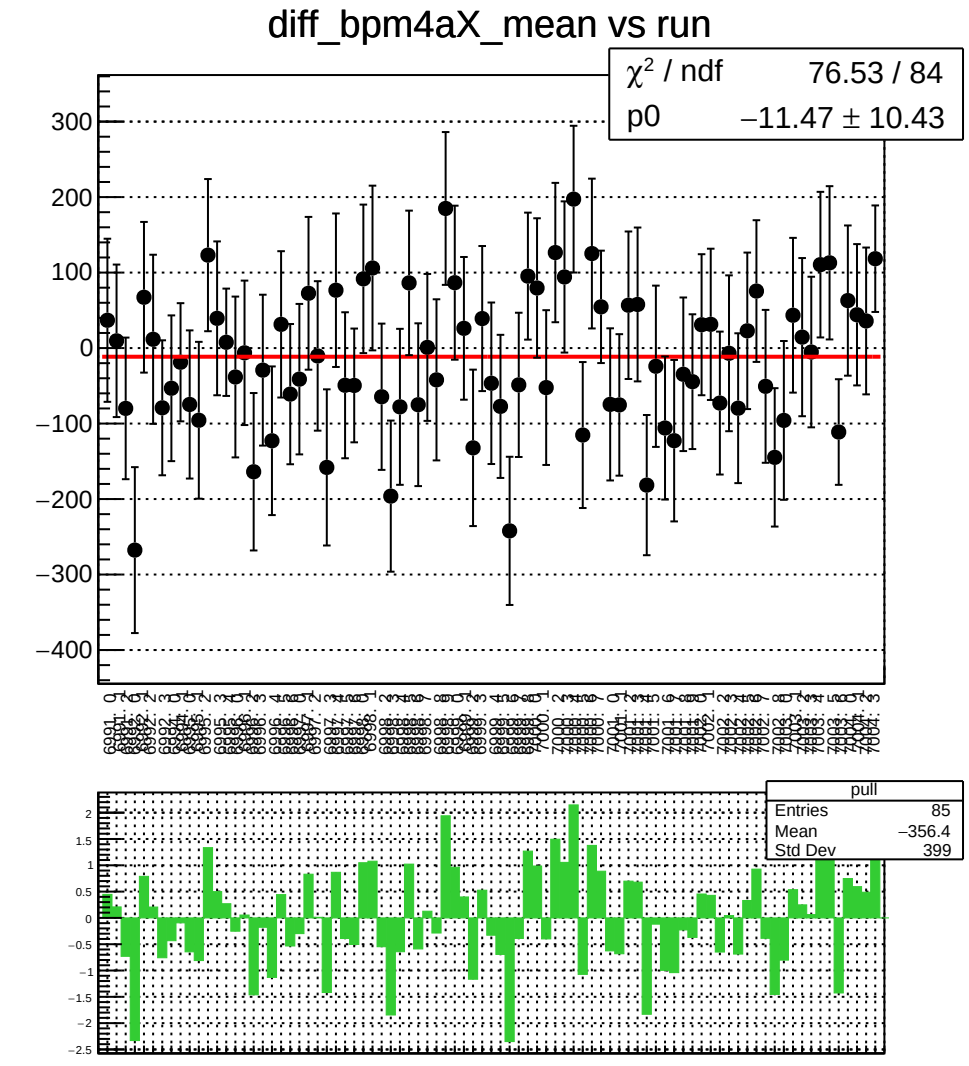
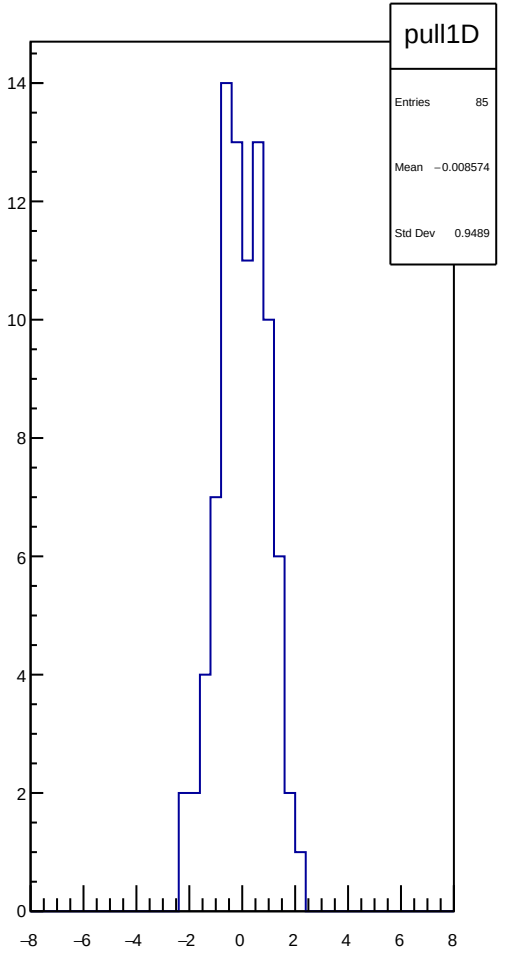
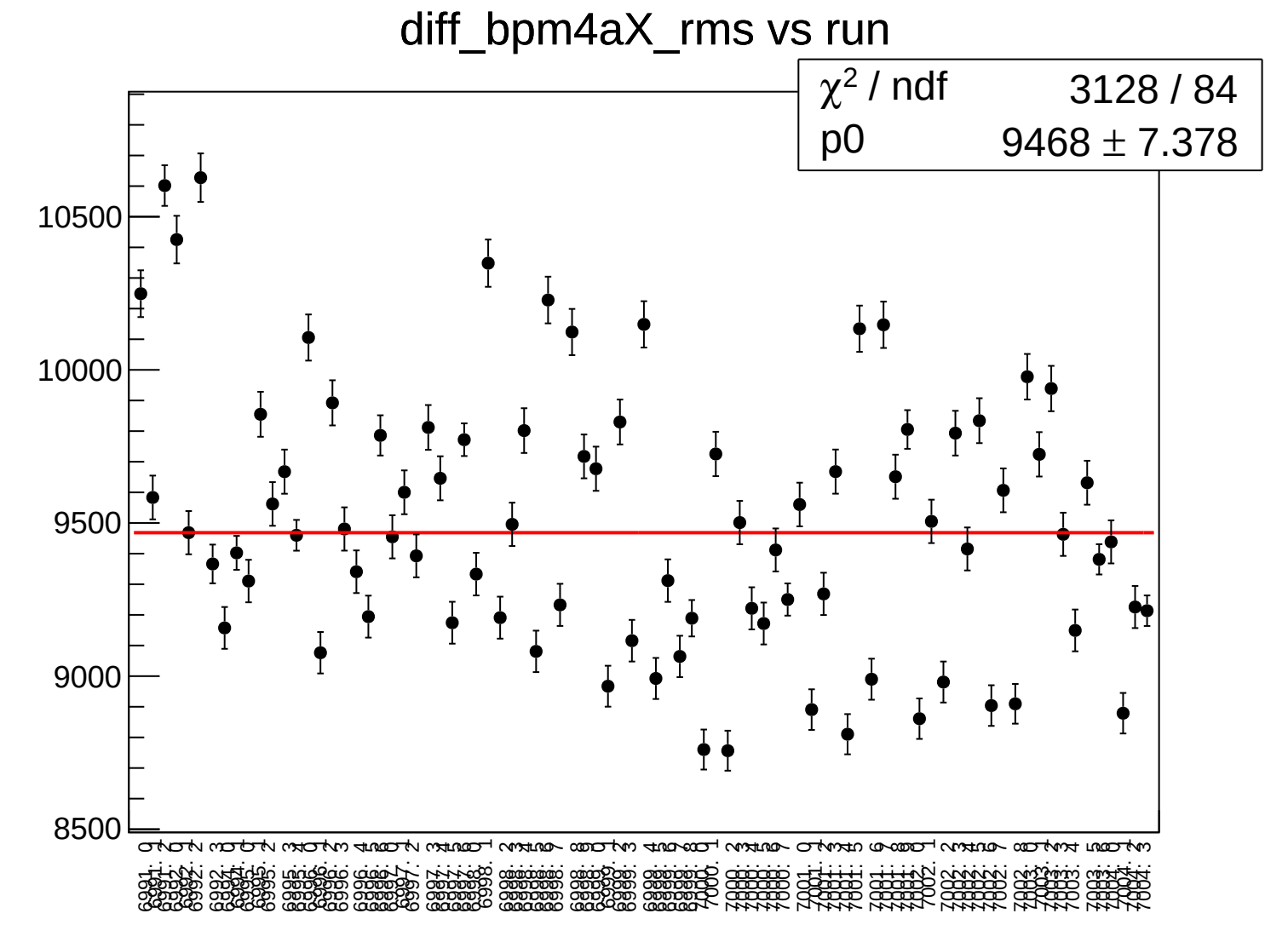
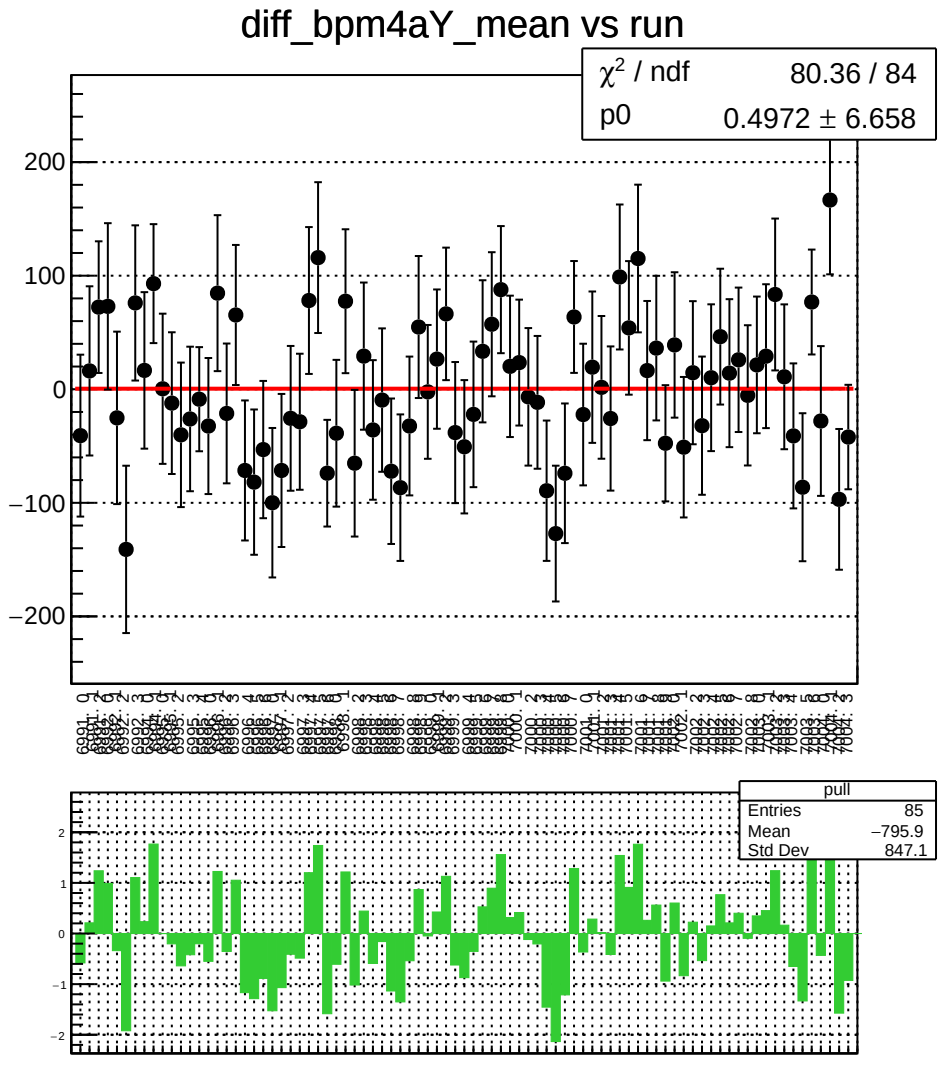
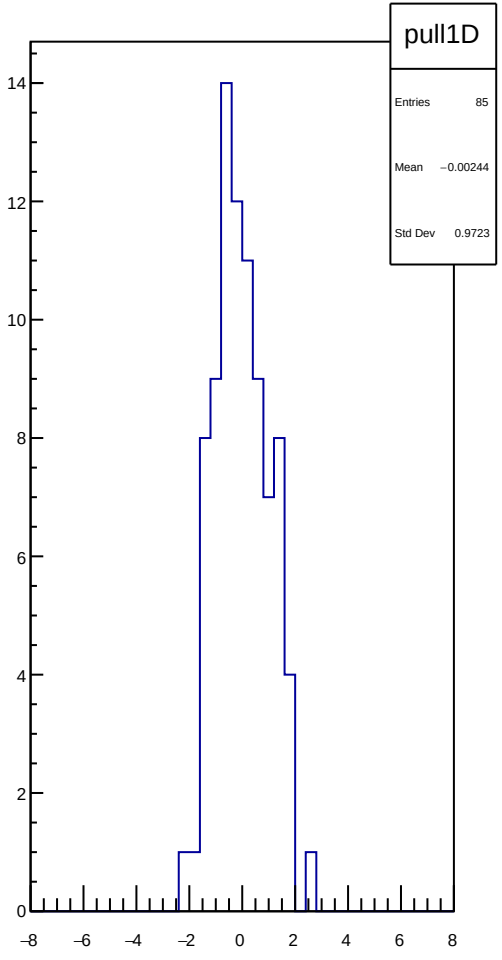
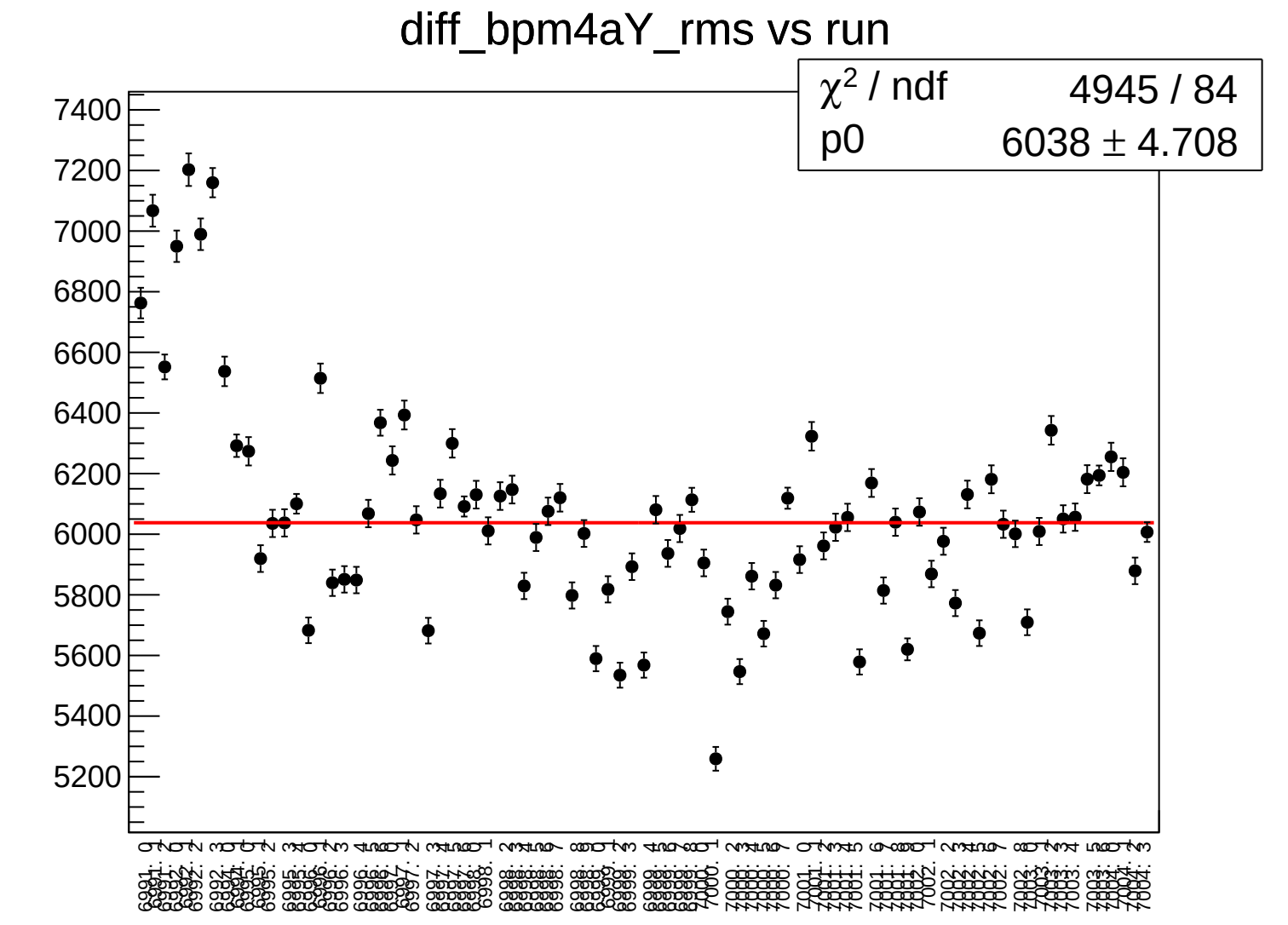

diff_bpm4aX_mean vs run
χ² / ndf 76.53 / 84
p0 −11.47 ± 10.43
pull
Entries 85
Mean −356.4
Std Dev 399

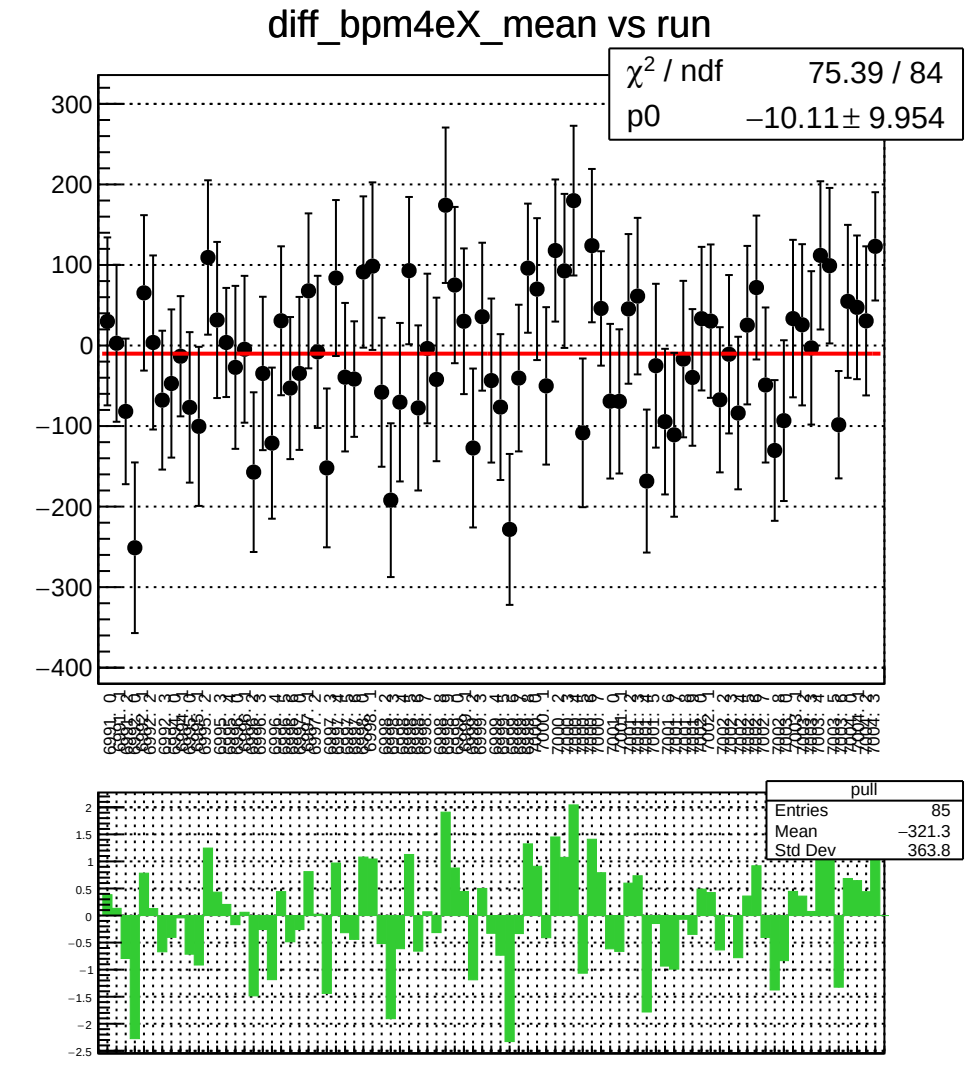

pull1D
Entries 85
Mean −0.008574
Std Dev 0.9489

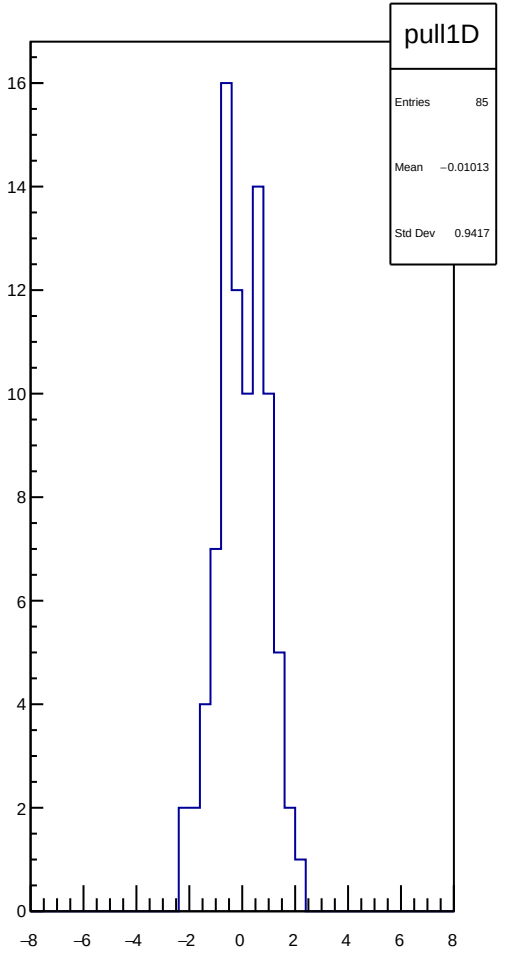

diff_bpm4aX_rms vs run
χ² / ndf 3128 / 84
p0 9468 ± 7.378
10500
10000
9500
9000
8500

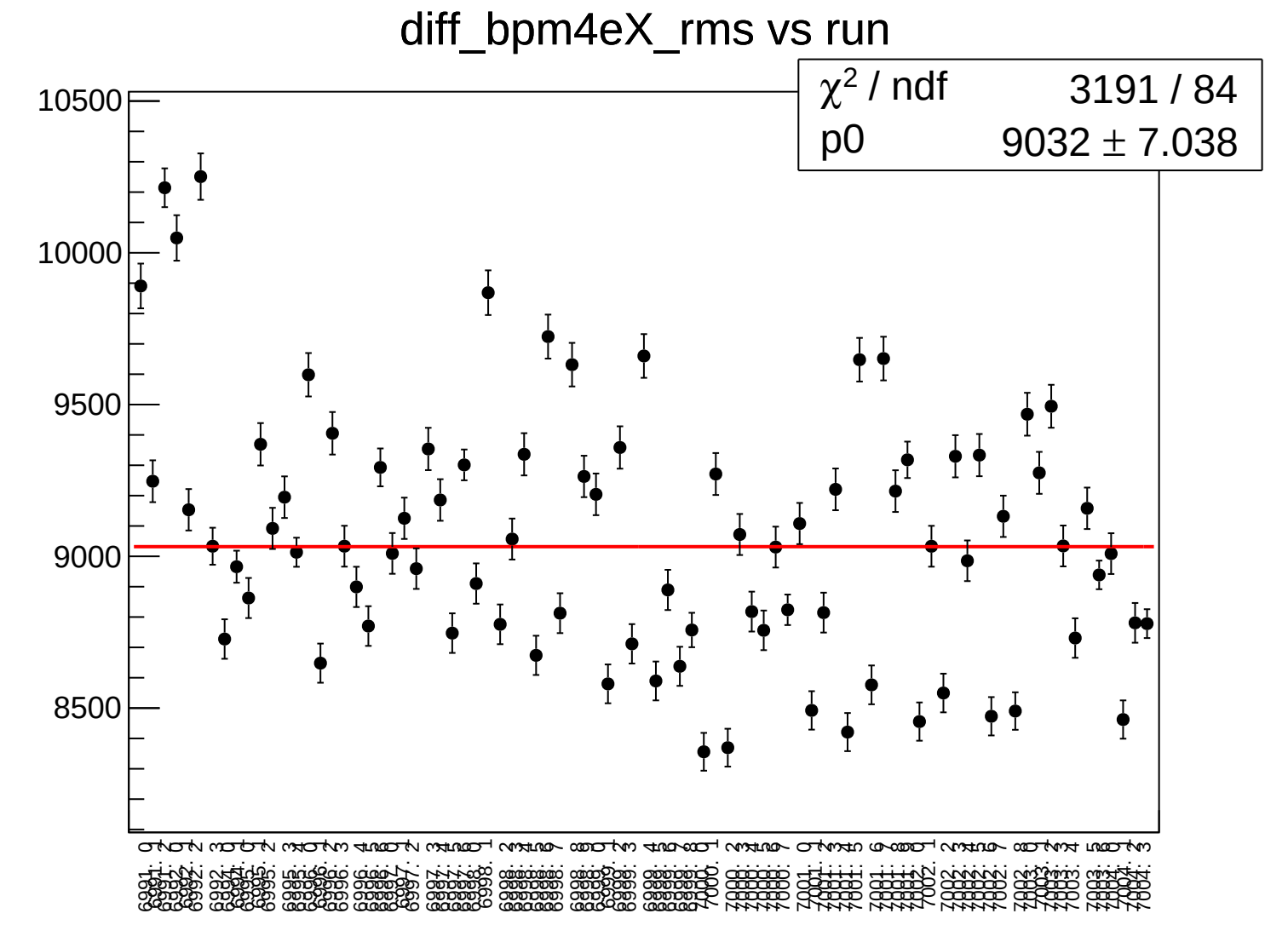

diff_bpm4aY_mean vs run
χ² / ndf 80.36 / 84
p0 0.4972 ± 6.658
200
100
0
−100
−200
pull
Entries 85
Mean −795.9
Std Dev 847.1
2
1
0
−1
−2

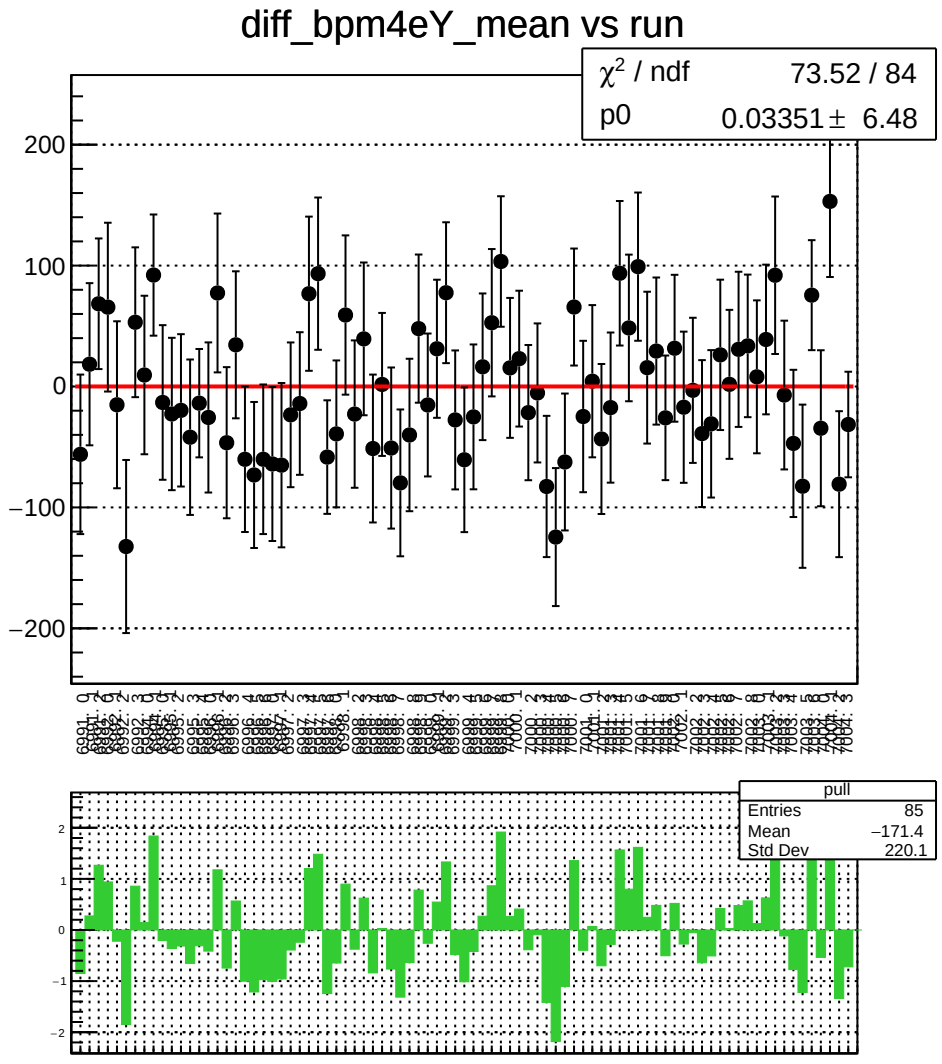

pull1D
Entries 85
Mean −0.00244
Std Dev 0.9723
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

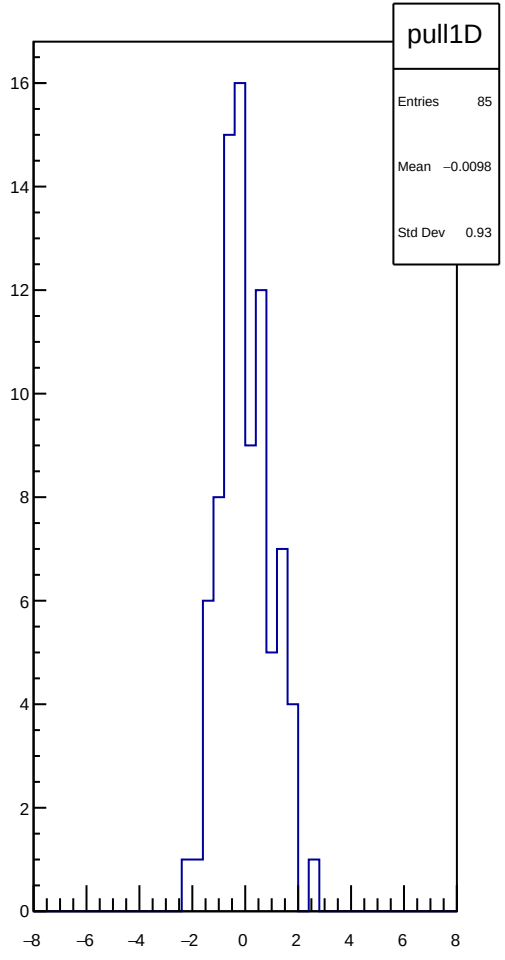

diff_bpm4aY_rms vs run
χ² / ndf 4945 / 84
p0 6038 ± 4.708
7400
7200
7000
6800
6600
6400
6200
6000
5800
5600
5400
5200

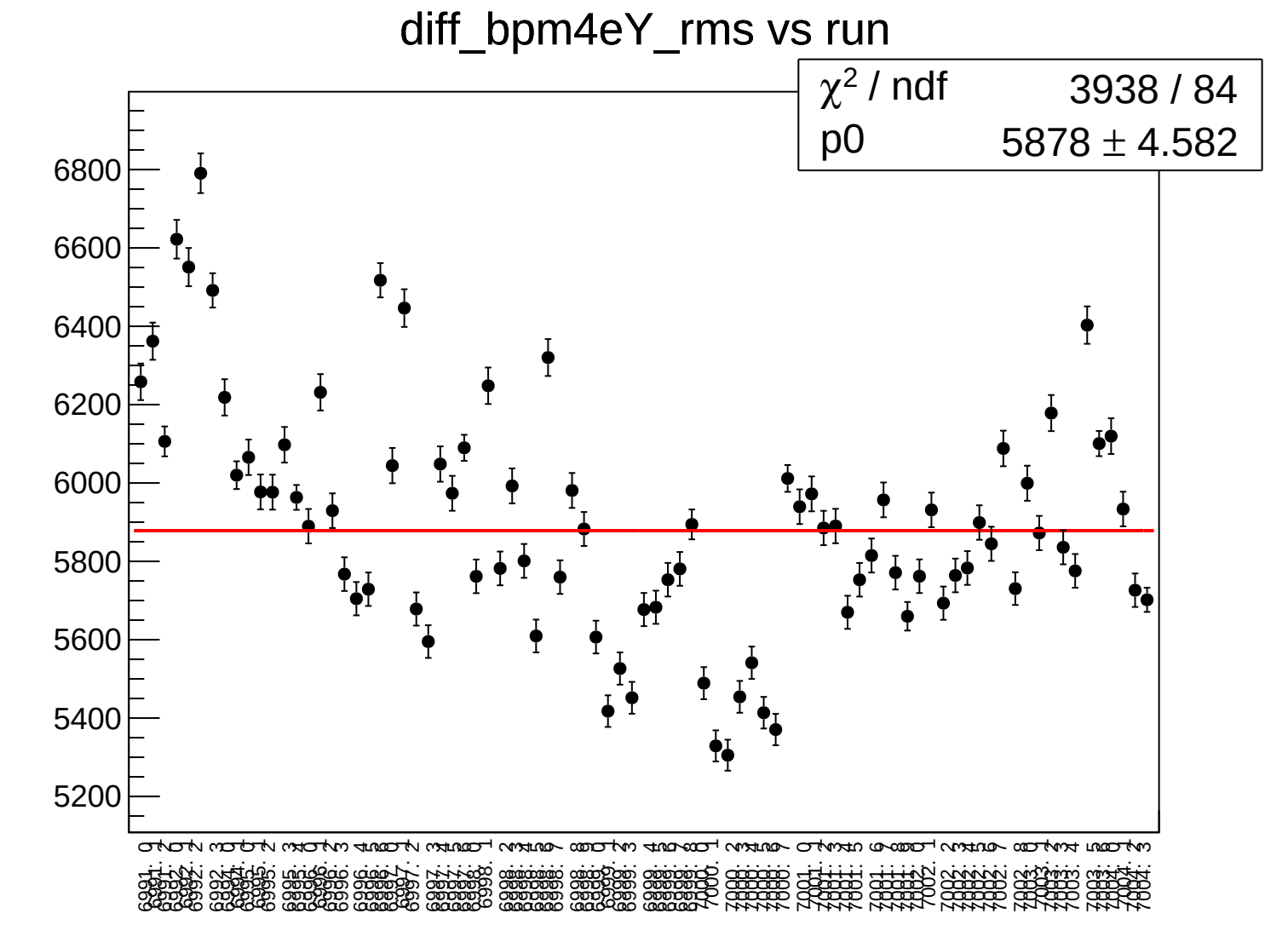

diff_bpm4eX_mean vs run
χ² / ndf 75.39 / 84
p0 −10.11 ± 9.954
pull
Entries 85
Mean −321.3
Std Dev 363.8

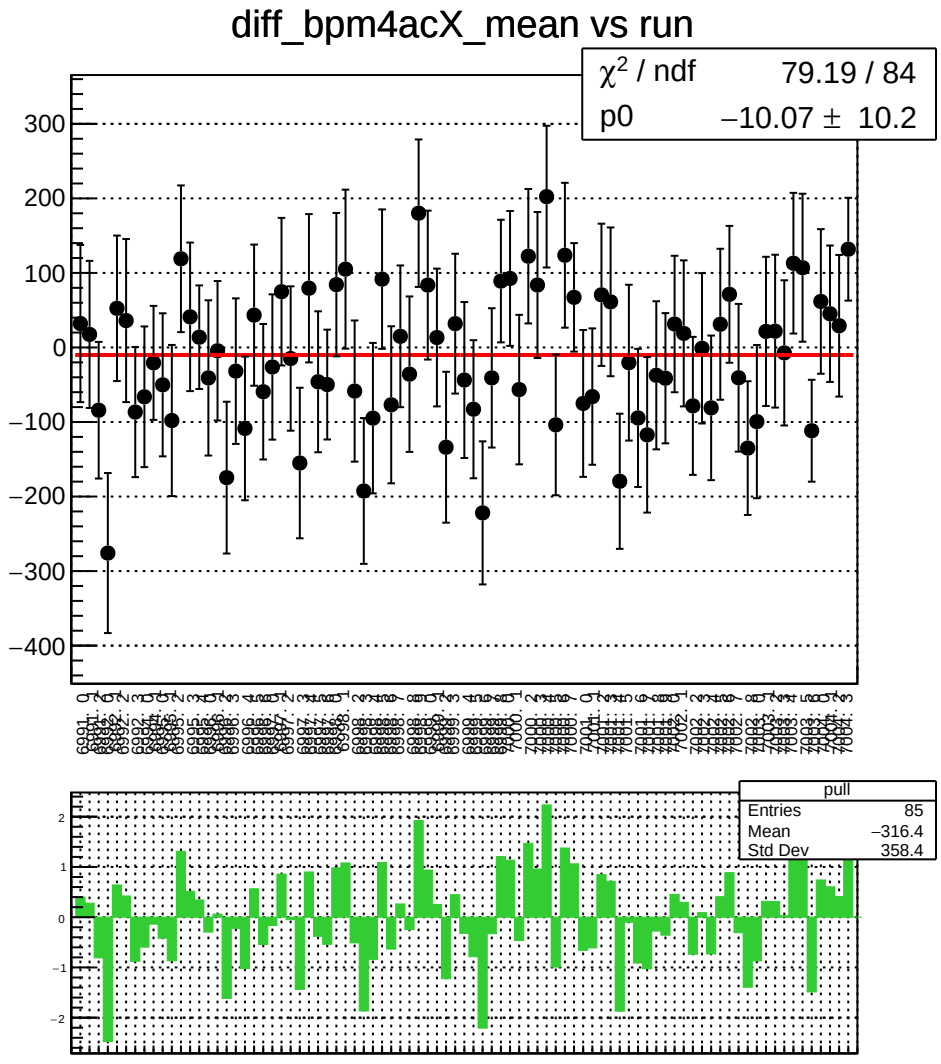

pull1D
Entries 85
Mean −0.01013
Std Dev 0.9417

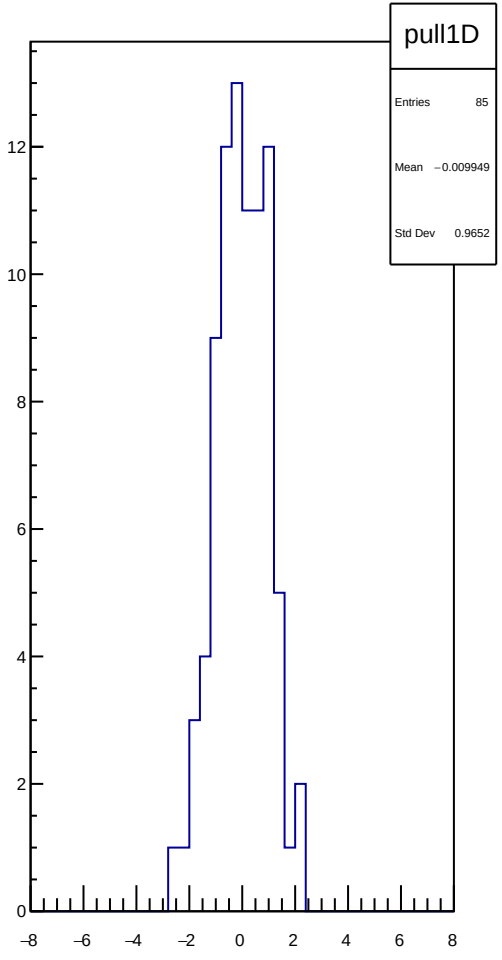

diff_bpm4eX_rms vs run
χ² / ndf 3191 / 84
p0 9032 ± 7.038
10500
10000
9500
9000
8500

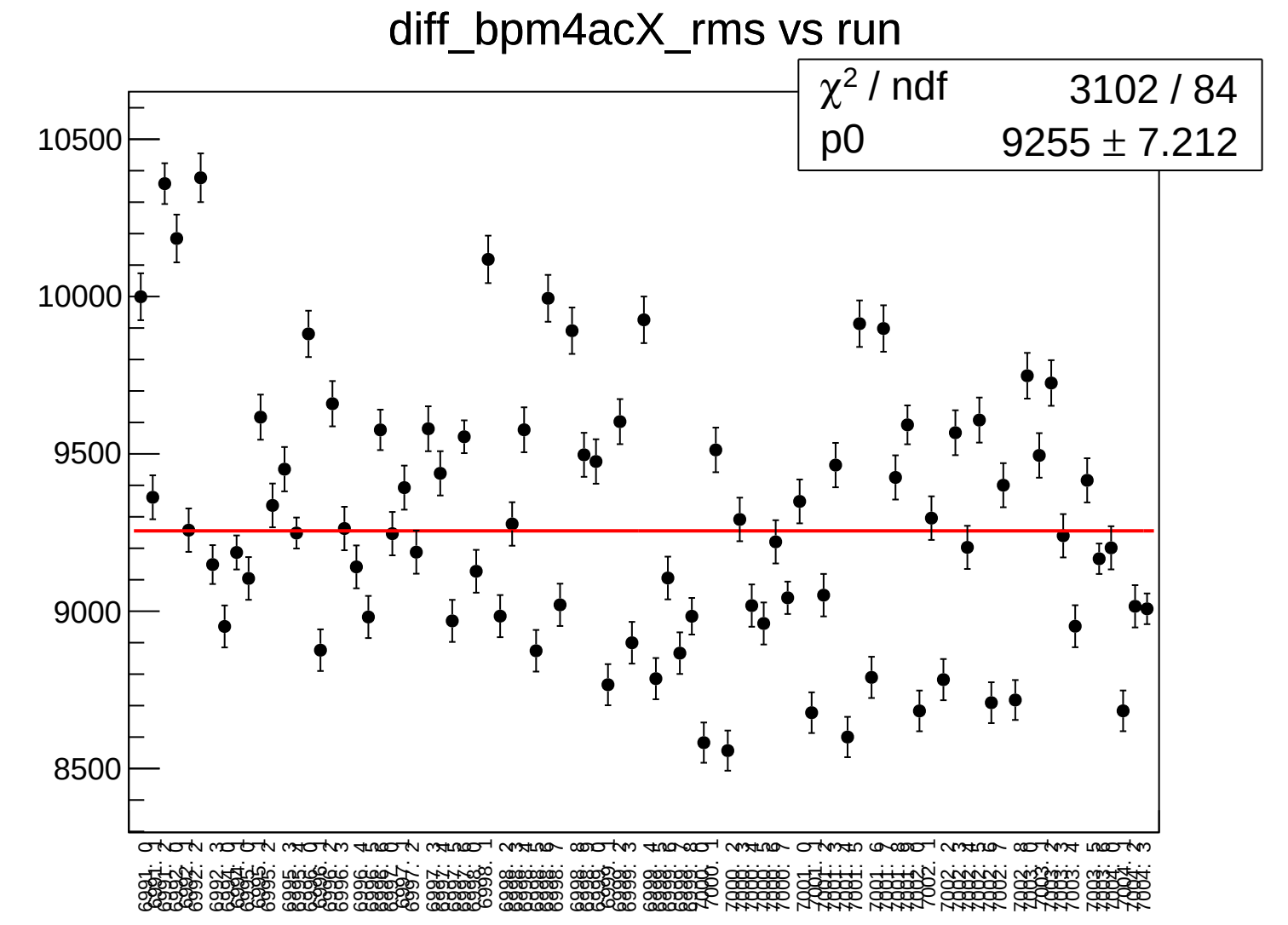

diff_bpm4eY_mean vs run
χ² / ndf 73.52 / 84
p0 0.03351 ± 6.48
200
100
0
−100
−200
pull
Entries 85
Mean −171.4
Std Dev 220.1
2
1
0
−1
−2

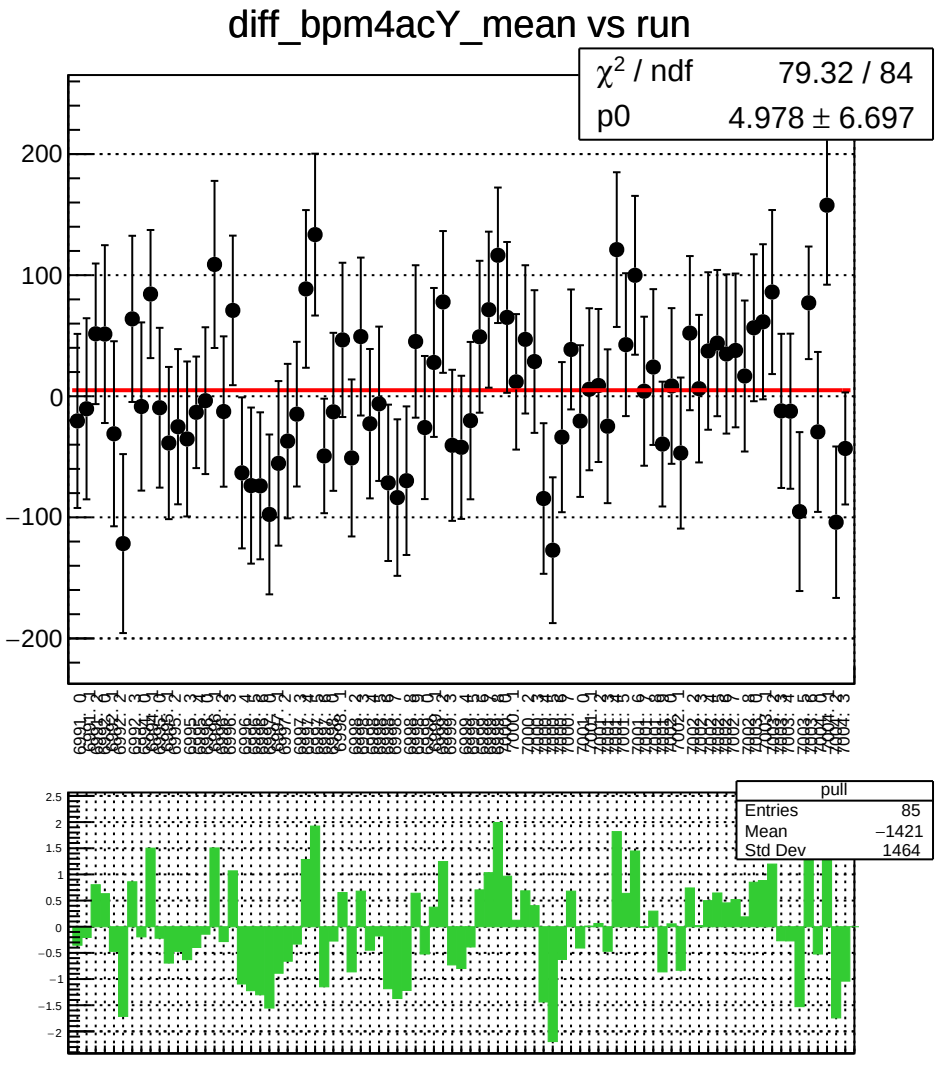

pull1D
Entries 85
Mean −0.0098
Std Dev 0.93
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

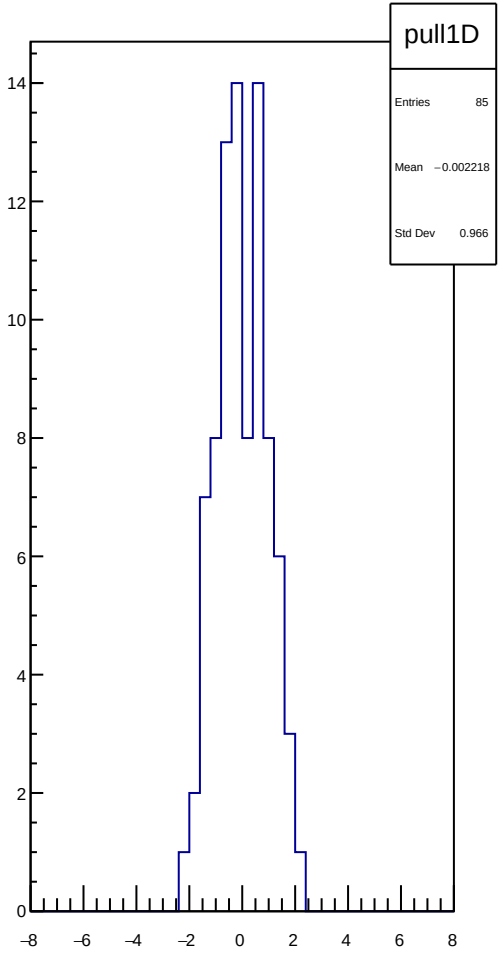

diff_bpm4eY_rms vs run
χ^2 / ndf 3938 / 84
p0 5878 ± 4.582
6800
6600
6400
6200
6000
5800
5600
5400
5200

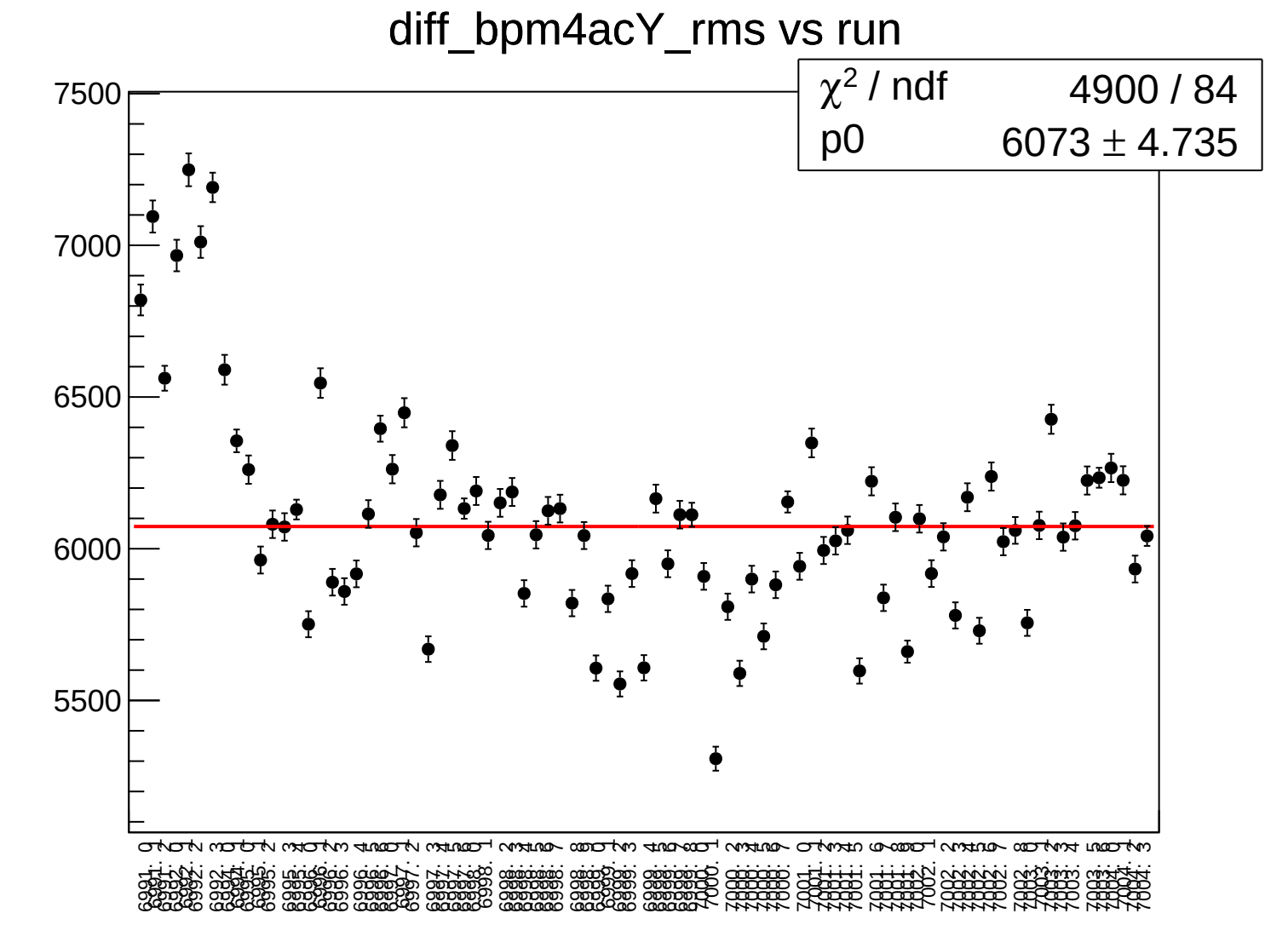

diff_bpm4acX_mean vs run
χ² / ndf 79.19 / 84
p0 −10.07 ± 10.2
pull
Entries 85
Mean −316.4
Std Dev 358.4

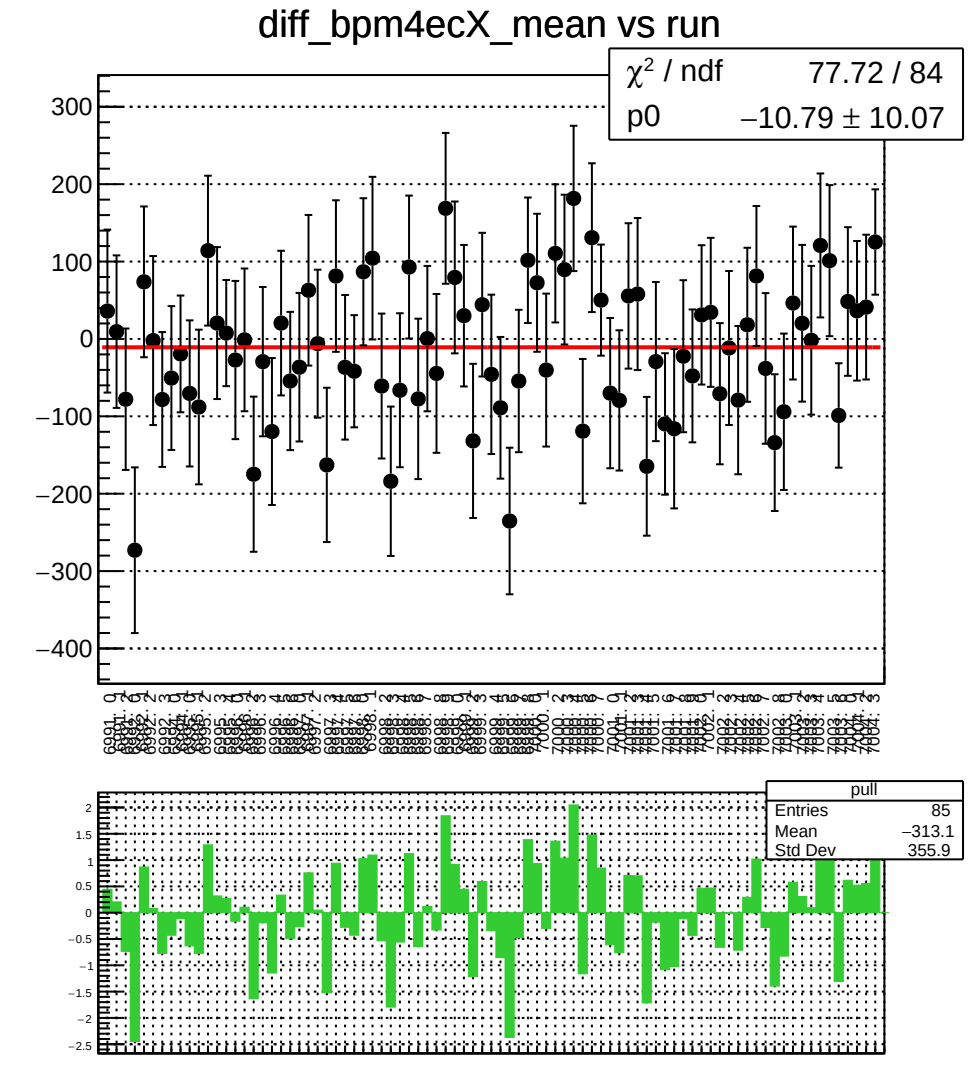

pull1D
Entries 85
Mean −0.009949
Std Dev 0.9652

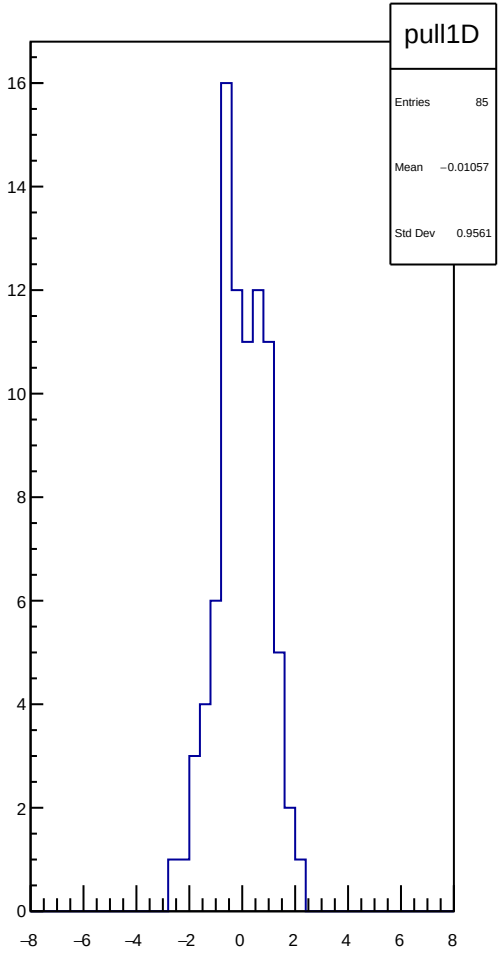

diff_bpm4acX_rms vs run
χ² / ndf 3102 / 84
p0 9255 ± 7.212
10500
10000
9500
9000
8500

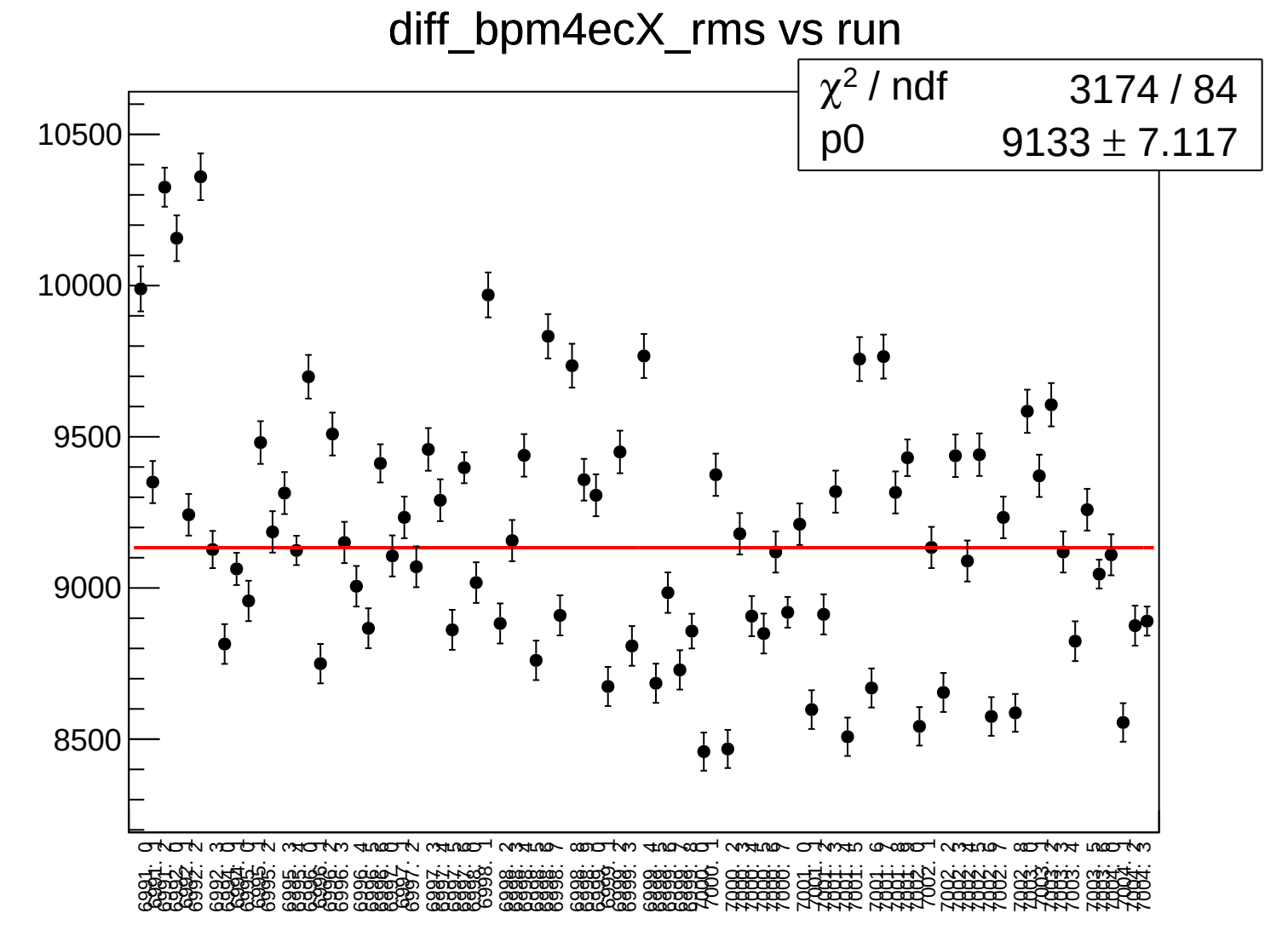

diff_bpm4acY_mean vs run
χ² / ndf 79.32 / 84
p0 4.978 ± 6.697
200
100
0
−100
−200
pull
Entries 85
Mean −1421
Std Dev 1464
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

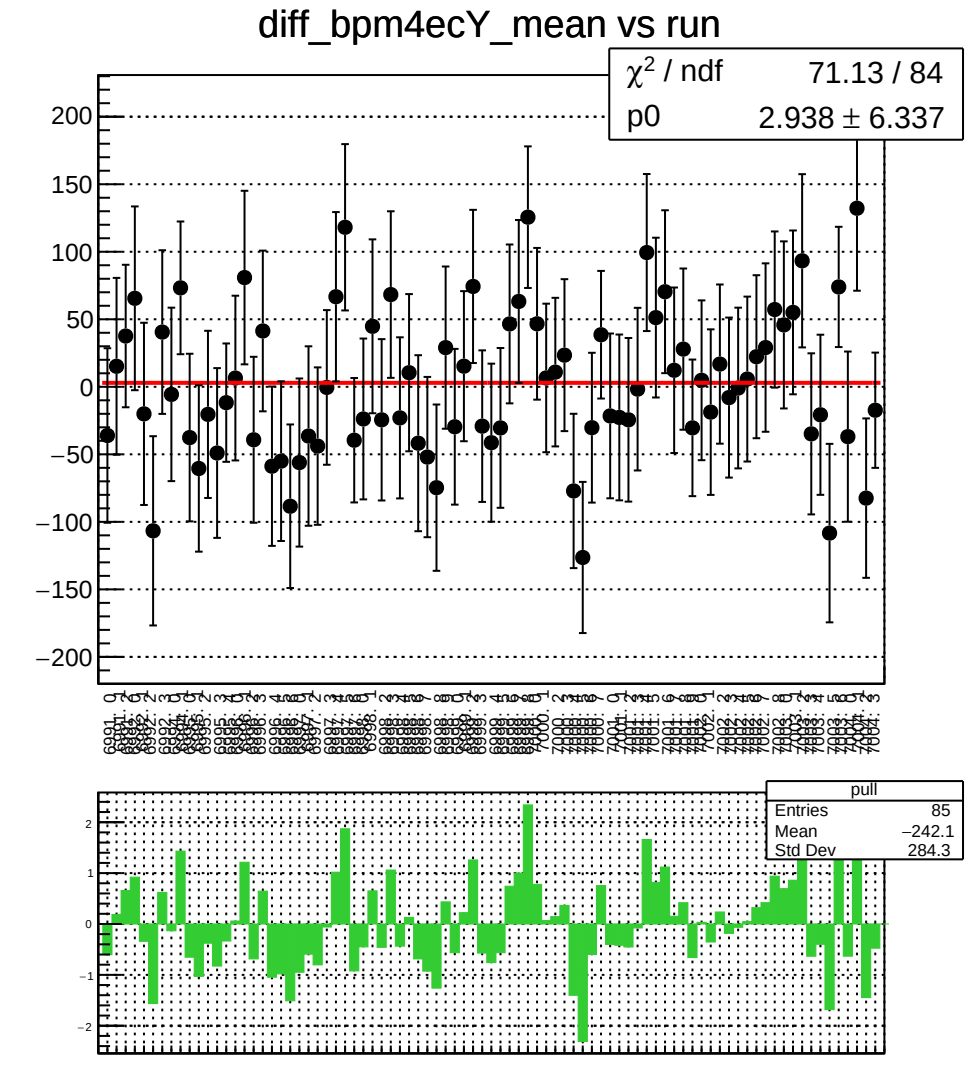

pull1D
Entries 85
Mean −0.002218
Std Dev 0.966
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

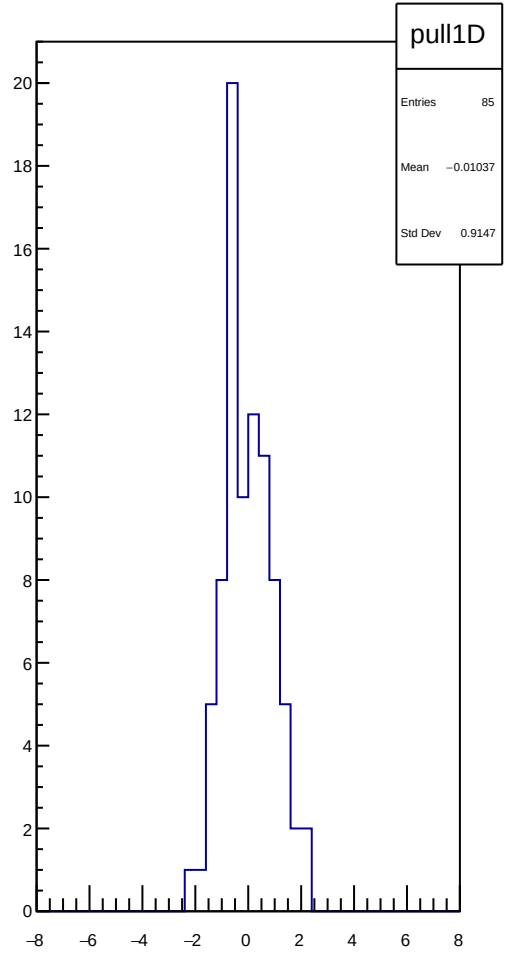

diff_bpm4acY_rms vs run
χ^2 / ndf 4900 / 84
p0 6073 ± 4.735
7500
7000
6500
6000
5500

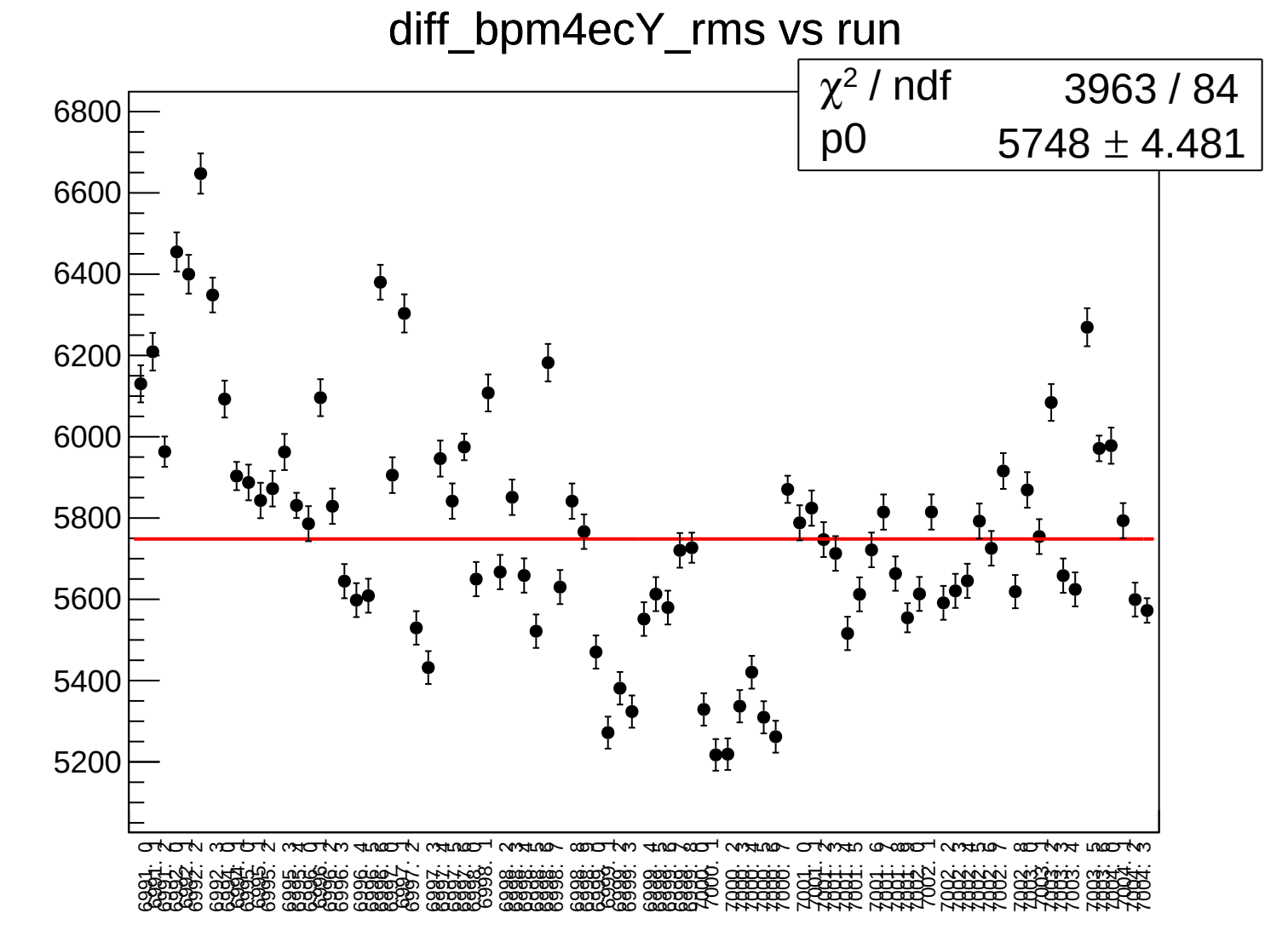

diff_bpm4ecX_mean vs run
χ² / ndf 77.72 / 84
p0 −10.79 ± 10.07
pull
Entries 85
Mean −313.1
Std Dev 355.9

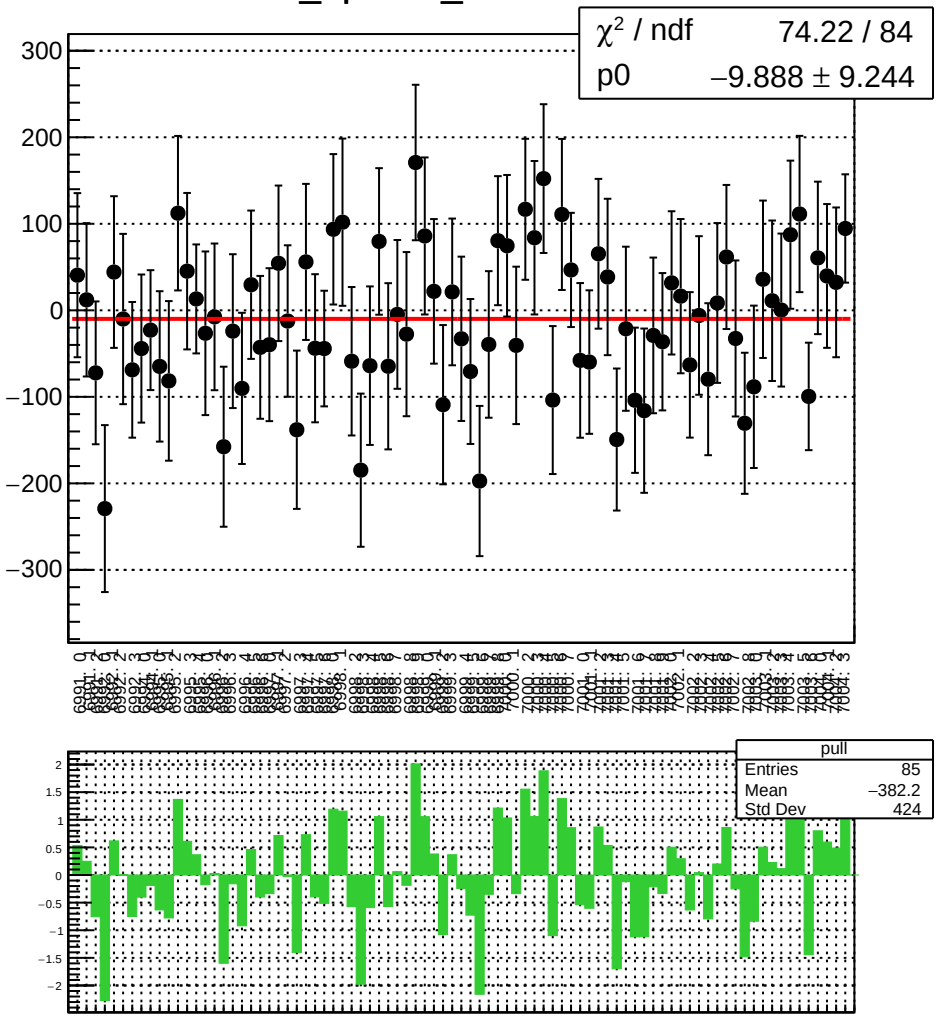

pull1D
Entries 85
Mean −0.01057
Std Dev 0.9561

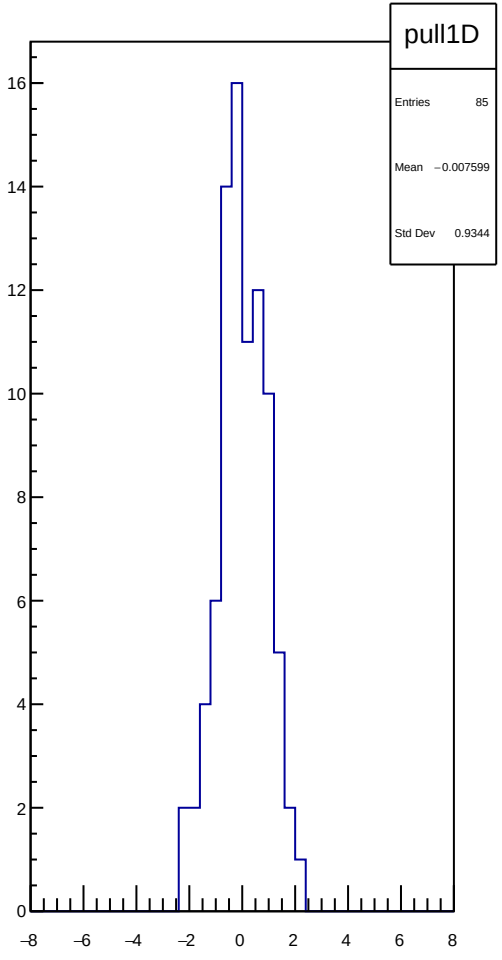

diff_bpm4ecX_rms vs run
χ² / ndf 3174 / 84
p0 9133 ± 7.117
10500
10000
9500
9000
8500

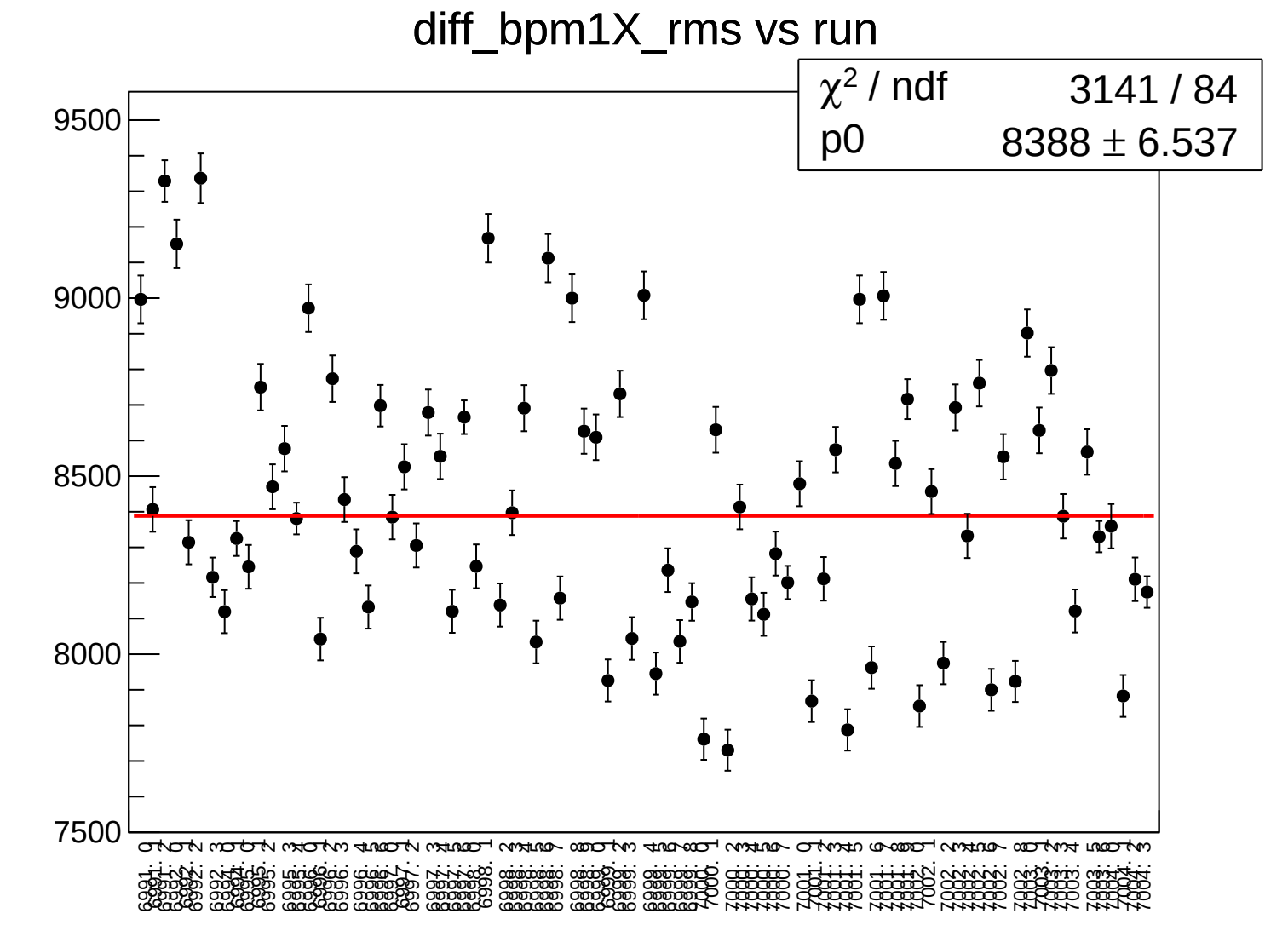

diff_bpm4ecY_mean vs run
χ² / ndf 71.13 / 84
p0 2.938 ± 6.337
pull
Entries 85
Mean −242.1
Std Dev 284.3

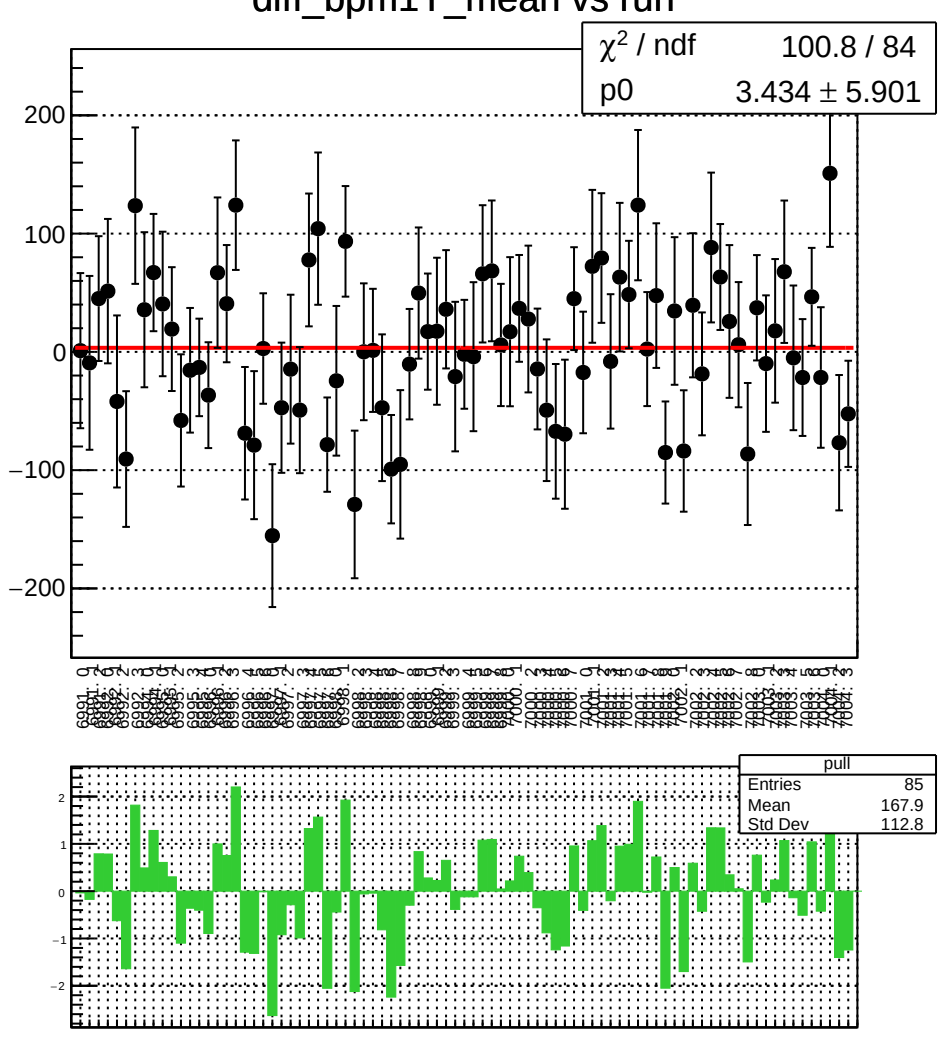

pull1D
Entries 85
Mean −0.01037
Std Dev 0.9147

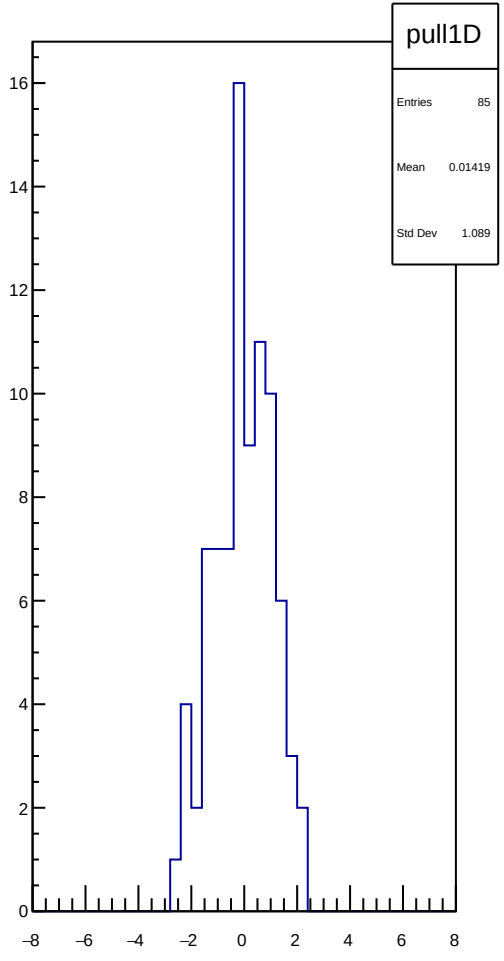

diff_bpm4ecY_rms vs run
χ² / ndf 3963 / 84
p0 5748 ± 4.481
6800
6600
6400
6200
6000
5800
5600
5400
5200

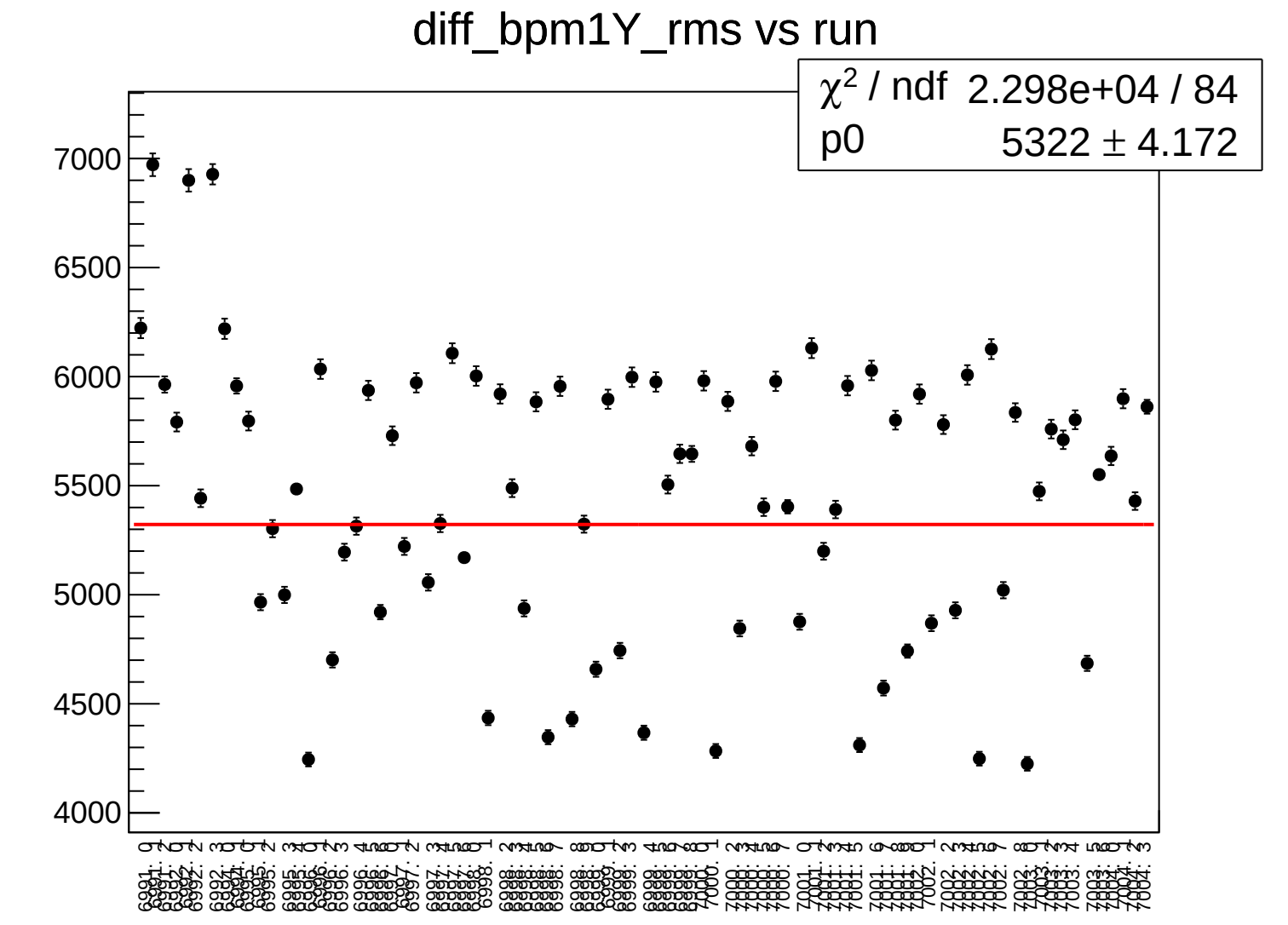

diff_bpm1X_mean vs run
χ² / ndf 74.22 / 84
p0 −9.888 ± 9.244
pull
Entries 85
Mean −382.2
Std Dev 424

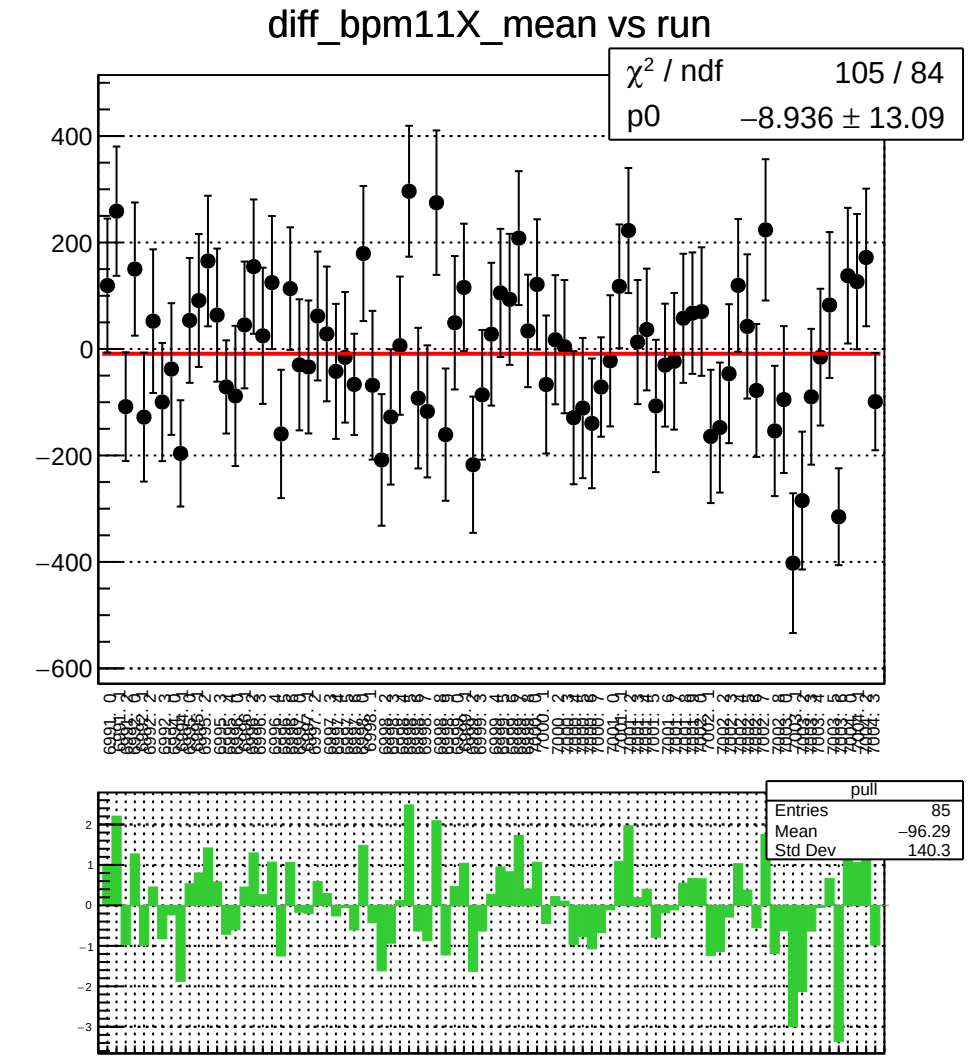

pull1D
Entries 85
Mean −0.007599
Std Dev 0.9344

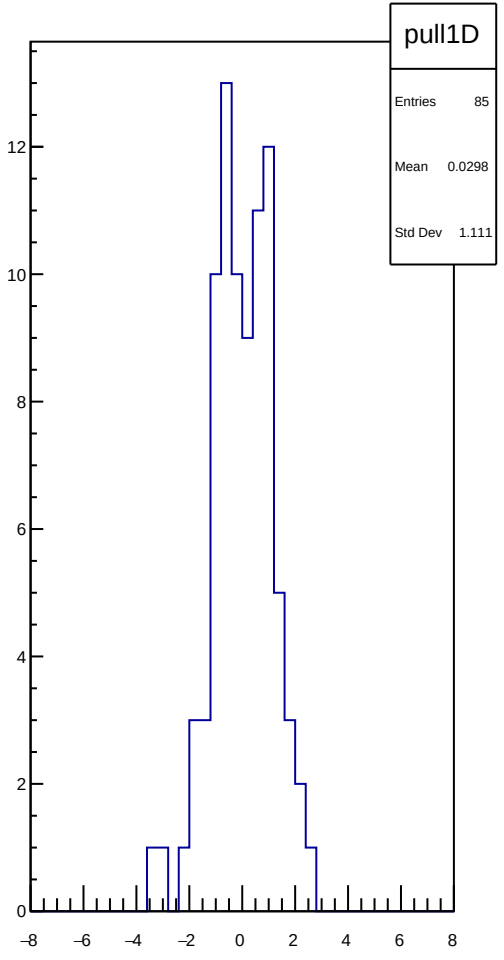

diff_bpm1X_rms vs run
χ^2 / ndf 3141 / 84
p0 8388 ± 6.537
9500
9000
8500
8000
7500

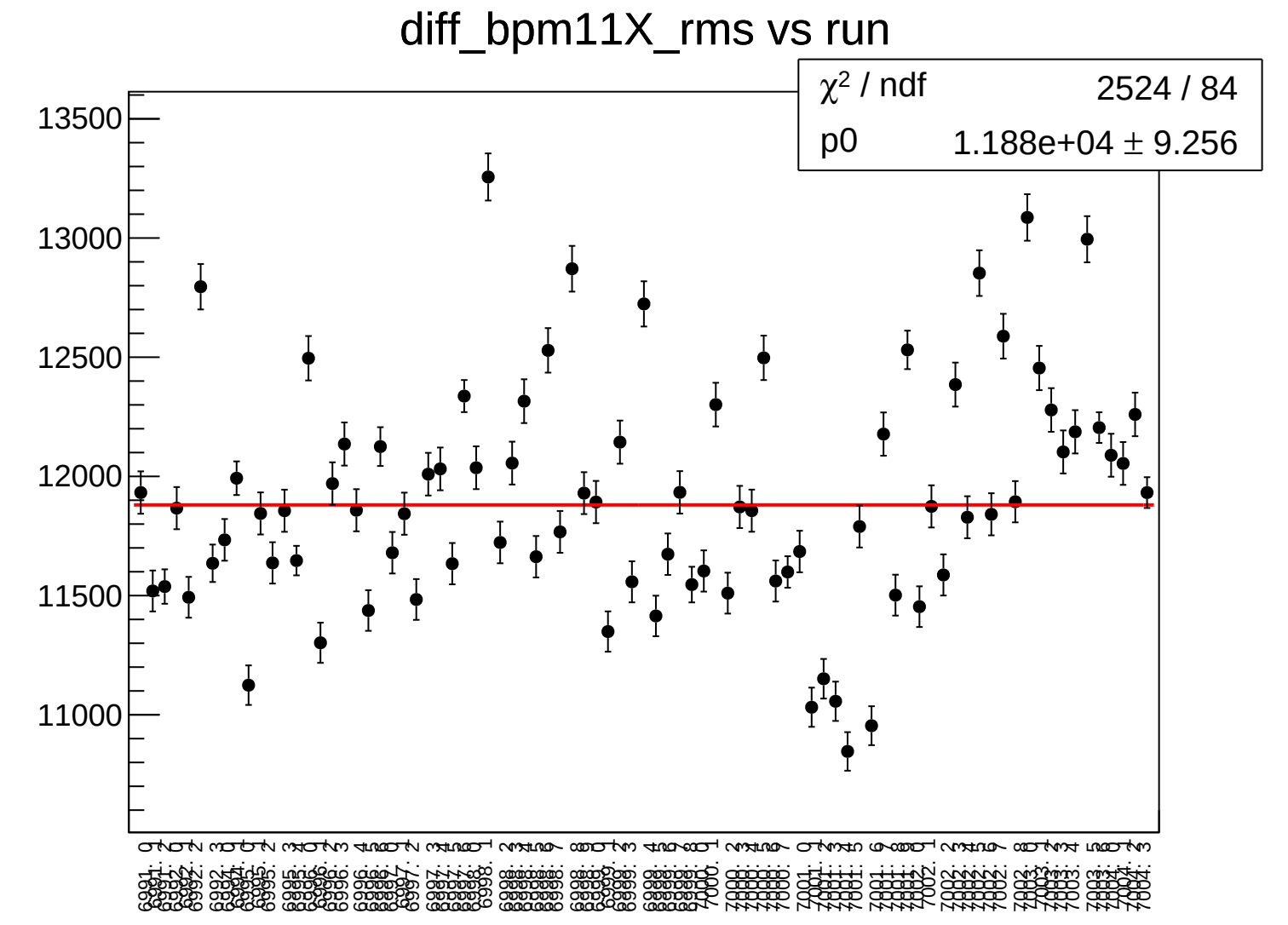

diff_bpm1Y_mean vs run
χ^2 / ndf 100.8 / 84
p0 3.434 ± 5.901
200
100
0
−100
−200
pull
Entries 85
Mean 167.9
Std Dev 112.8
2
1
0
−1
−2

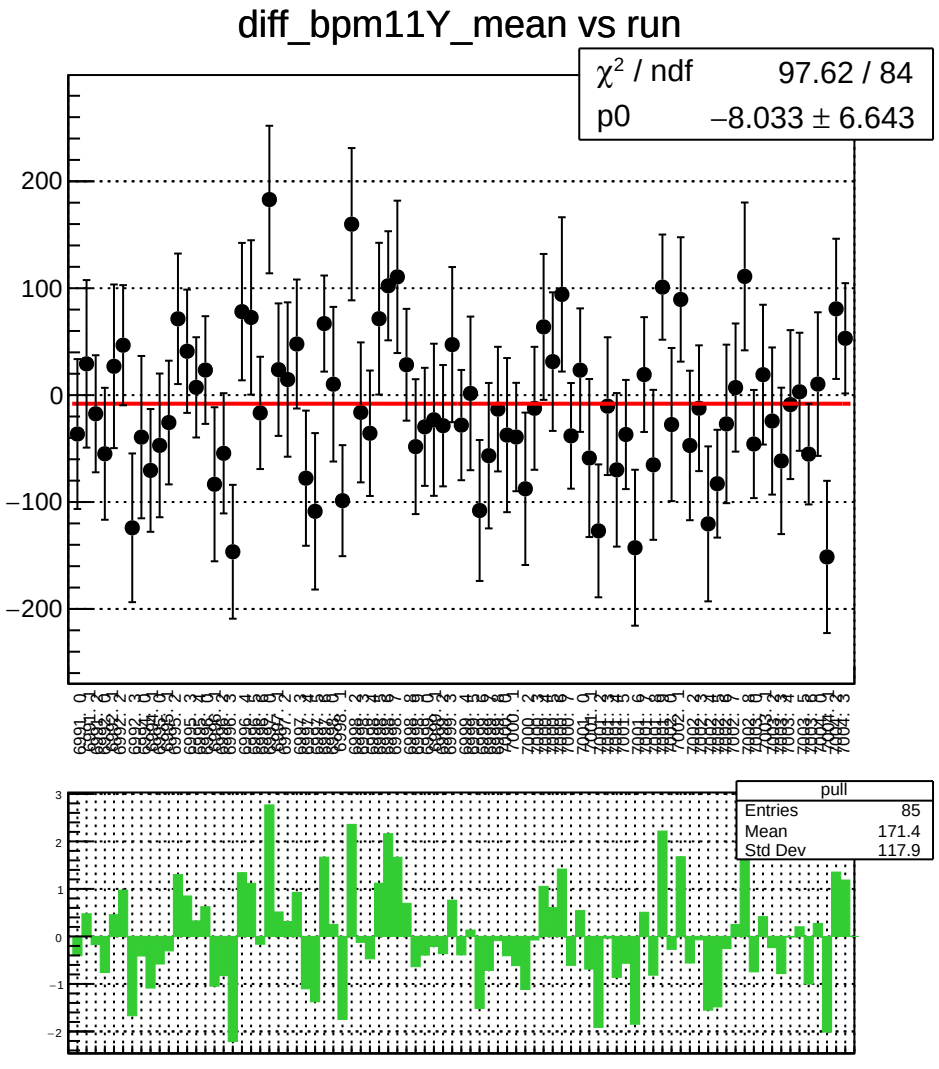

pull1D
Entries 85
Mean 0.01419
Std Dev 1.089
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

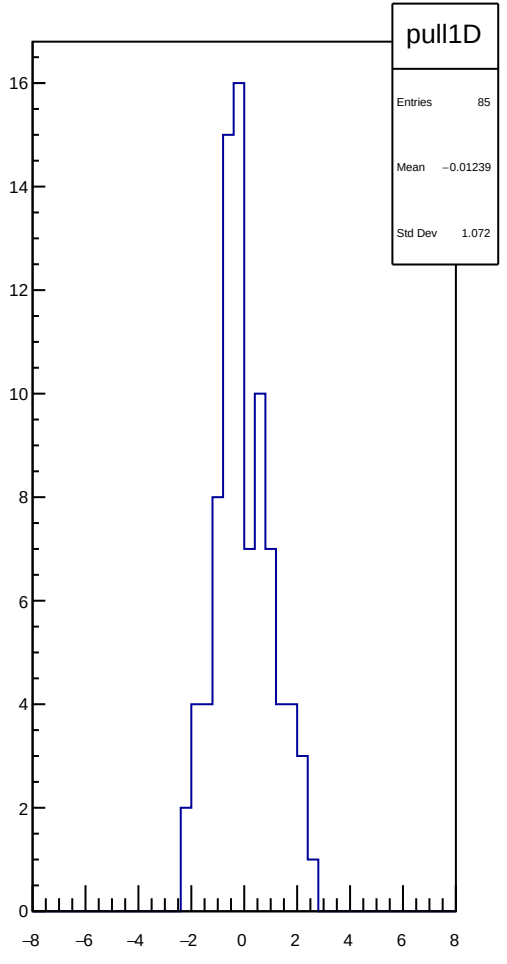

diff_bpm1Y_rms vs run
χ² / ndf 2.298e+04 / 84
p0 5322 ± 4.172
7000
6500
6000
5500
5000
4500
4000

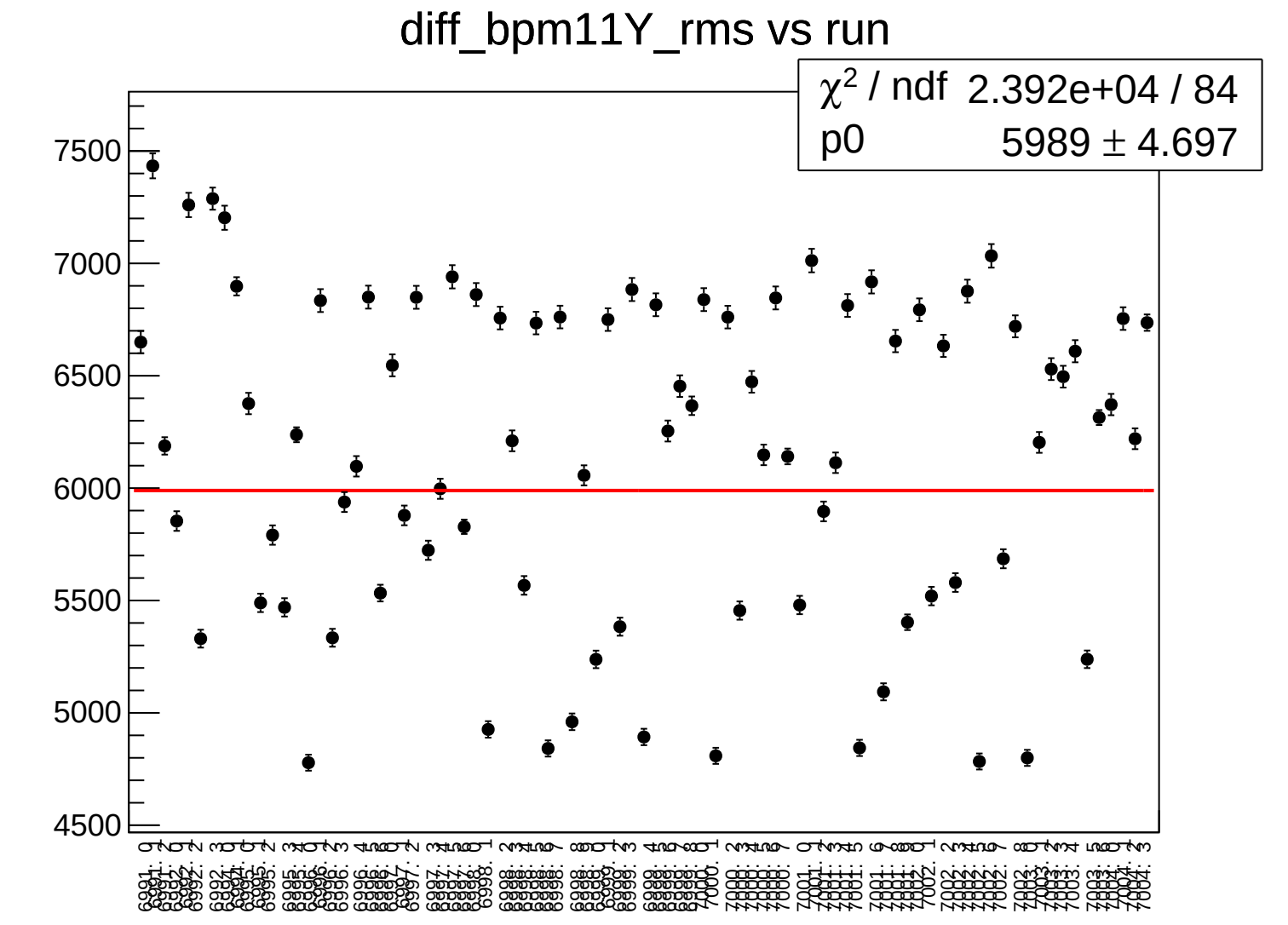

diff_bpm11X_mean vs run
χ² / ndf 105 / 84
p0 −8.936 ± 13.09
400
200
0
−200
−400
−600
pull
Entries 85
Mean −96.29
Std Dev 140.3
2
1
0
−1
−2
−3

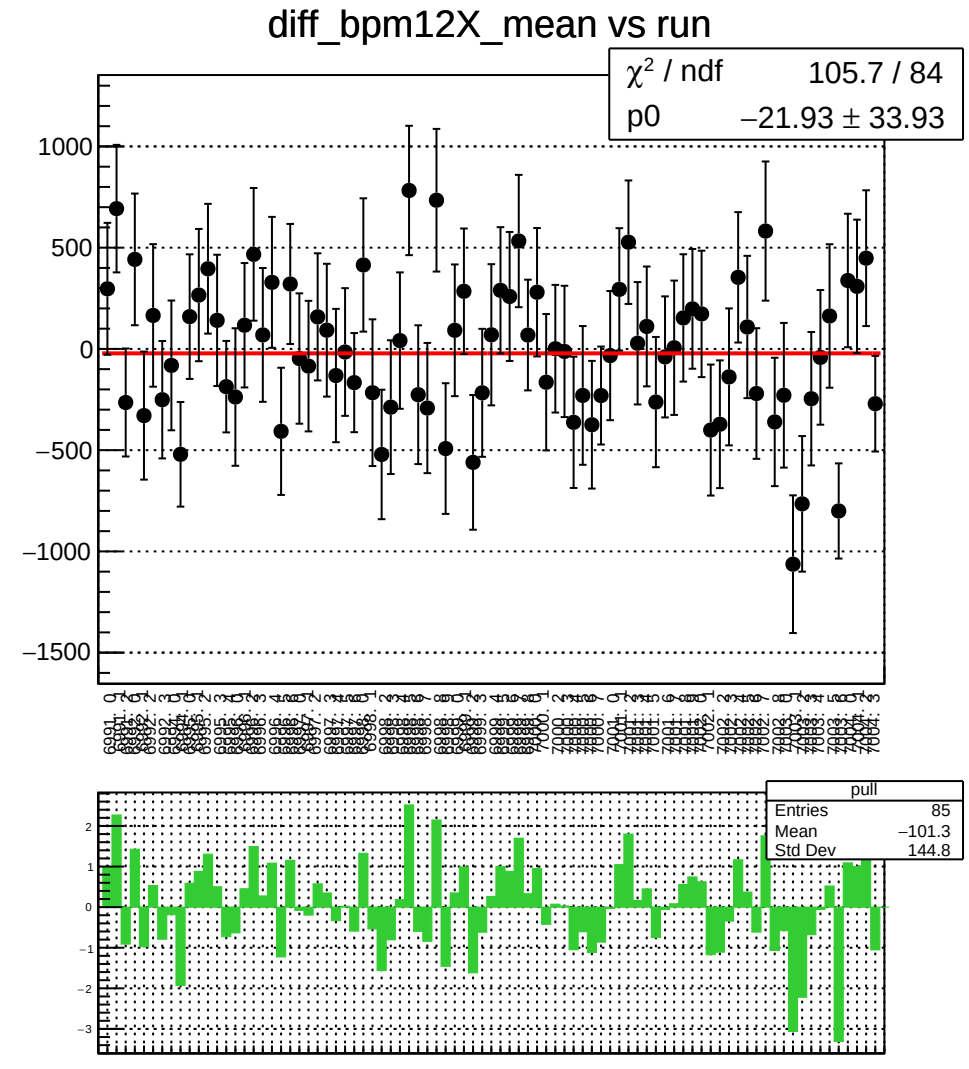

pull1D
Entries 85
Mean 0.0298
Std Dev 1.111
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

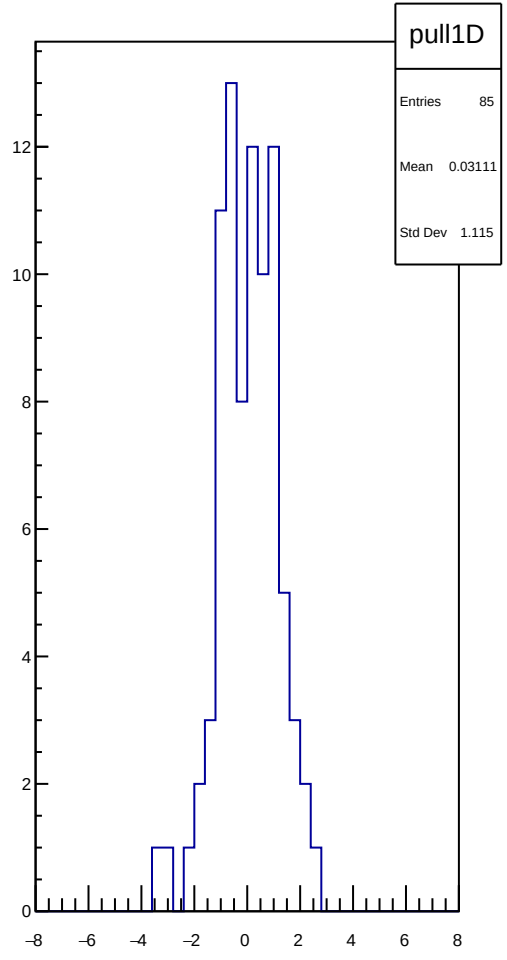

diff_bpm11X_rms vs run
χ² / ndf 2524 / 84
p0 1.188e+04 ± 9.256
13500
13000
12500
12000
11500
11000

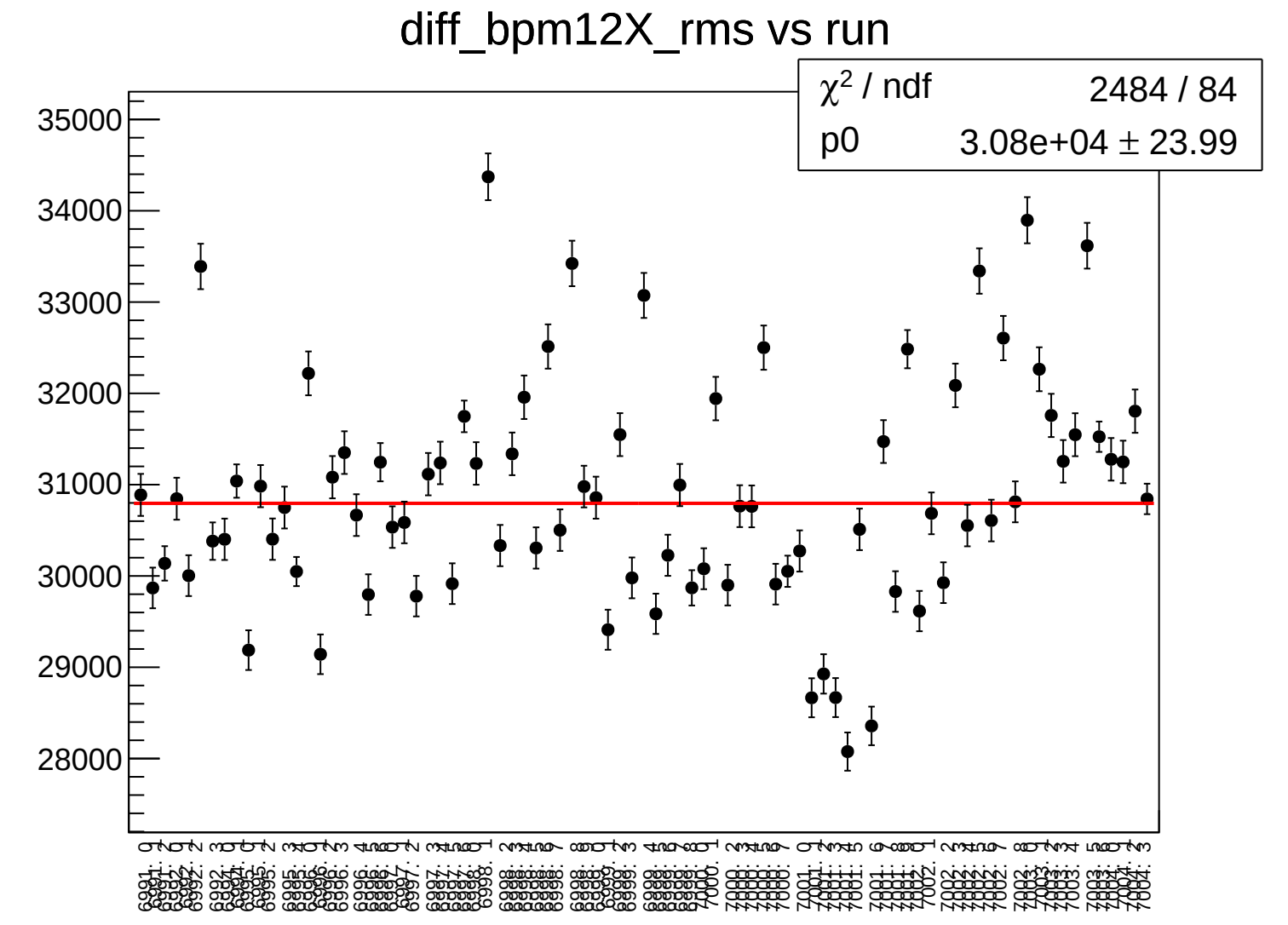

diff_bpm11Y_mean vs run
χ² / ndf 97.62 / 84
p0 −8.033 ± 6.643
200
100
0
−100
−200
pull
Entries 85
Mean 171.4
Std Dev 117.9
3
2
1
0
−1
−2

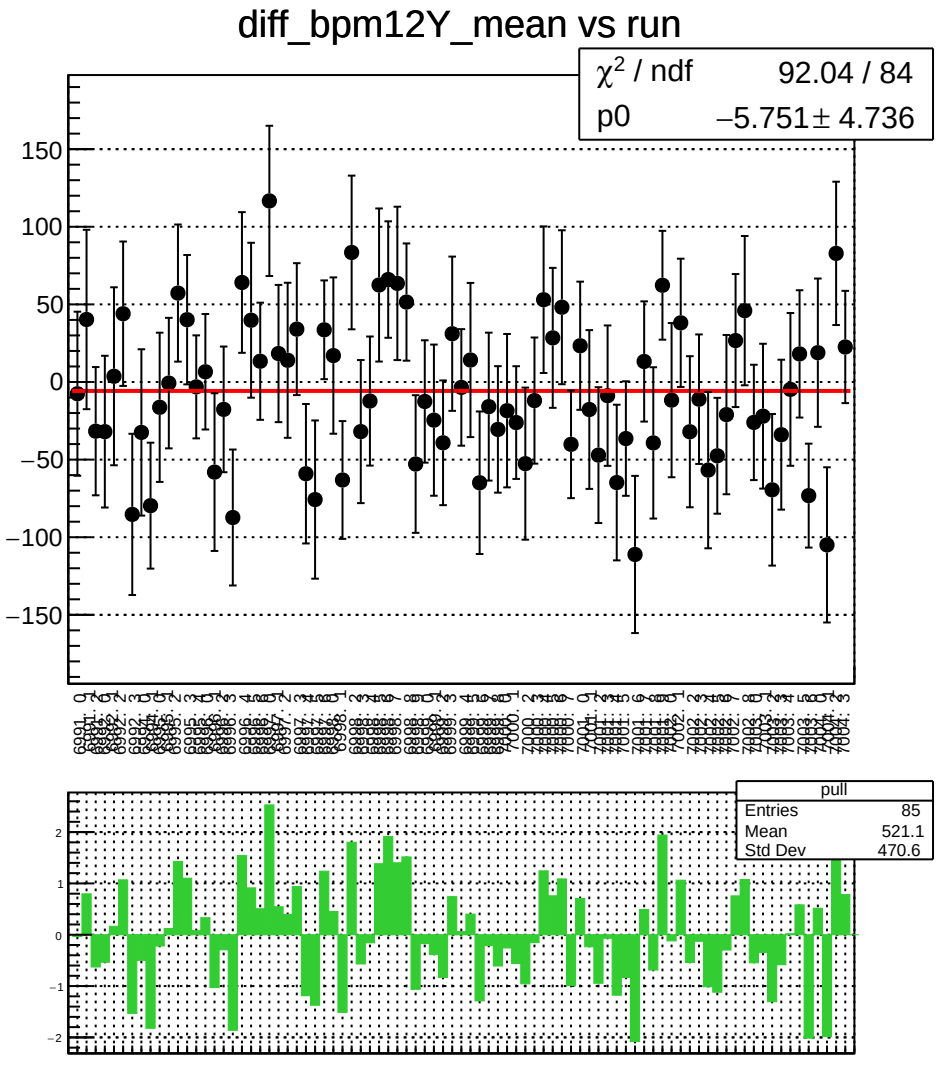

pull1D
Entries 85
Mean −0.01239
Std Dev 1.072
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

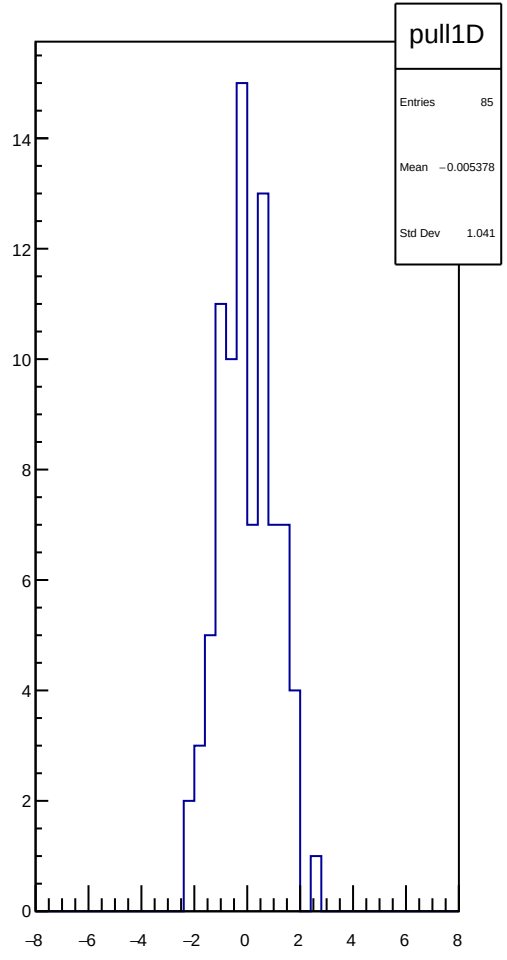

diff_bpm11Y_rms vs run
χ² / ndf 2.392e+04 / 84
p0 5989 ± 4.697
7500
7000
6500
6000
5500
5000
4500

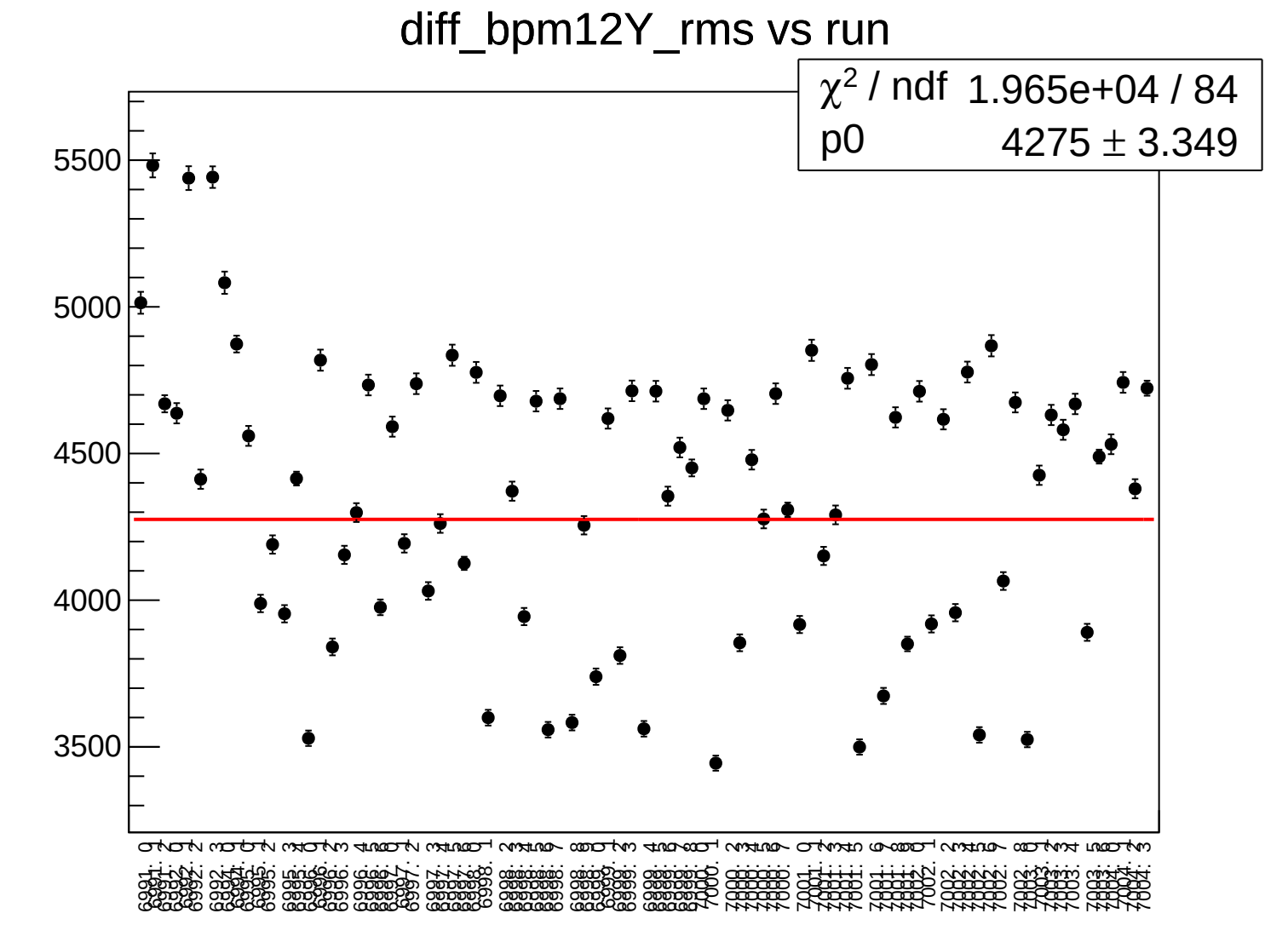

diff_bpm12X_mean vs run
χ² / ndf 105.7 / 84
p0 −21.93 ± 33.93
1000
500
0
−500
−1000
−1500
pull
Entries 85
Mean −101.3
Std Dev 144.8
2
1
0
−1
−2
−3

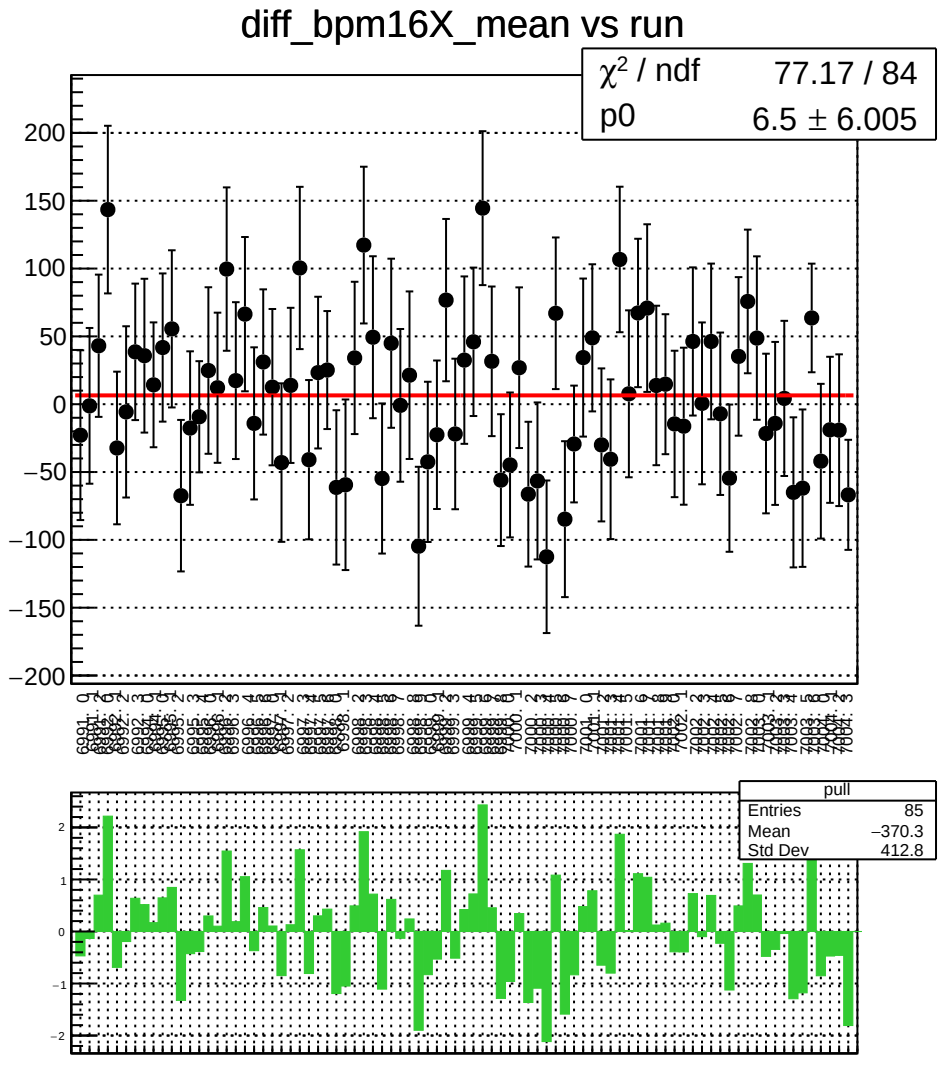

pull1D
Entries 85
Mean 0.03111
Std Dev 1.115
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

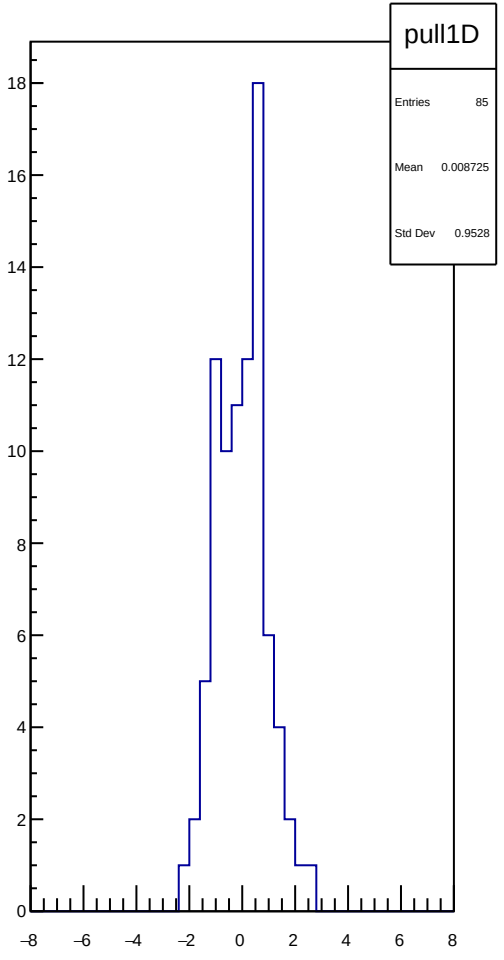

diff_bpm12X_rms vs run
χ² / ndf 2484 / 84
p0 3.08e+04 ± 23.99
35000
34000
33000
32000
31000
30000
29000
28000

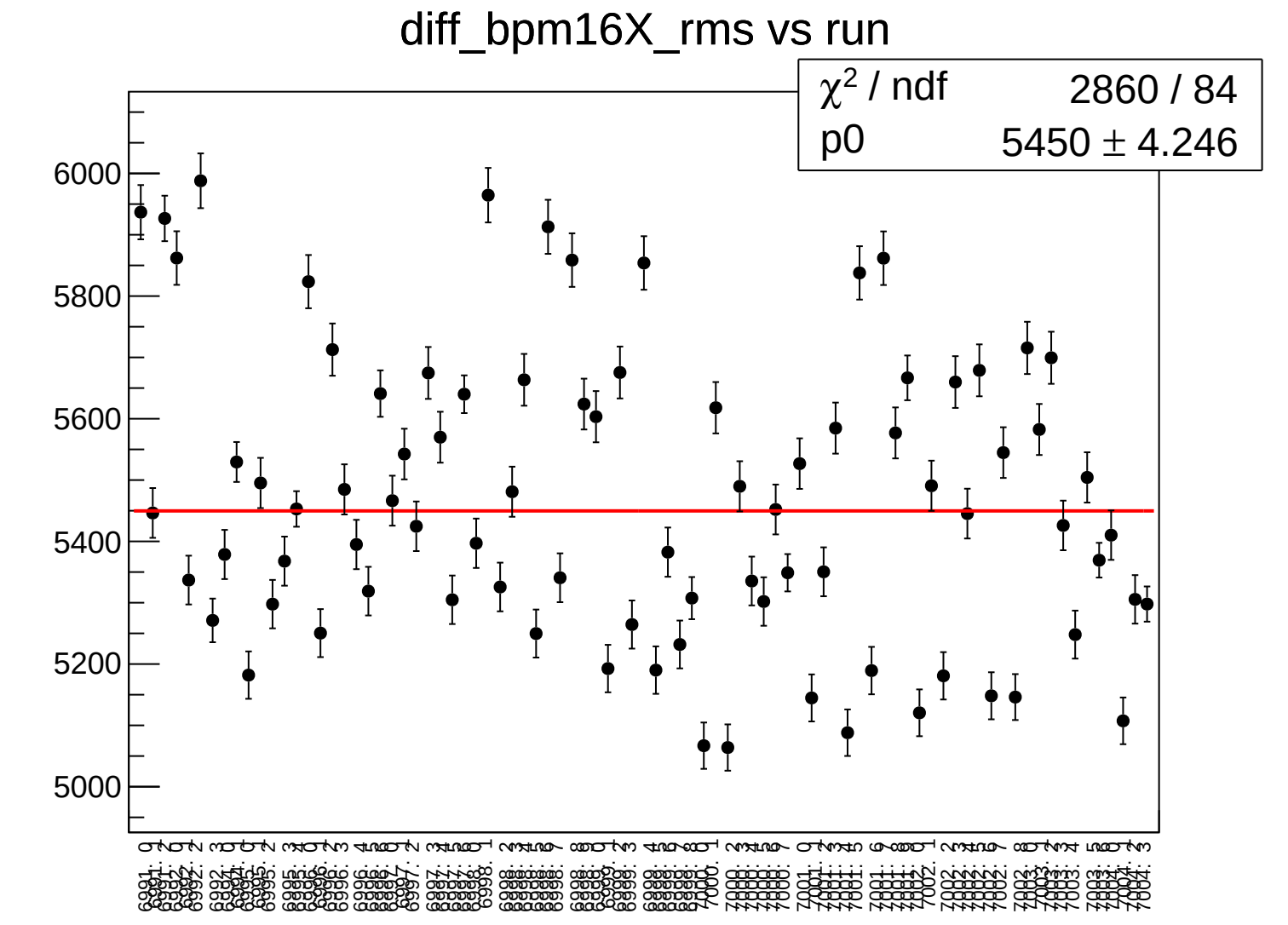

diff_bpm12Y_mean vs run
χ^2 / ndf 92.04 / 84
p0 −5.751 ± 4.736
150
100
50
0
−50
−100
−150
pull
Entries 85
Mean 521.1
Std Dev 470.6
2
1
0
−1
−2

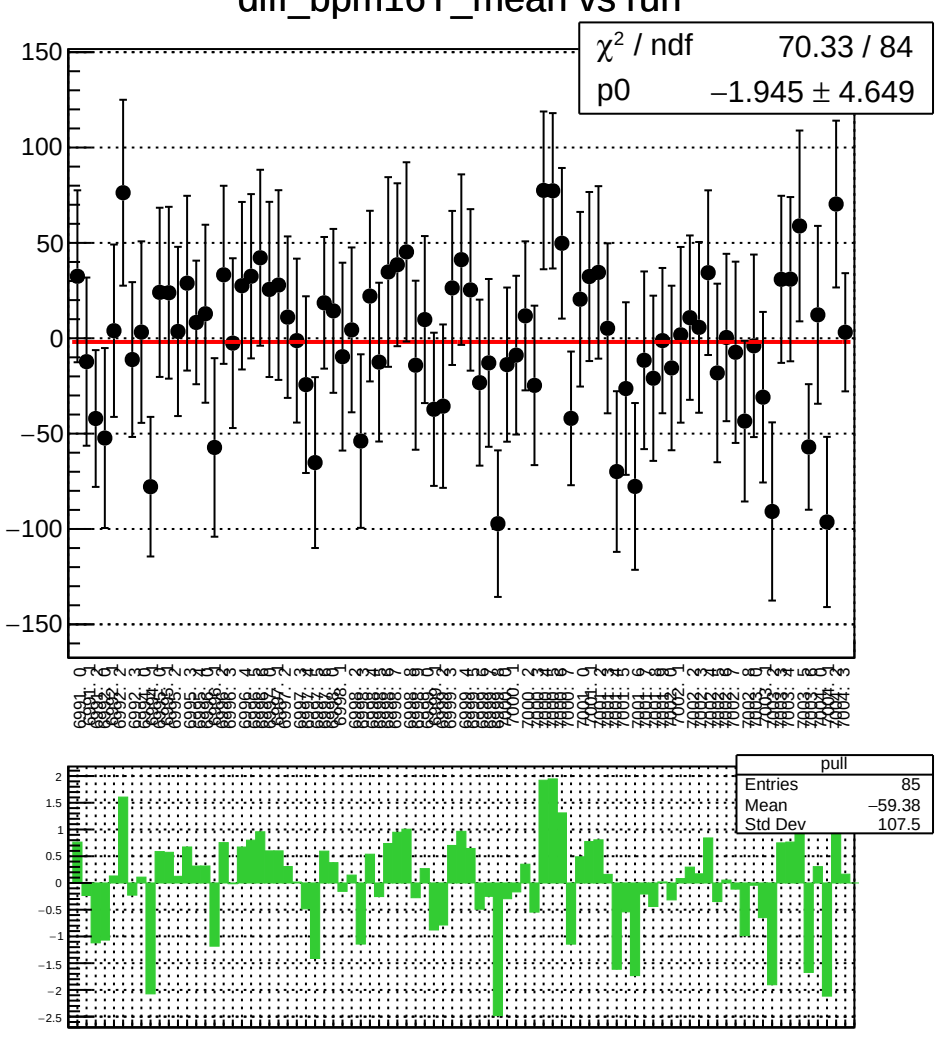

pull1D
Entries 85
Mean −0.005378
Std Dev 1.041
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

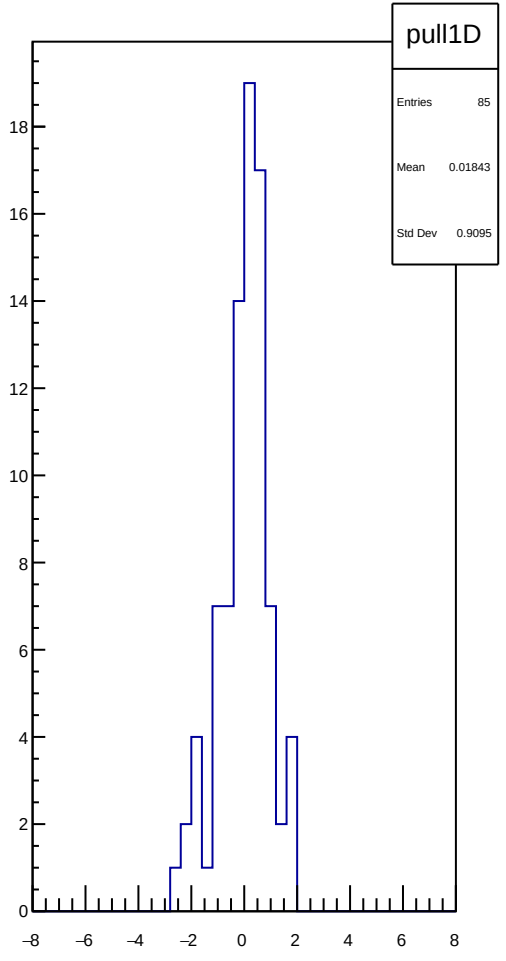

diff_bpm12Y_rms vs run
χ² / ndf 1.965e+04 / 84
p0 4275 ± 3.349
5500
5000
4500
4000
3500

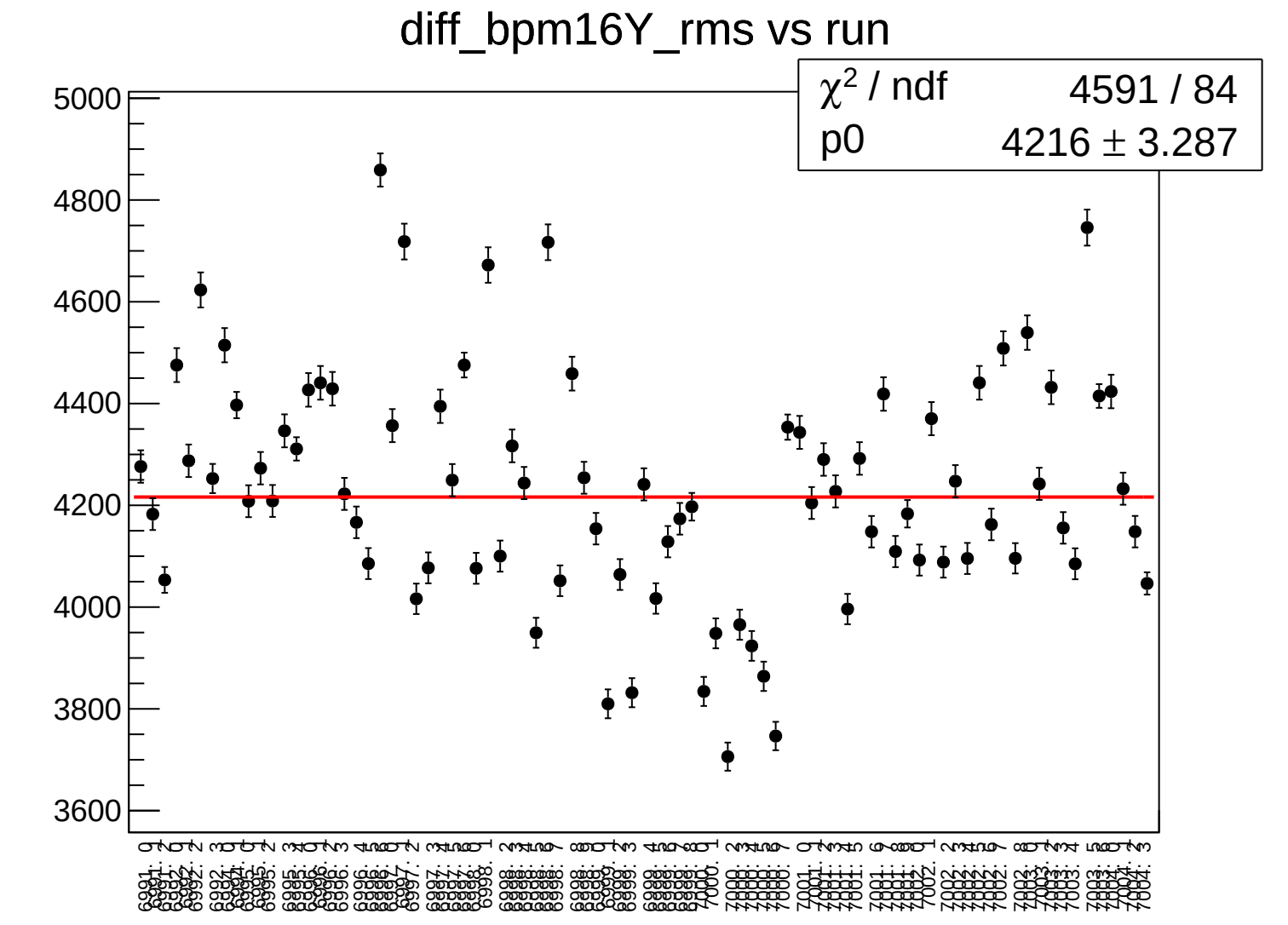

diff_bpm16X_mean vs run
χ² / ndf 77.17 / 84
p0 6.5 ± 6.005
pull
Entries 85
Mean −370.3
Std Dev 412.8

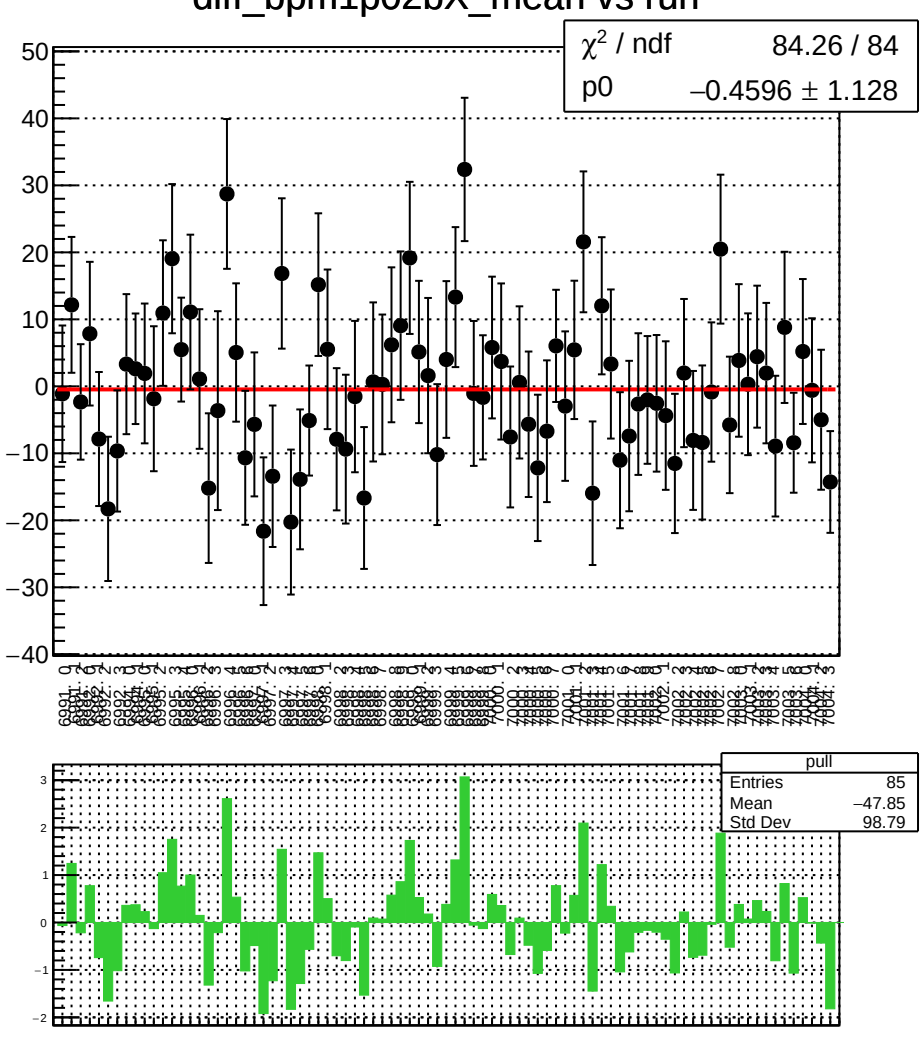

pull1D
Entries 85
Mean 0.008725
Std Dev 0.9528

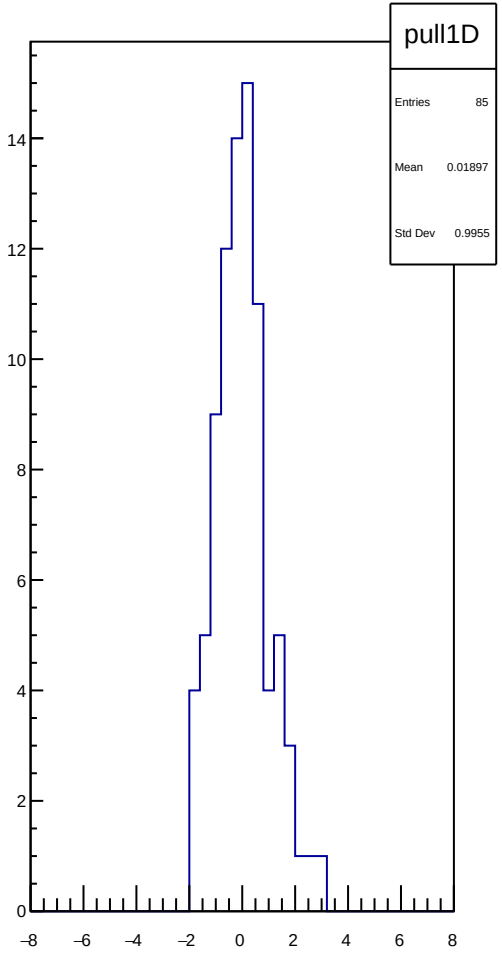

diff_bpm16X_rms vs run
χ² / ndf 2860 / 84
p0 5450 ± 4.246
6000
5800
5600
5400
5200
5000

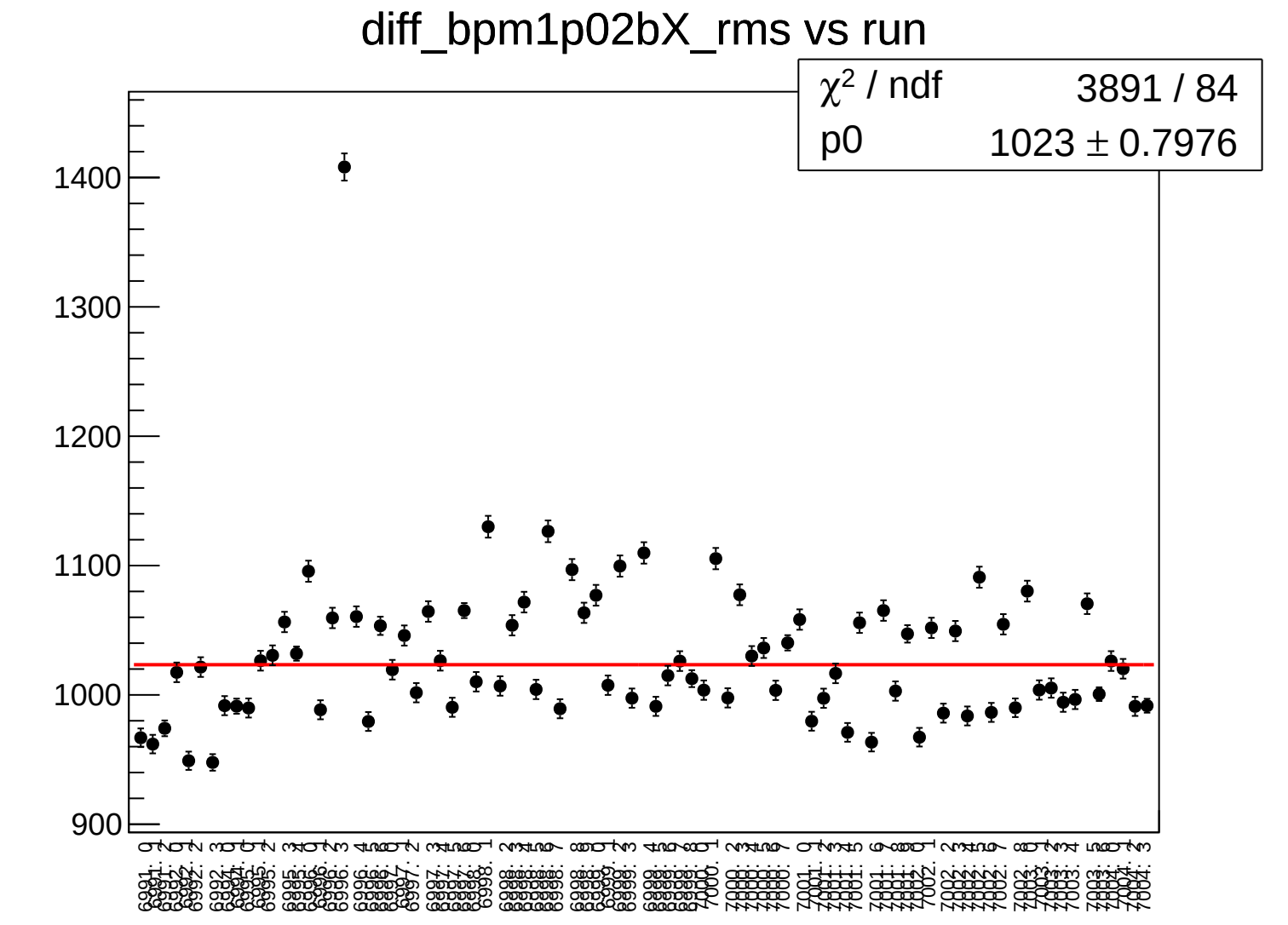

diff_bpm16Y_mean vs run
χ^2 / ndf 70.33 / 84
p0 −1.945 ± 4.649
150
100
50
0
−50
−100
−150
pull
Entries 85
Mean −59.38
Std Dev 107.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

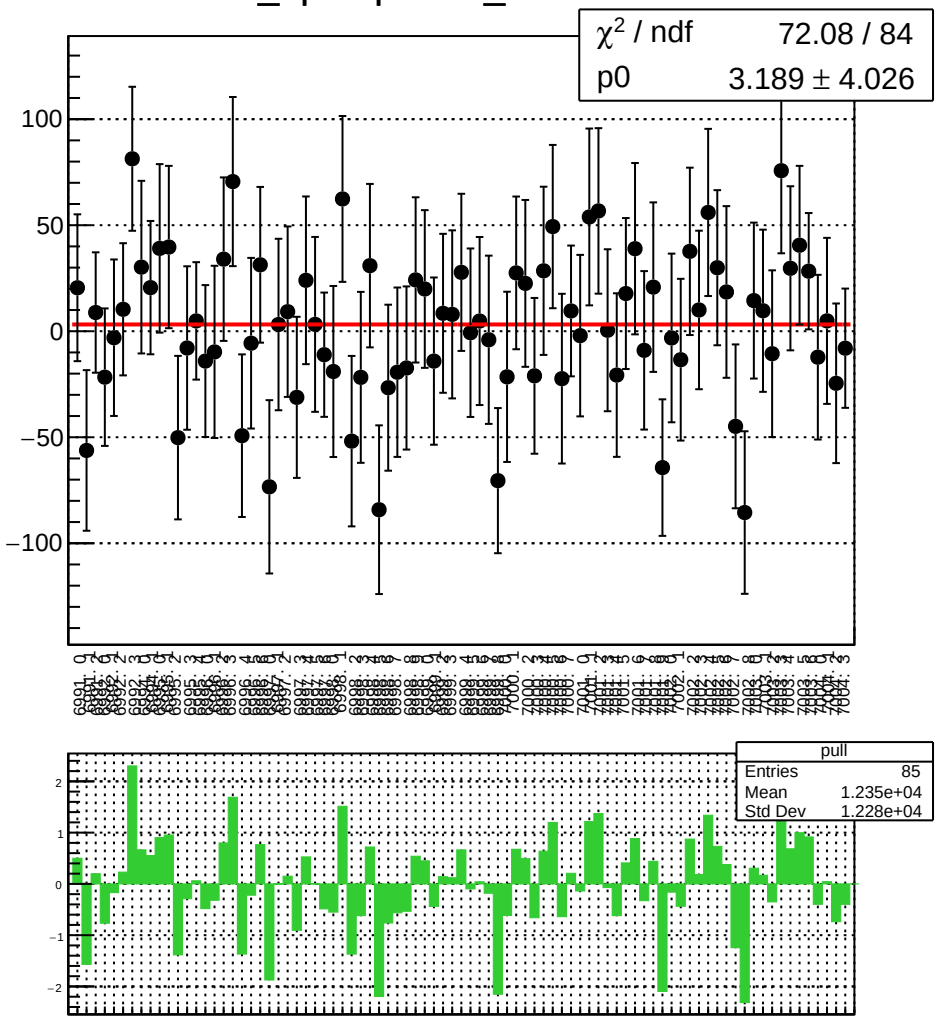

pull1D
Entries 85
Mean 0.01843
Std Dev 0.9095
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

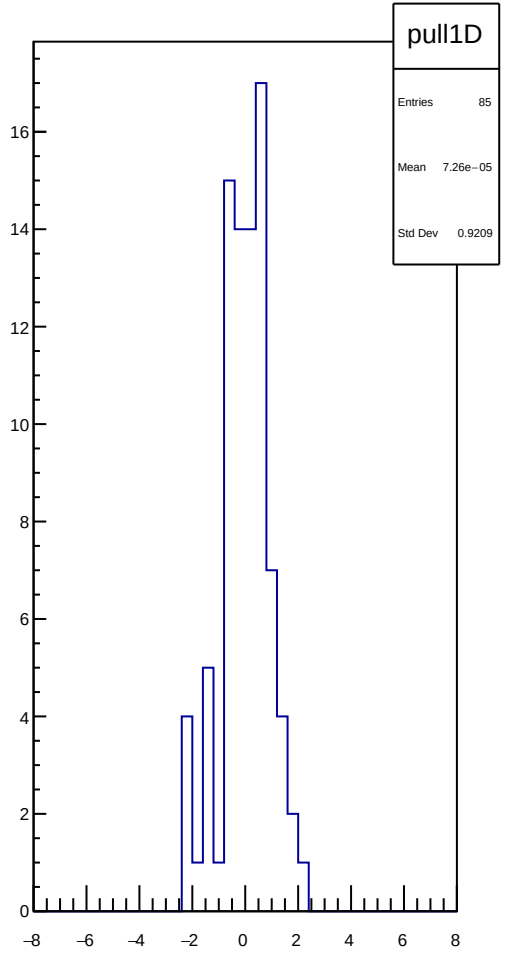

diff_bpm16Y_rms vs run
χ² / ndf 4591 / 84
p0 4216 ± 3.287
5000
4800
4600
4400
4200
4000
3800
3600

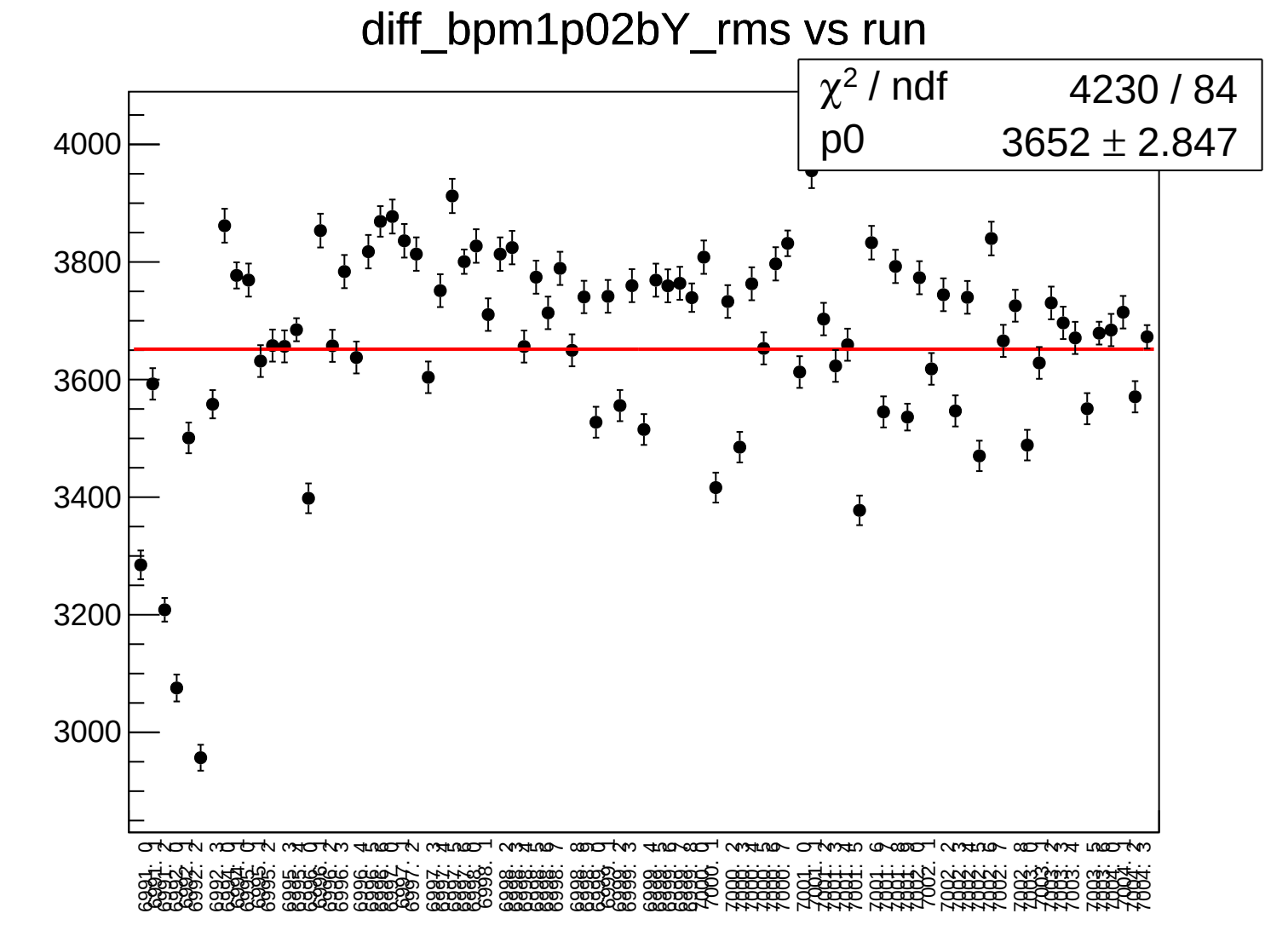

diff_bpm1p02bX_mean vs run
χ² / ndf 84.26 / 84
p0 −0.4596 ± 1.128
pull
Entries 85
Mean −47.85
Std Dev 98.79

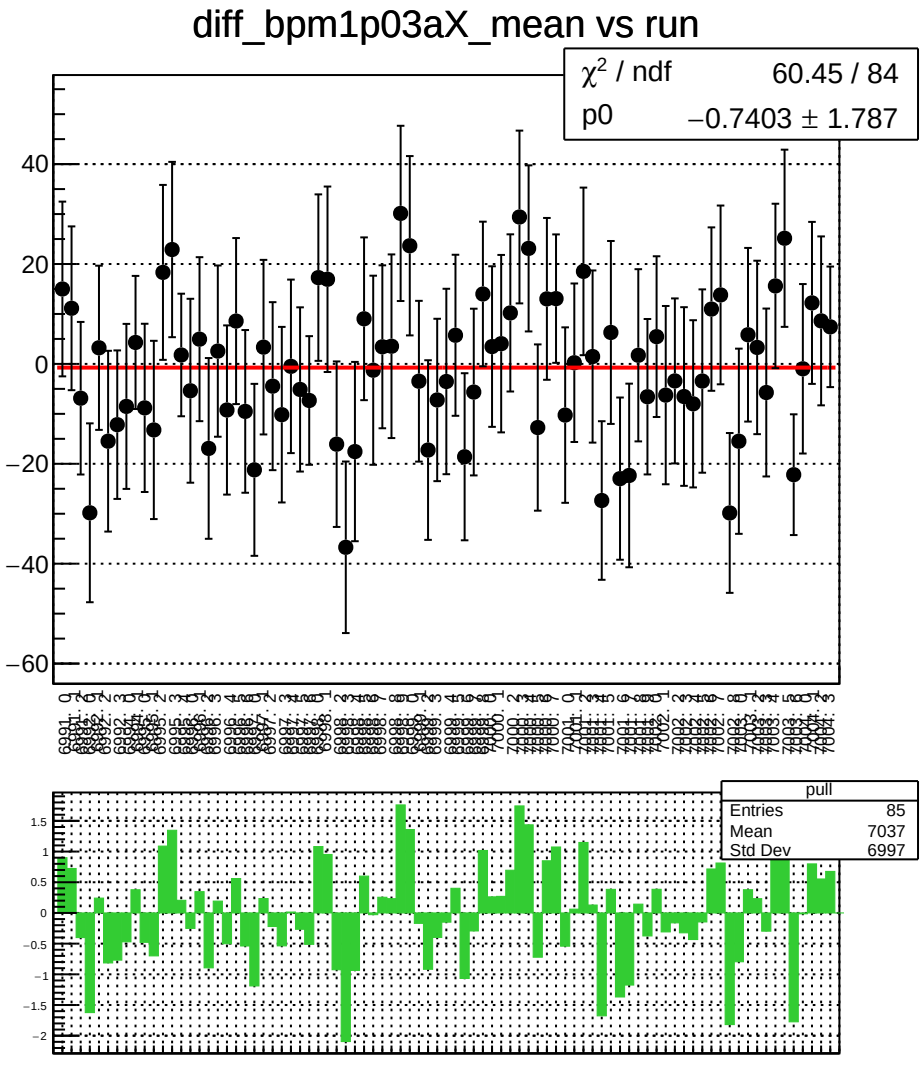

pull1D
Entries 85
Mean 0.01897
Std Dev 0.9955

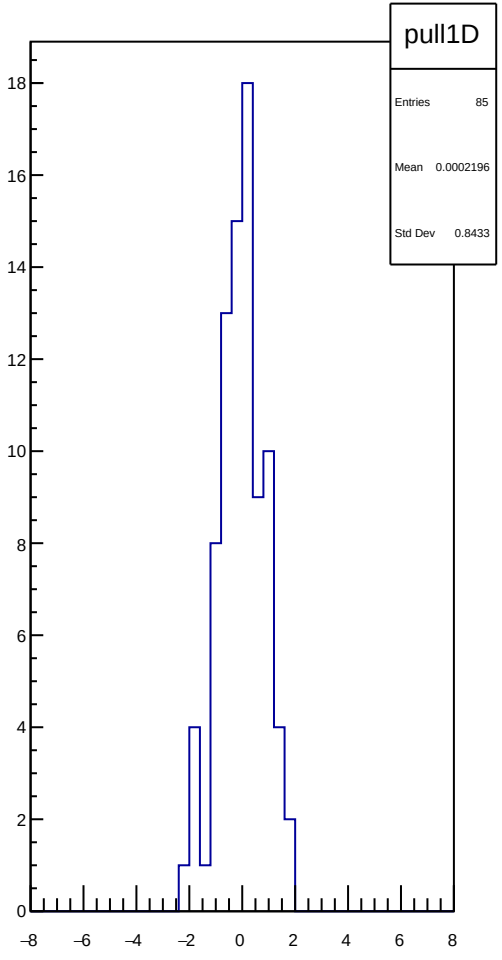

diff_bpm1p02bX_rms vs run
χ² / ndf 3891 / 84
p0 1023 ± 0.7976
1400
1300
1200
1100
1000
900

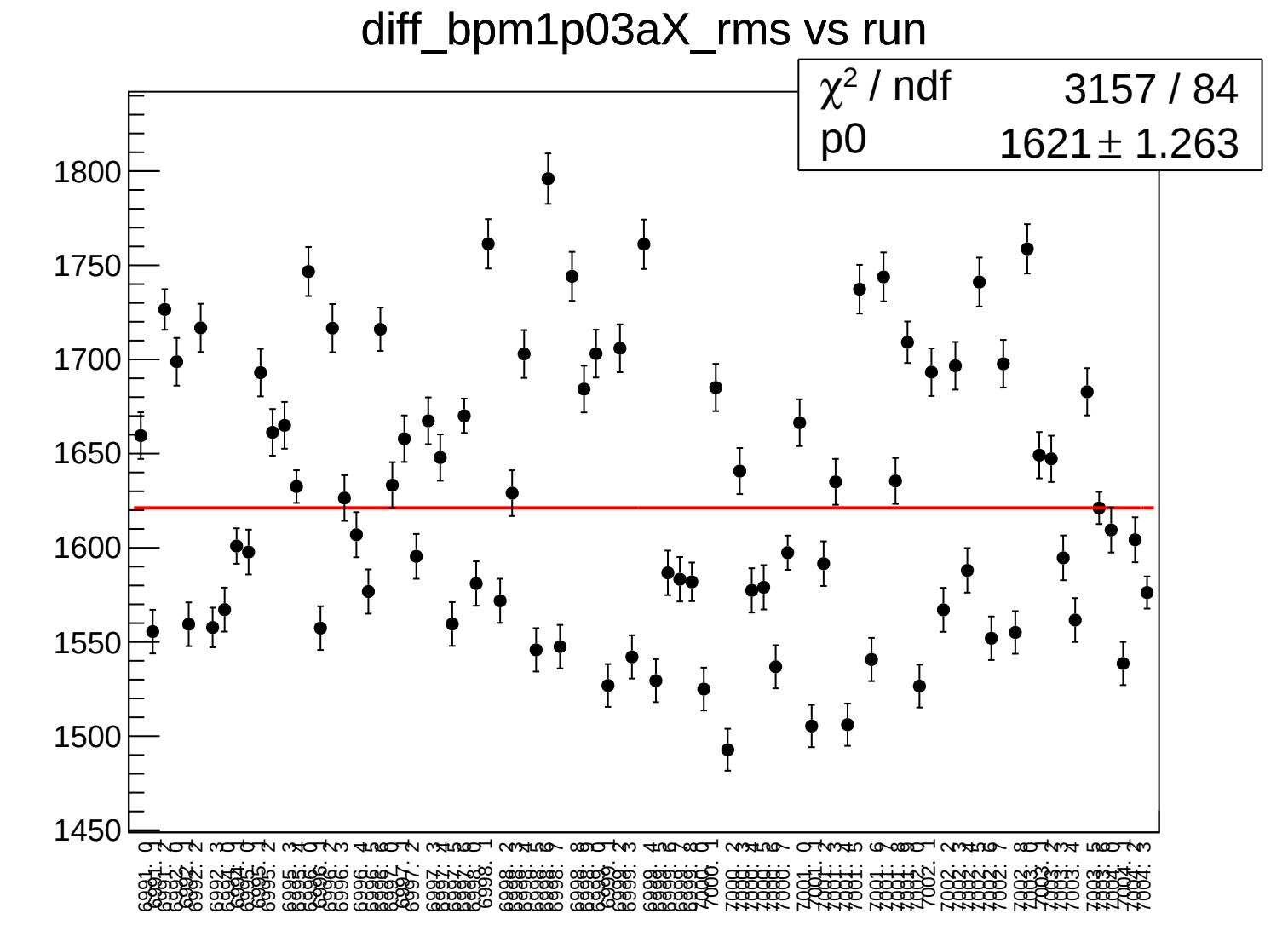

diff_bpm1p02bY_mean vs run
χ² / ndf 72.08 / 84
p0 3.189 ± 4.026
100
50
0
−50
−100
pull
Entries 85
Mean 1.235e+04
Std Dev 1.228e+04
2
1
0
−1
−2

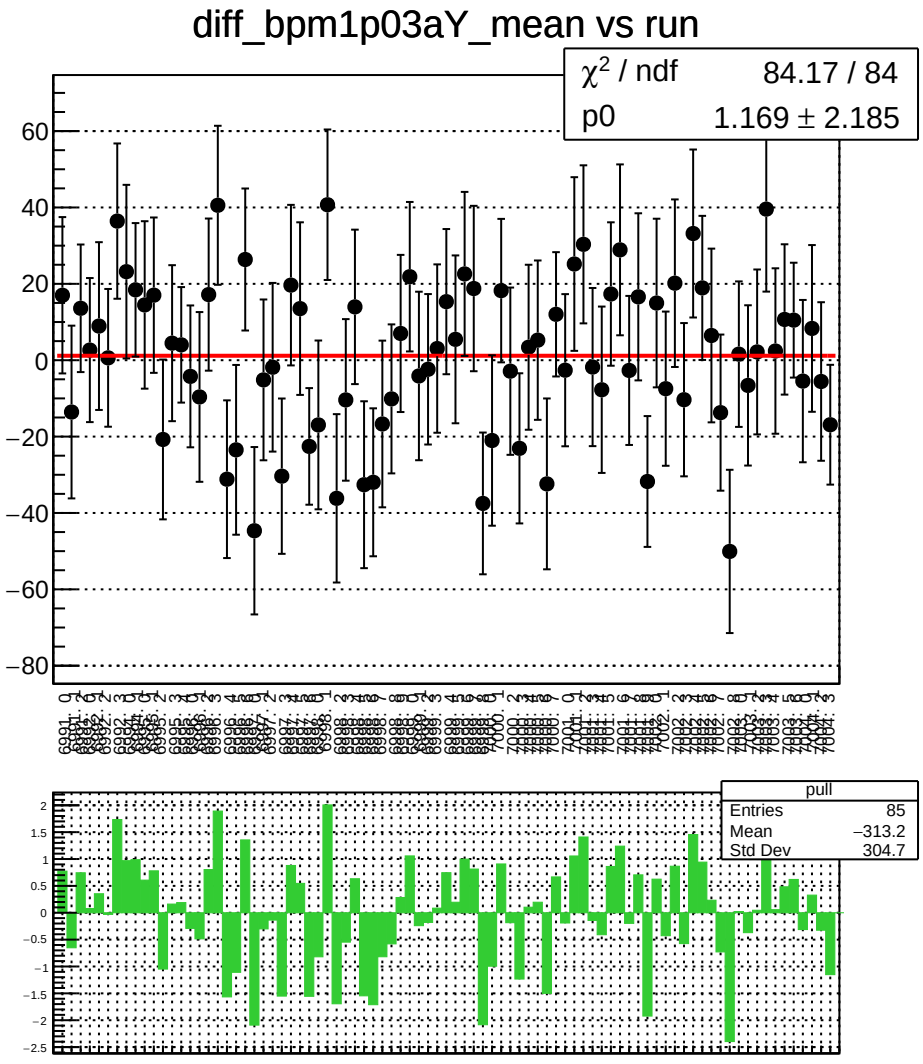

pull1D
Entries 85
Mean 7.26e−05
Std Dev 0.9209
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

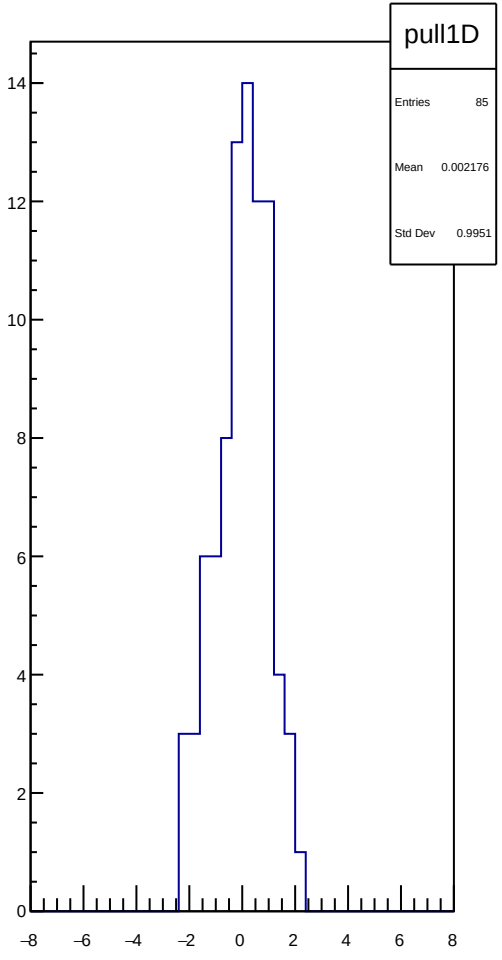

diff_bpm1p02bY_rms vs run
χ² / ndf 4230 / 84
p0 3652 ± 2.847
4000
3800
3600
3400
3200
3000

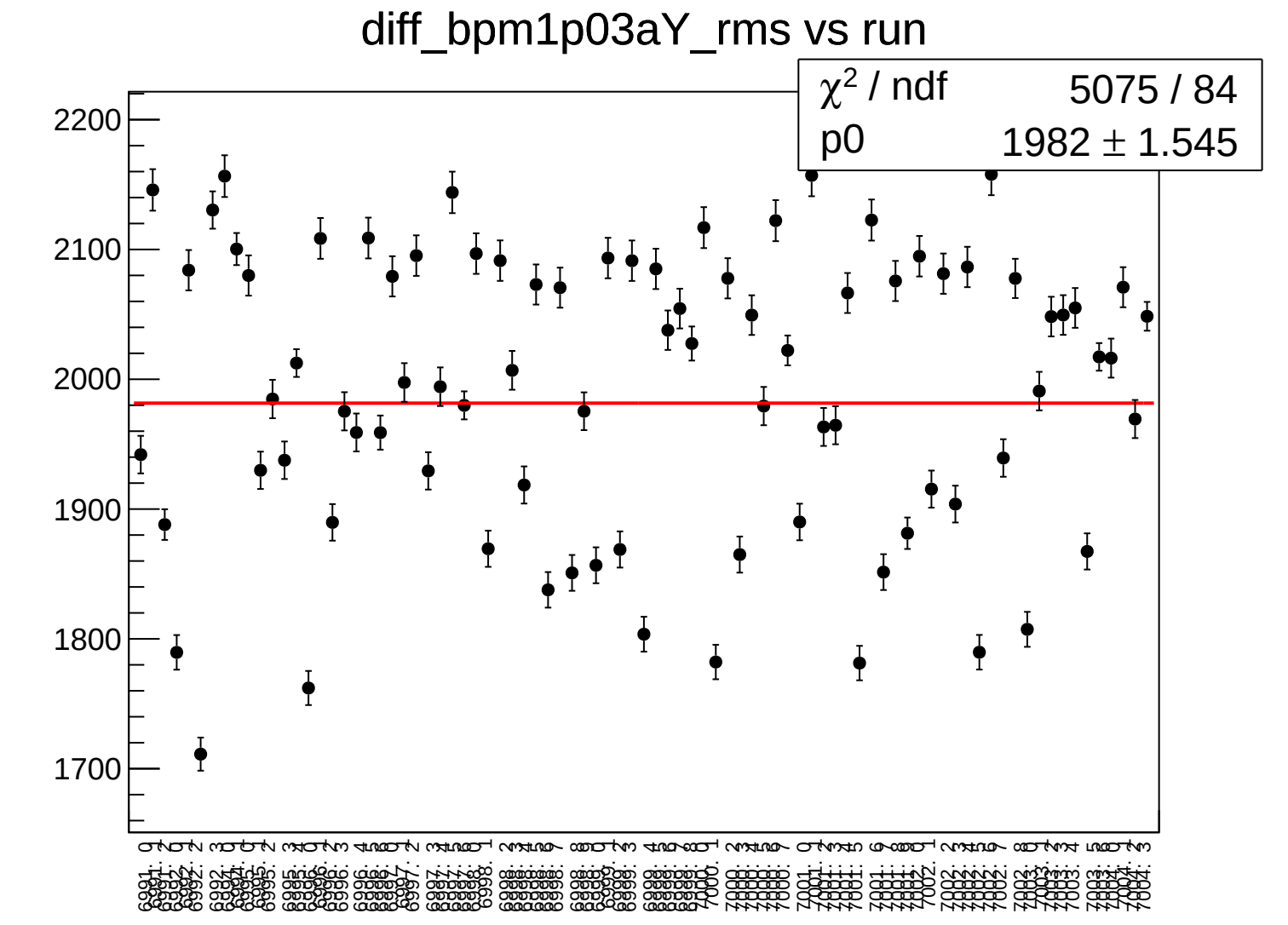

diff_bpm1p03aX_mean vs run
χ² / ndf 60.45 / 84
p0 −0.7403 ± 1.787
pull
Entries 85
Mean 7037
Std Dev 6997

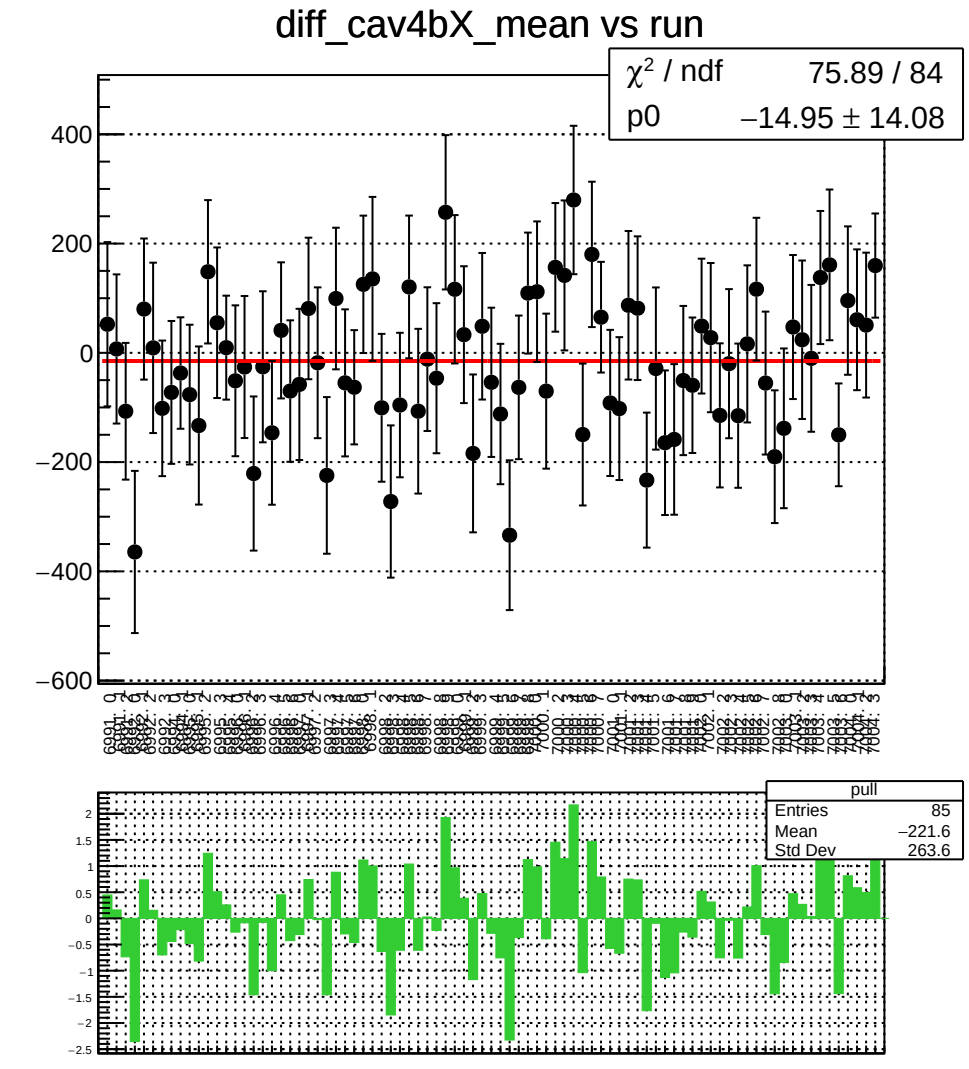

pull1D
Entries 85
Mean 0.0002196
Std Dev 0.8433

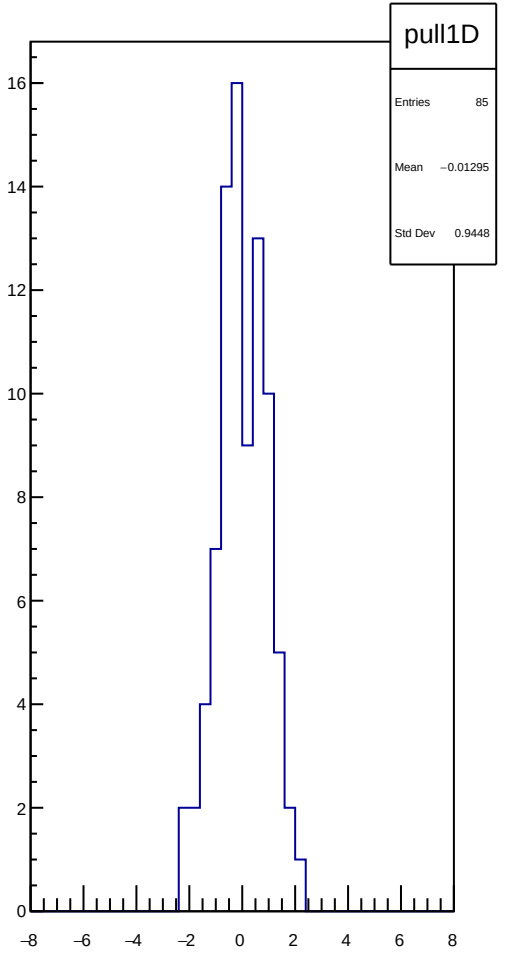

diff_bpm1p03aX_rms vs run
χ² / ndf 3157 / 84
p0 1621 ± 1.263
1800
1750
1700
1650
1600
1550
1500
1450

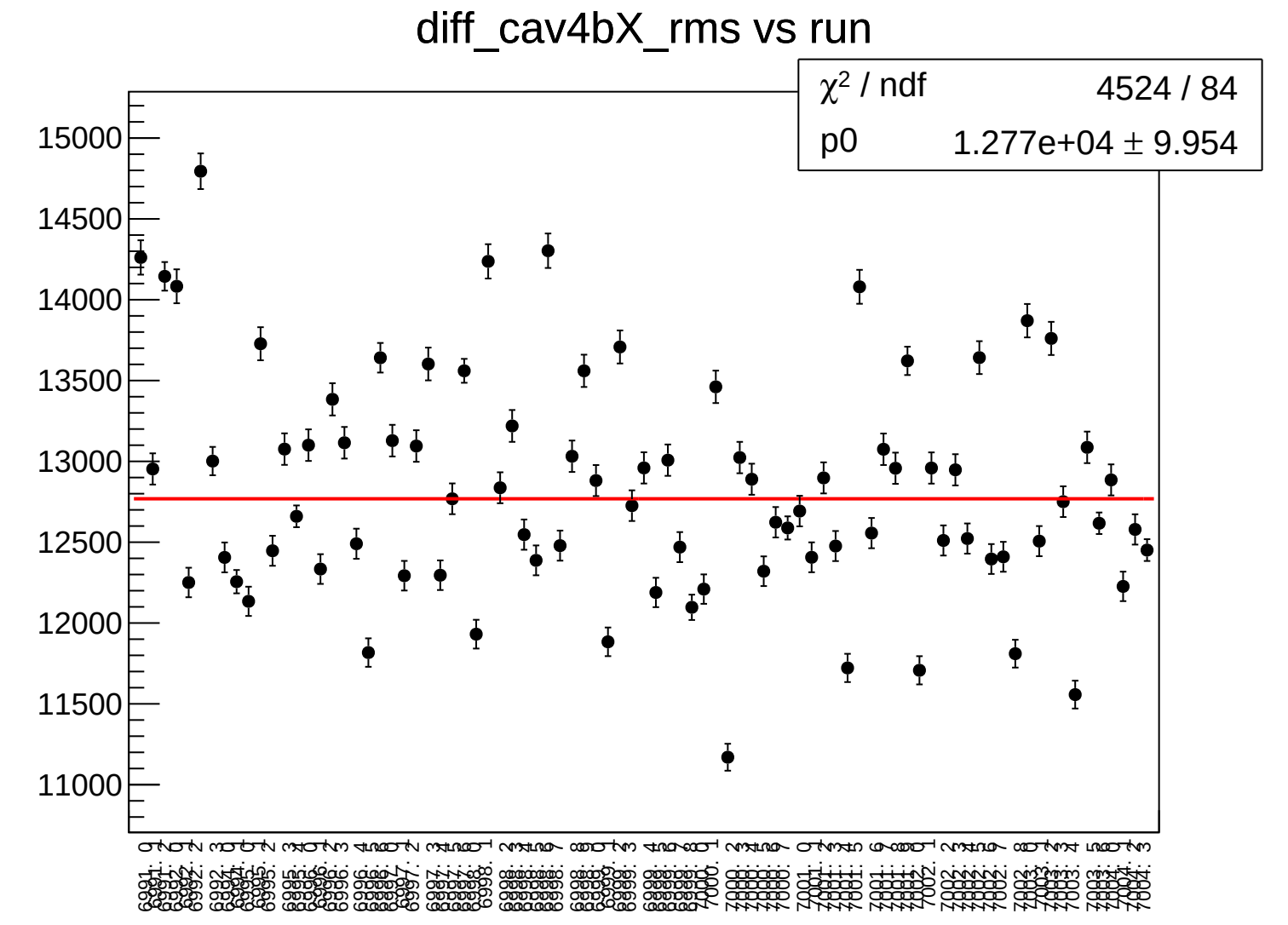

diff_bpm1p03aY_mean vs run
χ^2 / ndf 84.17 / 84
p0 1.169 ± 2.185
pull
Entries 85
Mean −313.2
Std Dev 304.7

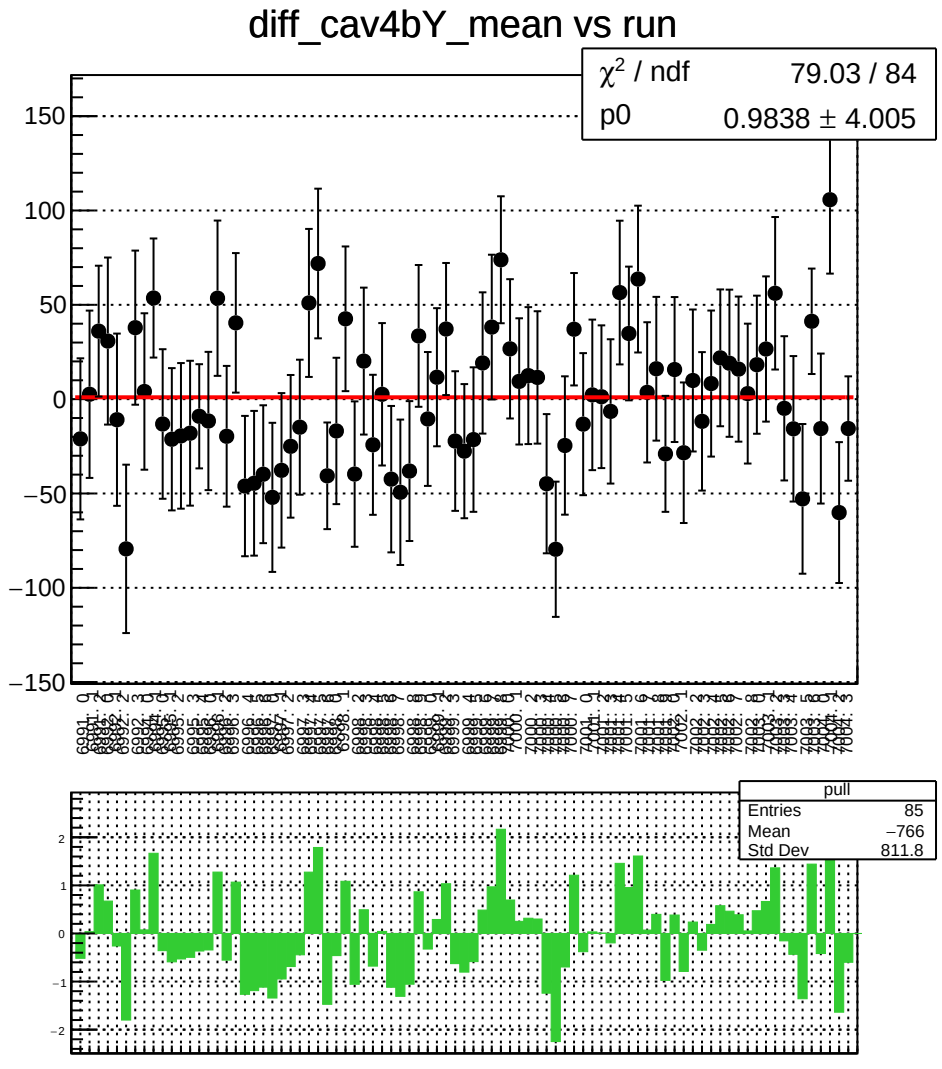

pull1D
Entries 85
Mean 0.002176
Std Dev 0.9951

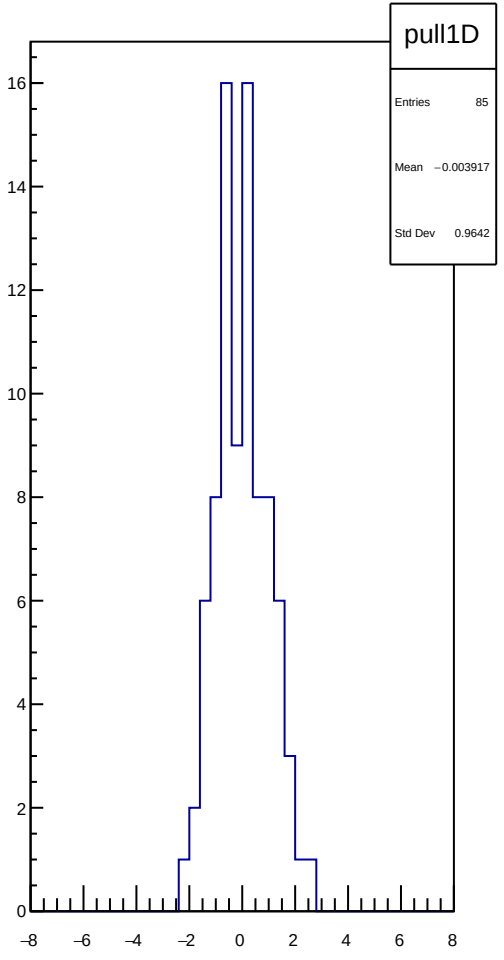

diff_bpm1p03aY_rms vs run
χ² / ndf 5075 / 84
p0 1982 ± 1.545
2200
2100
2000
1900
1800
1700

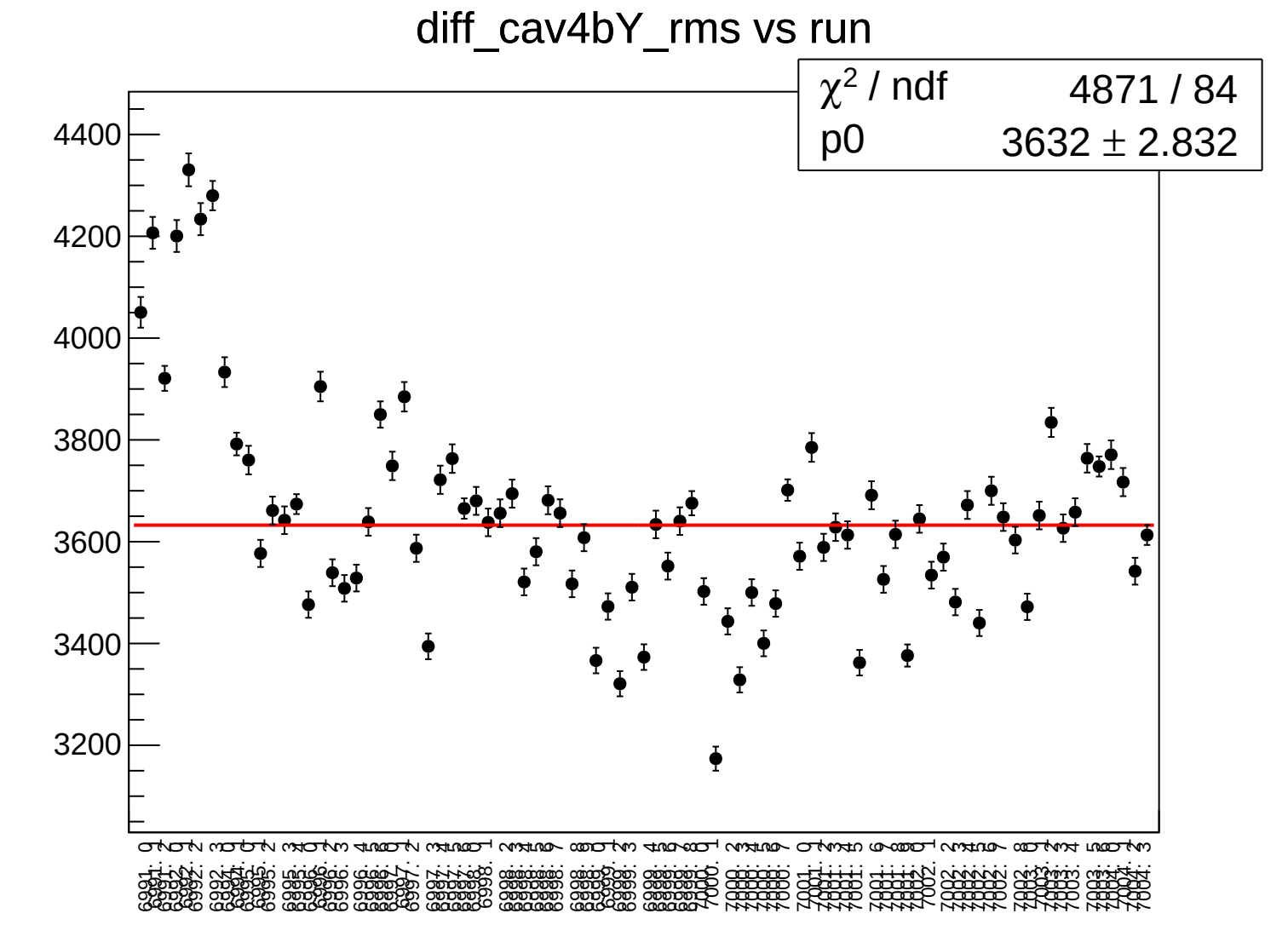

diff_cav4bX_mean vs run
χ² / ndf 75.89 / 84
p0 −14.95 ± 14.08
400
200
0
−200
−400
−600
pull
Entries 85
Mean −221.6
Std Dev 263.6
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

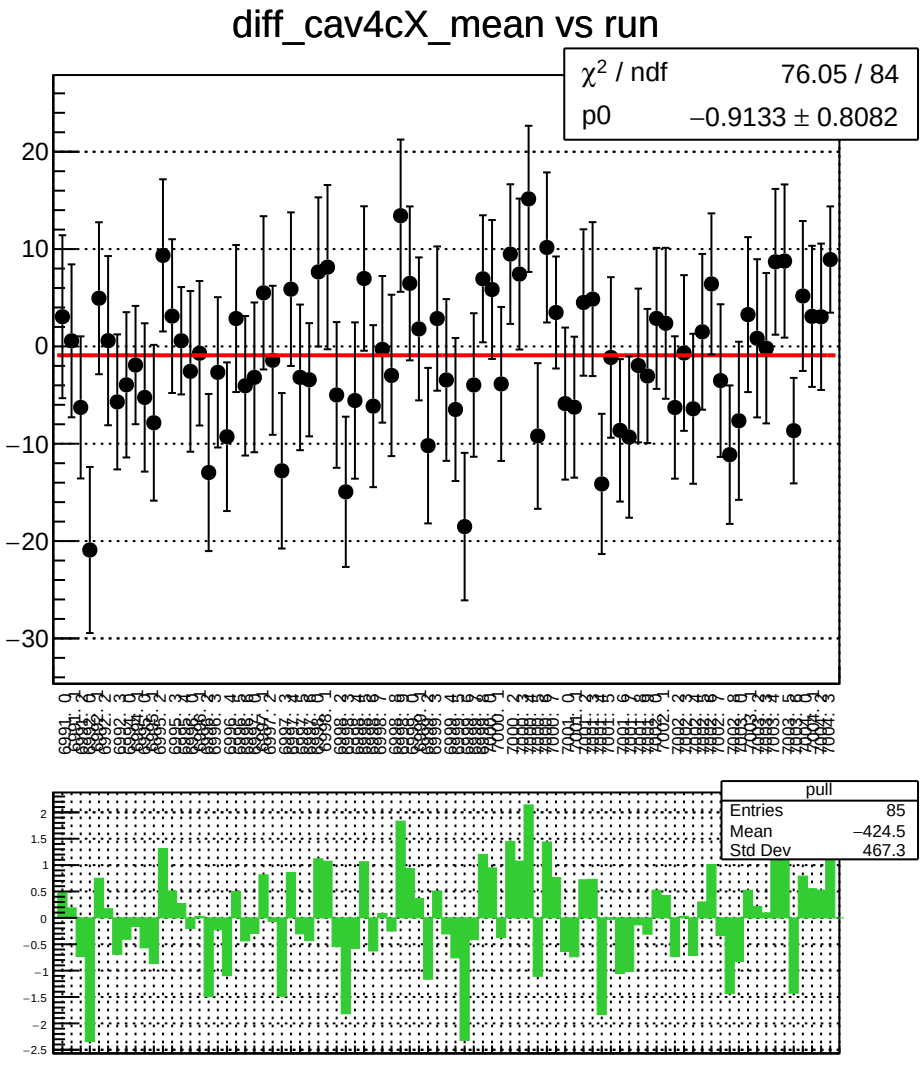

pull1D
Entries 85
Mean −0.01295
Std Dev 0.9448
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

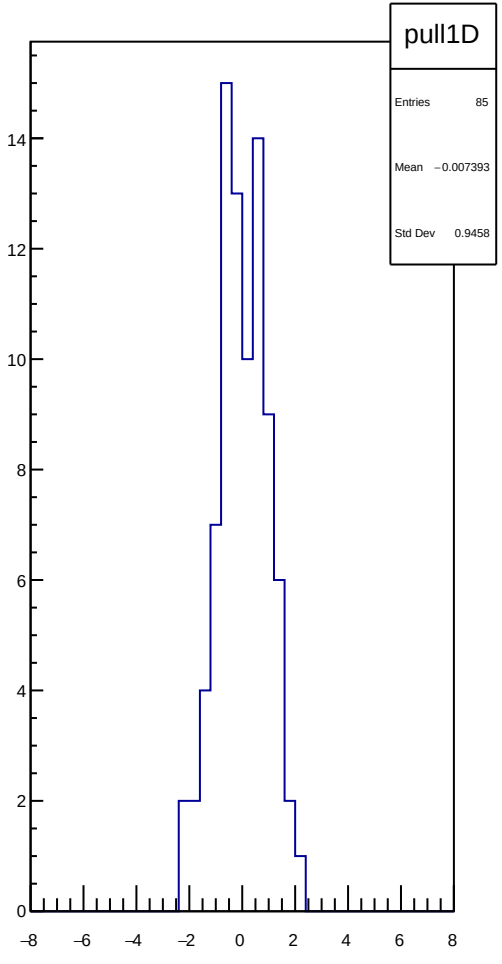

diff_cav4bX_rms vs run
χ² / ndf 4524 / 84
p0 1.277e+04 ± 9.954
15000
14500
14000
13500
13000
12500
12000
11500
11000

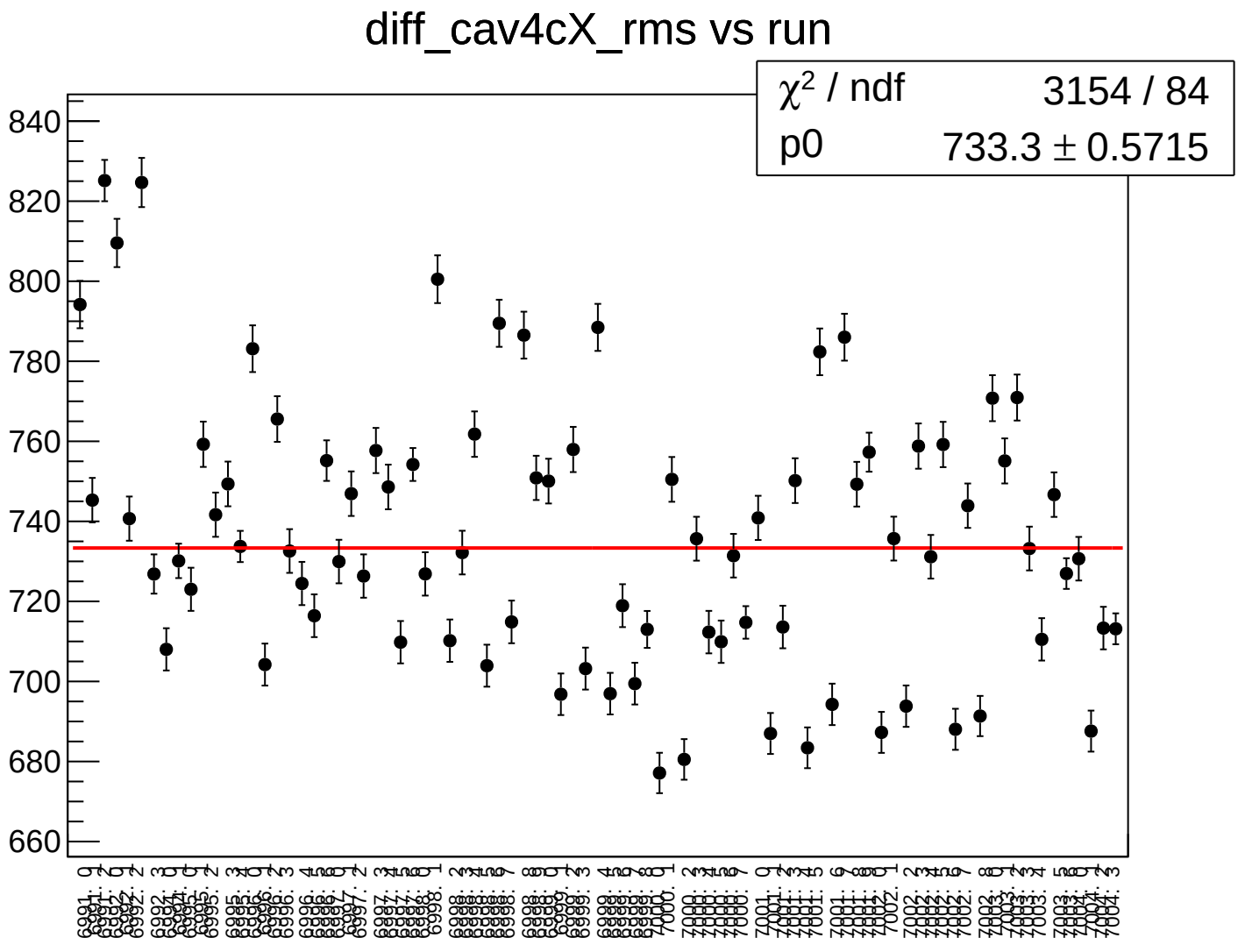

diff_cav4bY_mean vs run
χ^2 / ndf 79.03 / 84
p0 0.9838 ± 4.005
150
100
50
0
−50
−100
−150
pull
Entries 85
Mean −766
Std Dev 811.8
2
1
0
−1
−2

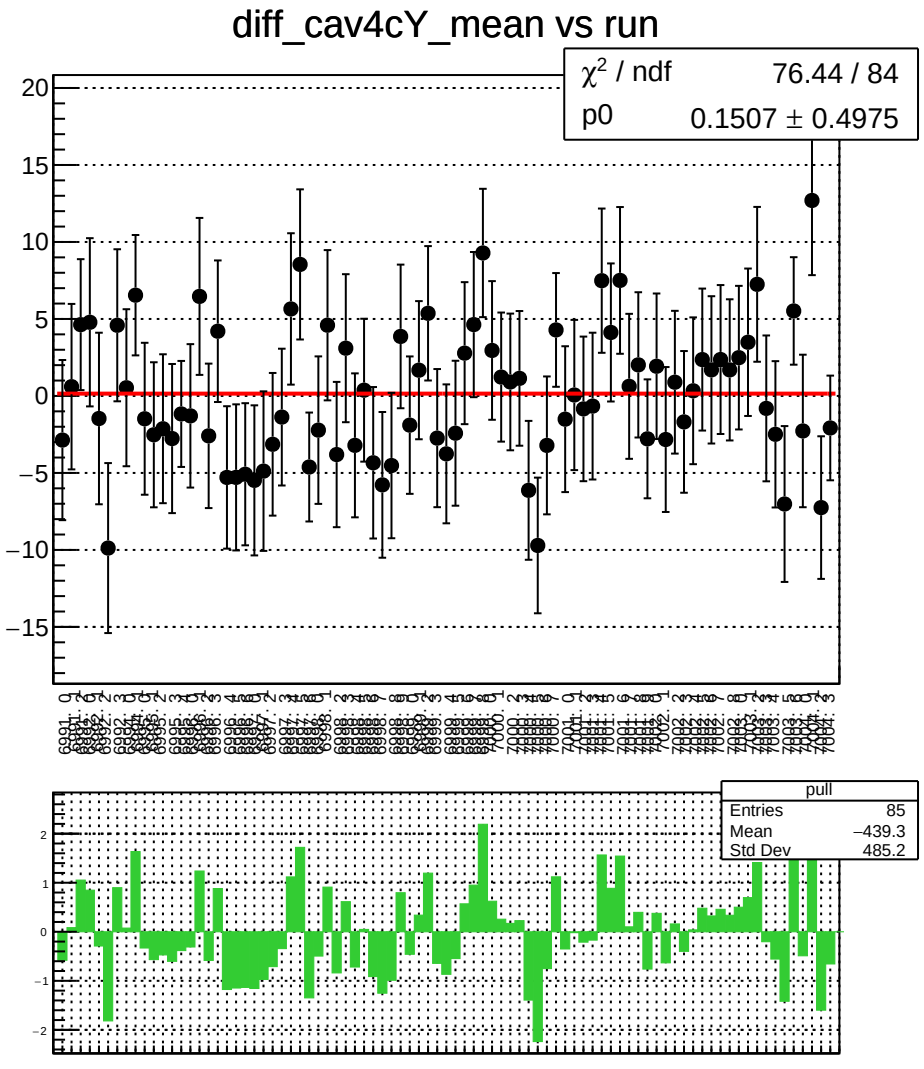

pull1D
Entries 85
Mean −0.003917
Std Dev 0.9642
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

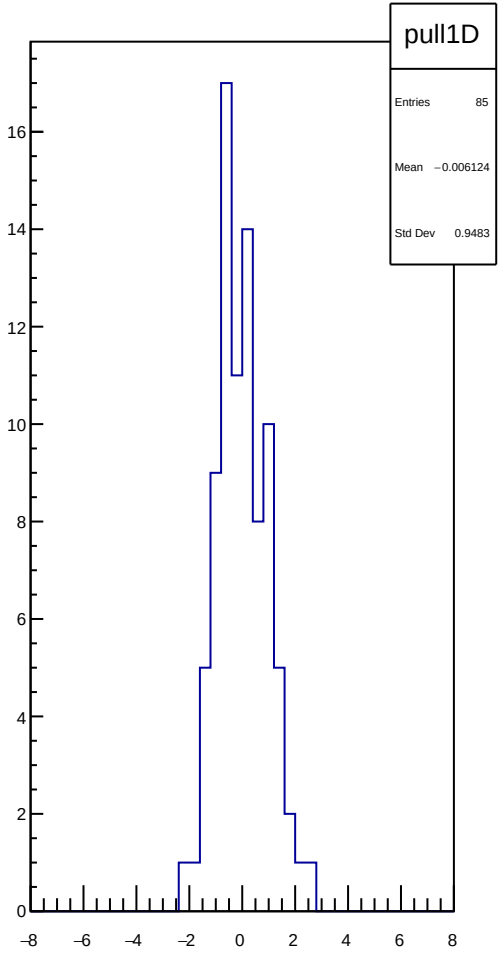

diff_cav4bY_rms vs run
χ² / ndf 4871 / 84
p0 3632 ± 2.832
4400
4200
4000
3800
3600
3400
3200

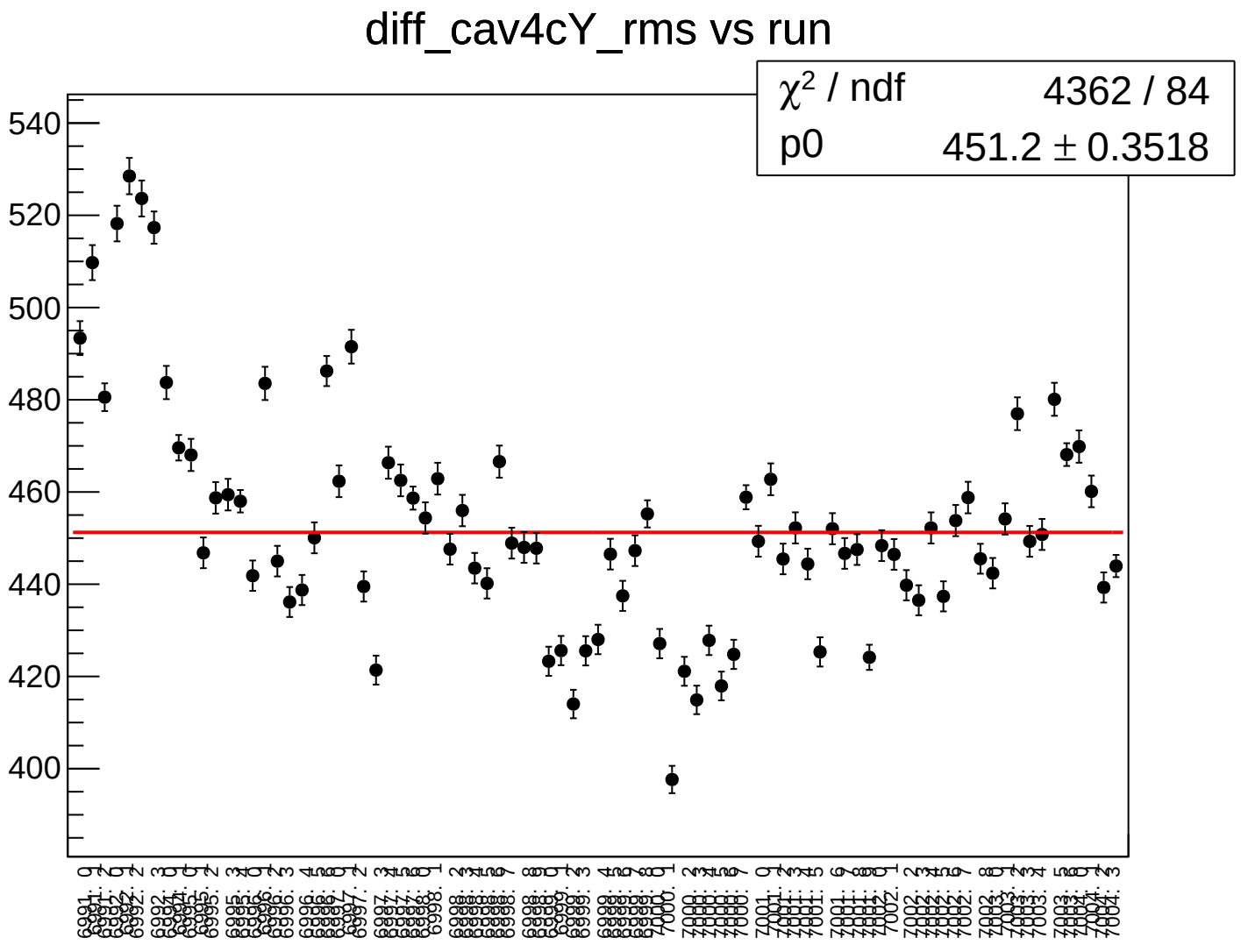

diff_cav4cX_mean vs run
χ² / ndf 76.05 / 84
p0 −0.9133 ± 0.8082
pull
Entries 85
Mean −424.5
Std Dev 467.3

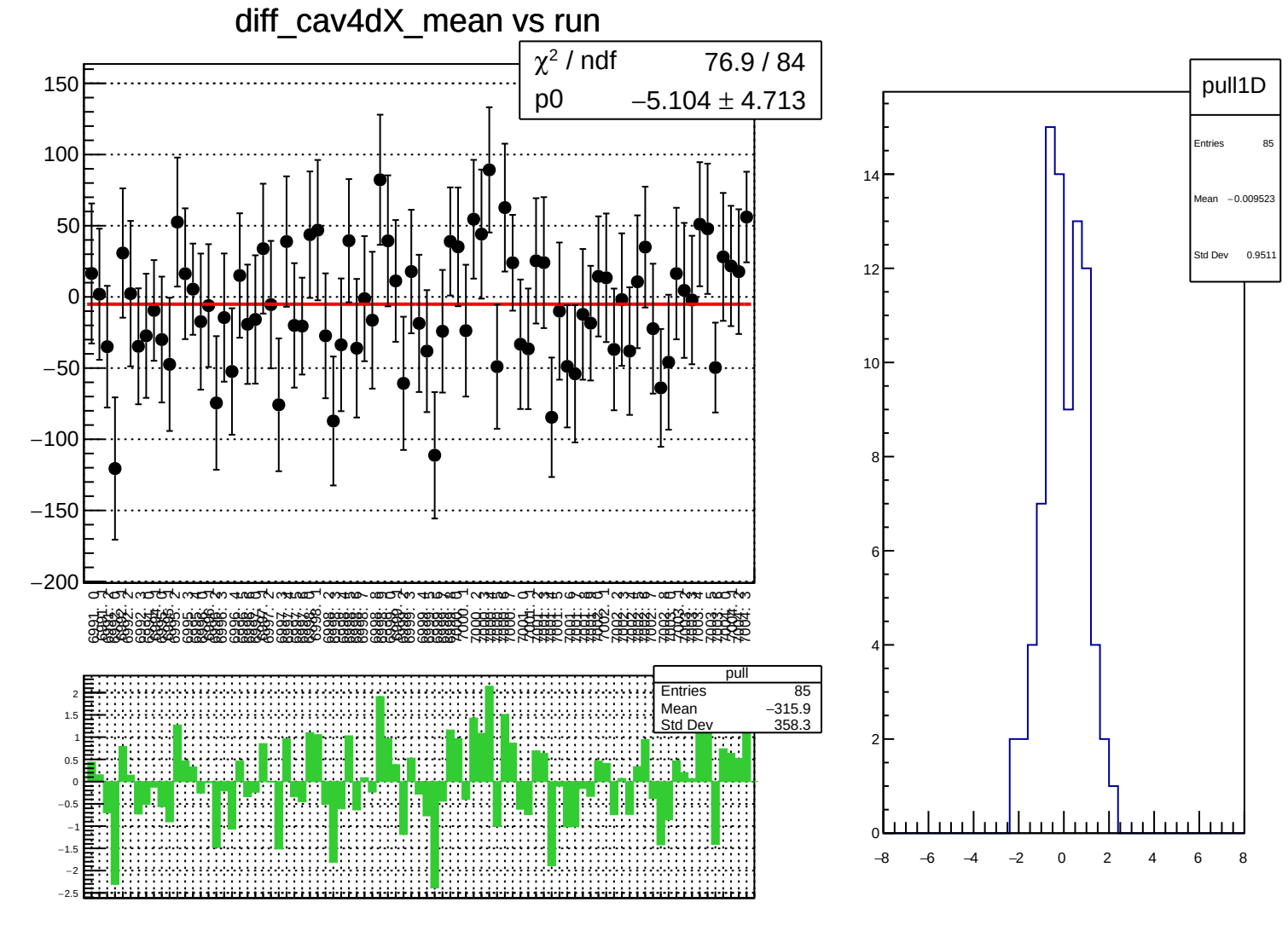

pull1D
Entries 85
Mean −0.007393
Std Dev 0.9458

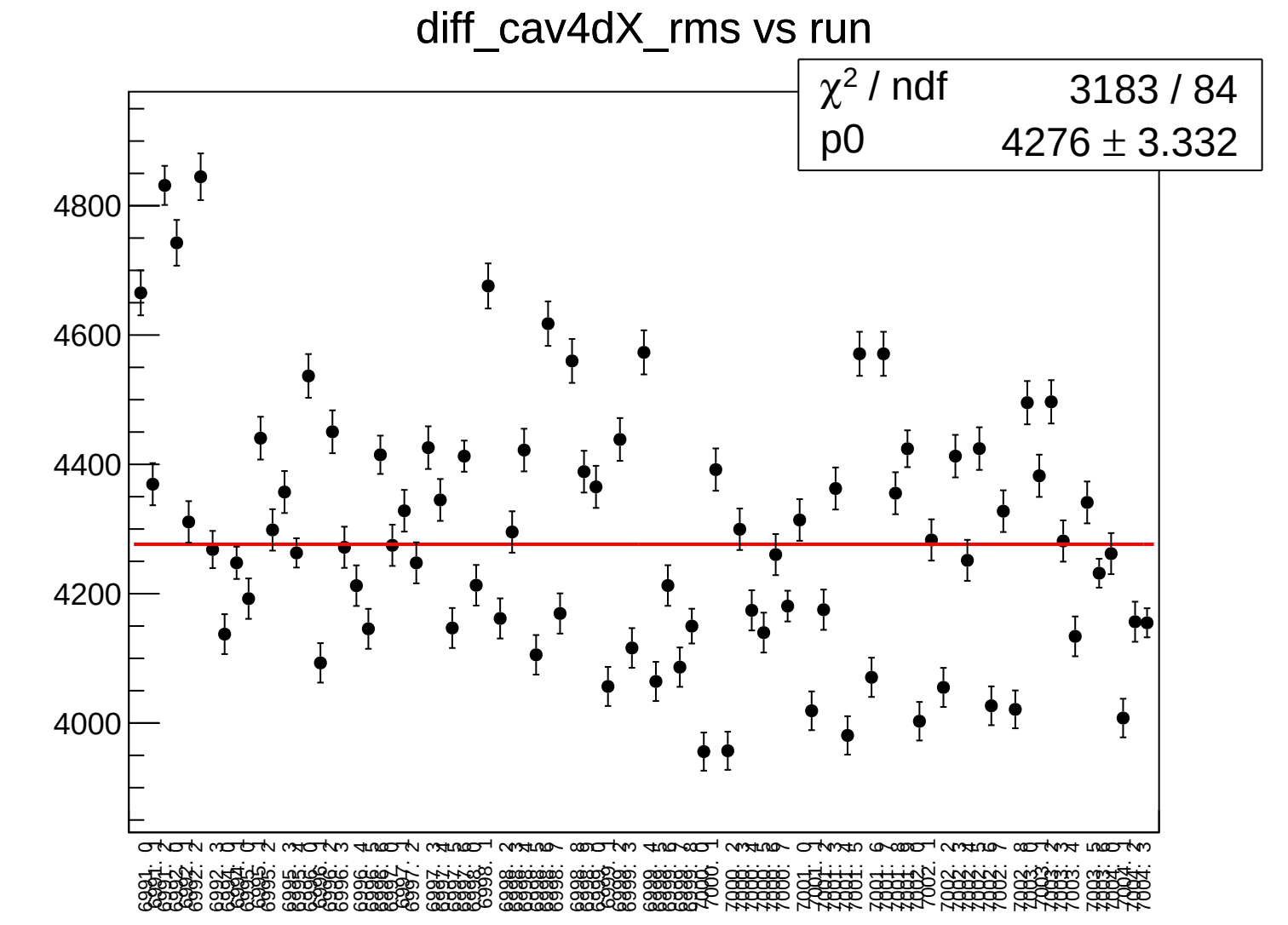

diff_cav4cX_rms vs run
χ² / ndf 3154 / 84
p0 733.3 ± 0.5715
840
820
800
780
760
740
720
700
680
660

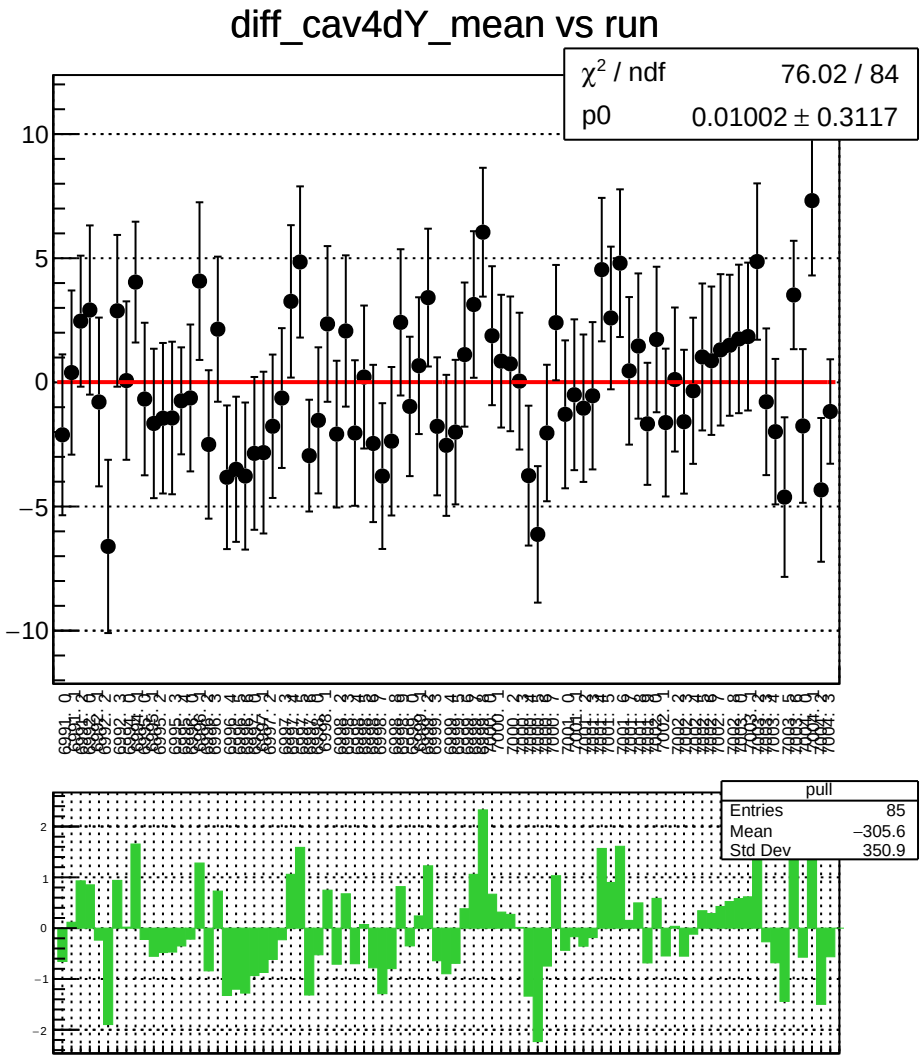

diff_cav4cY_mean vs run
χ² / ndf 76.44 / 84
p0 0.1507 ± 0.4975
pull
Entries 85
Mean −439.3
Std Dev 485.2

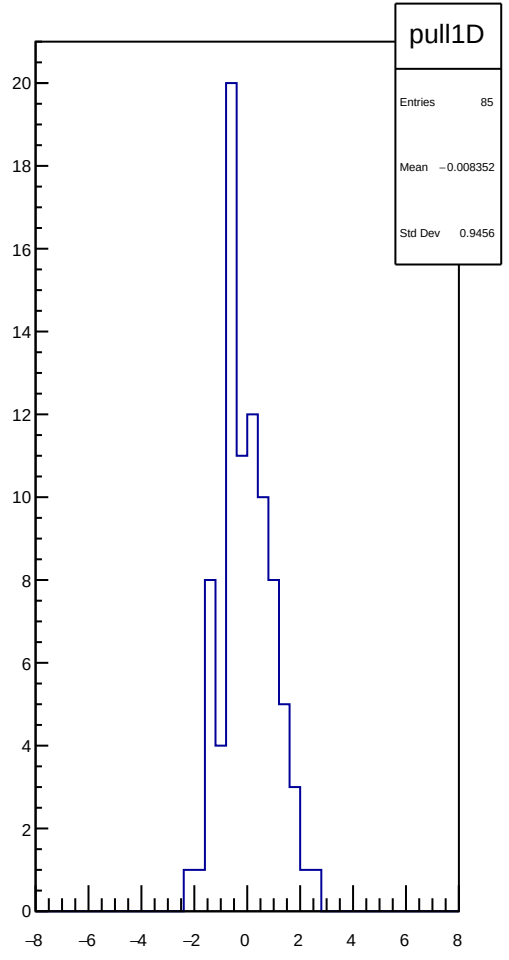

pull1D
Entries 85
Mean −0.006124
Std Dev 0.9483

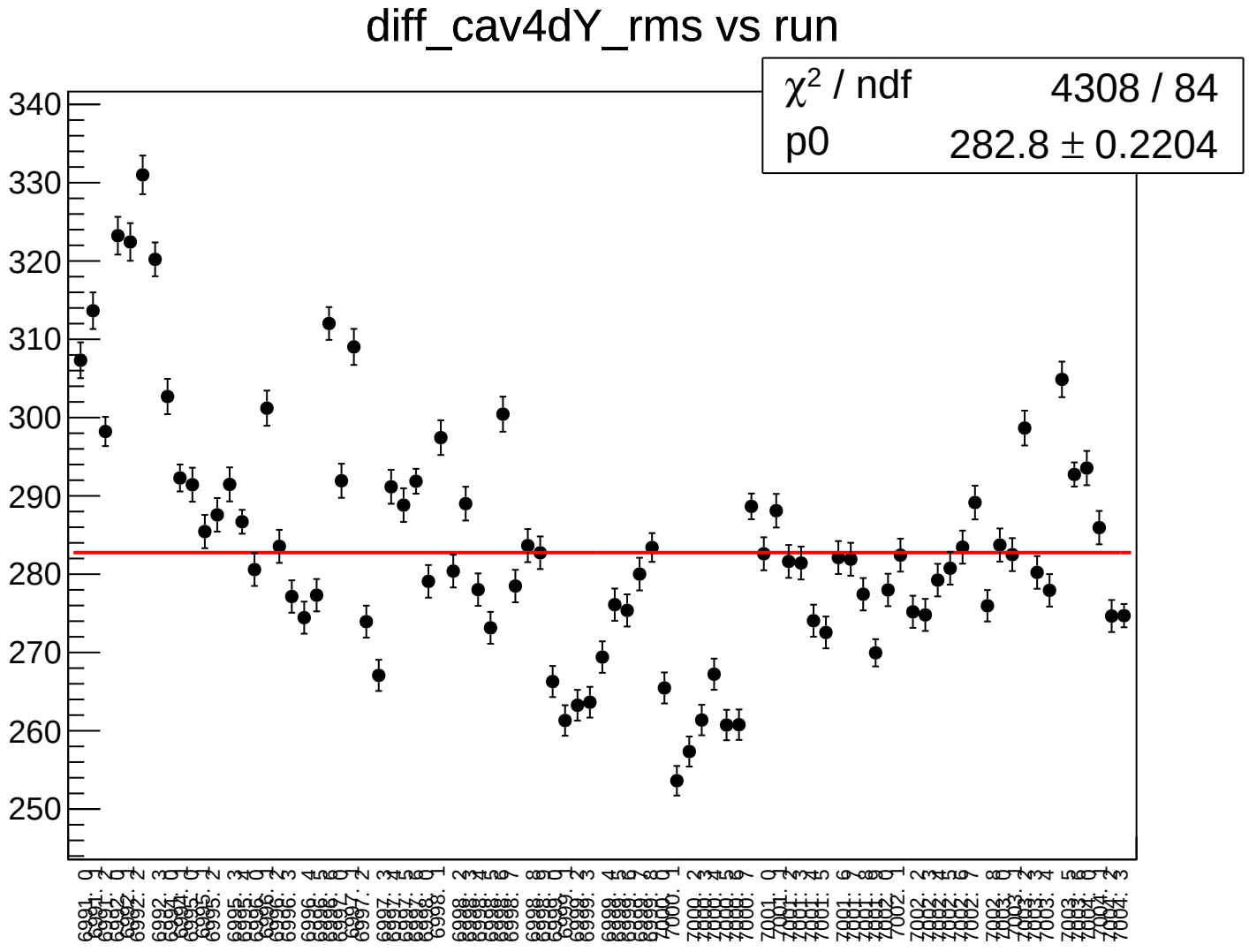

diff_cav4cY_rms vs run
χ² / ndf 4362 / 84
p0 451.2 ± 0.3518
540
520
500
480
460
440
420
400

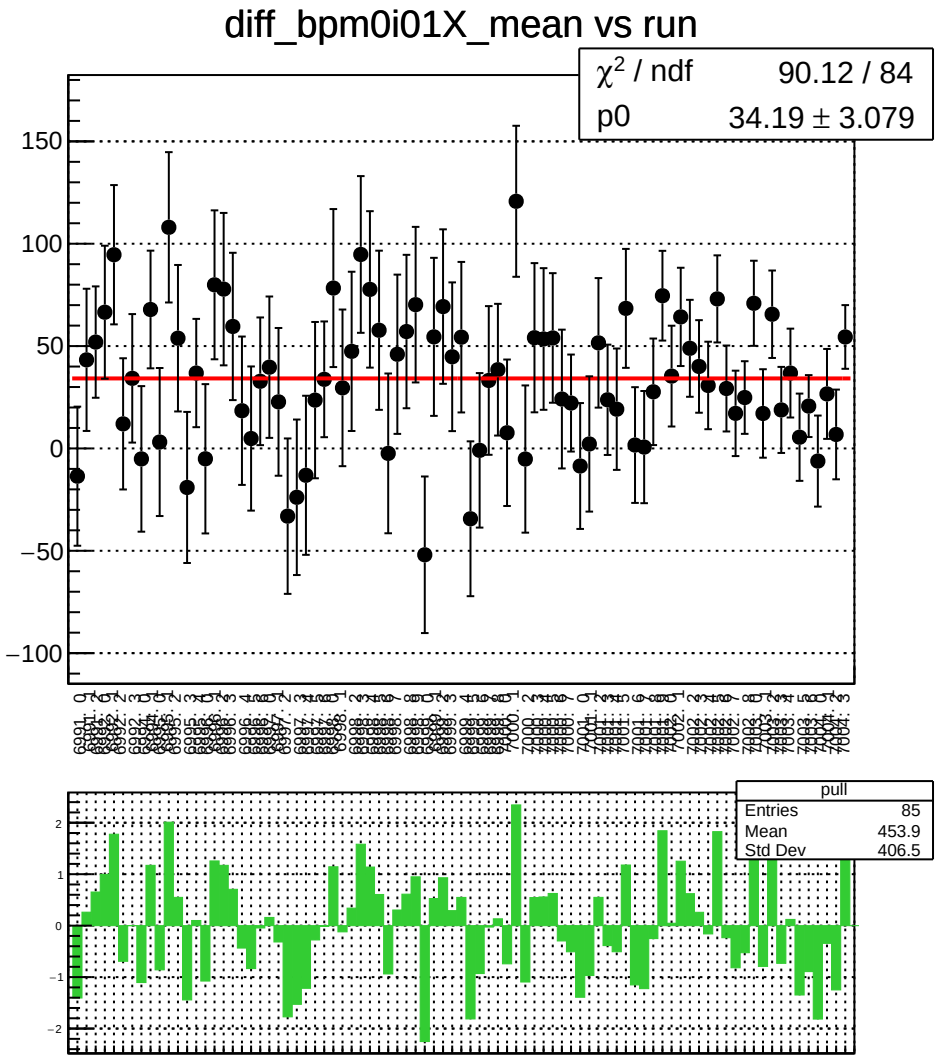

diff_cav4dX_mean vs run
χ² / ndf 76.9 / 84
p0 −5.104 ± 4.713
pull
Entries 85
Mean −315.9
Std Dev 358.3
pull1D
Entries 85
Mean −0.009523
Std Dev 0.9511

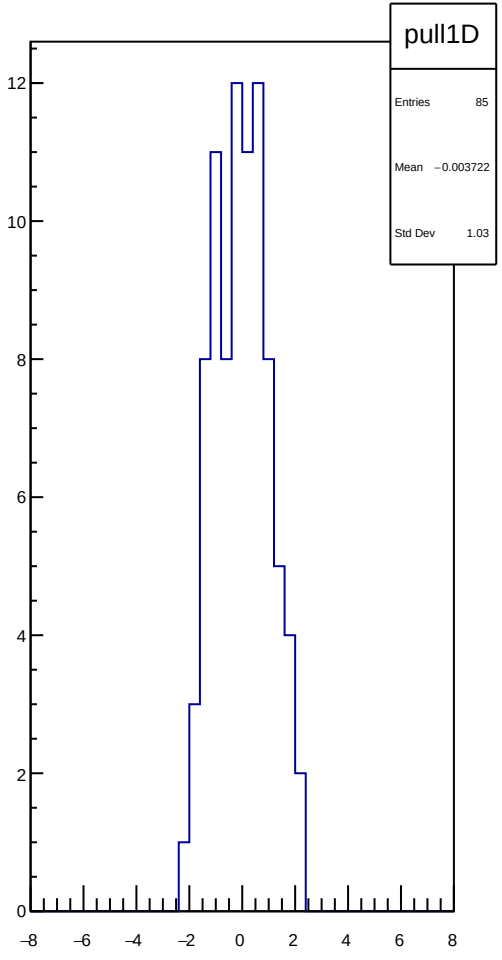

diff_cav4dX_rms vs run
χ² / ndf 3183 / 84
p0 4276 ± 3.332
4800
4600
4400
4200
4000

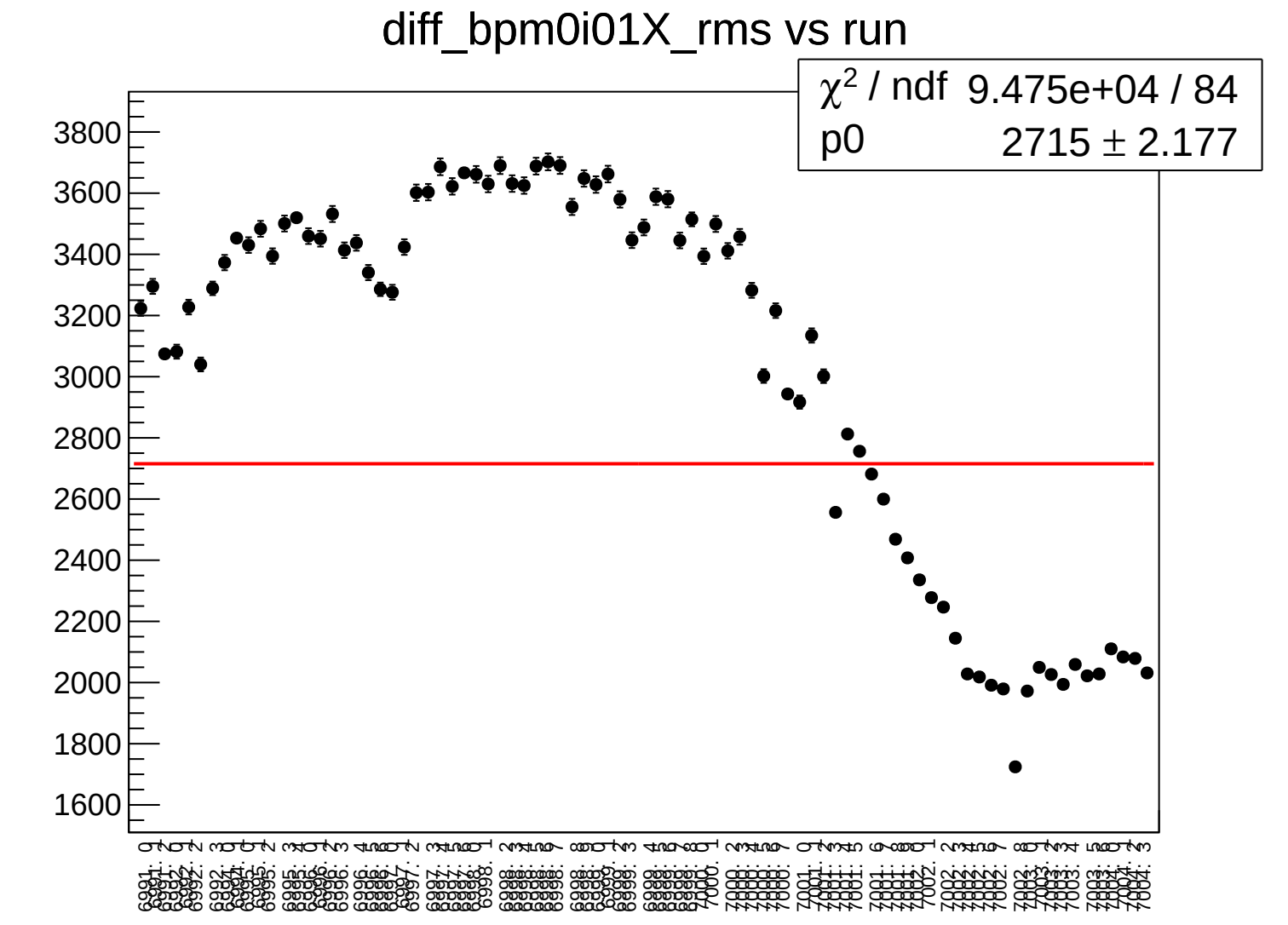

diff_cav4dY_mean vs run
χ^2 / ndf 76.02 / 84
p0 0.01002 ± 0.3117
pull
Entries 85
Mean −305.6
Std Dev 350.9

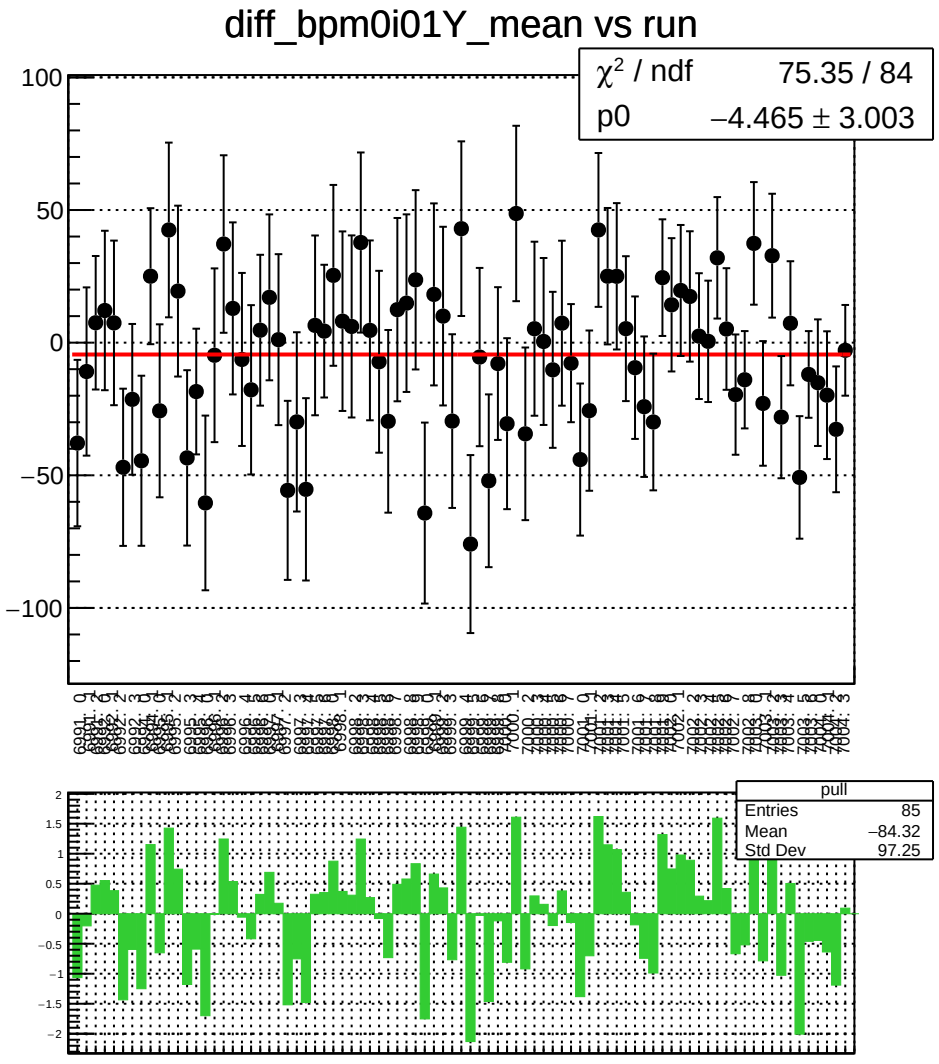

pull1D
Entries 85
Mean −0.008352
Std Dev 0.9456

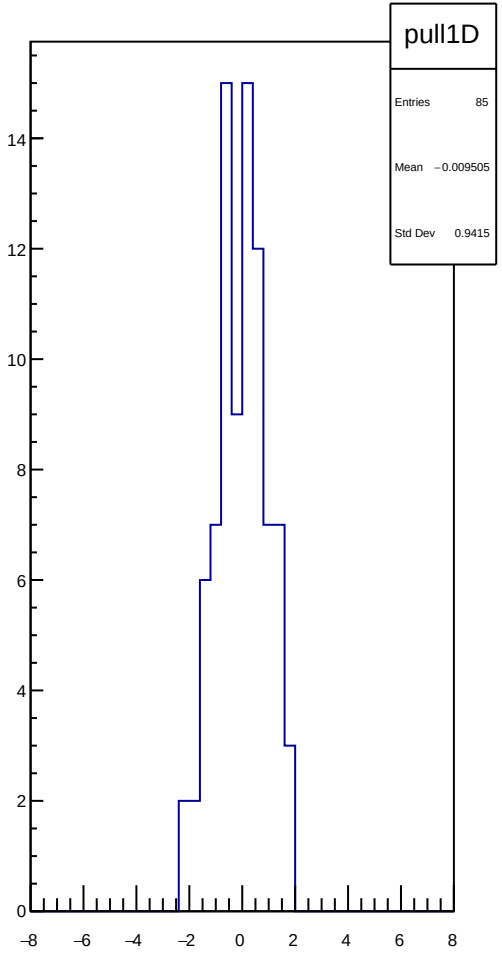

diff_cav4dY_rms vs run
χ² / ndf 4308 / 84
p0 282.8 ± 0.2204
340
330
320
310
300
290
280
270
260
250

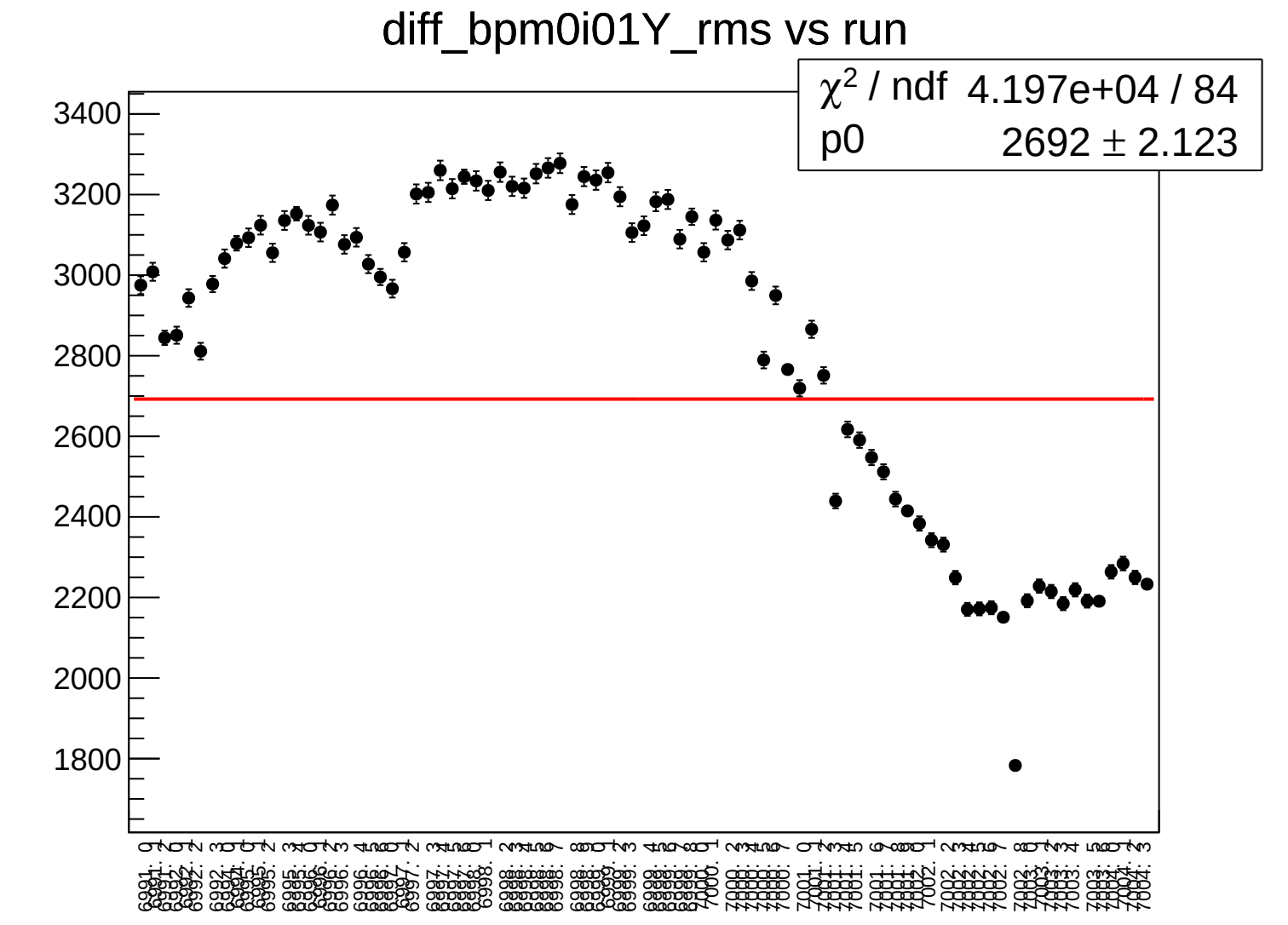

diff_bpm0i01X_mean vs run
χ^2 / ndf 90.12 / 84
p0 34.19 ± 3.079
150
100
50
0
−50
−100
pull
Entries 85
Mean 453.9
Std Dev 406.5
2
1
0
−1
−2

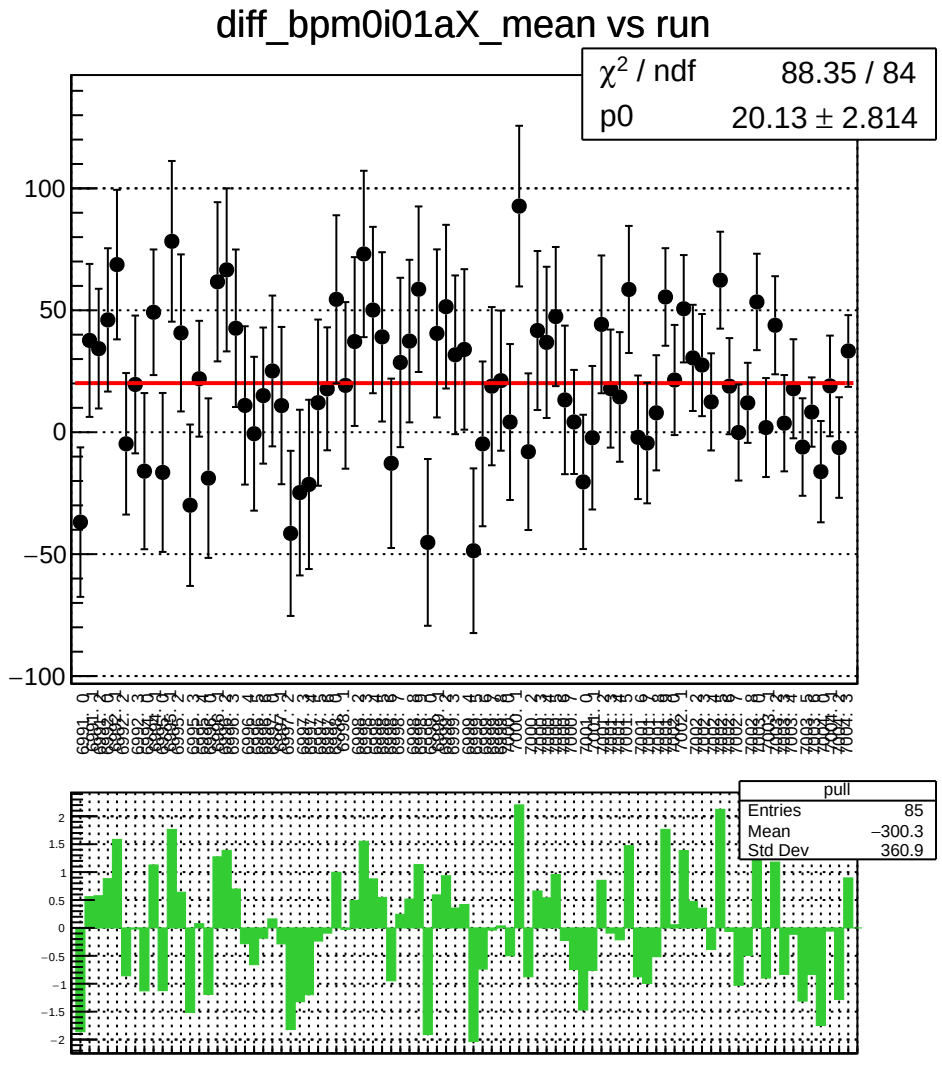

pull1D
Entries 85
Mean −0.003722
Std Dev 1.03
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

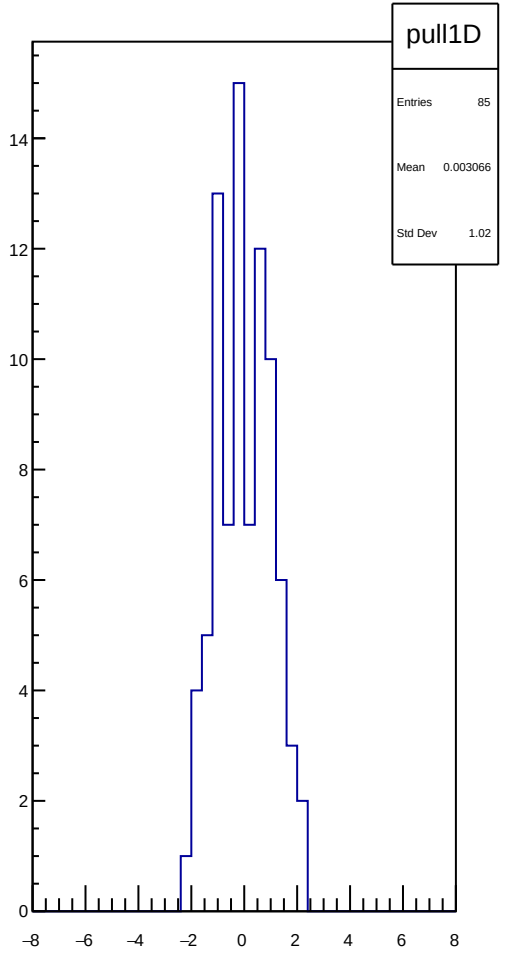

diff_bpm0i01X_rms vs run
χ² / ndf 9.475e+04 / 84
p0 2715 ± 2.177
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600

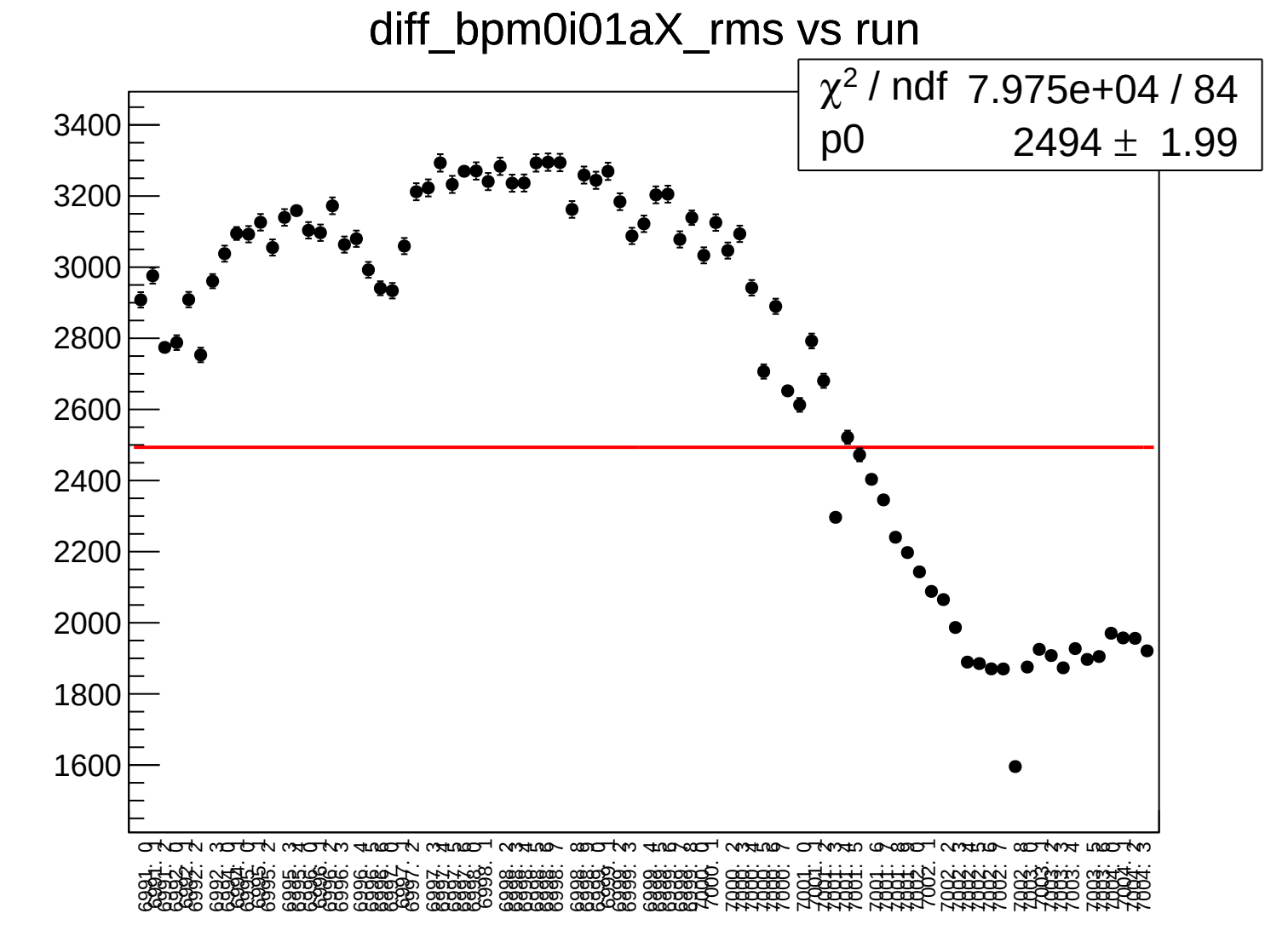

diff_bpm0i01Y_mean vs run
χ^2 / ndf 75.35 / 84
p0 −4.465 ± 3.003
pull
Entries 85
Mean −84.32
Std Dev 97.25

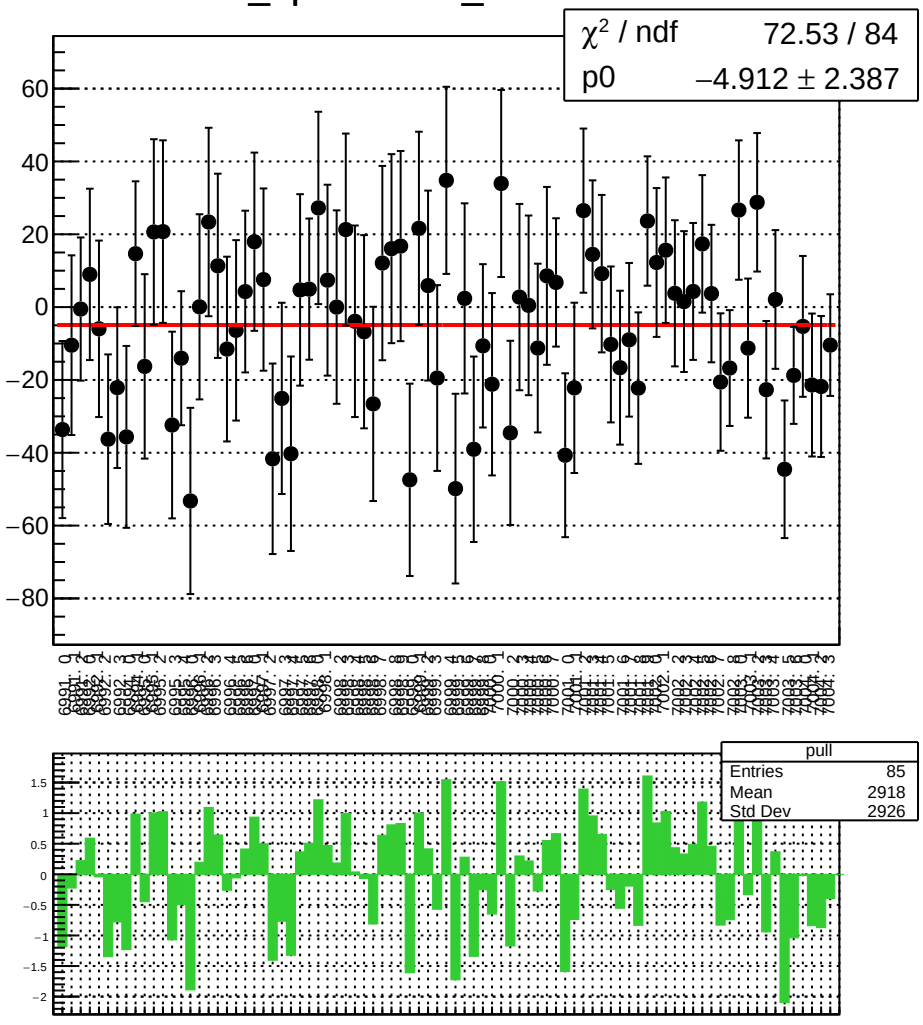

pull1D
Entries 85
Mean −0.009505
Std Dev 0.9415

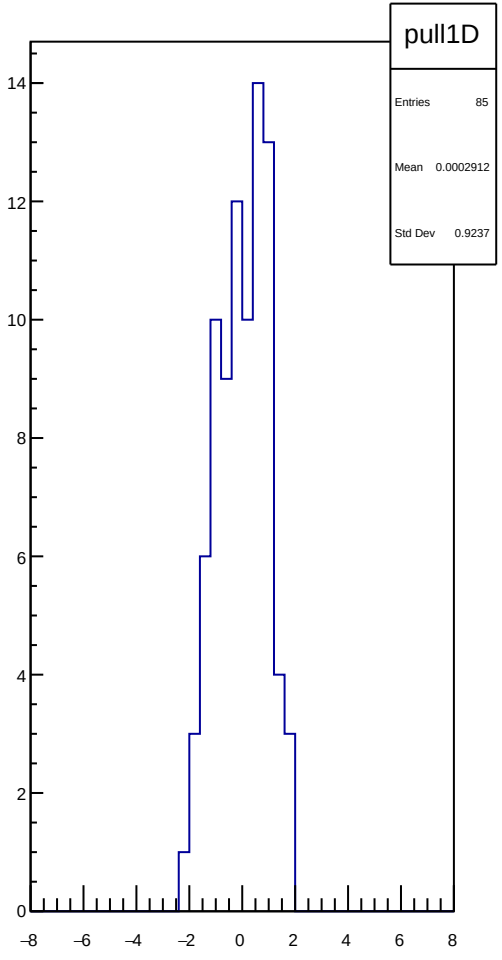

diff_bpm0i01Y_rms vs run
χ² / ndf 4.197e+04 / 84
p0 2692 ± 2.123
3400
3200
3000
2800
2600
2400
2200
2000
1800

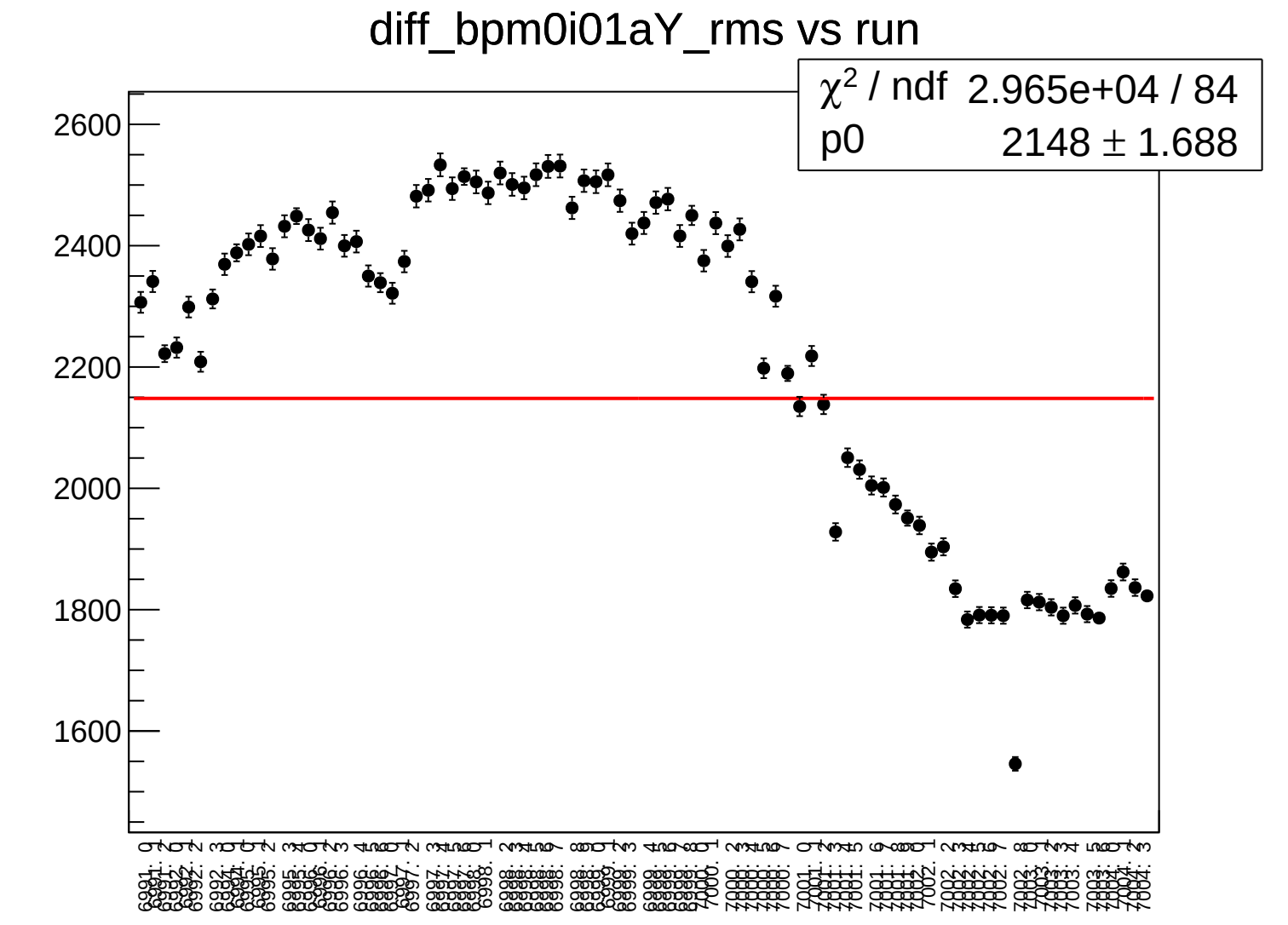

diff_bpm0i01aX_mean vs run
χ^2 / ndf 88.35 / 84
p0 20.13 ± 2.814
100
50
0
−50
−100
pull
Entries 85
Mean −300.3
Std Dev 360.9
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

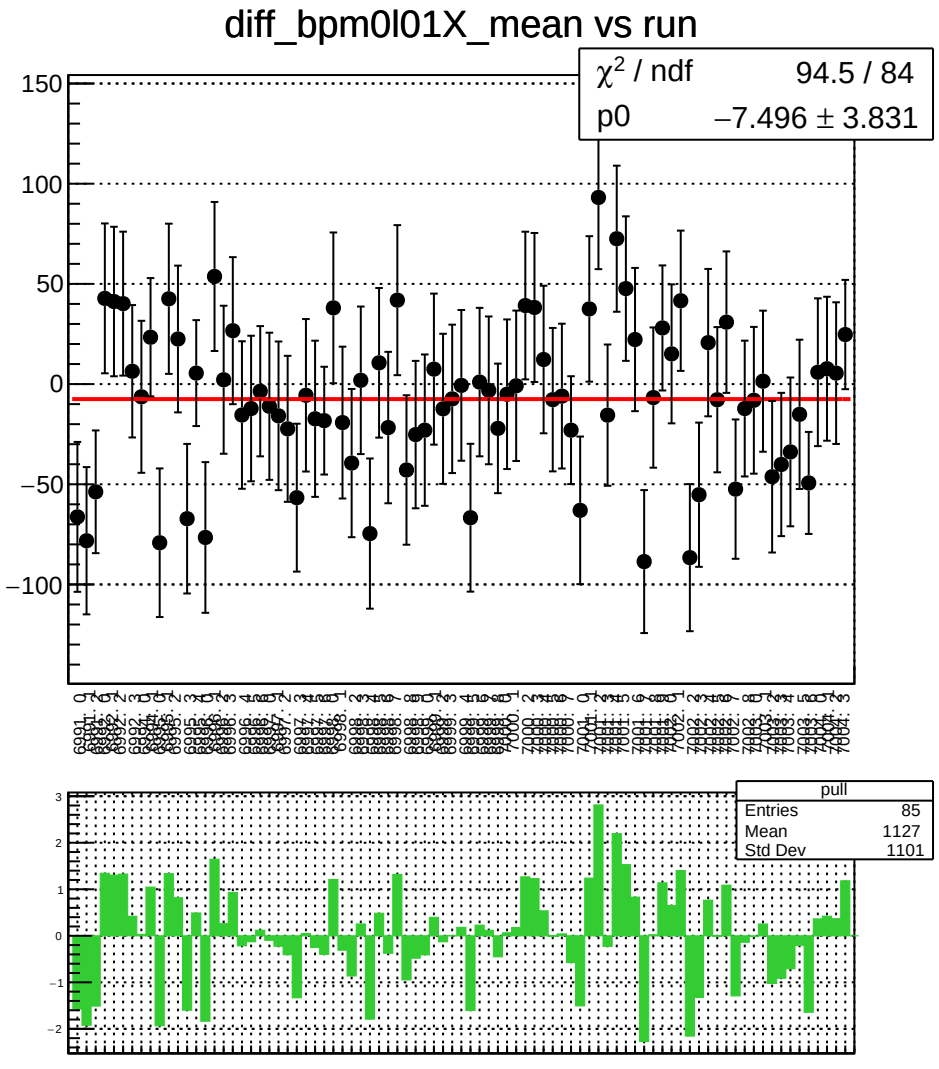

pull1D
Entries 85
Mean 0.003066
Std Dev 1.02
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

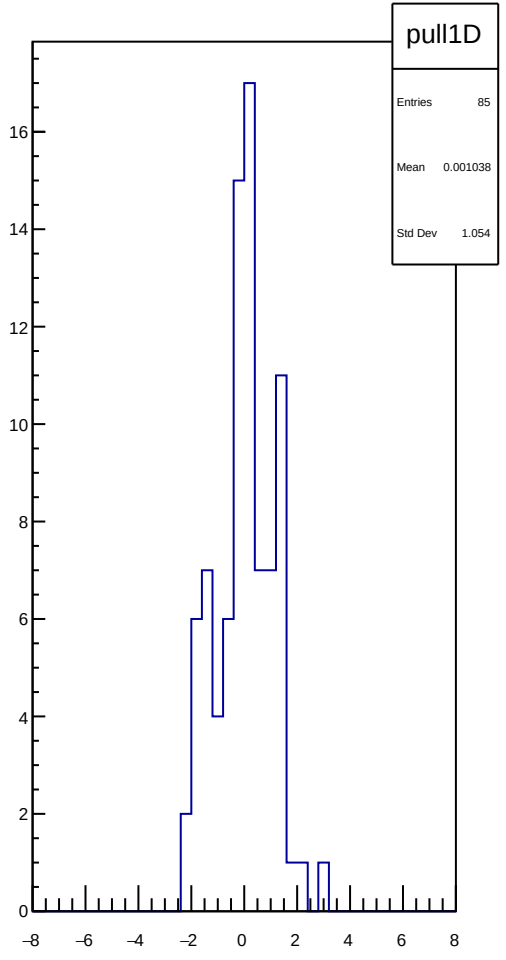

diff_bpm0i01aX_rms vs run
χ² / ndf 7.975e+04 / 84
p0 2494 ± 1.99
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600

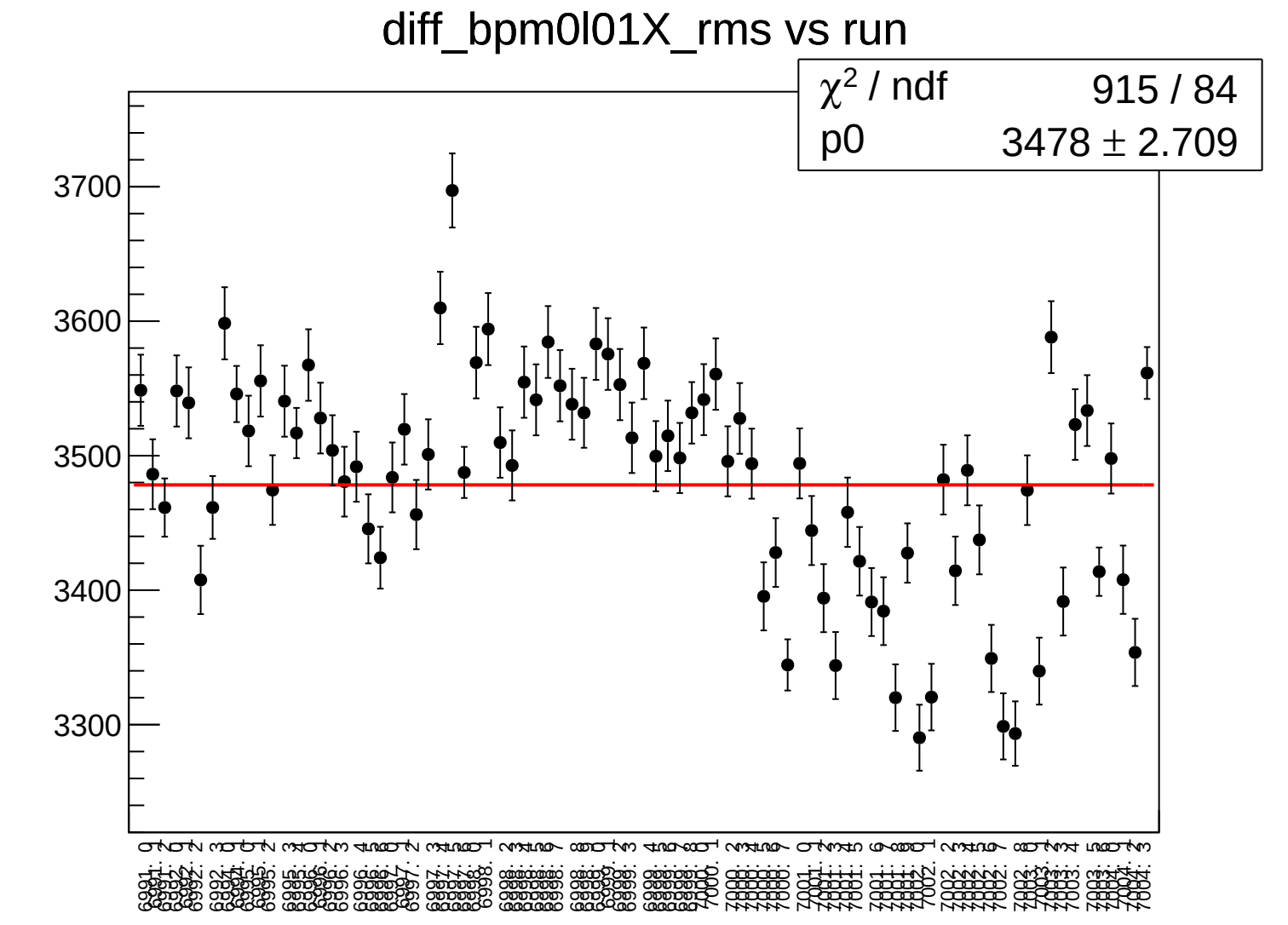

diff_bpm0i01aY_mean vs run
χ² / ndf 72.53 / 84
p0 −4.912 ± 2.387
pull
Entries 85
Mean 2918
Std Dev 2926

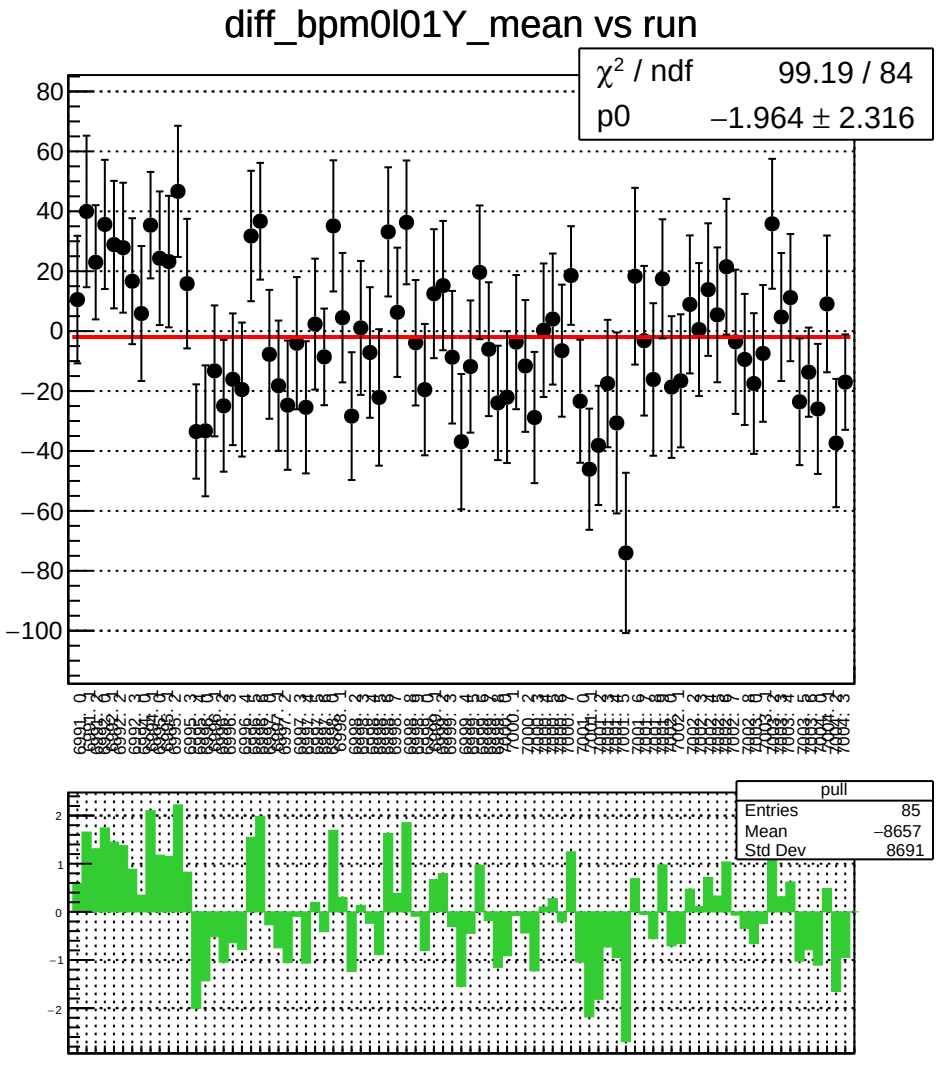

pull1D
Entries 85
Mean 0.0002912
Std Dev 0.9237

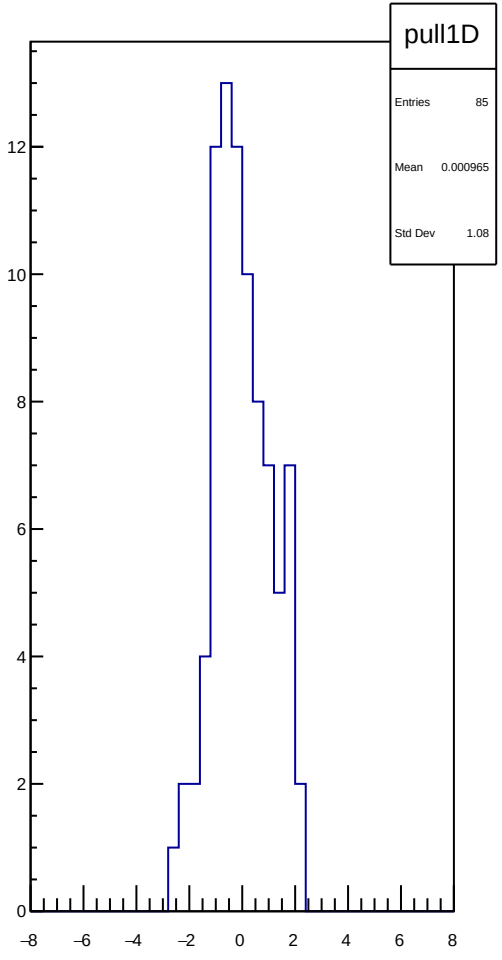

diff_bpm0i01aY_rms vs run
χ² / ndf 2.965e+04 / 84
p0 2148 ± 1.688
2600
2400
2200
2000
1800
1600

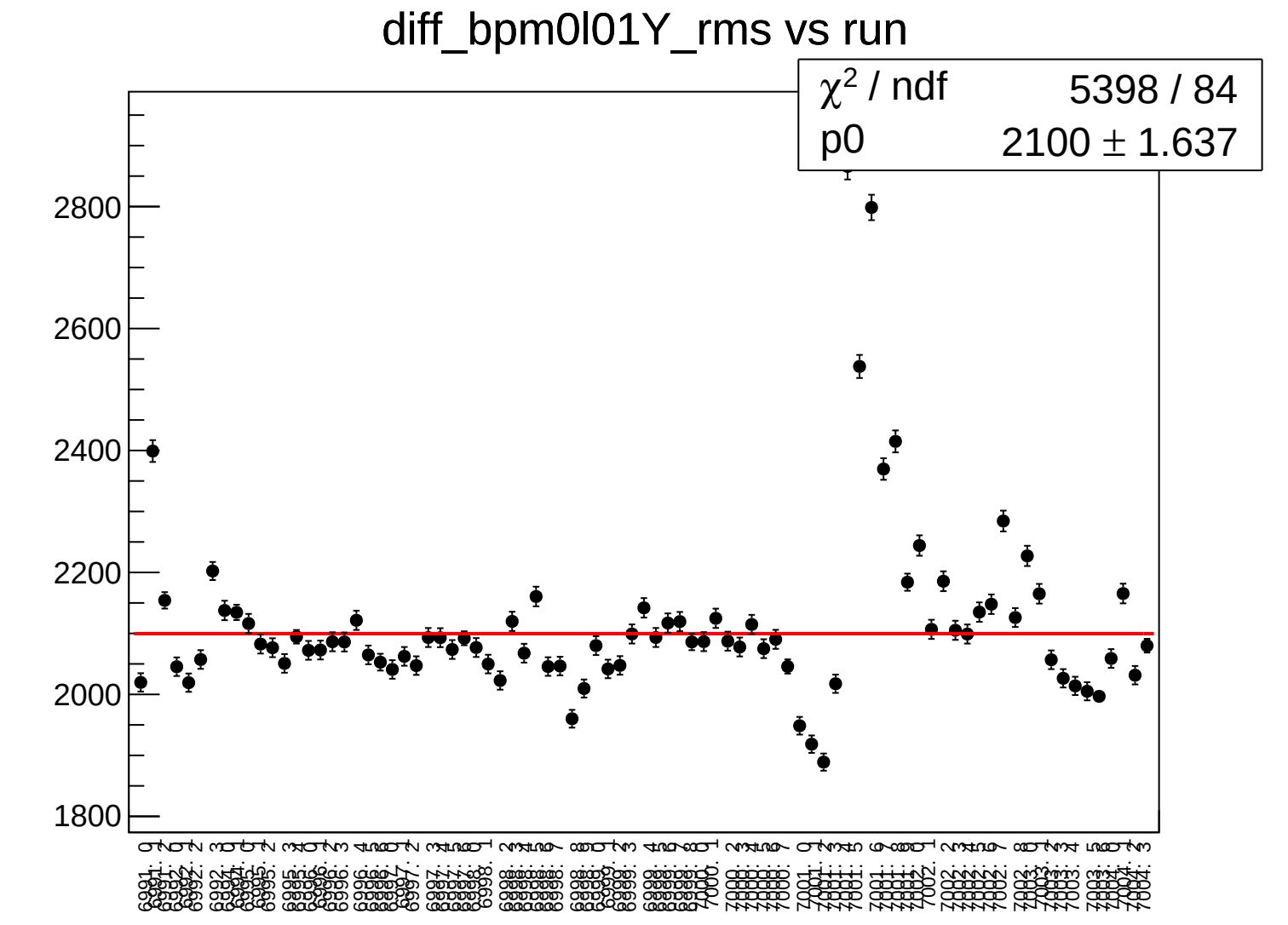

diff_bpm0l01X_mean vs run
χ² / ndf 94.5 / 84
p0 −7.496 ± 3.831
150
100
50
0
−50
−100
pull
Entries 85
Mean 1127
Std Dev 1101
3
2
1
0
−1
−2

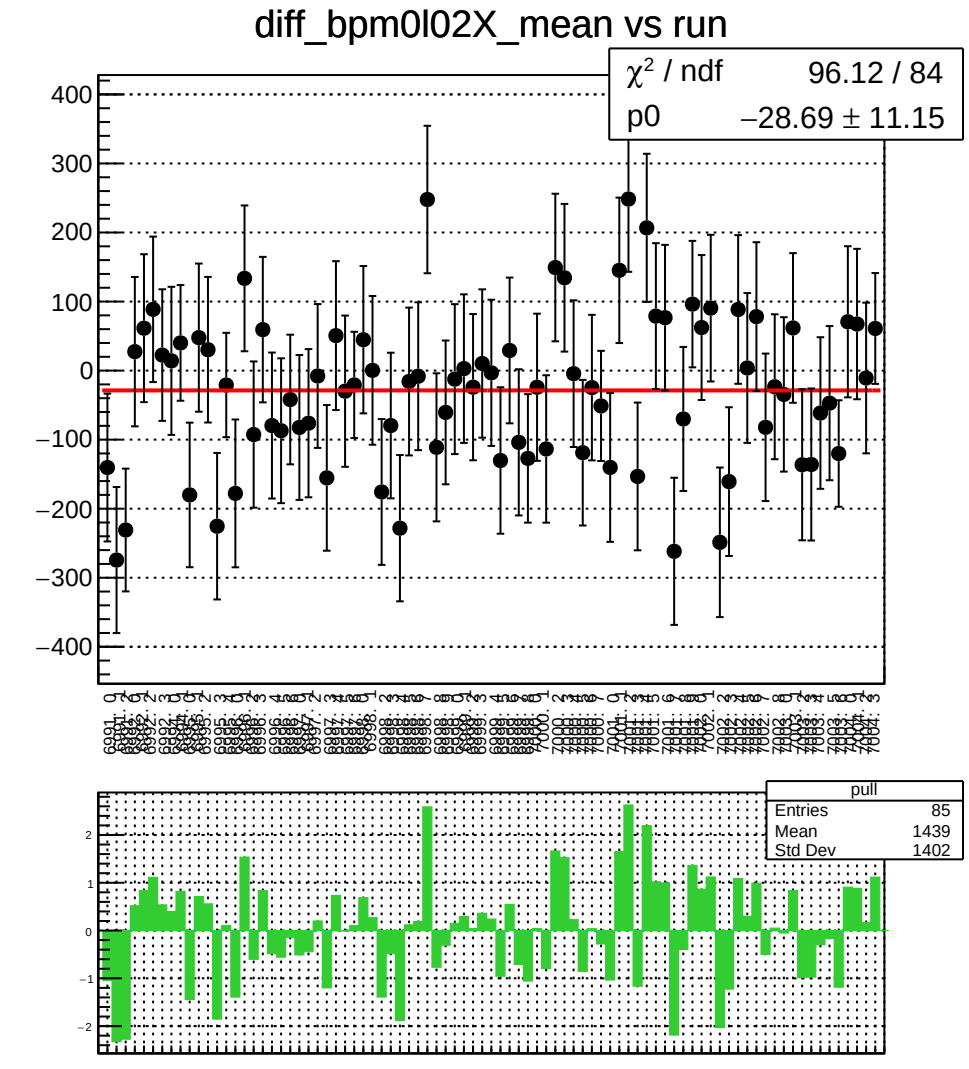

pull1D
Entries 85
Mean 0.001038
Std Dev 1.054
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

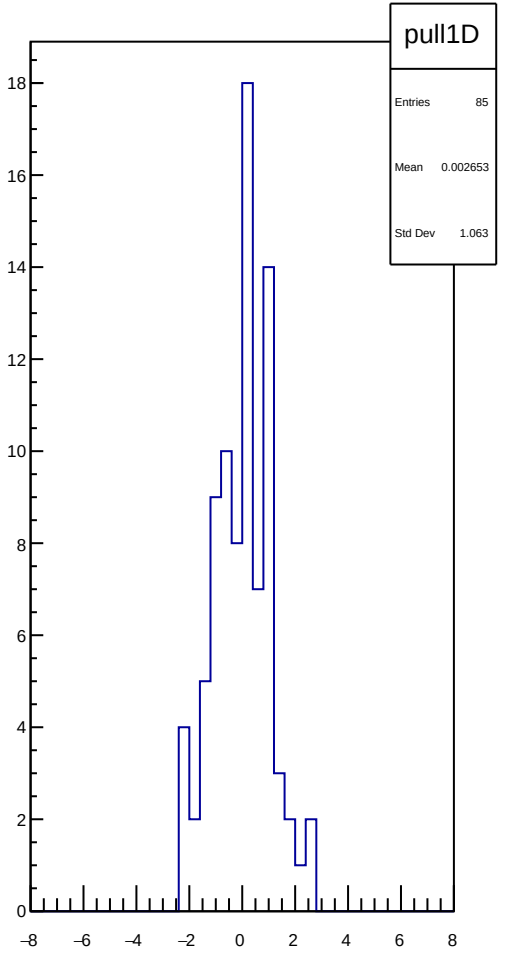

diff_bpm0l01X_rms vs run
χ² / ndf 915 / 84
p0 3478 ± 2.709
3700
3600
3500
3400
3300

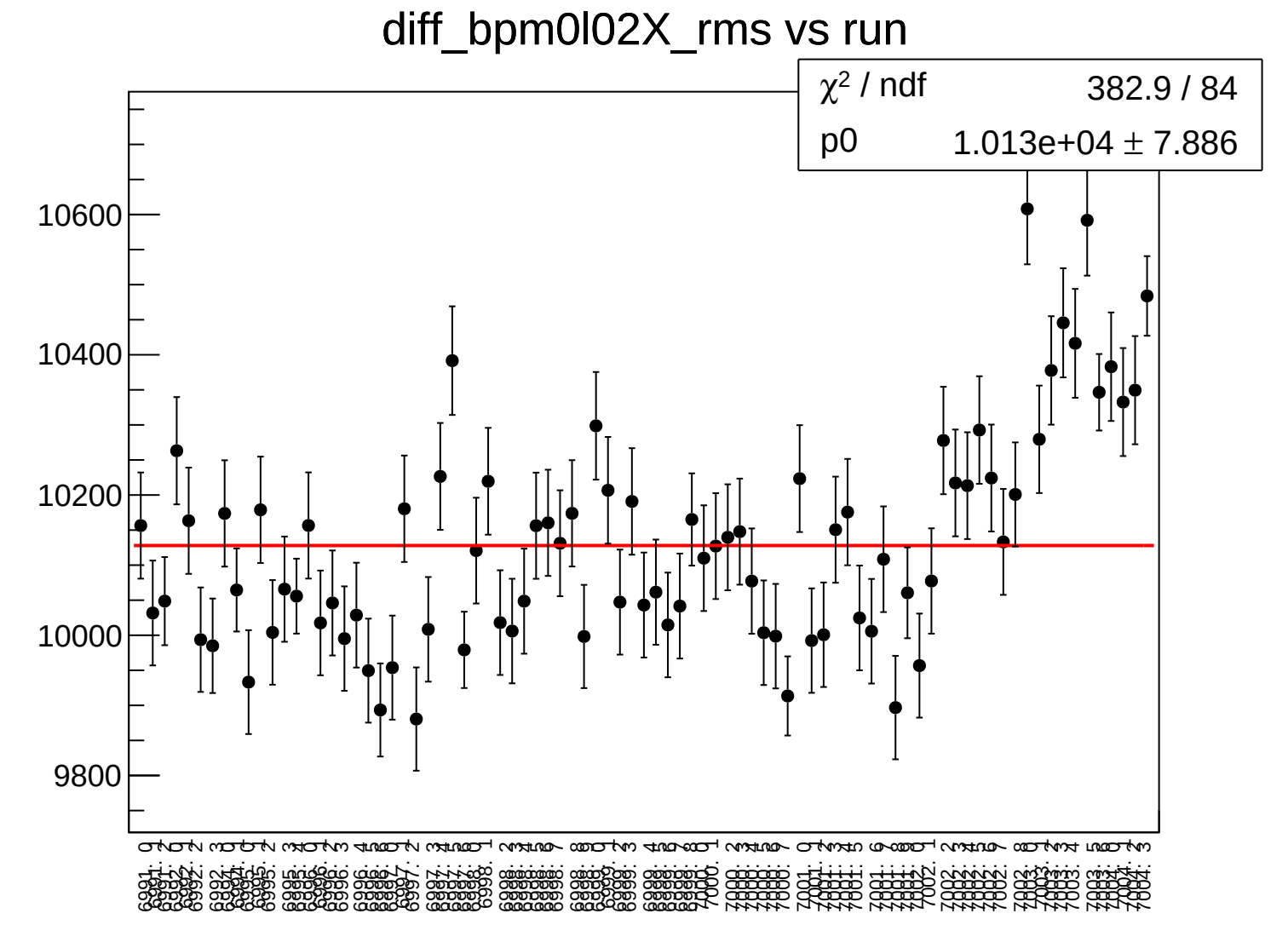

diff_bpm0l01Y_mean vs run
χ² / ndf 99.19 / 84
p0 −1.964 ± 2.316
pull
Entries 85
Mean −8657
Std Dev 8691

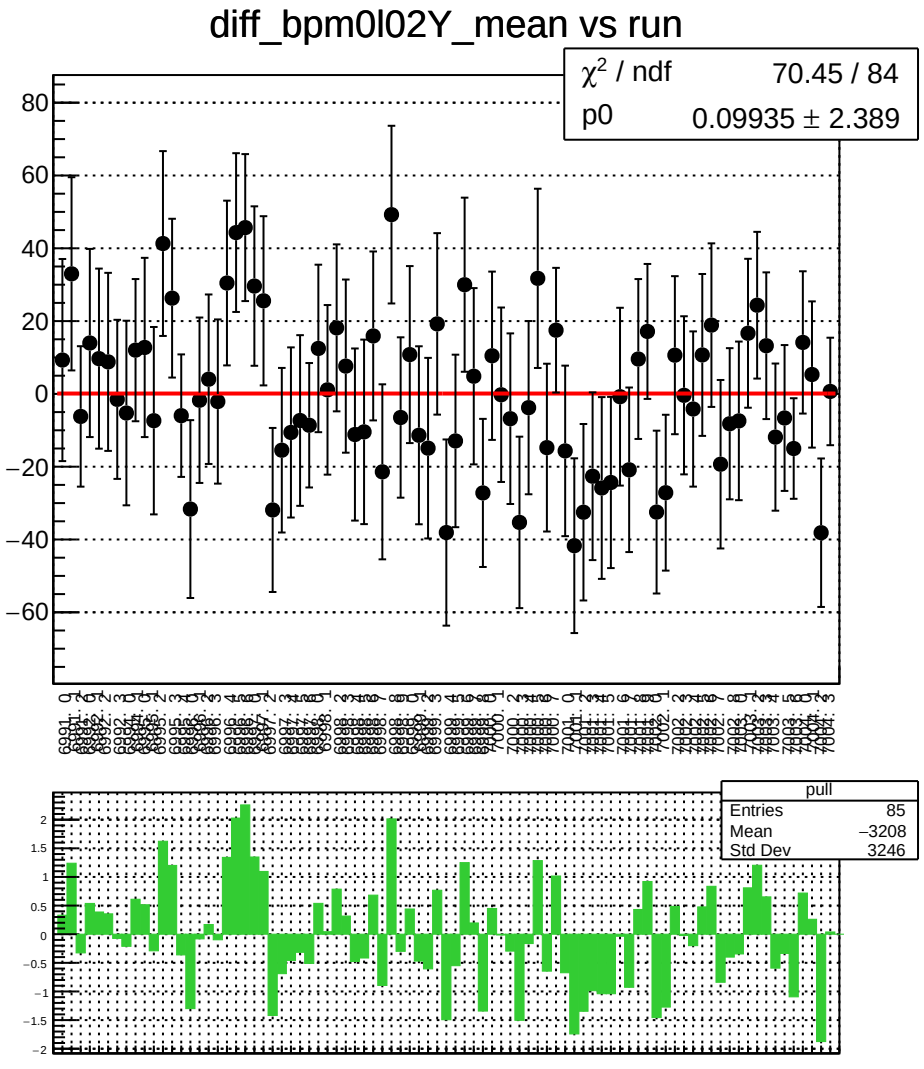

pull1D
Entries 85
Mean 0.000965
Std Dev 1.08

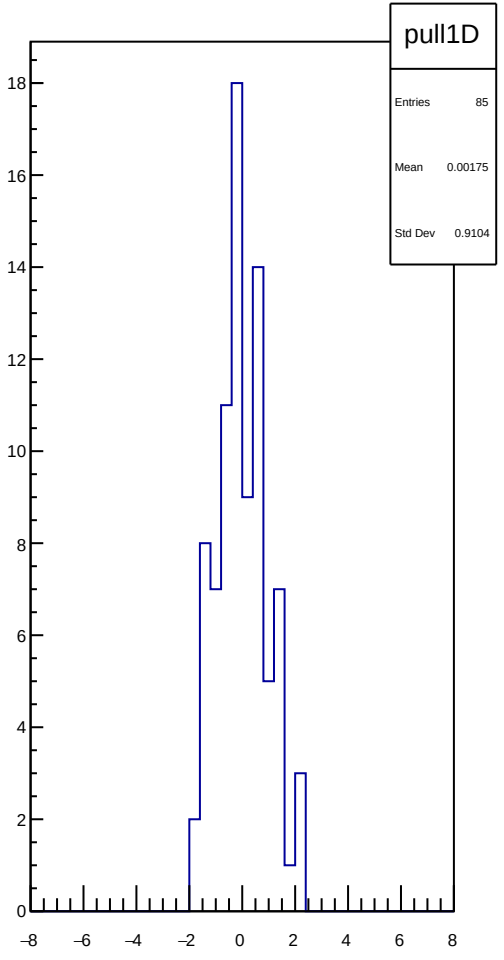

diff_bpm0l01Y_rms vs run
χ² / ndf 5398 / 84
p0 2100 ± 1.637
2800
2600
2400
2200
2000
1800

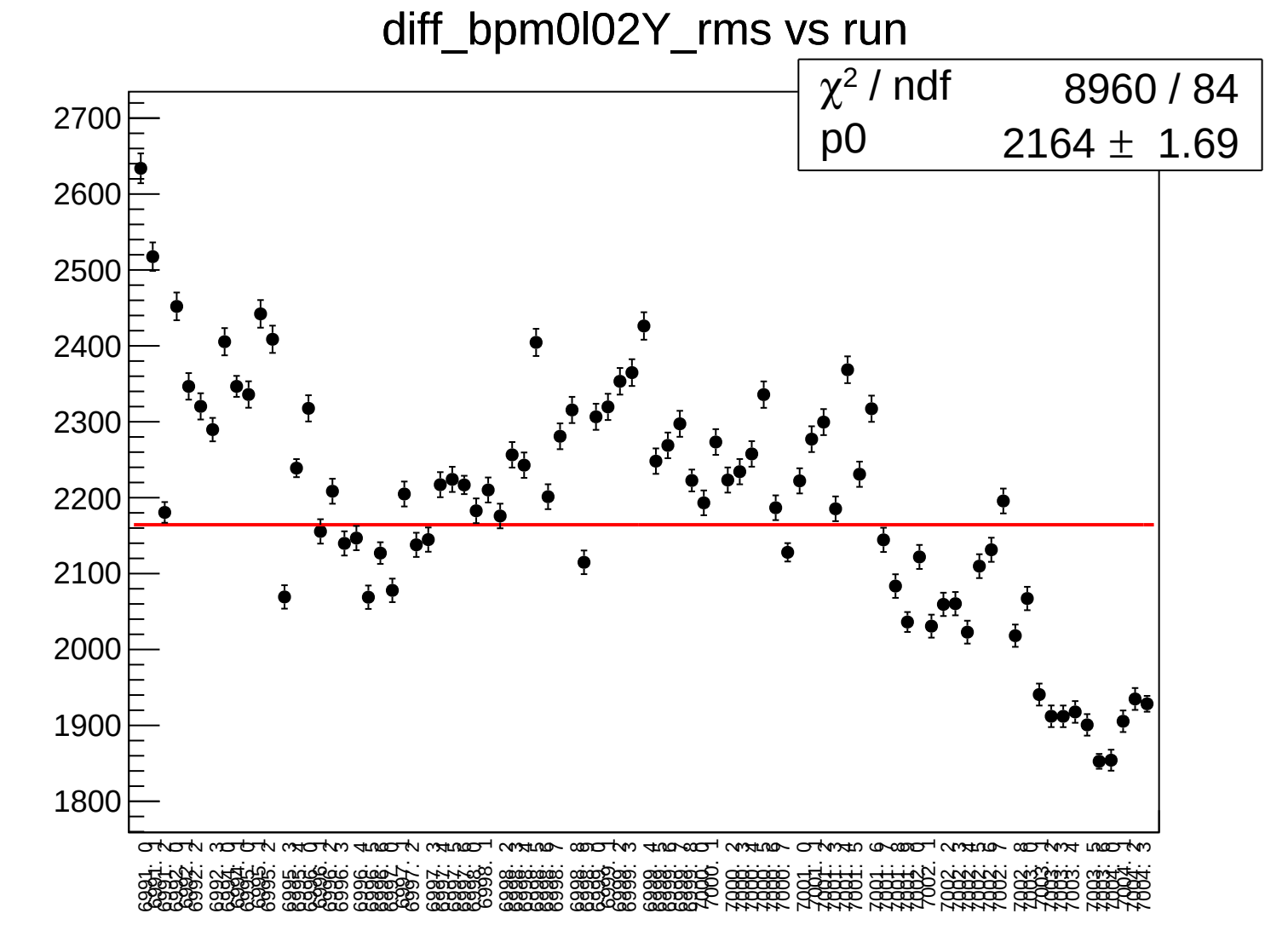

diff_bpm0l02X_mean vs run
χ² / ndf 96.12 / 84
p0 −28.69 ± 11.15
pull
Entries 85
Mean 1439
Std Dev 1402

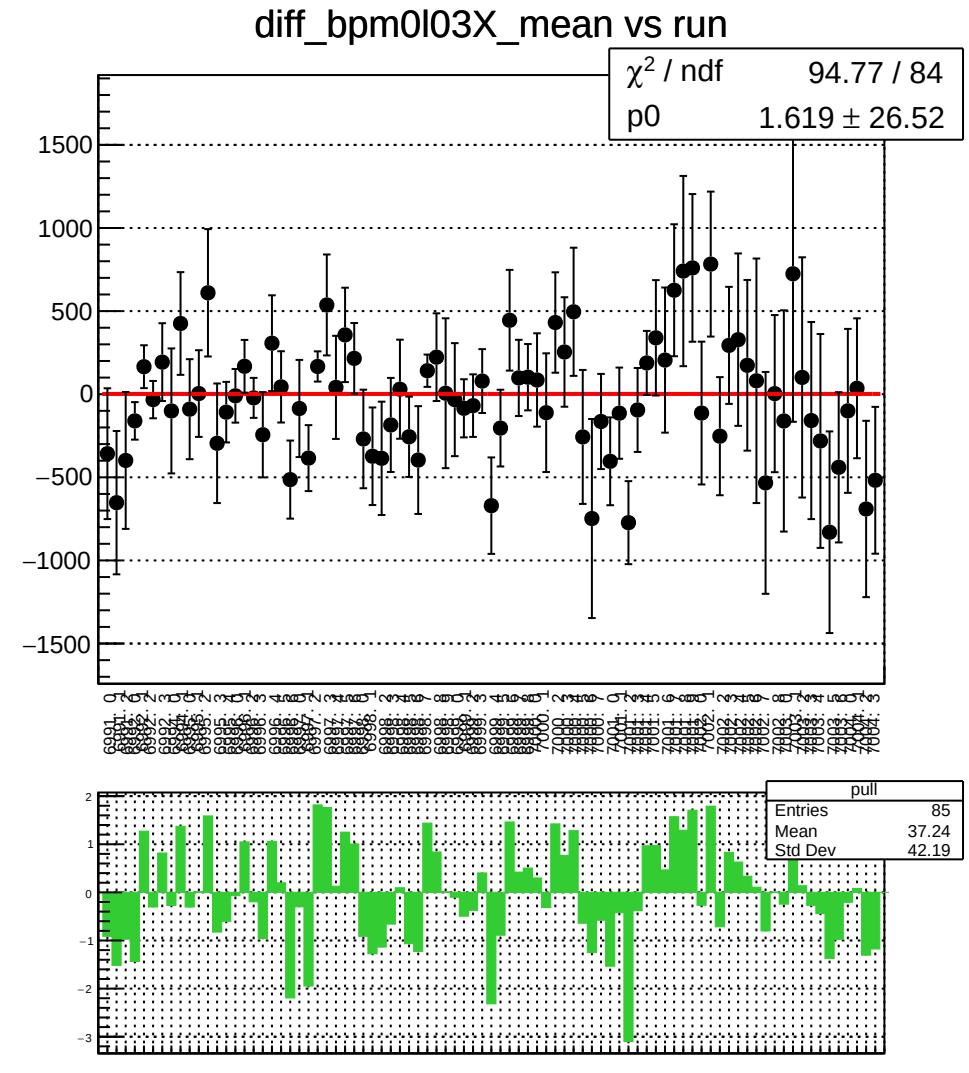

pull1D
Entries 85
Mean 0.002653
Std Dev 1.063

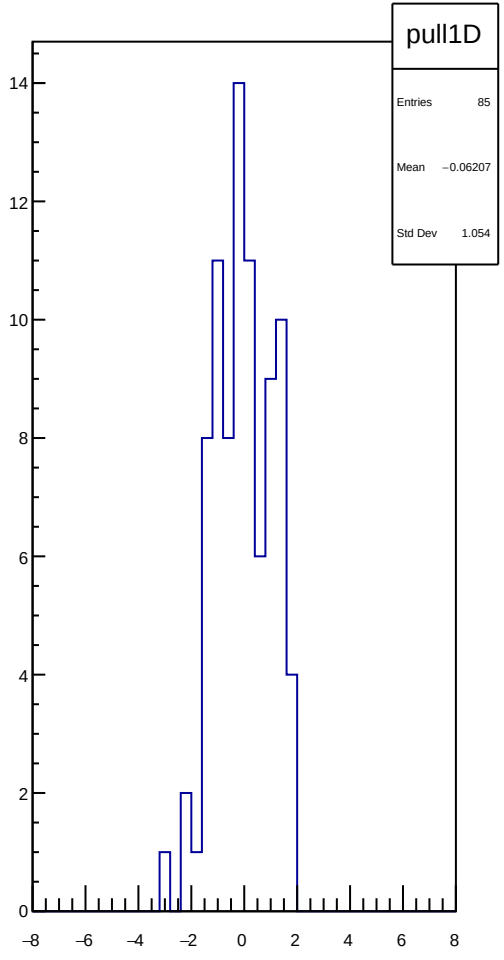

diff_bpm0l02X_rms vs run
χ² / ndf 382.9 / 84
p0 1.013e+04 ± 7.886
10600
10400
10200
10000
9800

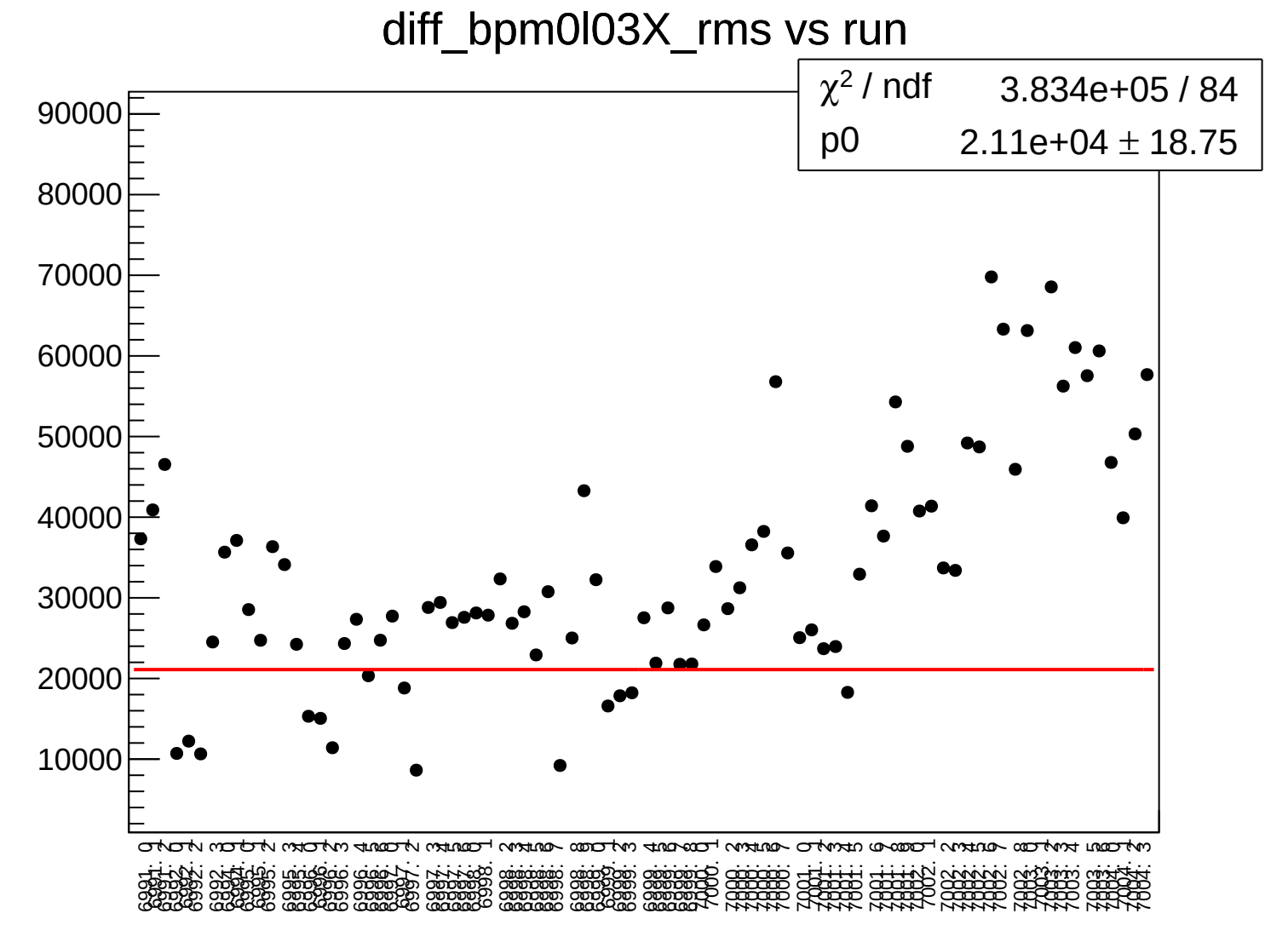

diff_bpm0l02Y_mean vs run
χ² / ndf 70.45 / 84
p0 0.09935 ± 2.389
pull
Entries 85
Mean −3208
Std Dev 3246

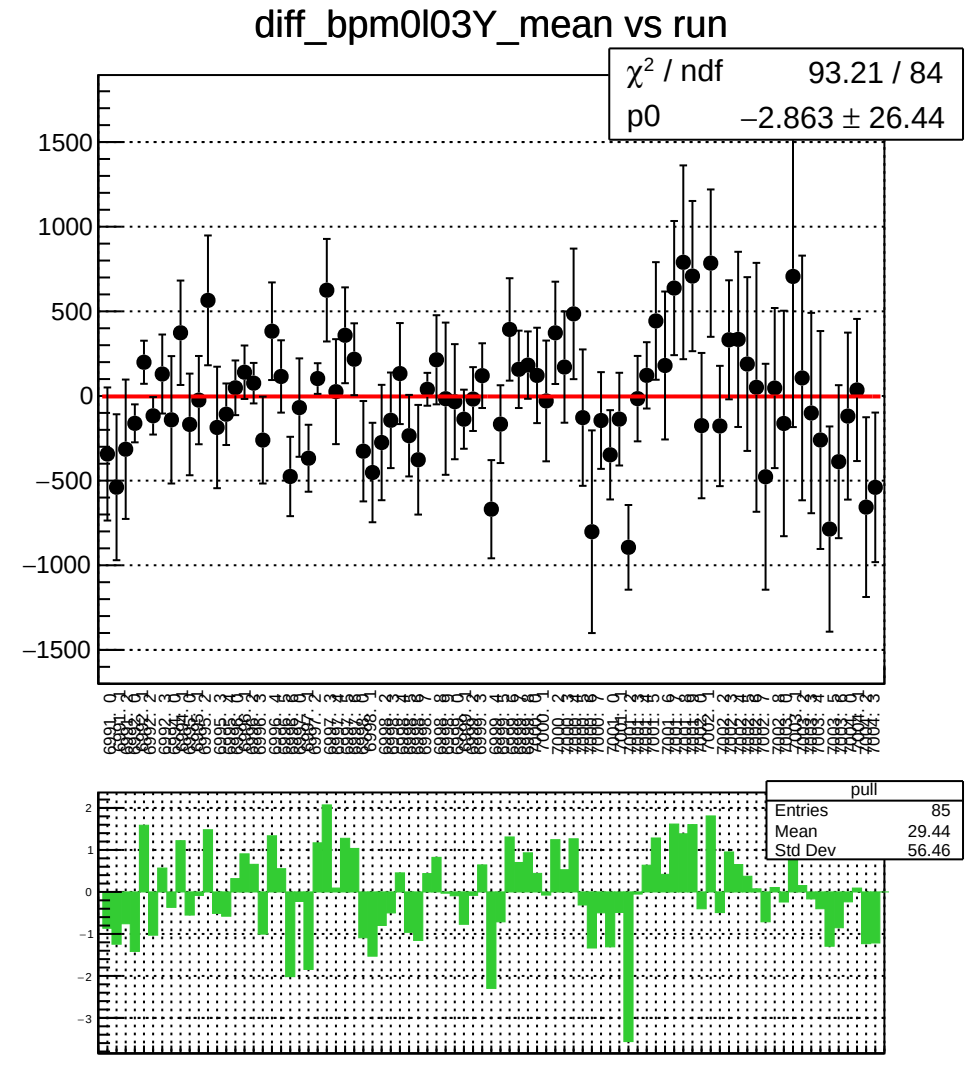

pull1D
Entries 85
Mean 0.00175
Std Dev 0.9104

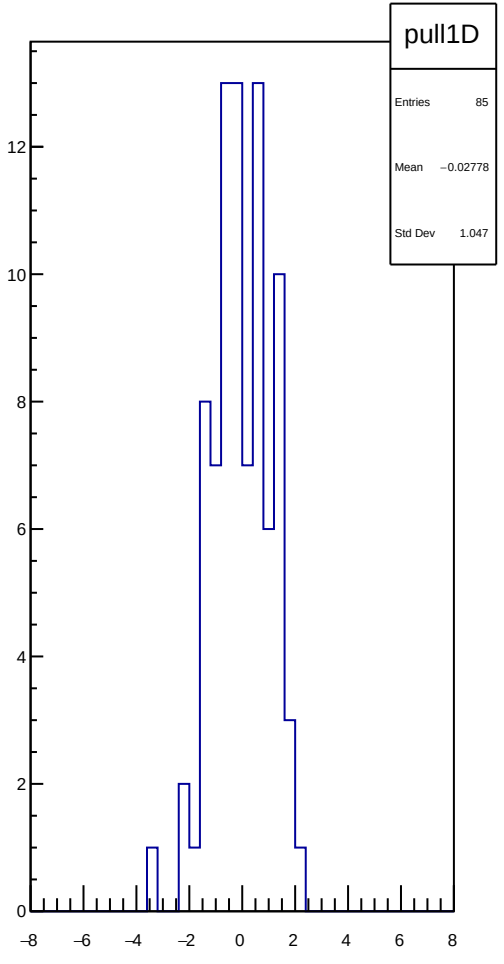

diff_bpm0l02Y_rms vs run
χ² / ndf 8960 / 84
p0 2164 ± 1.69
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800

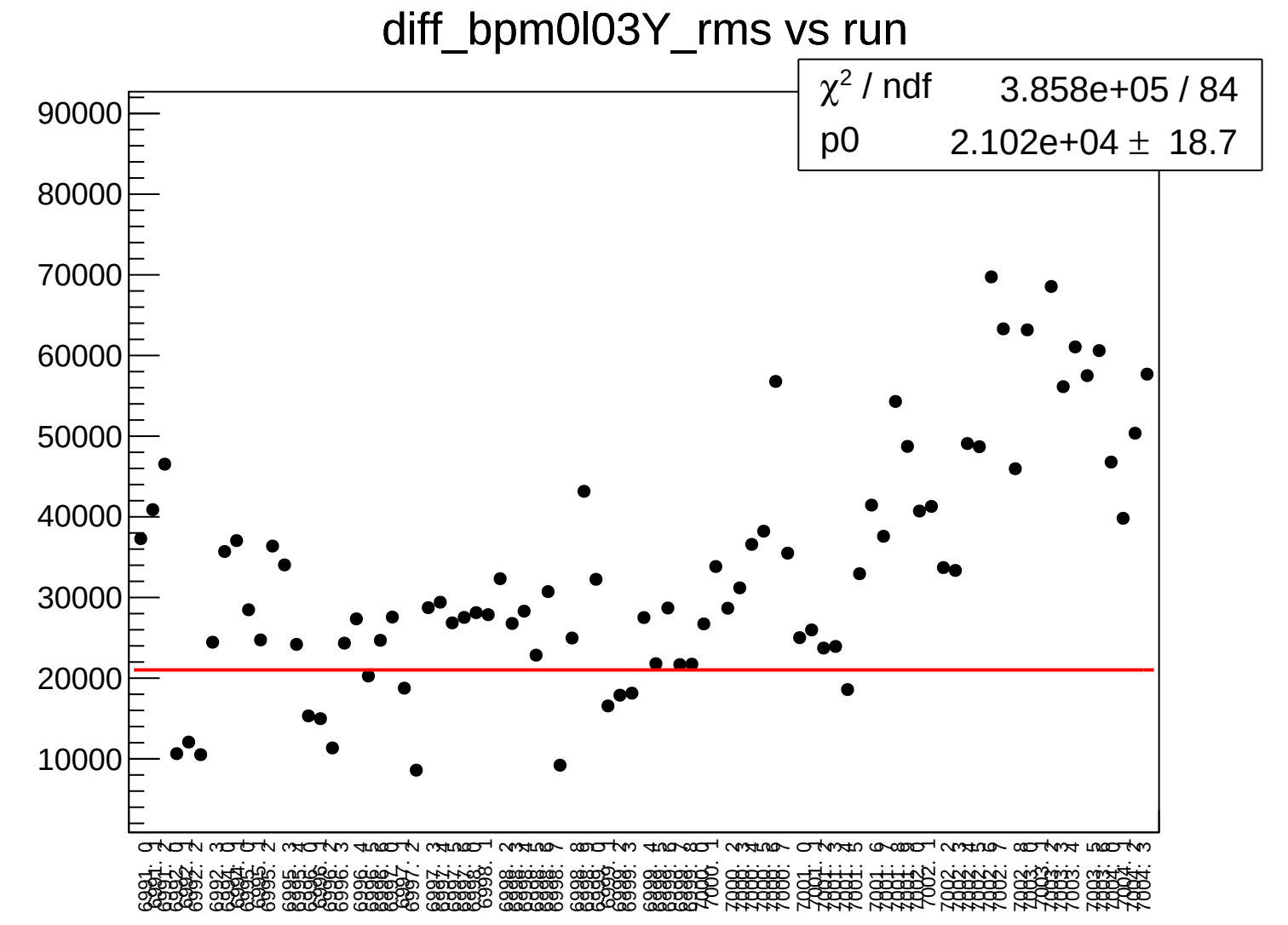

diff_bpm0l03X_mean vs run
χ^2 / ndf 94.77 / 84
p0 1.619 ± 26.52
1500
1000
500
0
−500
−1000
−1500
pull
Entries 85
Mean 37.24
Std Dev 42.19
2
1
0
−1
−2
−3

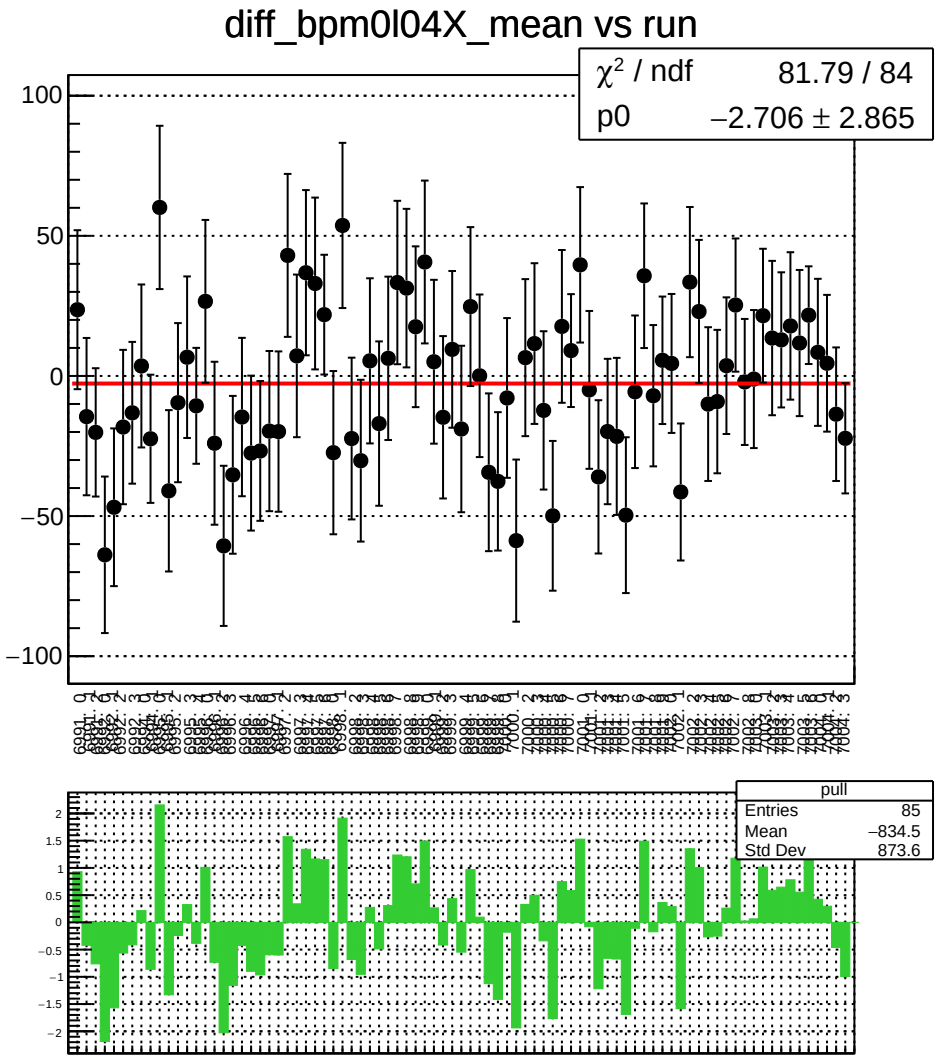

pull1D
Entries 85
Mean −0.06207
Std Dev 1.054
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

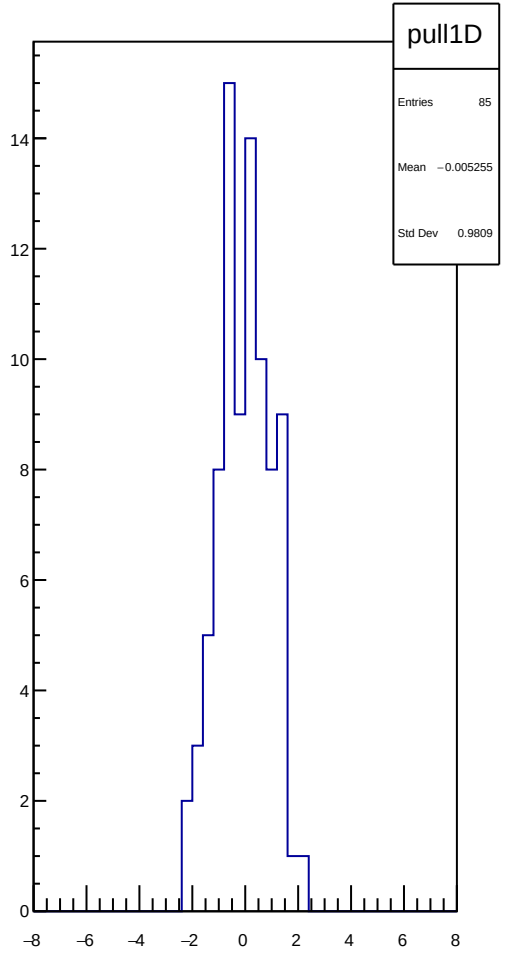

diff_bpm0l03X_rms vs run
χ^2 / ndf 3.834e+05 / 84
p0 2.11e+04 ± 18.75
90000
80000
70000
60000
50000
40000
30000
20000
10000

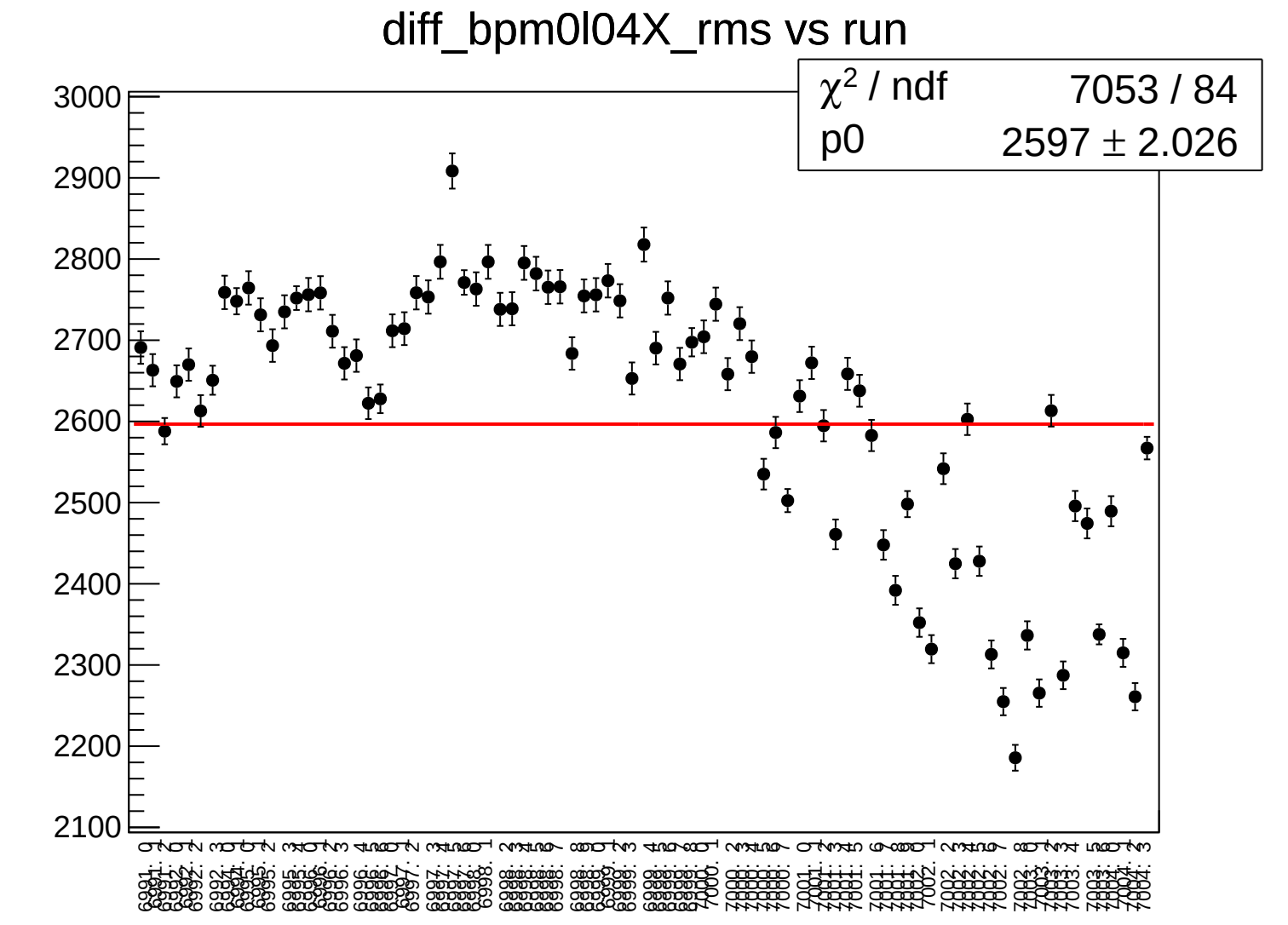

diff_bpm0l03Y_mean vs run
χ² / ndf 93.21 / 84
p0 −2.863 ± 26.44
1500
1000
500
0
−500
−1000
−1500
pull
Entries 85
Mean 29.44
Std Dev 56.46
2
1
0
−1
−2
−3

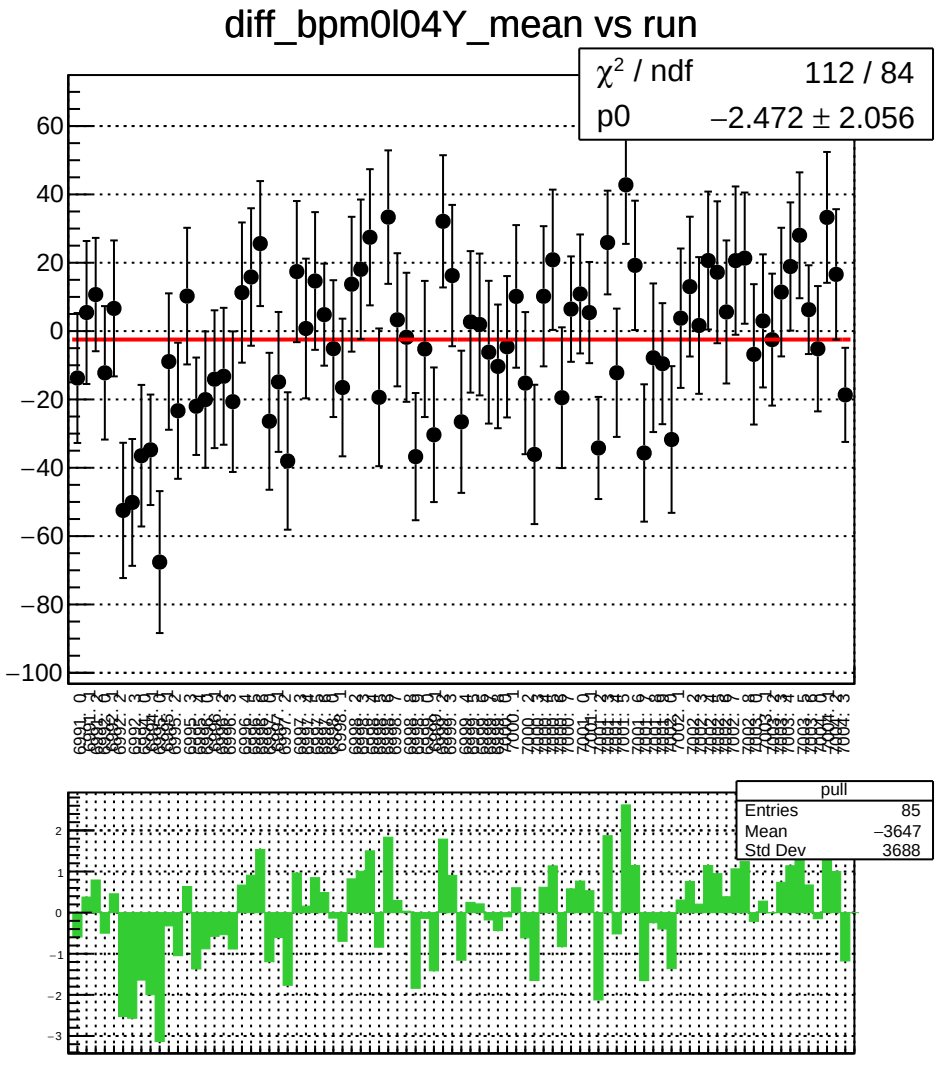

pull1D
Entries 85
Mean −0.02778
Std Dev 1.047
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

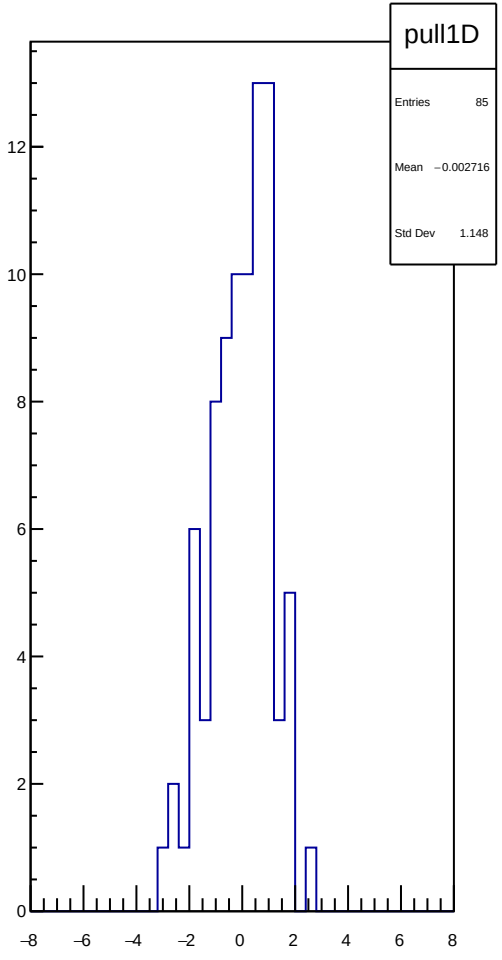

diff_bpm0l03Y_rms vs run
χ^2 / ndf 3.858e+05 / 84
p0 2.102e+04 ± 18.7
90000
80000
70000
60000
50000
40000
30000
20000
10000

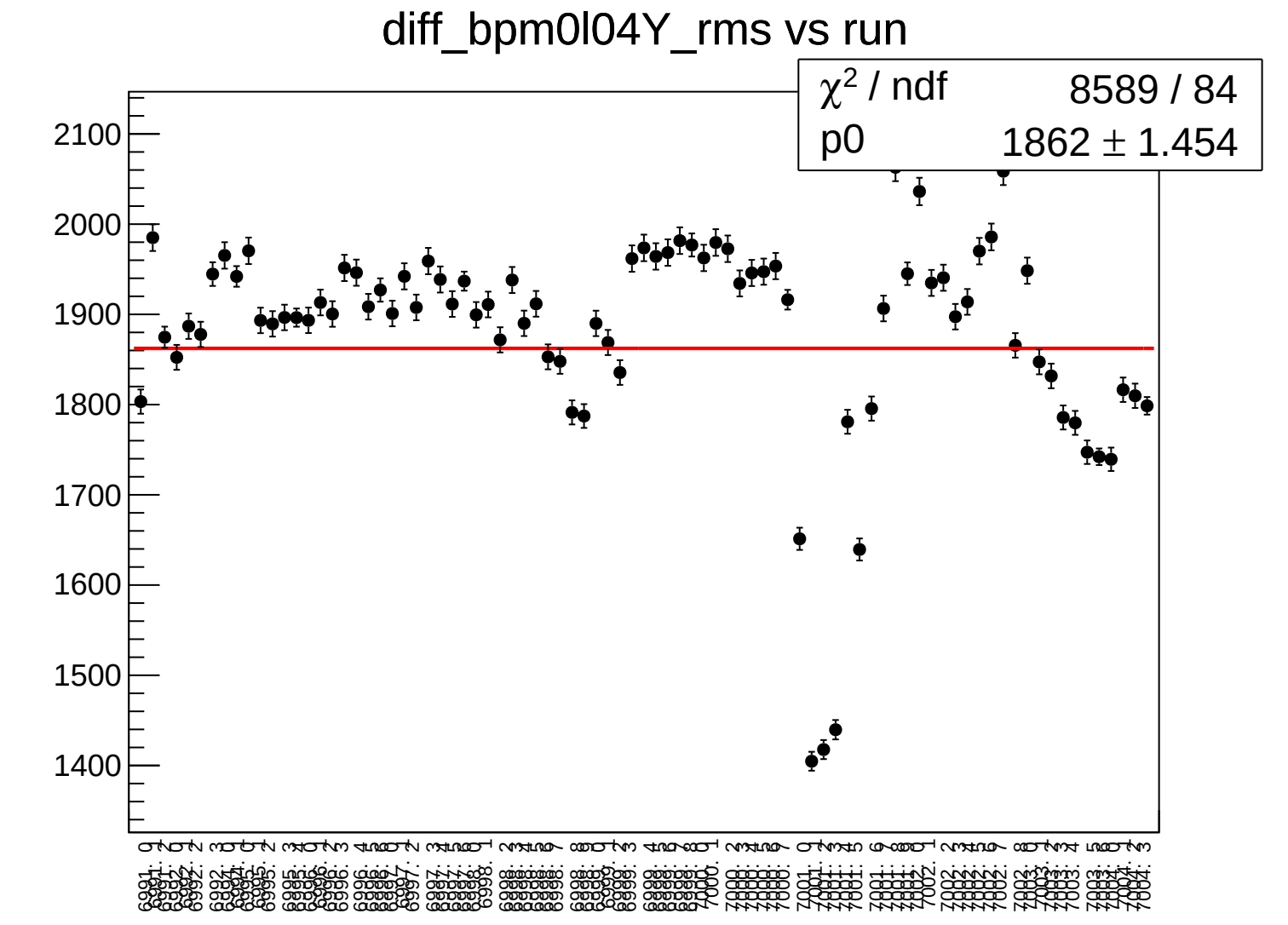

diff_bpm0l04X_mean vs run
χ² / ndf 81.79 / 84
p0 −2.706 ± 2.865
100
50
0
−50
−100
pull
Entries 85
Mean −834.5
Std Dev 873.6
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

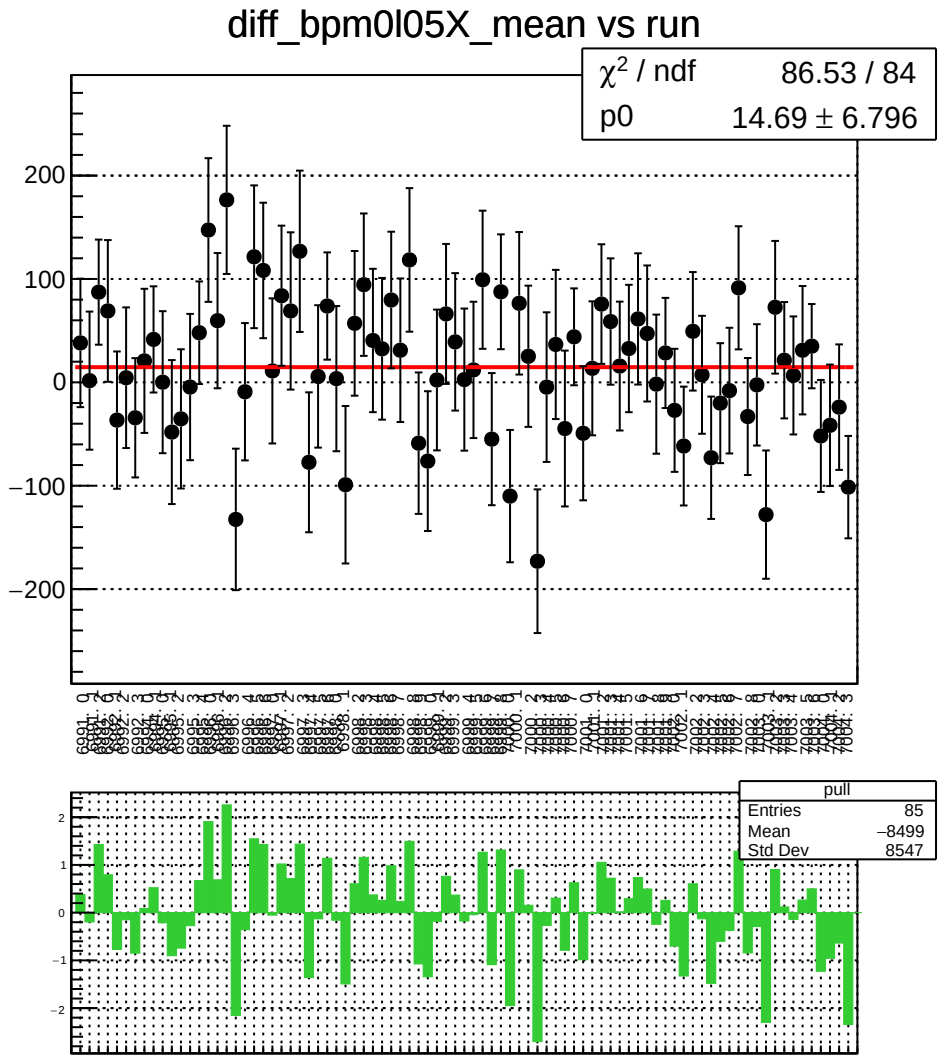

pull1D
Entries 85
Mean −0.005255
Std Dev 0.9809
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

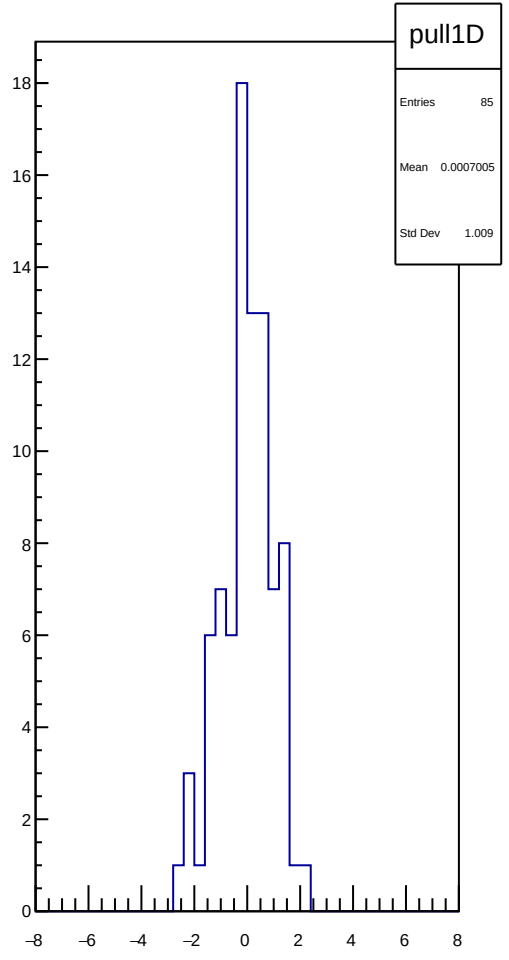

diff_bpm0l04X_rms vs run
χ² / ndf 7053 / 84
p0 2597 ± 2.026
3000
2900
2800
2700
2600
2500
2400
2300
2200
2100

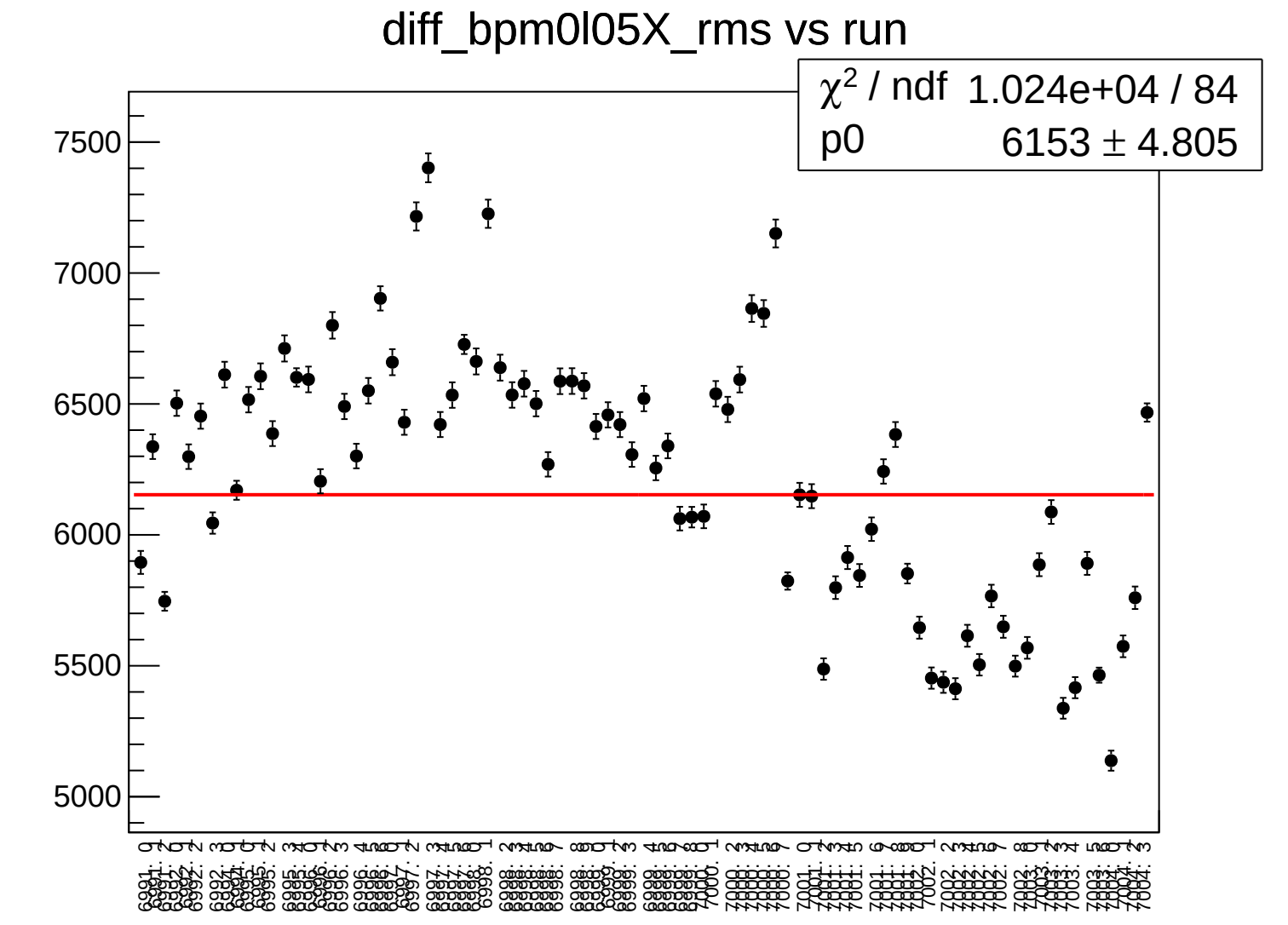

diff_bpm0l04Y_mean vs run
χ² / ndf 112 / 84
p0 −2.472 ± 2.056
pull
Entries 85
Mean −3647
Std Dev 3688

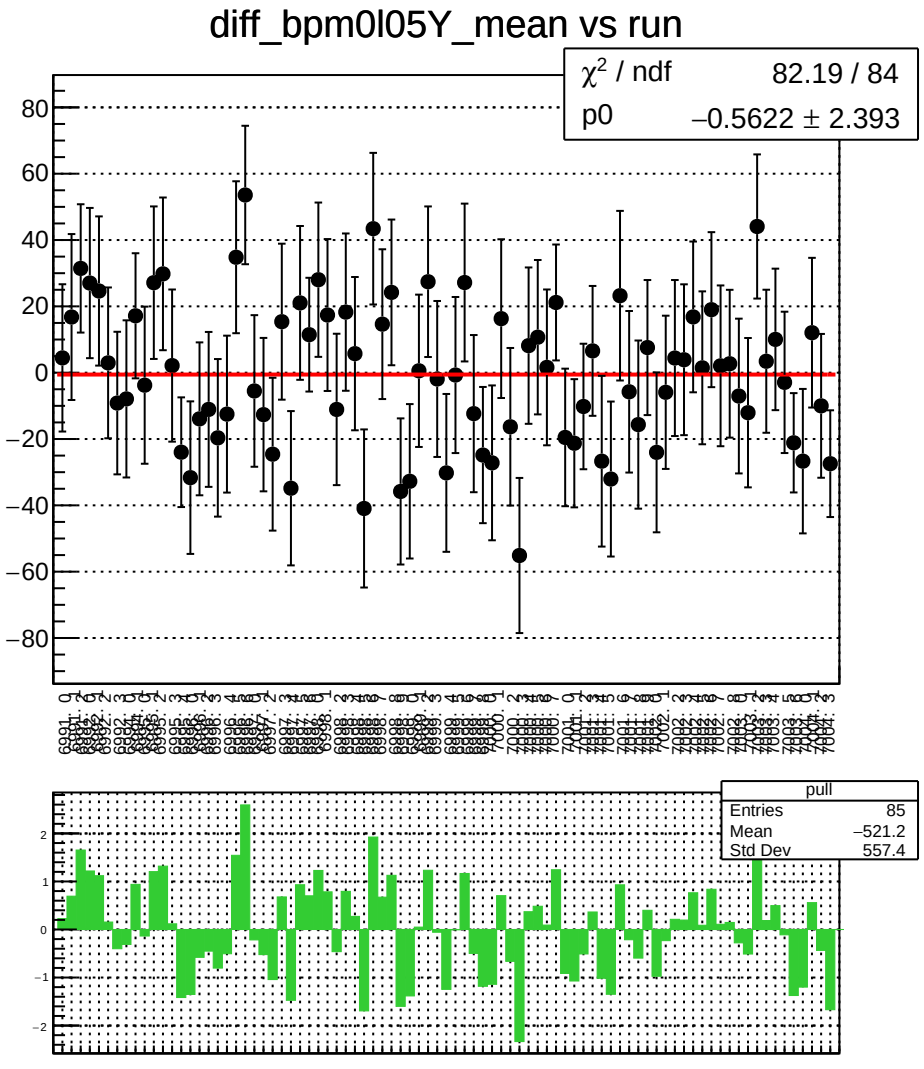

pull1D
Entries 85
Mean −0.002716
Std Dev 1.148

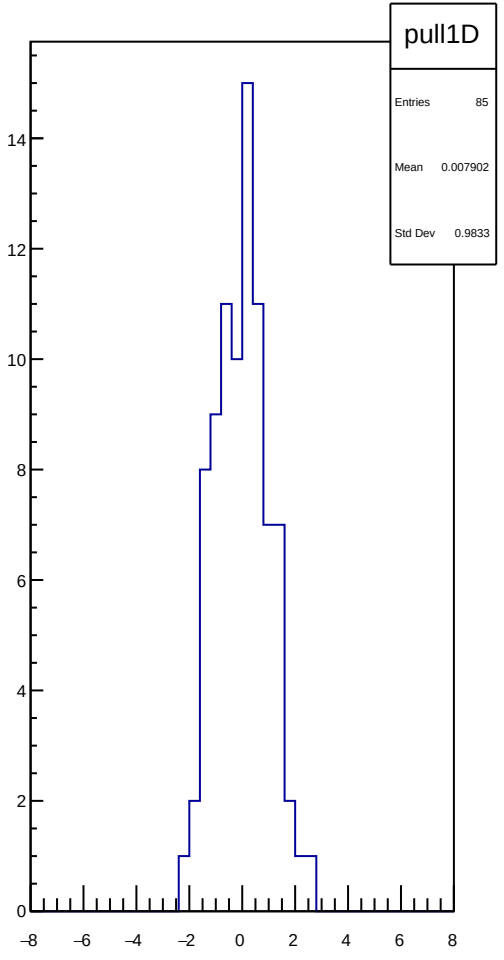

diff_bpm0l04Y_rms vs run
χ² / ndf 8589 / 84
p0 1862 ± 1.454
2100
2000
1900
1800
1700
1600
1500
1400

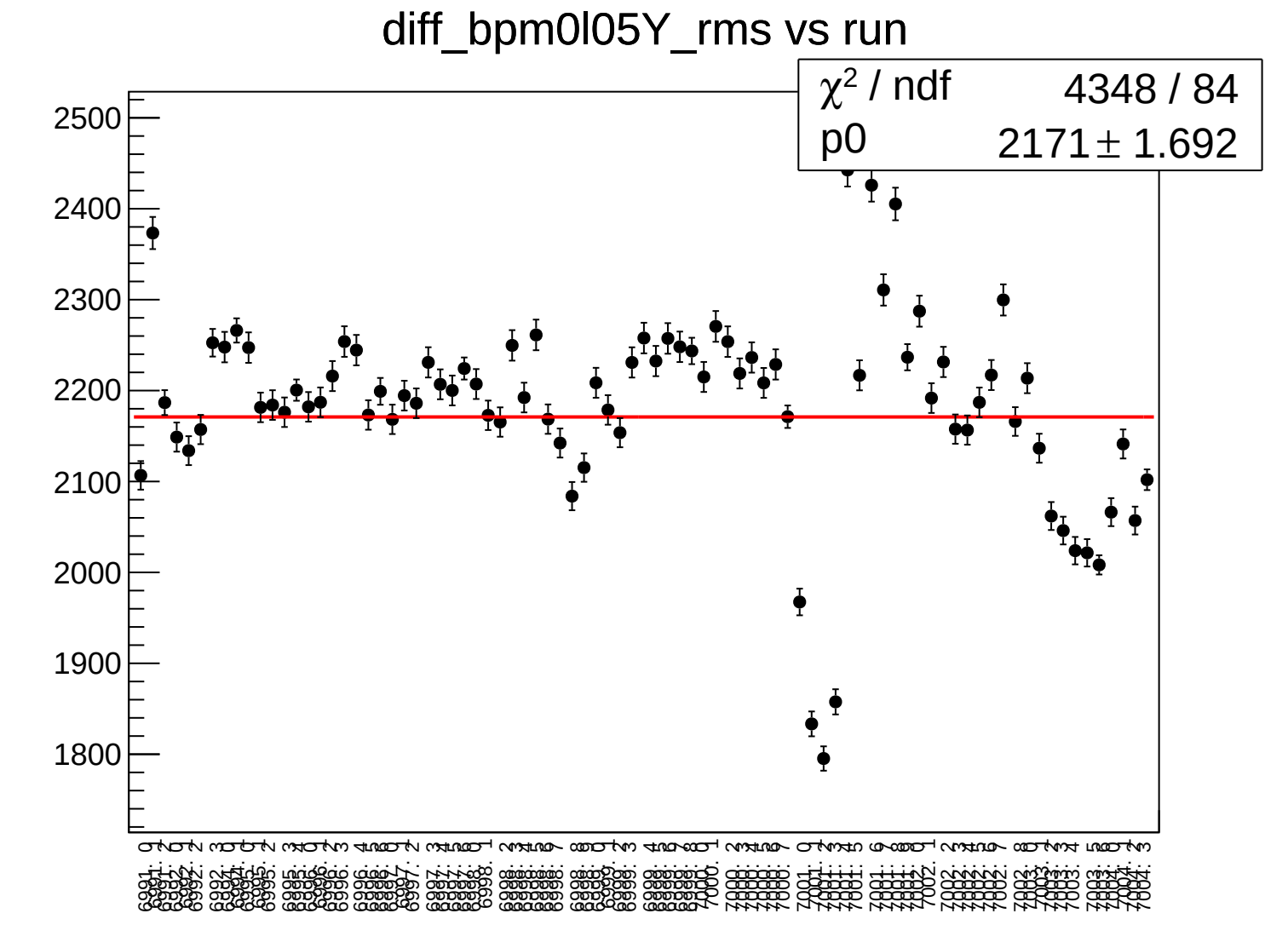

diff_bpm0l05X_mean vs run
χ^2 / ndf 86.53 / 84
p0 14.69 ± 6.796
200
100
0
−100
−200
pull
Entries 85
Mean −8499
Std Dev 8547
2
1
0
−1
−2

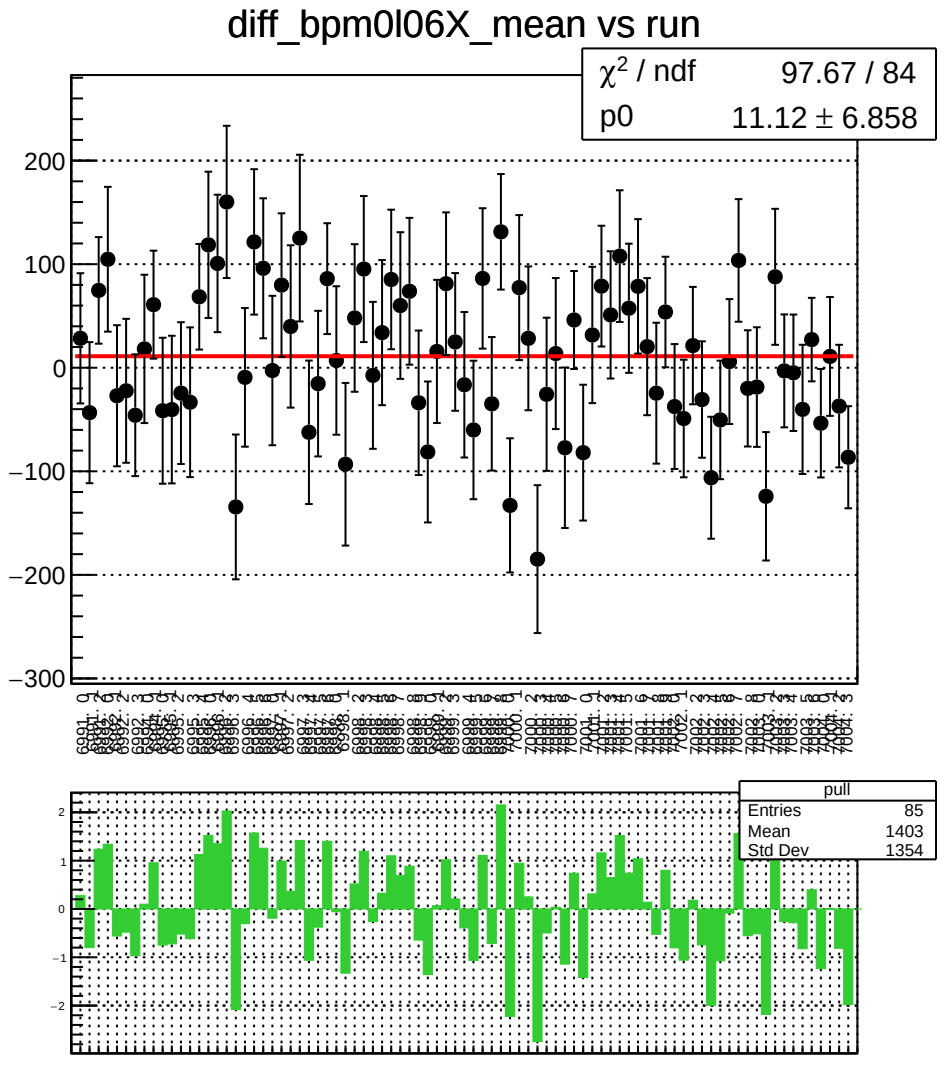

pull1D
Entries 85
Mean 0.0007005
Std Dev 1.009
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

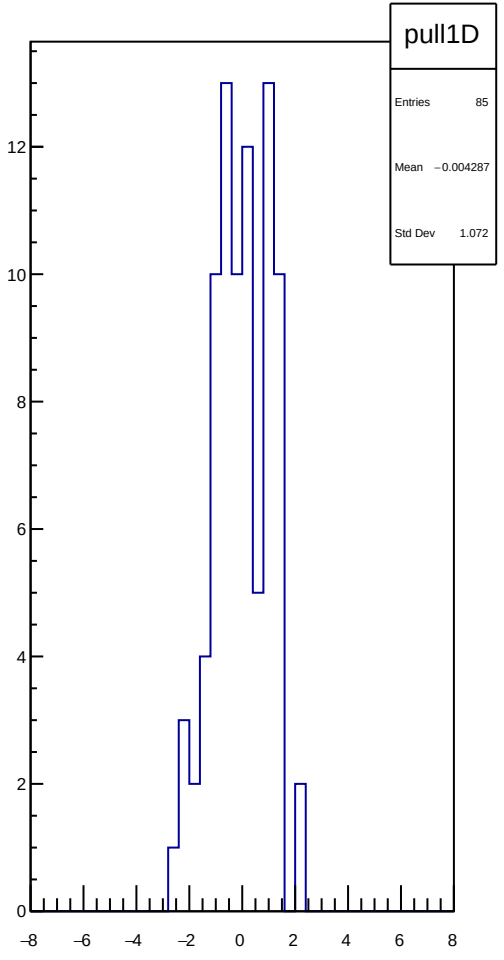

diff_bpm0l05X_rms vs run
χ² / ndf 1.024e+04 / 84
p0 6153 ± 4.805
7500
7000
6500
6000
5500
5000

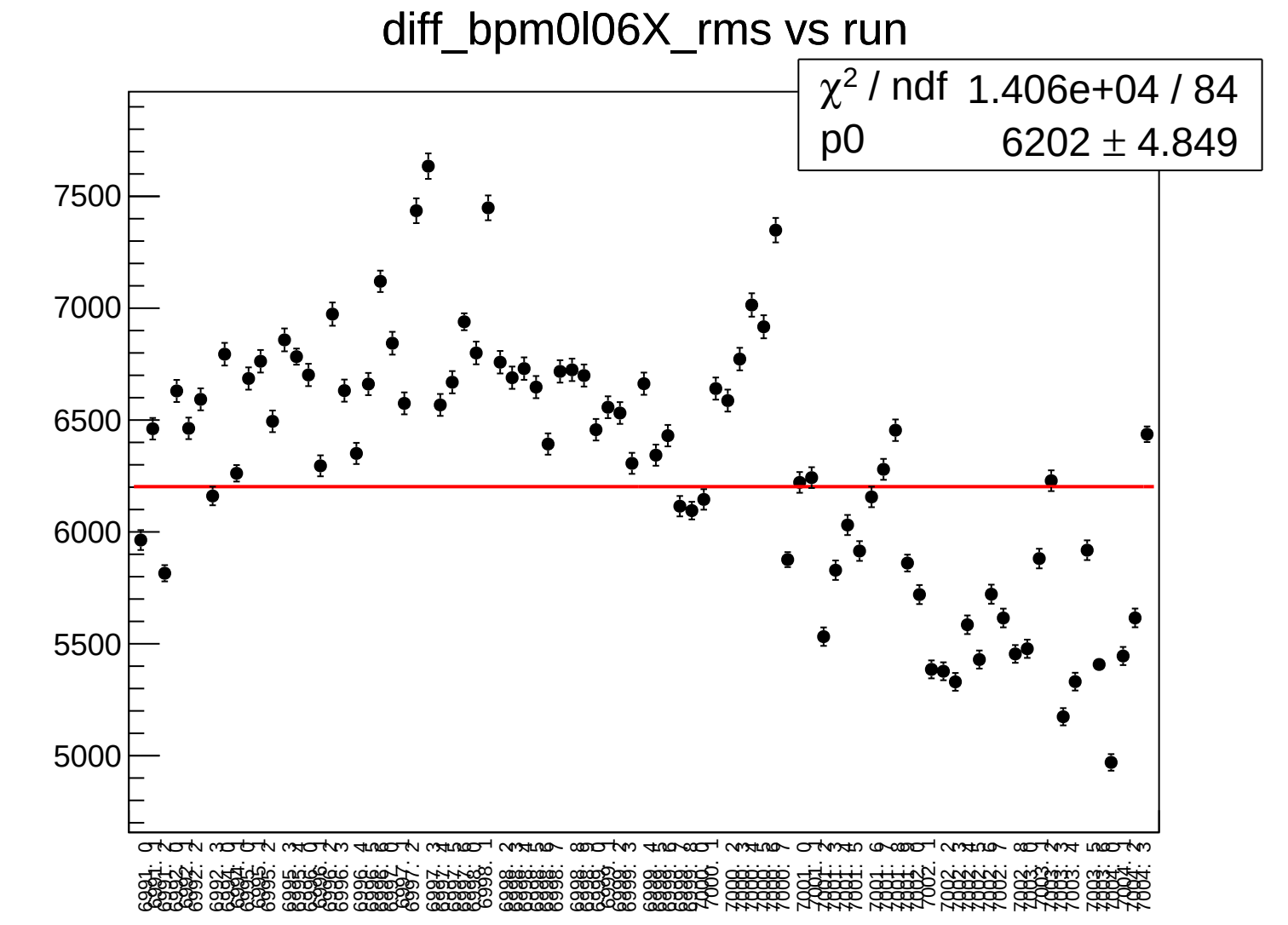

diff_bpm0l05Y_mean vs run
χ² / ndf 82.19 / 84
p0 −0.5622 ± 2.393
pull
Entries 85
Mean −521.2
Std Dev 557.4

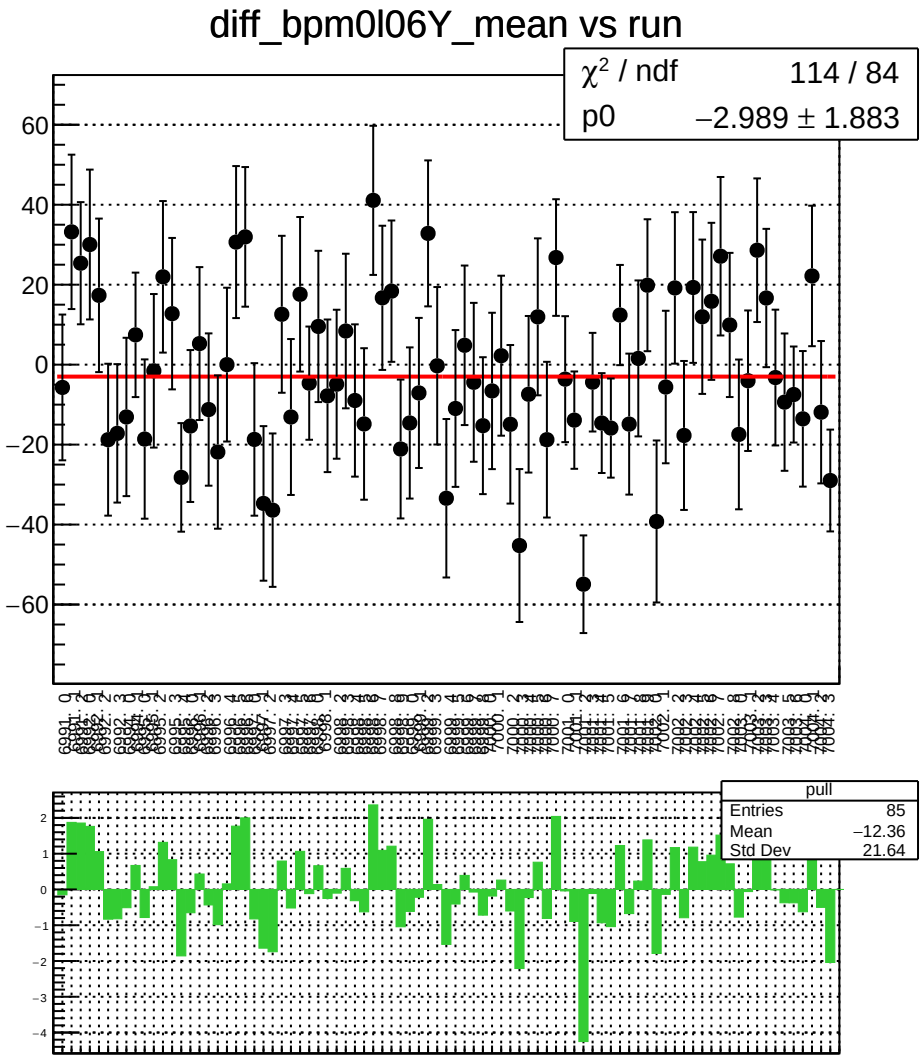

pull1D
Entries 85
Mean 0.007902
Std Dev 0.9833

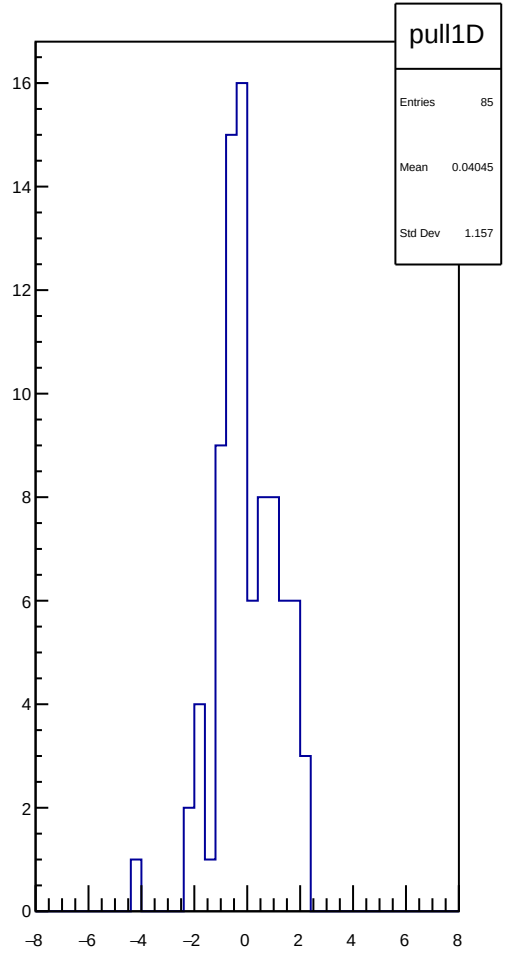

diff_bpm0l05Y_rms vs run
χ² / ndf 4348 / 84
p0 2171 ± 1.692
2500
2400
2300
2200
2100
2000
1900
1800

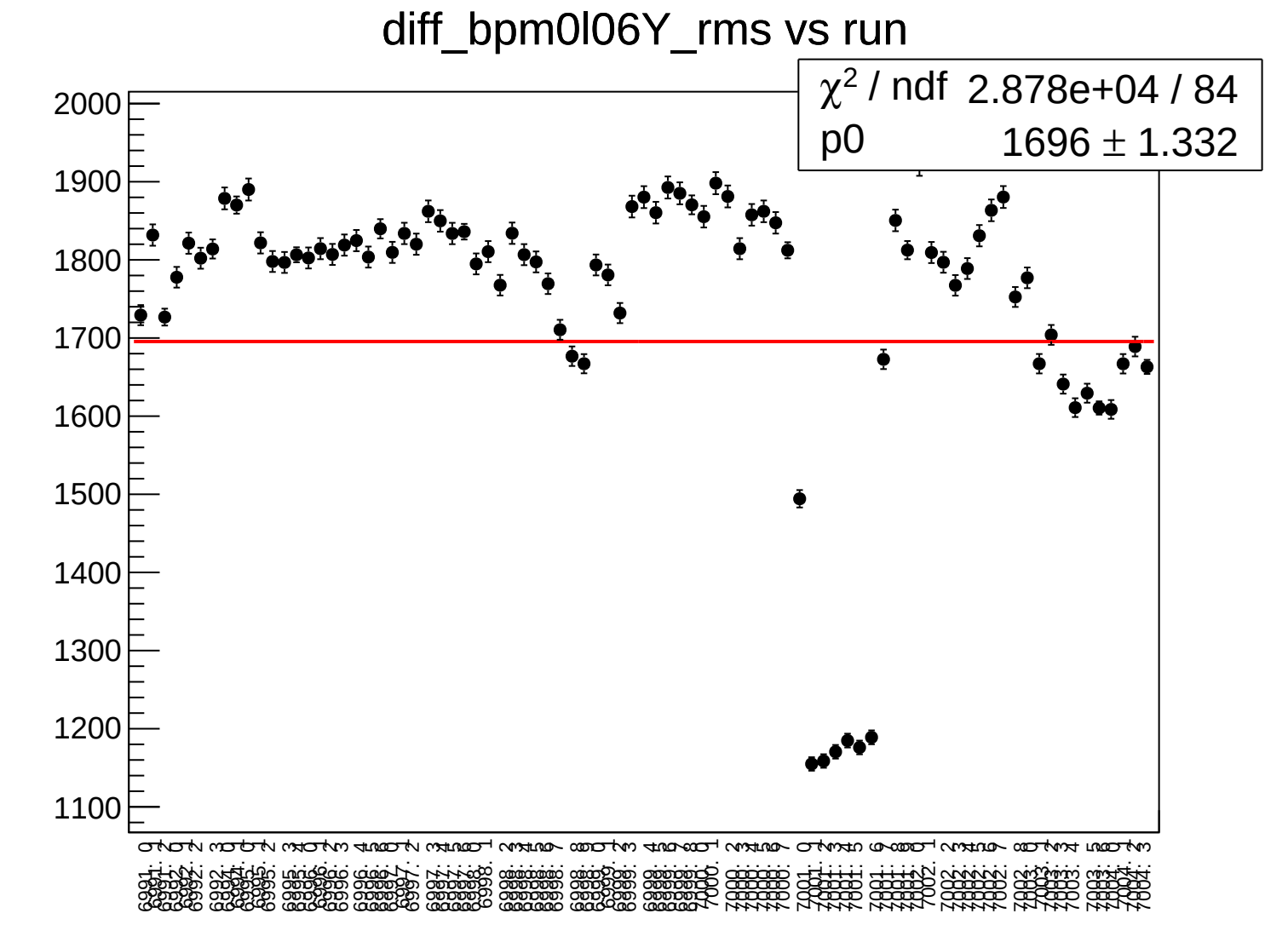

diff_bpm0l06X_mean vs run
χ² / ndf 97.67 / 84
p0 11.12 ± 6.858
pull
Entries 85
Mean 1403
Std Dev 1354

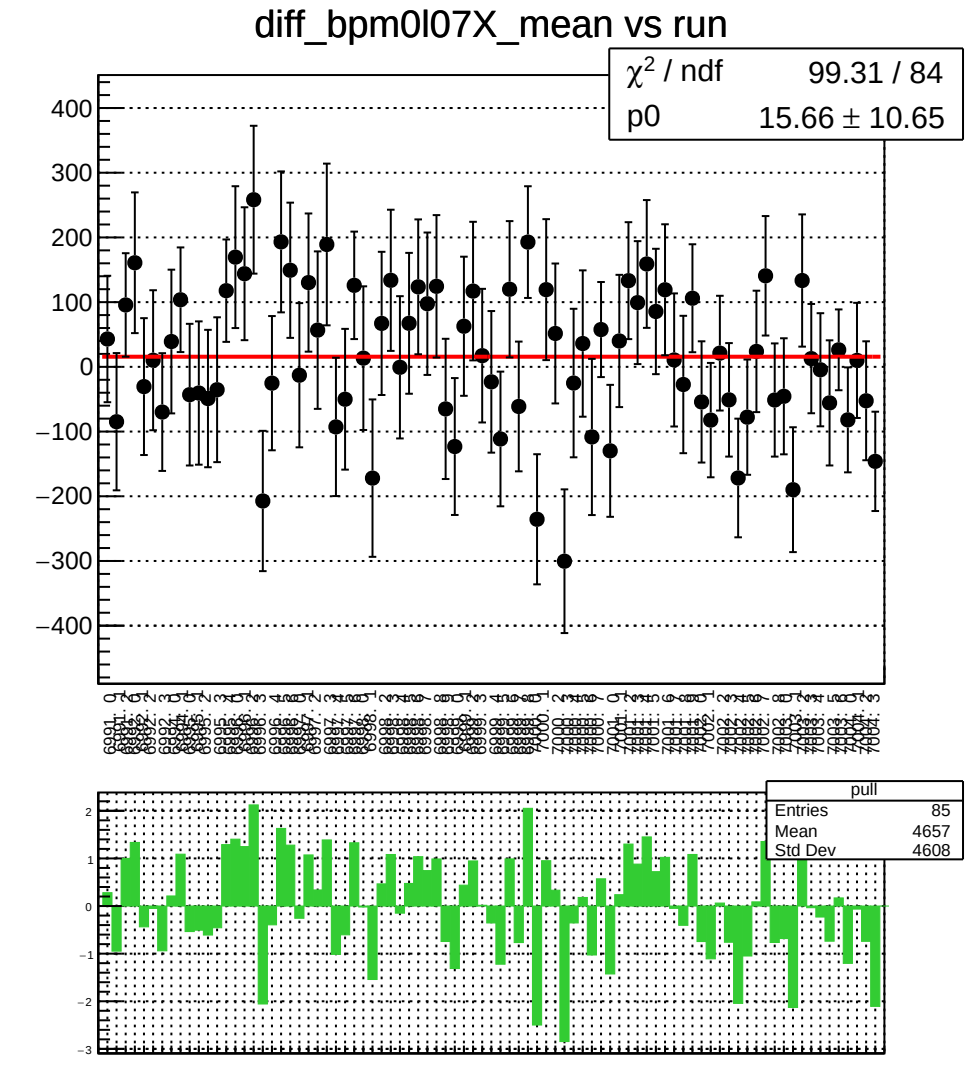

pull1D
Entries 85
Mean −0.004287
Std Dev 1.072

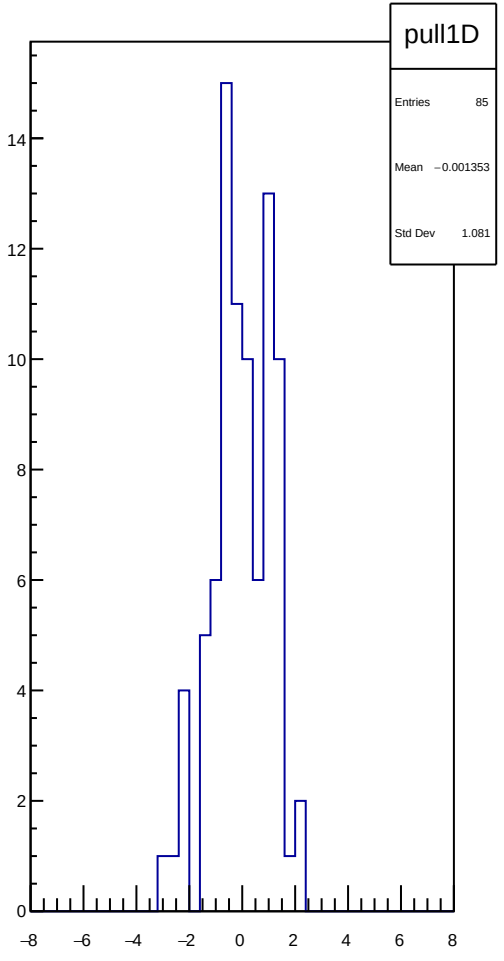

diff_bpm0l06X_rms vs run
χ² / ndf 1.406e+04 / 84
p0 6202 ± 4.849
7500
7000
6500
6000
5500
5000

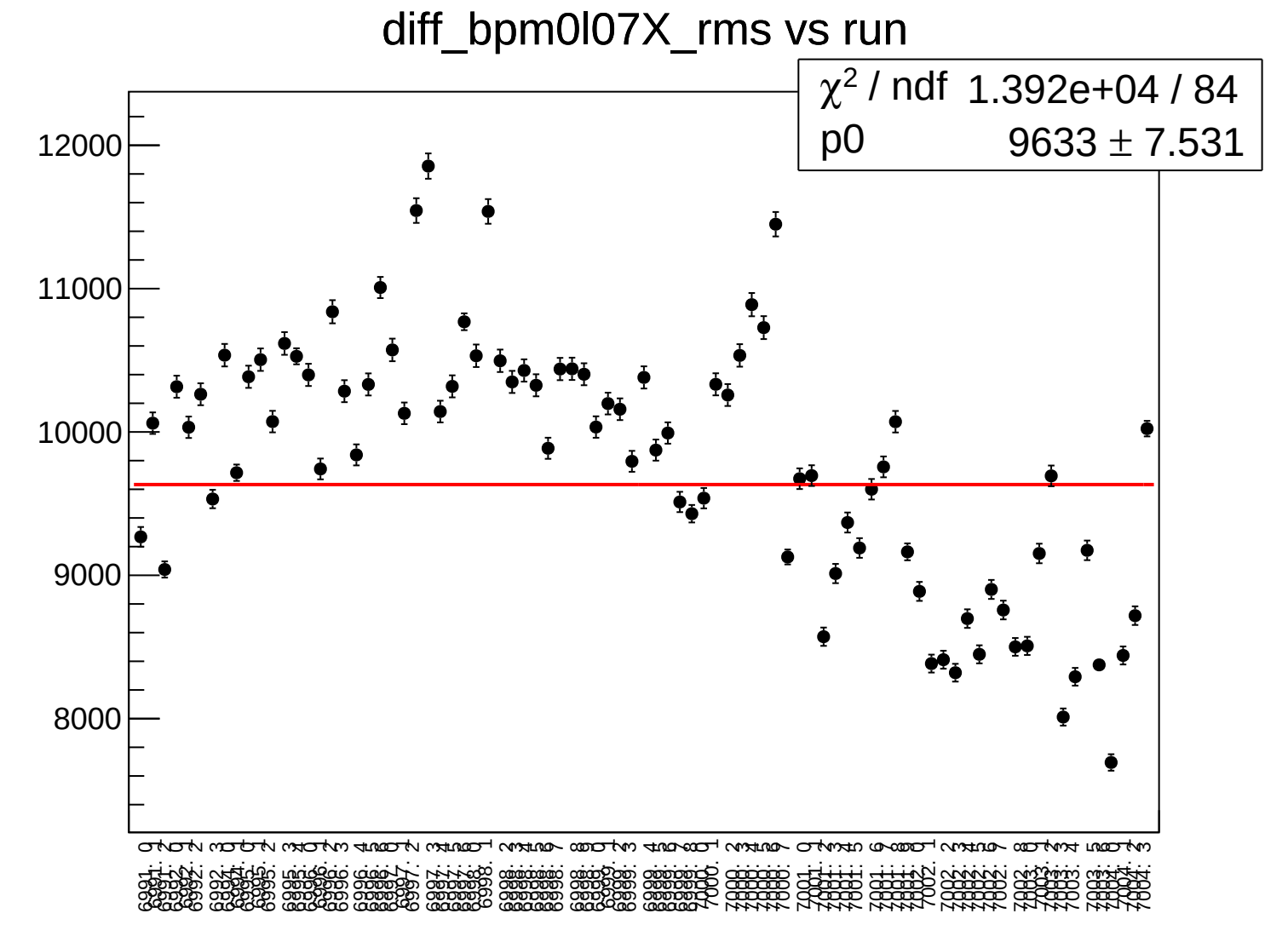

diff_bpm0l06Y_mean vs run
χ² / ndf 114 / 84
p0 −2.989 ± 1.883
pull
Entries 85
Mean −12.36
Std Dev 21.64

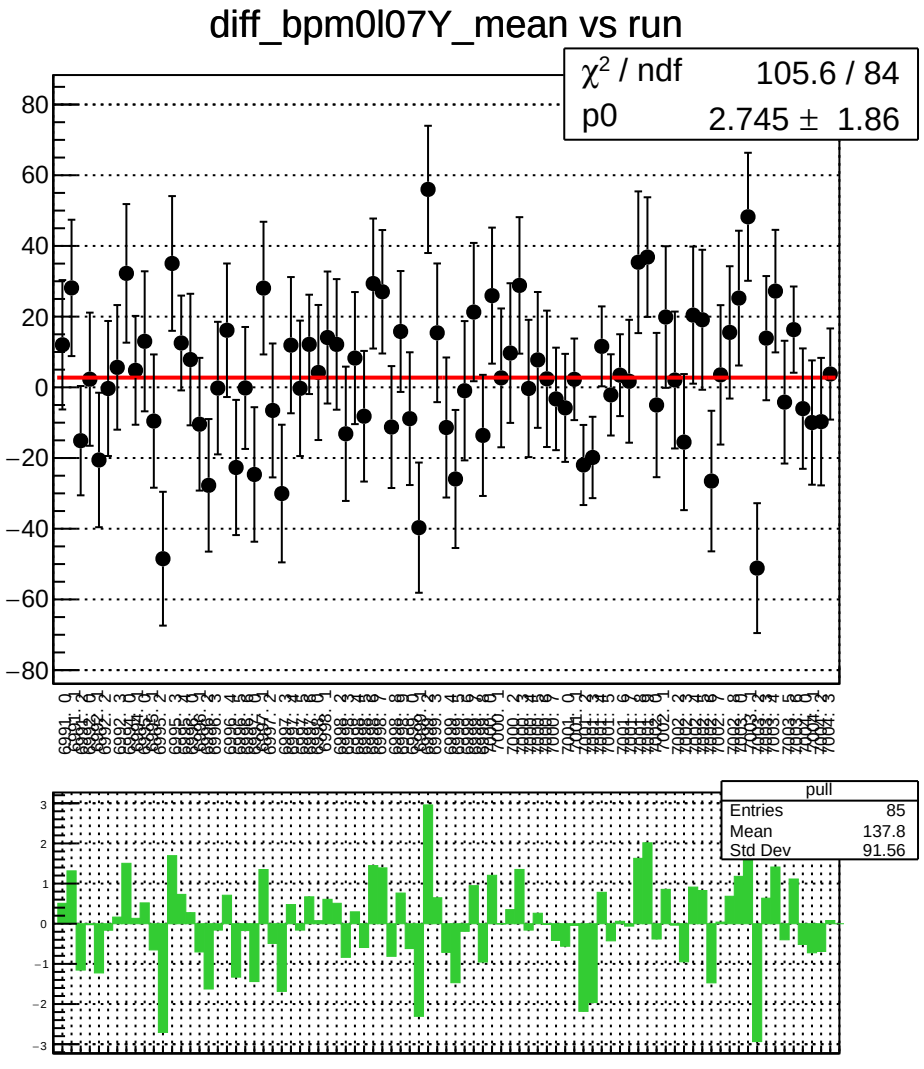

pull1D
Entries 85
Mean 0.04045
Std Dev 1.157

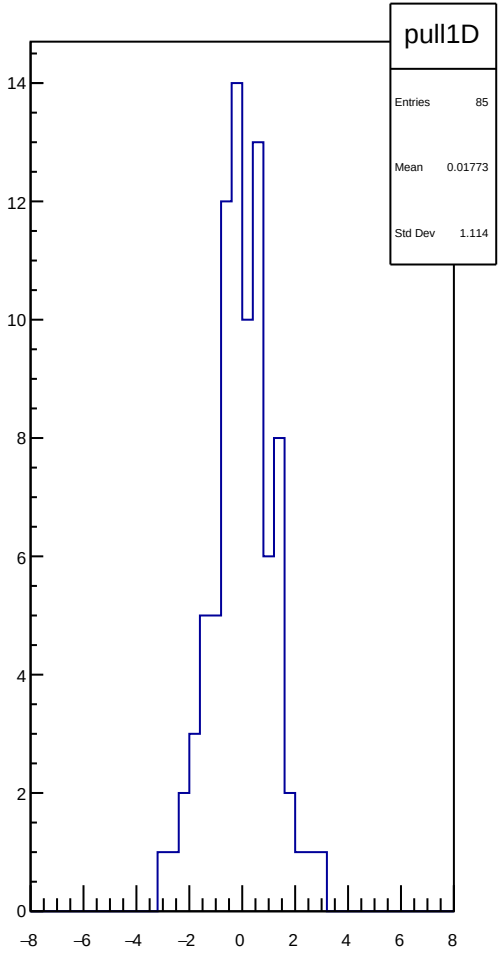

diff_bpm0l06Y_rms vs run
χ² / ndf 2.878e+04 / 84
p0 1696 ± 1.332
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100

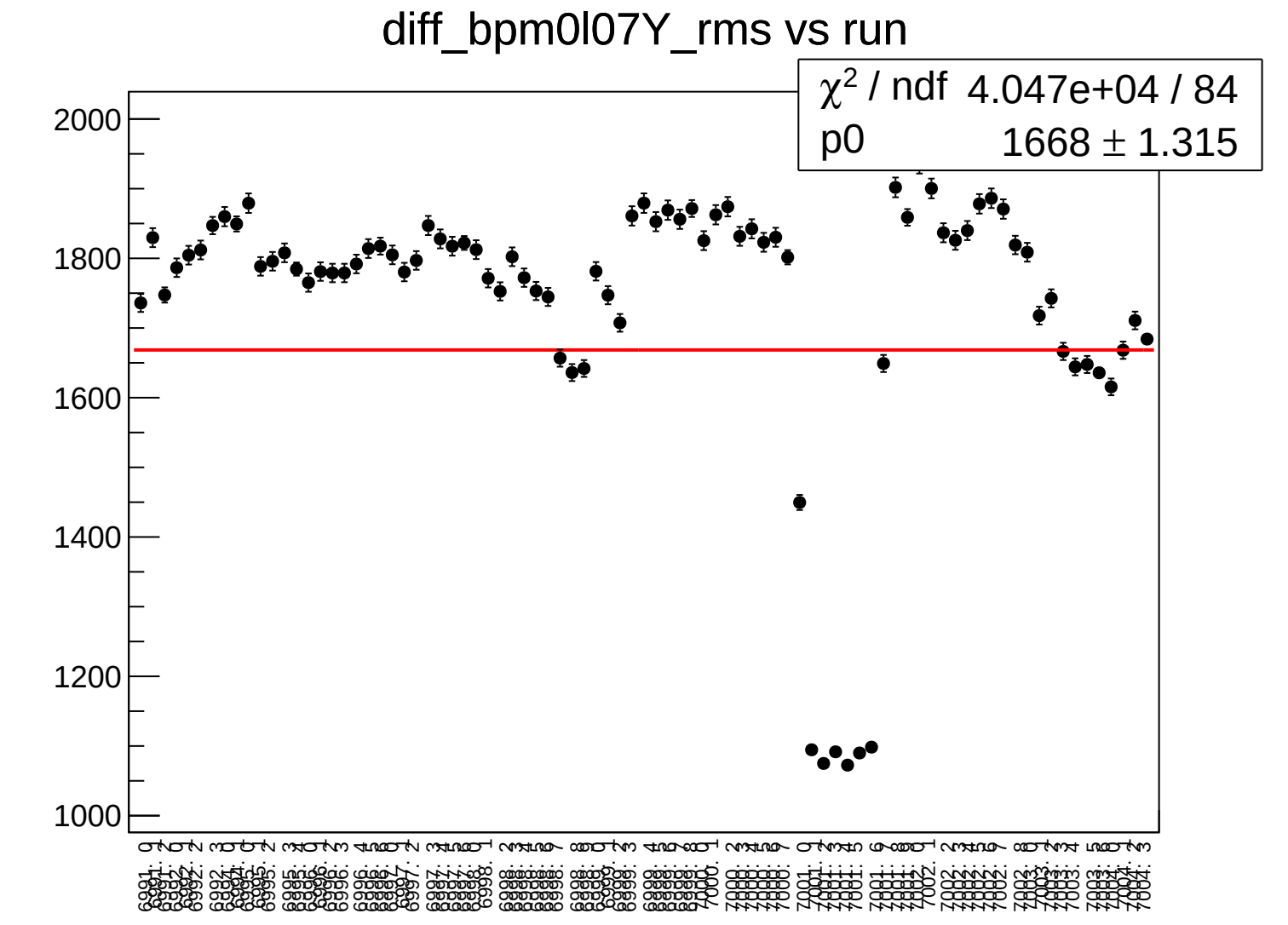

diff_bpm0l07X_mean vs run
χ^2 / ndf 99.31 / 84
p0 15.66 ± 10.65
pull
Entries 85
Mean 4657
Std Dev 4608

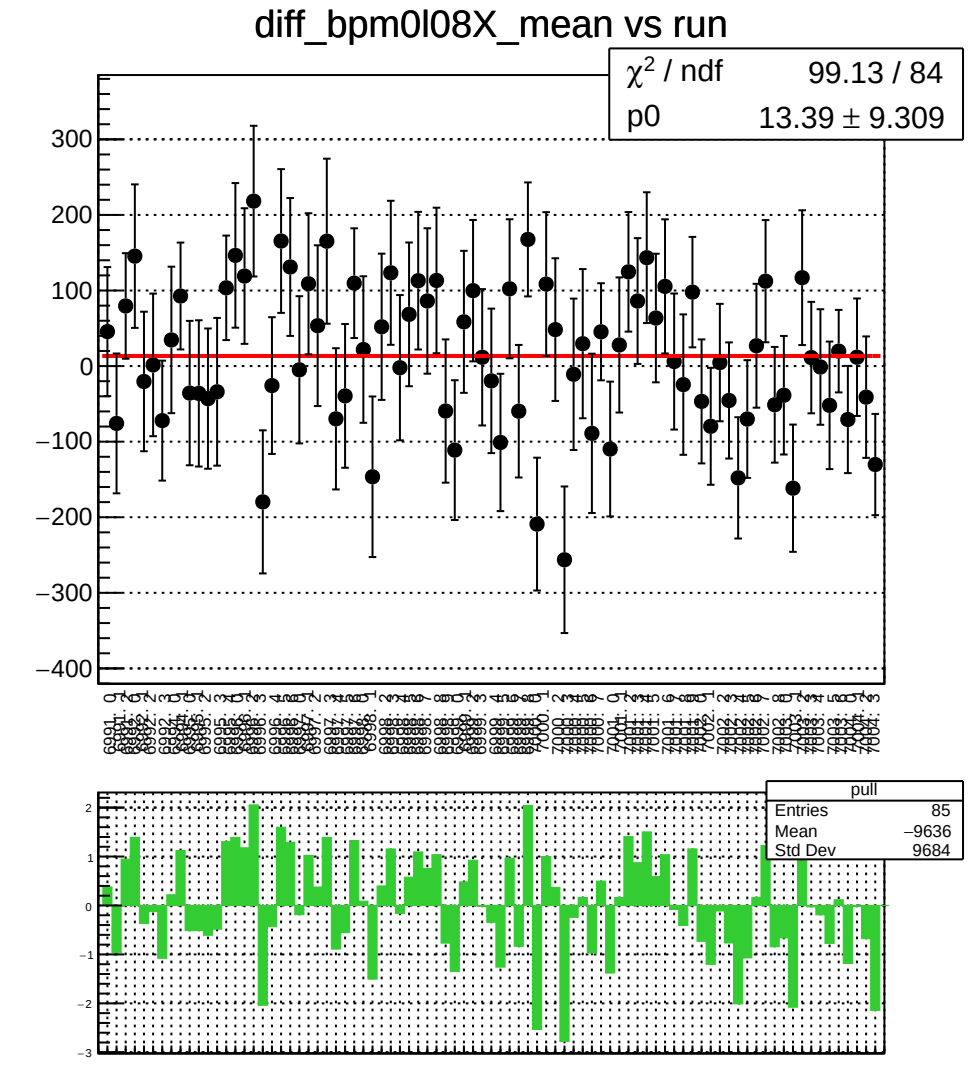

pull1D
Entries 85
Mean −0.001353
Std Dev 1.081

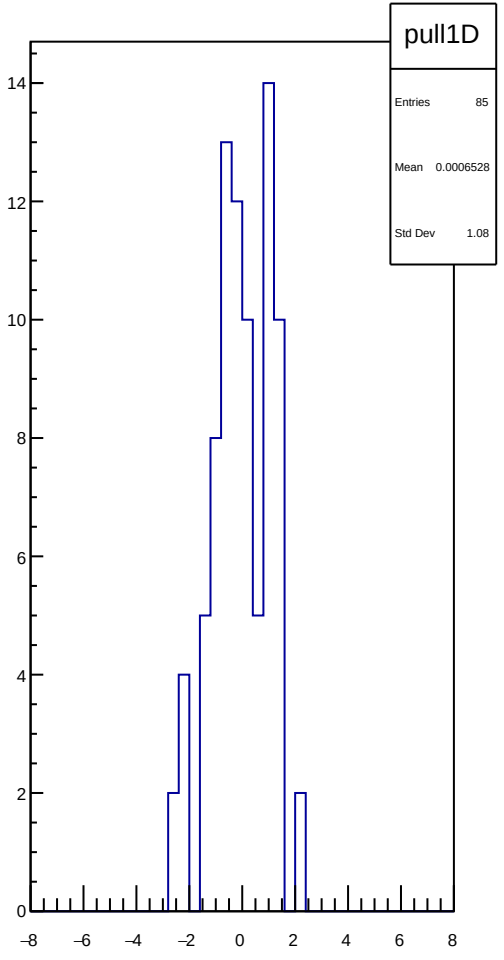

diff_bpm0l07X_rms vs run
χ² / ndf 1.392e+04 / 84
p0 9633 ± 7.531
12000
11000
10000
9000
8000

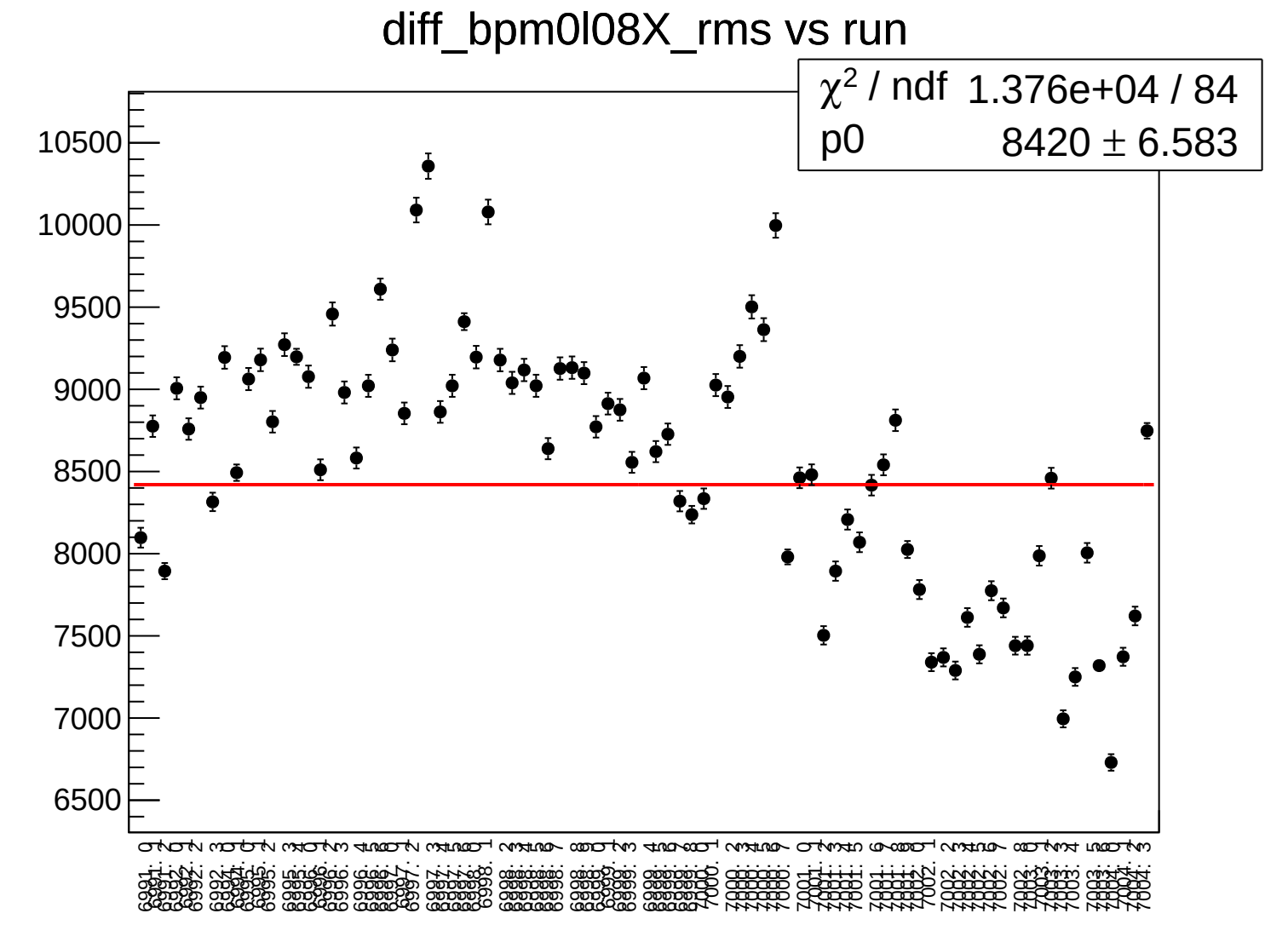

diff_bpm0l07Y_mean vs run
χ² / ndf 105.6 / 84
p0 2.745 ± 1.86
pull
Entries 85
Mean 137.8
Std Dev 91.56

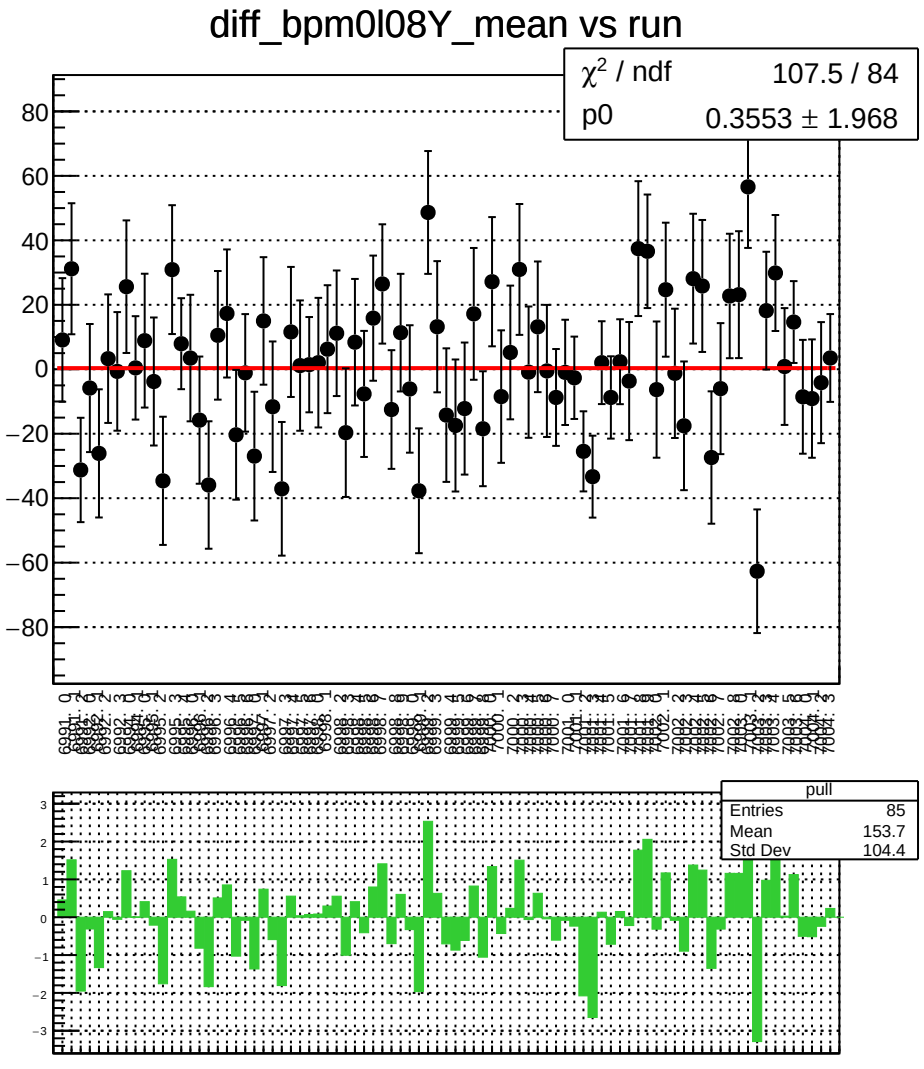

pull1D
Entries 85
Mean 0.01773
Std Dev 1.114

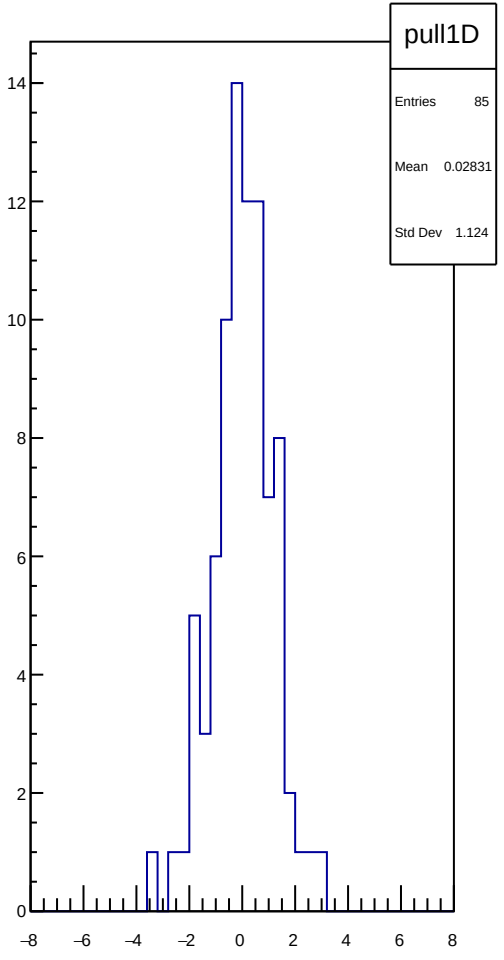

diff_bpm0l07Y_rms vs run
χ² / ndf 4.047e+04 / 84
p0 1668 ± 1.315
2000
1800
1600
1400
1200
1000

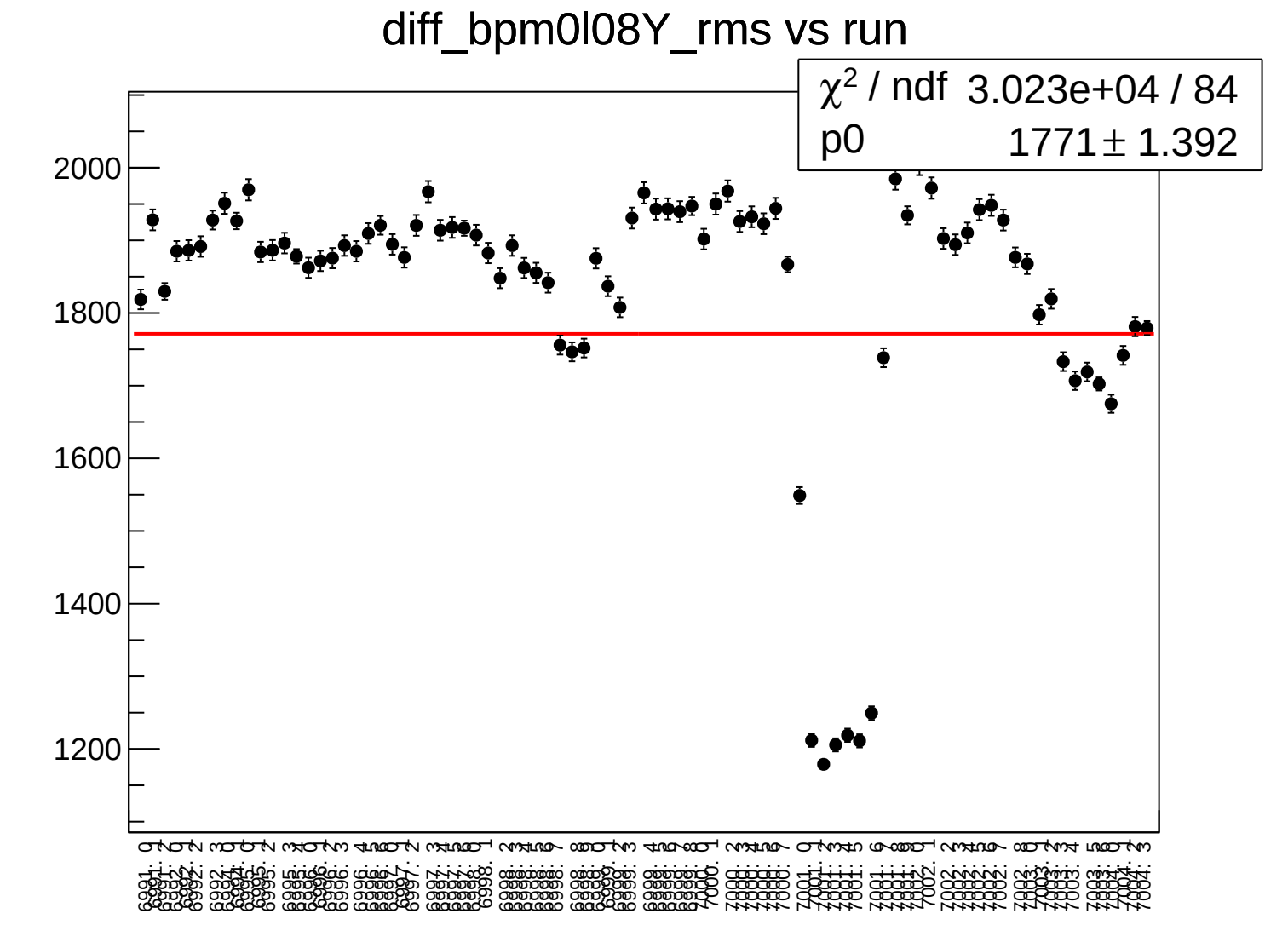

diff_bpm0l08X_mean vs run
χ² / ndf 99.13 / 84
p0 13.39 ± 9.309
pull
Entries 85
Mean −9636
Std Dev 9684

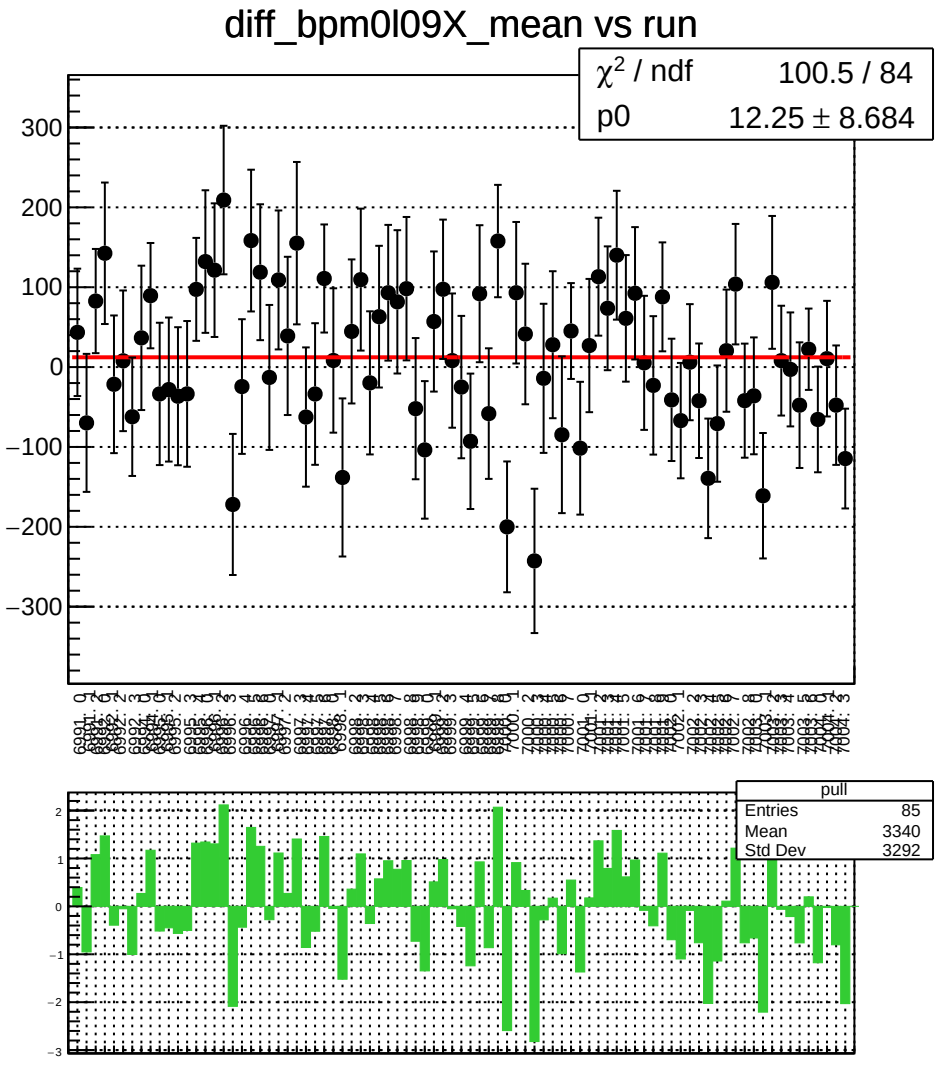

pull1D
Entries 85
Mean 0.0006528
Std Dev 1.08

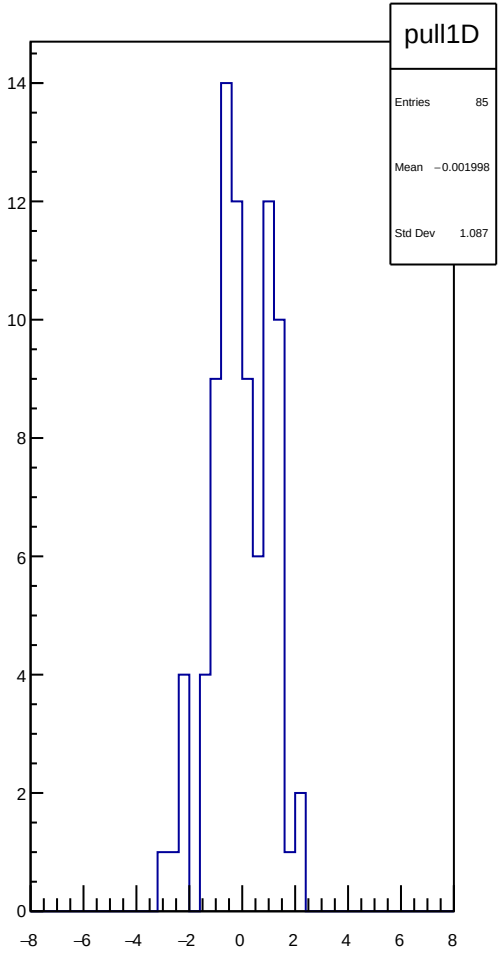

diff_bpm0l08X_rms vs run
χ² / ndf 1.376e+04 / 84
p0 8420 ± 6.583
10500
10000
9500
9000
8500
8000
7500
7000
6500

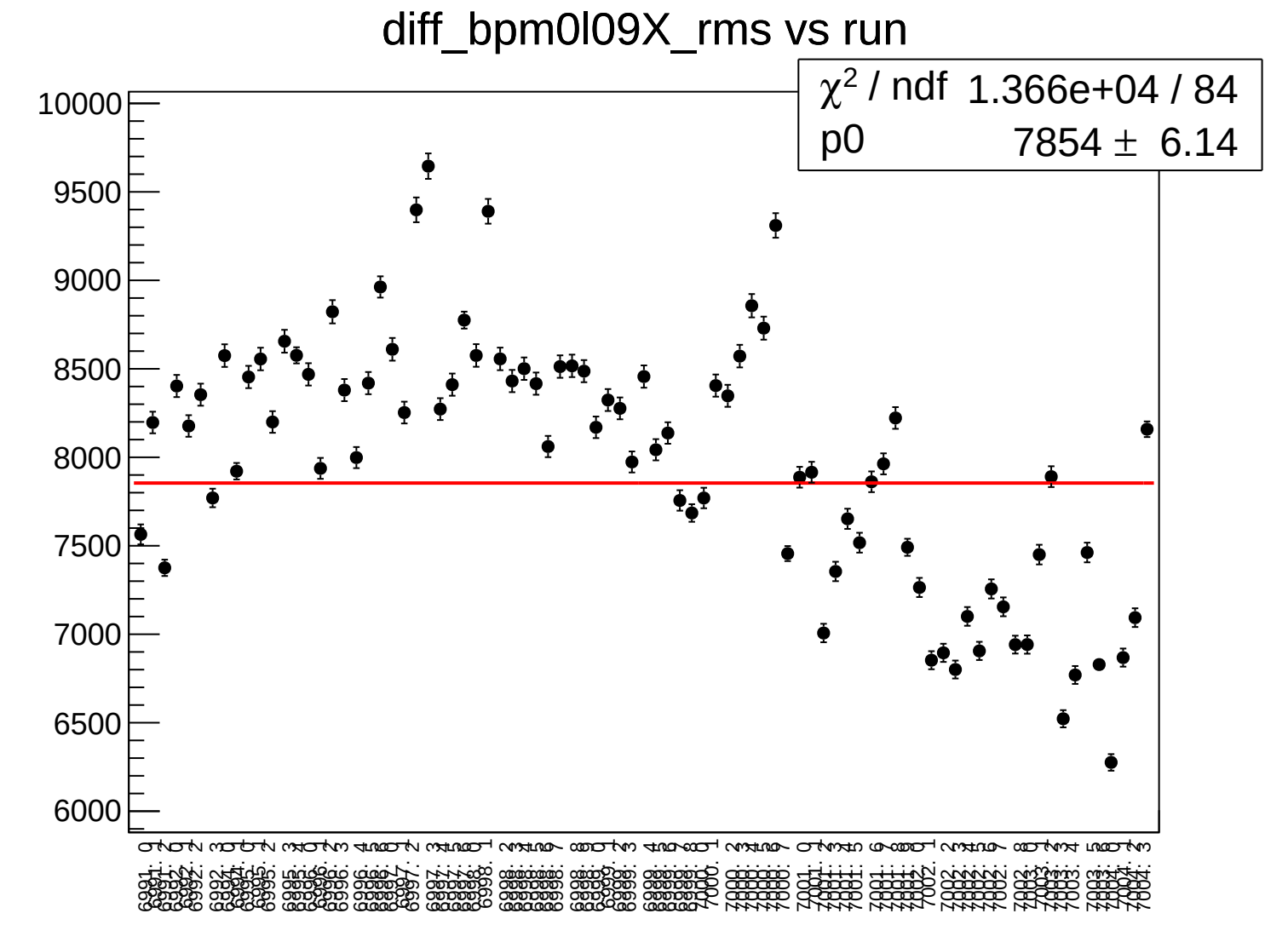

diff_bpm0l08Y_mean vs run
χ² / ndf 107.5 / 84
p0 0.3553 ± 1.968
pull
Entries 85
Mean 153.7
Std Dev 104.4

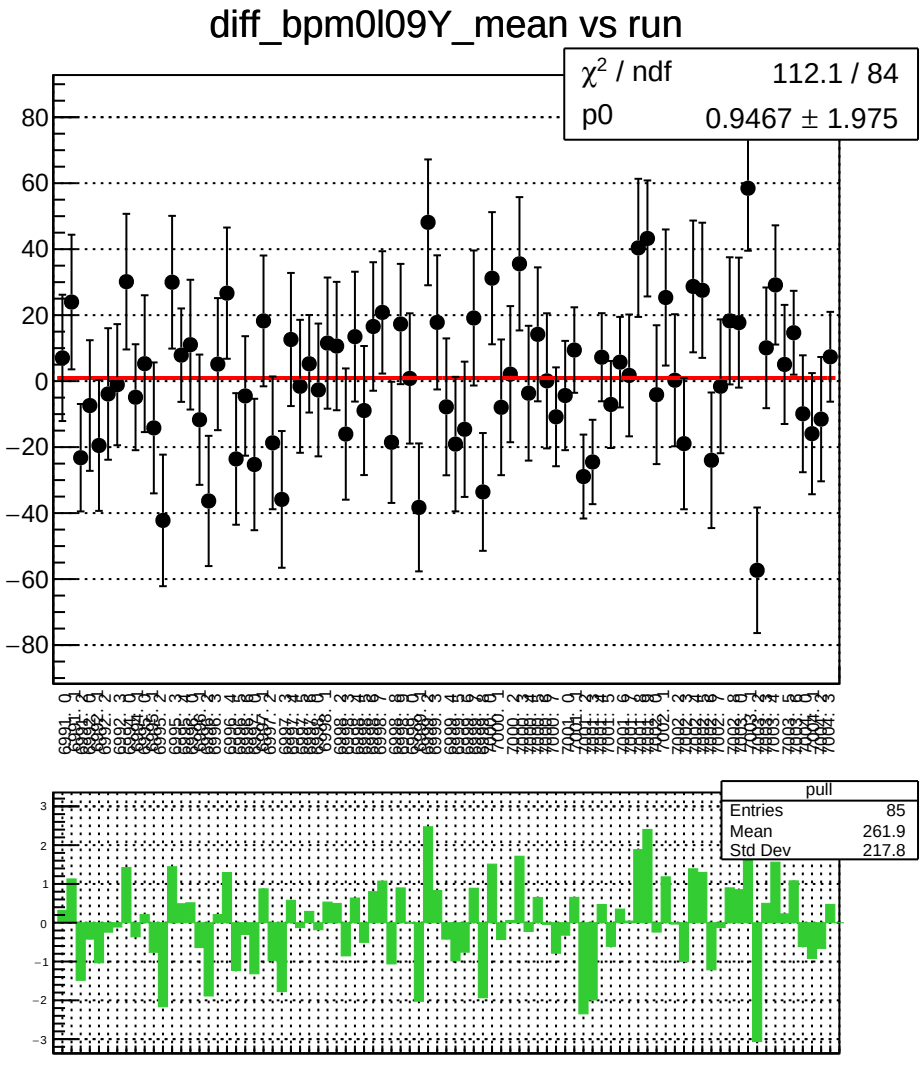

pull1D
Entries 85
Mean 0.02831
Std Dev 1.124

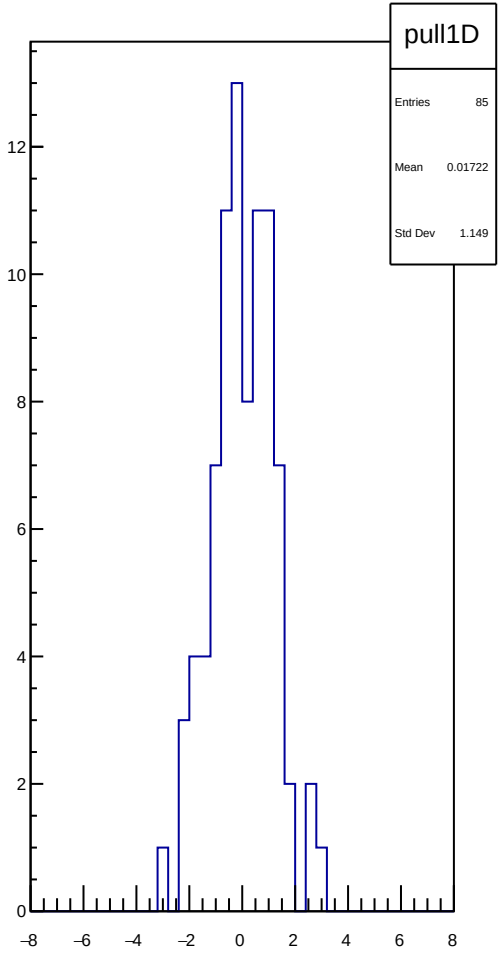

diff_bpm0l08Y_rms vs run
χ² / ndf 3.023e+04 / 84
p0 1771 ± 1.392
2000
1800
1600
1400
1200

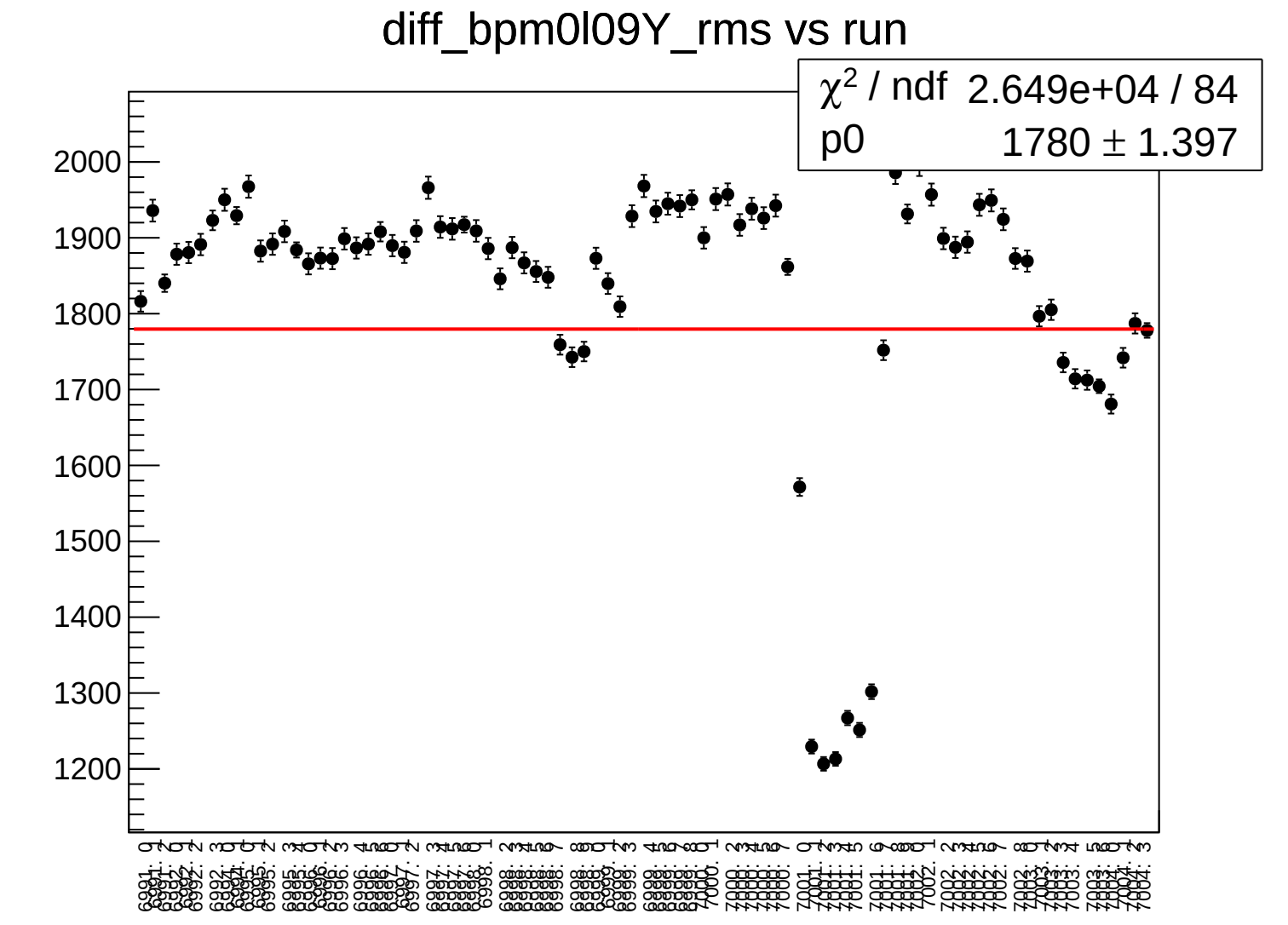

diff_bpm0l09X_mean vs run
χ^2 / ndf 100.5 / 84
p0 12.25 ± 8.684
pull
Entries 85
Mean 3340
Std Dev 3292

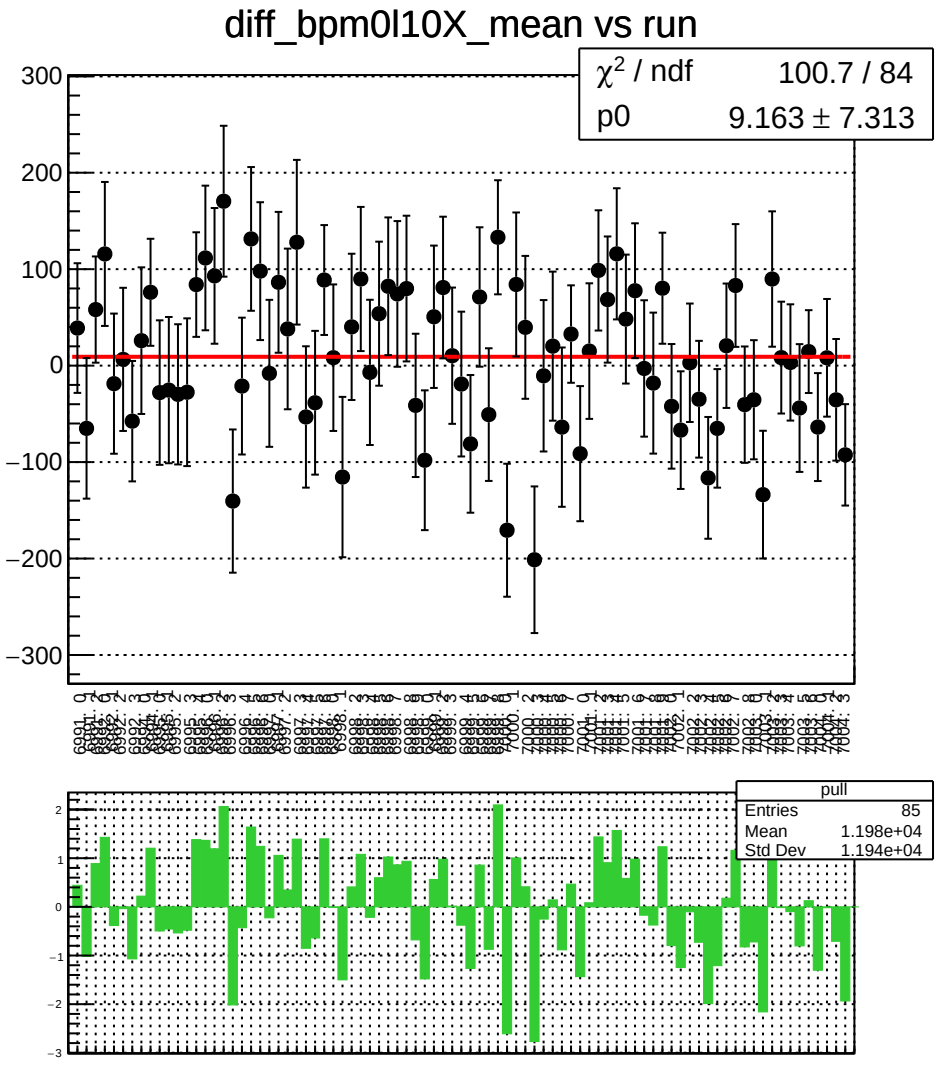

pull1D
Entries 85
Mean −0.001998
Std Dev 1.087

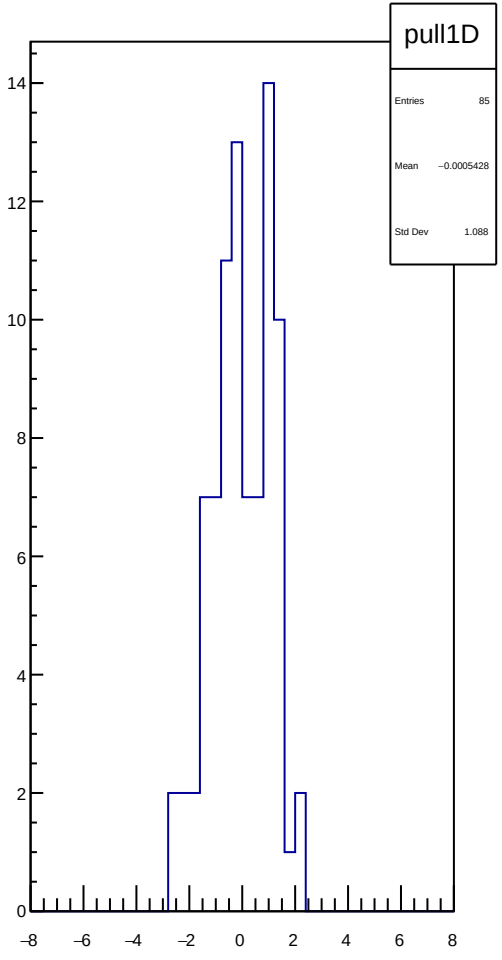

diff_bpm0l09X_rms vs run
χ² / ndf 1.366e+04 / 84
p0 7854 ± 6.14
10000
9500
9000
8500
8000
7500
7000
6500
6000

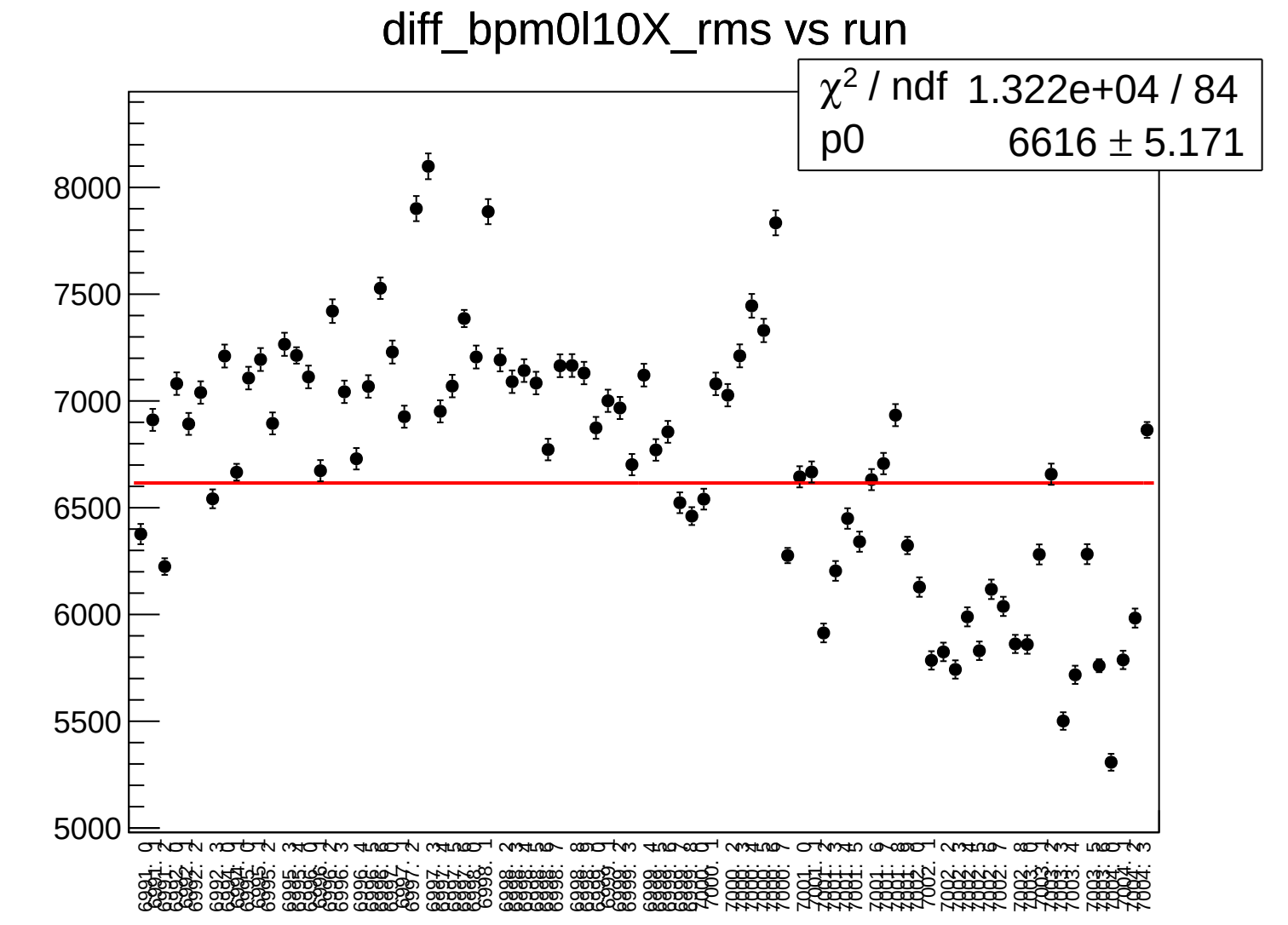

diff_bpm0l09Y_mean vs run
χ^2 / ndf 112.1 / 84
p0 0.9467 ± 1.975
pull
Entries 85
Mean 261.9
Std Dev 217.8

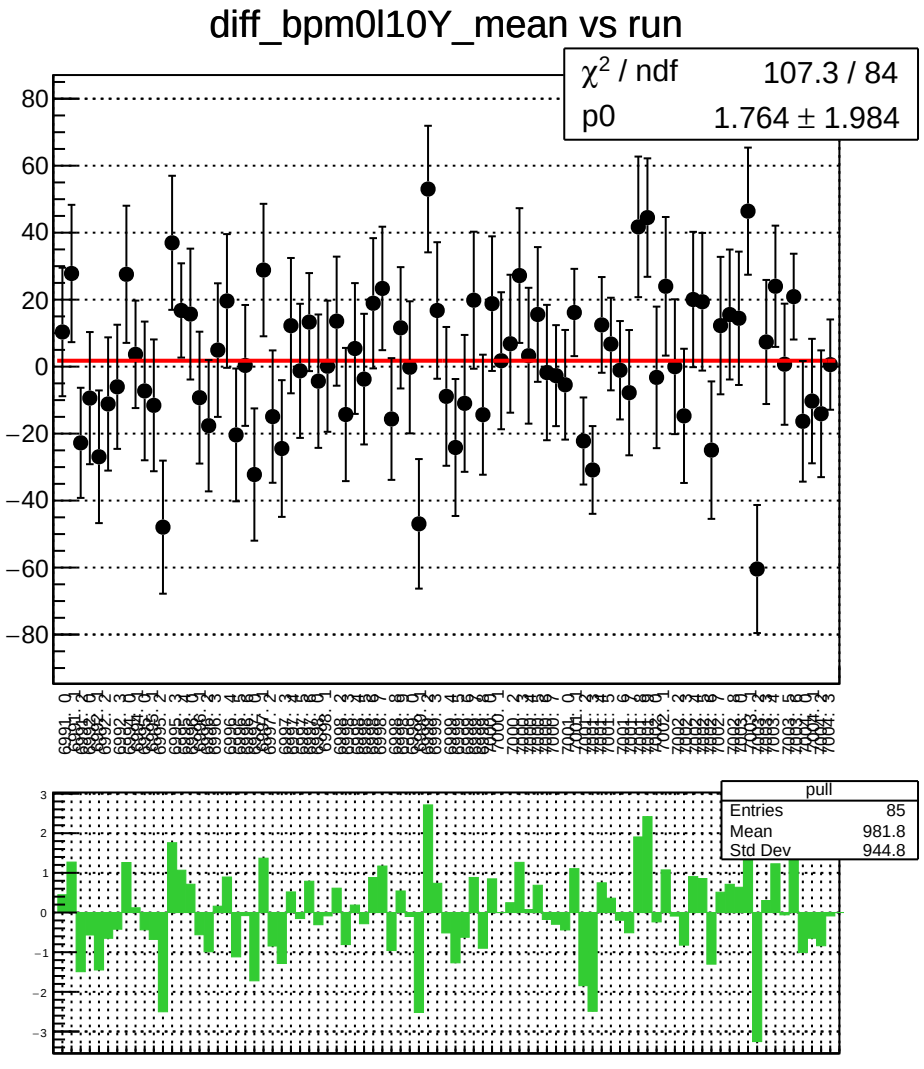

pull1D
Entries 85
Mean 0.01722
Std Dev 1.149

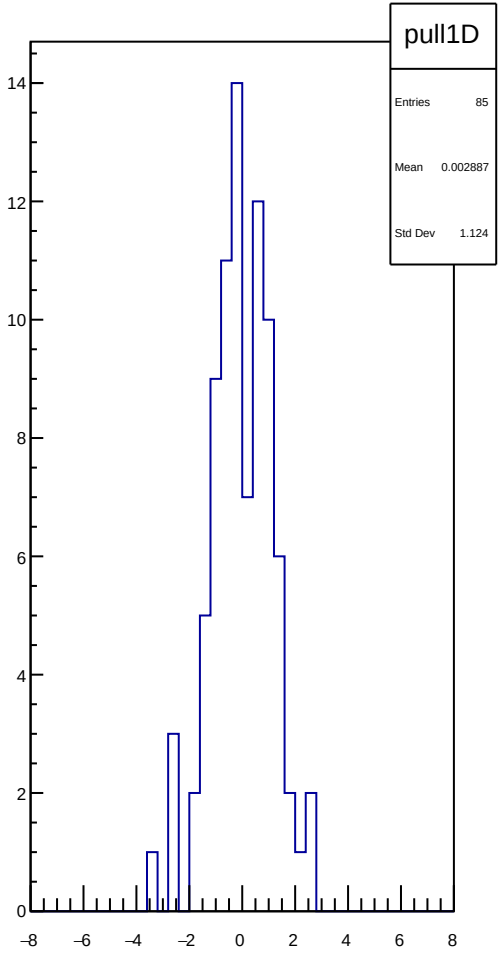

diff_bpm0l09Y_rms vs run
χ² / ndf 2.649e+04 / 84
p0 1780 ± 1.397
2000
1900
1800
1700
1600
1500
1400
1300
1200

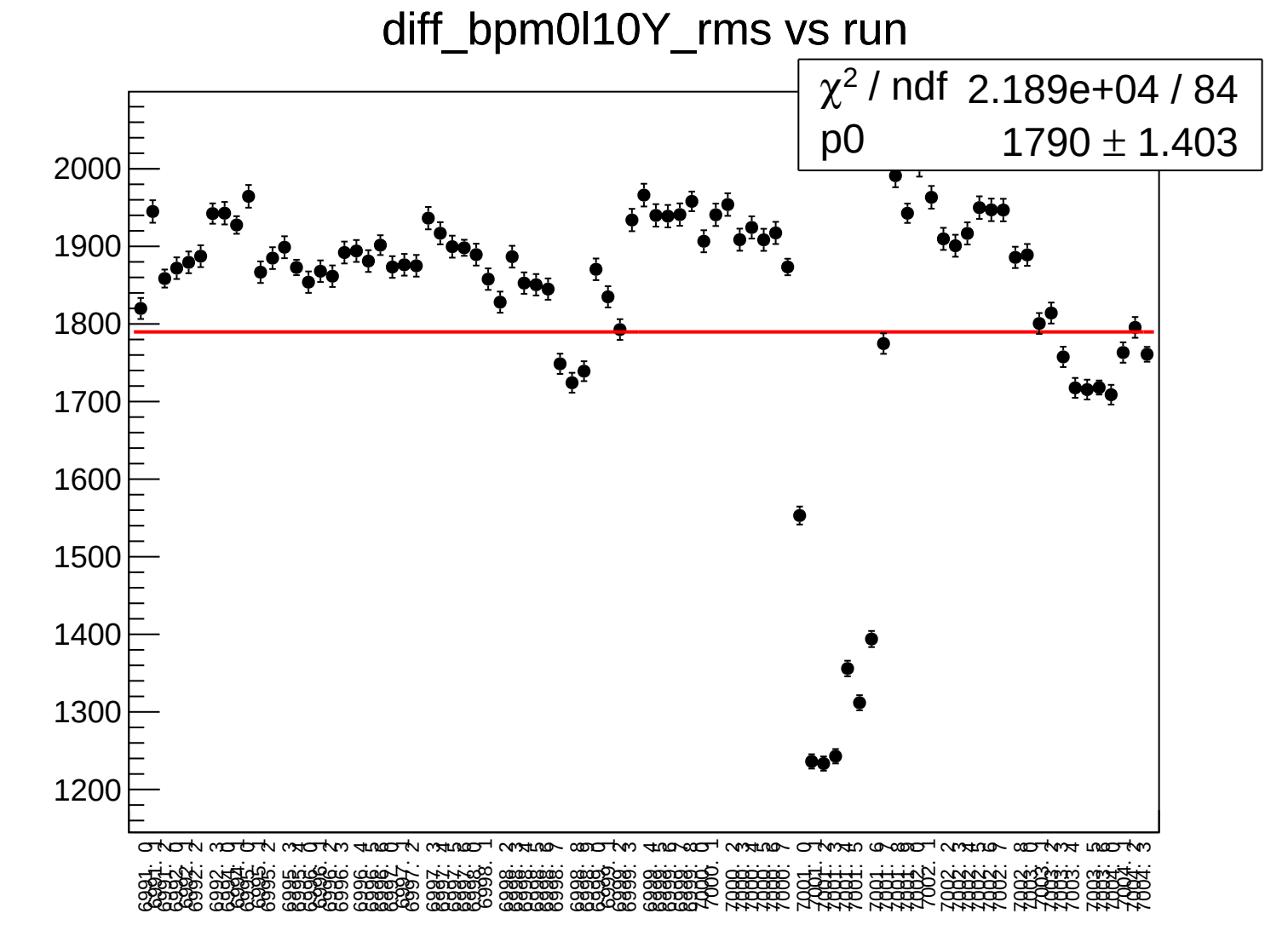

diff_bpm0l10X_mean vs run
χ^2 / ndf 100.7 / 84
p0 9.163 ± 7.313
pull
Entries 85
Mean 1.198e+04
Std Dev 1.194e+04

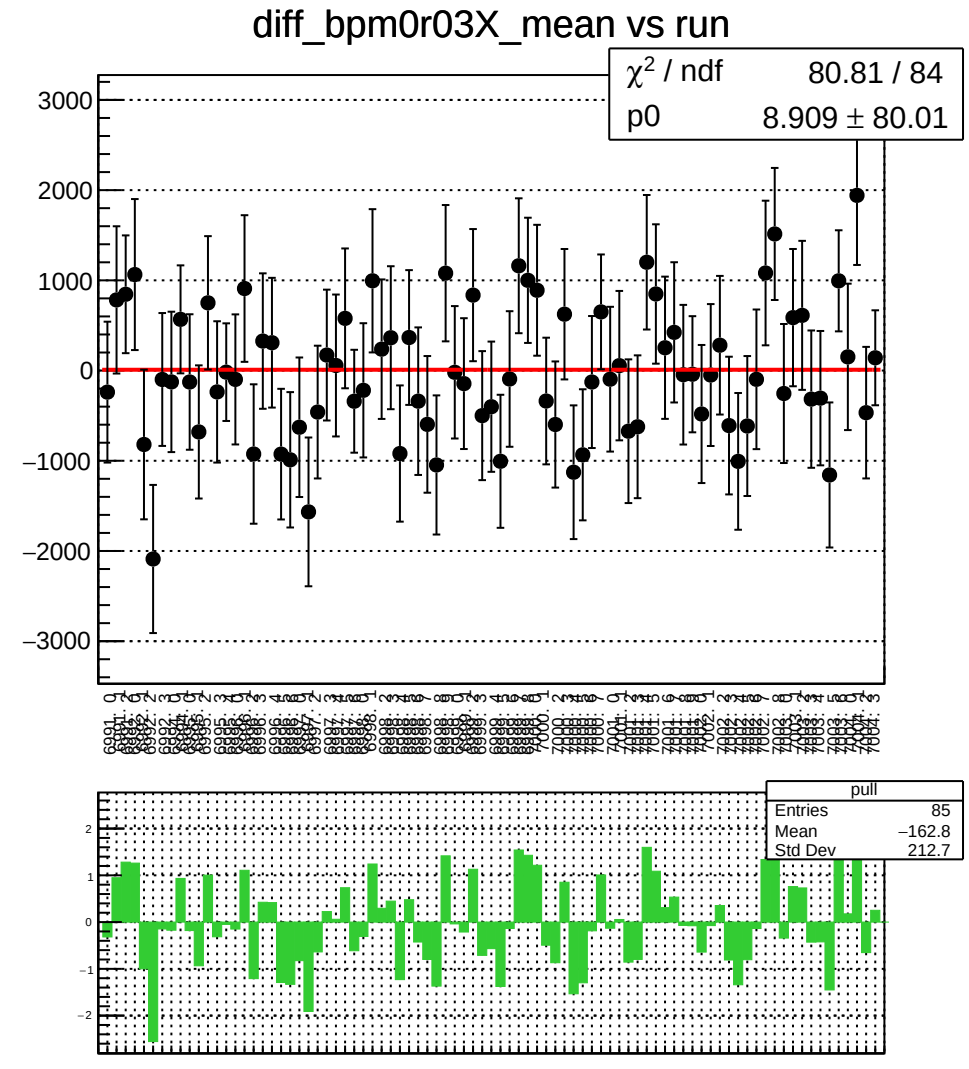

pull1D
Entries 85
Mean −0.0005428
Std Dev 1.088

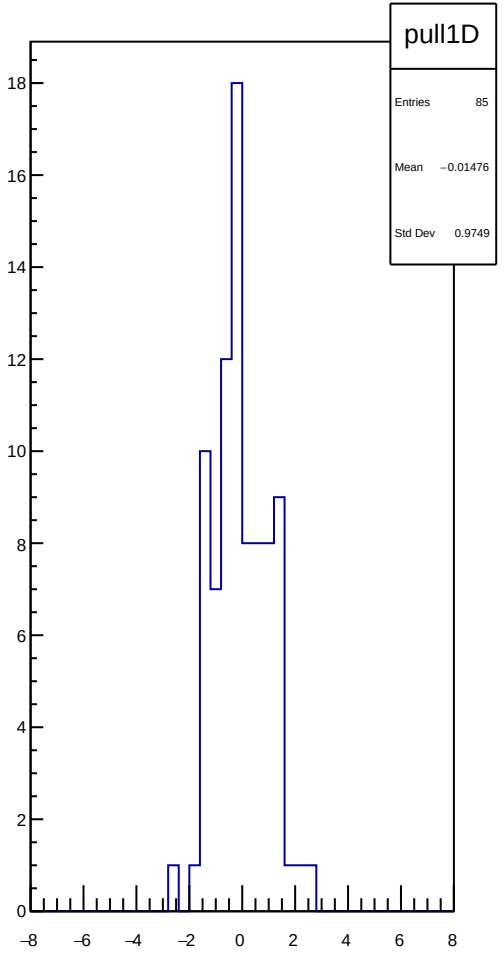

diff_bpm0l10X_rms vs run
χ² / ndf 1.322e+04 / 84
p0 6616 ± 5.171
8000
7500
7000
6500
6000
5500
5000

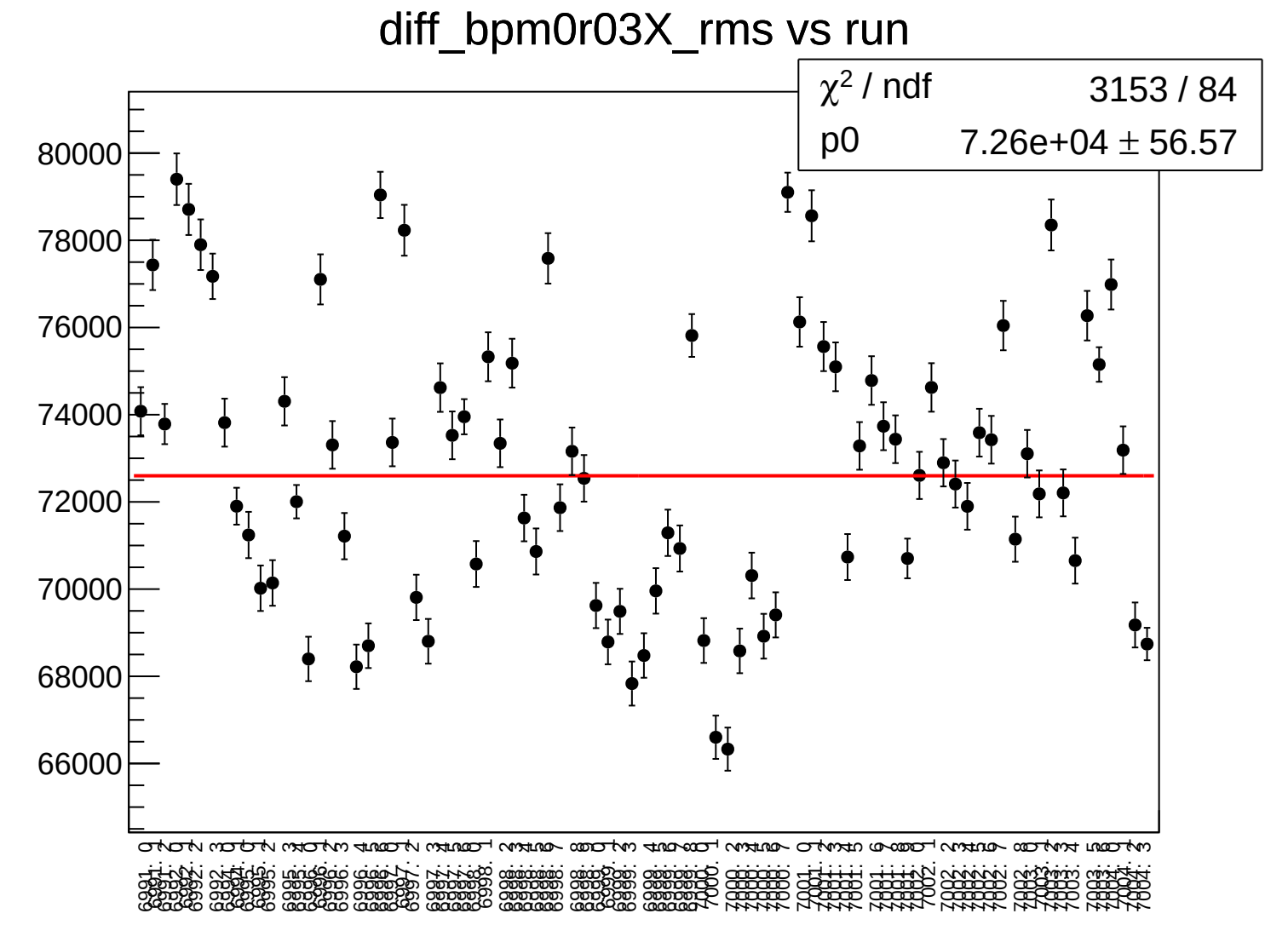

diff_bpm0l10Y_mean vs run
χ² / ndf 107.3 / 84
p0 1.764 ± 1.984
pull
Entries 85
Mean 981.8
Std Dev 944.8

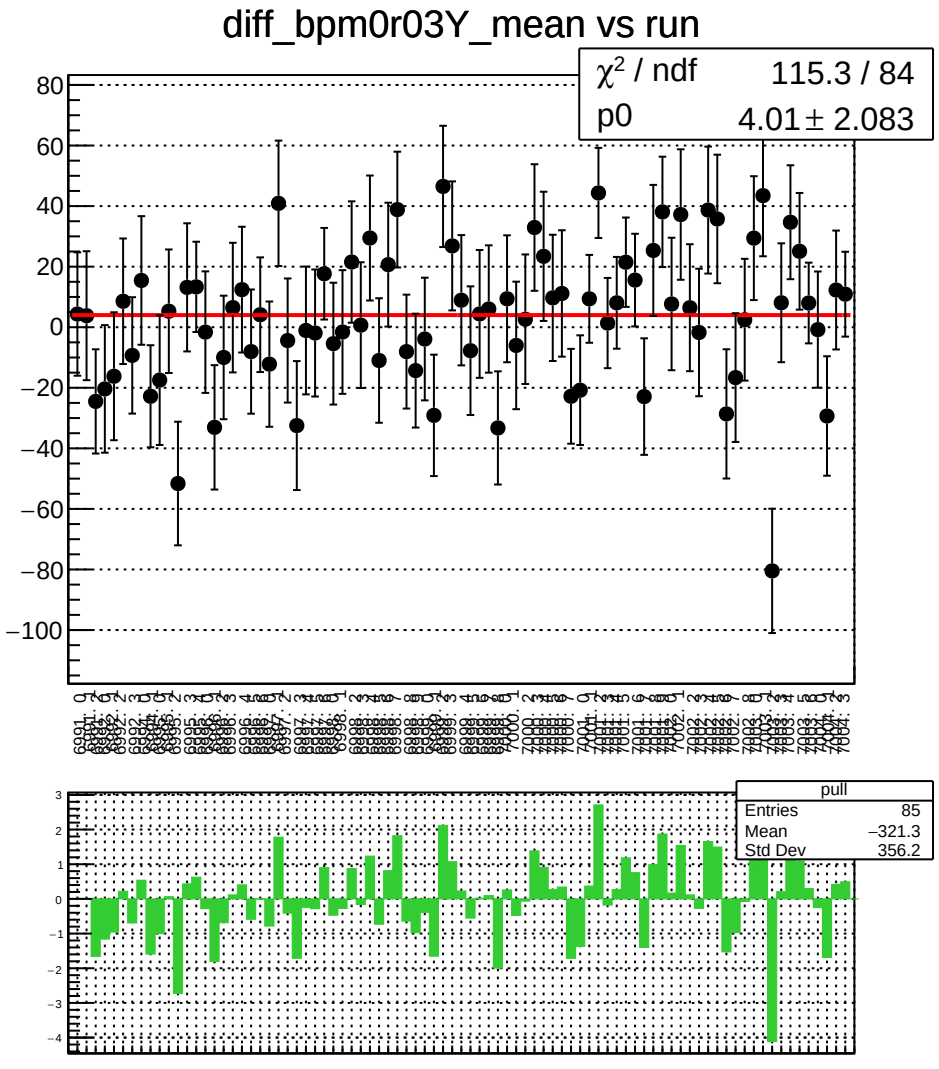

pull1D
Entries 85
Mean 0.002887
Std Dev 1.124

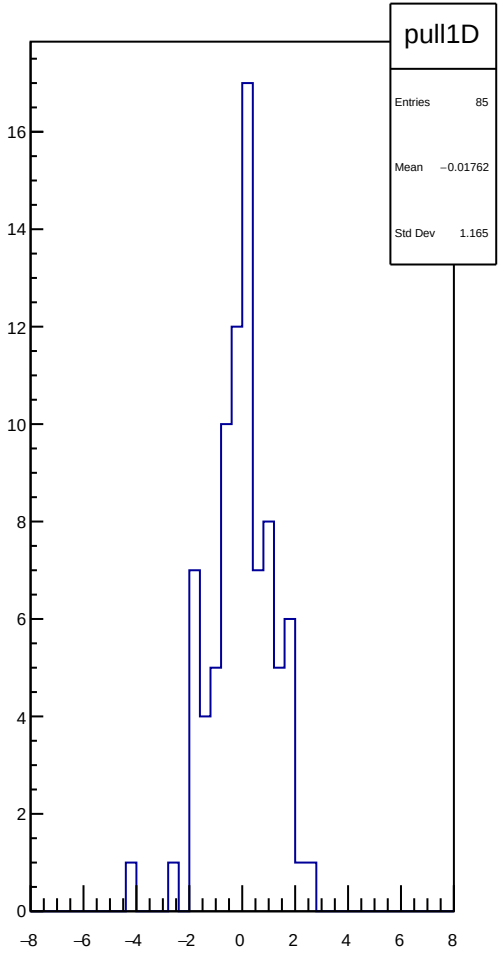

diff_bpm0l10Y_rms vs run
χ² / ndf 2.189e+04 / 84
p0 1790 ± 1.403
2000
1900
1800
1700
1600
1500
1400
1300
1200

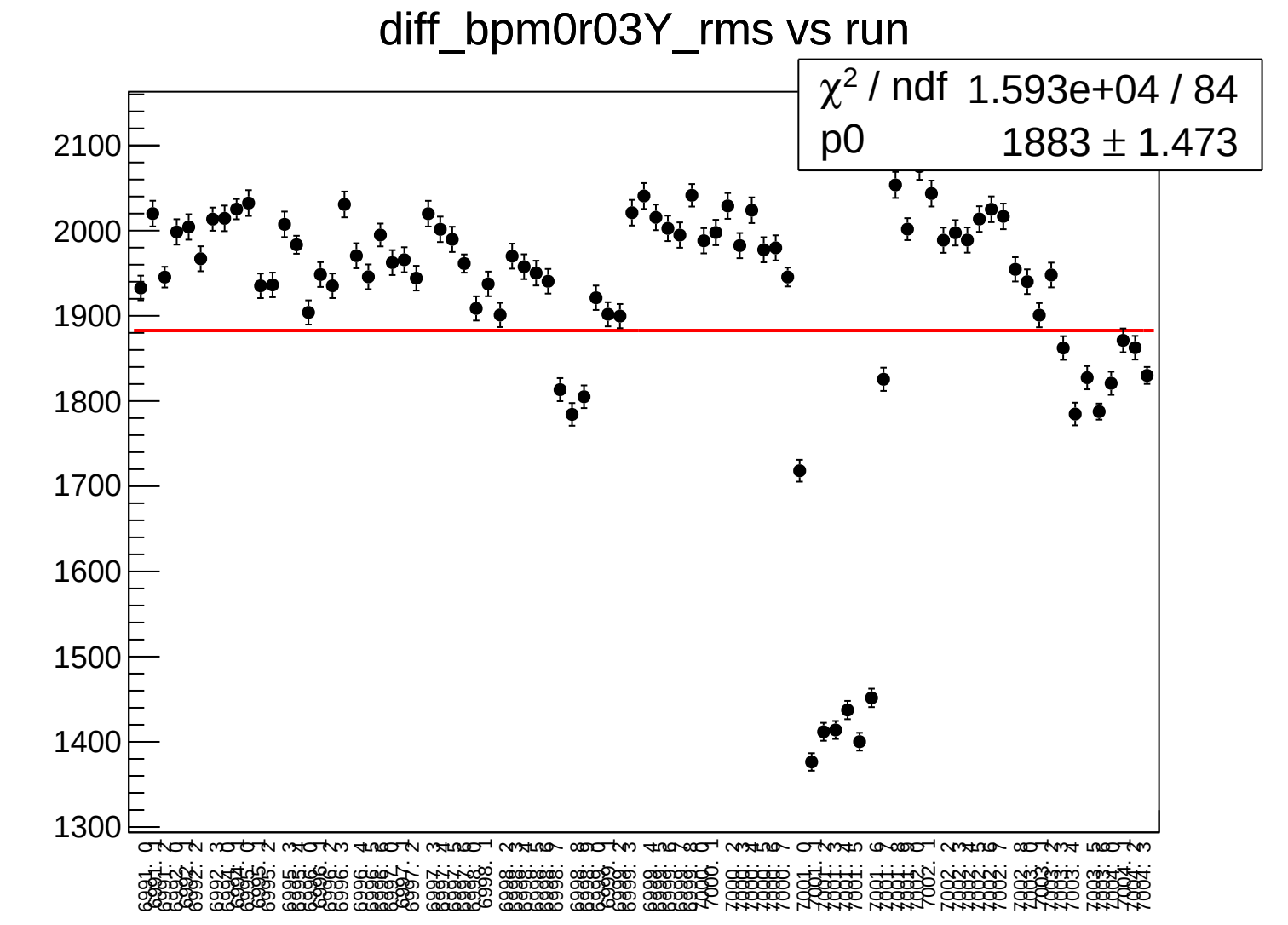

diff_bpm0r03X_mean vs run
χ² / ndf 80.81 / 84
p0 8.909 ± 80.01
pull
Entries 85
Mean −162.8
Std Dev 212.7

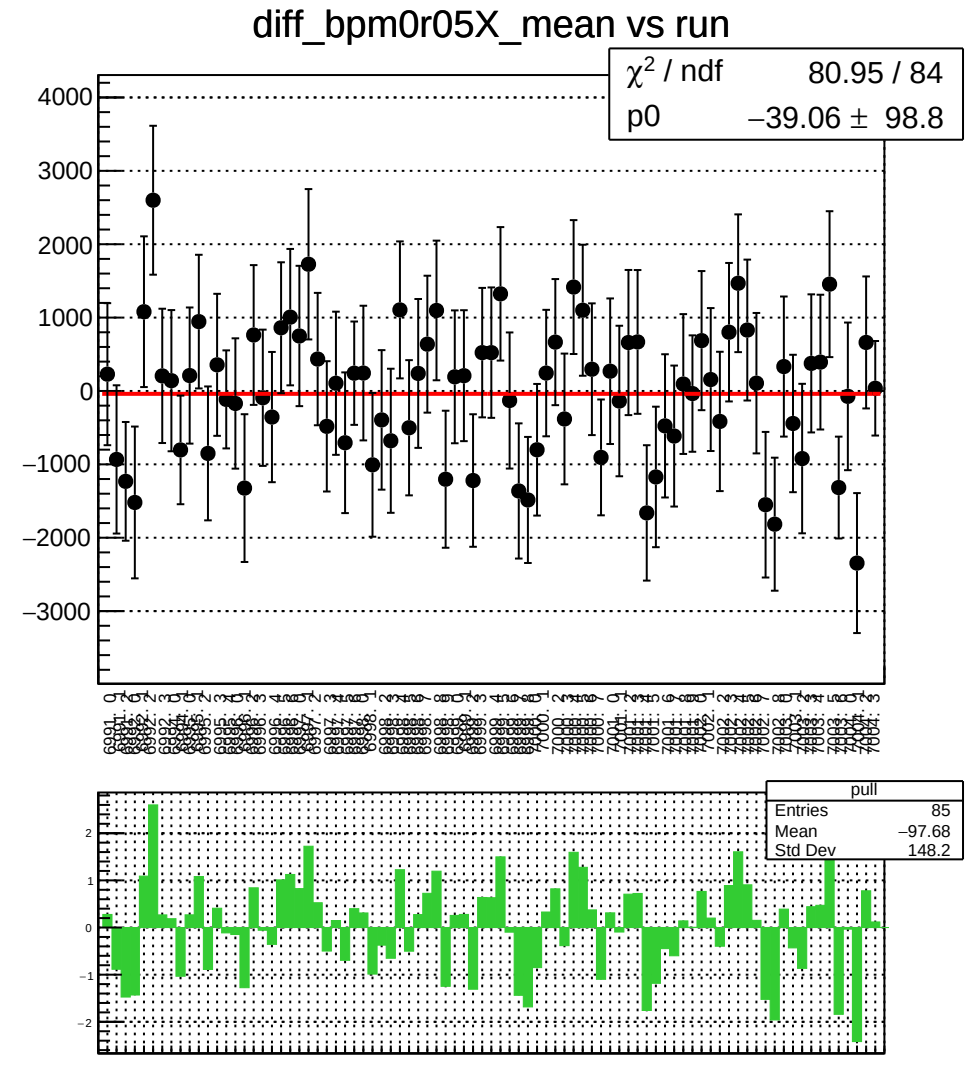

pull1D
Entries 85
Mean −0.01476
Std Dev 0.9749

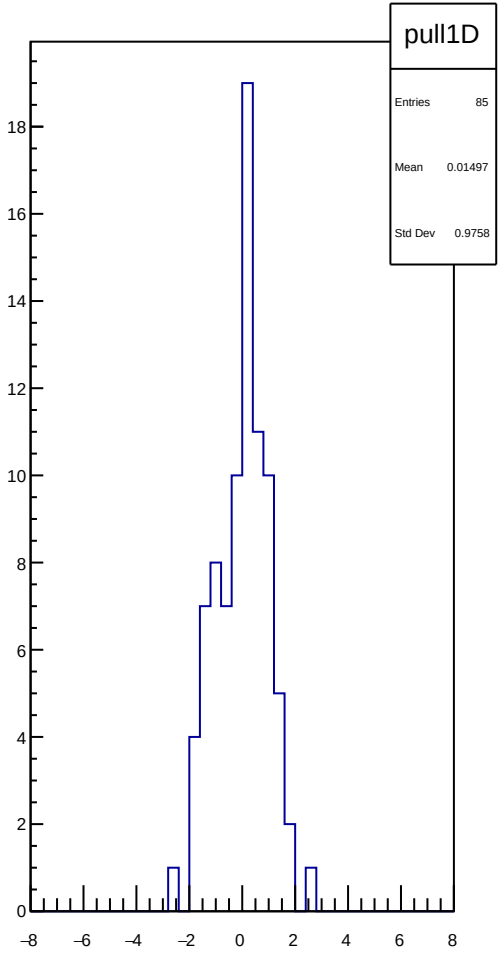

diff_bpm0r03X_rms vs run
χ² / ndf 3153 / 84
p0 7.26e+04 ± 56.57
80000
78000
76000
74000
72000
70000
68000
66000

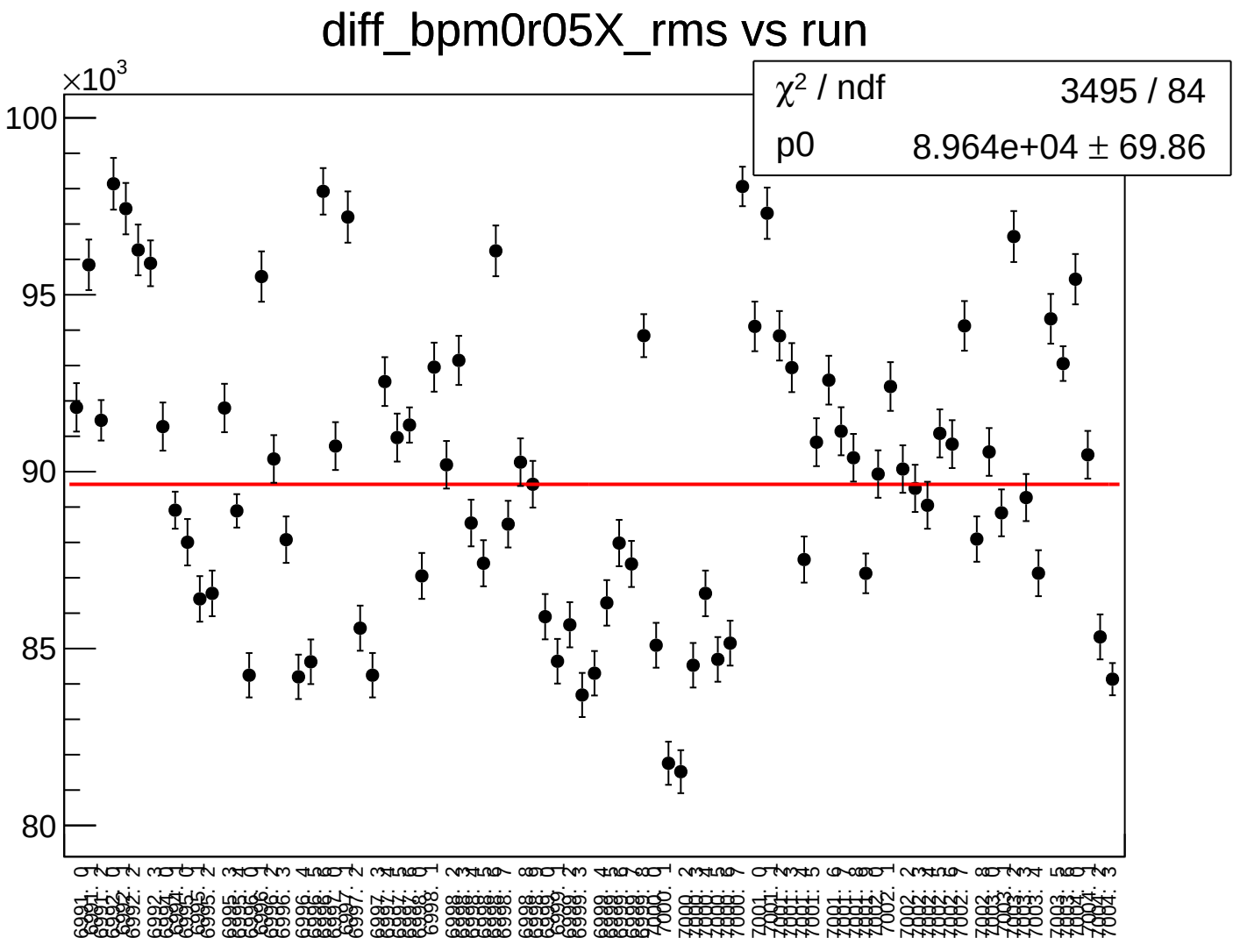

diff_bpm0r03Y_mean vs run
χ² / ndf 115.3 / 84
p0 4.01 ± 2.083
pull
Entries 85
Mean −321.3
Std Dev 356.2

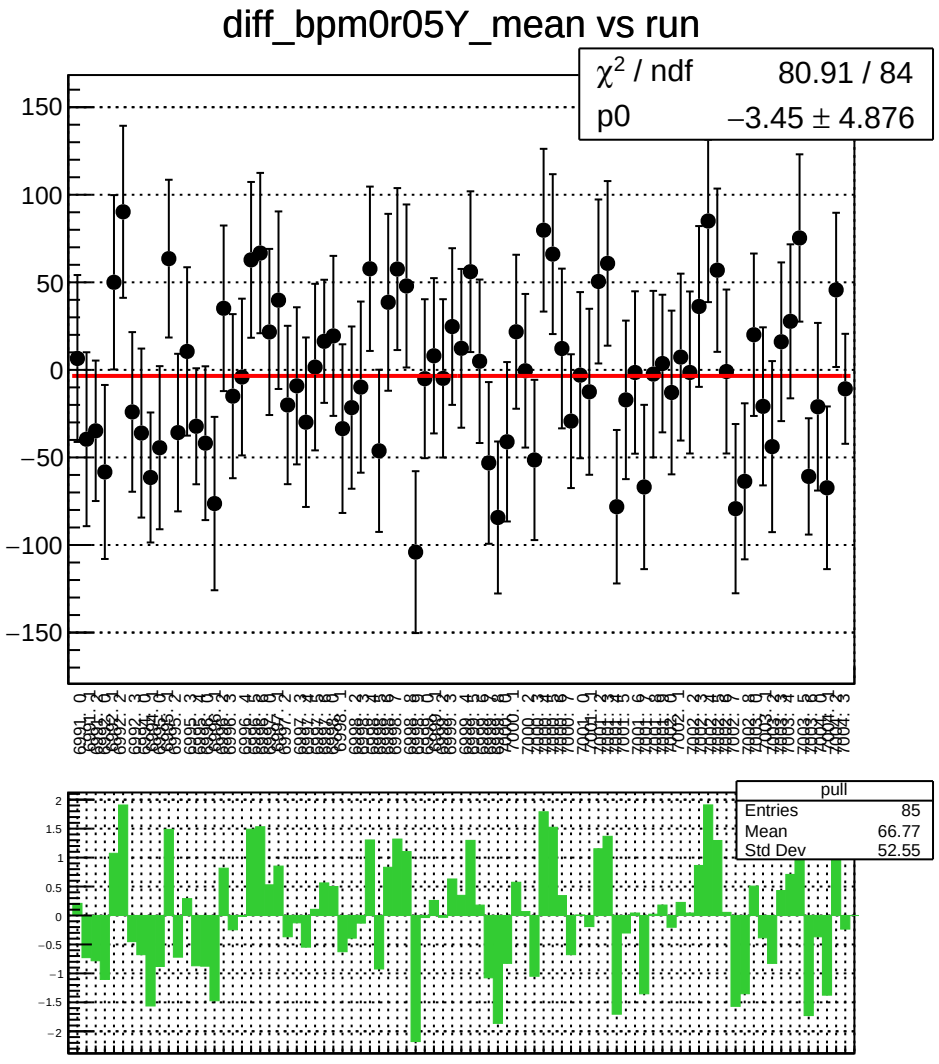

pull1D
Entries 85
Mean −0.01762
Std Dev 1.165

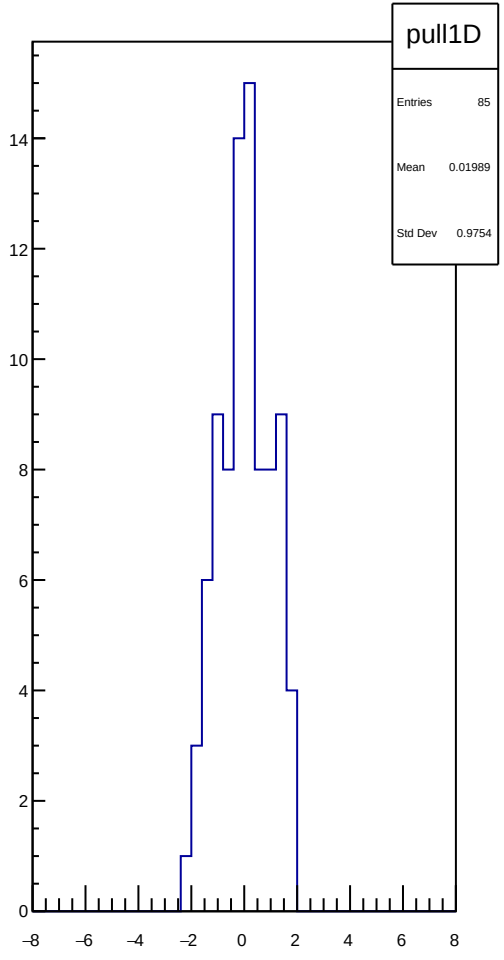

diff_bpm0r03Y_rms vs run
χ² / ndf 1.593e+04 / 84
p0 1883 ± 1.473
2100
2000
1900
1800
1700
1600
1500
1400
1300

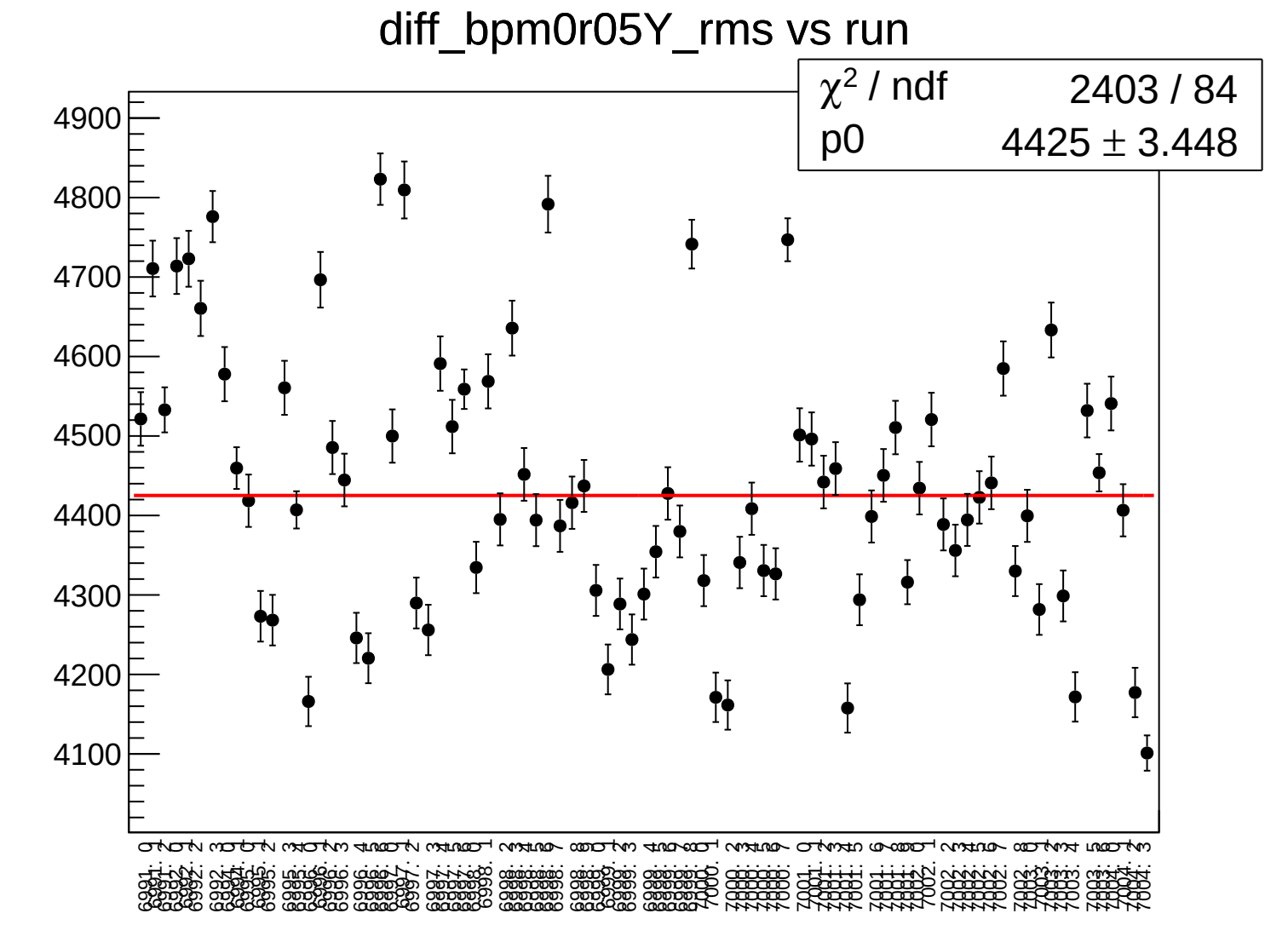

diff_bpm0r05X_mean vs run
χ² / ndf 80.95 / 84
p0 −39.06 ± 98.8
4000
3000
2000
1000
0
−1000
−2000
−3000
pull
Entries 85
Mean −97.68
Std Dev 148.2
2
1
0
−1
−2

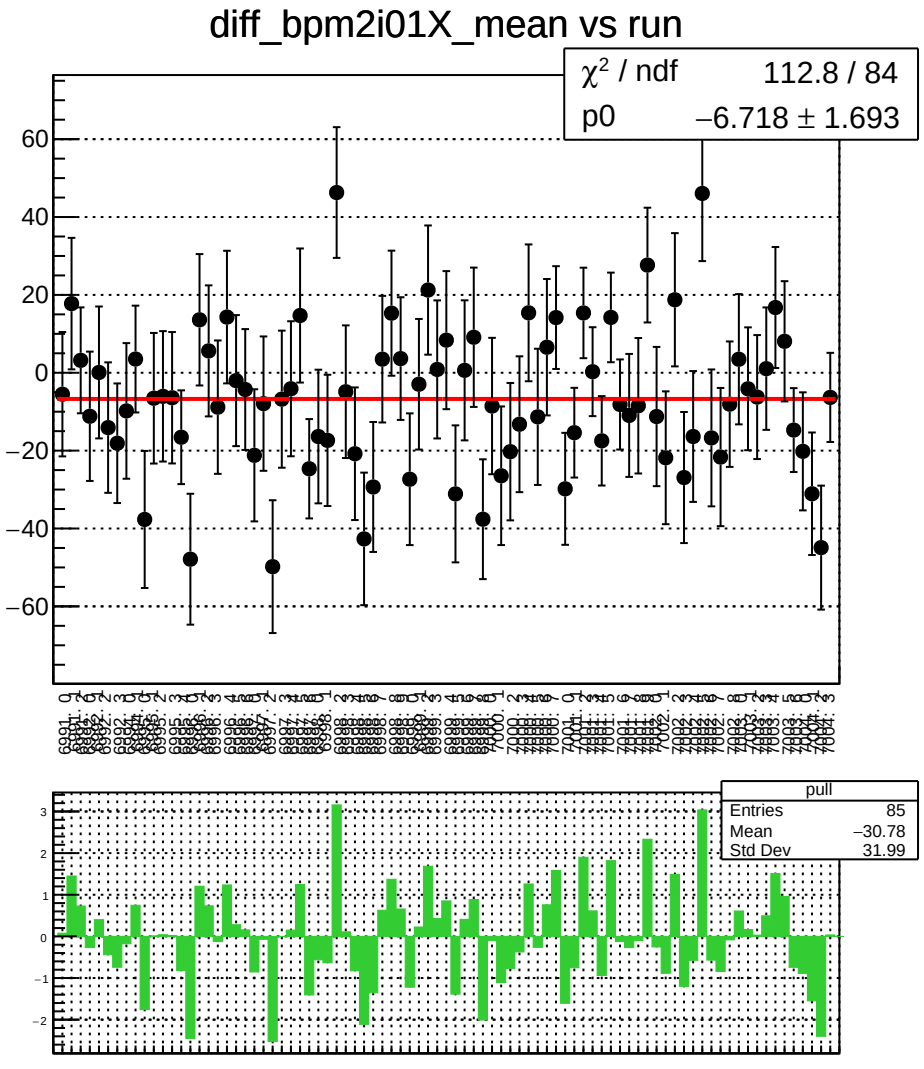

pull1D
Entries 85
Mean 0.01497
Std Dev 0.9758
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

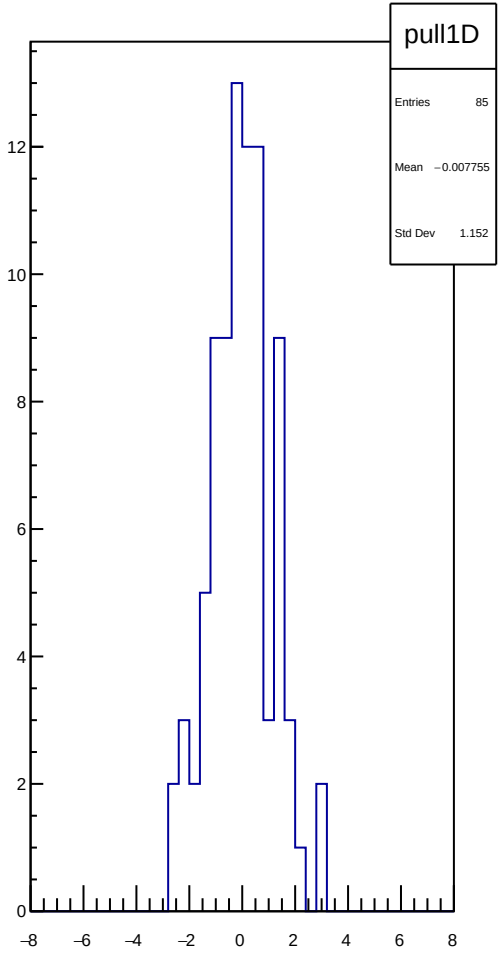

diff_bpm0r05X_rms vs run
×10^3
100
95
90
85
80
χ² / ndf 3495 / 84
p0 8.964e+04 ± 69.86

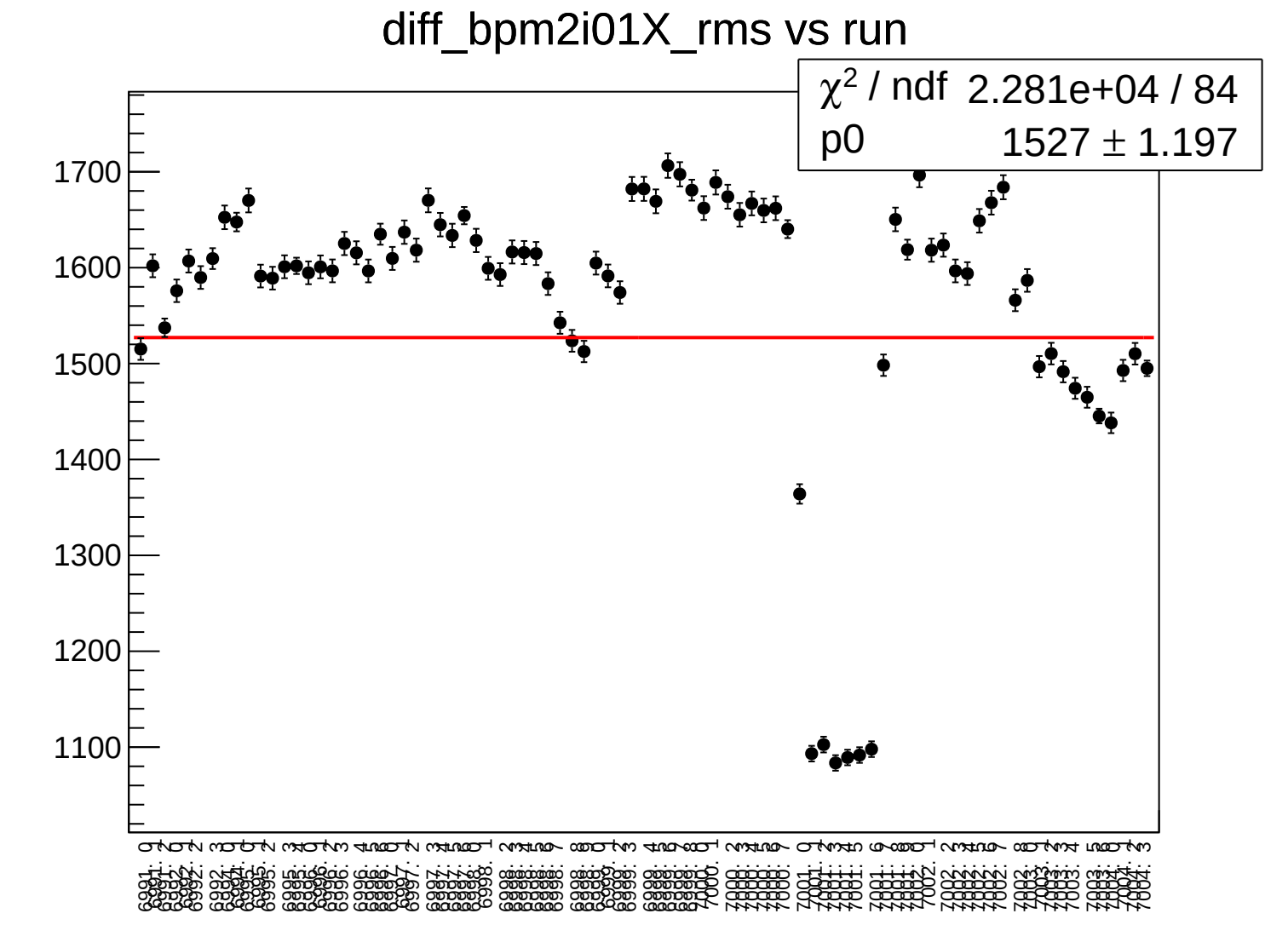

diff_bpm0r05Y_mean vs run
χ² / ndf 80.91 / 84
p0 −3.45 ± 4.876
150
100
50
0
−50
−100
−150
pull
Entries 85
Mean 66.77
Std Dev 52.55
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

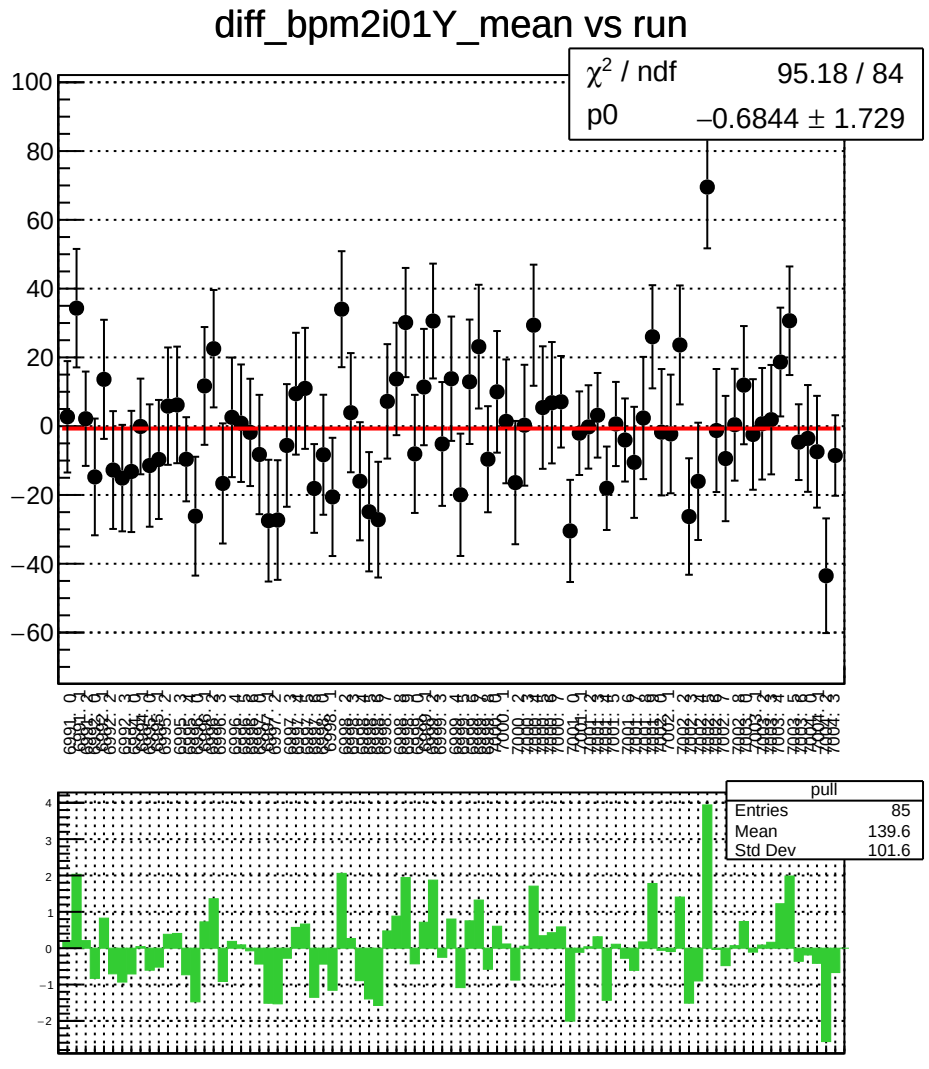

pull1D
Entries 85
Mean 0.01989
Std Dev 0.9754
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

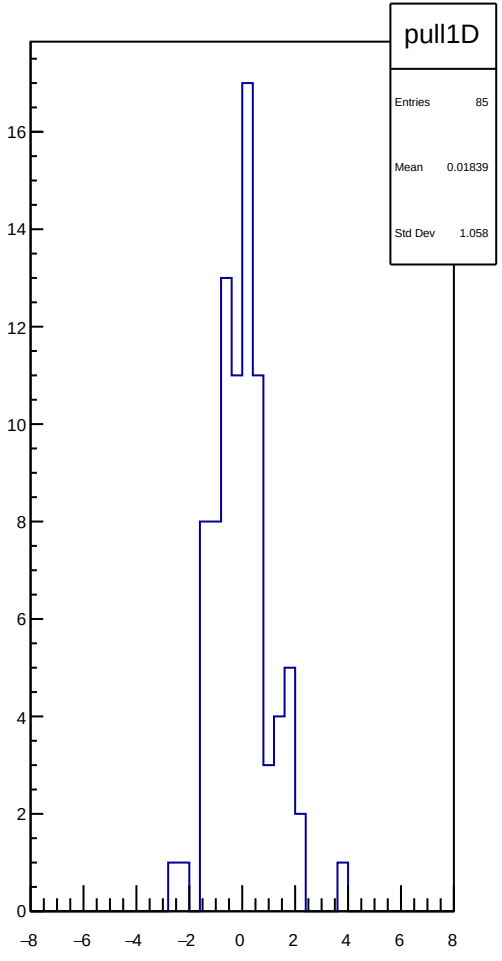

diff_bpm0r05Y_rms vs run
χ² / ndf 2403 / 84
p0 4425 ± 3.448
4900
4800
4700
4600
4500
4400
4300
4200
4100

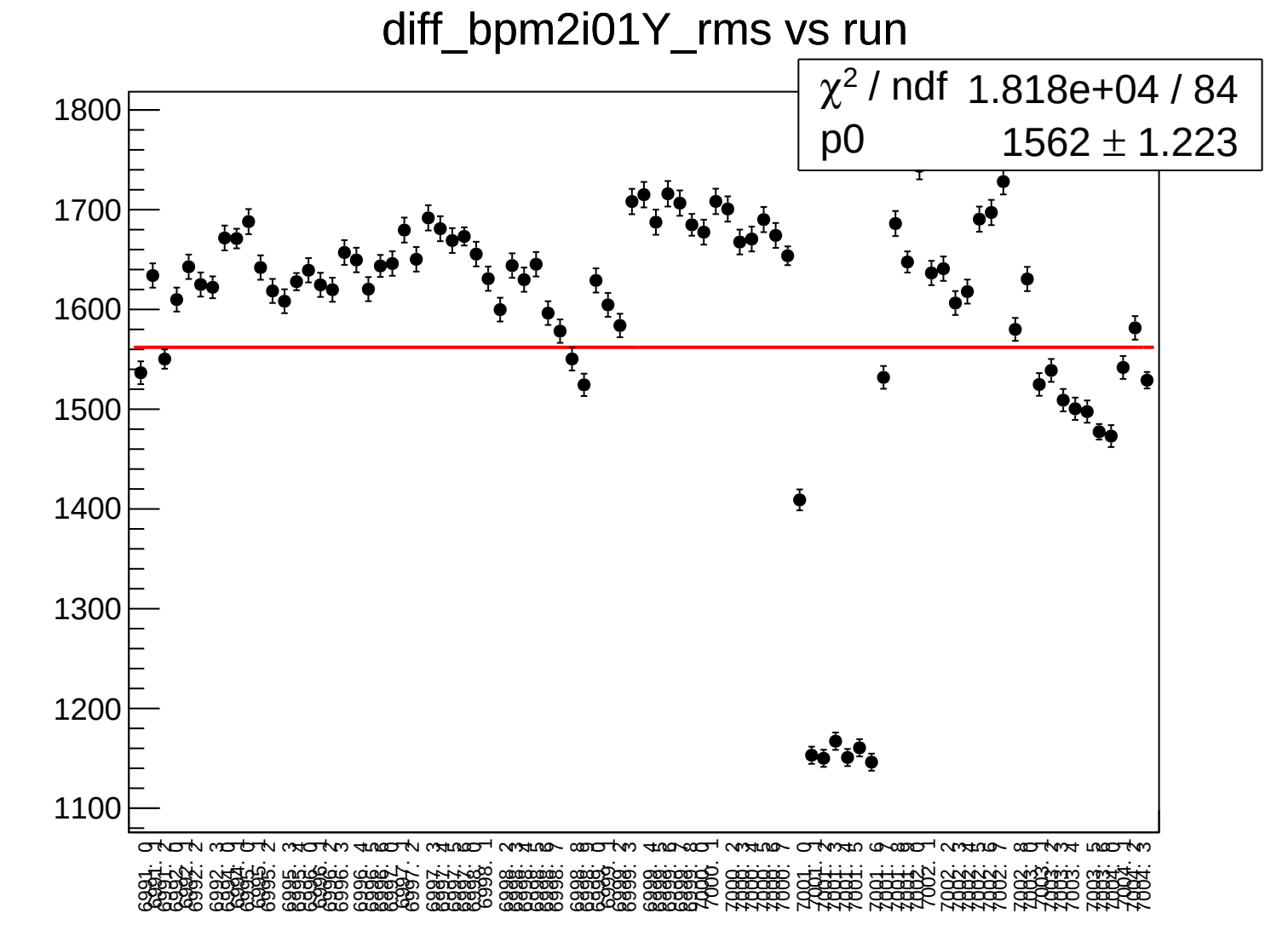

diff_bpm2i01X_mean vs run
χ² / ndf 112.8 / 84
p0 −6.718 ± 1.693
pull
Entries 85
Mean −30.78
Std Dev 31.99

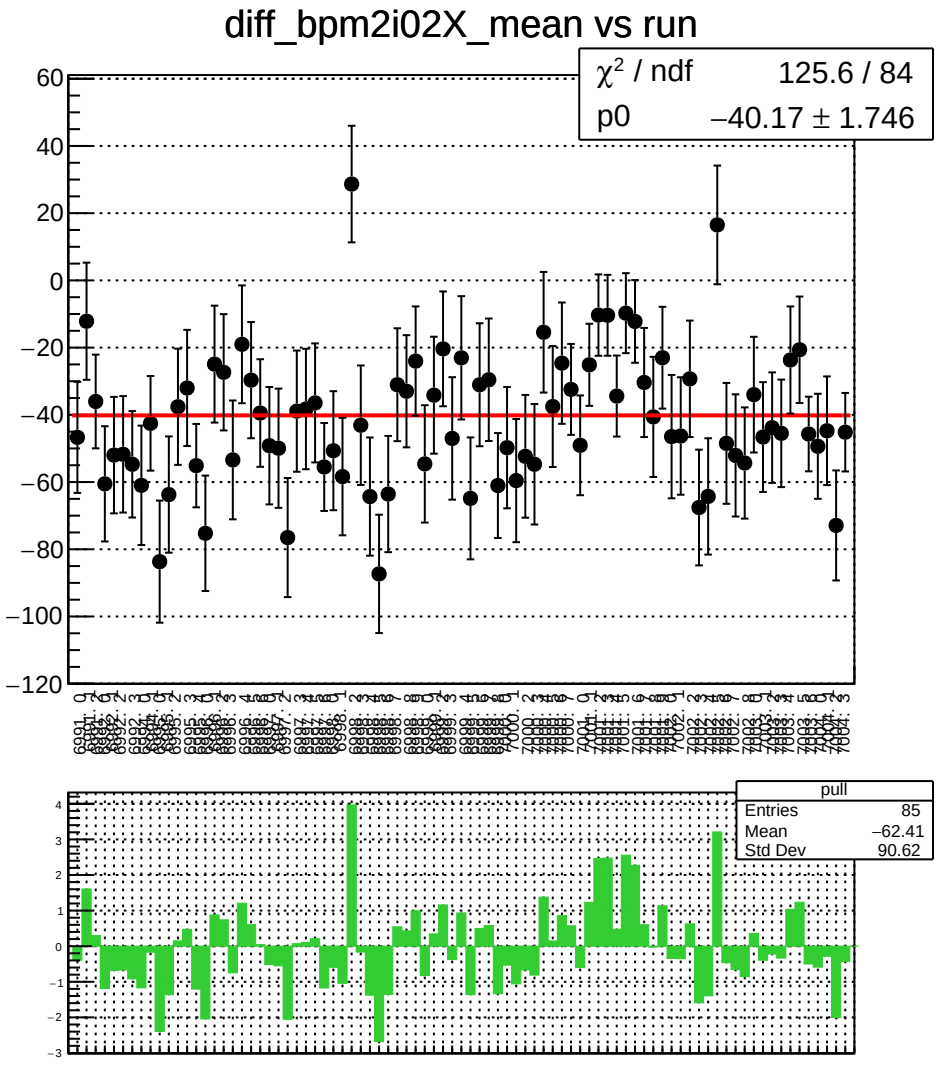

pull1D
Entries 85
Mean −0.007755
Std Dev 1.152

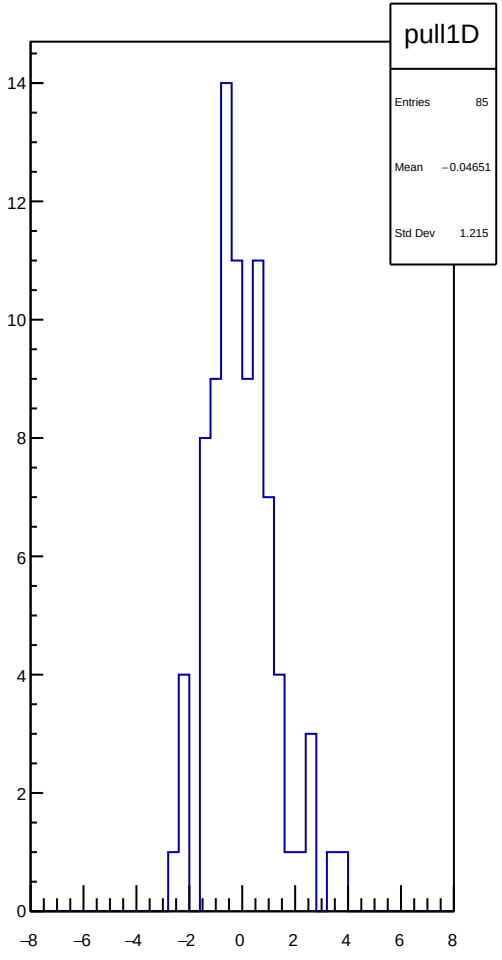

diff_bpm2i01X_rms vs run
χ² / ndf 2.281e+04 / 84
p0 1527 ± 1.197
1700
1600
1500
1400
1300
1200
1100

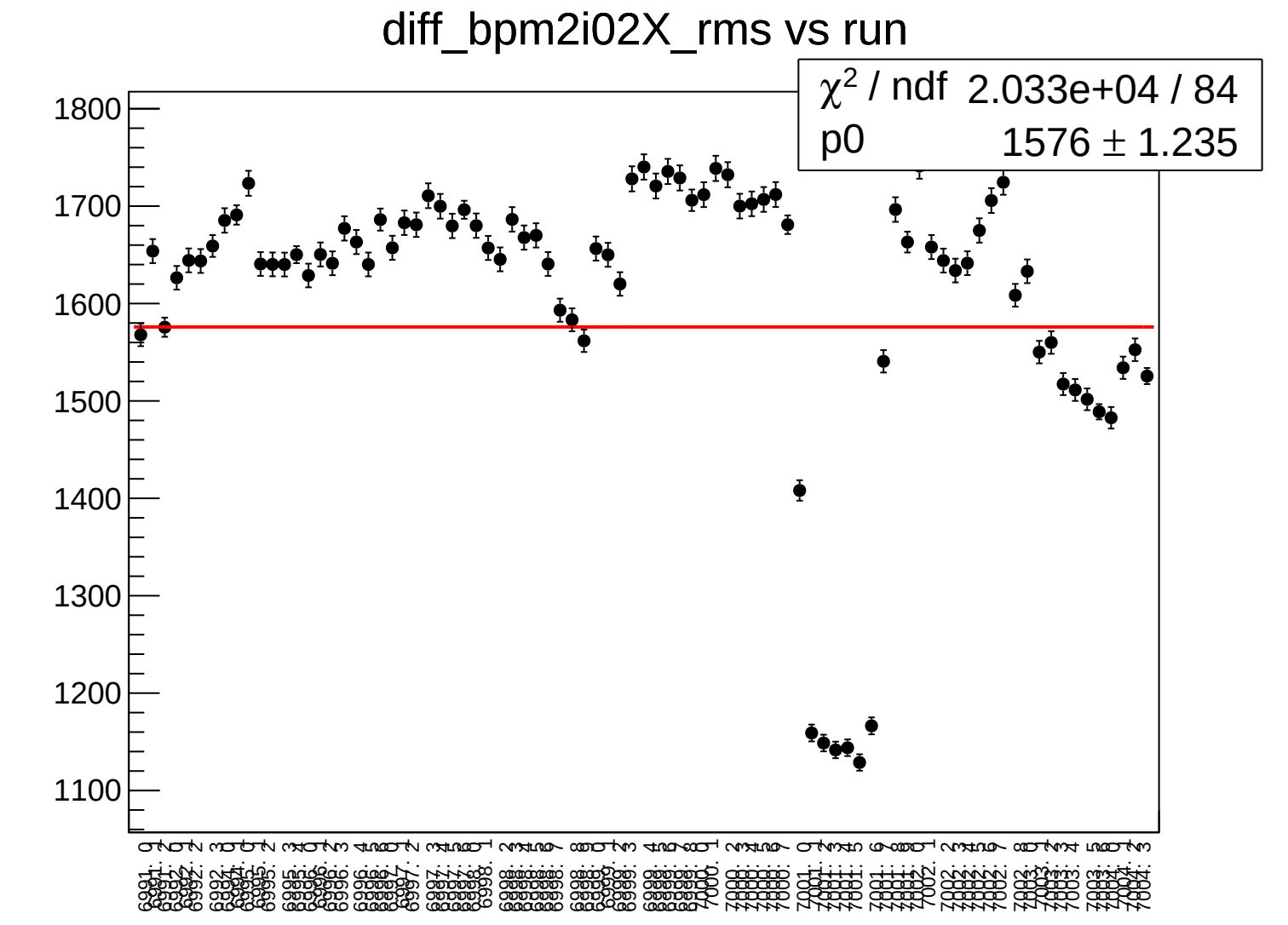

diff_bpm2i01Y_mean vs run
χ² / ndf 95.18 / 84
p0 −0.6844 ± 1.729
pull
Entries 85
Mean 139.6
Std Dev 101.6

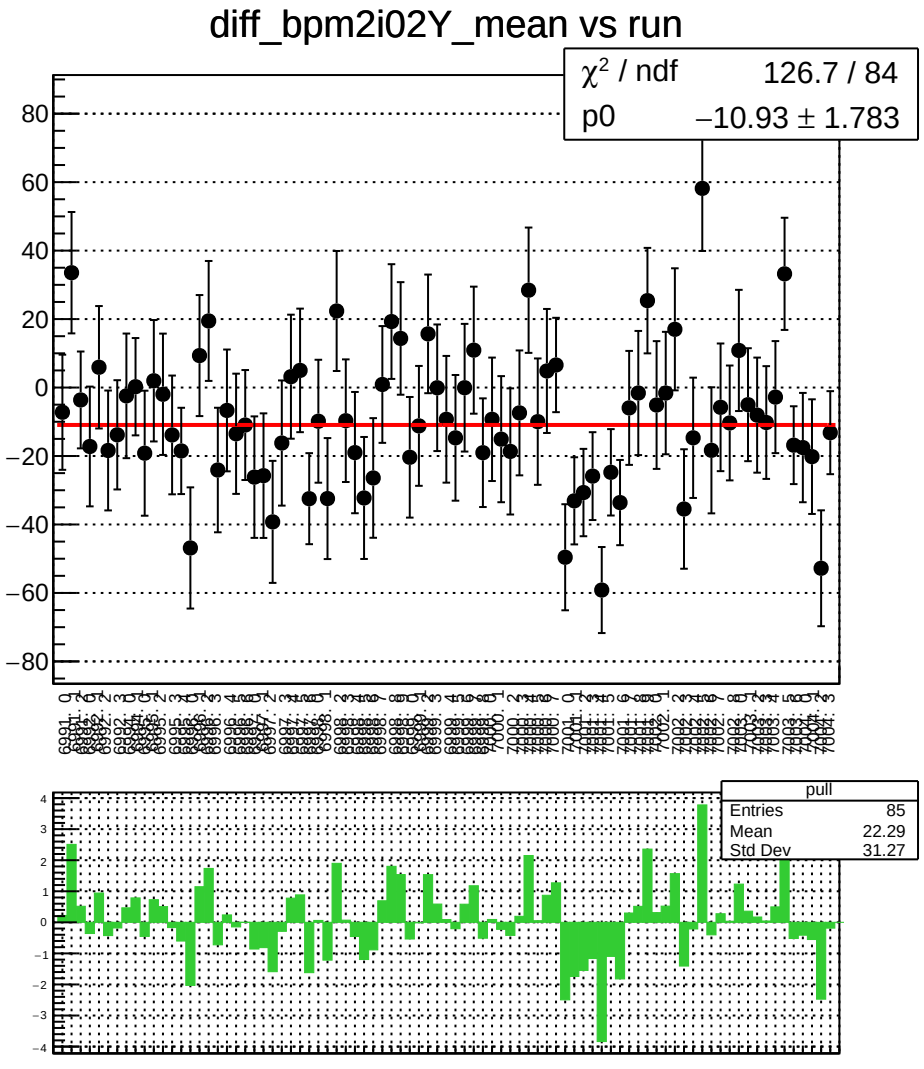

pull1D
Entries 85
Mean 0.01839
Std Dev 1.058

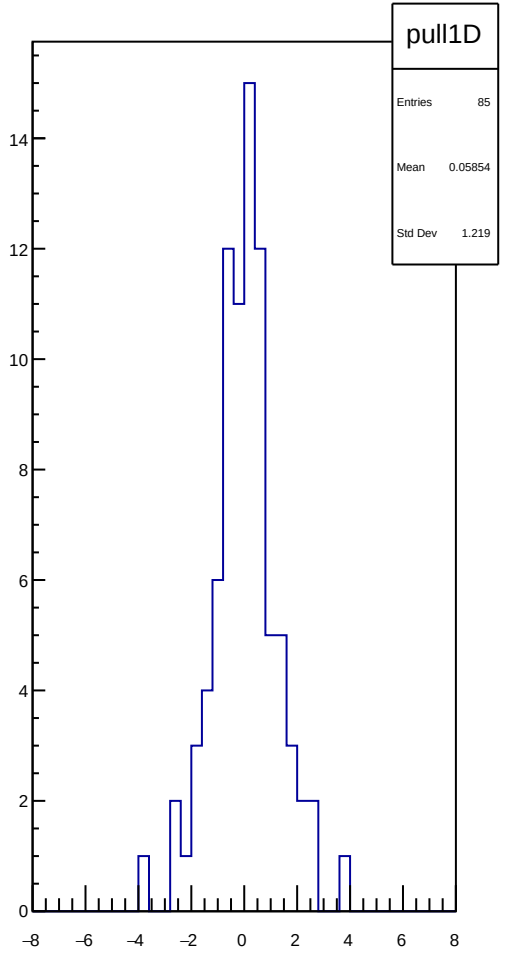

diff_bpm2i01Y_rms vs run
χ² / ndf 1.818e+04 / 84
p0 1562 ± 1.223
1800
1700
1600
1500
1400
1300
1200
1100

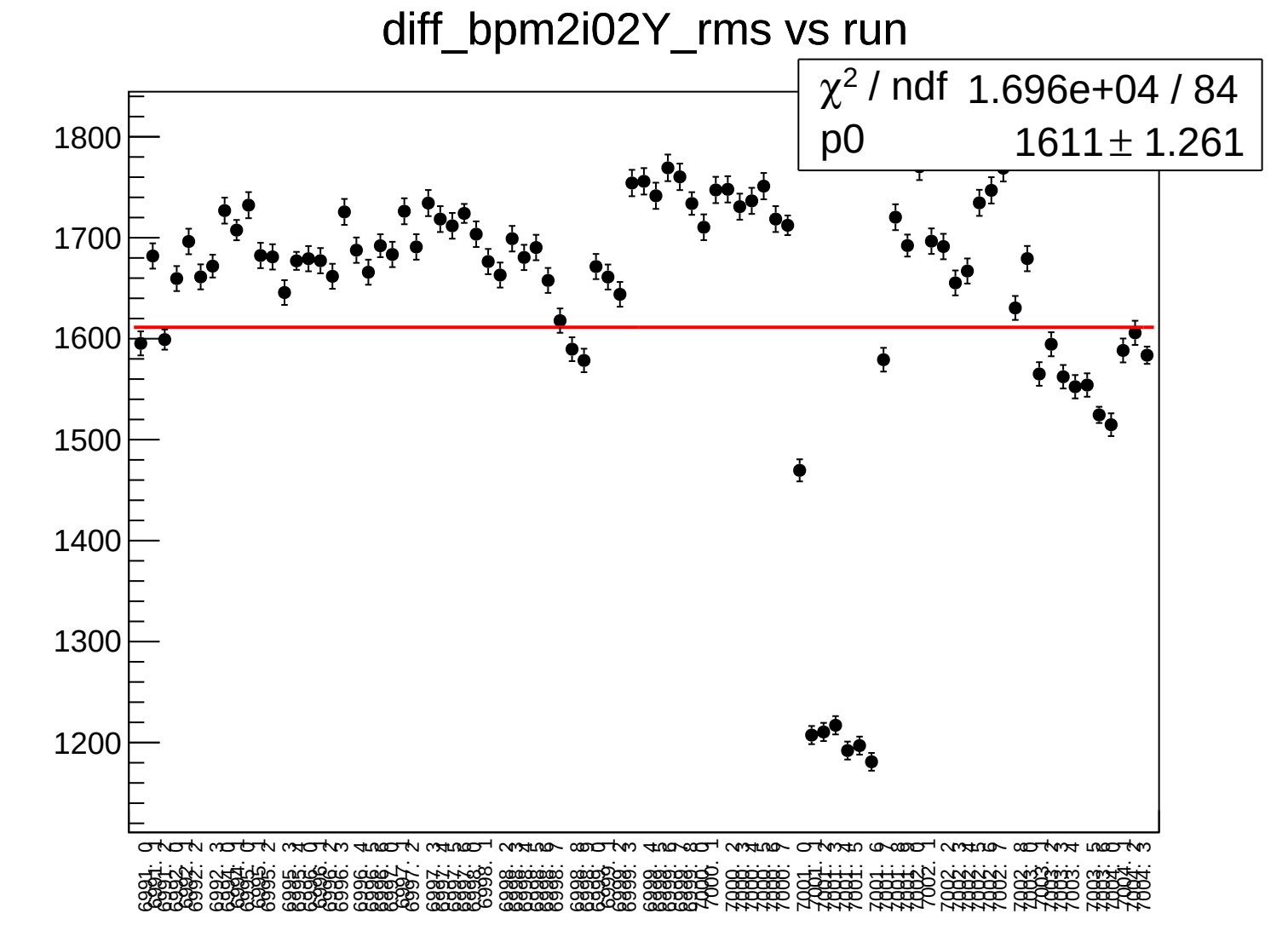

diff_bpm2i02X_mean vs run
χ² / ndf 125.6 / 84
p0 −40.17 ± 1.746
pull
Entries 85
Mean −62.41
Std Dev 90.62

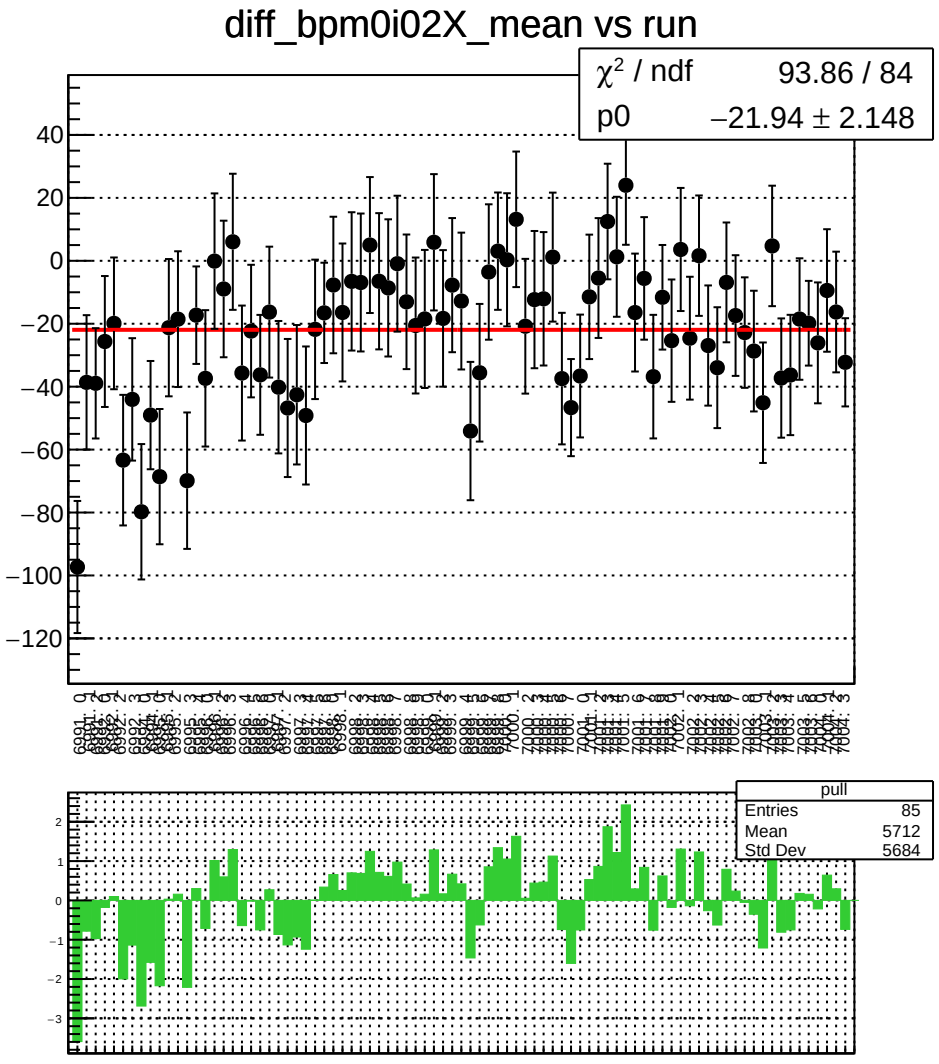

pull1D
Entries 85
Mean −0.04651
Std Dev 1.215

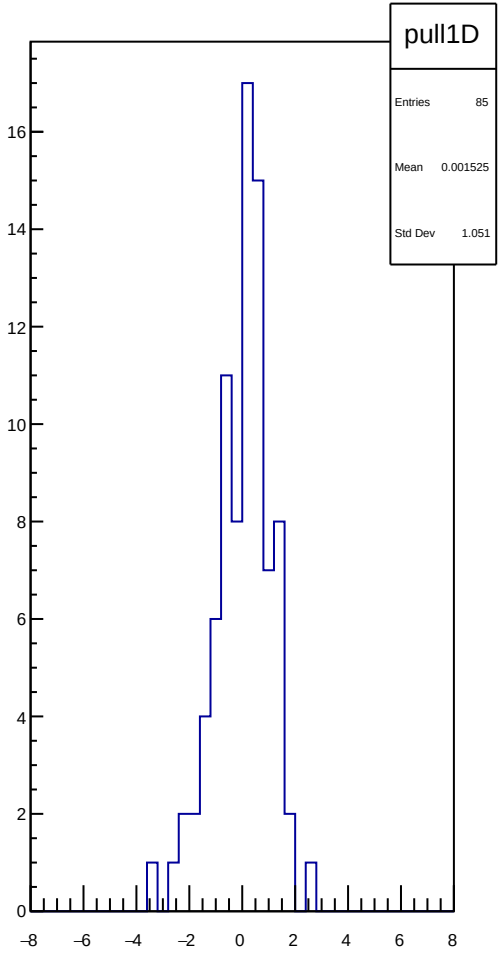

diff_bpm2i02X_rms vs run
χ² / ndf 2.033e+04 / 84
p0 1576 ± 1.235
1800
1700
1600
1500
1400
1300
1200
1100

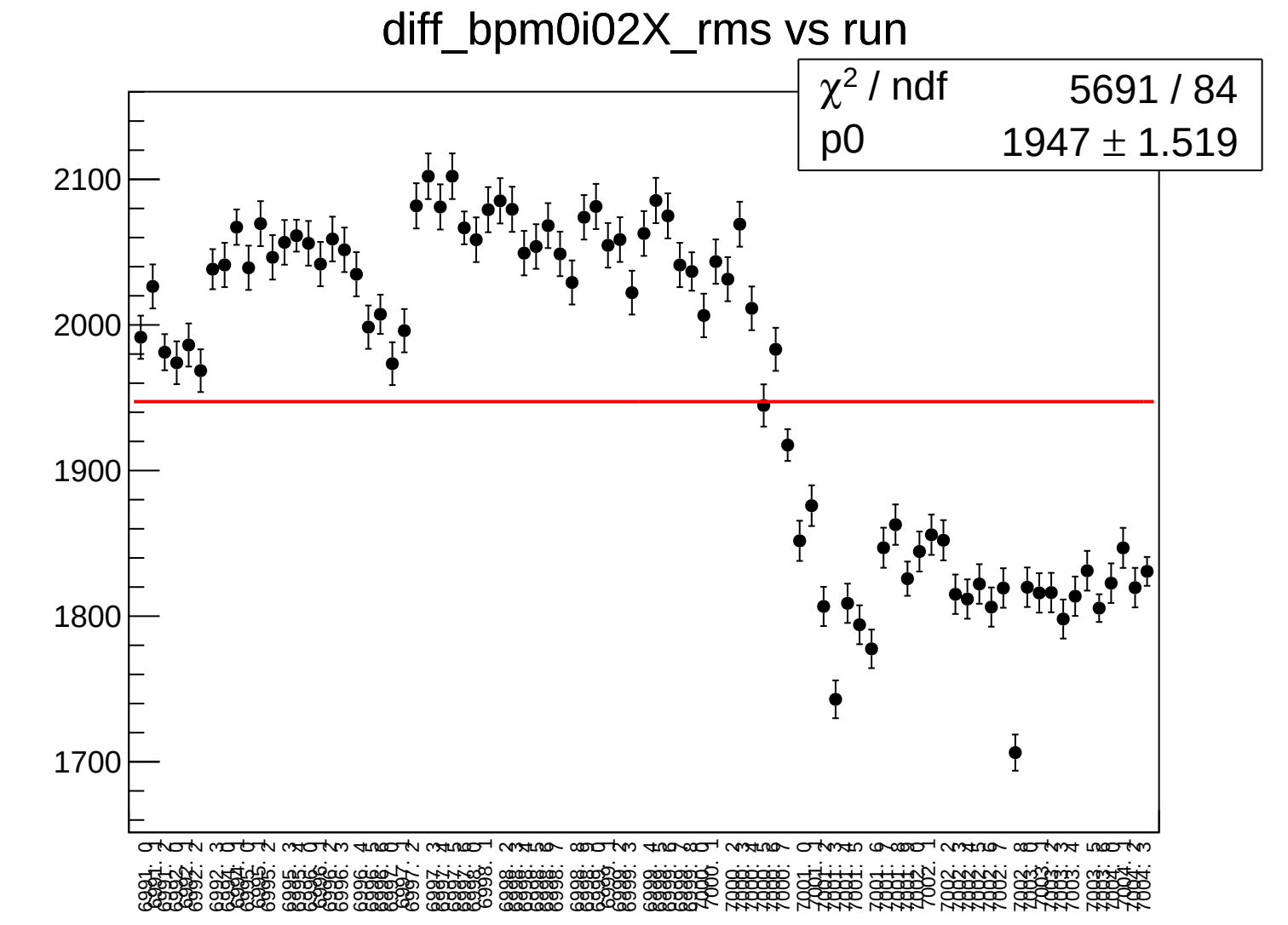

diff_bpm2i02Y_mean vs run
χ² / ndf 126.7 / 84
p0 −10.93 ± 1.783
pull
Entries 85
Mean 22.29
Std Dev 31.27

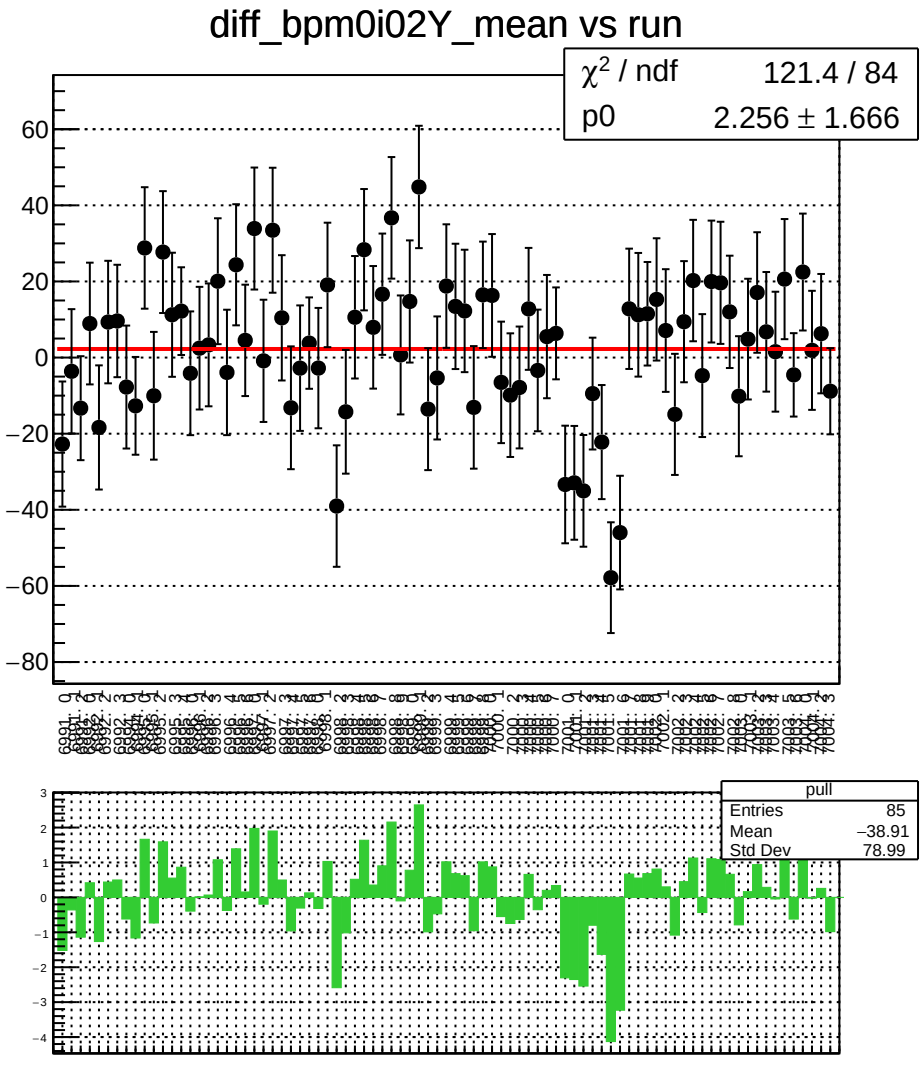

pull1D
Entries 85
Mean 0.05854
Std Dev 1.219

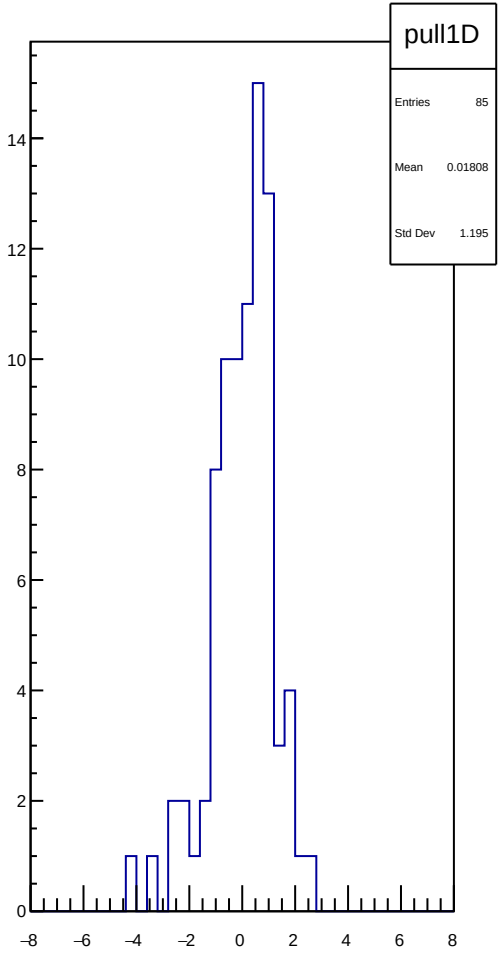

diff_bpm2i02Y_rms vs run
χ² / ndf 1.696e+04 / 84
p0 1611 ± 1.261
1800
1700
1600
1500
1400
1300
1200

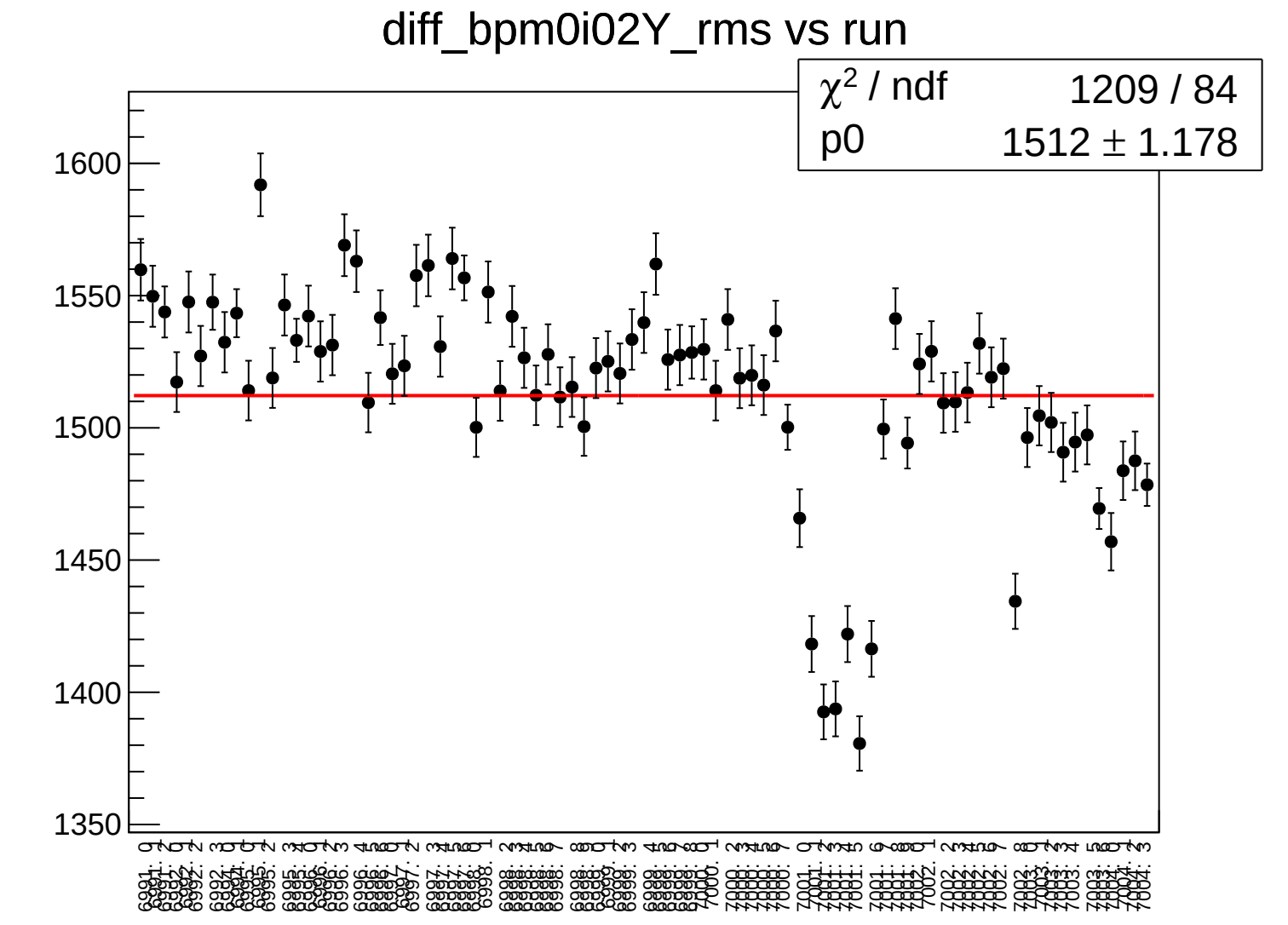

diff_bpm0i02X_mean vs run
χ² / ndf 93.86 / 84
p0 −21.94 ± 2.148
pull
Entries 85
Mean 5712
Std Dev 5684

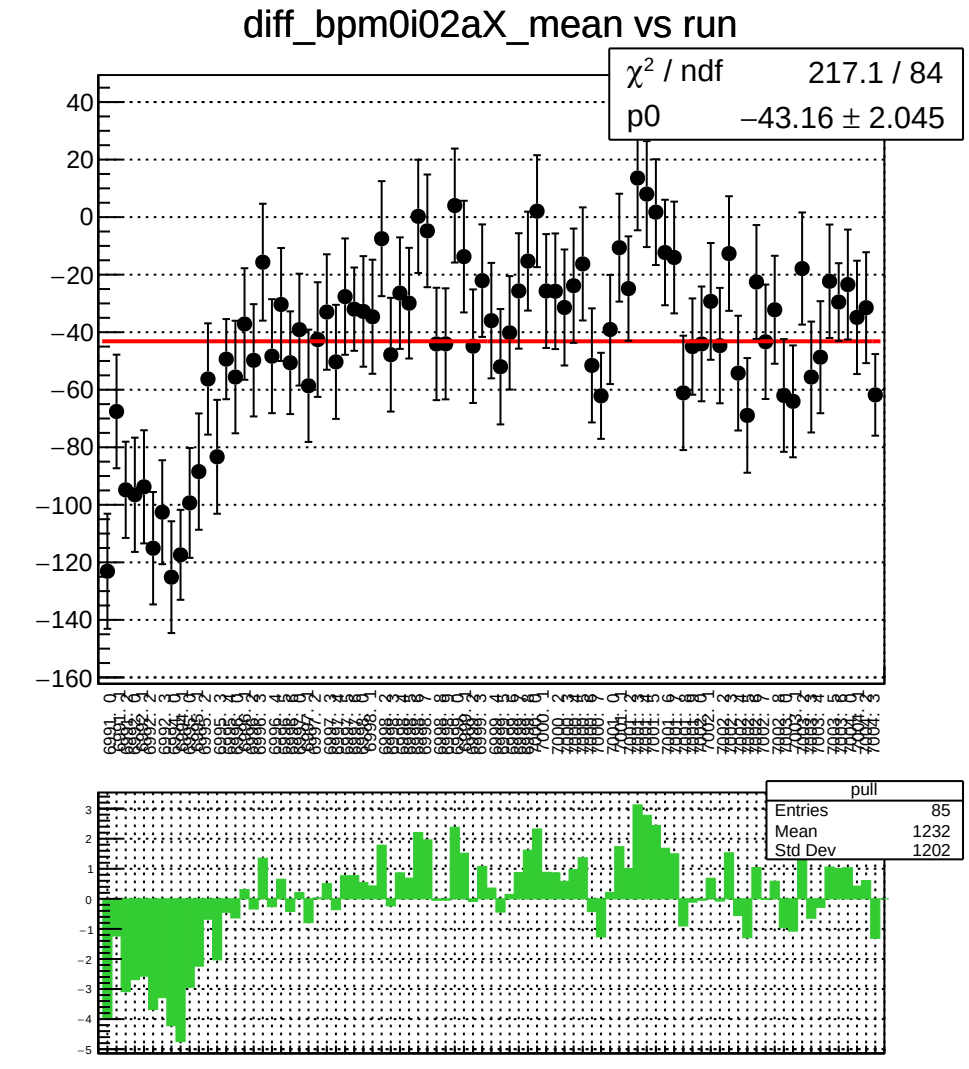

pull1D
Entries 85
Mean 0.001525
Std Dev 1.051

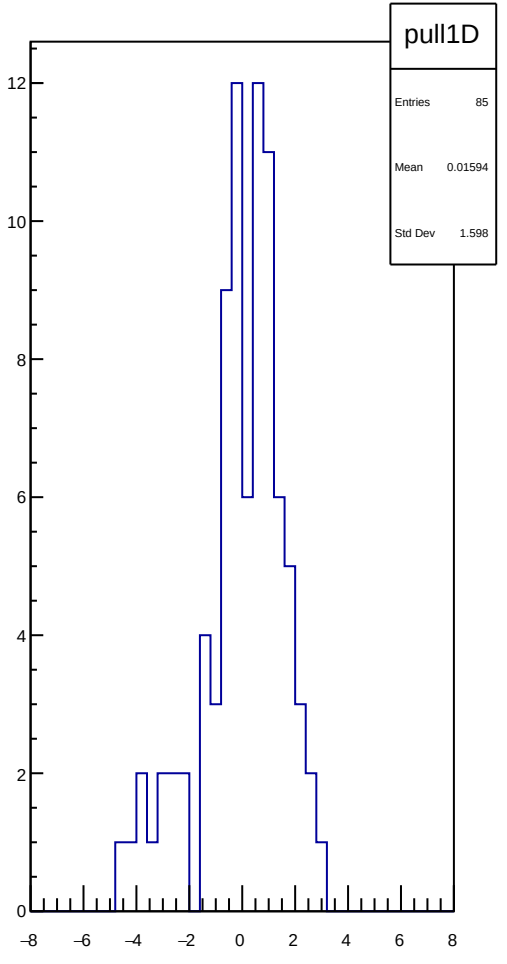

diff_bpm0i02X_rms vs run
χ² / ndf 5691 / 84
p0 1947 ± 1.519
2100
2000
1900
1800
1700

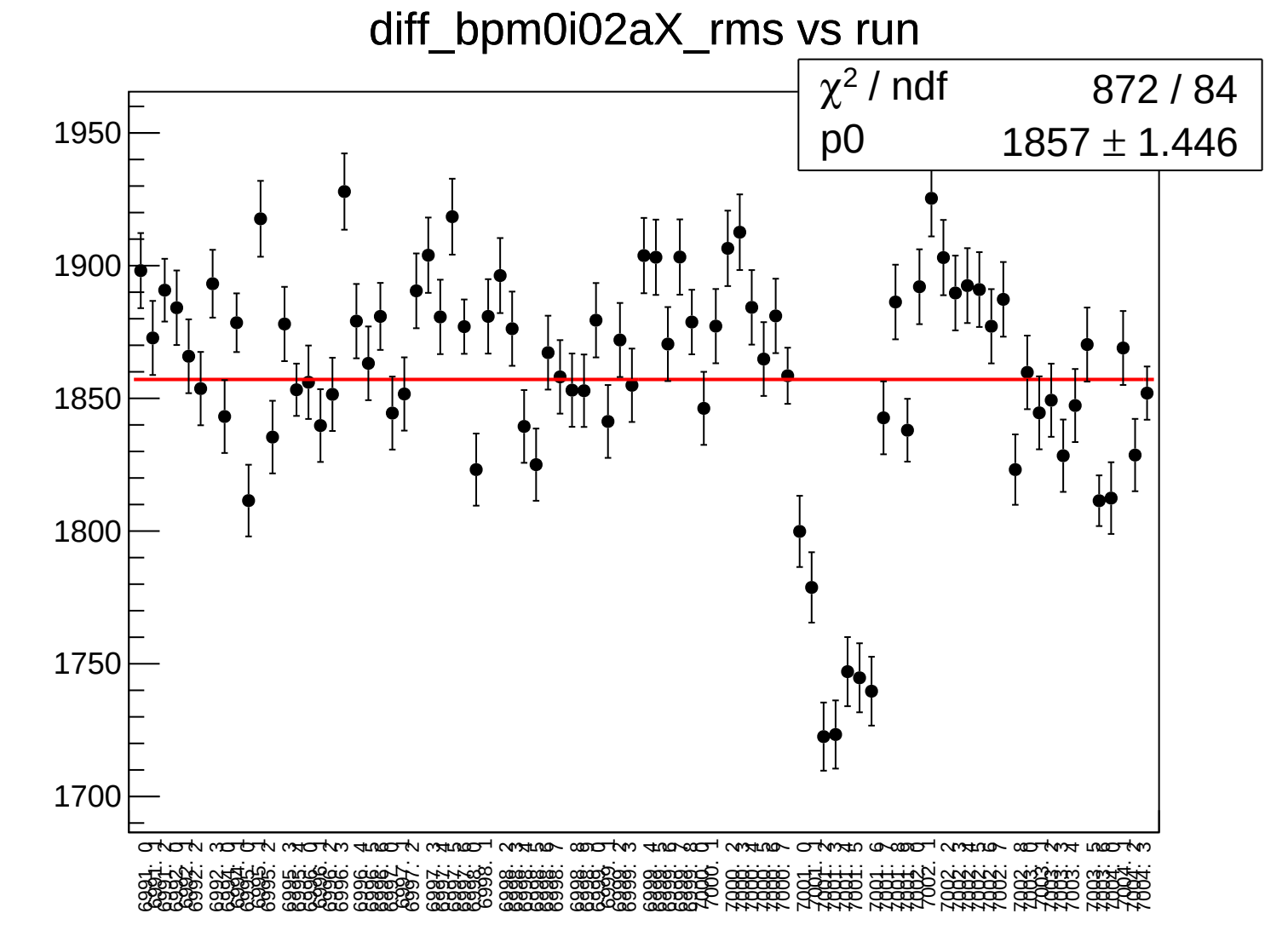

diff_bpm0i02Y_mean vs run
χ² / ndf 121.4 / 84
p0 2.256 ± 1.666
pull
Entries 85
Mean −38.91
Std Dev 78.99

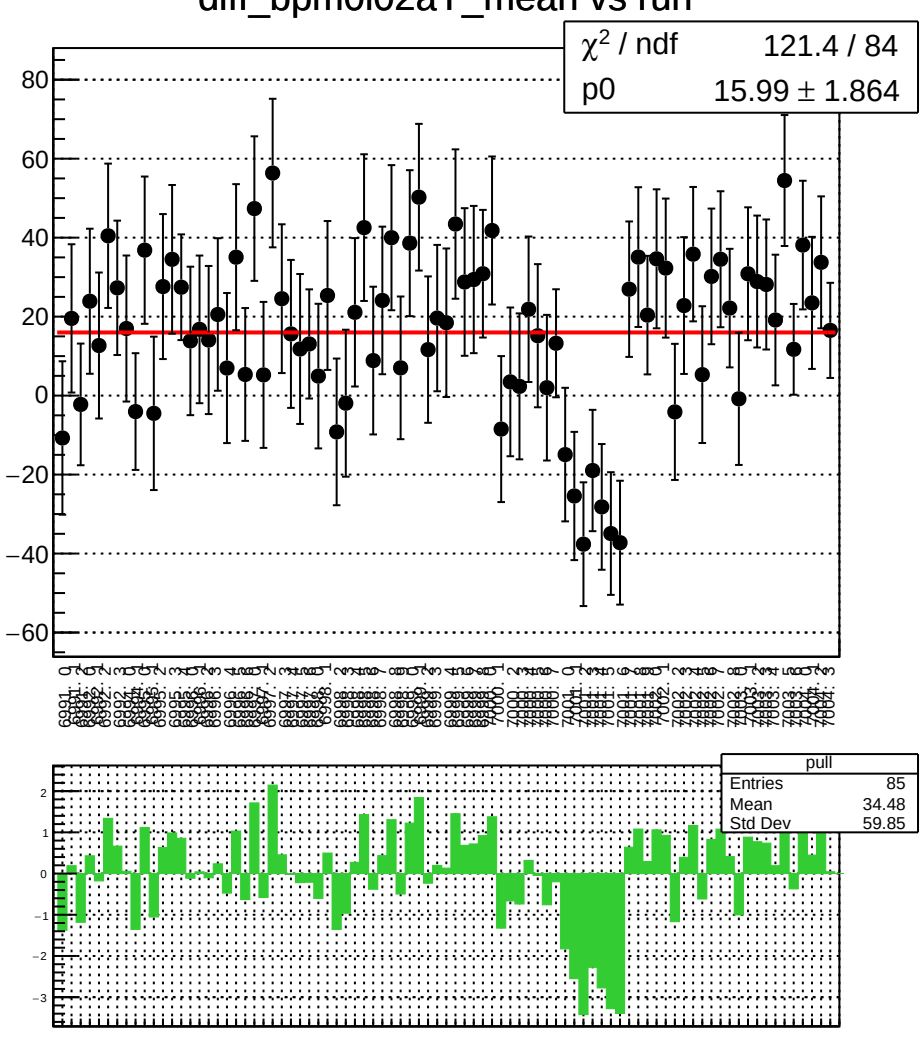

pull1D
Entries 85
Mean 0.01808
Std Dev 1.195

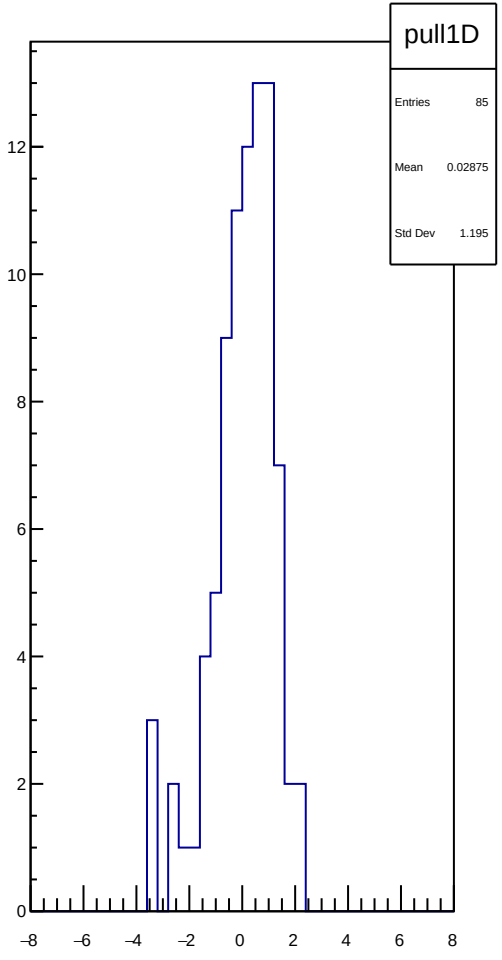

diff_bpm0i02Y_rms vs run
χ² / ndf 1209 / 84
p0 1512 ± 1.178
1600
1550
1500
1450
1400
1350

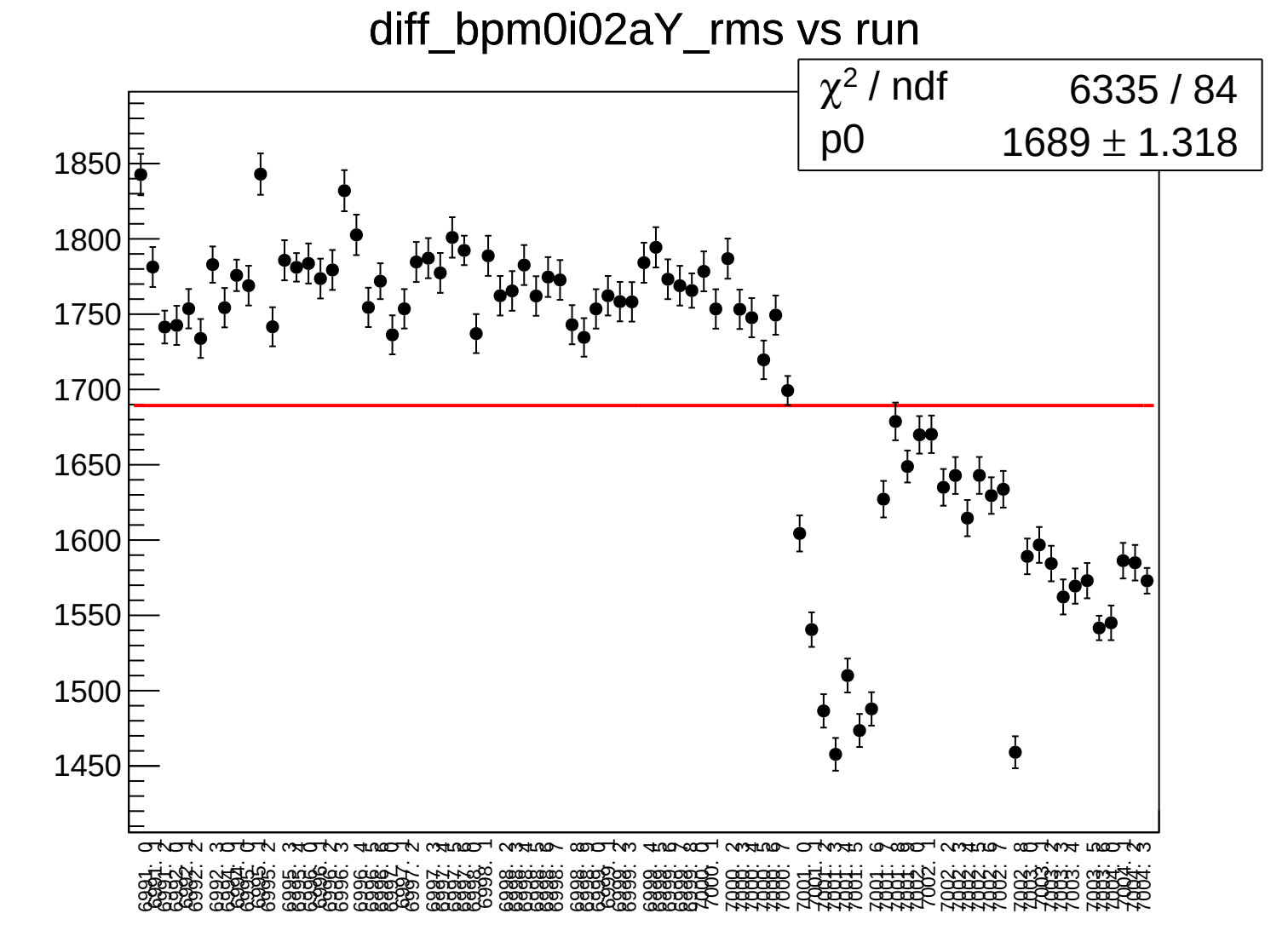

diff_bpm0i02aX_mean vs run
χ² / ndf 217.1 / 84
p0 −43.16 ± 2.045
pull
Entries 85
Mean 1232
Std Dev 1202

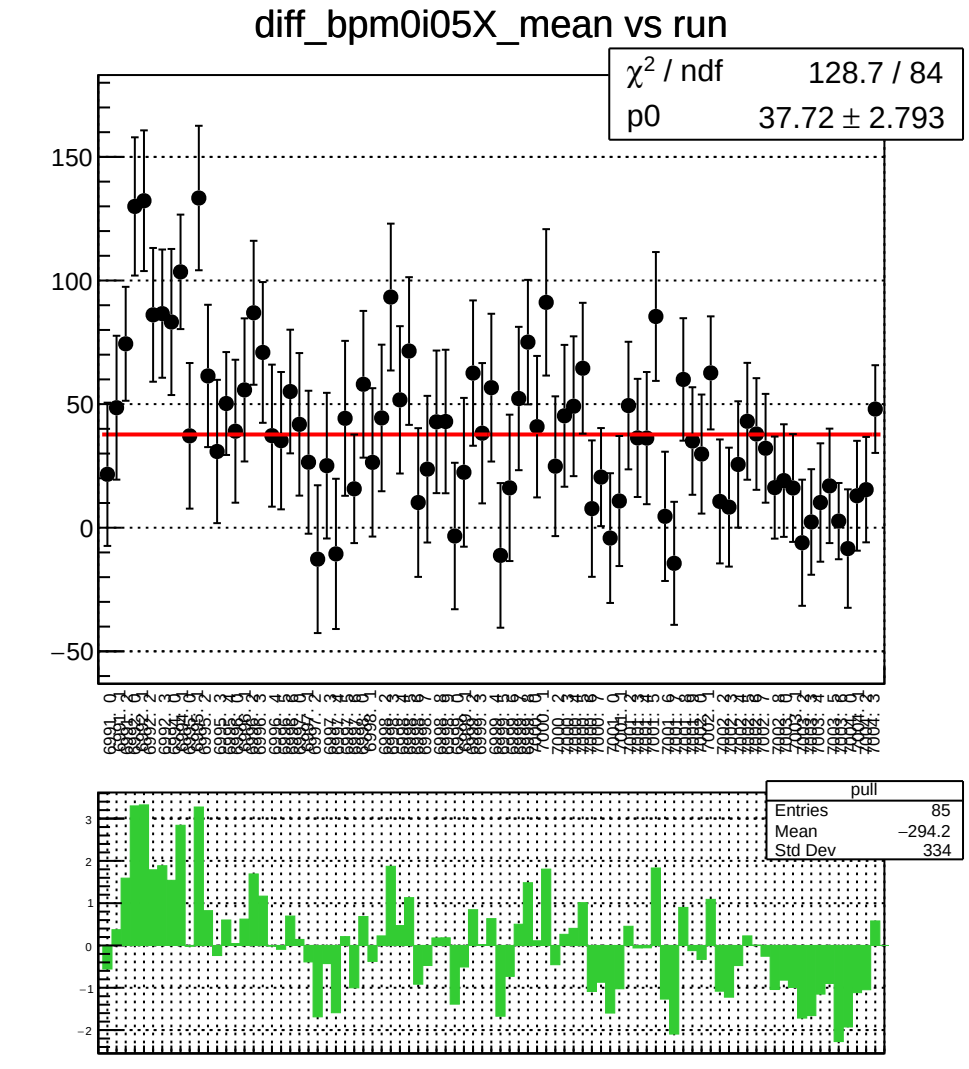

pull1D
Entries 85
Mean 0.01594
Std Dev 1.598

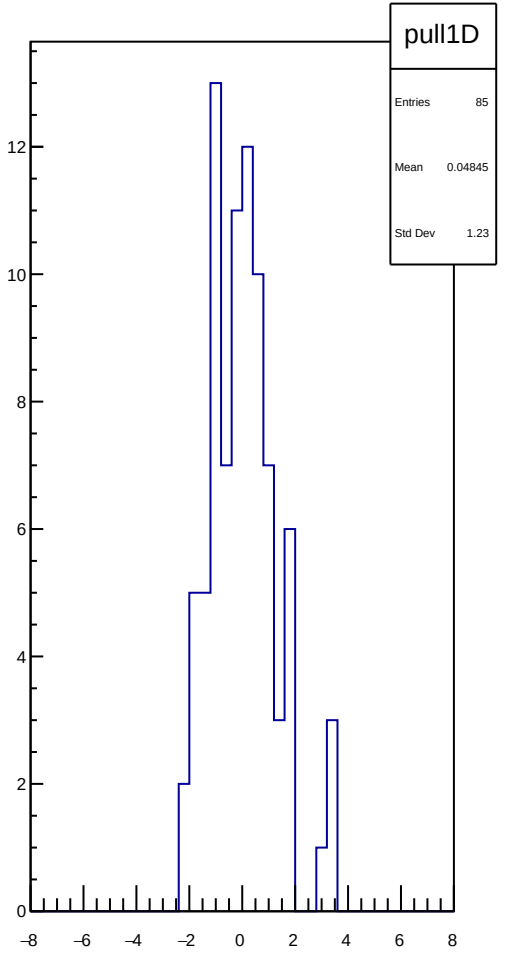

diff_bpm0i02aX_rms vs run
χ² / ndf 872 / 84
p0 1857 ± 1.446
1950
1900
1850
1800
1750
1700

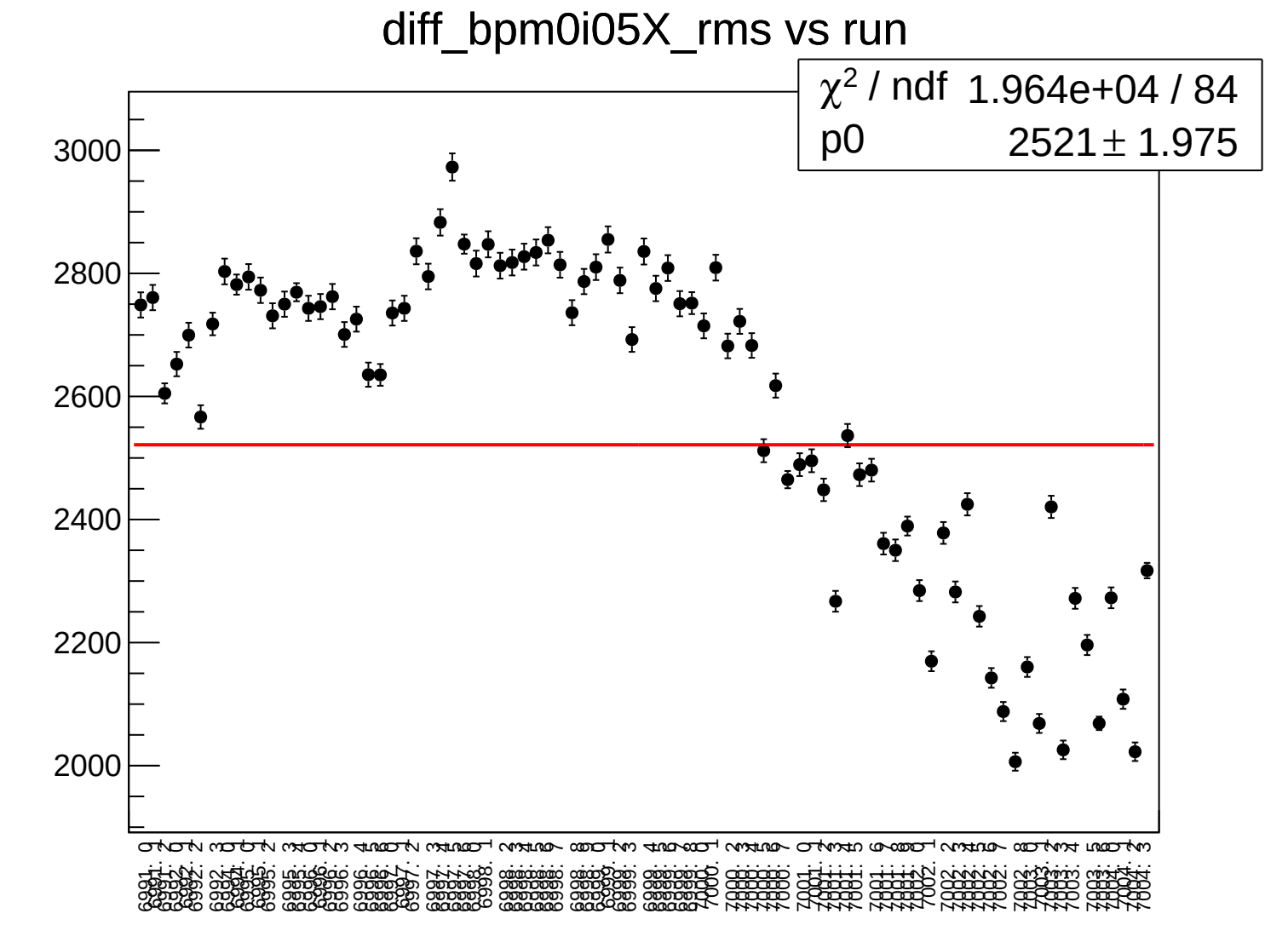

diff_bpm0i02aY_mean vs run
χ^2 / ndf 121.4 / 84
p0 15.99 ± 1.864
pull
Entries 85
Mean 34.48
Std Dev 59.85

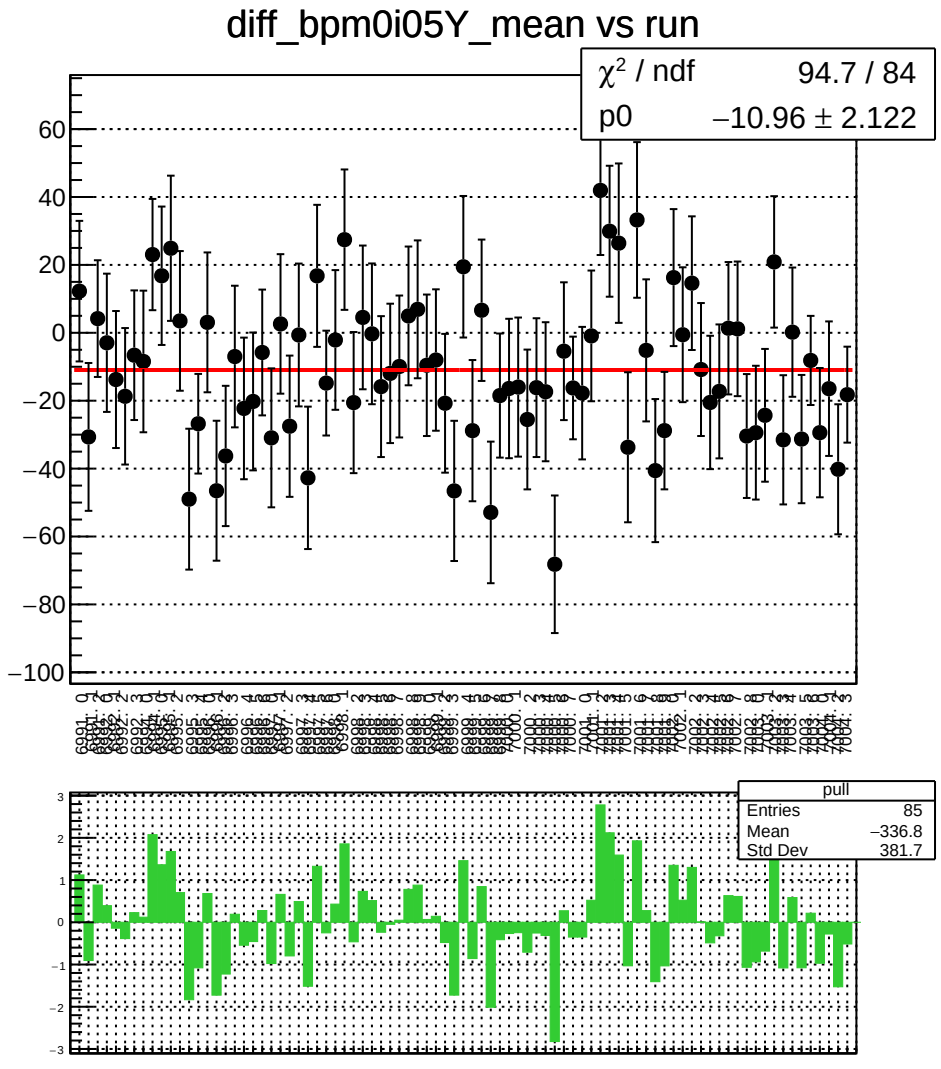

pull1D
Entries 85
Mean 0.02875
Std Dev 1.195

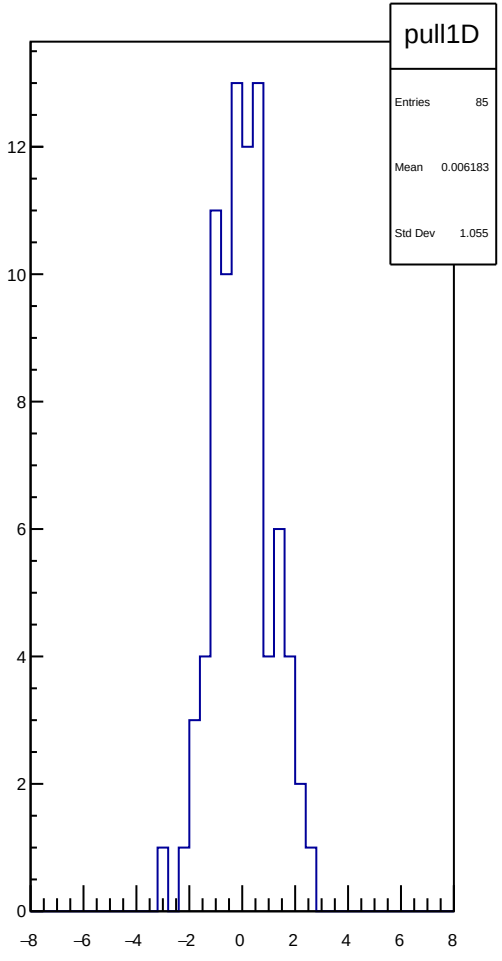

diff_bpm0i02aY_rms vs run
χ² / ndf 6335 / 84
p0 1689 ± 1.318
1850
1800
1750
1700
1650
1600
1550
1500
1450

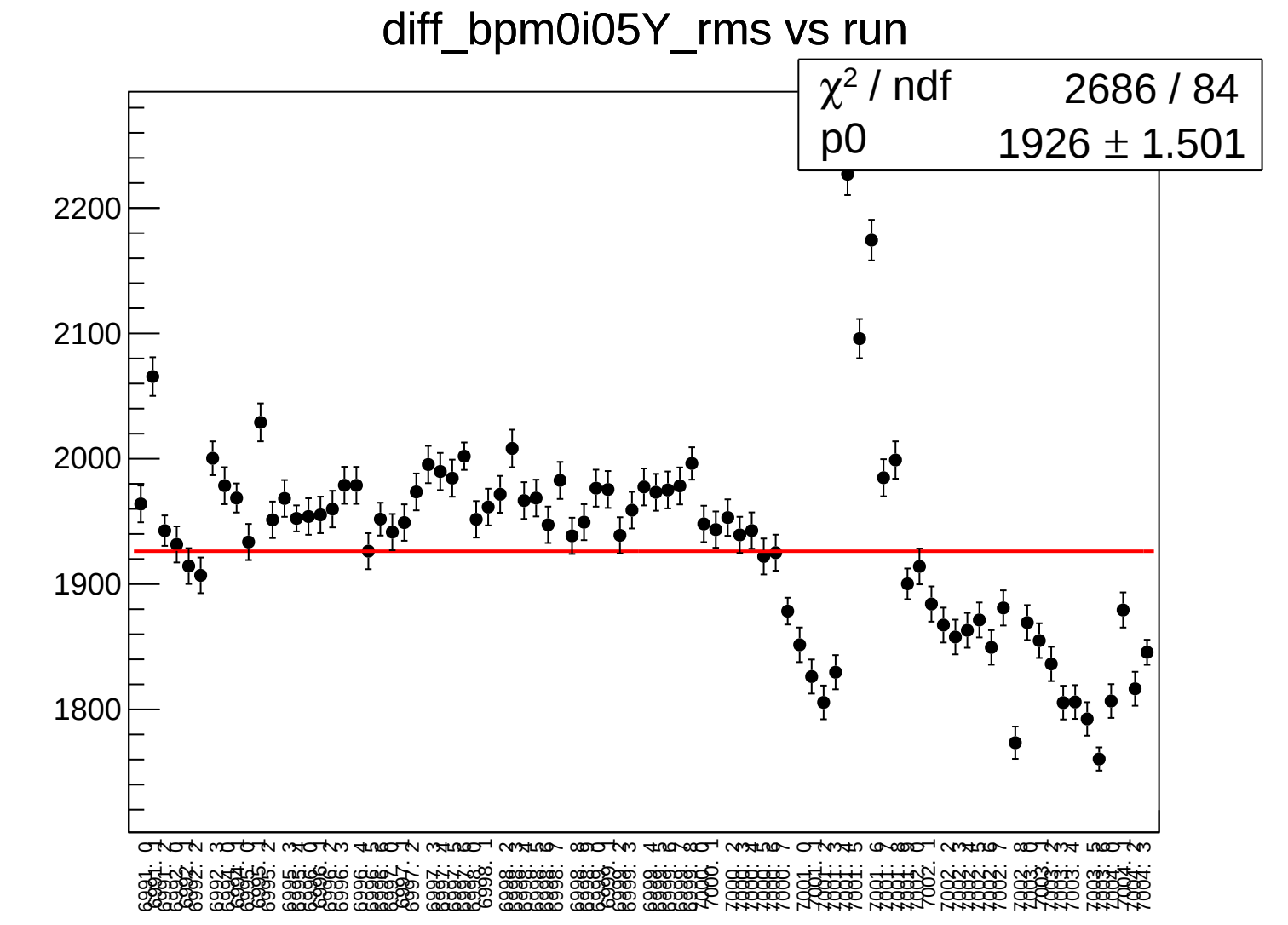

diff_bpm0i05X_mean vs run
χ^2 / ndf 128.7 / 84
p0 37.72 ± 2.793
150
100
50
0
−50
pull
Entries 85
Mean −294.2
Std Dev 334
3
2
1
0
−1
−2

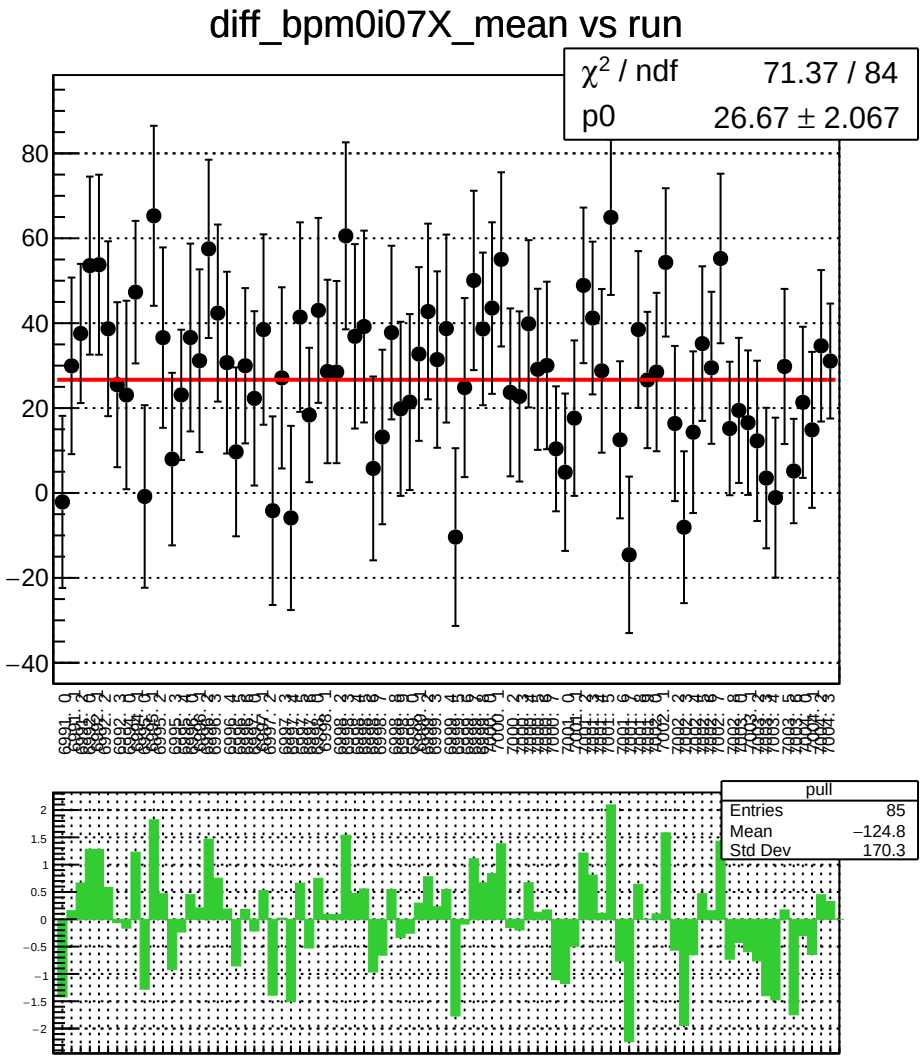

pull1D
Entries 85
Mean 0.04845
Std Dev 1.23
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

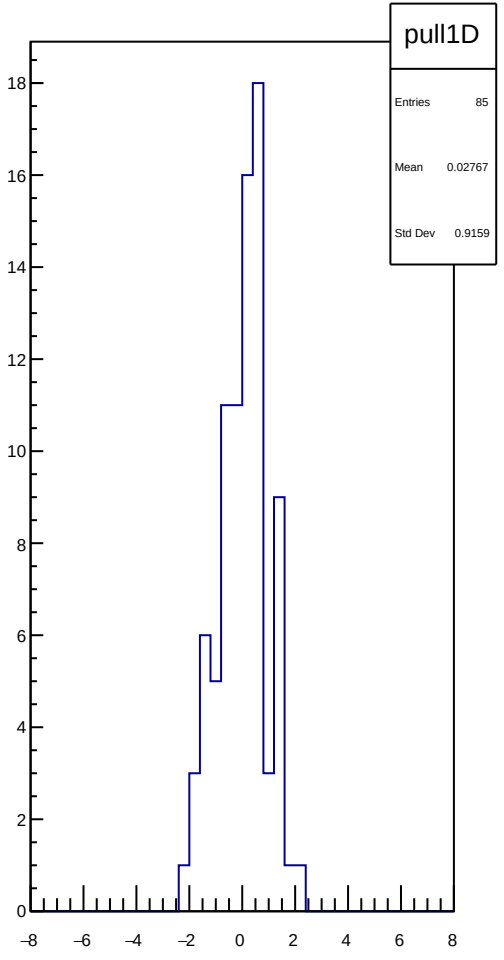

diff_bpm0i05X_rms vs run
χ² / ndf 1.964e+04 / 84
p0 2521 ± 1.975
3000
2800
2600
2400
2200
2000

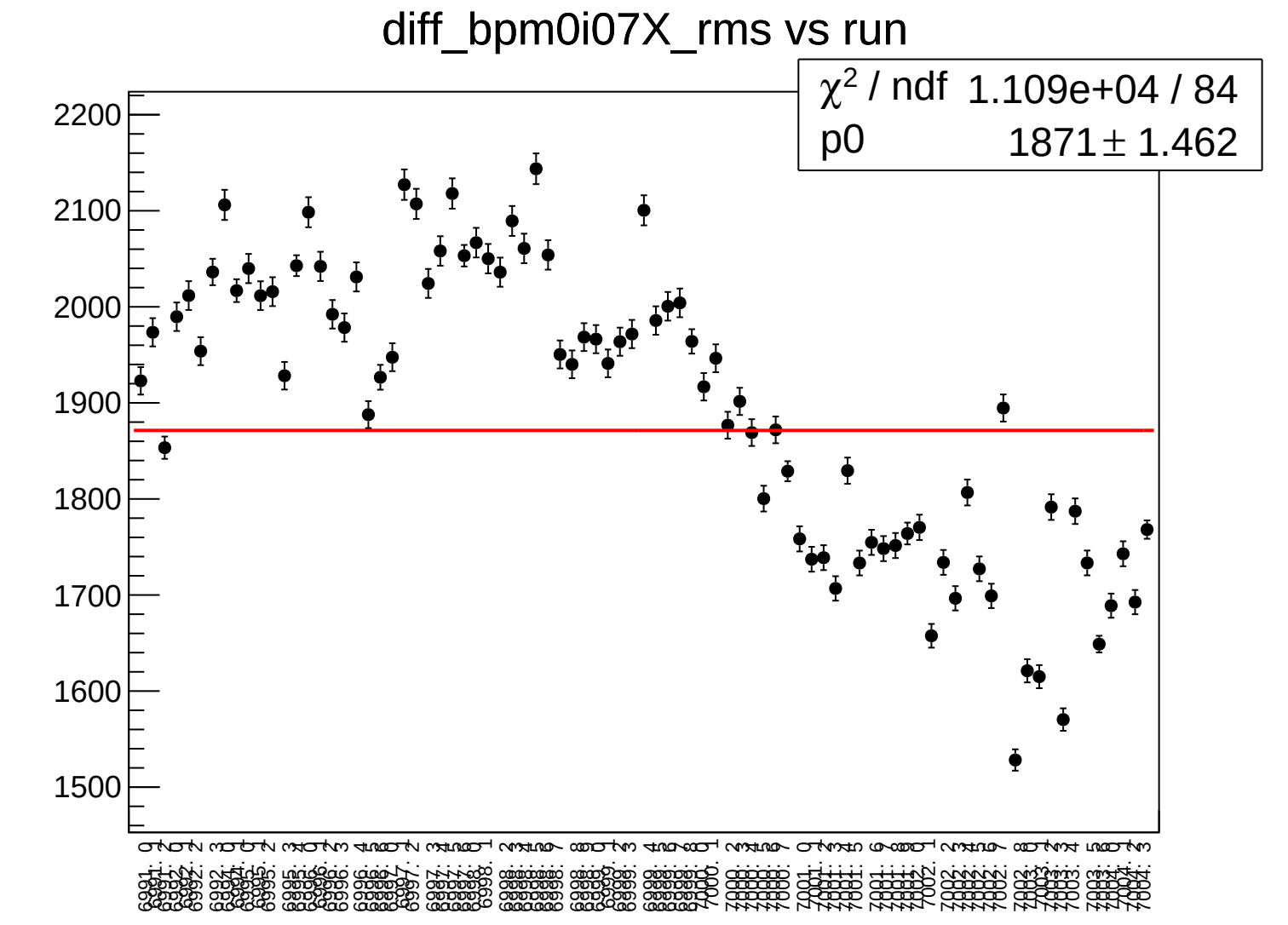

diff_bpm0i05Y_mean vs run
χ² / ndf 94.7 / 84
p0 −10.96 ± 2.122
pull
Entries 85
Mean −336.8
Std Dev 381.7

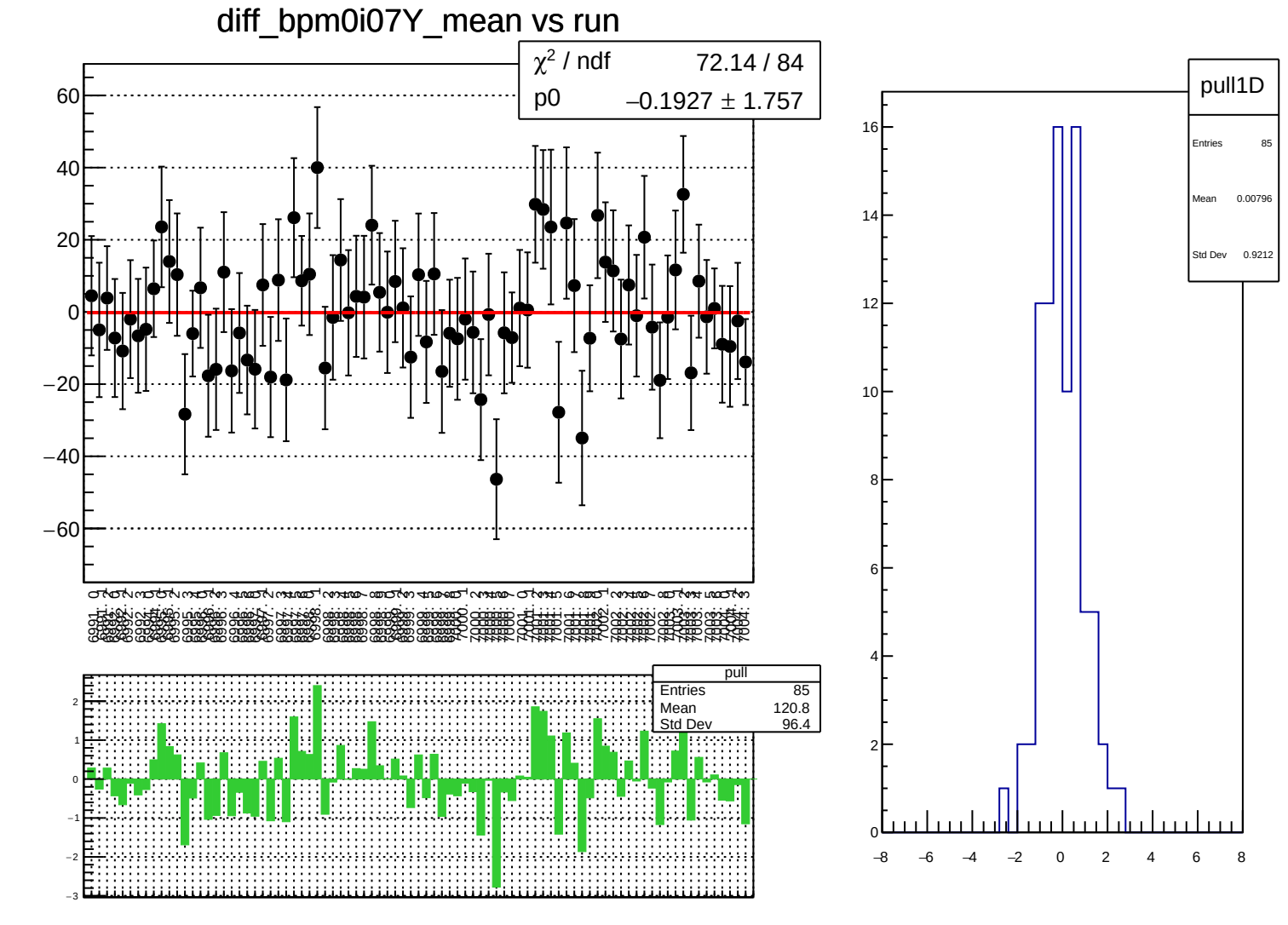

pull1D
Entries 85
Mean 0.006183
Std Dev 1.055

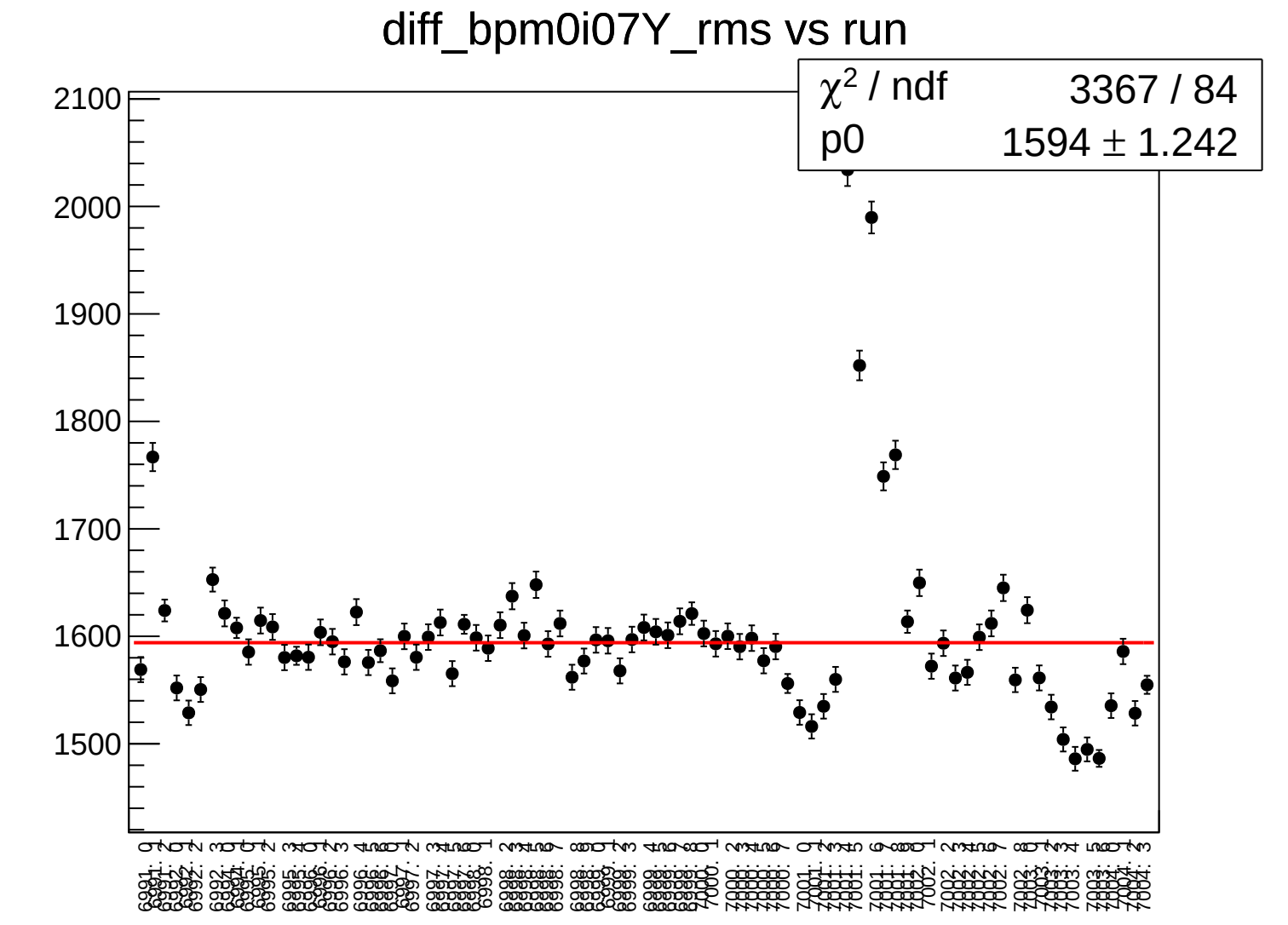

diff_bpm0i05Y_rms vs run
χ² / ndf 2686 / 84
p0 1926 ± 1.501
2200
2100
2000
1900
1800

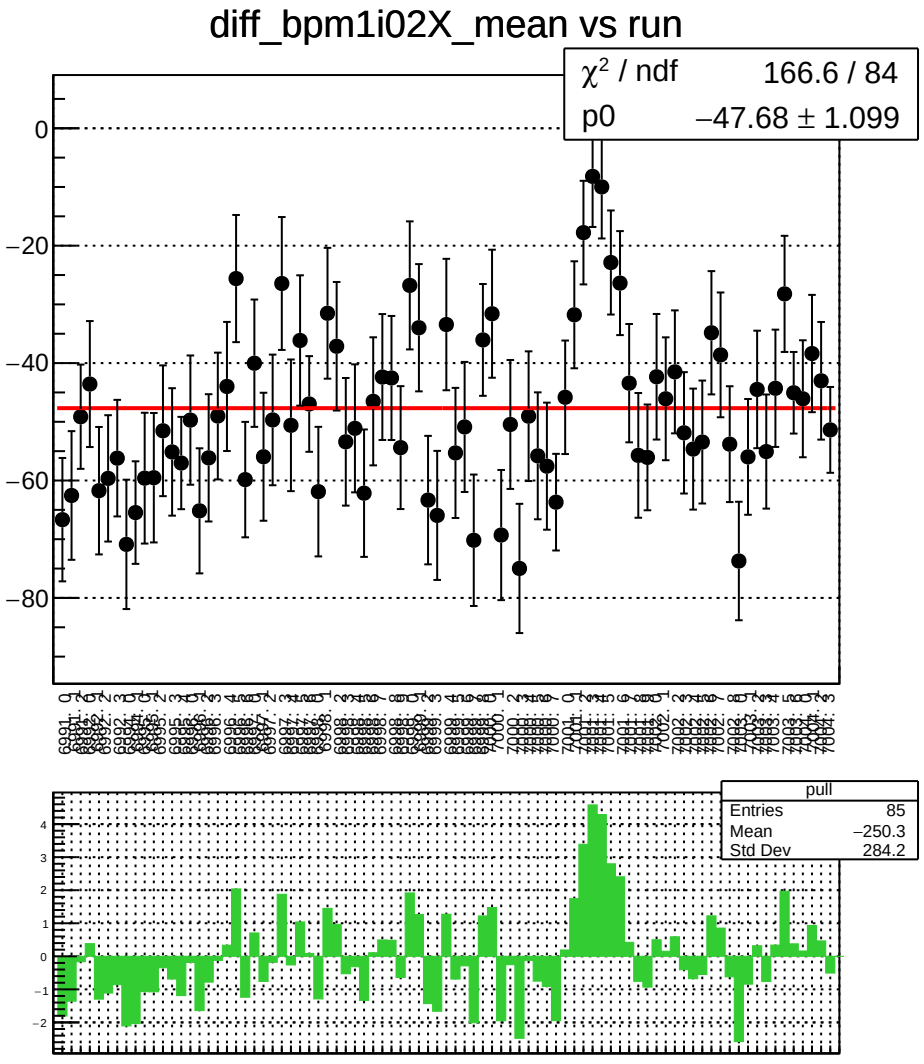

diff_bpm0i07X_mean vs run
χ^2 / ndf 71.37 / 84
p0 26.67 ± 2.067
pull
Entries 85
Mean −124.8
Std Dev 170.3

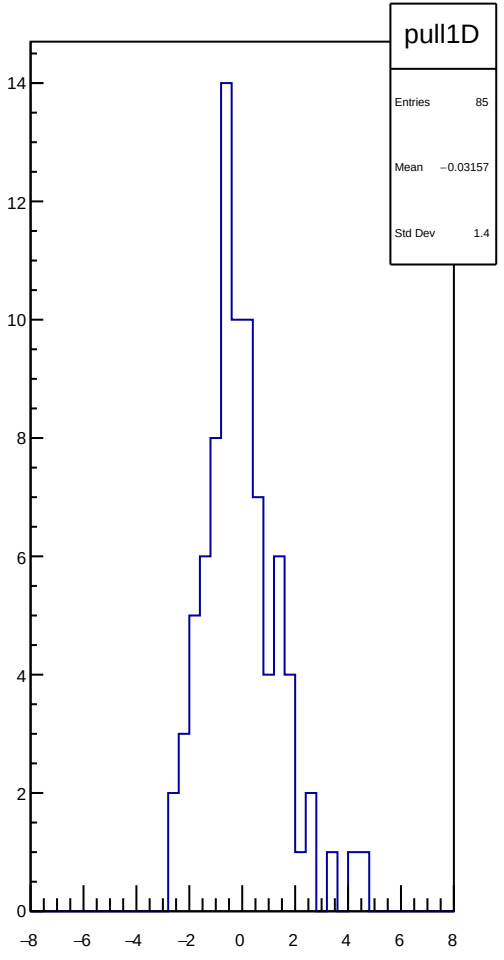

pull1D
Entries 85
Mean 0.02767
Std Dev 0.9159

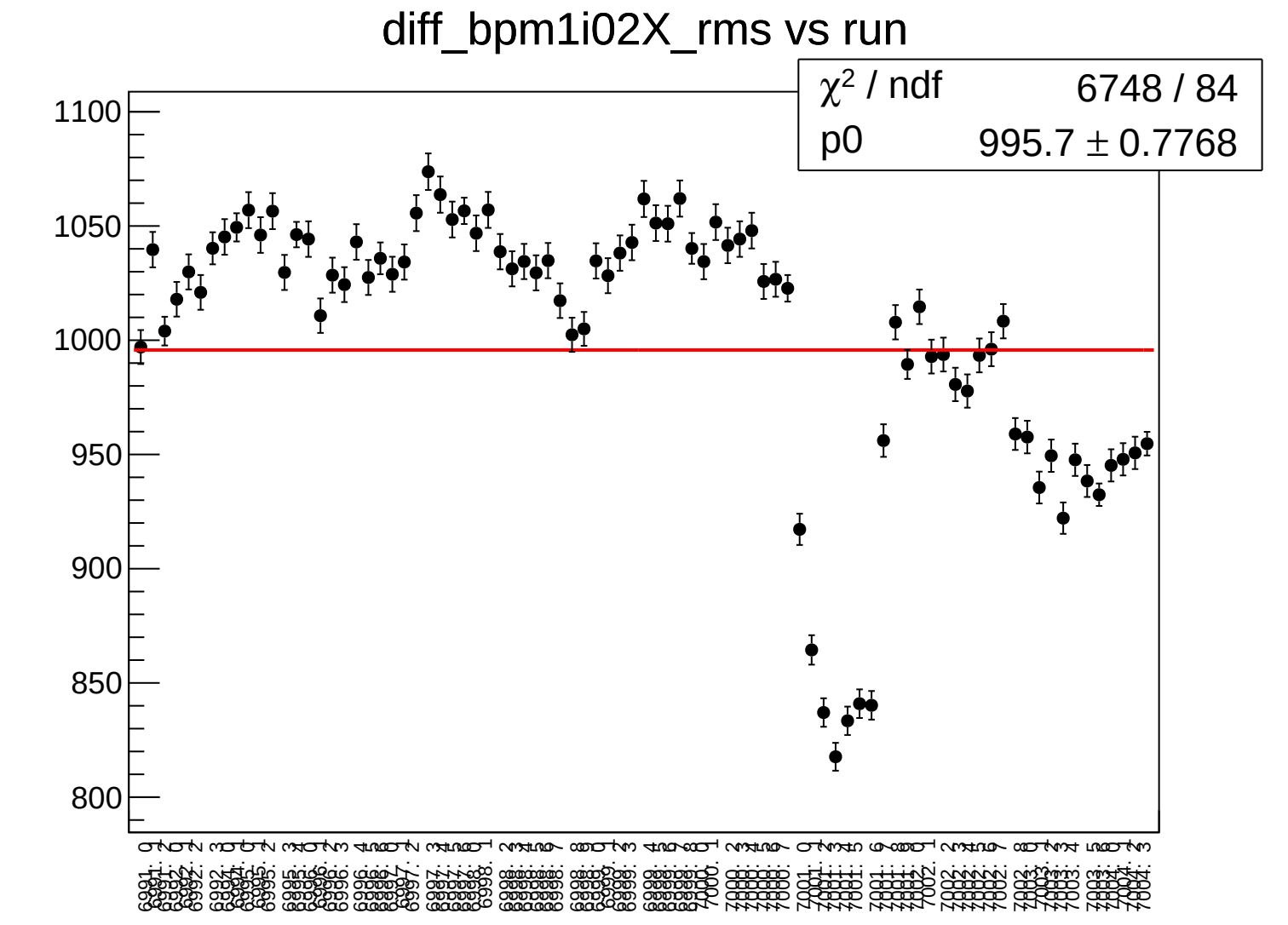

diff_bpm0i07X_rms vs run
χ² / ndf 1.109e+04 / 84
p0 1871 ± 1.462
2200
2100
2000
1900
1800
1700
1600
1500

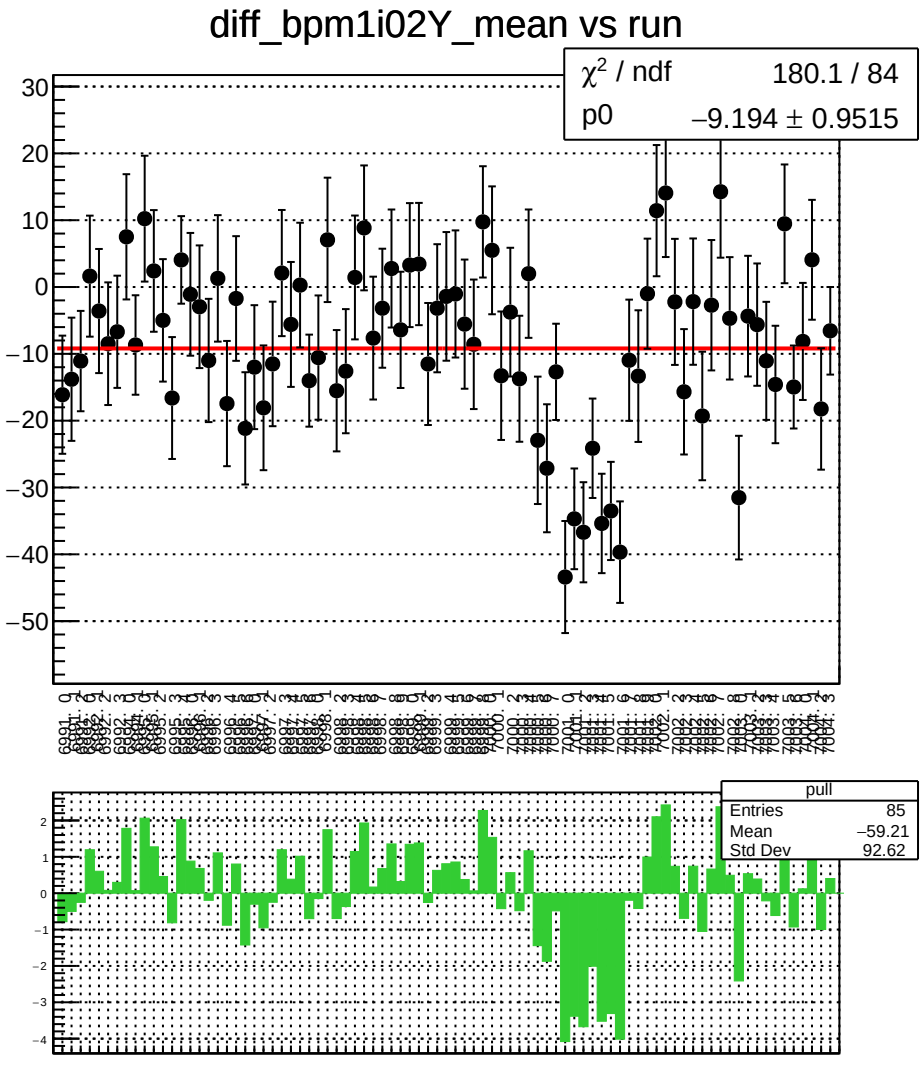

diff_bpm0i07Y_mean vs run
χ² / ndf 72.14 / 84
p0 −0.1927 ± 1.757
pull
Entries 85
Mean 120.8
Std Dev 96.4
pull1D
Entries 85
Mean 0.00796
Std Dev 0.9212

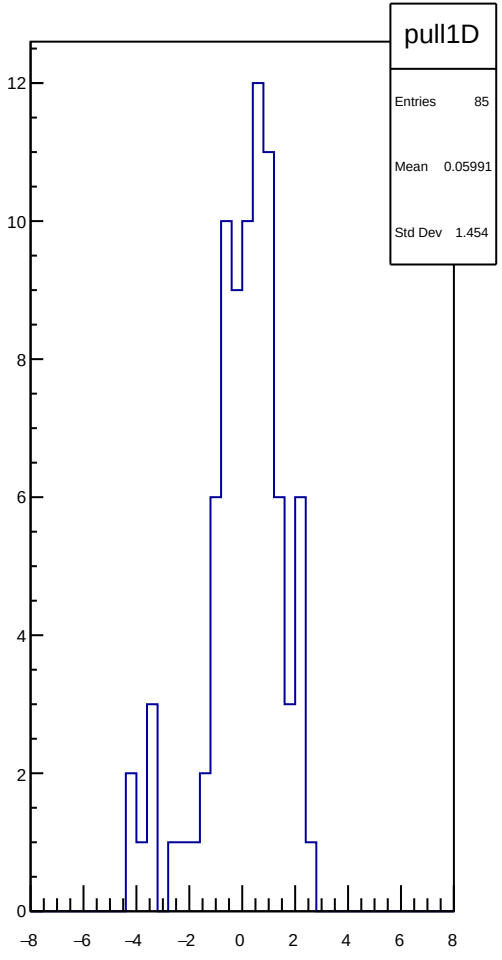

diff_bpm0i07Y_rms vs run
χ² / ndf 3367 / 84
p0 1594 ± 1.242
2100
2000
1900
1800
1700
1600
1500

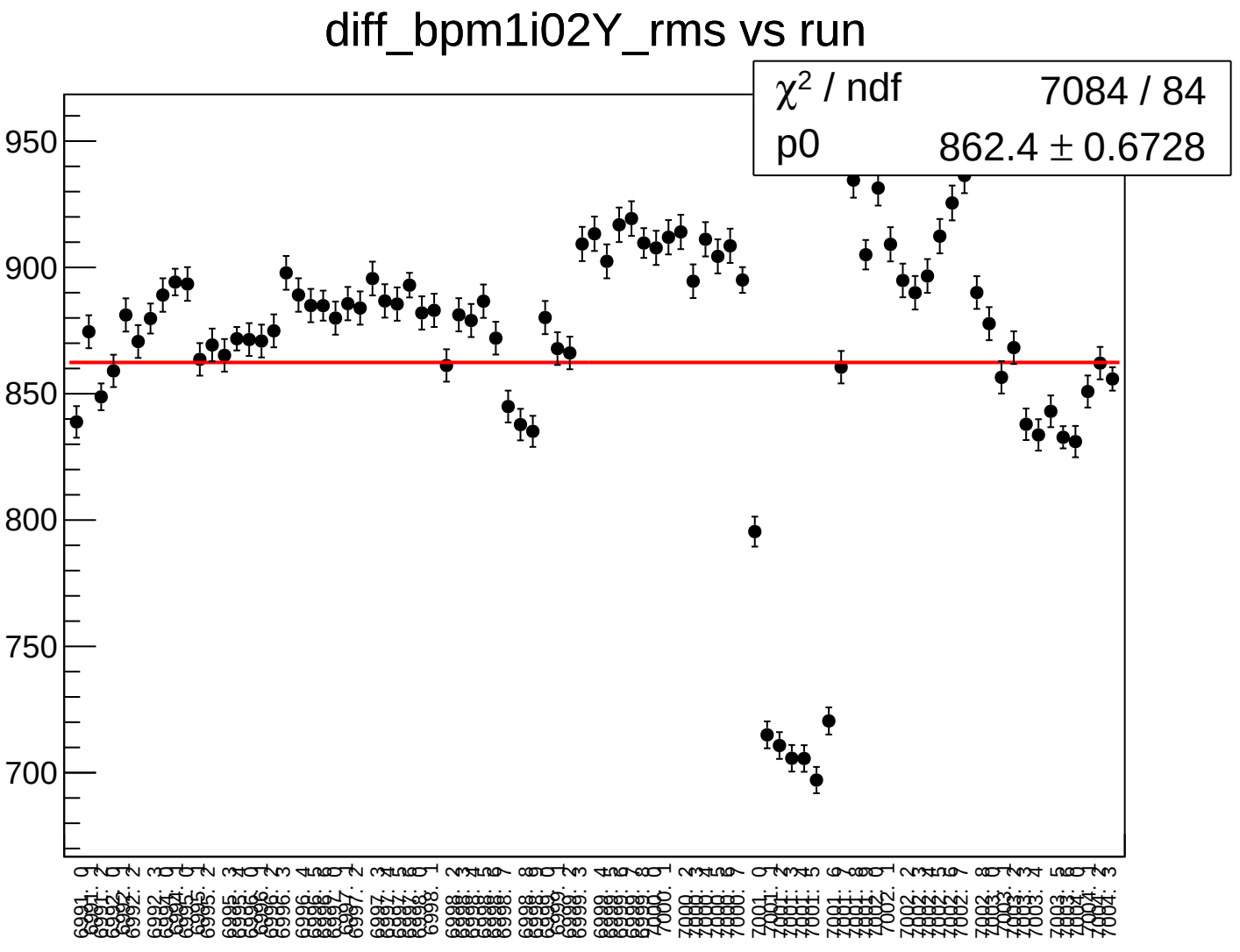

diff_bpm1i02X_mean vs run
χ² / ndf 166.6 / 84
p0 −47.68 ± 1.099
0
−20
−40
−60
−80
pull
Entries 85
Mean −250.3
Std Dev 284.2
4
3
2
1
0
−1
−2

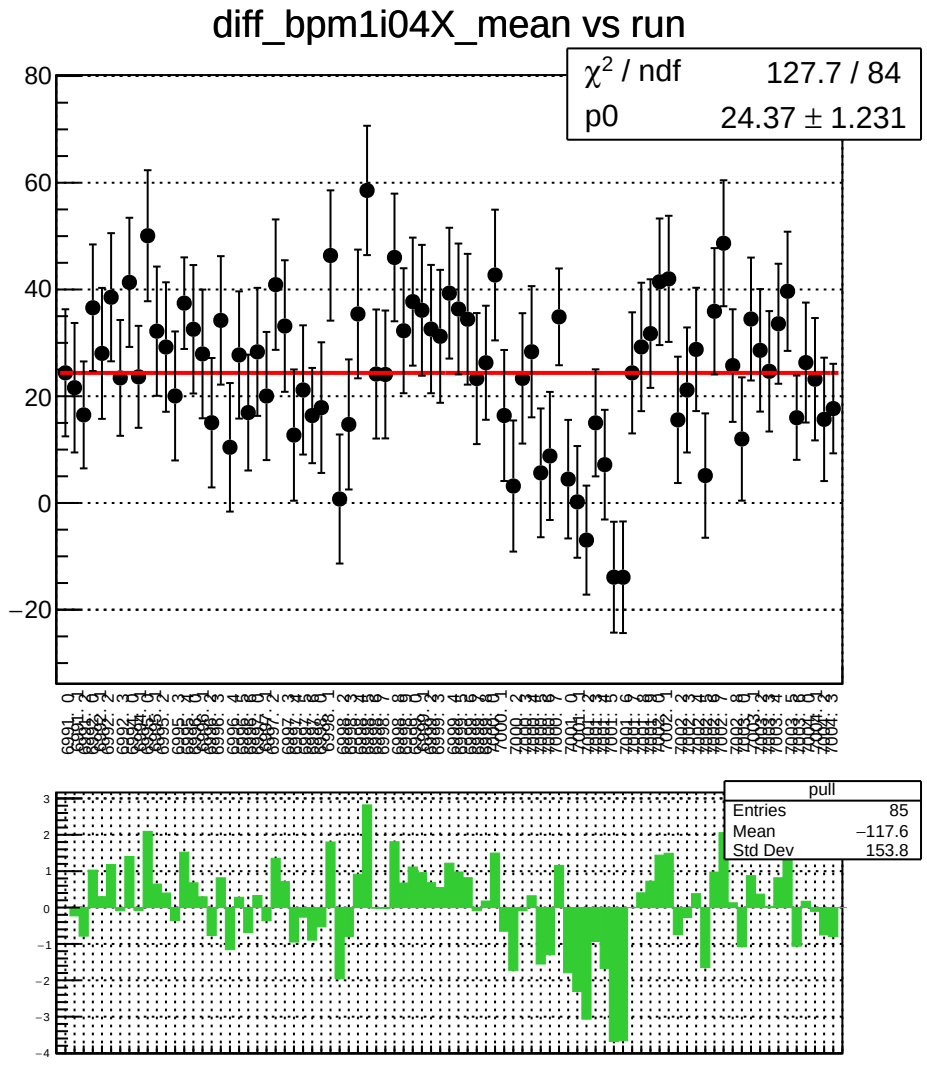

pull1D
Entries 85
Mean −0.03157
Std Dev 1.4
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

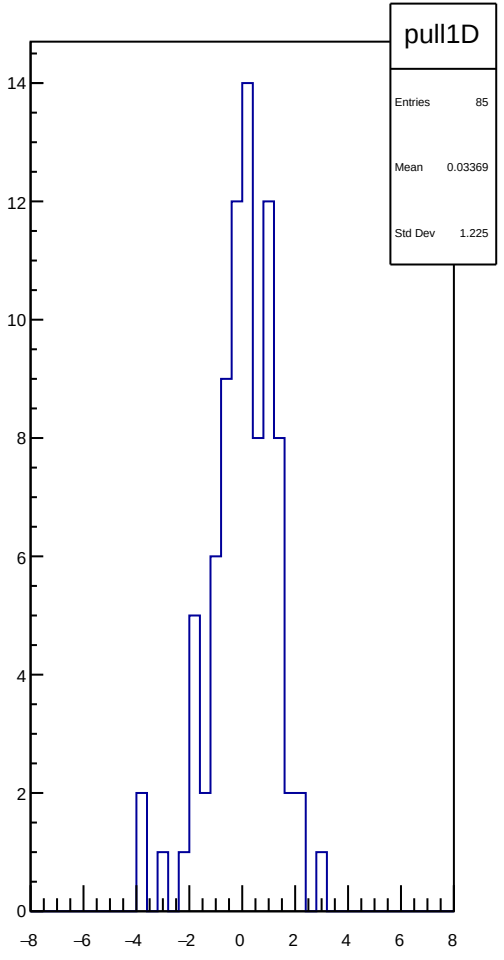

diff_bpm1i02X_rms vs run
χ² / ndf 6748 / 84
p0 995.7 ± 0.7768
1100
1050
1000
950
900
850
800

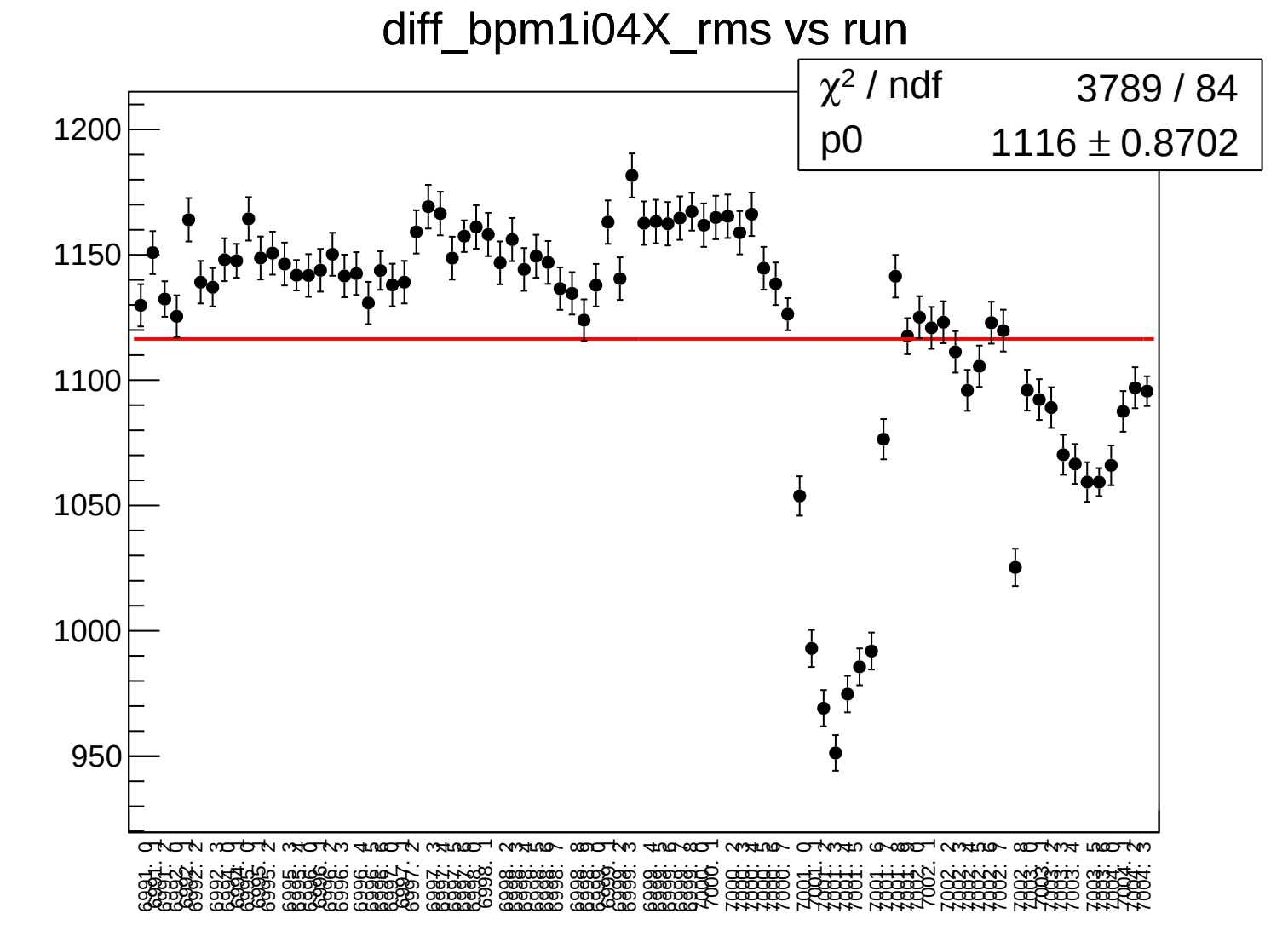

diff_bpm1i02Y_mean vs run
χ² / ndf 180.1 / 84
p0 −9.194 ± 0.9515
pull
Entries 85
Mean −59.21
Std Dev 92.62

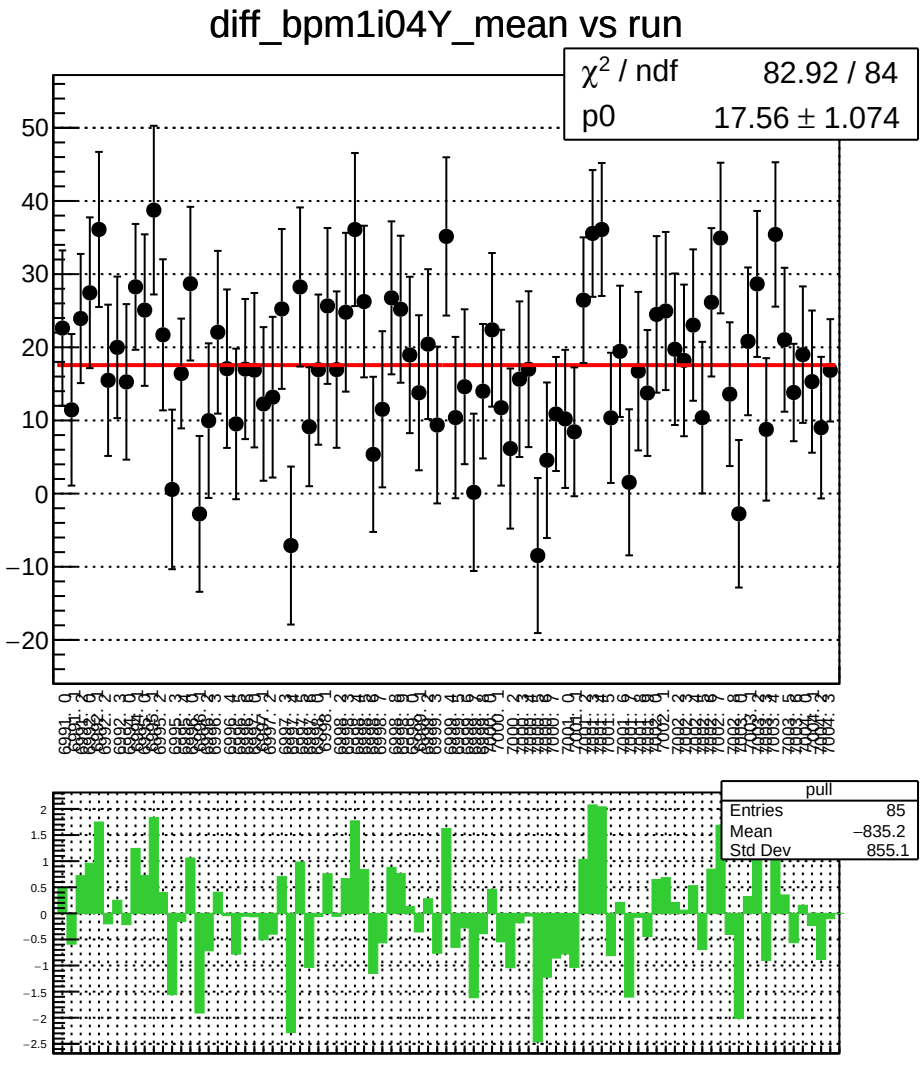

pull1D
Entries 85
Mean 0.05991
Std Dev 1.454

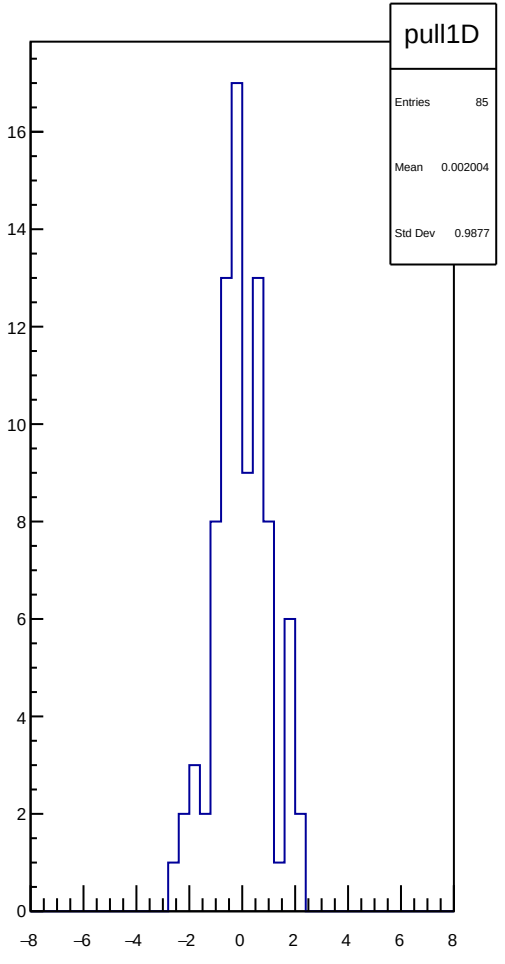

diff_bpm1i02Y_rms vs run
χ² / ndf 7084 / 84
p0 862.4 ± 0.6728
950
900
850
800
750
700

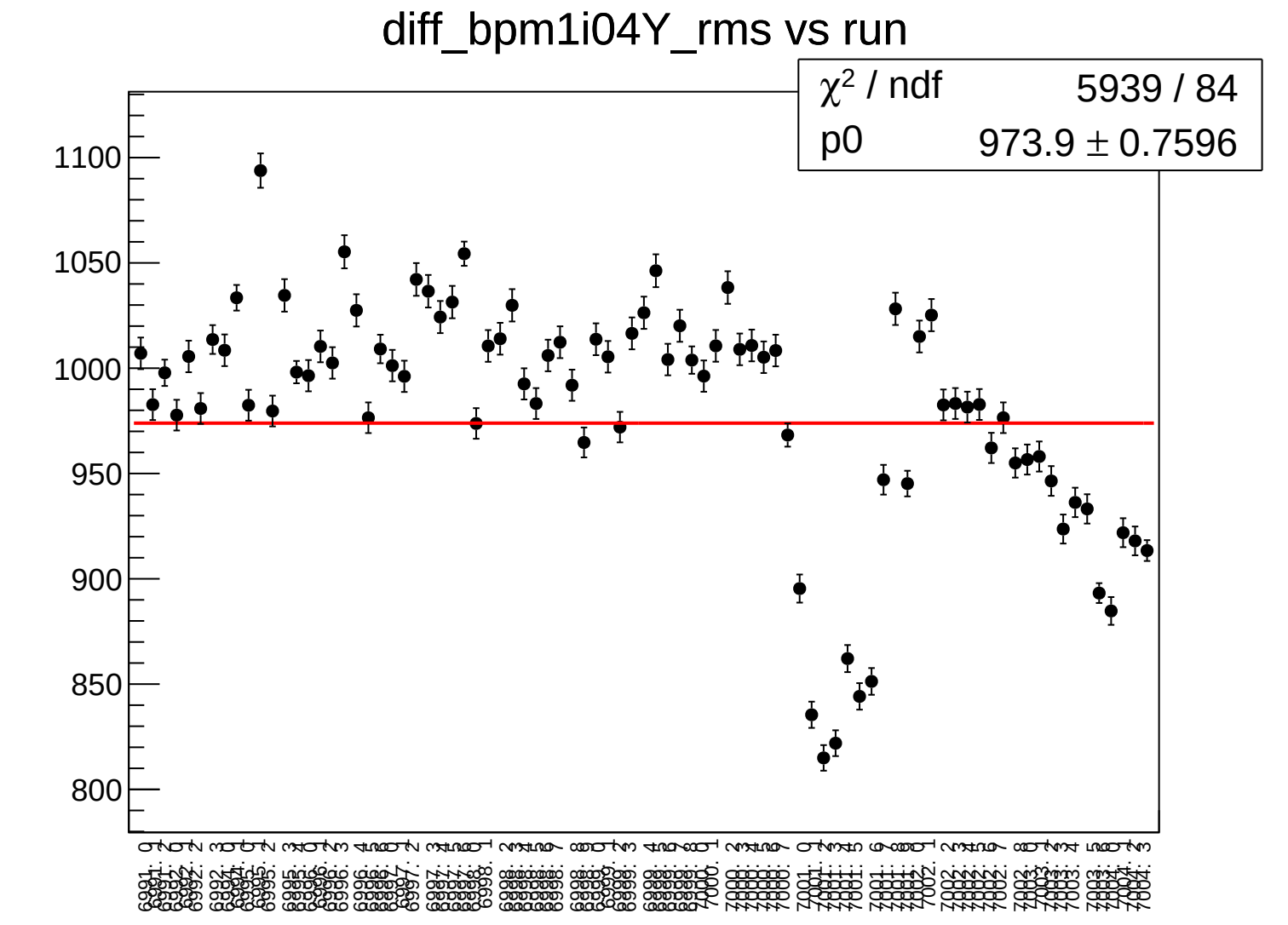

diff_bpm1i04X_mean vs run
χ^2 / ndf 127.7 / 84
p0 24.37 ± 1.231
pull
Entries 85
Mean −117.6
Std Dev 153.8

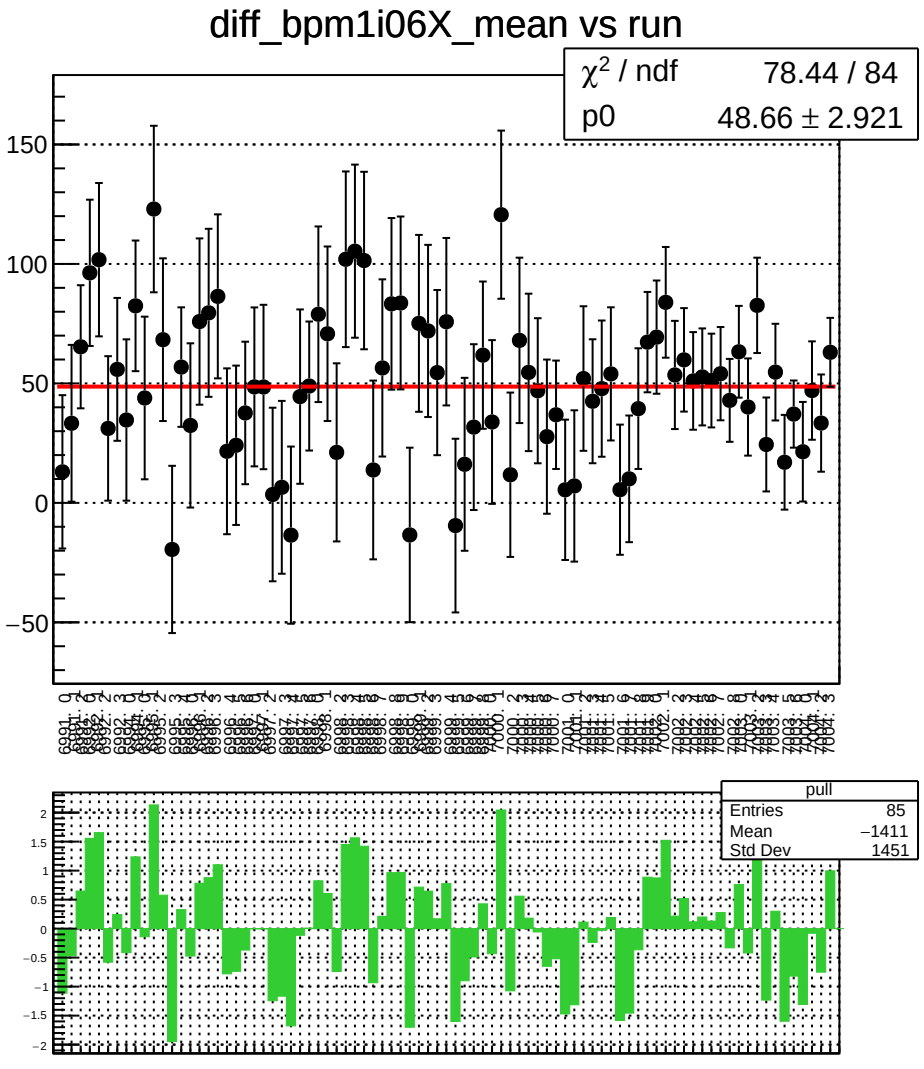

pull1D
Entries 85
Mean 0.03369
Std Dev 1.225

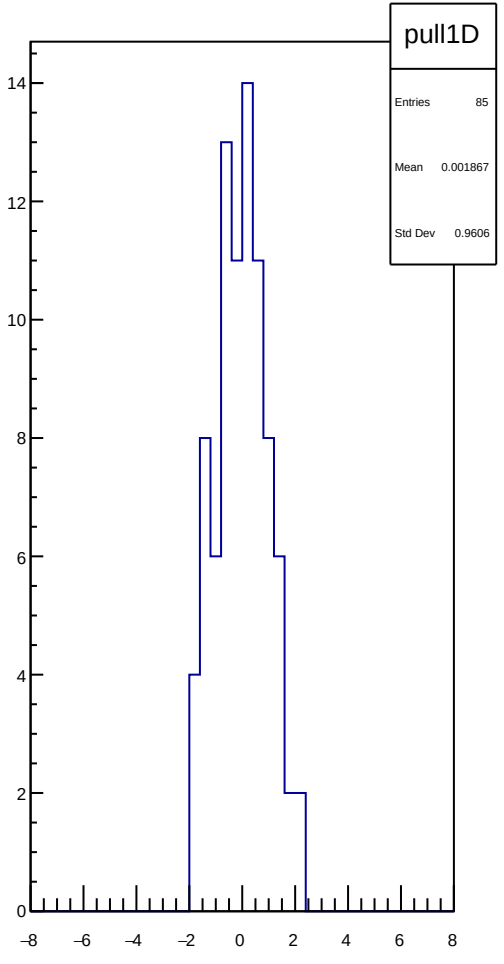

diff_bpm1i04X_rms vs run
χ² / ndf 3789 / 84
p0 1116 ± 0.8702
1200
1150
1100
1050
1000
950

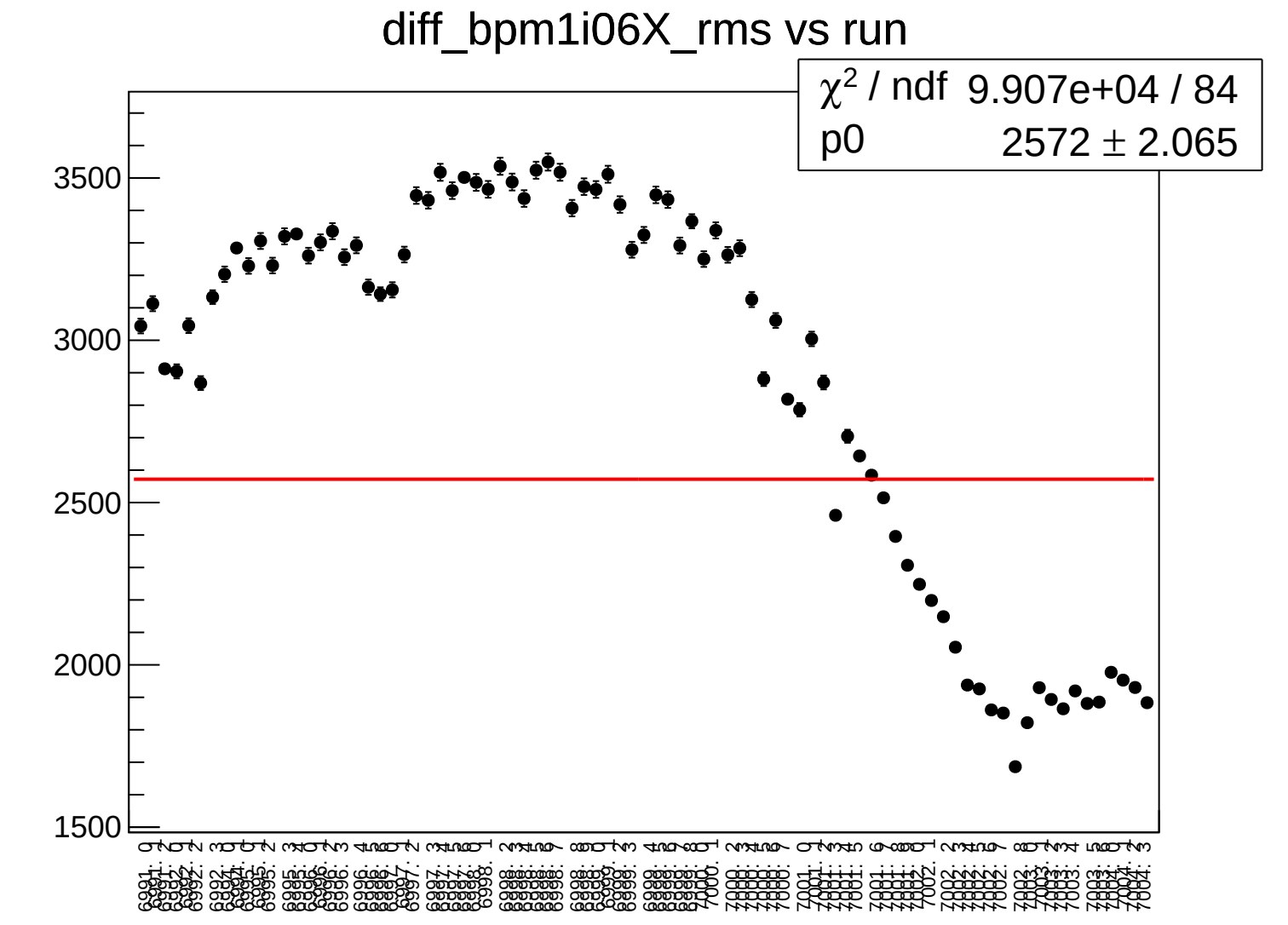

diff_bpm1i04Y_mean vs run
χ^2 / ndf 82.92 / 84
p0 17.56 ± 1.074
pull
Entries 85
Mean −835.2
Std Dev 855.1

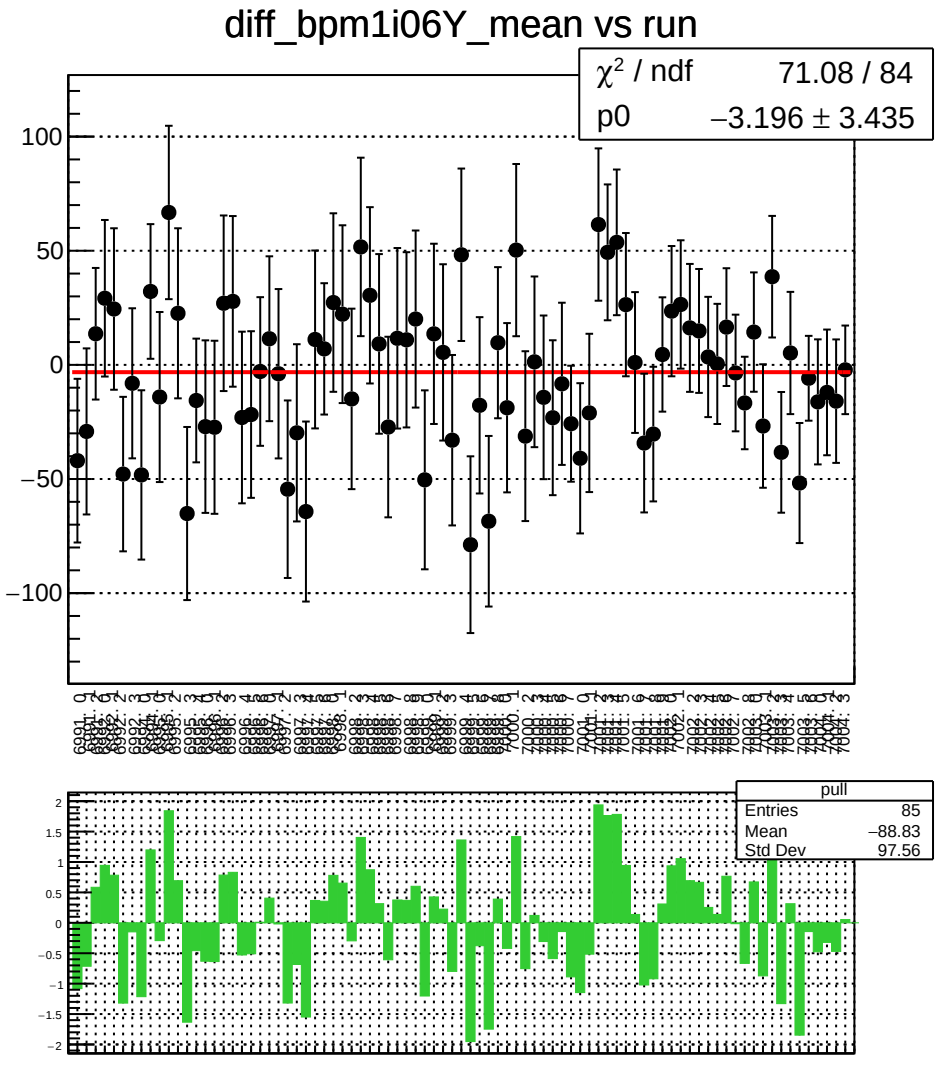

pull1D
Entries 85
Mean 0.002004
Std Dev 0.9877

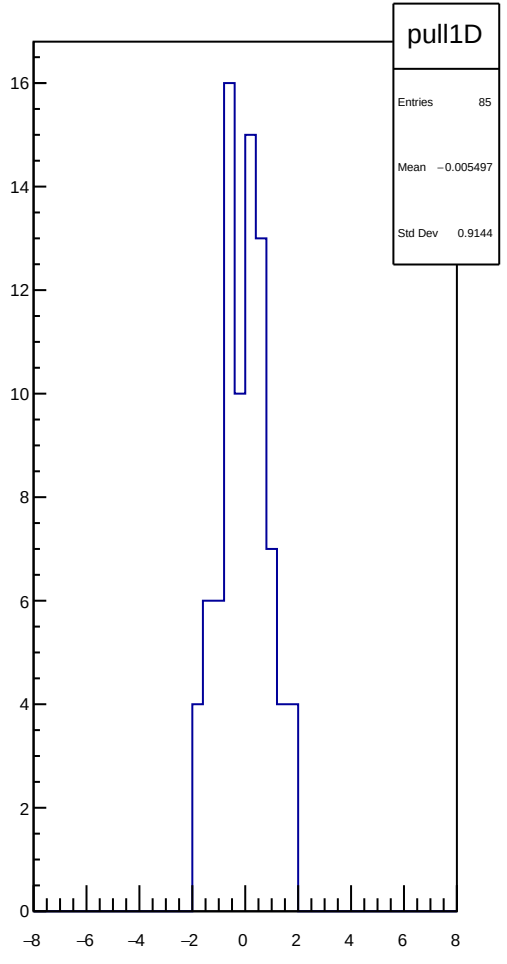

diff_bpm1i04Y_rms vs run
χ² / ndf 5939 / 84
p0 973.9 ± 0.7596
1100
1050
1000
950
900
850
800

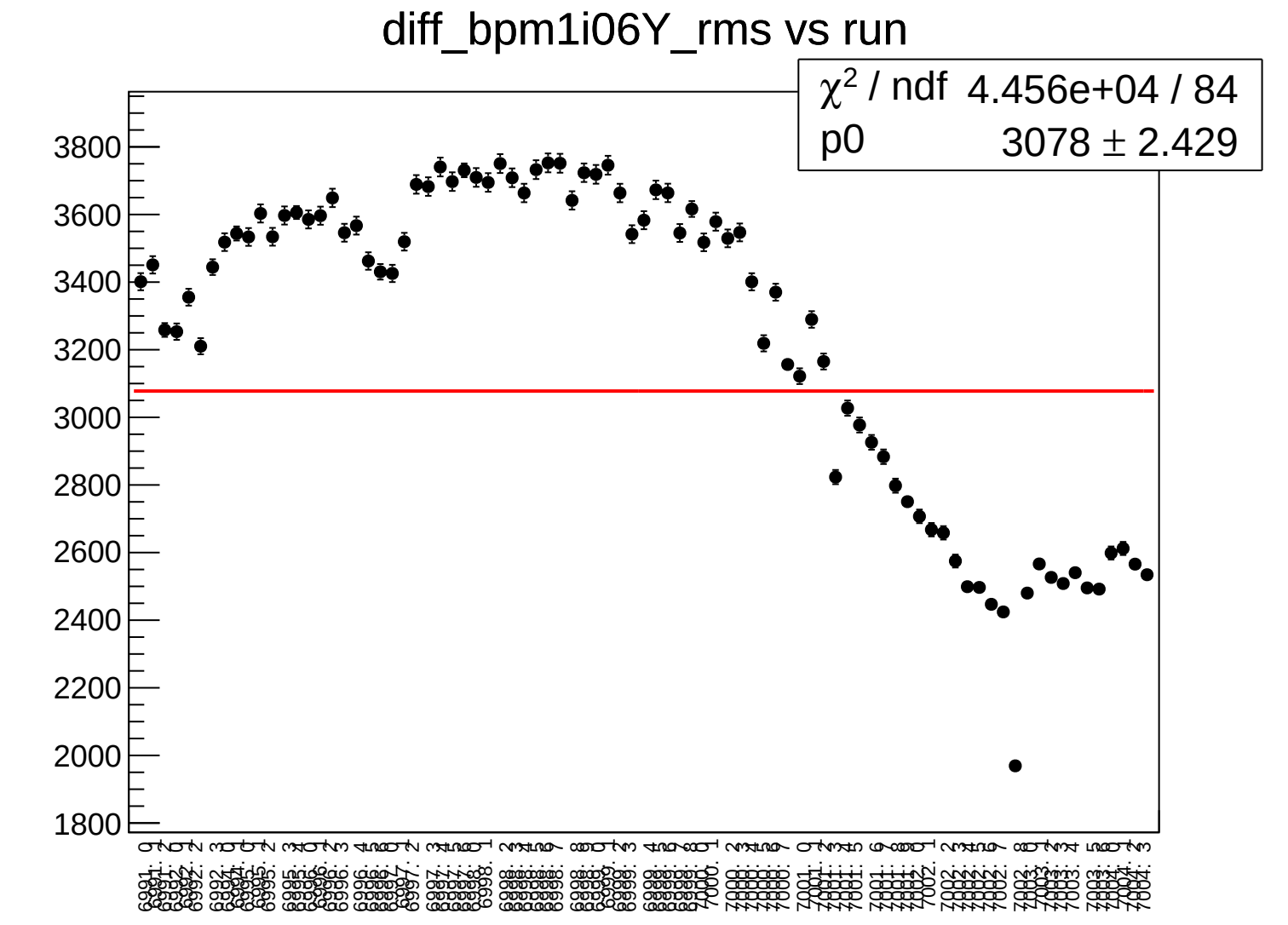

diff_bpm1i06X_mean vs run
χ^2 / ndf 78.44 / 84
p0 48.66 ± 2.921
150
100
50
0
−50
pull
Entries 85
Mean −1411
Std Dev 1451
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

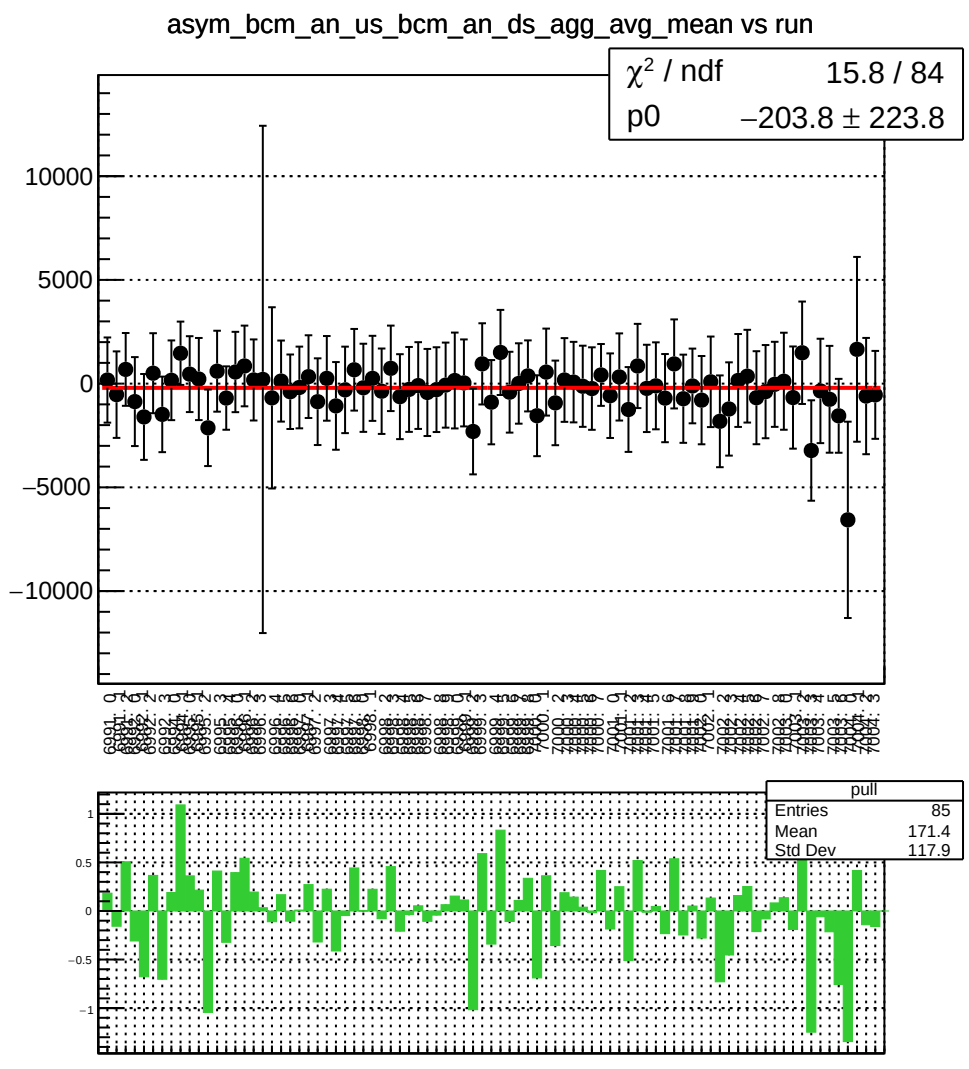

pull1D
Entries 85
Mean 0.001867
Std Dev 0.9606
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

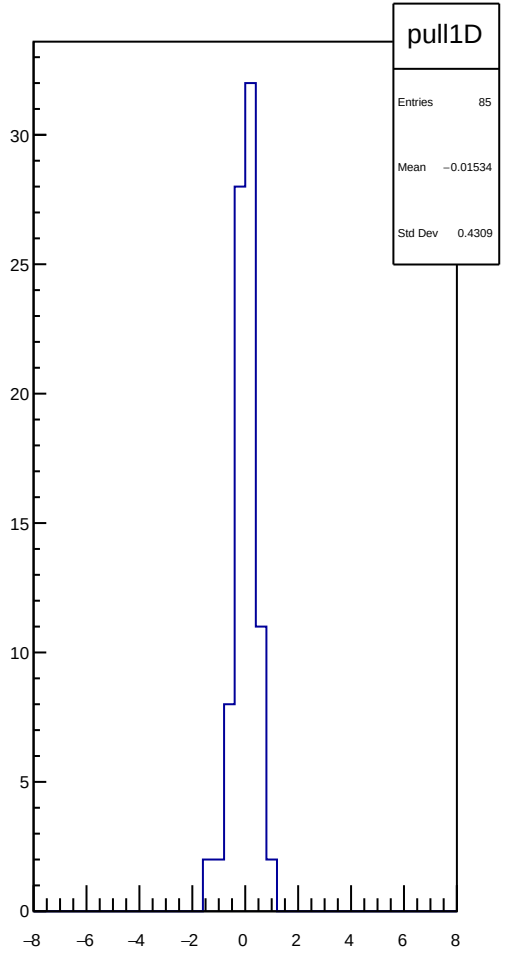

diff_bpm1i06X_rms vs run
χ^2 / ndf 9.907e+04 / 84
p0 2572 ± 2.065
3500
3000
2500
2000
1500

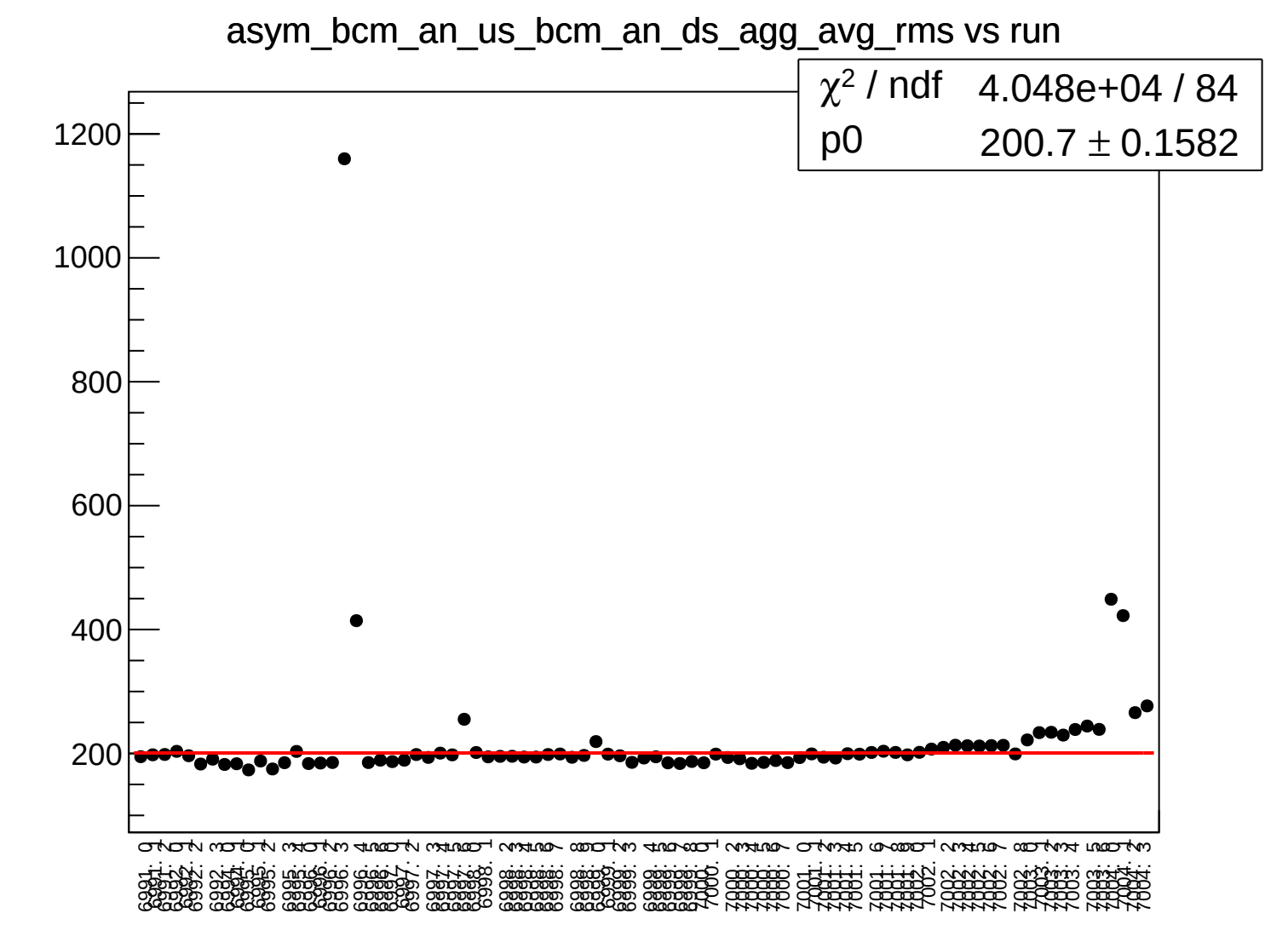

diff_bpm1i06Y_mean vs run
χ² / ndf 71.08 / 84
p0 −3.196 ± 3.435
100
50
0
−50
−100
pull
Entries 85
Mean −88.83
Std Dev 97.56
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

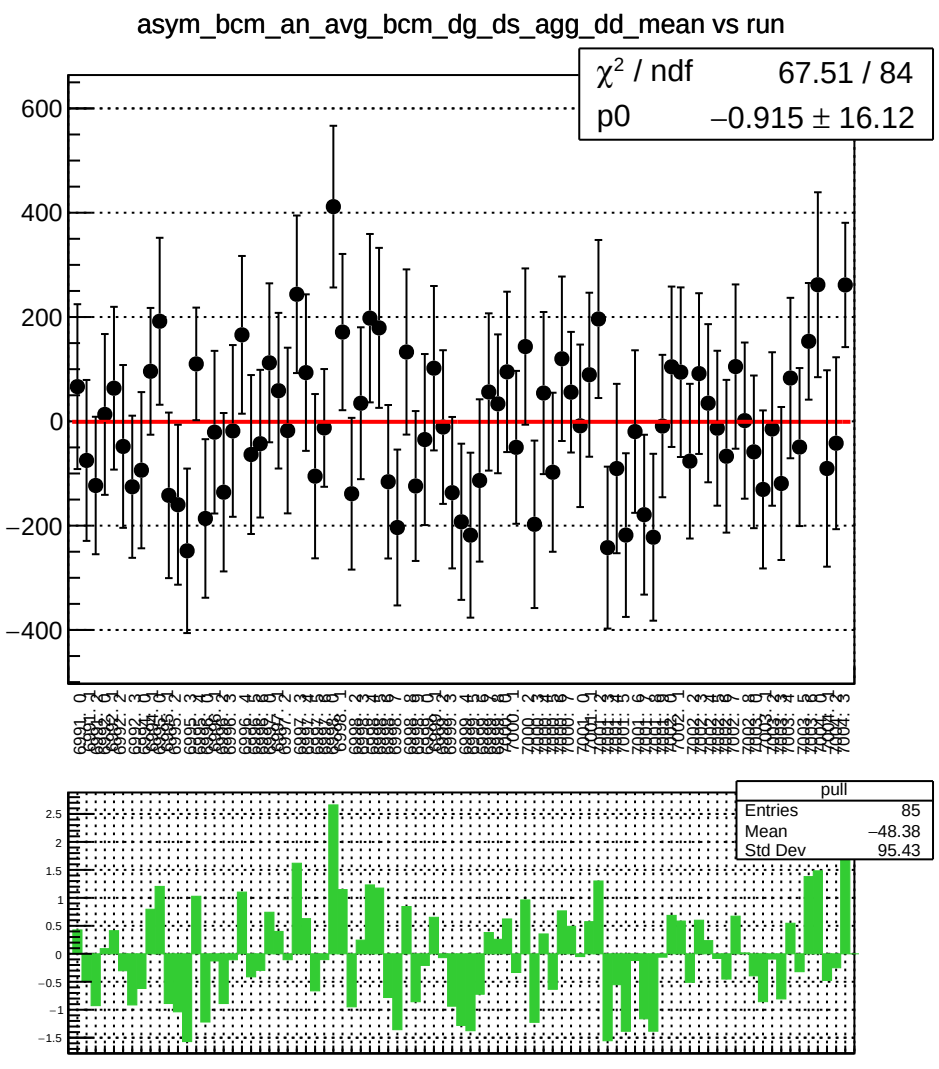

pull1D
Entries 85
Mean −0.005497
Std Dev 0.9144
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

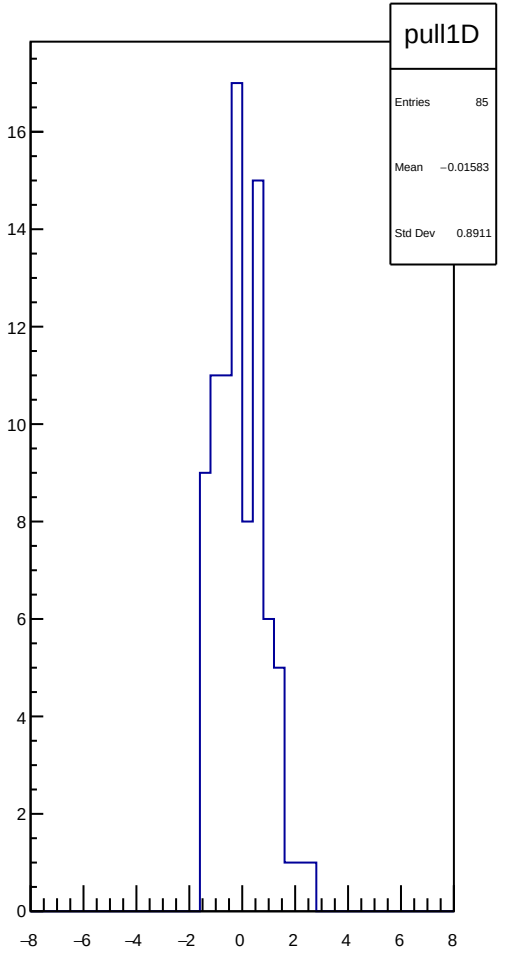

diff_bpm1i06Y_rms vs run
χ² / ndf 4.456e+04 / 84
p0 3078 ± 2.429
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800

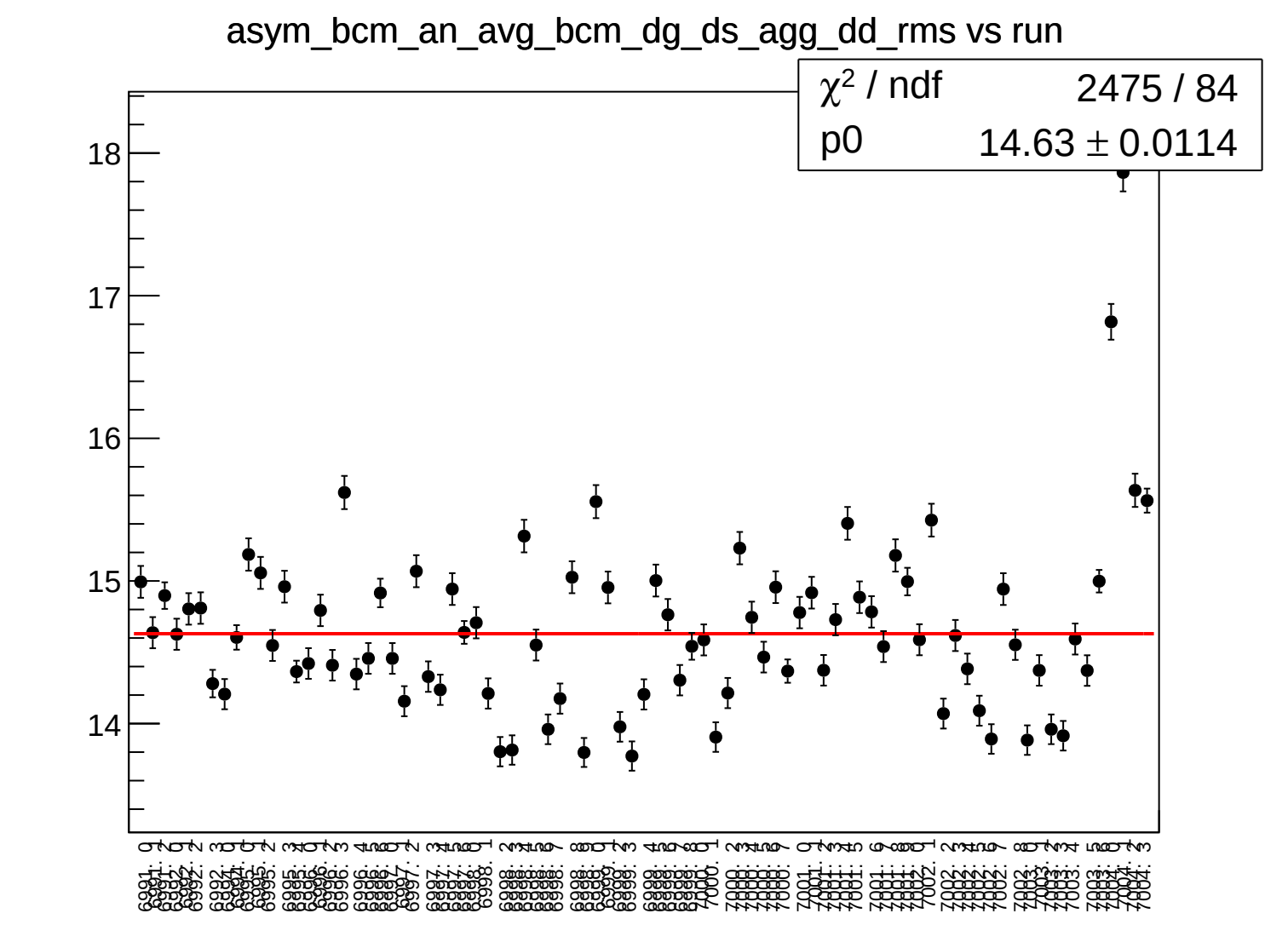

asym_bcm_an_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 15.8 / 84
p0 −203.8 ± 223.8
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 171.4
Std Dev 117.9
1
0.5
0
−0.5
−1

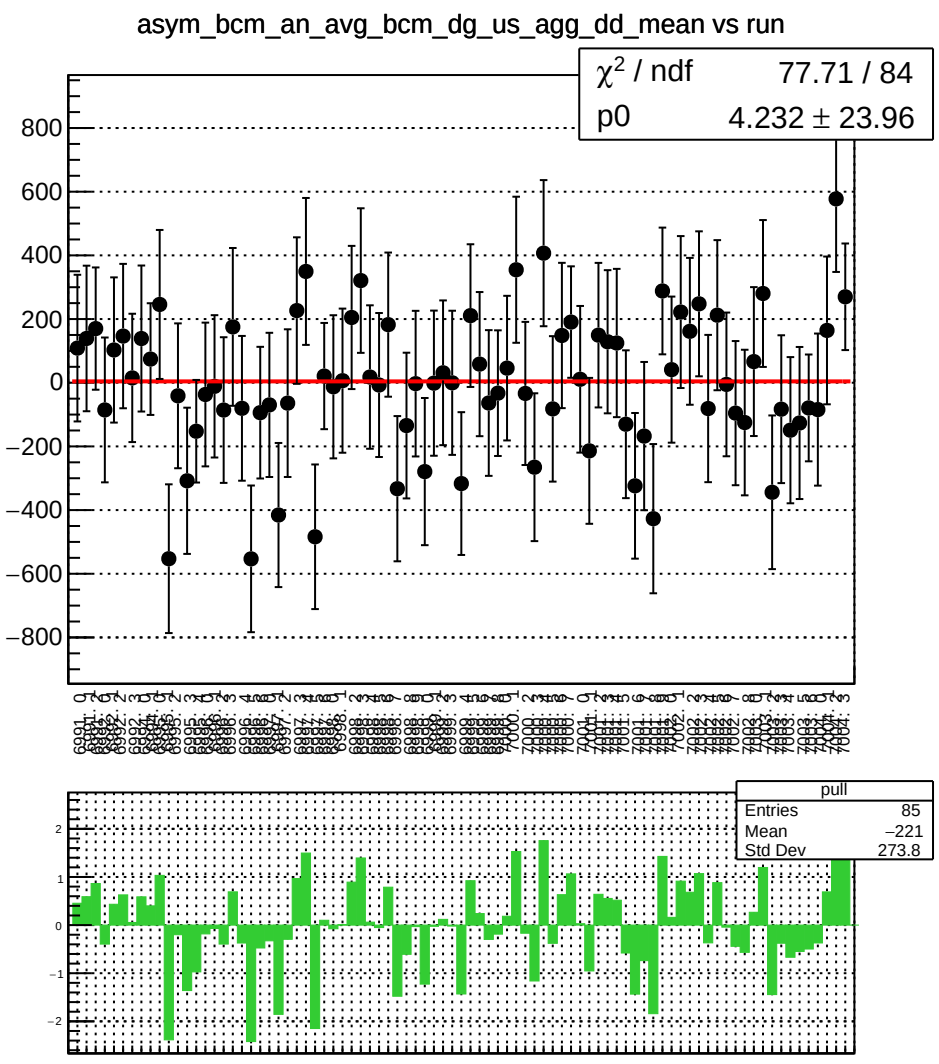

pull1D
Entries 85
Mean −0.01534
Std Dev 0.4309
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

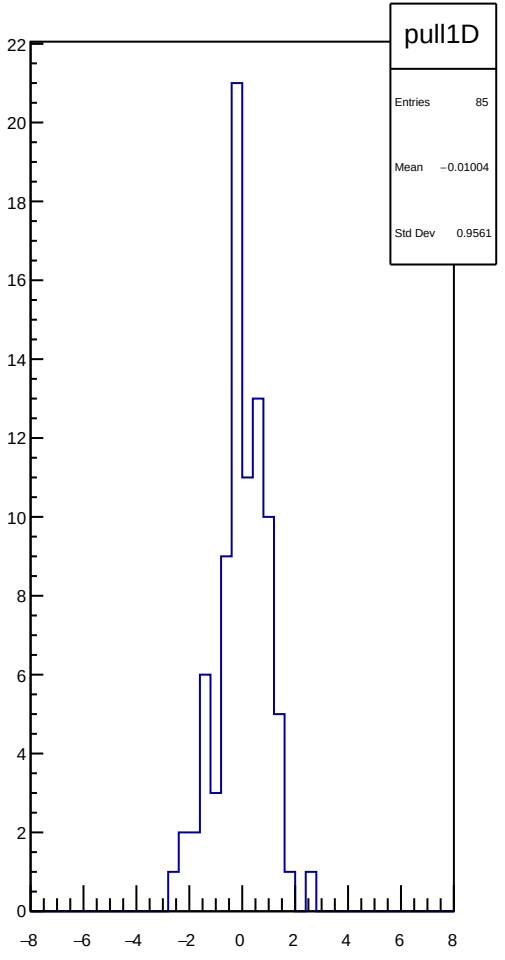

asym_bcm_an_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 4.048e+04 / 84
p0 200.7 ± 0.1582
1200
1000
800
600
400
200

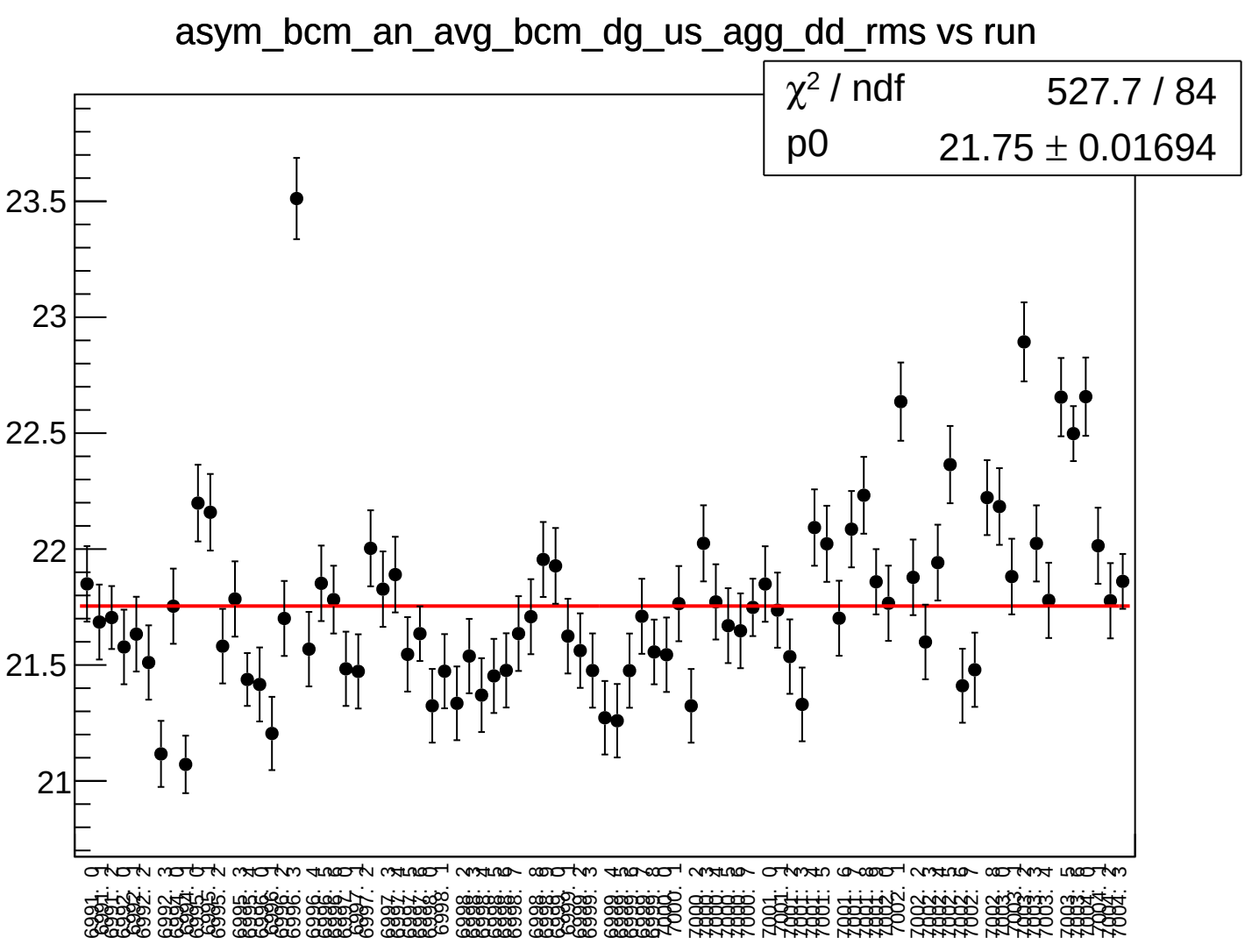

asym_bcm_an_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 67.51 / 84
p0 −0.915 ± 16.12
600
400
200
0
−200
−400
pull
Entries 85
Mean −48.38
Std Dev 95.43
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5

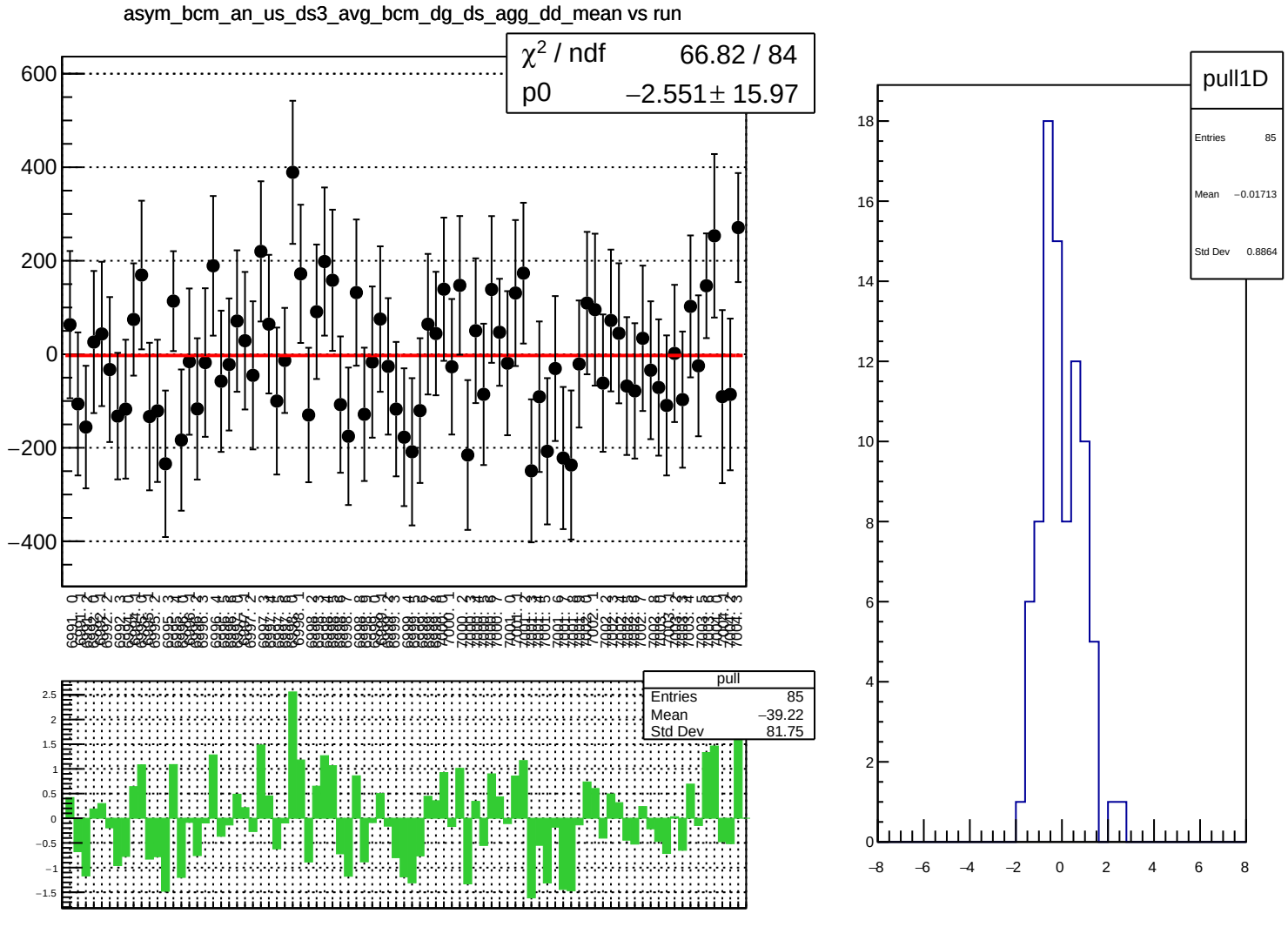

pull1D
Entries 85
Mean −0.01583
Std Dev 0.8911
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

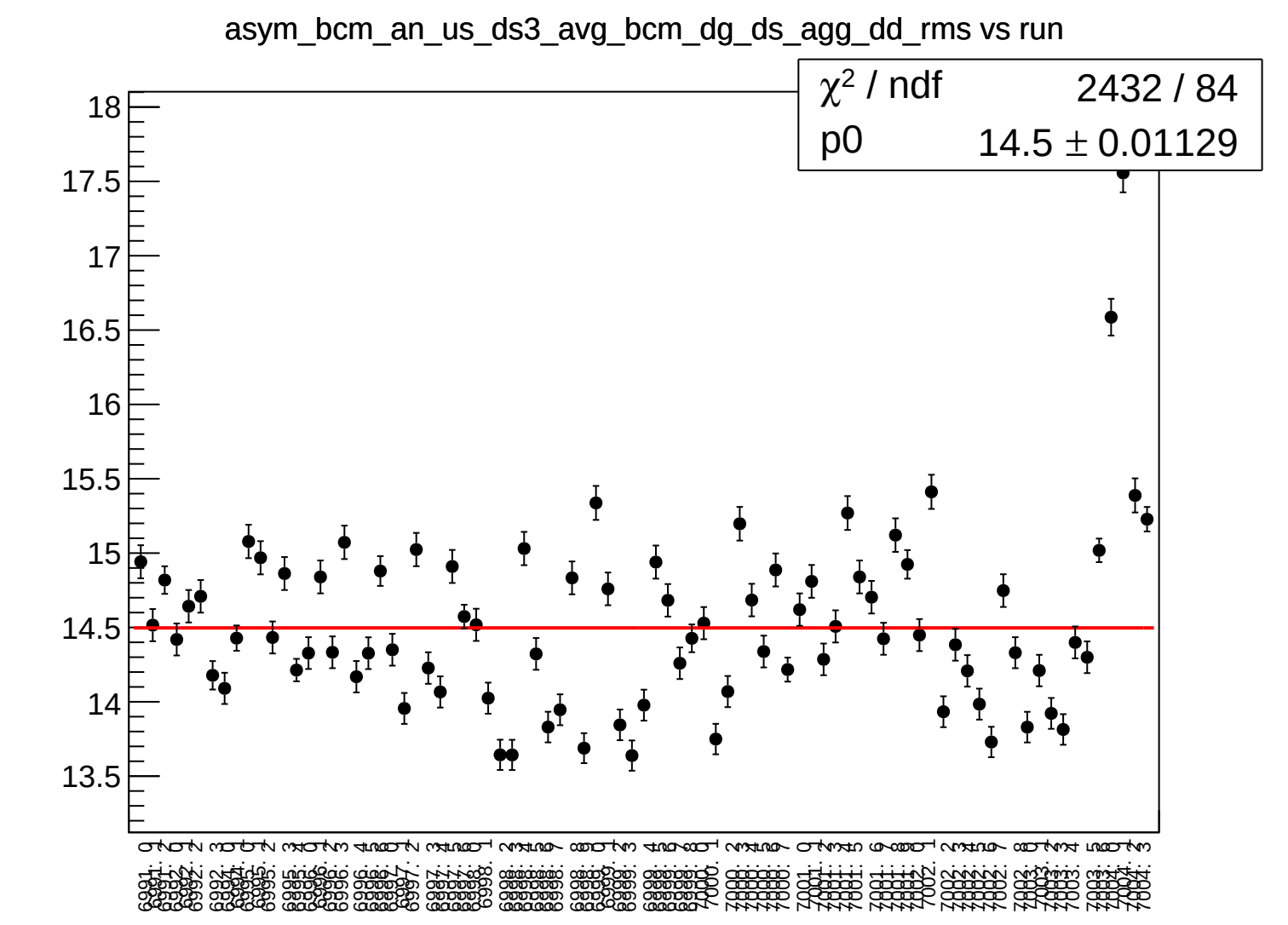

asym_bcm_an_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 2475 / 84
p0 14.63 ± 0.0114
18
17
16
15
14

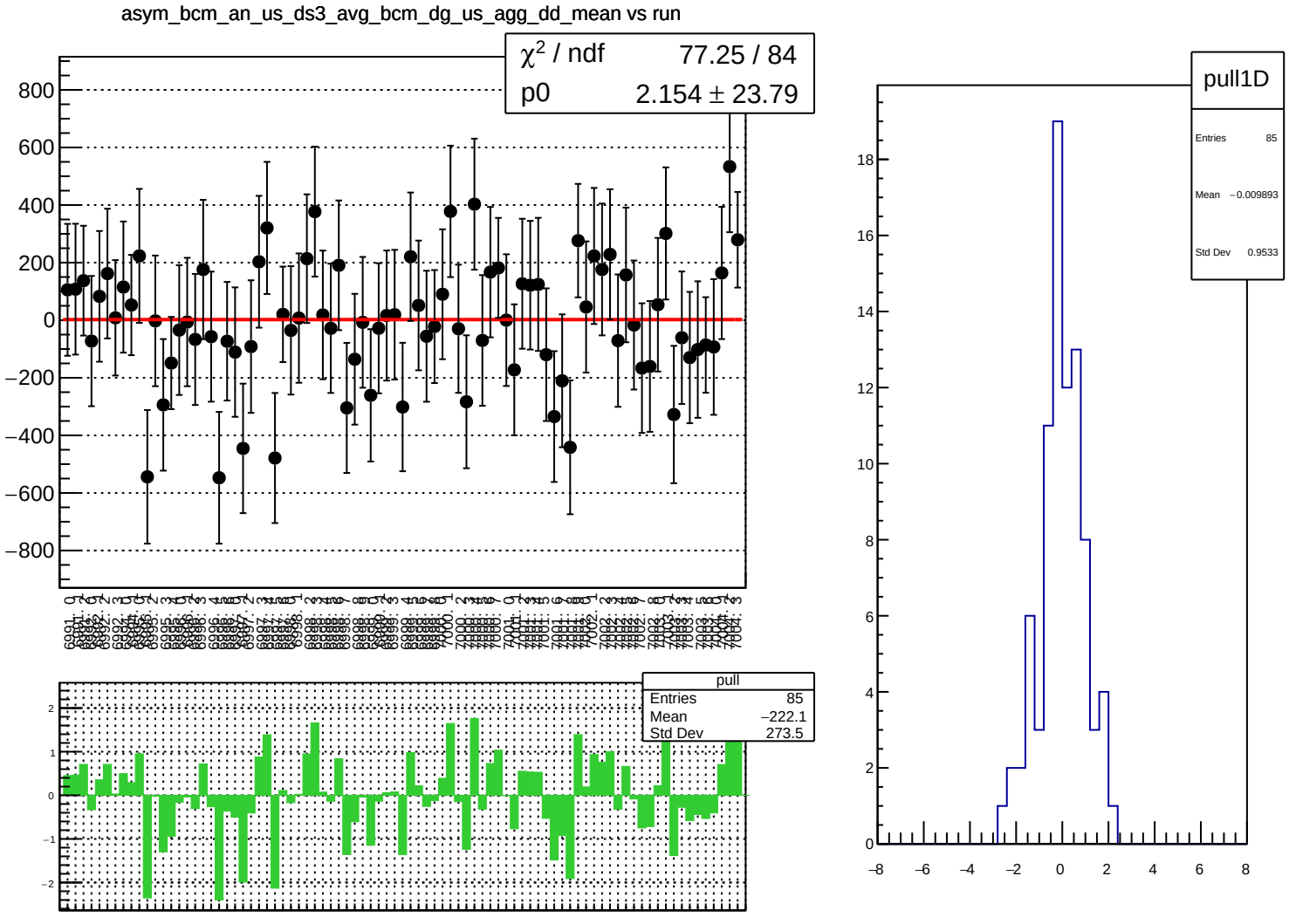

asym_bcm_an_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 77.71 / 84
p0 4.232 ± 23.96
pull
Entries 85
Mean −221
Std Dev 273.8

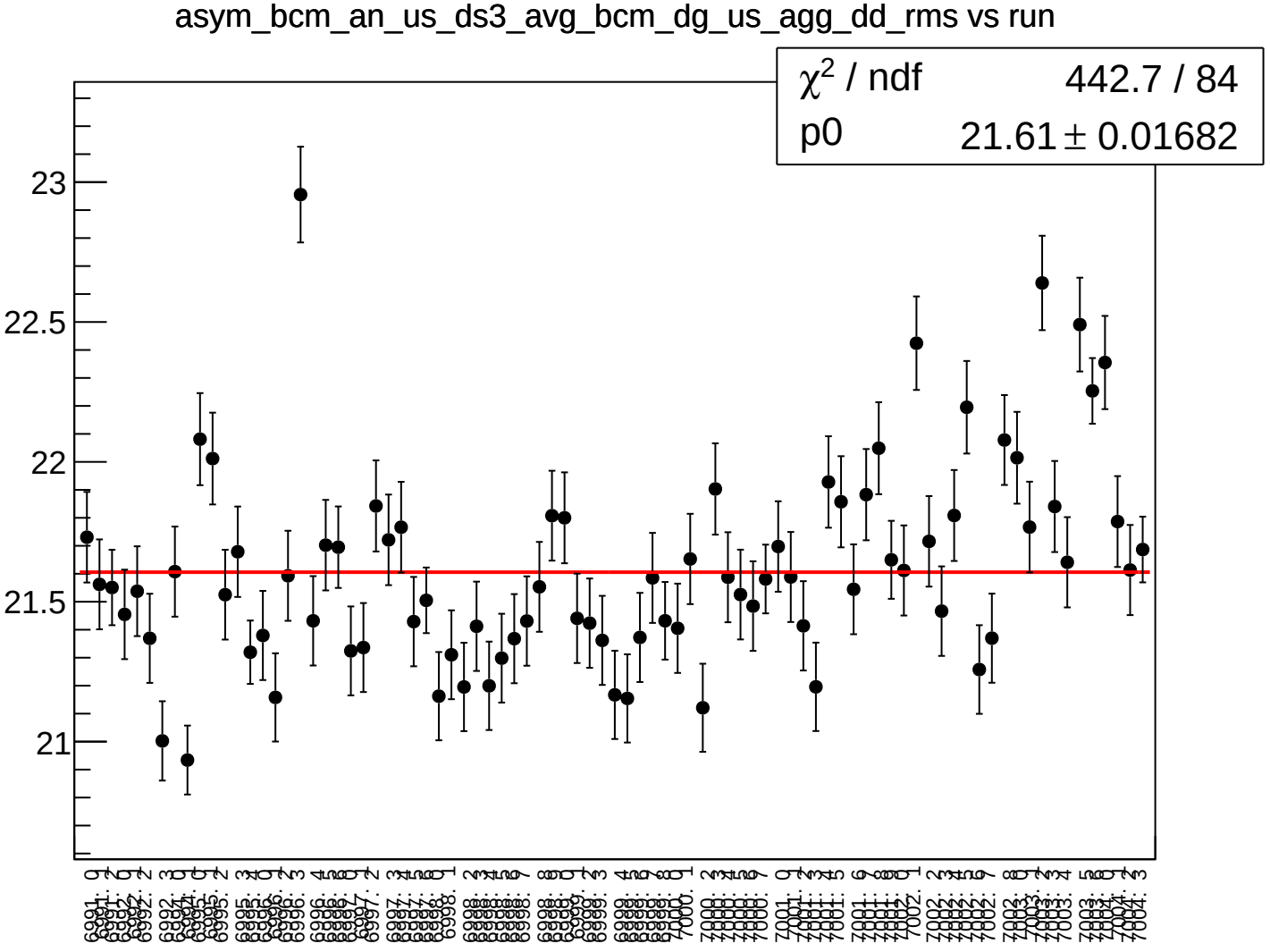

pull1D
Entries 85
Mean −0.01004
Std Dev 0.9561

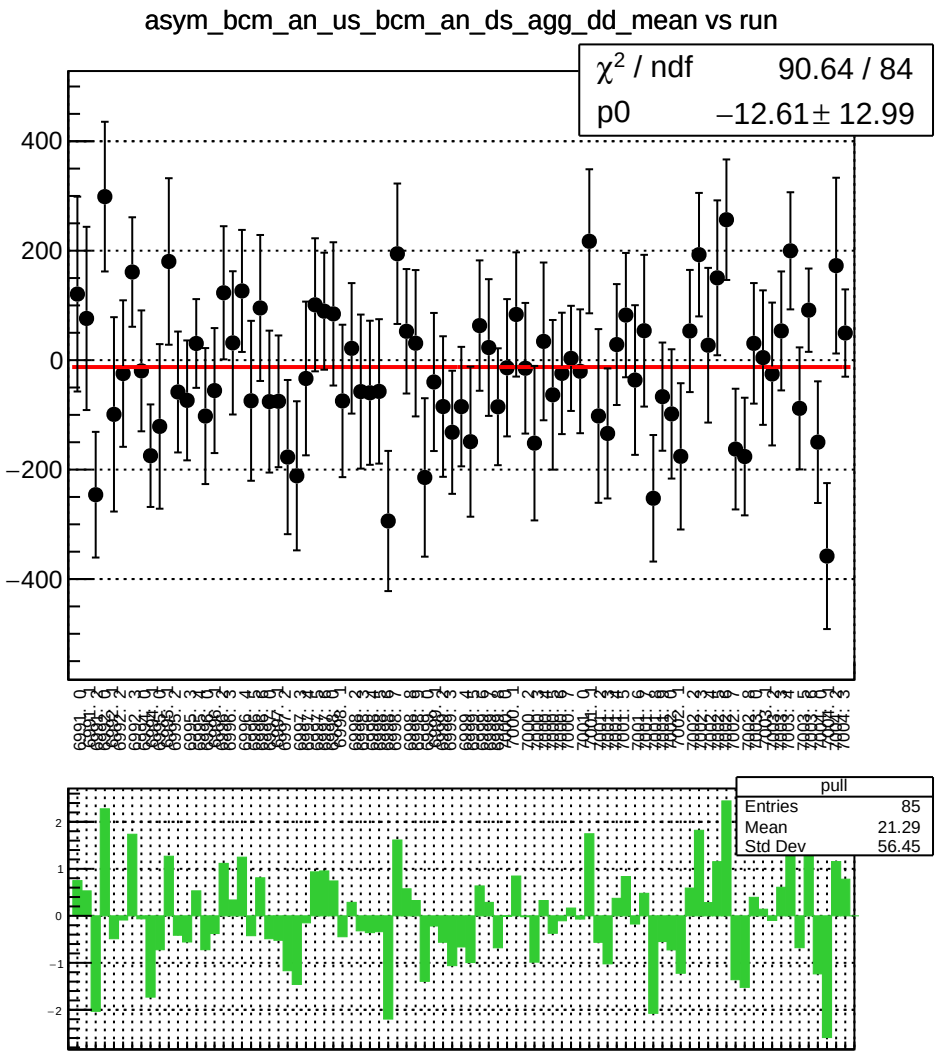

asym_bcm_an_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 527.7 / 84
p0 21.75 ± 0.01694
23.5
23
22.5
22
21.5
21

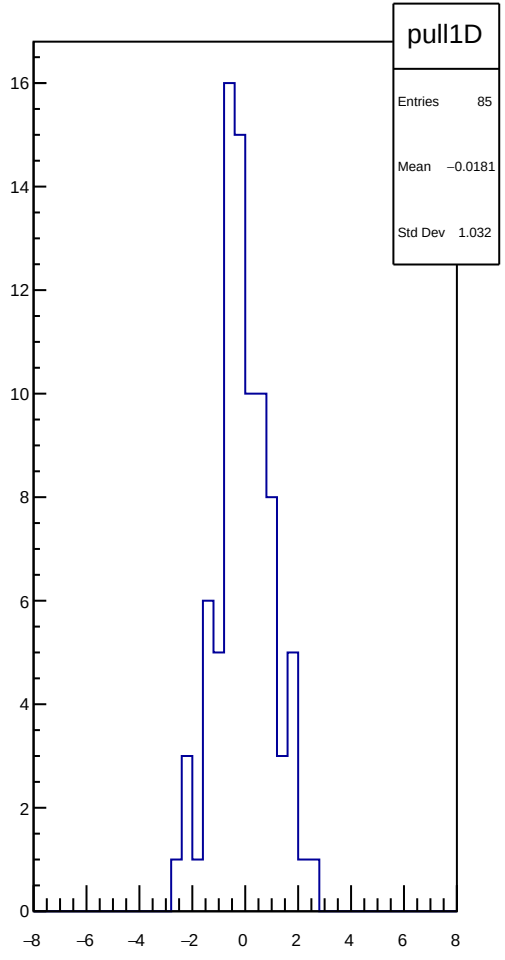

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 66.82 / 84
p0 −2.551 ± 15.97
pull
Entries 85
Mean −39.22
Std Dev 81.75
pull1D
Entries 85
Mean −0.01713
Std Dev 0.8864

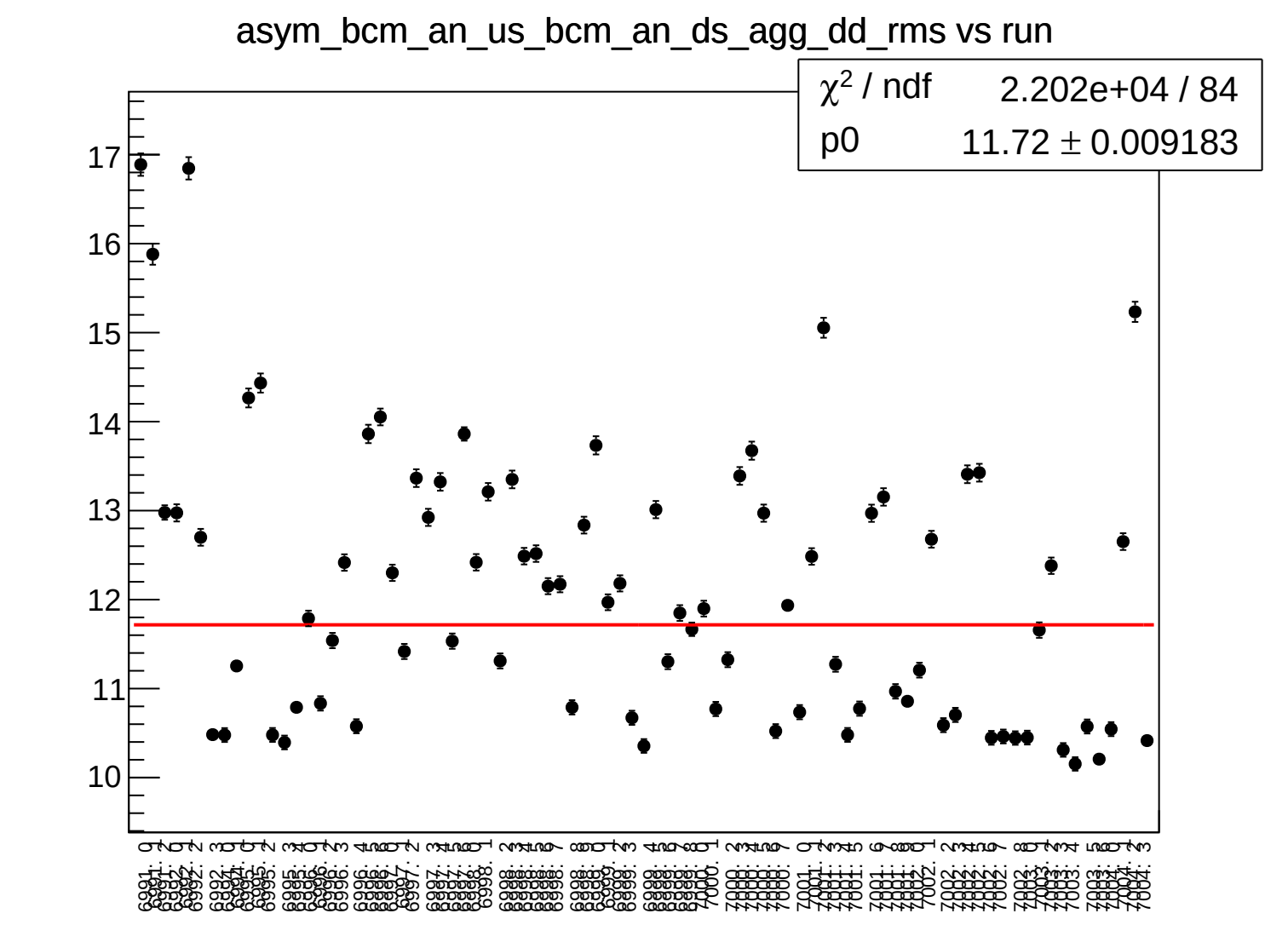

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 2432 / 84
p0 14.5 ± 0.01129
18
17.5
17
16.5
16
15.5
15
14.5
14
13.5

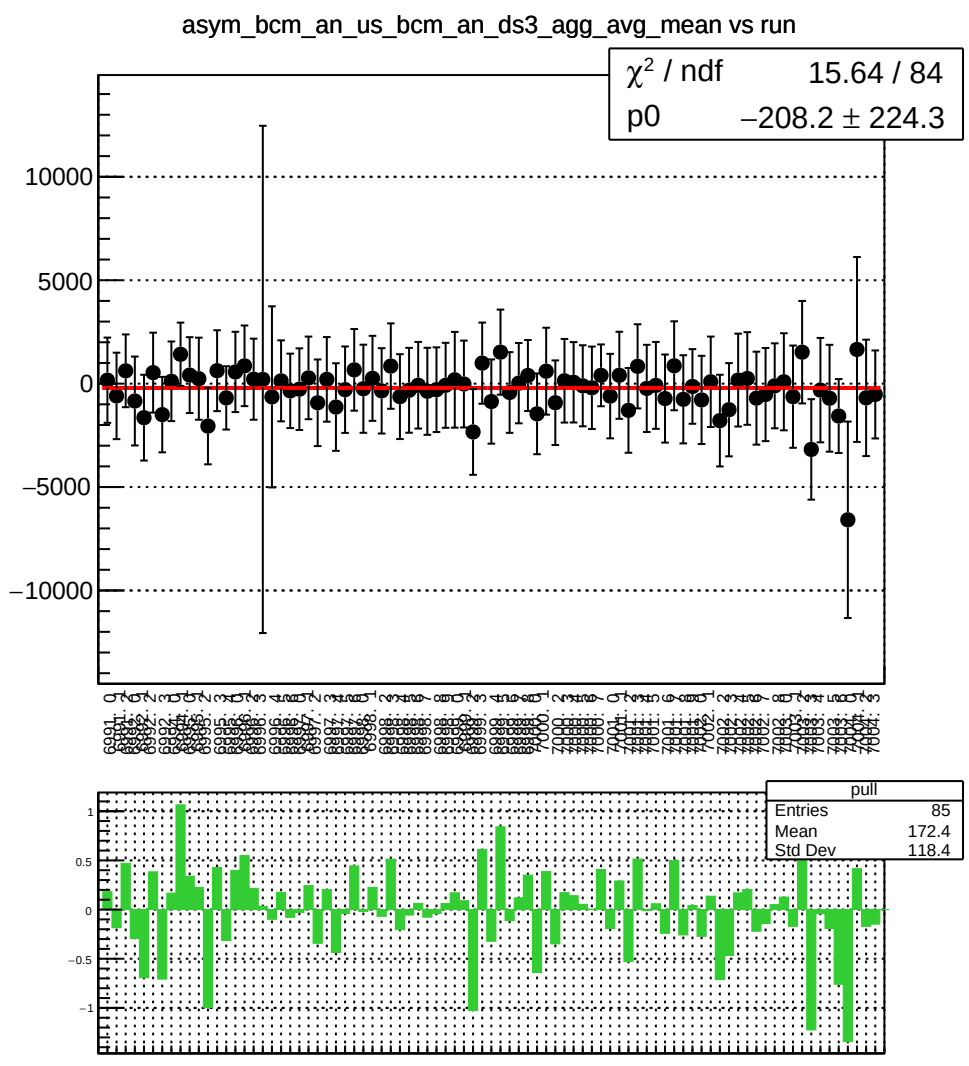

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 77.25 / 84
p0 2.154 ± 23.79
pull
Entries 85
Mean −222.1
Std Dev 273.5
pull1D
Entries 85
Mean −0.009893
Std Dev 0.9533

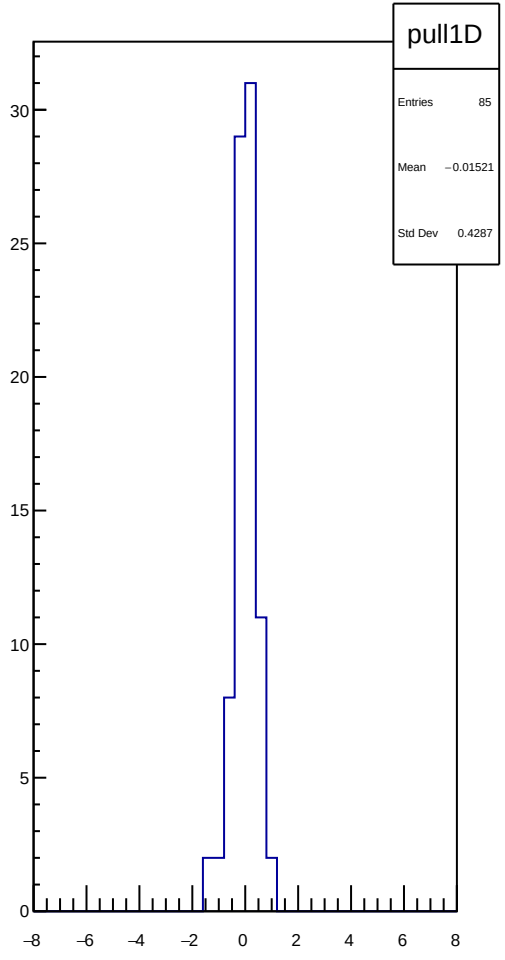

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 442.7 / 84
p0 21.61 ± 0.01682
23
22.5
22
21.5
21

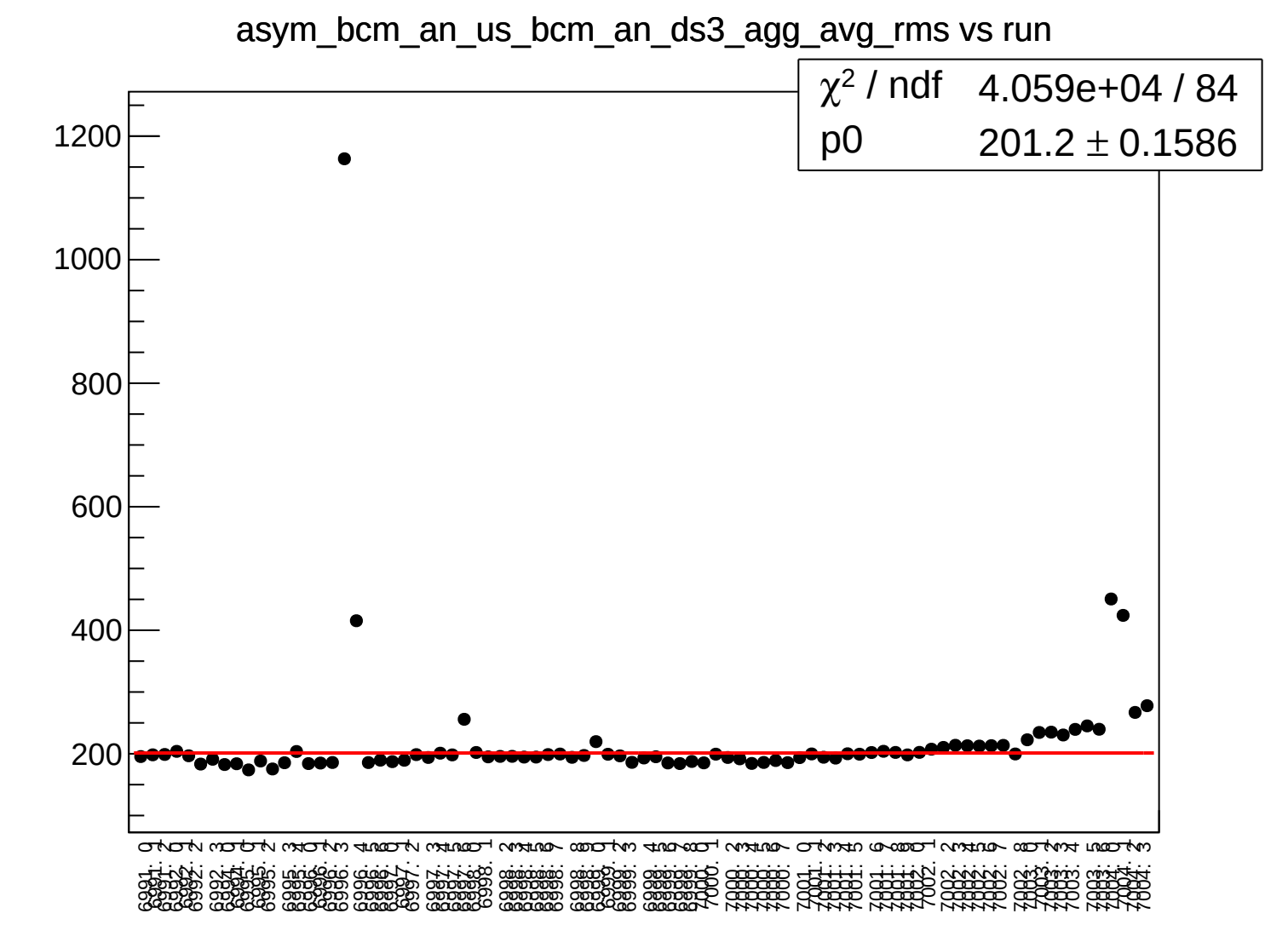

asym_bcm_an_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 90.64 / 84
p0 −12.61± 12.99
400
200
0
−200
−400
pull
Entries 85
Mean 21.29
Std Dev 56.45
2
1
0
−1
−2

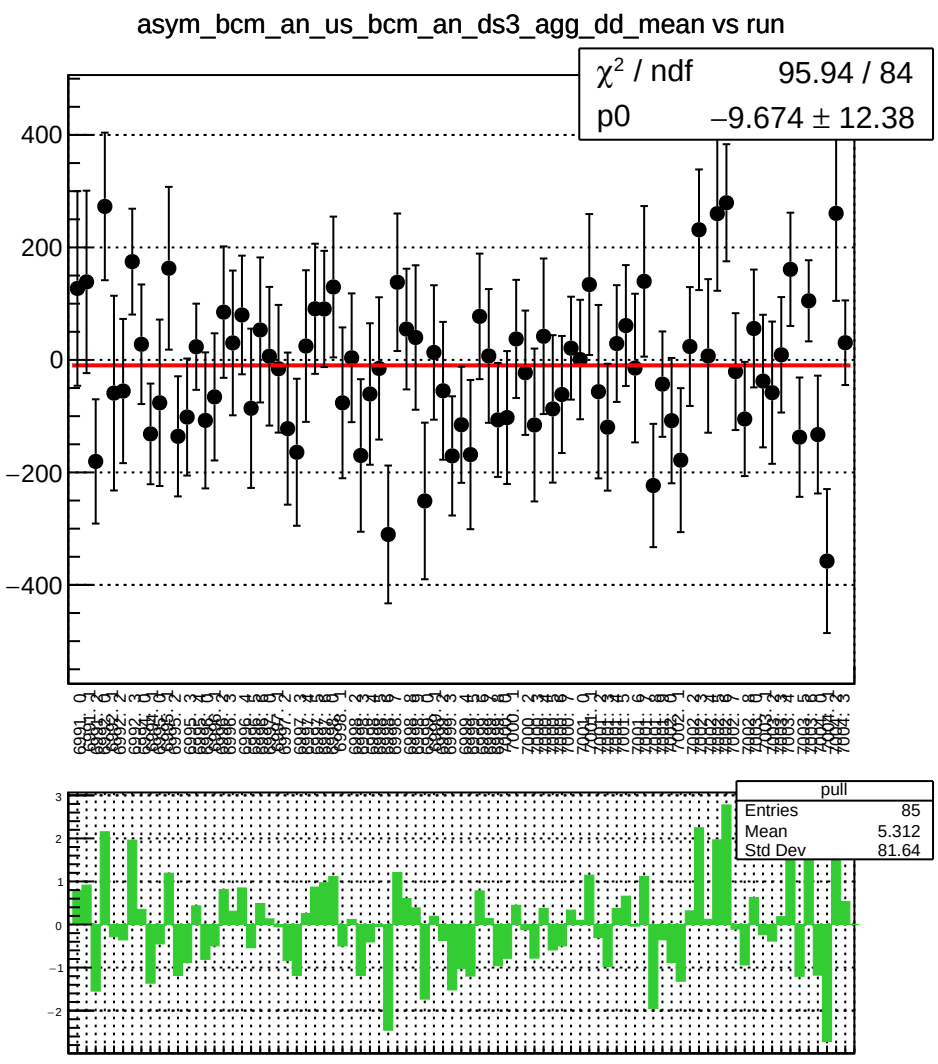

pull1D
Entries 85
Mean −0.0181
Std Dev 1.032
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

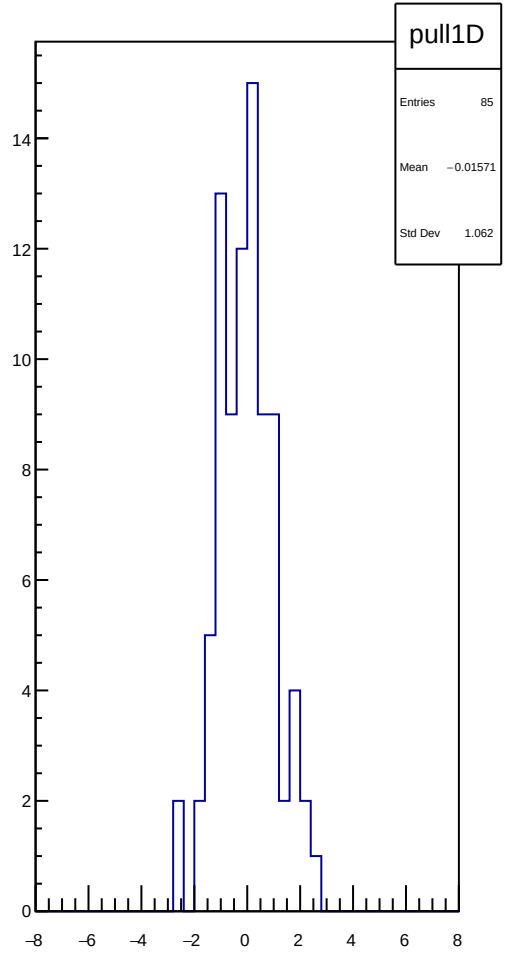

asym_bcm_an_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 2.202e+04 / 84
p0 11.72 ± 0.009183
17
16
15
14
13
12
11
10

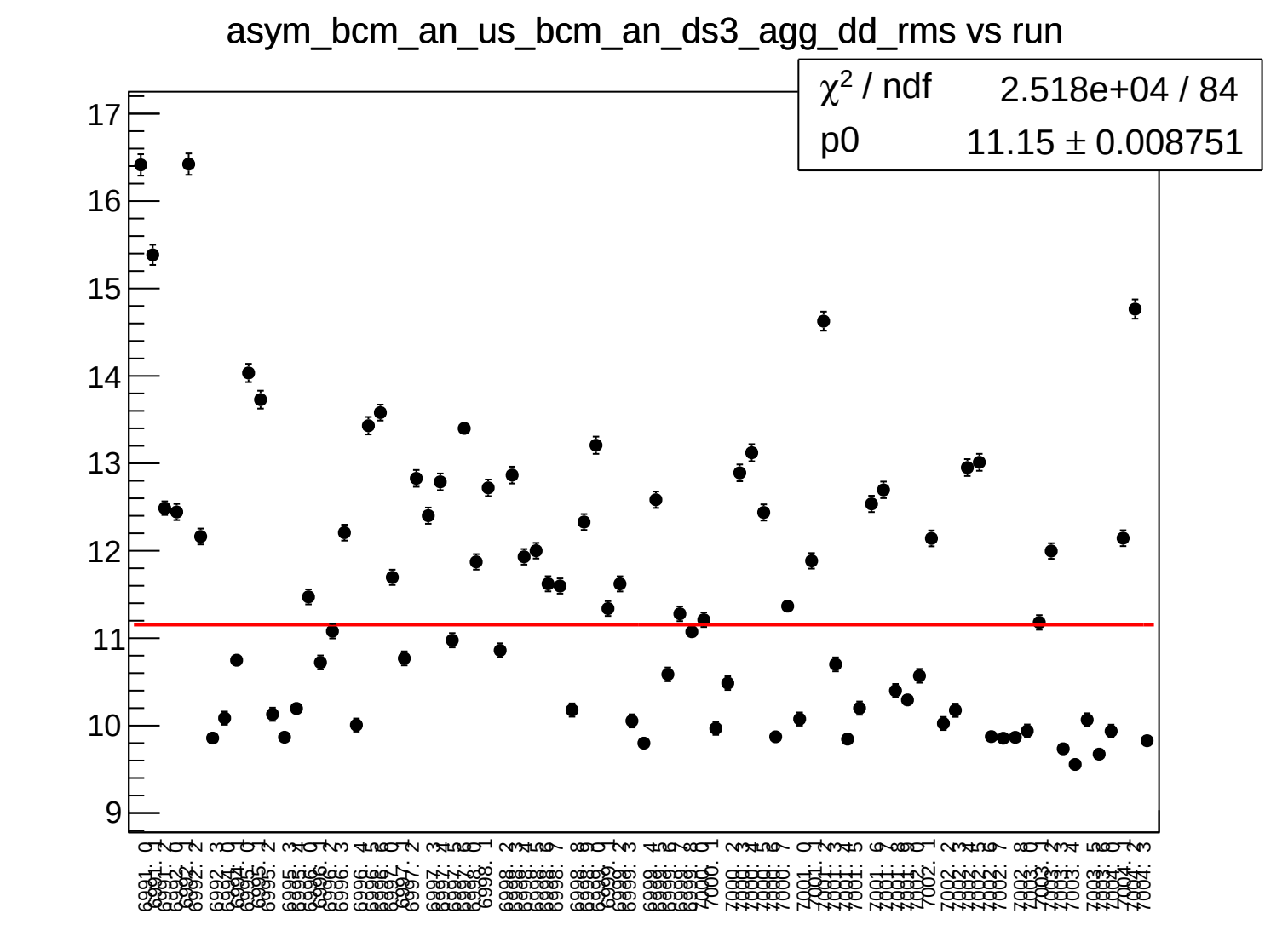

asym_bcm_an_us_bcm_an_ds3_agg_avg_mean vs run
χ² / ndf 15.64 / 84
p0 −208.2 ± 224.3
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 172.4
Std Dev 118.4
1
0.5
0
−0.5
−1

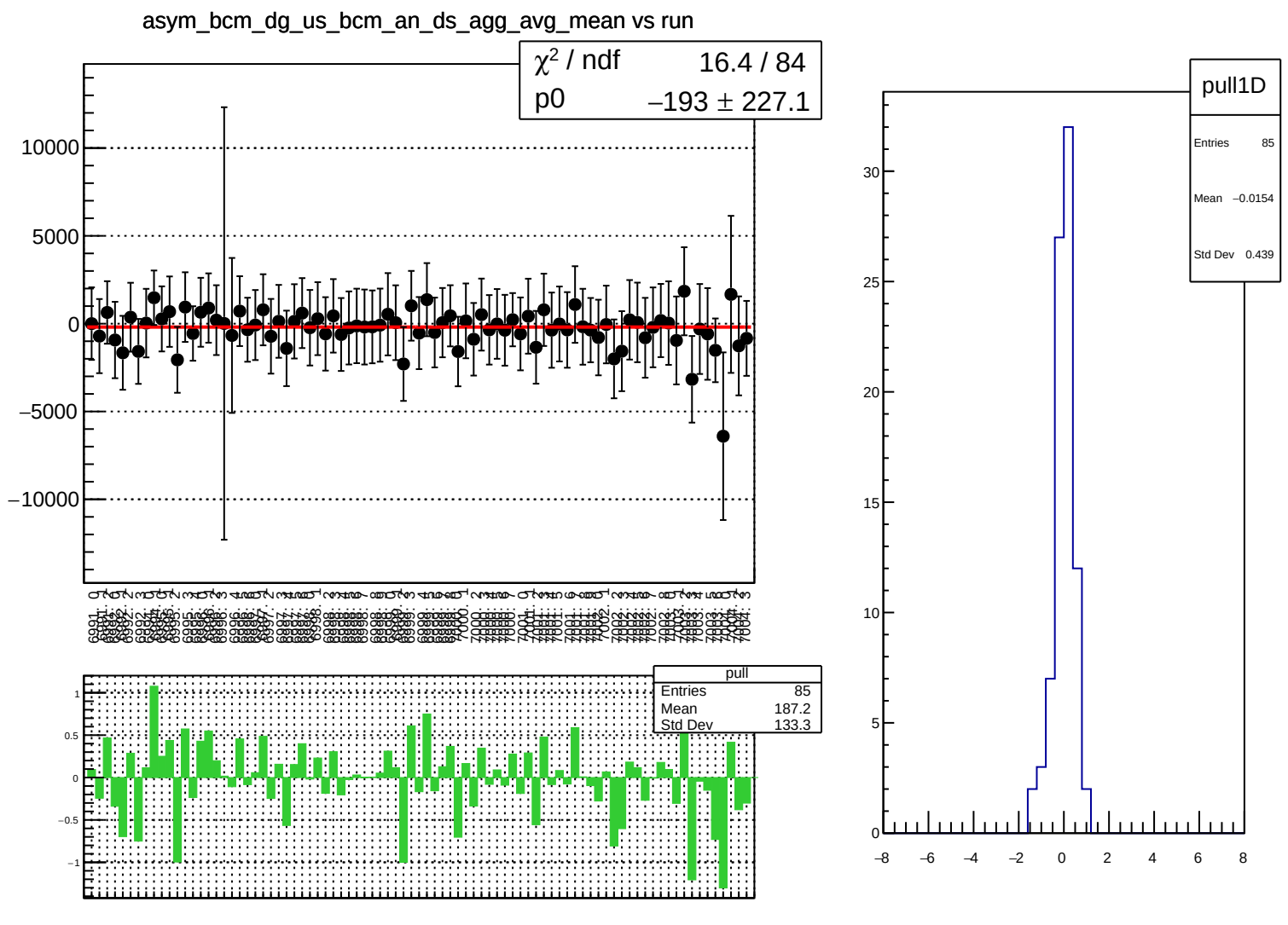

pull1D
Entries 85
Mean −0.01521
Std Dev 0.4287
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

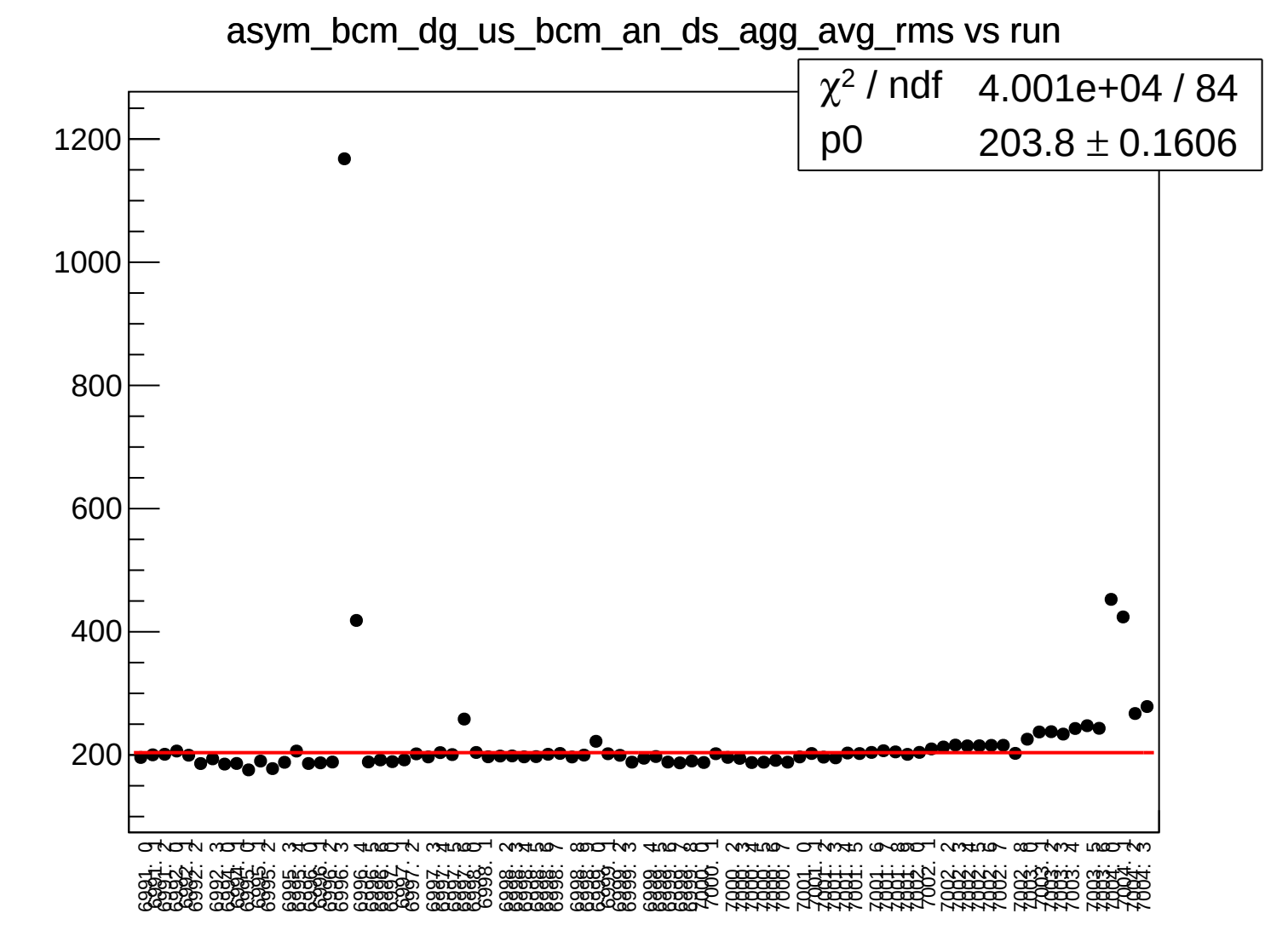

asym_bcm_an_us_bcm_an_ds3_agg_avg_rms vs run
χ² / ndf 4.059e+04 / 84
p0 201.2 ± 0.1586
1200
1000
800
600
400
200

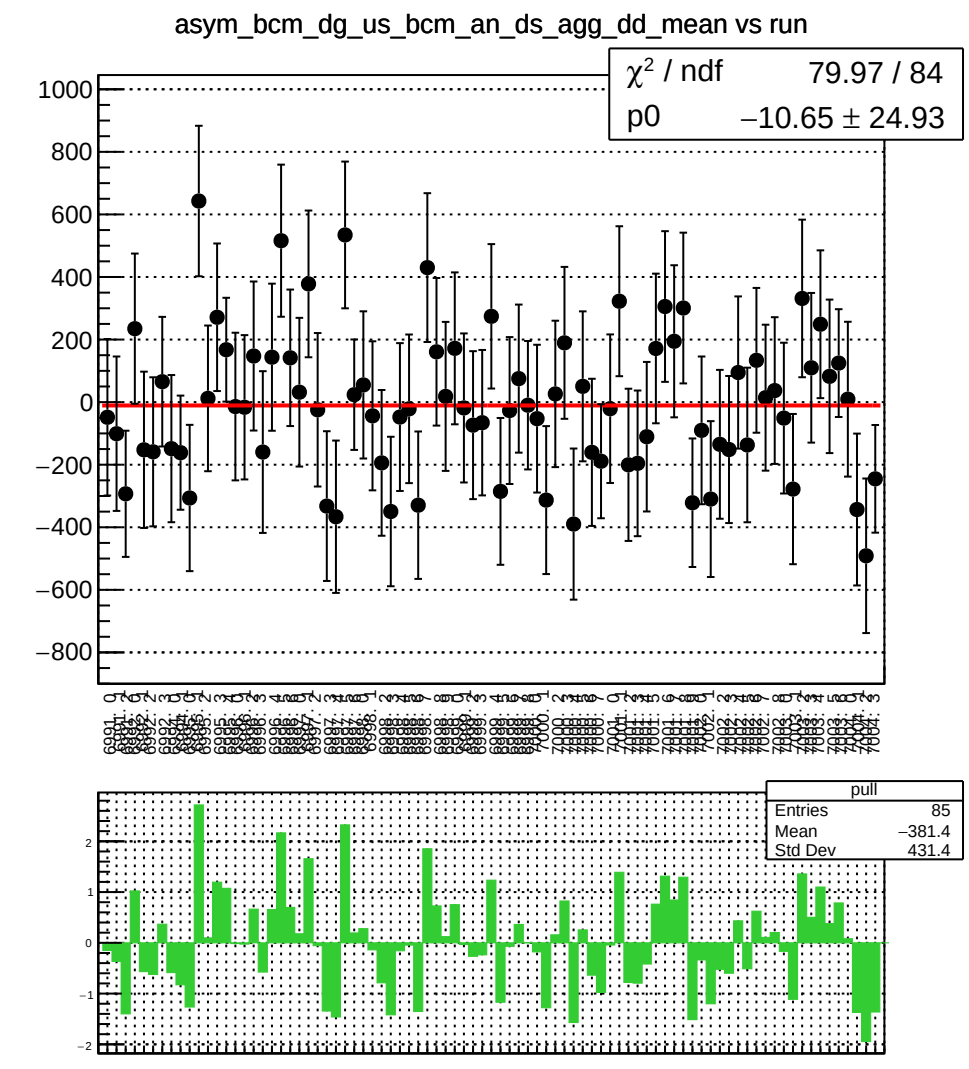

asym_bcm_an_us_bcm_an_ds3_agg_dd_mean vs run
χ² / ndf 95.94 / 84
p0 −9.674 ± 12.38
400
200
0
−200
−400
pull
Entries 85
Mean 5.312
Std Dev 81.64
3
2
1
0
−1
−2

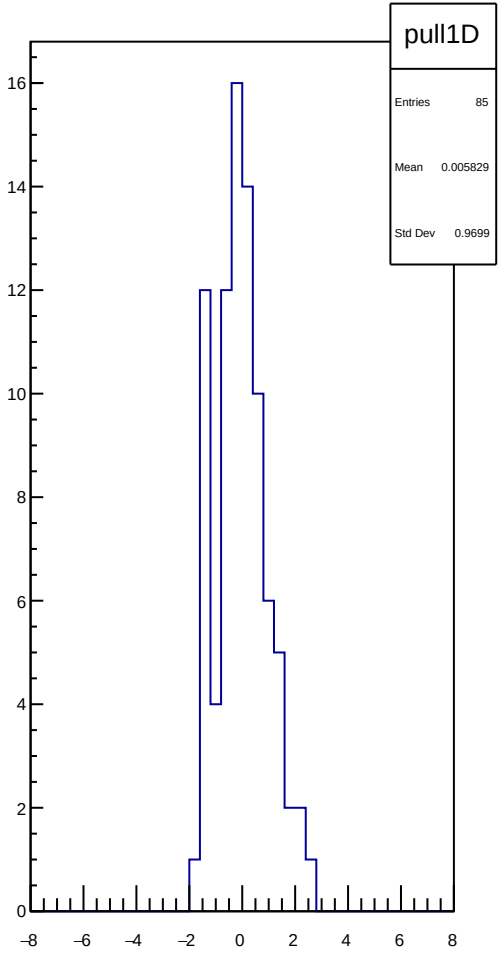

pull1D
Entries 85
Mean −0.01571
Std Dev 1.062
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

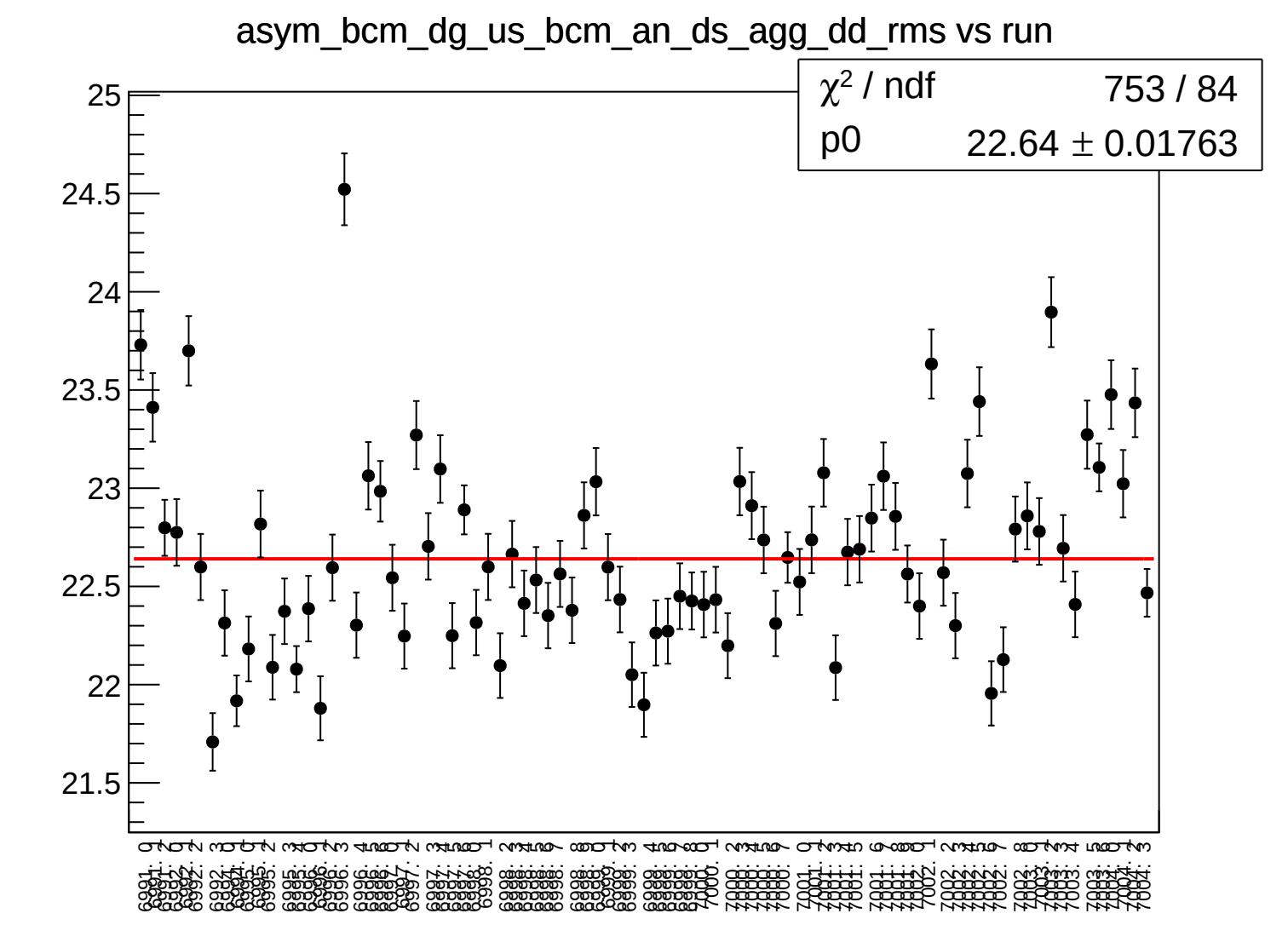

asym_bcm_an_us_bcm_an_ds3_agg_dd_rms vs run
χ² / ndf 2.518e+04 / 84
p0 11.15 ± 0.008751
17
16
15
14
13
12
11
10
9

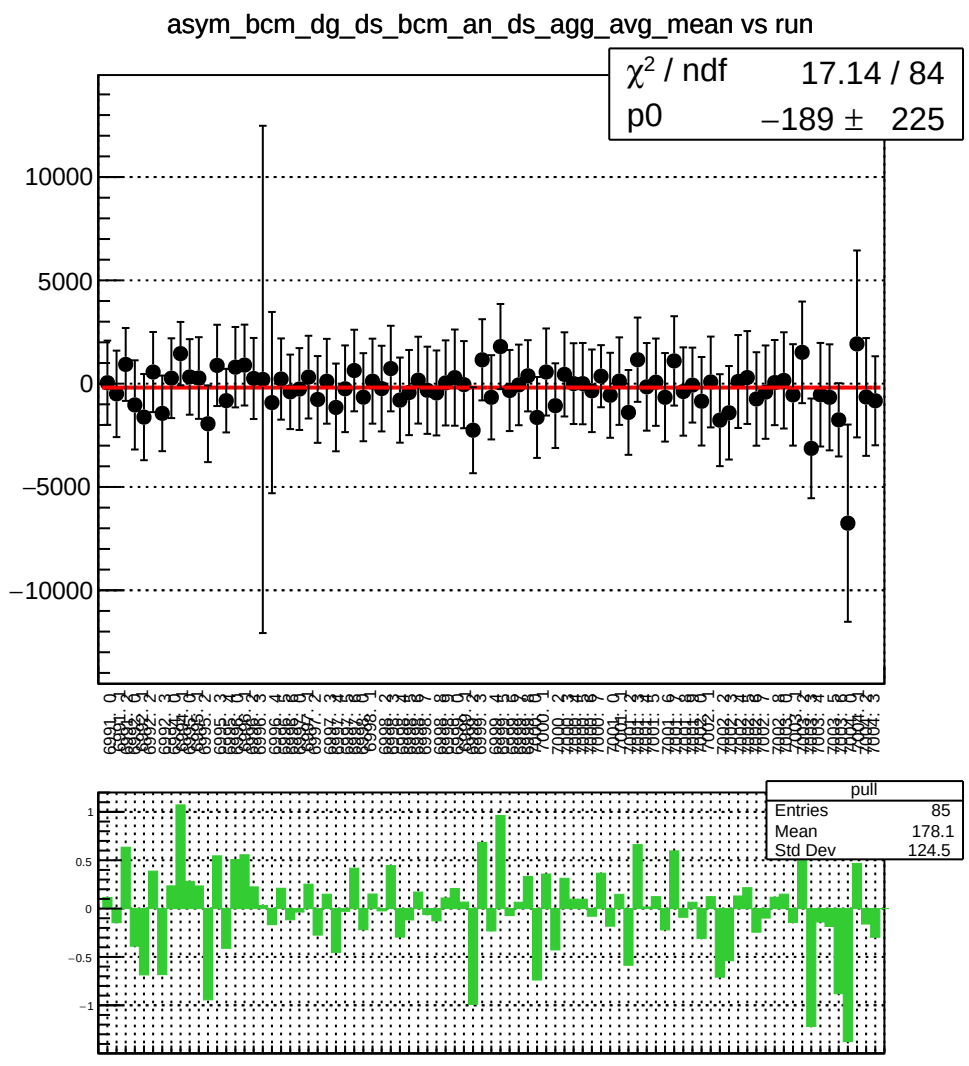

asym_bcm_dg_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 16.4 / 84
p0 −193 ± 227.1
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 187.2
Std Dev 133.3
1
0.5
0
−0.5
−1
pull1D
Entries 85
Mean −0.0154
Std Dev 0.439
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

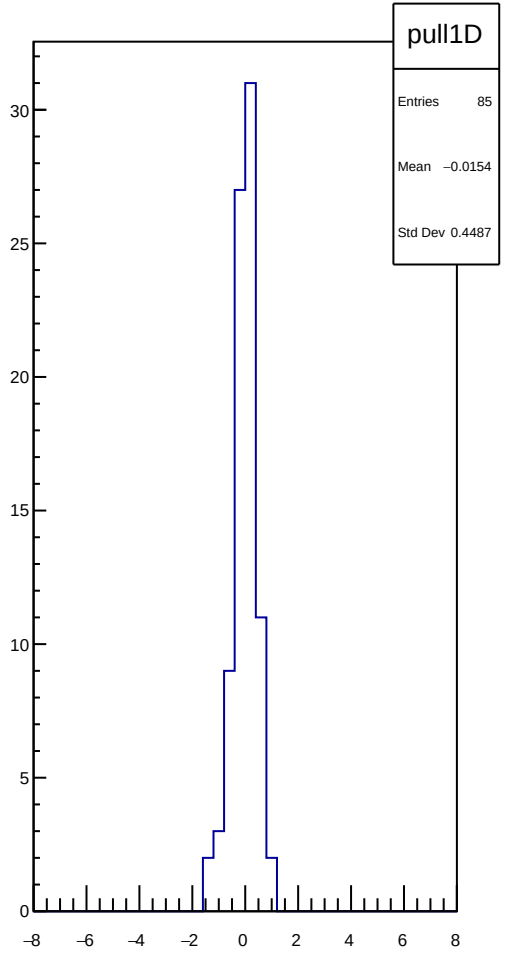

asym_bcm_dg_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 4.001e+04 / 84
p0 203.8 ± 0.1606
1200
1000
800
600
400
200

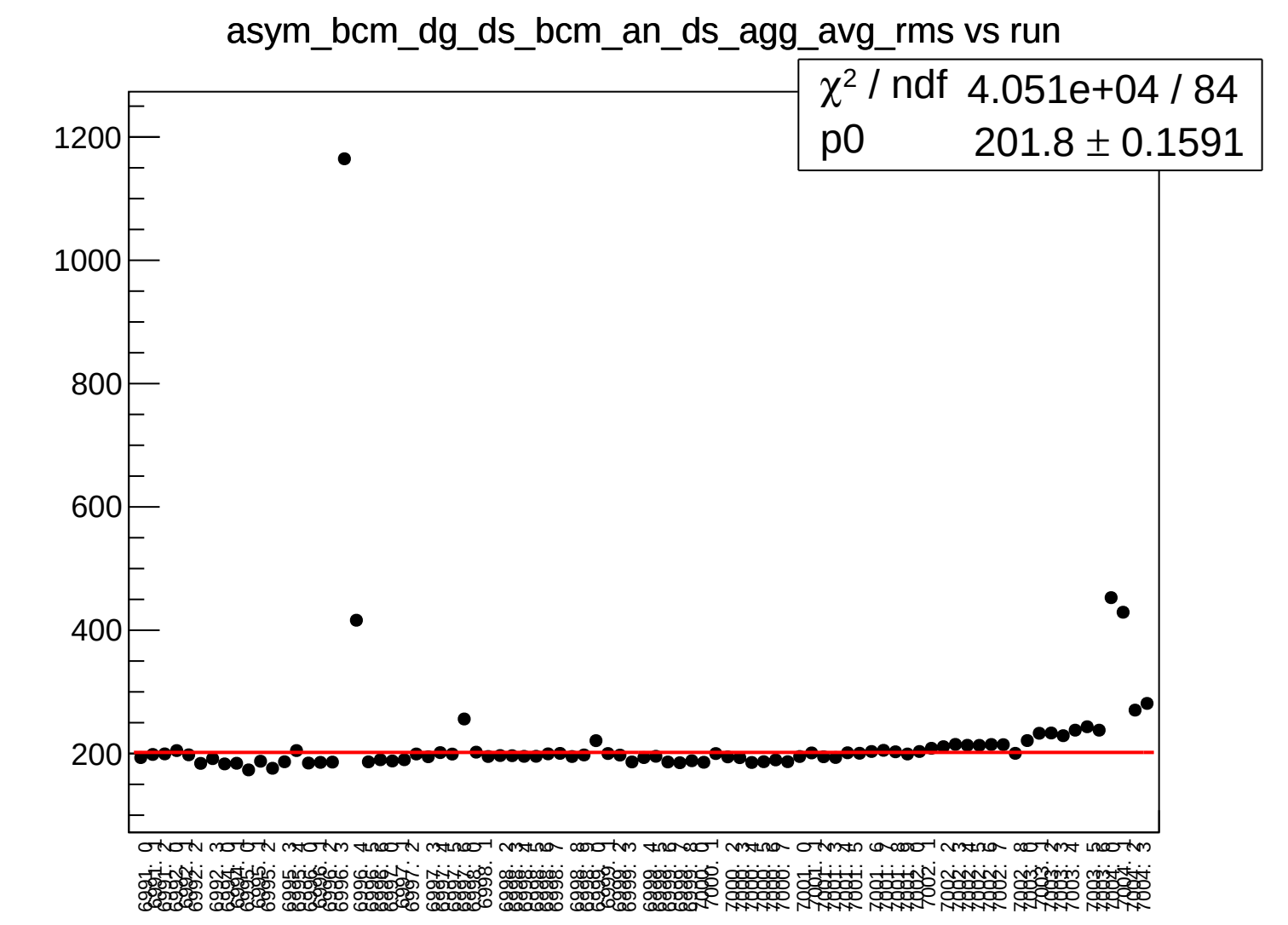

asym_bcm_dg_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 79.97 / 84
p0 −10.65 ± 24.93
pull
Entries 85
Mean −381.4
Std Dev 431.4

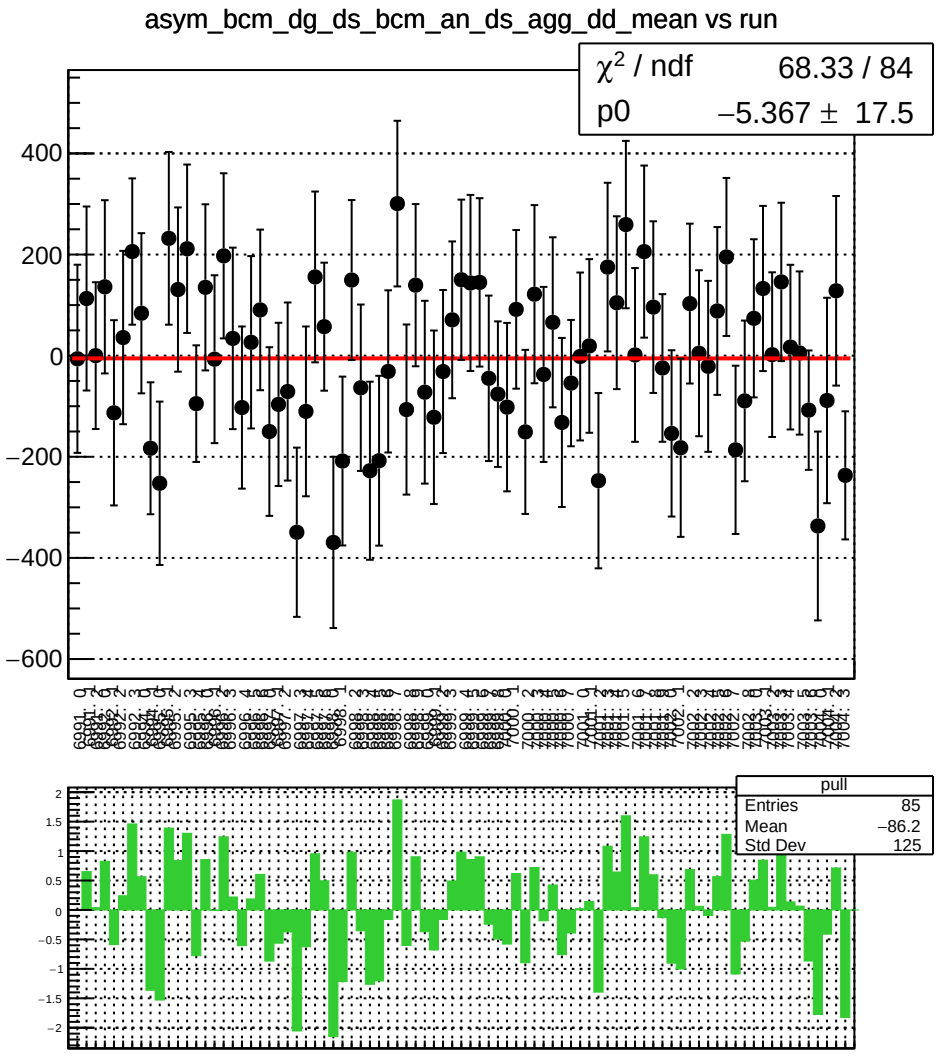

pull1D
Entries 85
Mean 0.005829
Std Dev 0.9699

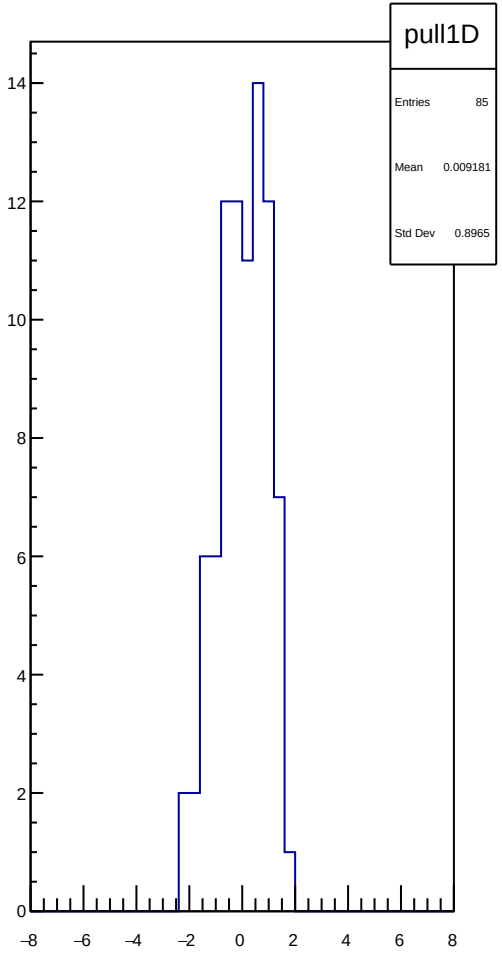

asym_bcm_dg_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 753 / 84
p0 22.64 ± 0.01763
25
24.5
24
23.5
23
22.5
22
21.5

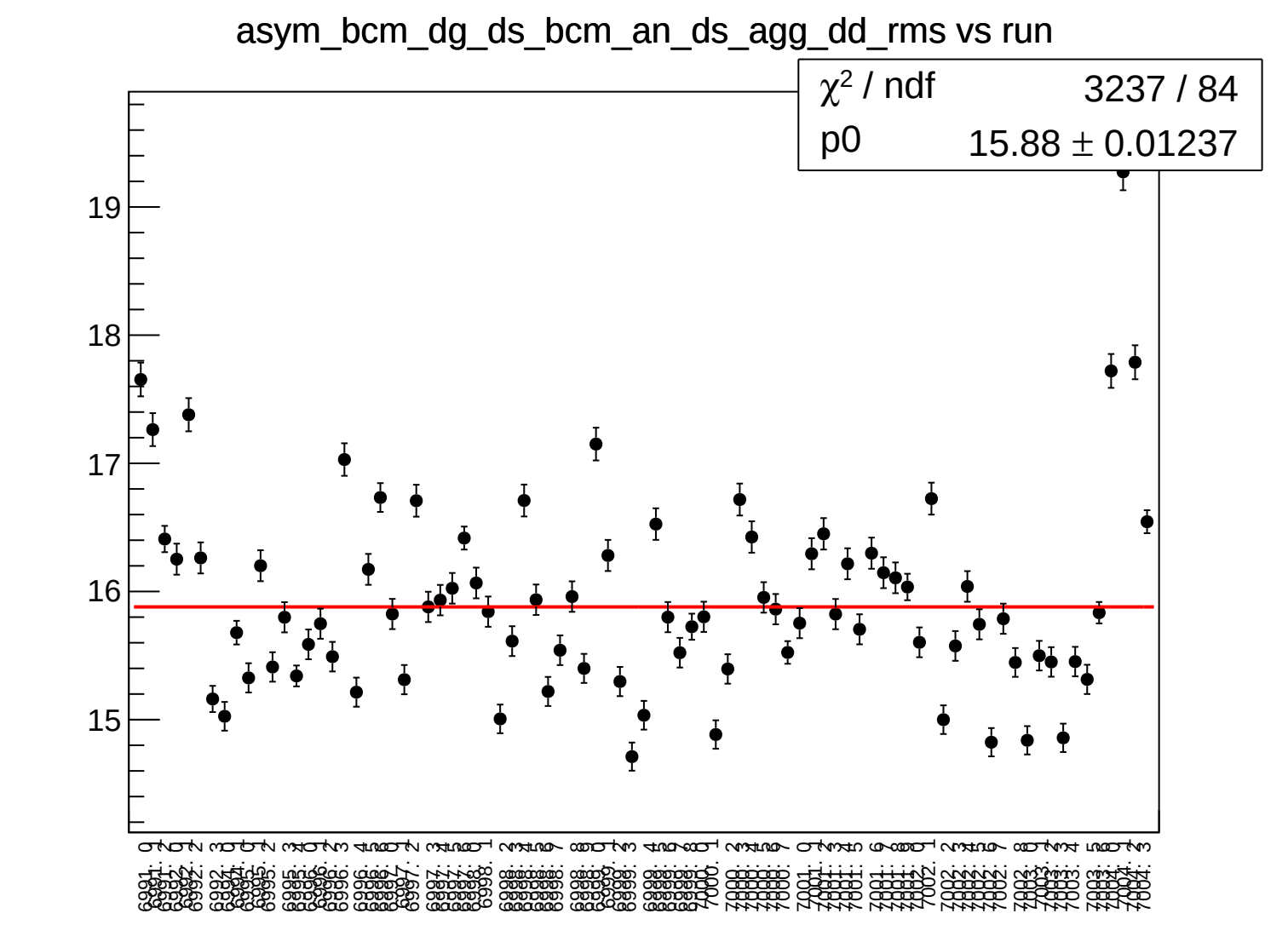

asym_bcm_dg_ds_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 17.14 / 84
p0 −189 ± 225
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 178.1
Std Dev 124.5
1
0.5
0
−0.5
−1

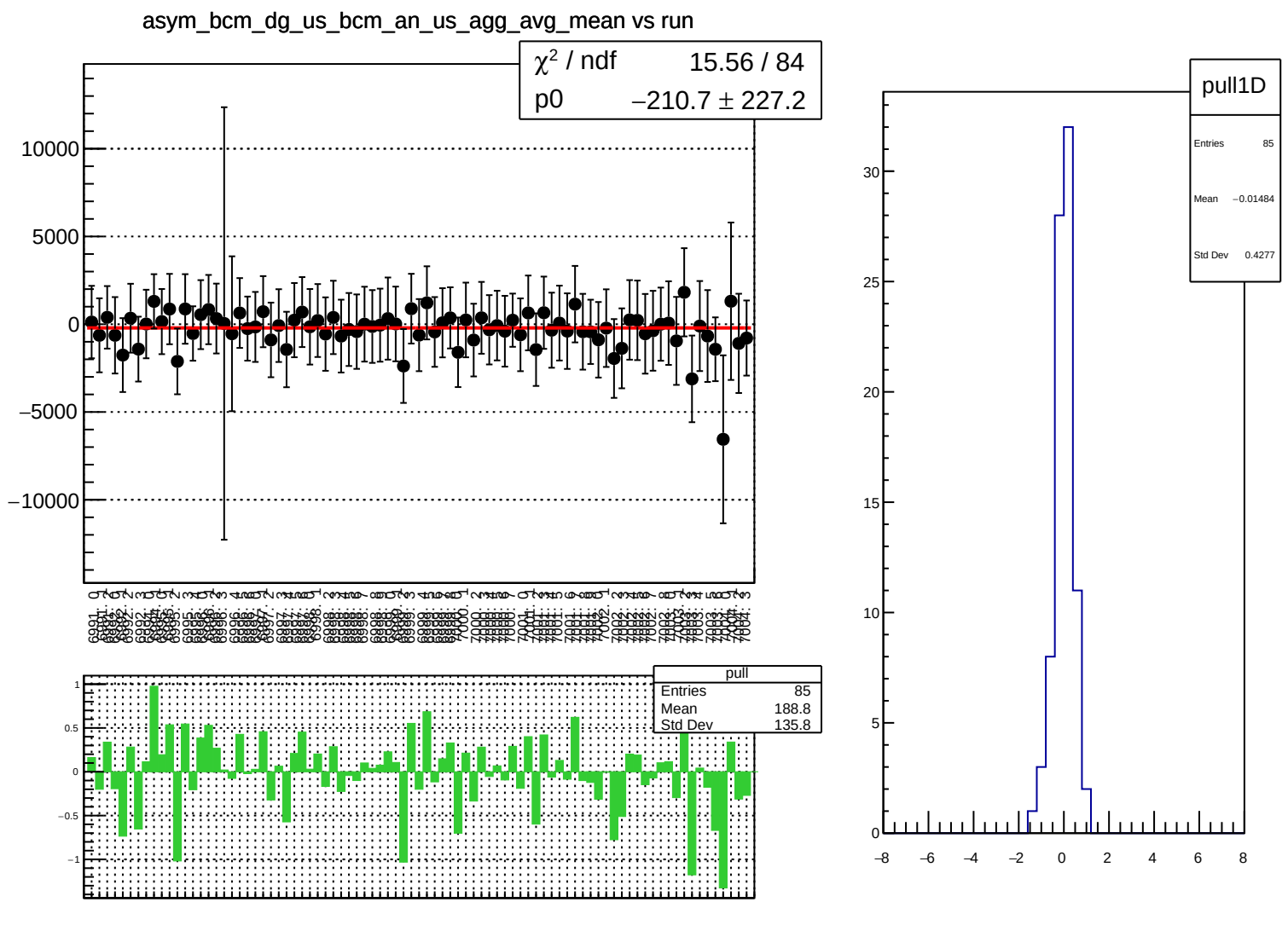

pull1D
Entries 85
Mean −0.0154
Std Dev 0.4487
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

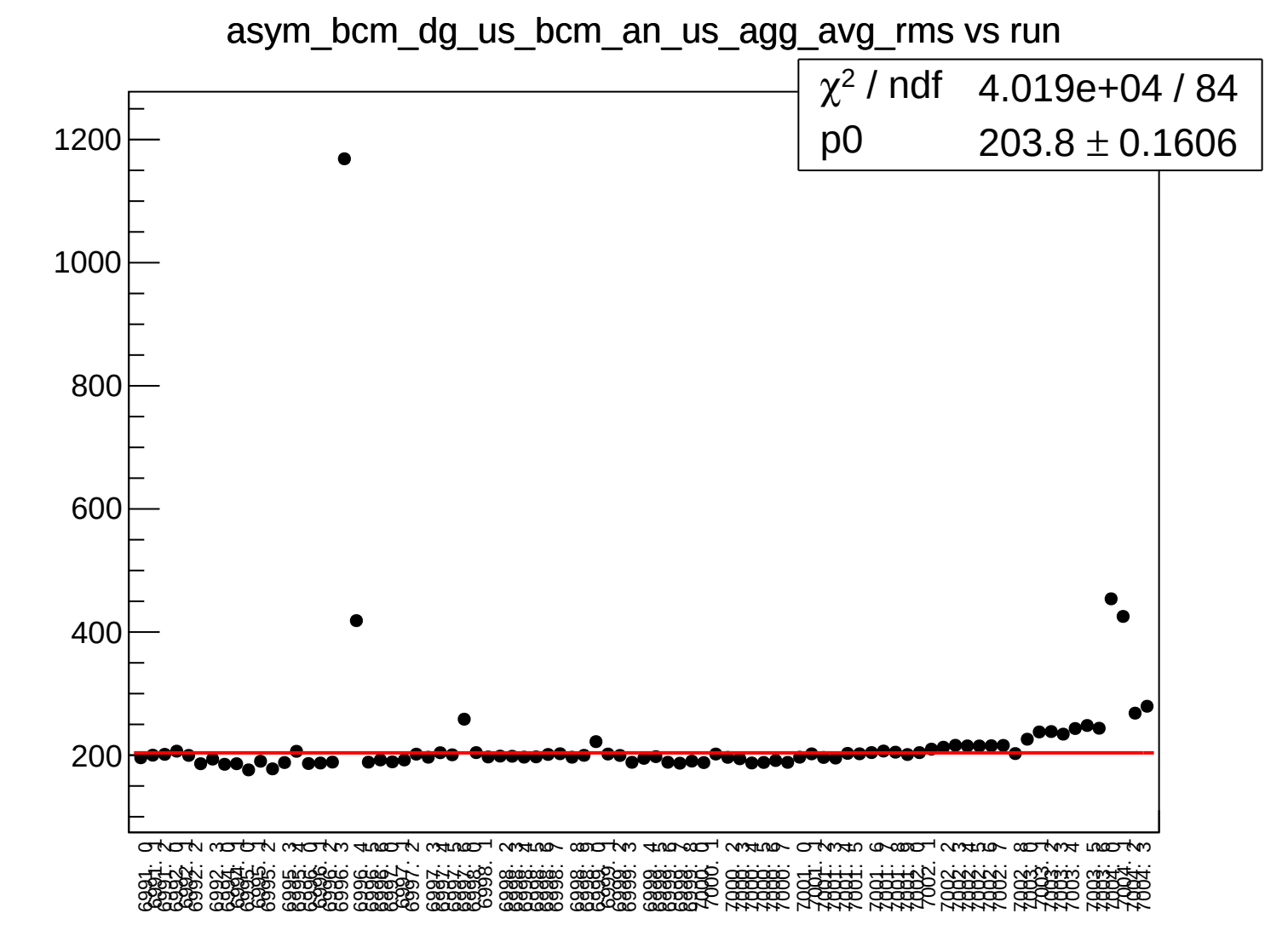

asym_bcm_dg_ds_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 4.051e+04 / 84
p0 201.8 ± 0.1591
1200
1000
800
600
400
200

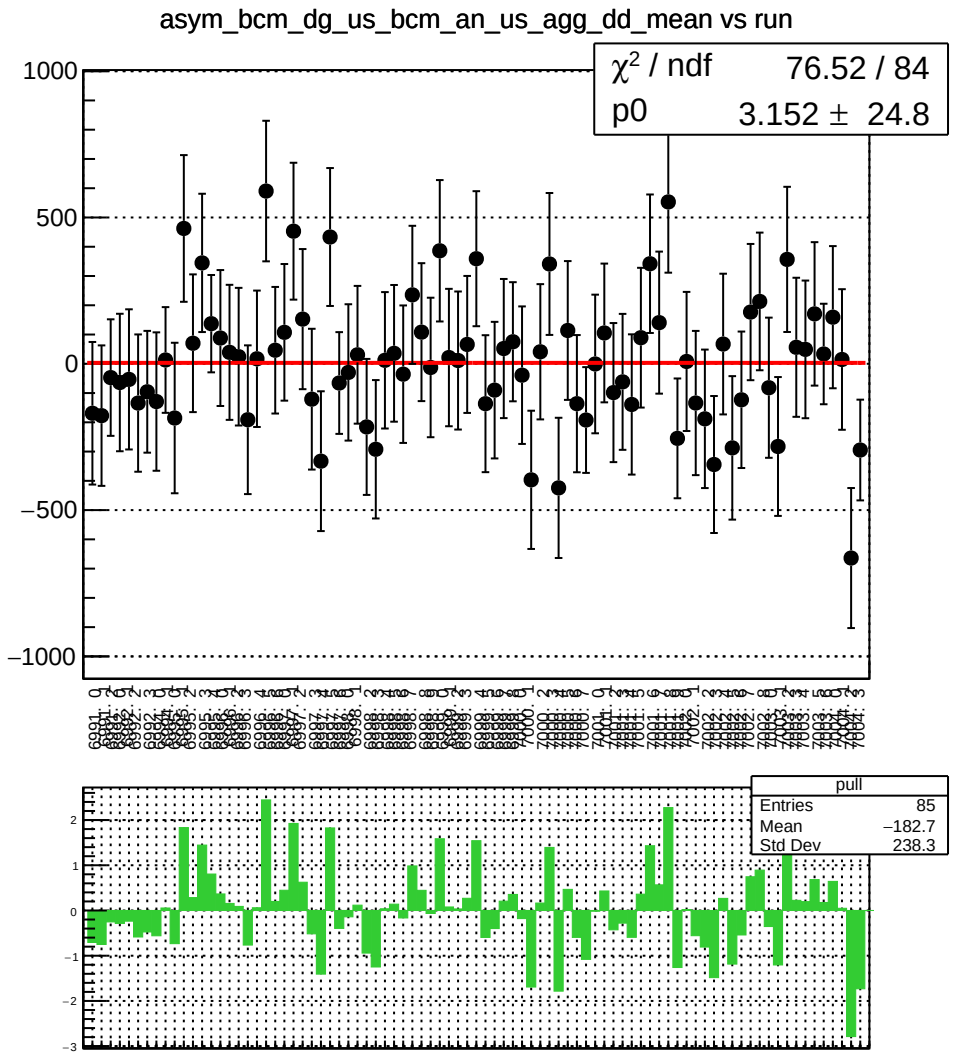

asym_bcm_dg_ds_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 68.33 / 84
p0 −5.367 ± 17.5
400
200
0
−200
−400
−600
pull
Entries 85
Mean −86.2
Std Dev 125
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

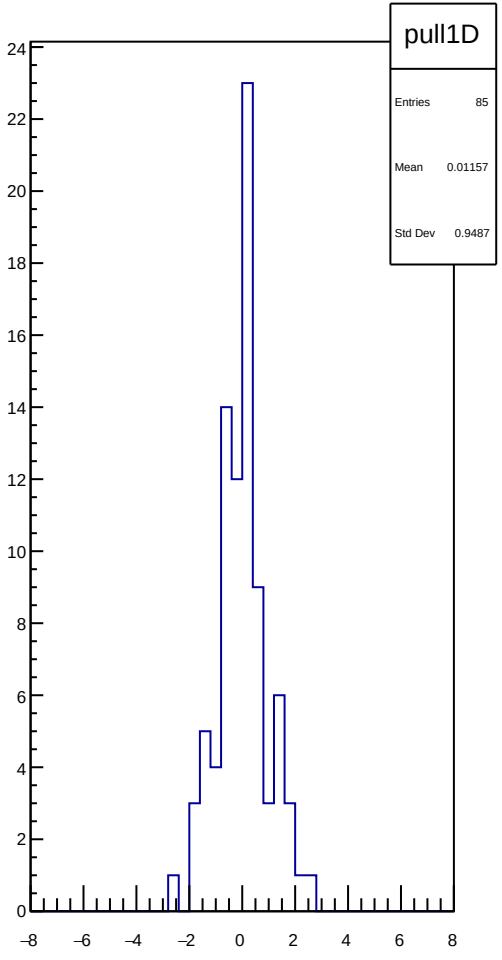

pull1D
Entries 85
Mean 0.009181
Std Dev 0.8965
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

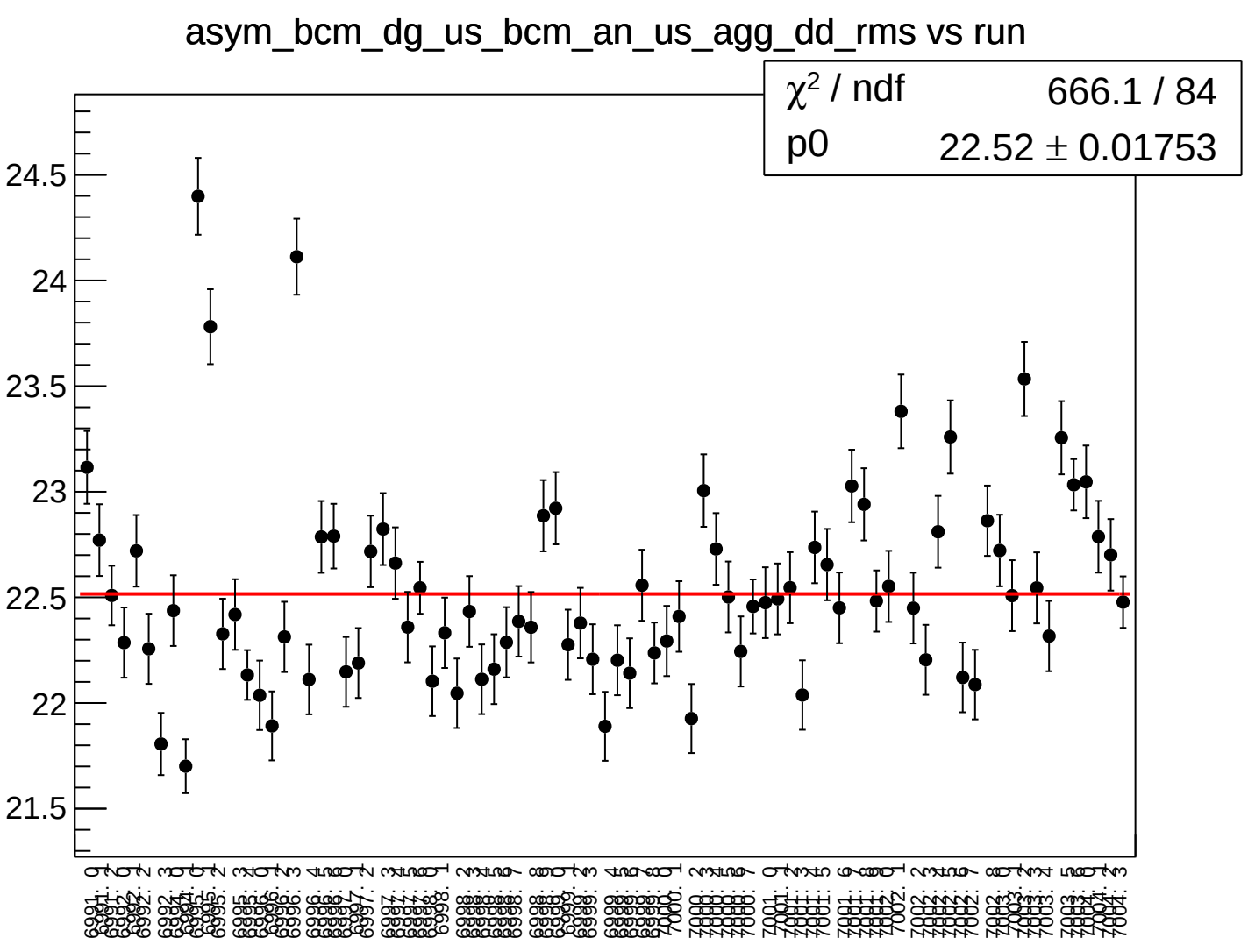

asym_bcm_dg_ds_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 3237 / 84
p0 15.88 ± 0.01237
19
18
17
16
15

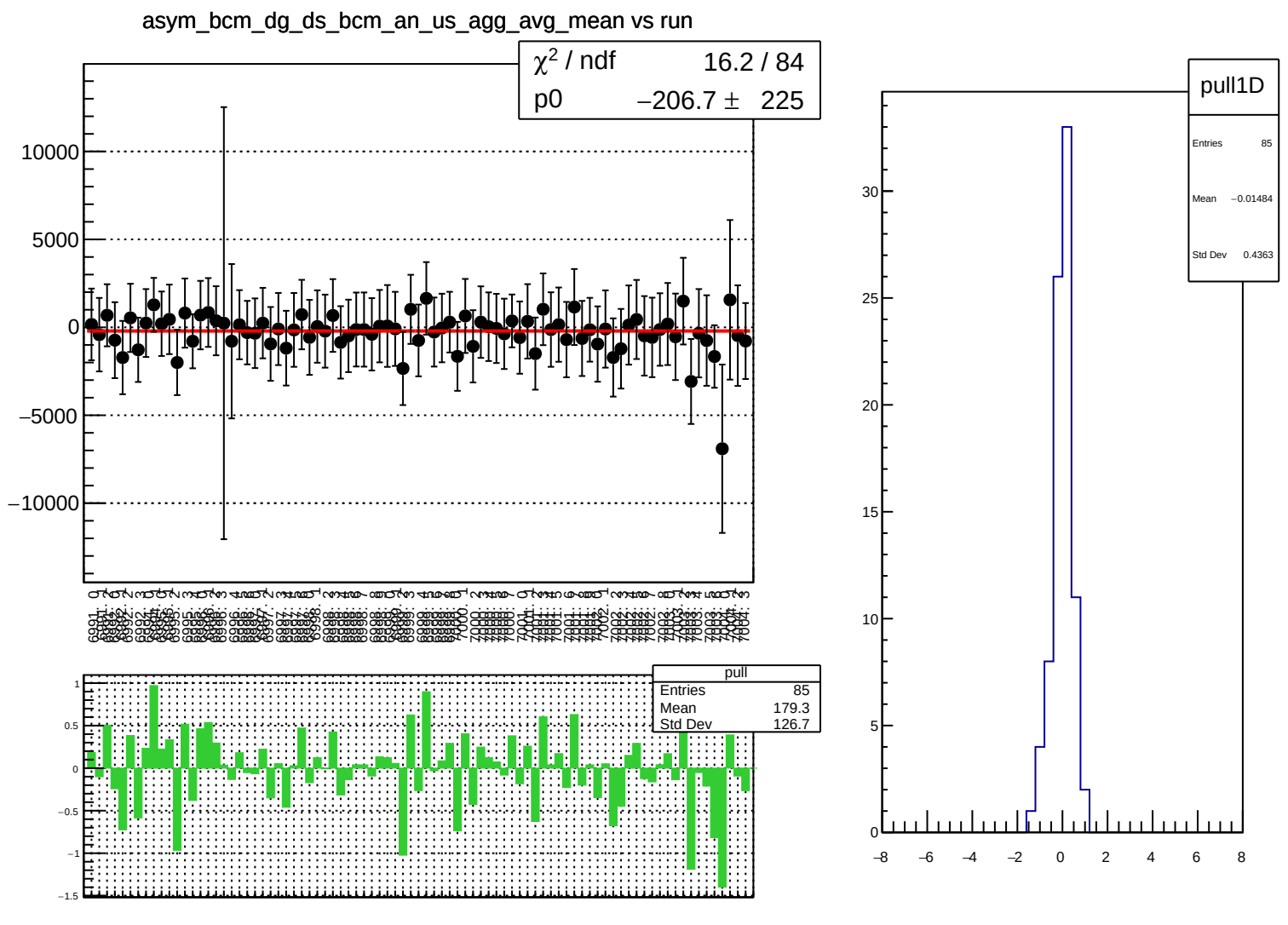

asym_bcm_dg_us_bcm_an_us_agg_avg_mean vs run
χ² / ndf 15.56 / 84
p0 −210.7 ± 227.2
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 188.8
Std Dev 135.8
1
0.5
0
−0.5
−1
pull1D
Entries 85
Mean −0.01484
Std Dev 0.4277
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

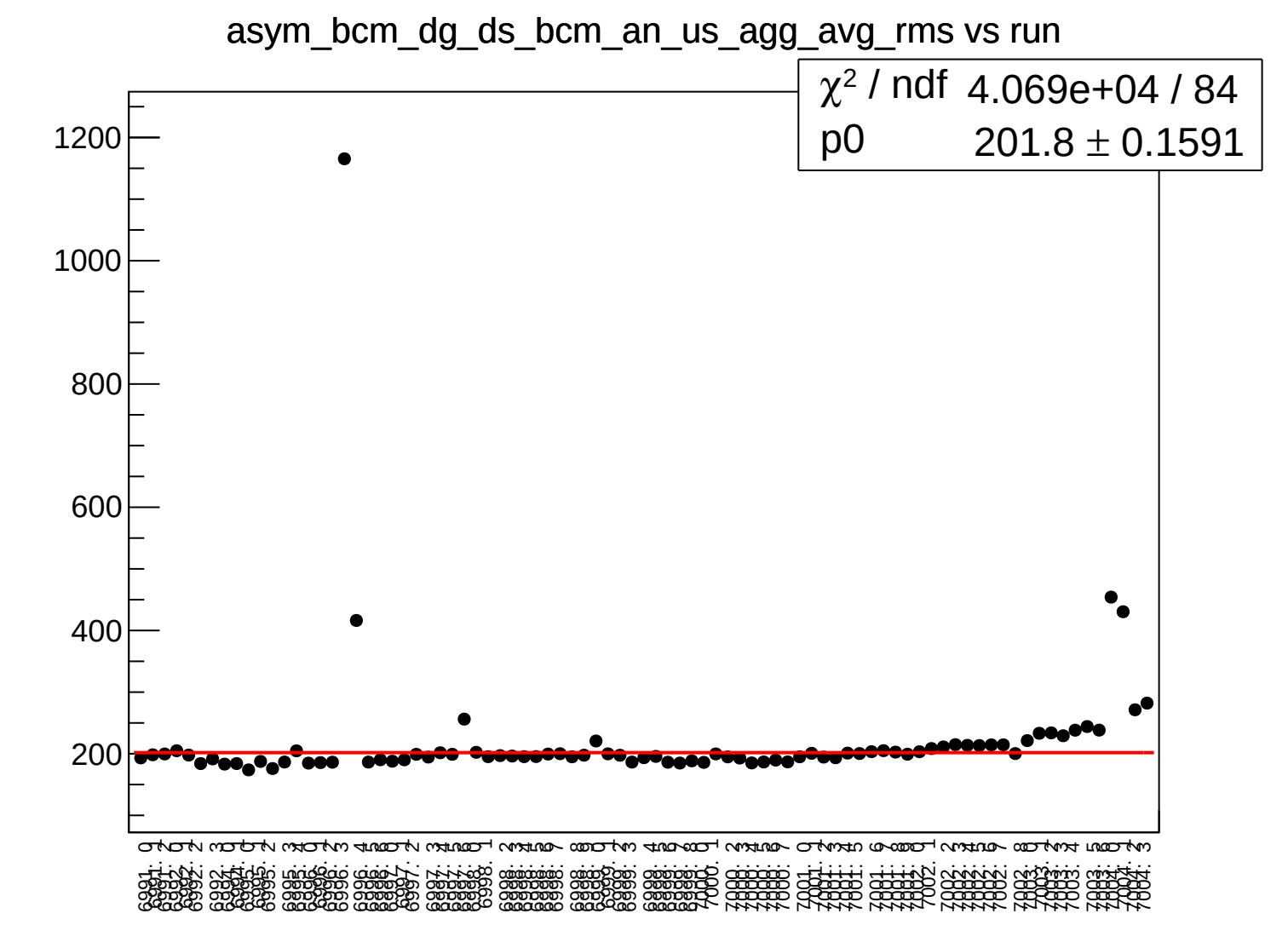

asym_bcm_dg_us_bcm_an_us_agg_avg_rms vs run
χ² / ndf 4.019e+04 / 84
p0 203.8 ± 0.1606
1200
1000
800
600
400
200

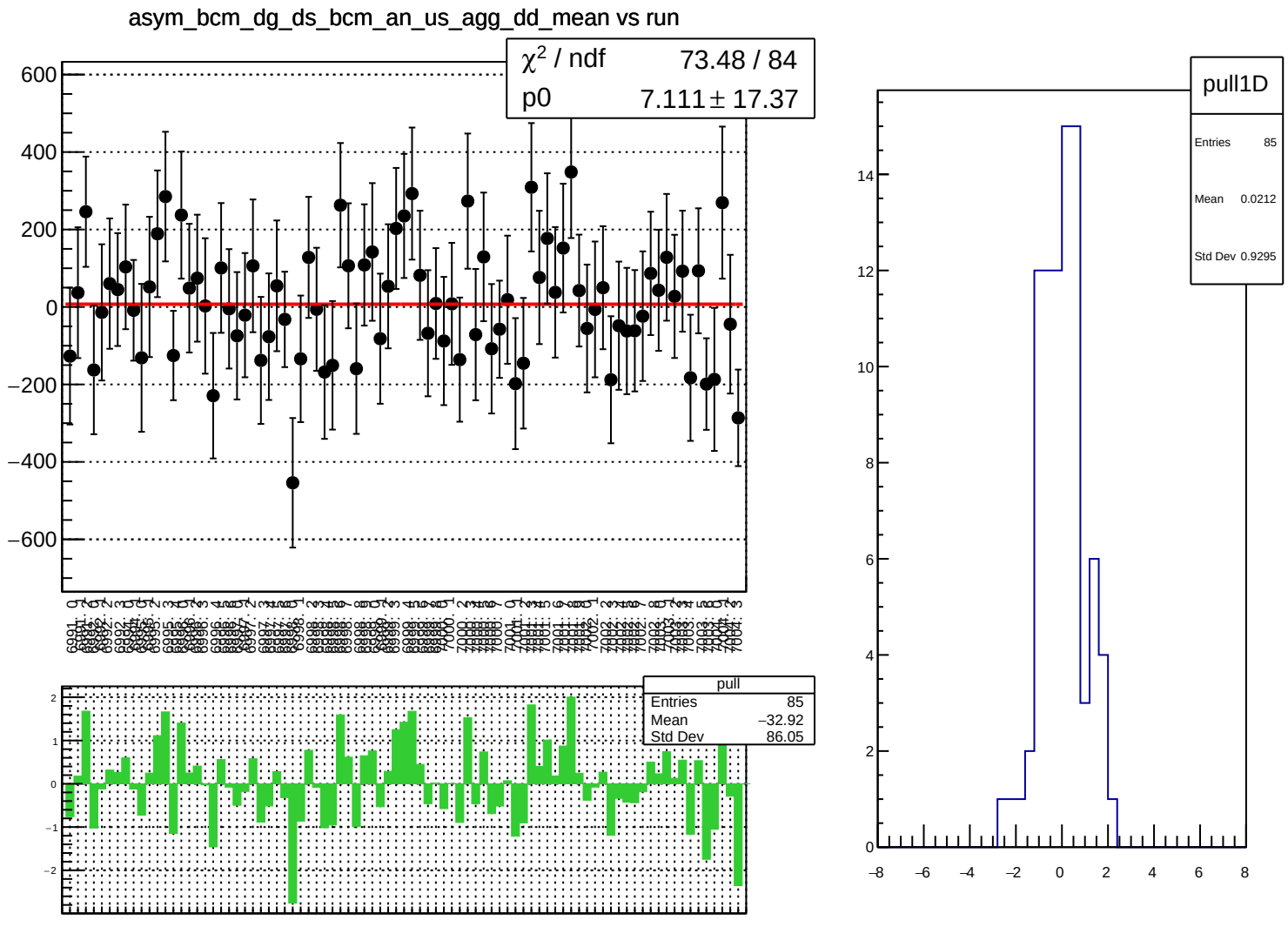

asym_bcm_dg_us_bcm_an_us_agg_dd_mean vs run
χ² / ndf 76.52 / 84
p0 3.152 ± 24.8
1000
500
0
−500
−1000
pull
Entries 85
Mean −182.7
Std Dev 238.3
2
1
0
−1
−2
−3

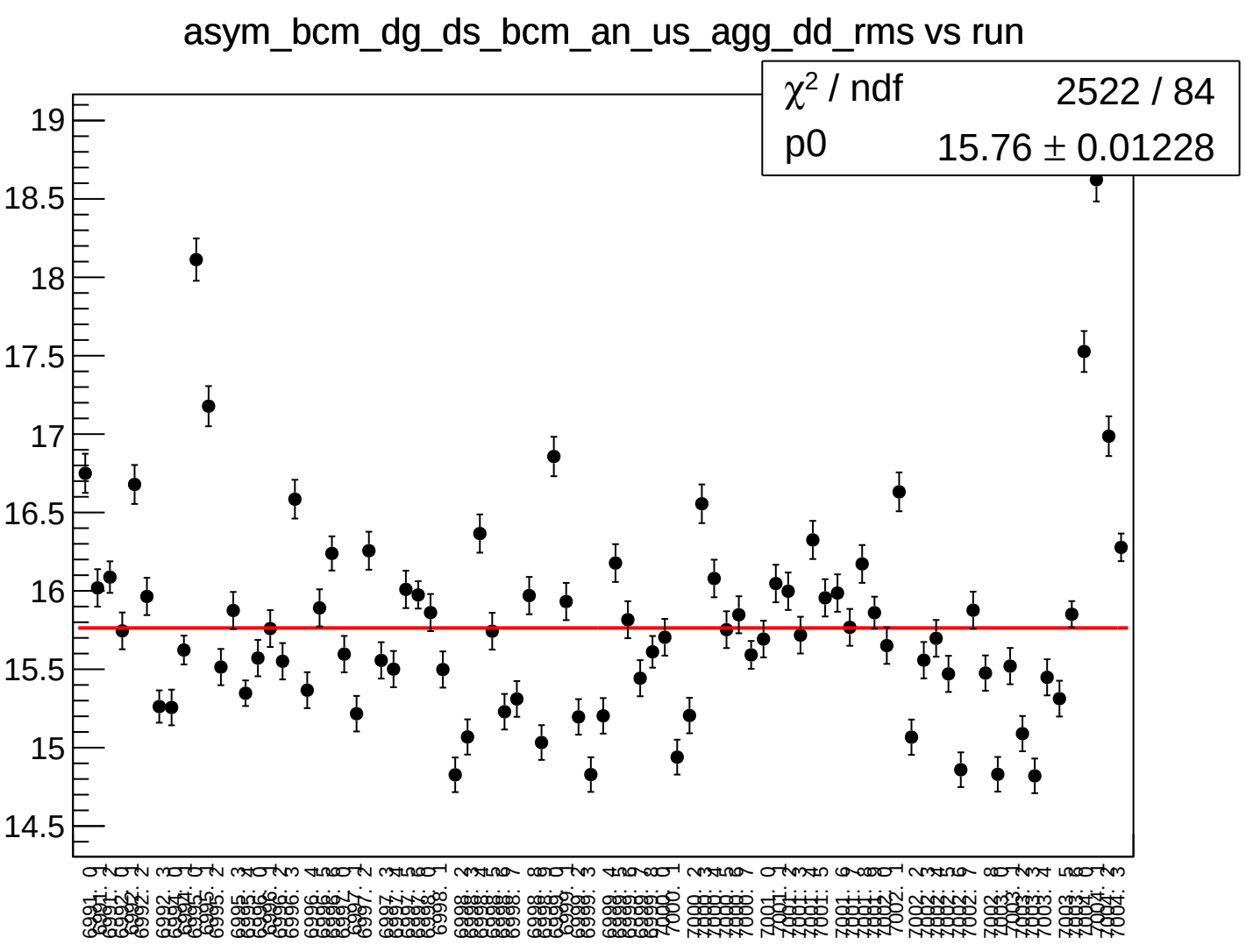

pull1D
Entries 85
Mean 0.01157
Std Dev 0.9487
24
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

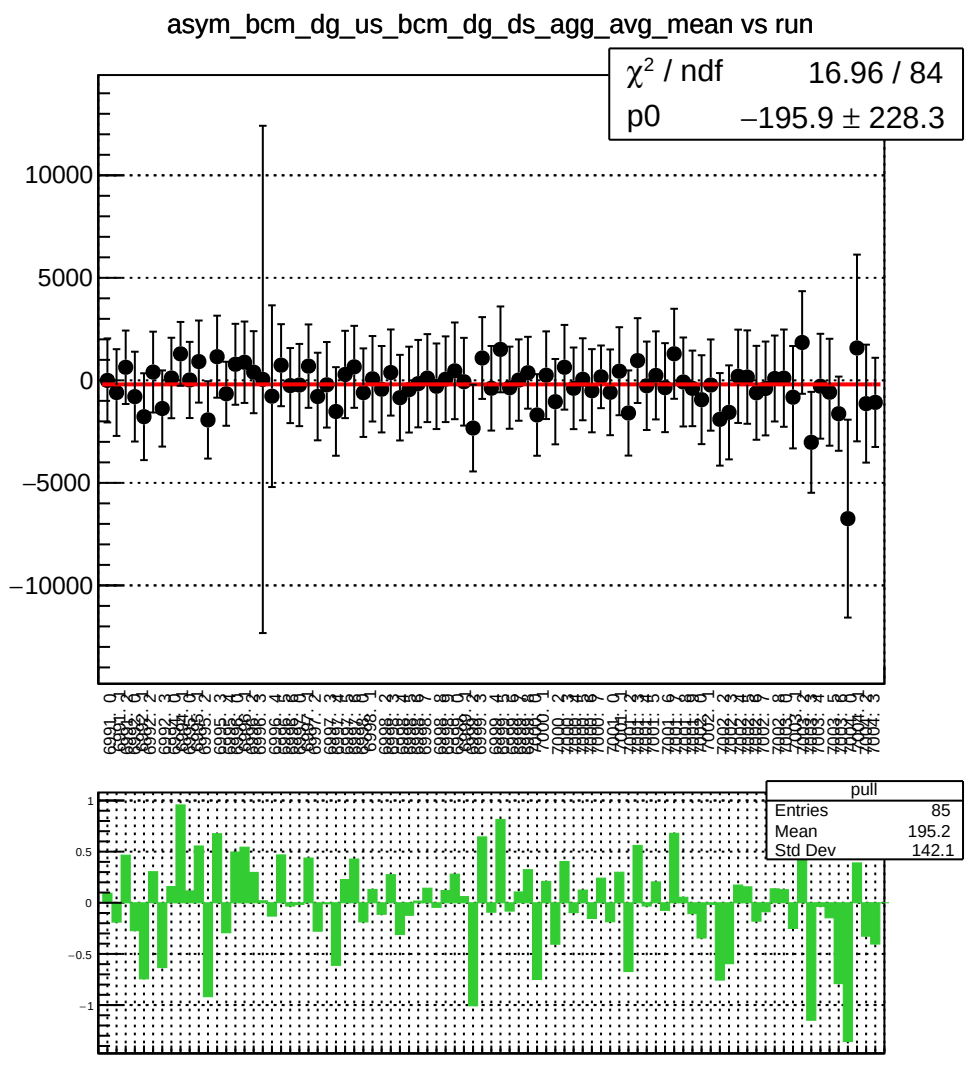

asym_bcm_dg_us_bcm_an_us_agg_dd_rms vs run
χ² / ndf 666.1 / 84
p0 22.52 ± 0.01753
24.5
24
23.5
23
22.5
22
21.5

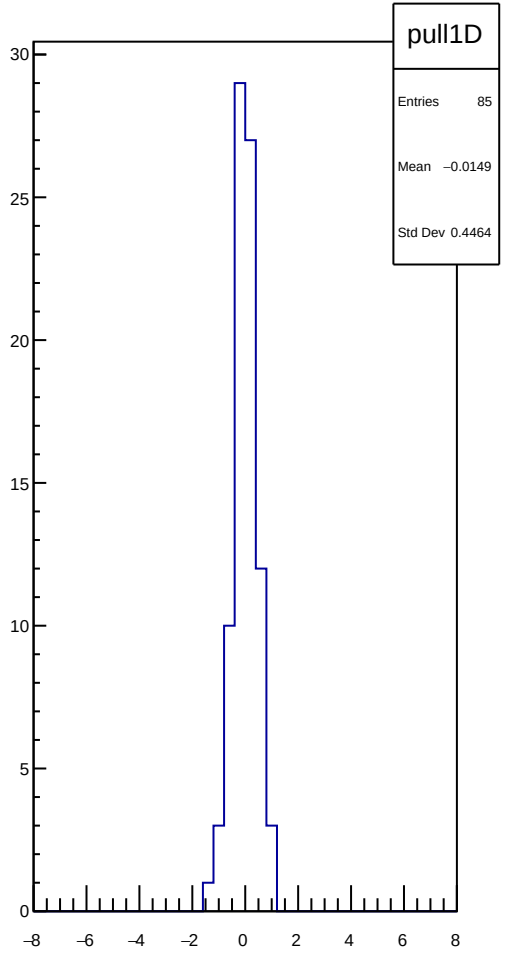

asym_bcm_dg_ds_bcm_an_us_agg_avg_mean vs run
χ² / ndf 16.2 / 84
p0 −206.7 ± 225
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 179.3
Std Dev 126.7
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 85
Mean −0.01484
Std Dev 0.4363
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

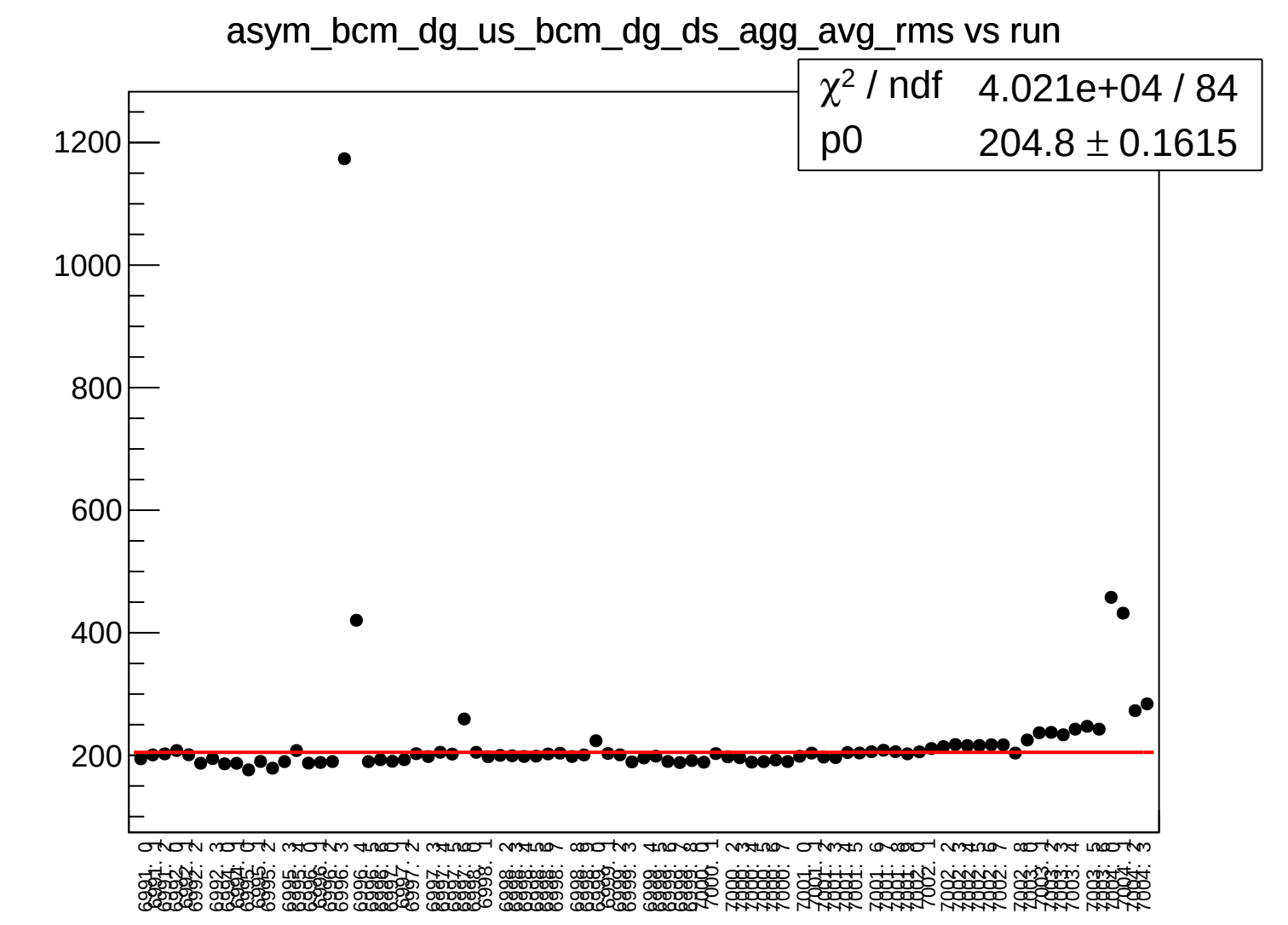

asym_bcm_dg_ds_bcm_an_us_agg_avg_rms vs run
χ² / ndf 4.069e+04 / 84
p0 201.8 ± 0.1591
1200
1000
800
600
400
200

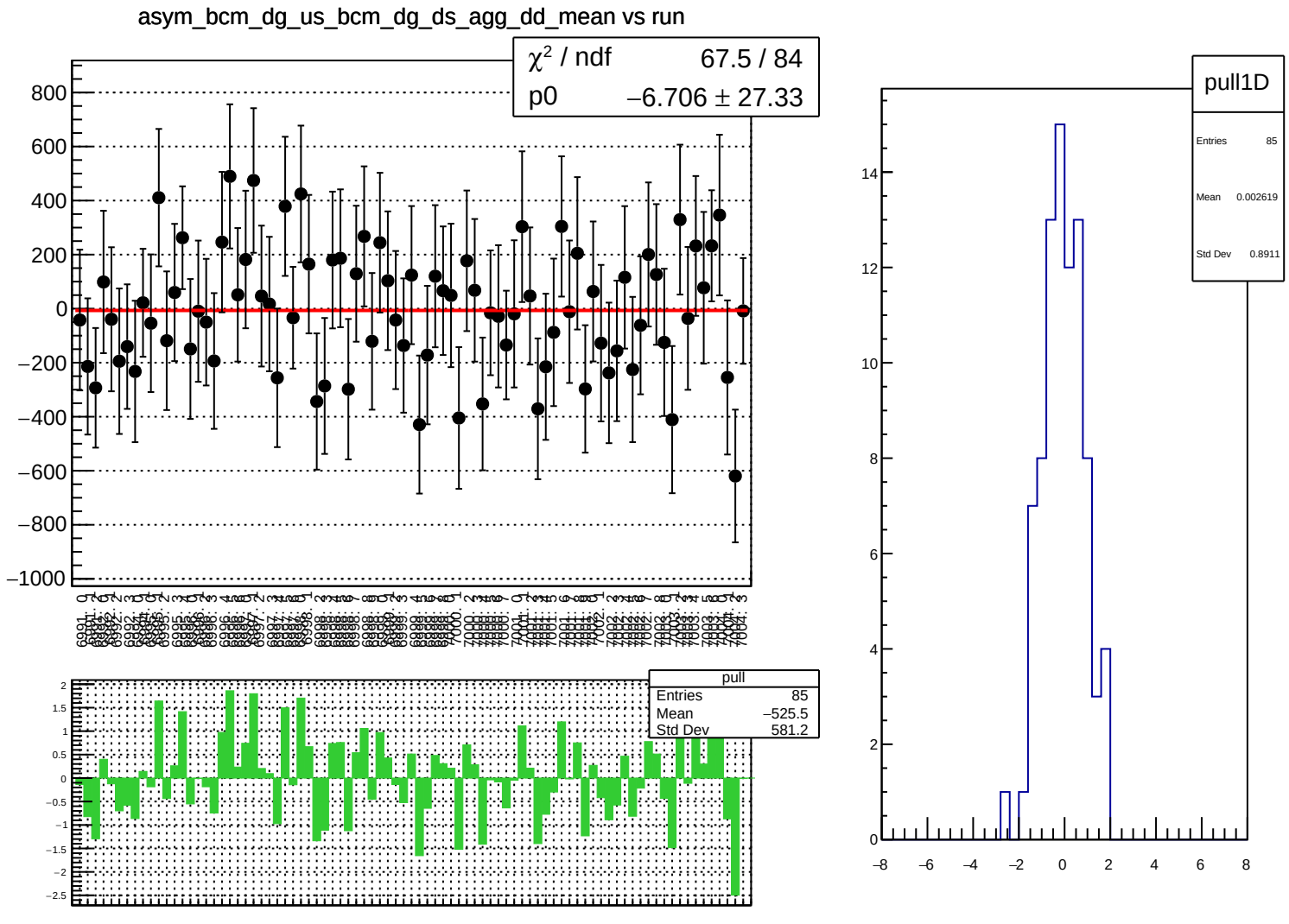

asym_bcm_dg_ds_bcm_an_us_agg_dd_mean vs run
χ² / ndf 73.48 / 84
p0 7.111 ± 17.37
pull
Entries 85
Mean −32.92
Std Dev 86.05
pull1D
Entries 85
Mean 0.0212
Std Dev 0.9295

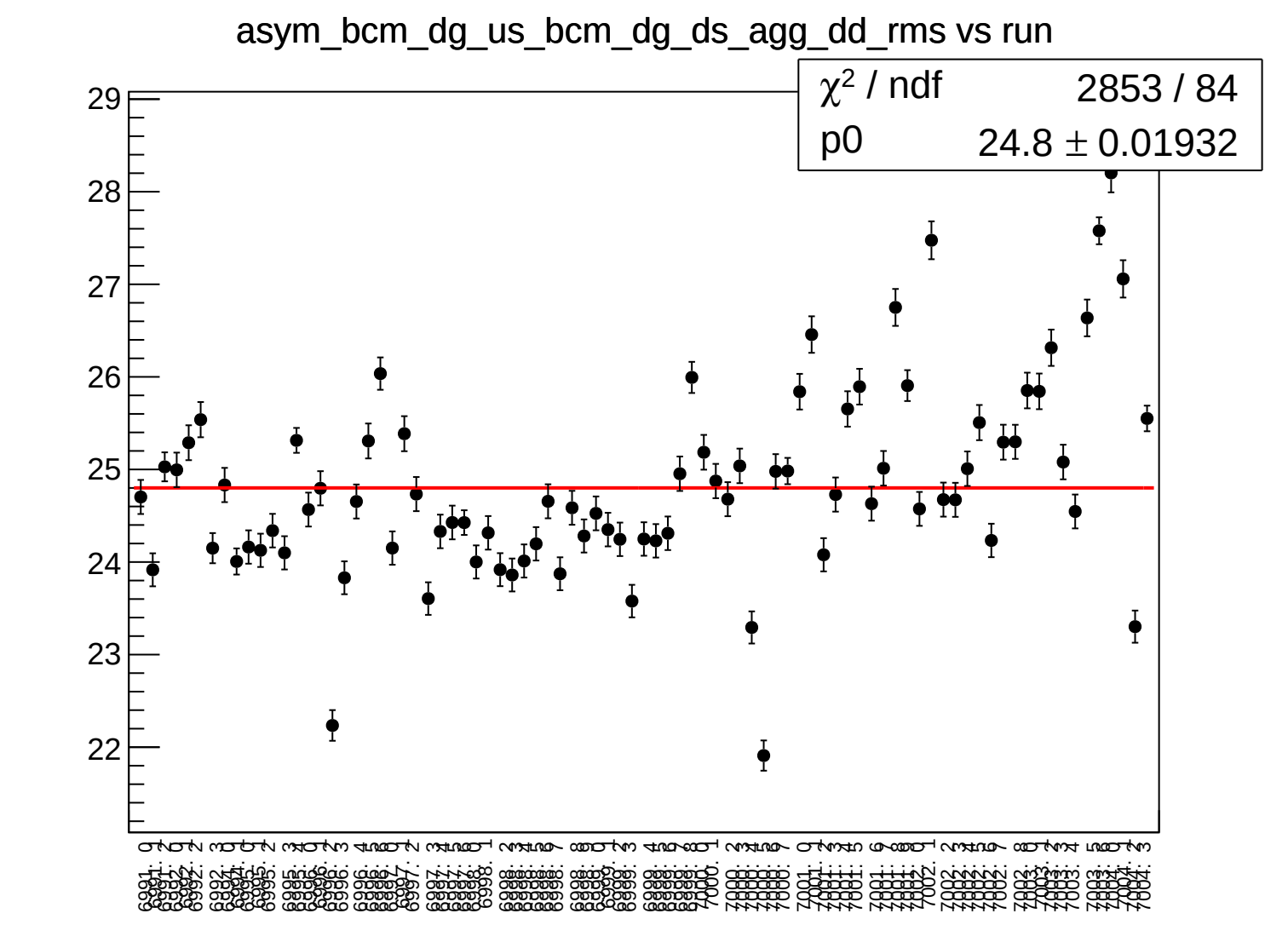

asym_bcm_dg_ds_bcm_an_us_agg_dd_rms vs run
χ^2 / ndf 2522 / 84
p0 15.76 ± 0.01228
19
18.5
18
17.5
17
16.5
16
15.5
15
14.5

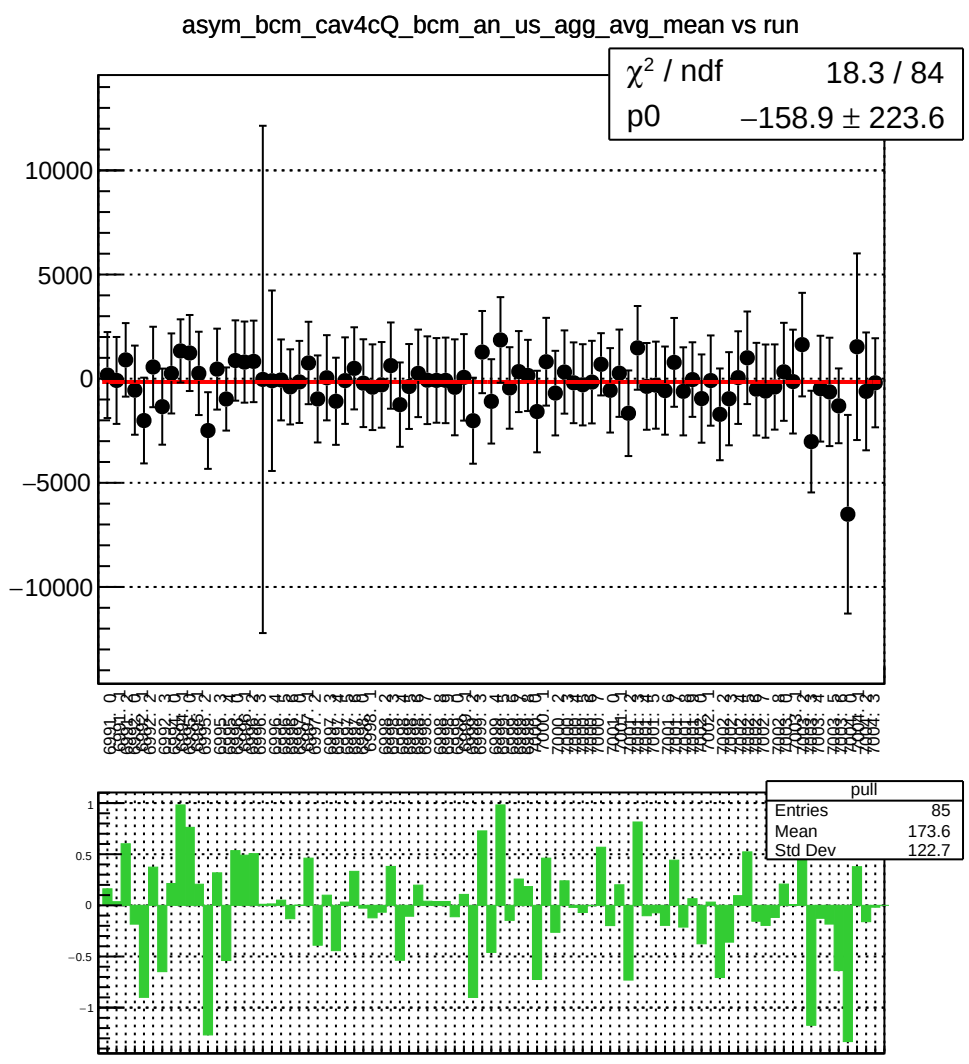

asym_bcm_dg_us_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 16.96 / 84
p0 −195.9 ± 228.3
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 195.2
Std Dev 142.1
1
0.5
0
−0.5
−1

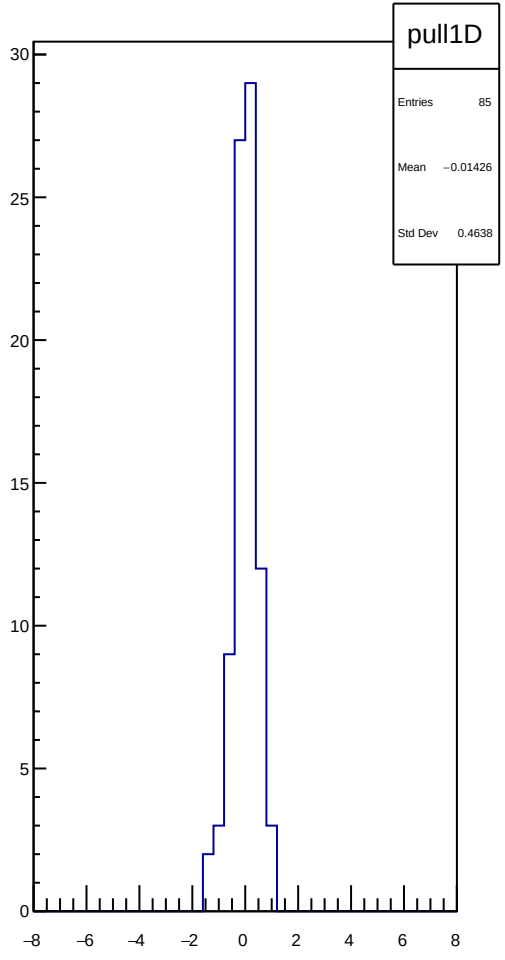

pull1D
Entries 85
Mean −0.0149
Std Dev 0.4464
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

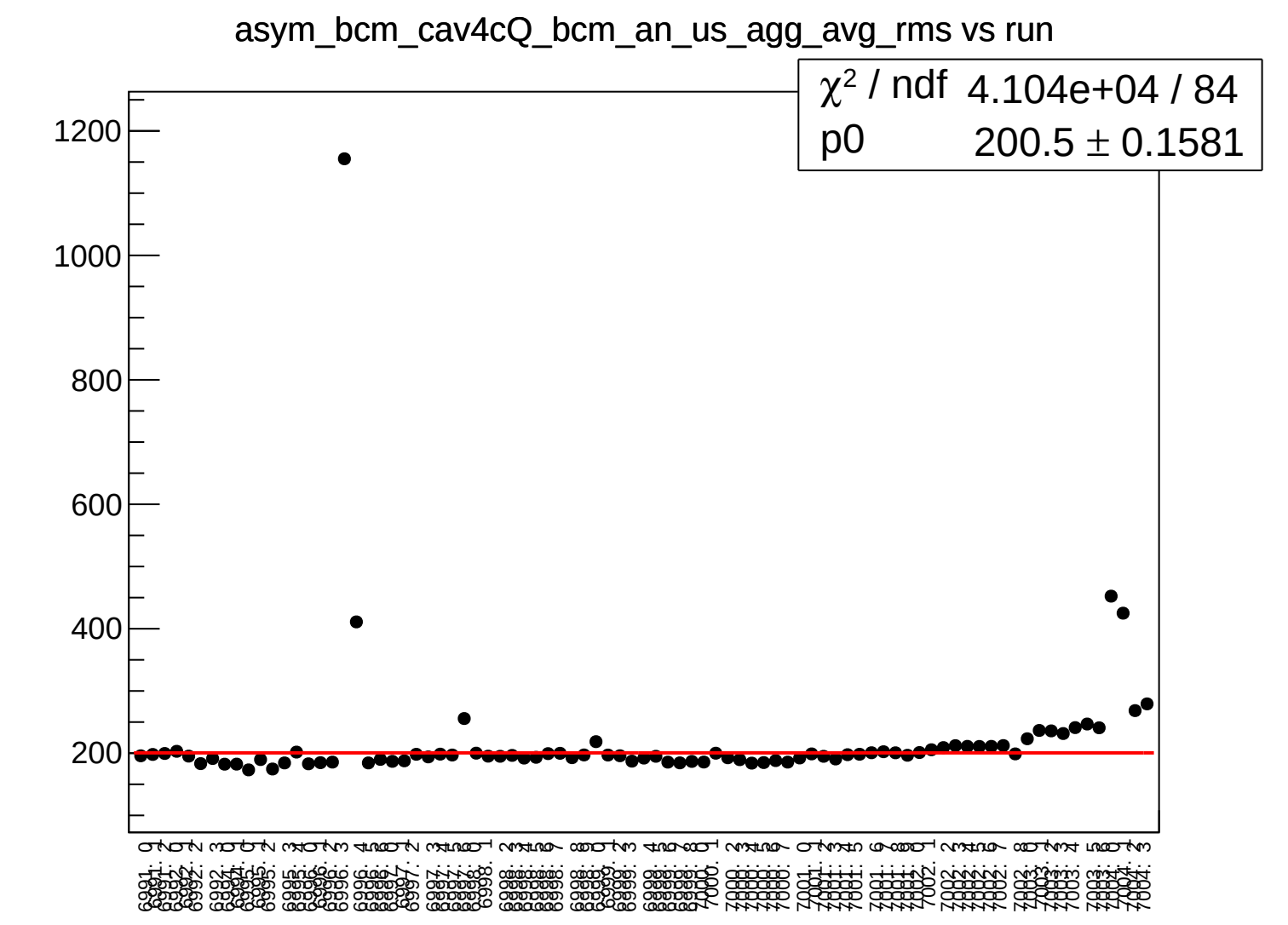

asym_bcm_dg_us_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 4.021e+04 / 84
p0 204.8 ± 0.1615
1200
1000
800
600
400
200

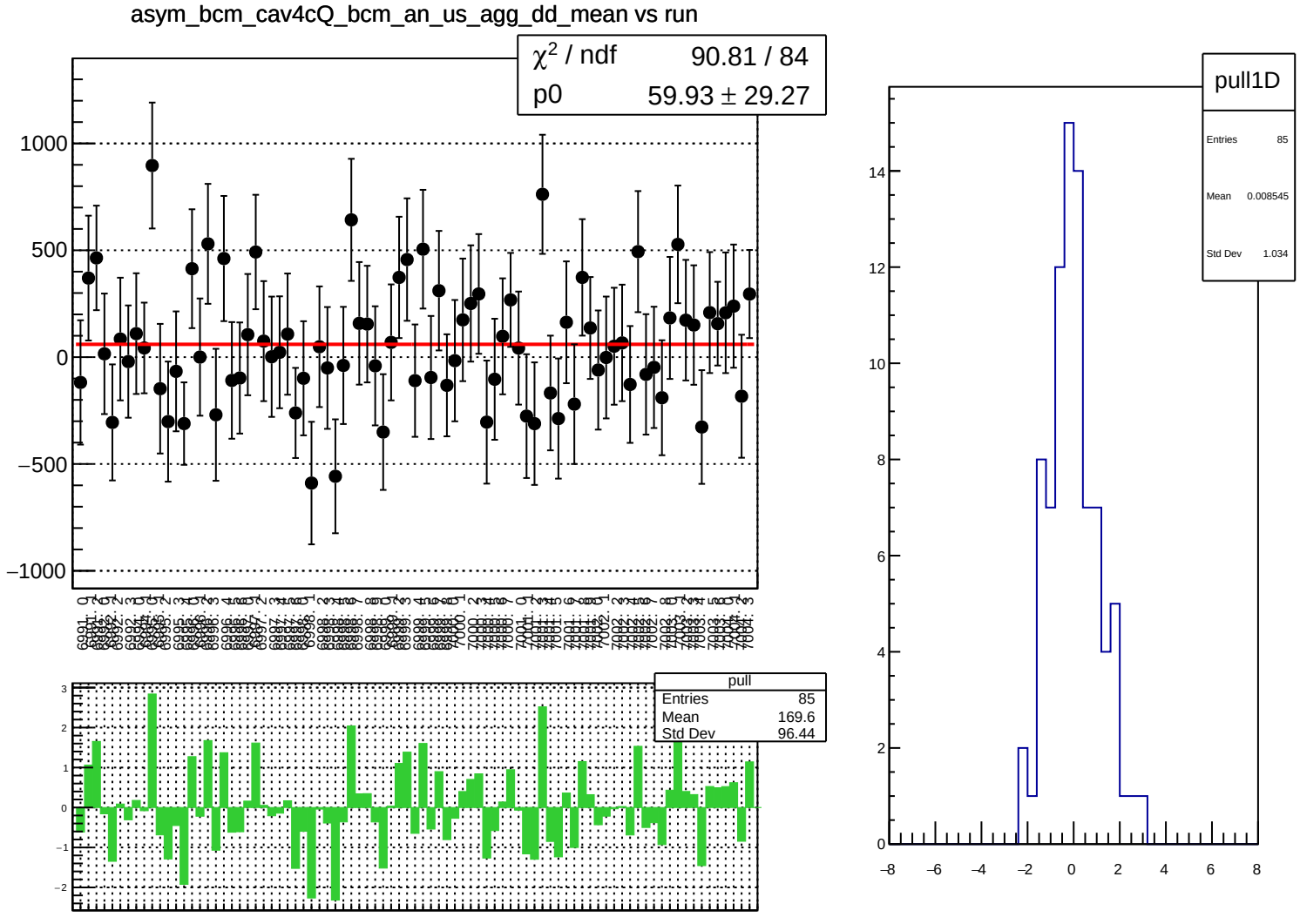

asym_bcm_dg_us_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 67.5 / 84
p0 −6.706 ± 27.33
pull
Entries 85
Mean −525.5
Std Dev 581.2
pull1D
Entries 85
Mean 0.002619
Std Dev 0.8911

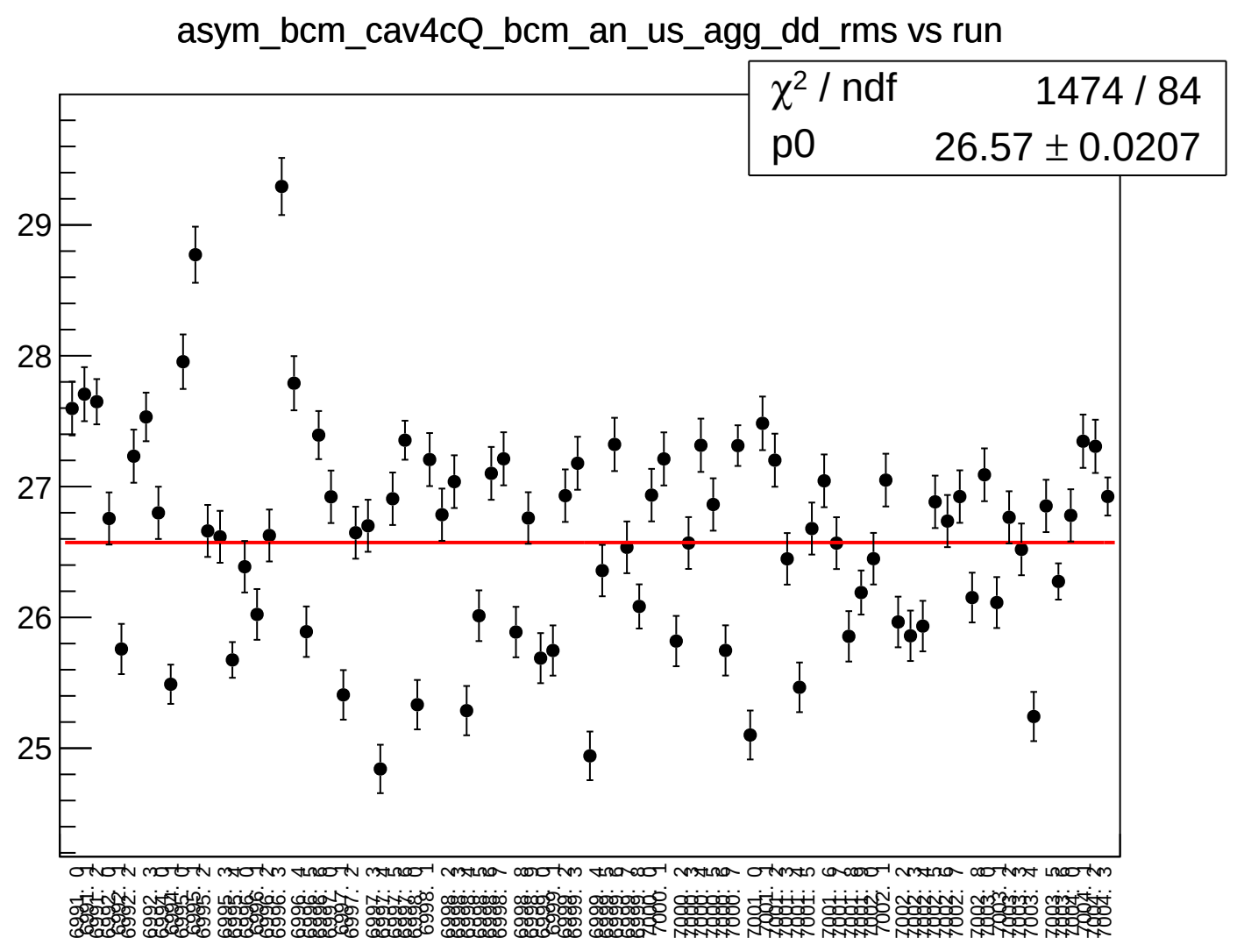

asym_bcm_dg_us_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 2853 / 84
p0 24.8 ± 0.01932
29
28
27
26
25
24
23
22

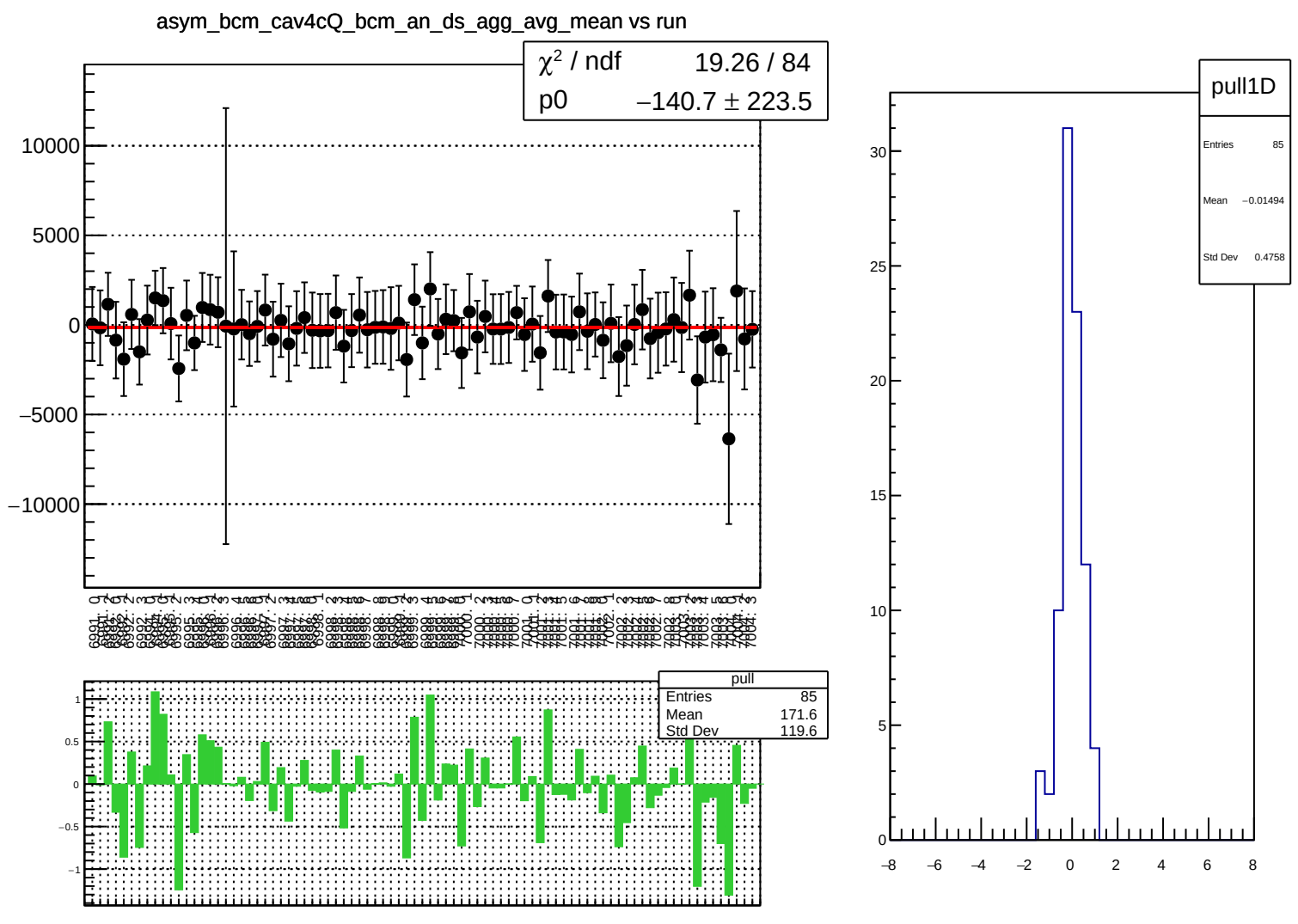

asym_bcm_cav4cQ_bcm_an_us_agg_avg_mean vs run
χ² / ndf 18.3 / 84
p0 −158.9 ± 223.6
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 173.6
Std Dev 122.7
1
0.5
0
−0.5
−1

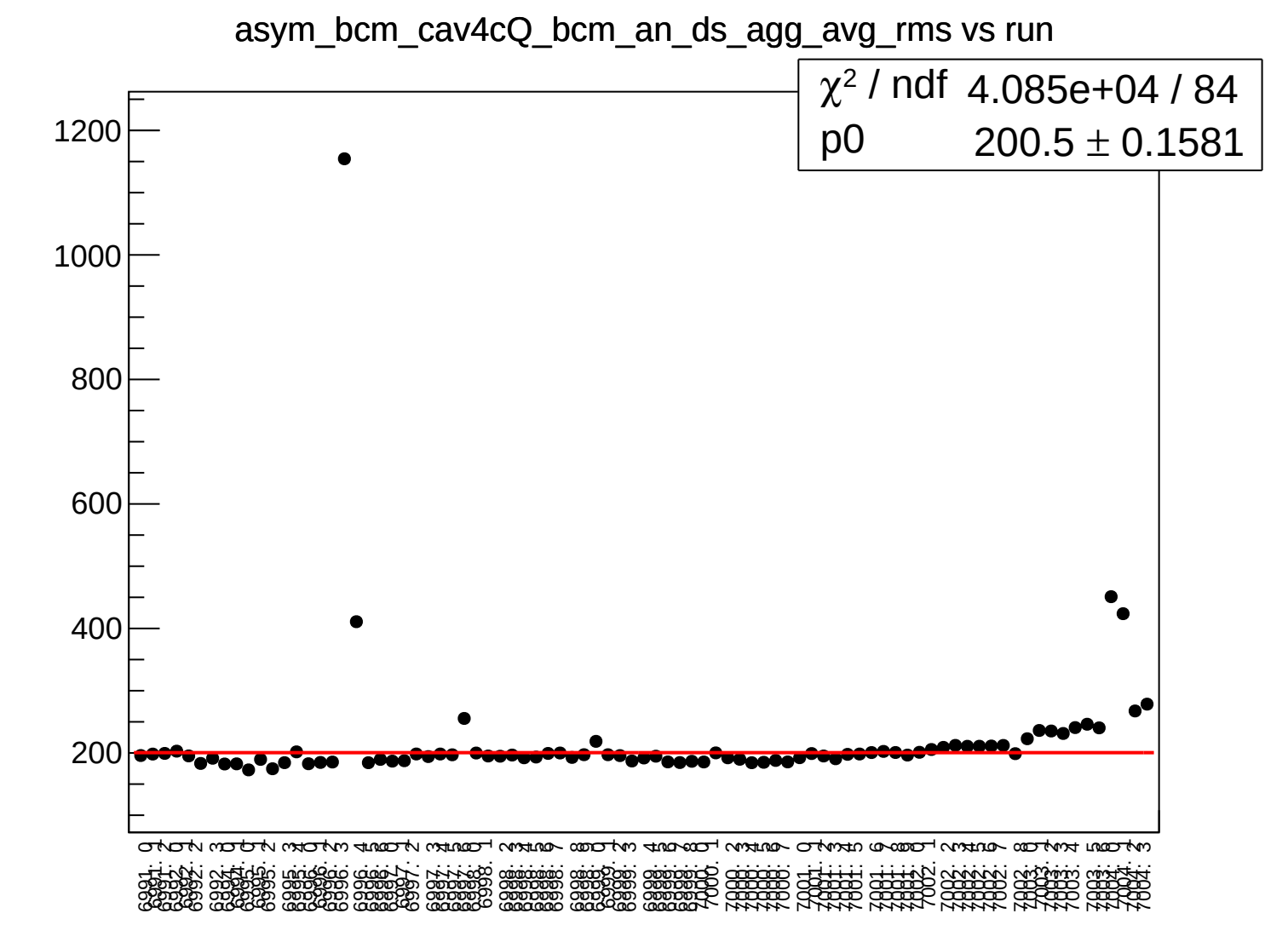

pull1D
Entries 85
Mean −0.01426
Std Dev 0.4638
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

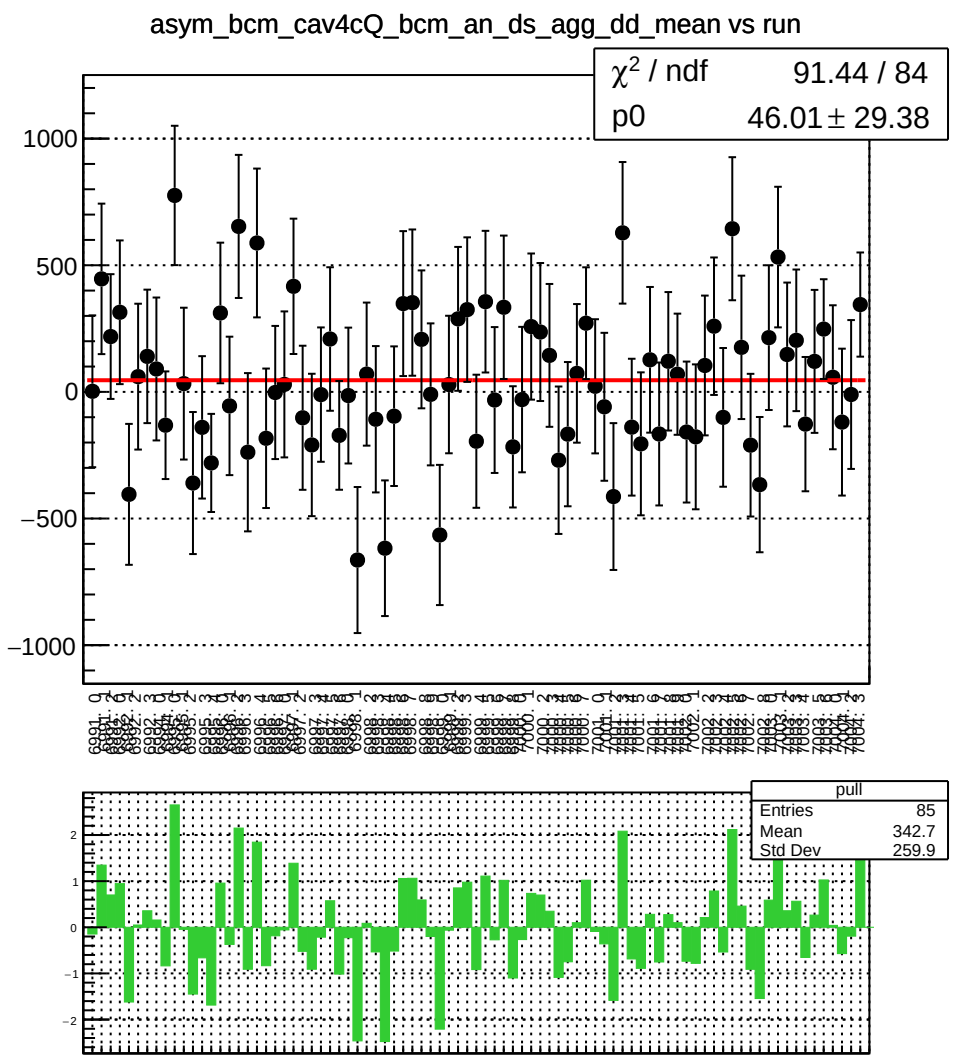

asym_bcm_cav4cQ_bcm_an_us_agg_avg_rms vs run
χ² / ndf 4.104e+04 / 84
p0 200.5 ± 0.1581
1200
1000
800
600
400
200

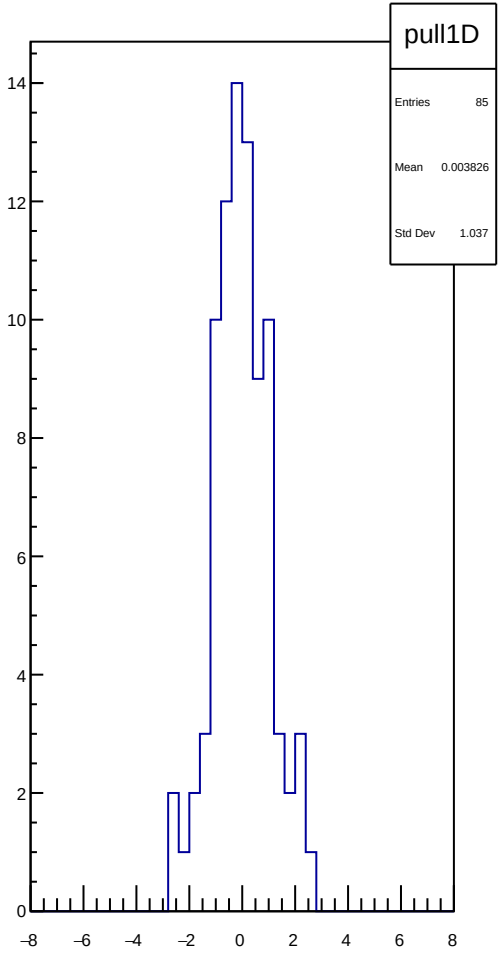

asym_bcm_cav4cQ_bcm_an_us_agg_dd_mean vs run
χ² / ndf 90.81 / 84
p0 59.93 ± 29.27
1000
500
0
−500
−1000
pull
Entries 85
Mean 169.6
Std Dev 96.44
3
2
1
0
−1
−2
pull1D
Entries 85
Mean 0.008545
Std Dev 1.034
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

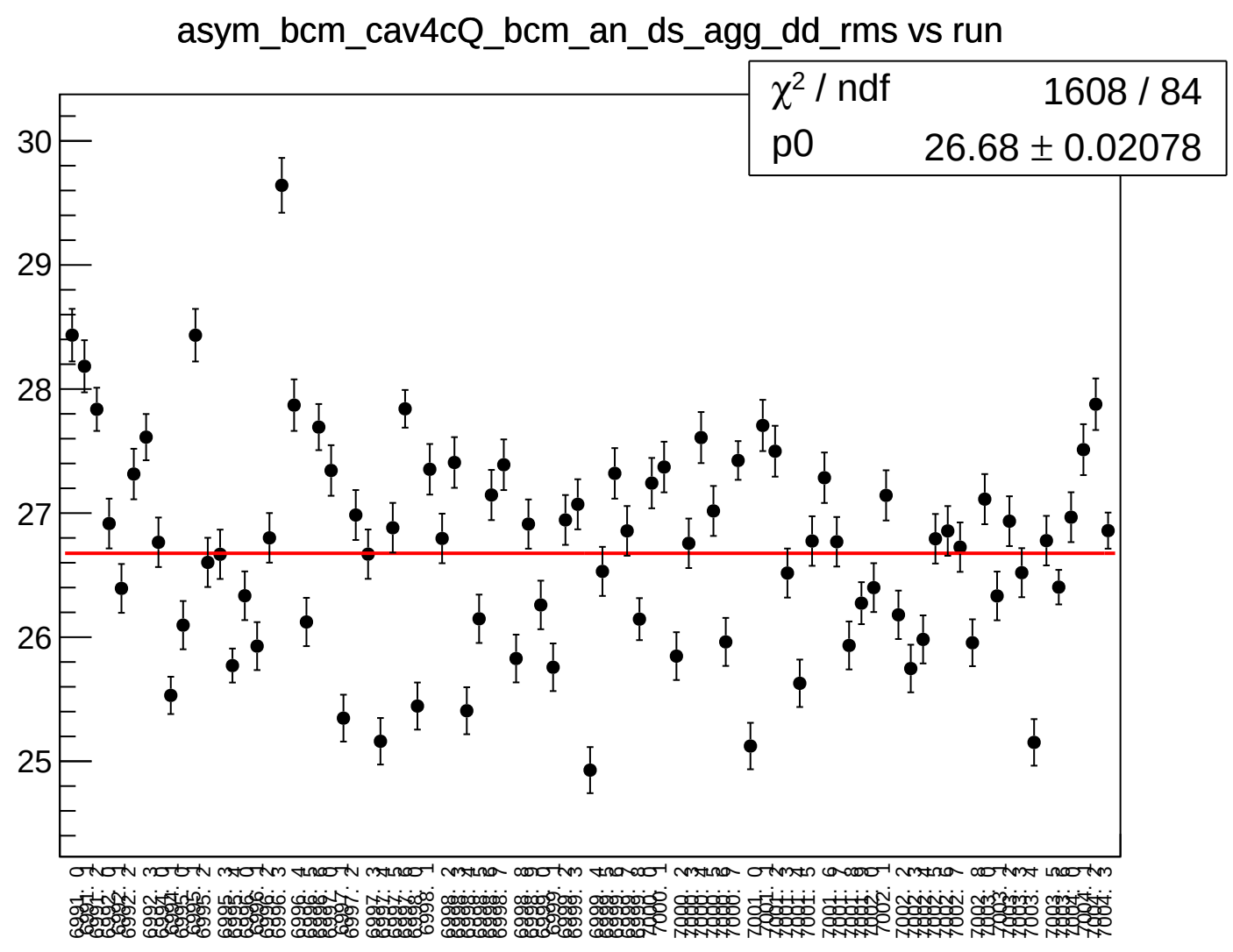

asym_bcm_cav4cQ_bcm_an_us_agg_dd_rms vs run
χ² / ndf 1474 / 84
p0 26.57 ± 0.0207
29
28
27
26
25

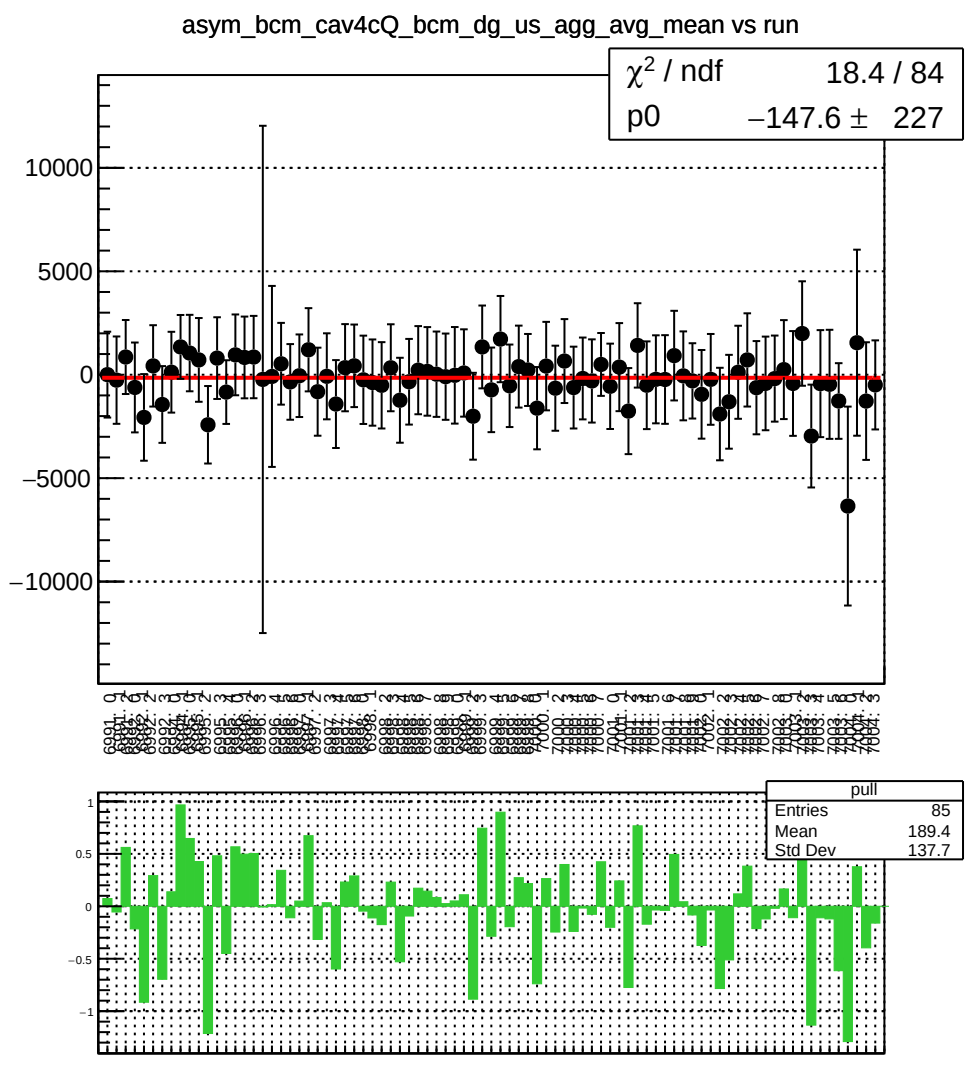

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 19.26 / 84
p0 −140.7 ± 223.5
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 171.6
Std Dev 119.6
1
0.5
0
−0.5
−1
pull1D
Entries 85
Mean −0.01494
Std Dev 0.4758
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

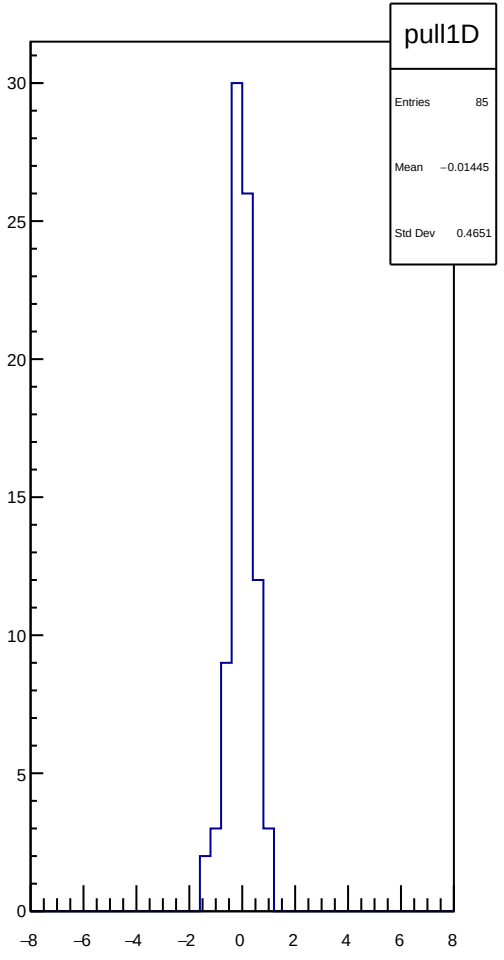

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 4.085e+04 / 84
p0 200.5 ± 0.1581
1200
1000
800
600
400
200

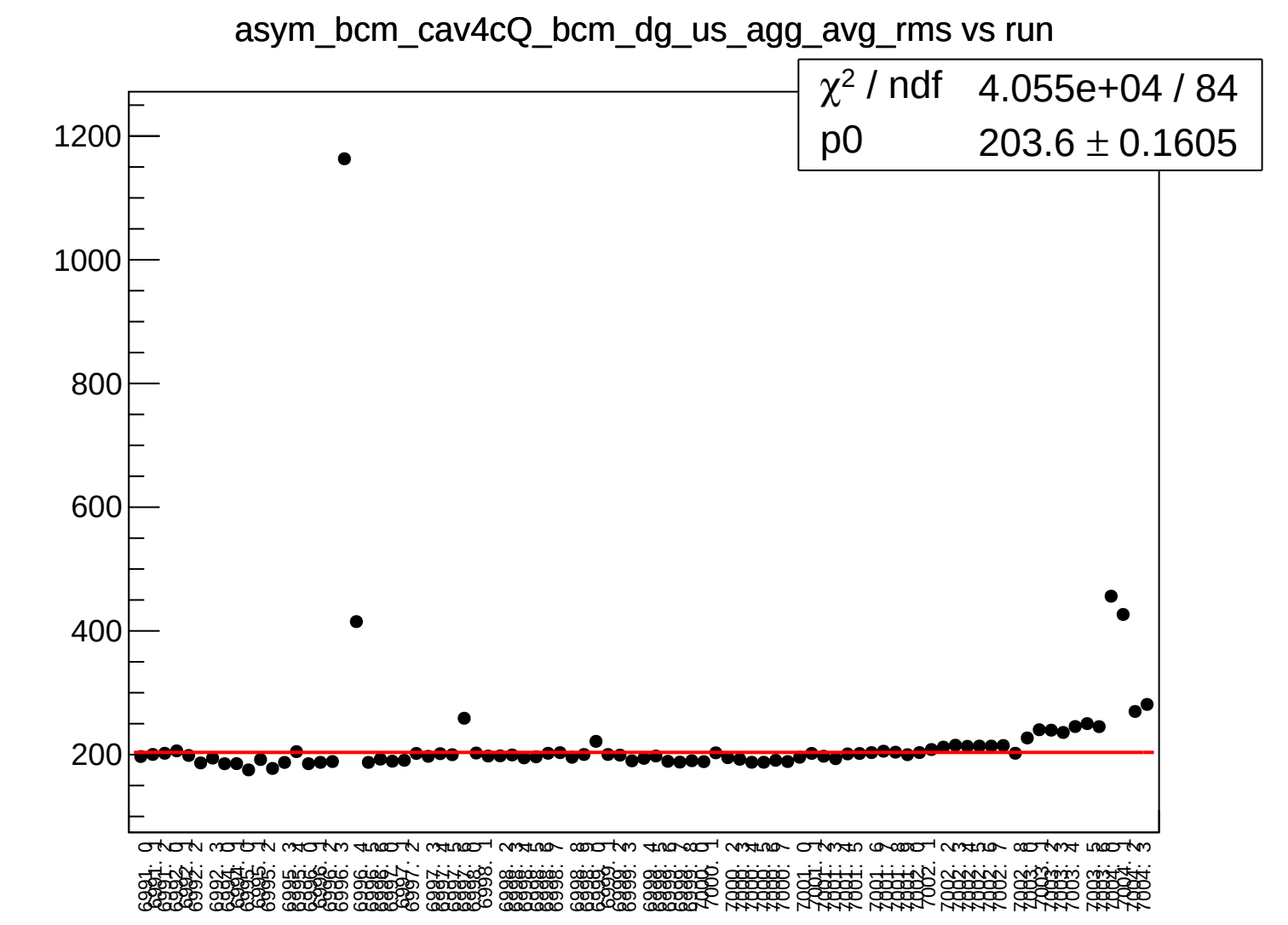

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 91.44 / 84
p0 46.01 ± 29.38
1000
500
0
−500
−1000
pull
Entries 85
Mean 342.7
Std Dev 259.9
2
1
0
−1
−2

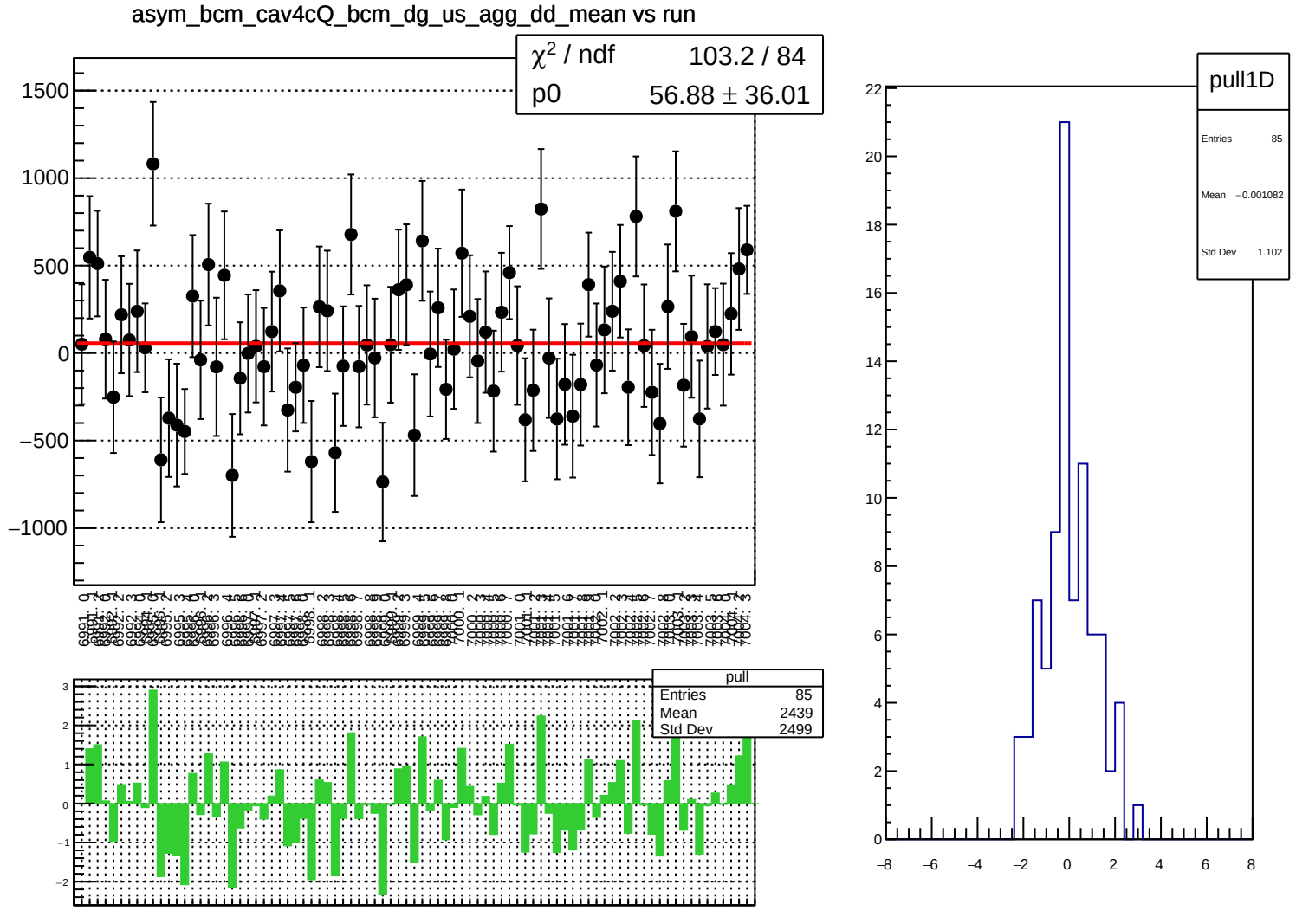

pull1D
Entries 85
Mean 0.003826
Std Dev 1.037
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

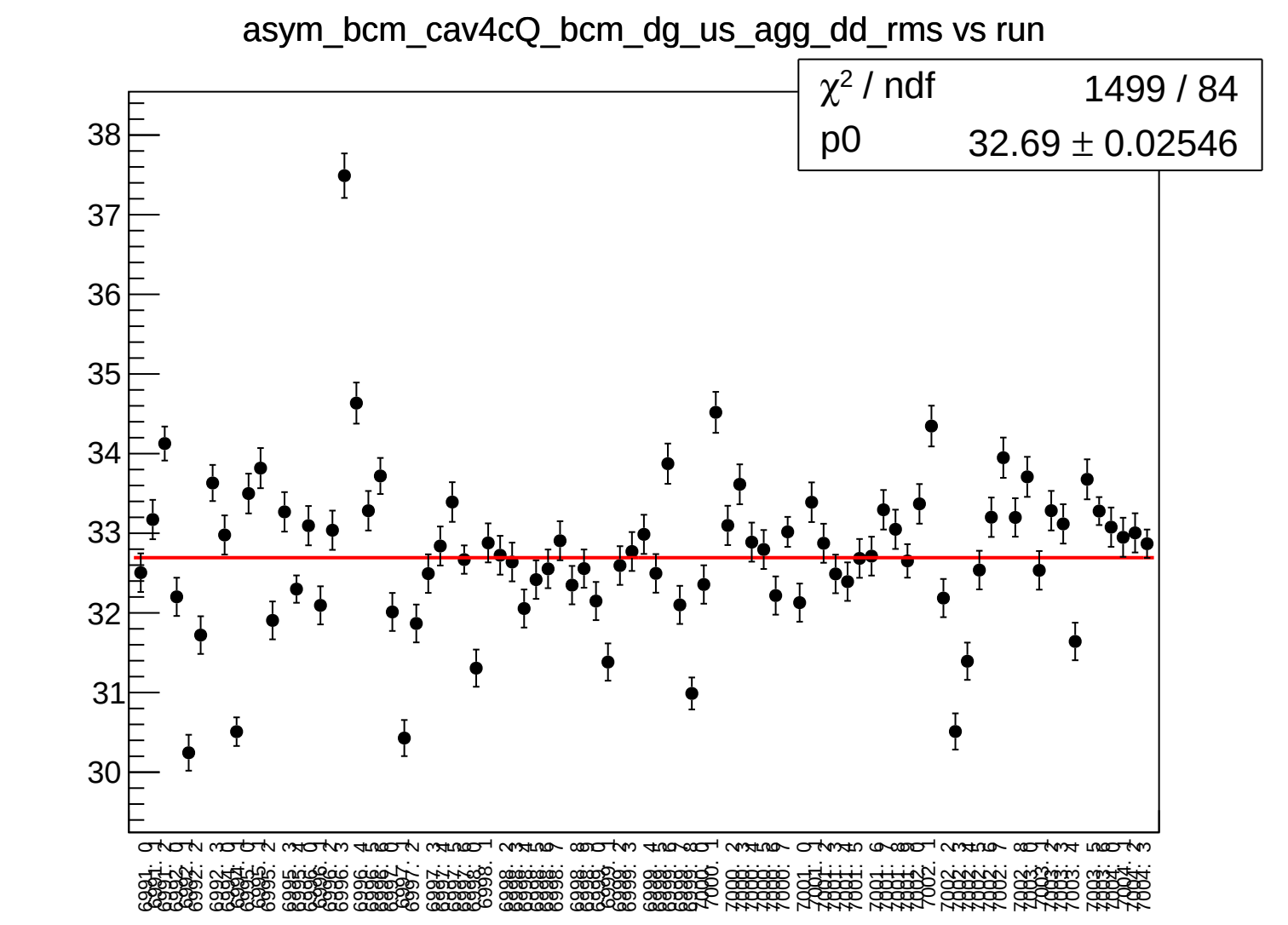

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 1608 / 84
p0 26.68 ± 0.02078
30
29
28
27
26
25

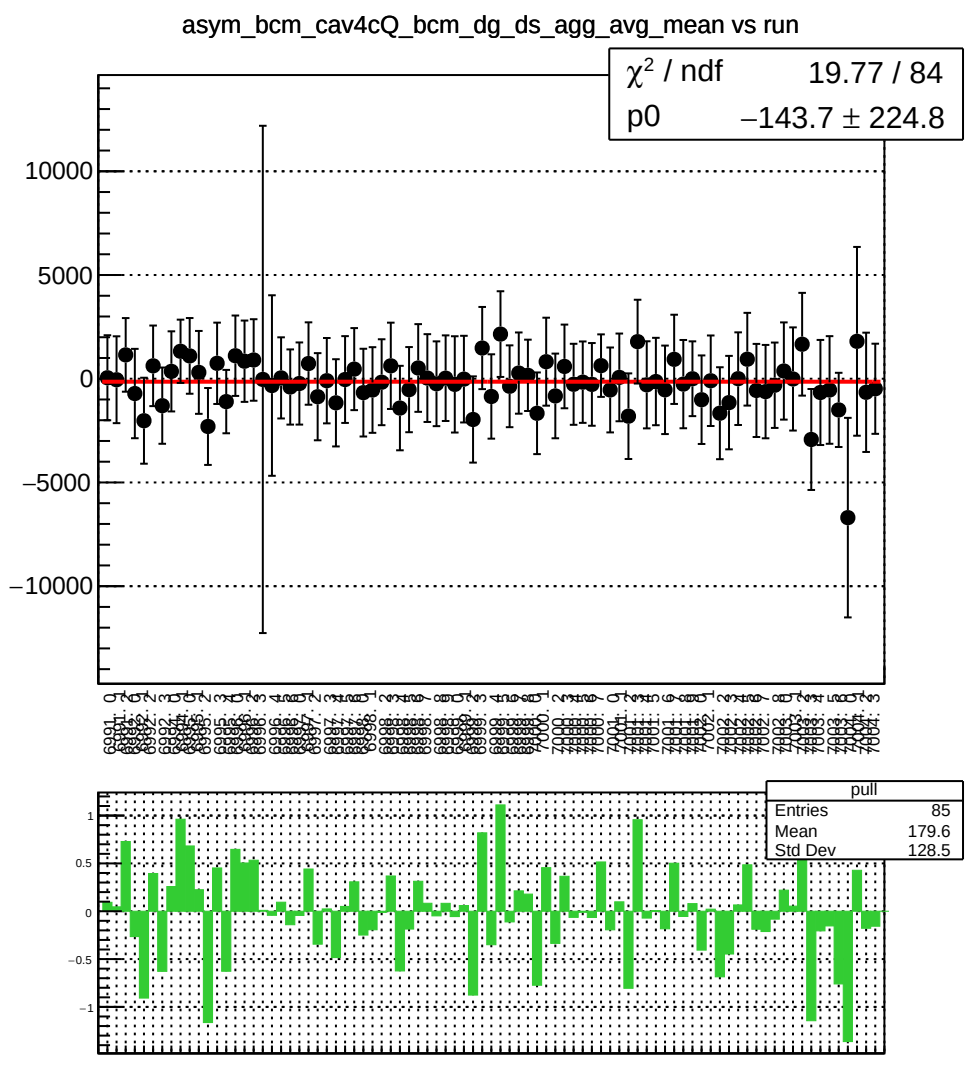

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_mean vs run
χ² / ndf 18.4 / 84
p0 −147.6 ± 227
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 189.4
Std Dev 137.7
1
0.5
0
−0.5
−1

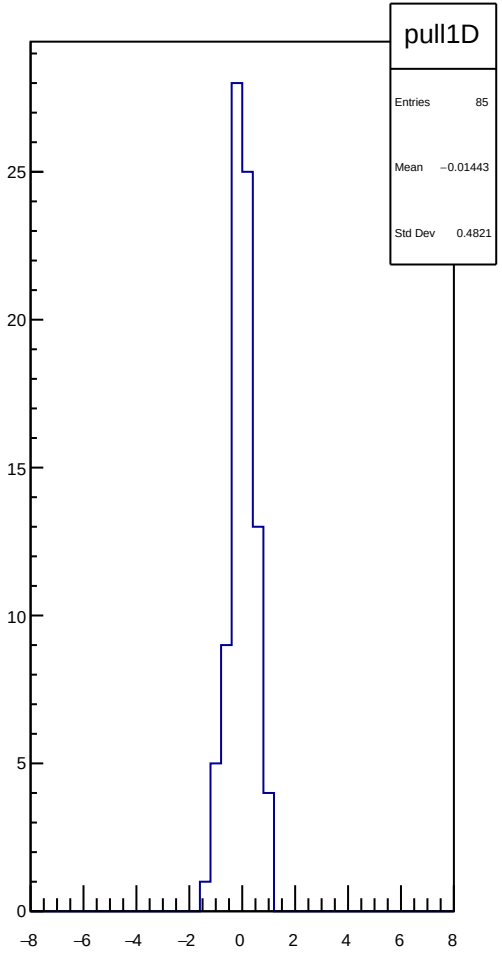

pull1D
Entries 85
Mean −0.01445
Std Dev 0.4651
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

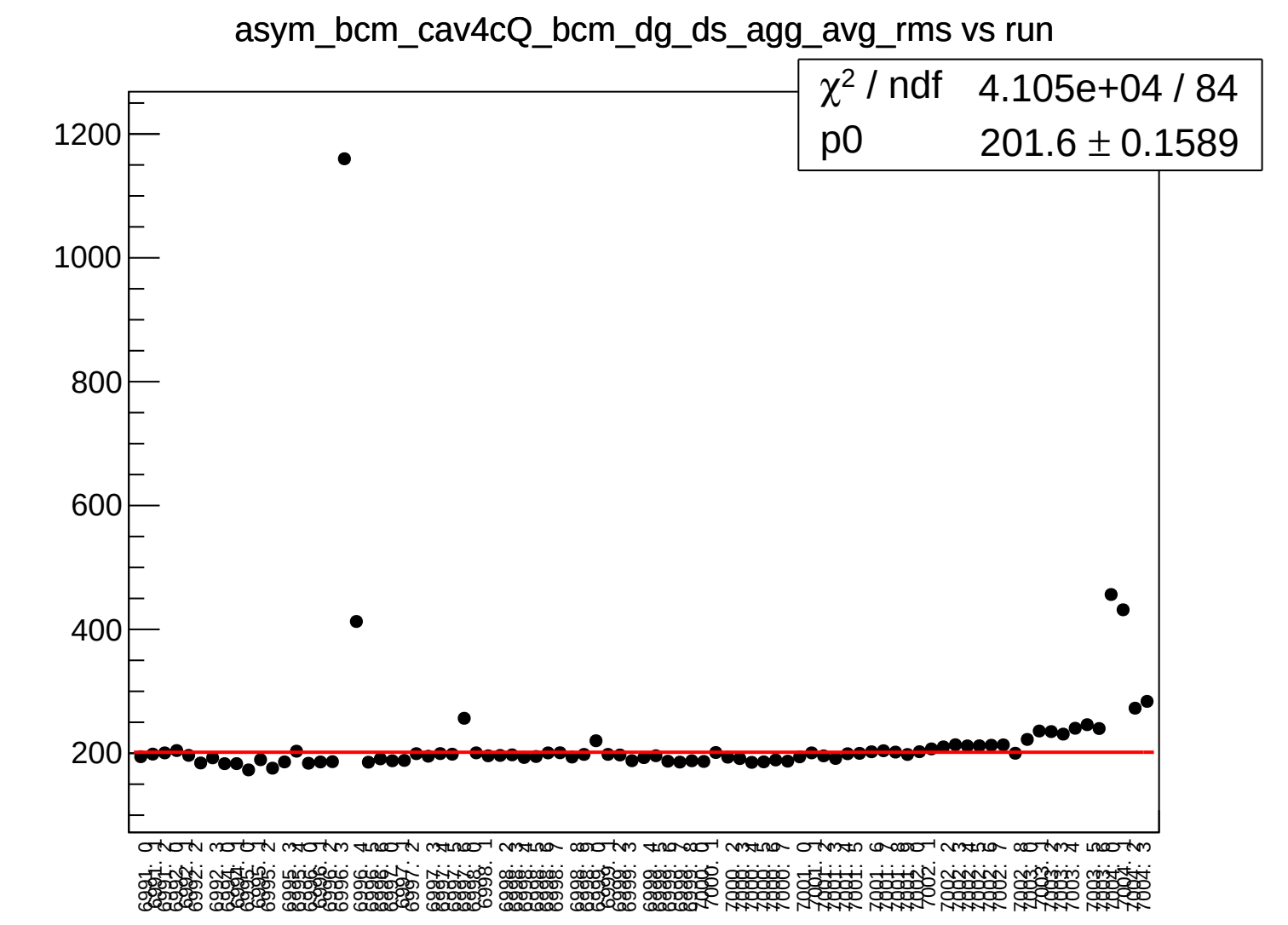

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_rms vs run
χ² / ndf 4.055e+04 / 84
p0 203.6 ± 0.1605
1200
1000
800
600
400
200

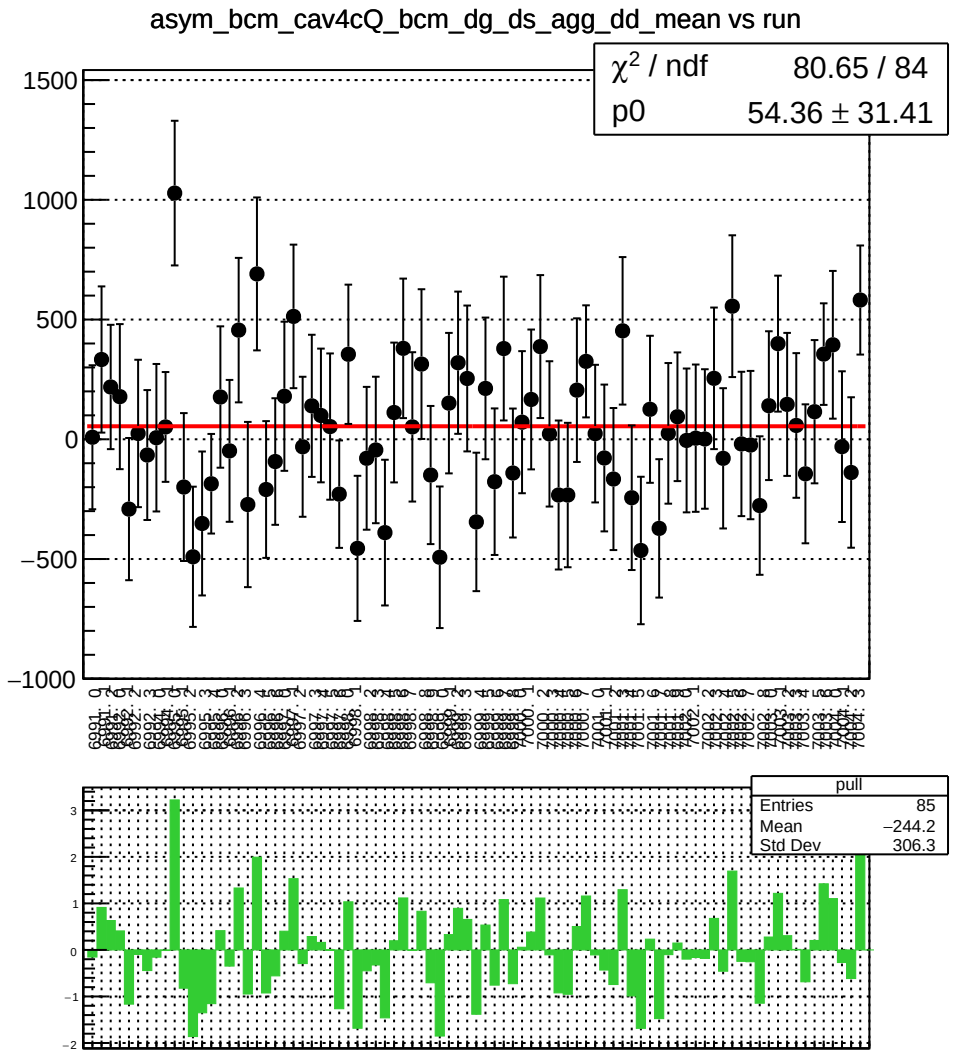

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 103.2 / 84
p0 56.88 ± 36.01
1500
1000
500
0
−500
−1000
pull
Entries 85
Mean −2439
Std Dev 2499
3
2
1
0
−1
−2
pull1D
Entries 85
Mean −0.001082
Std Dev 1.102
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

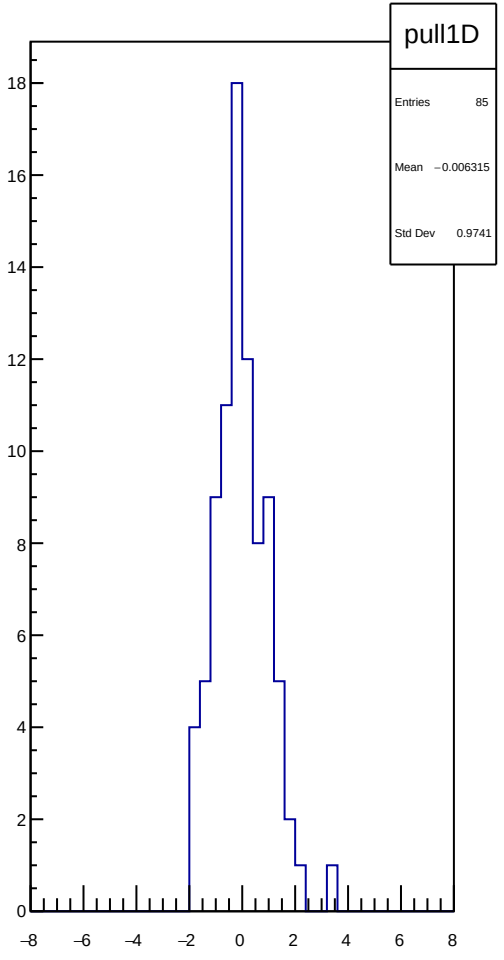

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 1499 / 84
p0 32.69 ± 0.02546
38
37
36
35
34
33
32
31
30

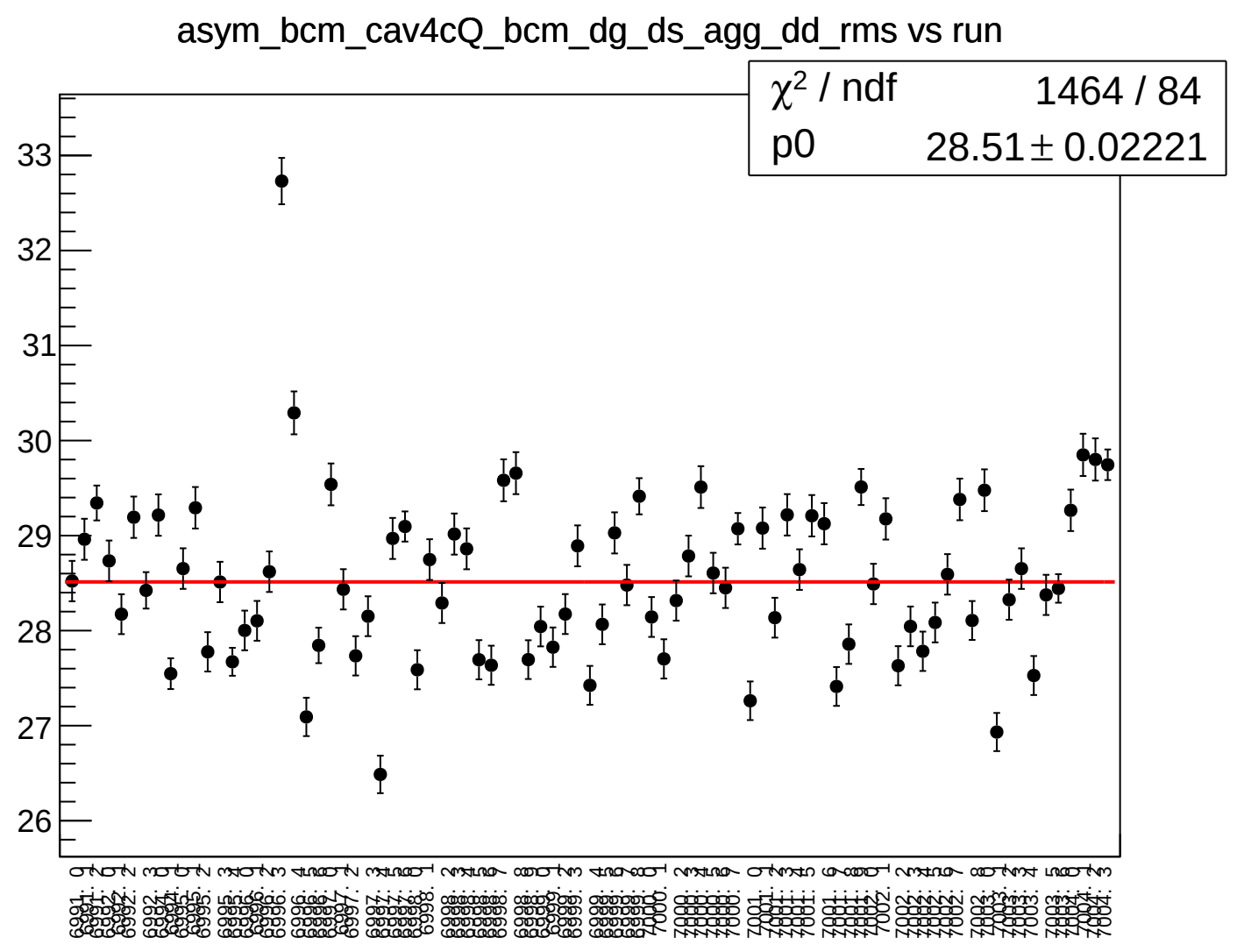

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 19.77 / 84
p0 −143.7 ± 224.8
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 179.6
Std Dev 128.5
1
0.5
0
−0.5
−1

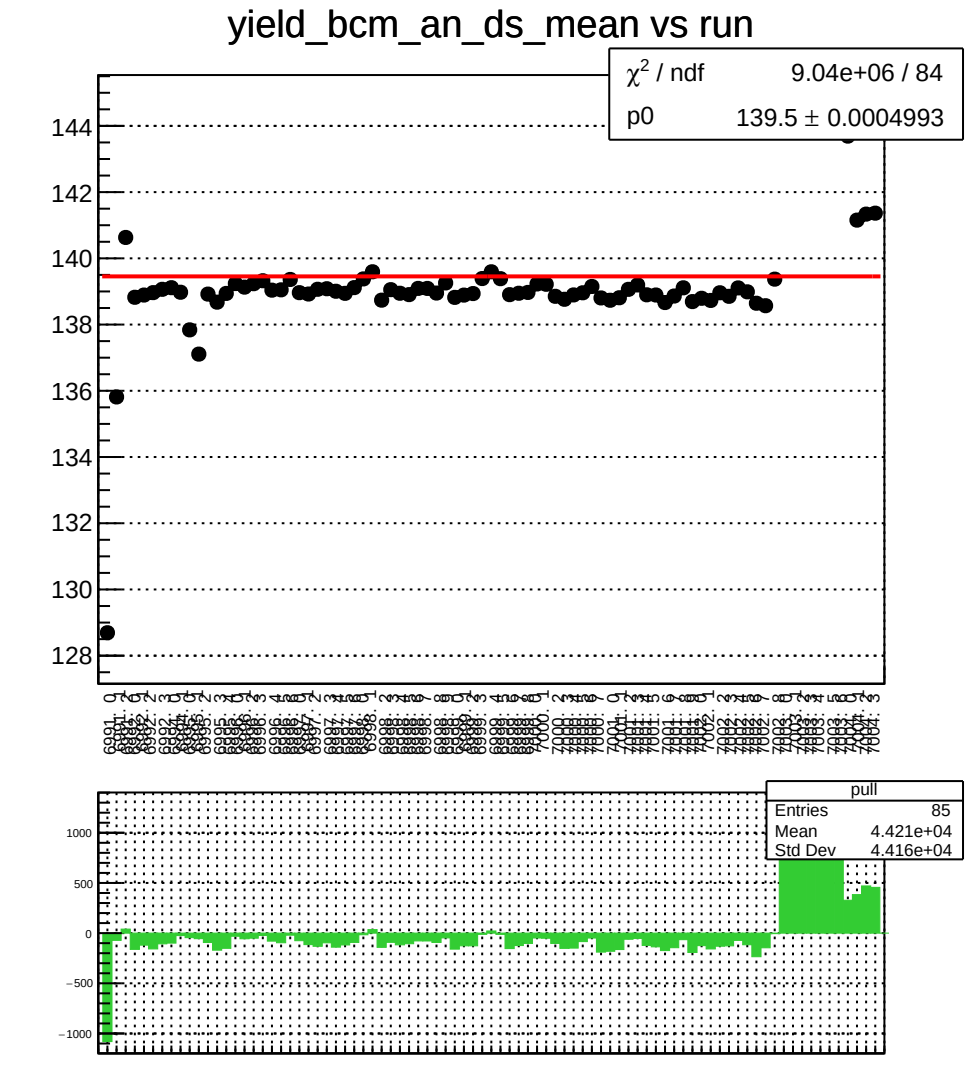

pull1D
Entries 85
Mean −0.01443
Std Dev 0.4821
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

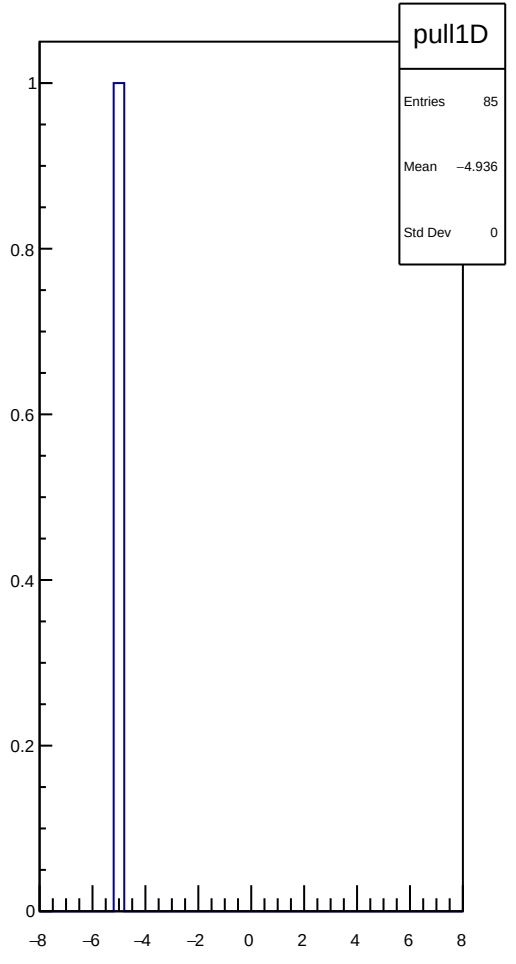

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 4.105e+04 / 84
p0 201.6 ± 0.1589
1200
1000
800
600
400
200

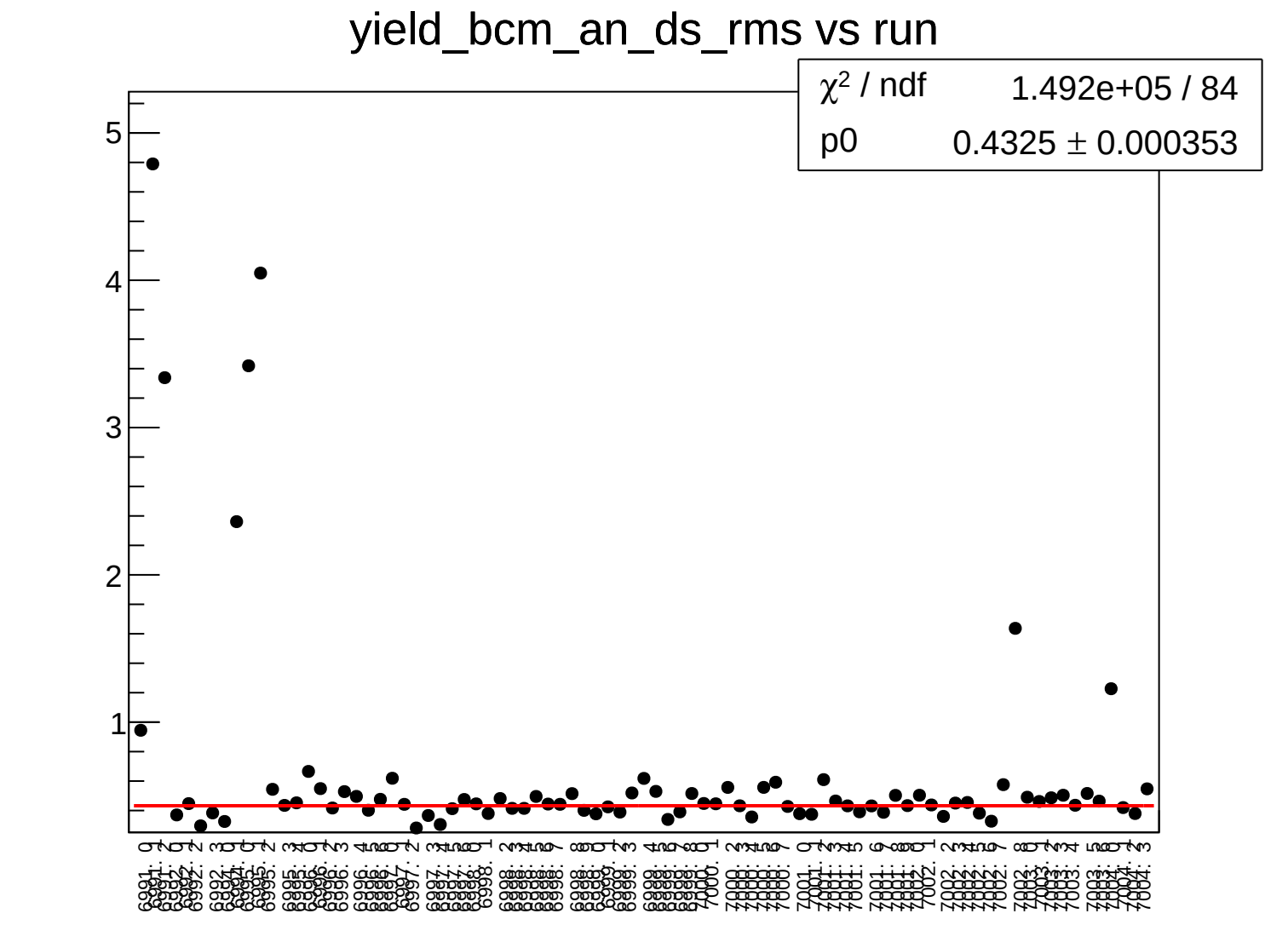

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 80.65 / 84
p0 54.36 ± 31.41
pull
Entries 85
Mean −244.2
Std Dev 306.3

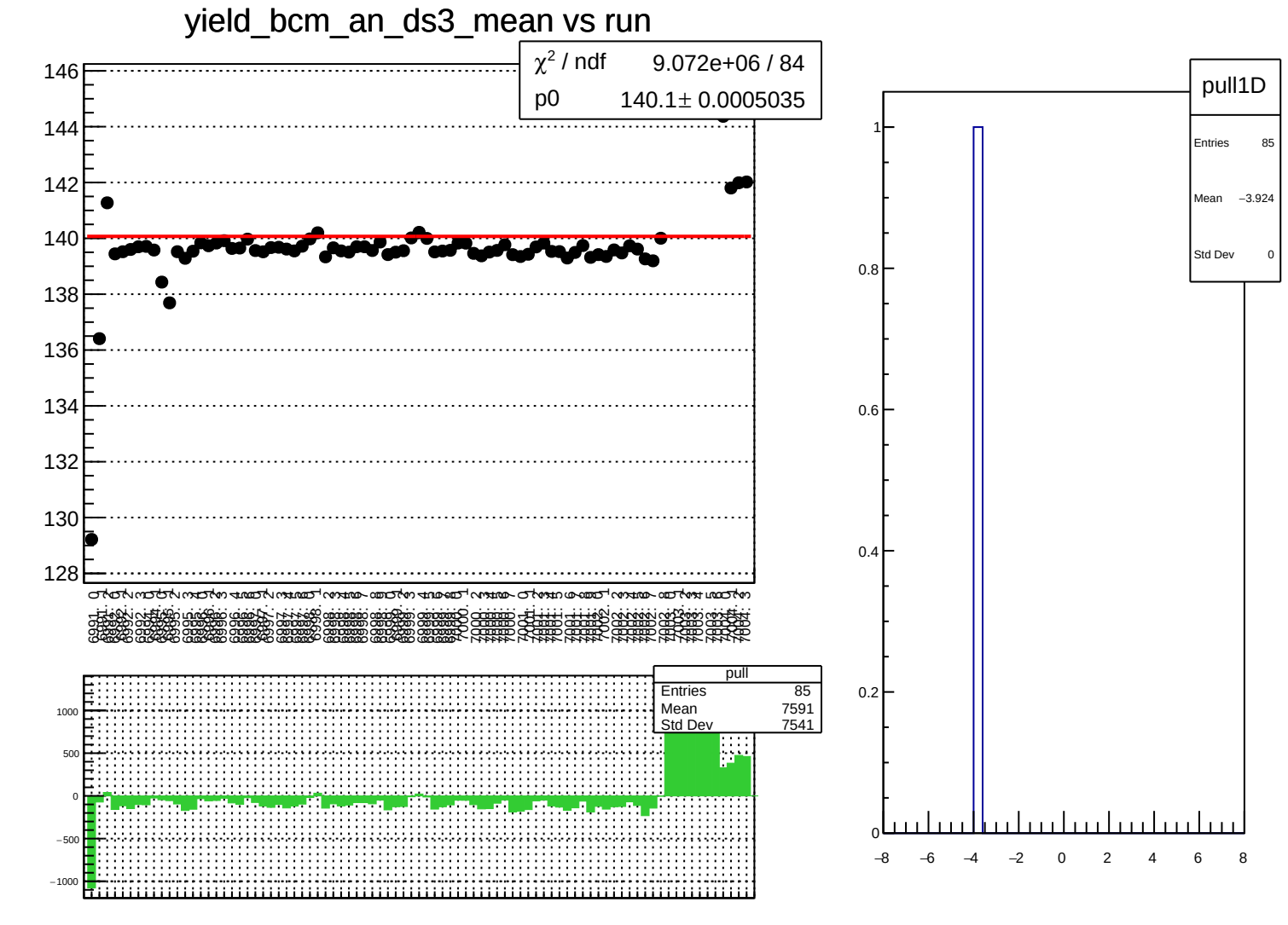

pull1D
Entries 85
Mean −0.006315
Std Dev 0.9741

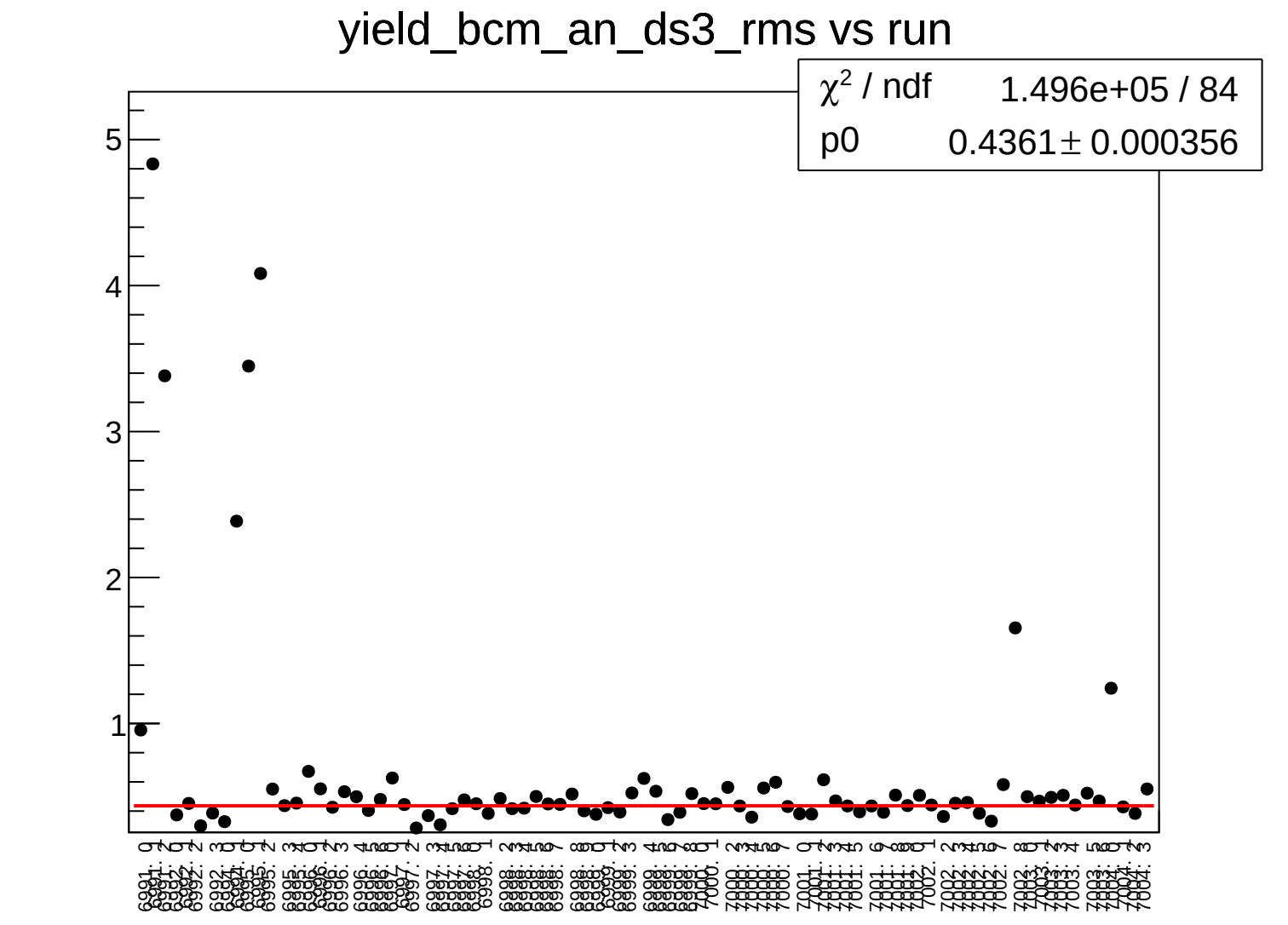

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 1464 / 84
p0 28.51 ± 0.02221
33
32
31
30
29
28
27
26

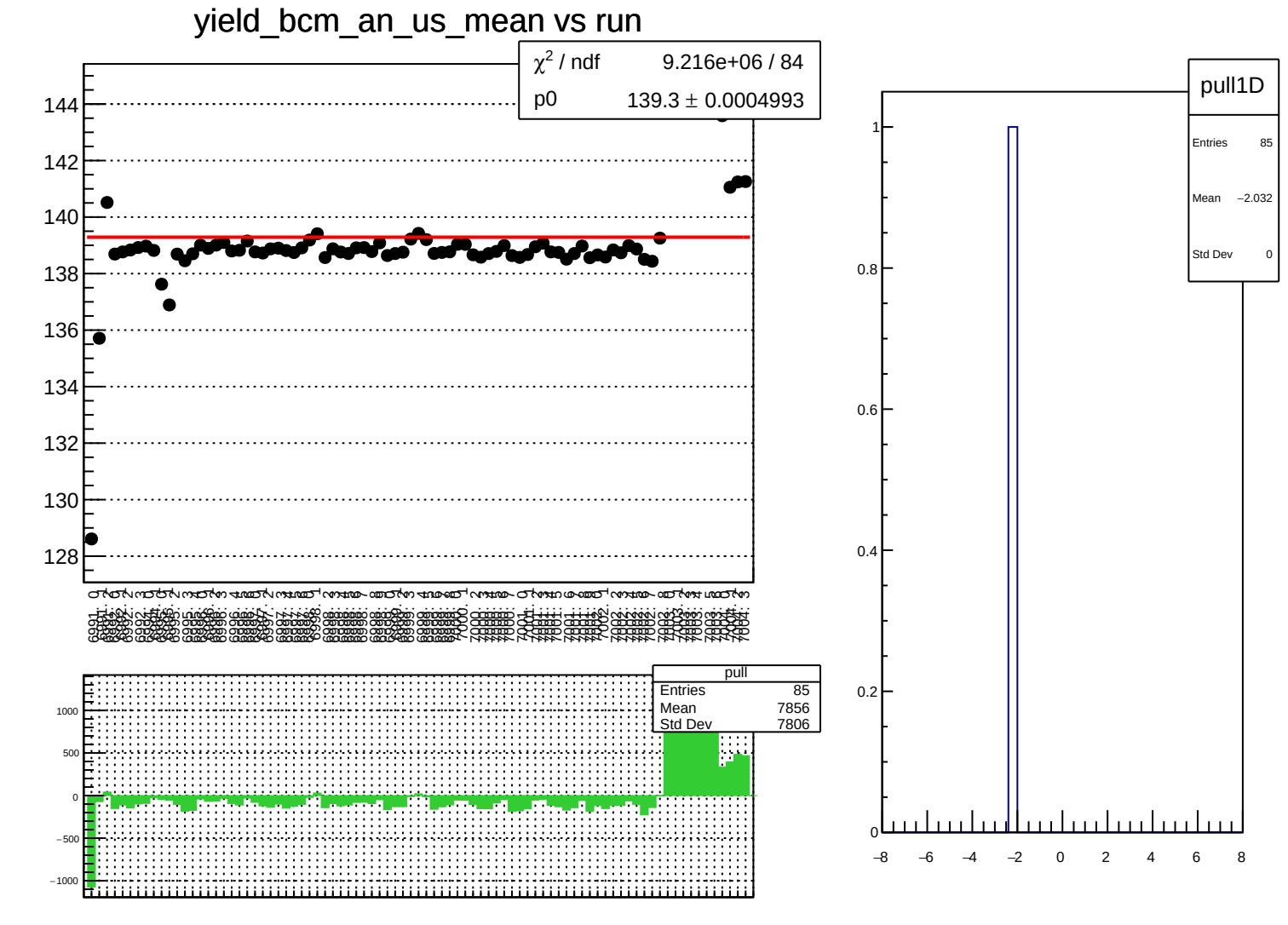

yield_bcm_an_ds_mean vs run
χ² / ndf 9.04e+06 / 84
p0 139.5 ± 0.0004993
144
142
140
138
136
134
132
130
128
pull
Entries 85
Mean 4.421e+04
Std Dev 4.416e+04
1000
500
0
−500
−1000

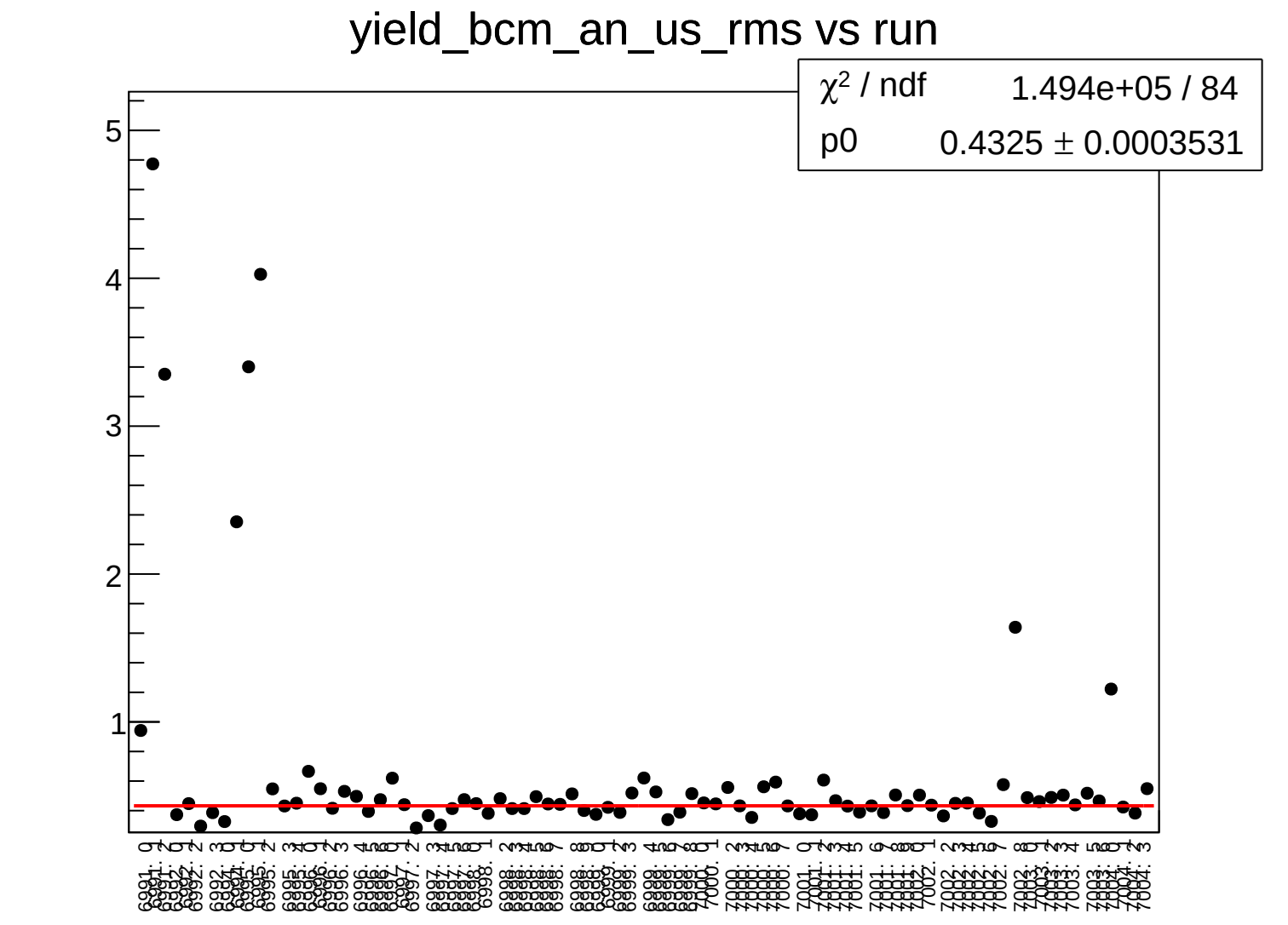

pull1D
Entries 85
Mean −4.936
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

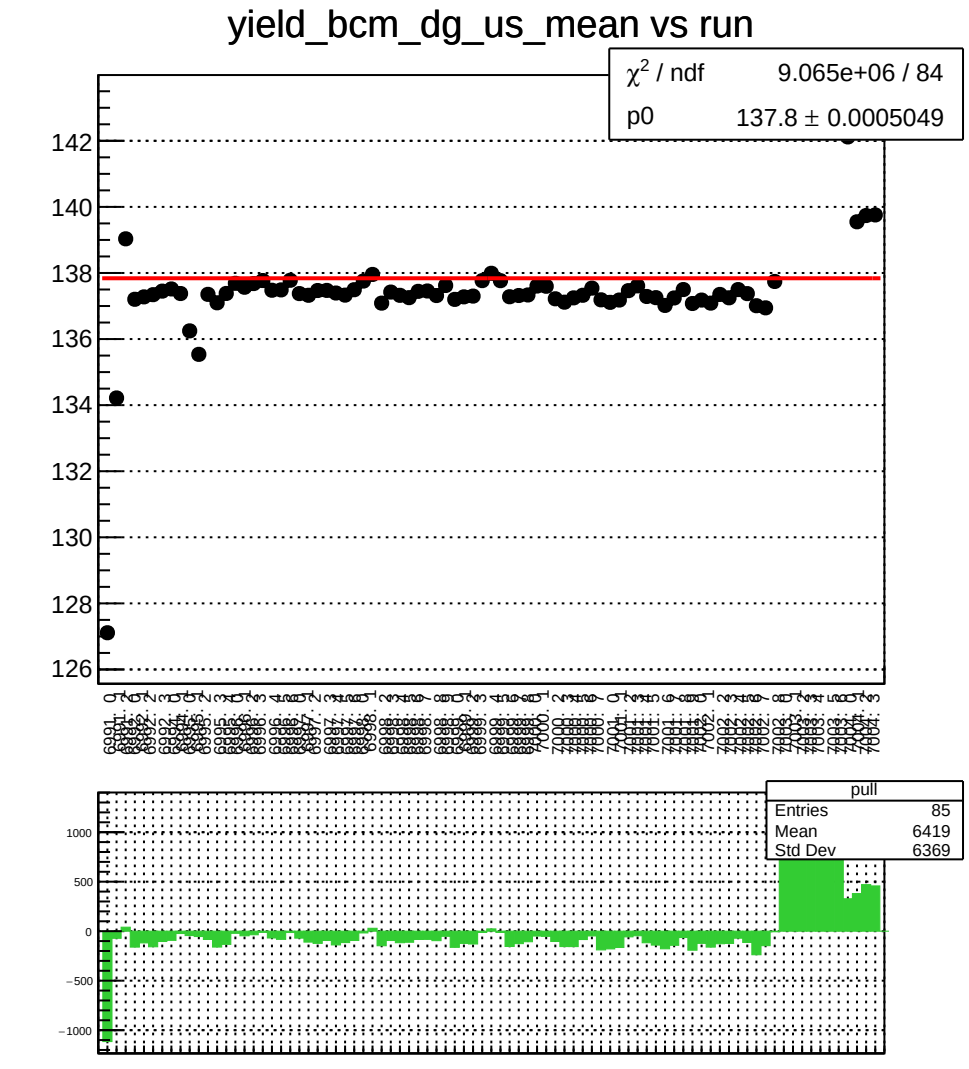

yield_bcm_an_ds_rms vs run
χ^2 / ndf 1.492e+05 / 84
p0 0.4325 ± 0.000353
5
4
3
2
1

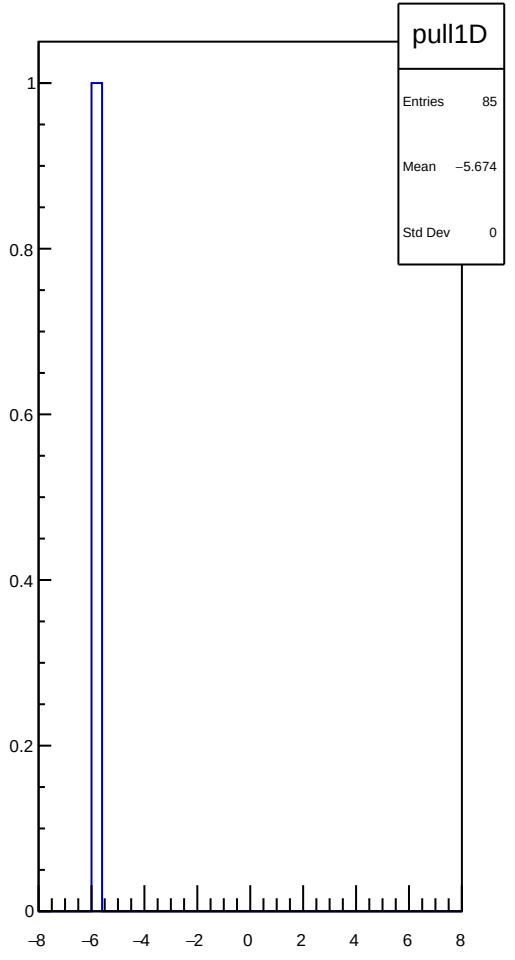

yield_bcm_an_ds3_mean vs run
χ² / ndf 9.072e+06 / 84
p0 140.1± 0.0005035
pull
Entries 85
Mean 7591
Std Dev 7541
pull1D
Entries 85
Mean −3.924
Std Dev 0

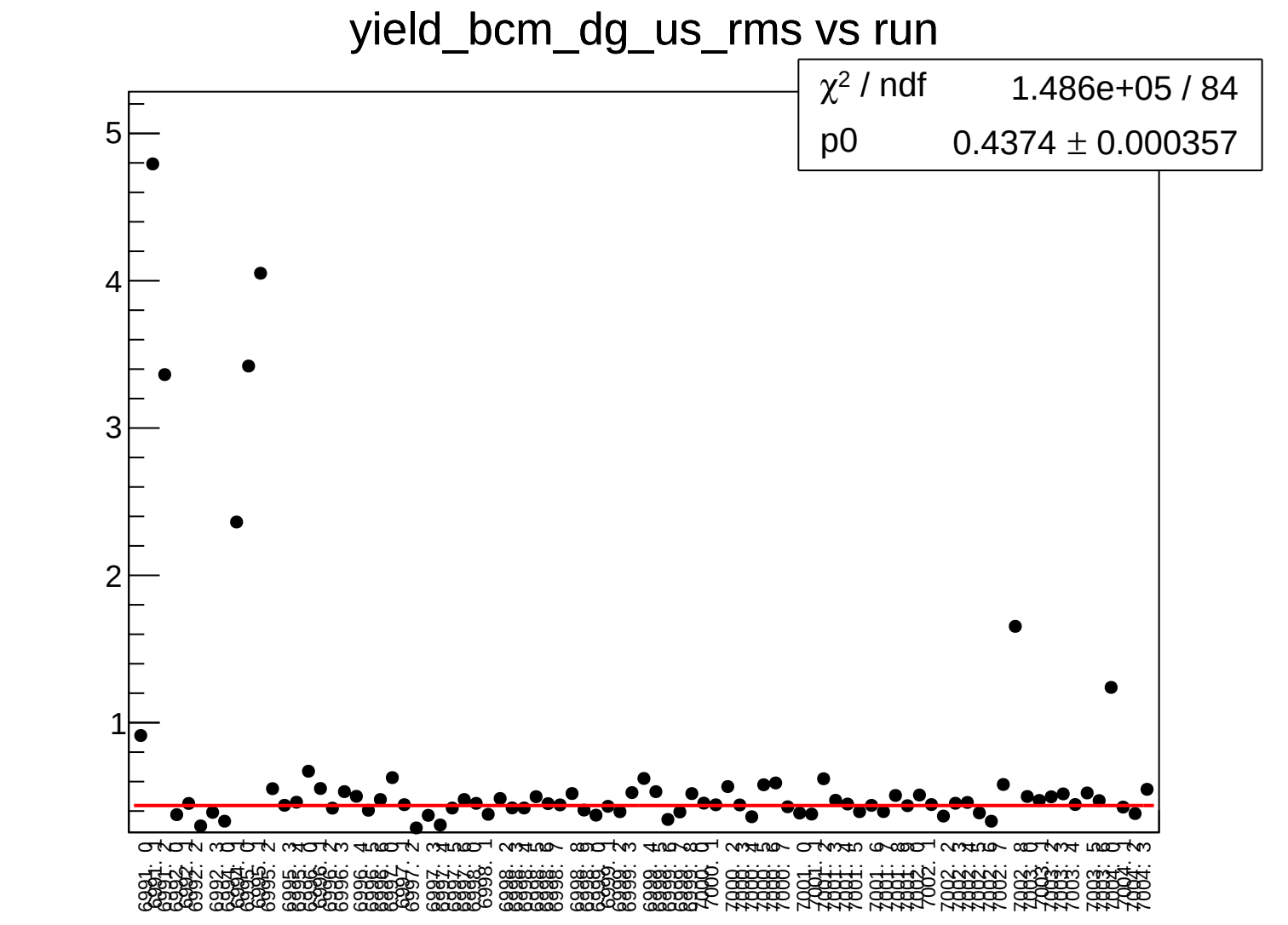

yield_bcm_an_ds3_rms vs run
χ^2 / ndf 1.496e+05 / 84
p0 0.4361 ± 0.000356
5
4
3
2
1

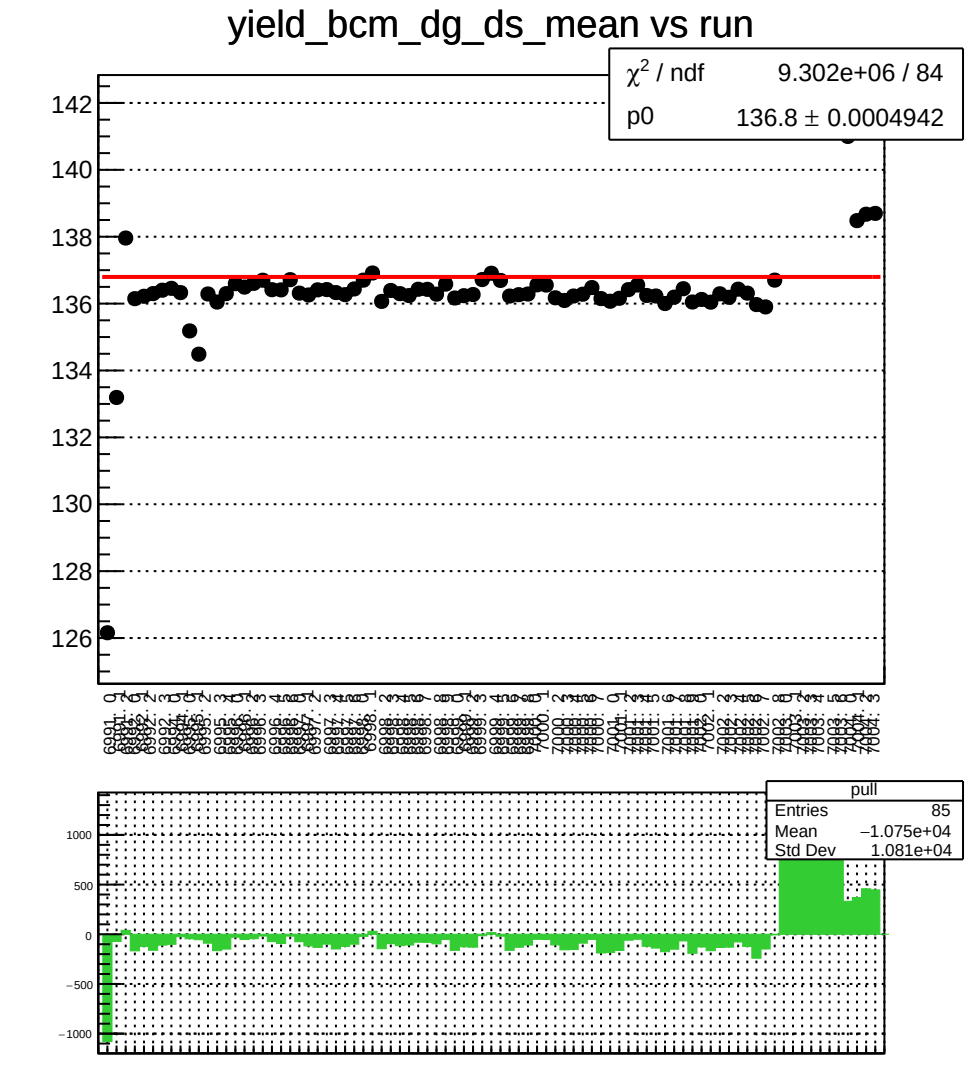

yield_bcm_an_us_mean vs run
χ² / ndf 9.216e+06 / 84
p0 139.3 ± 0.0004993
144
142
140
138
136
134
132
130
128
pull
Entries 85
Mean 7856
Std Dev 7806
1000
500
0
−500
−1000
pull1D
Entries 85
Mean −2.032
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

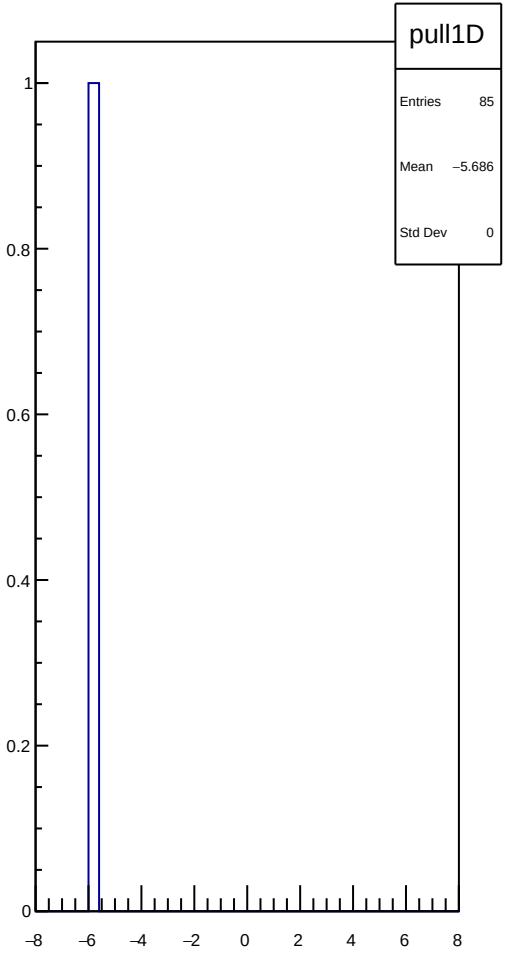

yield_bcm_an_us_rms vs run
χ² / ndf 1.494e+05 / 84
p0 0.4325 ± 0.0003531
5
4
3
2
1

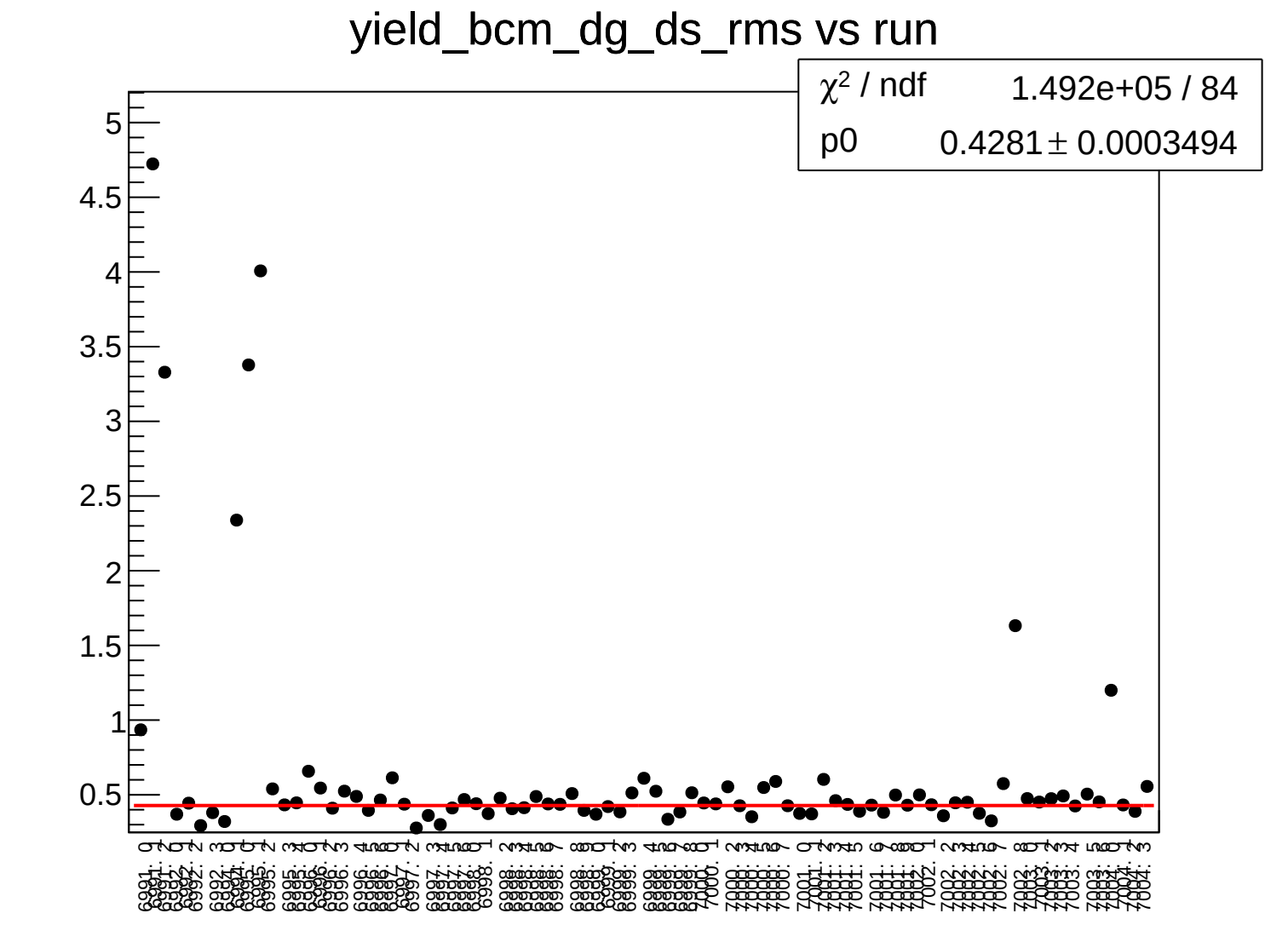

yield_bcm_dg_us_mean vs run
χ² / ndf 9.065e+06 / 84
p0 137.8 ± 0.0005049
142
140
138
136
134
132
130
128
126
pull
Entries 85
Mean 6419
Std Dev 6369
1000
500
0
−500
−1000

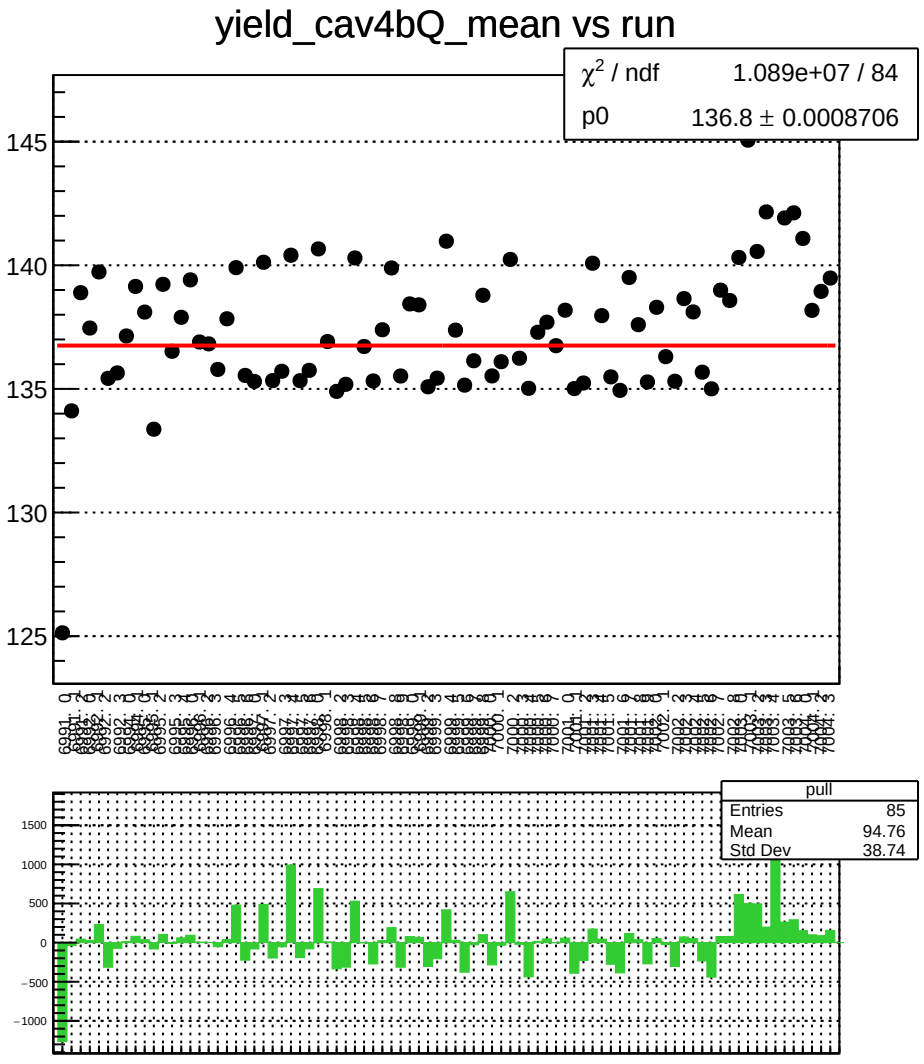

pull1D
Entries 85
Mean −5.674
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

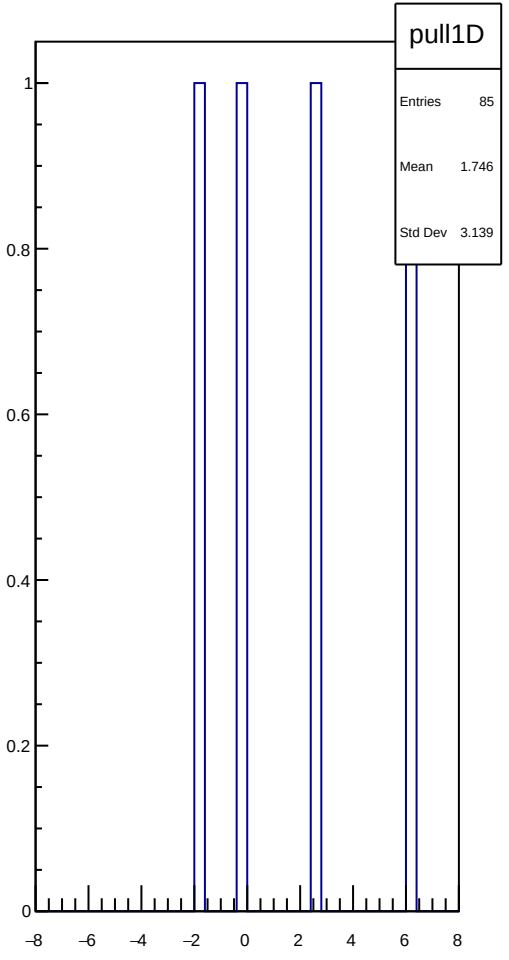

yield_bcm_dg_us_rms vs run
χ² / ndf 1.486e+05 / 84
p0 0.4374 ± 0.000357
5
4
3
2
1

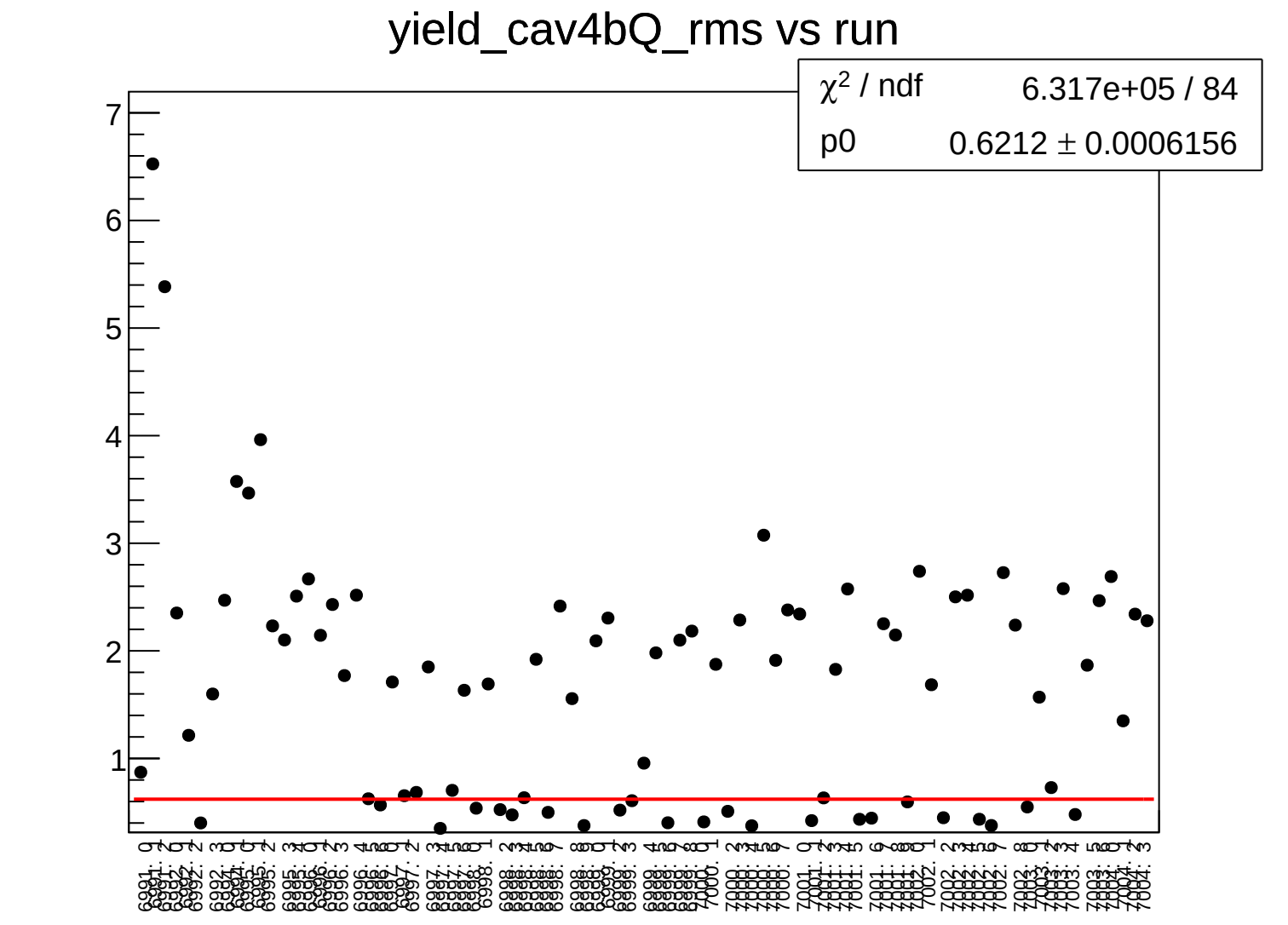

yield_bcm_dg_ds_mean vs run
χ² / ndf 9.302e+06 / 84
p0 136.8 ± 0.0004942
142
140
138
136
134
132
130
128
126
pull
Entries 85
Mean −1.075e+04
Std Dev 1.081e+04
1000
500
0
−500
−1000

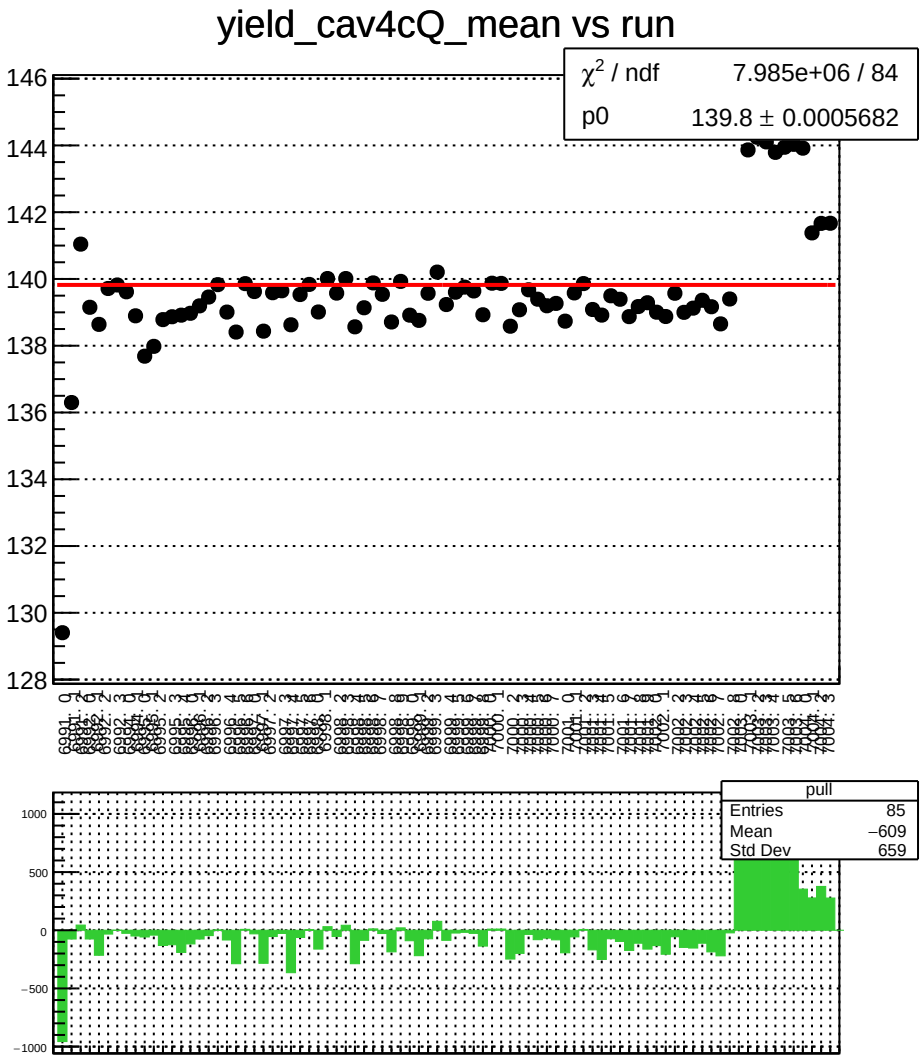

pull1D
Entries 85
Mean −5.686
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

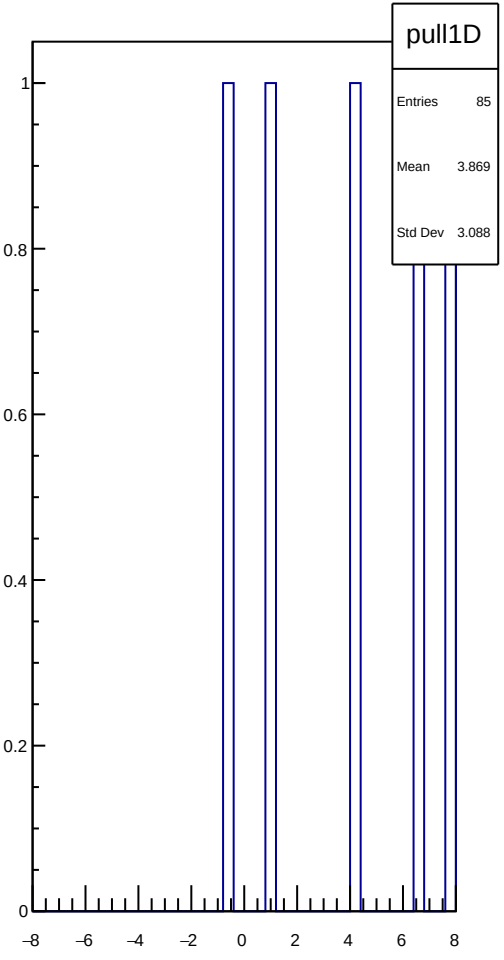

yield_bcm_dg_ds_rms vs run
χ² / ndf 1.492e+05 / 84
p0 0.4281 ± 0.0003494
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5

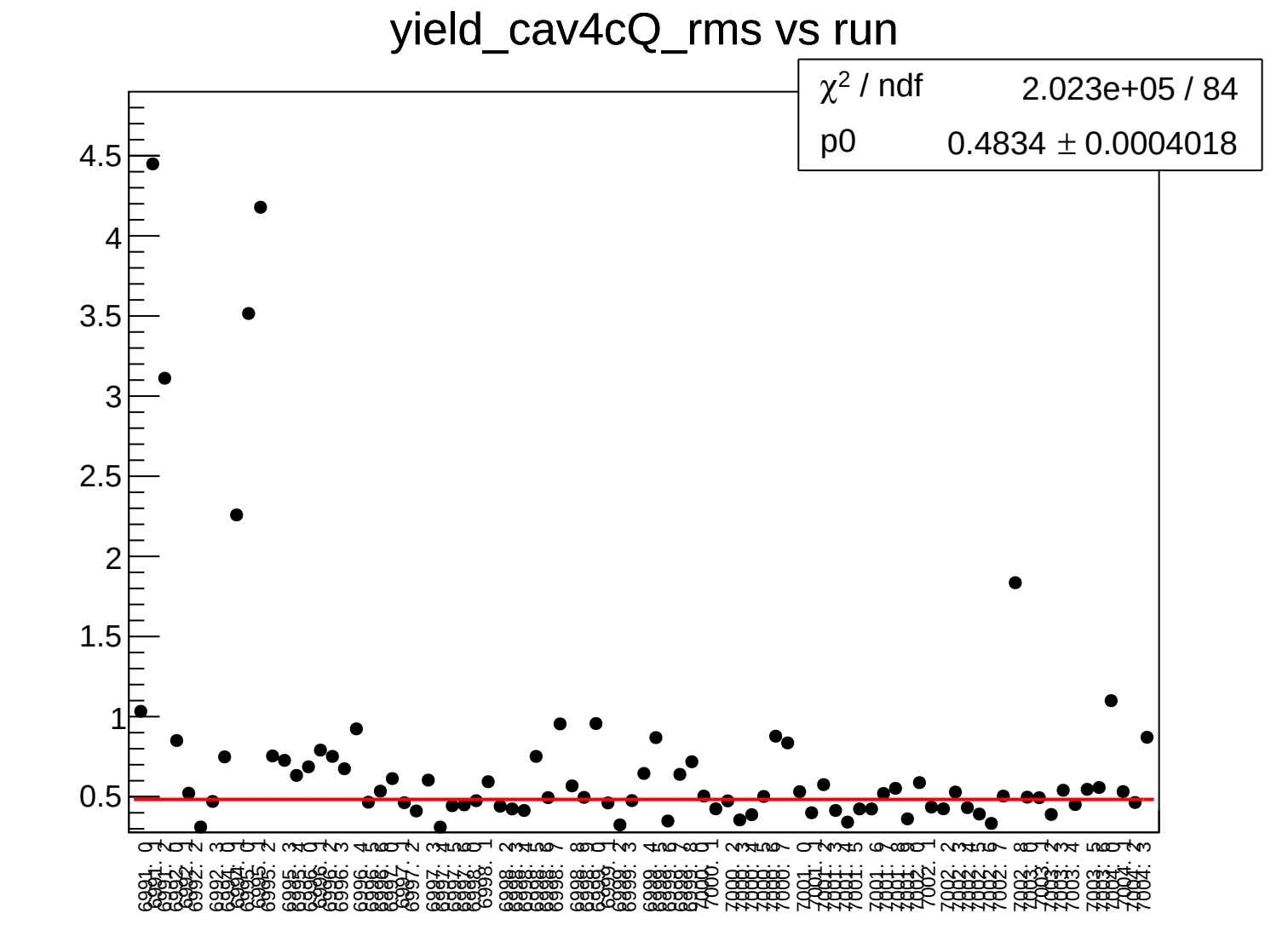

yield_cav4bQ_mean vs run
χ² / ndf 1.089e+07 / 84
p0 136.8 ± 0.0008706
145
140
135
130
125
pull
Entries 85
Mean 94.76
Std Dev 38.74
1500
1000
500
0
−500
−1000

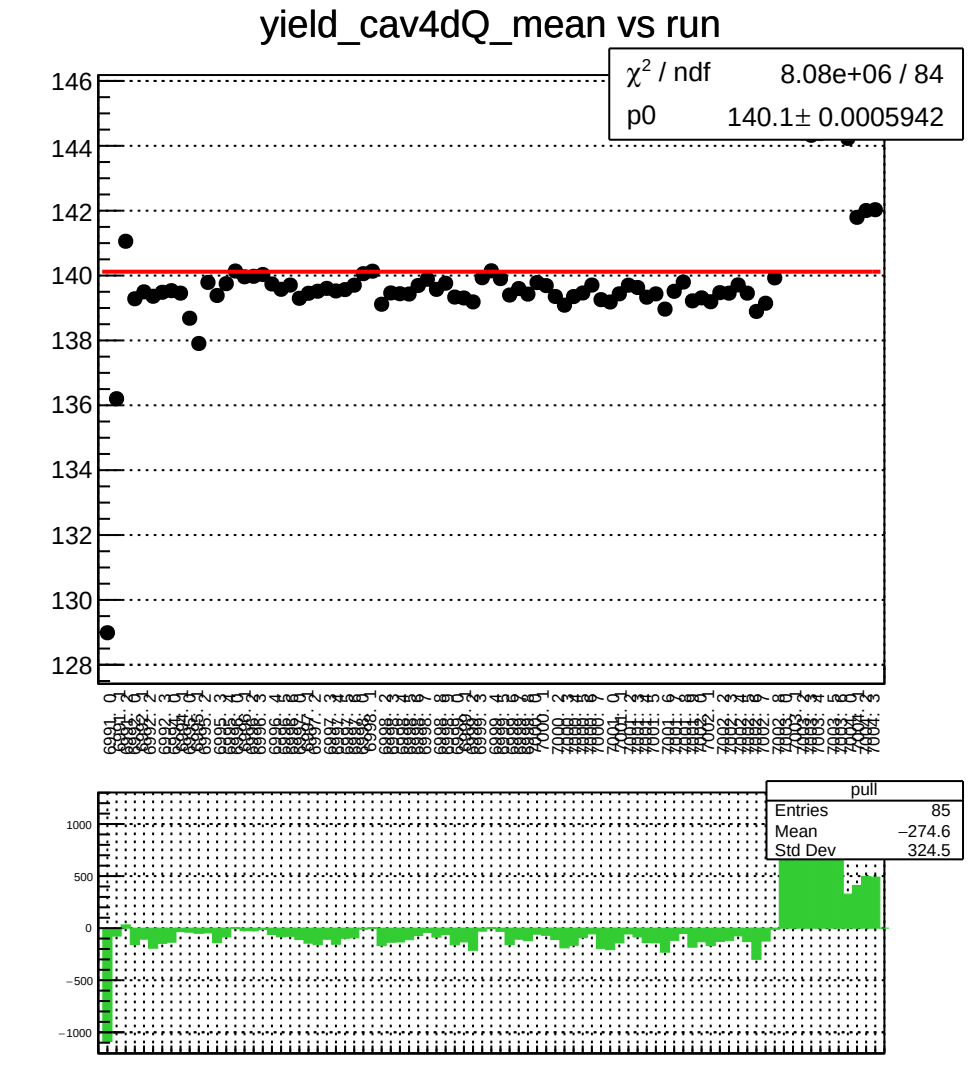

pull1D
Entries 85
Mean 1.746
Std Dev 3.139
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

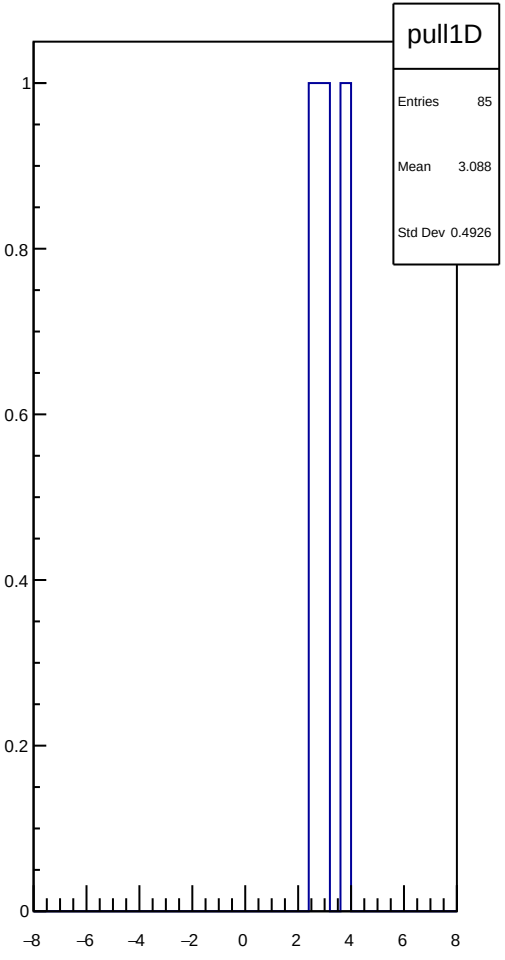

yield_cav4bQ_rms vs run
χ² / ndf 6.317e+05 / 84
p0 0.6212 ± 0.0006156
7
6
5
4
3
2
1

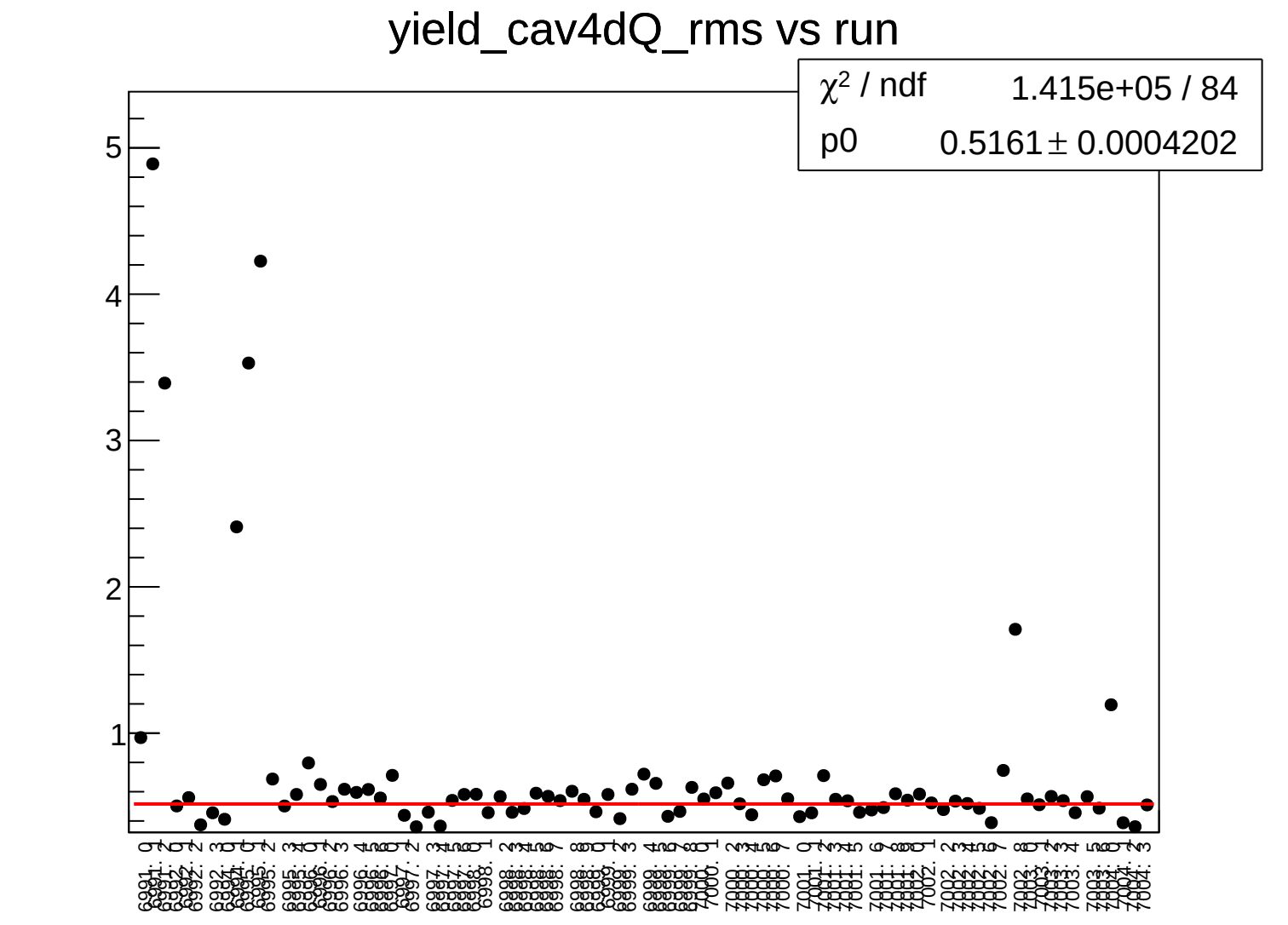

yield_cav4cQ_mean vs run
χ² / ndf 7.985e+06 / 84
p0 139.8 ± 0.0005682
pull
Entries 85
Mean −609
Std Dev 659

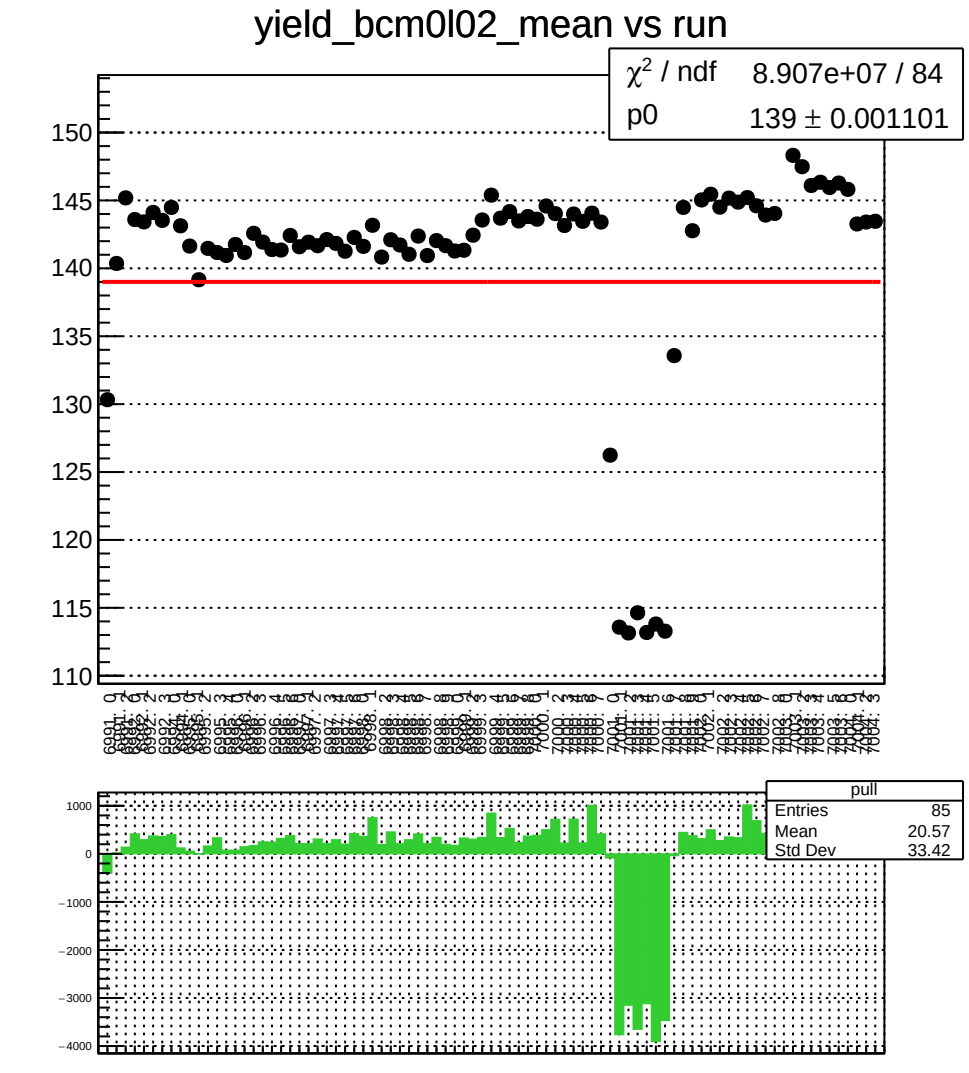

pull1D
Entries 85
Mean 3.869
Std Dev 3.088

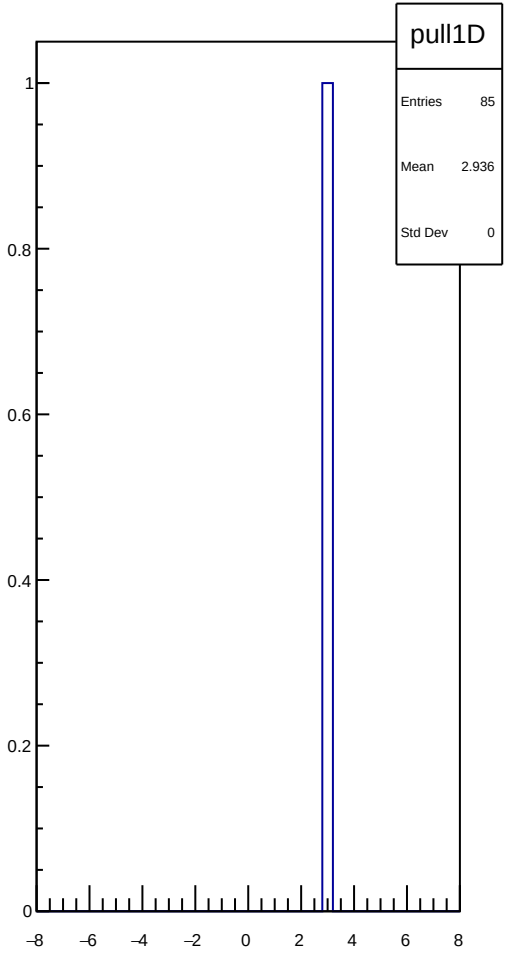

yield_cav4cQ_rms vs run
χ² / ndf 2.023e+05 / 84
p0 0.4834 ± 0.0004018
4.5
4
3.5
3
2.5
2
1.5
1
0.5

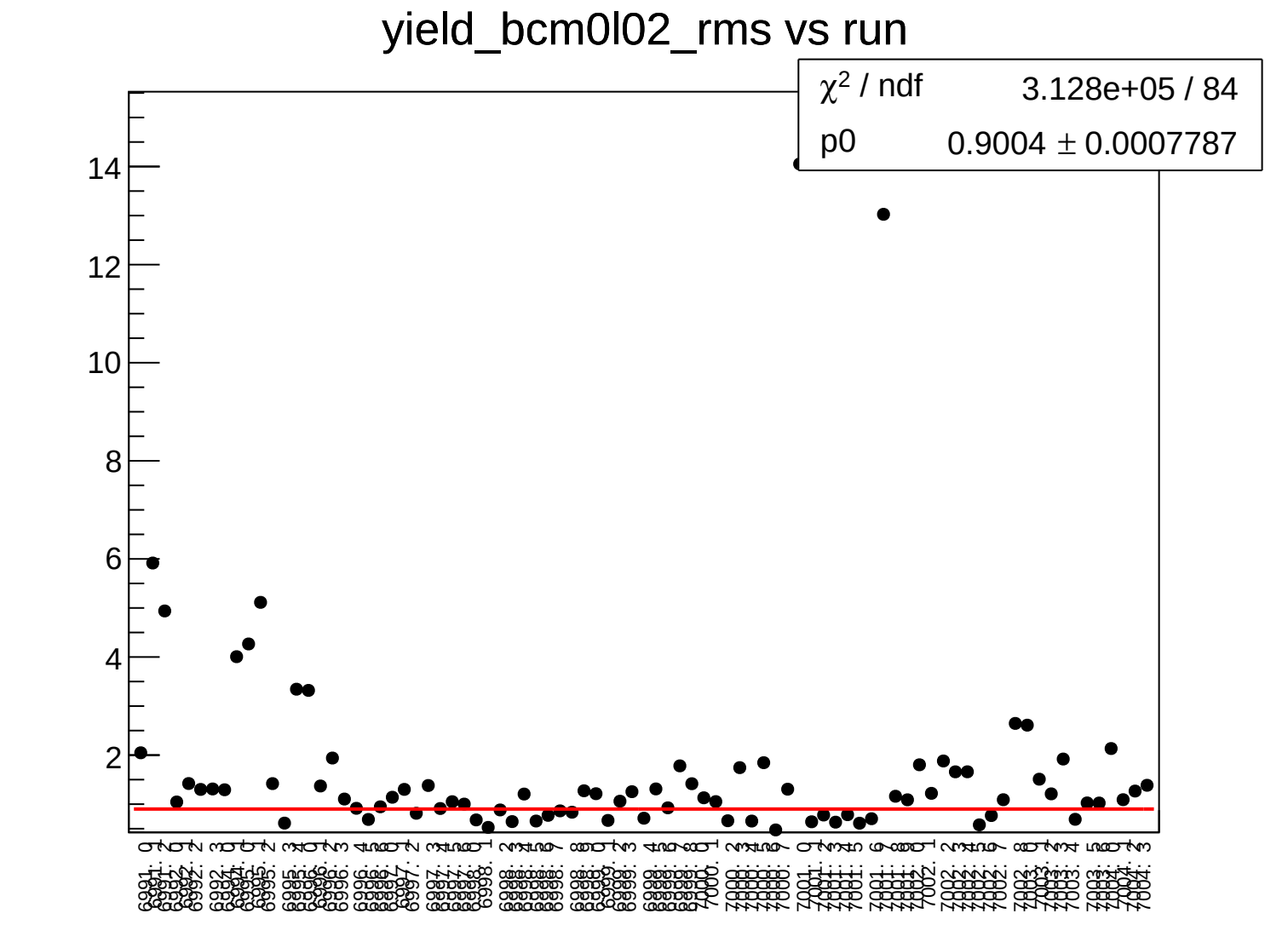

yield_cav4dQ_mean vs run
χ² / ndf 8.08e+06 / 84
p0 140.1± 0.0005942
pull
Entries 85
Mean −274.6
Std Dev 324.5

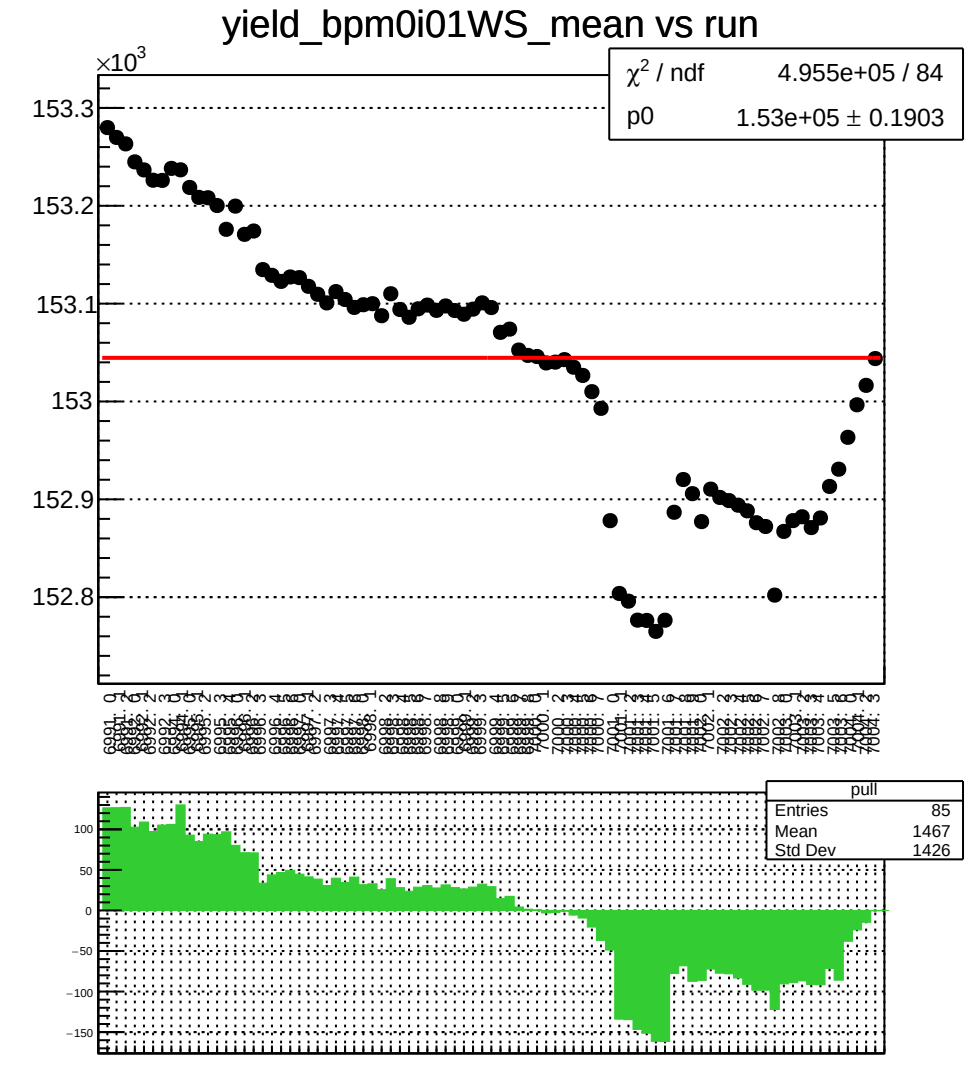

pull1D
Entries 85
Mean 3.088
Std Dev 0.4926

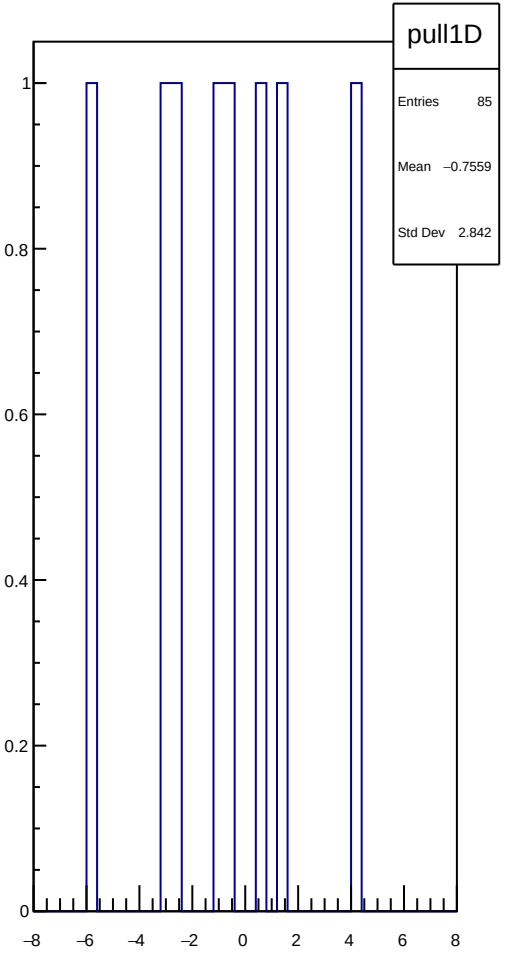

yield_cav4dQ_rms vs run
χ² / ndf 1.415e+05 / 84
p0 0.5161 ± 0.0004202
5
4
3
2
1

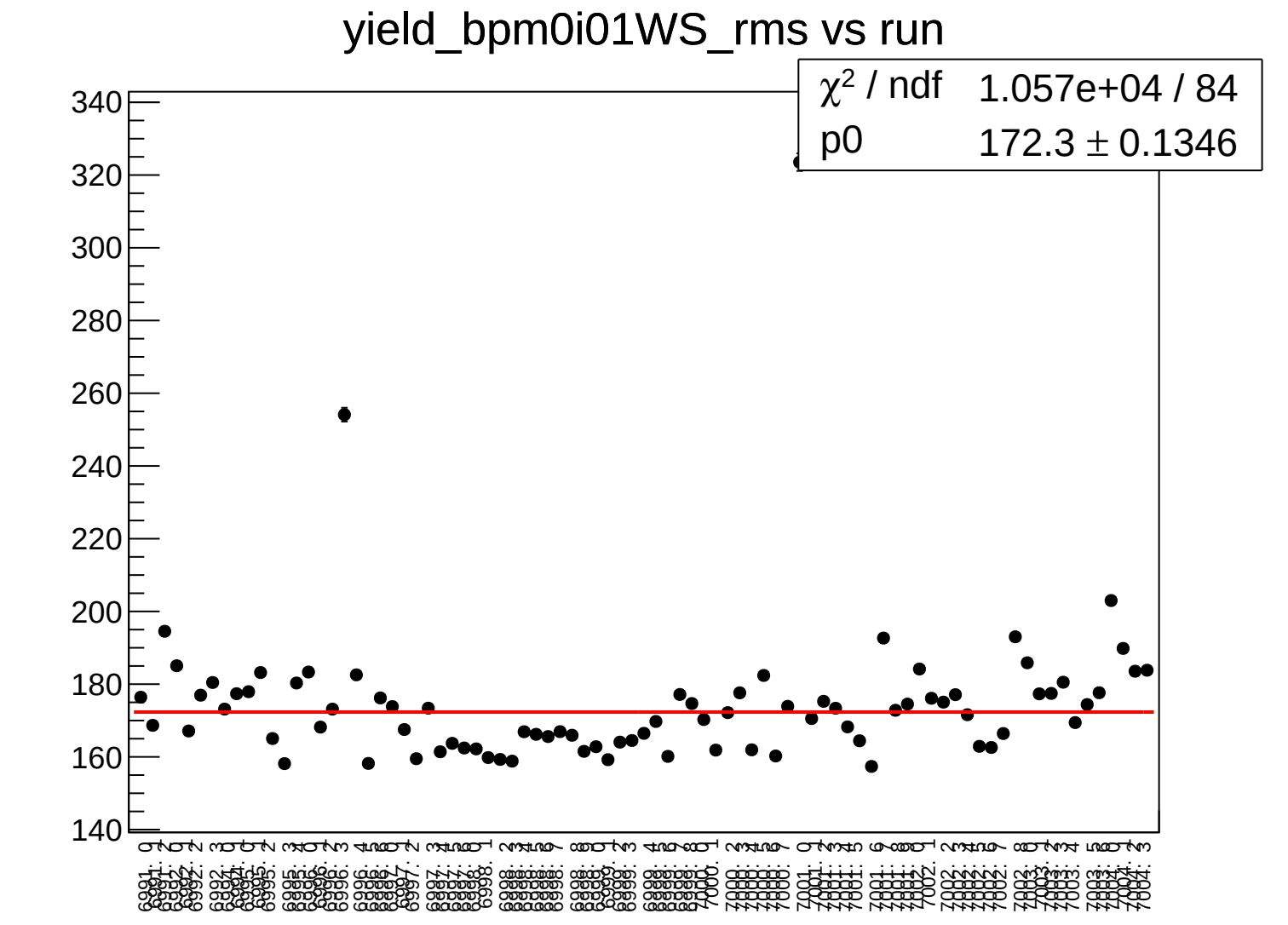

yield_bcm0l02_mean vs run
χ² / ndf 8.907e+07 / 84
p0 139 ± 0.001101
150
145
140
135
130
125
120
115
110
pull
Entries 85
Mean 20.57
Std Dev 33.42
1000
0
−1000
−2000
−3000
−4000

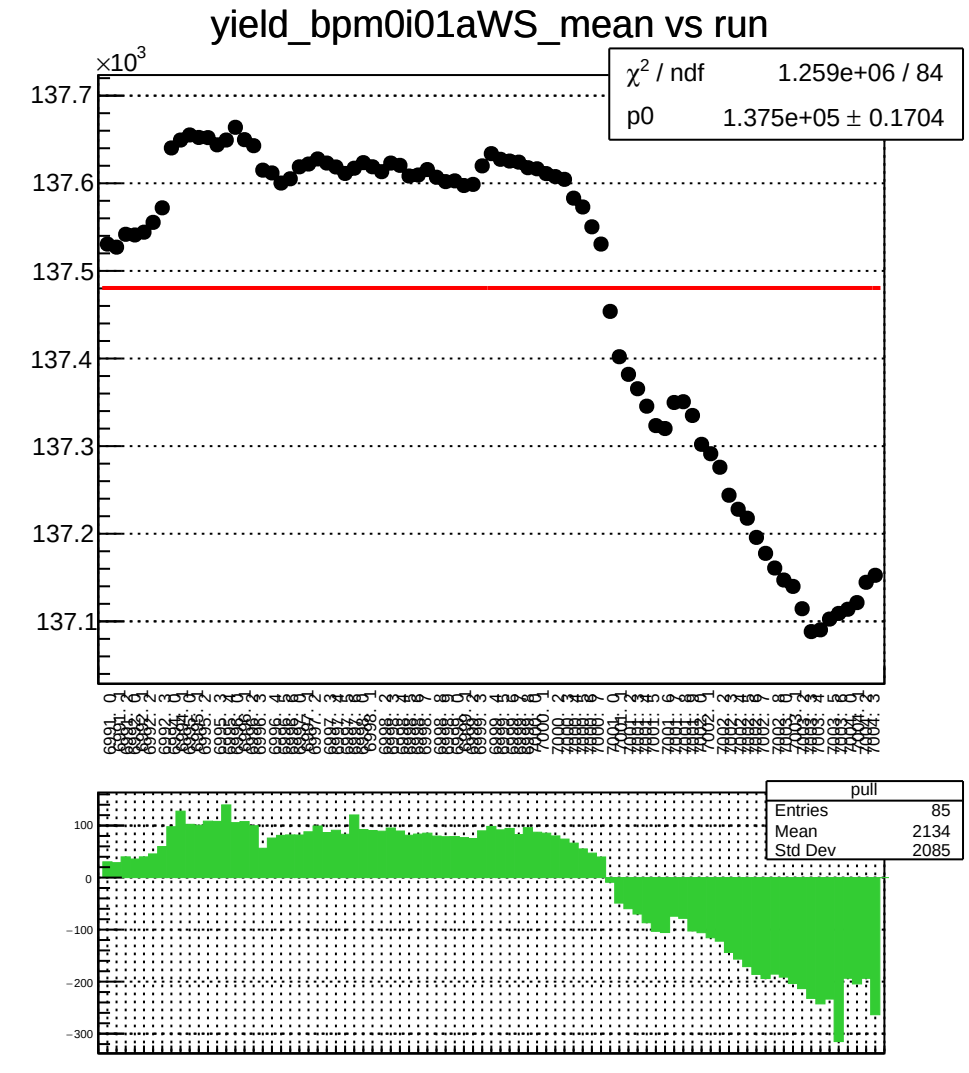

pull1D
Entries 85
Mean 2.936
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

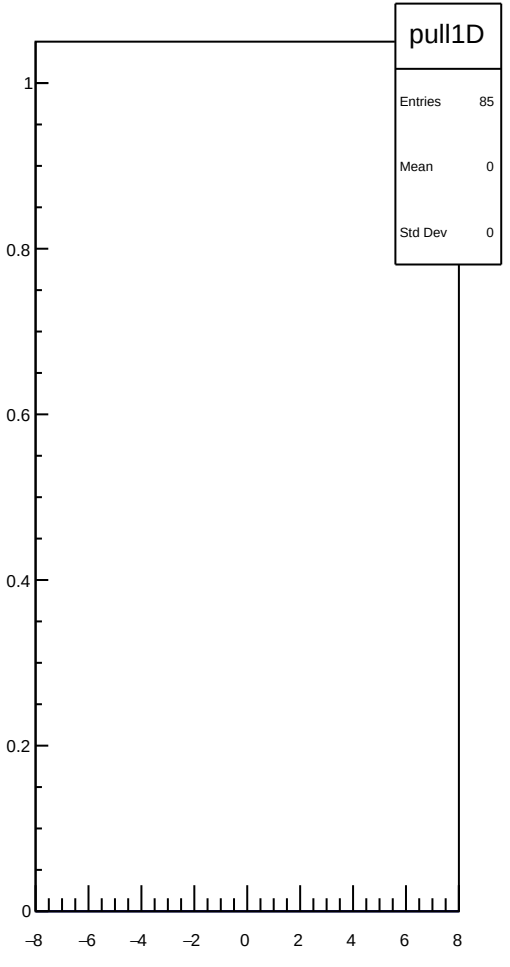

yield_bcm0l02_rms vs run
χ² / ndf 3.128e+05 / 84
p0 0.9004 ± 0.0007787
14
12
10
8
6
4
2

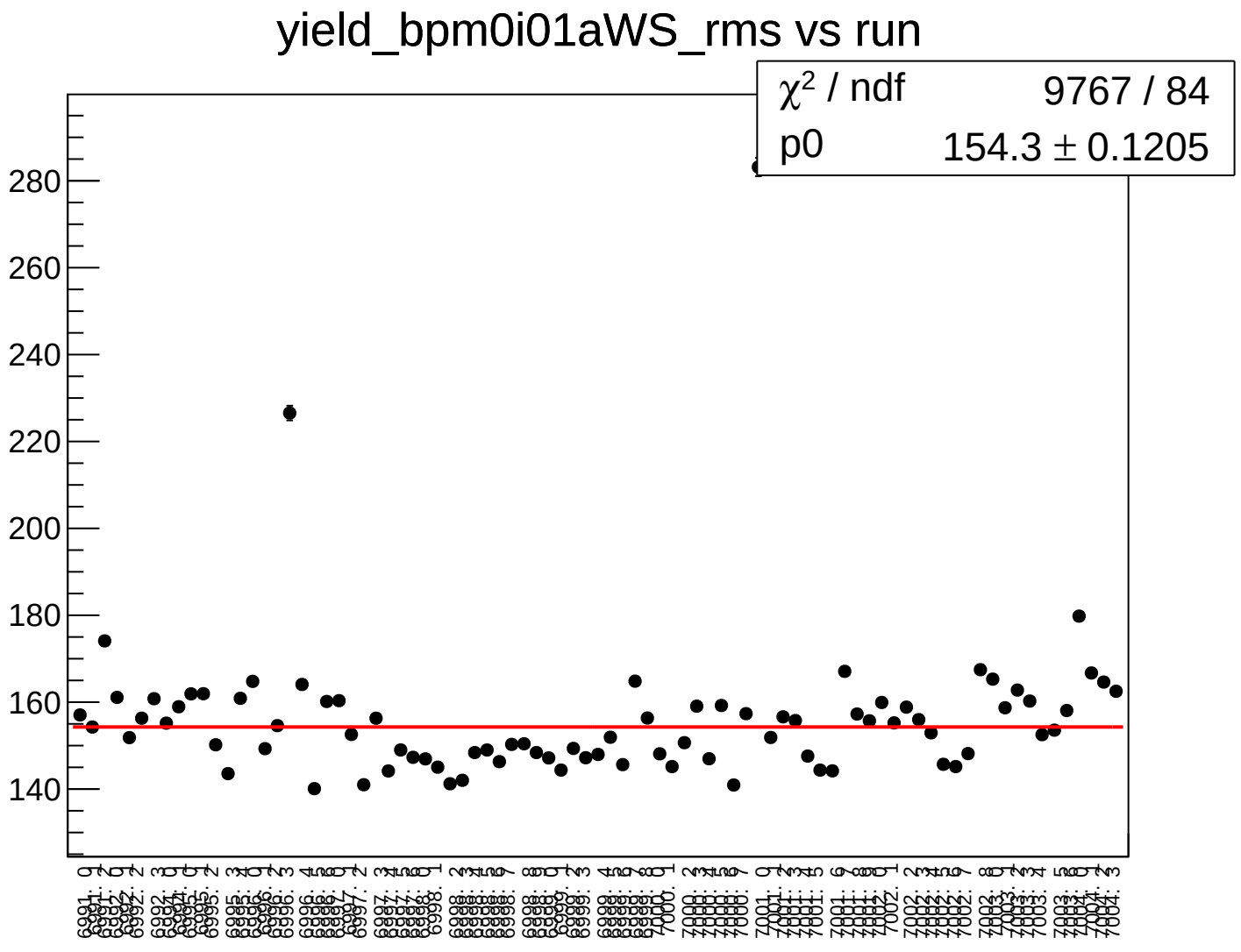

yield_bpm0i01WS_mean vs run
×10^3
χ² / ndf 4.955e+05 / 84
p0 1.53e+05 ± 0.1903
153.3
153.2
153.1
153
152.9
152.8
pull
Entries 85
Mean 1467
Std Dev 1426
100
50
0
−50
−100
−150

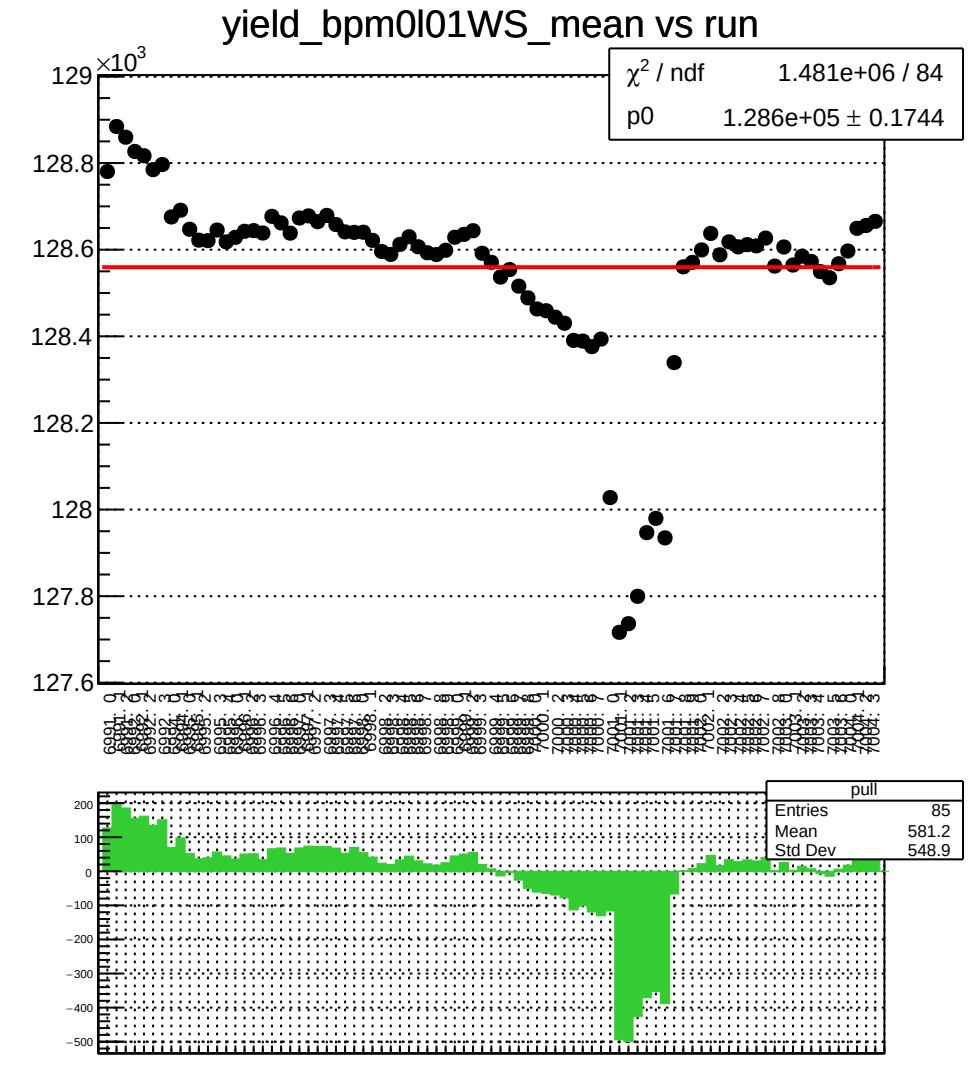

pull1D
Entries 85
Mean −0.7559
Std Dev 2.842
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

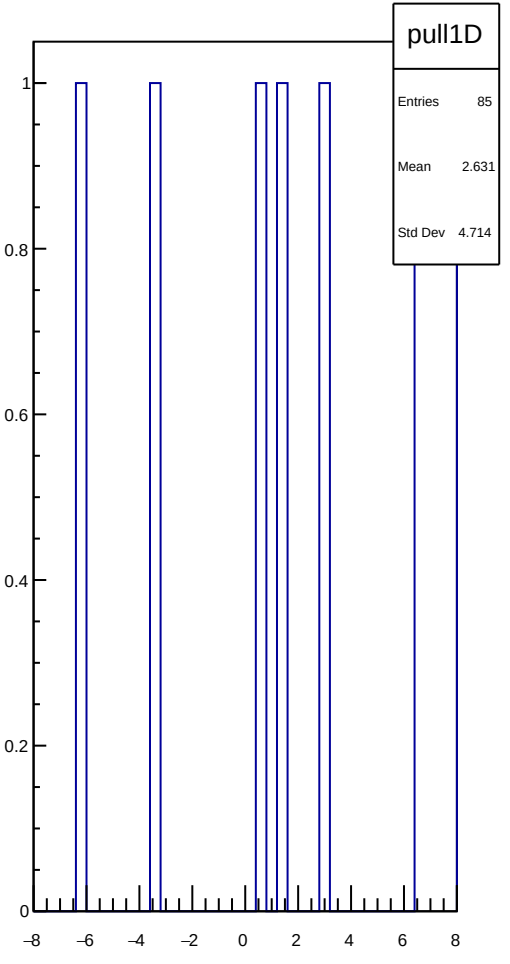

yield_bpm0i01WS_rms vs run
χ² / ndf 1.057e+04 / 84
p0 172.3 ± 0.1346
340
320
300
280
260
240
220
200
180
160
140

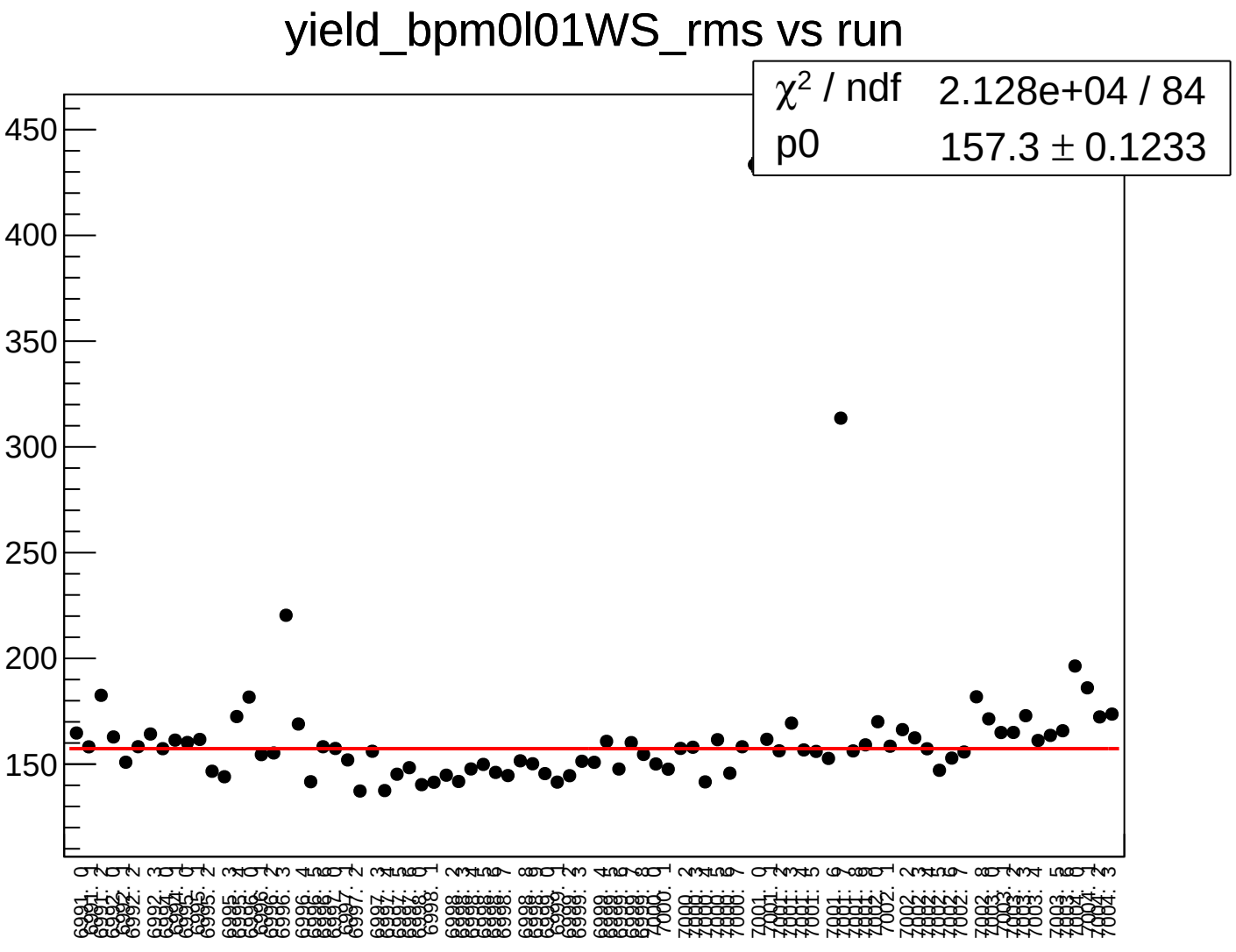

yield_bpm0i01aWS_mean vs run
×10^3
χ² / ndf 1.259e+06 / 84
p0 1.375e+05 ± 0.1704
137.7
137.6
137.5
137.4
137.3
137.2
137.1
pull
Entries 85
Mean 2134
Std Dev 2085
100
0
−100
−200
−300

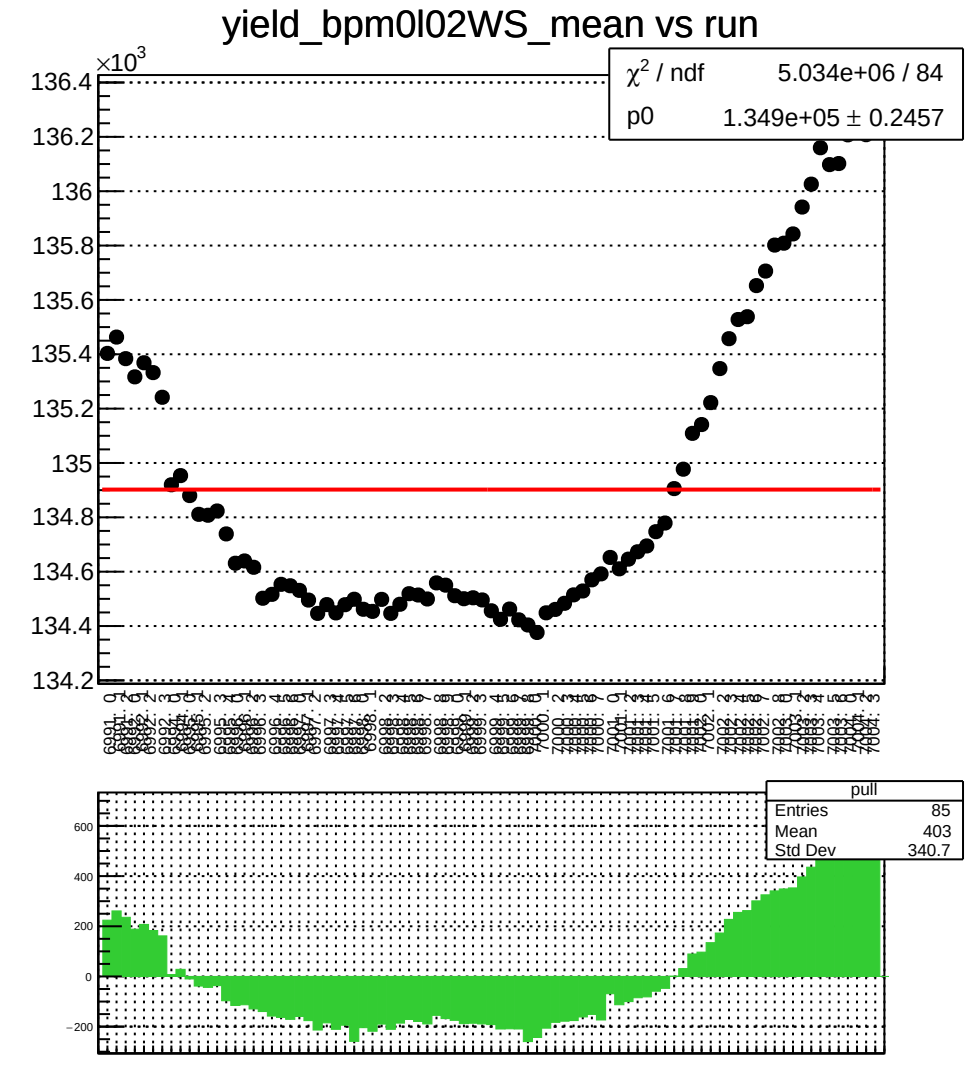

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

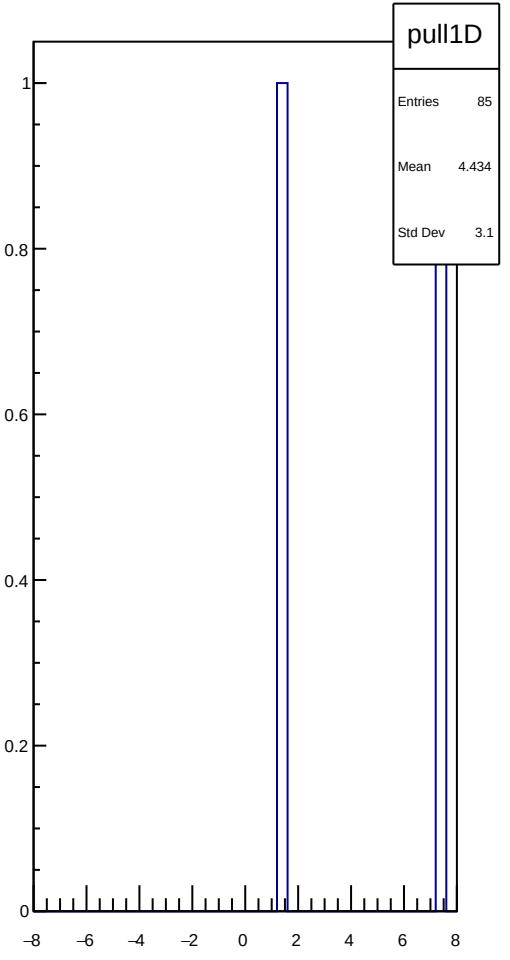

yield_bpm0i01aWS_rms vs run
χ^2 / ndf 9767 / 84
p0 154.3 ± 0.1205
280
260
240
220
200
180
160
140

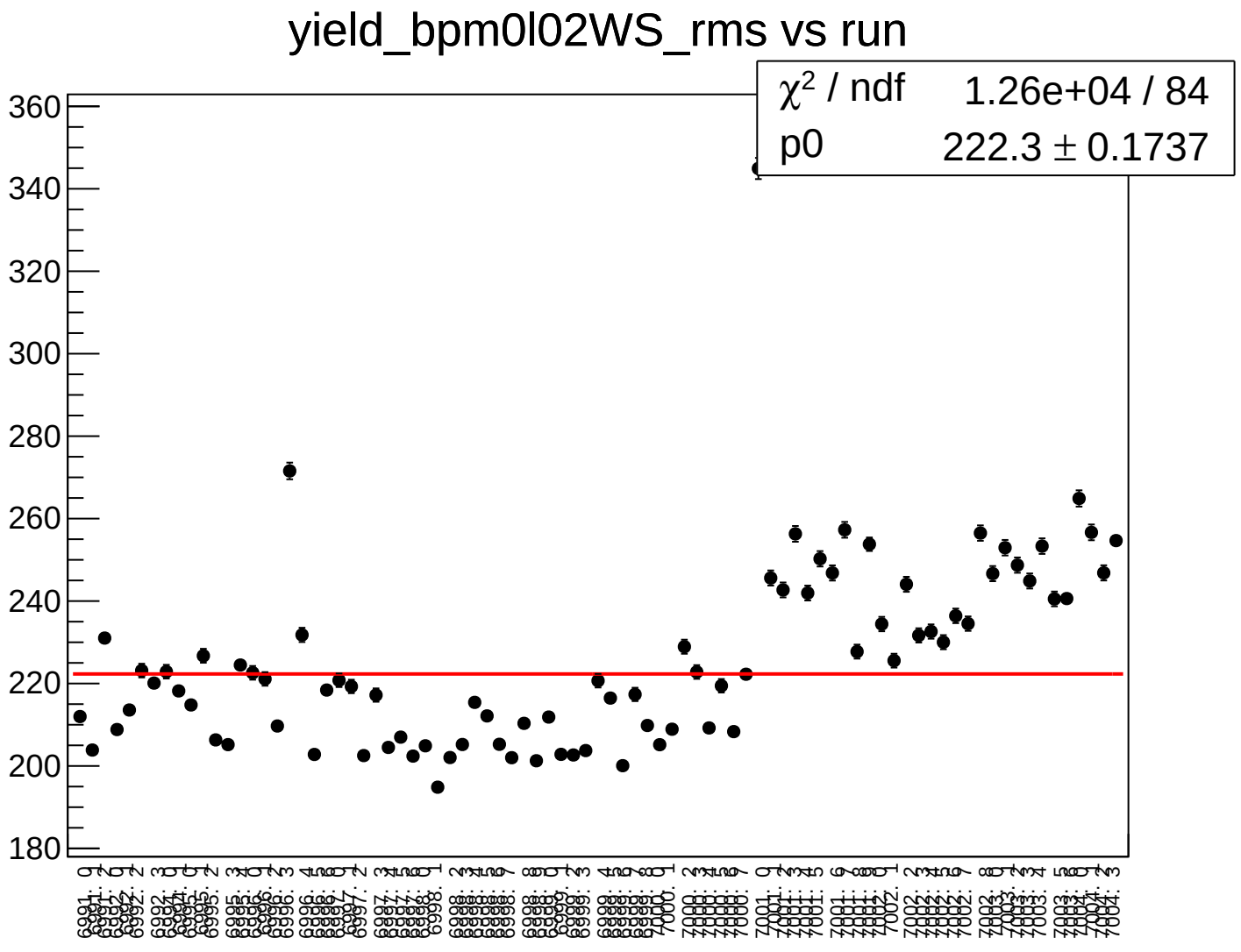

yield_bpm0l01WS_mean vs run
χ² / ndf 1.481e+06 / 84
p0 1.286e+05 ± 0.1744
×10³
129
128.8
128.6
128.4
128.2
128
127.8
127.6
pull
Entries 85
Mean 581.2
Std Dev 548.9
200
100
0
−100
−200
−300
−400
−500

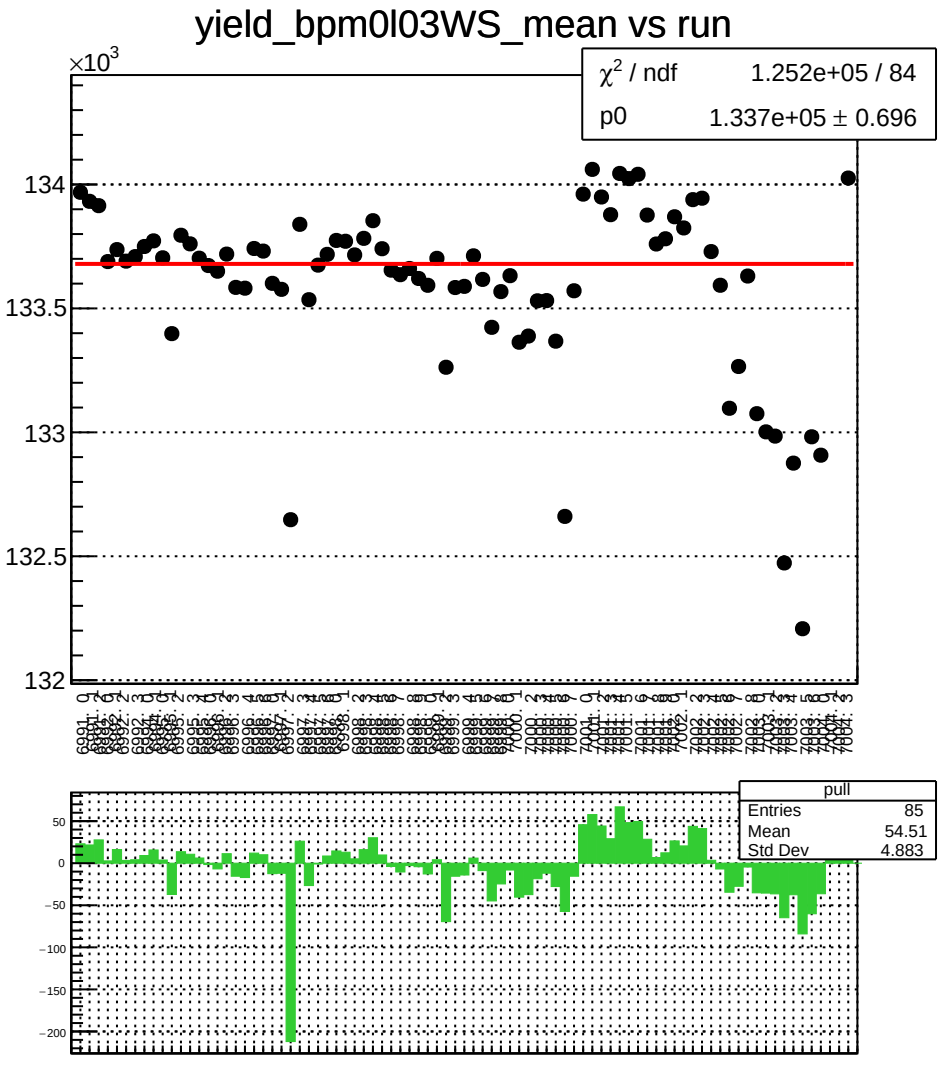

pull1D
Entries 85
Mean 2.631
Std Dev 4.714
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

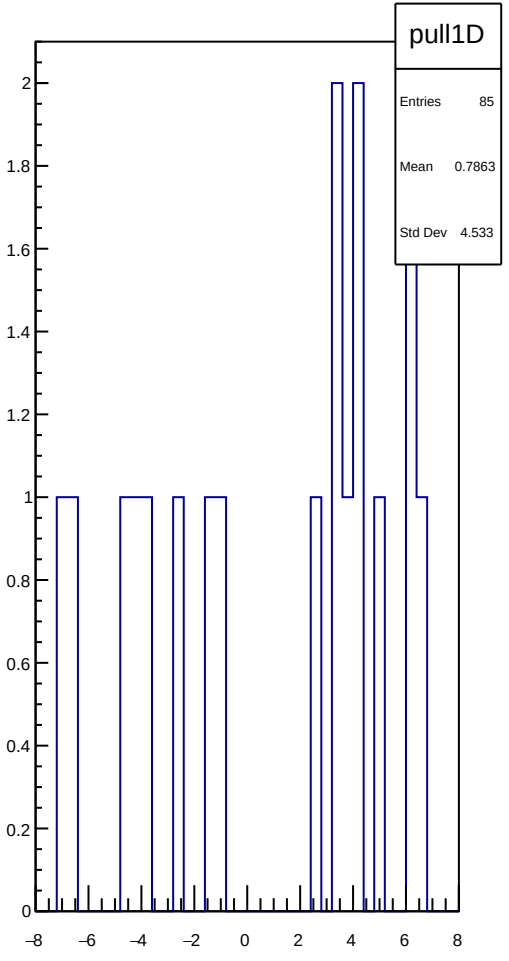

yield_bpm0l01WS_rms vs run
χ² / ndf 2.128e+04 / 84
p0 157.3 ± 0.1233
450
400
350
300
250
200
150

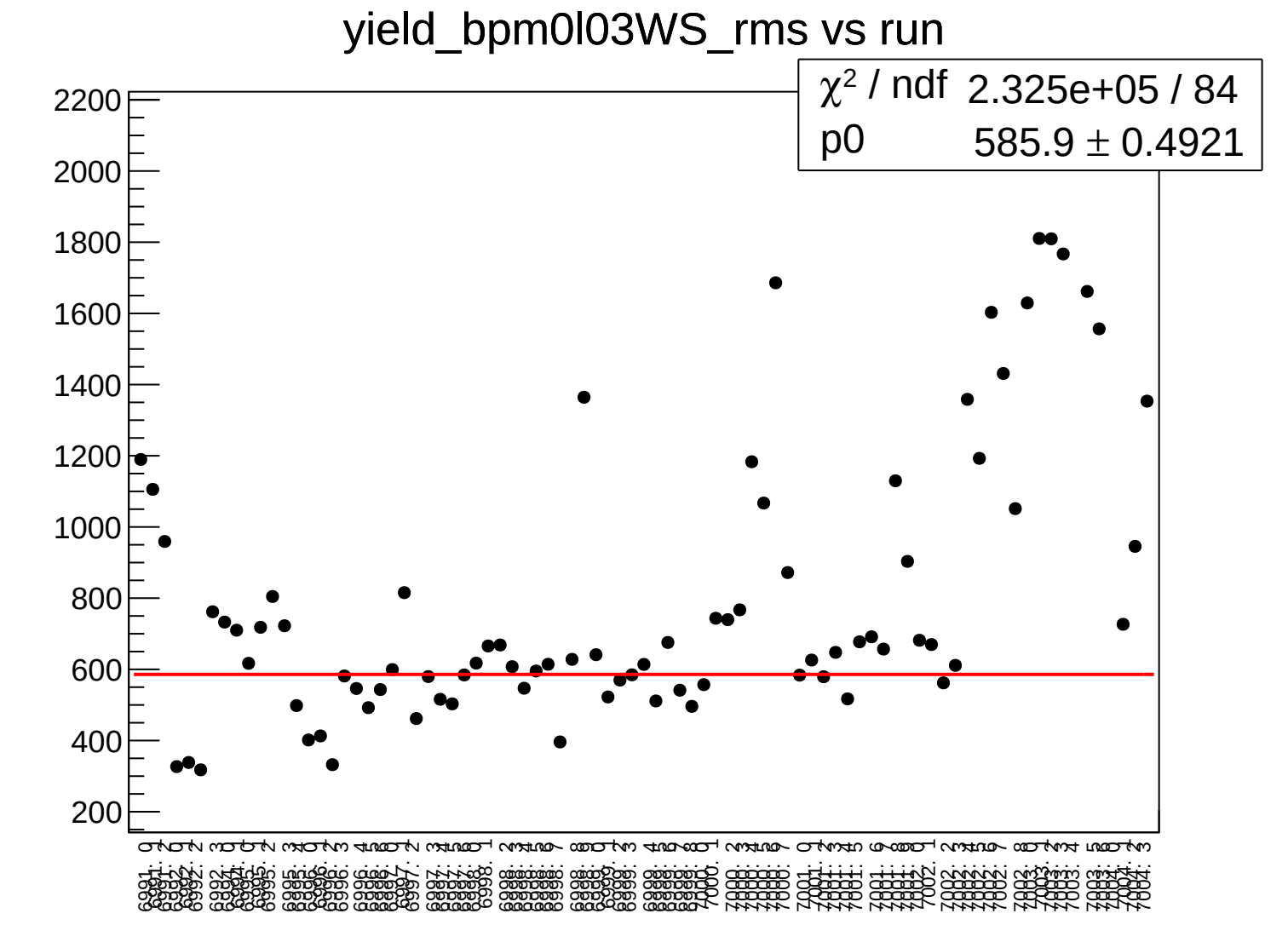

yield_bpm0l02WS_mean vs run
×10^3
χ² / ndf 5.034e+06 / 84
p0 1.349e+05 ± 0.2457
136.4
136.2
136
135.8
135.6
135.4
135.2
135
134.8
134.6
134.4
134.2
pull
Entries 85
Mean 403
Std Dev 340.7
600
400
200
0
−200

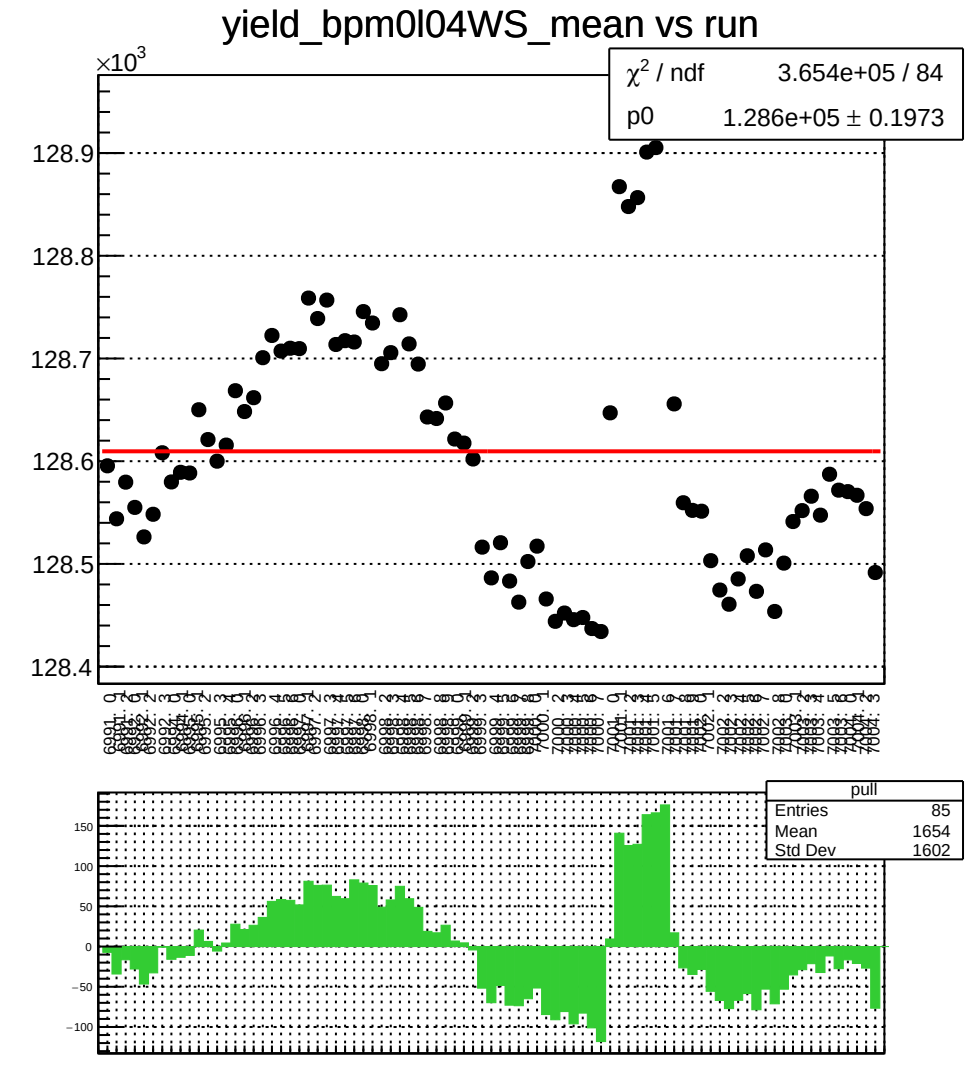

pull1D
Entries 85
Mean 4.434
Std Dev 3.1
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

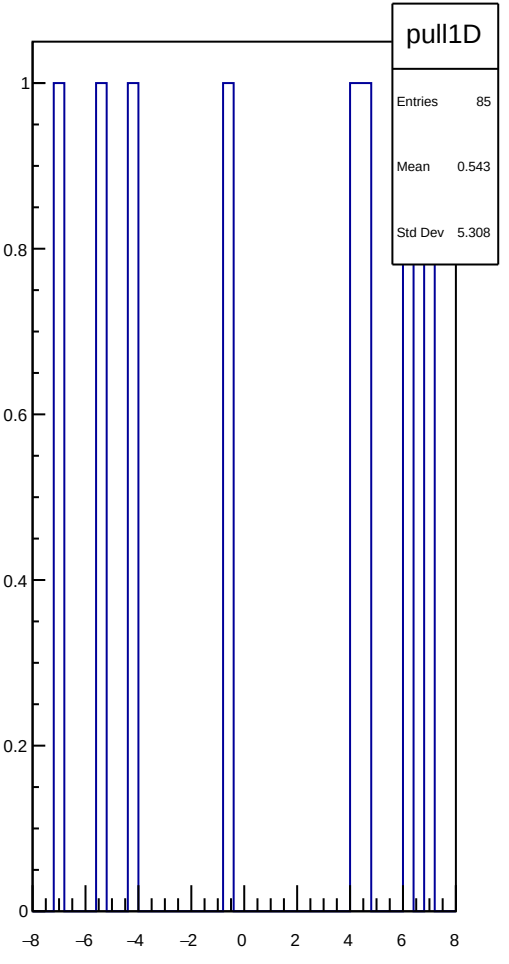

yield_bpm0l02WS_rms vs run
χ² / ndf 1.26e+04 / 84
p0 222.3 ± 0.1737
360
340
320
300
280
260
240
220
200
180

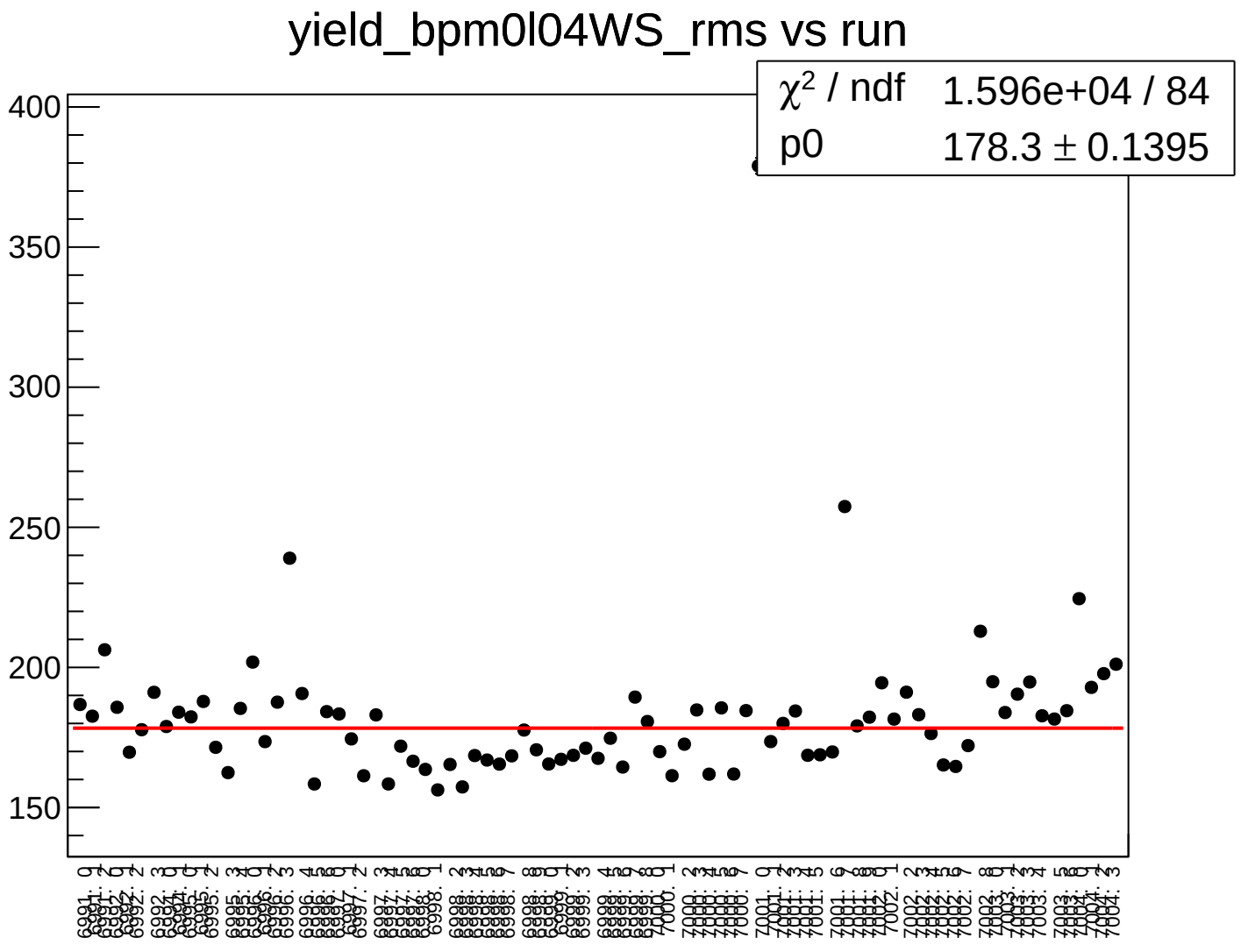

yield_bpm0l03WS_mean vs run
×10^3
χ² / ndf 1.252e+05 / 84
p0 1.337e+05 ± 0.696
134
133.5
133
132.5
132
pull
Entries 85
Mean 54.51
Std Dev 4.883
50
0
−50
−100
−150
−200

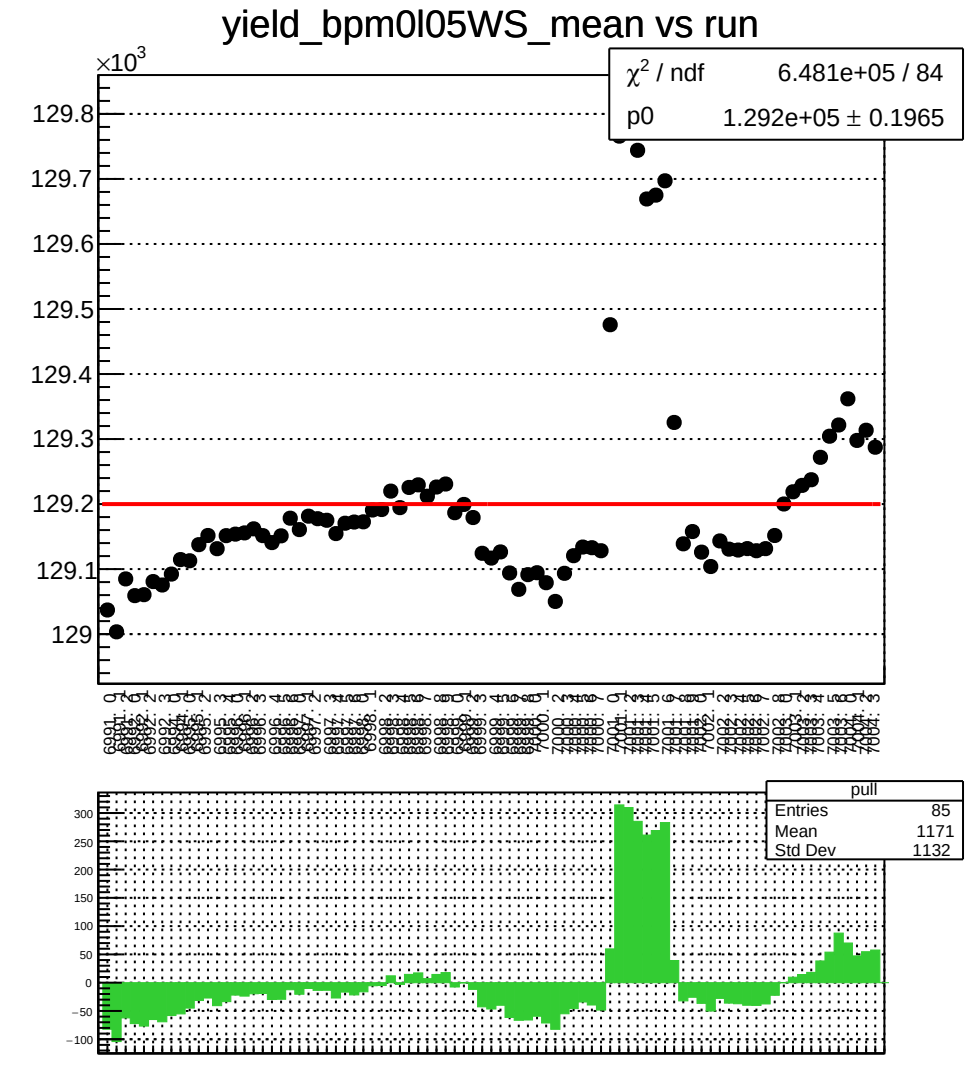

pull1D
Entries 85
Mean 0.7863
Std Dev 4.533
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

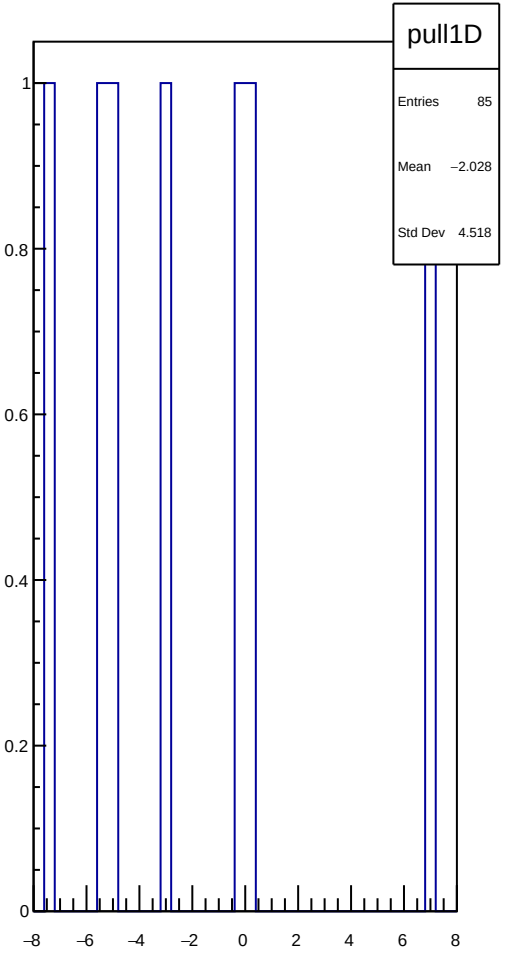

yield_bpm0l03WS_rms vs run
χ² / ndf 2.325e+05 / 84
p0 585.9 ± 0.4921
2200
2000
1800
1600
1400
1200
1000
800
600
400
200

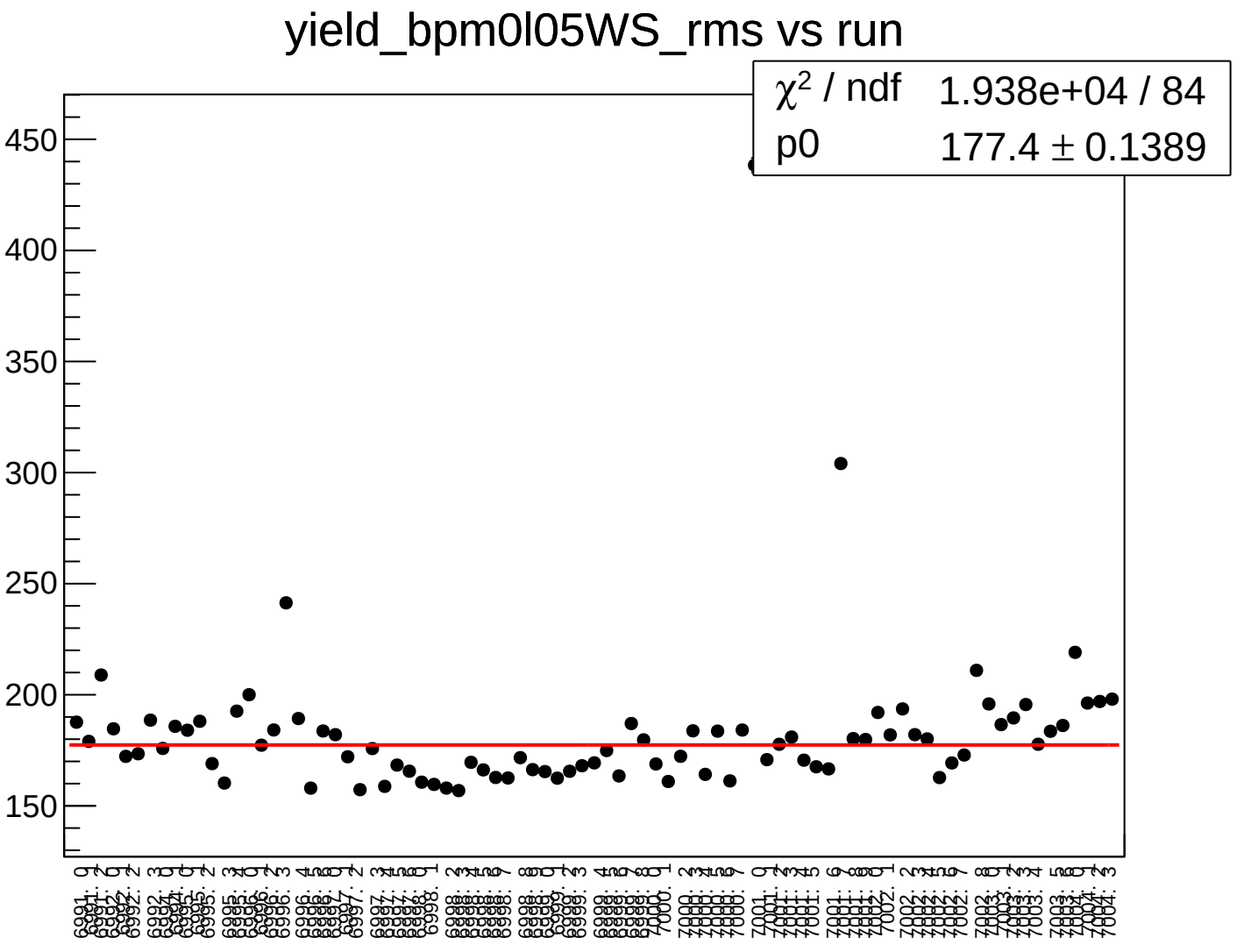

yield_bpm0l04WS_mean vs run
×10^3
χ² / ndf 3.654e+05 / 84
p0 1.286e+05 ± 0.1973
128.9
128.8
128.7
128.6
128.5
128.4
pull
Entries 85
Mean 1654
Std Dev 1602
150
100
50
0
−50
−100

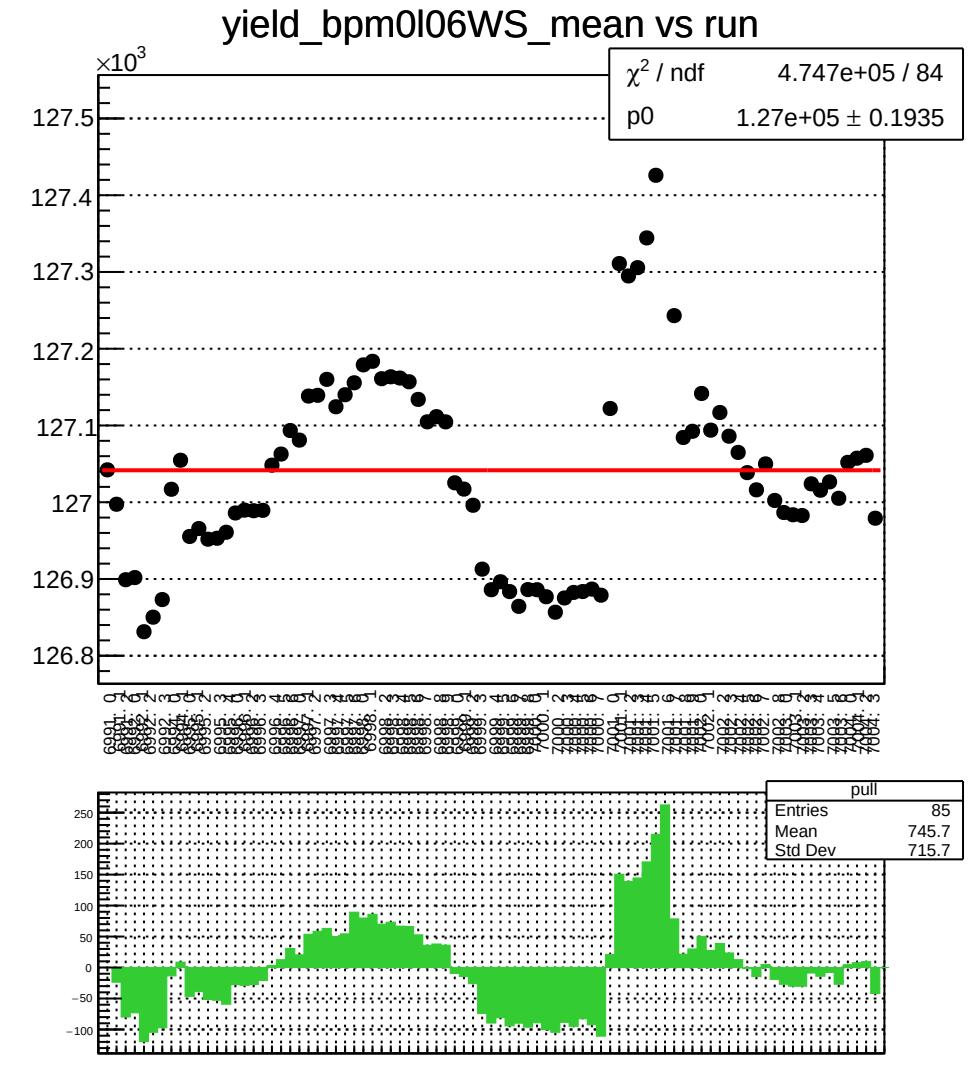

pull1D
Entries 85
Mean 0.543
Std Dev 5.308
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

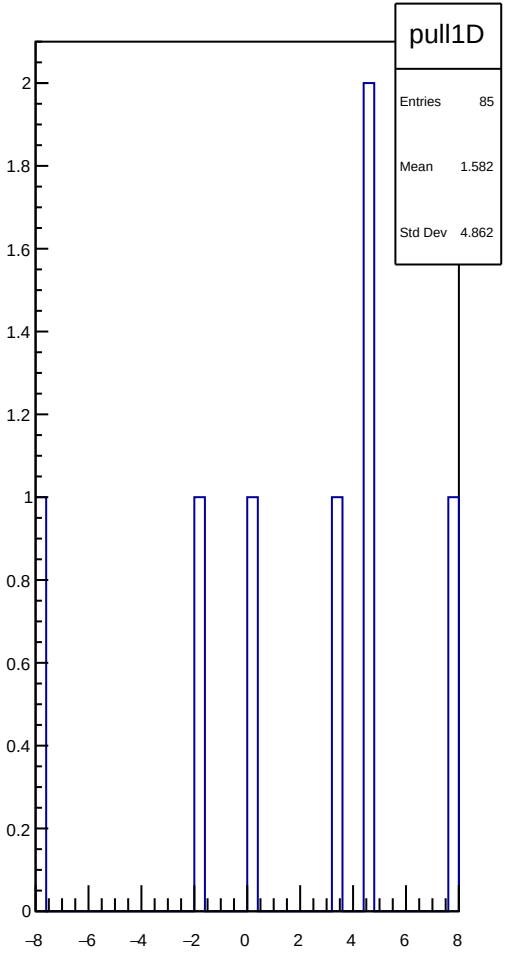

yield_bpm0l04WS_rms vs run
χ² / ndf 1.596e+04 / 84
p0 178.3 ± 0.1395
400
350
300
250
200
150

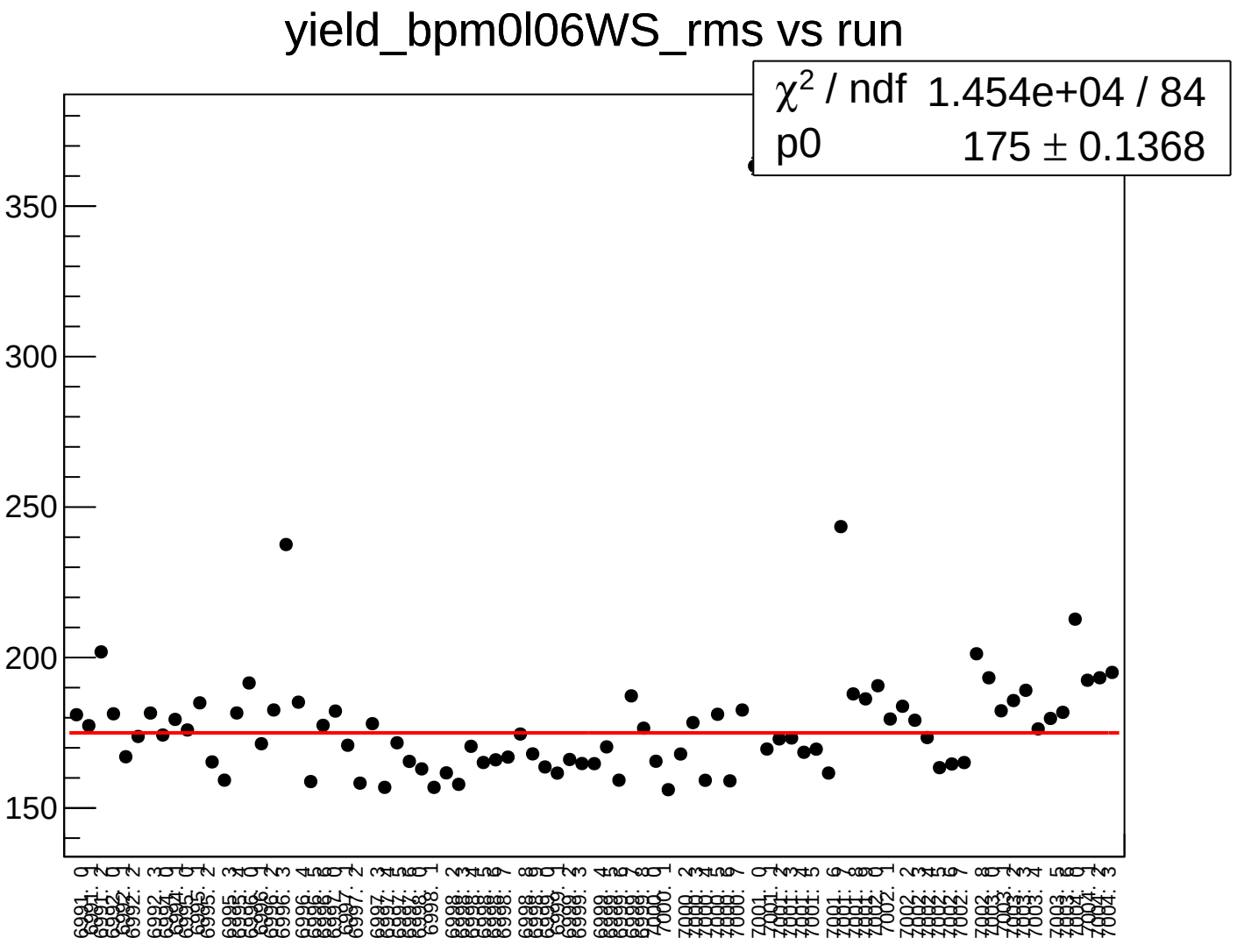

yield_bpm0l05WS_mean vs run
×10^3
χ² / ndf 6.481e+05 / 84
p0 1.292e+05 ± 0.1965
129.8
129.7
129.6
129.5
129.4
129.3
129.2
129.1
129
pull
Entries 85
Mean 1171
Std Dev 1132
300
250
200
150
100
50
0
−50
−100

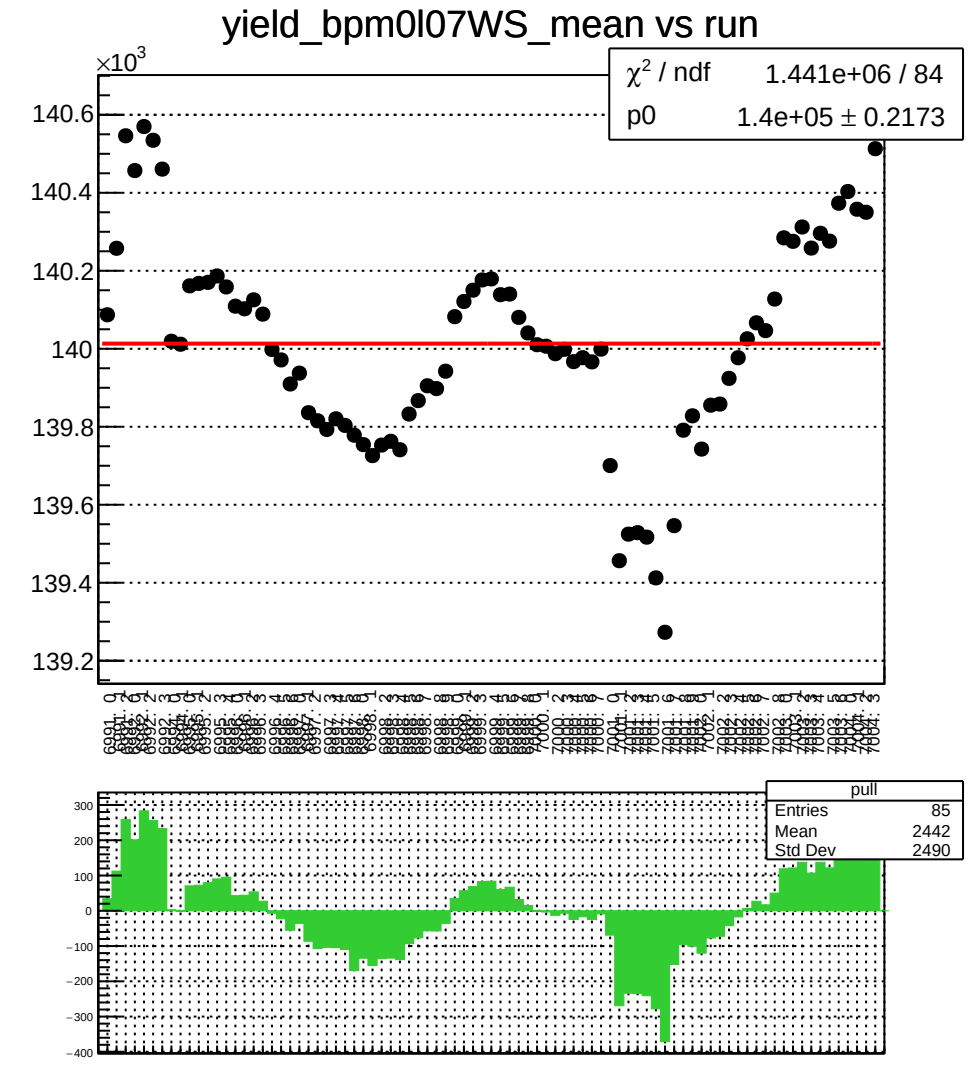

pull1D
Entries 85
Mean −2.028
Std Dev 4.518
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

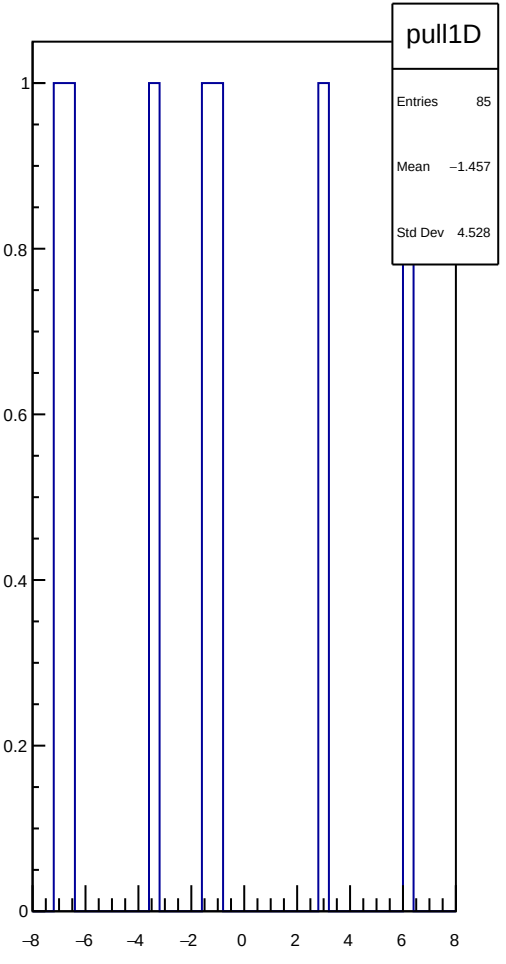

yield_bpm0l05WS_rms vs run
χ² / ndf 1.938e+04 / 84
p0 177.4 ± 0.1389
450
400
350
300
250
200
150

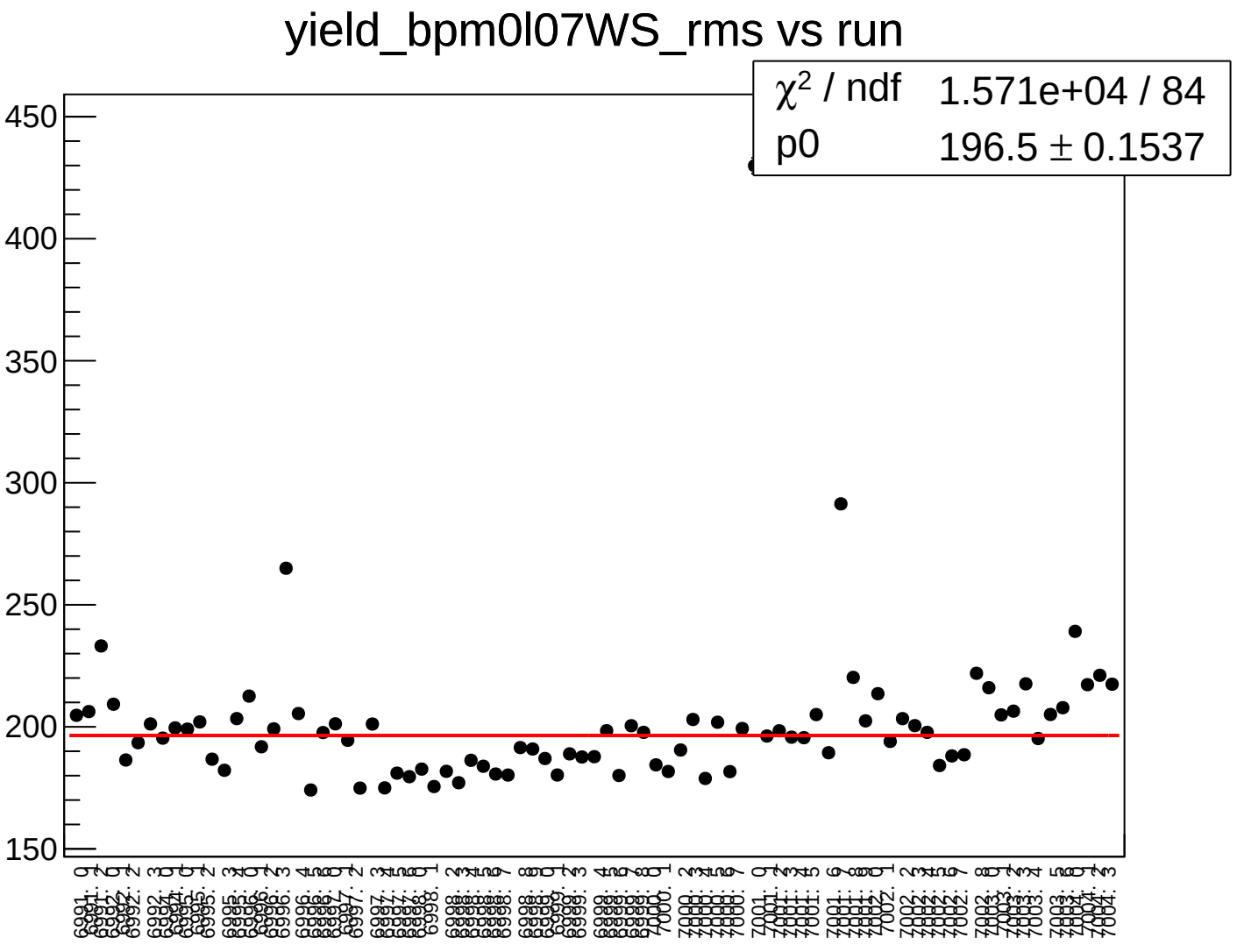

yield_bpm0l06WS_mean vs run
×10^3
χ² / ndf 4.747e+05 / 84
p0 1.27e+05 ± 0.1935
127.5
127.4
127.3
127.2
127.1
127
126.9
126.8
pull
Entries 85
Mean 745.7
Std Dev 715.7
250
200
150
100
50
0
−50
−100

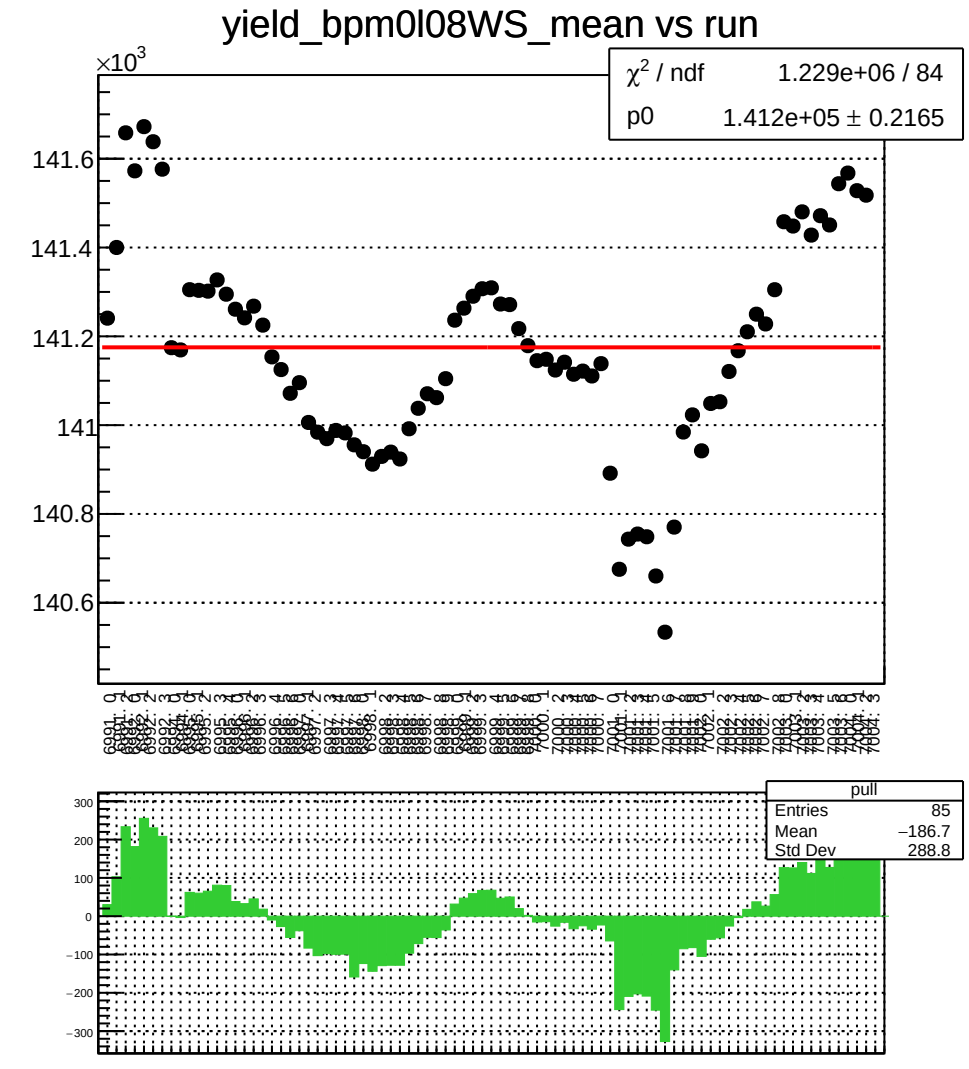

pull1D
Entries 85
Mean 1.582
Std Dev 4.862
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

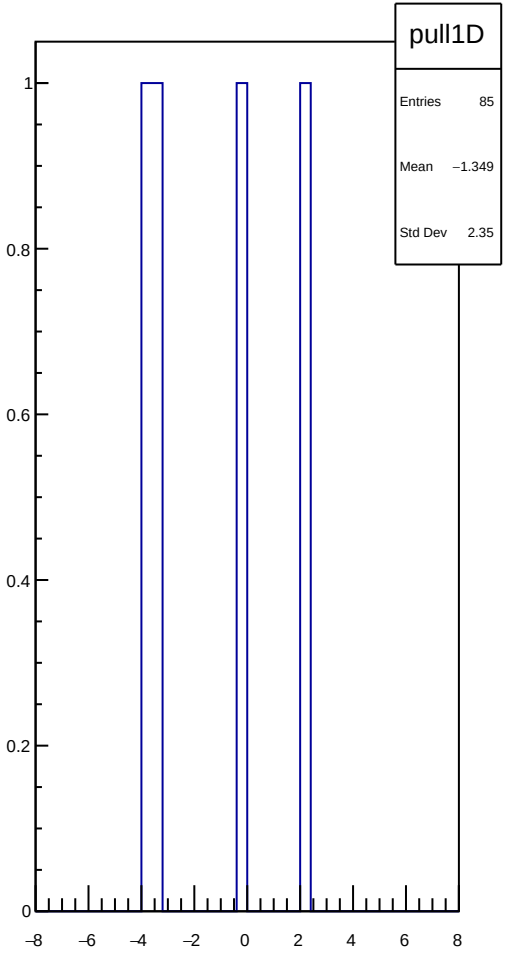

yield_bpm0l06WS_rms vs run
χ² / ndf 1.454e+04 / 84
p0 175 ± 0.1368
350
300
250
200
150

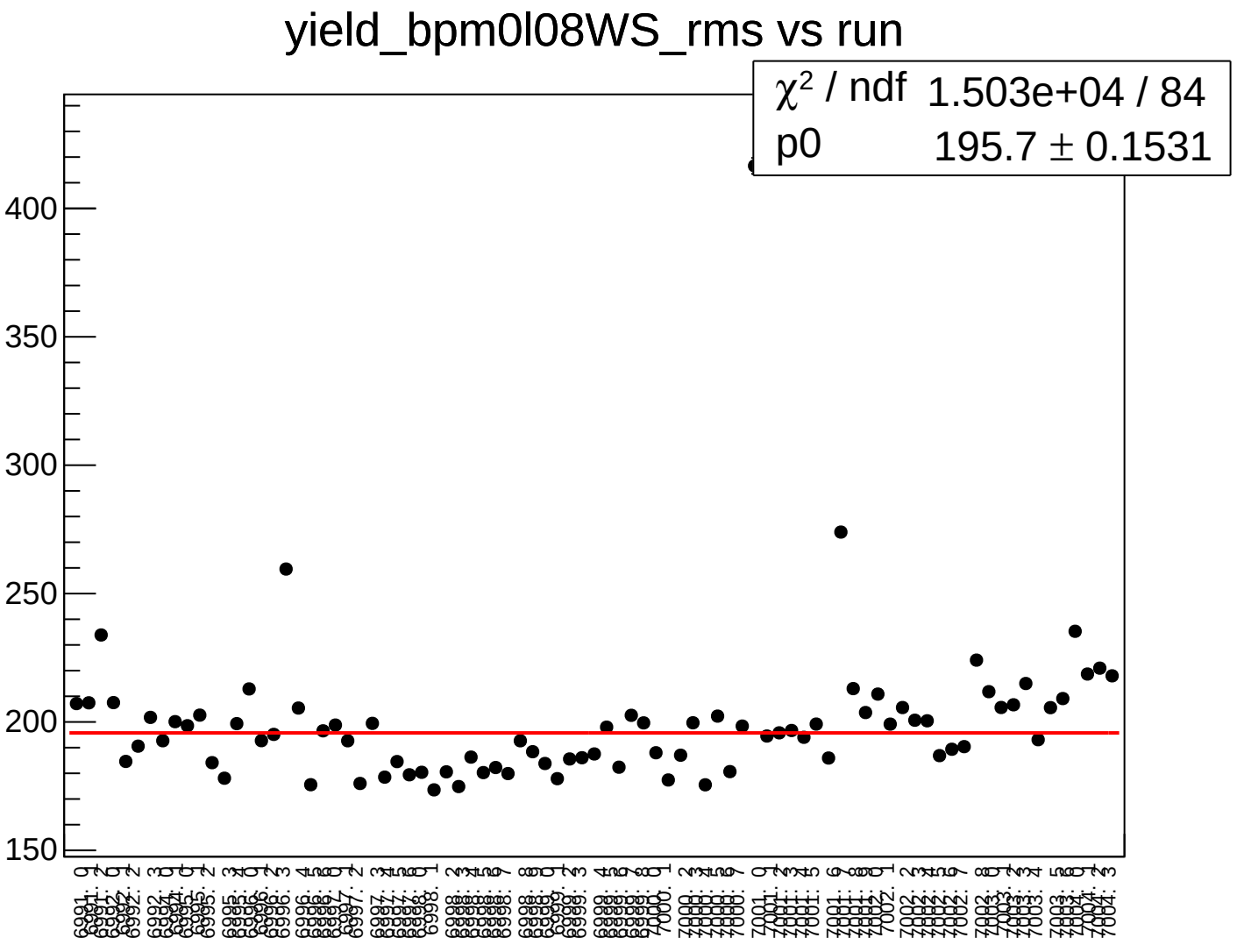

yield_bpm0l07WS_mean vs run
×10^3
χ² / ndf 1.441e+06 / 84
p0 1.4e+05 ± 0.2173
140.6
140.4
140.2
140
139.8
139.6
139.4
139.2
pull
Entries 85
Mean 2442
Std Dev 2490
300
200
100
0
−100
−200
−300
−400

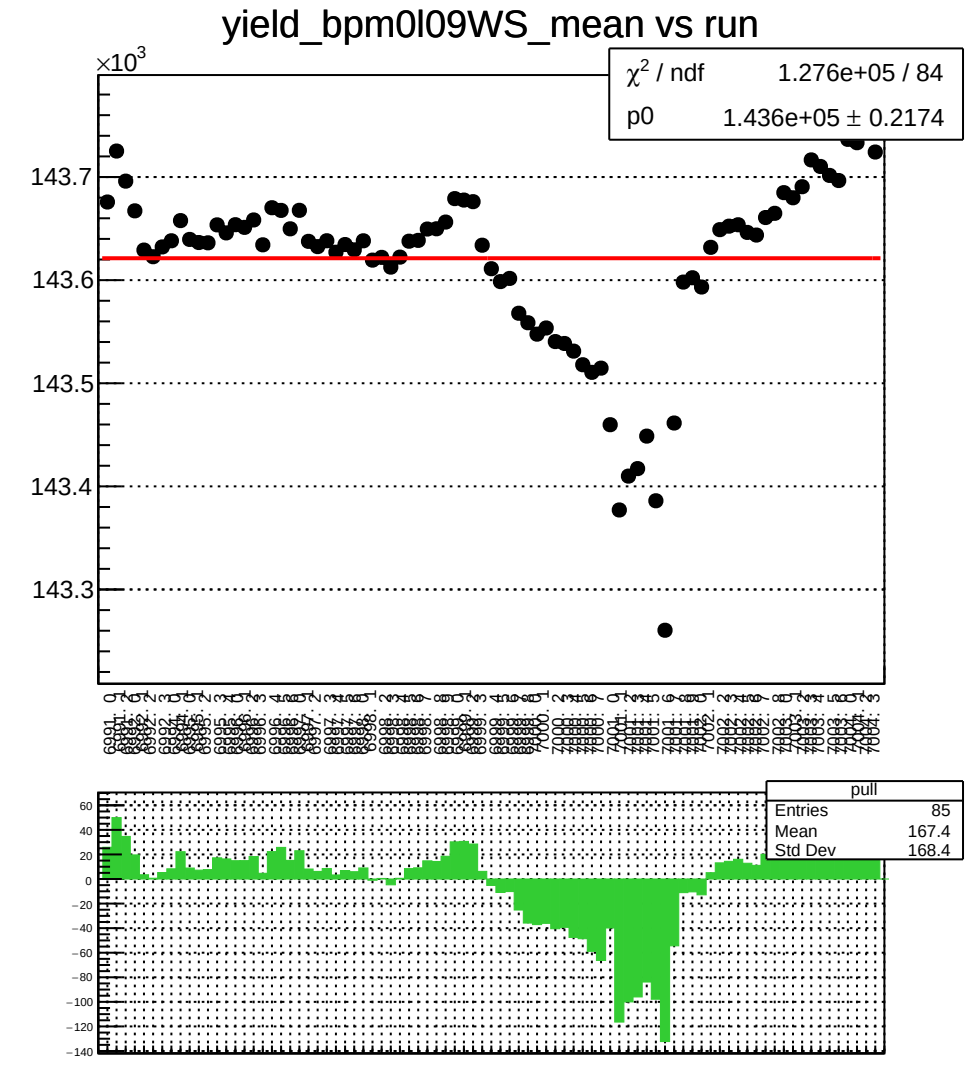

pull1D
Entries 85
Mean −1.457
Std Dev 4.528
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

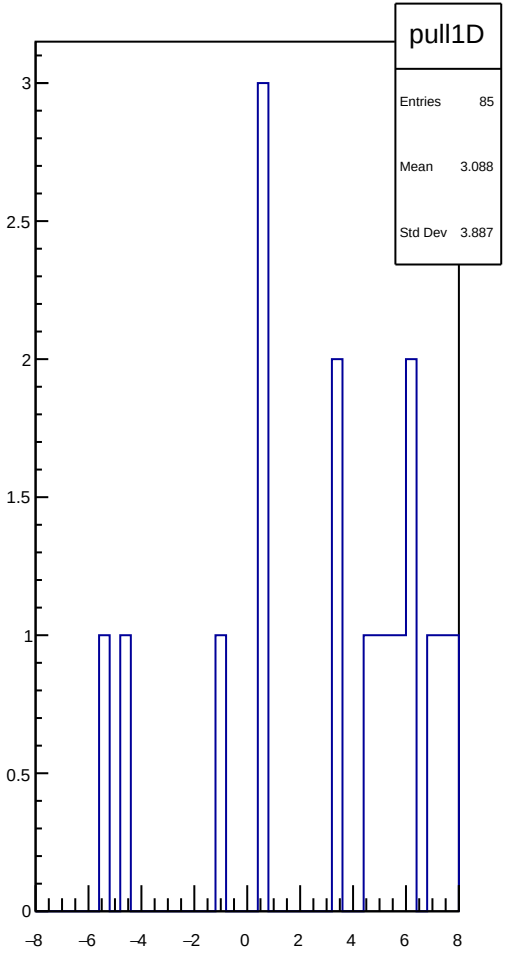

yield_bpm0l07WS_rms vs run
χ² / ndf 1.571e+04 / 84
p0 196.5 ± 0.1537
450
400
350
300
250
200
150

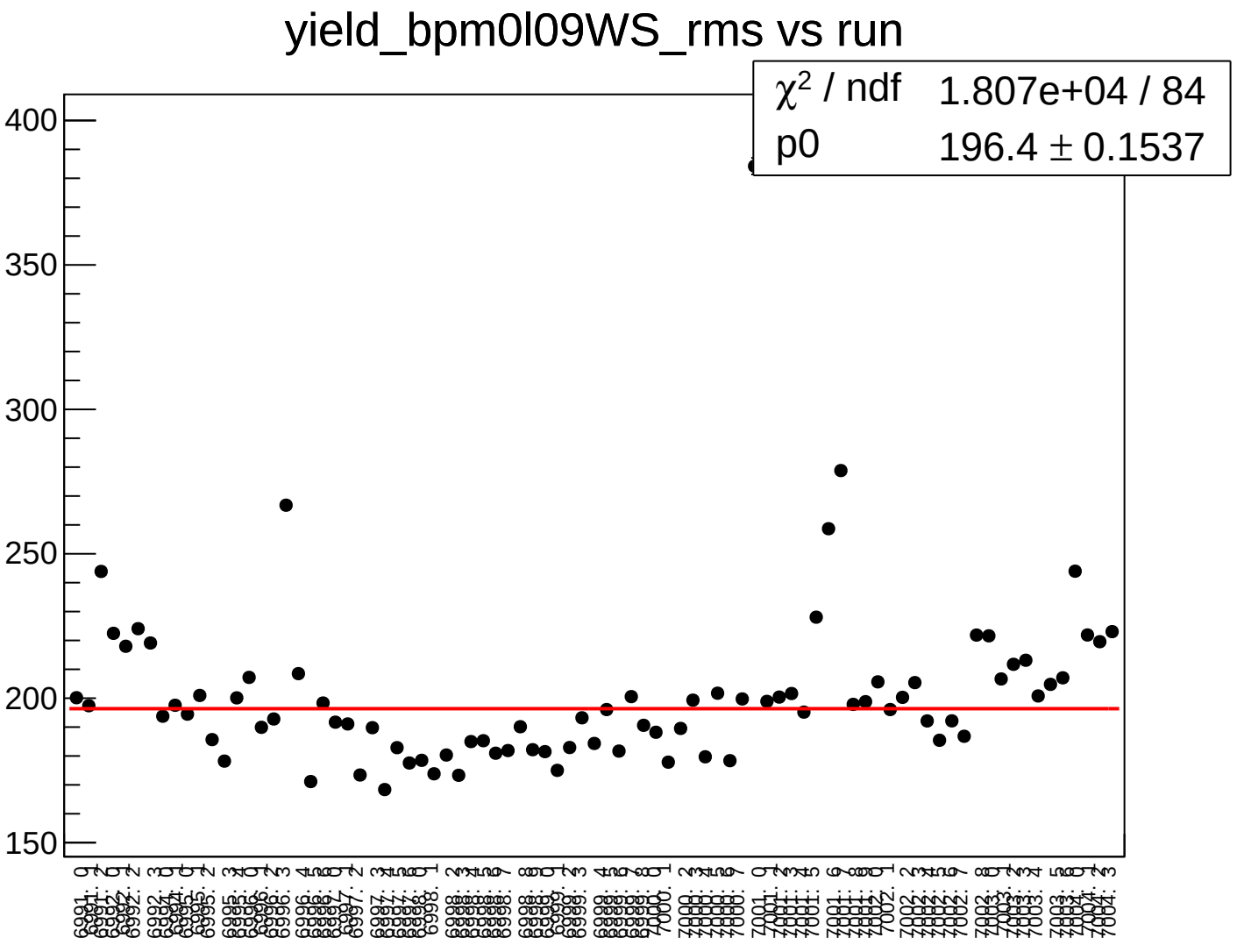

yield_bpm0l08WS_mean vs run
×10^3
χ² / ndf 1.229e+06 / 84
p0 1.412e+05 ± 0.2165
141.6
141.4
141.2
141
140.8
140.6
pull
Entries 85
Mean −186.7
Std Dev 288.8
300
200
100
0
−100
−200
−300

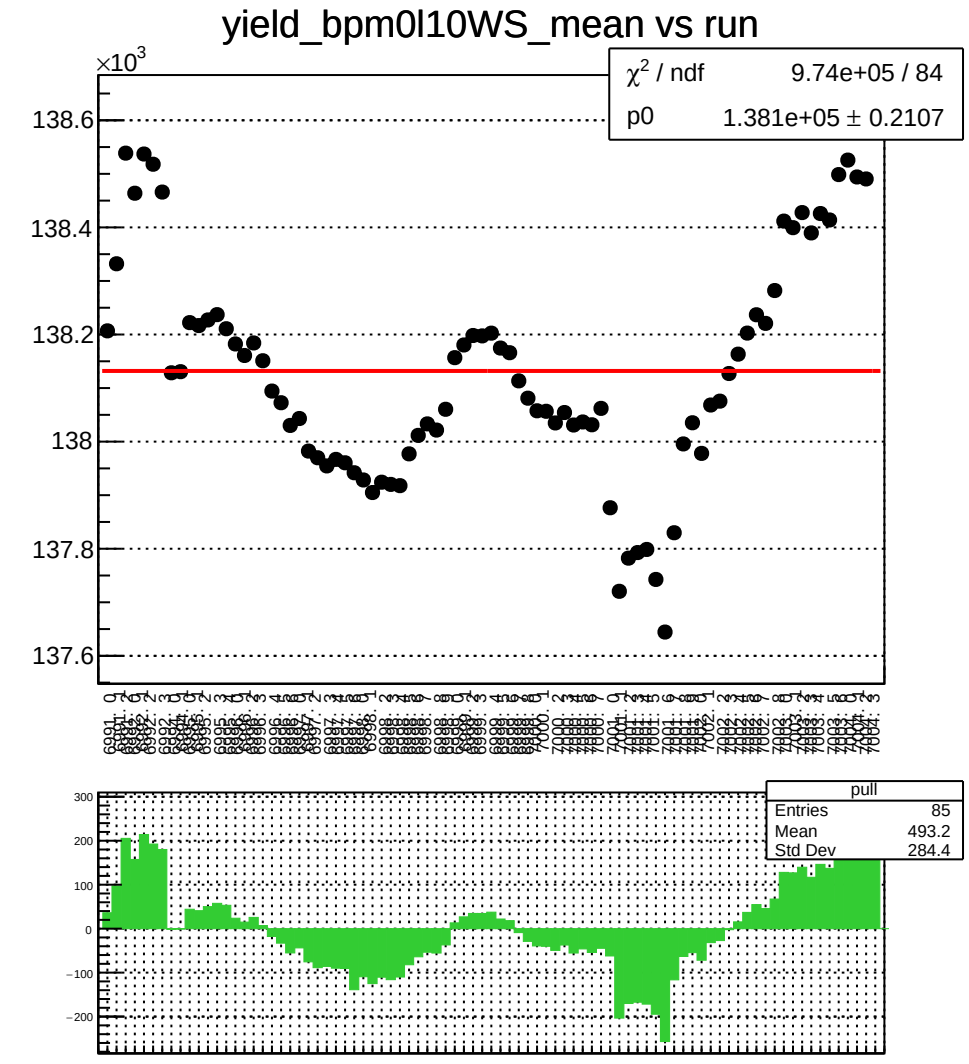

pull1D
Entries 85
Mean −1.349
Std Dev 2.35
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

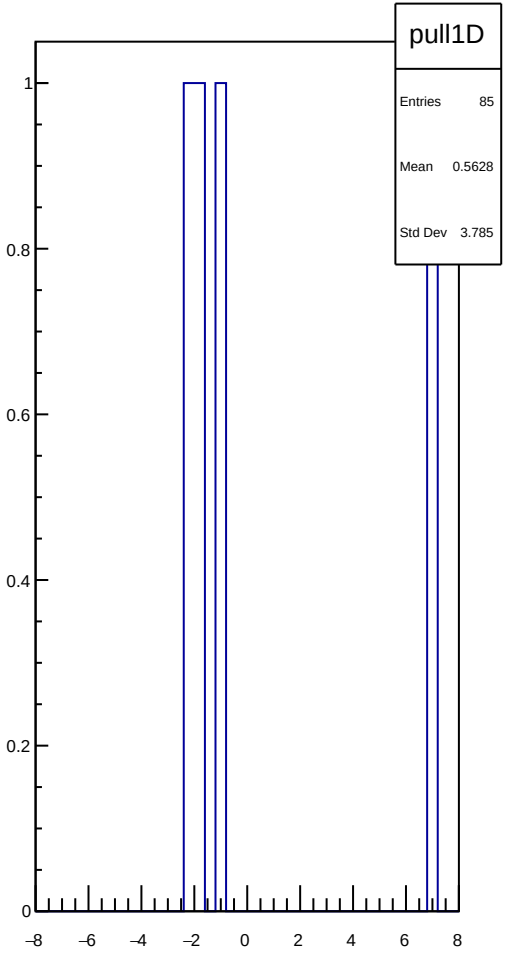

yield_bpm0l08WS_rms vs run
χ² / ndf 1.503e+04 / 84
p0 195.7 ± 0.1531
400
350
300
250
200
150

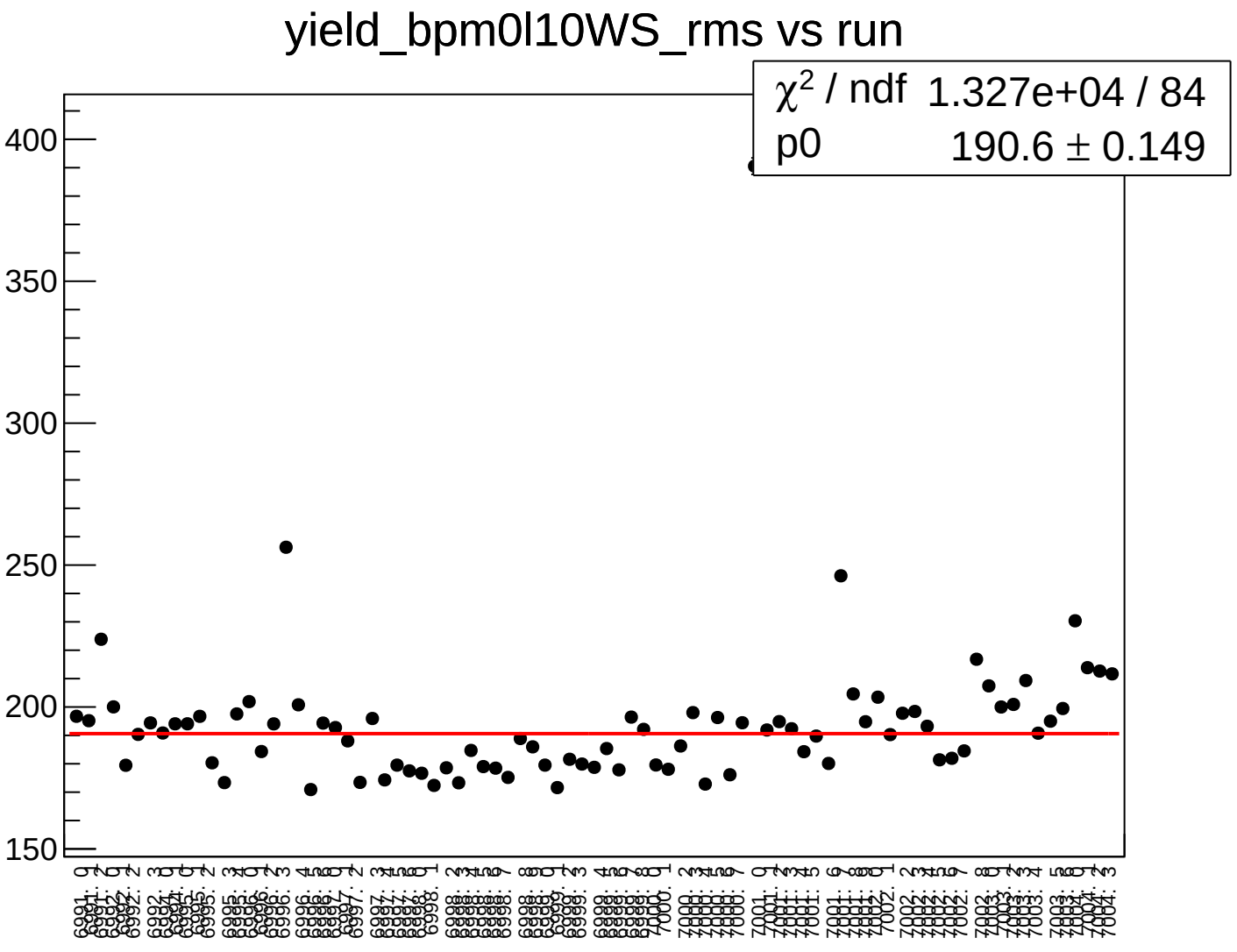

yield_bpm0l09WS_mean vs run
×10^3
χ² / ndf 1.276e+05 / 84
p0 1.436e+05 ± 0.2174
143.7
143.6
143.5
143.4
143.3
pull
Entries 85
Mean 167.4
Std Dev 168.4
60
40
20
0
−20
−40
−60
−80
−100
−120
−140

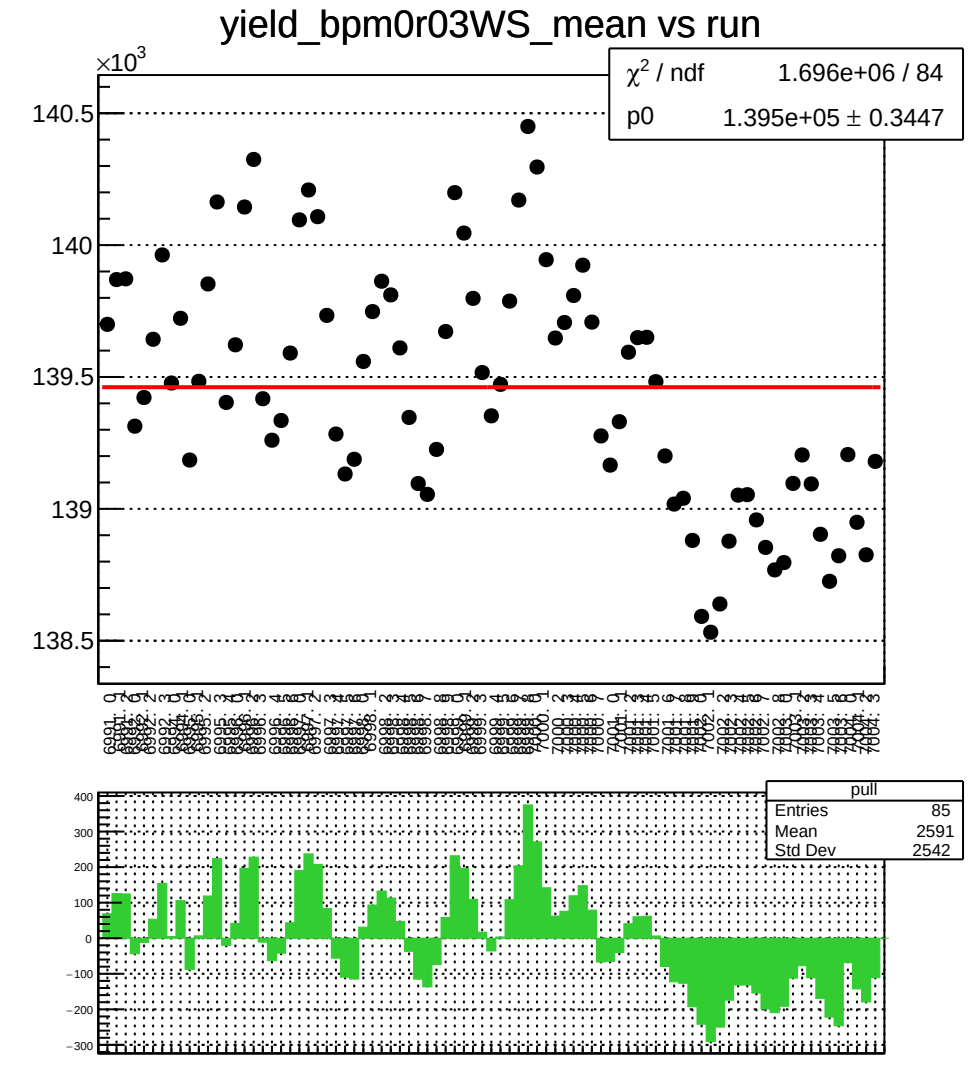

pull1D
Entries 85
Mean 3.088
Std Dev 3.887
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

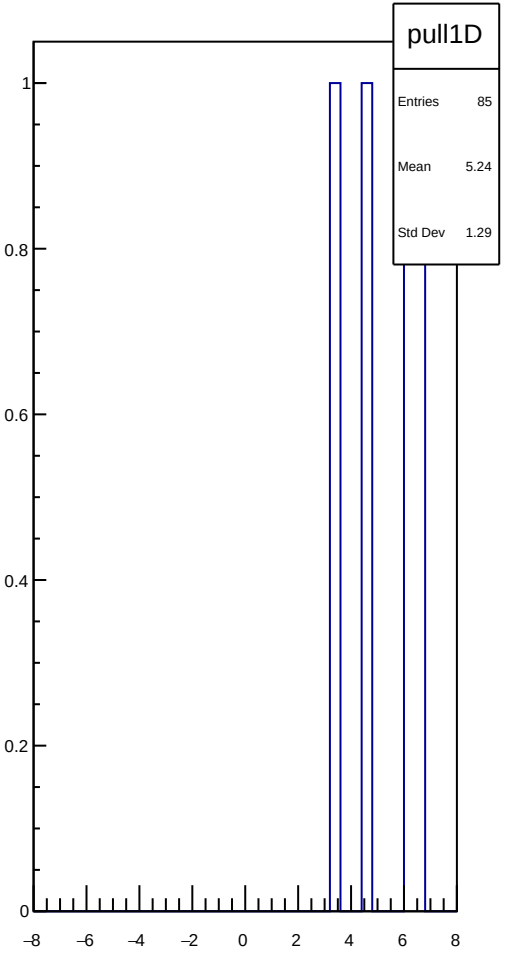

yield_bpm0l09WS_rms vs run
χ² / ndf 1.807e+04 / 84
p0 196.4 ± 0.1537
400
350
300
250
200
150

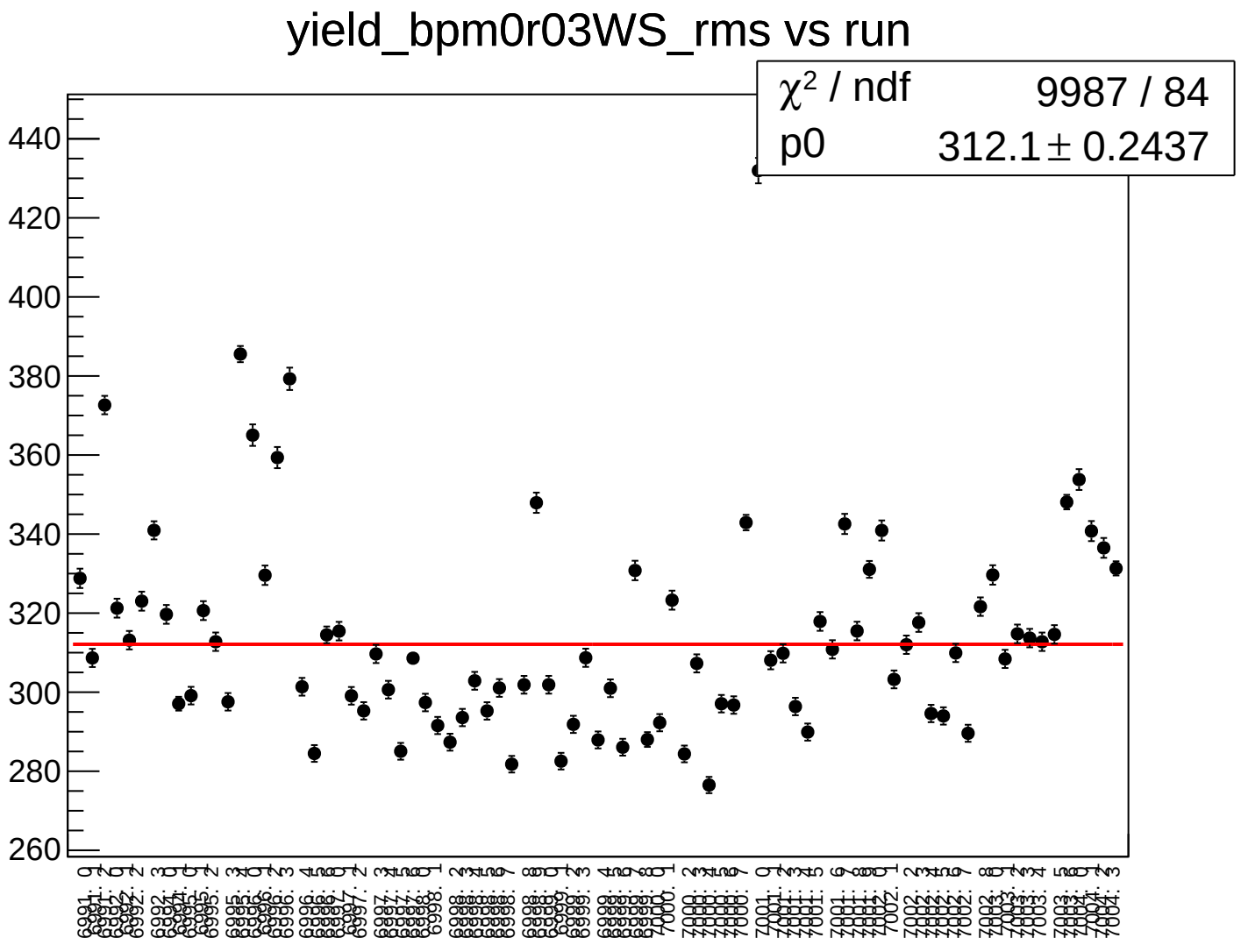

yield_bpm0l10WS_mean vs run
×10^3
χ^2 / ndf 9.74e+05 / 84
p0 1.381e+05 ± 0.2107
138.6
138.4
138.2
138
137.8
137.6
pull
Entries 85
Mean 493.2
Std Dev 284.4
300
200
100
0
−100
−200

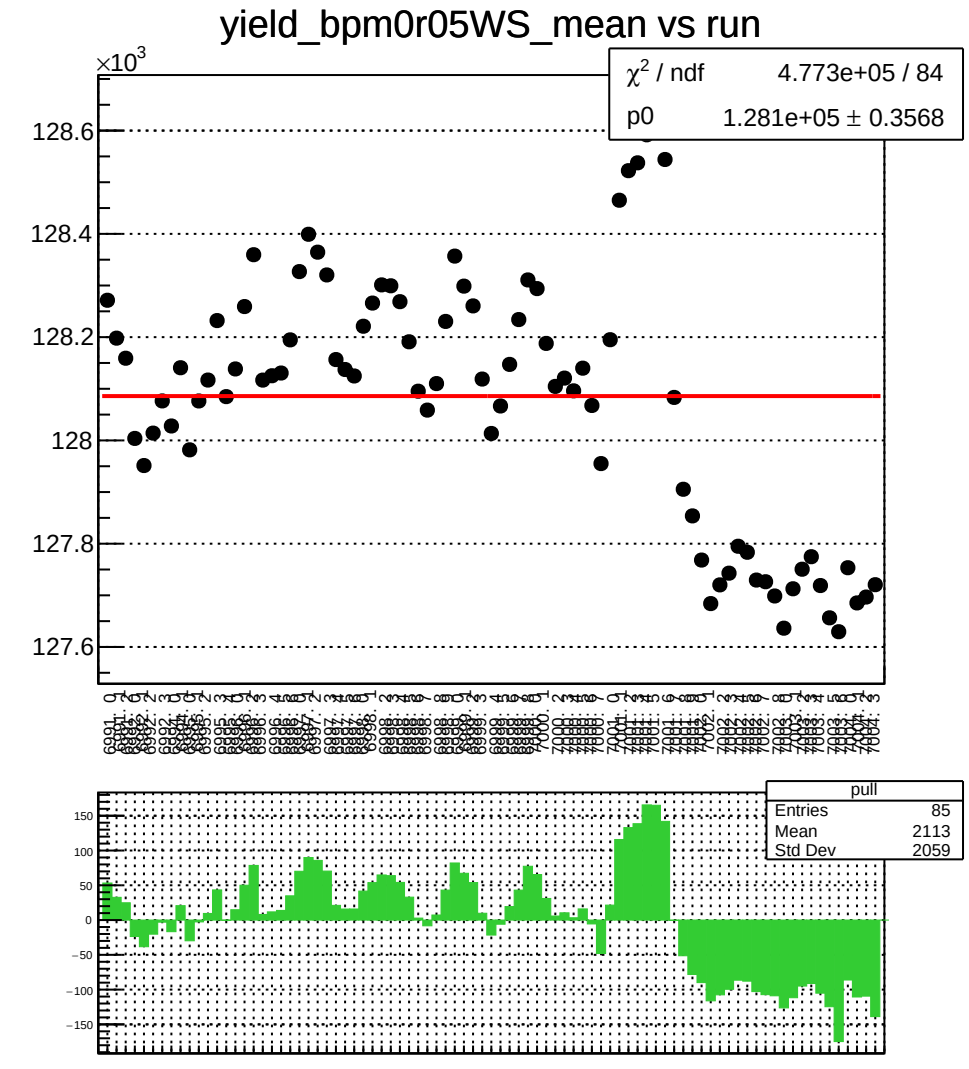

pull1D
Entries 85
Mean 0.5628
Std Dev 3.785
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

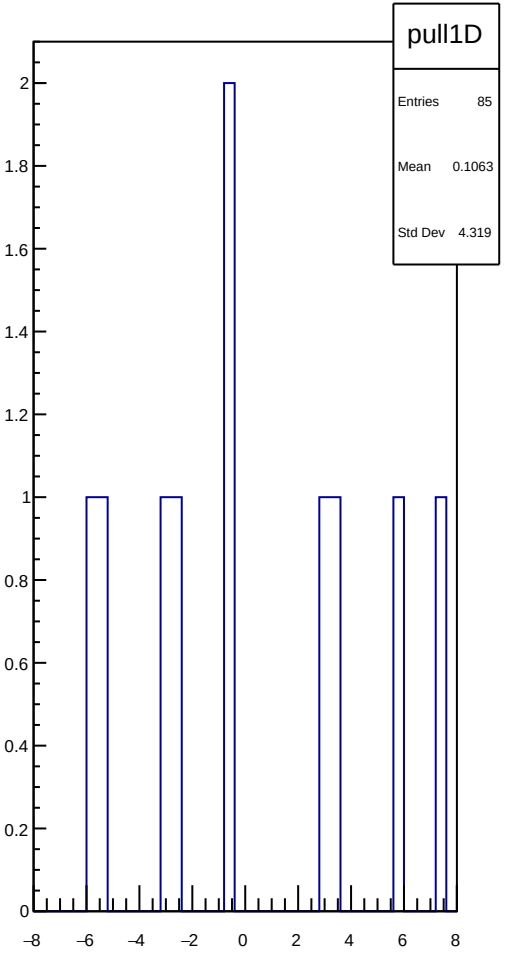

yield_bpm0l10WS_rms vs run
χ² / ndf 1.327e+04 / 84
p0 190.6 ± 0.149
400
350
300
250
200
150

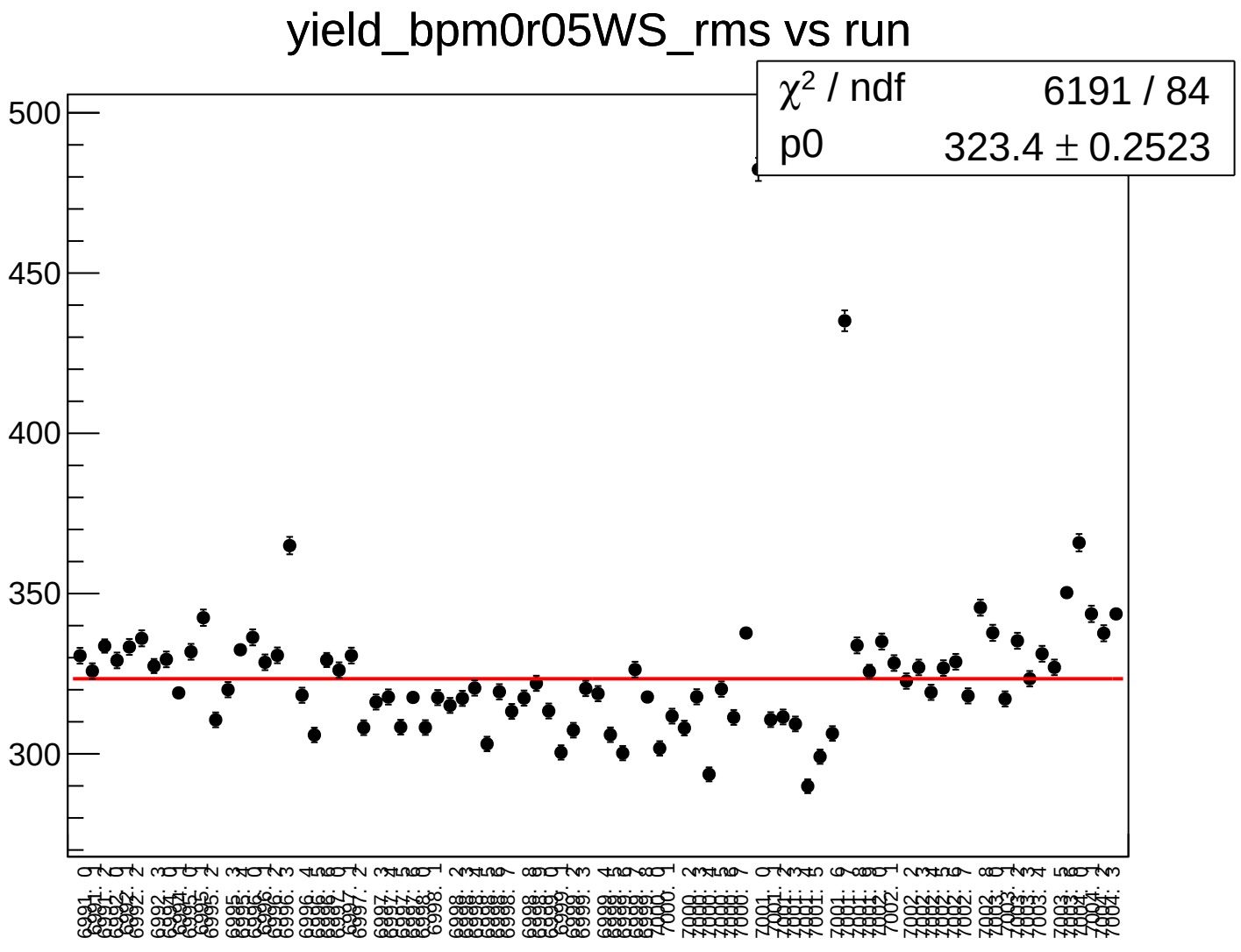

yield_bpm0r03WS_mean vs run
×10^3
χ² / ndf 1.696e+06 / 84
p0 1.395e+05 ± 0.3447
140.5
140
139.5
139
138.5
pull
Entries 85
Mean 2591
Std Dev 2542
400
300
200
100
0
−100
−200
−300

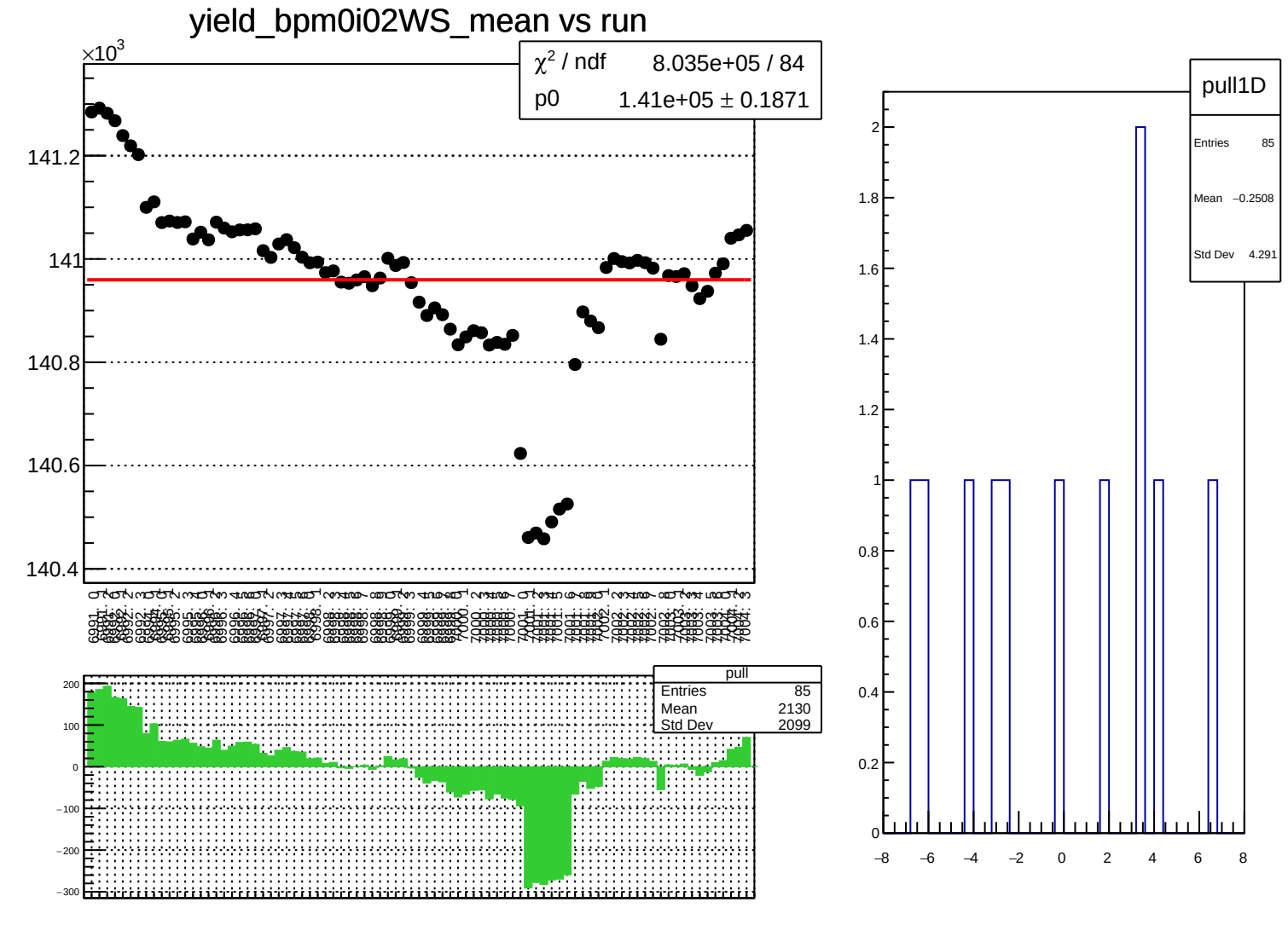

pull1D
Entries 85
Mean 5.24
Std Dev 1.29
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

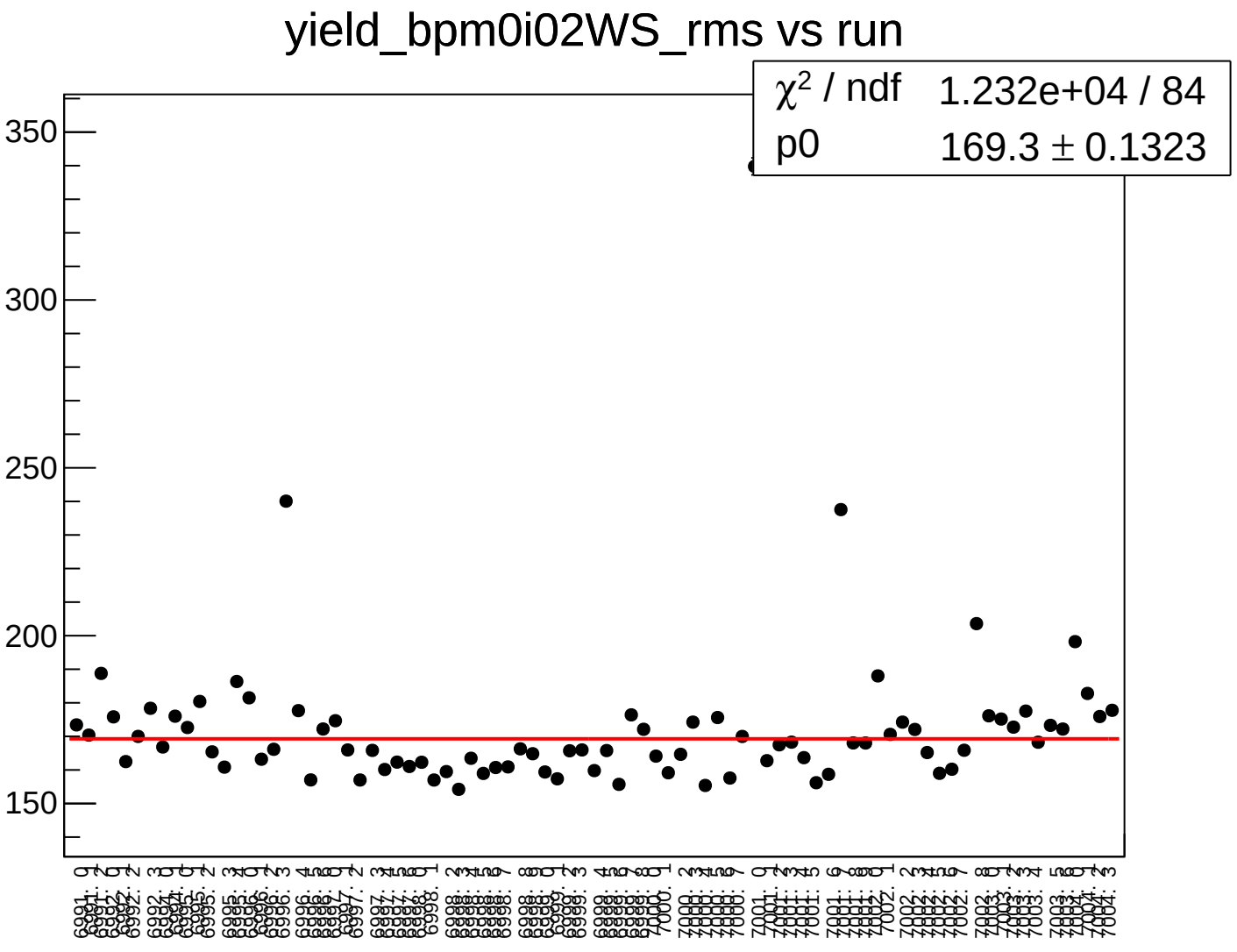

yield_bpm0r03WS_rms vs run
χ² / ndf 9987 / 84
p0 312.1 ± 0.2437
440
420
400
380
360
340
320
300
280
260

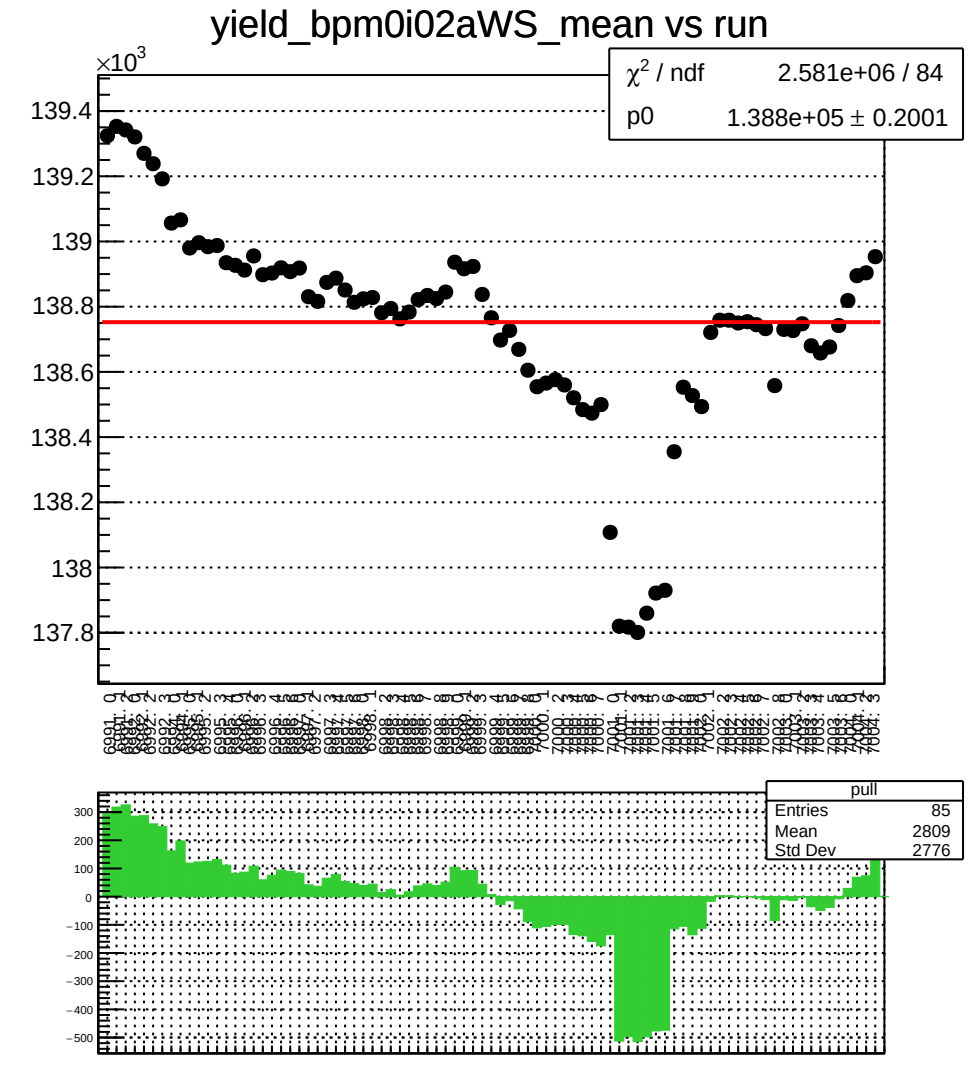

yield_bpm0r05WS_mean vs run
×10^3
χ² / ndf 4.773e+05 / 84
p0 1.281e+05 ± 0.3568
128.6
128.4
128.2
128
127.8
127.6
pull
Entries 85
Mean 2113
Std Dev 2059
150
100
50
0
−50
−100
−150

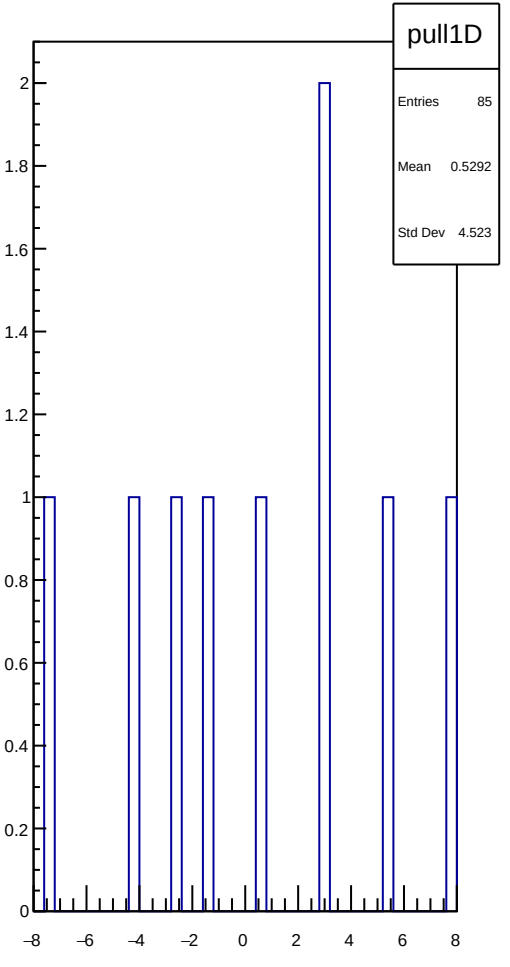

pull1D
Entries 85
Mean 0.1063
Std Dev 4.319
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

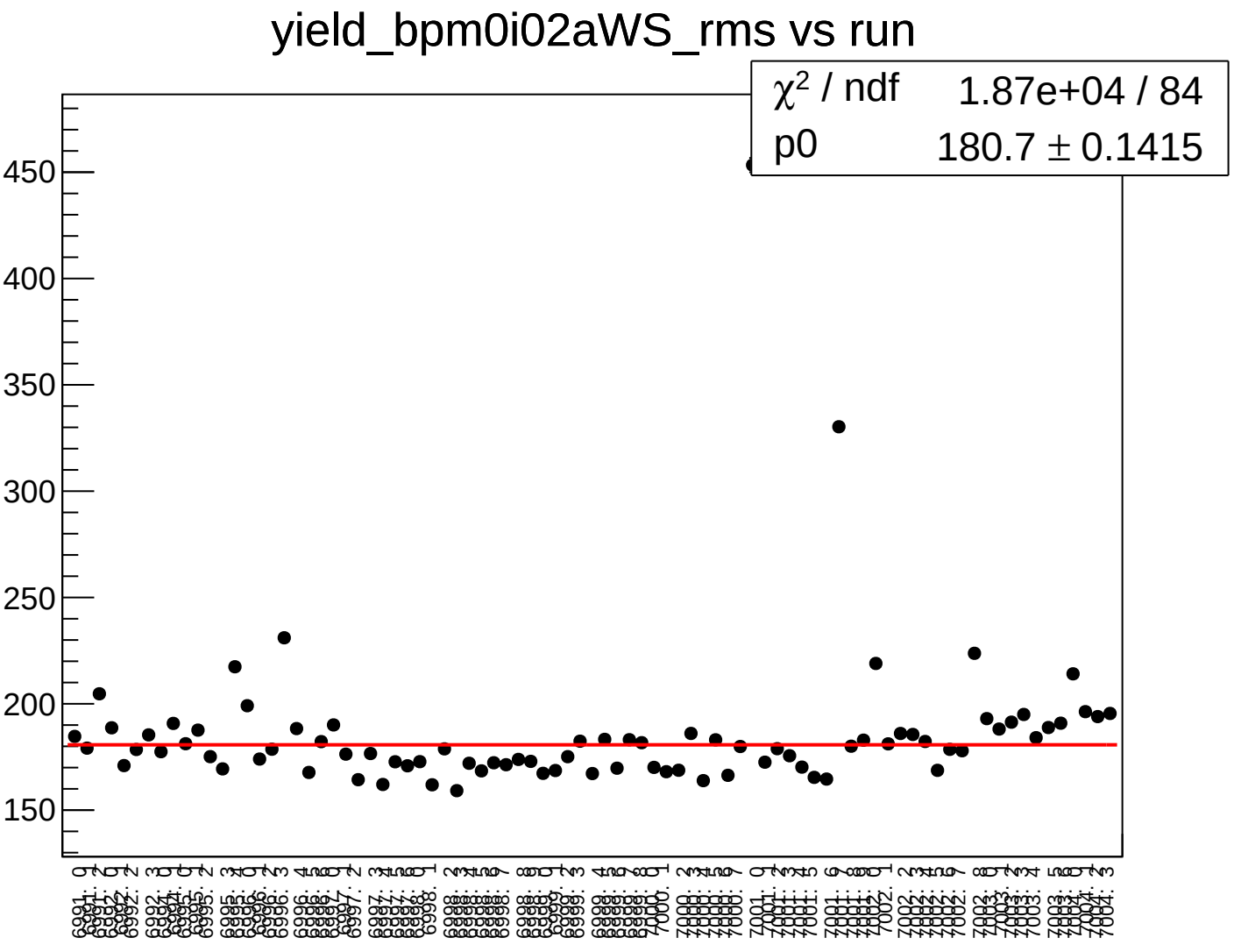

yield_bpm0r05WS_rms vs run
χ² / ndf 6191 / 84
p0 323.4 ± 0.2523
500
450
400
350
300

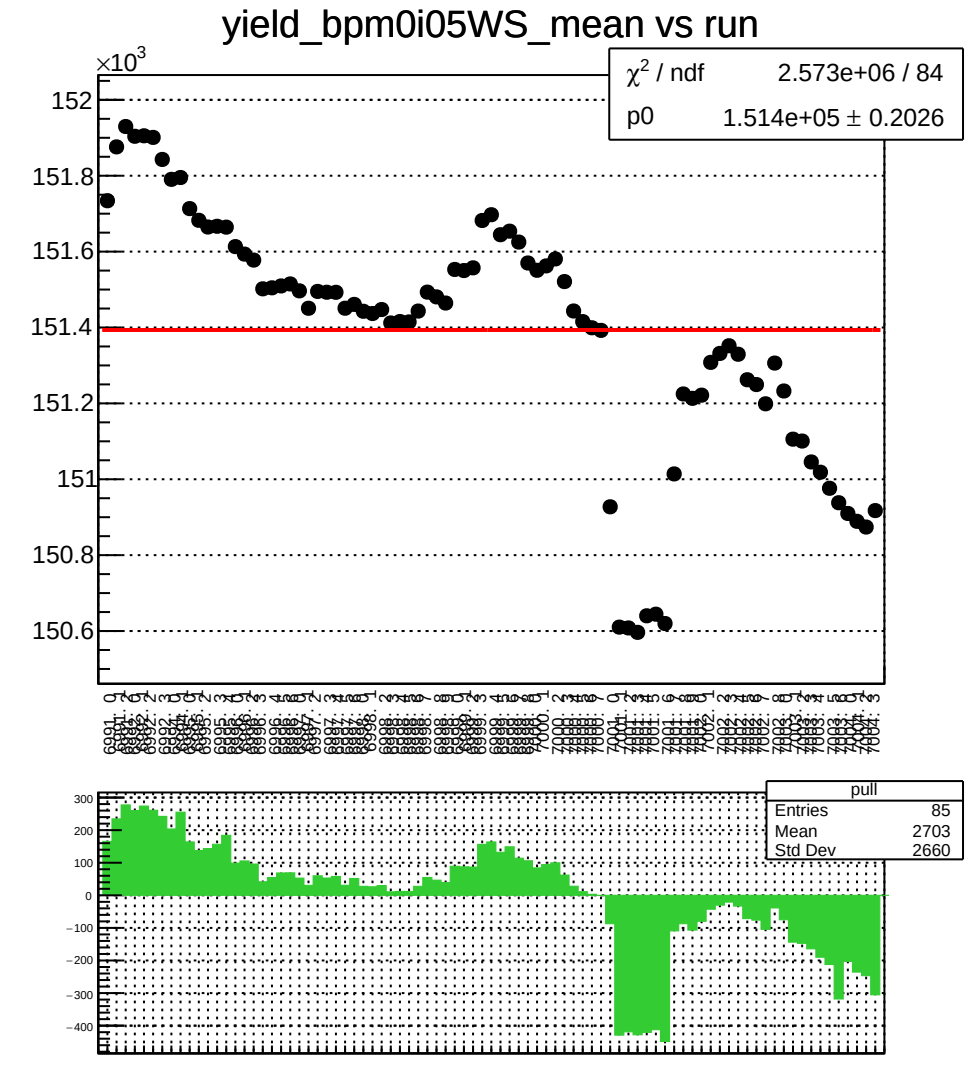

yield_bpm0i02WS_mean vs run
χ² / ndf 8.035e+05 / 84
p0 1.41e+05 ± 0.1871
×10³
141.2
141
140.8
140.6
140.4
pull
Entries 85
Mean 2130
Std Dev 2099
200
100
0
−100
−200
−300
pull1D
Entries 85
Mean −0.2508
Std Dev 4.291
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

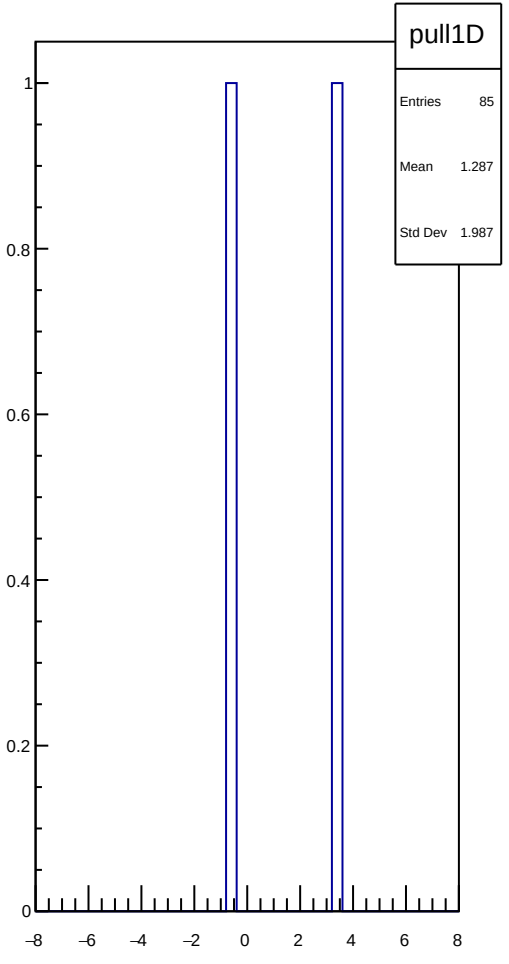

yield_bpm0i02WS_rms vs run
χ² / ndf 1.232e+04 / 84
p0 169.3 ± 0.1323
350
300
250
200
150

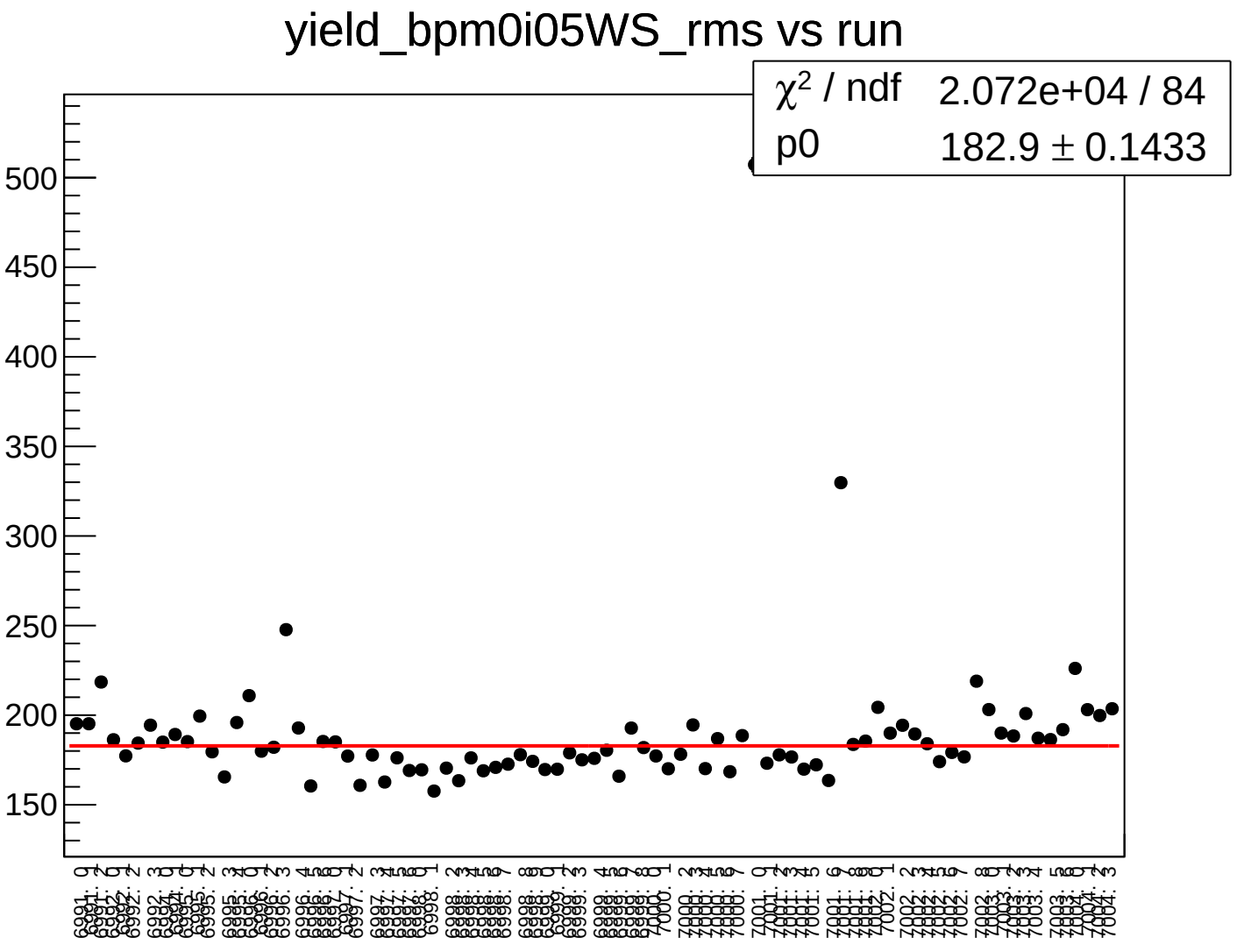

yield_bpm0i02aWS_mean vs run
×10^3
χ² / ndf 2.581e+06 / 84
p0 1.388e+05 ± 0.2001
139.4
139.2
139
138.8
138.6
138.4
138.2
138
137.8
pull
Entries 85
Mean 2809
Std Dev 2776
300
200
100
0
−100
−200
−300
−400
−500

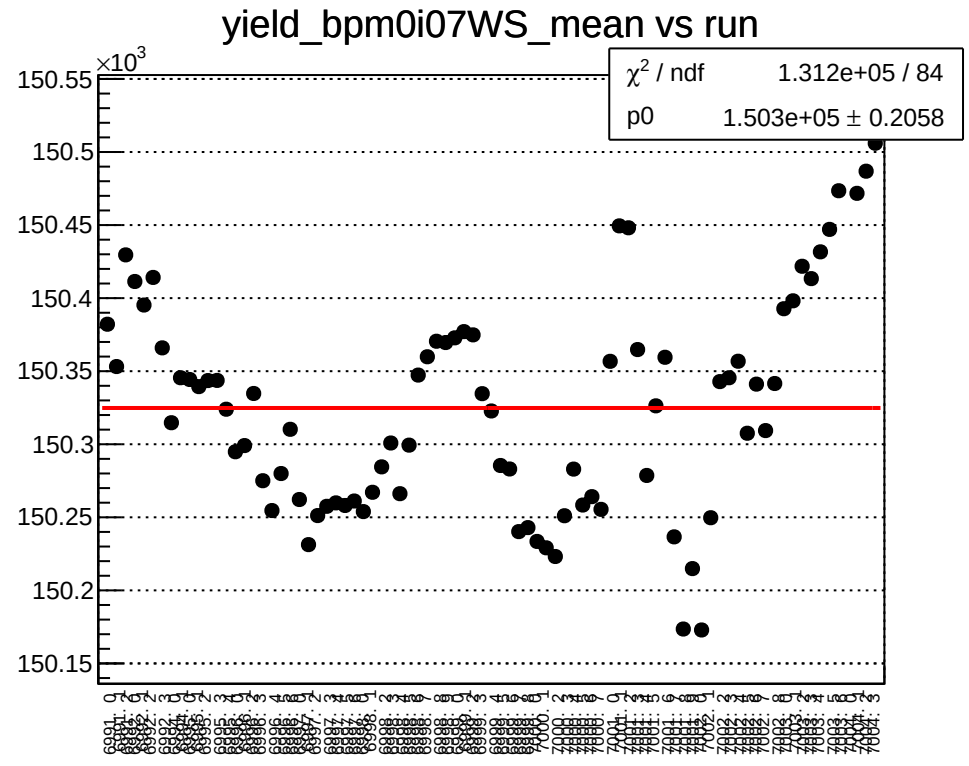

pull1D
Entries 85
Mean 0.5292
Std Dev 4.523
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

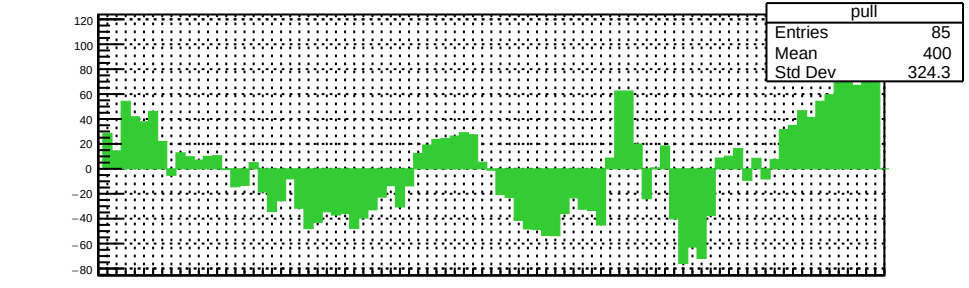

yield_bpm0i02aWS_rms vs run
χ² / ndf 1.87e+04 / 84
p0 180.7 ± 0.1415
450
400
350
300
250
200
150

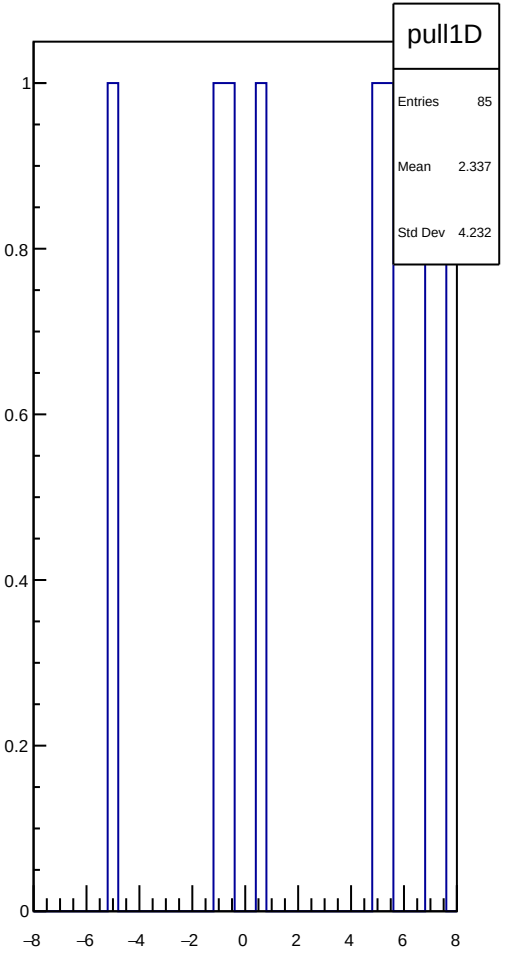

yield_bpm0i05WS_mean vs run
×10^3
χ² / ndf 2.573e+06 / 84
p0 1.514e+05 ± 0.2026
152
151.8
151.6
151.4
151.2
151
150.8
150.6
pull
Entries 85
Mean 2703
Std Dev 2660
300
200
100
0
−100
−200
−300
−400

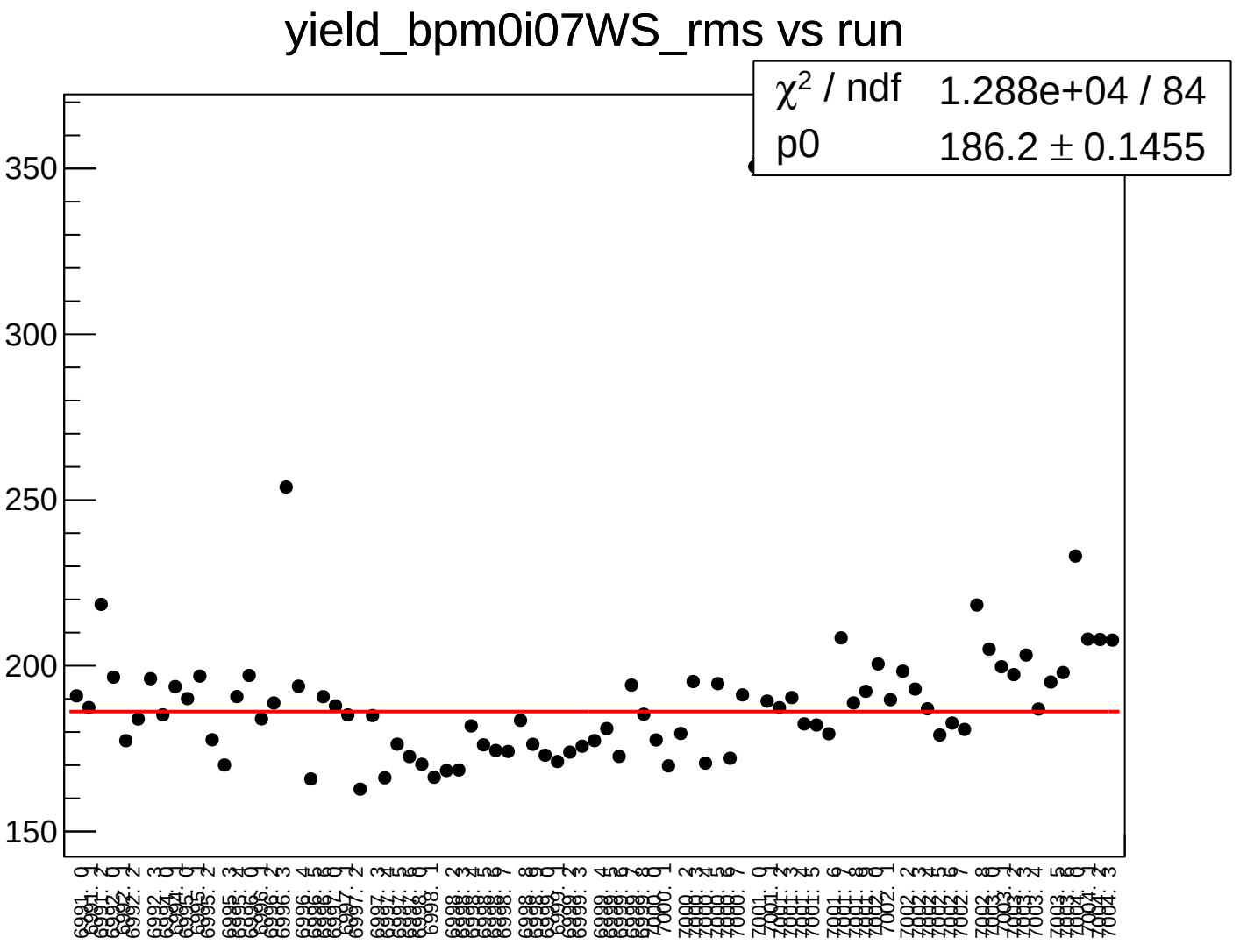

pull1D
Entries 85
Mean 1.287
Std Dev 1.987
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

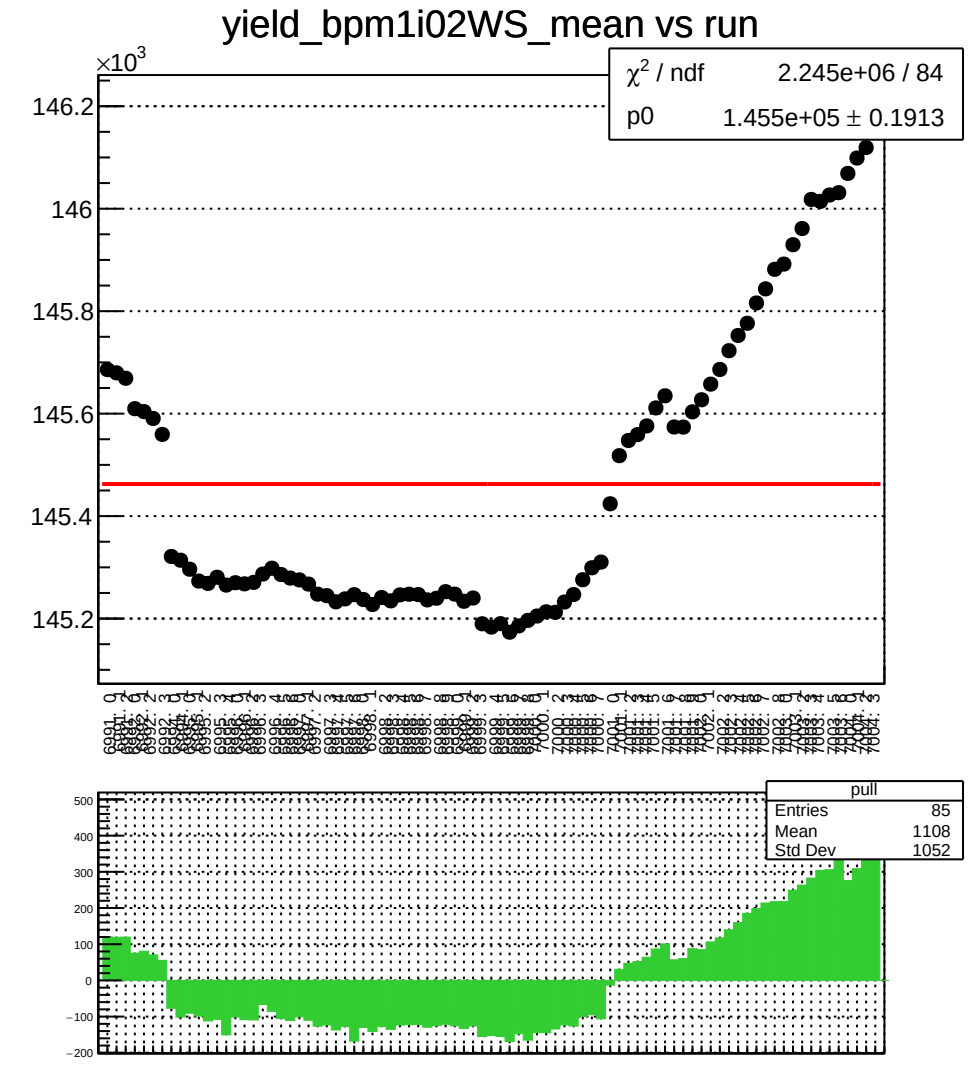

yield_bpm0i05WS_rms vs run
χ² / ndf 2.072e+04 / 84
p0 182.9 ± 0.1433
500
450
400
350
300
250
200
150

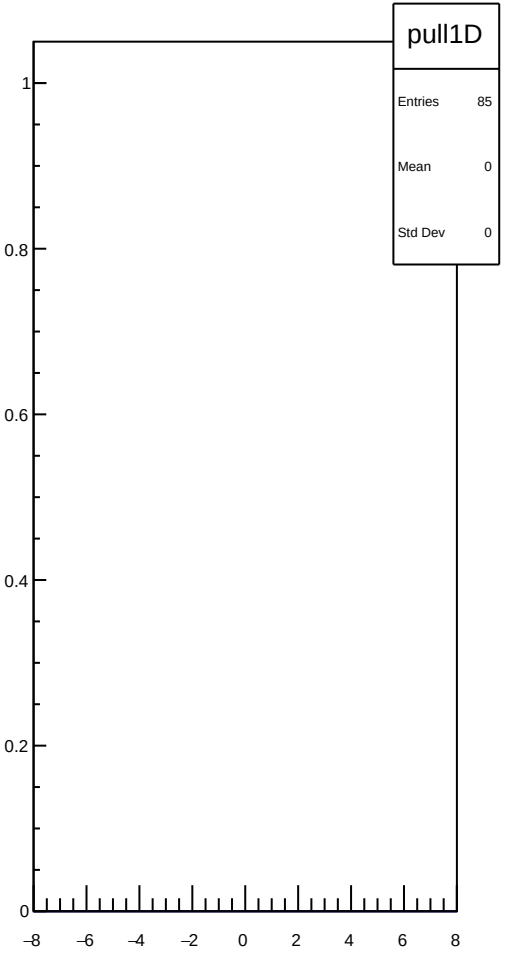

yield_bpm0i07WS_mean vs run
×10^3
χ² / ndf 1.312e+05 / 84
p0 1.503e+05 ± 0.2058
150.55
150.5
150.45
150.4
150.35
150.3
150.25
150.2
150.15

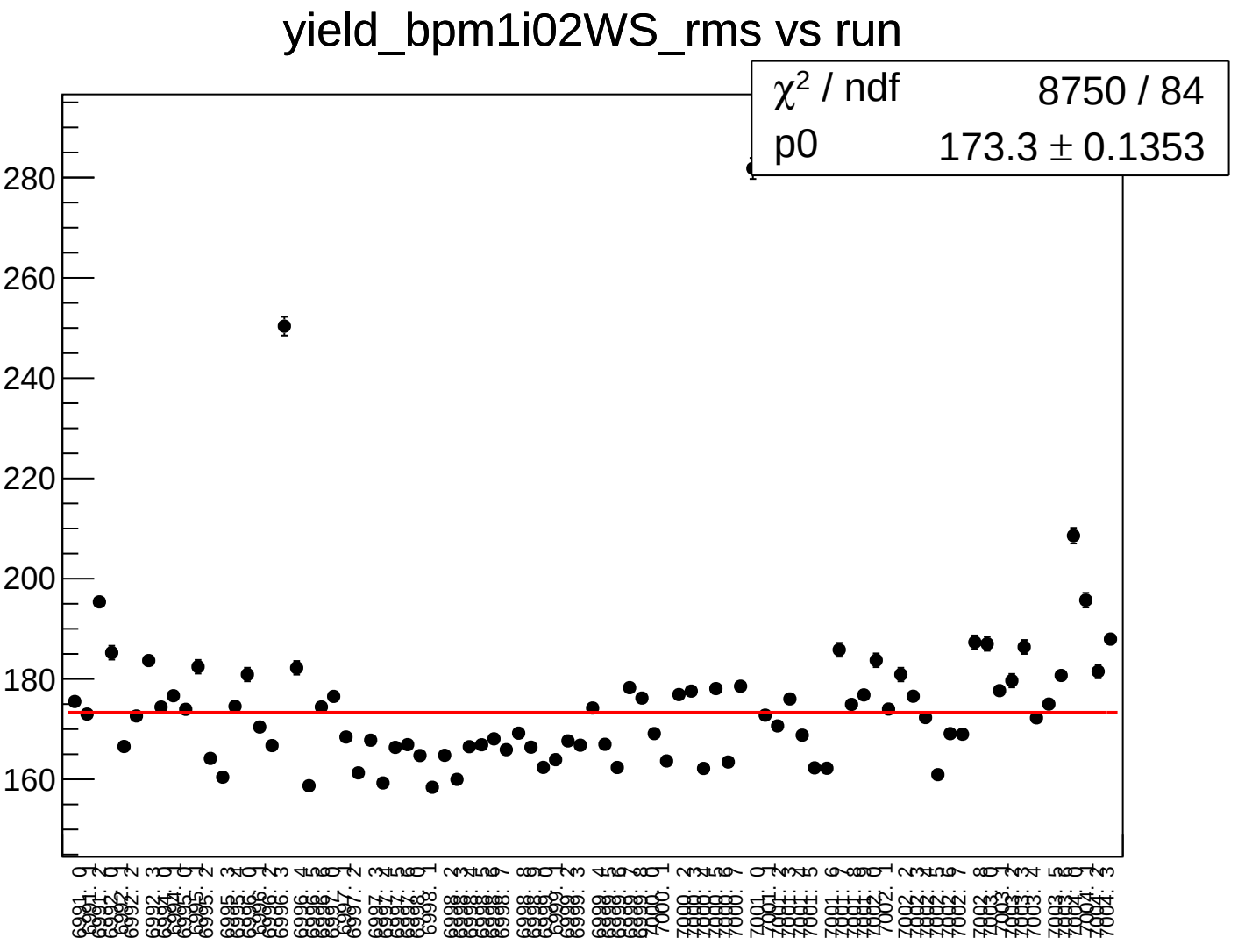

pull
Entries 85
Mean 400
Std Dev 324.3
120
100
80
60
40
20
0
−20
−40
−60
−80

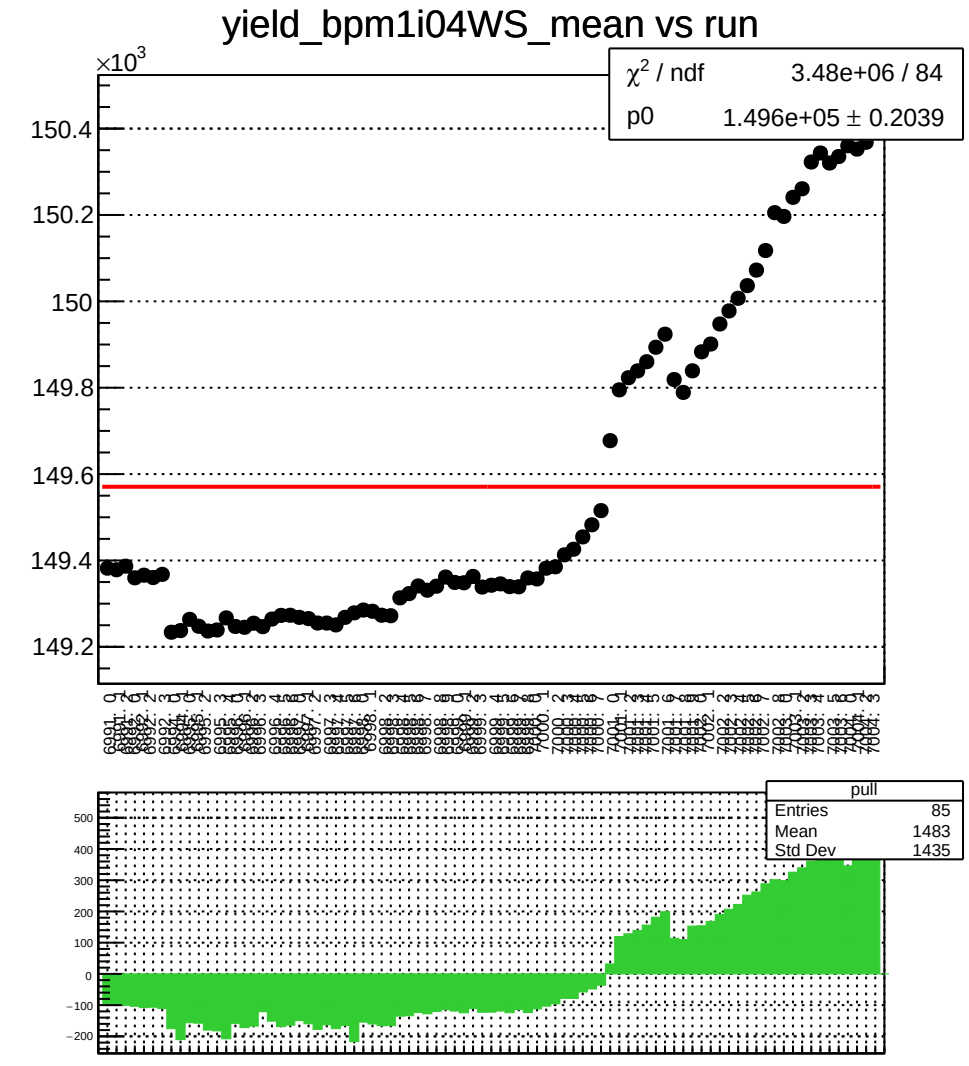

pull1D
Entries 85
Mean 2.337
Std Dev 4.232
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

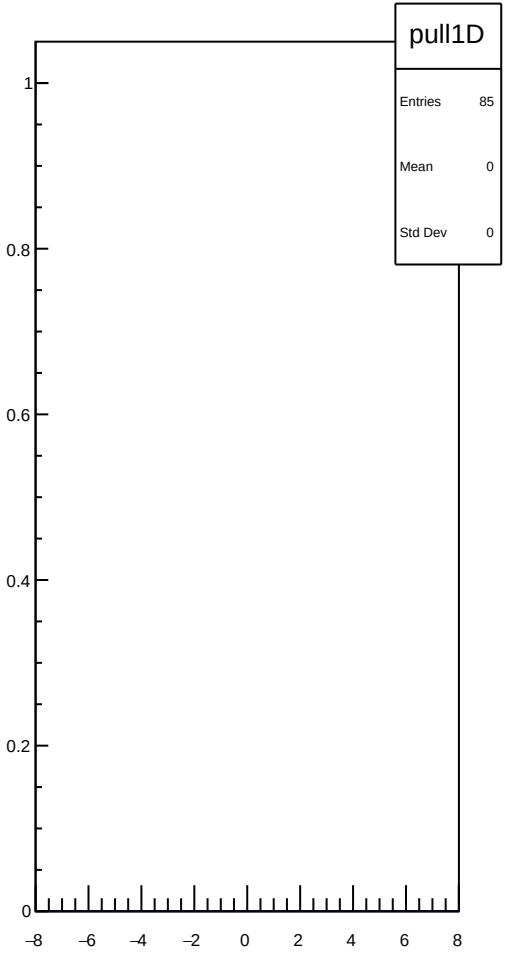

yield_bpm0i07WS_rms vs run
χ² / ndf 1.288e+04 / 84
p0 186.2 ± 0.1455
350
300
250
200
150

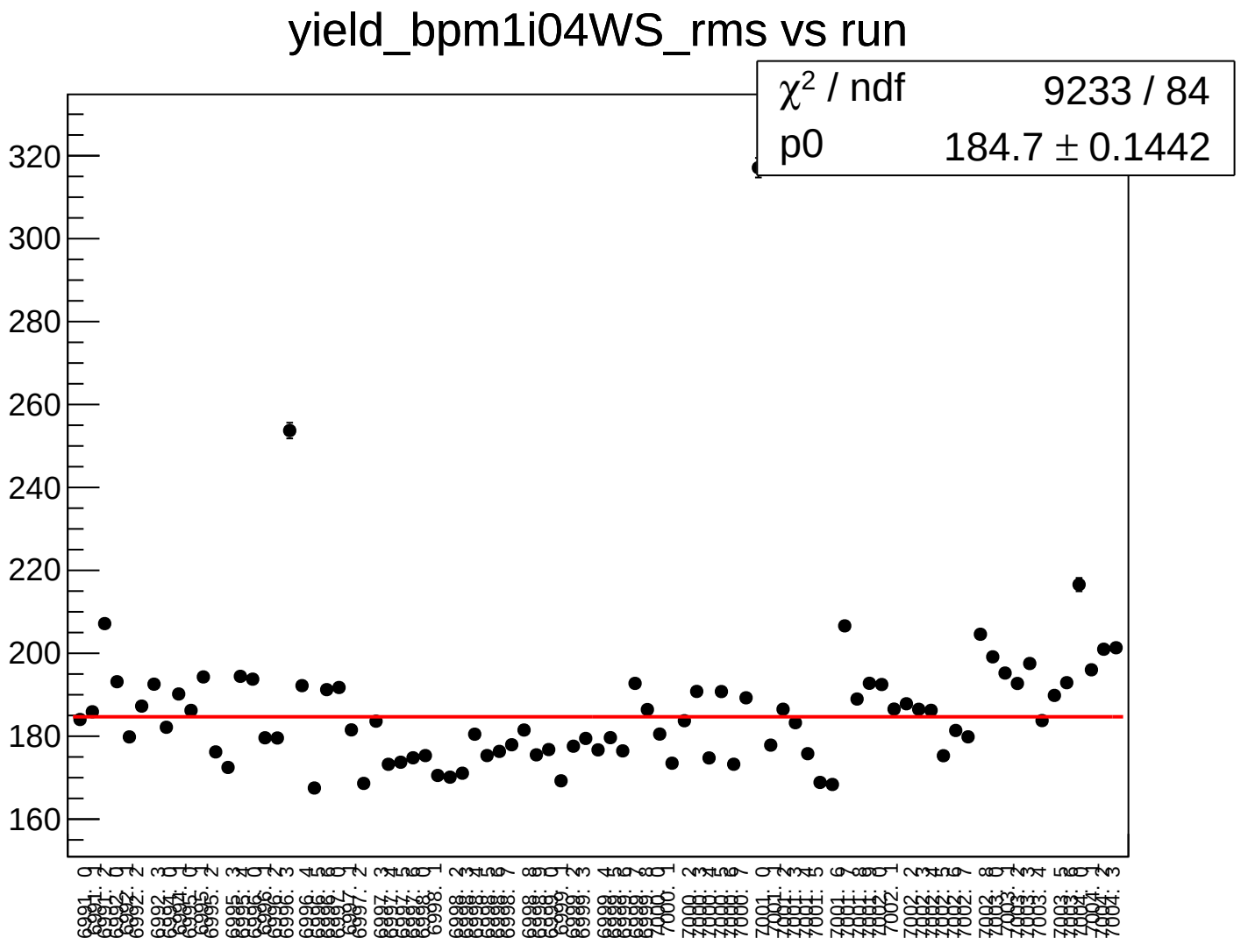

yield_bpm1i02WS_mean vs run
×10^3
χ² / ndf 2.245e+06 / 84
p0 1.455e+05 ± 0.1913
146.2
146
145.8
145.6
145.4
145.2
pull
Entries 85
Mean 1108
Std Dev 1052
500
400
300
200
100
0
−100
−200

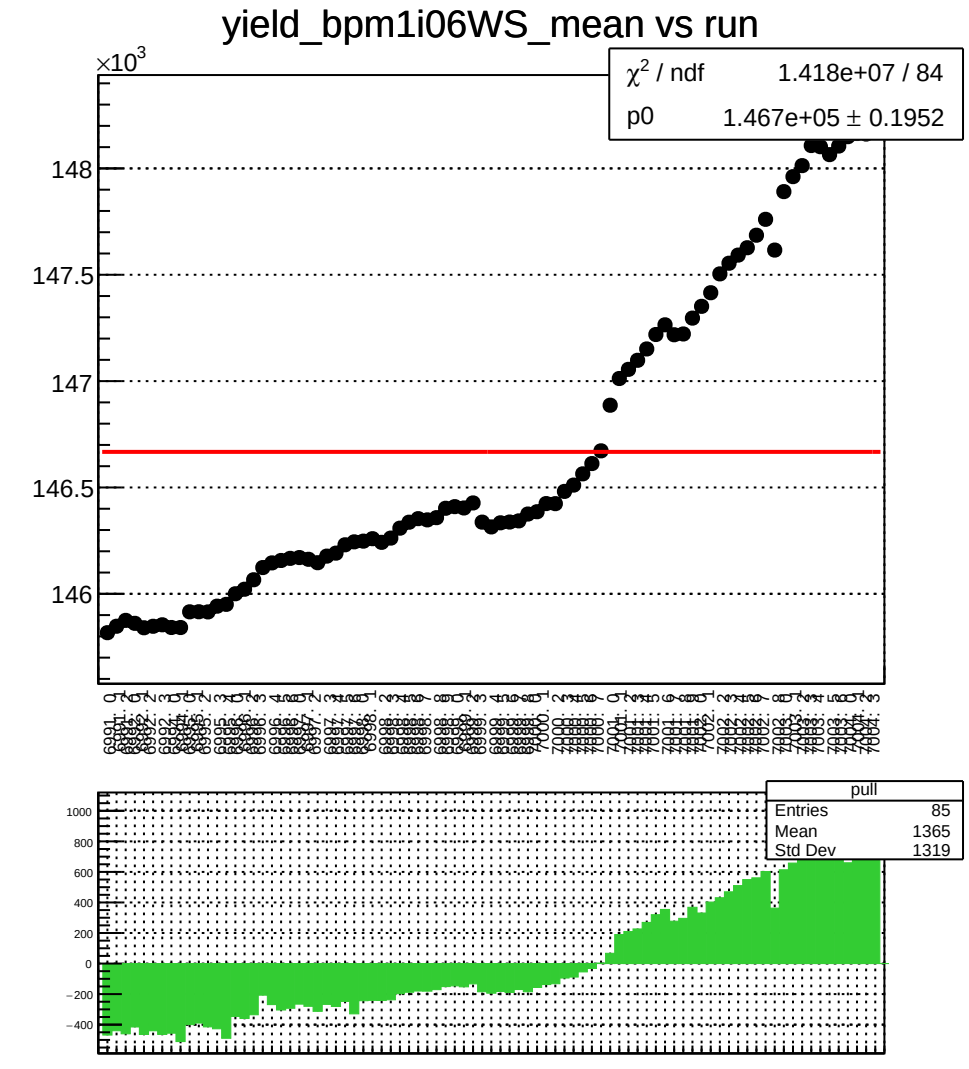

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

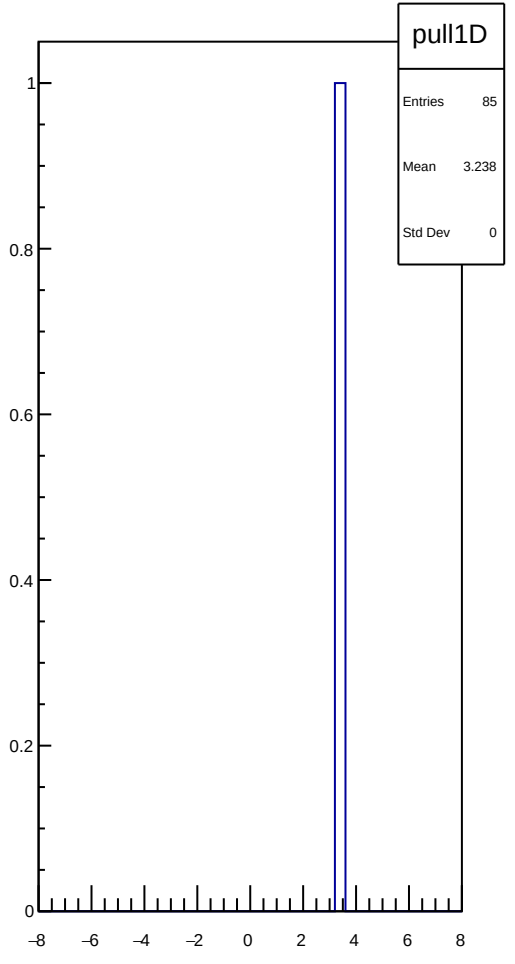

yield_bpm1i02WS_rms vs run
χ² / ndf 8750 / 84
p0 173.3 ± 0.1353
280
260
240
220
200
180
160

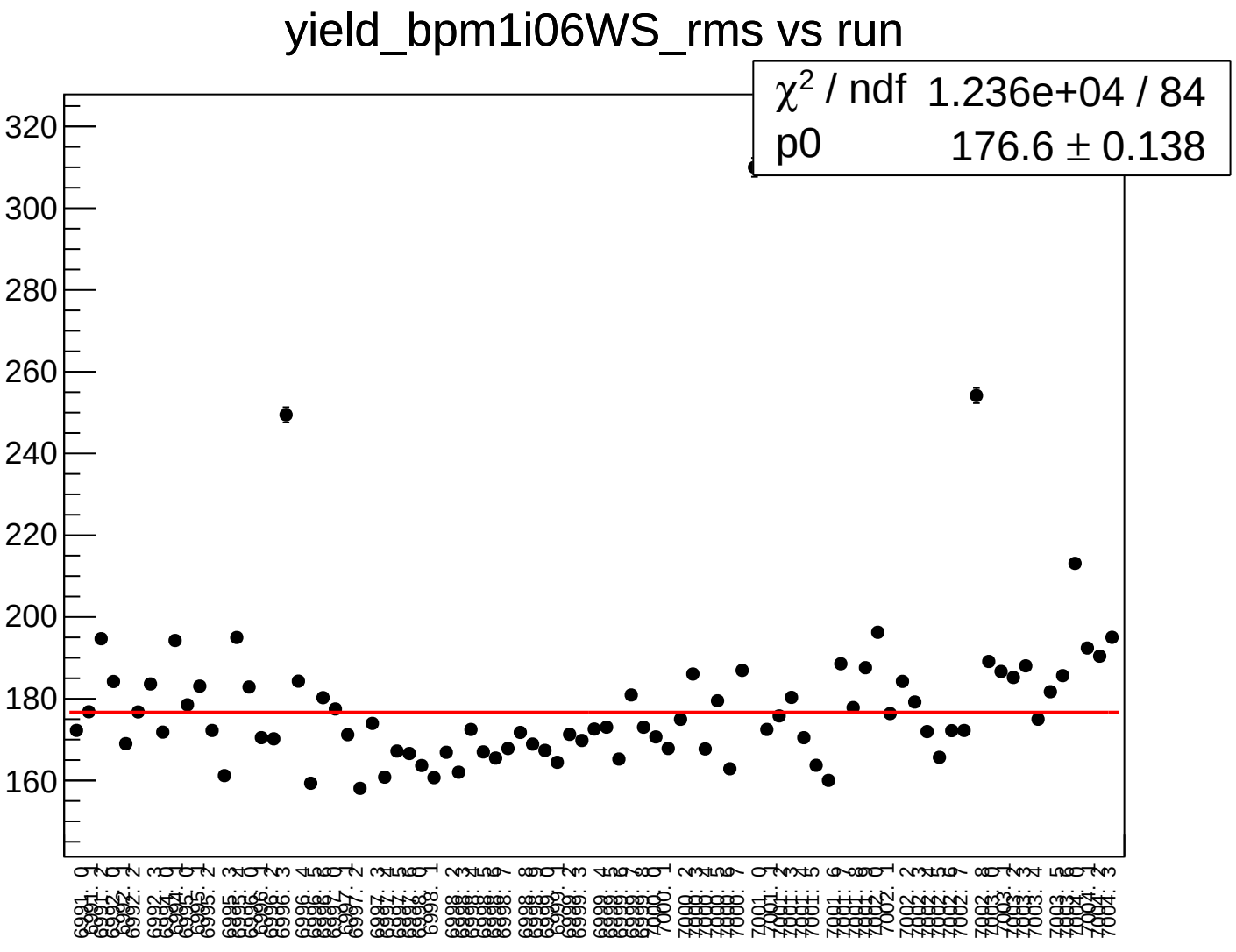

yield_bpm1i04WS_mean vs run
×10^3
χ² / ndf 3.48e+06 / 84
p0 1.496e+05 ± 0.2039
150.4
150.2
150
149.8
149.6
149.4
149.2
pull
Entries 85
Mean 1483
Std Dev 1435
500
400
300
200
100
0
−100
−200

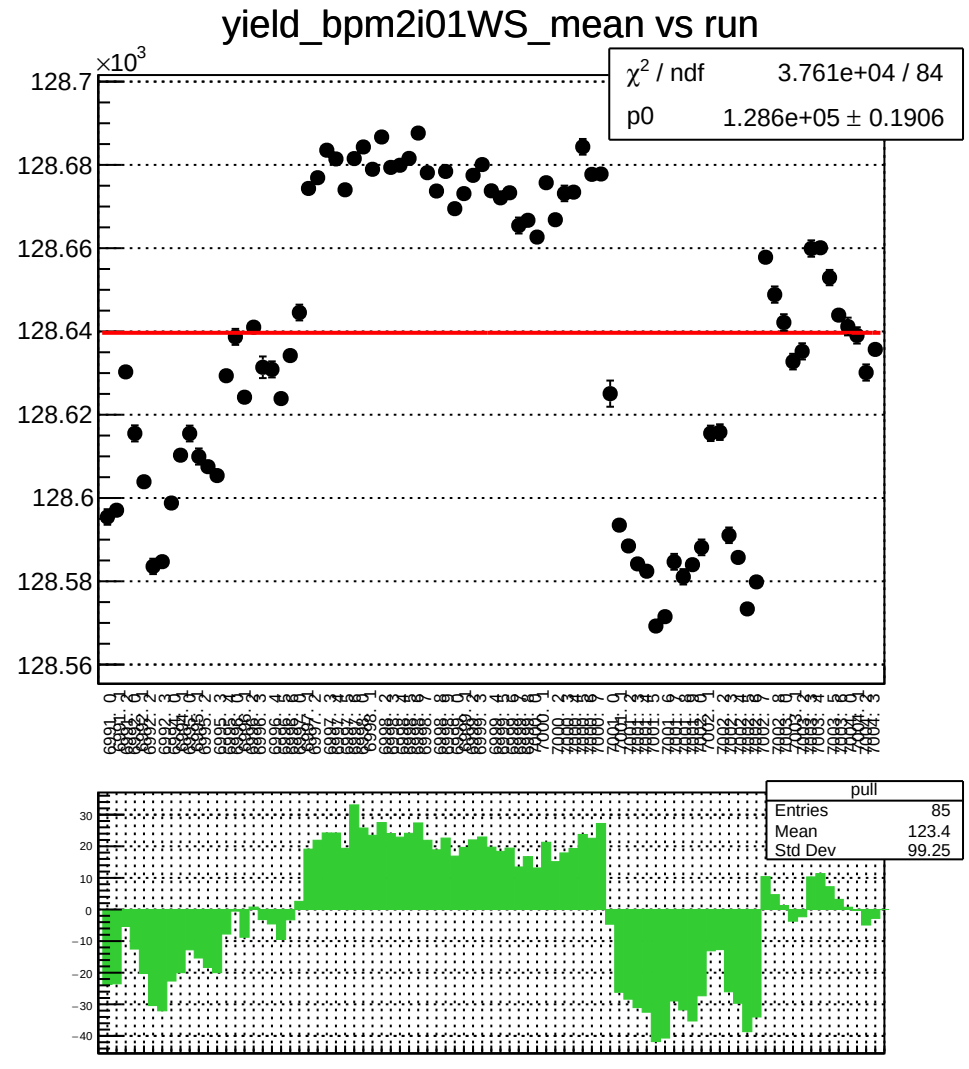

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

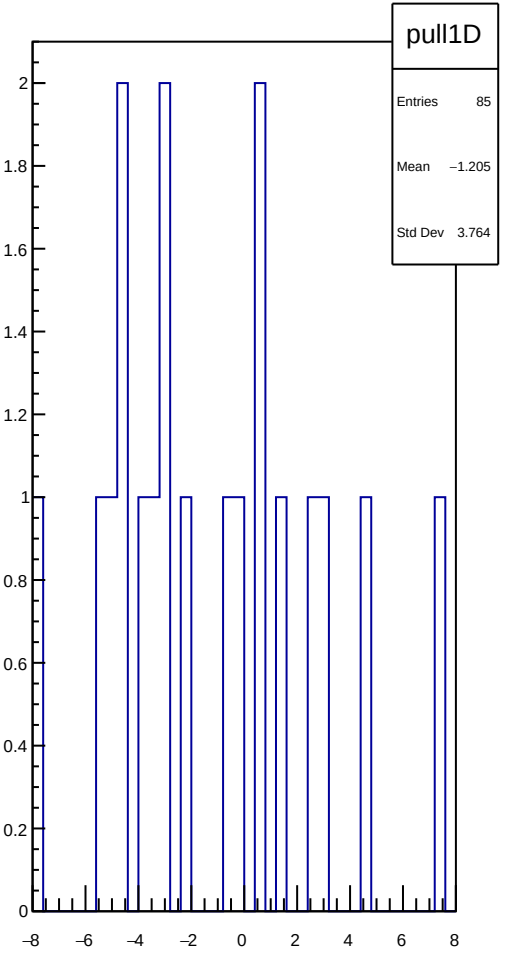

yield_bpm1i04WS_rms vs run
χ² / ndf 9233 / 84
p0 184.7 ± 0.1442
320
300
280
260
240
220
200
180
160

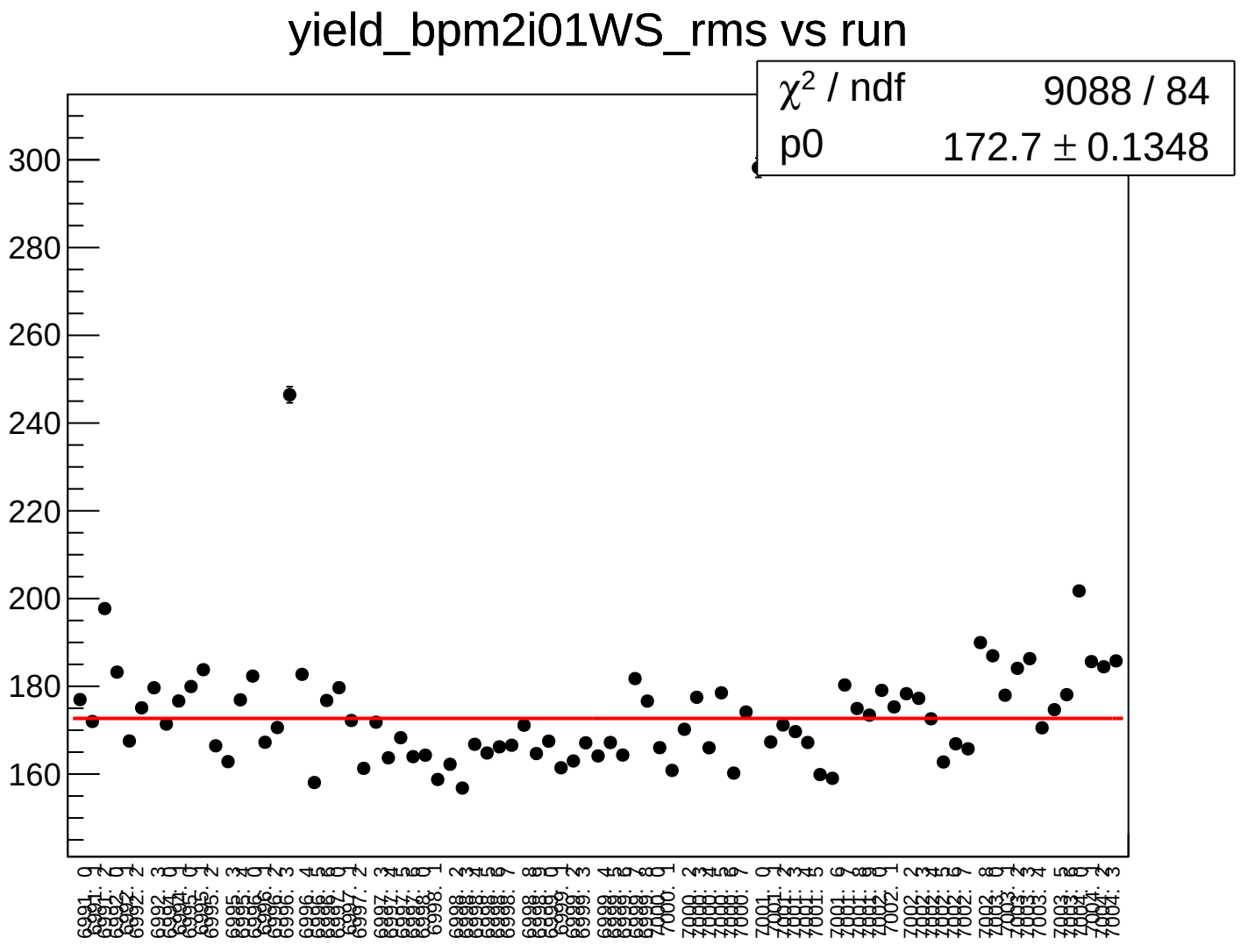

yield_bpm1i06WS_mean vs run
×10^3
χ² / ndf 1.418e+07 / 84
p0 1.467e+05 ± 0.1952
148
147.5
147
146.5
146
pull
Entries 85
Mean 1365
Std Dev 1319
1000
800
600
400
200
0
−200
−400

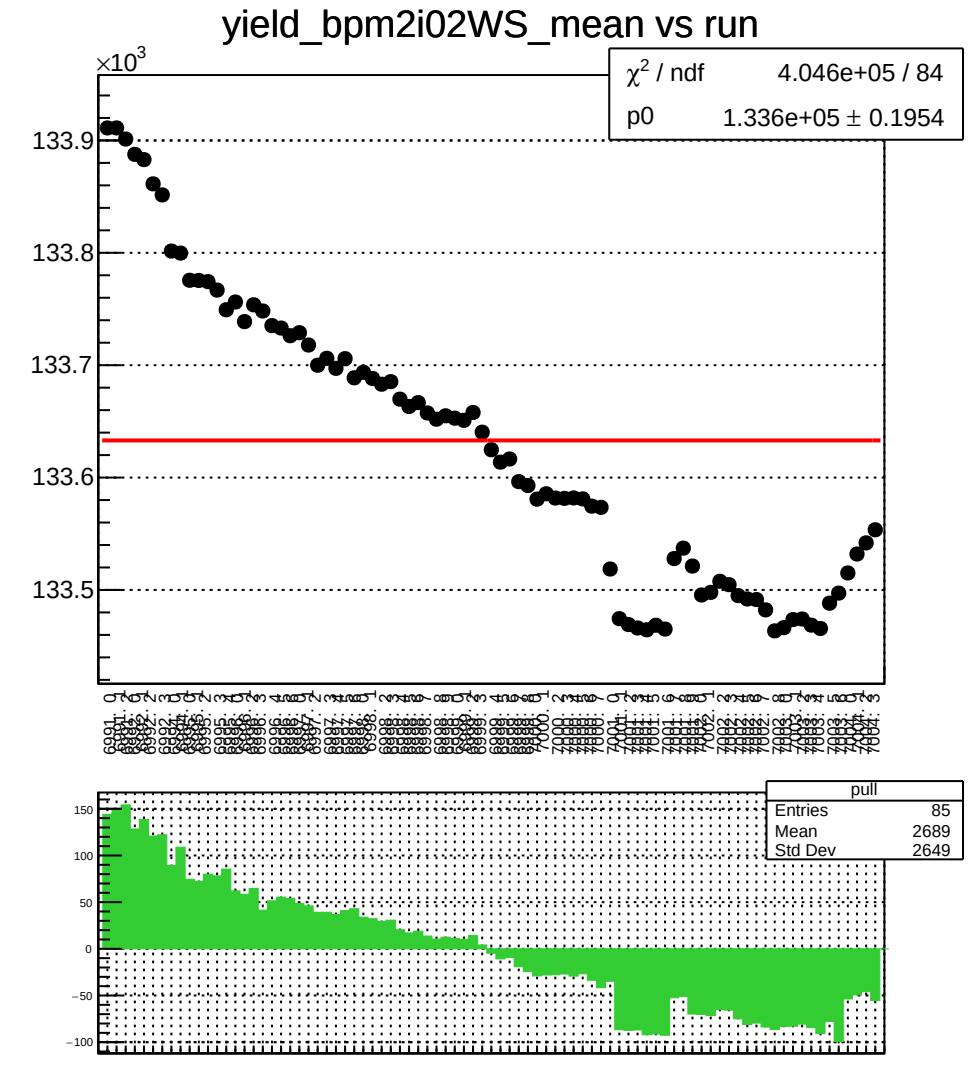

pull1D
Entries 85
Mean 3.238
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

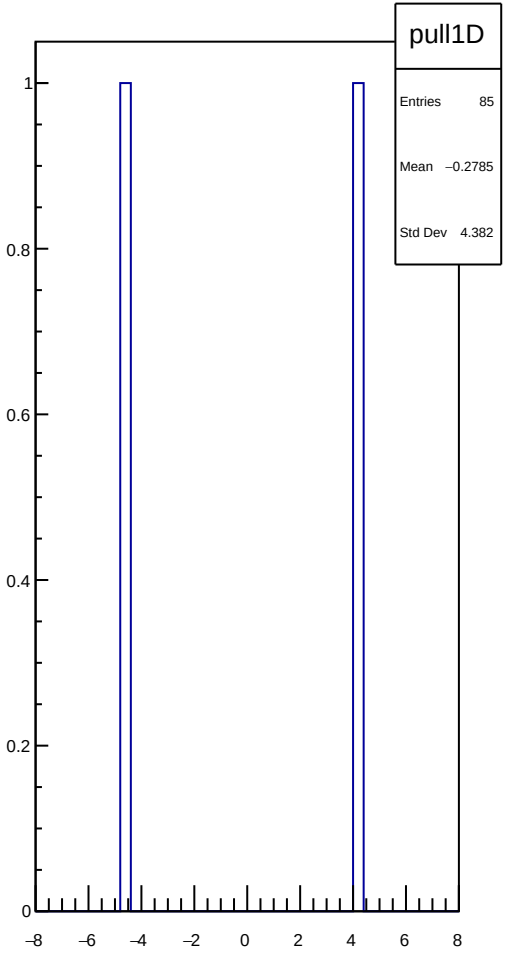

yield_bpm1i06WS_rms vs run
χ² / ndf 1.236e+04 / 84
p0 176.6 ± 0.138
320
300
280
260
240
220
200
180
160

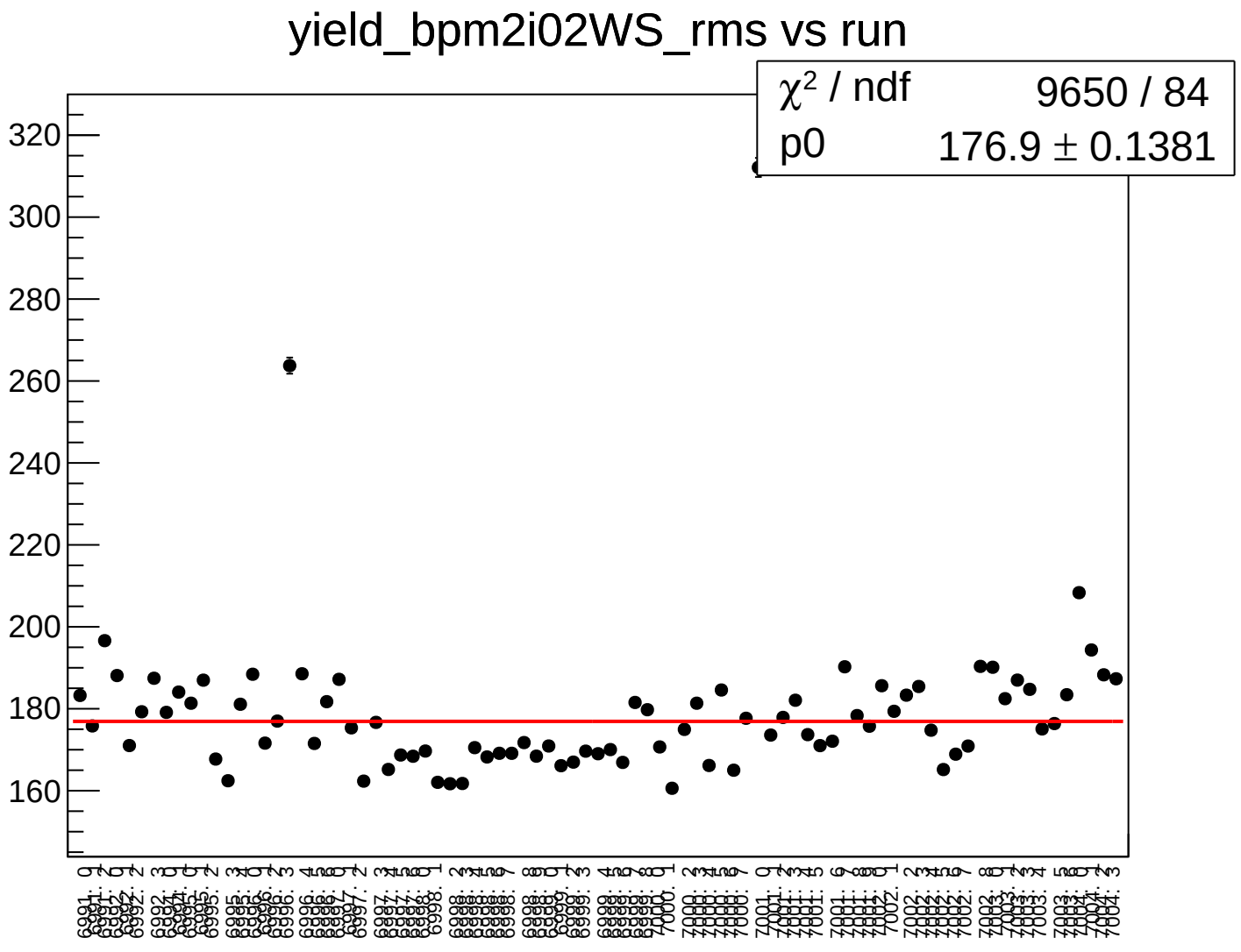

yield_bpm2i01WS_mean vs run
×10^3
χ² / ndf 3.761e+04 / 84
p0 1.286e+05 ± 0.1906
128.7
128.68
128.66
128.64
128.62
128.6
128.58
128.56
pull
Entries 85
Mean 123.4
Std Dev 99.25
30
20
10
0
−10
−20
−30
−40

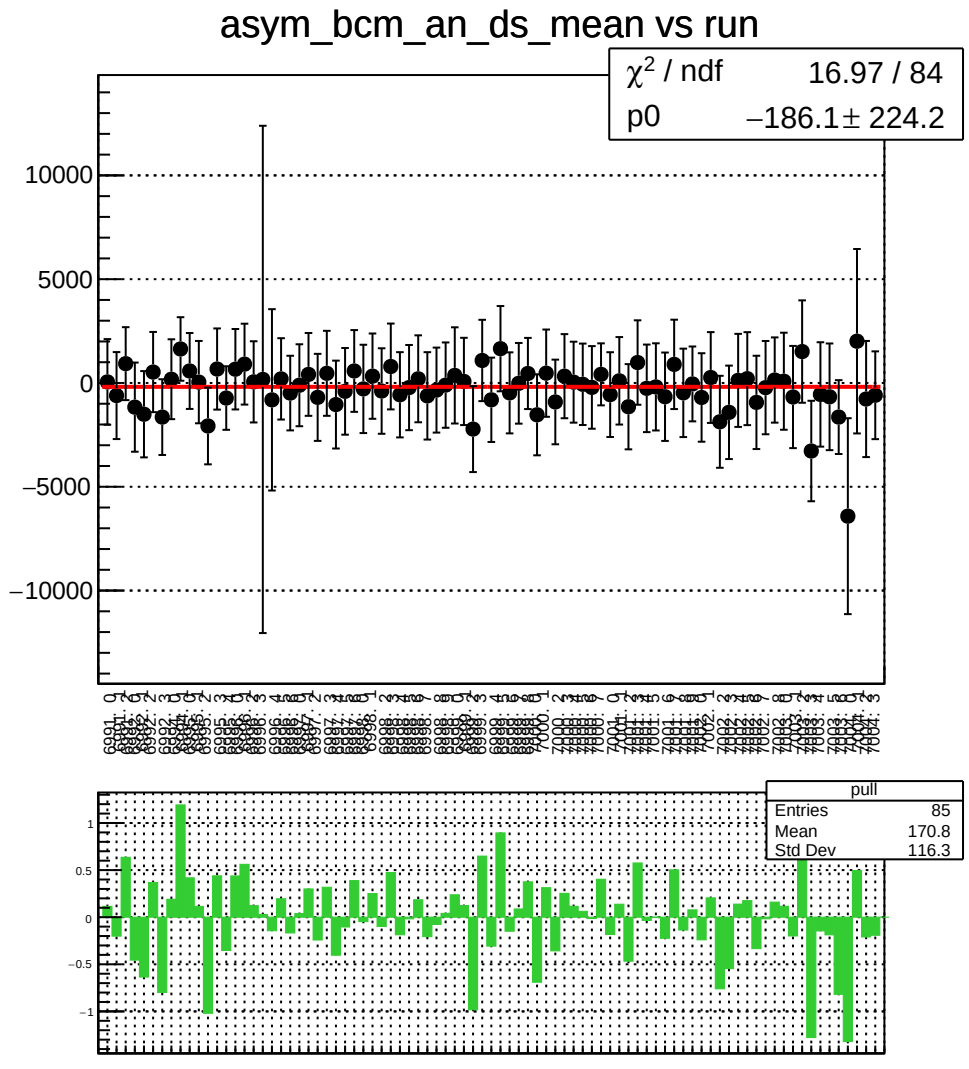

pull1D
Entries 85
Mean −1.205
Std Dev 3.764
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

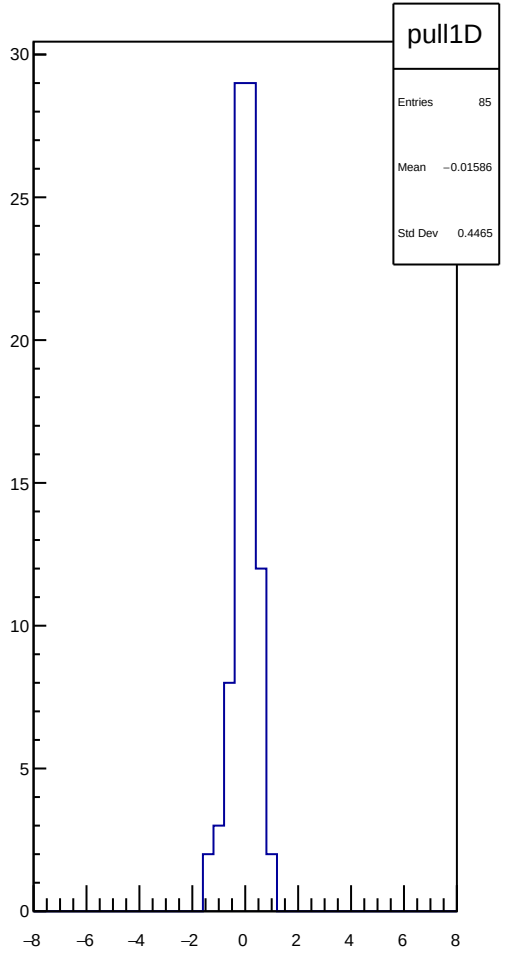

yield_bpm2i01WS_rms vs run
χ² / ndf 9088 / 84
p0 172.7 ± 0.1348
300
280
260
240
220
200
180
160

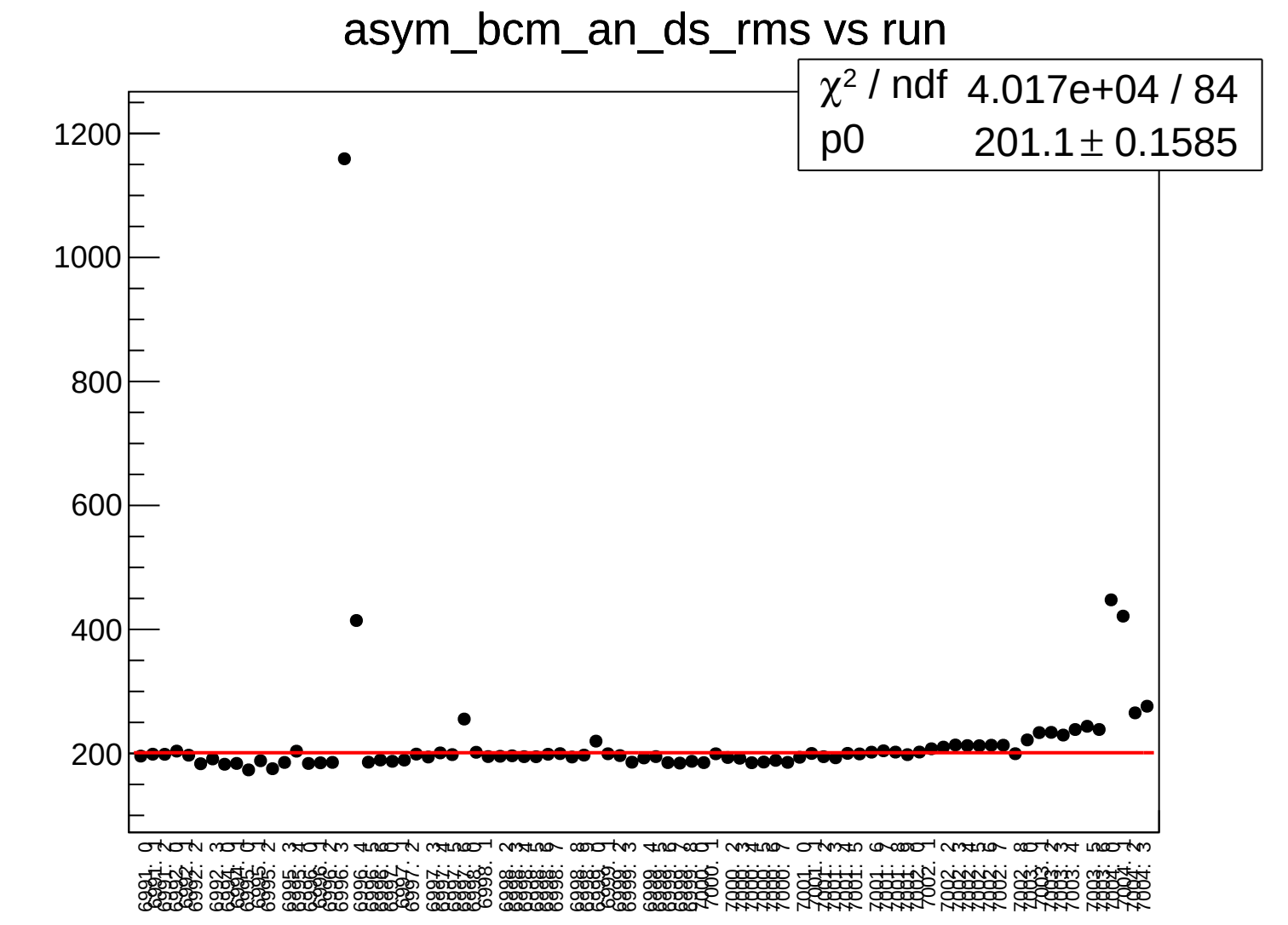

yield_bpm2i02WS_mean vs run
×10^3
χ² / ndf 4.046e+05 / 84
p0 1.336e+05 ± 0.1954
133.9
133.8
133.7
133.6
133.5
pull
Entries 85
Mean 2689
Std Dev 2649
150
100
50
0
−50
−100

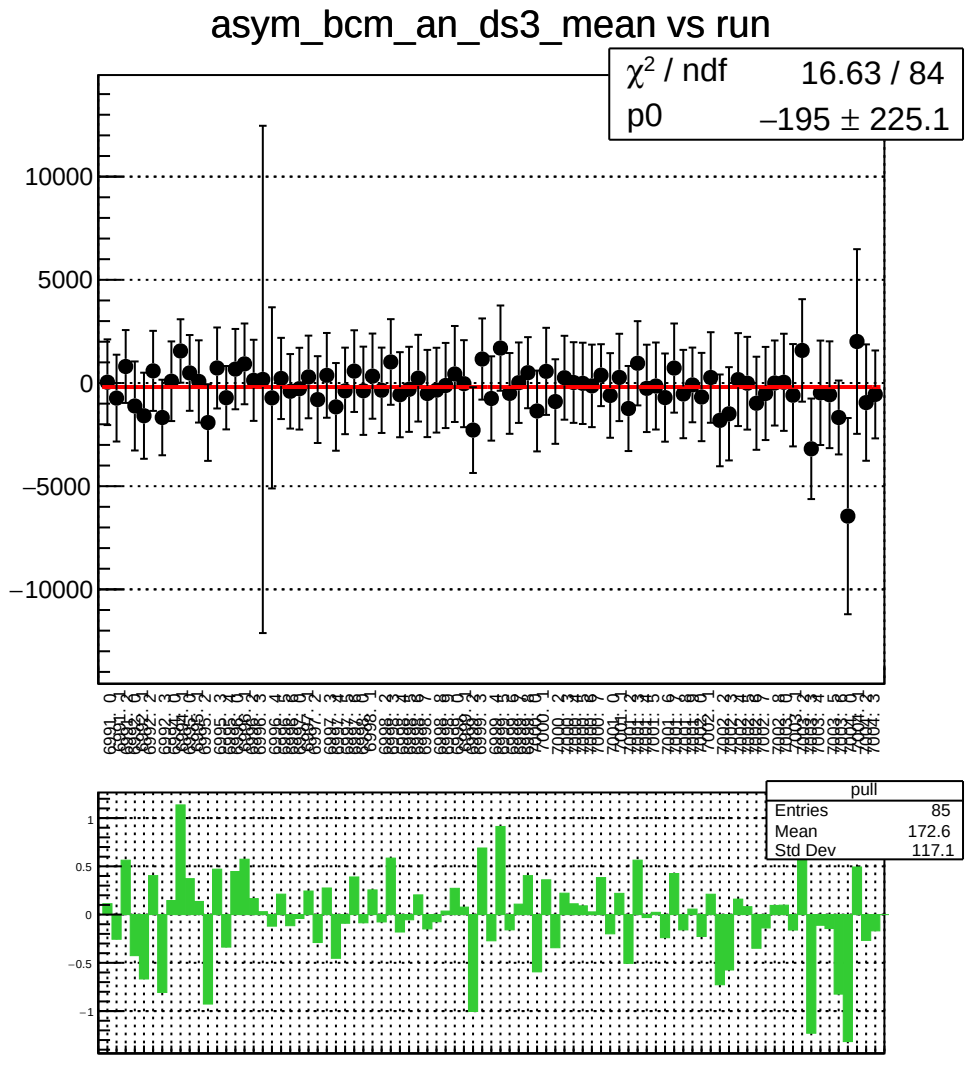

pull1D
Entries 85
Mean −0.2785
Std Dev 4.382
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

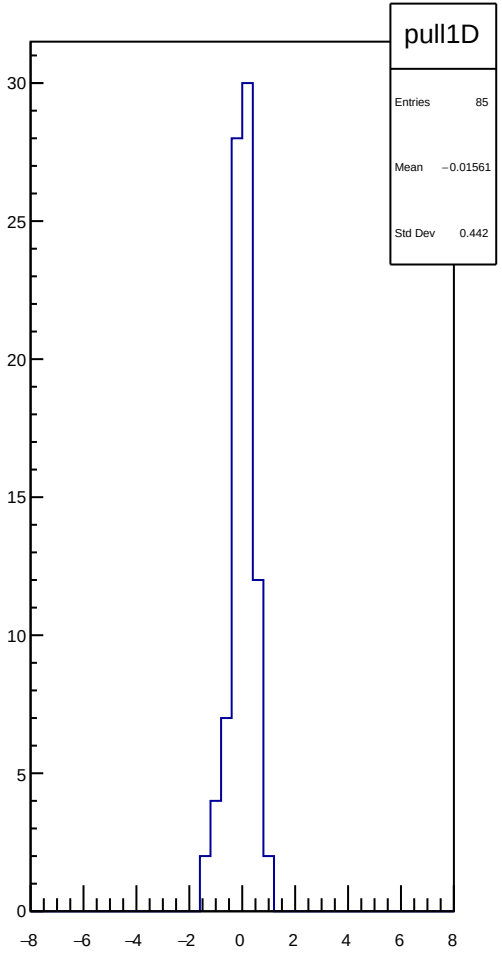

yield_bpm2i02WS_rms vs run
χ² / ndf 9650 / 84
p0 176.9 ± 0.1381
320
300
280
260
240
220
200
180
160

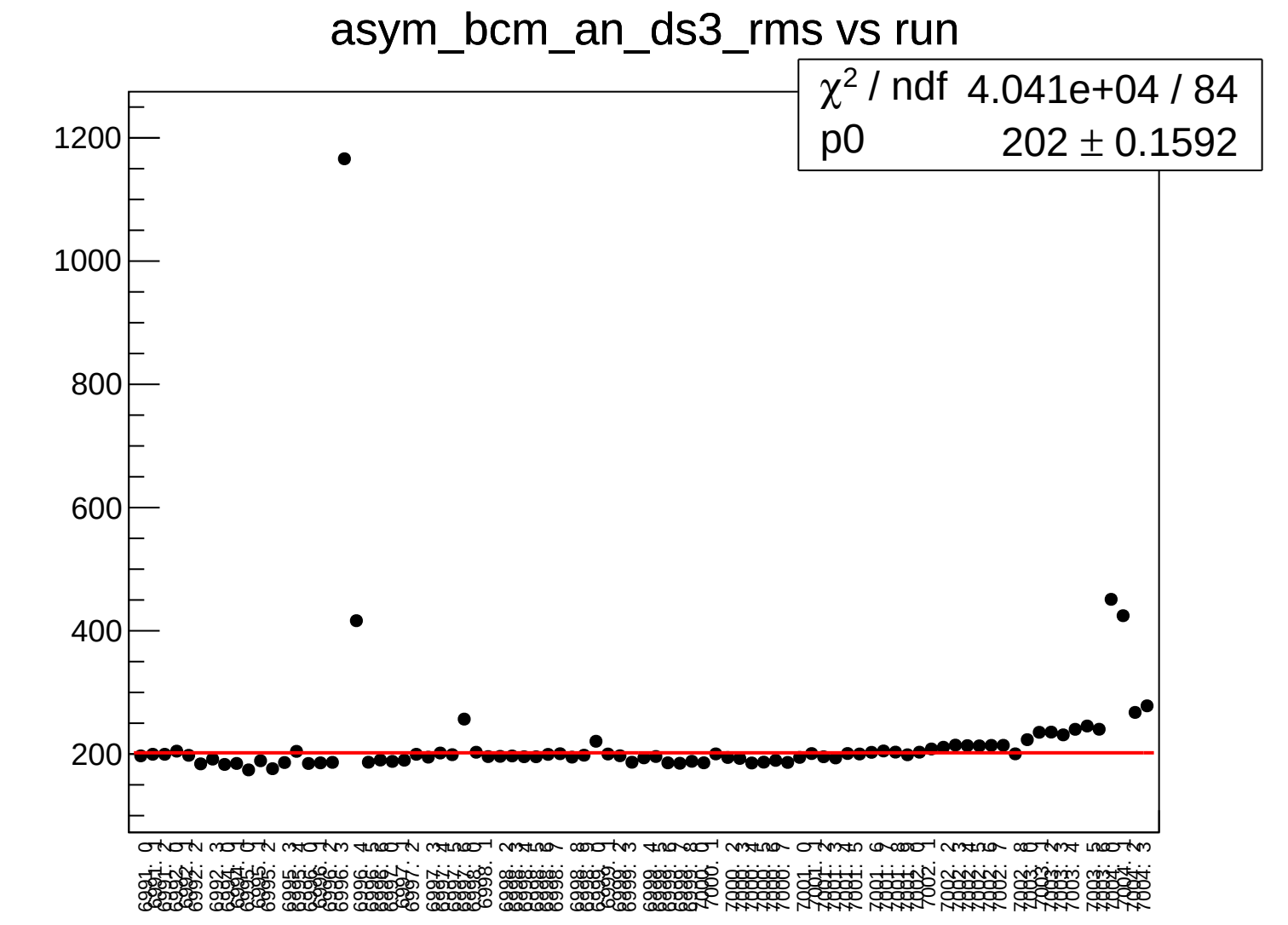

asym_bcm_an_ds_mean vs run
χ² / ndf 16.97 / 84
p0 −186.1± 224.2
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 170.8
Std Dev 116.3
1
0.5
0
−0.5
−1

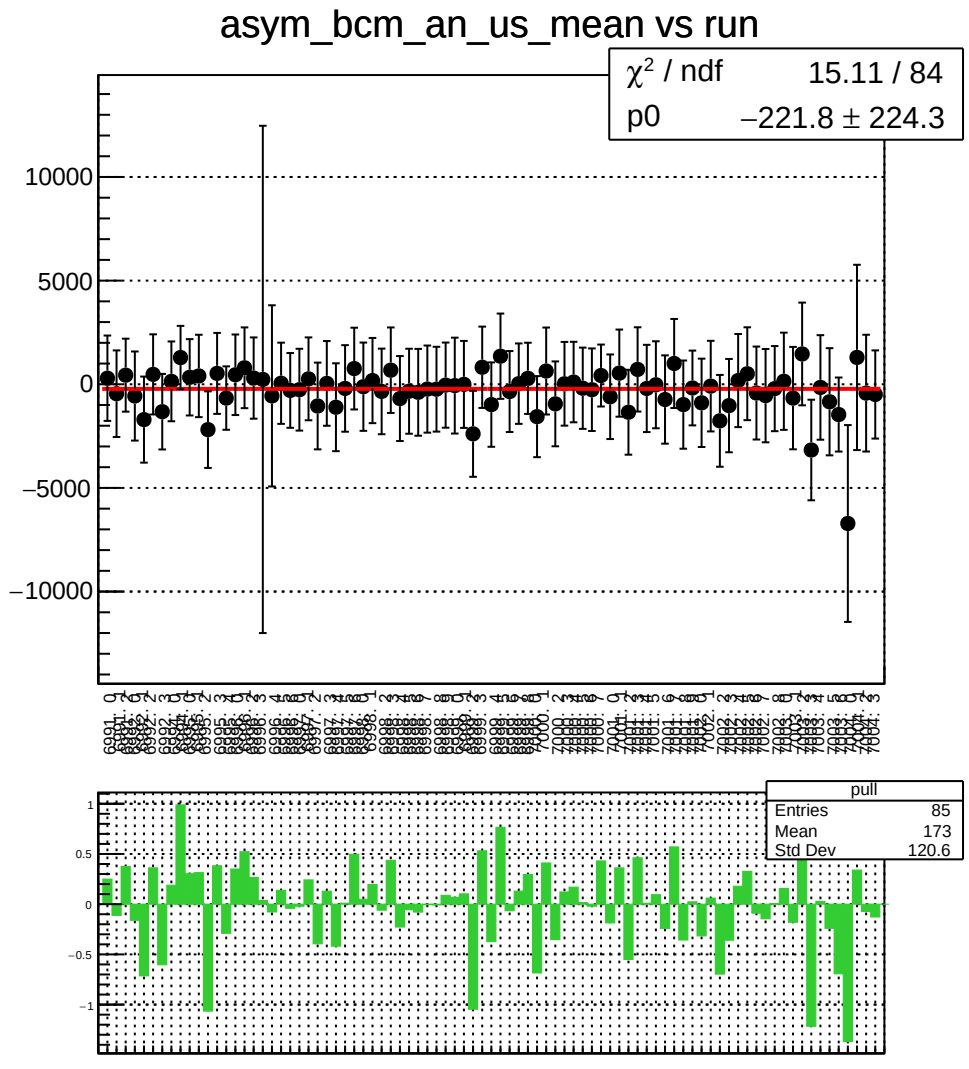

pull1D
Entries 85
Mean −0.01586
Std Dev 0.4465
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

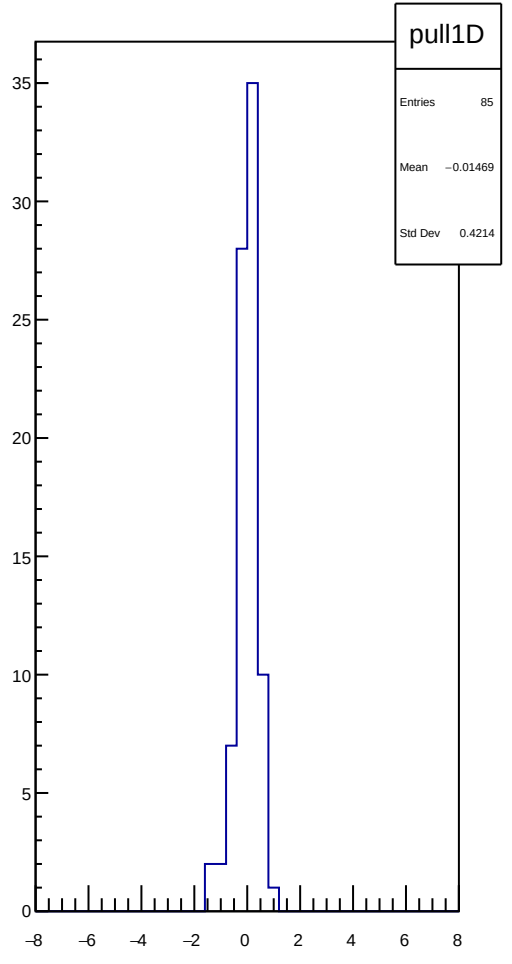

asym_bcm_an_ds_rms vs run
χ² / ndf 4.017e+04 / 84
p0 201.1 ± 0.1585
1200
1000
800
600
400
200

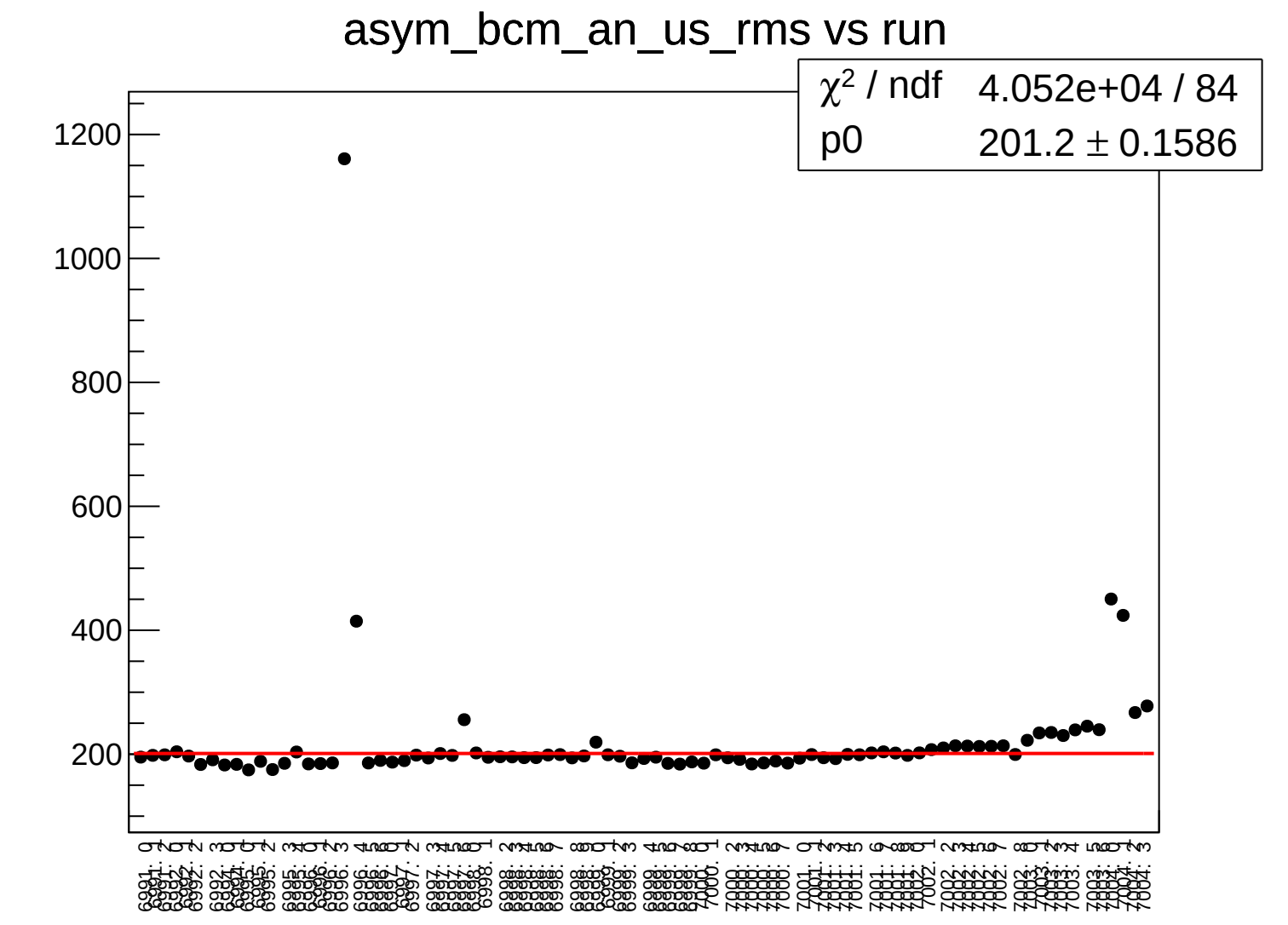

asym_bcm_an_ds3_mean vs run
χ² / ndf 16.63 / 84
p0 −195 ± 225.1
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 172.6
Std Dev 117.1
1
0.5
0
−0.5
−1

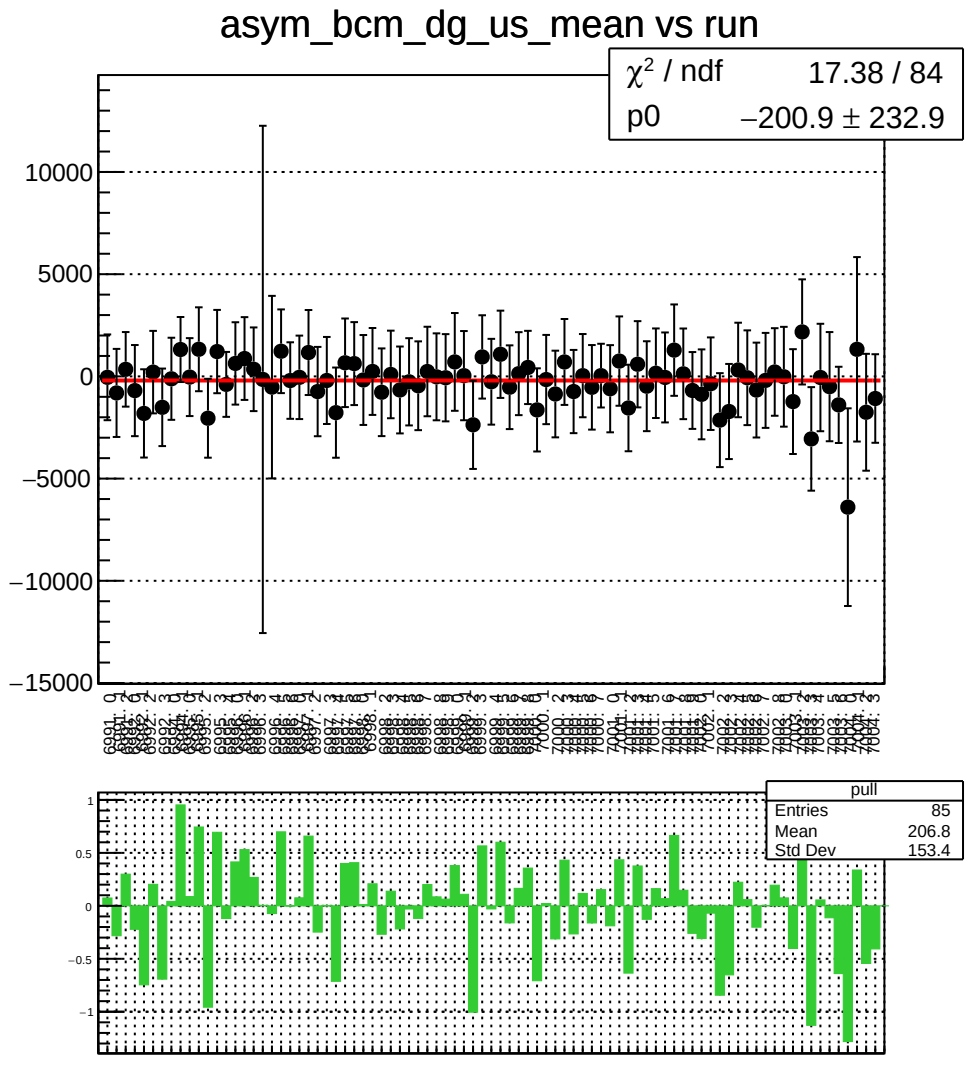

pull1D
Entries 85
Mean −0.01561
Std Dev 0.442
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

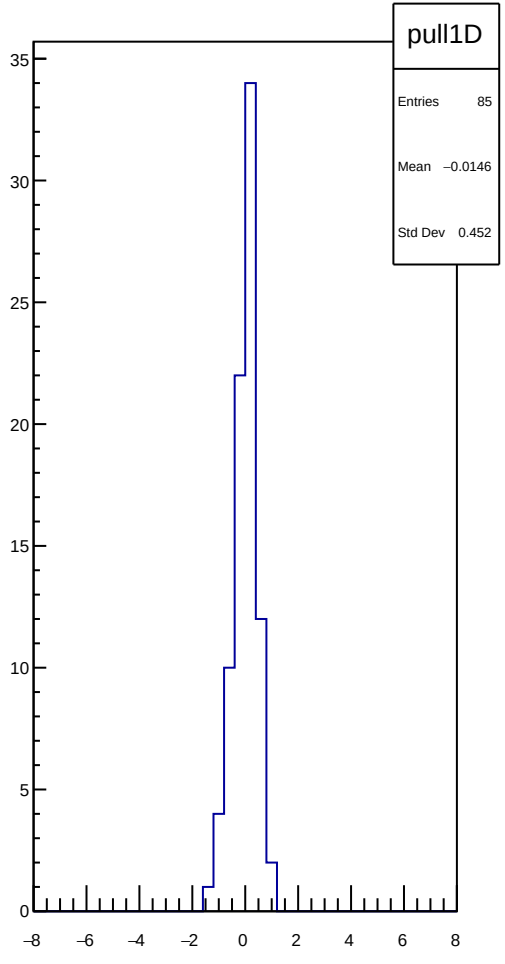

asym_bcm_an_ds3_rms vs run
χ² / ndf 4.041e+04 / 84
p0 202 ± 0.1592
1200
1000
800
600
400
200

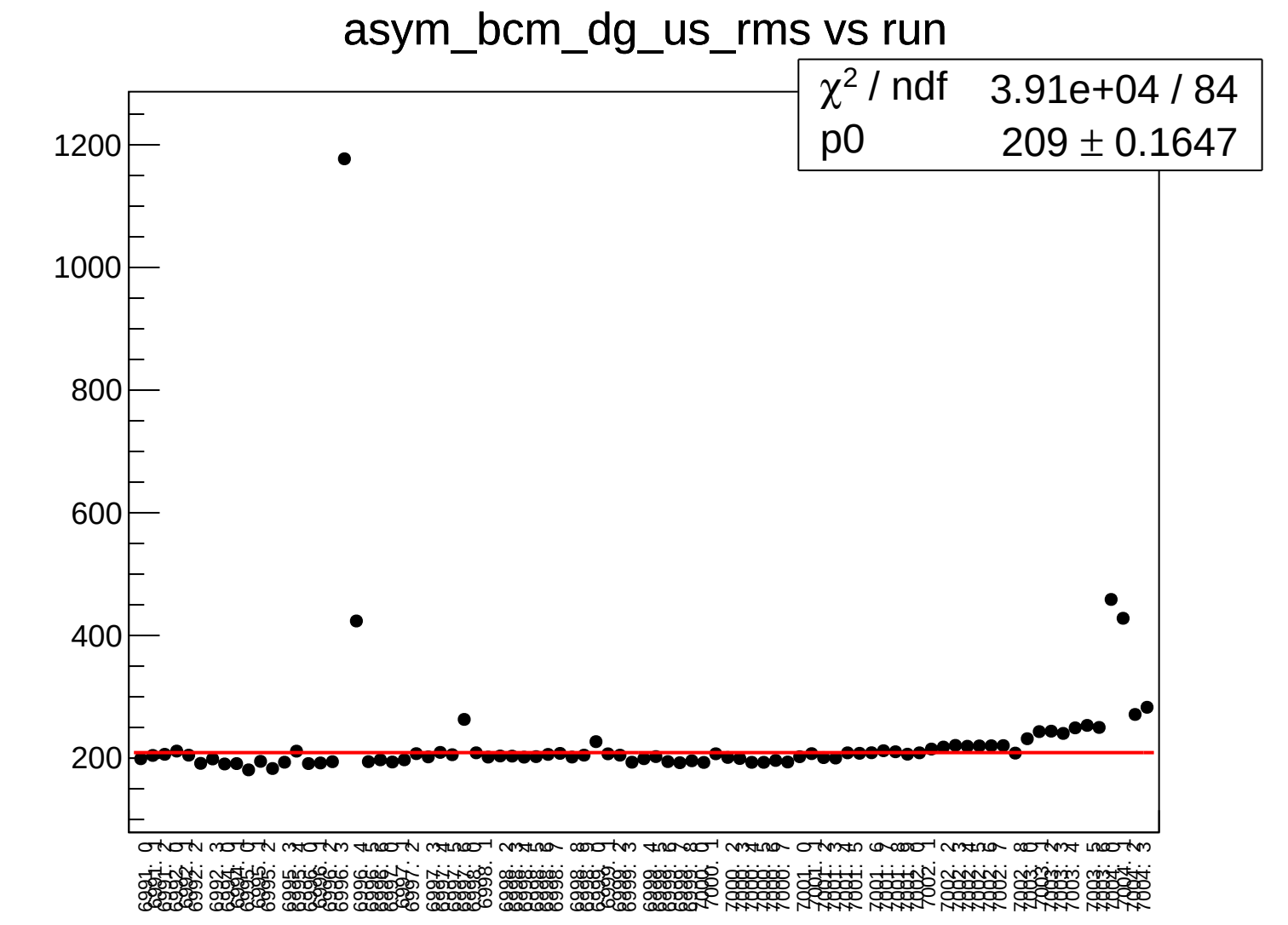

asym_bcm_an_us_mean vs run
χ² / ndf 15.11 / 84
p0 −221.8 ± 224.3
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 173
Std Dev 120.6
1
0.5
0
−0.5
−1

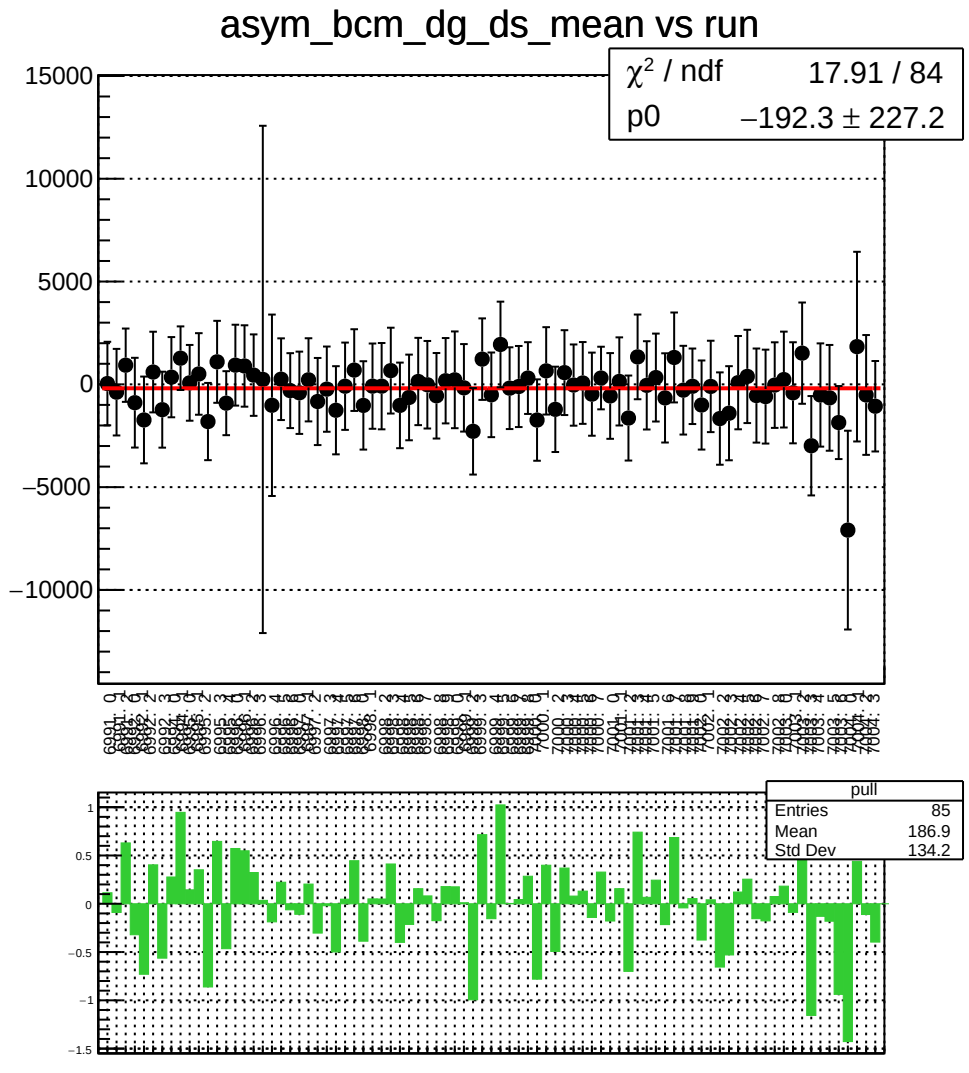

pull1D
Entries 85
Mean −0.01469
Std Dev 0.4214
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

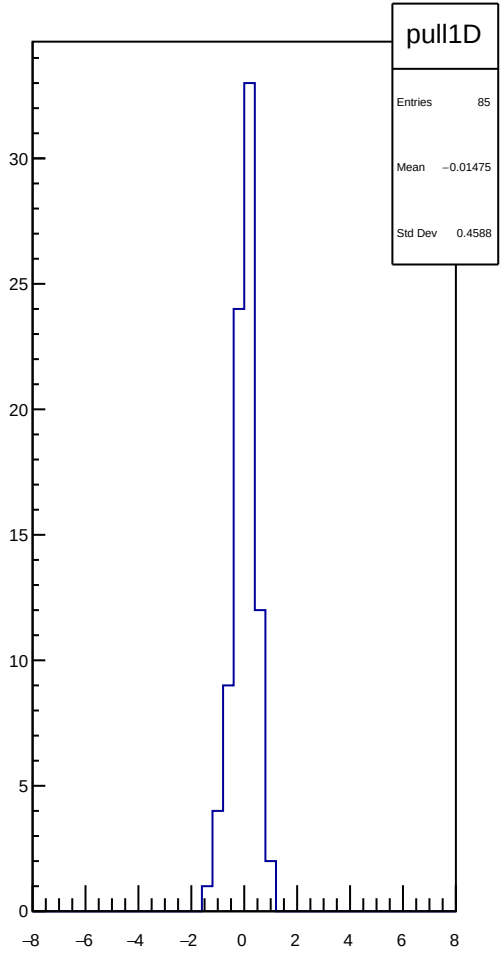

asym_bcm_an_us_rms vs run
χ² / ndf 4.052e+04 / 84
p0 201.2 ± 0.1586
1200
1000
800
600
400
200

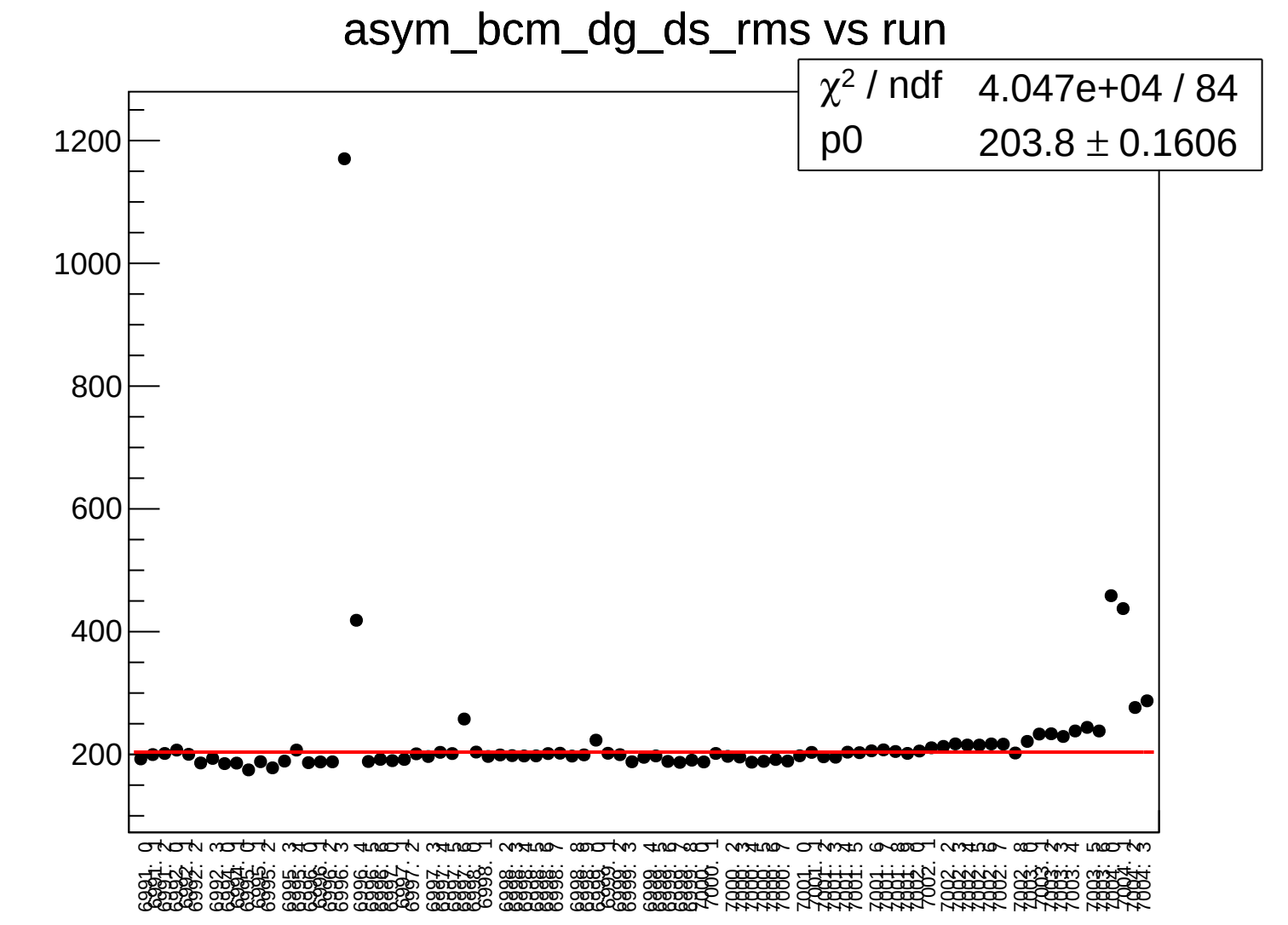

asym_bcm_dg_us_mean vs run
χ² / ndf 17.38 / 84
p0 −200.9 ± 232.9
10000
5000
0
−5000
−10000
−15000
pull
Entries 85
Mean 206.8
Std Dev 153.4
1
0.5
0
−0.5
−1

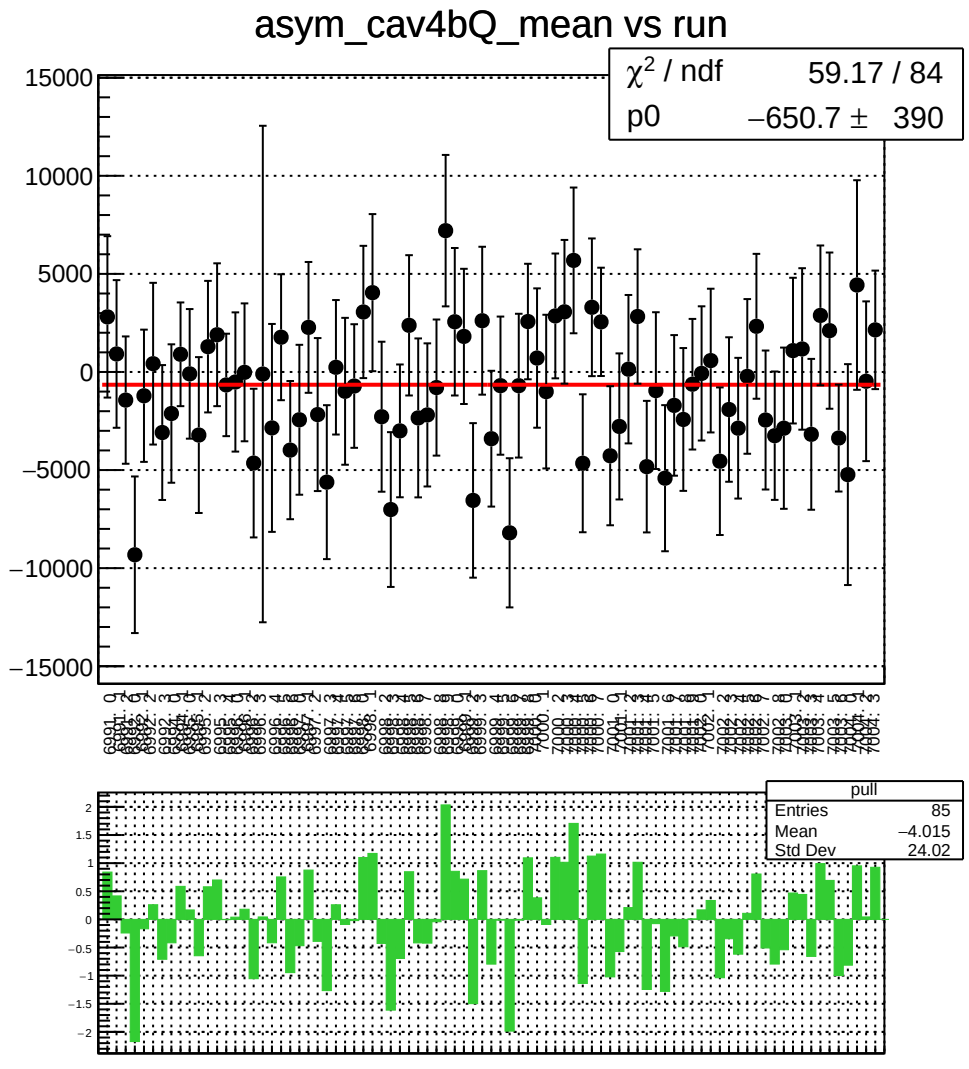

pull1D
Entries 85
Mean −0.0146
Std Dev 0.452
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

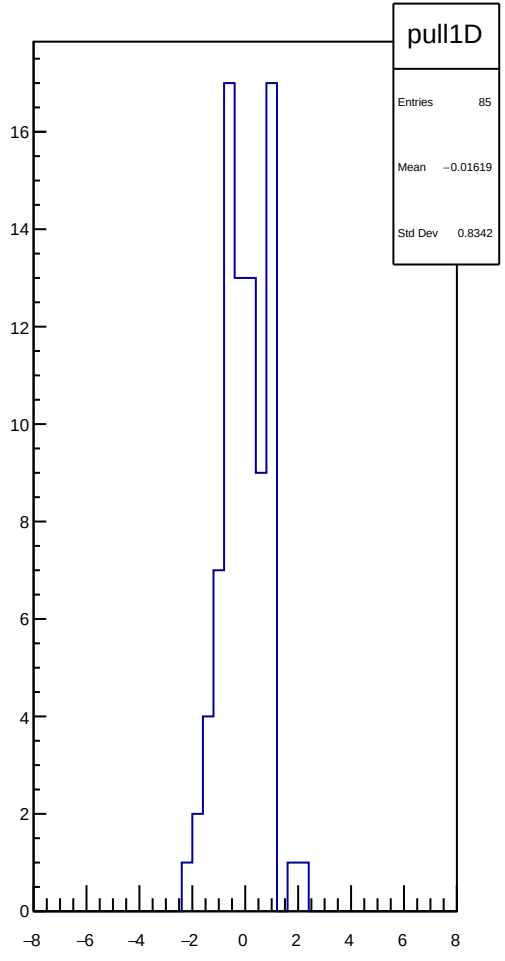

asym_bcm_dg_us_rms vs run
χ² / ndf 3.91e+04 / 84
p0 209 ± 0.1647
1200
1000
800
600
400
200

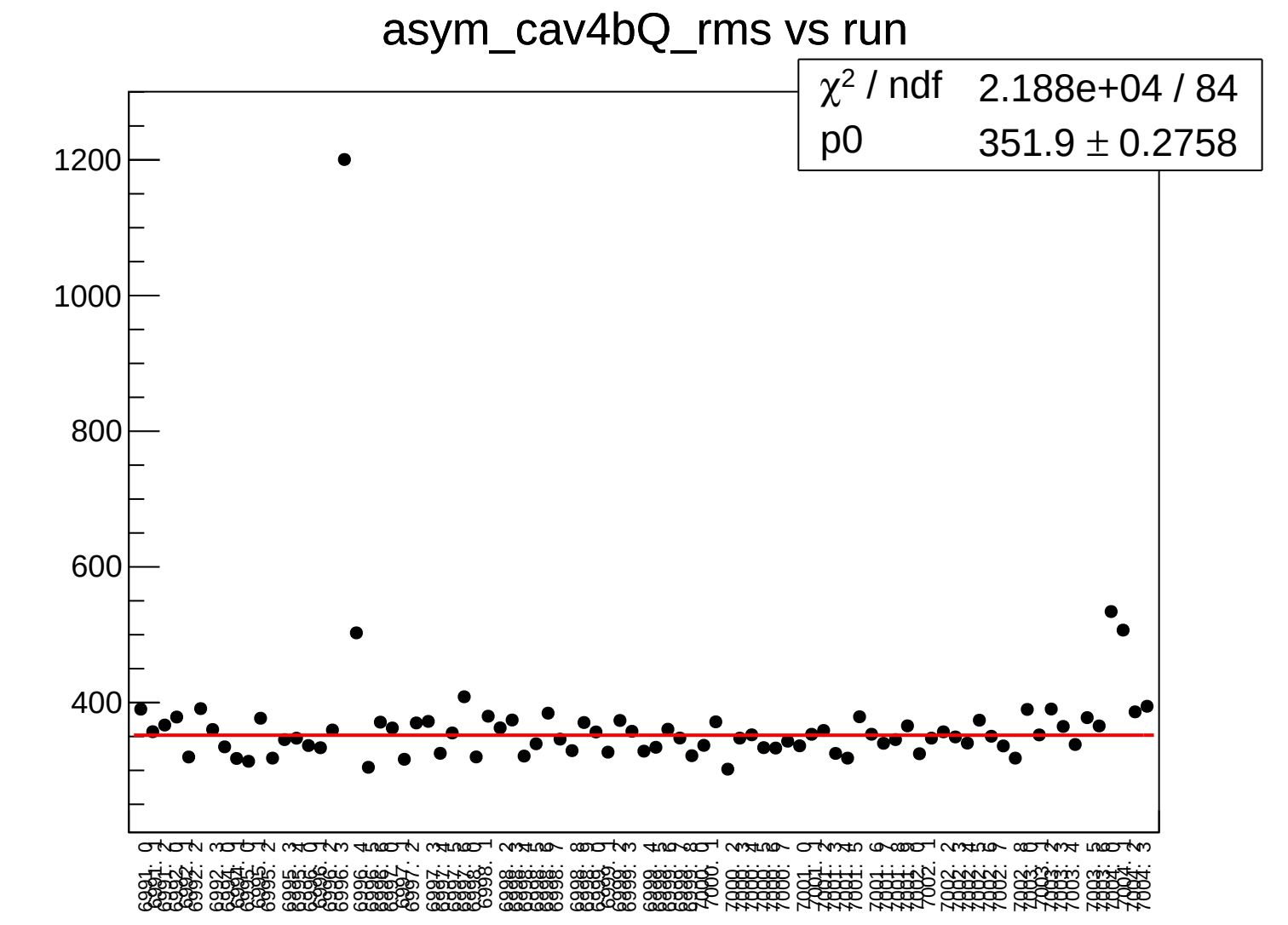

asym_bcm_dg_ds_mean vs run
χ² / ndf 17.91 / 84
p0 −192.3 ± 227.2
15000
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 186.9
Std Dev 134.2
1
0.5
0
−0.5
−1
−1.5

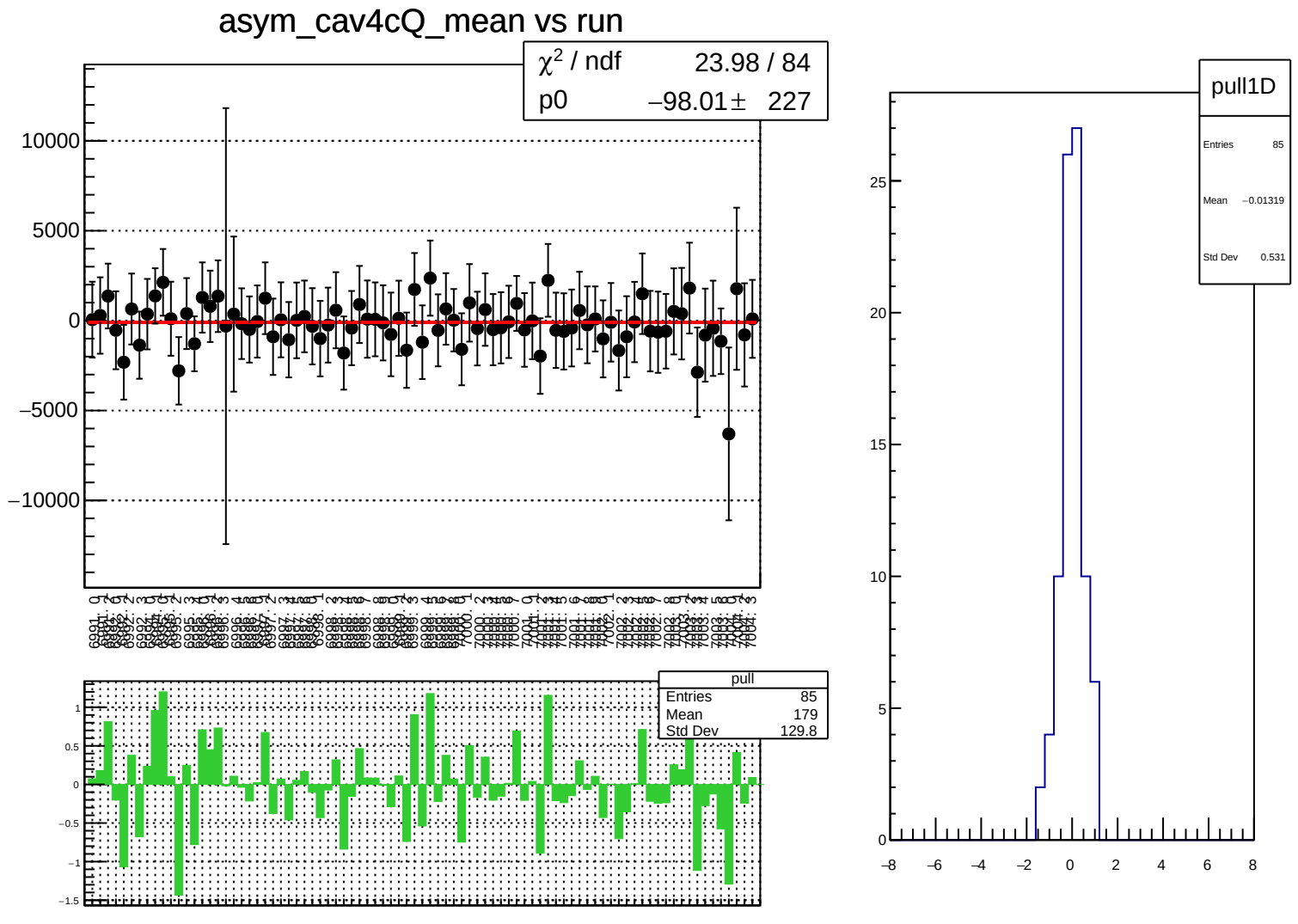

pull1D
Entries 85
Mean −0.01475
Std Dev 0.4588
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

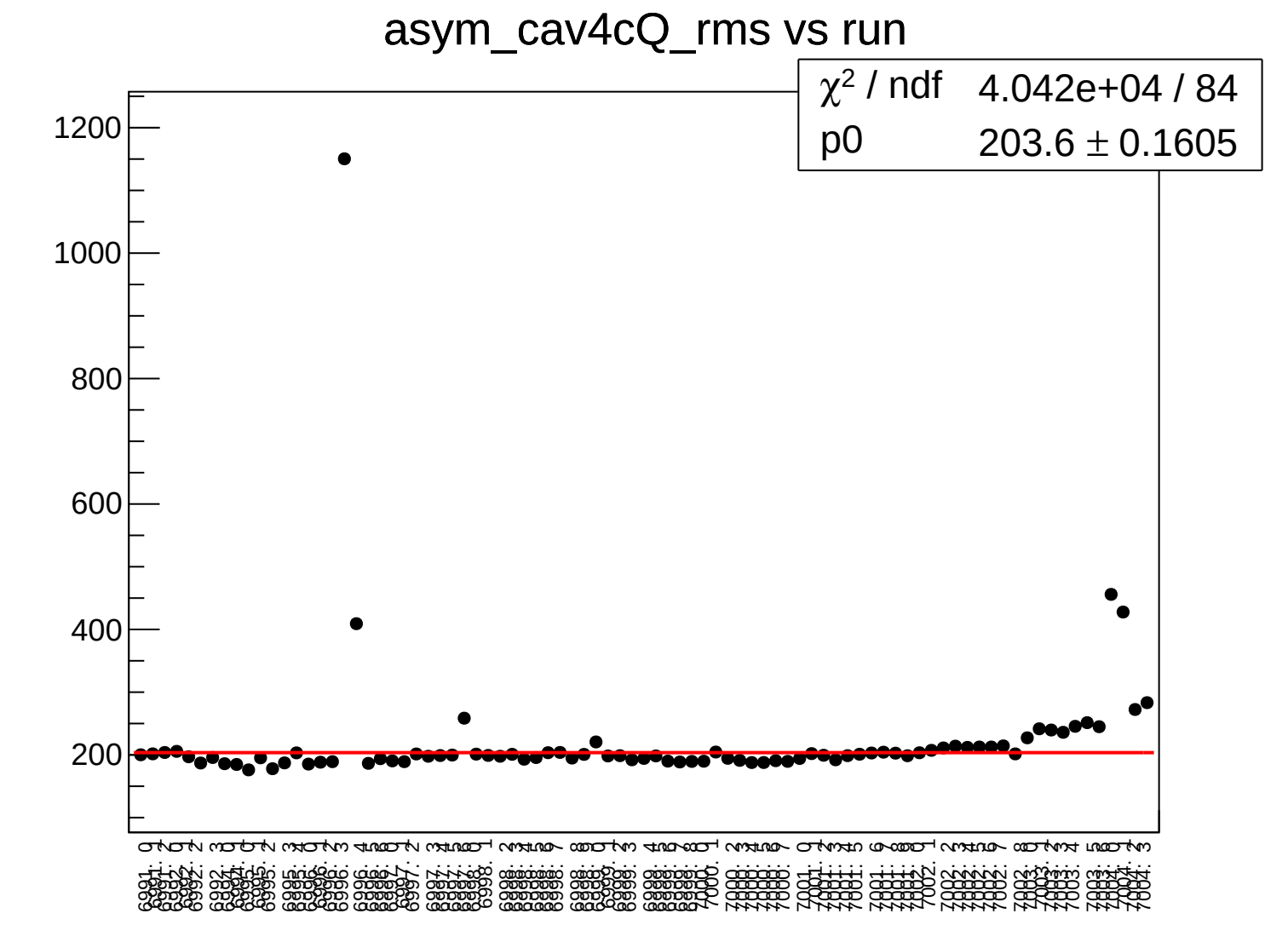

asym_bcm_dg_ds_rms vs run
χ² / ndf 4.047e+04 / 84
p0 203.8 ± 0.1606
1200
1000
800
600
400
200

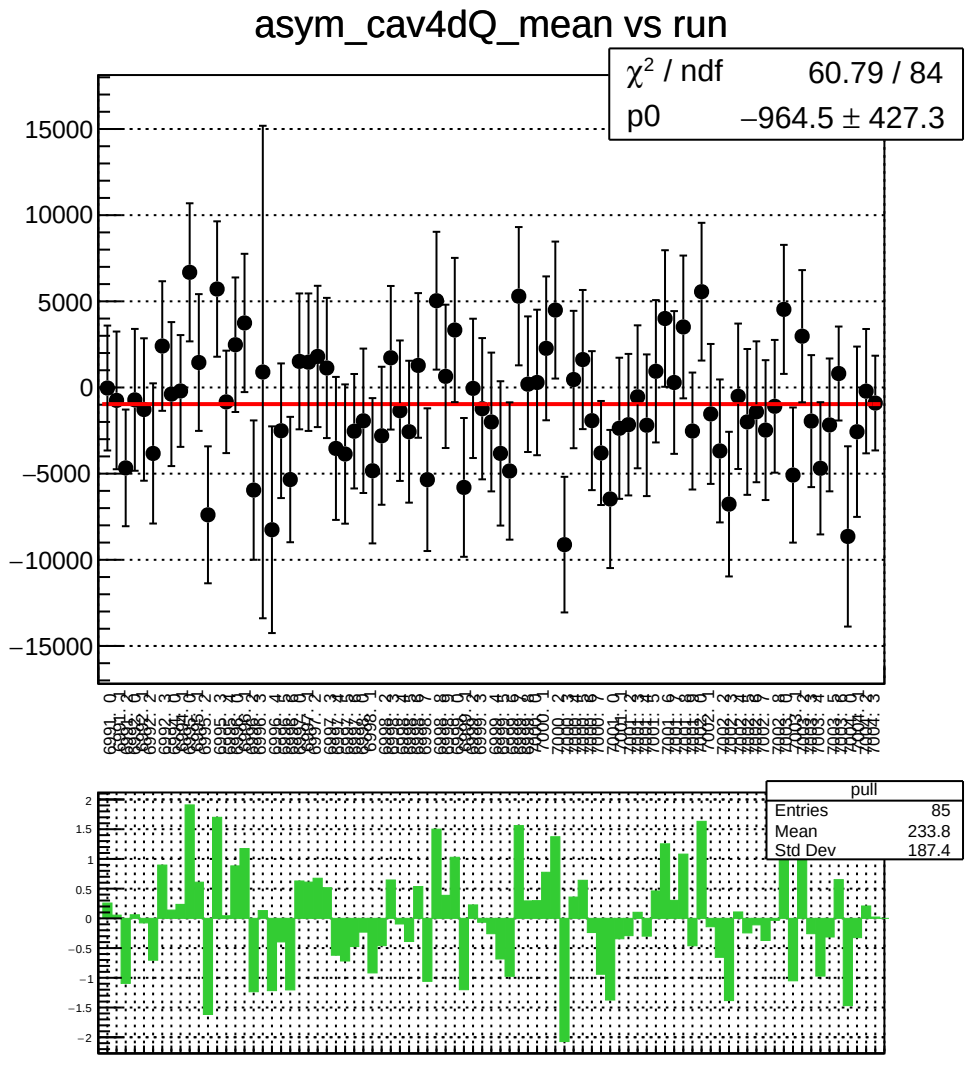

asym_cav4bQ_mean vs run
χ² / ndf 59.17 / 84
p0 −650.7 ± 390
pull
Entries 85
Mean −4.015
Std Dev 24.02

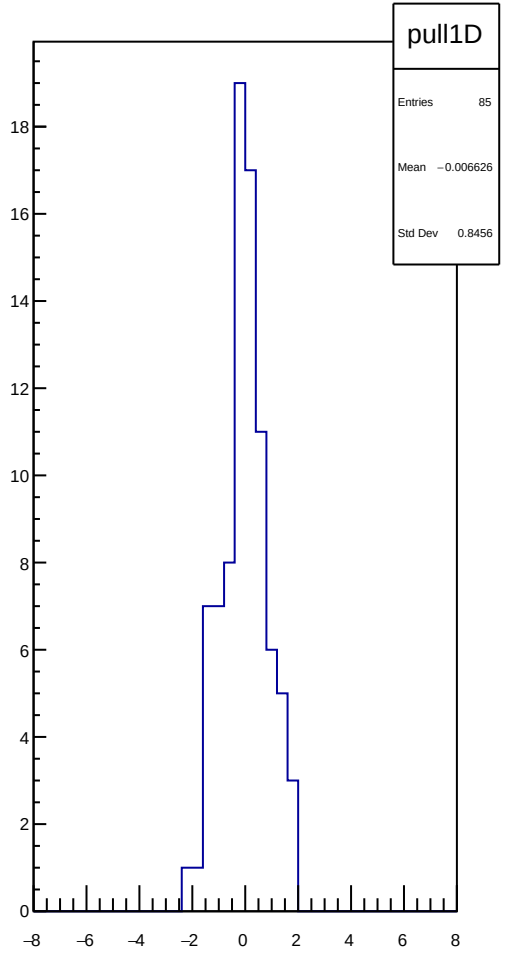

pull1D
Entries 85
Mean −0.01619
Std Dev 0.8342

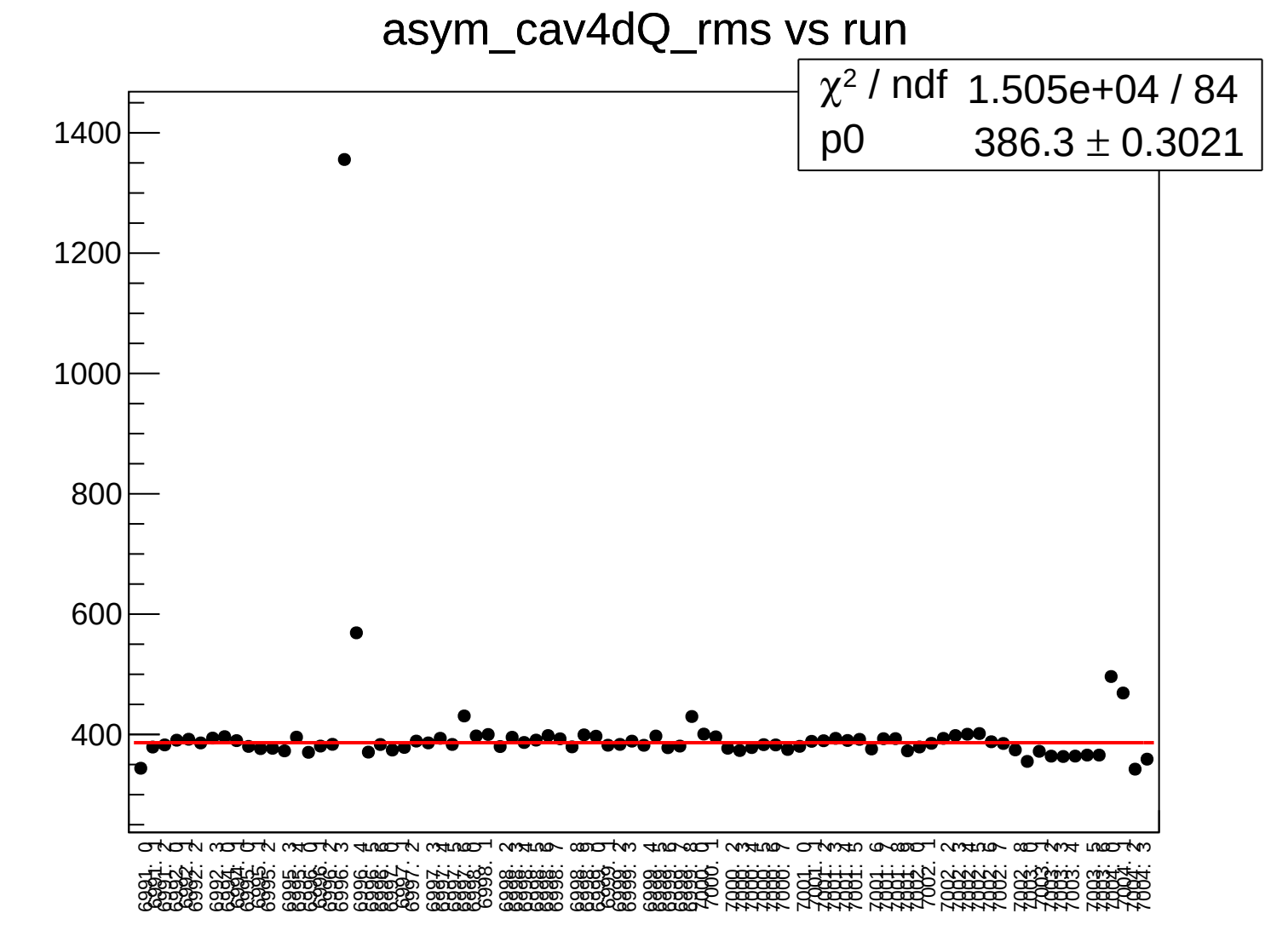

asym_cav4bQ_rms vs run
χ² / ndf 2.188e+04 / 84
p0 351.9 ± 0.2758
1200
1000
800
600
400

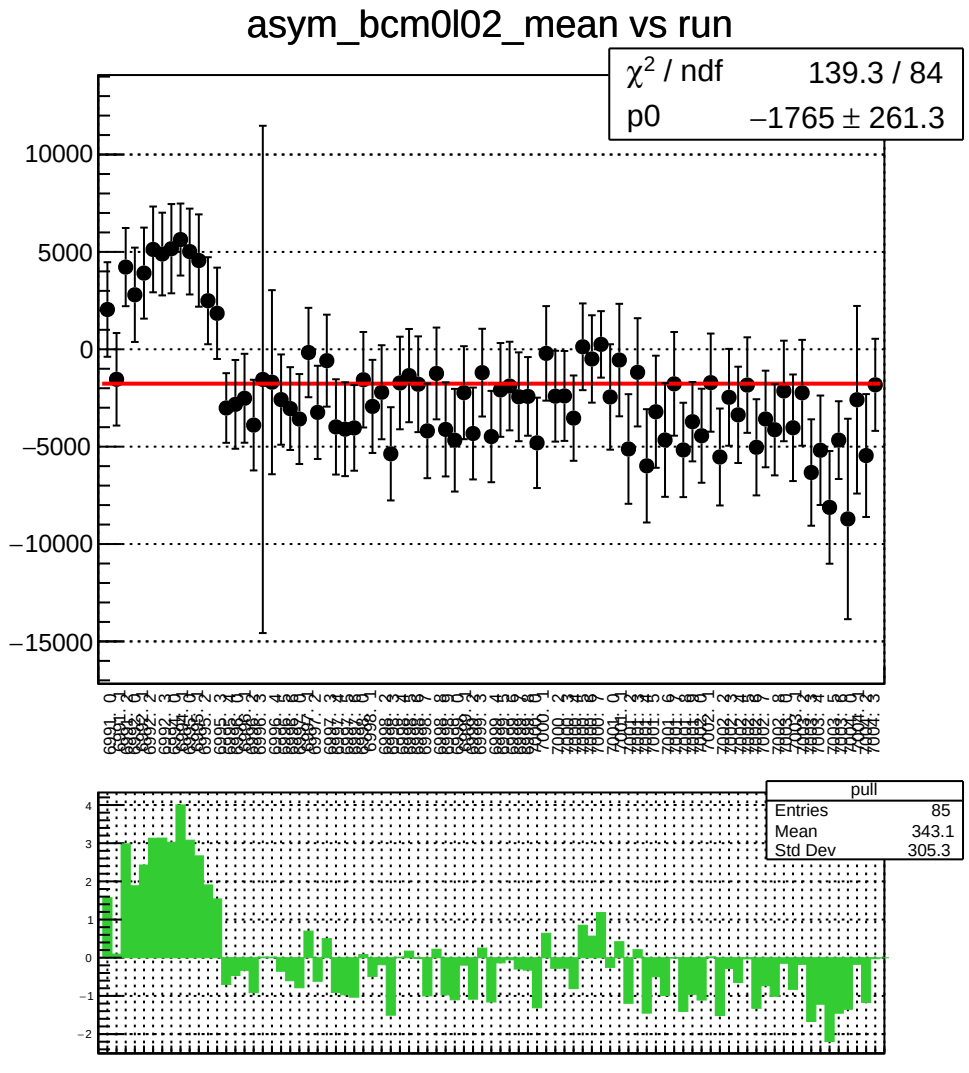

asym_cav4cQ_mean vs run
χ² / ndf 23.98 / 84
p0 −98.01 ± 227
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 179
Std Dev 129.8
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 85
Mean −0.01319
Std Dev 0.531
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

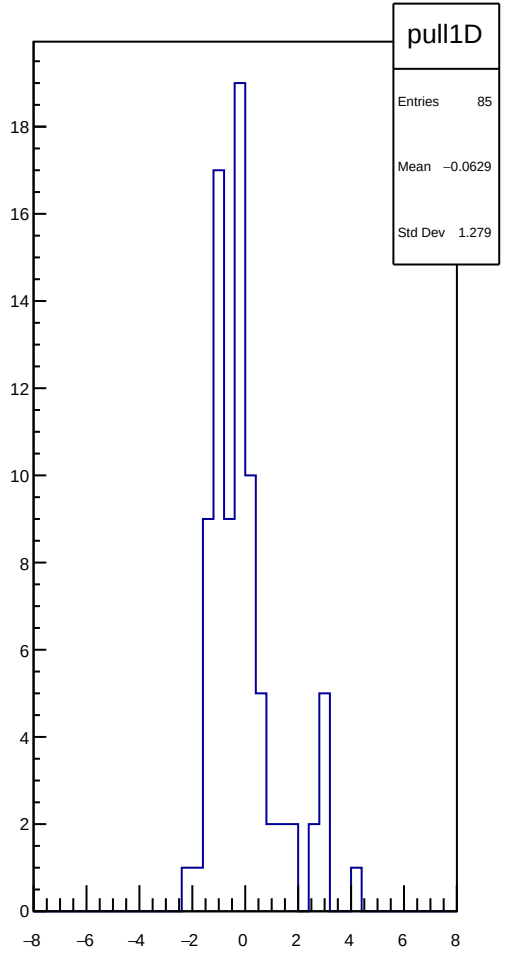

asym_cav4cQ_rms vs run
χ² / ndf 4.042e+04 / 84
p0 203.6 ± 0.1605
1200
1000
800
600
400
200

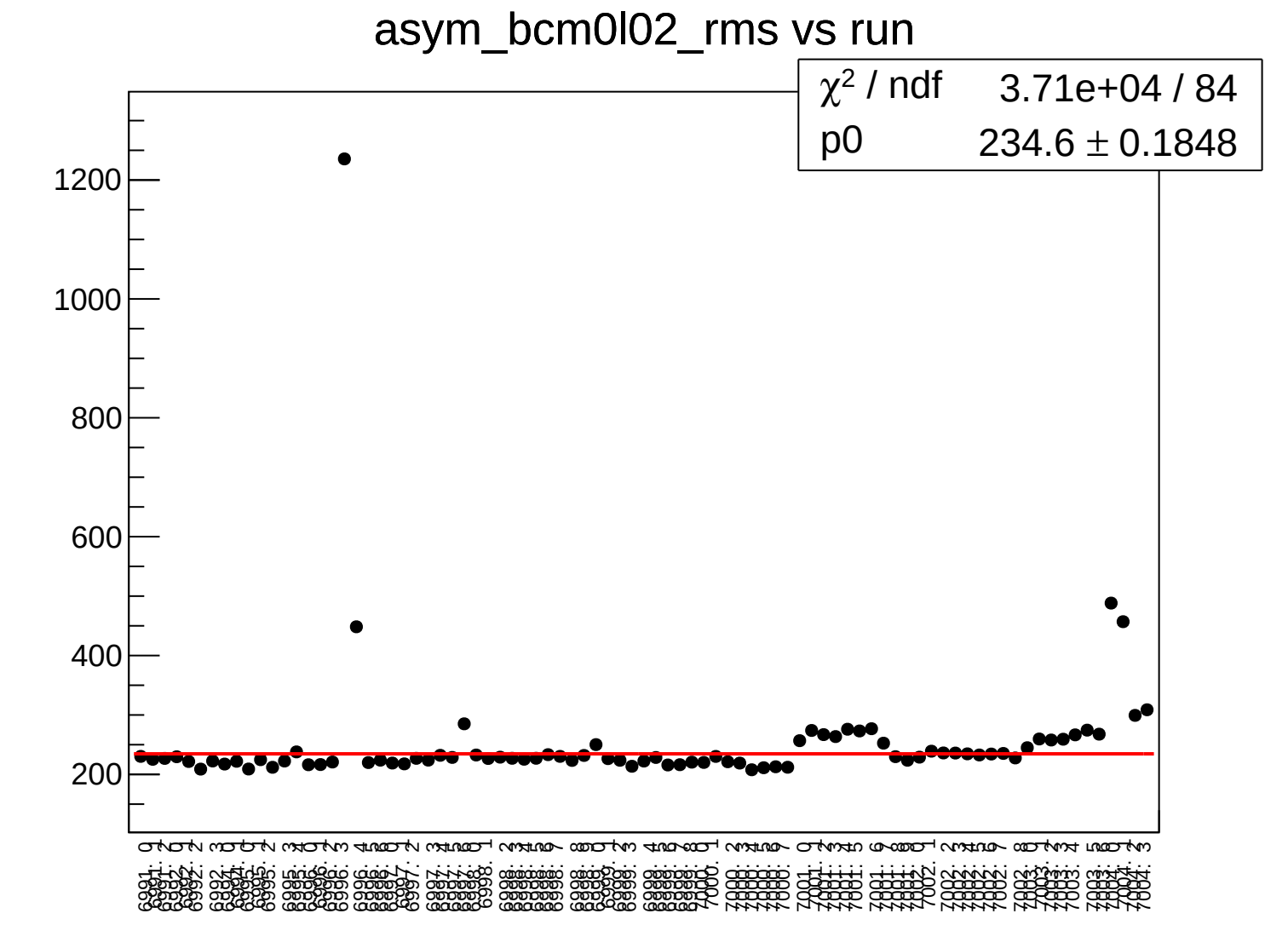

asym_cav4dQ_mean vs run
χ² / ndf 60.79 / 84
p0 −964.5 ± 427.3
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 85
Mean 233.8
Std Dev 187.4
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

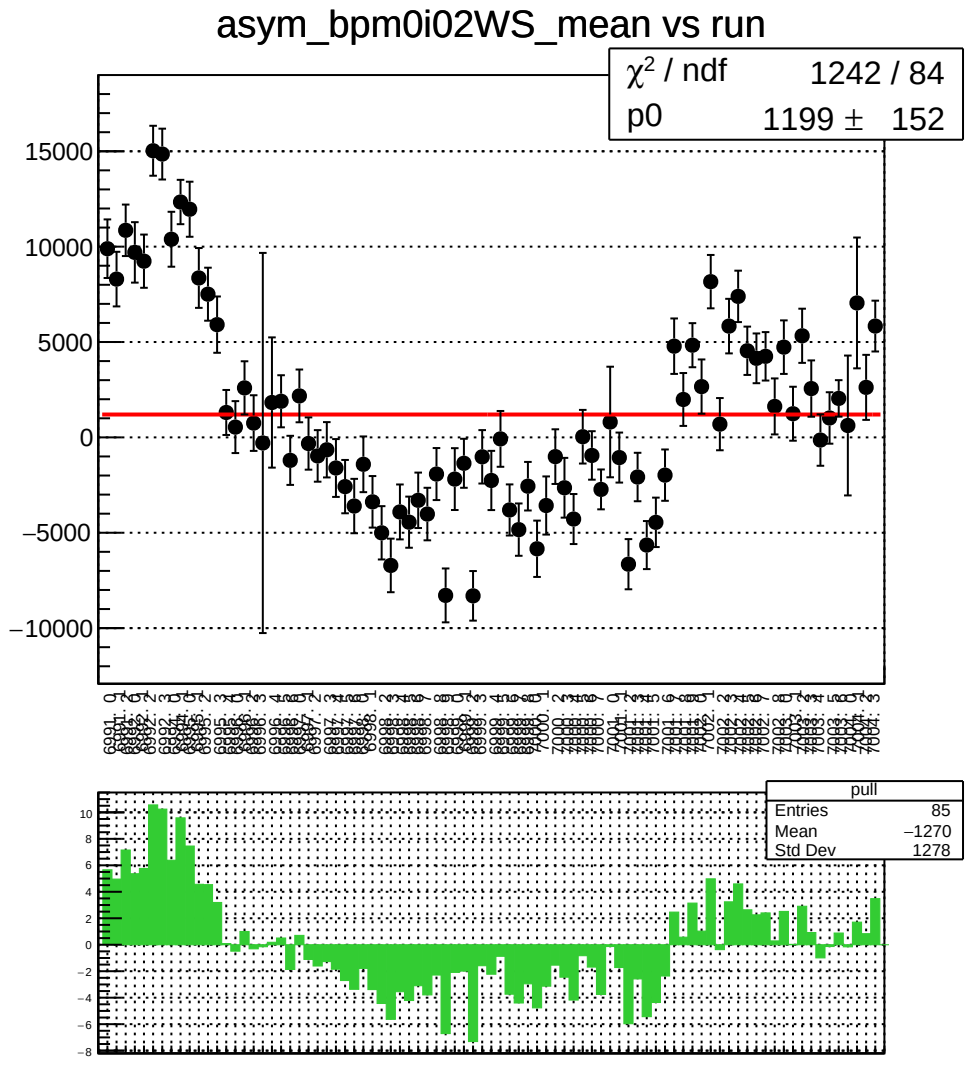

pull1D
Entries 85
Mean −0.006626
Std Dev 0.8456
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

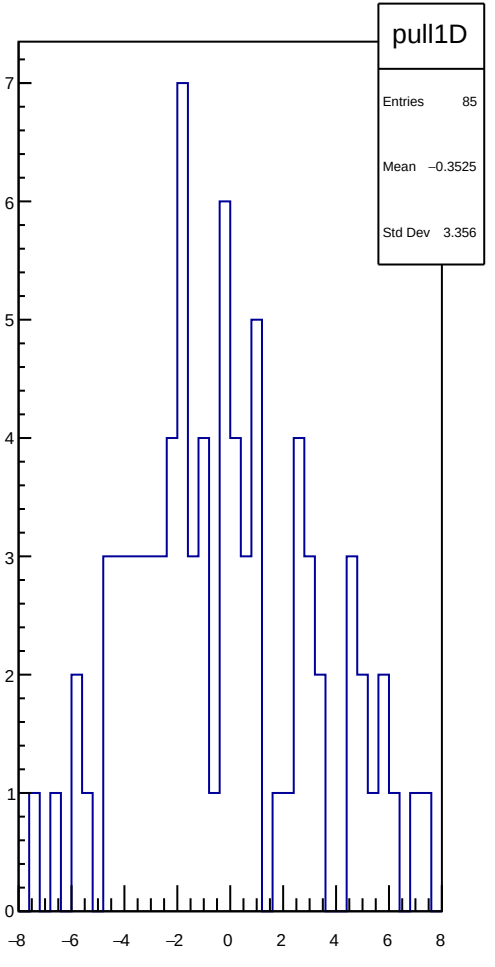

asym_cav4dQ_rms vs run
χ² / ndf 1.505e+04 / 84
p0 386.3 ± 0.3021
1400
1200
1000
800
600
400

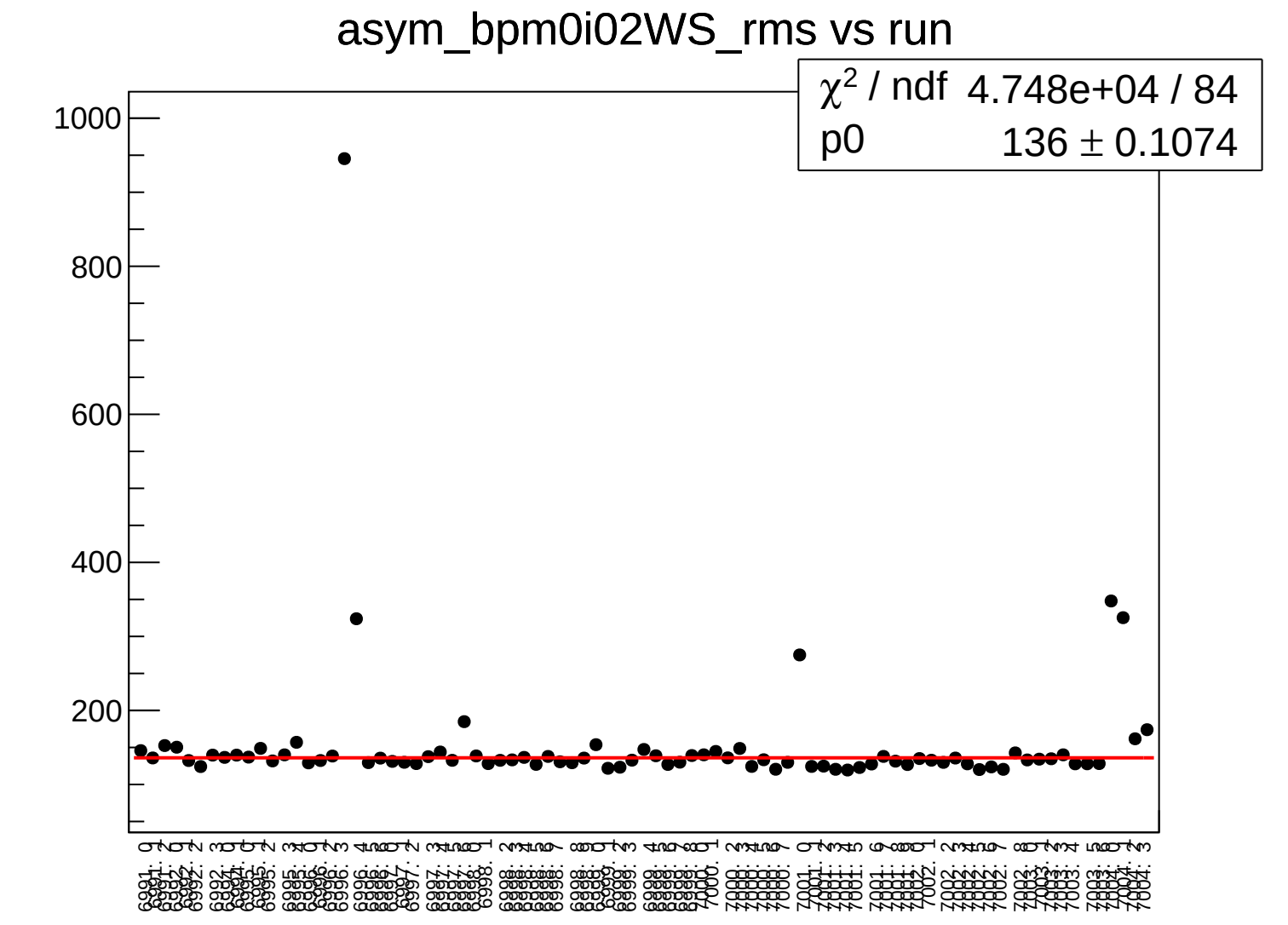

asym_bcm0l02_mean vs run
χ² / ndf 139.3 / 84
p0 −1765 ± 261.3
10000
5000
0
−5000
−10000
−15000
pull
Entries 85
Mean 343.1
Std Dev 305.3
4
3
2
1
0
−1
−2

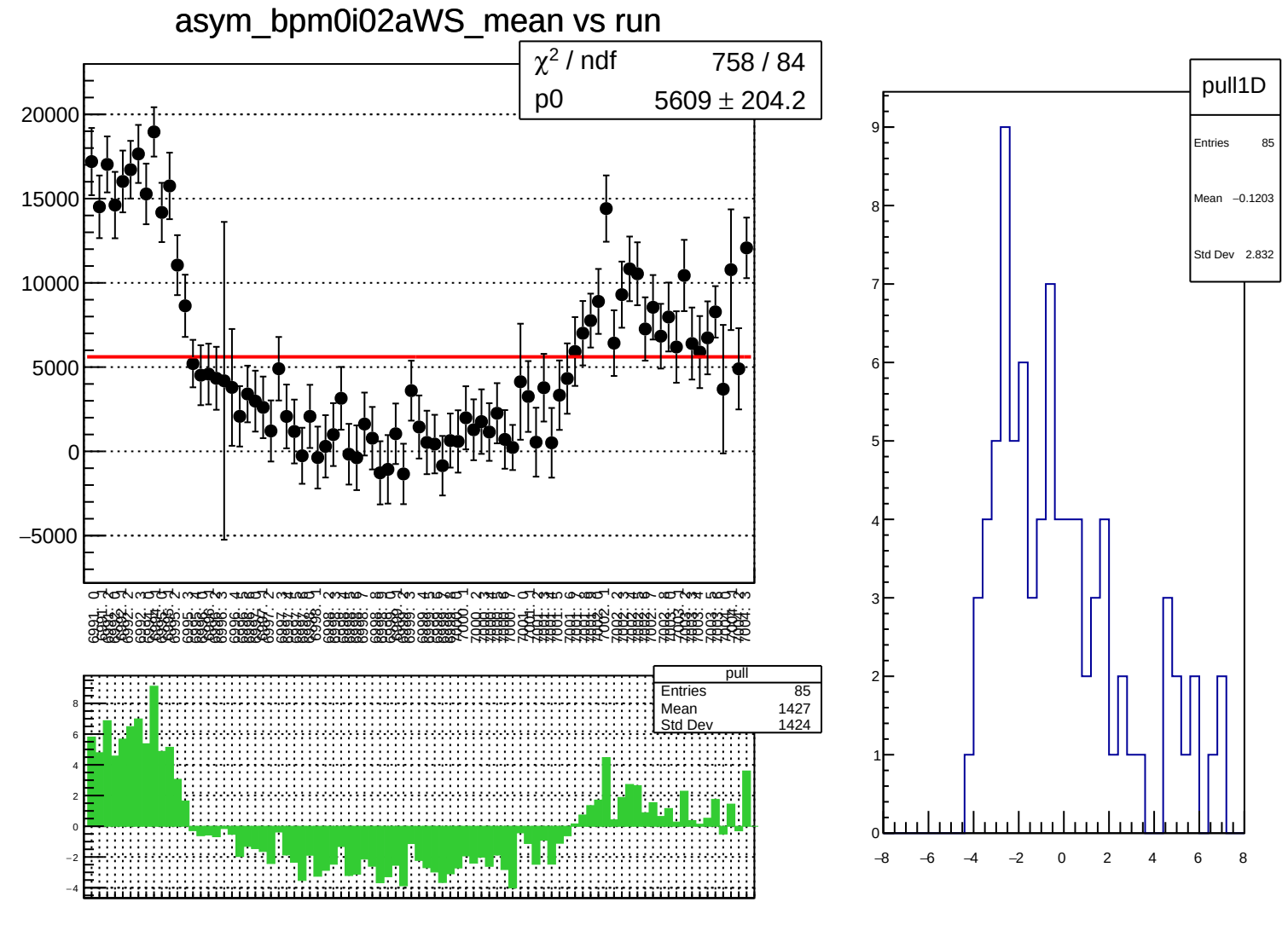

pull1D
Entries 85
Mean −0.0629
Std Dev 1.279
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

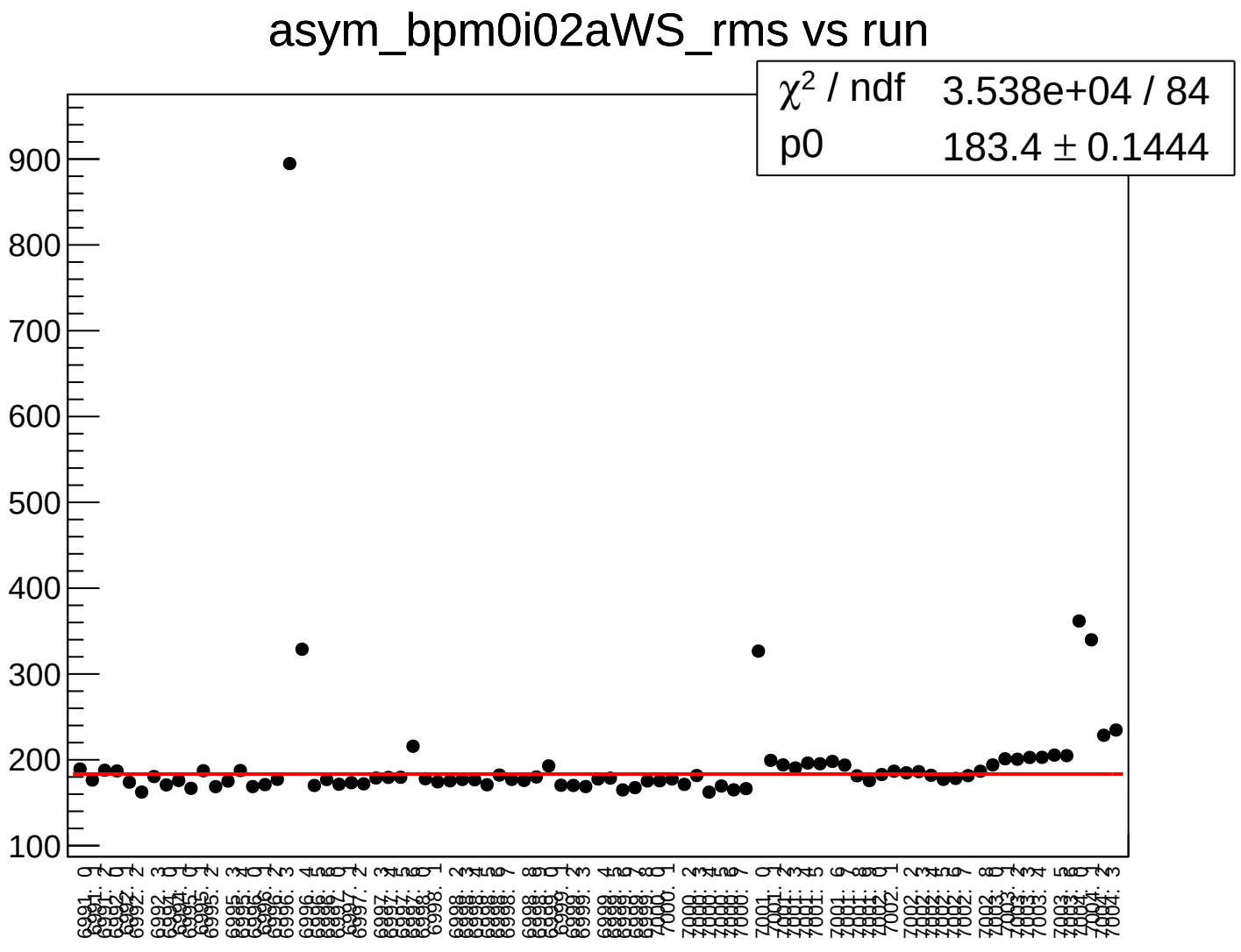

asym_bcm0l02_rms vs run
χ² / ndf 3.71e+04 / 84
p0 234.6 ± 0.1848
1200
1000
800
600
400
200

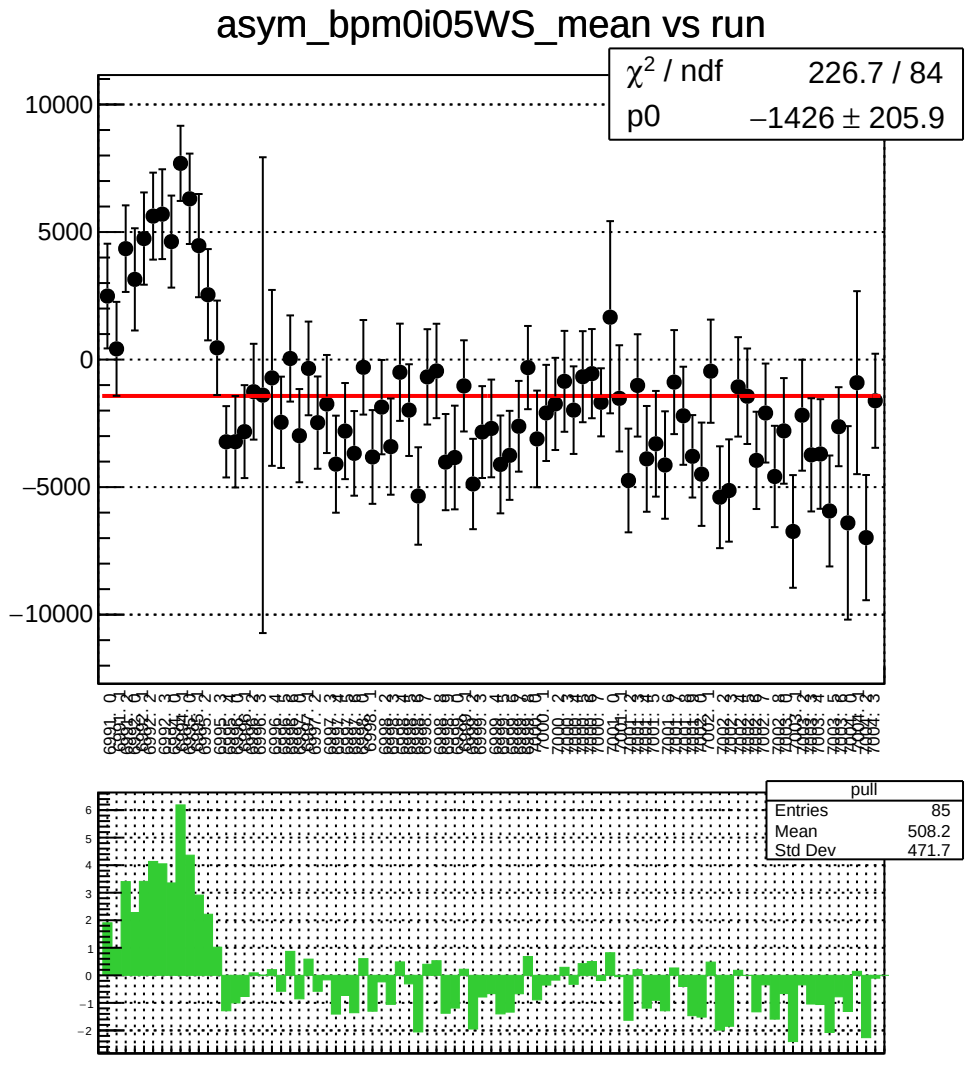

asym_bpm0i02WS_mean vs run
χ² / ndf 1242 / 84
p0 1199 ± 152
15000
10000
5000
0
−5000
−10000
pull
Entries 85
Mean −1270
Std Dev 1278
10
8
6
4
2
0
−2
−4
−6
−8

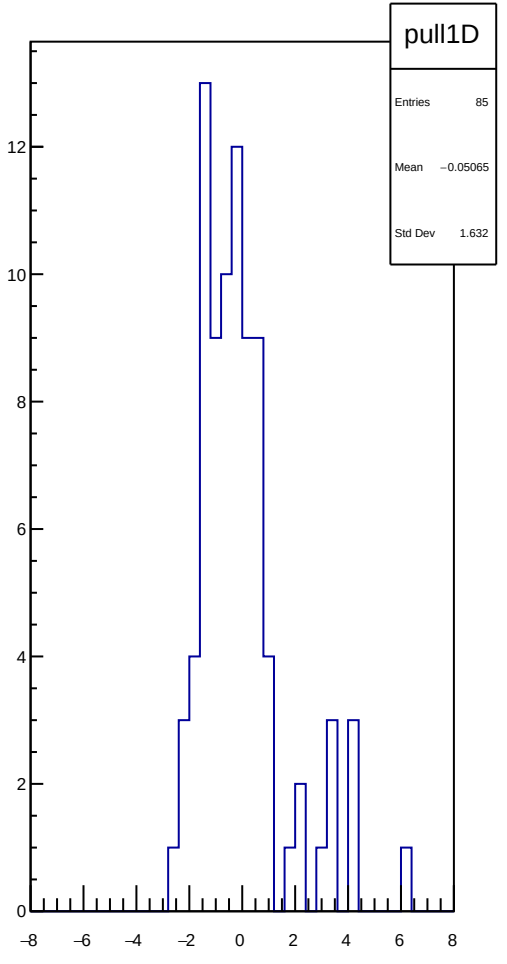

pull1D
Entries 85
Mean −0.3525
Std Dev 3.356
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

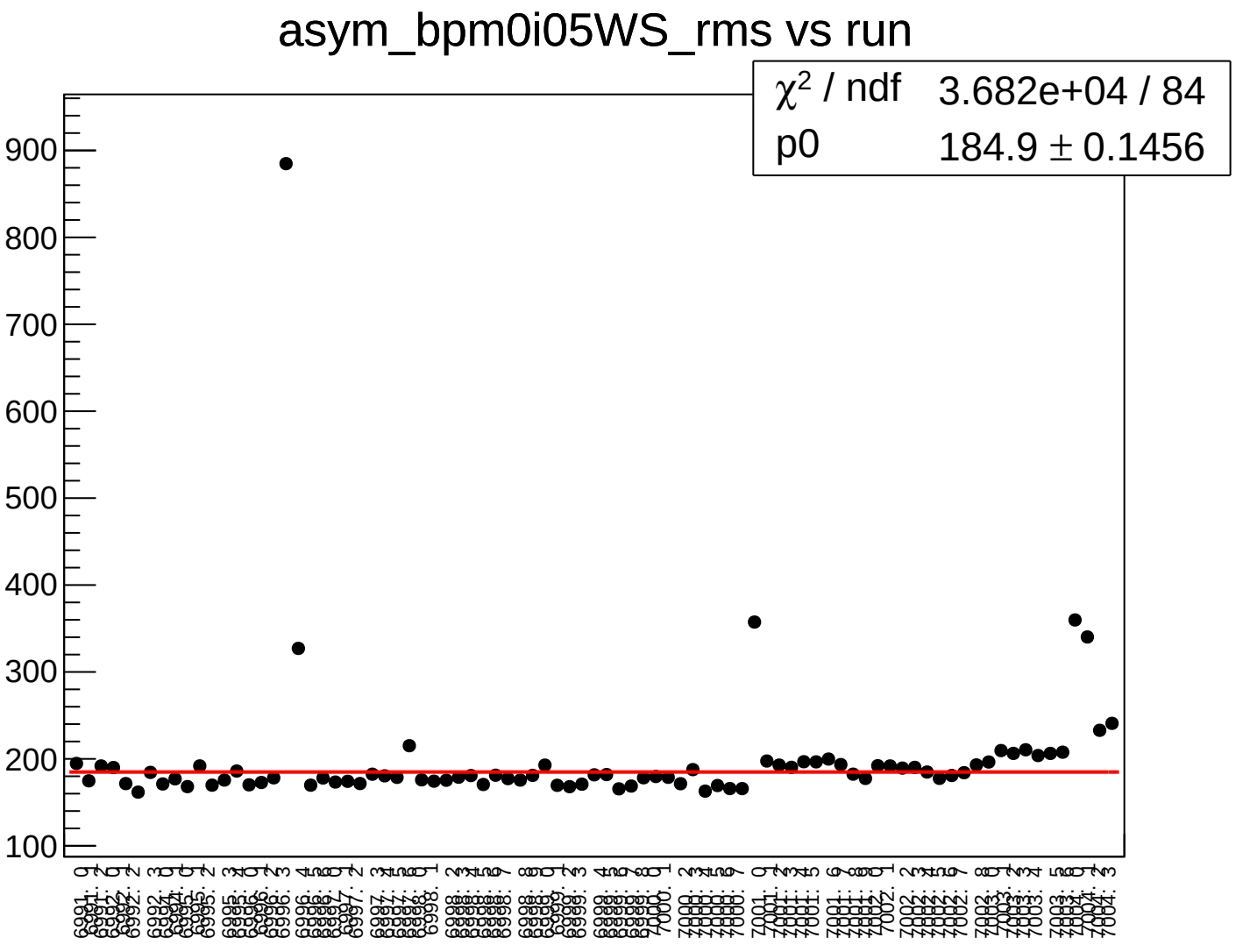

asym_bpm0i02WS_rms vs run
χ² / ndf 4.748e+04 / 84
p0 136 ± 0.1074
1000
800
600
400
200

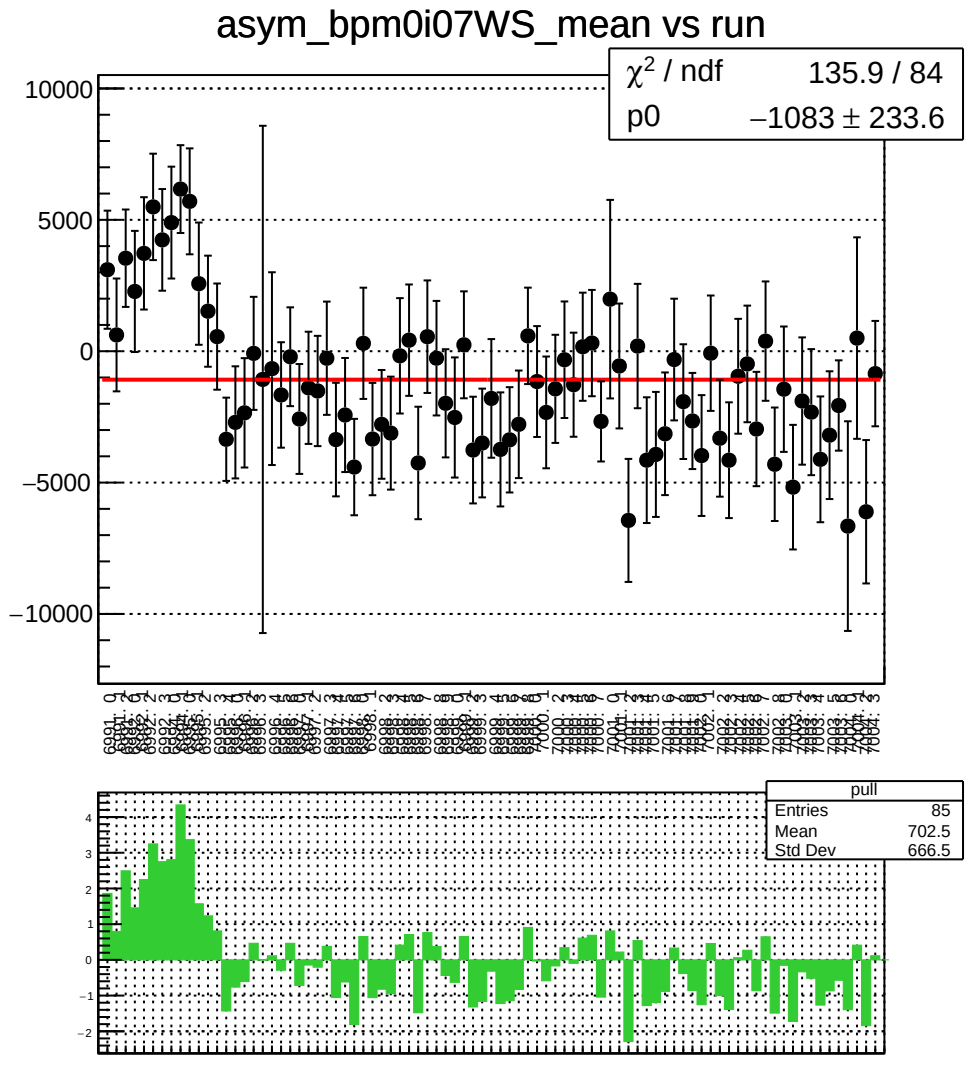

asym_bpm0i02aWS_mean vs run
χ² / ndf 758 / 84
p0 5609 ± 204.2
20000
15000
10000
5000
0
−5000
pull
Entries 85
Mean 1427
Std Dev 1424
pull1D
Entries 85
Mean −0.1203
Std Dev 2.832

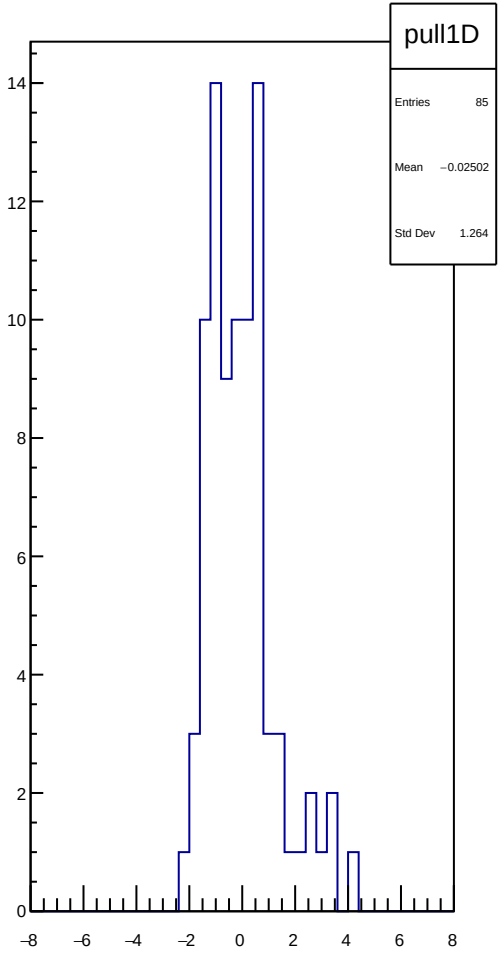

asym_bpm0i02aWS_rms vs run
χ² / ndf 3.538e+04 / 84
p0 183.4 ± 0.1444
900
800
700
600
500
400
300
200
100

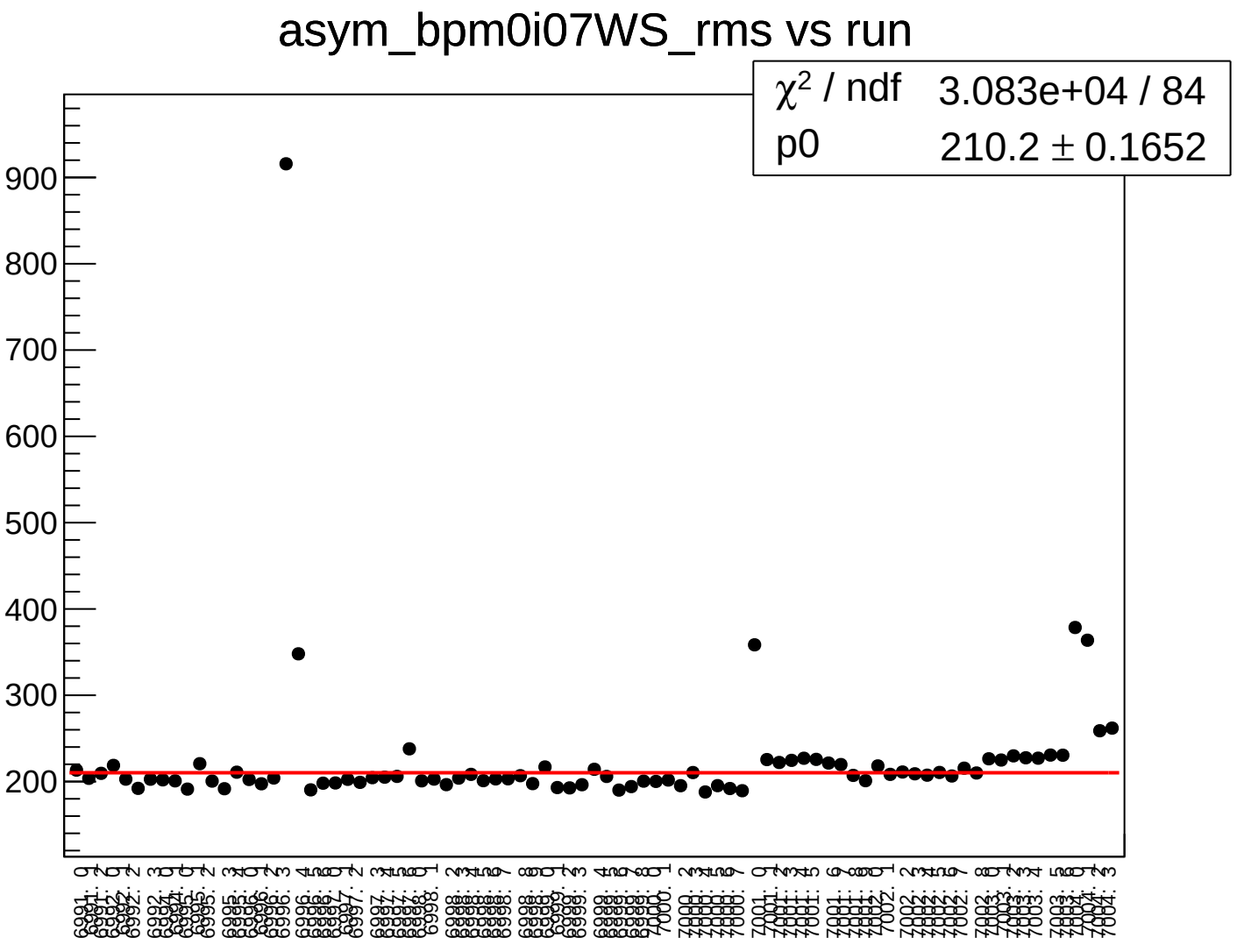

asym_bpm0i05WS_mean vs run
χ² / ndf 226.7 / 84
p0 −1426 ± 205.9
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 508.2
Std Dev 471.7
6
5
4
3
2
1
0
−1
−2

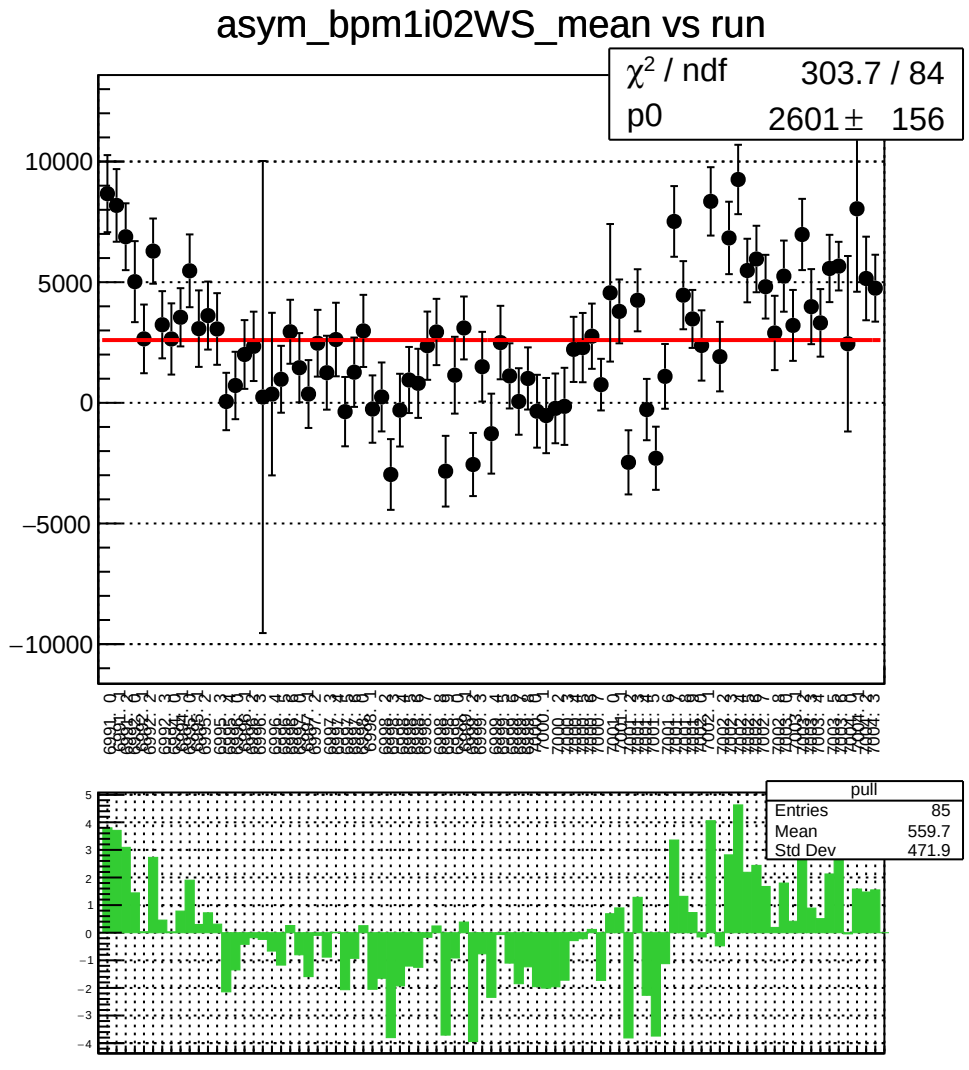

pull1D
Entries 85
Mean −0.05065
Std Dev 1.632
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

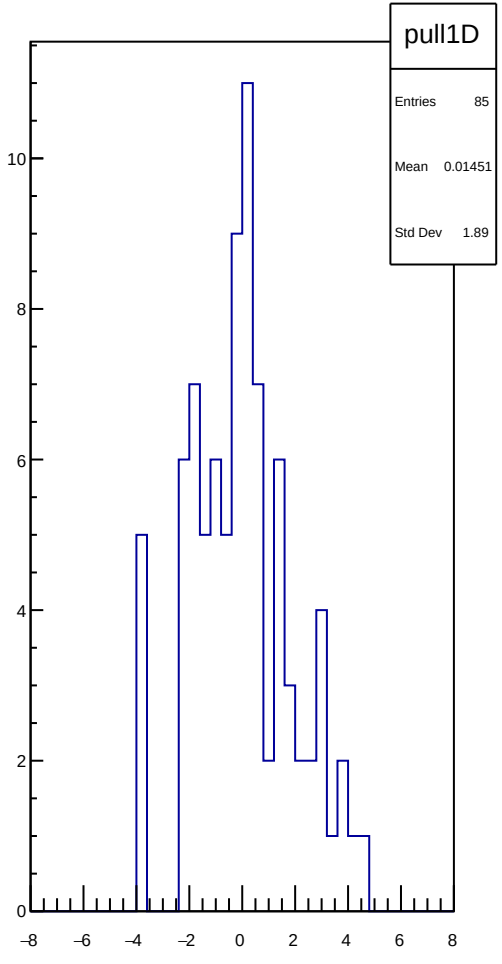

asym_bpm0i05WS_rms vs run
χ² / ndf 3.682e+04 / 84
p0 184.9 ± 0.1456
900
800
700
600
500
400
300
200
100

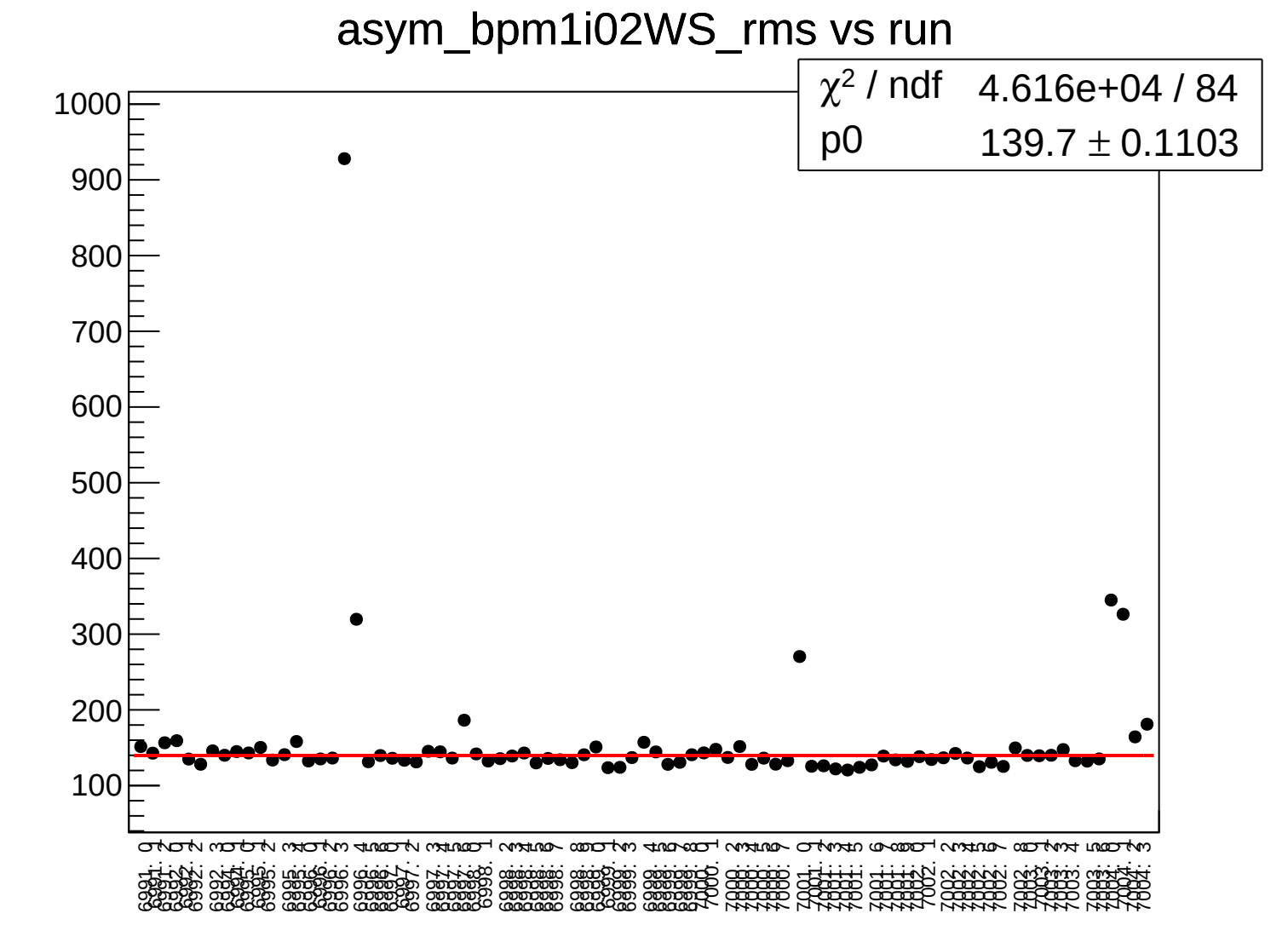

asym_bpm0i07WS_mean vs run
χ² / ndf 135.9 / 84
p0 −1083 ± 233.6
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 702.5
Std Dev 666.5
4
3
2
1
0
−1
−2

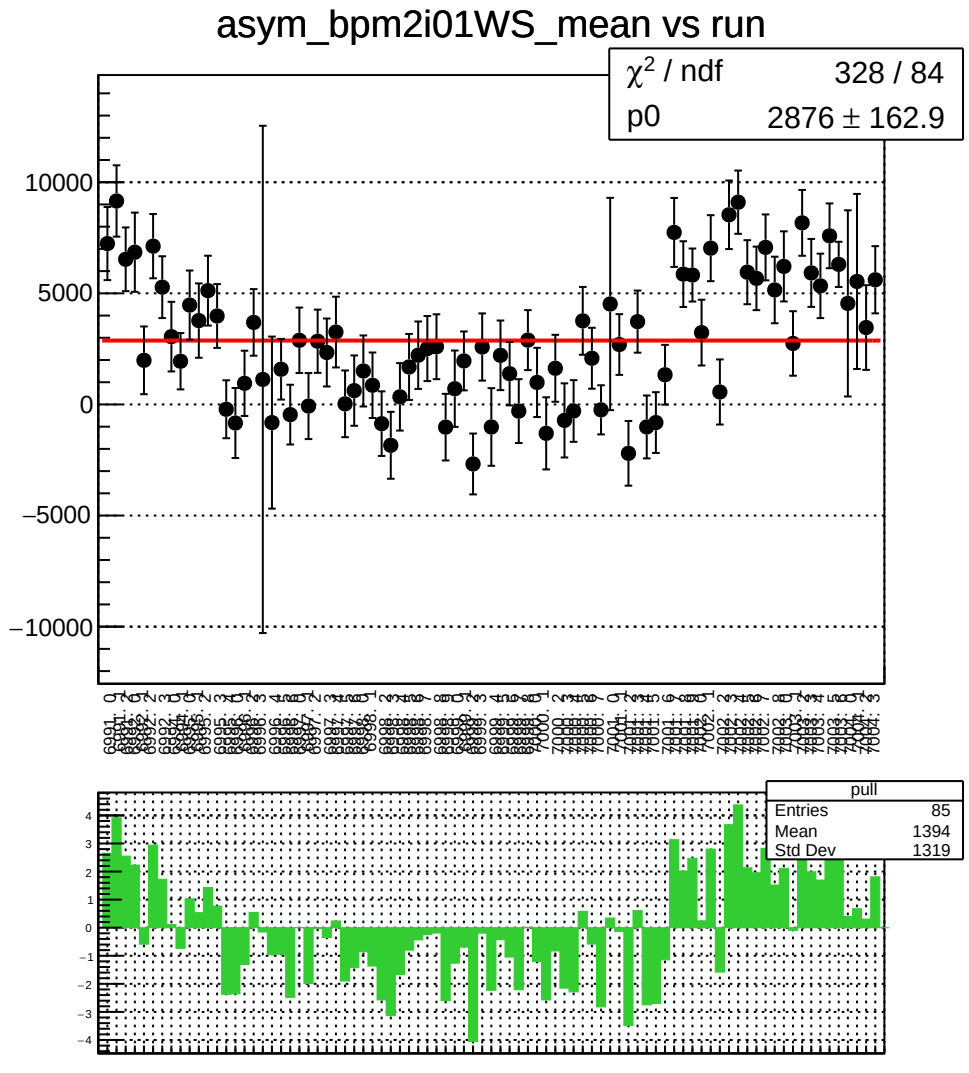

pull1D
Entries 85
Mean −0.02502
Std Dev 1.264
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

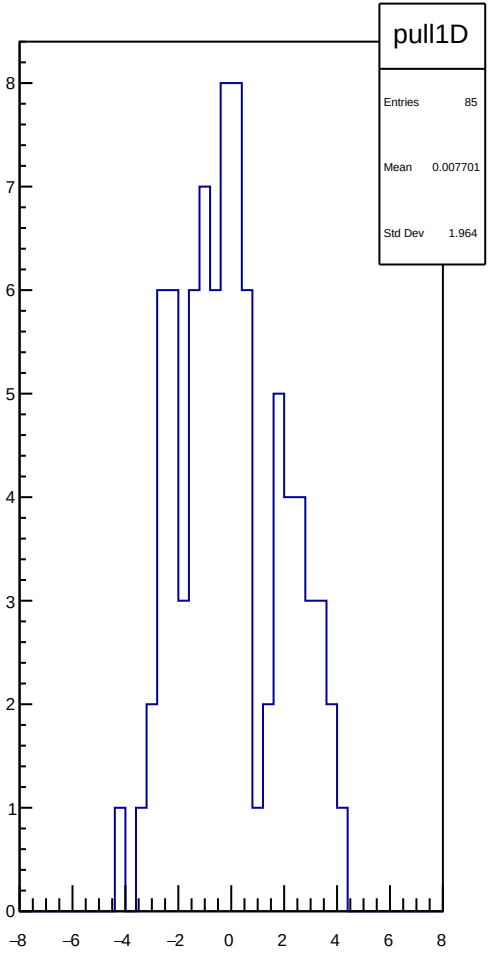

asym_bpm0i07WS_rms vs run
χ² / ndf 3.083e+04 / 84
p0 210.2 ± 0.1652
900
800
700
600
500
400
300
200

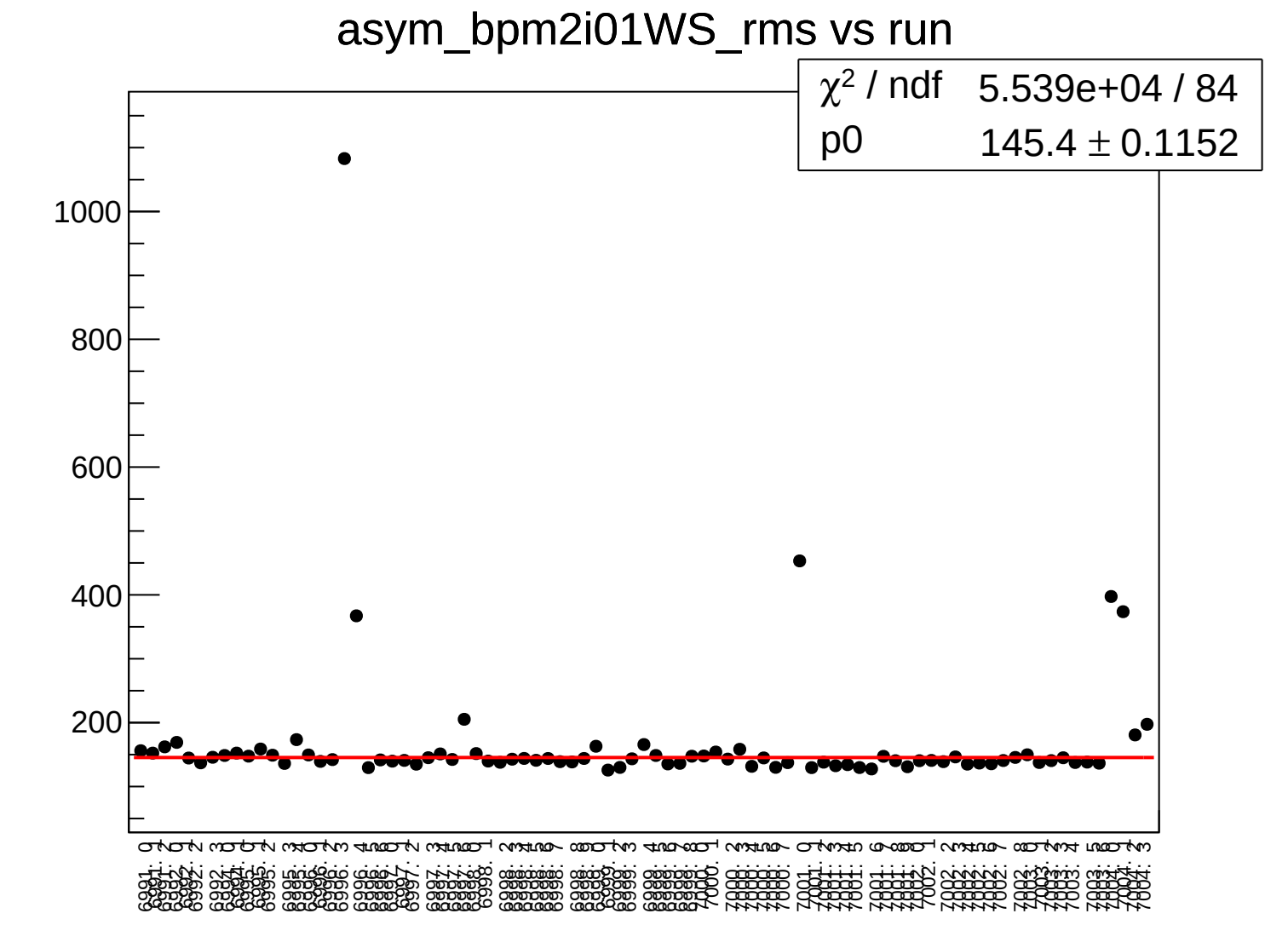

asym_bpm1i02WS_mean vs run
χ² / ndf 303.7 / 84
p0 2601 ± 156
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 559.7
Std Dev 471.9
5
4
3
2
1
0
−1
−2
−3
−4

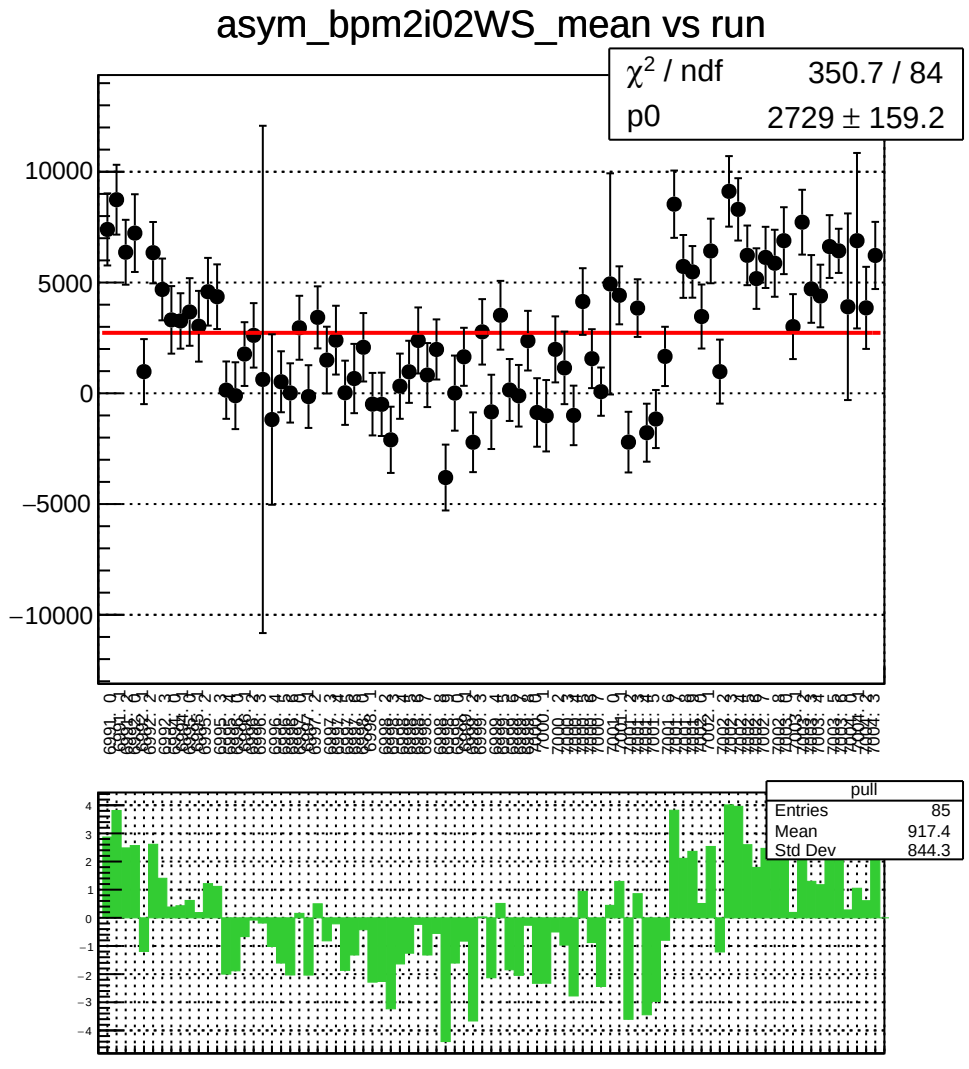

pull1D
Entries 85
Mean 0.01451
Std Dev 1.89
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

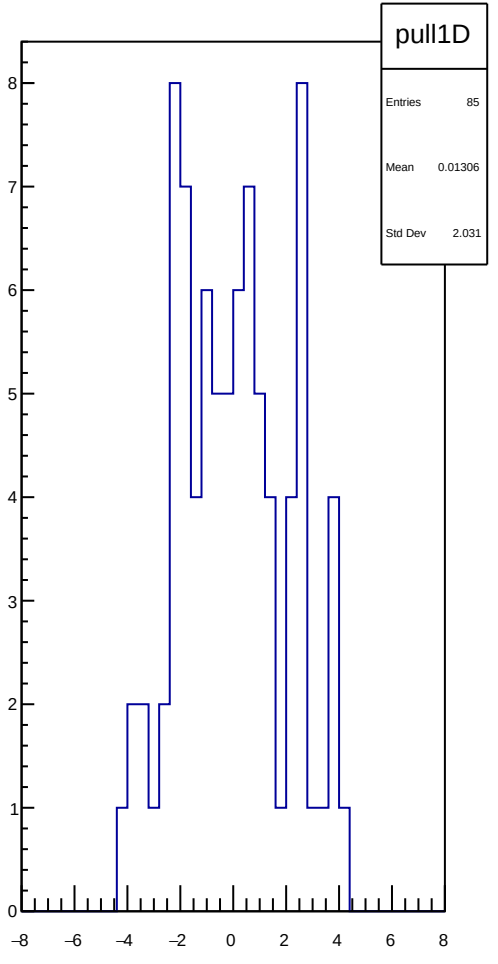

asym_bpm1i02WS_rms vs run
χ² / ndf 4.616e+04 / 84
p0 139.7 ± 0.1103
1000
900
800
700
600
500
400
300
200
100

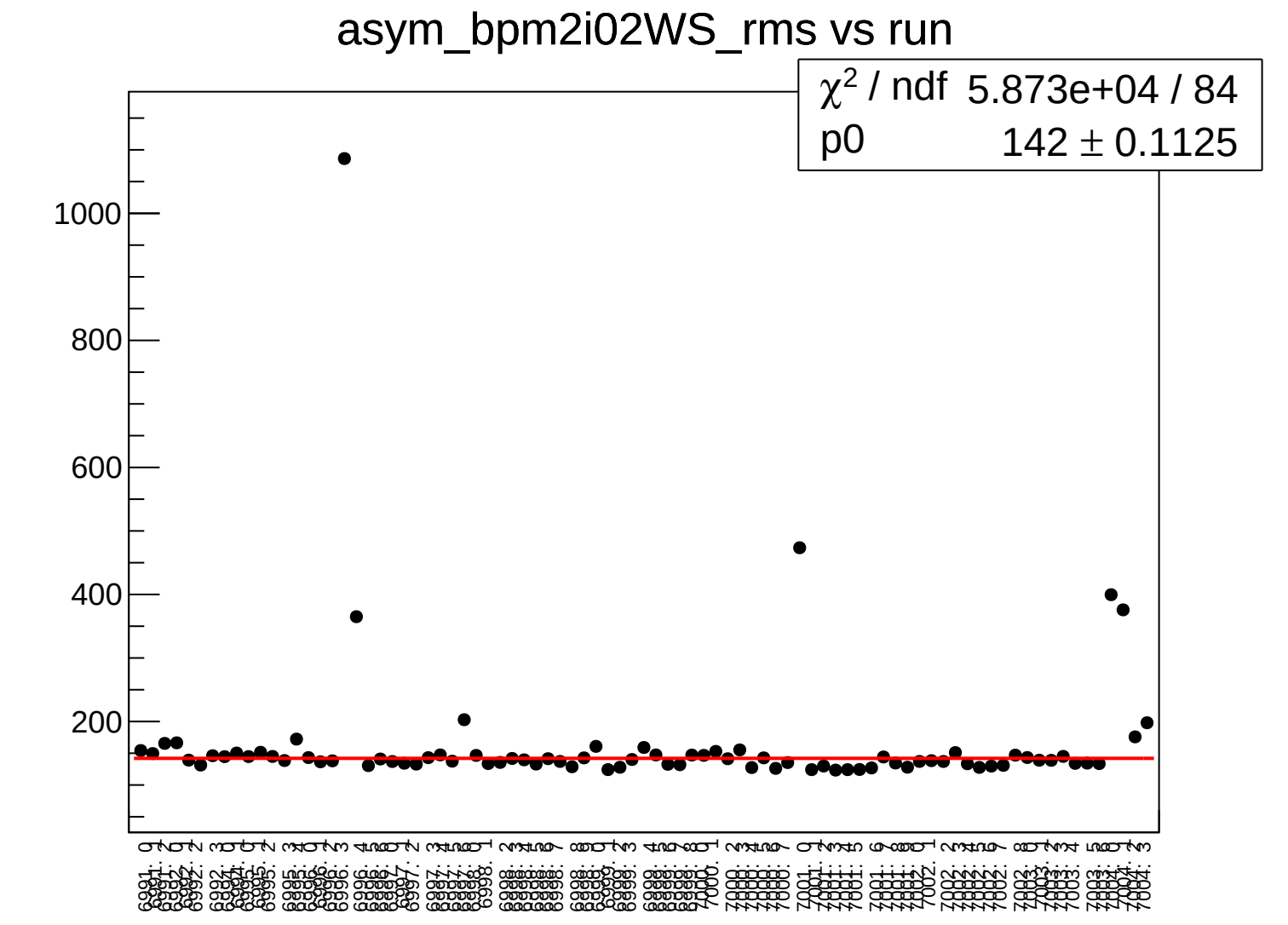

asym_bpm2i01WS_mean vs run
χ² / ndf 328 / 84
p0 2876 ± 162.9
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 1394
Std Dev 1319
4
3
2
1
0
−1
−2
−3
−4

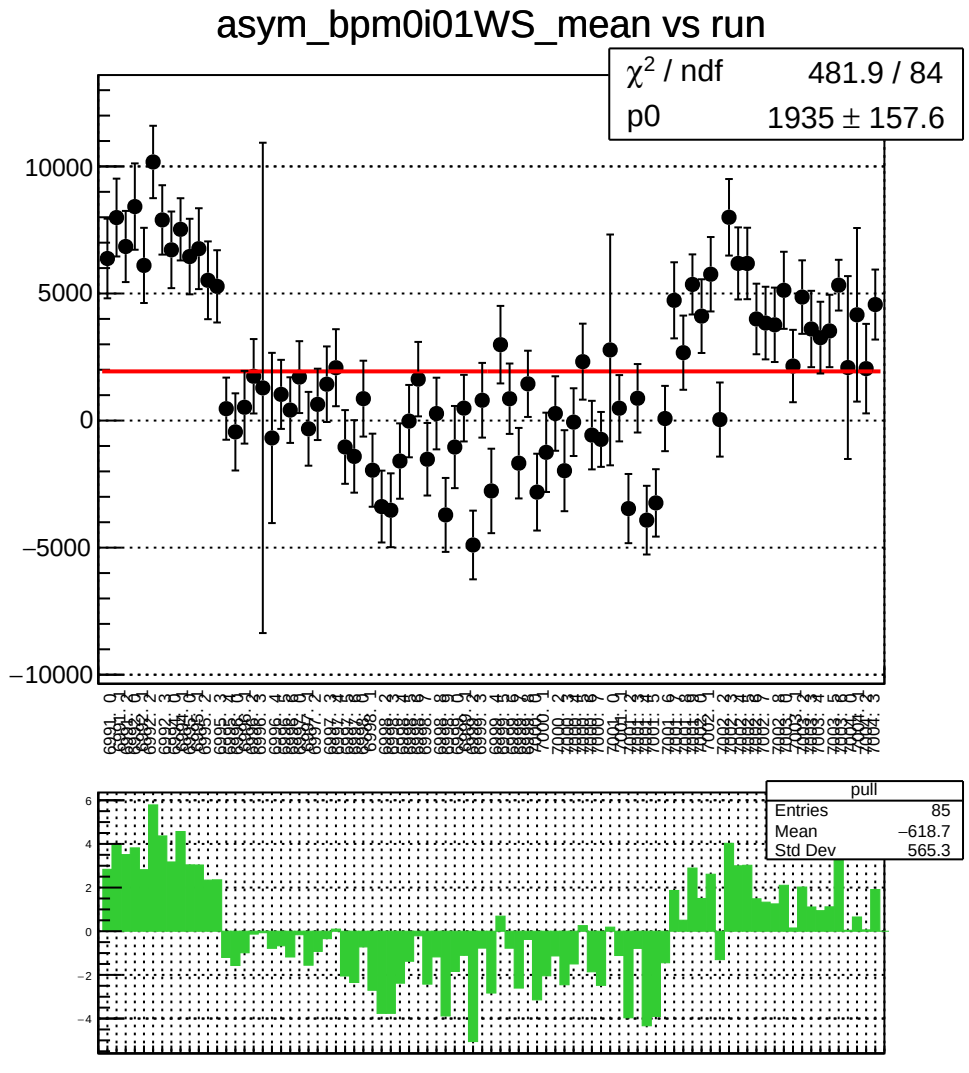

pull1D
Entries 85
Mean 0.007701
Std Dev 1.964
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

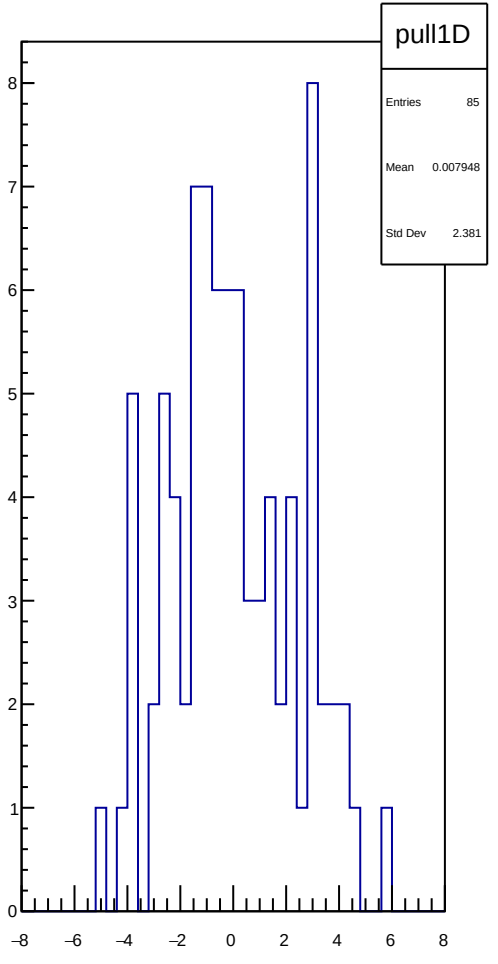

asym_bpm2i01WS_rms vs run
χ² / ndf 5.539e+04 / 84
p0 145.4 ± 0.1152
1000
800
600
400
200

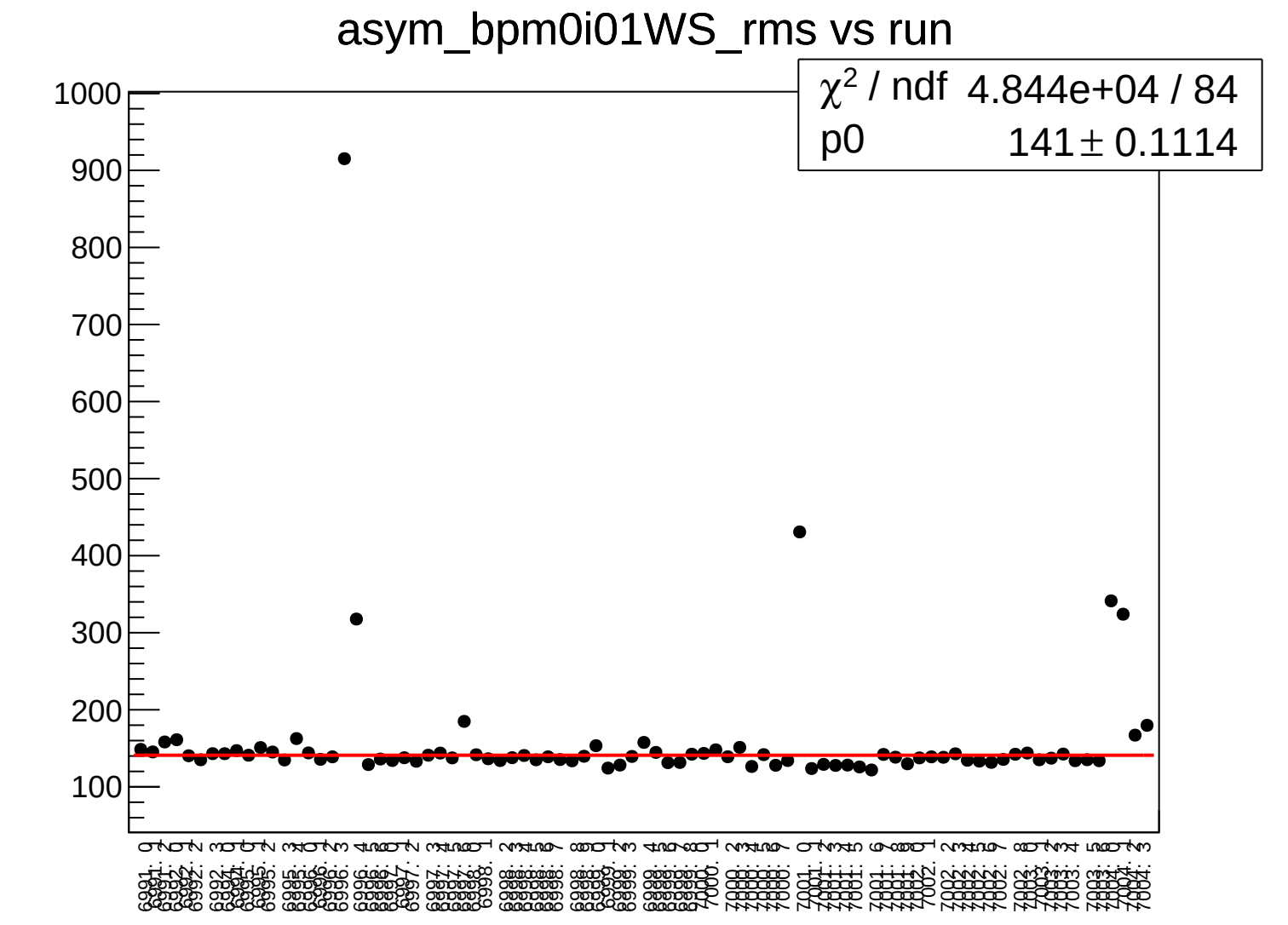

asym_bpm2i02WS_mean vs run
χ^2 / ndf 350.7 / 84
p0 2729 ± 159.2
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 917.4
Std Dev 844.3
4
3
2
1
0
−1
−2
−3
−4

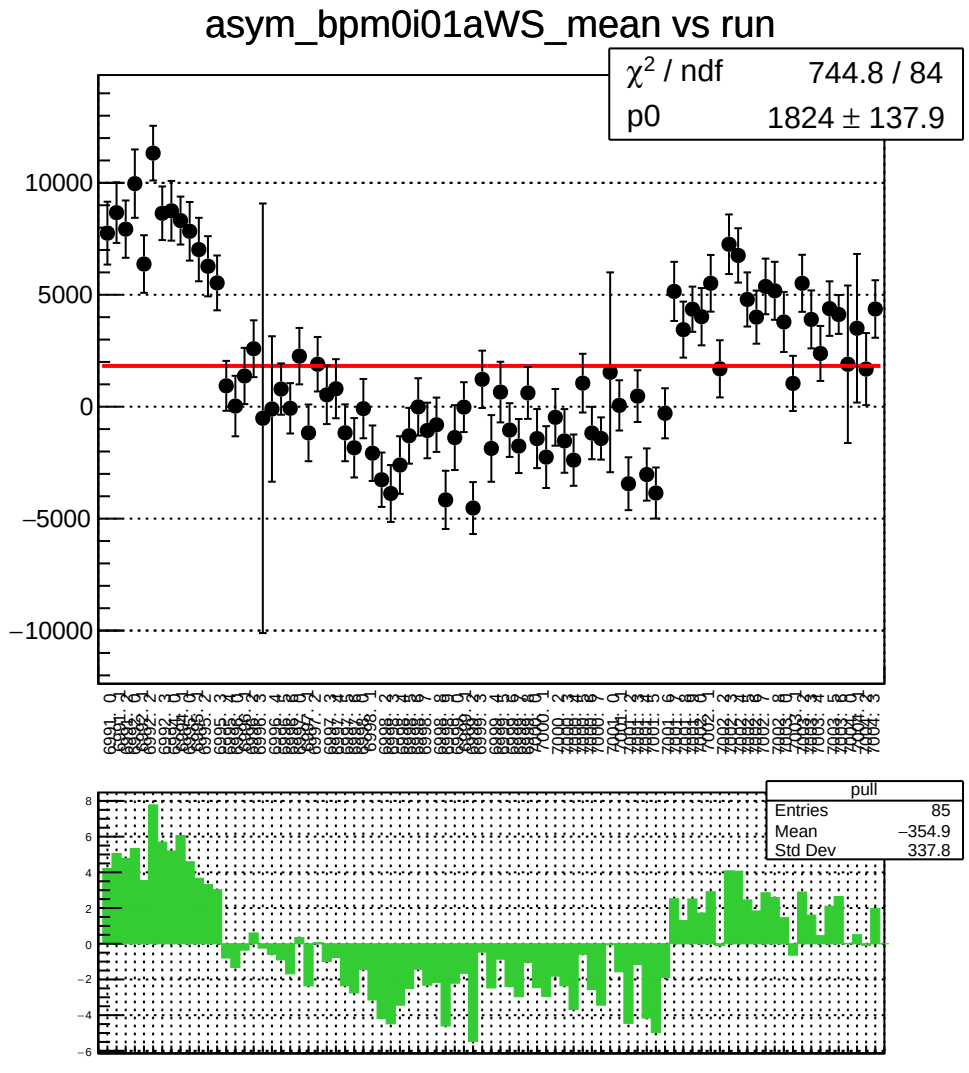

pull1D
Entries 85
Mean 0.01306
Std Dev 2.031
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

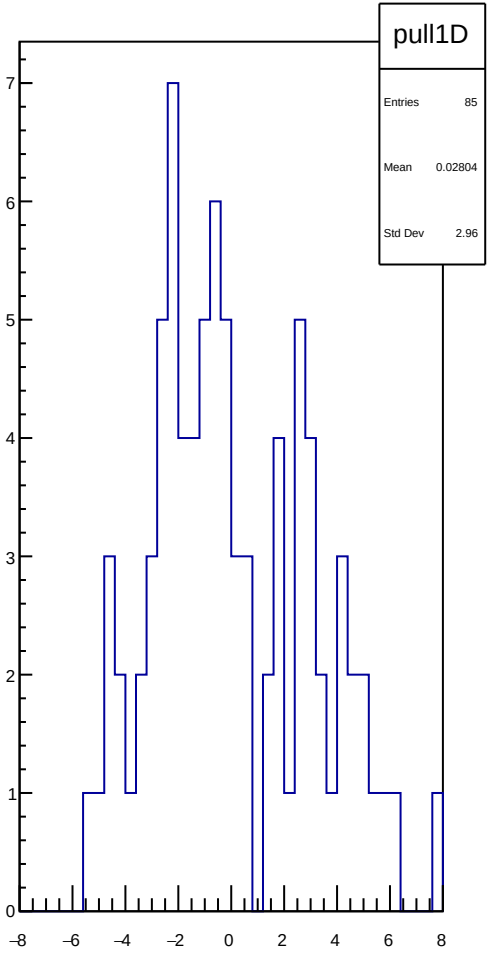

asym_bpm2i02WS_rms vs run
χ² / ndf 5.873e+04 / 84
p0 142 ± 0.1125
1000
800
600
400
200

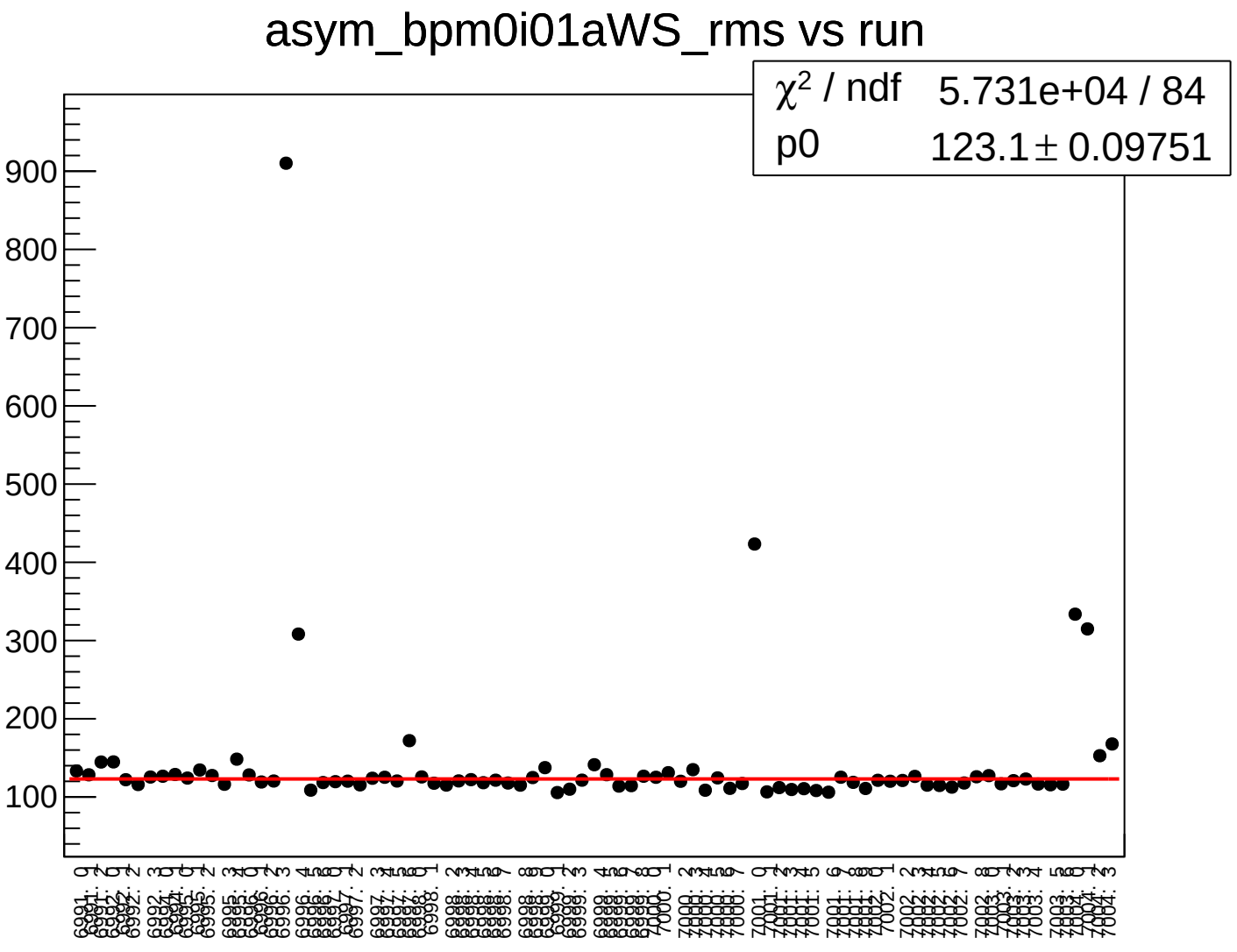

asym_bpm0i01WS_mean vs run
χ^2 / ndf 481.9 / 84
p0 1935 ± 157.6
10000
5000
0
−5000
−10000
pull
Entries 85
Mean −618.7
Std Dev 565.3
6
4
2
0
−2
−4

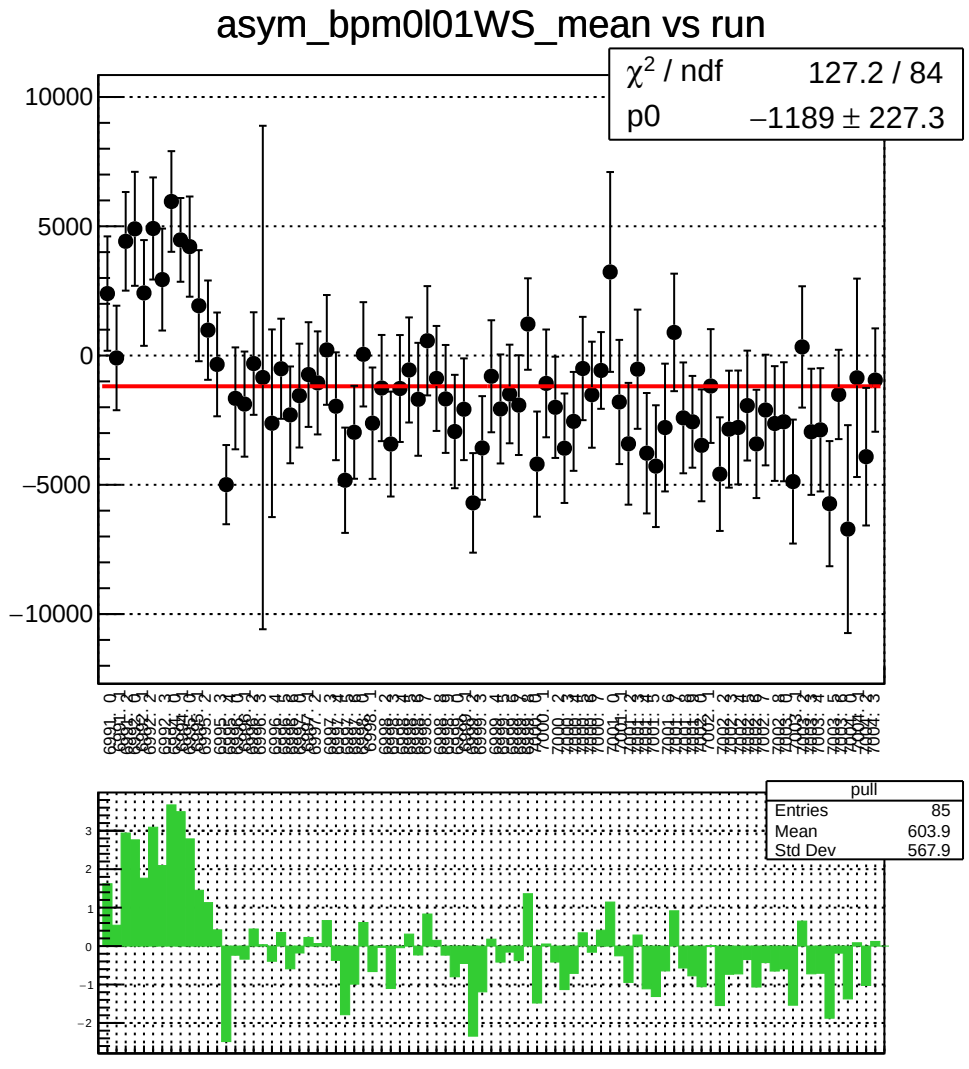

pull1D
Entries 85
Mean 0.007948
Std Dev 2.381
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

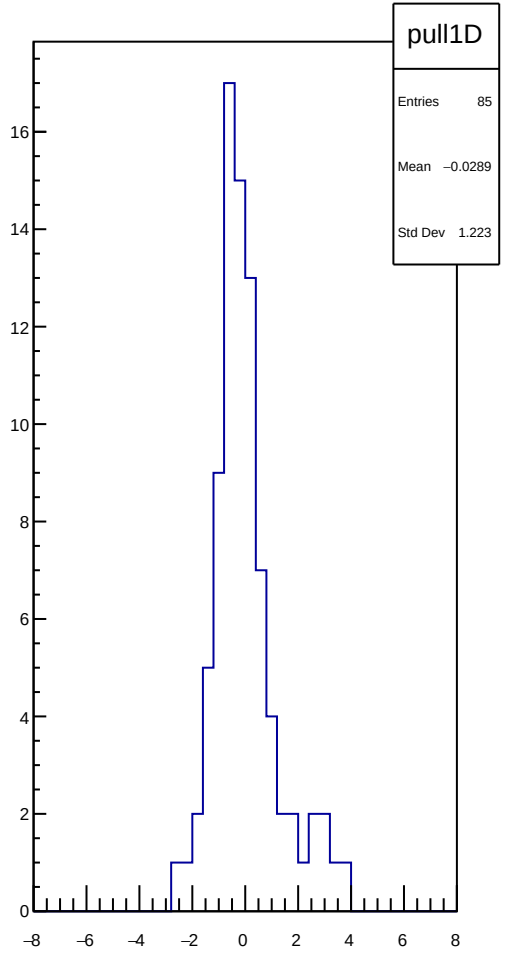

asym_bpm0i01WS_rms vs run
χ^2 / ndf 4.844e+04 / 84
p0 141 ± 0.1114
1000
900
800
700
600
500
400
300
200
100

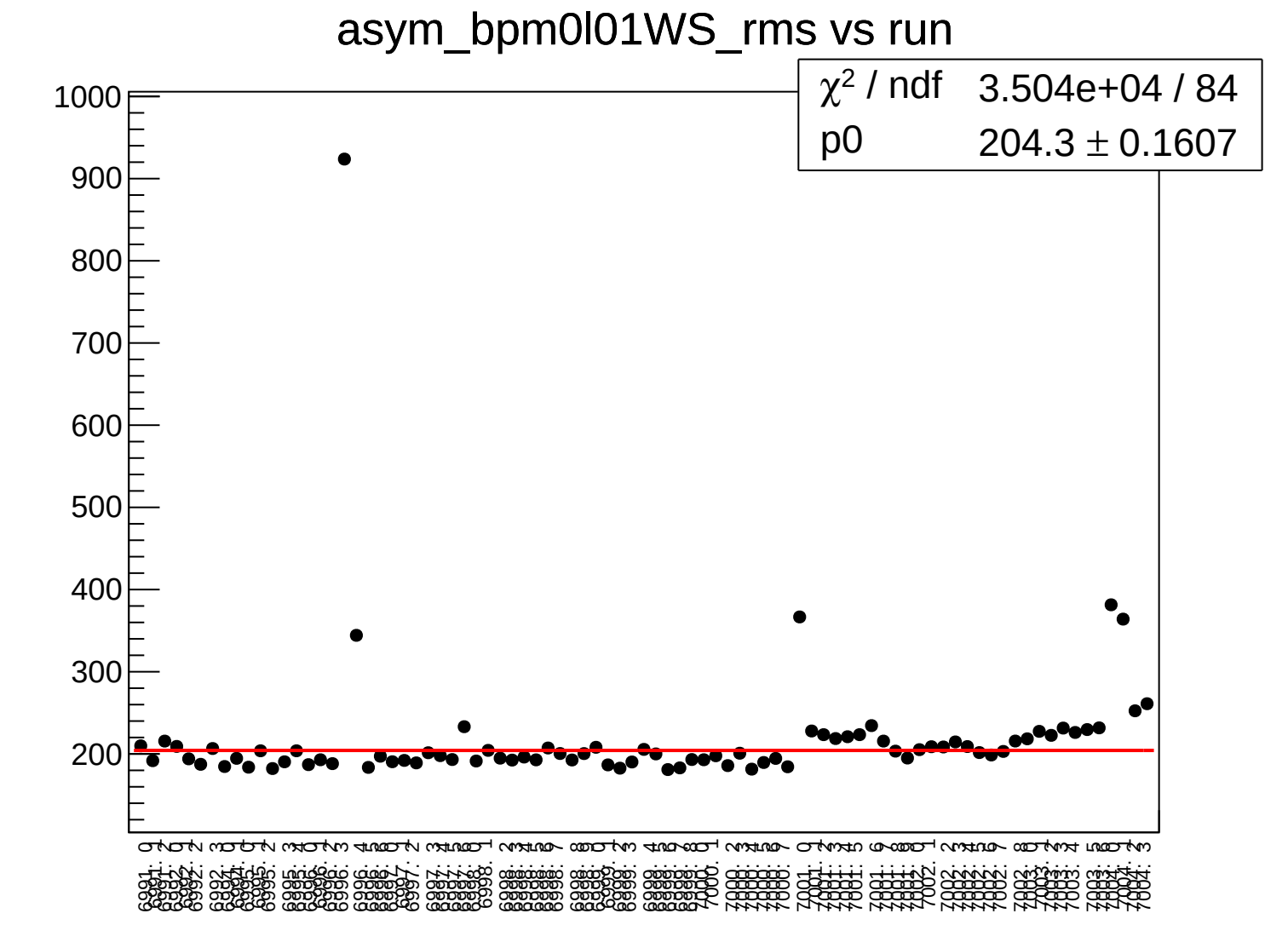

asym_bpm0i01aWS_mean vs run
χ² / ndf 744.8 / 84
p0 1824 ± 137.9
10000
5000
0
−5000
−10000
pull
Entries 85
Mean −354.9
Std Dev 337.8
8
6
4
2
0
−2
−4
−6

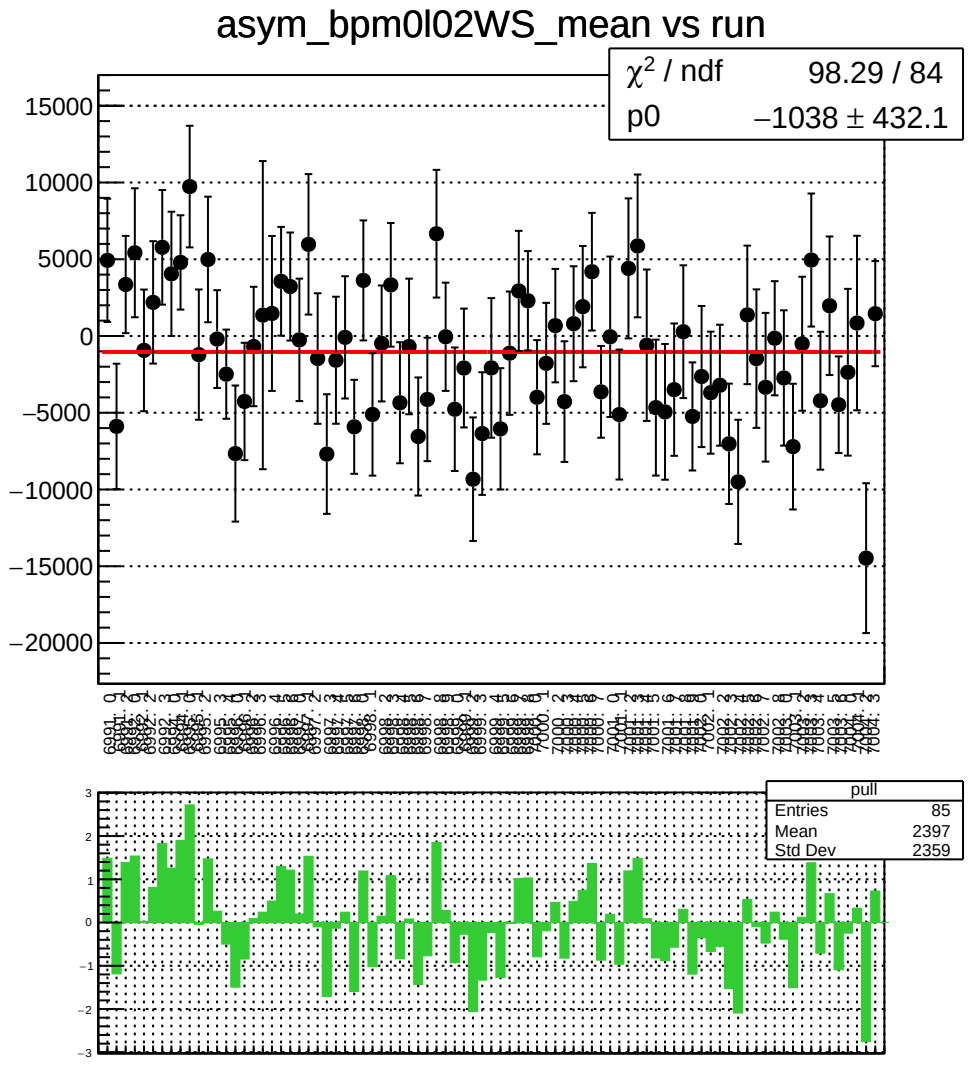

pull1D
Entries 85
Mean 0.02804
Std Dev 2.96
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

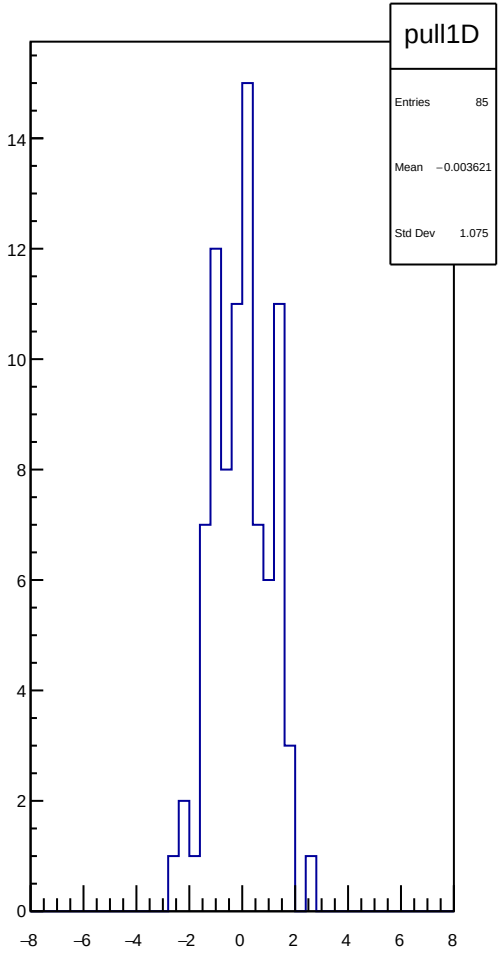

asym_bpm0i01aWS_rms vs run
χ^2 / ndf 5.731e+04 / 84
p0 123.1 ± 0.09751
900
800
700
600
500
400
300
200
100

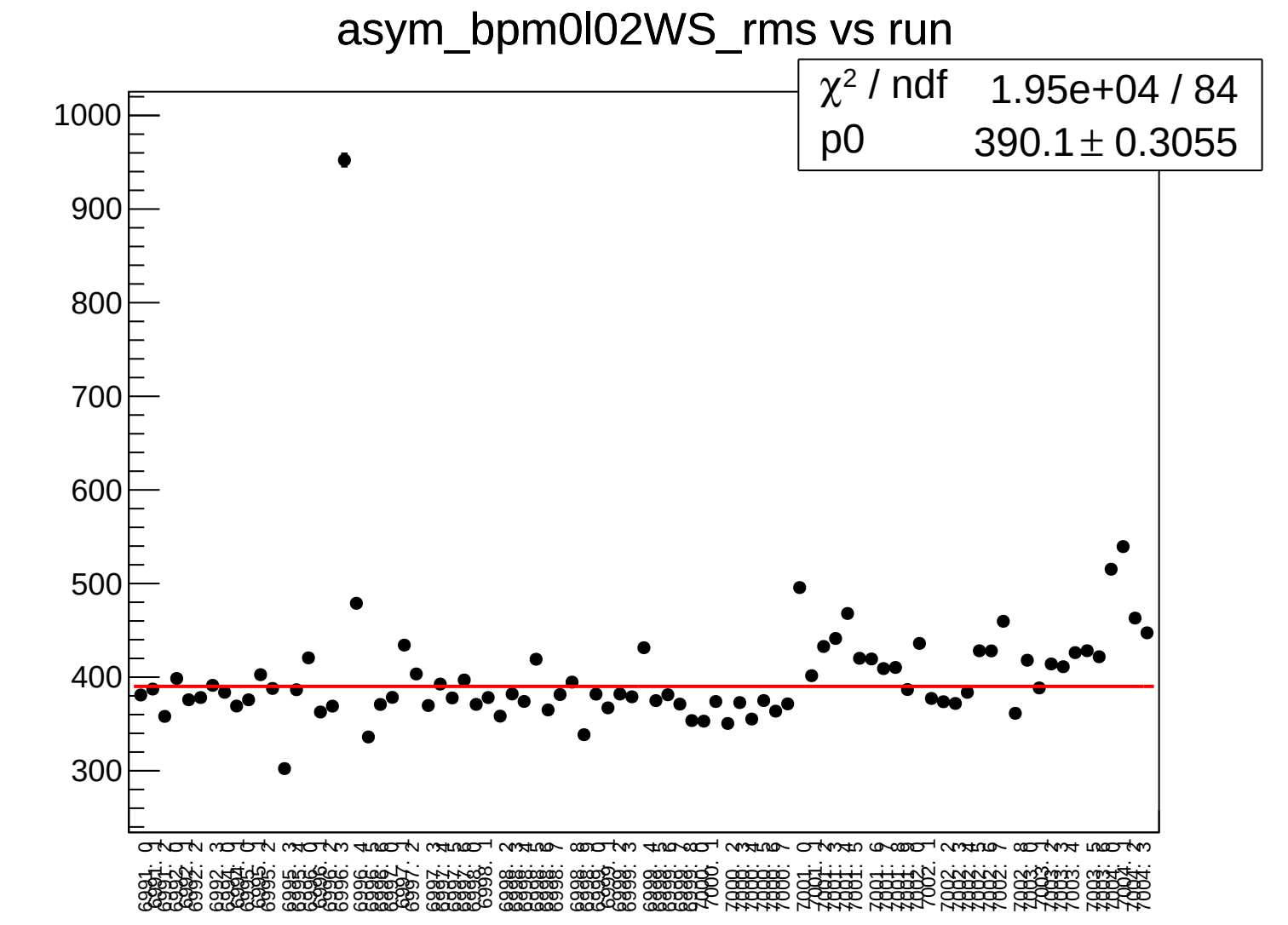

asym_bpm0l01WS_mean vs run
χ² / ndf 127.2 / 84
p0 −1189 ± 227.3
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 603.9
Std Dev 567.9
3
2
1
0
−1
−2

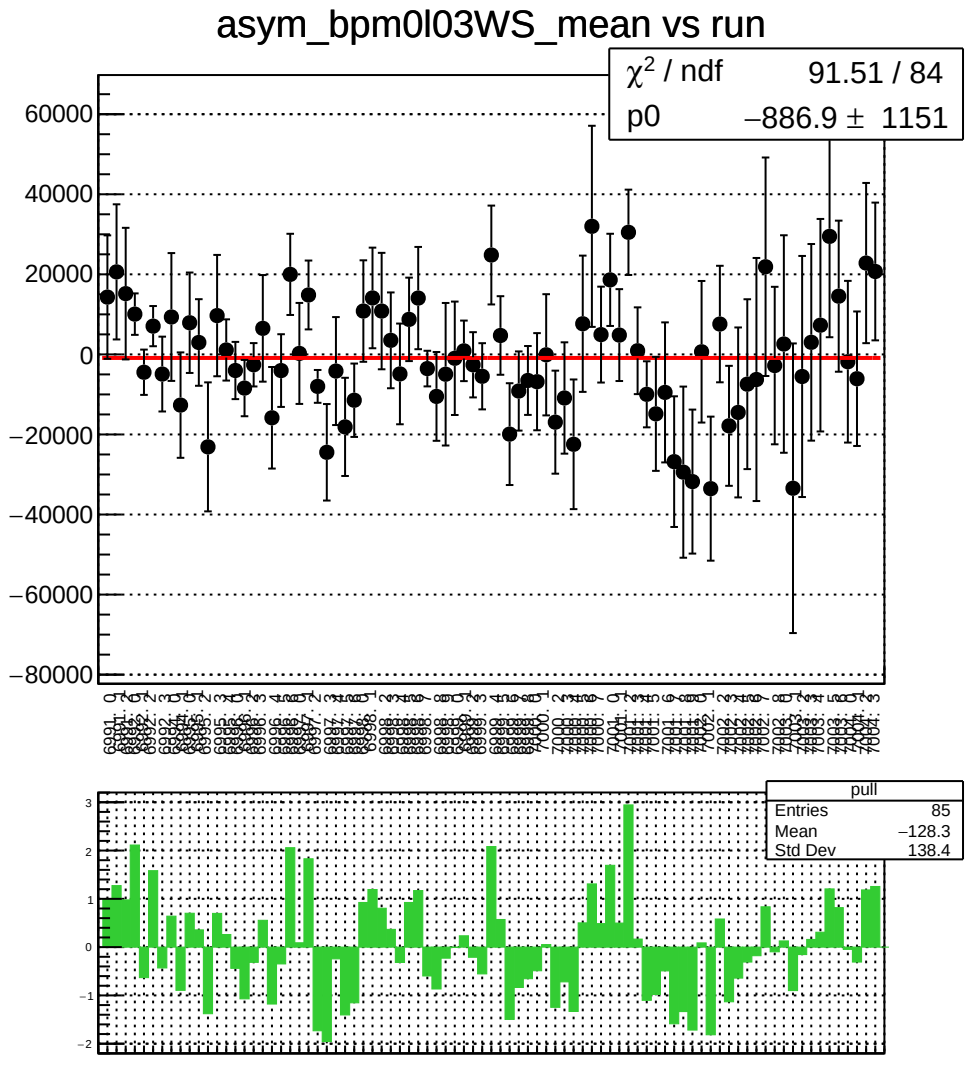

pull1D
Entries 85
Mean −0.0289
Std Dev 1.223
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

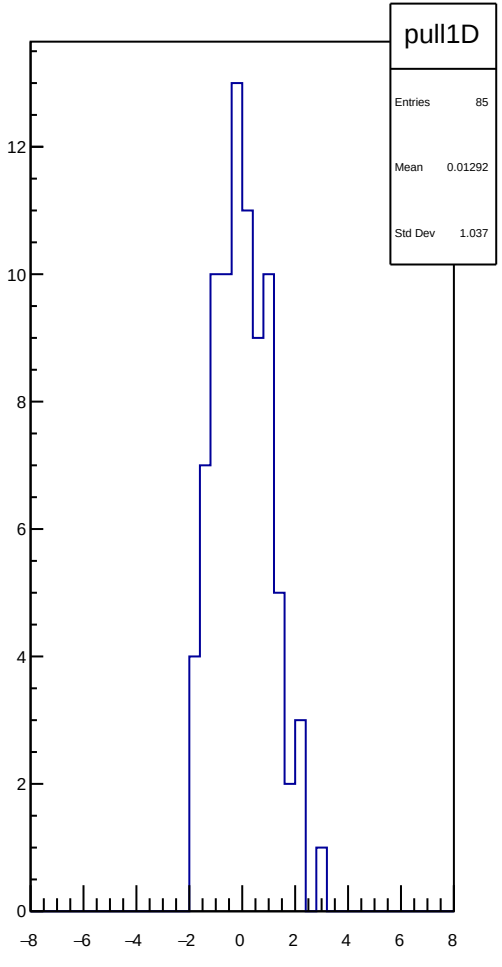

asym_bpm0l01WS_rms vs run
χ² / ndf 3.504e+04 / 84
p0 204.3 ± 0.1607
1000
900
800
700
600
500
400
300
200

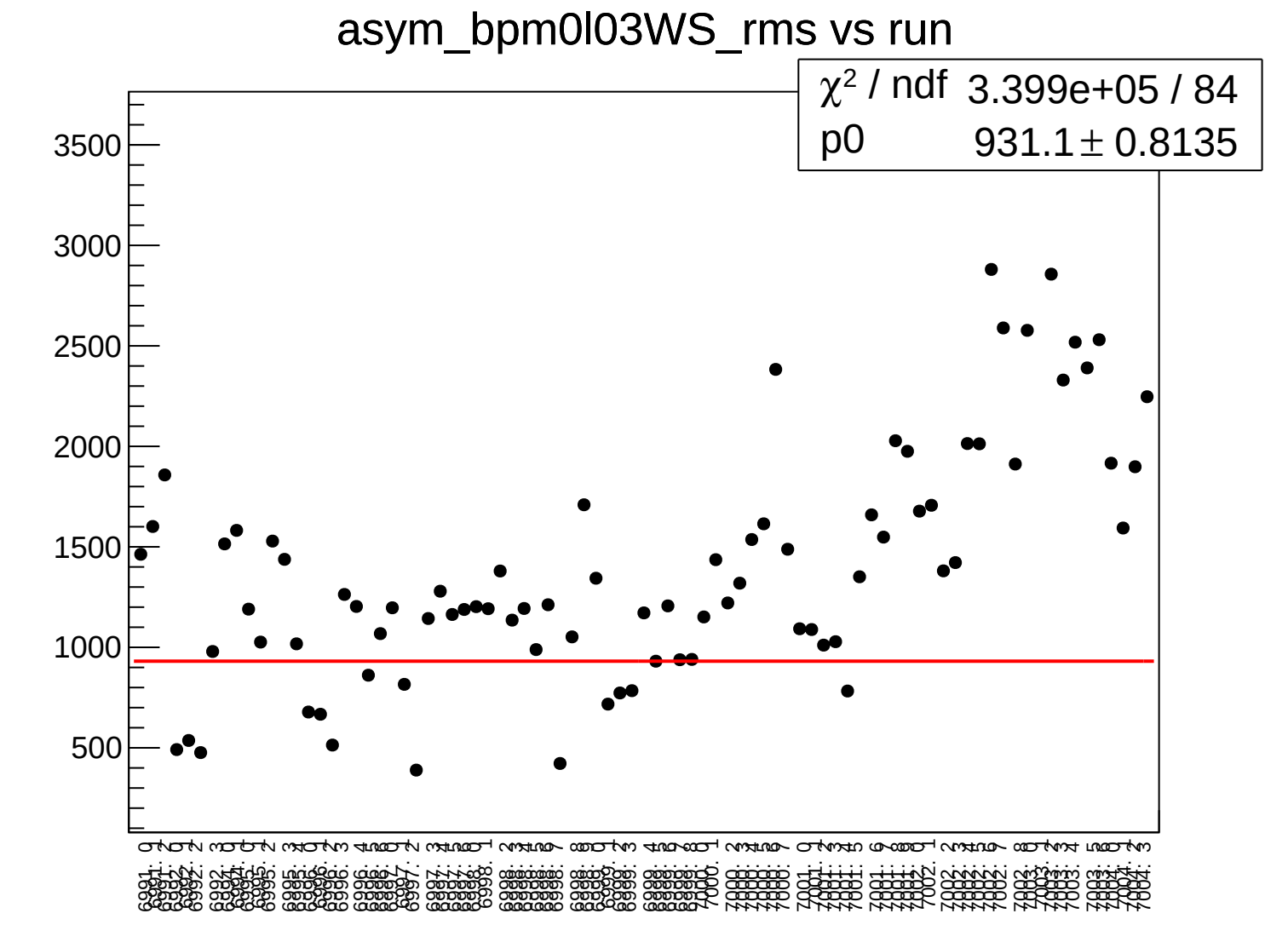

asym_bpm0l02WS_mean vs run
χ² / ndf 98.29 / 84
p0 −1038 ± 432.1
15000
10000
5000
0
−5000
−10000
−15000
−20000
pull
Entries 85
Mean 2397
Std Dev 2359
3
2
1
0
−1
−2
−3

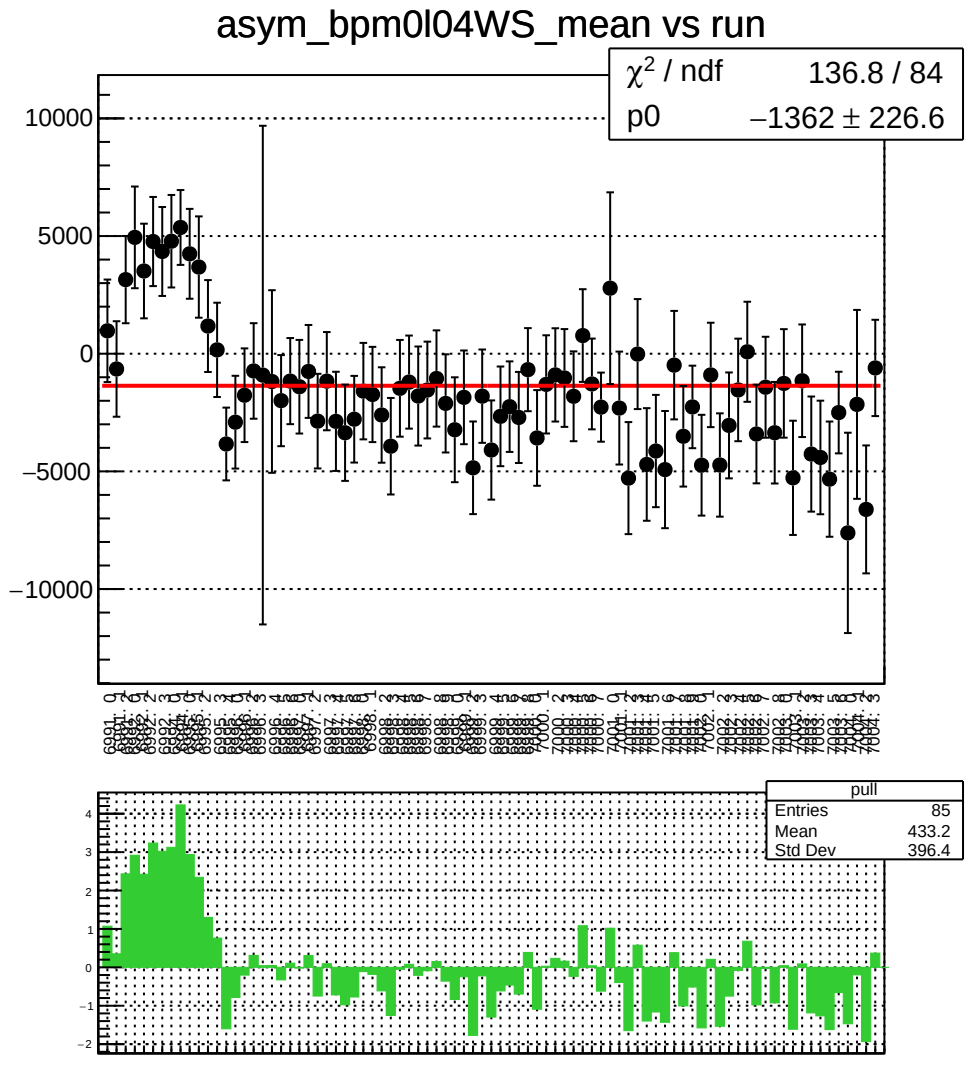

pull1D
Entries 85
Mean −0.003621
Std Dev 1.075
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

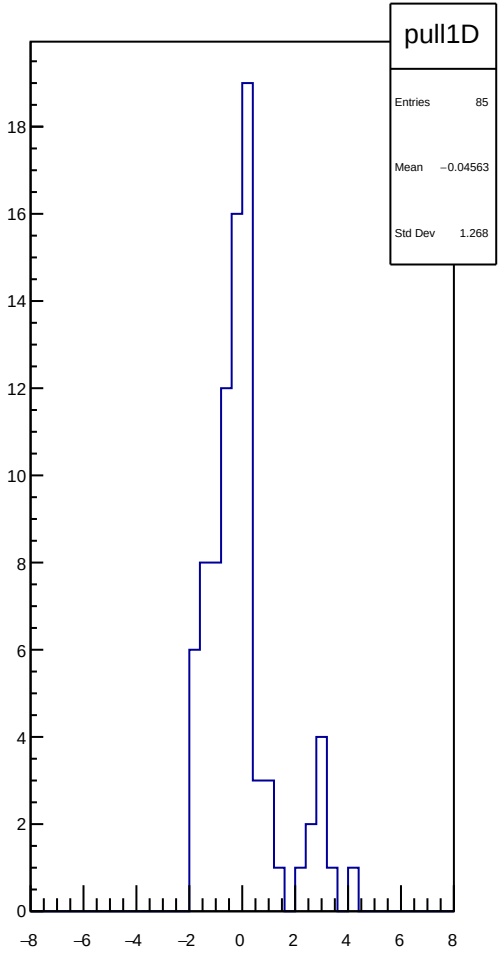

asym_bpm0l02WS_rms vs run
χ² / ndf 1.95e+04 / 84
p0 390.1 ± 0.3055
1000
900
800
700
600
500
400
300

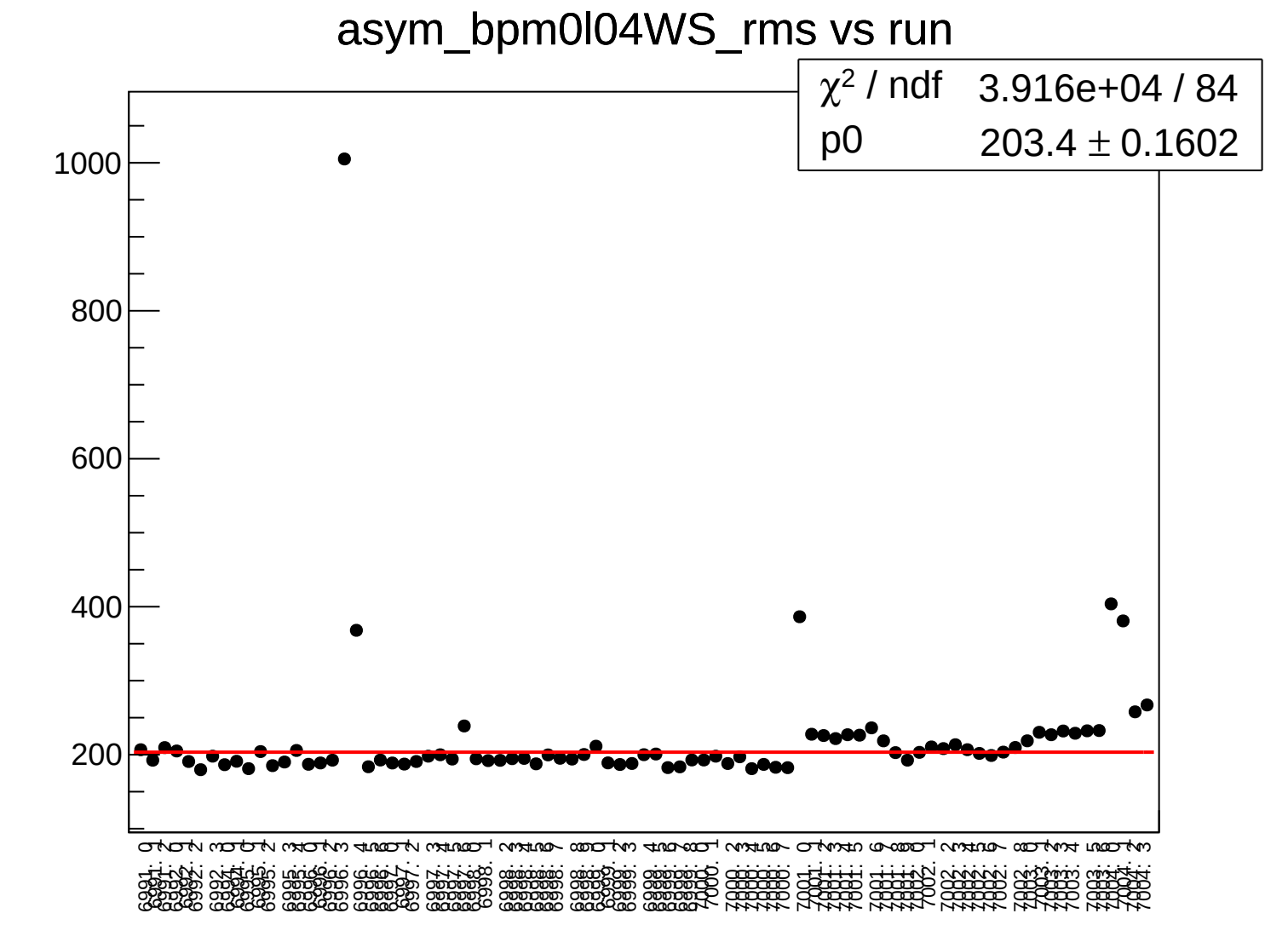

asym_bpm0l03WS_mean vs run
χ² / ndf 91.51 / 84
p0 −886.9 ± 1151
pull
Entries 85
Mean −128.3
Std Dev 138.4

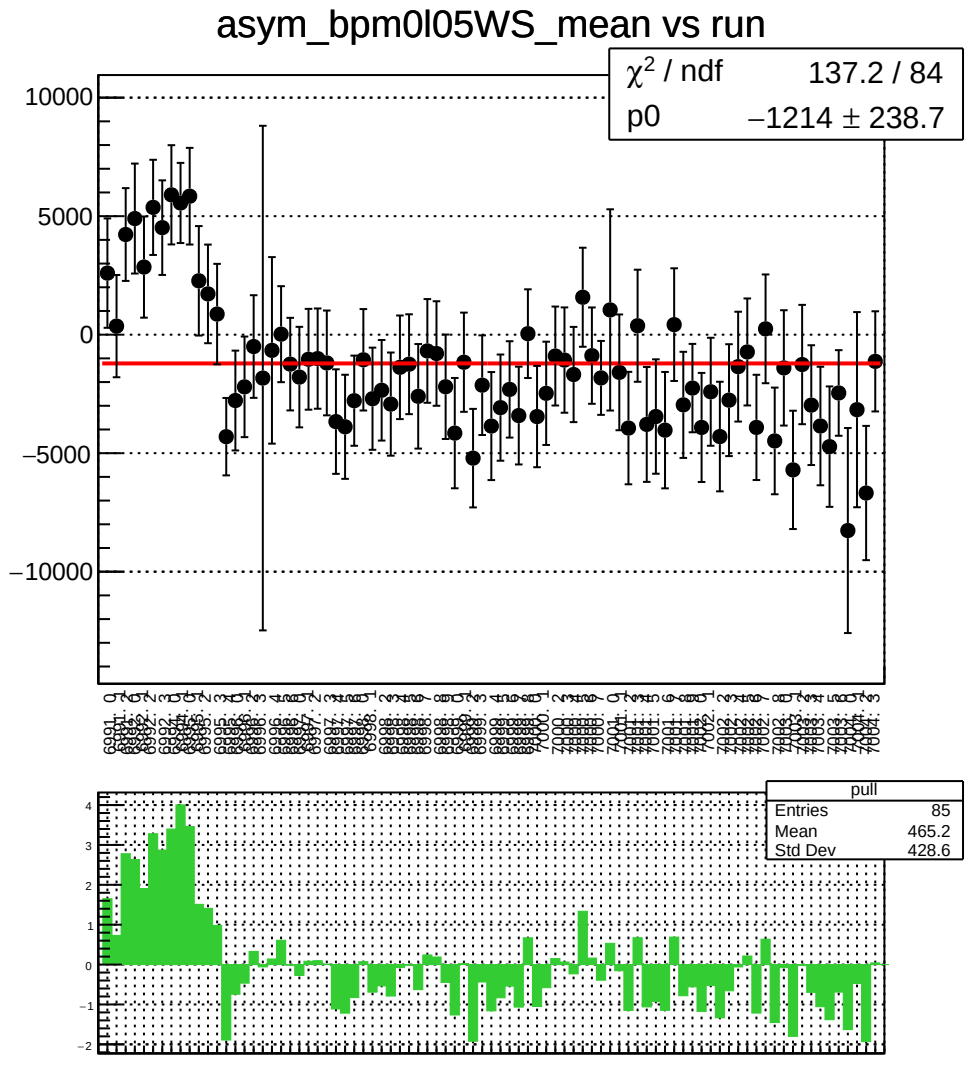

pull1D
Entries 85
Mean 0.01292
Std Dev 1.037

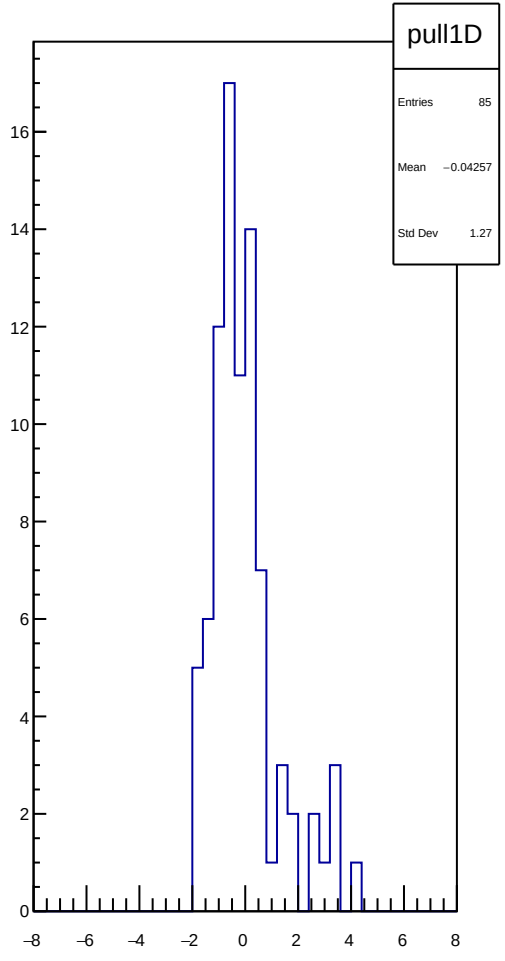

asym_bpm0l03WS_rms vs run
χ² / ndf 3.399e+05 / 84
p0 931.1 ± 0.8135
3500
3000
2500
2000
1500
1000
500

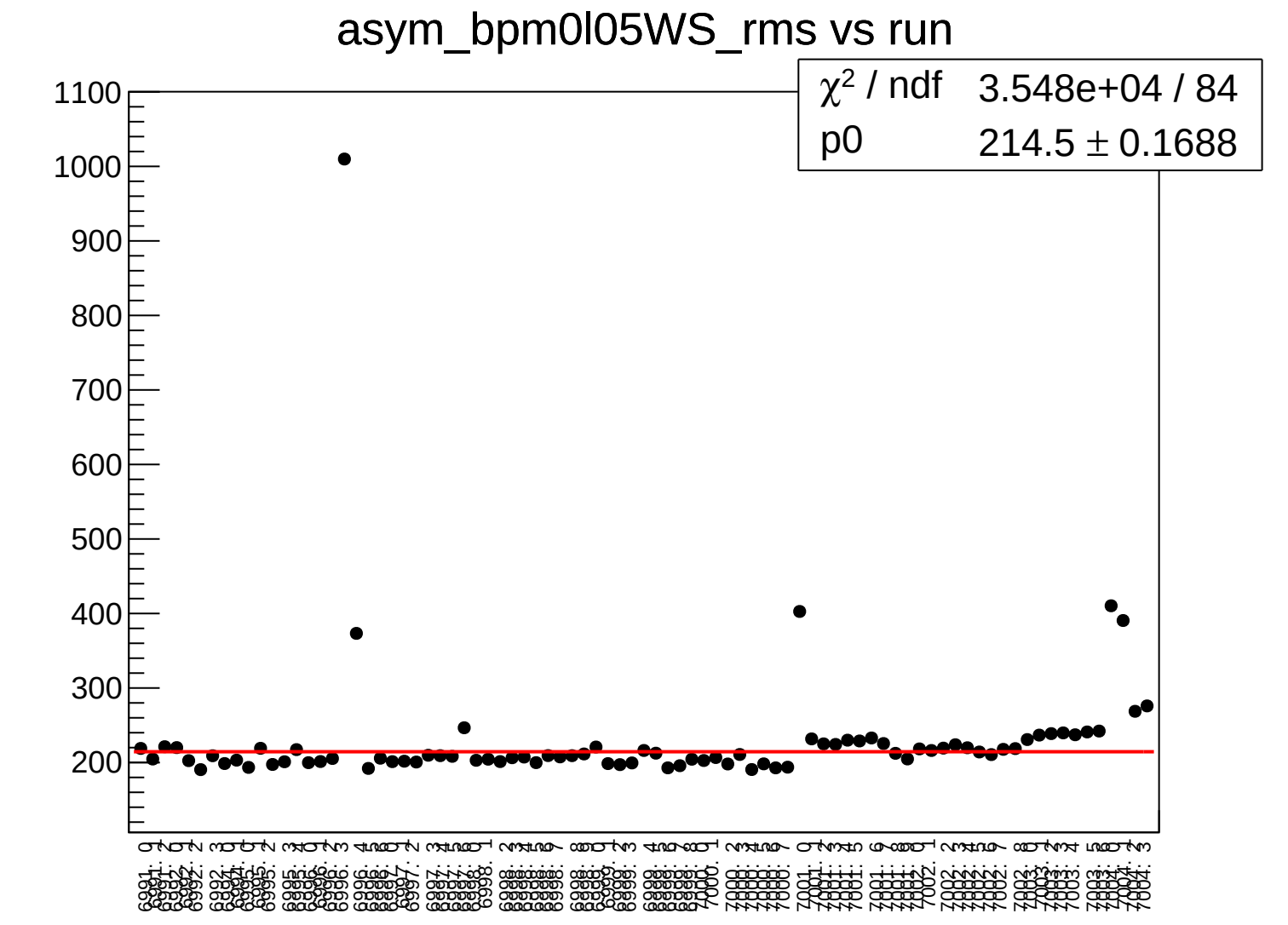

asym_bpm0l04WS_mean vs run
χ² / ndf 136.8 / 84
p0 −1362 ± 226.6
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 433.2
Std Dev 396.4
4
3
2
1
0
−1
−2

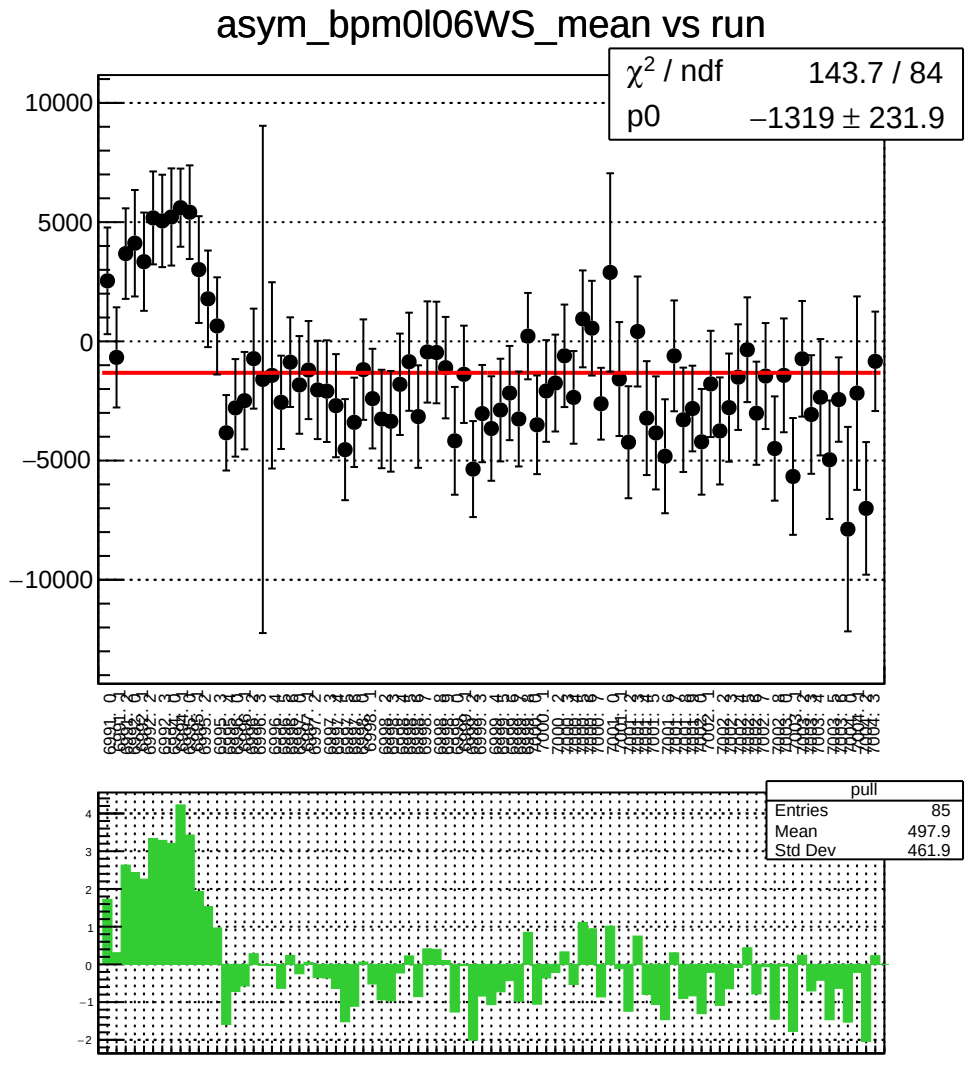

pull1D
Entries 85
Mean −0.04563
Std Dev 1.268
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

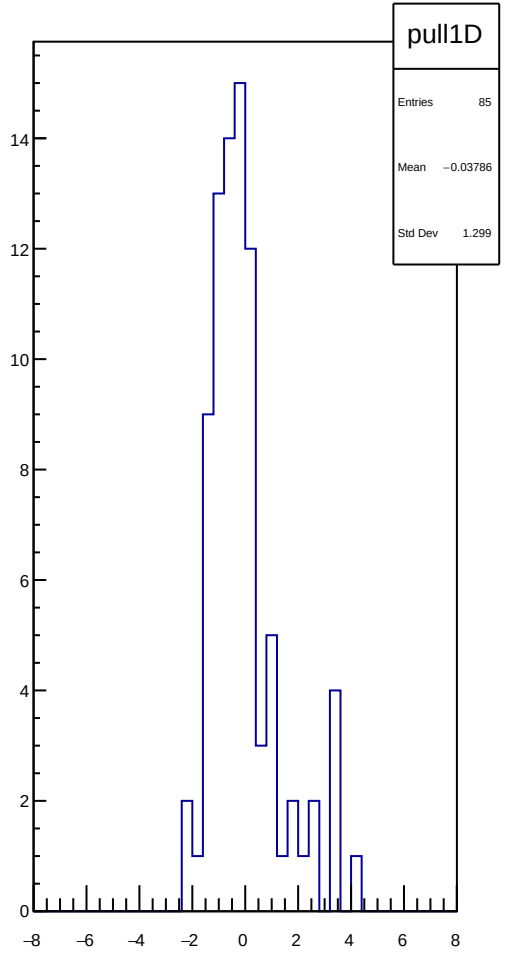

asym_bpm0l04WS_rms vs run
χ² / ndf 3.916e+04 / 84
p0 203.4 ± 0.1602
1000
800
600
400
200

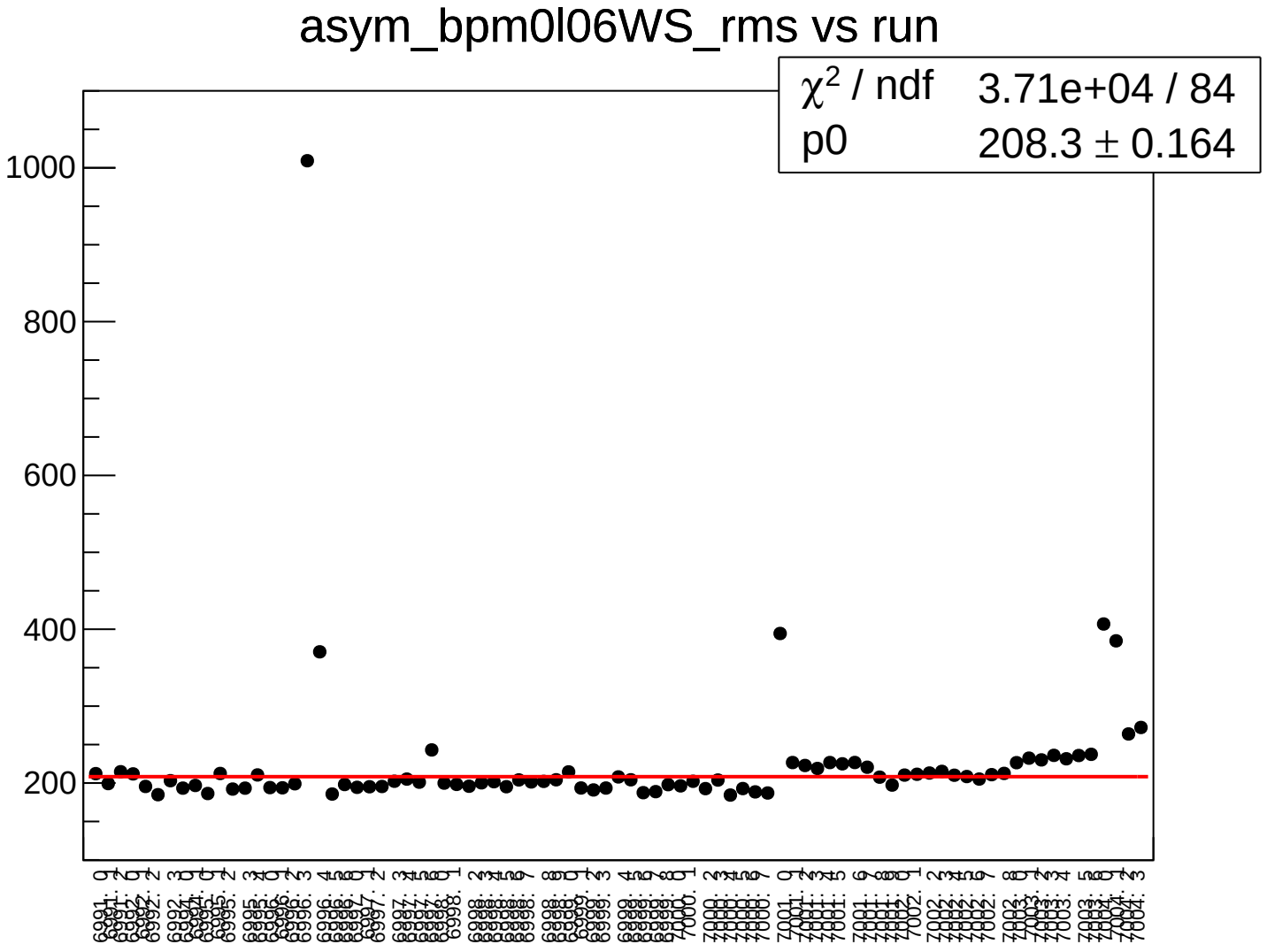

asym_bpm0l05WS_mean vs run
χ² / ndf 137.2 / 84
p0 −1214 ± 238.7
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 465.2
Std Dev 428.6
4
3
2
1
0
−1
−2

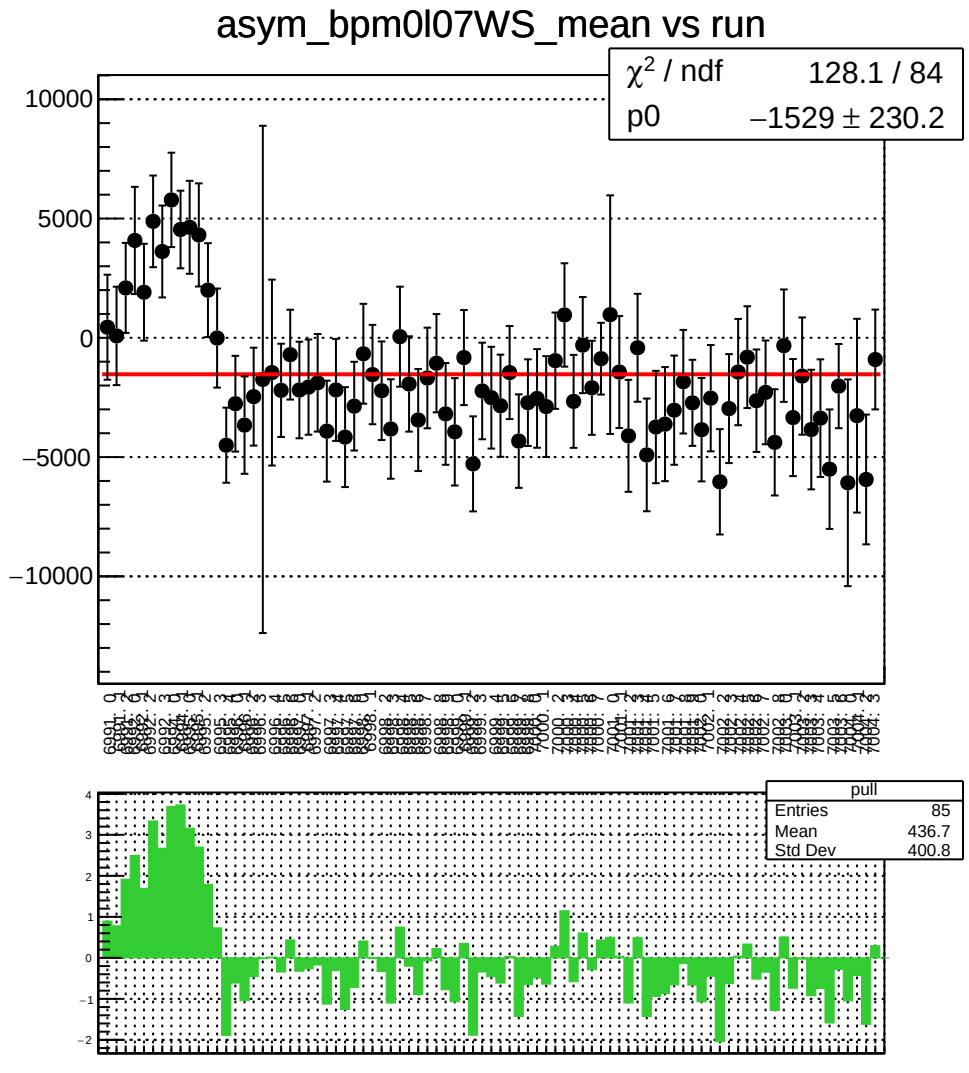

pull1D
Entries 85
Mean −0.04257
Std Dev 1.27
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

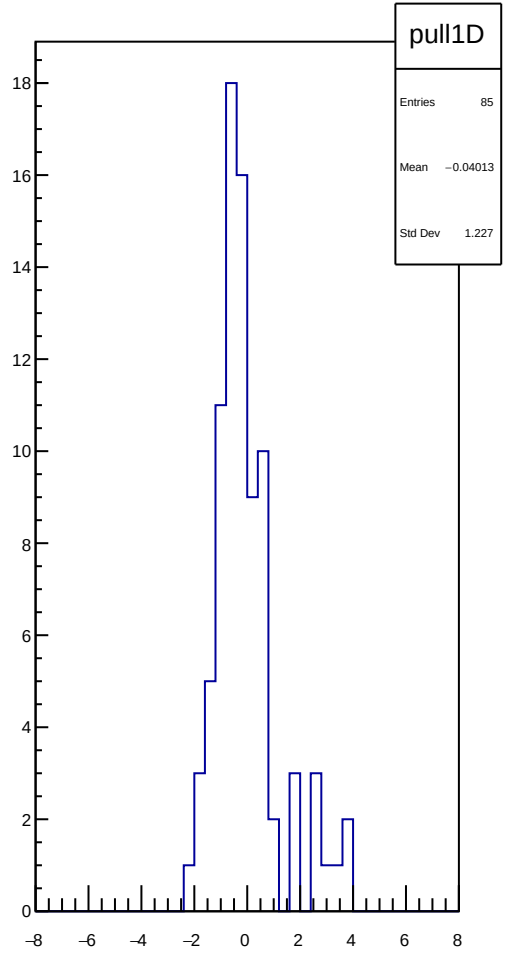

asym_bpm0l05WS_rms vs run
χ² / ndf 3.548e+04 / 84
p0 214.5 ± 0.1688
1100
1000
900
800
700
600
500
400
300
200

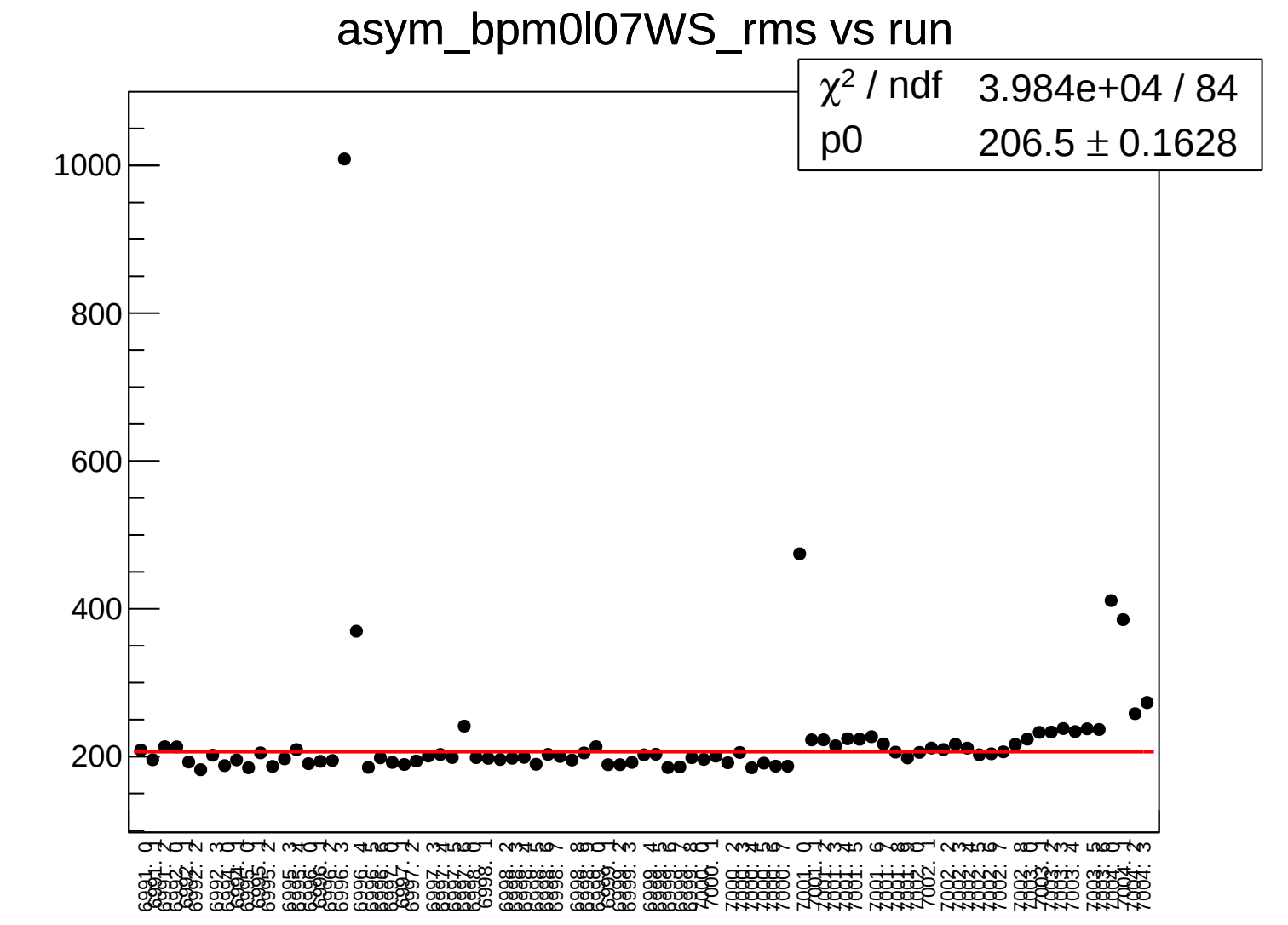

asym_bpm0l06WS_mean vs run
χ² / ndf 143.7 / 84
p0 −1319 ± 231.9
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 497.9
Std Dev 461.9
4
3
2
1
0
−1
−2

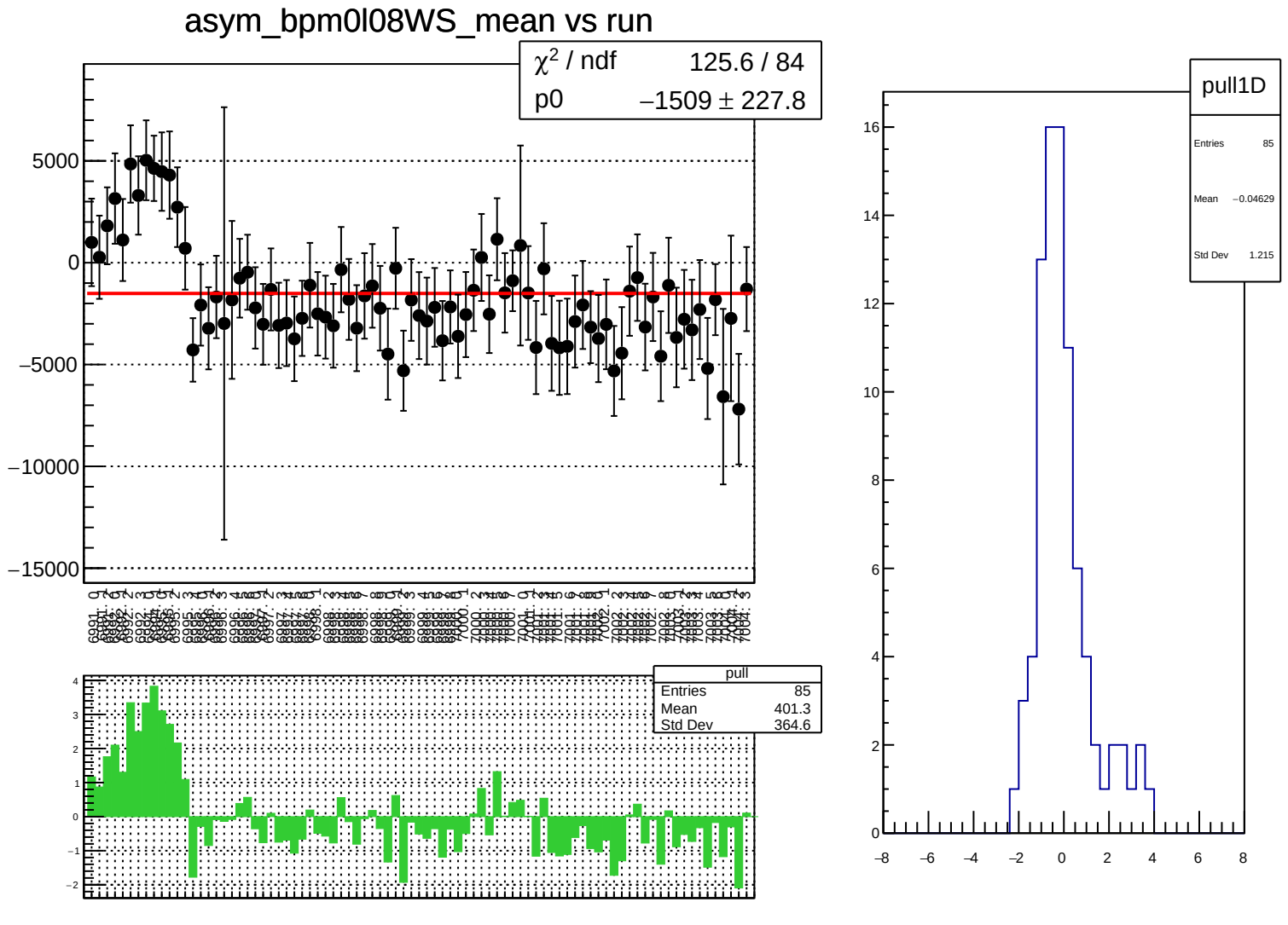

pull1D
Entries 85
Mean −0.03786
Std Dev 1.299
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

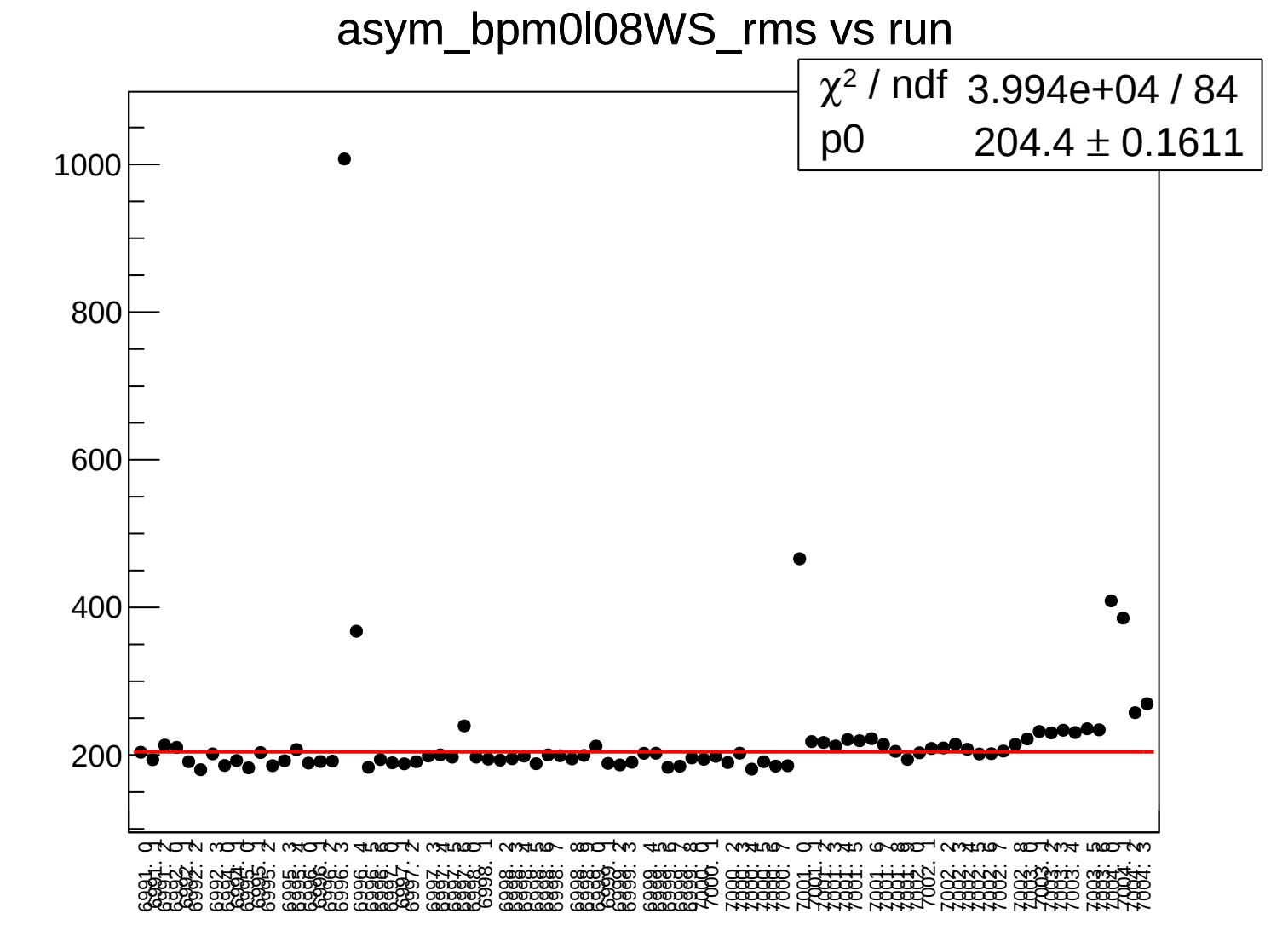

asym_bpm0l06WS_rms vs run
χ² / ndf 3.71e+04 / 84
p0 208.3 ± 0.164
1000
800
600
400
200

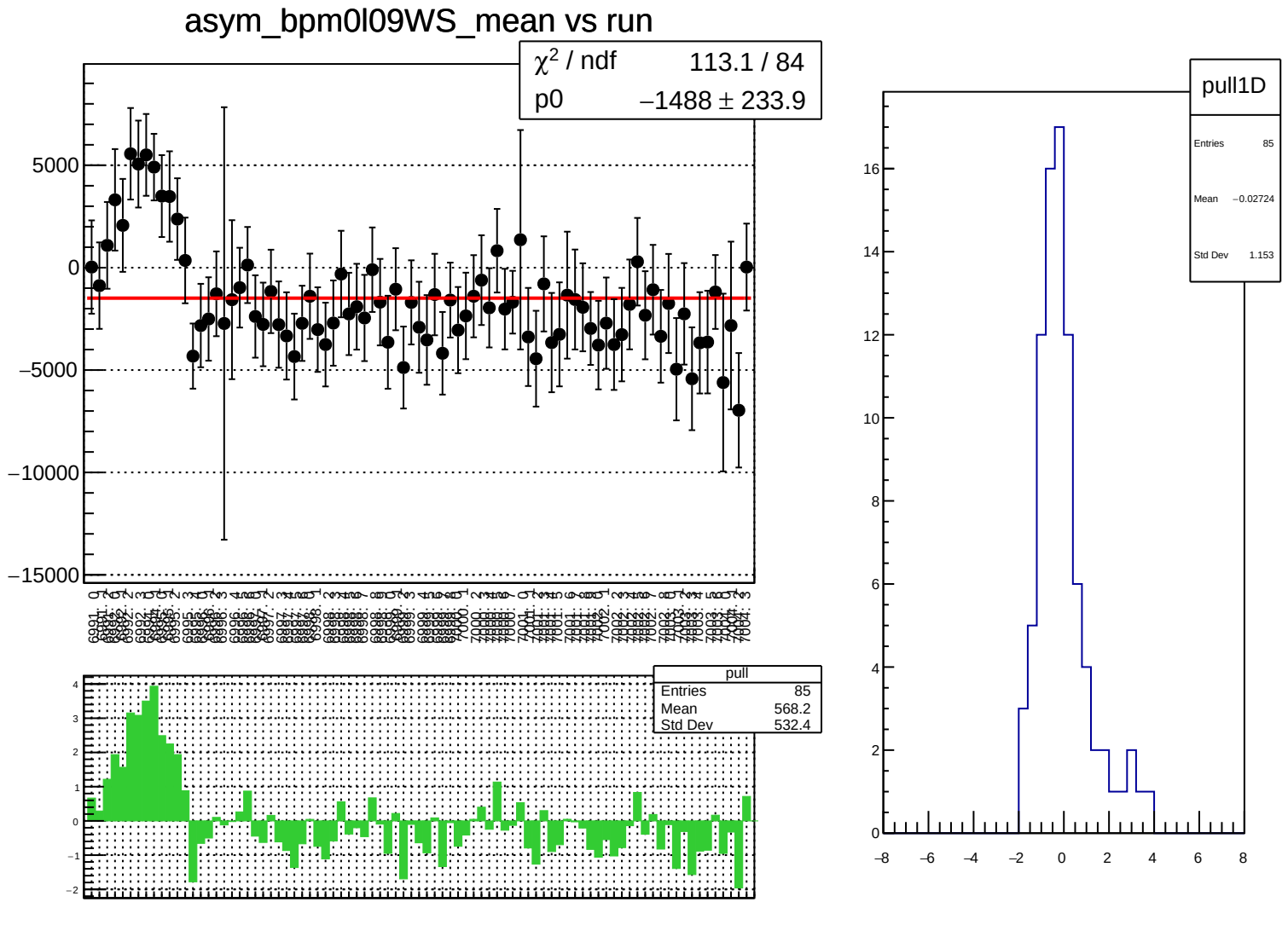

asym_bpm0l07WS_mean vs run
χ² / ndf 128.1 / 84
p0 −1529 ± 230.2
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 436.7
Std Dev 400.8
4
3
2
1
0
−1
−2

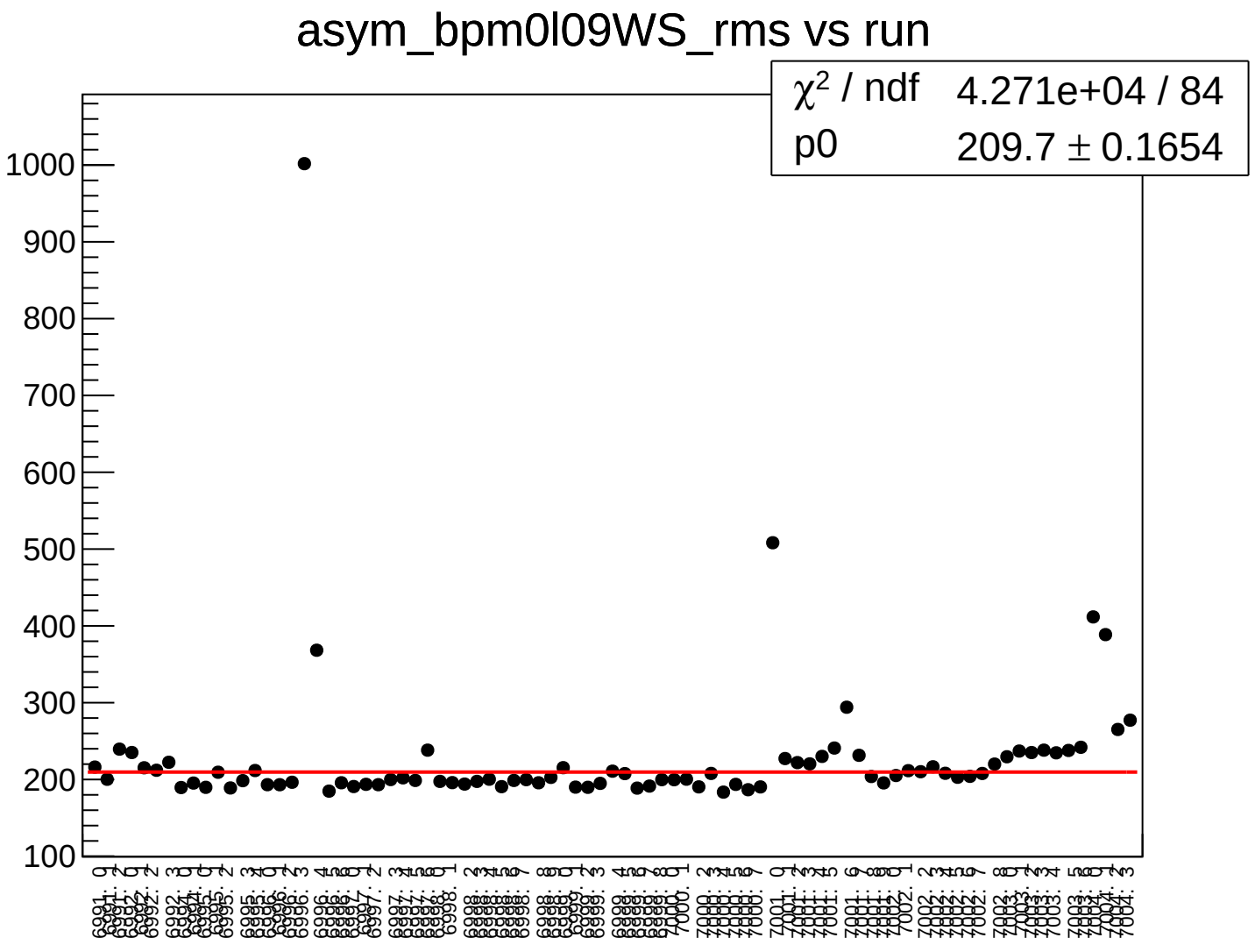

pull1D
Entries 85
Mean −0.04013
Std Dev 1.227
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

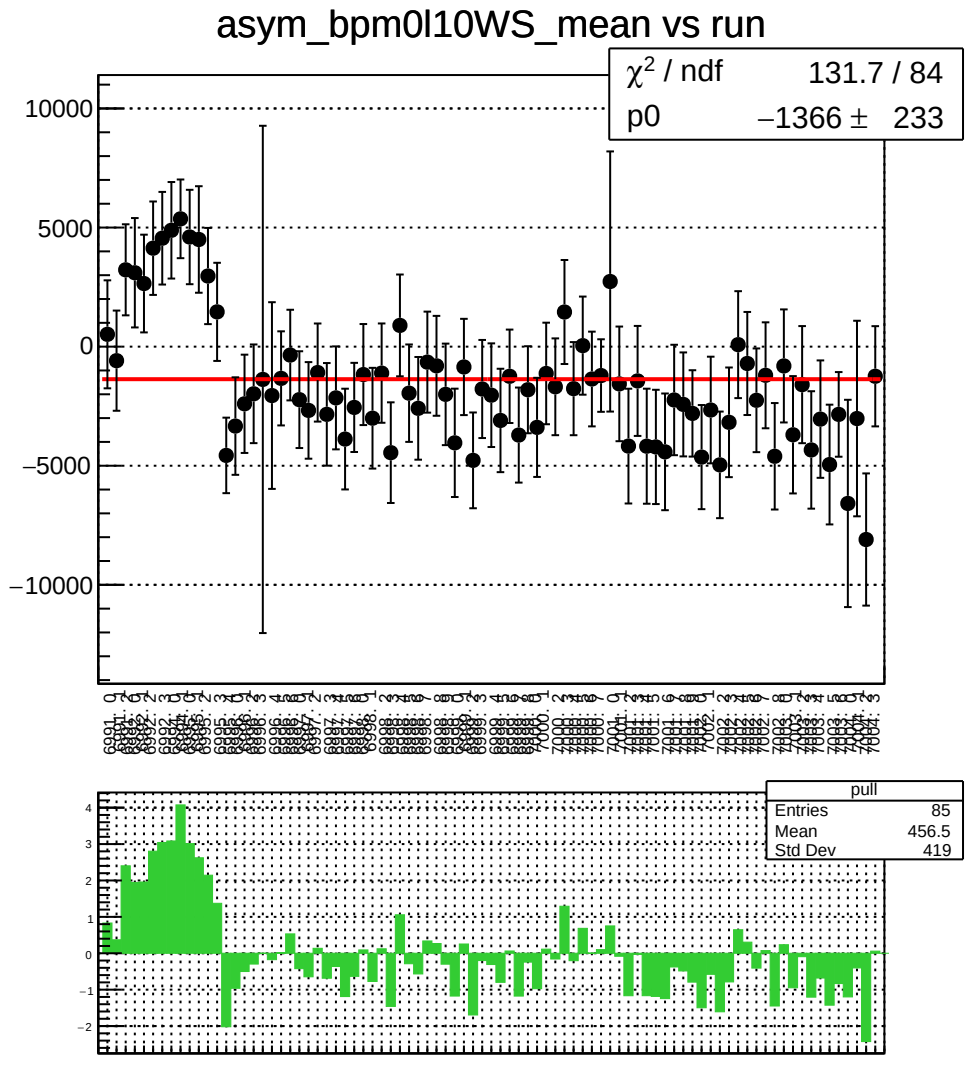

asym_bpm0l07WS_rms vs run
χ² / ndf 3.984e+04 / 84
p0 206.5 ± 0.1628
1000
800
600
400
200

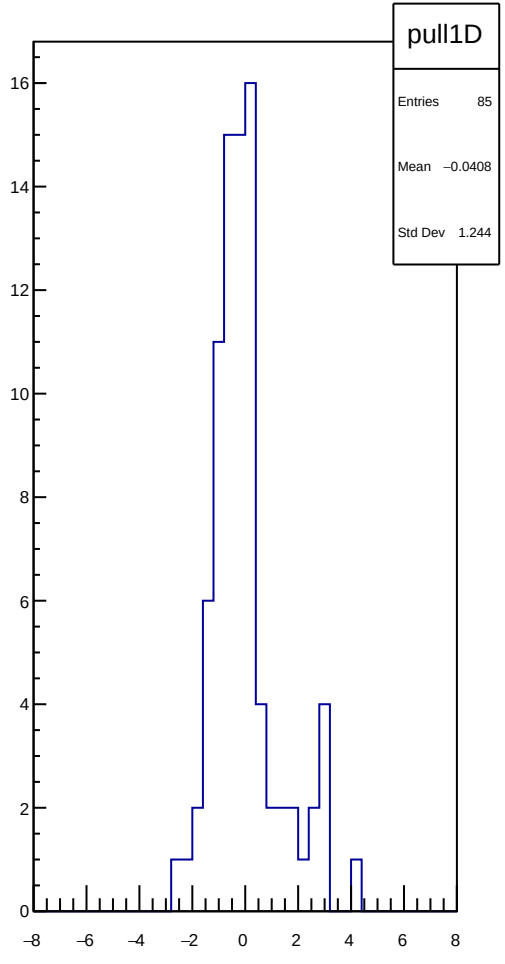

asym_bpm0l08WS_mean vs run
χ² / ndf 125.6 / 84
p0 −1509 ± 227.8
5000
0
−5000
−10000
−15000
pull
Entries 85
Mean 401.3
Std Dev 364.6
4
3
2
1
0
−1
−2
pull1D
Entries 85
Mean −0.04629
Std Dev 1.215
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


asym_bpm0l08WS_rms vs run
χ² / ndf 3.994e+04 / 84
p0 204.4 ± 0.1611
1000
800
600
400
200


asym_bpm0l09WS_mean vs run
χ² / ndf 113.1 / 84
p0 −1488 ± 233.9
5000
0
−5000
−10000
−15000
pull
Entries 85
Mean 568.2
Std Dev 532.4
pull1D
Entries 85
Mean −0.02724
Std Dev 1.153


asym_bpm0l09WS_rms vs run
χ² / ndf 4.271e+04 / 84
p0 209.7 ± 0.1654
1000
900
800
700
600
500
400
300
200
100


asym_bpm0l10WS_mean vs run
χ² / ndf 131.7 / 84
p0 −1366 ± 233
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 456.5
Std Dev 419
4
3
2
1
0
−1
−2


pull1D
Entries 85
Mean −0.0408
Std Dev 1.244
16
14
12
10
8
6
4
2
0
−8
−6
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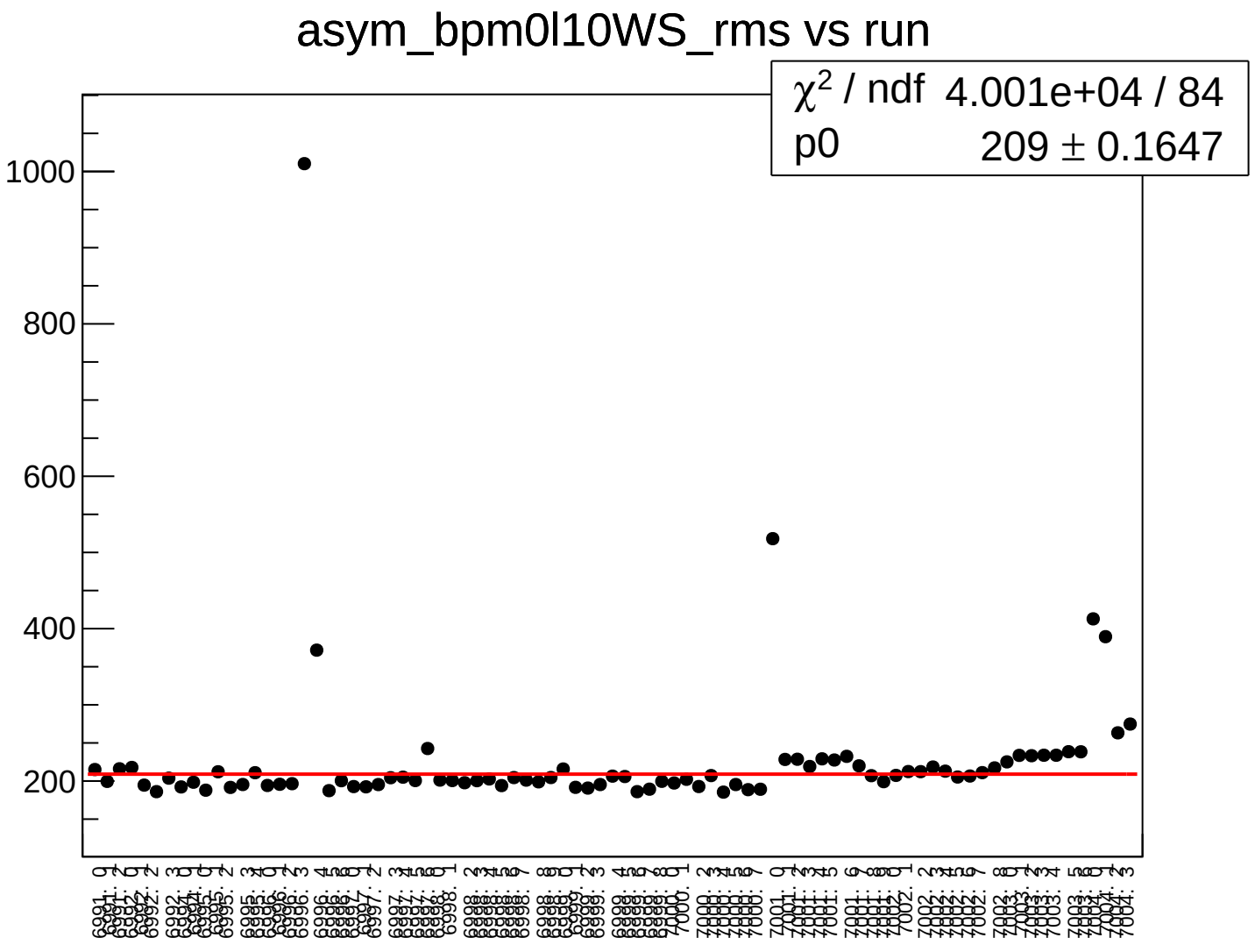
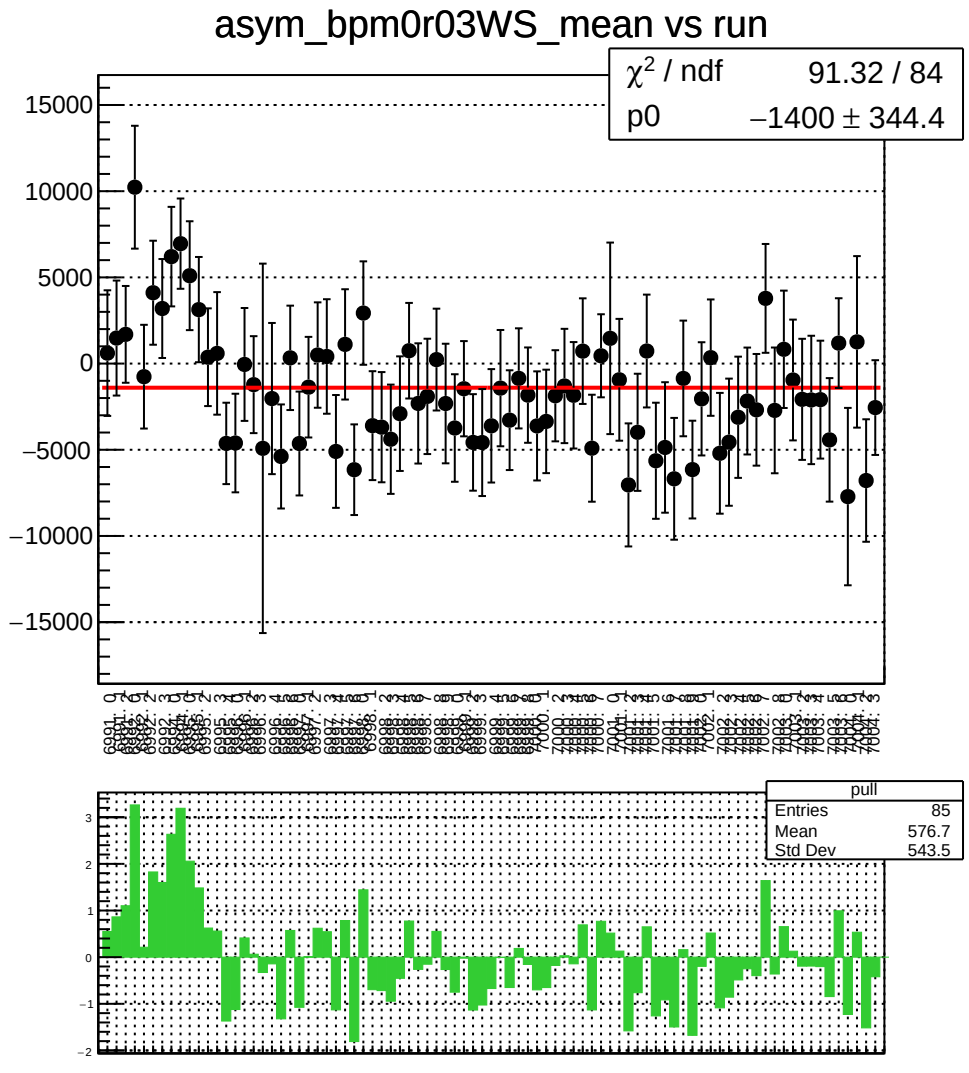
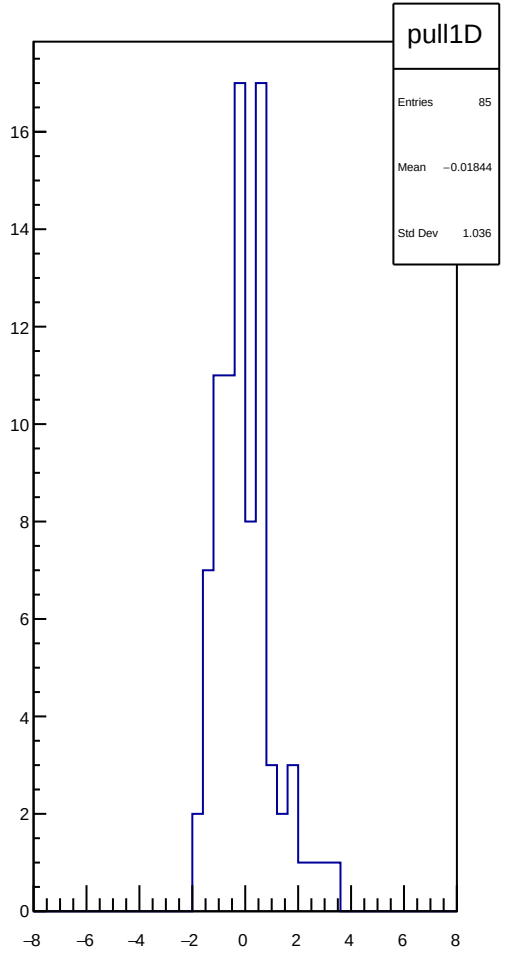
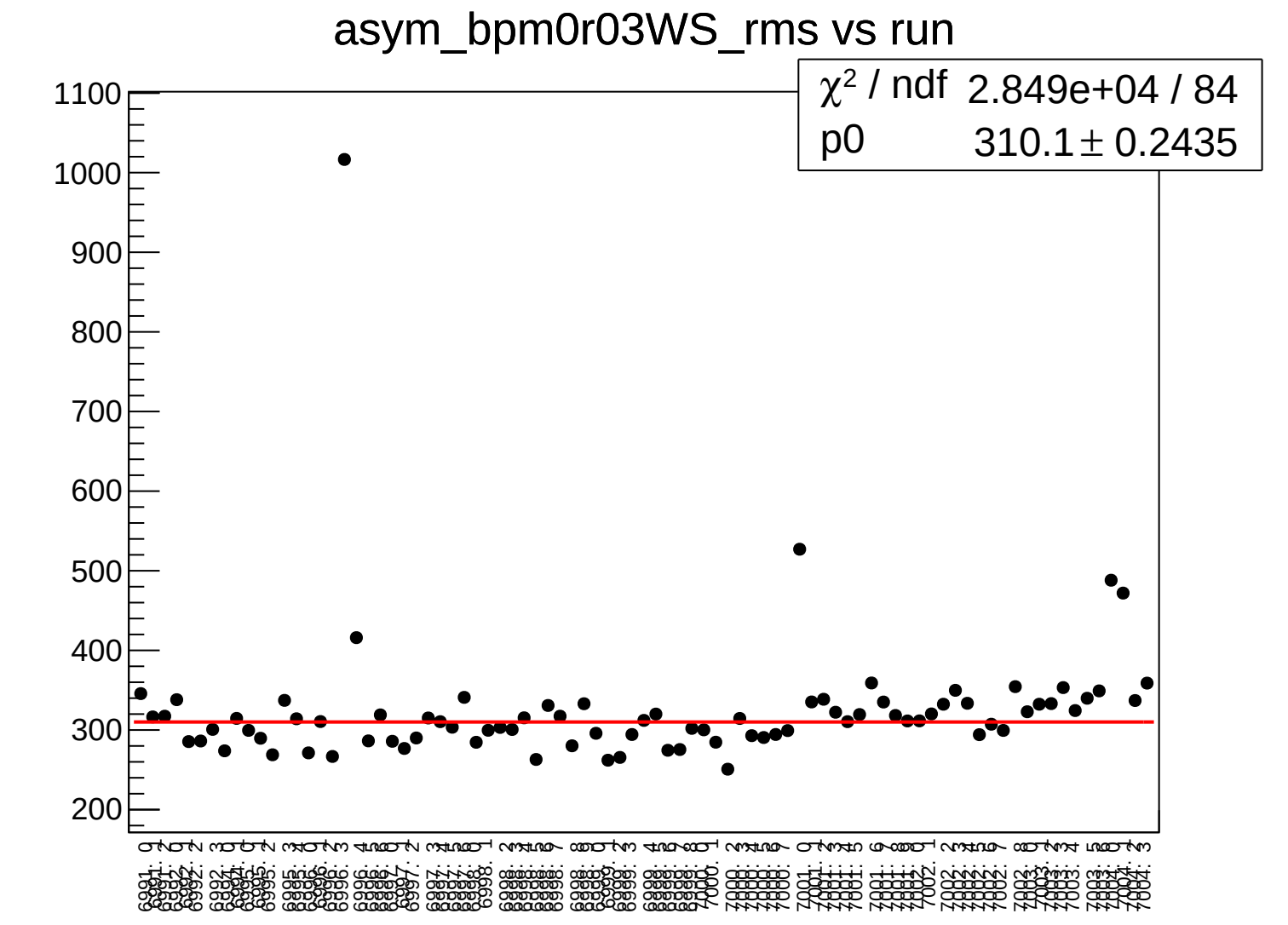
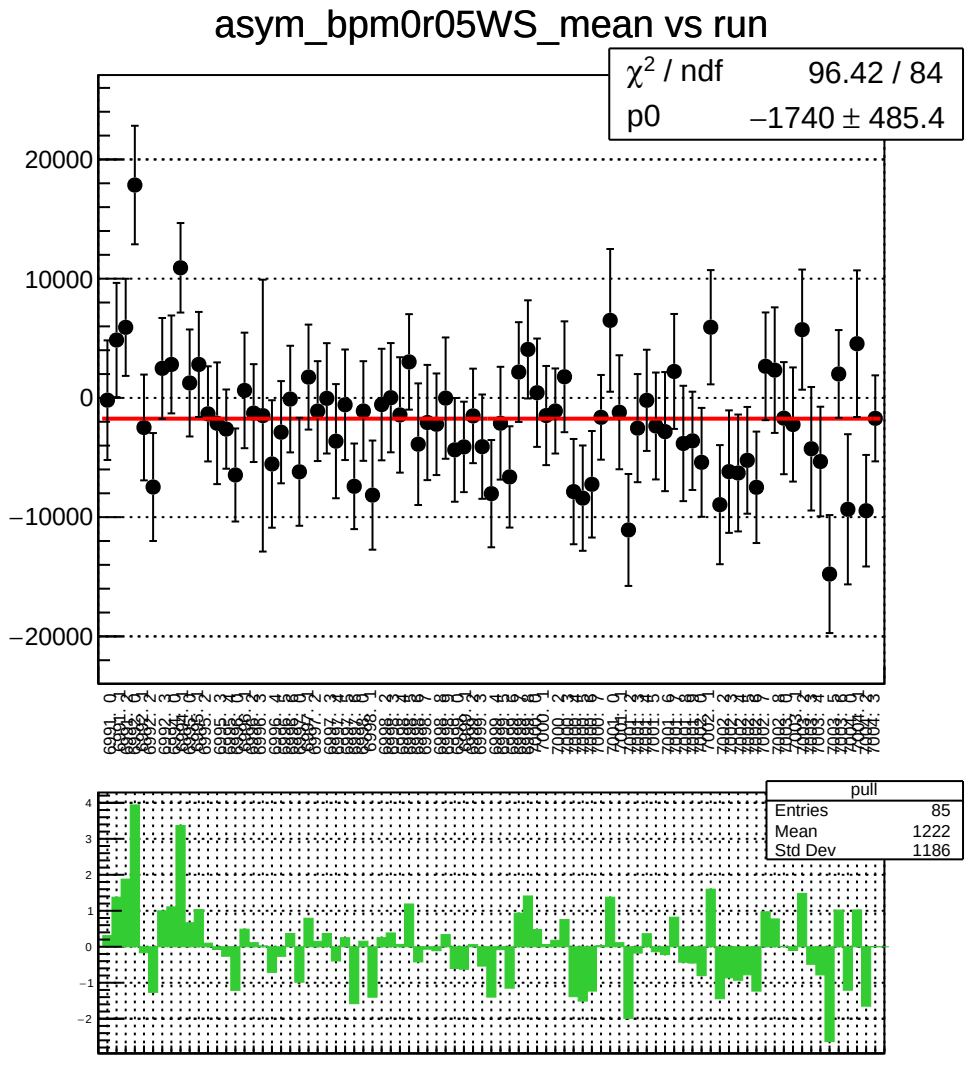
2
4
6
8

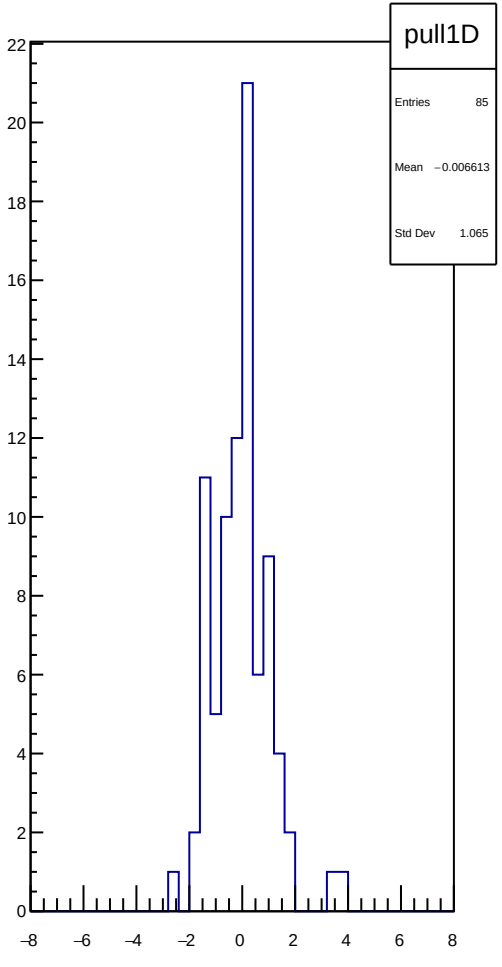

asym_bpm0l10WS_rms vs run
χ² / ndf 4.001e+04 / 84
p0 209 ± 0.1647
1000
800
600
400
200

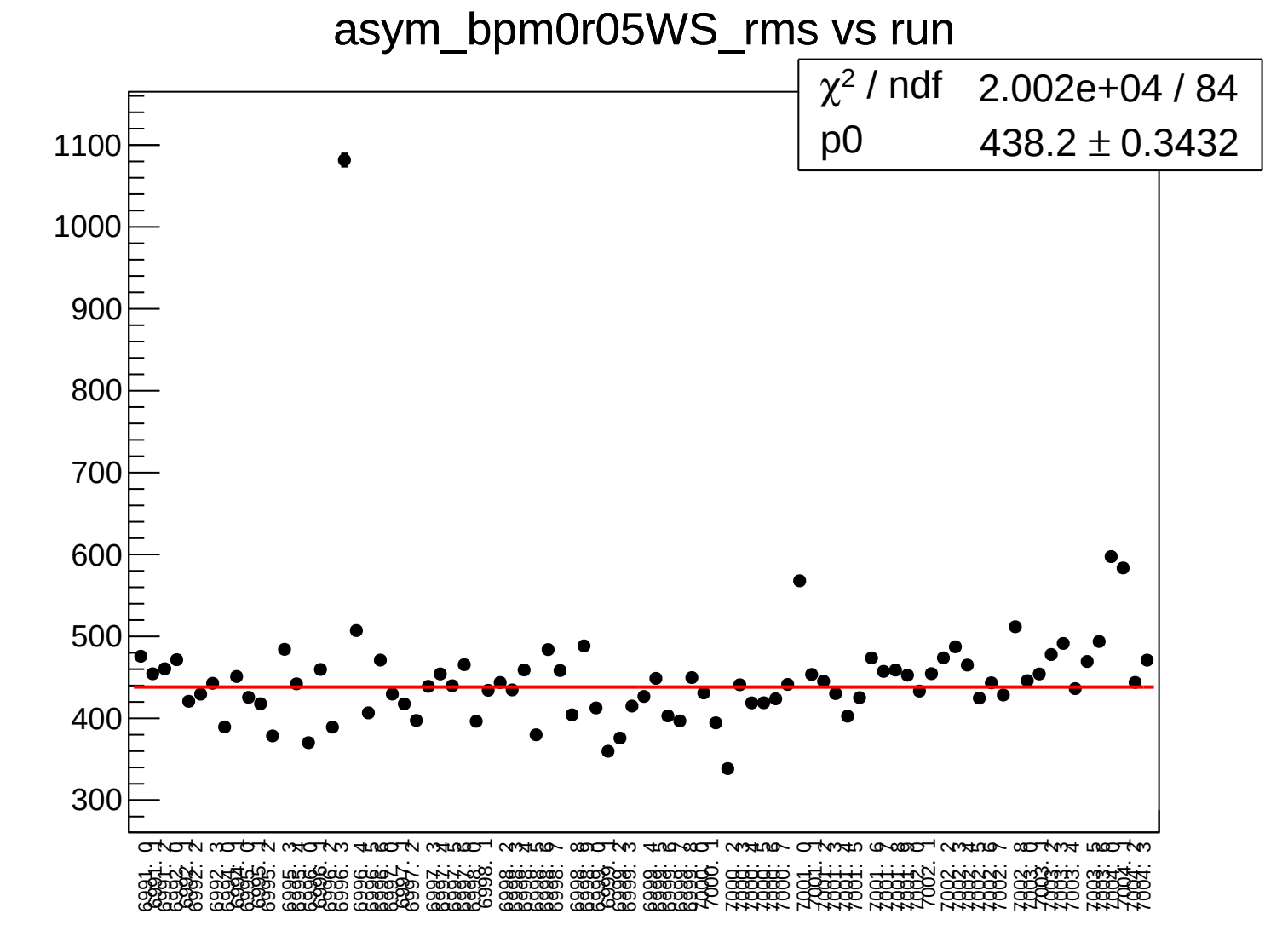

asym_bpm0r03WS_mean vs run
χ² / ndf 91.32 / 84
p0 −1400 ± 344.4
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 85
Mean 576.7
Std Dev 543.5
3
2
1
0
−1
−2

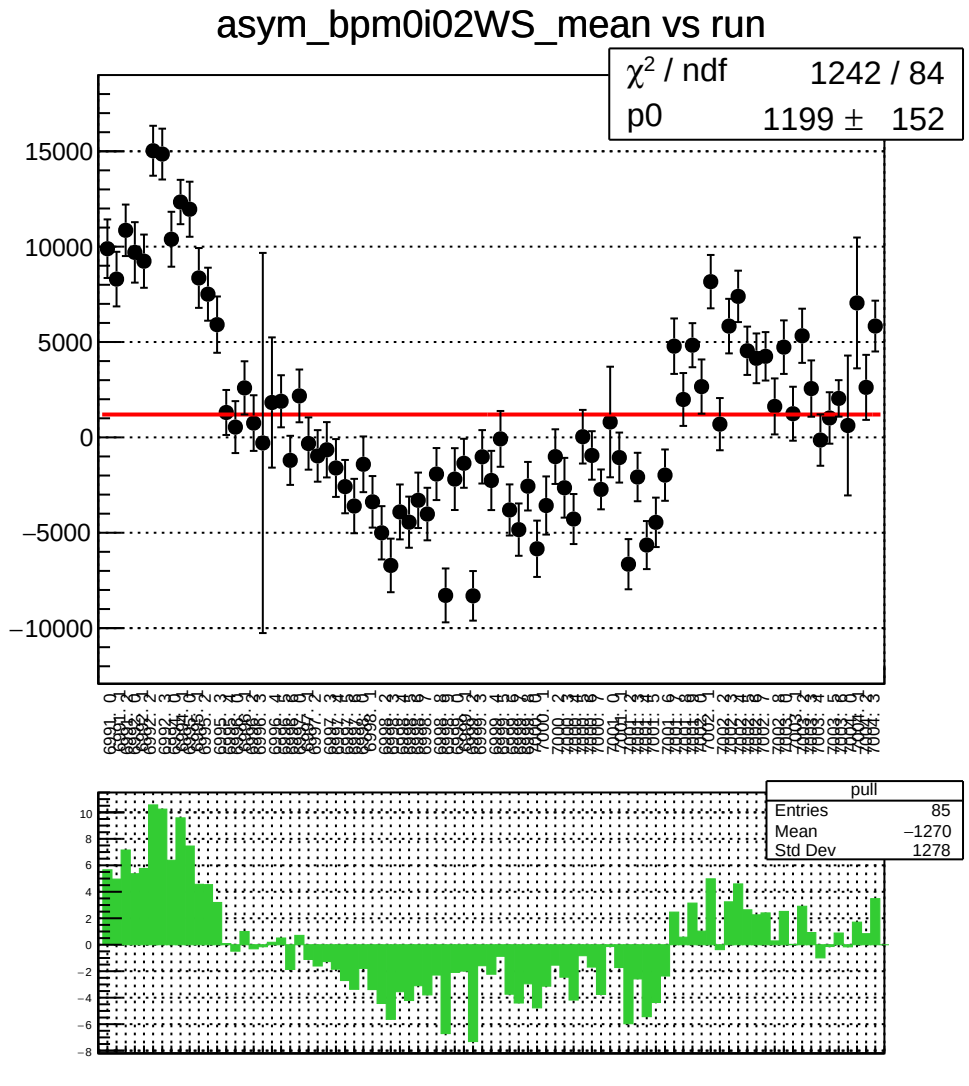

pull1D
Entries 85
Mean −0.01844
Std Dev 1.036
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

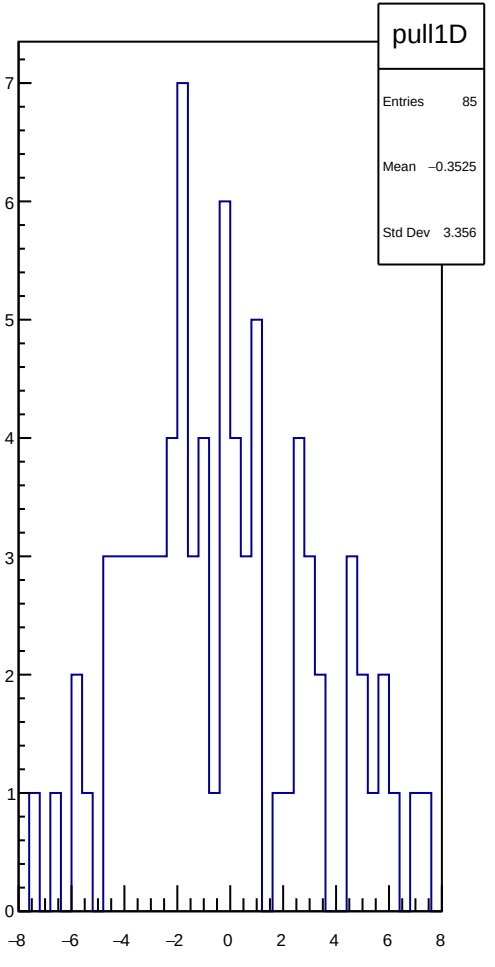

asym_bpm0r03WS_rms vs run
χ² / ndf 2.849e+04 / 84
p0 310.1 ± 0.2435
1100
1000
900
800
700
600
500
400
300
200

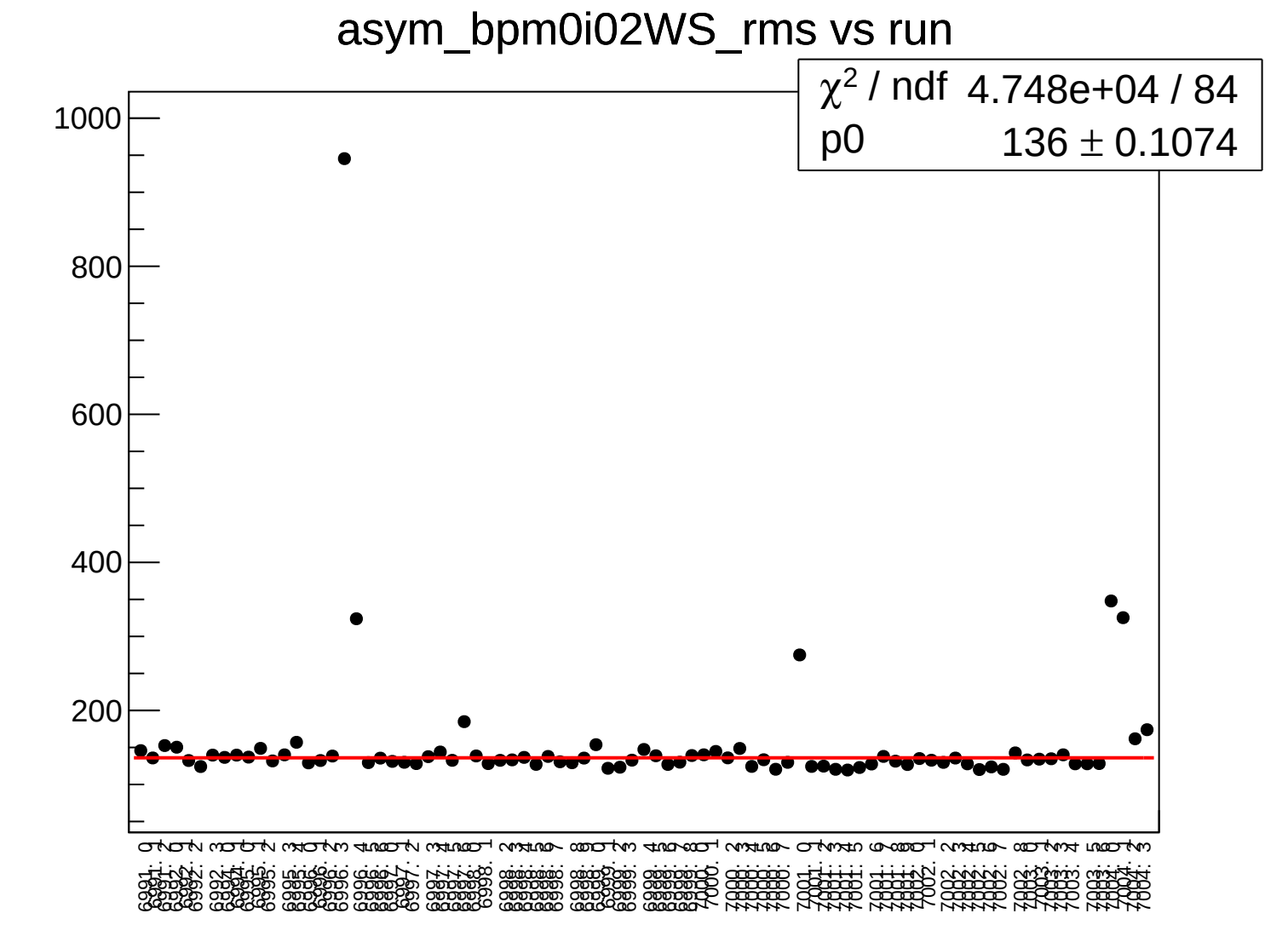

asym_bpm0r05WS_mean vs run
χ² / ndf 96.42 / 84
p0 −1740 ± 485.4
20000
10000
0
−10000
−20000
pull
Entries 85
Mean 1222
Std Dev 1186
4
3
2
1
0
−1
−2

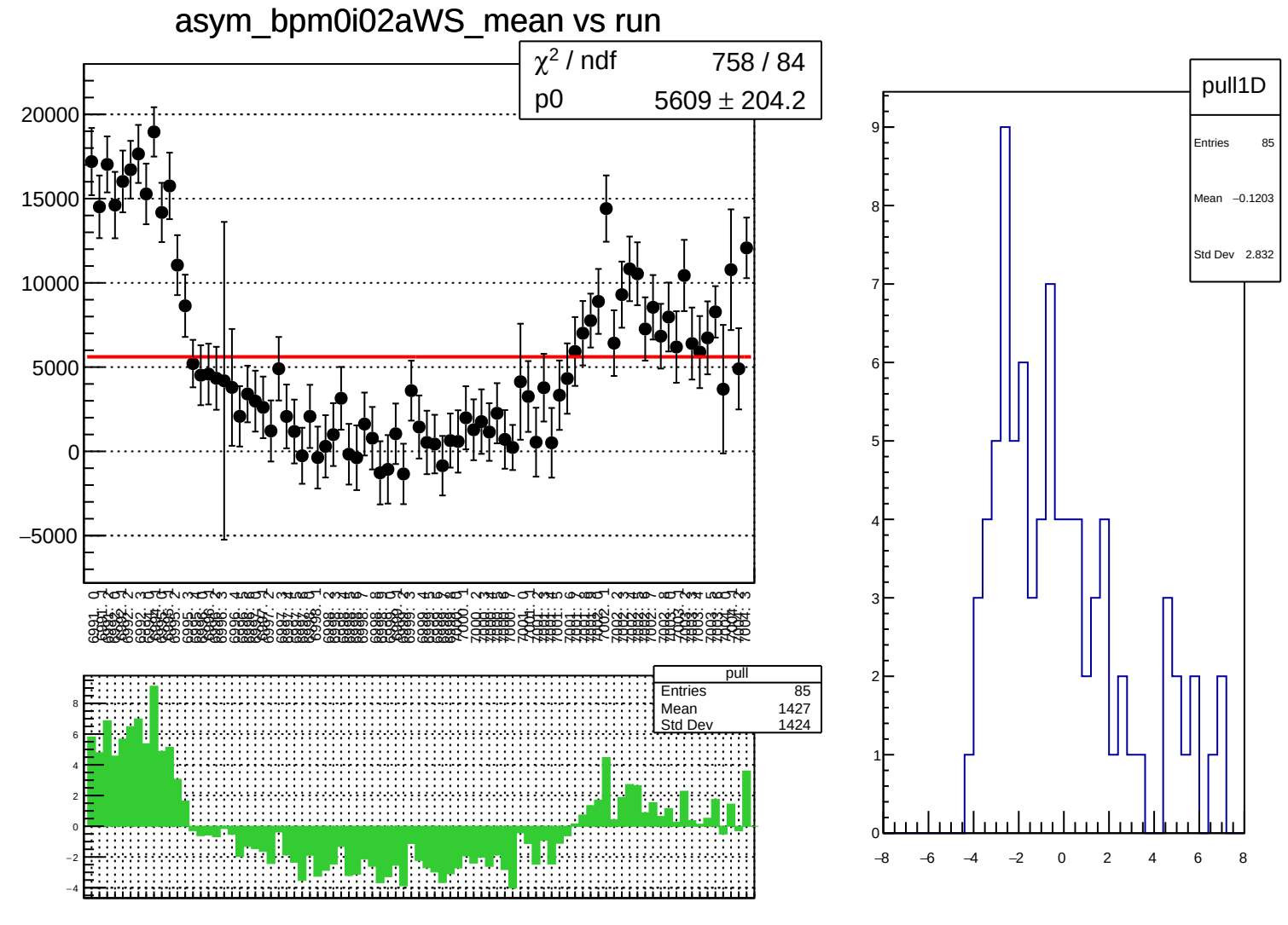

pull1D
Entries 85
Mean −0.006613
Std Dev 1.065
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

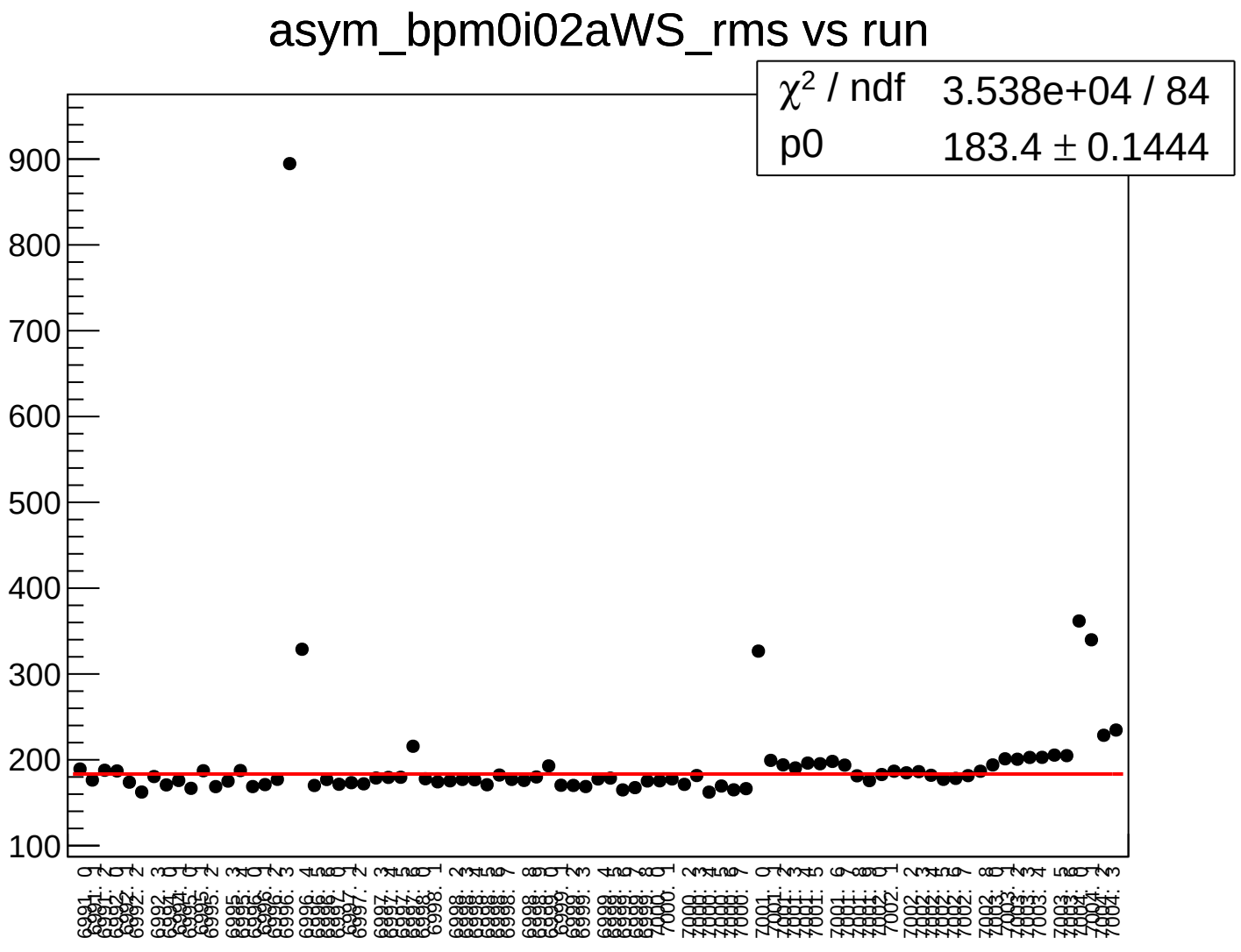

asym_bpm0r05WS_rms vs run
χ² / ndf 2.002e+04 / 84
p0 438.2 ± 0.3432
1100
1000
900
800
700
600
500
400
300

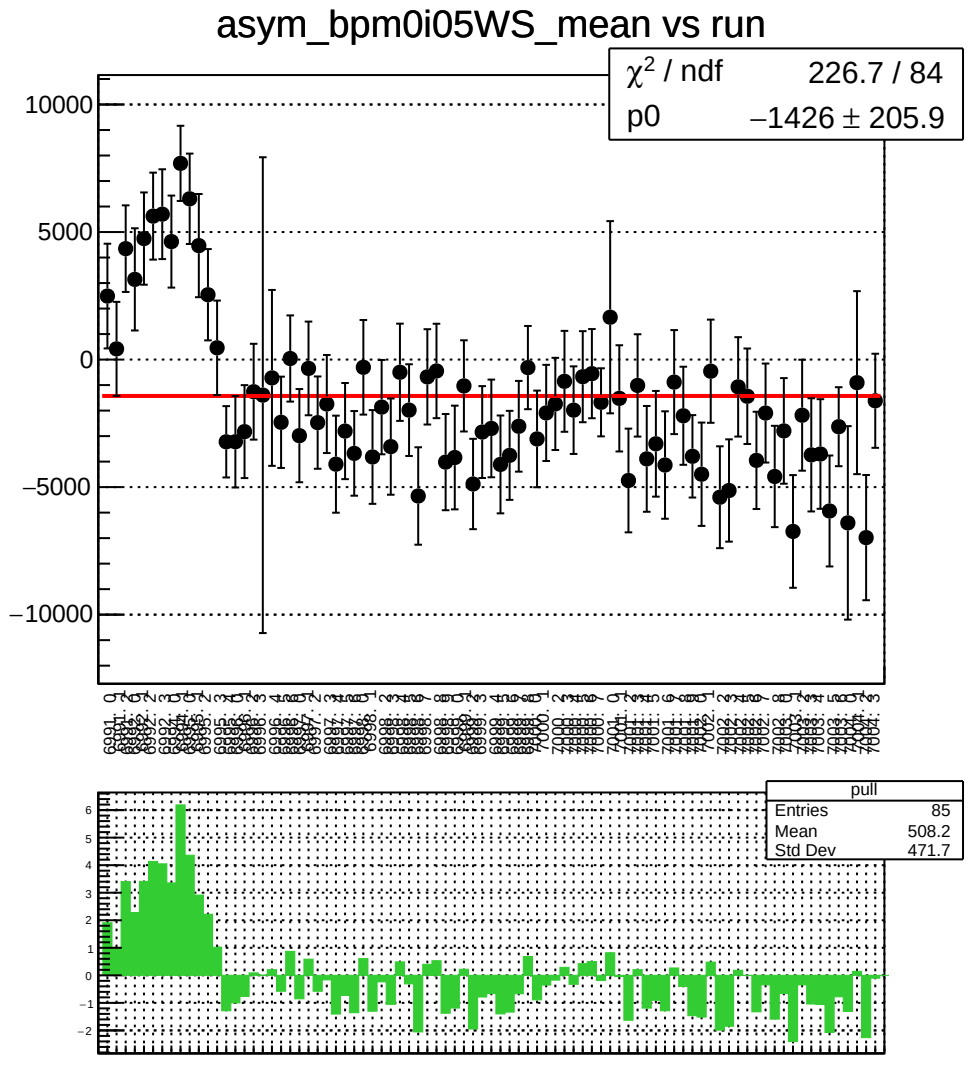

asym_bpm0i02WS_mean vs run
χ² / ndf 1242 / 84
p0 1199 ± 152
15000
10000
5000
0
−5000
−10000
pull
Entries 85
Mean −1270
Std Dev 1278
10
8
6
4
2
0
−2
−4
−6
−8

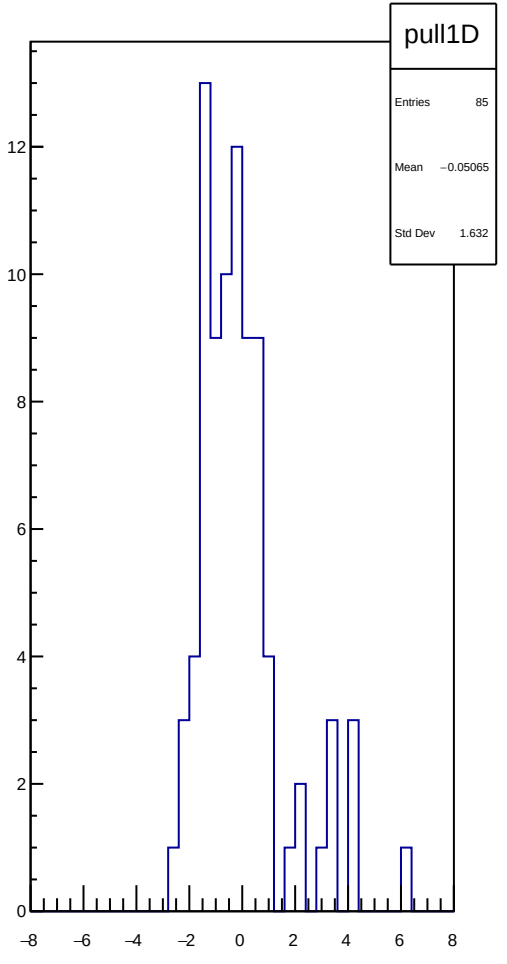

pull1D
Entries 85
Mean −0.3525
Std Dev 3.356
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

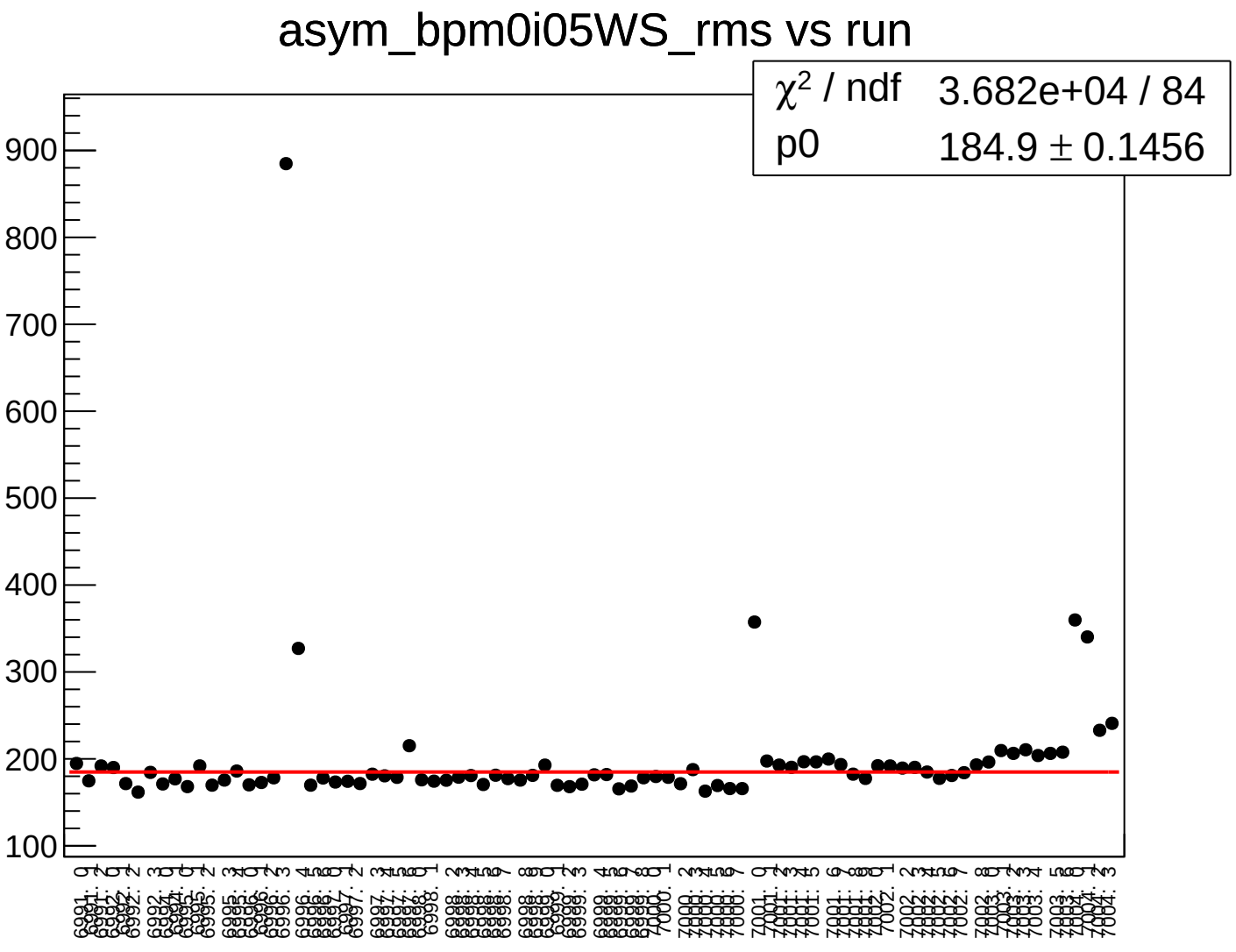

asym_bpm0i02WS_rms vs run
χ² / ndf 4.748e+04 / 84
p0 136 ± 0.1074
1000
800
600
400
200

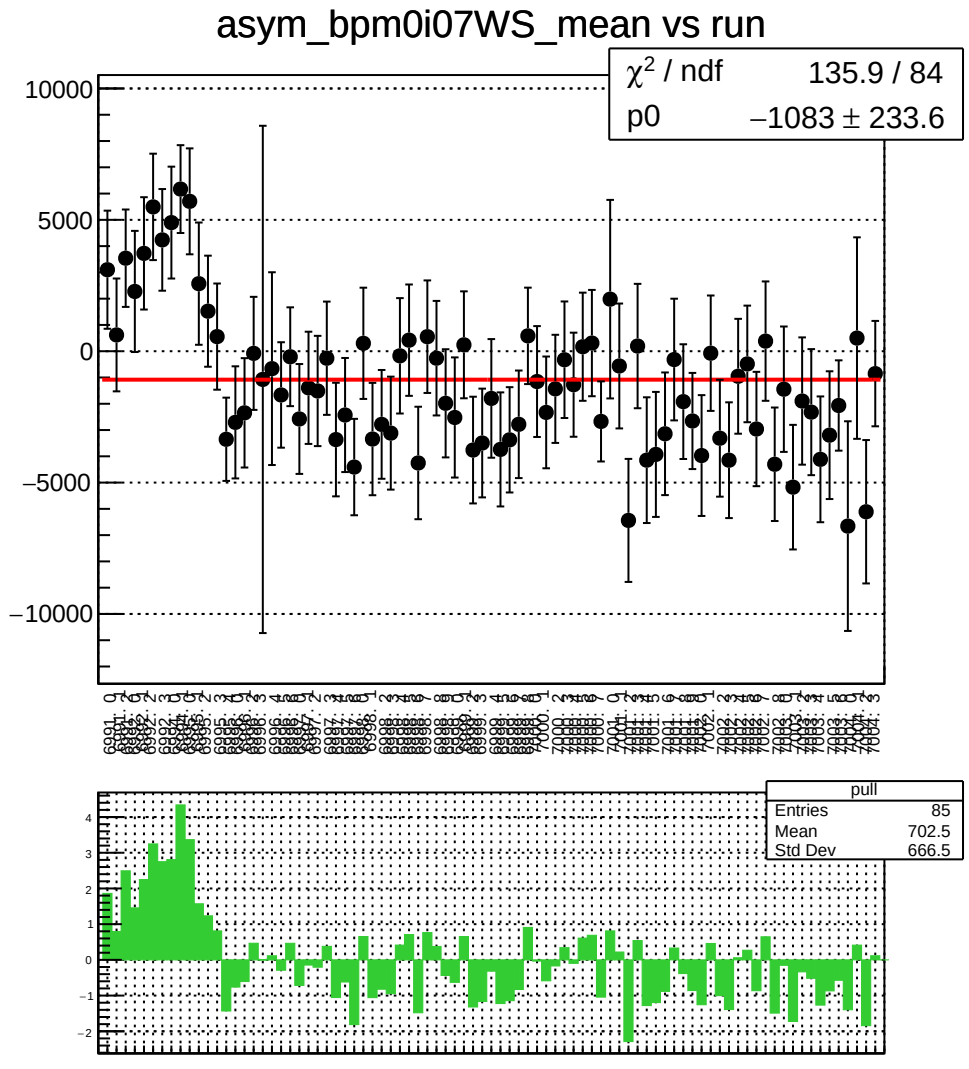

asym_bpm0i02aWS_mean vs run
χ² / ndf 758 / 84
p0 5609 ± 204.2
20000
15000
10000
5000
0
−5000
pull
Entries 85
Mean 1427
Std Dev 1424
pull1D
Entries 85
Mean −0.1203
Std Dev 2.832

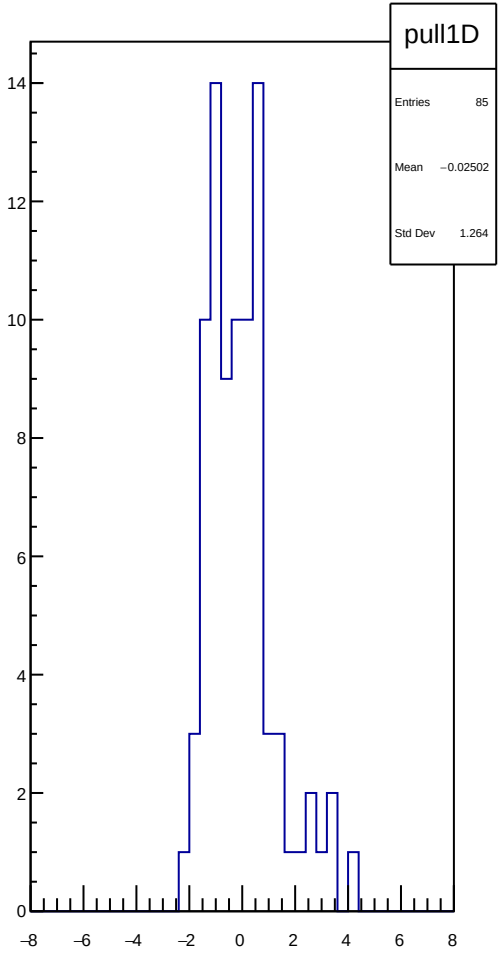

asym_bpm0i02aWS_rms vs run
χ² / ndf 3.538e+04 / 84
p0 183.4 ± 0.1444
900
800
700
600
500
400
300
200
100

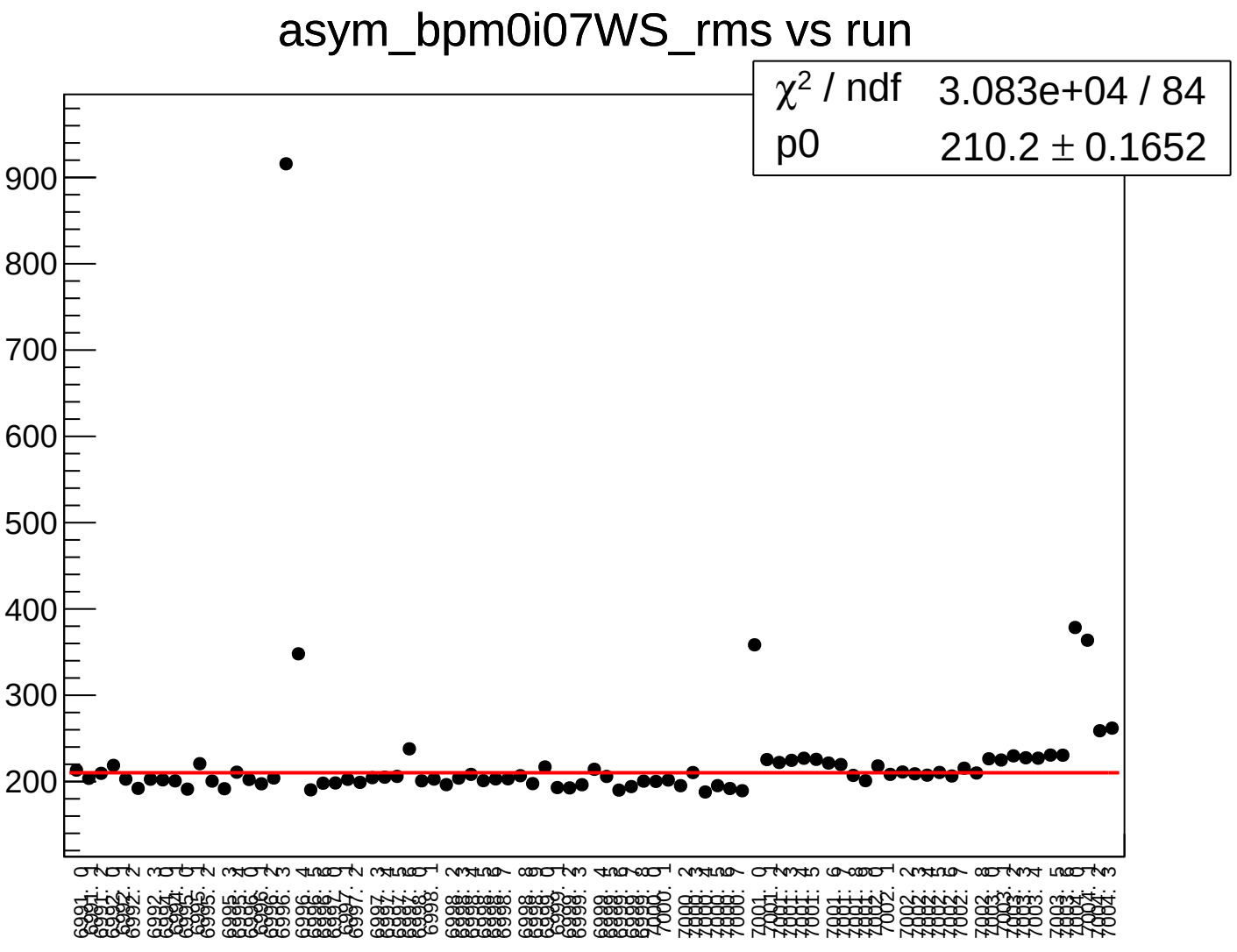

asym_bpm0i05WS_mean vs run
χ² / ndf 226.7 / 84
p0 −1426 ± 205.9
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 508.2
Std Dev 471.7
6
5
4
3
2
1
0
−1
−2

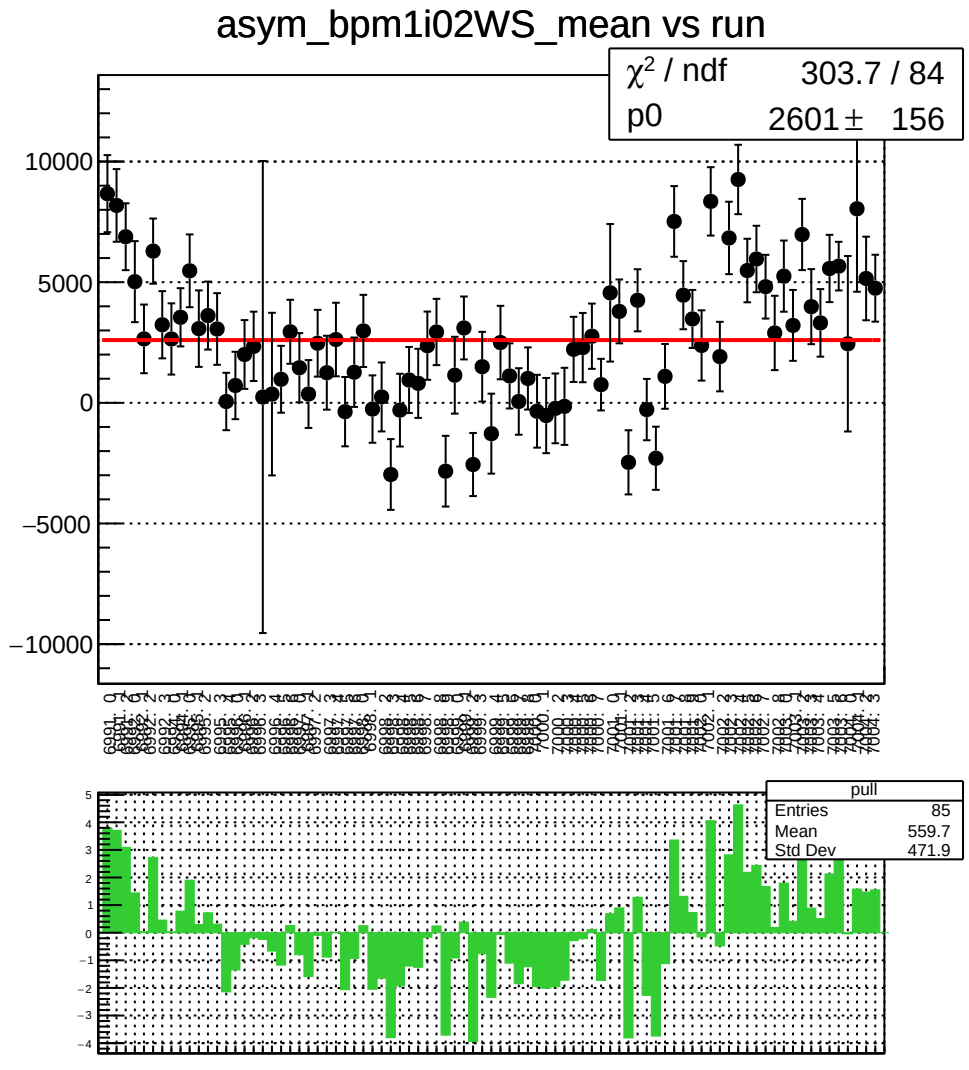

pull1D
Entries 85
Mean −0.05065
Std Dev 1.632
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

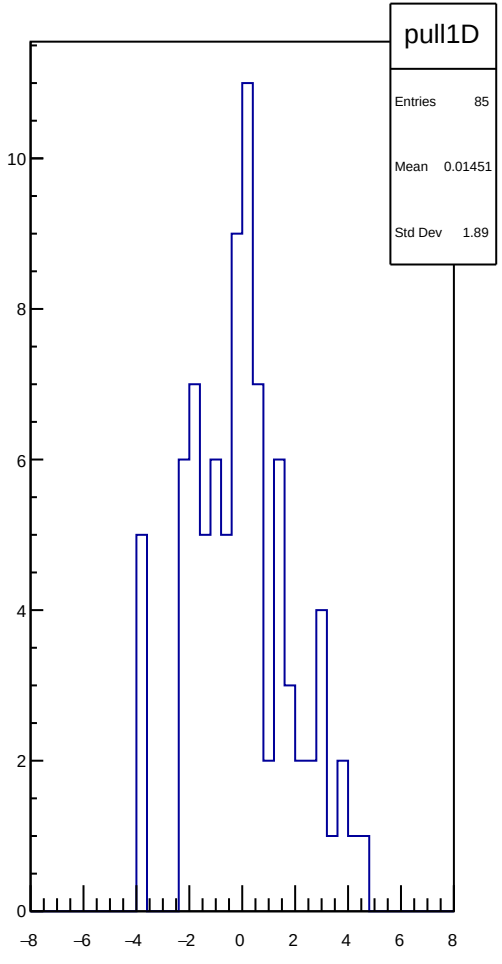

asym_bpm0i05WS_rms vs run
χ² / ndf 3.682e+04 / 84
p0 184.9 ± 0.1456
900
800
700
600
500
400
300
200
100

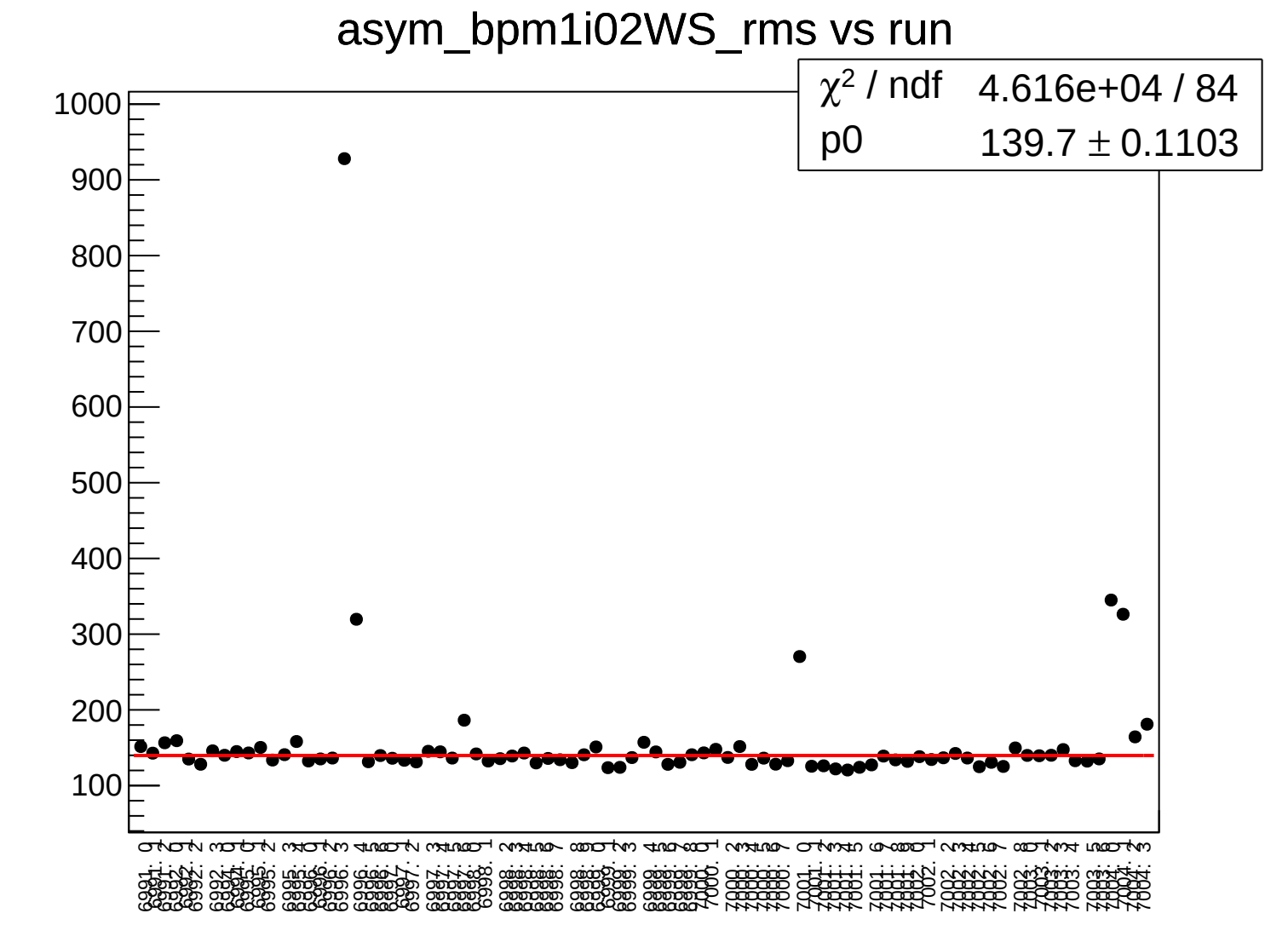

asym_bpm0i07WS_mean vs run
χ² / ndf 135.9 / 84
p0 −1083 ± 233.6
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 702.5
Std Dev 666.5
4
3
2
1
0
−1
−2

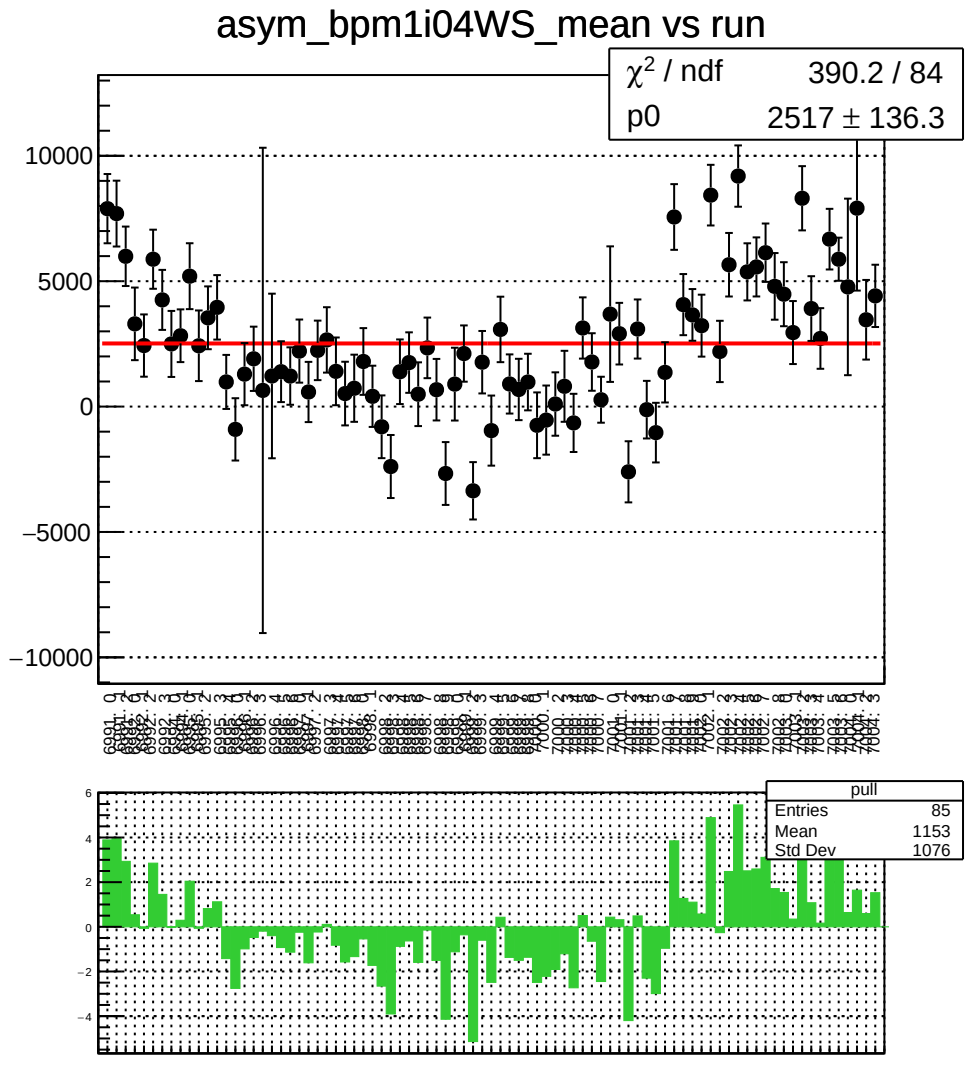

pull1D
Entries 85
Mean −0.02502
Std Dev 1.264
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

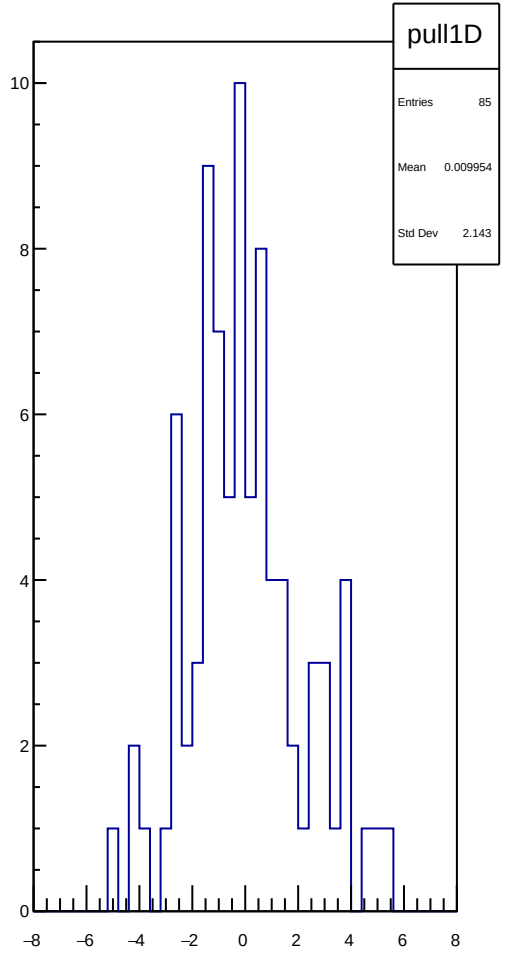

asym_bpm0i07WS_rms vs run
χ² / ndf 3.083e+04 / 84
p0 210.2 ± 0.1652
900
800
700
600
500
400
300
200

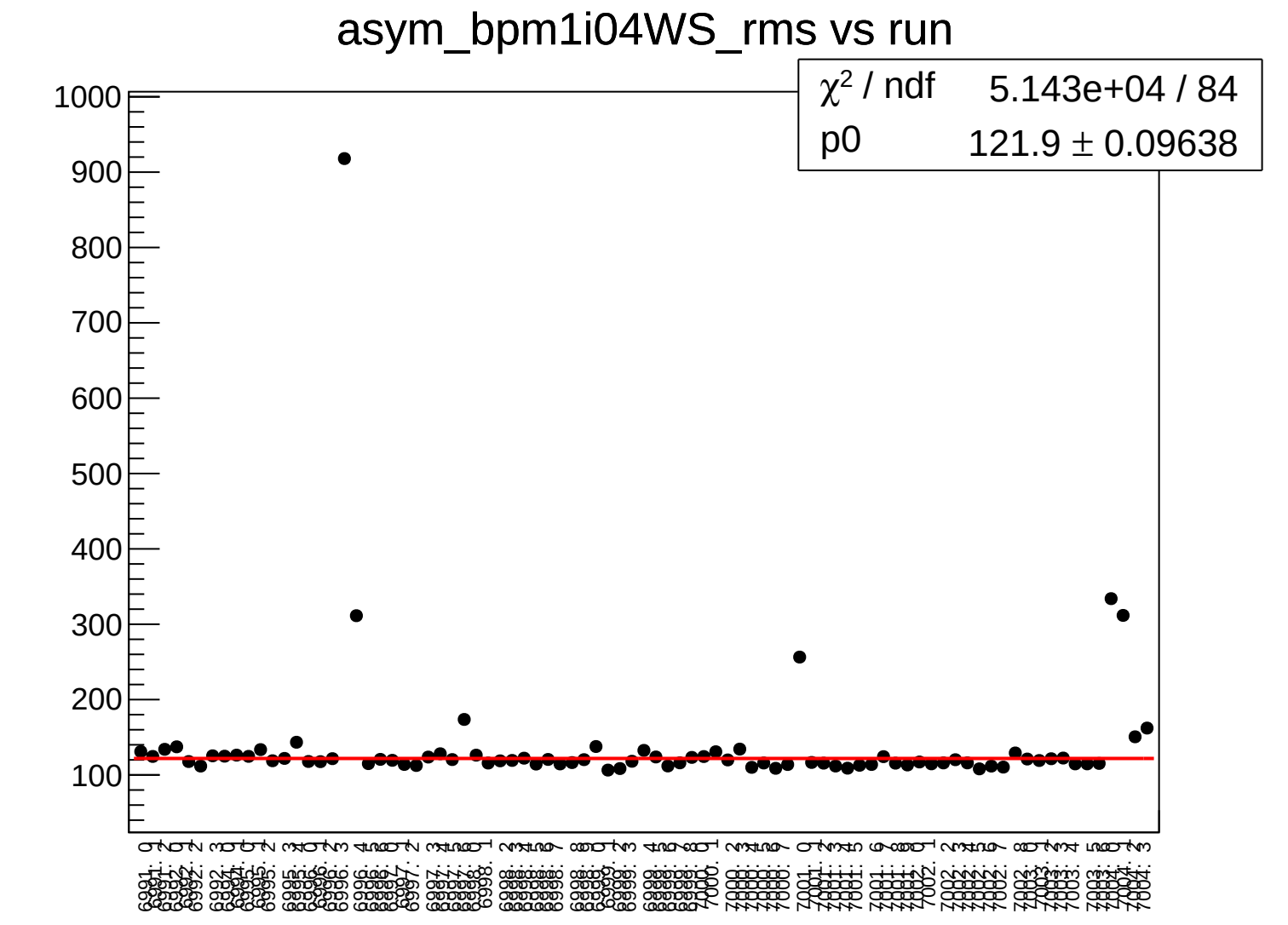

asym_bpm1i02WS_mean vs run
χ² / ndf 303.7 / 84
p0 2601 ± 156
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 559.7
Std Dev 471.9
5
4
3
2
1
0
−1
−2
−3
−4

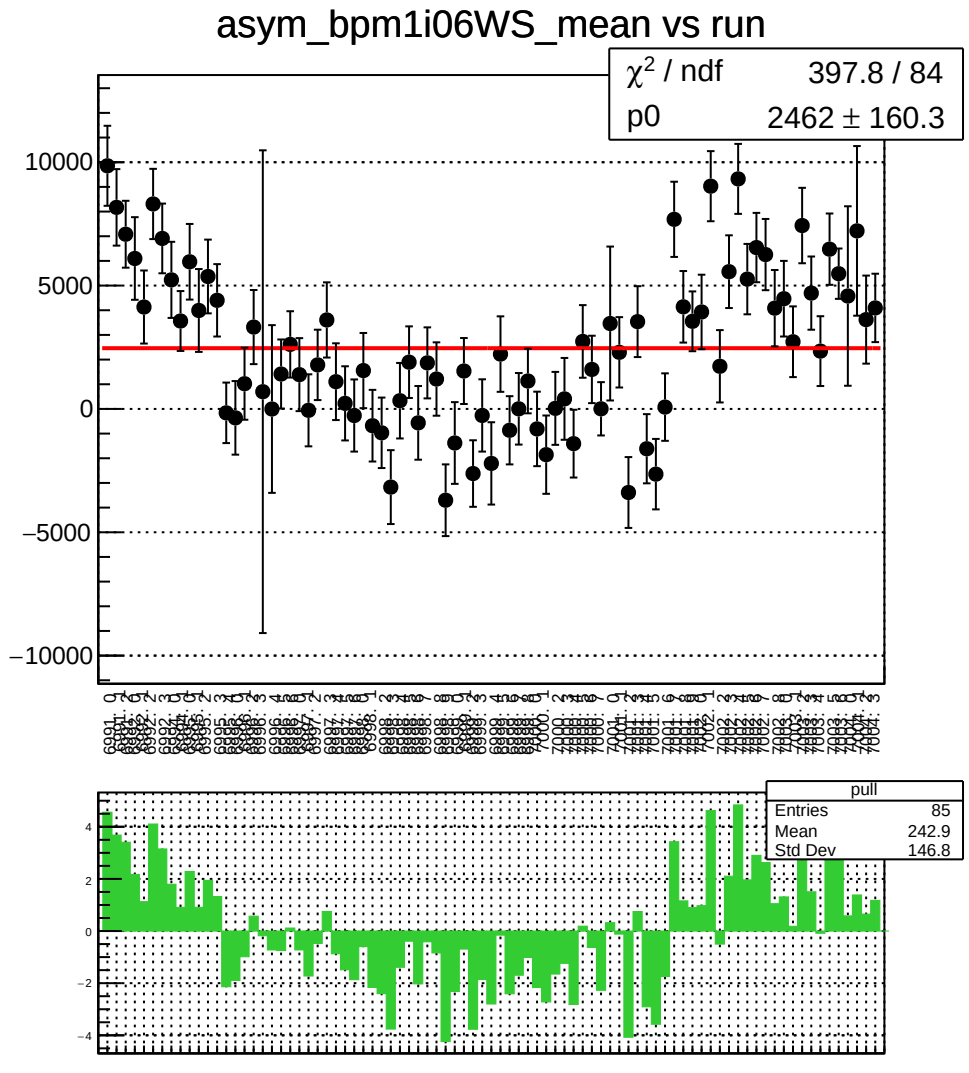

pull1D
Entries 85
Mean 0.01451
Std Dev 1.89
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

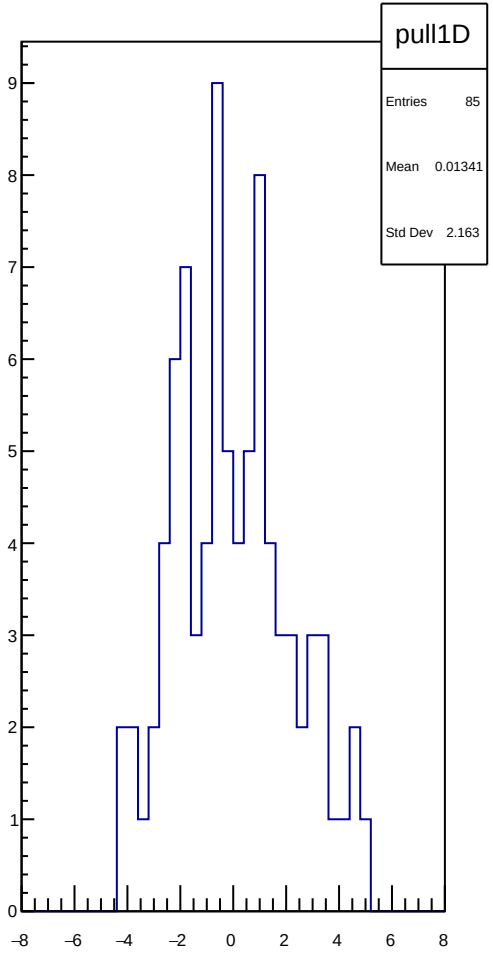

asym_bpm1i02WS_rms vs run
χ² / ndf 4.616e+04 / 84
p0 139.7 ± 0.1103
1000
900
800
700
600
500
400
300
200
100

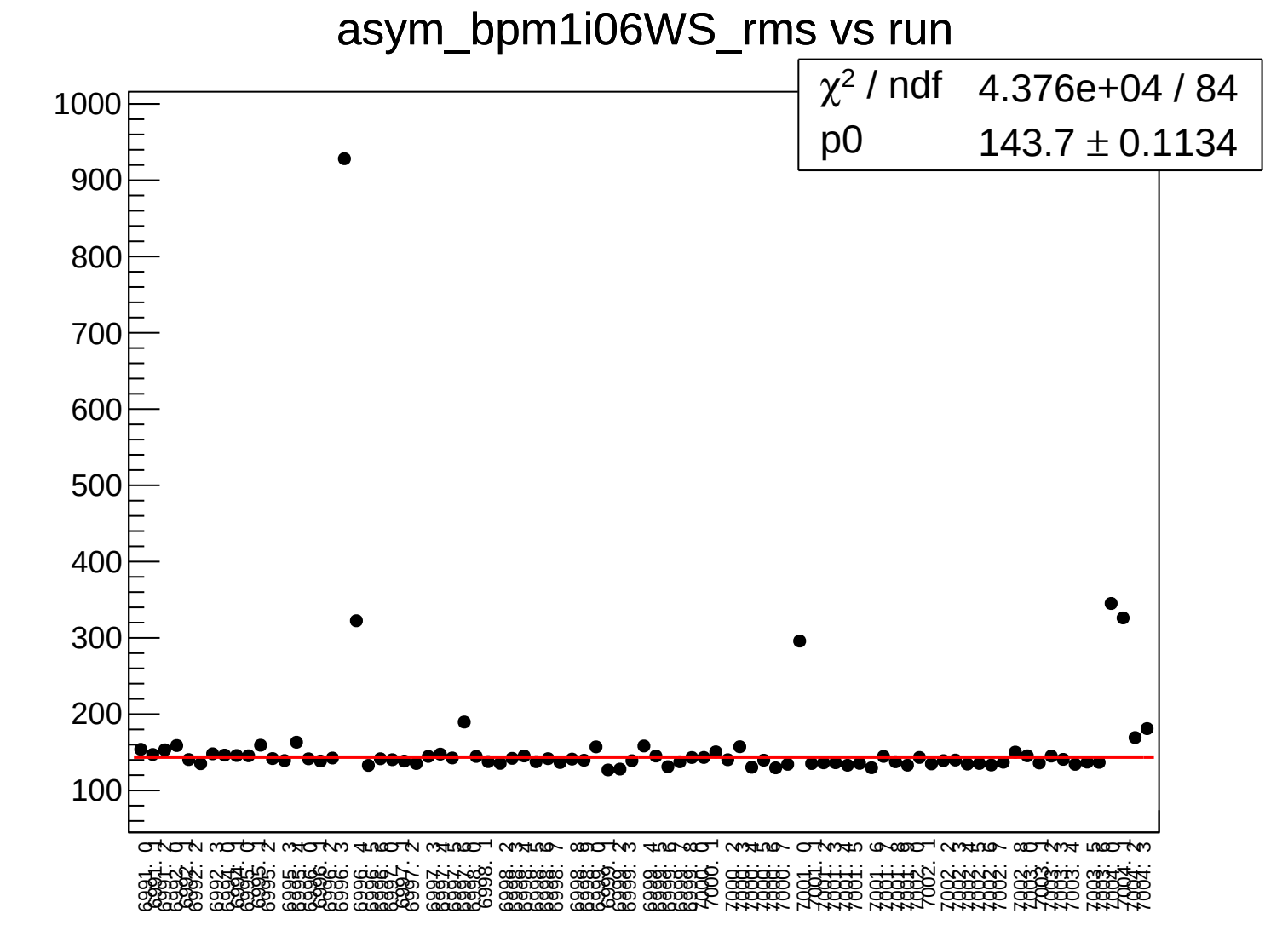

asym_bpm1i04WS_mean vs run
χ^2 / ndf 390.2 / 84
p0 2517 ± 136.3
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 1153
Std Dev 1076
6
4
2
0
−2
−4

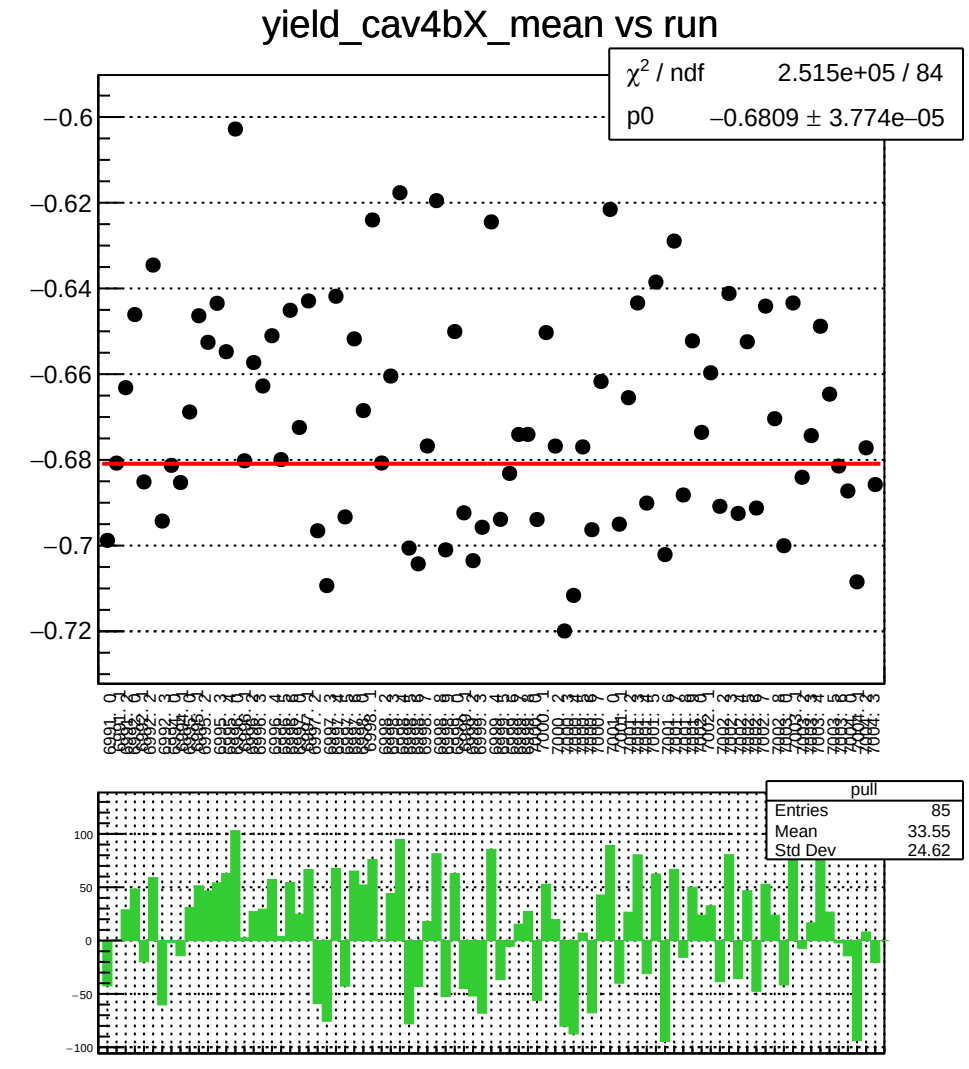

pull1D
Entries 85
Mean 0.009954
Std Dev 2.143
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

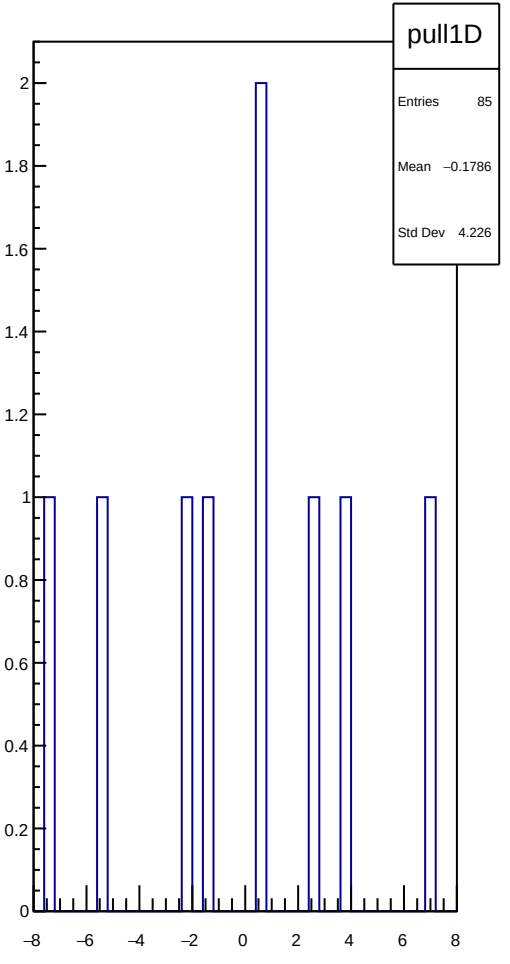

asym_bpm1i04WS_rms vs run
χ^2 / ndf 5.143e+04 / 84
p0 121.9 ± 0.09638
1000
900
800
700
600
500
400
300
200
100

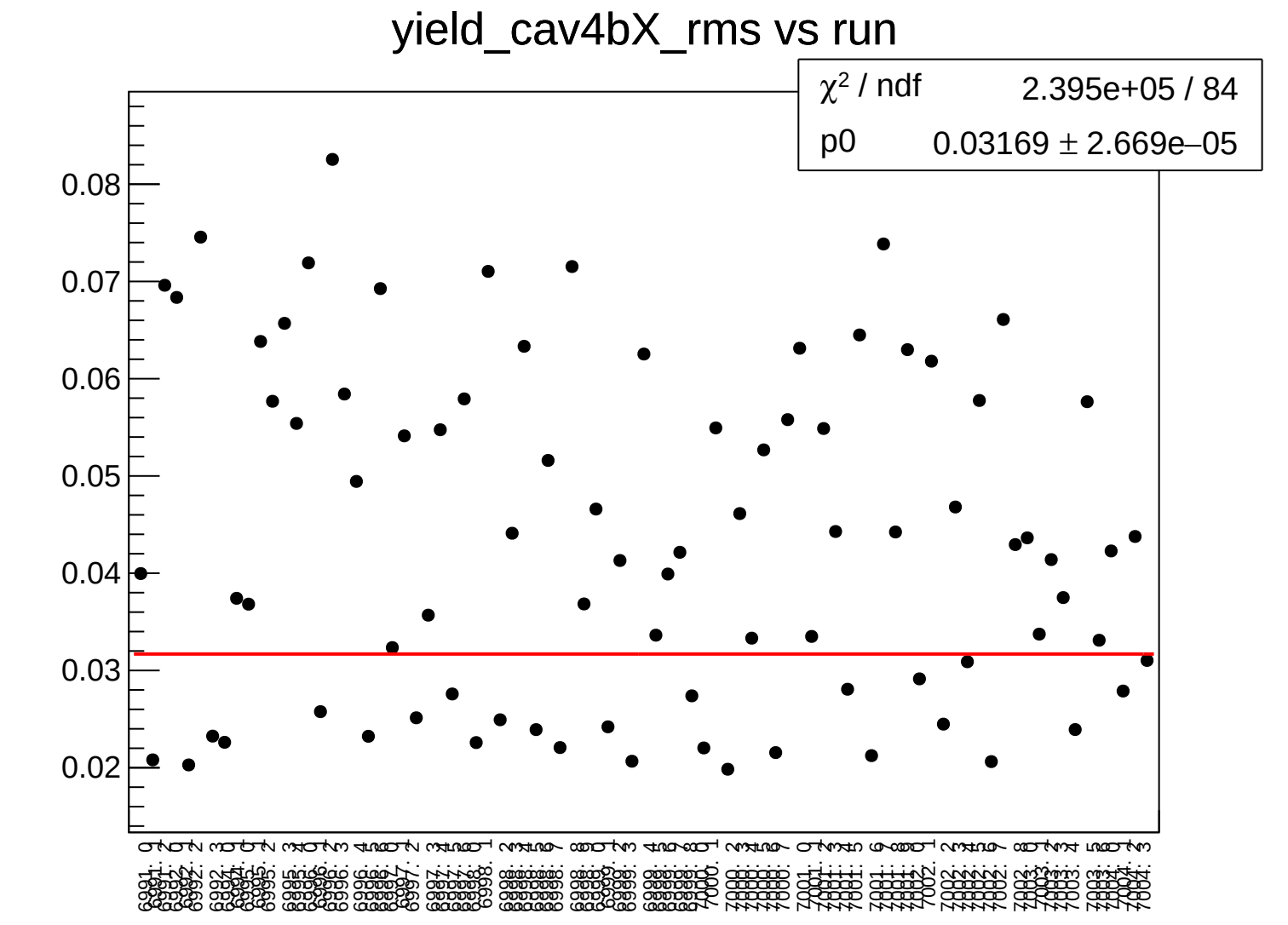

asym_bpm1i06WS_mean vs run
χ^2 / ndf 397.8 / 84
p0 2462 ± 160.3
10000
5000
0
−5000
−10000
pull
Entries 85
Mean 242.9
Std Dev 146.8
4
2
0
−2
−4

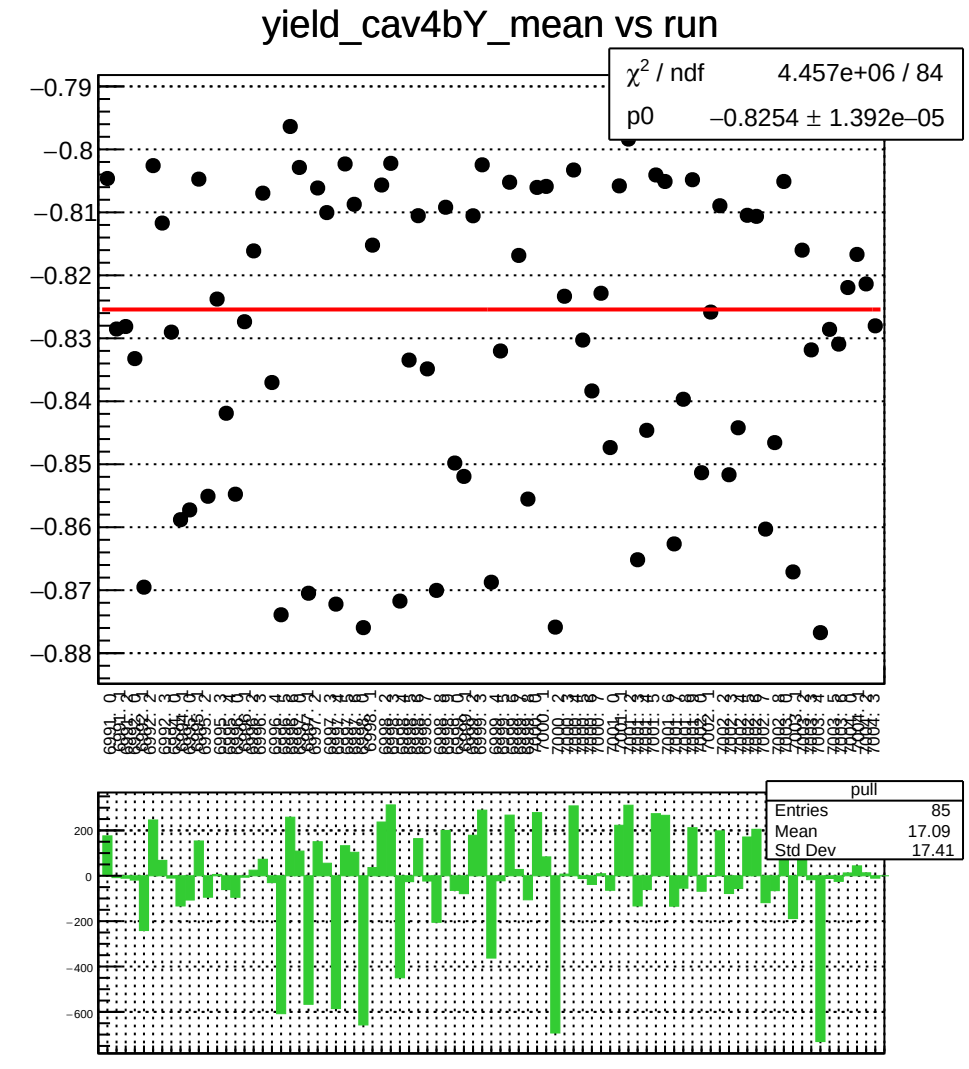

pull1D
Entries 85
Mean 0.01341
Std Dev 2.163
9
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

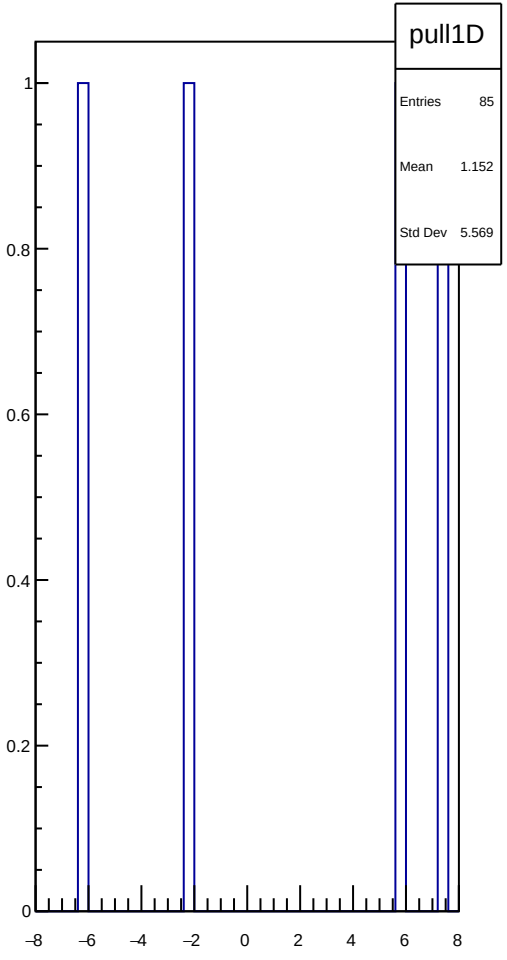

asym_bpm1i06WS_rms vs run
χ² / ndf 4.376e+04 / 84
p0 143.7 ± 0.1134
1000
900
800
700
600
500
400
300
200
100

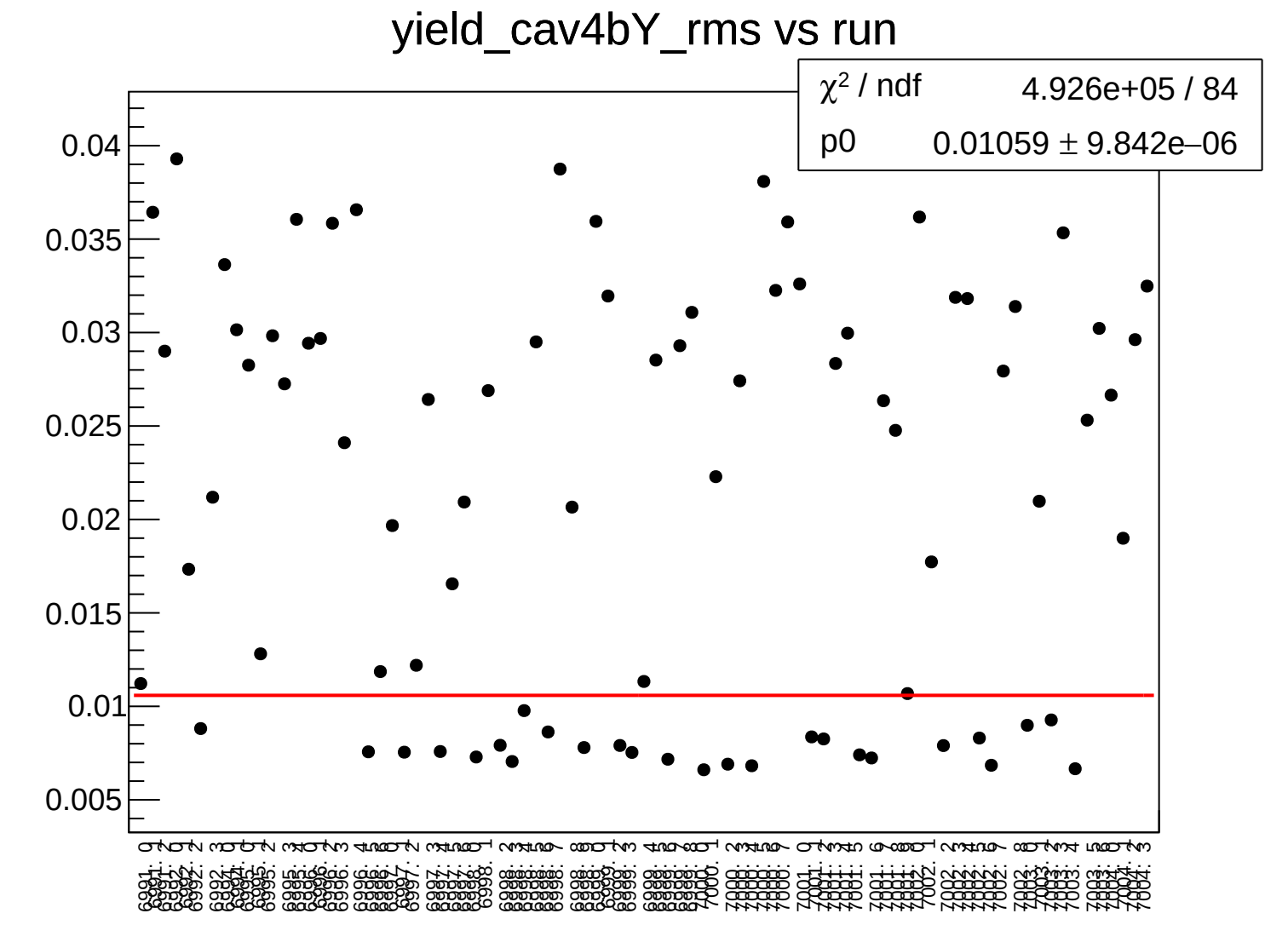

yield_cav4bX_mean vs run
χ² / ndf 2.515e+05 / 84
p0 −0.6809 ± 3.774e−05
−0.6
−0.62
−0.64
−0.66
−0.68
−0.7
−0.72
pull
Entries 85
Mean 33.55
Std Dev 24.62
100
50
0
−50
−100

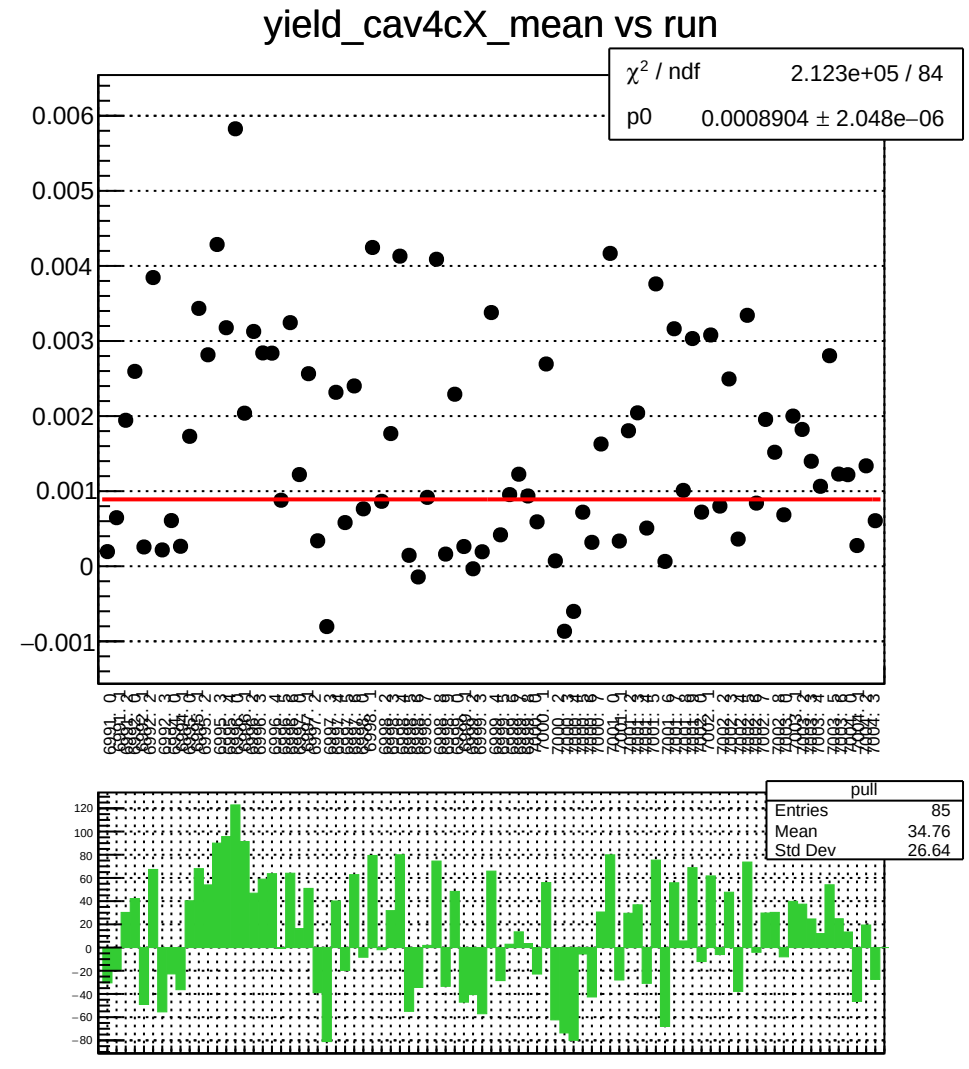

pull1D
Entries 85
Mean −0.1786
Std Dev 4.226
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

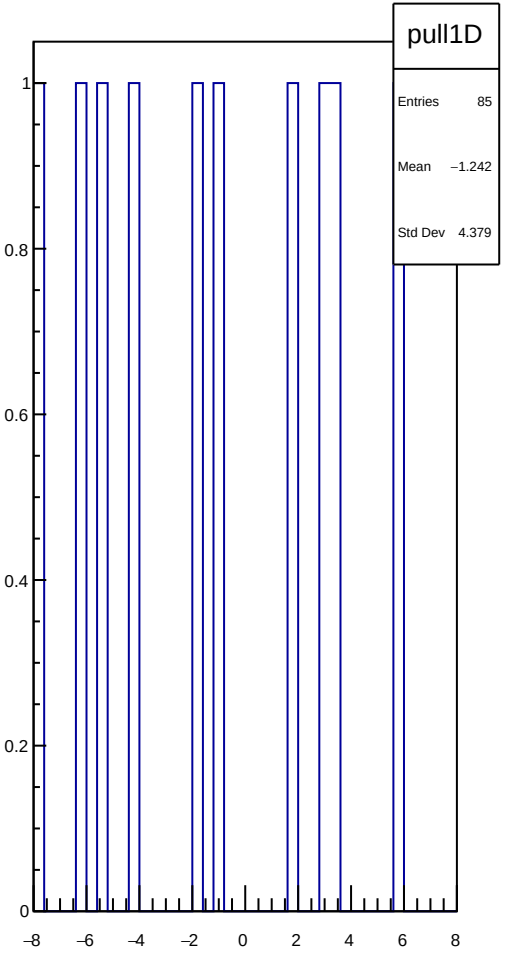

yield_cav4bX_rms vs run
χ² / ndf 2.395e+05 / 84
p0 0.03169 ± 2.669e−05
0.08
0.07
0.06
0.05
0.04
0.03
0.02

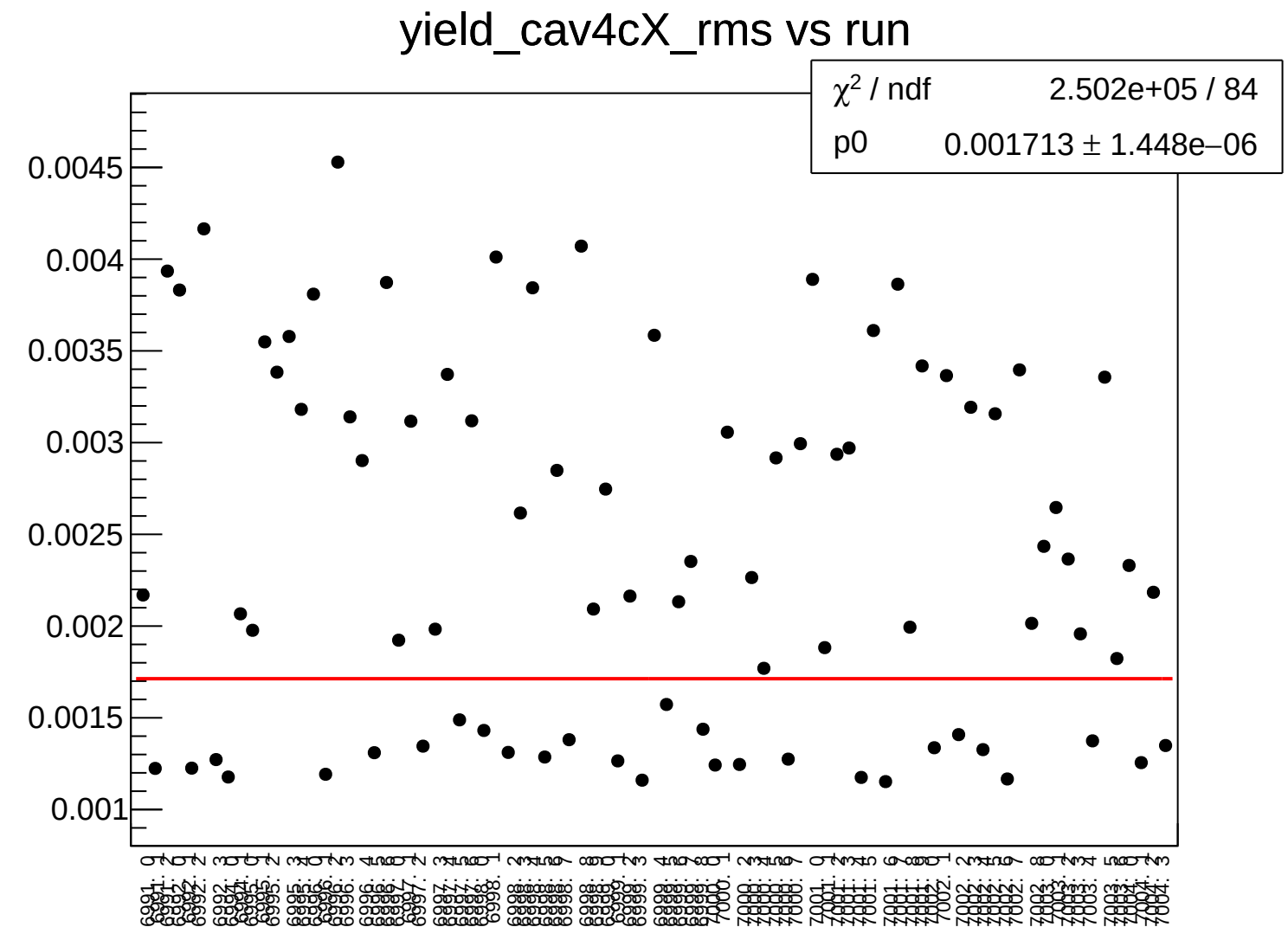

yield_cav4bY_mean vs run
χ² / ndf 4.457e+06 / 84
p0 −0.8254 ± 1.392e−05
−0.79
−0.8
−0.81
−0.82
−0.83
−0.84
−0.85
−0.86
−0.87
−0.88
pull
Entries 85
Mean 17.09
Std Dev 17.41
200
0
−200
−400
−600

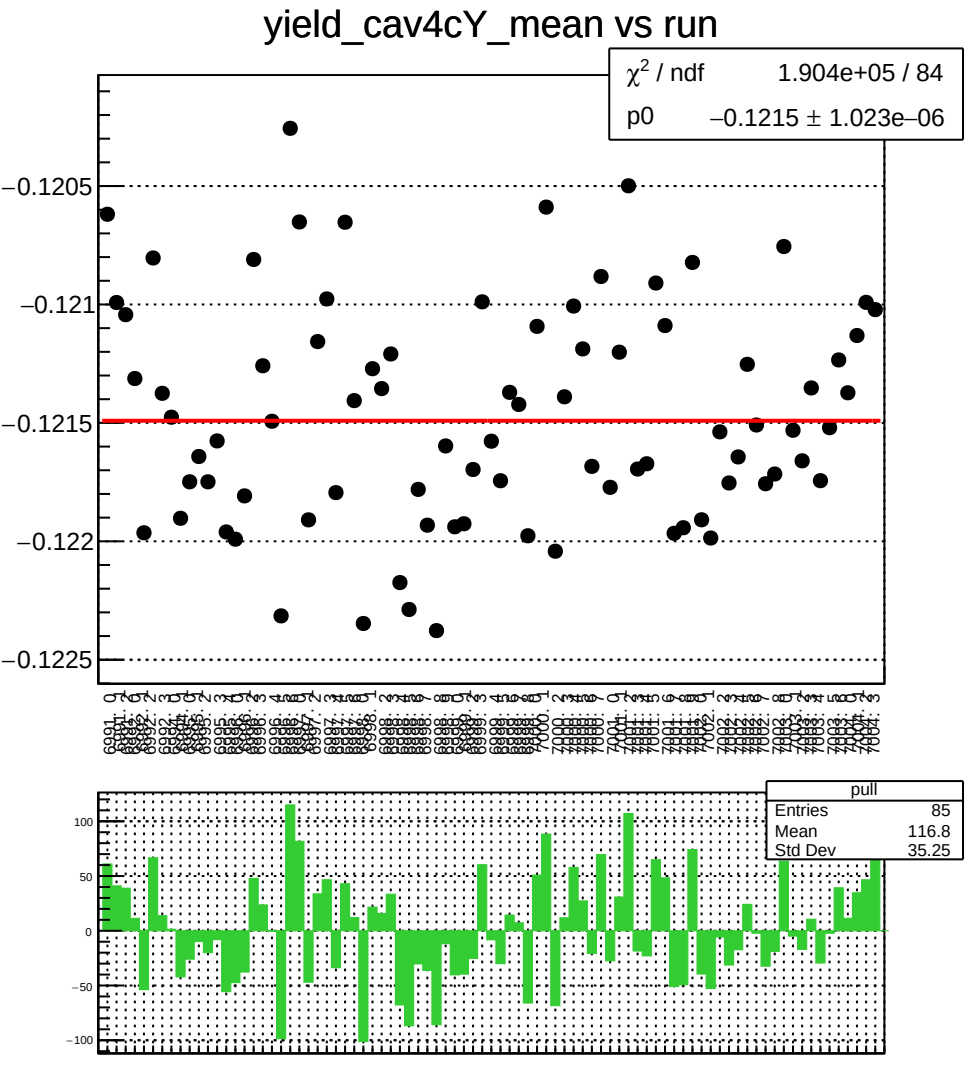

pull1D
Entries 85
Mean 1.152
Std Dev 5.569
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

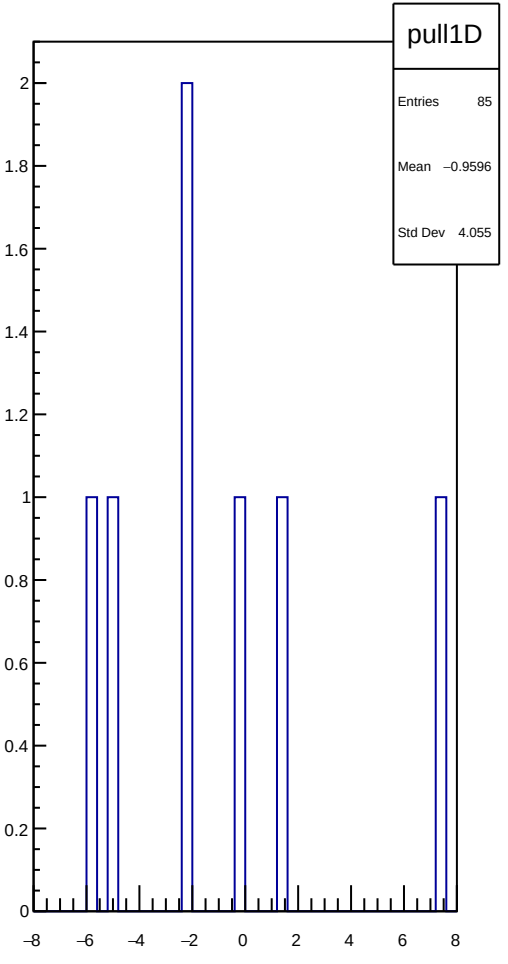

yield_cav4bY_rms vs run
χ² / ndf 4.926e+05 / 84
p0 0.01059 ± 9.842e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

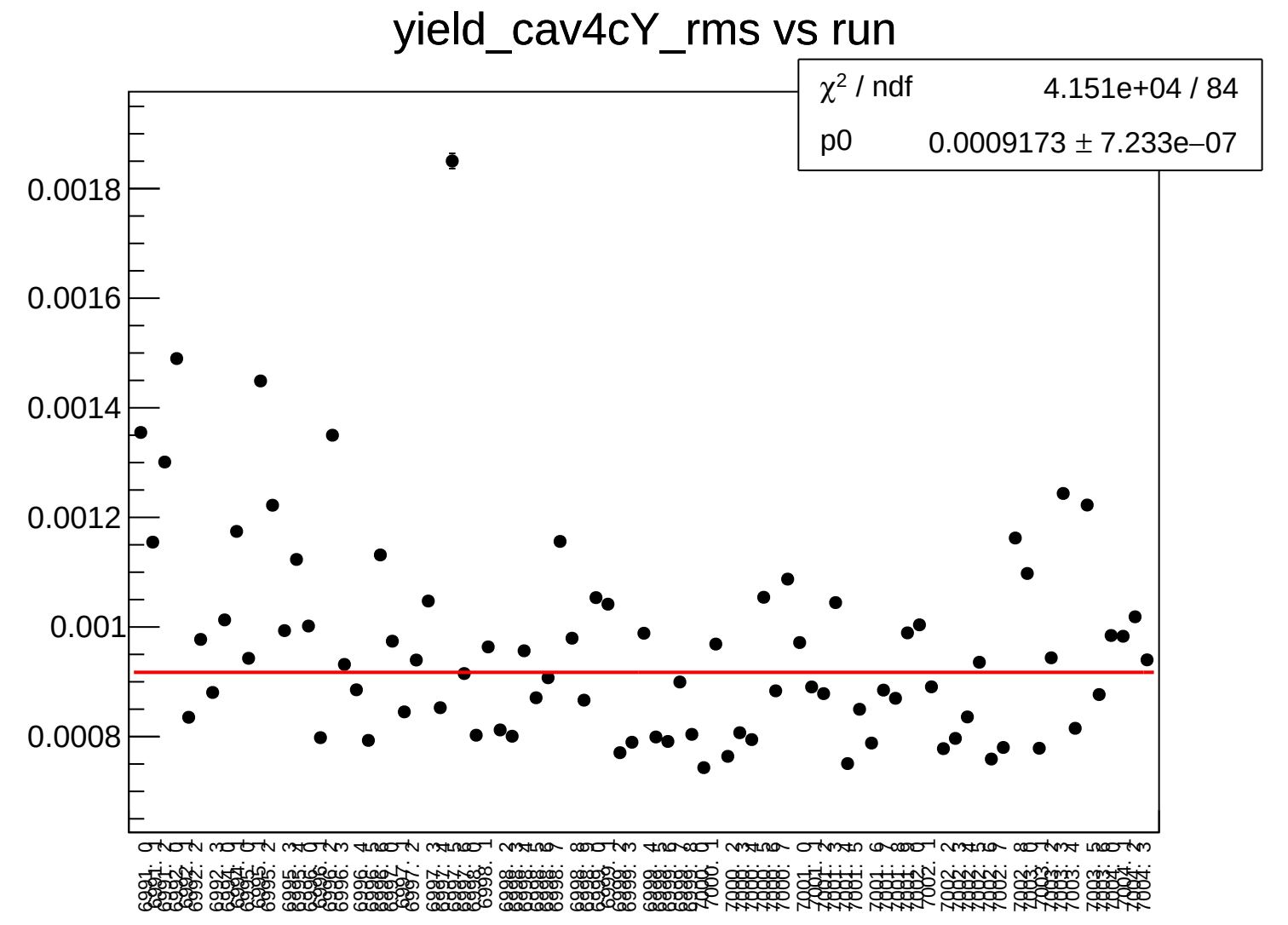

yield_cav4cX_mean vs run
χ² / ndf 2.123e+05 / 84
p0 0.0008904 ± 2.048e−06
0.006
0.005
0.004
0.003
0.002
0.001
0
−0.001
pull
Entries 85
Mean 34.76
Std Dev 26.64
120
100
80
60
40
20
0
−20
−40
−60
−80

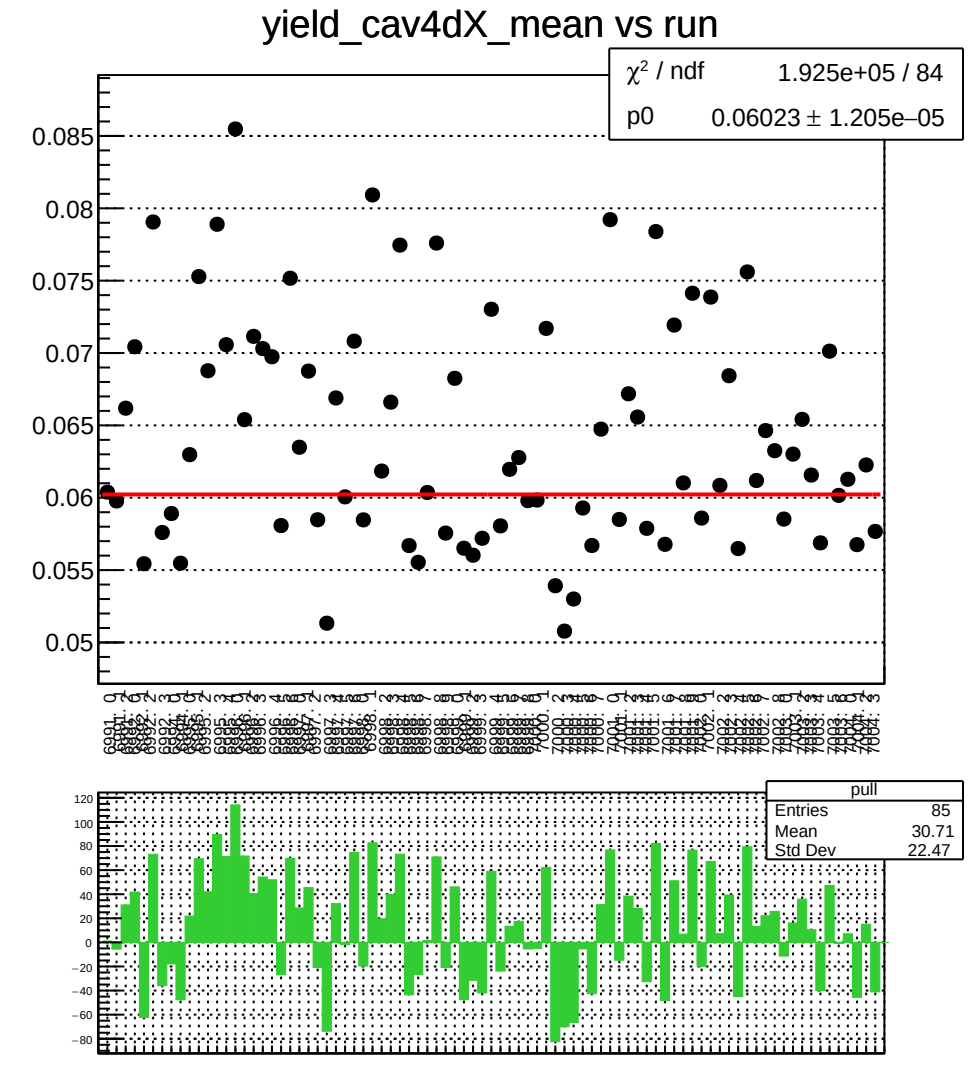

pull1D
Entries 85
Mean −1.242
Std Dev 4.379
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

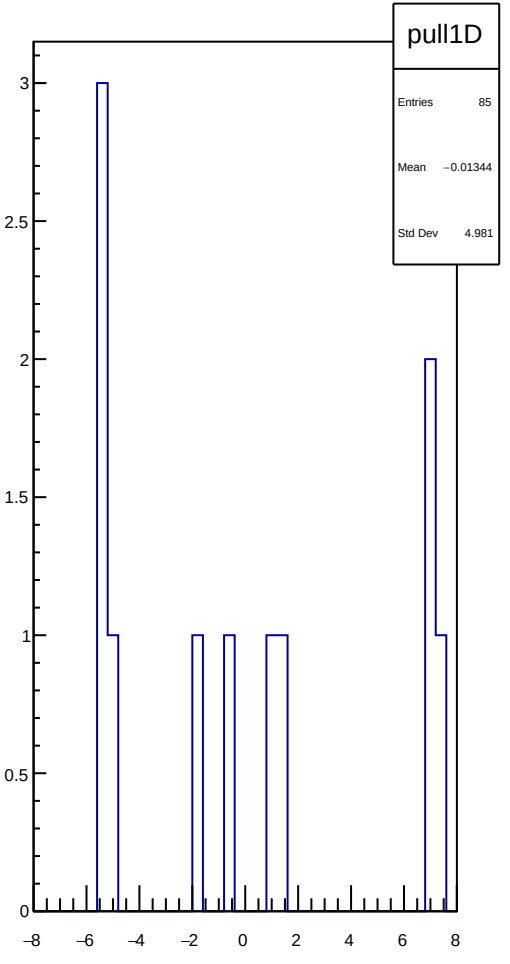

yield_cav4cX_rms vs run
χ² / ndf 2.502e+05 / 84
p0 0.001713 ± 1.448e−06
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001

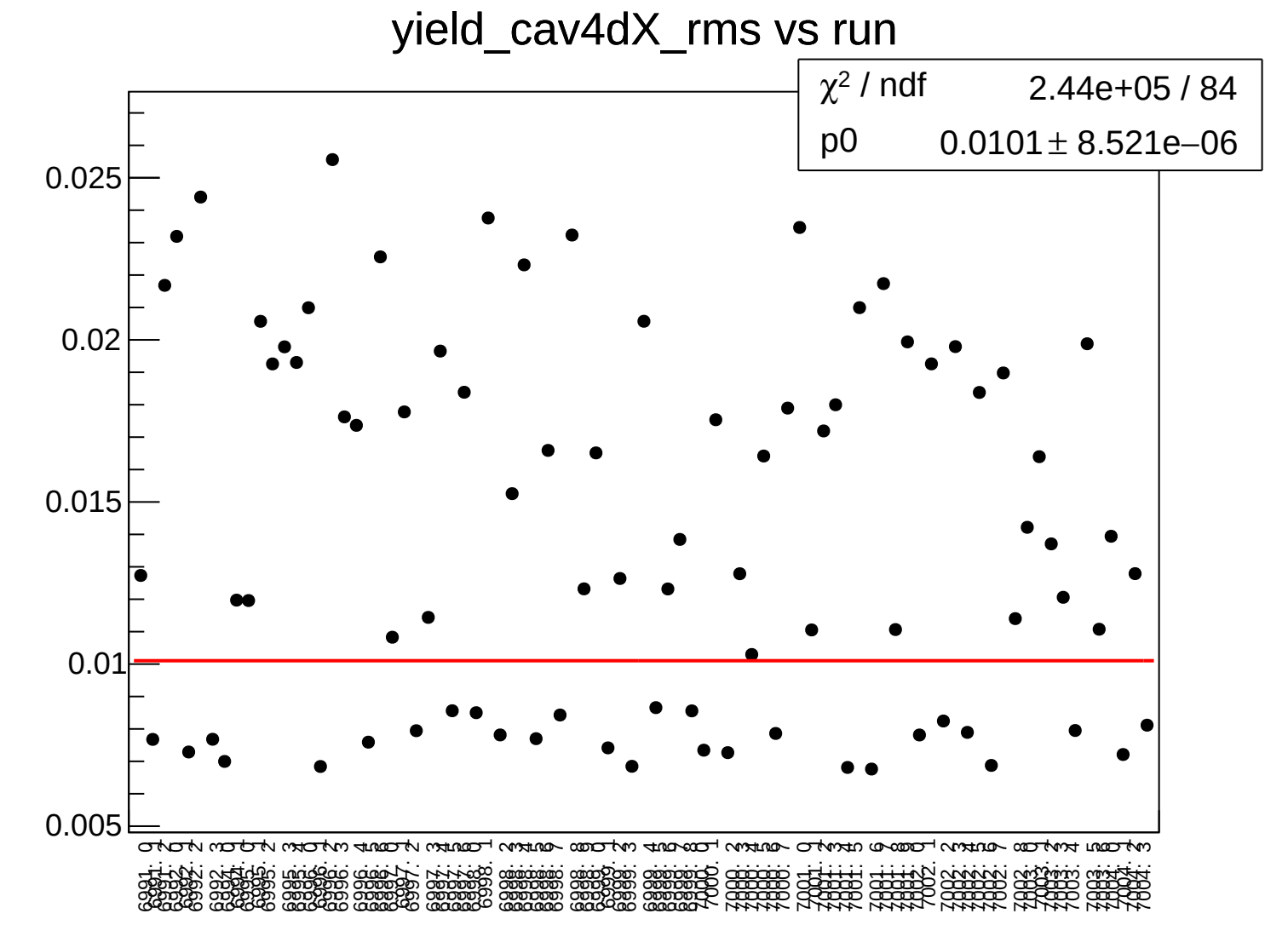

yield_cav4cY_mean vs run
χ² / ndf 1.904e+05 / 84
p0 −0.1215 ± 1.023e−06
−0.1205
−0.121
−0.1215
−0.122
−0.1225
pull
Entries 85
Mean 116.8
Std Dev 35.25
100
50
0
−50
−100

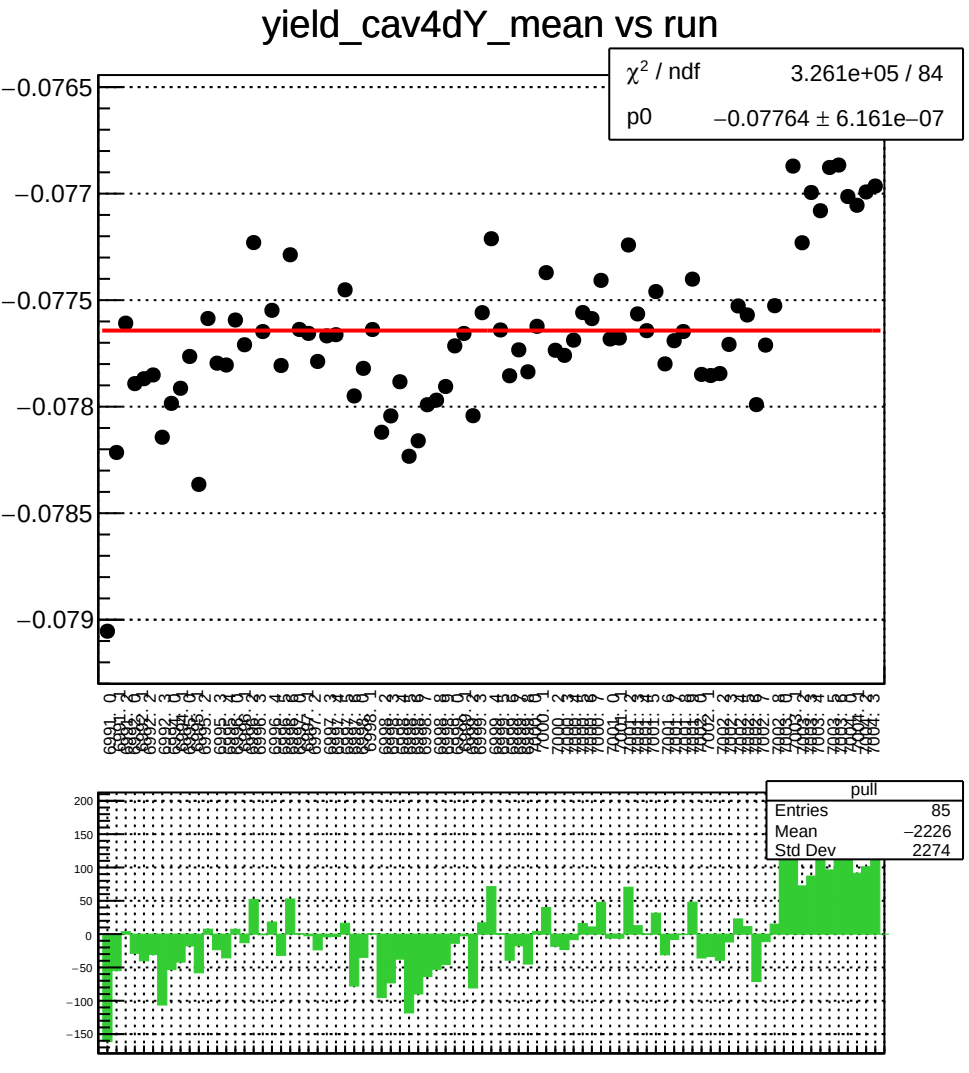

pull1D
Entries 85
Mean −0.9596
Std Dev 4.055
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

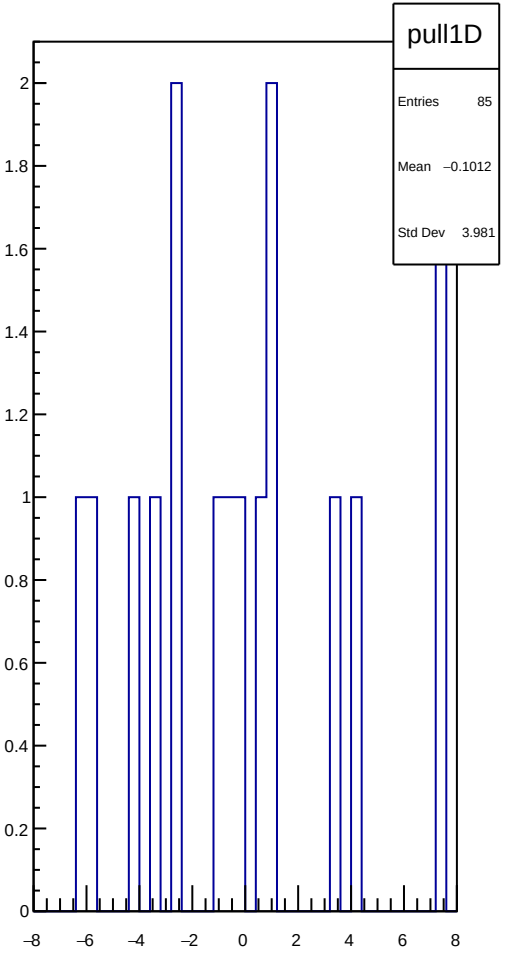

yield_cav4cY_rms vs run
χ² / ndf 4.151e+04 / 84
p0 0.0009173 ± 7.233e−07
0.0018
0.0016
0.0014
0.0012
0.001
0.0008

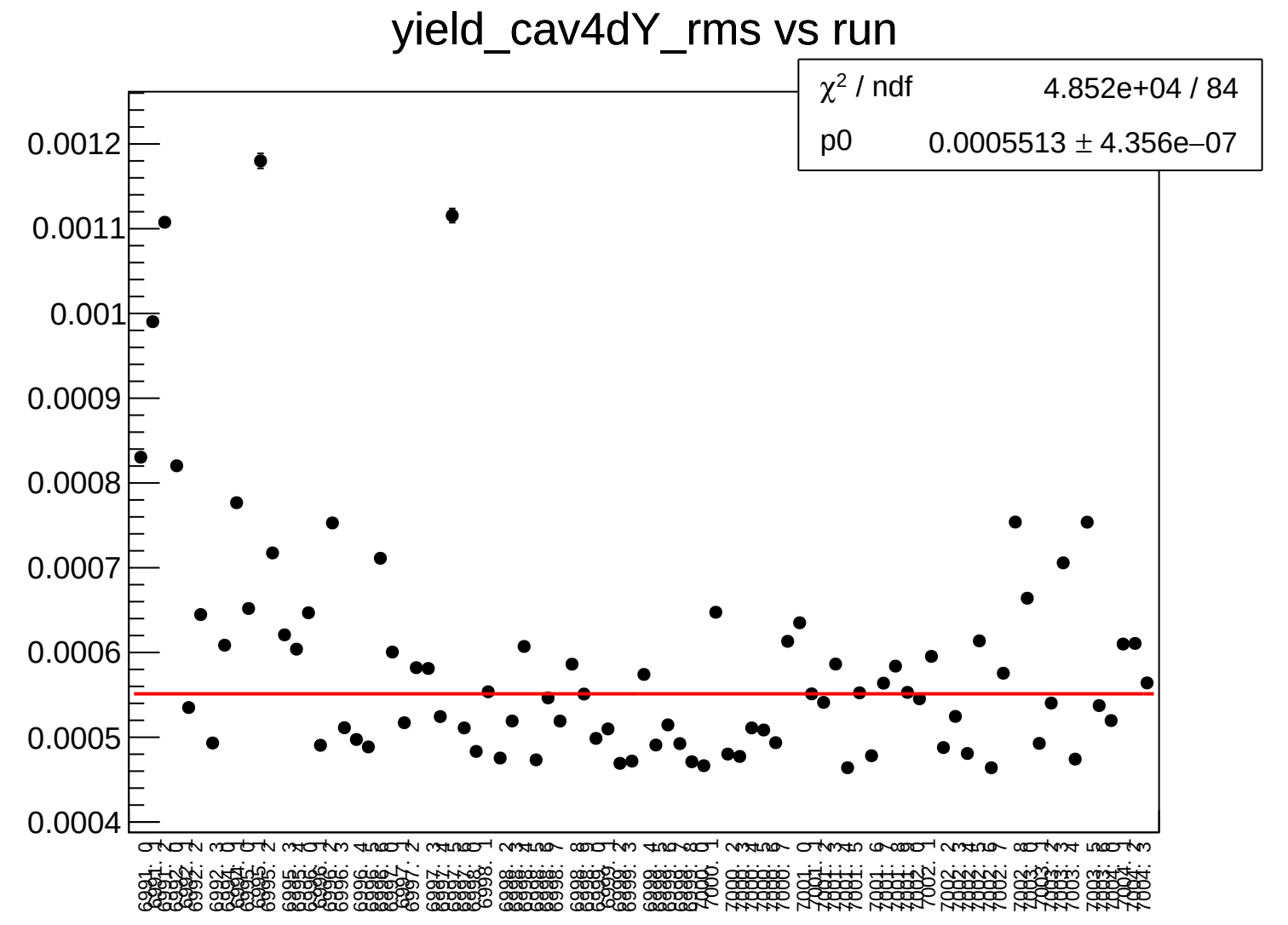

yield_cav4dX_mean vs run
χ² / ndf 1.925e+05 / 84
p0 0.06023 ± 1.205e−05
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
pull
Entries 85
Mean 30.71
Std Dev 22.47
120
100
80
60
40
20
0
−20
−40
−60
−80

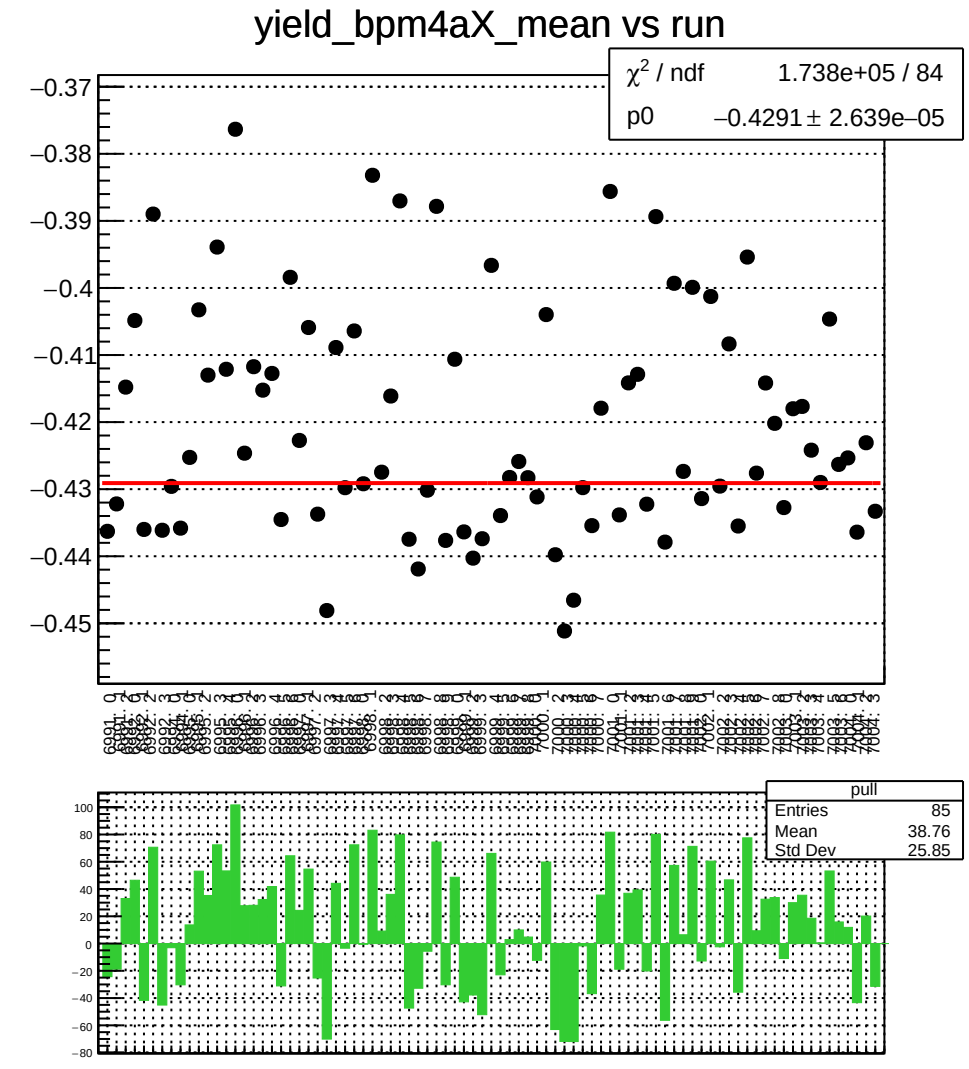

pull1D
Entries 85
Mean −0.01344
Std Dev 4.981
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

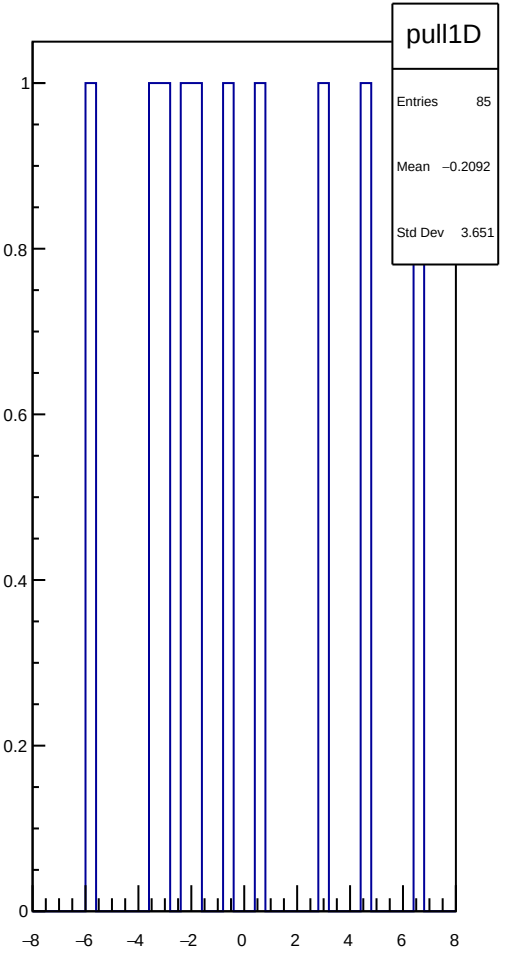

yield_cav4dX_rms vs run
χ² / ndf 2.44e+05 / 84
p0 0.0101 ± 8.521e−06
0.025
0.02
0.015
0.01
0.005

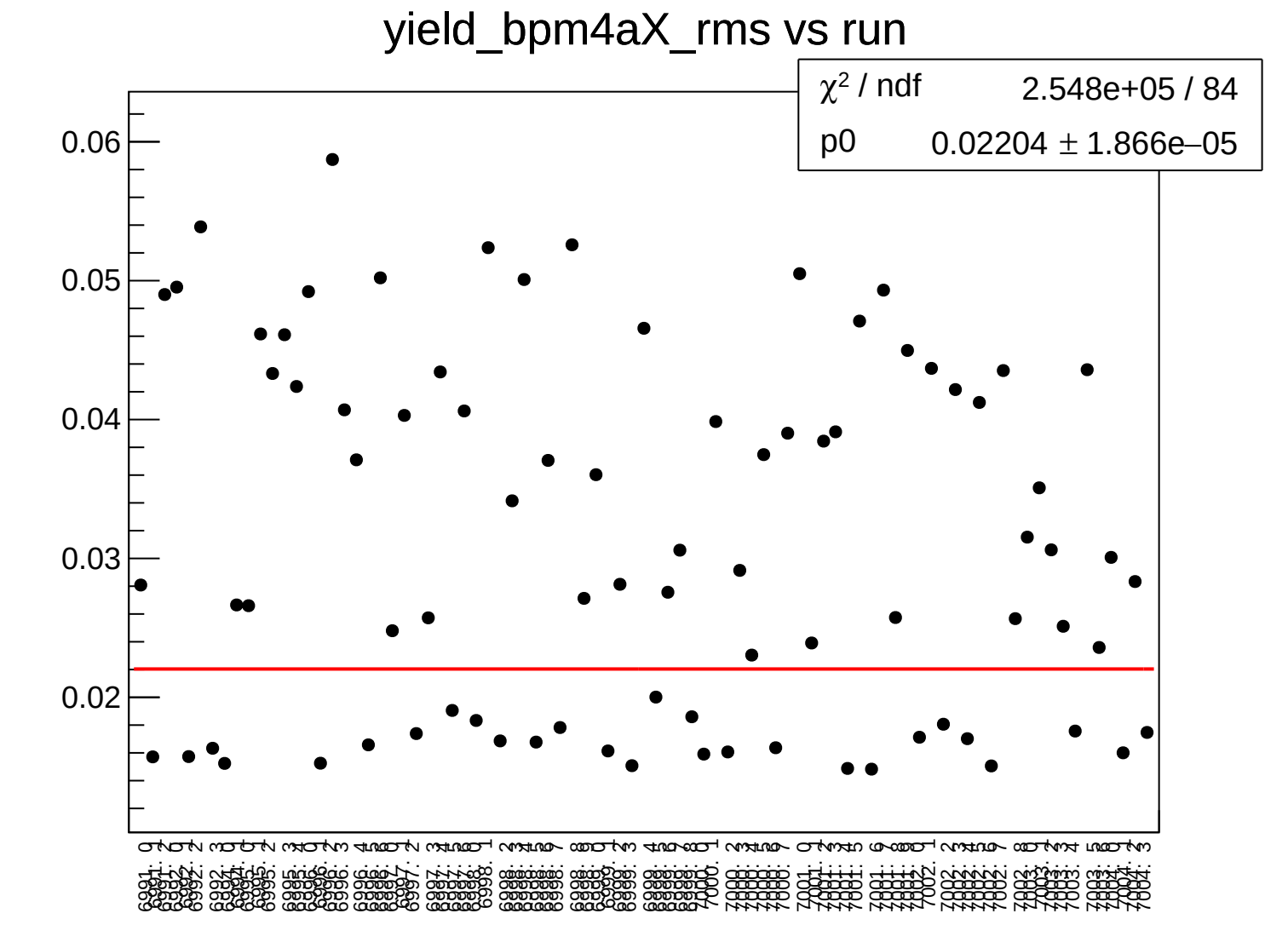

yield_cav4dY_mean vs run
χ² / ndf 3.261e+05 / 84
p0 −0.07764 ± 6.161e−07
−0.0765
−0.077
−0.0775
−0.078
−0.0785
−0.079
pull
Entries 85
Mean −2226
Std Dev 2274
200
150
100
50
0
−50
−100
−150

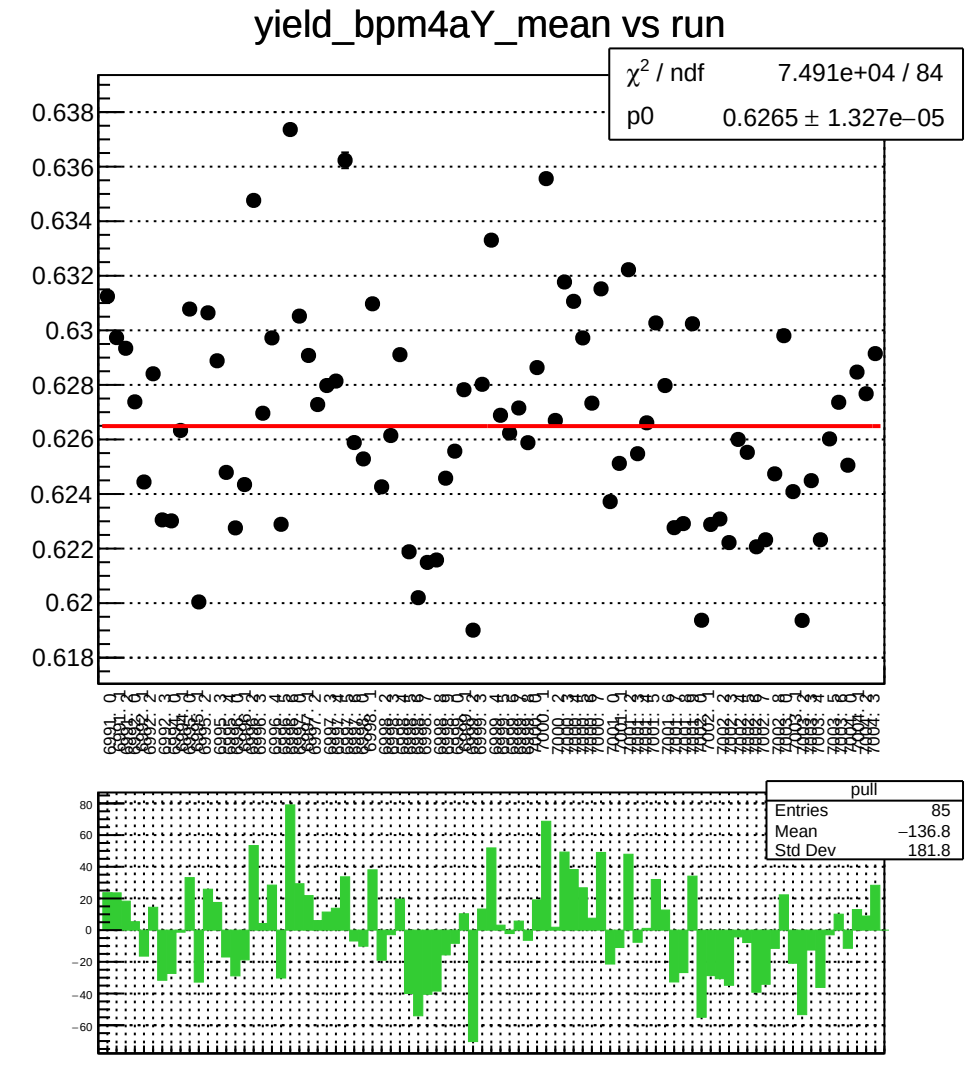

pull1D
Entries 85
Mean −0.1012
Std Dev 3.981
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

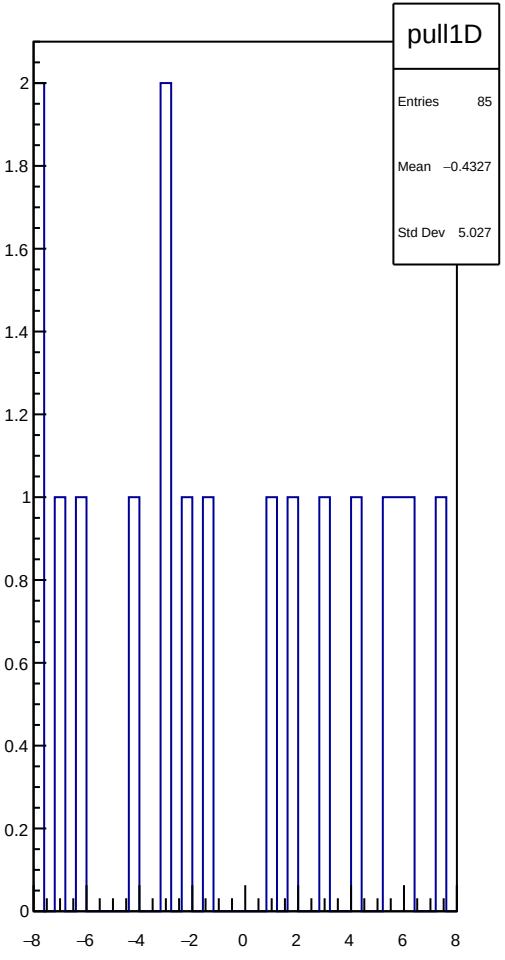

yield_cav4dY_rms vs run
χ² / ndf 4.852e+04 / 84
p0 0.0005513 ± 4.356e−07
0.0012
0.0011
0.001
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004

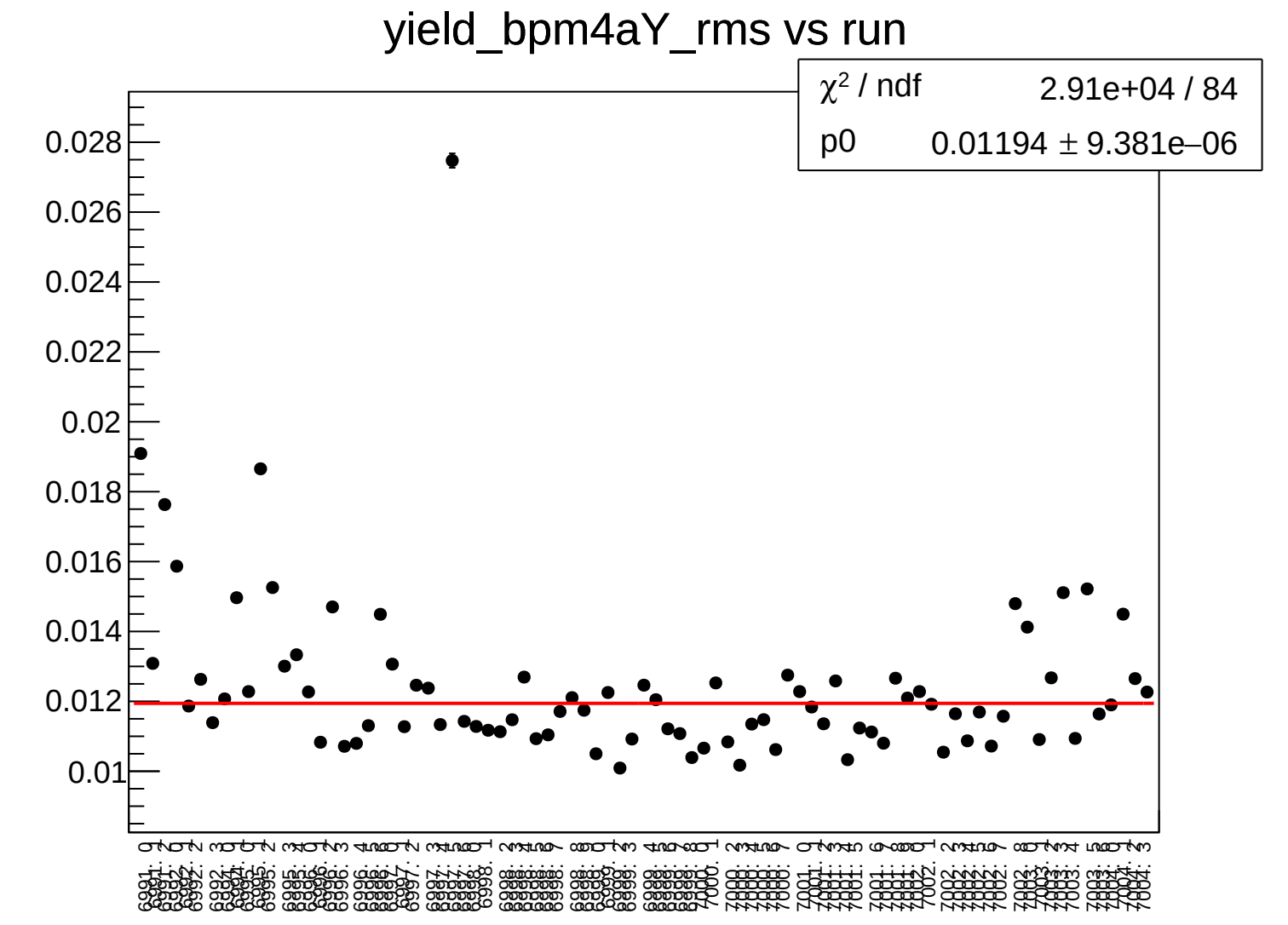

yield_bpm4aX_mean vs run
χ² / ndf 1.738e+05 / 84
p0 −0.4291 ± 2.639e−05
−0.37
−0.38
−0.39
−0.4
−0.41
−0.42
−0.43
−0.44
−0.45
pull
Entries 85
Mean 38.76
Std Dev 25.85
100
80
60
40
20
0
−20
−40
−60
−80

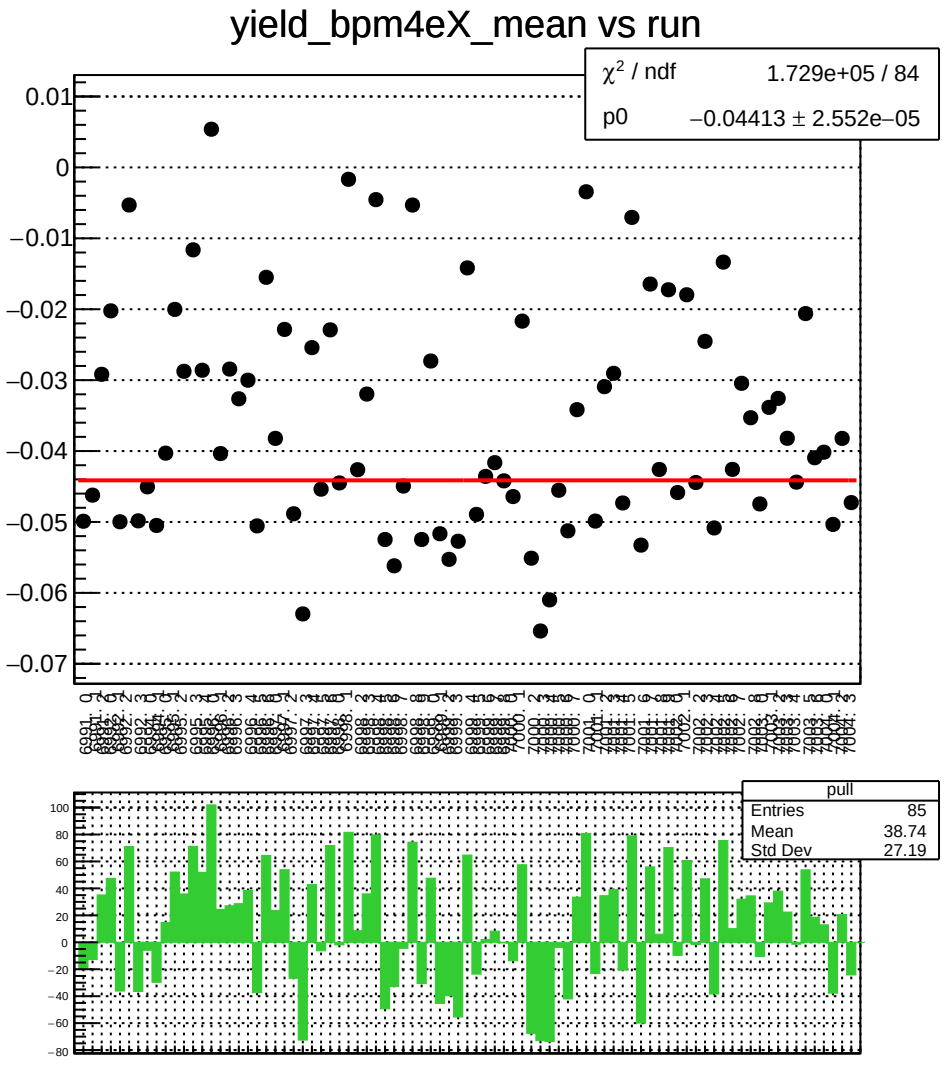

pull1D
Entries 85
Mean −0.2092
Std Dev 3.651
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

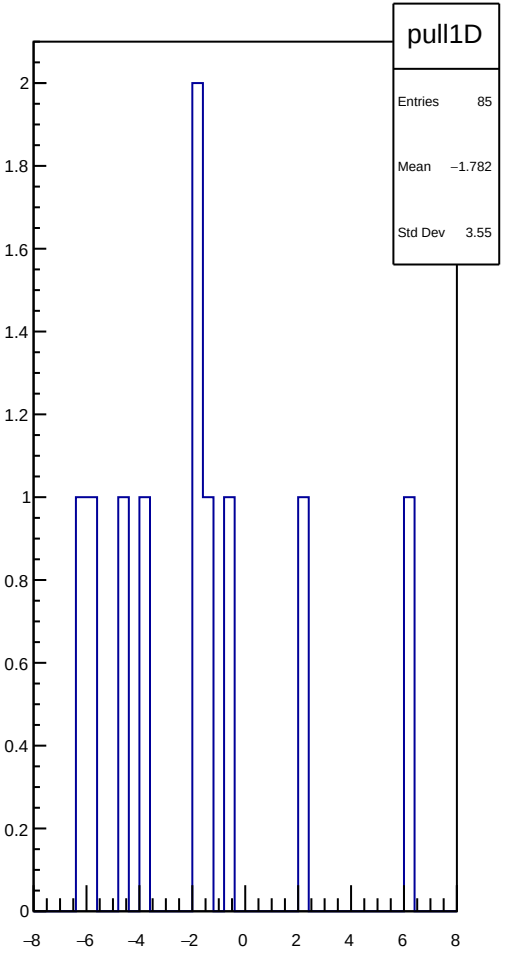

yield_bpm4aX_rms vs run
χ² / ndf 2.548e+05 / 84
p0 0.02204 ± 1.866e−05
0.06
0.05
0.04
0.03
0.02

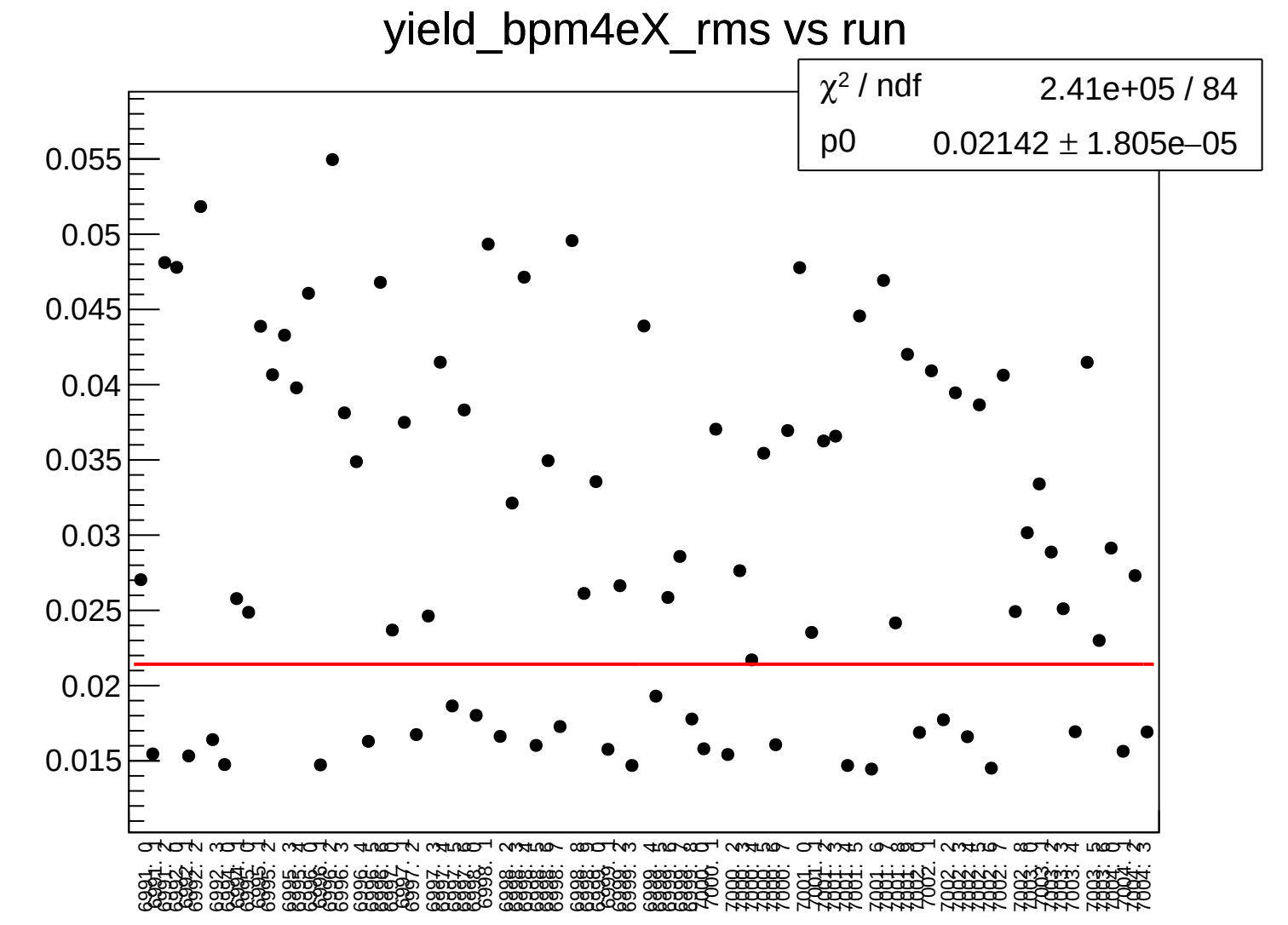

yield_bpm4aY_mean vs run
χ² / ndf 7.491e+04 / 84
p0 0.6265 ± 1.327e−05
pull
Entries 85
Mean −136.8
Std Dev 181.8

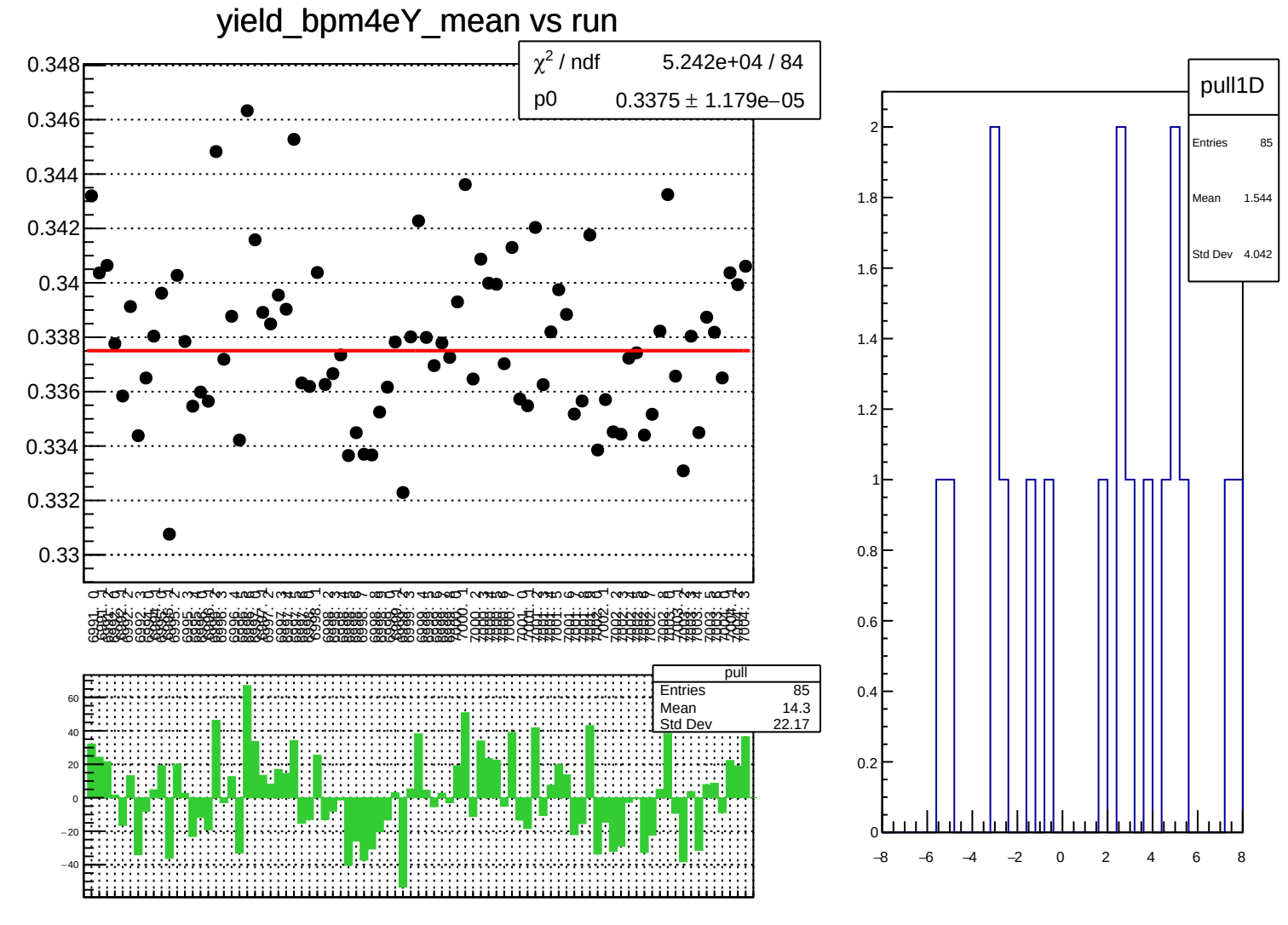

pull1D
Entries 85
Mean −0.4327
Std Dev 5.027

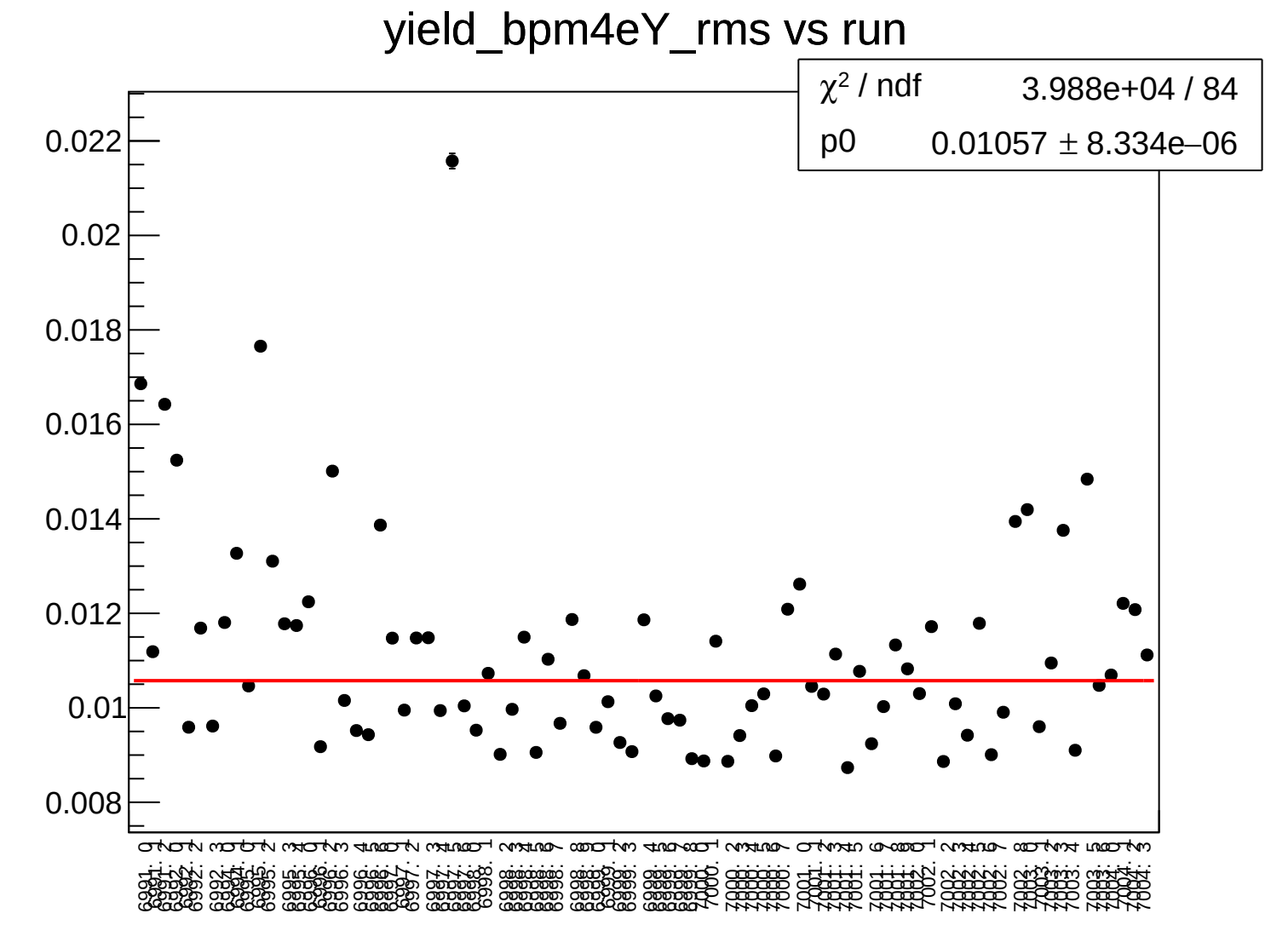

yield_bpm4aY_rms vs run
χ² / ndf 2.91e+04 / 84
p0 0.01194 ± 9.381e−06
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01

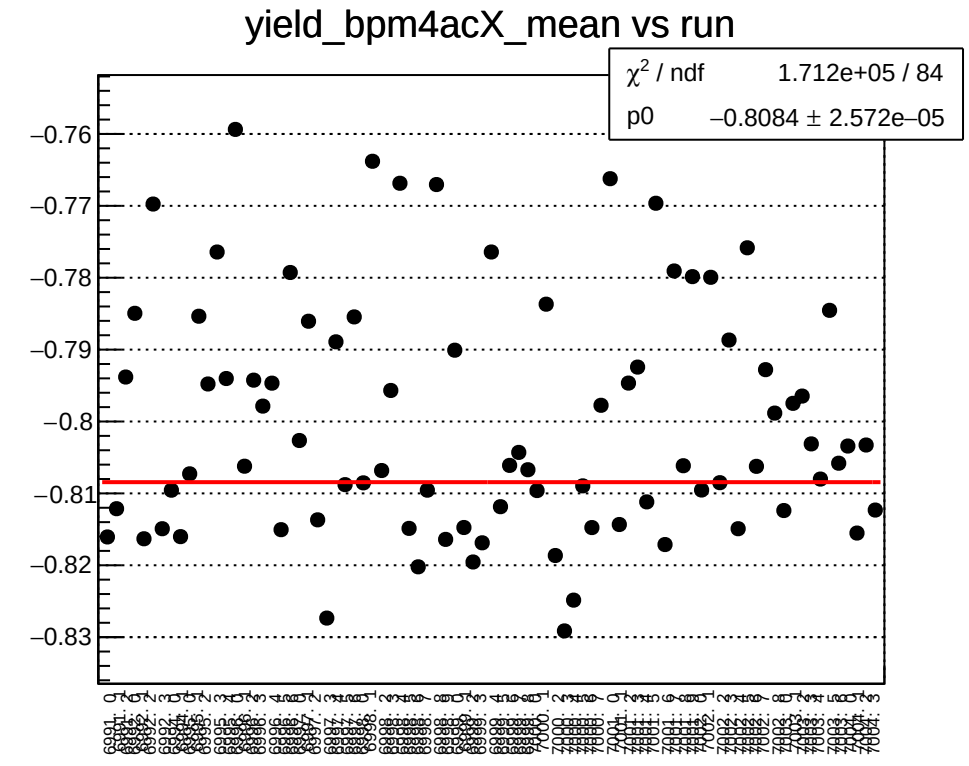

yield_bpm4eX_mean vs run
χ² / ndf 1.729e+05 / 84
p0 −0.04413 ± 2.552e−05
pull
Entries 85
Mean 38.74
Std Dev 27.19

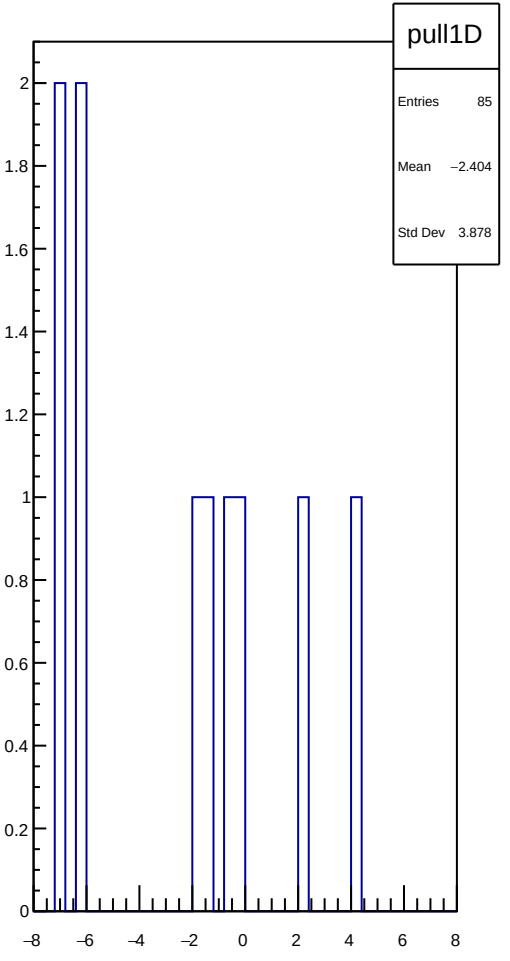

pull1D
Entries 85
Mean −1.782
Std Dev 3.55

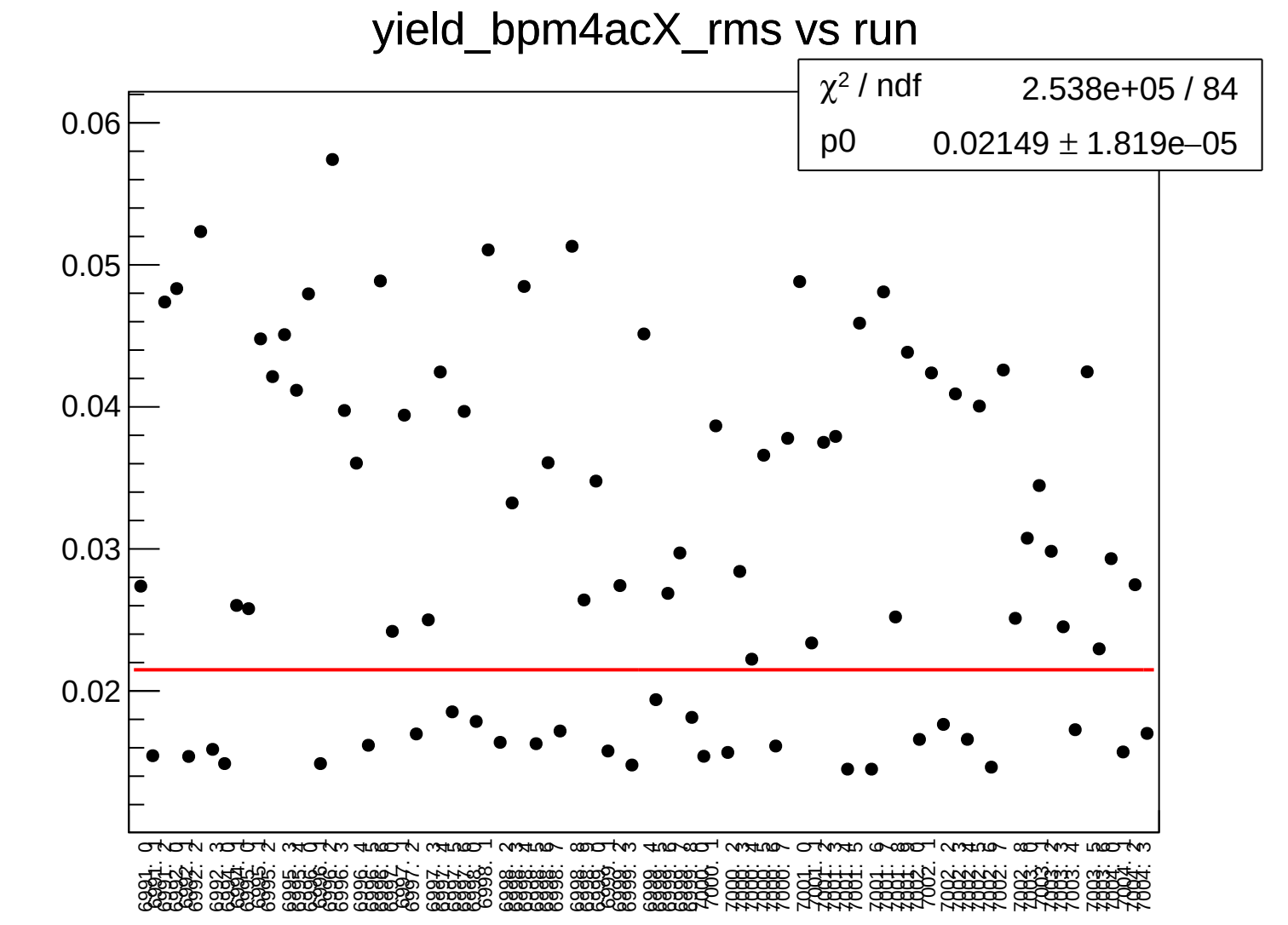

yield_bpm4eX_rms vs run
χ² / ndf 2.41e+05 / 84
p0 0.02142 ± 1.805e−05
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015

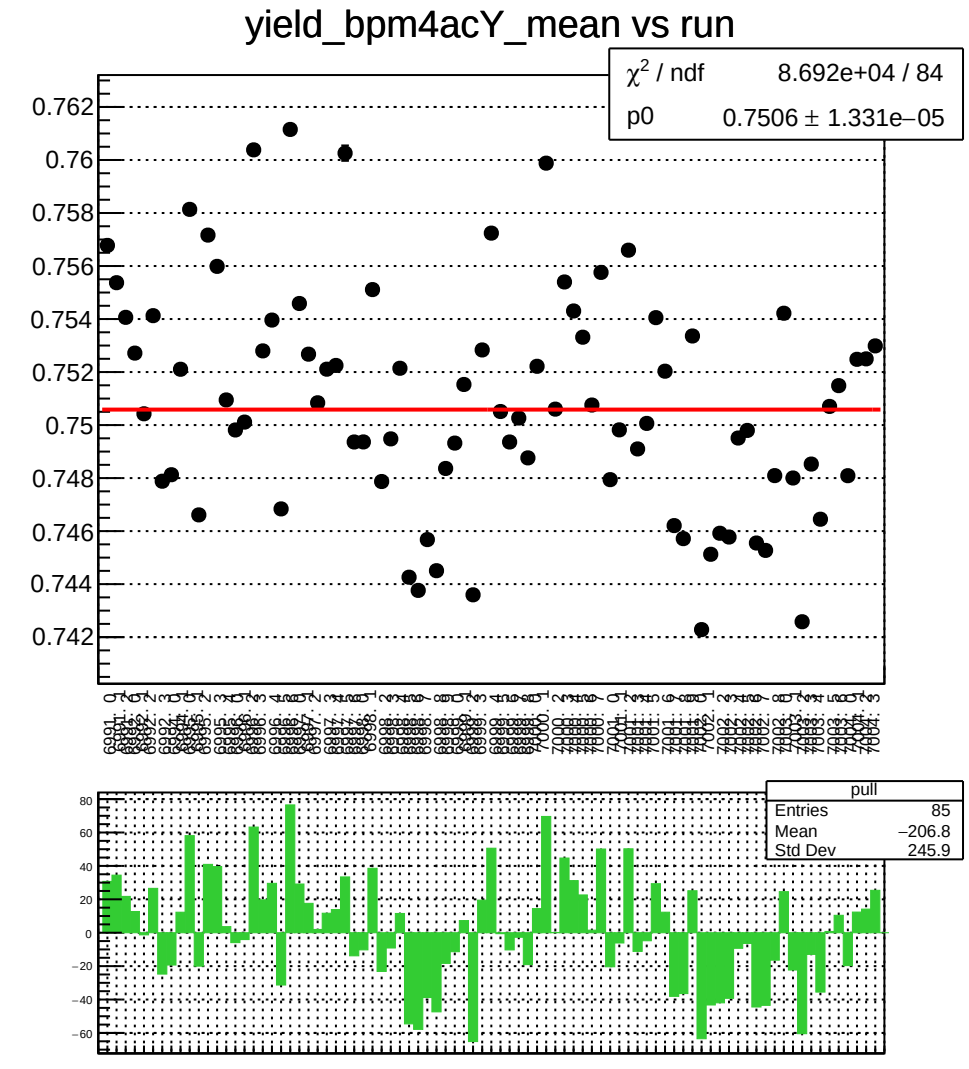

yield_bpm4eY_mean vs run
χ² / ndf 5.242e+04 / 84
p0 0.3375 ± 1.179e−05
0.348
0.346
0.344
0.342
0.34
0.338
0.336
0.334
0.332
0.33
pull
Entries 85
Mean 14.3
Std Dev 22.17
60
40
20
0
−20
−40
pull1D
Entries 85
Mean 1.544
Std Dev 4.042
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

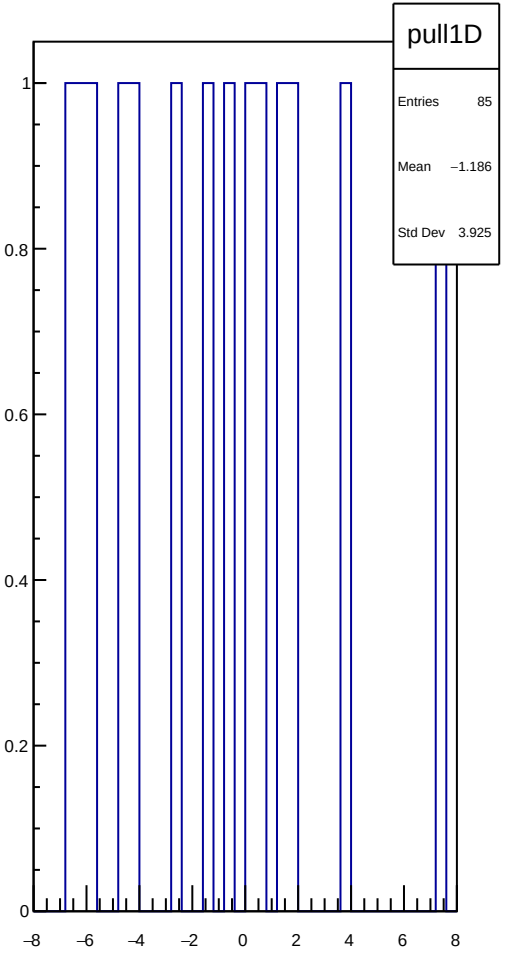

yield_bpm4eY_rms vs run
χ² / ndf 3.988e+04 / 84
p0 0.01057 ± 8.334e–06
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

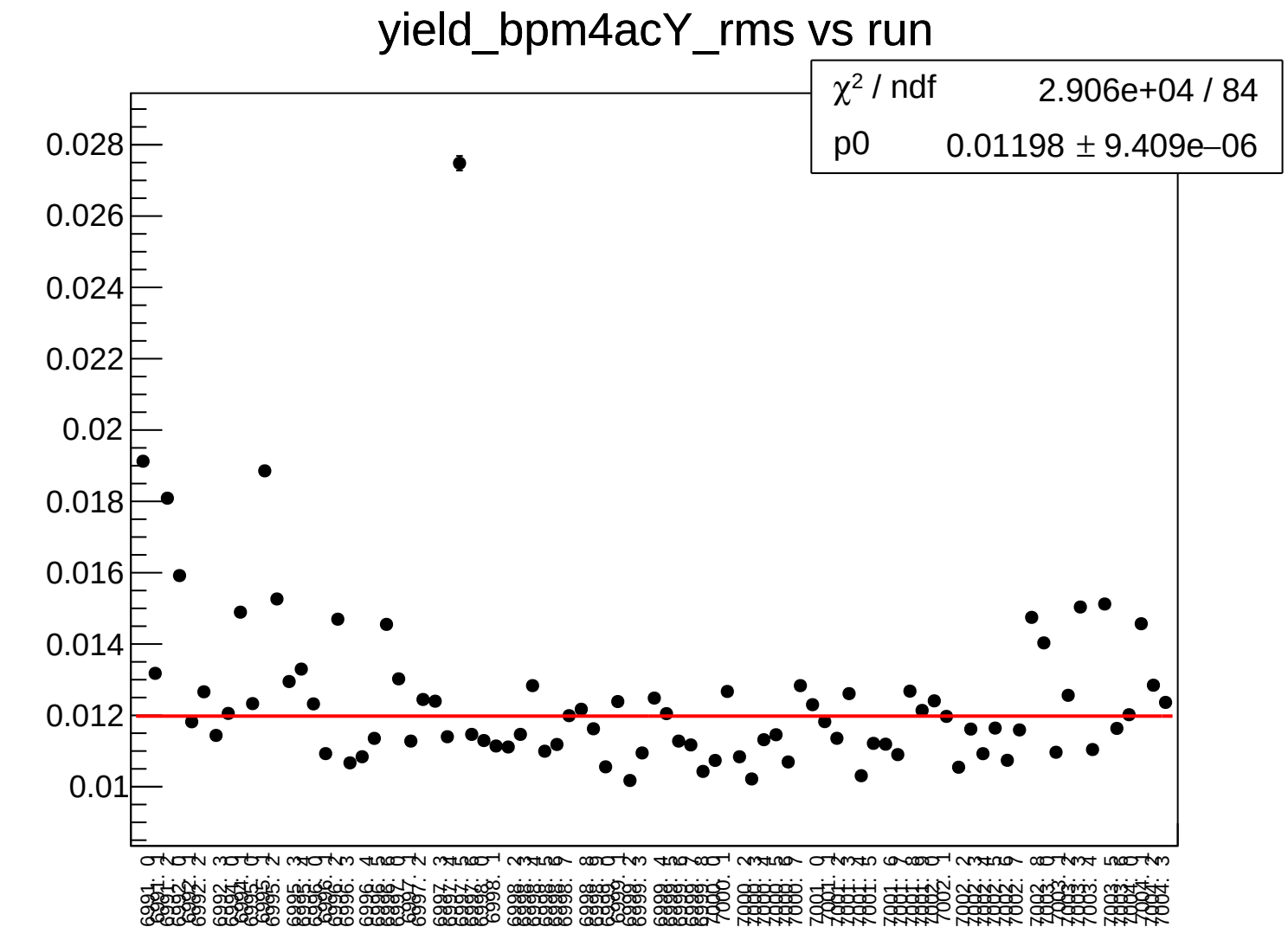

yield_bpm4acX_mean vs run
χ² / ndf 1.712e+05 / 84
p0 −0.8084 ± 2.572e−05
−0.76
−0.77
−0.78
−0.79
−0.8
−0.81
−0.82
−0.83
pull
Entries 85
Mean 42
Std Dev 25.33
100
80
60
40
20
0
−20
−40
−60
−80

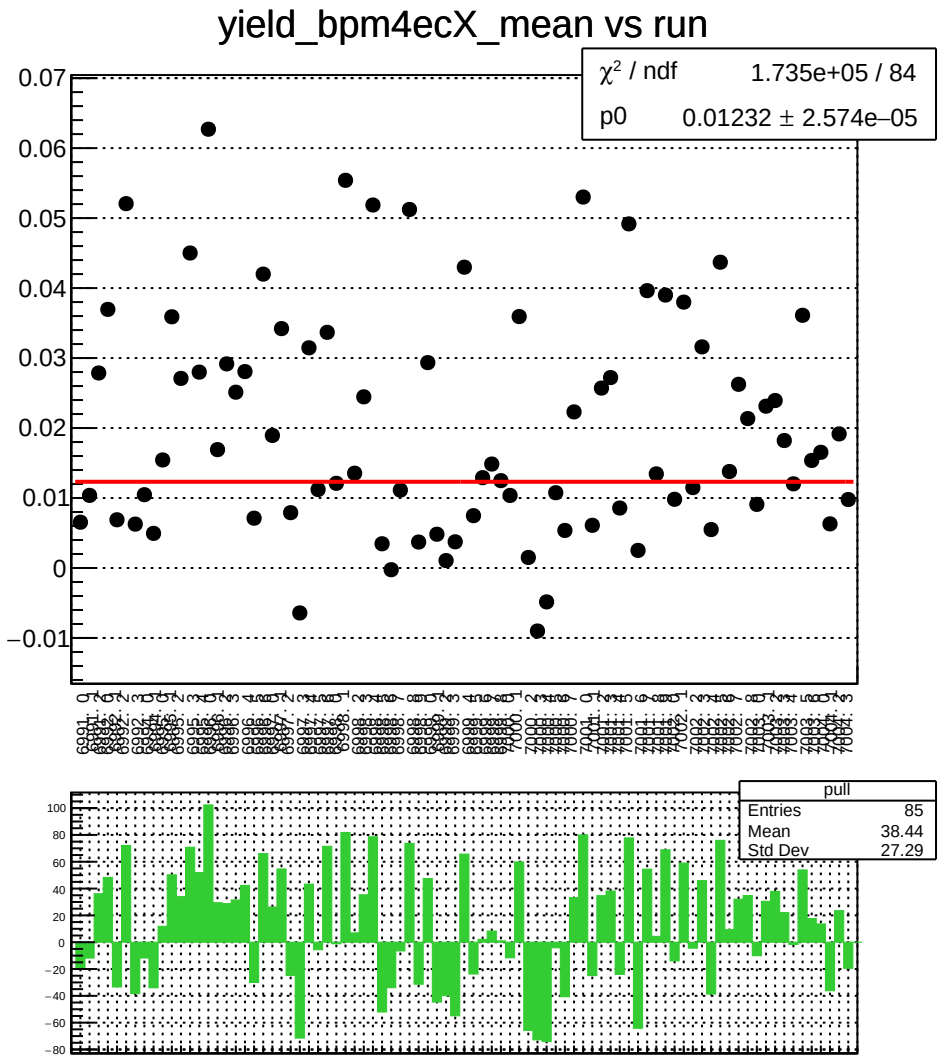

pull1D
Entries 85
Mean −2.404
Std Dev 3.878
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

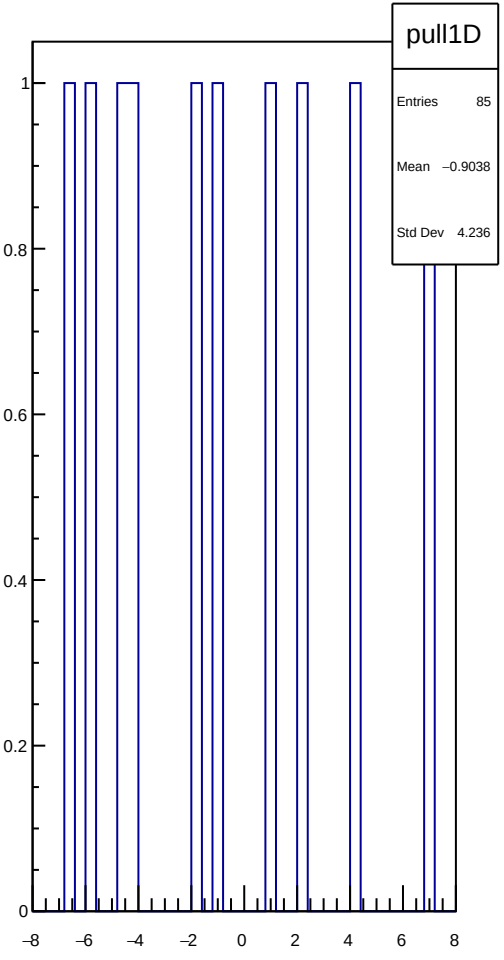

yield_bpm4acX_rms vs run
χ² / ndf 2.538e+05 / 84
p0 0.02149 ± 1.819e−05
0.06
0.05
0.04
0.03
0.02

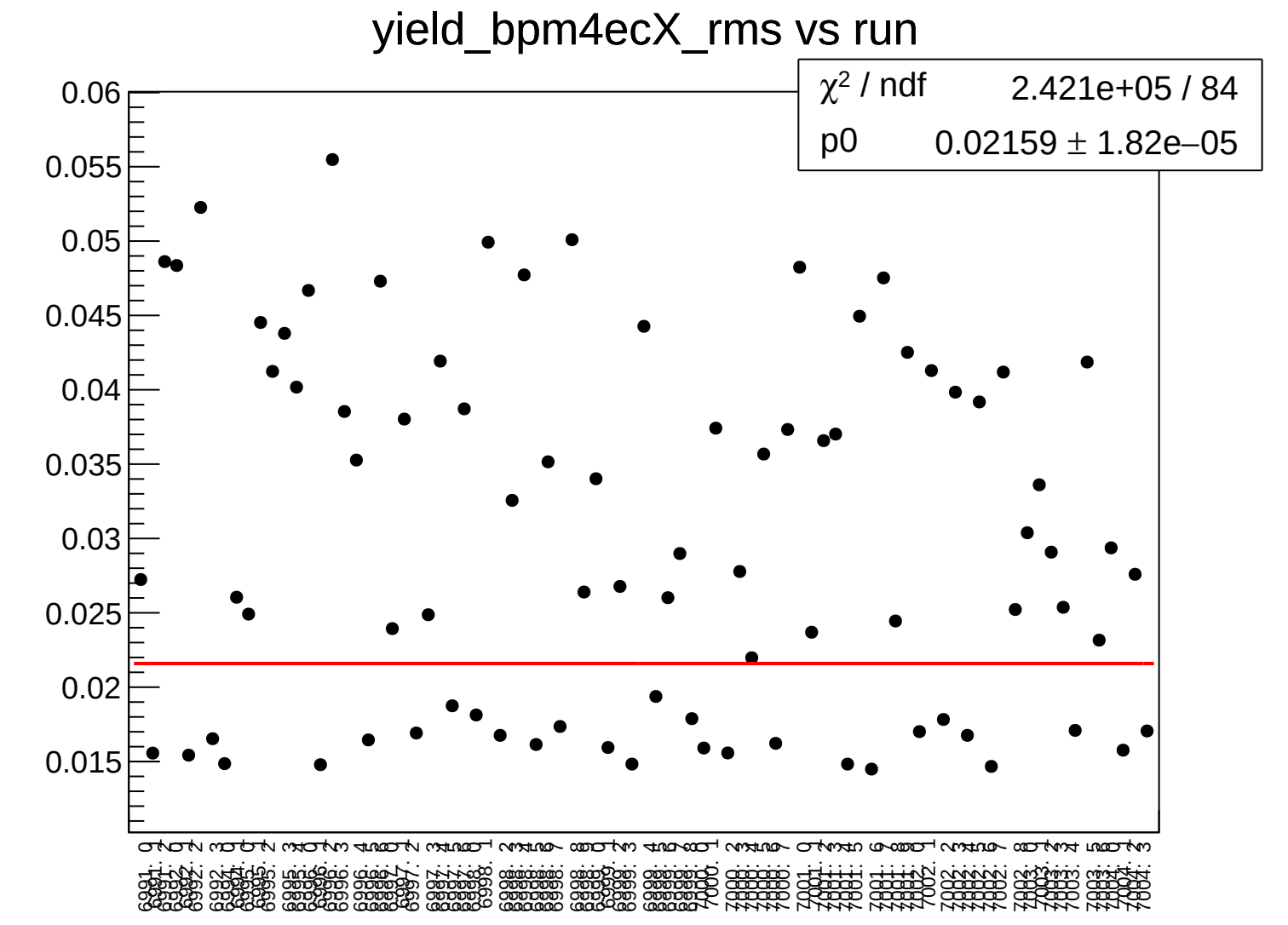

yield_bpm4acY_mean vs run
χ² / ndf 8.692e+04 / 84
p0 0.7506 ± 1.331e−05
0.762
0.76
0.758
0.756
0.754
0.752
0.75
0.748
0.746
0.744
0.742
pull
Entries 85
Mean −206.8
Std Dev 245.9
80
60
40
20
0
−20
−40
−60

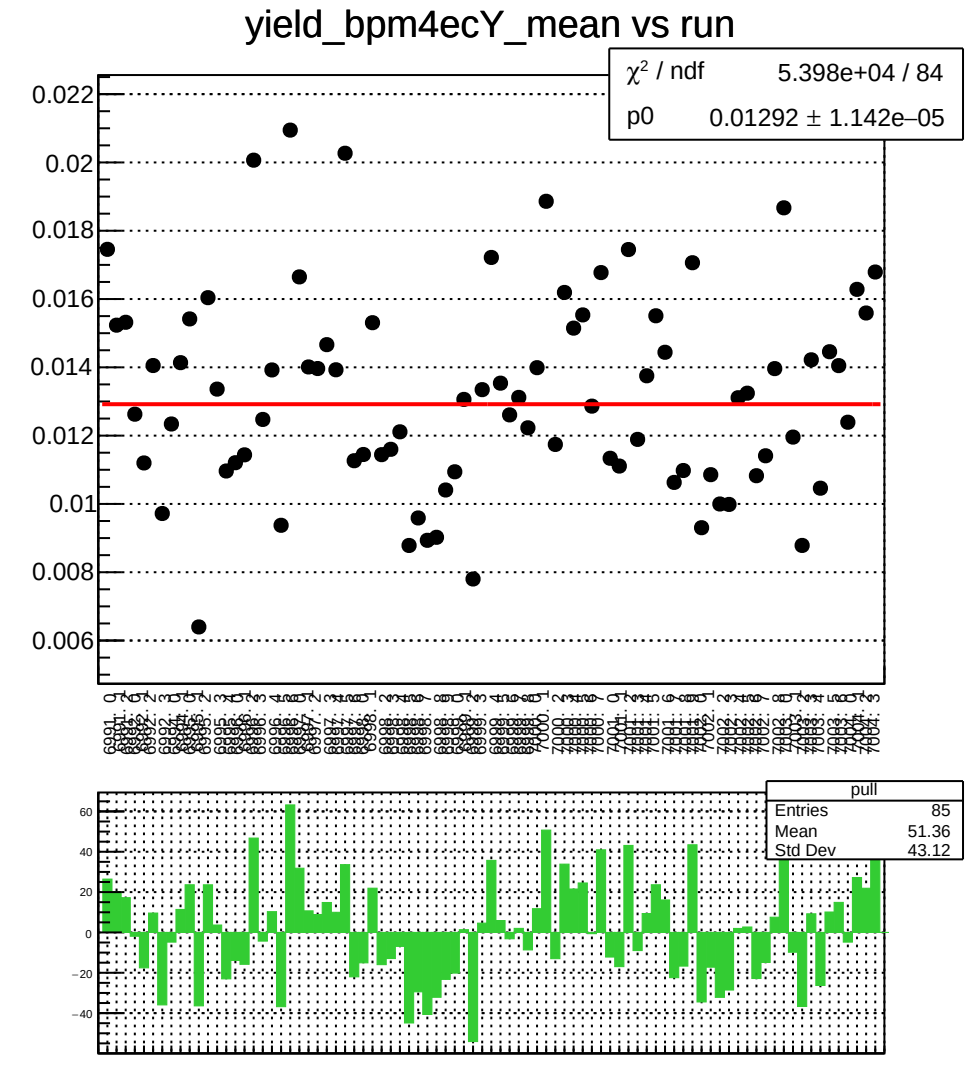

pull1D
Entries 85
Mean −1.186
Std Dev 3.925
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

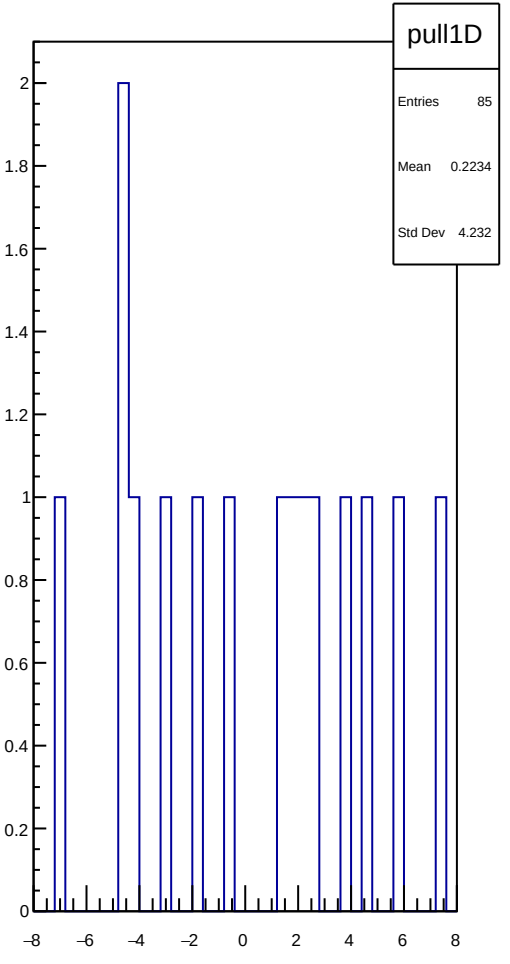

yield_bpm4acY_rms vs run
χ² / ndf 2.906e+04 / 84
p0 0.01198 ± 9.409e–06
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01

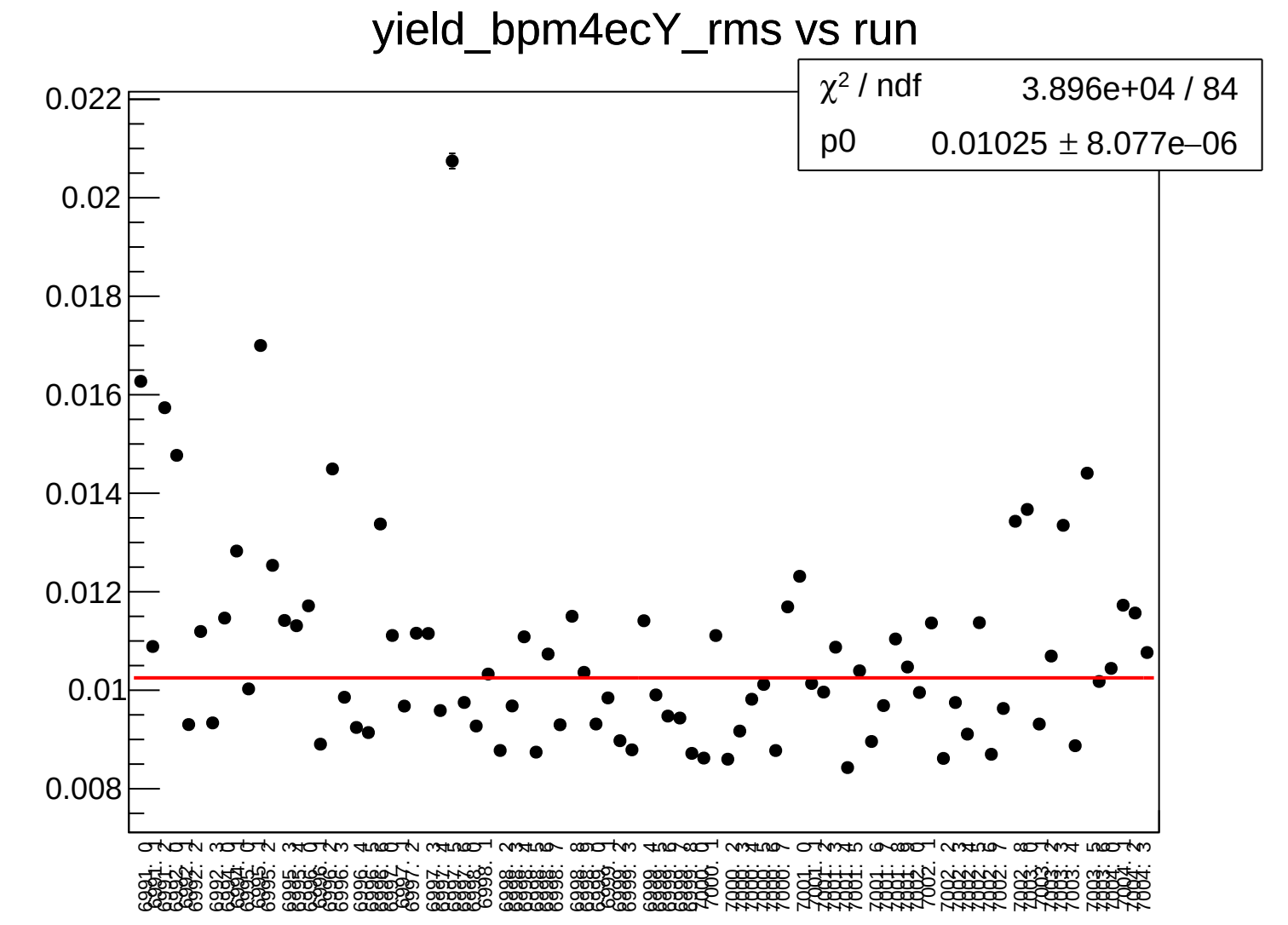

yield_bpm4ecX_mean vs run
χ² / ndf 1.735e+05 / 84
p0 0.01232 ± 2.574e−05
pull
Entries 85
Mean 38.44
Std Dev 27.29

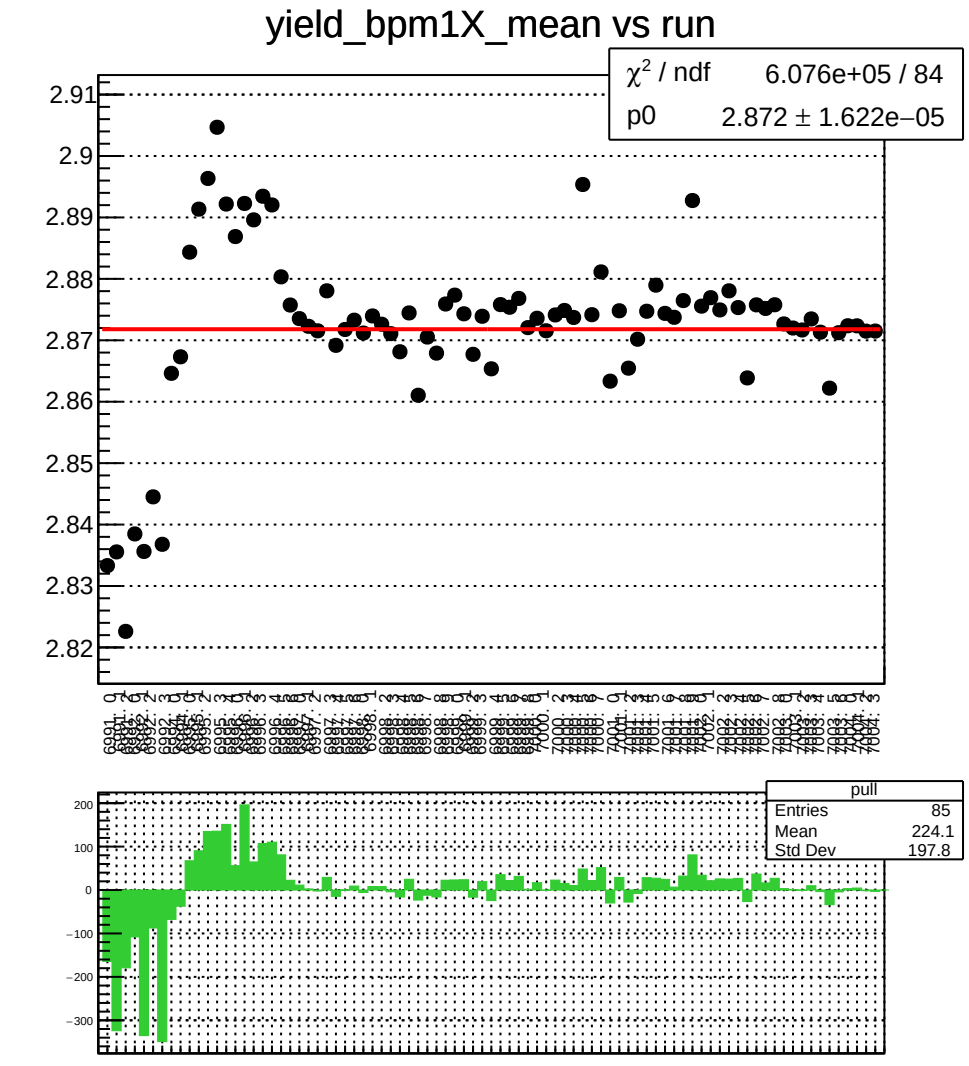

pull1D
Entries 85
Mean −0.9038
Std Dev 4.236

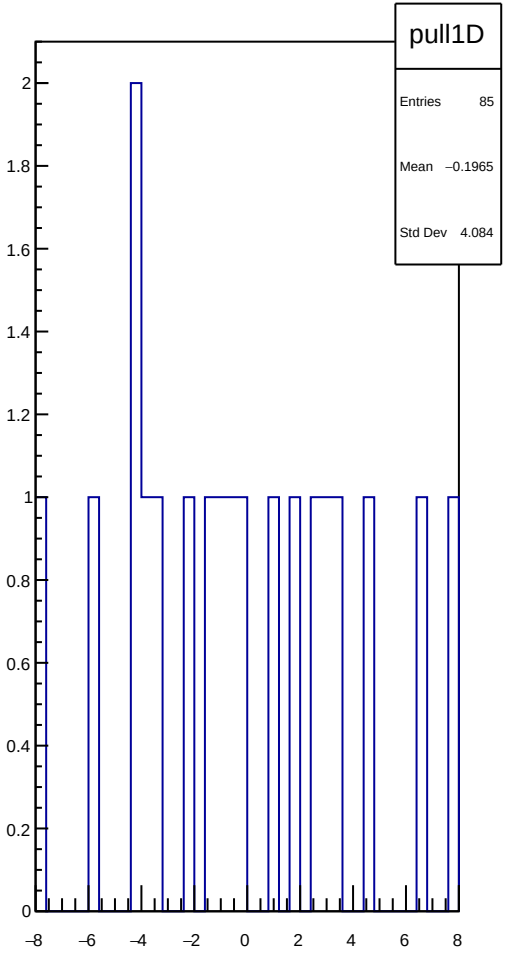

yield_bpm4ecX_rms vs run
χ² / ndf 2.421e+05 / 84
p0 0.02159 ± 1.82e−05
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015

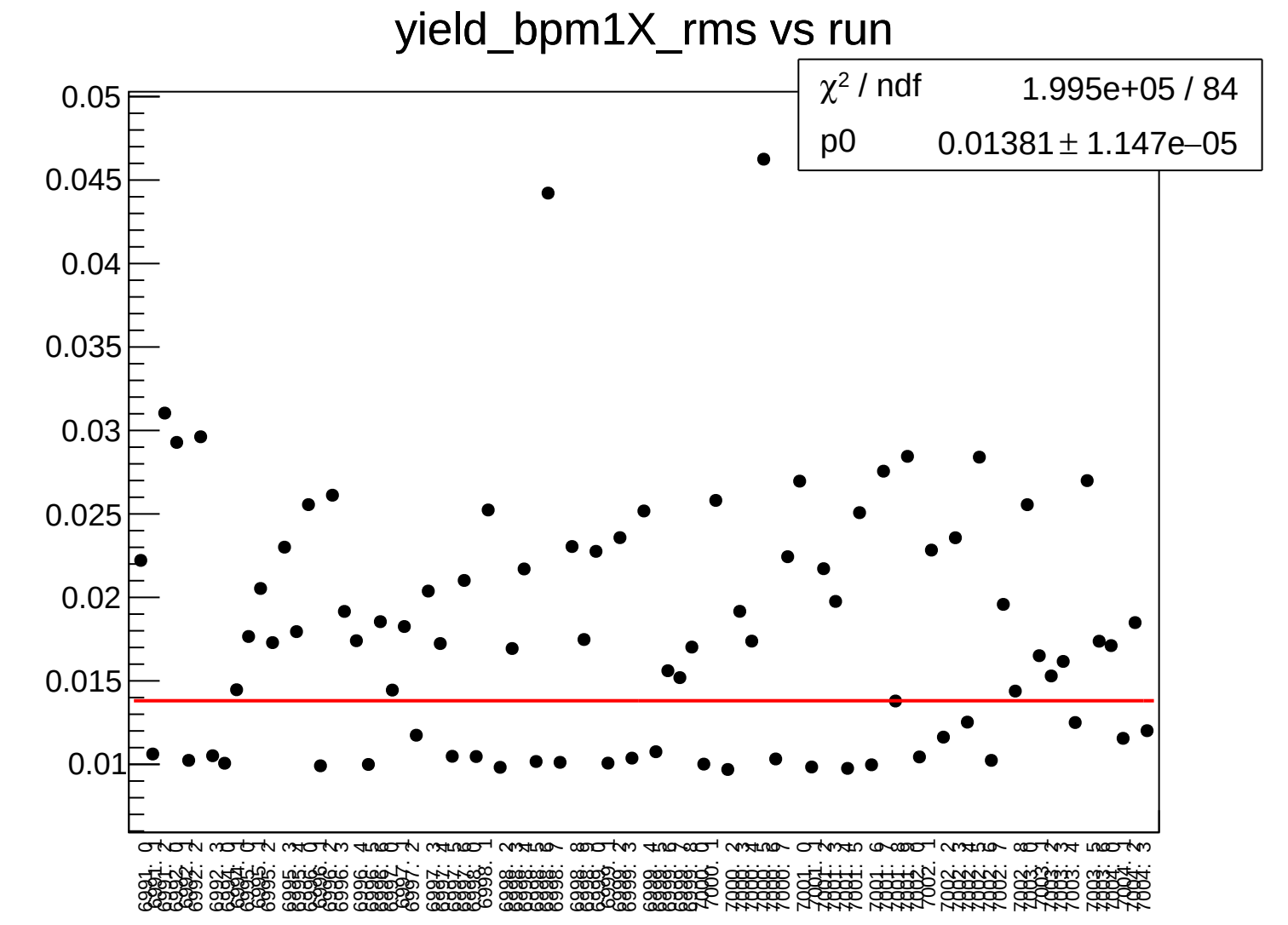

yield_bpm4ecY_mean vs run
χ² / ndf 5.398e+04 / 84
p0 0.01292 ± 1.142e−05
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
pull
Entries 85
Mean 51.36
Std Dev 43.12
60
40
20
0
−20
−40

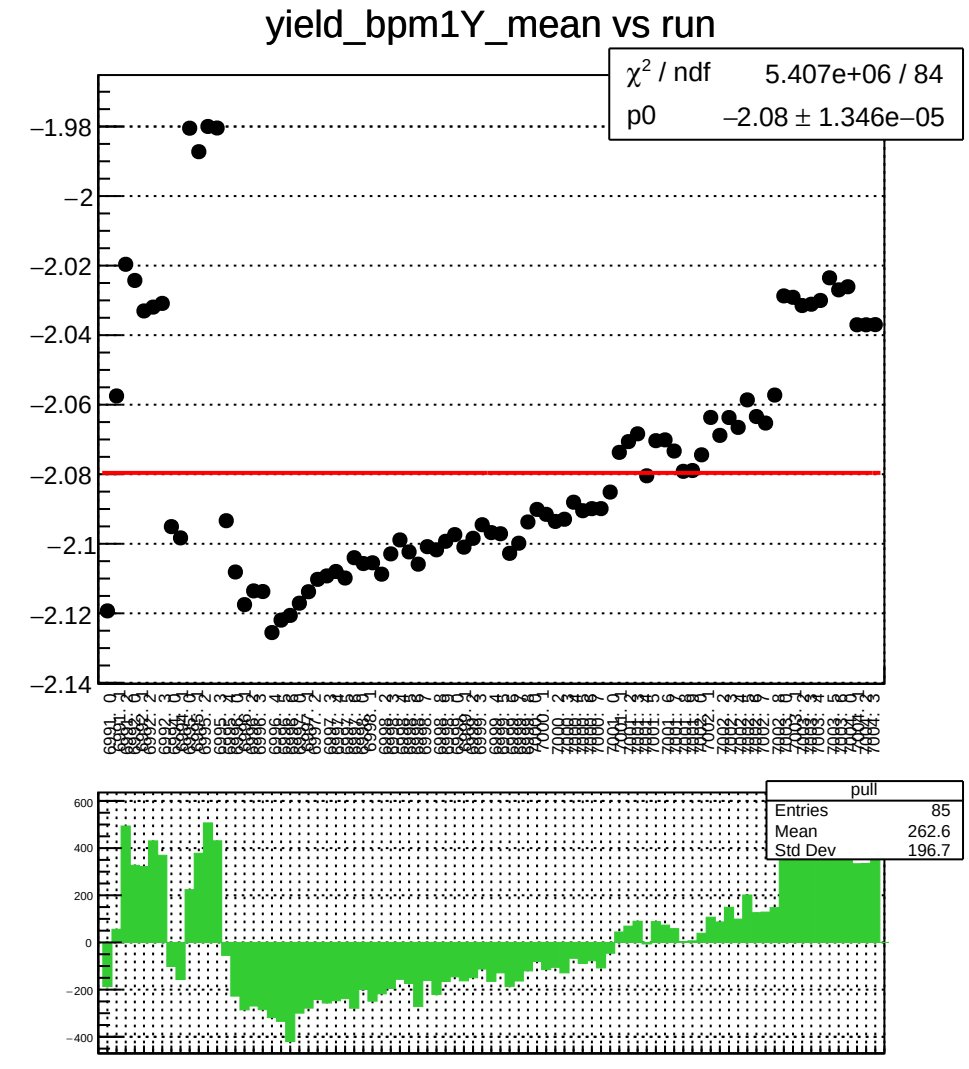

pull1D
Entries 85
Mean 0.2234
Std Dev 4.232
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

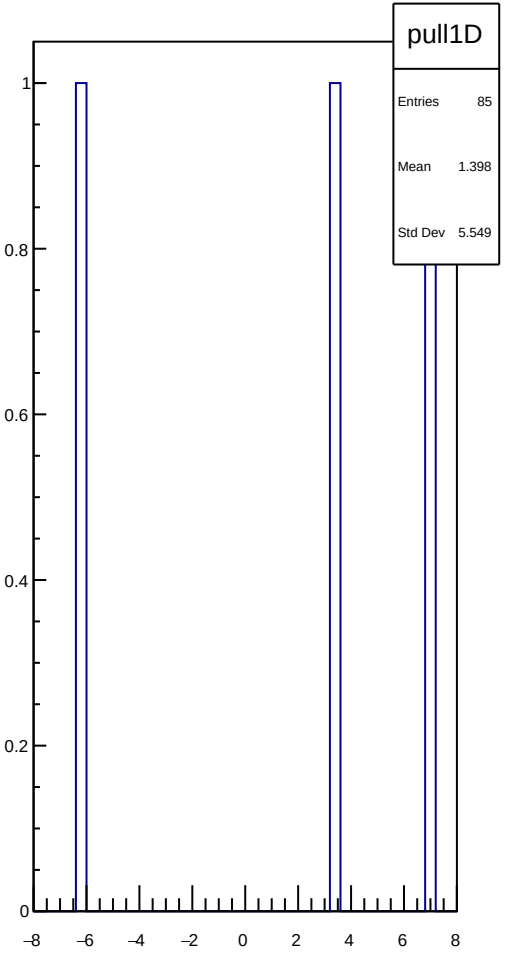

yield_bpm4ecY_rms vs run
χ² / ndf 3.896e+04 / 84
p0 0.01025 ± 8.077e–06
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

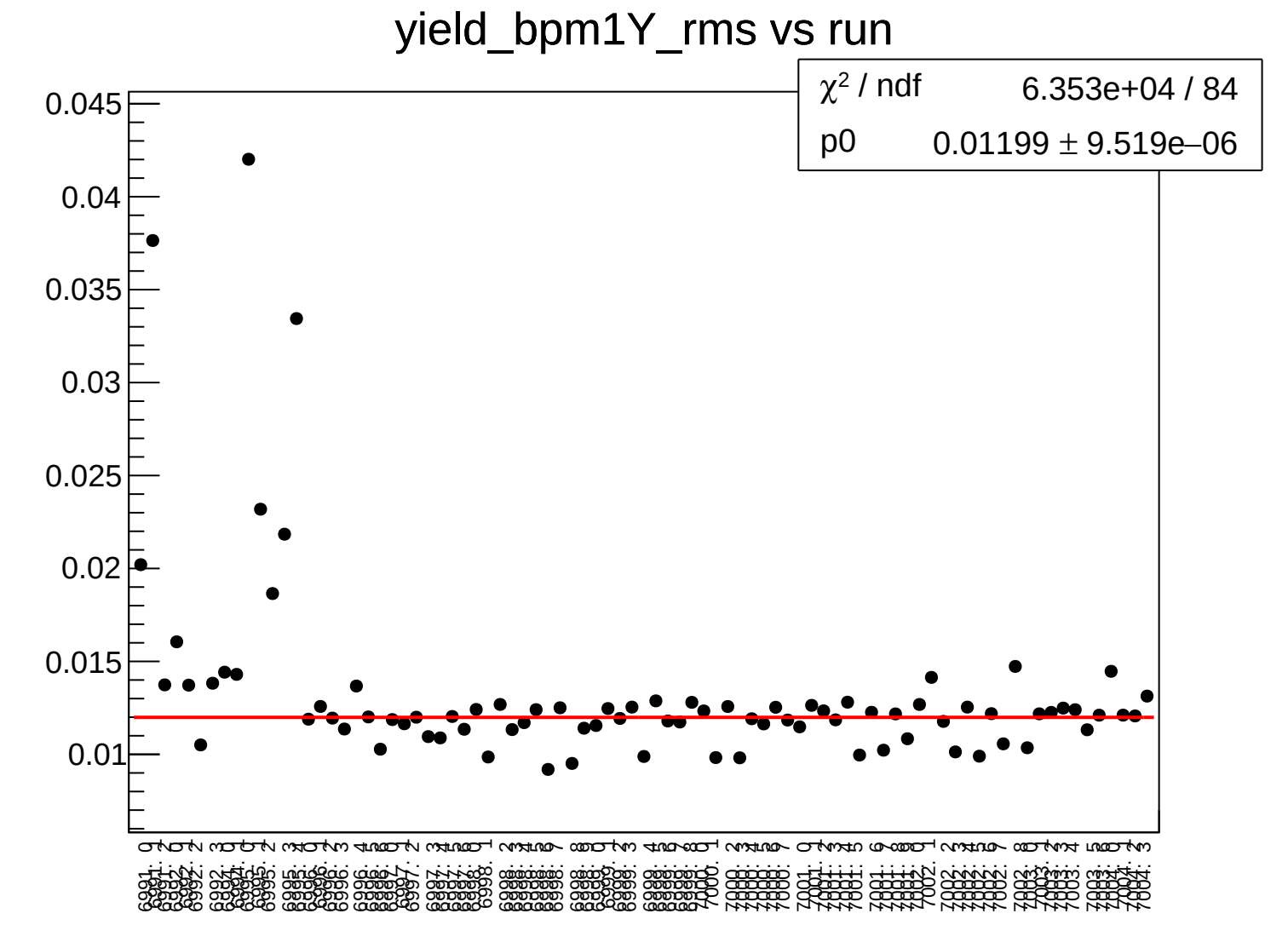

yield_bpm1X_mean vs run
χ² / ndf 6.076e+05 / 84
p0 2.872 ± 1.622e−05
2.91
2.9
2.89
2.88
2.87
2.86
2.85
2.84
2.83
2.82
pull
Entries 85
Mean 224.1
Std Dev 197.8
200
100
0
−100
−200
−300

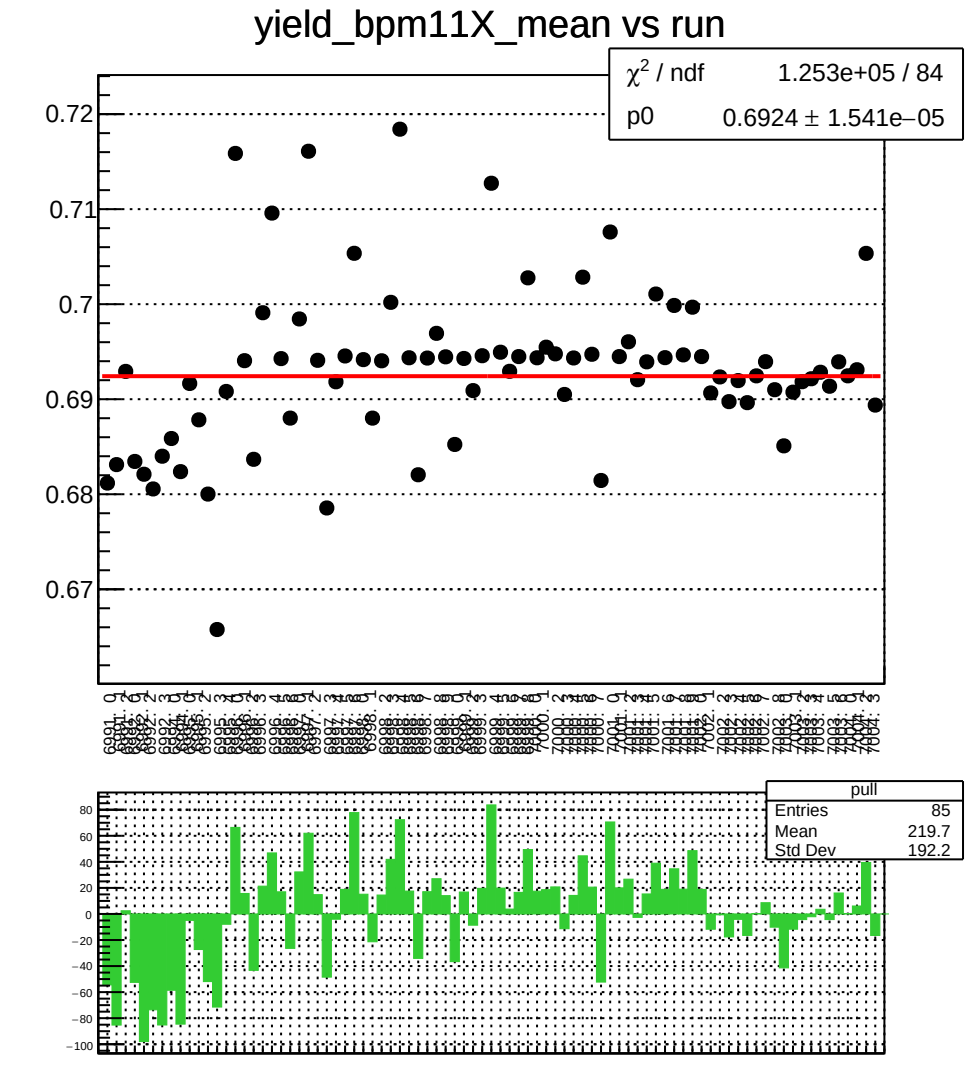

pull1D
Entries 85
Mean −0.1965
Std Dev 4.084
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

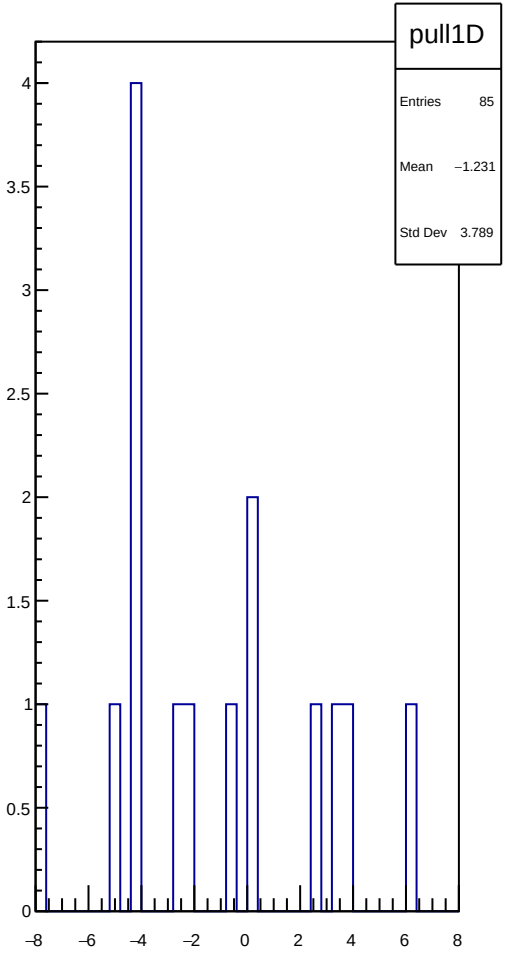

yield_bpm1X_rms vs run
χ² / ndf 1.995e+05 / 84
p0 0.01381 ± 1.147e–05
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

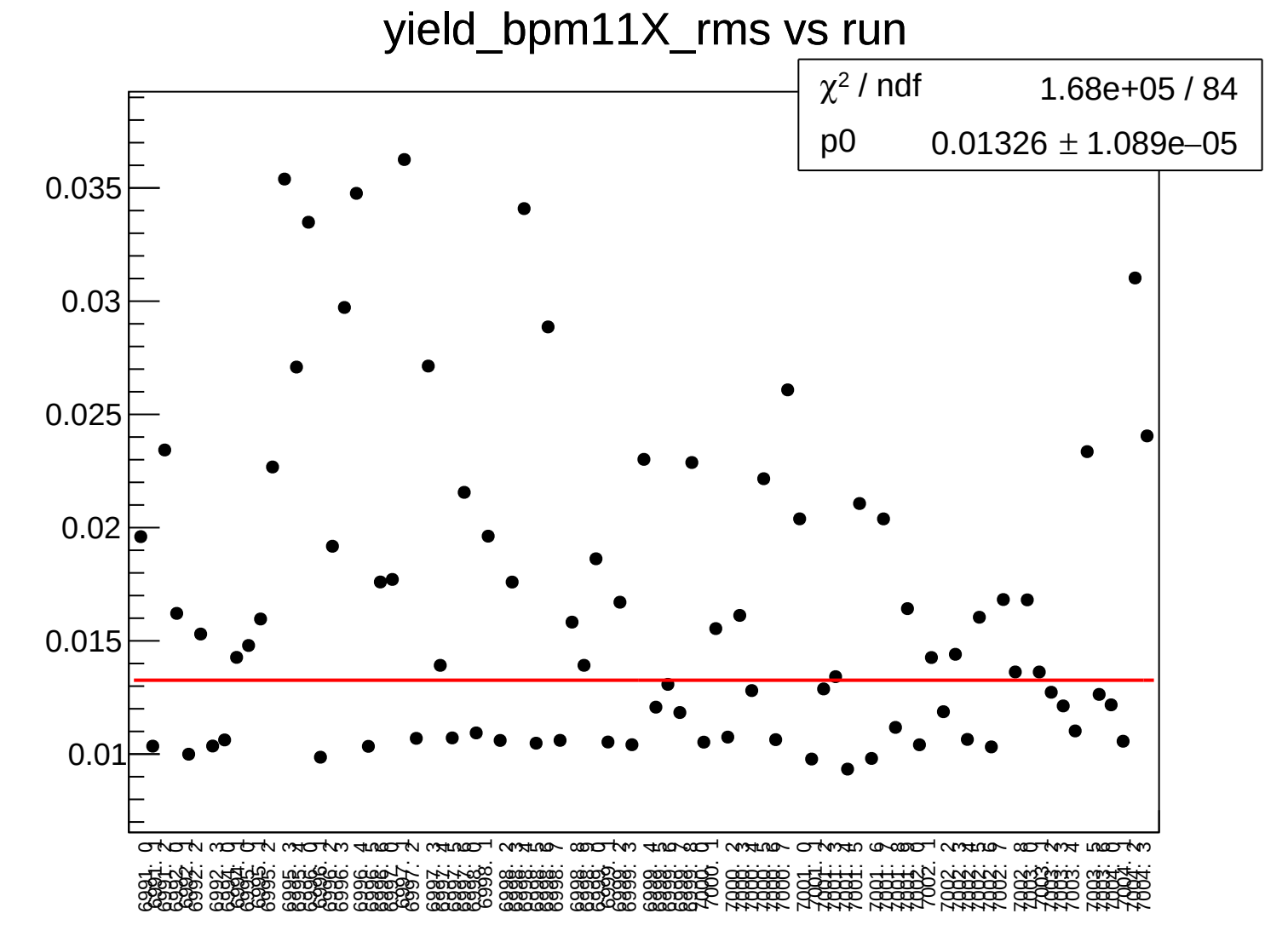

yield_bpm1Y_mean vs run
χ² / ndf 5.407e+06 / 84
p0 −2.08 ± 1.346e−05
−1.98
−2
−2.02
−2.04
−2.06
−2.08
−2.1
−2.12
−2.14
pull
Entries 85
Mean 262.6
Std Dev 196.7
600
400
200
0
−200
−400

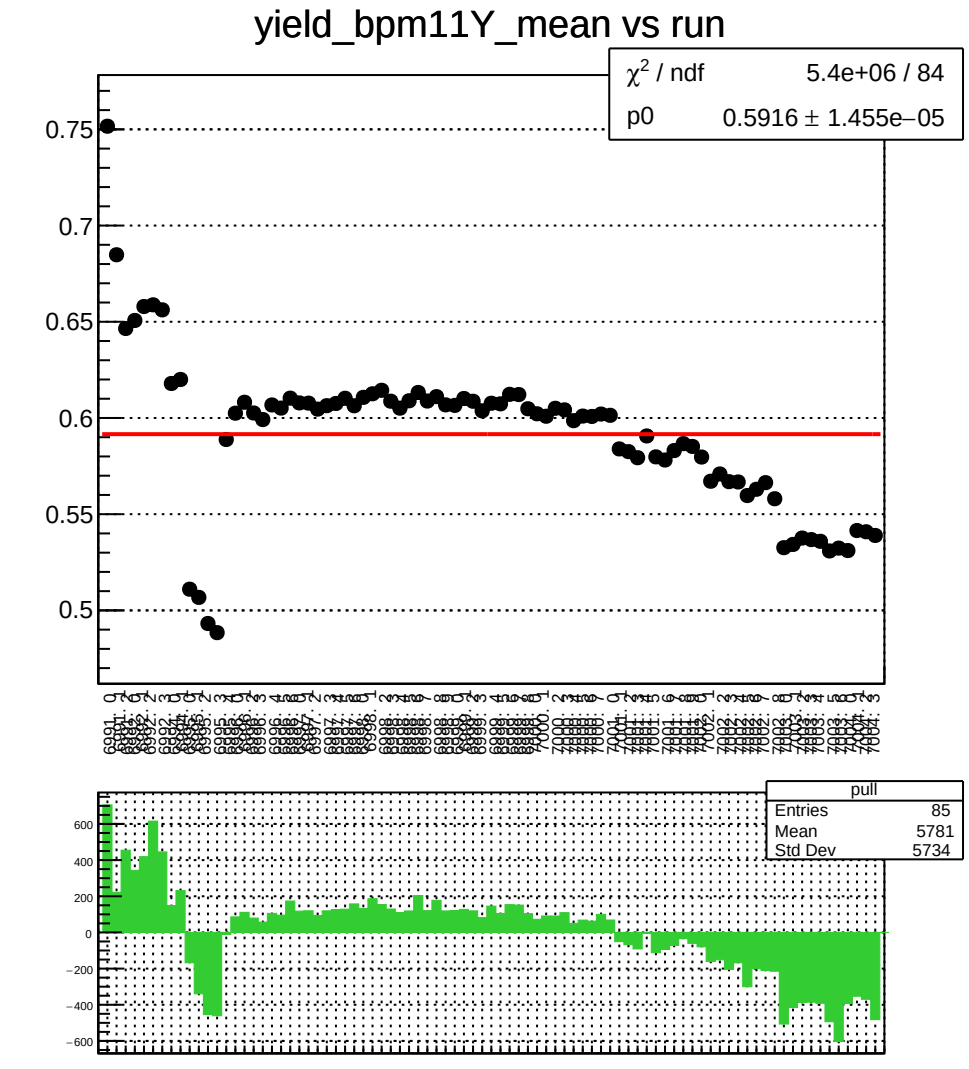

pull1D
Entries 85
Mean 1.398
Std Dev 5.549
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

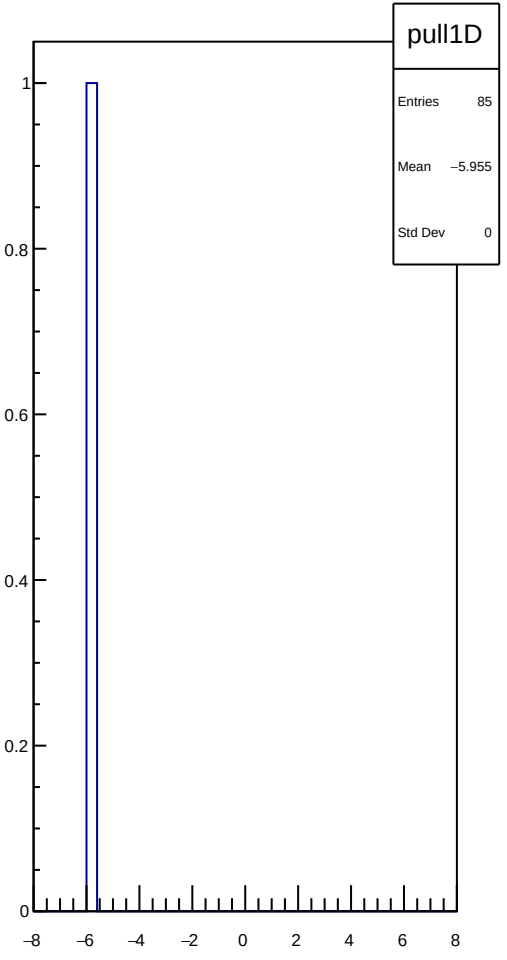

yield_bpm1Y_rms vs run
χ² / ndf 6.353e+04 / 84
p0 0.01199 ± 9.519e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

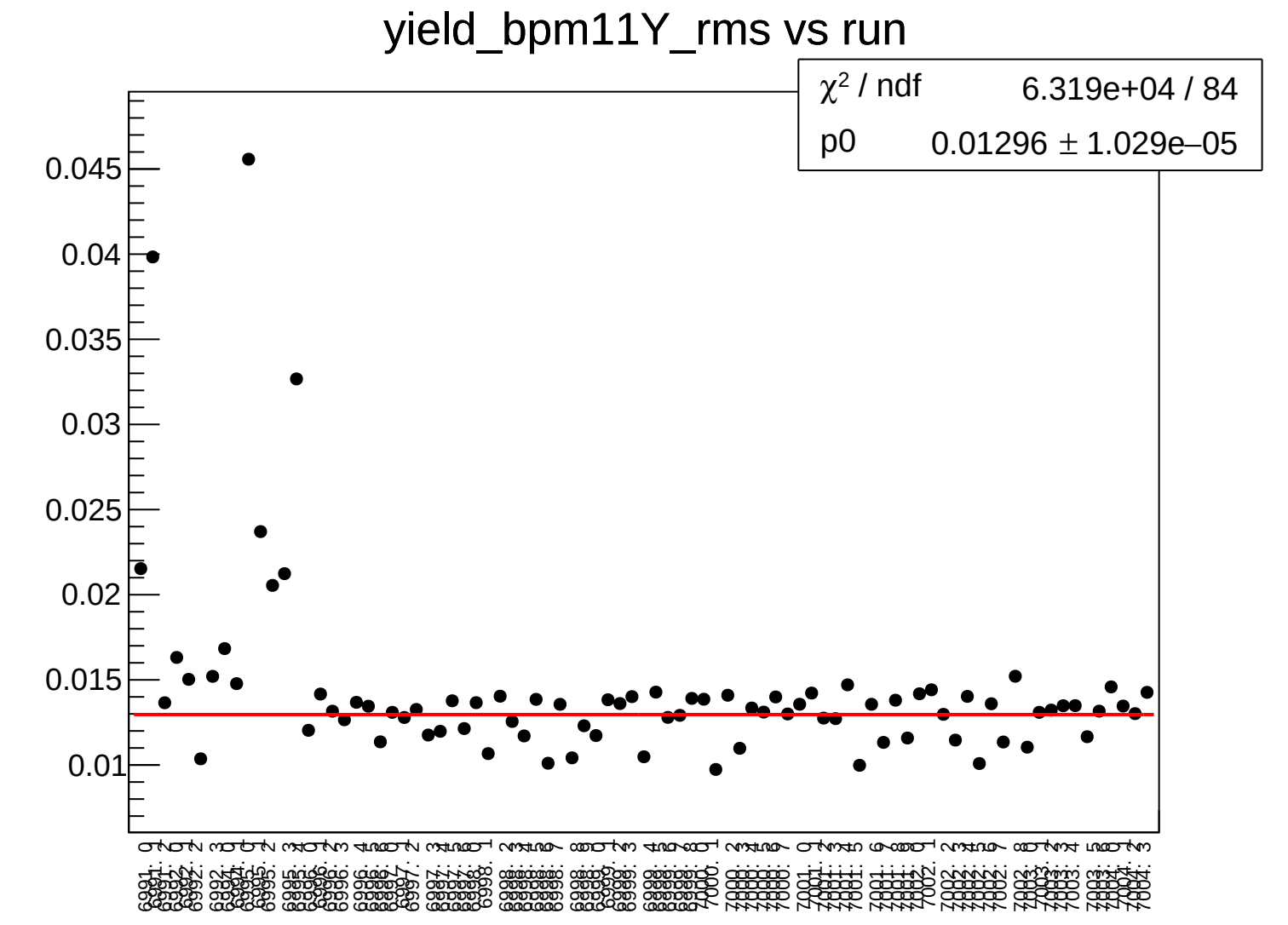

yield_bpm11X_mean vs run
χ² / ndf 1.253e+05 / 84
p0 0.6924 ± 1.541e−05
0.72
0.71
0.7
0.69
0.68
0.67
pull
Entries 85
Mean 219.7
Std Dev 192.2
80
60
40
20
0
−20
−40
−60
−80
−100

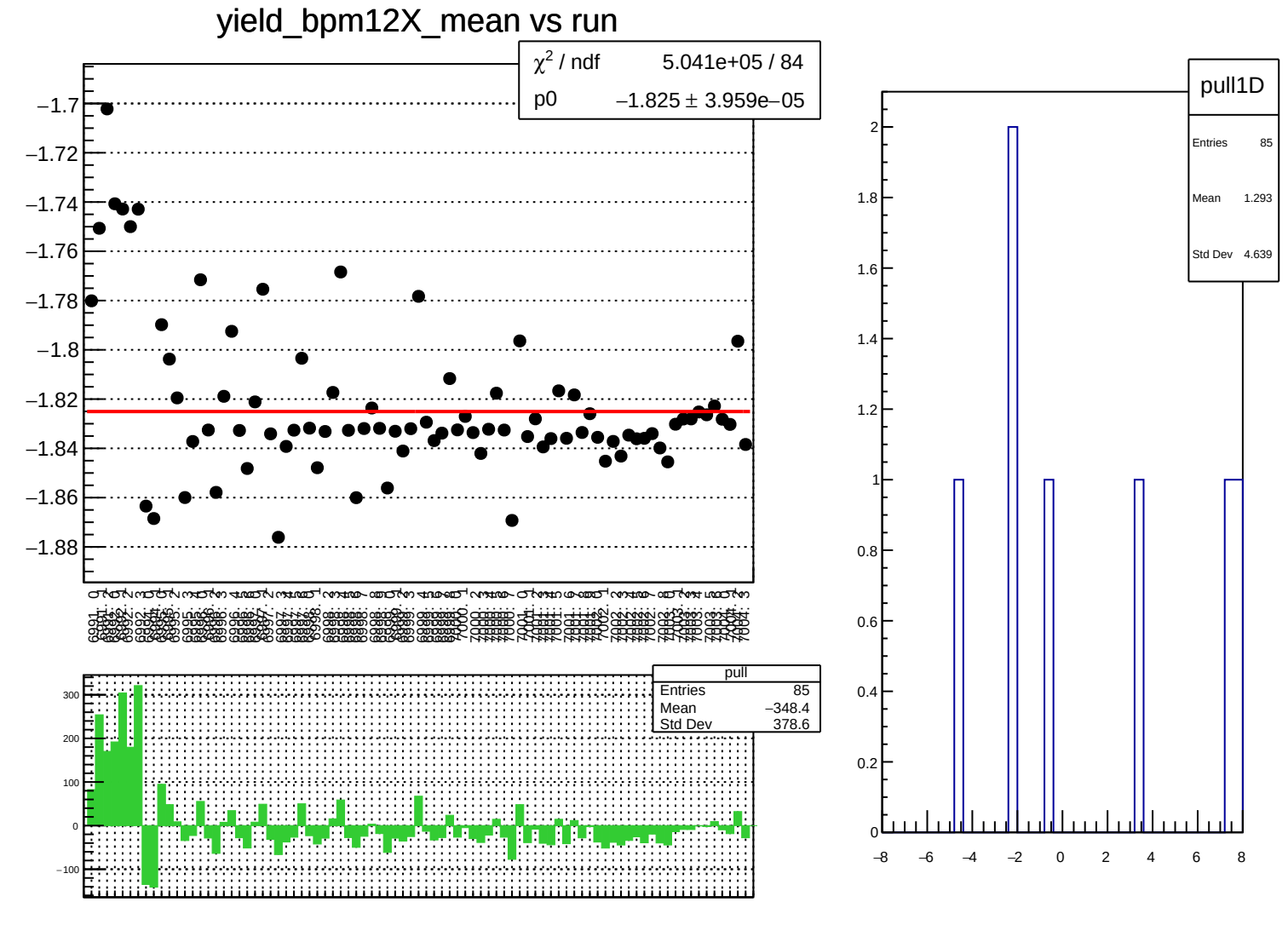

pull1D
Entries 85
Mean −1.231
Std Dev 3.789
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

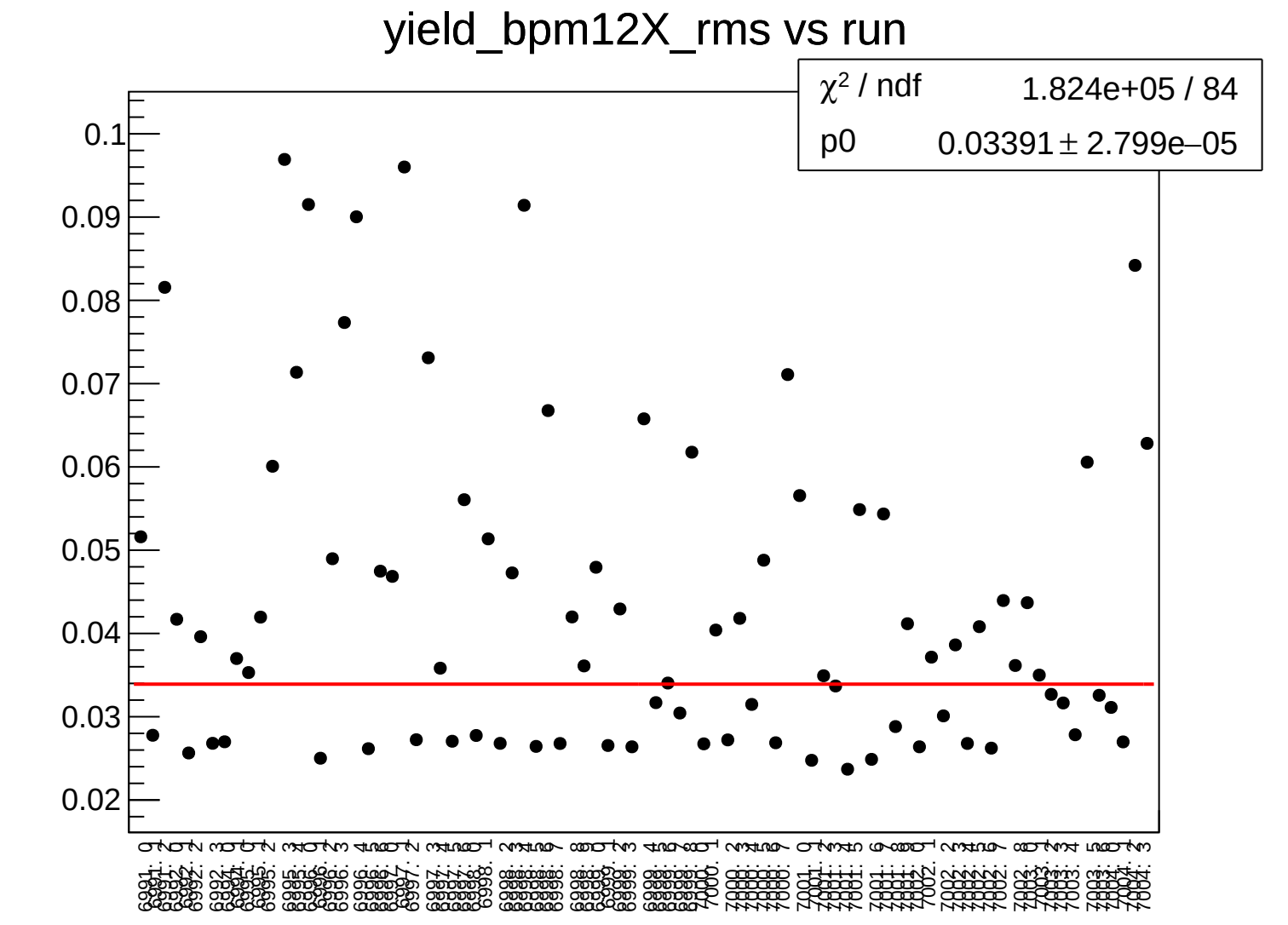

yield_bpm11X_rms vs run
χ² / ndf 1.68e+05 / 84
p0 0.01326 ± 1.089e−05
0.035
0.03
0.025
0.02
0.015
0.01

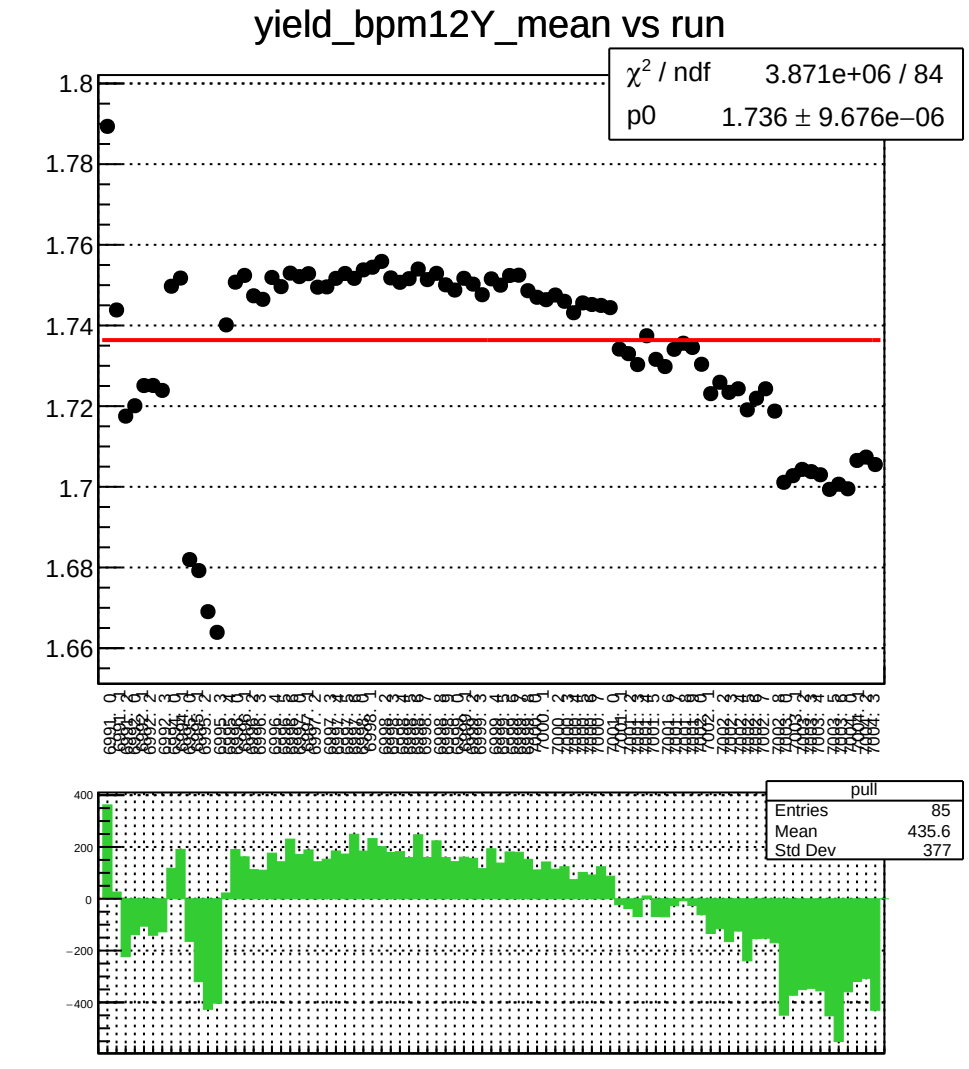

yield_bpm11Y_mean vs run
χ² / ndf 5.4e+06 / 84
p0 0.5916 ± 1.455e−05
0.75
0.7
0.65
0.6
0.55
0.5
pull
Entries 85
Mean 5781
Std Dev 5734
600
400
200
0
−200
−400
−600

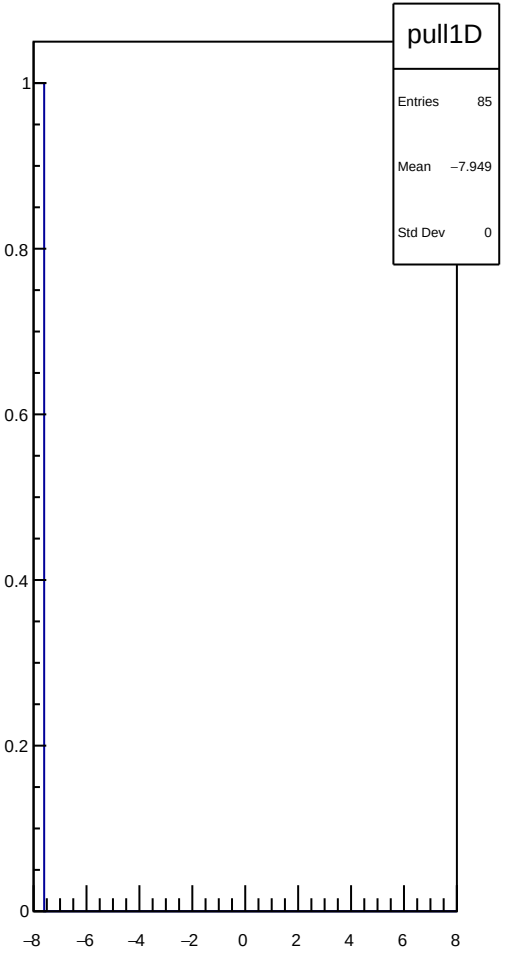

pull1D
Entries 85
Mean −5.955
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

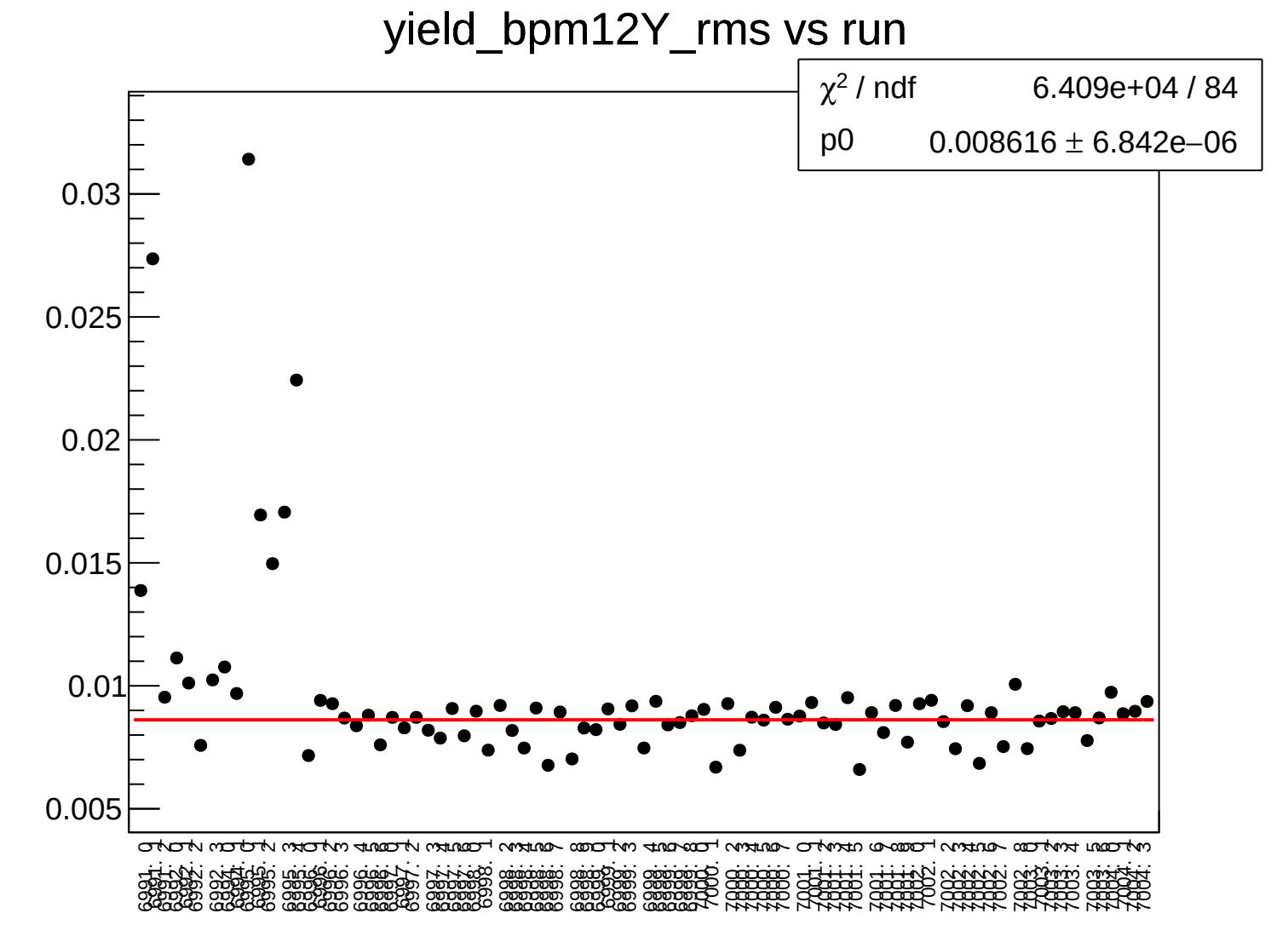

yield_bpm11Y_rms vs run
χ² / ndf 6.319e+04 / 84
p0 0.01296 ± 1.029e–05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

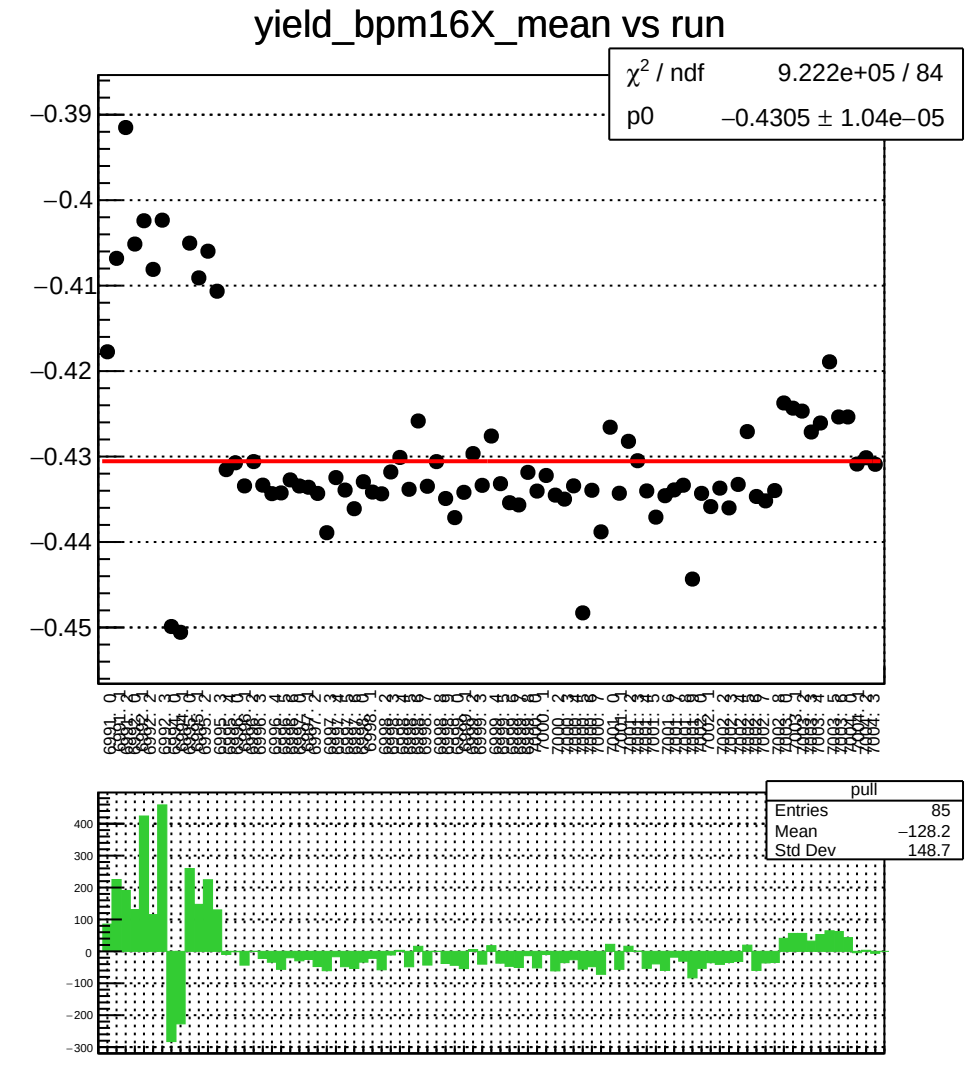

yield_bpm12X_mean vs run
χ² / ndf 5.041e+05 / 84
p0 −1.825 ± 3.959e−05
−1.7
−1.72
−1.74
−1.76
−1.78
−1.8
−1.82
−1.84
−1.86
−1.88
pull
Entries 85
Mean −348.4
Std Dev 378.6
300
200
100
0
−100
pull1D
Entries 85
Mean 1.293
Std Dev 4.639
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

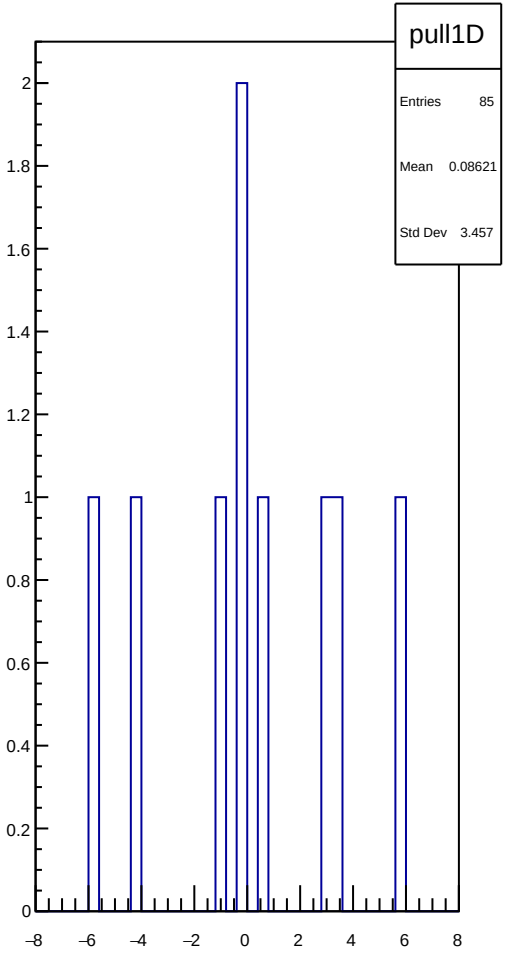

yield_bpm12X_rms vs run
χ^2 / ndf 1.824e+05 / 84
p0 0.03391 ± 2.799e–05
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02

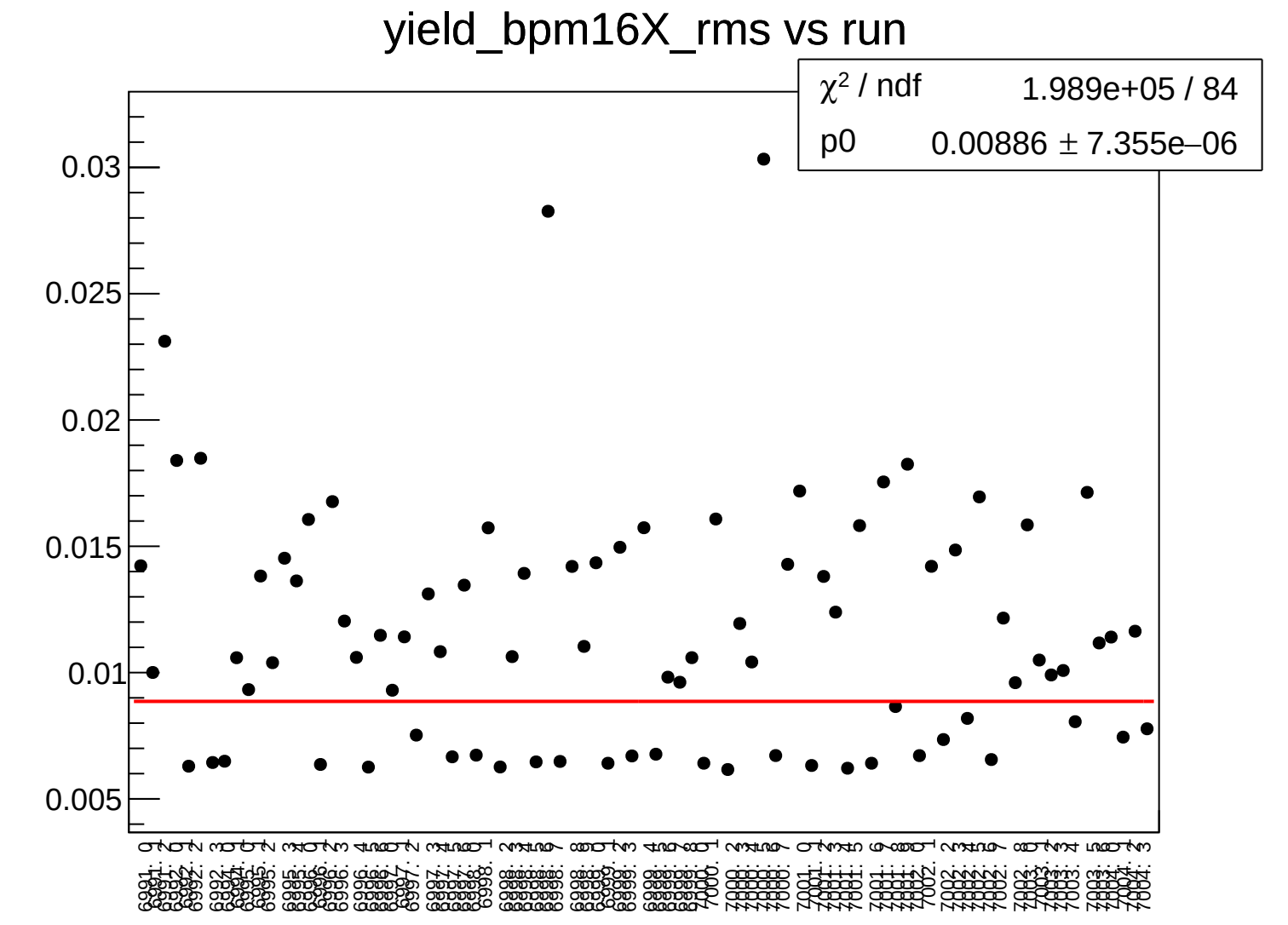

yield_bpm12Y_mean vs run
χ² / ndf 3.871e+06 / 84
p0 1.736 ± 9.676e−06
1.8
1.78
1.76
1.74
1.72
1.7
1.68
1.66
pull
Entries 85
Mean 435.6
Std Dev 377
400
200
0
−200
−400

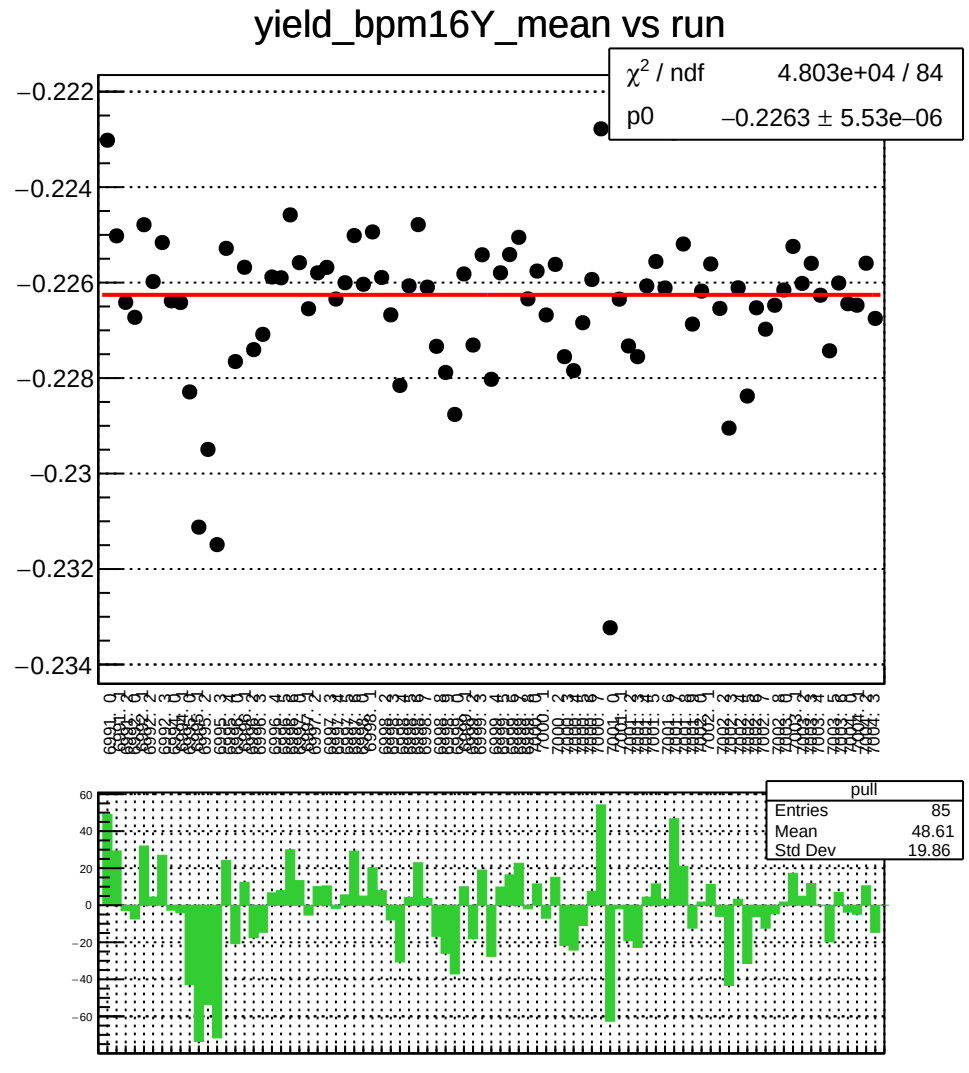

pull1D
Entries 85
Mean −7.949
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

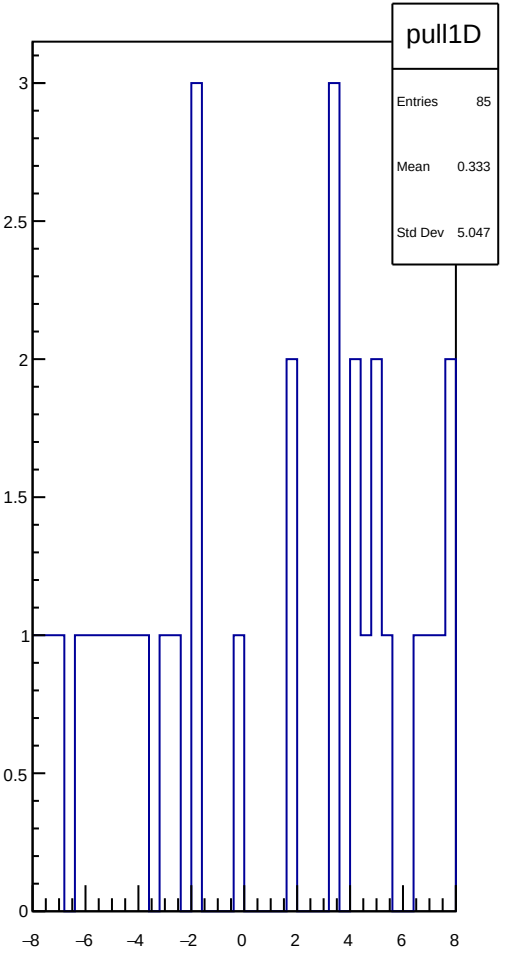

yield_bpm12Y_rms vs run
χ² / ndf 6.409e+04 / 84
p0 0.008616 ± 6.842e−06
0.03
0.025
0.02
0.015
0.01
0.005

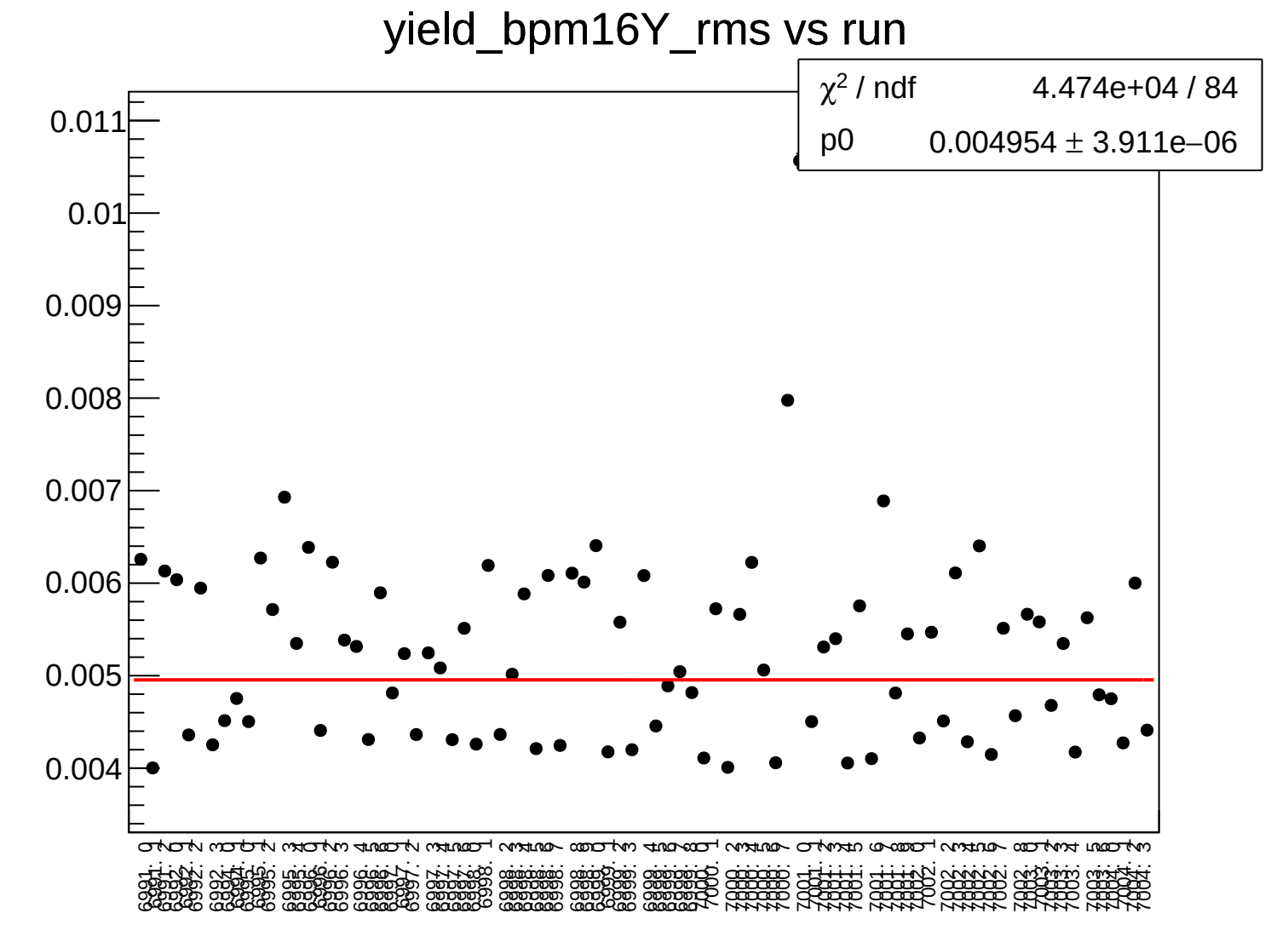

yield_bpm16X_mean vs run
χ² / ndf 9.222e+05 / 84
p0 −0.4305 ± 1.04e−05
−0.39
−0.4
−0.41
−0.42
−0.43
−0.44
−0.45
pull
Entries 85
Mean −128.2
Std Dev 148.7
400
300
200
100
0
−100
−200
−300

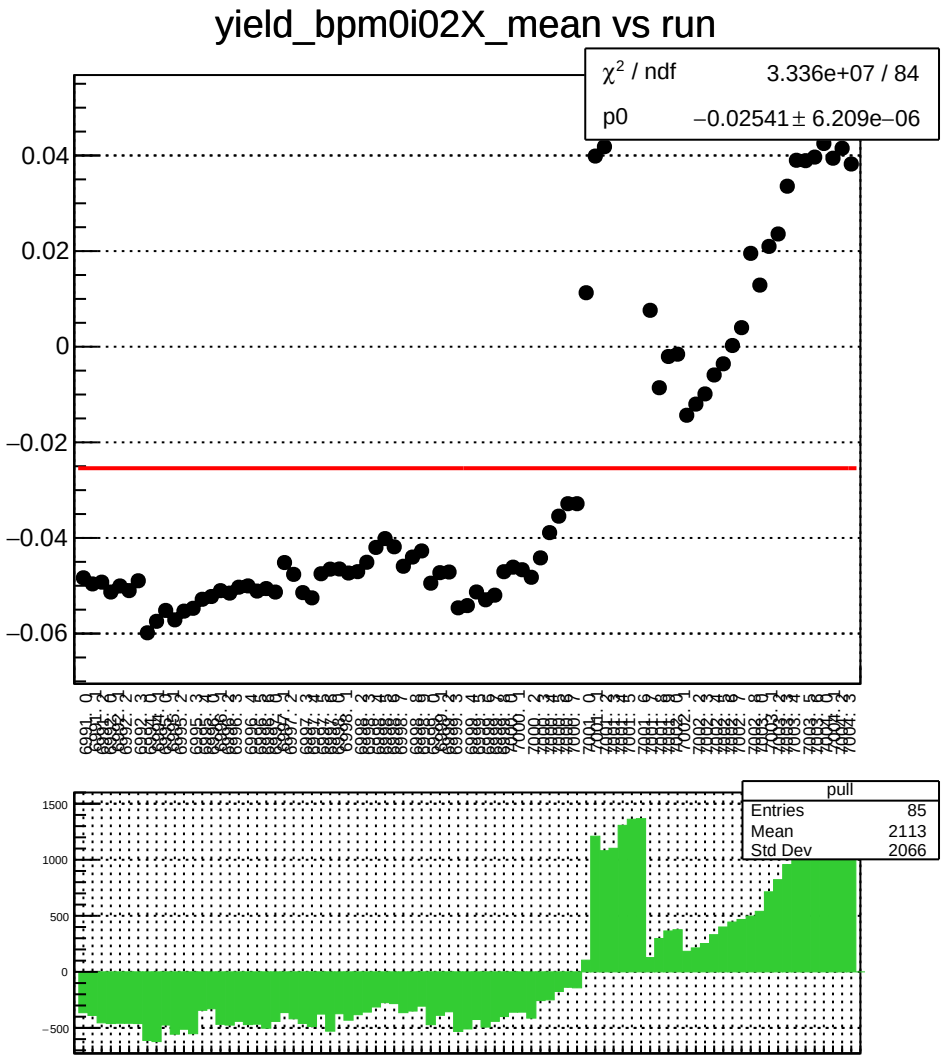

pull1D
Entries 85
Mean 0.08621
Std Dev 3.457
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

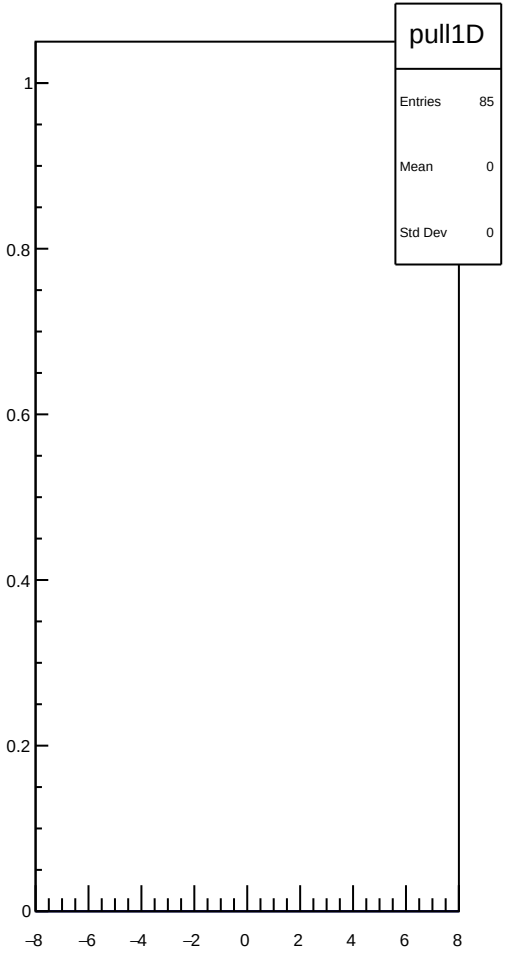

yield_bpm16X_rms vs run
χ² / ndf 1.989e+05 / 84
p0 0.00886 ± 7.355e–06
0.03
0.025
0.02
0.015
0.01
0.005

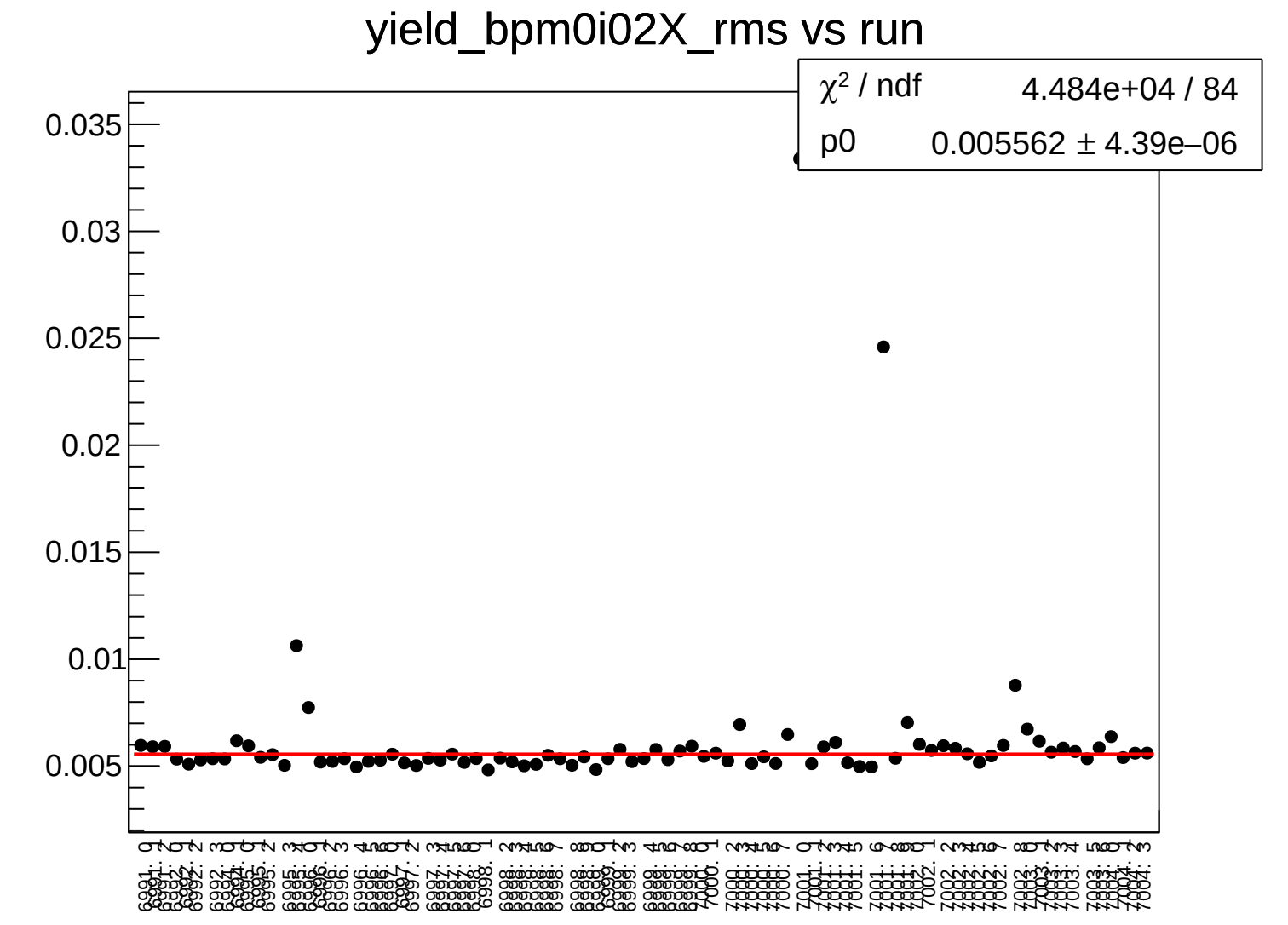

yield_bpm16Y_mean vs run
χ² / ndf 4.803e+04 / 84
p0 −0.2263 ± 5.53e−06
−0.222
−0.224
−0.226
−0.228
−0.23
−0.232
−0.234
pull
Entries 85
Mean 48.61
Std Dev 19.86
60
40
20
0
−20
−40
−60

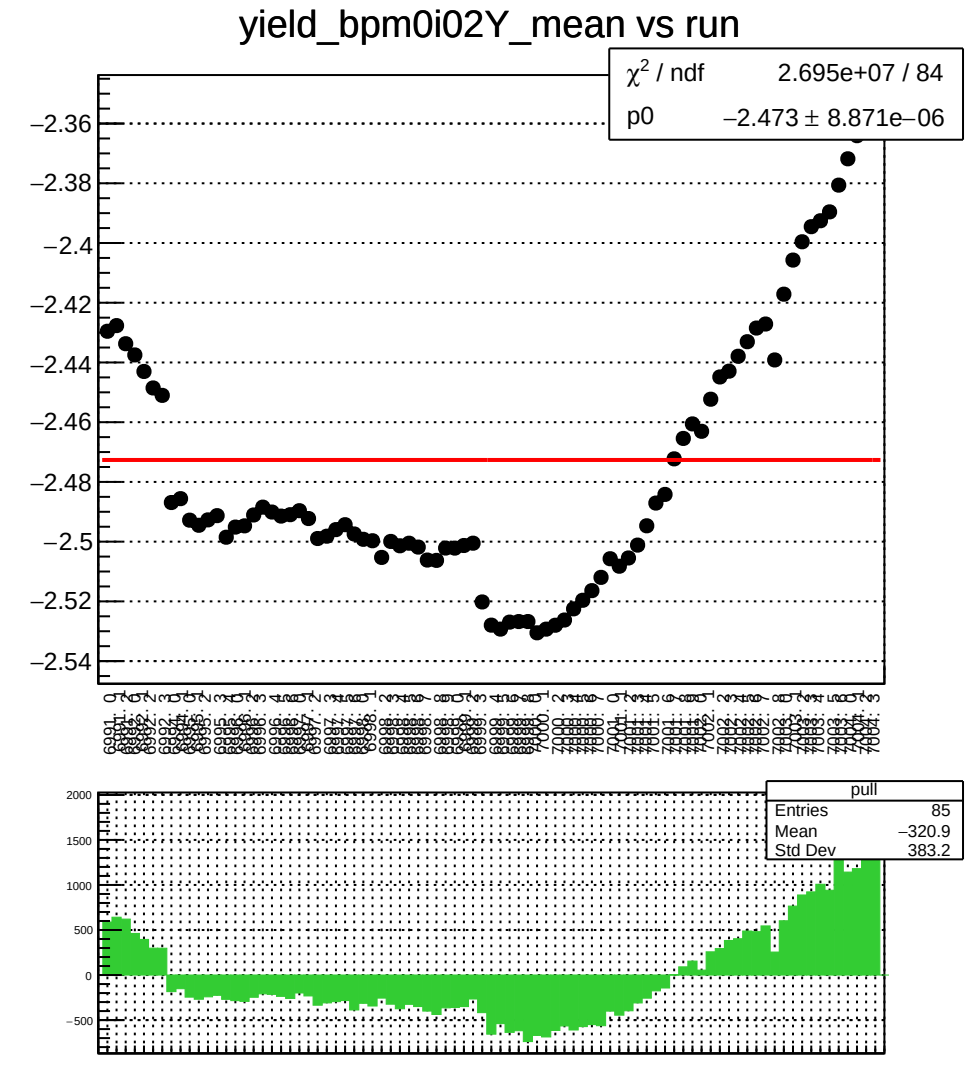

pull1D
Entries 85
Mean 0.333
Std Dev 5.047
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

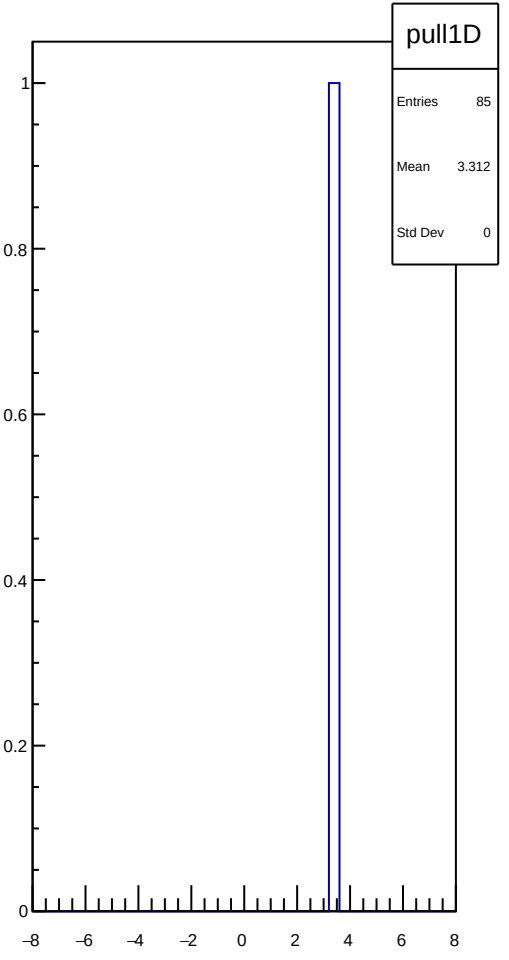

yield_bpm16Y_rms vs run
χ² / ndf 4.474e+04 / 84
p0 0.004954 ± 3.911e−06
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004

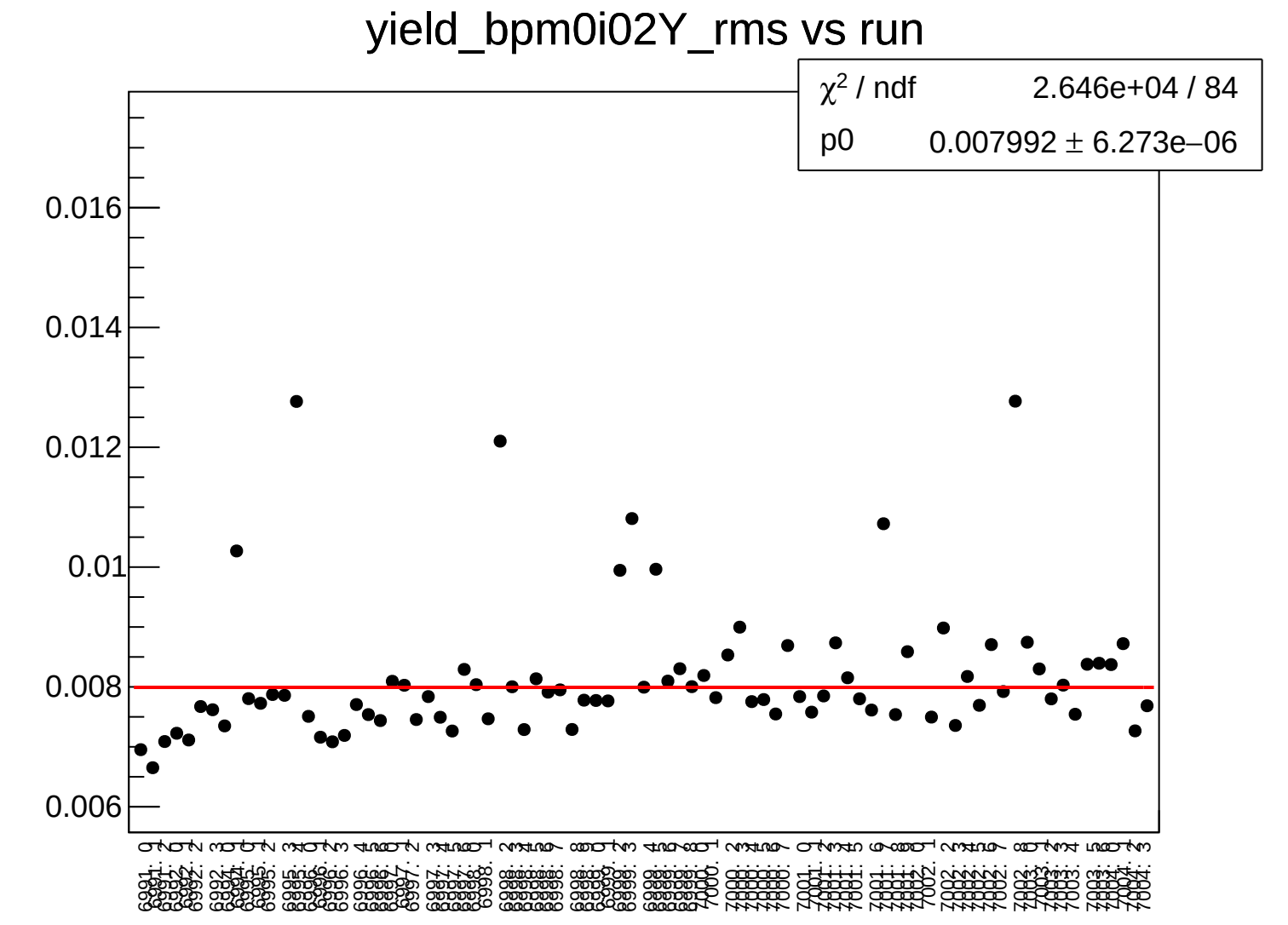

yield_bpm0i02X_mean vs run
χ² / ndf 3.336e+07 / 84
p0 −0.02541 ± 6.209e−06
0.04
0.02
0
−0.02
−0.04
−0.06
pull
Entries 85
Mean 2113
Std Dev 2066
1500
1000
500
0
−500

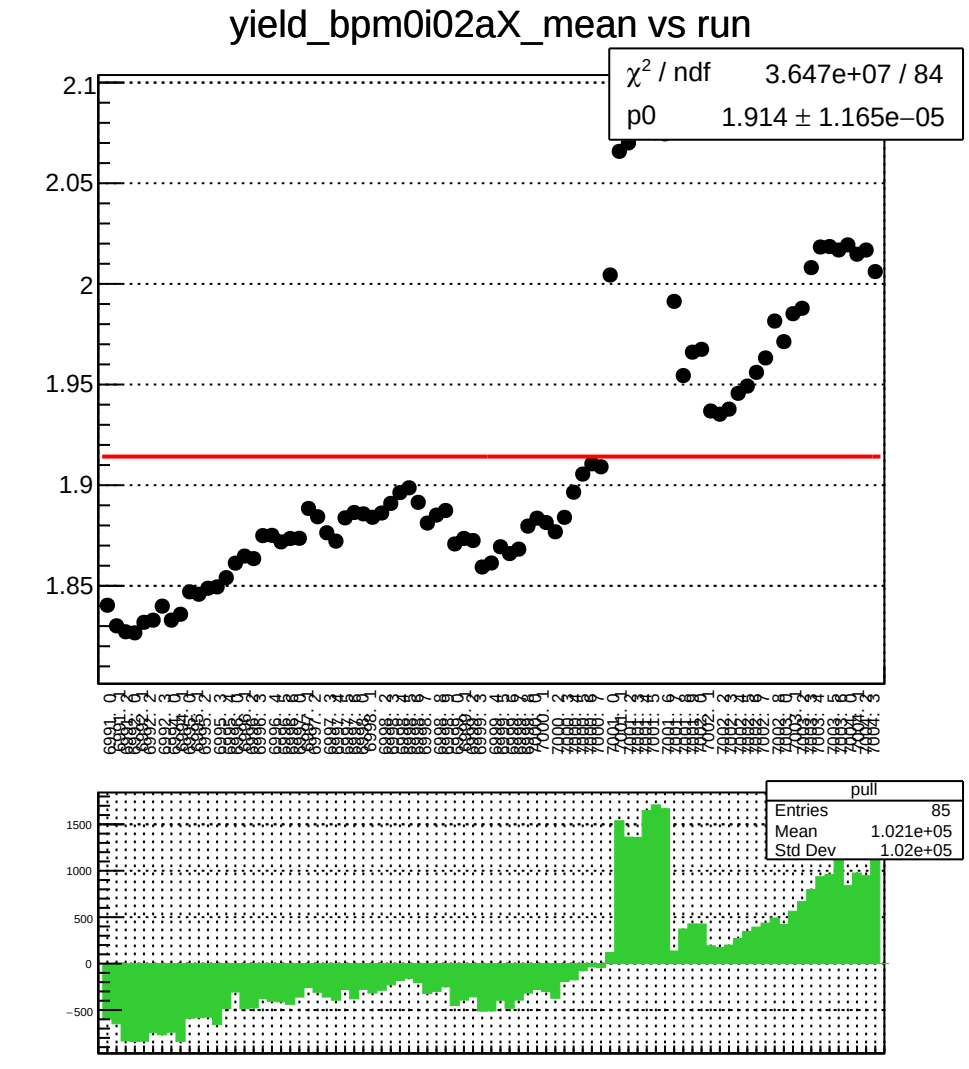

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

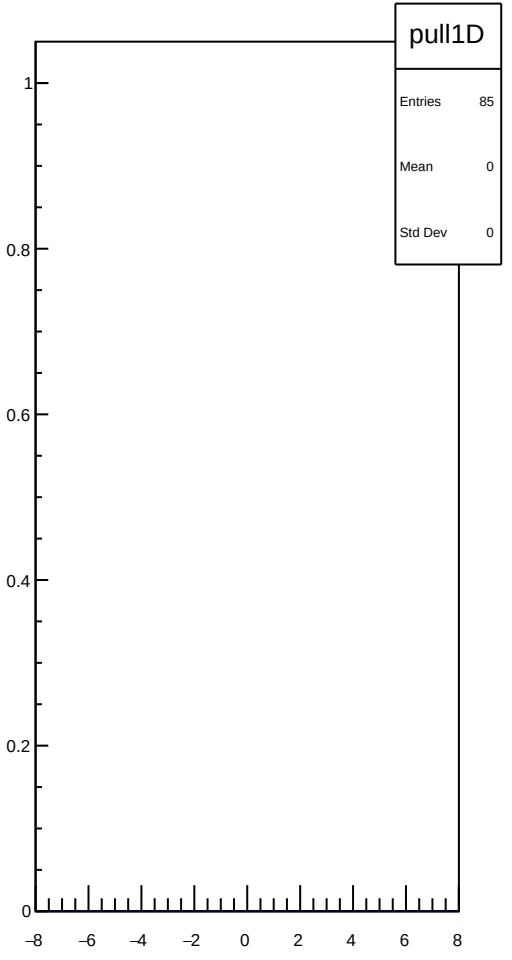

yield_bpm0i02X_rms vs run
χ² / ndf 4.484e+04 / 84
p0 0.005562 ± 4.39e−06
0.035
0.03
0.025
0.02
0.015
0.01
0.005

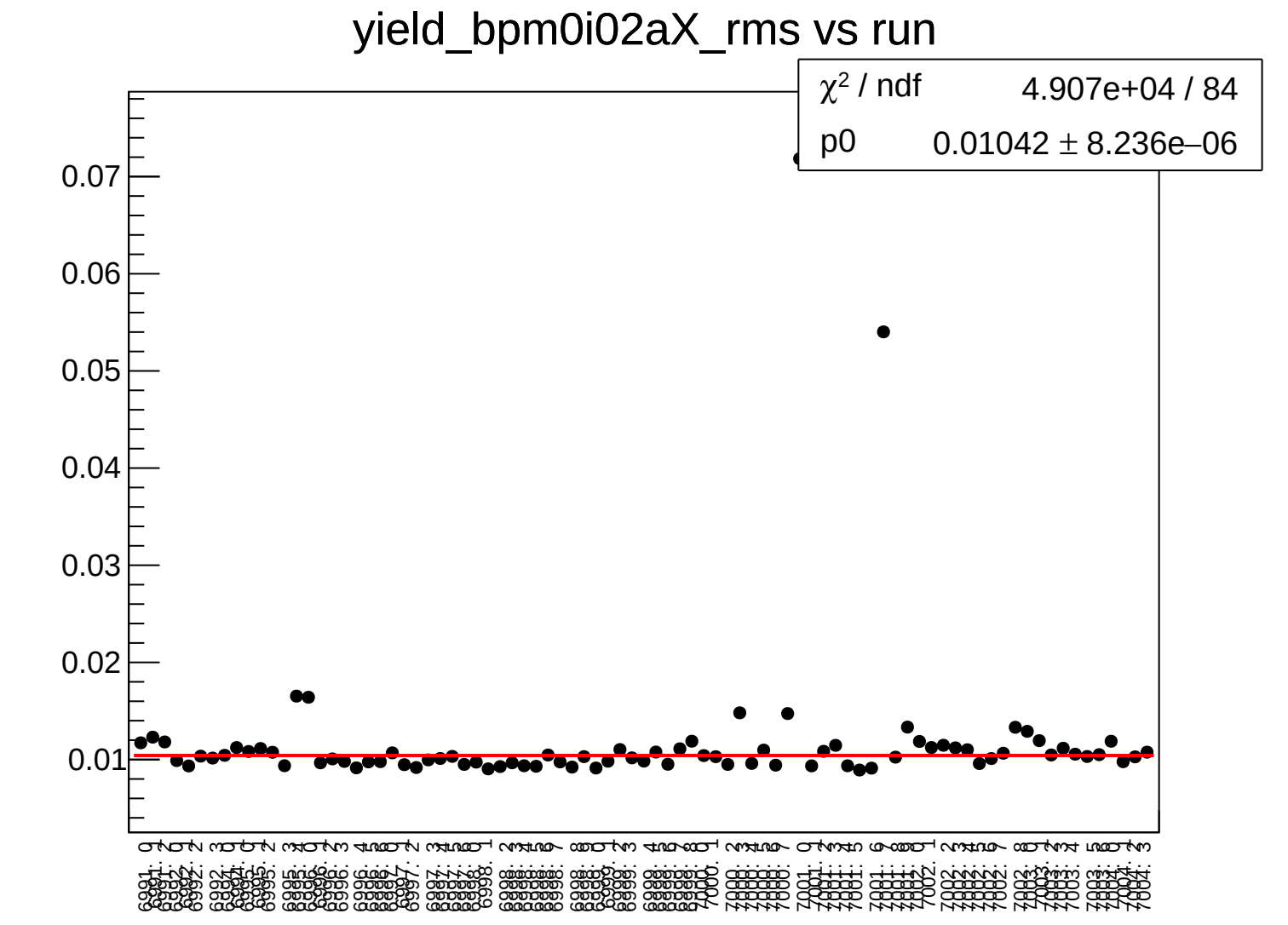

yield_bpm0i02Y_mean vs run
χ² / ndf 2.695e+07 / 84
p0 −2.473 ± 8.871e−06
−2.36
−2.38
−2.4
−2.42
−2.44
−2.46
−2.48
−2.5
−2.52
−2.54
pull
Entries 85
Mean −320.9
Std Dev 383.2
2000
1500
1000
500
0
−500

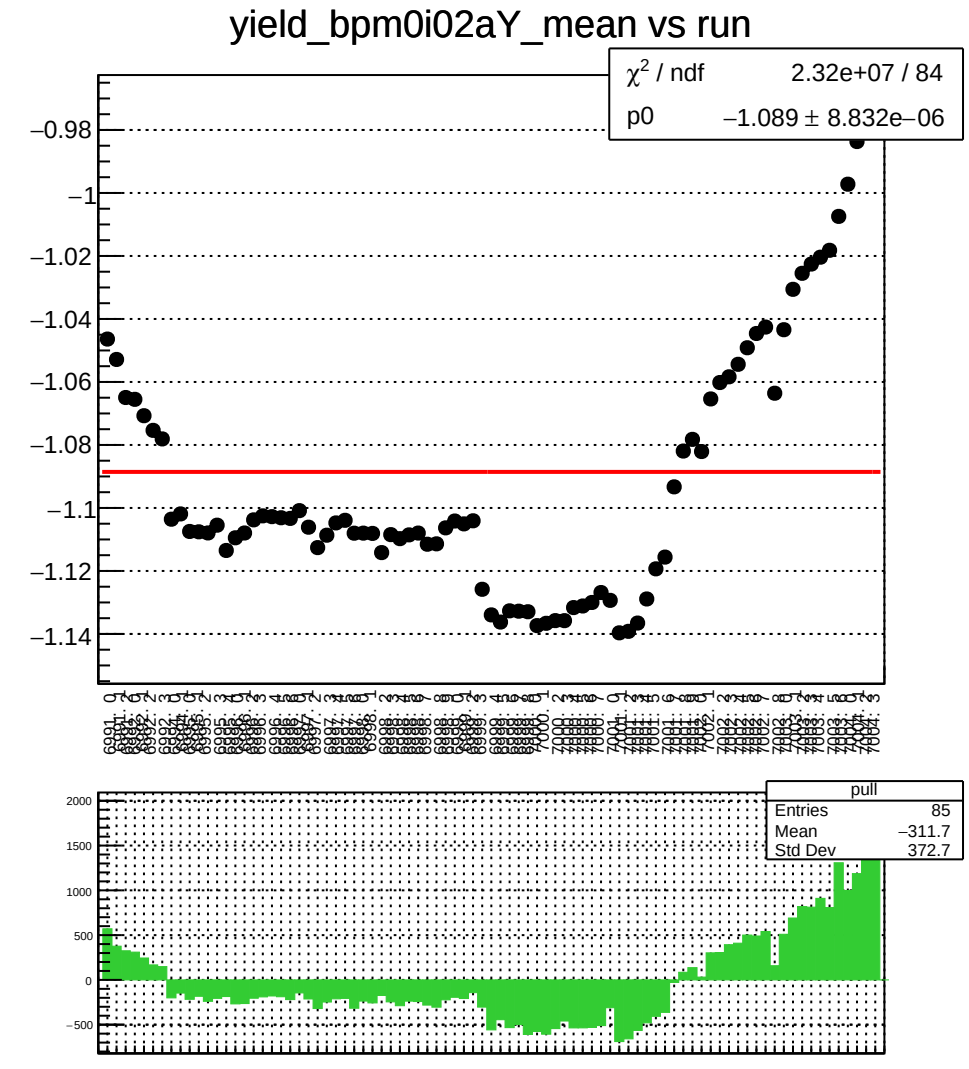

pull1D
Entries 85
Mean 3.312
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

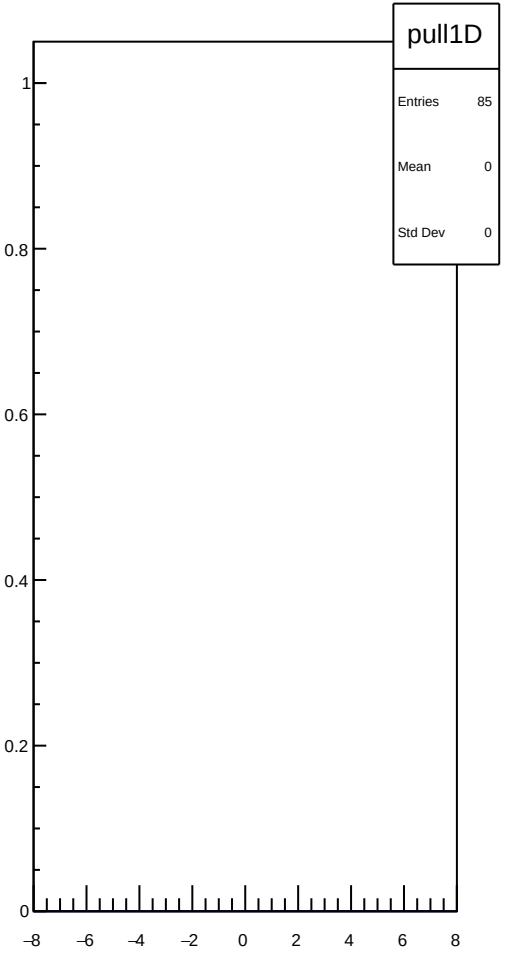

yield_bpm0i02Y_rms vs run
χ² / ndf 2.646e+04 / 84
p0 0.007992 ± 6.273e−06
0.016
0.014
0.012
0.01
0.008
0.006

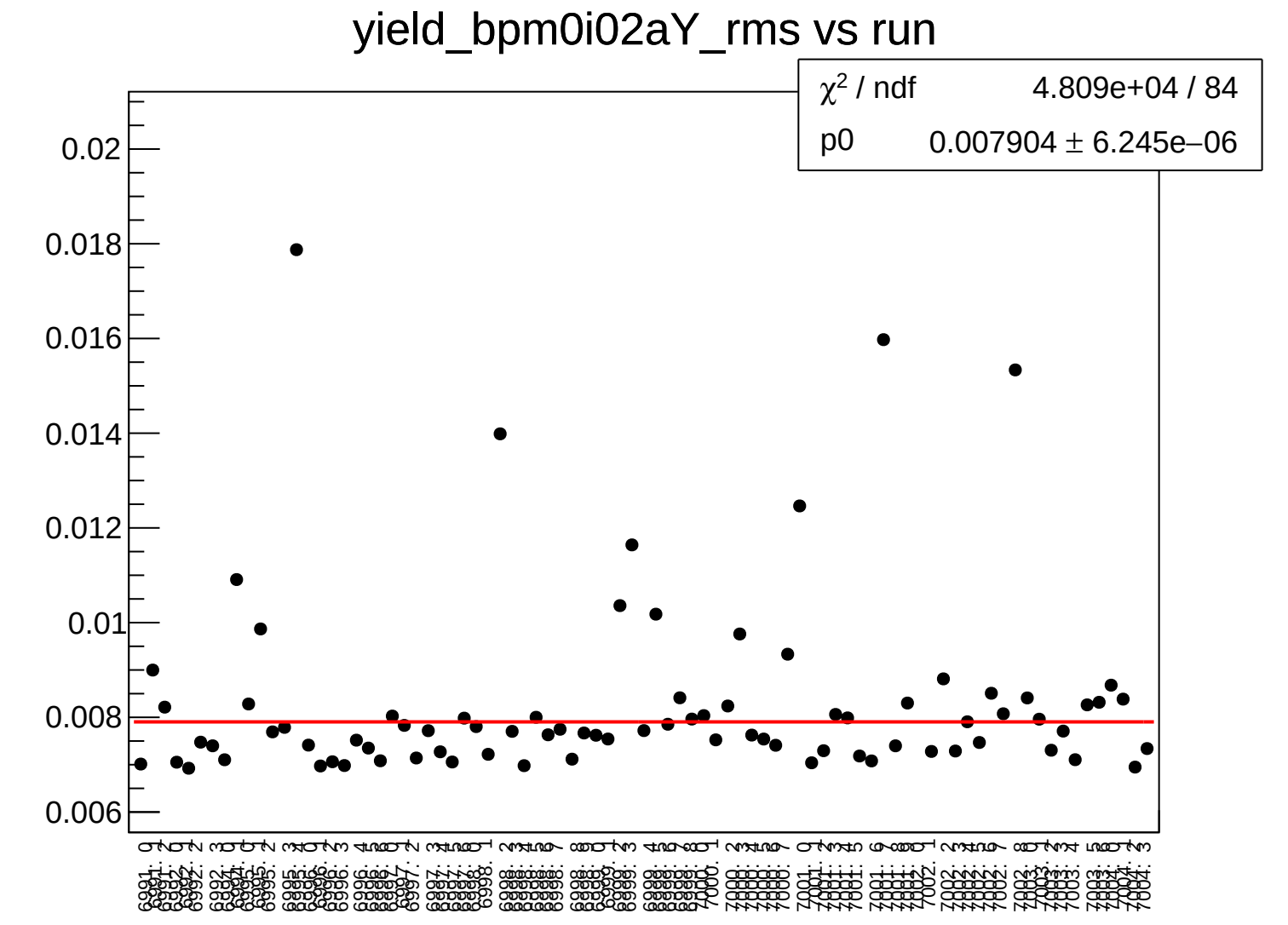

yield_bpm0i02aX_mean vs run
χ² / ndf 3.647e+07 / 84
p0 1.914 ± 1.165e−05
2.1
2.05
2
1.95
1.9
1.85
pull
Entries 85
Mean 1.021e+05
Std Dev 1.02e+05
1500
1000
500
0
−500

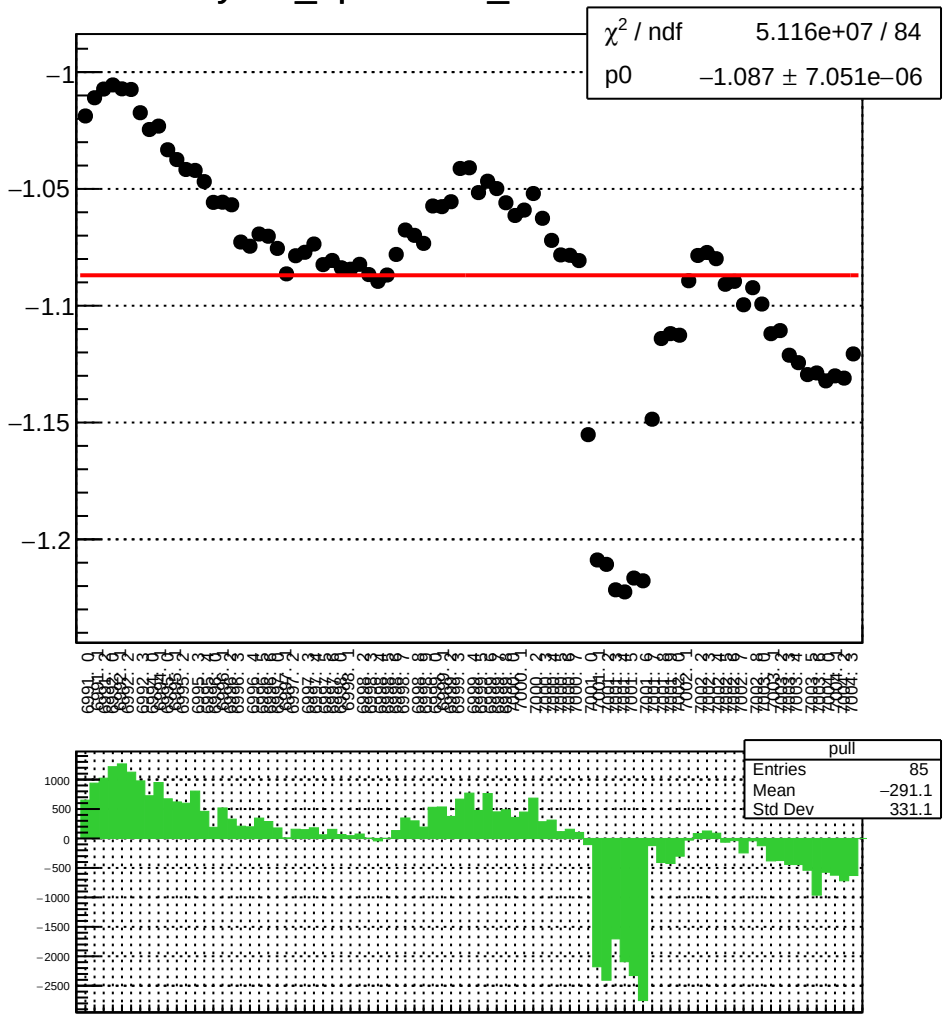

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

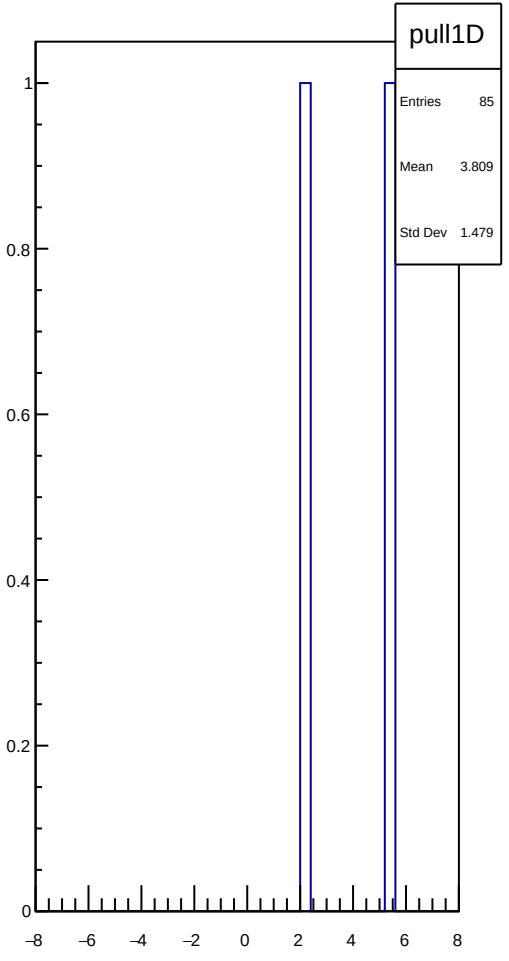

yield_bpm0i02aX_rms vs run
χ² / ndf 4.907e+04 / 84
p0 0.01042 ± 8.236e–06
0.07
0.06
0.05
0.04
0.03
0.02
0.01

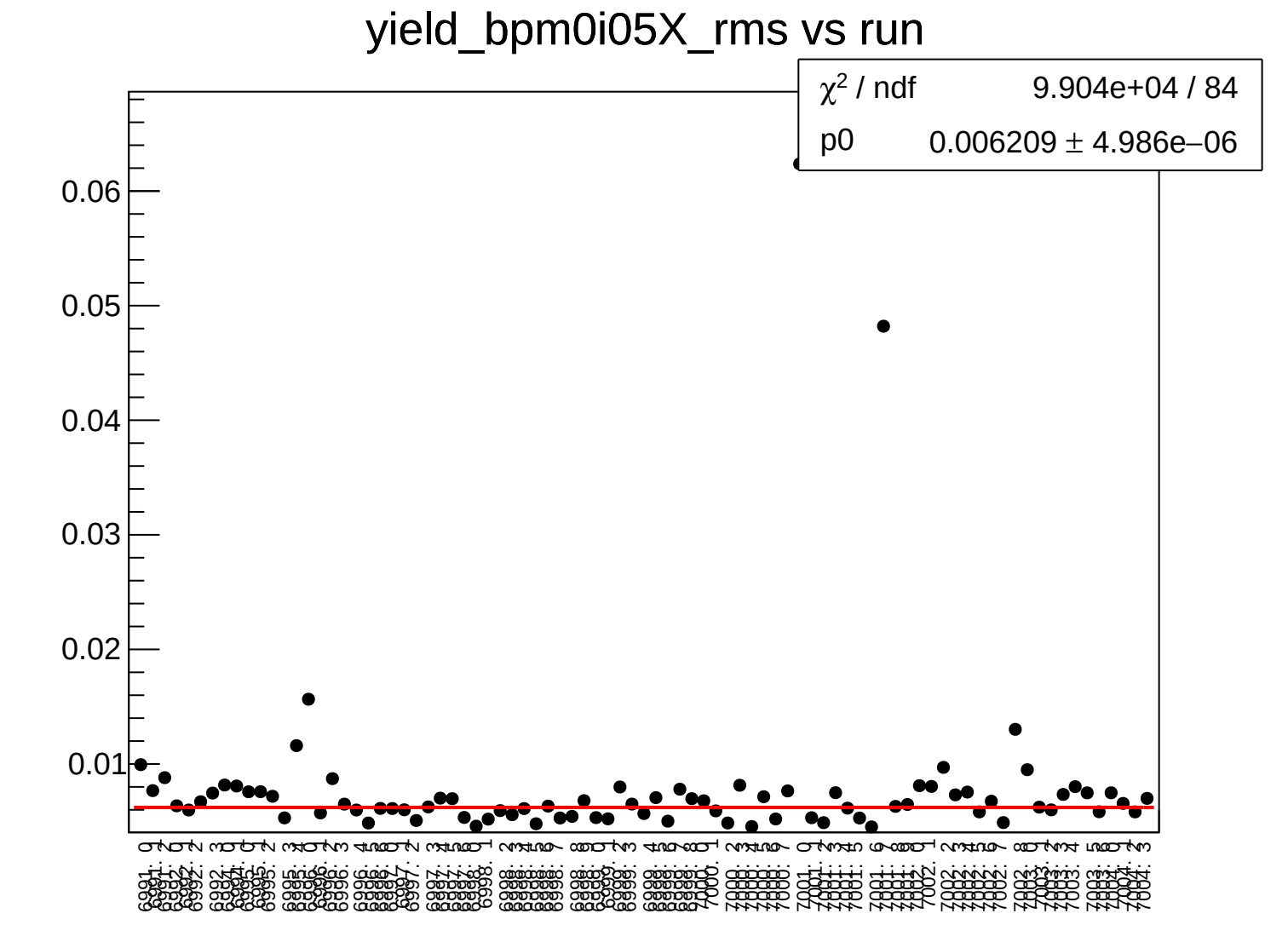

yield_bpm0i02aY_mean vs run
χ² / ndf 2.32e+07 / 84
p0 −1.089 ± 8.832e−06
−0.98
−1
−1.02
−1.04
−1.06
−1.08
−1.1
−1.12
−1.14
pull
Entries 85
Mean −311.7
Std Dev 372.7
2000
1500
1000
500
0
−500

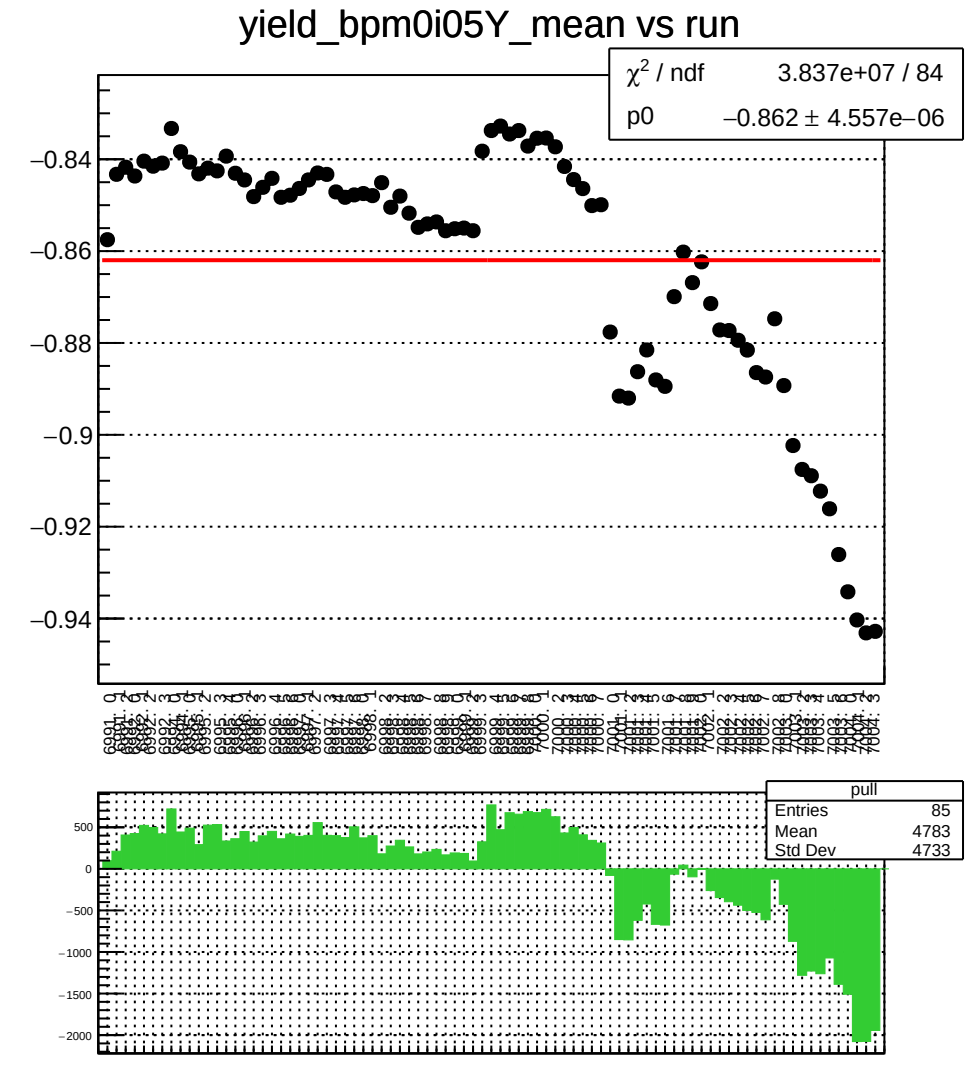

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

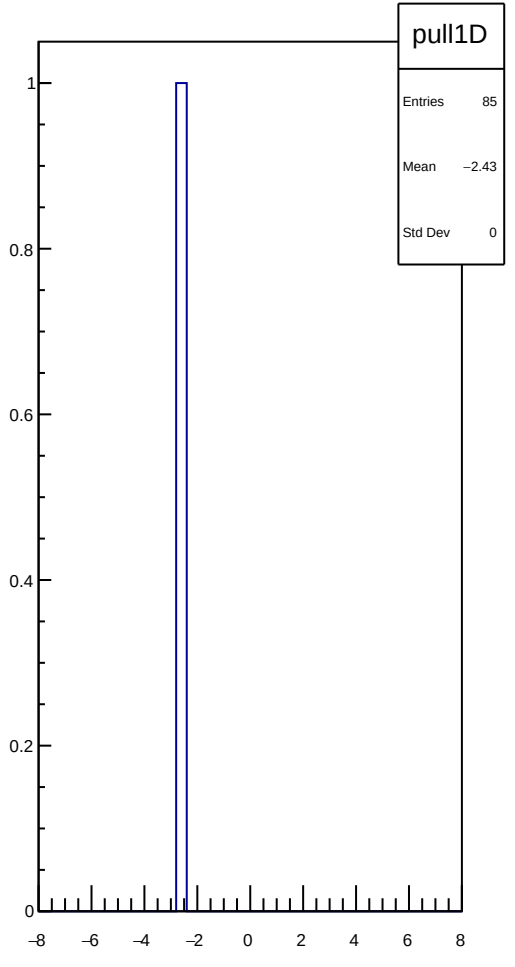

yield_bpm0i02aY_rms vs run
χ² / ndf 4.809e+04 / 84
p0 0.007904 ± 6.245e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006

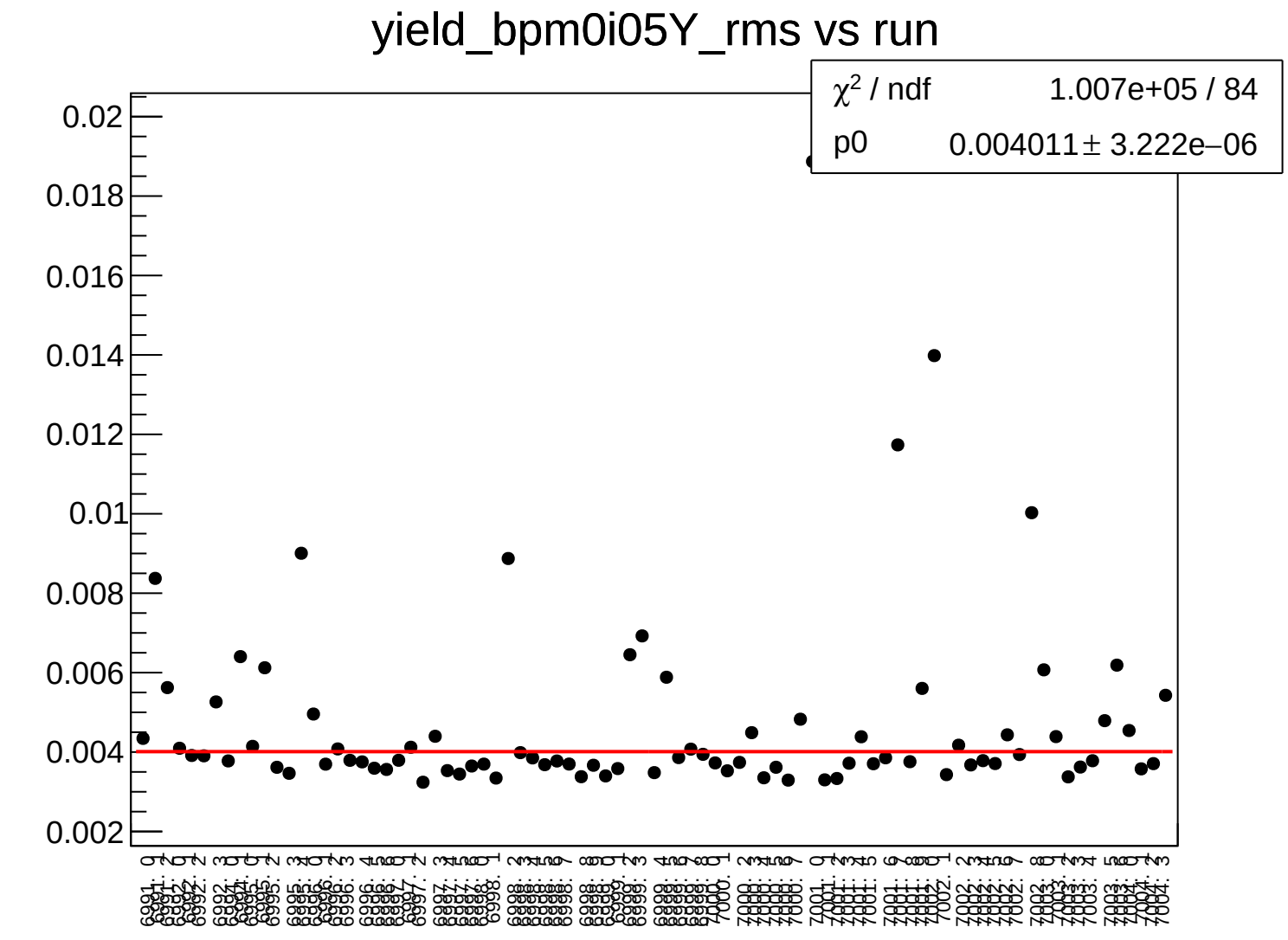

yield_bpm0i05X_mean vs run
χ² / ndf 5.116e+07 / 84
p0 −1.087 ± 7.051e−06
−1
−1.05
−1.1
−1.15
−1.2
pull
Entries 85
Mean −291.1
Std Dev 331.1
1000
500
0
−500
−1000
−1500
−2000
−2500

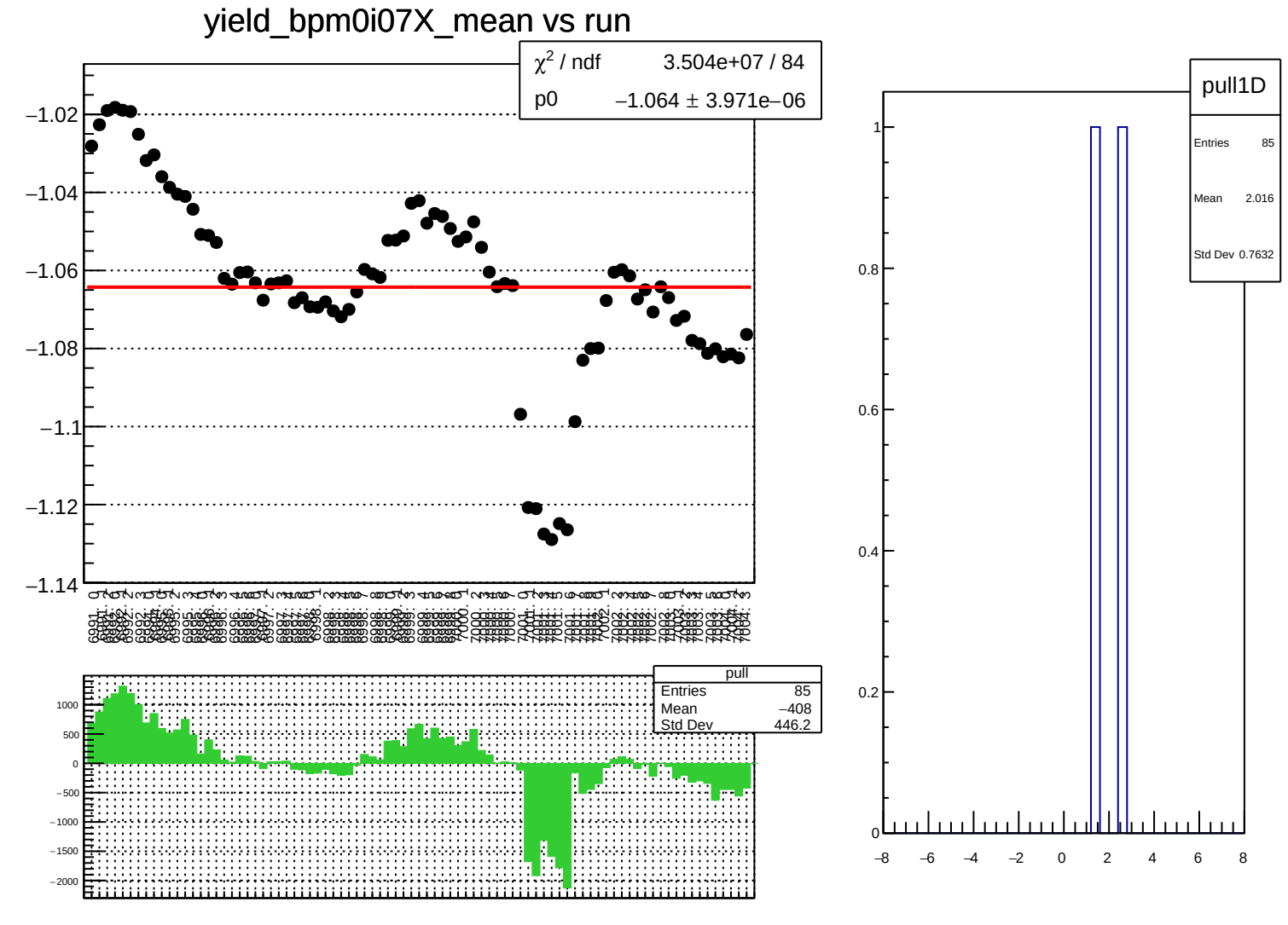

pull1D
Entries 85
Mean 3.809
Std Dev 1.479
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

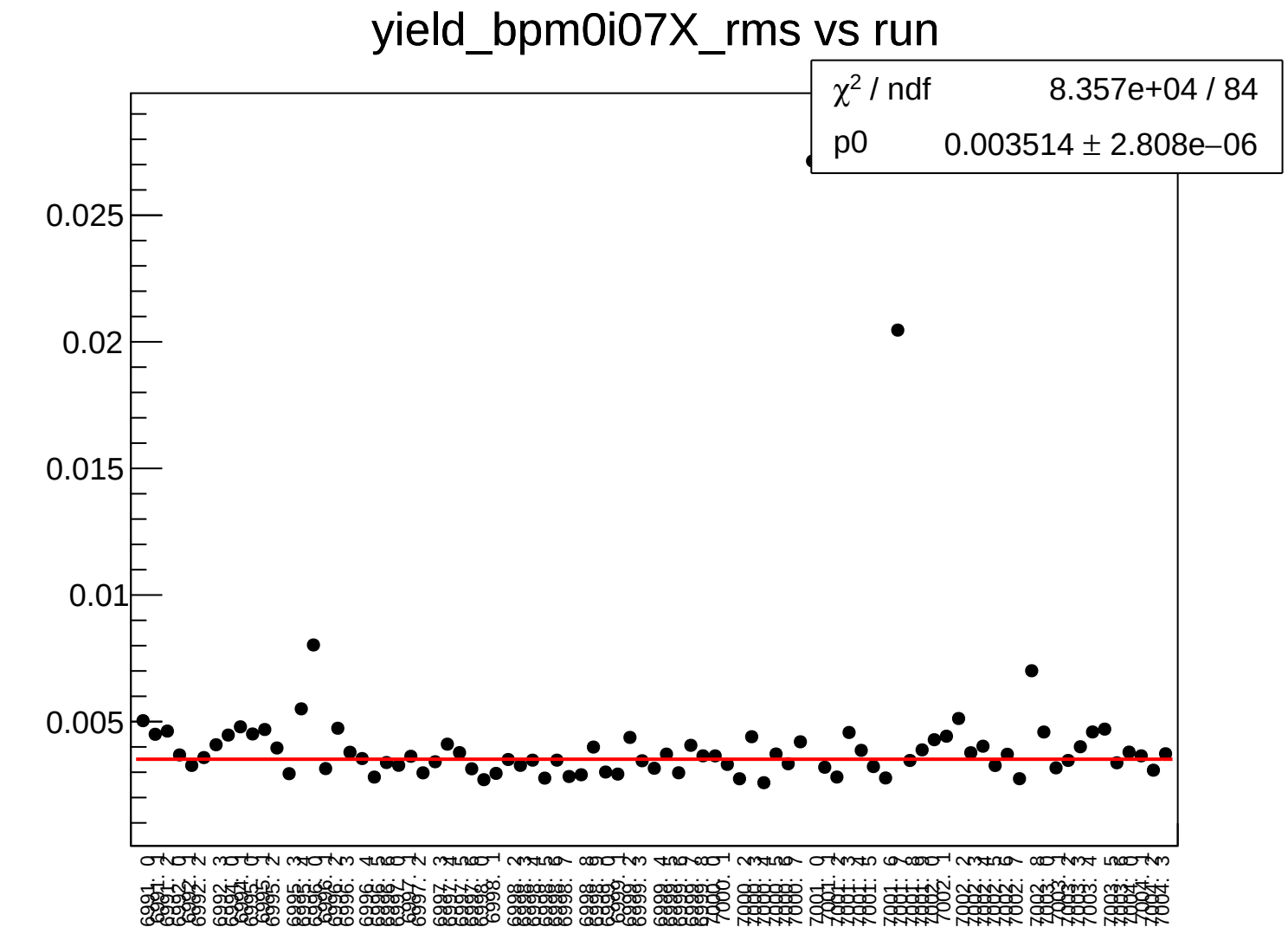

yield_bpm0i05X_rms vs run
χ² / ndf 9.904e+04 / 84
p0 0.006209 ± 4.986e−06
0.06
0.05
0.04
0.03
0.02
0.01

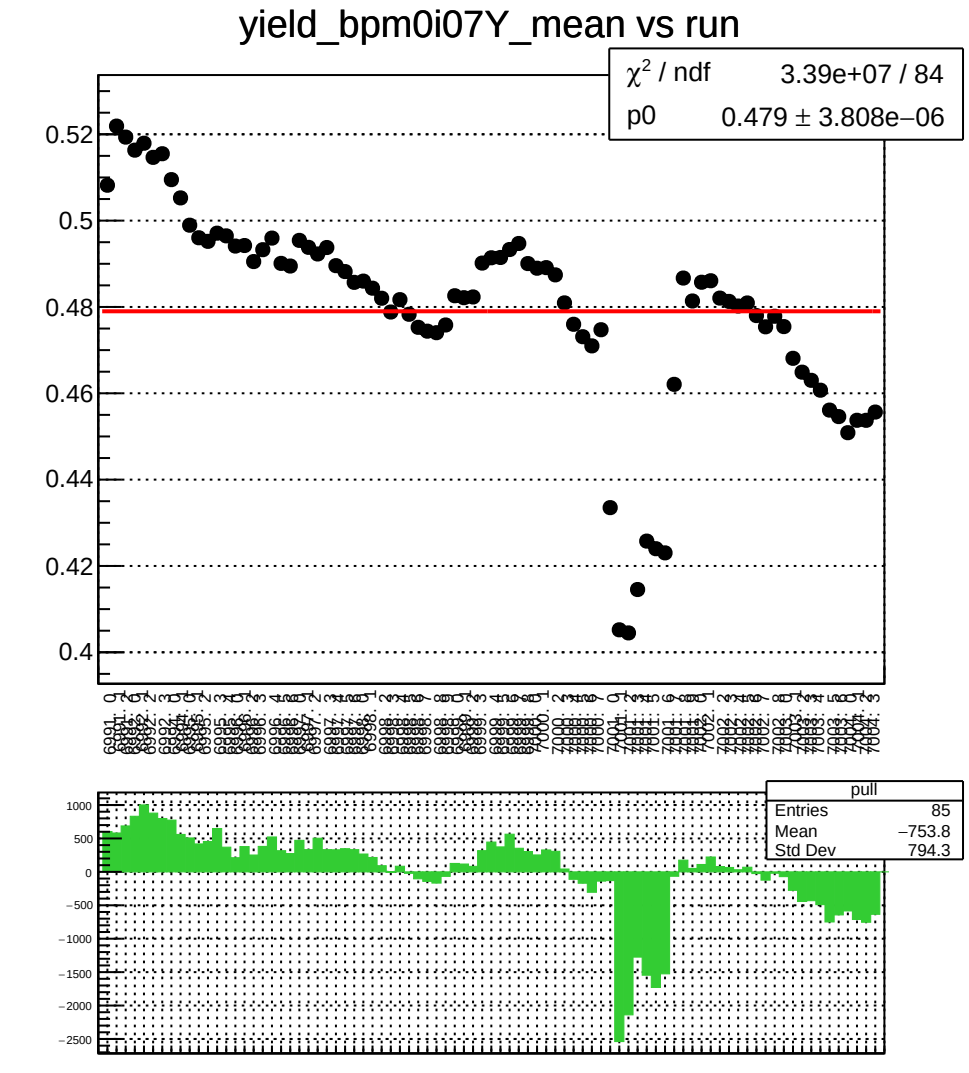

yield_bpm0i05Y_mean vs run
χ² / ndf 3.837e+07 / 84
p0 −0.862 ± 4.557e−06
−0.84
−0.86
−0.88
−0.9
−0.92
−0.94
pull
Entries 85
Mean 4783
Std Dev 4733
500
0
−500
−1000
−1500
−2000

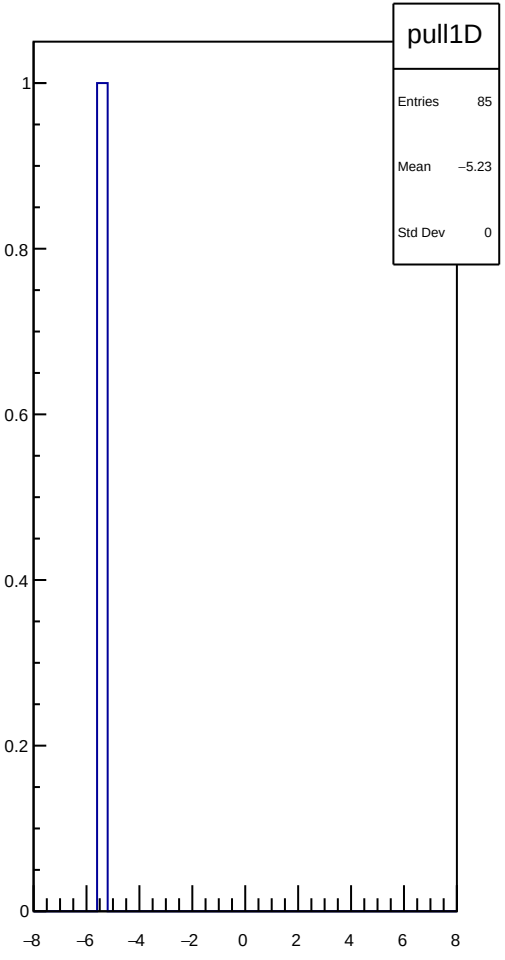

pull1D
Entries 85
Mean −2.43
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

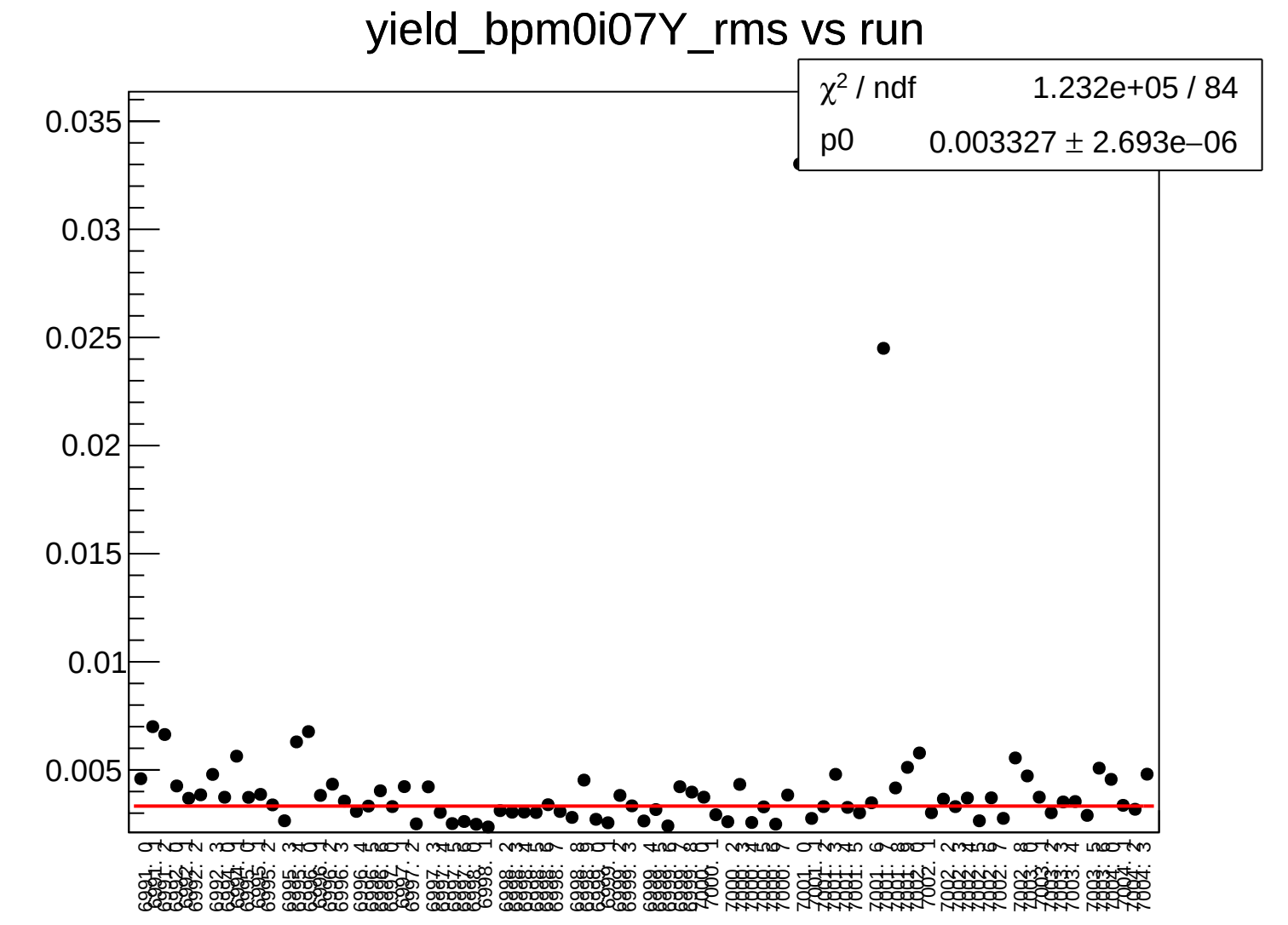

yield_bpm0i05Y_rms vs run
χ² / ndf 1.007e+05 / 84
p0 0.004011 ± 3.222e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

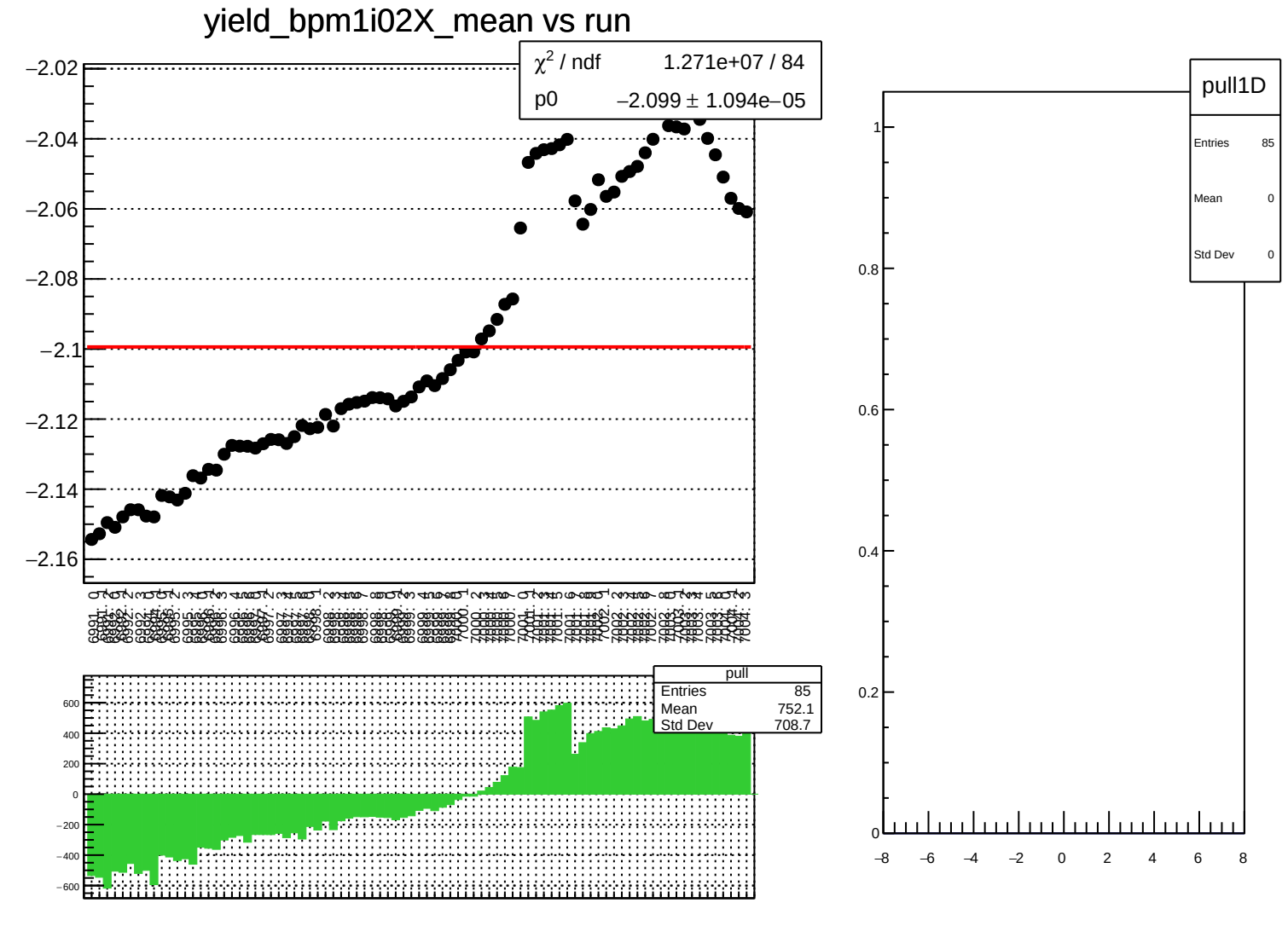

yield_bpm0i07X_mean vs run
χ² / ndf 3.504e+07 / 84
p0 −1.064 ± 3.971e−06
−1.02
−1.04
−1.06
−1.08
−1.1
−1.12
−1.14
pull
Entries 85
Mean −408
Std Dev 446.2
1000
500
0
−500
−1000
−1500
−2000
pull1D
Entries 85
Mean 2.016
Std Dev 0.7632
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

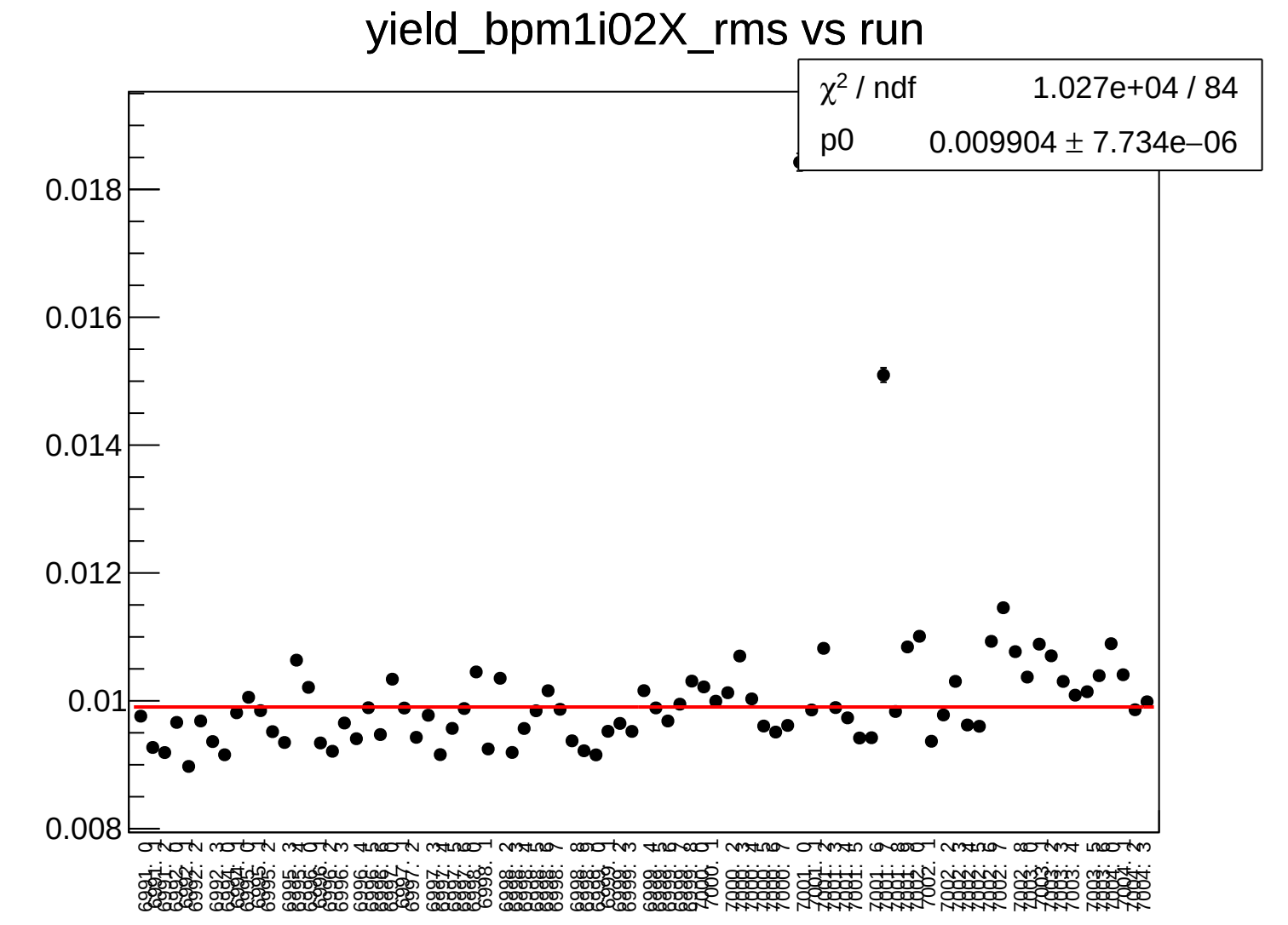

yield_bpm0i07X_rms vs run
χ² / ndf 8.357e+04 / 84
p0 0.003514 ± 2.808e−06
0.025
0.02
0.015
0.01
0.005

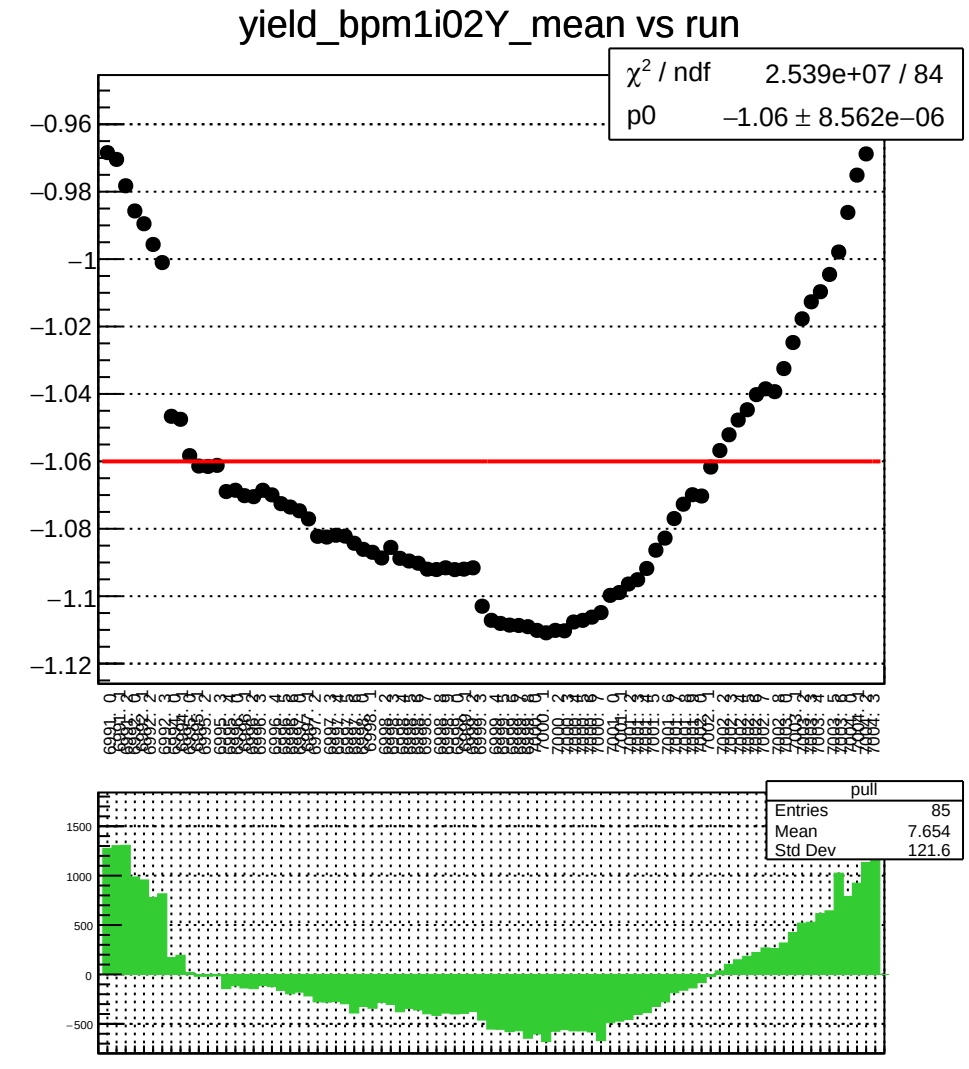

yield_bpm0i07Y_mean vs run
χ² / ndf 3.39e+07 / 84
p0 0.479 ± 3.808e−06
0.52
0.5
0.48
0.46
0.44
0.42
0.4
pull
Entries 85
Mean −753.8
Std Dev 794.3
1000
500
0
−500
−1000
−1500
−2000
−2500

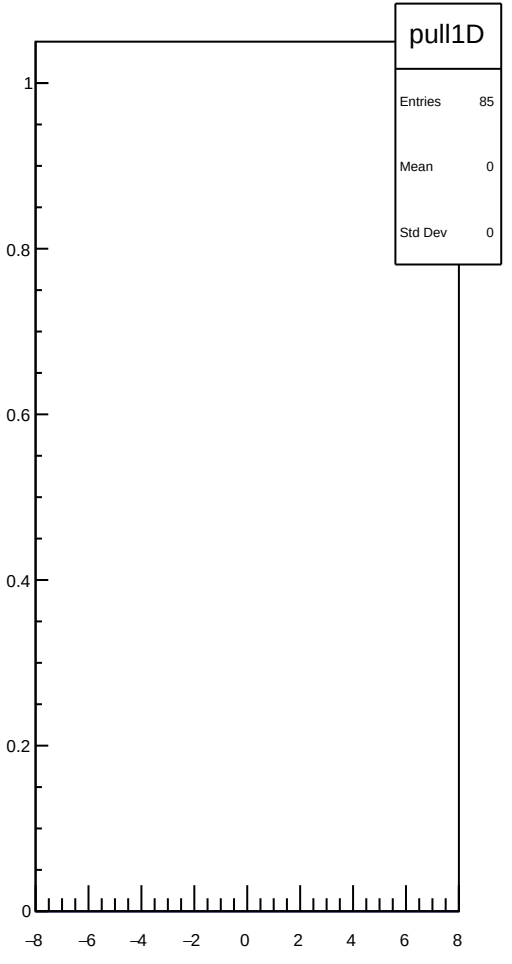

pull1D
Entries 85
Mean −5.23
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

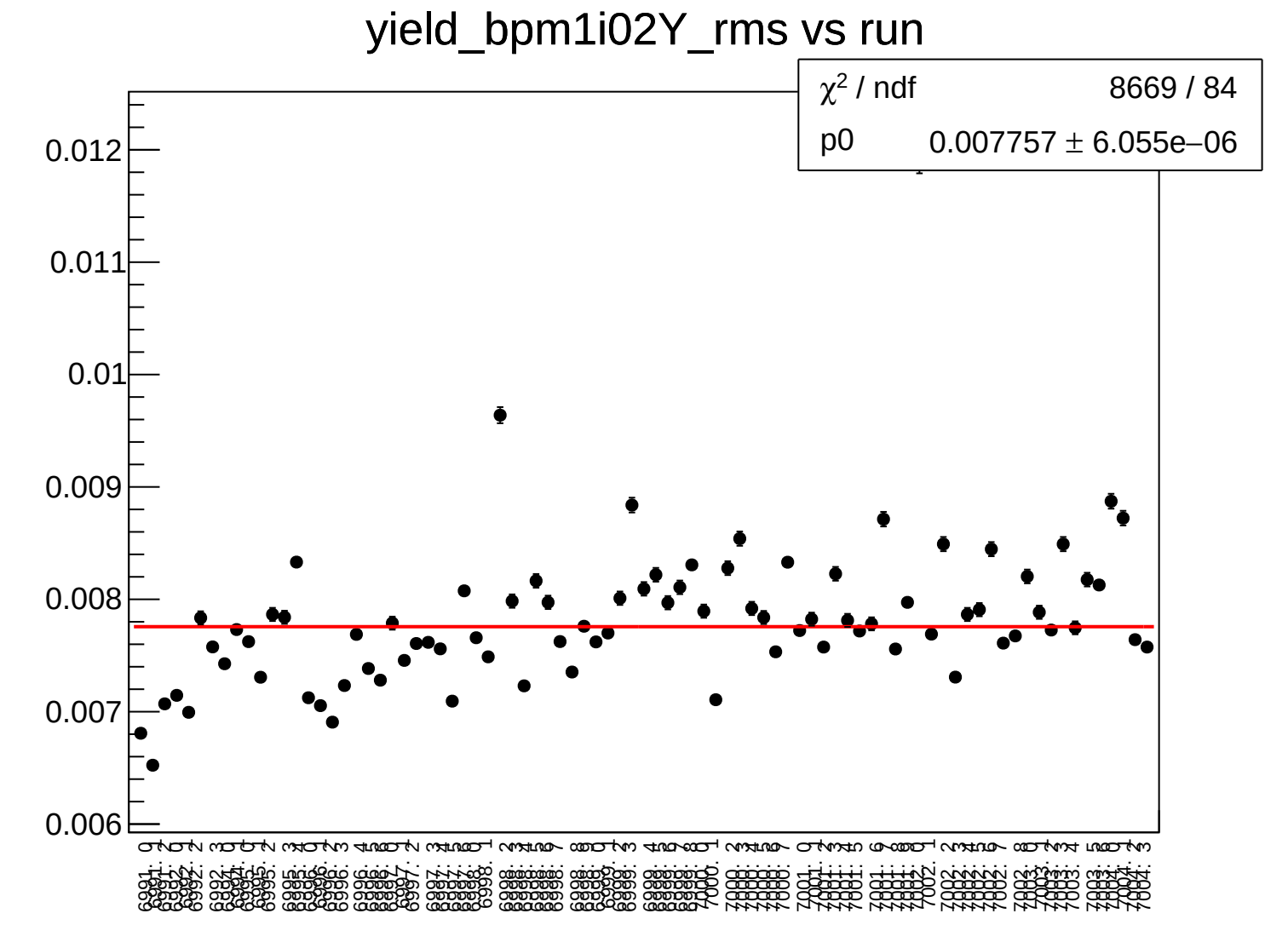

yield_bpm0i07Y_rms vs run
χ² / ndf 1.232e+05 / 84
p0 0.003327 ± 2.693e−06
0.035
0.03
0.025
0.02
0.015
0.01
0.005

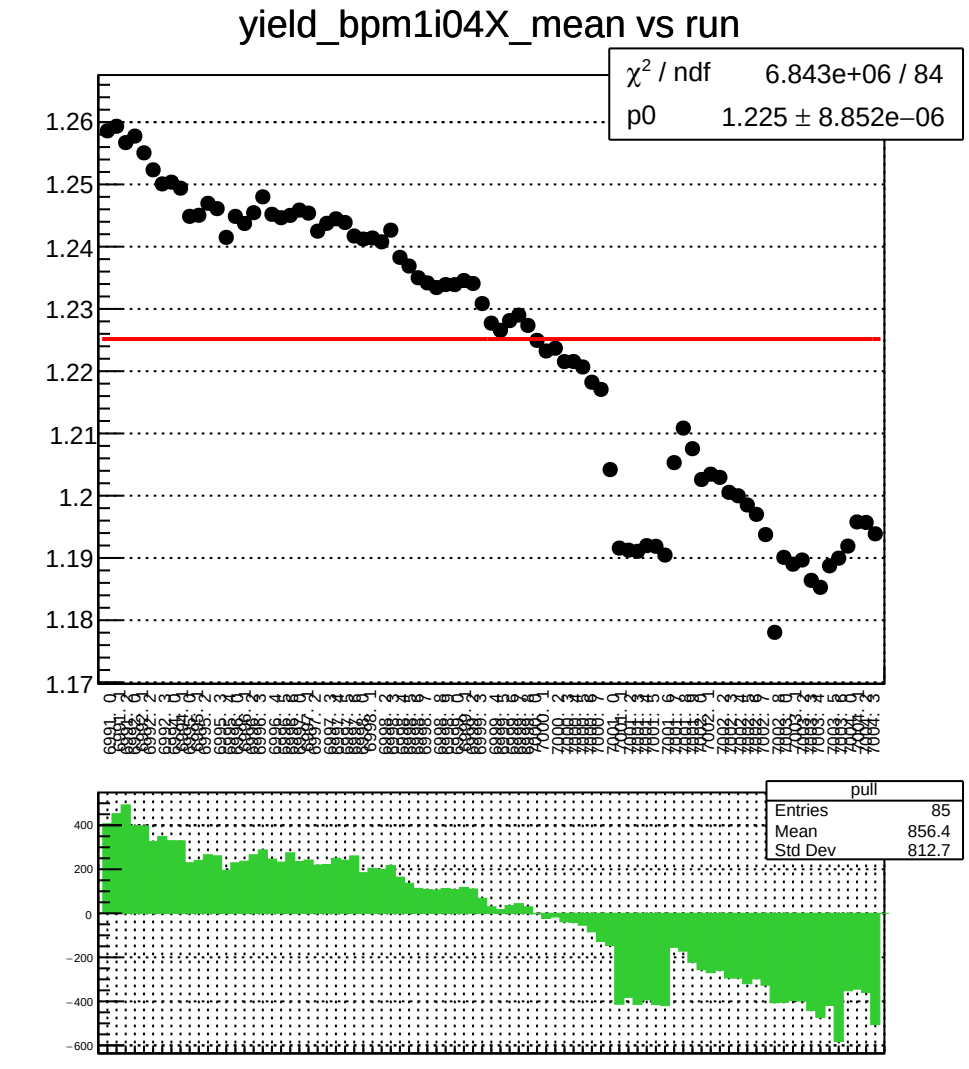

yield_bpm1i02X_mean vs run
χ² / ndf 1.271e+07 / 84
p0 −2.099 ± 1.094e−05
−2.02
−2.04
−2.06
−2.08
−2.1
−2.12
−2.14
−2.16
pull
Entries 85
Mean 752.1
Std Dev 708.7
600
400
200
0
−200
−400
−600
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

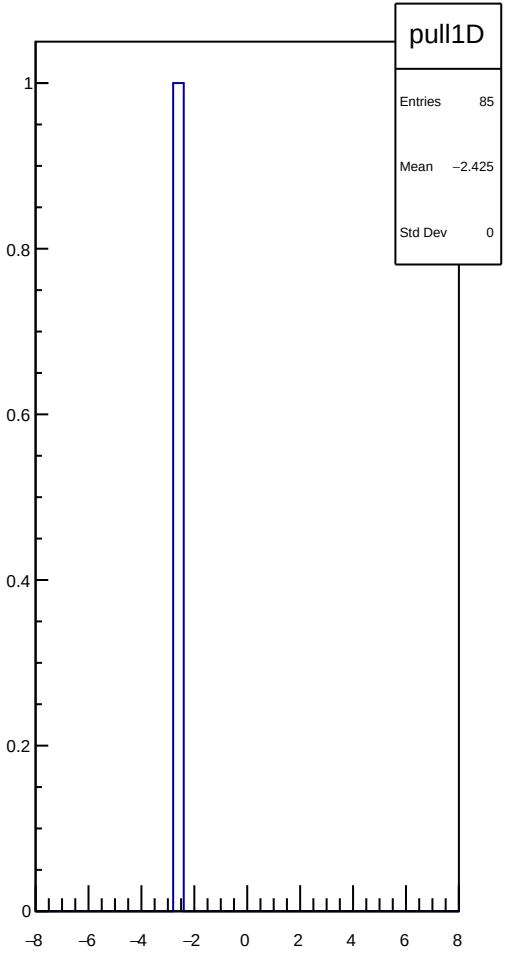

yield_bpm1i02X_rms vs run
χ² / ndf 1.027e+04 / 84
p0 0.009904 ± 7.734e−06
0.018
0.016
0.014
0.012
0.01
0.008

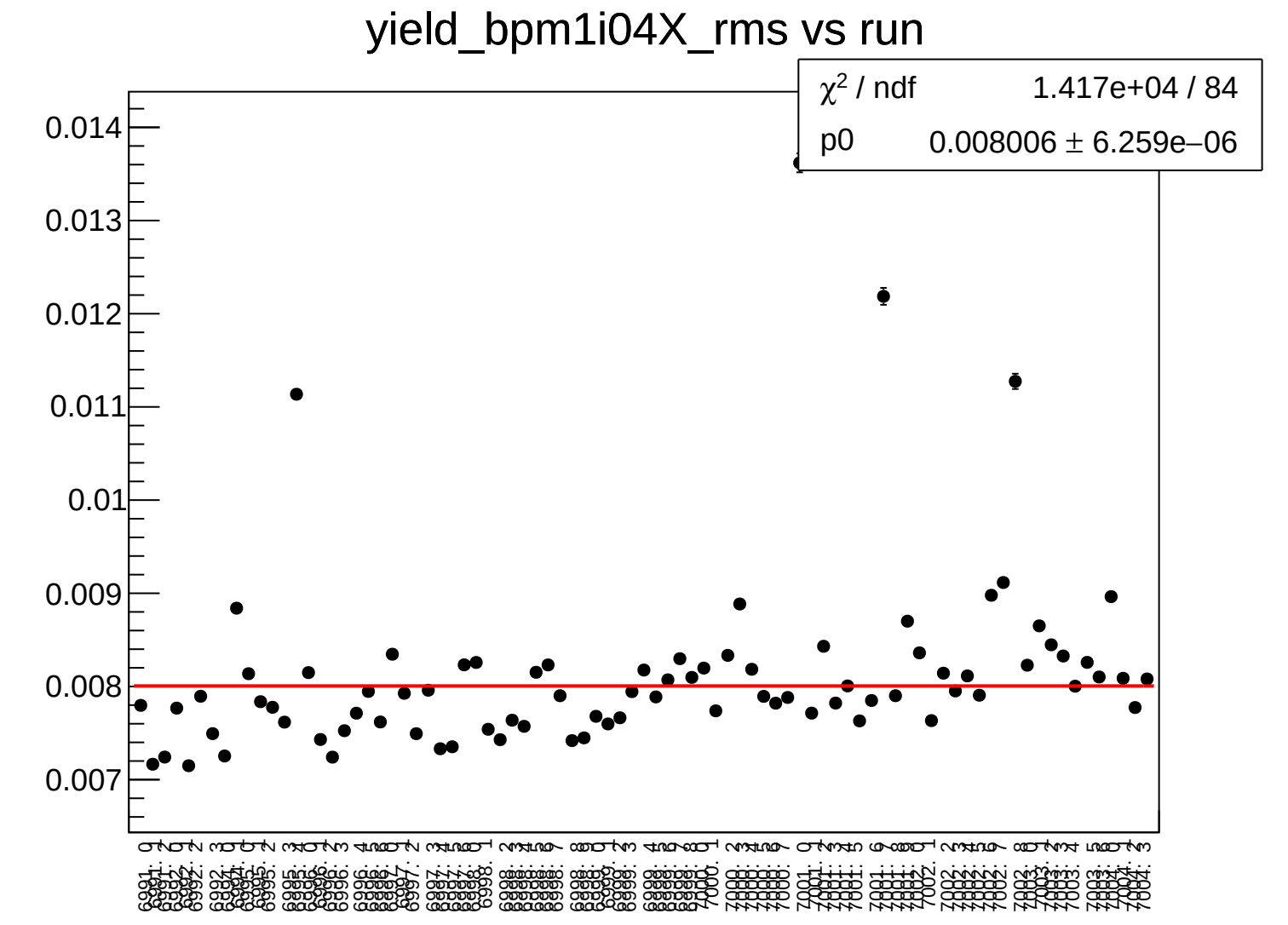

yield_bpm1i02Y_mean vs run
χ² / ndf 2.539e+07 / 84
p0 −1.06 ± 8.562e−06
−0.96
−0.98
−1
−1.02
−1.04
−1.06
−1.08
−1.1
−1.12
pull
Entries 85
Mean 7.654
Std Dev 121.6
1500
1000
500
0
−500

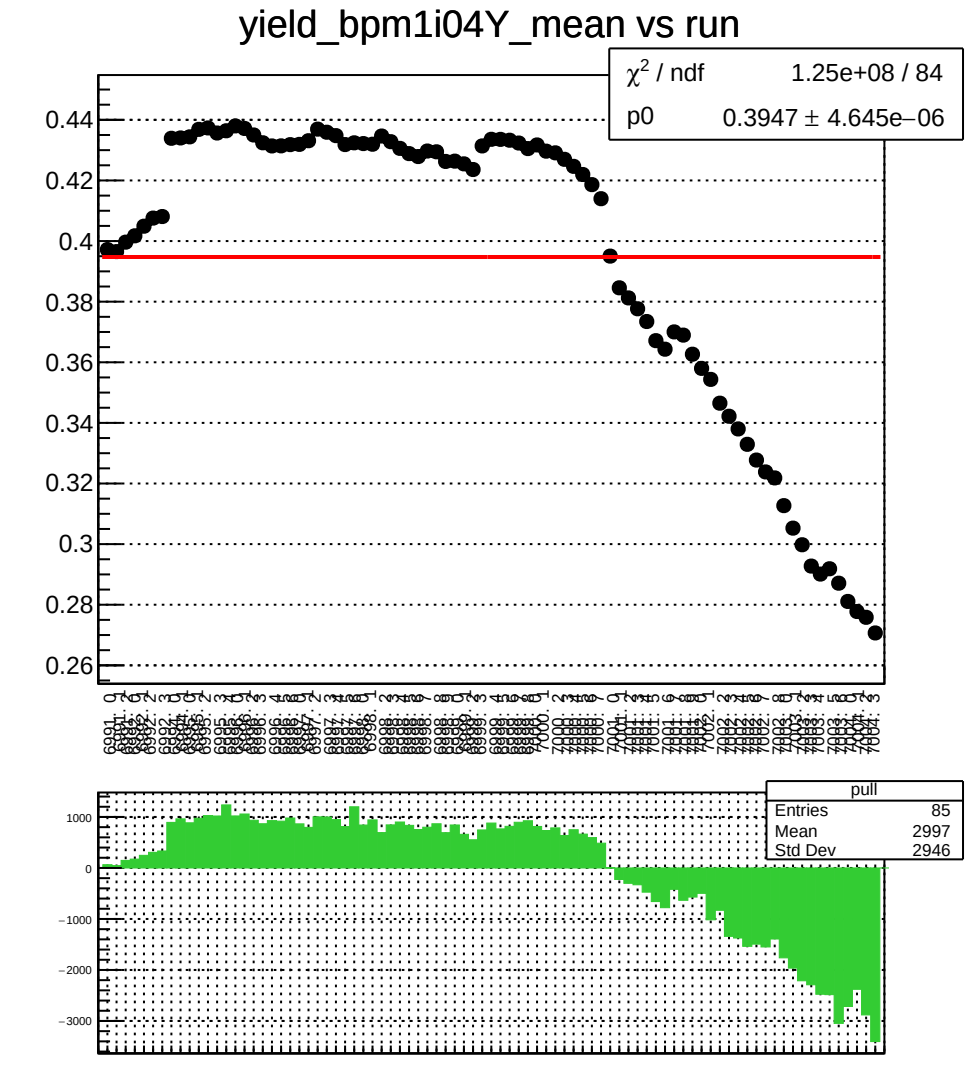

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

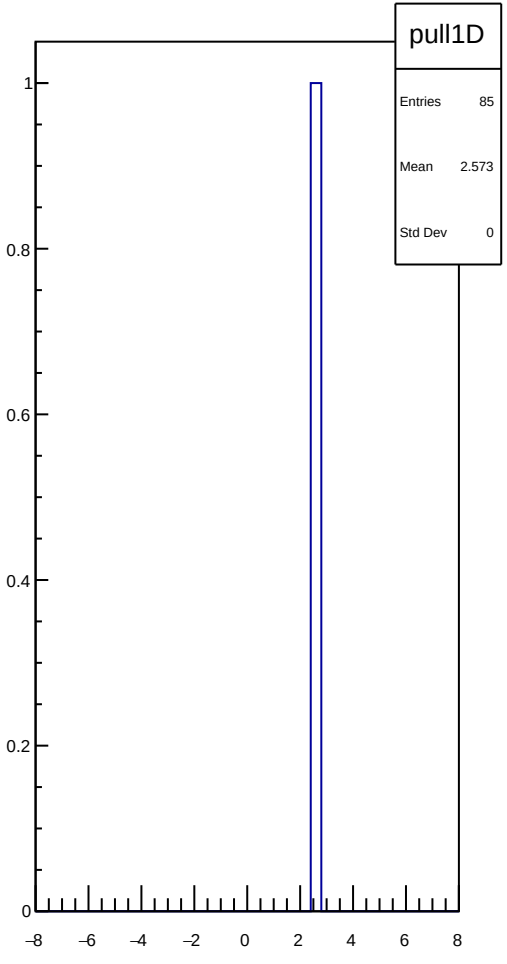

yield_bpm1i02Y_rms vs run
χ² / ndf 8669 / 84
p0 0.007757 ± 6.055e−06
0.012
0.011
0.01
0.009
0.008
0.007
0.006

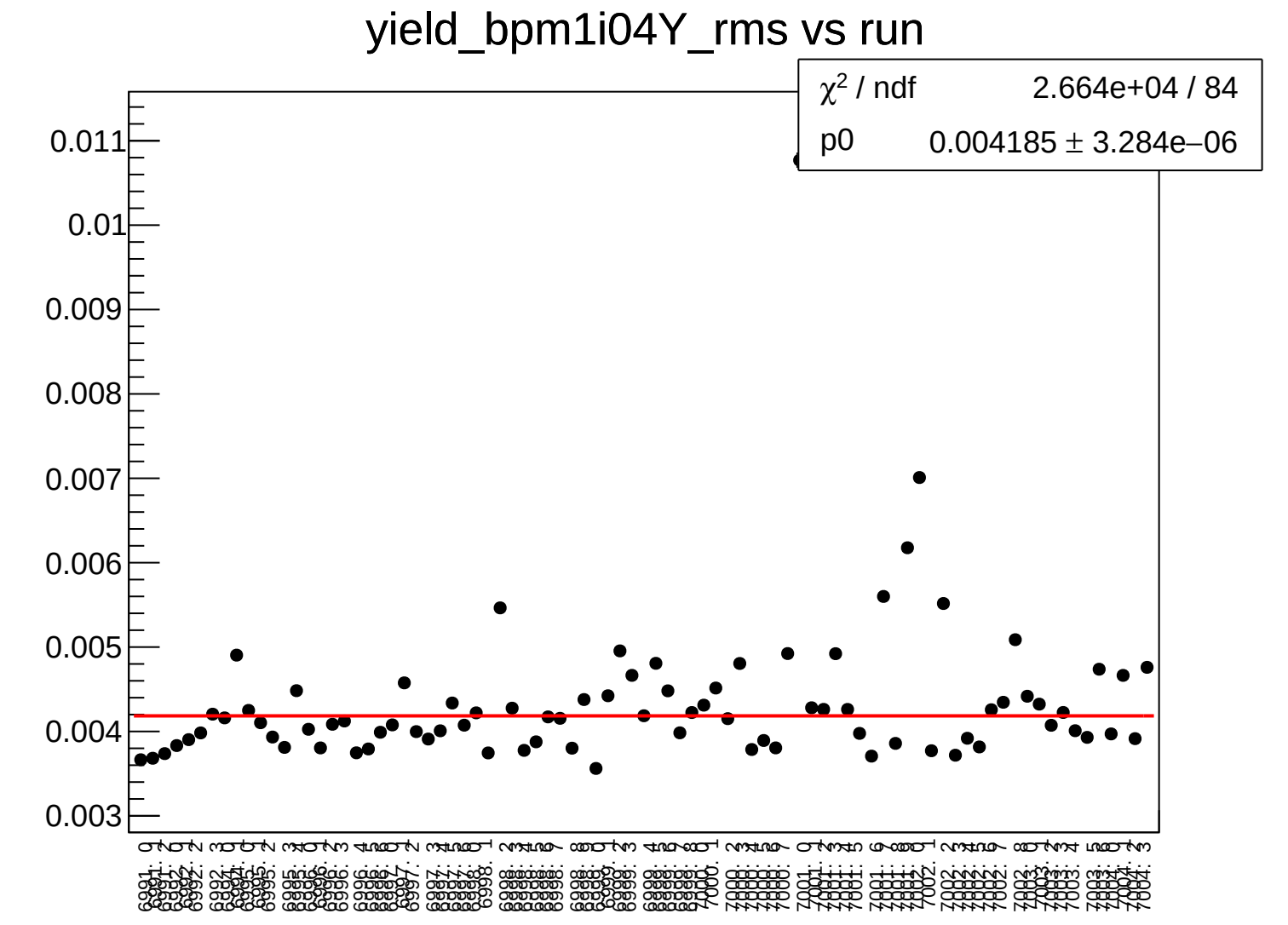

yield_bpm1i04X_mean vs run
χ² / ndf 6.843e+06 / 84
p0 1.225 ± 8.852e−06
1.26
1.25
1.24
1.23
1.22
1.21
1.2
1.19
1.18
1.17
pull
Entries 85
Mean 856.4
Std Dev 812.7
400
200
0
−200
−400
−600

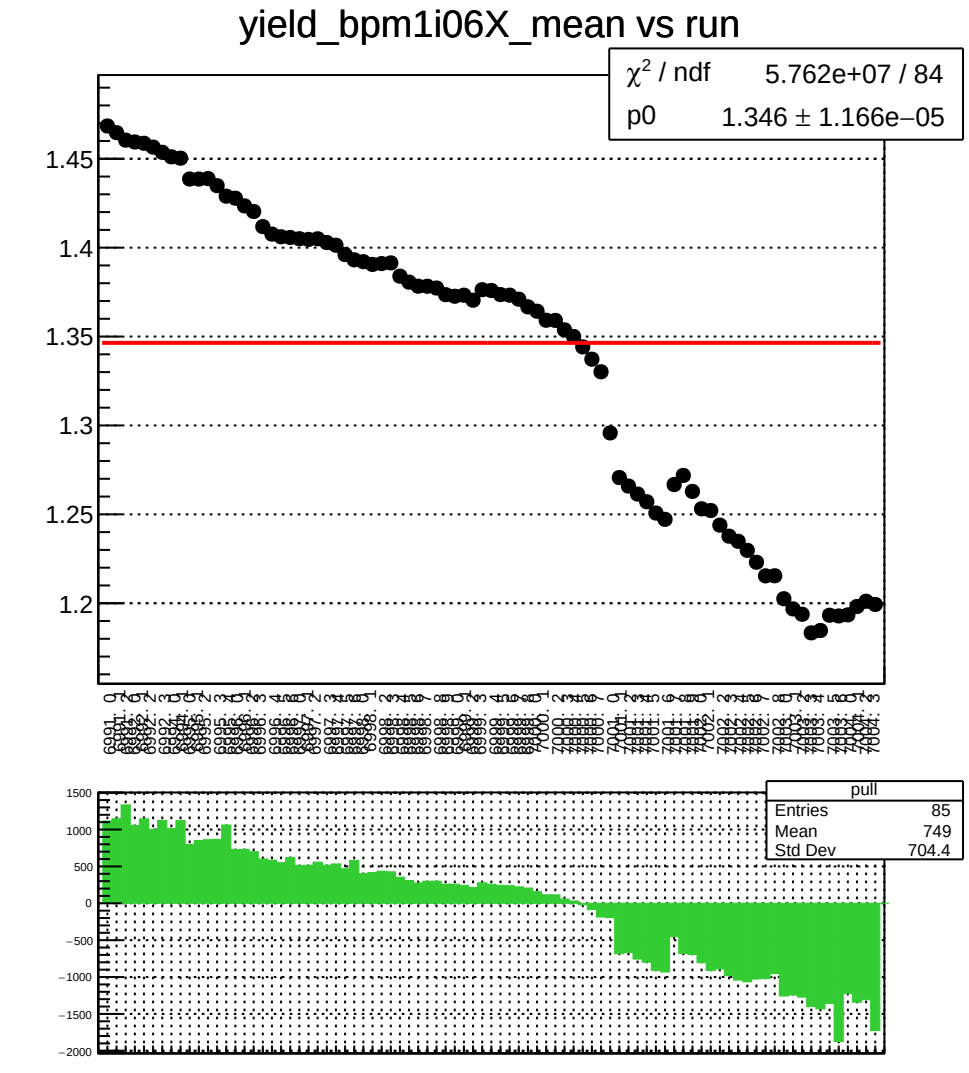

pull1D
Entries 85
Mean −2.425
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

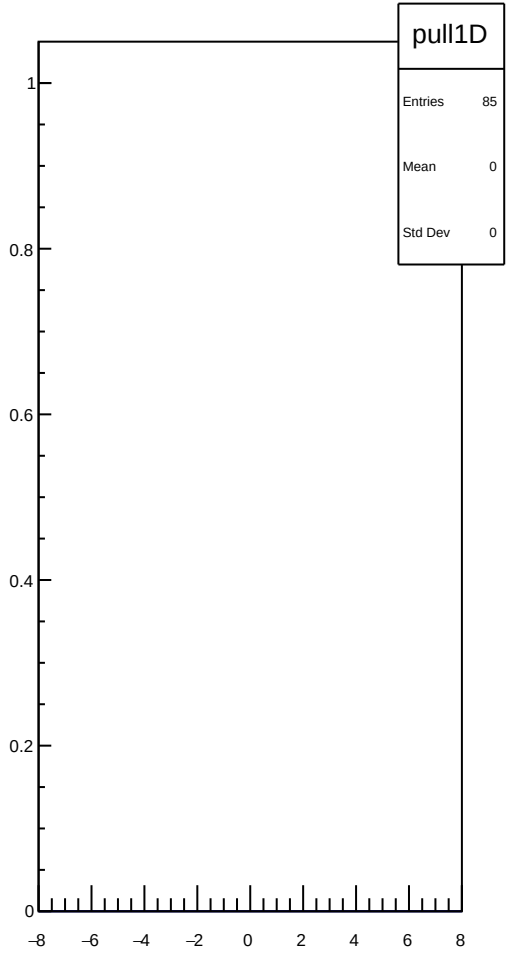

yield_bpm1i04X_rms vs run
χ² / ndf 1.417e+04 / 84
p0 0.008006 ± 6.259e−06
0.014
0.013
0.012
0.011
0.01
0.009
0.008
0.007

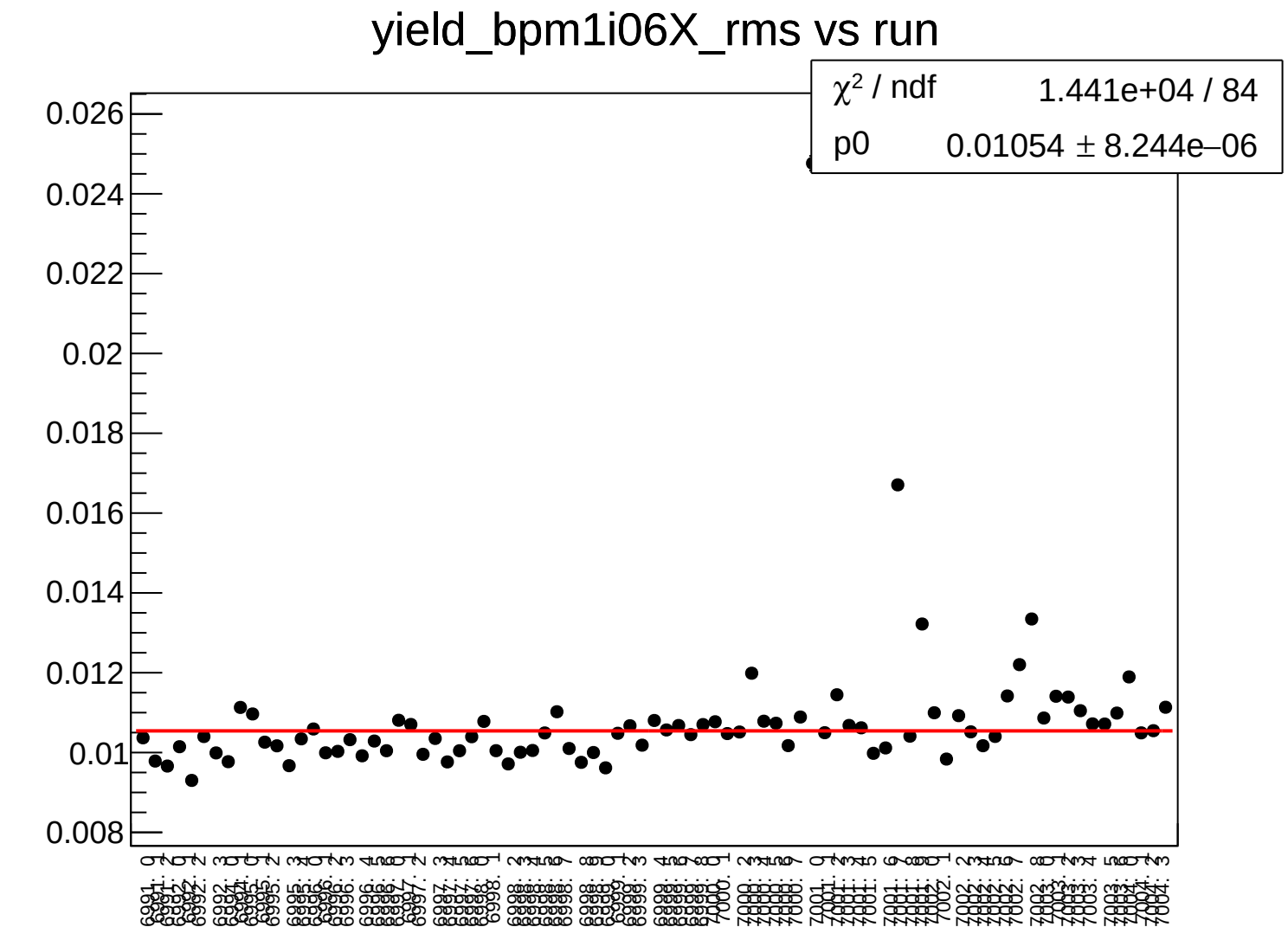

yield_bpm1i04Y_mean vs run
χ² / ndf 1.25e+08 / 84
p0 0.3947 ± 4.645e−06
0.44
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
pull
Entries 85
Mean 2997
Std Dev 2946
1000
0
−1000
−2000
−3000

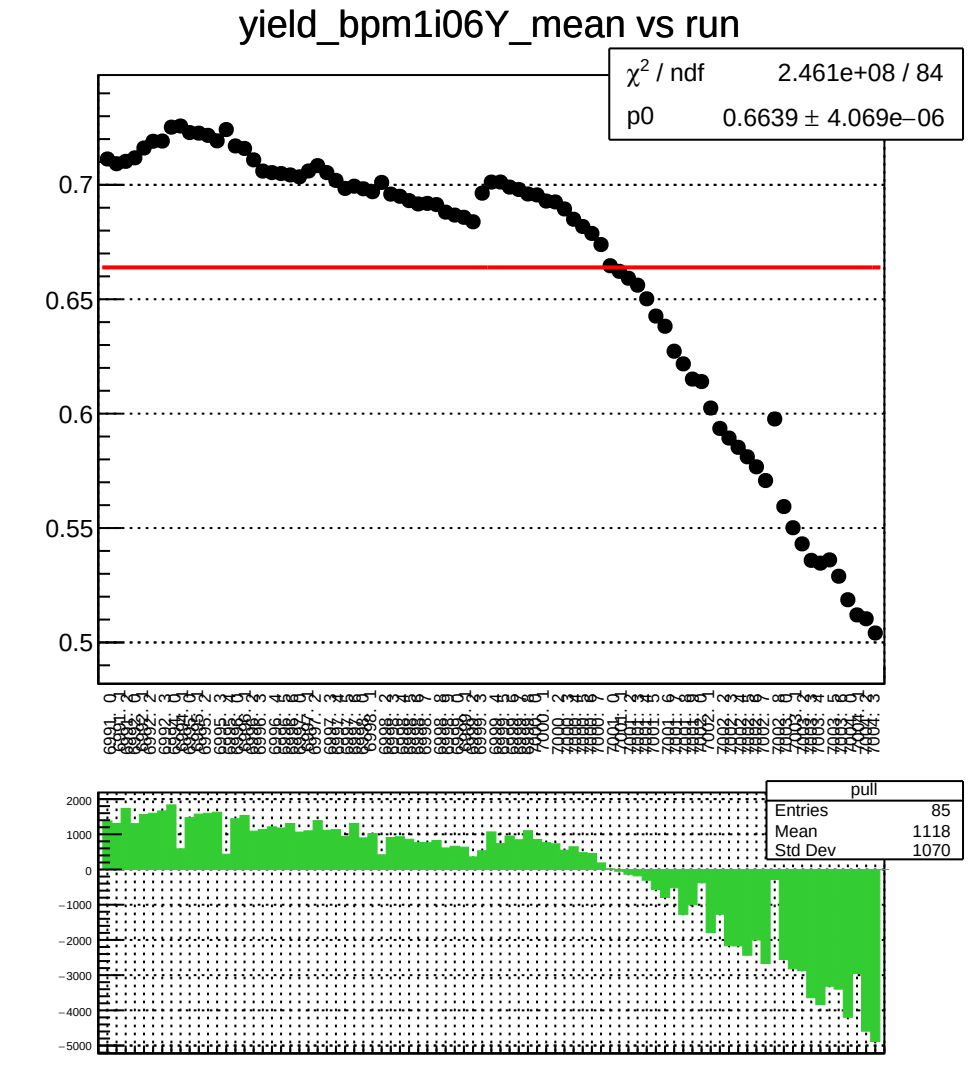

pull1D
Entries 85
Mean 2.573
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

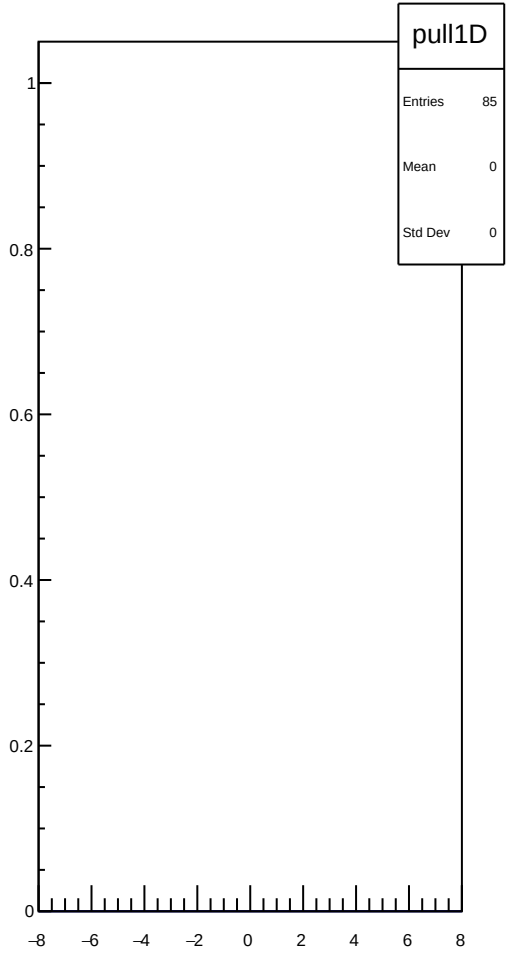

yield_bpm1i04Y_rms vs run
χ² / ndf 2.664e+04 / 84
p0 0.004185 ± 3.284e−06
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003

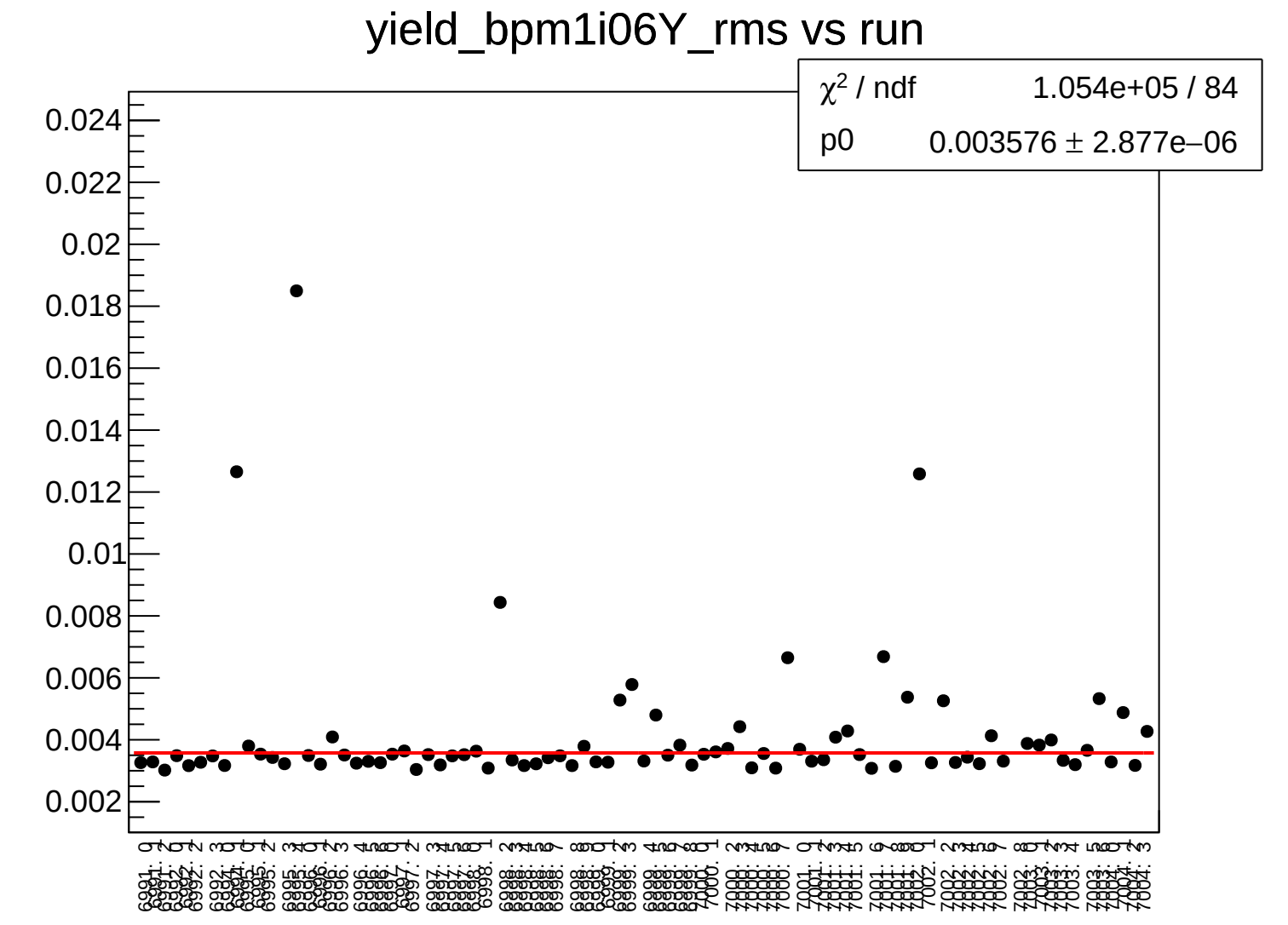

yield_bpm1i06X_mean vs run
χ² / ndf 5.762e+07 / 84
p0 1.346 ± 1.166e−05
1.45
1.4
1.35
1.3
1.25
1.2
pull
Entries 85
Mean 749
Std Dev 704.4
1500
1000
500
0
−500
−1000
−1500
−2000

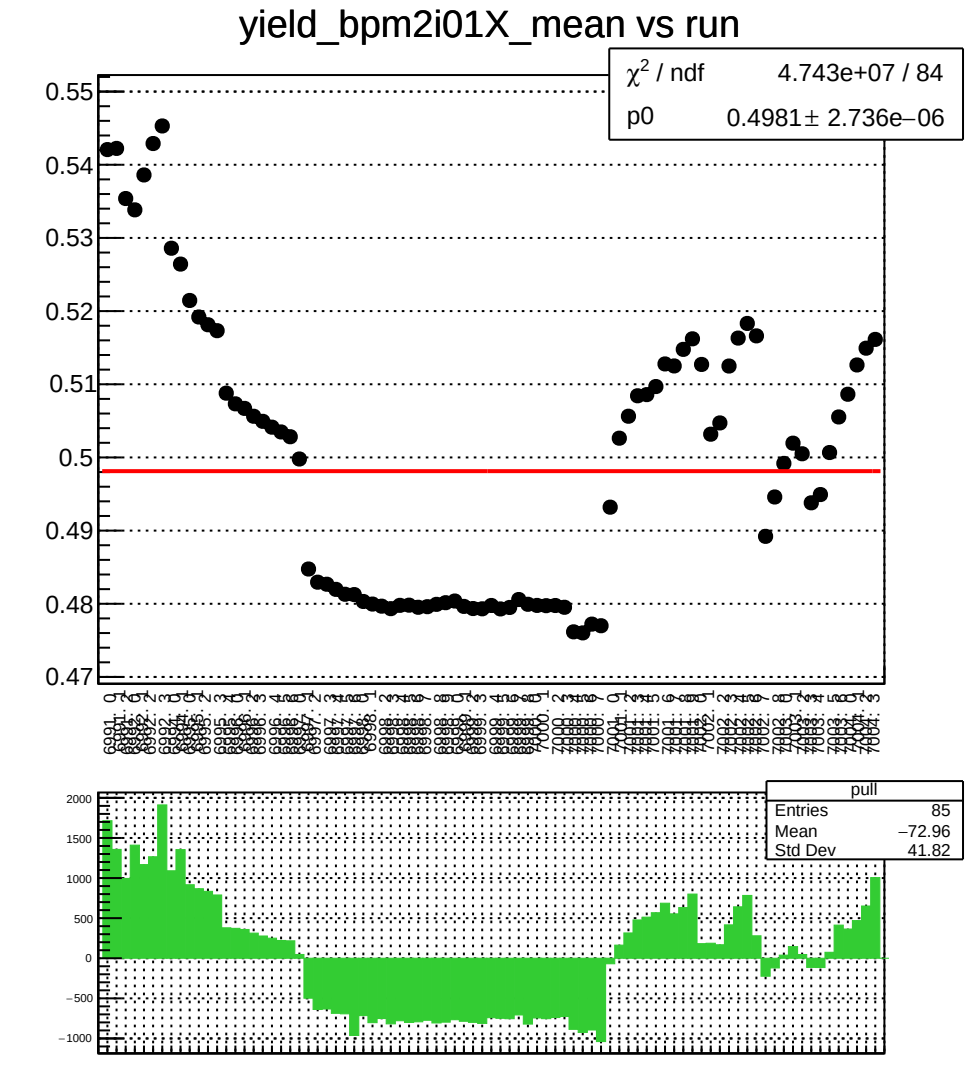

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

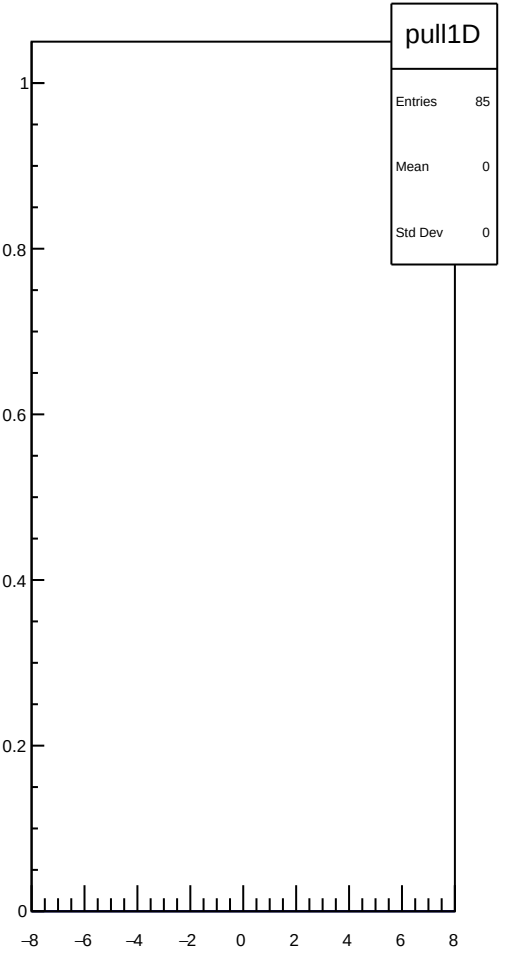

yield_bpm1i06X_rms vs run
χ² / ndf 1.441e+04 / 84
p0 0.01054 ± 8.244e−06
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

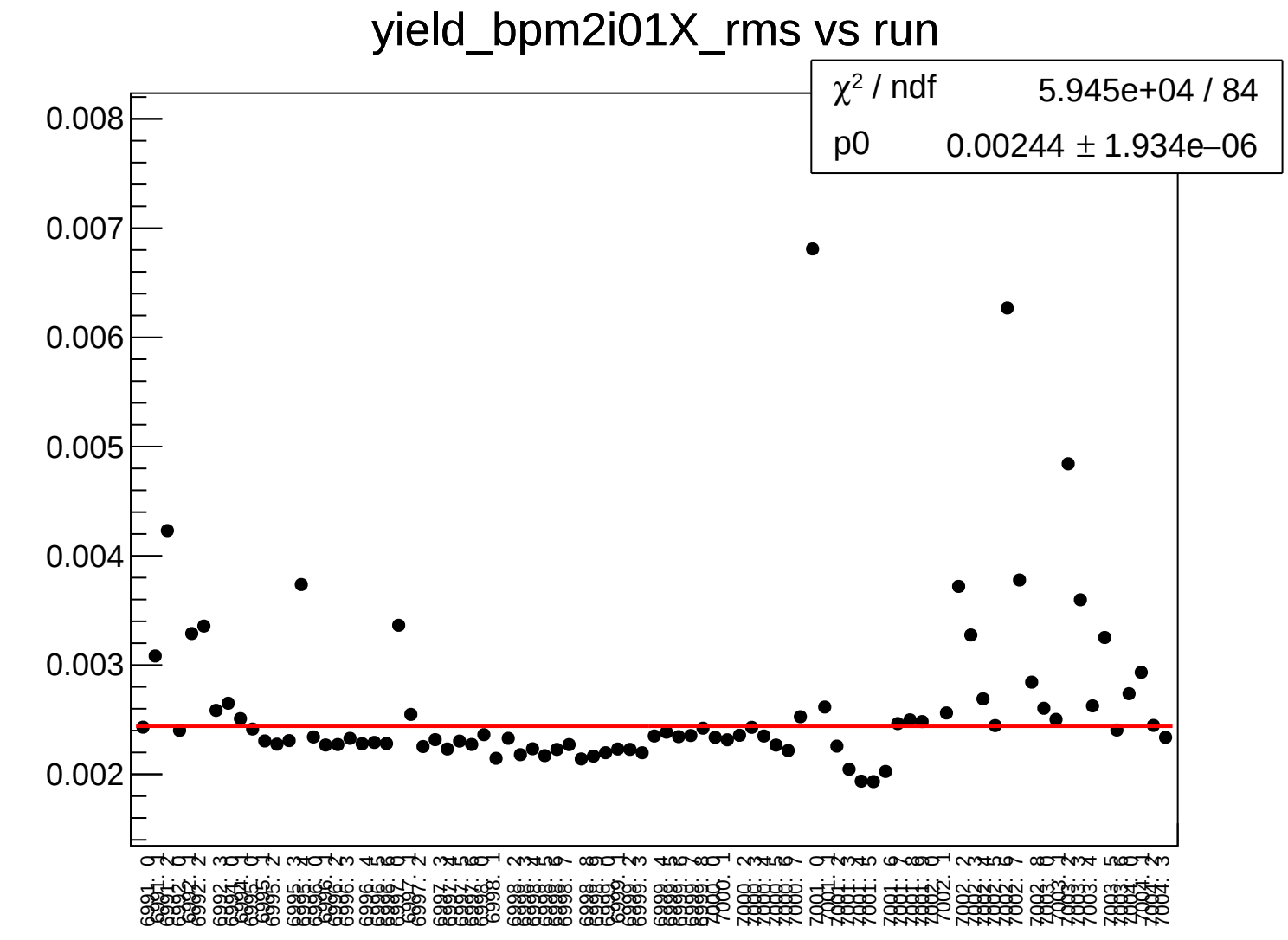

yield_bpm1i06Y_mean vs run
χ² / ndf 2.461e+08 / 84
p0 0.6639 ± 4.069e−06
0.7
0.65
0.6
0.55
0.5
pull
Entries 85
Mean 1118
Std Dev 1070
2000
1000
0
−1000
−2000
−3000
−4000
−5000

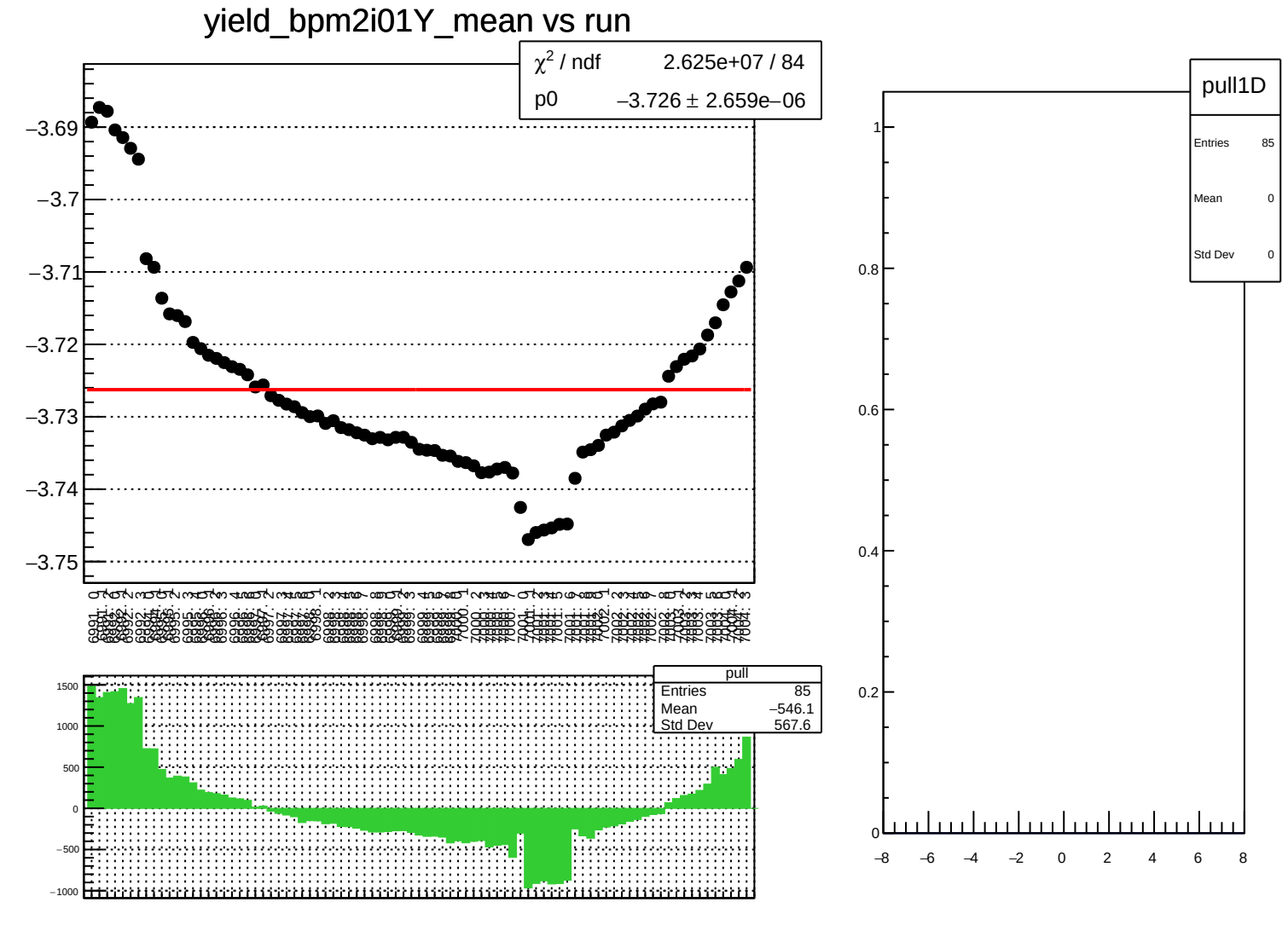

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

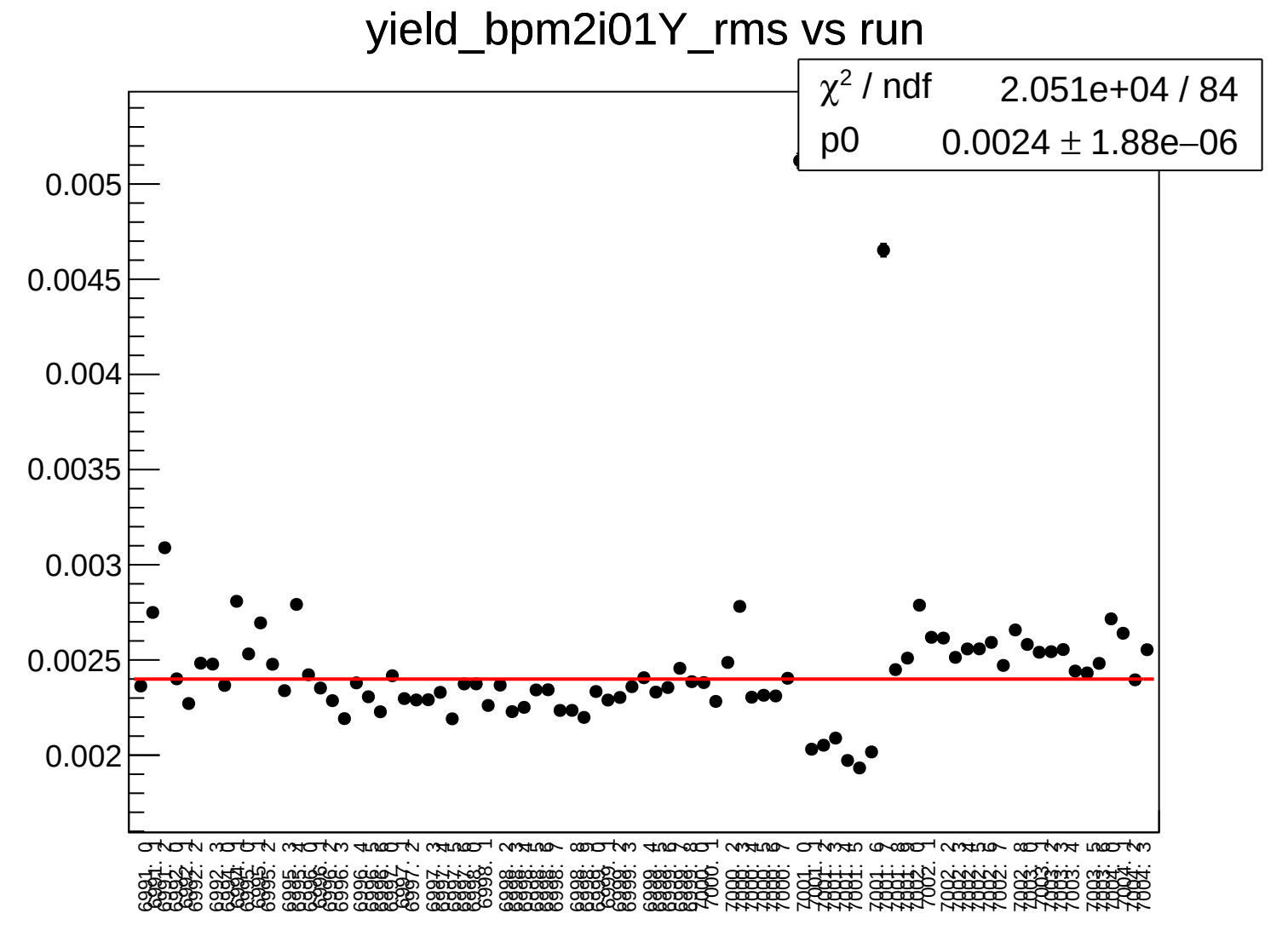

yield_bpm1i06Y_rms vs run
χ² / ndf 1.054e+05 / 84
p0 0.003576 ± 2.877e−06
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

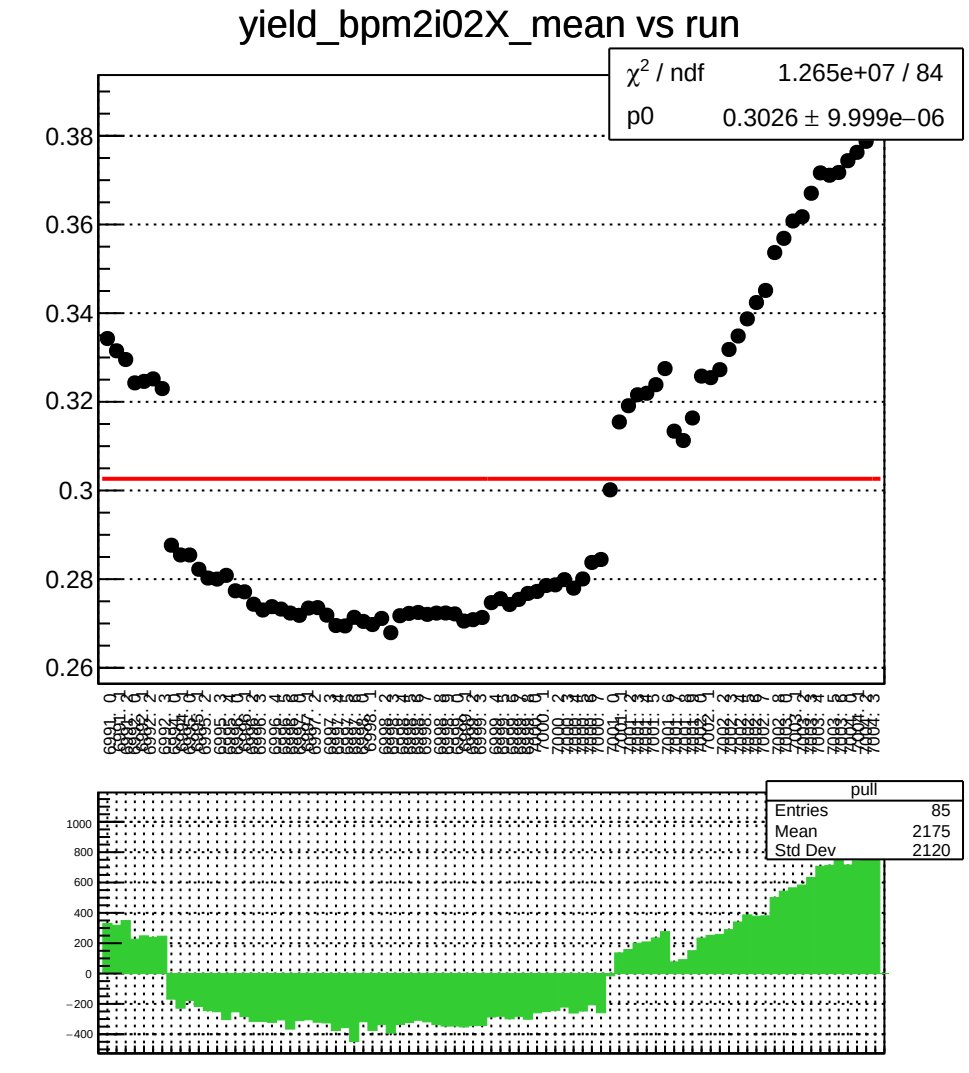

yield_bpm2i01X_mean vs run
χ² / ndf 4.743e+07 / 84
p0 0.4981 ± 2.736e−06
pull
Entries 85
Mean −72.96
Std Dev 41.82

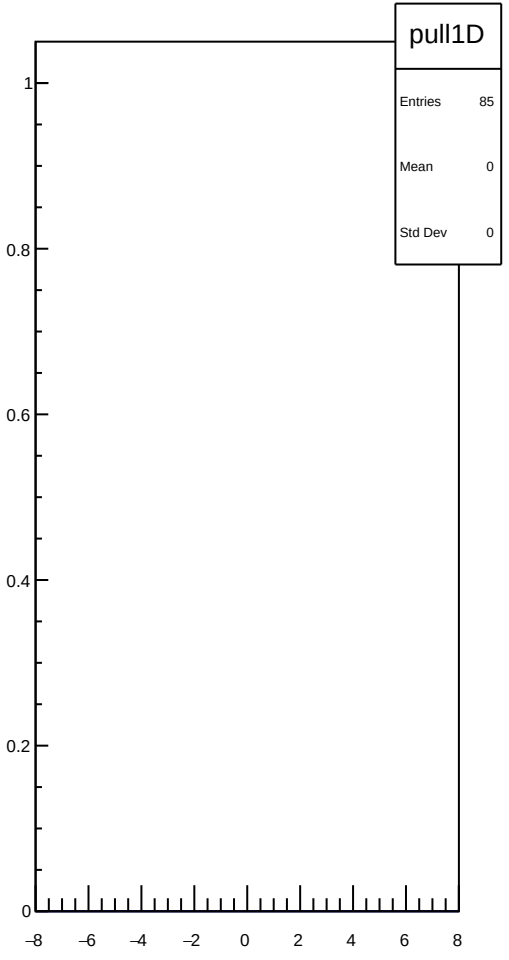

pull1D
Entries 85
Mean 0
Std Dev 0

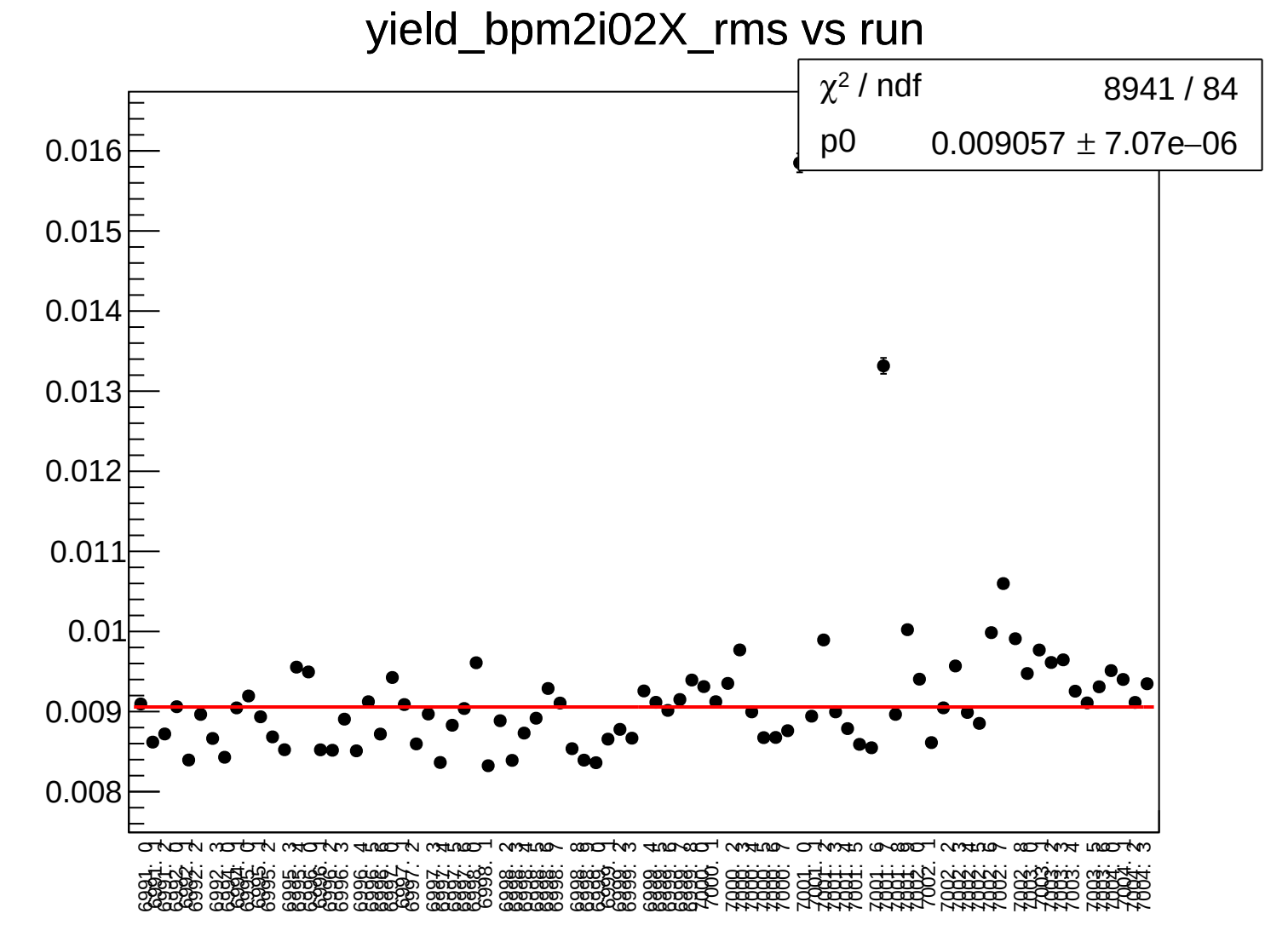

yield_bpm2i01X_rms vs run
χ² / ndf 5.945e+04 / 84
p0 0.00244 ± 1.934e−06
0.008
0.007
0.006
0.005
0.004
0.003
0.002

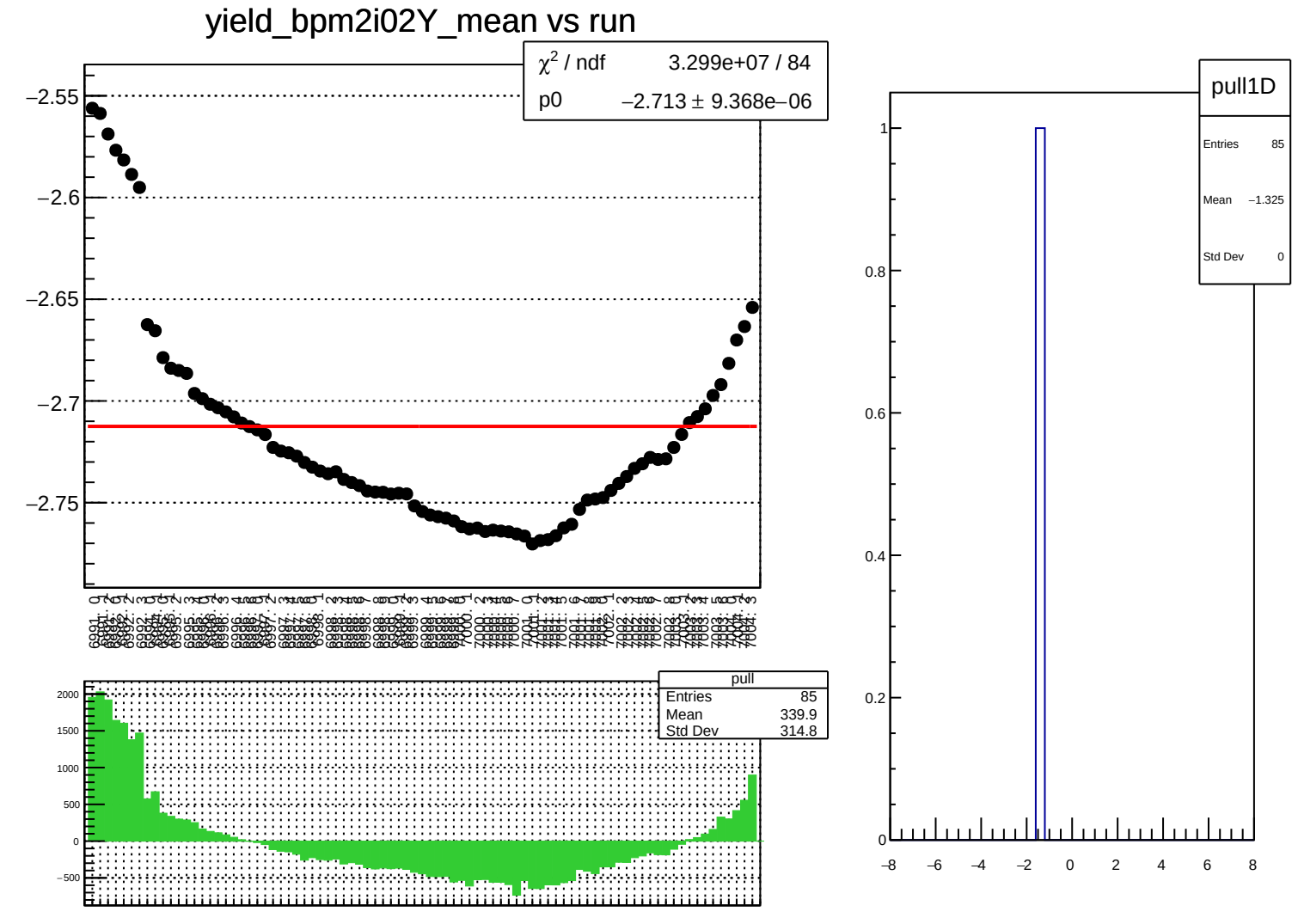

yield_bpm2i01Y_mean vs run
χ² / ndf 2.625e+07 / 84
p0 −3.726 ± 2.659e−06
−3.69
−3.7
−3.71
−3.72
−3.73
−3.74
−3.75
pull
Entries 85
Mean −546.1
Std Dev 567.6
1500
1000
500
0
−500
−1000
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

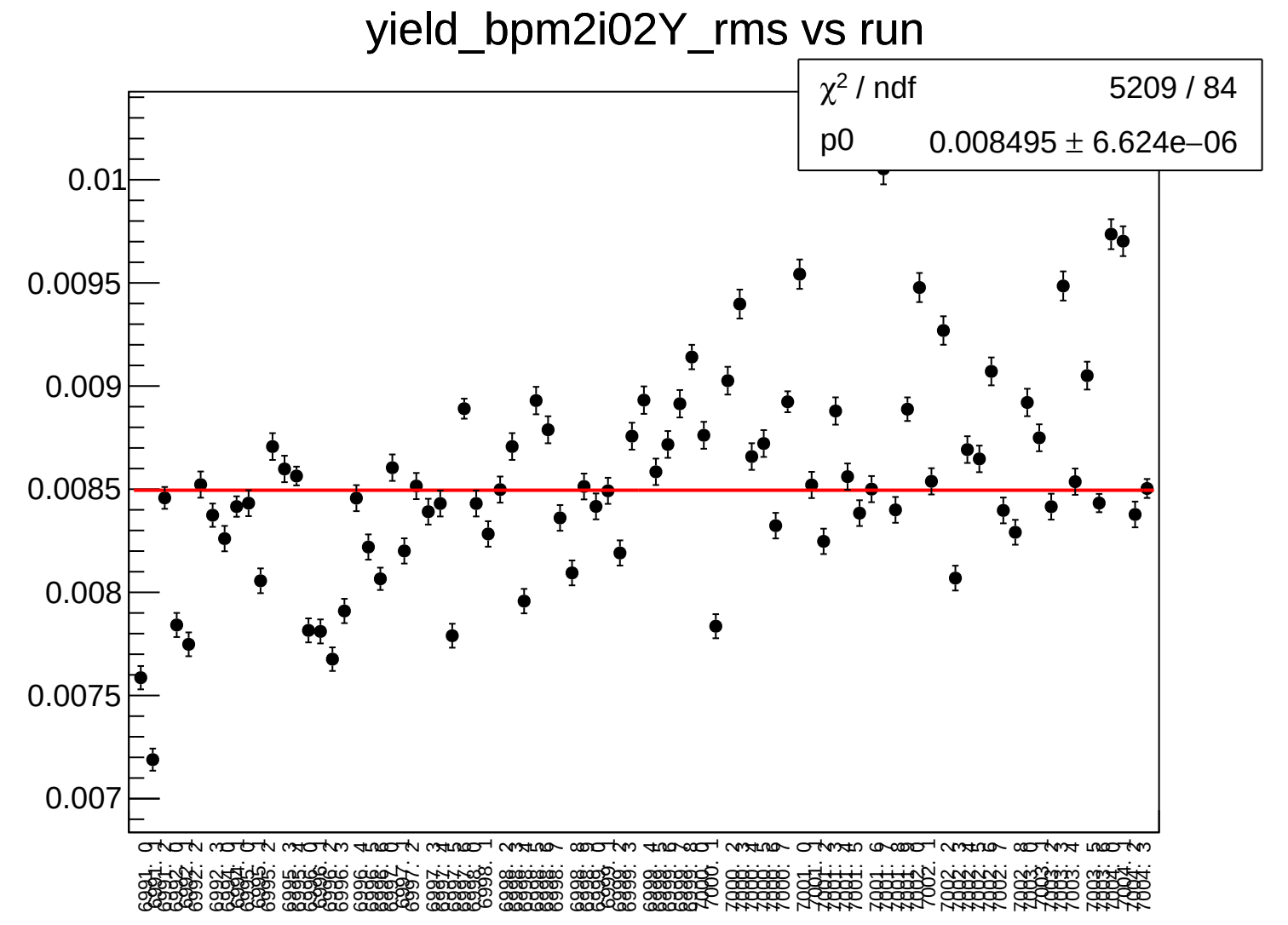

yield_bpm2i01Y_rms vs run
χ^2 / ndf 2.051e+04 / 84
p0 0.0024 ± 1.88e−06
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002

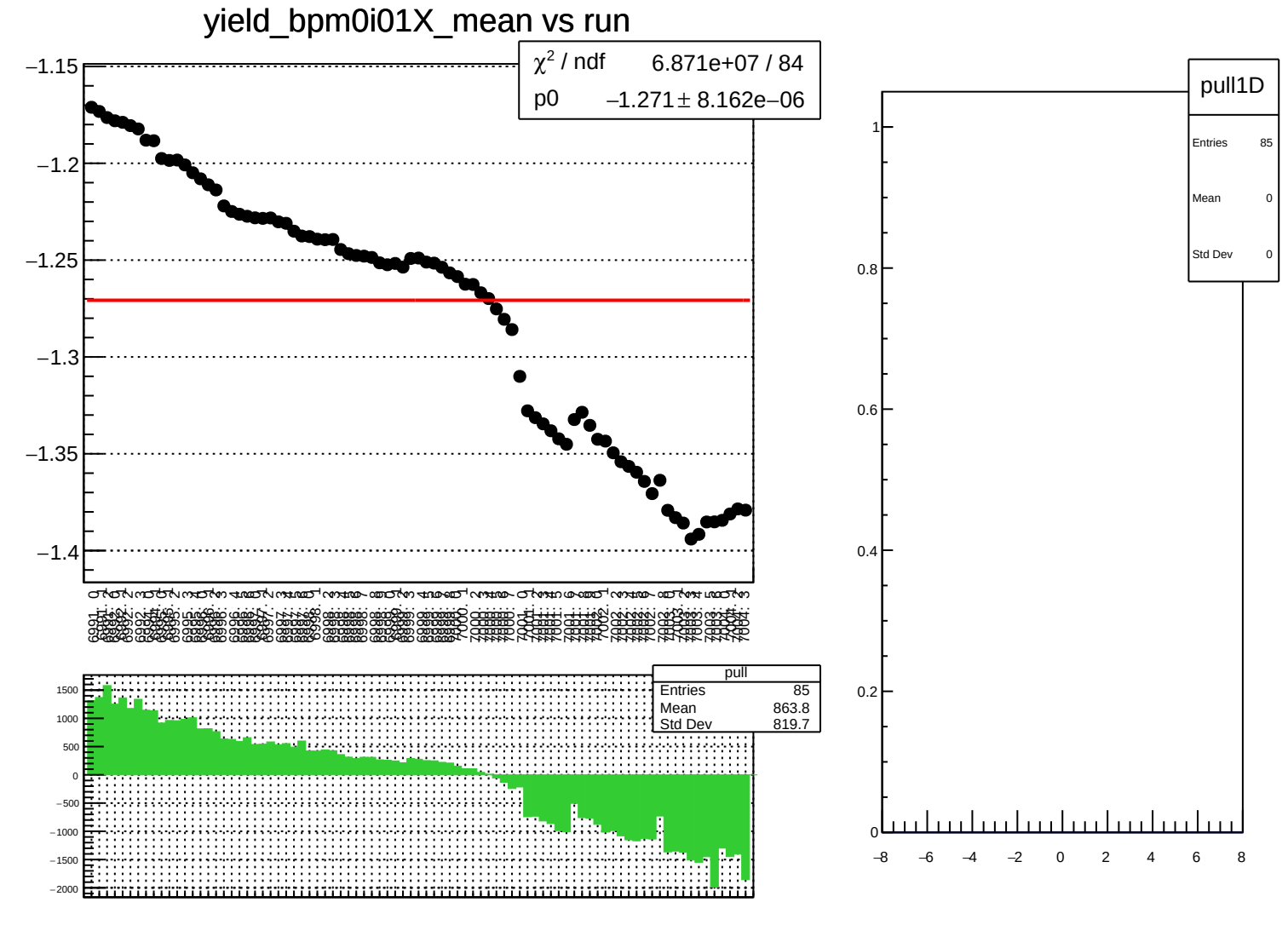

yield_bpm2i02X_mean vs run
χ² / ndf 1.265e+07 / 84
p0 0.3026 ± 9.999e−06
0.38
0.36
0.34
0.32
0.3
0.28
0.26
pull
Entries 85
Mean 2175
Std Dev 2120
1000
800
600
400
200
0
−200
−400

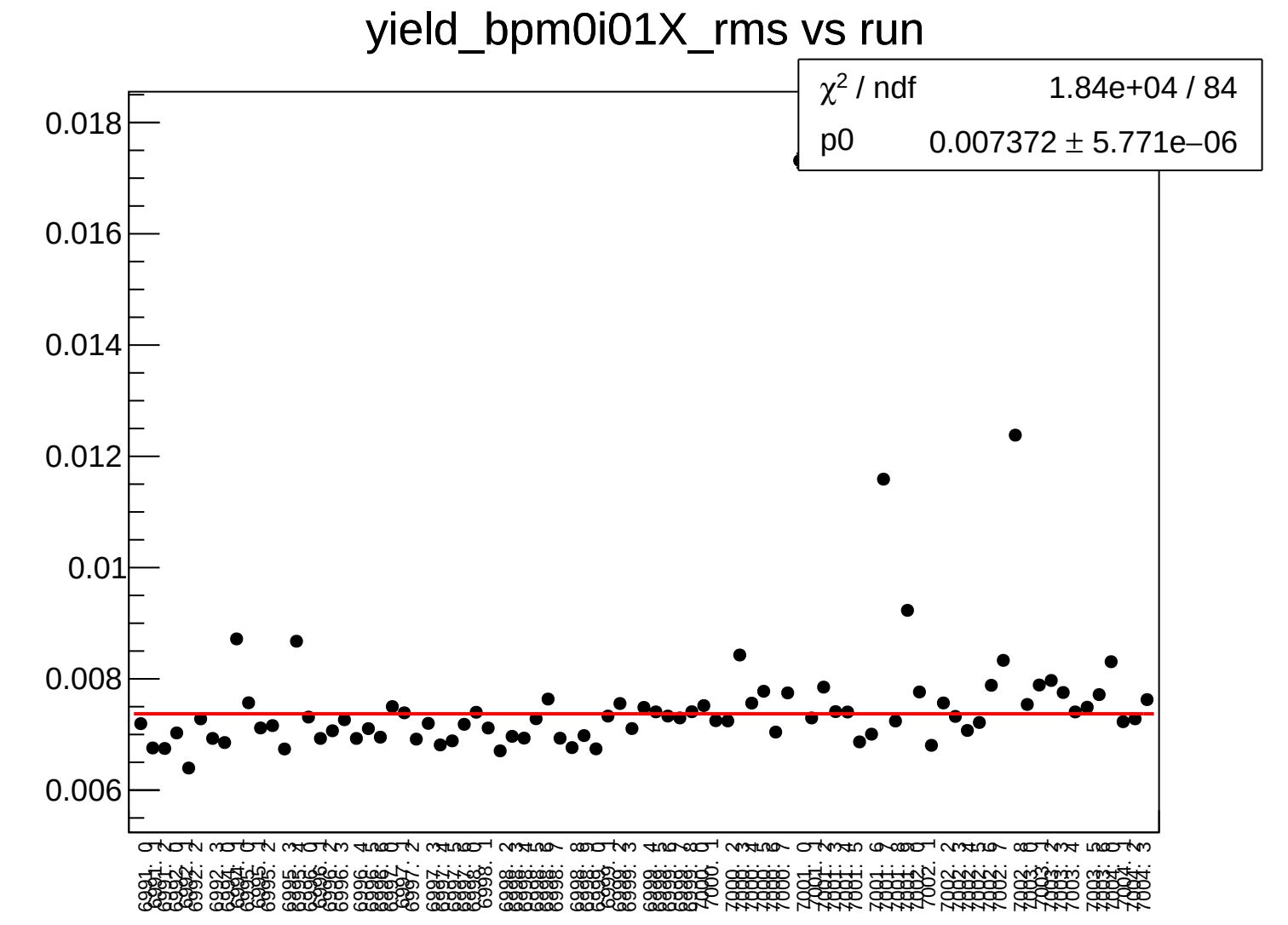

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

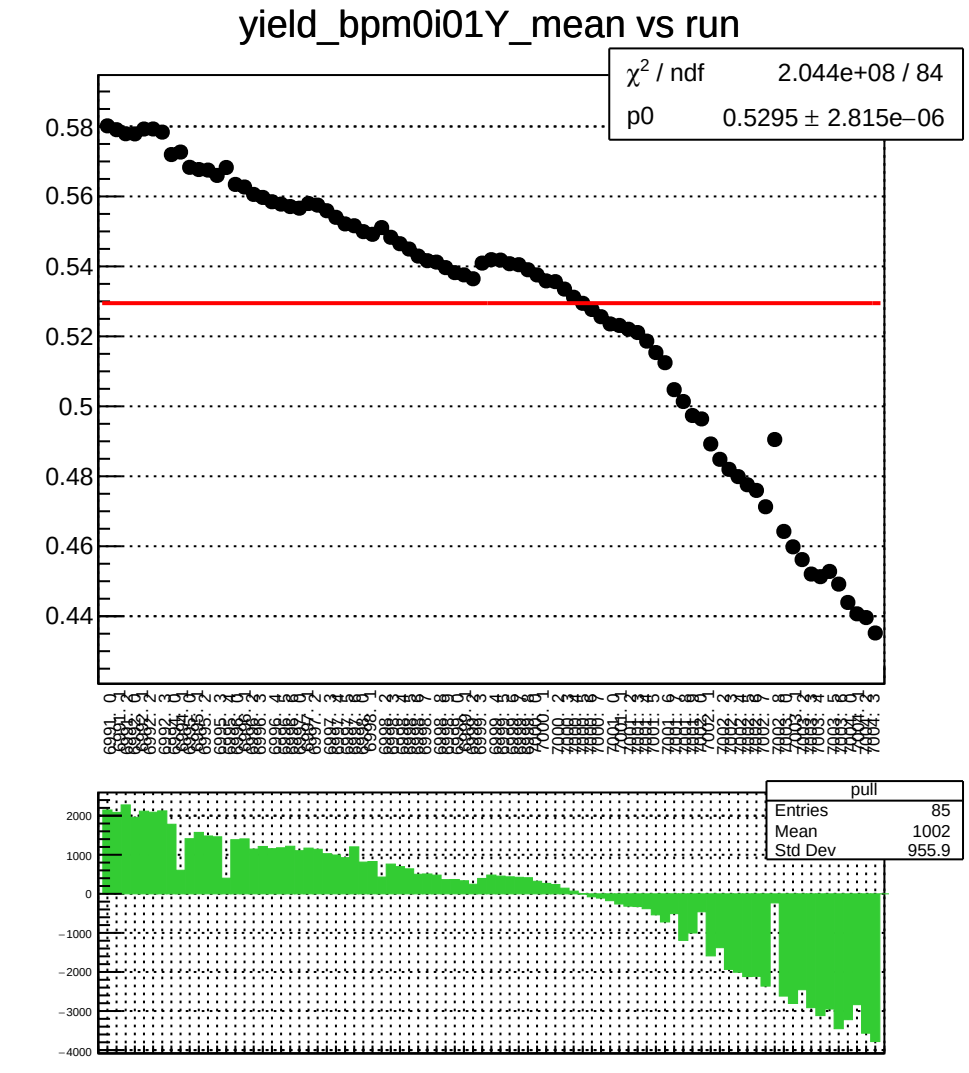

yield_bpm2i02X_rms vs run
χ² / ndf 8941 / 84
p0 0.009057 ± 7.07e–06
0.016
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008

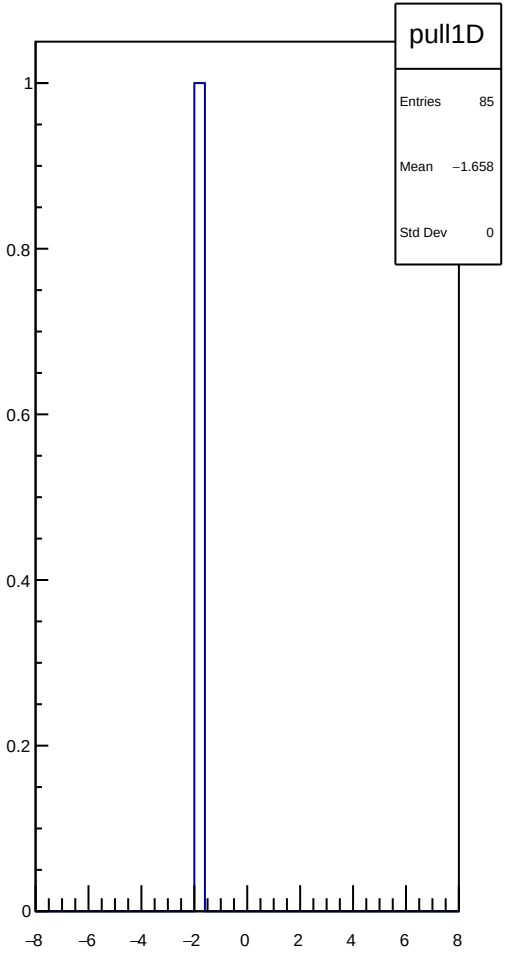

yield_bpm2i02Y_mean vs run
χ² / ndf 3.299e+07 / 84
p0 −2.713 ± 9.368e−06
−2.55
−2.6
−2.65
−2.7
−2.75
pull
Entries 85
Mean 339.9
Std Dev 314.8
2000
1500
1000
500
0
−500
pull1D
Entries 85
Mean −1.325
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

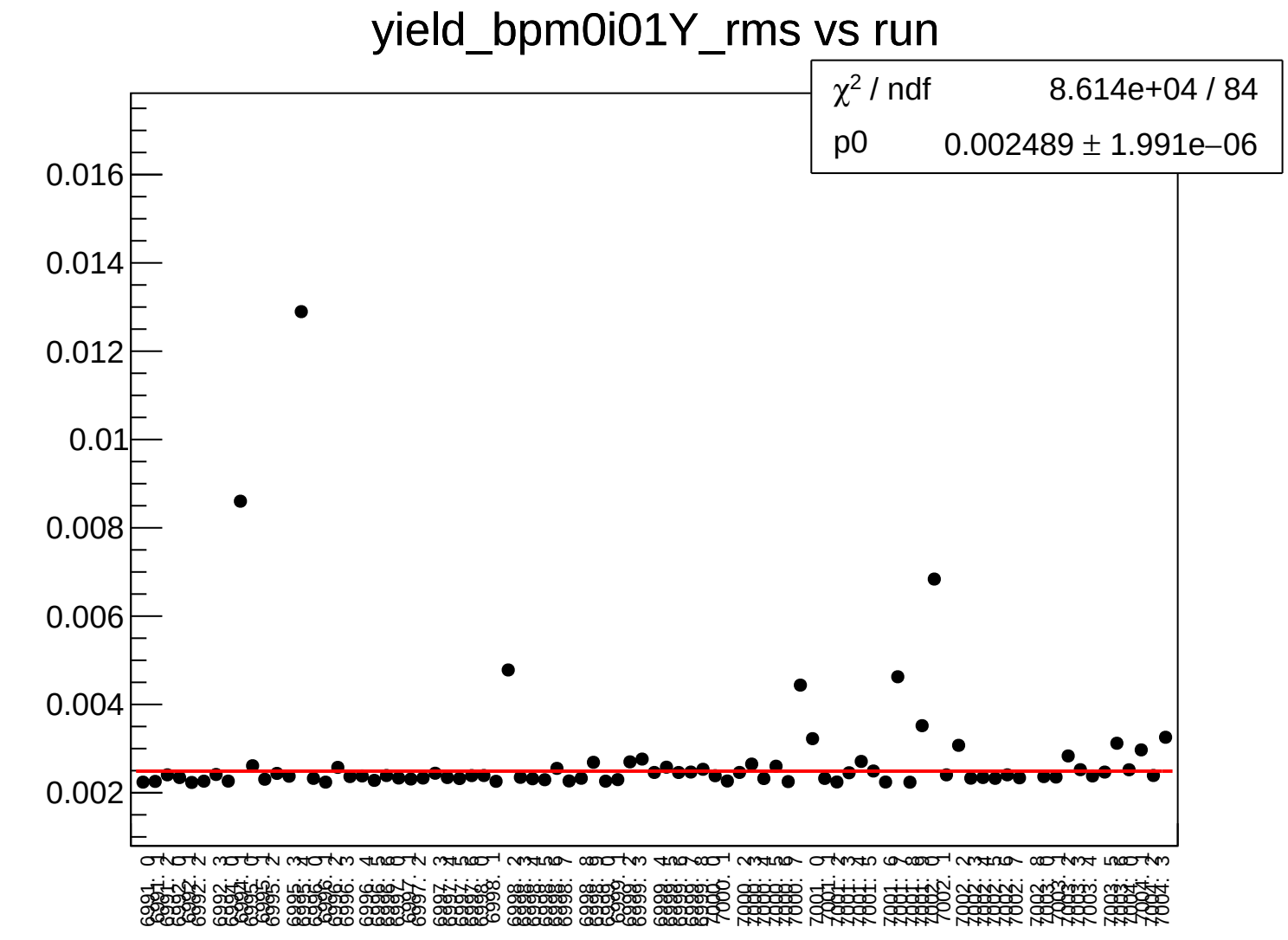

yield_bpm2i02Y_rms vs run
χ² / ndf 5209 / 84
p0 0.008495 ± 6.624e−06
0.01
0.0095
0.009
0.0085
0.008
0.0075
0.007

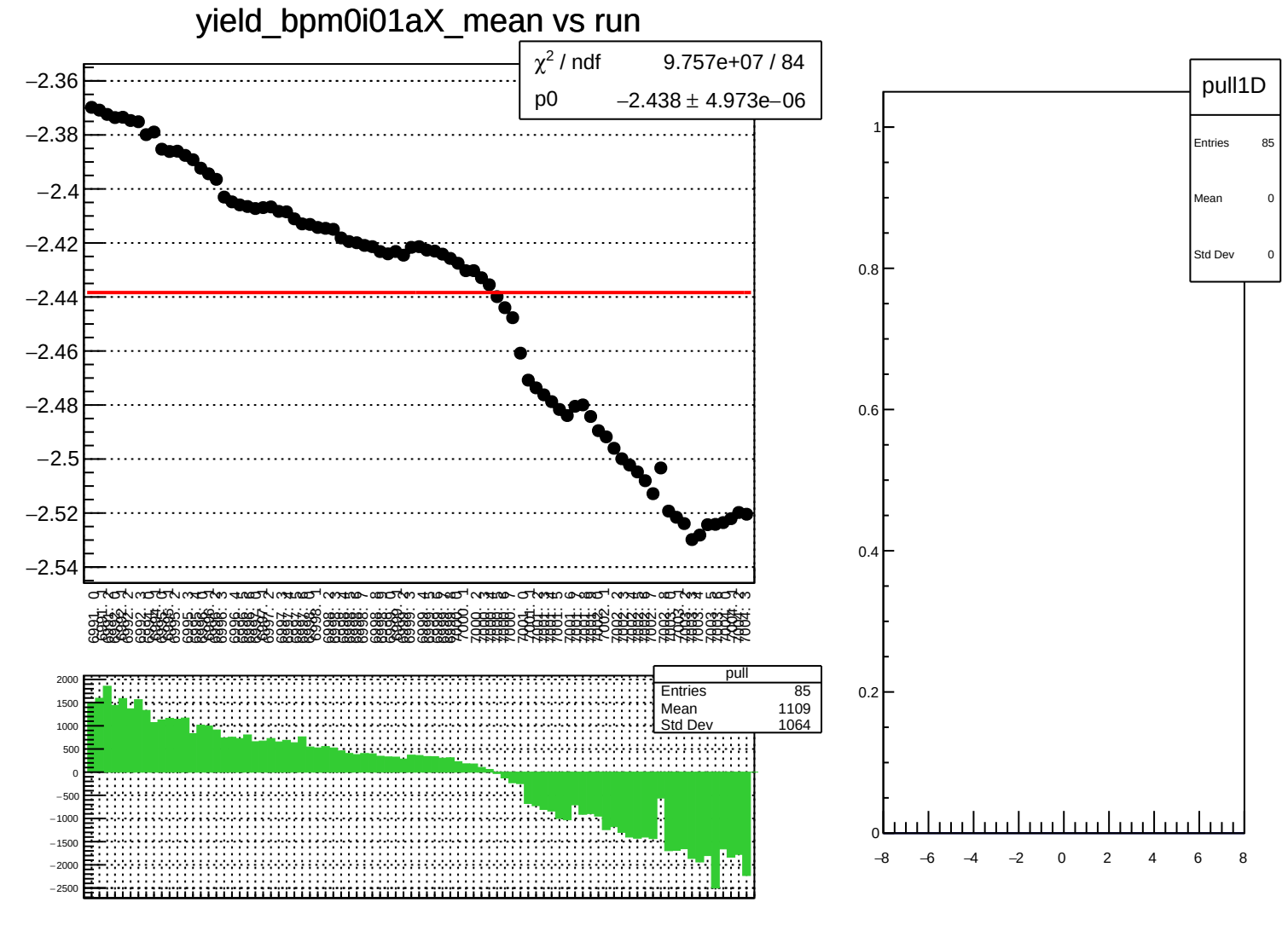

yield_bpm0i01X_mean vs run
χ² / ndf 6.871e+07 / 84
p0 −1.271 ± 8.162e−06
−1.15
−1.2
−1.25
−1.3
−1.35
−1.4
pull
Entries 85
Mean 863.8
Std Dev 819.7
1500
1000
500
0
−500
−1000
−1500
−2000
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

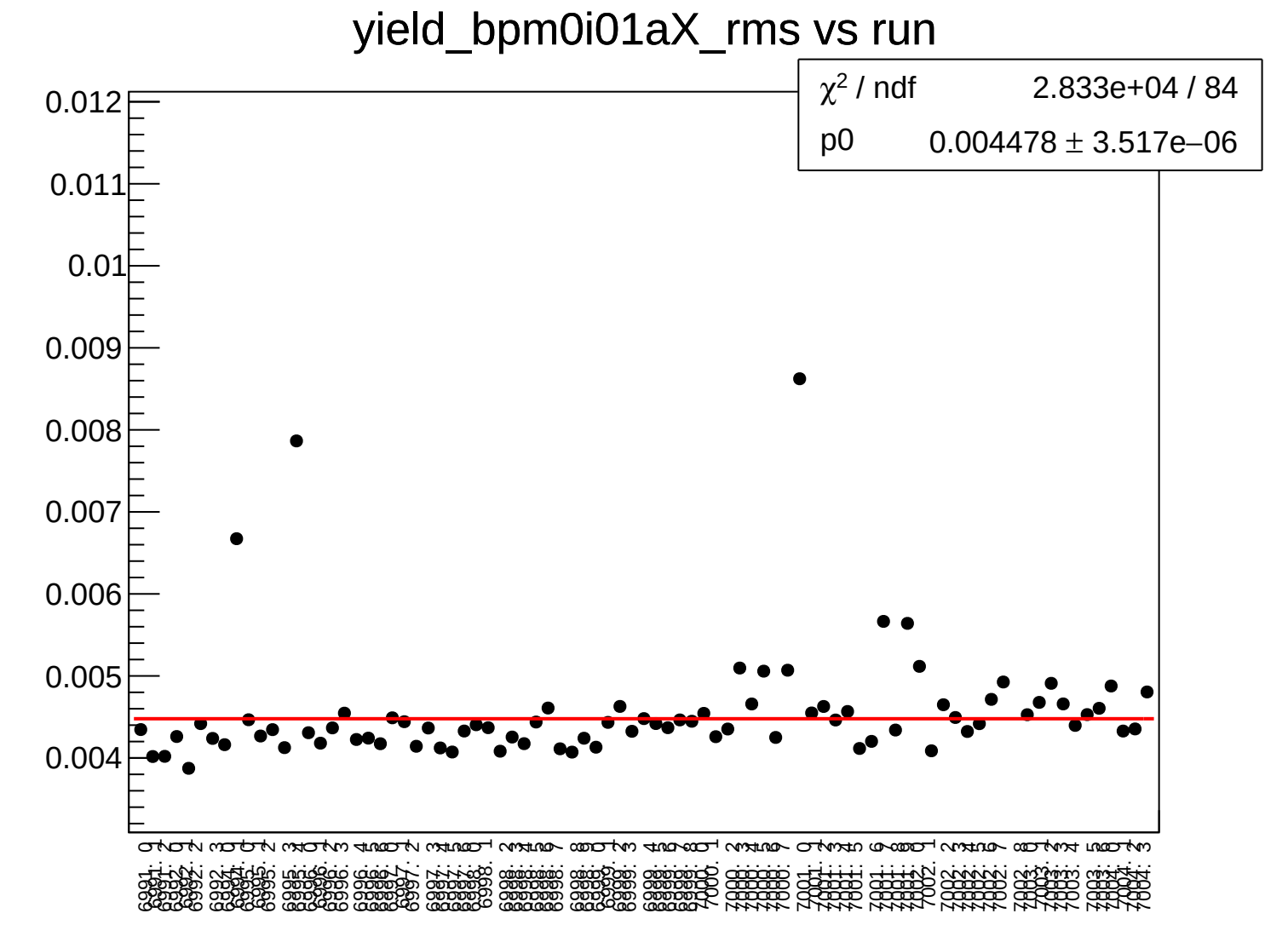

yield_bpm0i01X_rms vs run
χ^2 / ndf 1.84e+04 / 84
p0 0.007372 ± 5.771e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006

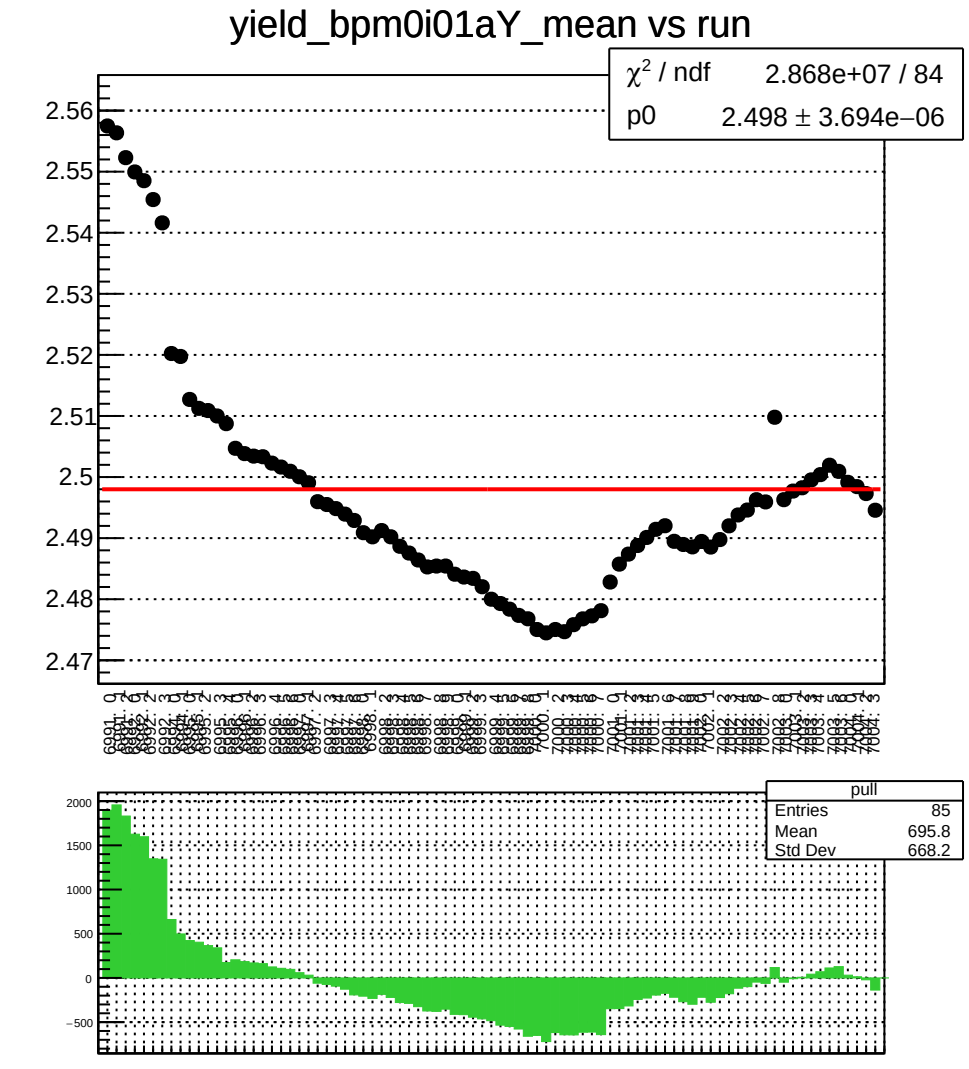

yield_bpm0i01Y_mean vs run
χ² / ndf 2.044e+08 / 84
p0 0.5295 ± 2.815e−06
0.58
0.56
0.54
0.52
0.5
0.48
0.46
0.44
pull
Entries 85
Mean 1002
Std Dev 955.9
2000
1000
0
−1000
−2000
−3000
−4000

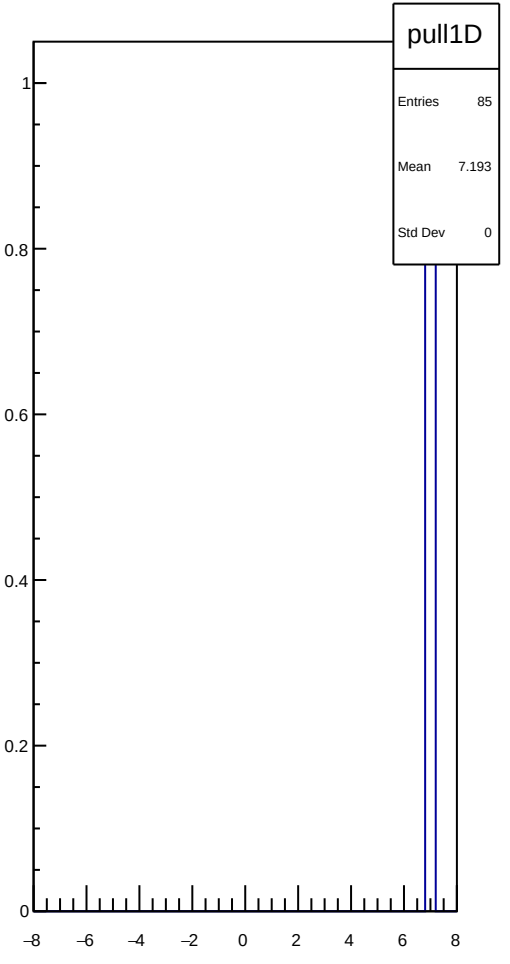

pull1D
Entries 85
Mean −1.658
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

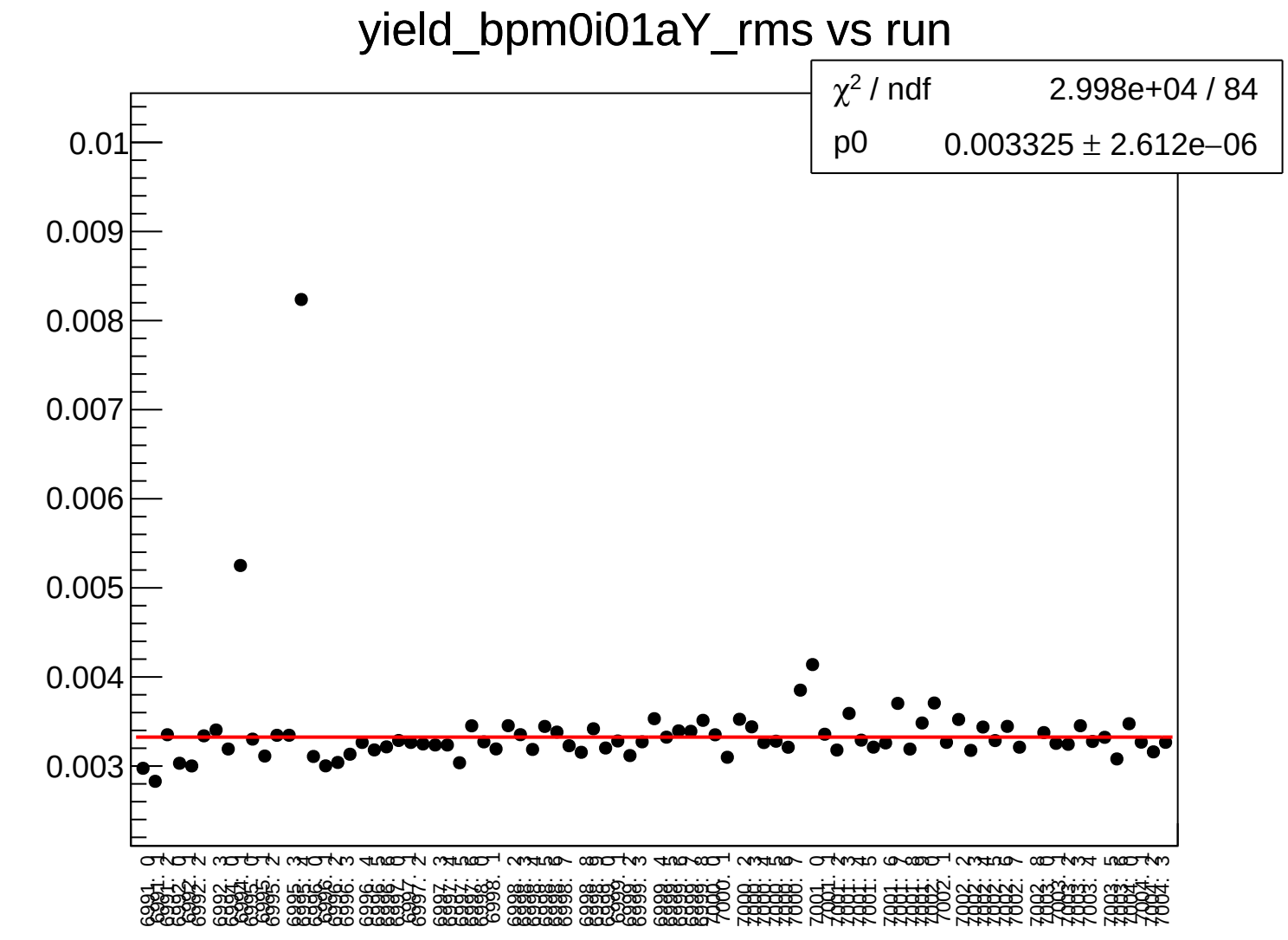

yield_bpm0i01Y_rms vs run
χ² / ndf 8.614e+04 / 84
p0 0.002489 ± 1.991e−06
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

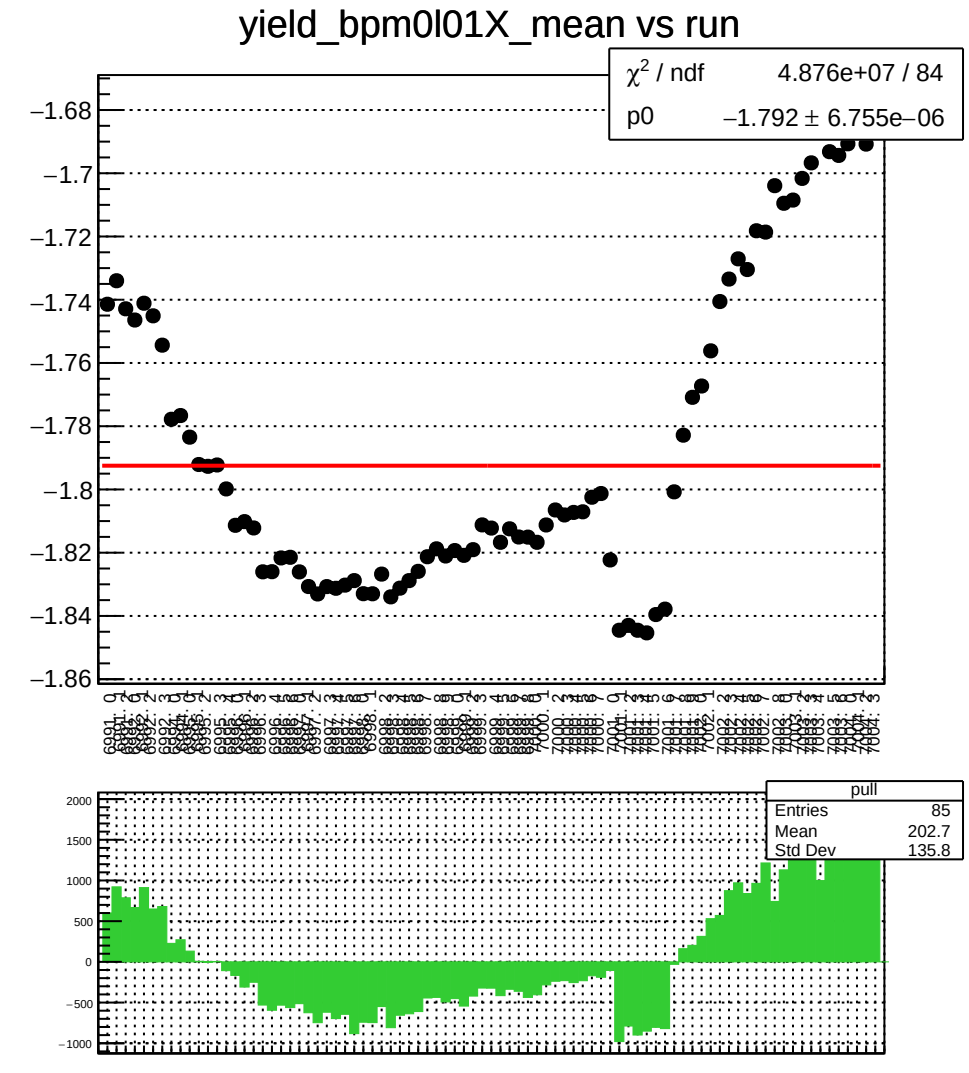

yield_bpm0i01aX_mean vs run
χ² / ndf 9.757e+07 / 84
p0 −2.438 ± 4.973e−06
−2.36
−2.38
−2.4
−2.42
−2.44
−2.46
−2.48
−2.5
−2.52
−2.54
pull
Entries 85
Mean 1109
Std Dev 1064
2000
1500
1000
500
0
−500
−1000
−1500
−2000
−2500
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

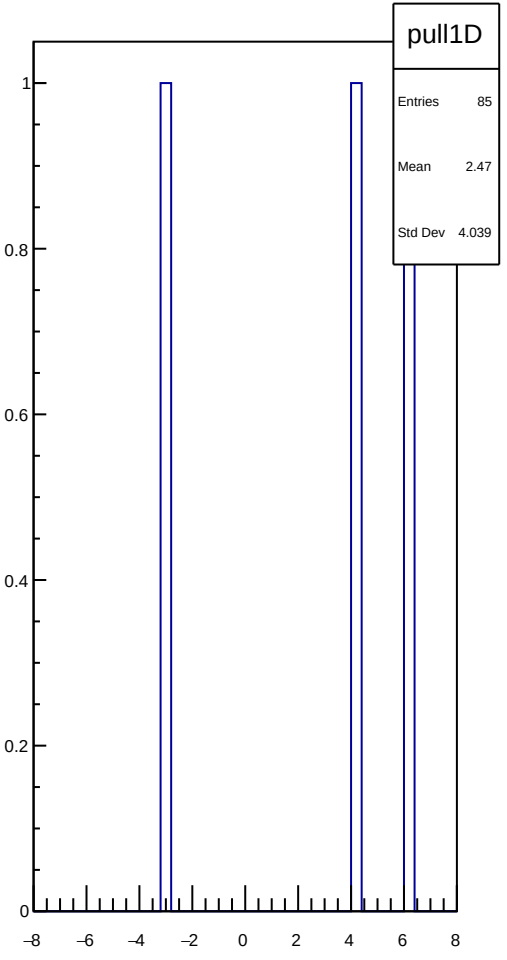

yield_bpm0i01aX_rms vs run
χ² / ndf 2.833e+04 / 84
p0 0.004478 ± 3.517e−06
0.012
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004

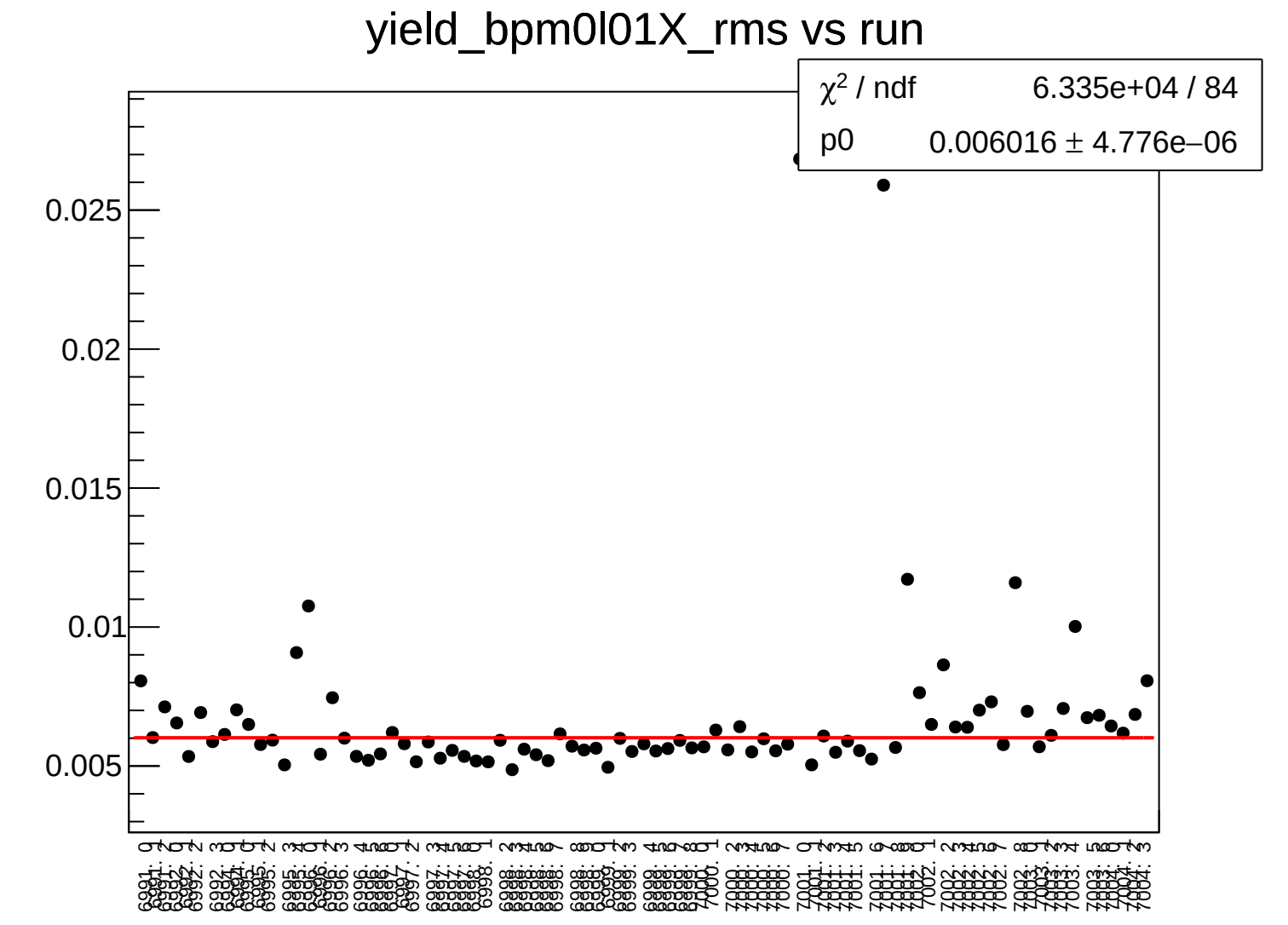

yield_bpm0i01aY_mean vs run
χ² / ndf 2.868e+07 / 84
p0 2.498 ± 3.694e−06
2.56
2.55
2.54
2.53
2.52
2.51
2.5
2.49
2.48
2.47
pull
Entries 85
Mean 695.8
Std Dev 668.2
2000
1500
1000
500
0
−500

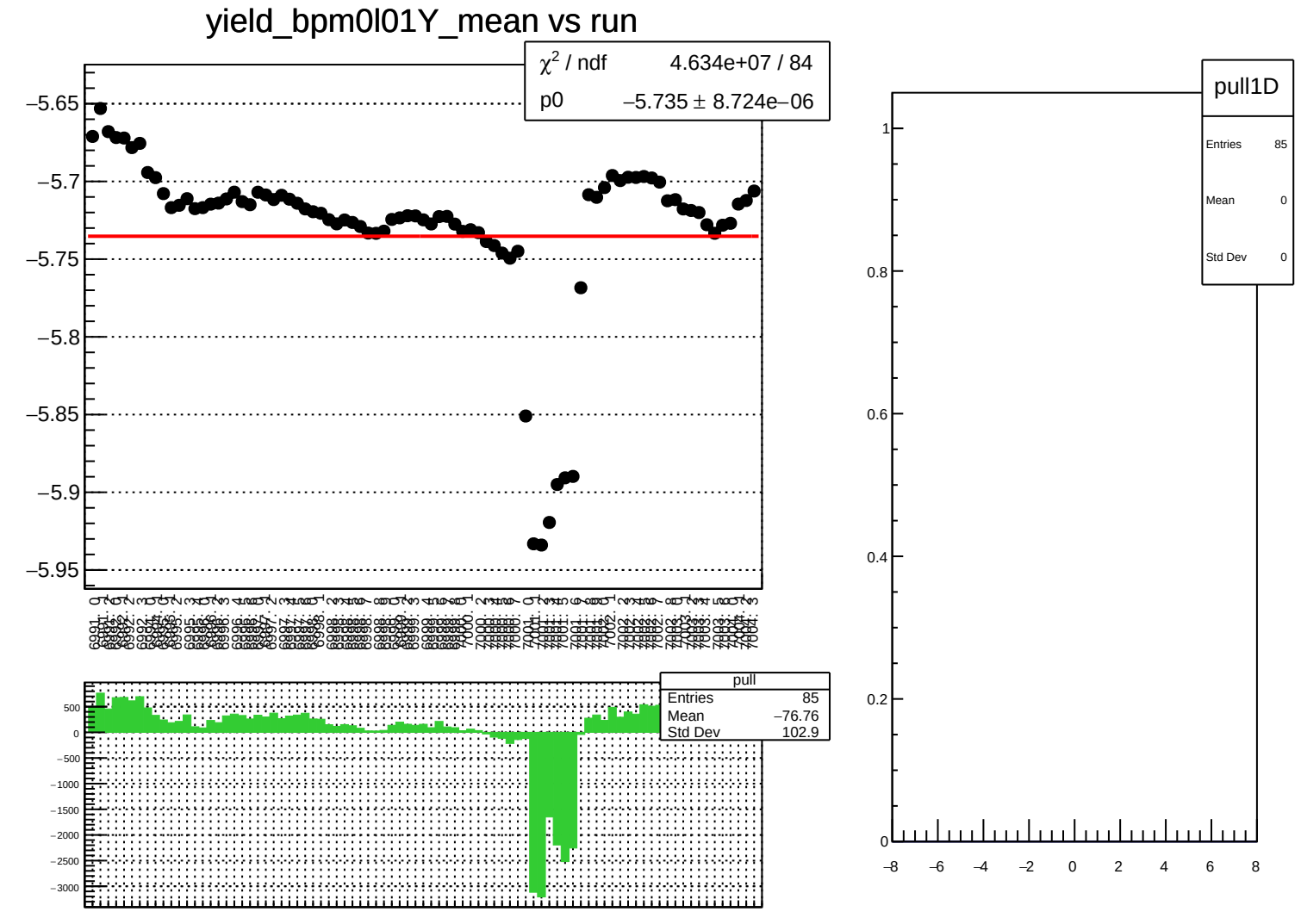

pull1D
Entries 85
Mean 7.193
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

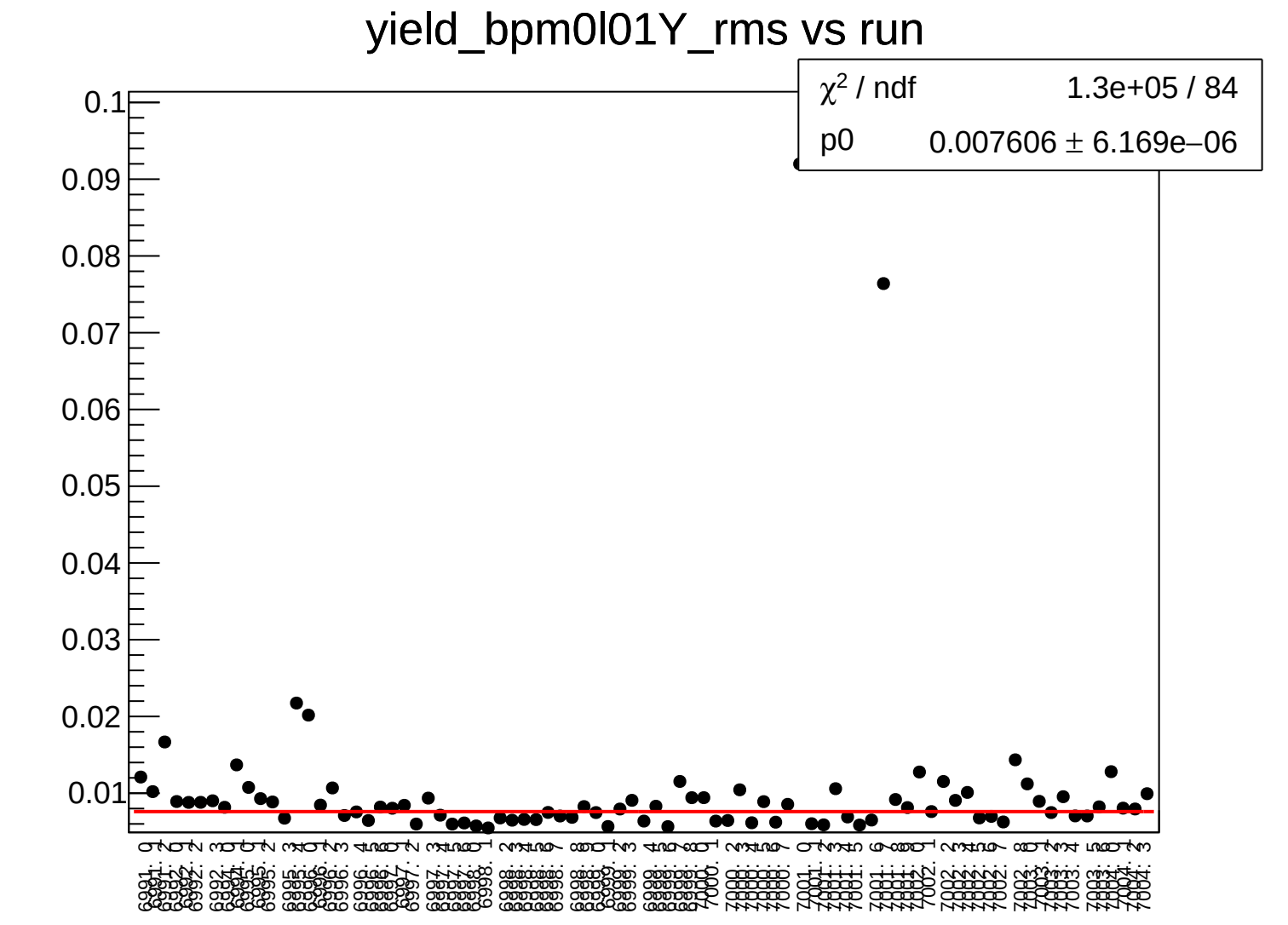

yield_bpm0i01aY_rms vs run
χ² / ndf 2.998e+04 / 84
p0 0.003325 ± 2.612e−06
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003

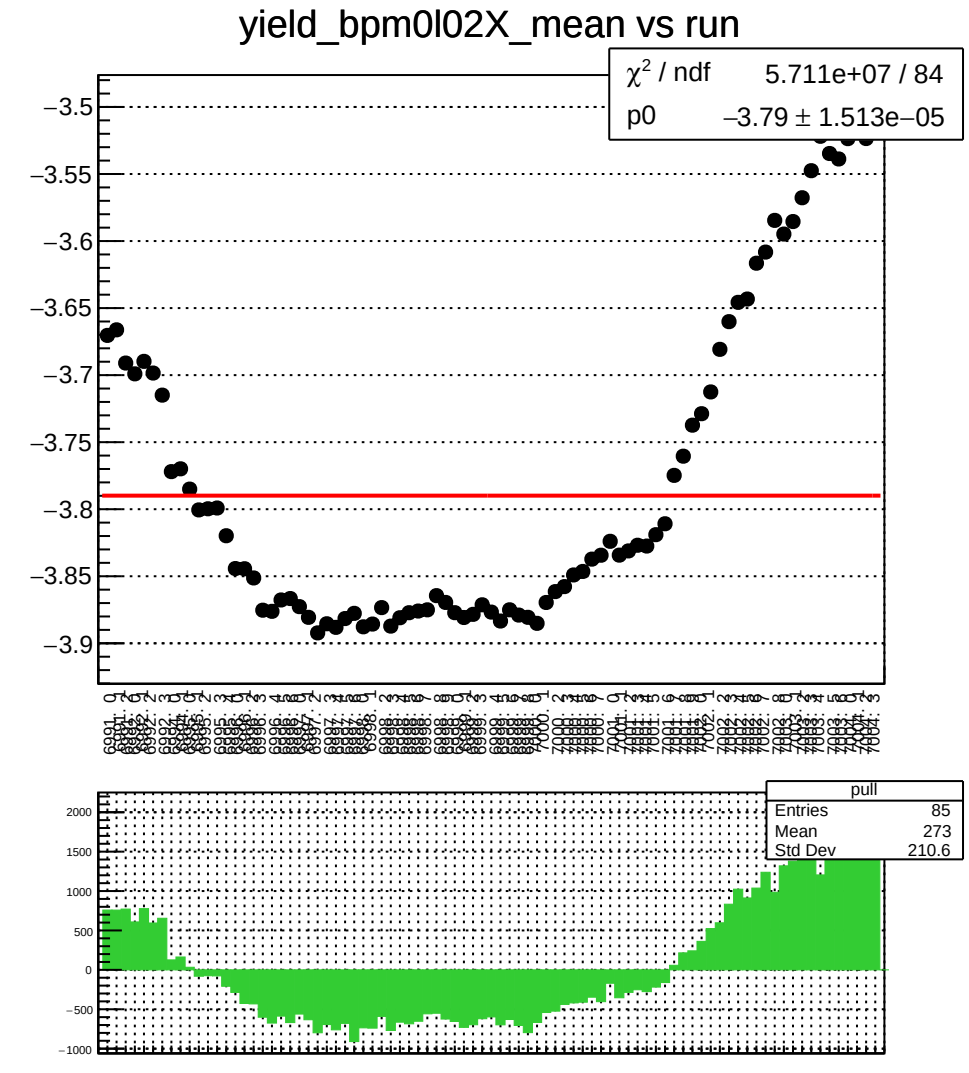

yield_bpm0l01X_mean vs run
χ² / ndf 4.876e+07 / 84
p0 −1.792 ± 6.755e−06
−1.68
−1.7
−1.72
−1.74
−1.76
−1.78
−1.8
−1.82
−1.84
−1.86
pull
Entries 85
Mean 202.7
Std Dev 135.8
2000
1500
1000
500
0
−500
−1000

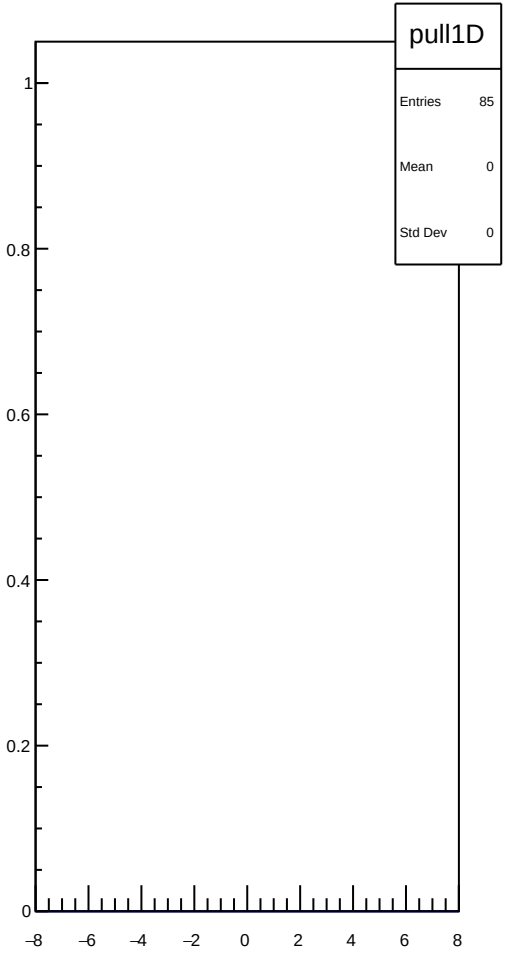

pull1D
Entries 85
Mean 2.47
Std Dev 4.039
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

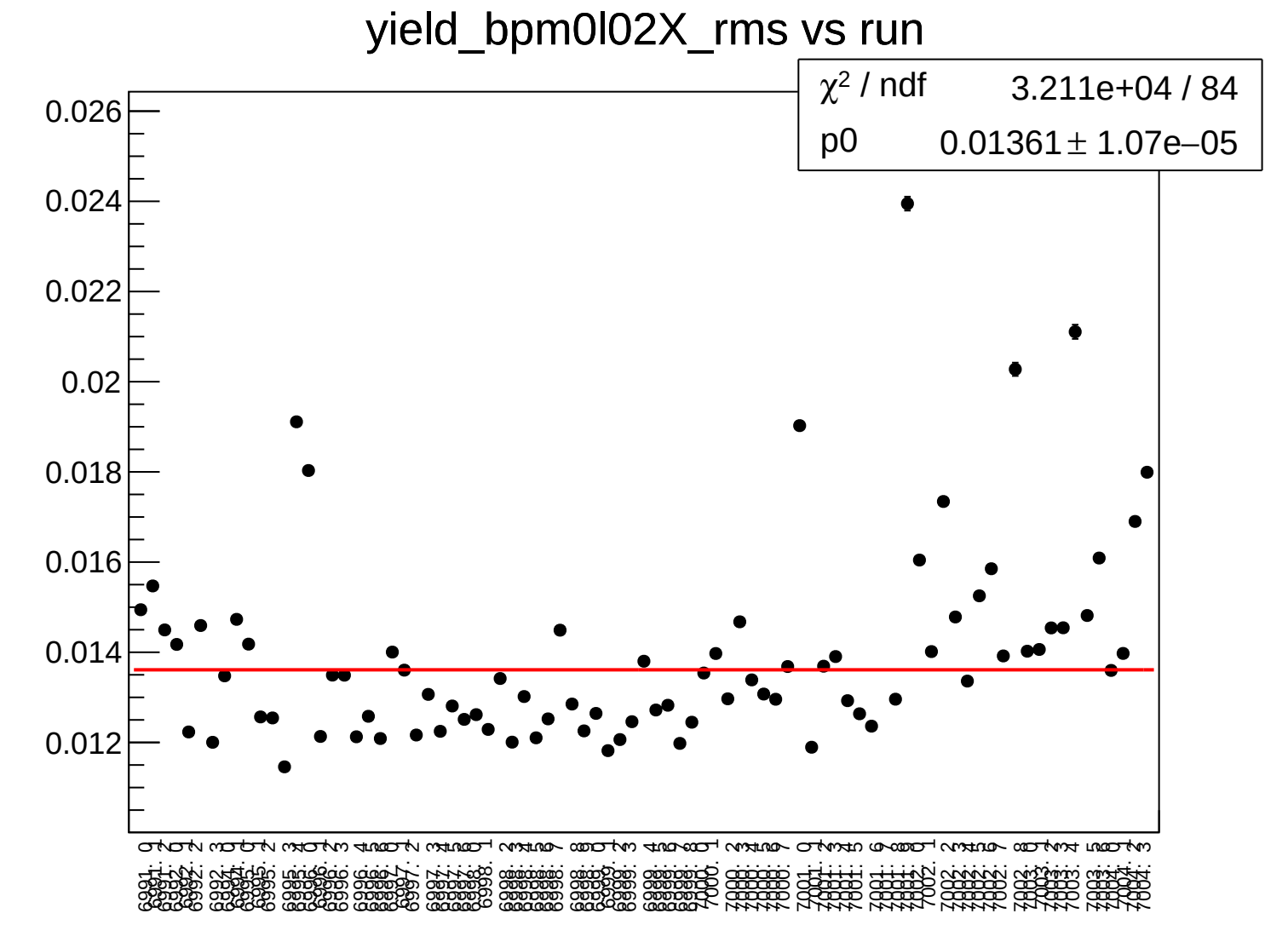

yield_bpm0l01X_rms vs run
χ² / ndf 6.335e+04 / 84
p0 0.006016 ± 4.776e−06
0.025
0.02
0.015
0.01
0.005

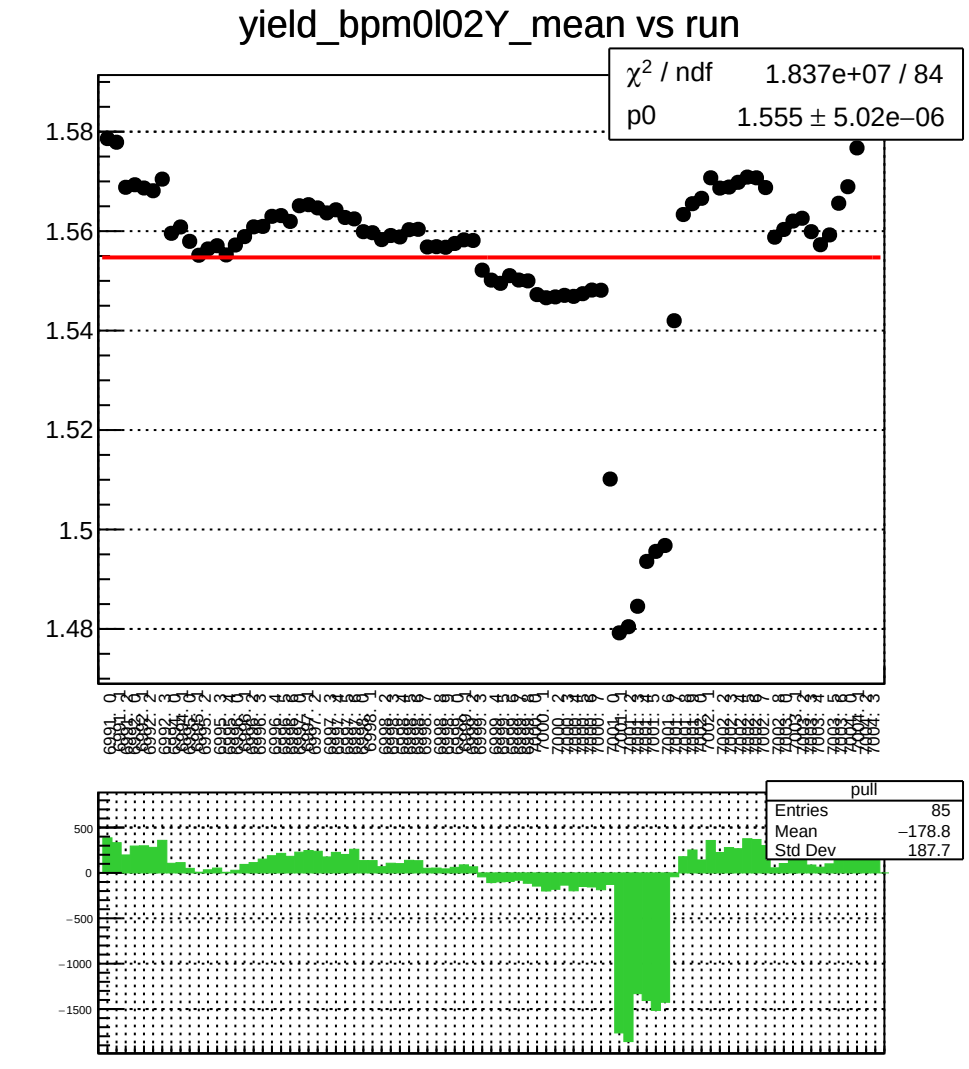

yield_bpm0l01Y_mean vs run
χ² / ndf 4.634e+07 / 84
p0 −5.735 ± 8.724e−06
−5.65
−5.7
−5.75
−5.8
−5.85
−5.9
−5.95
pull
Entries 85
Mean −76.76
Std Dev 102.9
500
0
−500
−1000
−1500
−2000
−2500
−3000
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

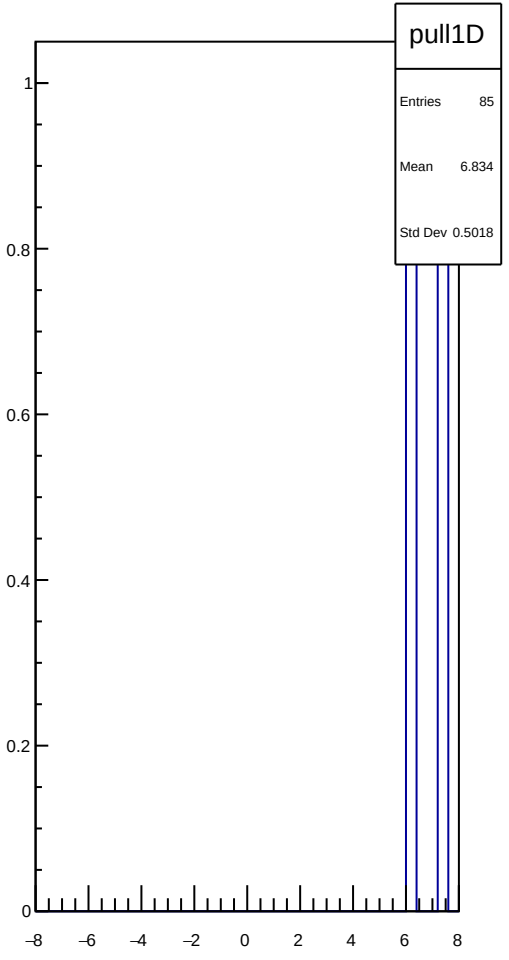

yield_bpm0l01Y_rms vs run
χ² / ndf 1.3e+05 / 84
p0 0.007606 ± 6.169e−06
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

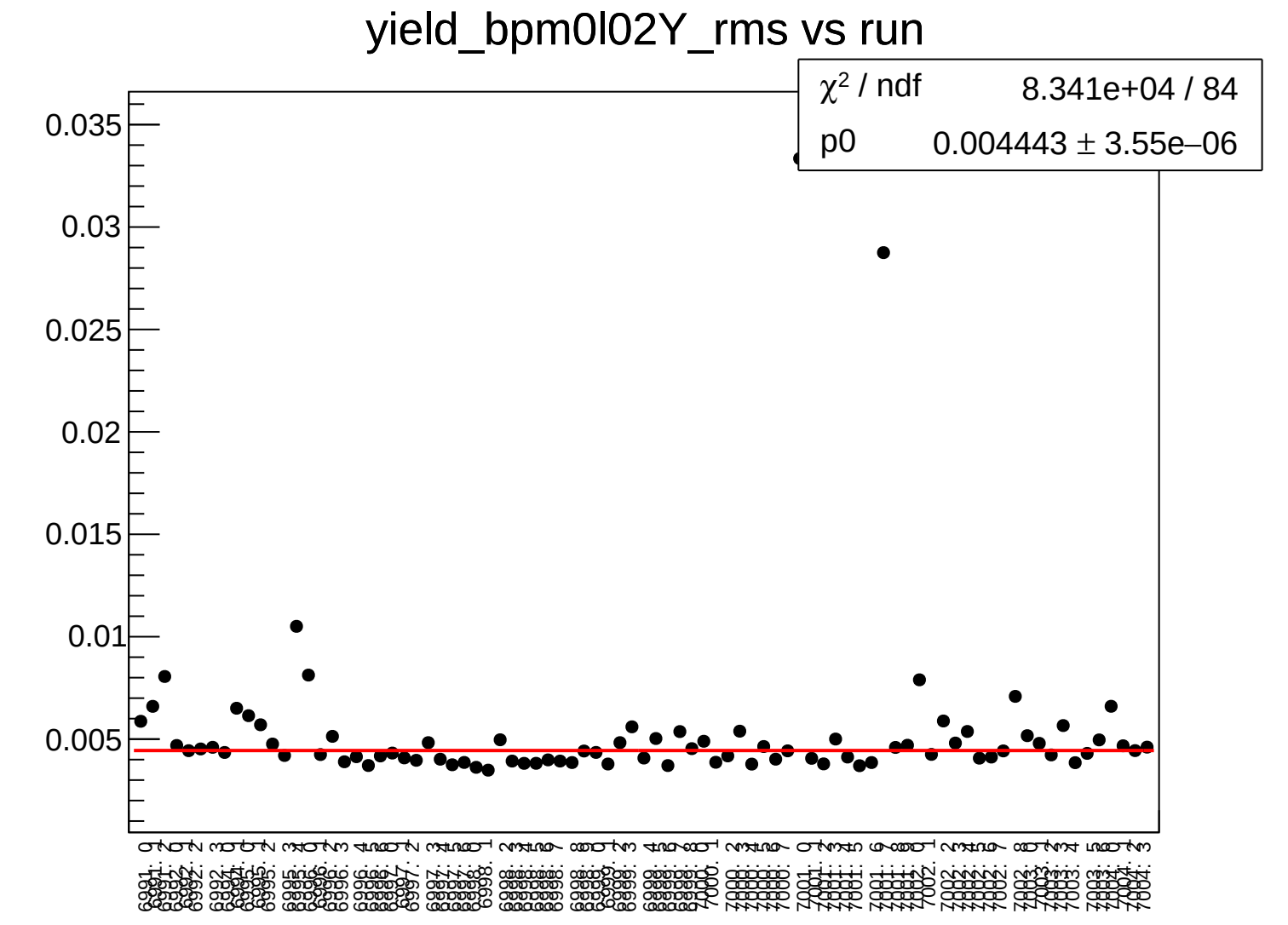

yield_bpm0l02X_mean vs run
χ² / ndf 5.711e+07 / 84
p0 −3.79 ± 1.513e−05
−3.5
−3.55
−3.6
−3.65
−3.7
−3.75
−3.8
−3.85
−3.9
pull
Entries 85
Mean 273
Std Dev 210.6
2000
1500
1000
500
0
−500
−1000

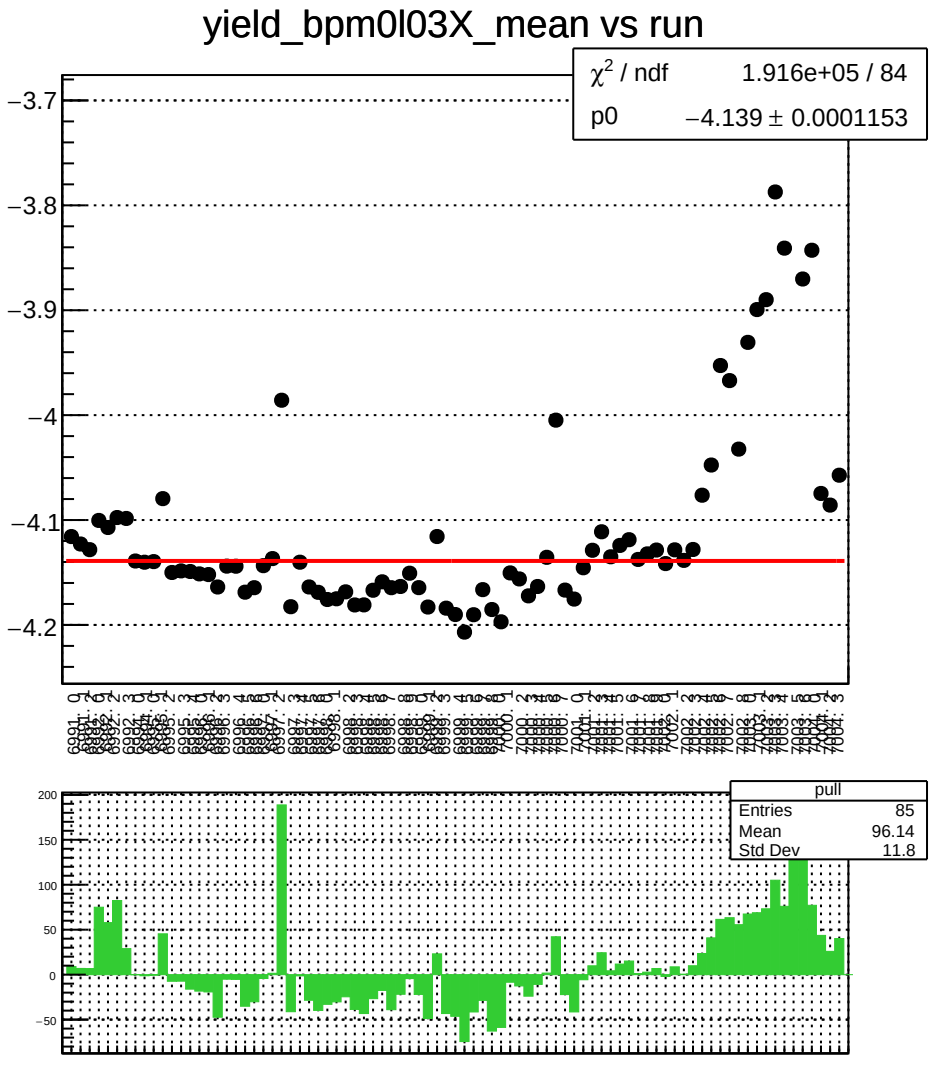

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

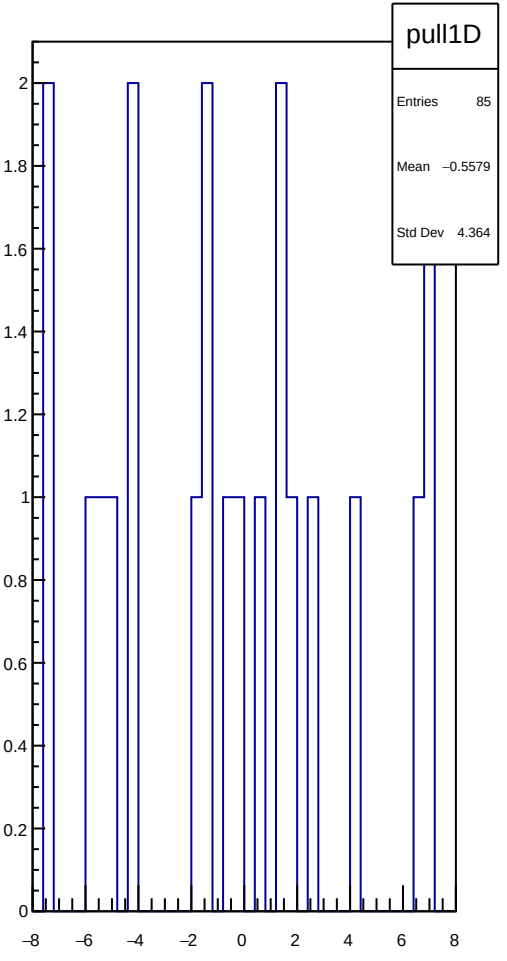

yield_bpm0l02X_rms vs run
χ² / ndf 3.211e+04 / 84
p0 0.01361 ± 1.07e−05
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012

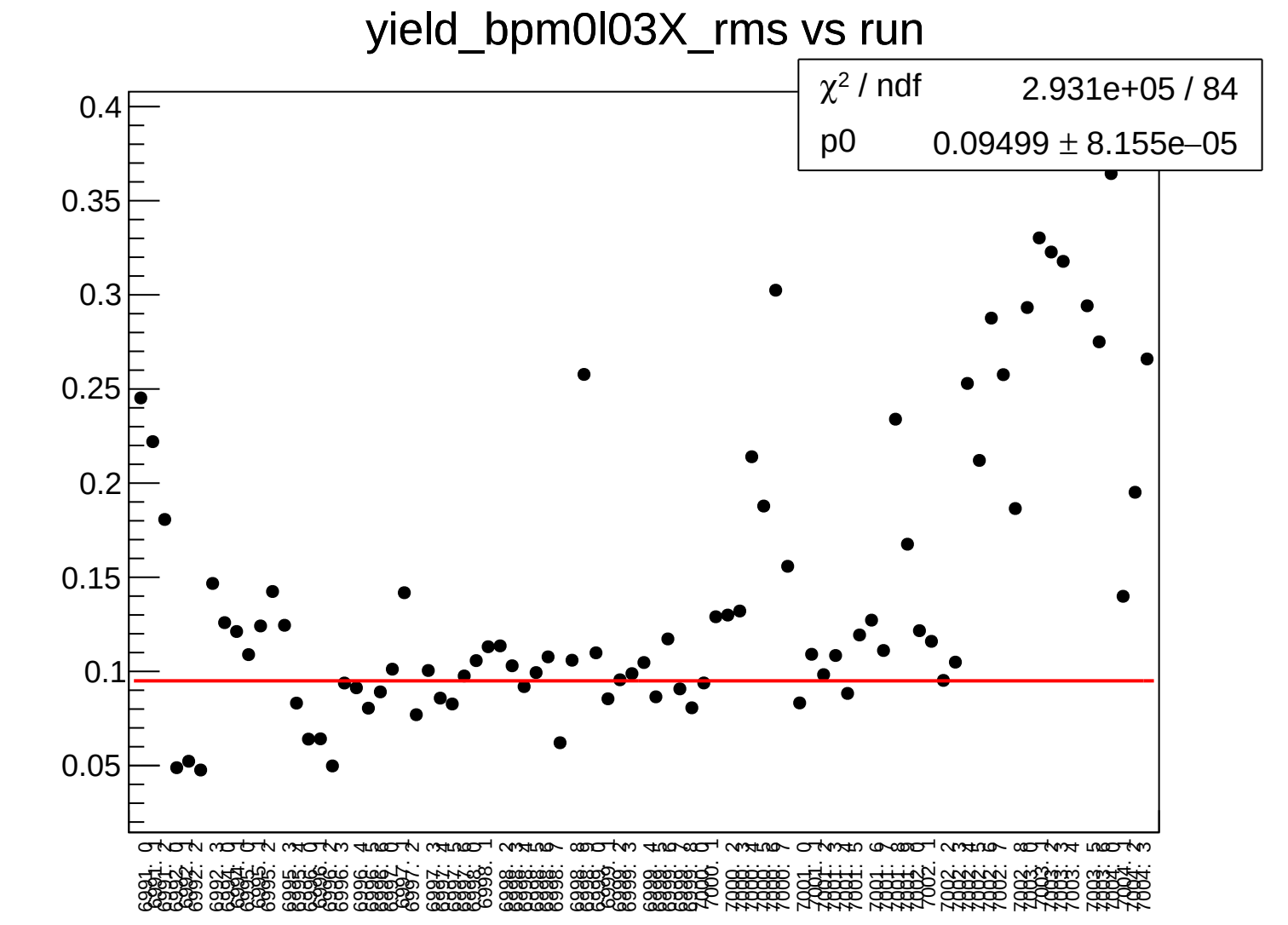

yield_bpm0l02Y_mean vs run
χ² / ndf 1.837e+07 / 84
p0 1.555 ± 5.02e−06
1.58
1.56
1.54
1.52
1.5
1.48
pull
Entries 85
Mean −178.8
Std Dev 187.7
500
0
−500
−1000
−1500

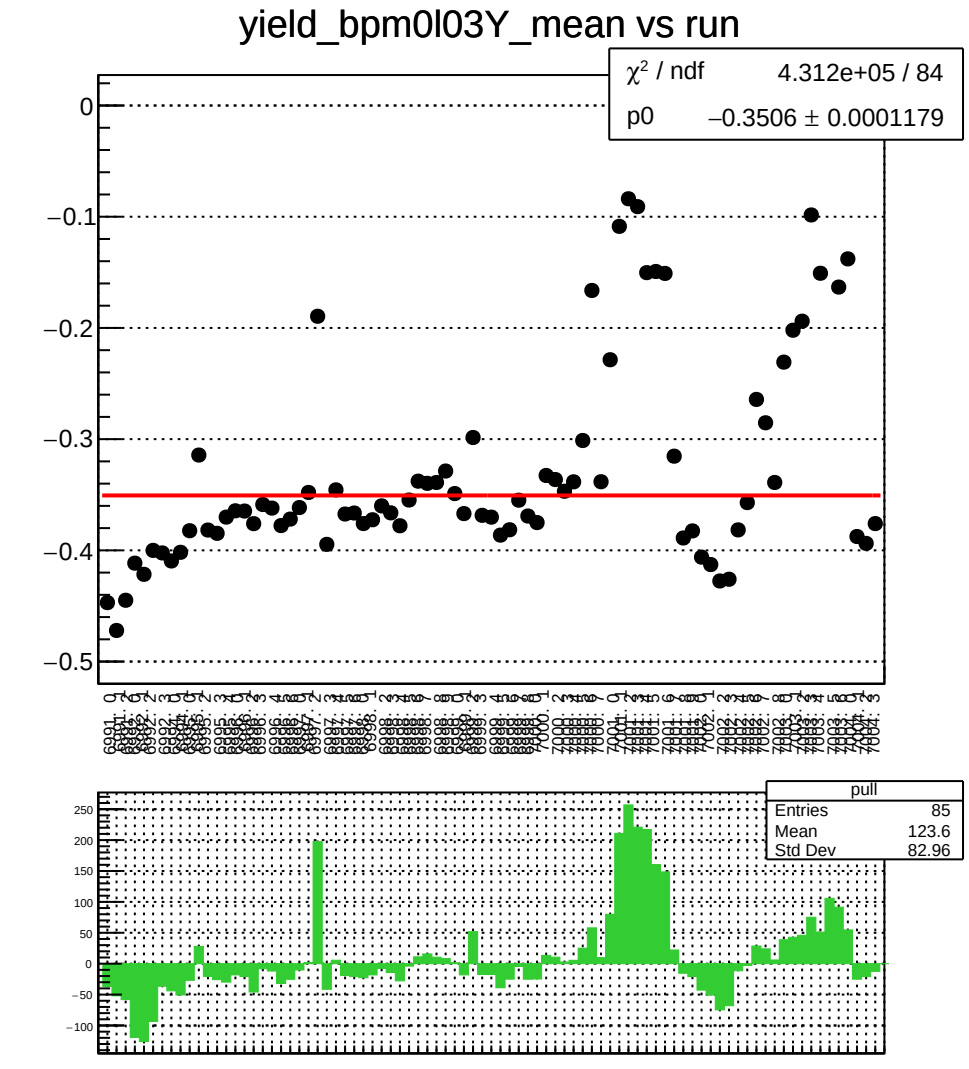

pull1D
Entries 85
Mean 6.834
Std Dev 0.5018
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

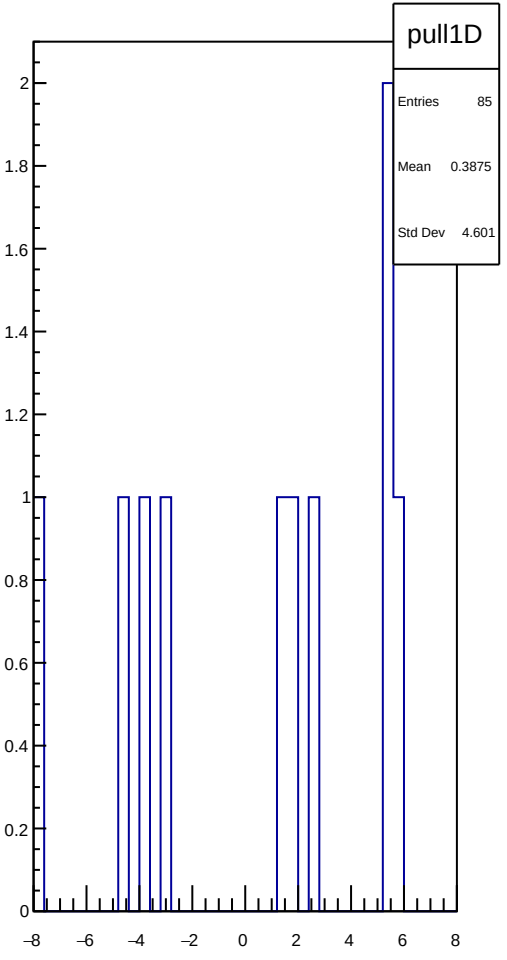

yield_bpm0l02Y_rms vs run
χ² / ndf 8.341e+04 / 84
p0 0.004443 ± 3.55e−06
0.035
0.03
0.025
0.02
0.015
0.01
0.005

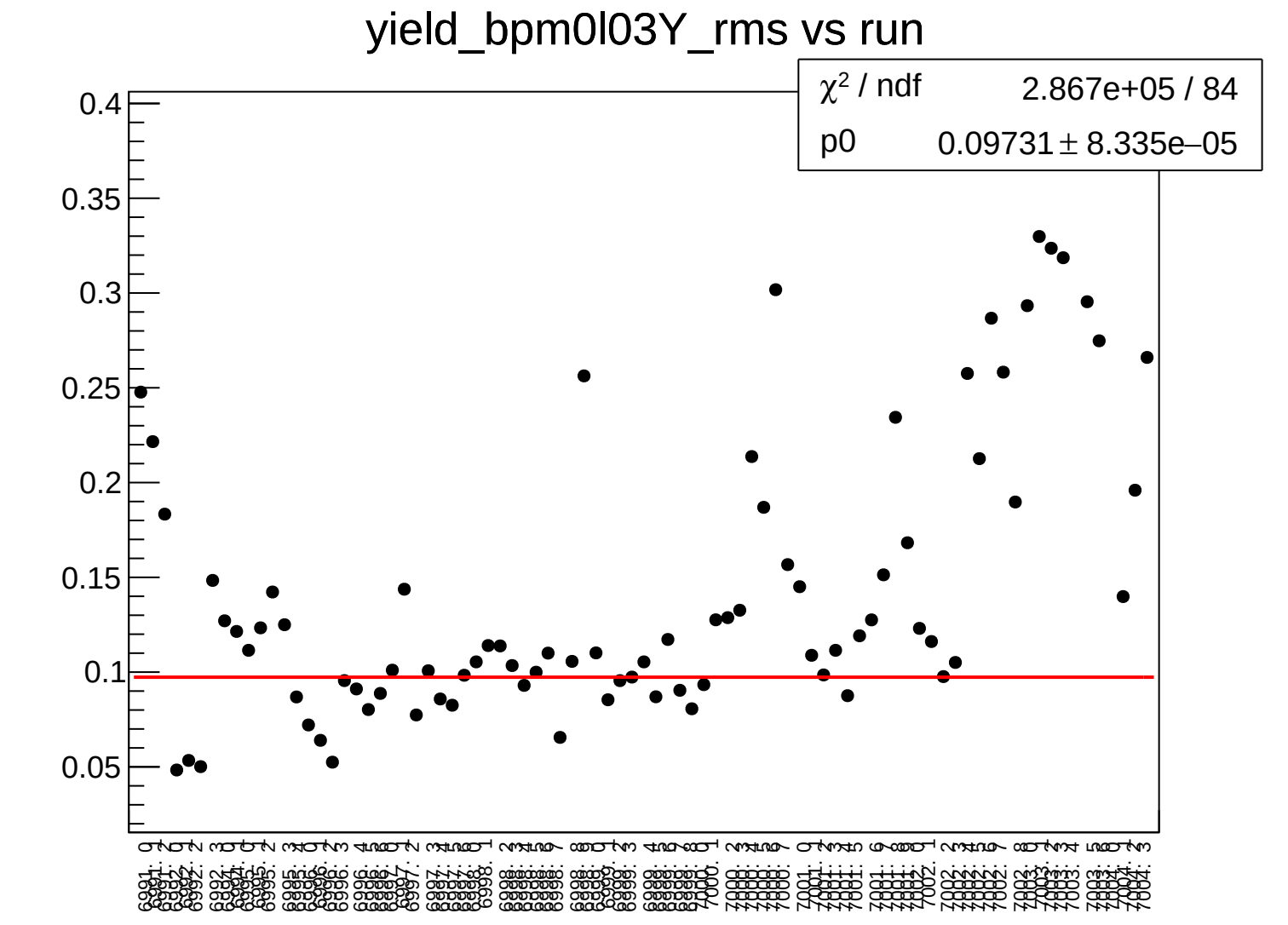

yield_bpm0l03X_mean vs run
χ² / ndf 1.916e+05 / 84
p0 −4.139 ± 0.0001153
−3.7
−3.8
−3.9
−4
−4.1
−4.2
pull
Entries 85
Mean 96.14
Std Dev 11.8
200
150
100
50
0
−50

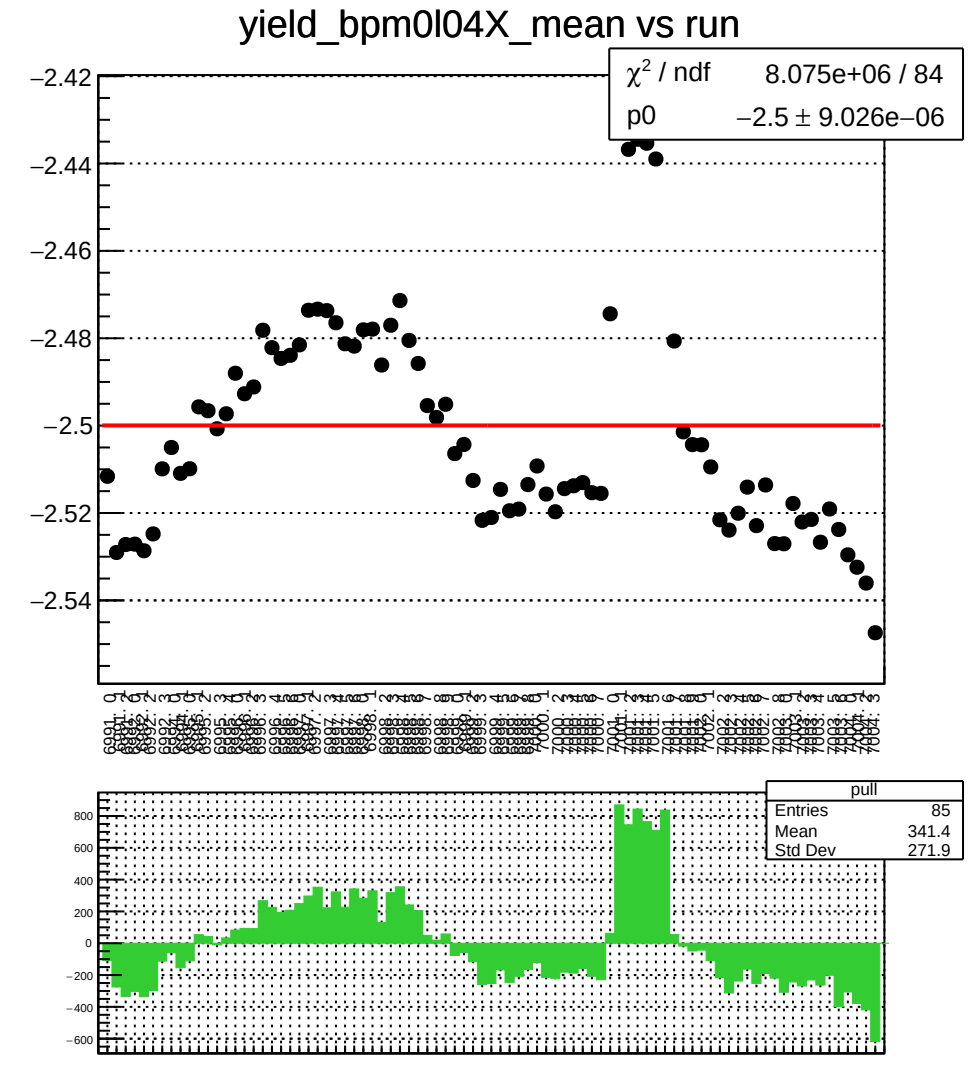

pull1D
Entries 85
Mean −0.5579
Std Dev 4.364
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

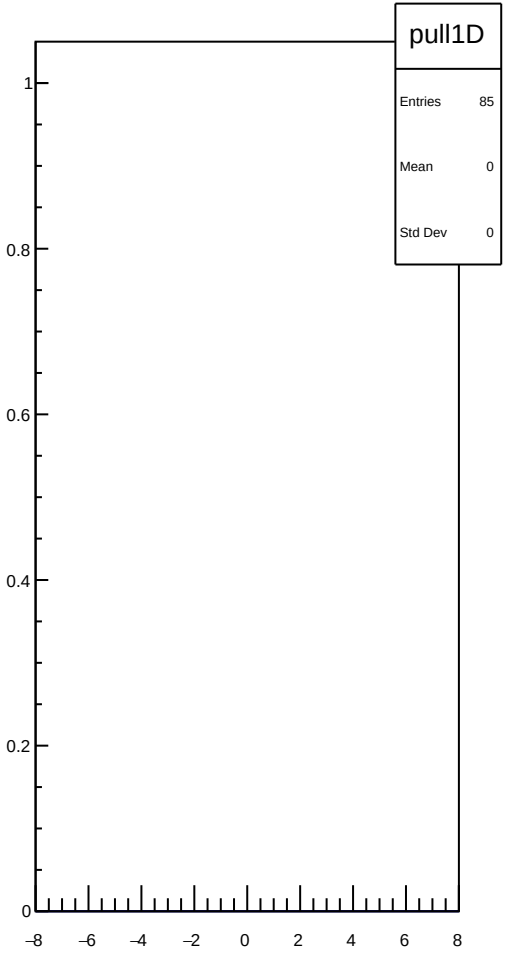

yield_bpm0l03X_rms vs run
χ² / ndf 2.931e+05 / 84
p0 0.09499 ± 8.155e−05
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

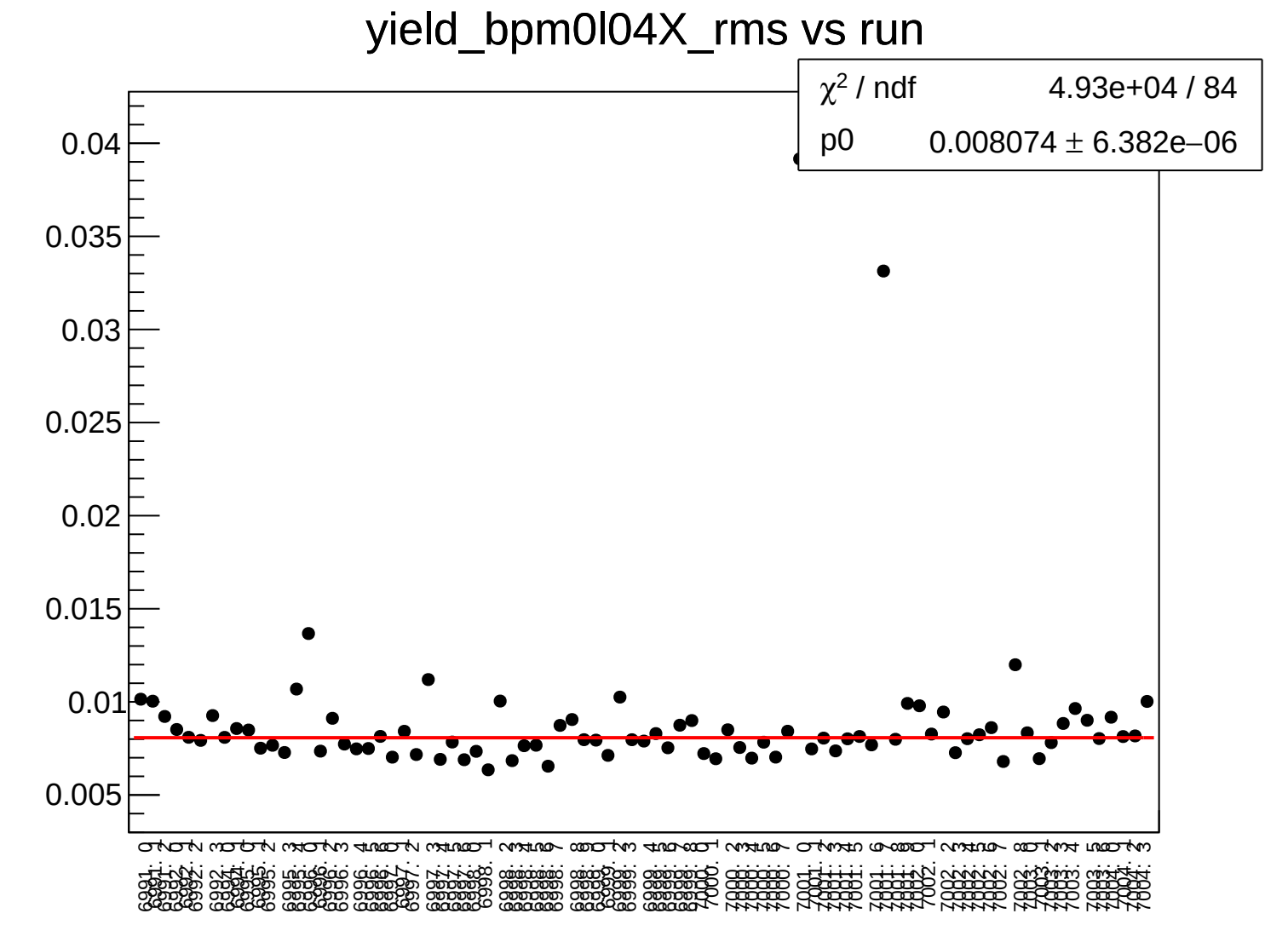

yield_bpm0l03Y_mean vs run
χ² / ndf 4.312e+05 / 84
p0 −0.3506 ± 0.0001179
pull
Entries 85
Mean 123.6
Std Dev 82.96

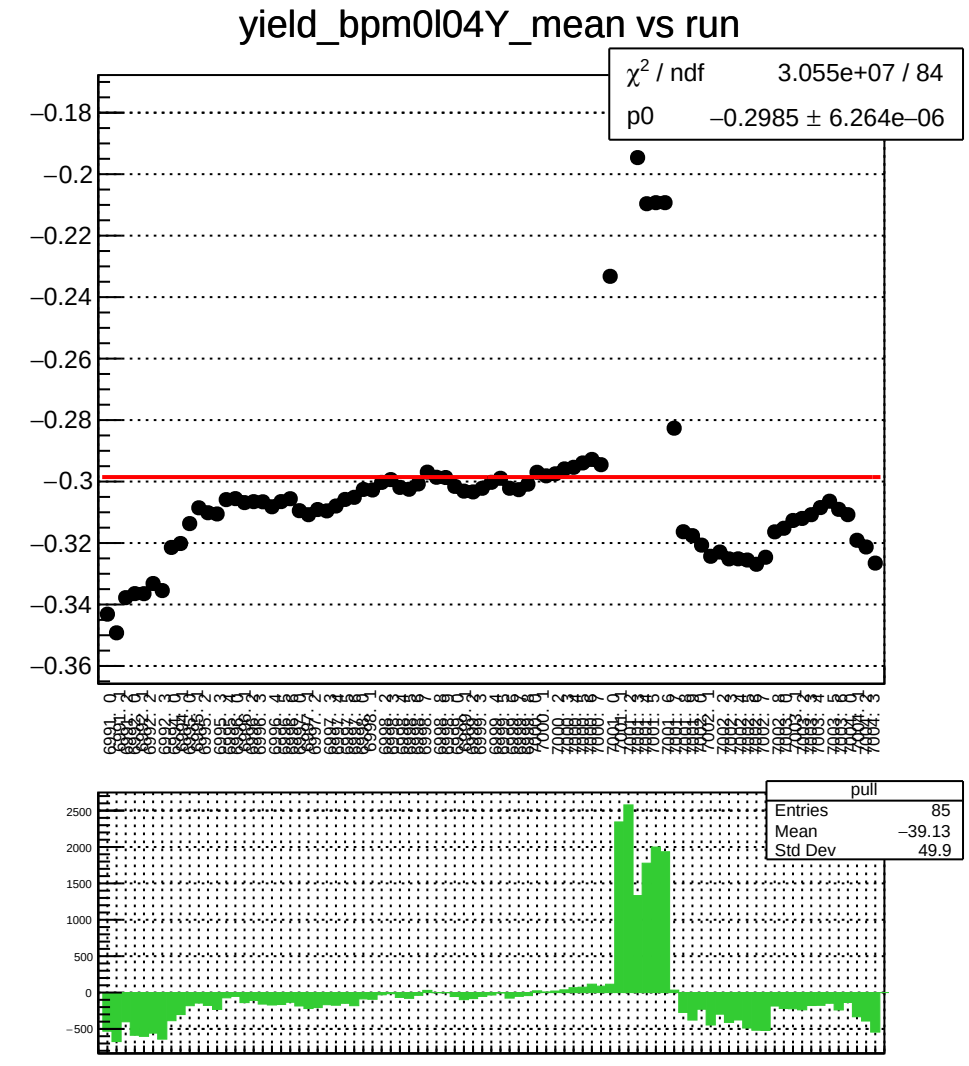

pull1D
Entries 85
Mean 0.3875
Std Dev 4.601

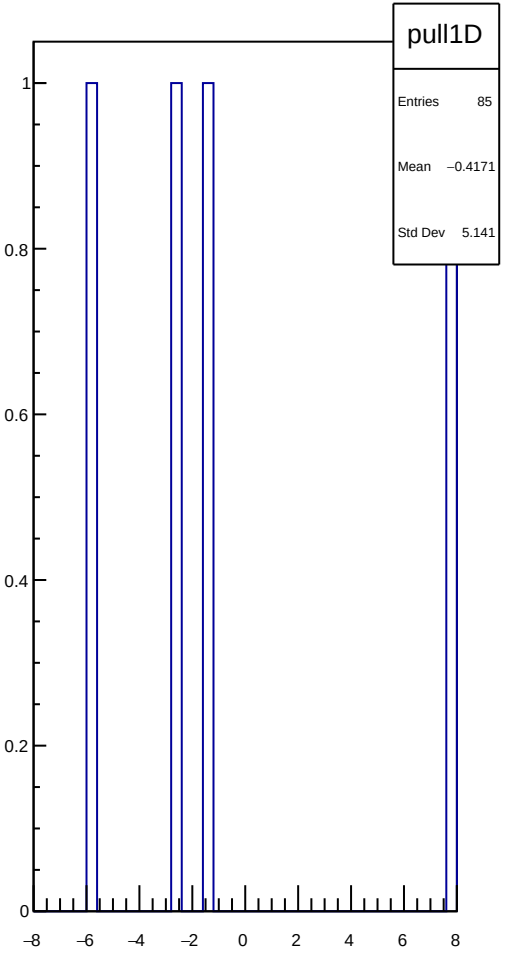

yield_bpm0l03Y_rms vs run
χ² / ndf 2.867e+05 / 84
p0 0.09731 ± 8.335e−05
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

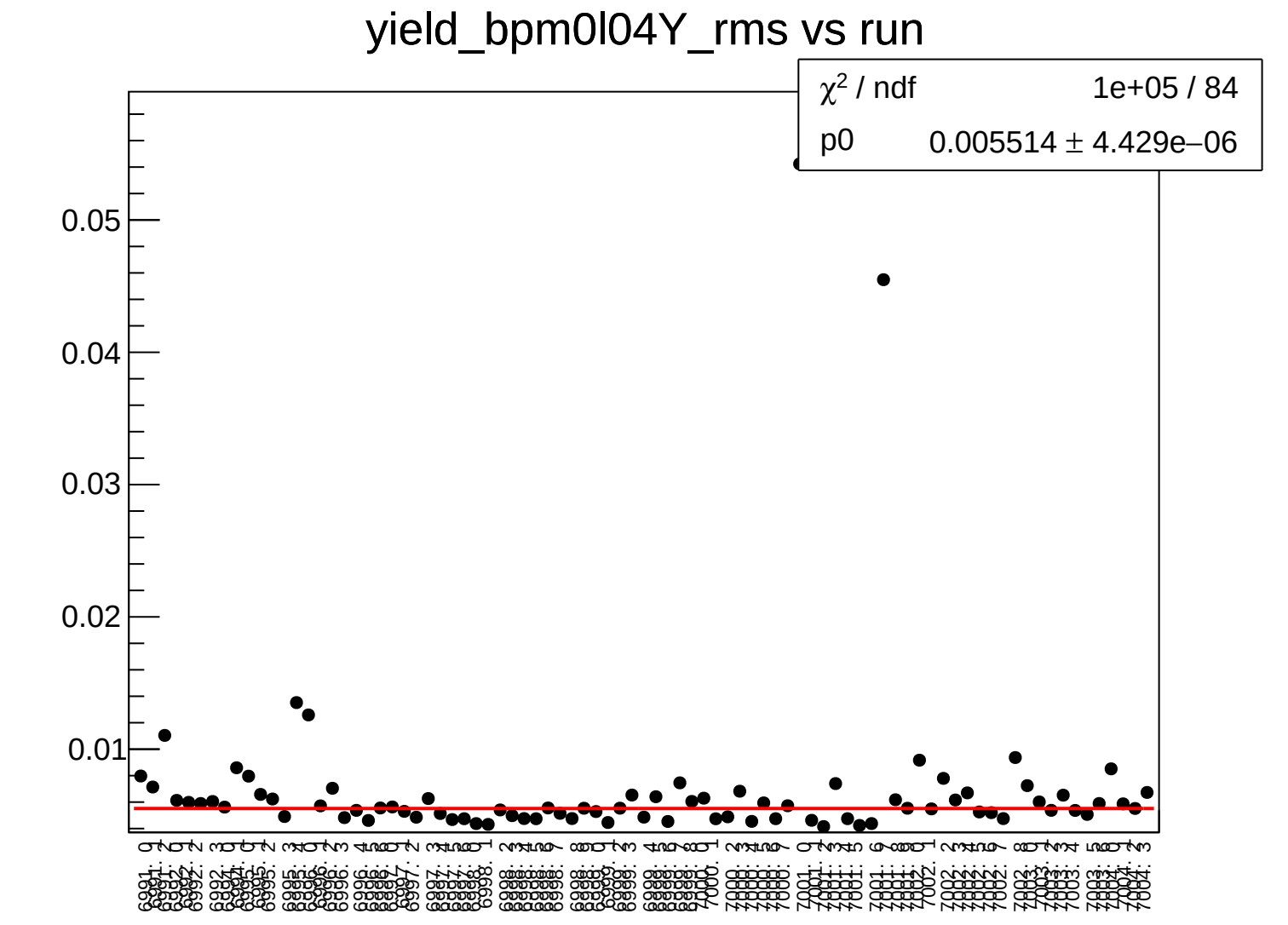

yield_bpm0l04X_mean vs run
χ² / ndf 8.075e+06 / 84
p0 −2.5 ± 9.026e−06
−2.42
−2.44
−2.46
−2.48
−2.5
−2.52
−2.54
pull
Entries 85
Mean 341.4
Std Dev 271.9
800
600
400
200
0
−200
−400
−600

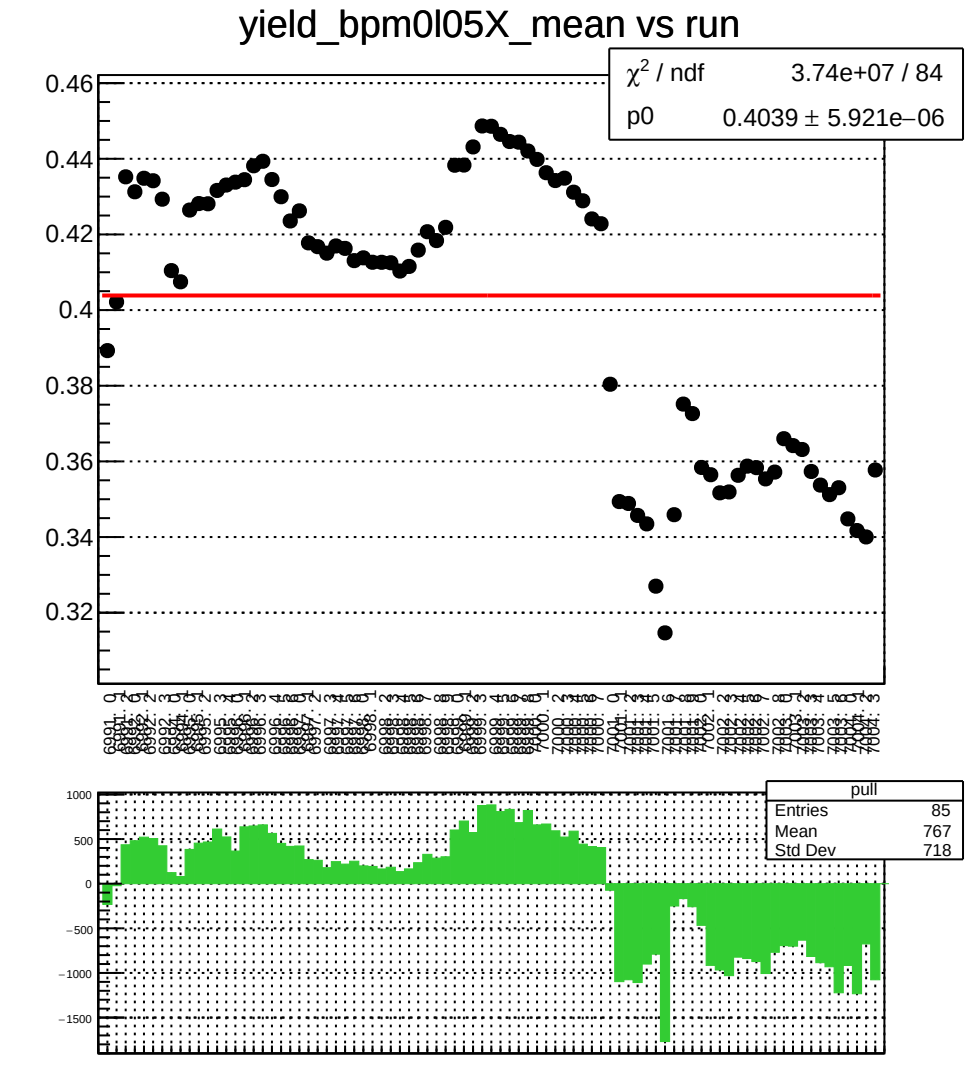

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

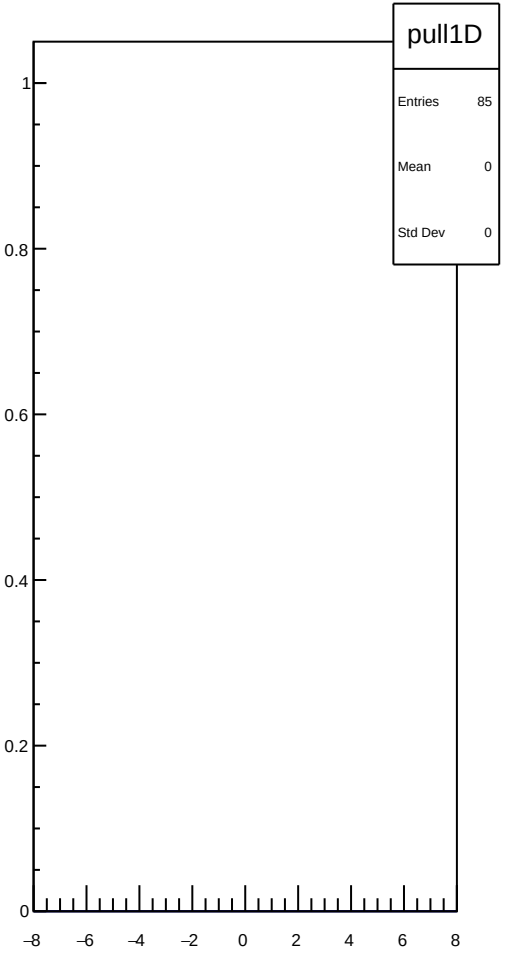

yield_bpm0l04X_rms vs run
χ² / ndf 4.93e+04 / 84
p0 0.008074 ± 6.382e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

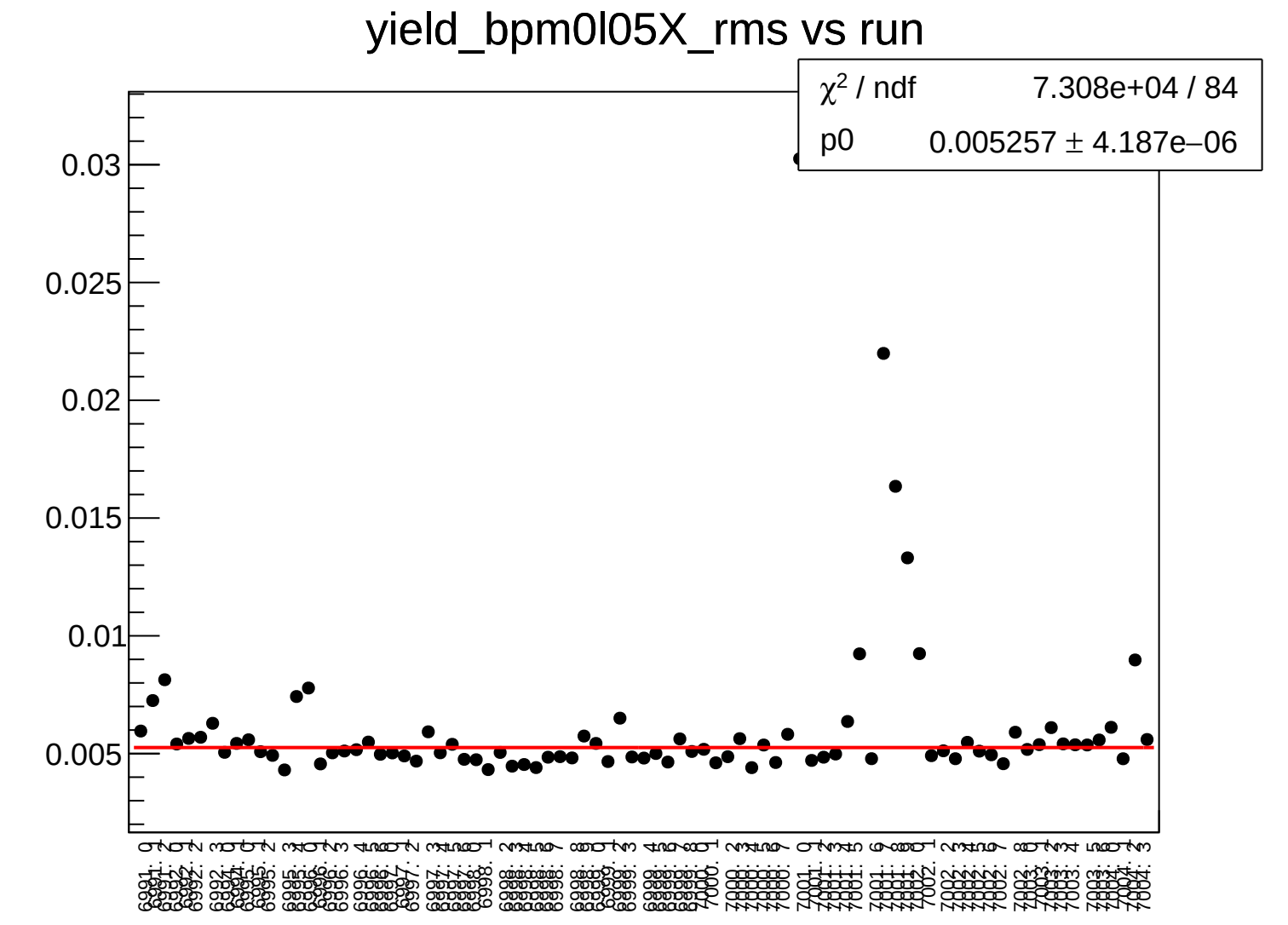

yield_bpm0l04Y_mean vs run
χ² / ndf 3.055e+07 / 84
p0 −0.2985 ± 6.264e−06
pull
Entries 85
Mean −39.13
Std Dev 49.9

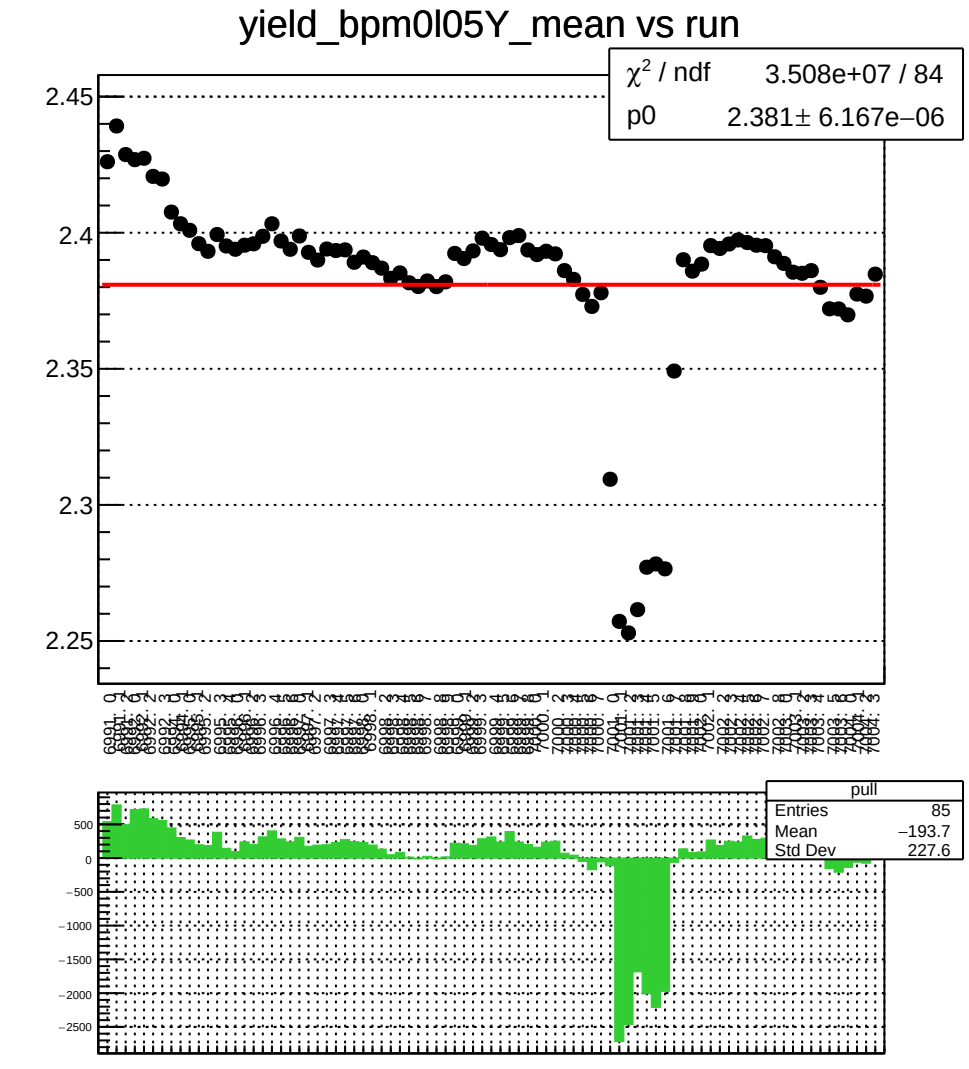

pull1D
Entries 85
Mean −0.4171
Std Dev 5.141

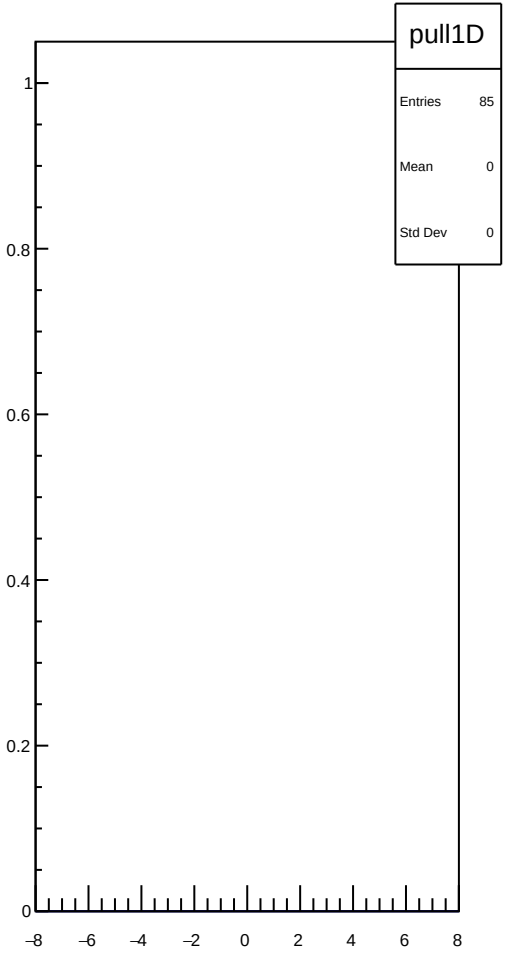

yield_bpm0l04Y_rms vs run
χ² / ndf 1e+05 / 84
p0 0.005514 ± 4.429e−06
0.05
0.04
0.03
0.02
0.01

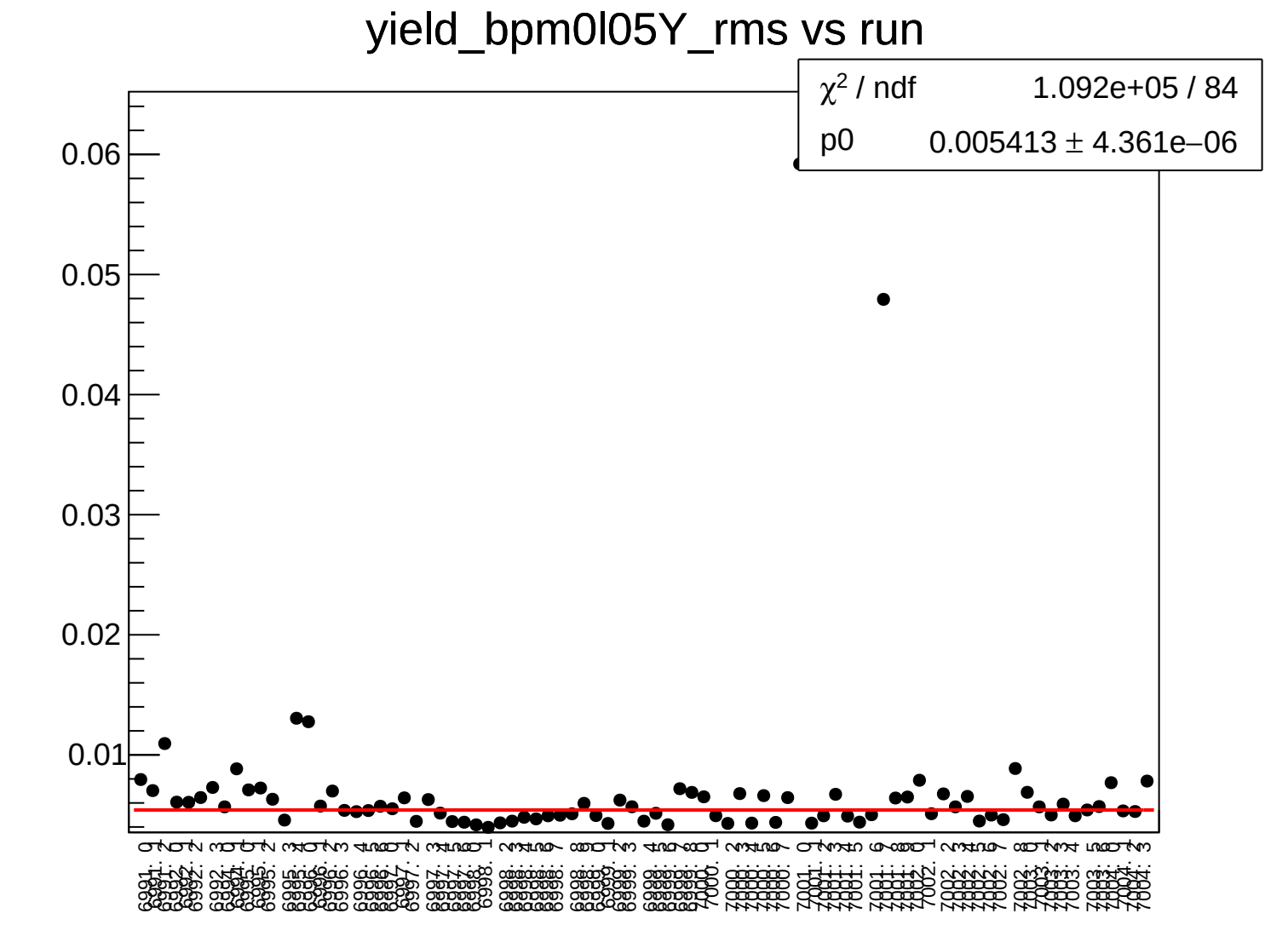

yield_bpm0l05X_mean vs run
χ² / ndf 3.74e+07 / 84
p0 0.4039 ± 5.921e−06
0.46
0.44
0.42
0.4
0.38
0.36
0.34
0.32
pull
Entries 85
Mean 767
Std Dev 718
1000
500
0
−500
−1000
−1500

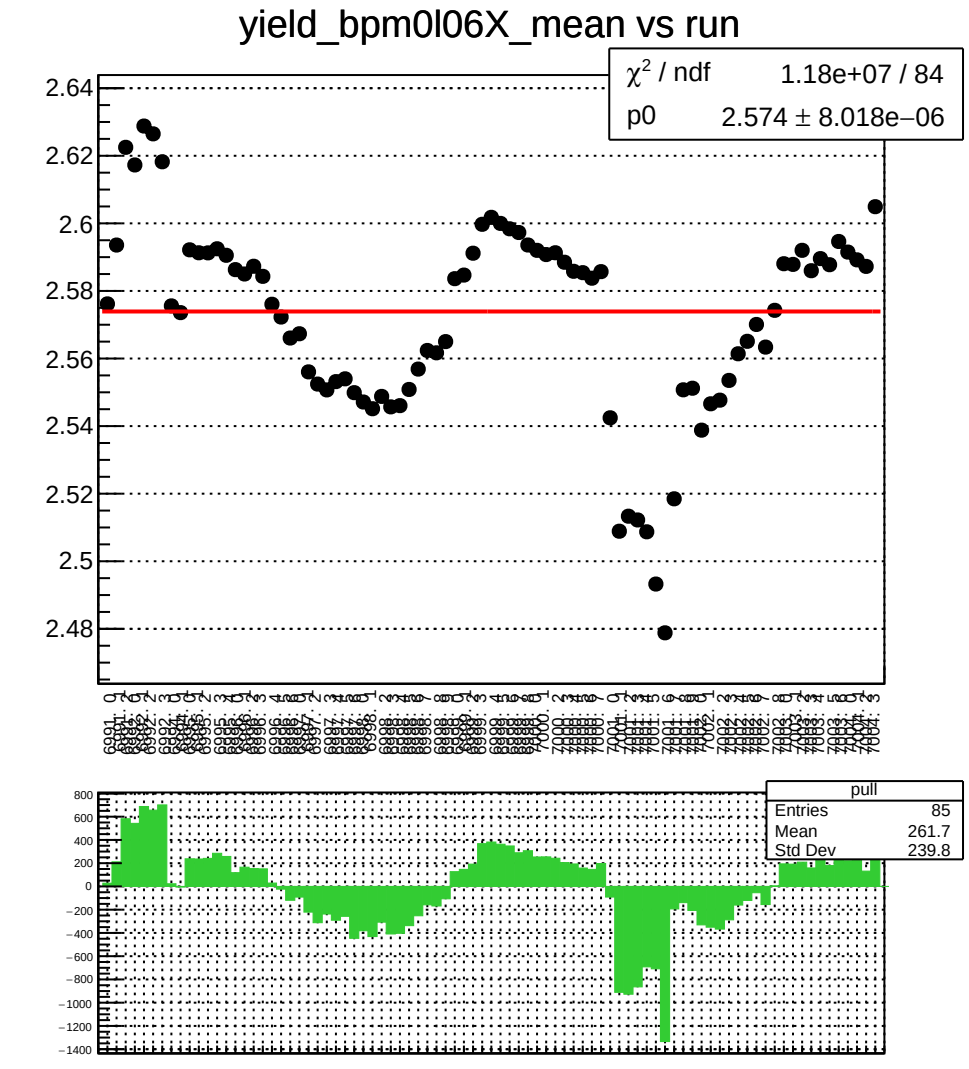

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

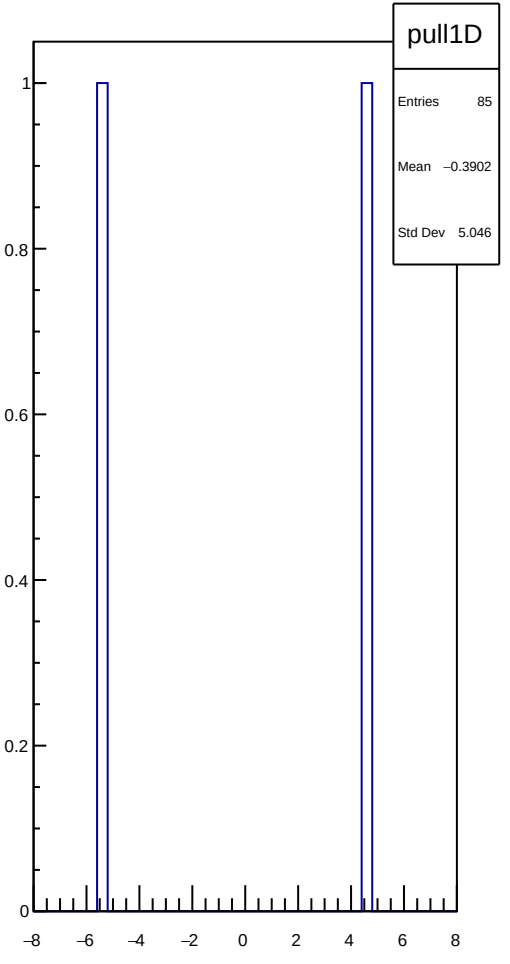

yield_bpm0l05X_rms vs run
χ² / ndf 7.308e+04 / 84
p0 0.005257 ± 4.187e−06
0.03
0.025
0.02
0.015
0.01
0.005

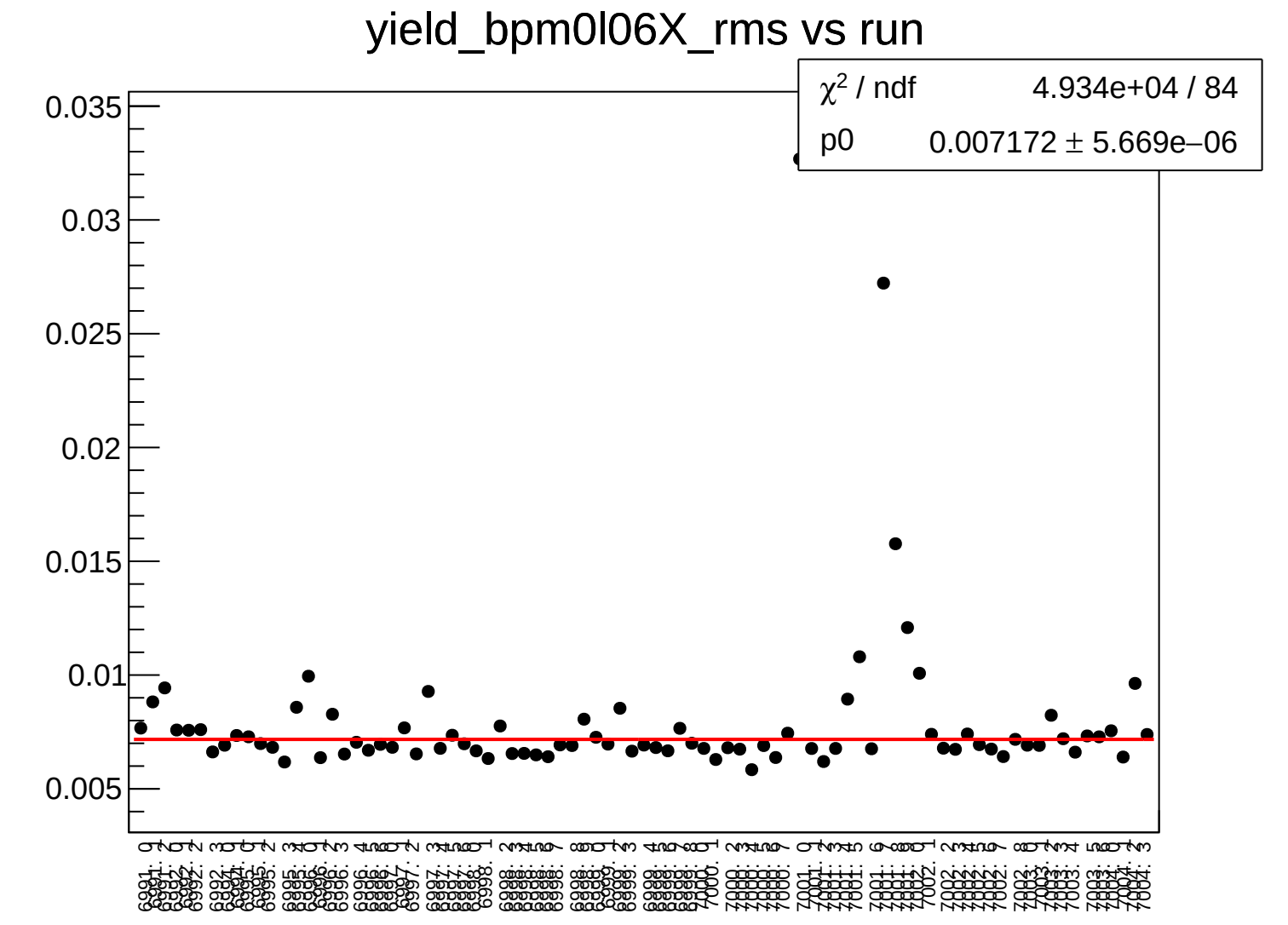

yield_bpm0l05Y_mean vs run
χ² / ndf 3.508e+07 / 84
p0 2.381± 6.167e−06
2.45
2.4
2.35
2.3
2.25
pull
Entries 85
Mean −193.7
Std Dev 227.6
500
0
−500
−1000
−1500
−2000
−2500

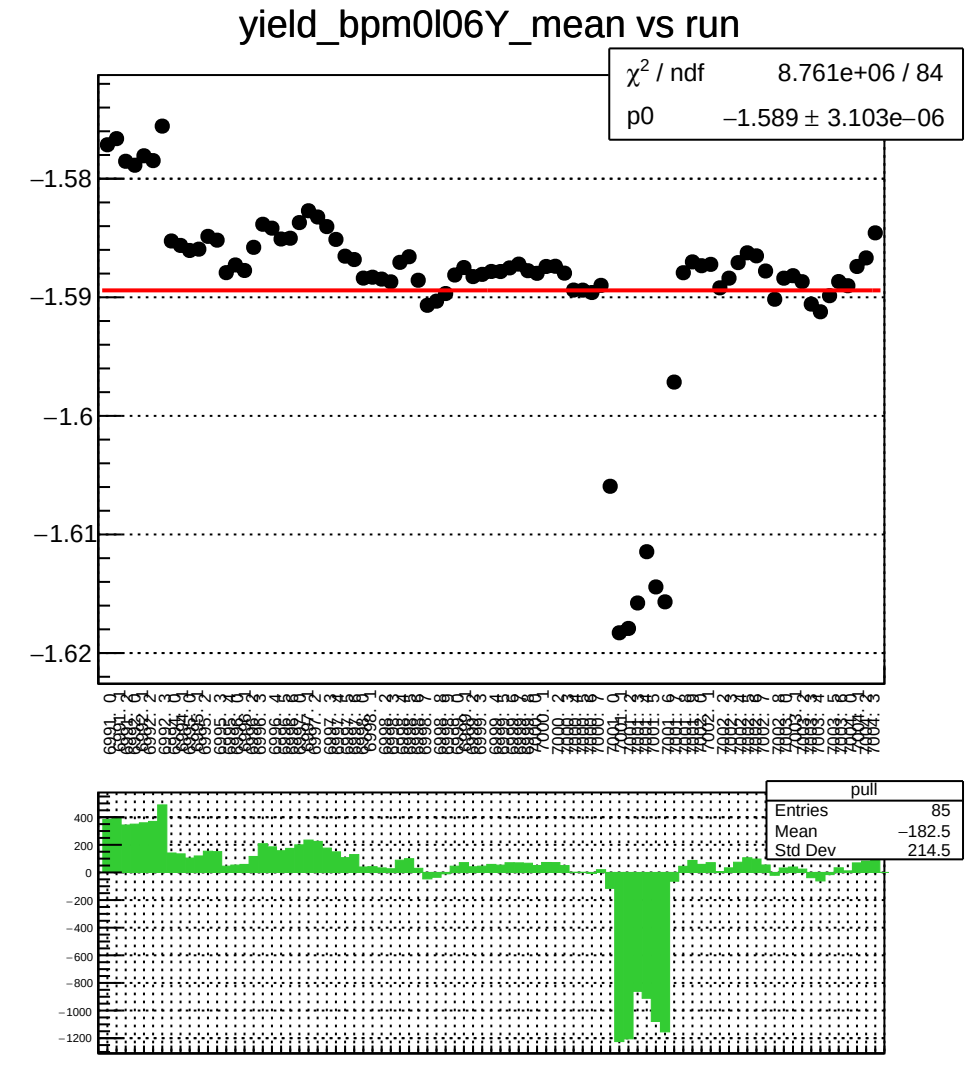

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

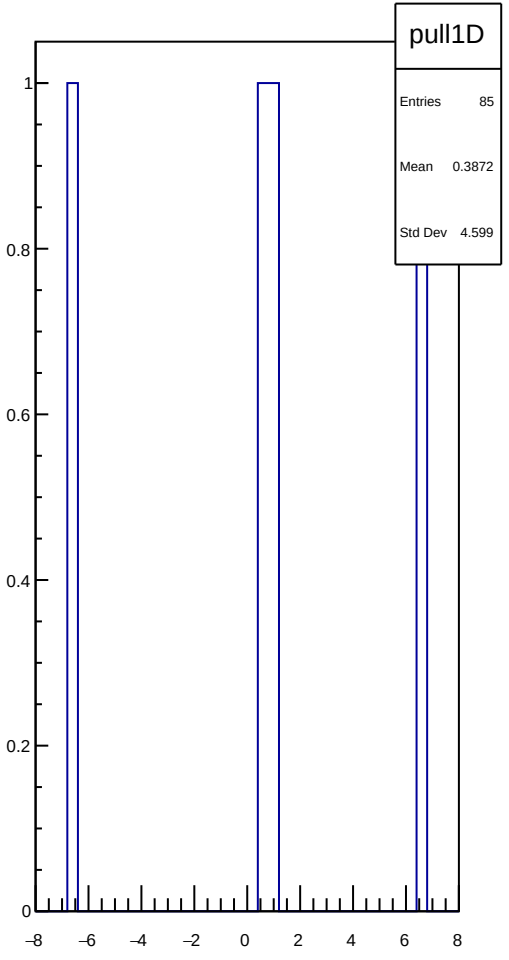

yield_bpm0l05Y_rms vs run
χ² / ndf 1.092e+05 / 84
p0 0.005413 ± 4.361e−06
0.06
0.05
0.04
0.03
0.02
0.01

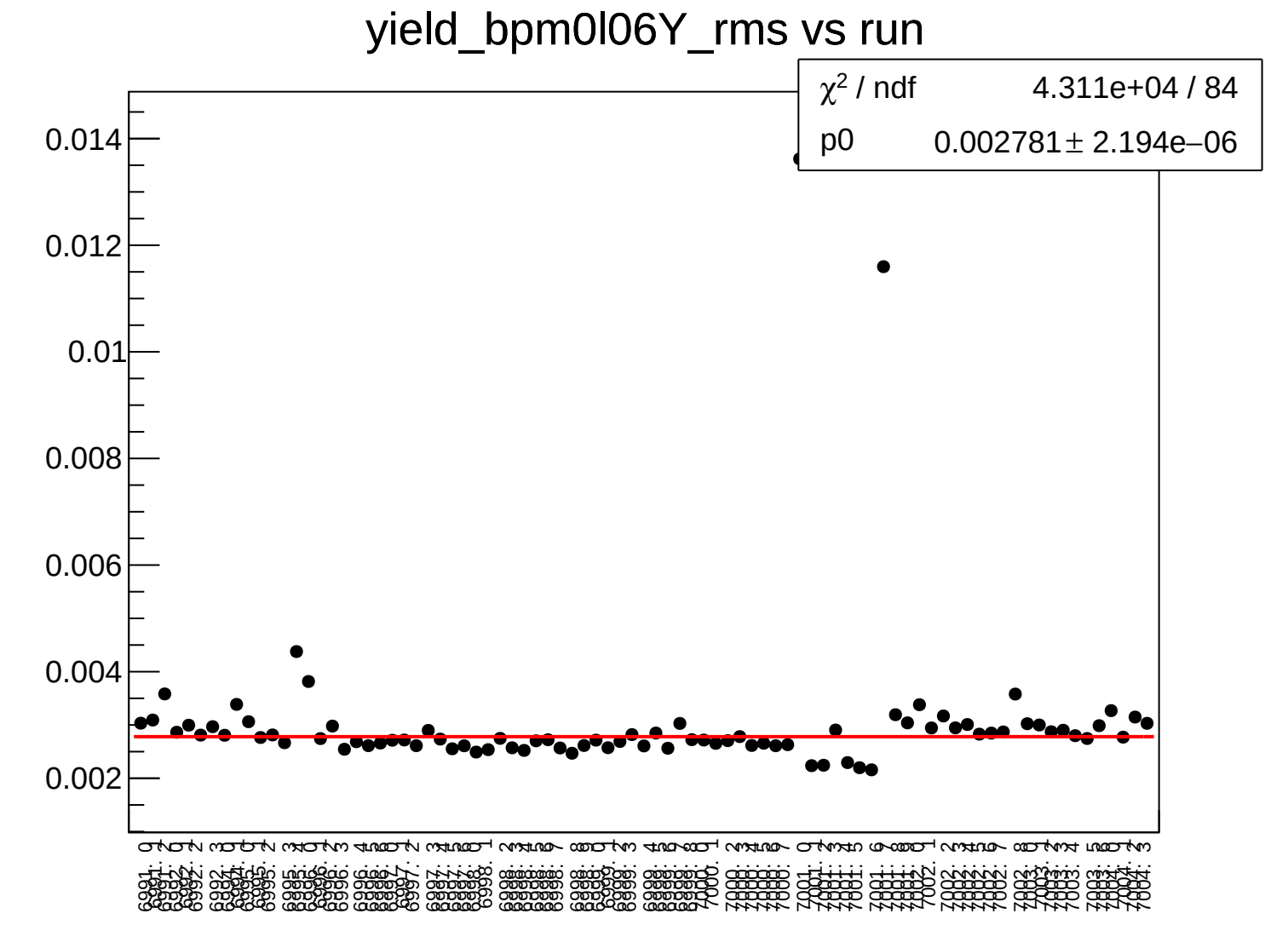

yield_bpm0l06X_mean vs run
χ² / ndf 1.18e+07 / 84
p0 2.574 ± 8.018e−06
2.64
2.62
2.6
2.58
2.56
2.54
2.52
2.5
2.48
pull
Entries 85
Mean 261.7
Std Dev 239.8
800
600
400
200
0
−200
−400
−600
−800
−1000
−1200
−1400

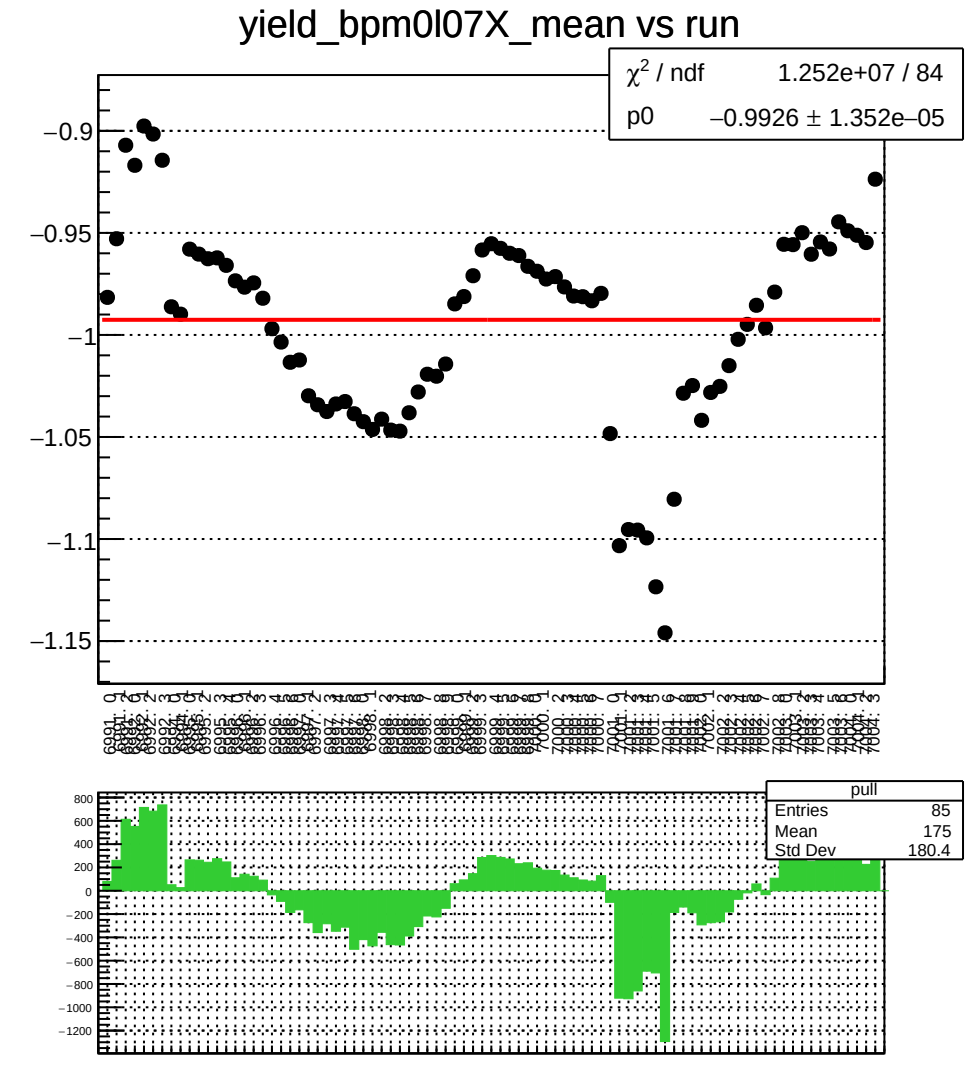

pull1D
Entries 85
Mean −0.3902
Std Dev 5.046
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

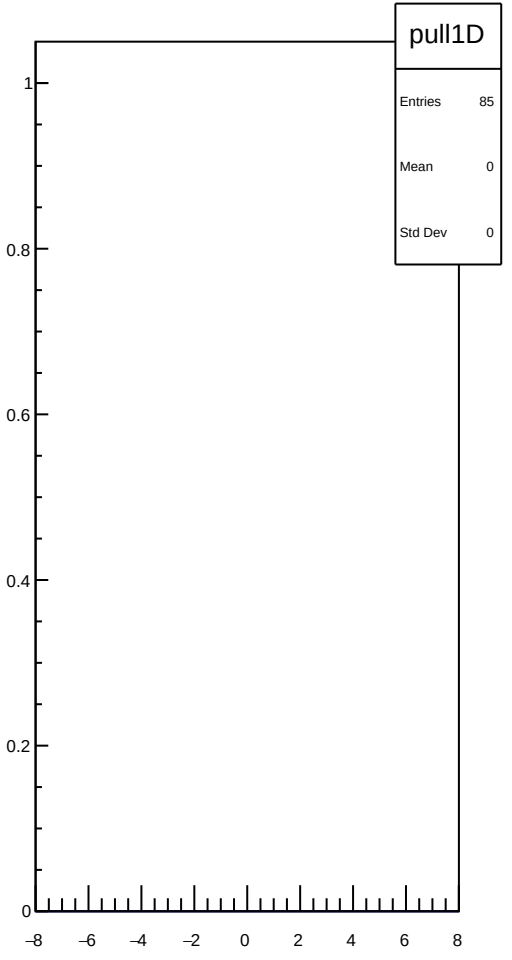

yield_bpm0l06X_rms vs run
χ² / ndf 4.934e+04 / 84
p0 0.007172 ± 5.669e−06
0.035
0.03
0.025
0.02
0.015
0.01
0.005

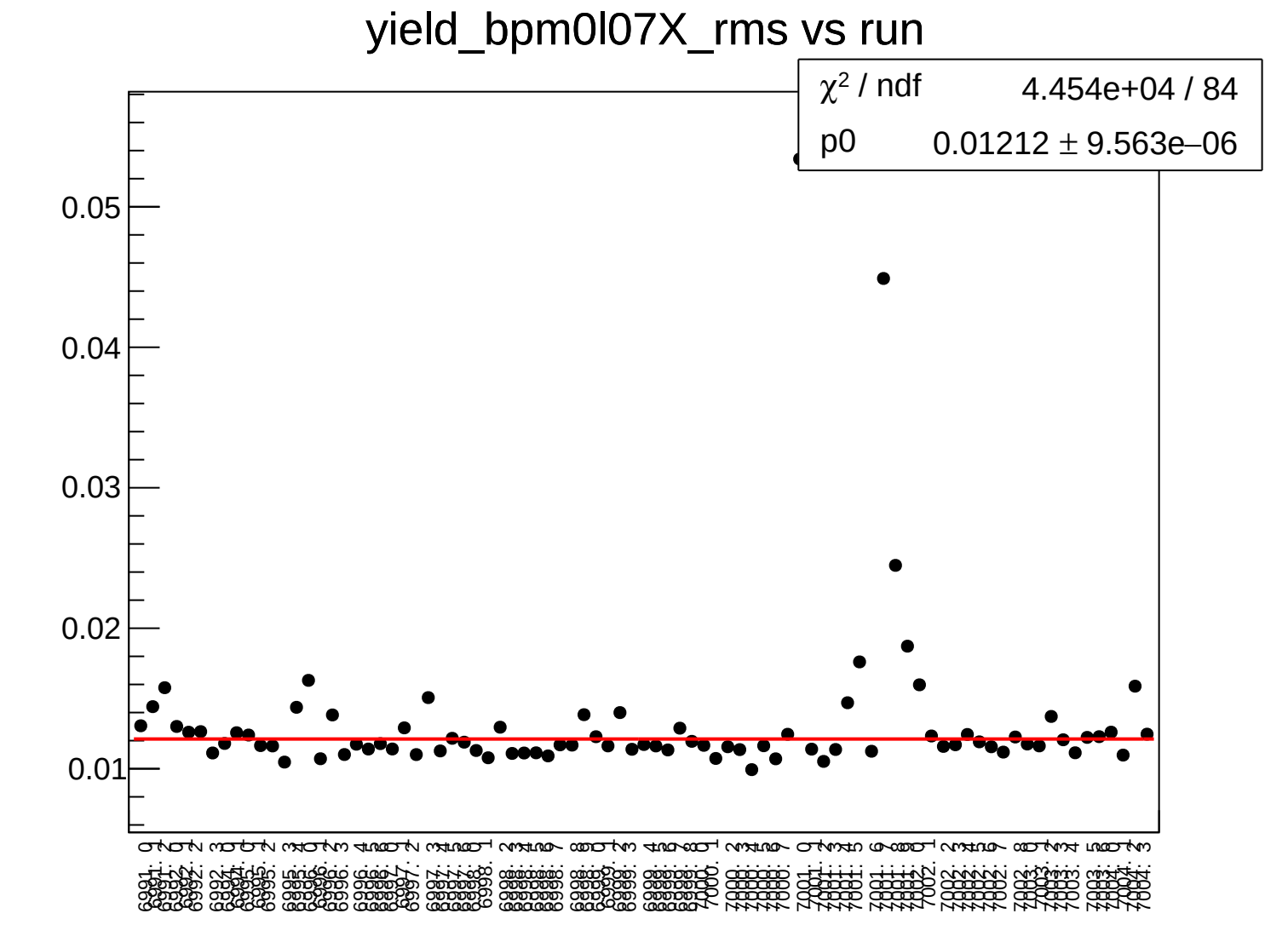

yield_bpm0l06Y_mean vs run
χ² / ndf 8.761e+06 / 84
p0 −1.589 ± 3.103e−06
−1.58
−1.59
−1.6
−1.61
−1.62
pull
Entries 85
Mean −182.5
Std Dev 214.5
400
200
0
−200
−400
−600
−800
−1000
−1200

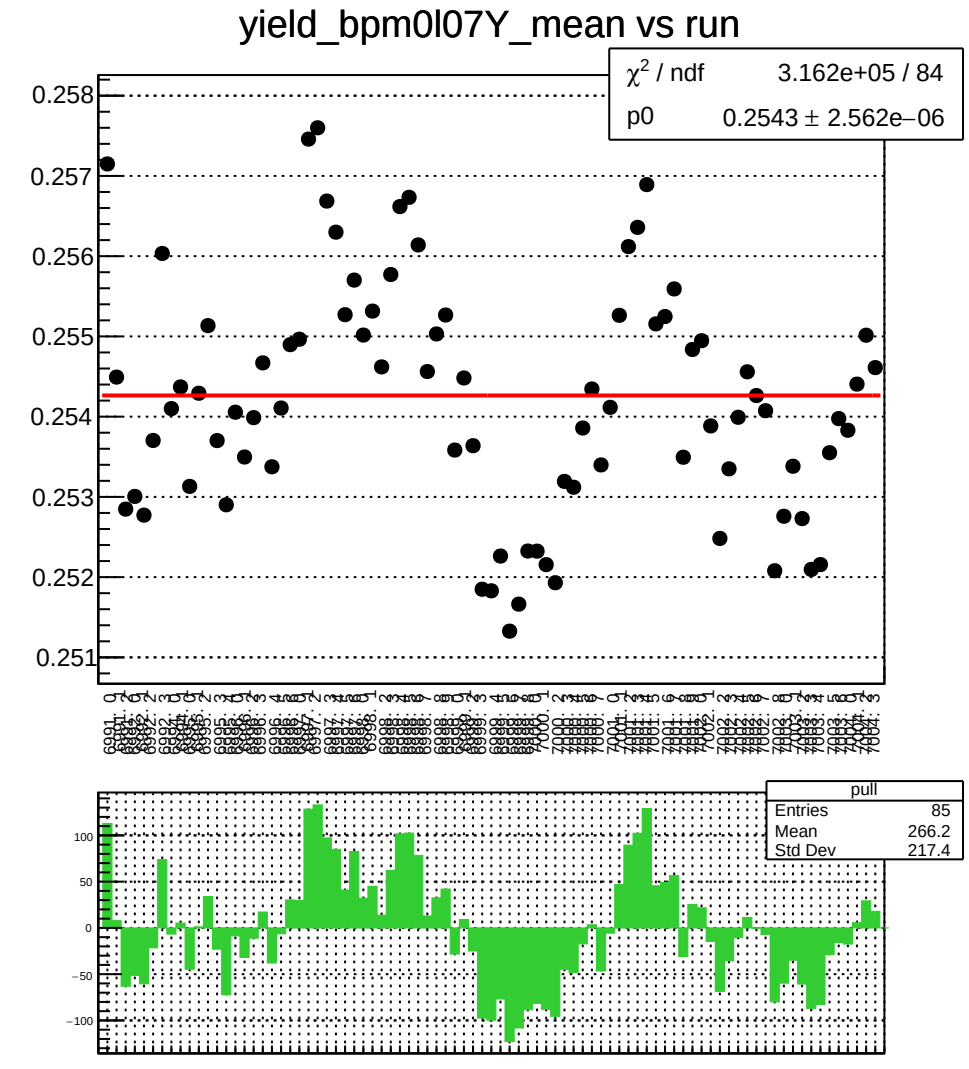

pull1D
Entries 85
Mean 0.3872
Std Dev 4.599
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

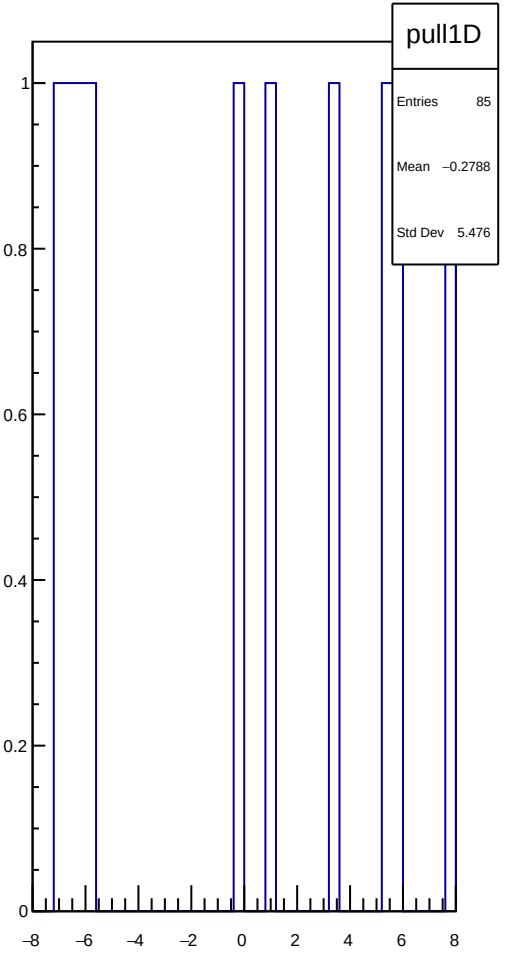

yield_bpm0l06Y_rms vs run
χ² / ndf 4.311e+04 / 84
p0 0.002781 ± 2.194e−06
0.014
0.012
0.01
0.008
0.006
0.004
0.002

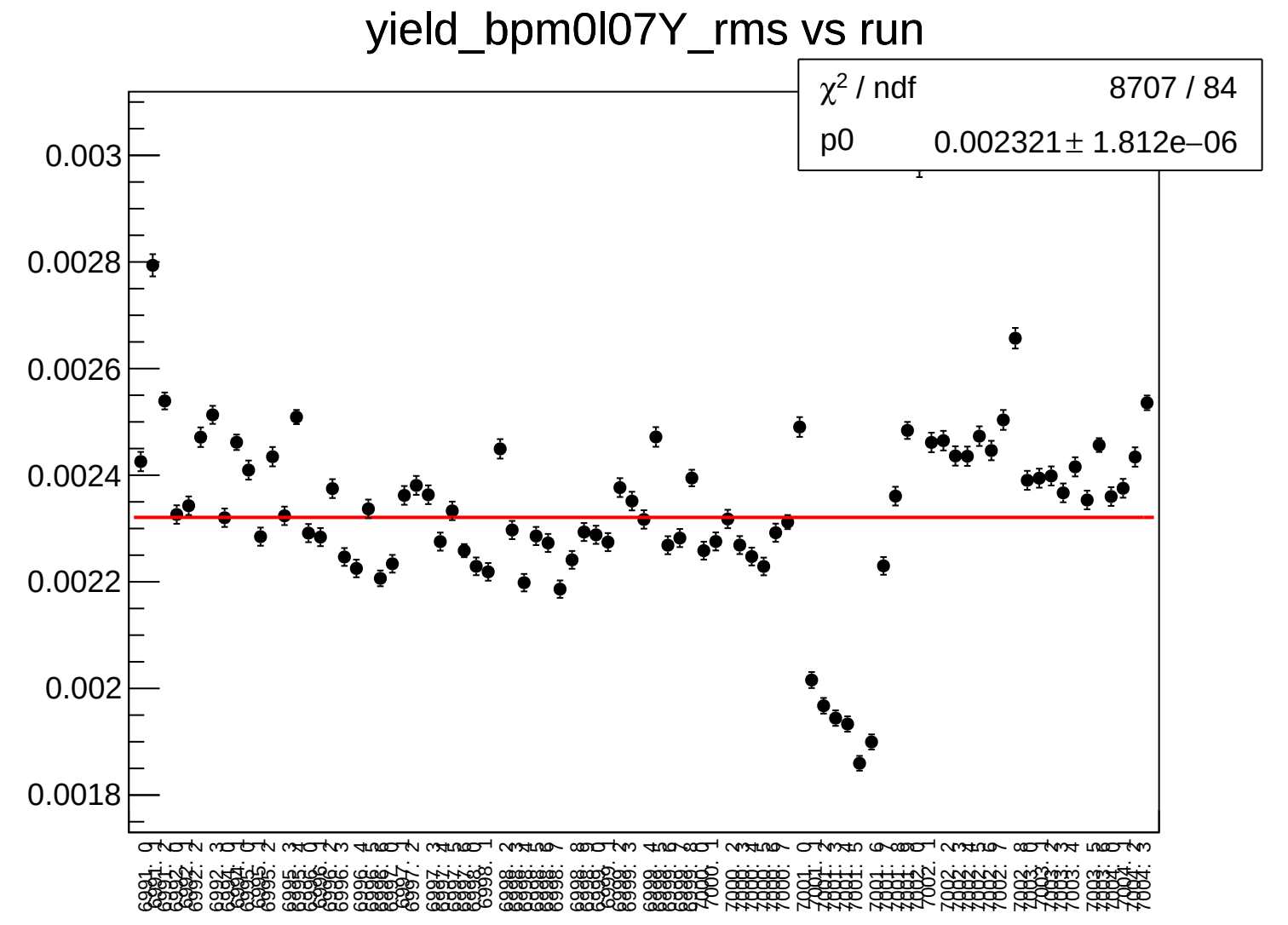

yield_bpm0l07X_mean vs run
χ² / ndf 1.252e+07 / 84
p0 −0.9926 ± 1.352e−05
−0.9
−0.95
−1
−1.05
−1.1
−1.15
pull
Entries 85
Mean 175
Std Dev 180.4
800
600
400
200
0
−200
−400
−600
−800
−1000
−1200

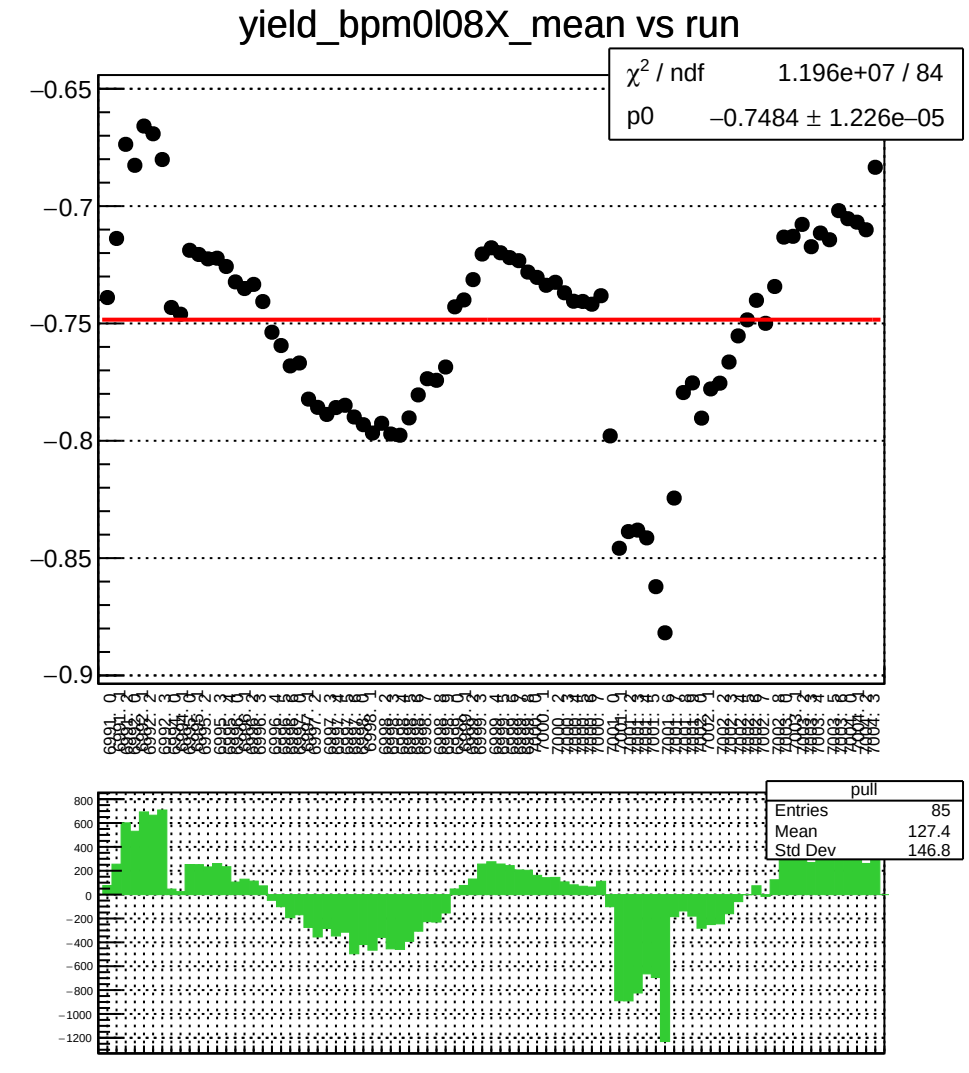

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

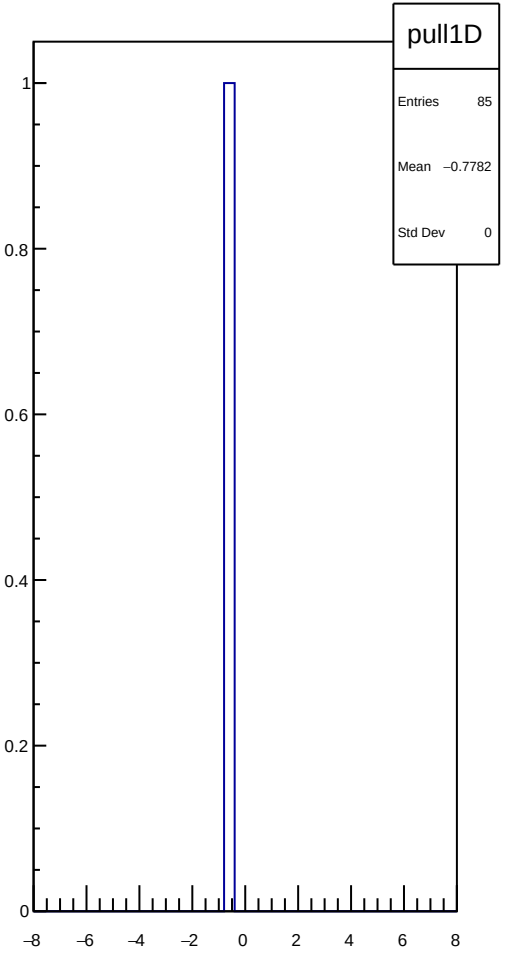

yield_bpm0l07X_rms vs run
χ² / ndf 4.454e+04 / 84
p0 0.01212 ± 9.563e–06
0.05
0.04
0.03
0.02
0.01

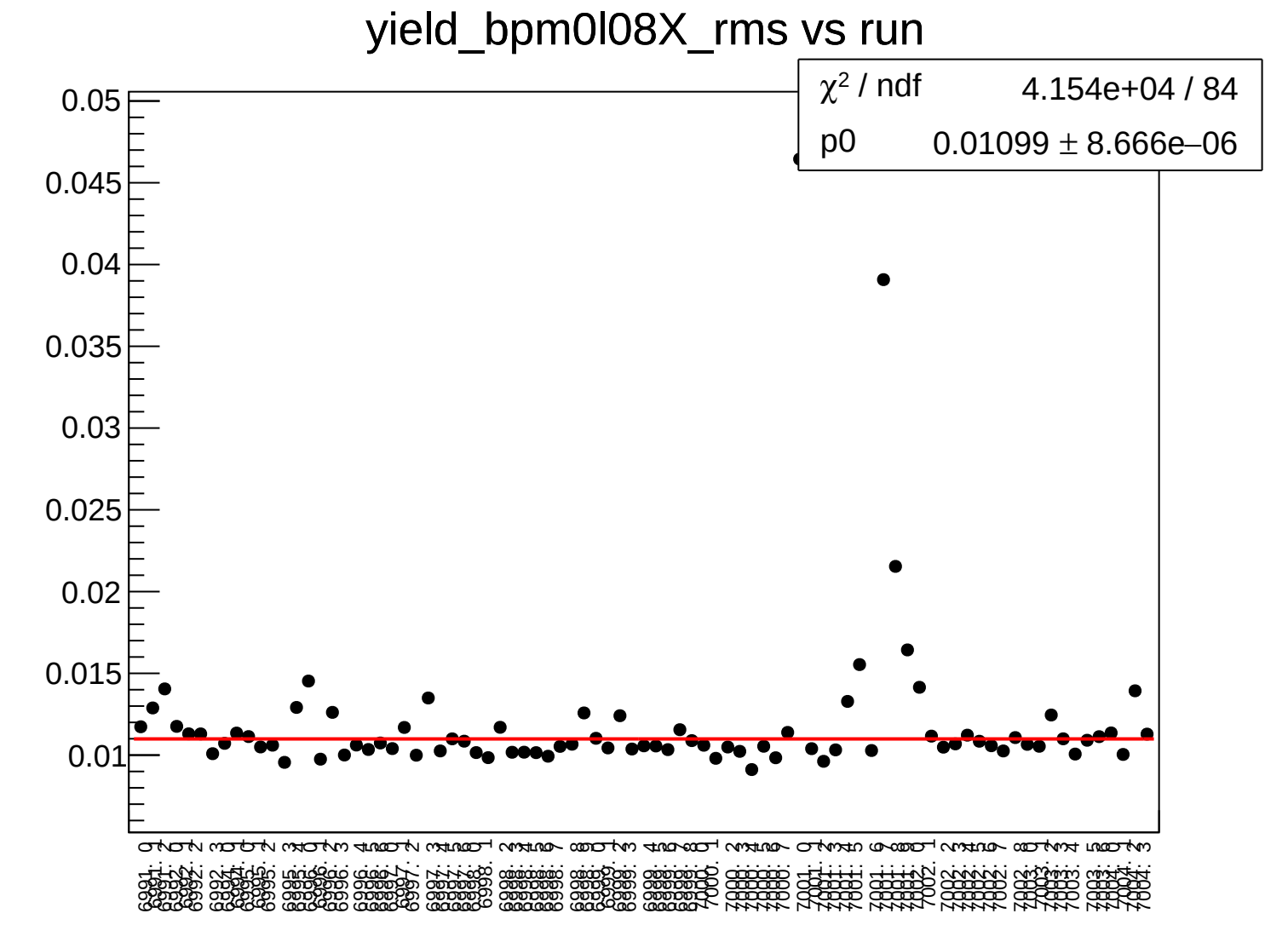

yield_bpm0l07Y_mean vs run
χ² / ndf 3.162e+05 / 84
p0 0.2543 ± 2.562e−06
0.258
0.257
0.256
0.255
0.254
0.253
0.252
0.251
pull
Entries 85
Mean 266.2
Std Dev 217.4
100
50
0
−50
−100

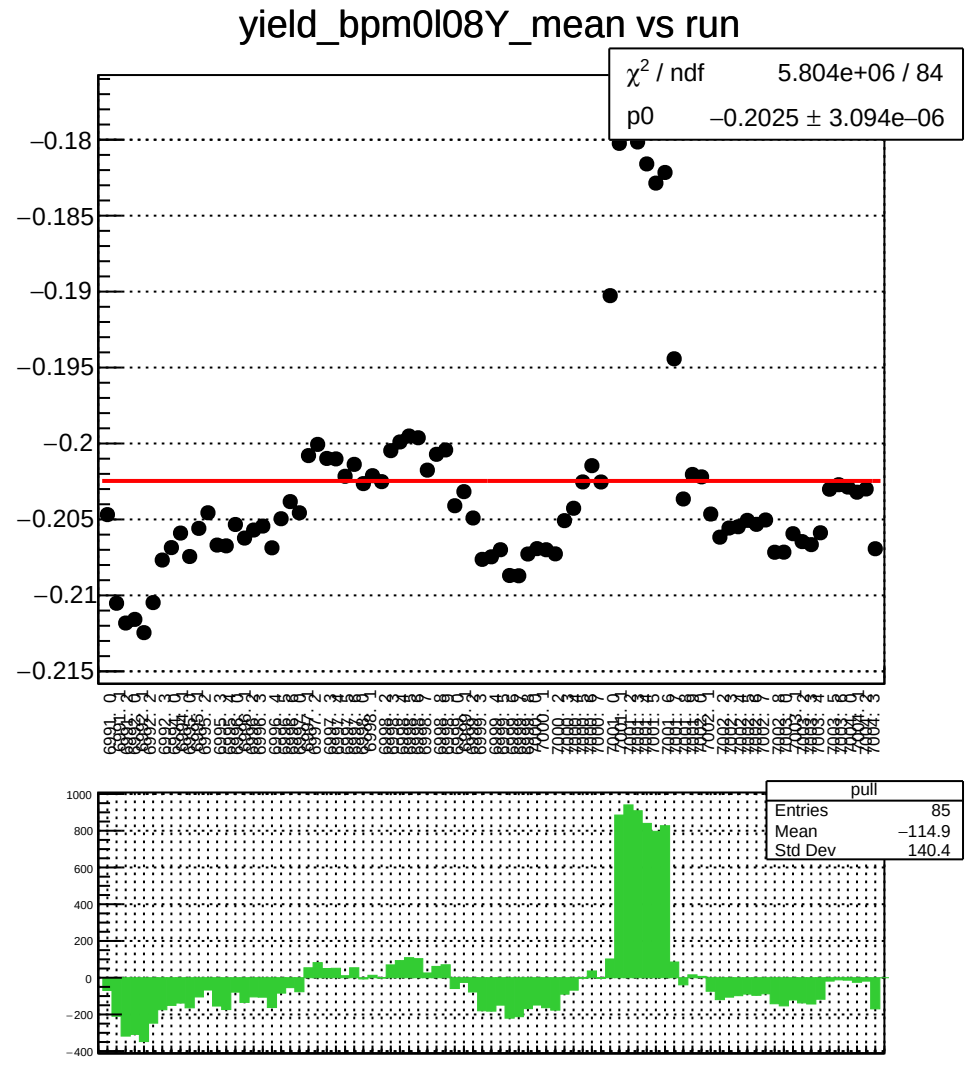

pull1D
Entries 85
Mean −0.2788
Std Dev 5.476
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

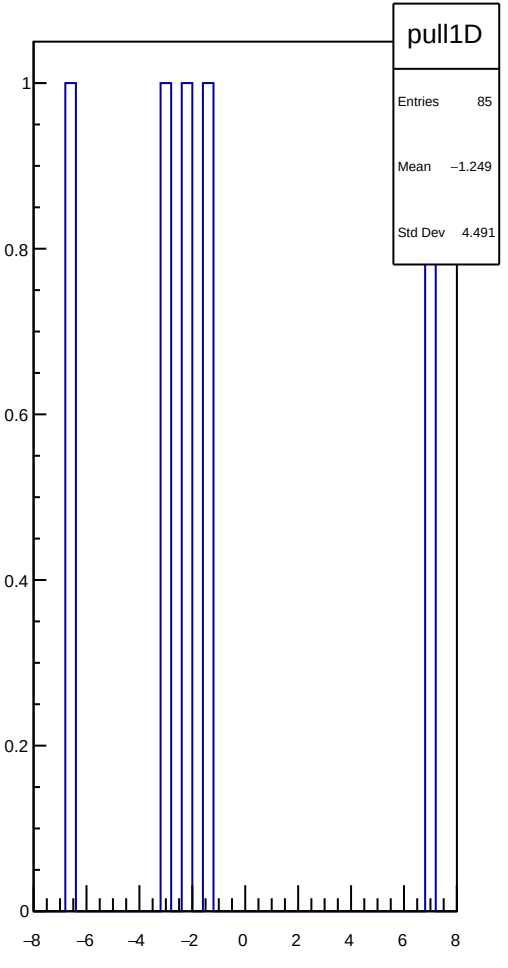

yield_bpm0l07Y_rms vs run
χ² / ndf 8707 / 84
p0 0.002321 ± 1.812e−06
0.003
0.0028
0.0026
0.0024
0.0022
0.002
0.0018

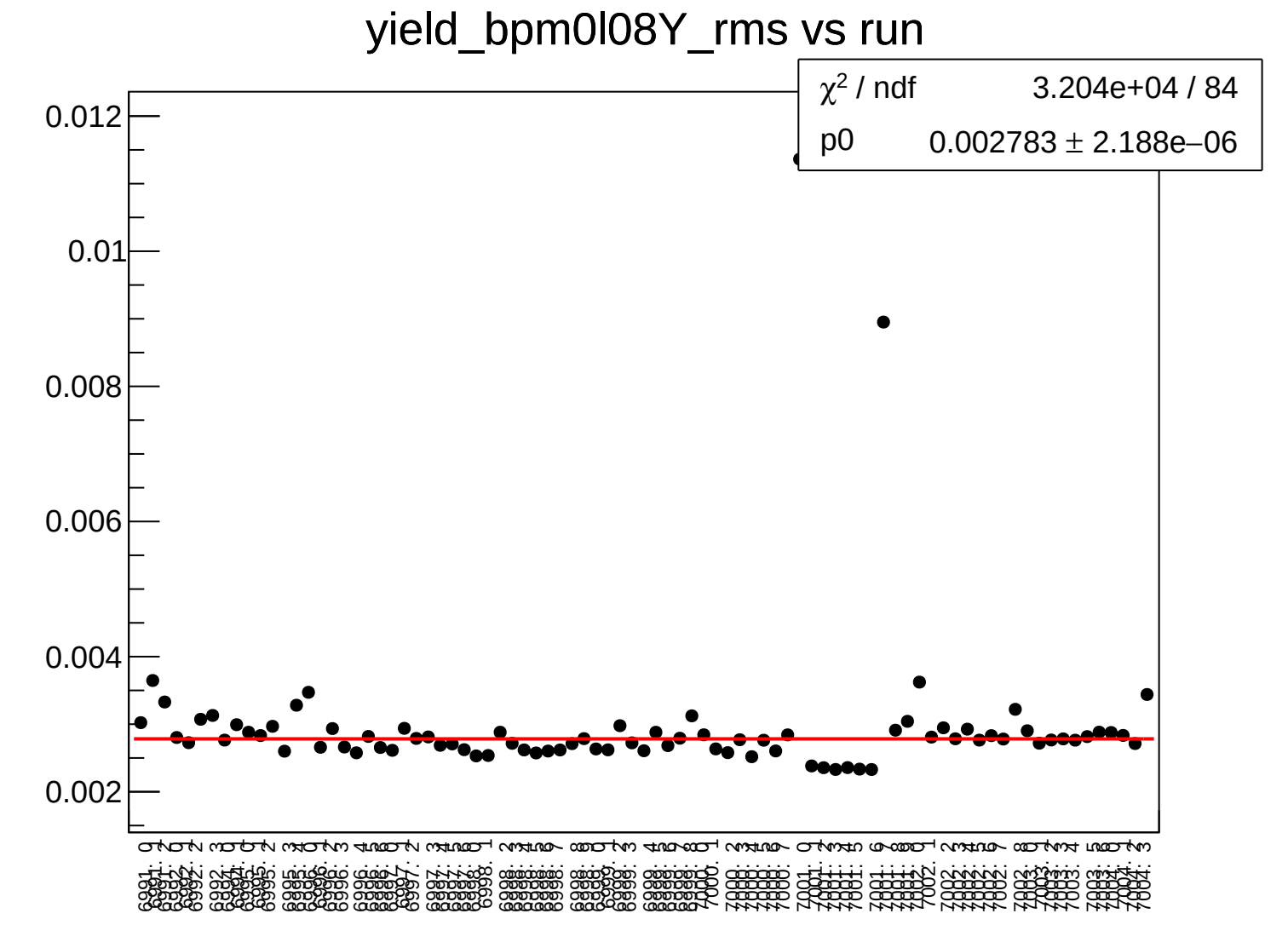

yield_bpm0l08X_mean vs run
χ² / ndf 1.196e+07 / 84
p0 −0.7484 ± 1.226e−05
−0.65
−0.7
−0.75
−0.8
−0.85
−0.9
pull
Entries 85
Mean 127.4
Std Dev 146.8
800
600
400
200
0
−200
−400
−600
−800
−1000
−1200

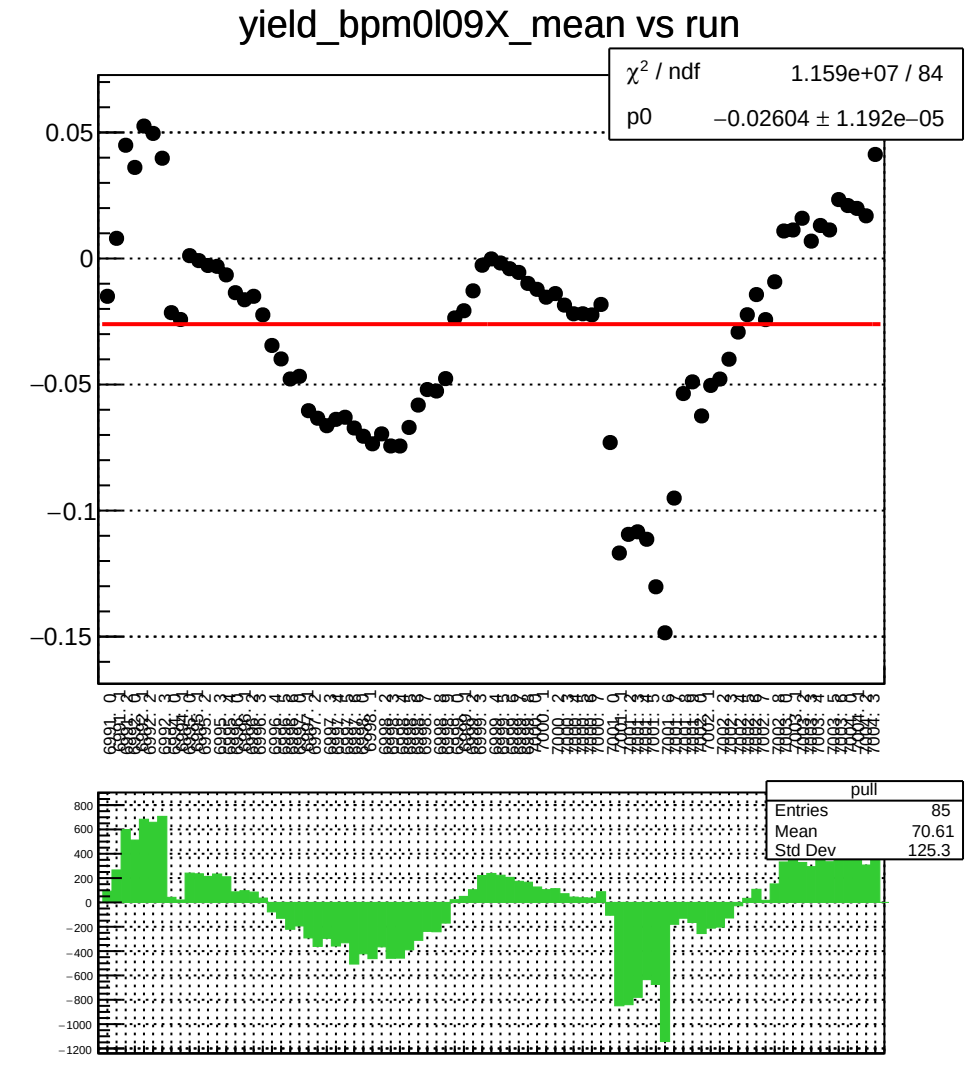

pull1D
Entries 85
Mean −0.7782
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

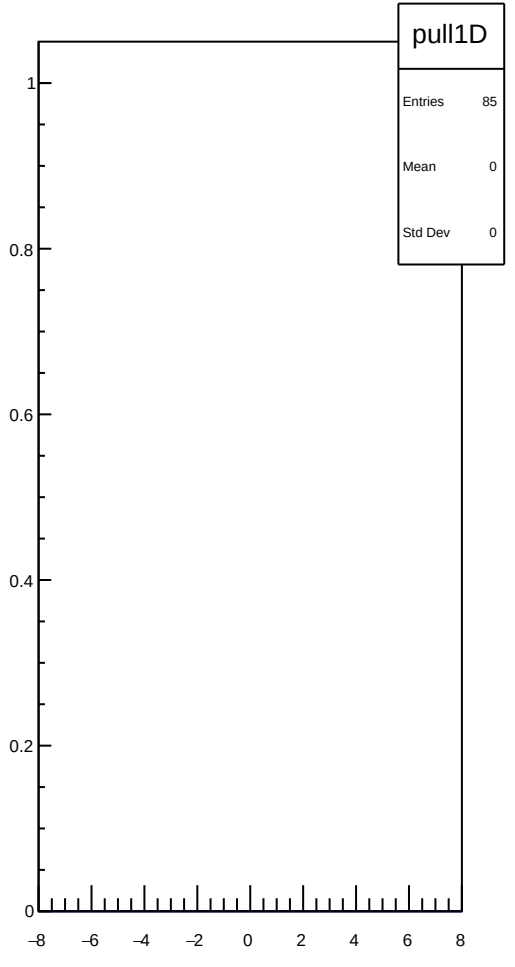

yield_bpm0l08X_rms vs run
χ² / ndf 4.154e+04 / 84
p0 0.01099 ± 8.666e–06
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

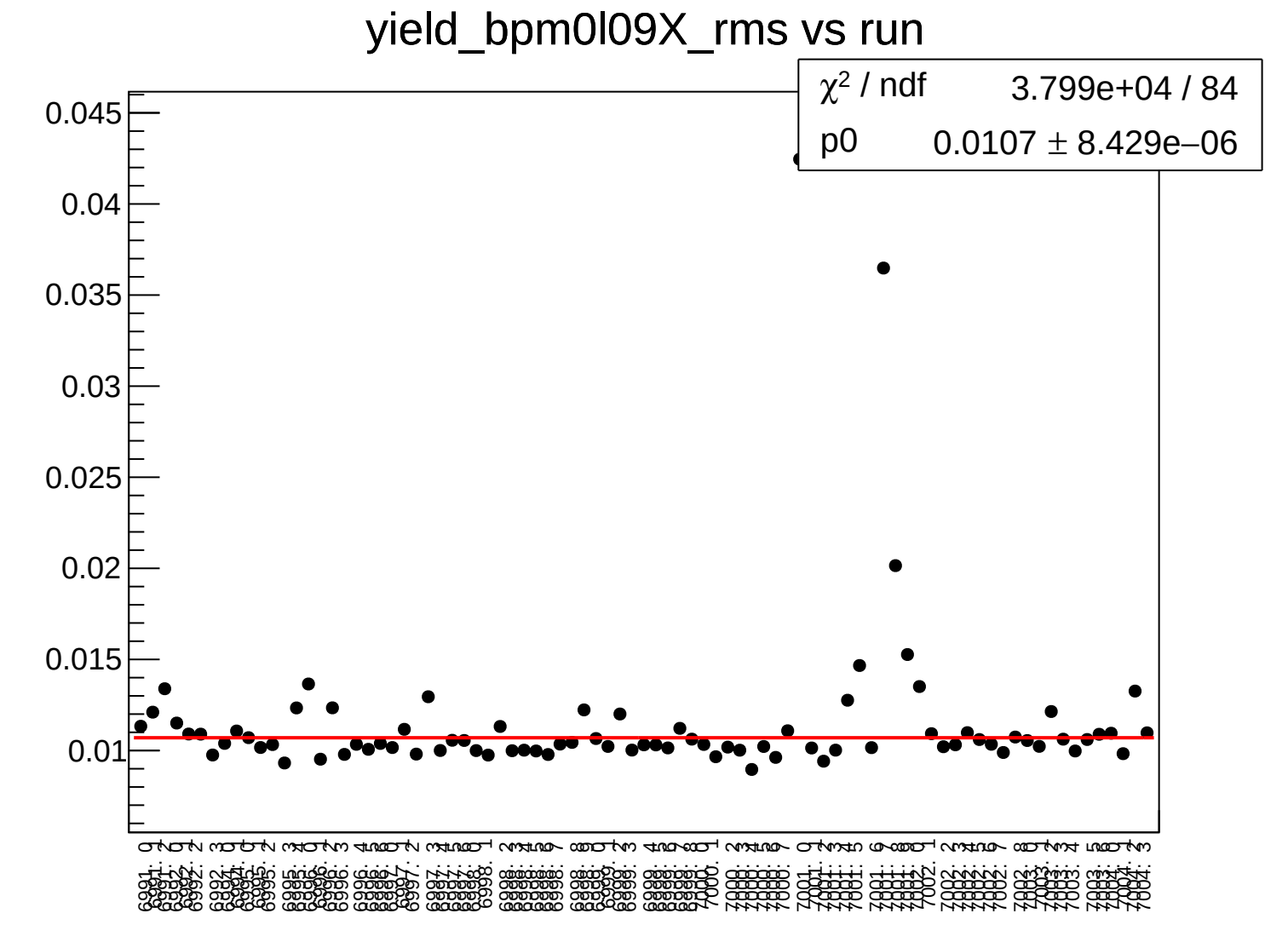

yield_bpm0l08Y_mean vs run
χ² / ndf 5.804e+06 / 84
p0 −0.2025 ± 3.094e−06
−0.18
−0.185
−0.19
−0.195
−0.2
−0.205
−0.21
−0.215
pull
Entries 85
Mean −114.9
Std Dev 140.4
1000
800
600
400
200
0
−200
−400

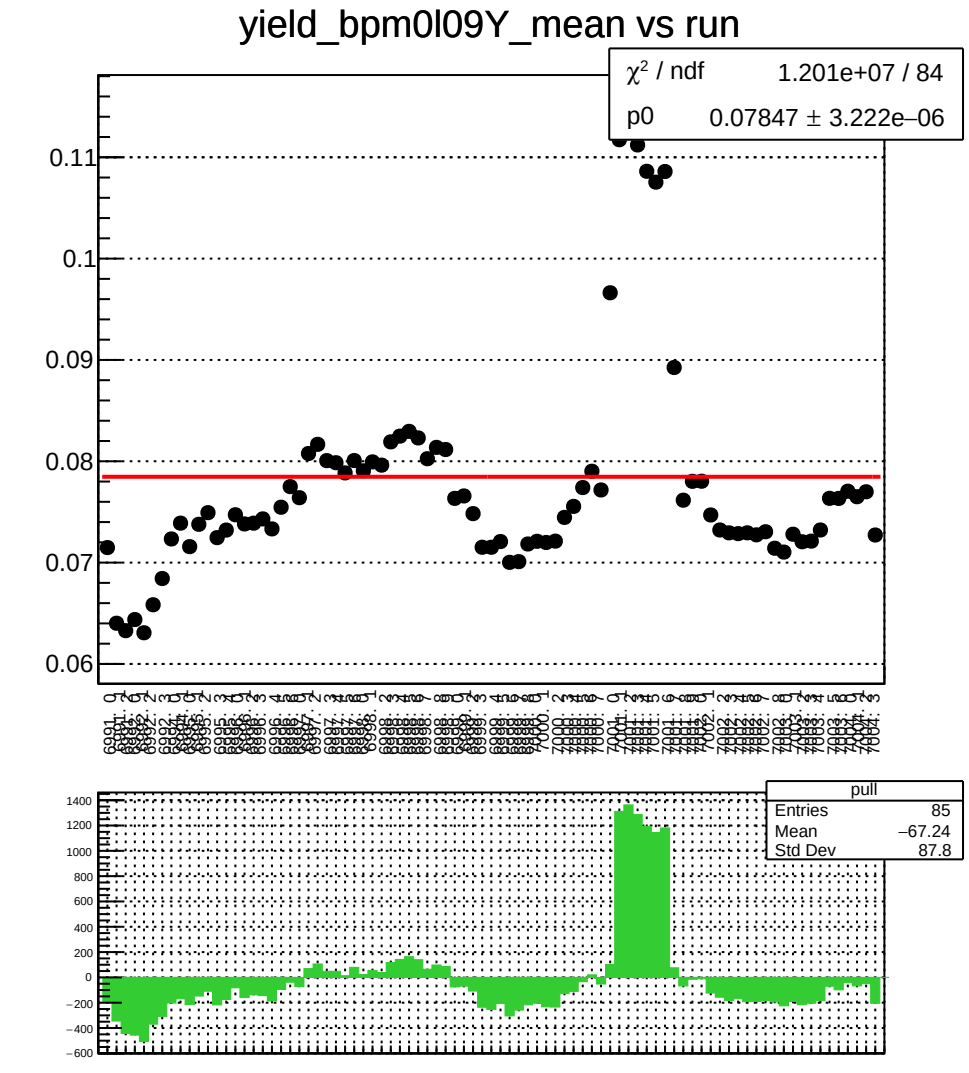

pull1D
Entries 85
Mean −1.249
Std Dev 4.491
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

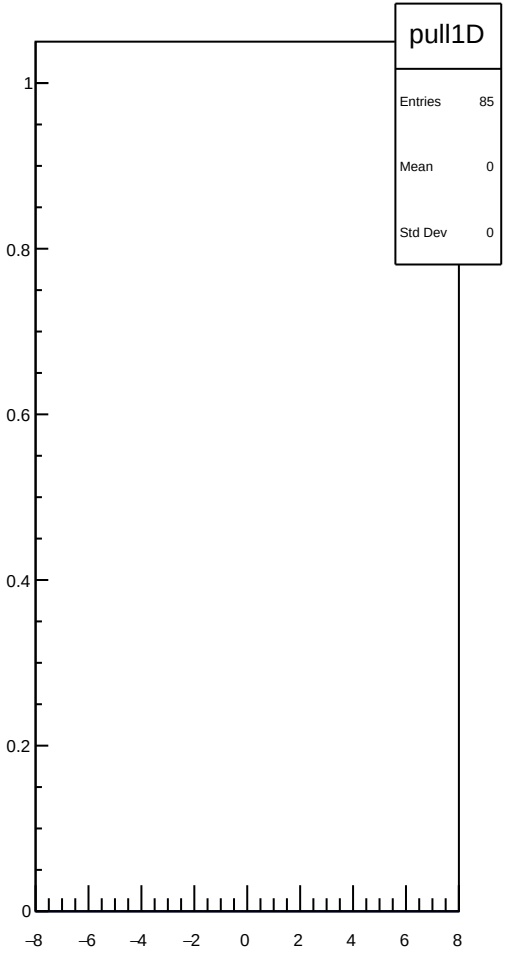

yield_bpm0l08Y_rms vs run
χ² / ndf 3.204e+04 / 84
p0 0.002783 ± 2.188e−06
0.012
0.01
0.008
0.006
0.004
0.002

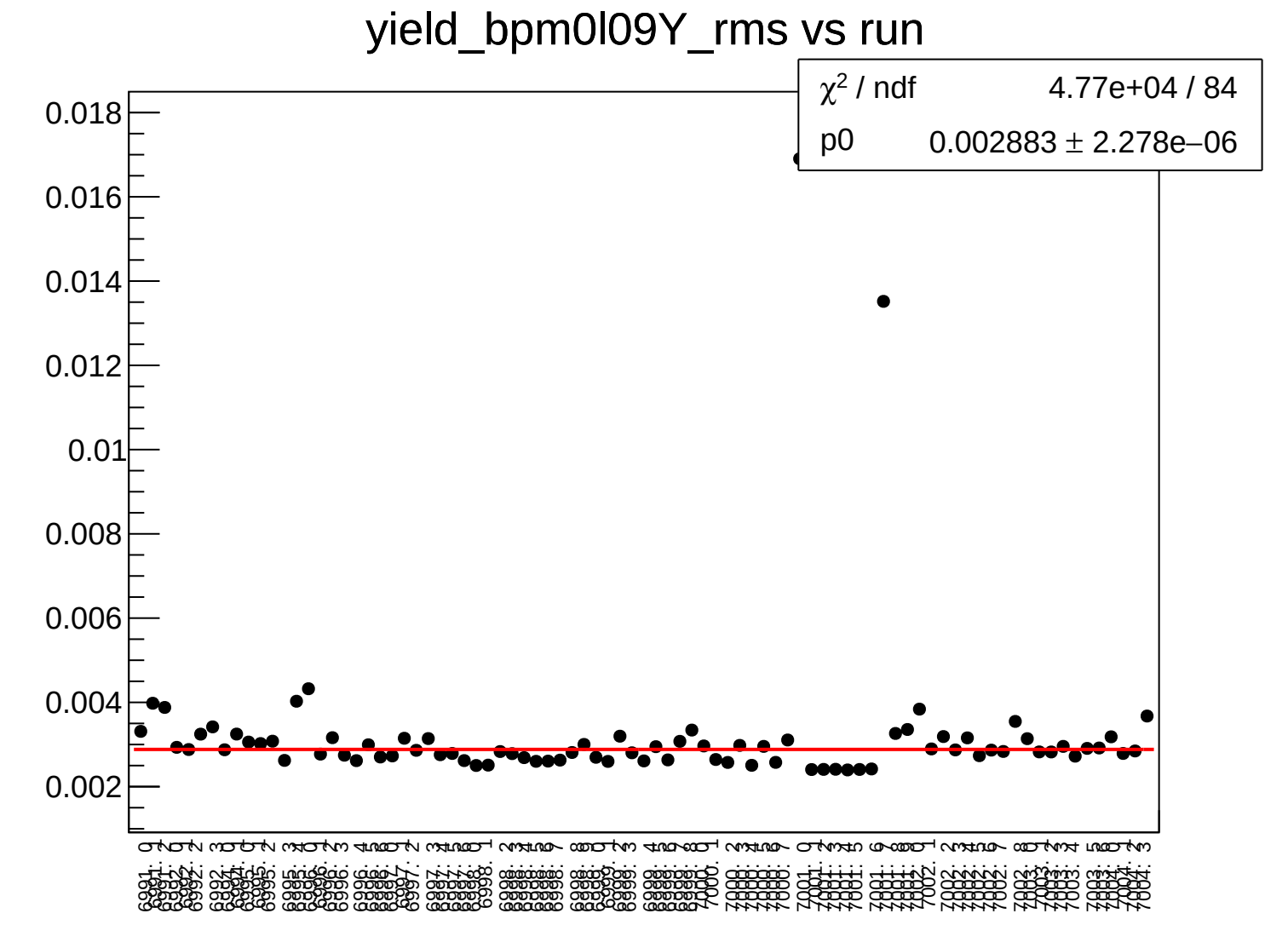

yield_bpm0l09X_mean vs run
χ² / ndf 1.159e+07 / 84
p0 −0.02604 ± 1.192e−05
0.05
0
−0.05
−0.1
−0.15
pull
Entries 85
Mean 70.61
Std Dev 125.3
800
600
400
200
0
−200
−400
−600
−800
−1000
−1200

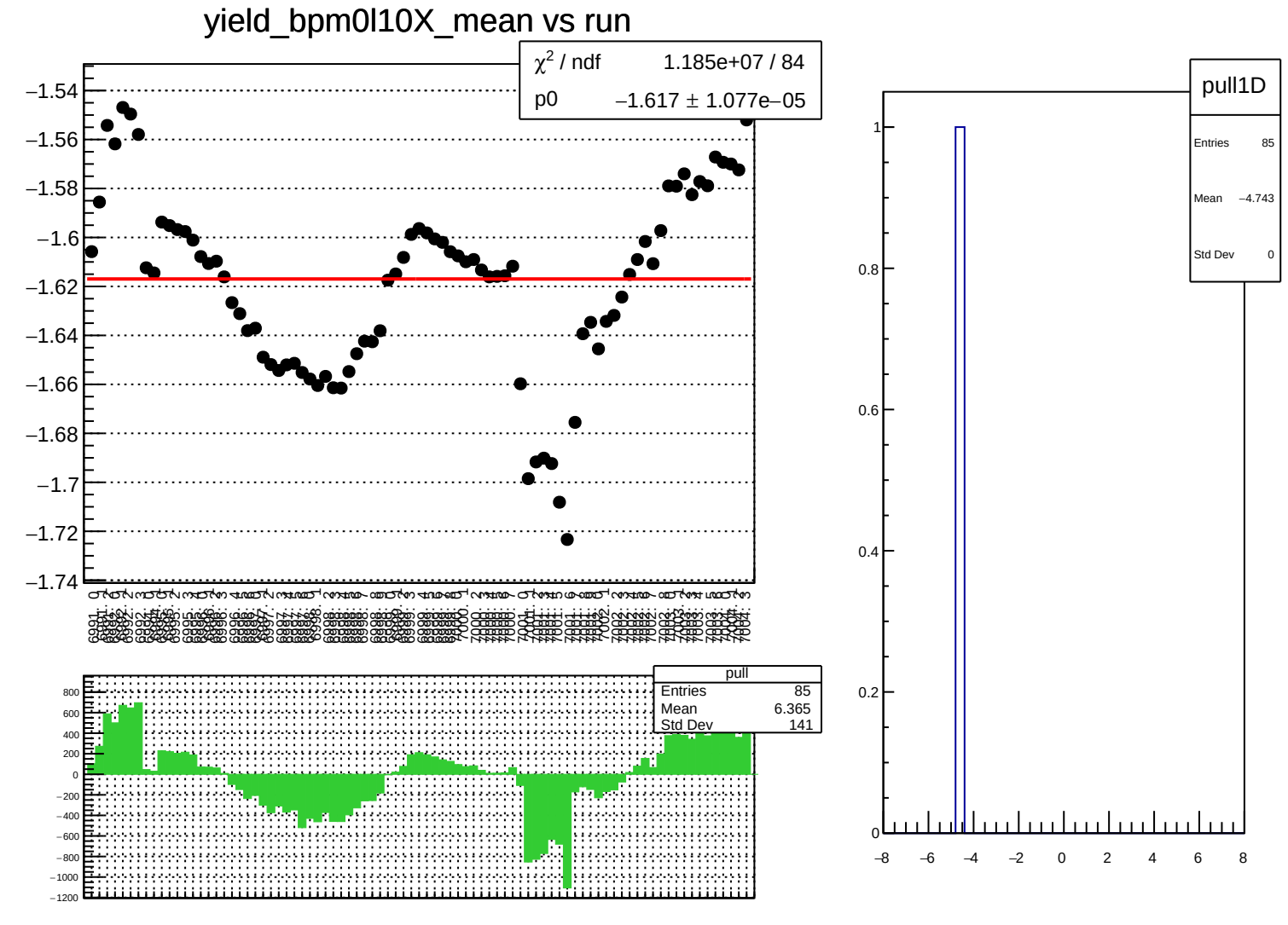

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

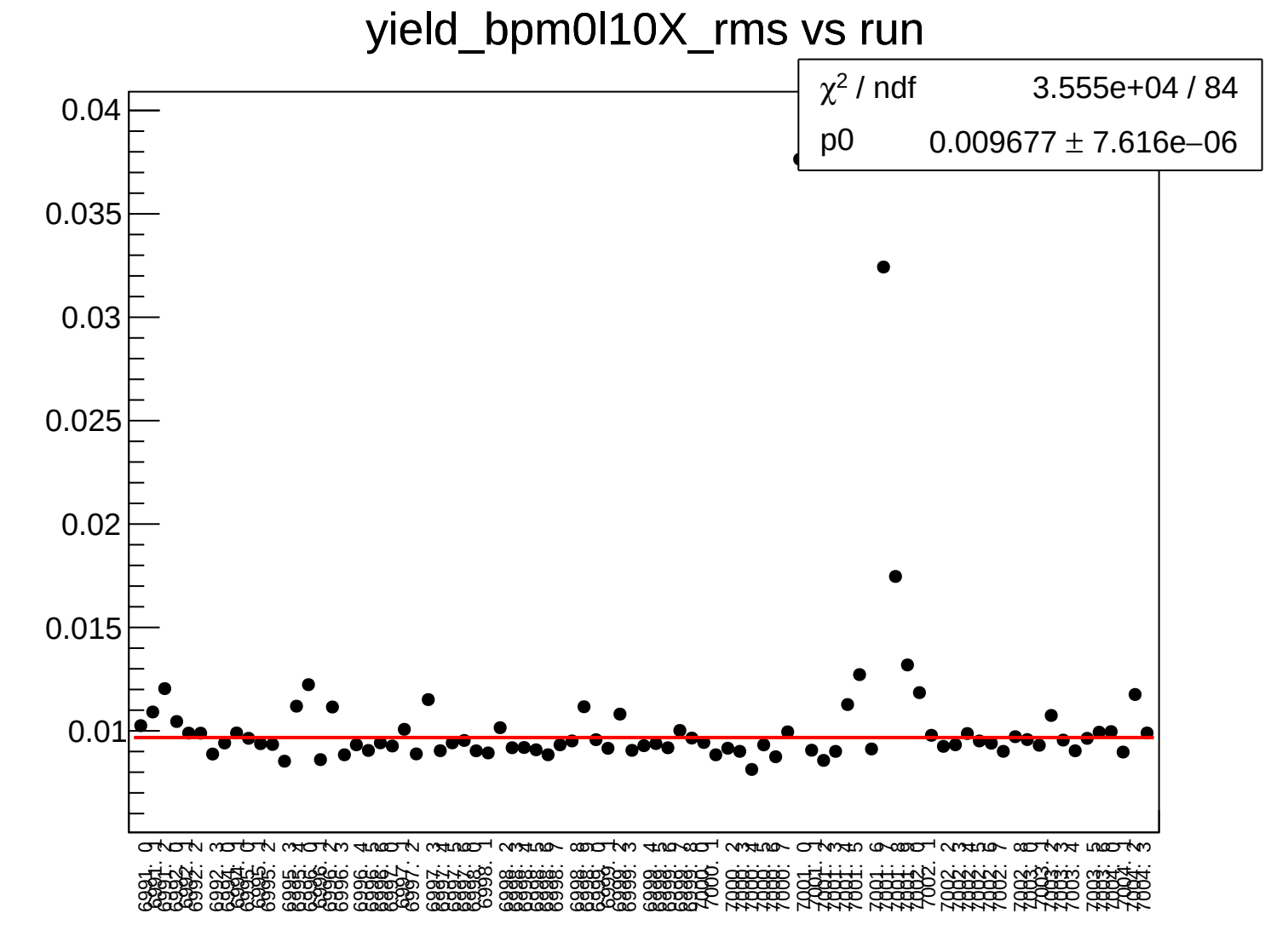

yield_bpm0l09X_rms vs run
χ² / ndf 3.799e+04 / 84
p0 0.0107 ± 8.429e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

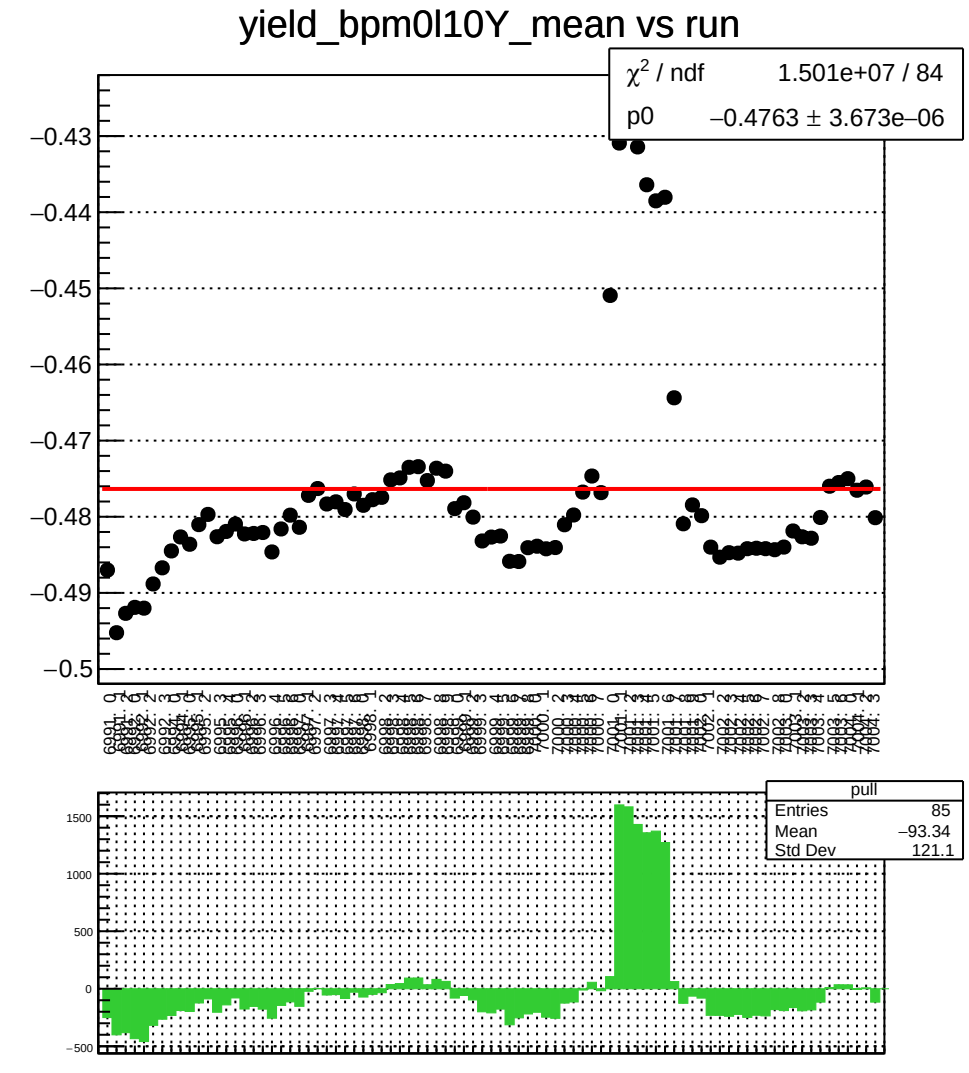

yield_bpm0l09Y_mean vs run
χ² / ndf 1.201e+07 / 84
p0 0.07847 ± 3.222e−06
0.11
0.1
0.09
0.08
0.07
0.06
pull
Entries 85
Mean −67.24
Std Dev 87.8
1400
1200
1000
800
600
400
200
0
−200
−400
−600

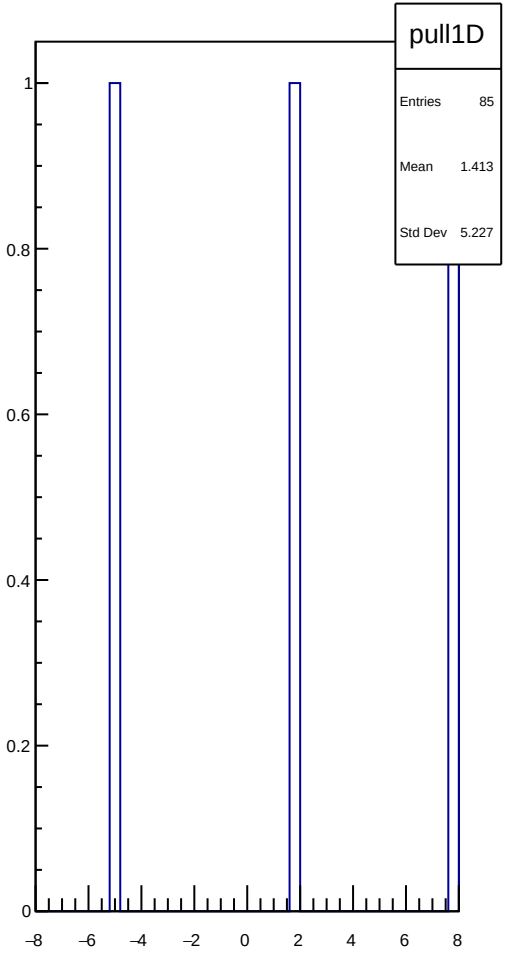

pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

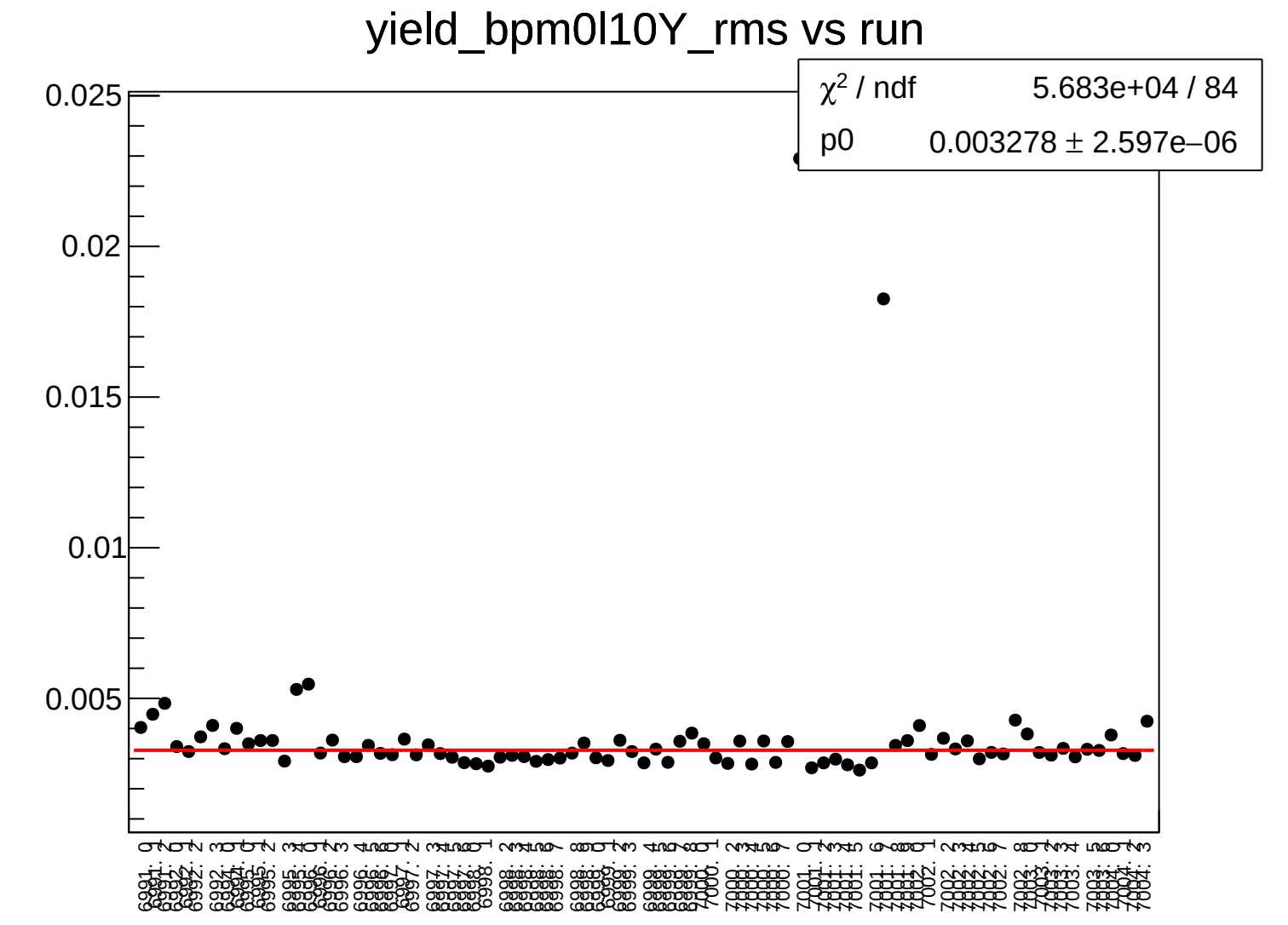

yield_bpm0l09Y_rms vs run
χ² / ndf 4.77e+04 / 84
p0 0.002883 ± 2.278e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

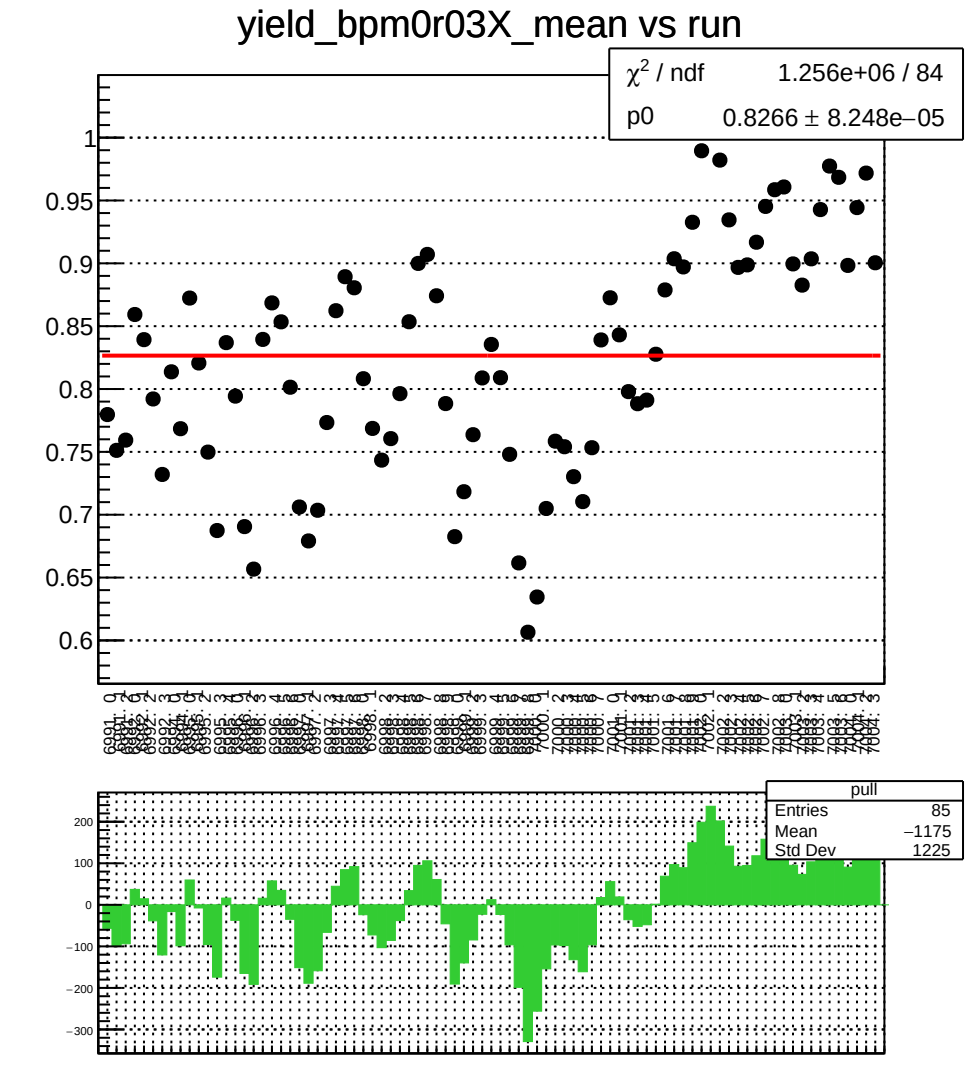

yield_bpm0l10X_mean vs run
χ² / ndf 1.185e+07 / 84
p0 −1.617 ± 1.077e−05
pull
Entries 85
Mean 6.365
Std Dev 141
pull1D
Entries 85
Mean −4.743
Std Dev 0

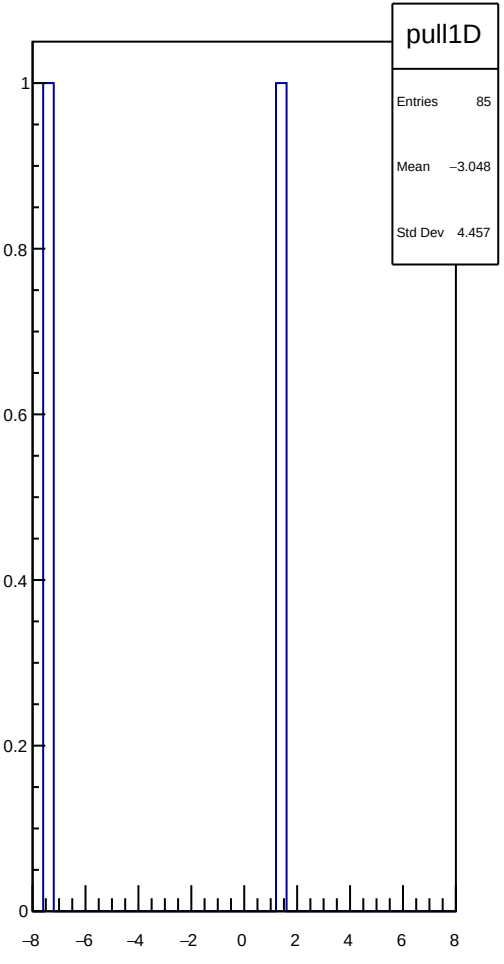

yield_bpm0l10X_rms vs run
χ² / ndf 3.555e+04 / 84
p0 0.009677 ± 7.616e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01

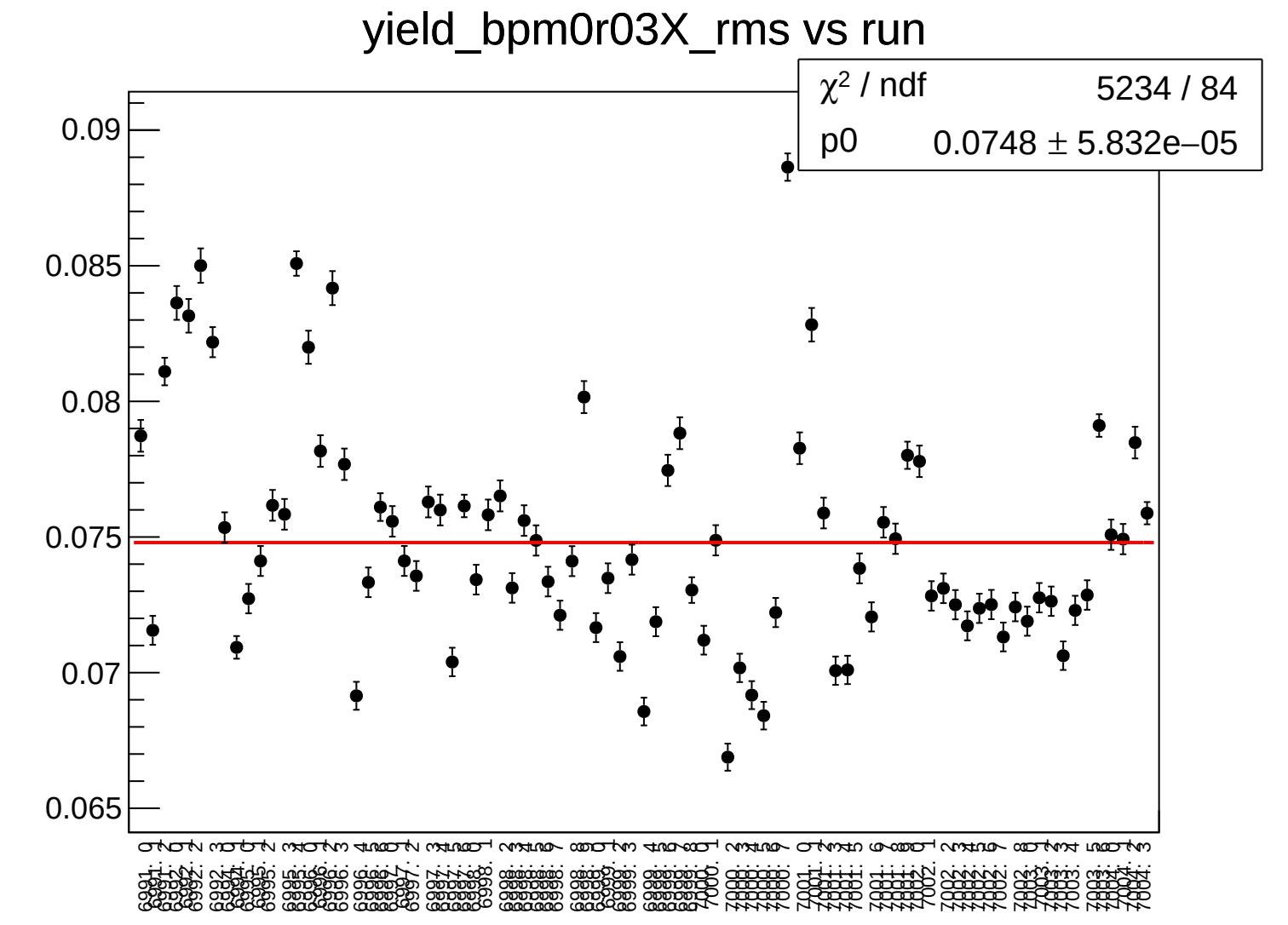

yield_bpm0l10Y_mean vs run
χ² / ndf 1.501e+07 / 84
p0 −0.4763 ± 3.673e−06
−0.43
−0.44
−0.45
−0.46
−0.47
−0.48
−0.49
−0.5
pull
Entries 85
Mean −93.34
Std Dev 121.1
1500
1000
500
0
−500

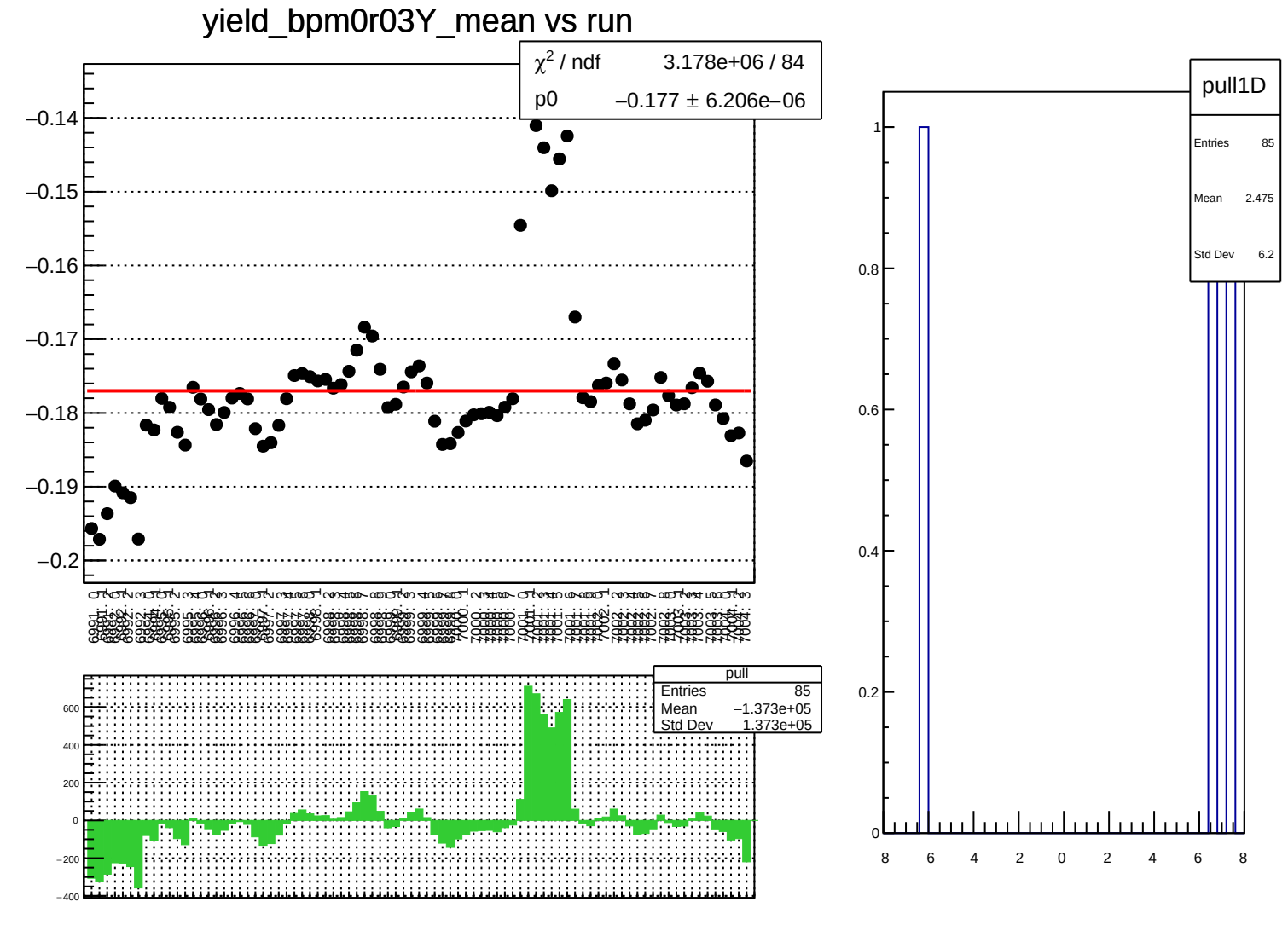

pull1D
Entries 85
Mean 1.413
Std Dev 5.227
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

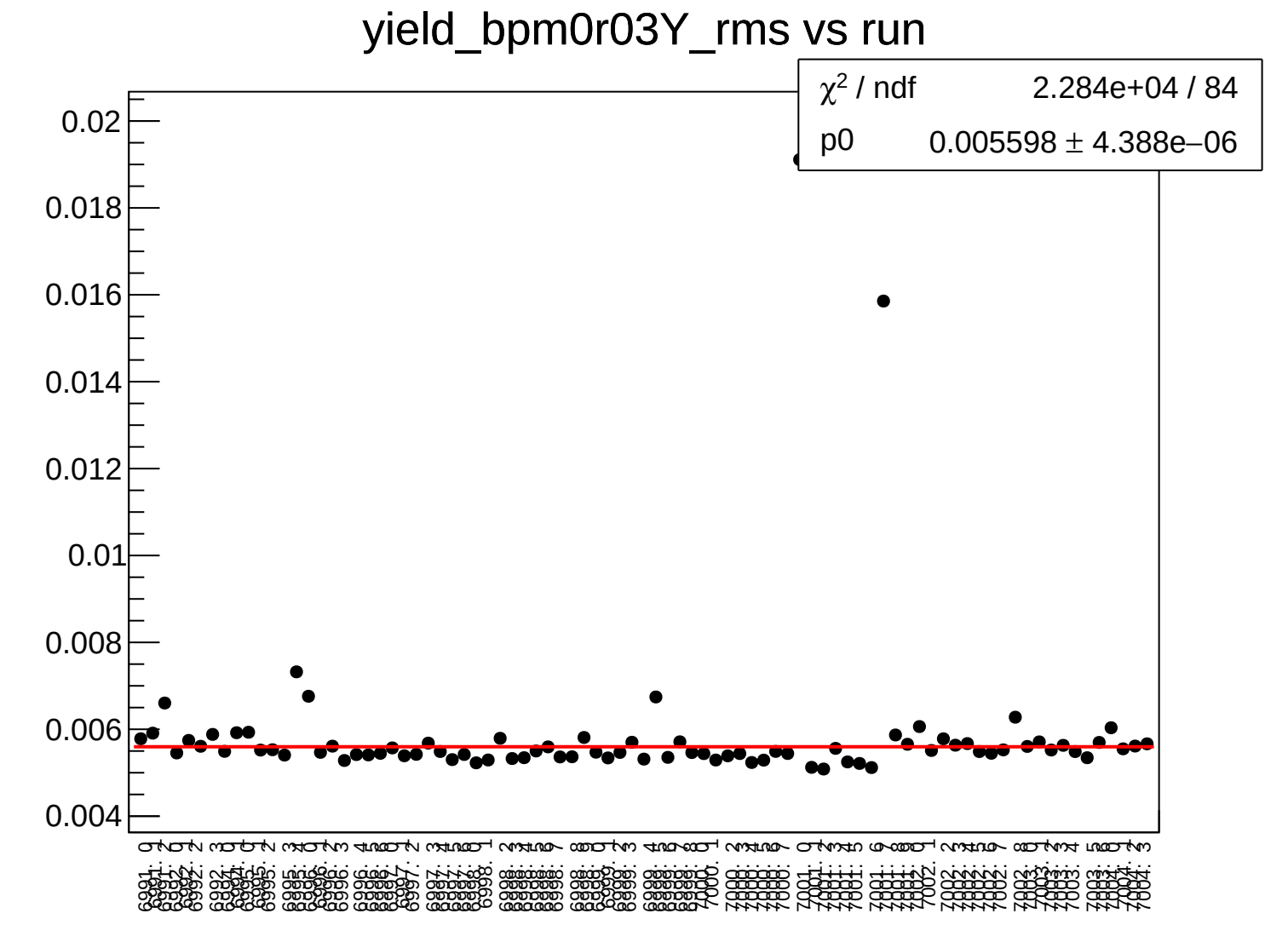

yield_bpm0l10Y_rms vs run
χ² / ndf 5.683e+04 / 84
p0 0.003278 ± 2.597e−06
0.025
0.02
0.015
0.01
0.005

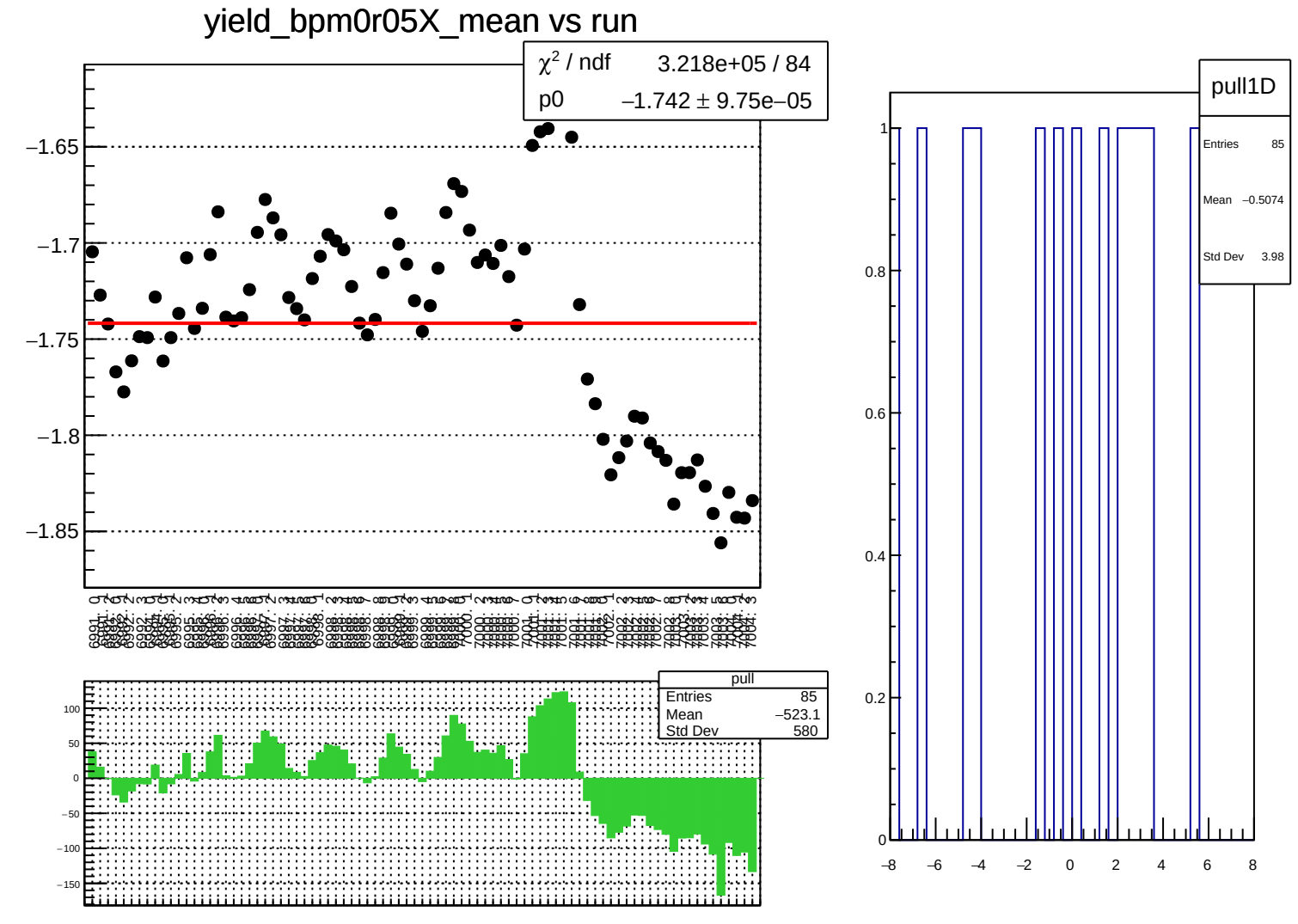

yield_bpm0r03X_mean vs run
χ² / ndf 1.256e+06 / 84
p0 0.8266 ± 8.248e−05
pull
Entries 85
Mean −1175
Std Dev 1225

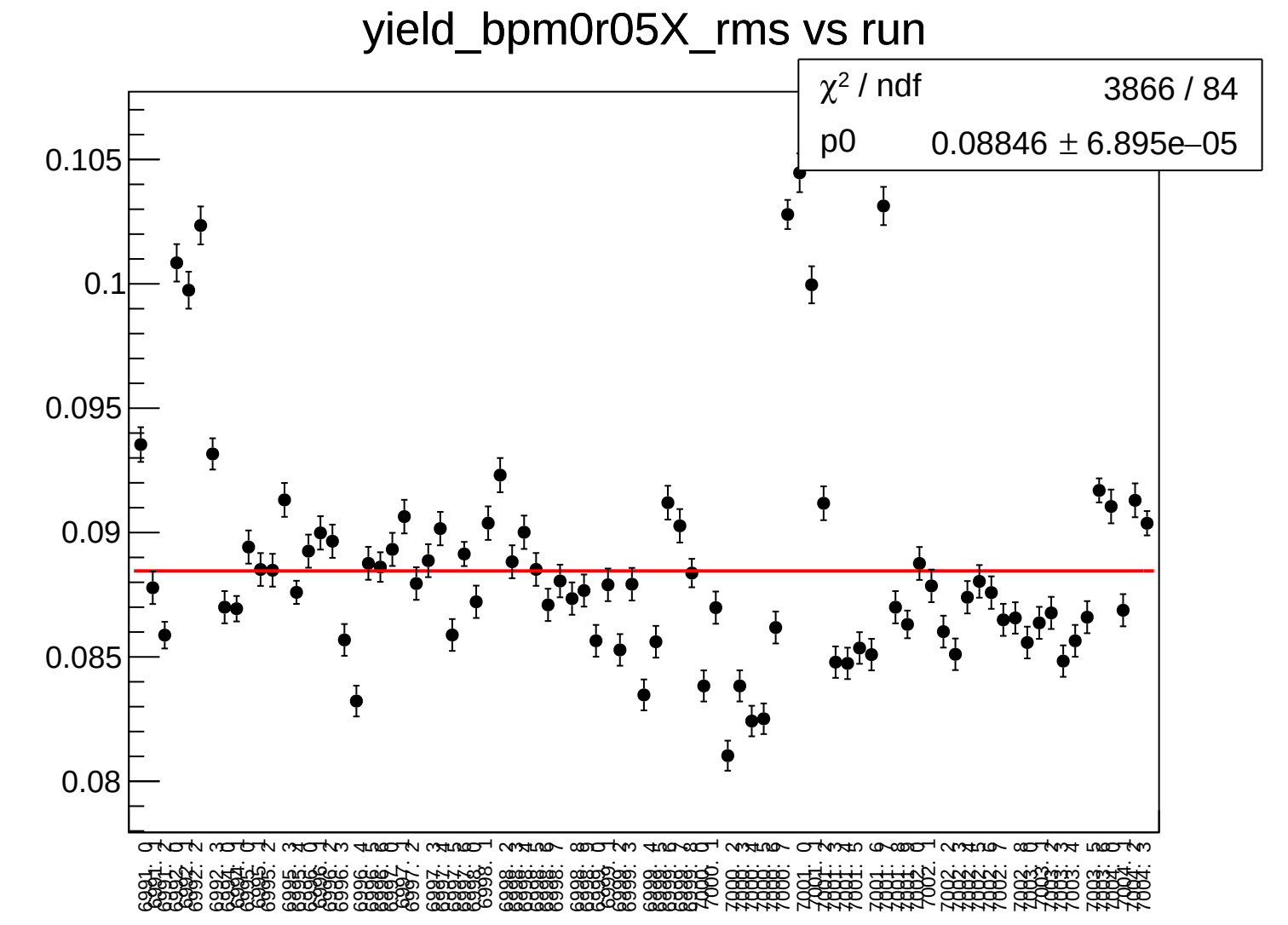

pull1D
Entries 85
Mean −3.048
Std Dev 4.457

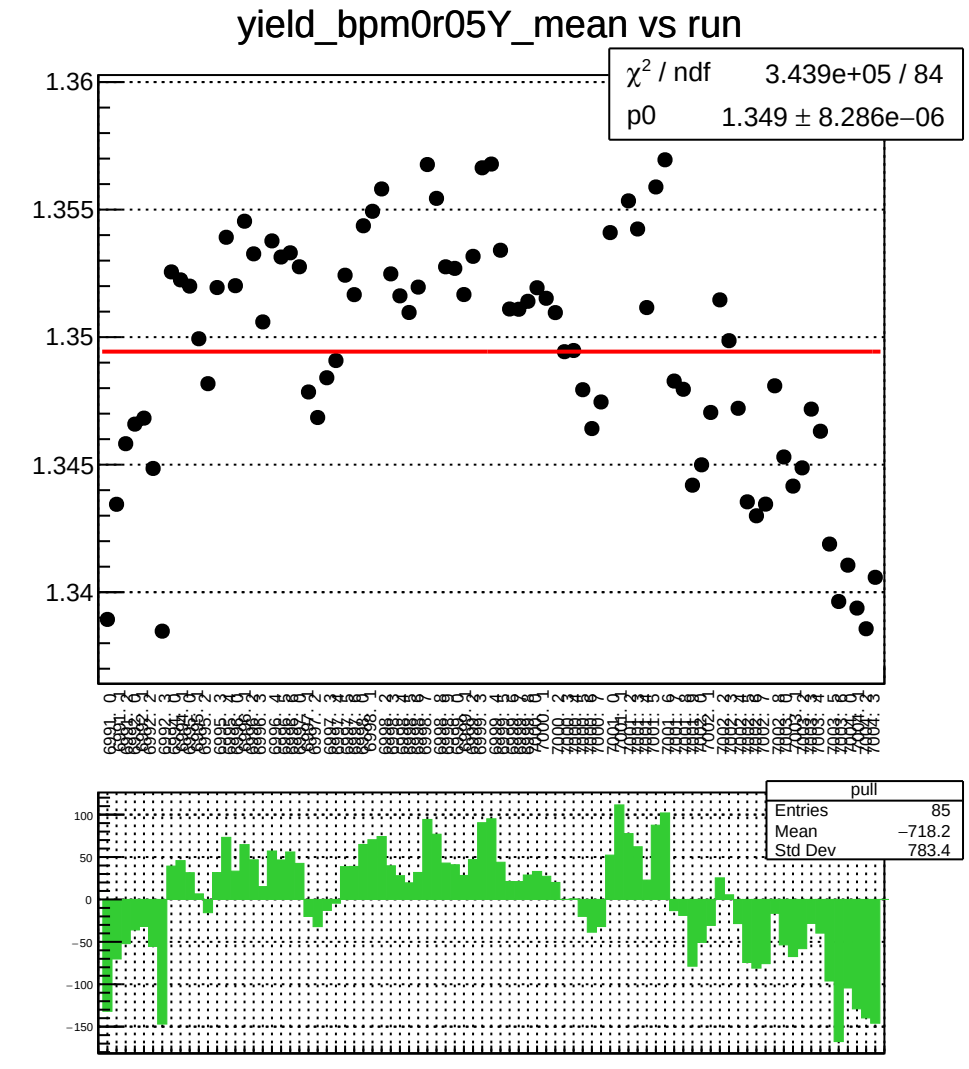

yield_bpm0r03X_rms vs run
χ² / ndf 5234 / 84
p0 0.0748 ± 5.832e−05
0.09
0.085
0.08
0.075
0.07
0.065

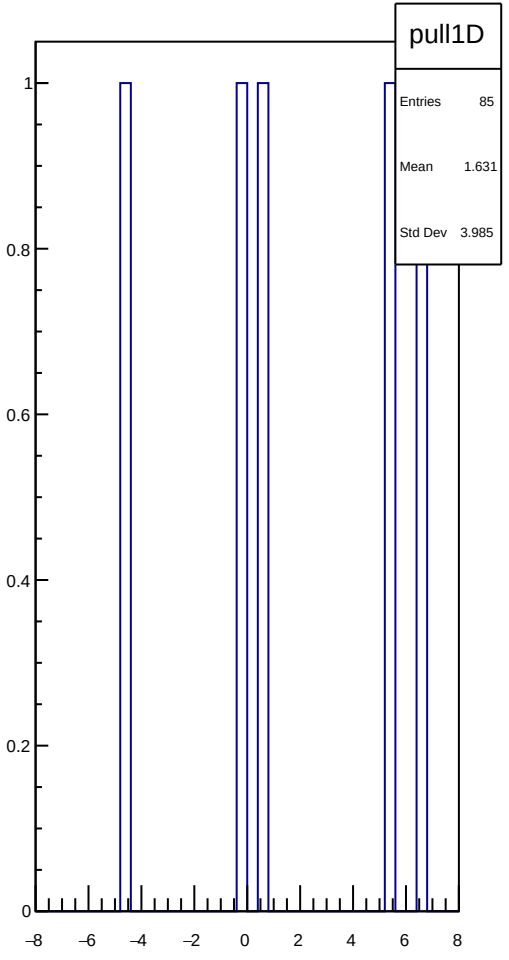

yield_bpm0r03Y_mean vs run
χ² / ndf 3.178e+06 / 84
p0 −0.177 ± 6.206e−06
−0.14
−0.15
−0.16
−0.17
−0.18
−0.19
−0.2
pull
Entries 85
Mean −1.373e+05
Std Dev 1.373e+05
600
400
200
0
−200
−400
pull1D
Entries 85
Mean 2.475
Std Dev 6.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

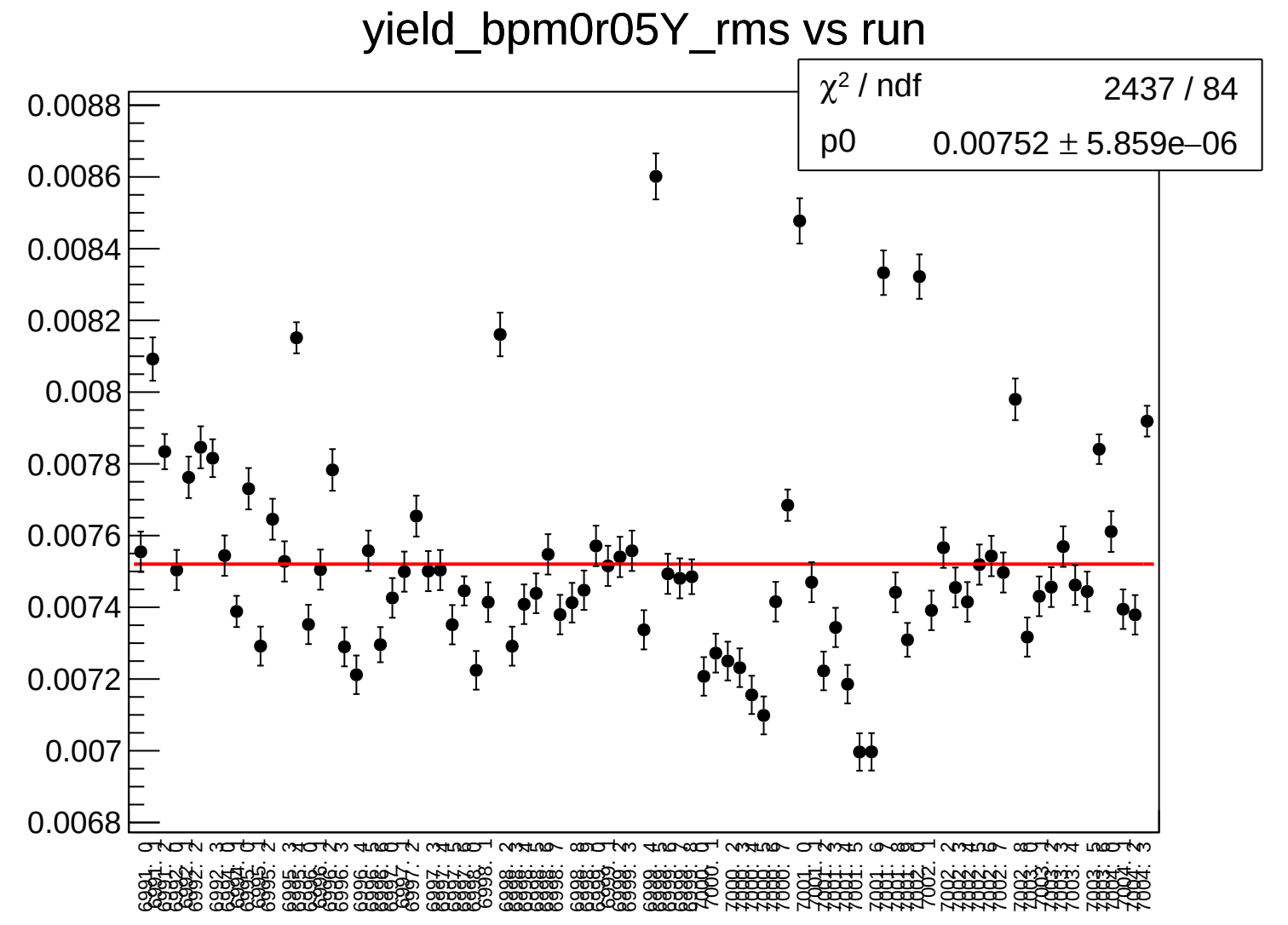

yield_bpm0r03Y_rms vs run
χ² / ndf 2.284e+04 / 84
p0 0.005598 ± 4.388e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004

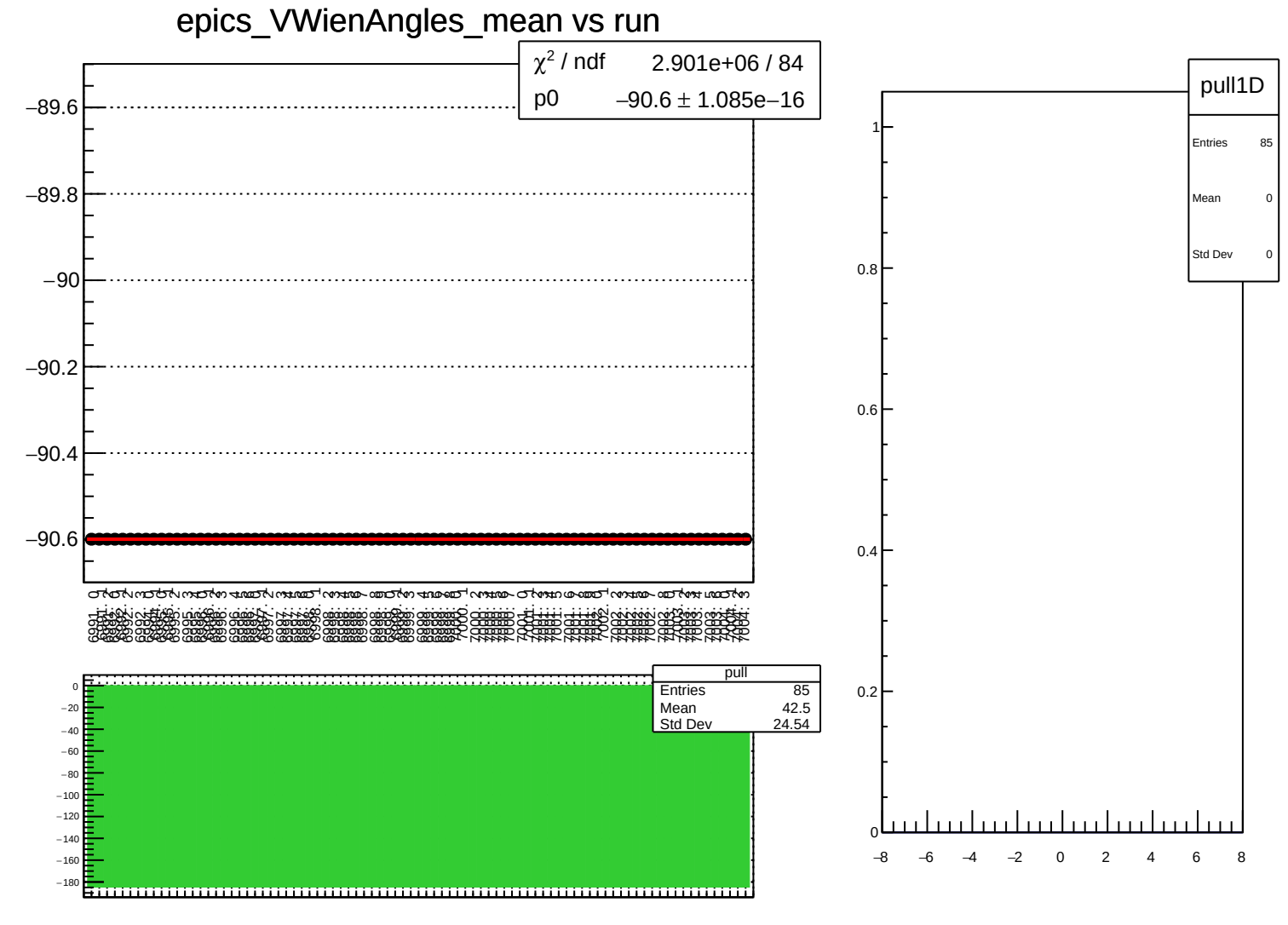

yield_bpm0r05X_mean vs run
χ² / ndf 3.218e+05 / 84
p0 −1.742 ± 9.75e−05
−1.65
−1.7
−1.75
−1.8
−1.85
pull
Entries 85
Mean −523.1
Std Dev 580
100
50
0
−50
−100
−150
pull1D
Entries 85
Mean −0.5074
Std Dev 3.98
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

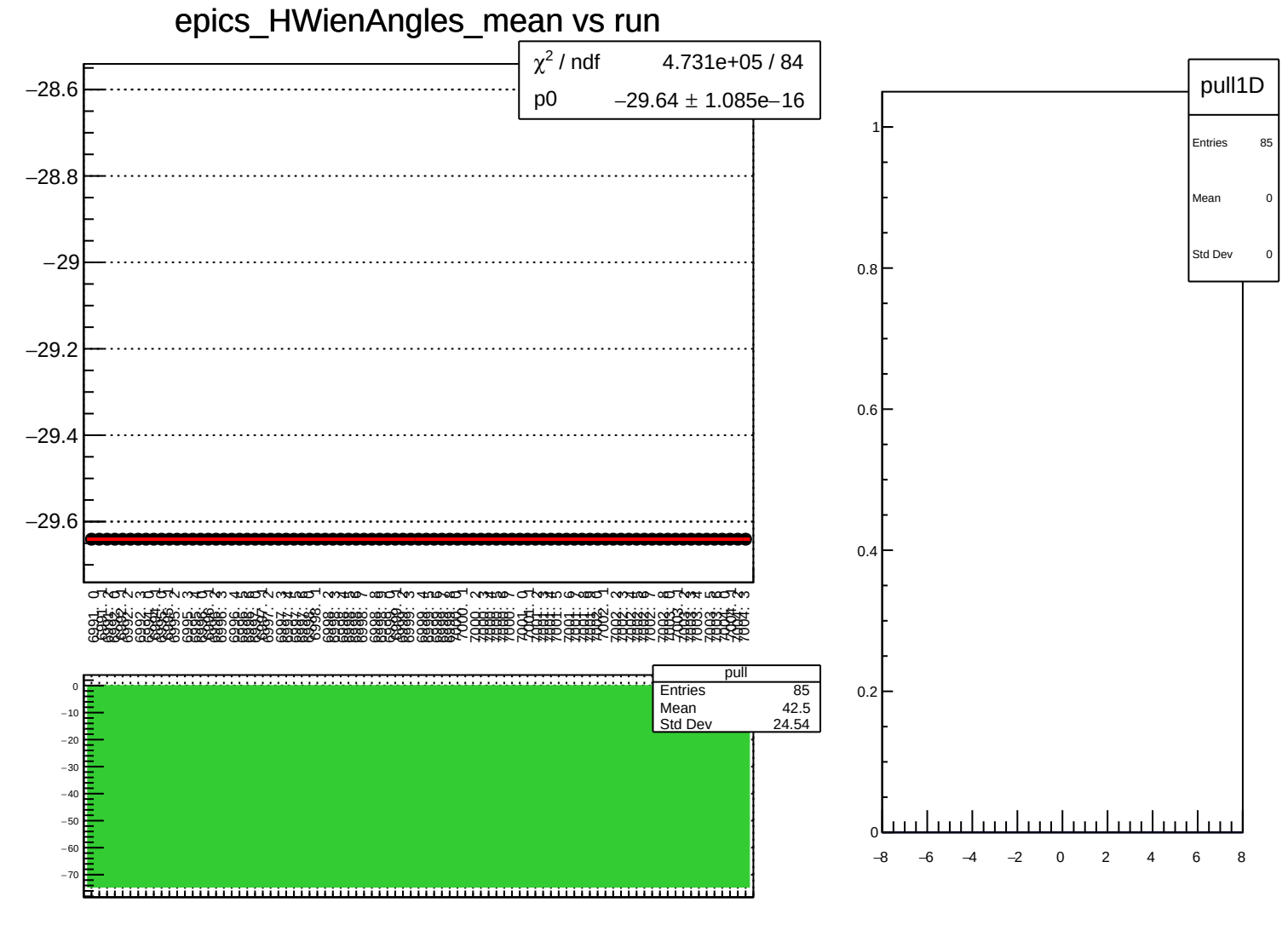

yield_bpm0r05X_rms vs run
χ² / ndf 3866 / 84
p0 0.08846 ± 6.895e–05
0.105
0.1
0.095
0.09
0.085
0.08

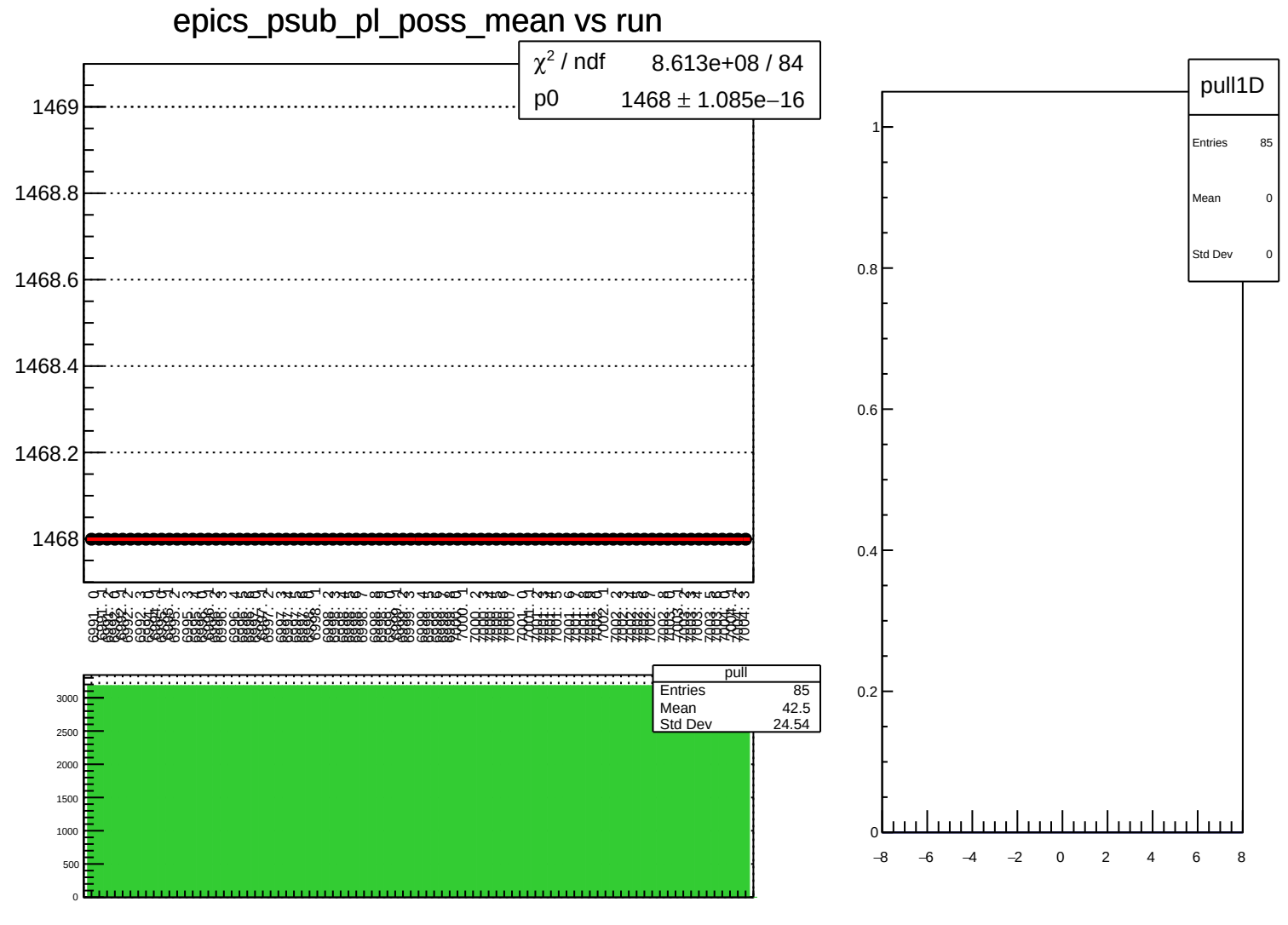

yield_bpm0r05Y_mean vs run
χ² / ndf 3.439e+05 / 84
p0 1.349 ± 8.286e−06
1.36
1.355
1.35
1.345
1.34
pull
Entries 85
Mean −718.2
Std Dev 783.4
100
50
0
−50
−100
−150

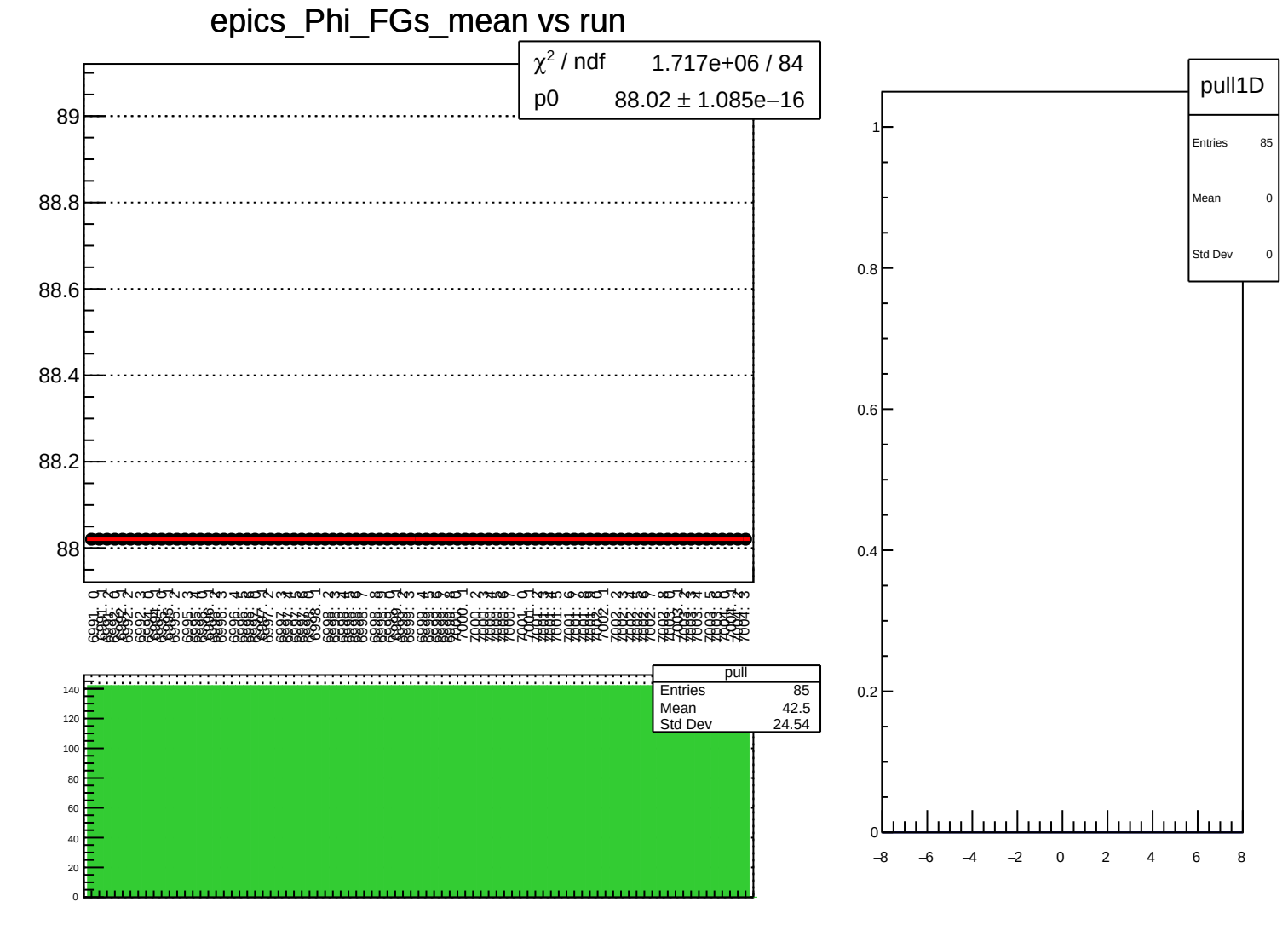

pull1D
Entries 85
Mean 1.631
Std Dev 3.985
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

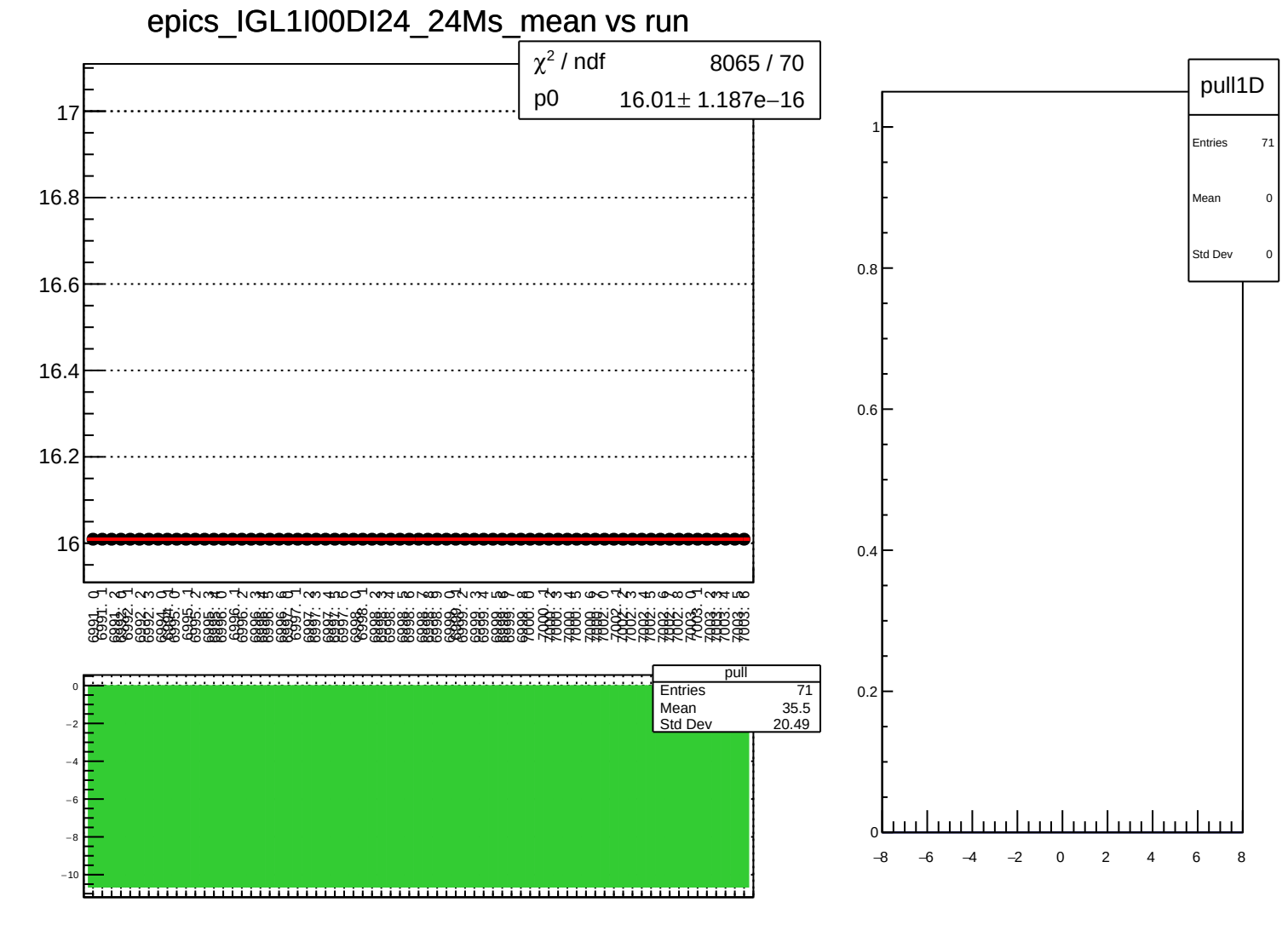

yield_bpm0r05Y_rms vs run
χ² / ndf 2437 / 84
p0 0.00752 ± 5.859e−06
0.0088
0.0086
0.0084
0.0082
0.008
0.0078
0.0076
0.0074
0.0072
0.007
0.0068

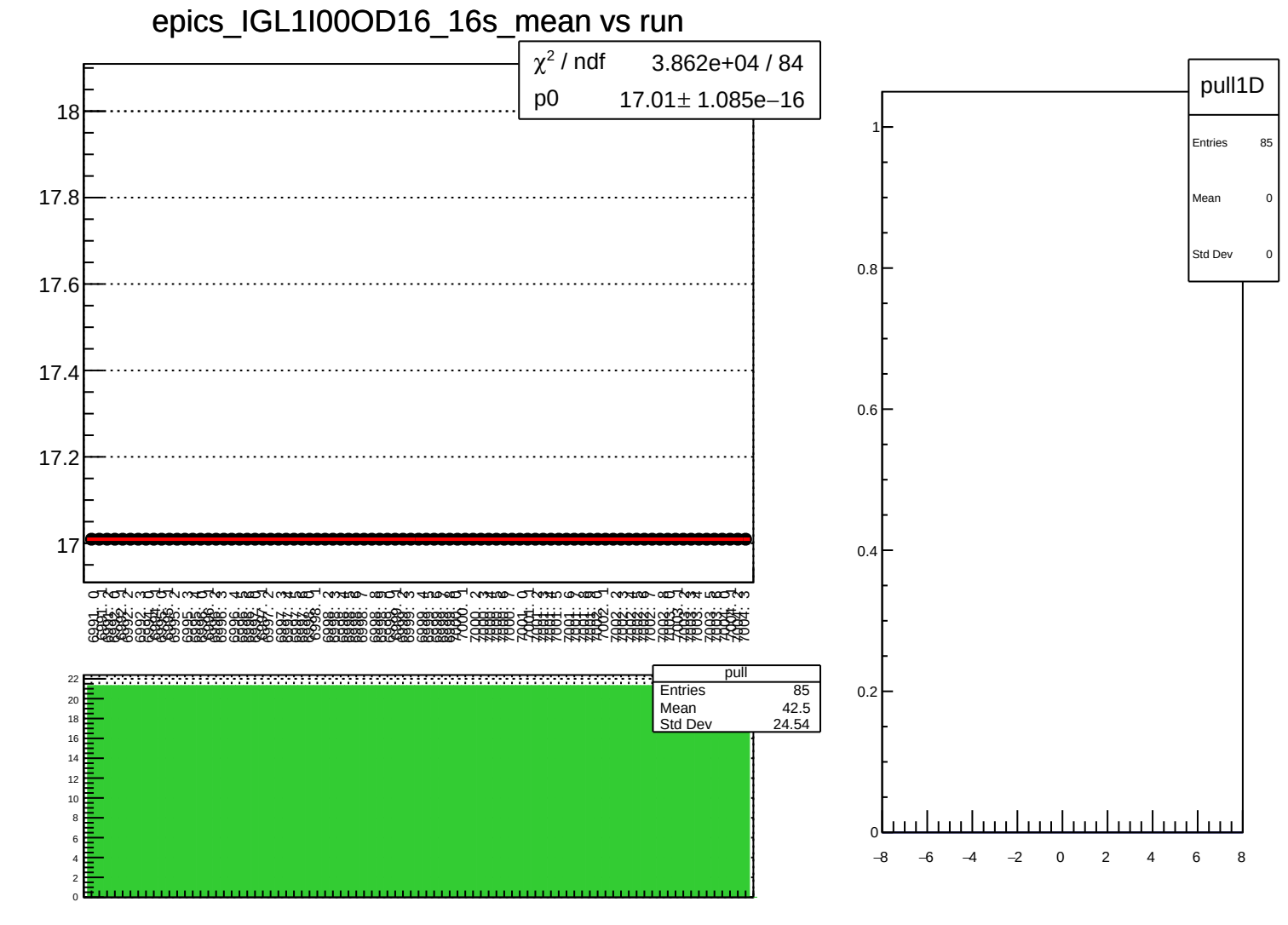

epics_VWienAngles_mean vs run
χ² / ndf 2.901e+06 / 84
p0 −90.6 ± 1.085e−16
−89.6
−89.8
−90
−90.2
−90.4
−90.6
pull
Entries 85
Mean 42.5
Std Dev 24.54
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

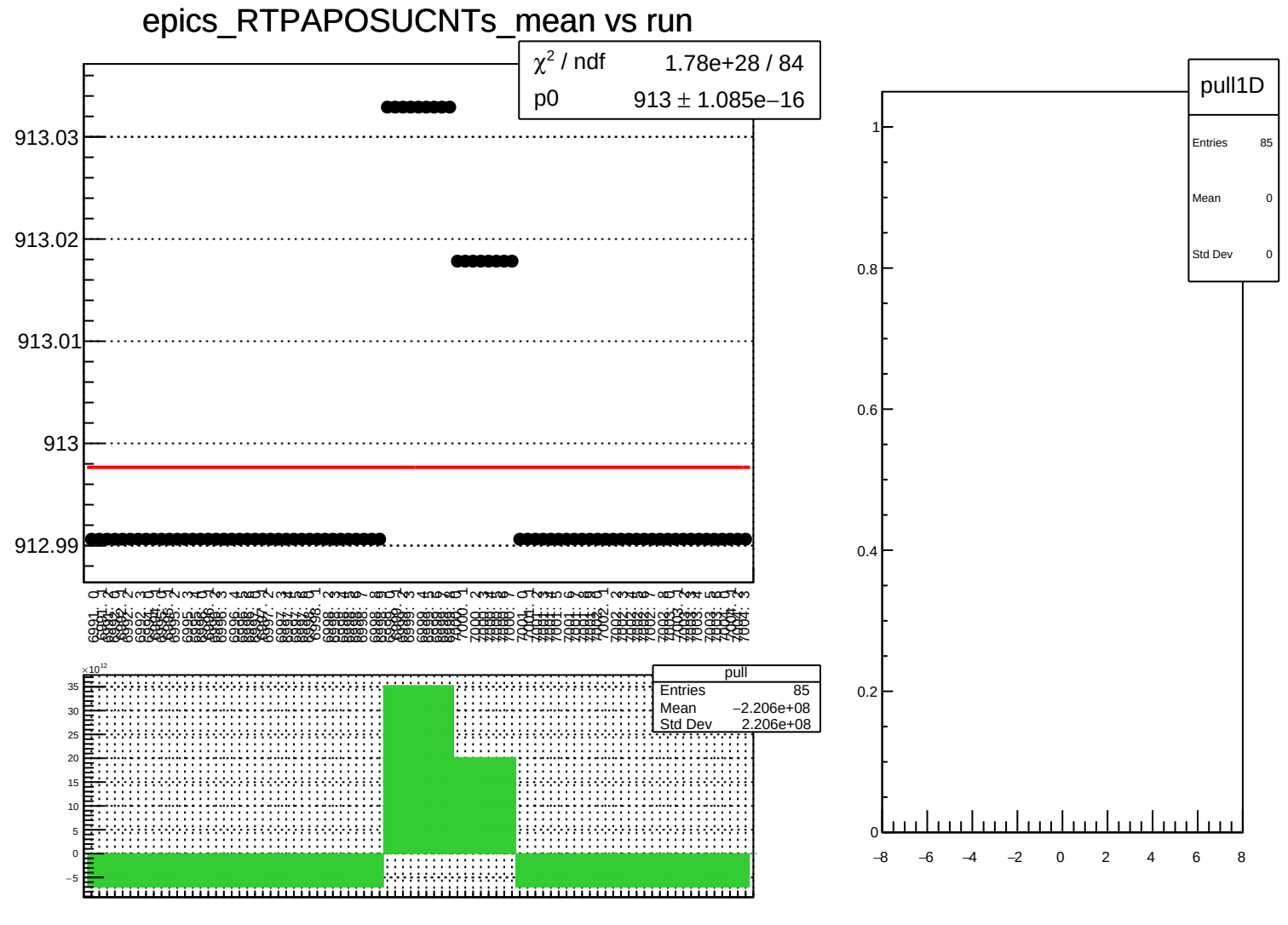

epics_HWienAngles_mean vs run
χ² / ndf 4.731e+05 / 84
p0 −29.64 ± 1.085e−16
−28.6
−28.8
−29
−29.2
−29.4
−29.6
pull
Entries 85
Mean 42.5
Std Dev 24.54
0
−10
−20
−30
−40
−50
−60
−70
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

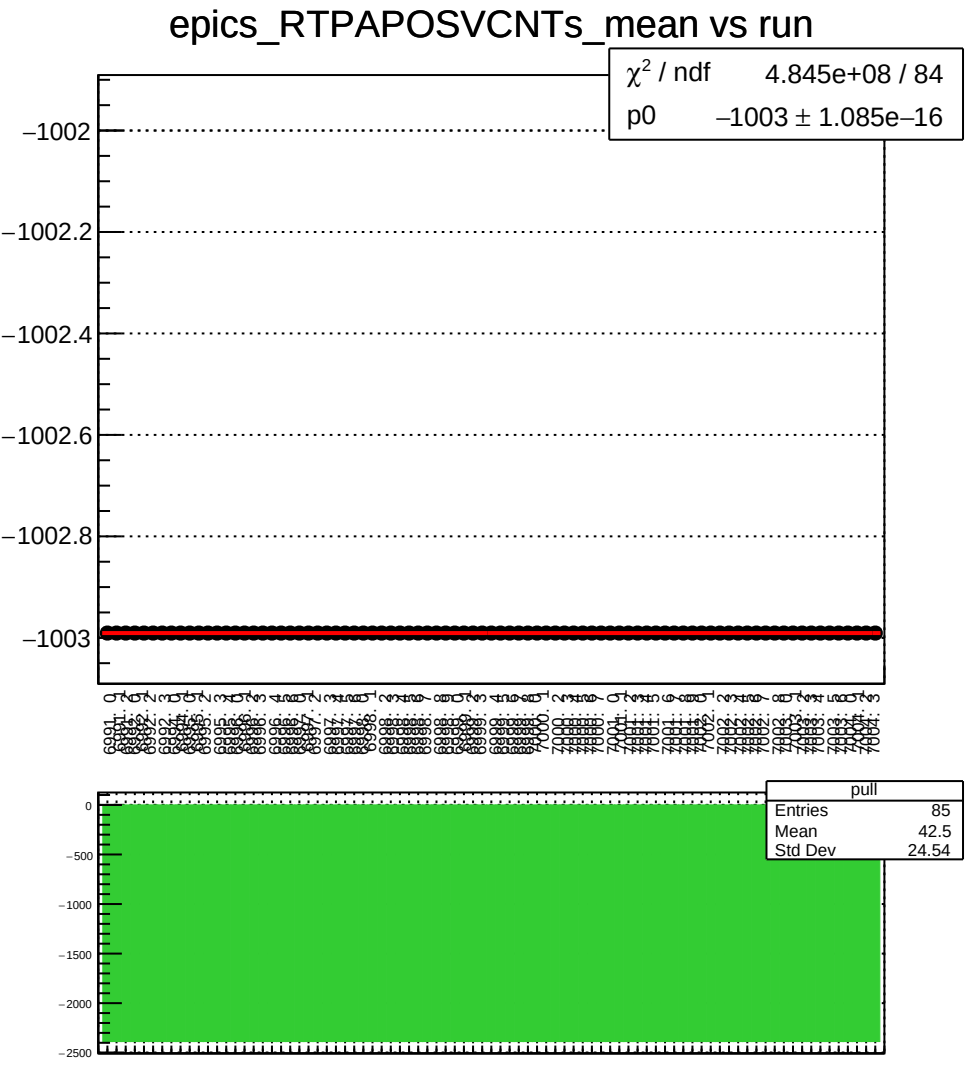

epics_psub_pl_poss_mean vs run
χ² / ndf 8.613e+08 / 84
p0 1468 ± 1.085e−16
1469
1468.8
1468.6
1468.4
1468.2
1468
pull
Entries 85
Mean 42.5
Std Dev 24.54
3000
2500
2000
1500
1000
500
0
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

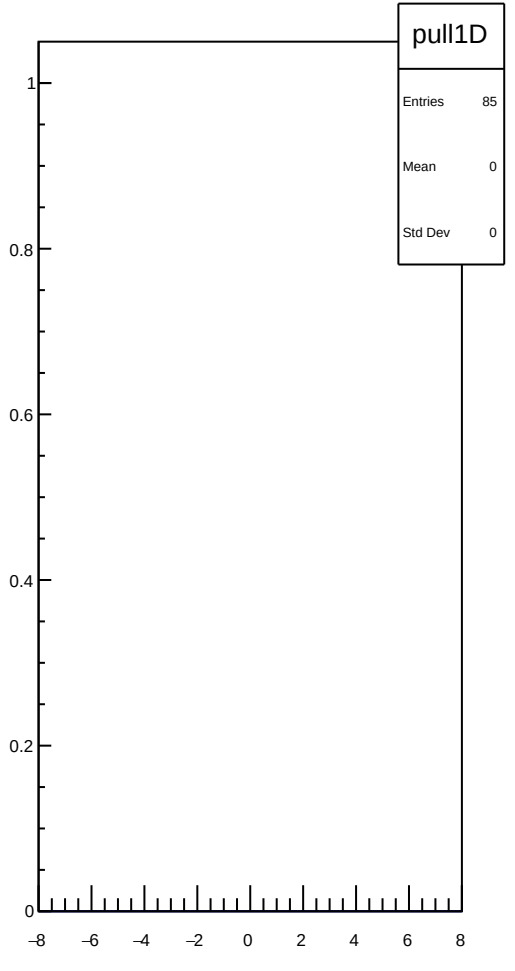

epics_Phi_FGs_mean vs run
χ² / ndf 1.717e+06 / 84
p0 88.02 ± 1.085e−16
89
88.8
88.6
88.4
88.2
88
pull
Entries 85
Mean 42.5
Std Dev 24.54
140
120
100
80
60
40
20
0
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_IGL1I00DI24_24Ms_mean vs run
χ² / ndf 8065 / 70
p0 16.01± 1.187e−16
17
16.8
16.6
16.4
16.2
16
pull
Entries 71
Mean 35.5
Std Dev 20.49
0
−2
−4
−6
−8
−10
pull1D
Entries 71
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_IGL1I00OD16_16s_mean vs run
χ² / ndf 3.862e+04 / 84
p0 17.01± 1.085e−16
18
17.8
17.6
17.4
17.2
17
pull
Entries 85
Mean 42.5
Std Dev 24.54
22
20
18
16
14
12
10
8
6
4
2
0
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_RTPAPOSUCNTs_mean vs run
χ² / ndf 1.78e+28 / 84
p0 913 ± 1.085e−16
913.03
913.02
913.01
913
912.99
pull
Entries 85
Mean −2.206e+08
Std Dev 2.206e+08
×10¹²
35
30
25
20
15
10
5
0
−5
pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_RTPAPOSVCNTs_mean vs run
χ² / ndf 4.845e+08 / 84
p0 −1003 ± 1.085e−16
−1002
−1002.2
−1002.4
−1002.6
−1002.8
−1003
pull
Entries 85
Mean 42.5
Std Dev 24.54
0
−500
−1000
−1500
−2000
−2500


pull1D
Entries 85
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8