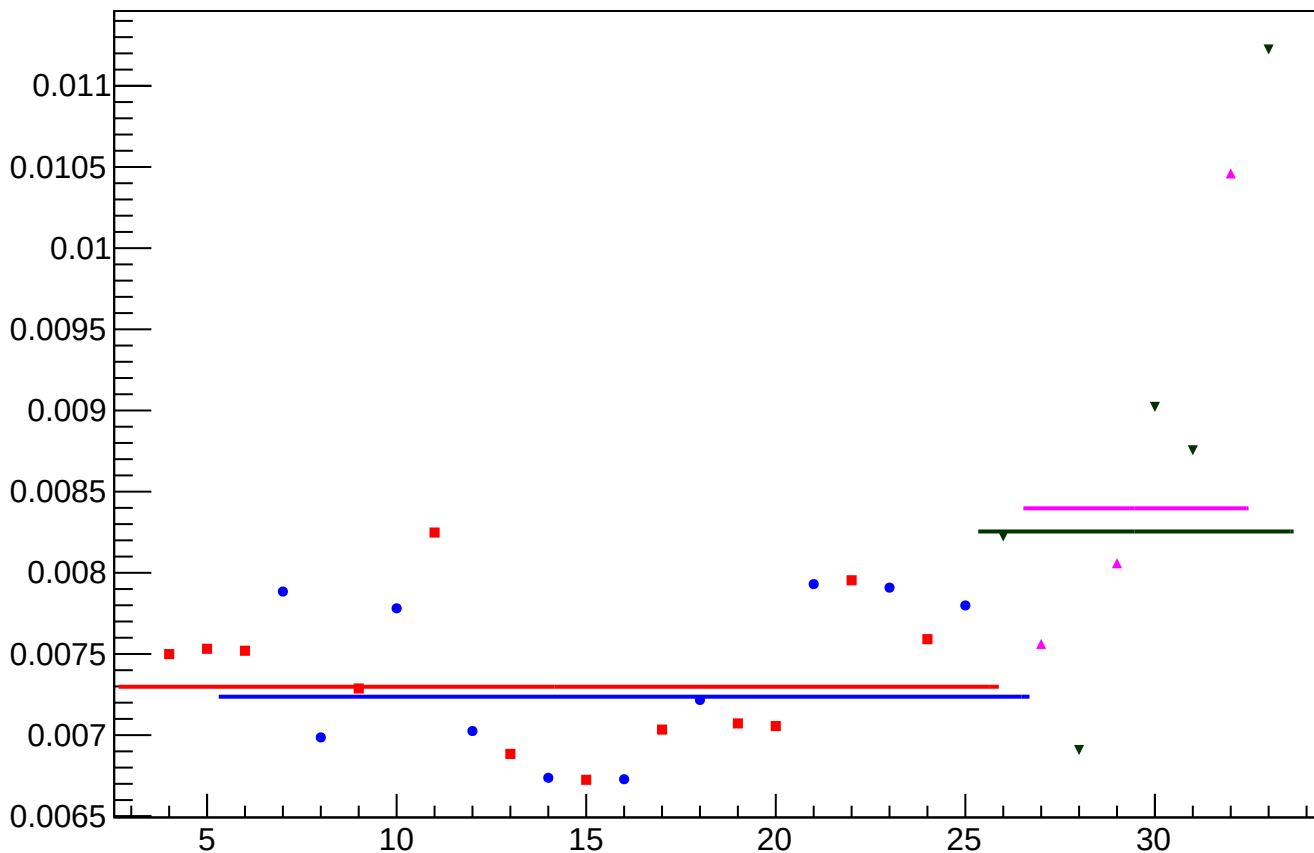
-0.214+/-0.000  $\chi^2/\text{NDF}$ : 5271344840.9/14

Right Out: -0.266+/-0.000  $\chi^2/\text{NDF}$ : 2610218769.9/11

-0.209+/-0.000  $\chi^2/\text{NDF}$ : 4340615886.7/14

Left In: -0.014+/-0.000  $\chi^2/\text{NDF}$ : 24788.3/2

# yield\_bpm4aX\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 54029.4/9

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :131238.4/4

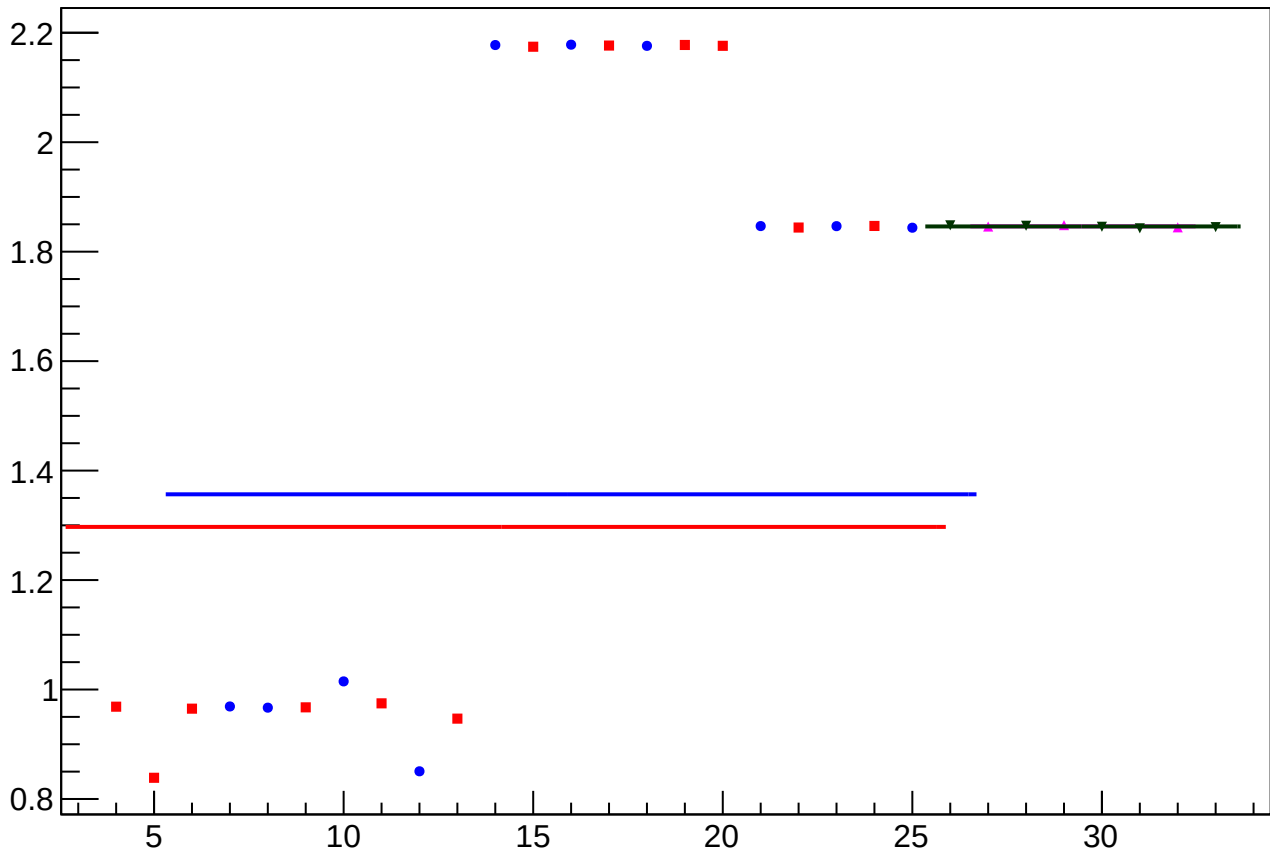
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 46835.5/11

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :91769.5/2

0.007+/-0.000  $\chi^2/\text{NDF}$ : 243348.3/14

0.008+/-0.000  $\chi^2/\text{NDF}$ : 204352.7/14

# yield\_bpm4aY\_mean vs slug



Right In: 1.357 $\pm$ 0.000  $\chi^2$ /NDF: 12373287295.8/9

Left Out: 1.846 $\pm$ 0.000  $\chi^2$ /NDF: 37458.2/4

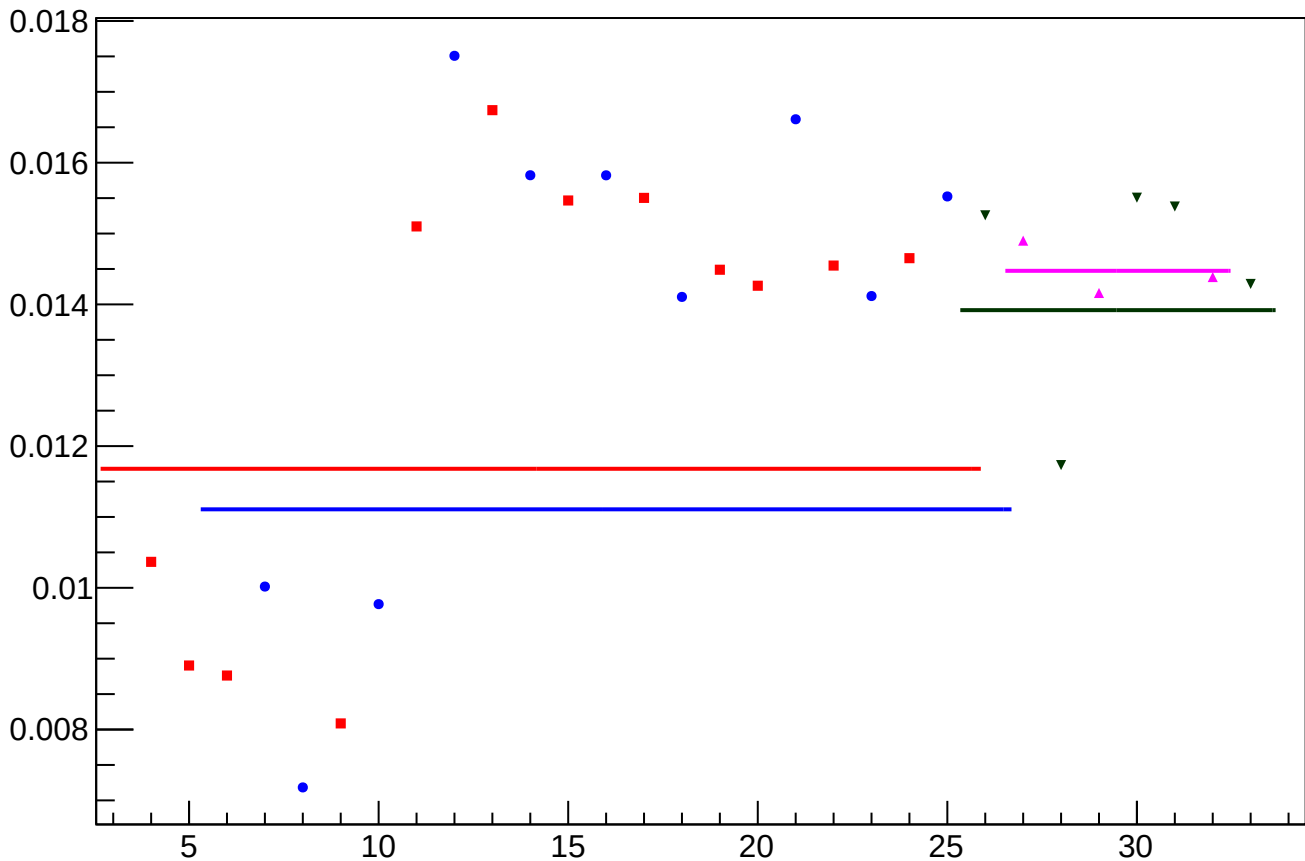
1.462 $\pm$ 0.000  $\chi^2$ /NDF: 14683649215.7/14

Right Out: 1.297 $\pm$ 0.000  $\chi^2$ /NDF: 10947439943.1/11

1.419 $\pm$ 0.000  $\chi^2$ /NDF: 13741145987.0/14

Left In: 1.846 $\pm$ 0.000  $\chi^2$ /NDF: 33839.3/2

# yield\_bpm4aY\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 1302674.8/9

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 65552.3/4

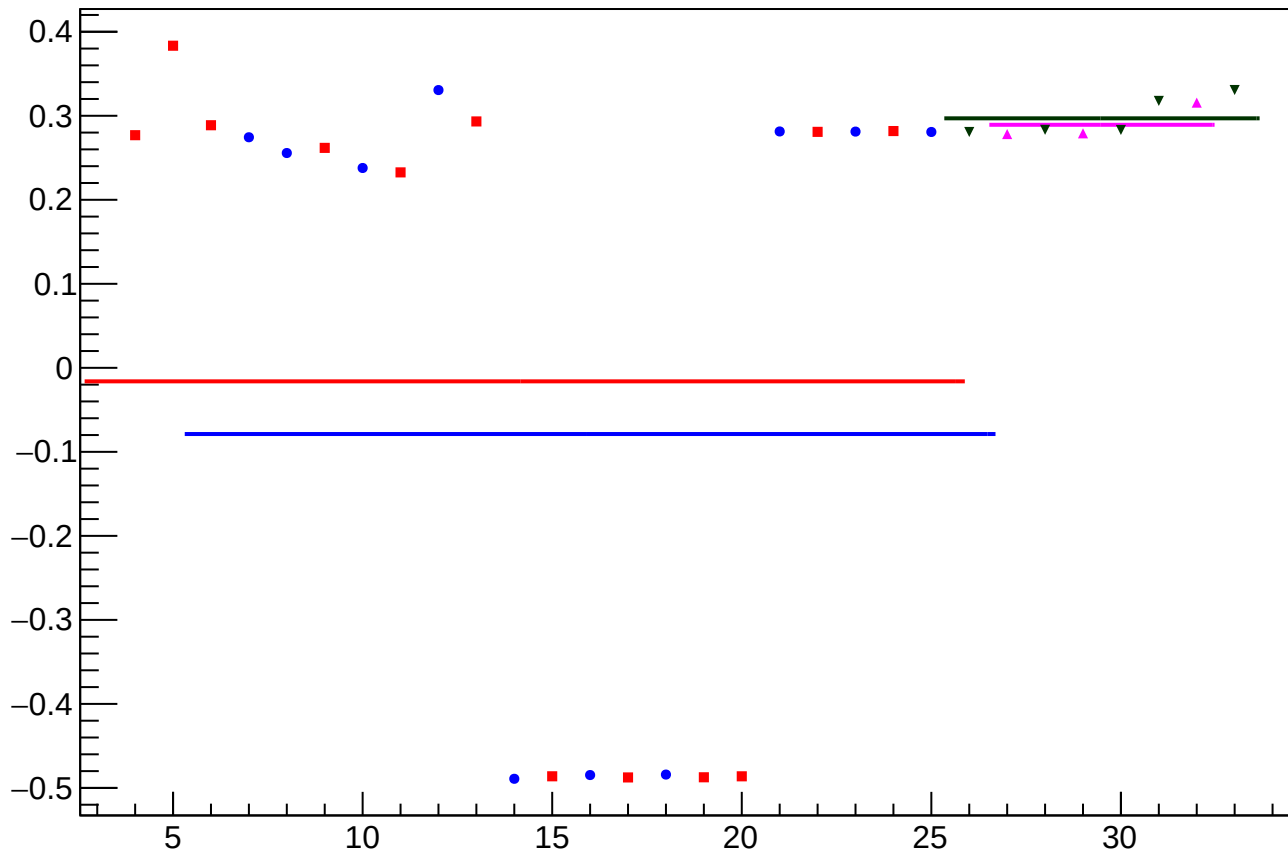
Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 930559.5/11

Left In: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 2195.1/2

0.012+/-0.000  $\chi^2/\text{NDF}$ : 1520683.9/14

0.012+/-0.000  $\chi^2/\text{NDF}$ : 1077372.0/14

# yield\_bpm4eX\_mean vs slug



Right In: -0.079+/-0.000  $\chi^2/\text{NDF}$ : 2891377449.8/9

Left Out: 0.297+/-0.000  $\chi^2/\text{NDF}$ : 2099406.7/4

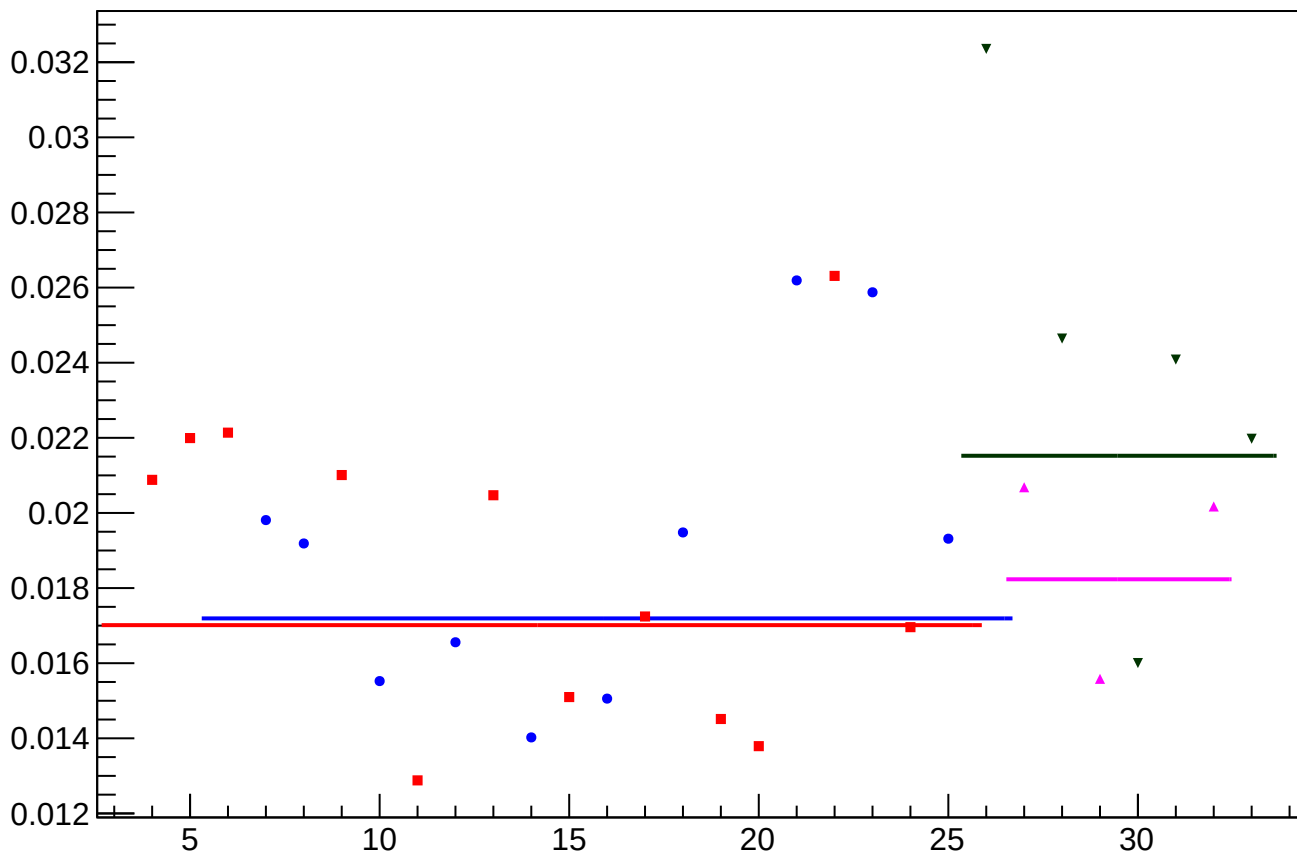
-0.004+/-0.000  $\chi^2/\text{NDF}$ : 3459928643.3/14

Right Out: -0.016+/-0.000  $\chi^2/\text{NDF}$ : 2739143286.6/11

0.061+/-0.000  $\chi^2/\text{NDF}$ : 3223808968.8/14

Left In: 0.289+/-0.000  $\chi^2/\text{NDF}$ : 1917871.3/2

# yield\_bpm4eX\_rms vs slug



Right In: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 479022.3/9

Left Out: 0.022+/-0.000  $\chi^2/\text{NDF}$ :248874.5/4

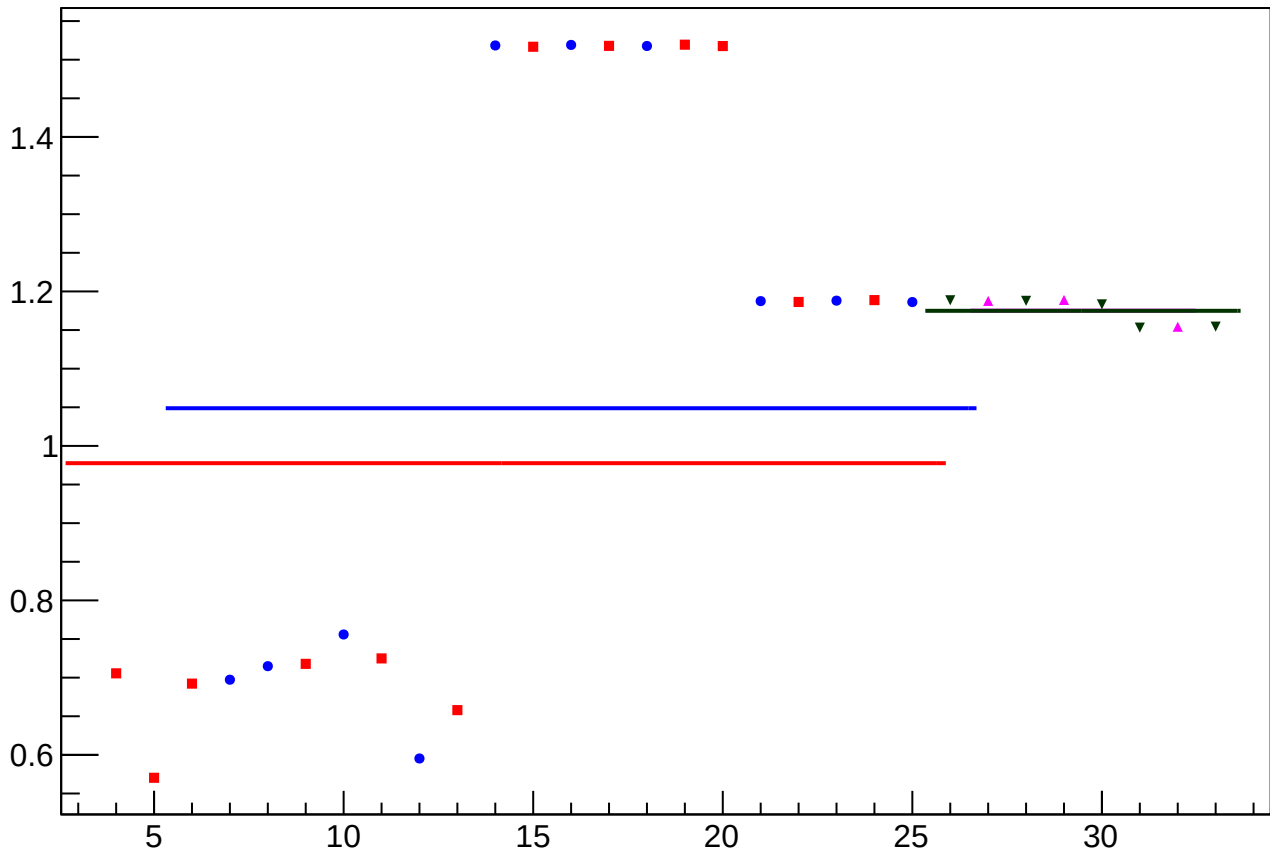
Right Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 541970.9/11

Left In: 0.018+/-0.000  $\chi^2/\text{NDF}$ :80797.9/2

0.018+/-0.000  $\chi^2/\text{NDF}$ : 878344.5/14

0.017+/-0.000  $\chi^2/\text{NDF}$ : 638193.5/14

# yield\_bpm4eY\_mean vs slug



Right In: 1.049+/-0.000  $\chi^2/\text{NDF}$ : 10266738028.3/9

Left Out: 1.175+/-0.000  $\chi^2/\text{NDF}$ : 7323324.2/4

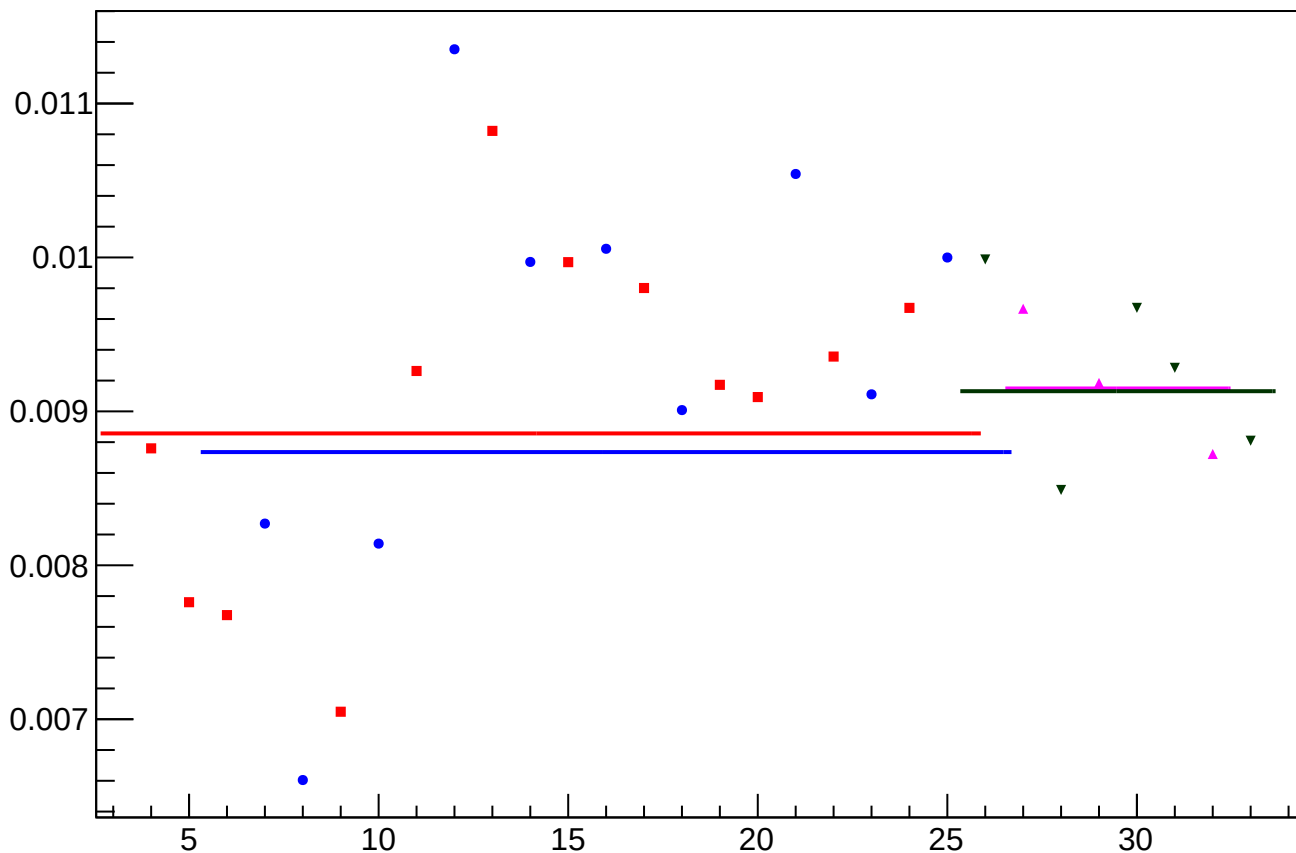
1.083+/-0.000  $\chi^2/\text{NDF}$ : 10613555069.6/14

Right Out: 0.978+/-0.000  $\chi^2/\text{NDF}$ : 9897401284.9/11

1.032+/-0.000  $\chi^2/\text{NDF}$ : 10736196411.0/14

Left In: 1.175+/-0.000  $\chi^2/\text{NDF}$ : 8129337.4/2

yield\_bpm4eY\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 359497.5/9

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :18648.9/4

Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 223846.5/11

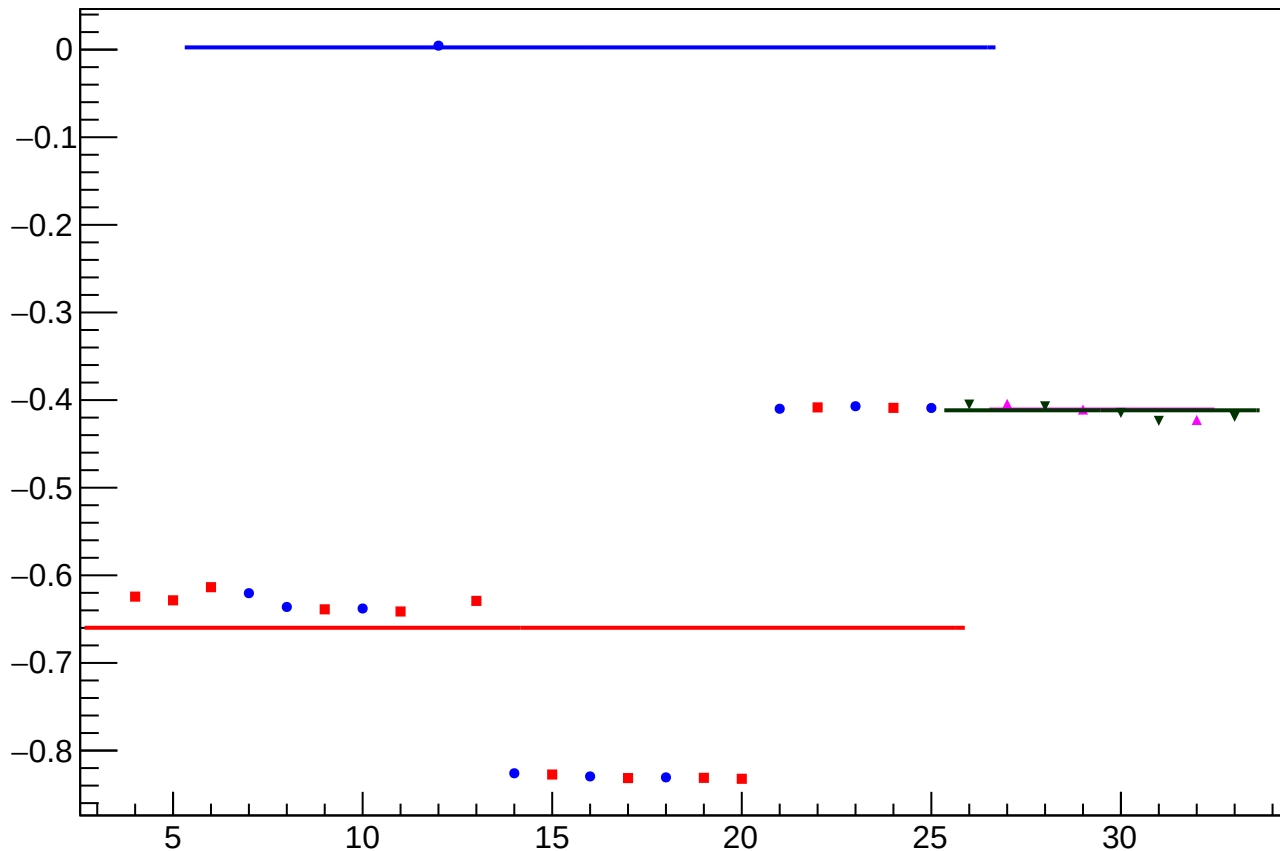
Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :8882.9/2

0.009+/-0.000  $\chi^2/\text{NDF}$ : 384824.2/14

0.009+/-0.000  $\chi^2/\text{NDF}$ : 236361.2/14



# yield\_bpm4acX\_mean vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 51925247581.1/9

Left Out: -0.412+/-0.000  $\chi^2/\text{NDF}$ : 1525499.5/4

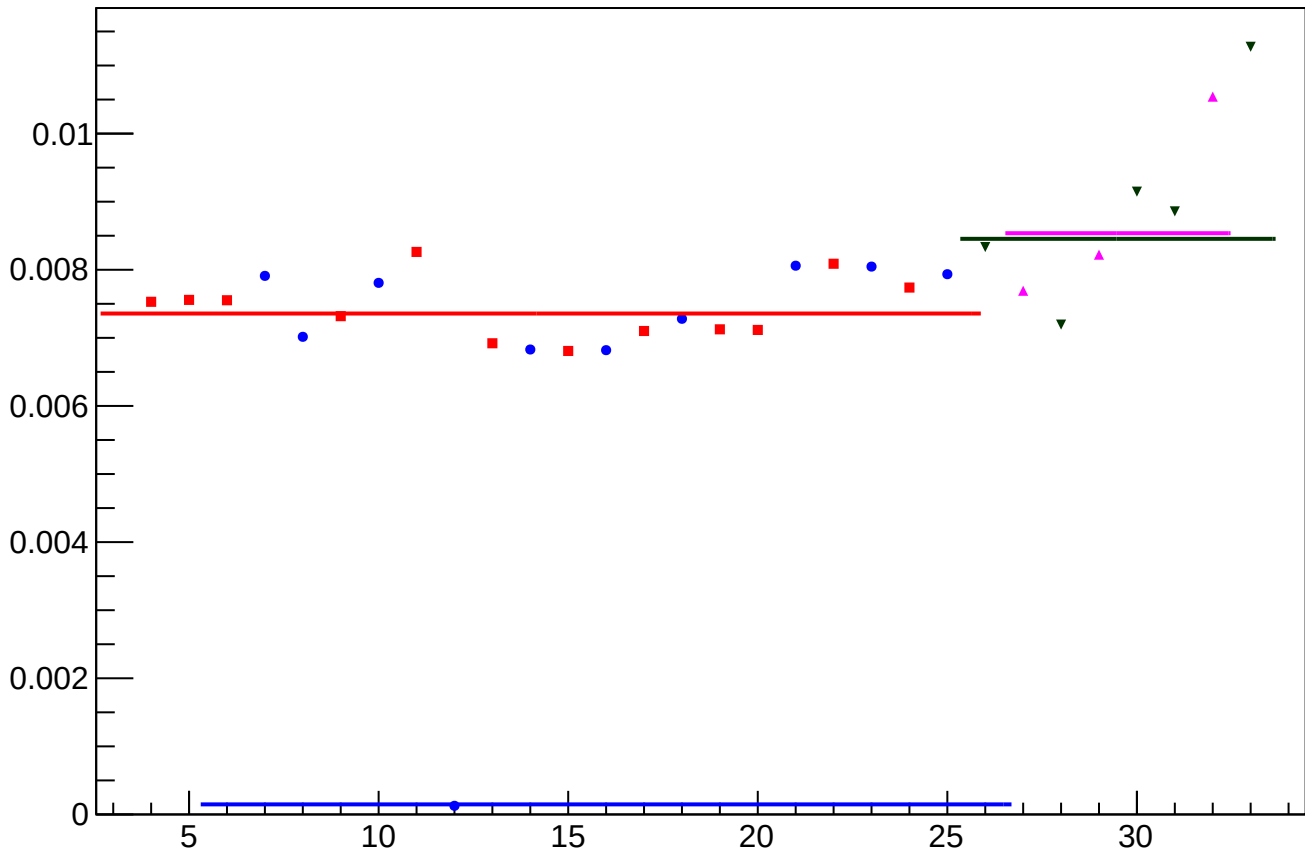
Right Out: -0.660+/-0.000  $\chi^2/\text{NDF}$ : 2254569212.9/11

Left In: -0.411+/-0.000  $\chi^2/\text{NDF}$ : 1718222.9/2

0.002+/-0.000  $\chi^2/\text{NDF}$ : 57922170294.3/14

-0.604+/-0.000  $\chi^2/\text{NDF}$ : 3898550194.5/14

# yield\_bpm4acX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 11156093.4/9

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :112178.5/4

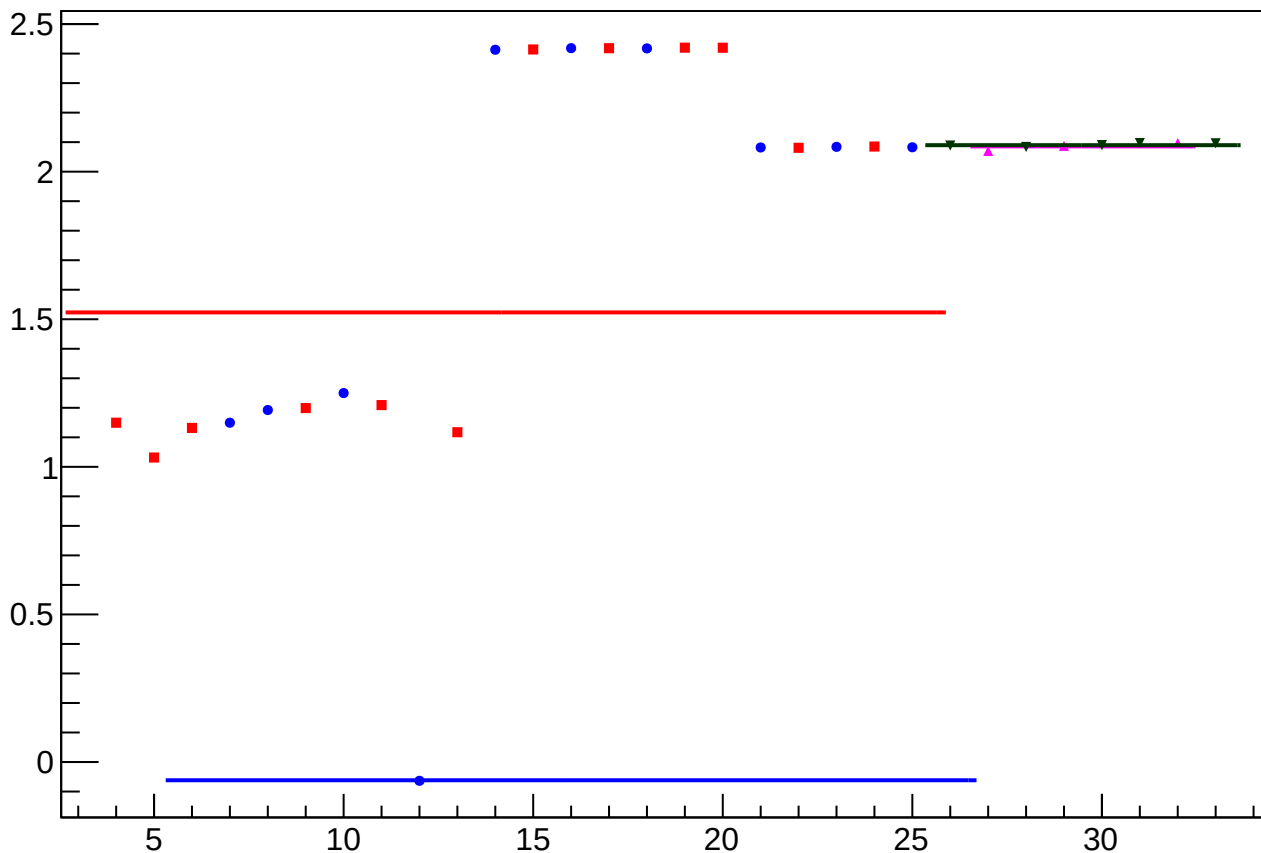
0.000+/-0.000  $\chi^2/\text{NDF}$ : 16090604.3/14

Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 46926.6/11

0.008+/-0.000  $\chi^2/\text{NDF}$ : 207002.0/14

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :86402.1/2

# yield\_bpm4acY\_mean vs slug



Right In: -0.062+/-0.000  $\chi^2/\text{NDF}$ : 126997111883.8/9

Left Out: 2.090+/-0.000  $\chi^2/\text{NDF}$ : 323247.3/4

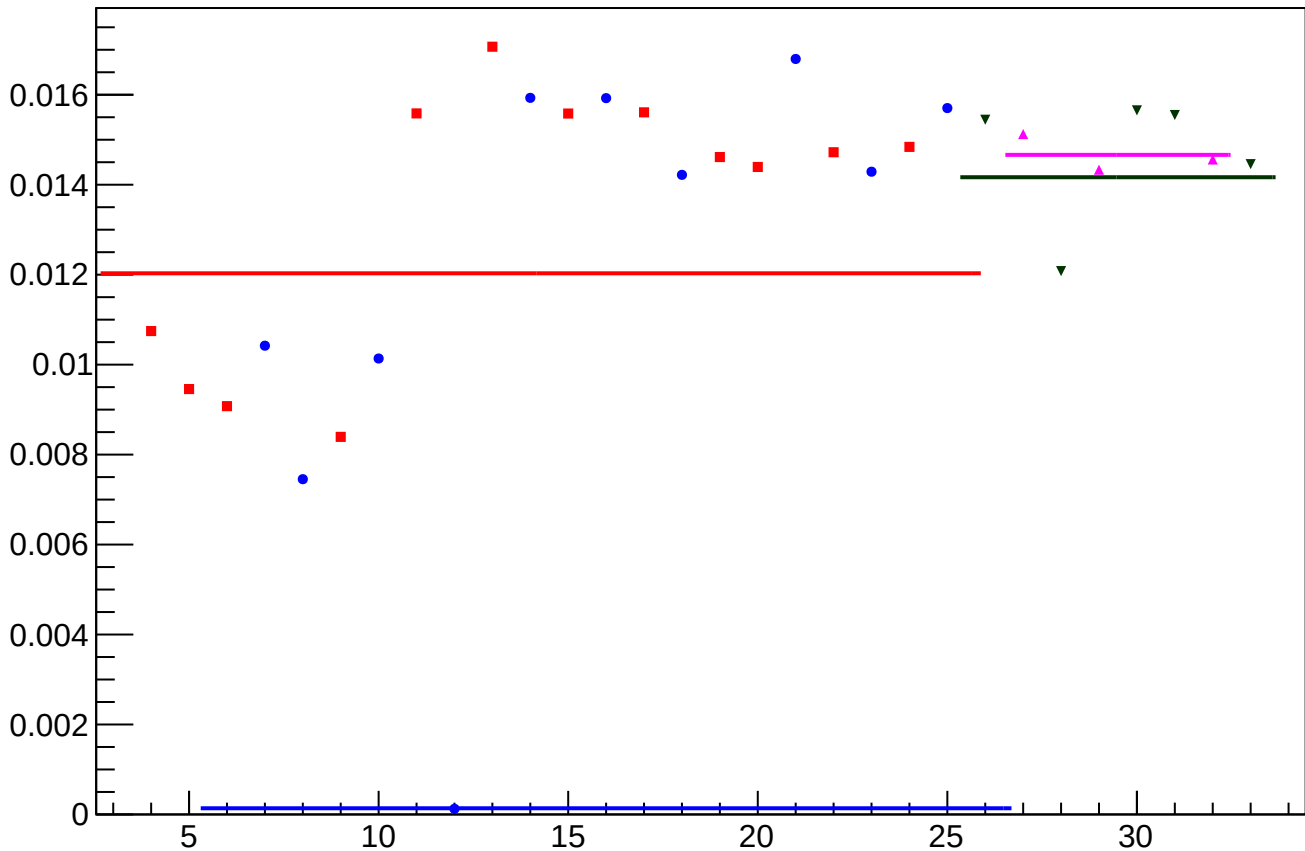
Right Out: 1.523+/-0.000  $\chi^2/\text{NDF}$ : 11362537231.2/11

Left In: 2.085+/-0.000  $\chi^2/\text{NDF}$ : 1412079.7/2

-0.061+/-0.000  $\chi^2/\text{NDF}$ : 182109964484.1/14

1.651+/-0.000  $\chi^2/\text{NDF}$ : 14196342343.6/14

# yield\_bpm4acY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 10894753.2/9

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ :56742.2/4

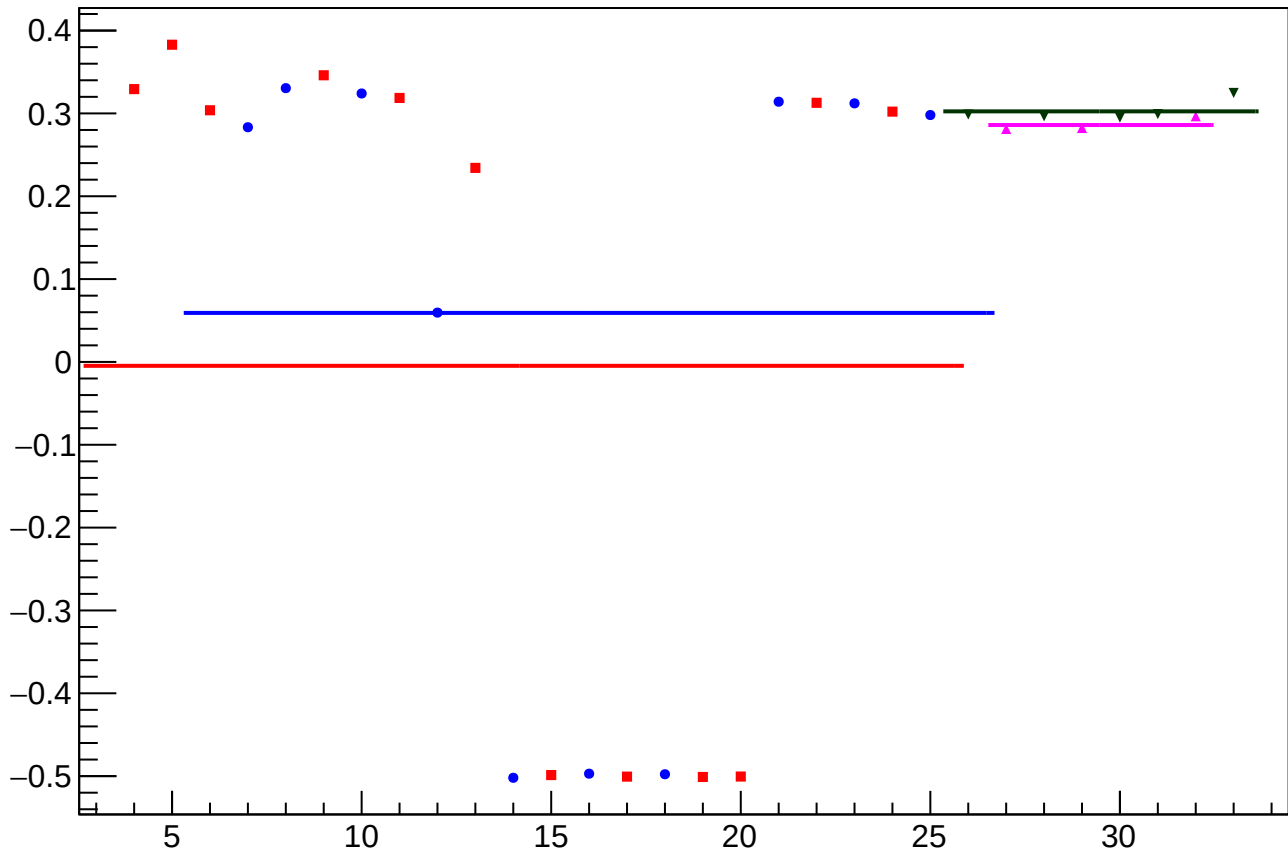
Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 858730.1/11

Left In: 0.015+/-0.000  $\chi^2/\text{NDF}$ :2477.1/2

0.000+/-0.000  $\chi^2/\text{NDF}$ : 15637736.2/14

0.013+/-0.000  $\chi^2/\text{NDF}$ : 985350.1/14

# yield\_bpm4ecX\_mean vs slug



Right In: 0.059±/-0.000  $\chi^2/\text{NDF}$ : 3541111693.7/9

Left Out: 0.302±/-0.000  $\chi^2/\text{NDF}$ : 637798.0/4

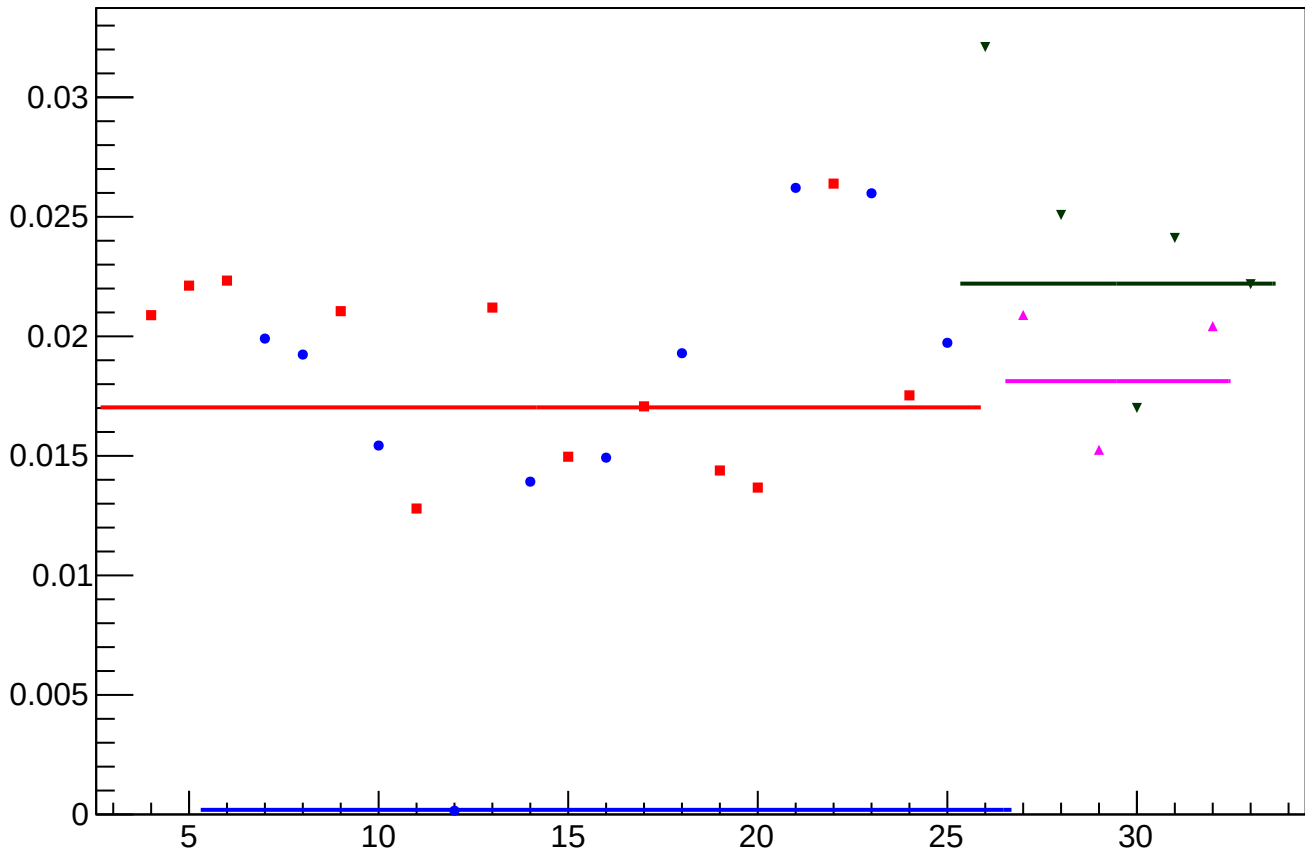
0.059±/-0.000  $\chi^2/\text{NDF}$ : 3823870539.5/14

Right Out: -0.005±/-0.000  $\chi^2/\text{NDF}$ : 3140963258.0/11

0.070±/-0.000  $\chi^2/\text{NDF}$ : 3583606497.2/14

Left In: 0.286±/-0.000  $\chi^2/\text{NDF}$ : 299416.0/2

# yield\_bpm4ecX\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 10989835.4/9

Left Out: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 201033.2/4

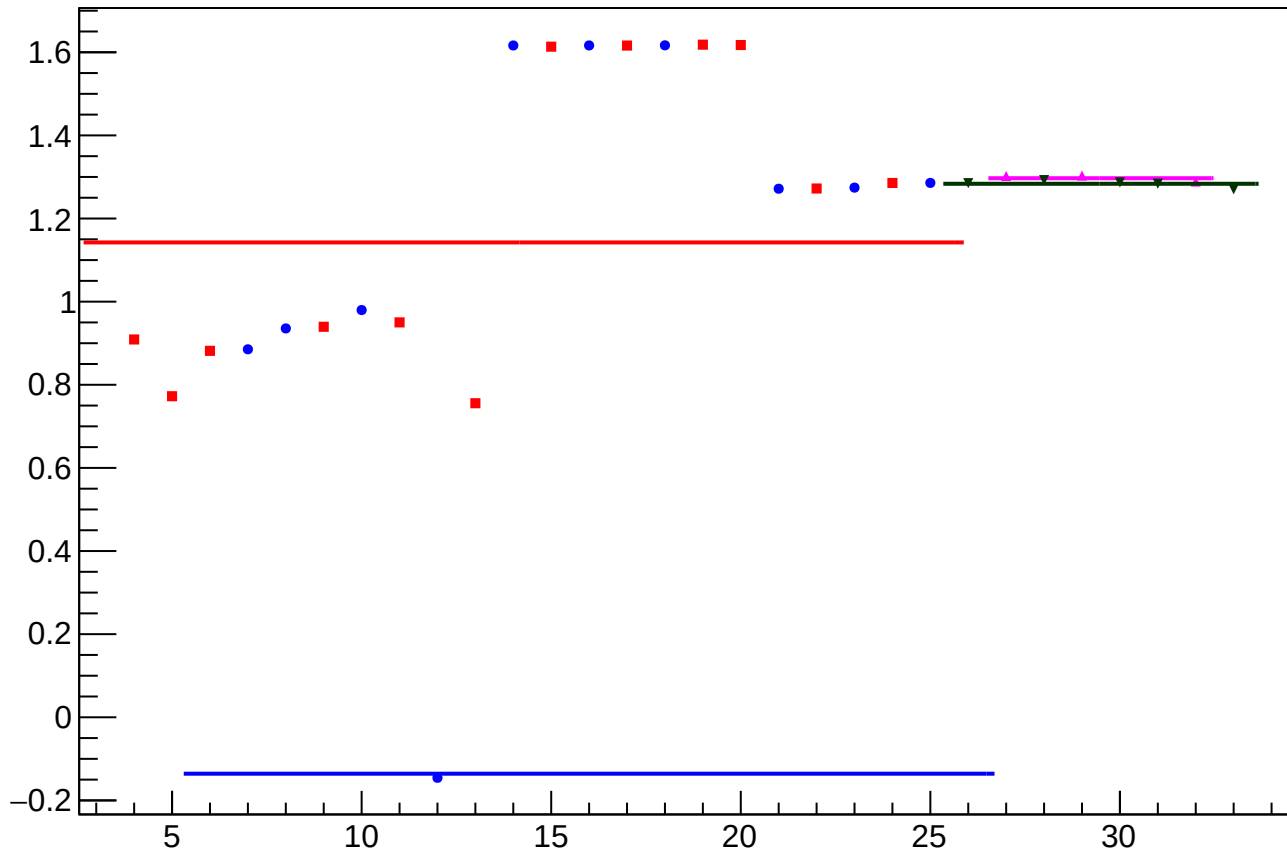
Right Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 584593.5/11

Left In: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 102818.5/2

0.000+/-0.000  $\chi^2/\text{NDF}$ : 15809935.4/14

0.017+/-0.000  $\chi^2/\text{NDF}$ : 700011.2/14

# yield\_bpm4ecY\_mean vs slug



Right In: -0.136+/-0.000  $\chi^2/\text{NDF}$ : 131146167218.9/9

Left Out: 1.284+/-0.000  $\chi^2/\text{NDF}$ :1368365.0/4

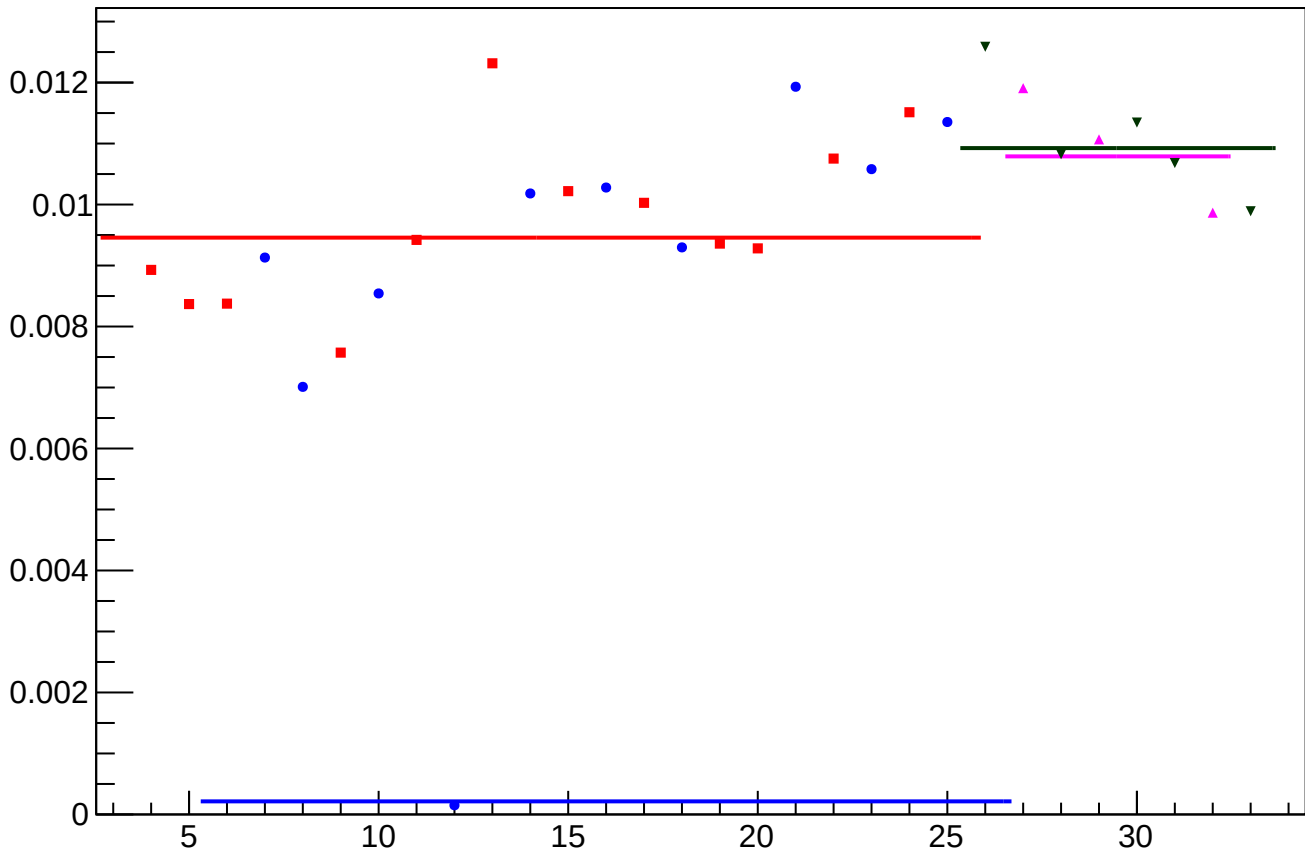
-0.133+/-0.000  $\chi^2/\text{NDF}$ : 172476698746.3/14

Right Out: 1.142+/-0.000  $\chi^2/\text{NDF}$ : 7015082012.3/11

1.179+/-0.000  $\chi^2/\text{NDF}$ : 7400179262.9/14

Left In: 1.297+/-0.000  $\chi^2/\text{NDF}$ :991170.6/2

# yield\_bpm4ecY\_rms vs slug



Right In: 0.000+/-0.000  $\chi^2/\text{NDF}$ : 10811399.3/9

Left Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ :28806.2/4

0.000+/-0.000  $\chi^2/\text{NDF}$ : 15547418.8/14

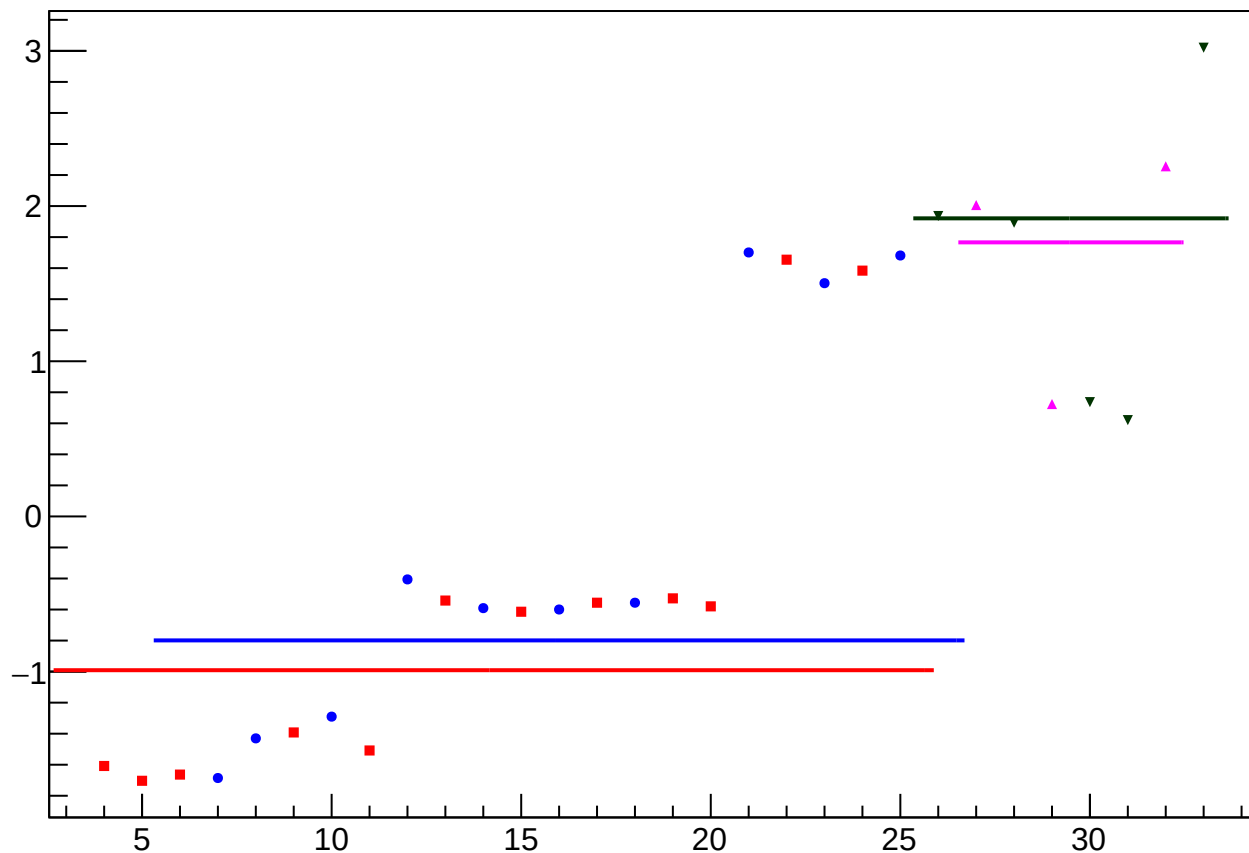
Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 269492.1/11

0.010+/-0.000  $\chi^2/\text{NDF}$ : 357417.8/14

Left In: 0.011+/-0.000  $\chi^2/\text{NDF}$ :30816.3/2



# yield\_bpm1X\_mean vs slug



Right In:  $-0.799 \pm 0.000$   $\chi^2/\text{NDF}: 2108272061.1/9$

Left Out:  $1.921 \pm 0.000$   $\chi^2/\text{NDF}: 71975253.3/4$

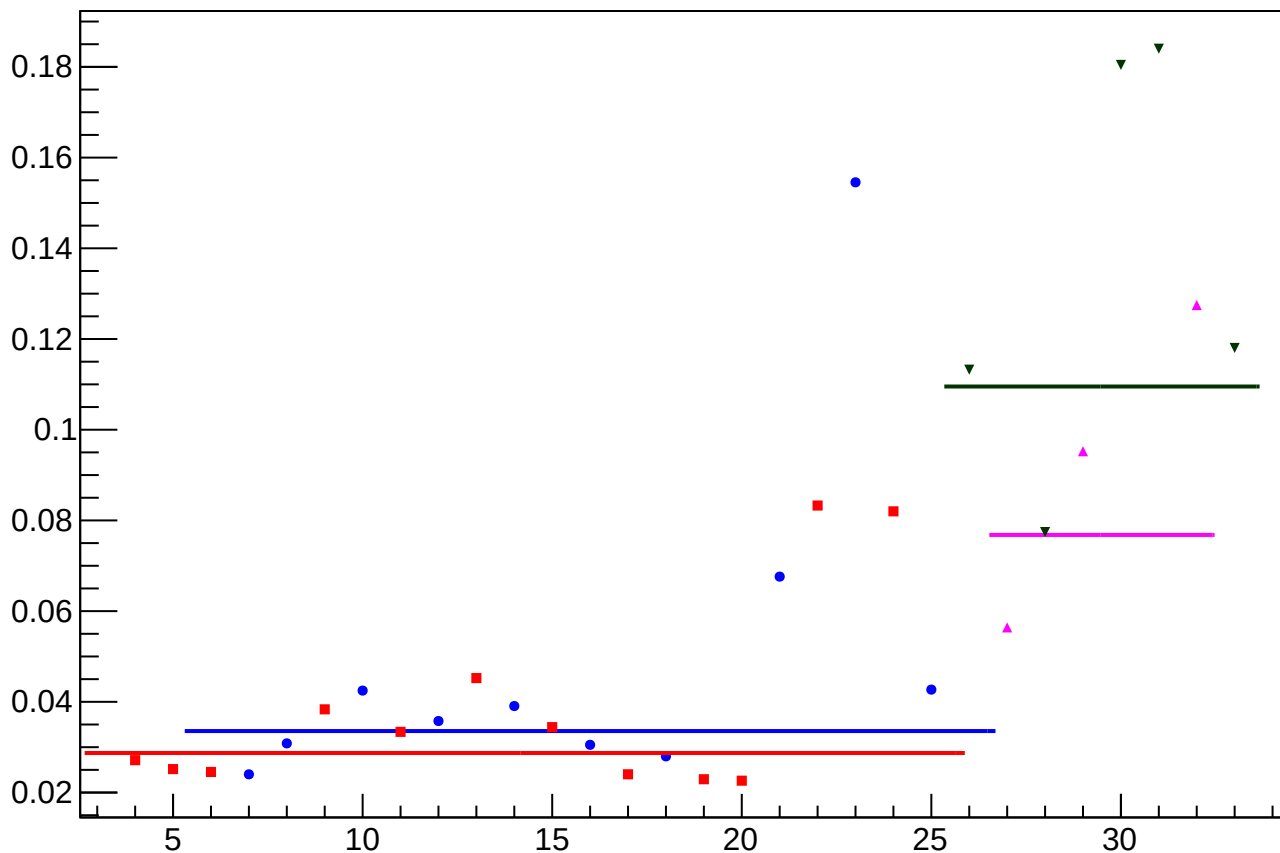
Right Out:  $-0.991 \pm 0.000$   $\chi^2/\text{NDF}: 2016562689.3/11$

Left In:  $1.766 \pm 0.000$   $\chi^2/\text{NDF}: 84098772.5/2$

$-0.698 \pm 0.000$   $\chi^2/\text{NDF}: 3241122300.2/14$

$-0.860 \pm 0.000$   $\chi^2/\text{NDF}: 4038346789.5/14$

# yield\_bpm1X\_rms vs slug



Right In: 0.034+/-0.000  $\chi^2/\text{NDF}$ : 1033776.5/9

Left Out: 0.110+/-0.000  $\chi^2/\text{NDF}$ : 398007.4/4

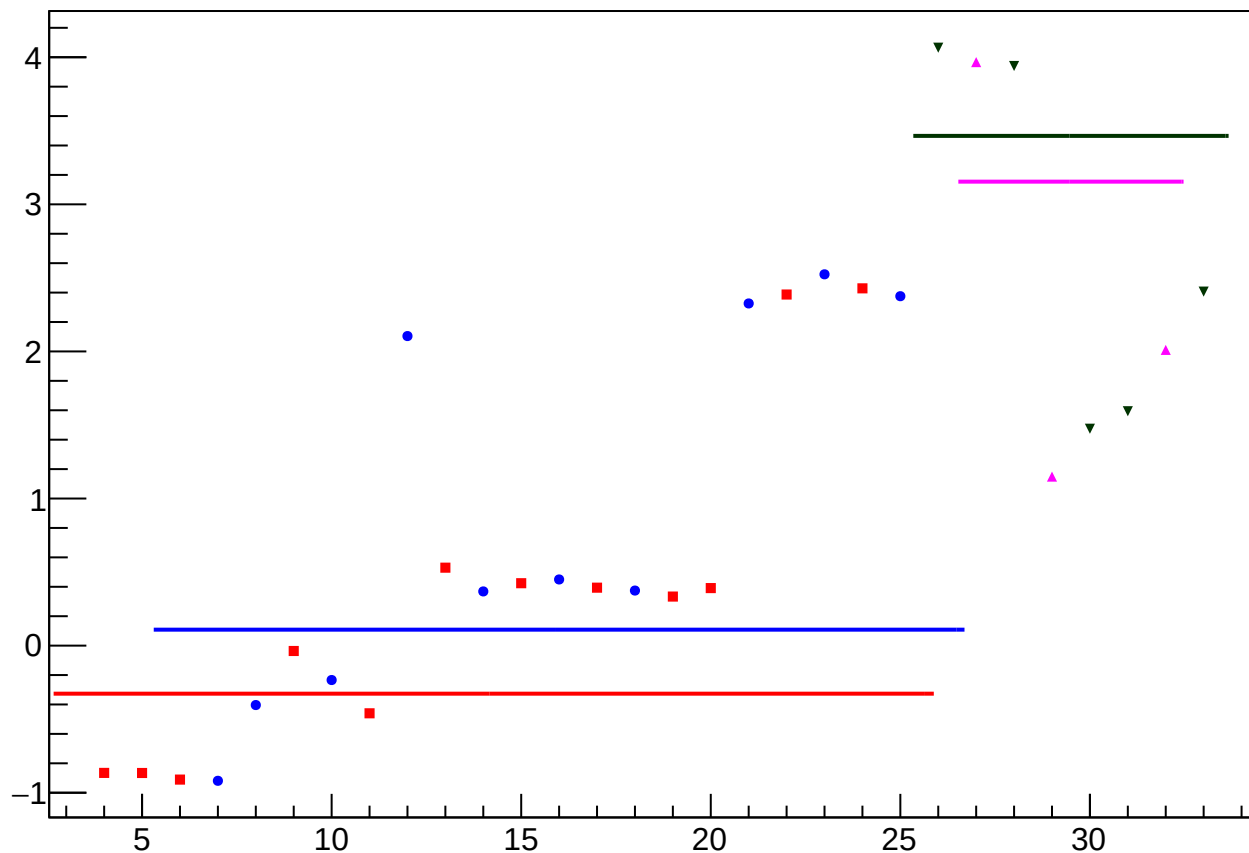
Right Out: 0.029+/-0.000  $\chi^2/\text{NDF}$ : 965052.5/11

Left In: 0.077+/-0.000  $\chi^2/\text{NDF}$ : 405507.3/2

0.036+/-0.000  $\chi^2/\text{NDF}$ : 3087186.8/14

0.031+/-0.000  $\chi^2/\text{NDF}$ : 2548919.9/14

# yield\_bpm1Y\_mean vs slug



Right In: 0.109+/-0.000  $\chi^2/\text{NDF}$ : 8111501728.9/9

Left Out: 3.465+/-0.000  $\chi^2/\text{NDF}$ : 269208893.6/4

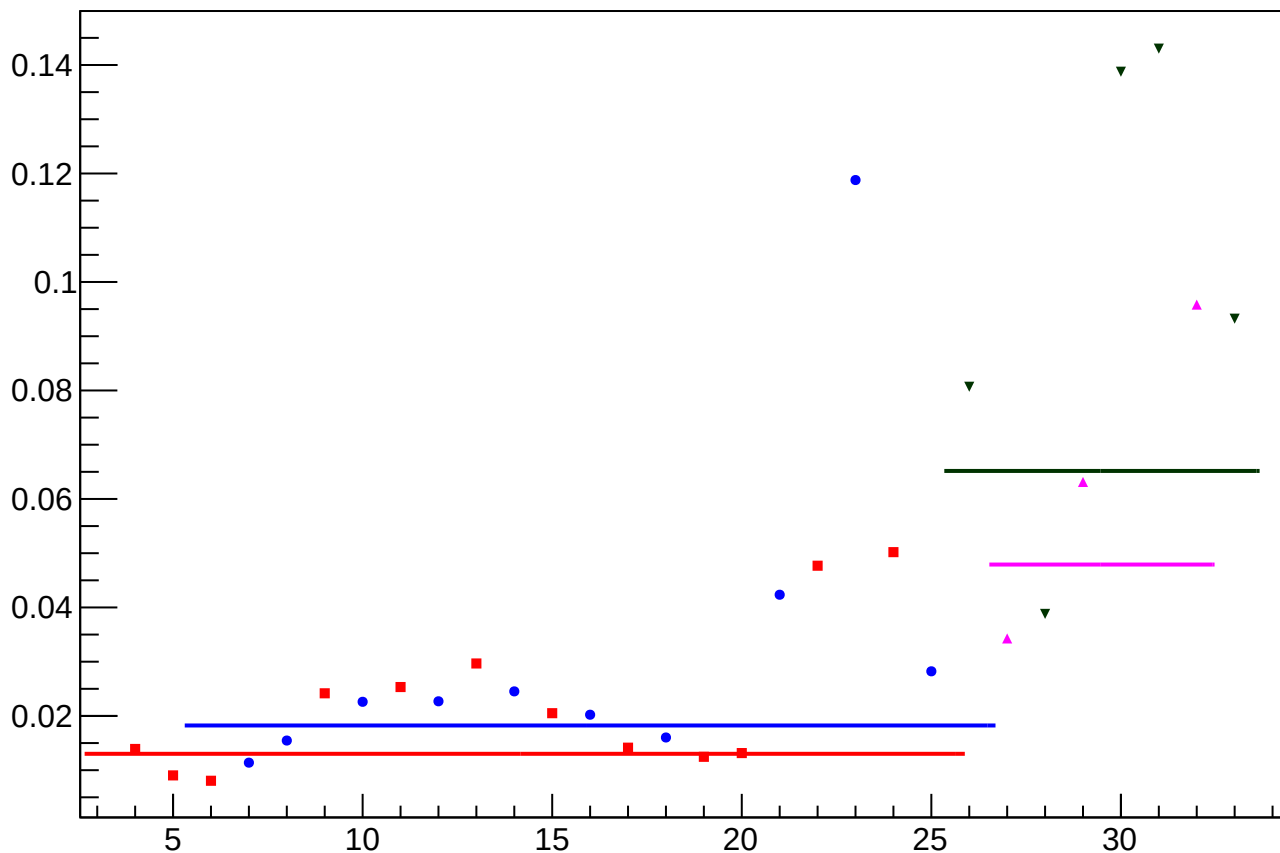
Right Out: -0.327+/-0.000  $\chi^2/\text{NDF}$ : 9287320551.8/11

Left In: 3.154+/-0.000  $\chi^2/\text{NDF}$ : 833548691.2/2

0.209+/-0.000  $\chi^2/\text{NDF}$ : 12086525581.0/14

-0.231+/-0.000  $\chi^2/\text{NDF}$ : 17065883829.0/14

# yield\_bpm1Y\_rms vs slug



Right In: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 1320521.5/9

Left Out: 0.065+/-0.000  $\chi^2/\text{NDF}$ : 833427.8/4

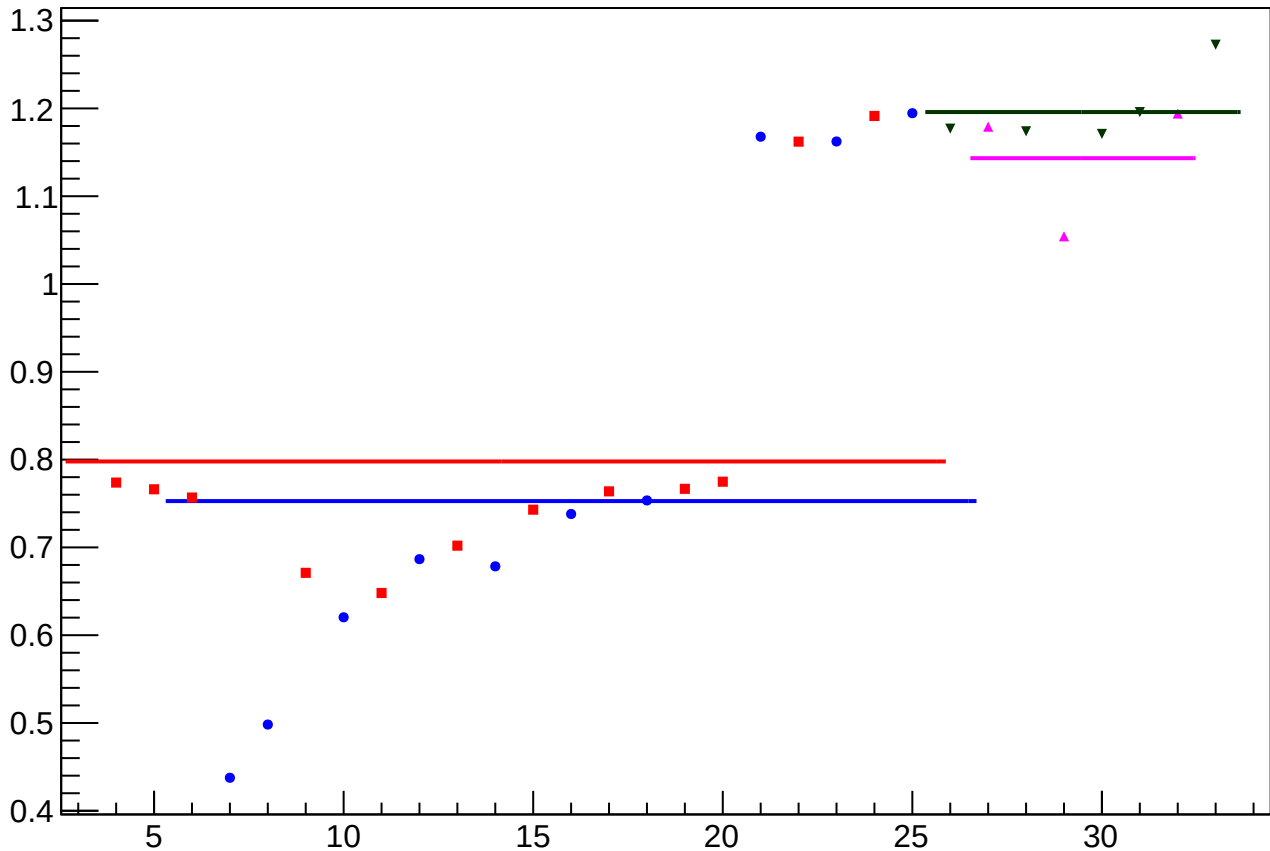
Right Out: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 1857519.6/11

Left In: 0.048+/-0.000  $\chi^2/\text{NDF}$ : 547414.3/2

0.020+/-0.000  $\chi^2/\text{NDF}$ : 3602209.3/14

0.014+/-0.000  $\chi^2/\text{NDF}$ : 3800455.0/14

# yield\_bpm11X\_mean vs slug



Right In: 0.753+/-0.000  $\chi^2/\text{NDF}$ : 845583832.8/9

Left Out: 1.196+/-0.000  $\chi^2/\text{NDF}$ : 7084484.5/4

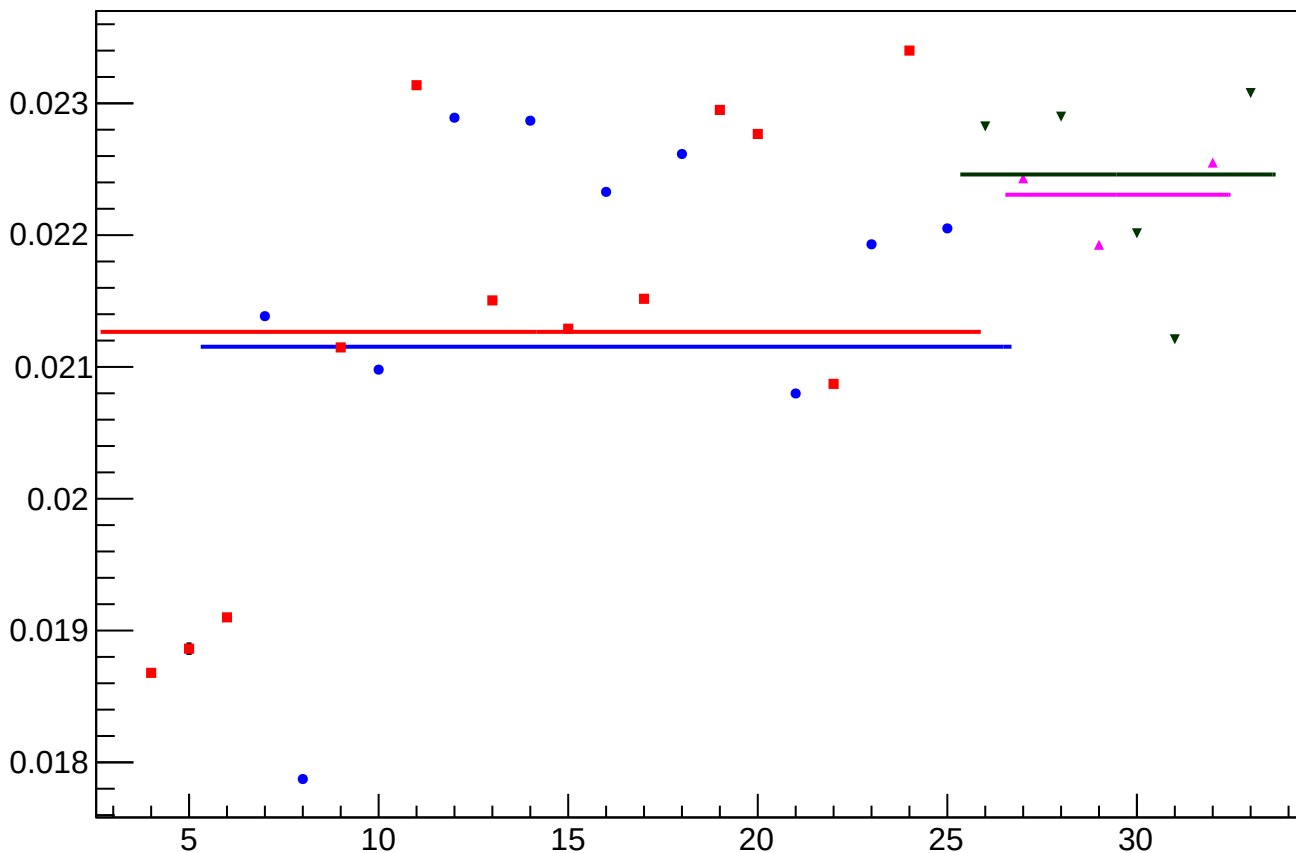
0.870+/-0.000  $\chi^2/\text{NDF}$ : 1573239946.8/14

Right Out: 0.798+/-0.000  $\chi^2/\text{NDF}$ : 394047843.5/11

0.891+/-0.000  $\chi^2/\text{NDF}$ : 852920480.9/14

Left In: 1.143+/-0.000  $\chi^2/\text{NDF}$ : 19646840.4/2

# yield\_bpm11X\_rms vs slug



Right In: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 89384.0/9

Left Out: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 4399.9/4

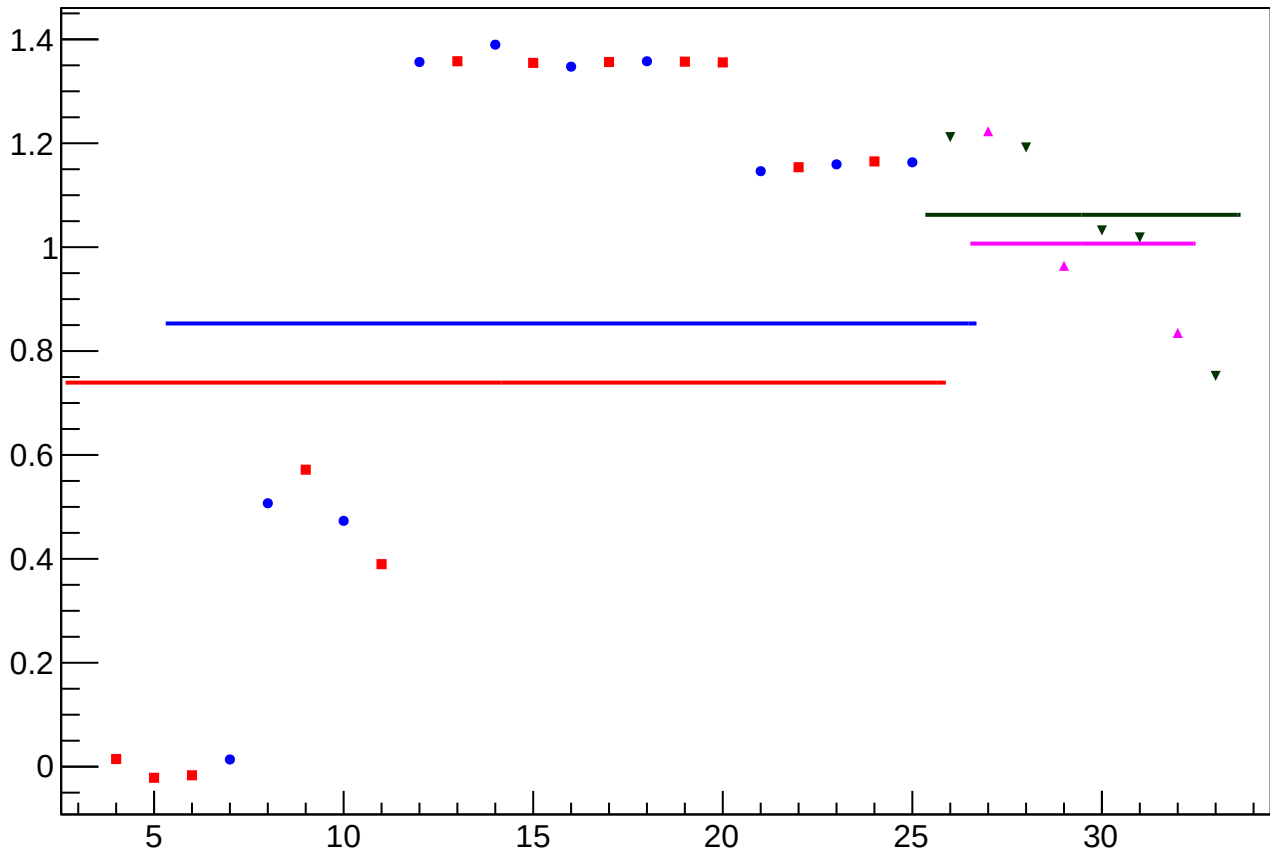
Right Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 58605.8/11

Left In: 0.022+/-0.000  $\chi^2/\text{NDF}$ : 731.3/2

0.021+/-0.000  $\chi^2/\text{NDF}$ : 106319.3/14

0.022+/-0.000  $\chi^2/\text{NDF}$ : 67304.8/14

# yield\_bpm11Y\_mean vs slug



Right In: 0.853+/-0.000  $\chi^2/\text{NDF}$ : 104764240658.7/9

Left Out: 1.062+/-0.000  $\chi^2/\text{NDF}$ : 4560514733.4/4

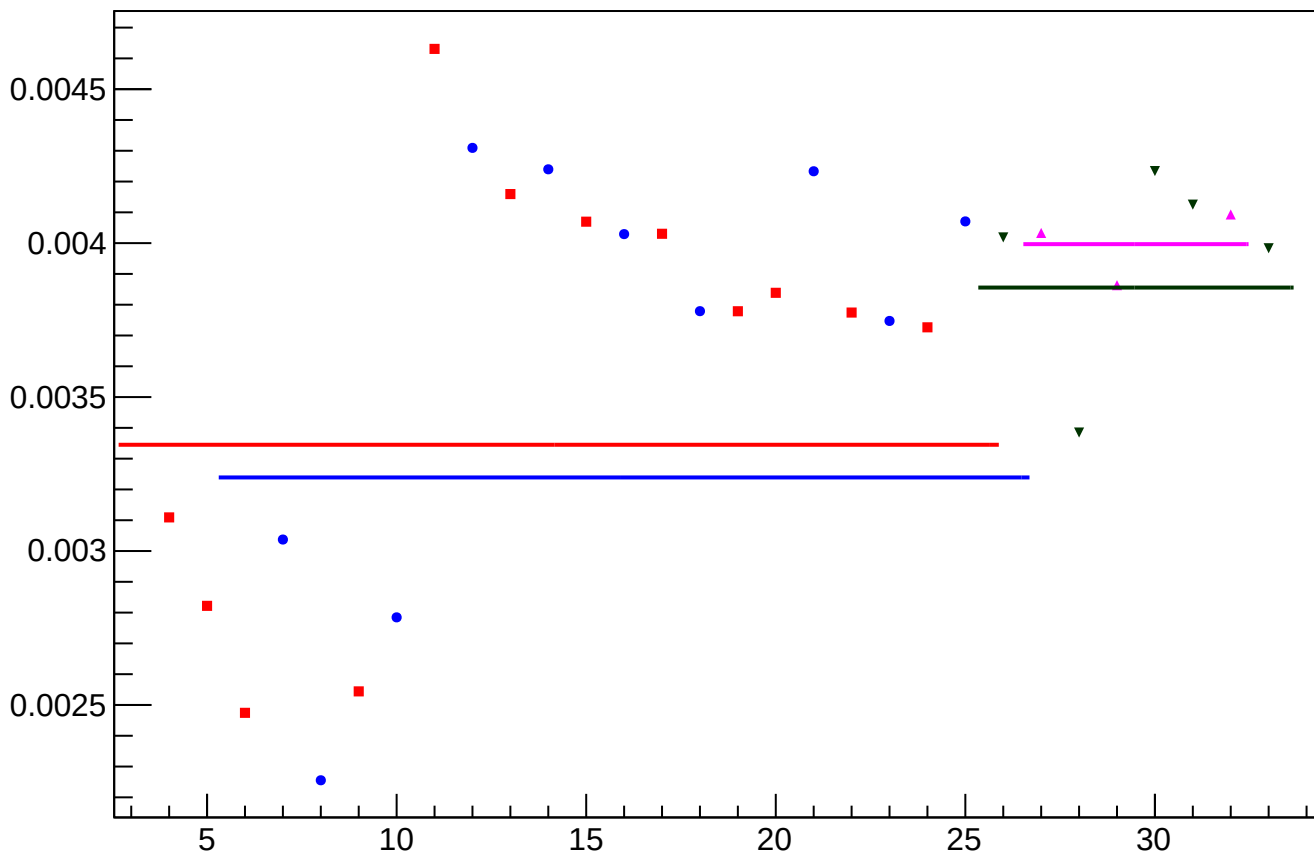
0.901+/-0.000  $\chi^2/\text{NDF}$ : 114800729480.3/14

Right Out: 0.739+/-0.000  $\chi^2/\text{NDF}$ : 163147236052.0/11

0.800+/-0.000  $\chi^2/\text{NDF}$ : 175775206987.7/14

Left In: 1.007+/-0.000  $\chi^2/\text{NDF}$ : 4045265386.0/2

# yield\_bpm11Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 745700.6/9

Left Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ :37053.7/4

Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 574504.0/11

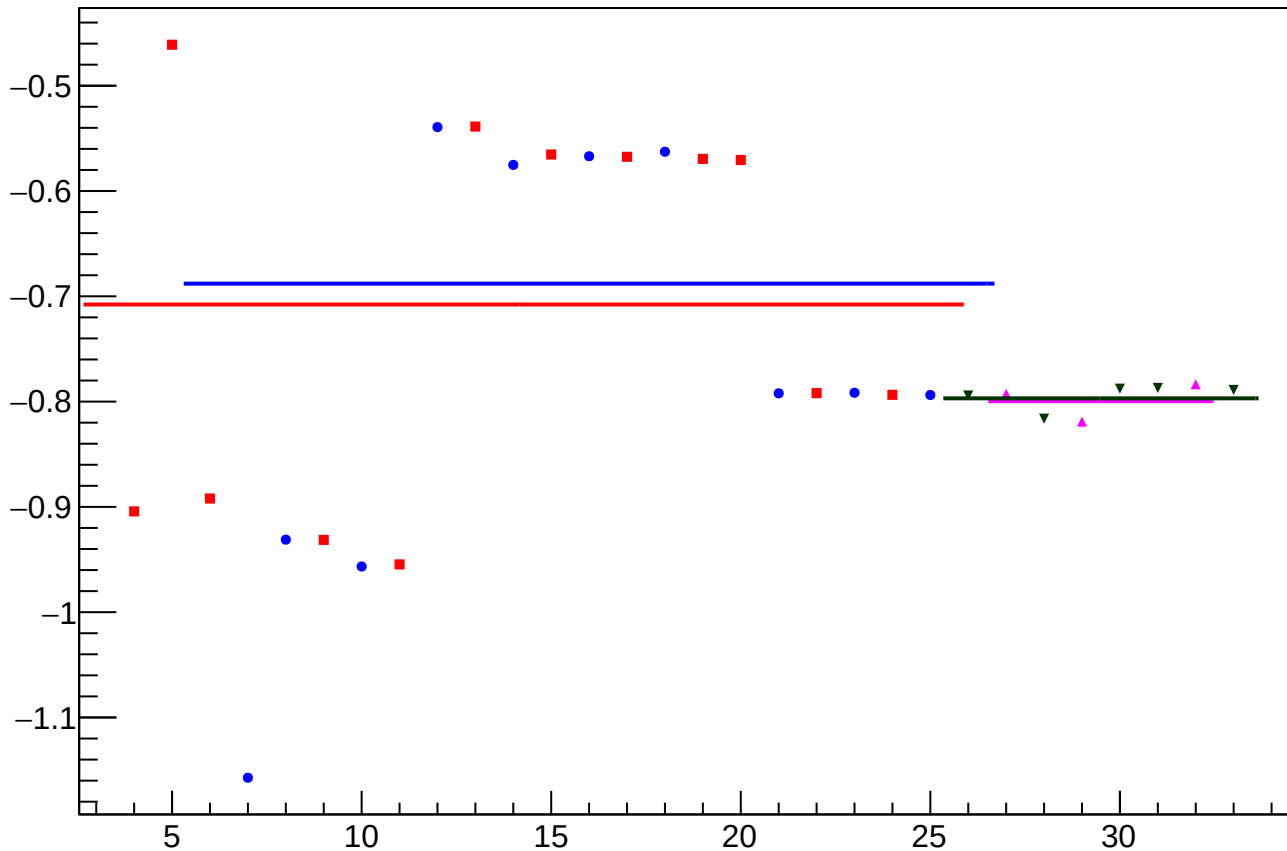
Left In: 0.004+/-0.000  $\chi^2/\text{NDF}$ :2941.6/2

0.003+/-0.000  $\chi^2/\text{NDF}$ : 877957.4/14

0.003+/-0.000  $\chi^2/\text{NDF}$ : 679252.4/14



# yield\_bpm12X\_mean vs slug



Right In: -0.688+/-0.000  $\chi^2/\text{NDF}$ : 1835449316.2/9

Left Out: -0.797+/-0.000  $\chi^2/\text{NDF}$ : 5654350.0/4

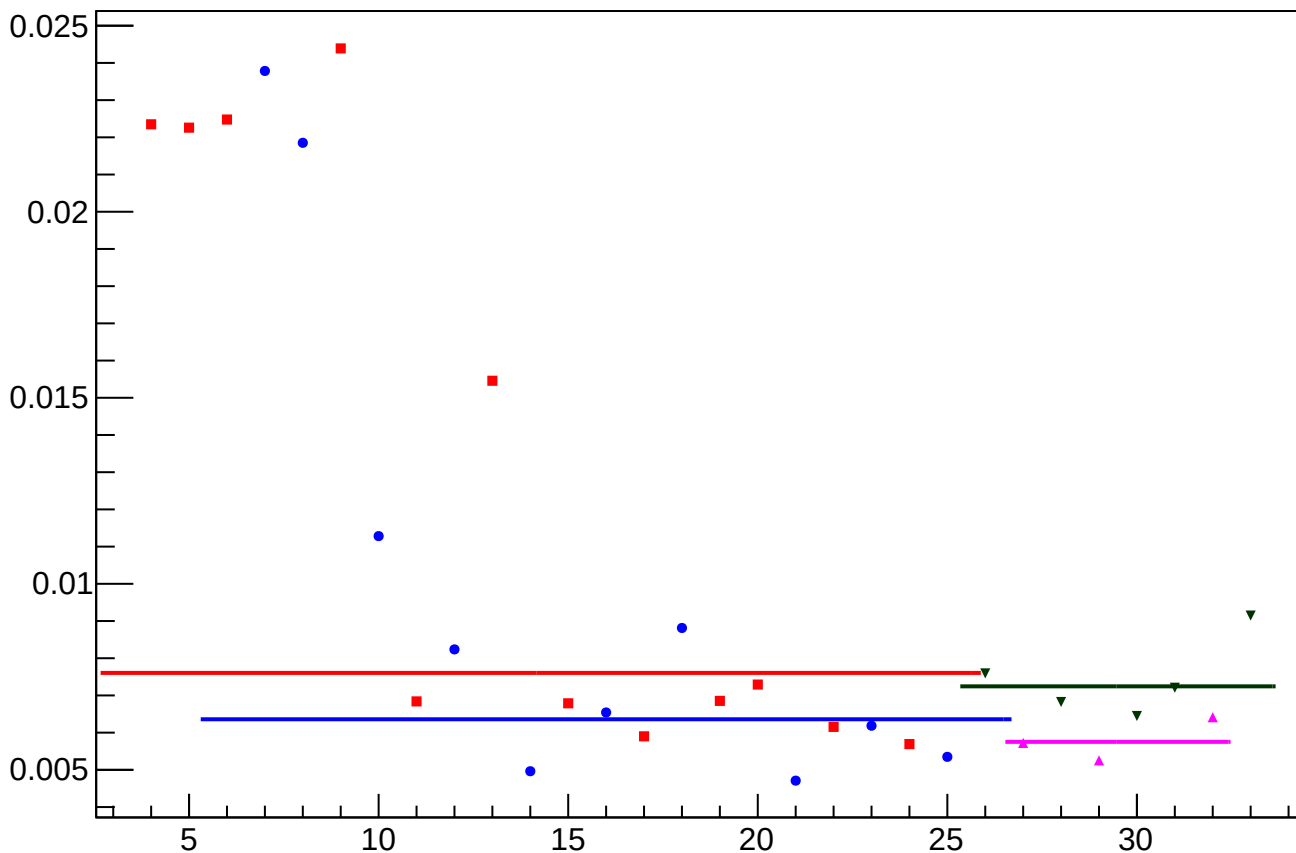
-0.717+/-0.000  $\chi^2/\text{NDF}$ : 2170783919.9/14

Right Out: -0.708+/-0.000  $\chi^2/\text{NDF}$ : 1719681121.8/11

-0.747+/-0.000  $\chi^2/\text{NDF}$ : 1998986326.2/14

Left In: -0.800+/-0.000  $\chi^2/\text{NDF}$ : 12753796.7/2

# yield\_bpm12X\_rms vs slug



Right In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 1833155.9/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :54430.3/4

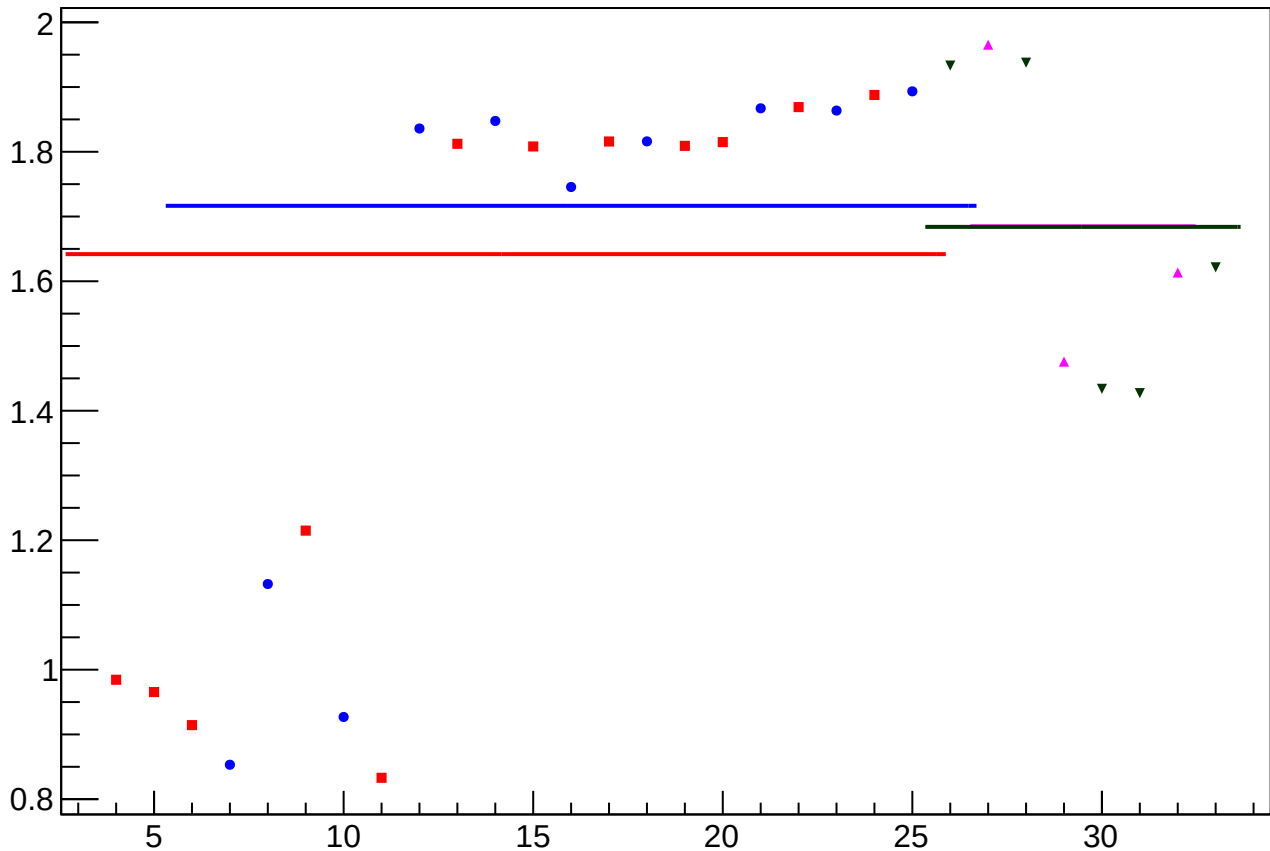
0.007+/-0.000  $\chi^2/\text{NDF}$ : 1931075.1/14

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 2293990.6/11

0.007+/-0.000  $\chi^2/\text{NDF}$ : 2535439.5/14

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :24202.0/2

# yield\_bpm12Y\_mean vs slug



Right In: 1.717 $\pm$ 0.000  $\chi^2$ /NDF: 10938016030.0/9

Left Out: 1.684 $\pm$ 0.000  $\chi^2$ /NDF: 2772548463.6/4

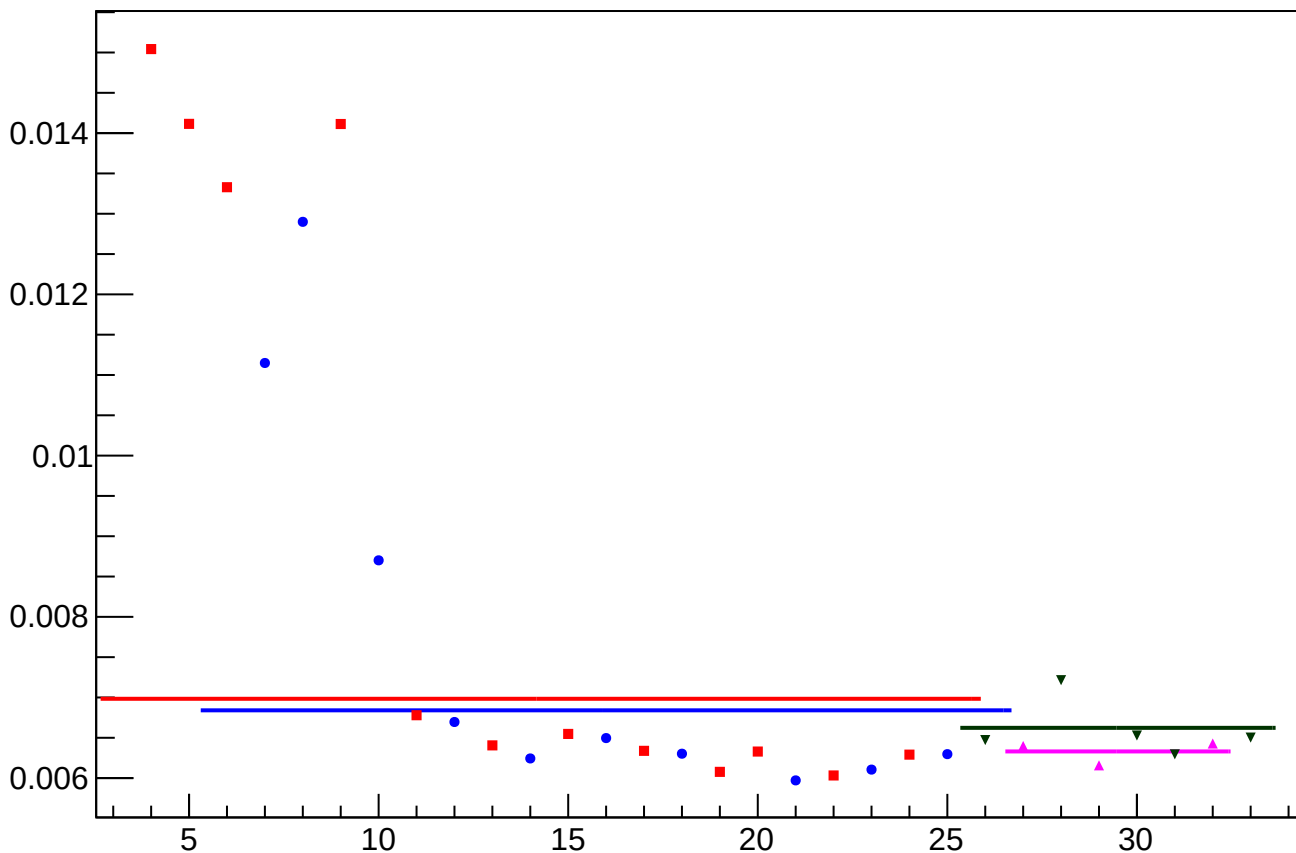
1.706 $\pm$ 0.000  $\chi^2$ /NDF: 13750038275.0/14

Right Out: 1.642 $\pm$ 0.000  $\chi^2$ /NDF: 15751478429.4/11

1.657 $\pm$ 0.000  $\chi^2$ /NDF: 18283263699.8/14

Left In: 1.685 $\pm$ 0.000  $\chi^2$ /NDF: 2460907352.8/2

# yield\_bpm12Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 600956.3/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :11237.4/4

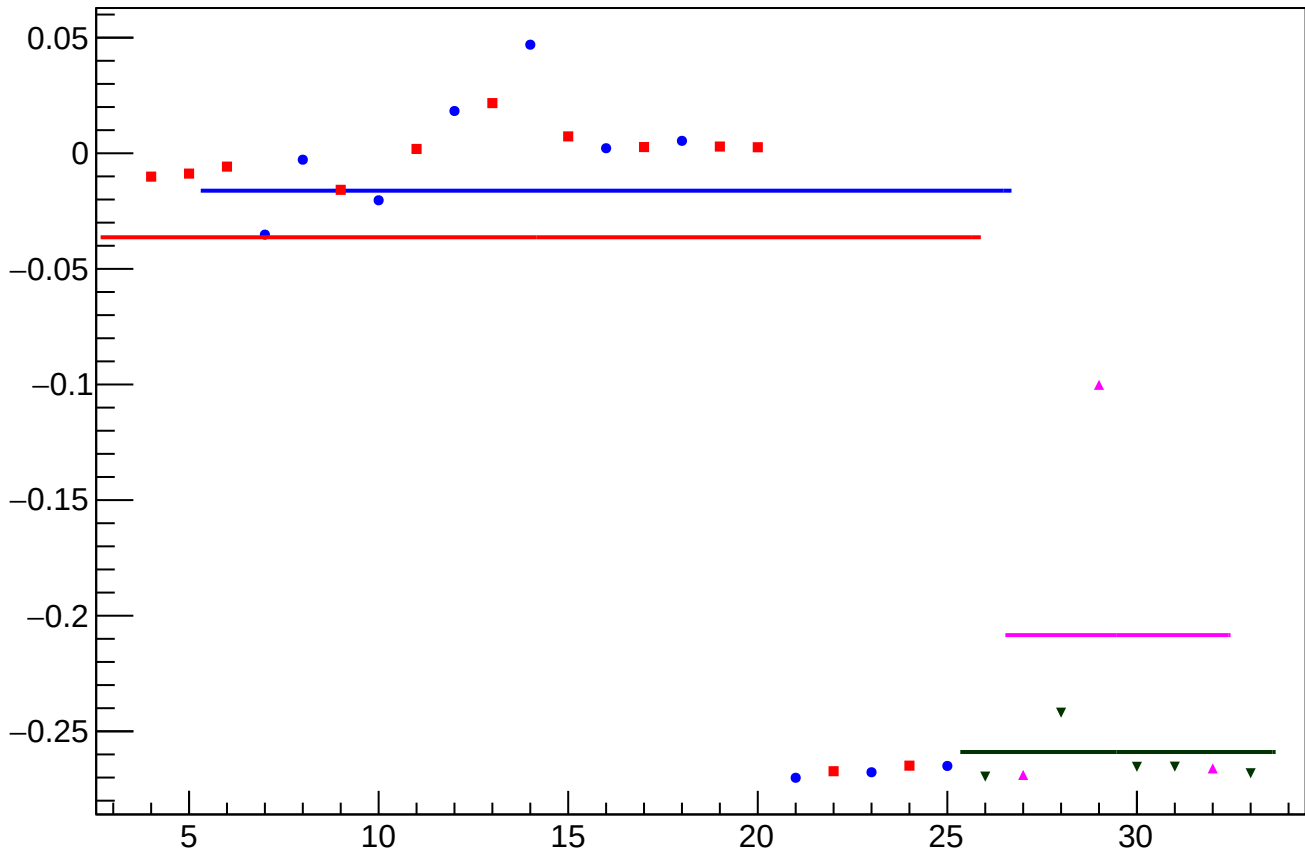
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 973579.9/11

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :1701.9/2

0.007+/-0.000  $\chi^2/\text{NDF}$ : 615711.9/14

0.007+/-0.000  $\chi^2/\text{NDF}$ : 1007995.6/14

# yield\_bpm16X\_mean vs slug



Right In: -0.016+/-0.000  $\chi^2/\text{NDF}$ : 1451636458.8/9

Left Out: -0.259+/-0.000  $\chi^2/\text{NDF}$ : 5997554.2/4

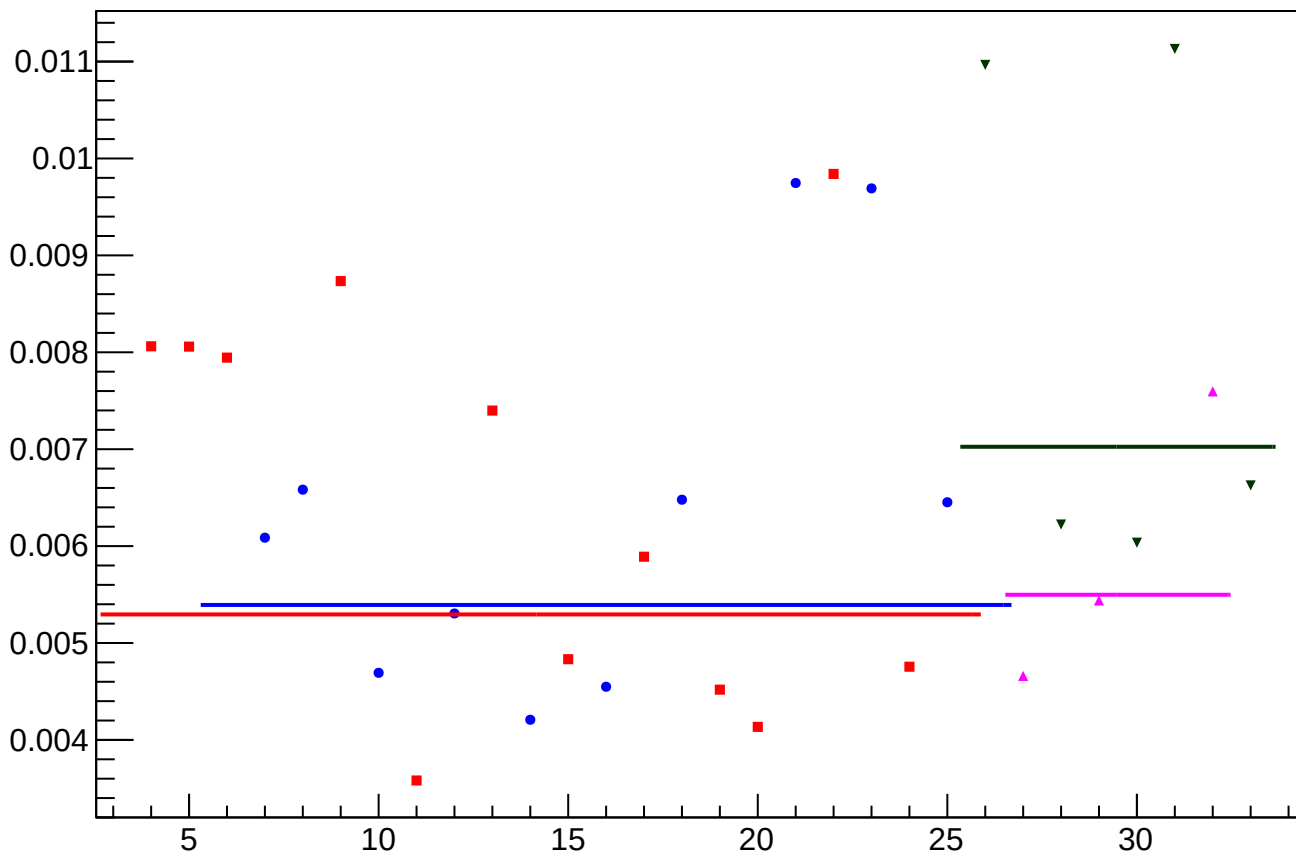
-0.062+/-0.000  $\chi^2/\text{NDF}$ : 3549697445.1/14

Right Out: -0.036+/-0.000  $\chi^2/\text{NDF}$ : 1742147509.6/11

-0.082+/-0.000  $\chi^2/\text{NDF}$ : 3721913690.6/14

Left In: -0.208+/-0.000  $\chi^2/\text{NDF}$ : 454425848.5/2

# yield\_bpm16X\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 809148.4/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :265481.4/4

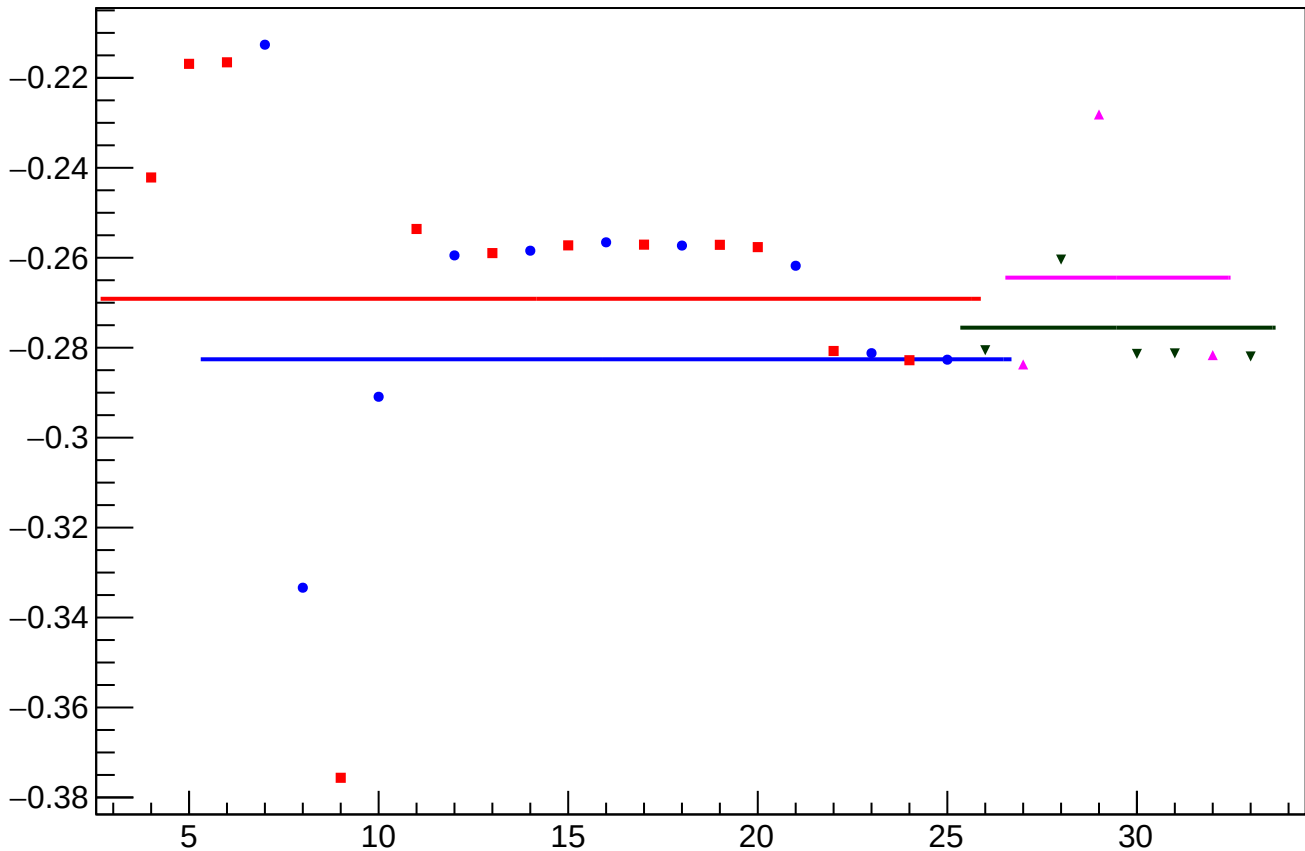
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 1206788.4/11

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ :163371.6/2

0.006+/-0.000  $\chi^2/\text{NDF}$ : 1263780.9/14

0.005+/-0.000  $\chi^2/\text{NDF}$ : 1374402.5/14

# yield\_bpm16Y\_mean vs slug



Right In: -0.283+/-0.000  $\chi^2/\text{NDF}$ : 1067042959.0/9

Left Out: -0.276+/-0.000  $\chi^2/\text{NDF}$ : 26825815.5/4

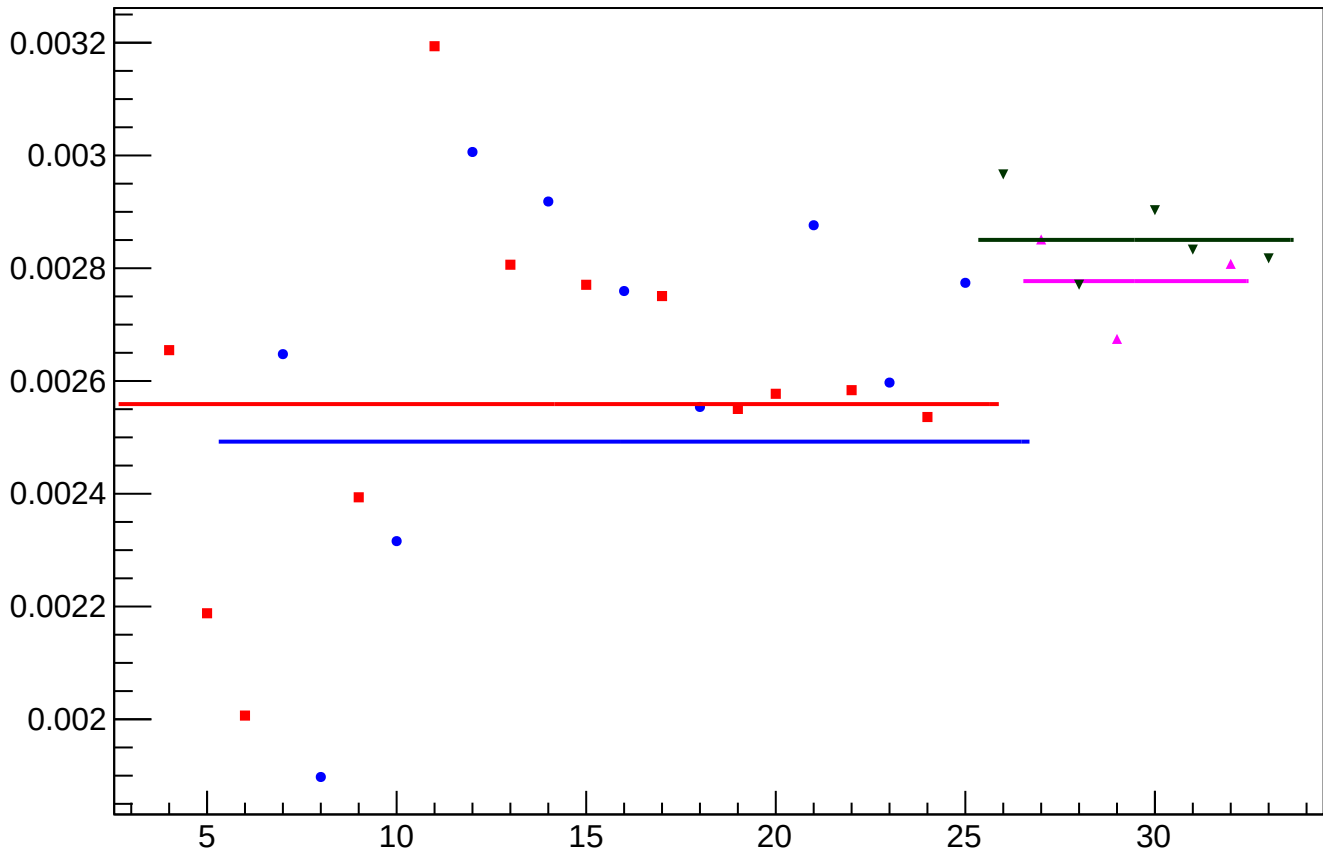
-0.281+/-0.000  $\chi^2/\text{NDF}$ : 1105409980.3/14

Right Out: -0.269+/-0.000  $\chi^2/\text{NDF}$ : 1935701786.6/11

-0.268+/-0.000  $\chi^2/\text{NDF}$ : 2153419527.2/14

Left In: -0.264+/-0.000  $\chi^2/\text{NDF}$ : 212446198.6/2

# yield\_bpm16Y\_rms vs slug



Right In: 0.002+/-0.000  $\chi^2/\text{NDF}$ : 304066.1/9

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :3041.6/4

0.003+/-0.000  $\chi^2/\text{NDF}$ : 366861.9/14

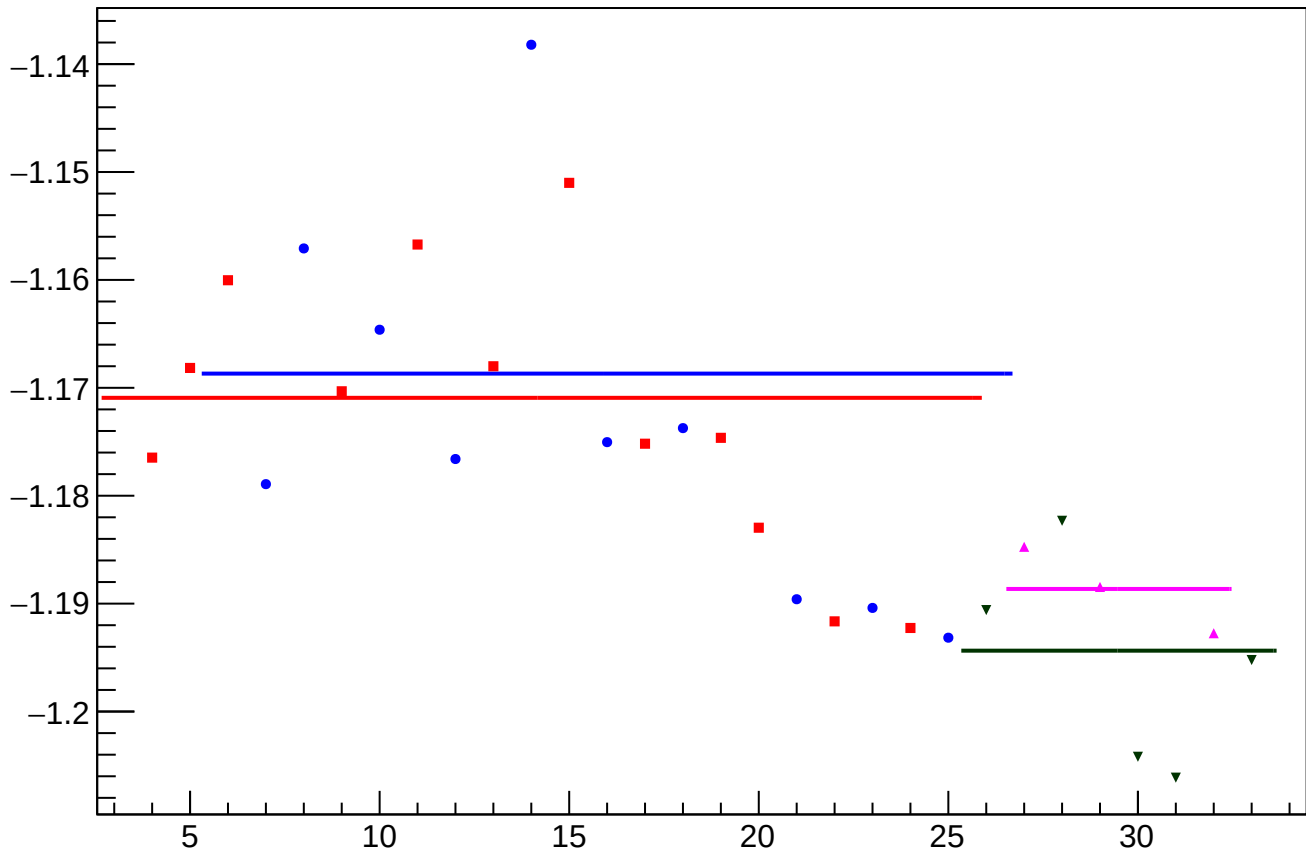
Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 176456.4/11

0.003+/-0.000  $\chi^2/\text{NDF}$ : 202729.0/14

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :3586.9/2



# yield\_bpm2i01X\_mean vs slug



Right In: -1.169+/-0.000  $\chi^2/\text{NDF}$ : 35531757.4/9

Left Out: -1.194+/-0.000  $\chi^2/\text{NDF}$ : 3417444.9/4

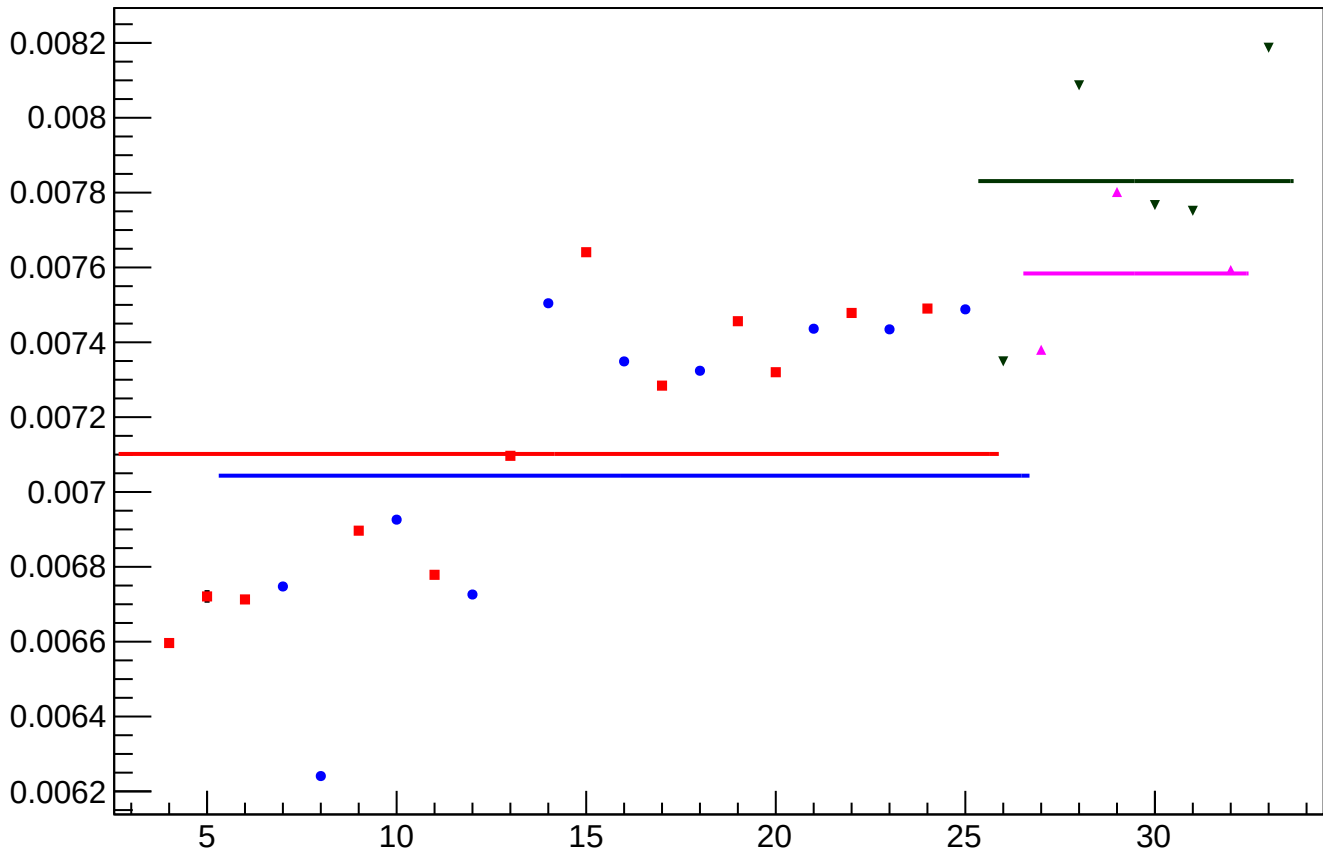
Right Out: -1.171+/-0.000  $\chi^2/\text{NDF}$ : 18815971.2/11

Left In: -1.189+/-0.000  $\chi^2/\text{NDF}$ : 494715.8/2

-1.175+/-0.000  $\chi^2/\text{NDF}$ : 60024384.7/14

-1.176+/-0.000  $\chi^2/\text{NDF}$ : 29635395.7/14

# yield\_bpm2i01X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 54602.2/9

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 7722.4/4

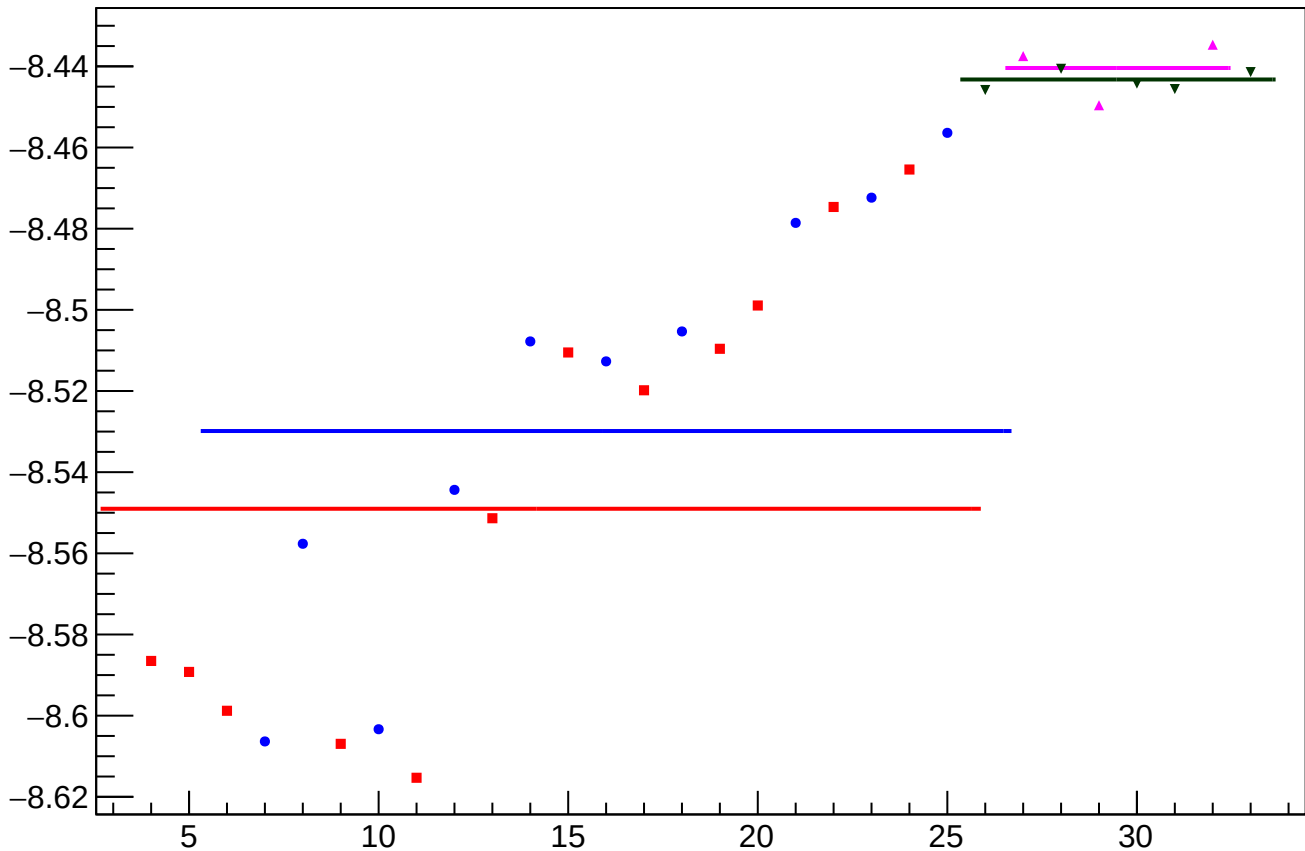
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 27872.8/11

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 2597.9/2

0.007+/-0.000  $\chi^2/\text{NDF}$ : 101942.7/14

0.007+/-0.000  $\chi^2/\text{NDF}$ : 45778.4/14

# yield\_bpm2i01Y\_mean vs slug



Right In:  $-8.530 \pm 0.000$   $\chi^2/\text{NDF}$ : 280483187.5/9

Left Out:  $-8.443 \pm 0.000$   $\chi^2/\text{NDF}$ : 252295.9/4

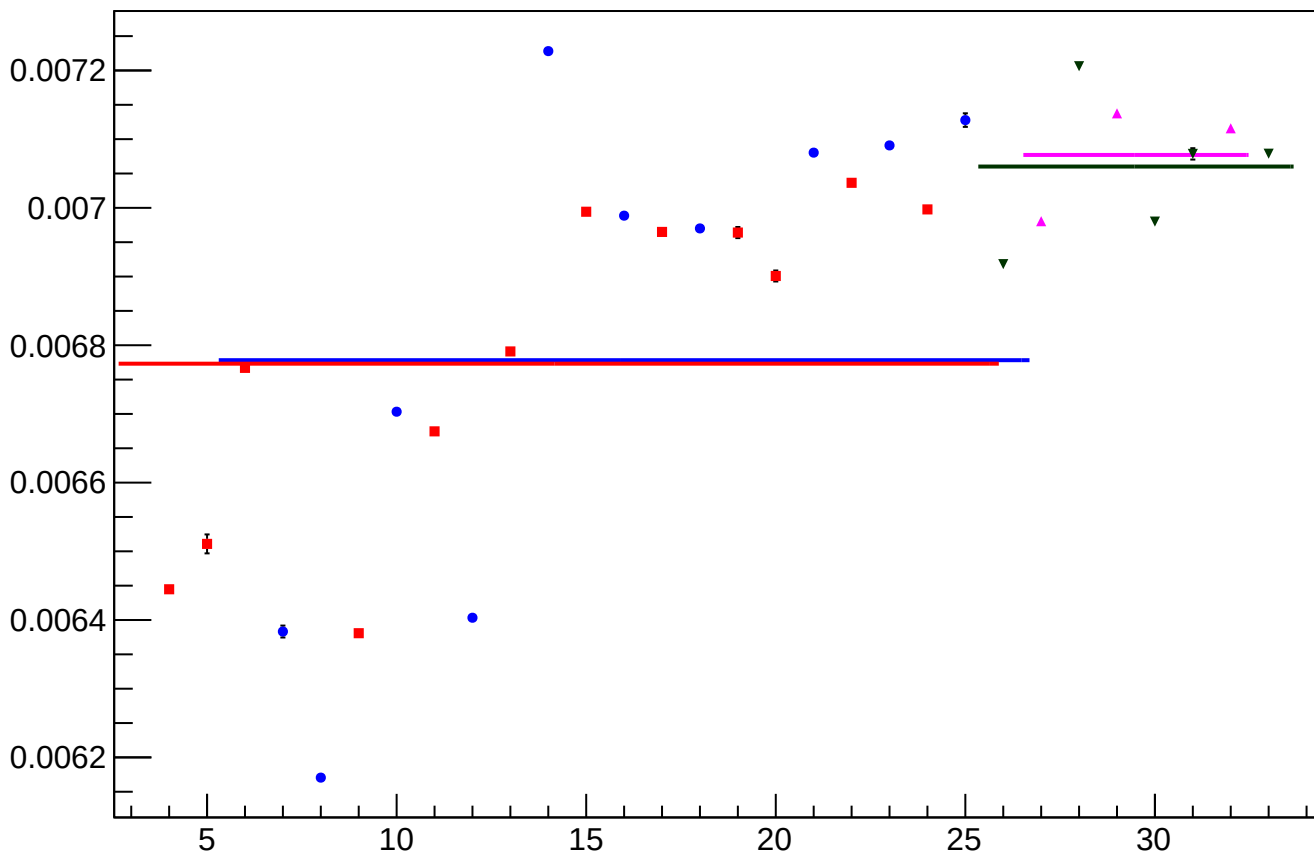
$-8.506 \pm 0.000$   $\chi^2/\text{NDF}$ : 569036364.7/14

Right Out:  $-8.549 \pm 0.000$   $\chi^2/\text{NDF}$ : 379238014.1/11

$-8.519 \pm 0.000$   $\chi^2/\text{NDF}$ : 826941286.3/14

Left In:  $-8.440 \pm 0.000$   $\chi^2/\text{NDF}$ : 2137264.4/2

# yield\_bpm2i01Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 39850.7/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :1166.5/4

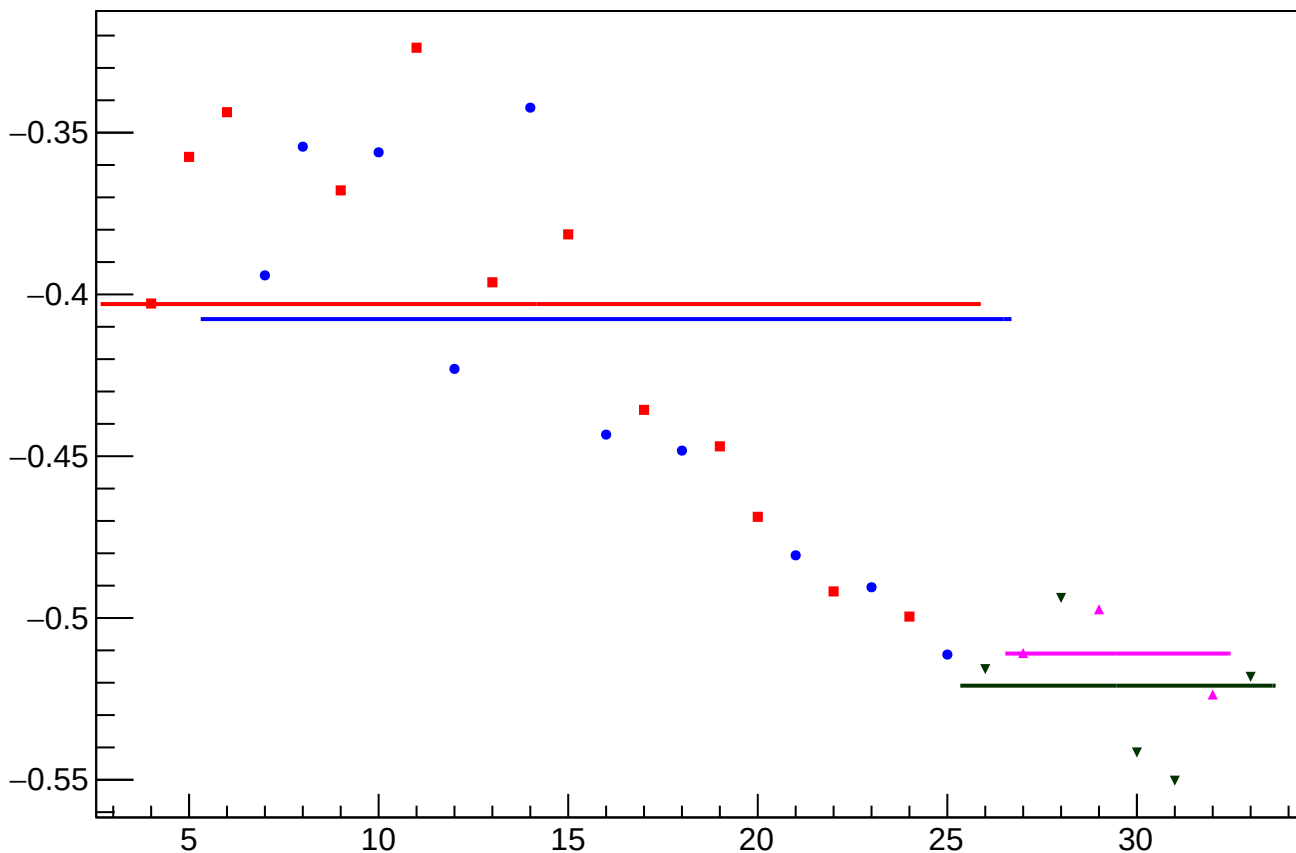
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 13957.5/11

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ :502.3/2

0.007+/-0.000  $\chi^2/\text{NDF}$ : 47124.0/14

0.007+/-0.000  $\chi^2/\text{NDF}$ : 21435.4/14

# yield\_bpm2i02X\_mean vs slug



Right In: -0.408+/-0.000  $\chi^2/\text{NDF}$ : 64975353.4/9

Left Out: -0.521+/-0.000  $\chi^2/\text{NDF}$ : 2748579.3/4

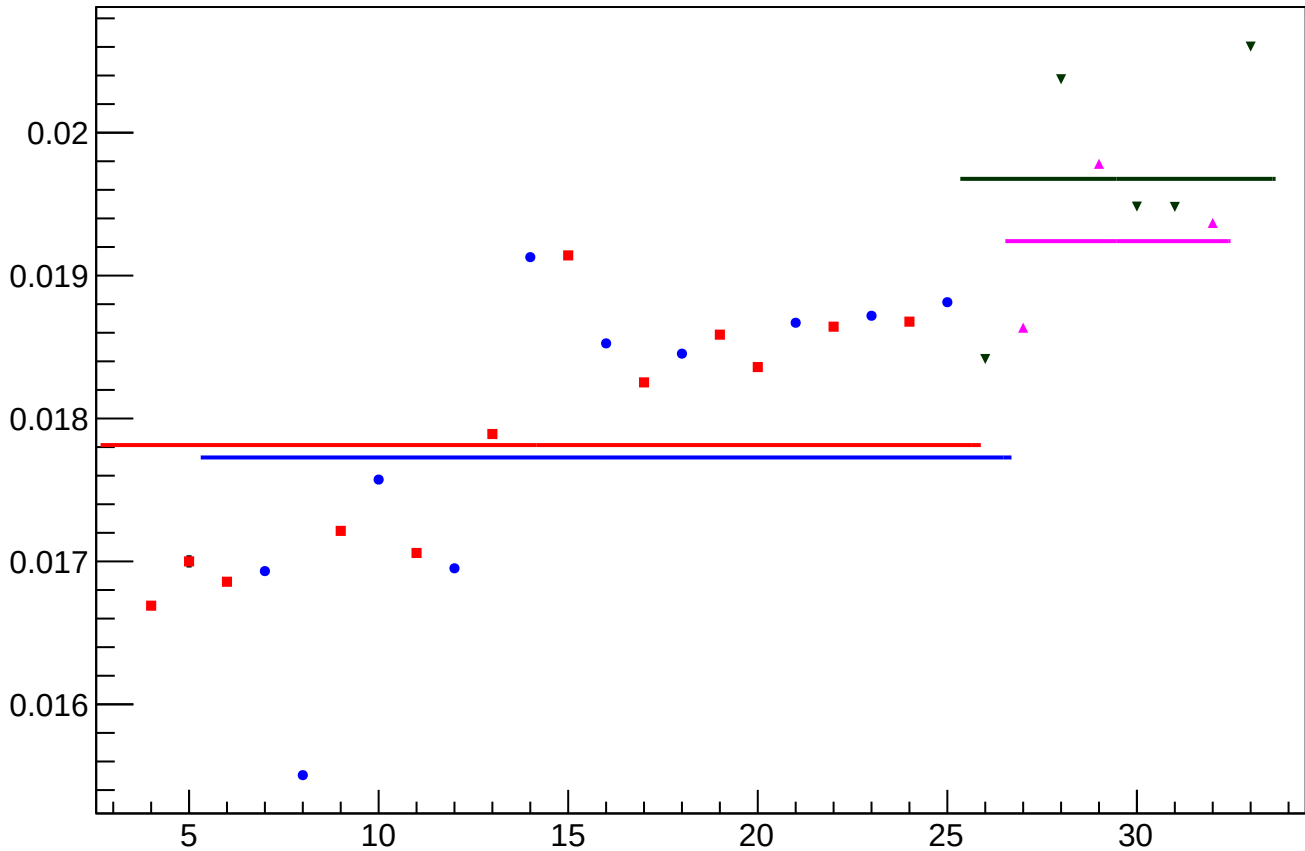
Right Out: -0.403+/-0.000  $\chi^2/\text{NDF}$ : 62429358.0/11

Left In: -0.511+/-0.000  $\chi^2/\text{NDF}$ : 781568.3/2

-0.436+/-0.000  $\chi^2/\text{NDF}$ : 132740172.7/14

-0.431+/-0.000  $\chi^2/\text{NDF}$ : 123268205.8/14

# yield\_bpm2i02X\_rms vs slug



Right In: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 64790.3/9

Left Out: 0.020+/-0.000  $\chi^2/\text{NDF}$ : 8513.7/4

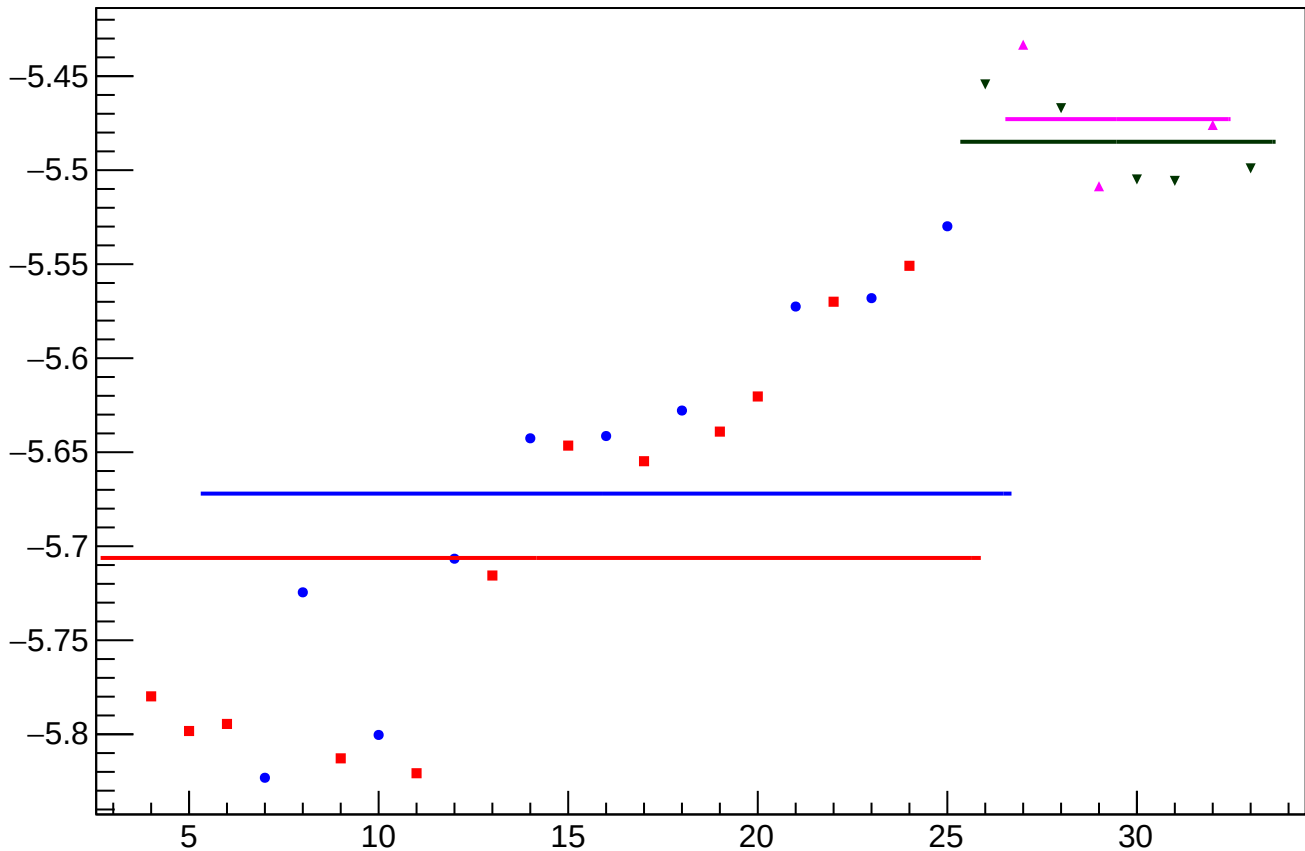
Right Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 24742.8/11

Left In: 0.019+/-0.000  $\chi^2/\text{NDF}$ : 3114.8/2

0.018+/-0.000  $\chi^2/\text{NDF}$ : 111811.3/14

0.018+/-0.000  $\chi^2/\text{NDF}$ : 48825.6/14

# yield\_bpm2i02Y\_mean vs slug



Right In: -5.672+/-0.000  $\chi^2/\text{NDF}$ : 307961378.2/9

Left Out: -5.485+/-0.000  $\chi^2/\text{NDF}$ : 8187275.4/4

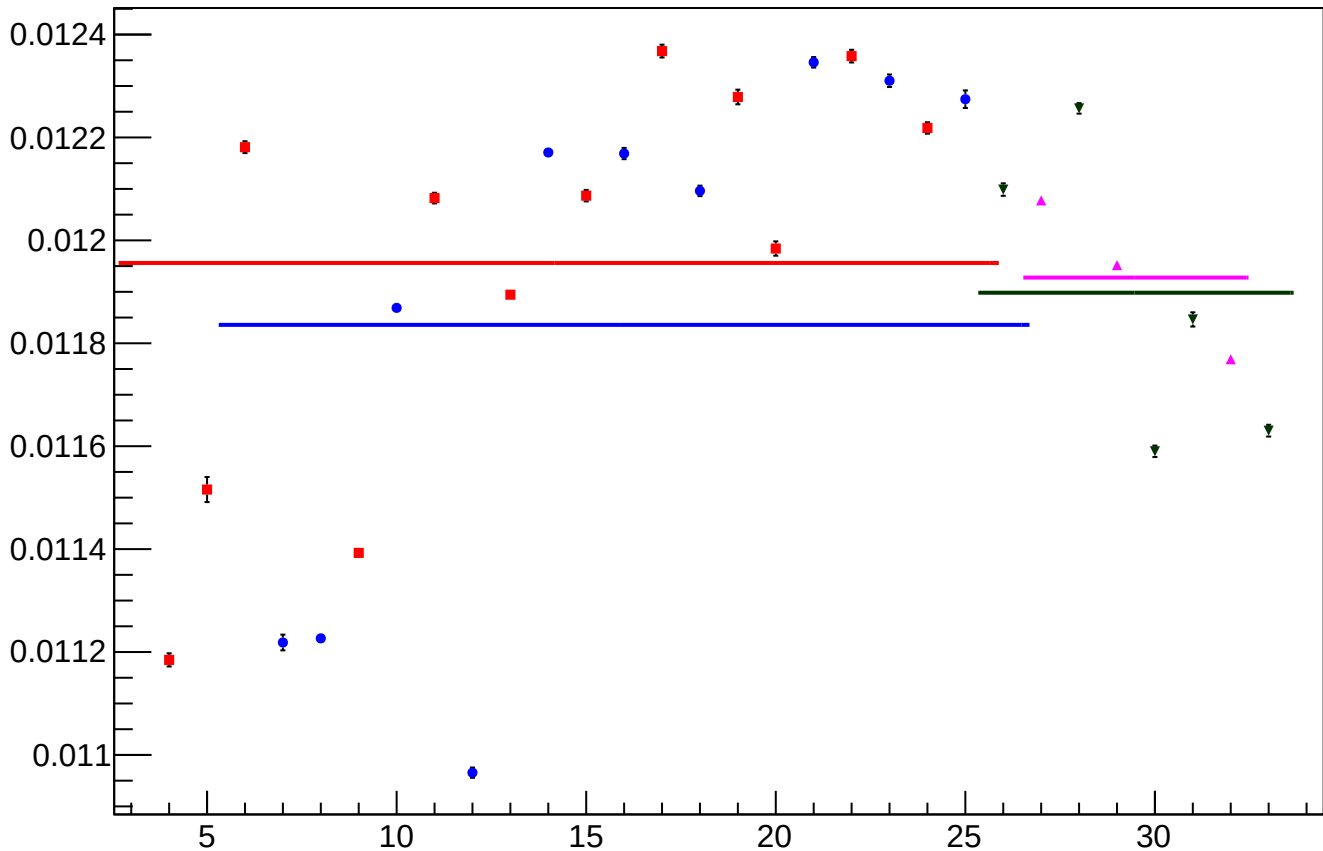
-5.618+/-0.000  $\chi^2/\text{NDF}$ : 779959830.8/14

Right Out: -5.706+/-0.000  $\chi^2/\text{NDF}$ : 393392324.7/11

-5.638+/-0.000  $\chi^2/\text{NDF}$ : 1114977118.9/14

Left In: -5.473+/-0.000  $\chi^2/\text{NDF}$ : 16819045.4/2

# yield\_bpm2i02Y\_rms vs slug



Right In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 22267.5/9

Left Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:2829.9/4

Right Out: 0.012 $\pm$ 0.000  $\chi^2$ /NDF: 11709.7/11

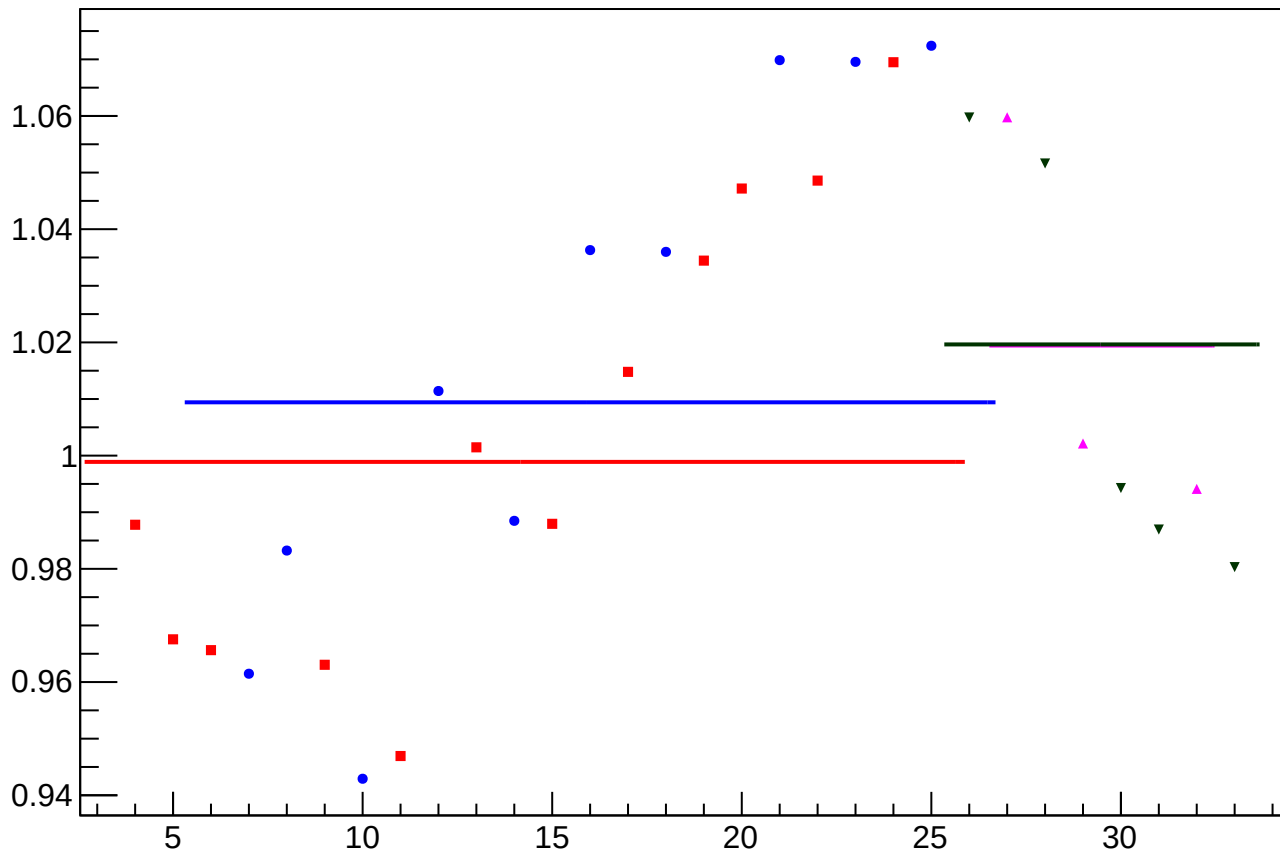
Left In: 0.012 $\pm$ 0.000  $\chi^2$ /NDF:595.8/2

0.012 $\pm$ 0.000  $\chi^2$ /NDF: 25200.8/14

0.012 $\pm$ 0.000  $\chi^2$ /NDF: 12326.2/14



# yield\_bpm1i04X\_mean vs slug



Right In: 1.009+/-0.000  $\chi^2/\text{NDF}$ : 182212338.7/9

Left Out: 1.020+/-0.000  $\chi^2/\text{NDF}$ : 58560142.5/4

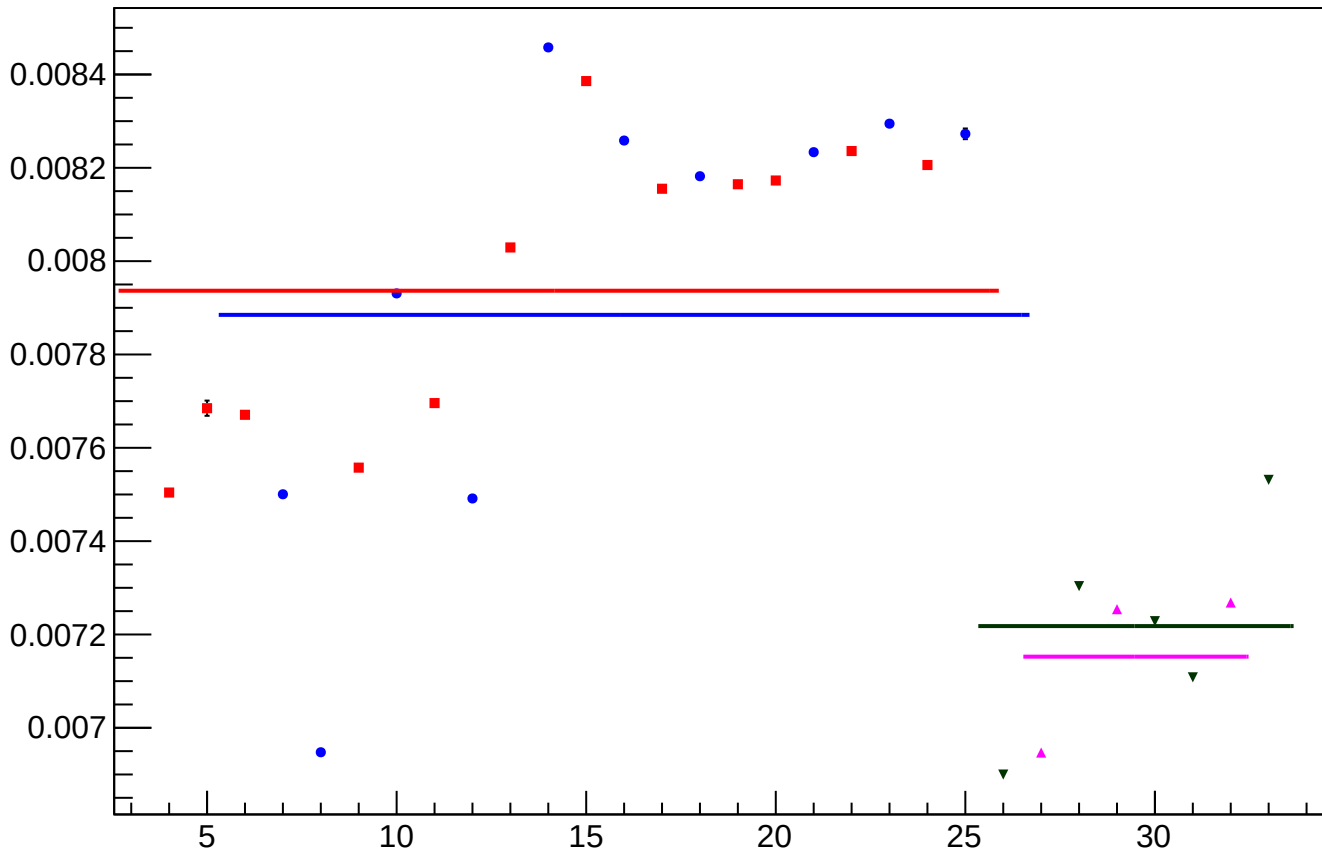
Right Out: 0.999+/-0.000  $\chi^2/\text{NDF}$ : 147584109.7/11

Left In: 1.019+/-0.000  $\chi^2/\text{NDF}$ : 43834268.7/2

1.013+/-0.000  $\chi^2/\text{NDF}$ : 244305127.6/14

1.006+/-0.000  $\chi^2/\text{NDF}$ : 205570391.6/14

# yield\_bpm1i04X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 57917.9/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 4224.2/4

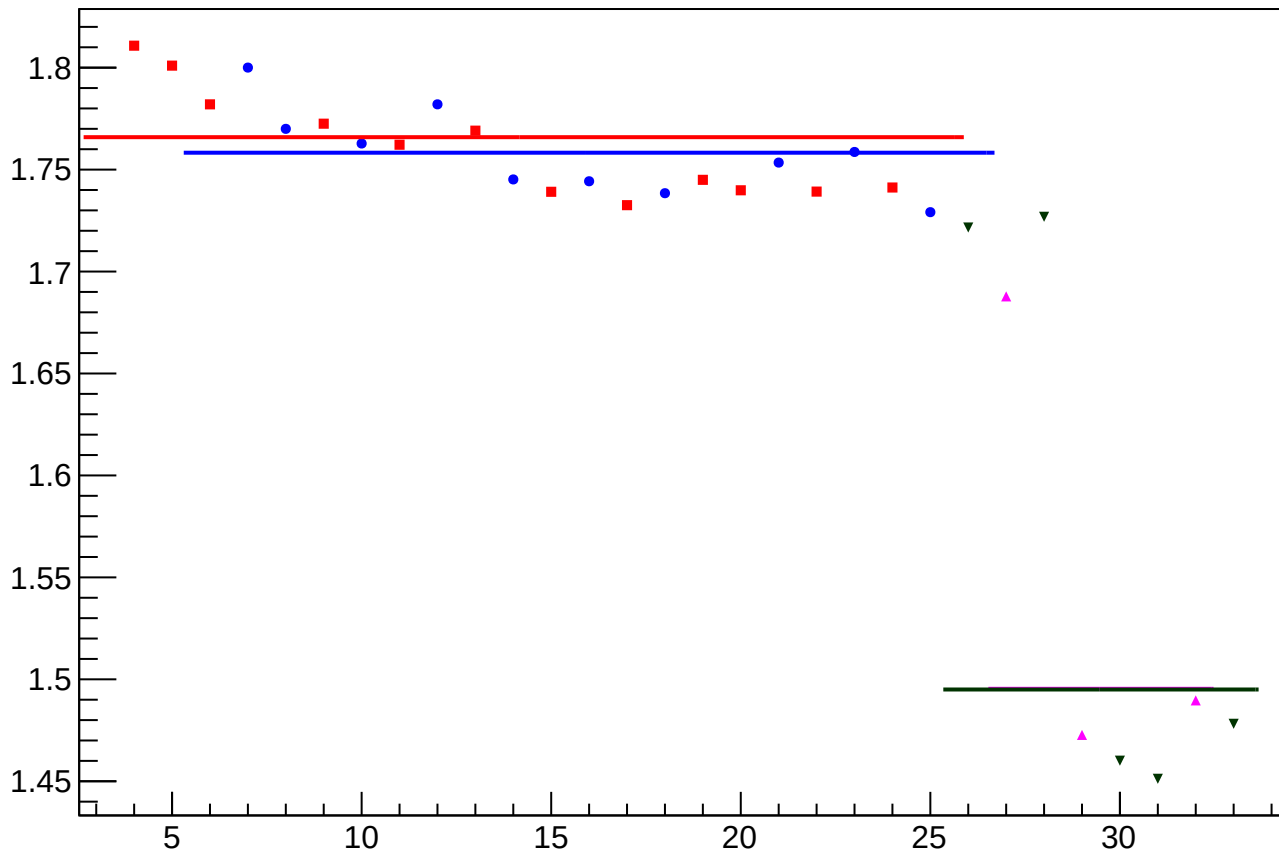
Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 17438.8/11

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 2252.3/2

0.008+/-0.000  $\chi^2/\text{NDF}$ : 92190.8/14

0.008+/-0.000  $\chi^2/\text{NDF}$ : 60899.4/14

# yield\_bpm1i04Y\_mean vs slug



Right In: 1.758+/-0.000  $\chi^2/\text{NDF}$ : 25411176.0/9

Left Out: 1.495+/-0.000  $\chi^2/\text{NDF}$ : 447747775.0/4

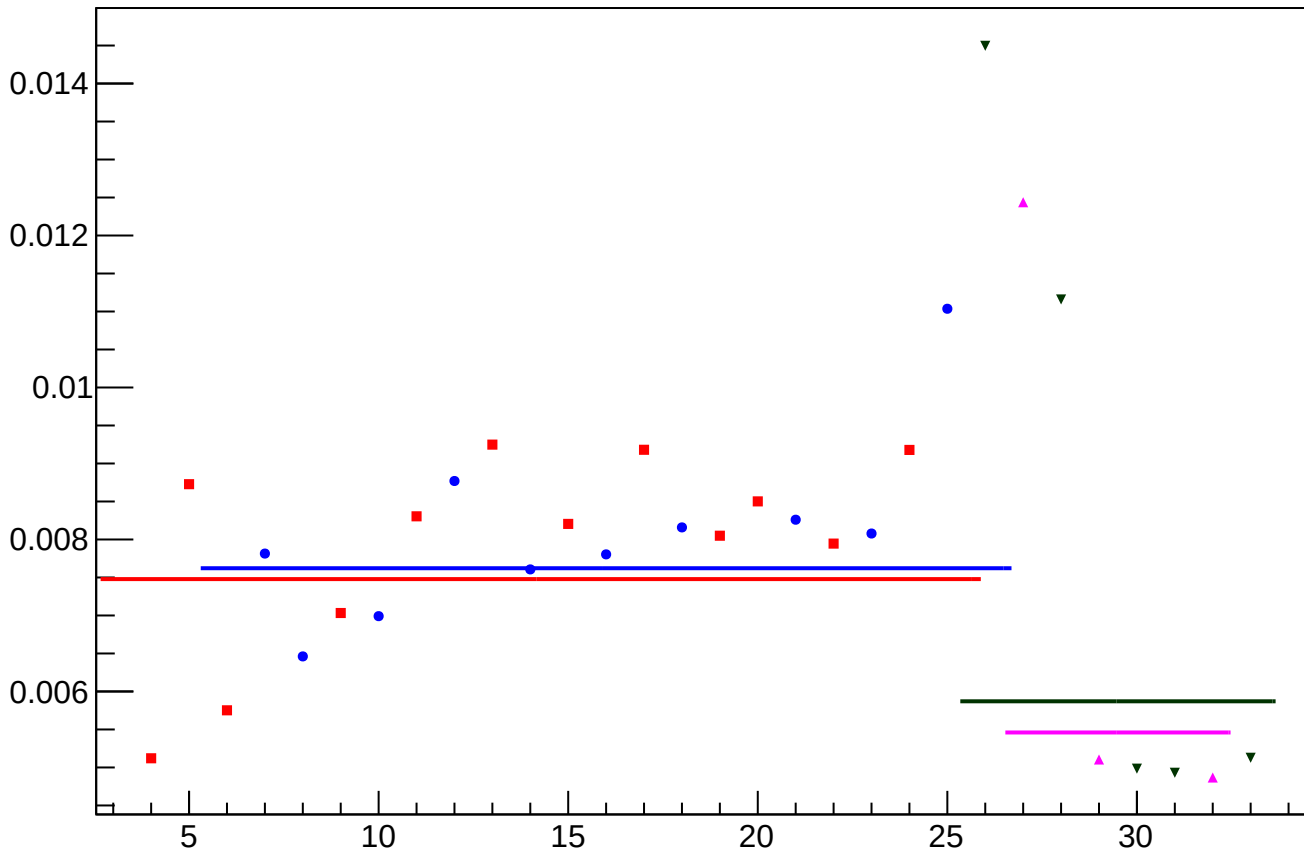
1.660+/-0.000  $\chi^2/\text{NDF}$ : 3154418198.0/14

Right Out: 1.766+/-0.000  $\chi^2/\text{NDF}$ : 62233931.0/11

1.656+/-0.000  $\chi^2/\text{NDF}$ : 3365955181.8/14

Left In: 1.495+/-0.000  $\chi^2/\text{NDF}$ : 189225972.8/2

# yield\_bpm1i04Y\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/NDF$ : 152458.9/9

Left Out: 0.006+/-0.000  $\chi^2/NDF$ : 699586.6/4

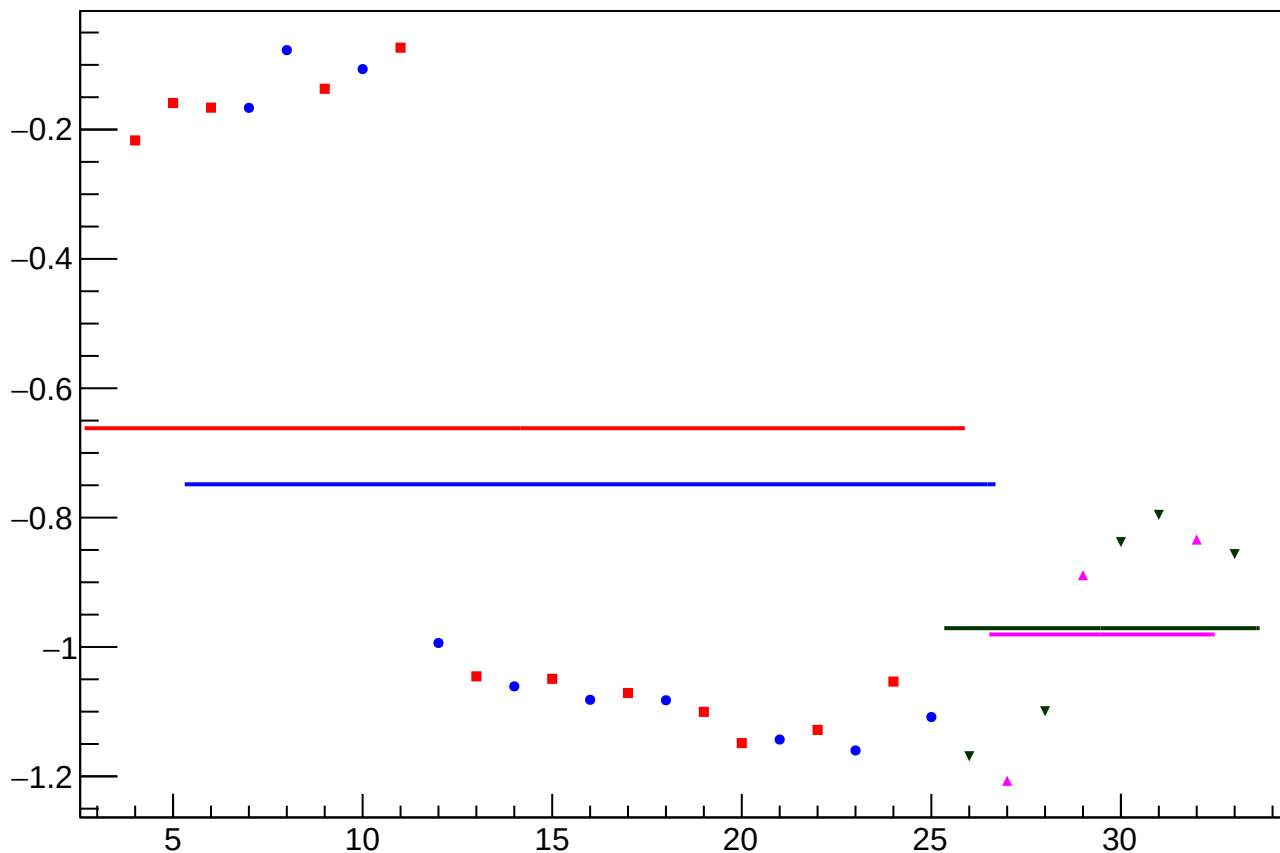
0.007+/-0.000  $\chi^2/NDF$ : 1089267.1/14

Right Out: 0.007+/-0.000  $\chi^2/NDF$ : 437086.3/11

0.007+/-0.000  $\chi^2/NDF$ : 1270509.0/14

Left In: 0.005+/-0.000  $\chi^2/NDF$ : 486761.5/2

# yield\_bpm0l01X\_mean vs slug



Right In: -0.748+/-0.000  $\chi^2/\text{NDF}$ : 17438936914.1/9

Left Out: -0.971+/-0.000  $\chi^2/\text{NDF}$ : 782103338.0/4

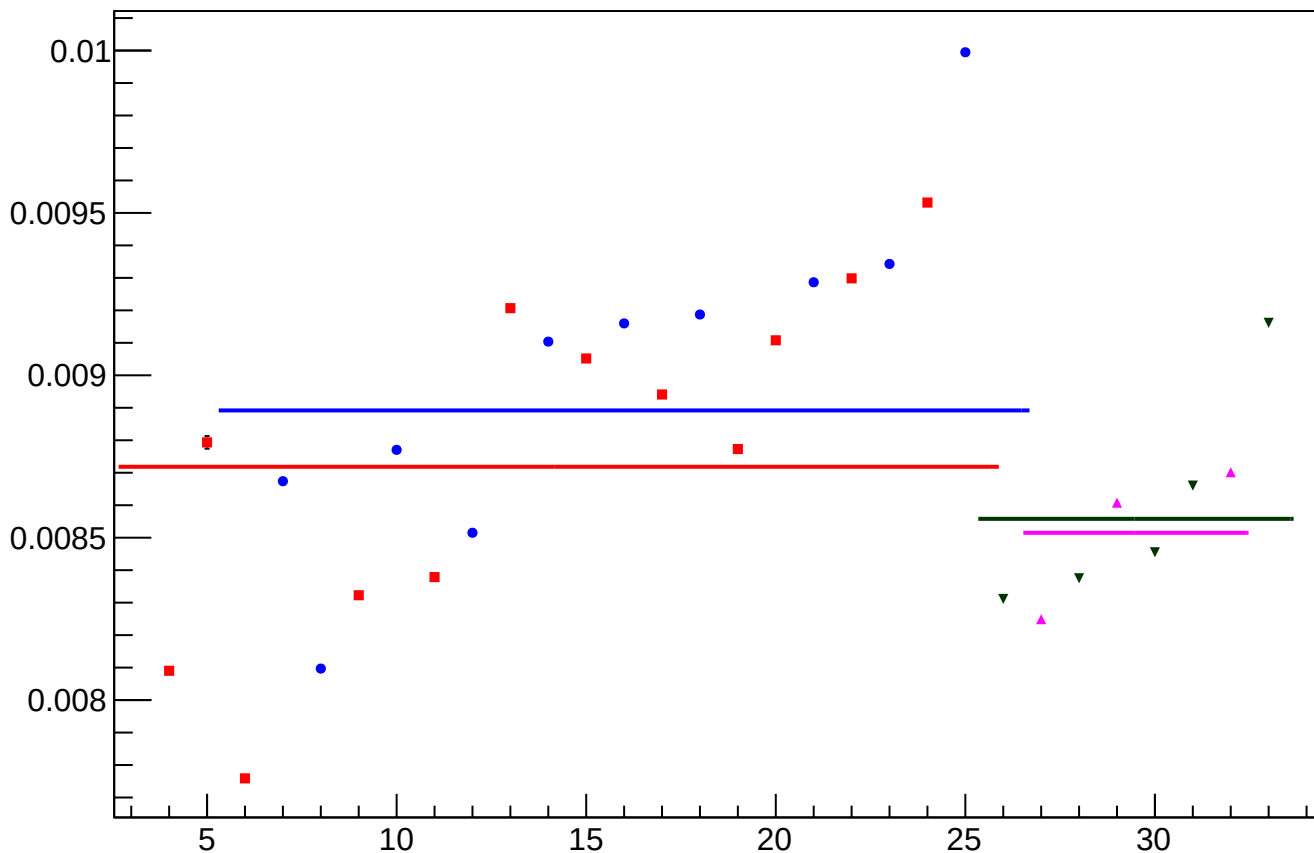
Right Out: -0.662+/-0.000  $\chi^2/\text{NDF}$ : 17756149128.0/11

Left In: -0.981+/-0.000  $\chi^2/\text{NDF}$ : 966165888.9/2

-0.815+/-0.000  $\chi^2/\text{NDF}$ : 19408962321.2/14

-0.758+/-0.000  $\chi^2/\text{NDF}$ : 21214526075.8/14

# yield\_bpm0l01X\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 34334.5/9

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :6109.6/4

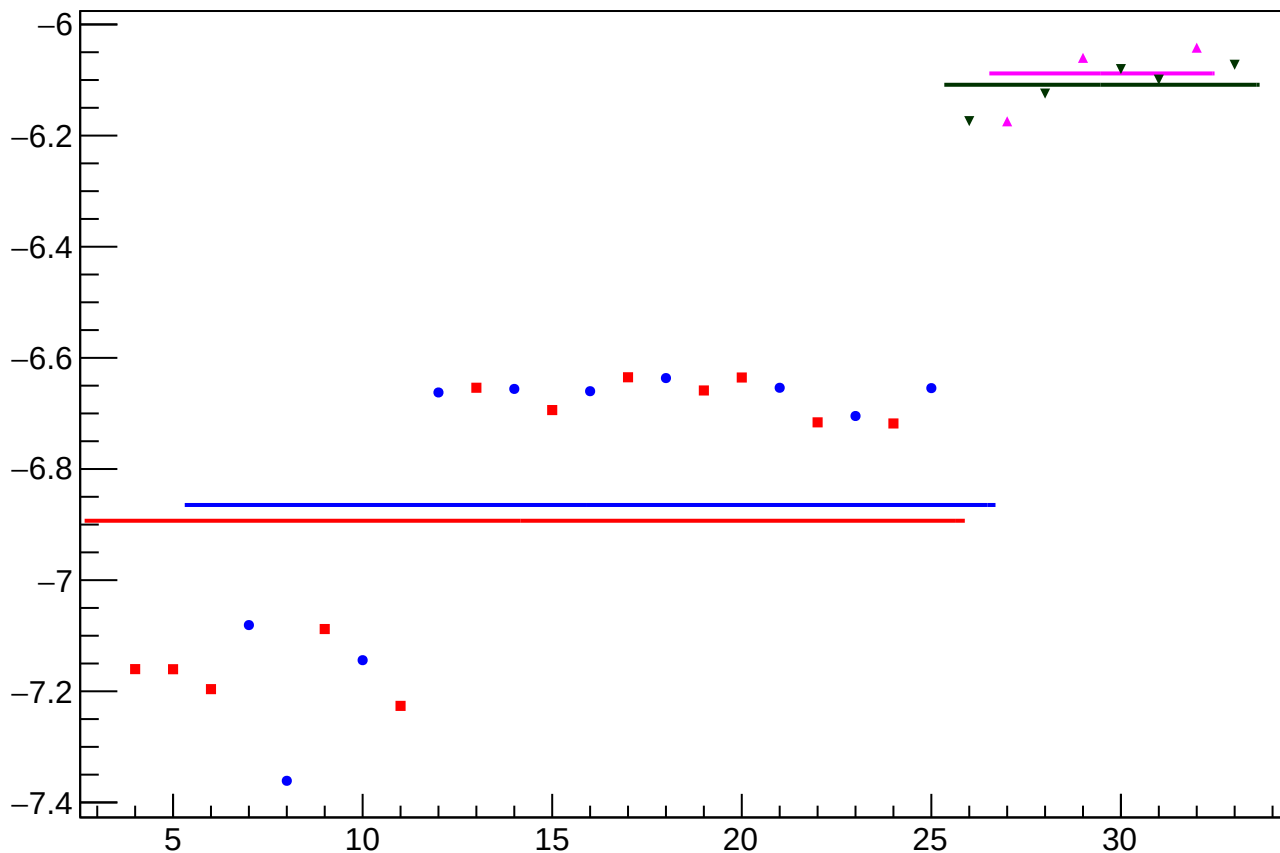
Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 47651.1/11

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :2721.5/2

0.009+/-0.000  $\chi^2/\text{NDF}$ : 45792.0/14

0.009+/-0.000  $\chi^2/\text{NDF}$ : 52400.7/14

# yield\_bpm0l01Y\_mean vs slug



Right In: -6.865+/-0.000  $\chi^2/\text{NDF}$ : 6618589018.0/9

Left Out: -6.109+/-0.000  $\chi^2/\text{NDF}$ : 34137260.4/4

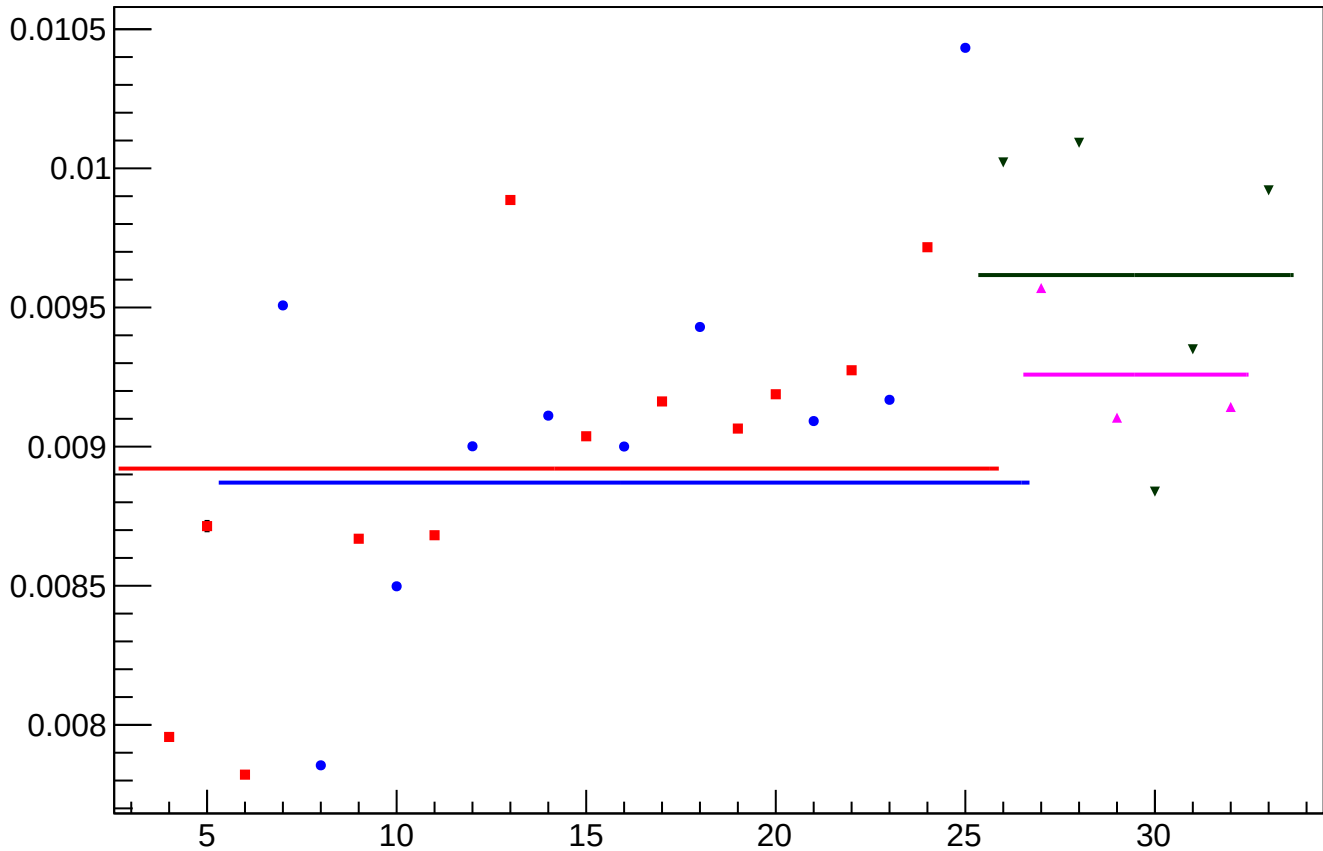
Right Out: -6.893+/-0.000  $\chi^2/\text{NDF}$ : 4705739160.1/11

Left In: -6.088+/-0.000  $\chi^2/\text{NDF}$ : 95882971.3/2

-6.674+/-0.000  $\chi^2/\text{NDF}$ : 18092238270.3/14

-6.671+/-0.000  $\chi^2/\text{NDF}$ : 18514039956.5/14

# yield\_bpm0l01Y\_rms vs slug



Right In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 53944.1/9

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 14059.1/4

0.009+/-0.000  $\chi^2/\text{NDF}$ : 90264.6/14

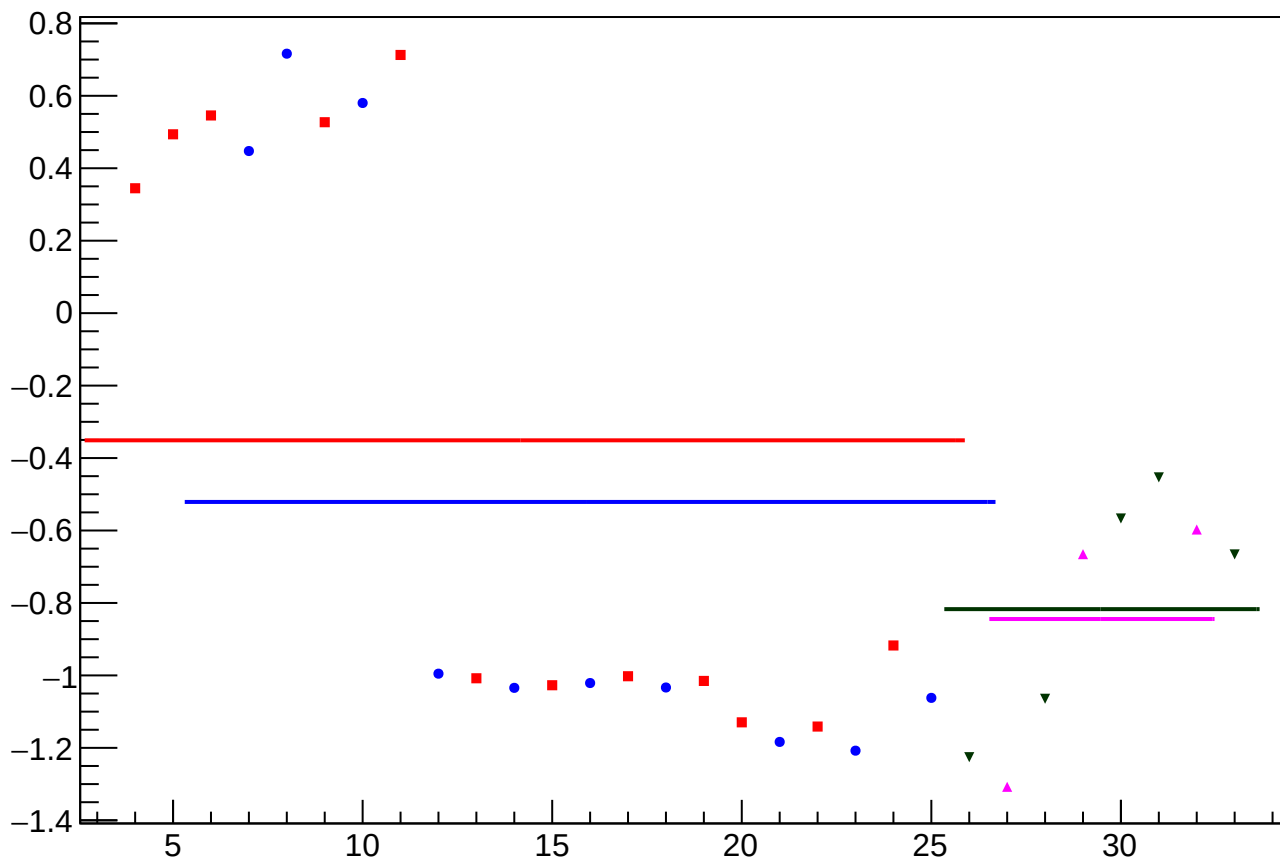
Right Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 61199.2/11

0.009+/-0.000  $\chi^2/\text{NDF}$ : 68501.1/14

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 2475.0/2



# yield\_bpm0l02X\_mean vs slug



Right In:  $-0.521 \pm 0.000$   $\chi^2/\text{NDF}: 9220973673.4/9$

Left Out:  $-0.817 \pm 0.000$   $\chi^2/\text{NDF}: 688303471.2/4$

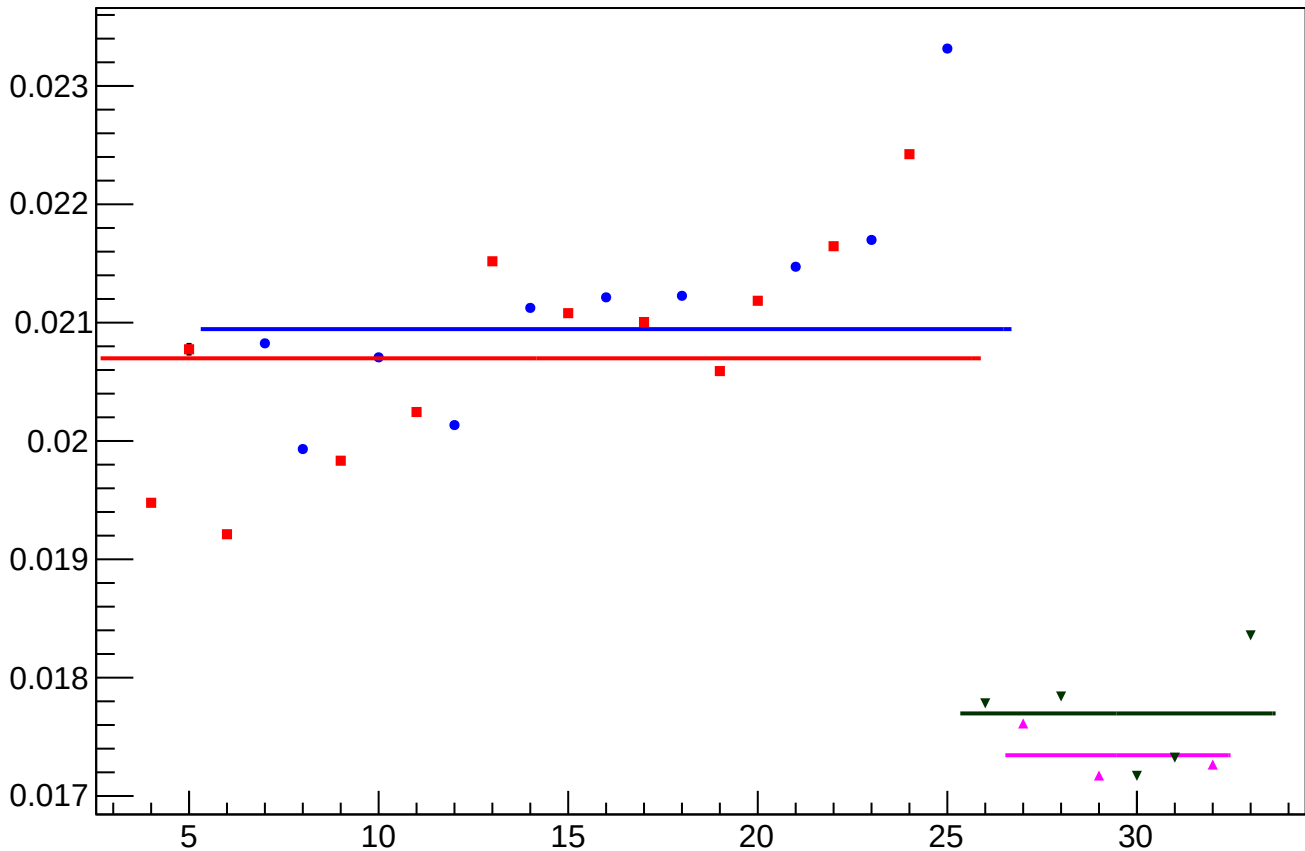
Right Out:  $-0.351 \pm 0.000$   $\chi^2/\text{NDF}: 8987357685.6/11$

Left In:  $-0.844 \pm 0.000$   $\chi^2/\text{NDF}: 847229377.4/2$

$-0.627 \pm 0.000$   $\chi^2/\text{NDF}: 10363414502.1/14$

$-0.533 \pm 0.000$   $\chi^2/\text{NDF}: 11139709575.3/14$

# yield\_bpm0l02X\_rms vs slug



Right In: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 14569.8/9

Left Out: 0.018+/-0.000  $\chi^2/\text{NDF}$ : 2769.5/4

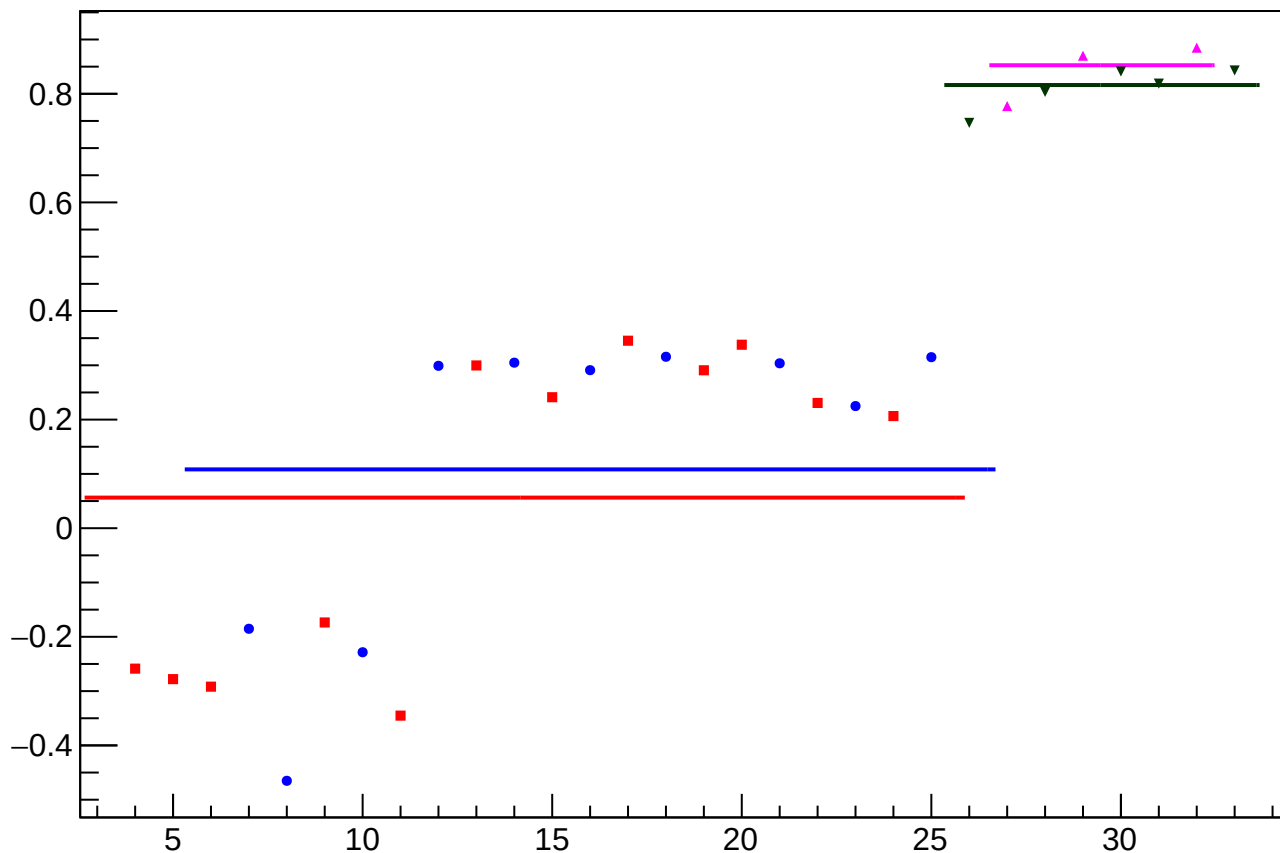
0.020+/-0.000  $\chi^2/\text{NDF}$ : 126743.2/14

Right Out: 0.021+/-0.000  $\chi^2/\text{NDF}$ : 25534.1/11

0.019+/-0.000  $\chi^2/\text{NDF}$ : 146822.9/14

Left In: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 590.2/2

# yield\_bpm0l02Y\_mean vs slug



Right In: 0.108 $\pm$ 0.000  $\chi^2$ /NDF: 3631955649.9/9

Left Out: 0.816 $\pm$ 0.000  $\chi^2$ /NDF:18500551.5/4

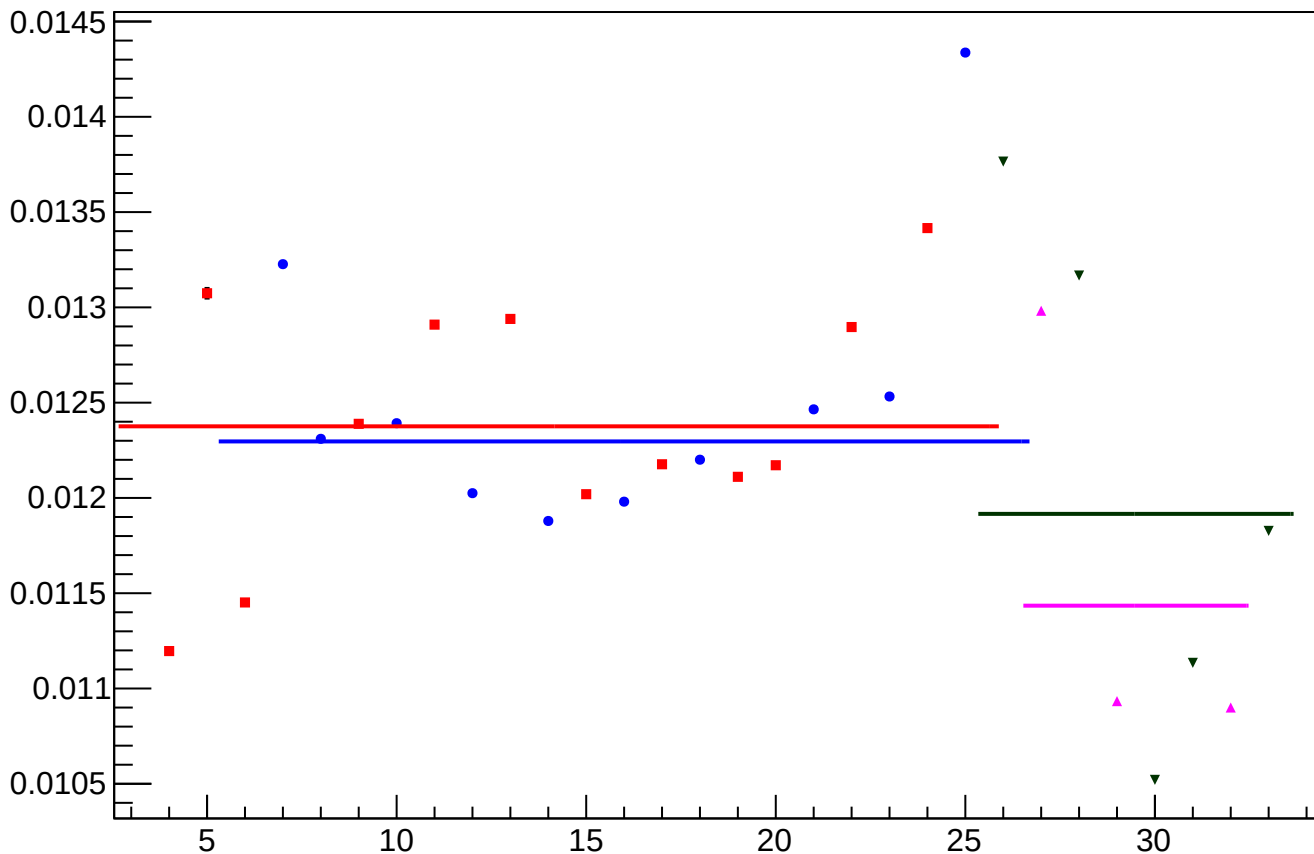
Right Out: 0.056 $\pm$ 0.000  $\chi^2$ /NDF: 2963825797.0/11

Left In: 0.853 $\pm$ 0.000  $\chi^2$ /NDF:37060956.1/2

0.319 $\pm$ 0.000  $\chi^2$ /NDF: 9835426701.4/14

0.314 $\pm$ 0.000  $\chi^2$ /NDF: 11226072300.4/14

# yield\_bpm0l02Y\_rms vs slug



Right In: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 17281.6/9

Left Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ :51426.5/4

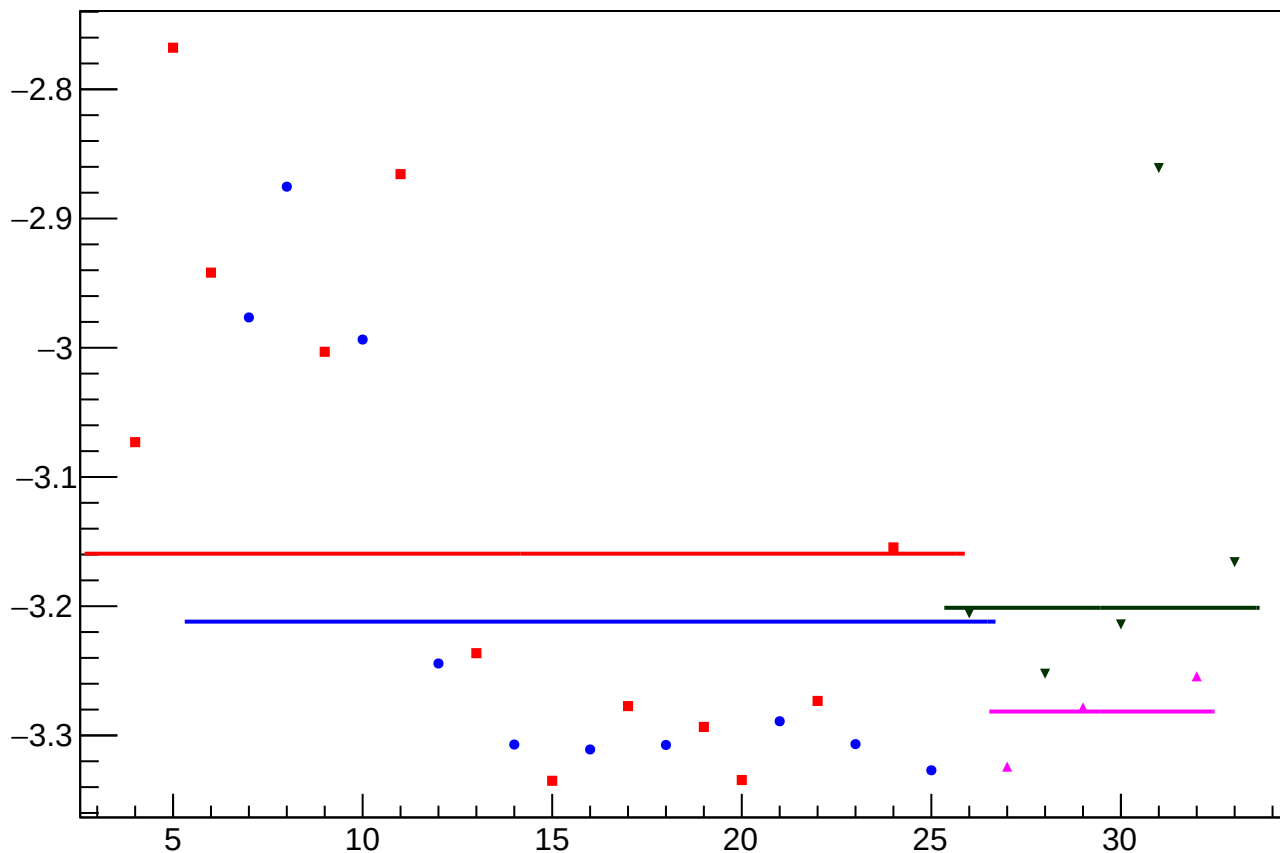
0.012+/-0.000  $\chi^2/\text{NDF}$ : 72276.6/14

Right Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 31560.7/11

0.012+/-0.000  $\chi^2/\text{NDF}$ : 85314.6/14

Left In: 0.011+/-0.000  $\chi^2/\text{NDF}$ :30773.1/2

# yield\_bpm0l03X\_mean vs slug



Right In: -3.212+/-0.000  $\chi^2/\text{NDF}$ : 2232010531.1/9

Left Out: -3.201+/-0.000  $\chi^2/\text{NDF}$ : 218508653.1/4

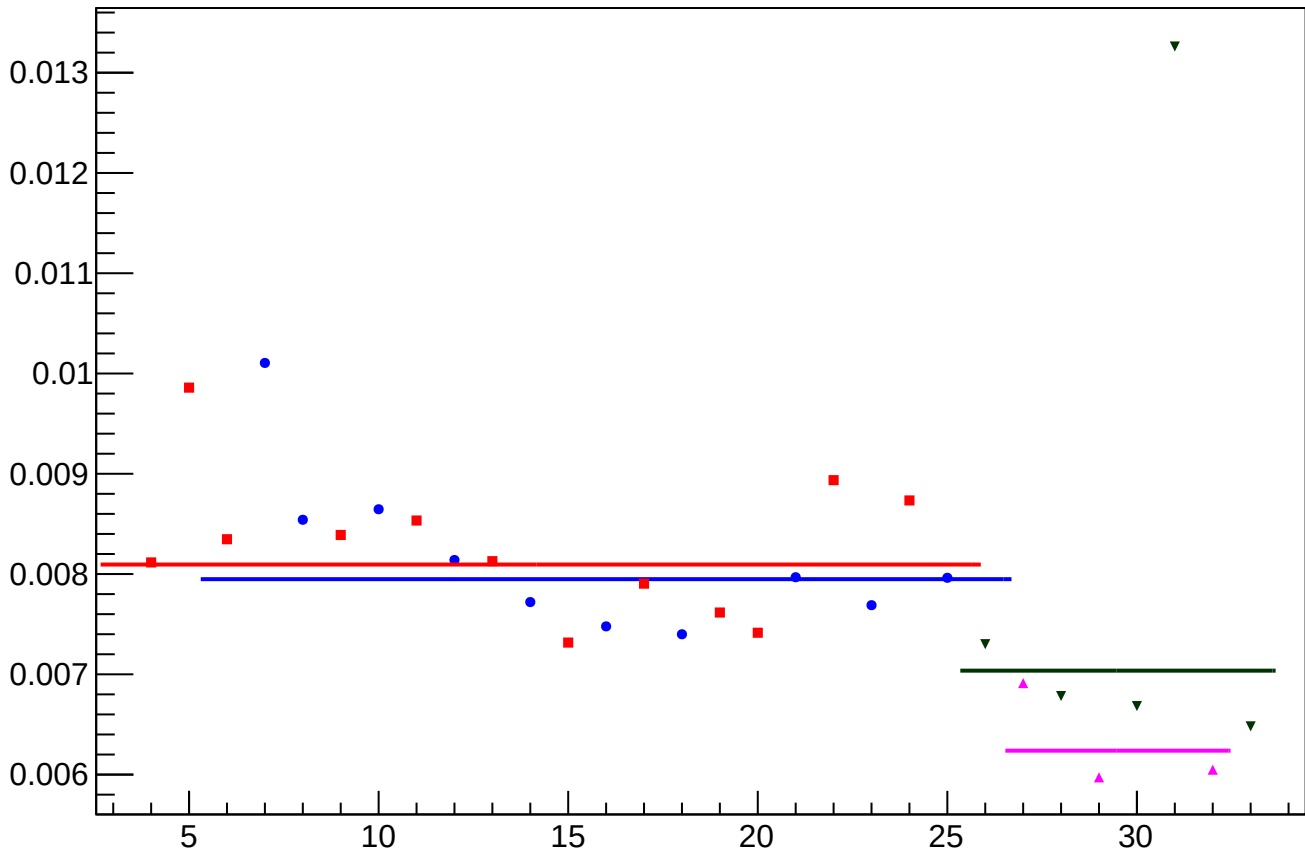
Right Out: -3.159+/-0.000  $\chi^2/\text{NDF}$ : 2193027591.1/11

Left In: -3.282+/-0.000  $\chi^2/\text{NDF}$ : 43606195.1/2

-3.209+/-0.000  $\chi^2/\text{NDF}$ : 2453668953.8/14

-3.212+/-0.000  $\chi^2/\text{NDF}$ : 2747654095.2/14

# yield\_bpm0l03X\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 42380.1/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ :125381.2/4

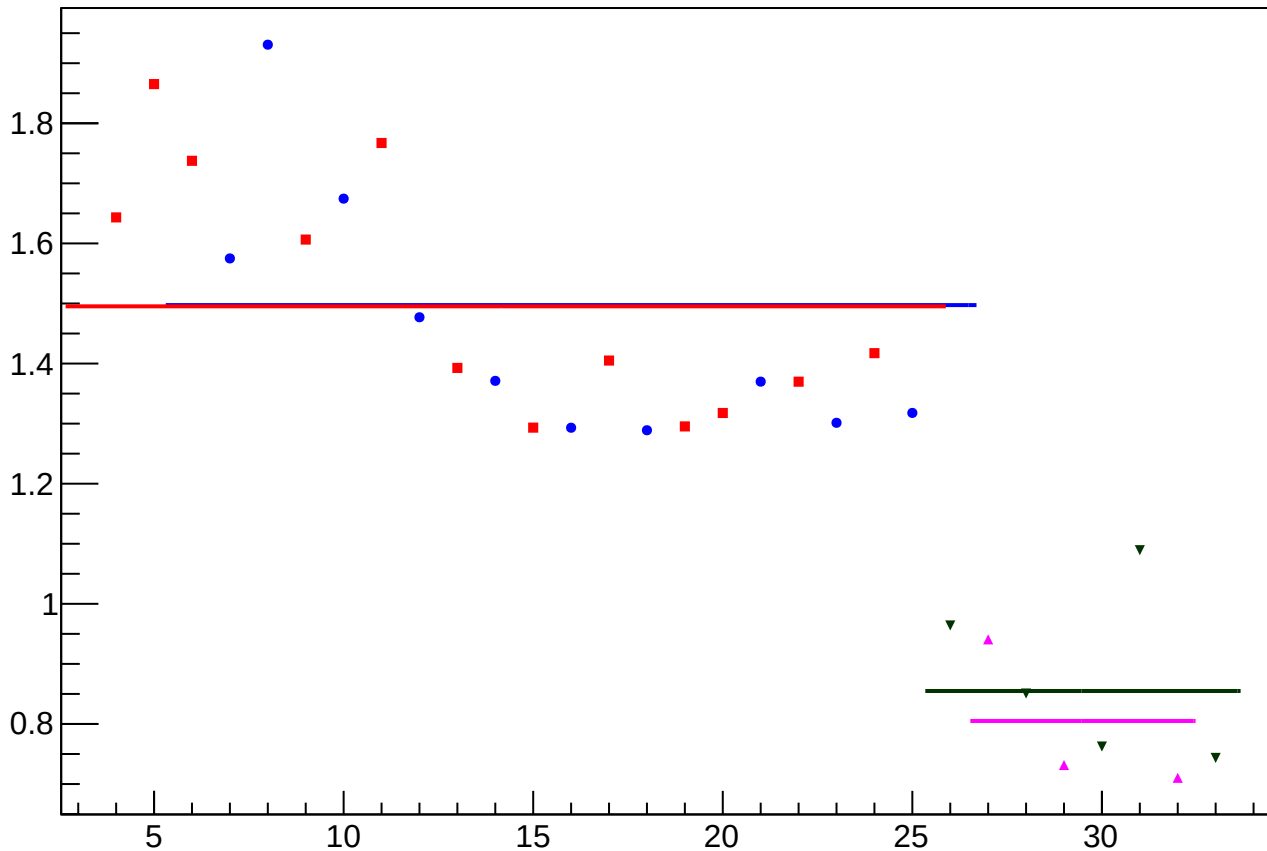
0.008+/-0.000  $\chi^2/\text{NDF}$ : 213513.8/14

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 41566.1/11

0.007+/-0.000  $\chi^2/\text{NDF}$ : 296216.5/14

Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ :18709.0/2

# yield\_bpm0l03Y\_mean vs slug



Right In: 1.497+/-0.000  $\chi^2/\text{NDF}$ : 5019721758.5/9

Left Out: 0.855+/-0.000  $\chi^2/\text{NDF}$ : 209543049.0/4

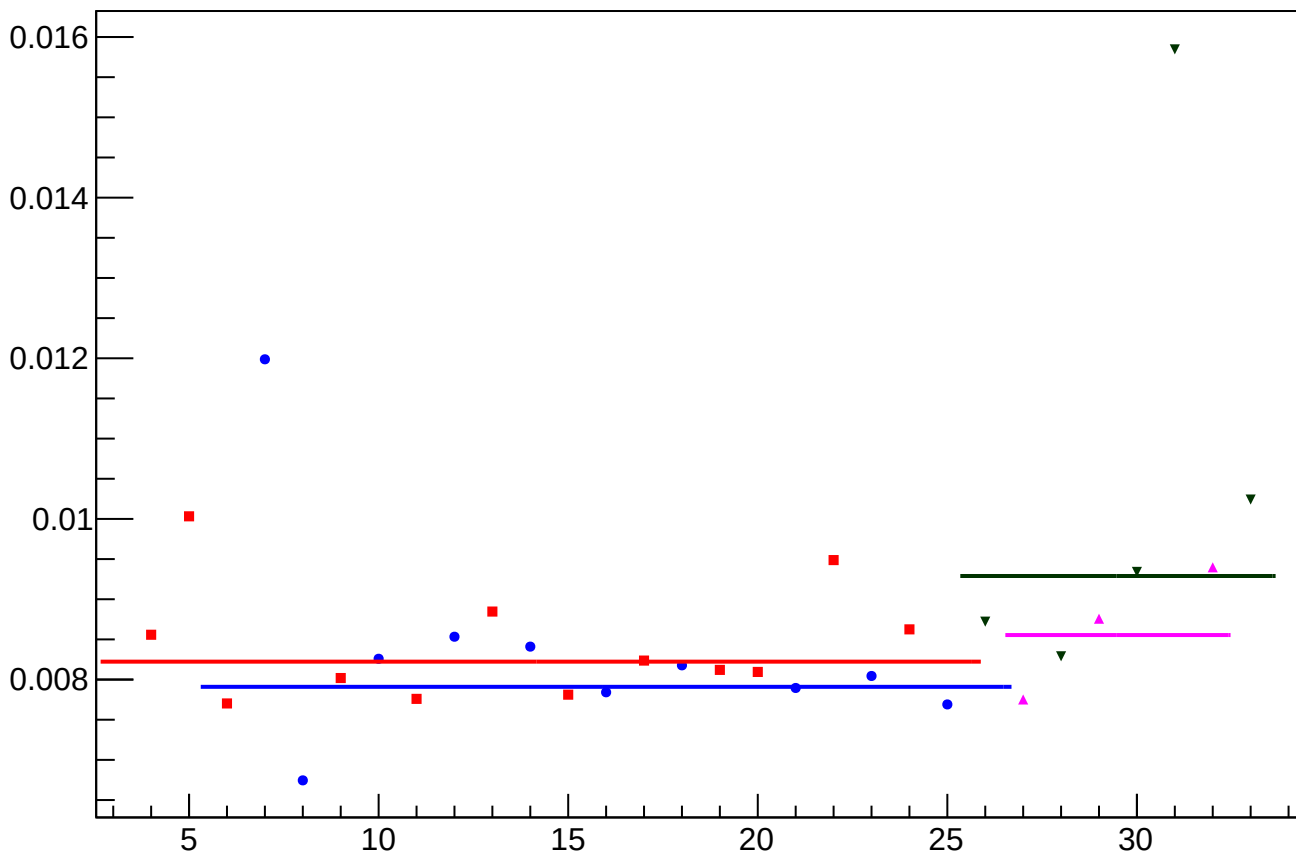
1.365+/-0.000  $\chi^2/\text{NDF}$ : 12607903138.6/14

Right Out: 1.495+/-0.000  $\chi^2/\text{NDF}$ : 2404671234.5/11

1.292+/-0.000  $\chi^2/\text{NDF}$ : 13345756216.6/14

Left In: 0.805+/-0.000  $\chi^2/\text{NDF}$ : 356179594.6/2

# yield\_bpm0l03Y\_rms vs slug



Right In: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 91526.9/9

Left Out: 0.009+/-0.000  $\chi^2/\text{NDF}$ :120581.6/4

Right Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ : 38168.5/11

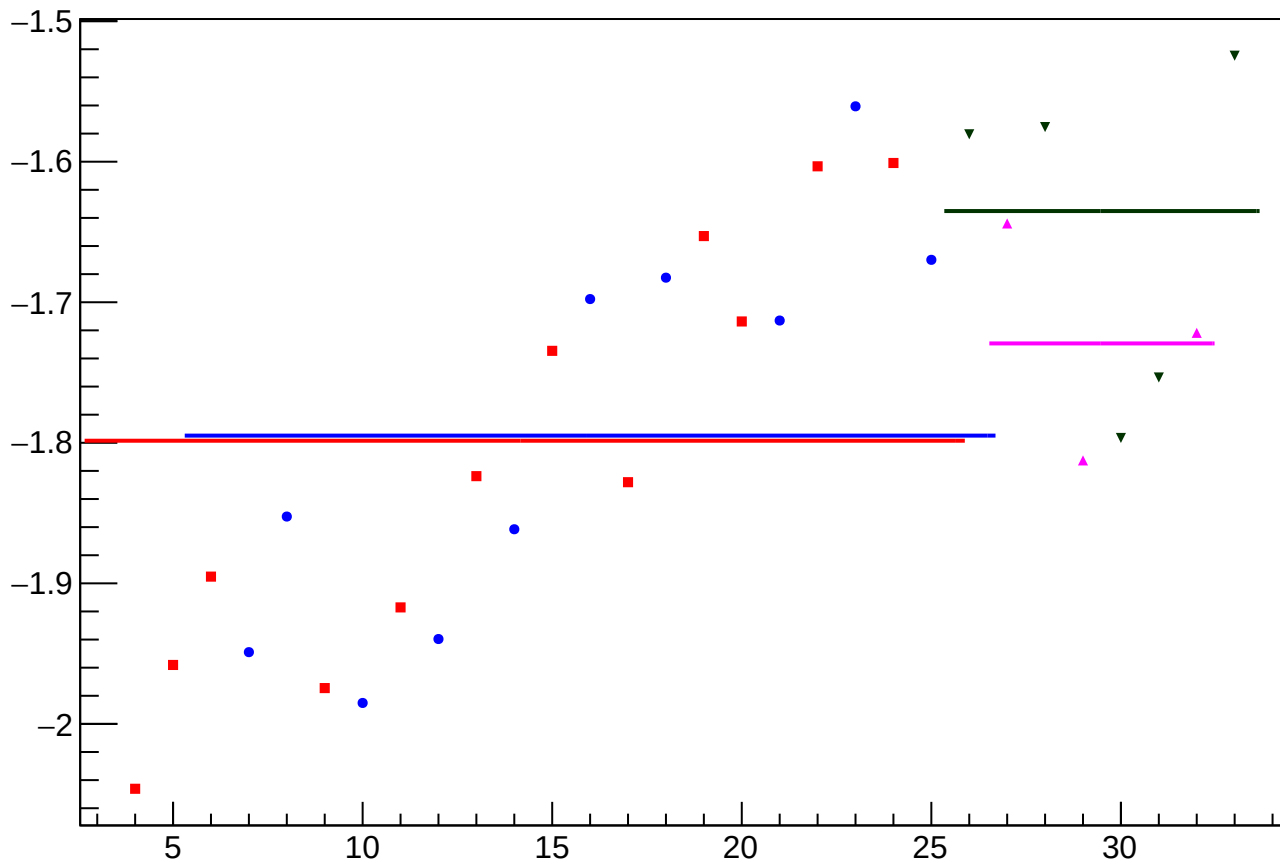
Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ :28620.4/2

0.008+/-0.000  $\chi^2/\text{NDF}$ : 280192.7/14

0.008+/-0.000  $\chi^2/\text{NDF}$ : 71662.3/14



# yield\_bpm0l04X\_mean vs slug



Right In: -1.795+/-0.000  $\chi^2/NDF$ : 835574790.6/9

Left Out: -1.635+/-0.000  $\chi^2/NDF$ : 202170257.6/4

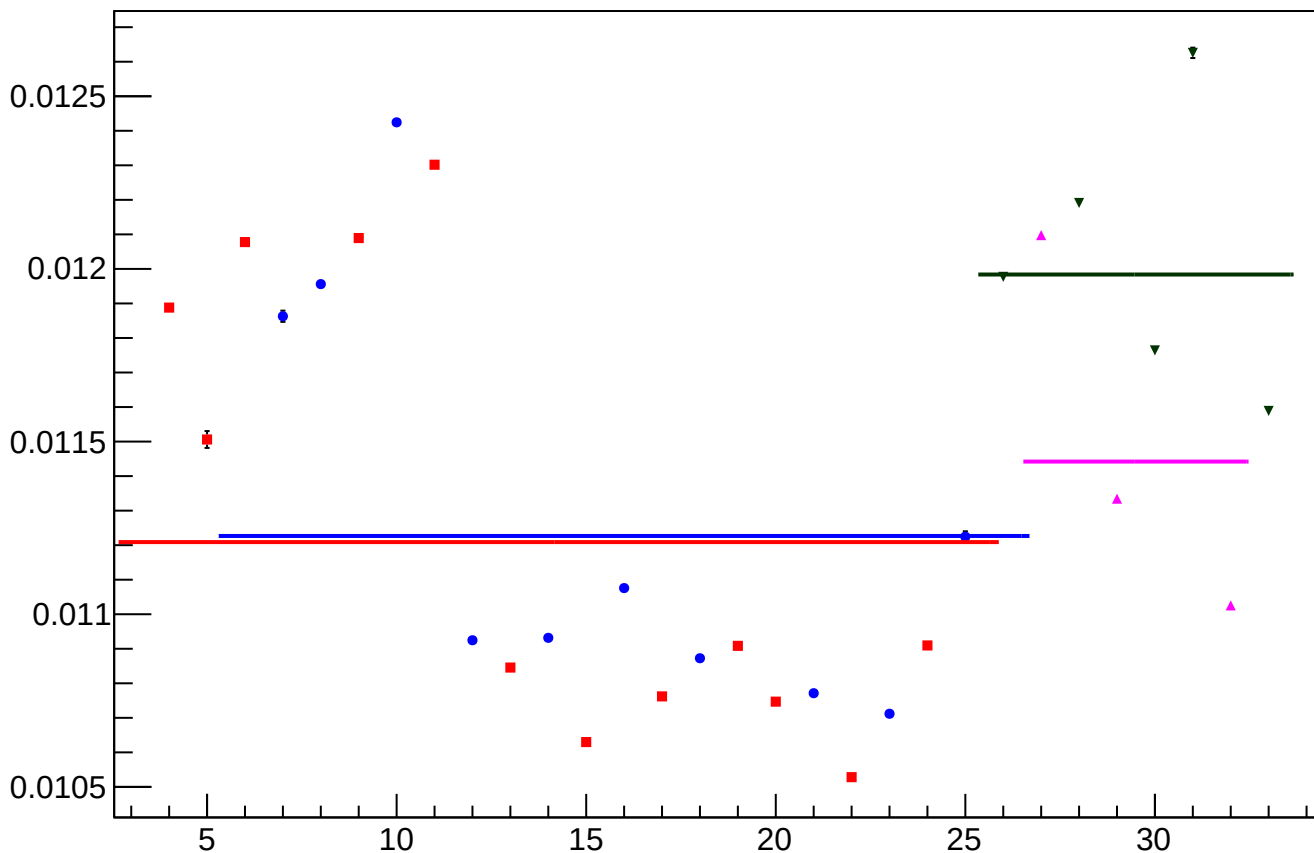
Right Out: -1.799+/-0.000  $\chi^2/NDF$ : 930787190.3/11

Left In: -1.729+/-0.000  $\chi^2/NDF$ : 87227626.8/2

-1.753+/-0.000  $\chi^2/NDF$ : 1371999052.6/14

-1.779+/-0.000  $\chi^2/NDF$ : 1085364317.9/14

# yield\_bpm0l04X\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 32205.5/9

Left Out: 0.012+/-0.000  $\chi^2/\text{NDF}$ : 3763.6/4

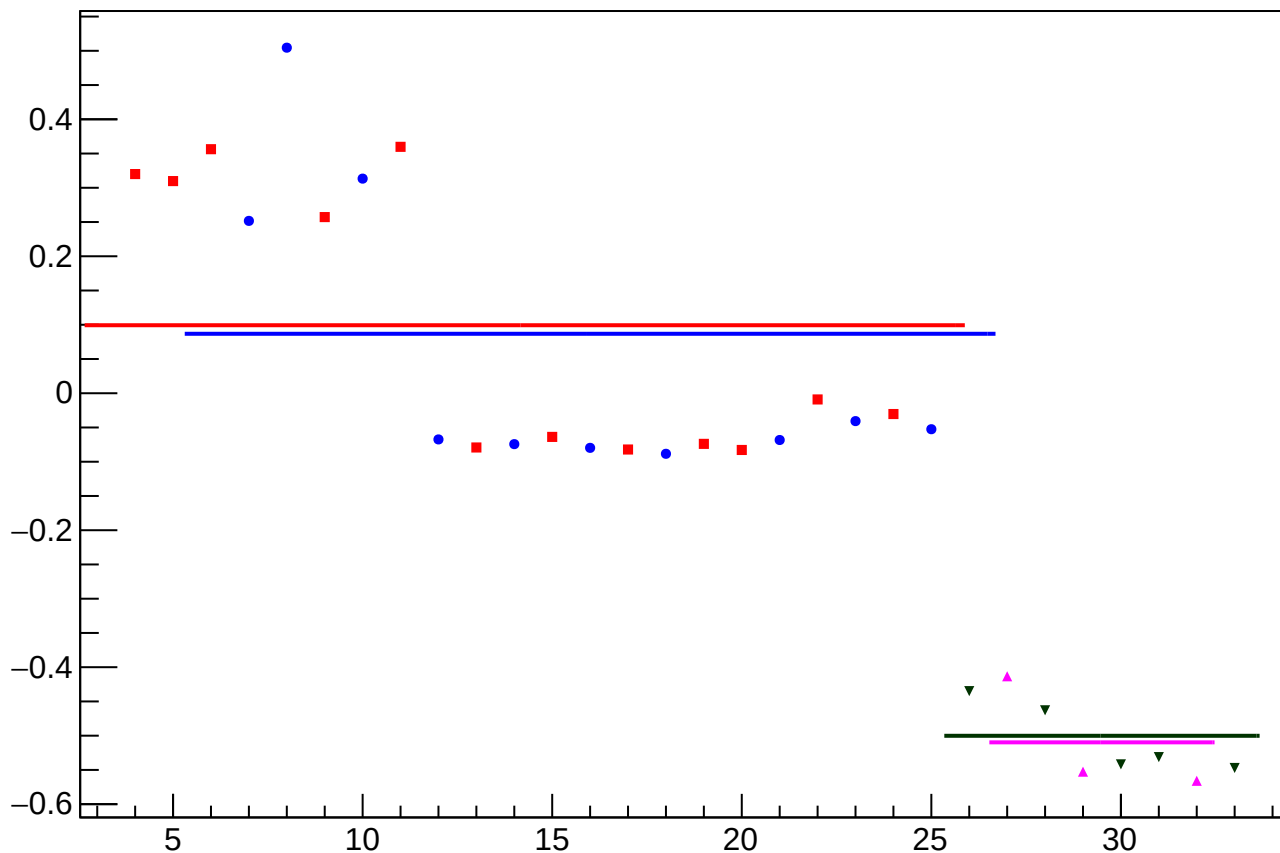
Right Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 41113.0/11

Left In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 7602.4/2

0.011+/-0.000  $\chi^2/\text{NDF}$ : 50979.5/14

0.011+/-0.000  $\chi^2/\text{NDF}$ : 50243.5/14

# yield\_bpm0l04Y\_mean vs slug



Right In: 0.087+/-0.000  $\chi^2/\text{NDF}$ : 6587794227.2/9

Left Out: -0.500+/-0.000  $\chi^2/\text{NDF}$ : 85549697.8/4

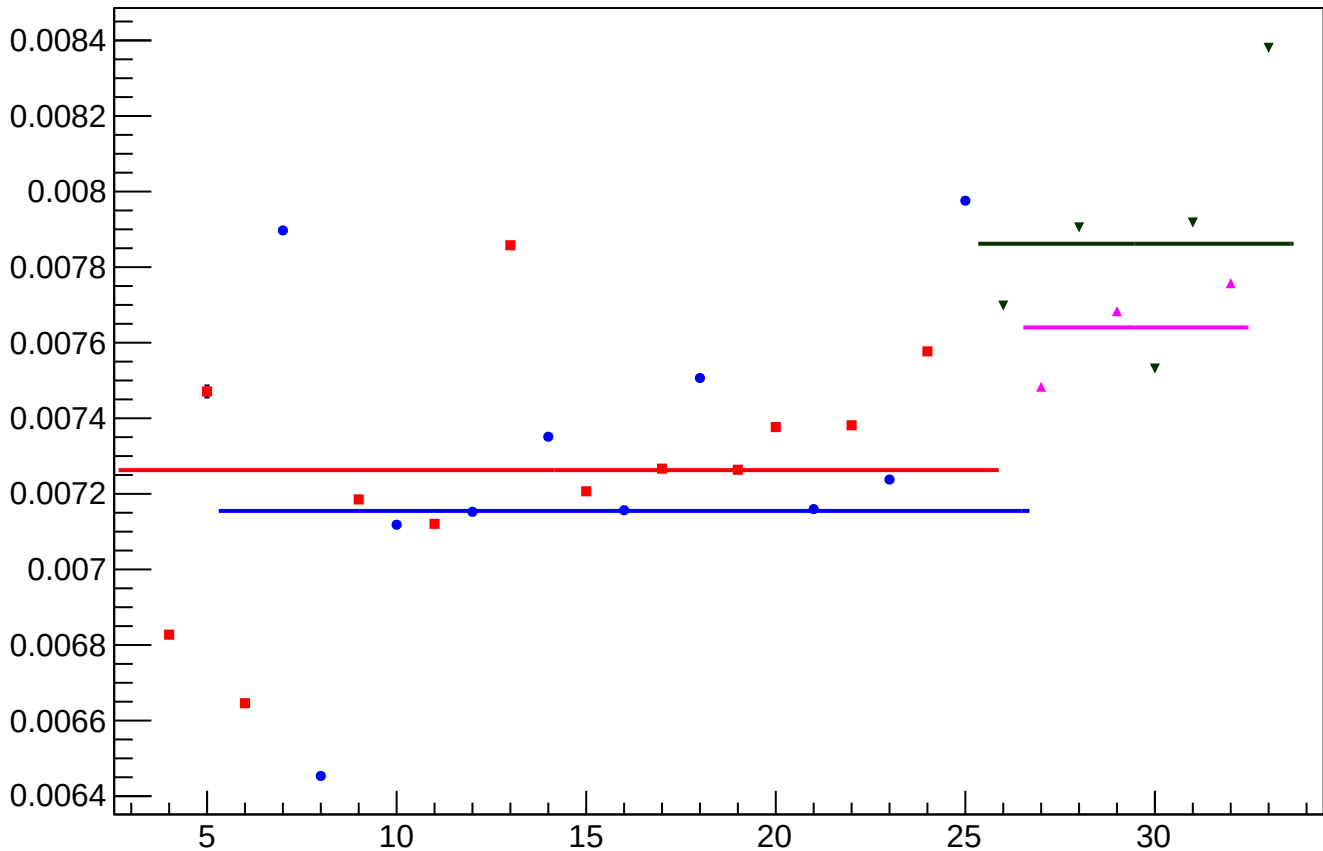
Right Out: 0.099+/-0.000  $\chi^2/\text{NDF}$ : 4238157293.7/11

Left In: -0.510+/-0.000  $\chi^2/\text{NDF}$ : 208332534.7/2

-0.058+/-0.000  $\chi^2/\text{NDF}$ : 17096051627.6/14

-0.066+/-0.000  $\chi^2/\text{NDF}$ : 16149243868.0/14

# yield\_bpm0l04Y\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 35013.6/9

Left Out: 0.008+/-0.000  $\chi^2/\text{NDF}$ :6334.0/4

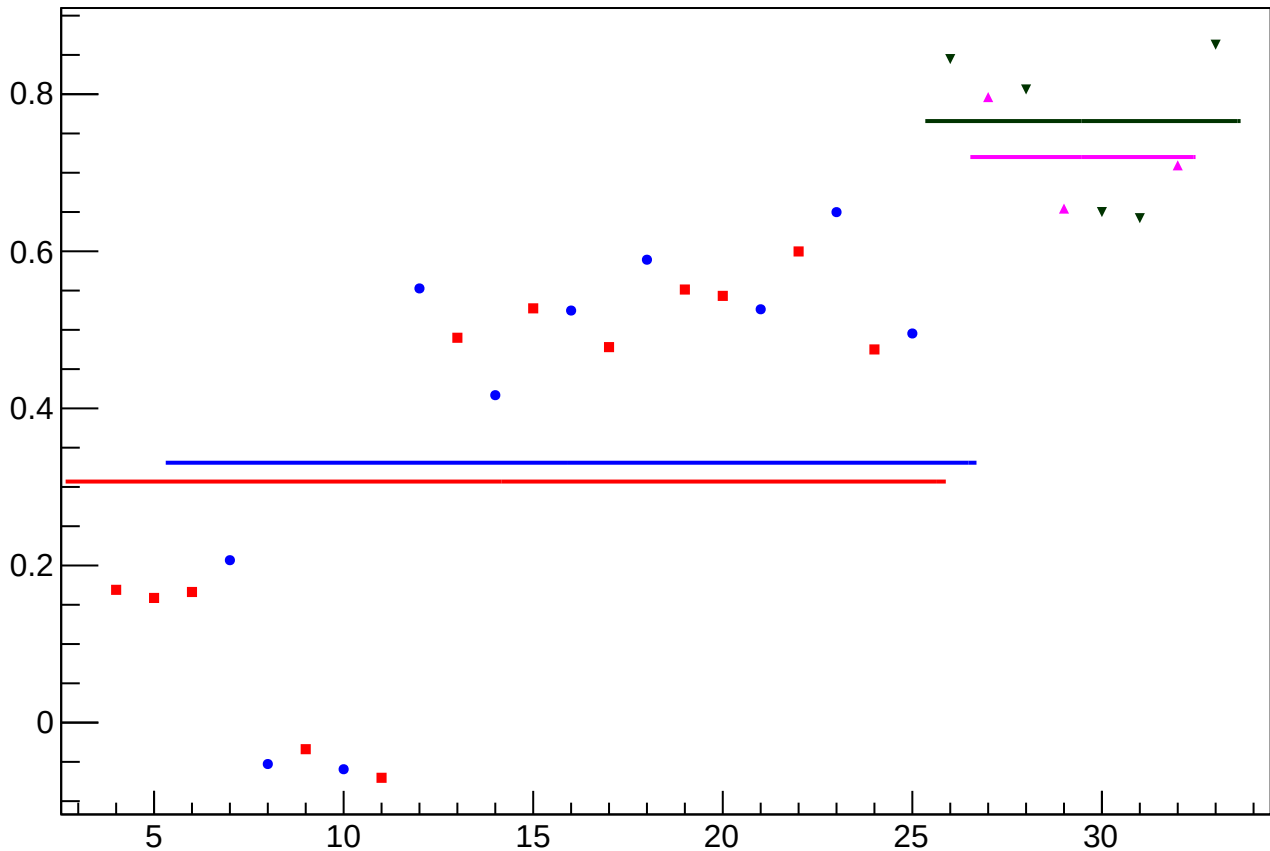
Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 25457.6/11

Left In: 0.008+/-0.000  $\chi^2/\text{NDF}$ :1172.7/2

0.007+/-0.000  $\chi^2/\text{NDF}$ : 71590.5/14

0.007+/-0.000  $\chi^2/\text{NDF}$ : 35627.5/14

# yield\_bpm0l05X\_mean vs slug



Right In: 0.331+/-0.000  $\chi^2/\text{NDF}$ : 10288533334.9/9

Left Out: 0.766+/-0.000  $\chi^2/\text{NDF}$ : 471168446.8/4

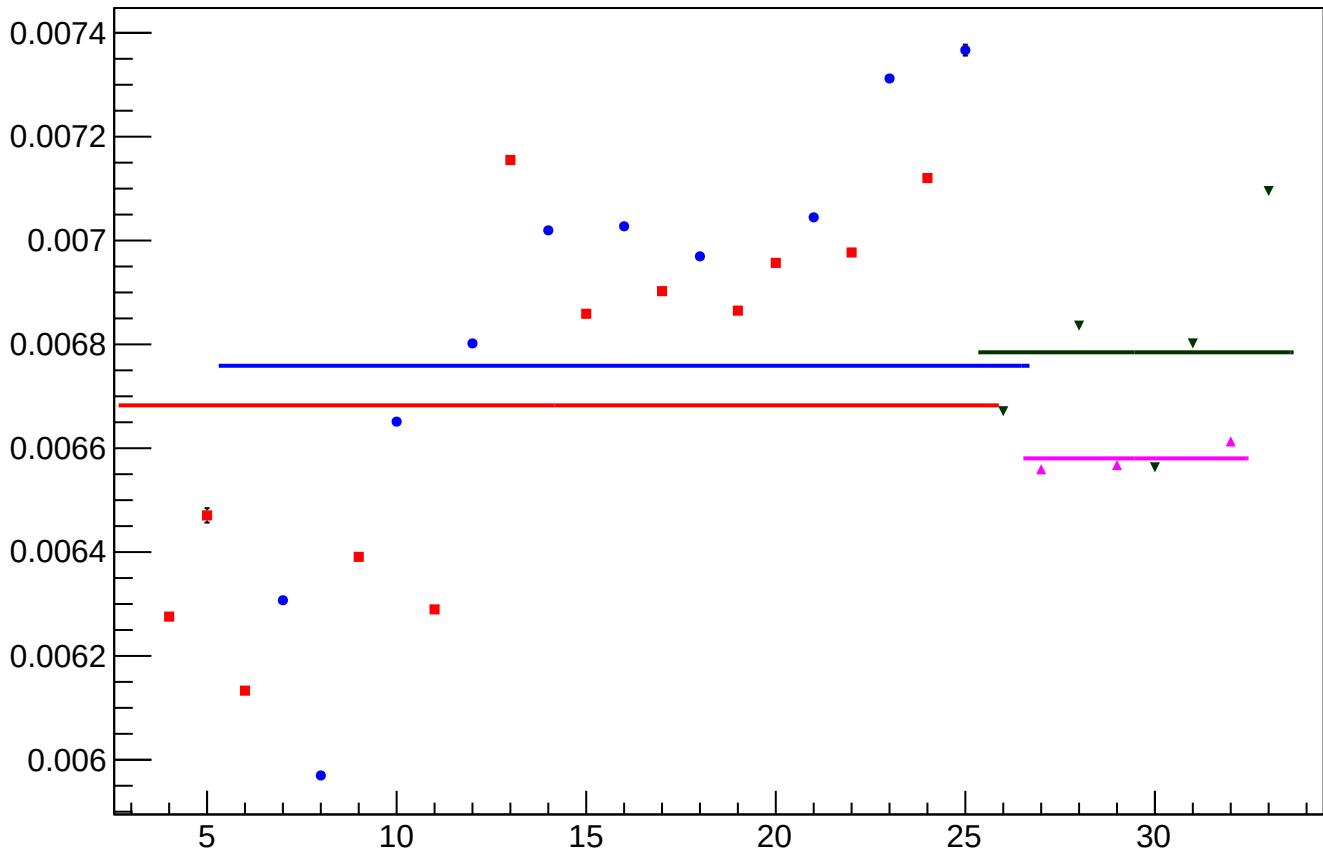
0.455+/-0.000  $\chi^2/\text{NDF}$ : 18237296958.3/14

Right Out: 0.307+/-0.000  $\chi^2/\text{NDF}$ : 8592627222.1/11

0.430+/-0.000  $\chi^2/\text{NDF}$ : 15856555327.3/14

Left In: 0.720+/-0.000  $\chi^2/\text{NDF}$ : 199496388.4/2

# yield\_bpm0l05X\_rms vs slug



Right In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 51100.4/9

Left Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 3498.4/4

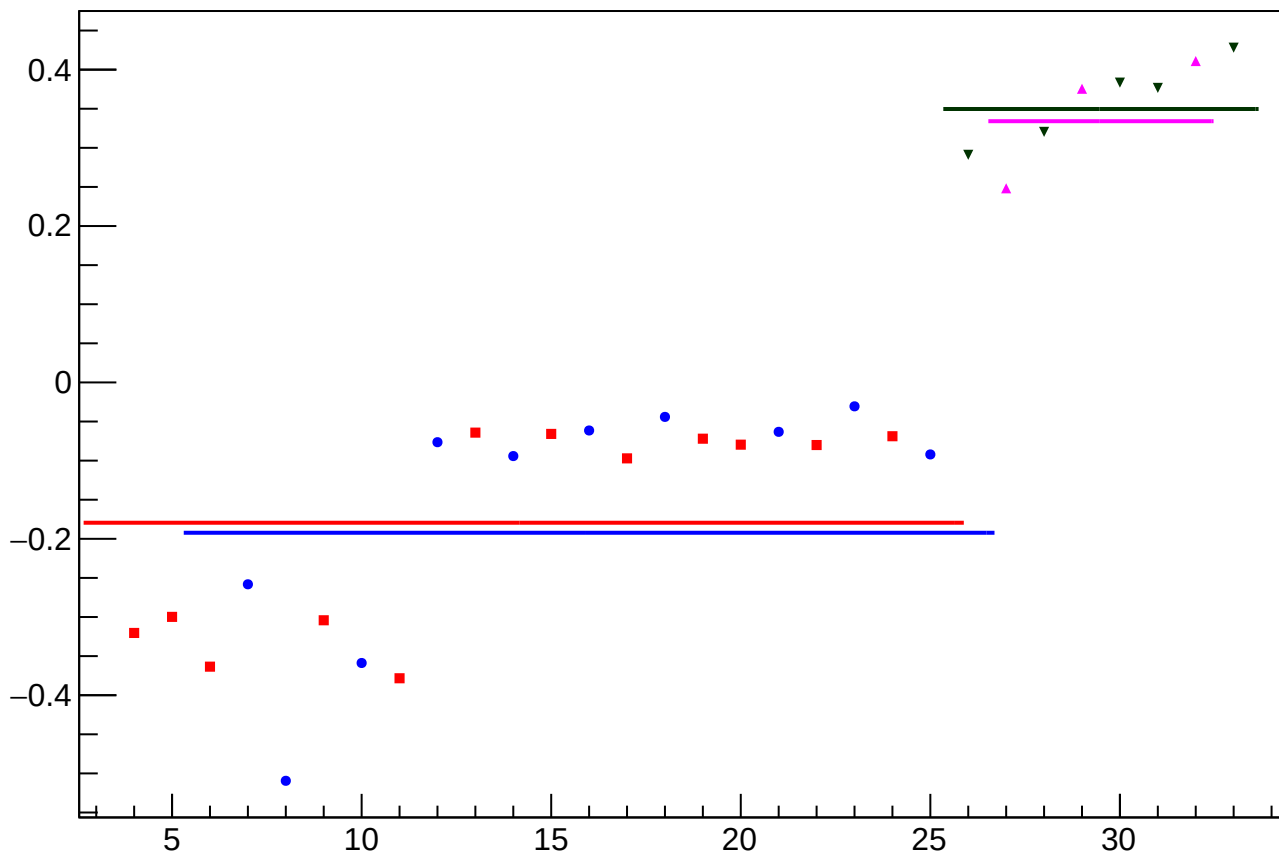
0.007+/-0.000  $\chi^2/\text{NDF}$ : 54651.9/14

Right Out: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 37923.0/11

0.007+/-0.000  $\chi^2/\text{NDF}$ : 38852.4/14

Left In: 0.007+/-0.000  $\chi^2/\text{NDF}$ : 66.3/2

# yield\_bpm0l05Y\_mean vs slug



Right In: -0.192 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 7520458731.7/9

Left Out: 0.350 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 175757214.6/4

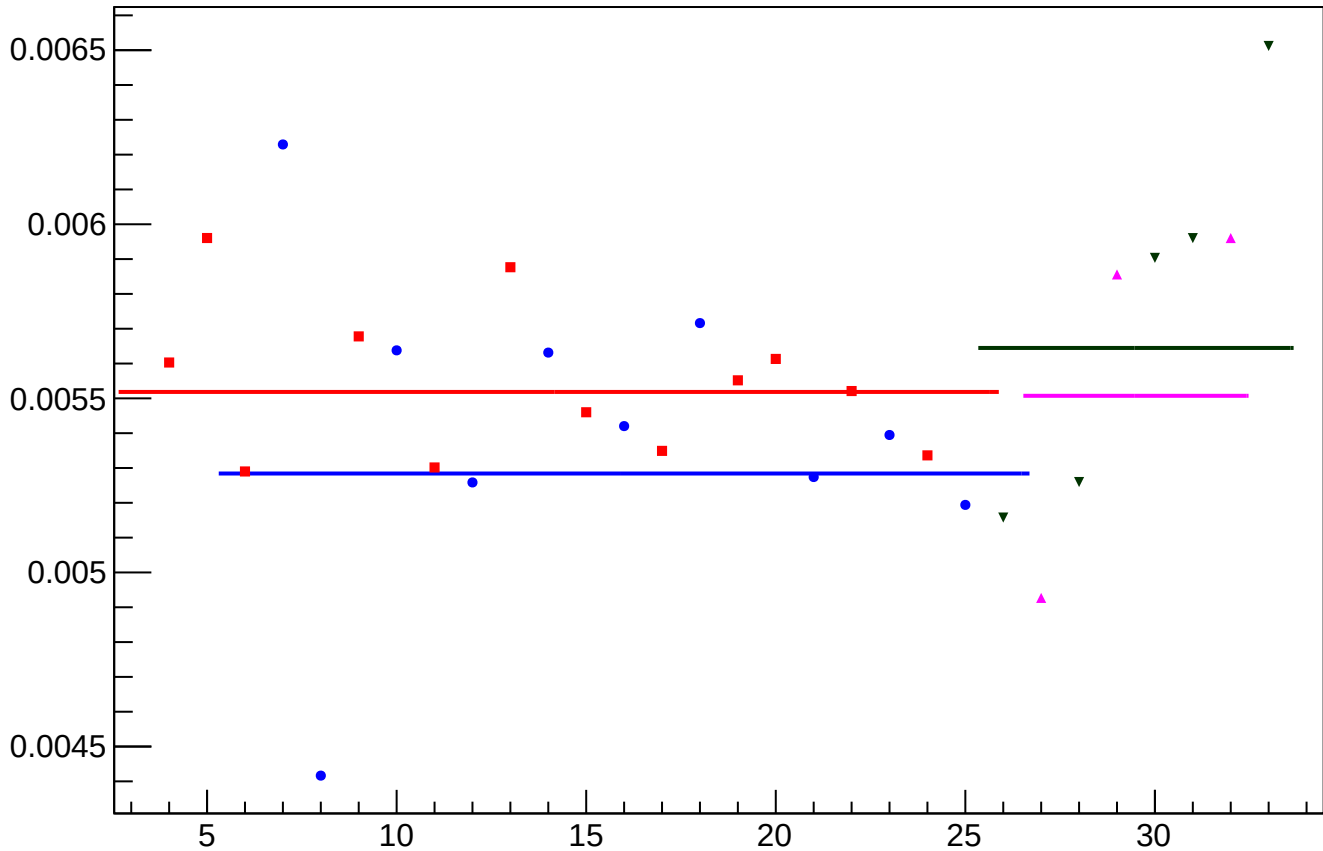
Right Out: -0.179 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3508774818.6/11

Left In: 0.334 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 432594061.8/2

-0.054 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 24364204504.7/14

-0.030 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 19269376816.3/14

# yield\_bpm0l05Y\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 101310.2/9

Left Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 36403.3/4

Right Out: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 15882.5/11

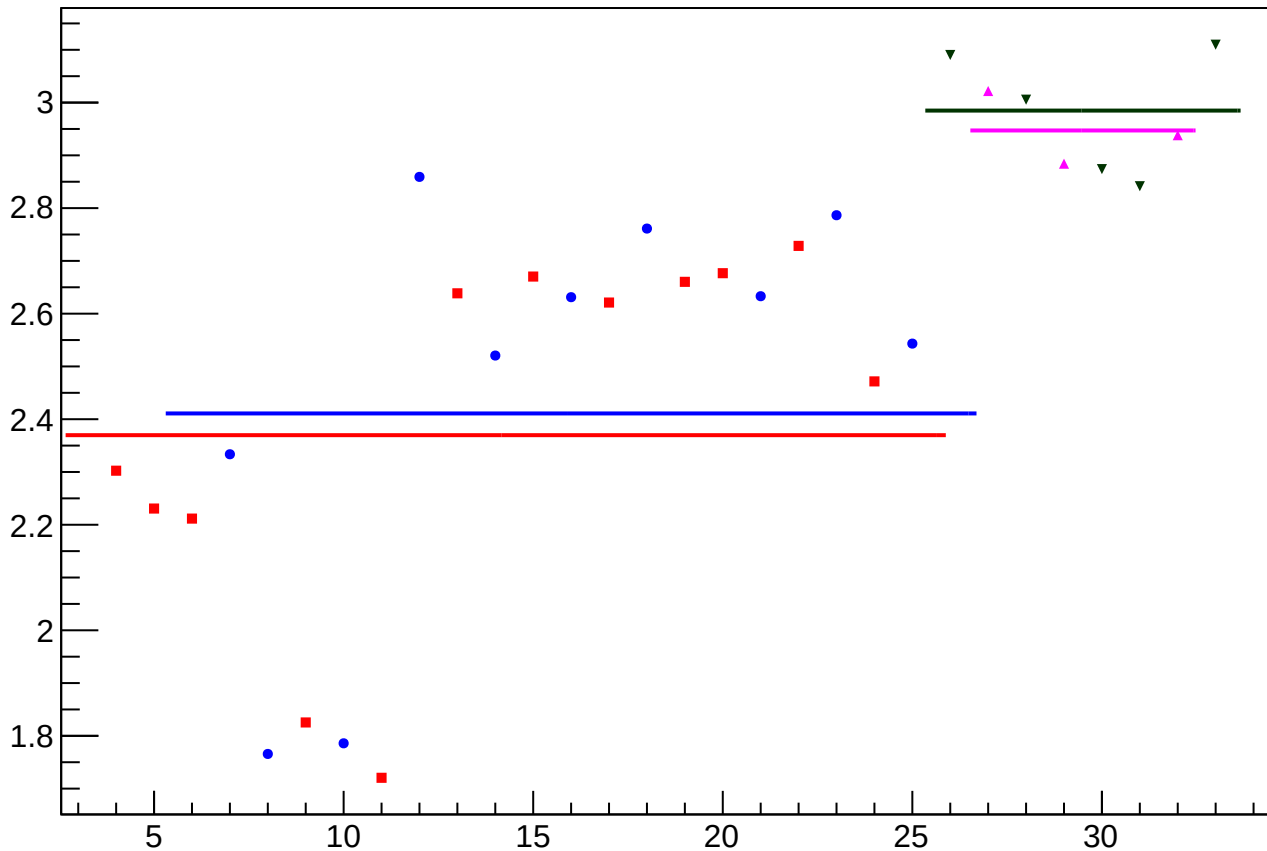
Left In: 0.006+/-0.000  $\chi^2/\text{NDF}$ : 38462.4/2

0.005+/-0.000  $\chi^2/\text{NDF}$ : 152476.0/14

0.006+/-0.000  $\chi^2/\text{NDF}$ : 54359.1/14



# yield\_bpm0l06X\_mean vs slug



Right In: 2.411 $\pm$ 0.000  $\chi^2$ /NDF: 8288488350.8/9

Left Out: 2.985 $\pm$ 0.000  $\chi^2$ /NDF:300362931.0/4

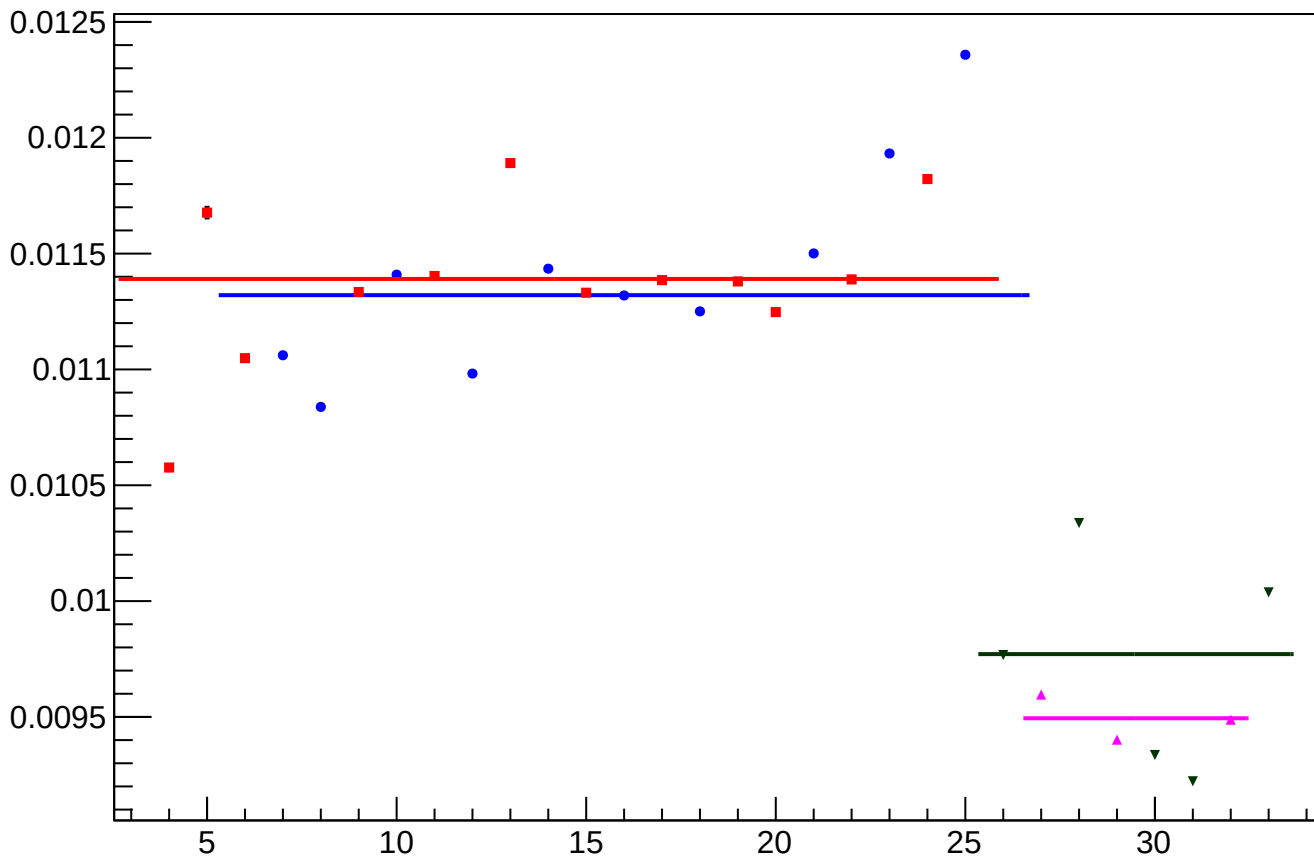
2.614 $\pm$ 0.000  $\chi^2$ /NDF: 14343750051.9/14

Right Out: 2.370 $\pm$ 0.000  $\chi^2$ /NDF: 6148614256.2/11

2.585 $\pm$ 0.000  $\chi^2$ /NDF: 12173587485.6/14

Left In: 2.947 $\pm$ 0.000  $\chi^2$ /NDF:90052367.7/2

# yield\_bpm0l06X\_rms vs slug



Right In: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 11666.9/9

Left Out: 0.010+/-0.000  $\chi^2/\text{NDF}$ : 9811.1/4

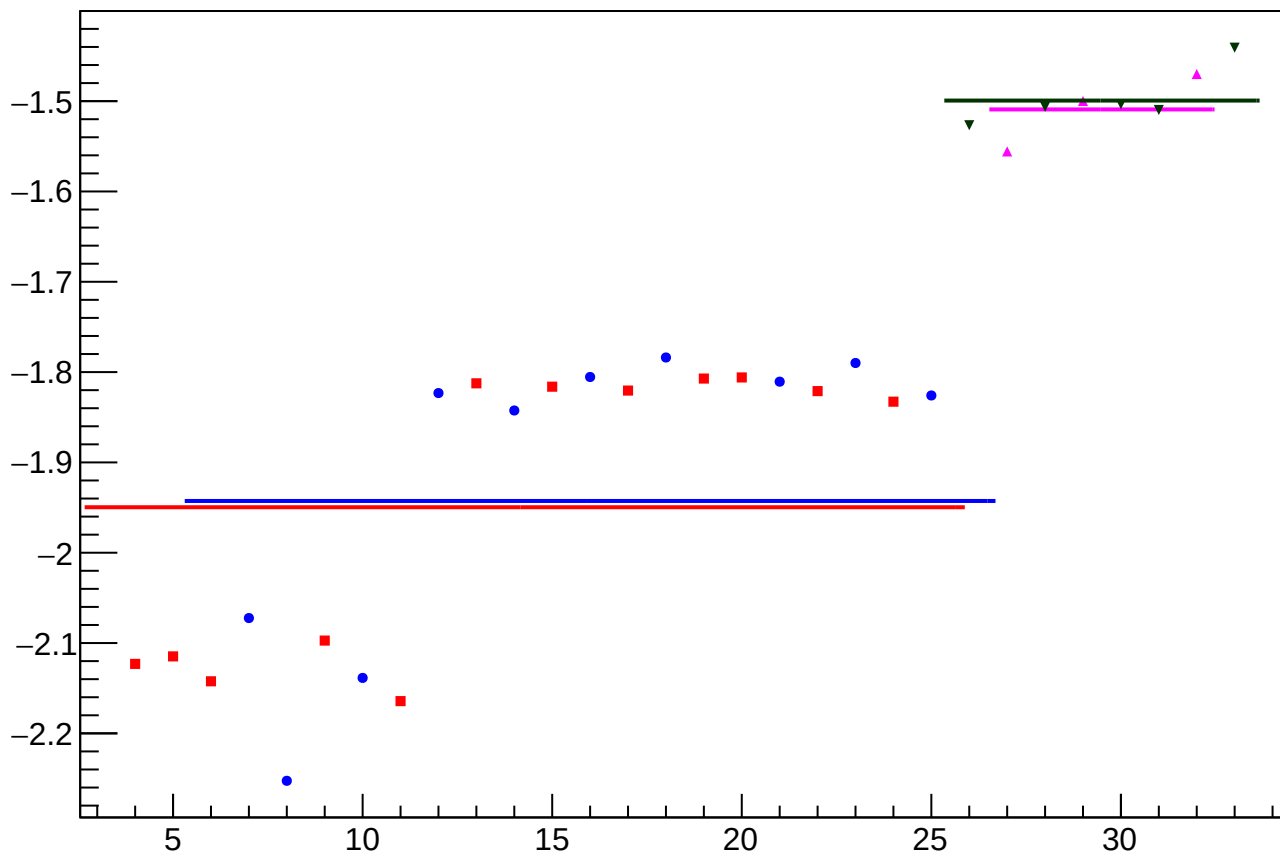
Right Out: 0.011+/-0.000  $\chi^2/\text{NDF}$ : 10496.6/11

Left In: 0.009+/-0.000  $\chi^2/\text{NDF}$ : 355.9/2

0.011+/-0.000  $\chi^2/\text{NDF}$ : 105375.2/14

0.011+/-0.000  $\chi^2/\text{NDF}$ : 138894.2/14

# yield\_bpm0l06Y\_mean vs slug



Right In: -1.943+/-0.000  $\chi^2/\text{NDF}$ : 9180562095.2/9

Left Out: -1.499+/-0.000  $\chi^2/\text{NDF}$ : 67404826.3/4

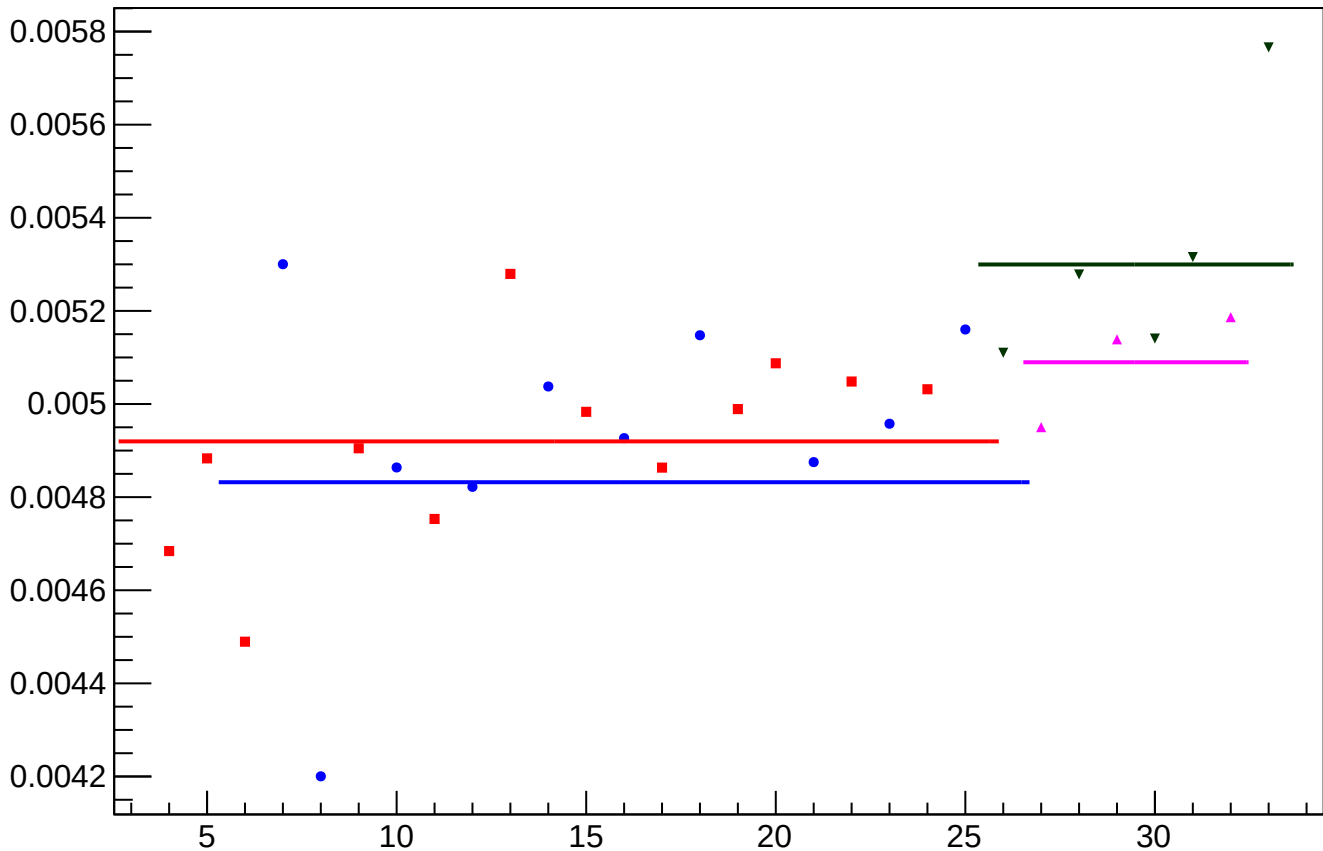
Right Out: -1.950+/-0.000  $\chi^2/\text{NDF}$ : 6176400274.4/11

Left In: -1.509+/-0.000  $\chi^2/\text{NDF}$ : 125224250.3/2

-1.833+/-0.000  $\chi^2/\text{NDF}$ : 22317071558.7/14

-1.827+/-0.000  $\chi^2/\text{NDF}$ : 19978175723.3/14

# yield\_bpm0l06Y\_rms vs slug



Right In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 55245.9/9

Left Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 8812.1/4

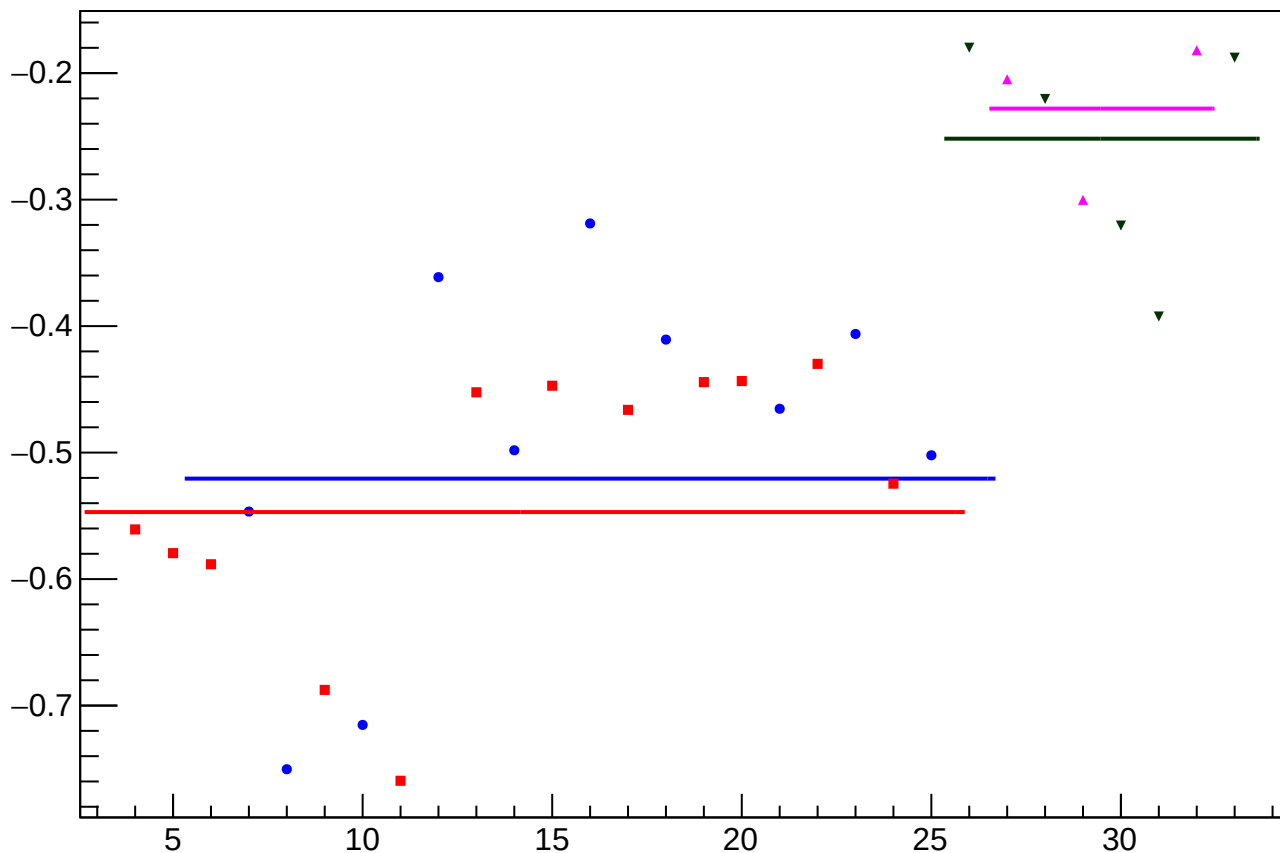
Right Out: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 23832.0/11

Left In: 0.005+/-0.000  $\chi^2/\text{NDF}$ : 2067.3/2

0.005+/-0.000  $\chi^2/\text{NDF}$ : 93145.2/14

0.005+/-0.000  $\chi^2/\text{NDF}$ : 29972.2/14

# yield\_bpm0l07X\_mean vs slug



Right In: -0.521+/-0.000  $\chi^2/\text{NDF}$ : 473408207.3/9

Left Out: -0.252+/-0.000  $\chi^2/\text{NDF}$ : 69537089.2/4

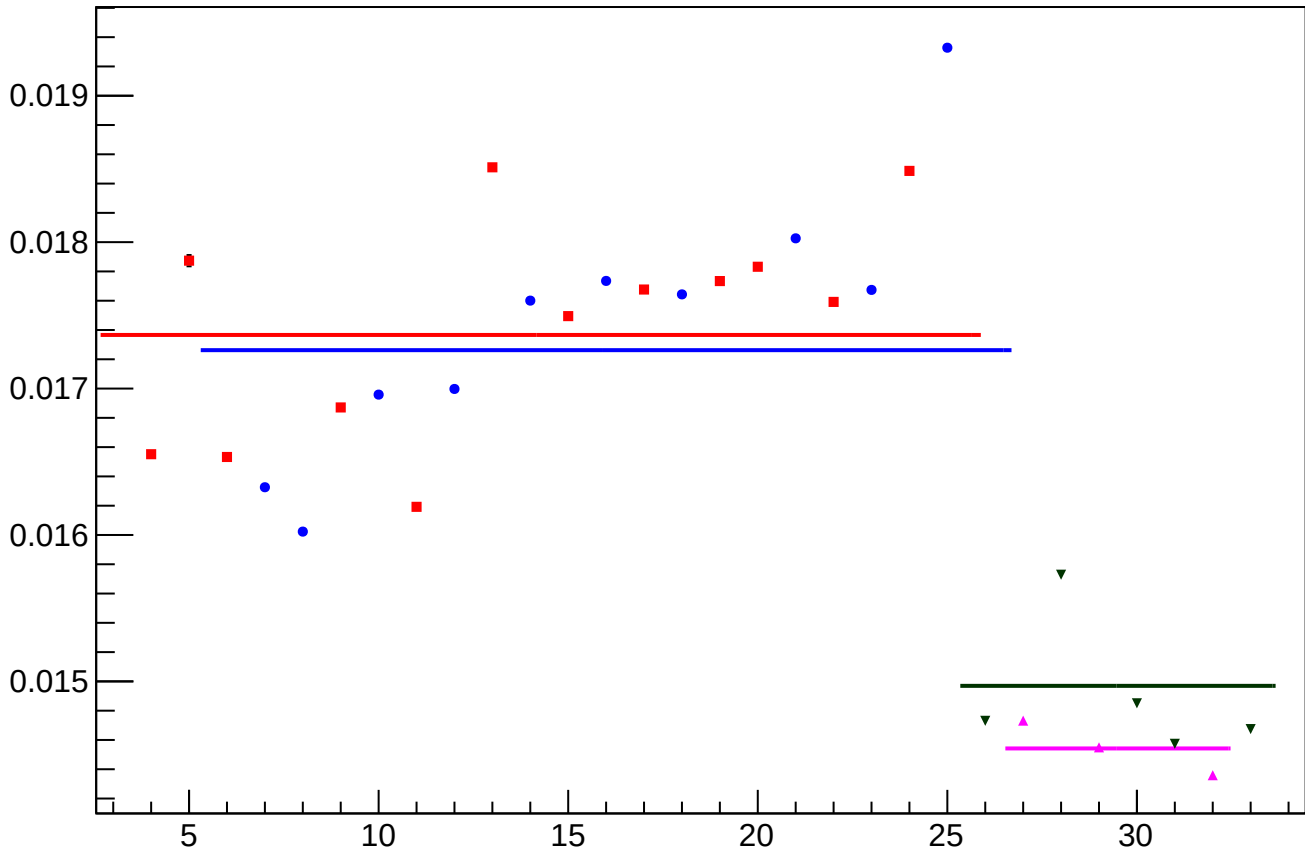
Right Out: -0.547+/-0.000  $\chi^2/\text{NDF}$ : 269735804.4/11

Left In: -0.228+/-0.000  $\chi^2/\text{NDF}$ : 31949429.5/2

-0.425+/-0.000  $\chi^2/\text{NDF}$ : 1087319957.0/14

-0.428+/-0.000  $\chi^2/\text{NDF}$ : 1077172248.8/14

# yield\_bpm0l07X\_rms vs slug



Right In: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 24130.4/9

Left Out: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 4630.5/4

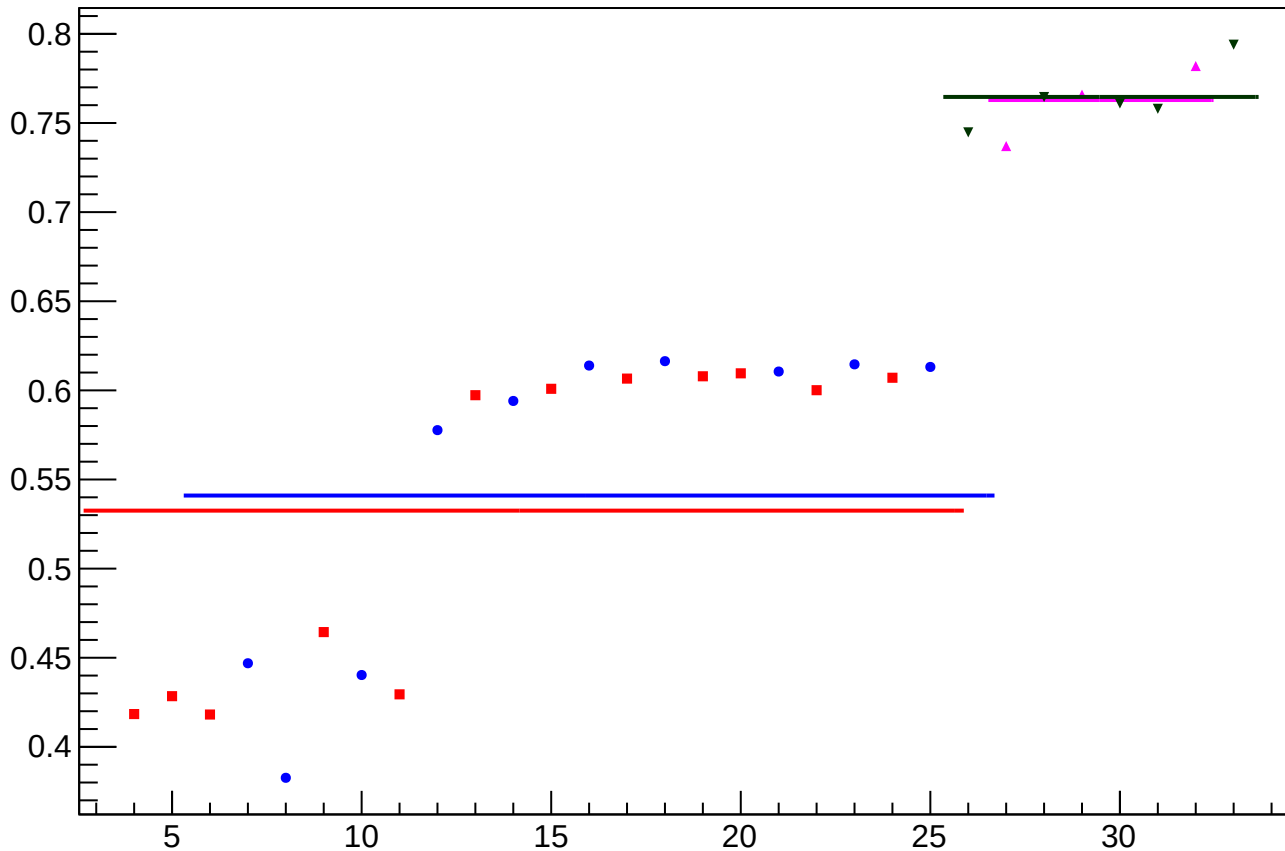
Right Out: 0.017+/-0.000  $\chi^2/\text{NDF}$ : 25208.5/11

Left In: 0.015+/-0.000  $\chi^2/\text{NDF}$ : 568.8/2

0.016+/-0.000  $\chi^2/\text{NDF}$ : 108002.2/14

0.016+/-0.000  $\chi^2/\text{NDF}$ : 147370.7/14

# yield\_bpm0l07Y\_mean vs slug



Right In: 0.541+/-0.000  $\chi^2/\text{NDF}$ : 5869404533.9/9

Left Out: 0.765+/-0.000  $\chi^2/\text{NDF}$ : 57174602.4/4

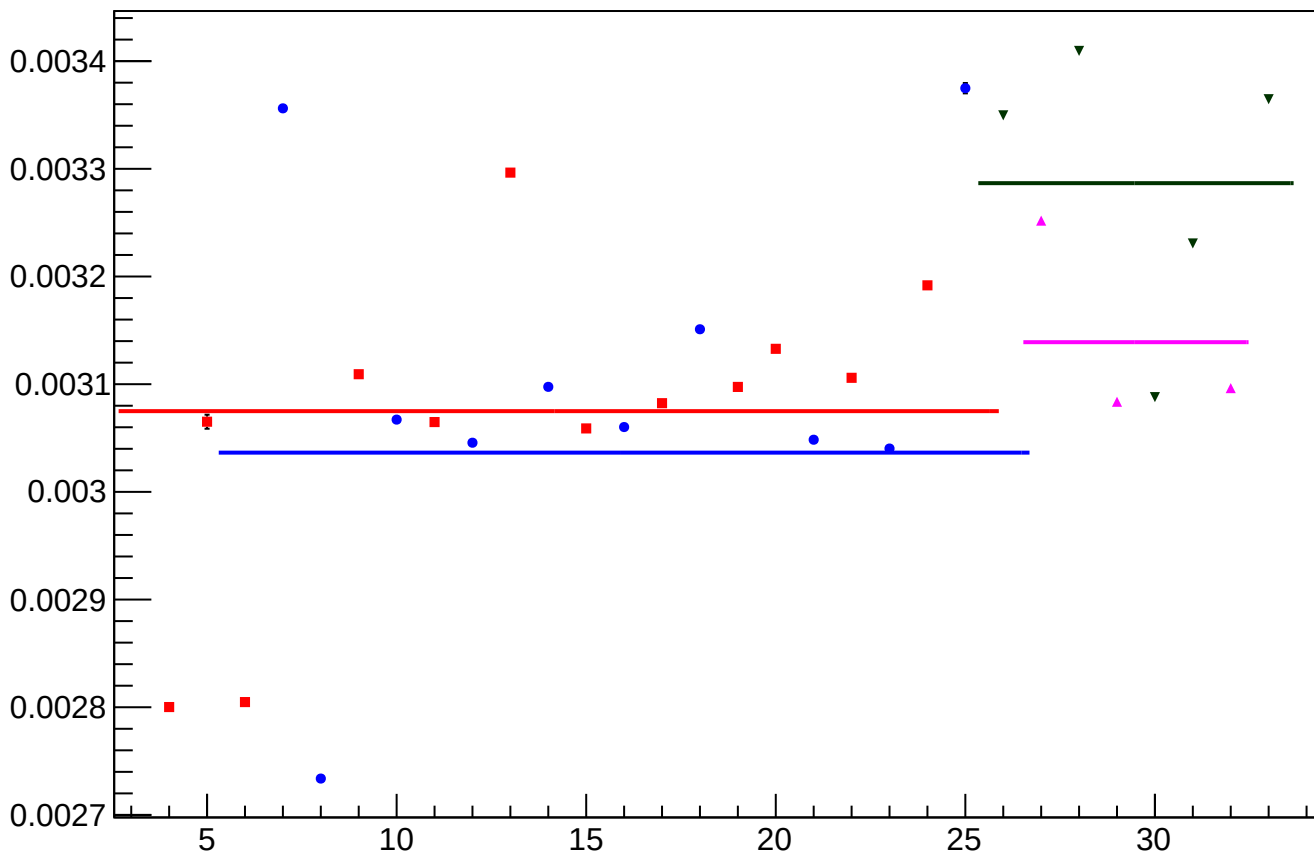
0.598+/-0.000  $\chi^2/\text{NDF}$ : 14589007396.2/14

Right Out: 0.533+/-0.000  $\chi^2/\text{NDF}$ : 4611310317.7/11

0.598+/-0.000  $\chi^2/\text{NDF}$ : 14483475083.1/14

Left In: 0.763+/-0.000  $\chi^2/\text{NDF}$ : 85936247.3/2

# yield\_bpm0l07Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 33871.1/9

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 7131.2/4

Right Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 27152.3/11

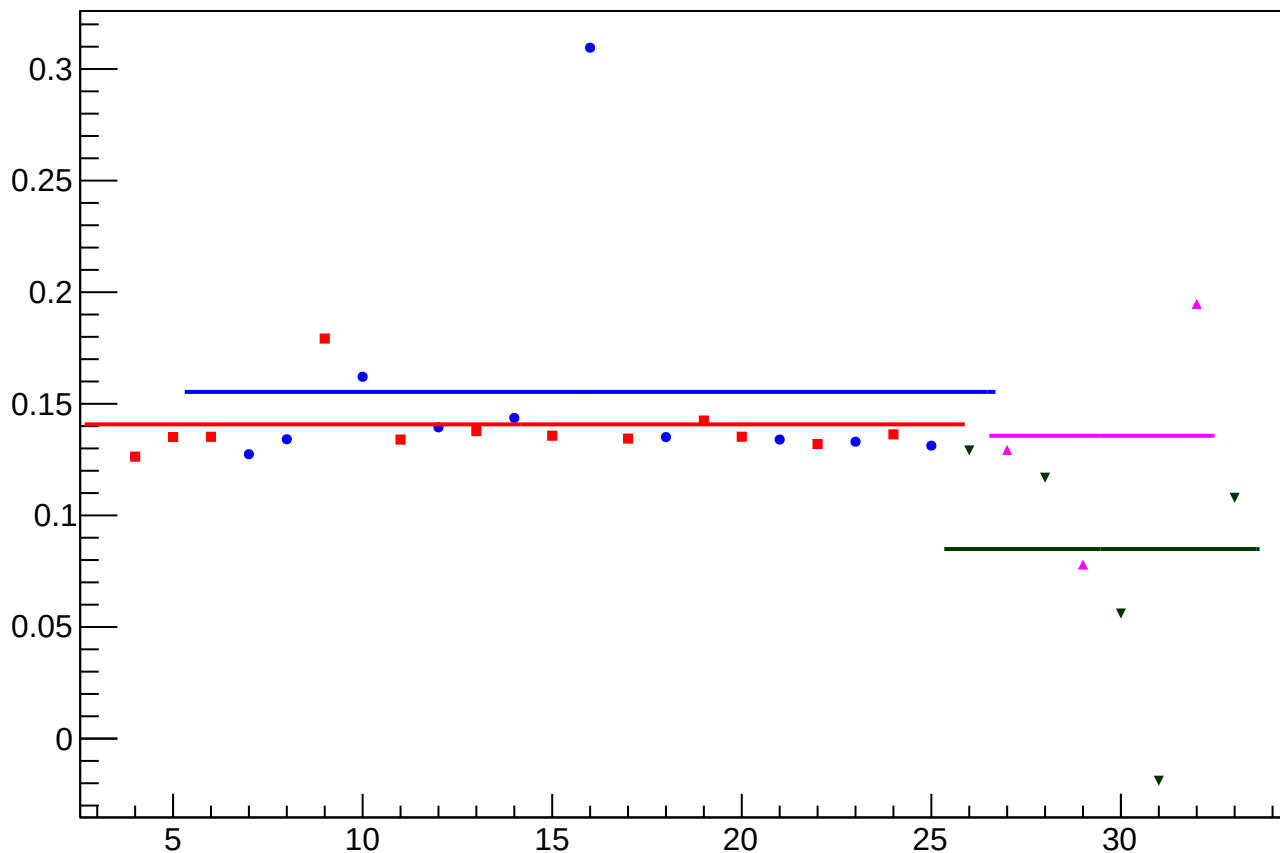
Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 2852.9/2

0.003+/-0.000  $\chi^2/\text{NDF}$ : 62694.4/14

0.003+/-0.000  $\chi^2/\text{NDF}$ : 31517.8/14



# yield\_bpm0l08X\_mean vs slug



Right In: 0.155+/-0.000  $\chi^2/\text{NDF}$ : 60529861.8/9

Left Out: 0.085+/-0.000  $\chi^2/\text{NDF}$ : 33864901.0/4

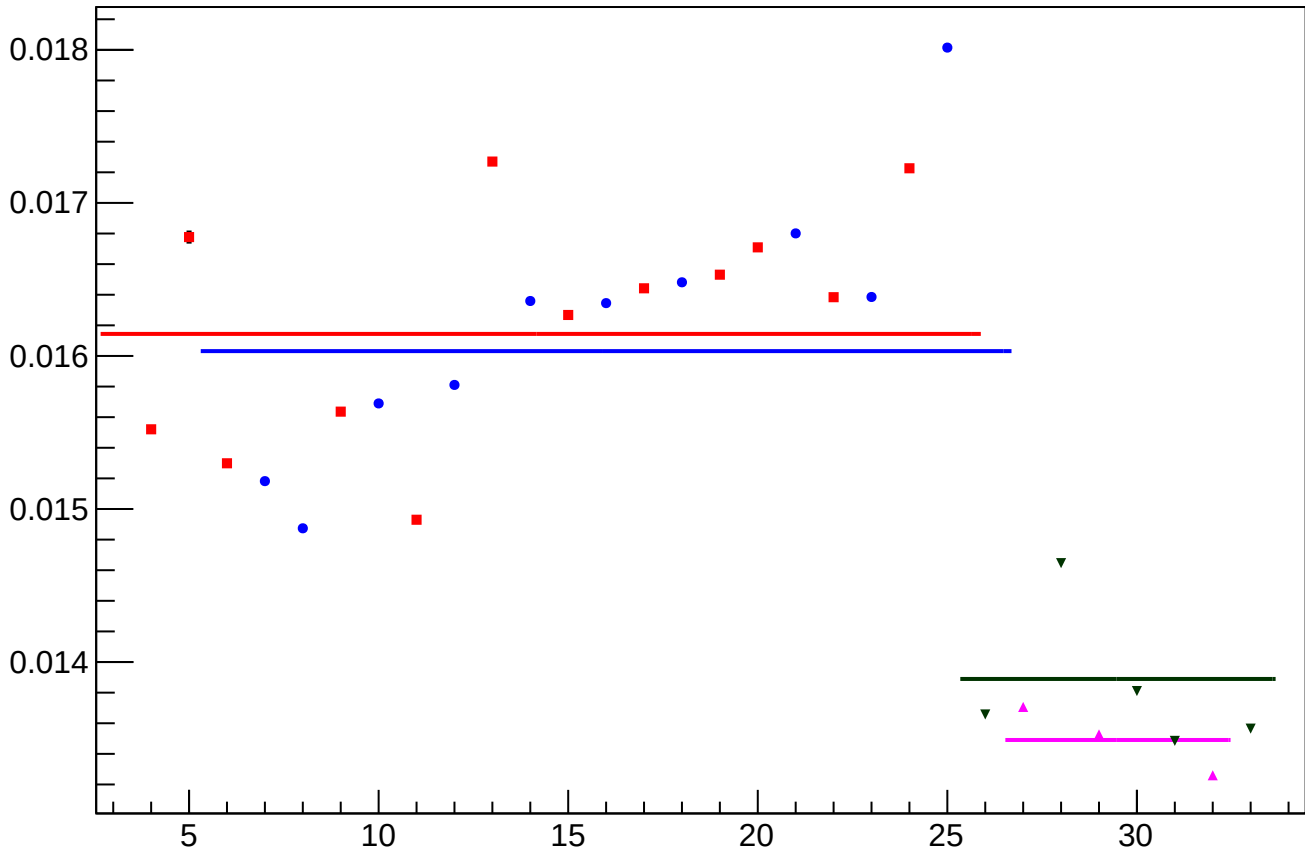
Right Out: 0.141+/-0.000  $\chi^2/\text{NDF}$ : 5462429.5/11

Left In: 0.136+/-0.000  $\chi^2/\text{NDF}$ : 32967336.5/2

0.130+/-0.000  $\chi^2/\text{NDF}$ : 137726997.7/14

0.139+/-0.000  $\chi^2/\text{NDF}$ : 38660606.8/14

# yield\_bpm0l08X\_rms vs slug



Right In: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 25086.5/9

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 5408.1/4

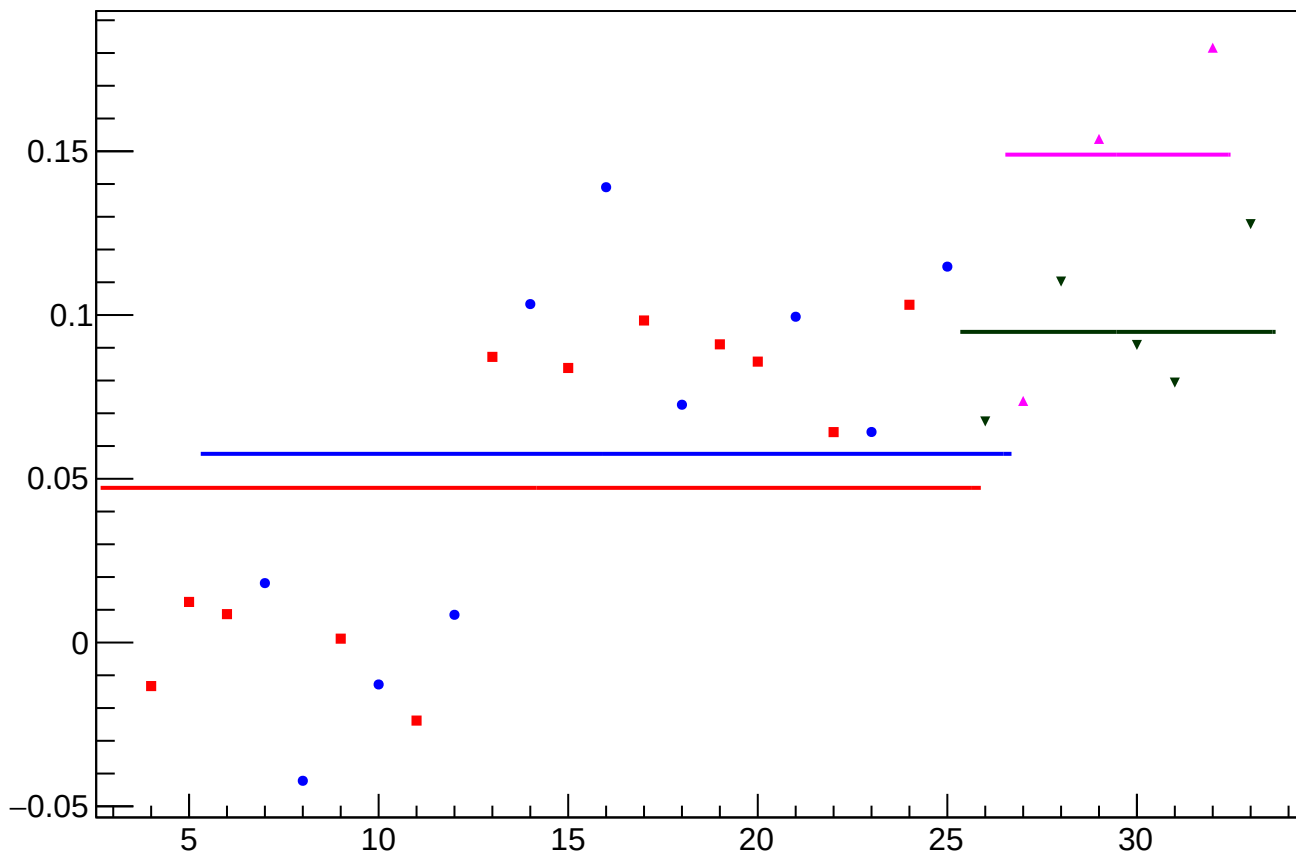
0.015+/-0.000  $\chi^2/\text{NDF}$ : 110734.1/14

Right Out: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 28739.5/11

0.015+/-0.000  $\chi^2/\text{NDF}$ : 153966.6/14

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 967.2/2

# yield\_bpm0l08Y\_mean vs slug



Right In: 0.058 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2106835310.3/9

Left Out: 0.047 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 86438921.7/4

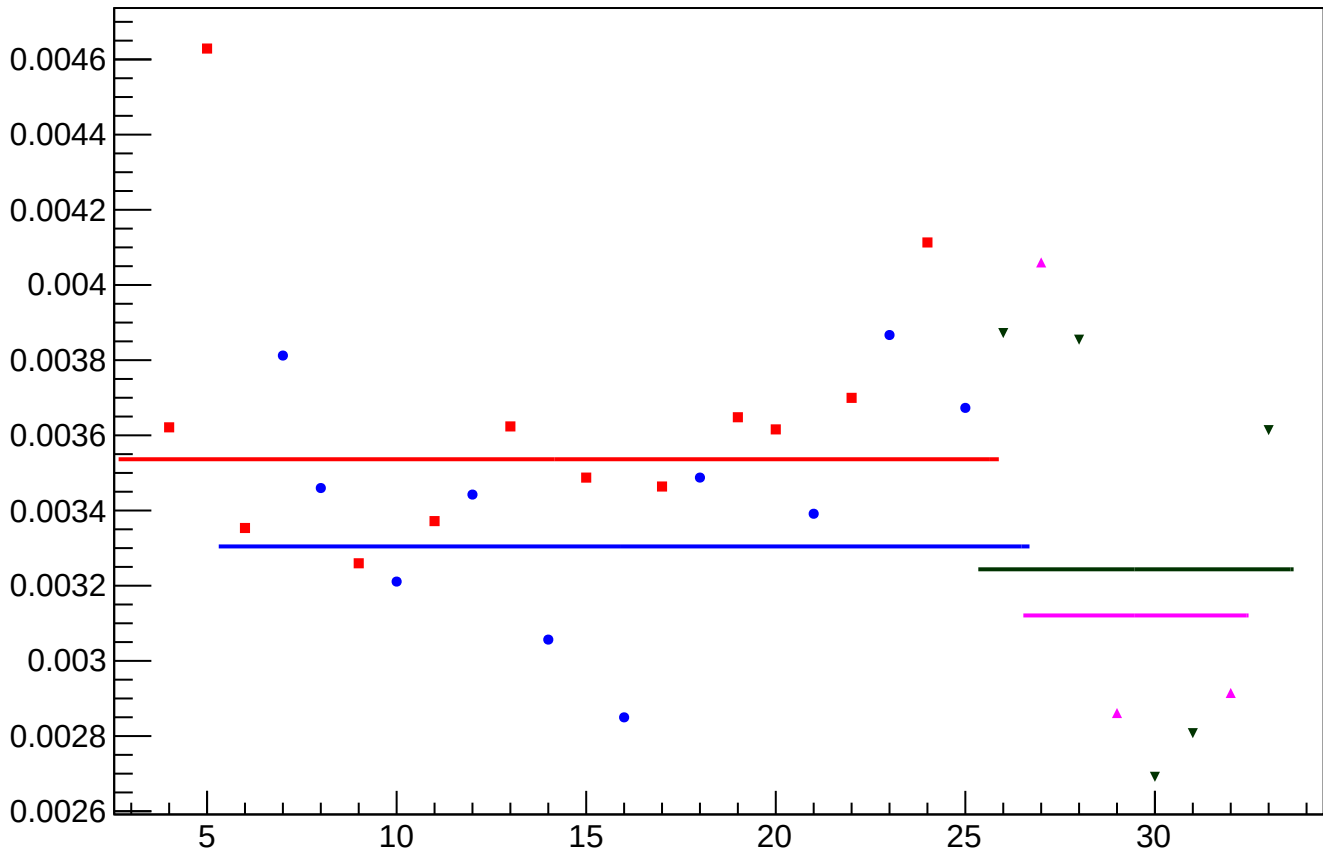
Right Out: 0.047 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 1076949152.4/11

Left In: 0.149 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 391871546.2/2

0.068 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 2418064516.4/14

0.083 $\pm$ 0.000  $\chi^2/\text{NDF}$ : 3169017310.3/14

# yield\_bpm0l08Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 88903.2/9

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :127705.6/4

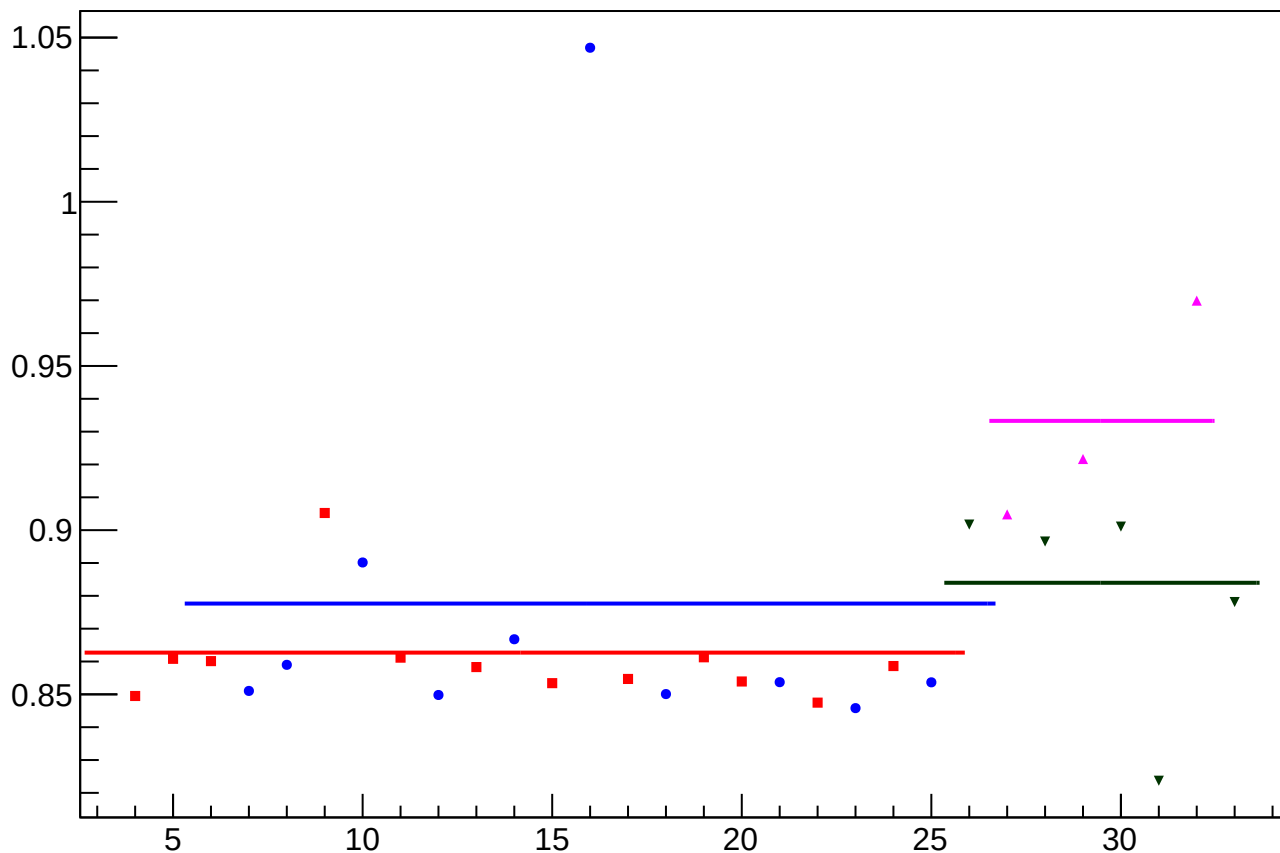
Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 54073.0/11

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :110358.9/2

0.003+/-0.000  $\chi^2/\text{NDF}$ : 217809.6/14

0.003+/-0.000  $\chi^2/\text{NDF}$ : 221157.7/14

# yield\_bpm0l09X\_mean vs slug



Right In: 0.878+/-0.000  $\chi^2/\text{NDF}$ : 78564555.7/9

Left Out: 0.884+/-0.000  $\chi^2/\text{NDF}$ : 9891678.8/4

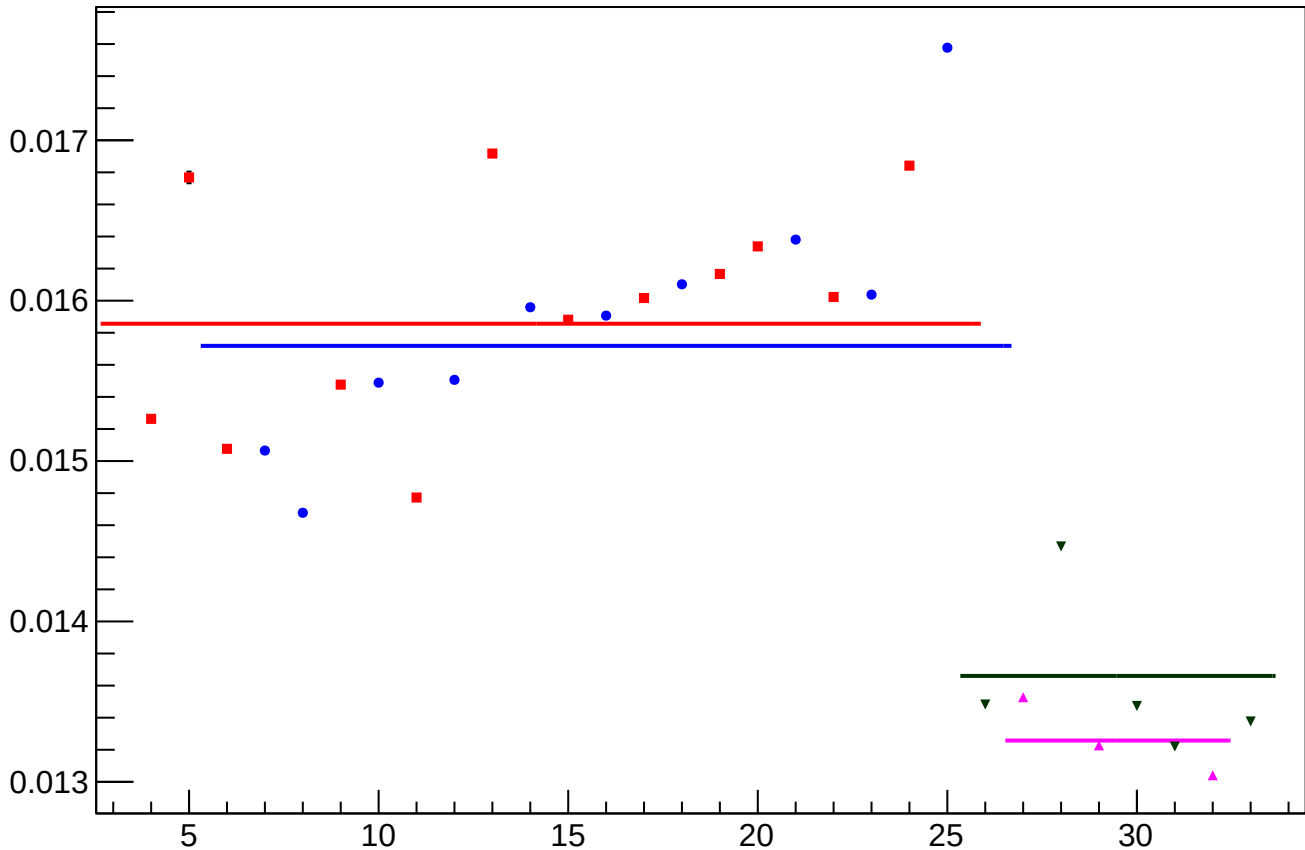
Right Out: 0.863+/-0.000  $\chi^2/\text{NDF}$ : 6919011.1/11

Left In: 0.933+/-0.000  $\chi^2/\text{NDF}$ : 11348197.0/2

0.880+/-0.000  $\chi^2/\text{NDF}$ : 88818644.4/14

0.889+/-0.000  $\chi^2/\text{NDF}$ : 63772096.8/14

# yield\_bpm0l09X\_rms vs slug



Right In: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 20126.2/9

Left Out: 0.014+/-0.000  $\chi^2/\text{NDF}$ : 6107.7/4

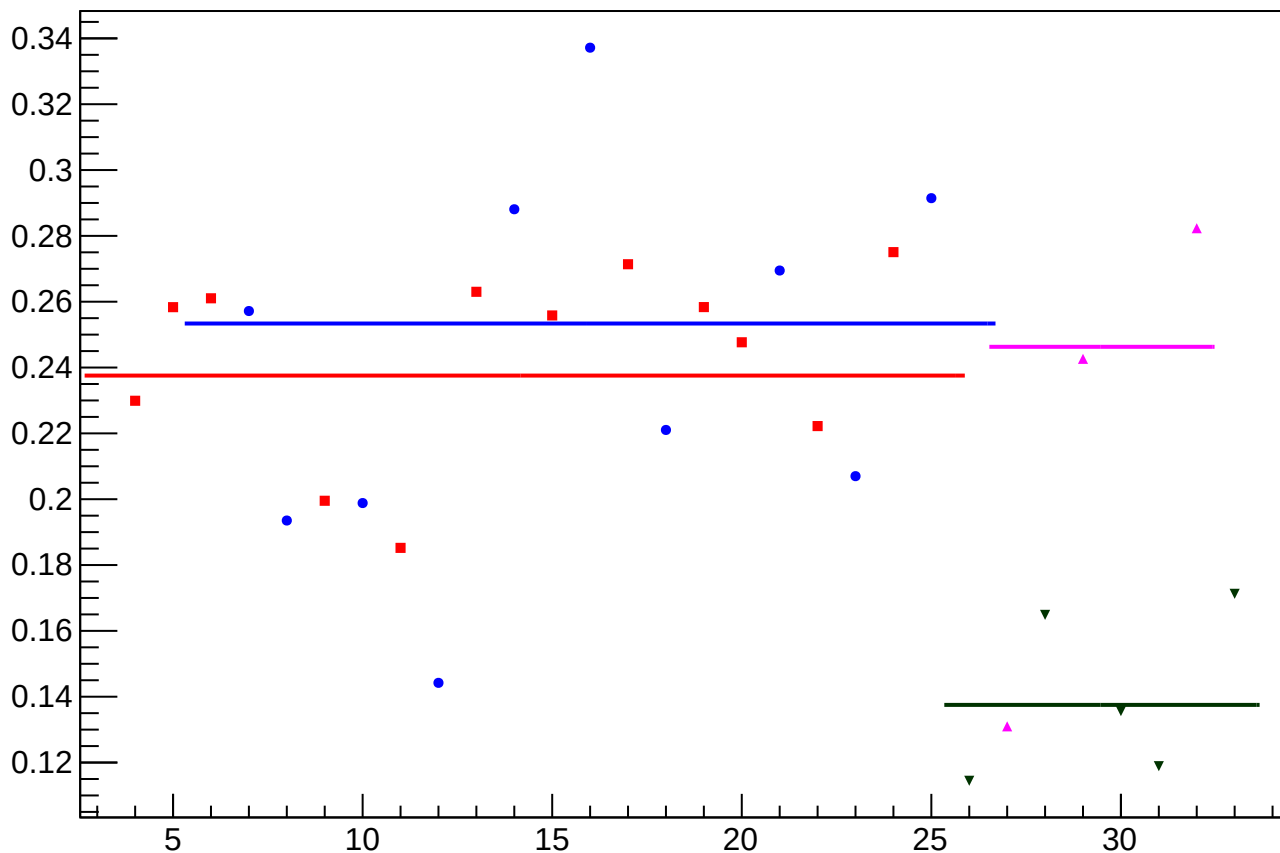
Right Out: 0.016+/-0.000  $\chi^2/\text{NDF}$ : 24366.1/11

Left In: 0.013+/-0.000  $\chi^2/\text{NDF}$ : 1172.6/2

0.015+/-0.000  $\chi^2/\text{NDF}$ : 102856.4/14

0.015+/-0.000  $\chi^2/\text{NDF}$ : 148959.4/14

# yield\_bpm0l09Y\_mean vs slug



Right In: 0.253+/-0.000  $\chi^2/\text{NDF}$ : 1609781231.1/9

Left Out: 0.138+/-0.000  $\chi^2/\text{NDF}$ : 92365253.0/4

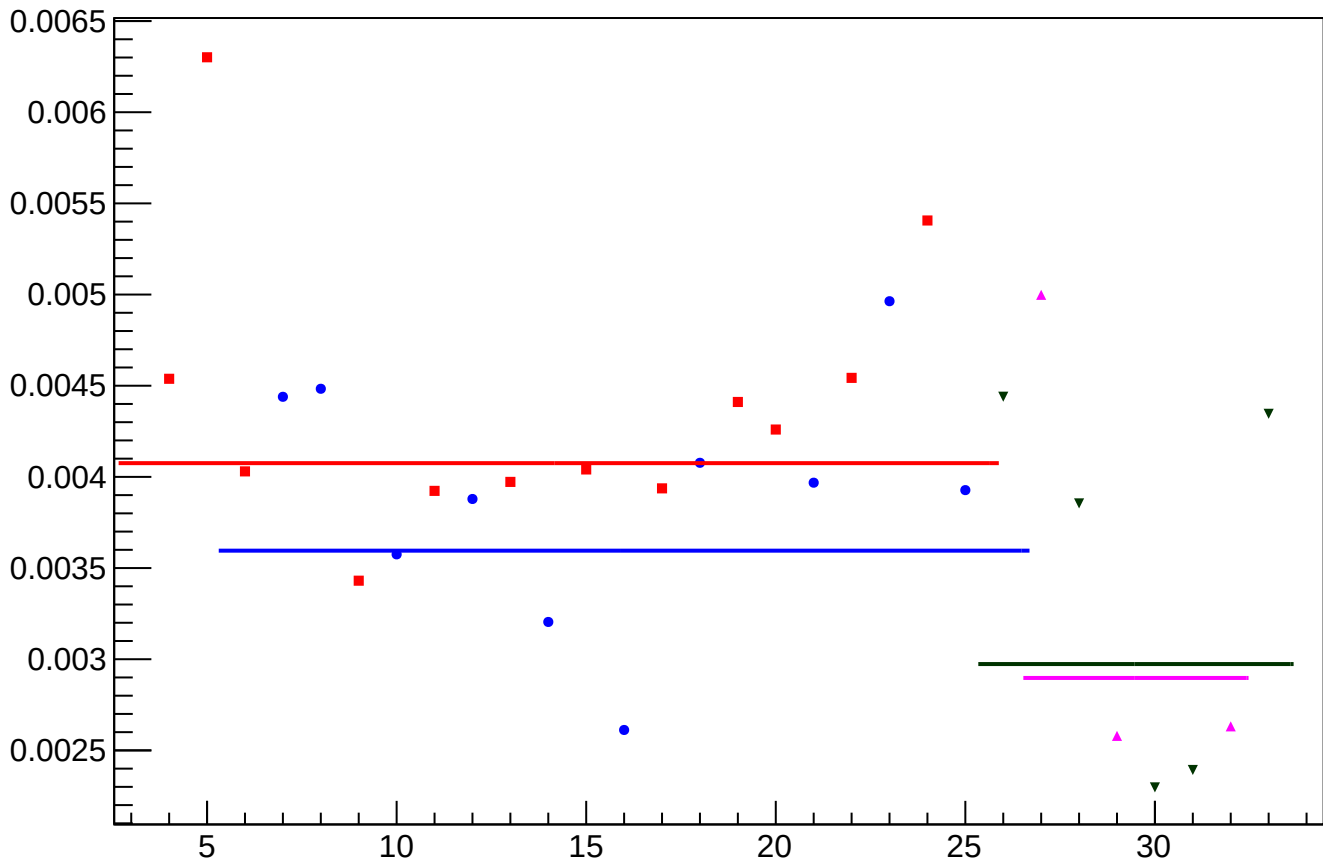
Right Out: 0.238+/-0.000  $\chi^2/\text{NDF}$ : 338609573.2/11

Left In: 0.246+/-0.000  $\chi^2/\text{NDF}$ : 579922186.3/2

0.212+/-0.000  $\chi^2/\text{NDF}$ : 3853119036.2/14

0.241+/-0.000  $\chi^2/\text{NDF}$ : 929944466.6/14

# yield\_bpm0l09Y\_rms vs slug



Right In:  $0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 390761.3/9

Left Out:  $0.003 \pm 0.000$   $\chi^2/\text{NDF}$ : 386409.5/4

$0.003 \pm 0.000$   $\chi^2/\text{NDF}$ : 901106.9/14

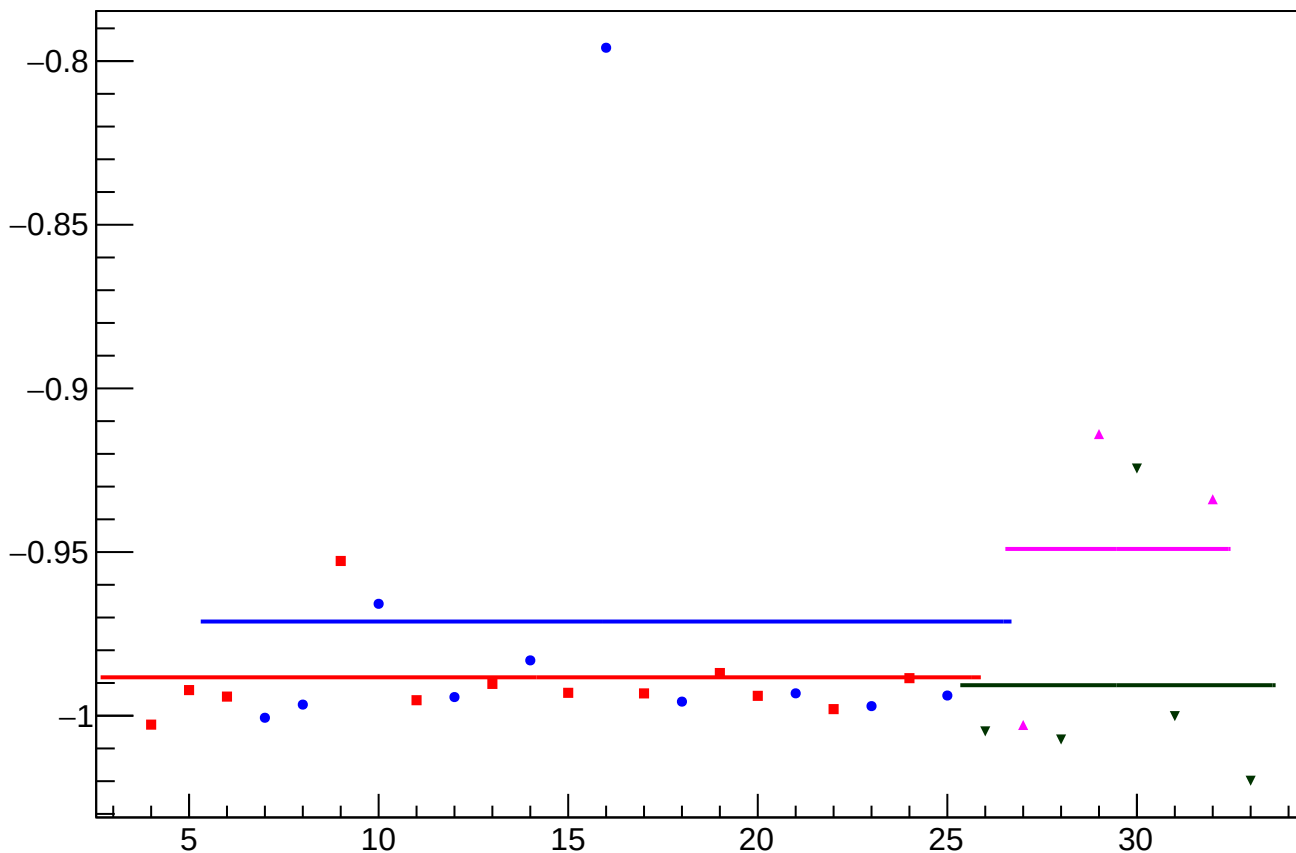
Right Out:  $0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 164404.0/11

$0.004 \pm 0.000$   $\chi^2/\text{NDF}$ : 903865.7/14

Left In:  $0.003 \pm 0.000$   $\chi^2/\text{NDF}$ : 324782.5/2



# yield\_bpm0l10X\_mean vs slug



Right In: -0.971+/-0.000  $\chi^2/\text{NDF}$ : 89914110.4/9

Left Out: -0.991+/-0.000  $\chi^2/\text{NDF}$ : 18153961.5/4

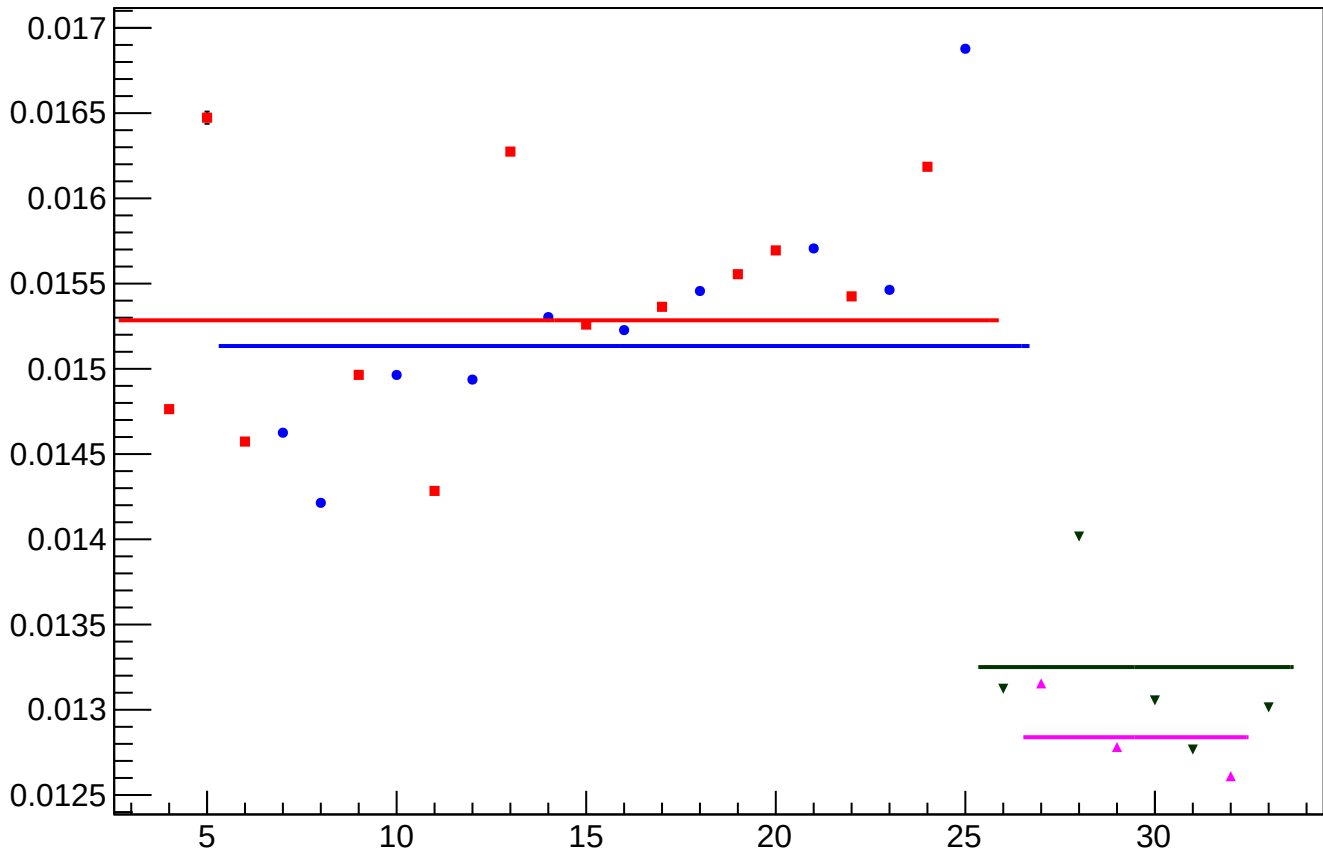
Right Out: -0.988+/-0.000  $\chi^2/\text{NDF}$ : 5195068.8/11

Left In: -0.949+/-0.000  $\chi^2/\text{NDF}$ : 21856205.6/2

-0.978+/-0.000  $\chi^2/\text{NDF}$ : 111718471.3/14

-0.974+/-0.000  $\chi^2/\text{NDF}$ : 42060924.3/14

# yield\_bpm0l10X\_rms vs slug



Right In: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 16984.1/9

Left Out: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:5950.8/4

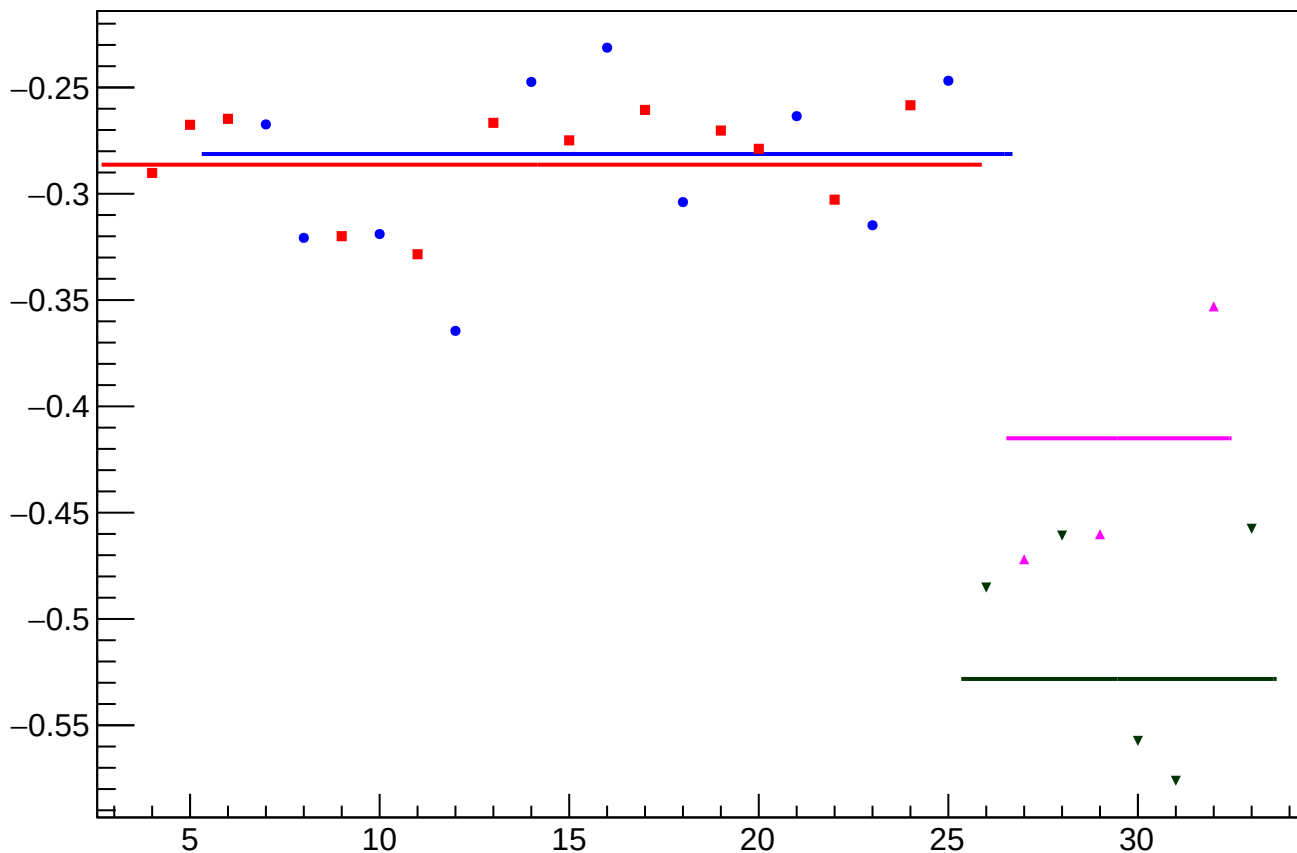
0.014 $\pm$ 0.000  $\chi^2$ /NDF: 91335.0/14

Right Out: 0.015 $\pm$ 0.000  $\chi^2$ /NDF: 22407.0/11

0.014 $\pm$ 0.000  $\chi^2$ /NDF: 140719.2/14

Left In: 0.013 $\pm$ 0.000  $\chi^2$ /NDF:1591.2/2

# yield\_bpm0l10Y\_mean vs slug



Right In: -0.281+/-0.000  $\chi^2/\text{NDF}$ : 977787208.1/9

Left Out: -0.528+/-0.000  $\chi^2/\text{NDF}$ : 654193326.6/4

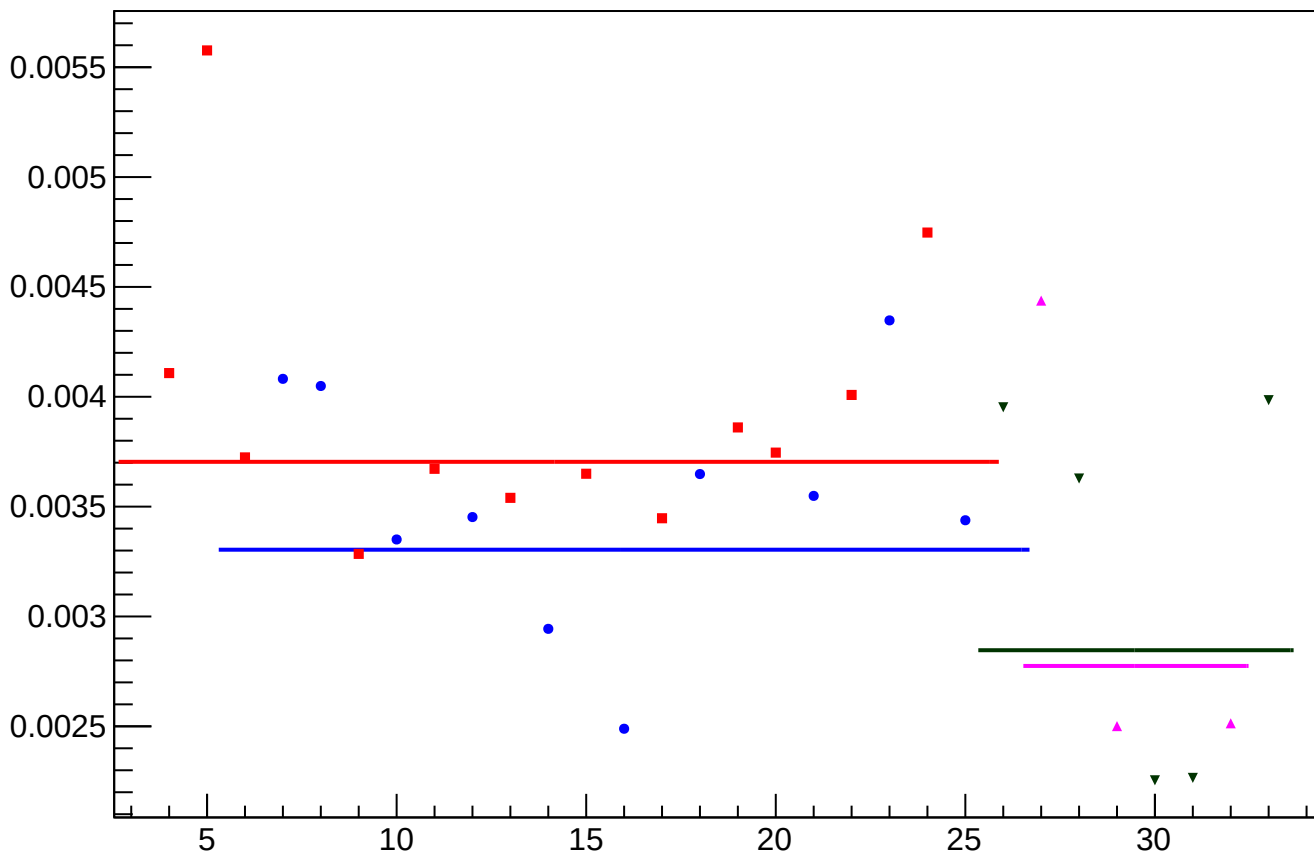
Right Out: -0.286+/-0.000  $\chi^2/\text{NDF}$ : 270487970.3/11

Left In: -0.415+/-0.000  $\chi^2/\text{NDF}$ : 885056714.7/2

-0.365+/-0.000  $\chi^2/\text{NDF}$ : 12803455465.2/14

-0.339+/-0.000  $\chi^2/\text{NDF}$ : 4033928863.9/14

# yield\_bpm0l10Y\_rms vs slug



Right In: 0.003+/-0.000  $\chi^2/\text{NDF}$ : 307709.2/9

Left Out: 0.003+/-0.000  $\chi^2/\text{NDF}$ :323385.6/4

Right Out: 0.004+/-0.000  $\chi^2/\text{NDF}$ : 119237.1/11

Left In: 0.003+/-0.000  $\chi^2/\text{NDF}$ :262897.4/2

0.003+/-0.000  $\chi^2/\text{NDF}$ : 707798.8/14

0.003+/-0.000  $\chi^2/\text{NDF}$ : 682225.0/14