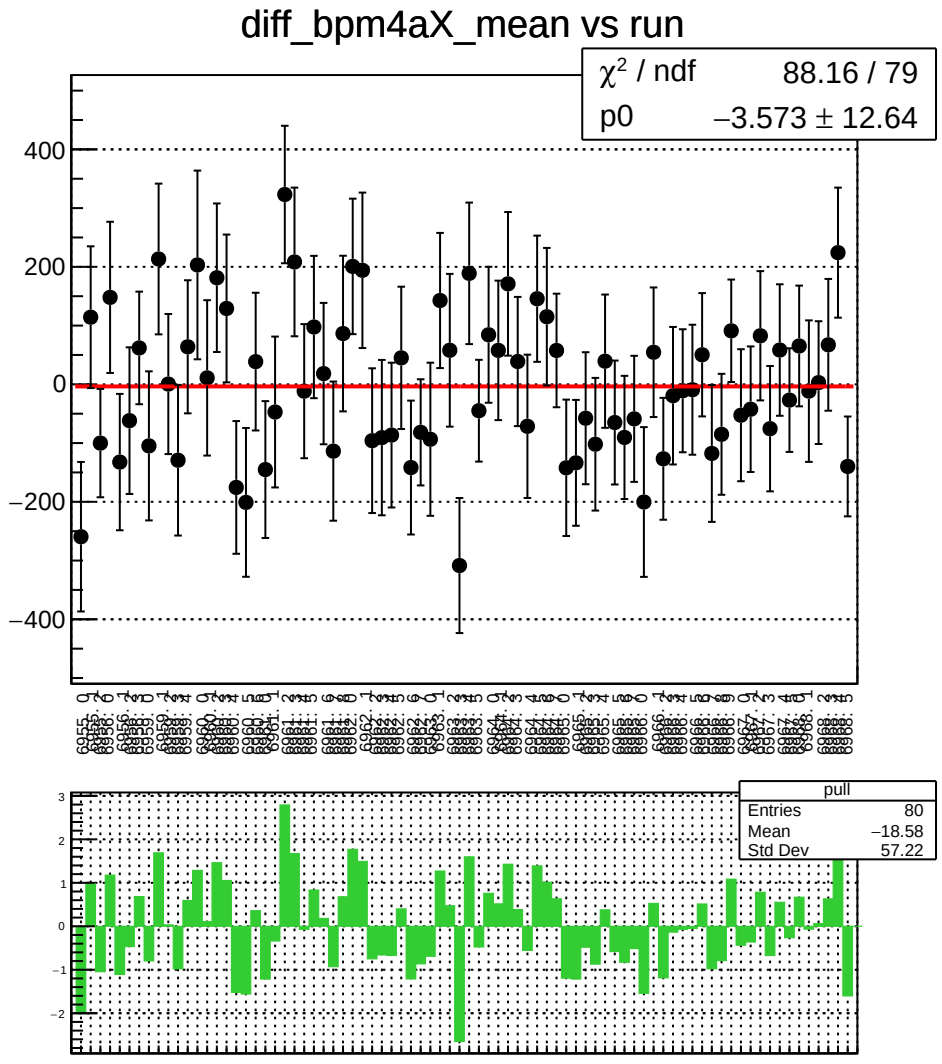
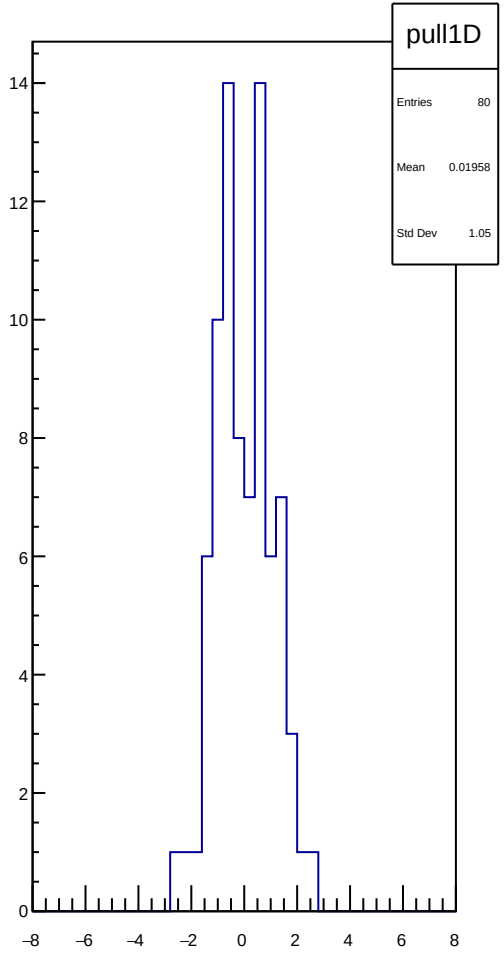
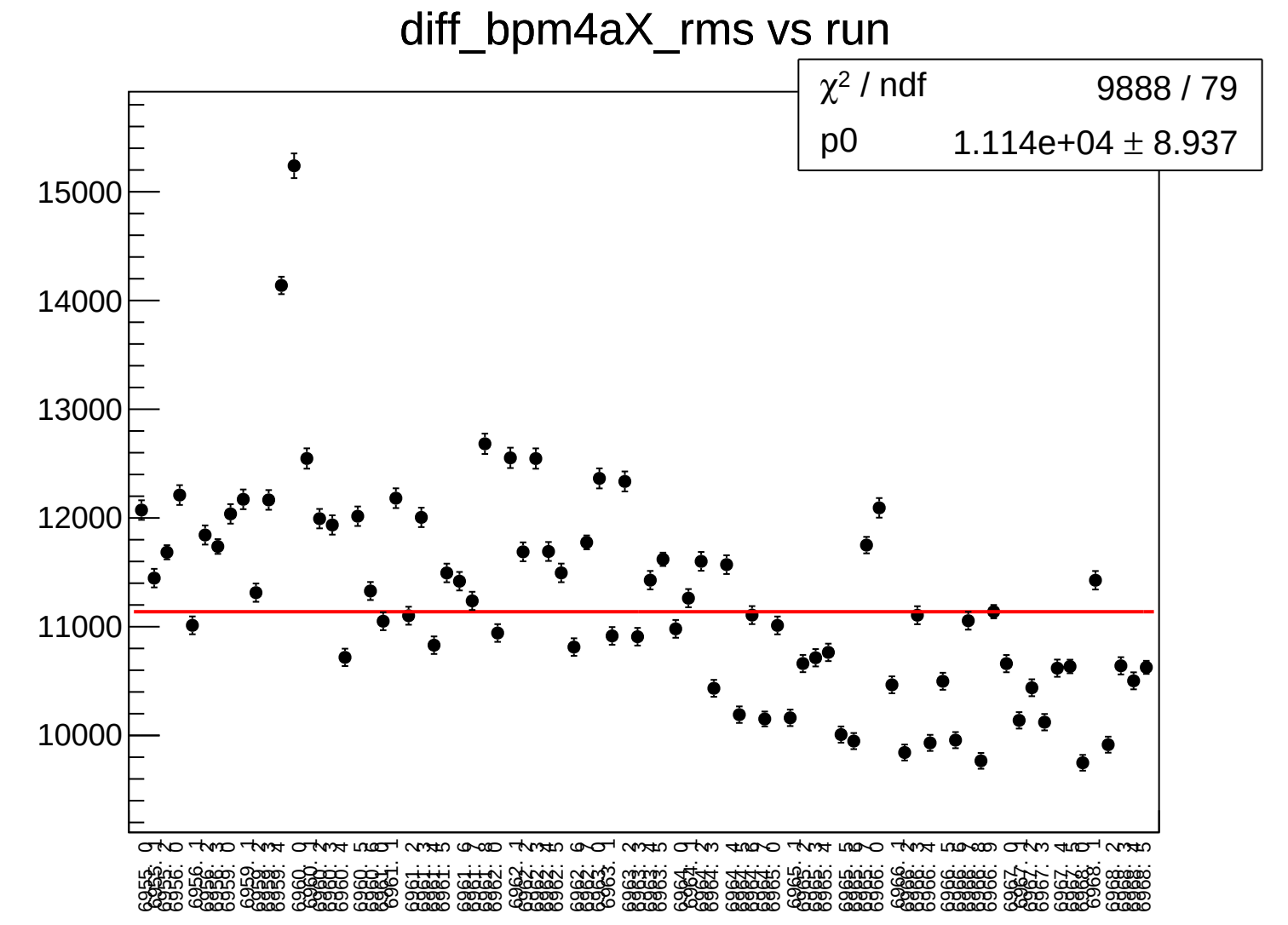
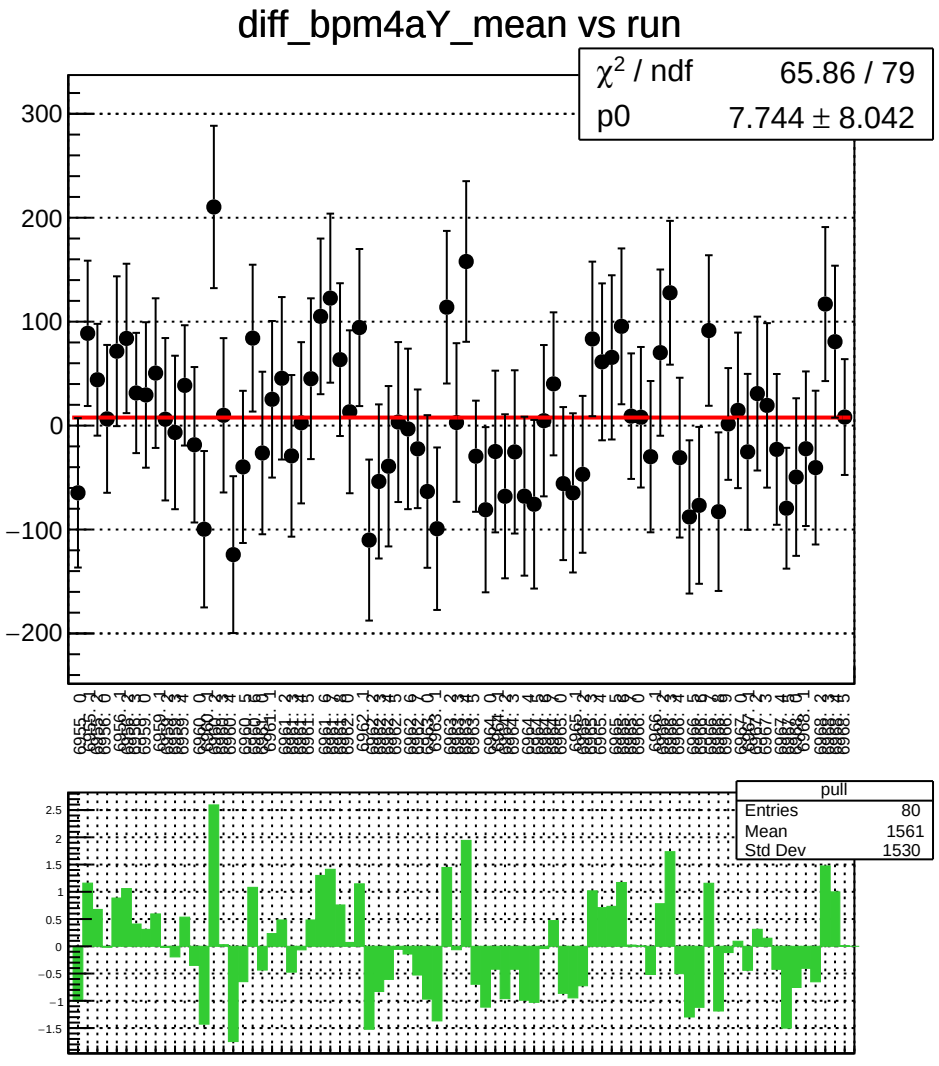
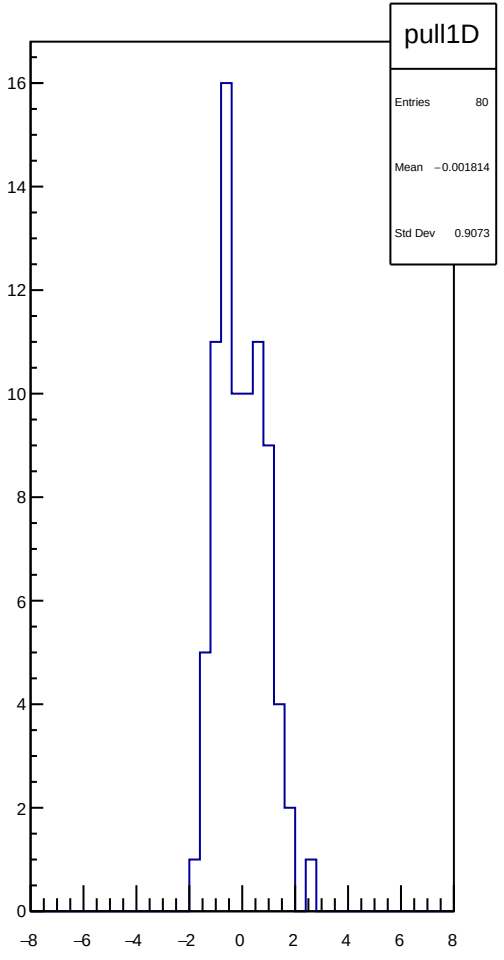
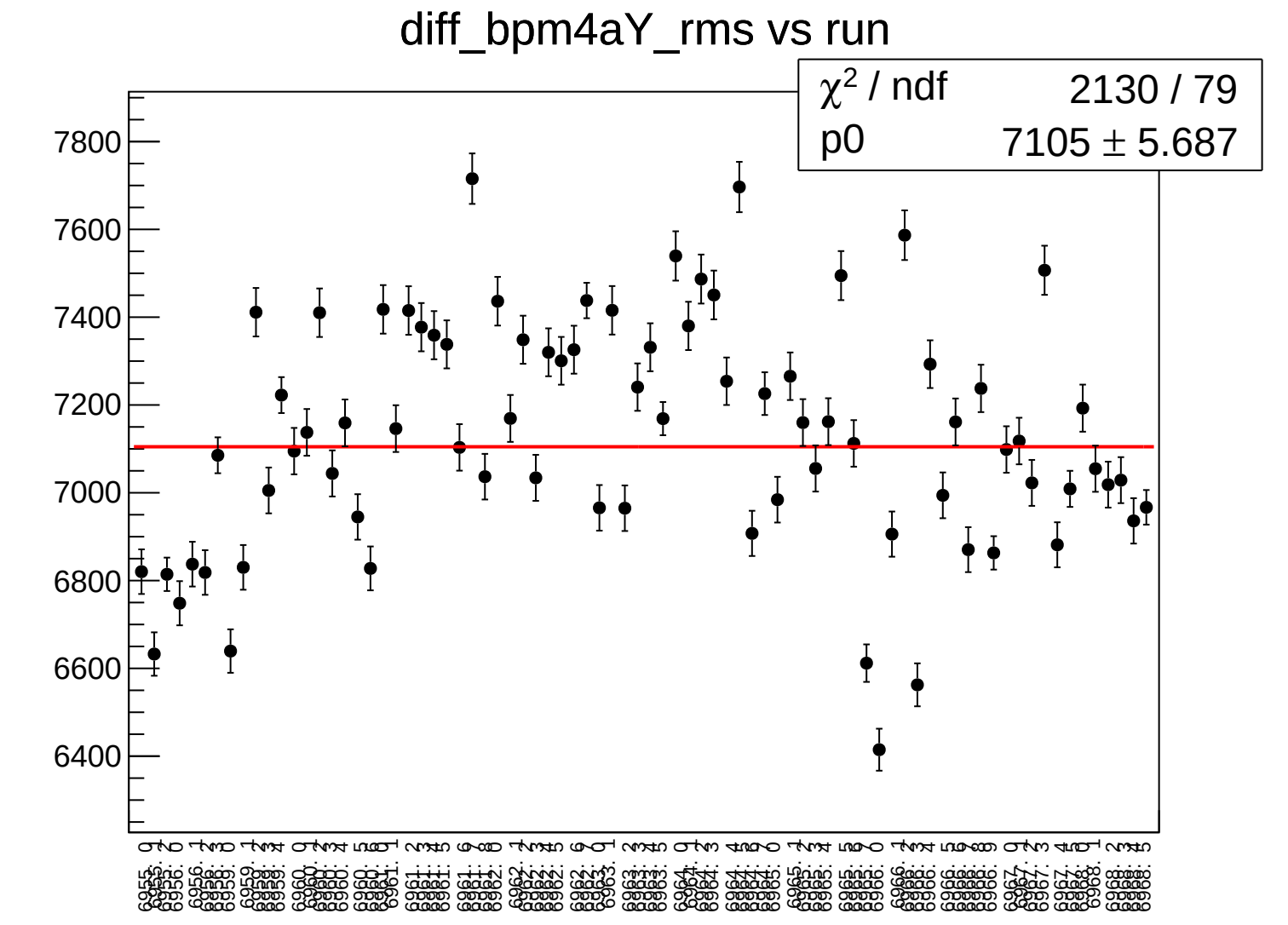

diff_bpm4aX_mean vs run
χ² / ndf 88.16 / 79
p0 −3.573 ± 12.64
400
200
0
−200
−400
pull
Entries 80
Mean −18.58
Std Dev 57.22
3
2
1
0
−1
−2

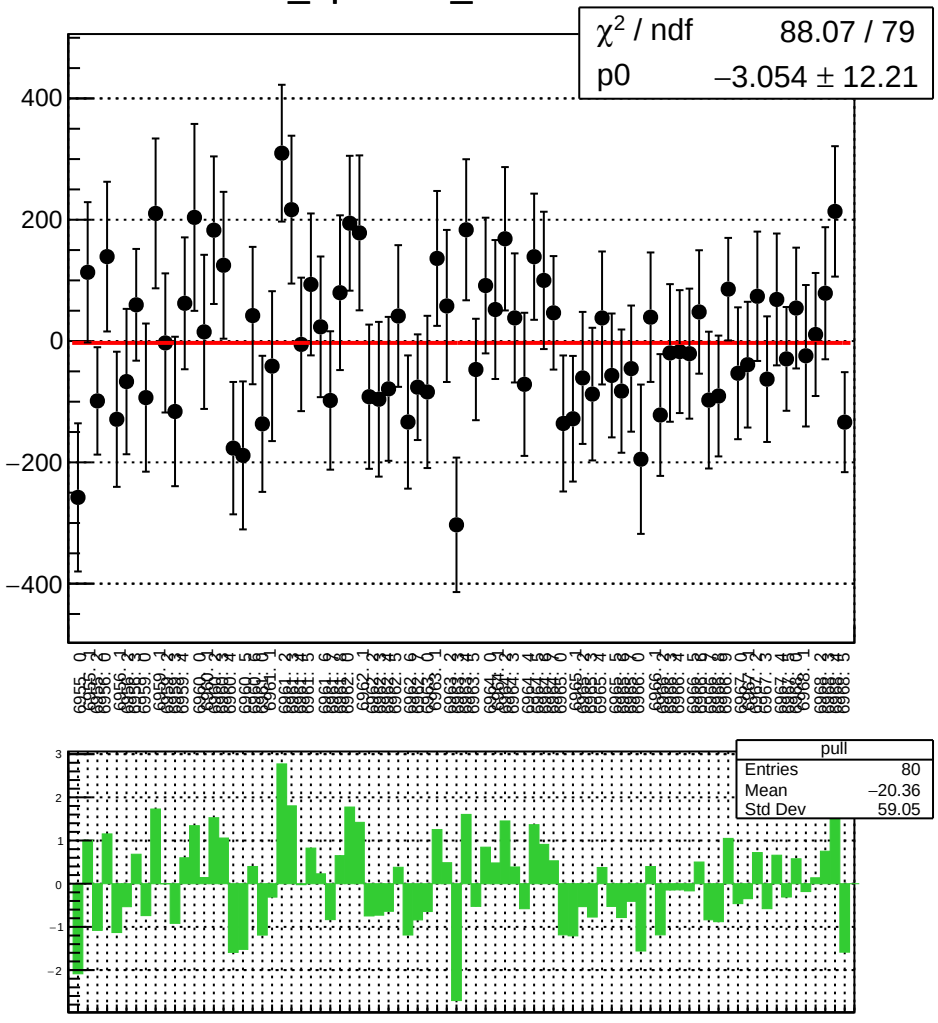

pull1D
Entries 80
Mean 0.01958
Std Dev 1.05
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

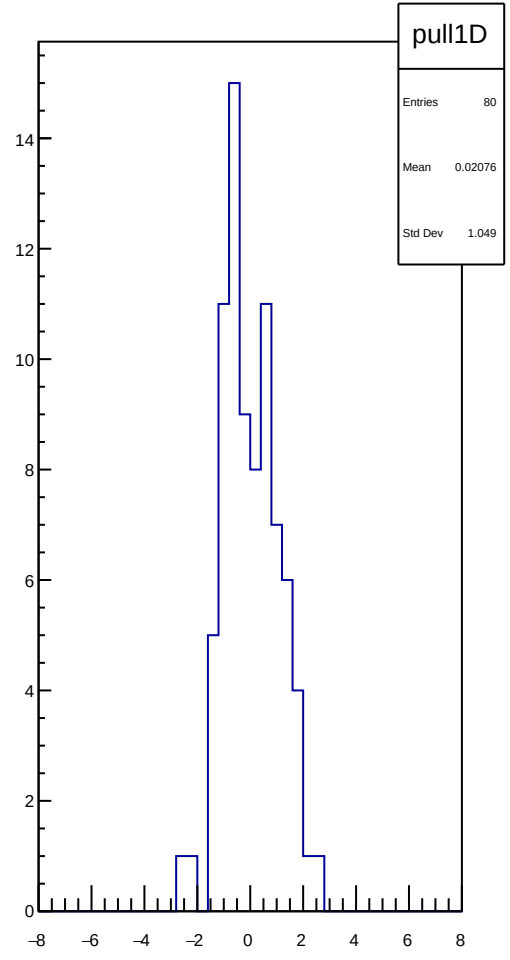

diff_bpm4aX_rms vs run
χ² / ndf 9888 / 79
p0 1.114e+04 ± 8.937
15000
14000
13000
12000
11000
10000


diff_bpm4aY_mean vs run
χ² / ndf 65.86 / 79
p0 7.744 ± 8.042
300
200
100
0
−100
−200
pull
Entries 80
Mean 1561
Std Dev 1530
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5

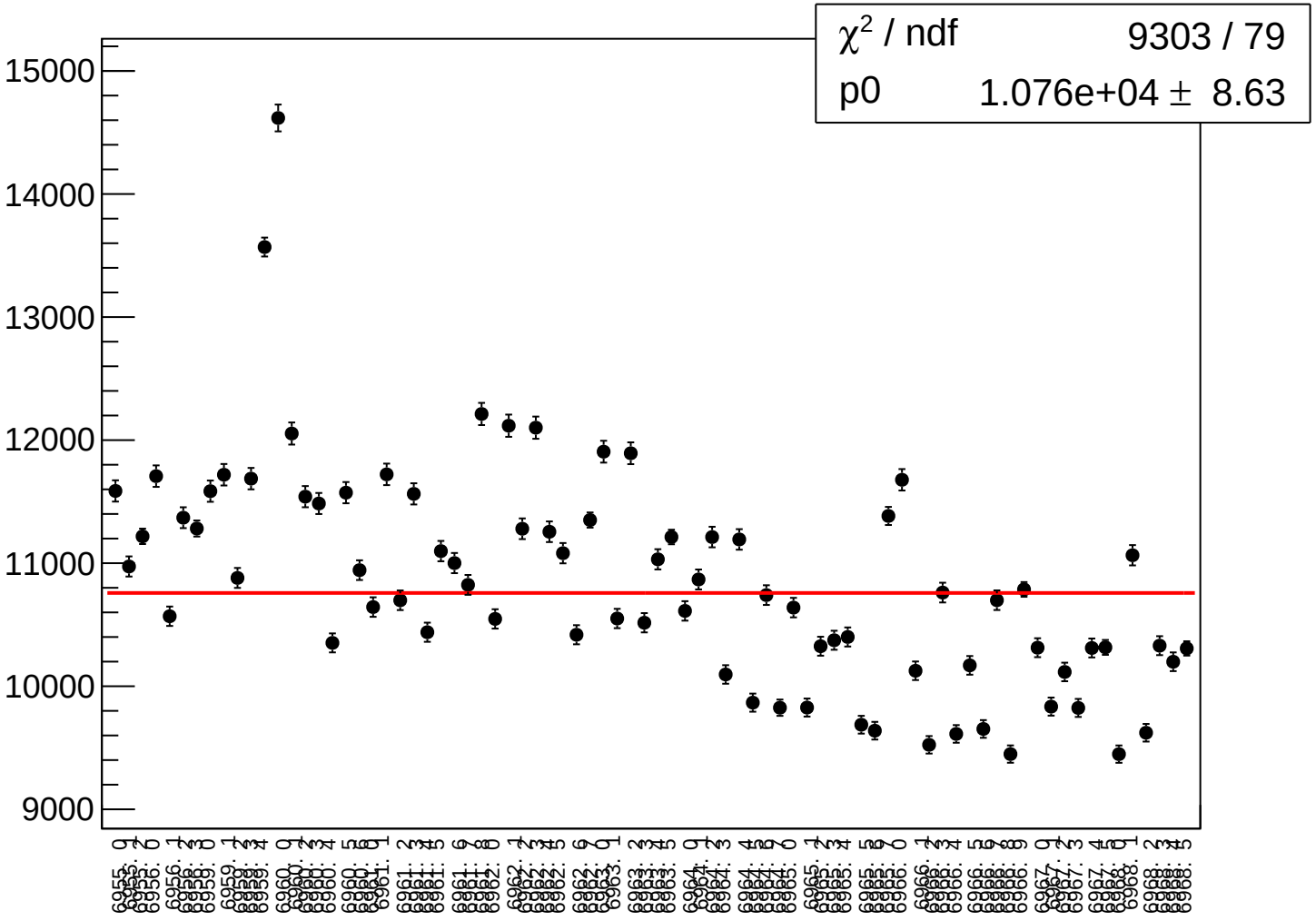

pull1D
Entries 80
Mean −0.001814
Std Dev 0.9073
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

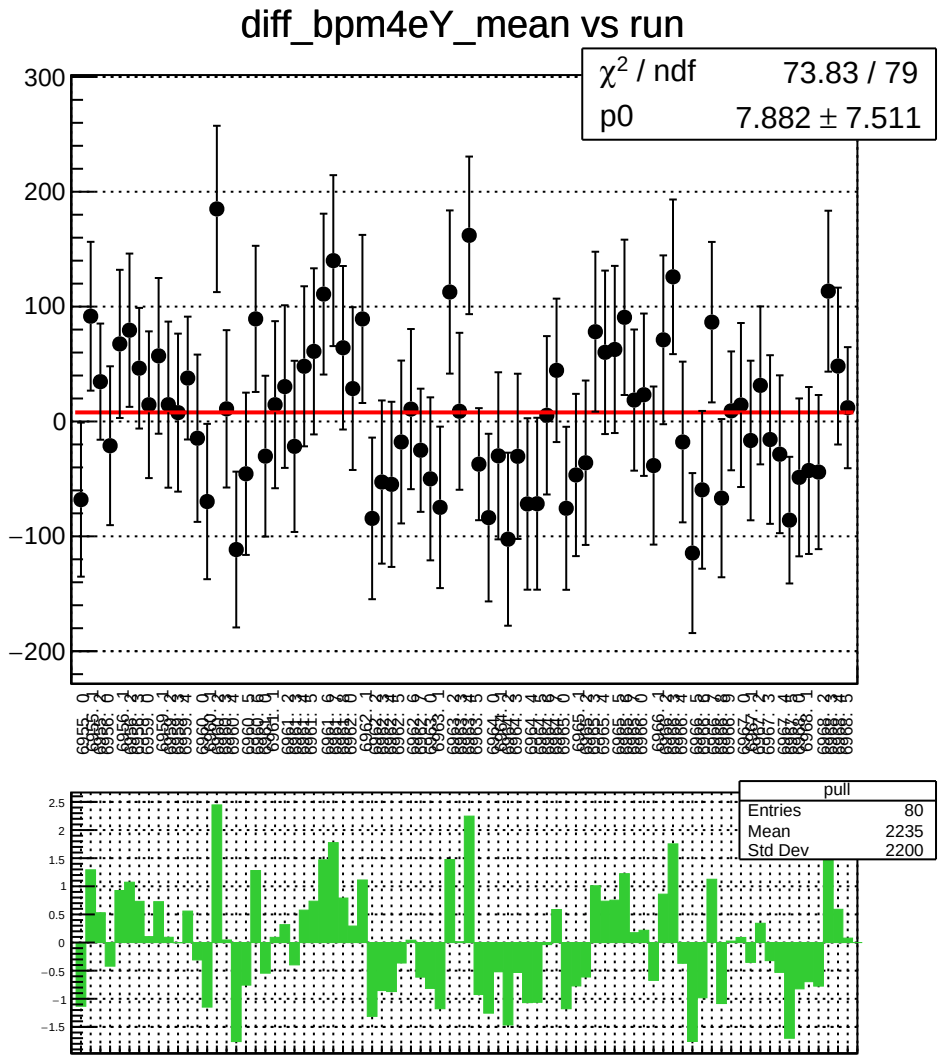

diff_bpm4aY_rms vs run
χ^2 / ndf 2130 / 79
p0 7105 ± 5.687
7800
7600
7400
7200
7000
6800
6600
6400

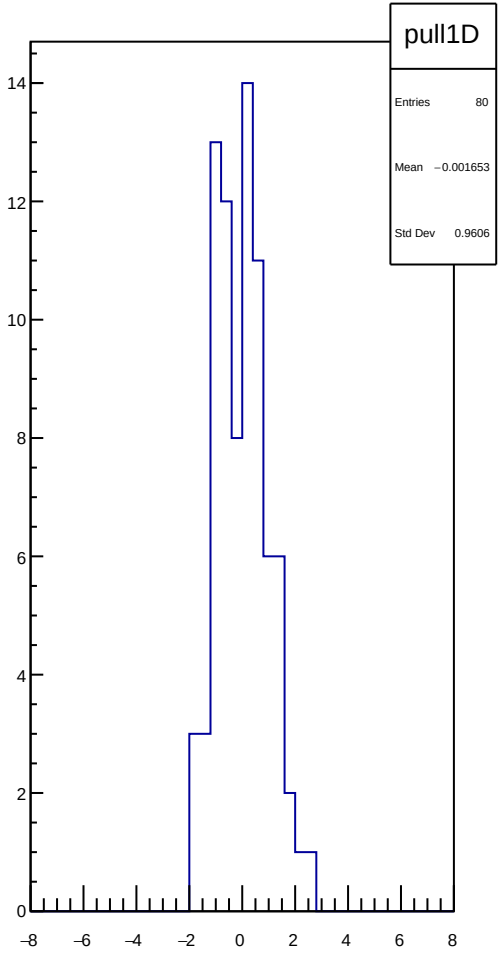

diff_bpm4eX_mean vs run
χ² / ndf 88.07 / 79
p0 −3.054 ± 12.21
400
200
0
−200
−400
pull
Entries 80
Mean −20.36
Std Dev 59.05
3
2
1
0
−1
−2

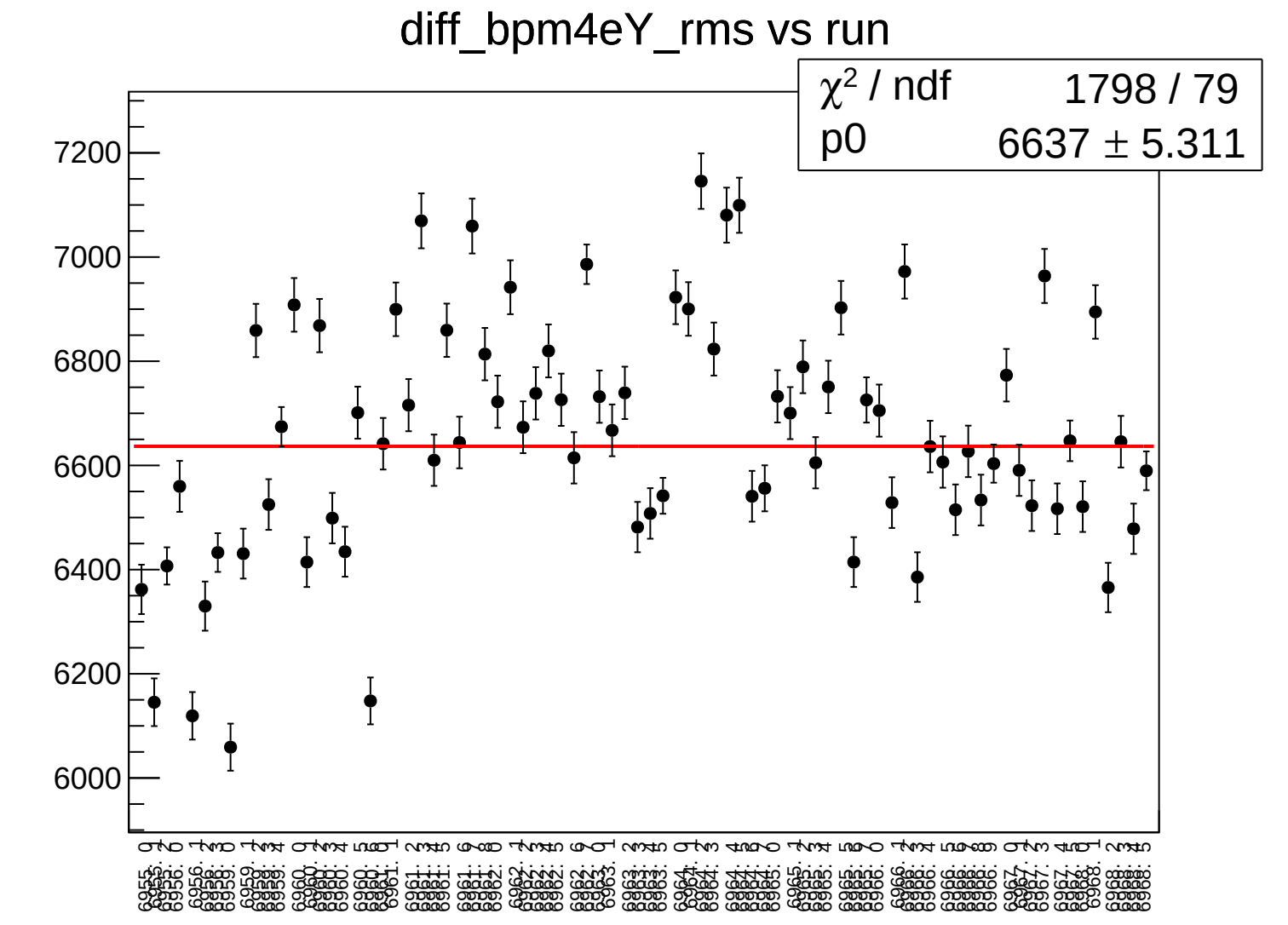

pull1D
Entries 80
Mean 0.02076
Std Dev 1.049
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

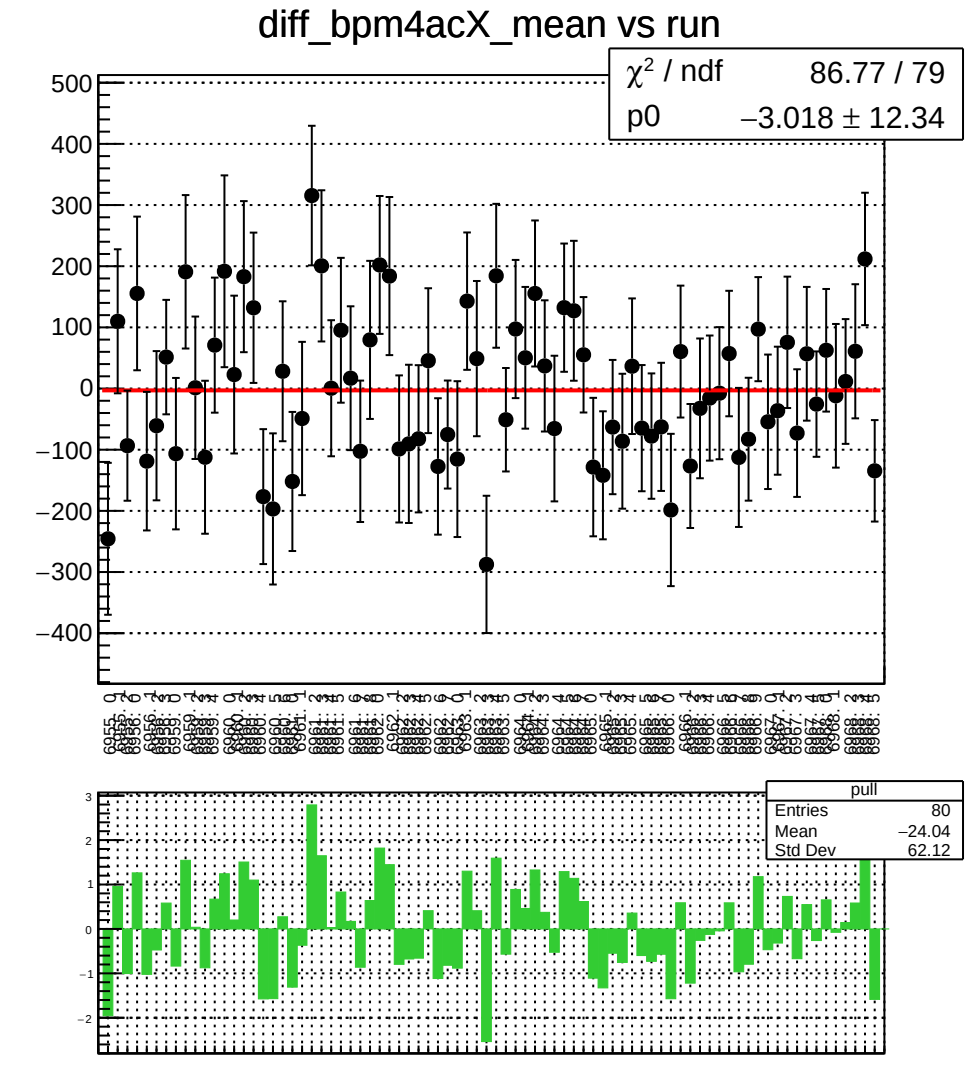
diff_bpm4eX_rms vs run

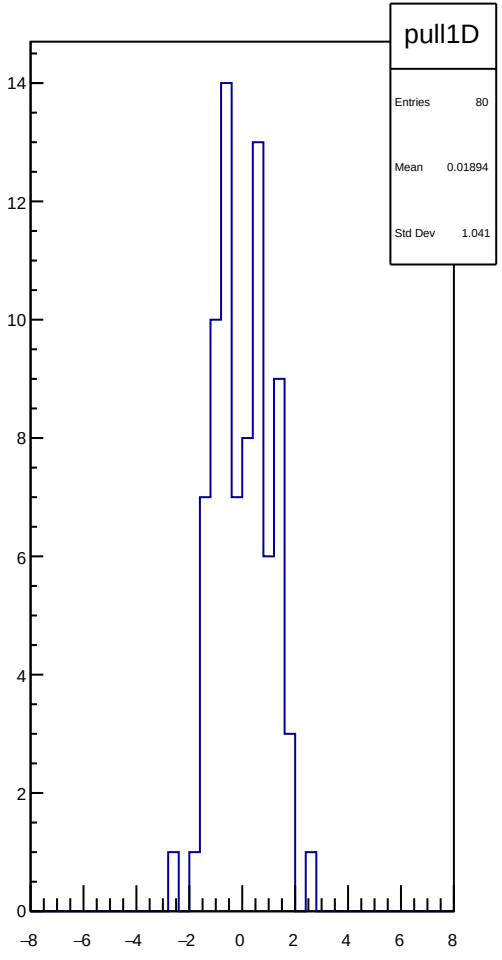


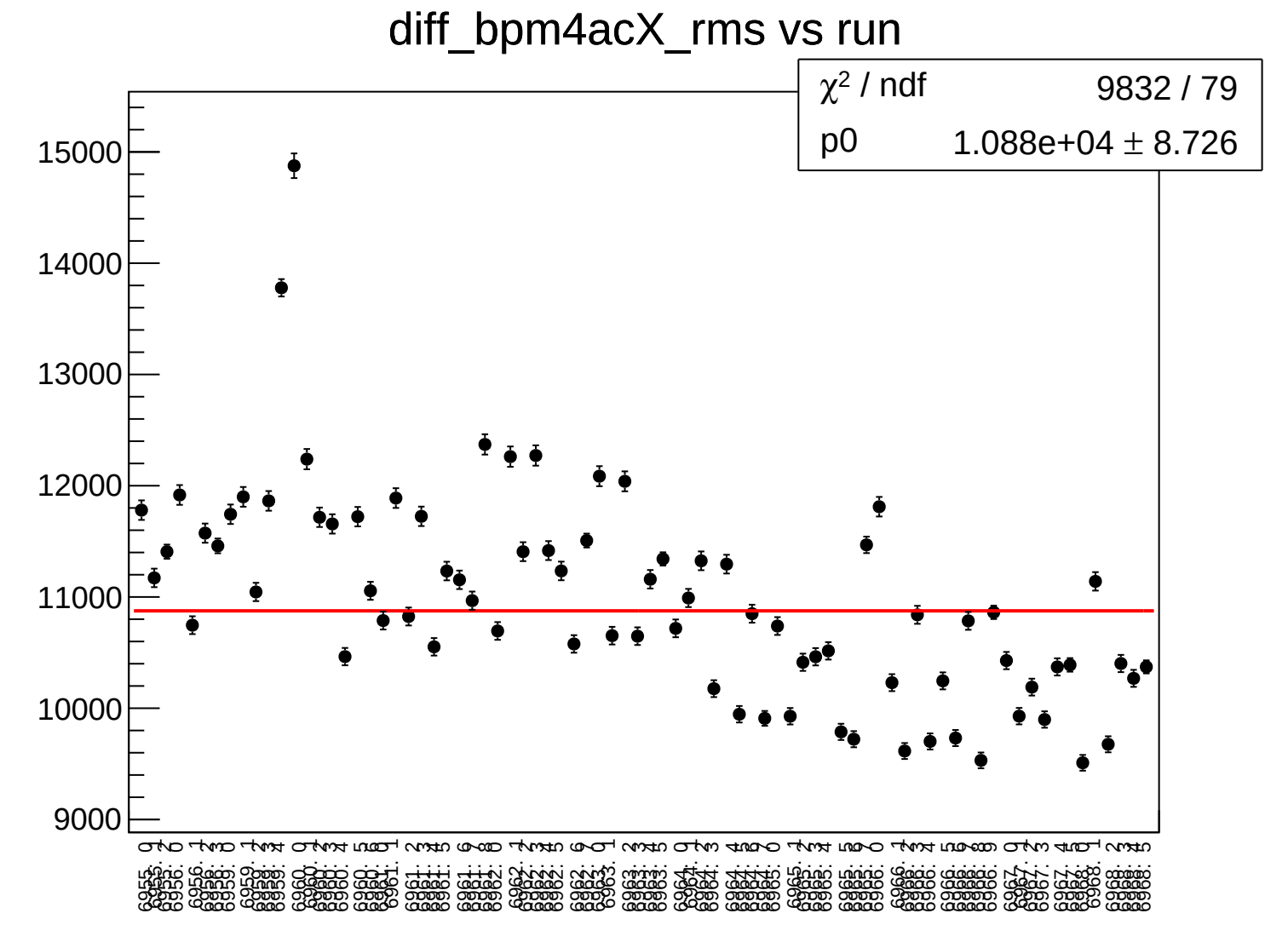

diff_bpm4eY_mean vs run
χ² / ndf 73.83 / 79
p0 7.882 ± 7.511
pull
Entries 80
Mean 2235
Std Dev 2200

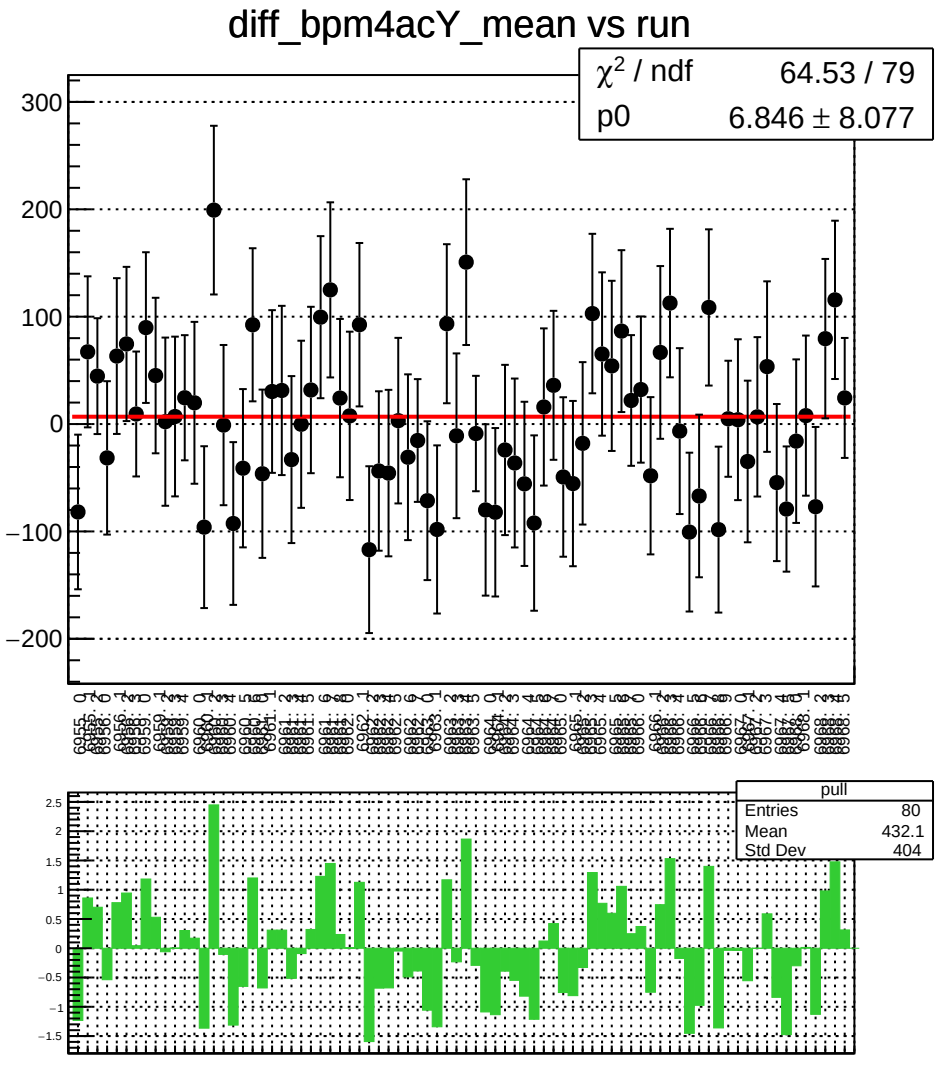

pull1D
Entries 80
Mean −0.001653
Std Dev 0.9606

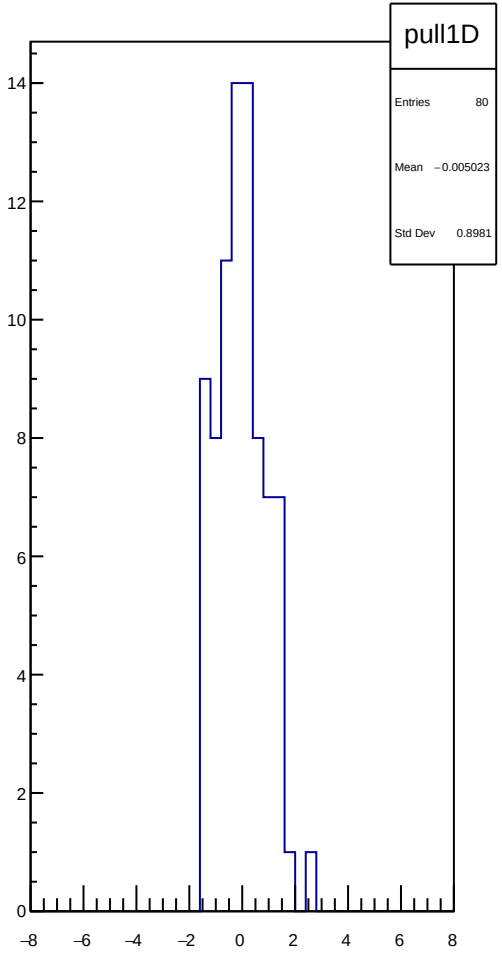

diff_bpm4eY_rms vs run
χ² / ndf 1798 / 79
p0 6637 ± 5.311
7200
7000
6800
6600
6400
6200
6000

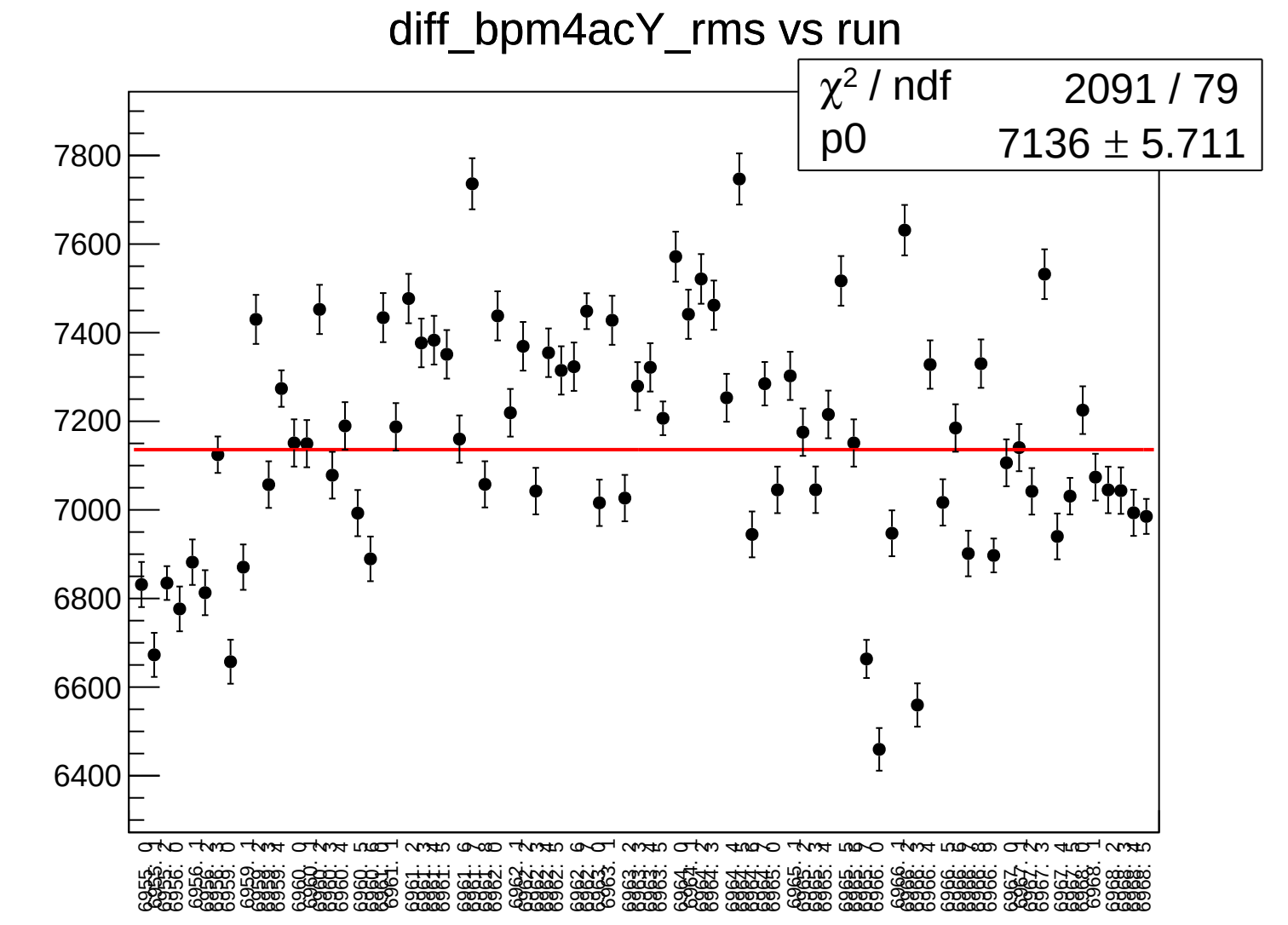

diff_bpm4acX_mean vs run
χ² / ndf 86.77 / 79
p0 −3.018 ± 12.34
pull
Entries 80
Mean −24.04
Std Dev 62.12

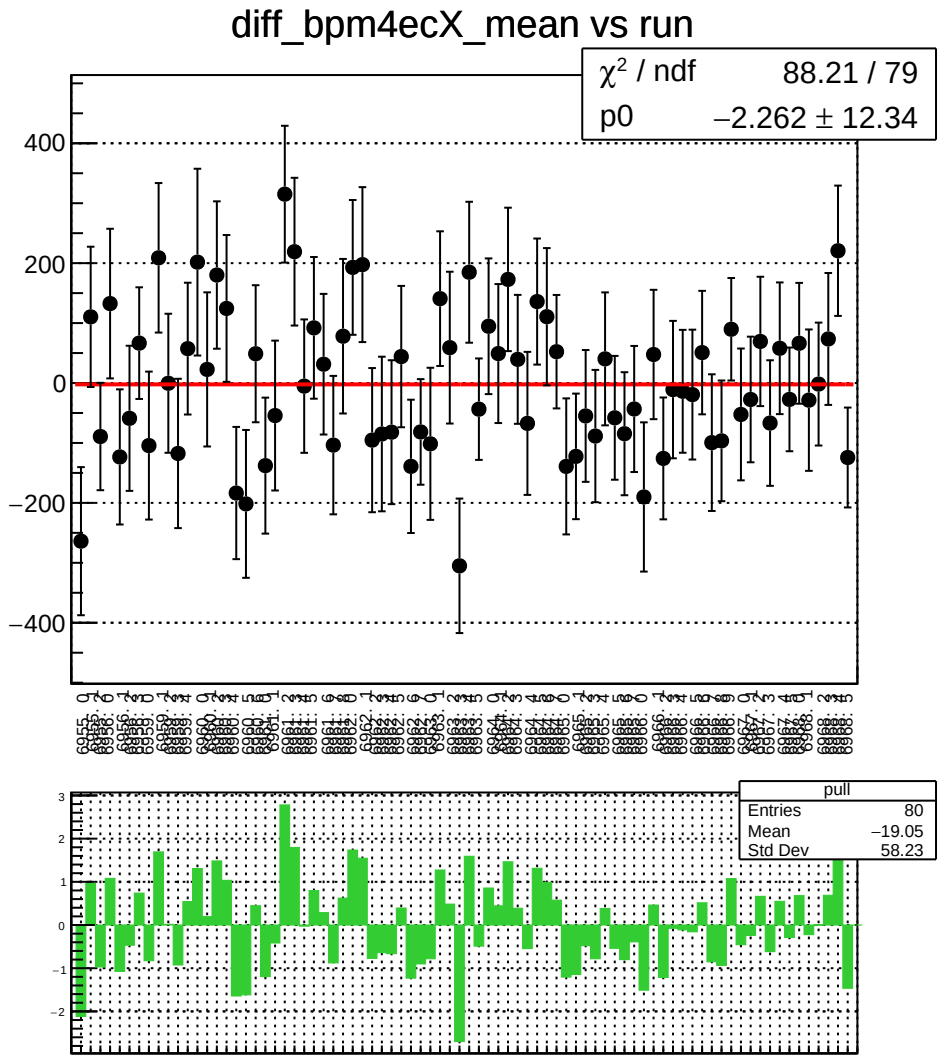

pull1D
Entries 80
Mean 0.01894
Std Dev 1.041

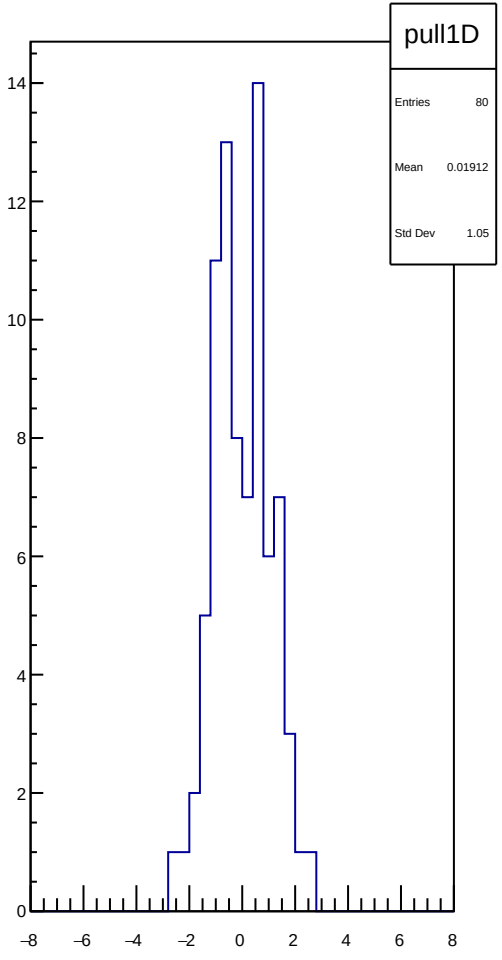

diff_bpm4acX_rms vs run
χ² / ndf 9832 / 79
p0 1.088e+04 ± 8.726
15000
14000
13000
12000
11000
10000
9000

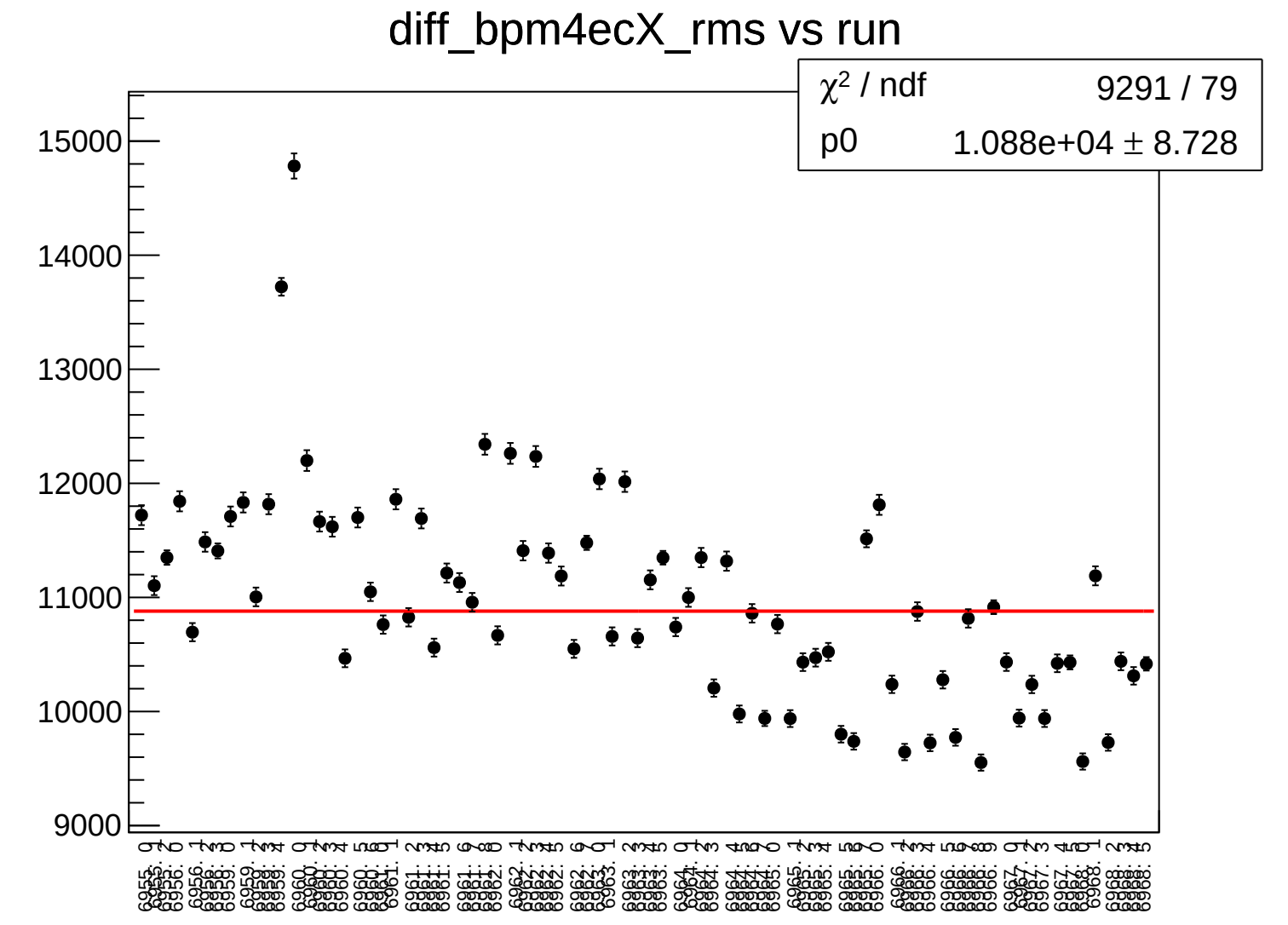

diff_bpm4acY_mean vs run
χ^2 / ndf 64.53 / 79
p0 6.846 ± 8.077
pull
Entries 80
Mean 432.1
Std Dev 404

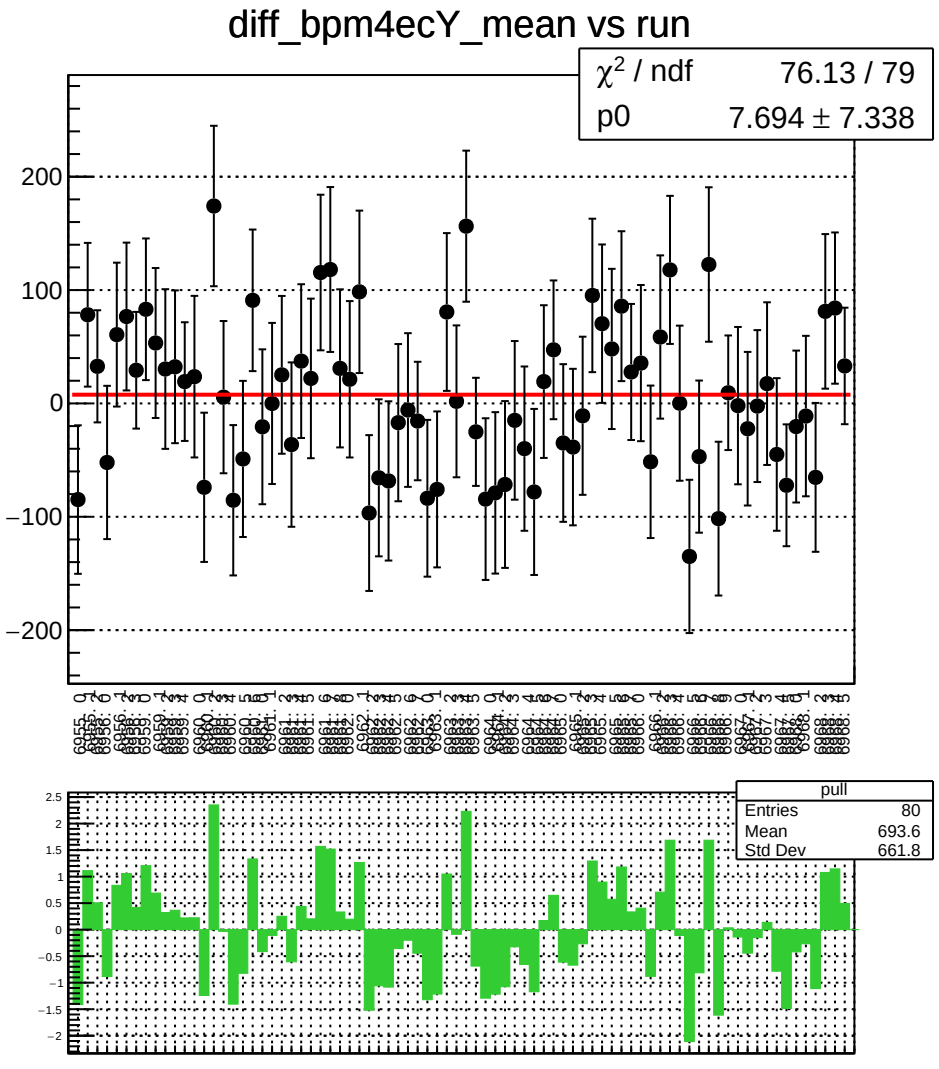

pull1D
Entries 80
Mean −0.005023
Std Dev 0.8981

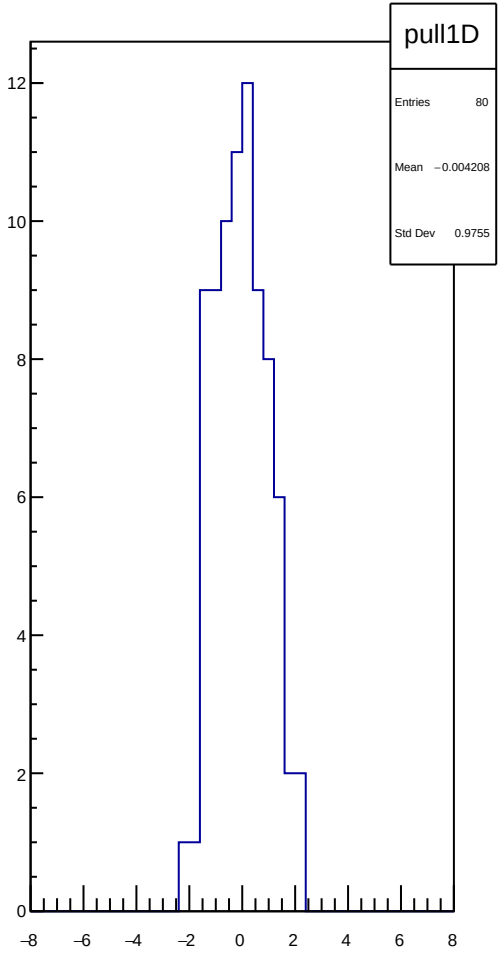

diff_bpm4acY_rms vs run
χ² / ndf 2091 / 79
p0 7136 ± 5.711
7800
7600
7400
7200
7000
6800
6600
6400

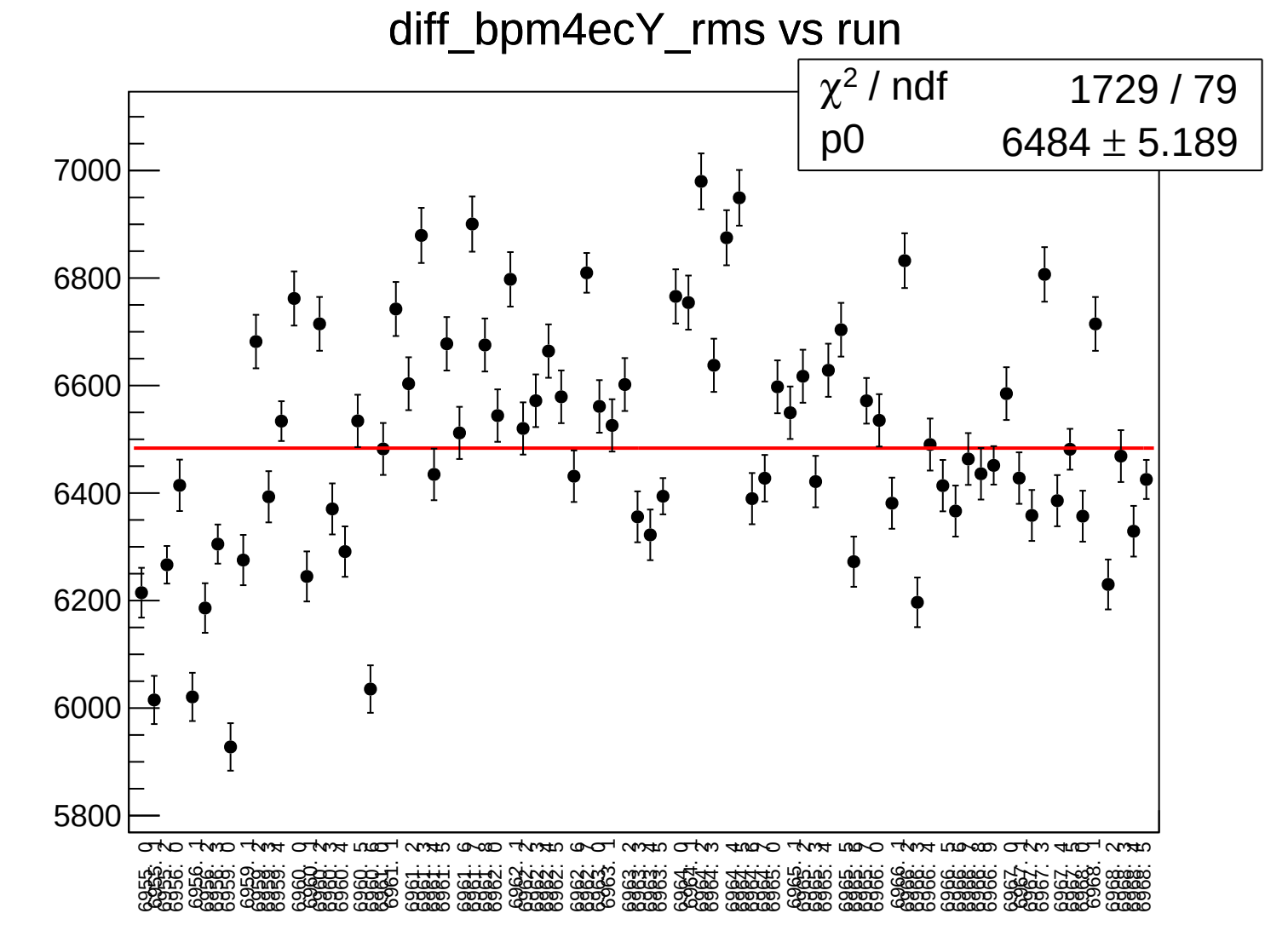

diff_bpm4ecX_mean vs run
χ² / ndf 88.21 / 79
p0 −2.262 ± 12.34
400
200
0
−200
−400
pull
Entries 80
Mean −19.05
Std Dev 58.23
3
2
1
0
−1
−2

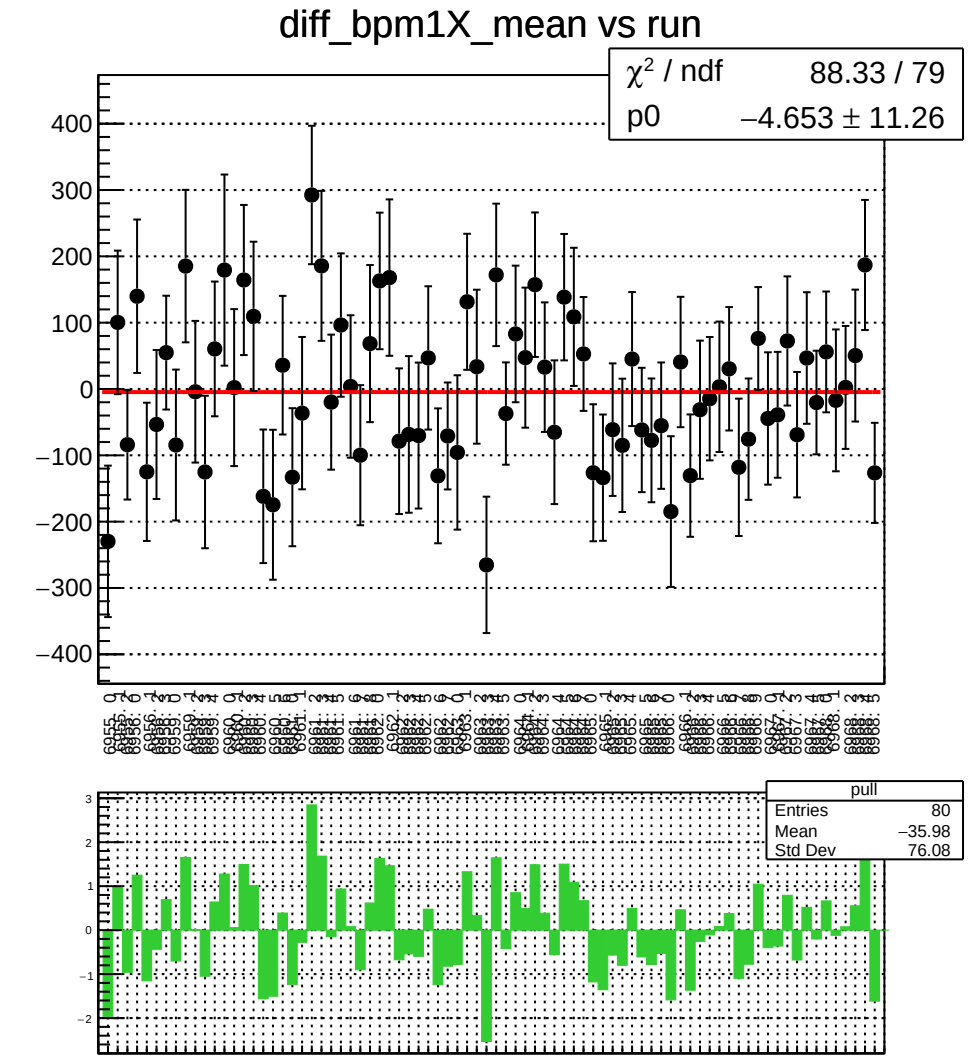

pull1D
Entries 80
Mean 0.01912
Std Dev 1.05
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

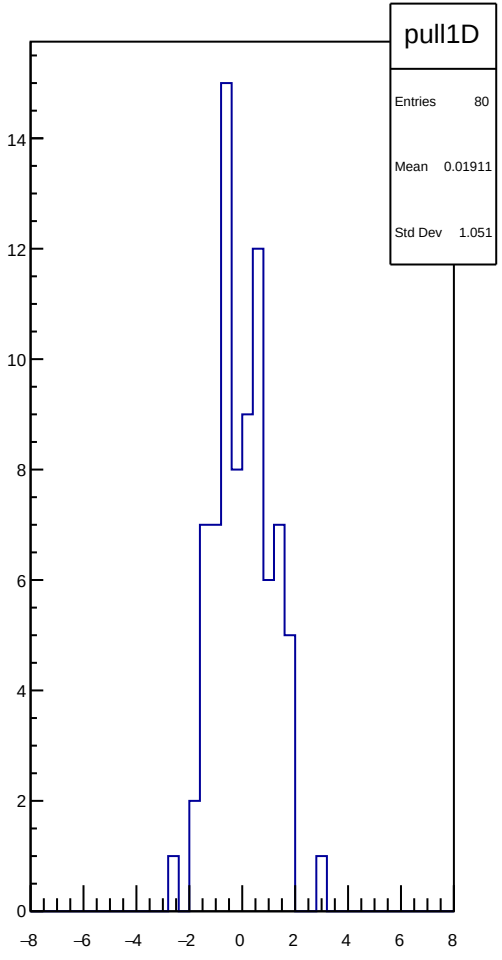

diff_bpm4ecX_rms vs run
χ² / ndf 9291 / 79
p0 1.088e+04 ± 8.728
15000
14000
13000
12000
11000
10000
9000

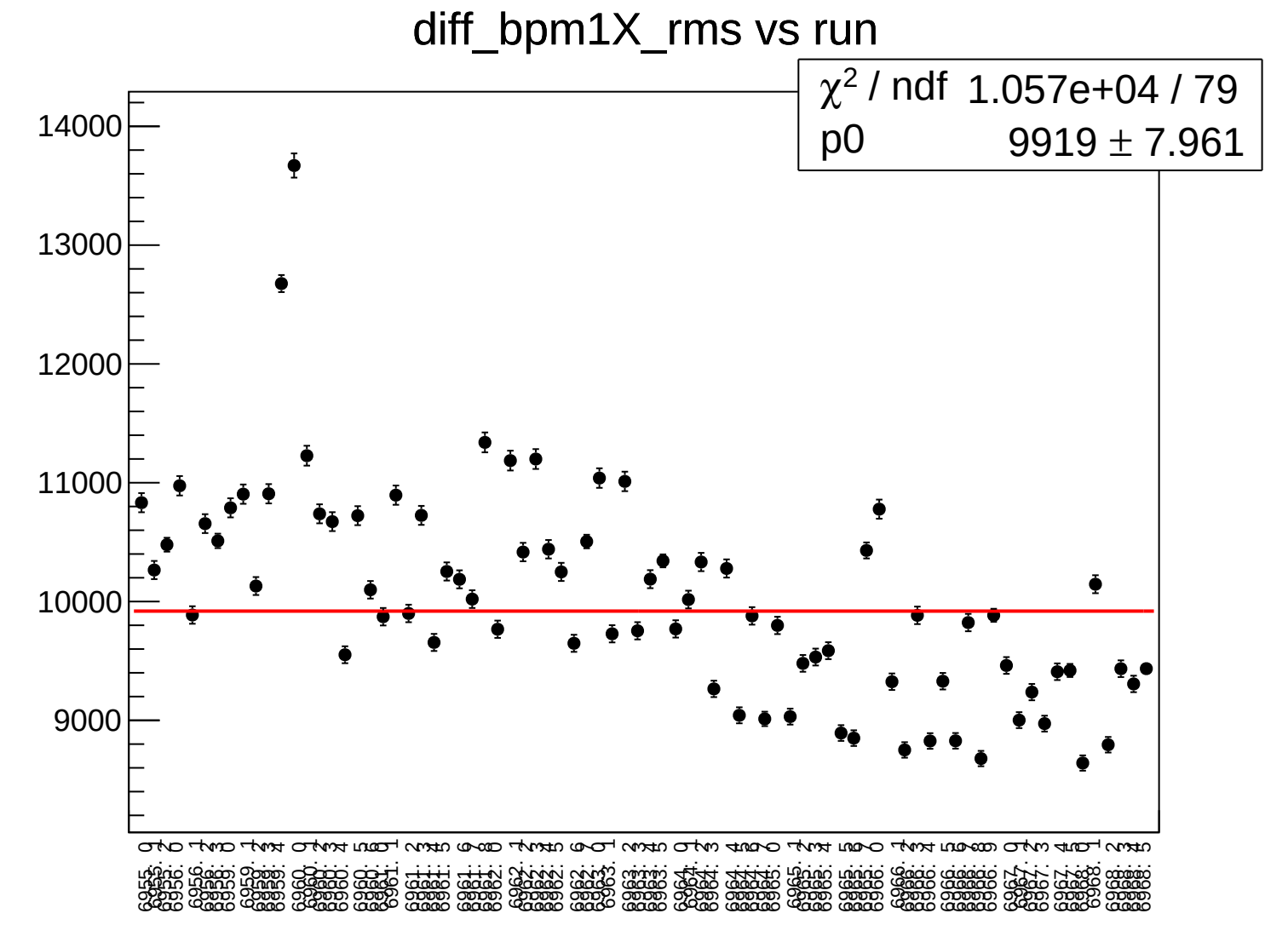

diff_bpm4ecY_mean vs run
χ² / ndf 76.13 / 79
p0 7.694 ± 7.338
200
100
0
−100
−200
pull
Entries 80
Mean 693.6
Std Dev 661.8
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

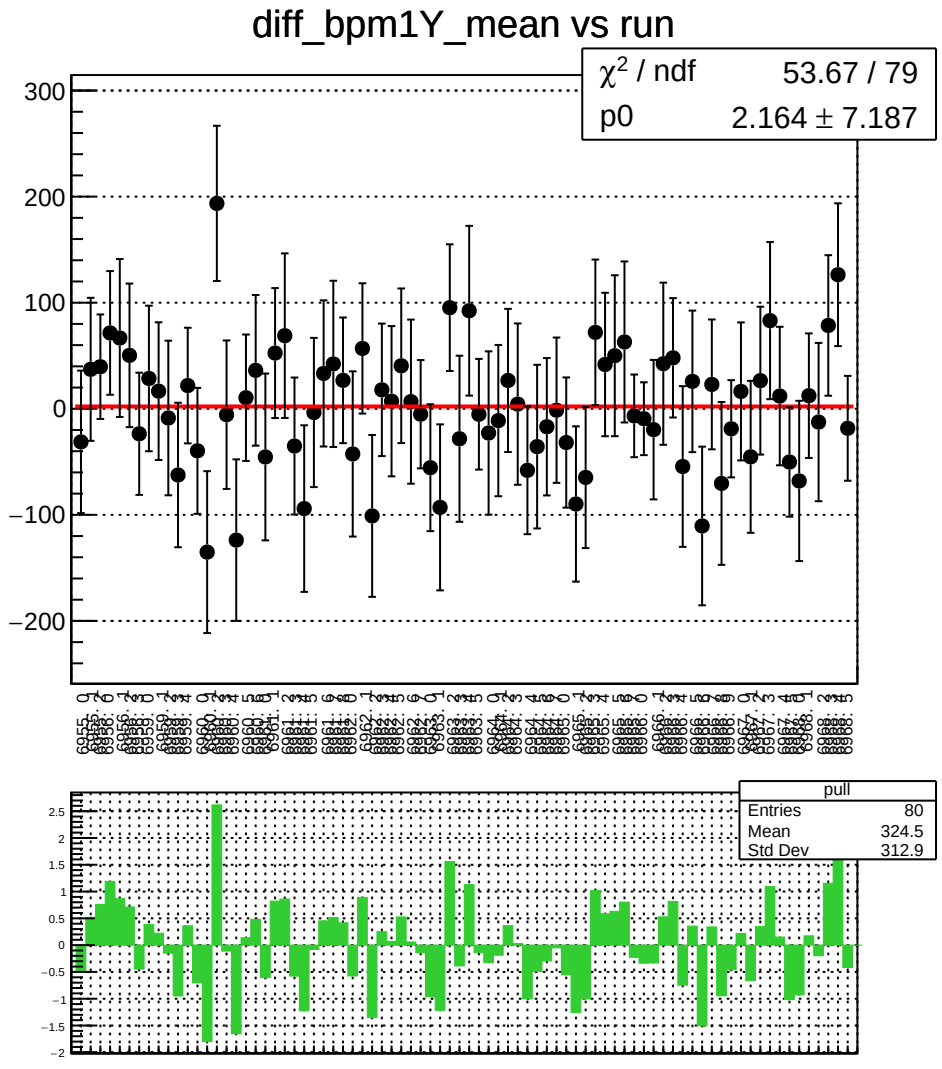

pull1D
Entries 80
Mean −0.004208
Std Dev 0.9755
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

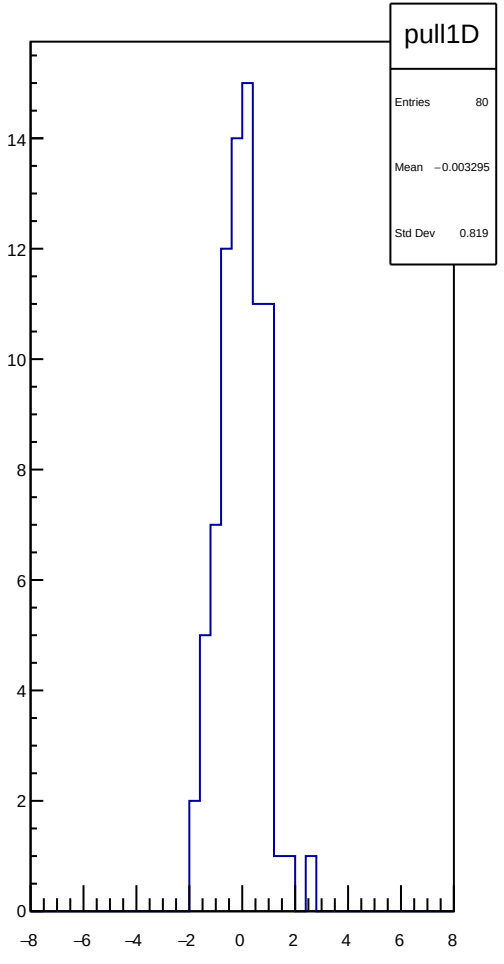

diff_bpm4ecY_rms vs run
χ^2 / ndf 1729 / 79
p0 6484 ± 5.189
7000
6800
6600
6400
6200
6000
5800

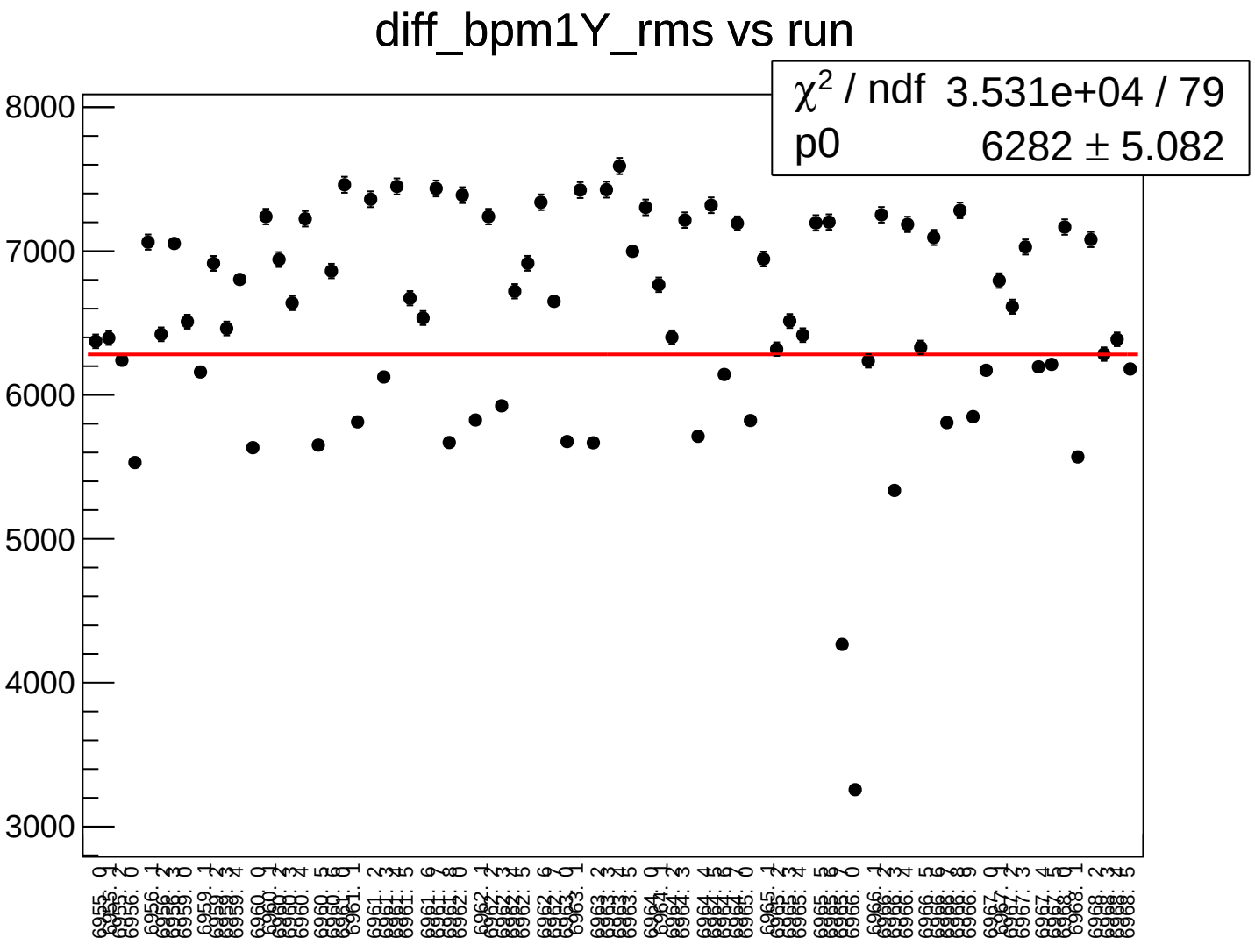

diff_bpm1X_mean vs run
χ² / ndf 88.33 / 79
p0 −4.653 ± 11.26
pull
Entries 80
Mean −35.98
Std Dev 76.08

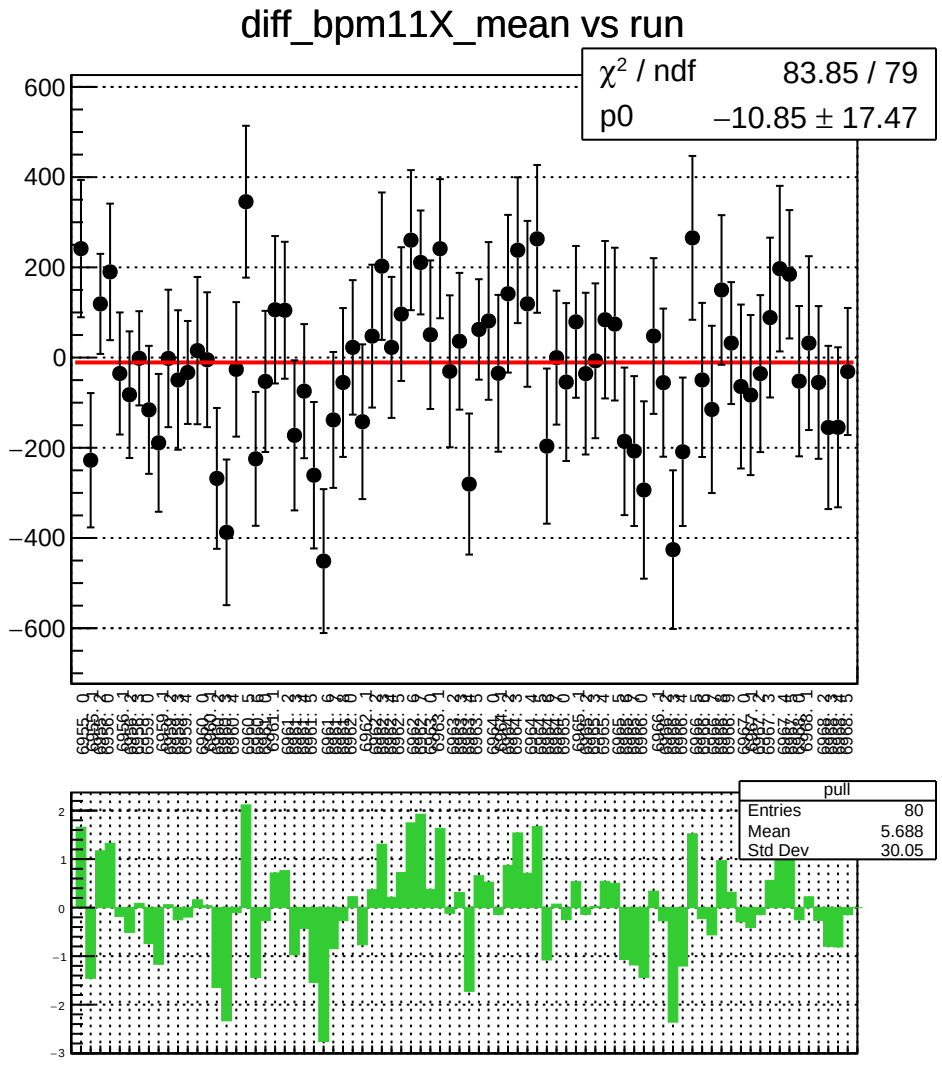

pull1D
Entries 80
Mean 0.01911
Std Dev 1.051

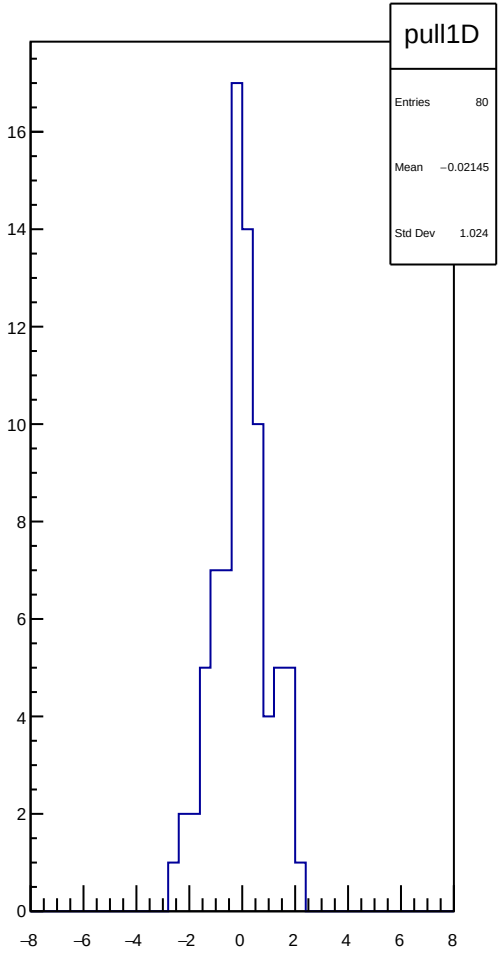

diff_bpm1X_rms vs run
χ² / ndf 1.057e+04 / 79
p0 9919 ± 7.961
14000
13000
12000
11000
10000
9000

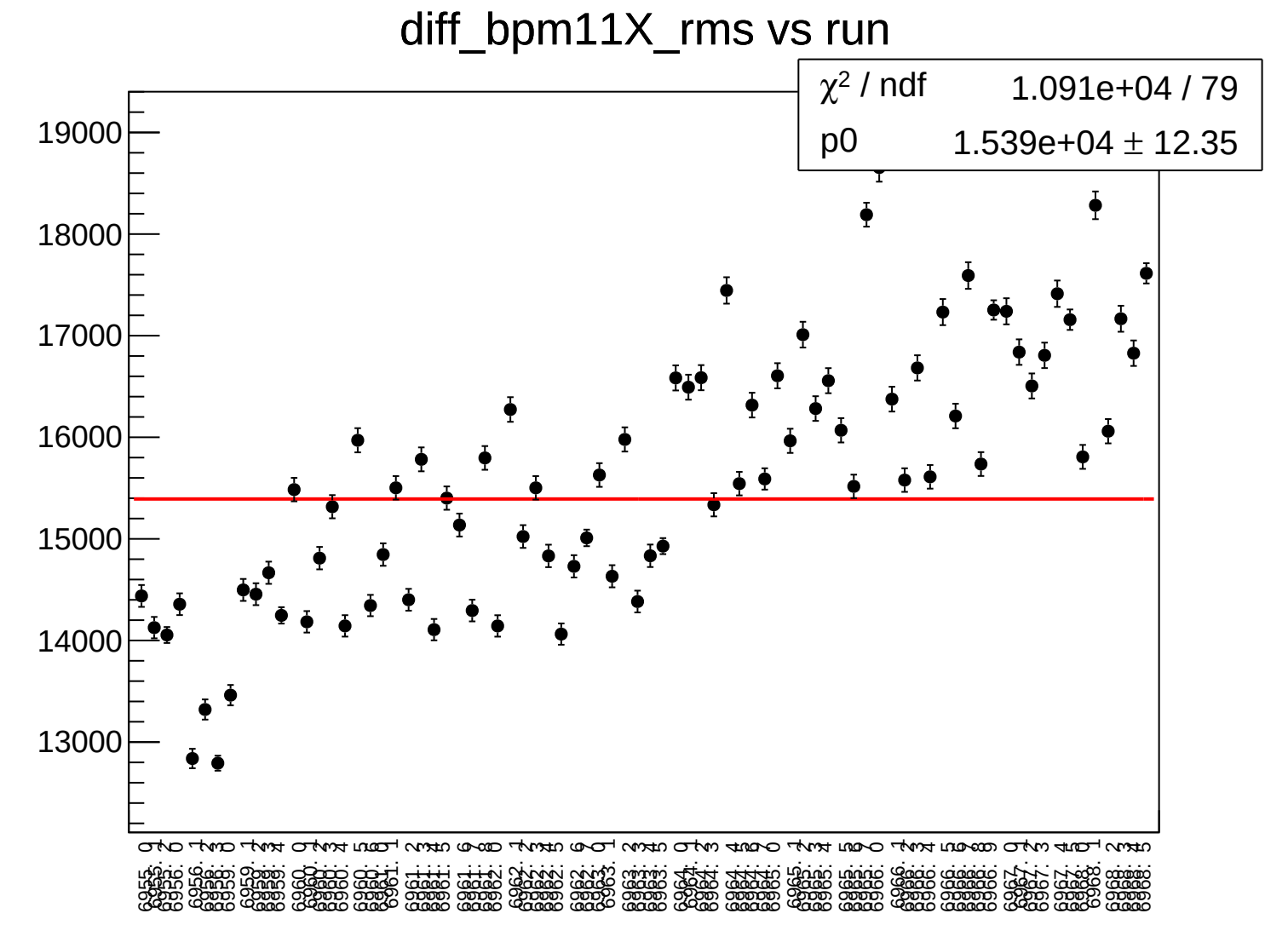

diff_bpm1Y_mean vs run
χ² / ndf 53.67 / 79
p0 2.164 ± 7.187
300
200
100
0
−100
−200
pull
Entries 80
Mean 324.5
Std Dev 312.9
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

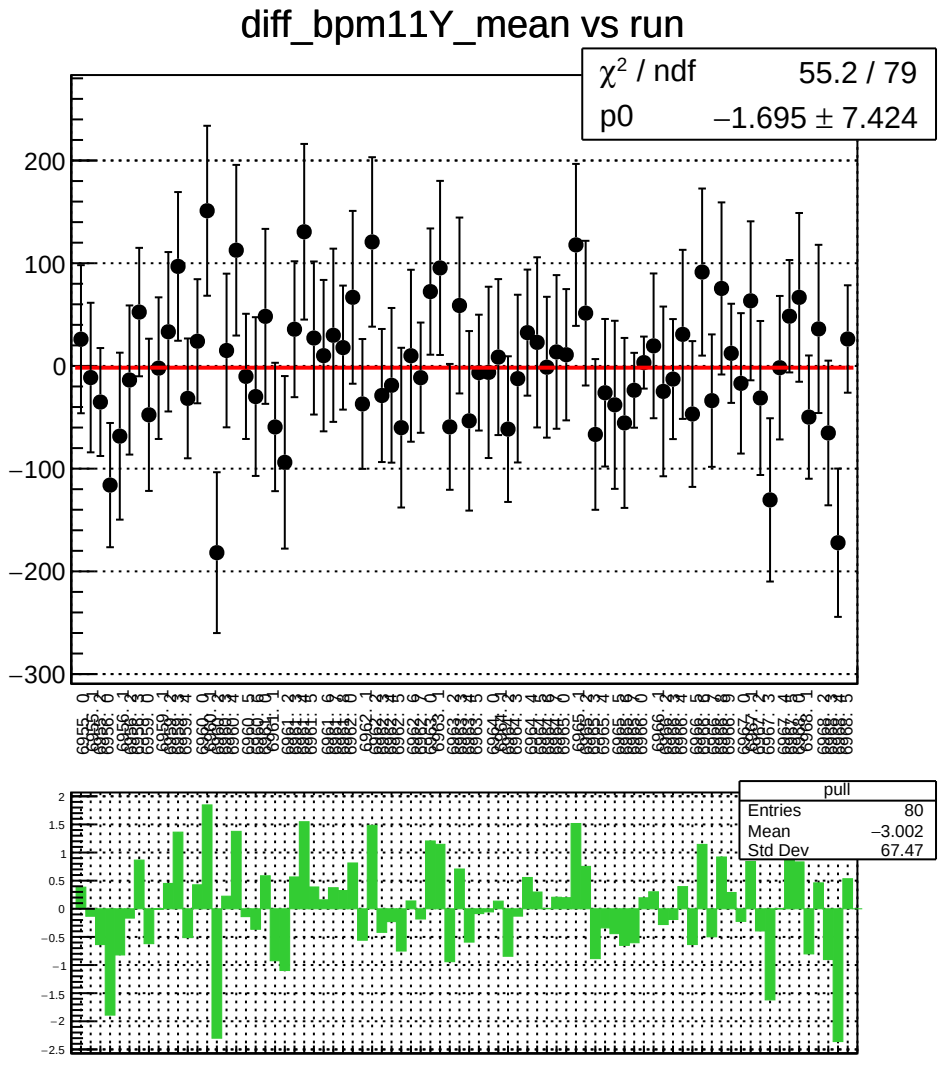

pull1D
Entries 80
Mean −0.003295
Std Dev 0.819
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

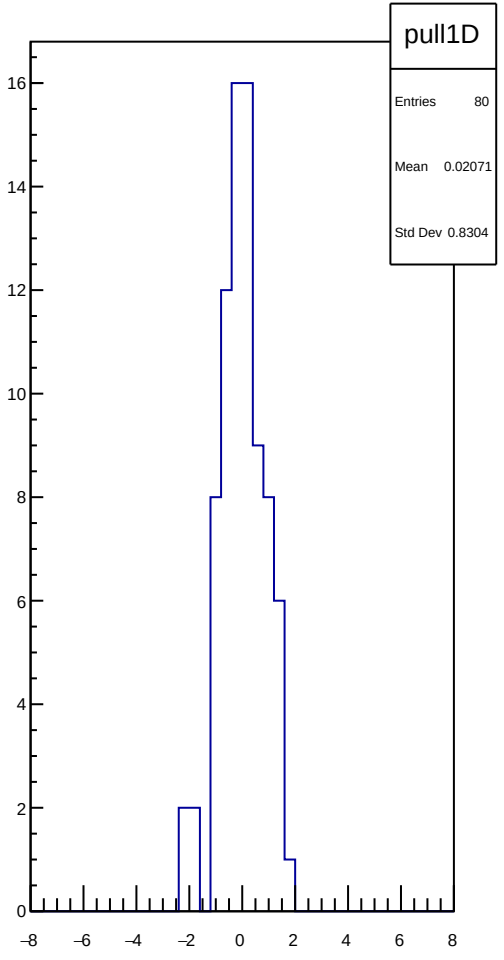

diff_bpm1Y_rms vs run
χ² / ndf 3.531e+04 / 79
p0 6282 ± 5.082
8000
7000
6000
5000
4000
3000

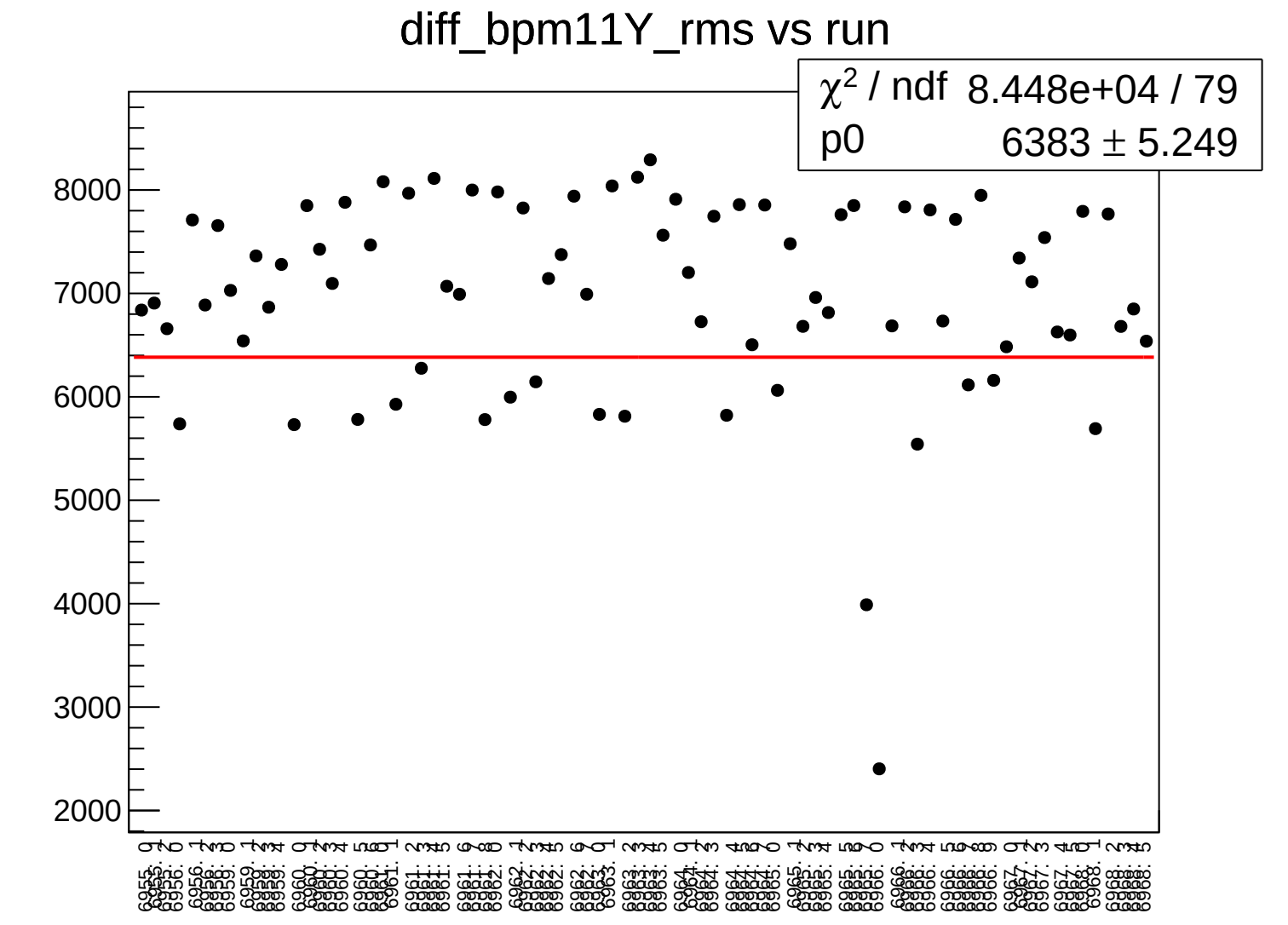

diff_bpm11X_mean vs run
χ² / ndf 83.85 / 79
p0 −10.85 ± 17.47
pull
Entries 80
Mean 5.688
Std Dev 30.05

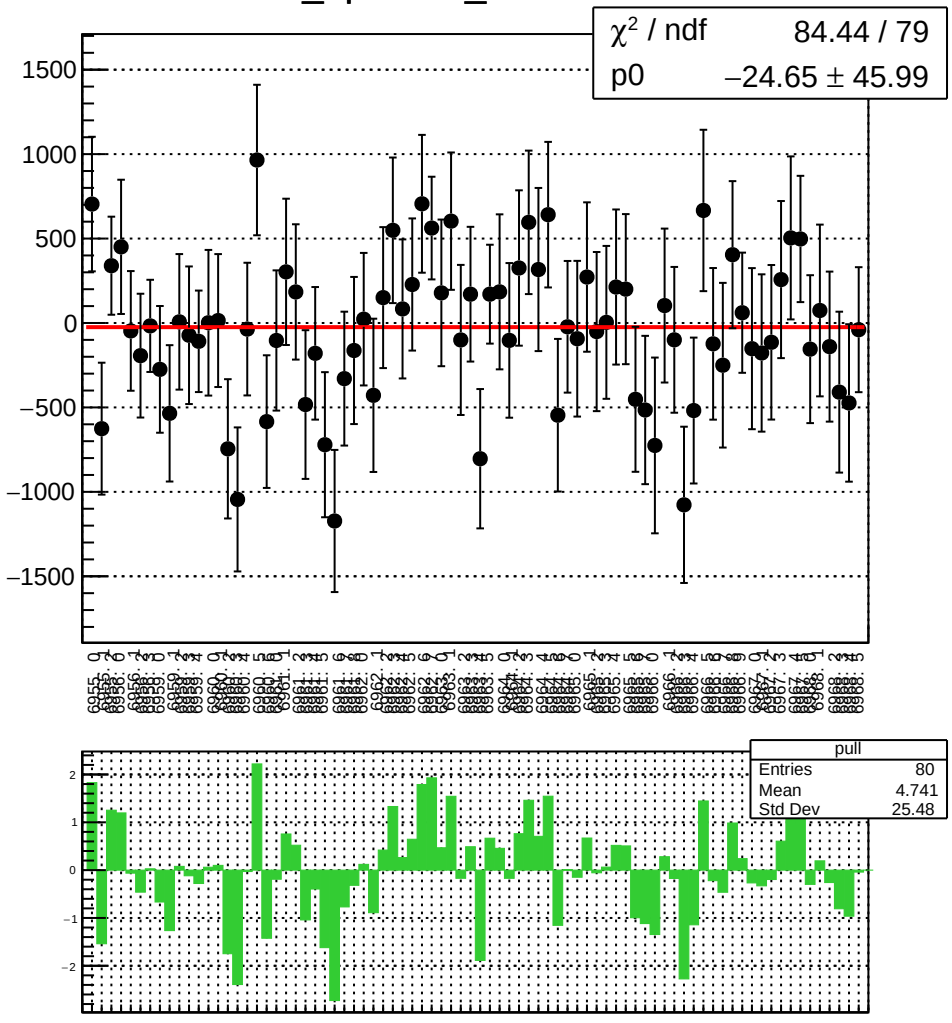

pull1D
Entries 80
Mean −0.02145
Std Dev 1.024

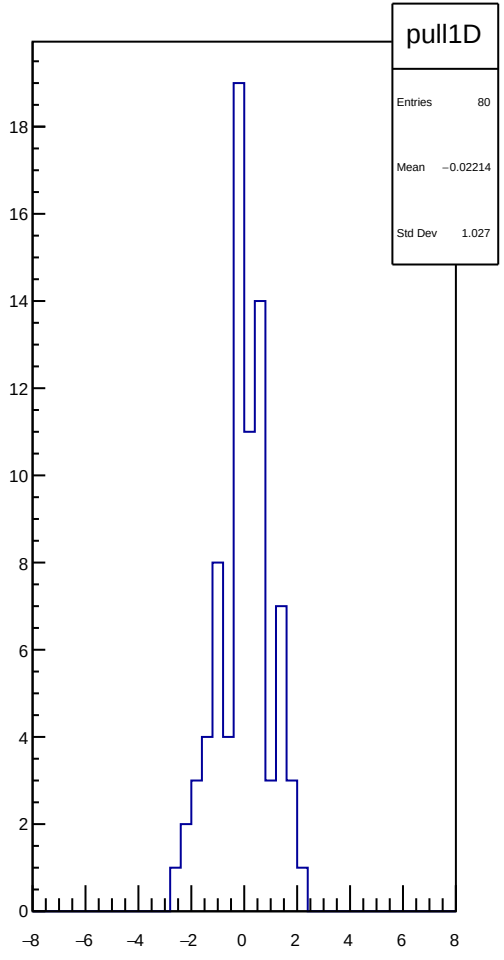

diff_bpm11X_rms vs run
χ² / ndf 1.091e+04 / 79
p0 1.539e+04 ± 12.35
19000
18000
17000
16000
15000
14000
13000

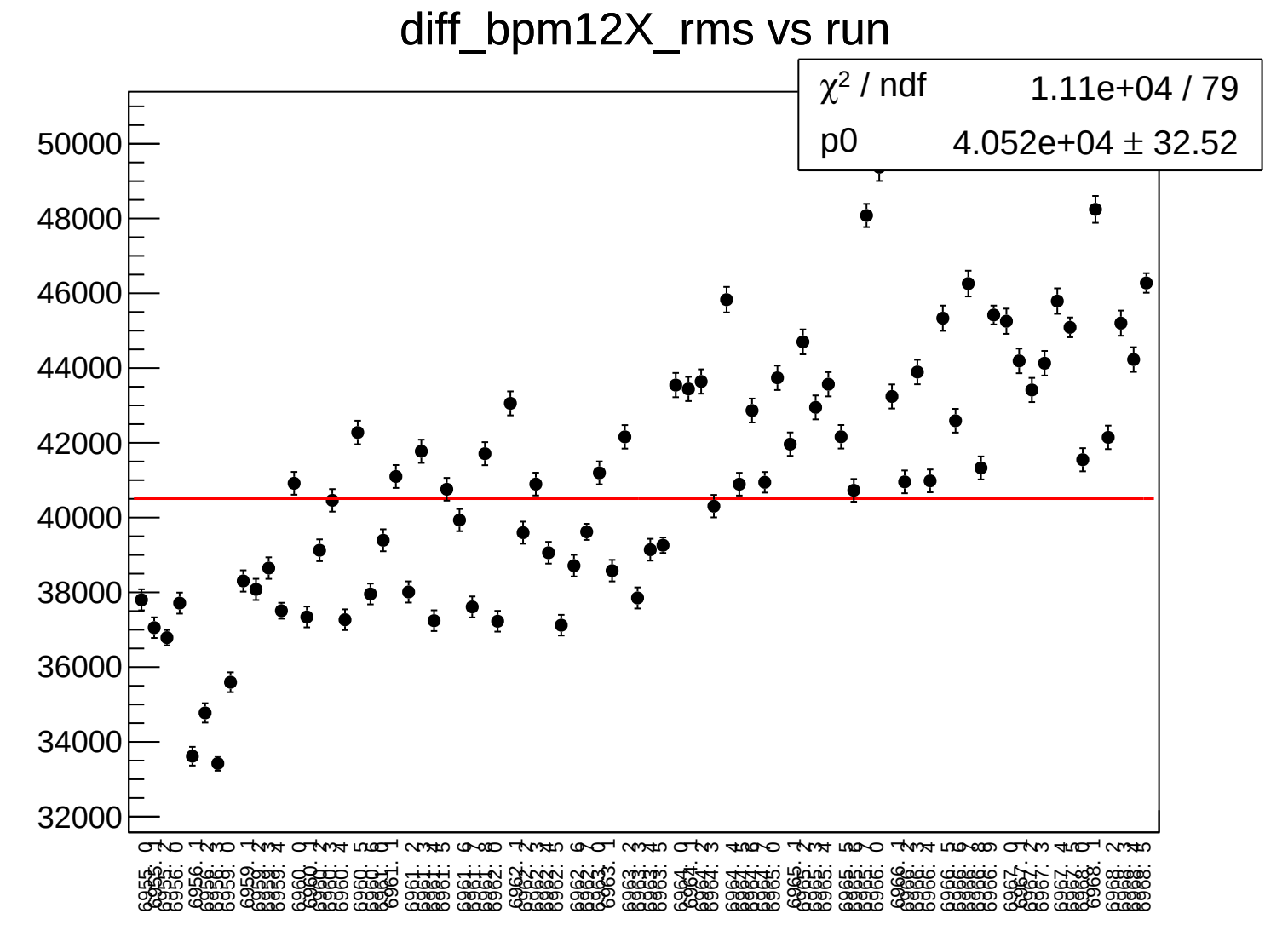

diff_bpm11Y_mean vs run
χ² / ndf 55.2 / 79
p0 −1.695 ± 7.424
pull
Entries 80
Mean −3.002
Std Dev 67.47

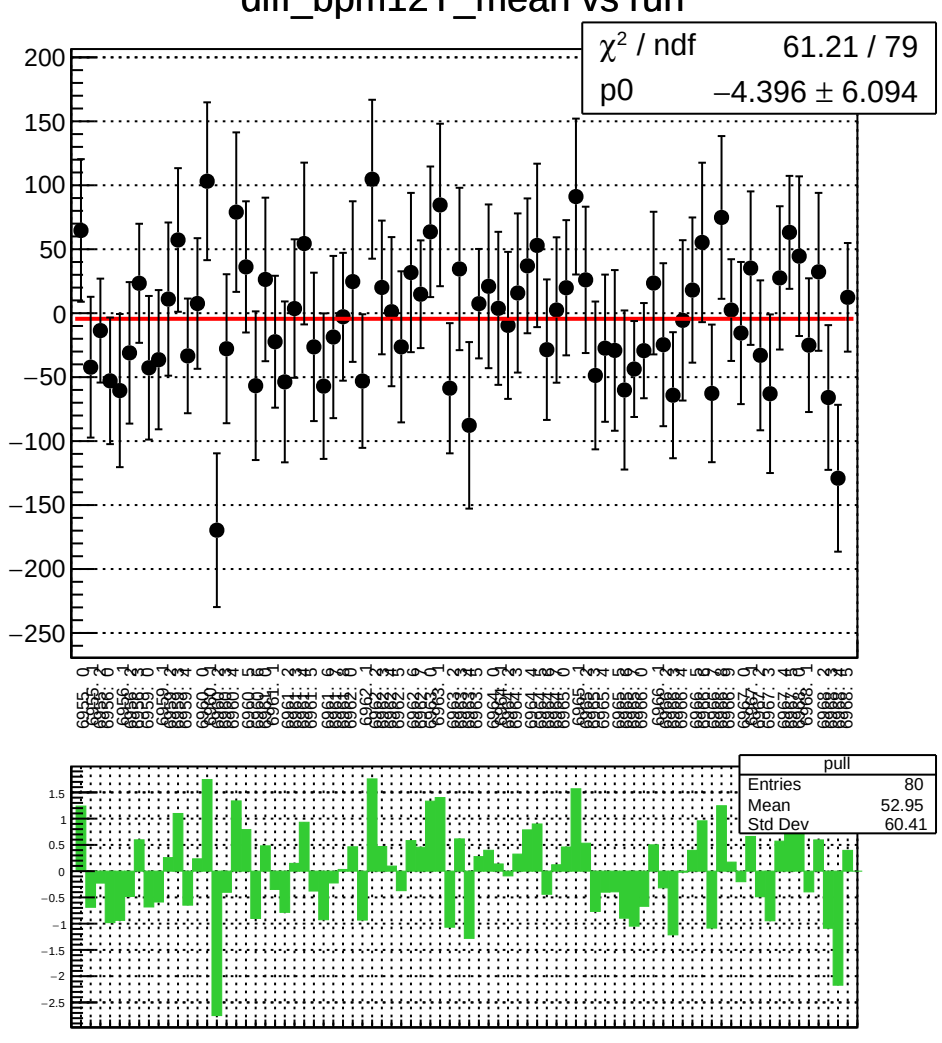

pull1D
Entries 80
Mean 0.02071
Std Dev 0.8304

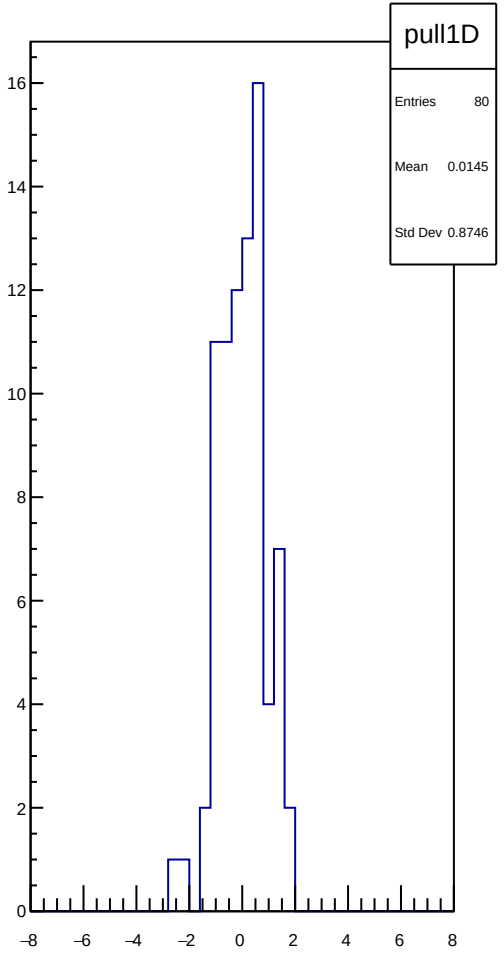

diff_bpm11Y_rms vs run
χ² / ndf 8.448e+04 / 79
p0 6383 ± 5.249
8000
7000
6000
5000
4000
3000
2000

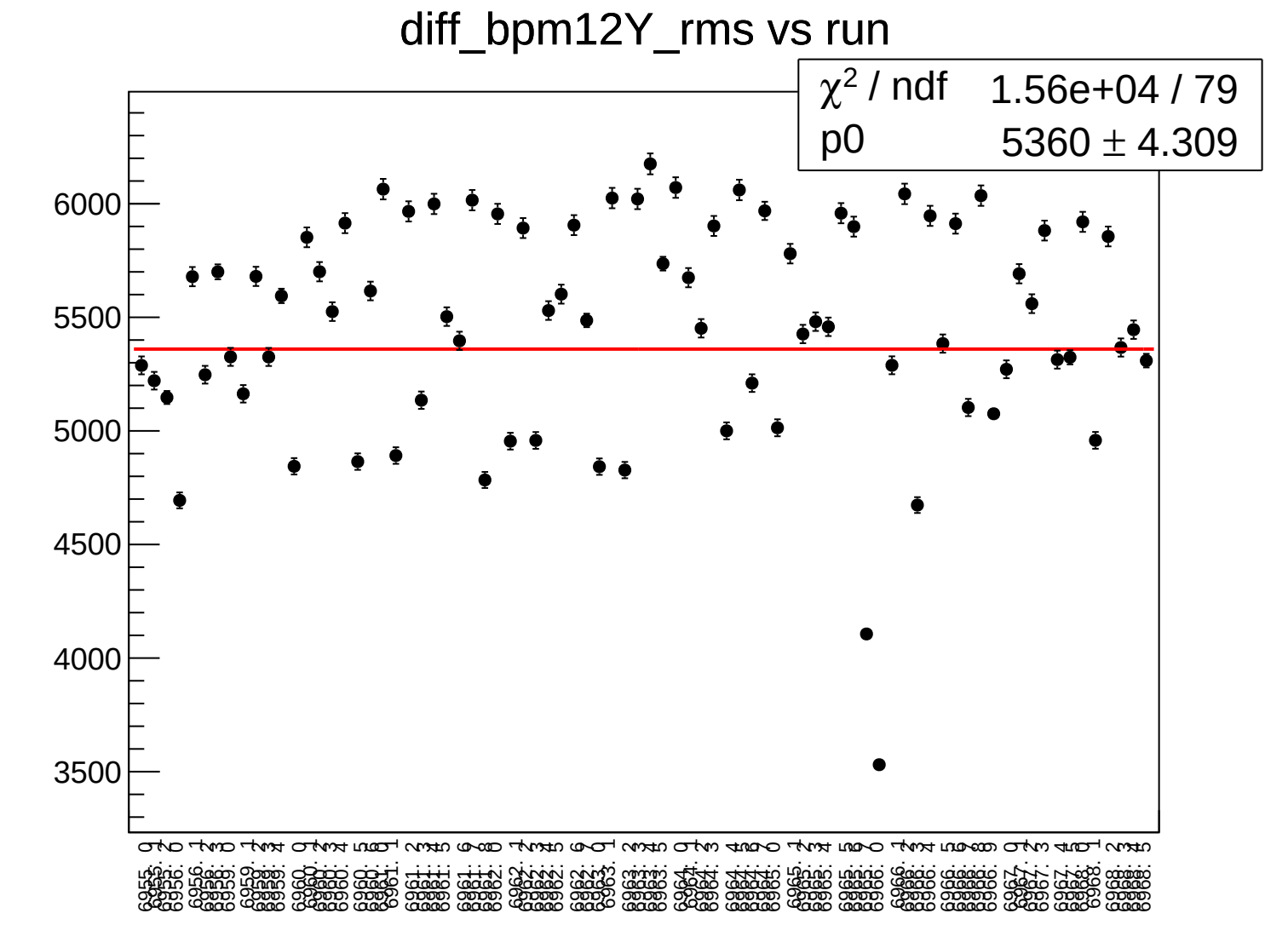

diff_bpm12X_mean vs run
χ² / ndf 84.44 / 79
p0 −24.65 ± 45.99
pull
Entries 80
Mean 4.741
Std Dev 25.48

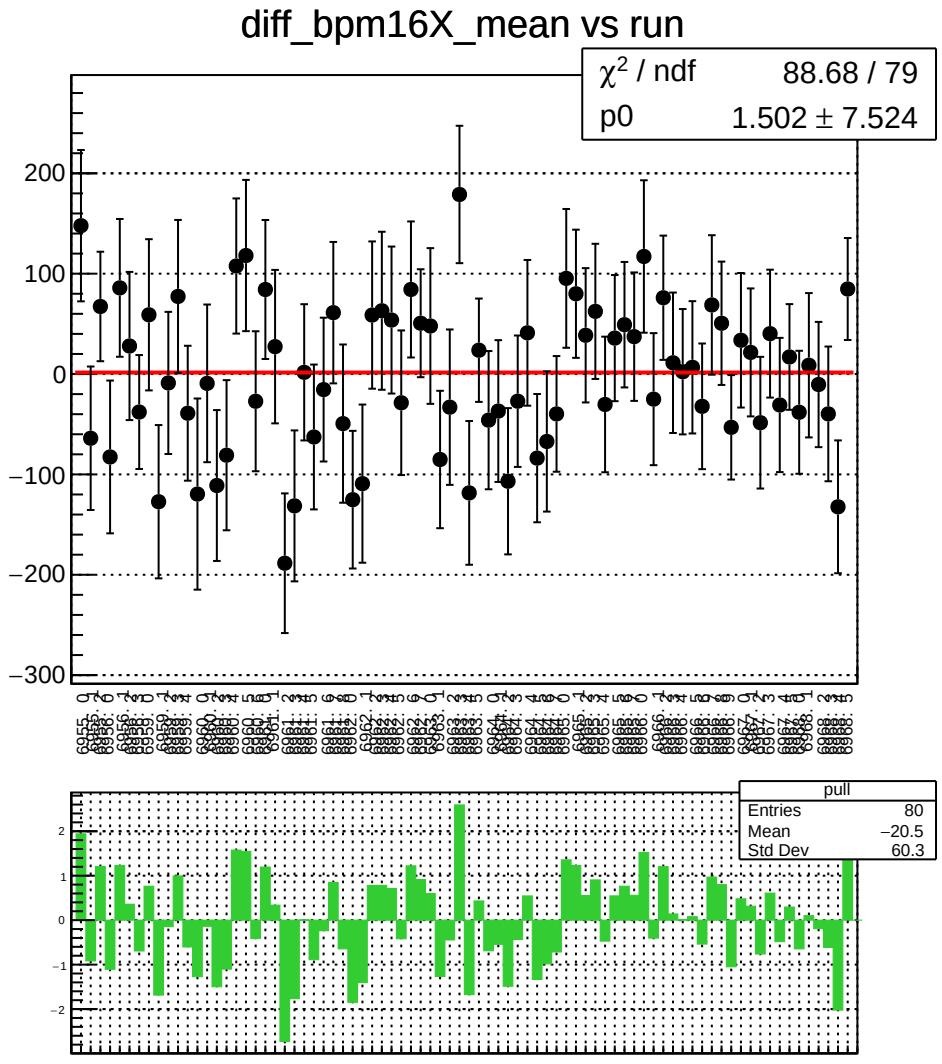

pull1D
Entries 80
Mean −0.02214
Std Dev 1.027

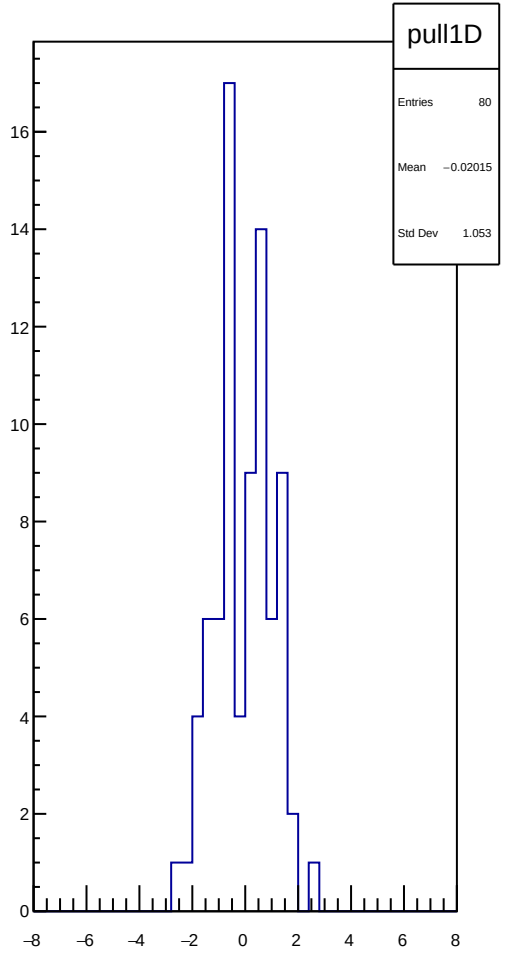

diff_bpm12X_rms vs run
χ² / ndf 1.11e+04 / 79
p0 4.052e+04 ± 32.52
50000
48000
46000
44000
42000
40000
38000
36000
34000
32000

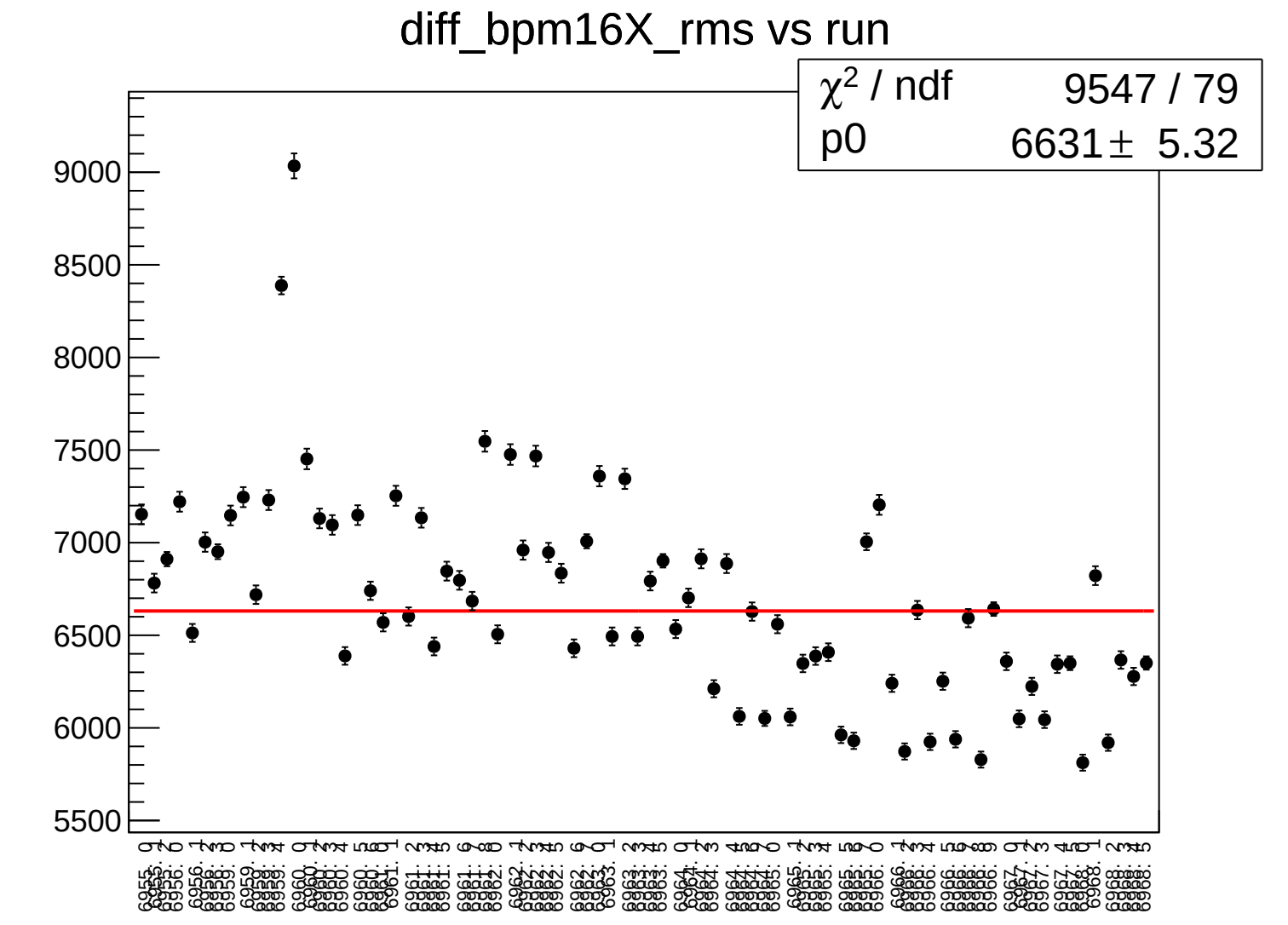

diff_bpm12Y_mean vs run
χ² / ndf 61.21 / 79
p0 −4.396 ± 6.094
pull
Entries 80
Mean 52.95
Std Dev 60.41

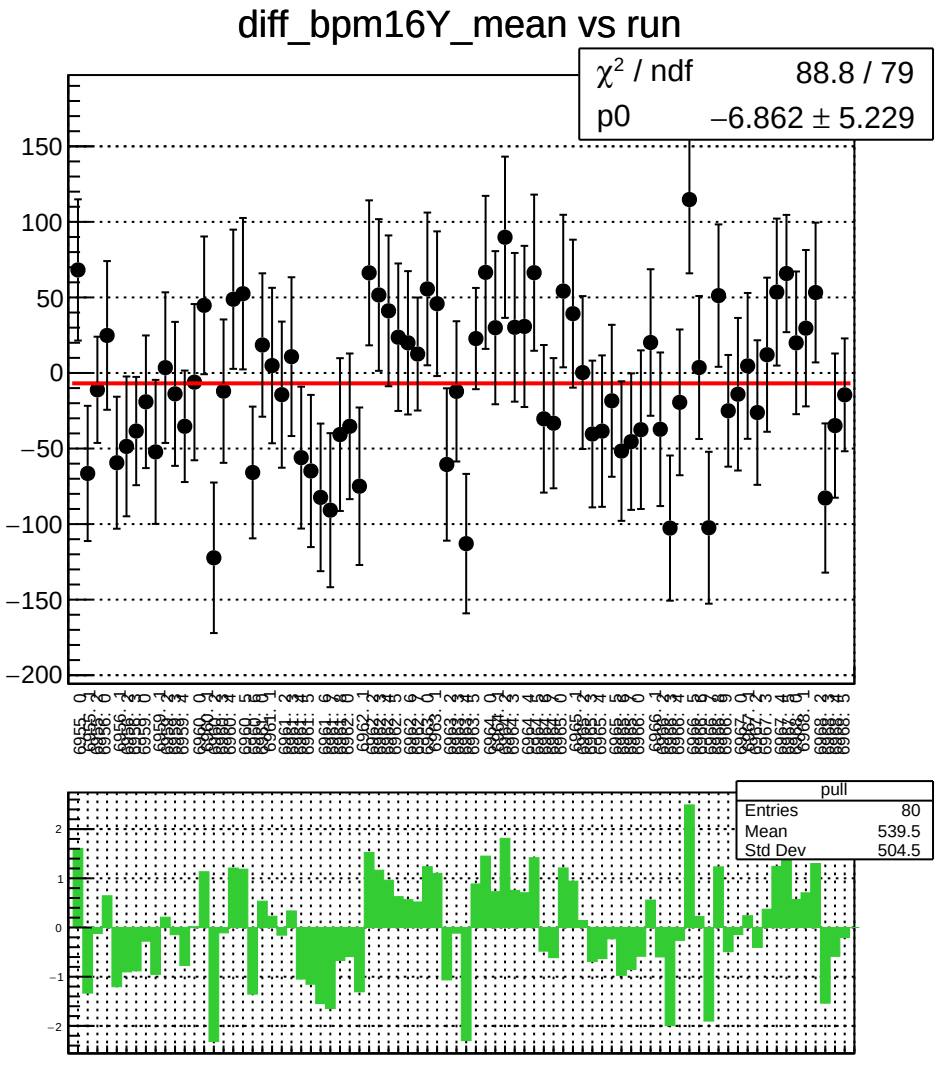

pull1D
Entries 80
Mean 0.0145
Std Dev 0.8746

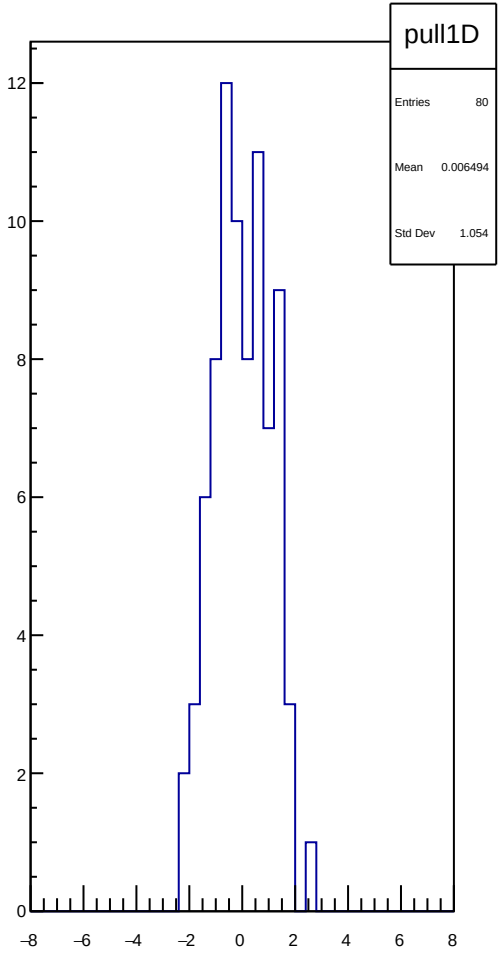

diff_bpm12Y_rms vs run
χ² / ndf 1.56e+04 / 79
p0 5360 ± 4.309
6000
5500
5000
4500
4000
3500

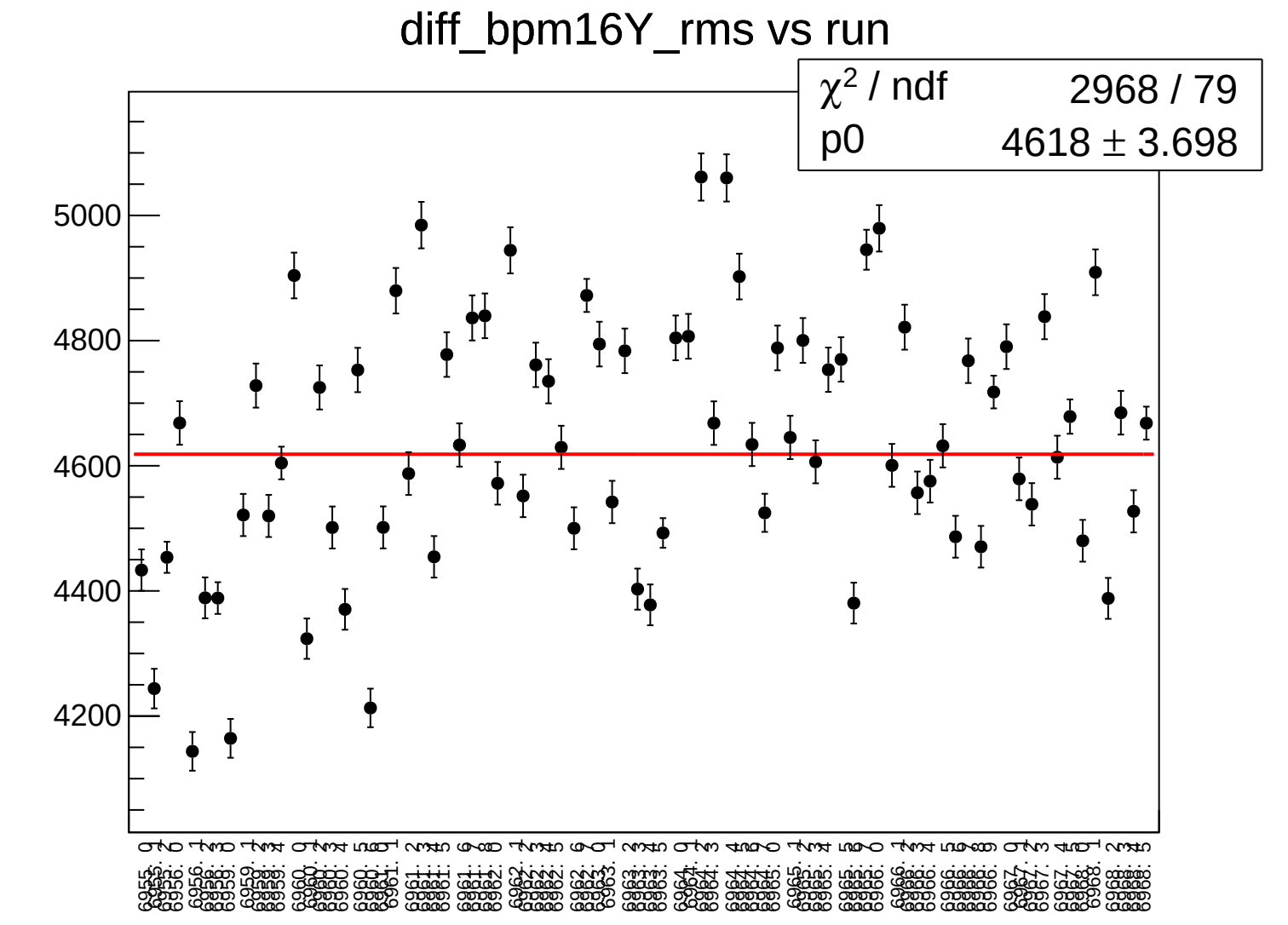

diff_bpm16X_mean vs run
χ² / ndf 88.68 / 79
p0 1.502 ± 7.524
200
100
0
−100
−200
−300
pull
Entries 80
Mean −20.5
Std Dev 60.3
2
1
0
−1
−2

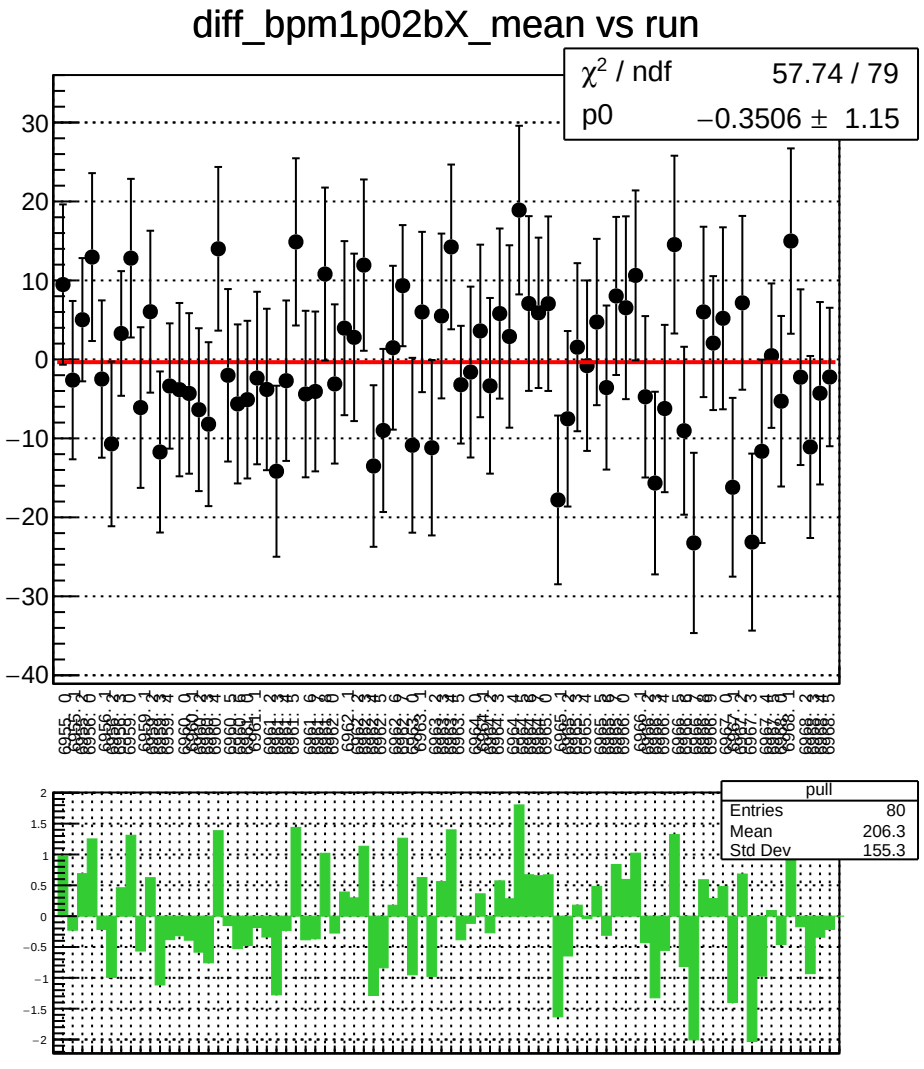

pull1D
Entries 80
Mean −0.02015
Std Dev 1.053
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

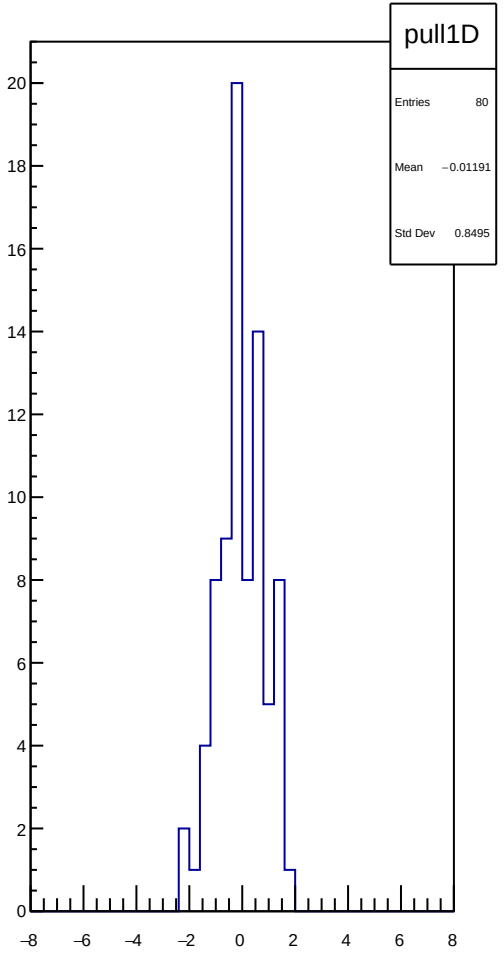

diff_bpm16X_rms vs run
χ² / ndf 9547 / 79
p0 6631 ± 5.32
9000
8500
8000
7500
7000
6500
6000
5500

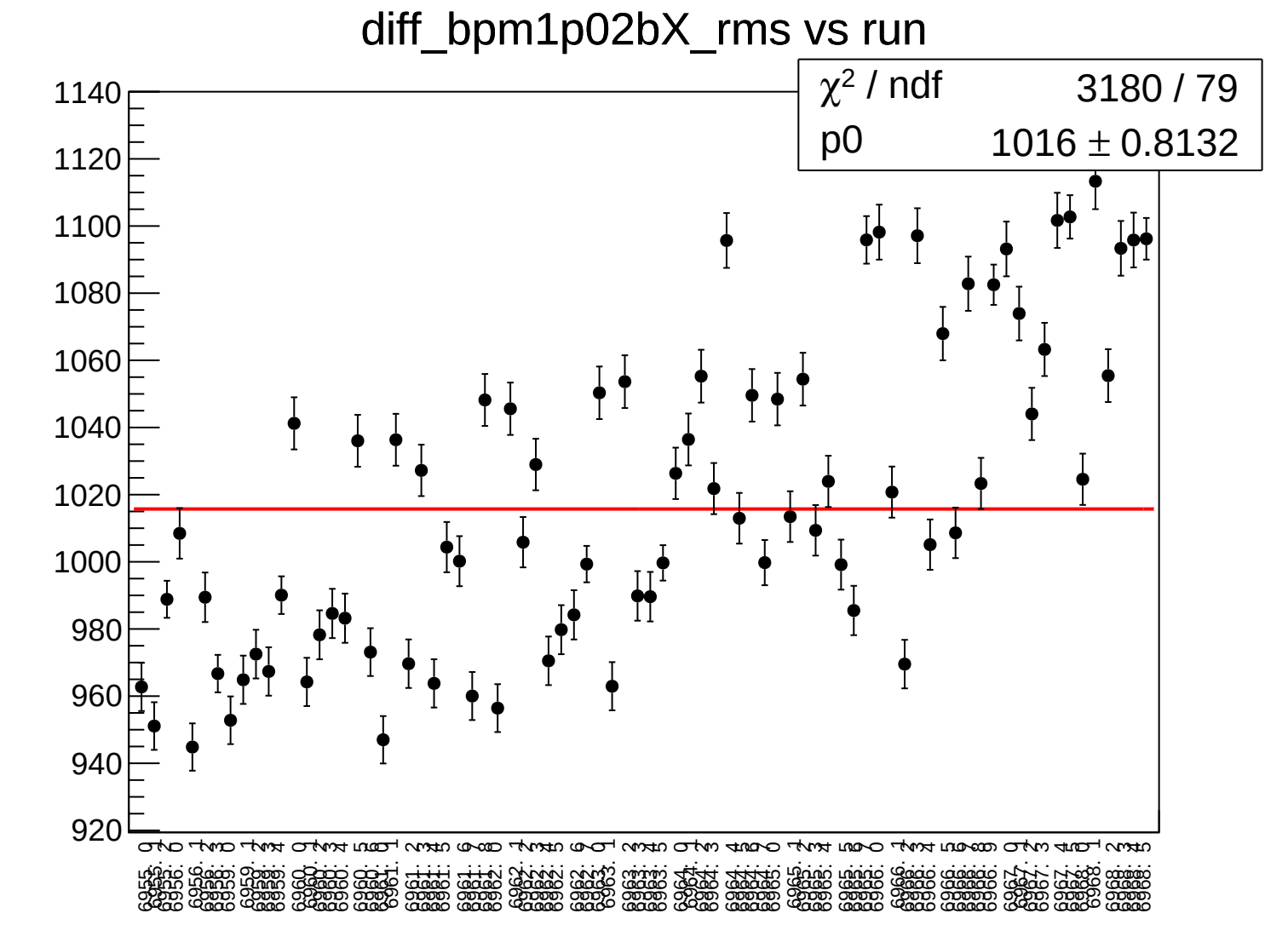

diff_bpm16Y_mean vs run
χ² / ndf 88.8 / 79
p0 −6.862 ± 5.229
pull
Entries 80
Mean 539.5
Std Dev 504.5

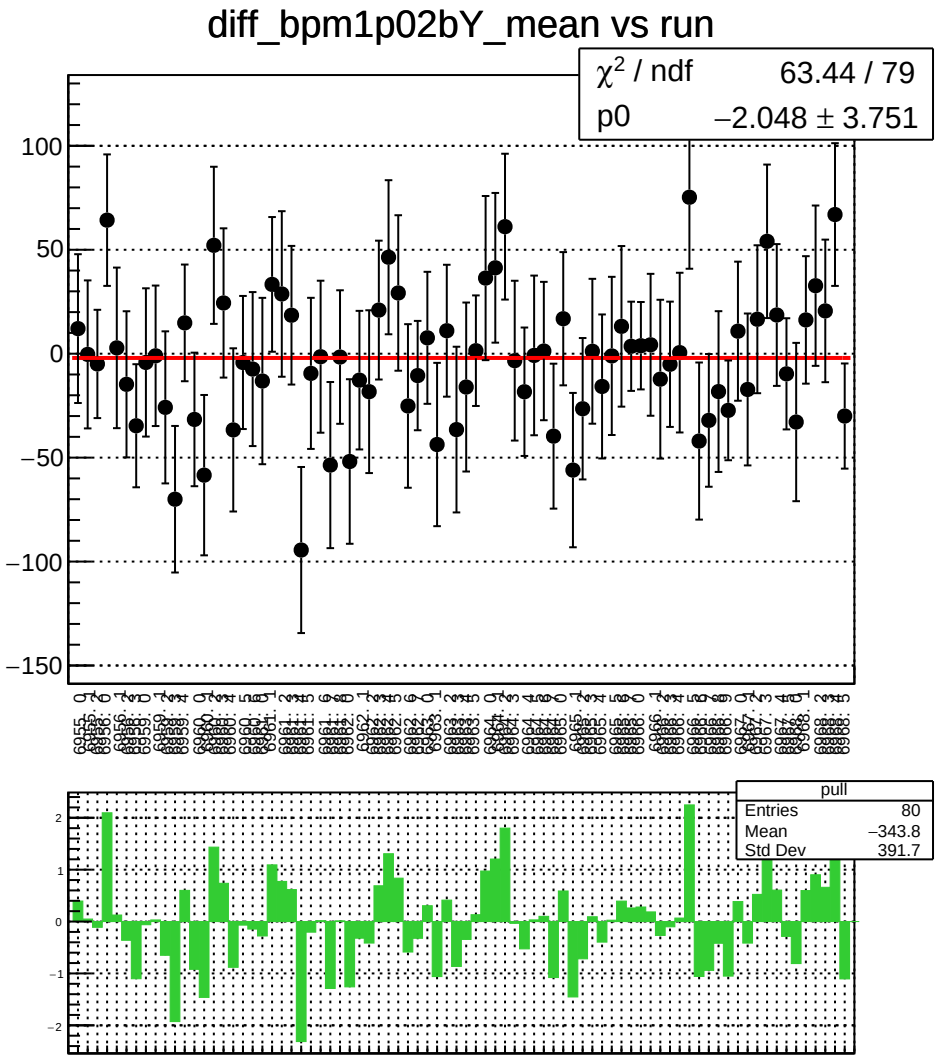

pull1D
Entries 80
Mean 0.006494
Std Dev 1.054

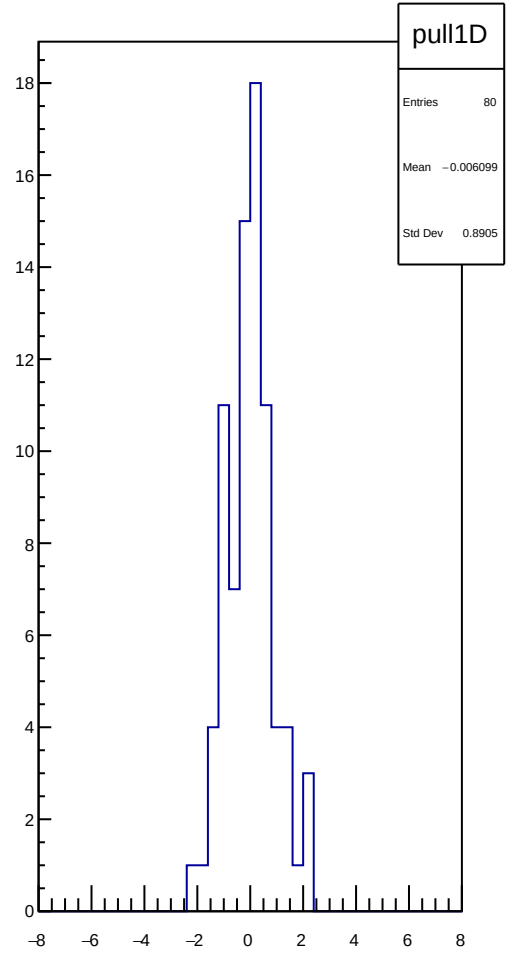

diff_bpm16Y_rms vs run
χ^2 / ndf 2968 / 79
p0 4618 ± 3.698
5000
4800
4600
4400
4200

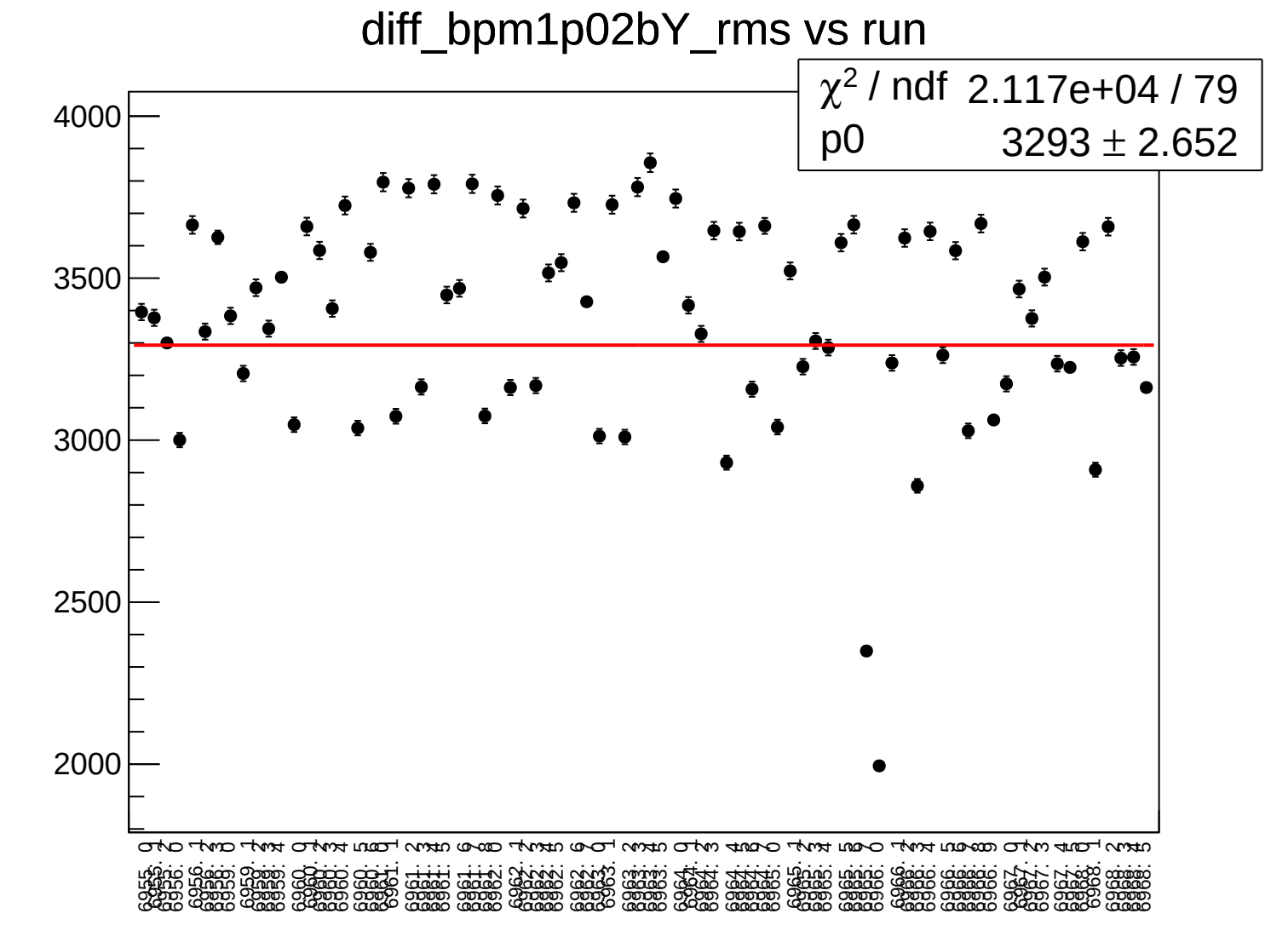

diff_bpm1p02bX_mean vs run
χ² / ndf 57.74 / 79
p0 −0.3506 ± 1.15
pull
Entries 80
Mean 206.3
Std Dev 155.3

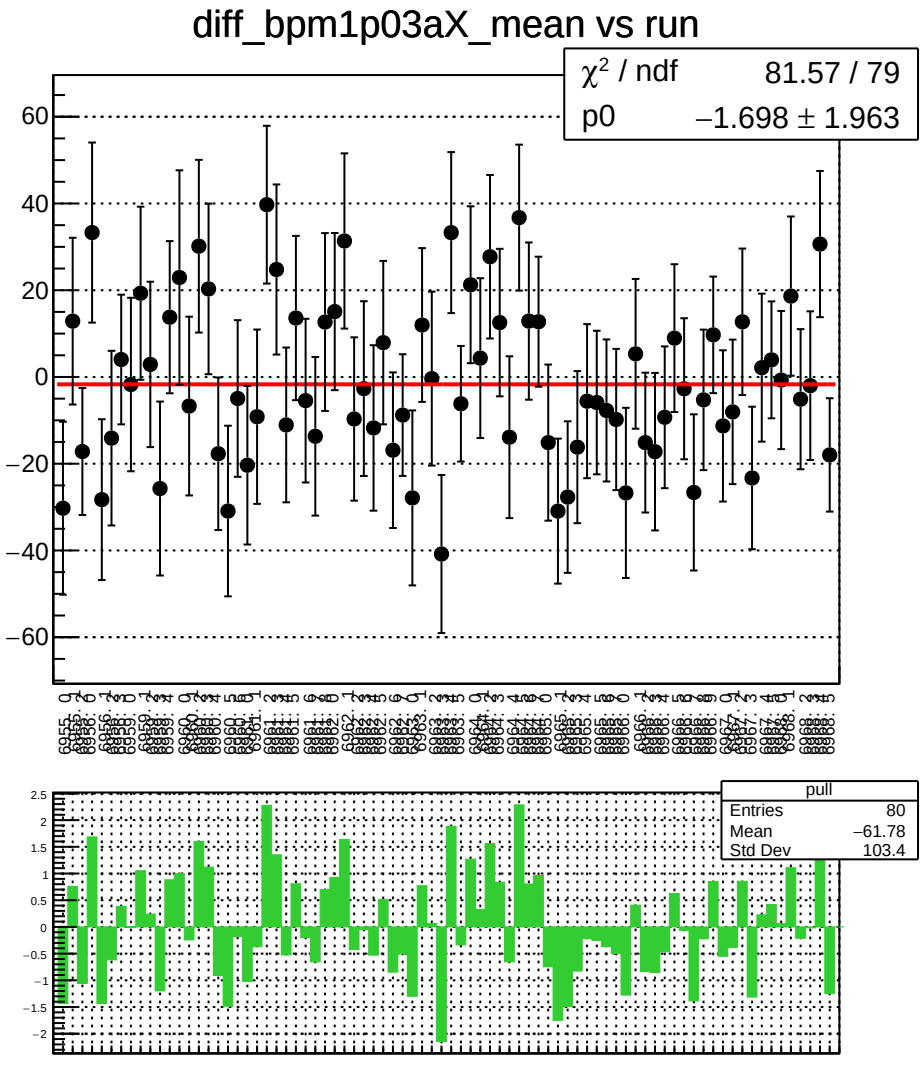

pull1D
Entries 80
Mean −0.01191
Std Dev 0.8495

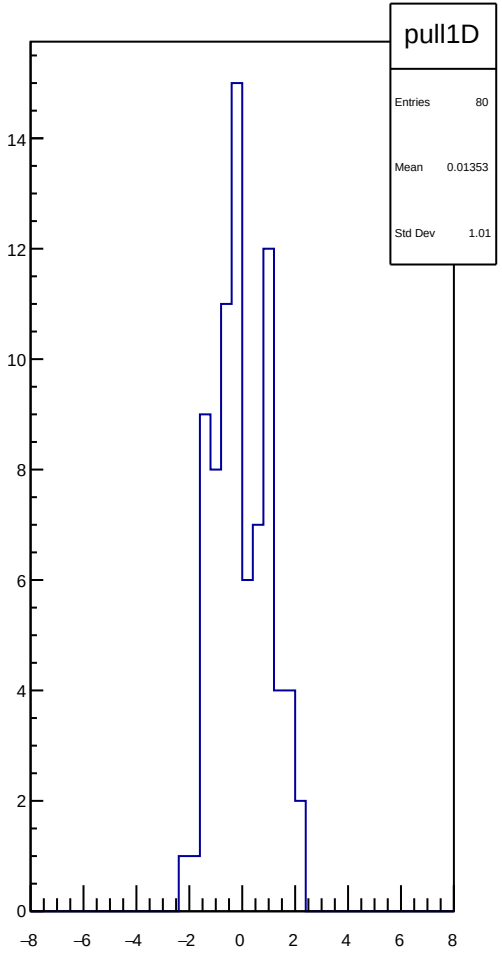

diff_bpm1p02bX_rms vs run
χ² / ndf 3180 / 79
p0 1016 ± 0.8132
1140
1120
1100
1080
1060
1040
1020
1000
980
960
940
920

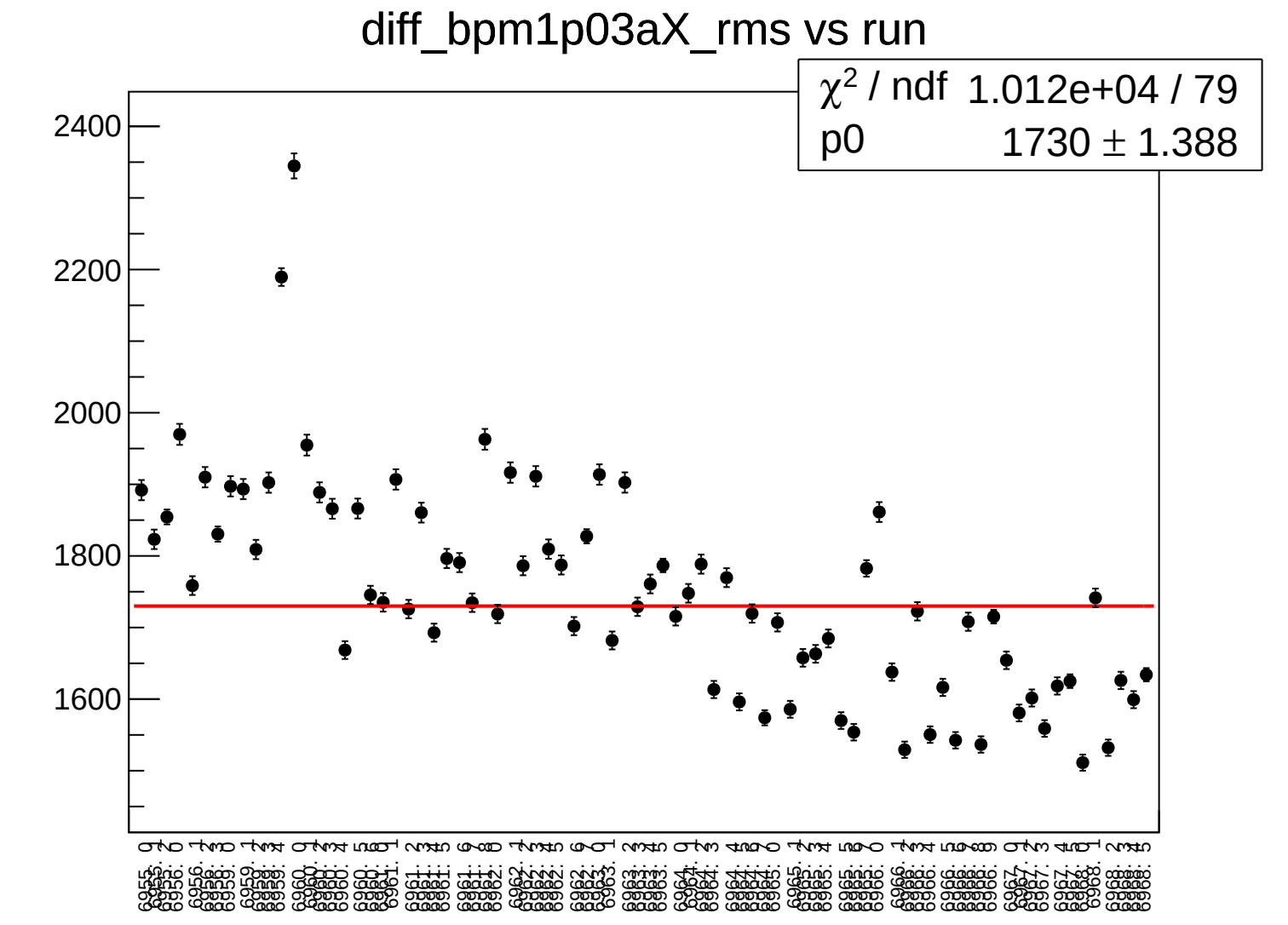

diff_bpm1p02bY_mean vs run
χ² / ndf 63.44 / 79
p0 −2.048 ± 3.751
pull
Entries 80
Mean −343.8
Std Dev 391.7

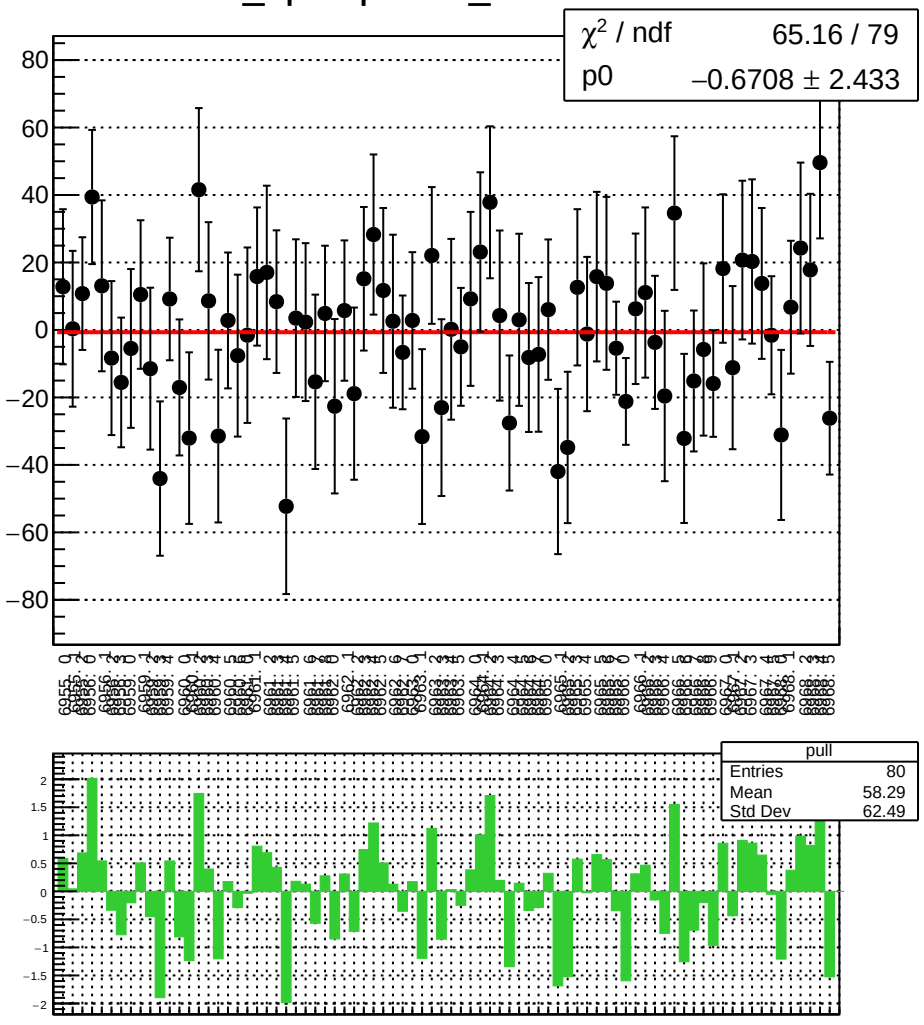

pull1D
Entries 80
Mean −0.006099
Std Dev 0.8905

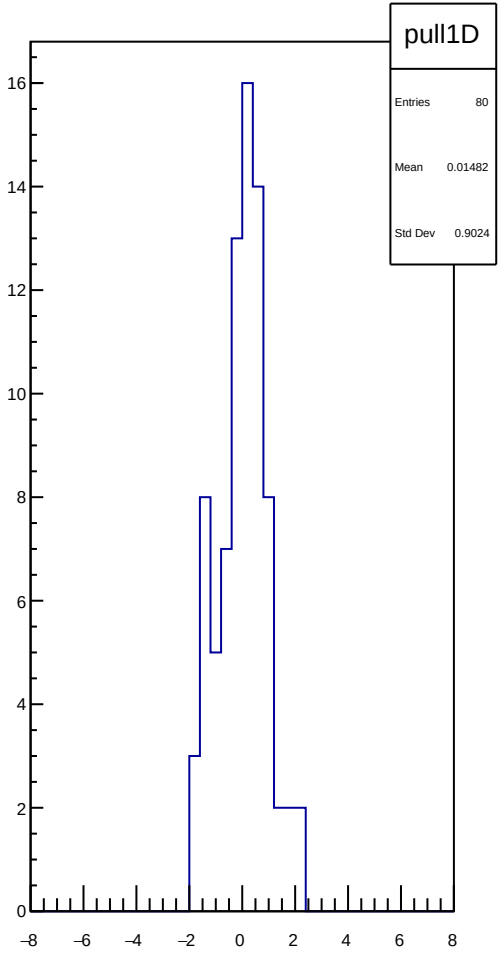

diff_bpm1p02bY_rms vs run
χ² / ndf 2.117e+04 / 79
p0 3293 ± 2.652
4000
3500
3000
2500
2000

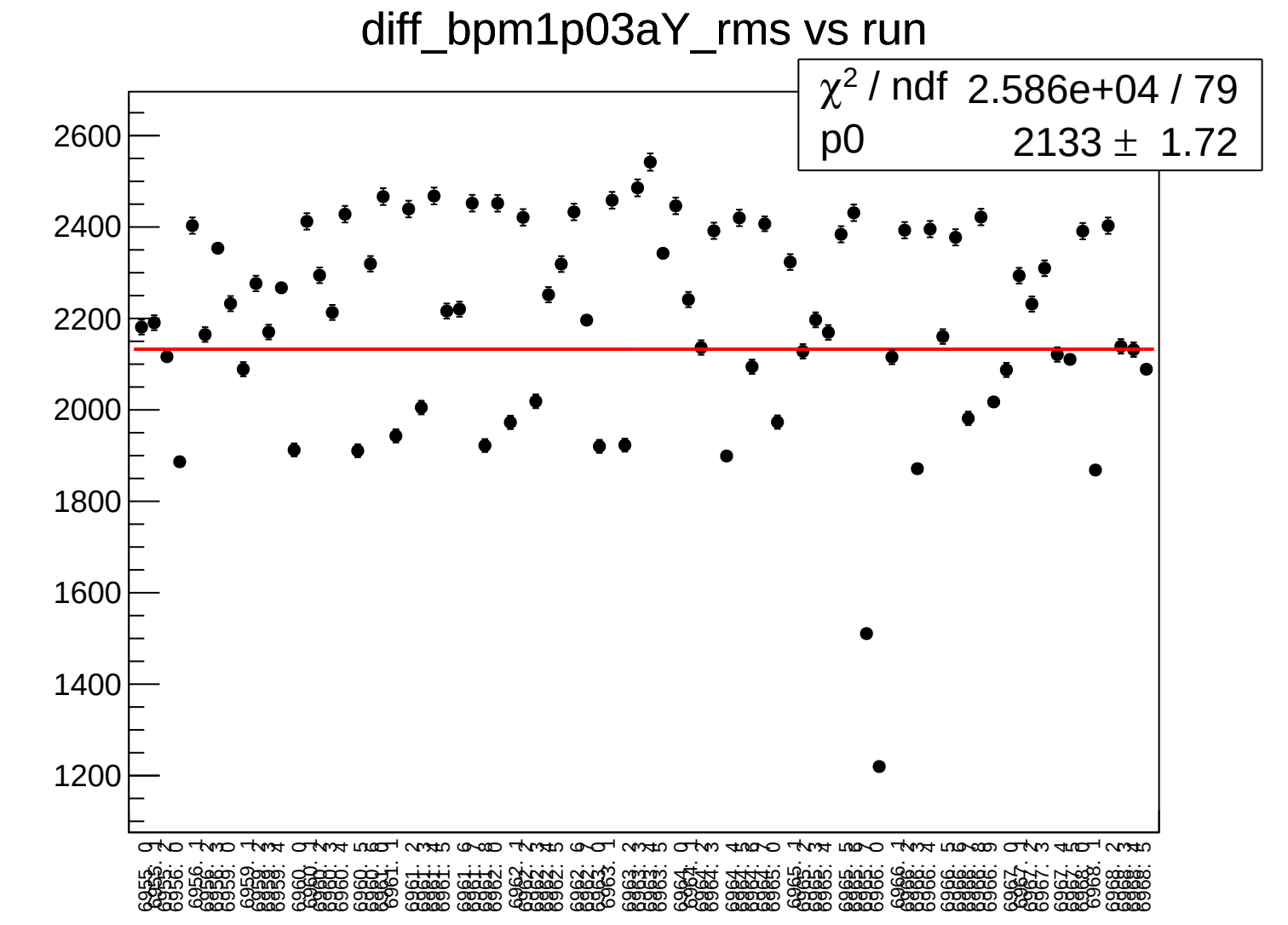

diff_bpm1p03aX_mean vs run
χ² / ndf 81.57 / 79
p0 −1.698 ± 1.963
pull
Entries 80
Mean −61.78
Std Dev 103.4

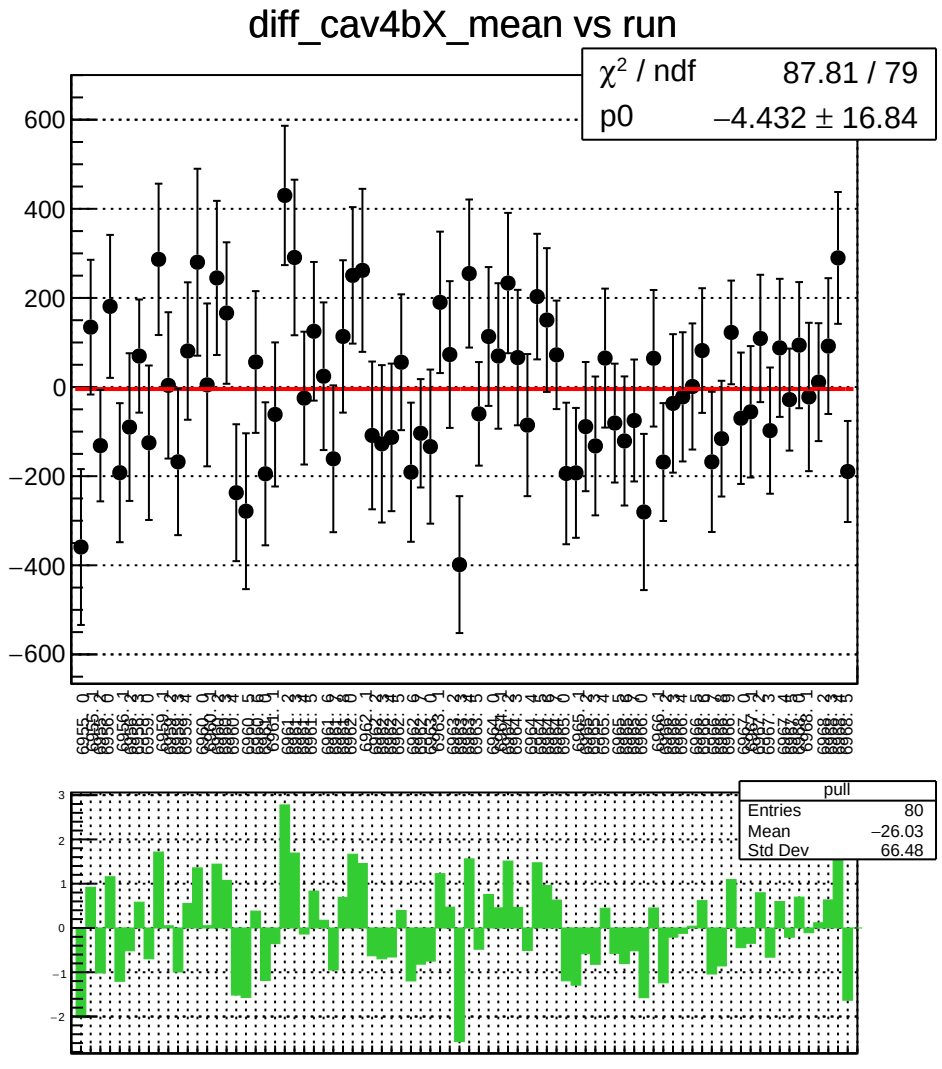

pull1D
Entries 80
Mean 0.01353
Std Dev 1.01

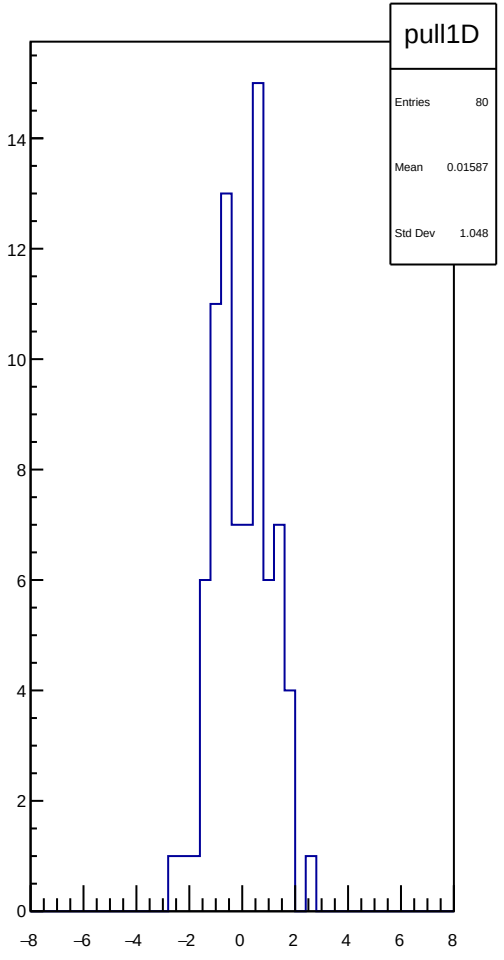

diff_bpm1p03aX_rms vs run
χ² / ndf 1.012e+04 / 79
p0 1730 ± 1.388
2400
2200
2000
1800
1600

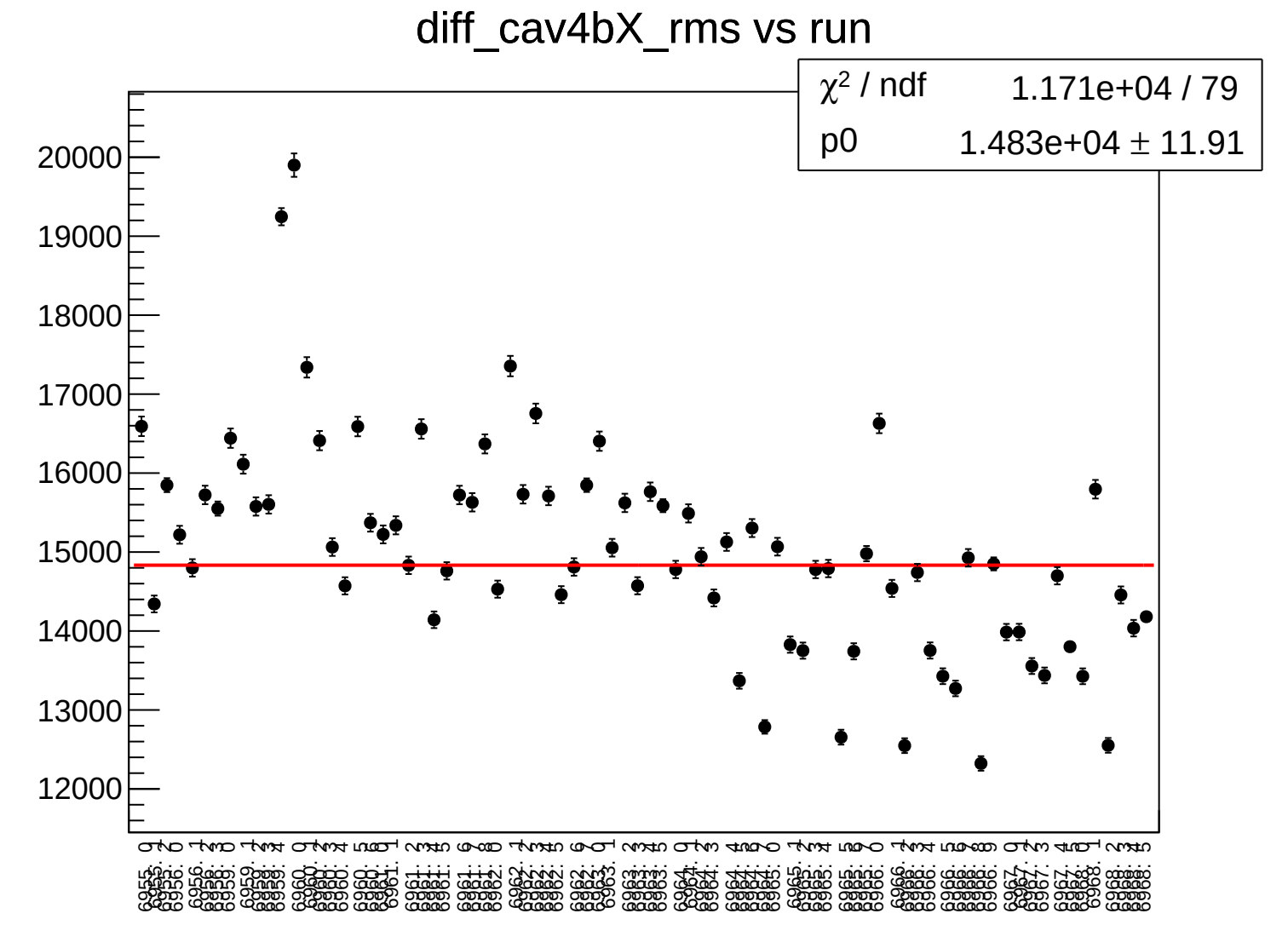

diff_bpm1p03aY_mean vs run
χ² / ndf 65.16 / 79
p0 −0.6708 ± 2.433
pull
Entries 80
Mean 58.29
Std Dev 62.49

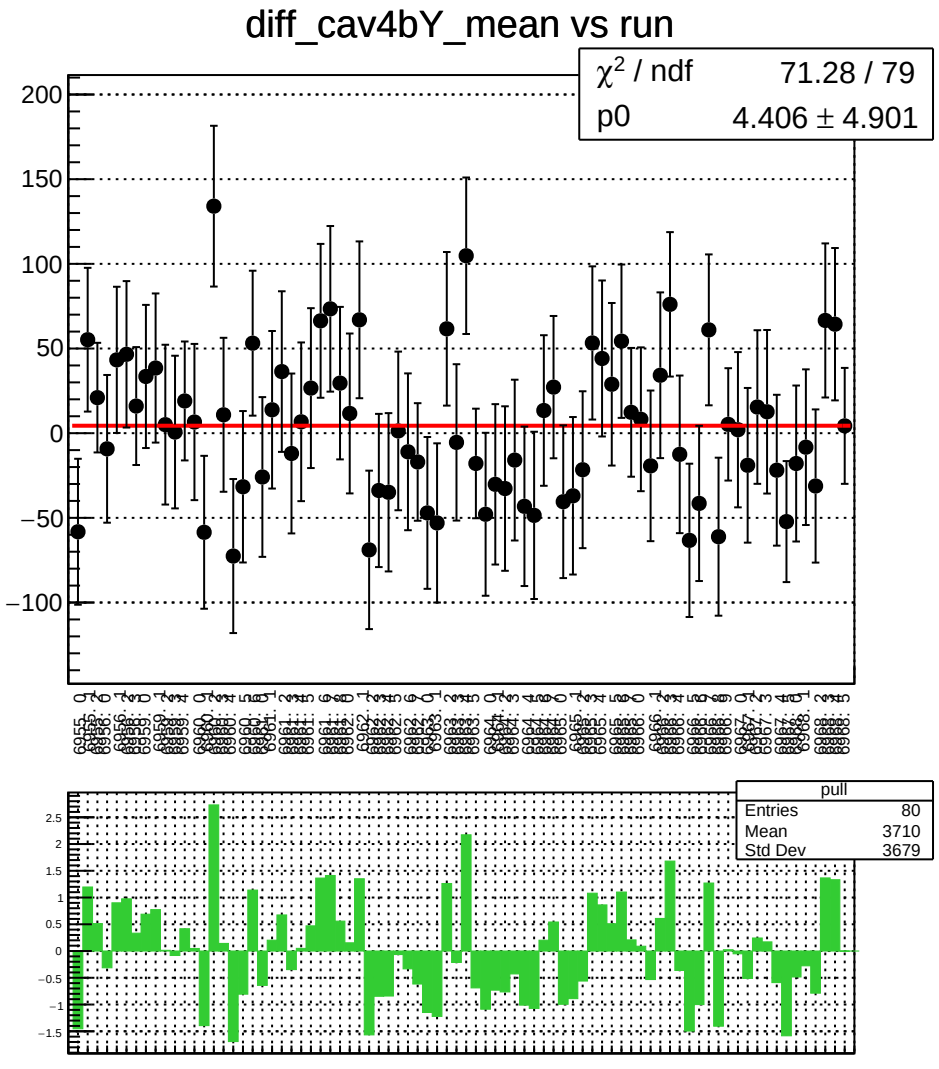

pull1D
Entries 80
Mean 0.01482
Std Dev 0.9024

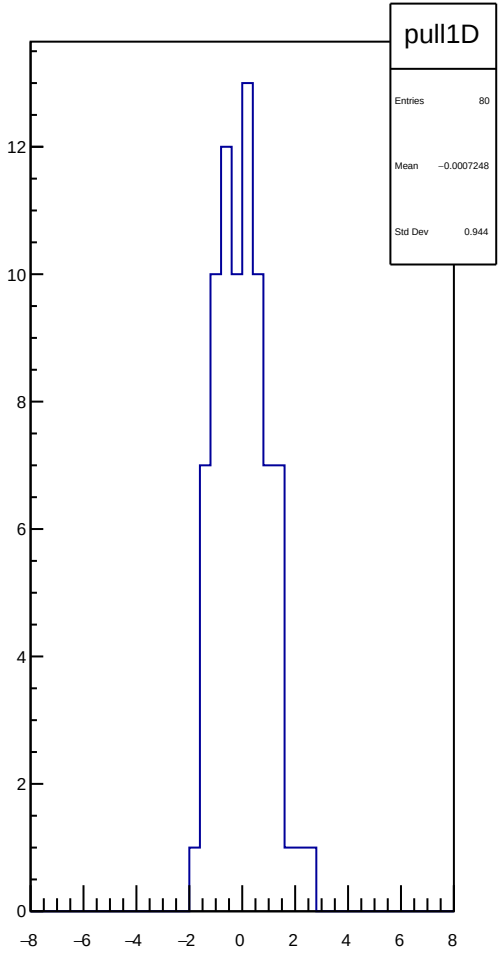

diff_bpm1p03aY_rms vs run
χ² / ndf 2.586e+04 / 79
p0 2133 ± 1.72
2600
2400
2200
2000
1800
1600
1400
1200

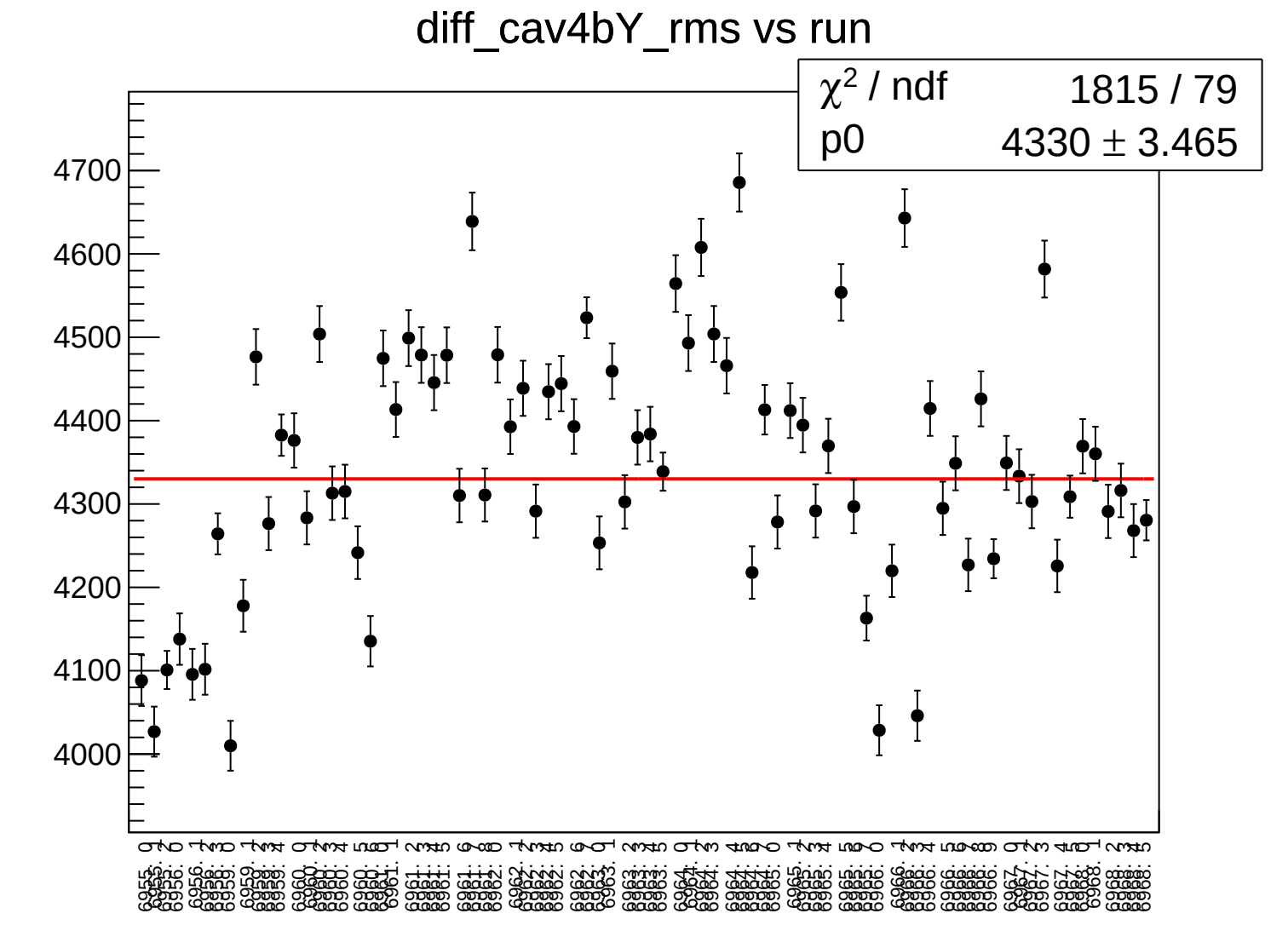

diff_cav4bX_mean vs run
χ² / ndf 87.81 / 79
p0 −4.432 ± 16.84
pull
Entries 80
Mean −26.03
Std Dev 66.48

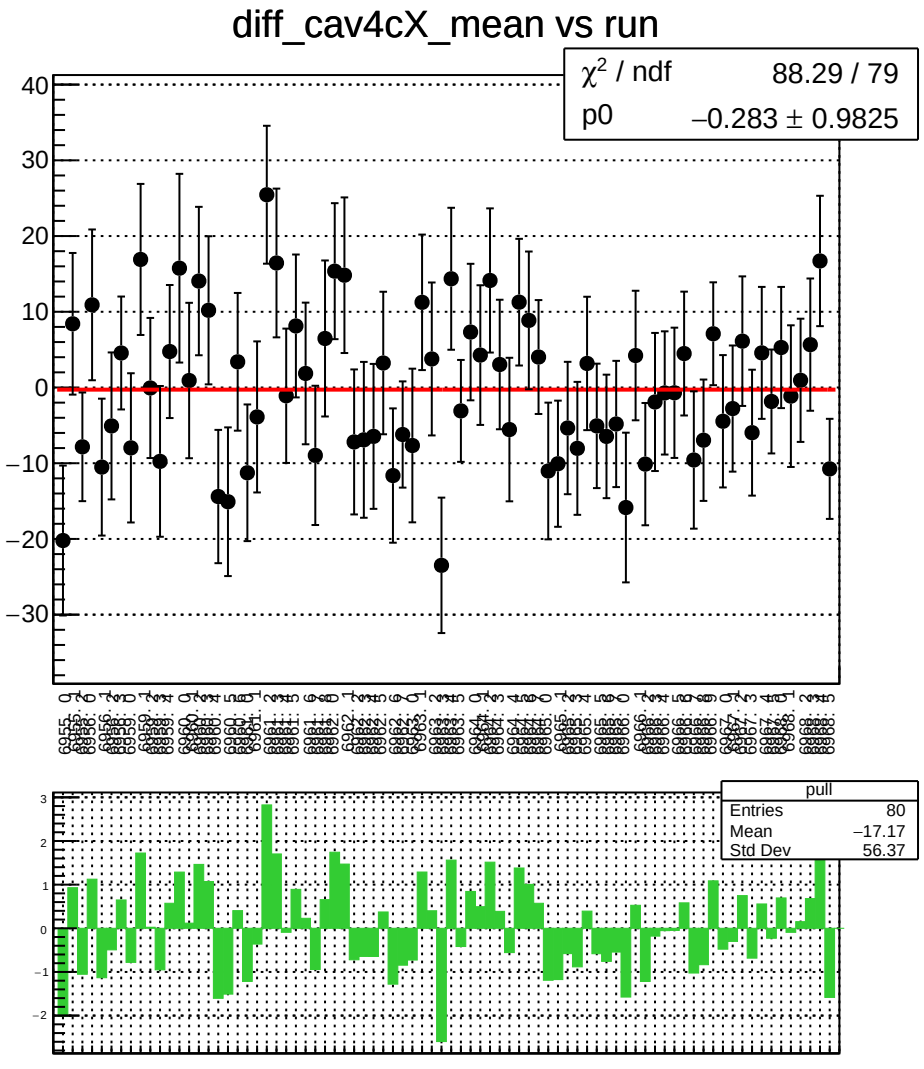

pull1D
Entries 80
Mean 0.01587
Std Dev 1.048

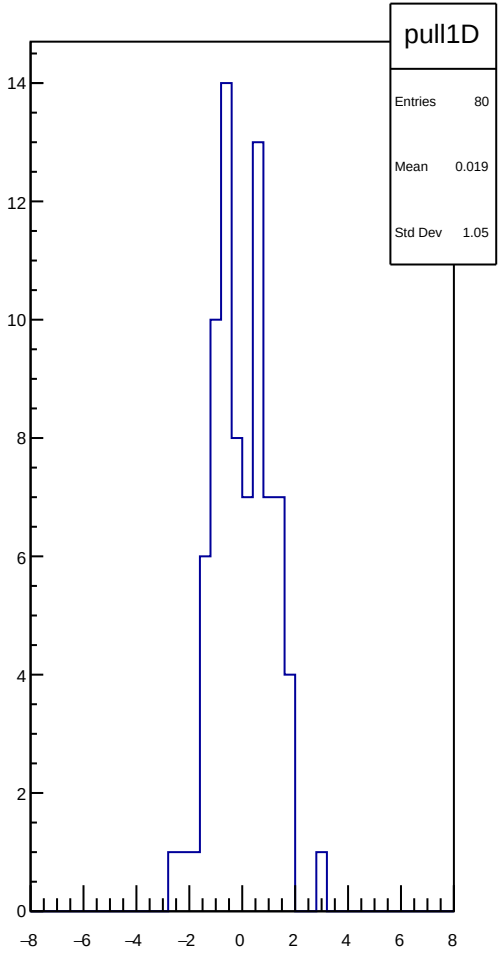

diff_cav4bX_rms vs run
χ² / ndf 1.171e+04 / 79
p0 1.483e+04 ± 11.91
20000
19000
18000
17000
16000
15000
14000
13000
12000

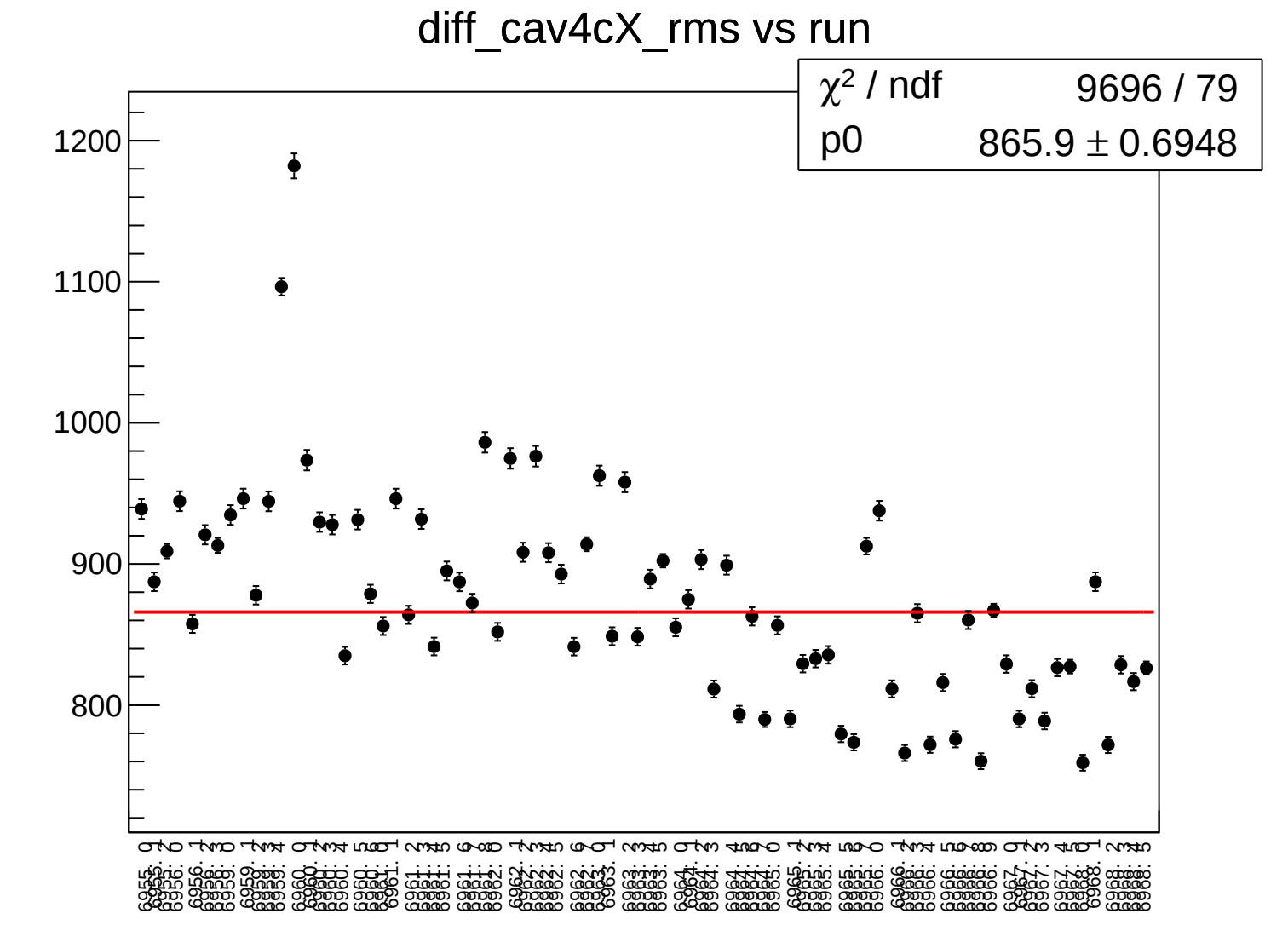

diff_cav4bY_mean vs run
χ^2 / ndf 71.28 / 79
p0 4.406 ± 4.901
pull
Entries 80
Mean 3710
Std Dev 3679

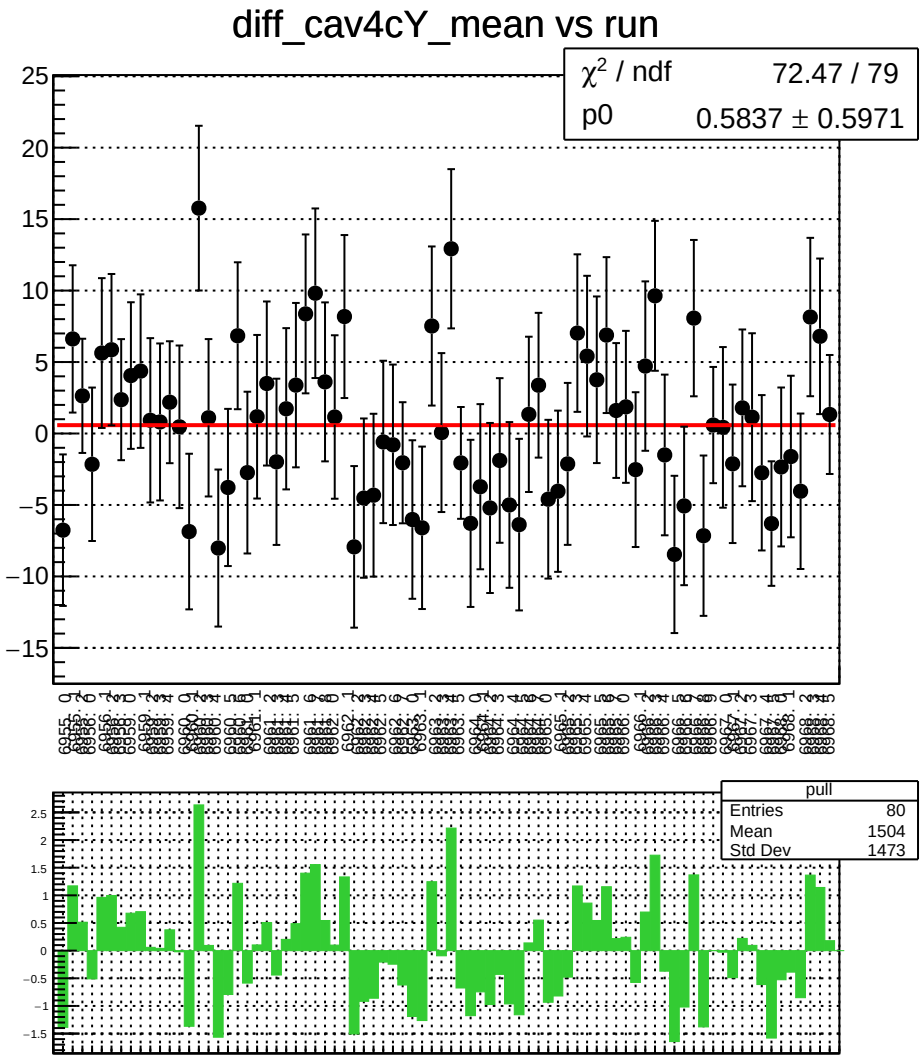

pull1D
Entries 80
Mean −0.0007248
Std Dev 0.944

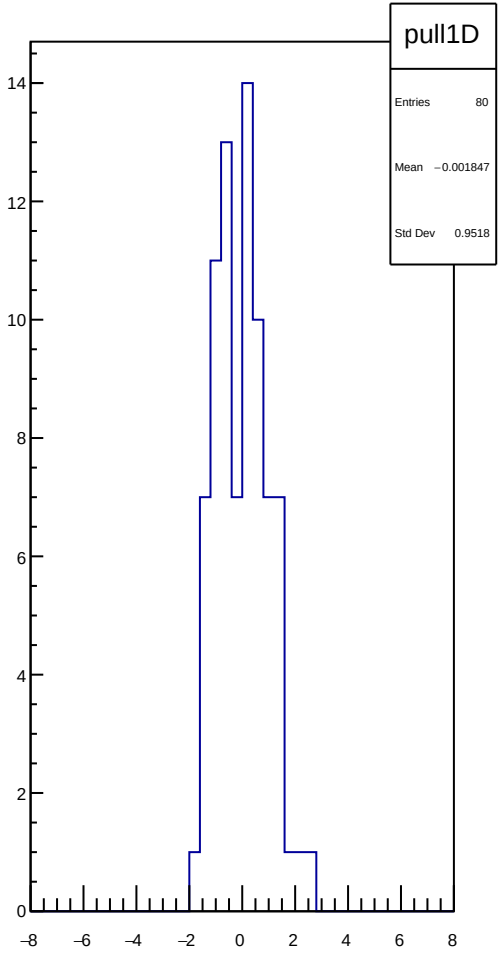

diff_cav4bY_rms vs run
χ² / ndf 1815 / 79
p0 4330 ± 3.465
4700
4600
4500
4400
4300
4200
4100
4000

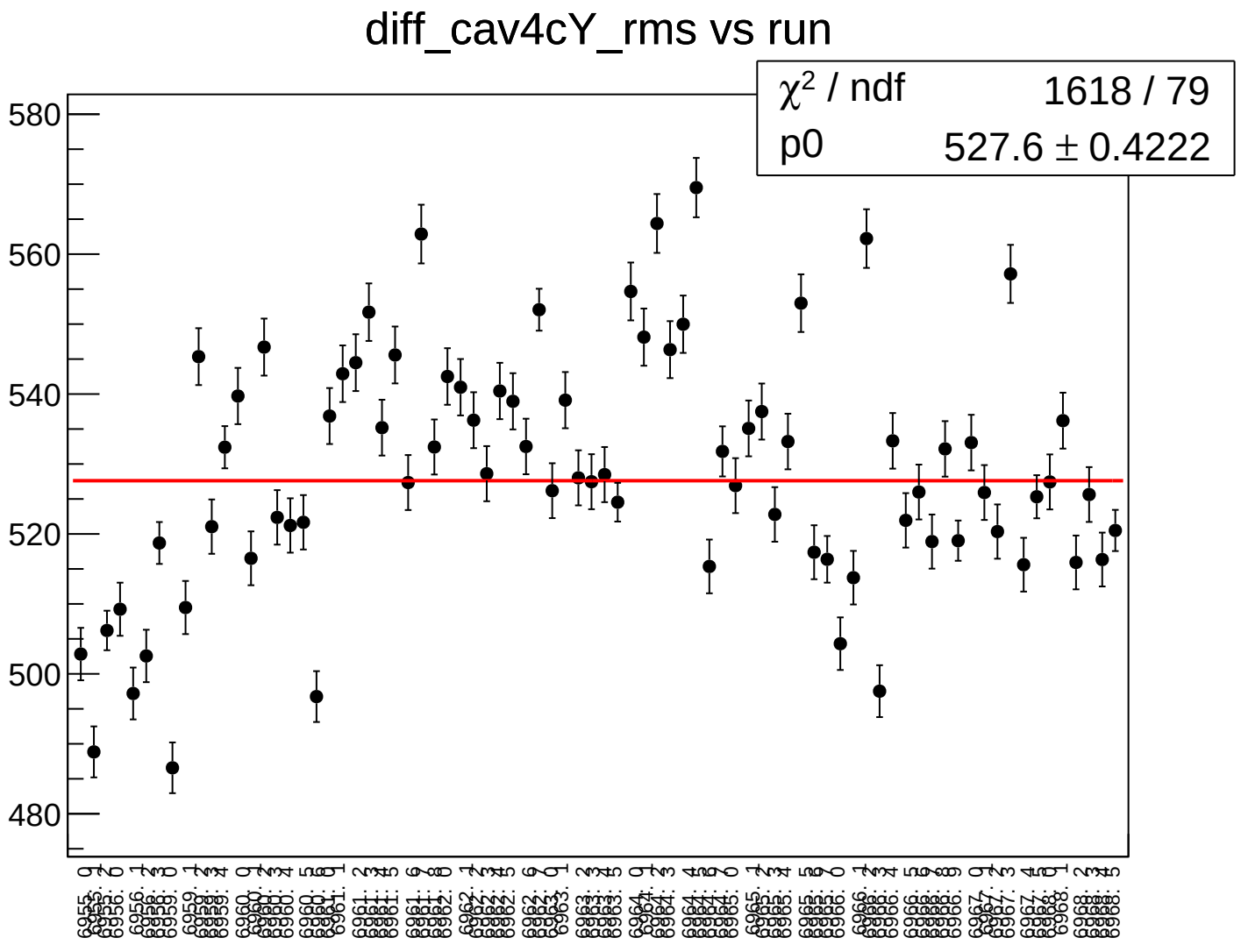

diff_cav4cX_mean vs run
χ² / ndf 88.29 / 79
p0 −0.283 ± 0.9825
pull
Entries 80
Mean −17.17
Std Dev 56.37

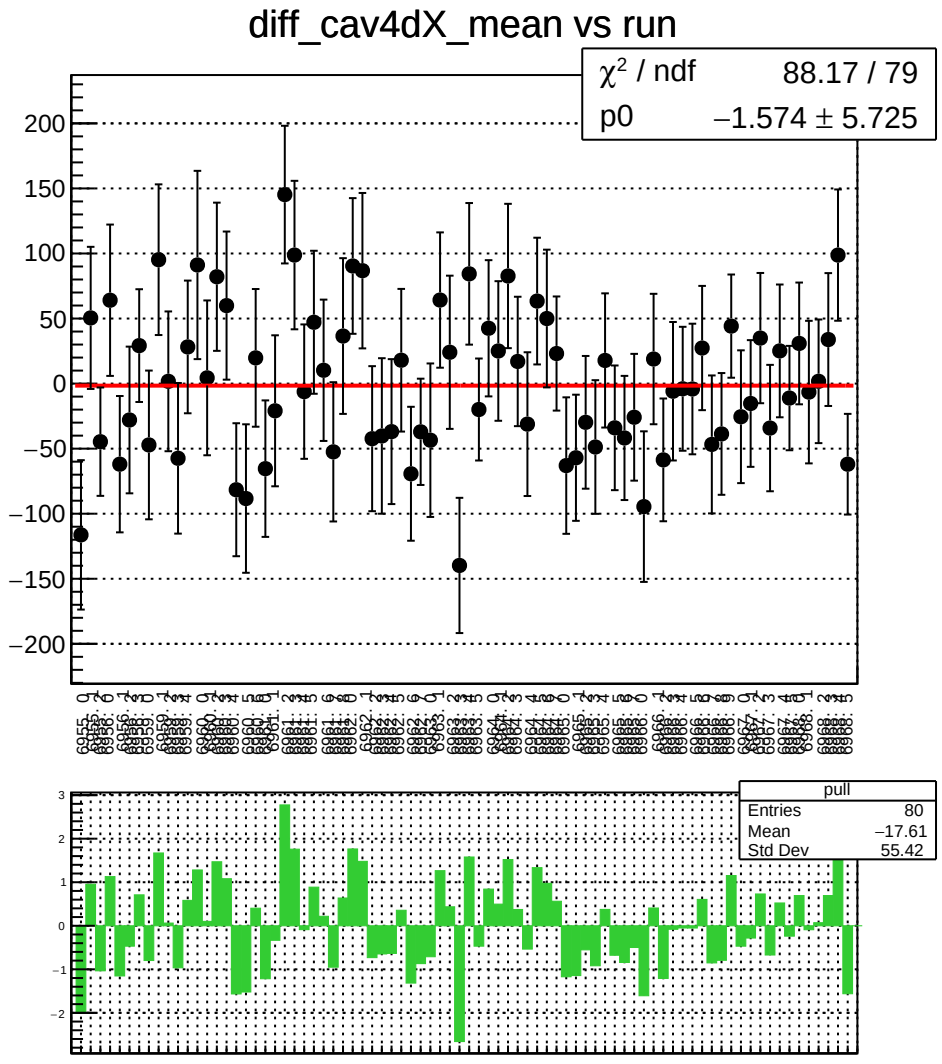

pull1D
Entries 80
Mean 0.019
Std Dev 1.05

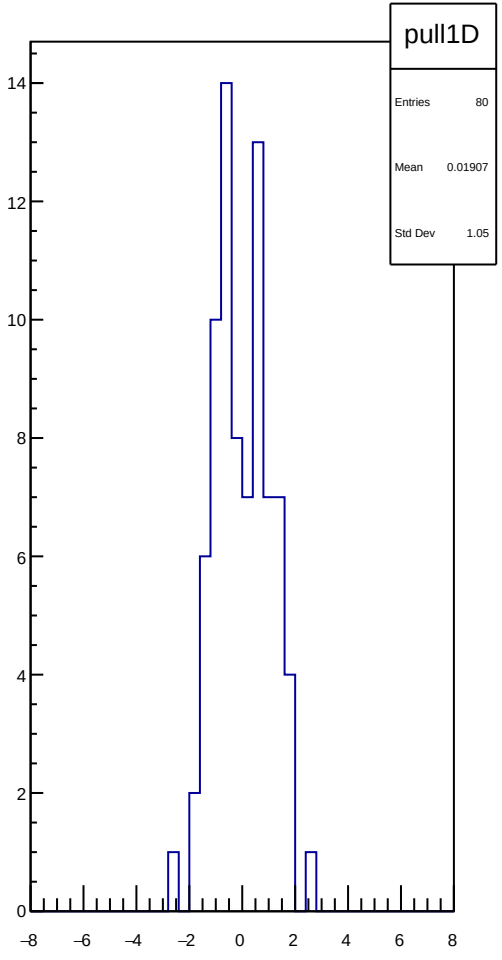

diff_cav4cX_rms vs run
χ² / ndf 9696 / 79
p0 865.9 ± 0.6948
1200
1100
1000
900
800

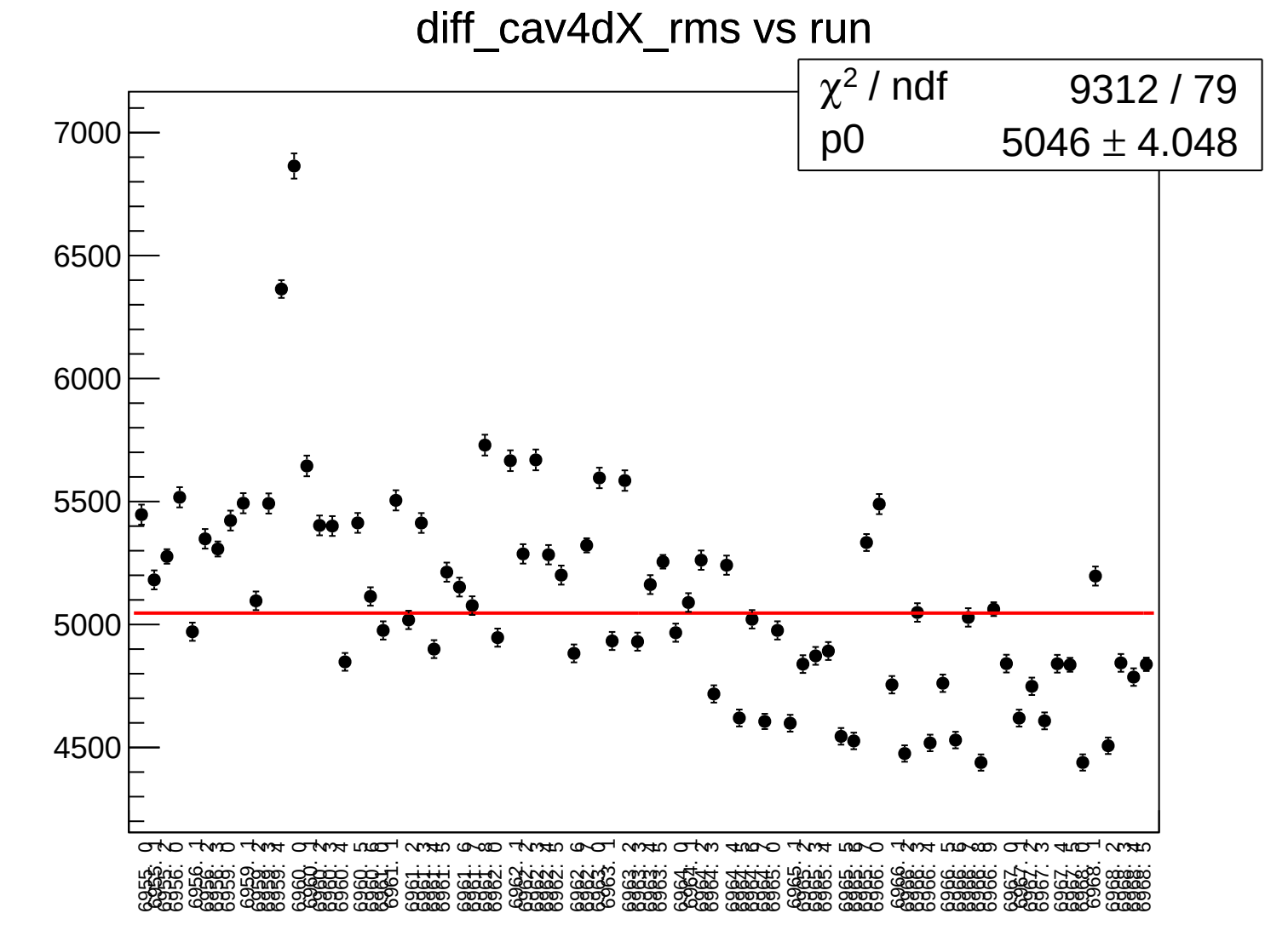

diff_cav4cY_mean vs run
χ² / ndf 72.47 / 79
p0 0.5837 ± 0.5971
pull
Entries 80
Mean 1504
Std Dev 1473

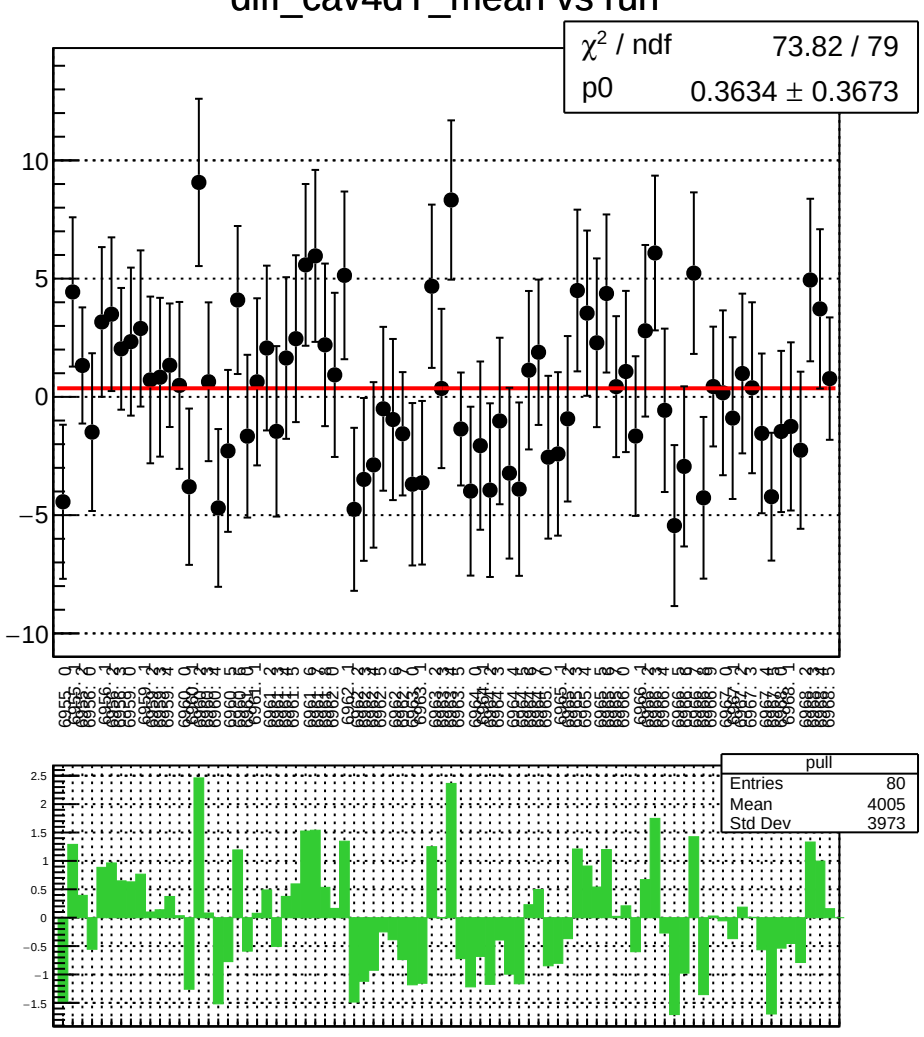

pull1D
Entries 80
Mean −0.001847
Std Dev 0.9518

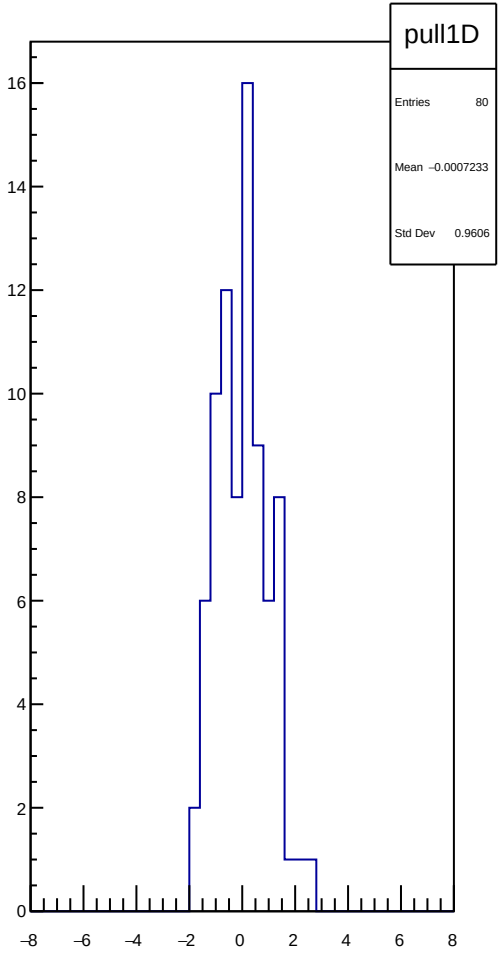

diff_cav4cY_rms vs run
χ² / ndf 1618 / 79
p0 527.6 ± 0.4222
580
560
540
520
500
480

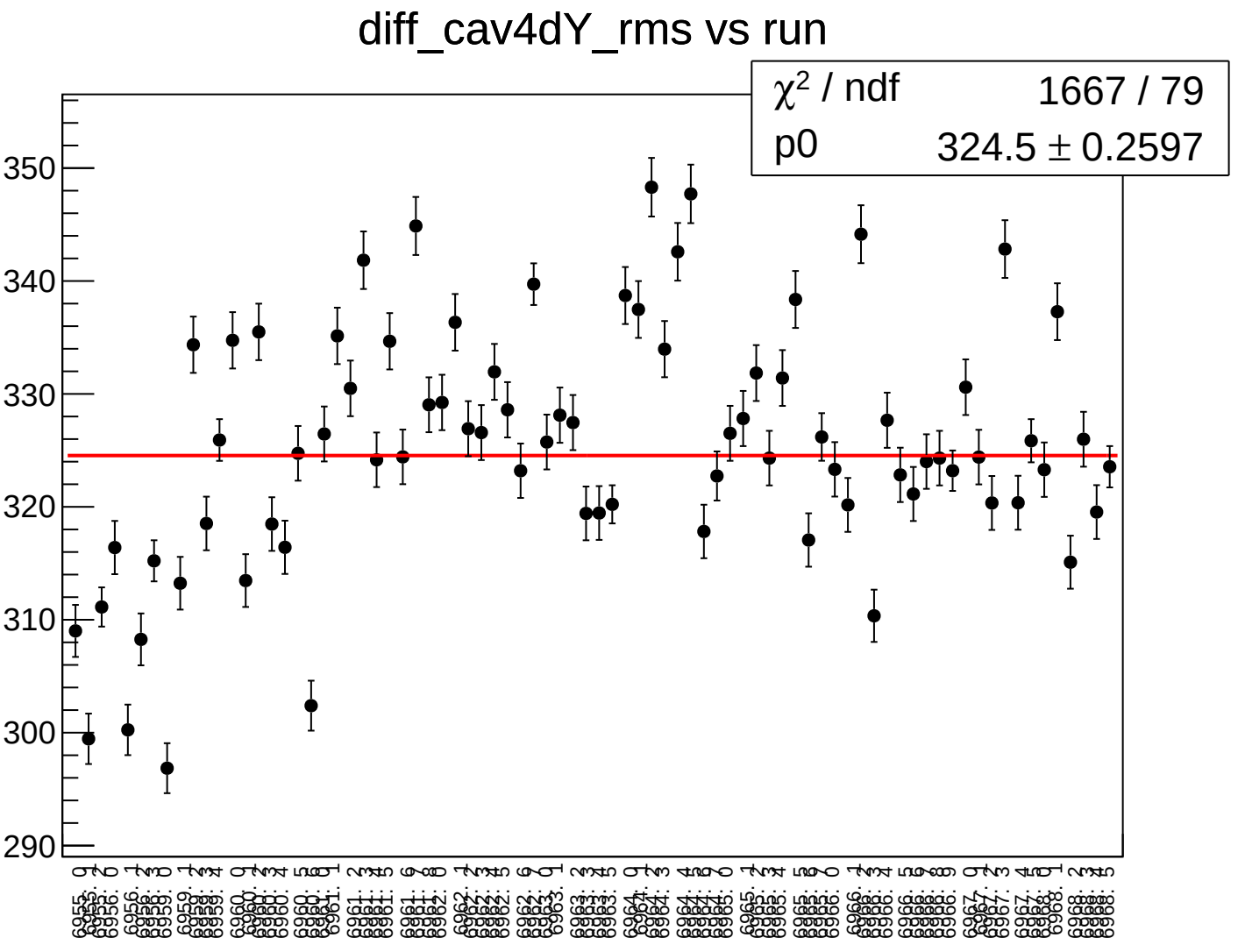

diff_cav4dX_mean vs run
χ² / ndf 88.17 / 79
p0 −1.574 ± 5.725
pull
Entries 80
Mean −17.61
Std Dev 55.42

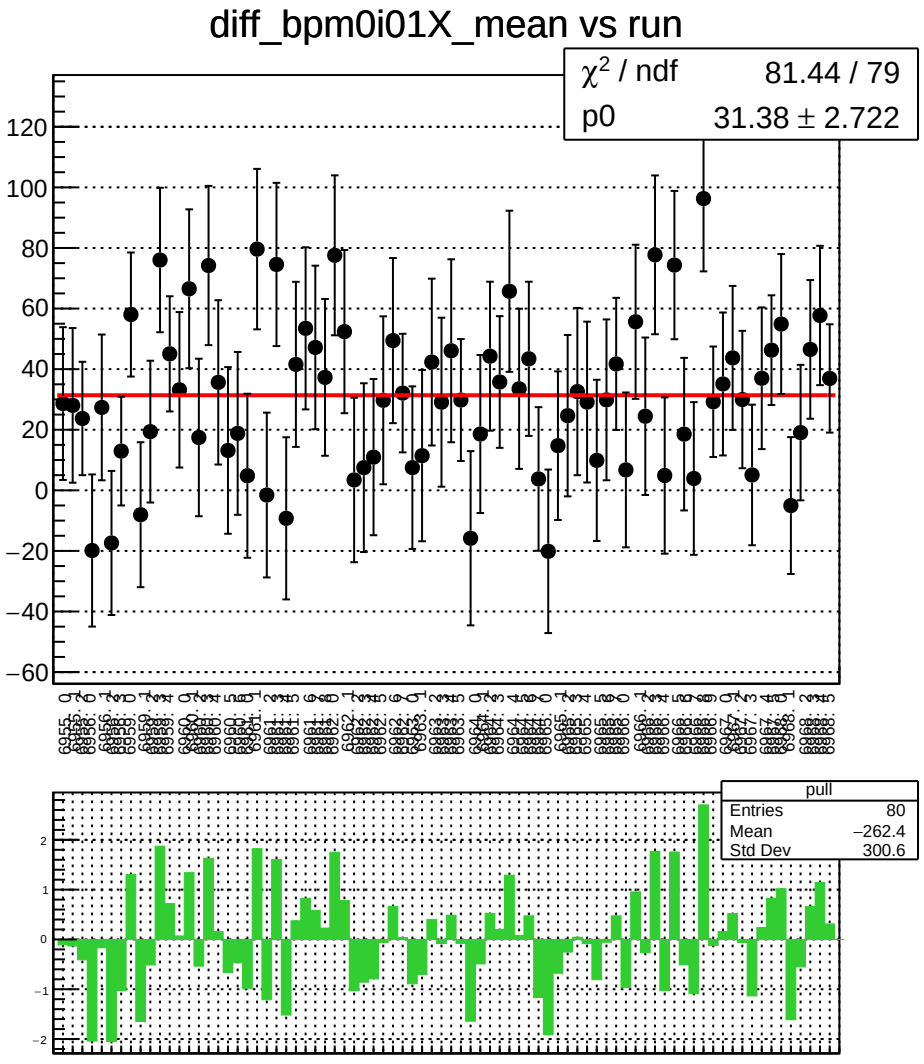

pull1D
Entries 80
Mean 0.01907
Std Dev 1.05

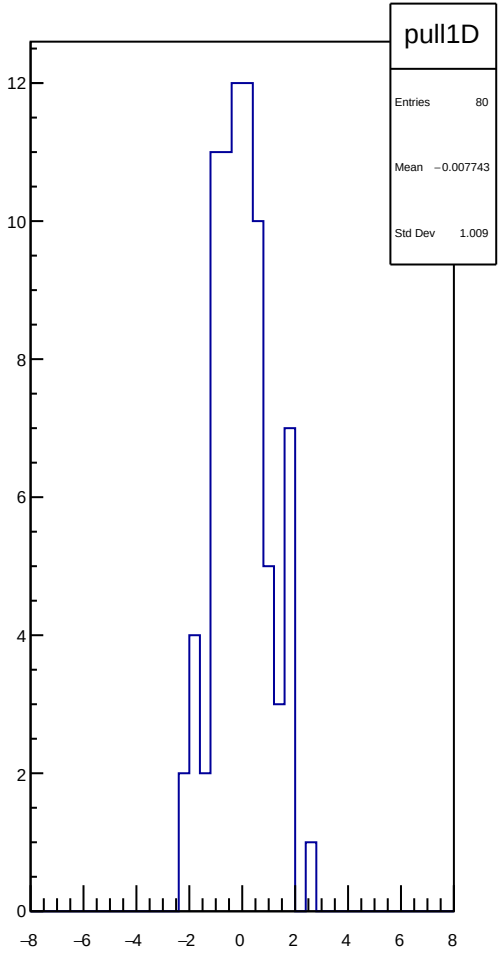

diff_cav4dX_rms vs run
χ² / ndf 9312 / 79
p0 5046 ± 4.048
7000
6500
6000
5500
5000
4500

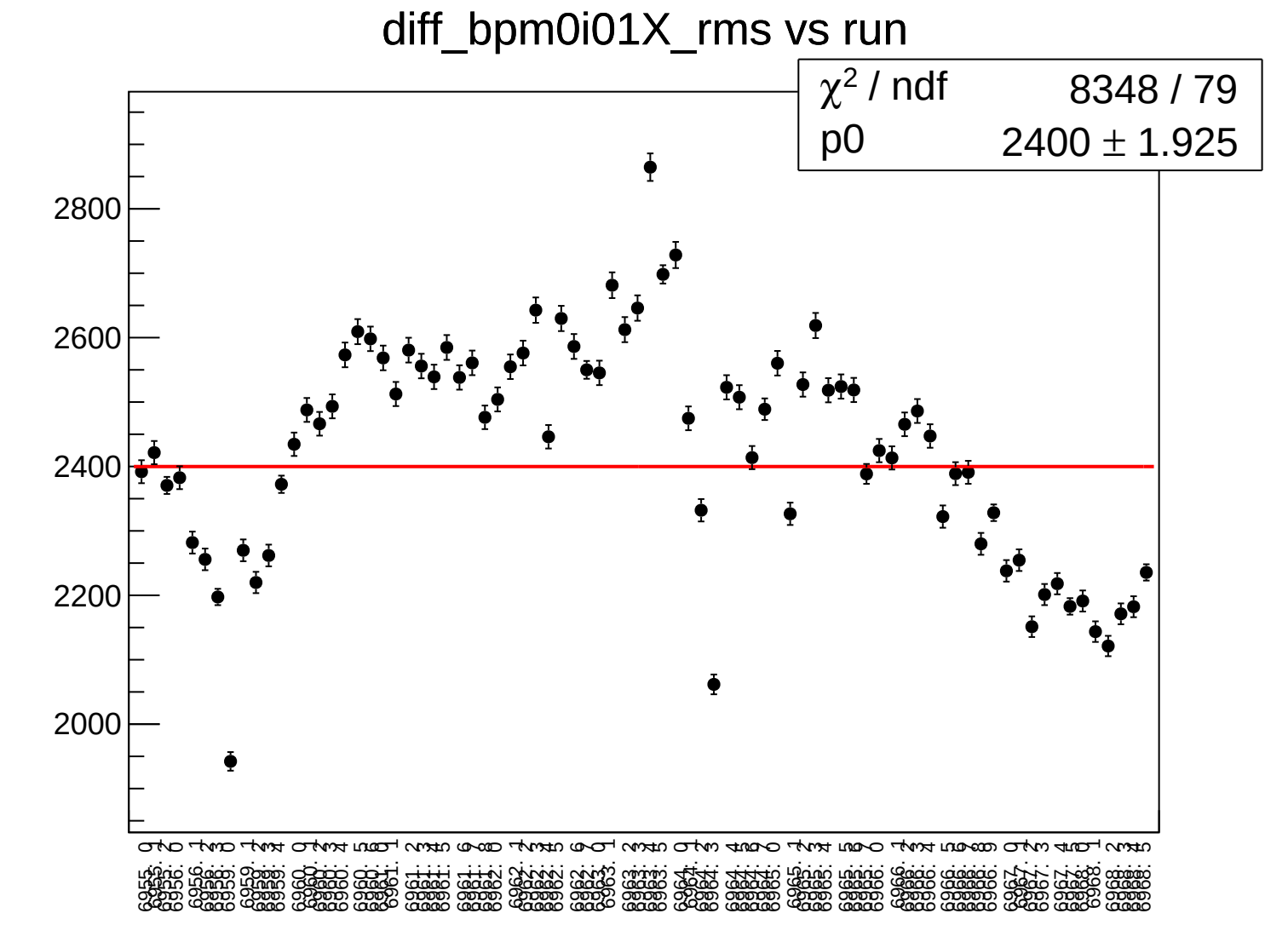

diff_cav4dY_mean vs run
χ² / ndf 73.82 / 79
p0 0.3634 ± 0.3673
pull
Entries 80
Mean 4005
Std Dev 3973

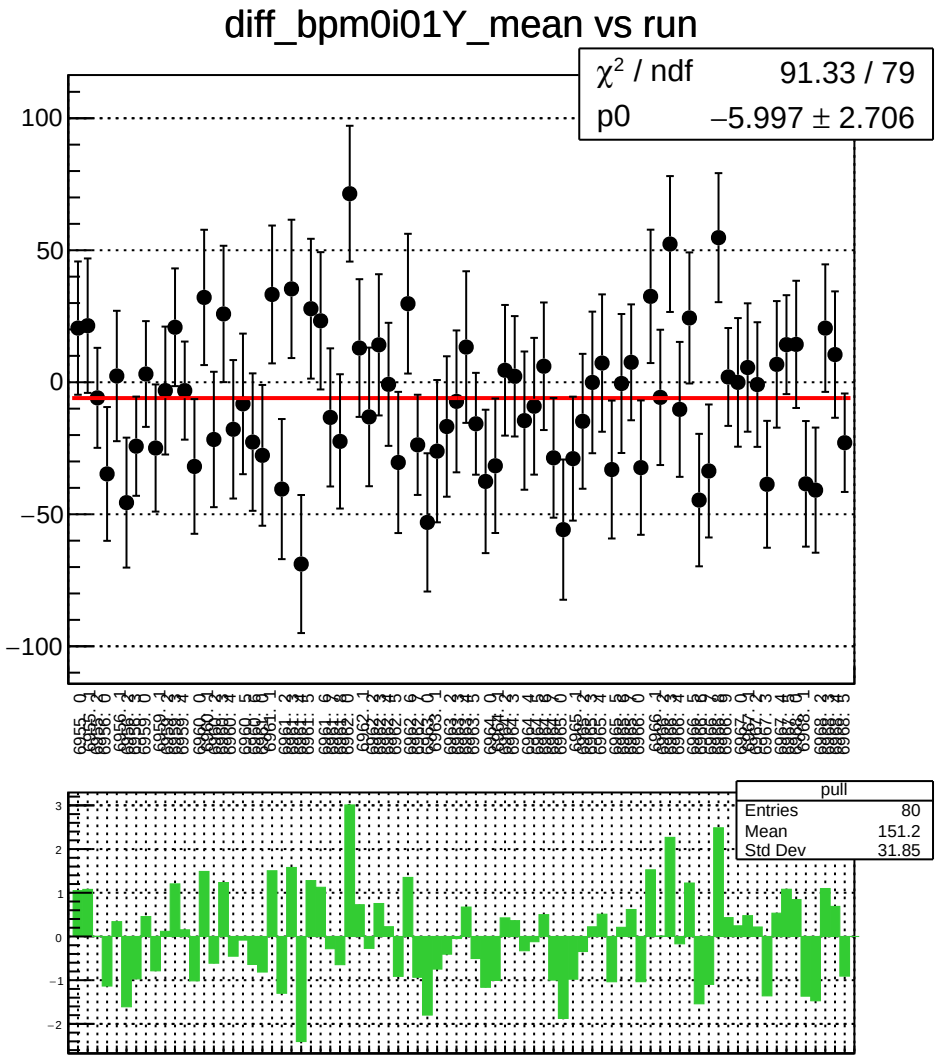

pull1D
Entries 80
Mean −0.0007233
Std Dev 0.9606

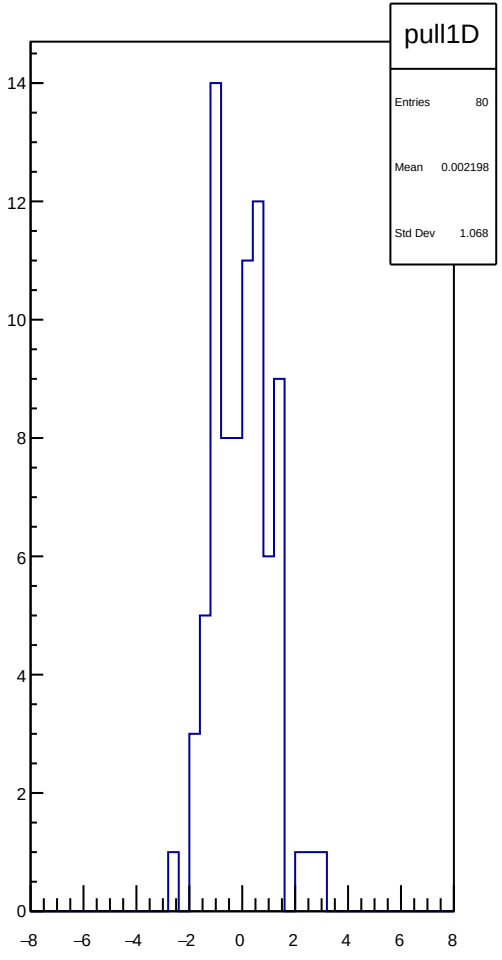

diff_cav4dY_rms vs run
χ² / ndf 1667 / 79
p0 324.5 ± 0.2597
350
340
330
320
310
300
290

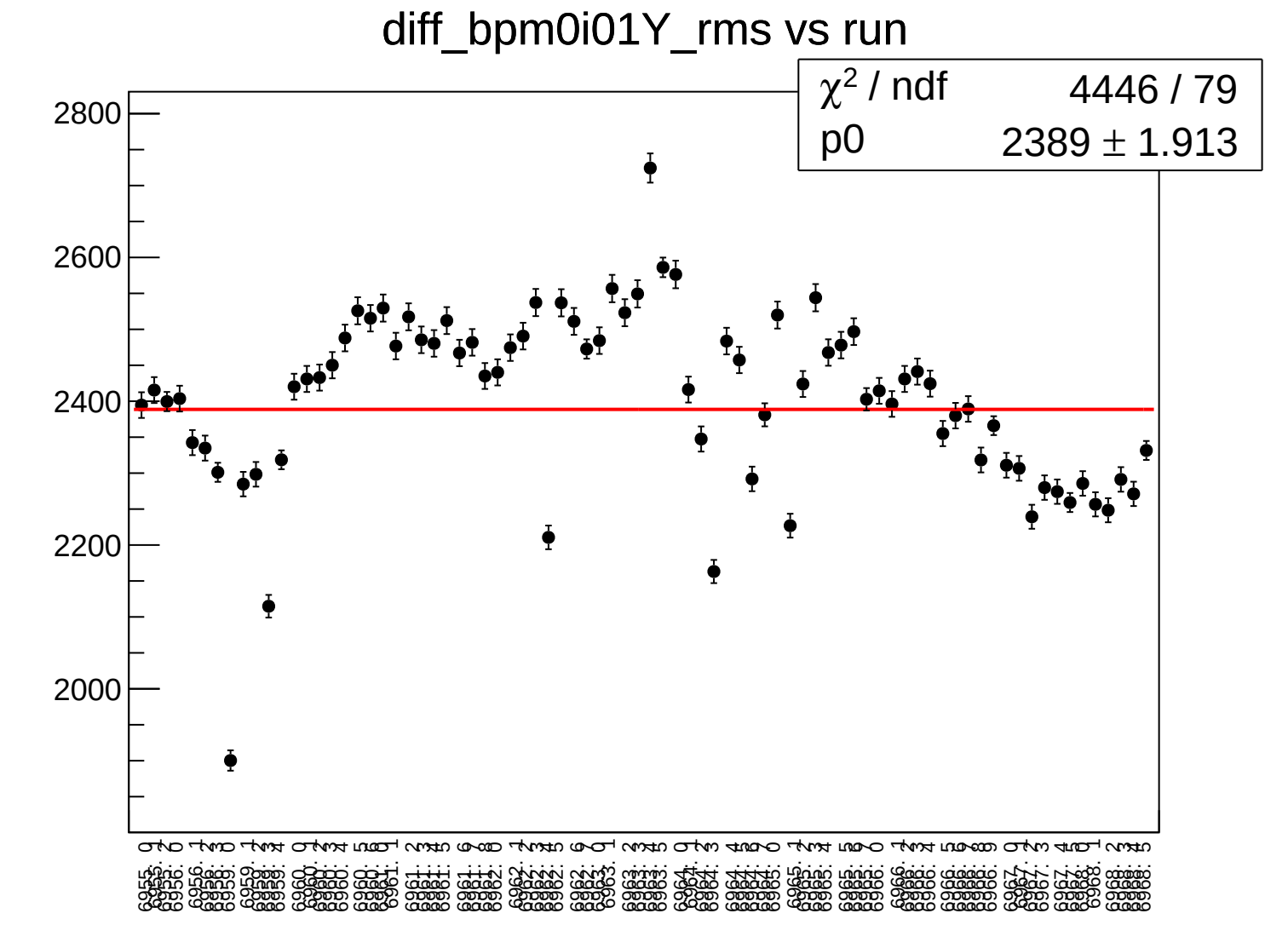

diff_bpm0i01X_mean vs run
χ^2 / ndf 81.44 / 79
p0 31.38 ± 2.722
pull
Entries 80
Mean −262.4
Std Dev 300.6

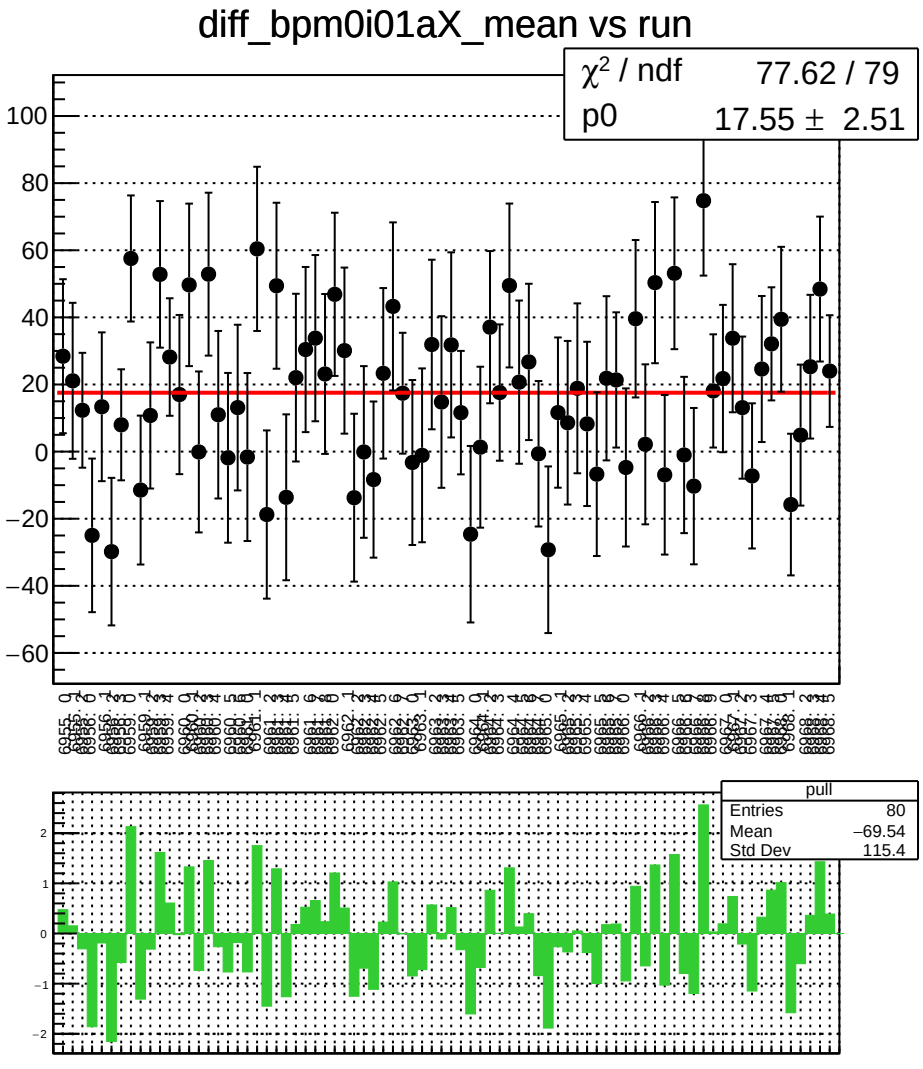

pull1D
Entries 80
Mean −0.007743
Std Dev 1.009

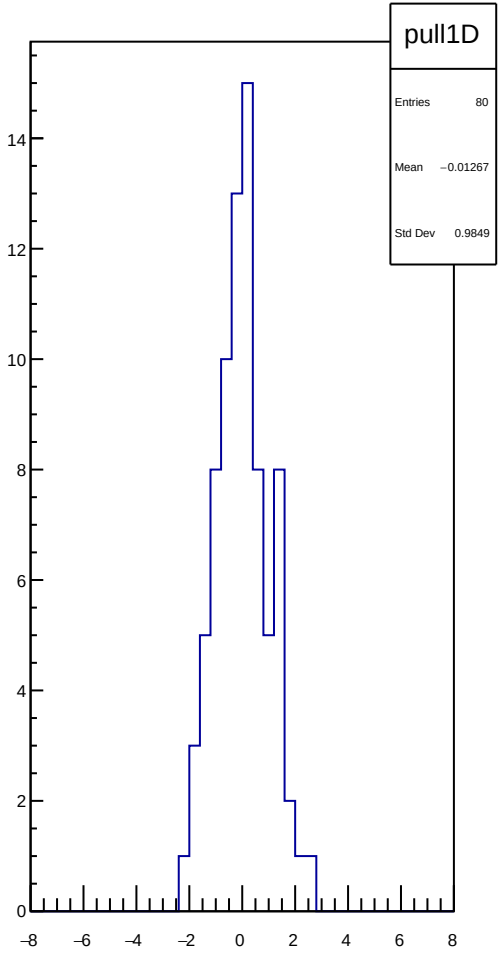

diff_bpm0i01X_rms vs run
χ² / ndf 8348 / 79
p0 2400 ± 1.925
2800
2600
2400
2200
2000

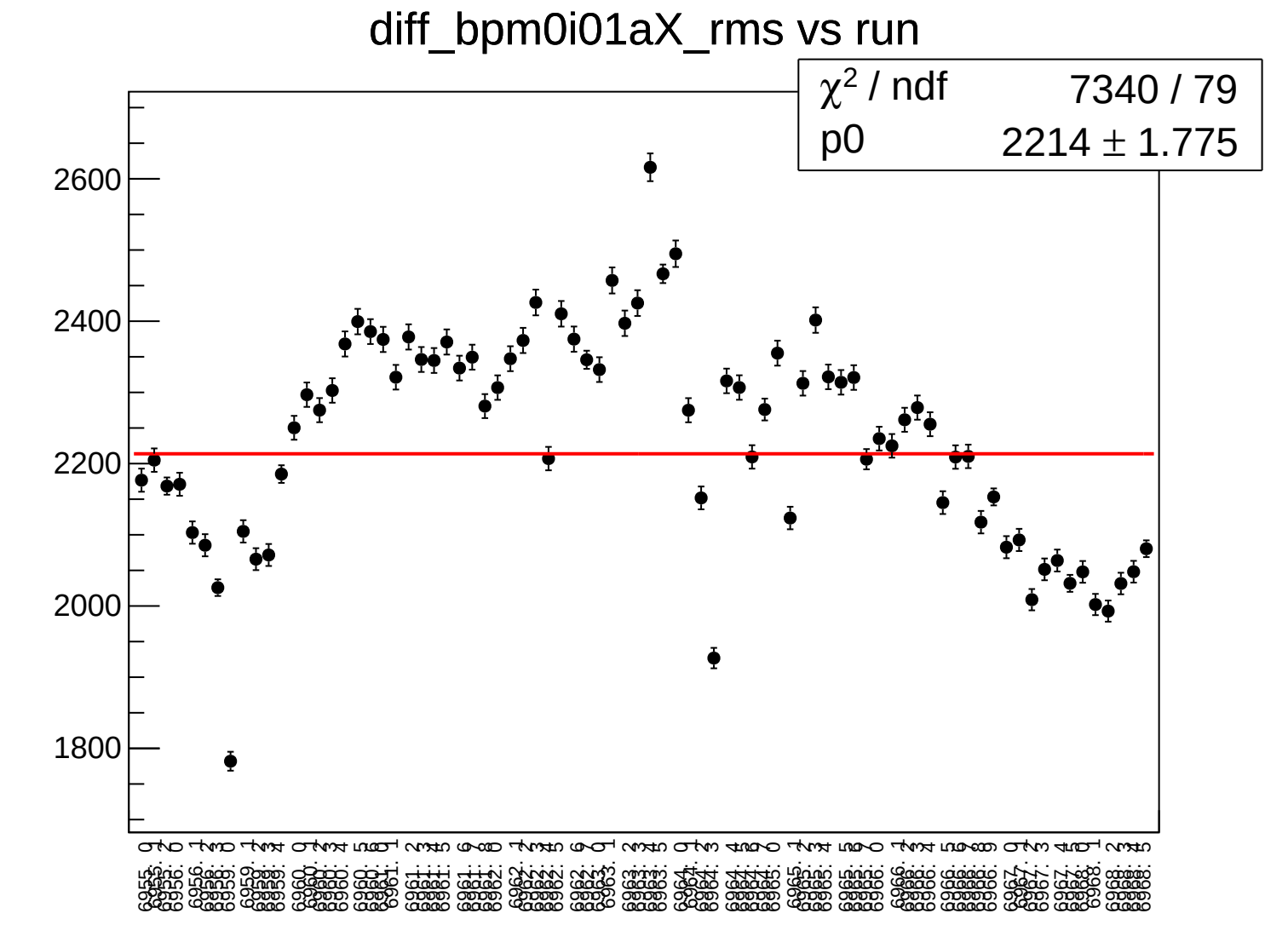

diff_bpm0i01Y_mean vs run
χ² / ndf 91.33 / 79
p0 −5.997 ± 2.706
pull
Entries 80
Mean 151.2
Std Dev 31.85

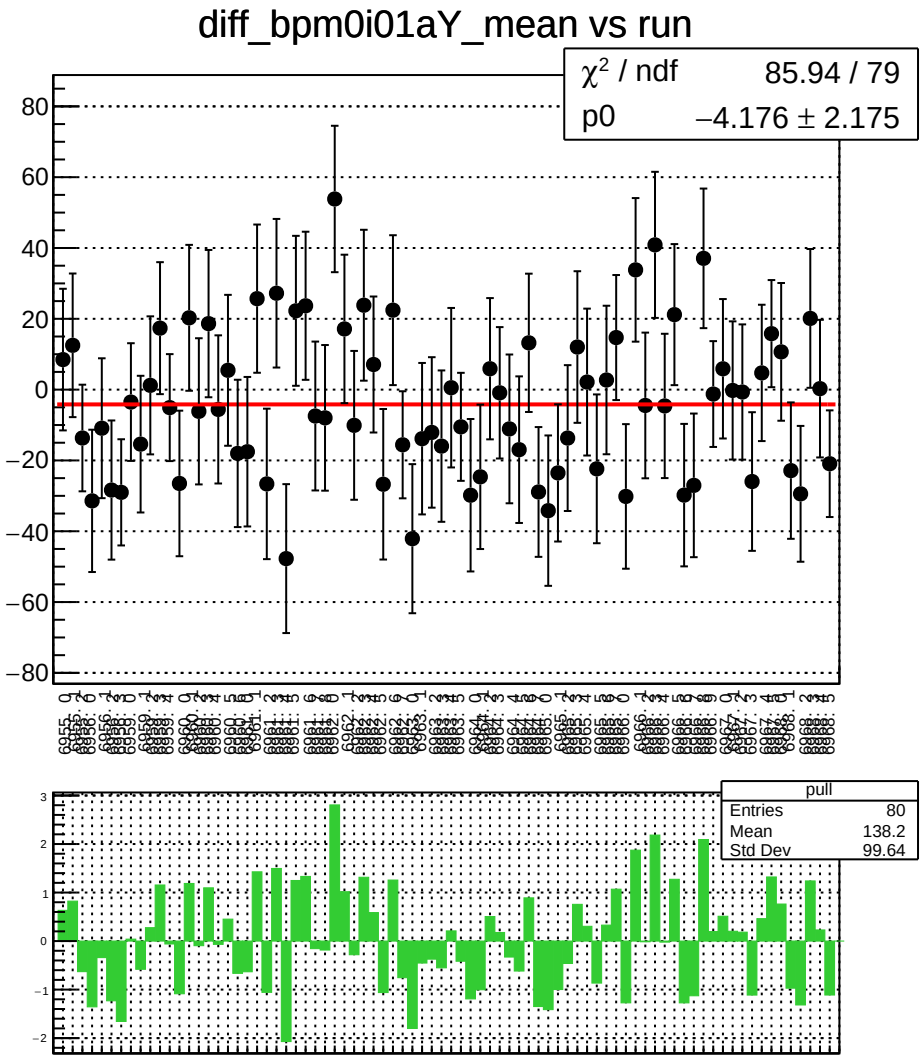

pull1D
Entries 80
Mean 0.002198
Std Dev 1.068

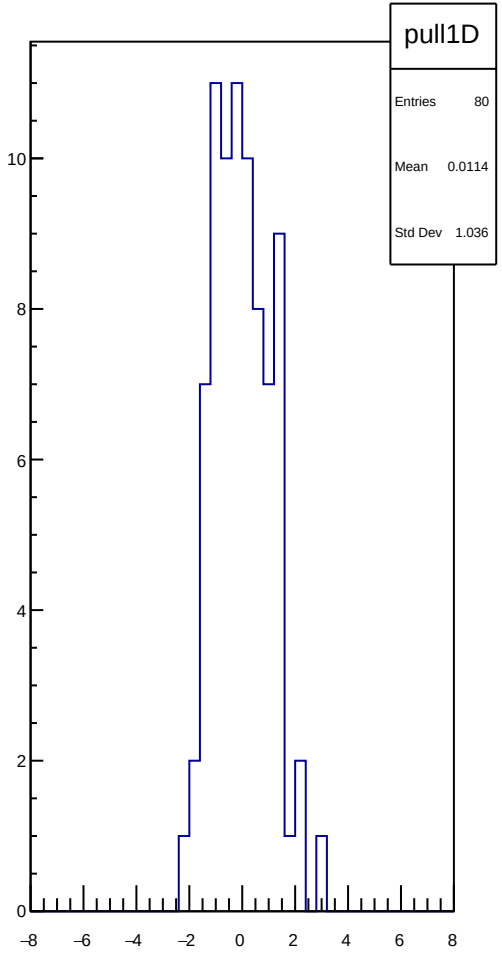

diff_bpm0i01Y_rms vs run
χ² / ndf 4446 / 79
p0 2389 ± 1.913
2800
2600
2400
2200
2000

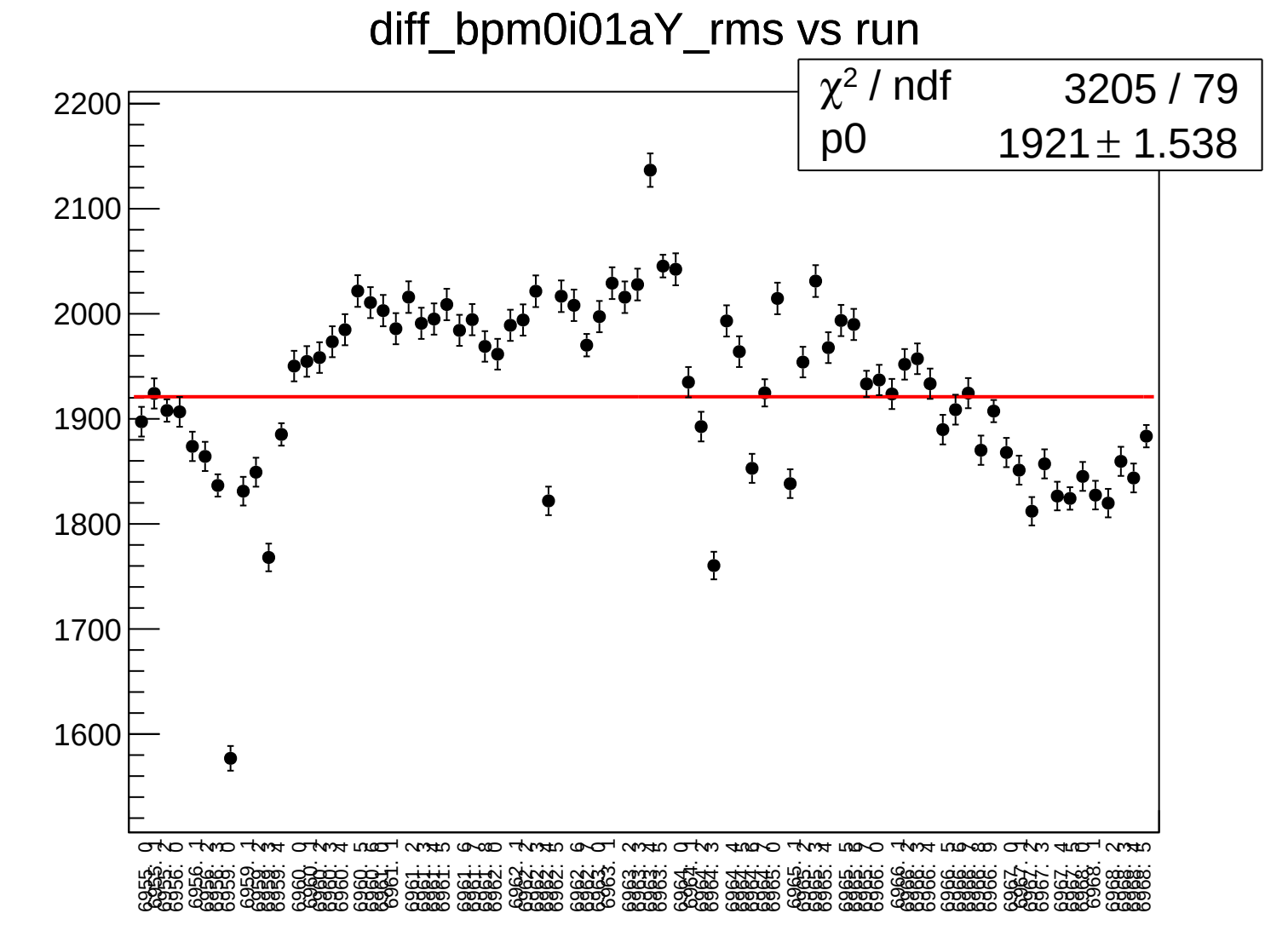

diff_bpm0i01aX_mean vs run
χ² / ndf 77.62 / 79
p0 17.55 ± 2.51
pull
Entries 80
Mean −69.54
Std Dev 115.4

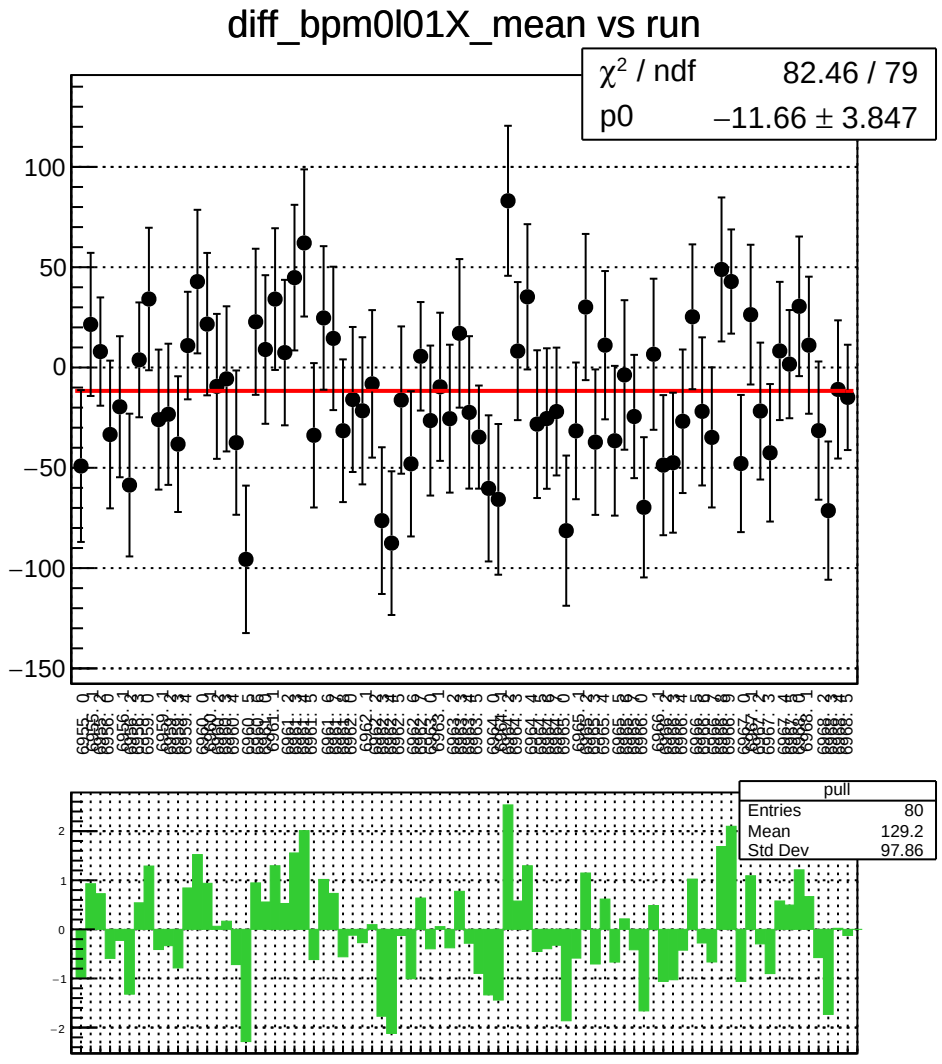

pull1D
Entries 80
Mean −0.01267
Std Dev 0.9849

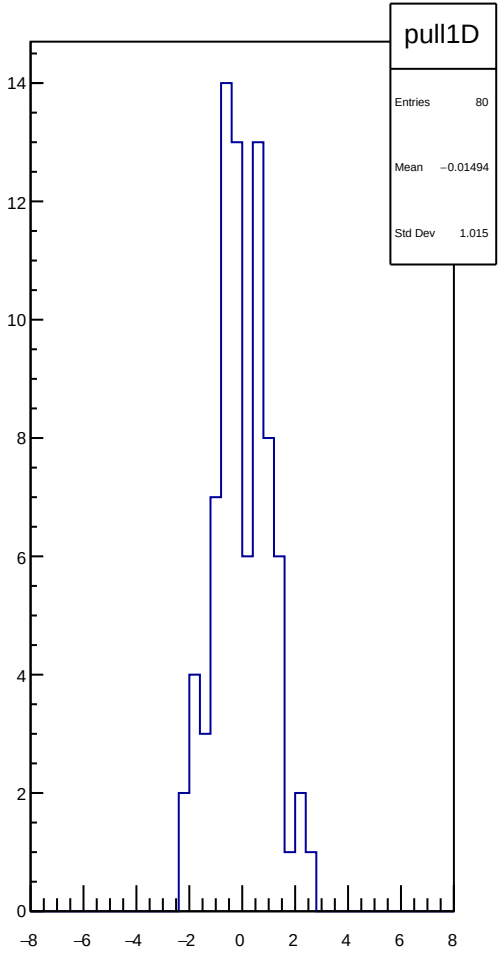

diff_bpm0i01aX_rms vs run
χ² / ndf 7340 / 79
p0 2214 ± 1.775
2600
2400
2200
2000
1800

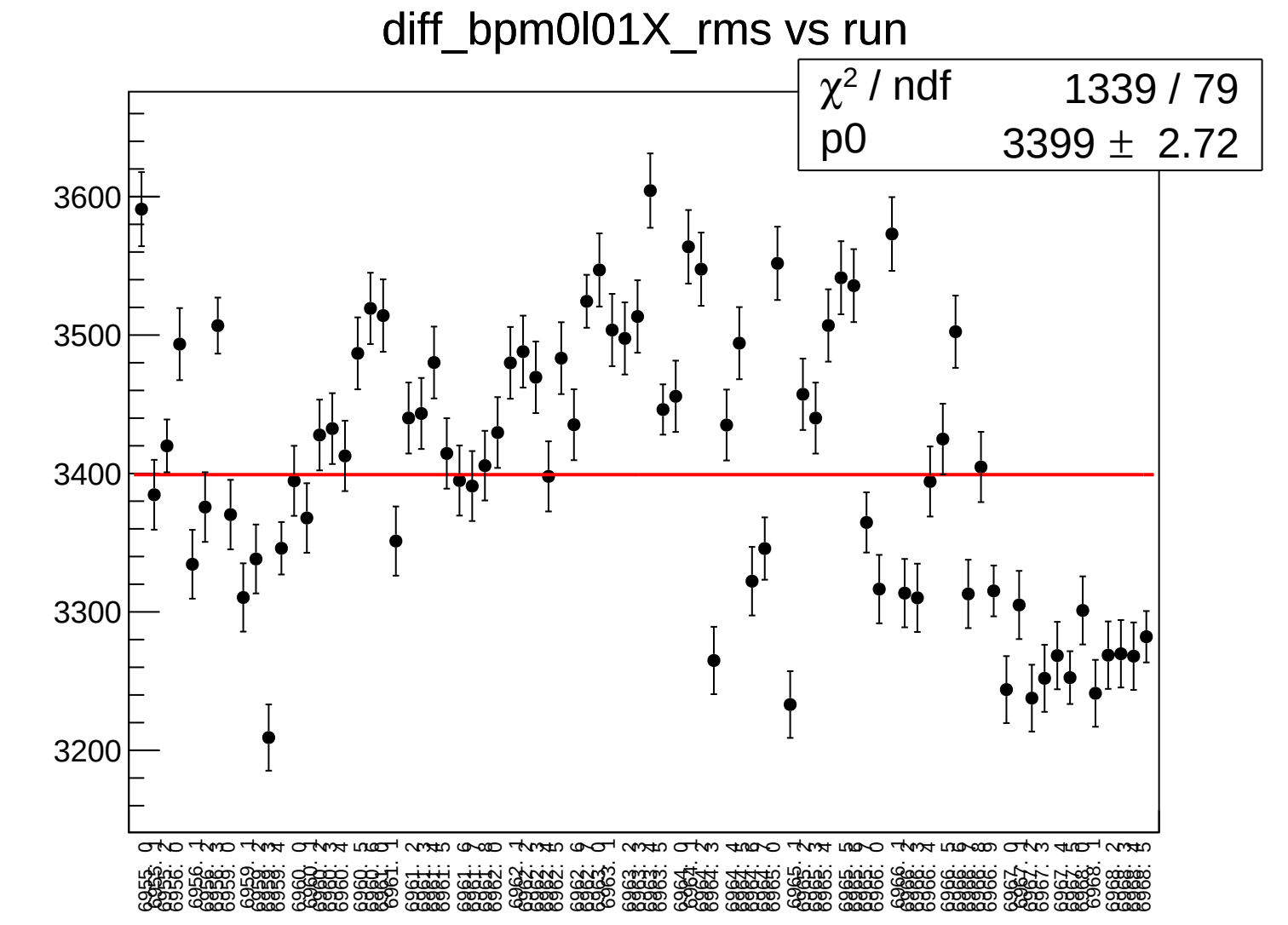

diff_bpm0i01aY_mean vs run
χ² / ndf 85.94 / 79
p0 −4.176 ± 2.175
pull
Entries 80
Mean 138.2
Std Dev 99.64

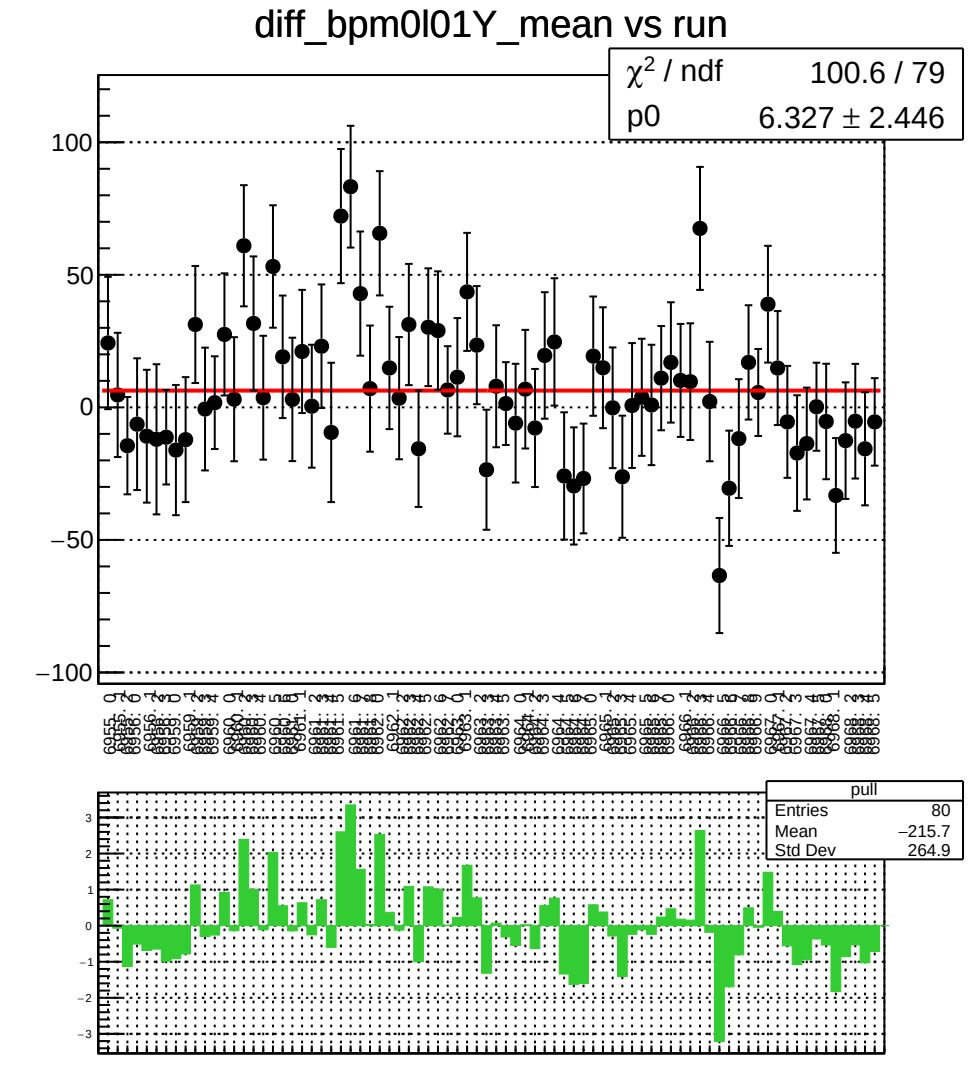

pull1D
Entries 80
Mean 0.0114
Std Dev 1.036

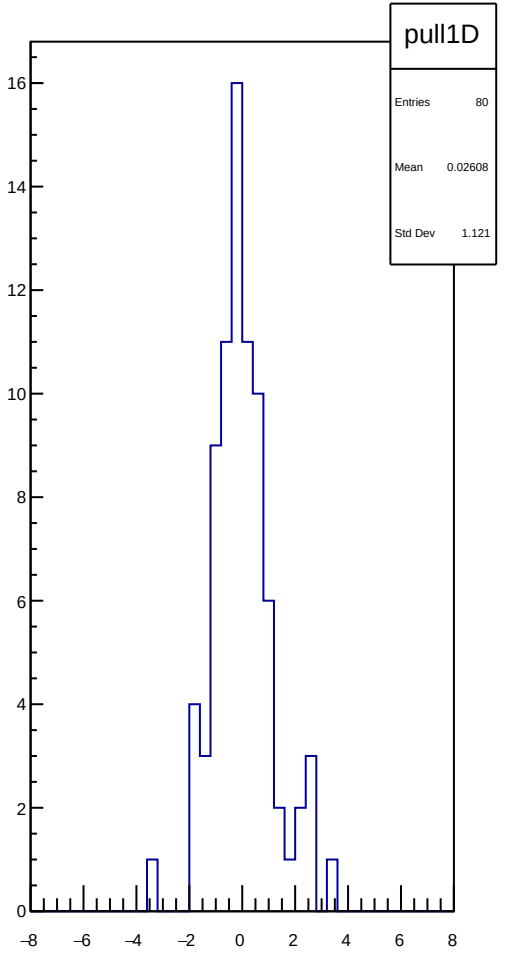

diff_bpm0i01aY_rms vs run
χ² / ndf 3205 / 79
p0 1921 ± 1.538
2200
2100
2000
1900
1800
1700
1600

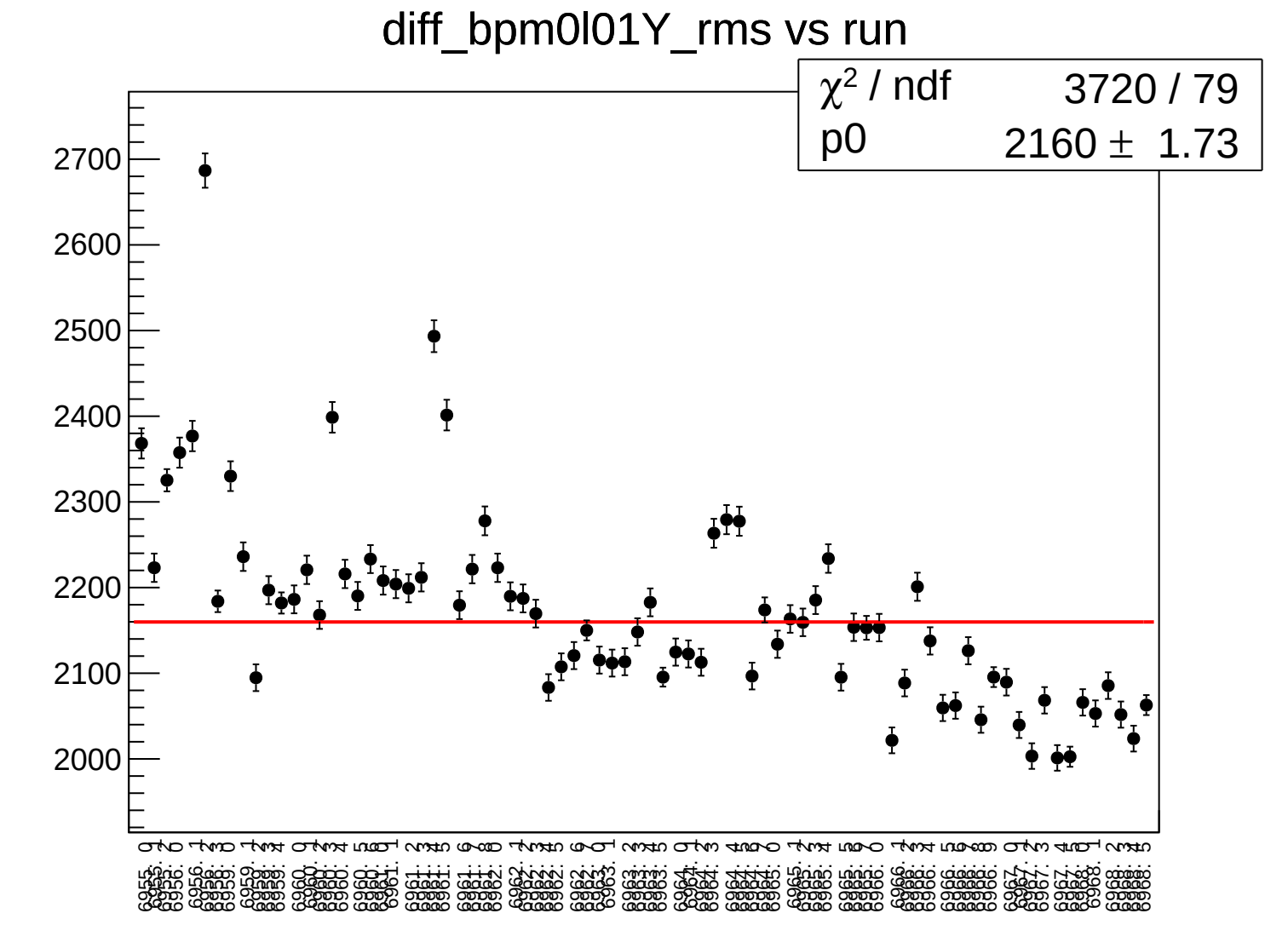

diff_bpm0l01X_mean vs run
χ² / ndf 82.46 / 79
p0 −11.66 ± 3.847
pull
Entries 80
Mean 129.2
Std Dev 97.86

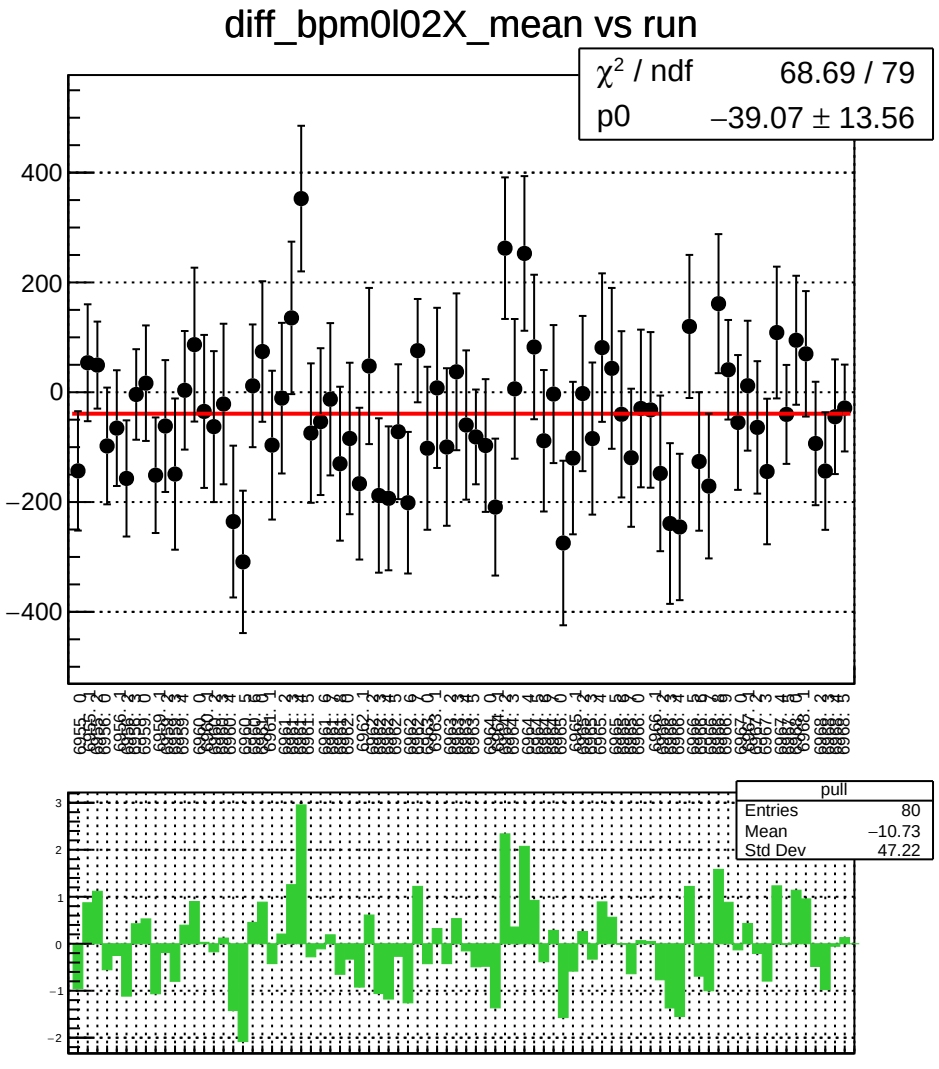

pull1D
Entries 80
Mean −0.01494
Std Dev 1.015

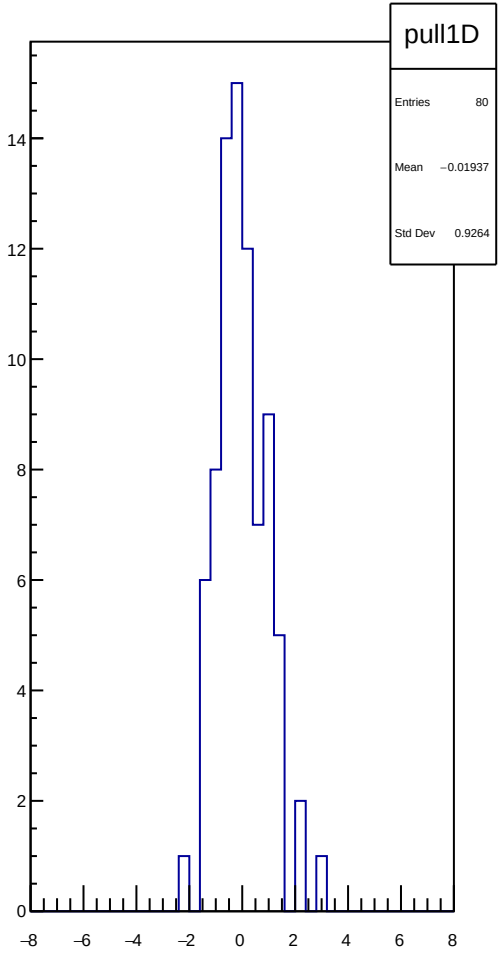

diff_bpm0l01X_rms vs run
χ² / ndf 1339 / 79
p0 3399 ± 2.72
3600
3500
3400
3300
3200

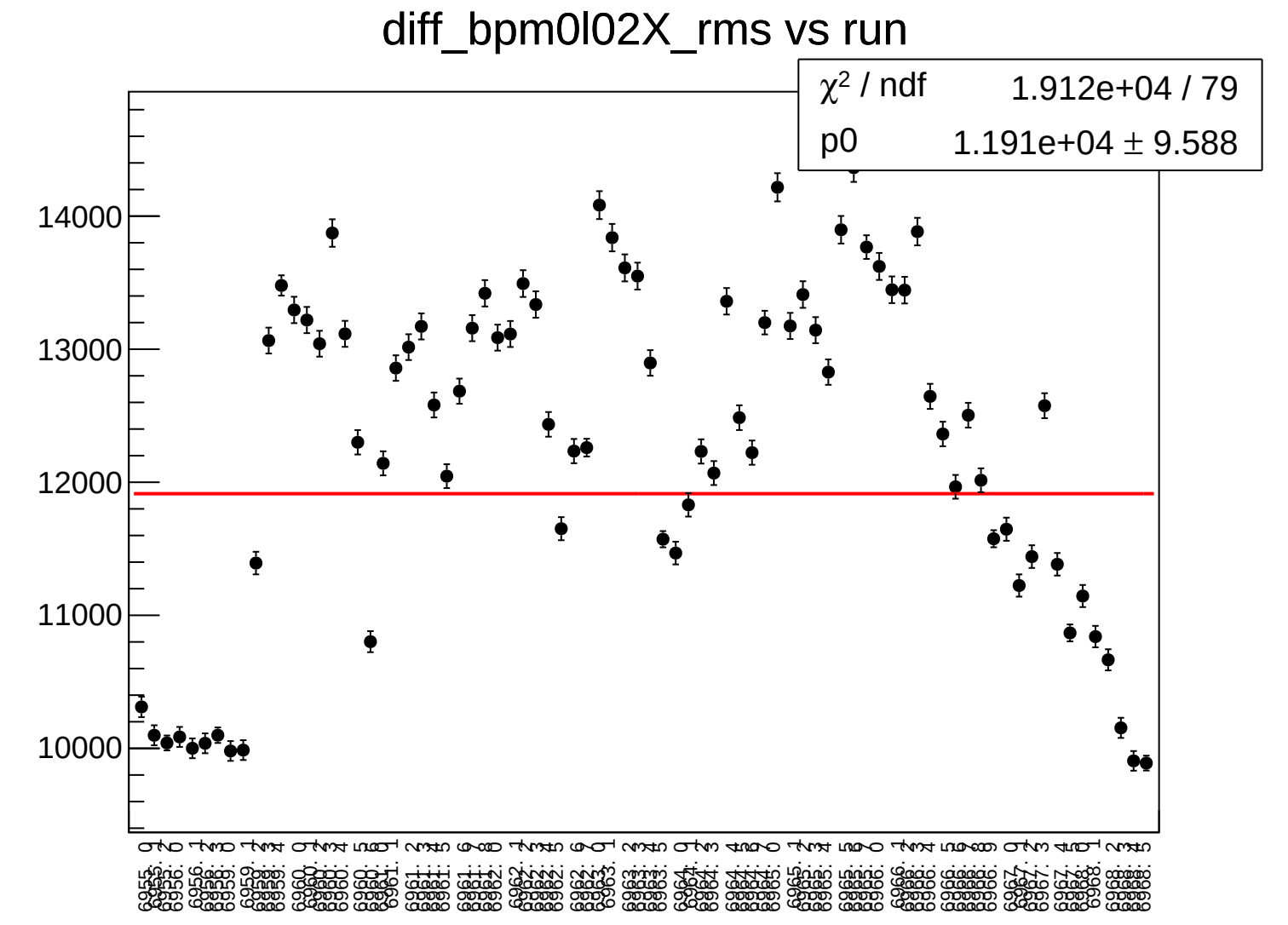

diff_bpm0l01Y_mean vs run
χ² / ndf 100.6 / 79
p0 6.327 ± 2.446
100
50
0
−50
−100
pull
Entries 80
Mean −215.7
Std Dev 264.9
3
2
1
0
−1
−2
−3

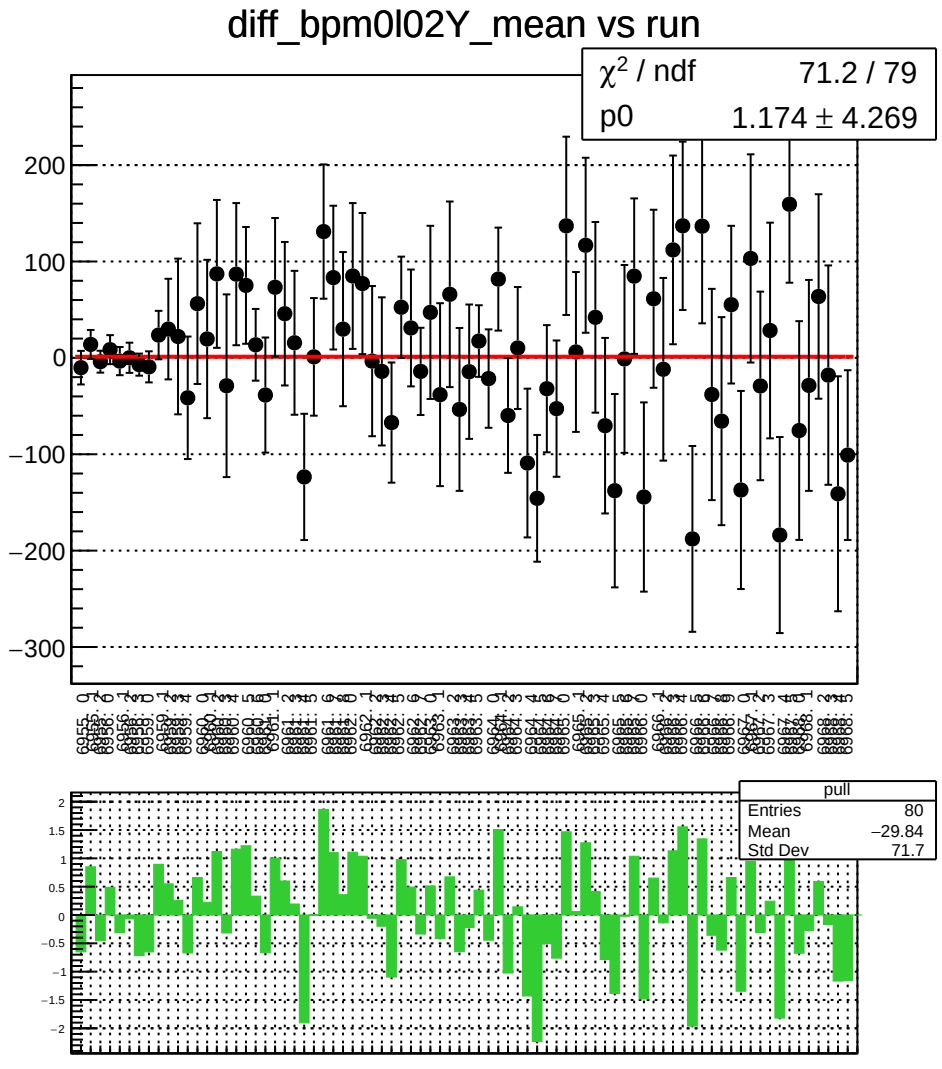

pull1D
Entries 80
Mean 0.02608
Std Dev 1.121
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

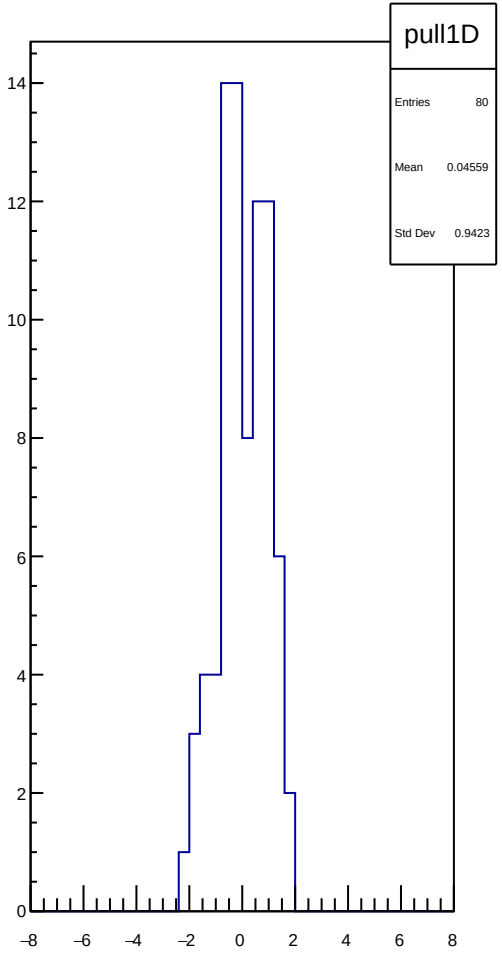

diff_bpm0l01Y_rms vs run
χ² / ndf 3720 / 79
p0 2160 ± 1.73
2700
2600
2500
2400
2300
2200
2100
2000

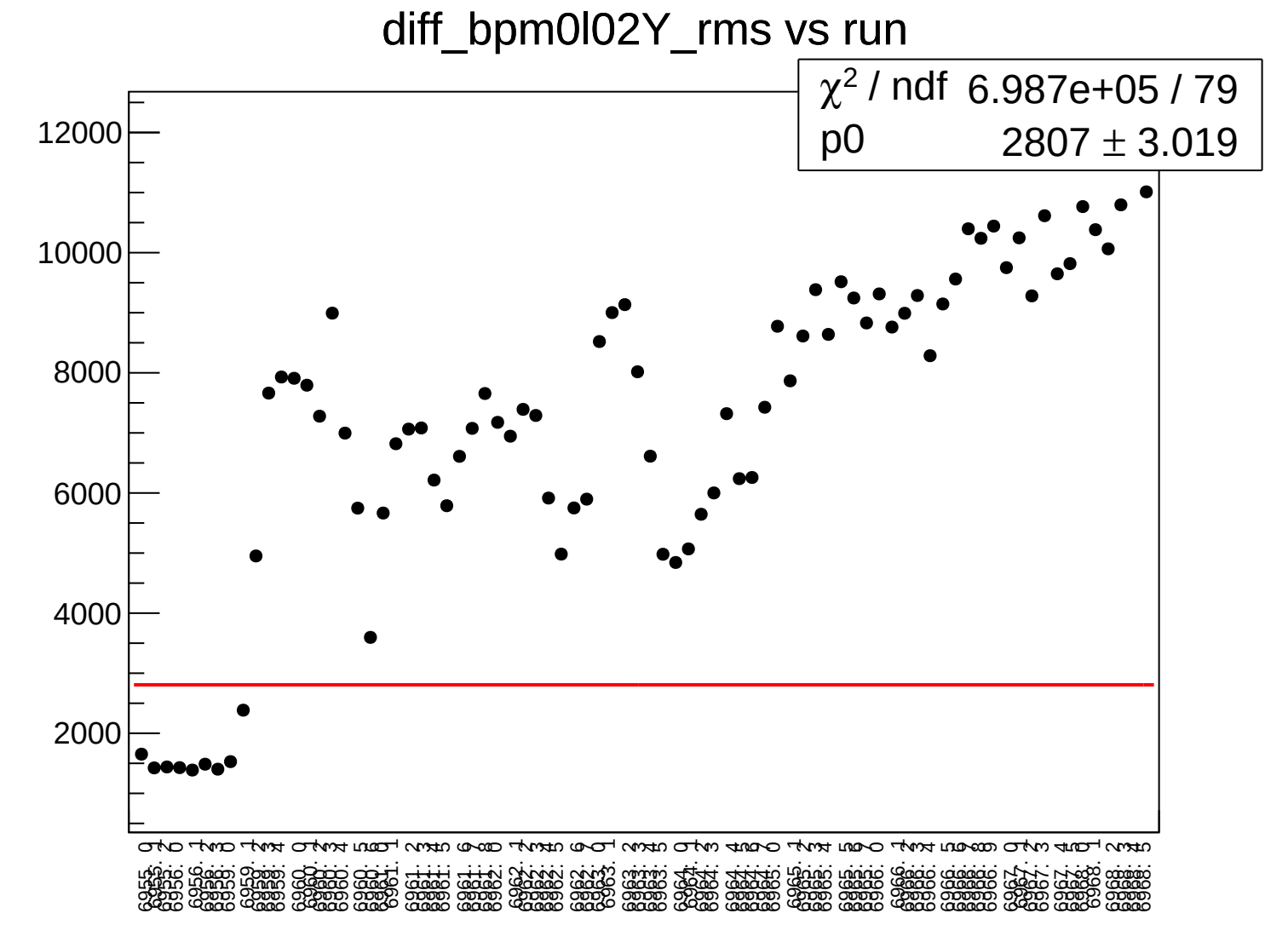

diff_bpm0l02X_mean vs run
χ² / ndf 68.69 / 79
p0 −39.07 ± 13.56
pull
Entries 80
Mean −10.73
Std Dev 47.22

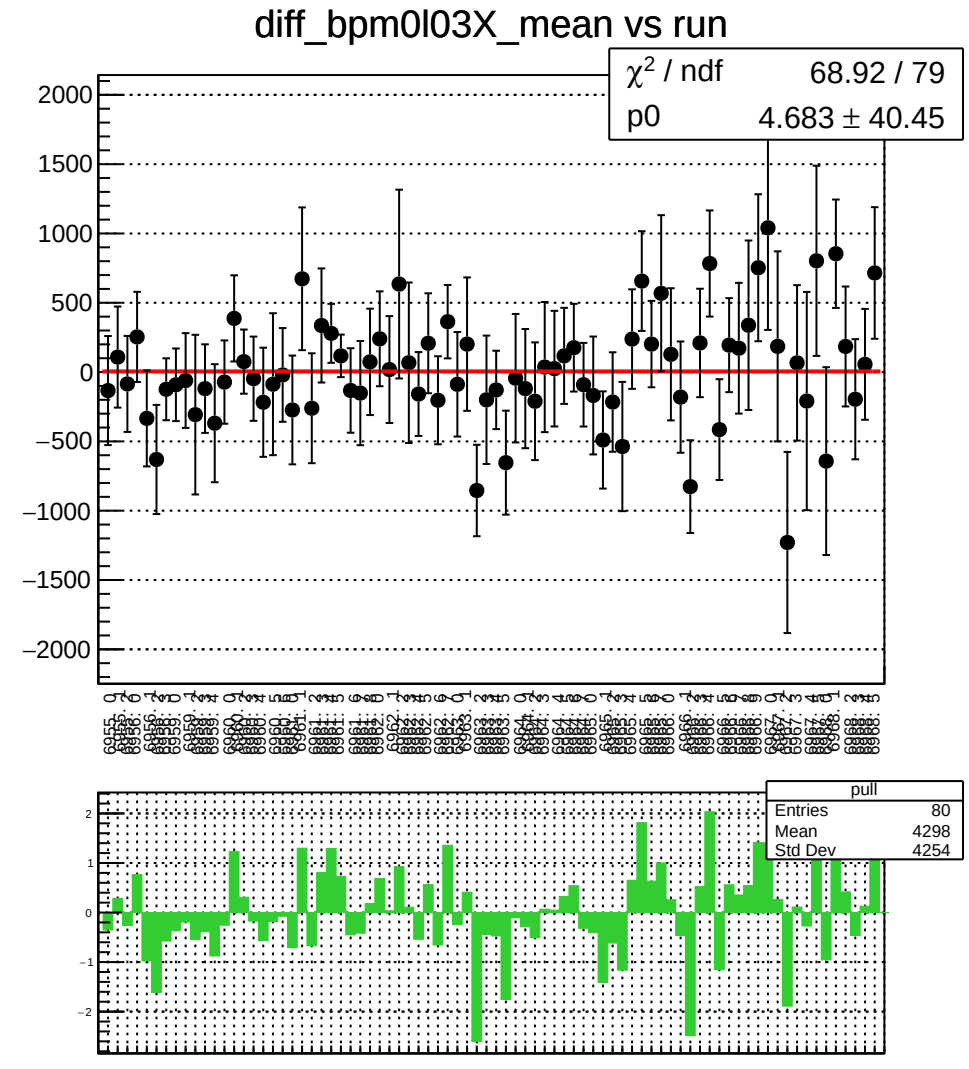

pull1D
Entries 80
Mean −0.01937
Std Dev 0.9264

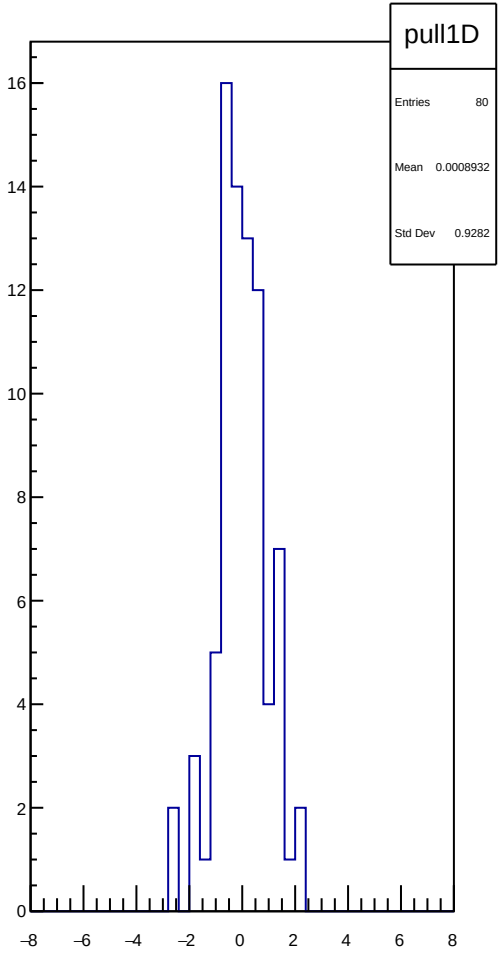

diff_bpm0l02X_rms vs run
χ² / ndf 1.912e+04 / 79
p0 1.191e+04 ± 9.588
14000
13000
12000
11000
10000

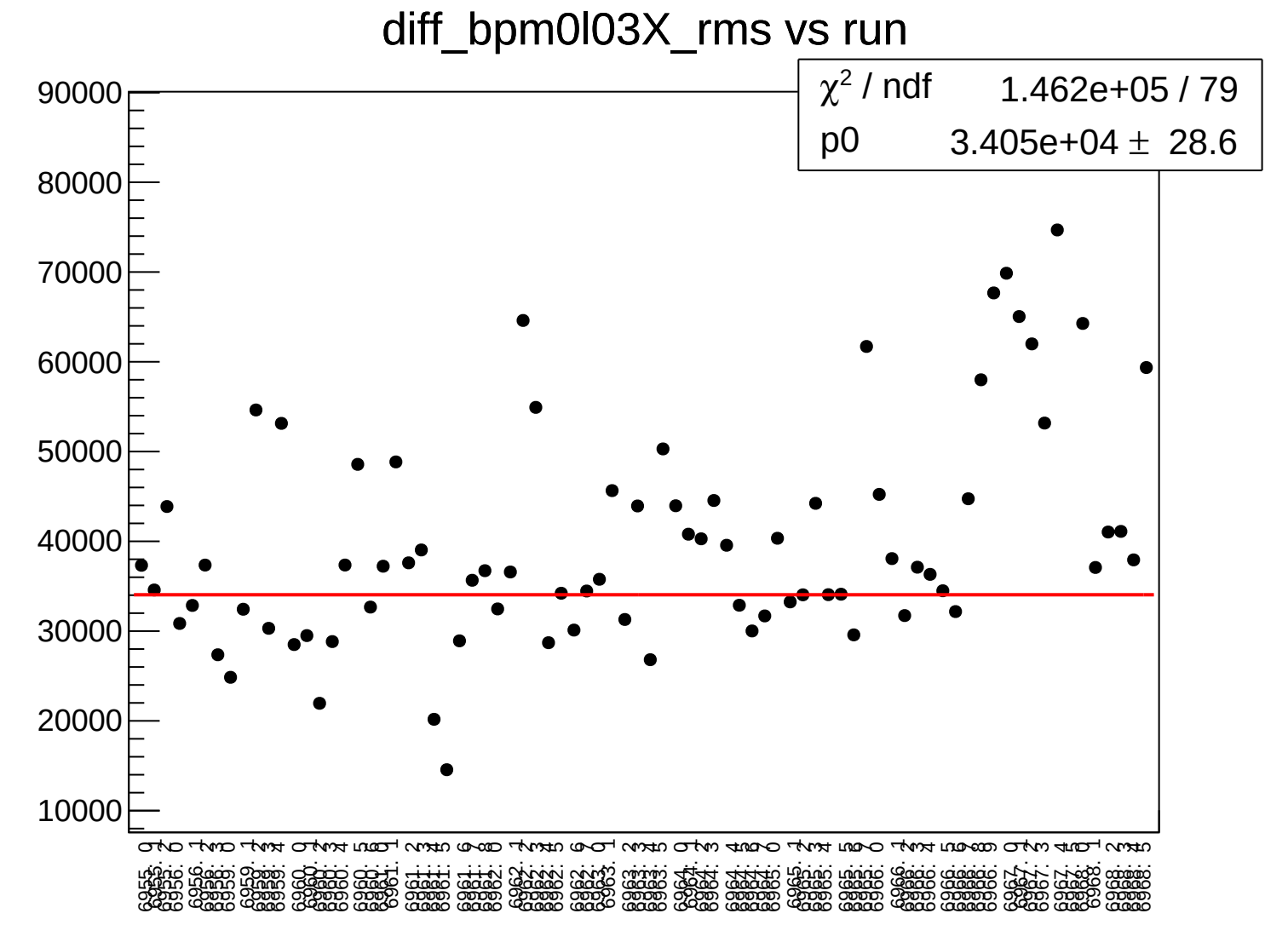

diff_bpm0l02Y_mean vs run
χ² / ndf 71.2 / 79
p0 1.174 ± 4.269
pull
Entries 80
Mean −29.84
Std Dev 71.7

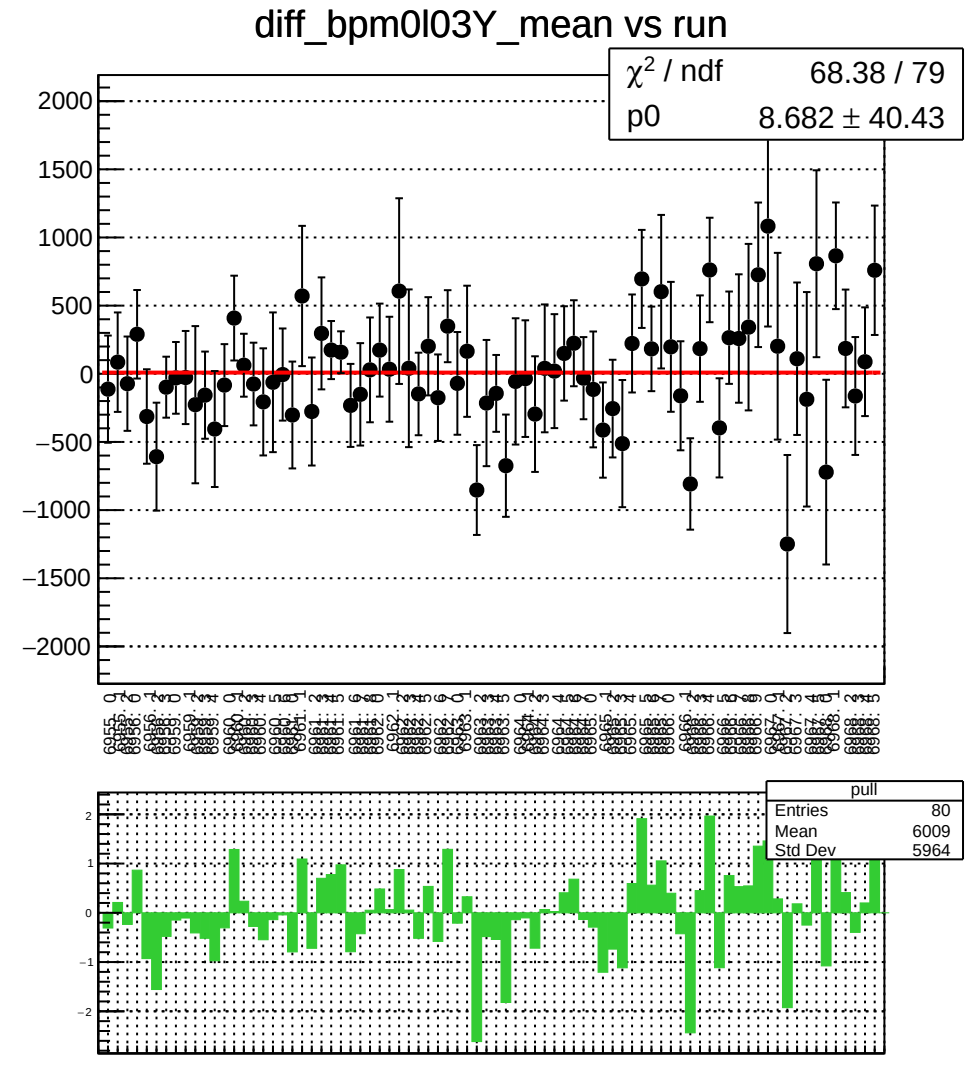

pull1D
Entries 80
Mean 0.04559
Std Dev 0.9423

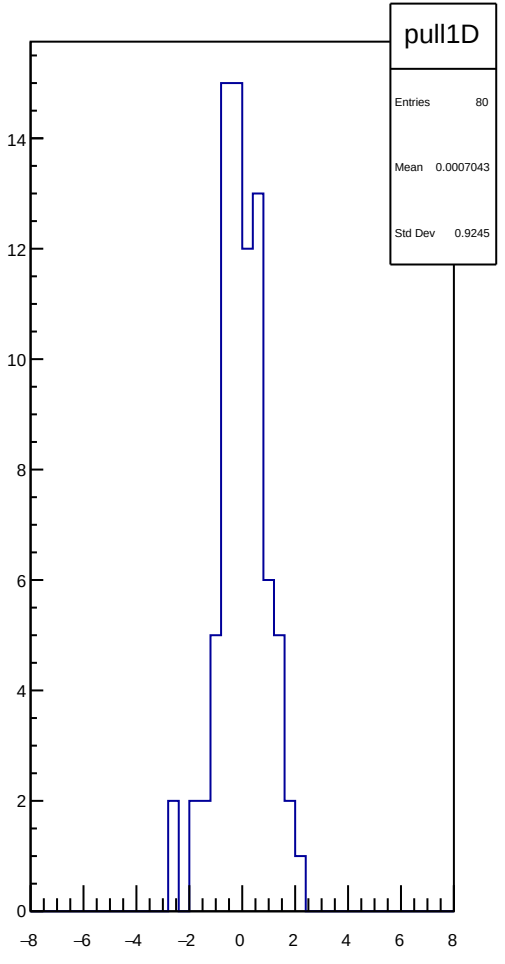

diff_bpm0l02Y_rms vs run
χ² / ndf 6.987e+05 / 79
p0 2807 ± 3.019
12000
10000
8000
6000
4000
2000

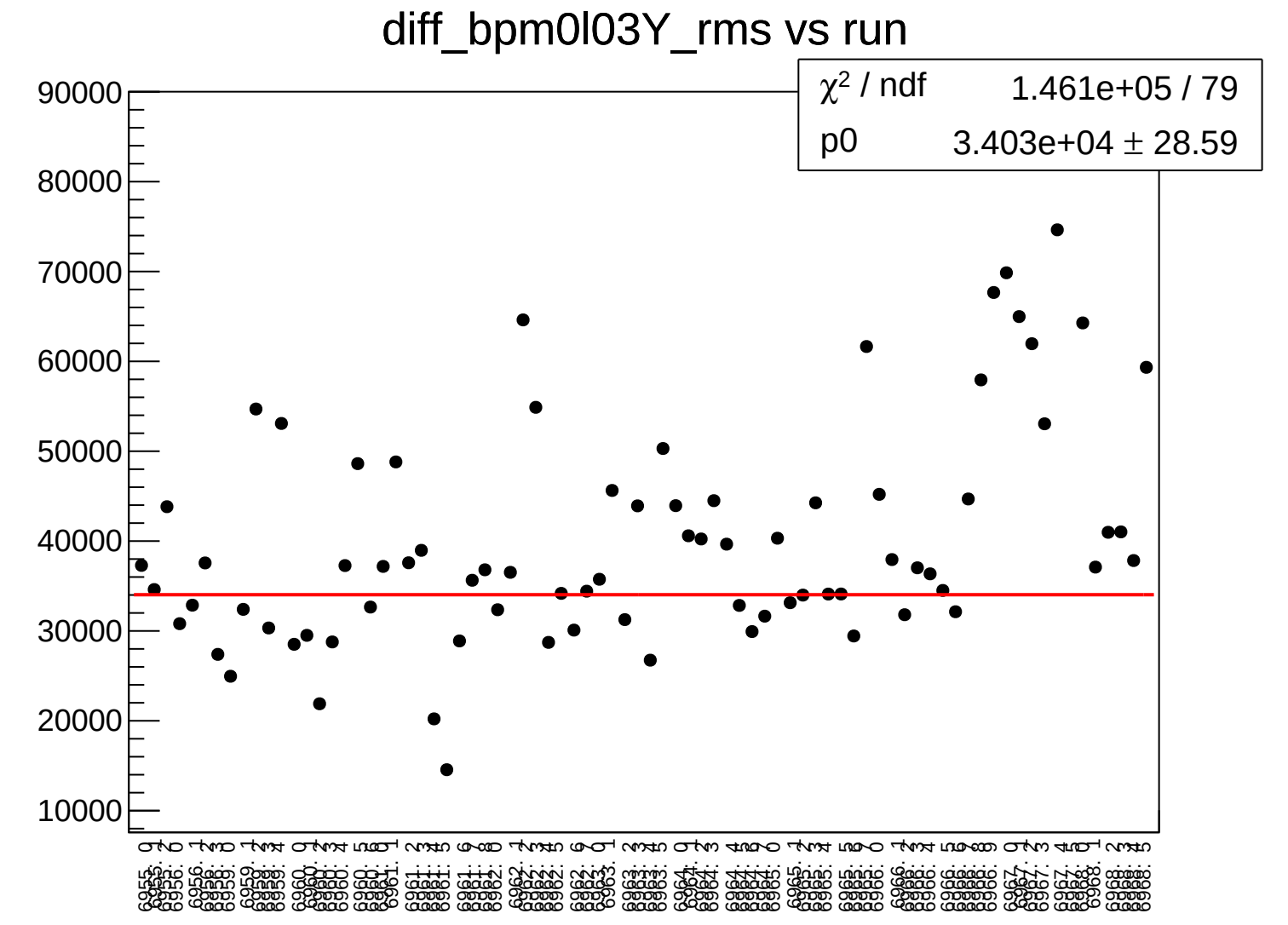

diff_bpm0l03X_mean vs run
χ^2 / ndf 68.92 / 79
p0 4.683 ± 40.45
pull
Entries 80
Mean 4298
Std Dev 4254

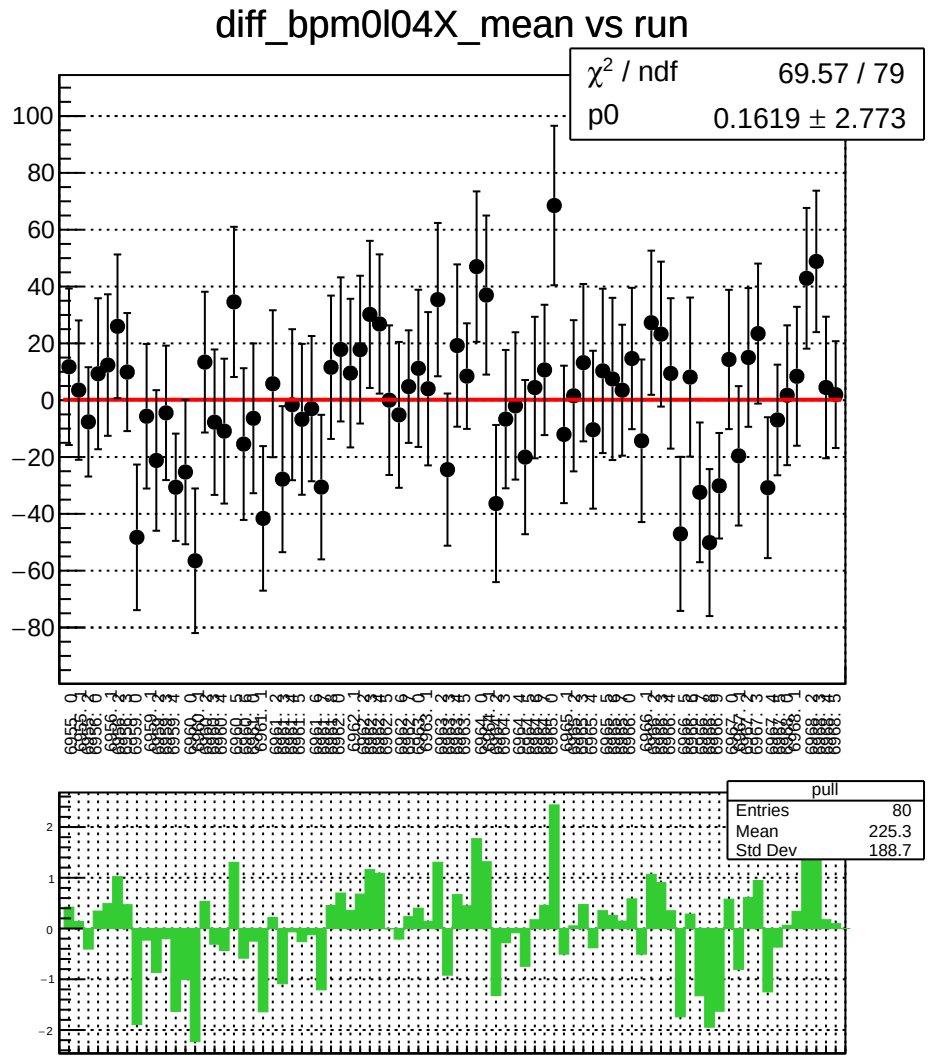

pull1D
Entries 80
Mean 0.0008932
Std Dev 0.9282

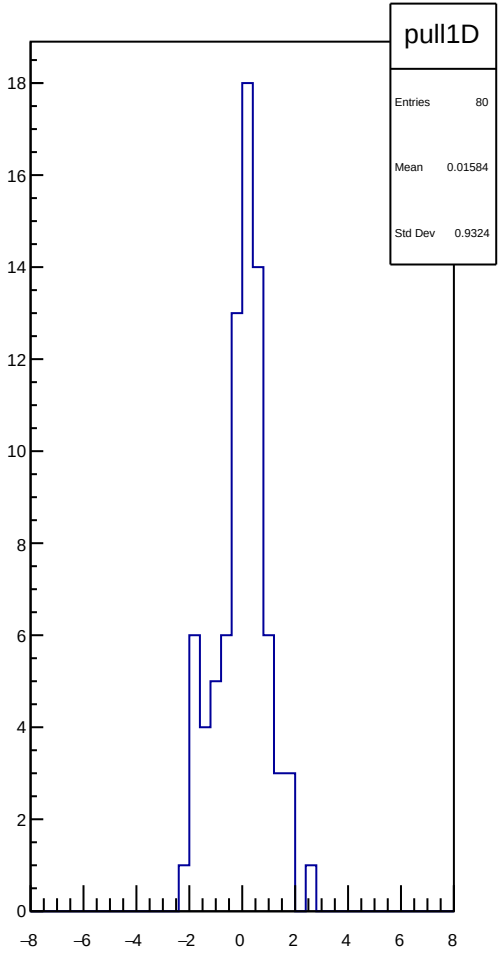

diff_bpm0l03X_rms vs run
χ^2 / ndf 1.462e+05 / 79
p0 3.405e+04 ± 28.6
90000
80000
70000
60000
50000
40000
30000
20000
10000

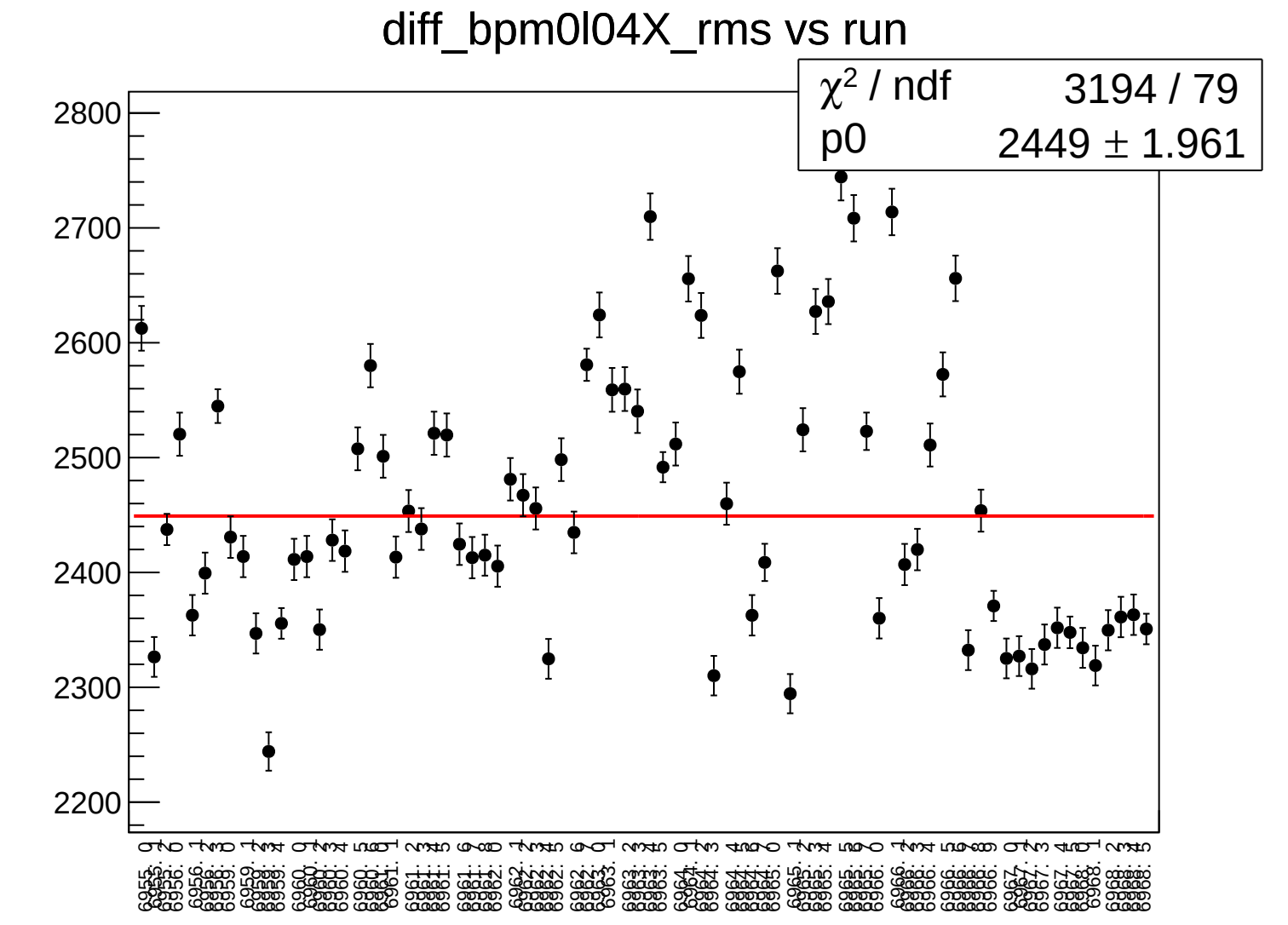

diff_bpm0l03Y_mean vs run
χ^2 / ndf 68.38 / 79
p0 8.682 ± 40.43
pull
Entries 80
Mean 6009
Std Dev 5964

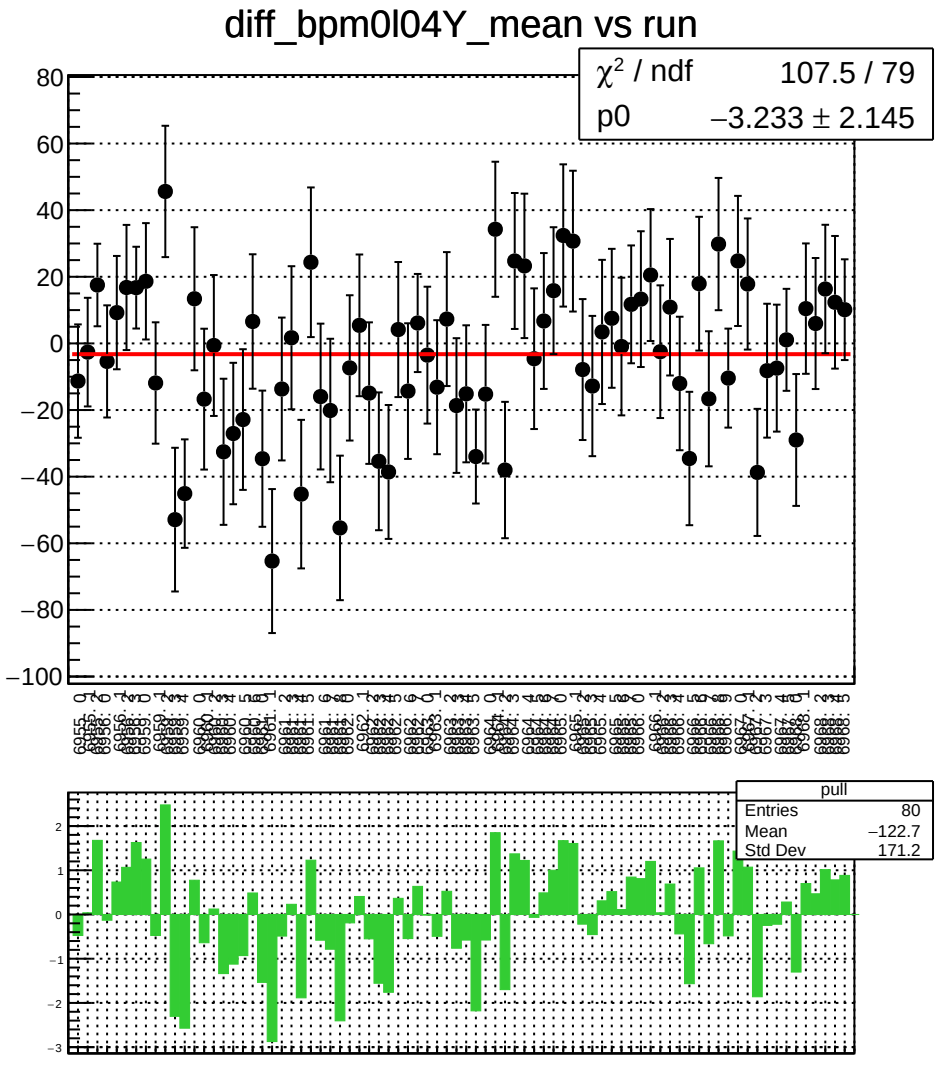

pull1D
Entries 80
Mean 0.0007043
Std Dev 0.9245

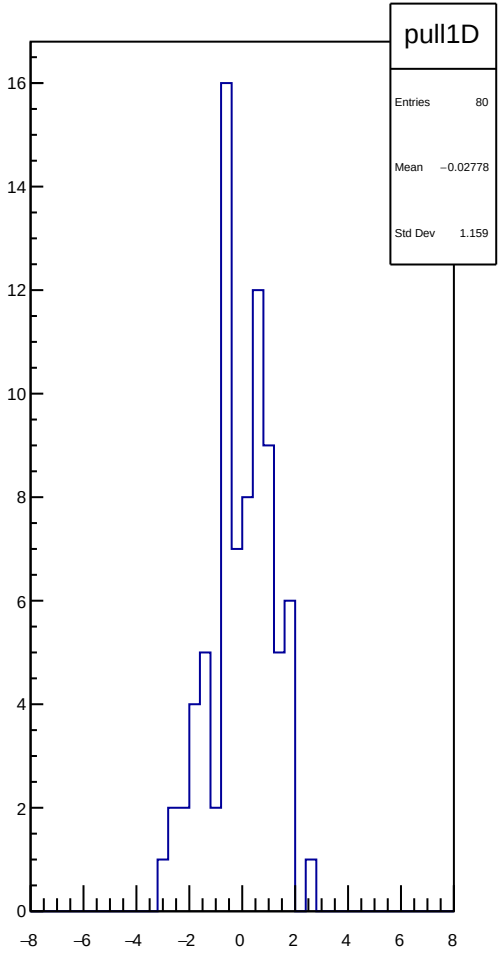

diff_bpm0l03Y_rms vs run
χ² / ndf 1.461e+05 / 79
p0 3.403e+04 ± 28.59
90000
80000
70000
60000
50000
40000
30000
20000
10000

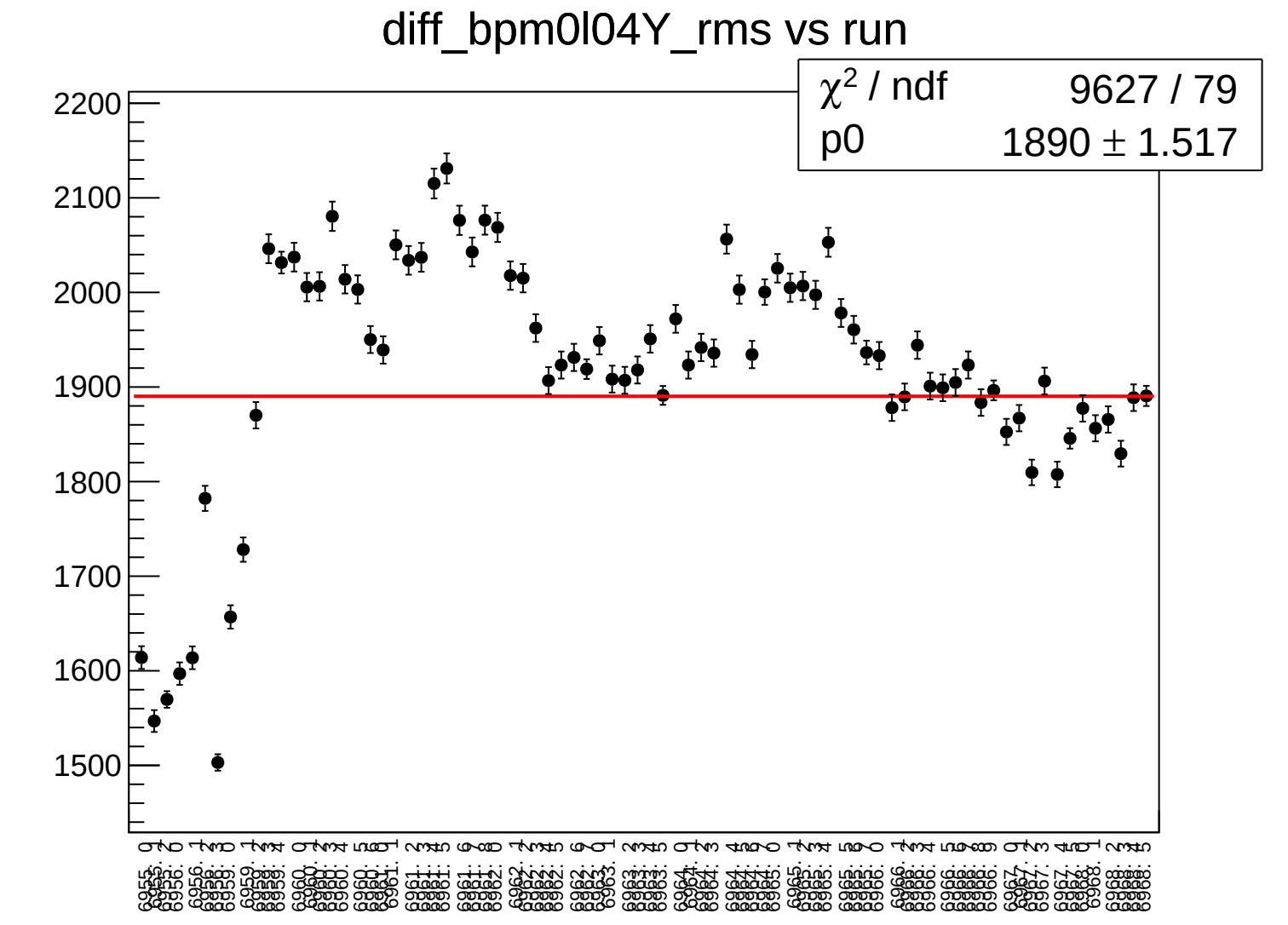

diff_bpm0l04X_mean vs run
χ² / ndf 69.57 / 79
p0 0.1619 ± 2.773
pull
Entries 80
Mean 225.3
Std Dev 188.7

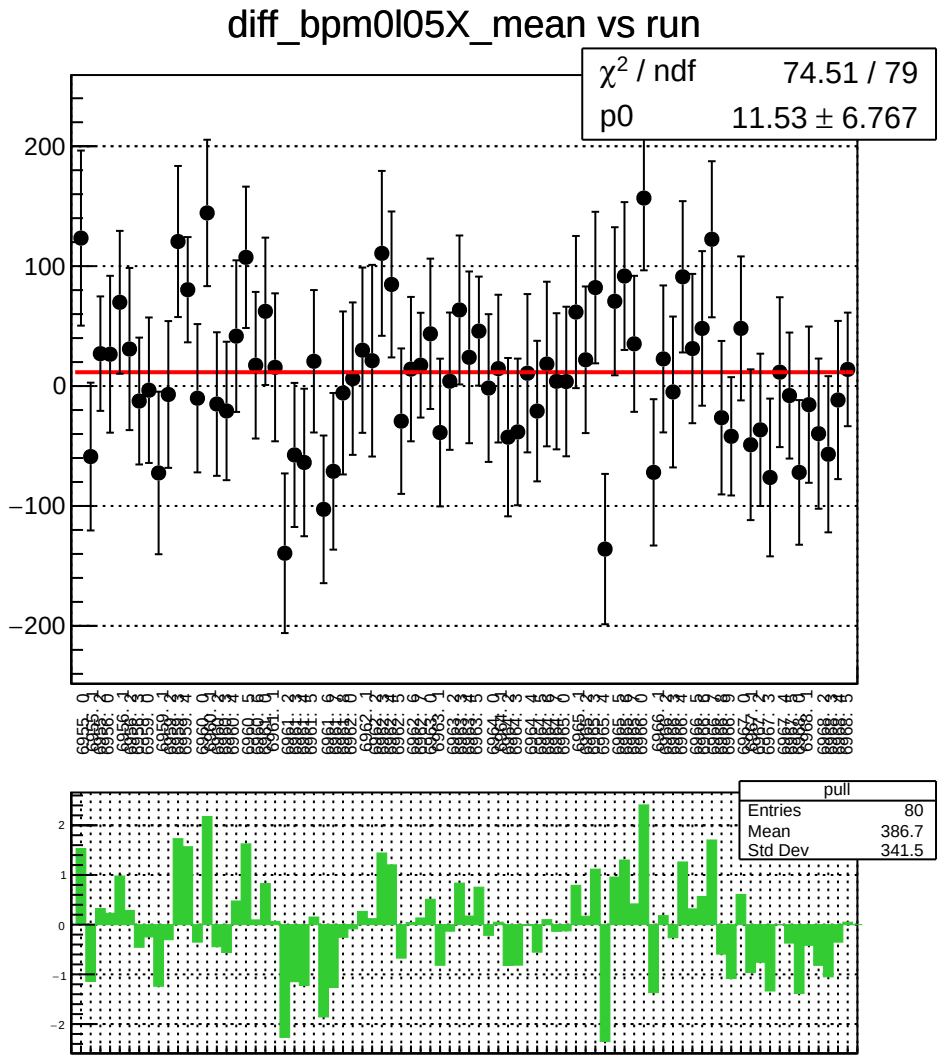

pull1D
Entries 80
Mean 0.01584
Std Dev 0.9324

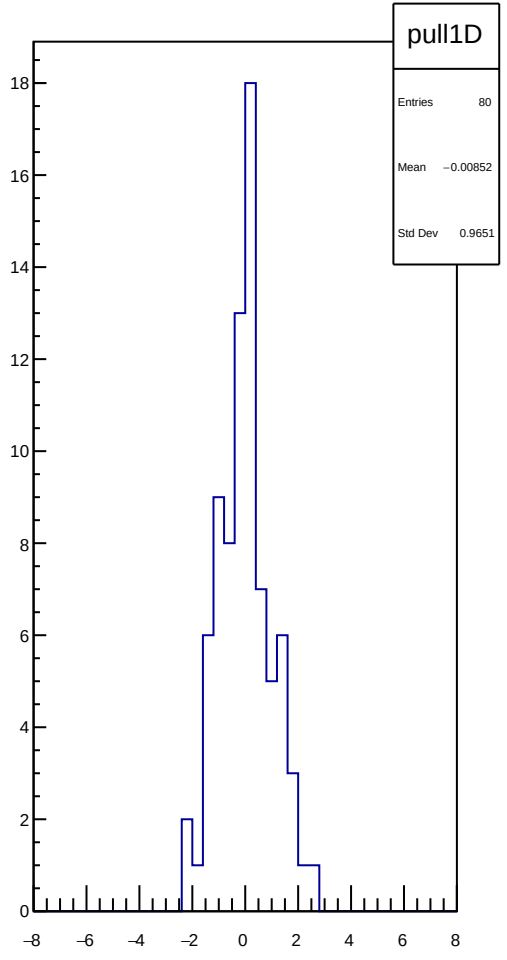

diff_bpm0l04X_rms vs run
χ² / ndf 3194 / 79
p0 2449 ± 1.961
2800
2700
2600
2500
2400
2300
2200

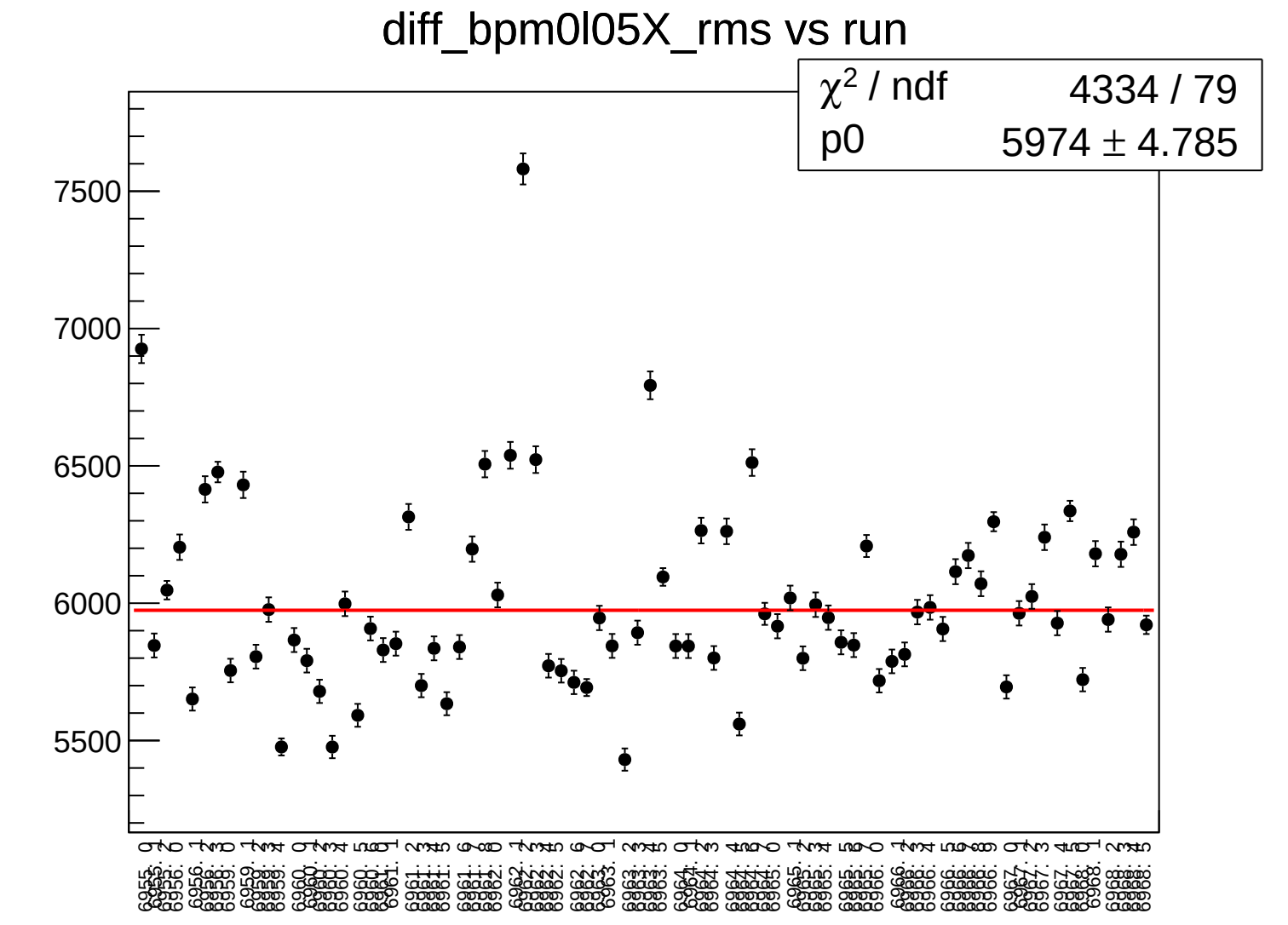

diff_bpm0l04Y_mean vs run
χ² / ndf 107.5 / 79
p0 −3.233 ± 2.145
pull
Entries 80
Mean −122.7
Std Dev 171.2

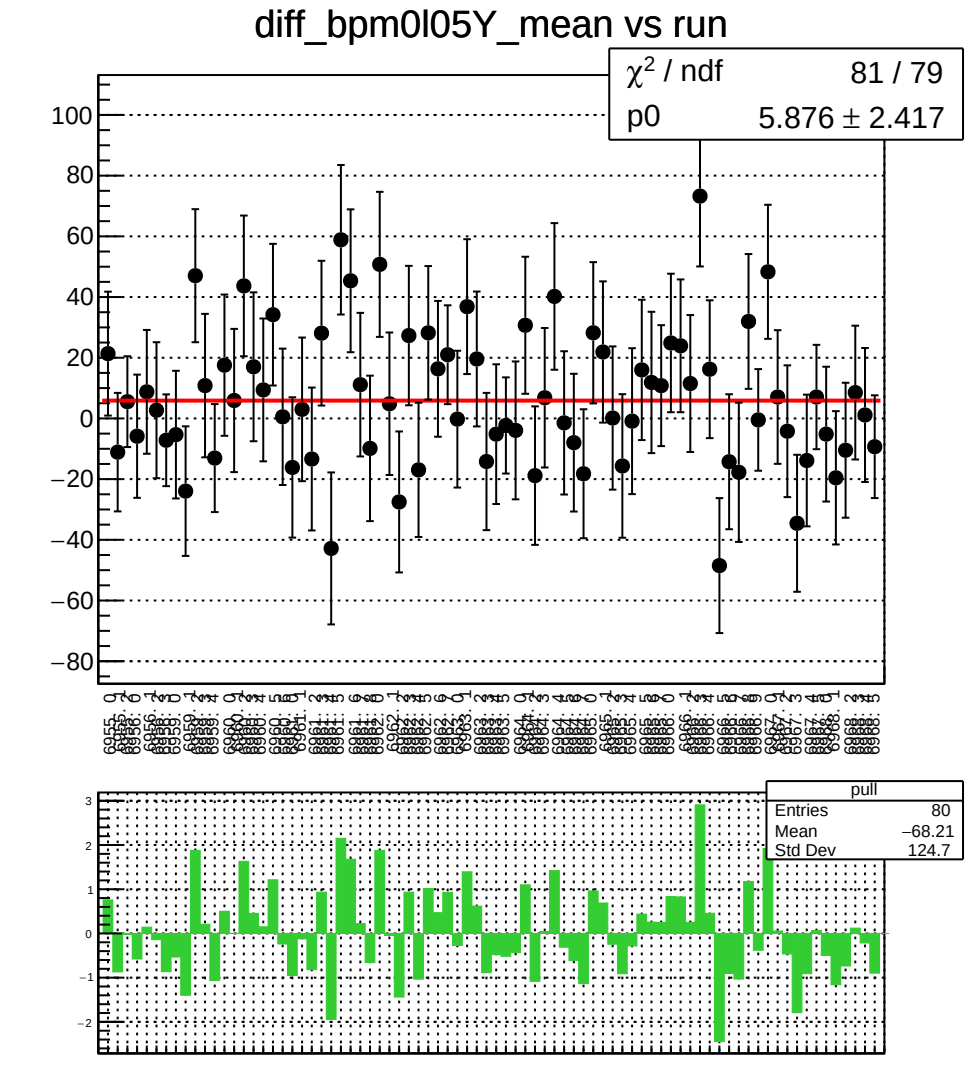

pull1D
Entries 80
Mean −0.02778
Std Dev 1.159

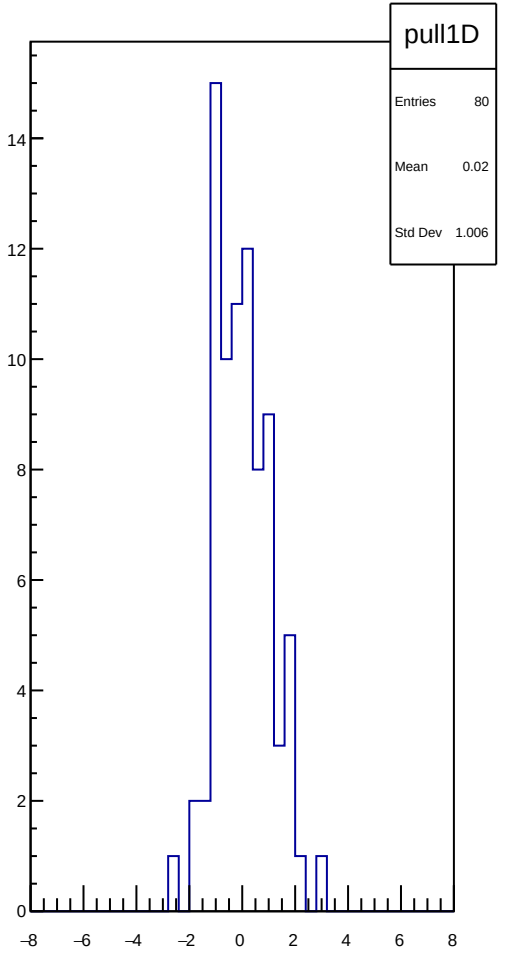

diff_bpm0l04Y_rms vs run
χ² / ndf 9627 / 79
p0 1890 ± 1.517
2200
2100
2000
1900
1800
1700
1600
1500

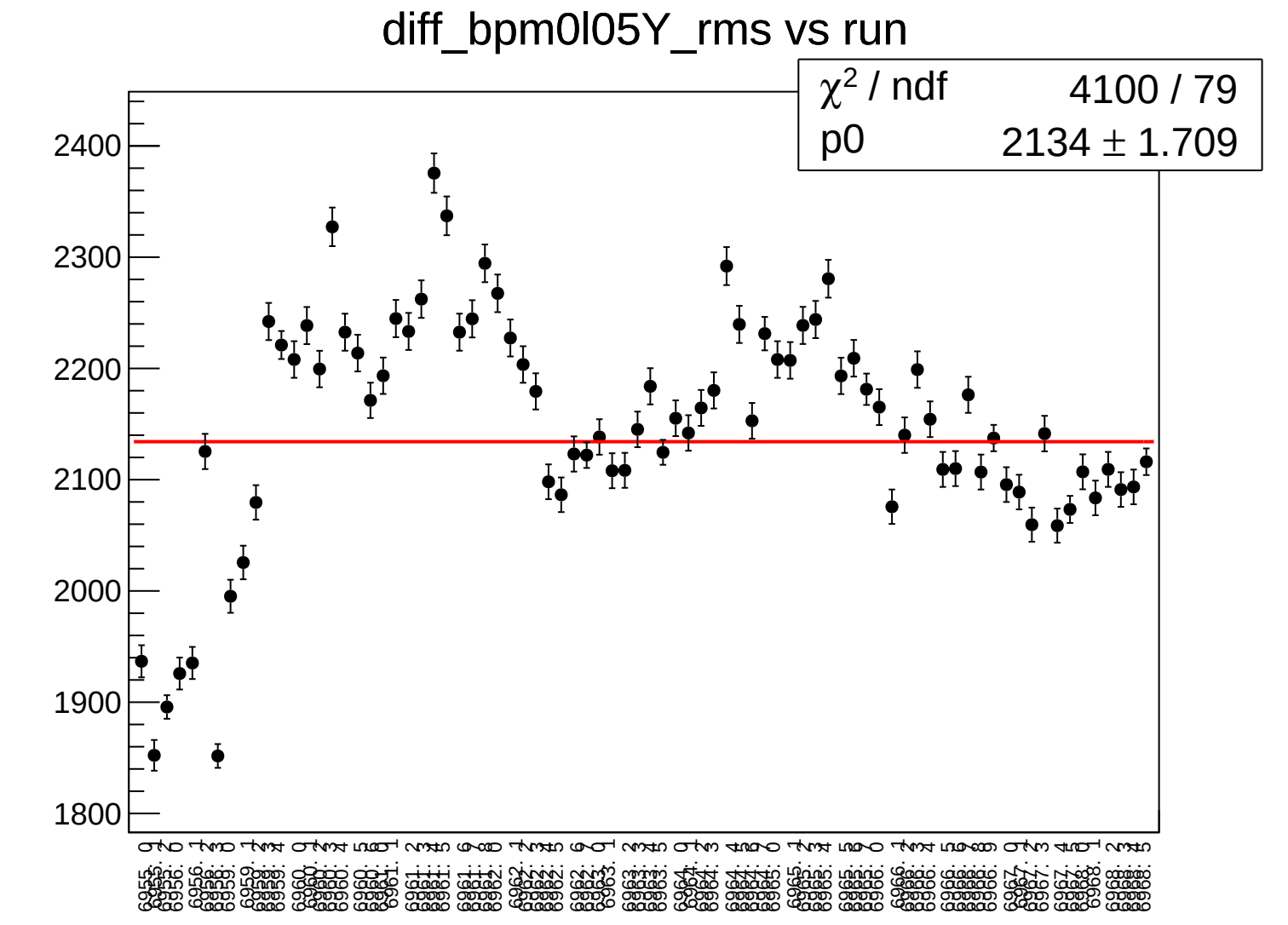

diff_bpm0l05X_mean vs run
χ^2 / ndf 74.51 / 79
p0 11.53 ± 6.767
200
100
0
−100
−200
pull
Entries 80
Mean 386.7
Std Dev 341.5
2
1
0
−1
−2

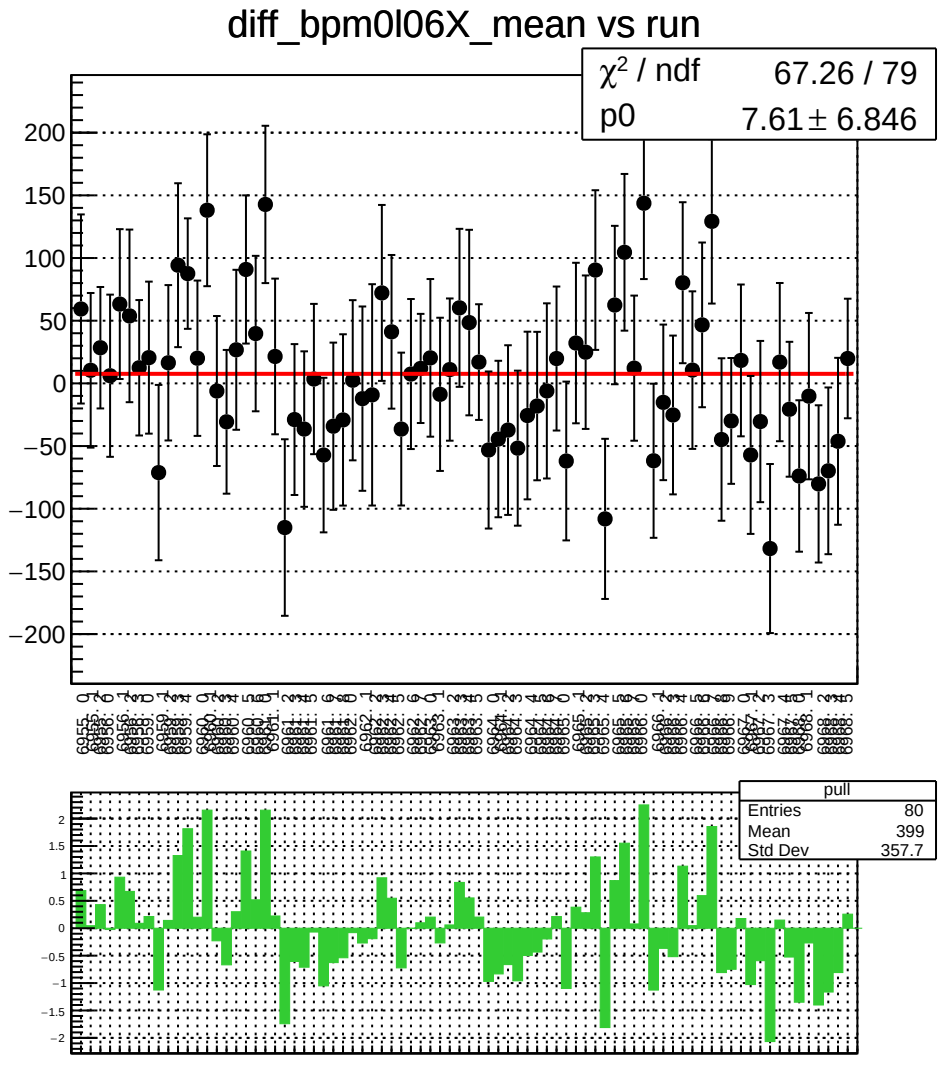

pull1D
Entries 80
Mean −0.00852
Std Dev 0.9651
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

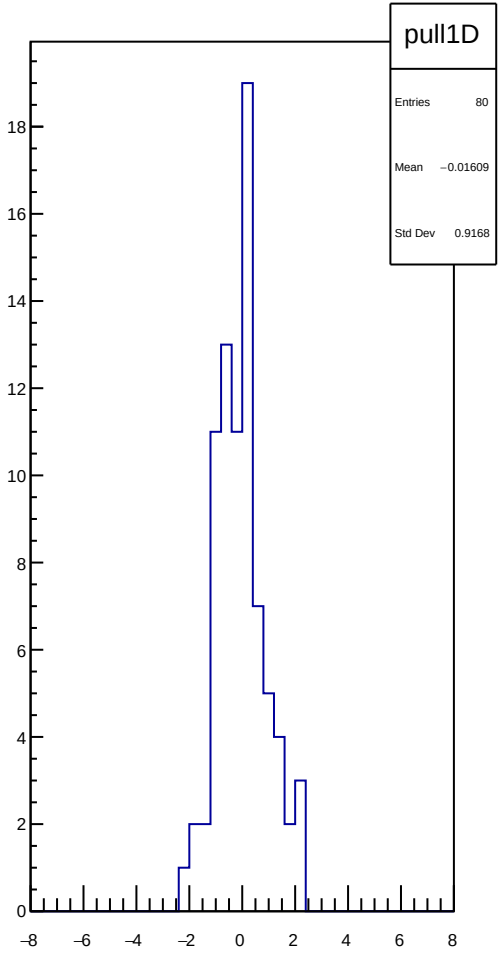

diff_bpm0l05X_rms vs run
χ² / ndf 4334 / 79
p0 5974 ± 4.785
7500
7000
6500
6000
5500

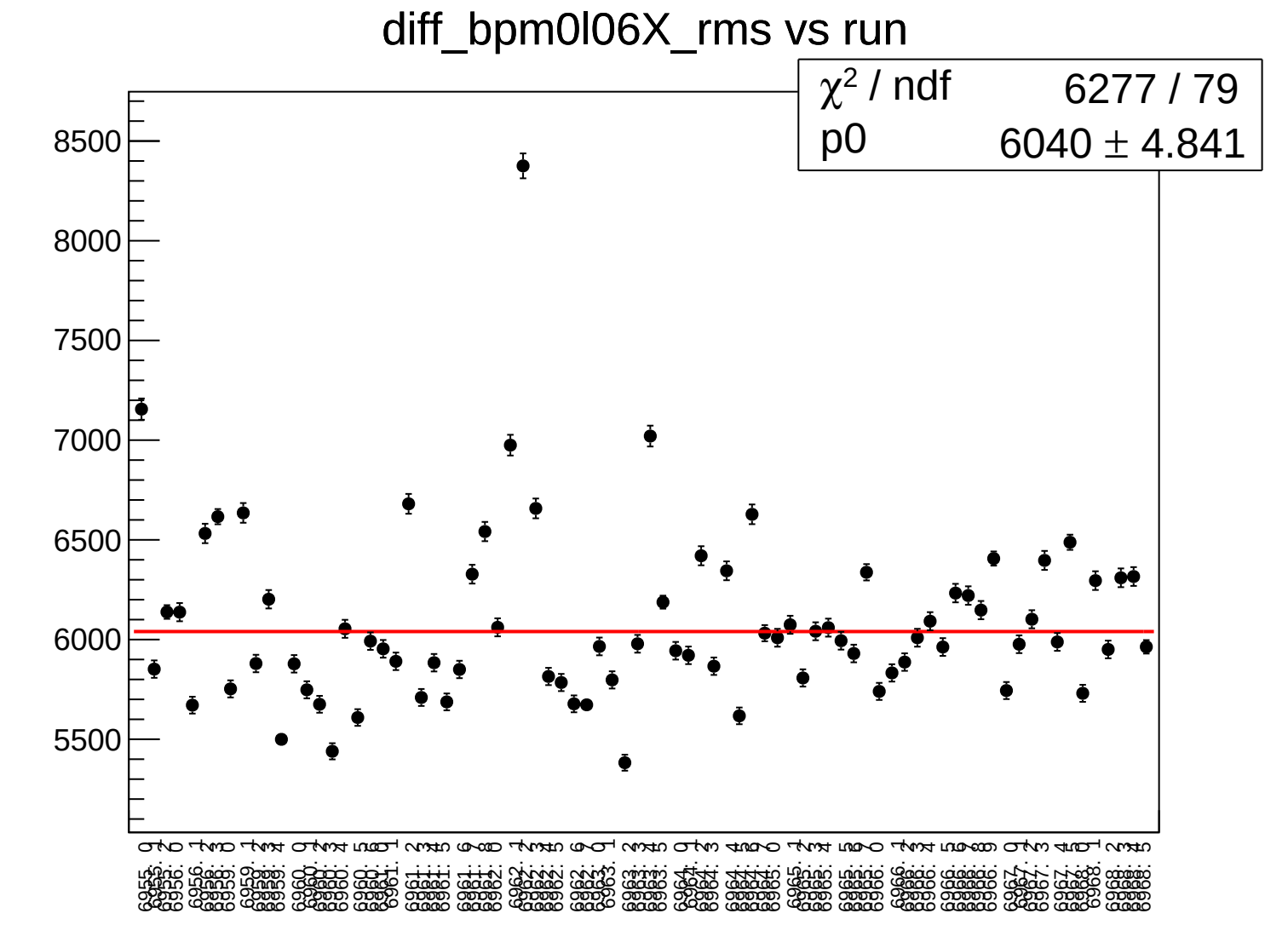

diff_bpm0l05Y_mean vs run
χ² / ndf 81 / 79
p0 5.876 ± 2.417
pull
Entries 80
Mean −68.21
Std Dev 124.7

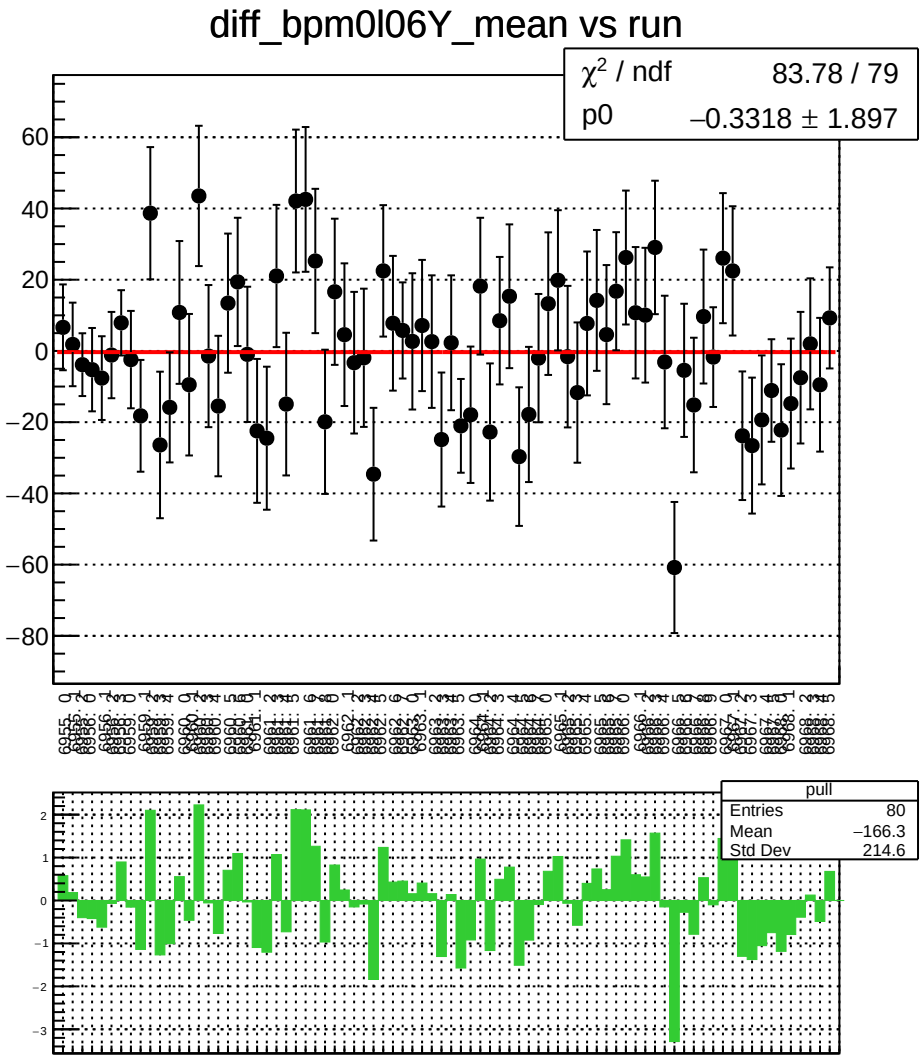

pull1D
Entries 80
Mean 0.02
Std Dev 1.006

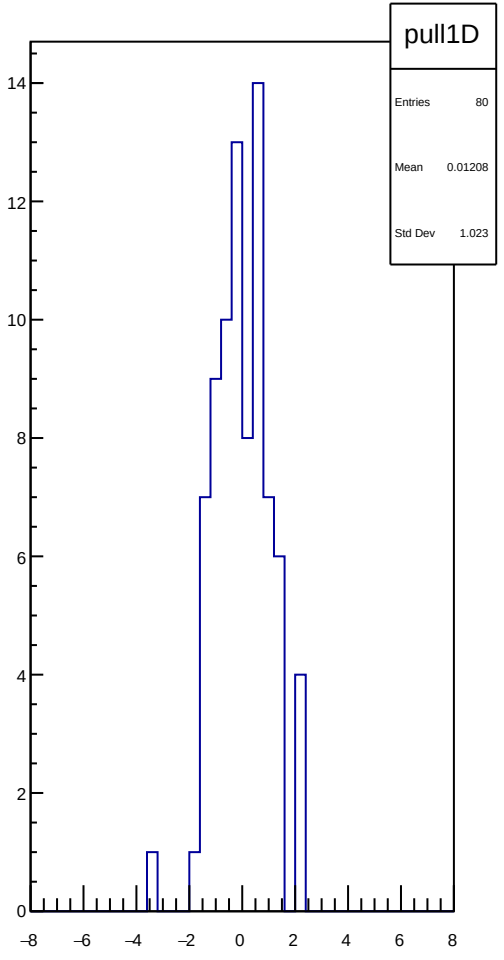

diff_bpm0l05Y_rms vs run
χ² / ndf 4100 / 79
p0 2134 ± 1.709
2400
2300
2200
2100
2000
1900
1800

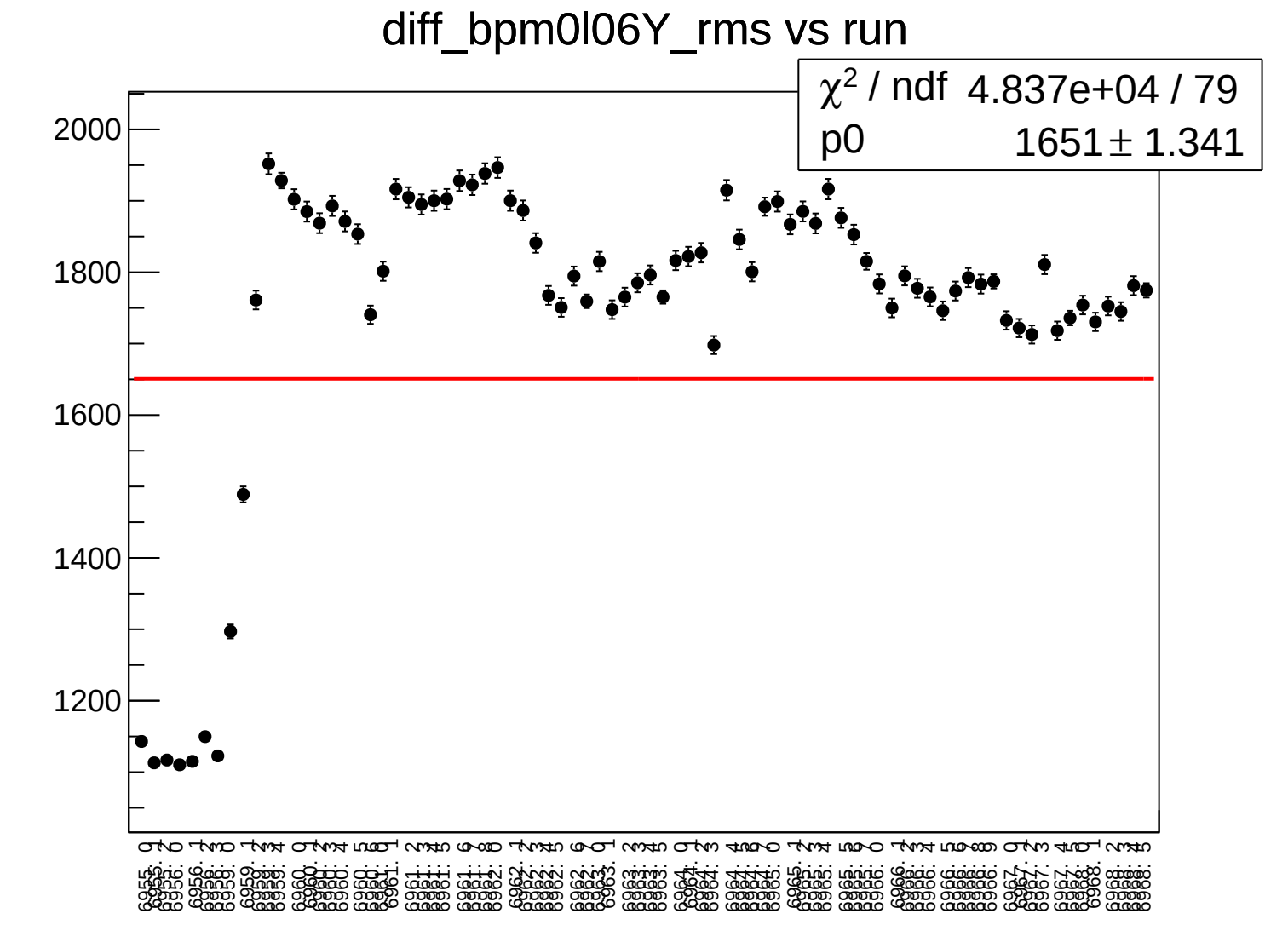

diff_bpm0l06X_mean vs run
χ² / ndf 67.26 / 79
p0 7.61 ± 6.846
pull
Entries 80
Mean 399
Std Dev 357.7

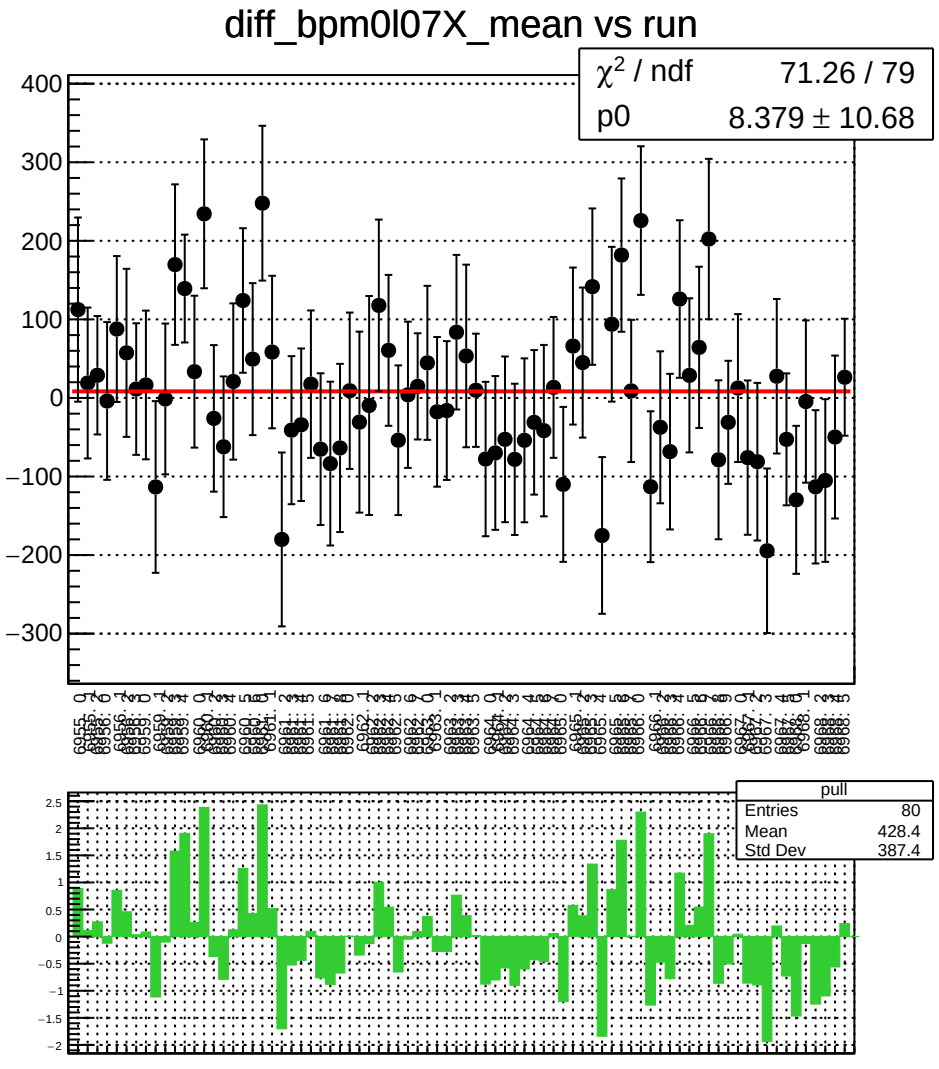

pull1D
Entries 80
Mean −0.01609
Std Dev 0.9168

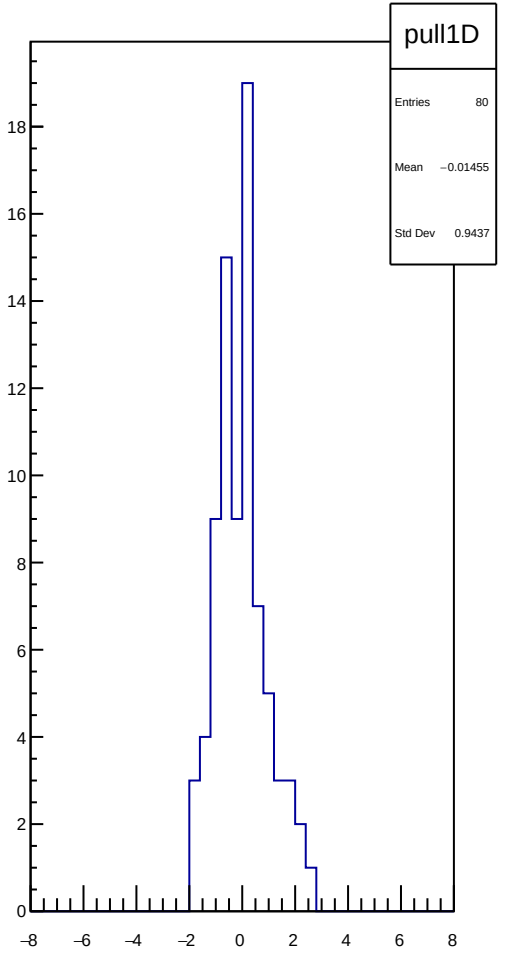

diff_bpm0l06X_rms vs run
χ² / ndf 6277 / 79
p0 6040 ± 4.841
8500
8000
7500
7000
6500
6000
5500

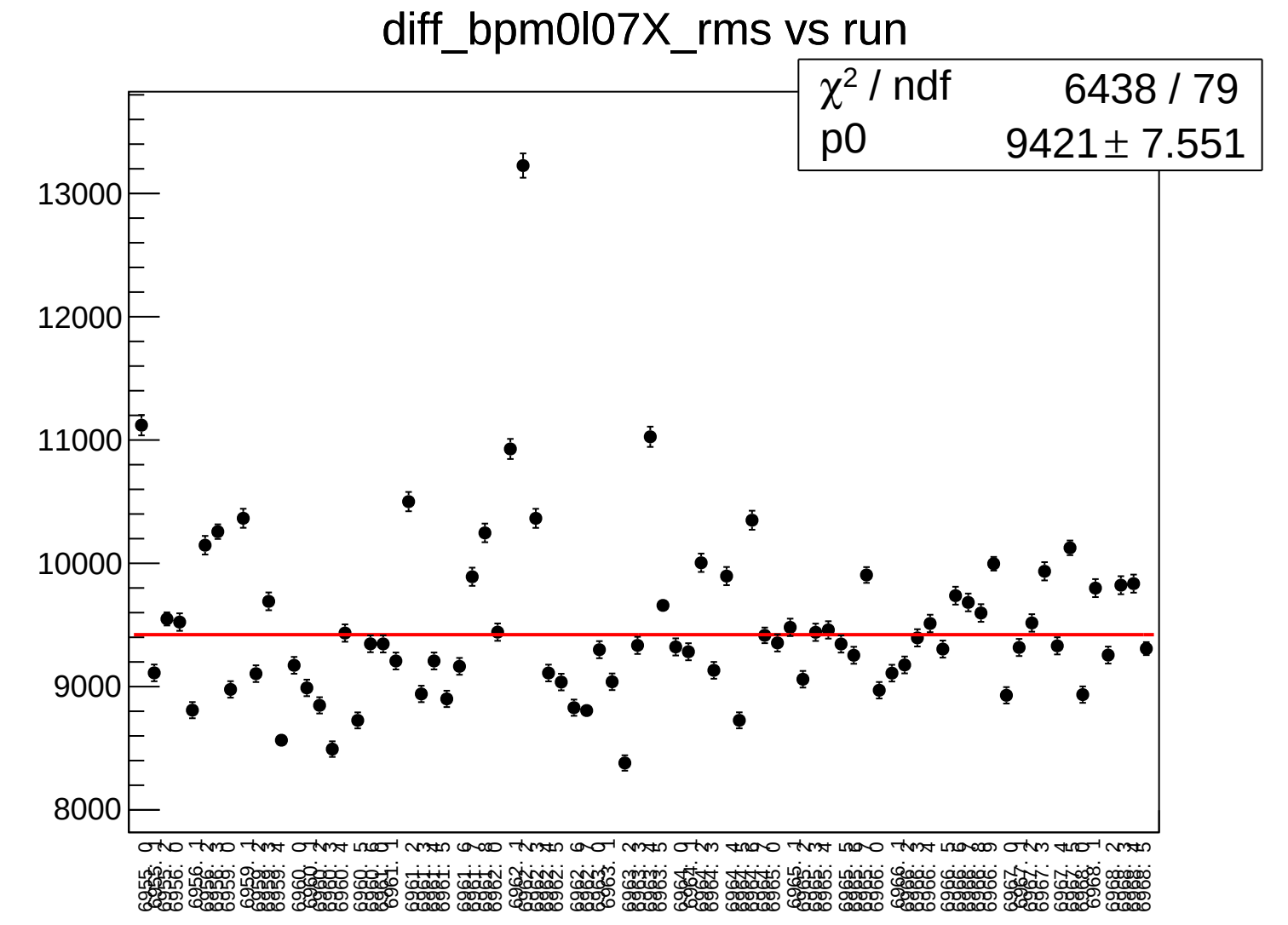

diff_bpm0l06Y_mean vs run
χ² / ndf 83.78 / 79
p0 −0.3318 ± 1.897
pull
Entries 80
Mean −166.3
Std Dev 214.6

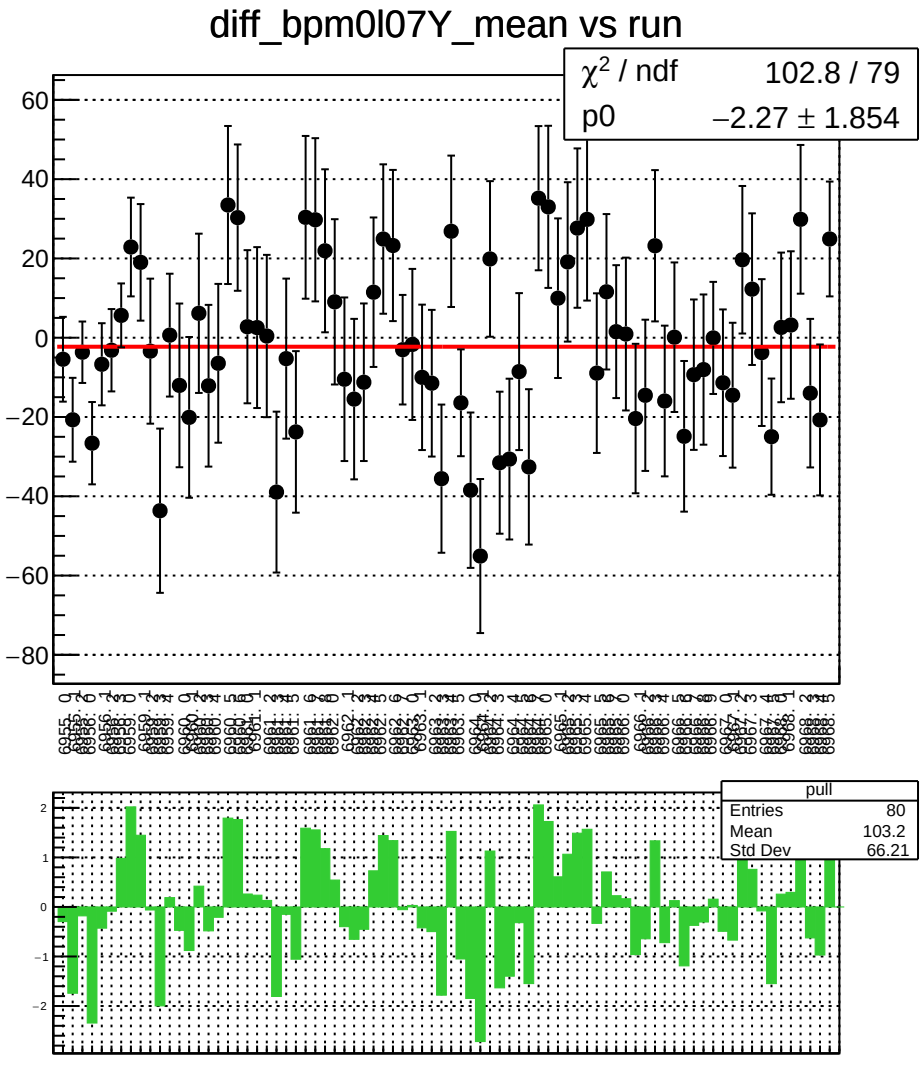

pull1D
Entries 80
Mean 0.01208
Std Dev 1.023

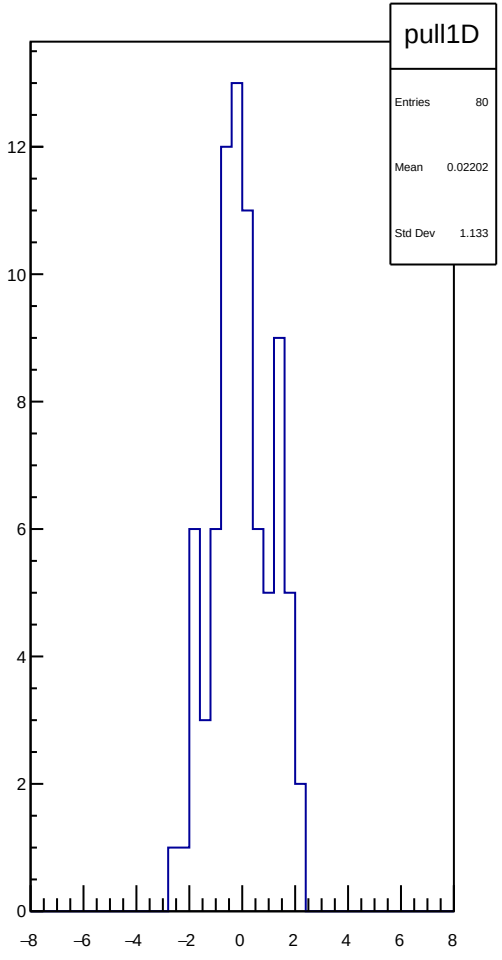

diff_bpm0l06Y_rms vs run
χ² / ndf 4.837e+04 / 79
p0 1651 ± 1.341
2000
1800
1600
1400
1200

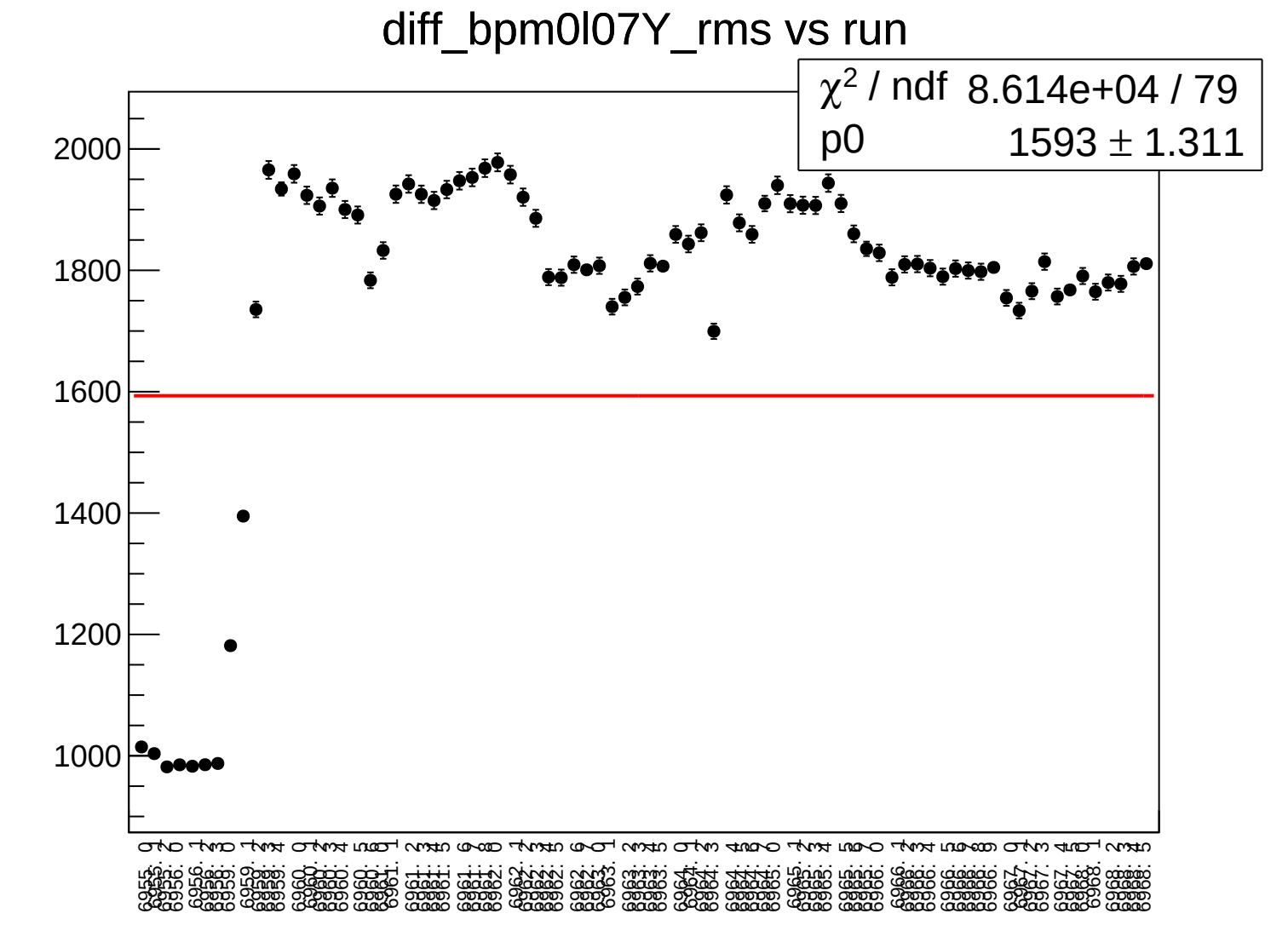

diff_bpm0l07X_mean vs run
χ² / ndf 71.26 / 79
p0 8.379 ± 10.68
pull
Entries 80
Mean 428.4
Std Dev 387.4

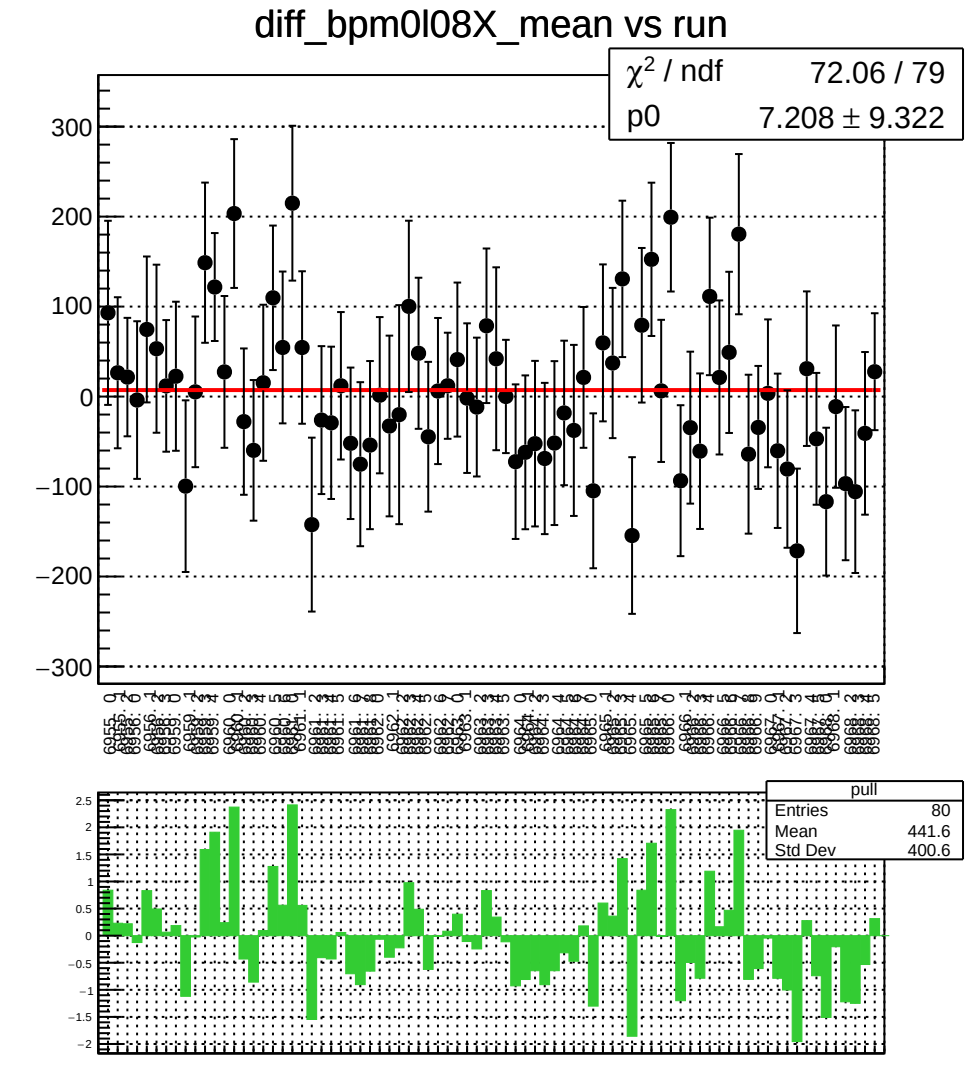

pull1D
Entries 80
Mean −0.01455
Std Dev 0.9437

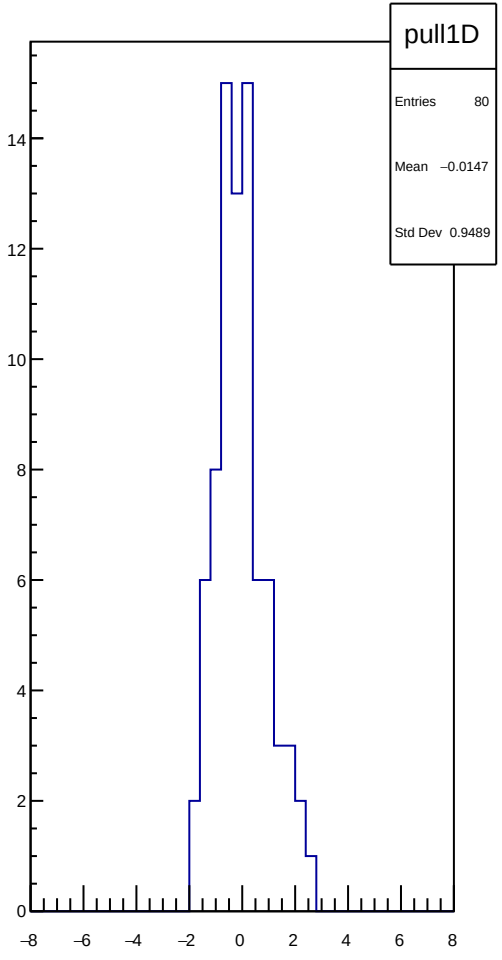

diff_bpm0l07X_rms vs run
χ² / ndf 6438 / 79
p0 9421 ± 7.551
13000
12000
11000
10000
9000
8000

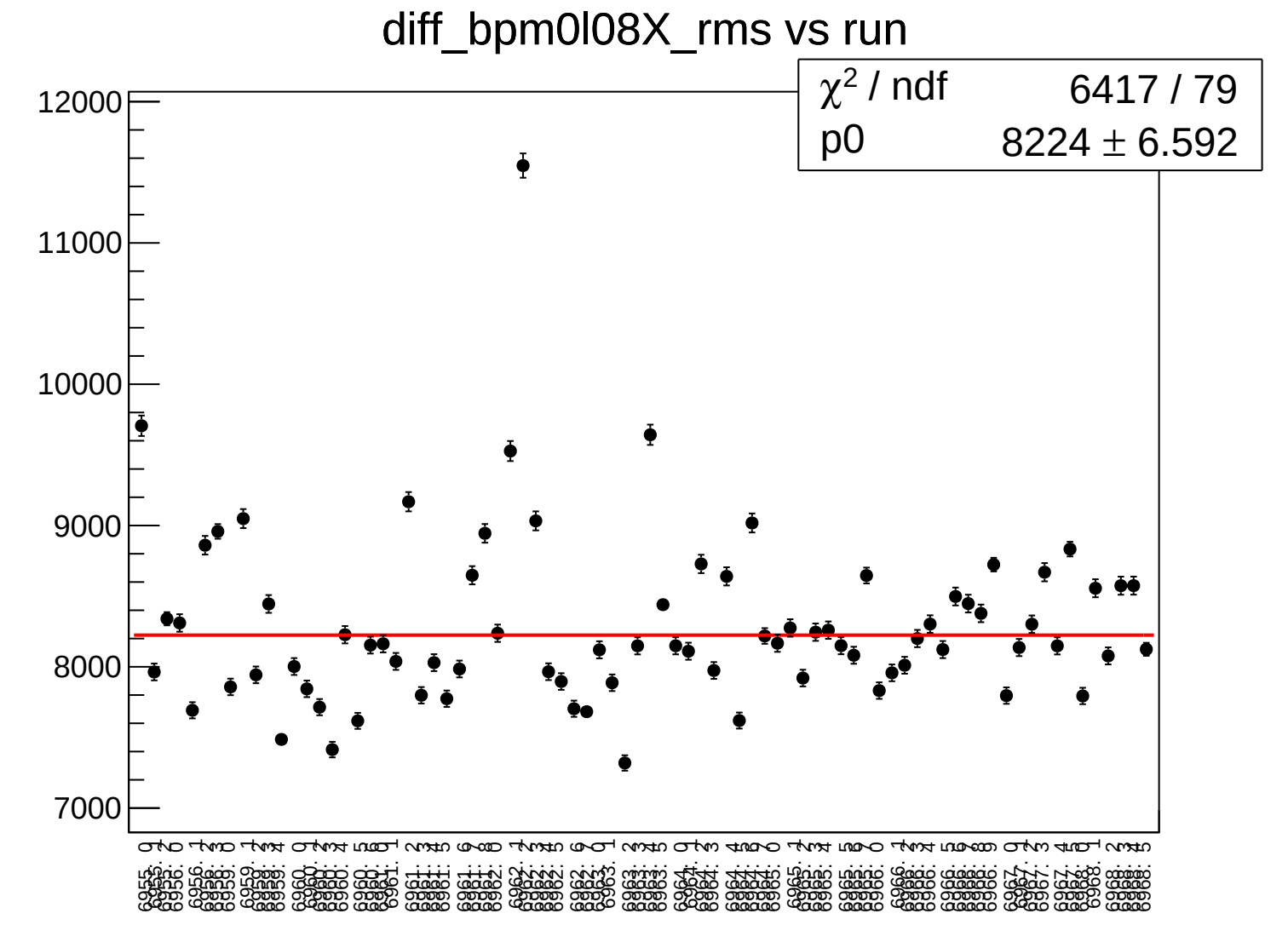

diff_bpm0l07Y_mean vs run
χ² / ndf 102.8 / 79
p0 −2.27 ± 1.854
pull
Entries 80
Mean 103.2
Std Dev 66.21

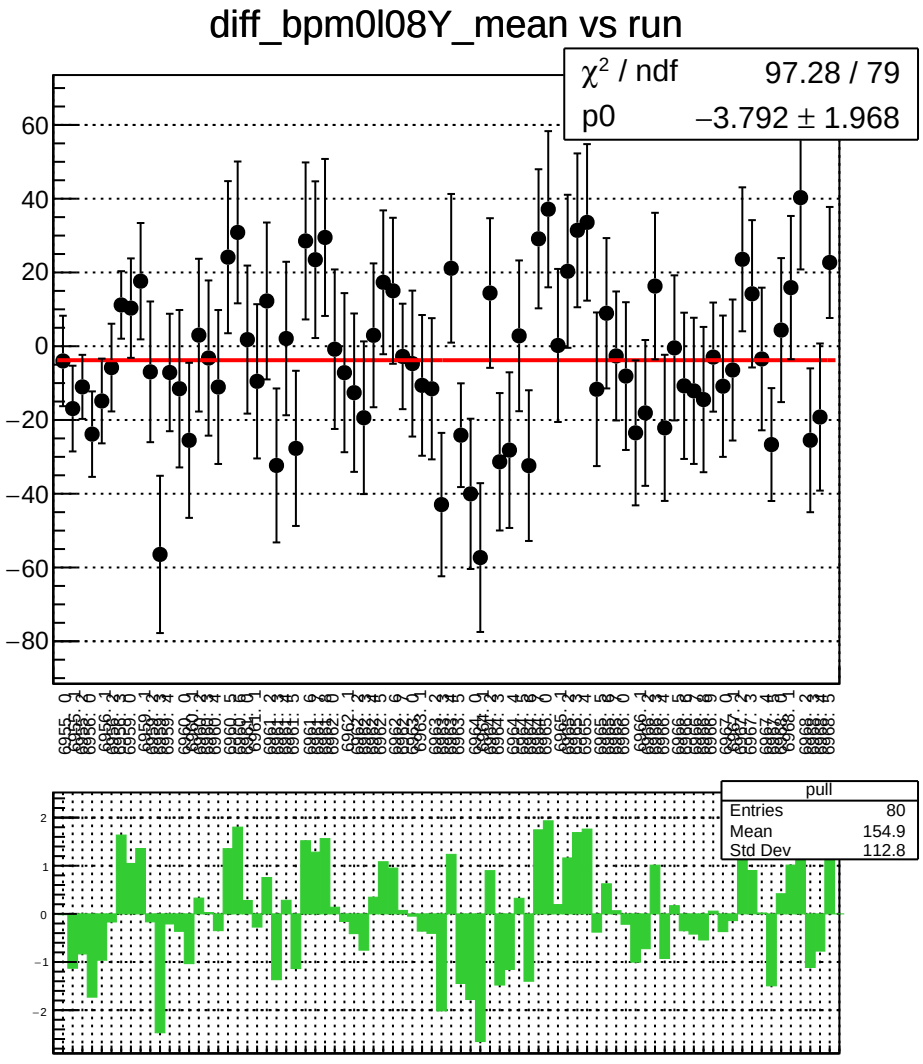

pull1D
Entries 80
Mean 0.02202
Std Dev 1.133

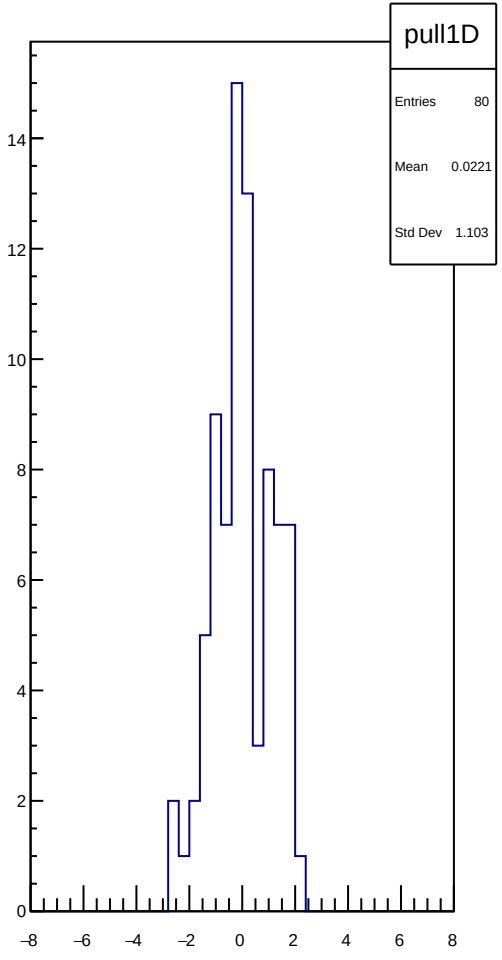

diff_bpm0l07Y_rms vs run
χ² / ndf 8.614e+04 / 79
p0 1593 ± 1.311
2000
1800
1600
1400
1200
1000

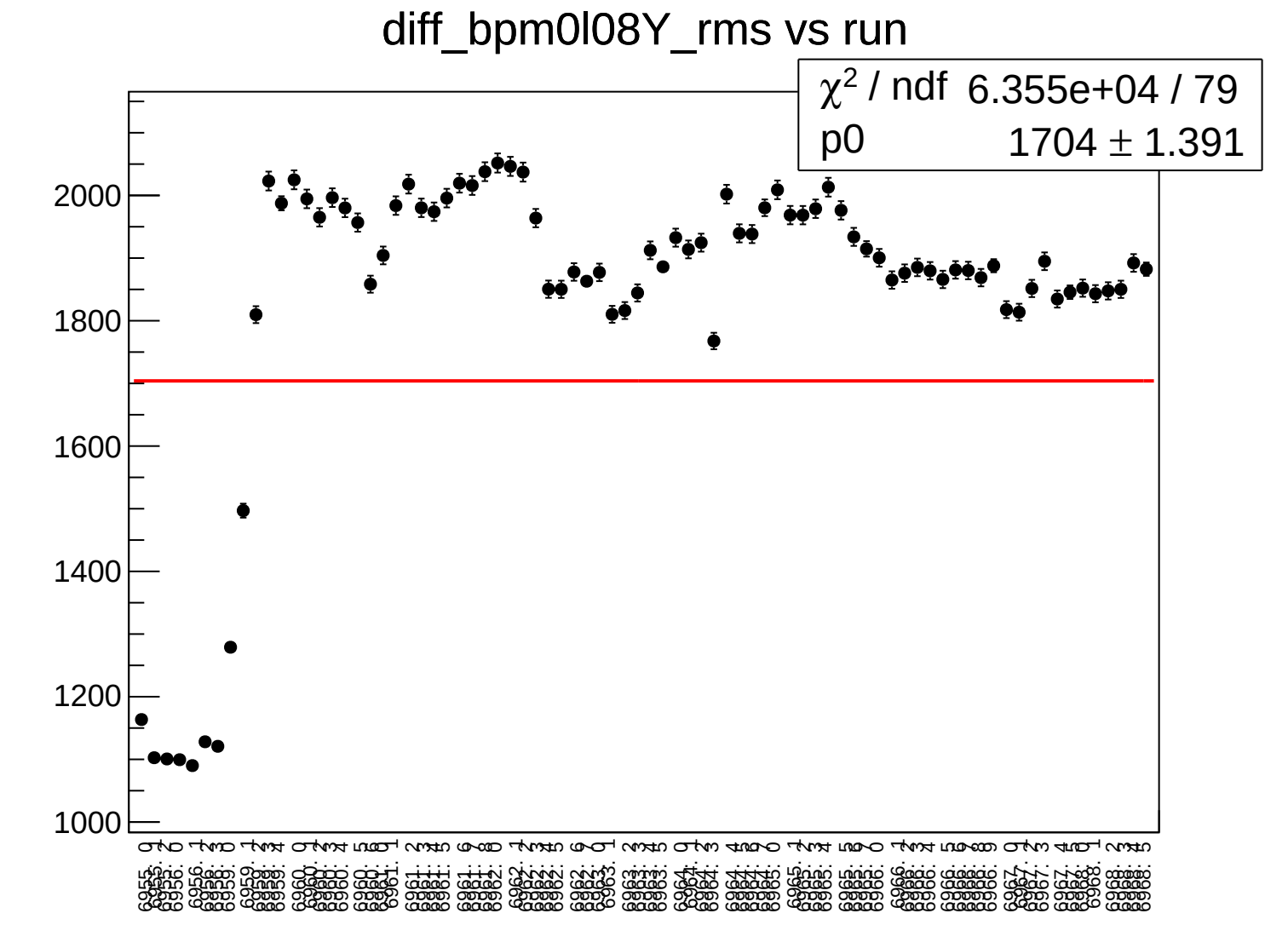

diff_bpm0l08X_mean vs run
χ² / ndf 72.06 / 79
p0 7.208 ± 9.322
pull
Entries 80
Mean 441.6
Std Dev 400.6

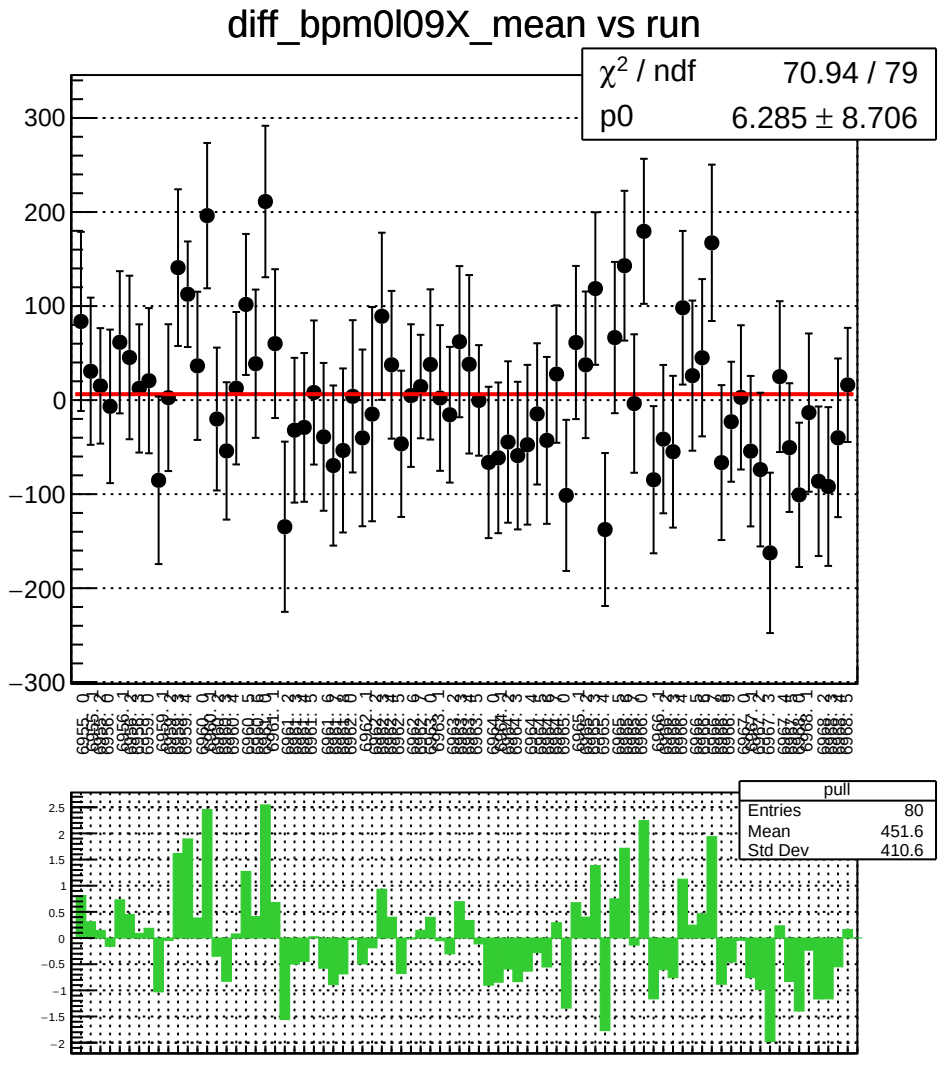

pull1D
Entries 80
Mean −0.0147
Std Dev 0.9489

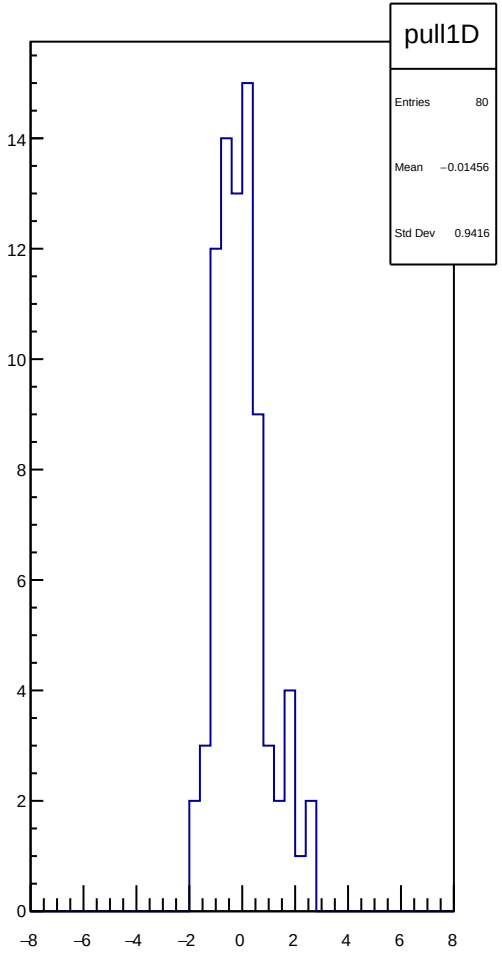

diff_bpm0l08X_rms vs run
χ² / ndf 6417 / 79
p0 8224 ± 6.592
12000
11000
10000
9000
8000
7000

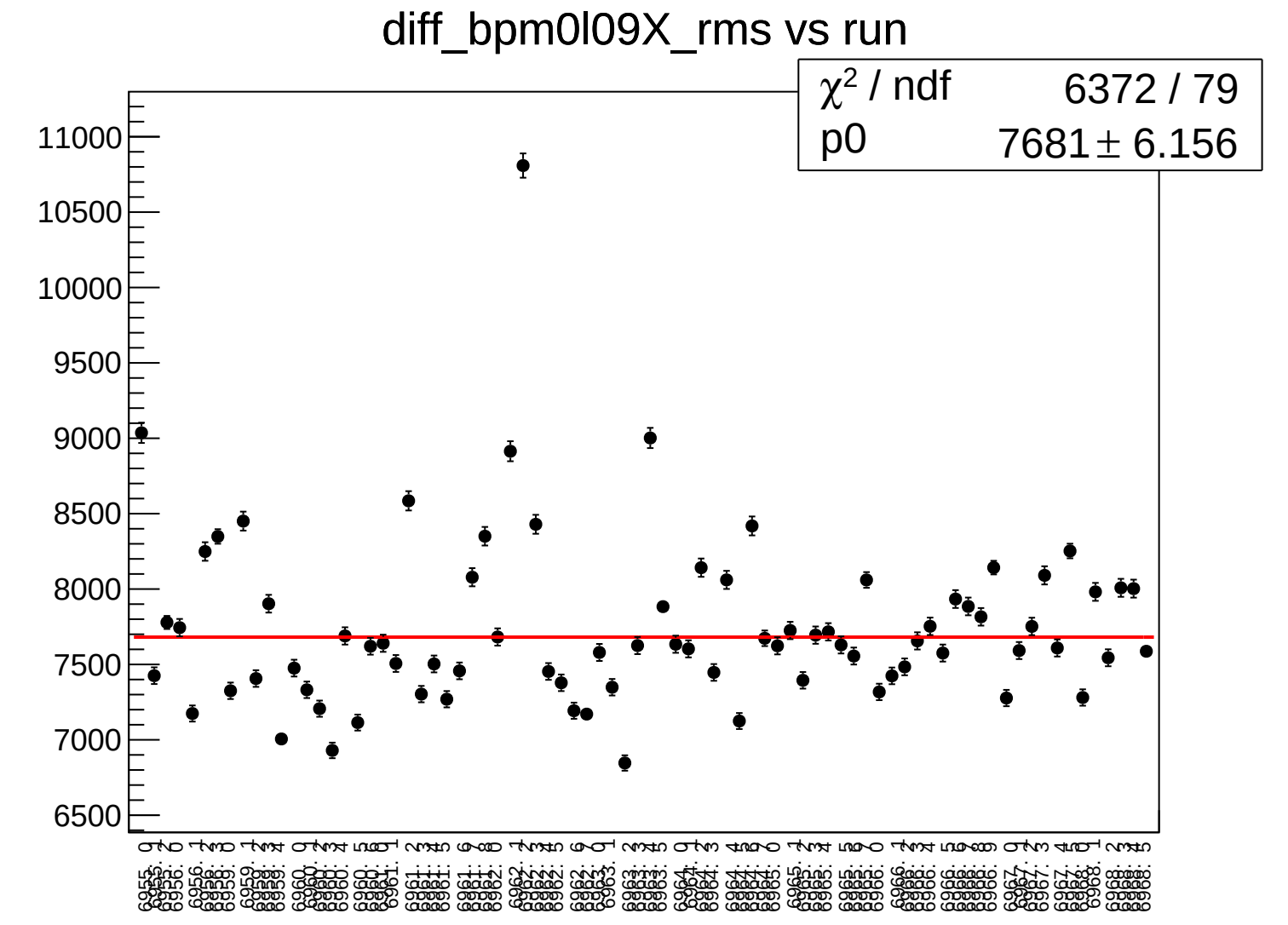

diff_bpm0l08Y_mean vs run
χ² / ndf 97.28 / 79
p0 −3.792 ± 1.968
pull
Entries 80
Mean 154.9
Std Dev 112.8

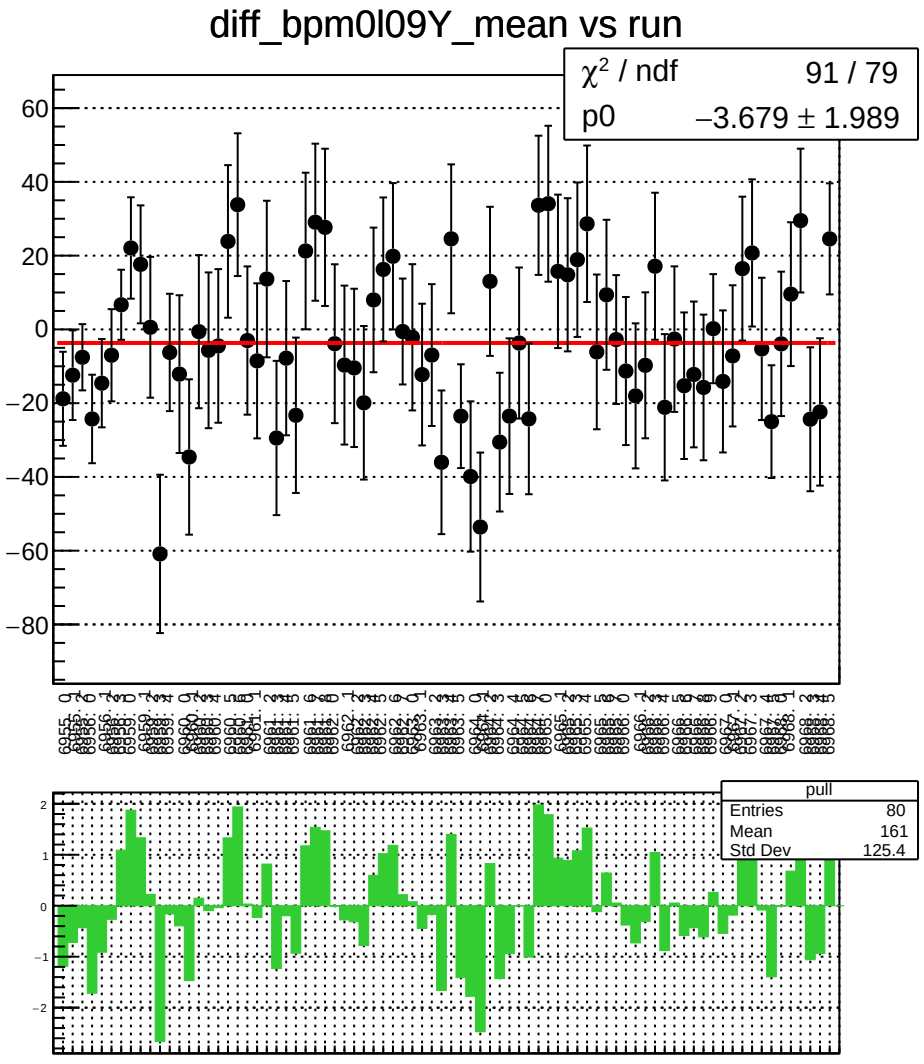

pull1D
Entries 80
Mean 0.0221
Std Dev 1.103

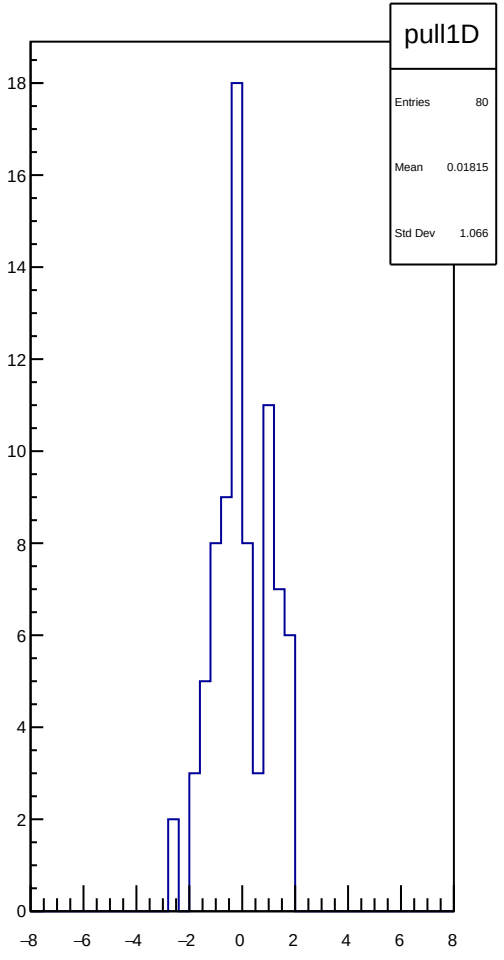

diff_bpm0l08Y_rms vs run
χ² / ndf 6.355e+04 / 79
p0 1704 ± 1.391
2000
1800
1600
1400
1200
1000

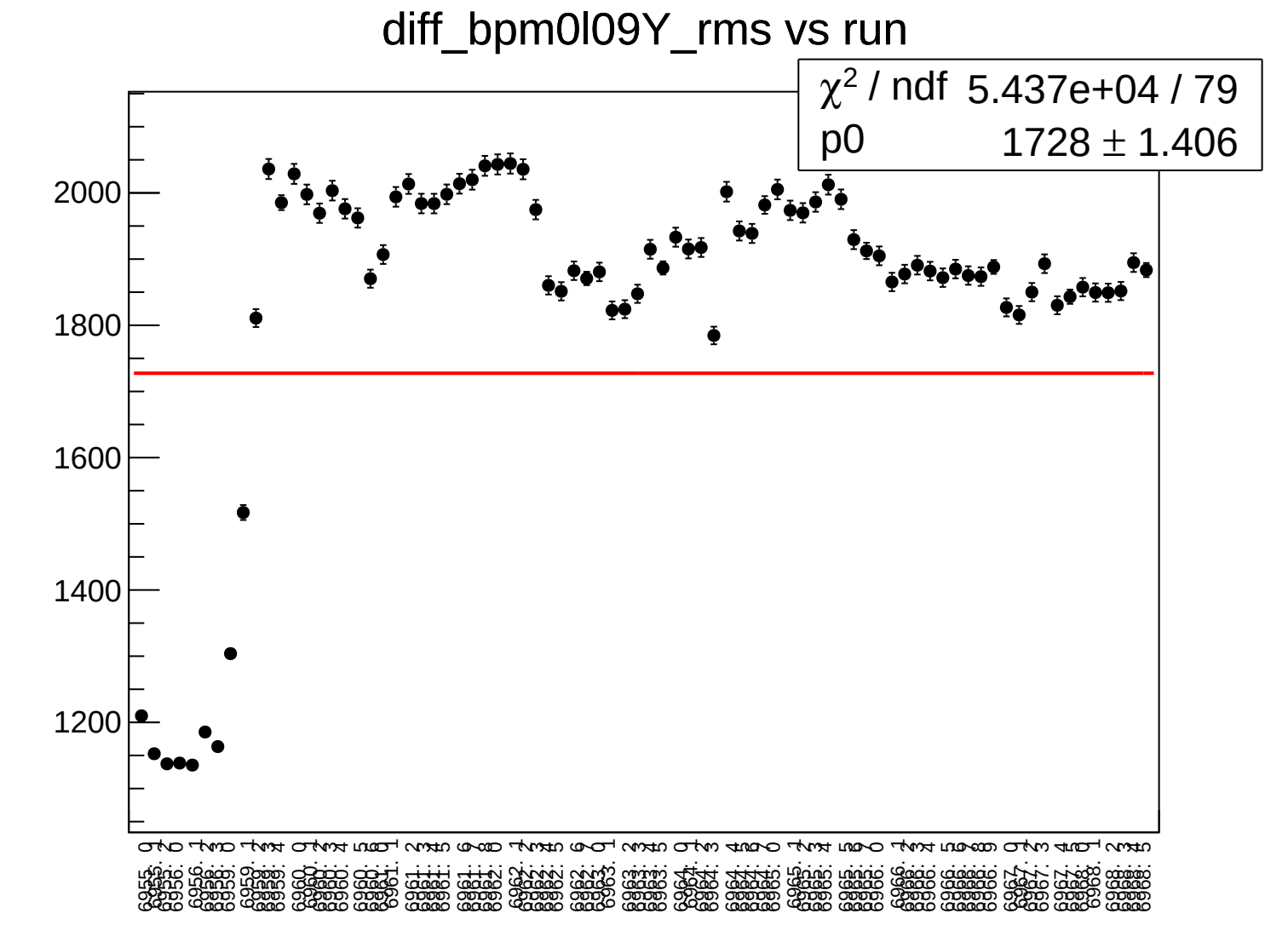

diff_bpm0l09X_mean vs run
χ^2 / ndf 70.94 / 79
p0 6.285 ± 8.706
pull
Entries 80
Mean 451.6
Std Dev 410.6

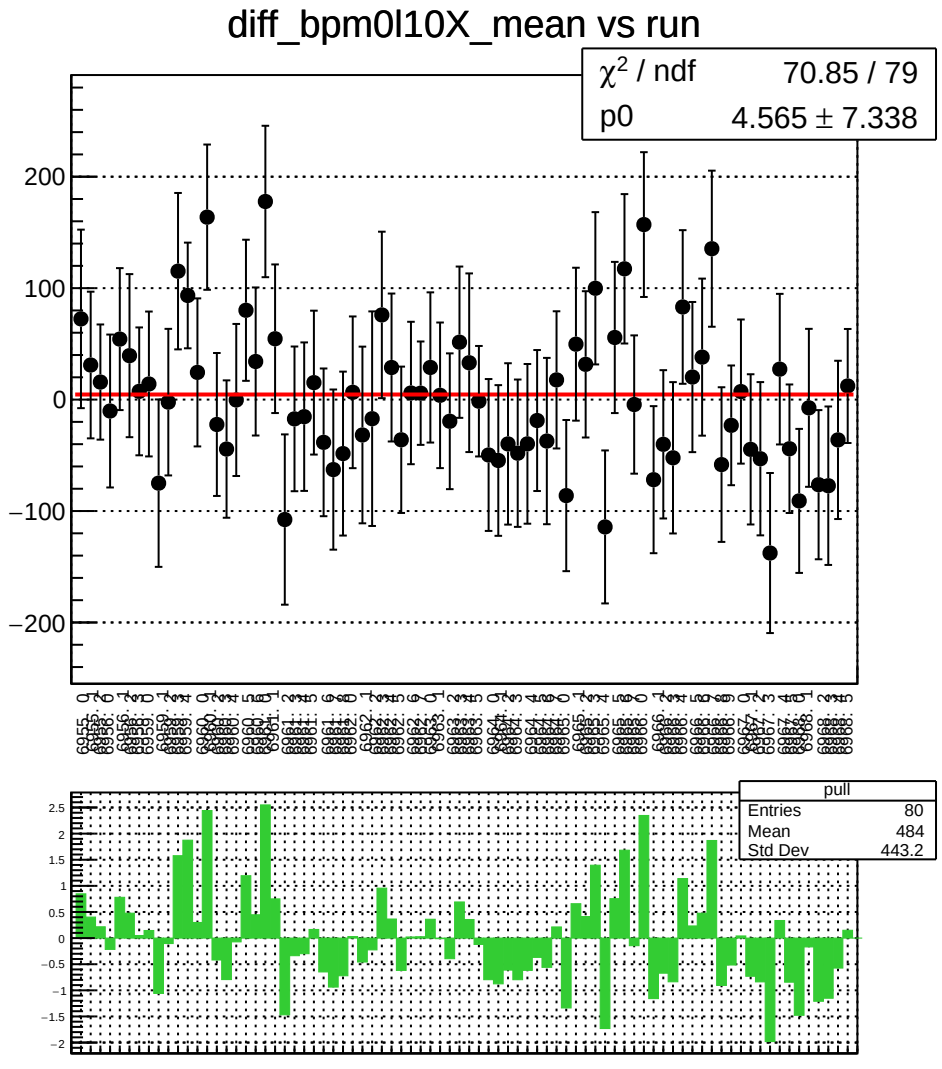

pull1D
Entries 80
Mean −0.01456
Std Dev 0.9416

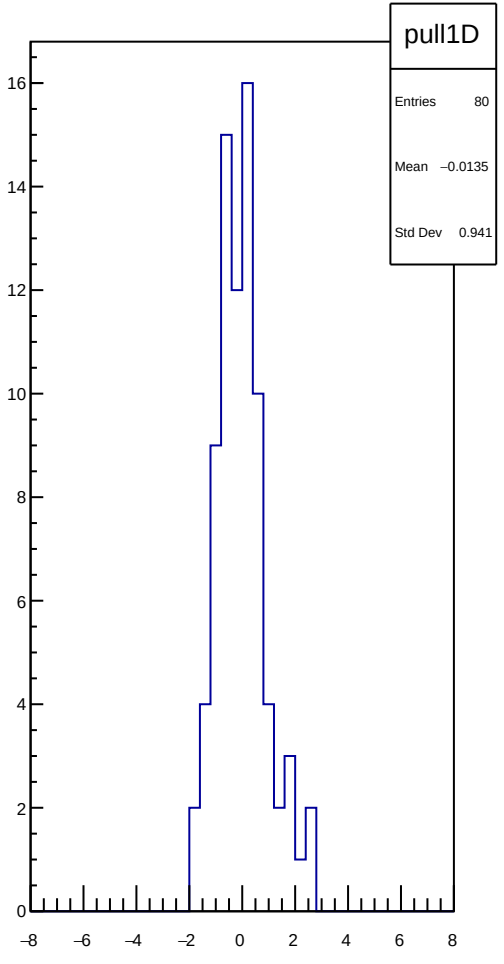

diff_bpm0l09X_rms vs run
χ² / ndf 6372 / 79
p0 7681 ± 6.156
11000
10500
10000
9500
9000
8500
8000
7500
7000
6500

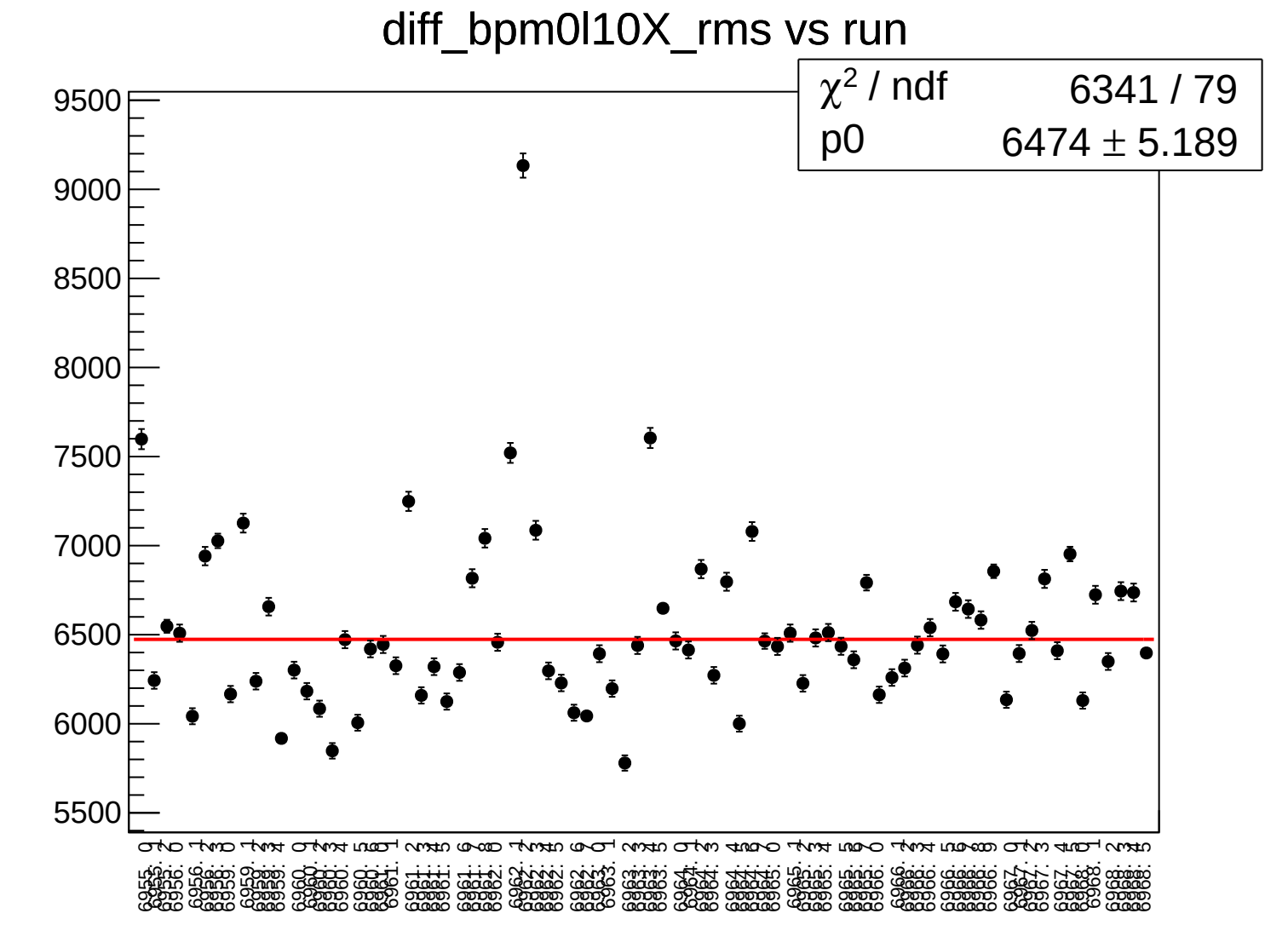

diff_bpm0l09Y_mean vs run
χ² / ndf 91 / 79
p0 −3.679 ± 1.989
pull
Entries 80
Mean 161
Std Dev 125.4

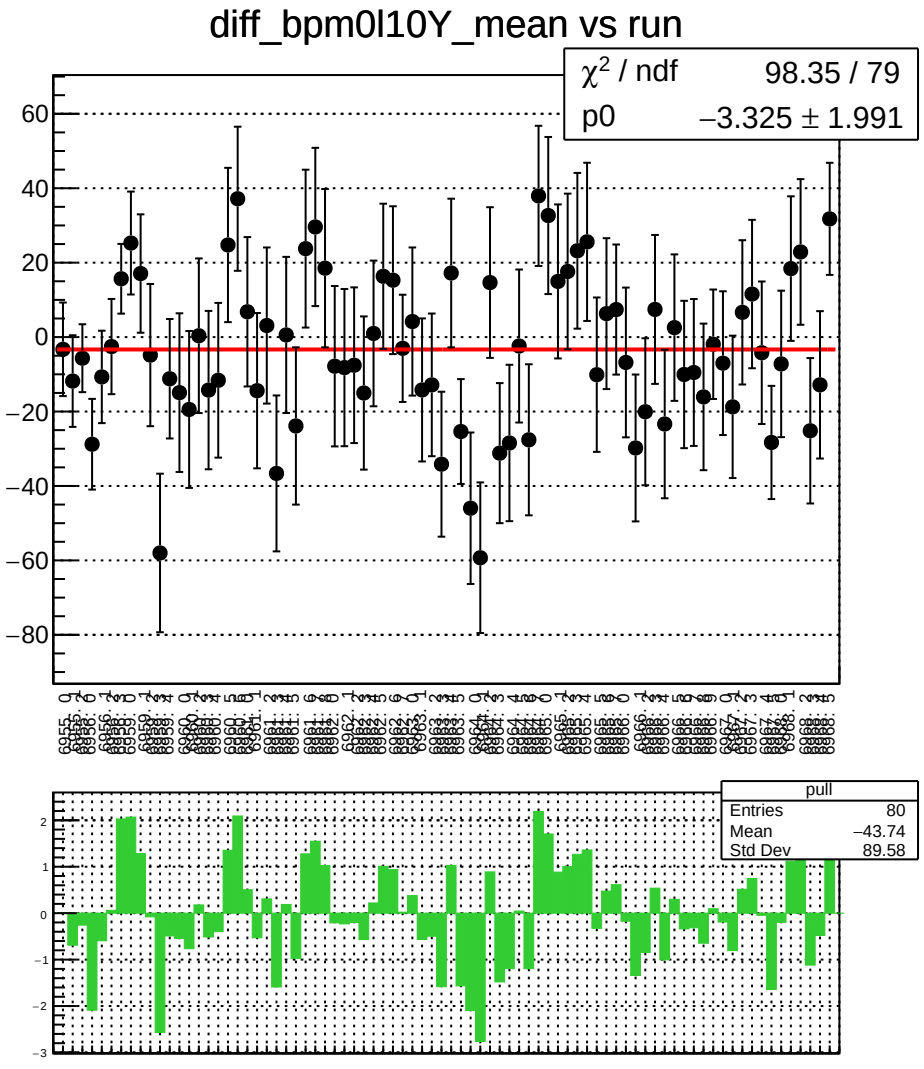

pull1D
Entries 80
Mean 0.01815
Std Dev 1.066

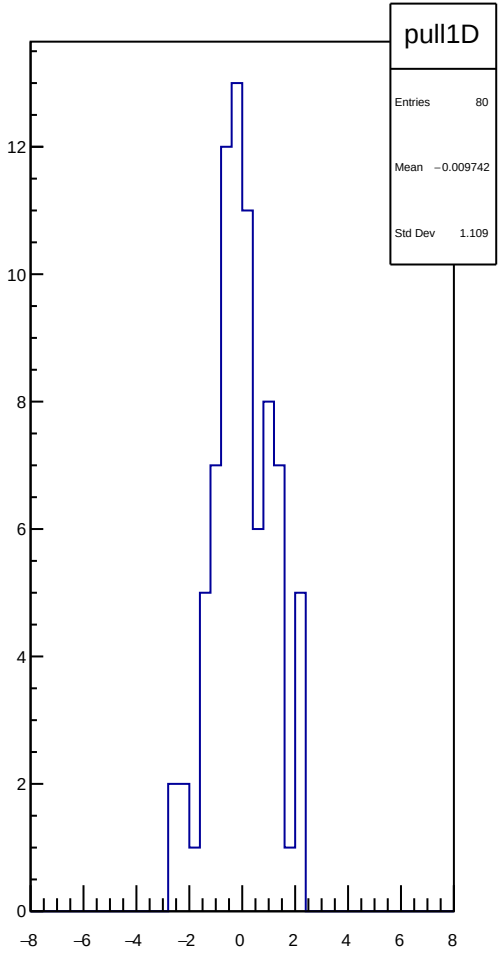

diff_bpm0l09Y_rms vs run
χ² / ndf 5.437e+04 / 79
p0 1728 ± 1.406
2000
1800
1600
1400
1200

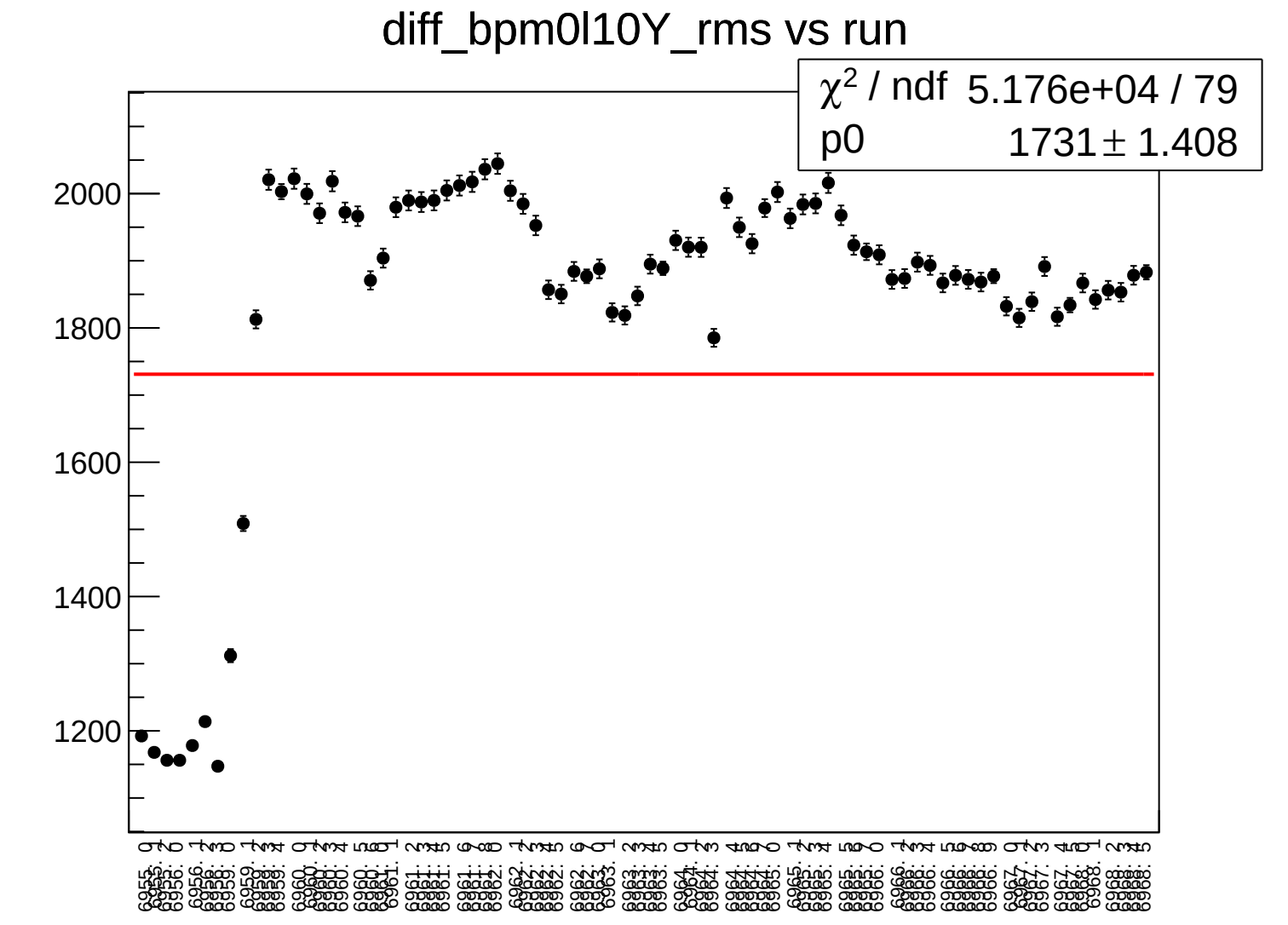

diff_bpm0l10X_mean vs run
χ^2 / ndf 70.85 / 79
p0 4.565 ± 7.338
pull
Entries 80
Mean 484
Std Dev 443.2

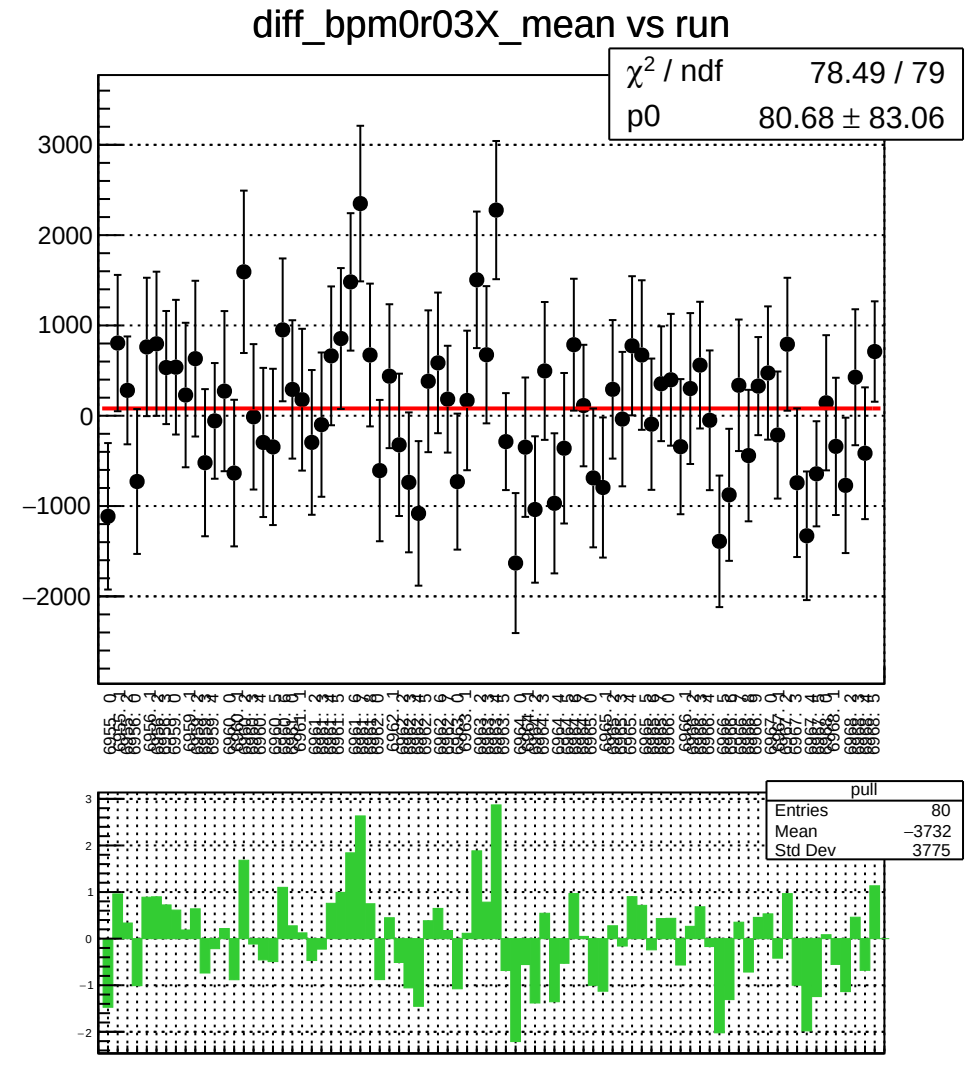

pull1D
Entries 80
Mean −0.0135
Std Dev 0.941

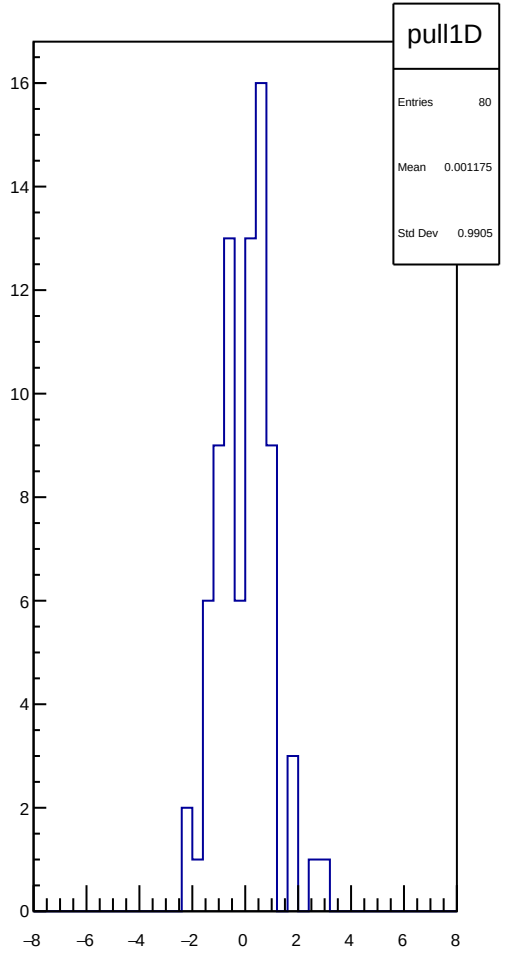

diff_bpm0l10X_rms vs run
χ² / ndf 6341 / 79
p0 6474 ± 5.189
9500
9000
8500
8000
7500
7000
6500
6000
5500

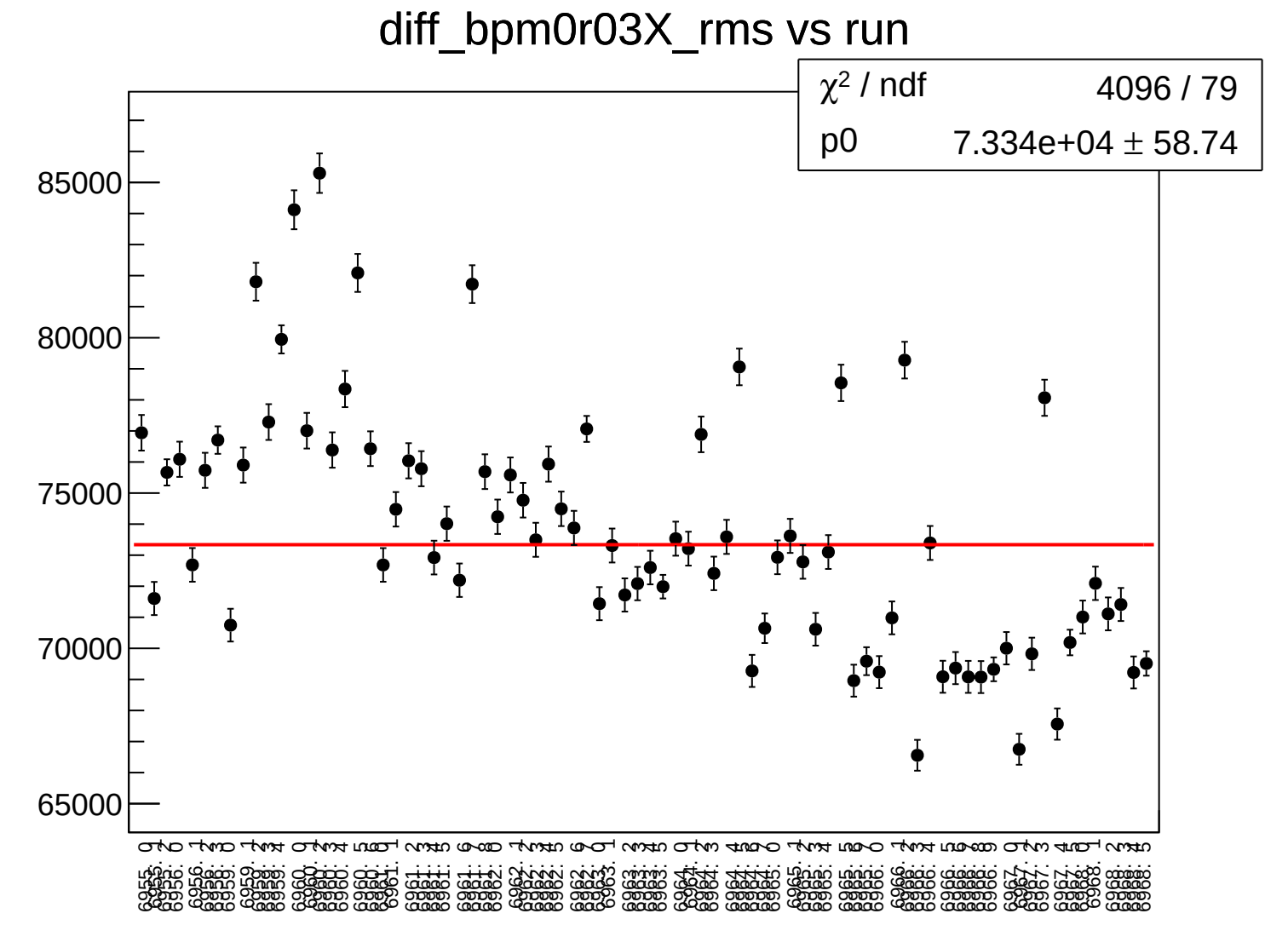

diff_bpm0l10Y_mean vs run
χ^2 / ndf 98.35 / 79
p0 −3.325 ± 1.991
pull
Entries 80
Mean −43.74
Std Dev 89.58

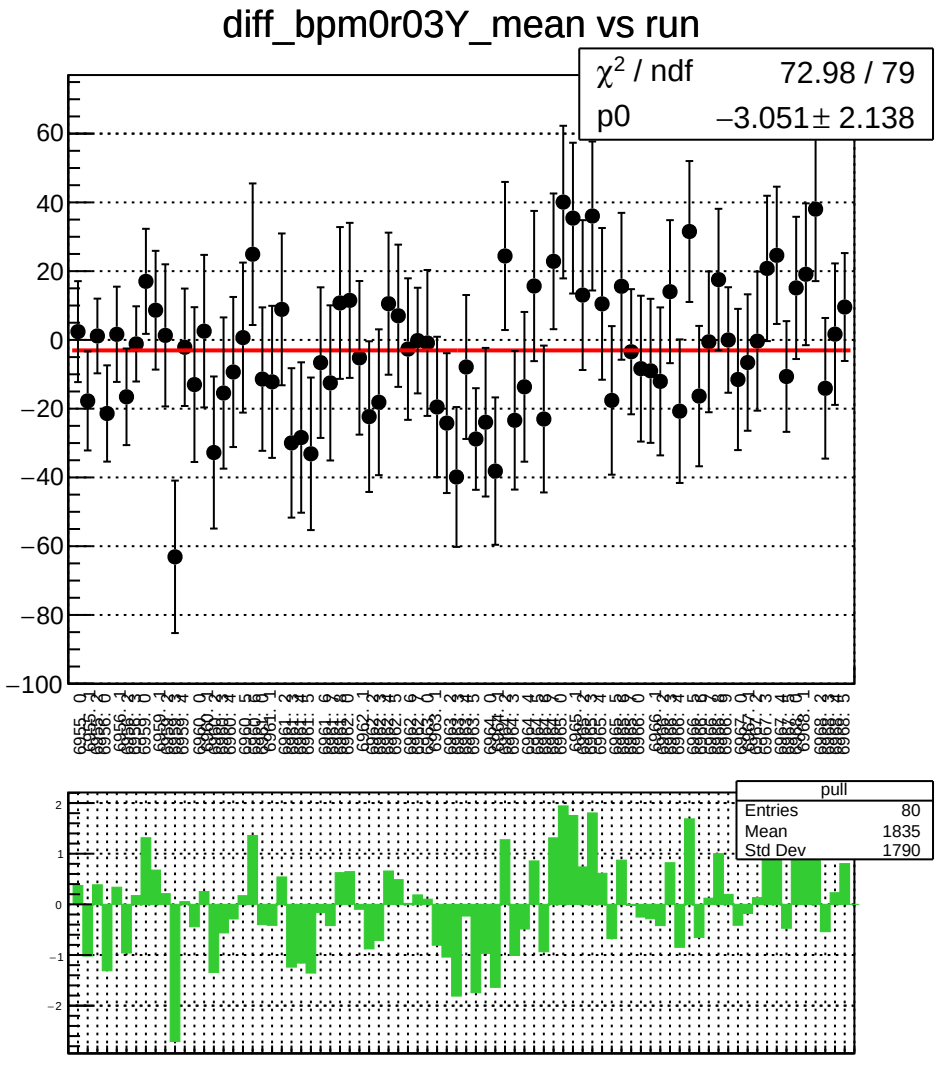

pull1D
Entries 80
Mean −0.009742
Std Dev 1.109

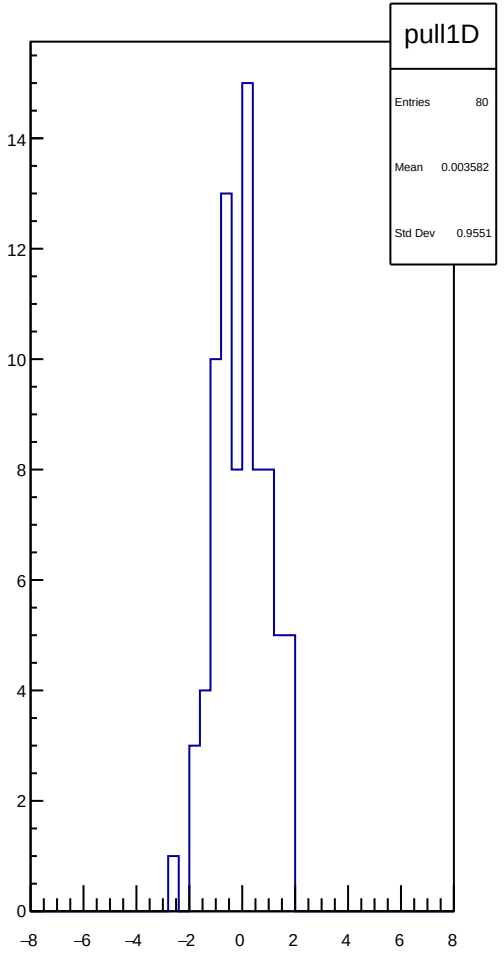

diff_bpm0l10Y_rms vs run
χ² / ndf 5.176e+04 / 79
p0 1731 ± 1.408
2000
1800
1600
1400
1200

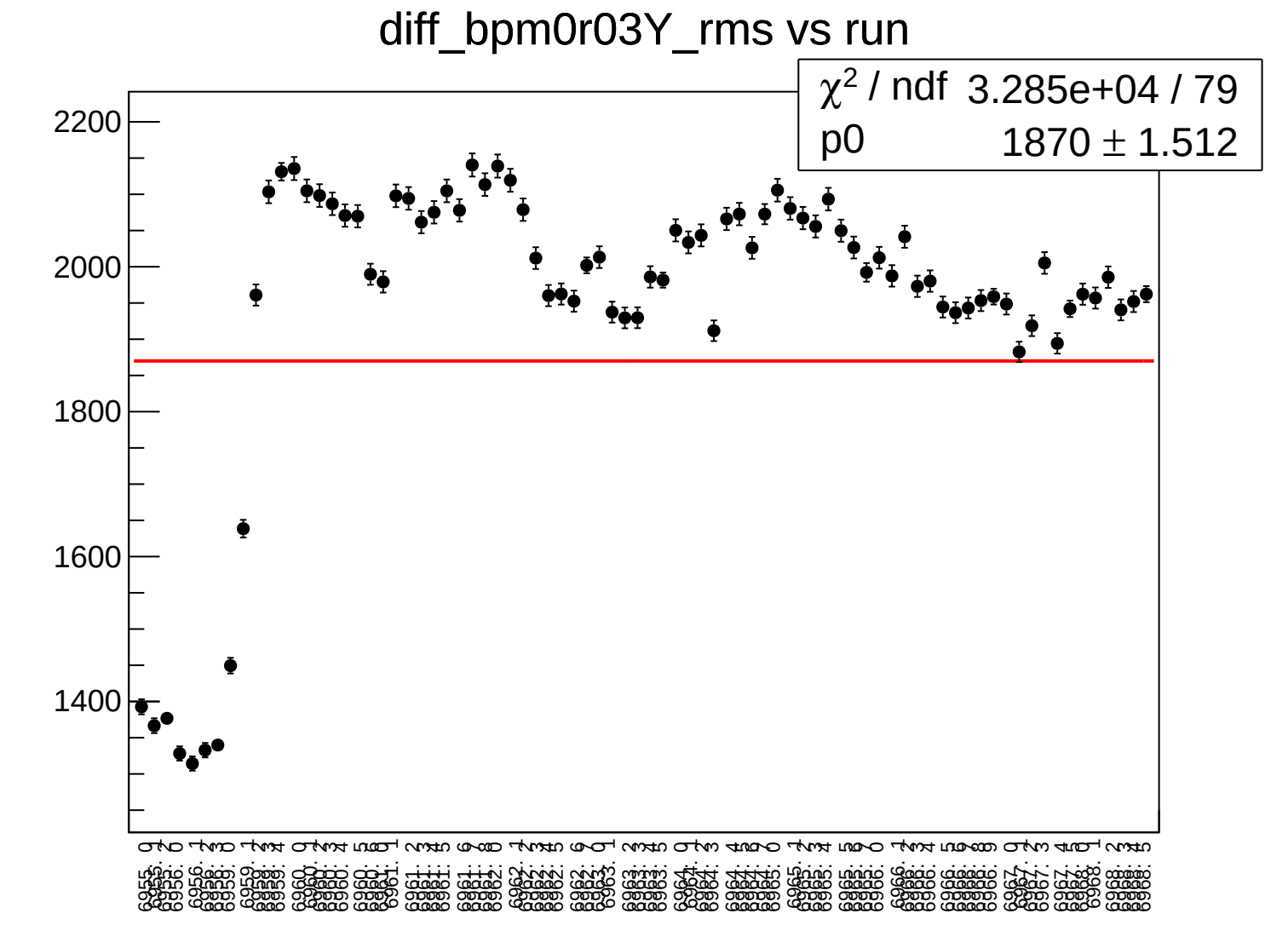

diff_bpm0r03X_mean vs run
χ² / ndf 78.49 / 79
p0 80.68 ± 83.06
3000
2000
1000
0
−1000
−2000
pull
Entries 80
Mean −3732
Std Dev 3775
3
2
1
0
−1
−2

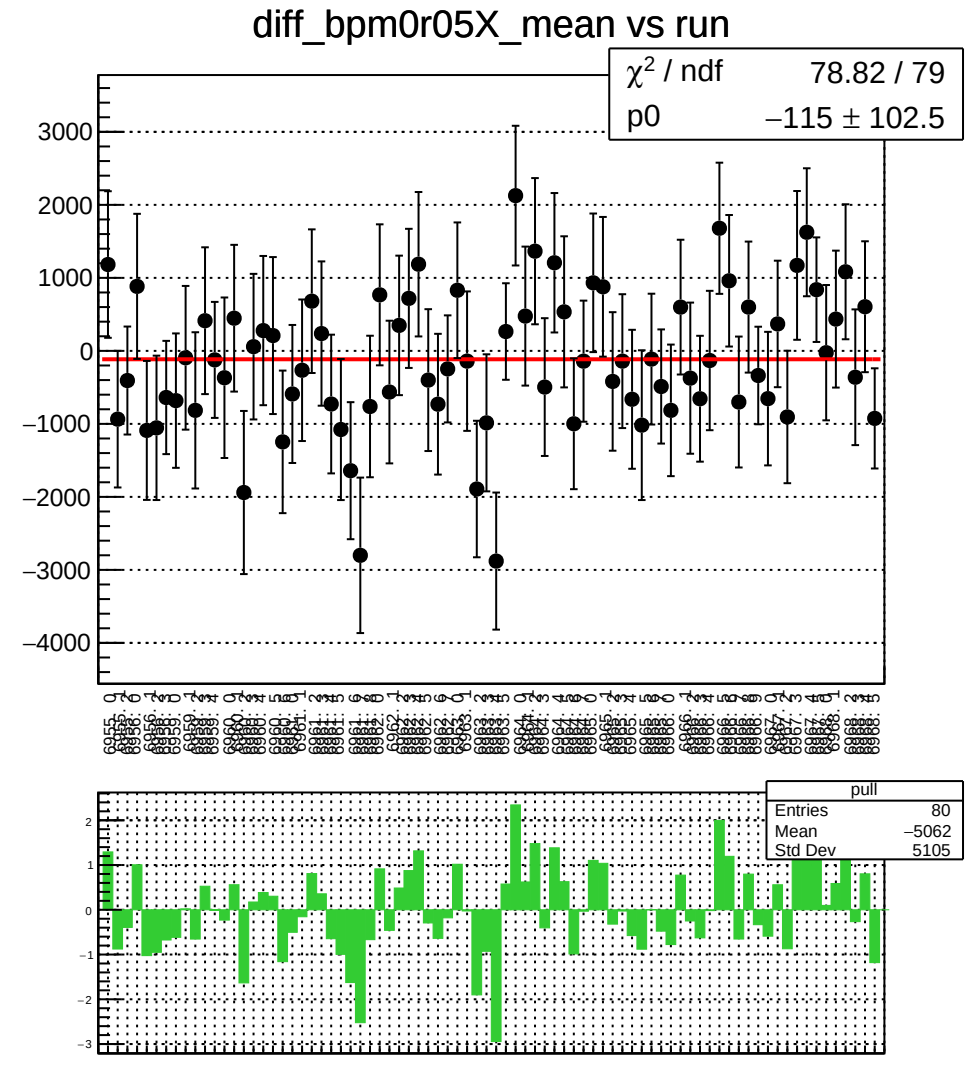

pull1D
Entries 80
Mean 0.001175
Std Dev 0.9905
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

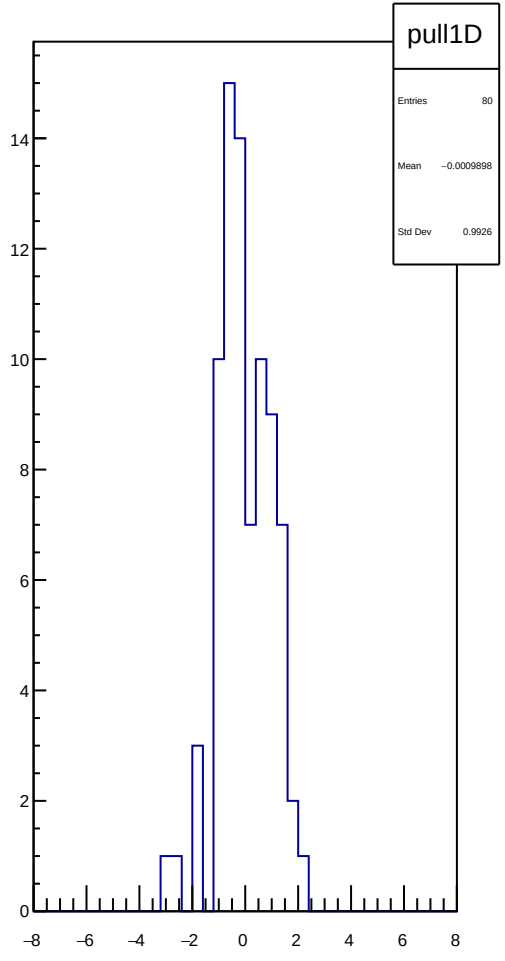

diff_bpm0r03X_rms vs run
χ² / ndf 4096 / 79
p0 7.334e+04 ± 58.74
85000
80000
75000
70000
65000

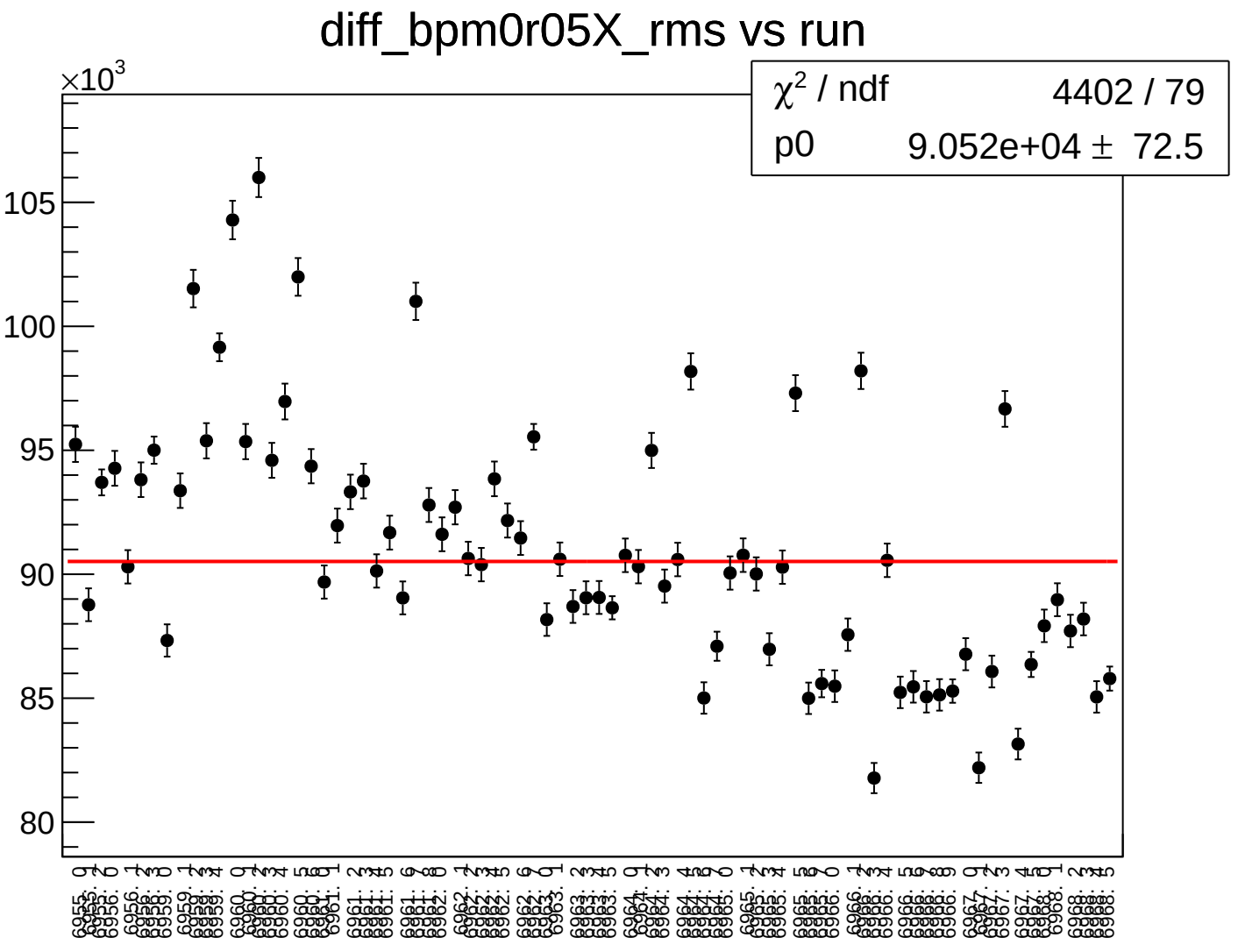

diff_bpm0r03Y_mean vs run
χ² / ndf 72.98 / 79
p0 −3.051± 2.138
pull
Entries 80
Mean 1835
Std Dev 1790

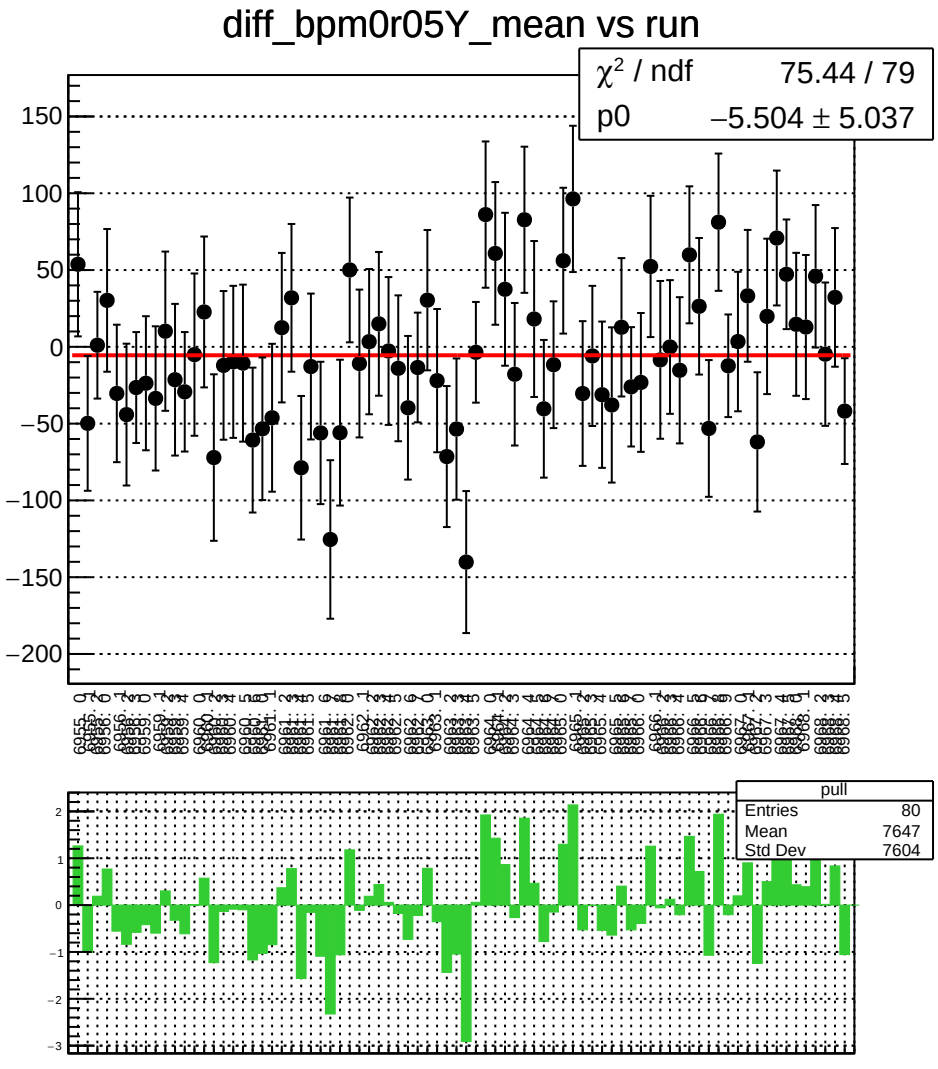

pull1D
Entries 80
Mean 0.003582
Std Dev 0.9551

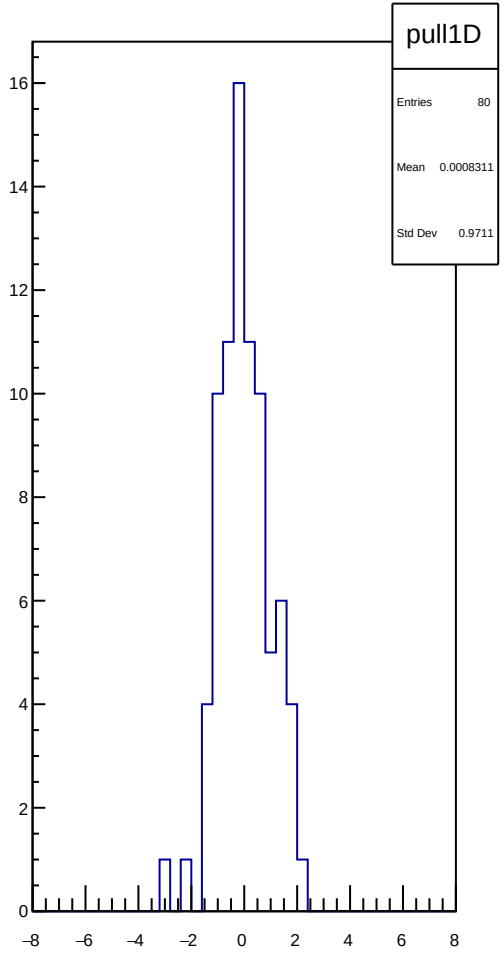

diff_bpm0r03Y_rms vs run
χ² / ndf 3.285e+04 / 79
p0 1870 ± 1.512
2200
2000
1800
1600
1400

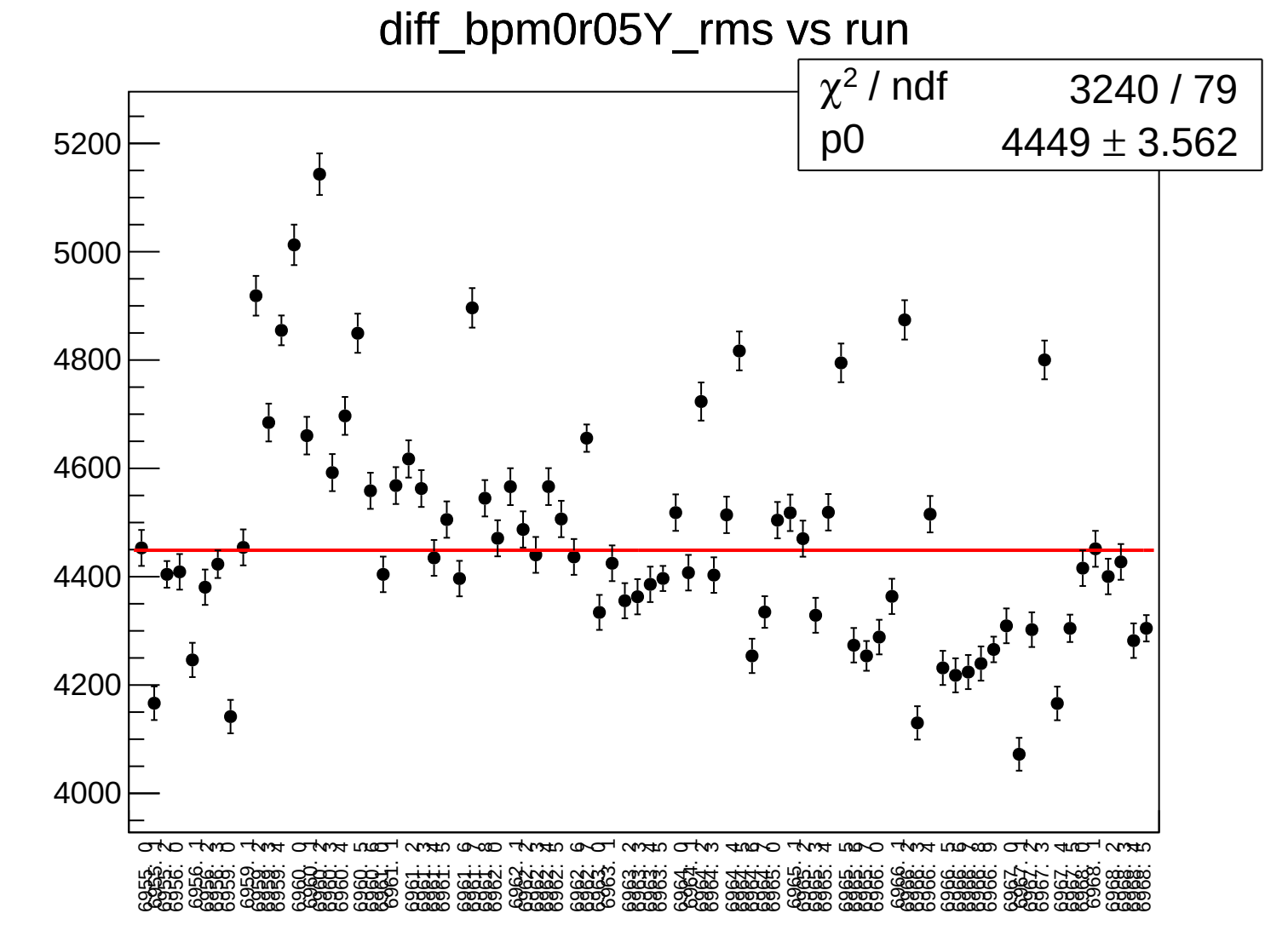

diff_bpm0r05X_mean vs run
χ² / ndf 78.82 / 79
p0 −115 ± 102.5
3000
2000
1000
0
−1000
−2000
−3000
−4000
pull
Entries 80
Mean −5062
Std Dev 5105
2
1
0
−1
−2
−3

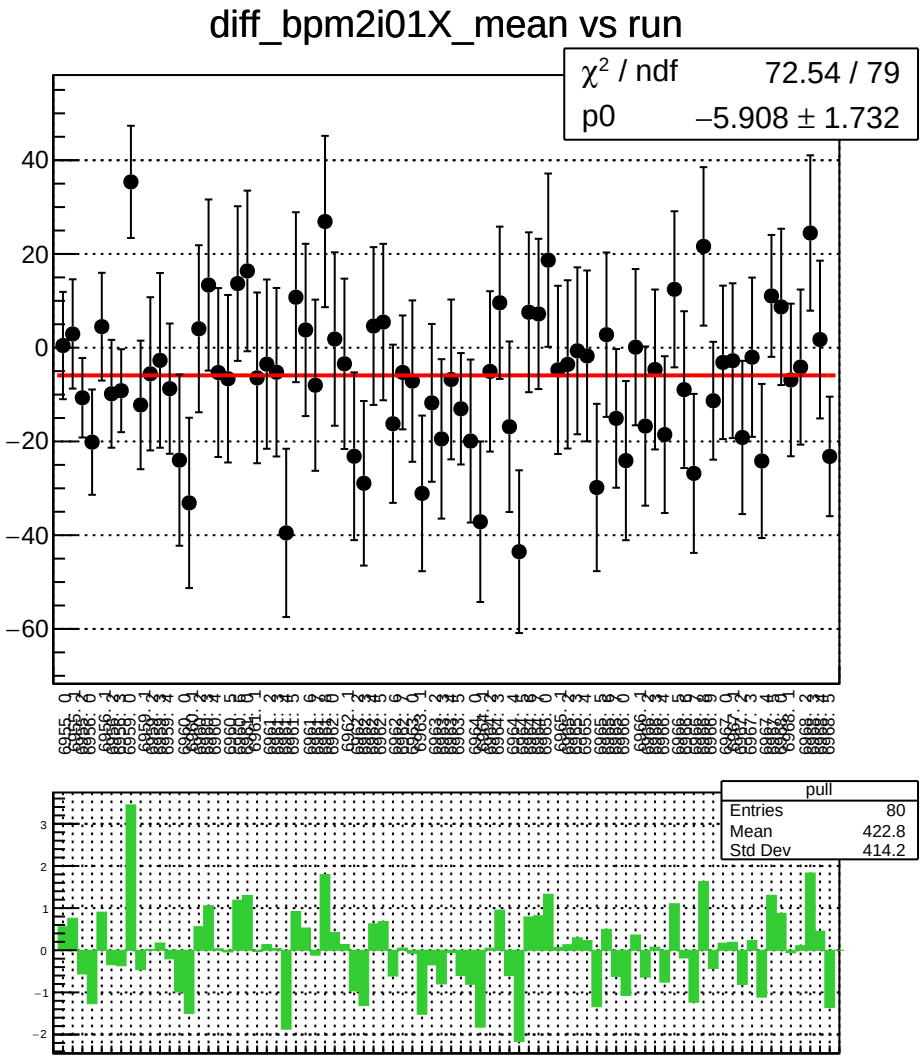

pull1D
Entries 80
Mean −0.0009898
Std Dev 0.9926
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

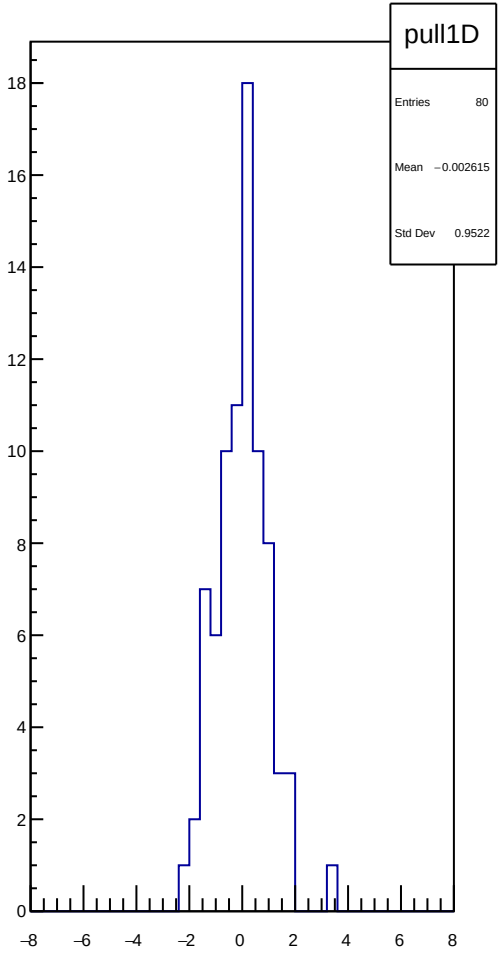

diff_bpm0r05X_rms vs run
×10^3
χ^2 / ndf 4402 / 79
p0 9.052e+04 ± 72.5
105
100
95
90
85
80

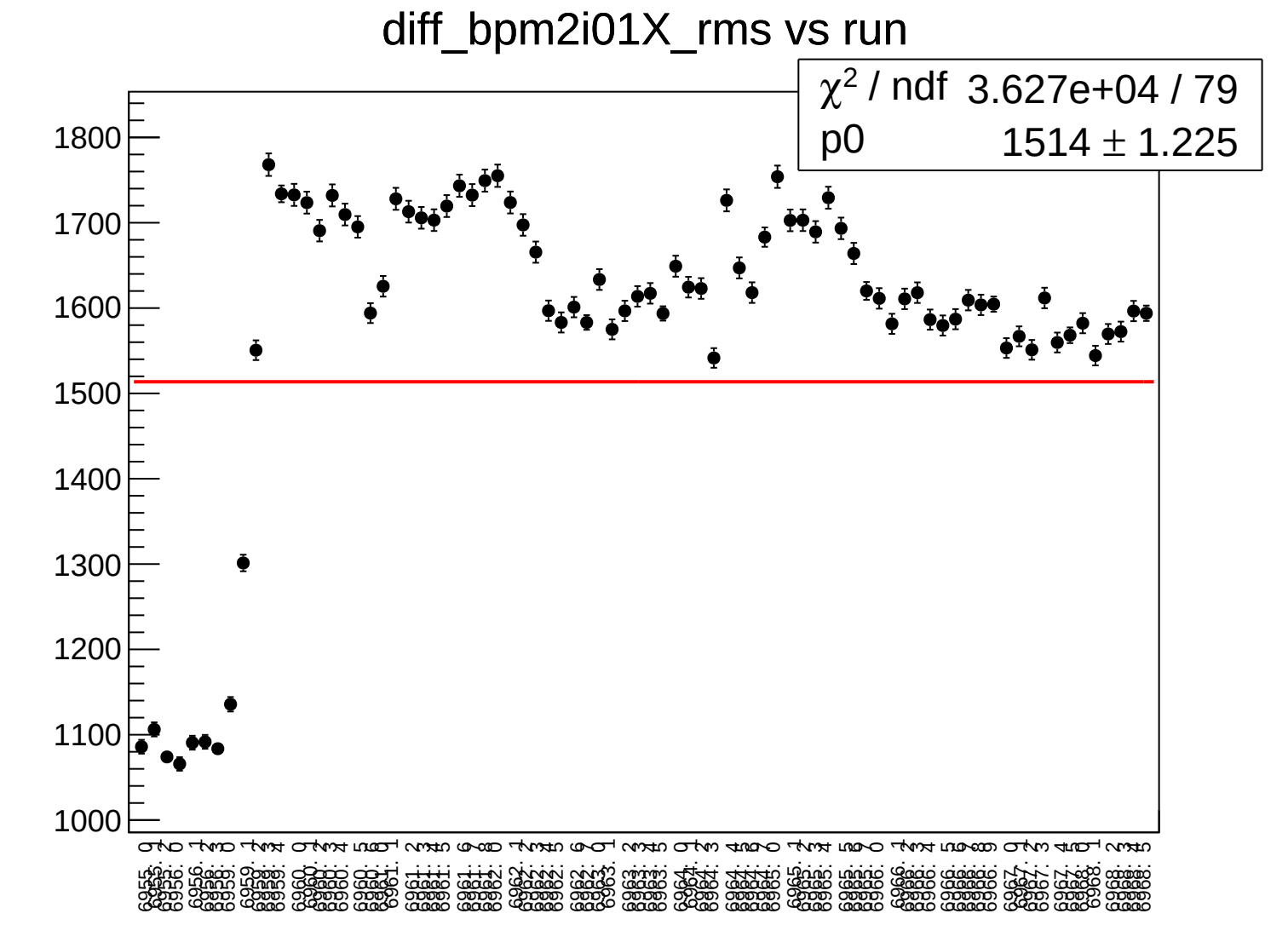

diff_bpm0r05Y_mean vs run
χ² / ndf 75.44 / 79
p0 −5.504 ± 5.037
150
100
50
0
−50
−100
−150
−200
pull
Entries 80
Mean 7647
Std Dev 7604
2
1
0
−1
−2
−3

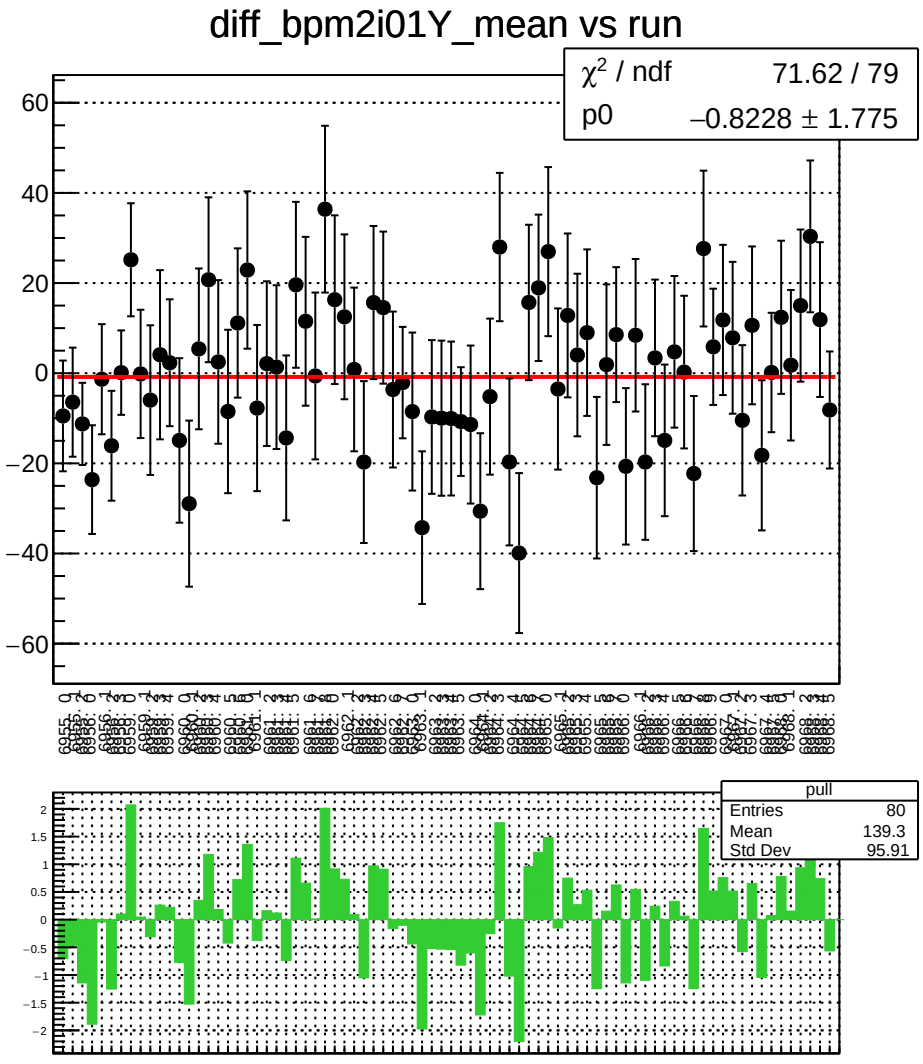

pull1D
Entries 80
Mean 0.0008311
Std Dev 0.9711
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

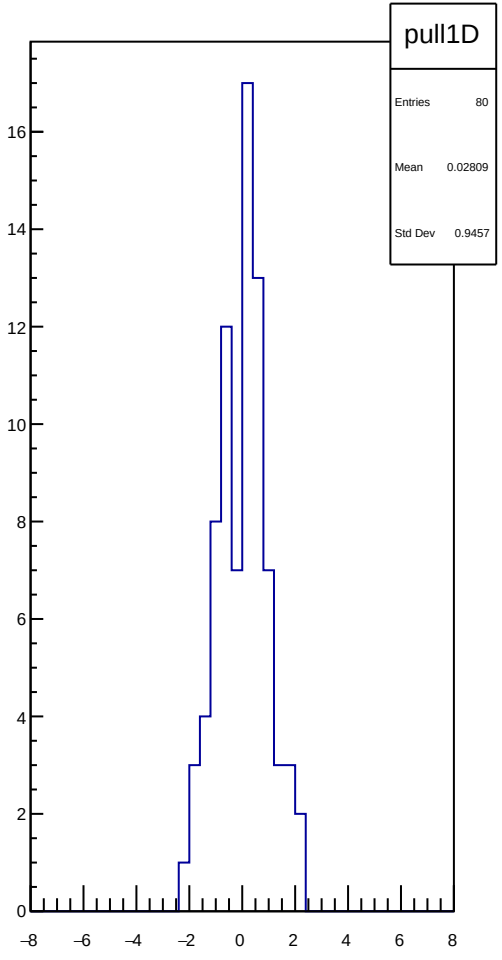

diff_bpm0r05Y_rms vs run
χ² / ndf 3240 / 79
p0 4449 ± 3.562
5200
5000
4800
4600
4400
4200
4000

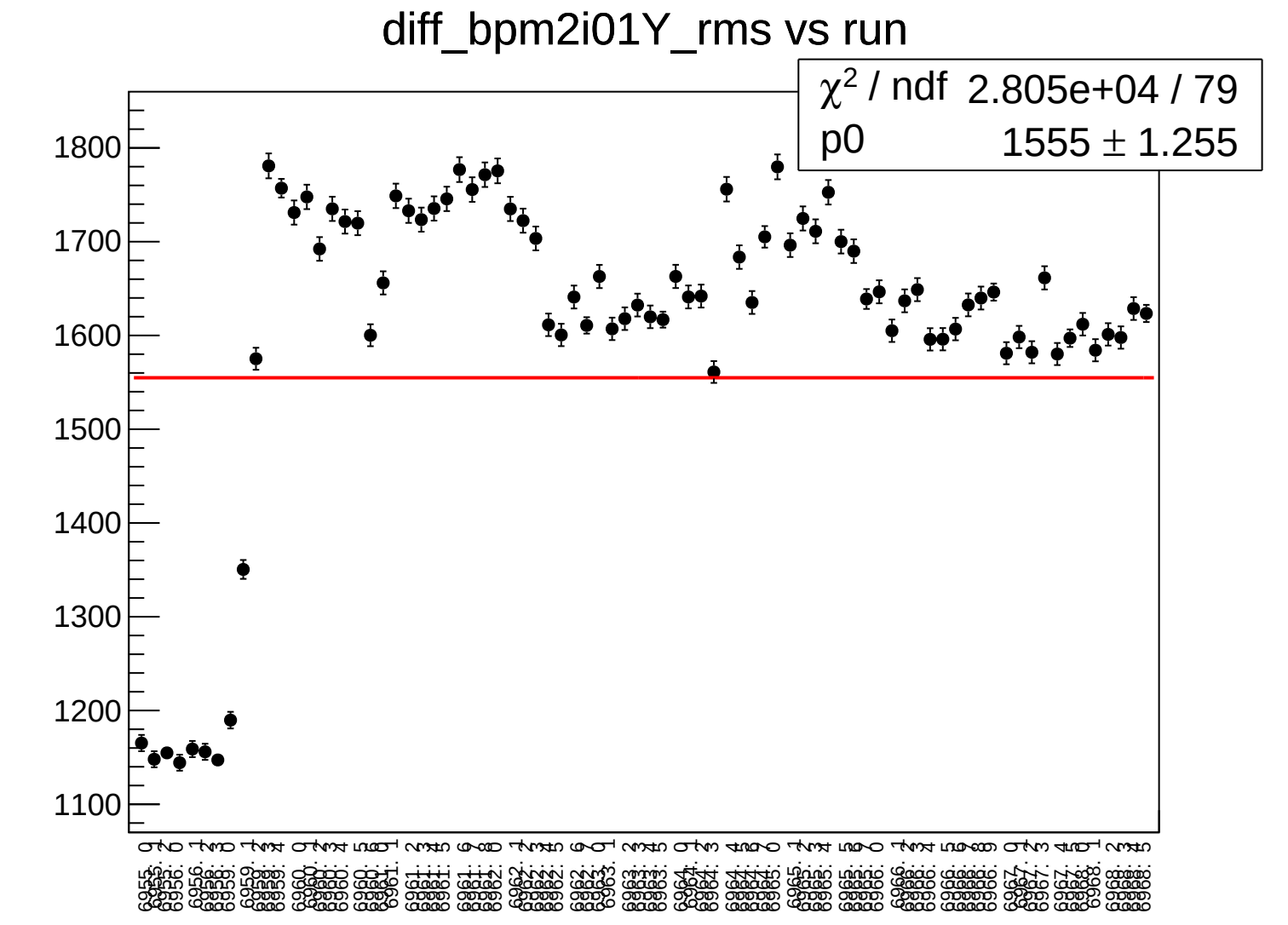

diff_bpm2i01X_mean vs run
χ² / ndf 72.54 / 79
p0 −5.908 ± 1.732
pull
Entries 80
Mean 422.8
Std Dev 414.2

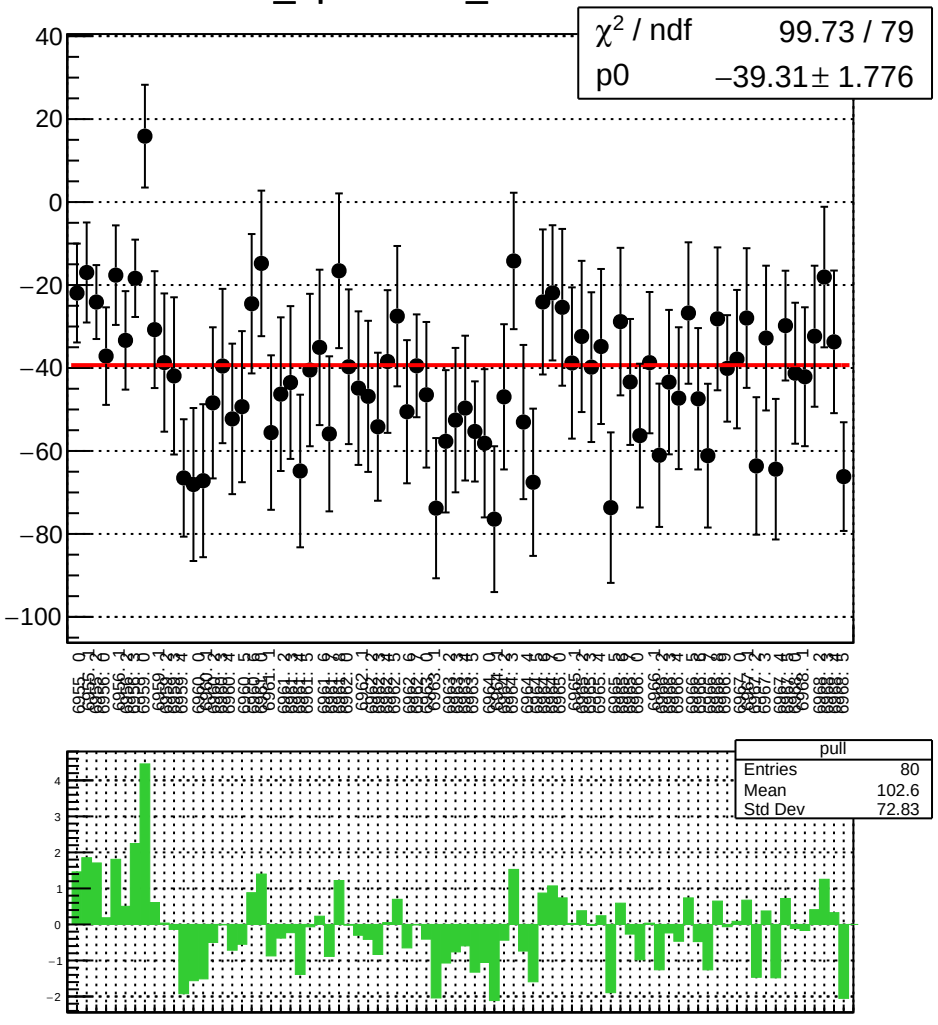

pull1D
Entries 80
Mean −0.002615
Std Dev 0.9522

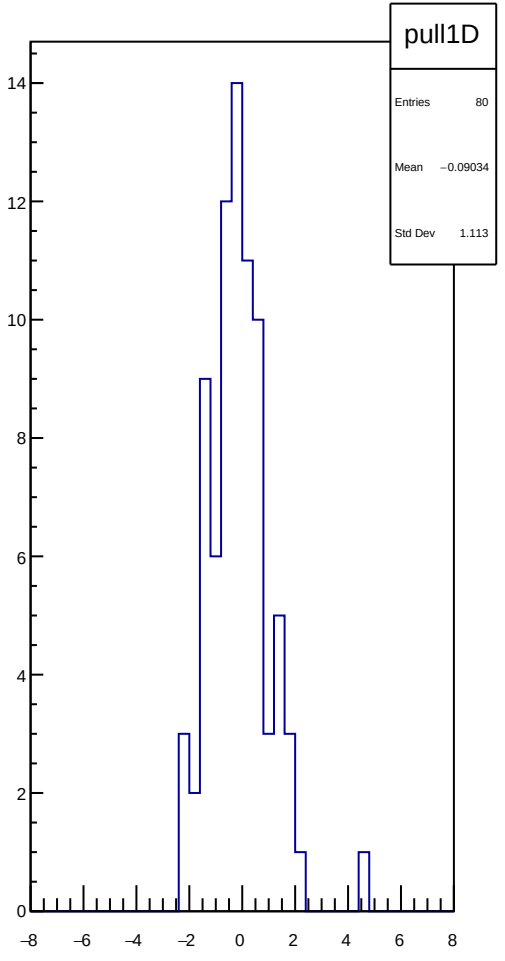

diff_bpm2i01X_rms vs run
χ² / ndf 3.627e+04 / 79
p0 1514 ± 1.225
1800
1700
1600
1500
1400
1300
1200
1100
1000

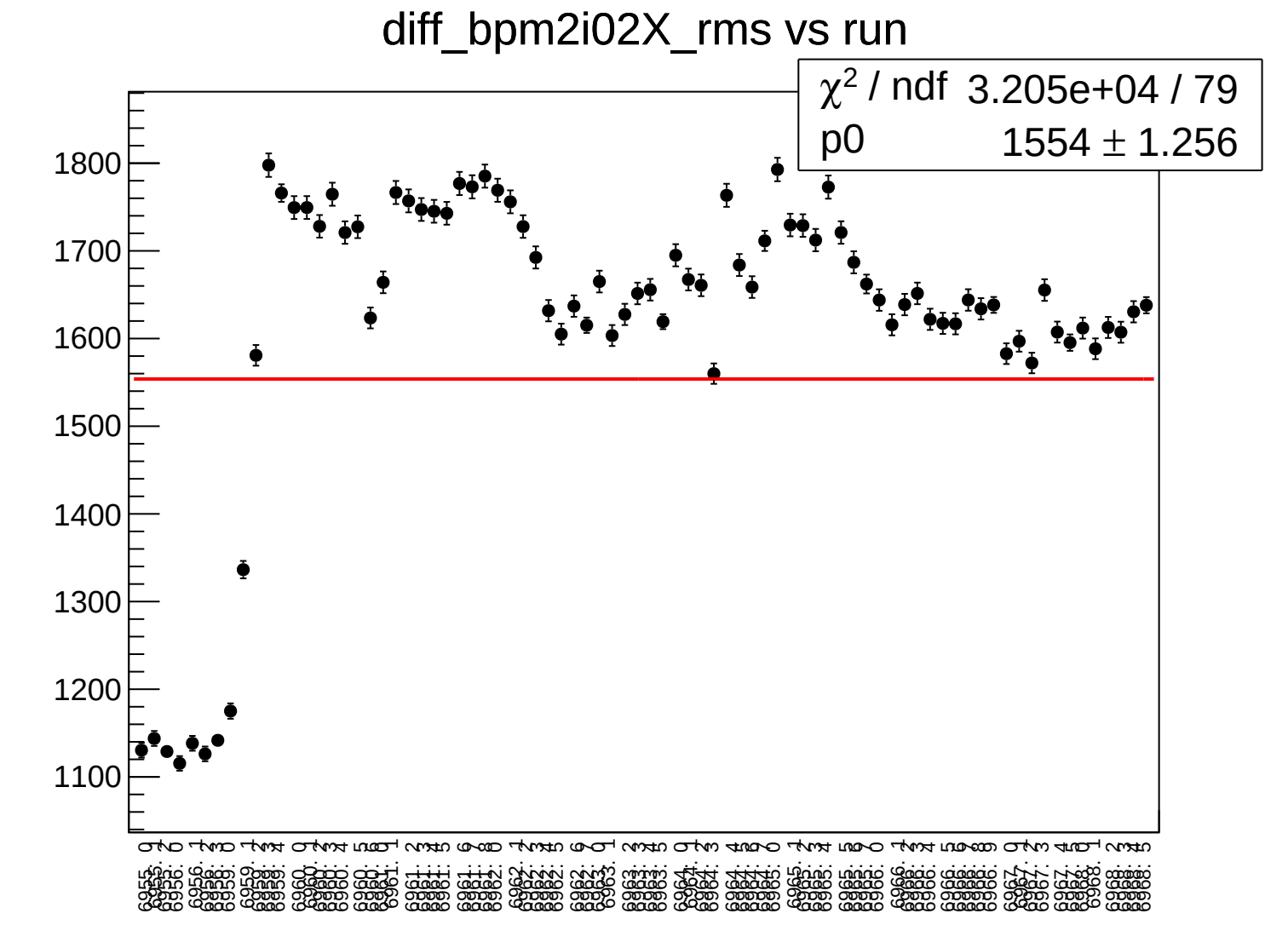

diff_bpm2i01Y_mean vs run
χ² / ndf 71.62 / 79
p0 −0.8228 ± 1.775
pull
Entries 80
Mean 139.3
Std Dev 95.91

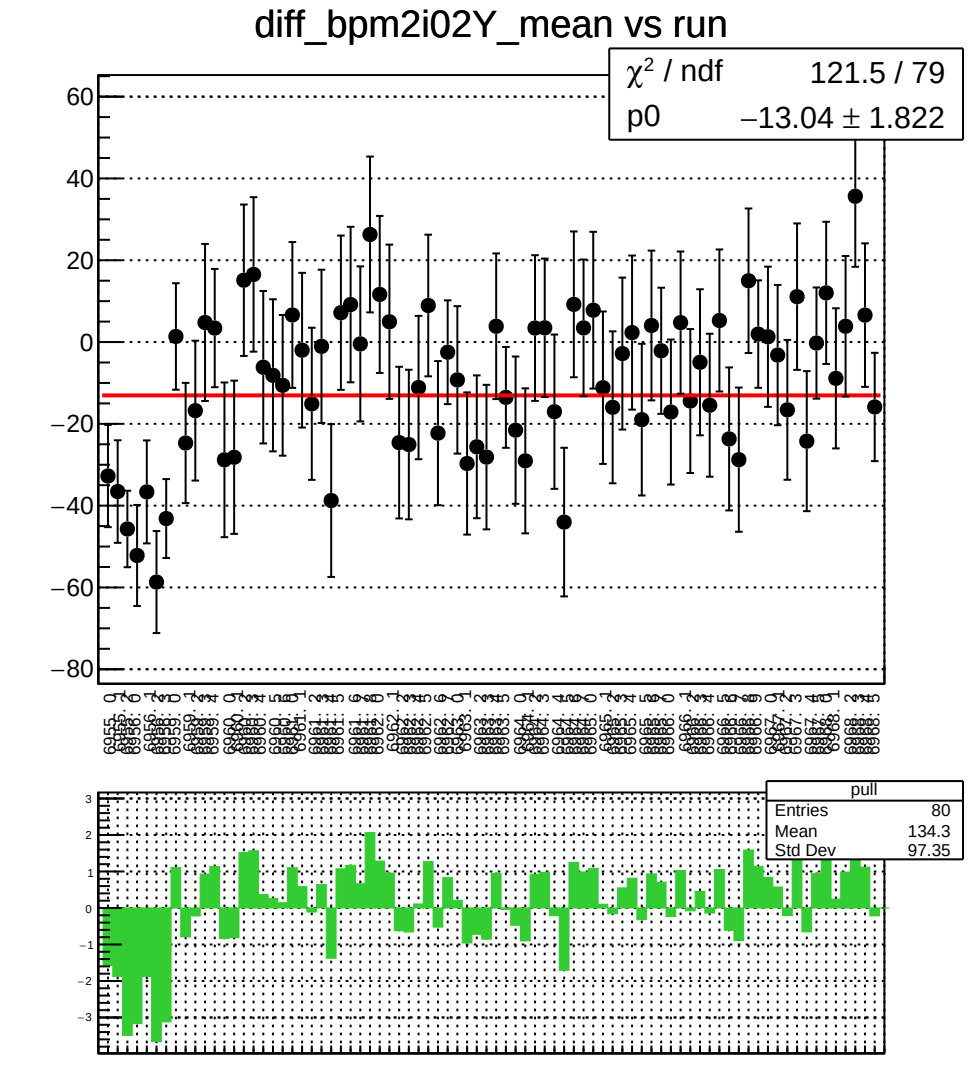

pull1D
Entries 80
Mean 0.02809
Std Dev 0.9457

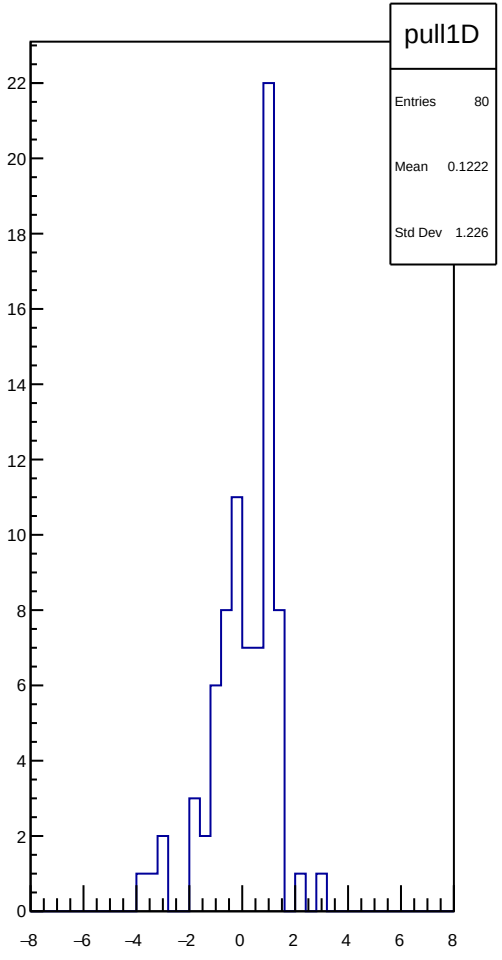

diff_bpm2i01Y_rms vs run
χ² / ndf 2.805e+04 / 79
p0 1555 ± 1.255
1800
1700
1600
1500
1400
1300
1200
1100

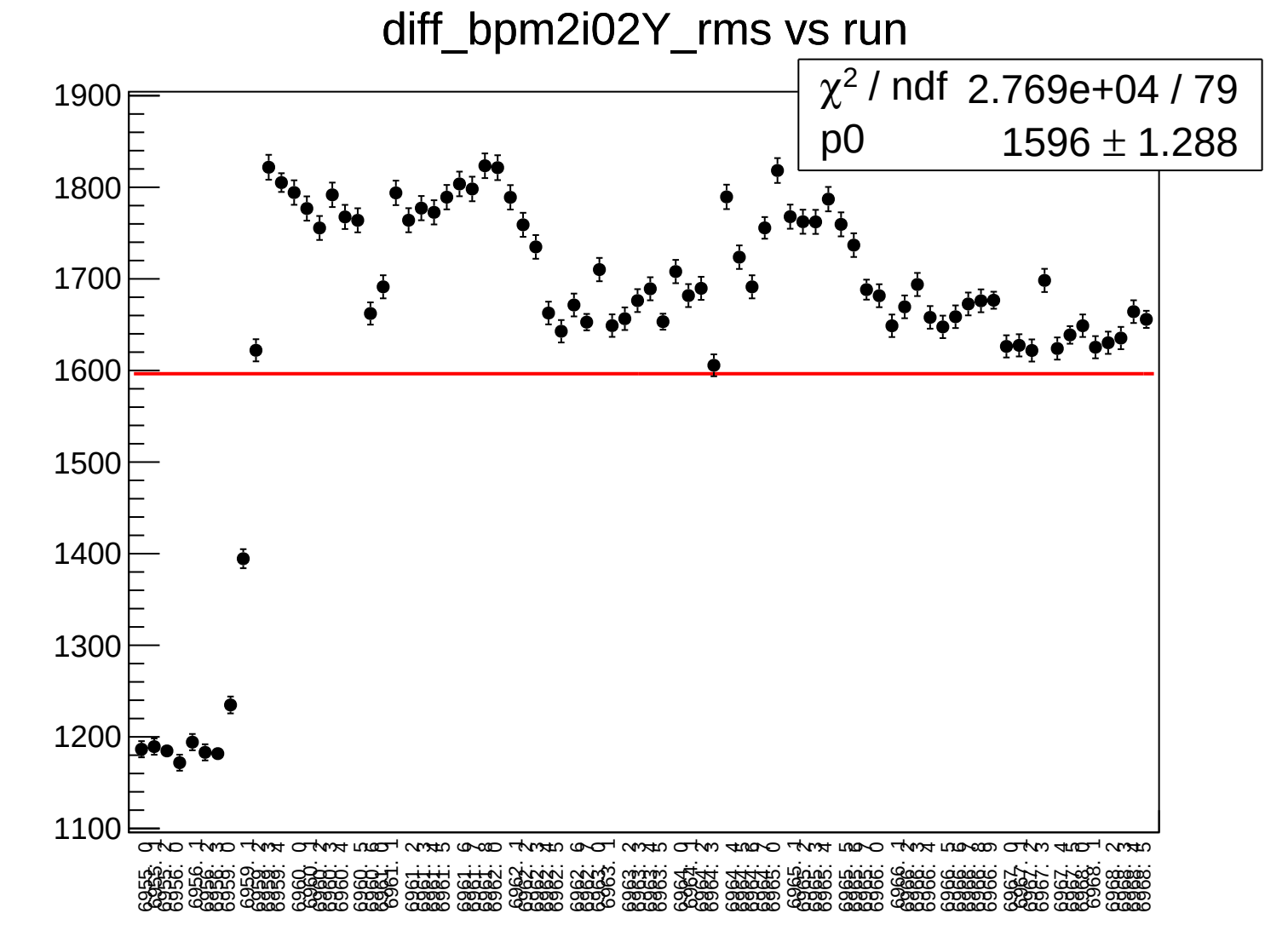

diff_bpm2i02X_mean vs run
χ² / ndf 99.73 / 79
p0 −39.31 ± 1.776
pull
Entries 80
Mean 102.6
Std Dev 72.83

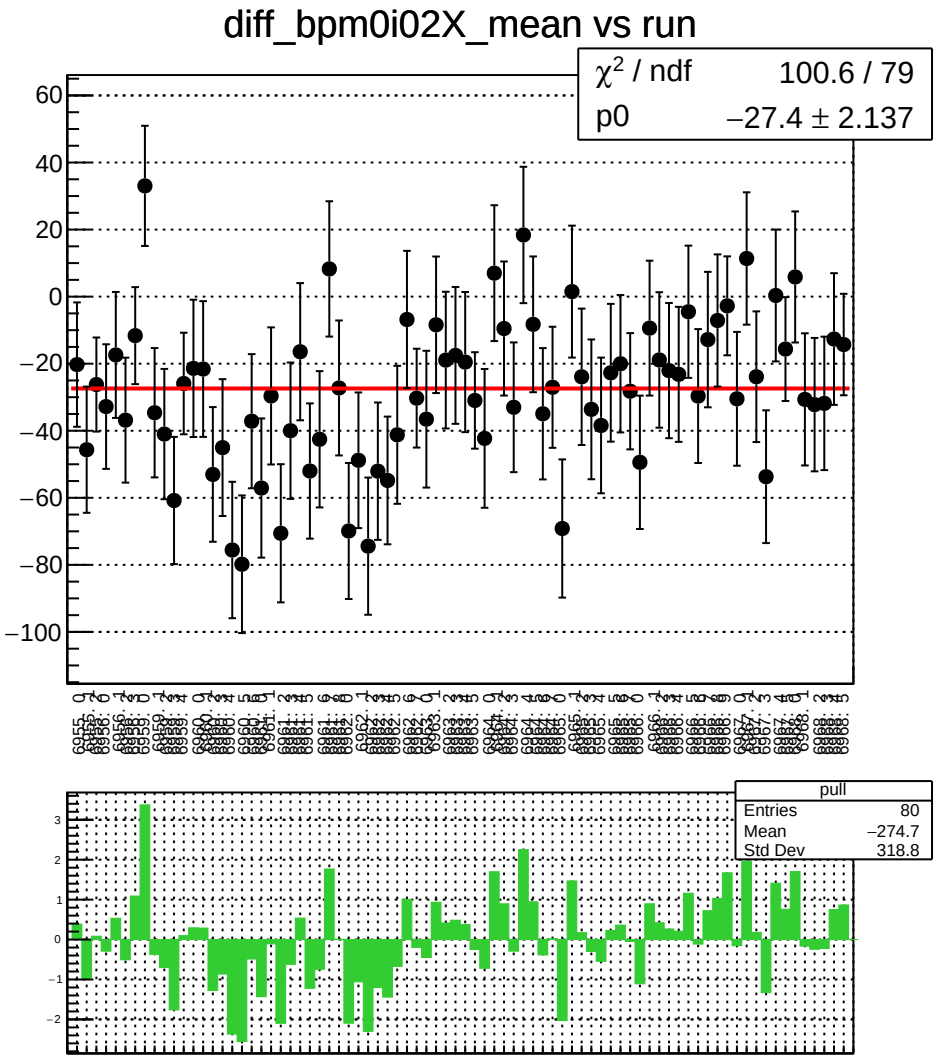

pull1D
Entries 80
Mean −0.09034
Std Dev 1.113

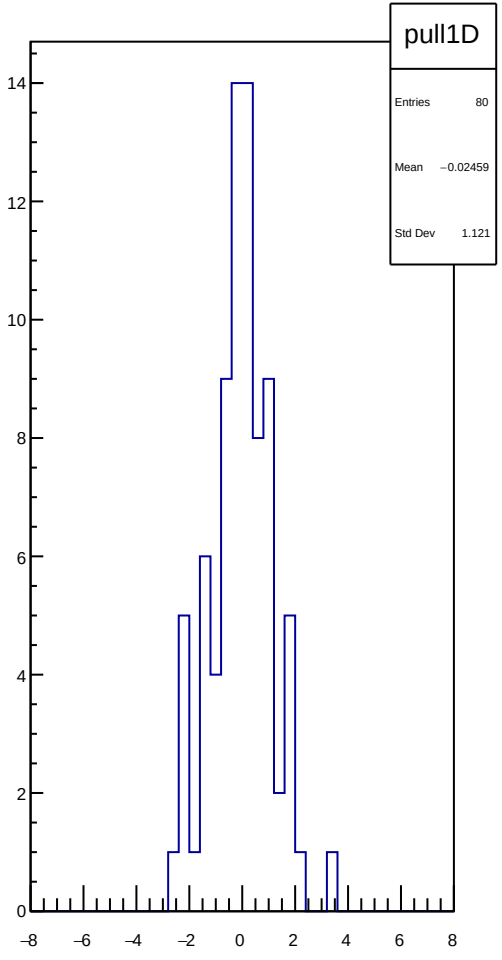

diff_bpm2i02X_rms vs run
χ² / ndf 3.205e+04 / 79
p0 1554 ± 1.256
1800
1700
1600
1500
1400
1300
1200
1100

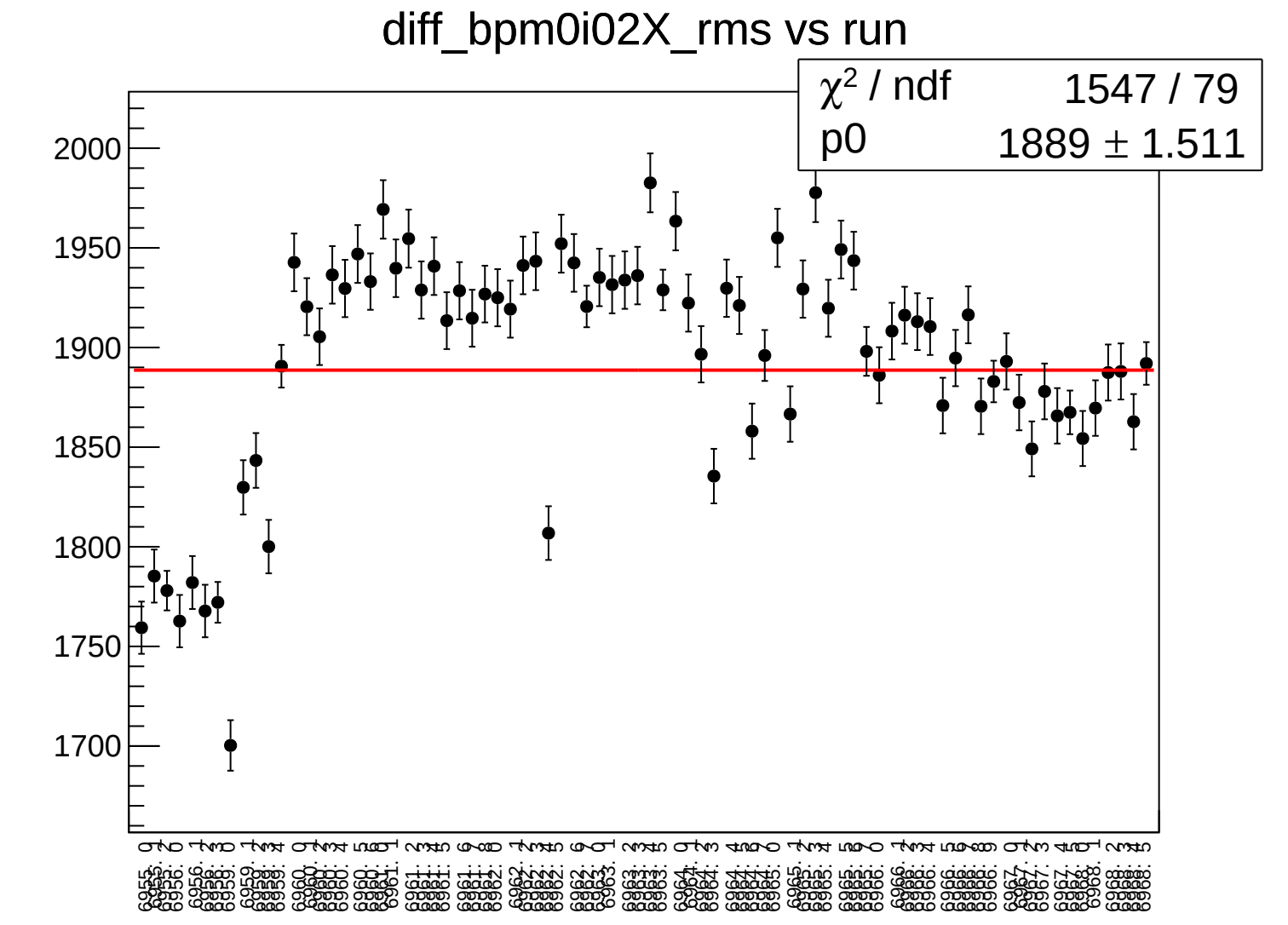

diff_bpm2i02Y_mean vs run
χ² / ndf 121.5 / 79
p0 −13.04 ± 1.822
pull
Entries 80
Mean 134.3
Std Dev 97.35

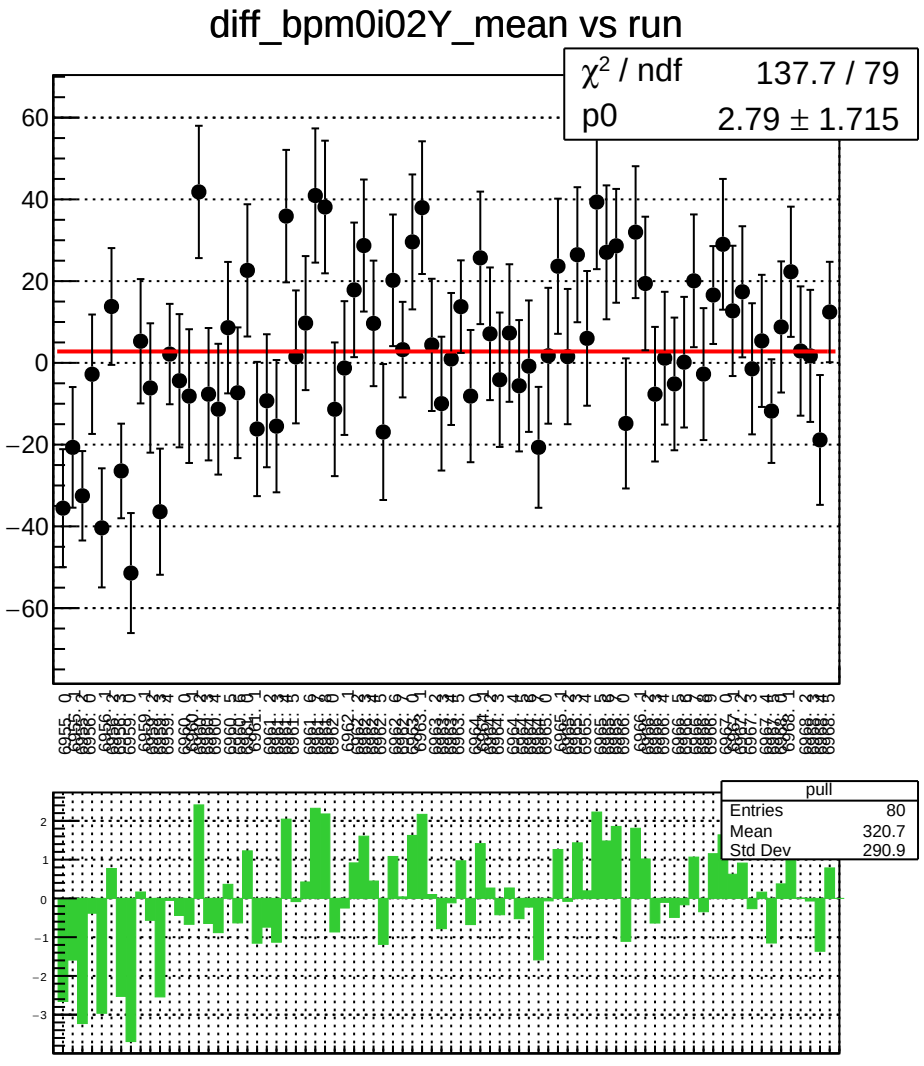

pull1D
Entries 80
Mean 0.1222
Std Dev 1.226

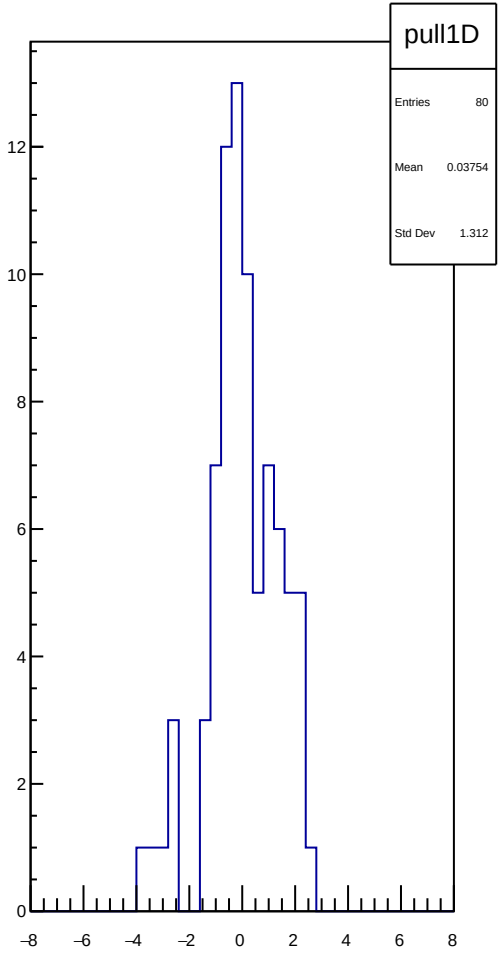

diff_bpm2i02Y_rms vs run
χ² / ndf 2.769e+04 / 79
p0 1596 ± 1.288
1900
1800
1700
1600
1500
1400
1300
1200
1100

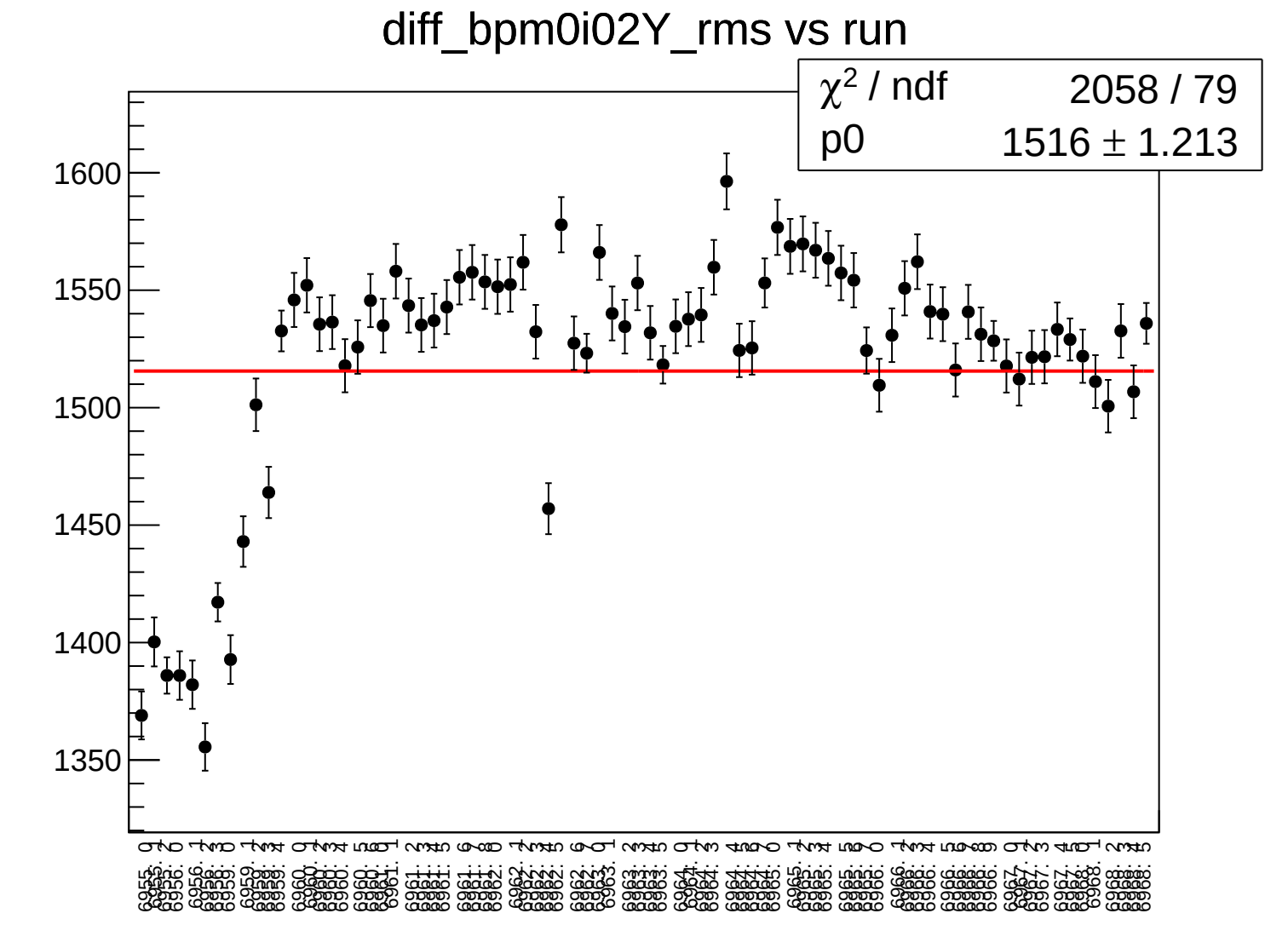

diff_bpm0i02X_mean vs run
χ² / ndf 100.6 / 79
p0 −27.4 ± 2.137
pull
Entries 80
Mean −274.7
Std Dev 318.8

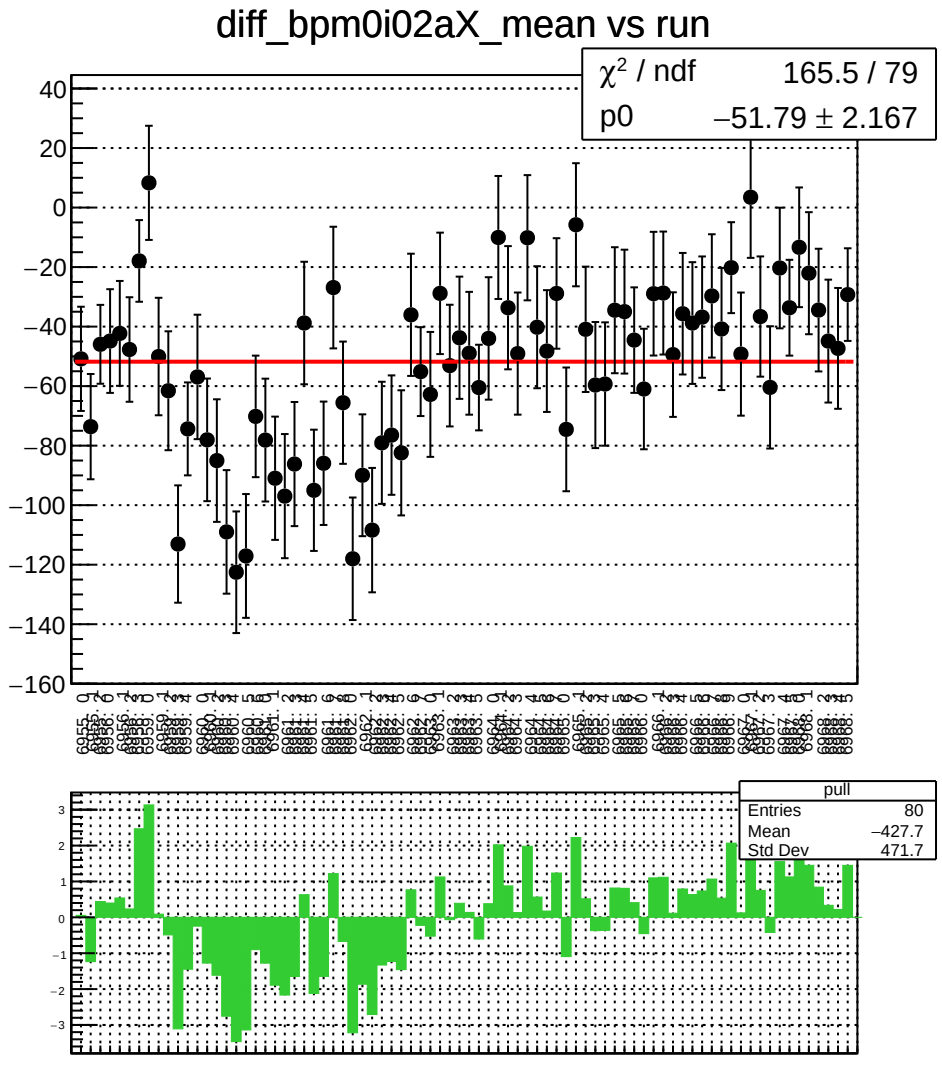

pull1D
Entries 80
Mean −0.02459
Std Dev 1.121

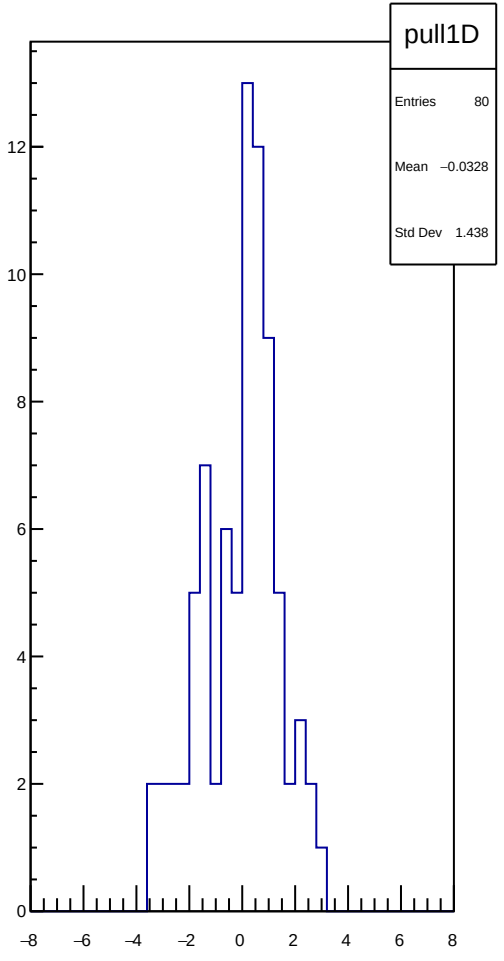

diff_bpm0i02X_rms vs run
χ² / ndf 1547 / 79
p0 1889 ± 1.511
2000
1950
1900
1850
1800
1750
1700

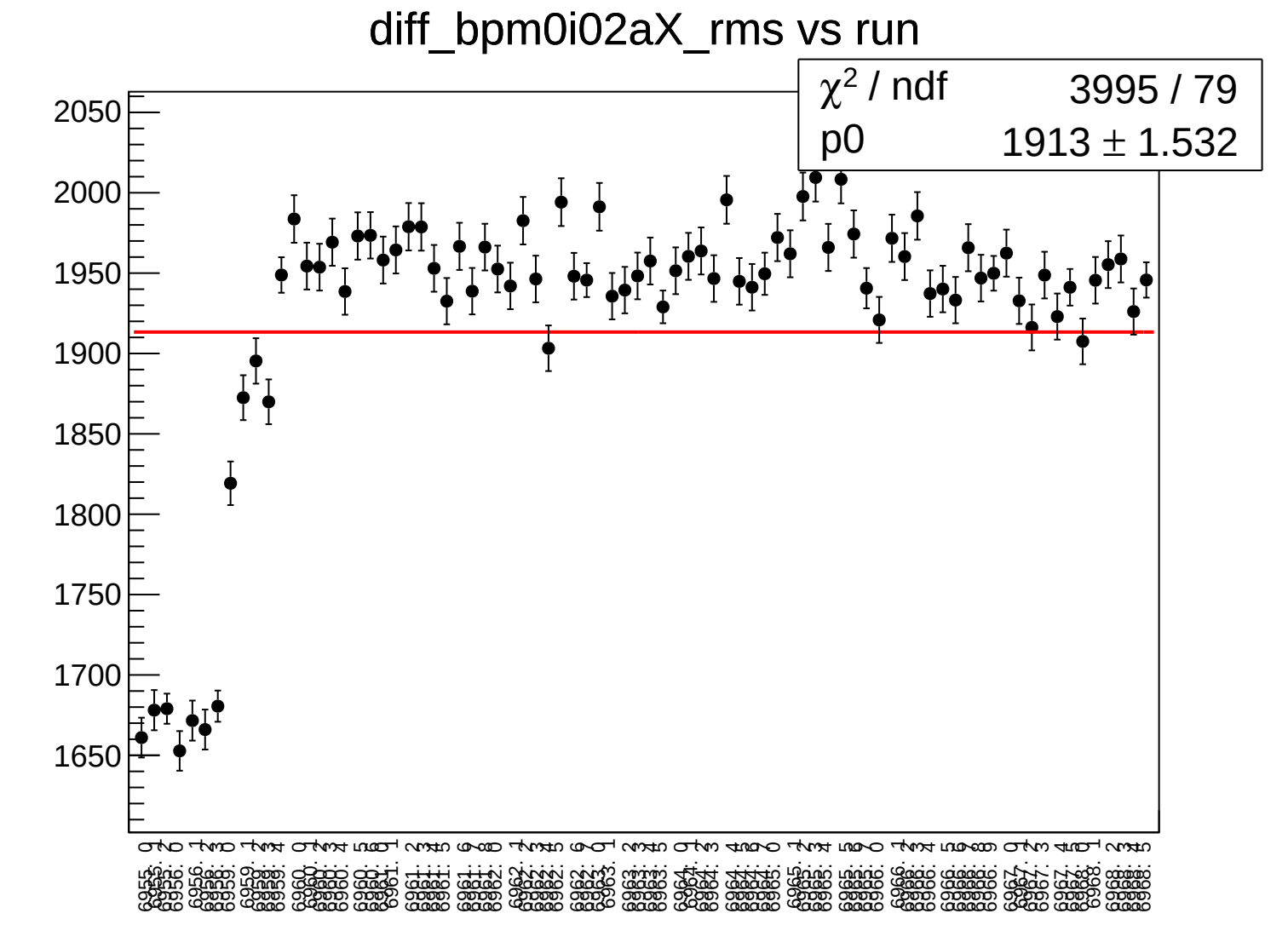

diff_bpm0i02Y_mean vs run
χ² / ndf 137.7 / 79
p0 2.79 ± 1.715
pull
Entries 80
Mean 320.7
Std Dev 290.9

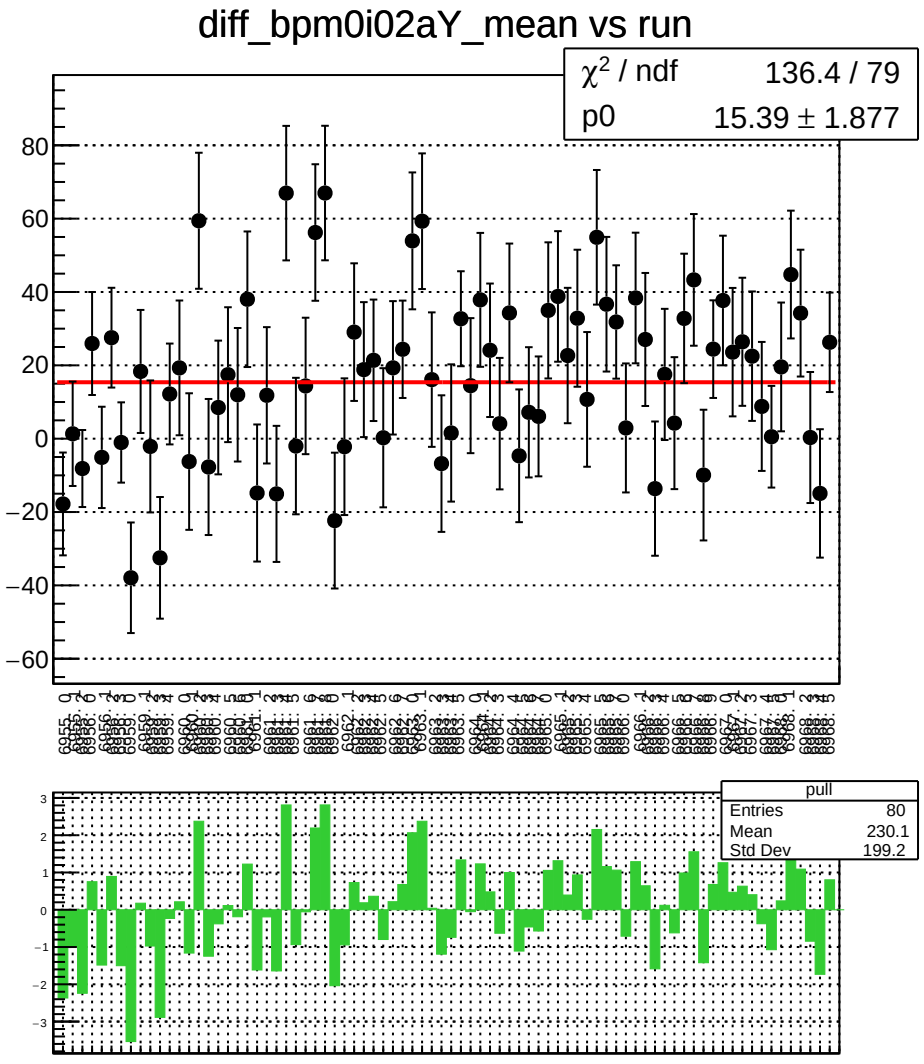

pull1D
Entries 80
Mean 0.03754
Std Dev 1.312

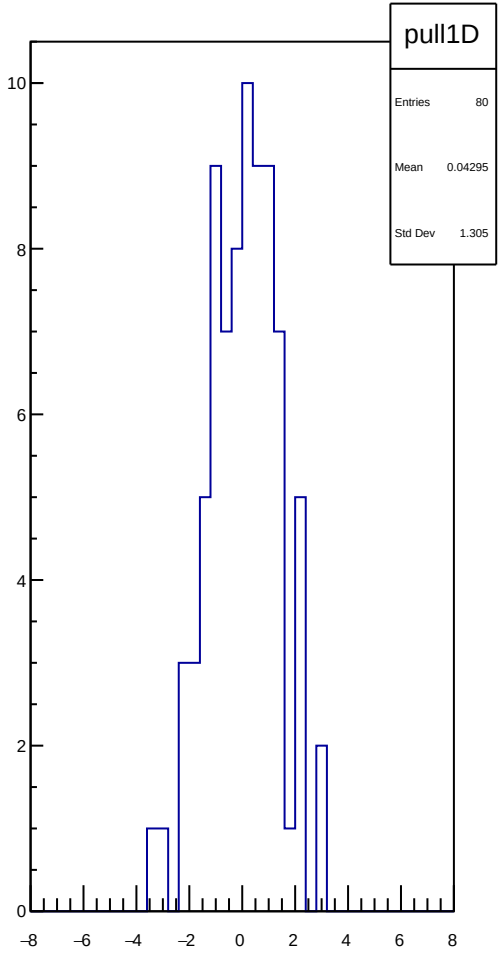

diff_bpm0i02Y_rms vs run
χ² / ndf 2058 / 79
p0 1516 ± 1.213
1600
1550
1500
1450
1400
1350

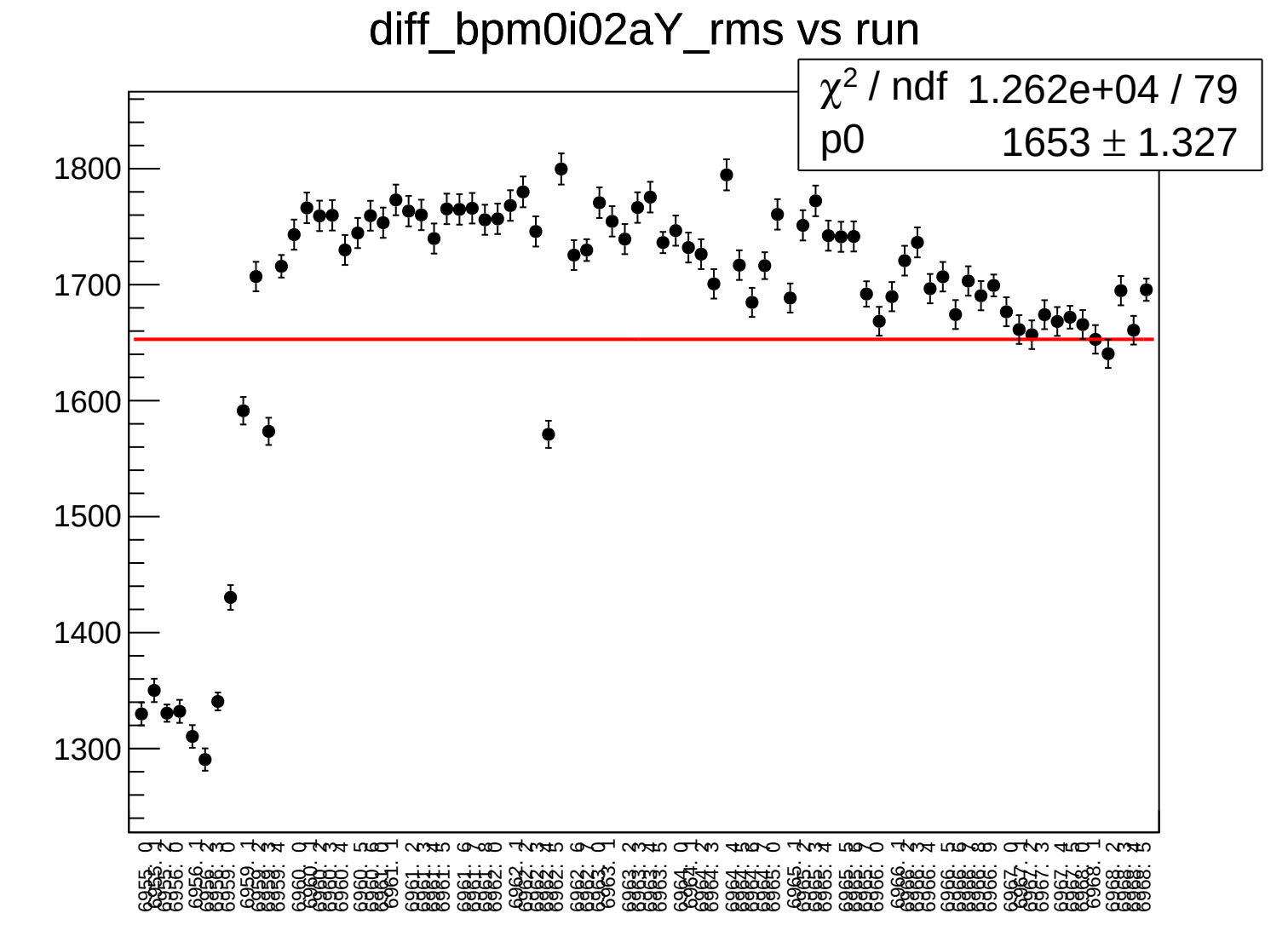

diff_bpm0i02aX_mean vs run
χ² / ndf 165.5 / 79
p0 −51.79 ± 2.167
pull
Entries 80
Mean −427.7
Std Dev 471.7

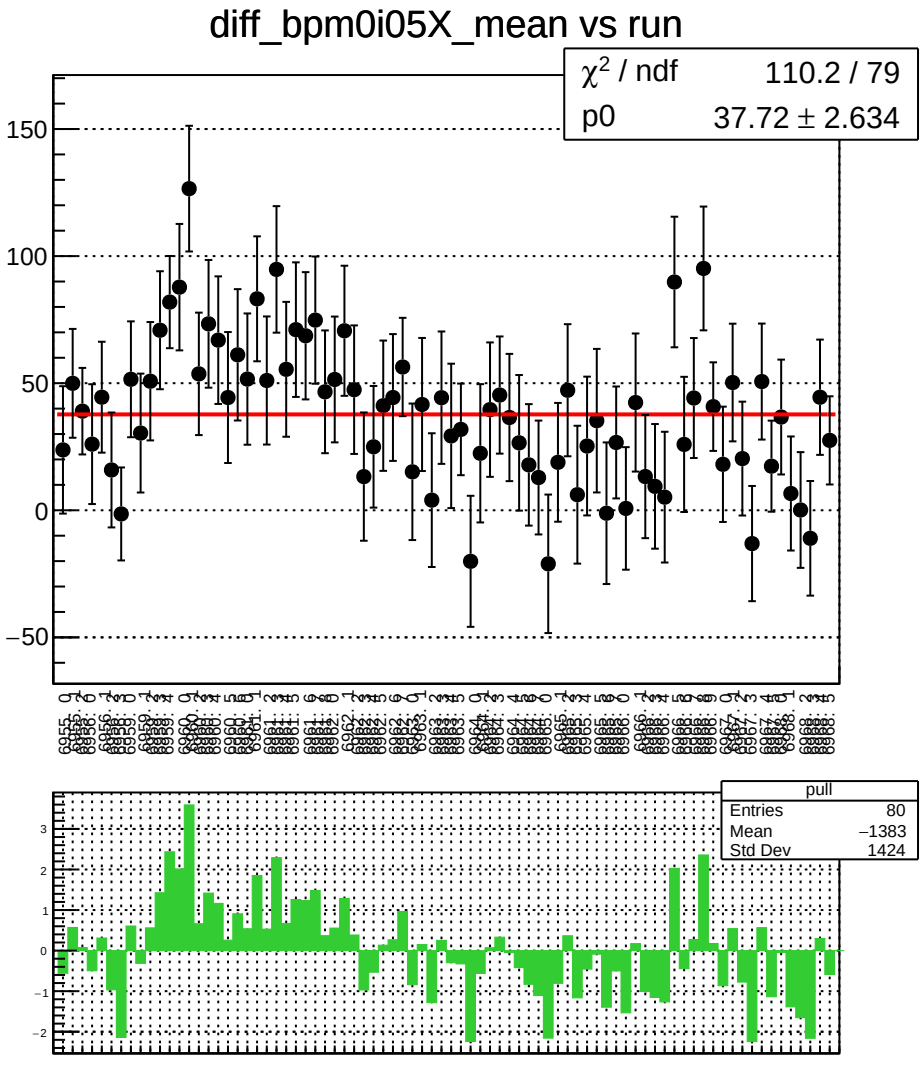

pull1D
Entries 80
Mean −0.0328
Std Dev 1.438

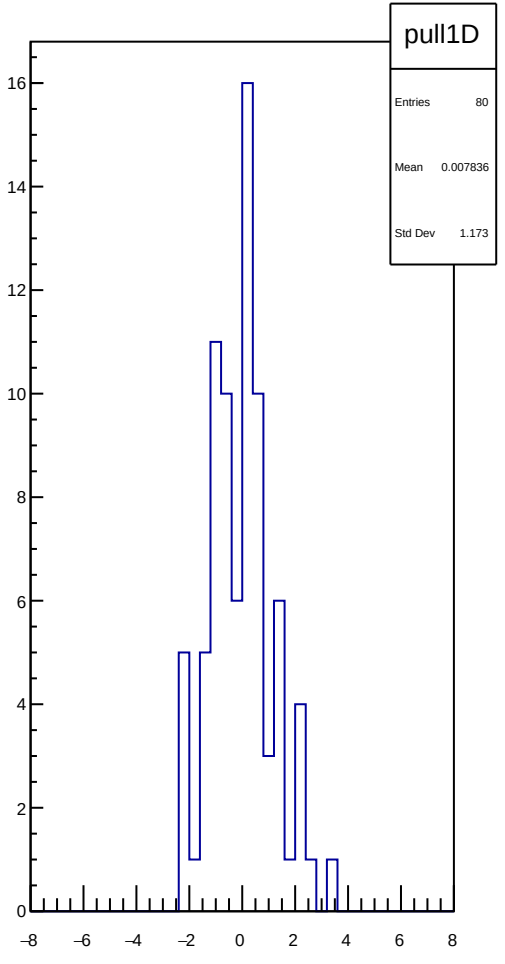

diff_bpm0i02aX_rms vs run
χ² / ndf 3995 / 79
p0 1913 ± 1.532
2050
2000
1950
1900
1850
1800
1750
1700
1650

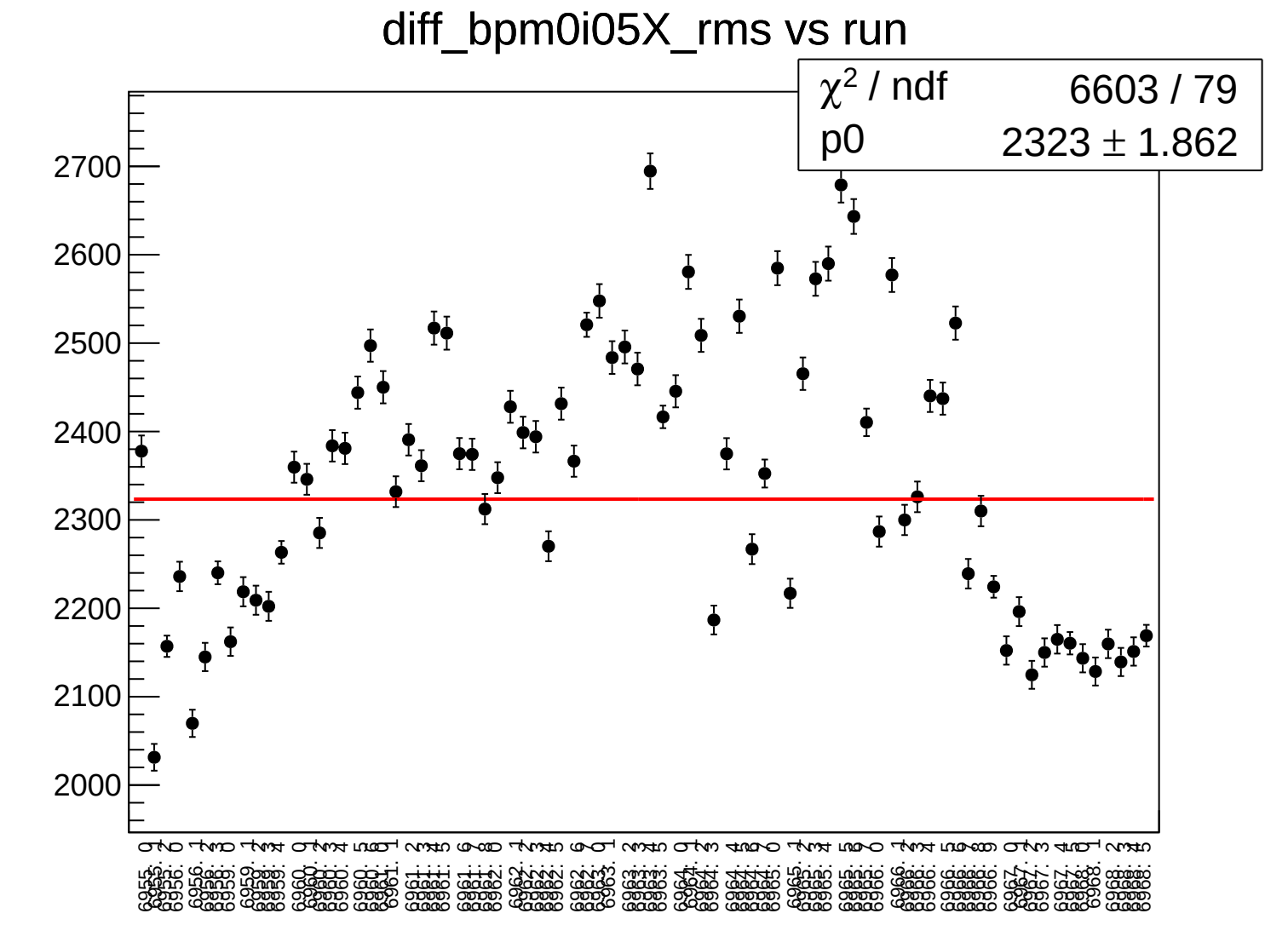

diff_bpm0i02aY_mean vs run
χ² / ndf 136.4 / 79
p0 15.39 ± 1.877
pull
Entries 80
Mean 230.1
Std Dev 199.2

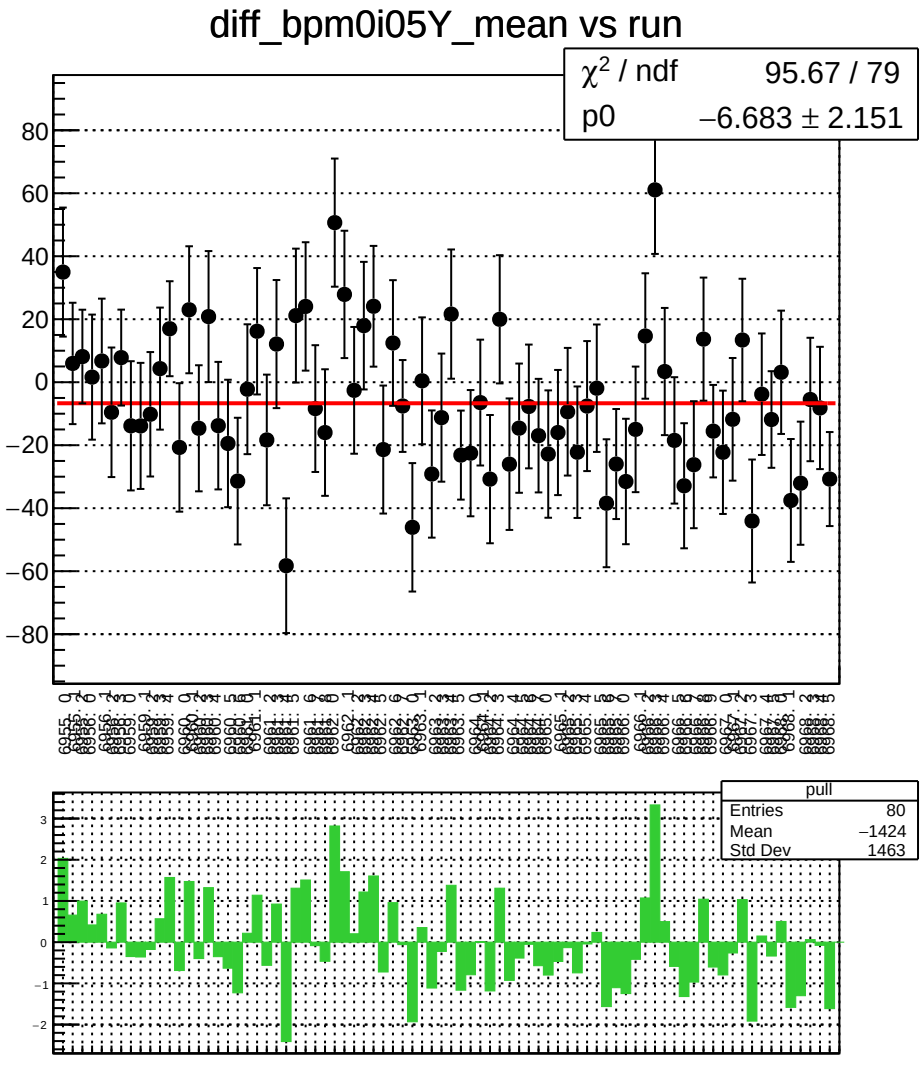

pull1D
Entries 80
Mean 0.04295
Std Dev 1.305

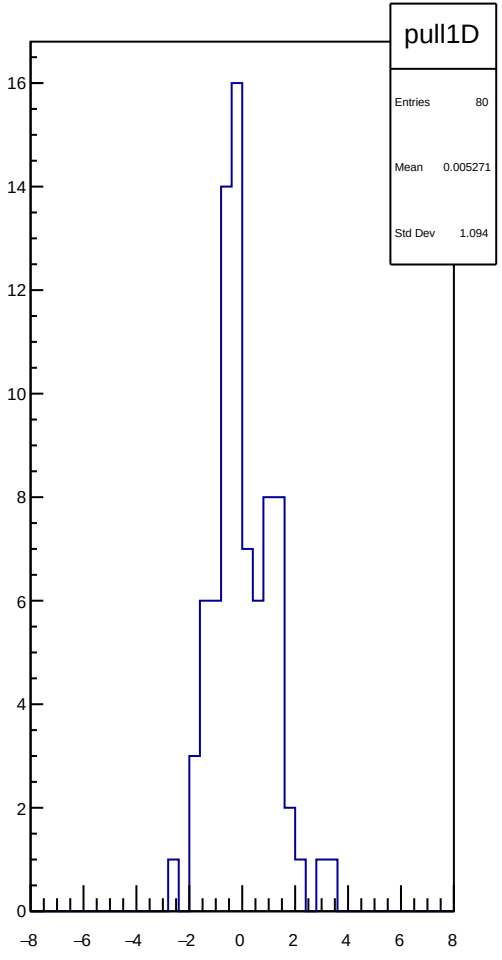

diff_bpm0i02aY_rms vs run
χ² / ndf 1.262e+04 / 79
p0 1653 ± 1.327
1800
1700
1600
1500
1400
1300

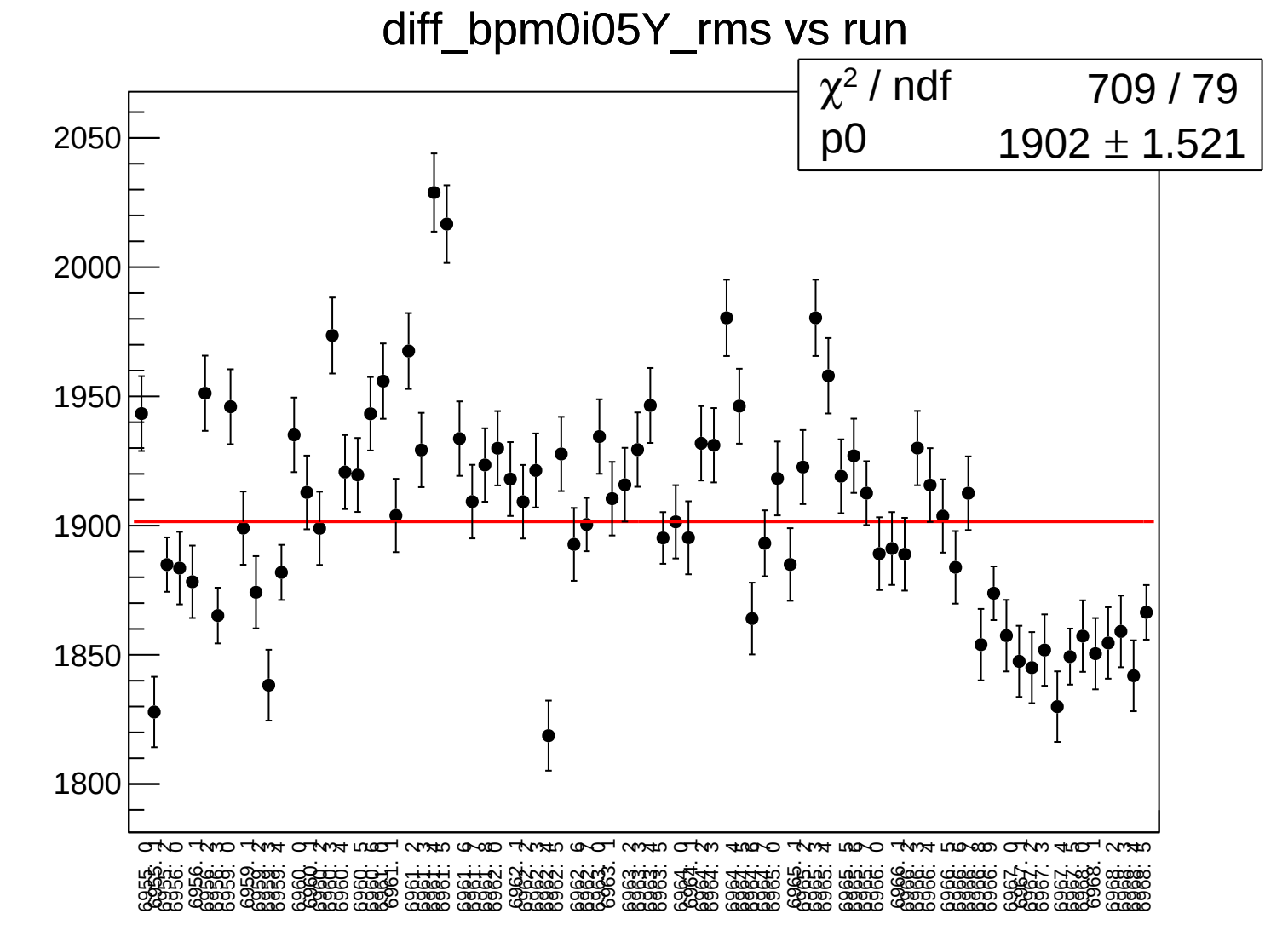

diff_bpm0i05X_mean vs run
χ^2 / ndf 110.2 / 79
p0 37.72 ± 2.634
150
100
50
0
−50
pull
Entries 80
Mean −1383
Std Dev 1424
3
2
1
0
−1
−2

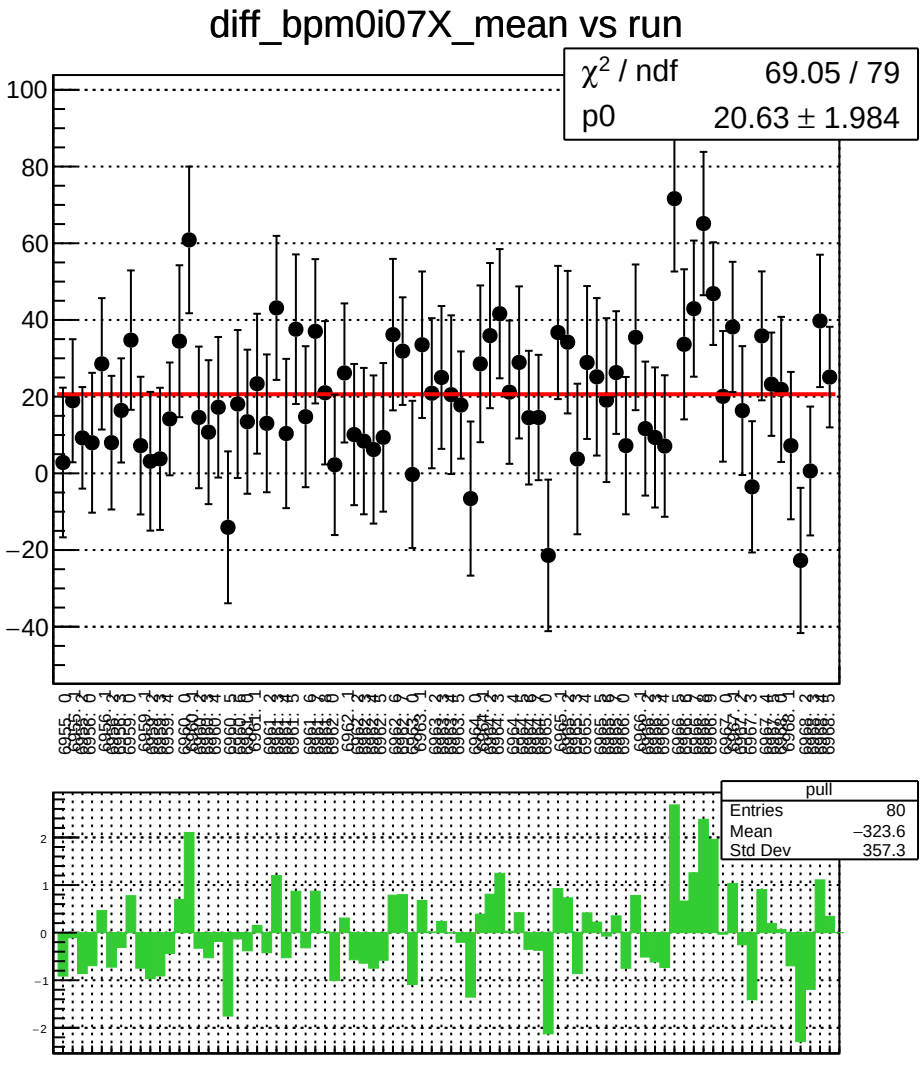

pull1D
Entries 80
Mean 0.007836
Std Dev 1.173
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

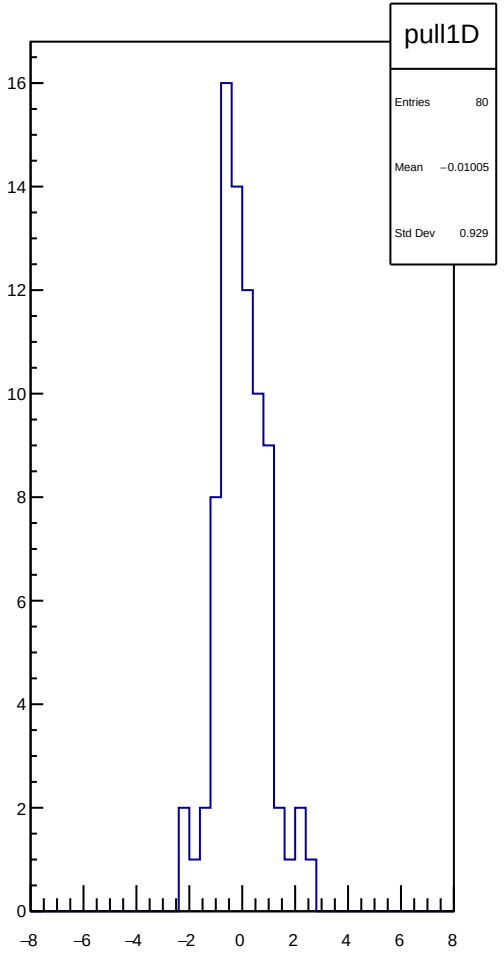

diff_bpm0i05X_rms vs run
χ^2 / ndf 6603 / 79
p0 2323 ± 1.862
2700
2600
2500
2400
2300
2200
2100
2000

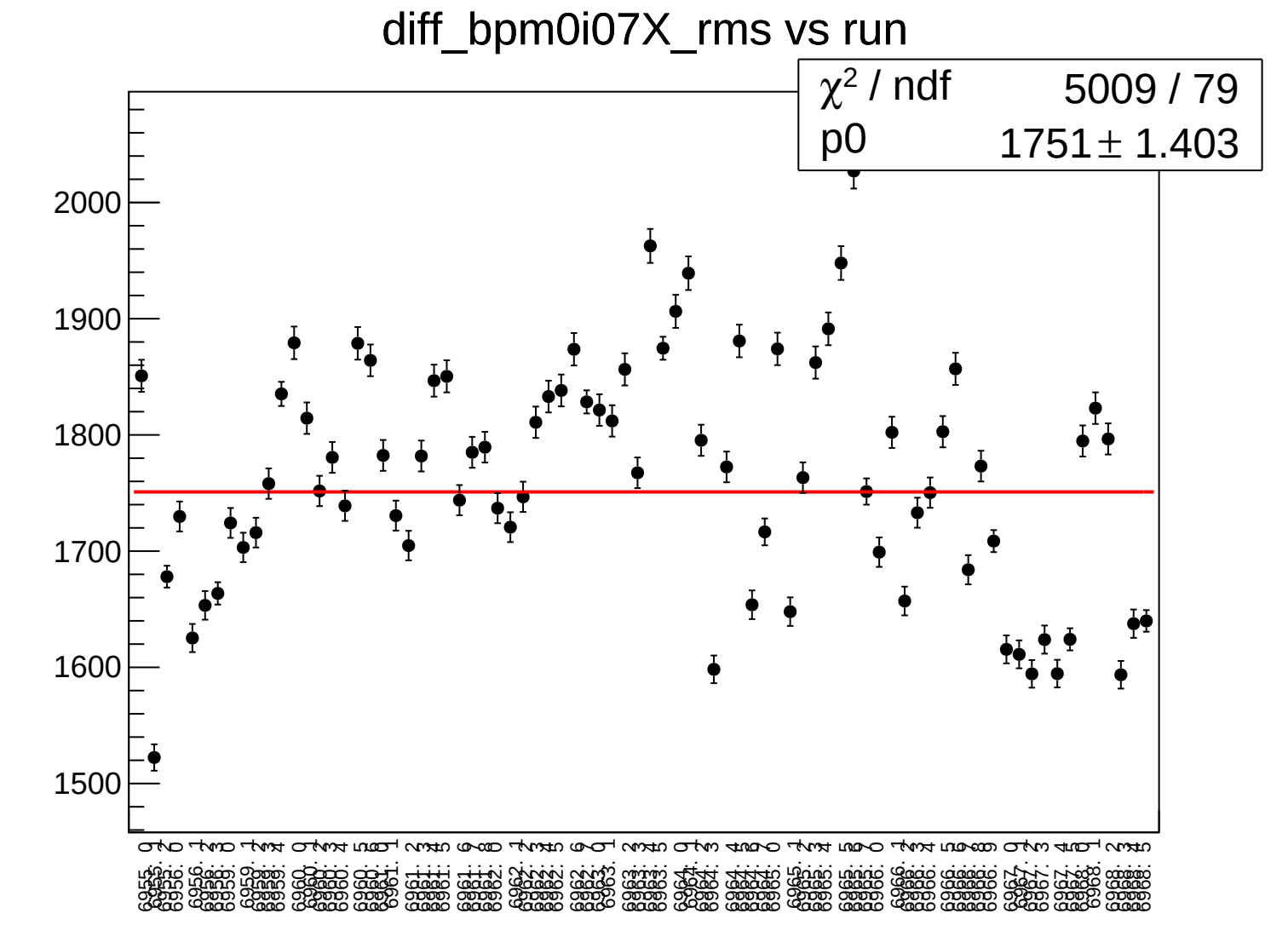

diff_bpm0i05Y_mean vs run
χ^2 / ndf 95.67 / 79
p0 −6.683 ± 2.151
pull
Entries 80
Mean −1424
Std Dev 1463

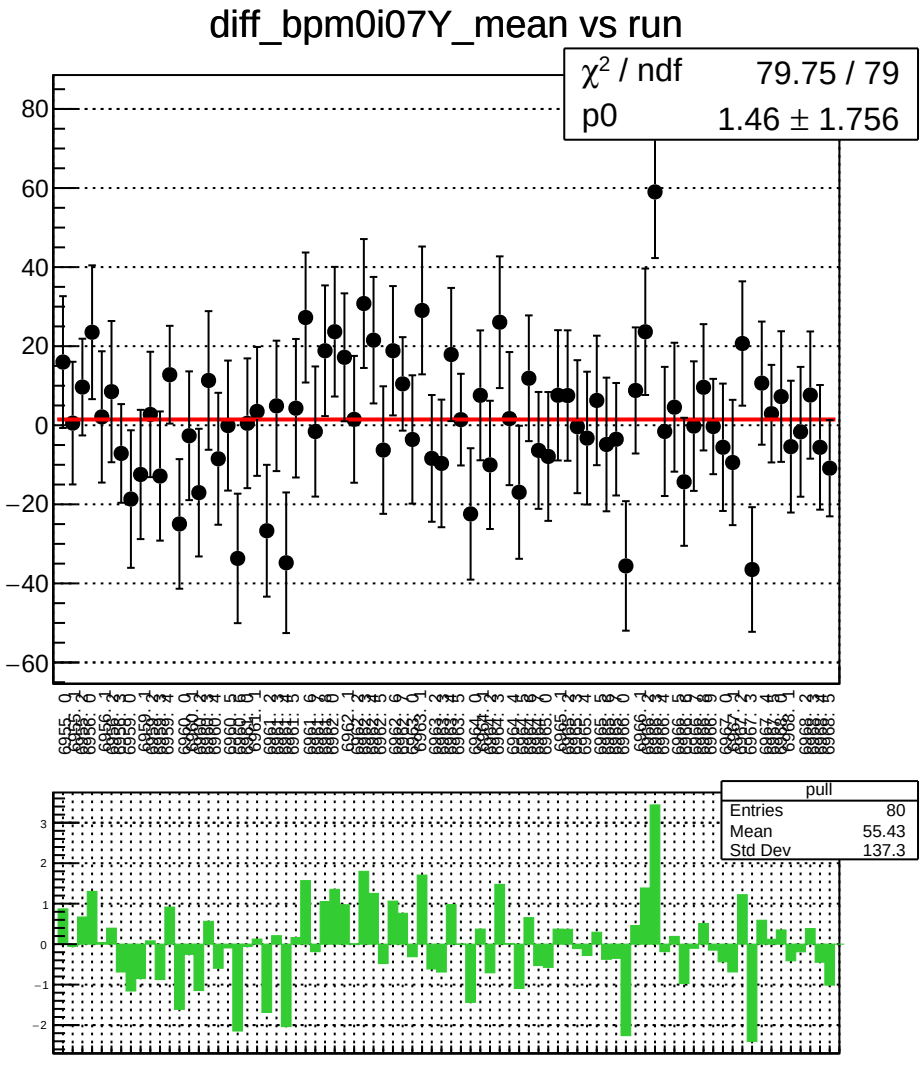

pull1D
Entries 80
Mean 0.005271
Std Dev 1.094

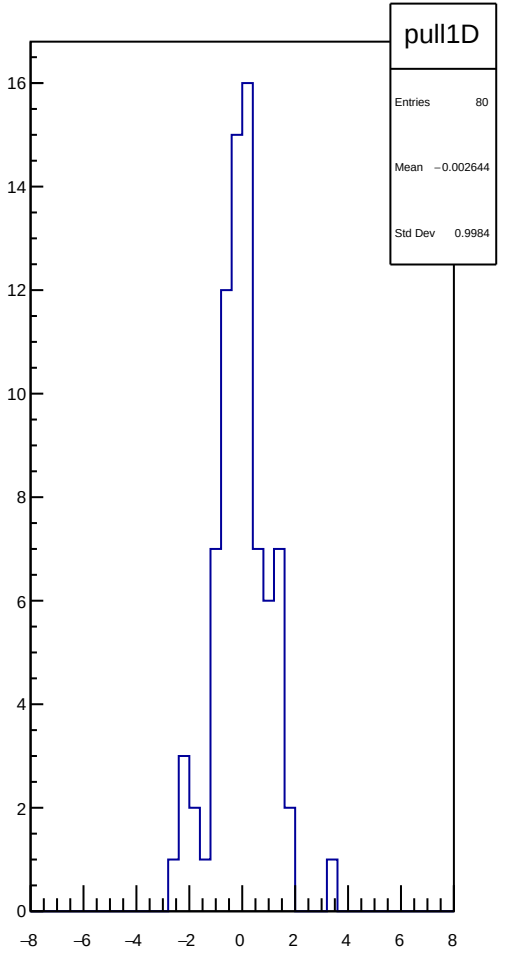

diff_bpm0i05Y_rms vs run
χ² / ndf 709 / 79
p0 1902 ± 1.521
2050
2000
1950
1900
1850
1800

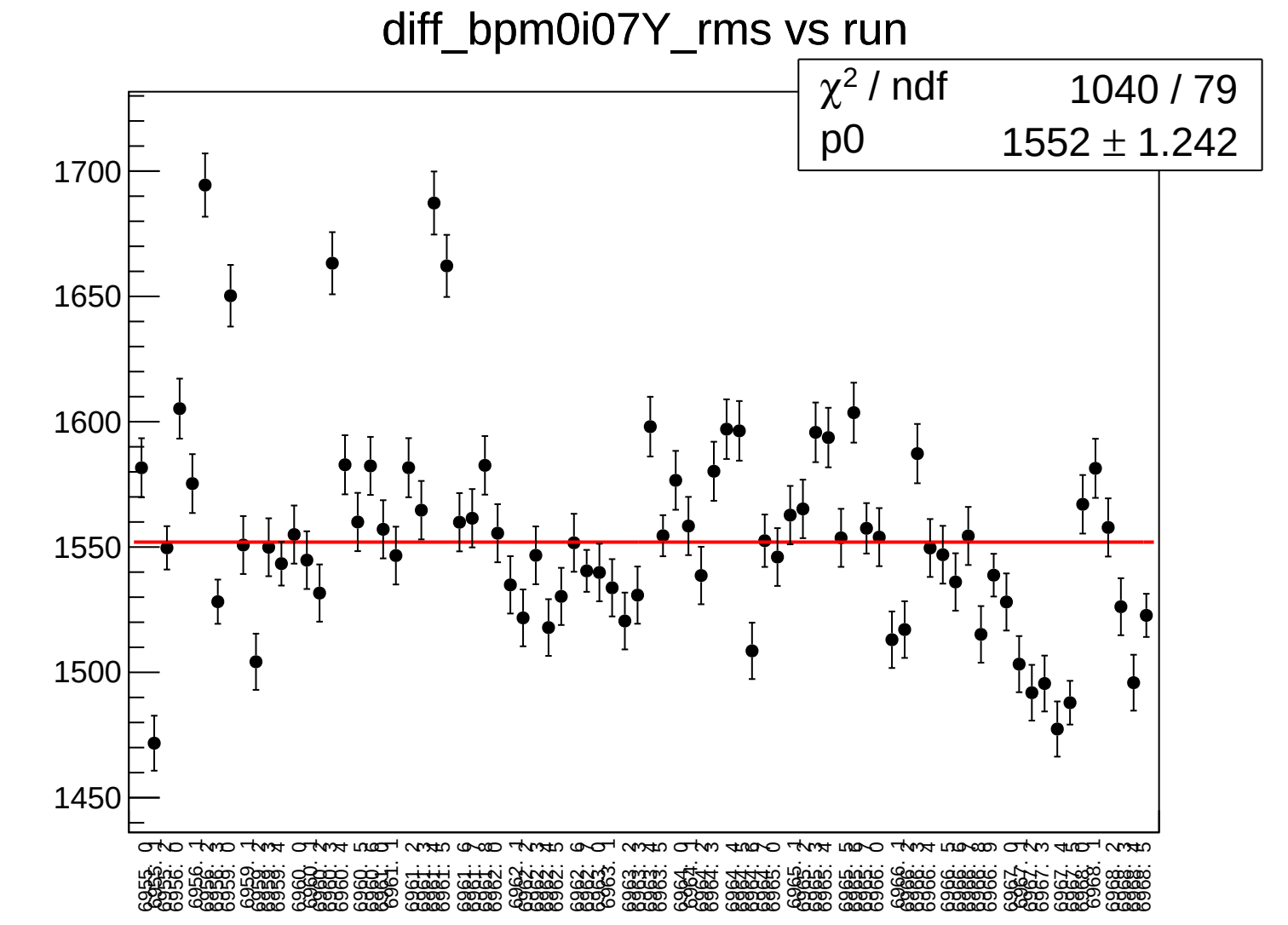

diff_bpm0i07X_mean vs run
χ^2 / ndf 69.05 / 79
p0 20.63 ± 1.984
pull
Entries 80
Mean −323.6
Std Dev 357.3

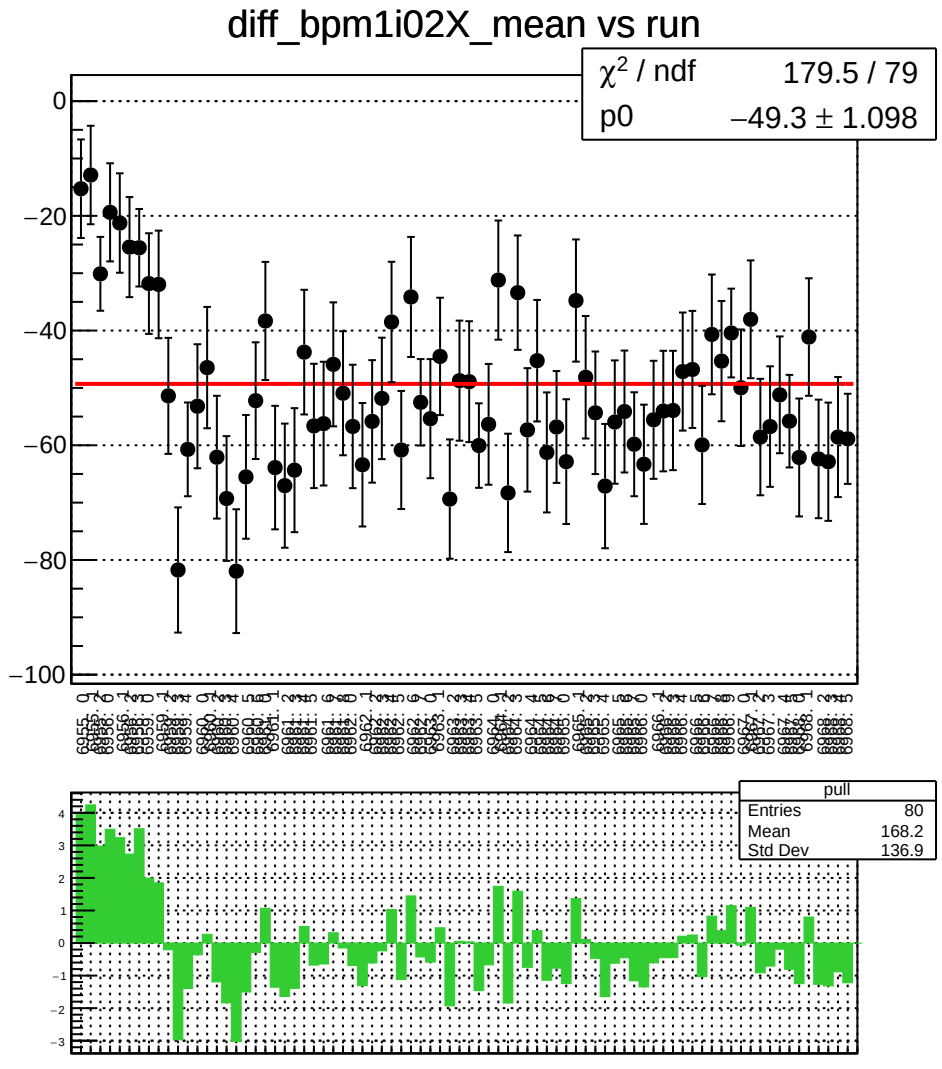

pull1D
Entries 80
Mean −0.01005
Std Dev 0.929

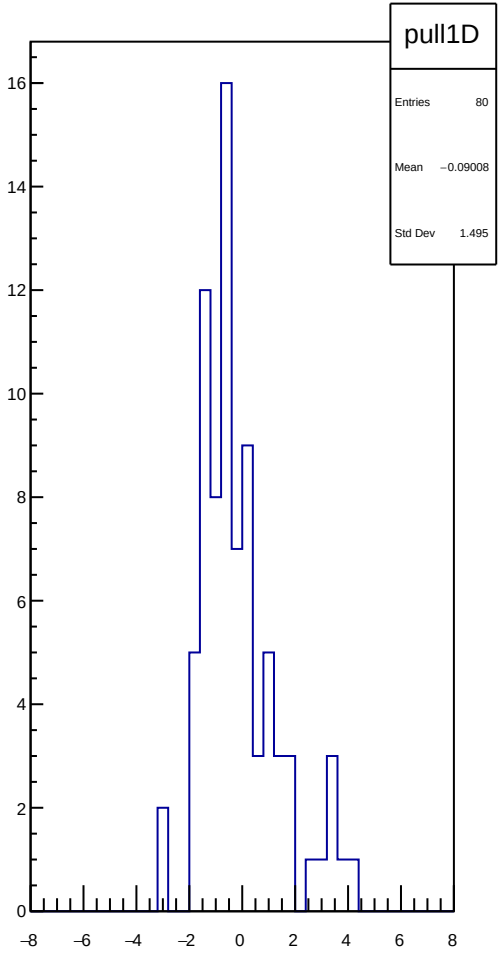

diff_bpm0i07X_rms vs run
χ² / ndf 5009 / 79
p0 1751 ± 1.403
2000
1900
1800
1700
1600
1500

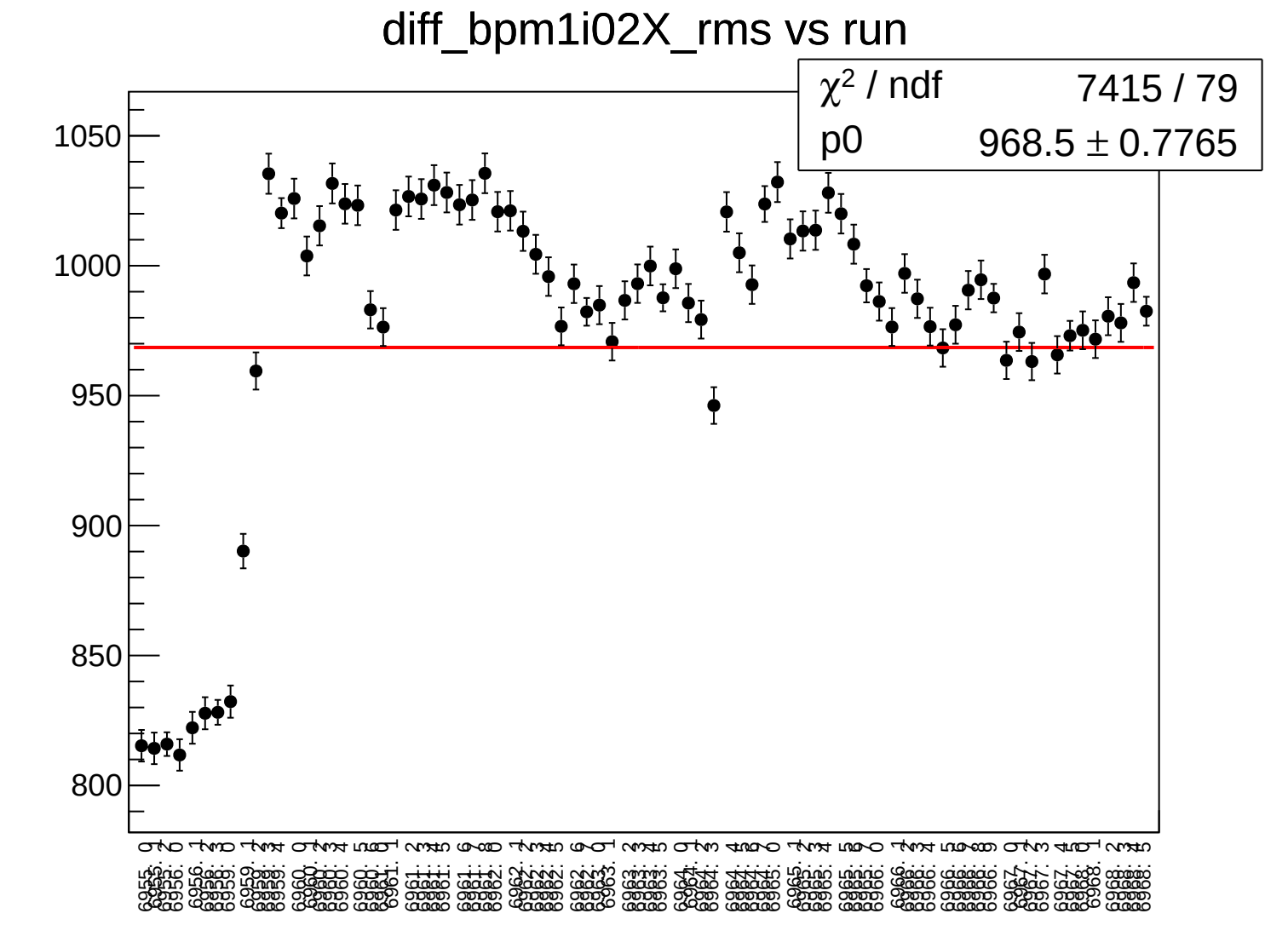

diff_bpm0i07Y_mean vs run
χ² / ndf 79.75 / 79
p0 1.46 ± 1.756
pull
Entries 80
Mean 55.43
Std Dev 137.3

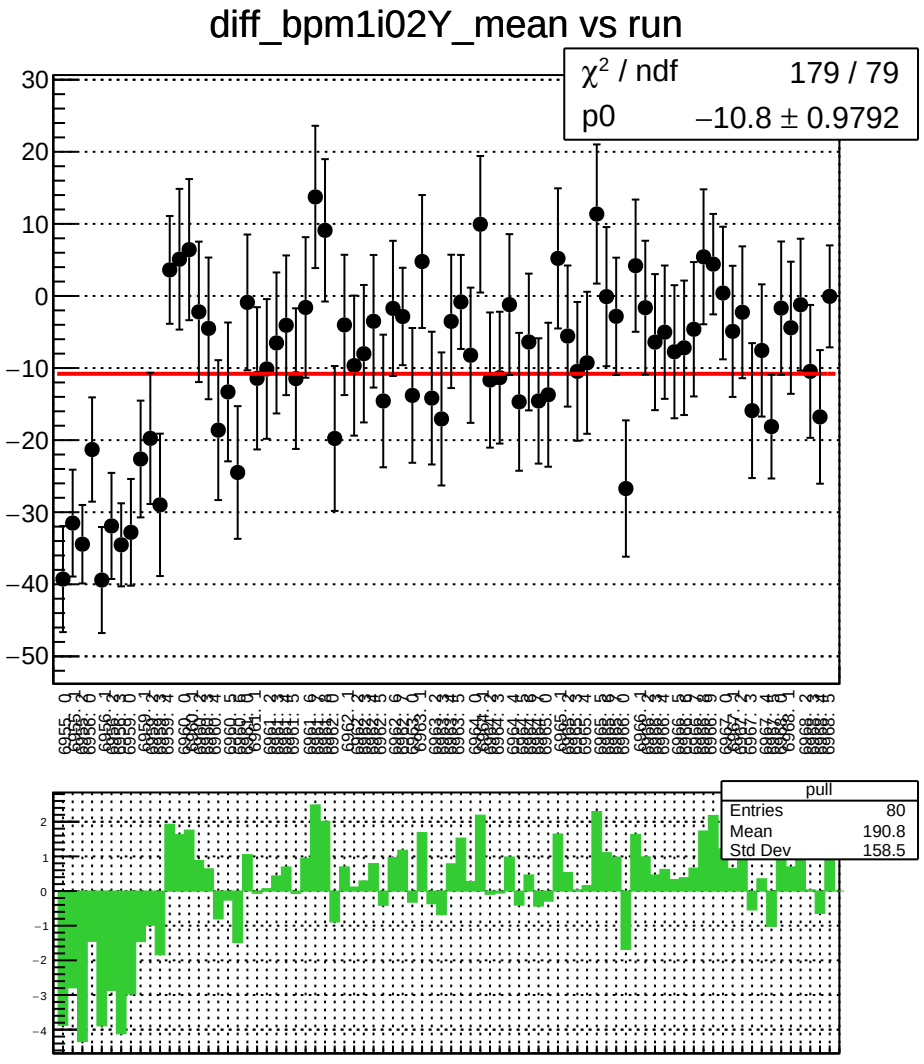

pull1D
Entries 80
Mean −0.002644
Std Dev 0.9984

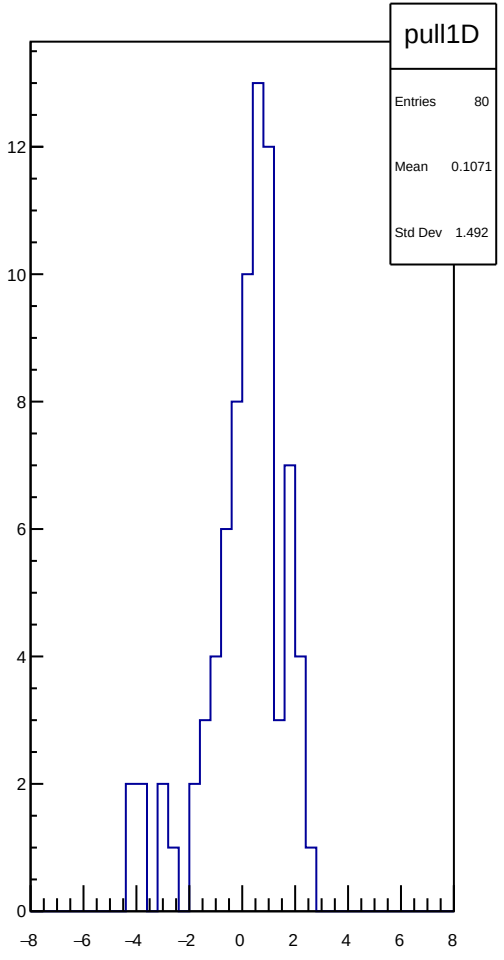

diff_bpm0i07Y_rms vs run
χ² / ndf 1040 / 79
p0 1552 ± 1.242
1700
1650
1600
1550
1500
1450

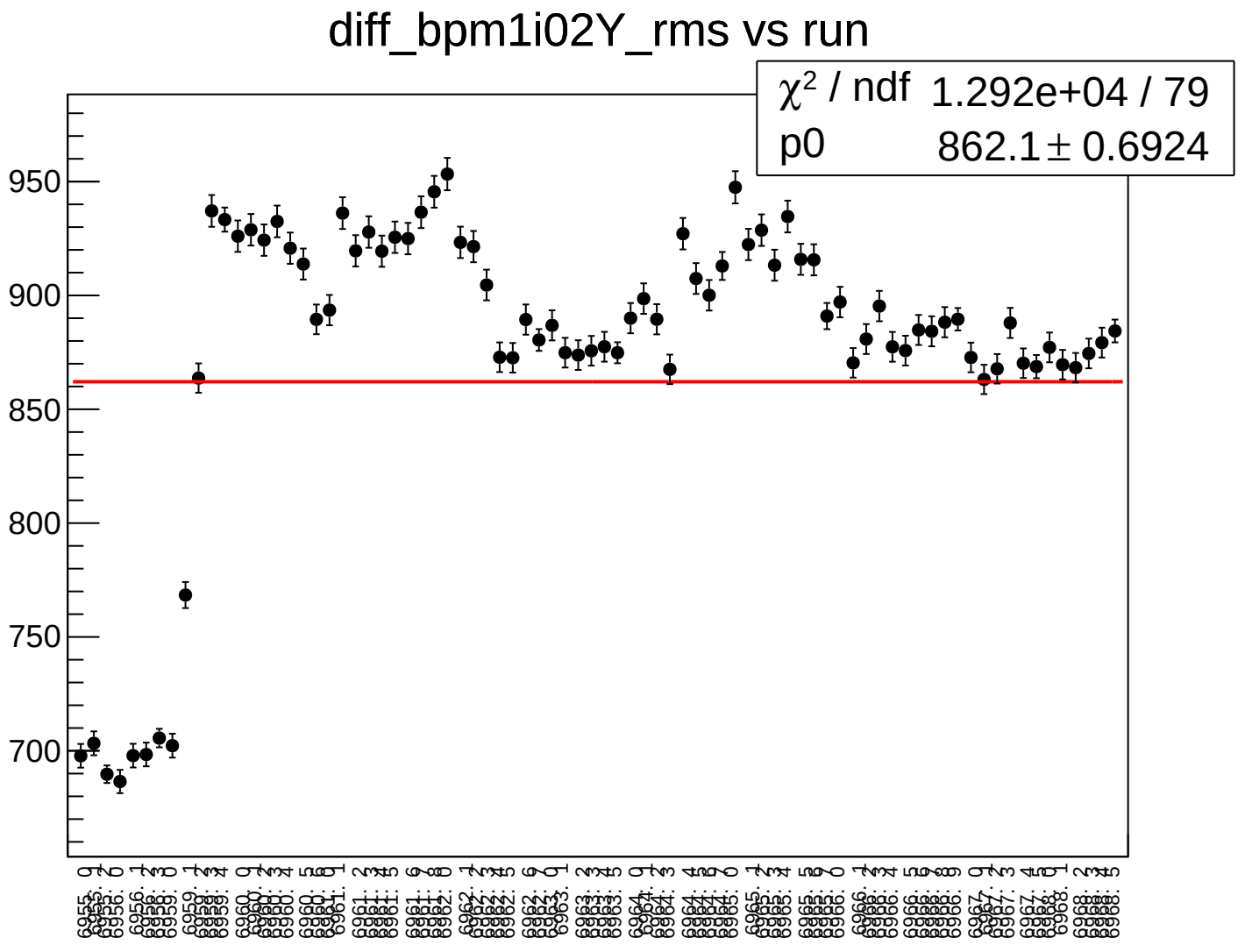

diff_bpm1i02X_mean vs run
χ² / ndf 179.5 / 79
p0 −49.3 ± 1.098
pull
Entries 80
Mean 168.2
Std Dev 136.9

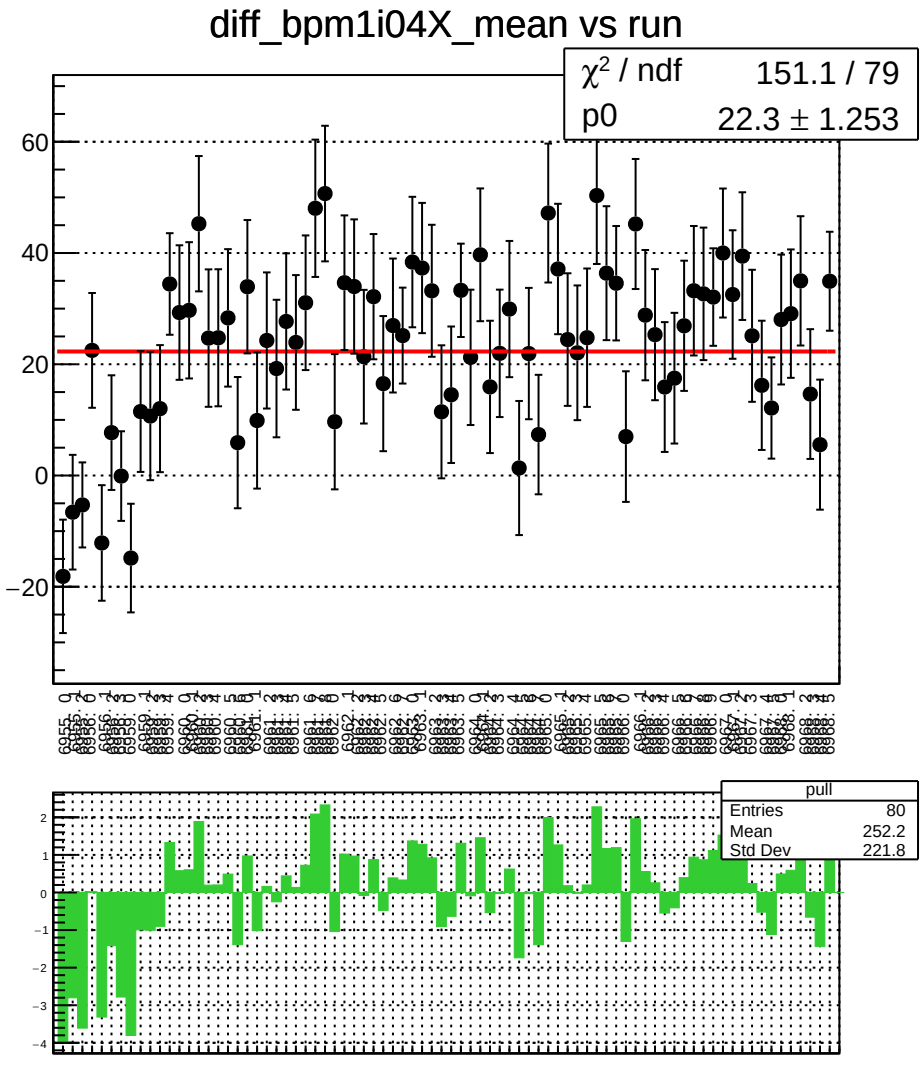

pull1D
Entries 80
Mean −0.09008
Std Dev 1.495

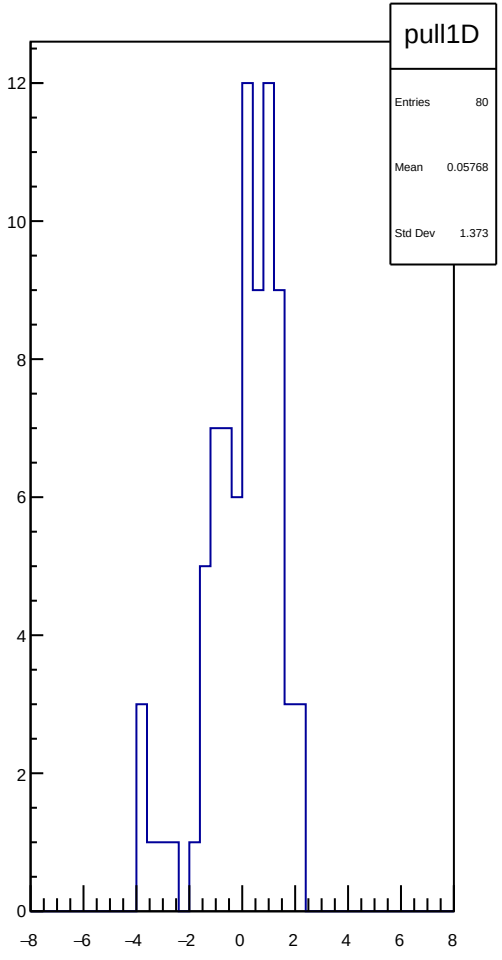

diff_bpm1i02X_rms vs run
χ² / ndf 7415 / 79
p0 968.5 ± 0.7765
1050
1000
950
900
850
800

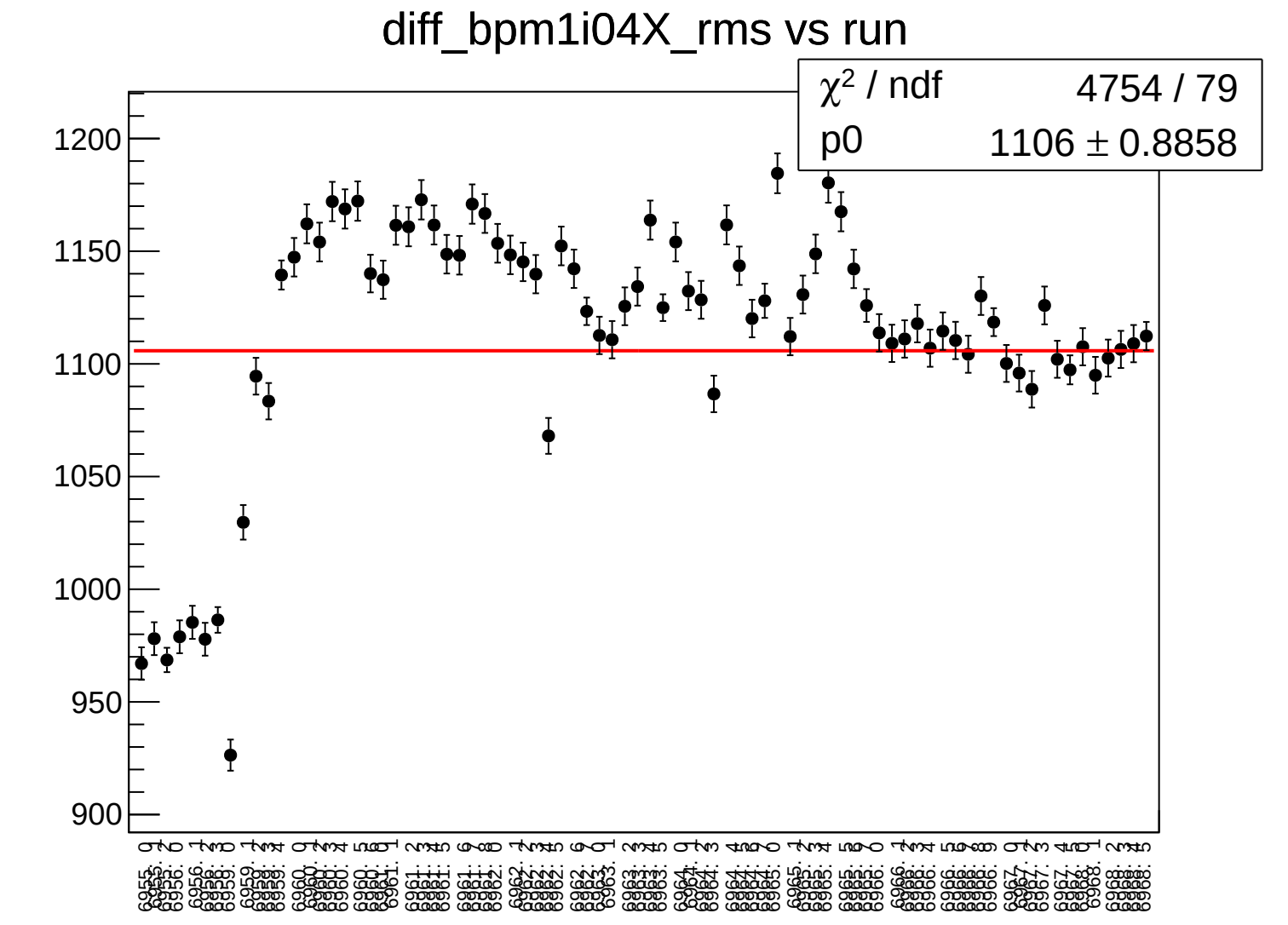

diff_bpm1i02Y_mean vs run
χ² / ndf 179 / 79
p0 −10.8 ± 0.9792
pull
Entries 80
Mean 190.8
Std Dev 158.5

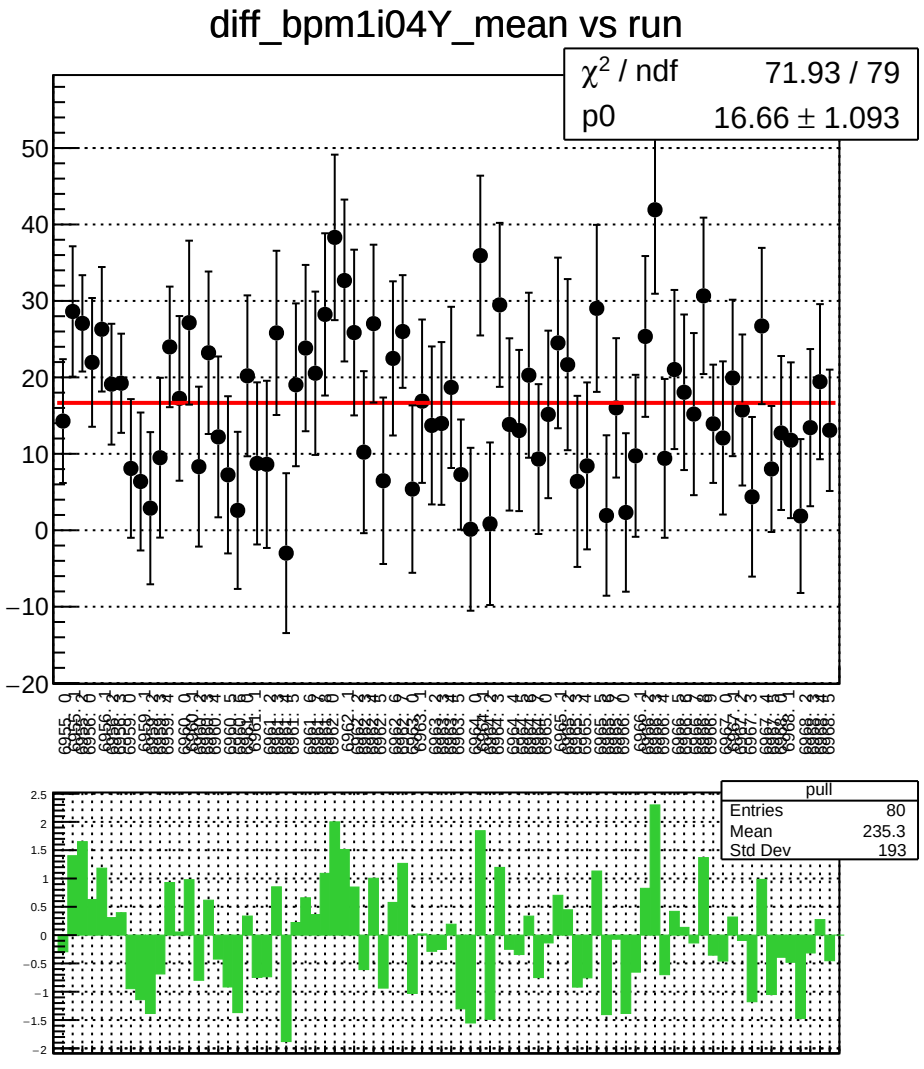

pull1D
Entries 80
Mean 0.1071
Std Dev 1.492

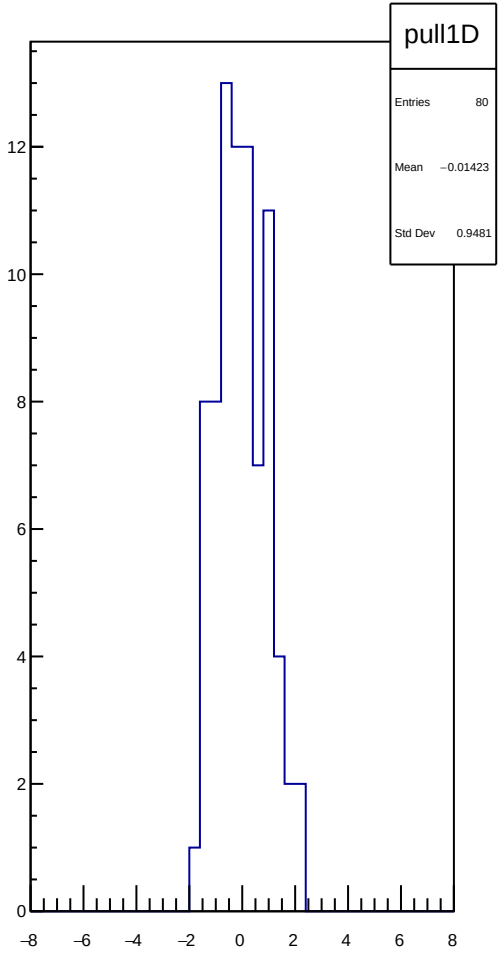

diff_bpm1i02Y_rms vs run
χ² / ndf 1.292e+04 / 79
p0 862.1 ± 0.6924
950
900
850
800
750
700

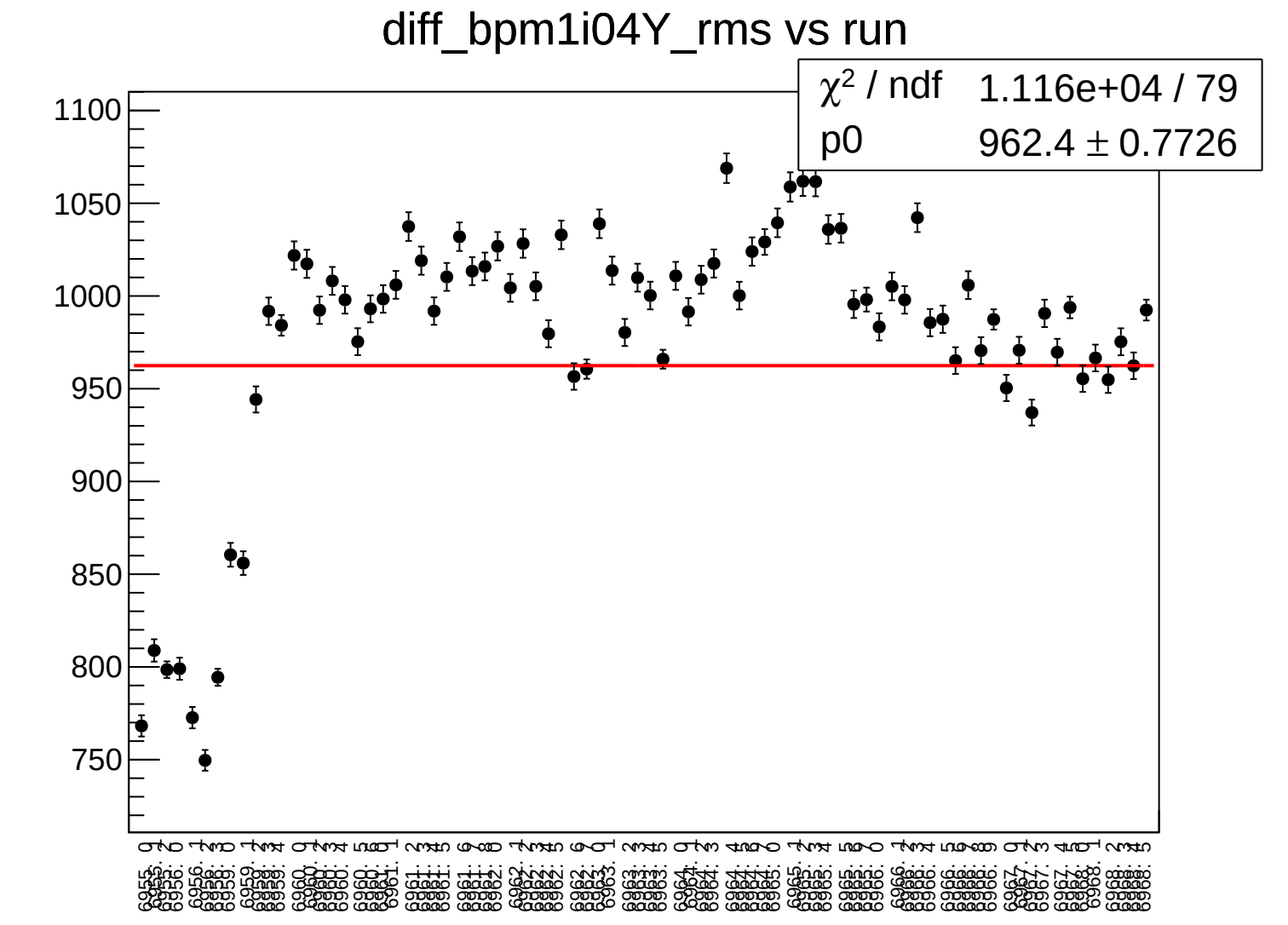

diff_bpm1i04X_mean vs run
χ² / ndf 151.1 / 79
p0 22.3 ± 1.253
pull
Entries 80
Mean 252.2
Std Dev 221.8

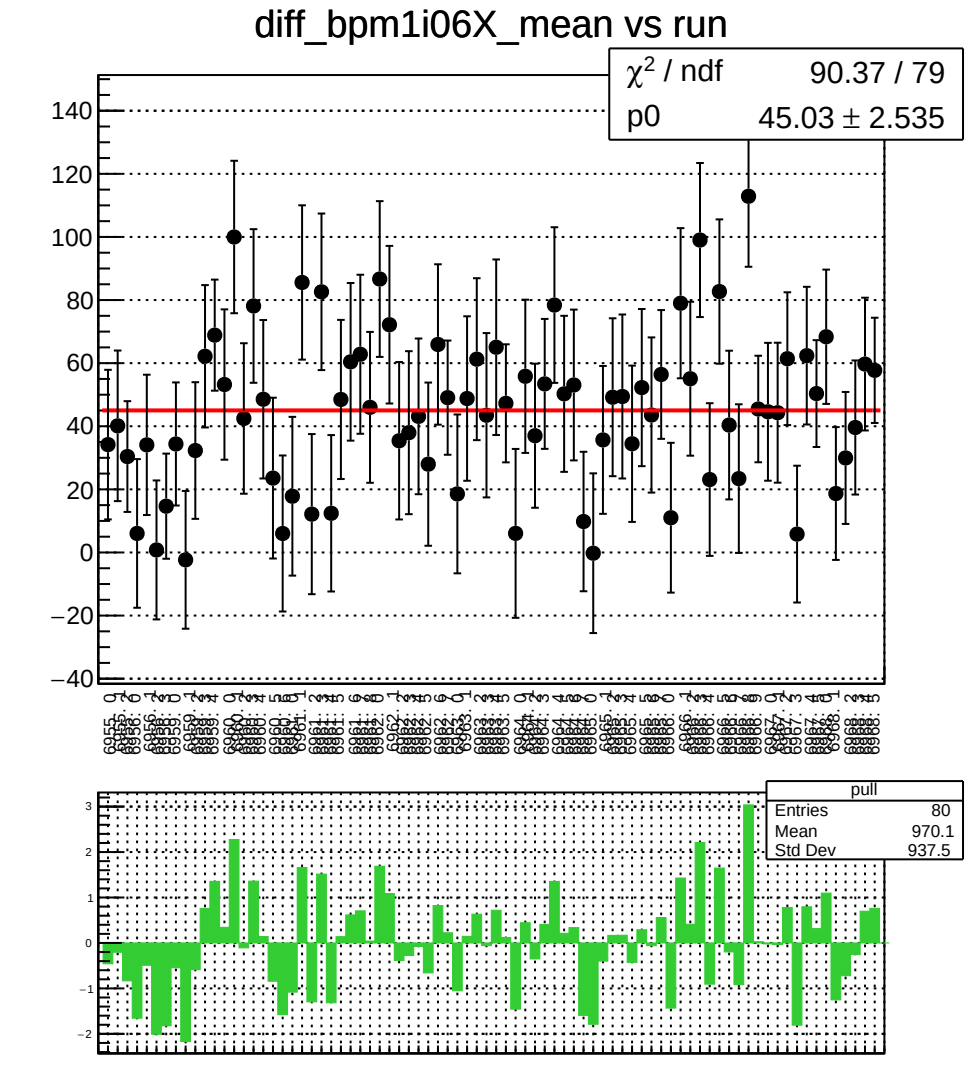

pull1D
Entries 80
Mean 0.05768
Std Dev 1.373

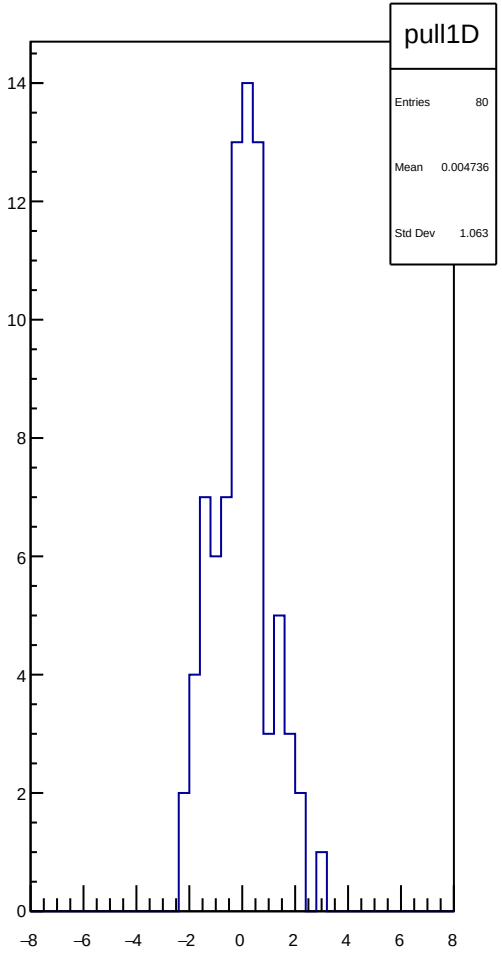

diff_bpm1i04X_rms vs run
χ² / ndf 4754 / 79
p0 1106 ± 0.8858
1200
1150
1100
1050
1000
950
900

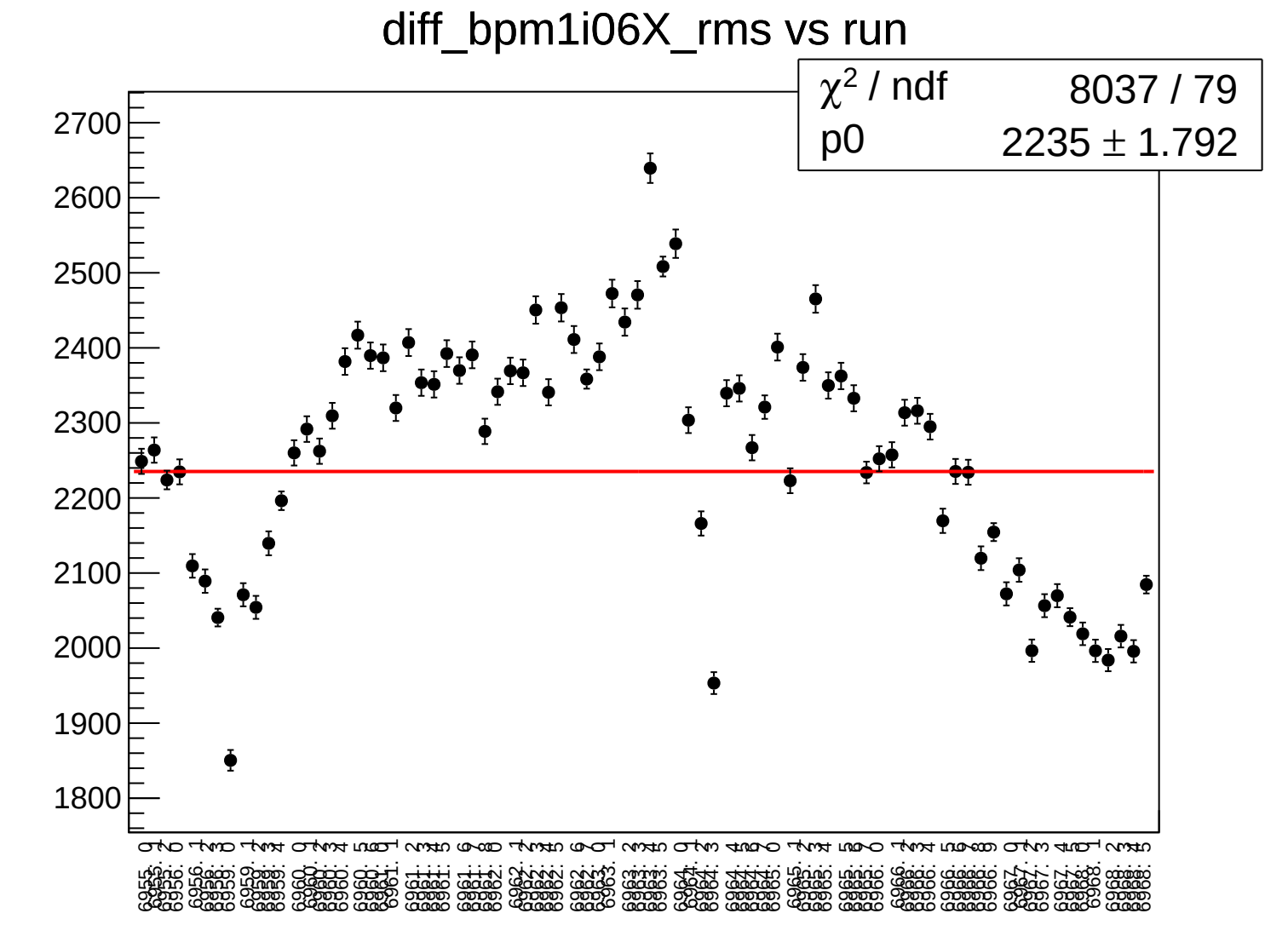

diff_bpm1i04Y_mean vs run
χ² / ndf 71.93 / 79
p0 16.66 ± 1.093
pull
Entries 80
Mean 235.3
Std Dev 193

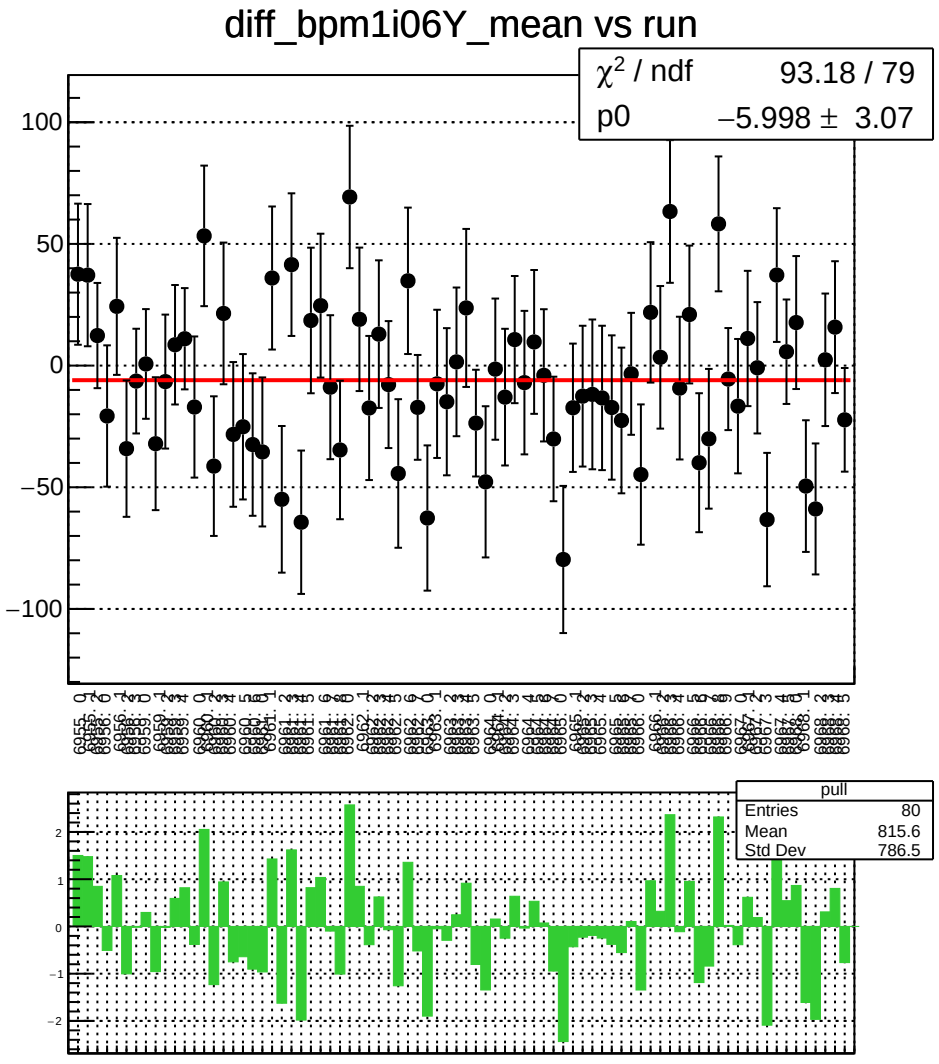

pull1D
Entries 80
Mean −0.01423
Std Dev 0.9481

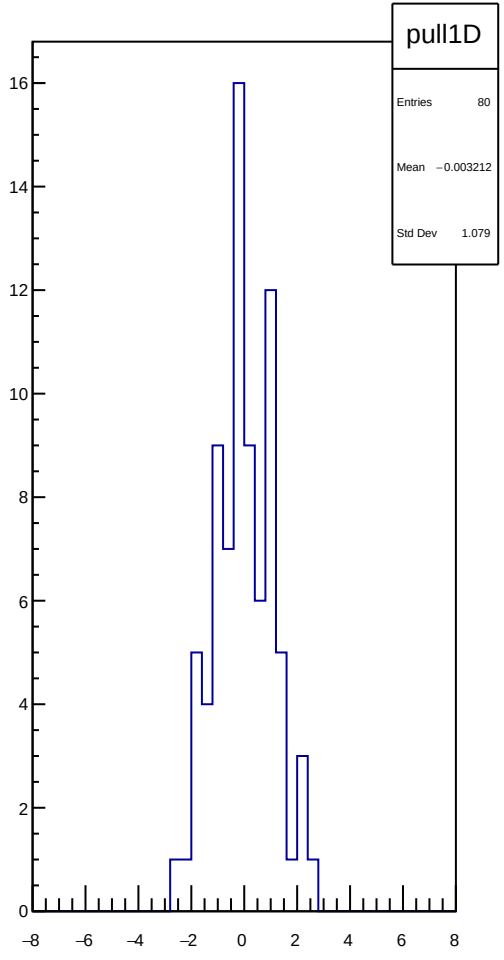

diff_bpm1i04Y_rms vs run
χ² / ndf 1.116e+04 / 79
p0 962.4 ± 0.7726
1100
1050
1000
950
900
850
800
750

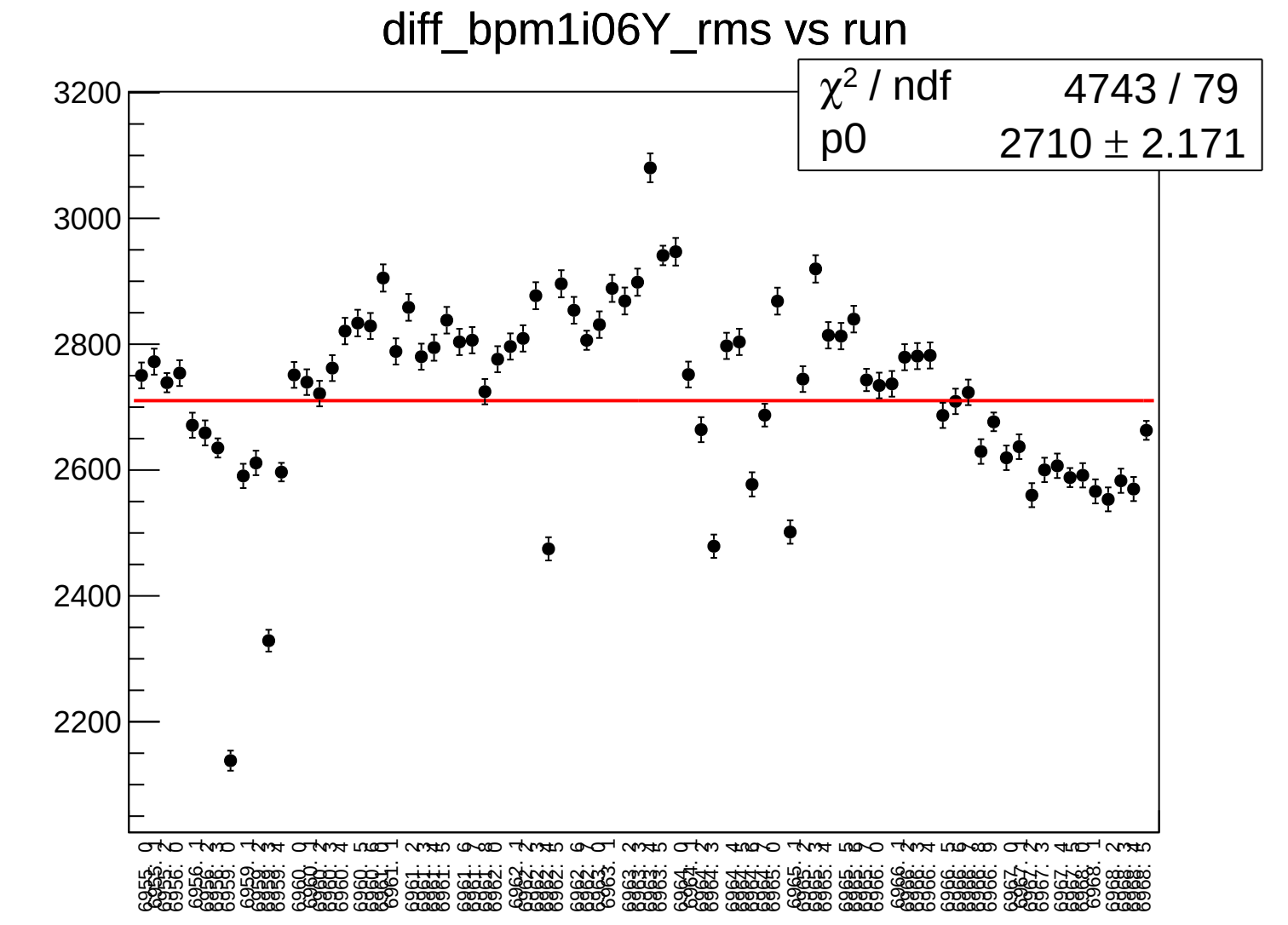

diff_bpm1i06X_mean vs run
χ² / ndf 90.37 / 79
p0 45.03 ± 2.535
pull
Entries 80
Mean 970.1
Std Dev 937.5

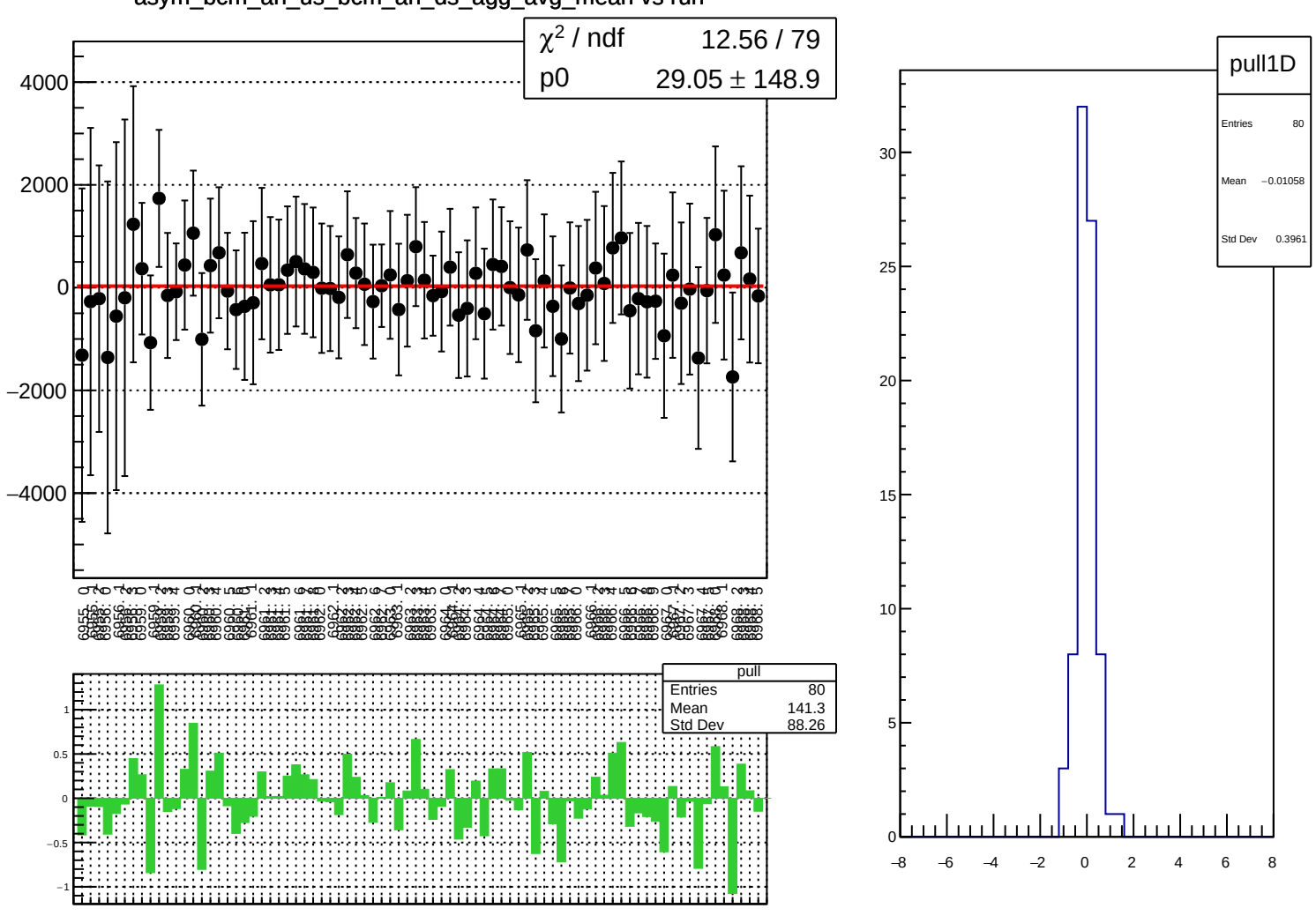

pull1D
Entries 80
Mean 0.004736
Std Dev 1.063

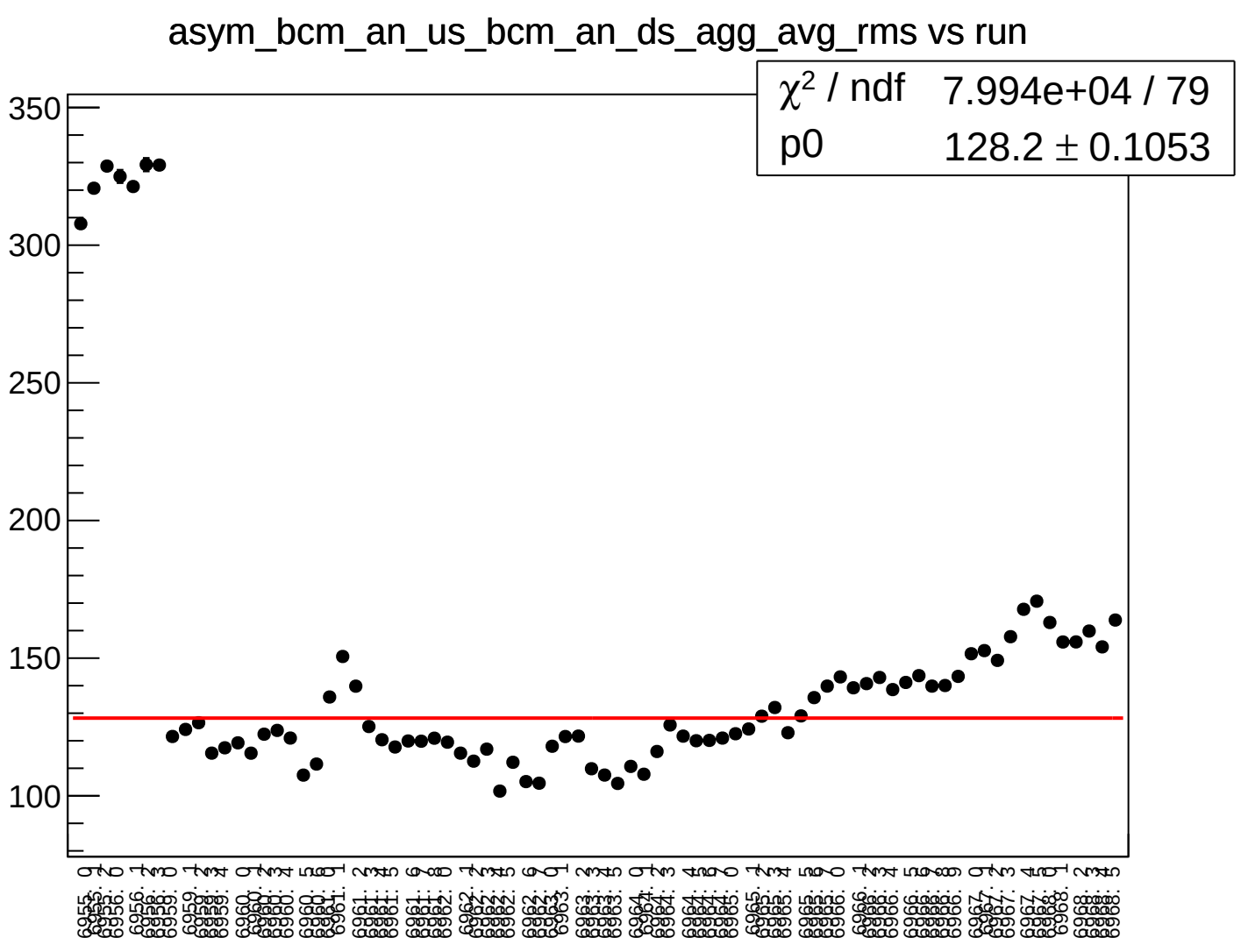

diff_bpm1i06X_rms vs run
χ² / ndf 8037 / 79
p0 2235 ± 1.792
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800

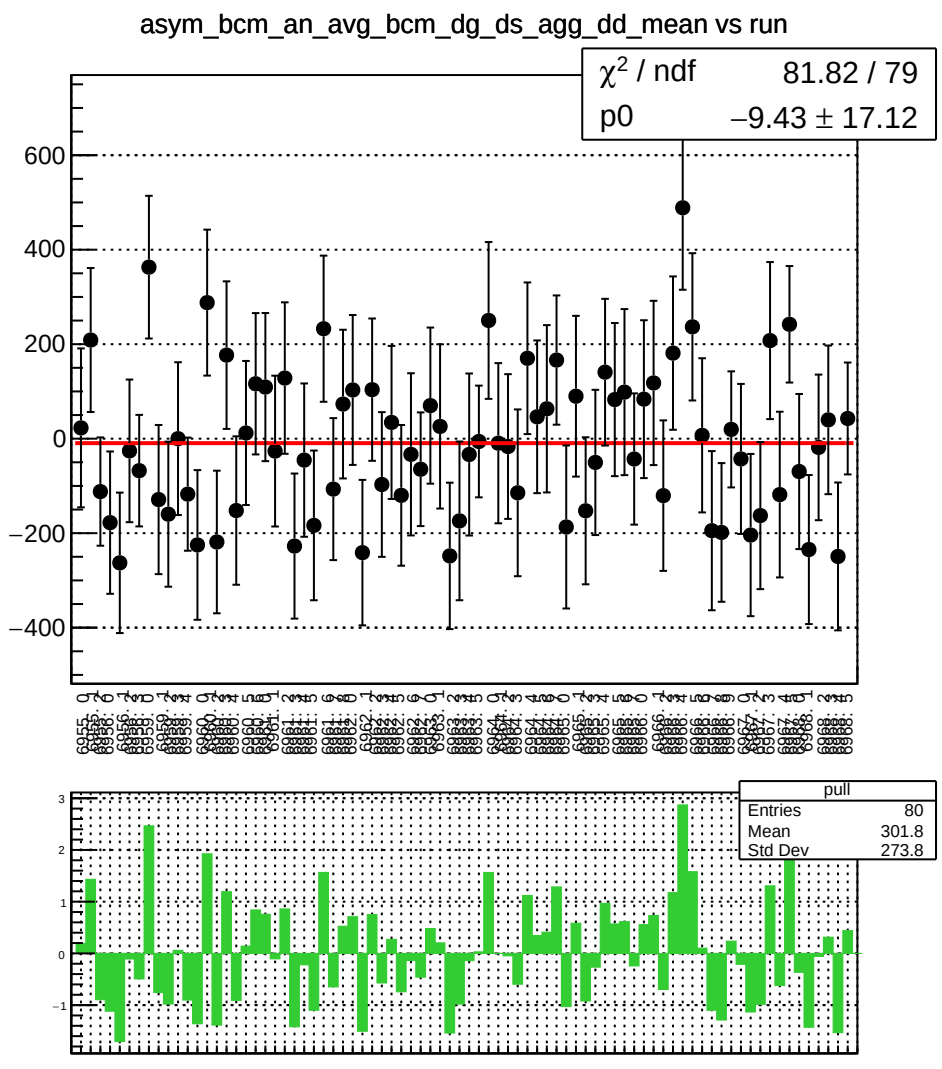

diff_bpm1i06Y_mean vs run
χ^2 / ndf 93.18 / 79
p0 −5.998 ± 3.07
100
50
0
−50
−100
pull
Entries 80
Mean 815.6
Std Dev 786.5
2
1
0
−1
−2

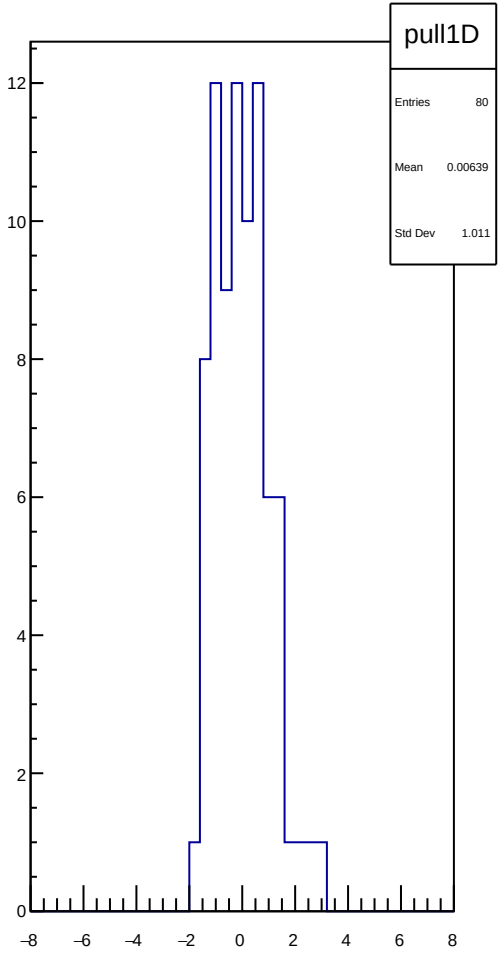

pull1D
Entries 80
Mean −0.003212
Std Dev 1.079
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

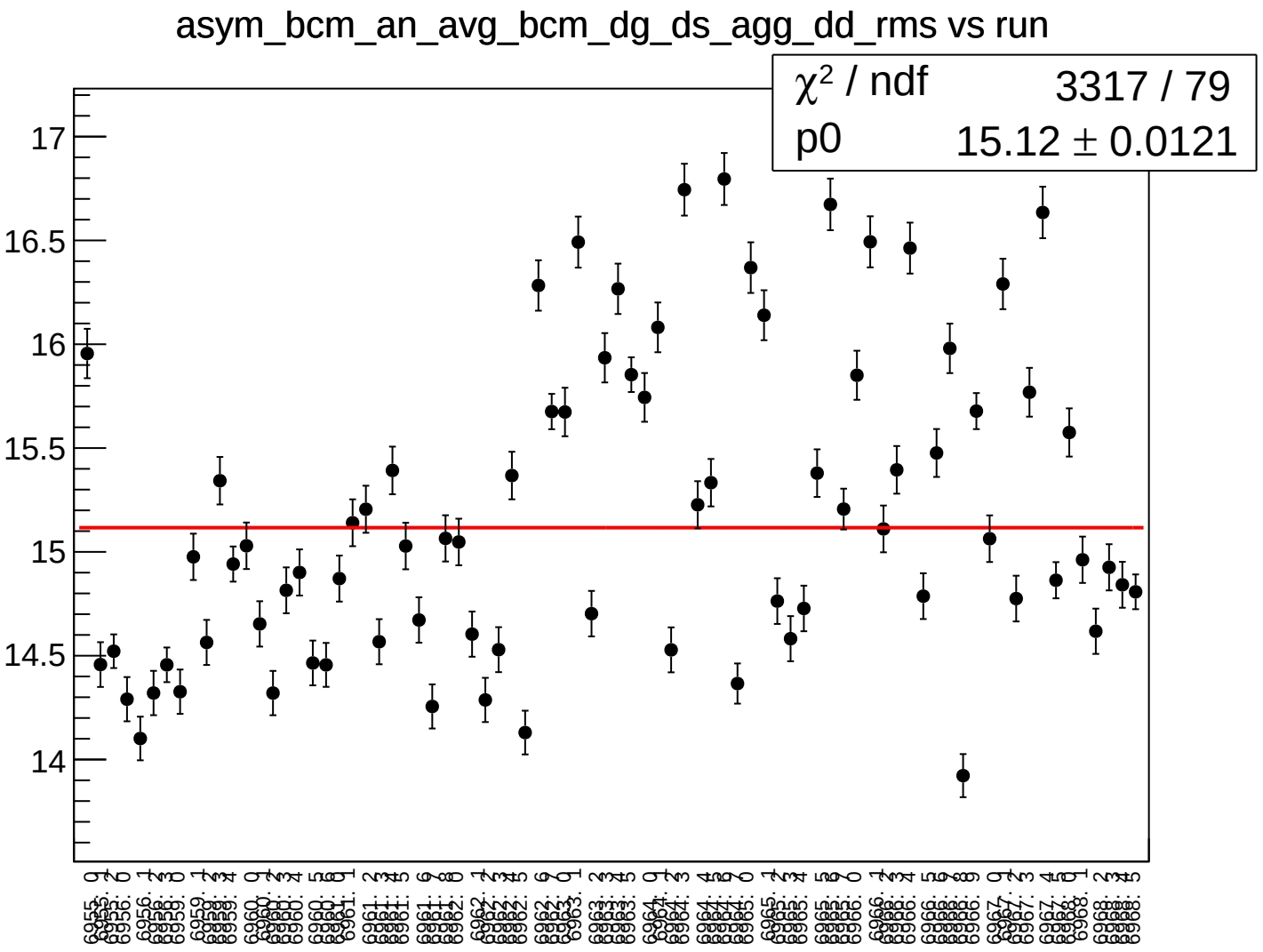

diff_bpm1i06Y_rms vs run
χ² / ndf 4743 / 79
p0 2710 ± 2.171
3200
3000
2800
2600
2400
2200

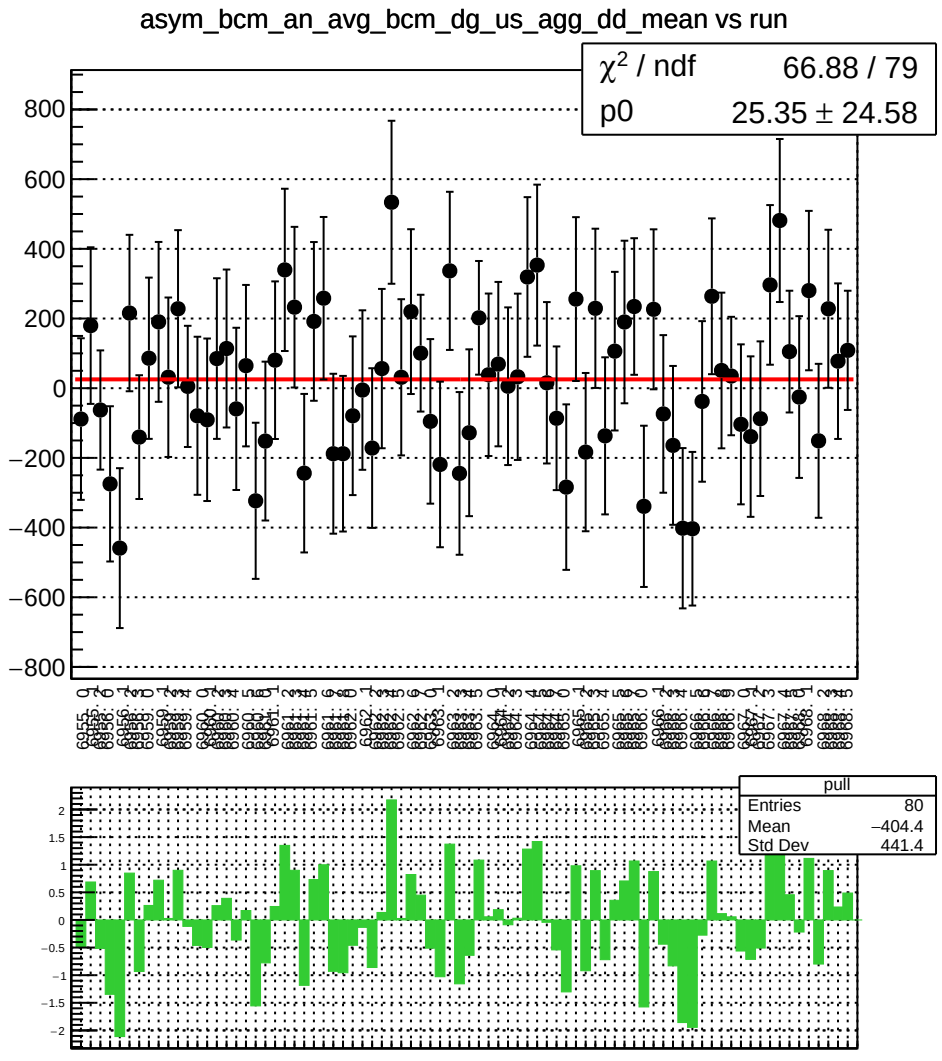

asym_bcm_an_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 12.56 / 79
p0 29.05 ± 148.9
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 141.3
Std Dev 88.26
1
0.5
0
−0.5
−1
pull1D
Entries 80
Mean −0.01058
Std Dev 0.3961
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

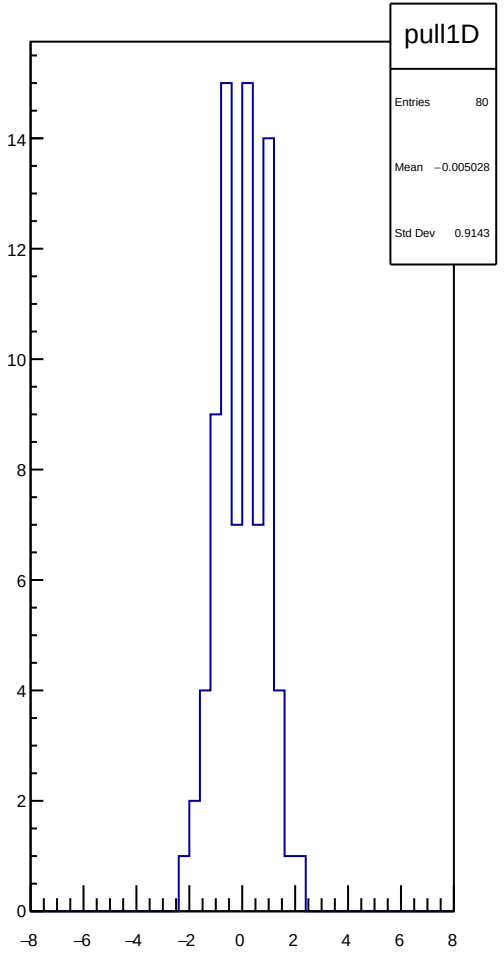

asym_bcm_an_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7.994e+04 / 79
p0 128.2 ± 0.1053
350
300
250
200
150
100

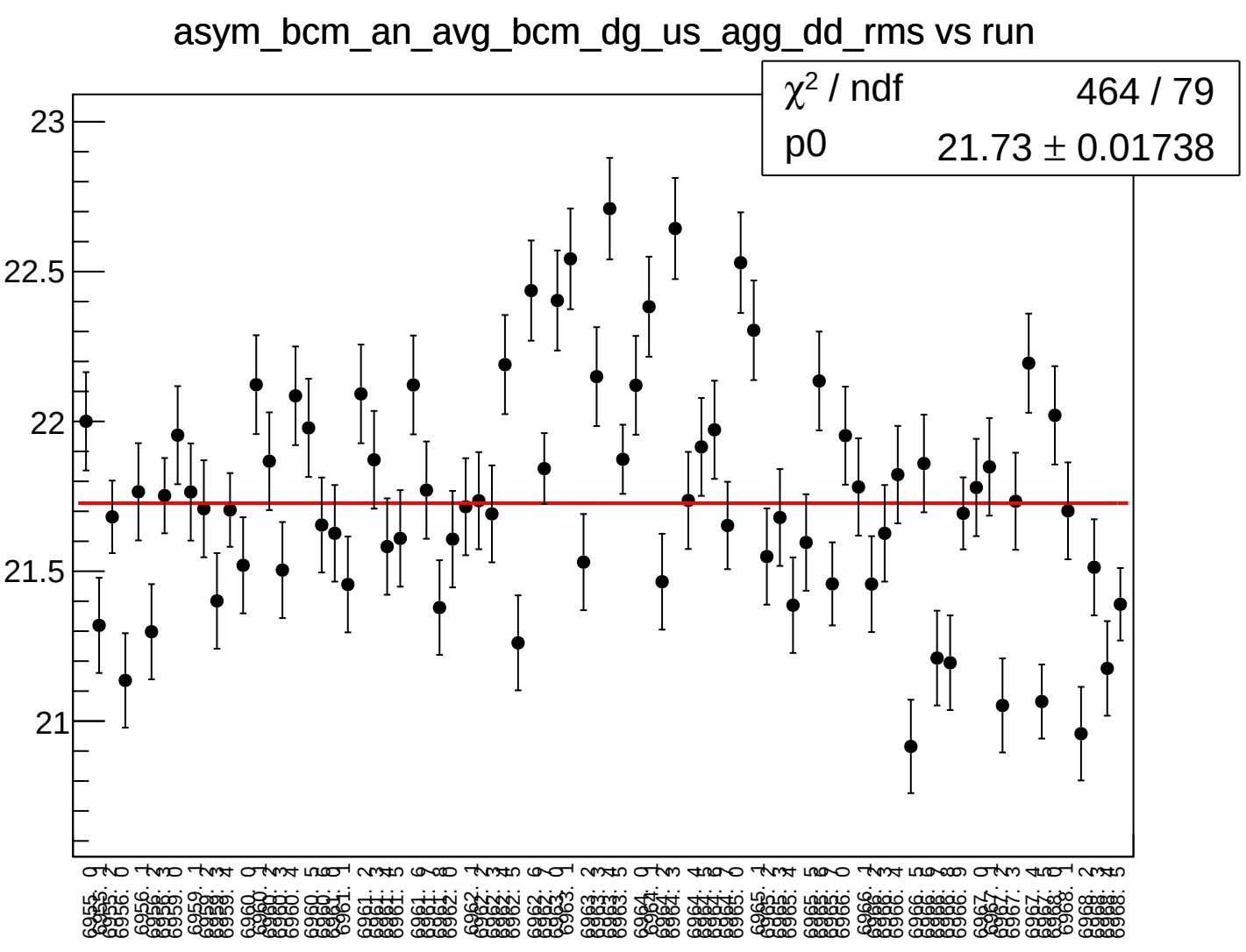

asym_bcm_an_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 81.82 / 79
p0 −9.43 ± 17.12
600
400
200
0
−200
−400
pull
Entries 80
Mean 301.8
Std Dev 273.8
3
2
1
0
−1

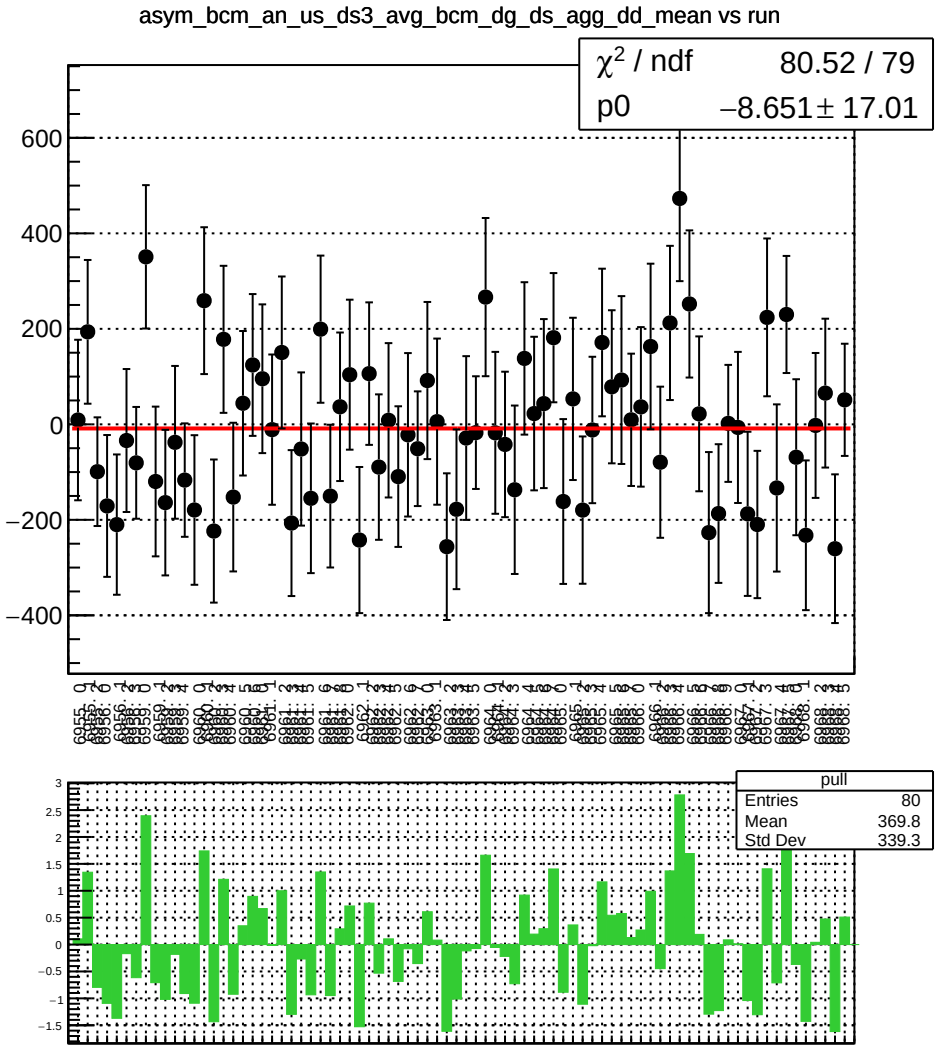

pull1D
Entries 80
Mean 0.00639
Std Dev 1.011
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

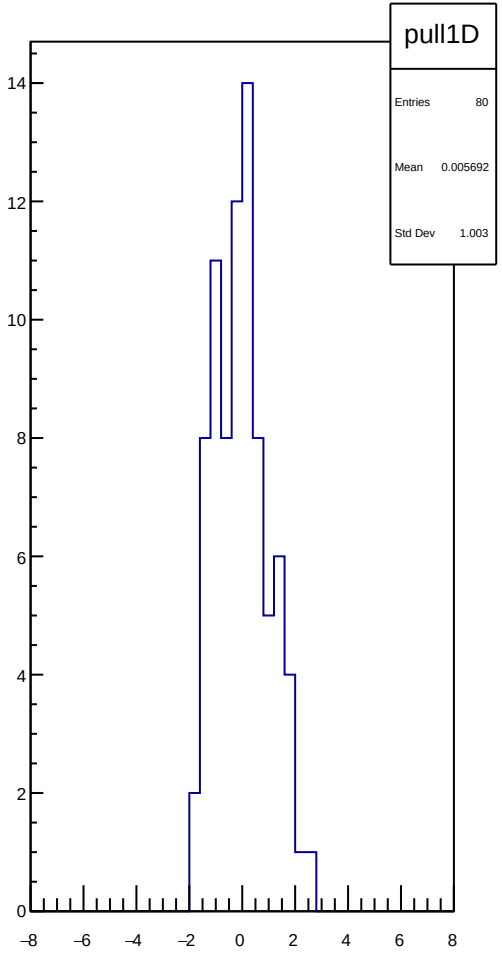

asym_bcm_an_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 3317 / 79
p0 15.12 ± 0.0121
17
16.5
16
15.5
15
14.5
14

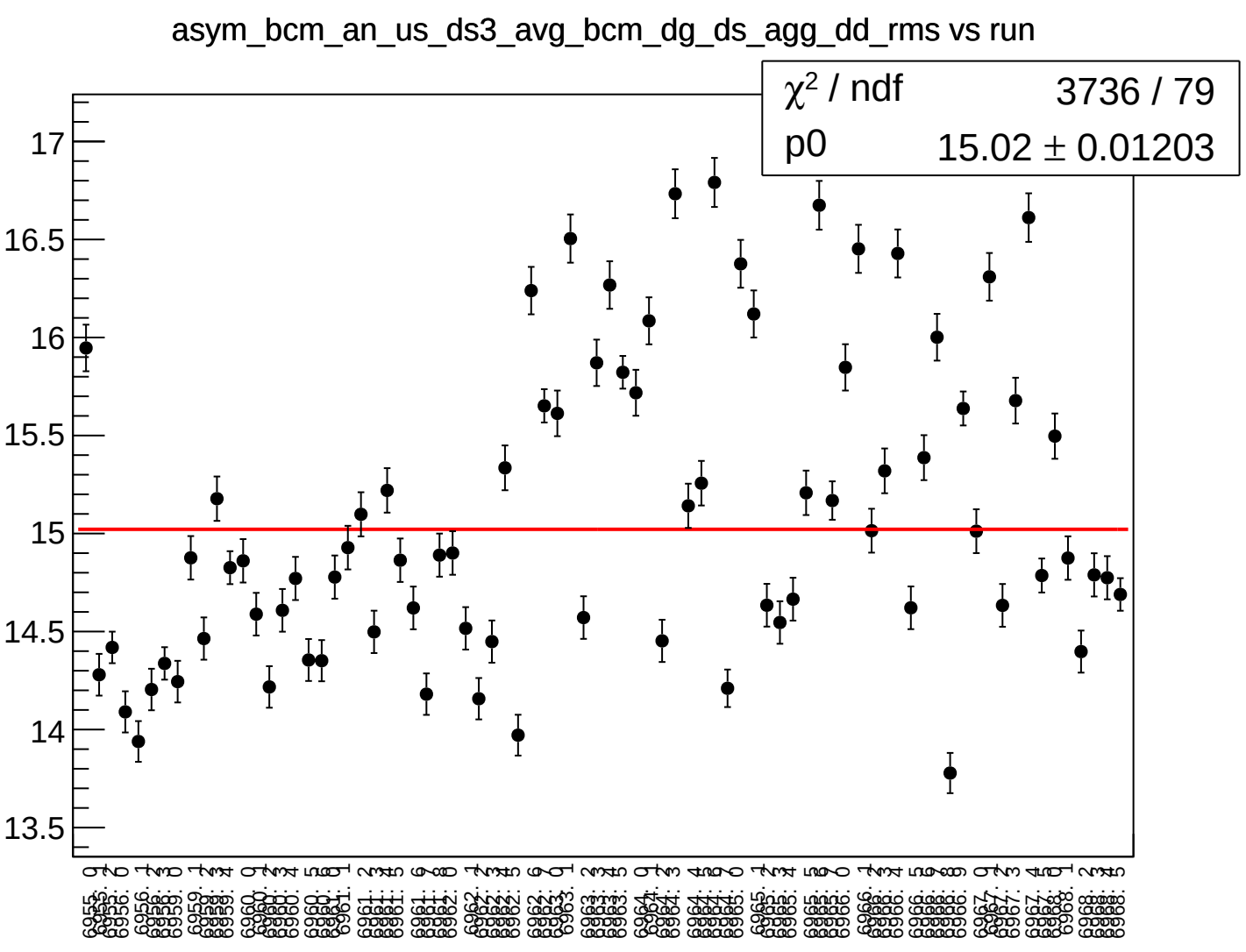

asym_bcm_an_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 66.88 / 79
p0 25.35 ± 24.58
pull
Entries 80
Mean −404.4
Std Dev 441.4

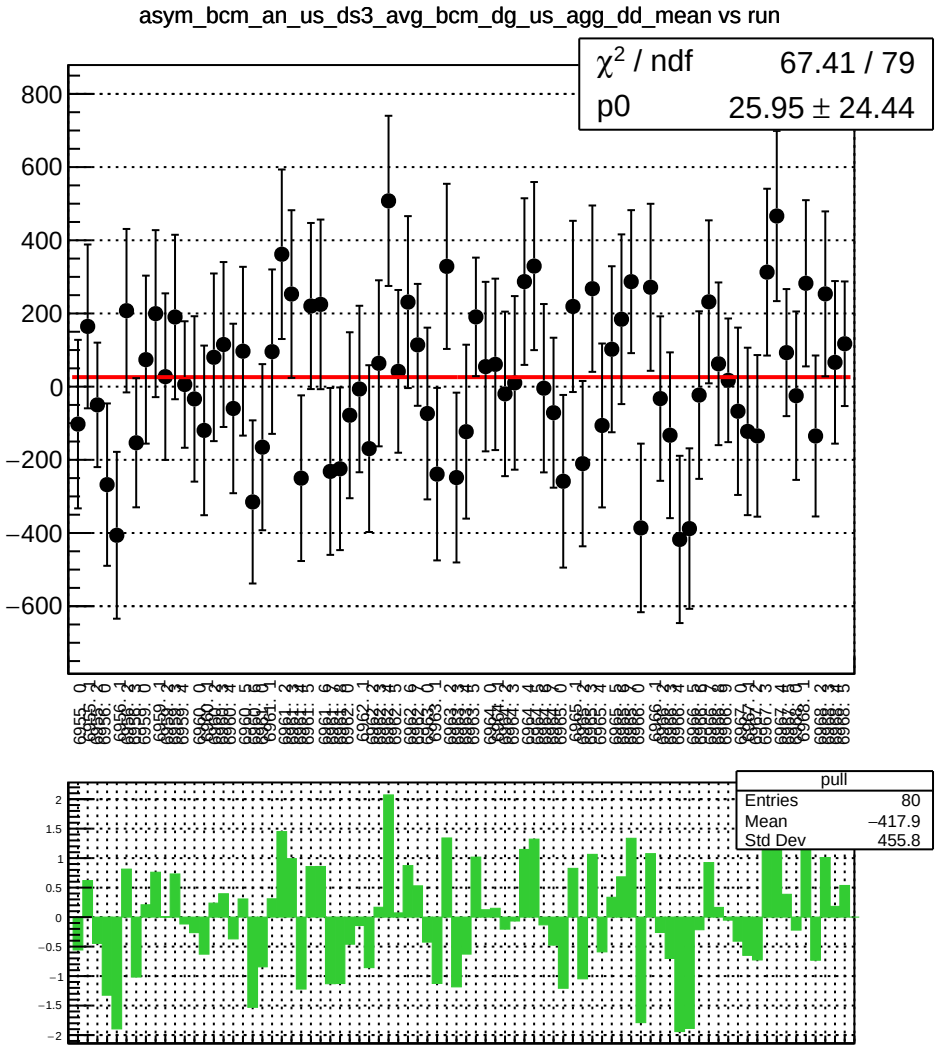

pull1D
Entries 80
Mean −0.005028
Std Dev 0.9143

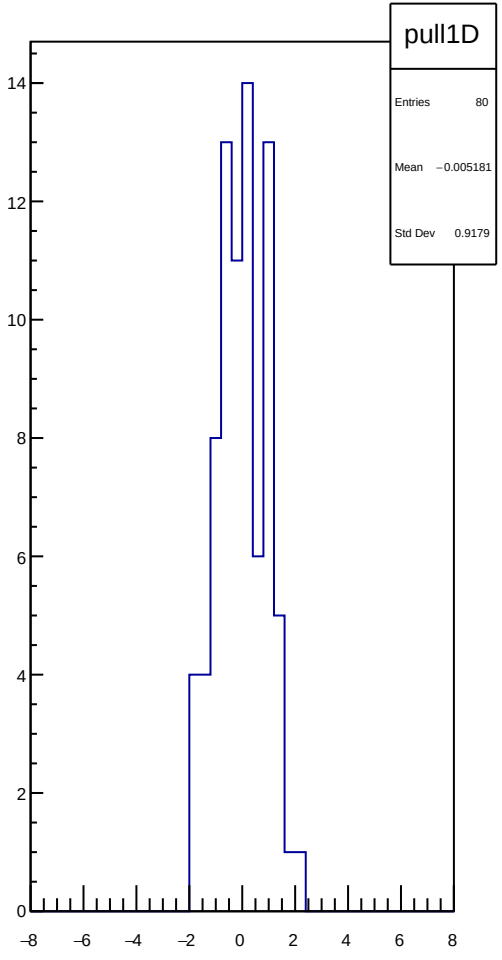

asym_bcm_an_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 464 / 79
p0 21.73 ± 0.01738
23
22.5
22
21.5
21

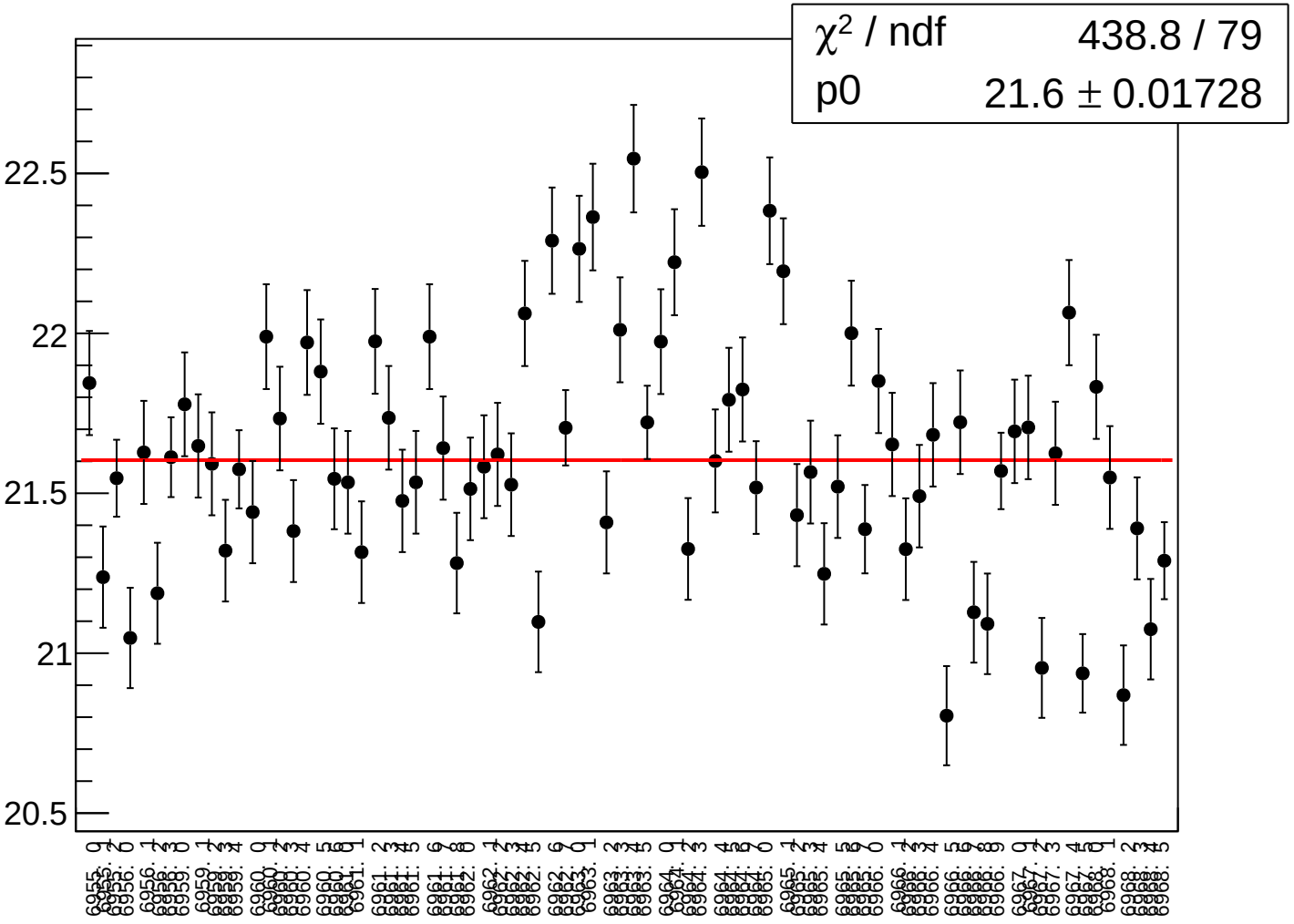

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 80.52 / 79
p0 −8.651 ± 17.01
pull
Entries 80
Mean 369.8
Std Dev 339.3

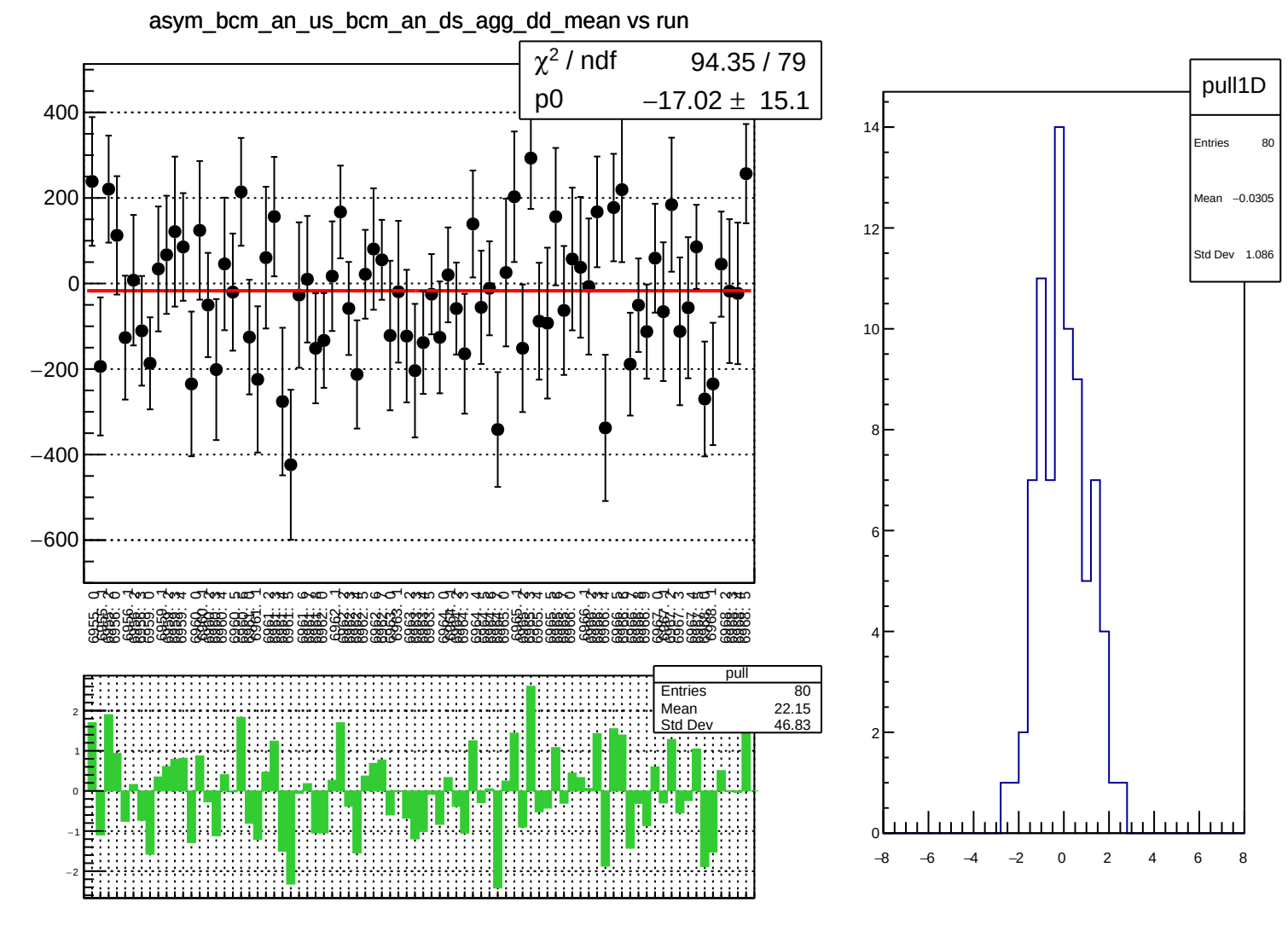

pull1D
Entries 80
Mean 0.005692
Std Dev 1.003

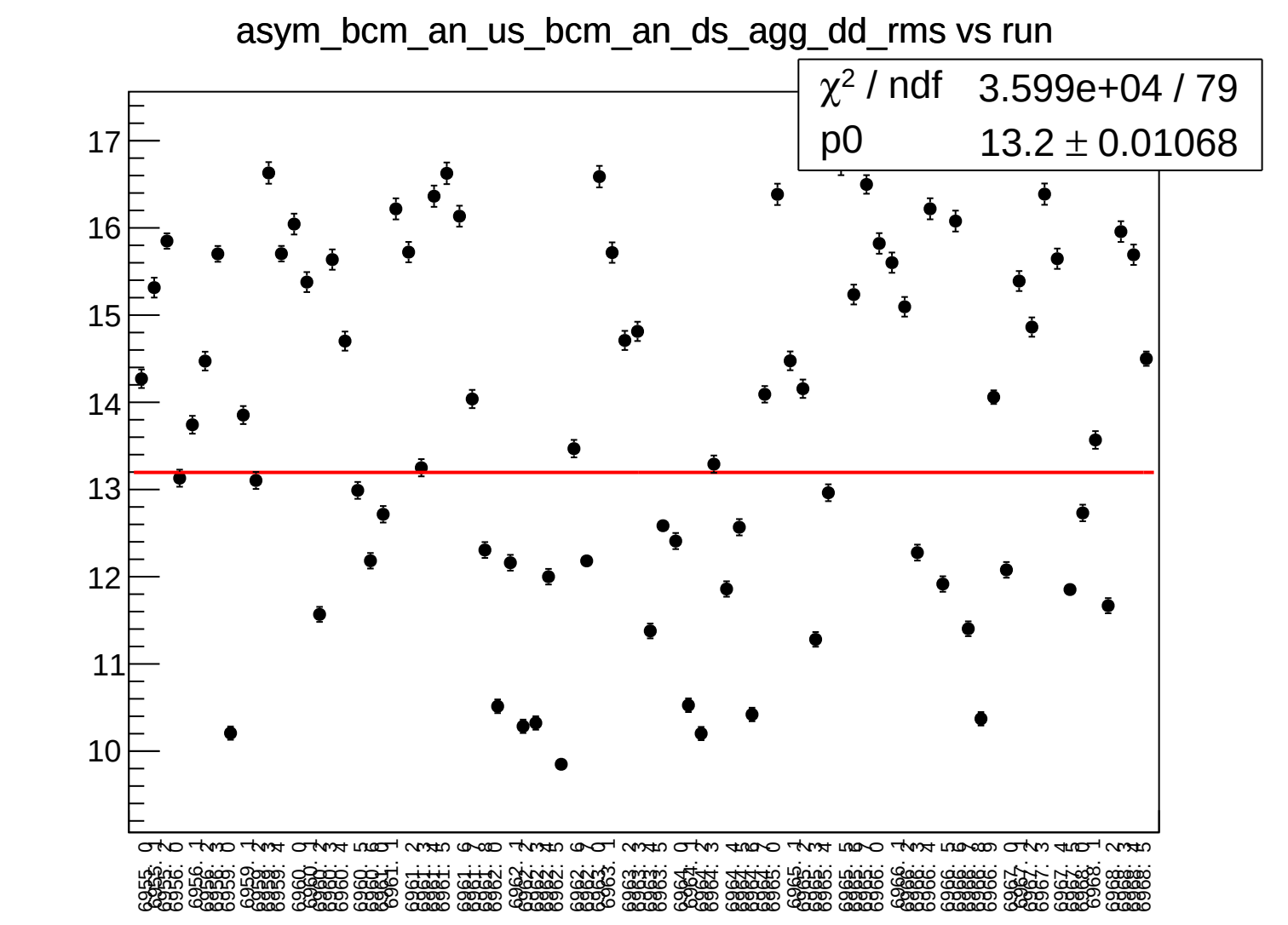

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 3736 / 79
p0 15.02 ± 0.01203
17
16.5
16
15.5
15
14.5
14
13.5

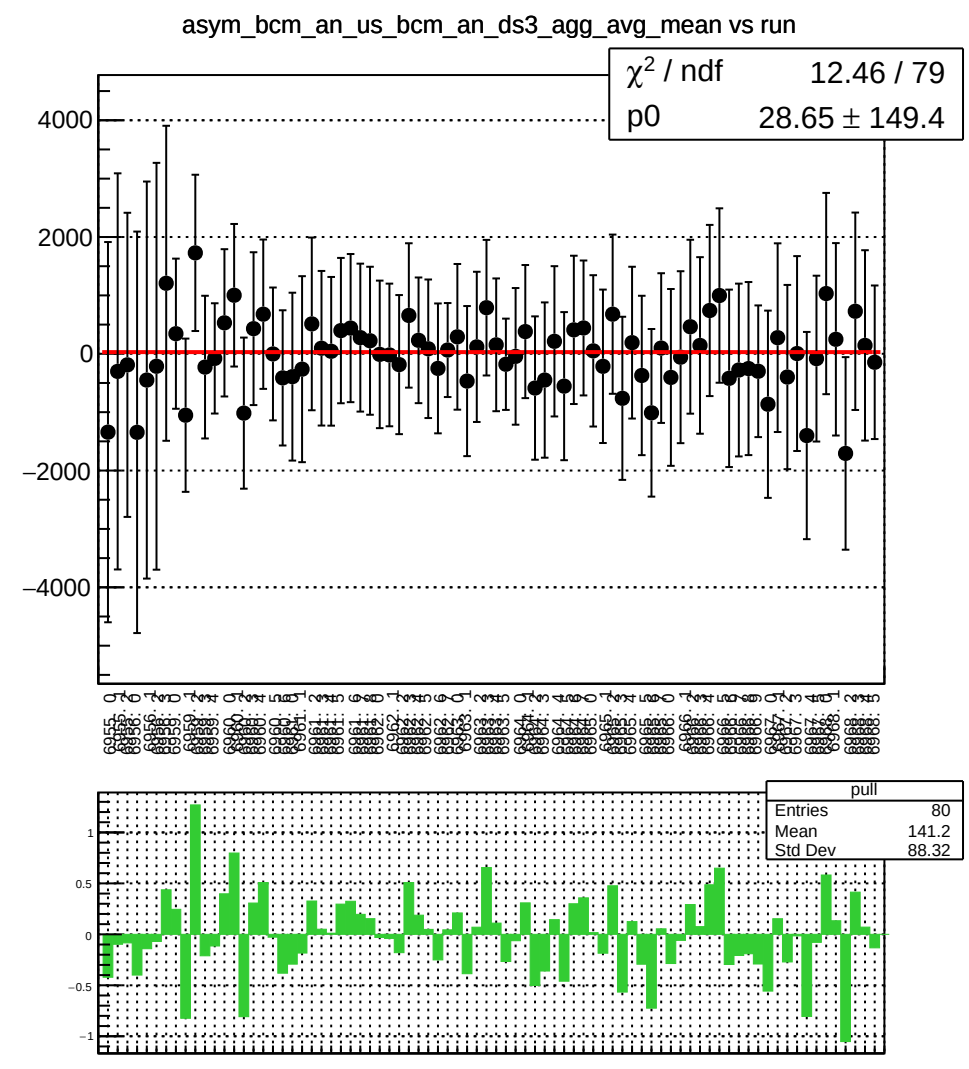

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 67.41 / 79
p0 25.95 ± 24.44
pull
Entries 80
Mean −417.9
Std Dev 455.8

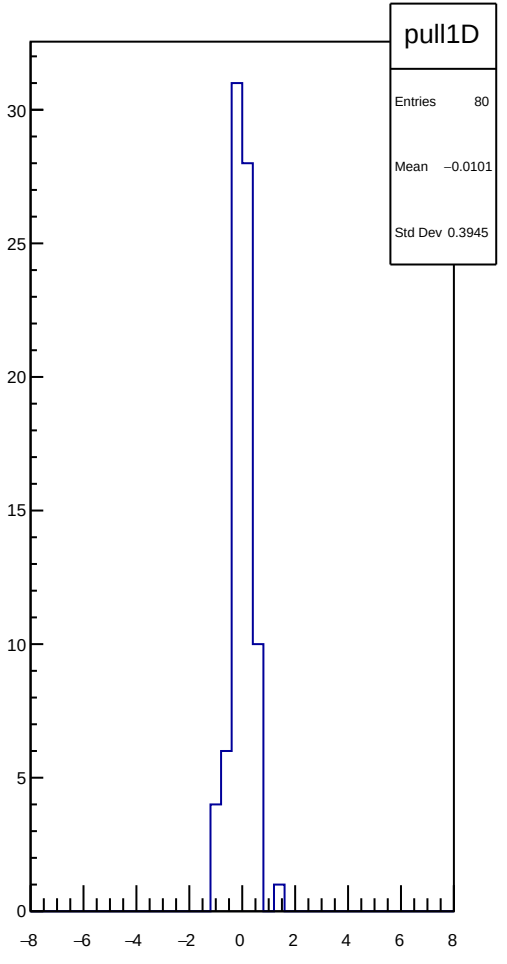

pull1D
Entries 80
Mean −0.005181
Std Dev 0.9179

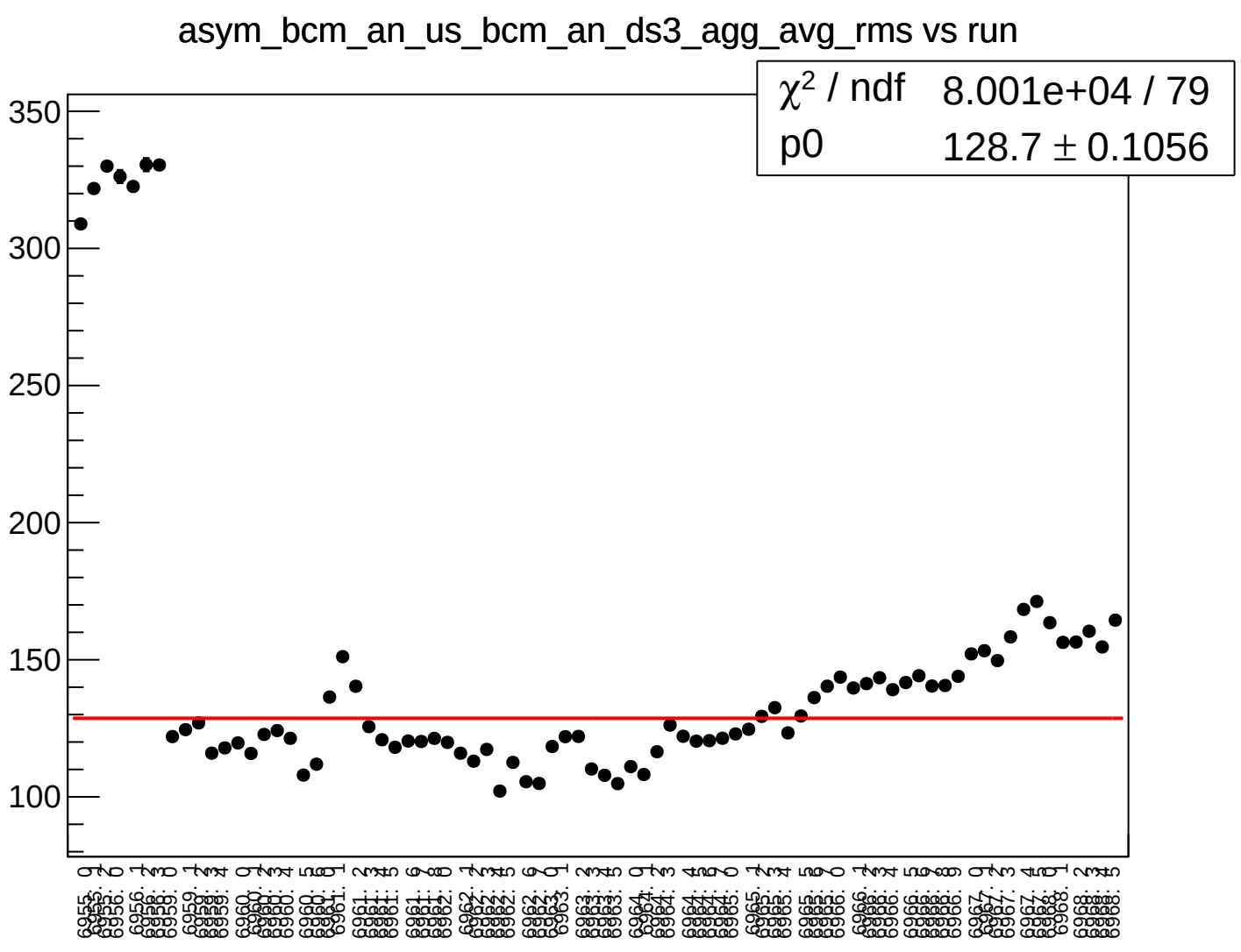

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 438.8 / 79
p0 21.6 ± 0.01728
22.5
22
21.5
21
20.5

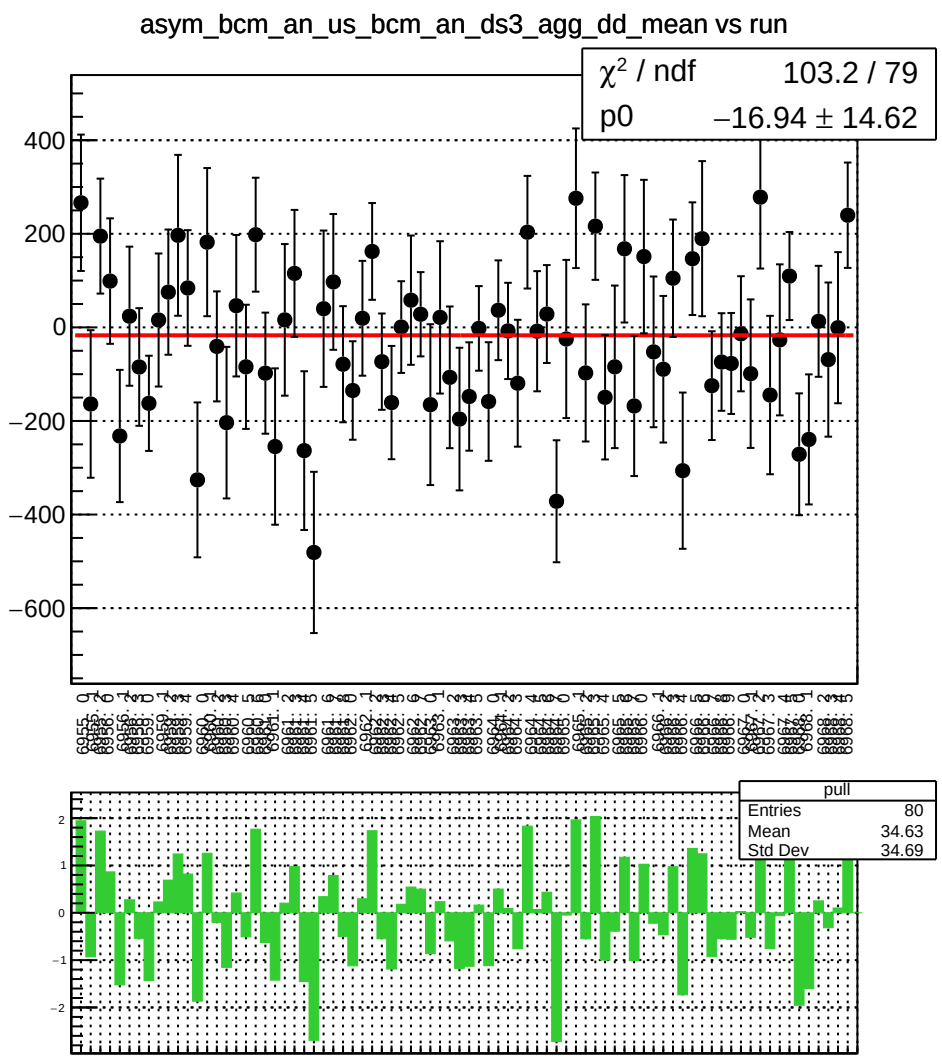

asym_bcm_an_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 94.35 / 79
p0 −17.02 ± 15.1
400
200
0
−200
−400
−600
pull
Entries 80
Mean 22.15
Std Dev 46.83
2
1
0
−1
−2
pull1D
Entries 80
Mean −0.0305
Std Dev 1.086
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

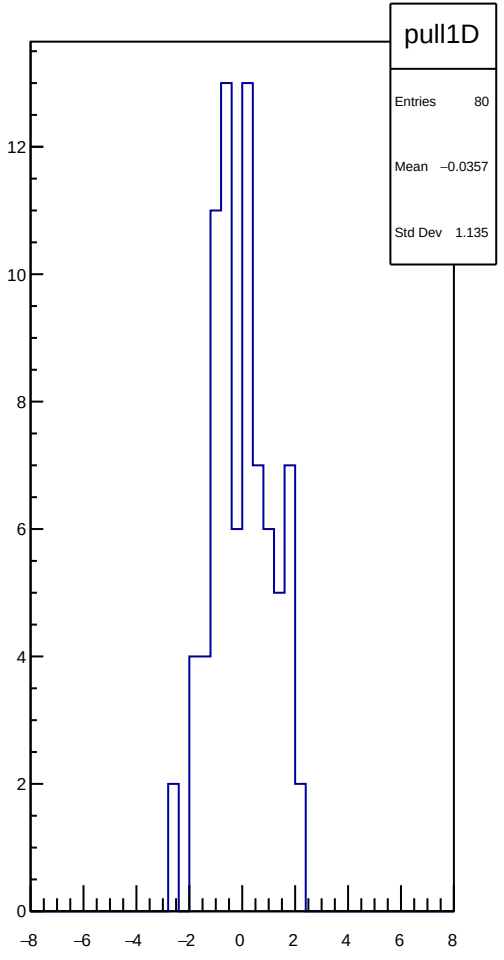

asym_bcm_an_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 3.599e+04 / 79
p0 13.2 ± 0.01068
17
16
15
14
13
12
11
10

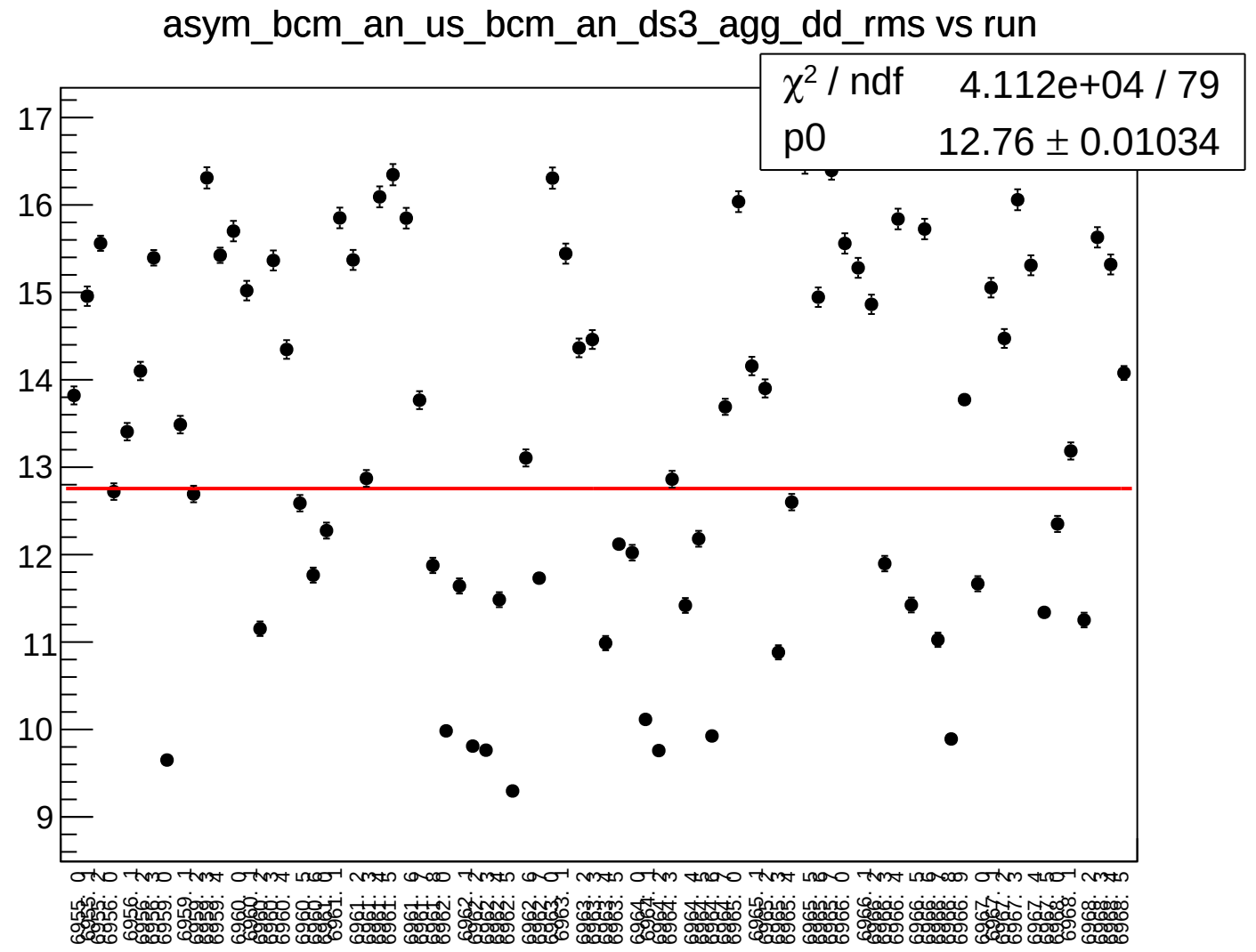

asym_bcm_an_us_bcm_an_ds3_agg_avg_mean vs run
χ² / ndf 12.46 / 79
p0 28.65 ± 149.4
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 141.2
Std Dev 88.32
1
0.5
0
−0.5
−1

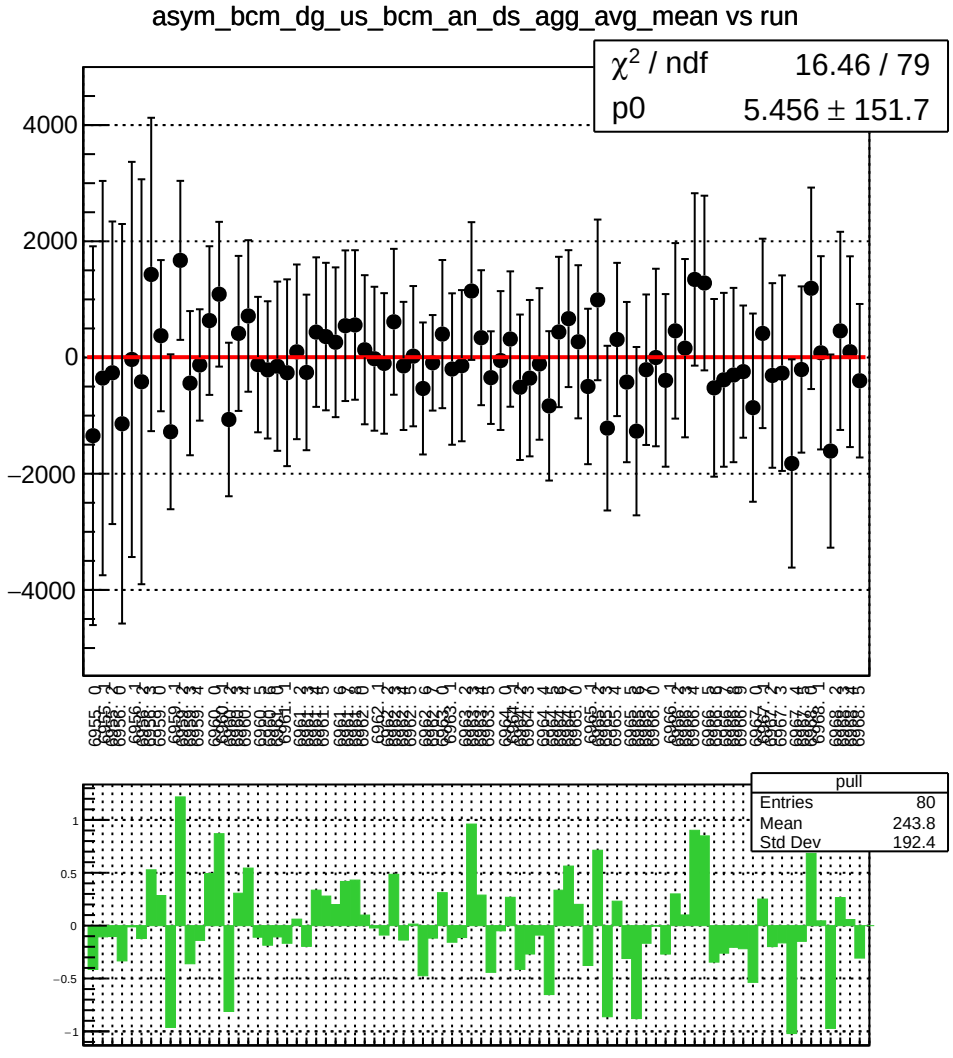

pull1D
Entries 80
Mean −0.0101
Std Dev 0.3945
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

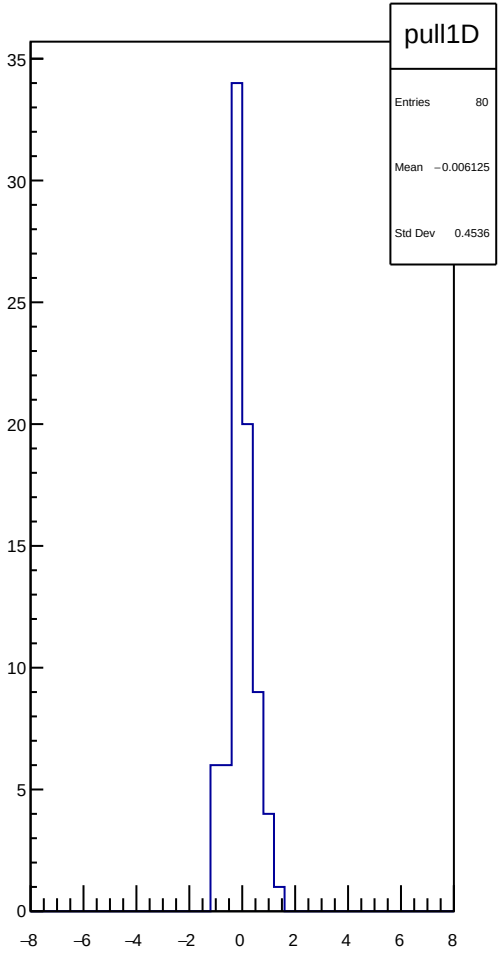

asym_bcm_an_us_bcm_an_ds3_agg_avg_rms vs run
χ² / ndf 8.001e+04 / 79
p0 128.7 ± 0.1056
350
300
250
200
150
100

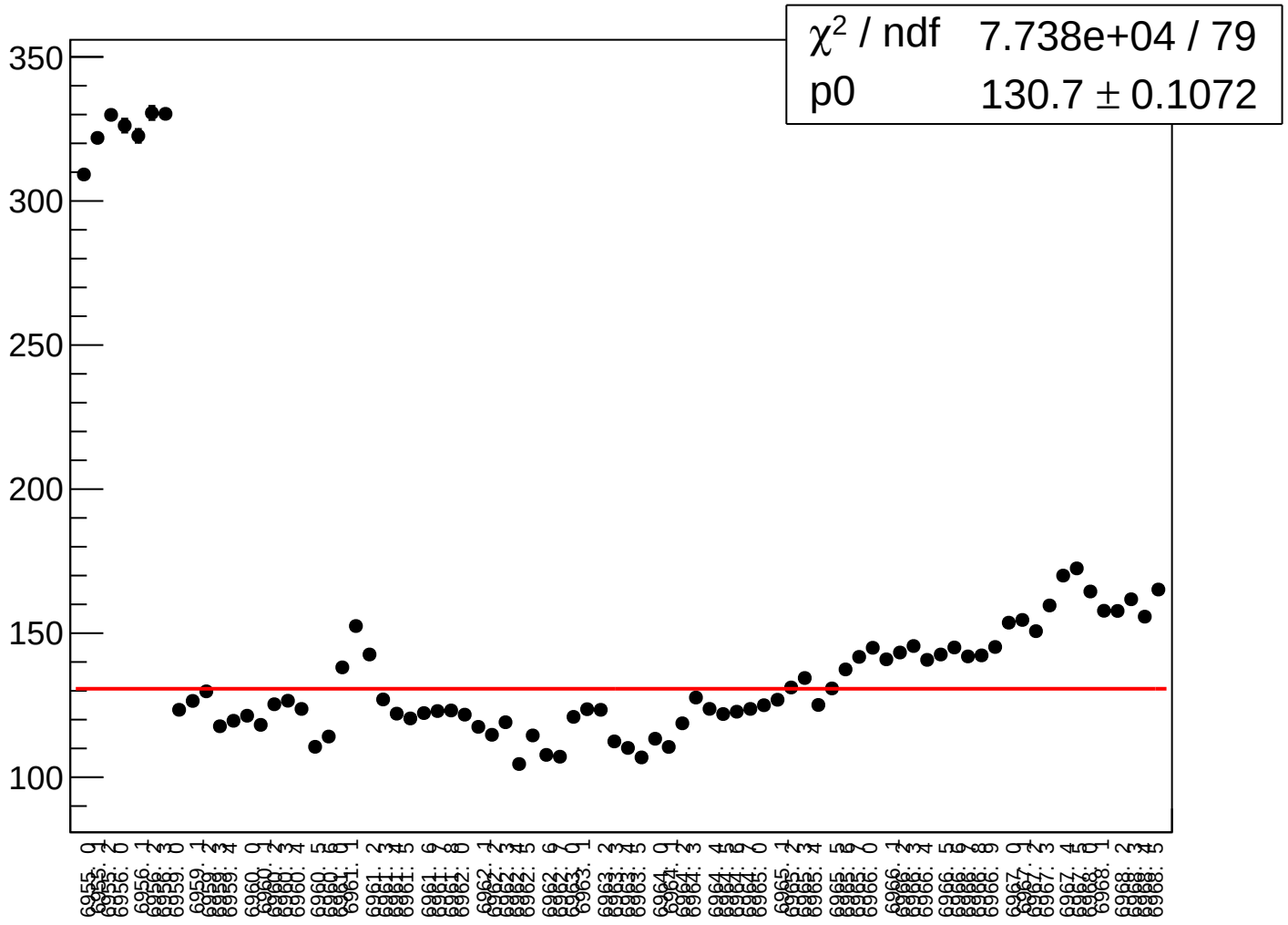

asym_bcm_an_us_bcm_an_ds3_agg_dd_mean vs run
χ² / ndf 103.2 / 79
p0 −16.94 ± 14.62
pull
Entries 80
Mean 34.63
Std Dev 34.69

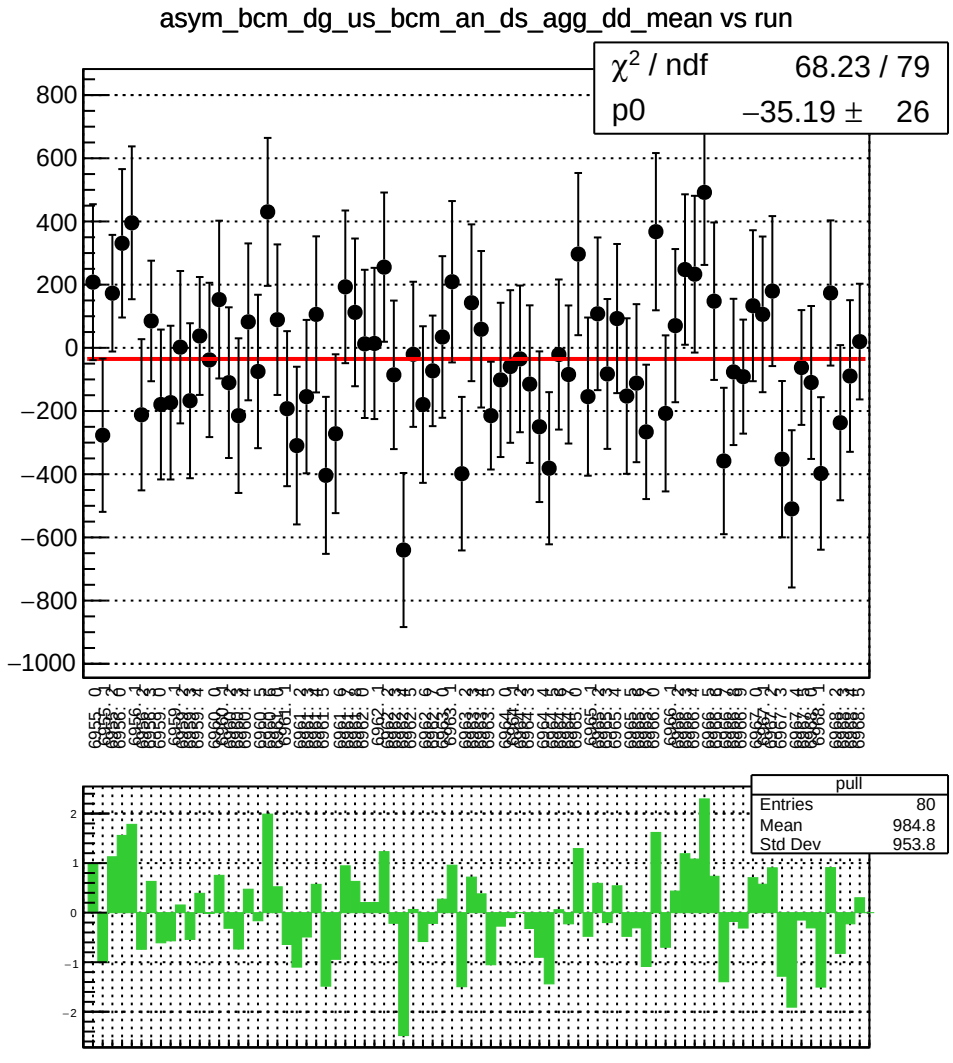

pull1D
Entries 80
Mean −0.0357
Std Dev 1.135

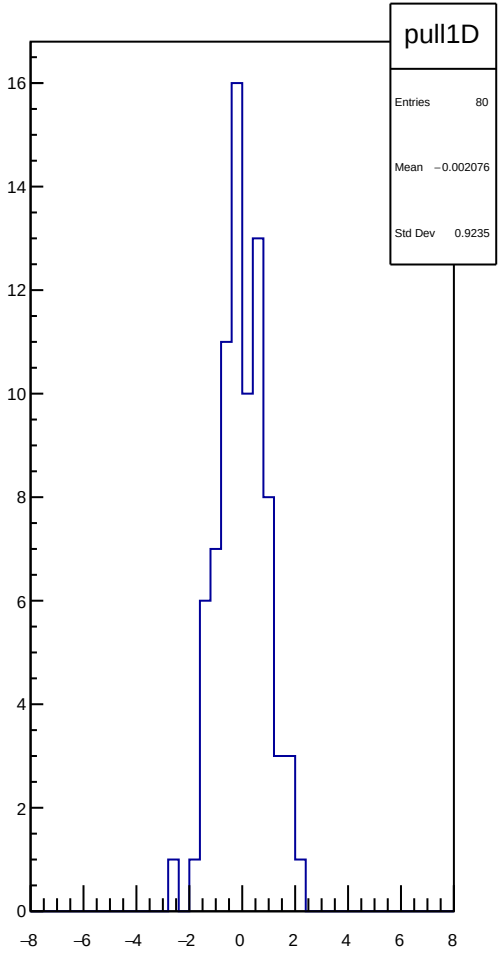

asym_bcm_an_us_bcm_an_ds3_agg_dd_rms vs run
χ² / ndf 4.112e+04 / 79
p0 12.76 ± 0.01034
17
16
15
14
13
12
11
10
9

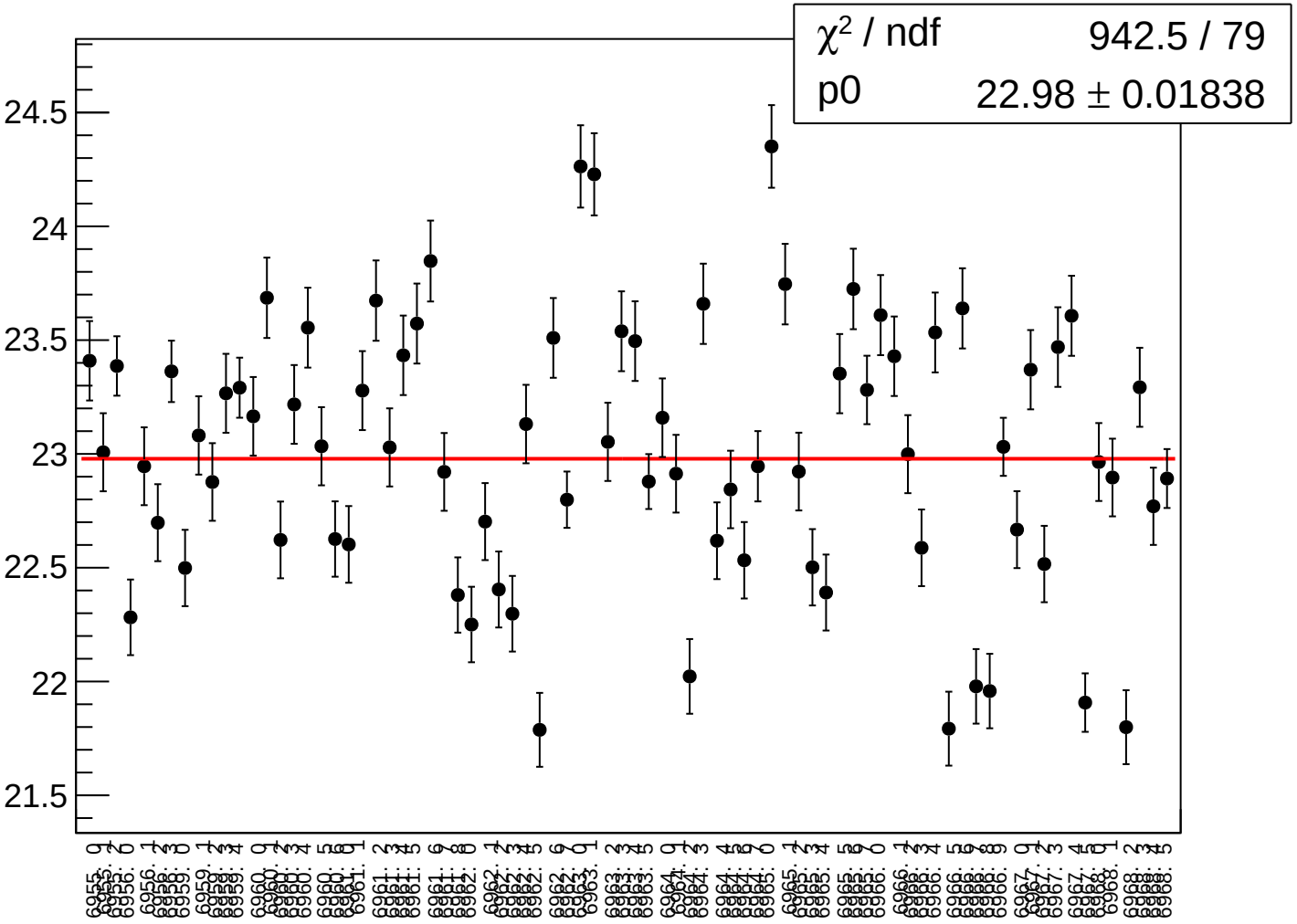

asym_bcm_dg_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 16.46 / 79
p0 5.456 ± 151.7
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 243.8
Std Dev 192.4
1
0.5
0
−0.5
−1

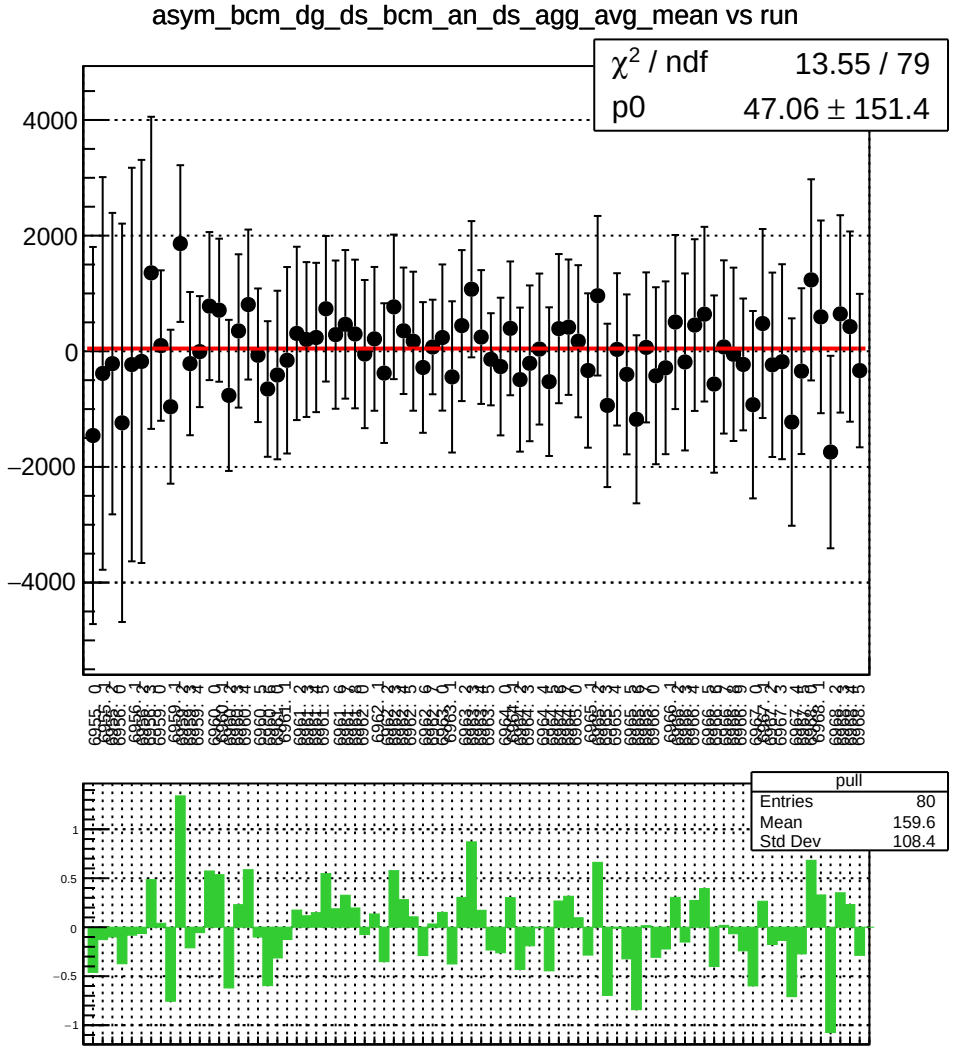

pull1D
Entries 80
Mean −0.006125
Std Dev 0.4536
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

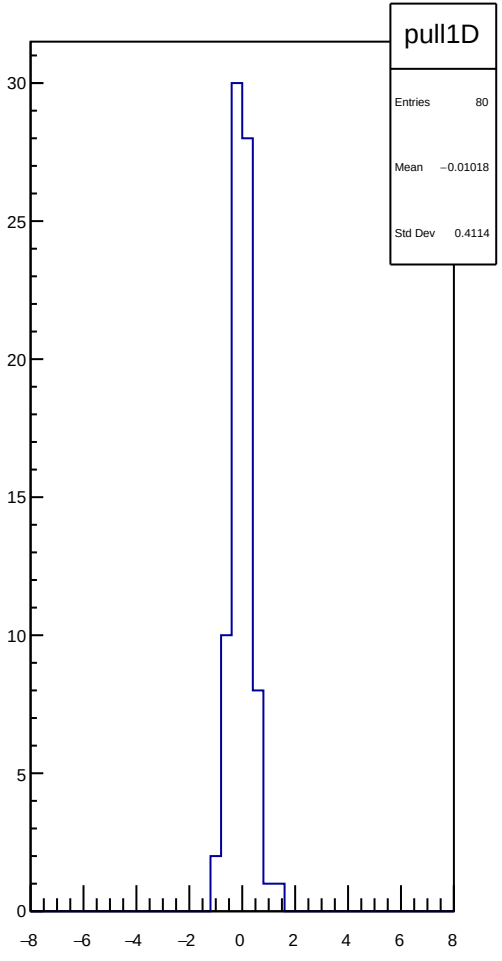

asym_bcm_dg_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7.738e+04 / 79
p0 130.7 ± 0.1072
350
300
250
200
150
100

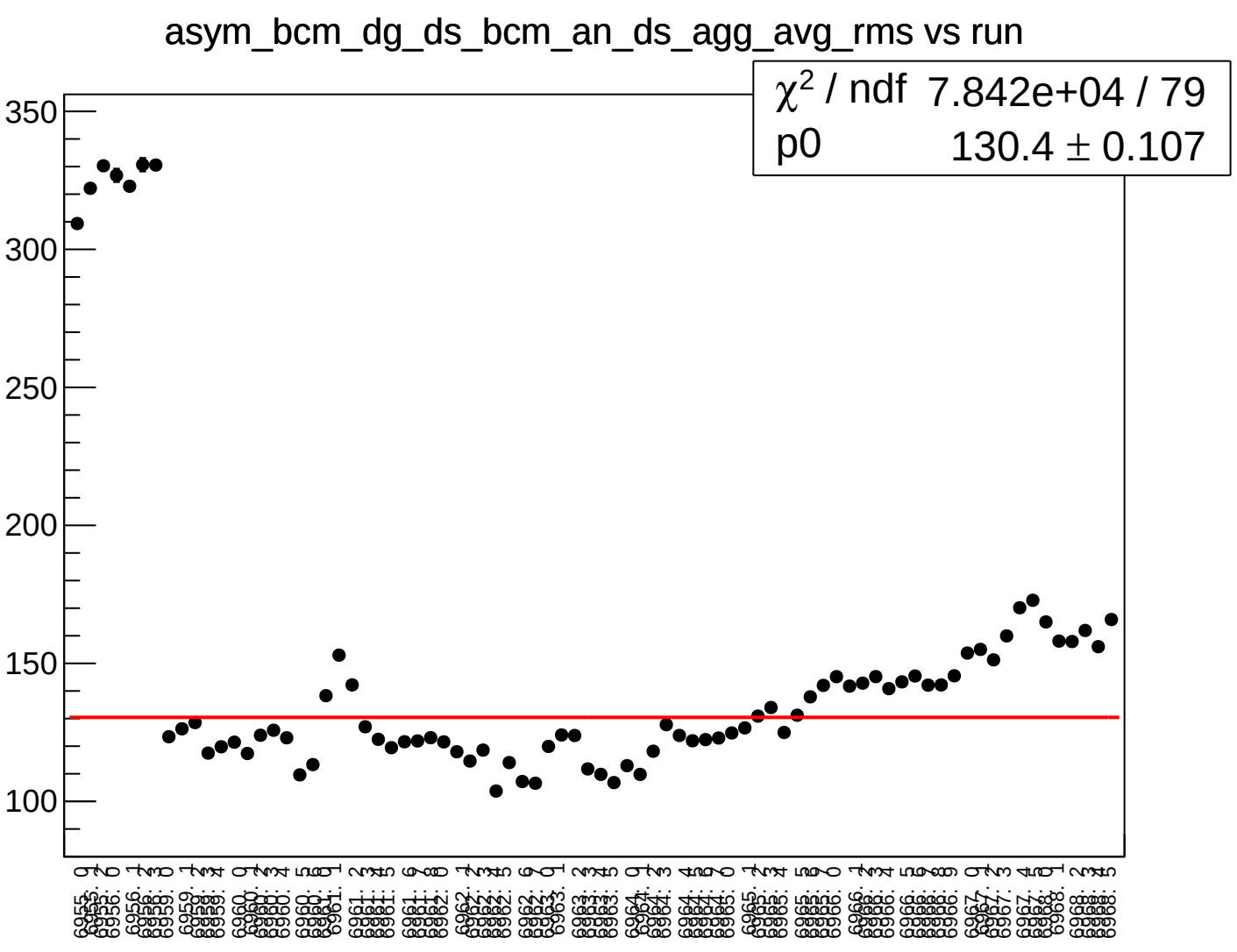

asym_bcm_dg_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 68.23 / 79
p0 −35.19 ± 26
pull
Entries 80
Mean 984.8
Std Dev 953.8

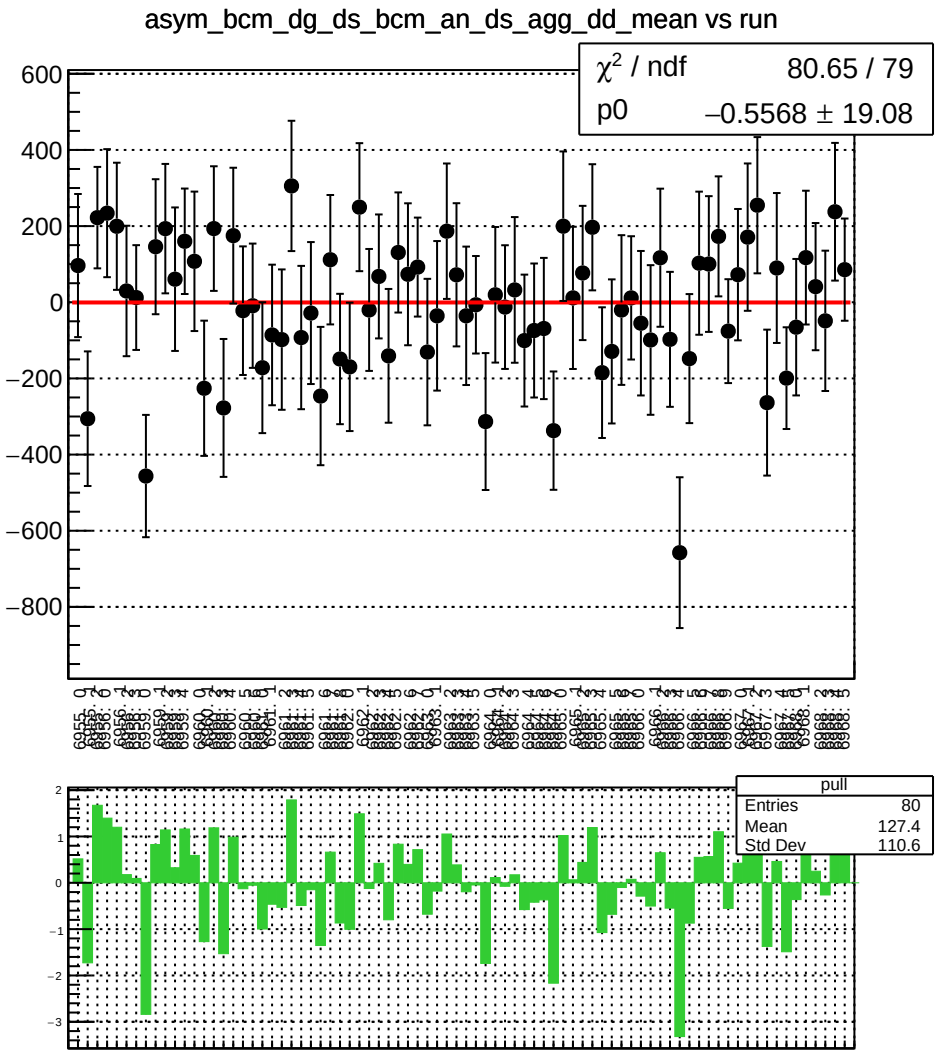

pull1D
Entries 80
Mean −0.002076
Std Dev 0.9235

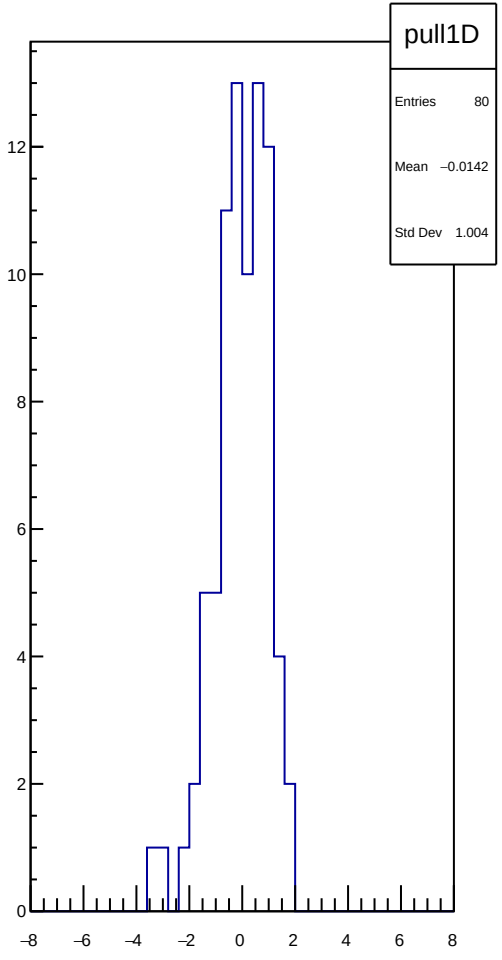

asym_bcm_dg_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 942.5 / 79
p0 22.98 ± 0.01838
24.5
24
23.5
23
22.5
22
21.5

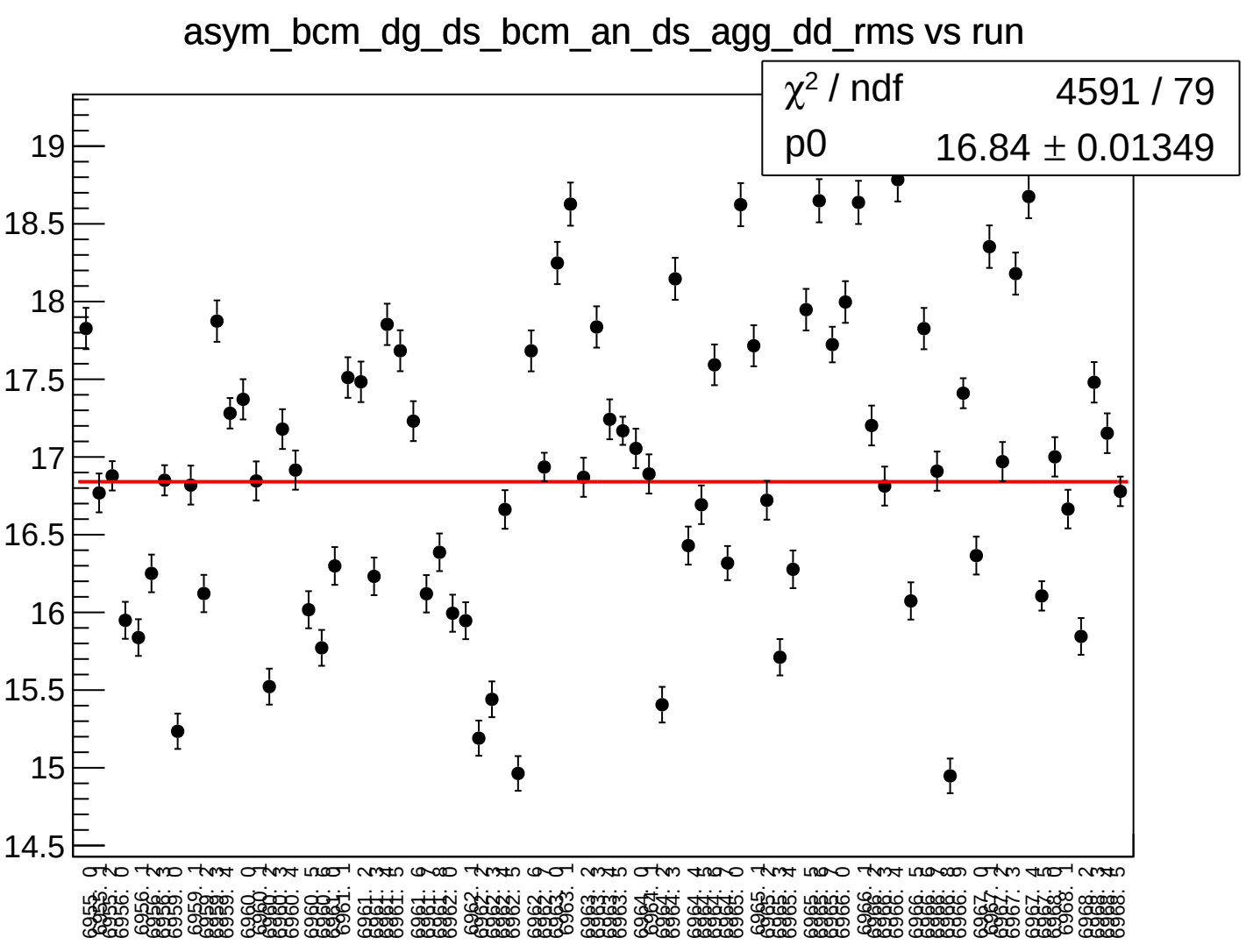

asym_bcm_dg_ds_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 13.55 / 79
p0 47.06 ± 151.4
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 159.6
Std Dev 108.4
1
0.5
0
−0.5
−1

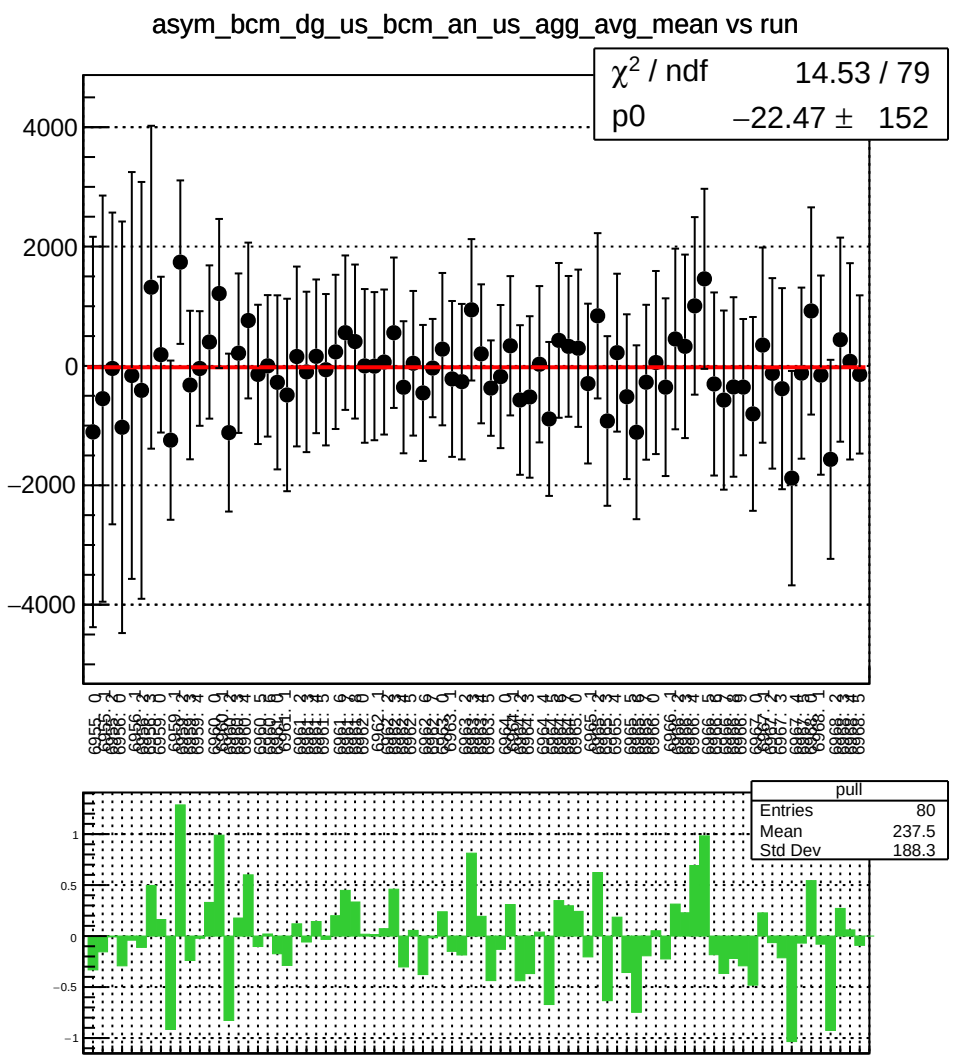

pull1D
Entries 80
Mean −0.01018
Std Dev 0.4114
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

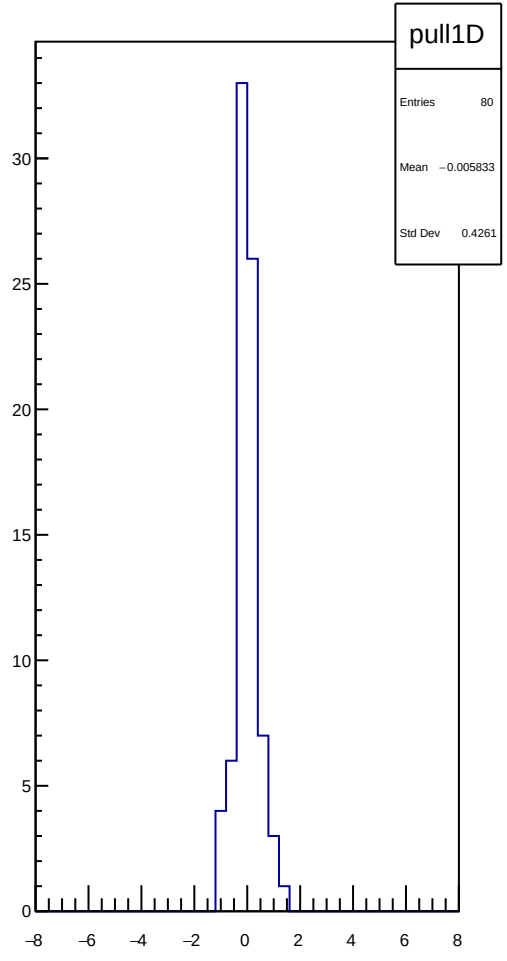

asym_bcm_dg_ds_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7.842e+04 / 79
p0 130.4 ± 0.107
350
300
250
200
150
100

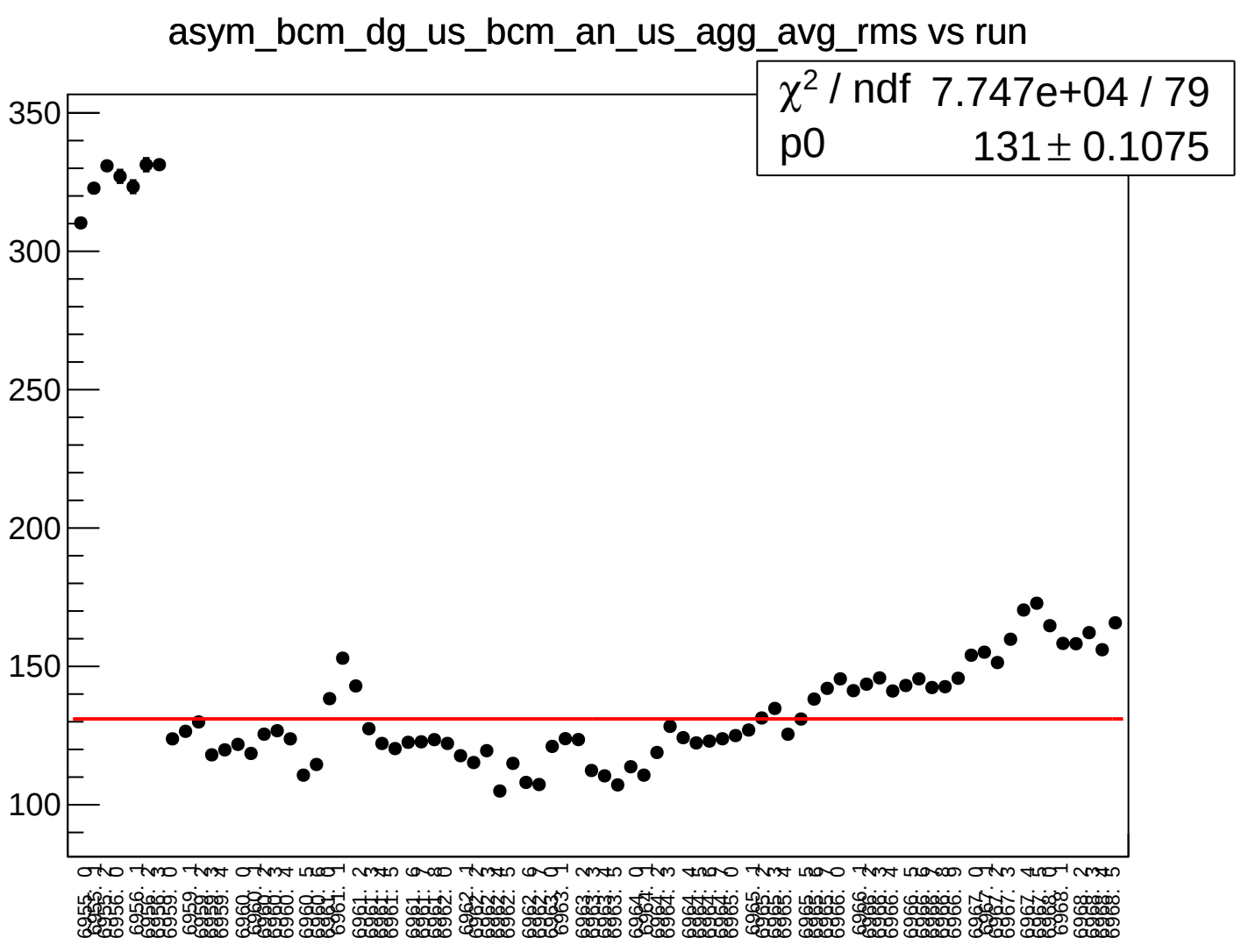

asym_bcm_dg_ds_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 80.65 / 79
p0 −0.5568 ± 19.08
pull
Entries 80
Mean 127.4
Std Dev 110.6

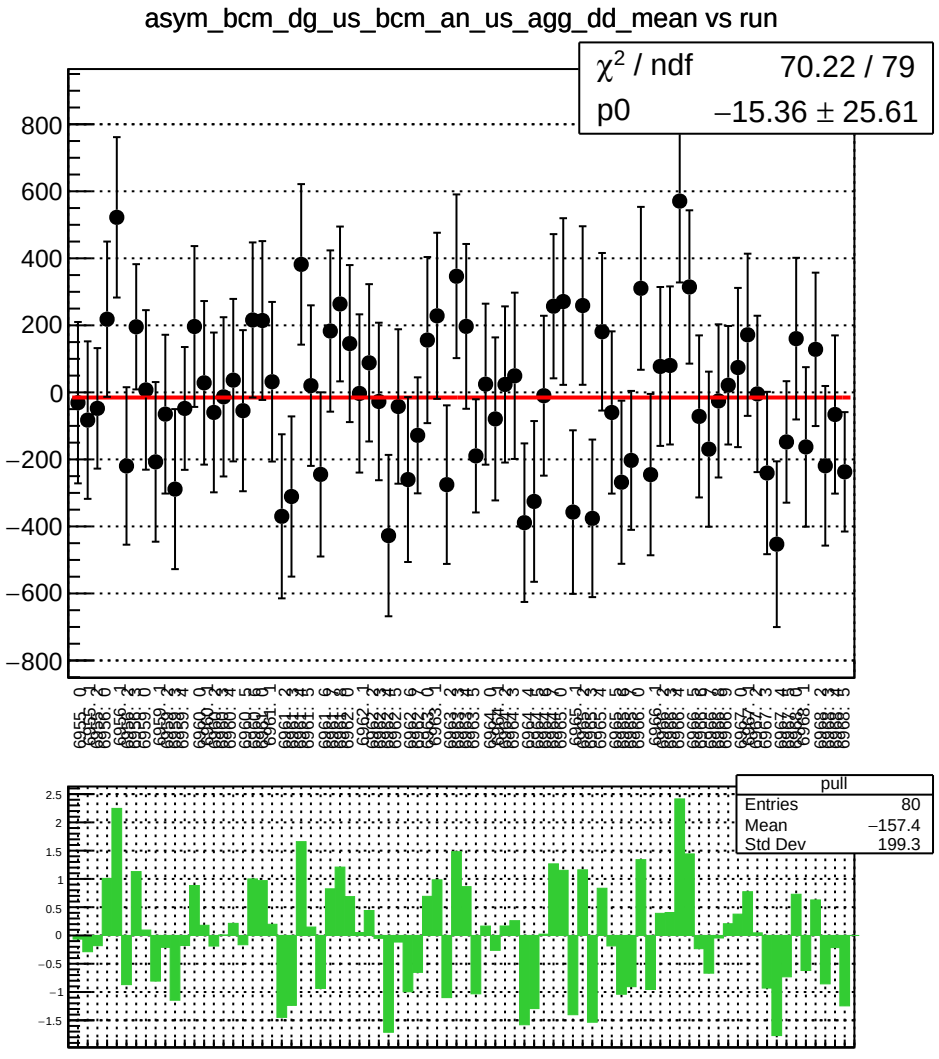

pull1D
Entries 80
Mean −0.0142
Std Dev 1.004

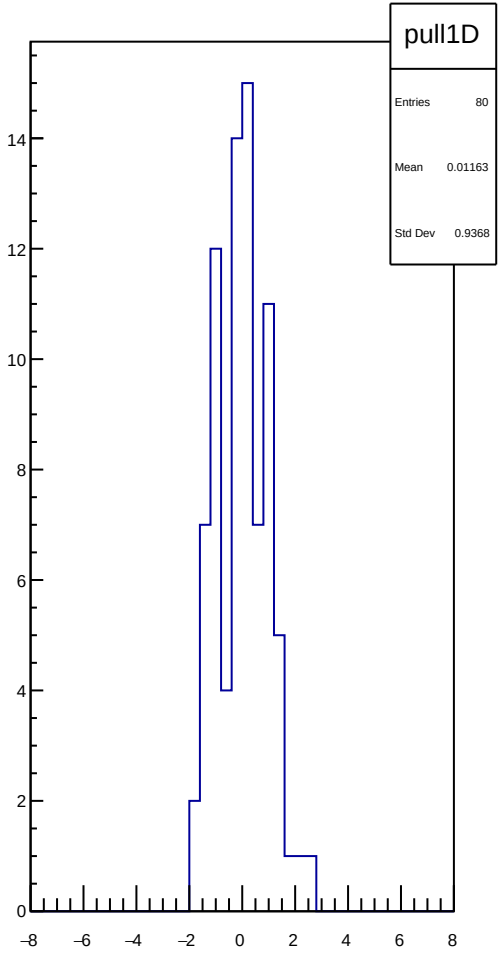

asym_bcm_dg_ds_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 4591 / 79
p0 16.84 ± 0.01349
19
18.5
18
17.5
17
16.5
16
15.5
15
14.5

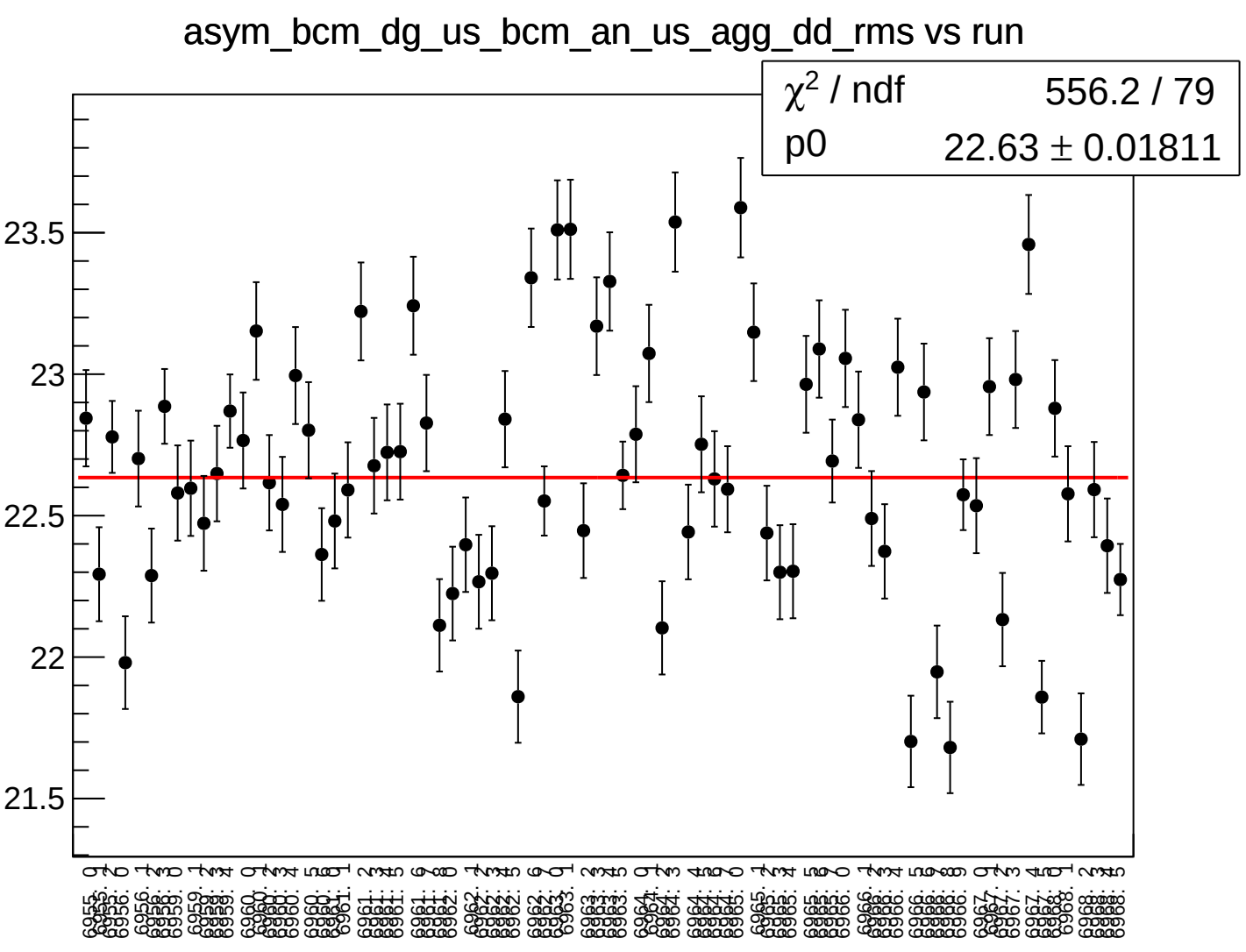

asym_bcm_dg_us_bcm_an_us_agg_avg_mean vs run
χ² / ndf 14.53 / 79
p0 −22.47 ± 152
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 237.5
Std Dev 188.3
1
0.5
0
−0.5
−1

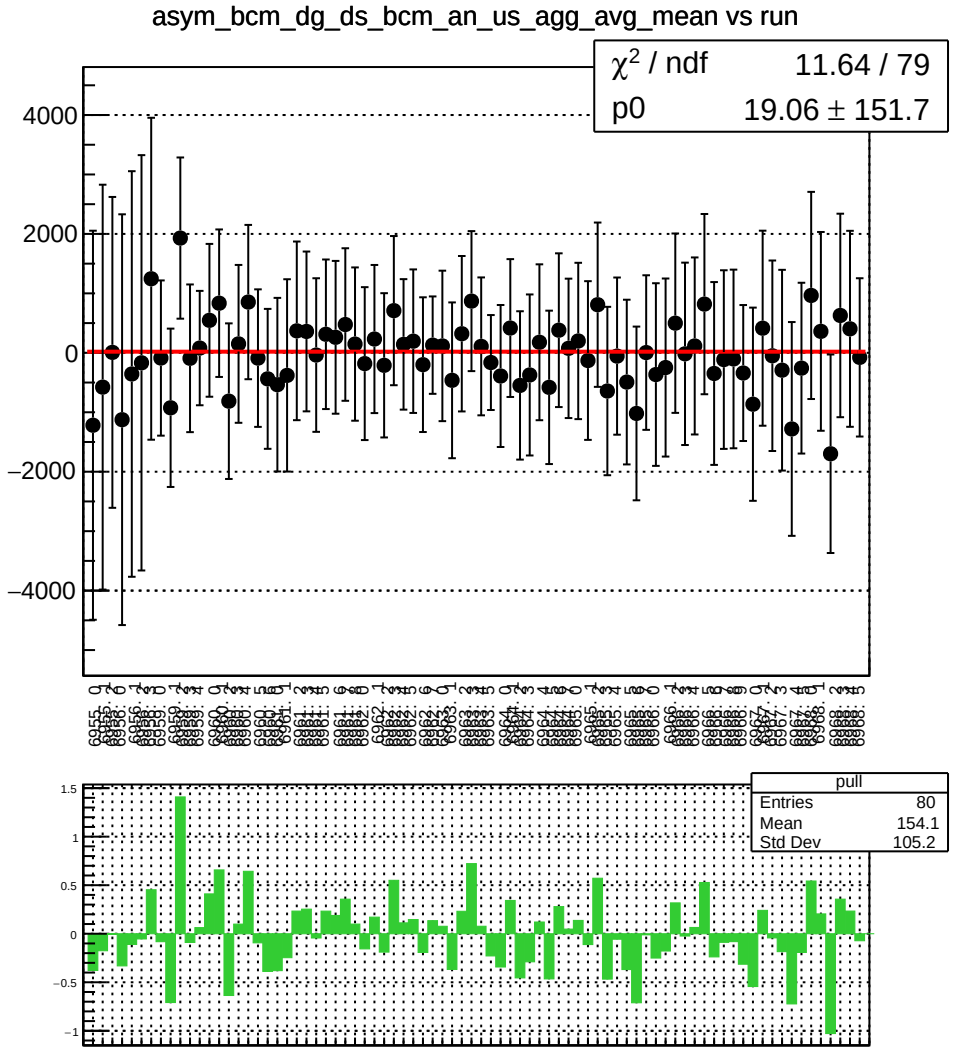

pull1D
Entries 80
Mean −0.005833
Std Dev 0.4261
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

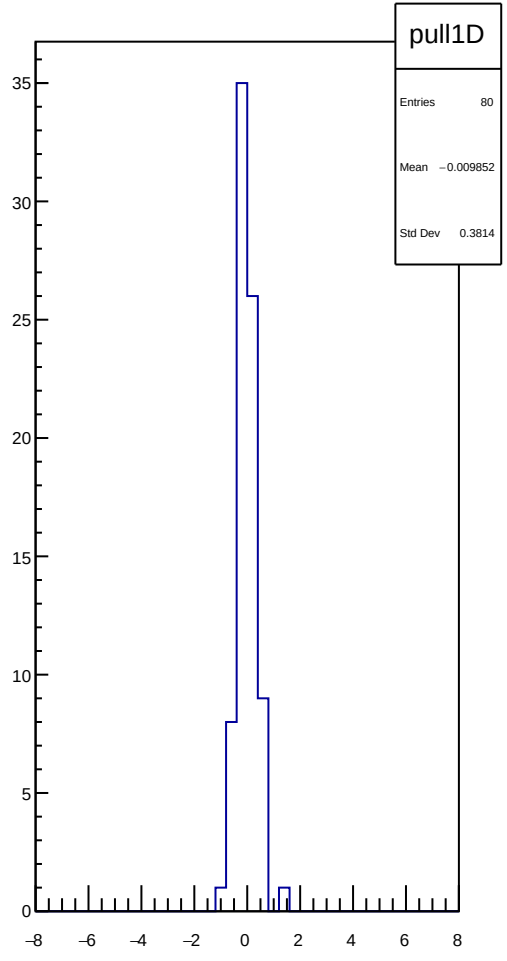

asym_bcm_dg_us_bcm_an_us_agg_avg_rms vs run
χ² / ndf 7.747e+04 / 79
p0 131 ± 0.1075
350
300
250
200
150
100

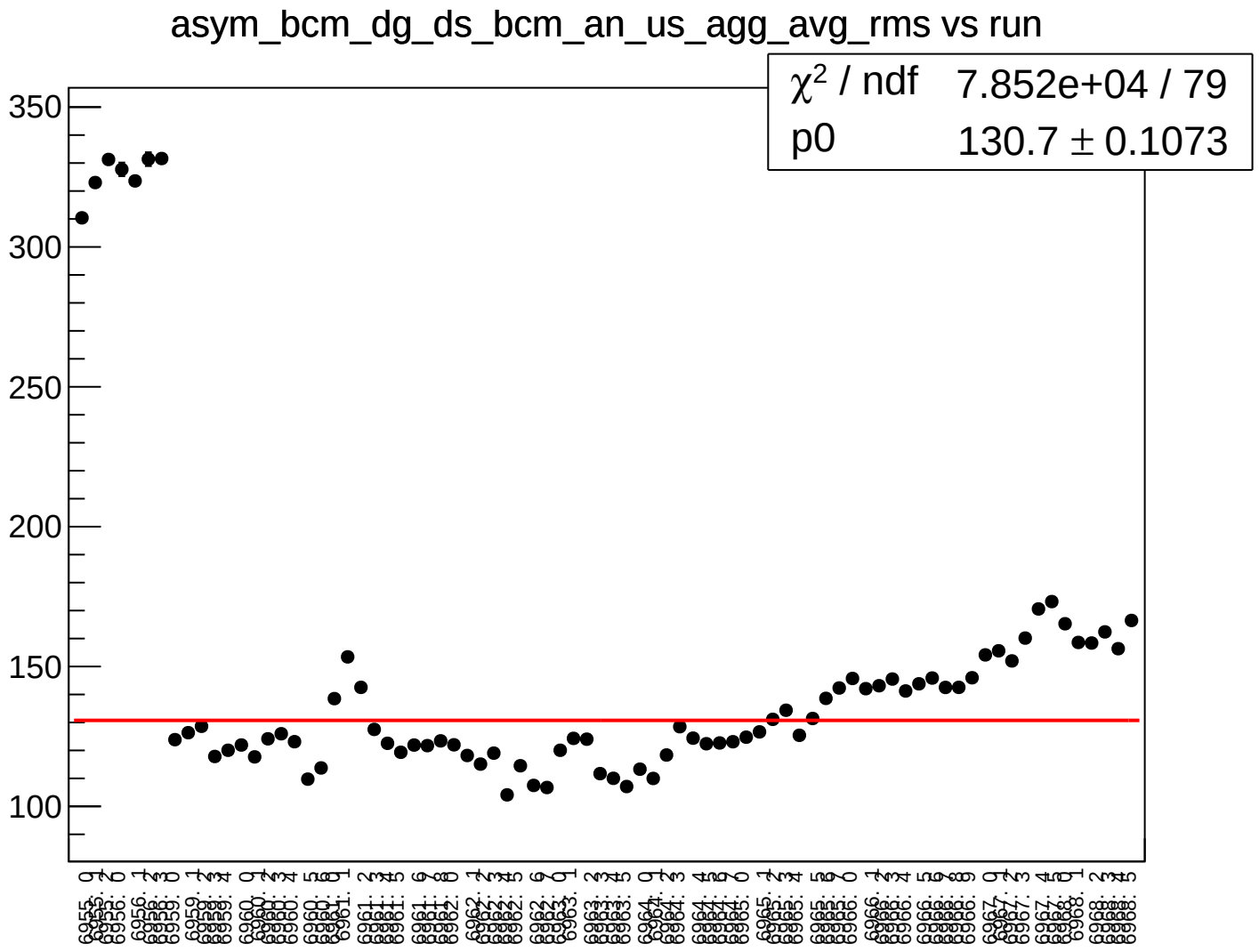

asym_bcm_dg_us_bcm_an_us_agg_dd_mean vs run
χ² / ndf 70.22 / 79
p0 −15.36 ± 25.61
pull
Entries 80
Mean −157.4
Std Dev 199.3

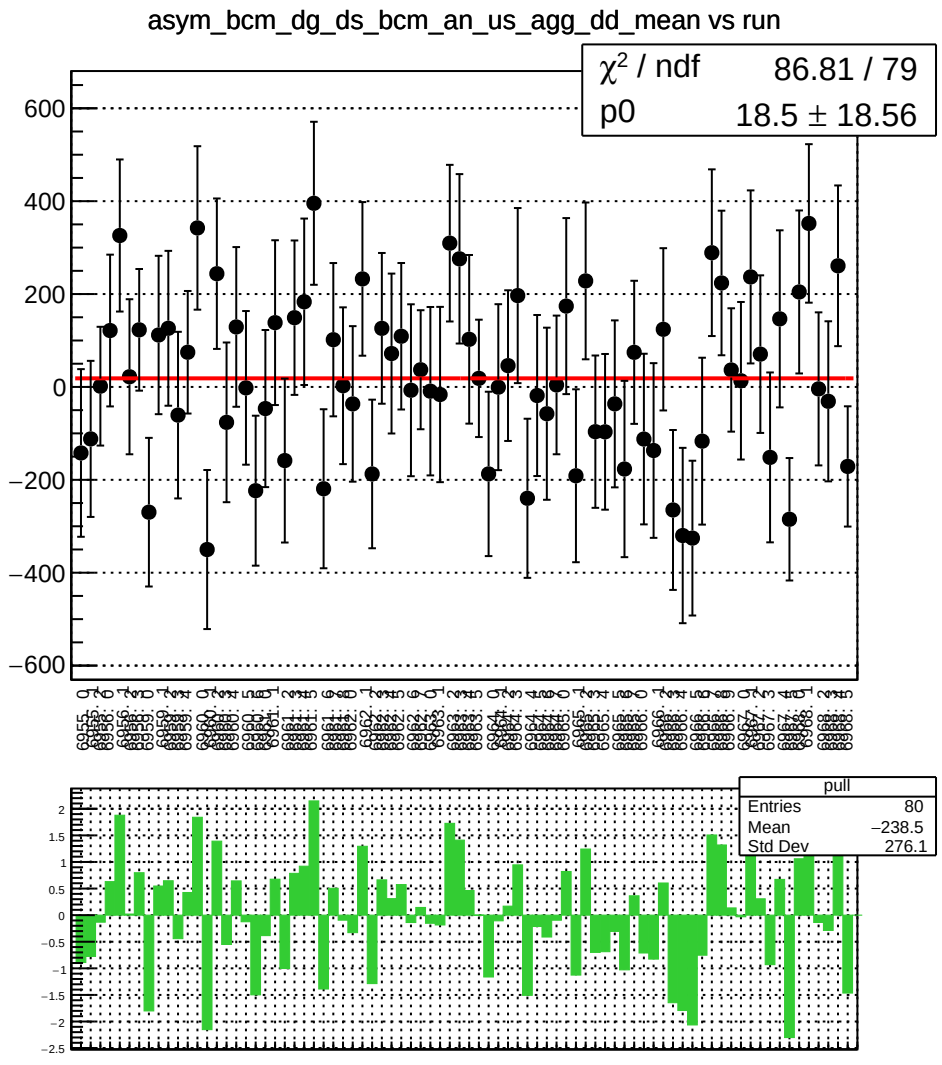

pull1D
Entries 80
Mean 0.01163
Std Dev 0.9368

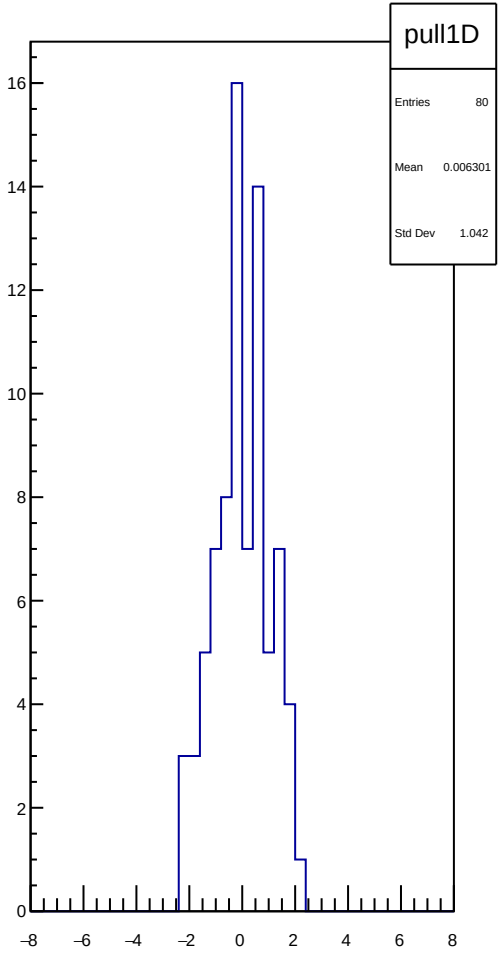

asym_bcm_dg_us_bcm_an_us_agg_dd_rms vs run
χ² / ndf 556.2 / 79
p0 22.63 ± 0.01811
23.5
23
22.5
22
21.5

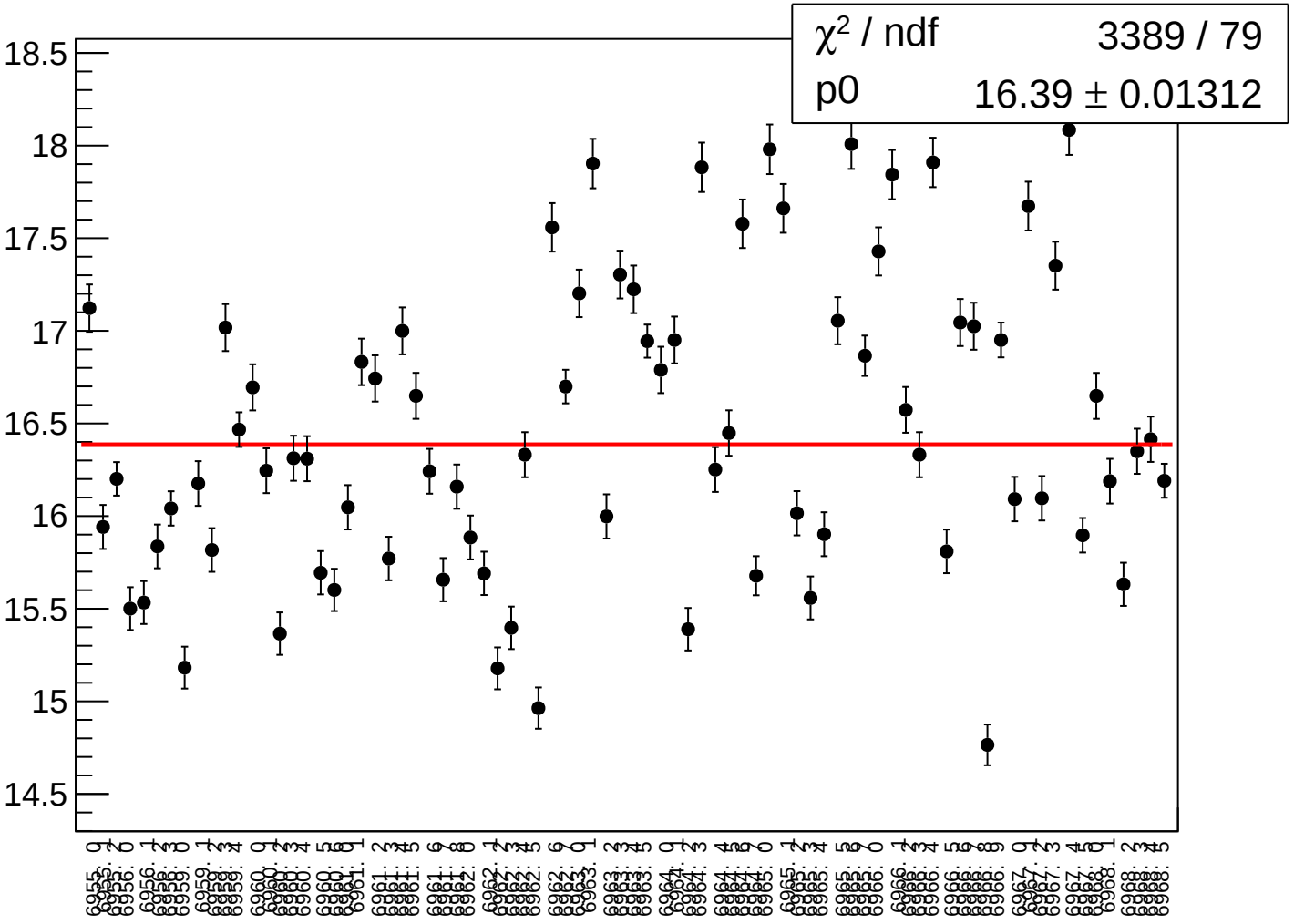

asym_bcm_dg_ds_bcm_an_us_agg_avg_mean vs run
χ² / ndf 11.64 / 79
p0 19.06 ± 151.7
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 154.1
Std Dev 105.2
1.5
1
0.5
0
−0.5
−1

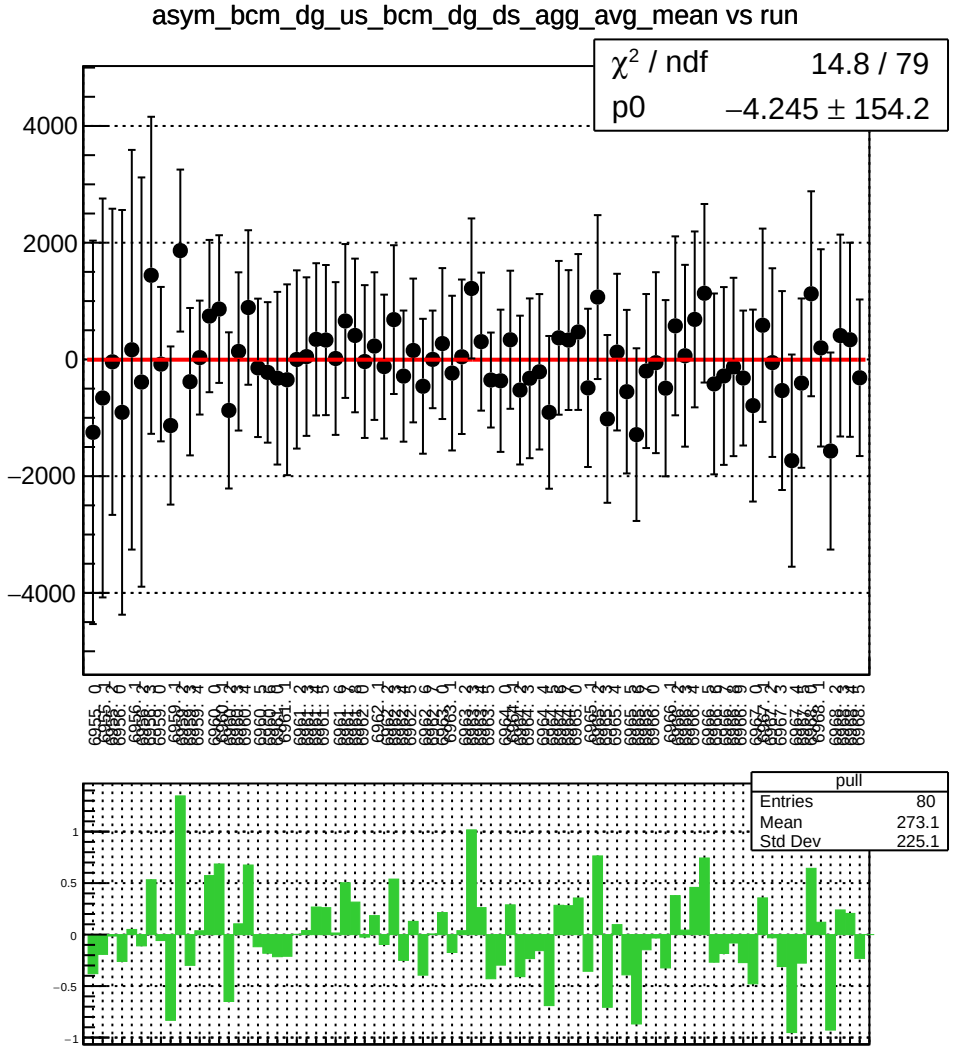

pull1D
Entries 80
Mean −0.009852
Std Dev 0.3814
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

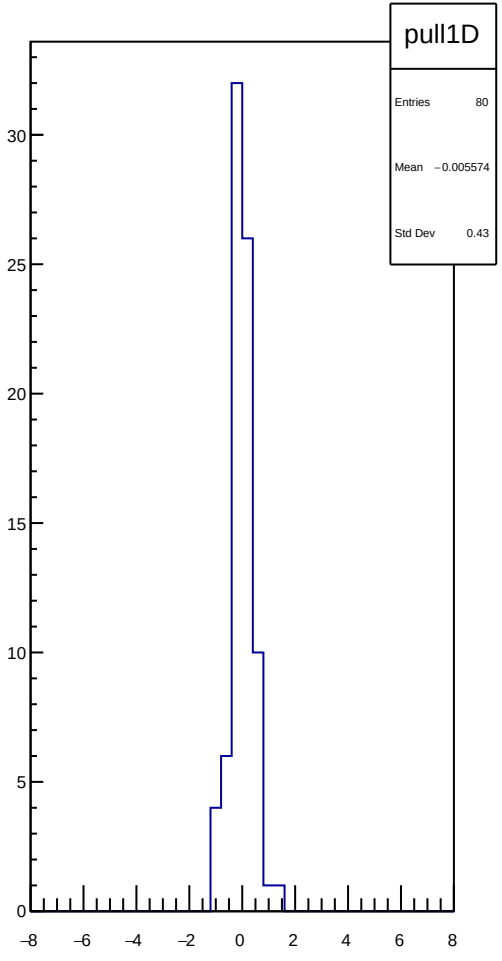

asym_bcm_dg_ds_bcm_an_us_agg_avg_rms vs run
χ² / ndf 7.852e+04 / 79
p0 130.7 ± 0.1073
350
300
250
200
150
100

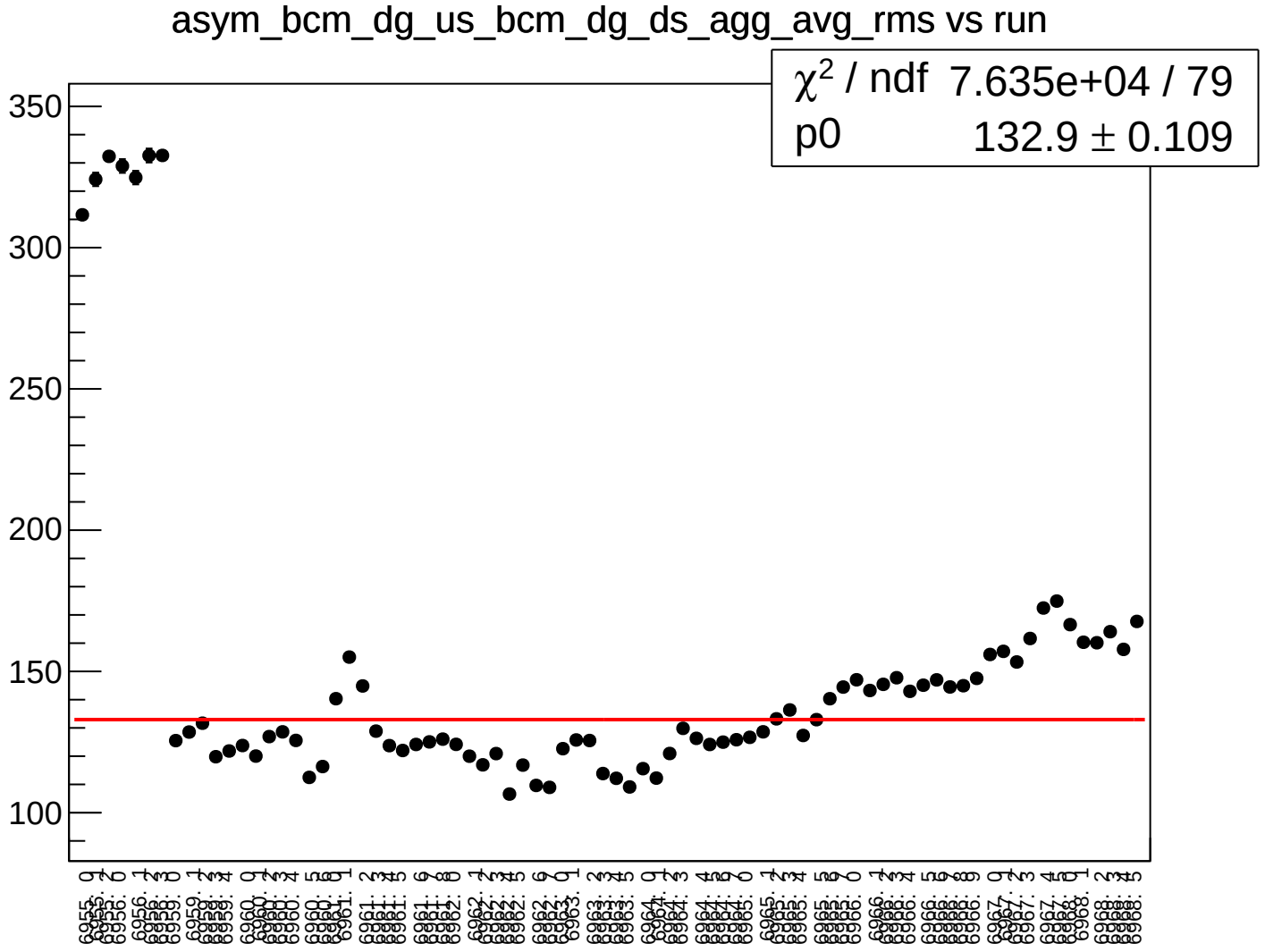

asym_bcm_dg_ds_bcm_an_us_agg_dd_mean vs run
χ² / ndf 86.81 / 79
p0 18.5 ± 18.56
pull
Entries 80
Mean −238.5
Std Dev 276.1

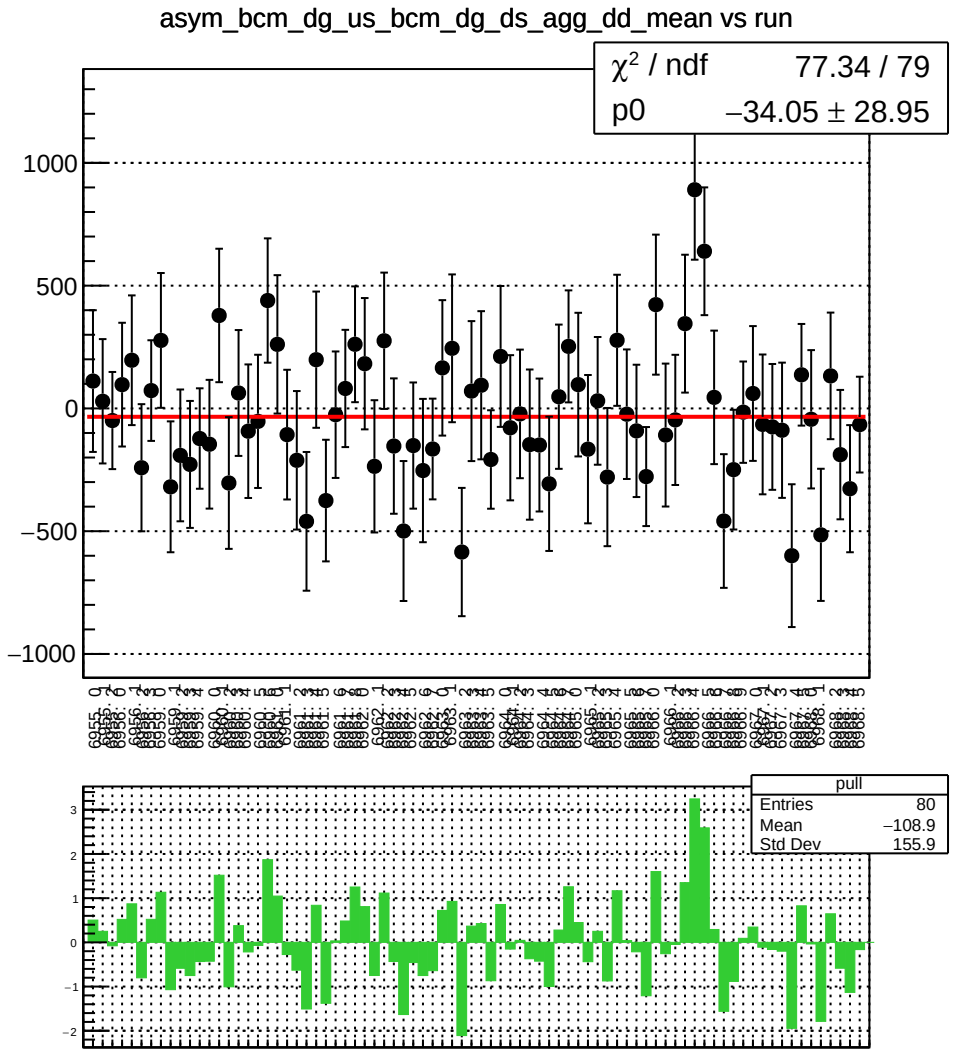

pull1D
Entries 80
Mean 0.006301
Std Dev 1.042

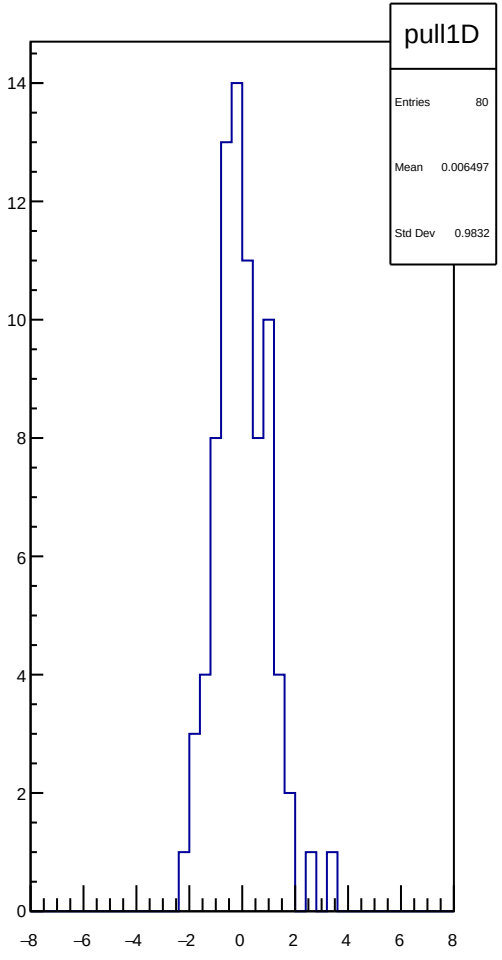

asym_bcm_dg_ds_bcm_an_us_agg_dd_rms vs run
χ² / ndf 3389 / 79
p0 16.39 ± 0.01312
18.5
18
17.5
17
16.5
16
15.5
15
14.5

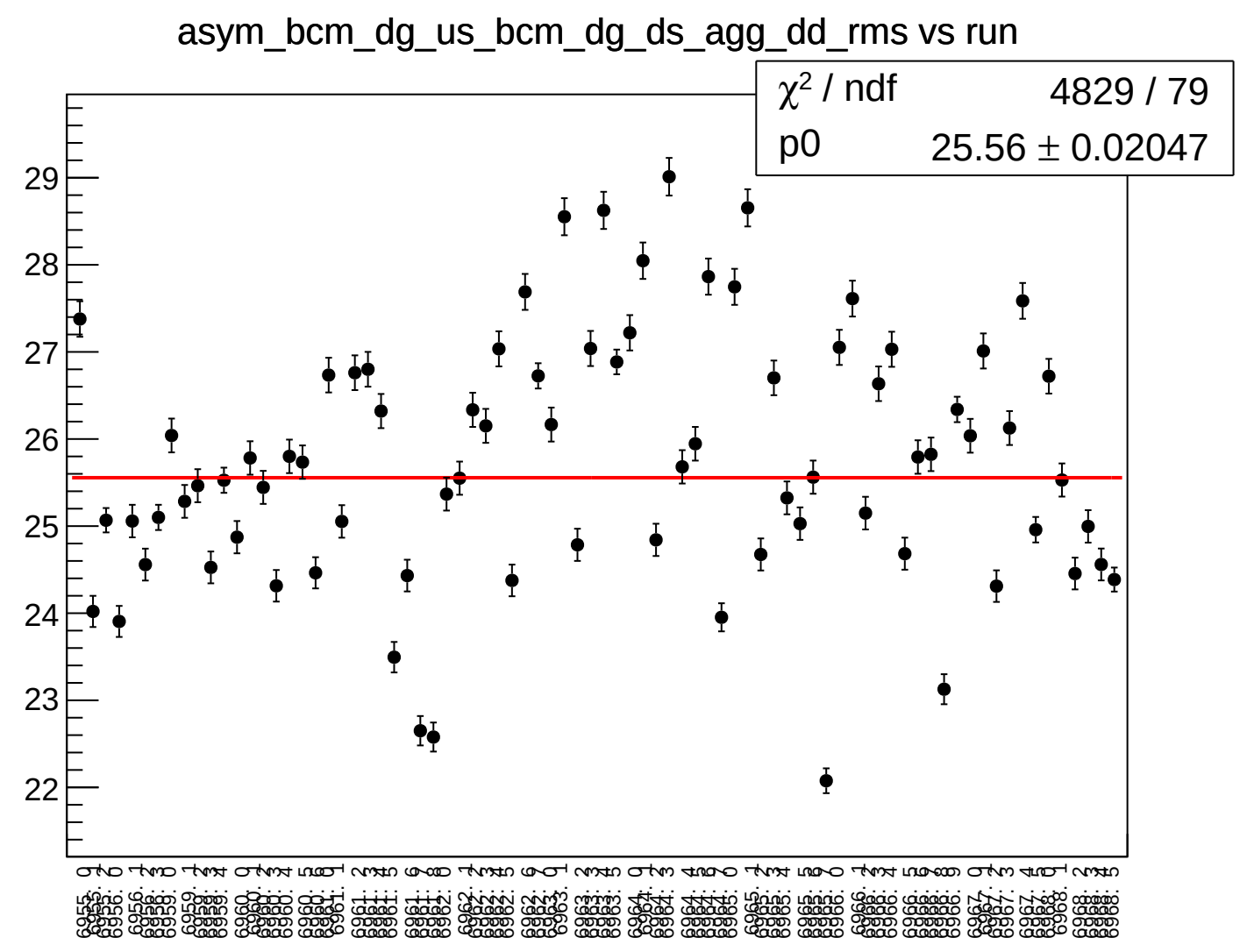

asym_bcm_dg_us_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 14.8 / 79
p0 −4.245 ± 154.2
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 273.1
Std Dev 225.1
1
0.5
0
−0.5
−1

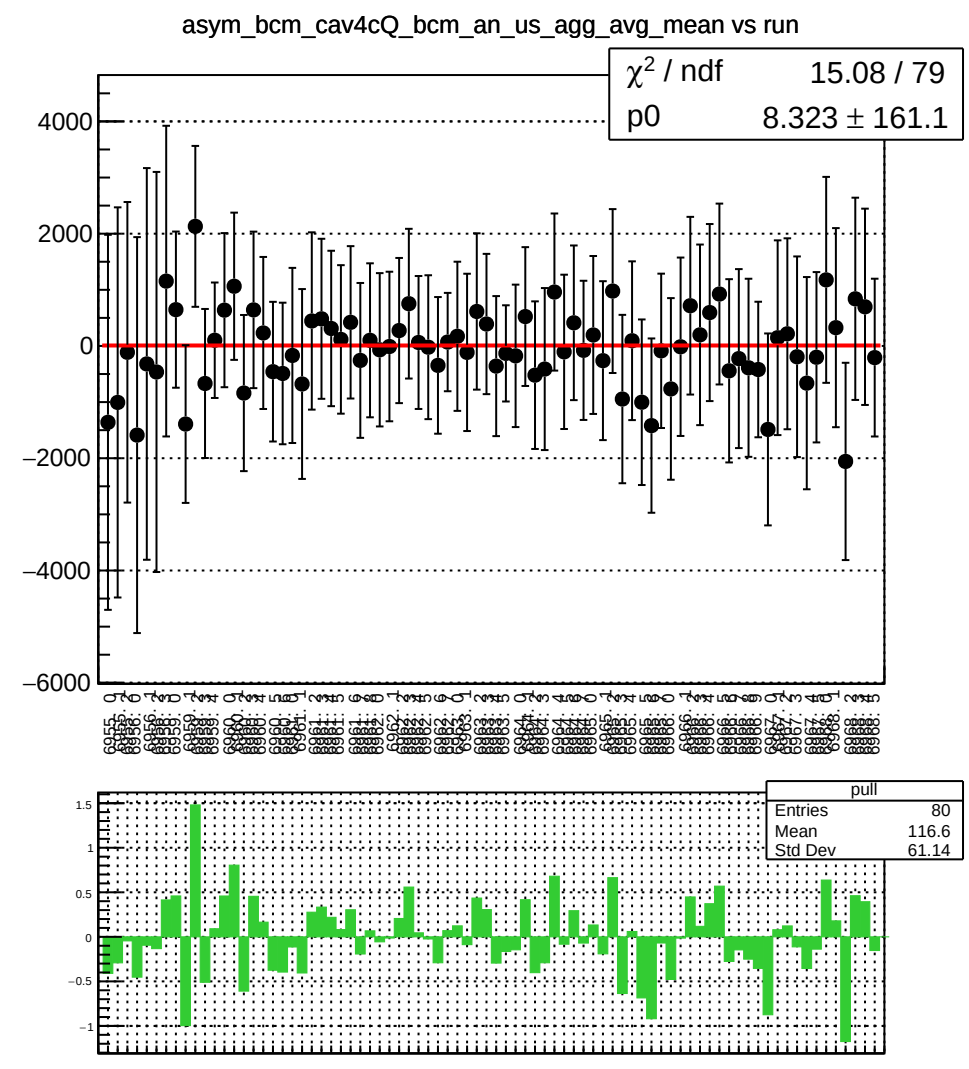

pull1D
Entries 80
Mean −0.005574
Std Dev 0.43
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

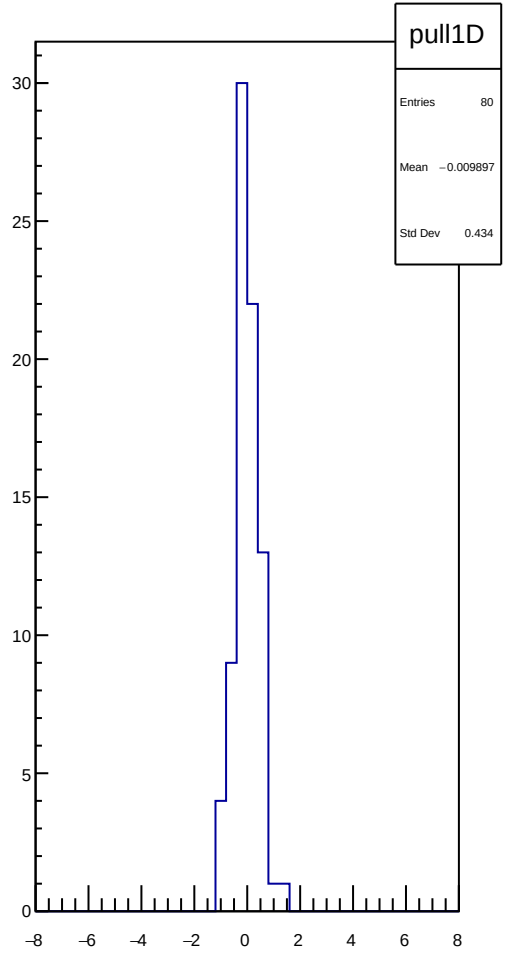

asym_bcm_dg_us_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 7.635e+04 / 79
p0 132.9 ± 0.109
350
300
250
200
150
100

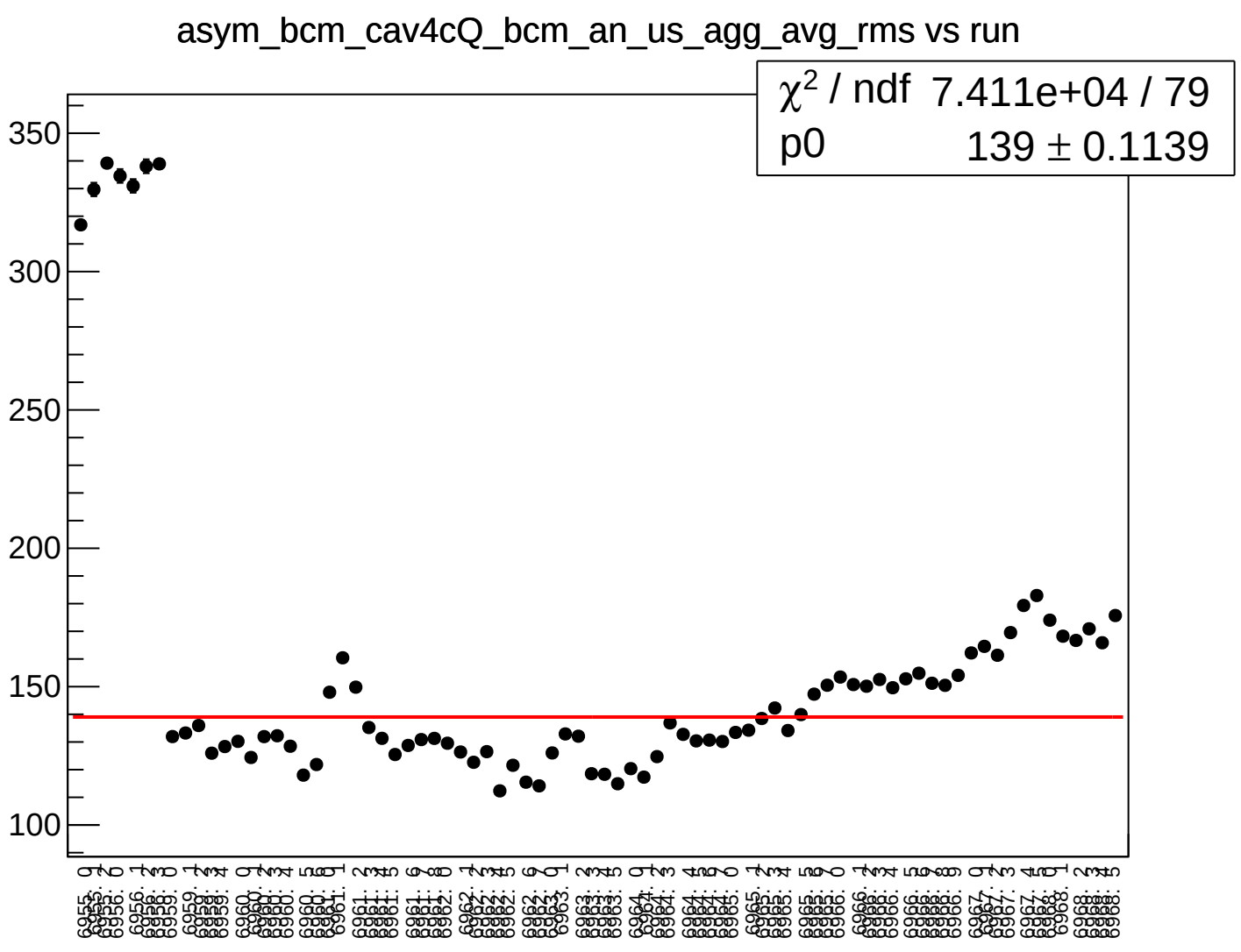

asym_bcm_dg_us_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 77.34 / 79
p0 −34.05 ± 28.95
1000
500
0
−500
−1000
pull
Entries 80
Mean −108.9
Std Dev 155.9
3
2
1
0
−1
−2

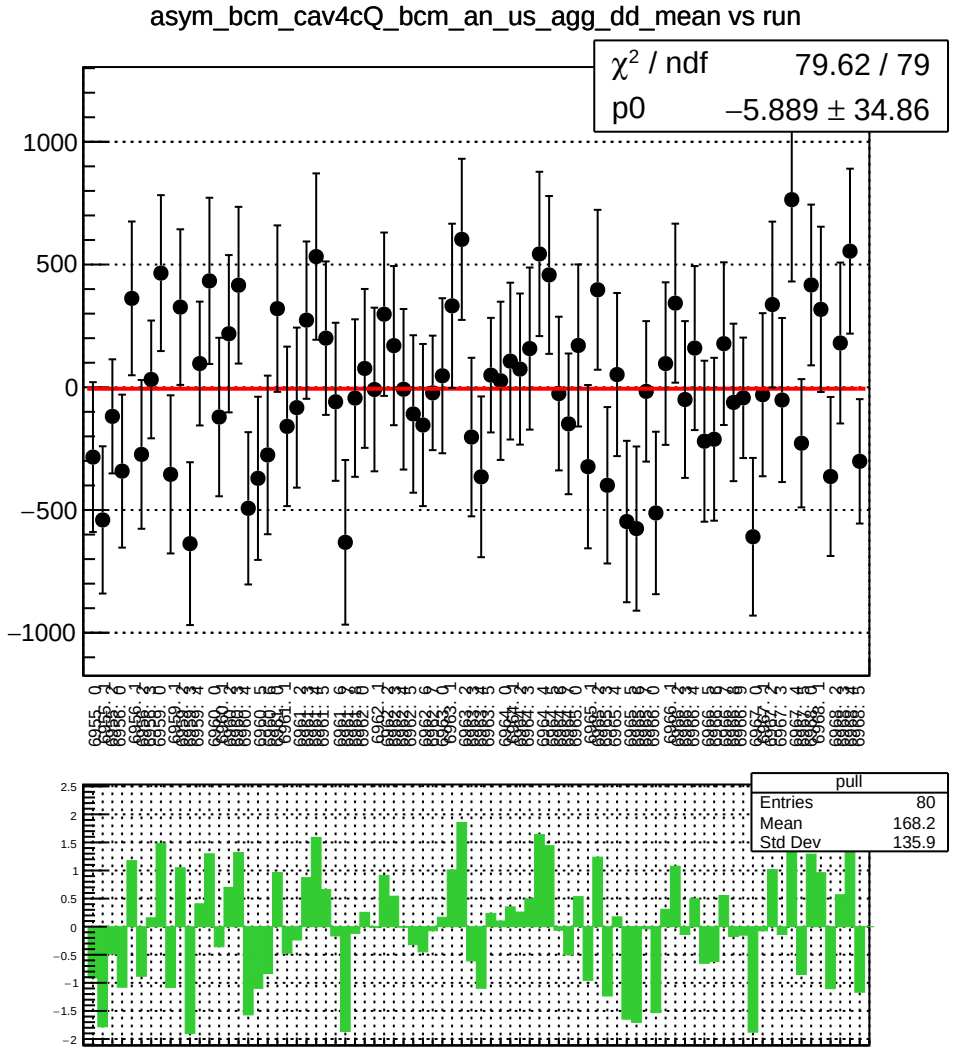

pull1D
Entries 80
Mean 0.006497
Std Dev 0.9832
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

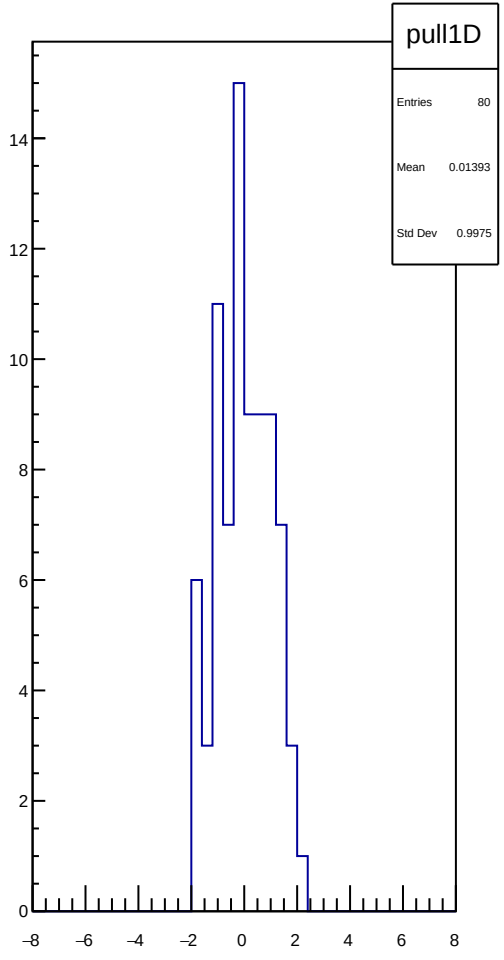

asym_bcm_dg_us_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 4829 / 79
p0 25.56 ± 0.02047
29
28
27
26
25
24
23
22

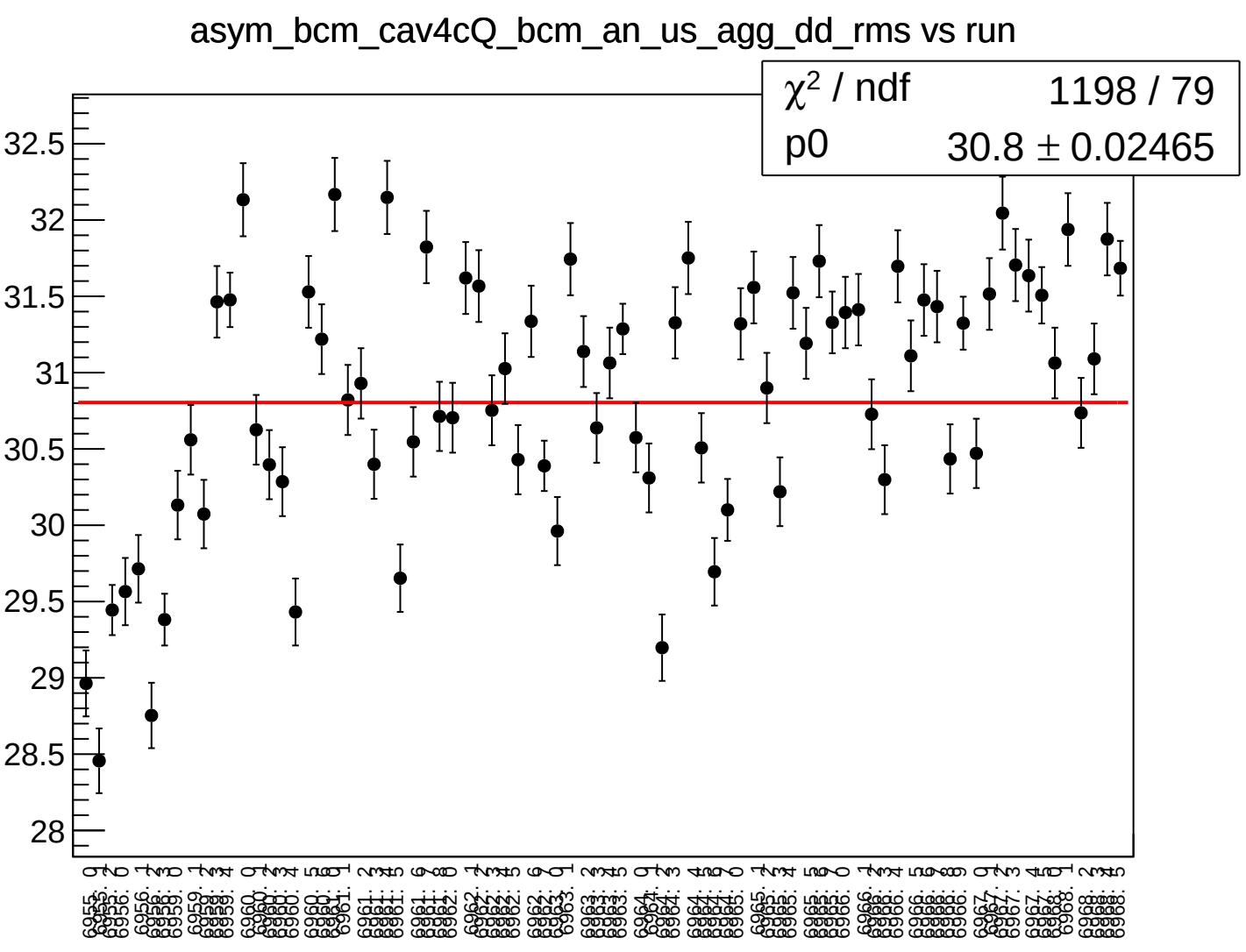

asym_bcm_cav4cQ_bcm_an_us_agg_avg_mean vs run
χ² / ndf 15.08 / 79
p0 8.323 ± 161.1
4000
2000
0
−2000
−4000
−6000
pull
Entries 80
Mean 116.6
Std Dev 61.14
1.5
1
0.5
0
−0.5
−1

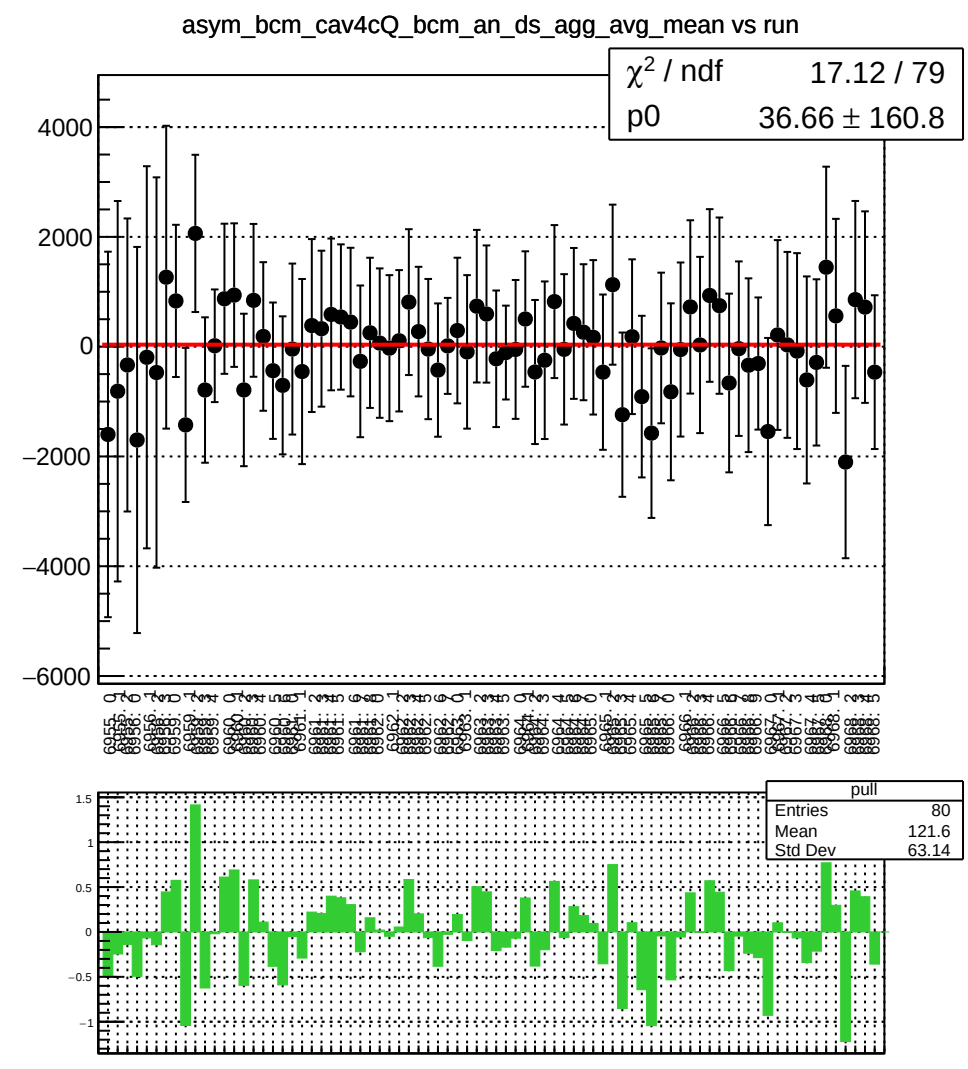

pull1D
Entries 80
Mean −0.009897
Std Dev 0.434
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

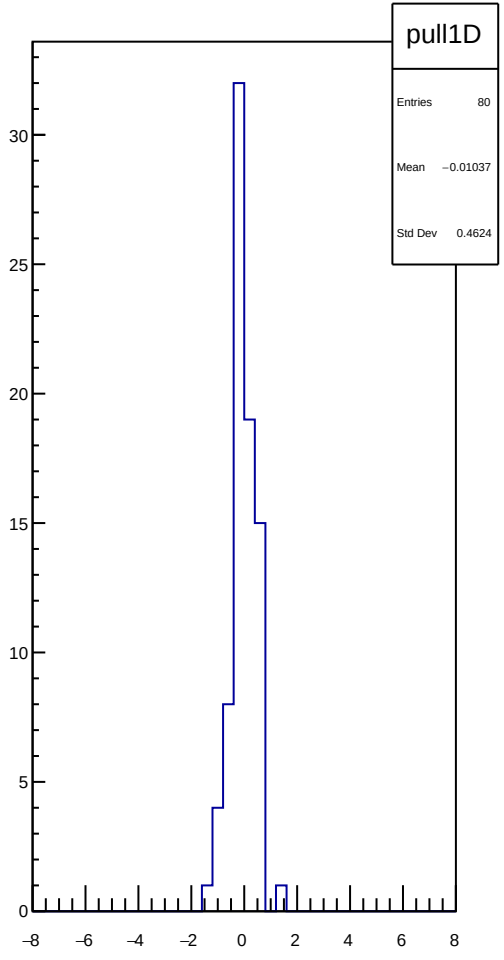

asym_bcm_cav4cQ_bcm_an_us_agg_avg_rms vs run
χ² / ndf 7.411e+04 / 79
p0 139 ± 0.1139
350
300
250
200
150
100

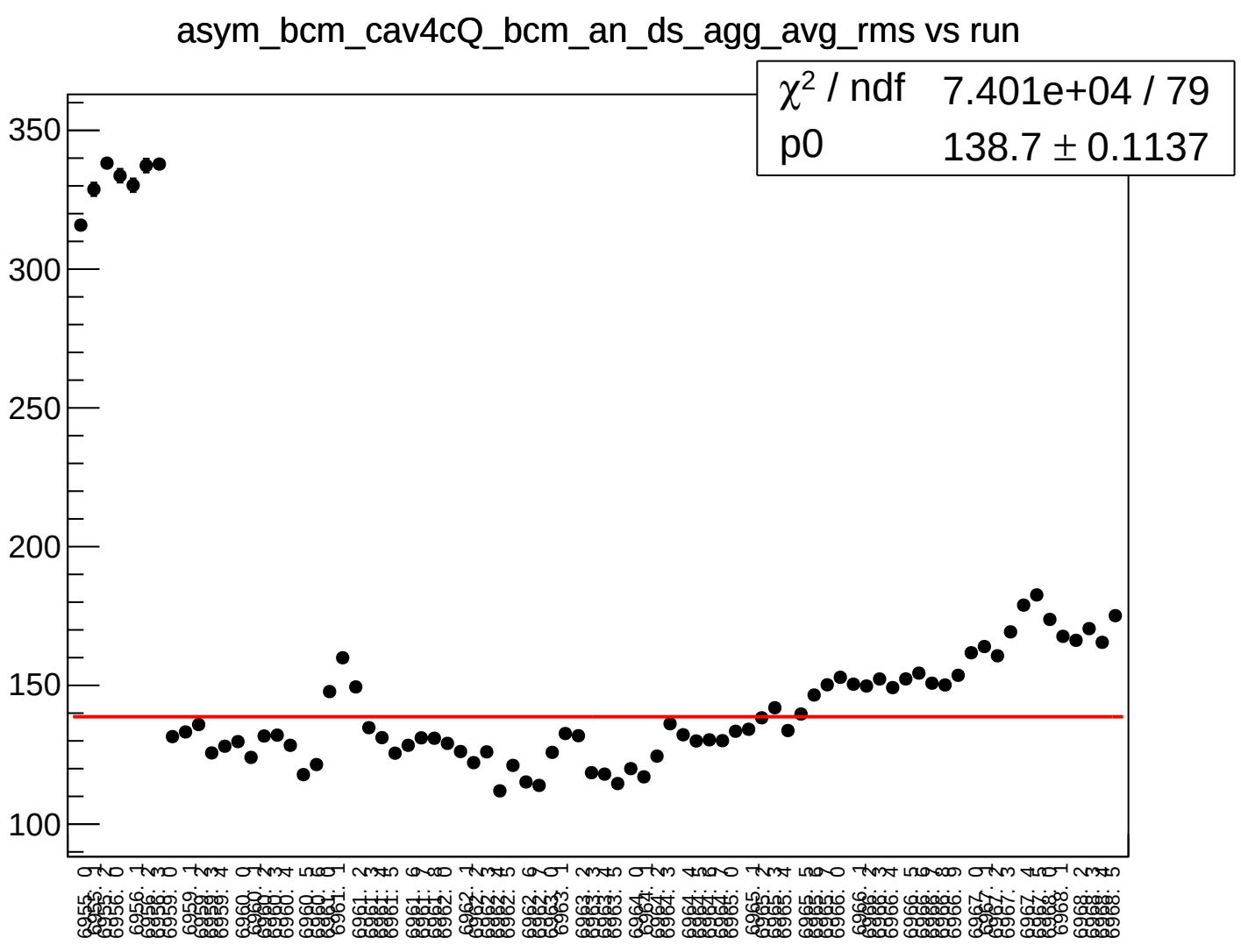

asym_bcm_cav4cQ_bcm_an_us_agg_dd_mean vs run
χ² / ndf 79.62 / 79
p0 −5.889 ± 34.86
1000
500
0
−500
−1000
pull
Entries 80
Mean 168.2
Std Dev 135.9
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

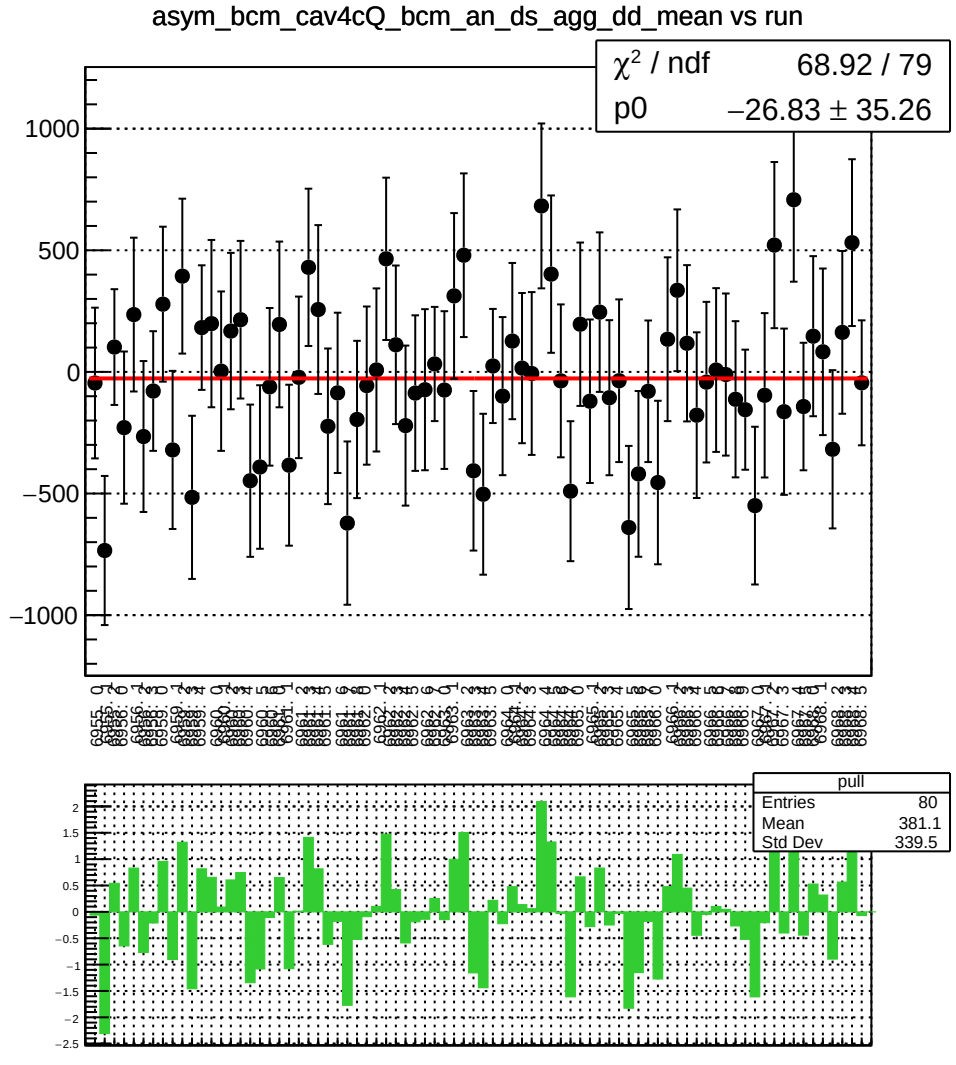

pull1D
Entries 80
Mean 0.01393
Std Dev 0.9975
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

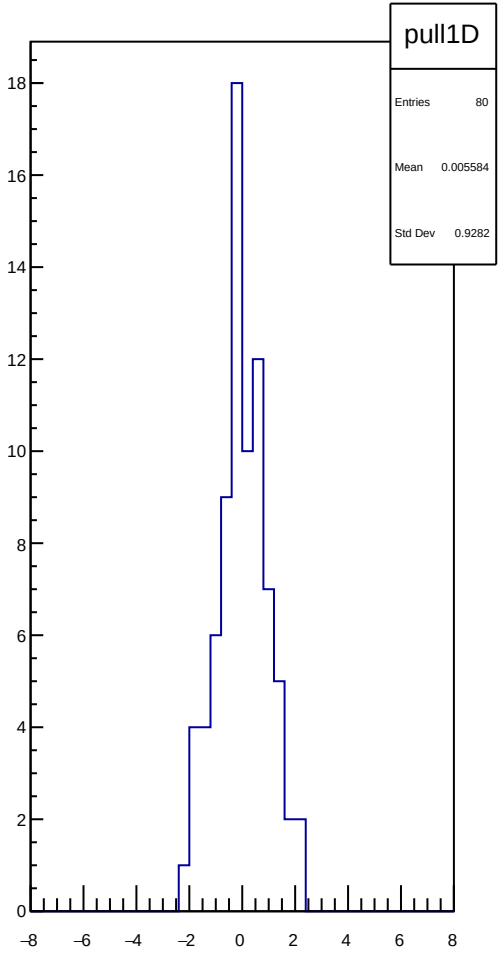

asym_bcm_cav4cQ_bcm_an_us_agg_dd_rms vs run
χ² / ndf 1198 / 79
p0 30.8 ± 0.02465
32.5
32
31.5
31
30.5
30
29.5
29
28.5
28

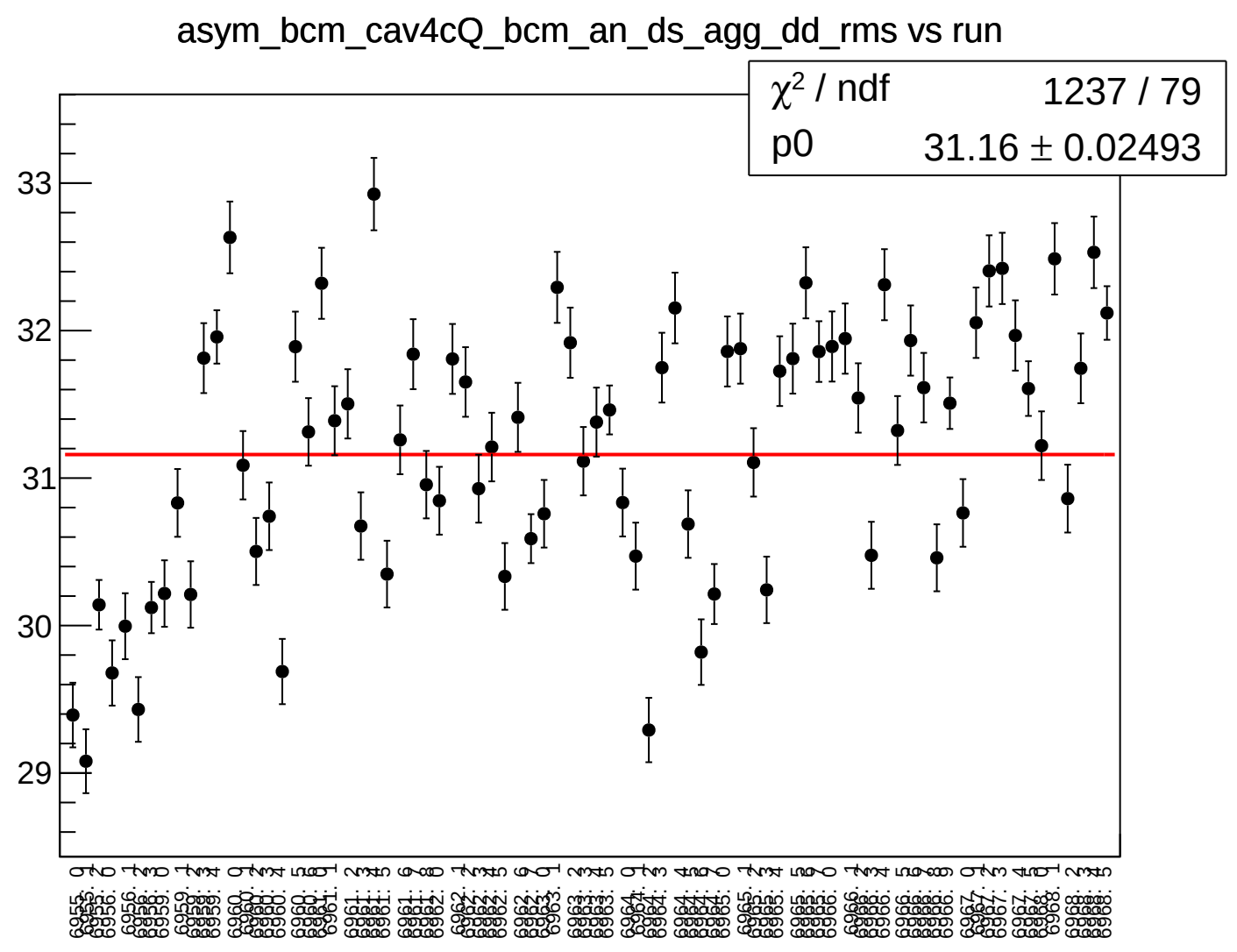

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 17.12 / 79
p0 36.66 ± 160.8
4000
2000
0
−2000
−4000
−6000
pull
Entries 80
Mean 121.6
Std Dev 63.14
1.5
1
0.5
0
−0.5
−1

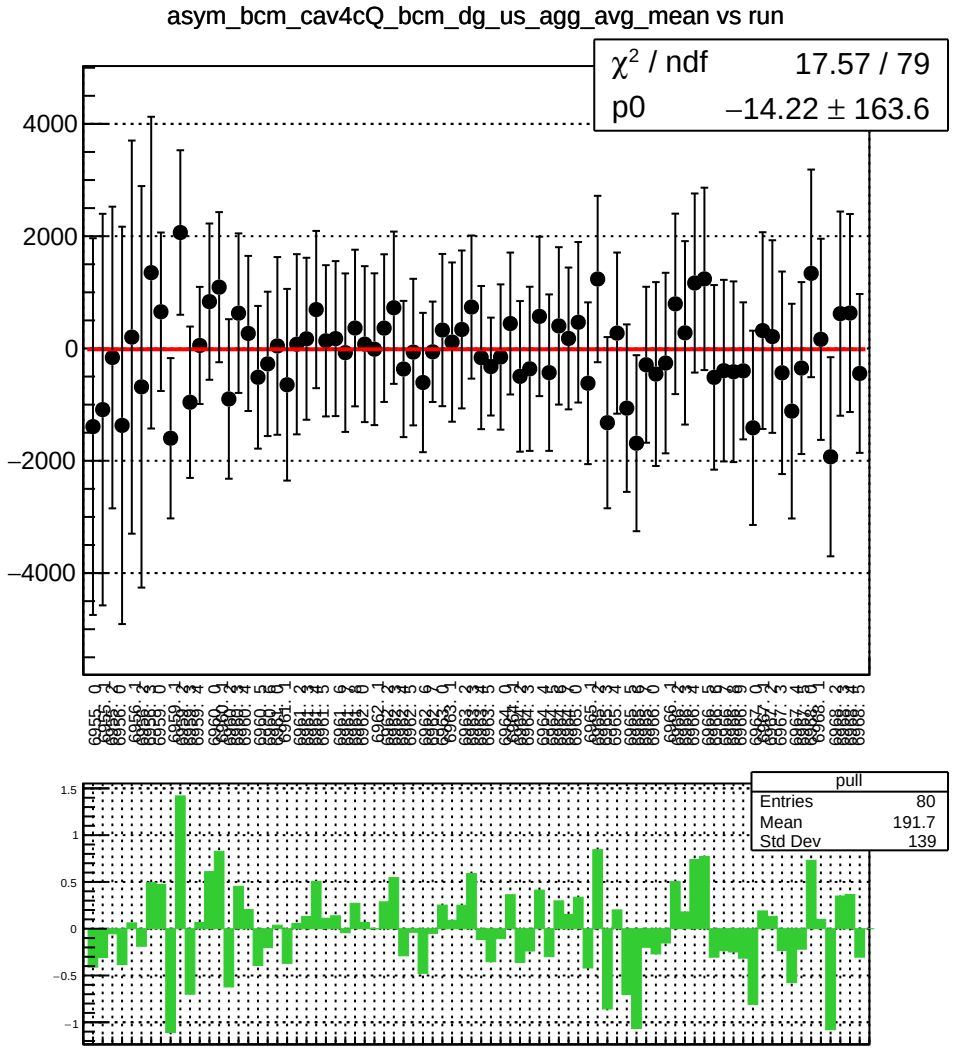

pull1D
Entries 80
Mean −0.01037
Std Dev 0.4624
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

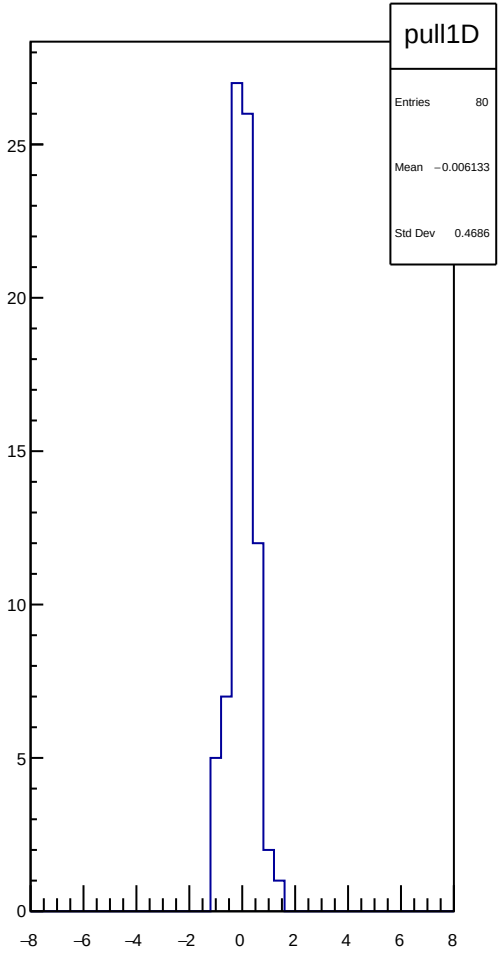

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7.401e+04 / 79
p0 138.7 ± 0.1137
350
300
250
200
150
100

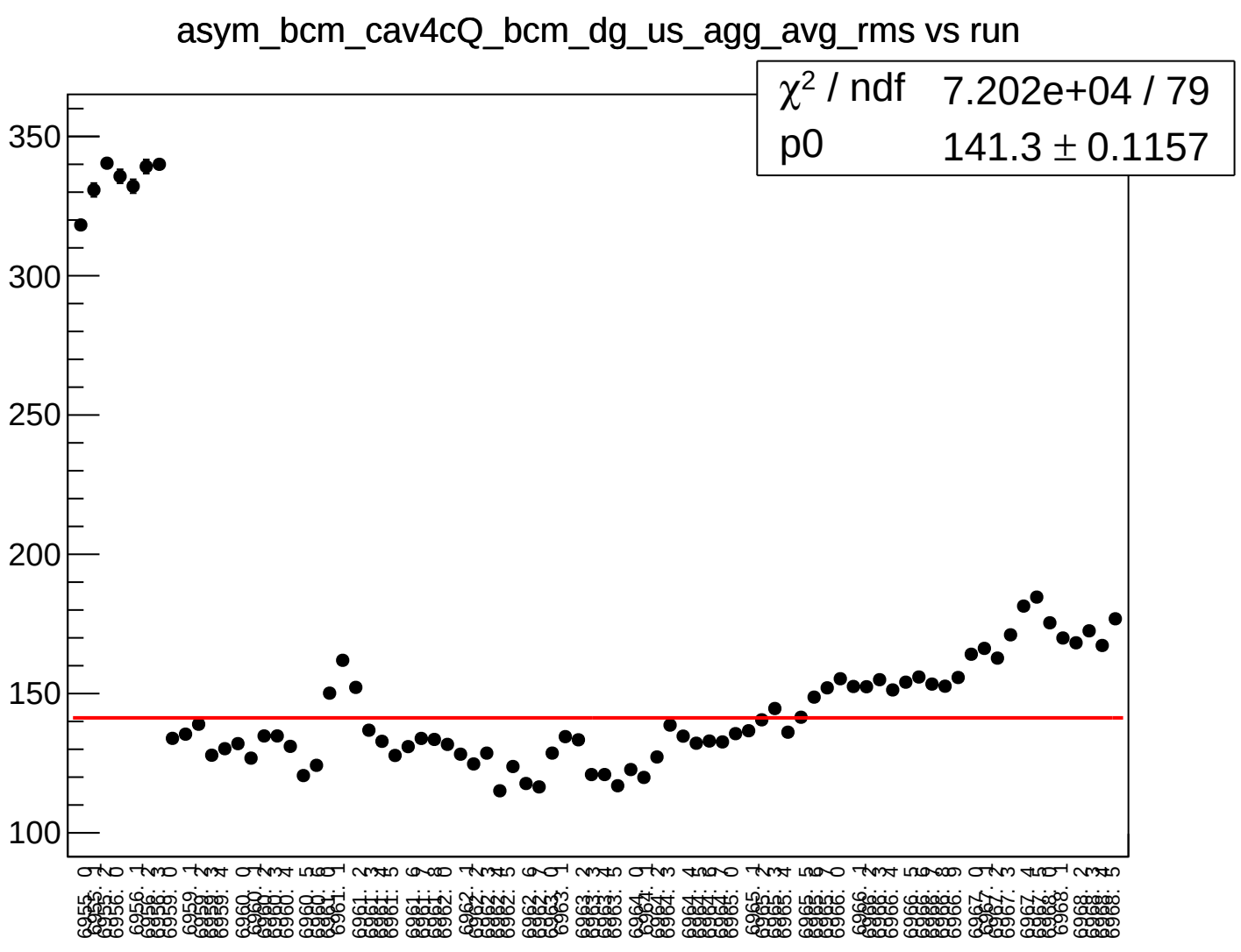

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 68.92 / 79
p0 −26.83 ± 35.26
1000
500
0
−500
−1000
pull
Entries 80
Mean 381.1
Std Dev 339.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

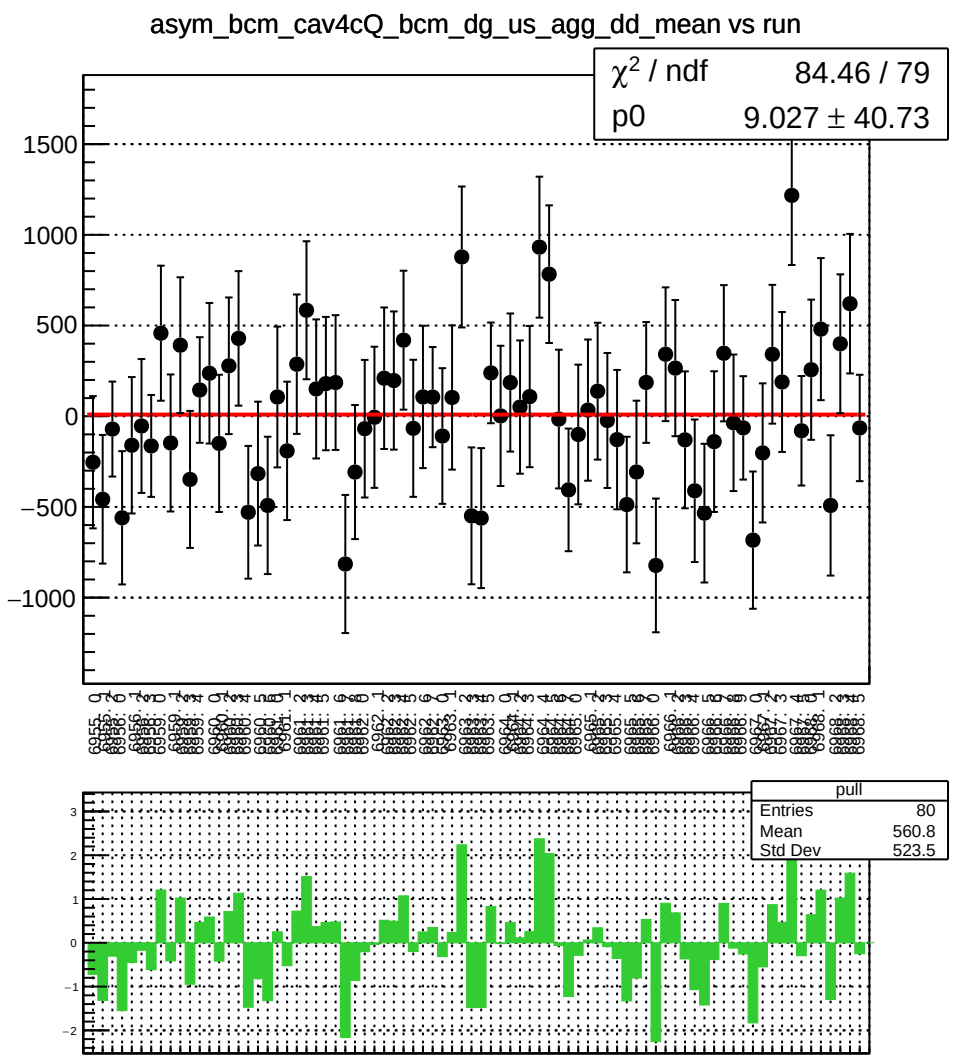

pull1D
Entries 80
Mean 0.005584
Std Dev 0.9282
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

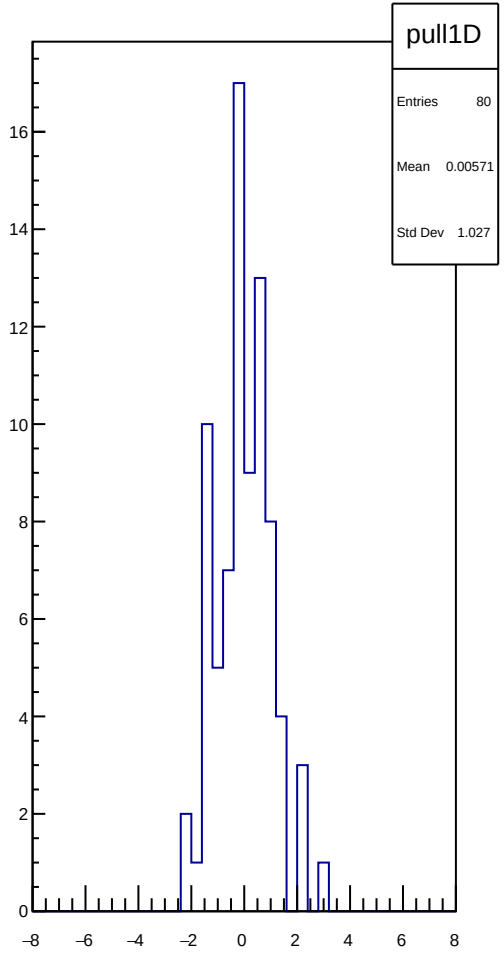

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 1237 / 79
p0 31.16 ± 0.02493
33
32
31
30
29

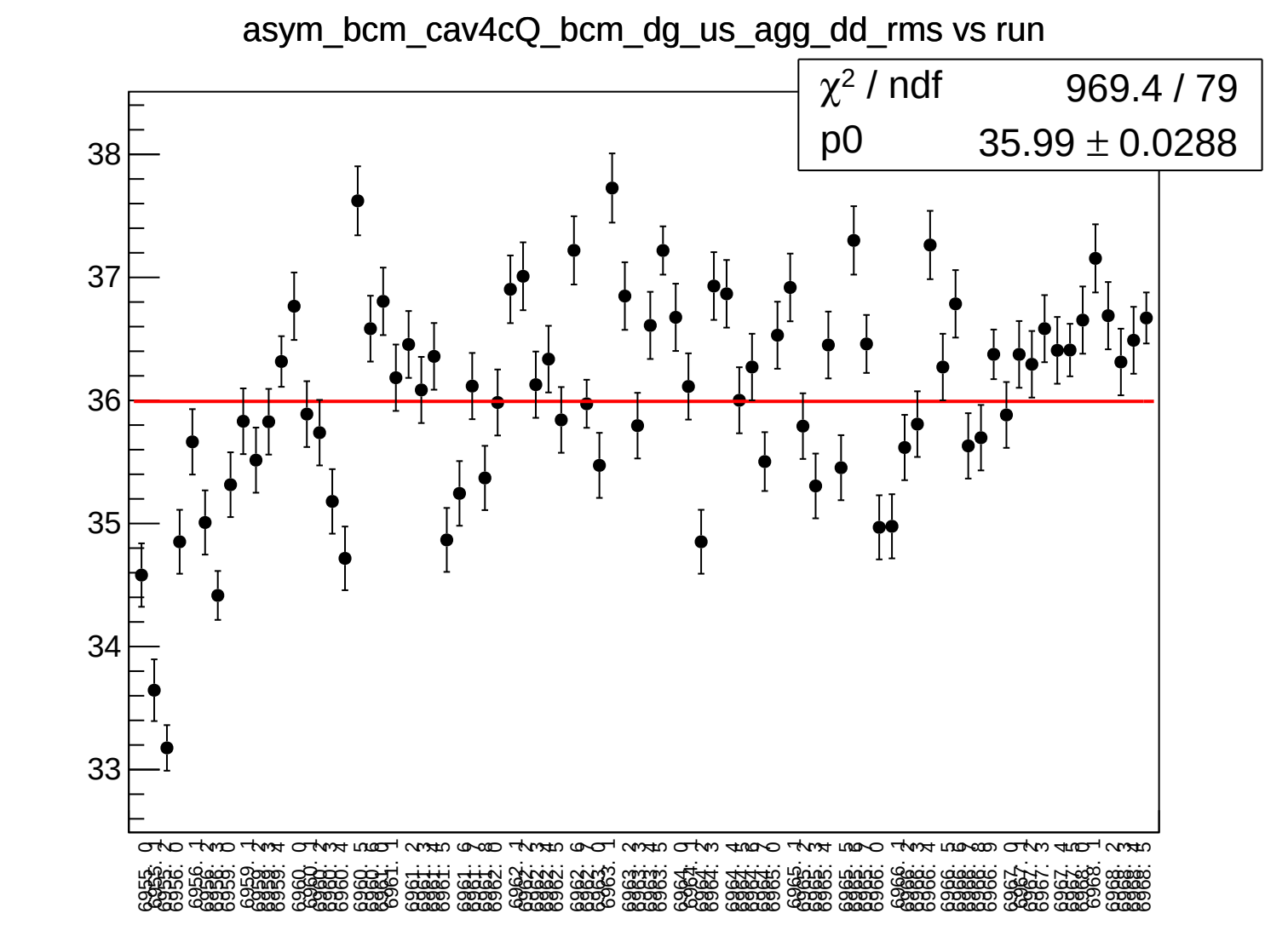

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_mean vs run
χ² / ndf 17.57 / 79
p0 −14.22 ± 163.6
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 191.7
Std Dev 139
1.5
1
0.5
0
−0.5
−1

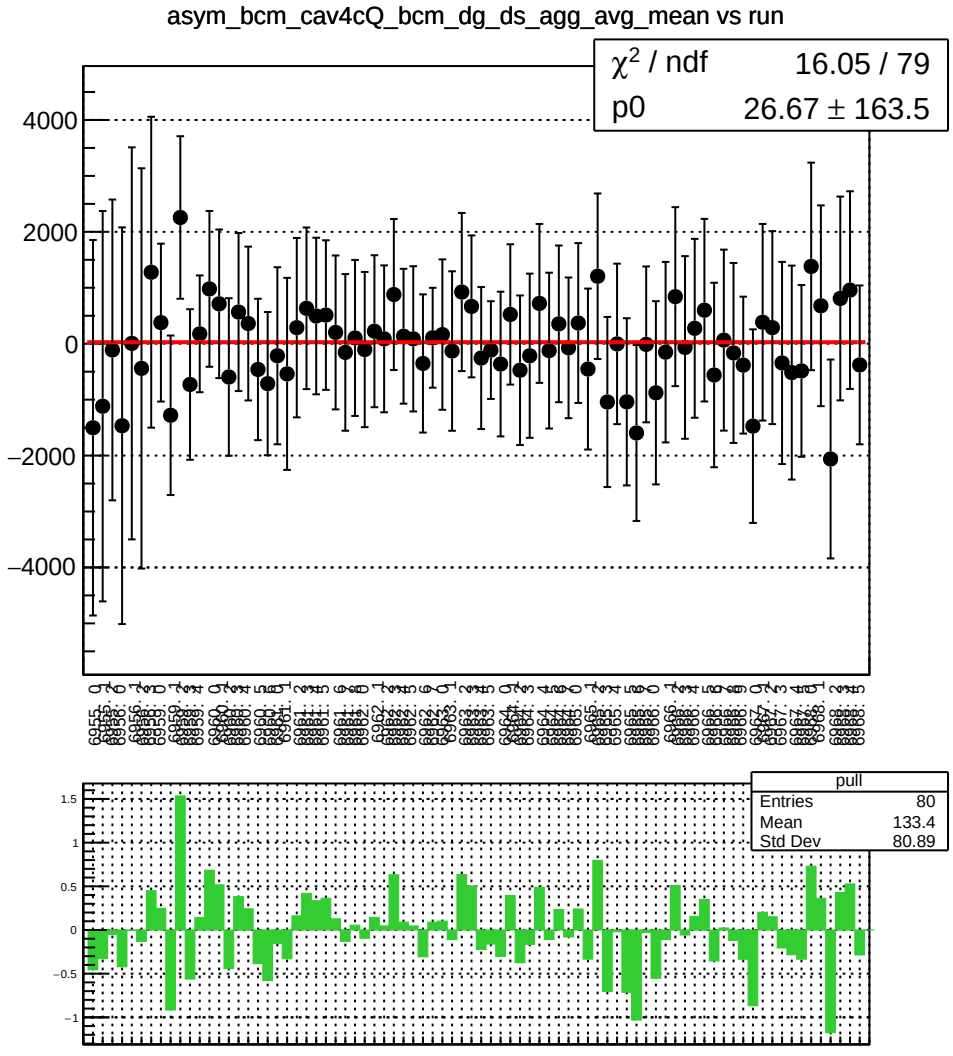

pull1D
Entries 80
Mean −0.006133
Std Dev 0.4686
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

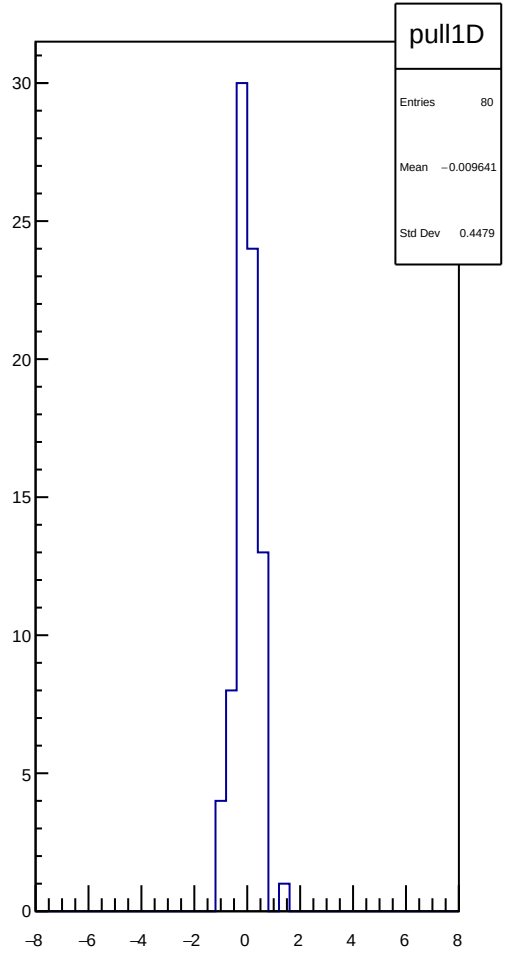

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_rms vs run
χ² / ndf 7.202e+04 / 79
p0 141.3 ± 0.1157
350
300
250
200
150
100

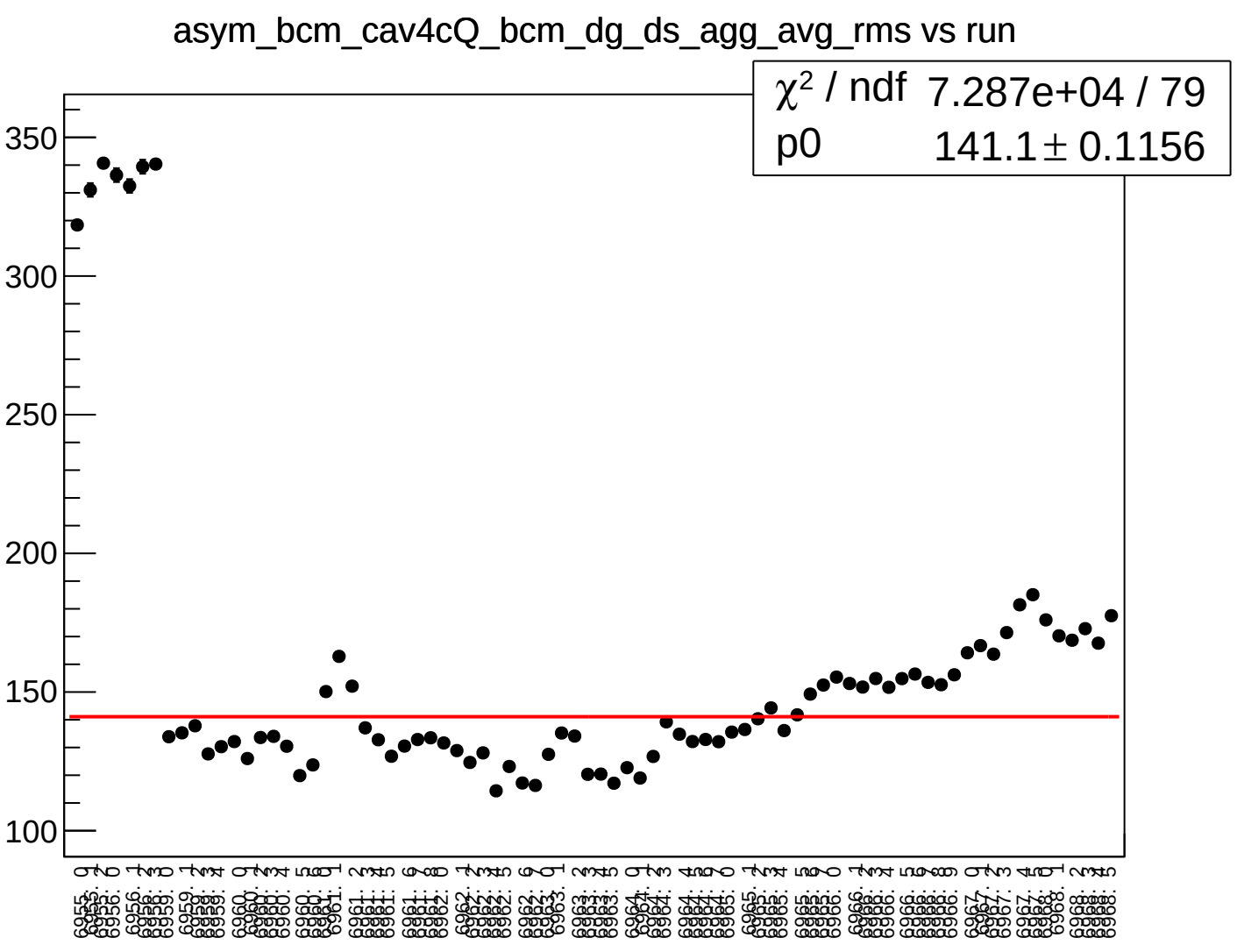

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 84.46 / 79
p0 9.027 ± 40.73
1500
1000
500
0
−500
−1000
pull
Entries 80
Mean 560.8
Std Dev 523.5
3
2
1
0
−1
−2

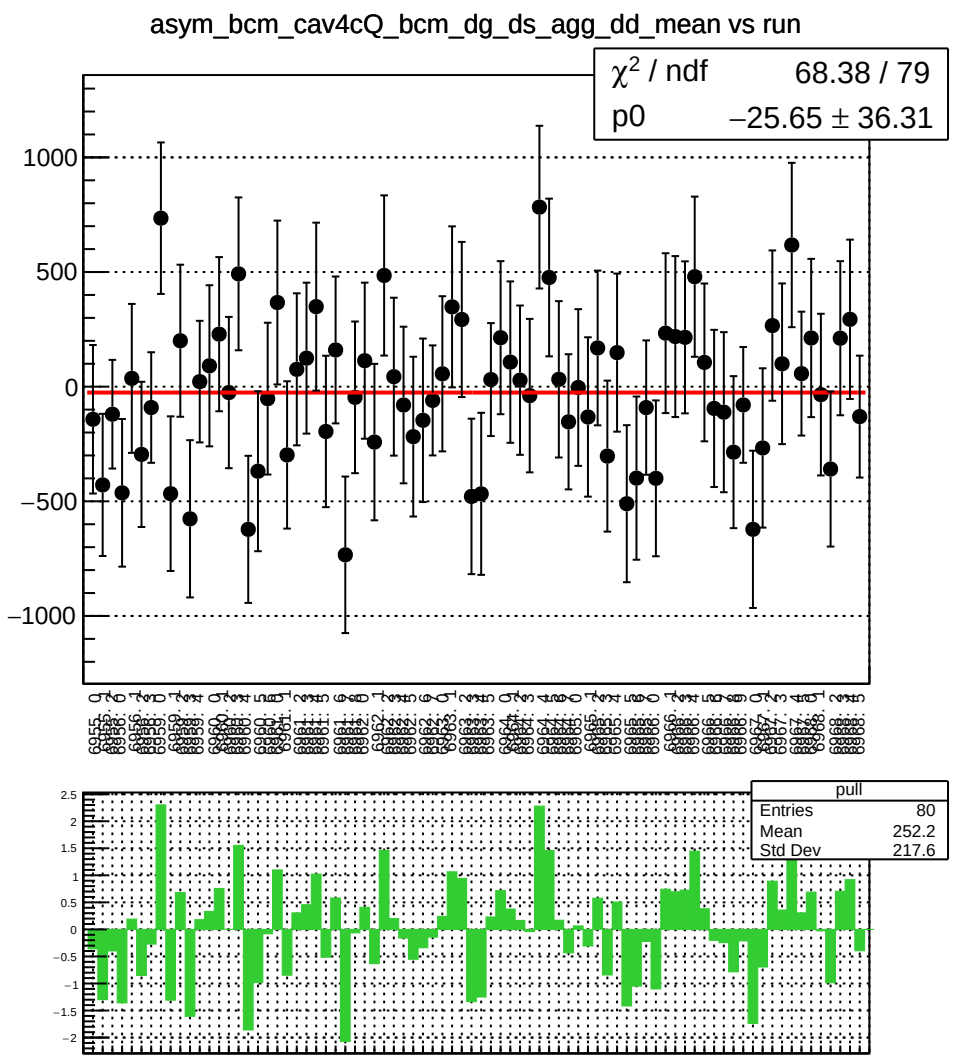

pull1D
Entries 80
Mean 0.00571
Std Dev 1.027
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

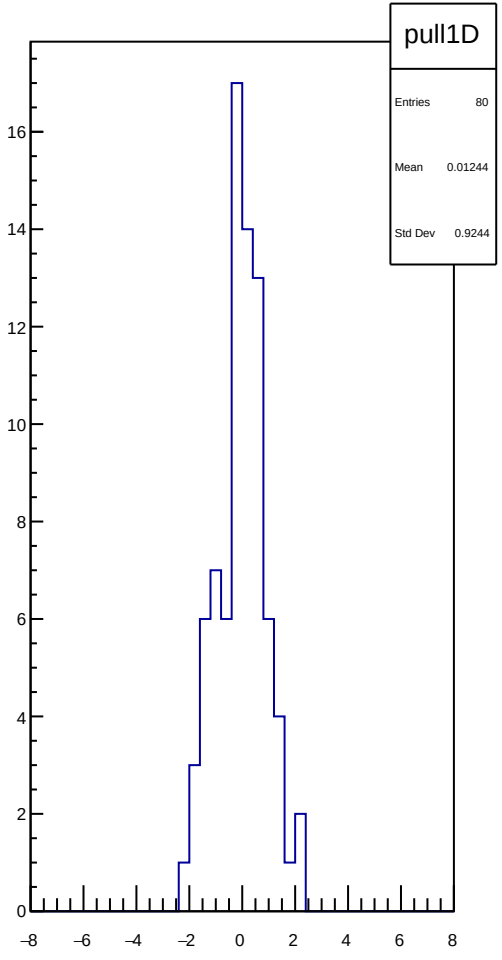

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 969.4 / 79
p0 35.99 ± 0.0288
38
37
36
35
34
33

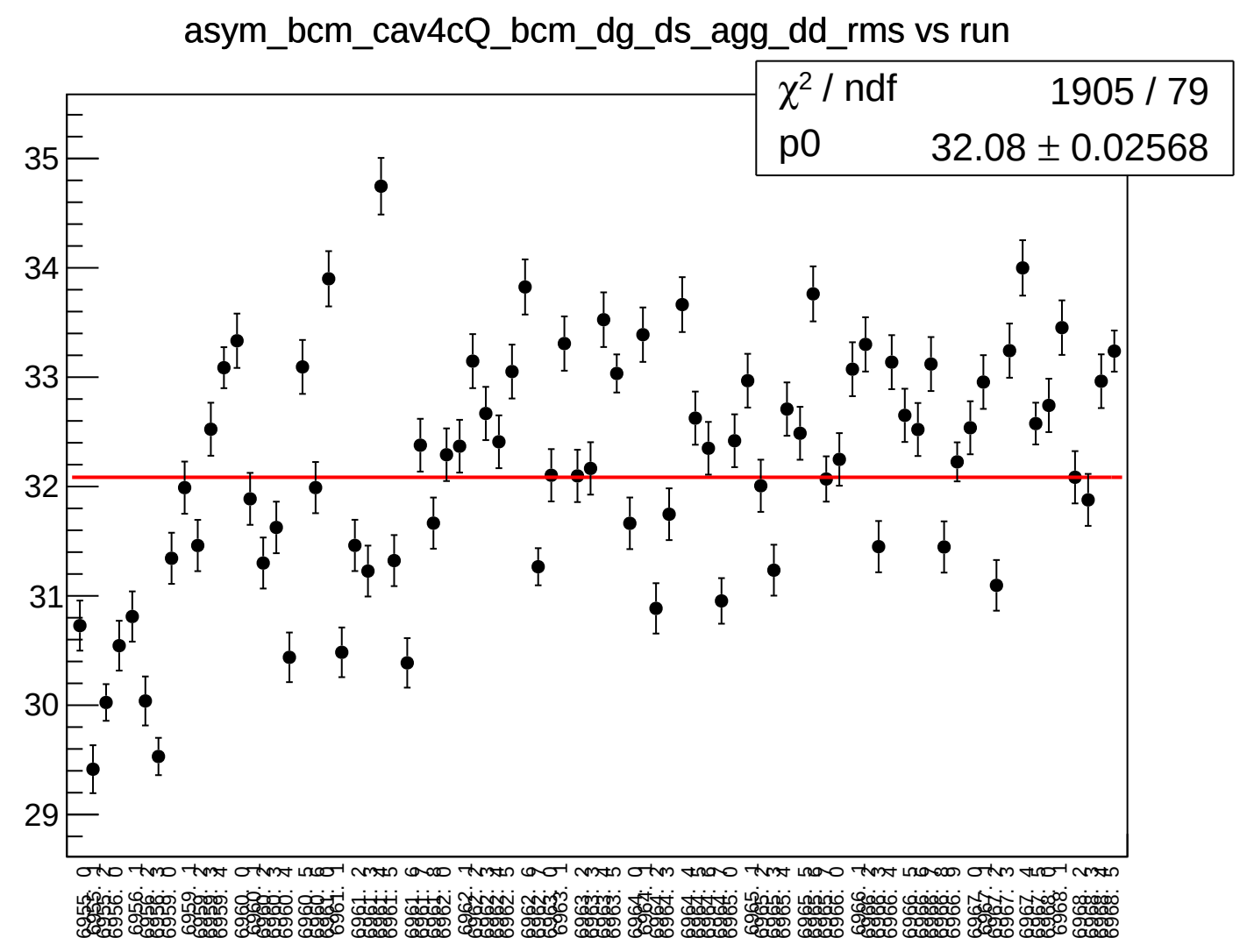

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 16.05 / 79
p0 26.67 ± 163.5
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 133.4
Std Dev 80.89
1.5
1
0.5
0
−0.5
−1

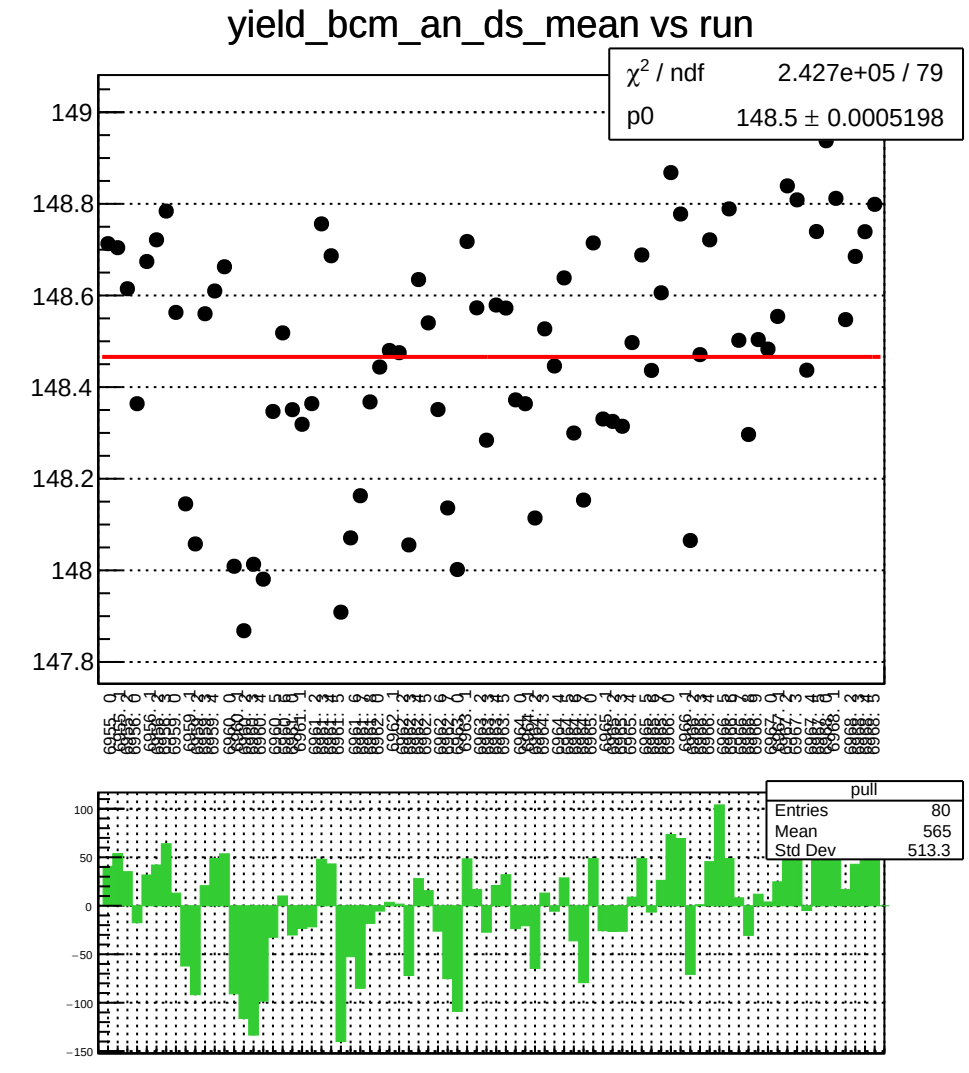

pull1D
Entries 80
Mean −0.009641
Std Dev 0.4479
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

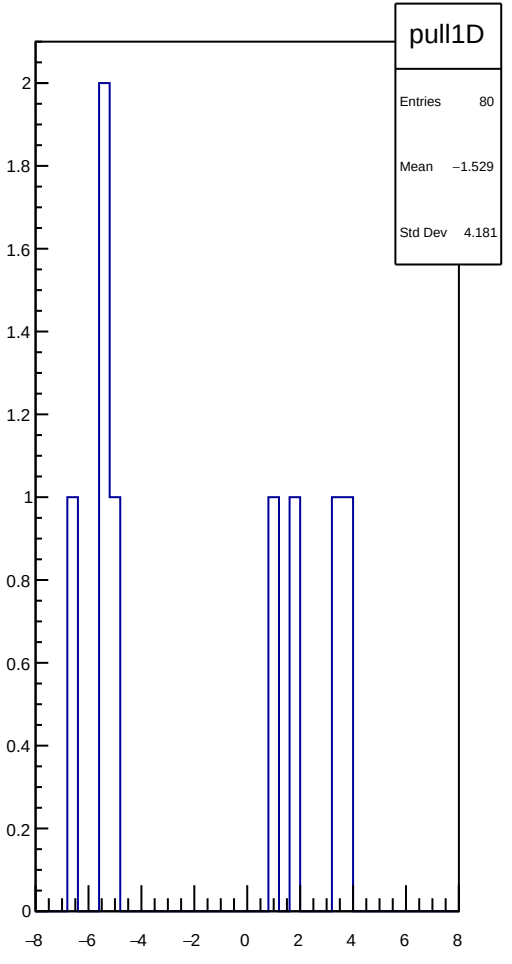

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 7.287e+04 / 79
p0 141.1 ± 0.1156
350
300
250
200
150
100

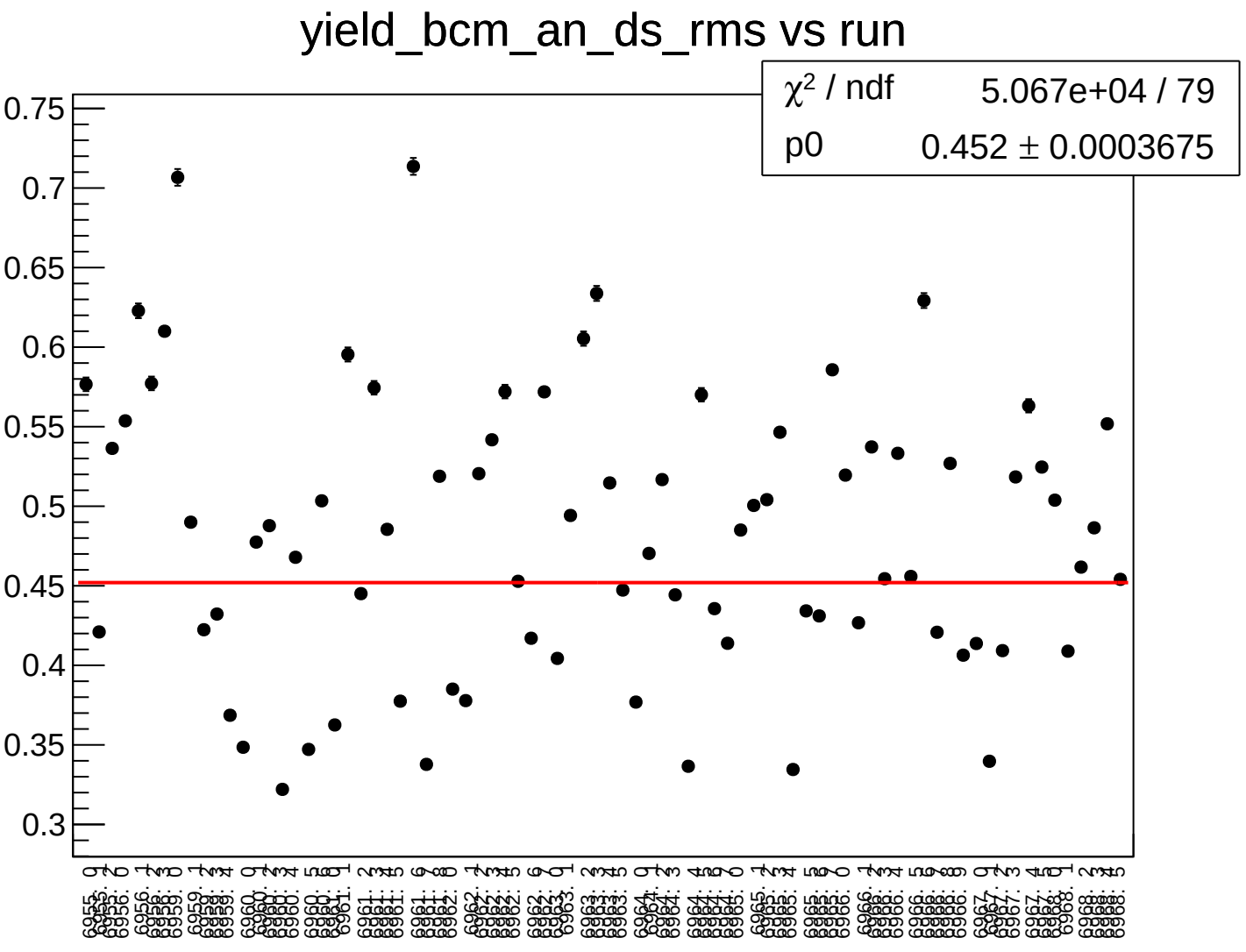

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 68.38 / 79
p0 −25.65 ± 36.31
pull
Entries 80
Mean 252.2
Std Dev 217.6

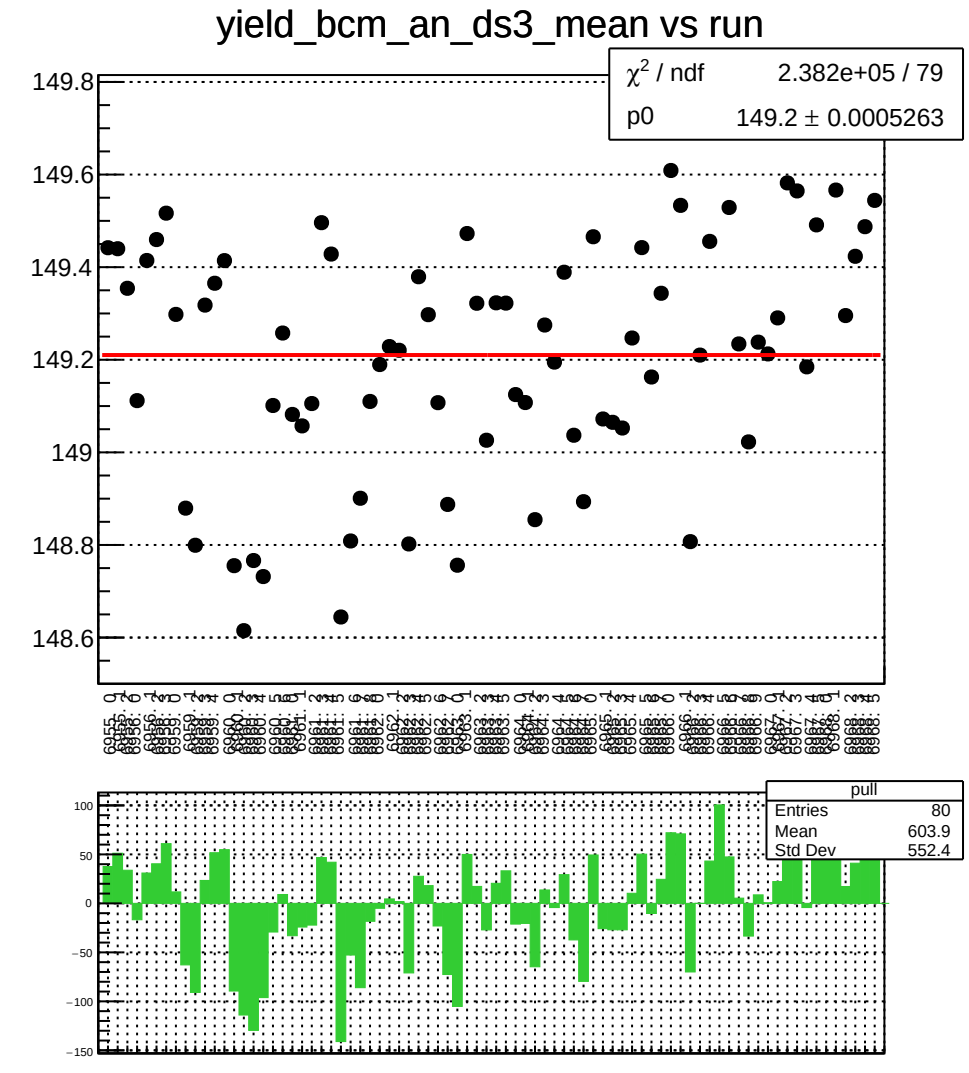

pull1D
Entries 80
Mean 0.01244
Std Dev 0.9244

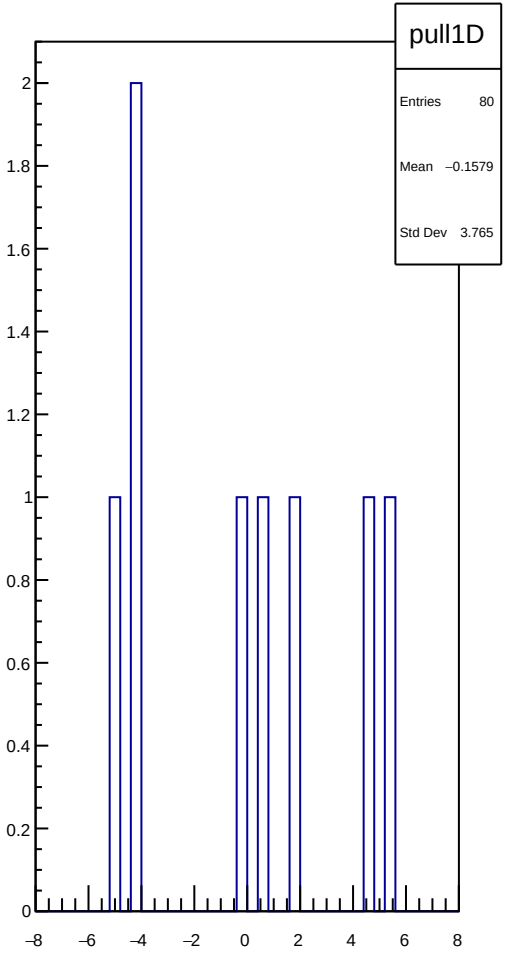

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 1905 / 79
p0 32.08 ± 0.02568
35
34
33
32
31
30
29

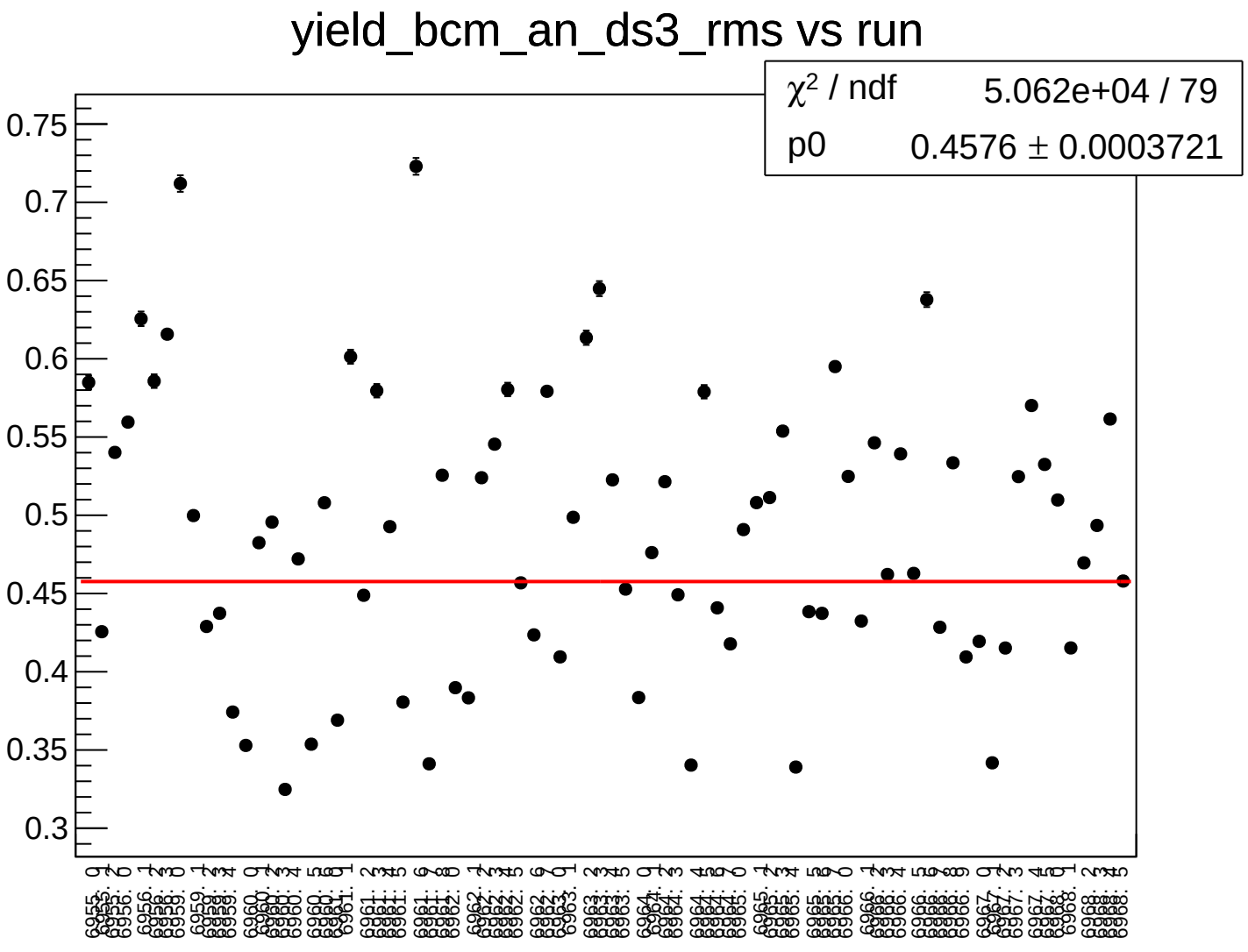

yield_bcm_an_ds_mean vs run
χ² / ndf 2.427e+05 / 79
p0 148.5 ± 0.0005198
149
148.8
148.6
148.4
148.2
148
147.8
pull
Entries 80
Mean 565
Std Dev 513.3
100
50
0
−50
−100
−150

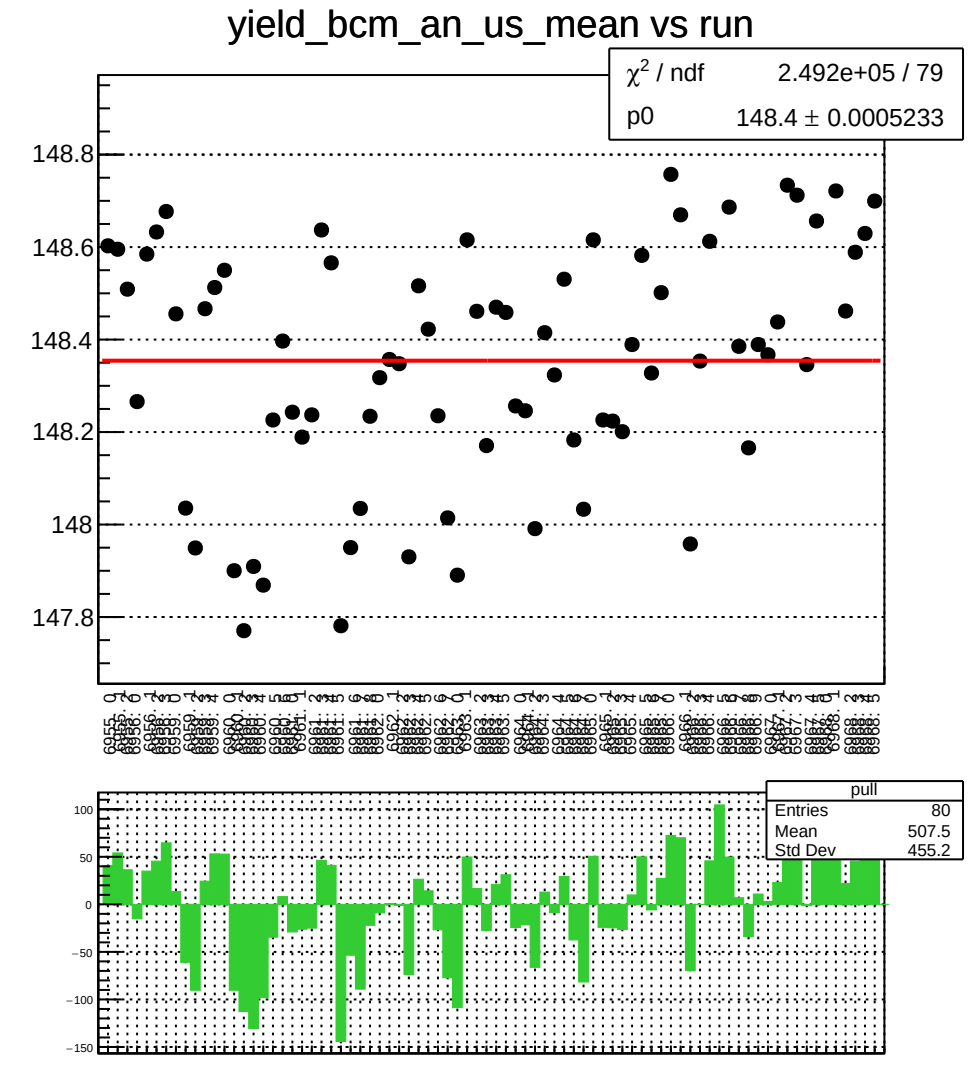

pull1D
Entries 80
Mean −1.529
Std Dev 4.181
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

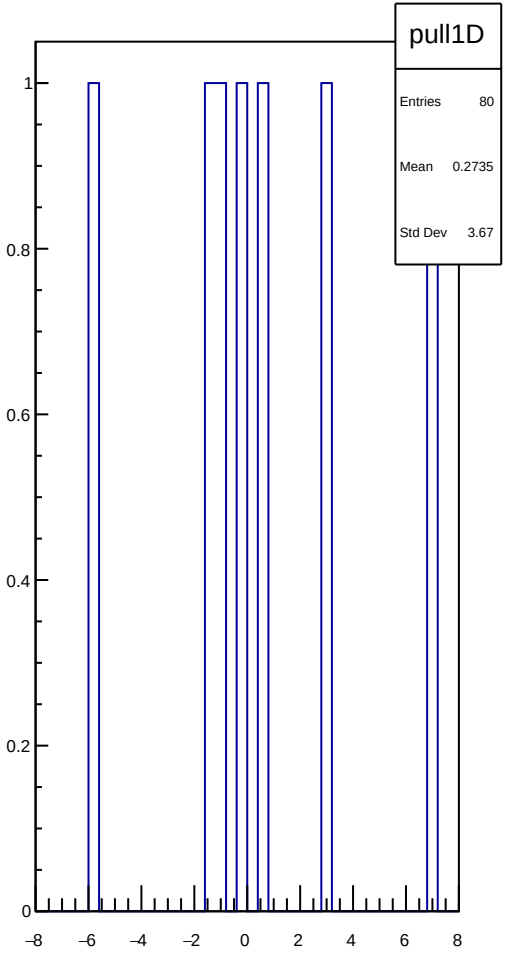

yield_bcm_an_ds_rms vs run
χ² / ndf 5.067e+04 / 79
p0 0.452 ± 0.0003675
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3

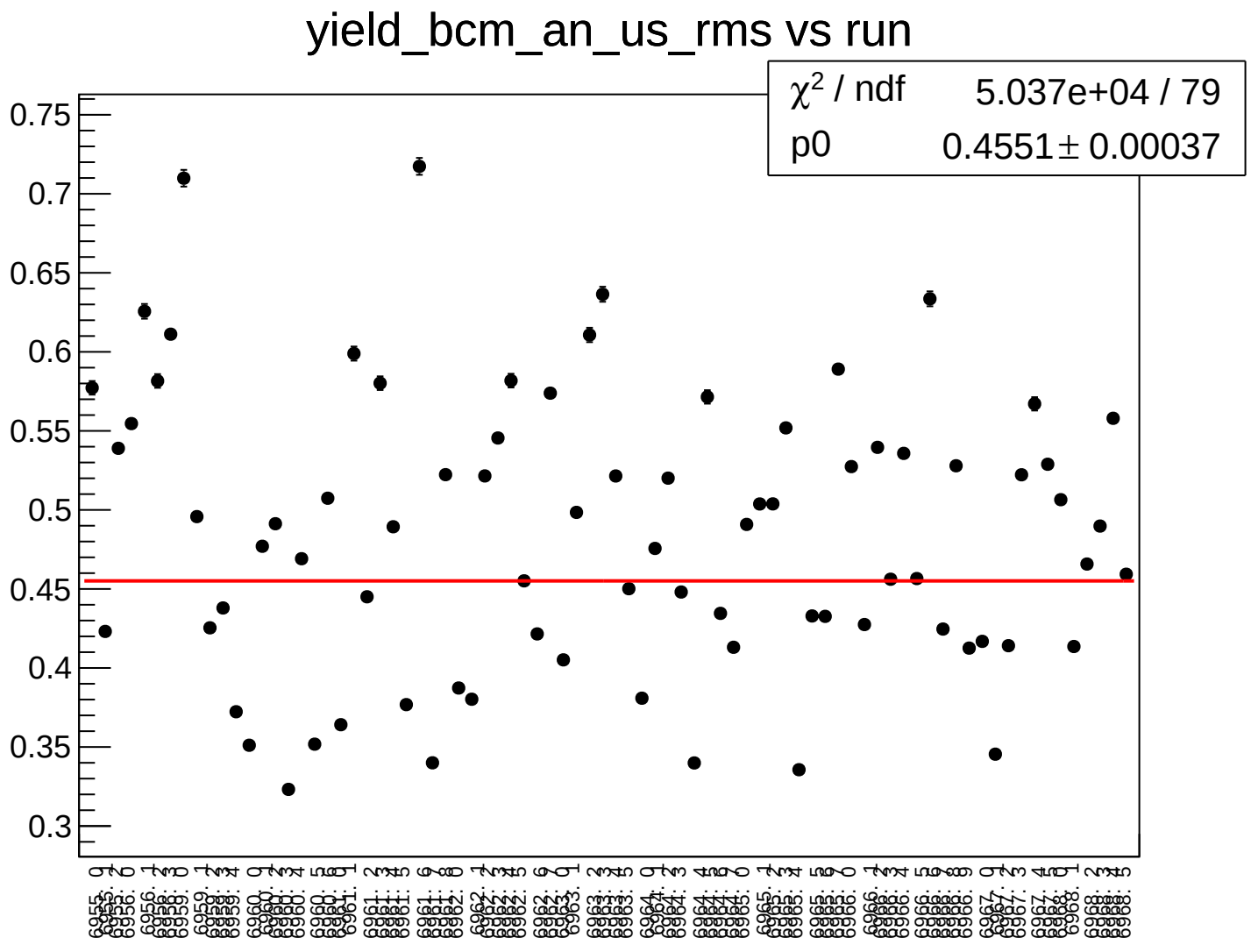

yield_bcm_an_ds3_mean vs run
χ² / ndf 2.382e+05 / 79
p0 149.2 ± 0.0005263
149.8
149.6
149.4
149.2
149
148.8
148.6
pull
Entries 80
Mean 603.9
Std Dev 552.4
100
50
0
−50
−100
−150

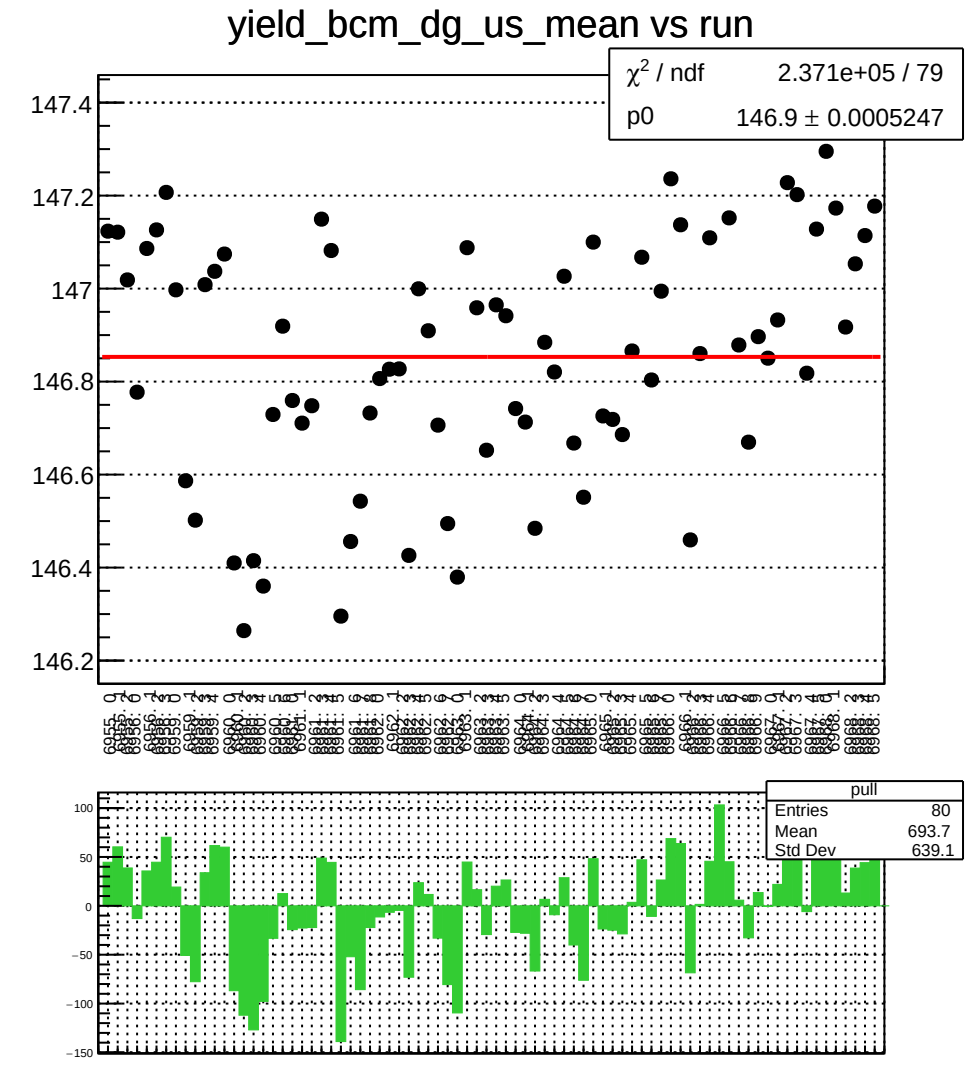

pull1D
Entries 80
Mean −0.1579
Std Dev 3.765
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

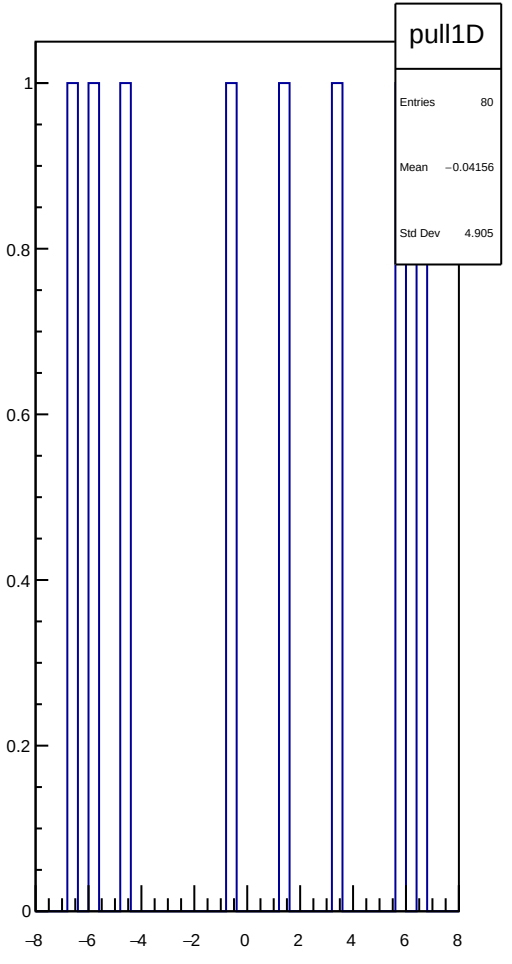

yield_bcm_an_ds3_rms vs run
χ² / ndf 5.062e+04 / 79
p0 0.4576 ± 0.0003721
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3

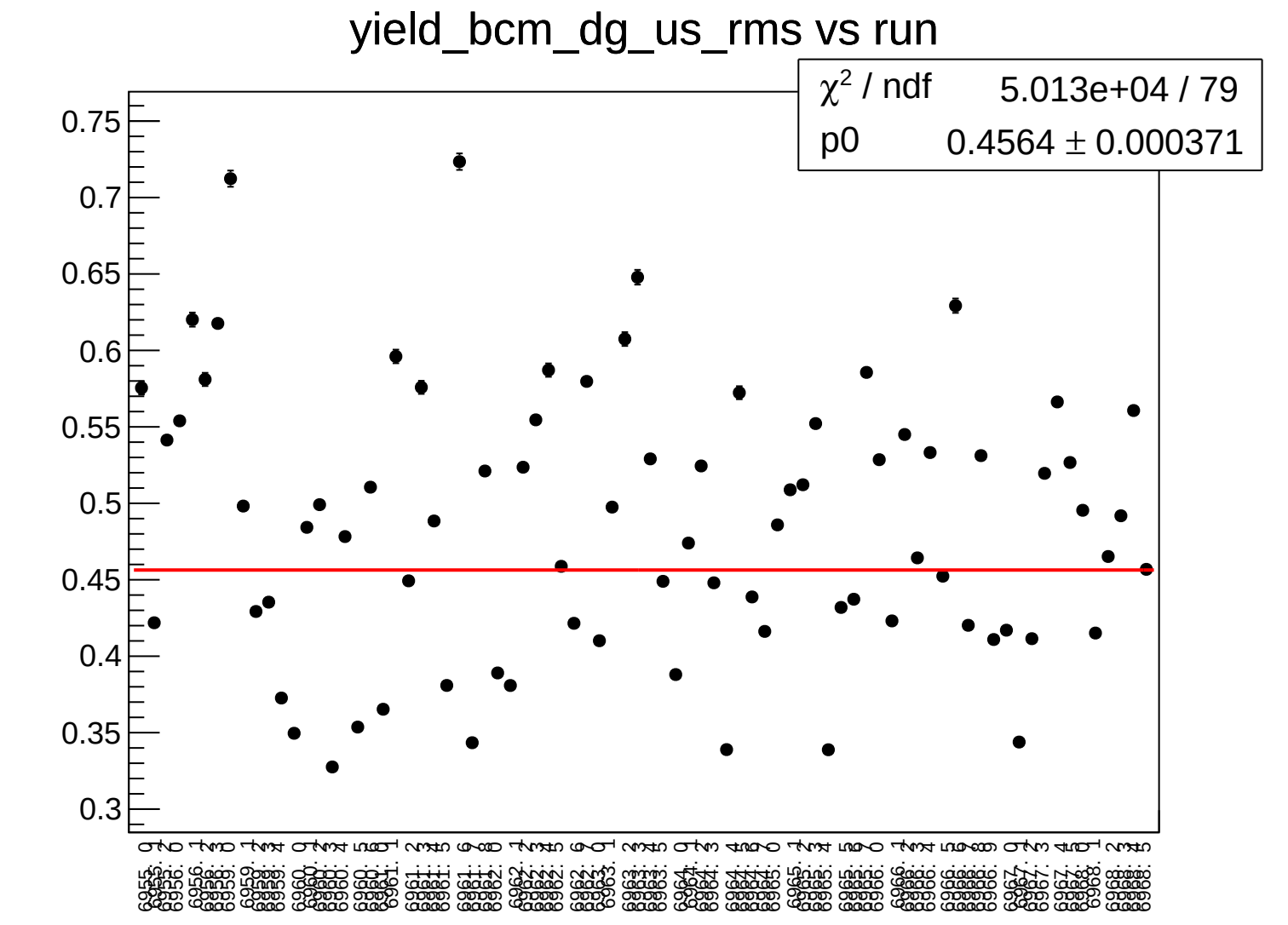

yield_bcm_an_us_mean vs run
χ² / ndf 2.492e+05 / 79
p0 148.4 ± 0.0005233
148.8
148.6
148.4
148.2
148
147.8
pull
Entries 80
Mean 507.5
Std Dev 455.2
100
50
0
−50
−100
−150

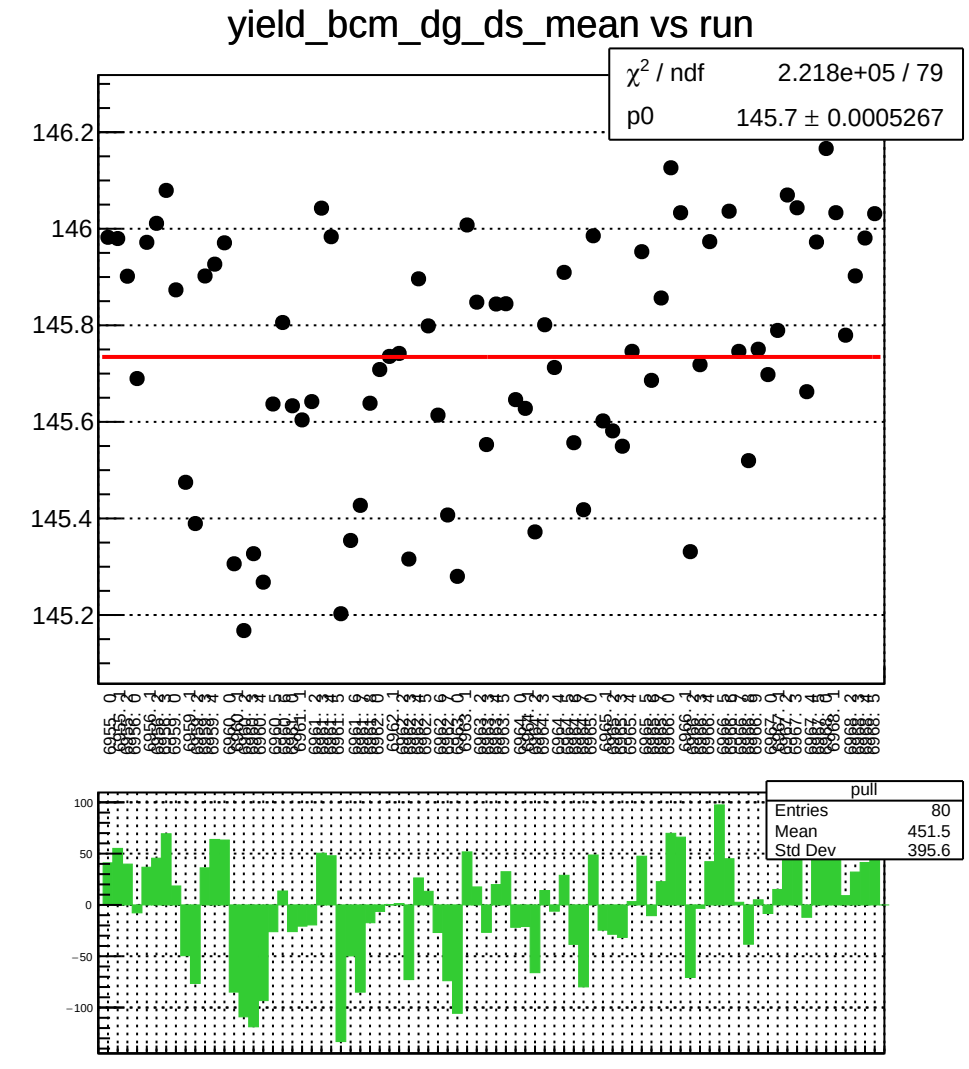

pull1D
Entries 80
Mean 0.2735
Std Dev 3.67
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

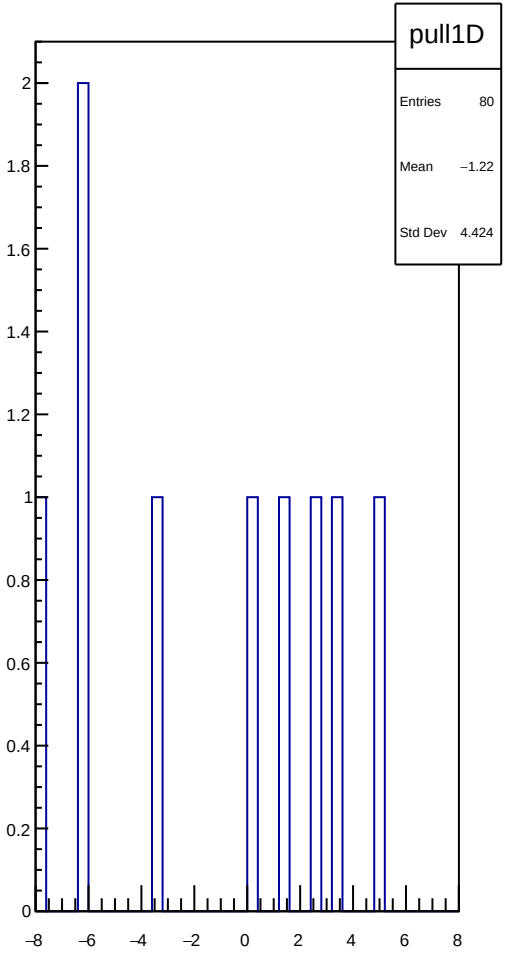

yield_bcm_an_us_rms vs run
χ² / ndf 5.037e+04 / 79
p0 0.4551 ± 0.00037
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3

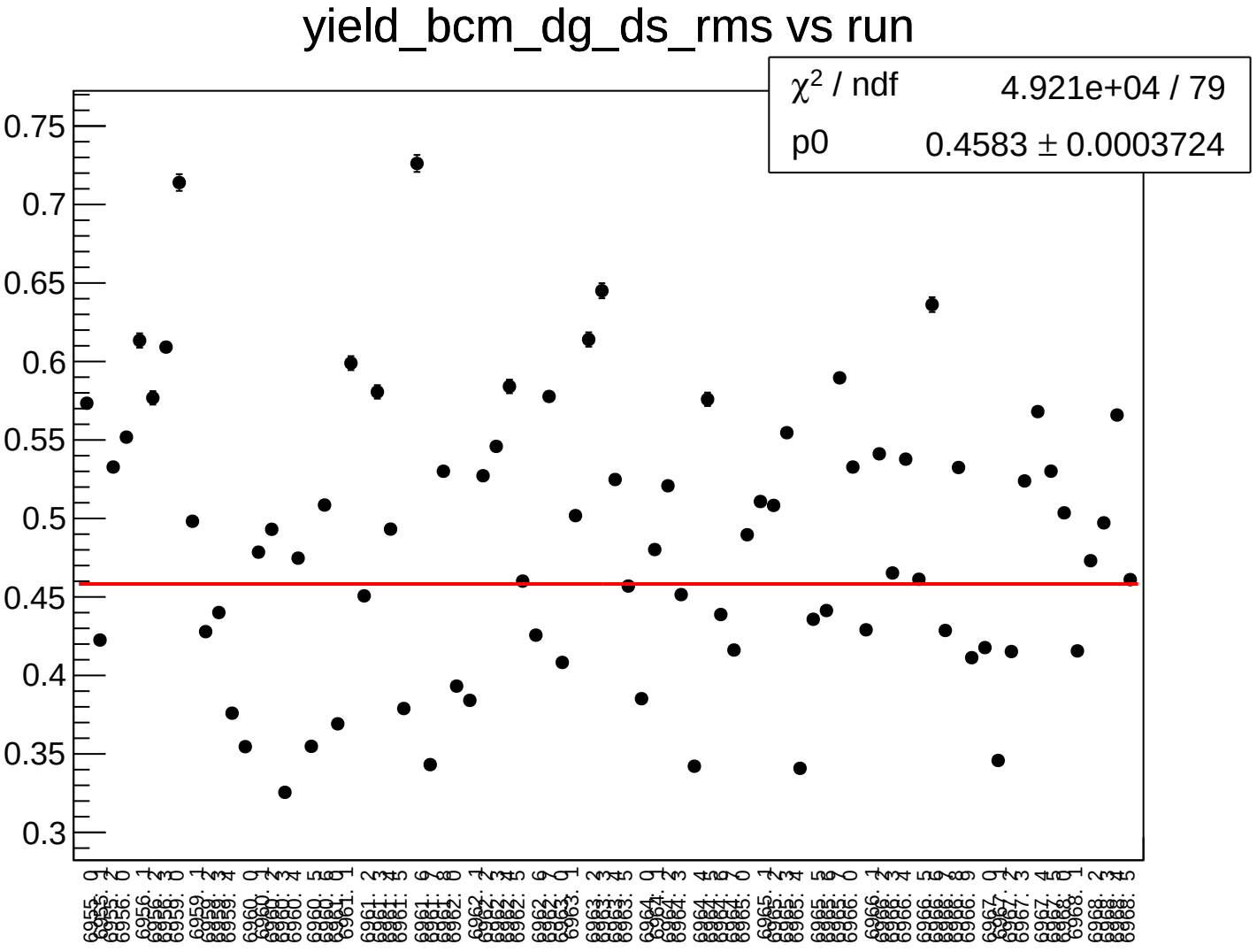

yield_bcm_dg_us_mean vs run
χ² / ndf 2.371e+05 / 79
p0 146.9 ± 0.0005247
147.4
147.2
147
146.8
146.6
146.4
146.2
pull
Entries 80
Mean 693.7
Std Dev 639.1
100
50
0
−50
−100
−150

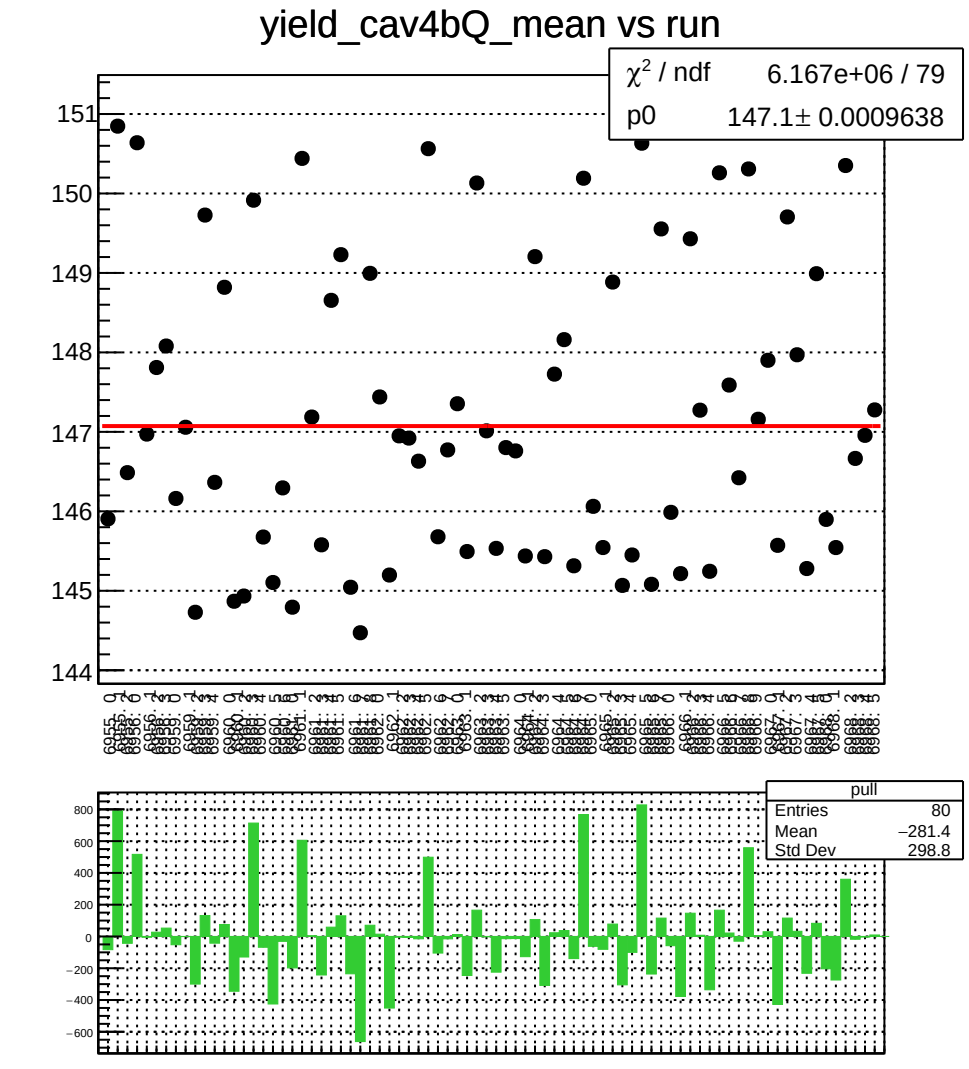

pull1D
Entries 80
Mean −0.04156
Std Dev 4.905
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

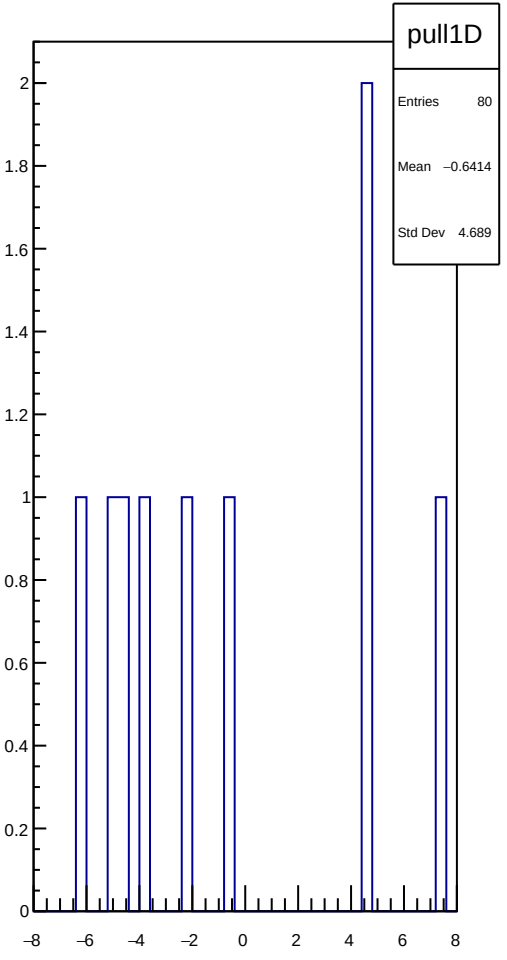

yield_bcm_dg_us_rms vs run
χ² / ndf 5.013e+04 / 79
p0 0.4564 ± 0.000371
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3

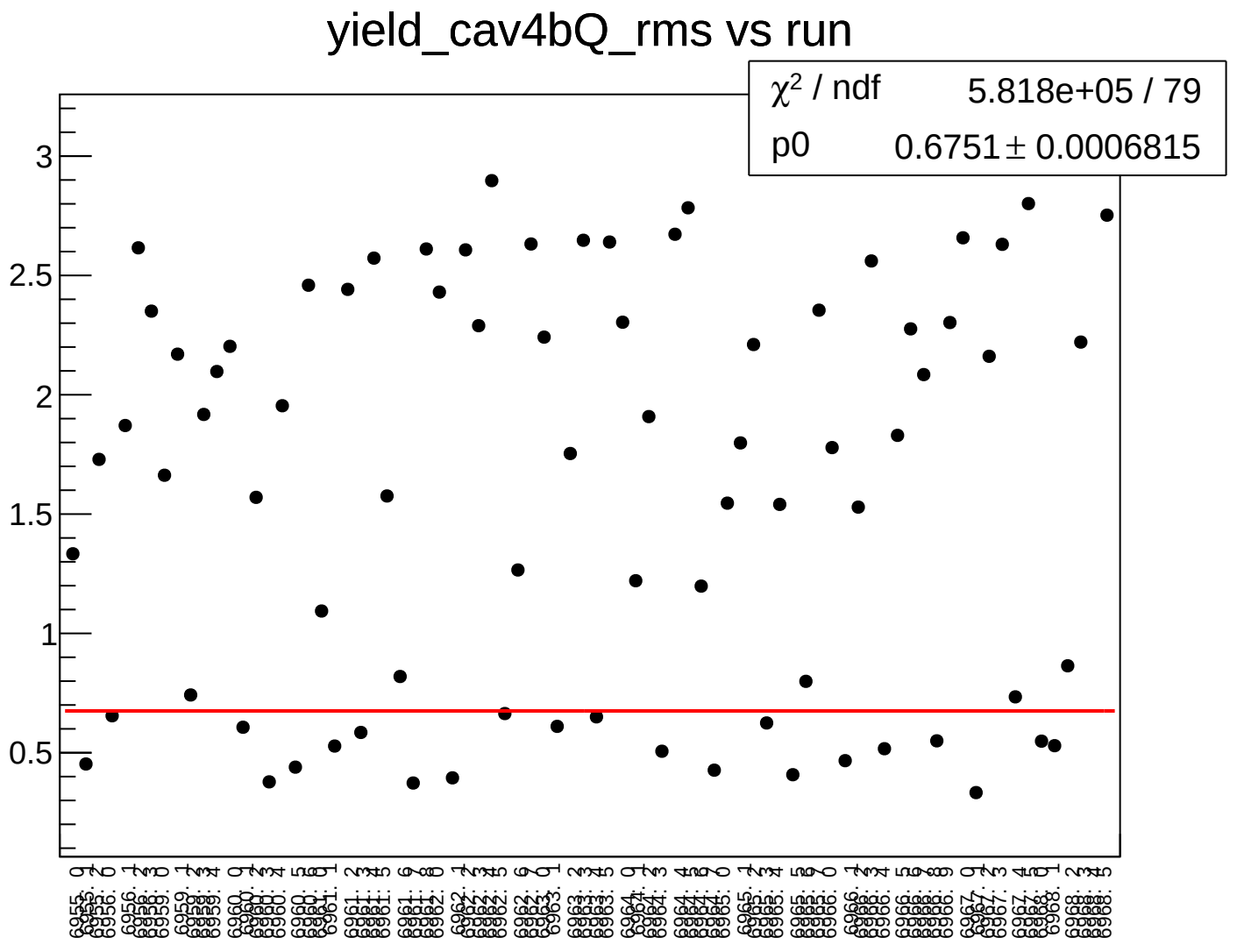

yield_bcm_dg_ds_mean vs run
χ² / ndf 2.218e+05 / 79
p0 145.7 ± 0.0005267
146.2
146
145.8
145.6
145.4
145.2
pull
Entries 80
Mean 451.5
Std Dev 395.6
100
50
0
−50
−100

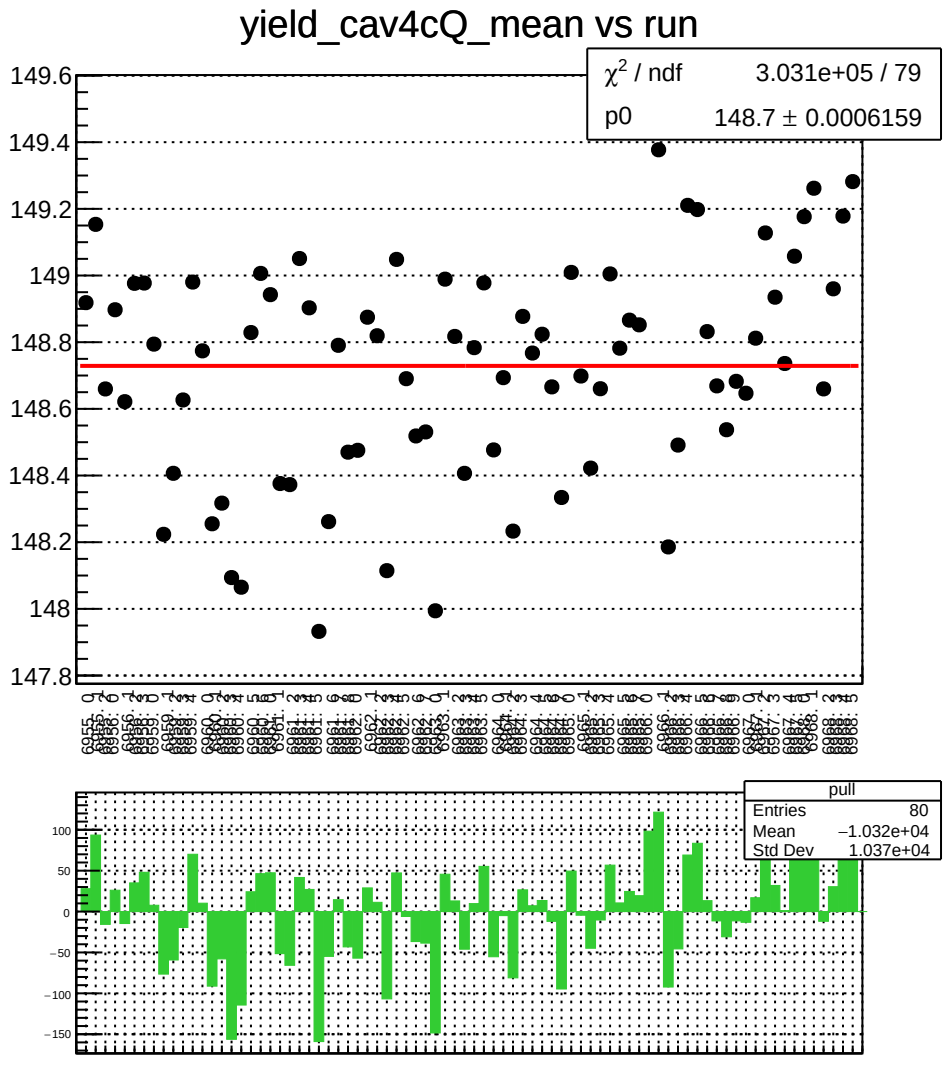

pull1D
Entries 80
Mean −1.22
Std Dev 4.424
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

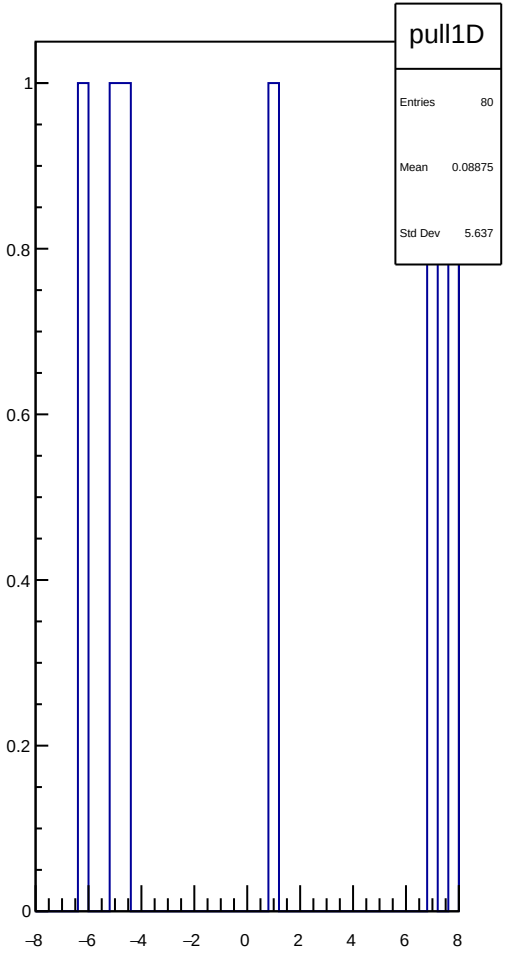

yield_bcm_dg_ds_rms vs run
χ² / ndf 4.921e+04 / 79
p0 0.4583 ± 0.0003724
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3

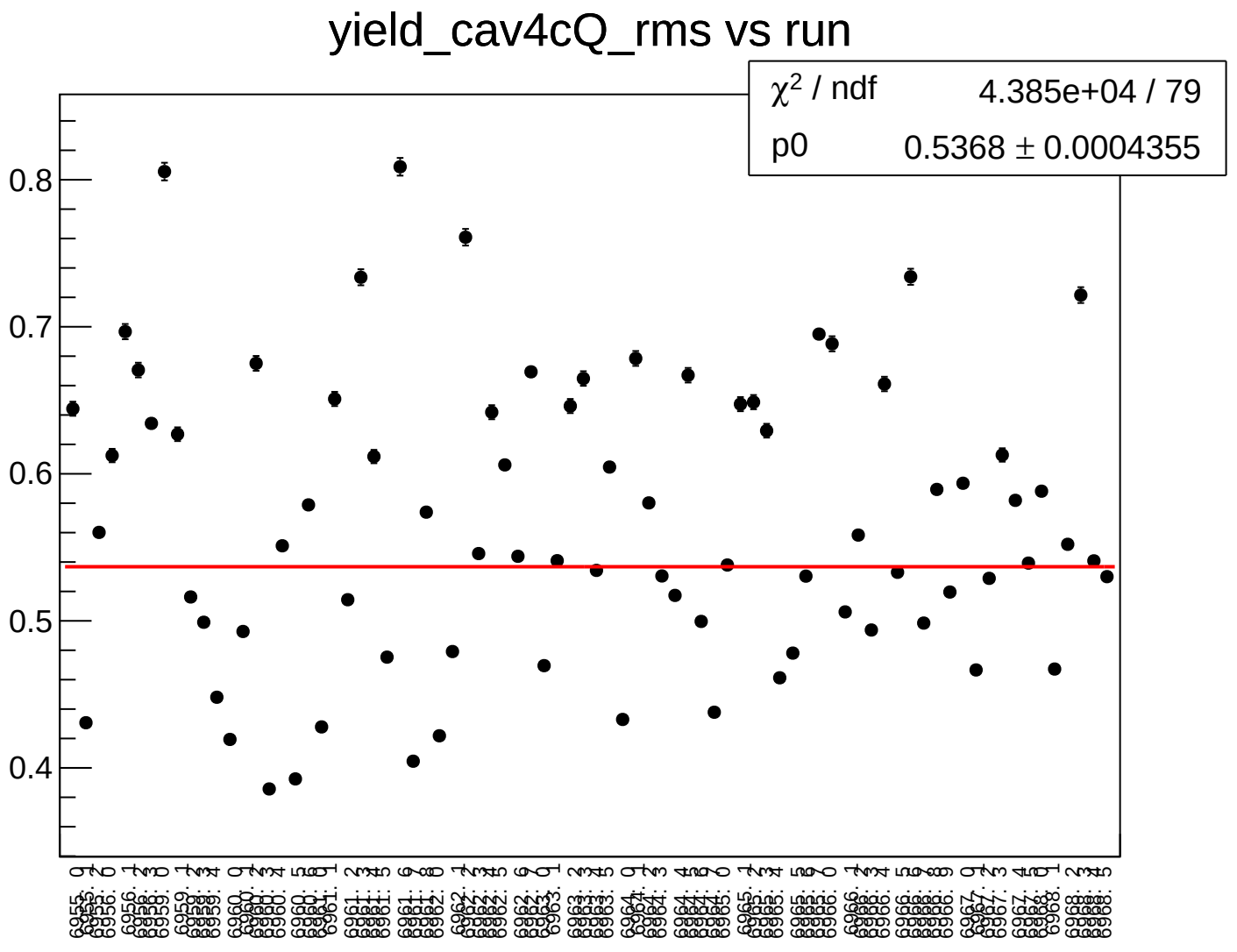

yield_cav4bQ_mean vs run
χ² / ndf 6.167e+06 / 79
p0 147.1± 0.0009638
pull
Entries 80
Mean −281.4
Std Dev 298.8

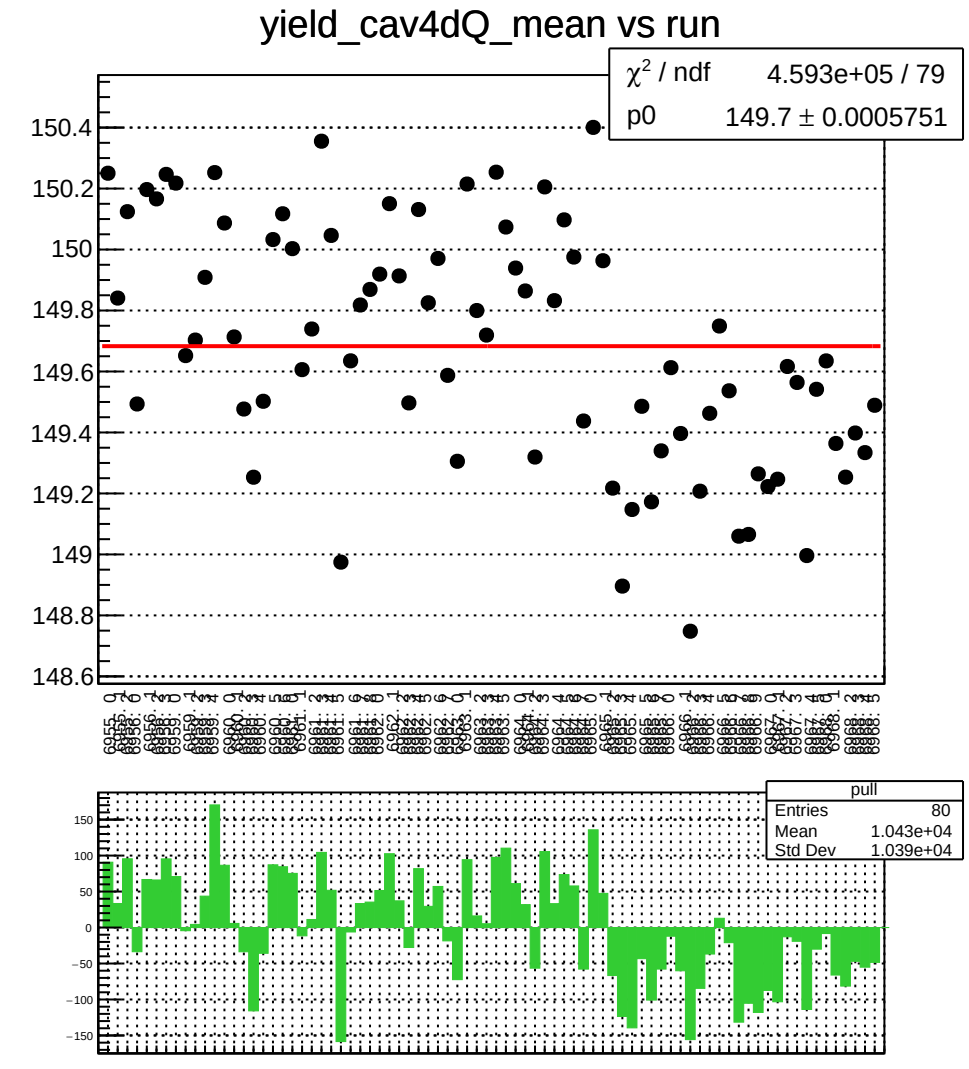

pull1D
Entries 80
Mean −0.6414
Std Dev 4.689

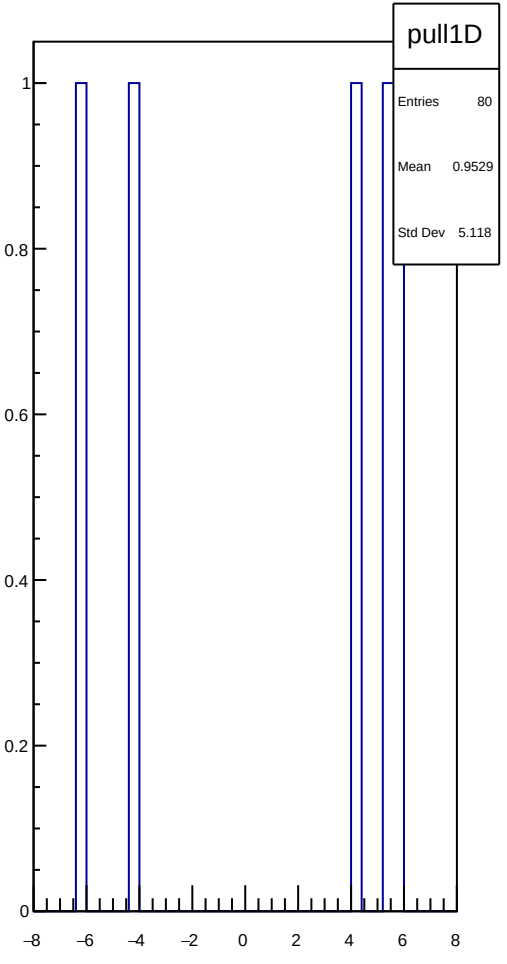

yield_cav4bQ_rms vs run
χ² / ndf 5.818e+05 / 79
p0 0.6751 ± 0.0006815
3
2.5
2
1.5
1
0.5

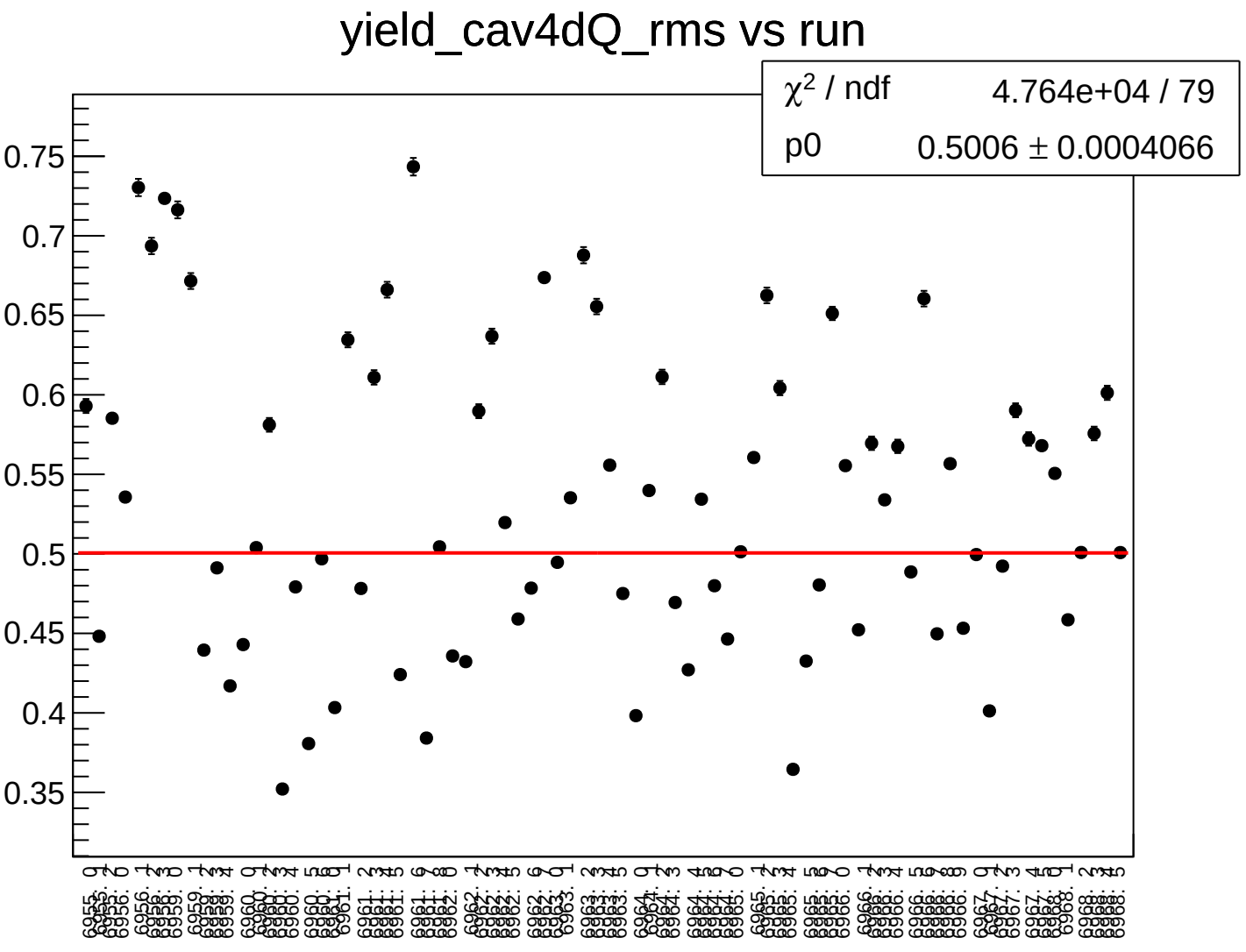

yield_cav4cQ_mean vs run
χ² / ndf 3.031e+05 / 79
p0 148.7 ± 0.0006159
149.6
149.4
149.2
149
148.8
148.6
148.4
148.2
148
147.8
pull
Entries 80
Mean −1.032e+04
Std Dev 1.037e+04
100
50
0
−50
−100
−150

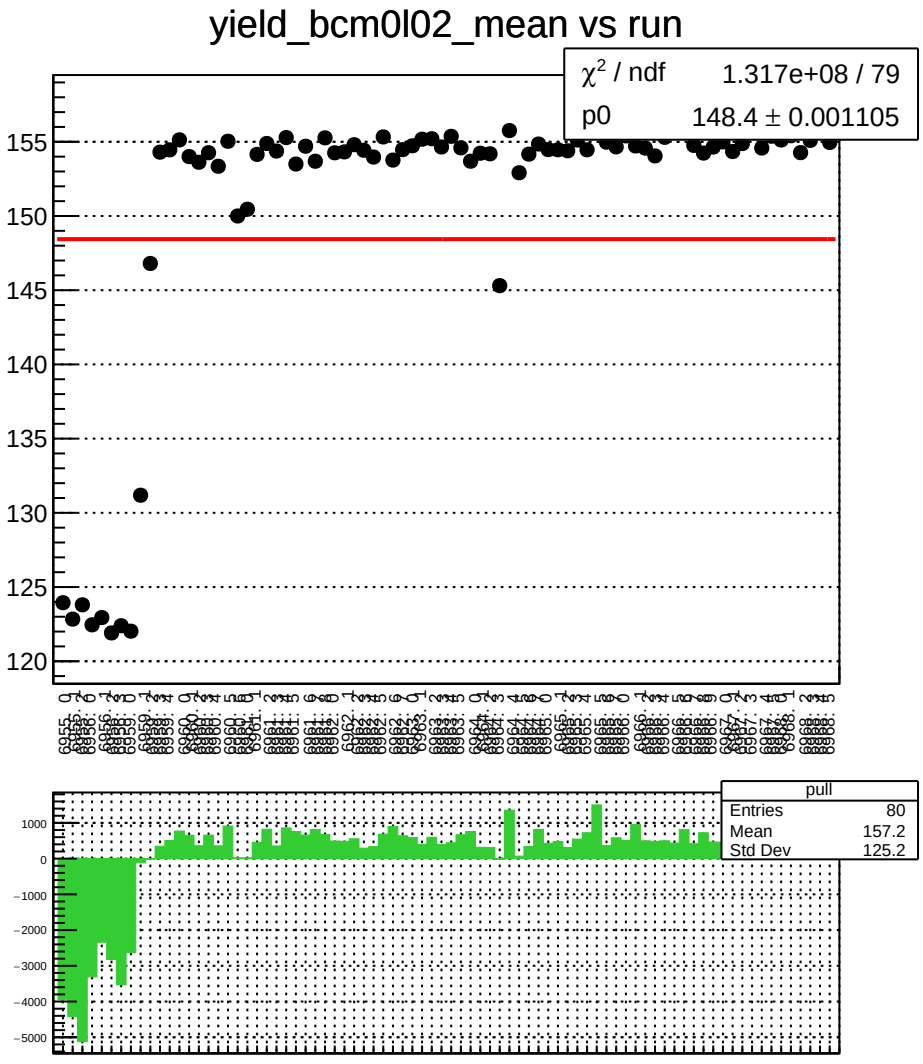

pull1D
Entries 80
Mean 0.08875
Std Dev 5.637
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

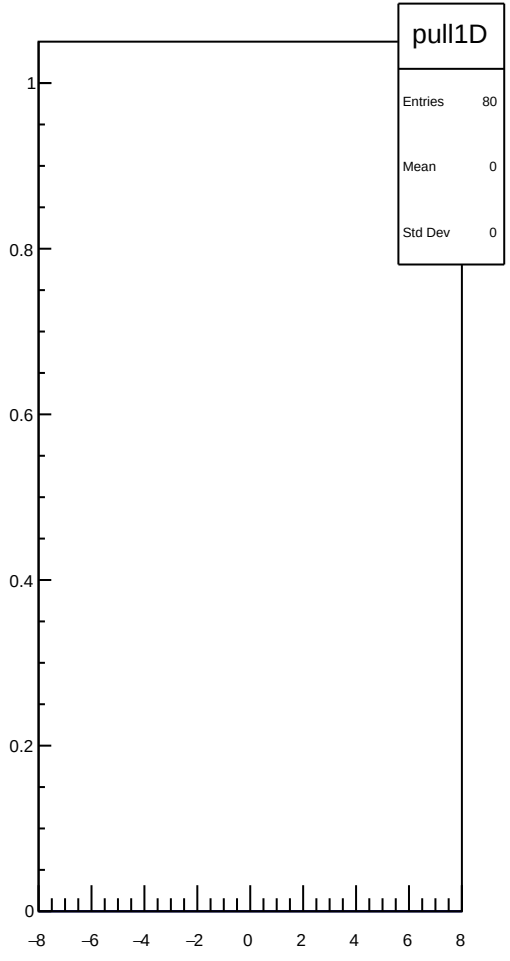

yield_cav4cQ_rms vs run
χ2 / ndf 4.385e+04 / 79
p0 0.5368 ± 0.0004355
0.8
0.7
0.6
0.5
0.4

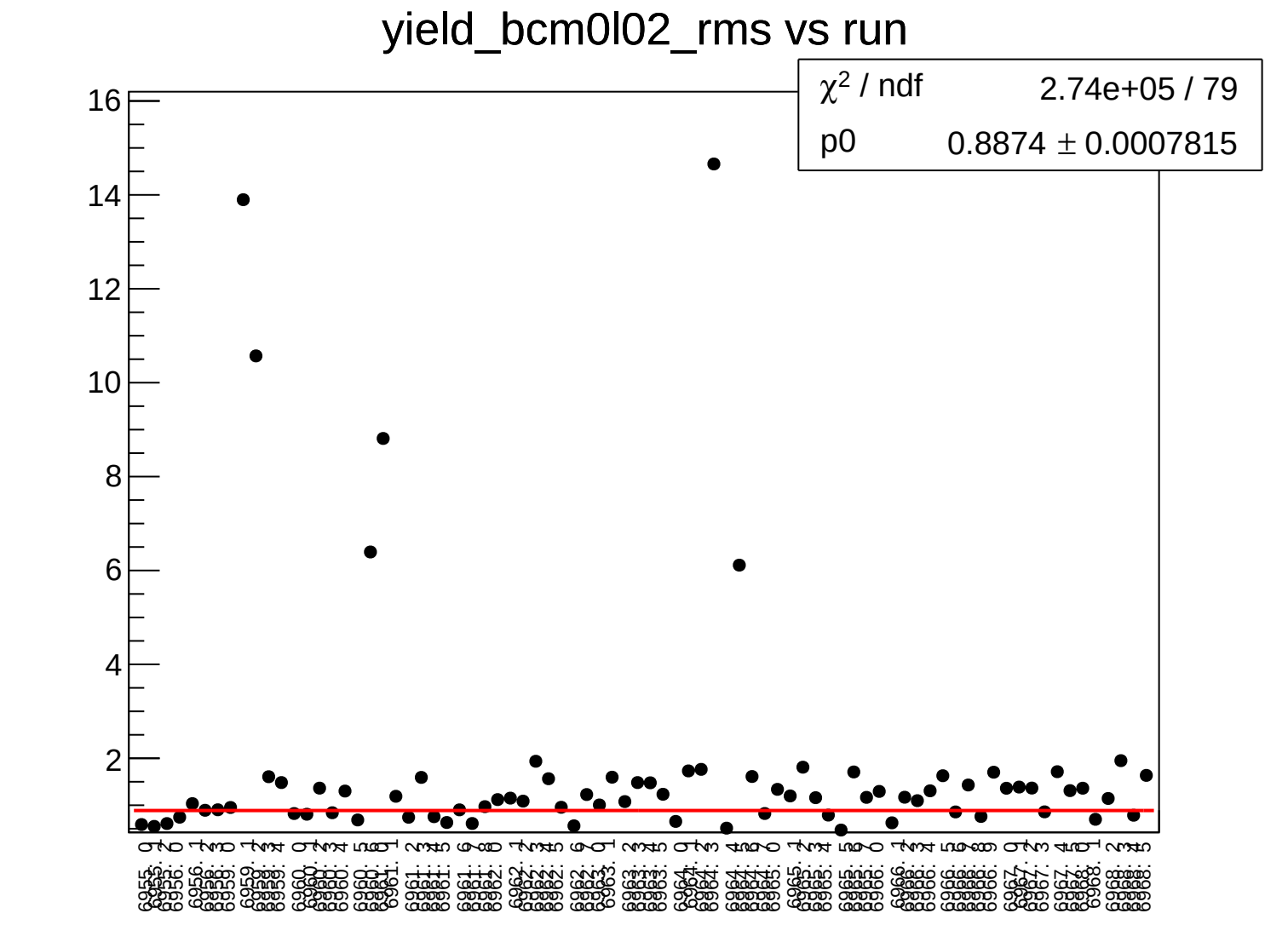

yield_cav4dQ_mean vs run
χ² / ndf 4.593e+05 / 79
p0 149.7 ± 0.0005751
150.4
150.2
150
149.8
149.6
149.4
149.2
149
148.8
148.6
pull
Entries 80
Mean 1.043e+04
Std Dev 1.039e+04
150
100
50
0
−50
−100
−150

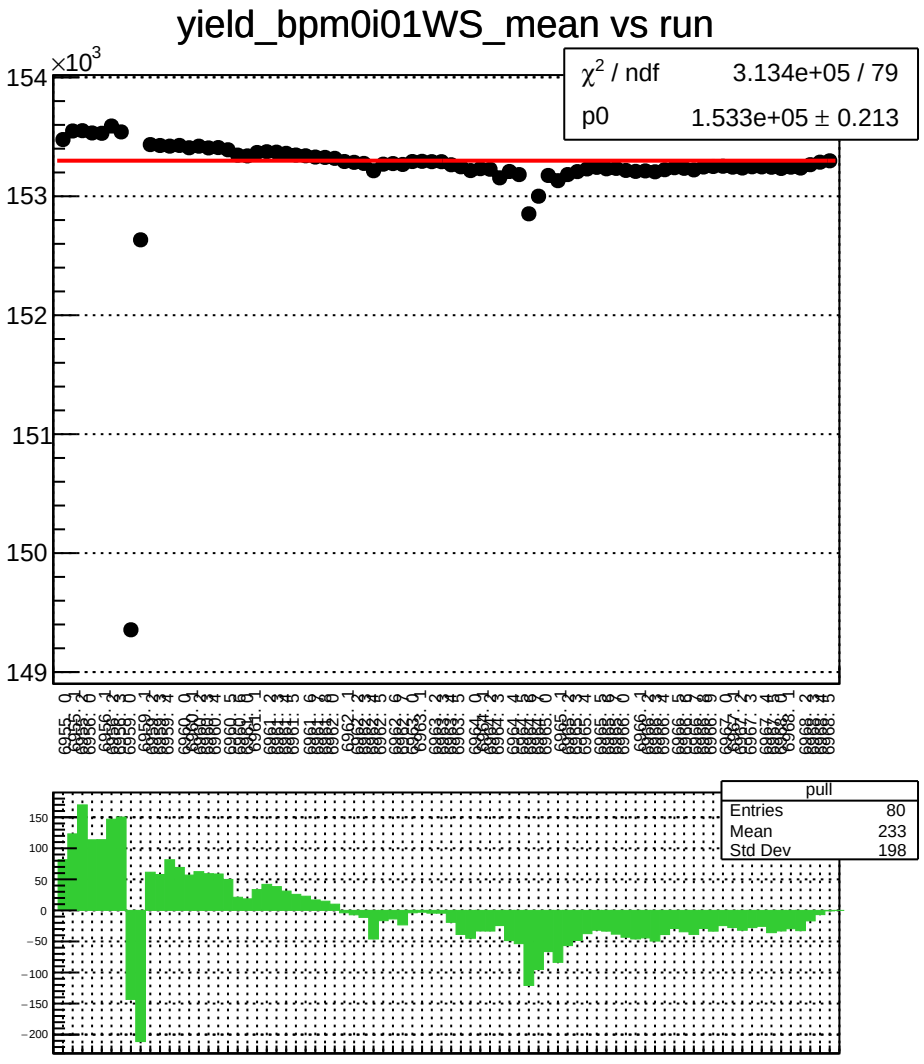

pull1D
Entries 80
Mean 0.9529
Std Dev 5.118
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

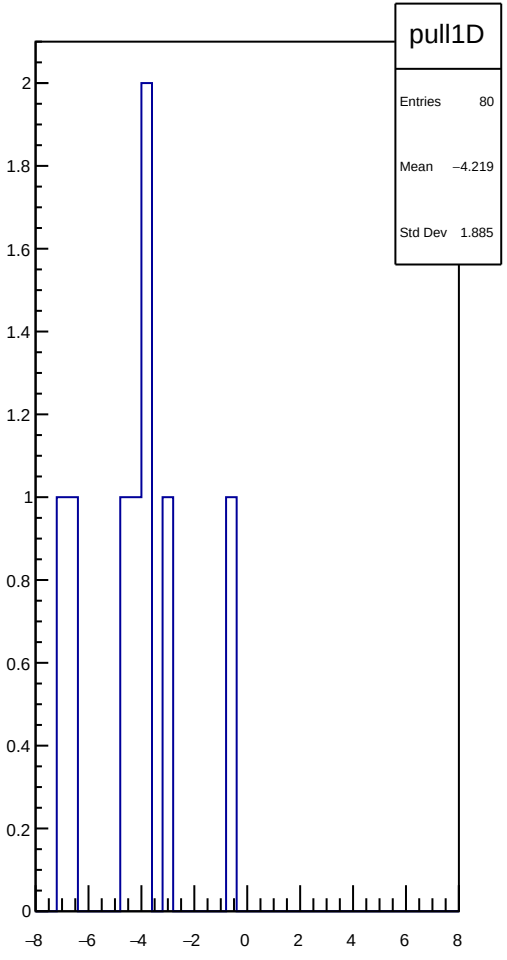

yield_cav4dQ_rms vs run
χ² / ndf 4.764e+04 / 79
p0 0.5006 ± 0.0004066
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35

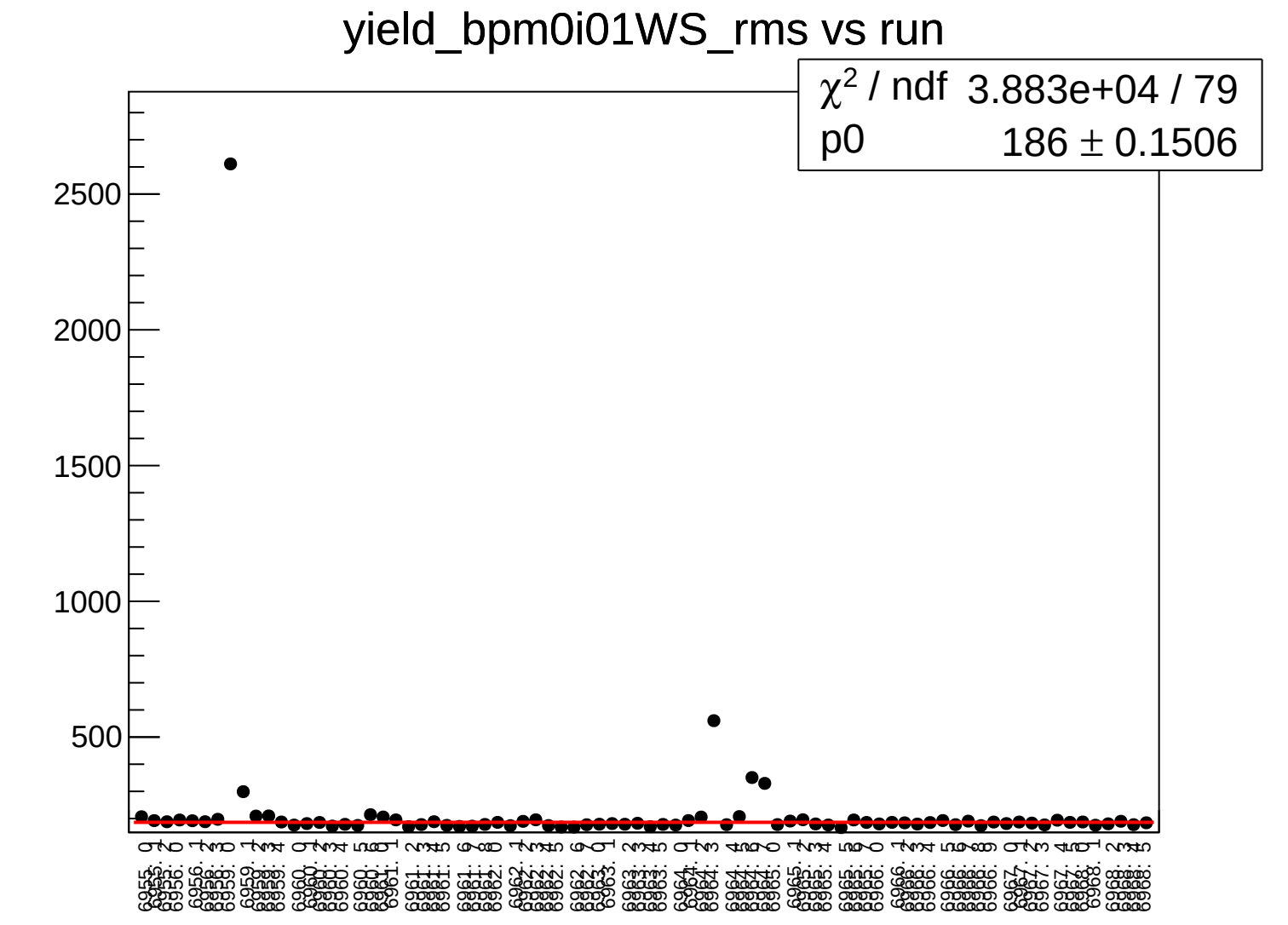

yield_bcm0l02_mean vs run
χ² / ndf 1.317e+08 / 79
p0 148.4 ± 0.001105
155
150
145
140
135
130
125
120
pull
Entries 80
Mean 157.2
Std Dev 125.2
1000
0
−1000
−2000
−3000
−4000
−5000

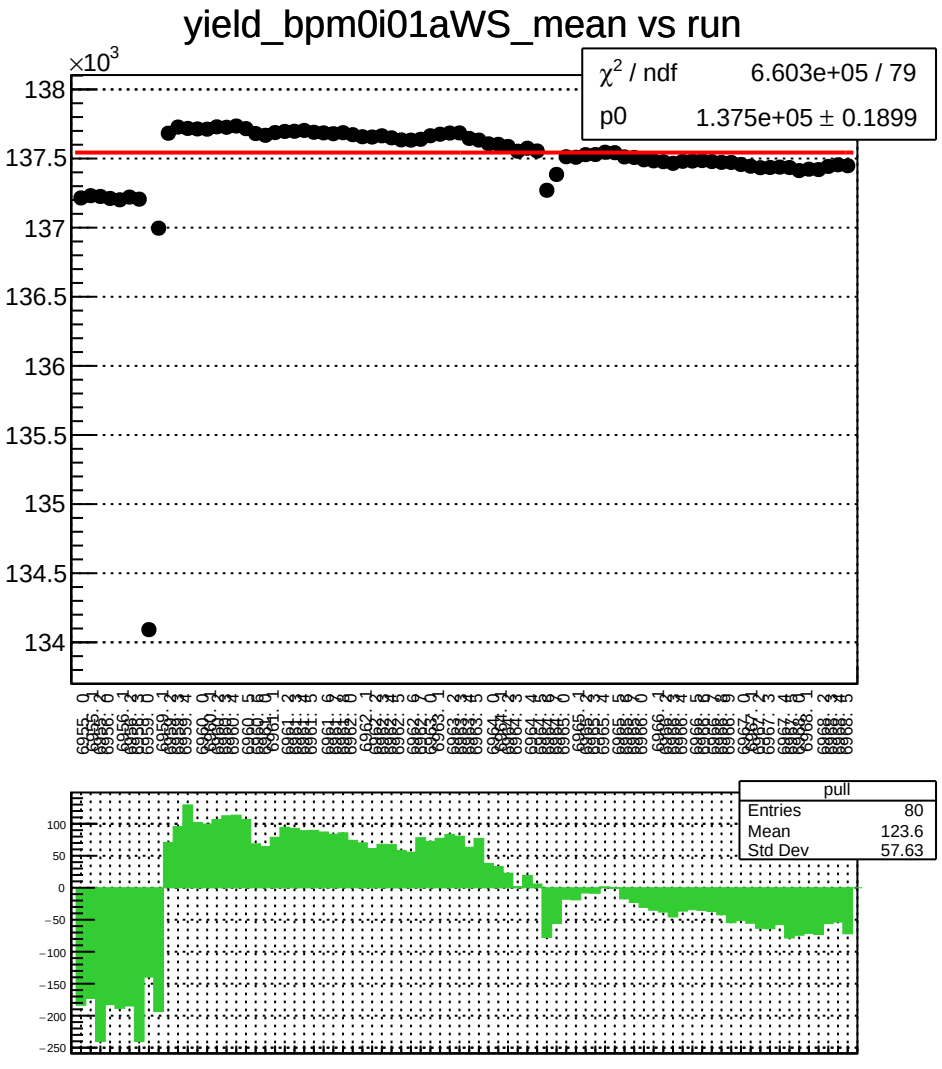

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

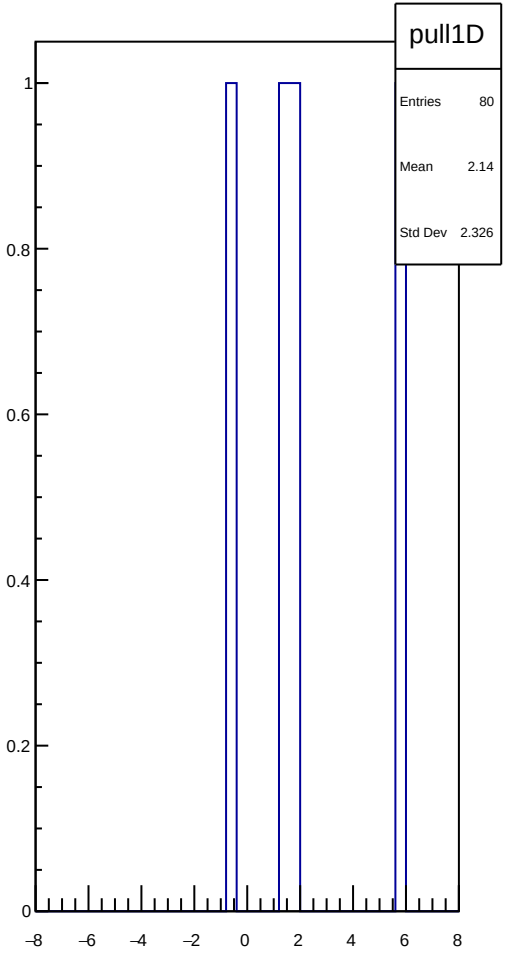

yield_bcm0l02_rms vs run
χ² / ndf 2.74e+05 / 79
p0 0.8874 ± 0.0007815
16
14
12
10
8
6
4
2

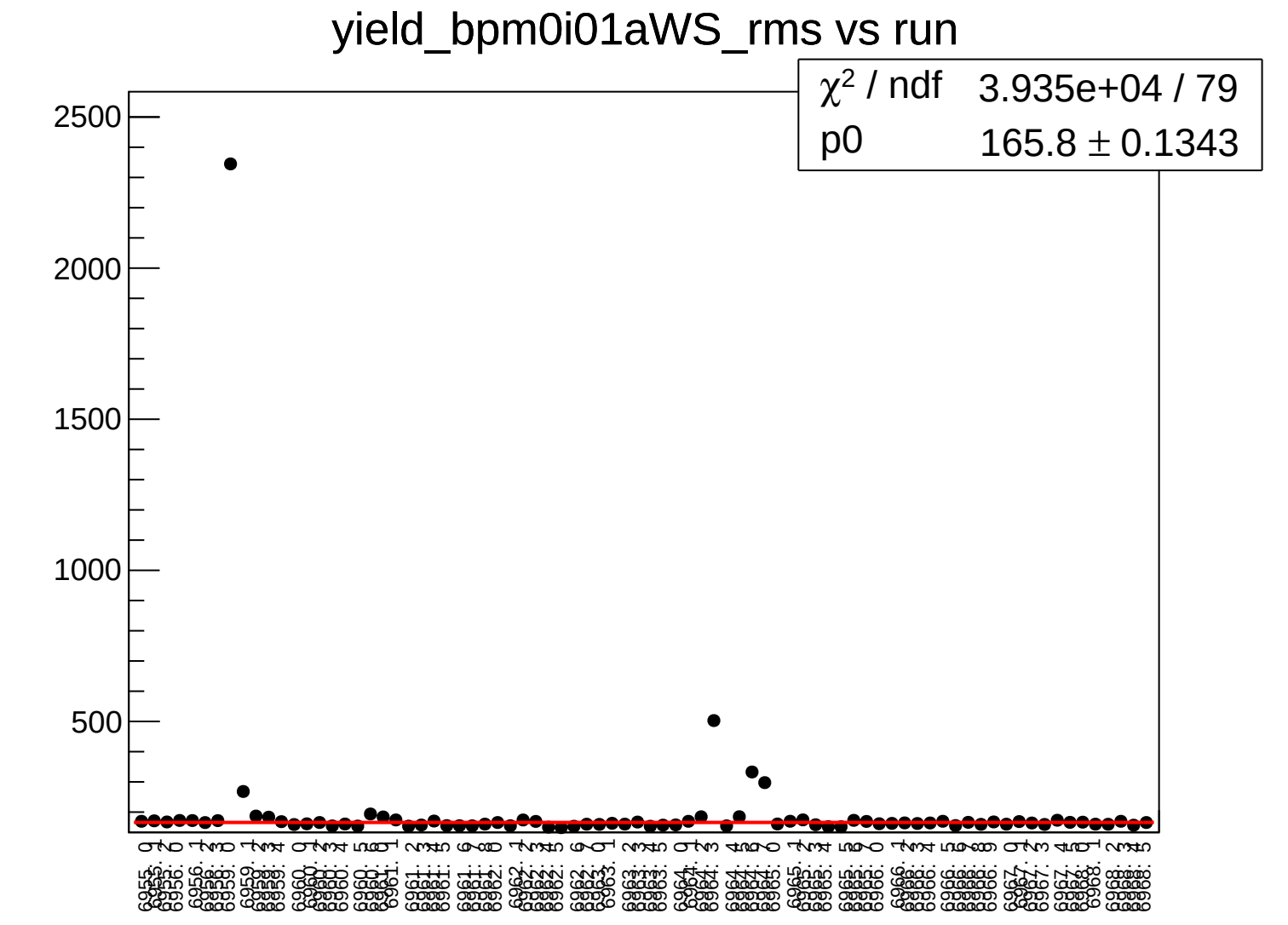

yield_bpm0i01WS_mean vs run
×10^3
154
153
152
151
150
149
χ² / ndf 3.134e+05 / 79
p0 1.533e+05 ± 0.213
pull
Entries 80
Mean 233
Std Dev 198
150
100
50
0
−50
−100
−150
−200

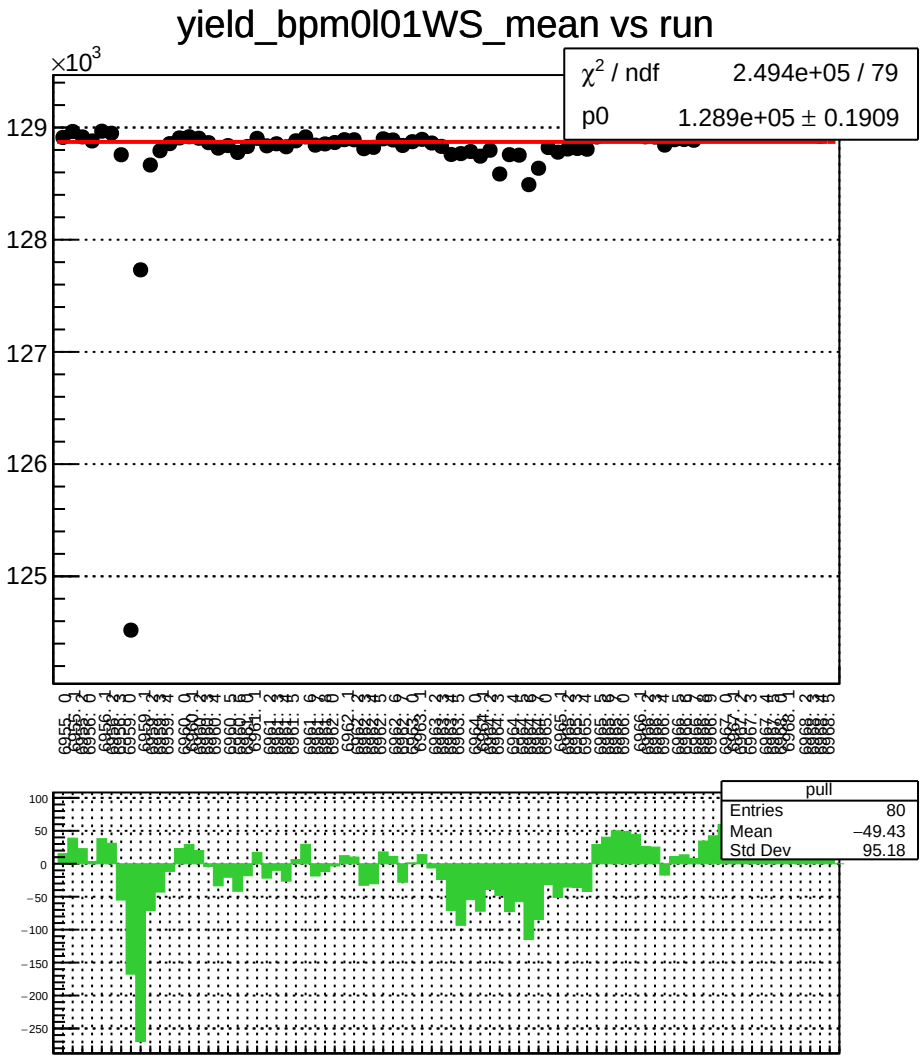

pull1D
Entries 80
Mean −4.219
Std Dev 1.885
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

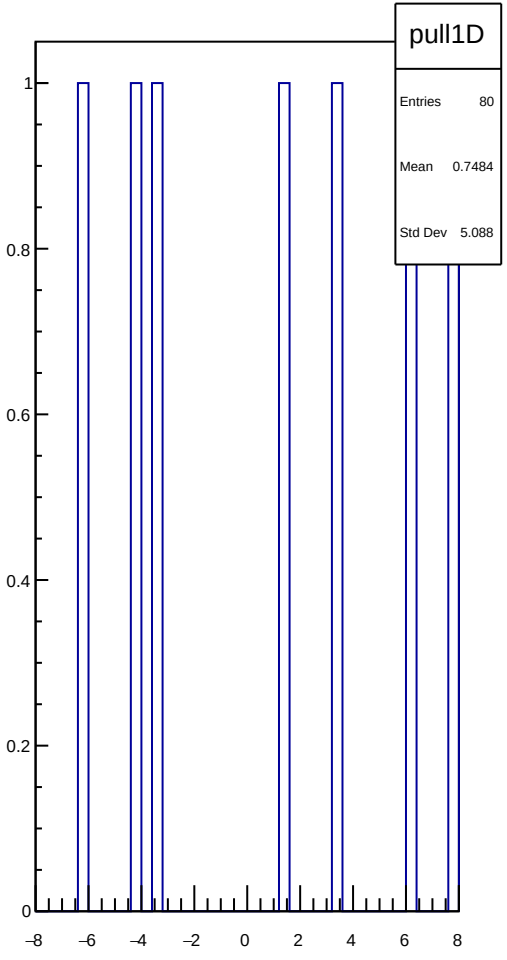

yield_bpm0i01WS_rms vs run
χ² / ndf 3.883e+04 / 79
p0 186 ± 0.1506
2500
2000
1500
1000
500

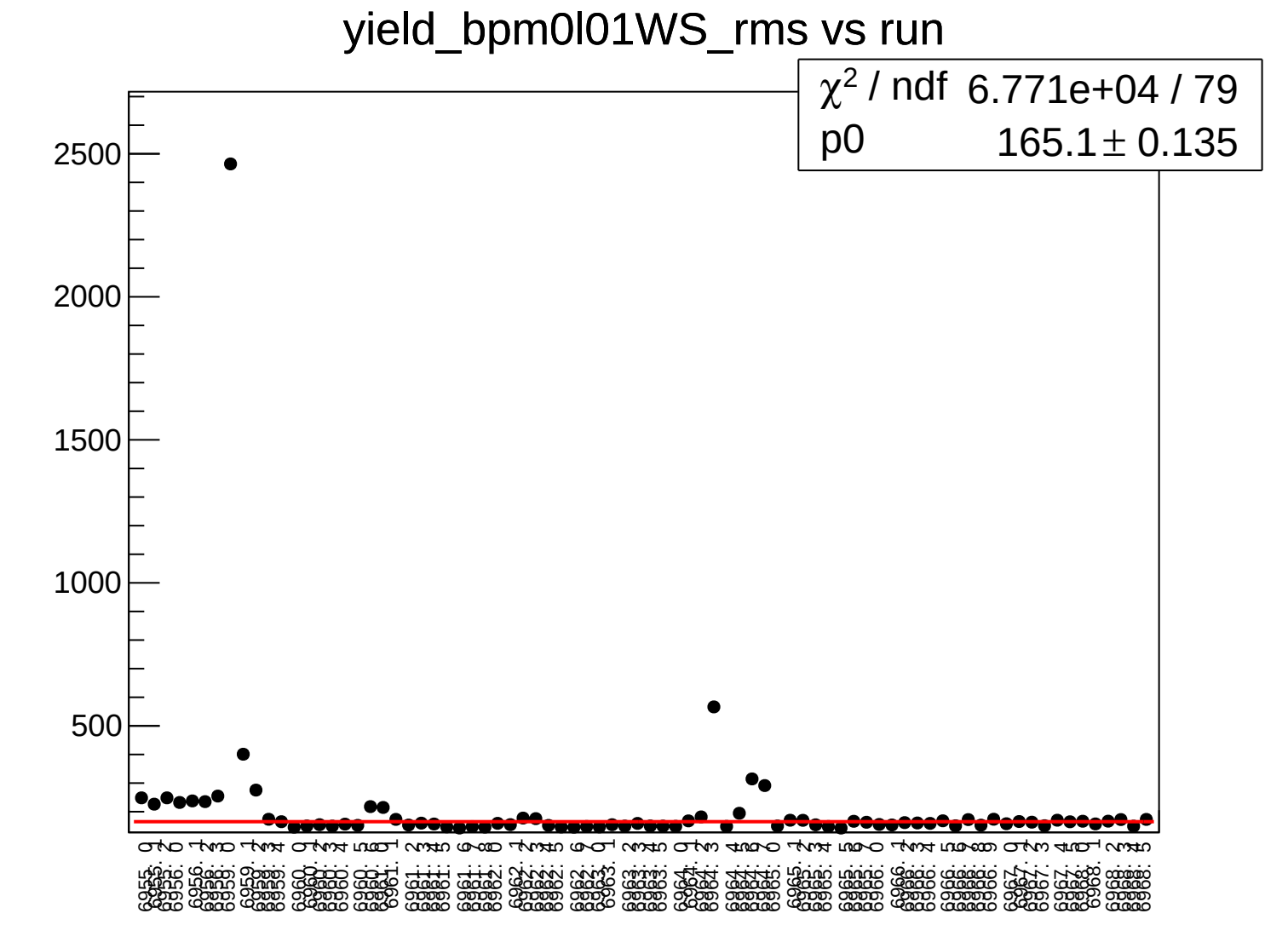

yield_bpm0i01aWS_mean vs run
χ² / ndf 6.603e+05 / 79
p0 1.375e+05 ± 0.1899
×10³
138
137.5
137
136.5
136
135.5
135
134.5
134
pull
Entries 80
Mean 123.6
Std Dev 57.63
100
50
0
−50
−100
−150
−200
−250

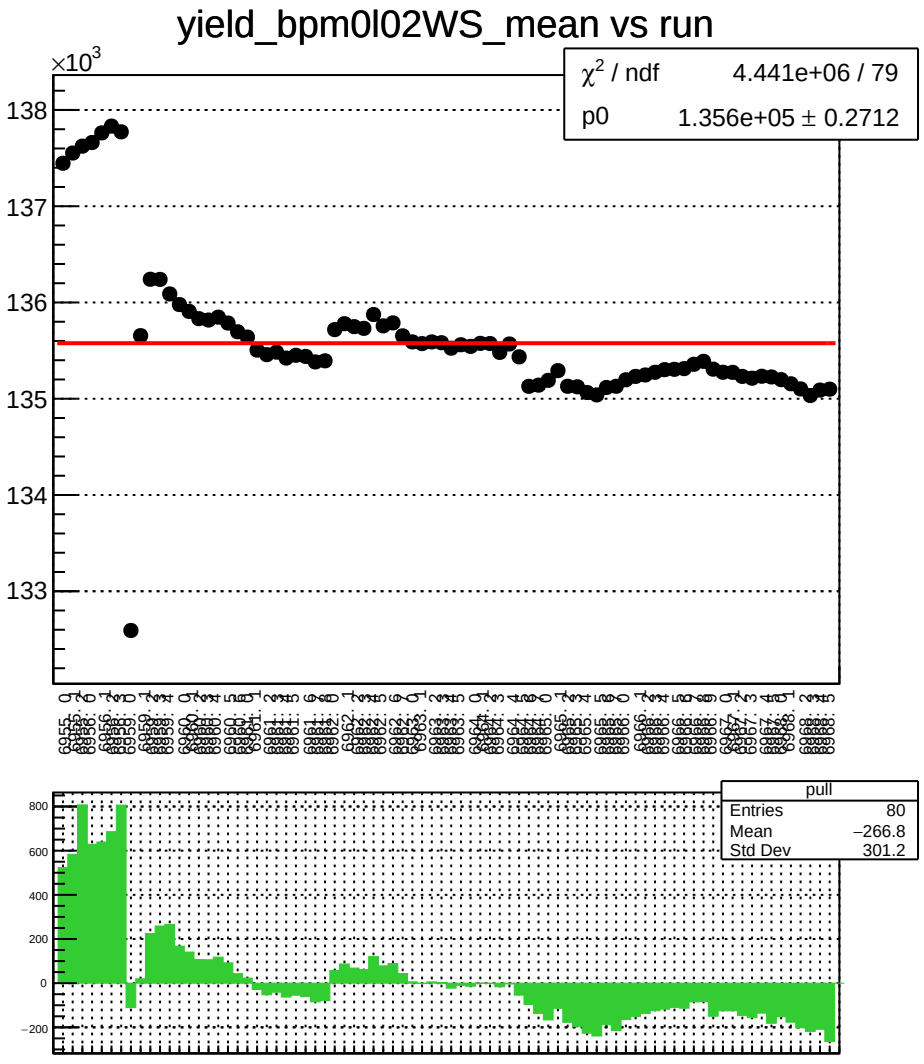

pull1D
Entries 80
Mean 2.14
Std Dev 2.326
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

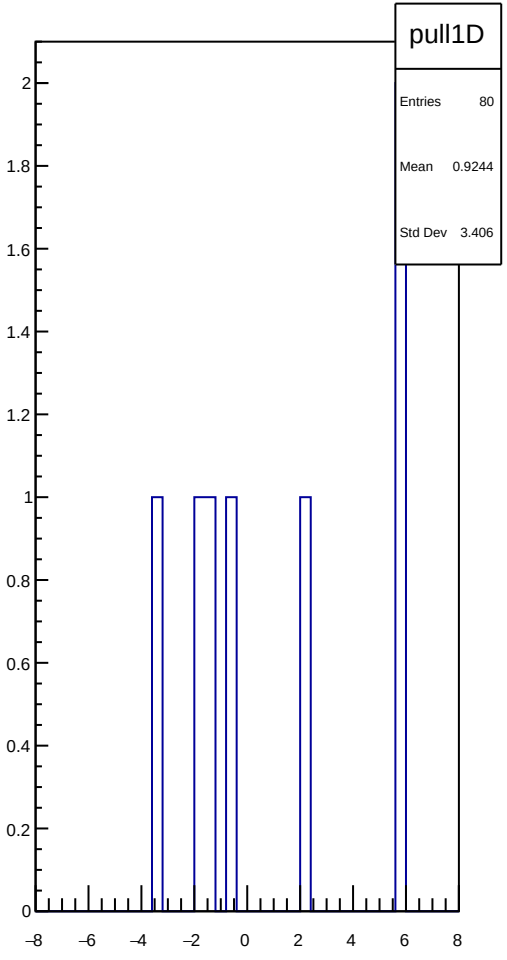

yield_bpm0i01aWS_rms vs run
χ² / ndf 3.935e+04 / 79
p0 165.8 ± 0.1343
2500
2000
1500
1000
500

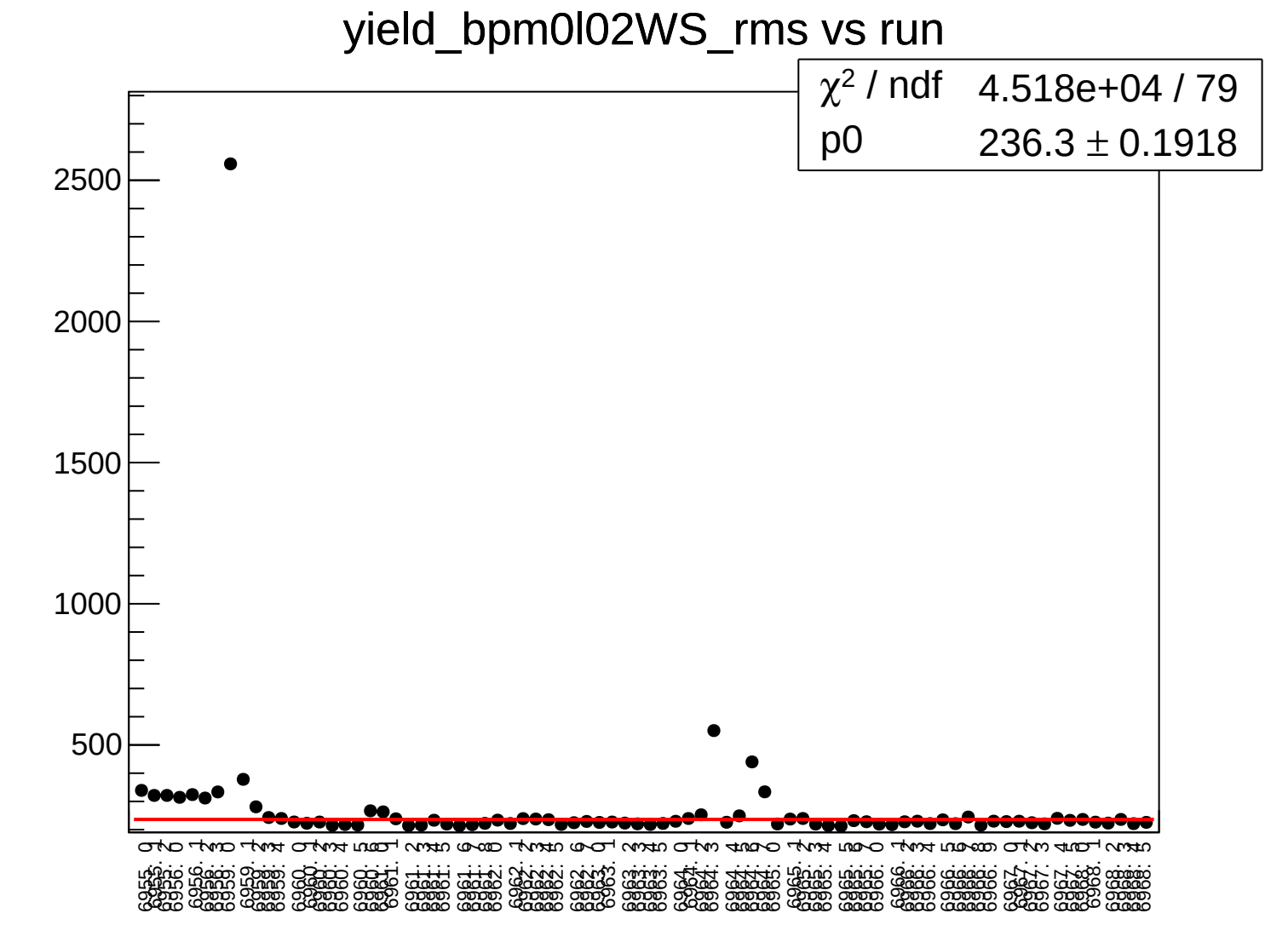

yield_bpm0l01WS_mean vs run
×10^3
χ² / ndf 2.494e+05 / 79
p0 1.289e+05 ± 0.1909
129
128
127
126
125
pull
Entries 80
Mean −49.43
Std Dev 95.18
100
50
0
−50
−100
−150
−200
−250

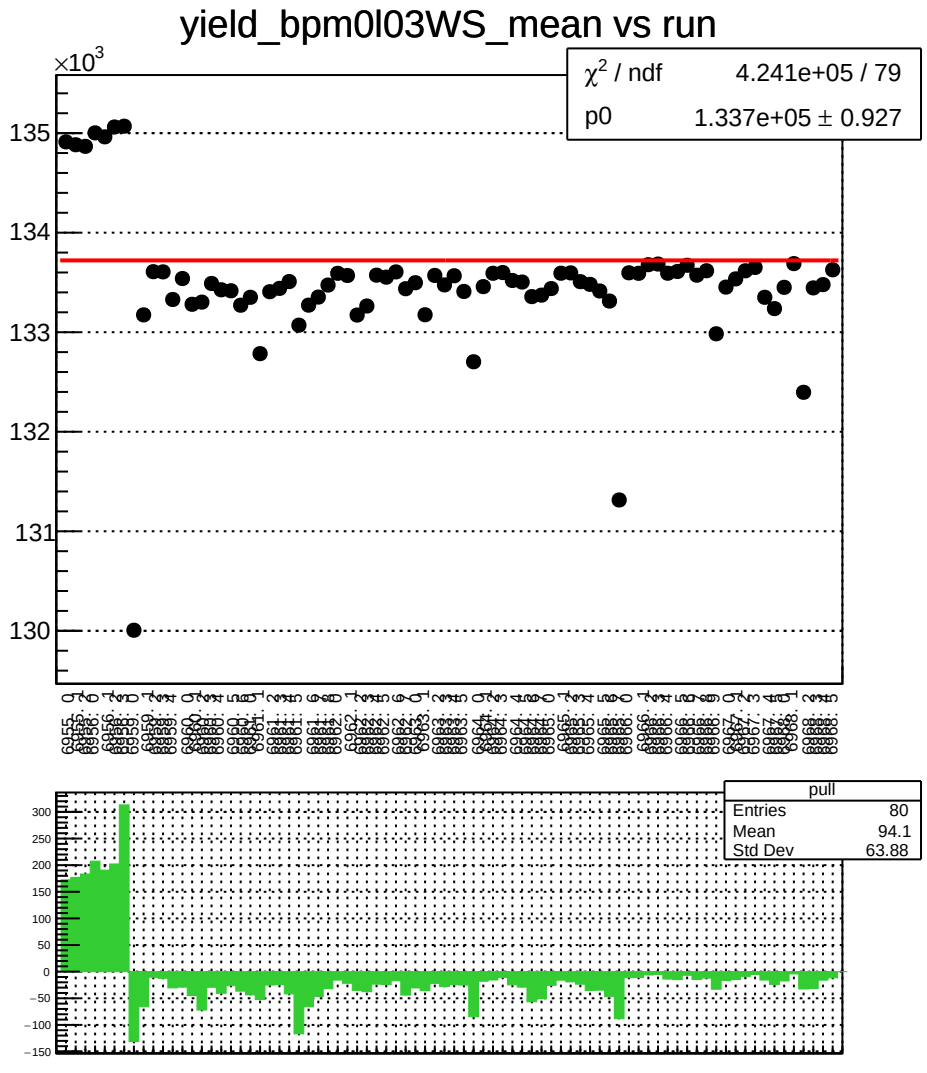

pull1D
Entries 80
Mean 0.7484
Std Dev 5.088
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

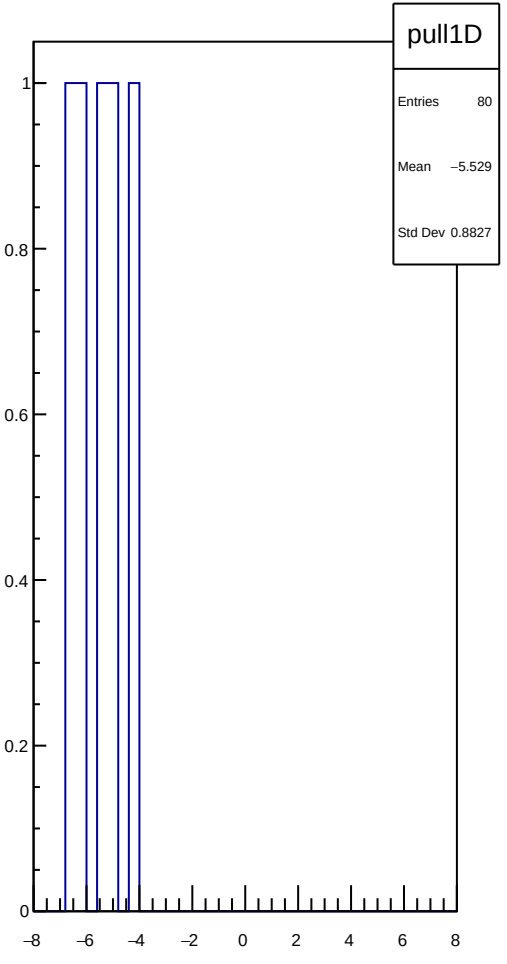

yield_bpm0l01WS_rms vs run
χ² / ndf 6.771e+04 / 79
p0 165.1 ± 0.135
2500
2000
1500
1000
500

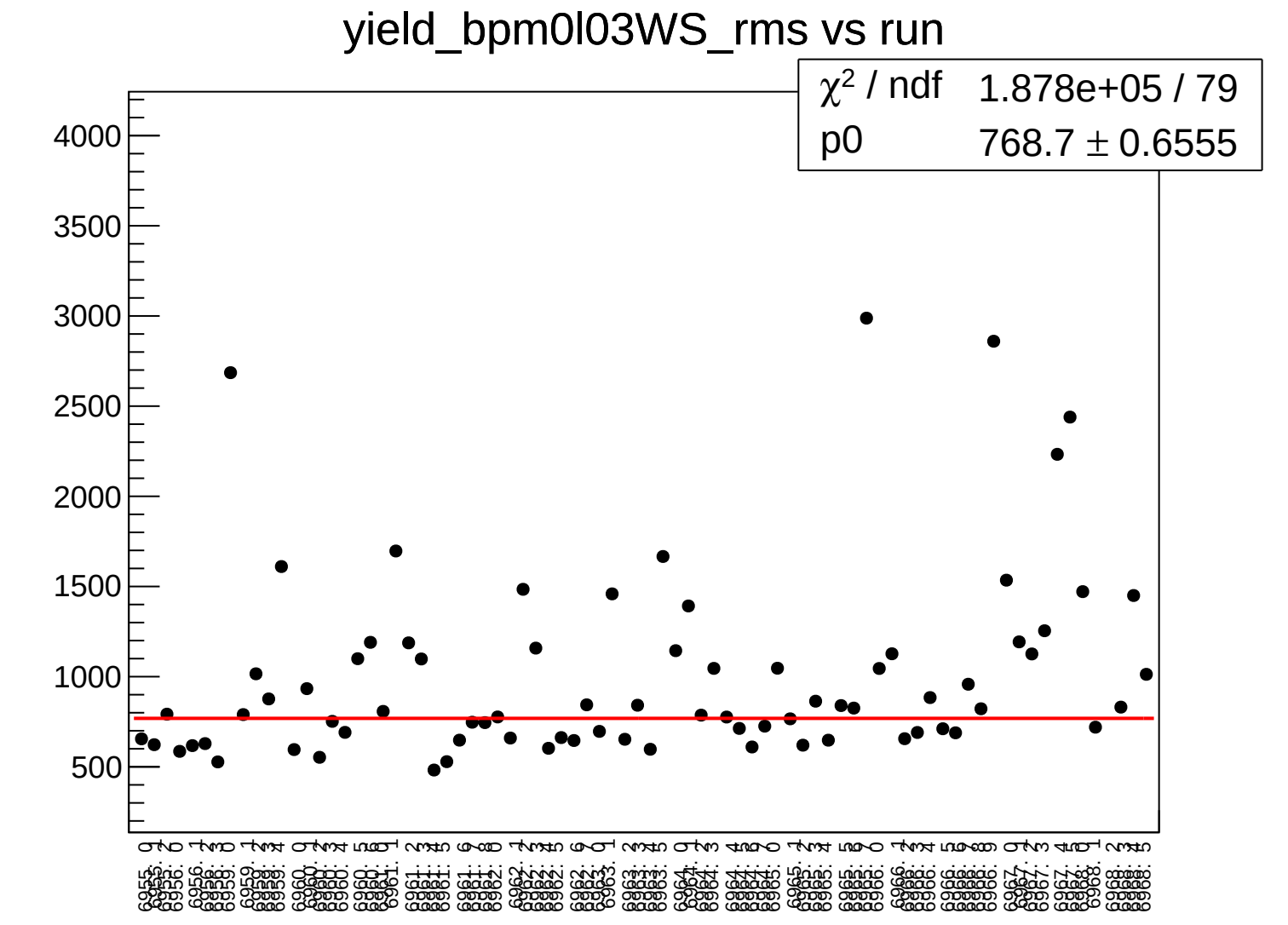

yield_bpm0l02WS_mean vs run
×10^3
χ² / ndf 4.441e+06 / 79
p0 1.356e+05 ± 0.2712
138
137
136
135
134
133
pull
Entries 80
Mean −266.8
Std Dev 301.2
800
600
400
200
0
−200

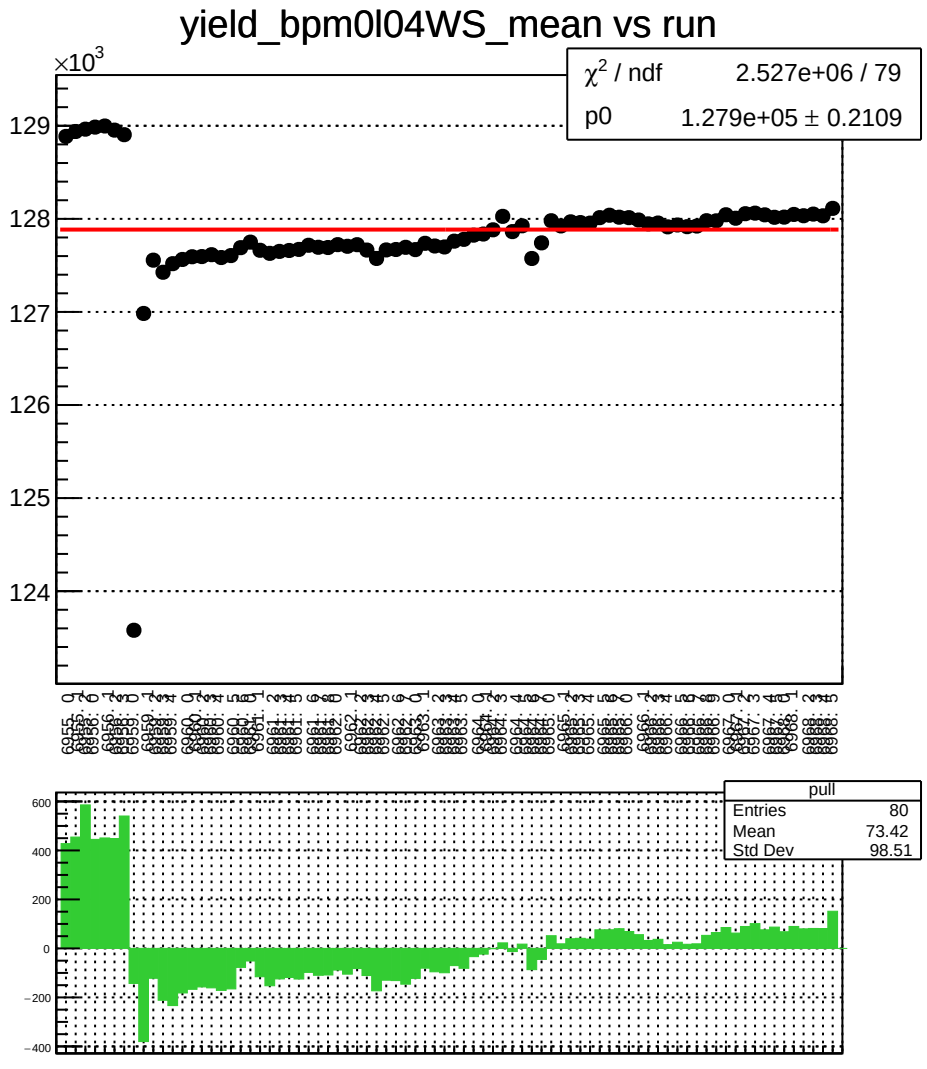

pull1D
Entries 80
Mean 0.9244
Std Dev 3.406
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

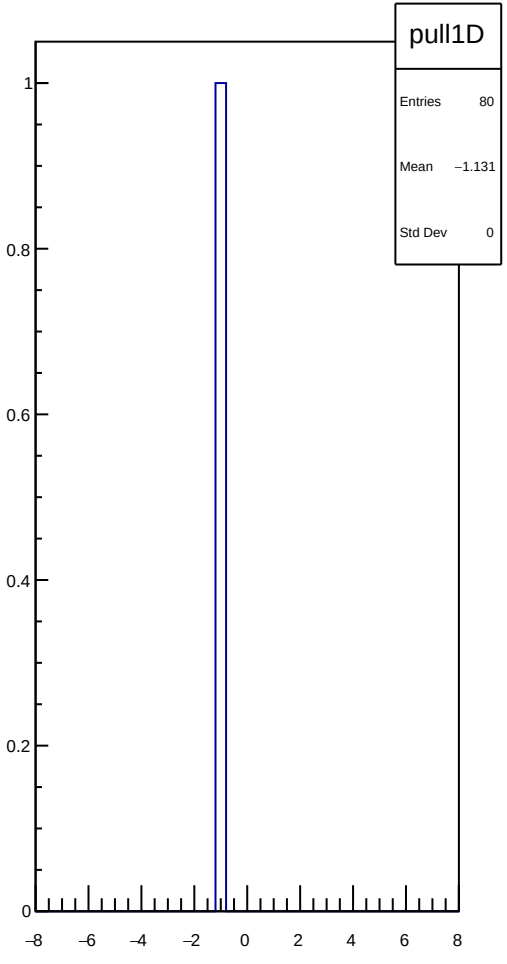

yield_bpm0l02WS_rms vs run
χ² / ndf 4.518e+04 / 79
p0 236.3 ± 0.1918
2500
2000
1500
1000
500

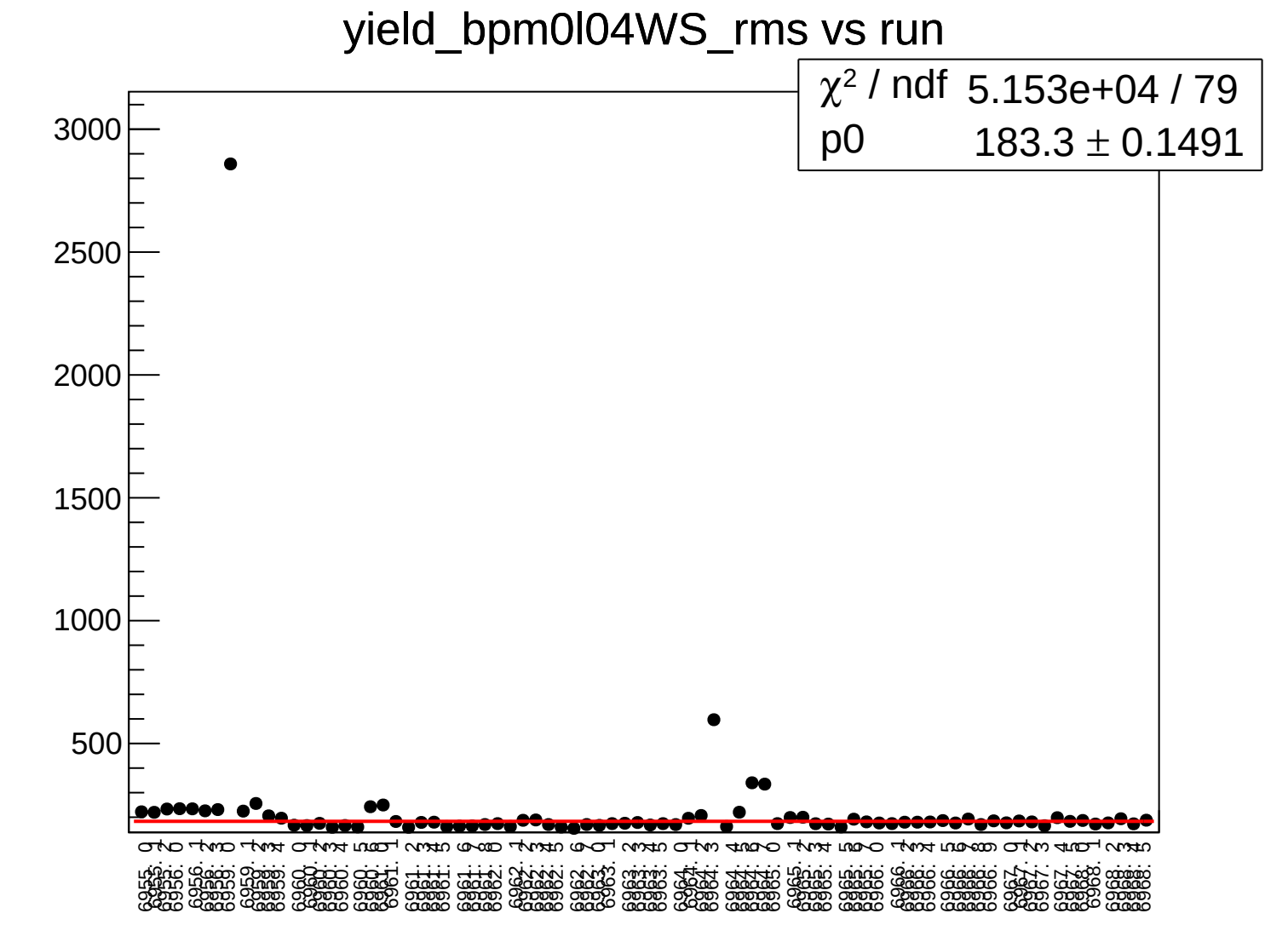

yield_bpm0l03WS_mean vs run
×10^3
χ² / ndf 4.241e+05 / 79
p0 1.337e+05 ± 0.927
135
134
133
132
131
130
pull
Entries 80
Mean 94.1
Std Dev 63.88
300
250
200
150
100
50
0
−50
−100
−150

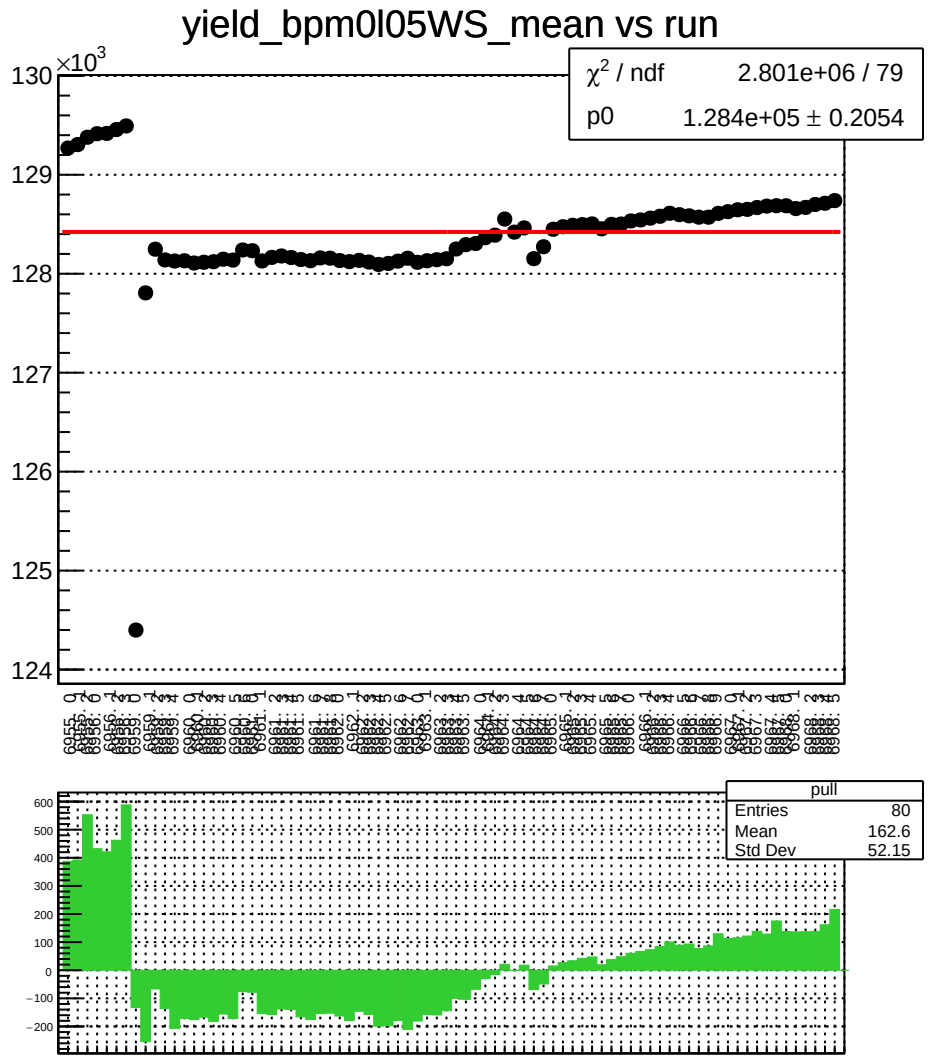

pull1D
Entries 80
Mean −5.529
Std Dev 0.8827
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

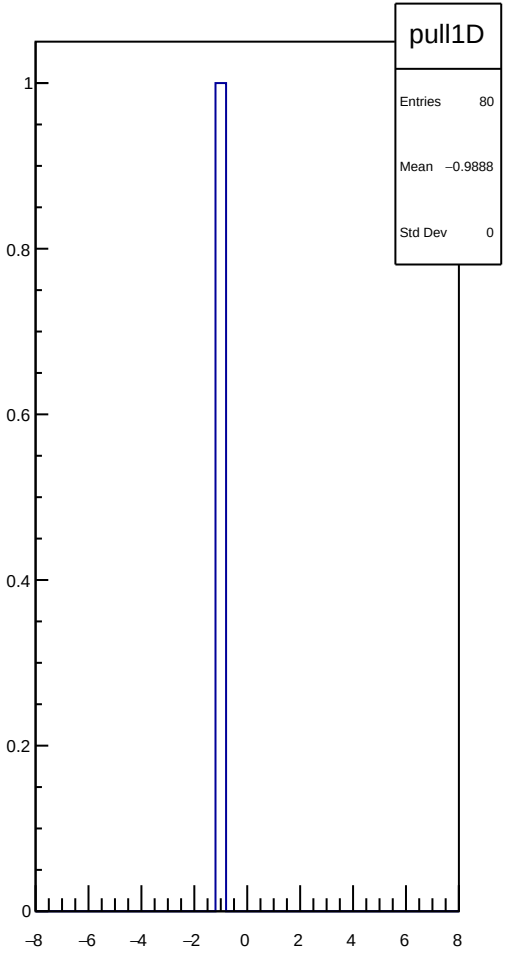

yield_bpm0l03WS_rms vs run
χ² / ndf 1.878e+05 / 79
p0 768.7 ± 0.6555
4000
3500
3000
2500
2000
1500
1000
500

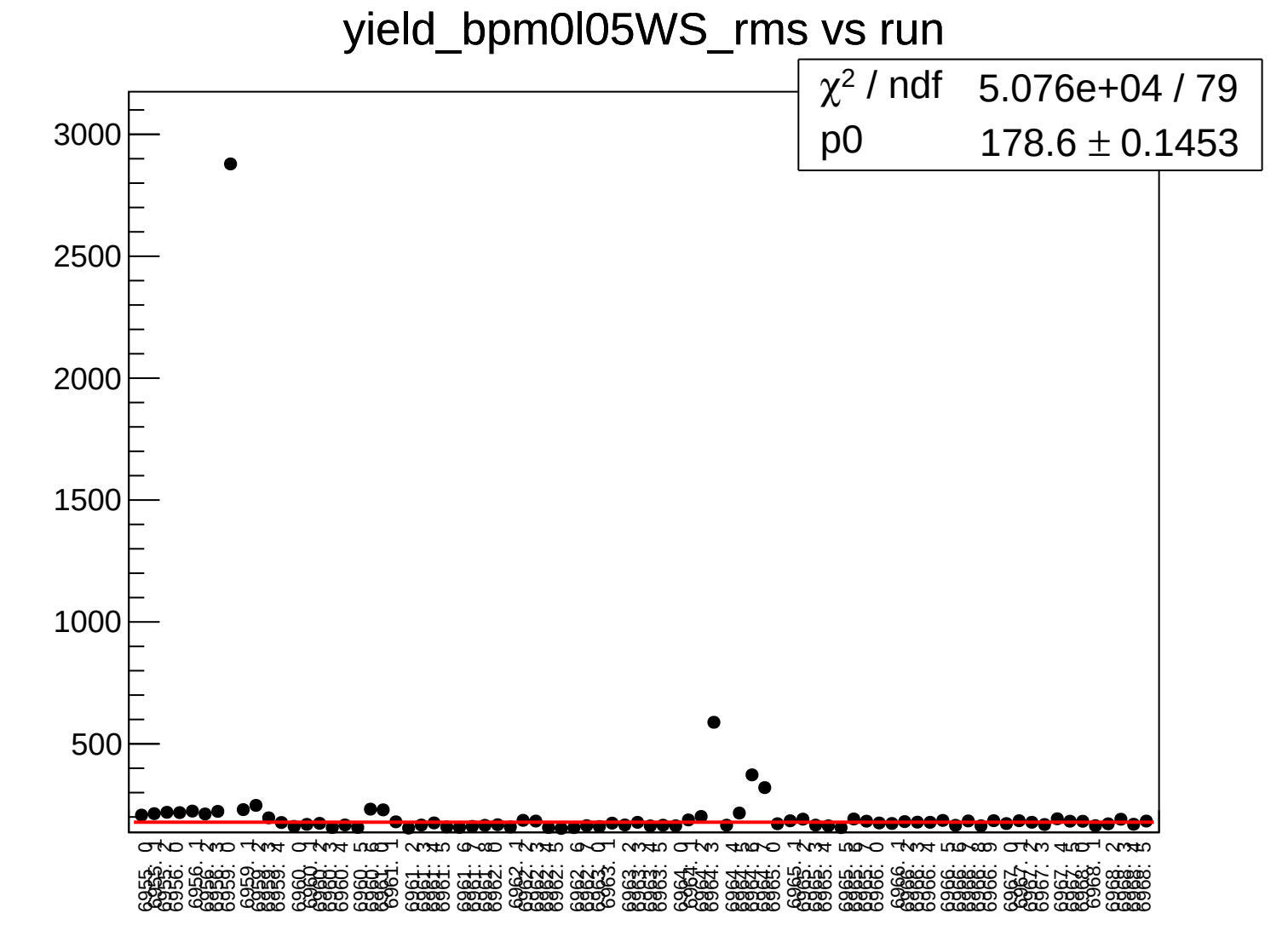

yield_bpm0l04WS_mean vs run
×10^3
χ² / ndf 2.527e+06 / 79
p0 1.279e+05 ± 0.2109
129
128
127
126
125
124
pull
Entries 80
Mean 73.42
Std Dev 98.51
600
400
200
0
−200
−400

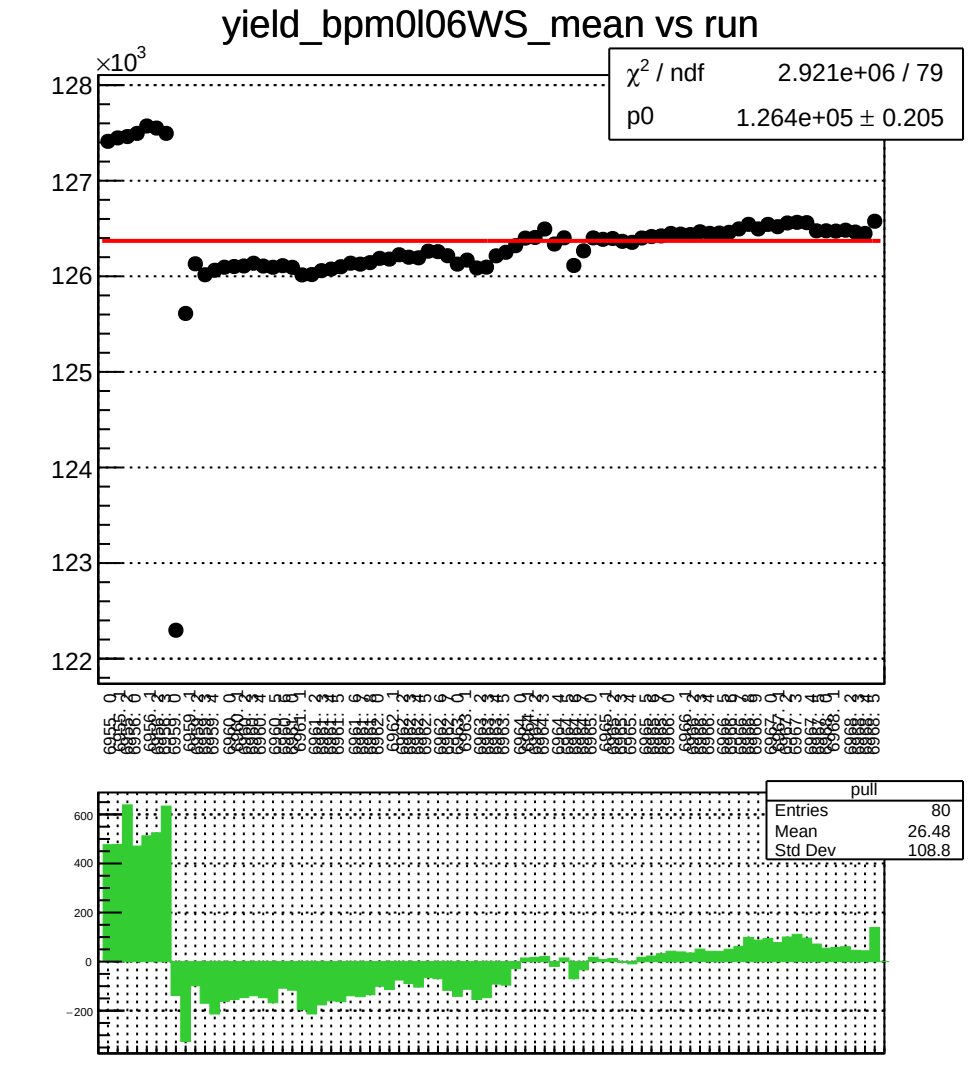

pull1D
Entries 80
Mean −1.131
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

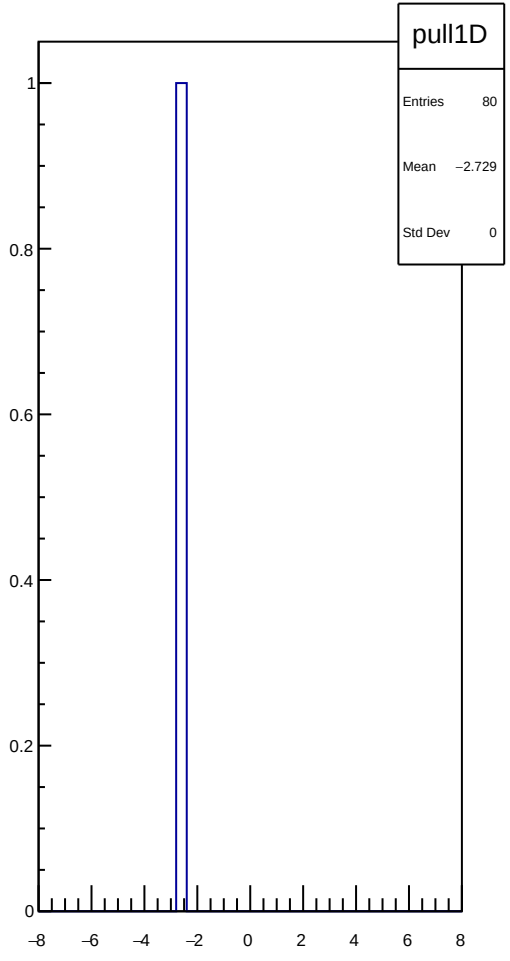

yield_bpm0l04WS_rms vs run
χ² / ndf 5.153e+04 / 79
p0 183.3 ± 0.1491
3000
2500
2000
1500
1000
500

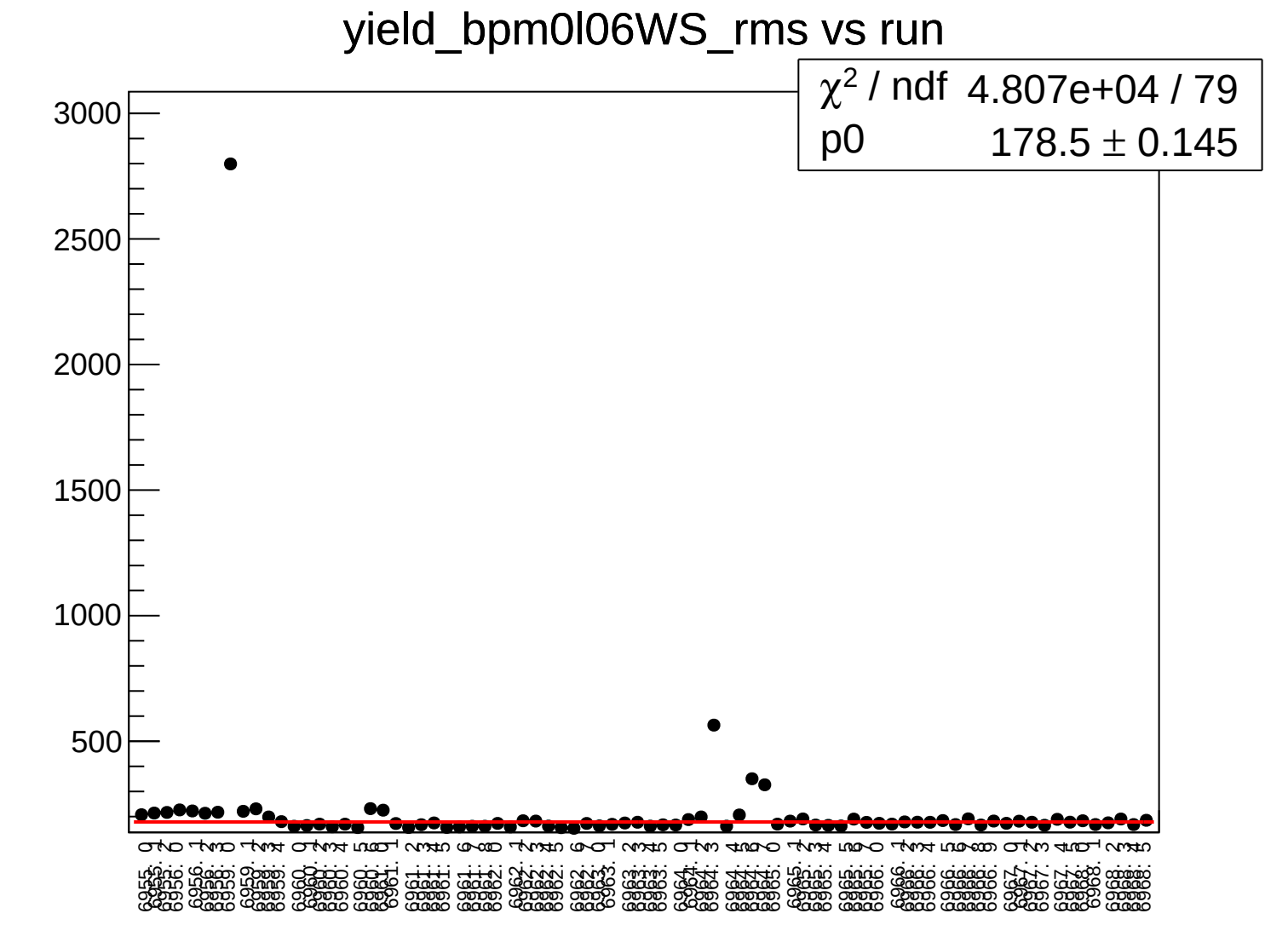

yield_bpm0l05WS_mean vs run
×10^3
130
129
128
127
126
125
124
χ² / ndf 2.801e+06 / 79
p0 1.284e+05 ± 0.2054
pull
Entries 80
Mean 162.6
Std Dev 52.15
600
500
400
300
200
100
0
−100
−200

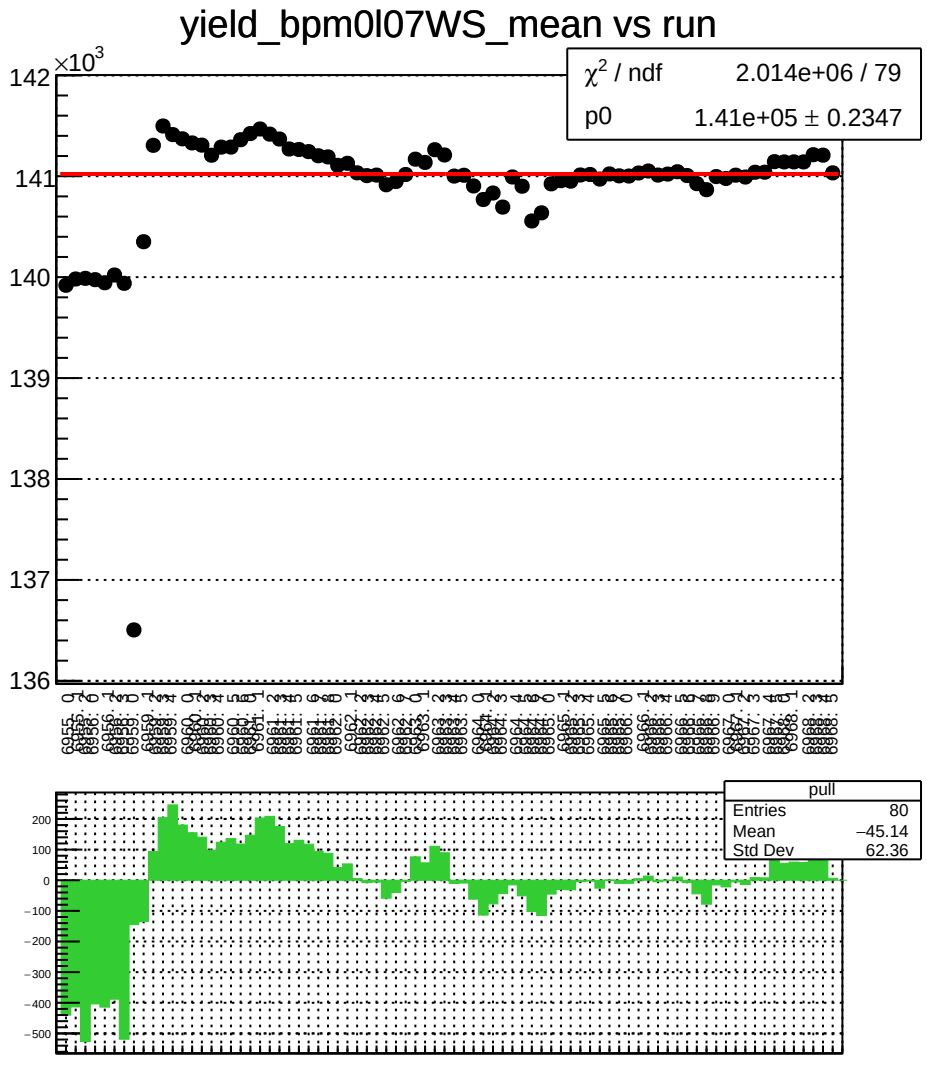

pull1D
Entries 80
Mean −0.9888
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

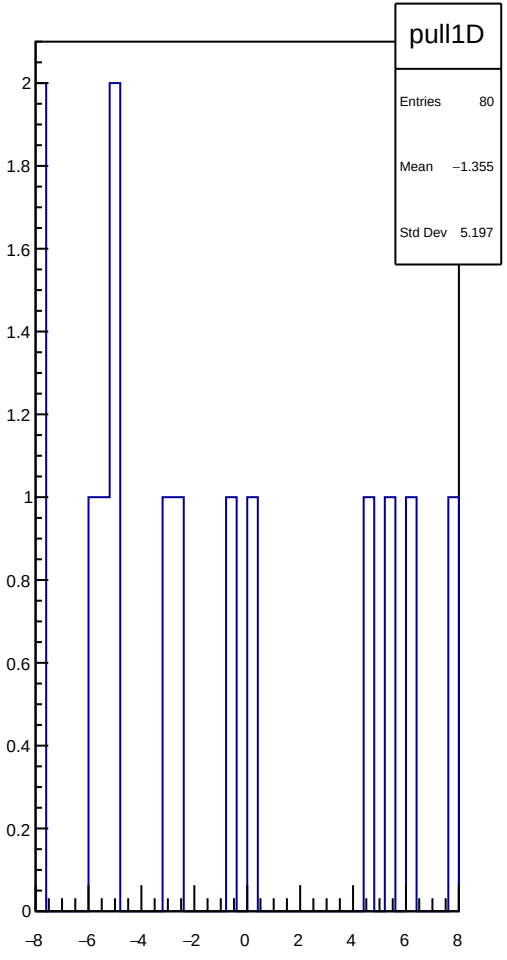

yield_bpm0l05WS_rms vs run
χ² / ndf 5.076e+04 / 79
p0 178.6 ± 0.1453
3000
2500
2000
1500
1000
500

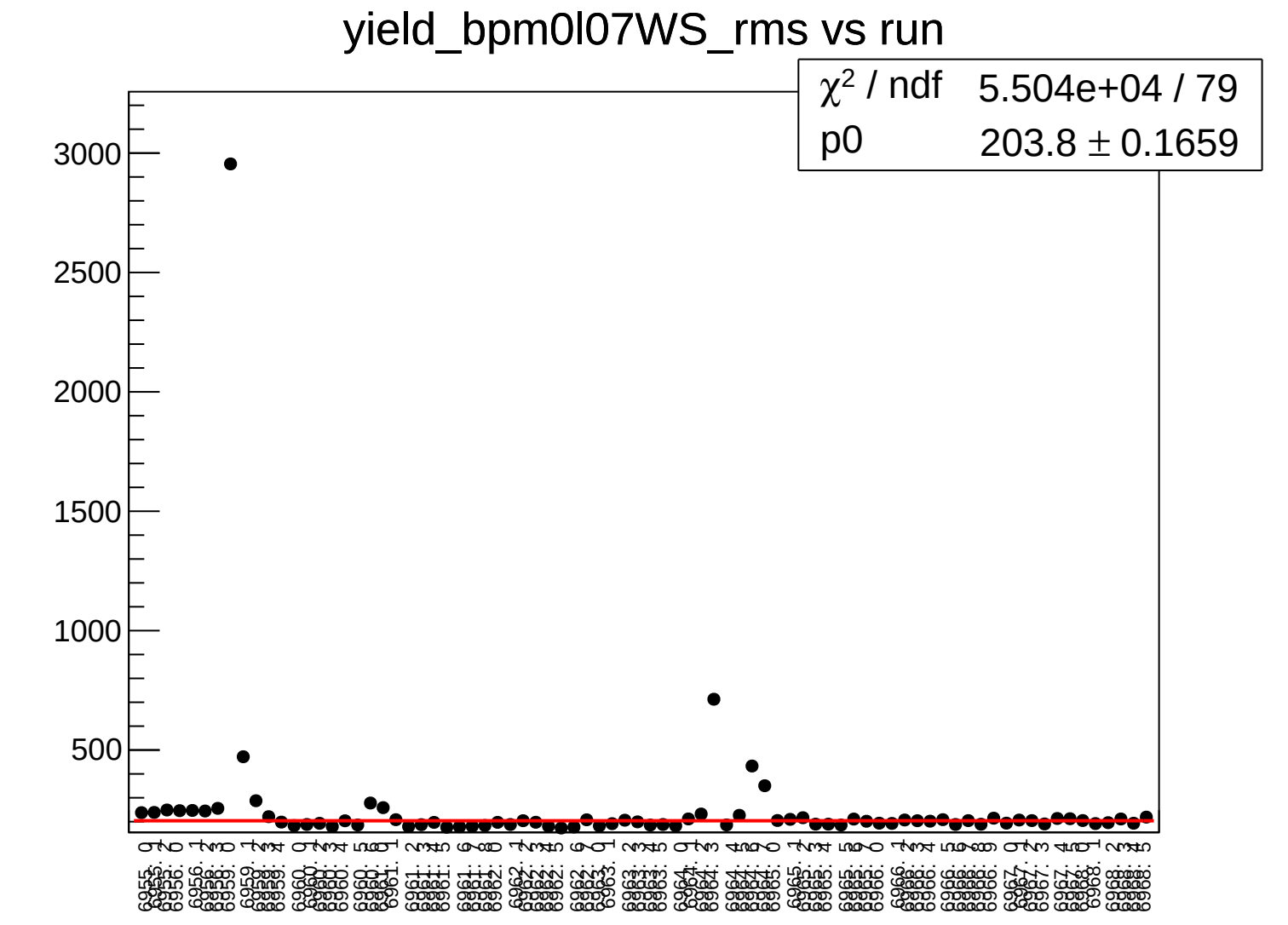

yield_bpm0l06WS_mean vs run
×10^3
χ² / ndf 2.921e+06 / 79
p0 1.264e+05 ± 0.205
128
127
126
125
124
123
122
pull
Entries 80
Mean 26.48
Std Dev 108.8
600
400
200
0
−200

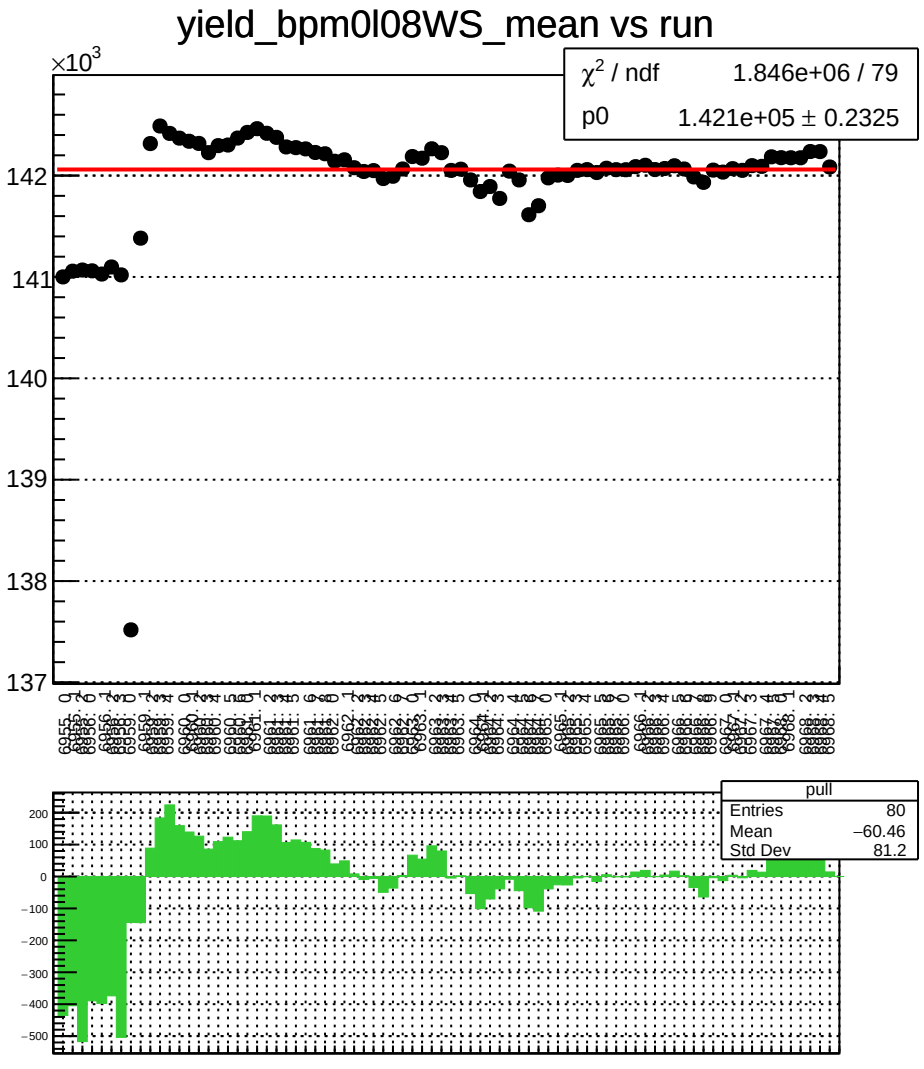

pull1D
Entries 80
Mean −2.729
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

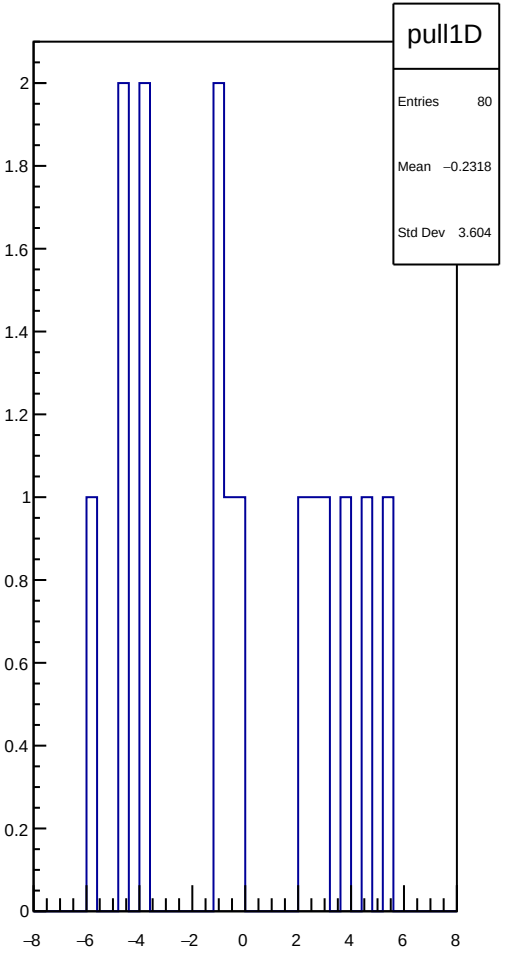

yield_bpm0l06WS_rms vs run
χ² / ndf 4.807e+04 / 79
p0 178.5 ± 0.145
3000
2500
2000
1500
1000
500

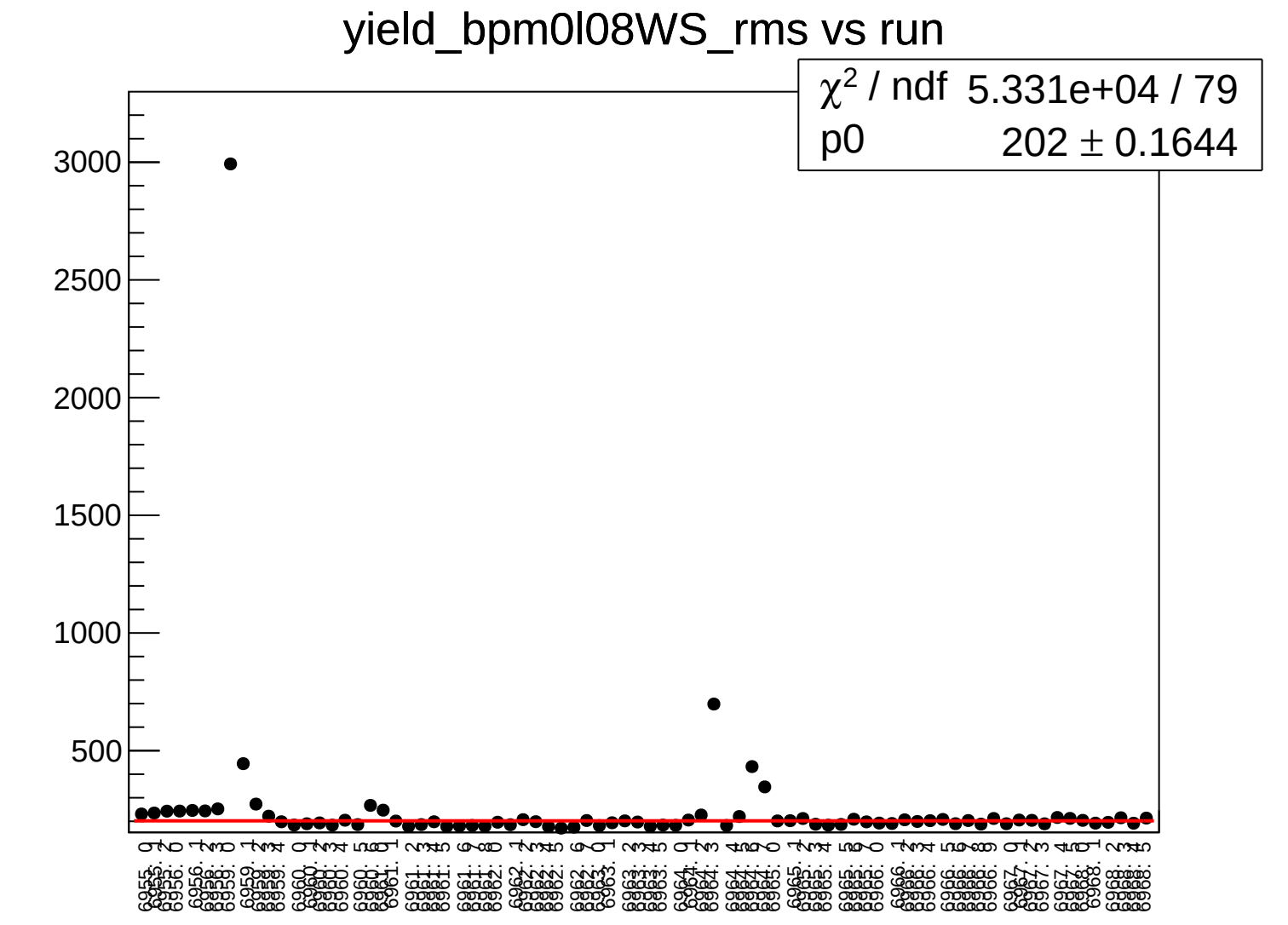

yield_bpm0l07WS_mean vs run
×10^3
142
141
140
139
138
137
136
χ² / ndf 2.014e+06 / 79
p0 1.41e+05 ± 0.2347
pull
Entries 80
Mean −45.14
Std Dev 62.36
200
100
0
−100
−200
−300
−400
−500

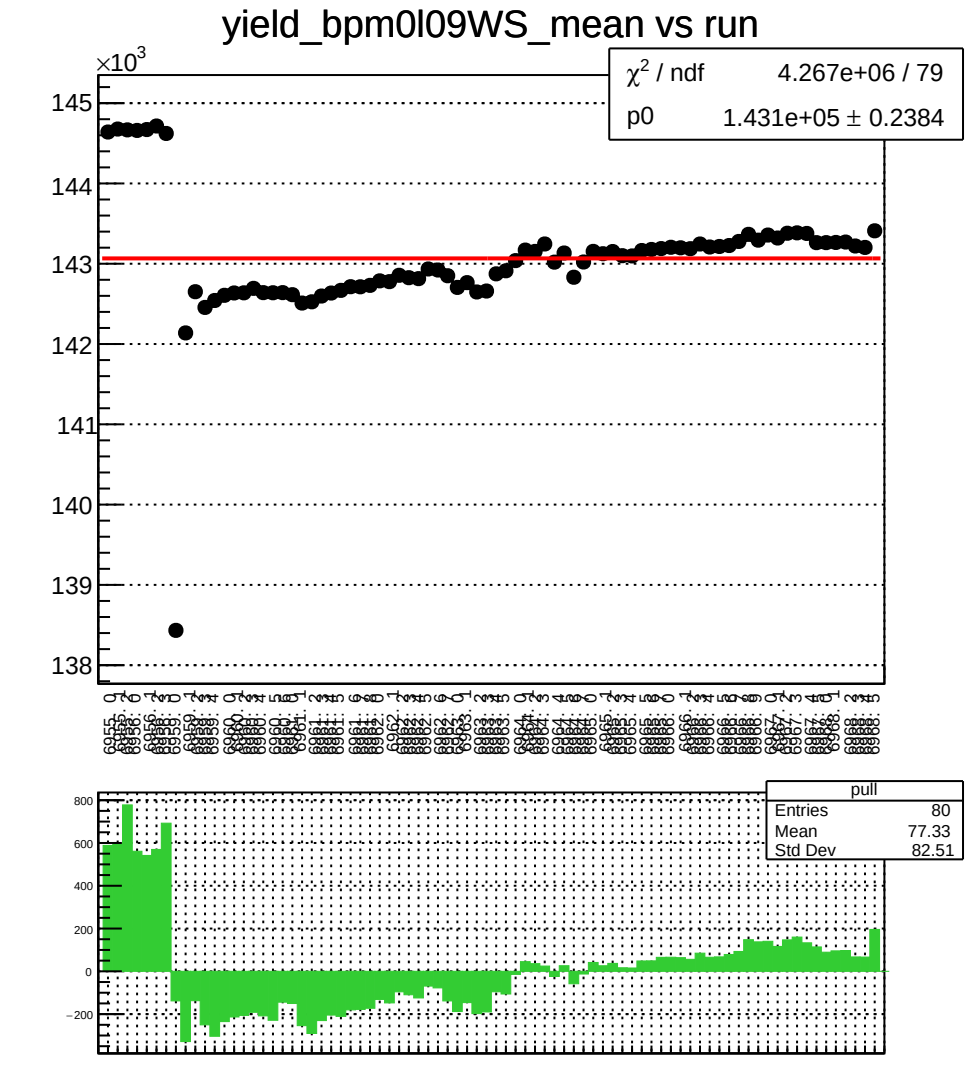

pull1D
Entries 80
Mean −1.355
Std Dev 5.197
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

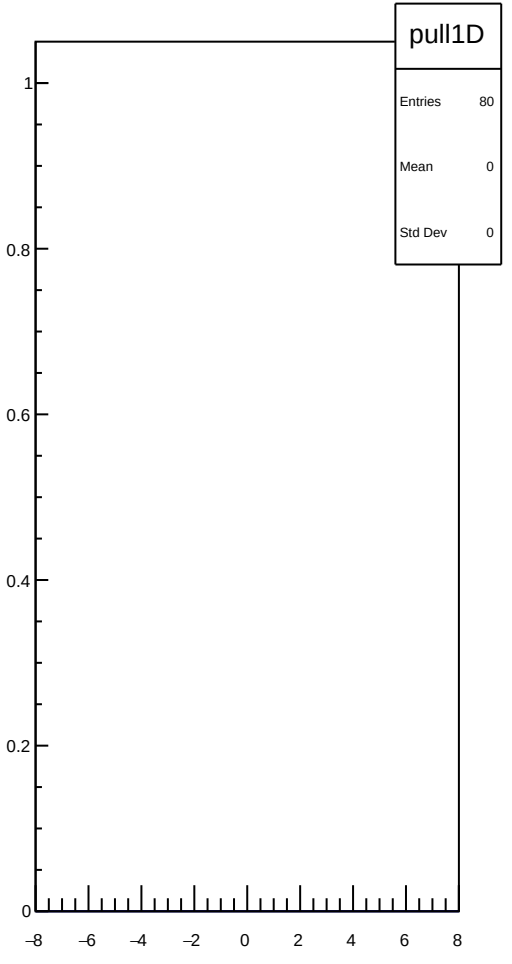

yield_bpm0l07WS_rms vs run
χ² / ndf 5.504e+04 / 79
p0 203.8 ± 0.1659
3000
2500
2000
1500
1000
500

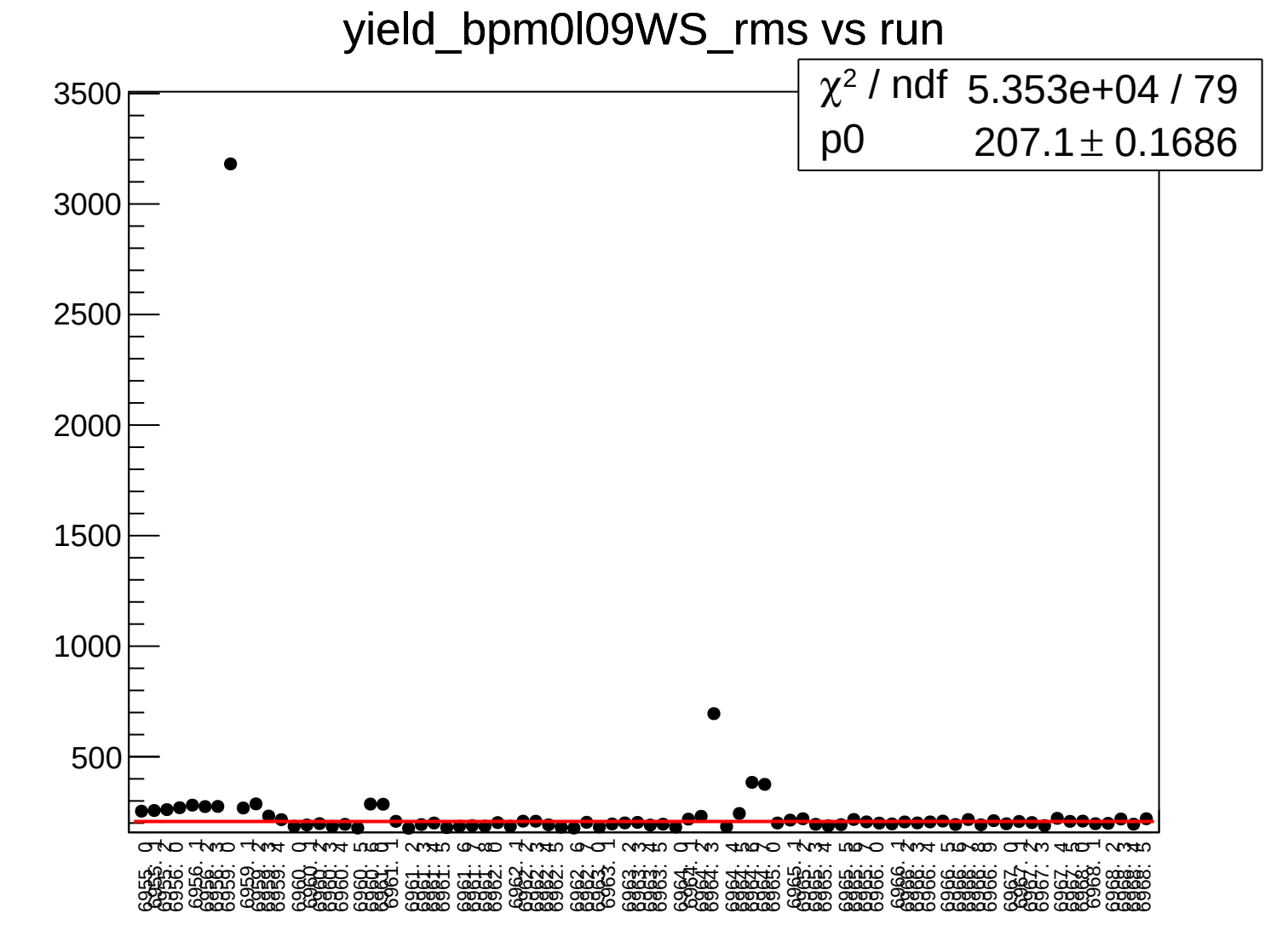

yield_bpm0l08WS_mean vs run
×10^3
χ² / ndf 1.846e+06 / 79
p0 1.421e+05 ± 0.2325
142
141
140
139
138
137
pull
Entries 80
Mean −60.46
Std Dev 81.2
200
100
0
−100
−200
−300
−400
−500

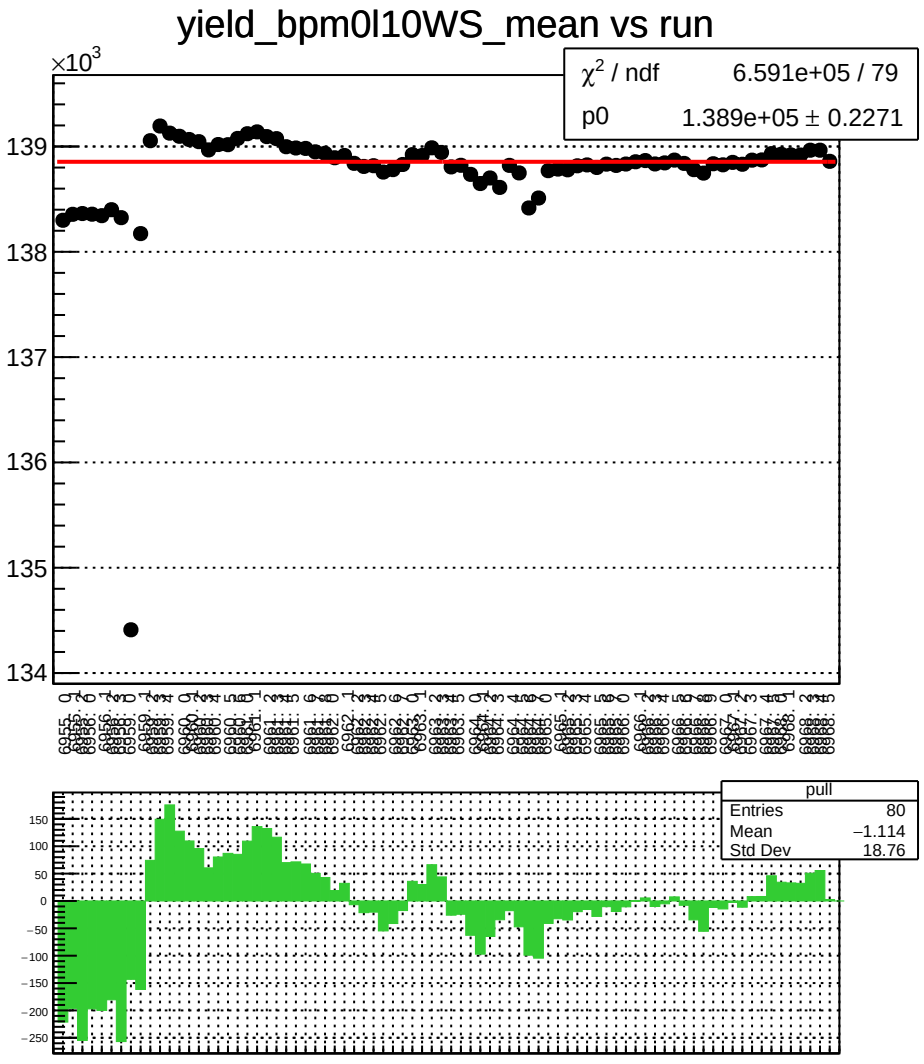

pull1D
Entries 80
Mean −0.2318
Std Dev 3.604
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

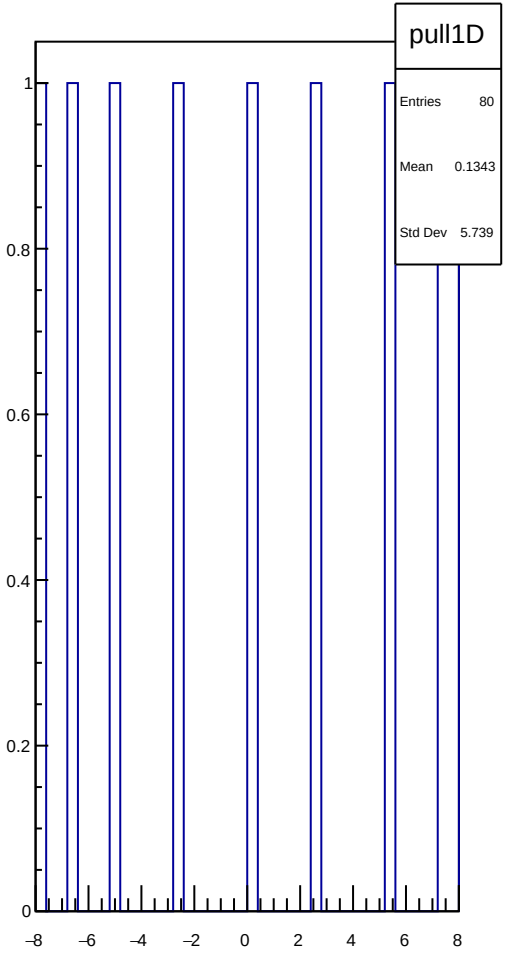

yield_bpm0l08WS_rms vs run
χ^2 / ndf 5.331e+04 / 79
p0 202 ± 0.1644
3000
2500
2000
1500
1000
500

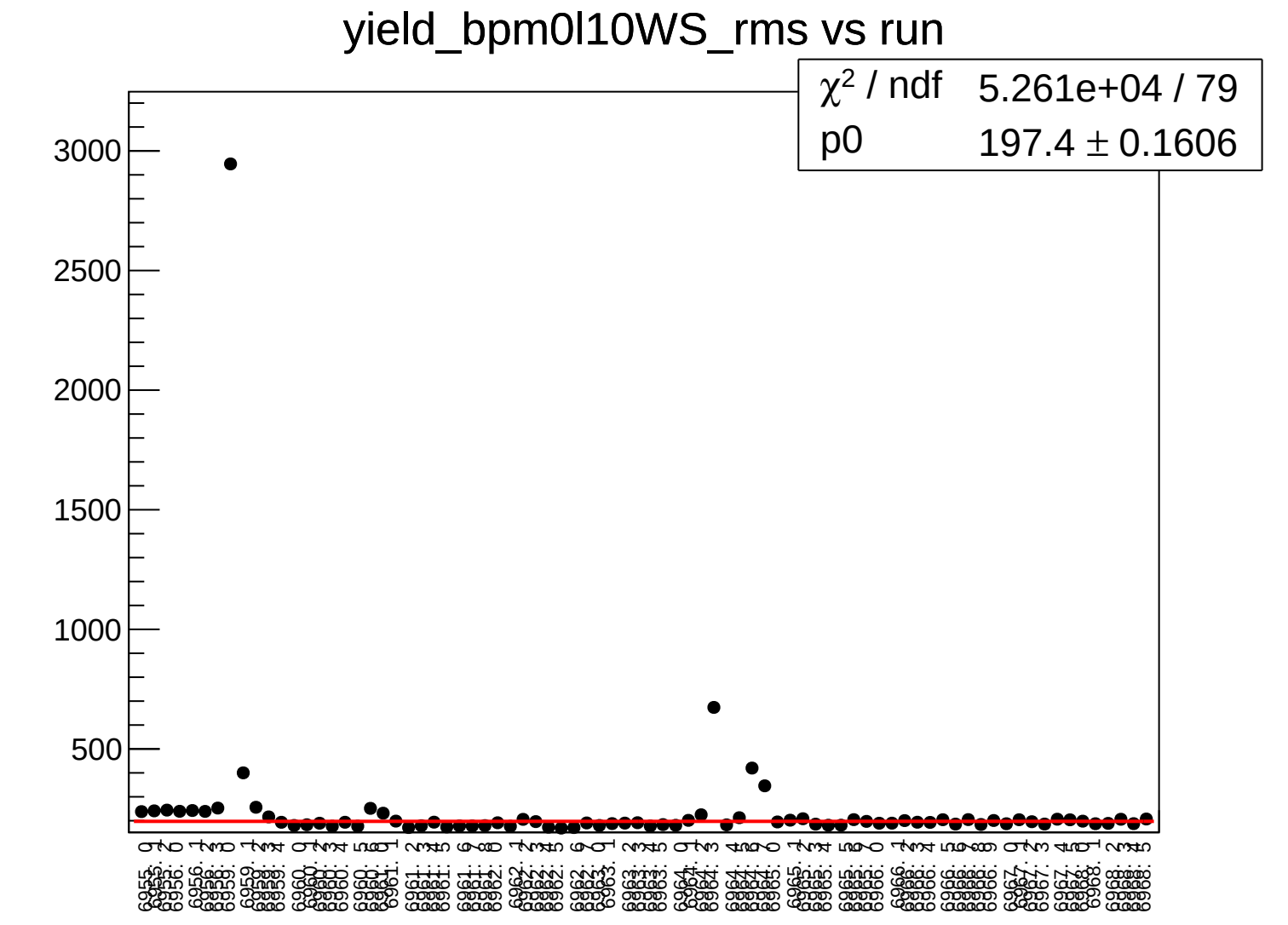

yield_bpm0l09WS_mean vs run
×10^3
χ² / ndf 4.267e+06 / 79
p0 1.431e+05 ± 0.2384
145
144
143
142
141
140
139
138
pull
Entries 80
Mean 77.33
Std Dev 82.51
800
600
400
200
0
−200

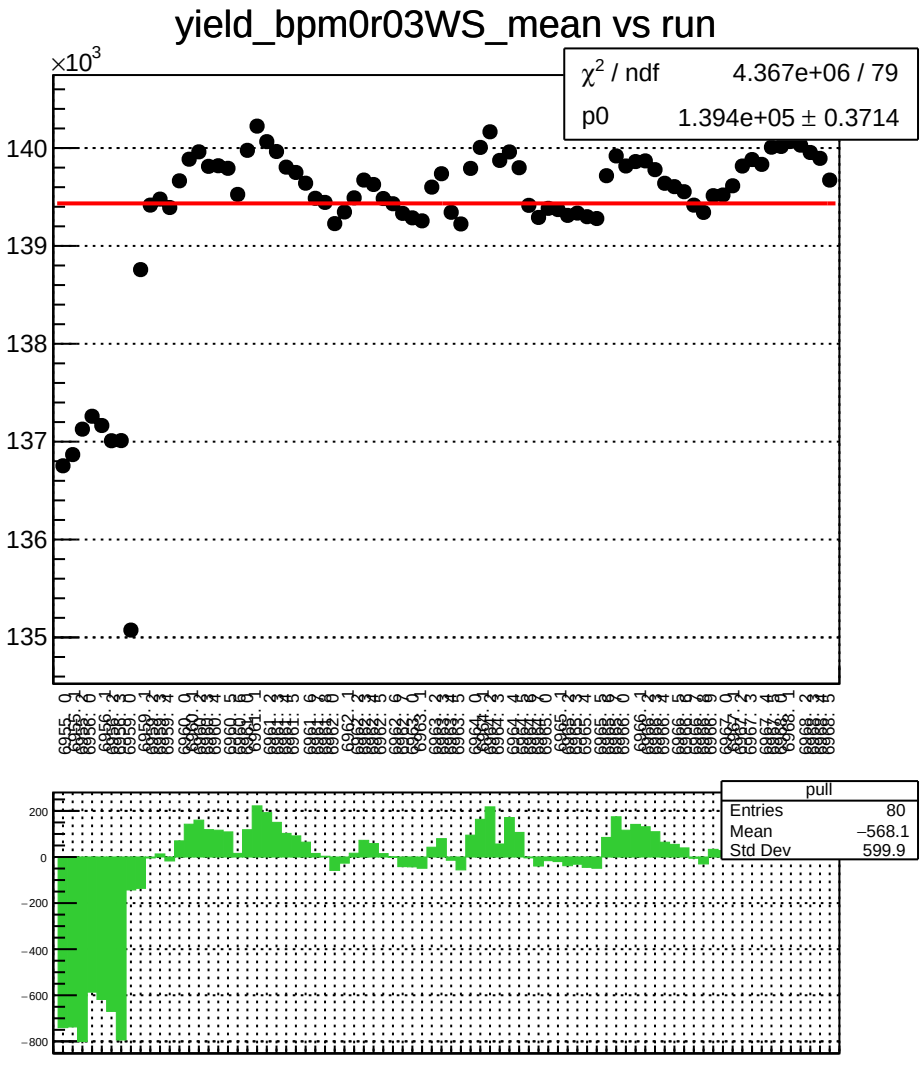

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

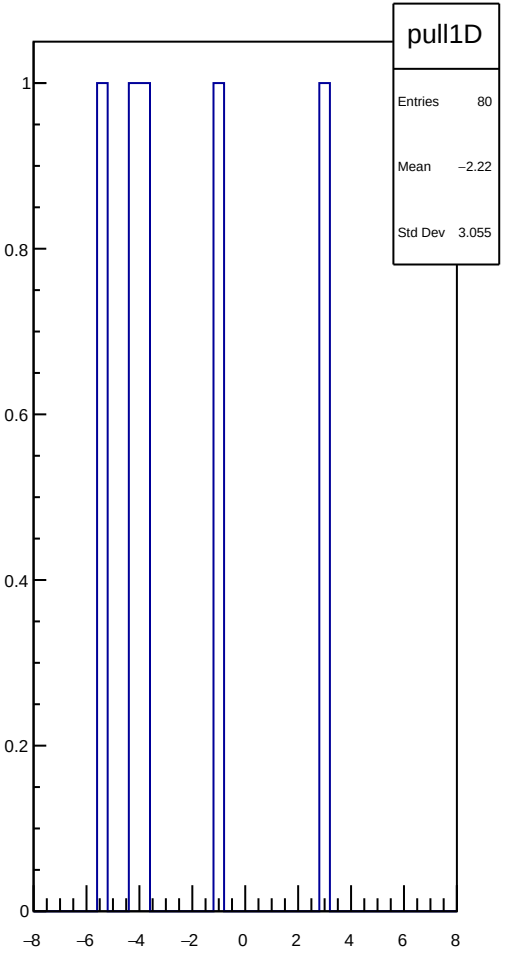

yield_bpm0l09WS_rms vs run
χ² / ndf 5.353e+04 / 79
p0 207.1 ± 0.1686
3500
3000
2500
2000
1500
1000
500

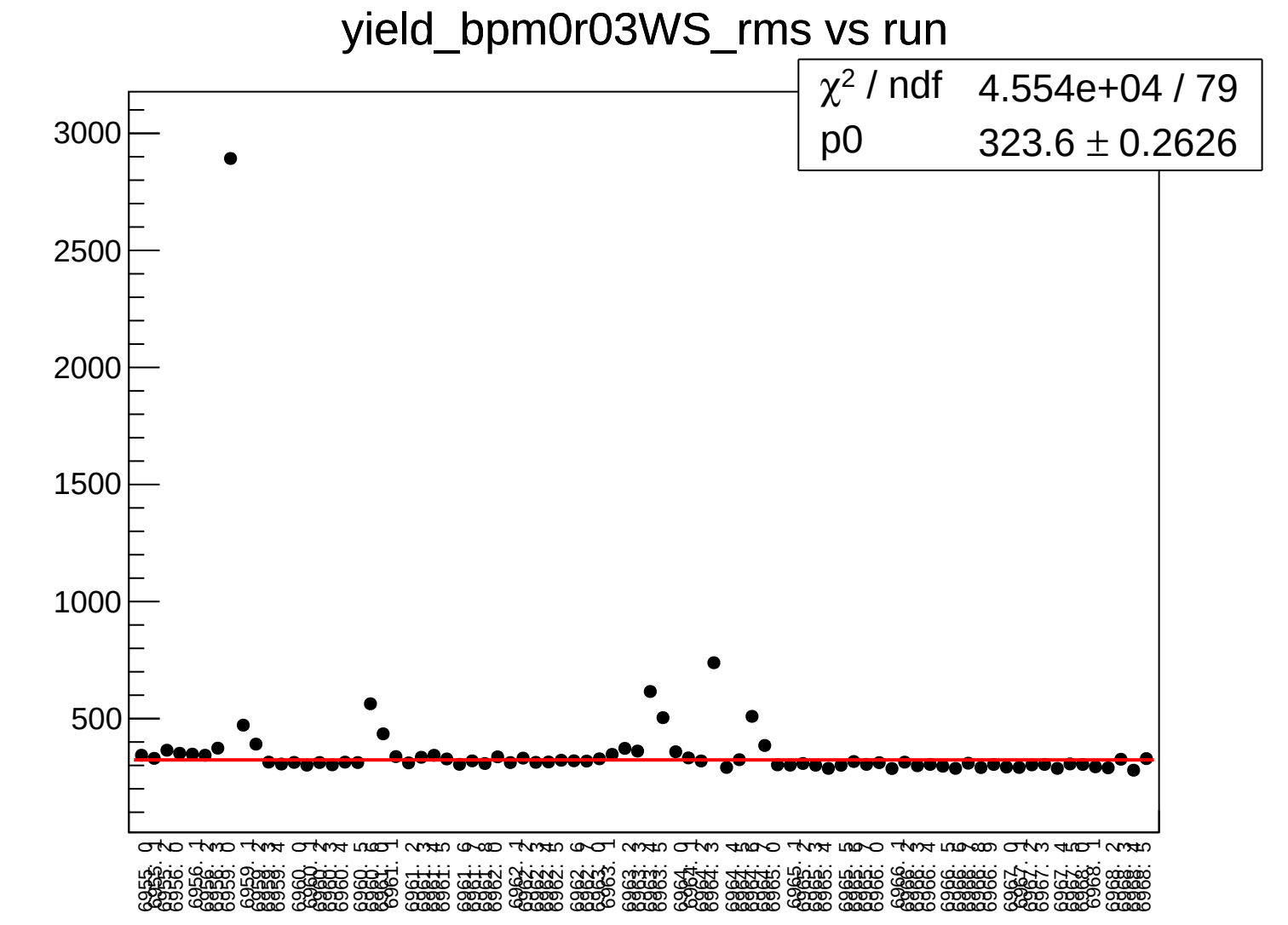

yield_bpm0l10WS_mean vs run
×10^3
χ² / ndf 6.591e+05 / 79
p0 1.389e+05 ± 0.2271
139
138
137
136
135
134
pull
Entries 80
Mean −1.114
Std Dev 18.76
150
100
50
0
−50
−100
−150
−200
−250

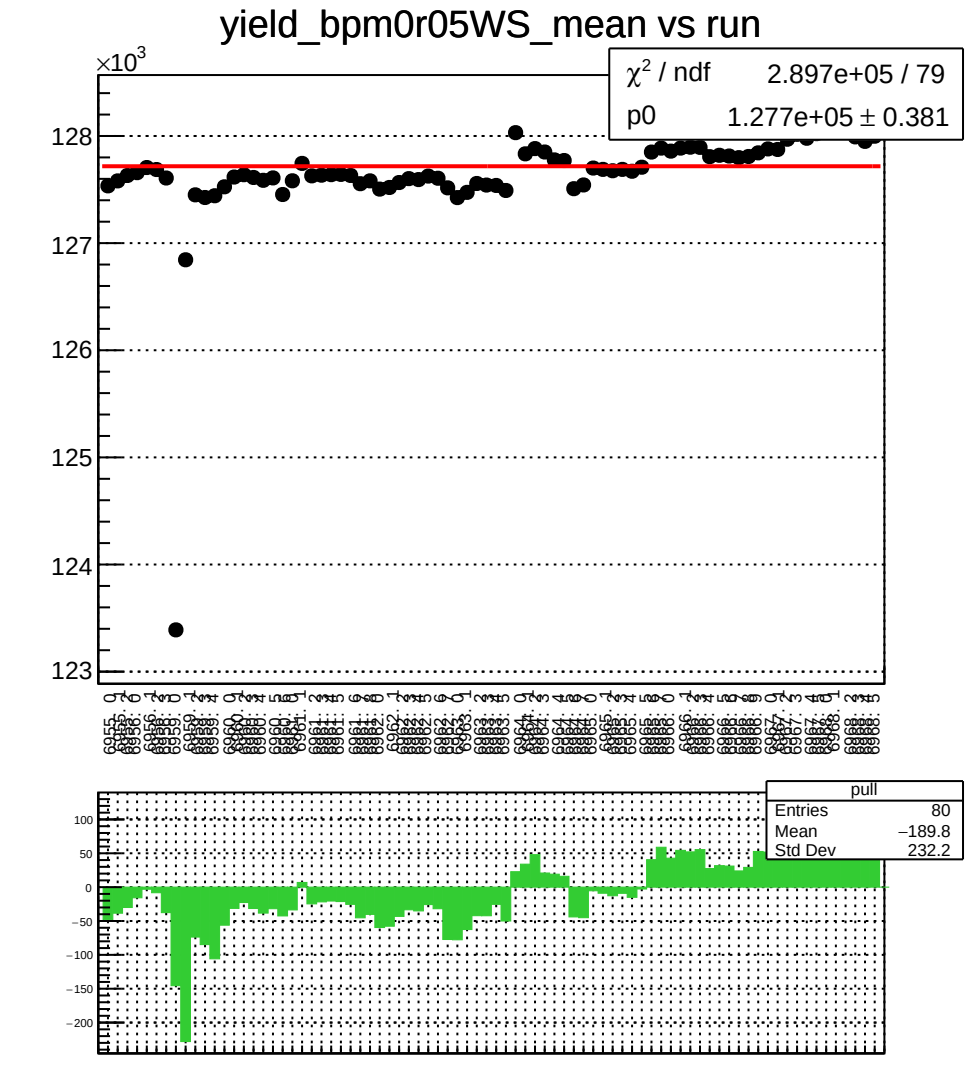

pull1D
Entries 80
Mean 0.1343
Std Dev 5.739
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

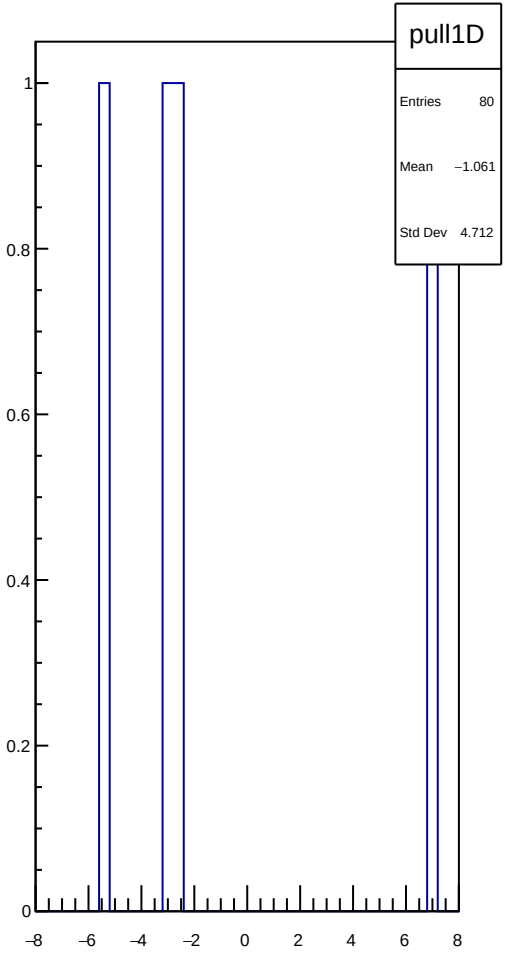

yield_bpm0l10WS_rms vs run
χ² / ndf 5.261e+04 / 79
p0 197.4 ± 0.1606
3000
2500
2000
1500
1000
500

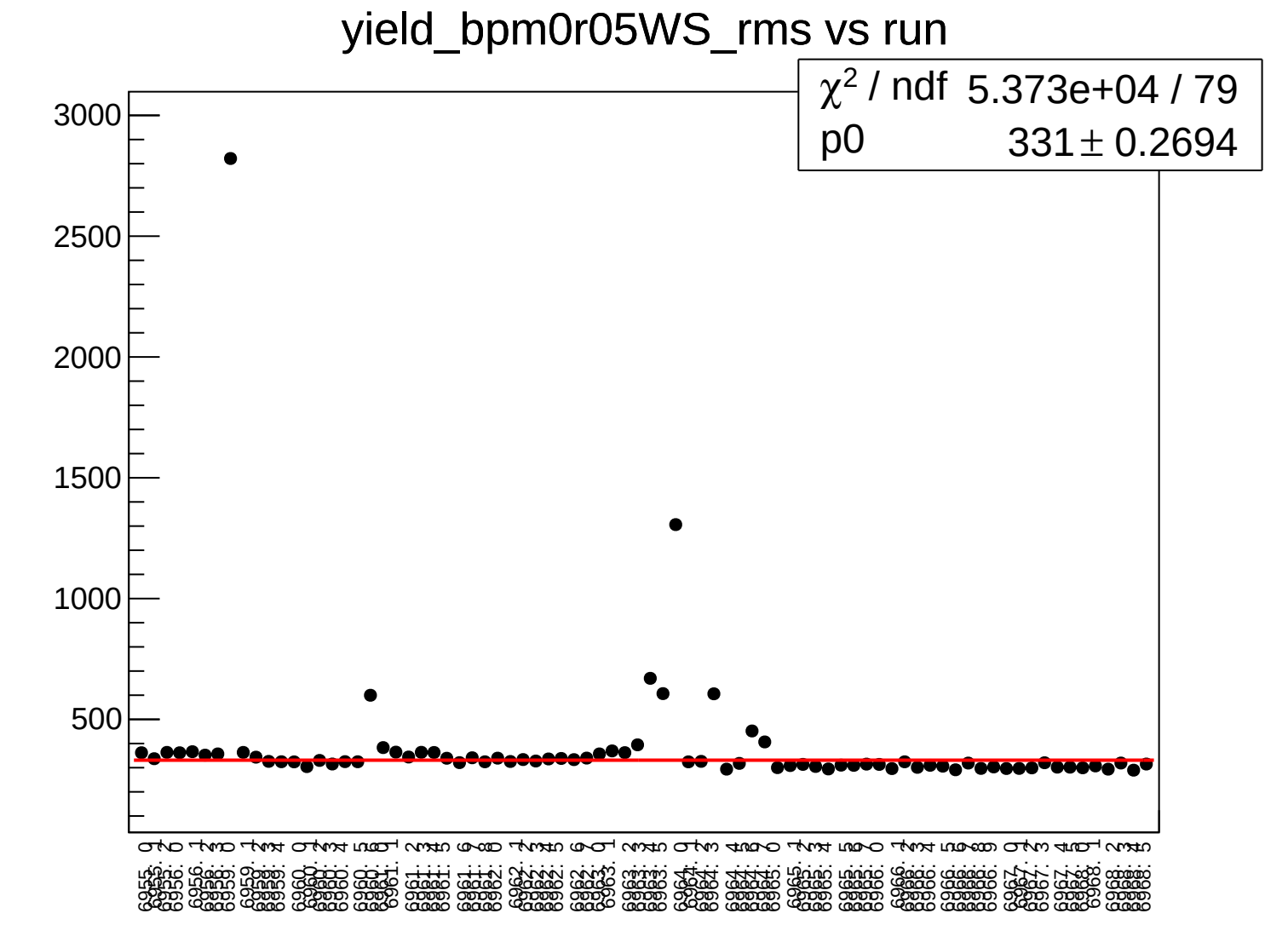

yield_bpm0r03WS_mean vs run
×10^3
χ² / ndf 4.367e+06 / 79
p0 1.394e+05 ± 0.3714
140
139
138
137
136
135
pull
Entries 80
Mean −568.1
Std Dev 599.9
200
0
−200
−400
−600
−800

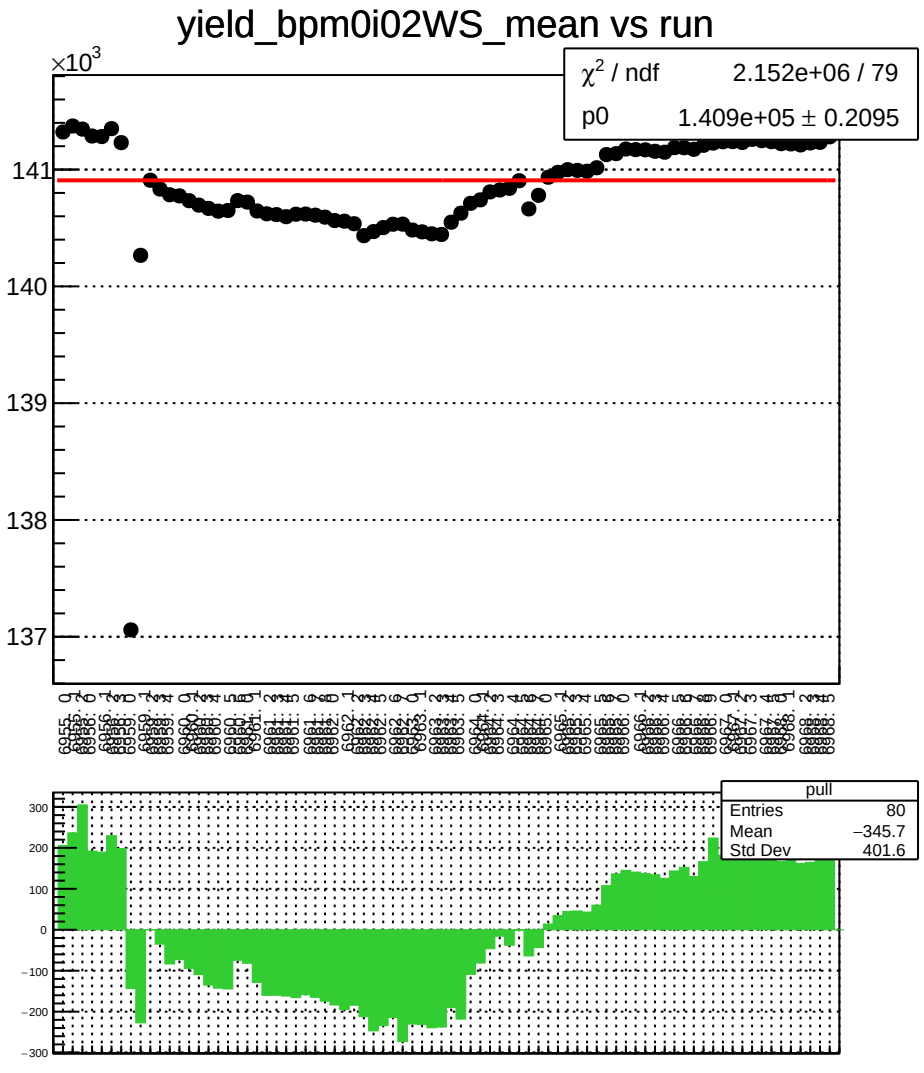

pull1D
Entries 80
Mean −2.22
Std Dev 3.055
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

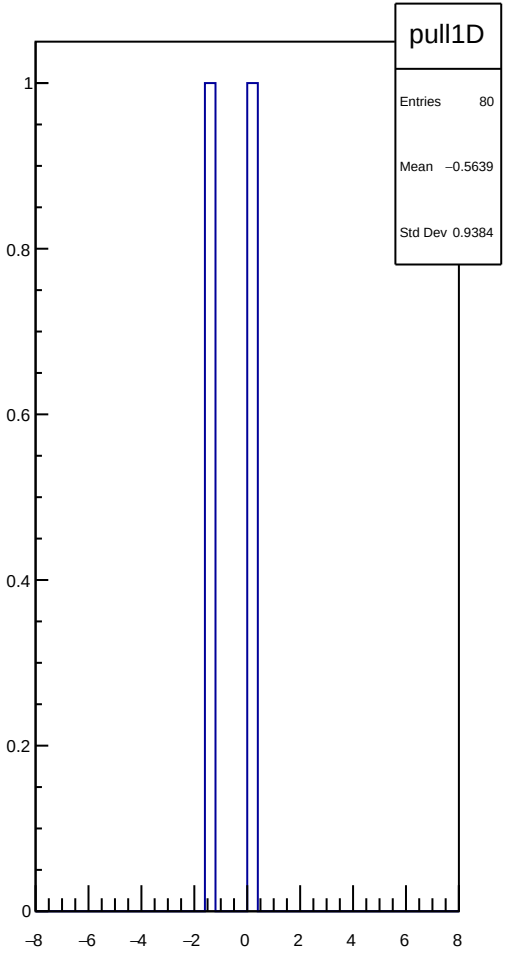

yield_bpm0r03WS_rms vs run
χ² / ndf 4.554e+04 / 79
p0 323.6 ± 0.2626
3000
2500
2000
1500
1000
500

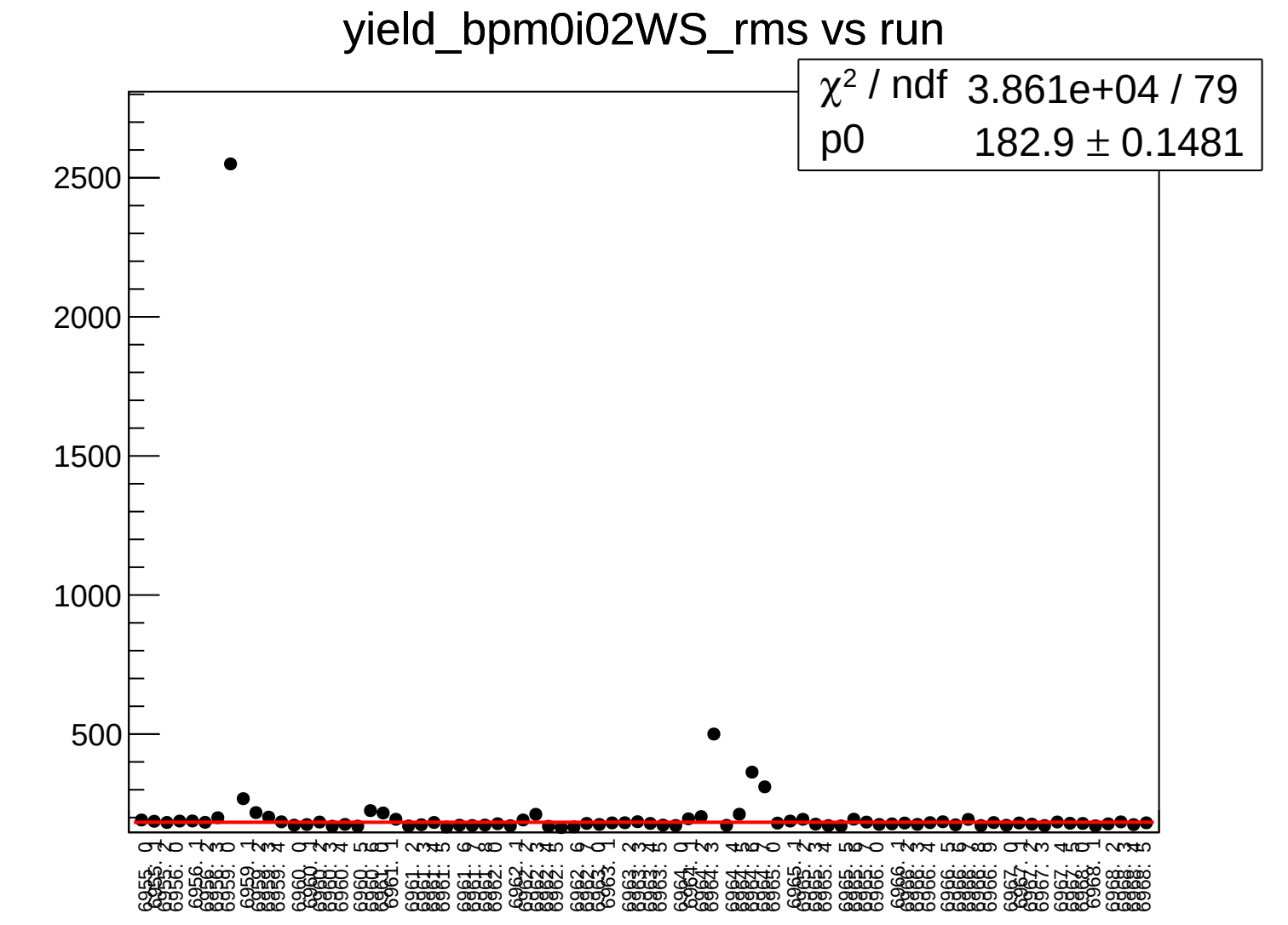

yield_bpm0r05WS_mean vs run
×10^3
χ² / ndf 2.897e+05 / 79
p0 1.277e+05 ± 0.381
128
127
126
125
124
123
pull
Entries 80
Mean −189.8
Std Dev 232.2
100
50
0
−50
−100
−150
−200

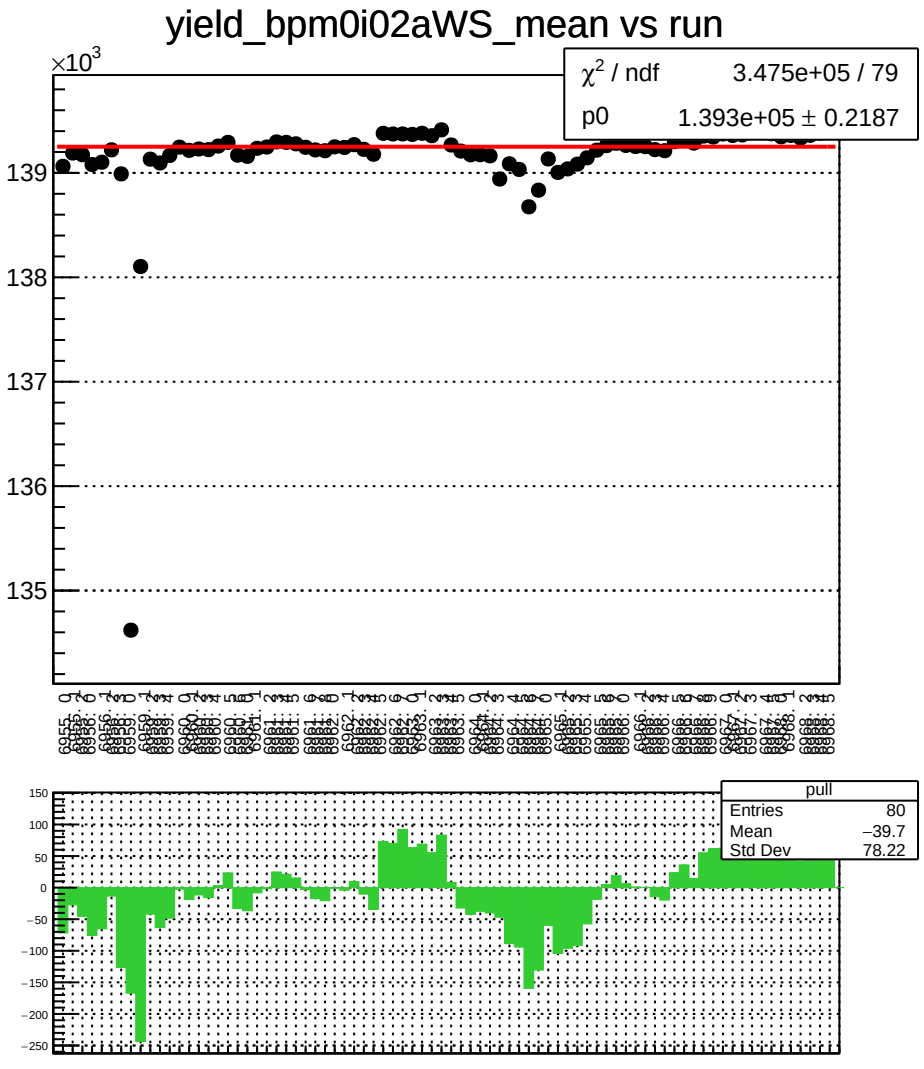

pull1D
Entries 80
Mean −1.061
Std Dev 4.712
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

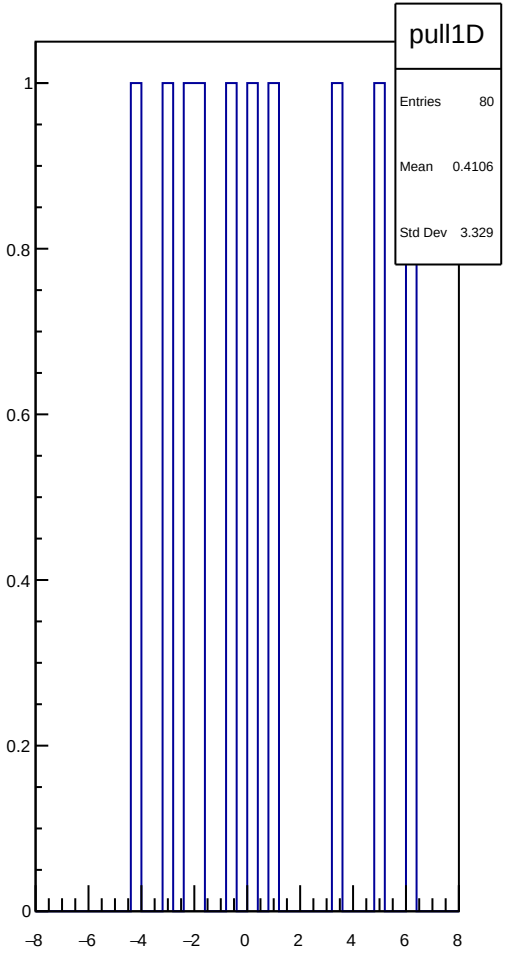

yield_bpm0r05WS_rms vs run
χ² / ndf 5.373e+04 / 79
p0 331 ± 0.2694
3000
2500
2000
1500
1000
500

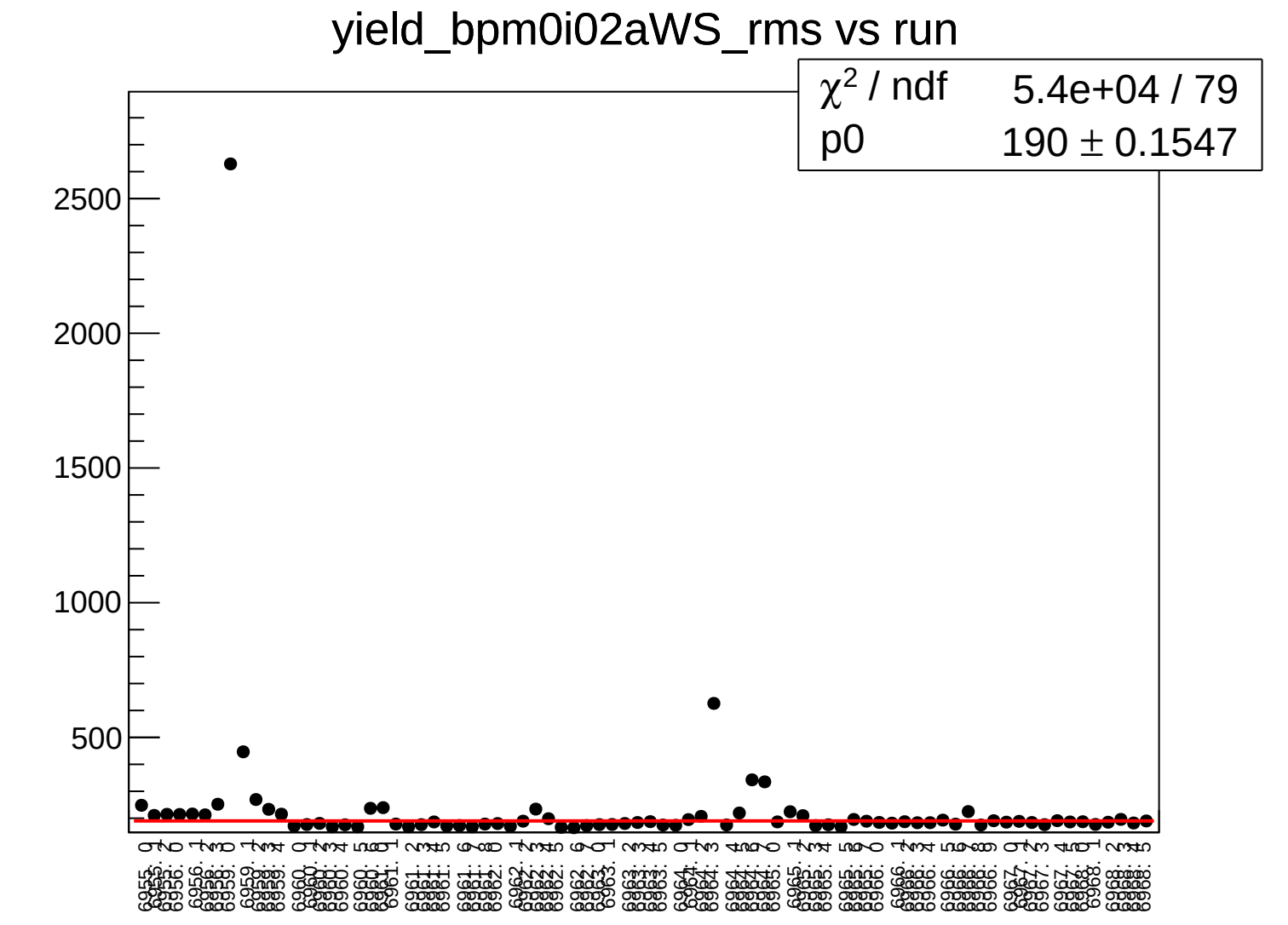

yield_bpm0i02WS_mean vs run
×10^3
χ² / ndf 2.152e+06 / 79
p0 1.409e+05 ± 0.2095
141
140
139
138
137
pull
Entries 80
Mean −345.7
Std Dev 401.6
300
200
100
0
−100
−200
−300

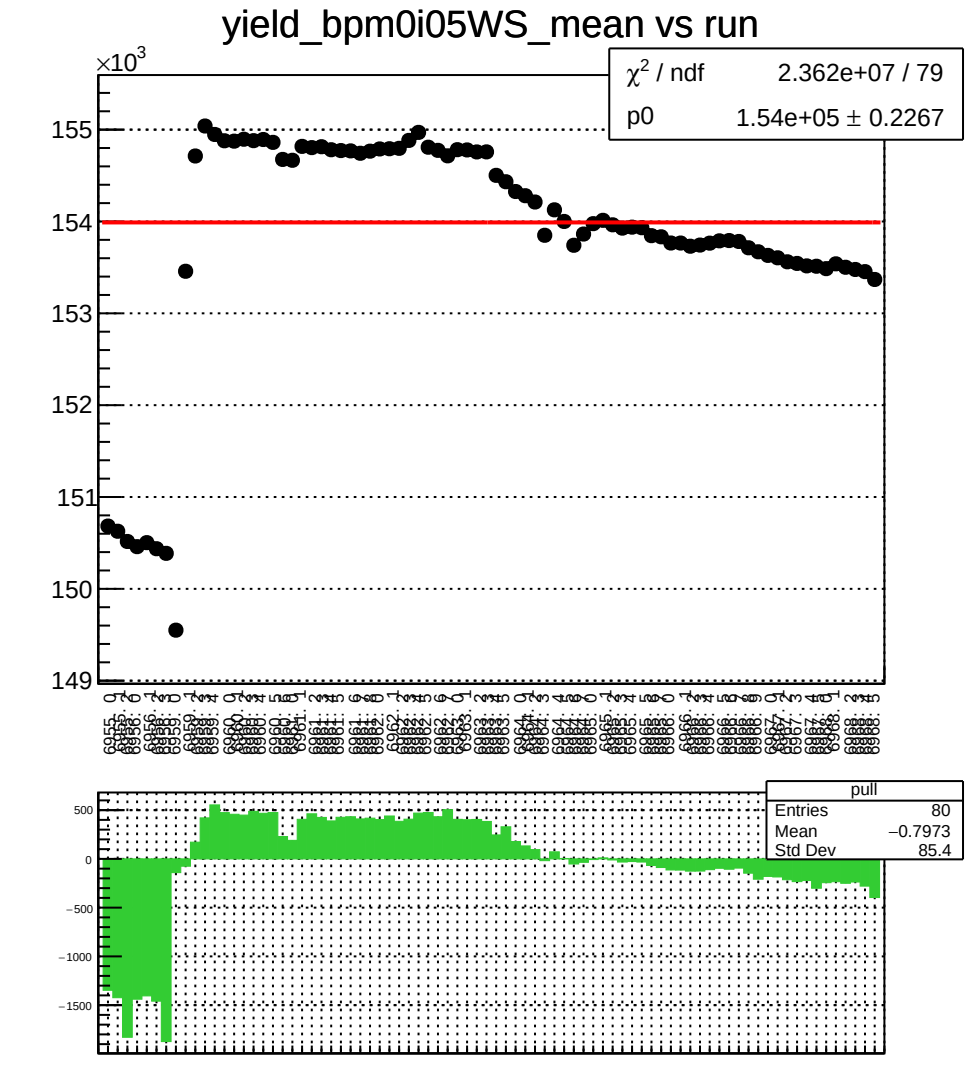

pull1D
Entries 80
Mean −0.5639
Std Dev 0.9384
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

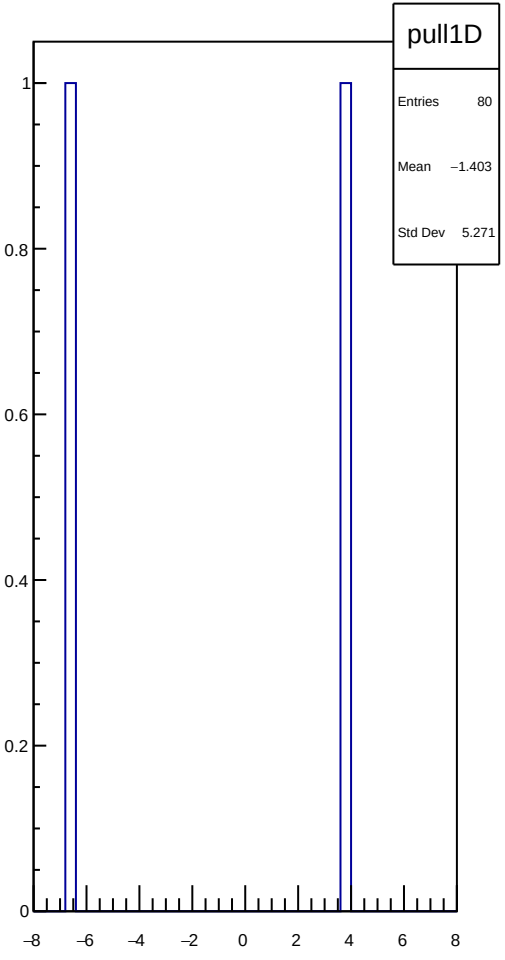

yield_bpm0i02WS_rms vs run
χ² / ndf 3.861e+04 / 79
p0 182.9 ± 0.1481
2500
2000
1500
1000
500

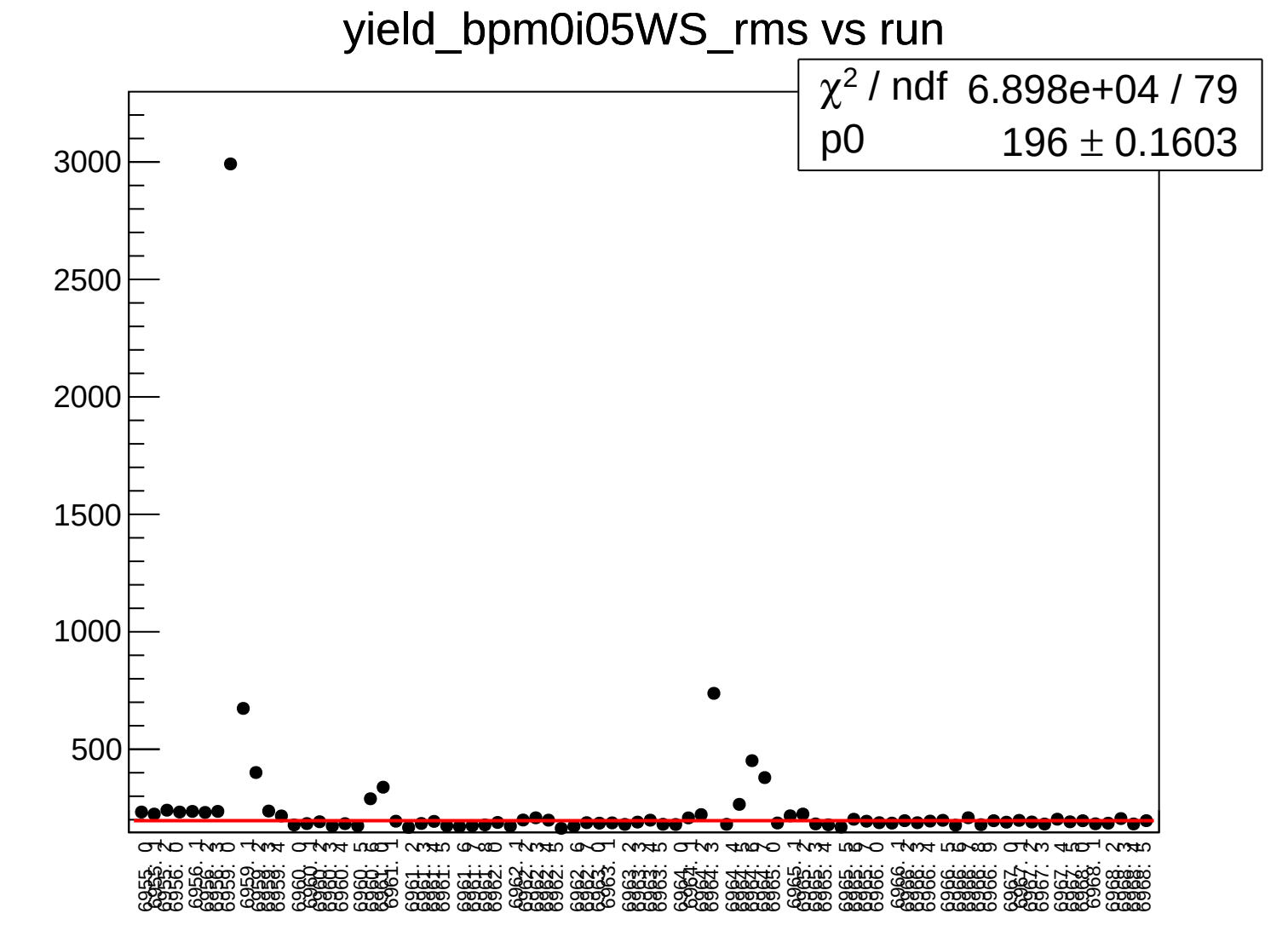

yield_bpm0i02aWS_mean vs run
×10^3
χ² / ndf 3.475e+05 / 79
p0 1.393e+05 ± 0.2187
139
138
137
136
135
pull
Entries 80
Mean −39.7
Std Dev 78.22
150
100
50
0
−50
−100
−150
−200
−250

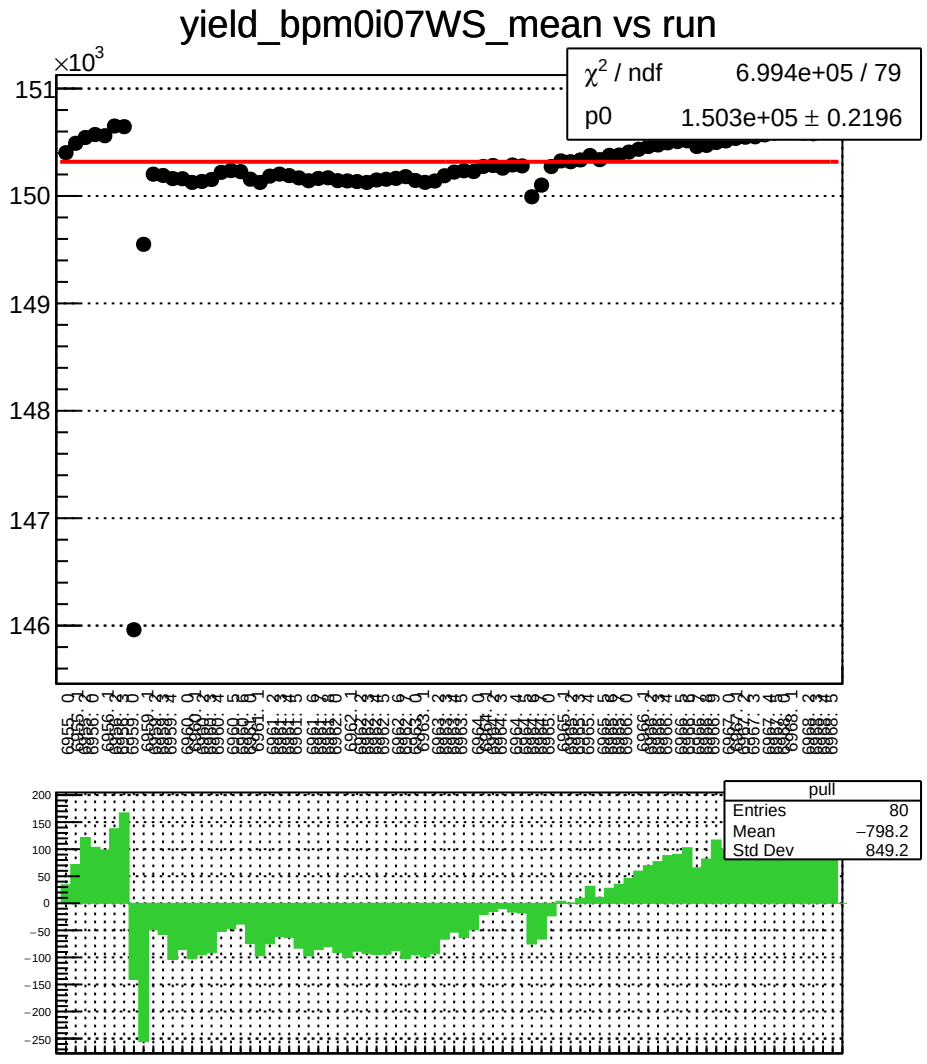

pull1D
Entries 80
Mean 0.4106
Std Dev 3.329
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

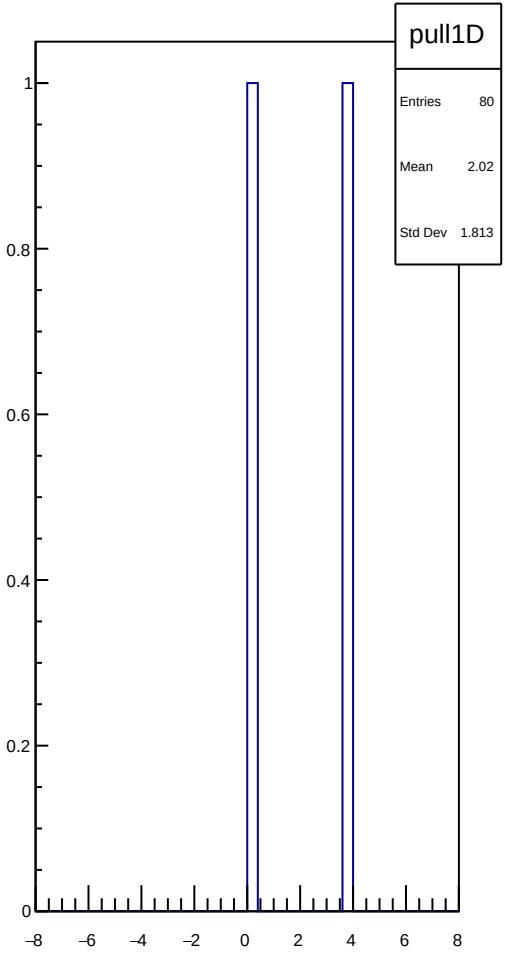

yield_bpm0i02aWS_rms vs run
χ² / ndf 5.4e+04 / 79
p0 190 ± 0.1547
2500
2000
1500
1000
500

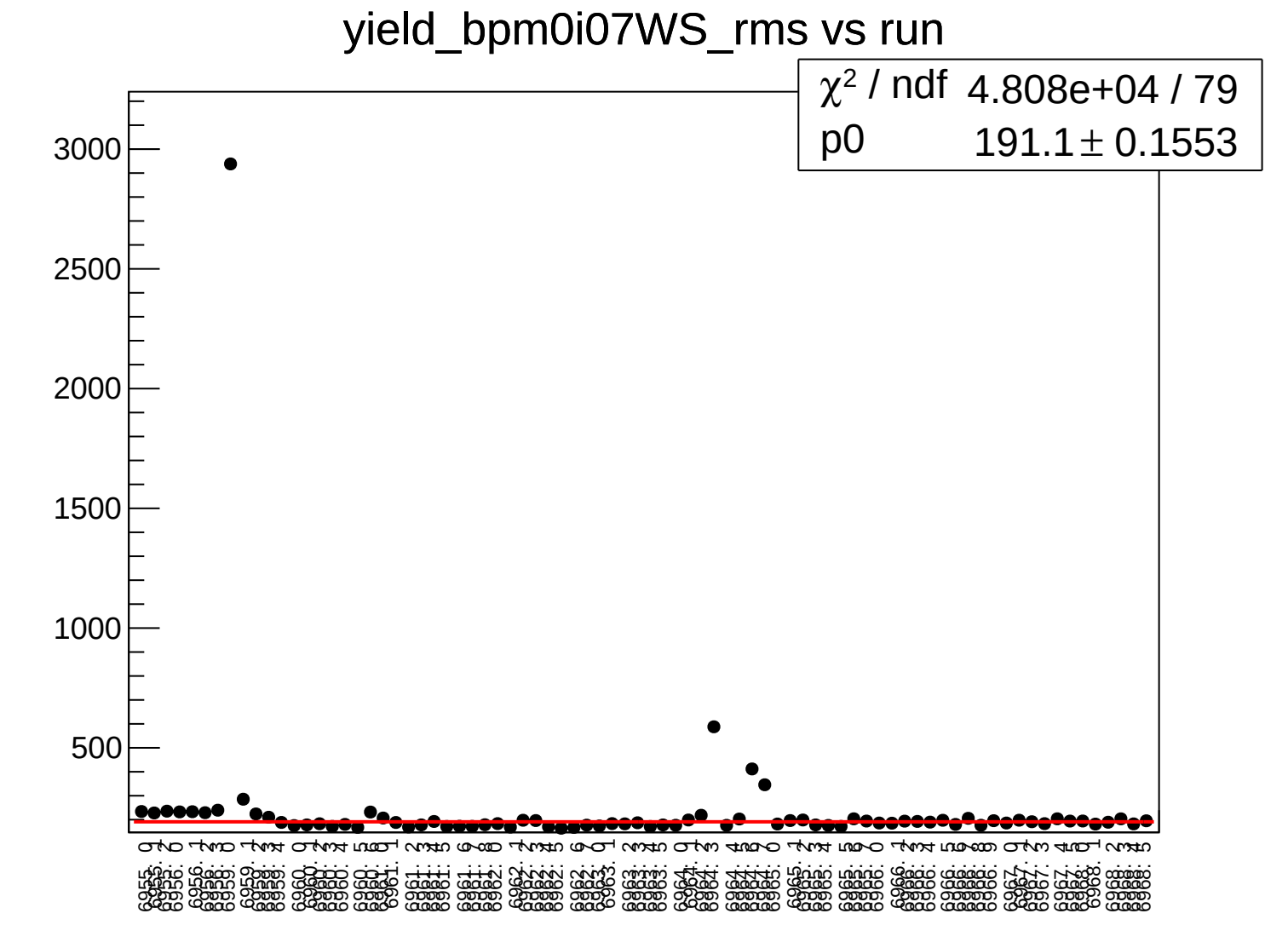

yield_bpm0i05WS_mean vs run
×10^3
χ^2 / ndf 2.362e+07 / 79
p0 1.54e+05 ± 0.2267
155
154
153
152
151
150
149
pull
Entries 80
Mean −0.7973
Std Dev 85.4
500
0
−500
−1000
−1500

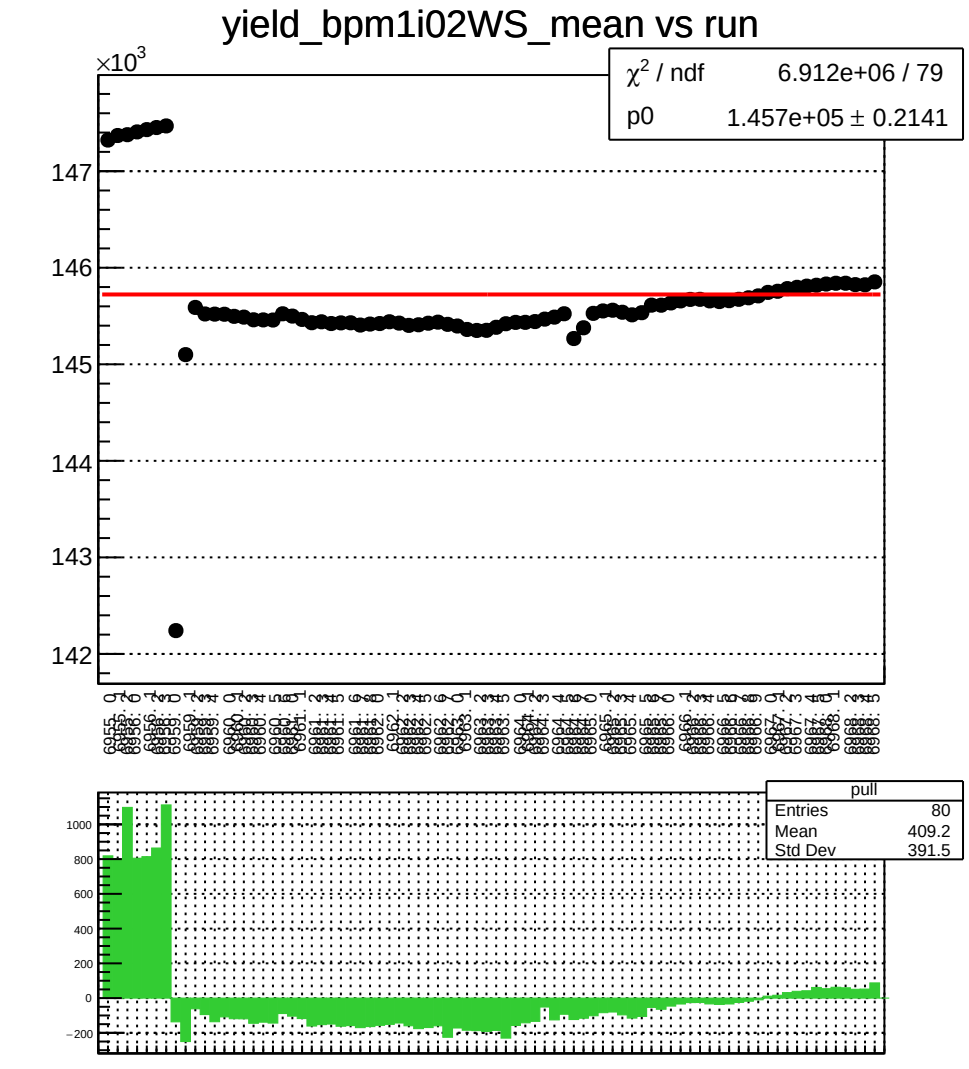

pull1D
Entries 80
Mean −1.403
Std Dev 5.271
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

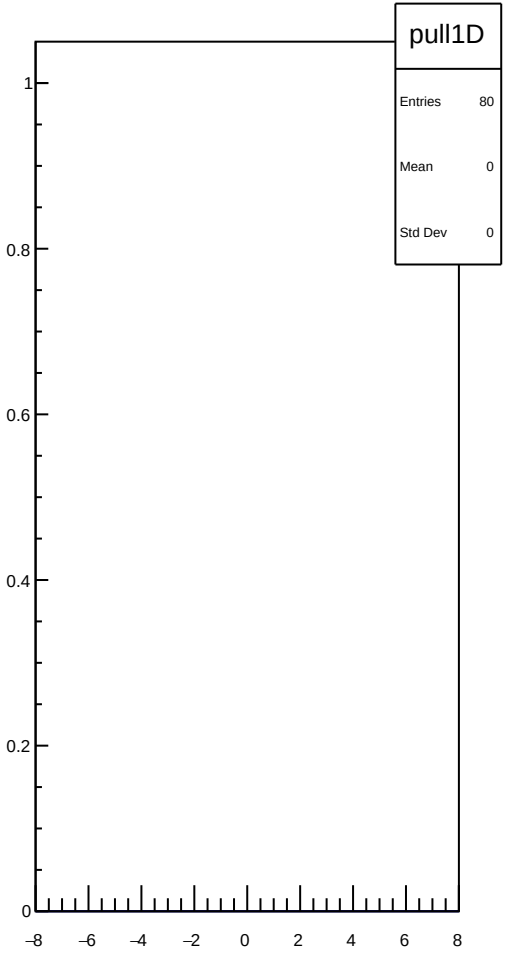

yield_bpm0i05WS_rms vs run
χ² / ndf 6.898e+04 / 79
p0 196 ± 0.1603
3000
2500
2000
1500
1000
500

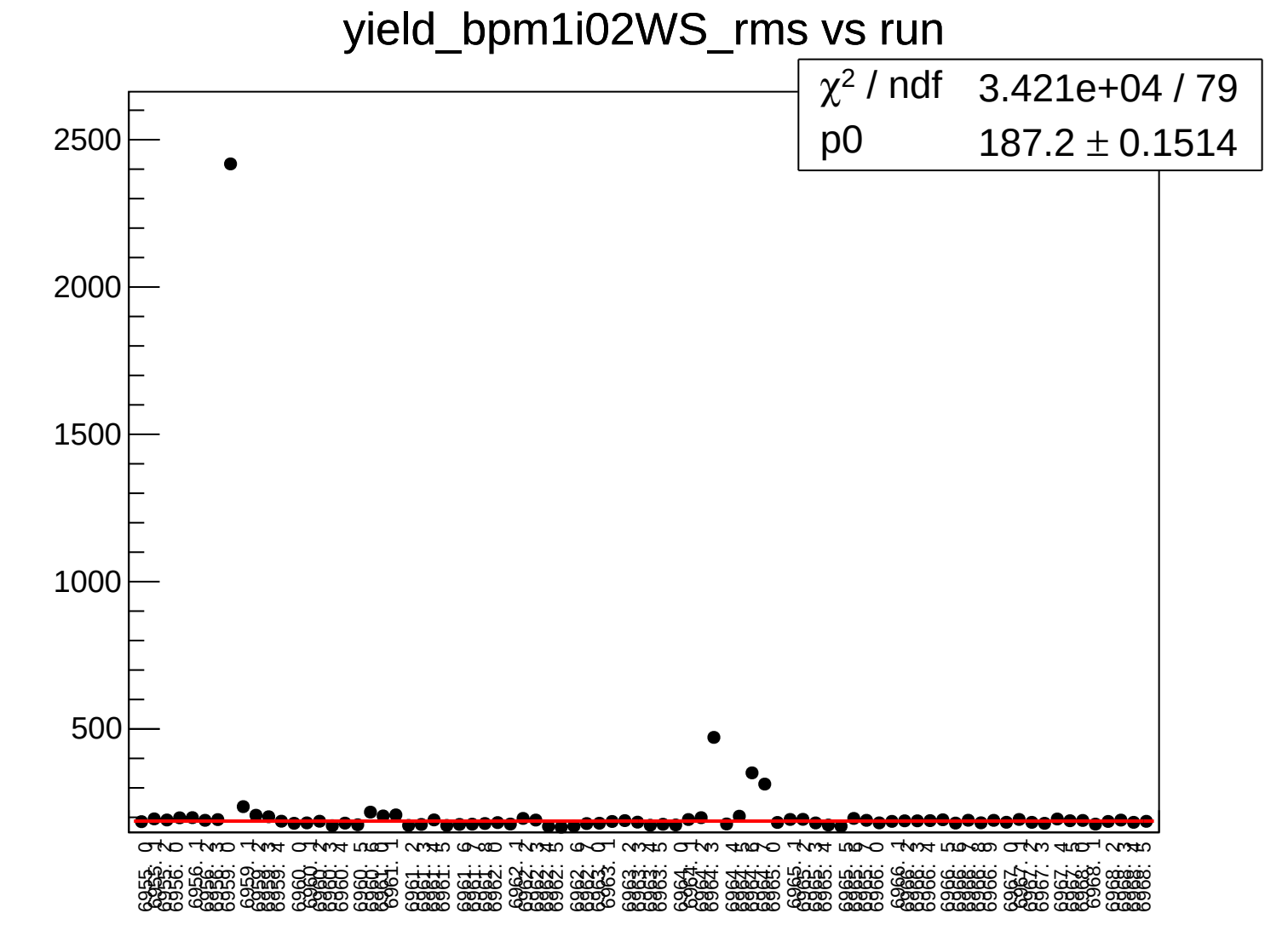

yield_bpm0i07WS_mean vs run
×10^3
χ² / ndf 6.994e+05 / 79
p0 1.503e+05 ± 0.2196
151
150
149
148
147
146
pull
Entries 80
Mean −798.2
Std Dev 849.2
200
150
100
50
0
−50
−100
−150
−200
−250

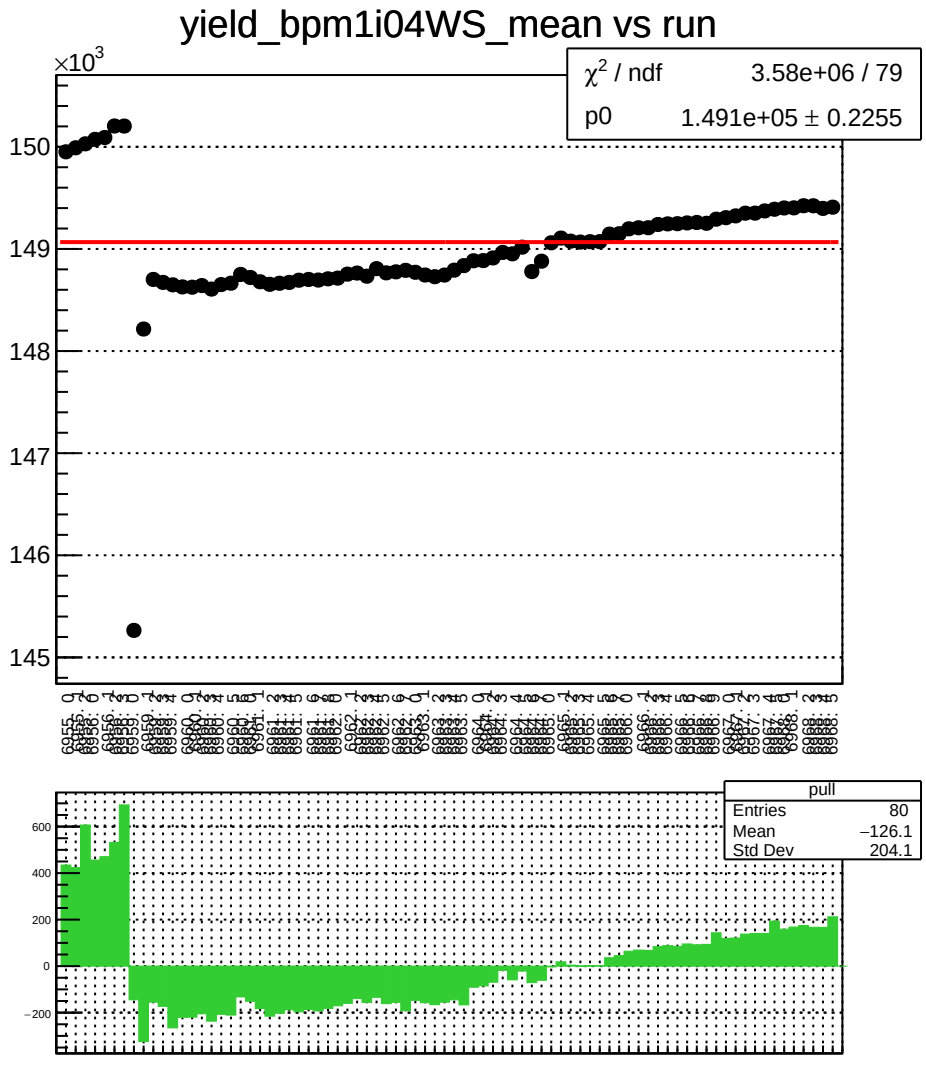

pull1D
Entries 80
Mean 2.02
Std Dev 1.813
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

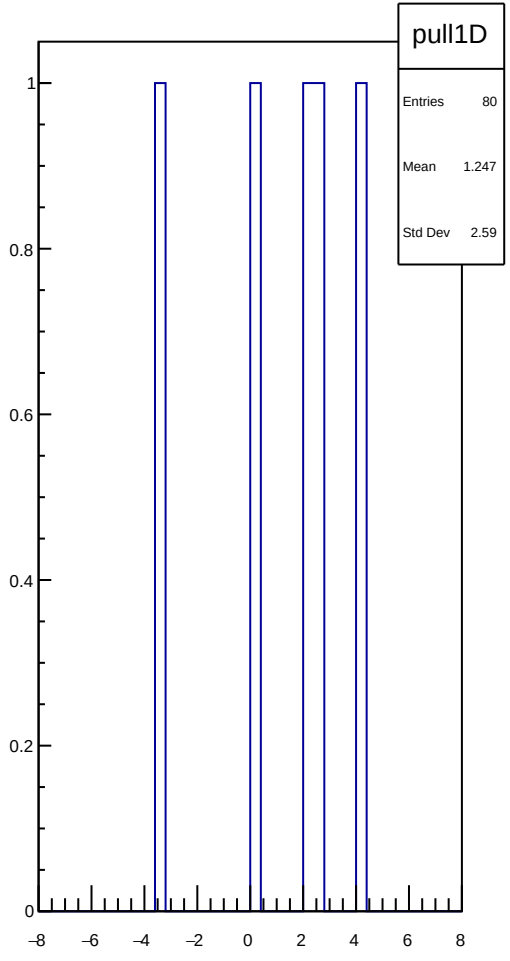

yield_bpm0i07WS_rms vs run
χ² / ndf 4.808e+04 / 79
p0 191.1 ± 0.1553
3000
2500
2000
1500
1000
500

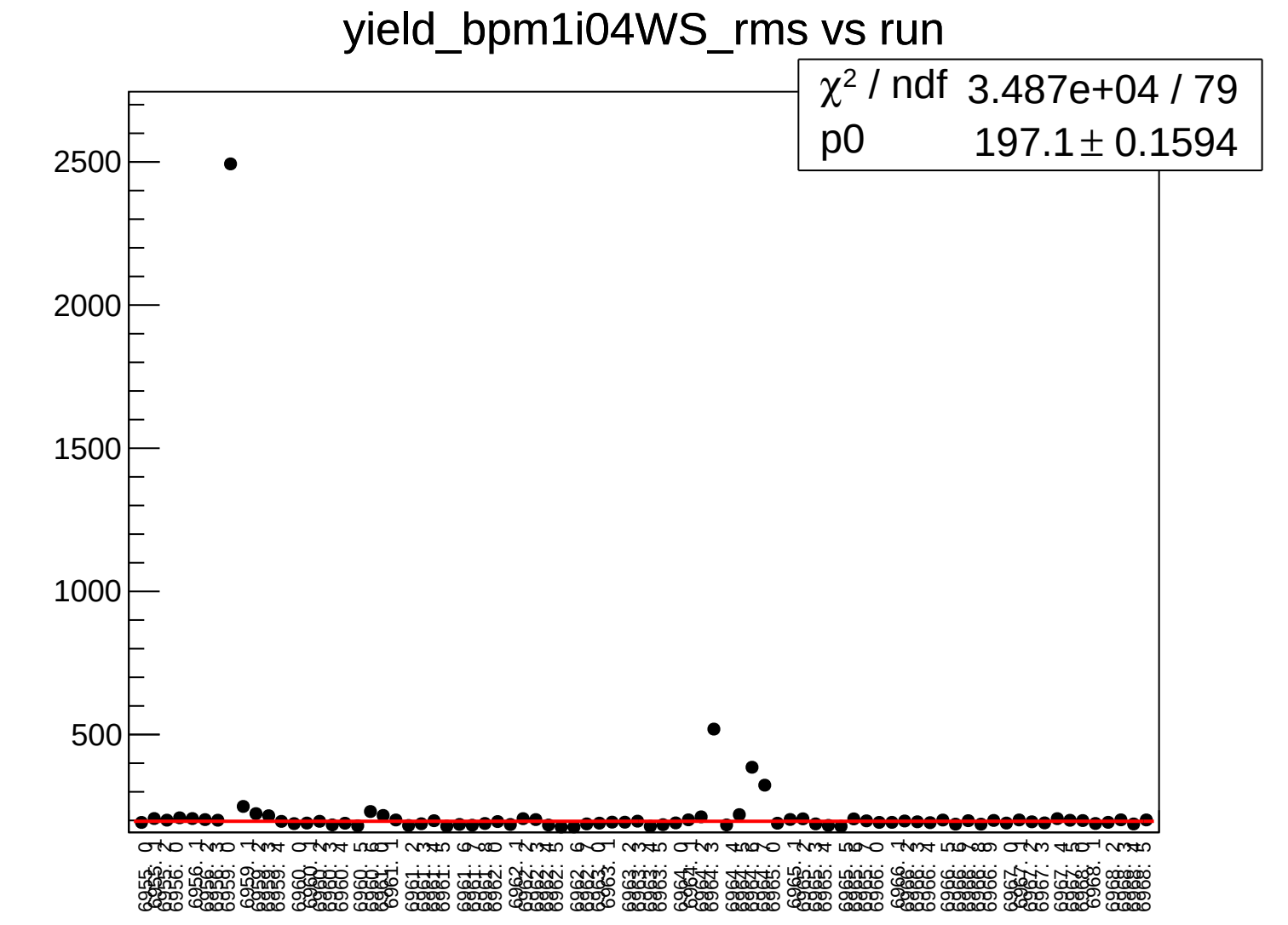

yield_bpm1i02WS_mean vs run
×10^3
χ² / ndf 6.912e+06 / 79
p0 1.457e+05 ± 0.2141
147
146
145
144
143
142
pull
Entries 80
Mean 409.2
Std Dev 391.5
1000
800
600
400
200
0
−200

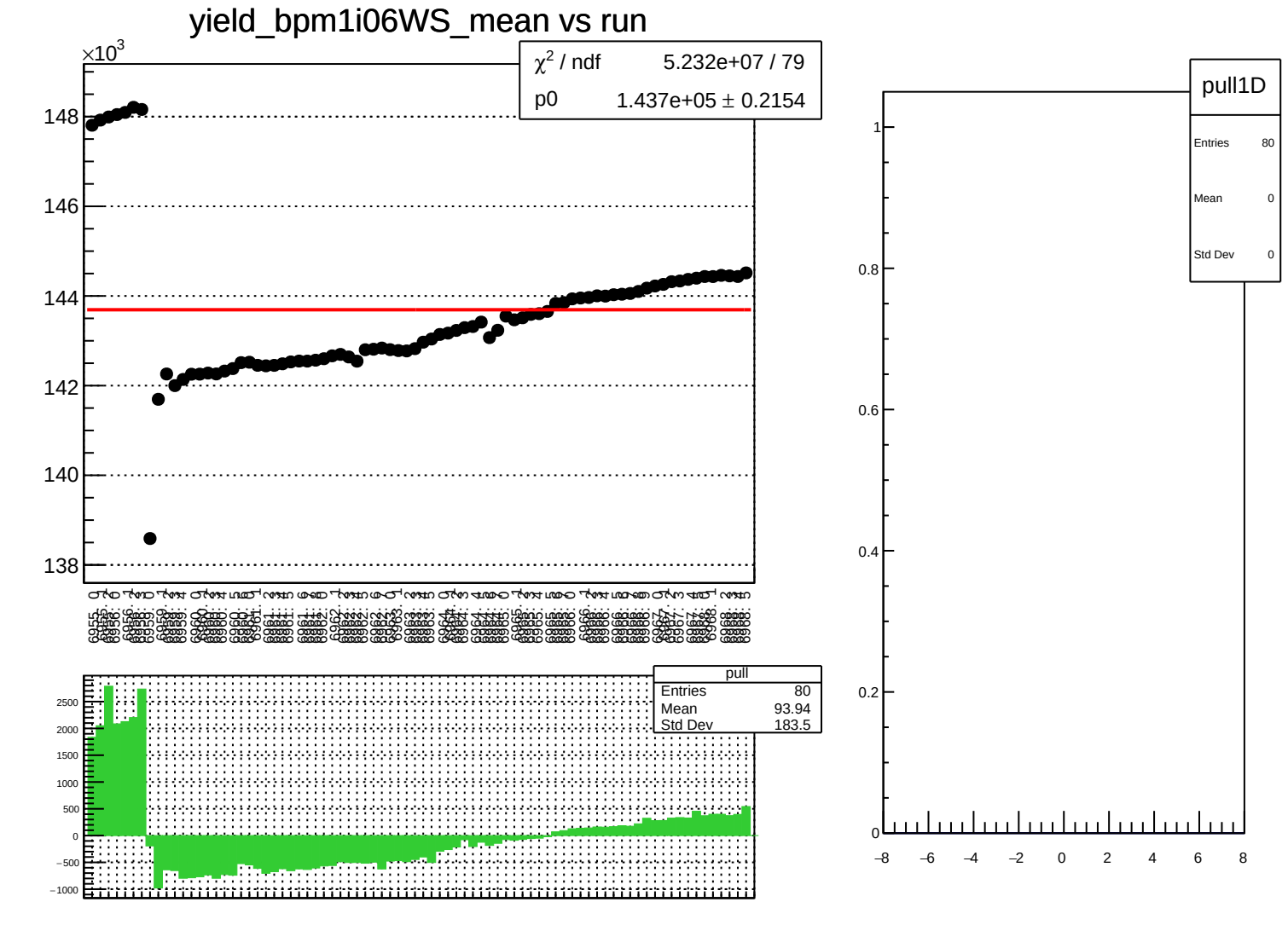

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

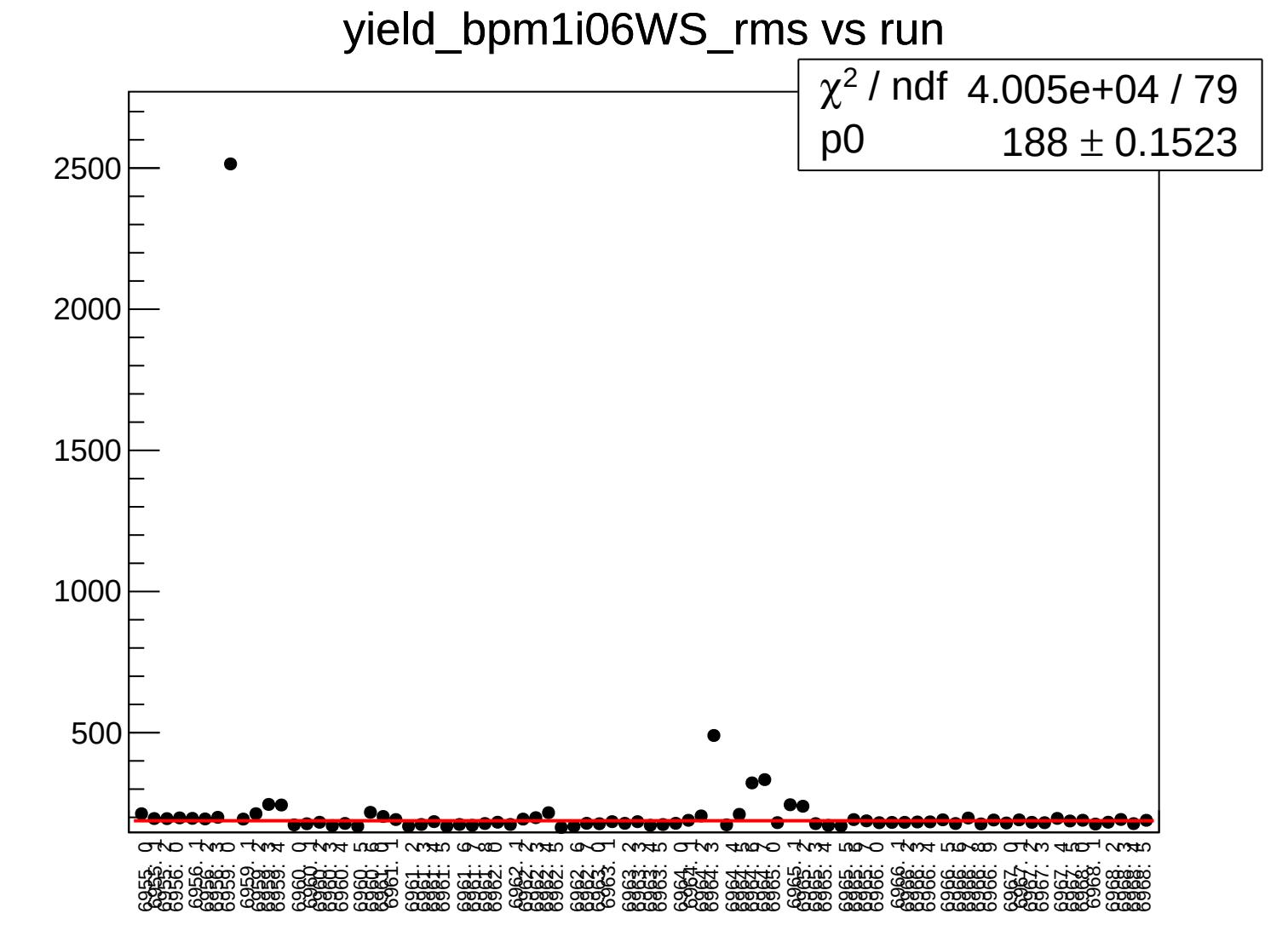

yield_bpm1i02WS_rms vs run
χ² / ndf 3.421e+04 / 79
p0 187.2 ± 0.1514
2500
2000
1500
1000
500

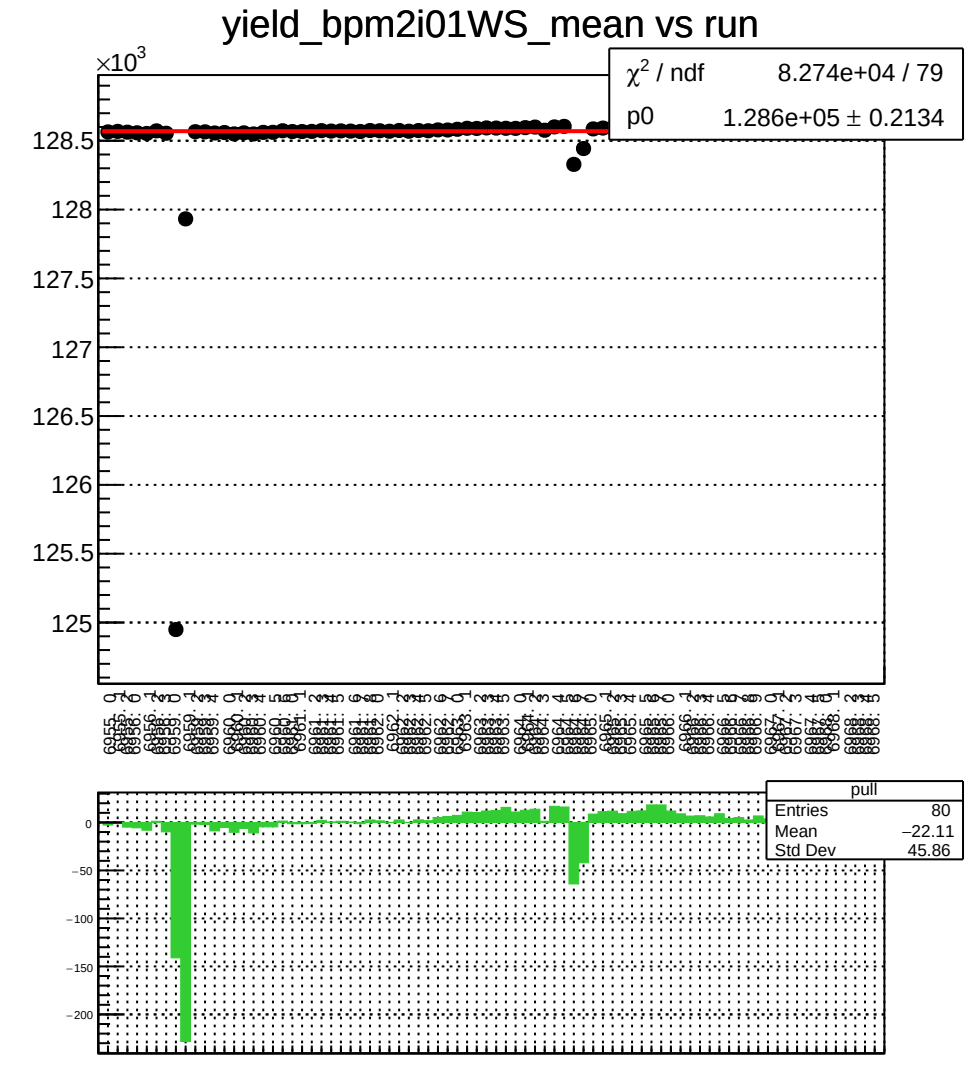

yield_bpm1i04WS_mean vs run
×10^3
χ² / ndf 3.58e+06 / 79
p0 1.491e+05 ± 0.2255
150
149
148
147
146
145
pull
Entries 80
Mean −126.1
Std Dev 204.1
600
400
200
0
−200

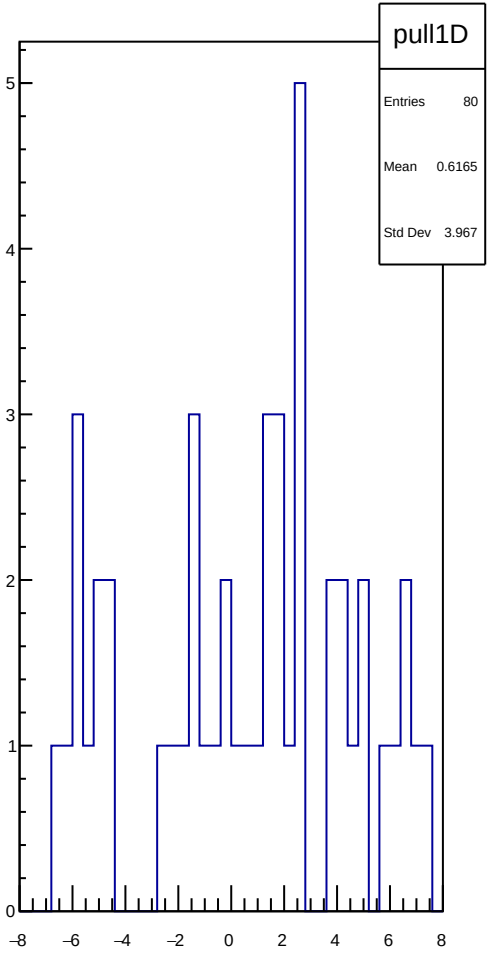

pull1D
Entries 80
Mean 1.247
Std Dev 2.59
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

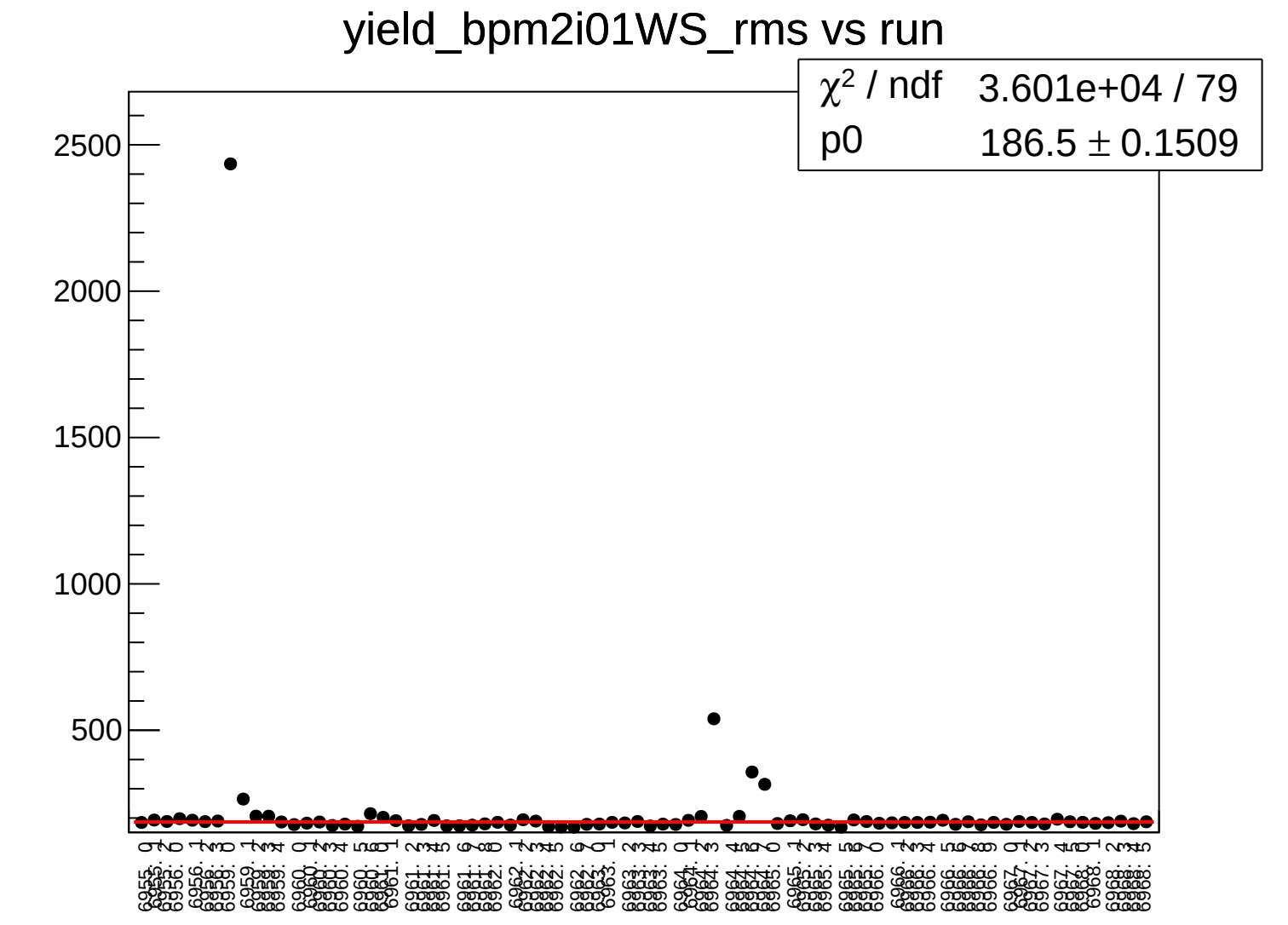

yield_bpm1i04WS_rms vs run
χ² / ndf 3.487e+04 / 79
p0 197.1 ± 0.1594
2500
2000
1500
1000
500

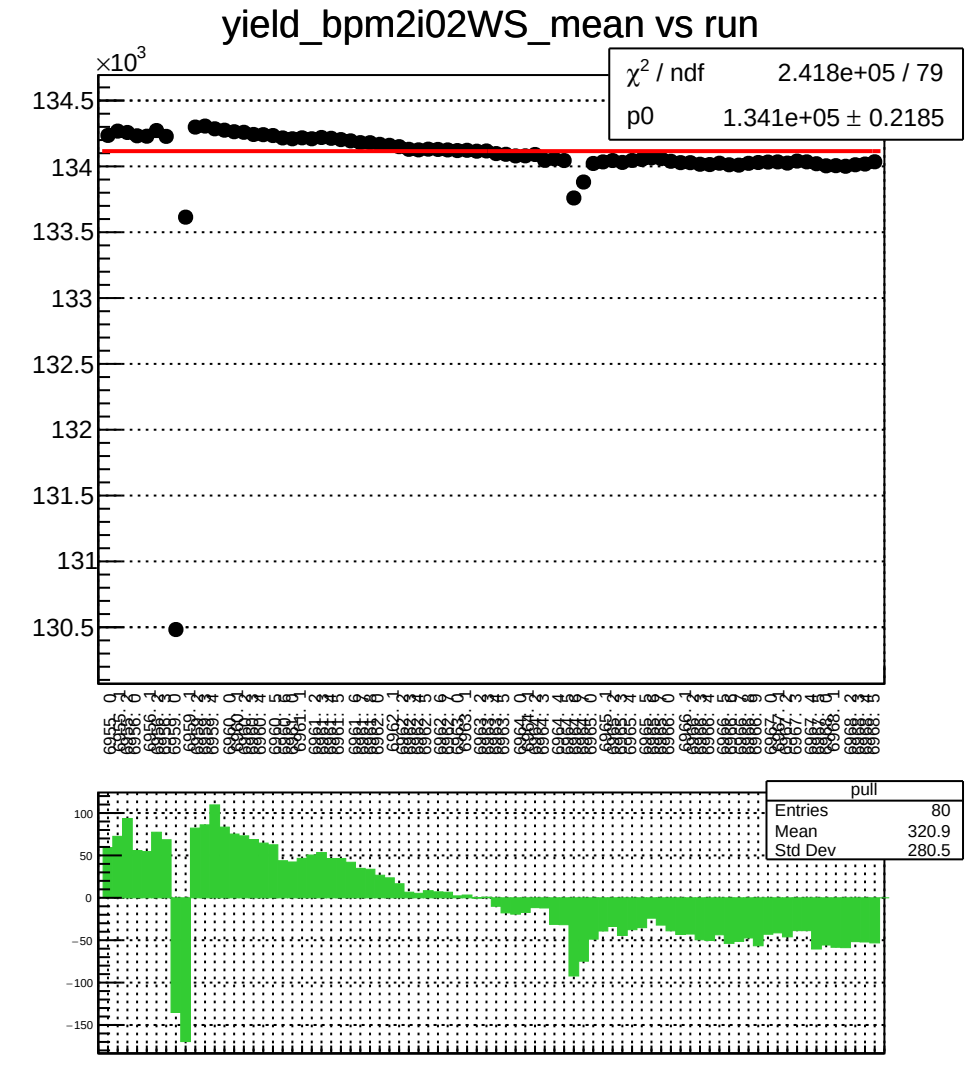

yield_bpm1i06WS_mean vs run
×10^3
χ² / ndf 5.232e+07 / 79
p0 1.437e+05 ± 0.2154
148
146
144
142
140
138
pull
Entries 80
Mean 93.94
Std Dev 183.5
2500
2000
1500
1000
500
0
−500
−1000
pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

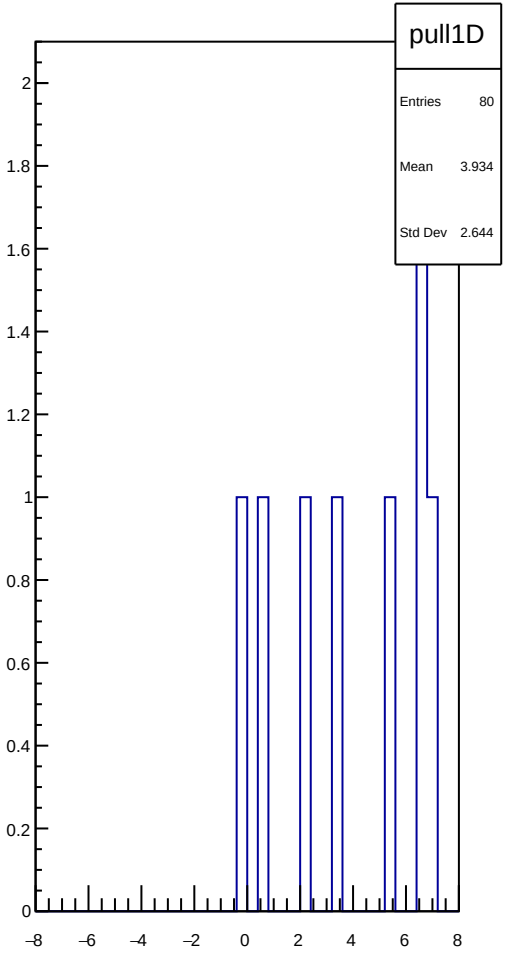

yield_bpm1i06WS_rms vs run
χ² / ndf 4.005e+04 / 79
p0 188 ± 0.1523
2500
2000
1500
1000
500

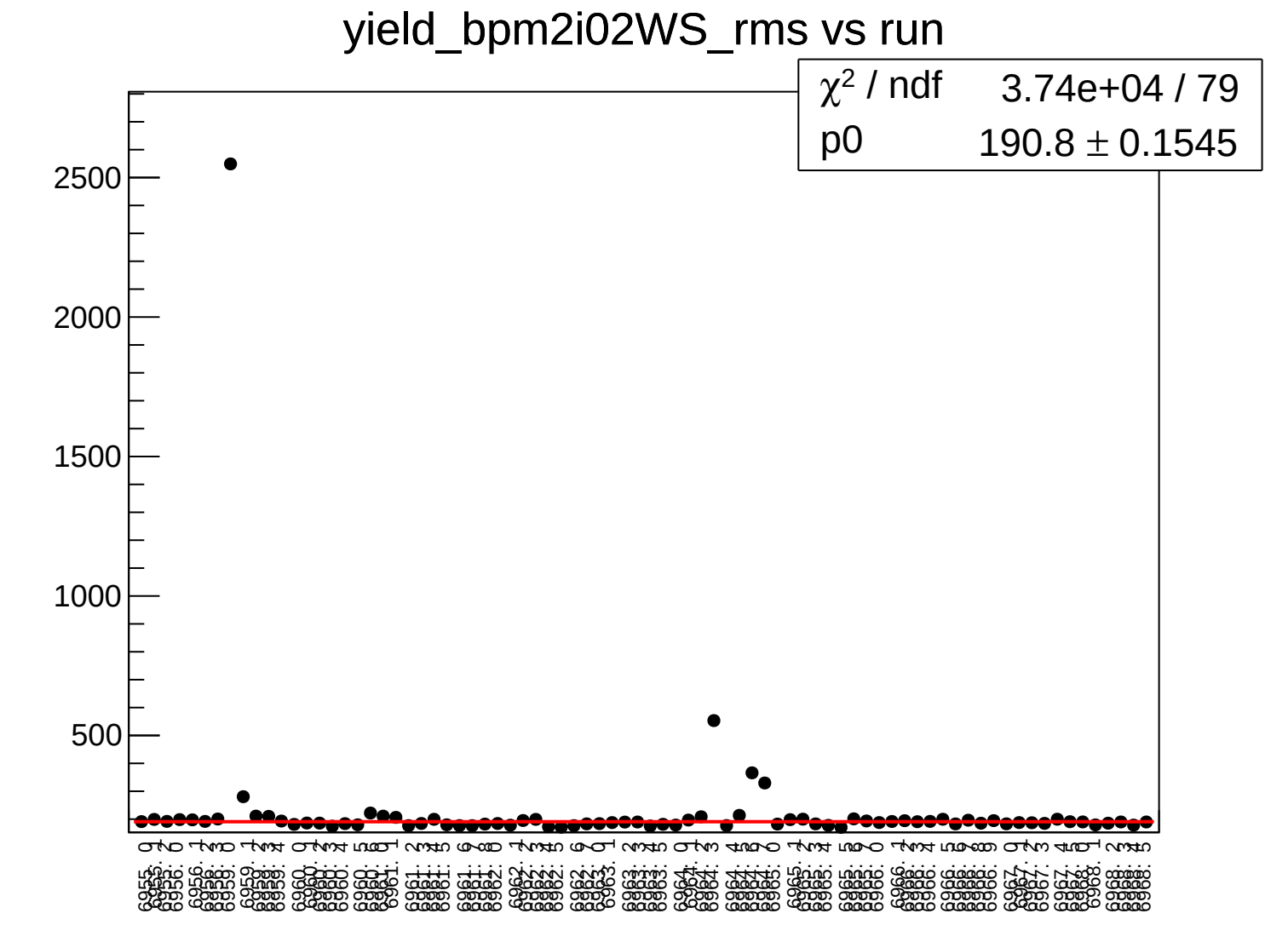

yield_bpm2i01WS_mean vs run
×10^3
χ² / ndf 8.274e+04 / 79
p0 1.286e+05 ± 0.2134
128.5
128
127.5
127
126.5
126
125.5
125
pull
Entries 80
Mean −22.11
Std Dev 45.86
0
−50
−100
−150
−200

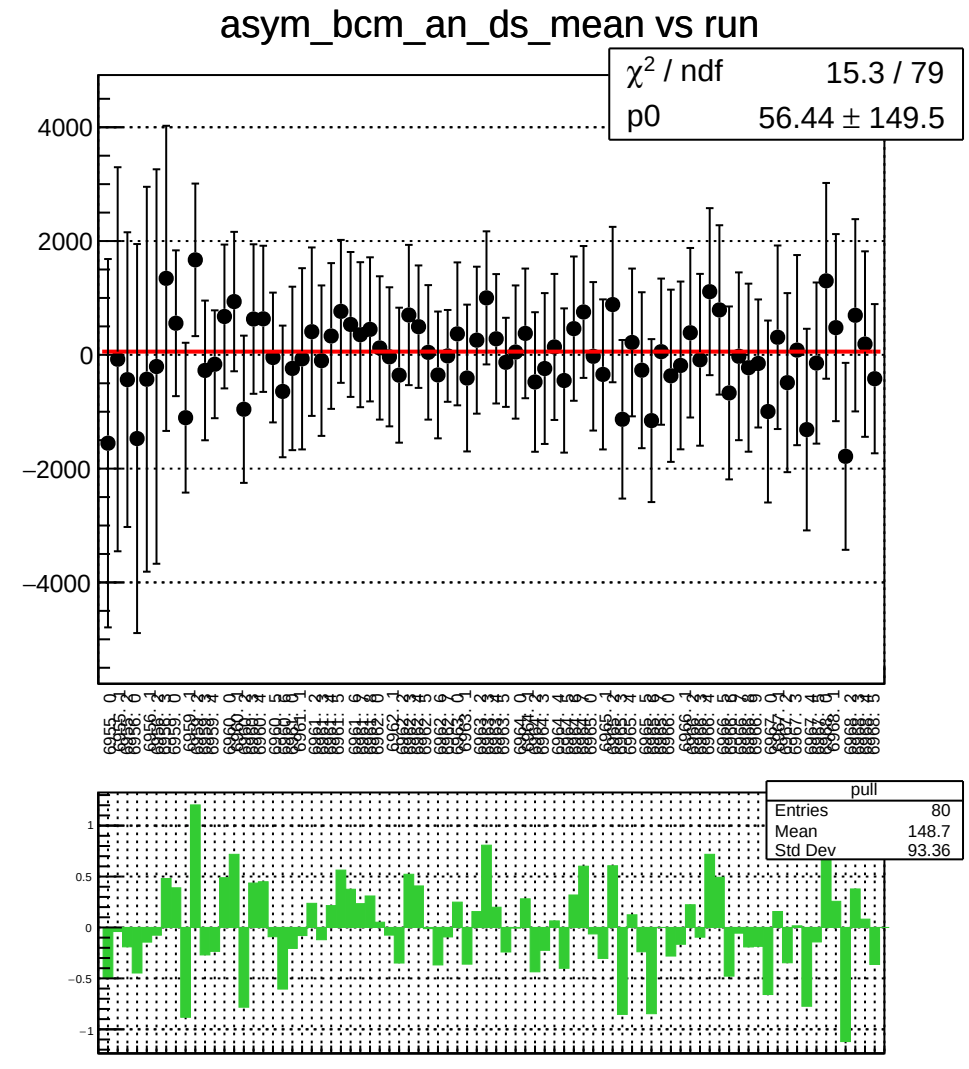

pull1D
Entries 80
Mean 0.6165
Std Dev 3.967
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

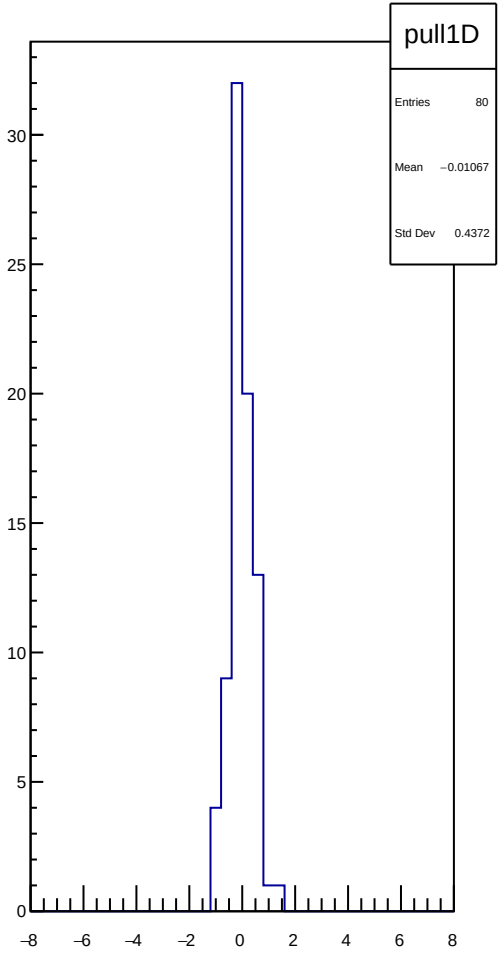

yield_bpm2i01WS_rms vs run
χ² / ndf 3.601e+04 / 79
p0 186.5 ± 0.1509
2500
2000
1500
1000
500

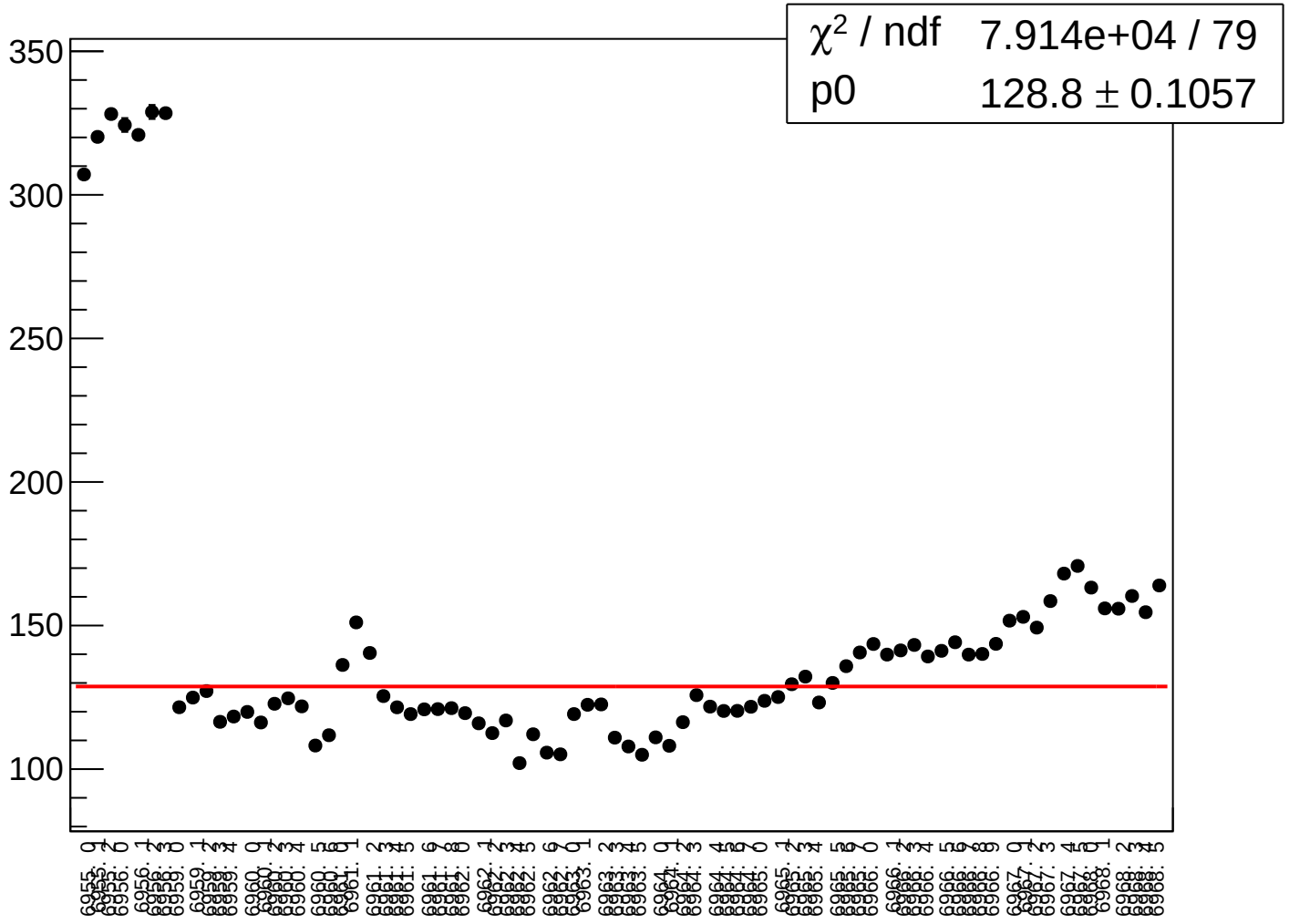

yield_bpm2i02WS_mean vs run
×10^3
χ² / ndf 2.418e+05 / 79
p0 1.341e+05 ± 0.2185
134.5
134
133.5
133
132.5
132
131.5
131
130.5
pull
Entries 80
Mean 320.9
Std Dev 280.5
100
50
0
−50
−100
−150

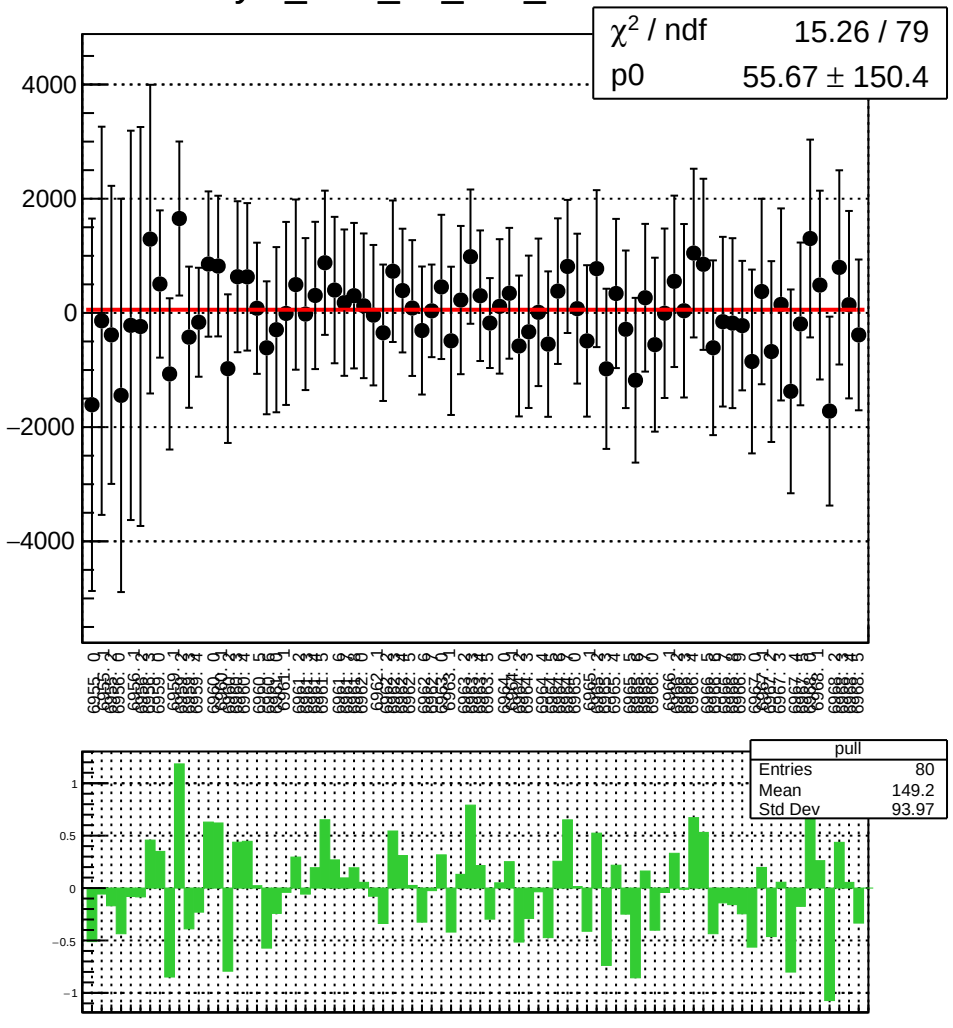

pull1D
Entries 80
Mean 3.934
Std Dev 2.644
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

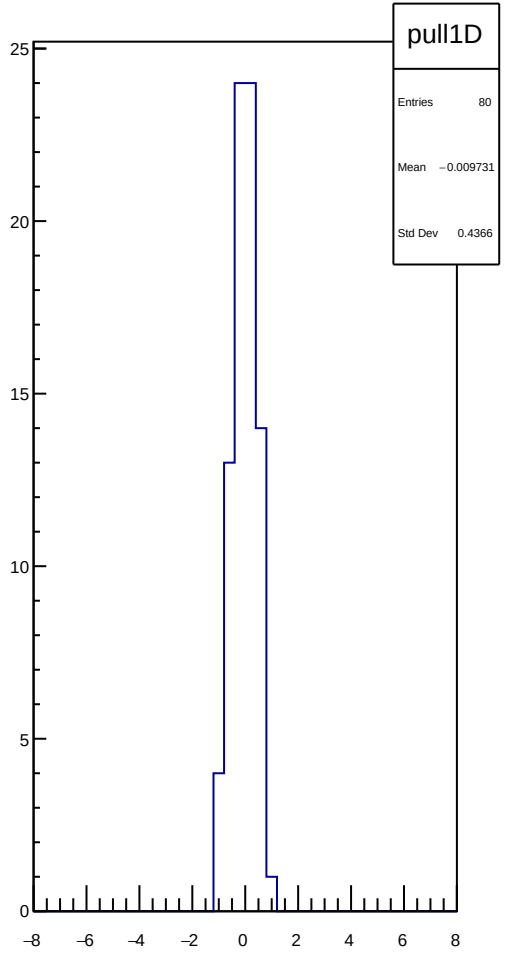

yield_bpm2i02WS_rms vs run
χ² / ndf 3.74e+04 / 79
p0 190.8 ± 0.1545
2500
2000
1500
1000
500

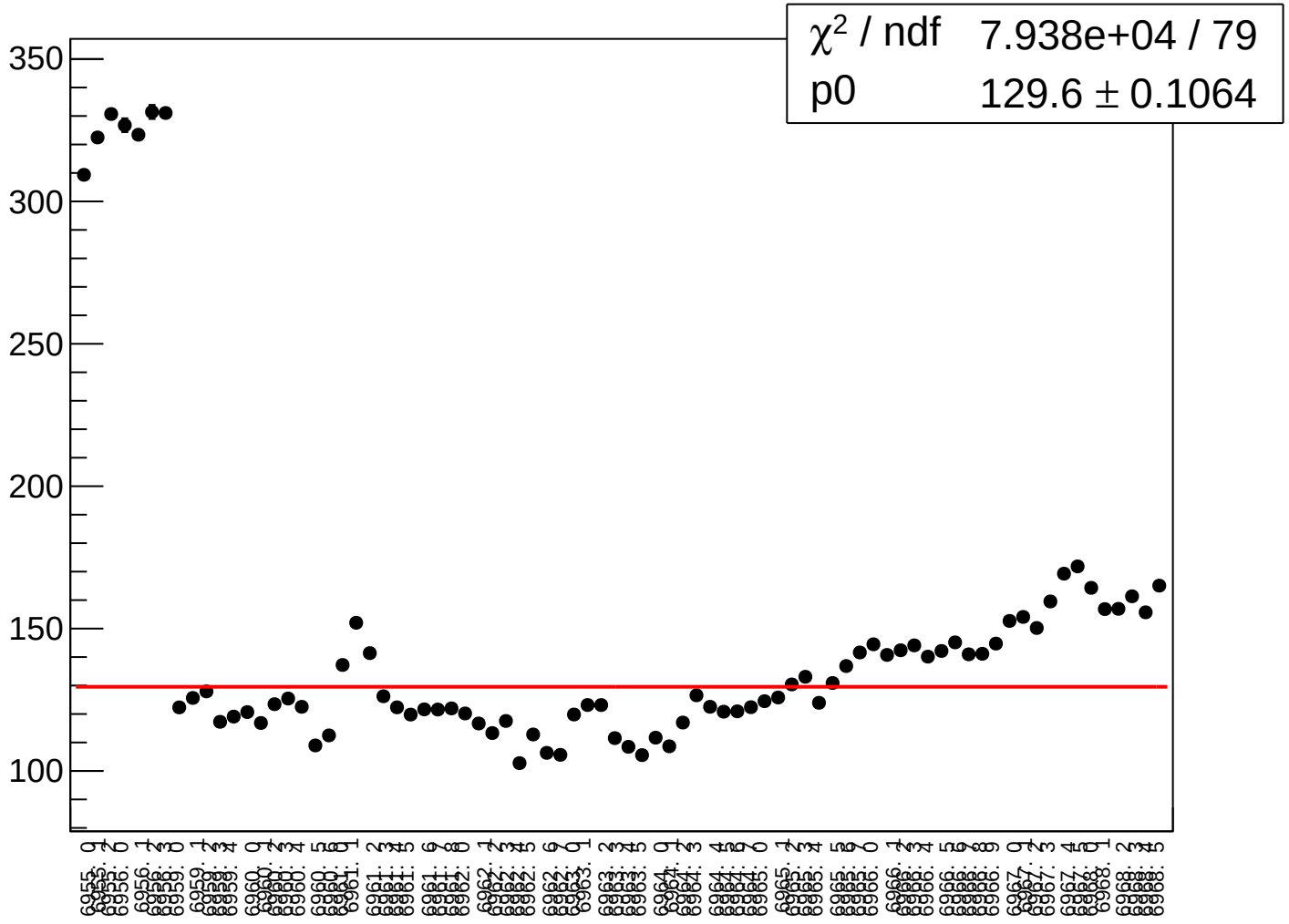

asym_bcm_an_ds_mean vs run
χ² / ndf 15.3 / 79
p0 56.44 ± 149.5
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 148.7
Std Dev 93.36
1
0.5
0
−0.5
−1

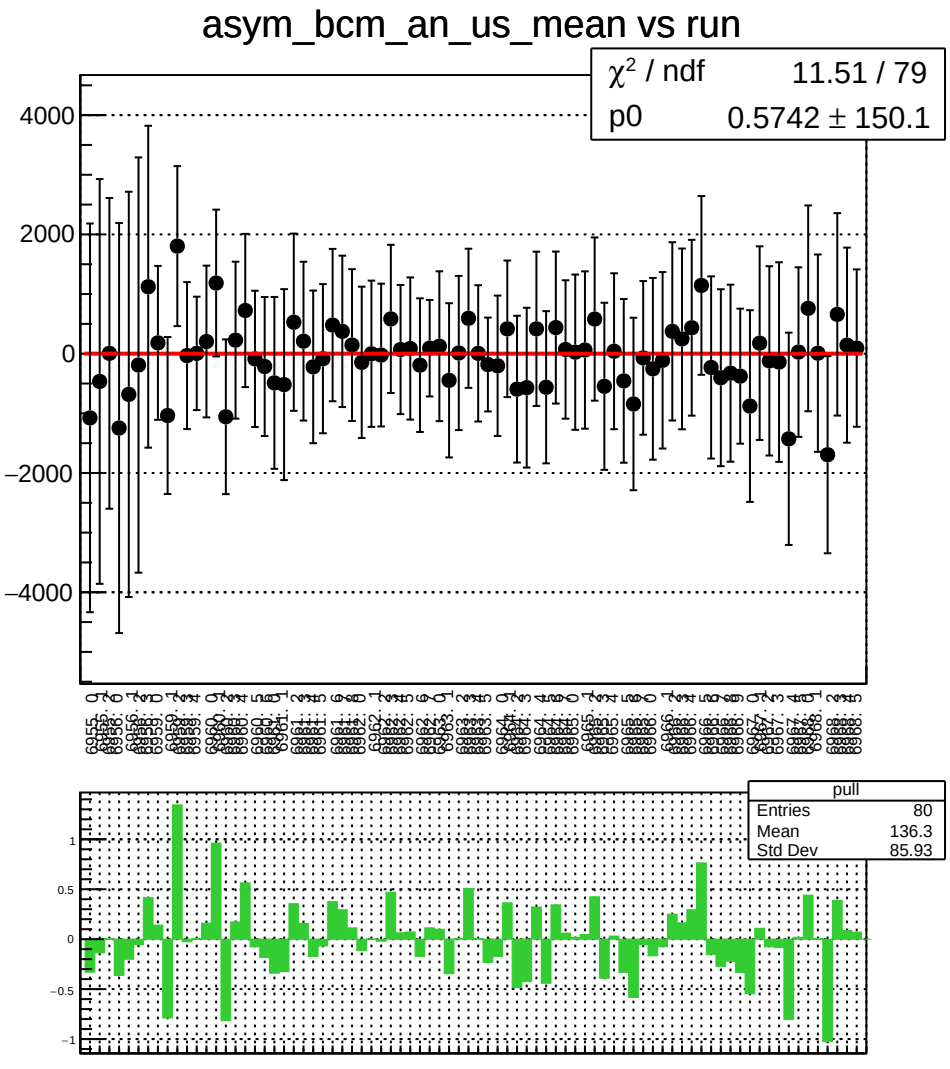

pull1D
Entries 80
Mean −0.01067
Std Dev 0.4372
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

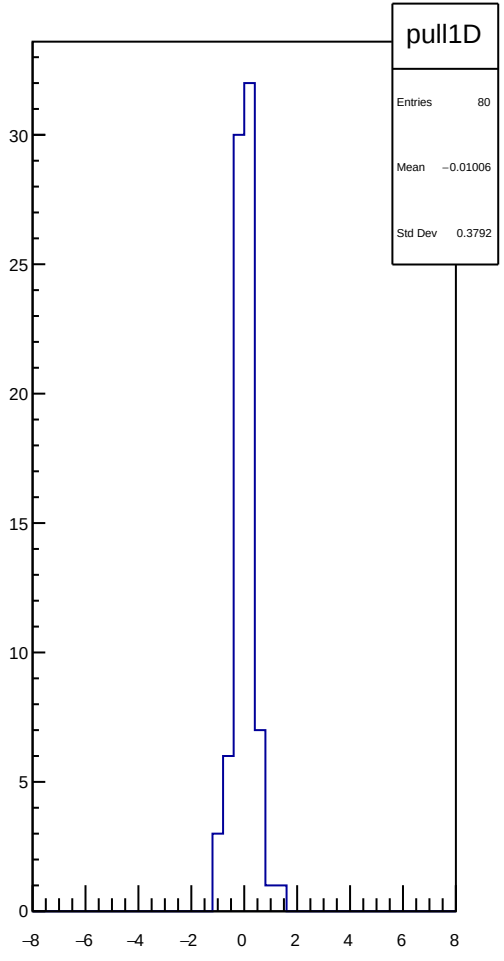

asym_bcm_an_ds_rms vs run
χ² / ndf 7.914e+04 / 79
p0 128.8 ± 0.1057
350
300
250
200
150
100

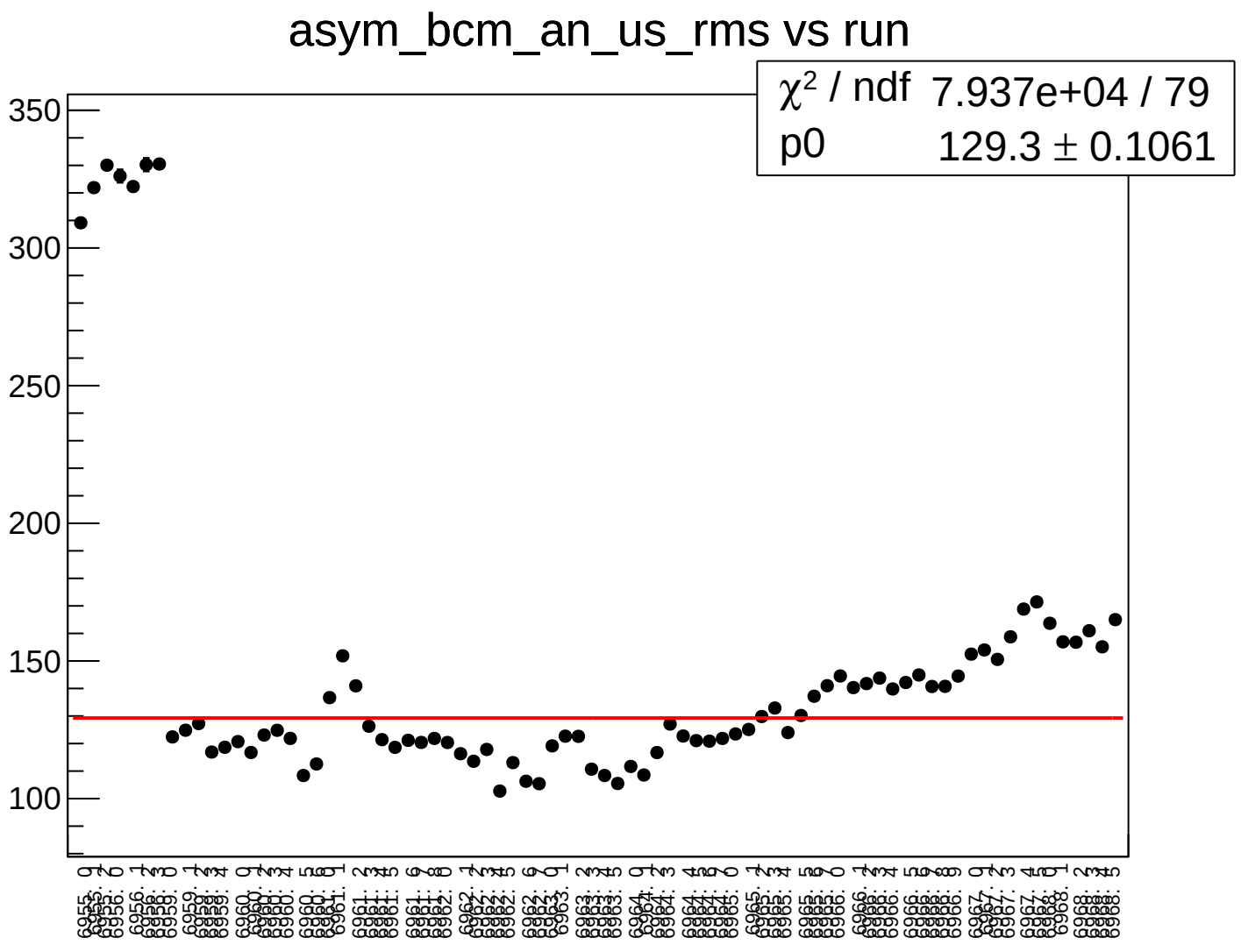

asym_bcm_an_ds3_mean vs run
χ² / ndf 15.26 / 79
p0 55.67 ± 150.4
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 149.2
Std Dev 93.97
1
0.5
0
−0.5
−1

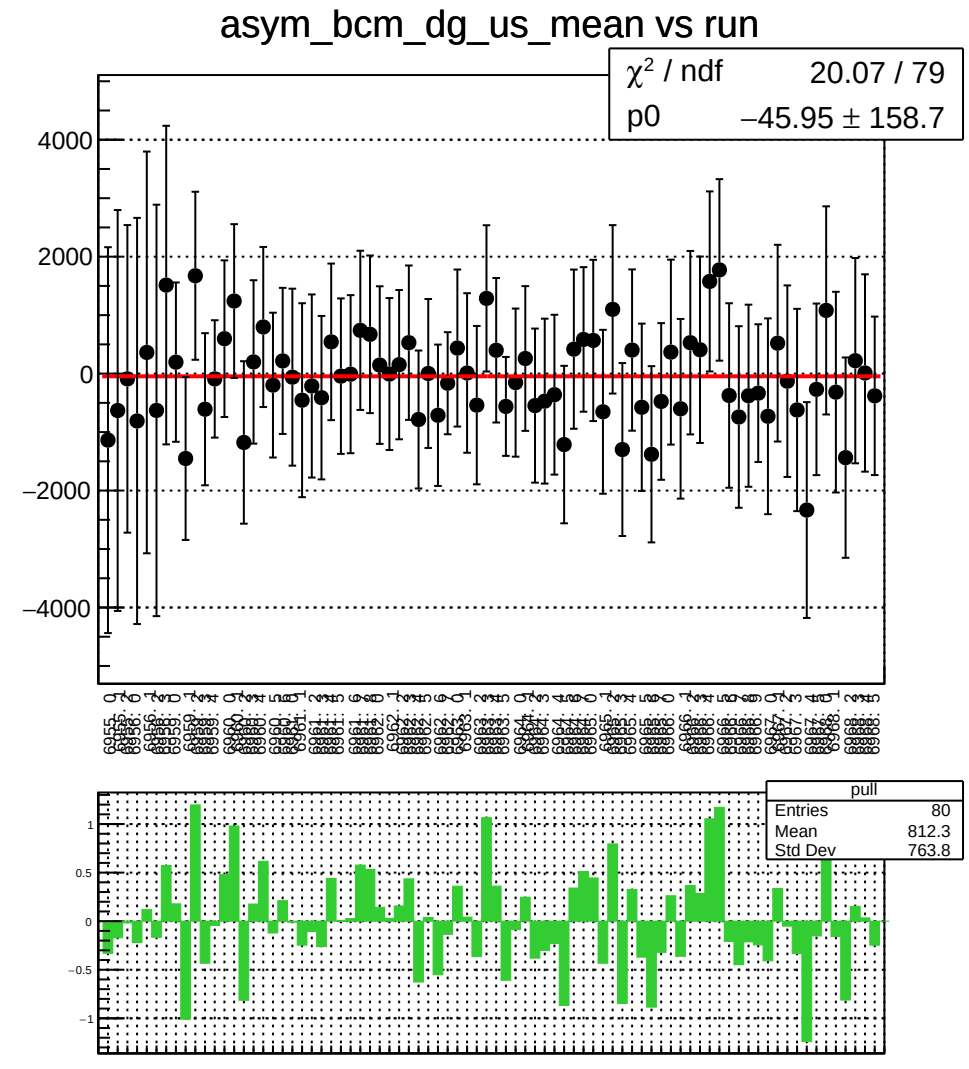

pull1D
Entries 80
Mean −0.009731
Std Dev 0.4366
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

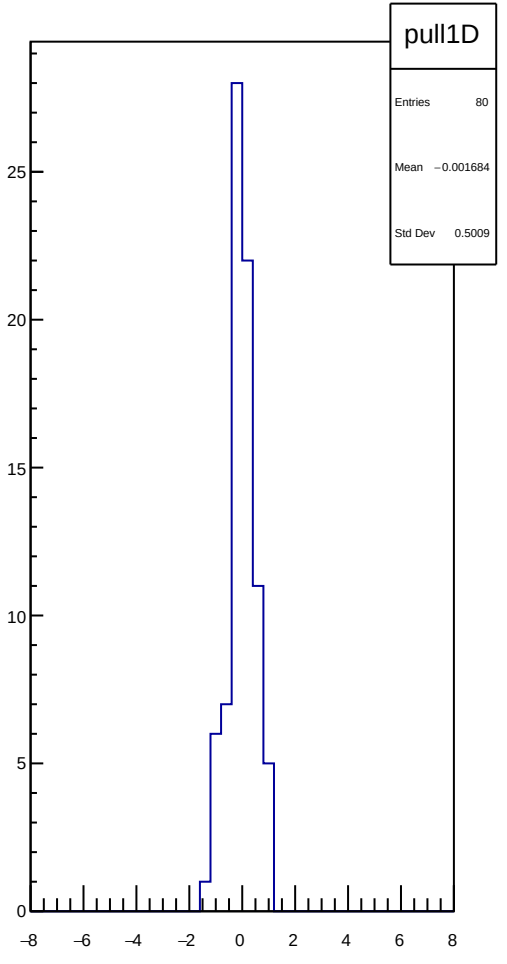

asym_bcm_an_ds3_rms vs run
χ^2 / ndf 7.938e+04 / 79
p0 129.6 ± 0.1064
350
300
250
200
150
100

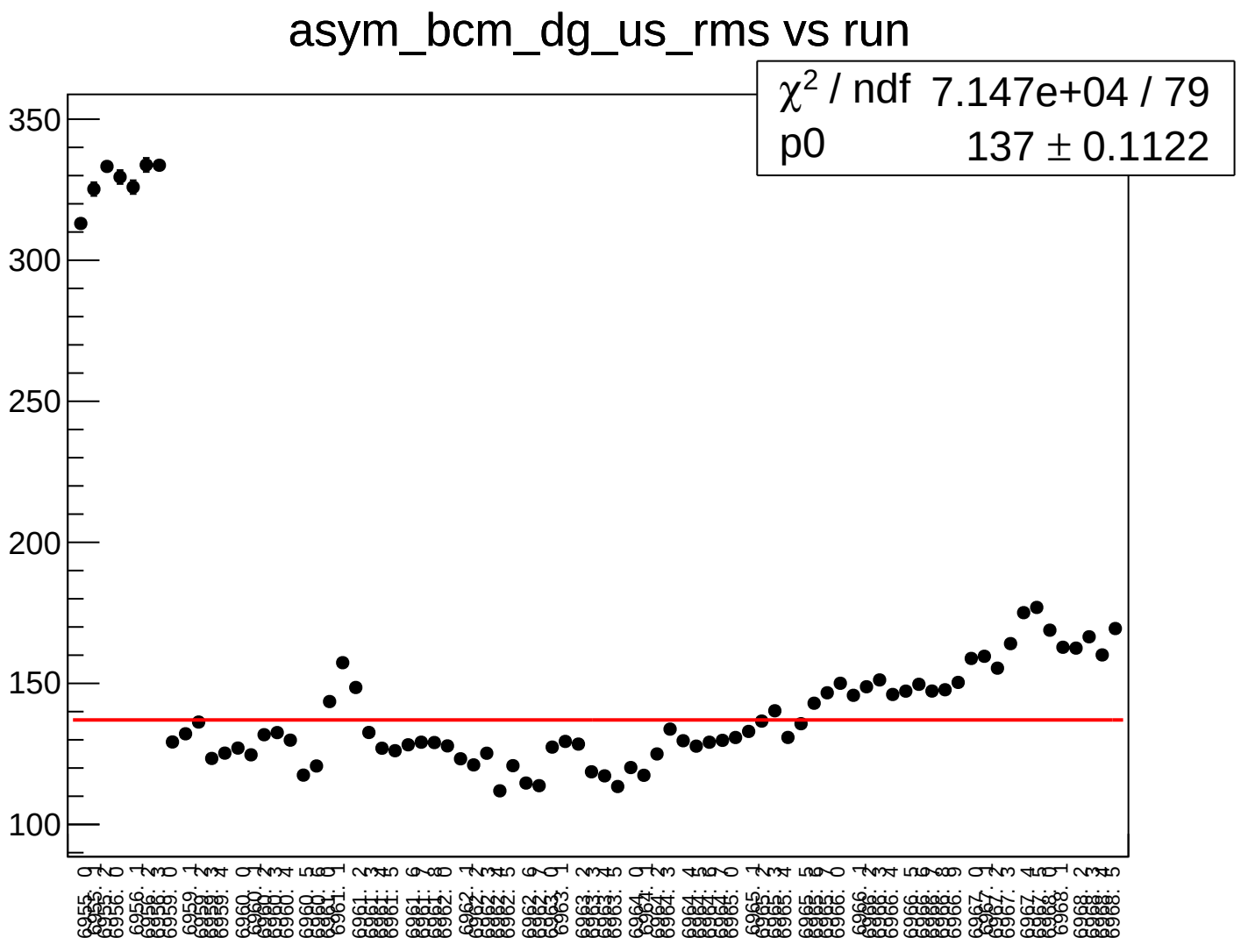

asym_bcm_an_us_mean vs run
χ² / ndf 11.51 / 79
p0 0.5742 ± 150.1
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 136.3
Std Dev 85.93
1
0.5
0
−0.5
−1

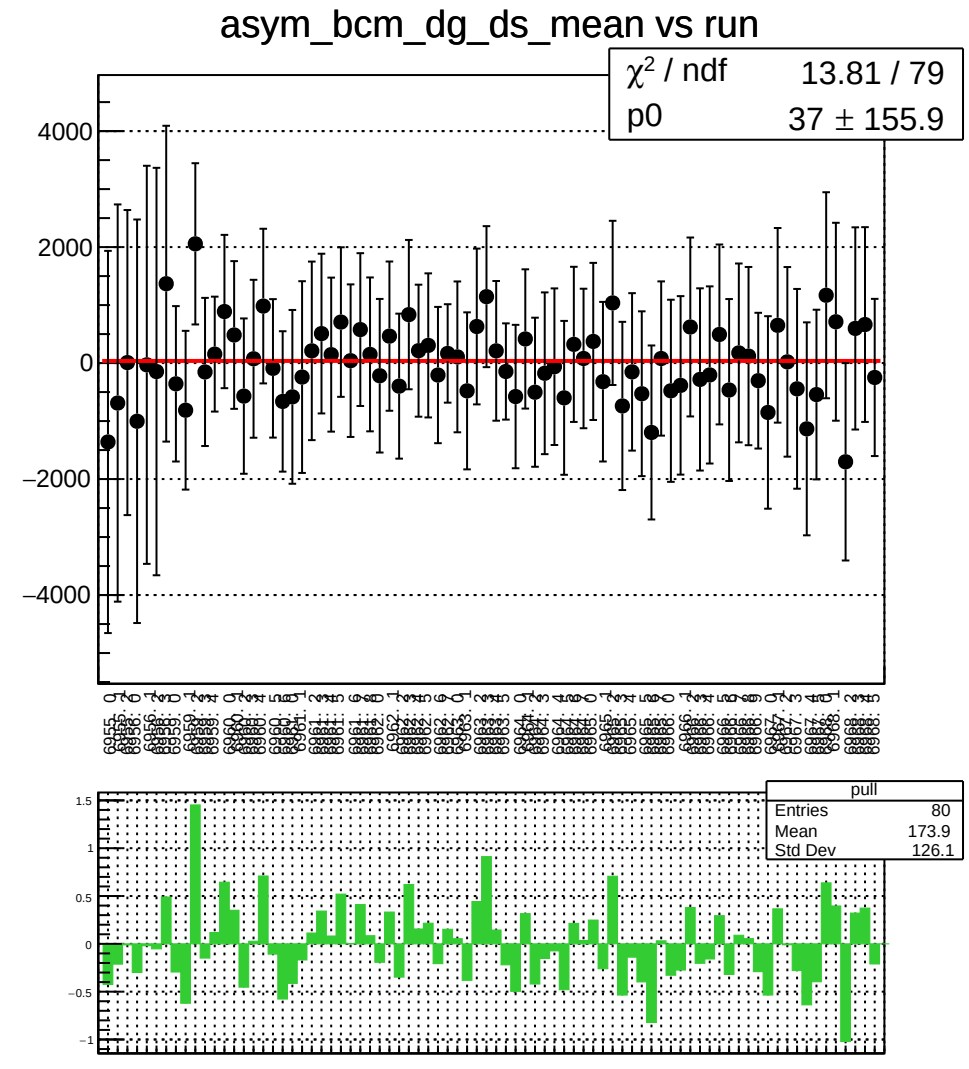

pull1D
Entries 80
Mean −0.01006
Std Dev 0.3792
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

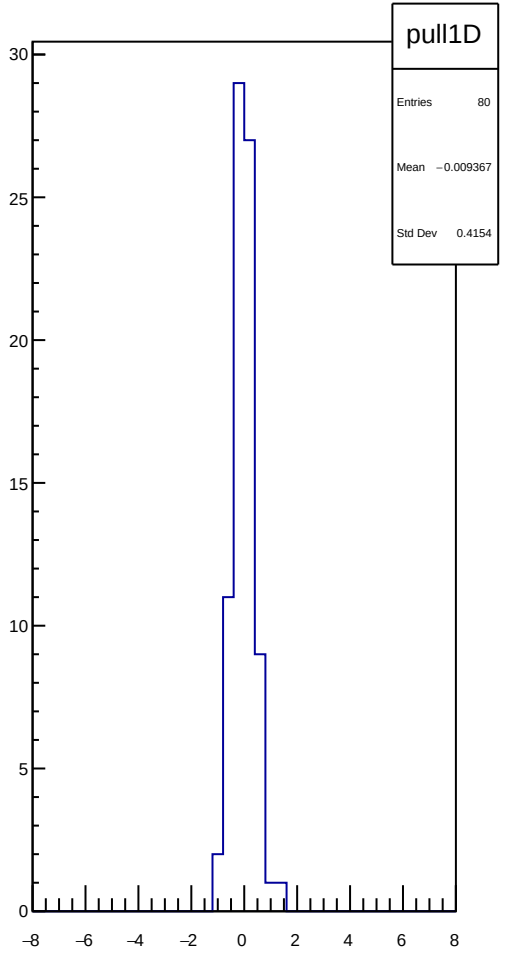

asym_bcm_an_us_rms vs run
χ² / ndf 7.937e+04 / 79
p0 129.3 ± 0.1061
350
300
250
200
150
100

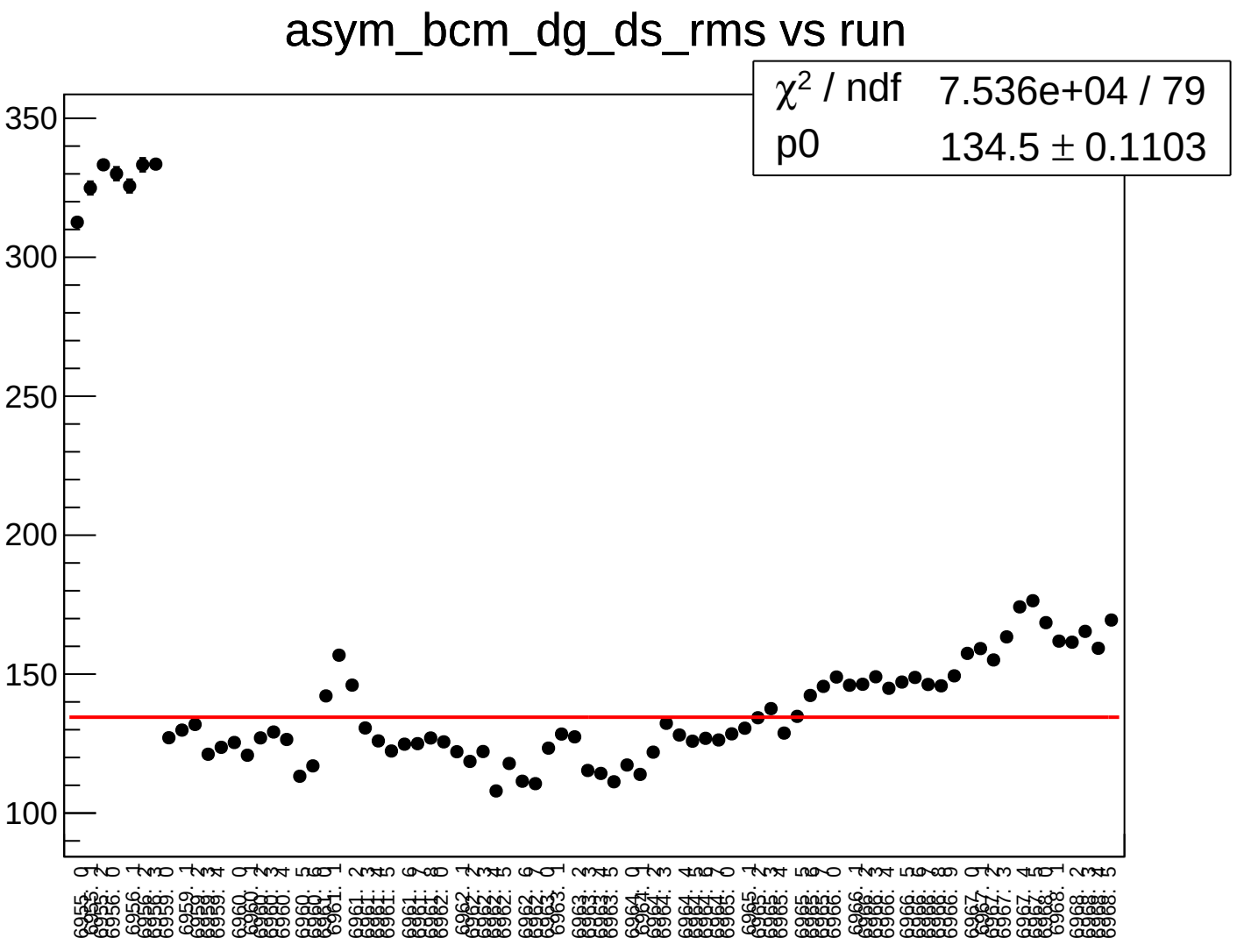

asym_bcm_dg_us_mean vs run
χ² / ndf 20.07 / 79
p0 −45.95 ± 158.7
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 812.3
Std Dev 763.8
1
0.5
0
−0.5
−1

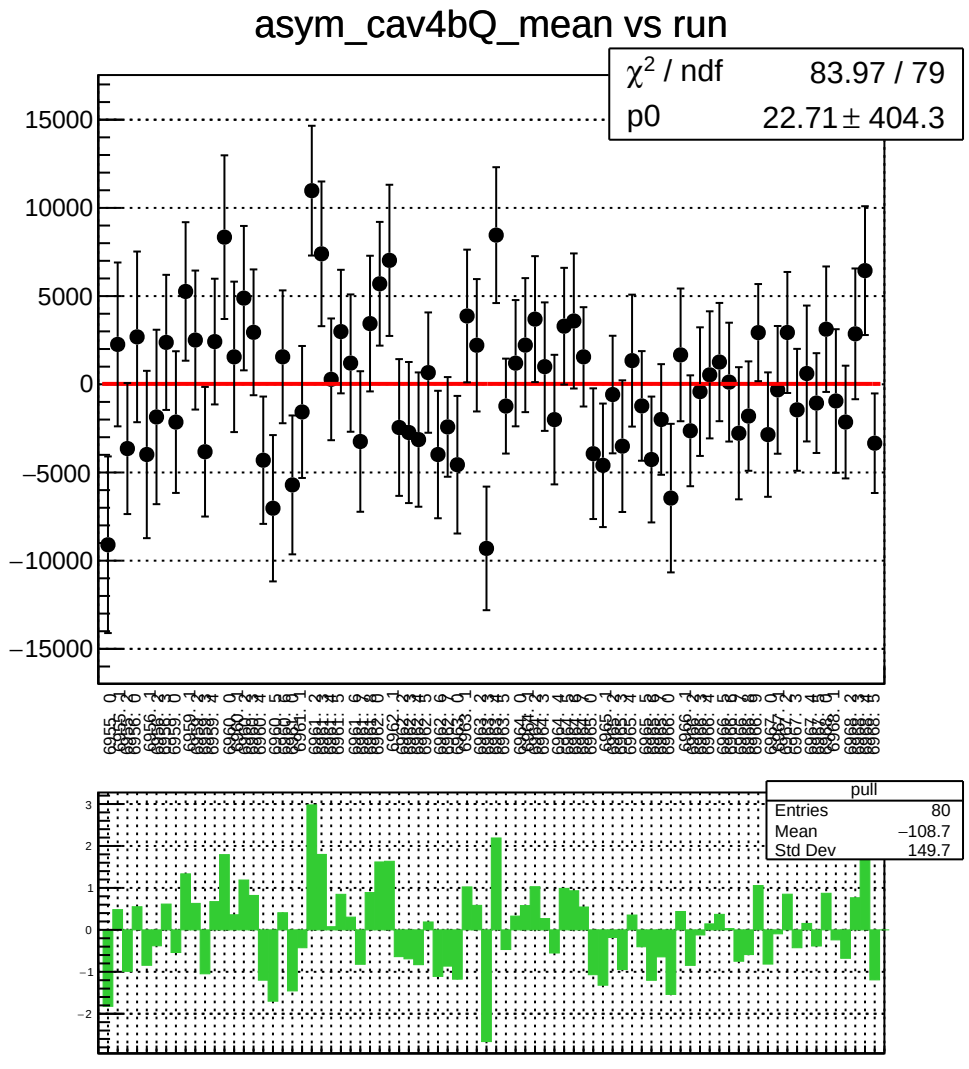

pull1D
Entries 80
Mean −0.001684
Std Dev 0.5009
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

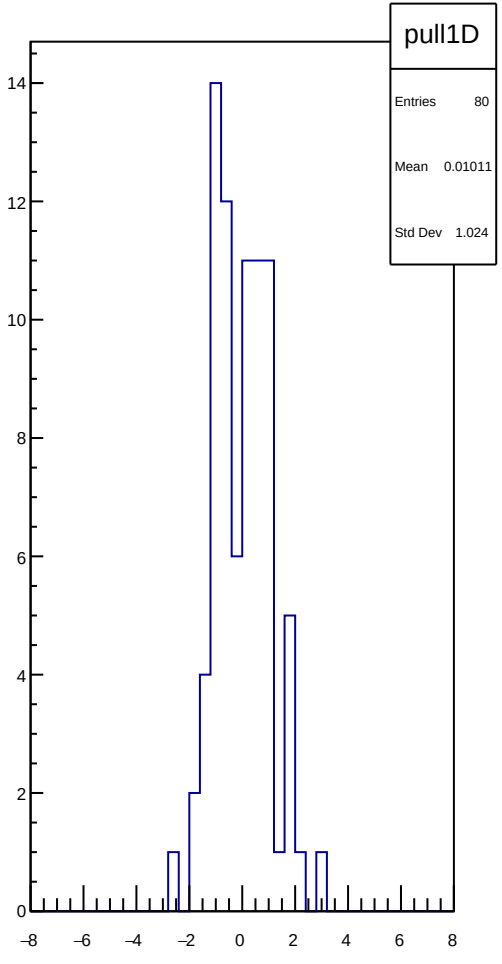

asym_bcm_dg_us_rms vs run
χ^2 / ndf 7.147e+04 / 79
p0 137 ± 0.1122
350
300
250
200
150
100

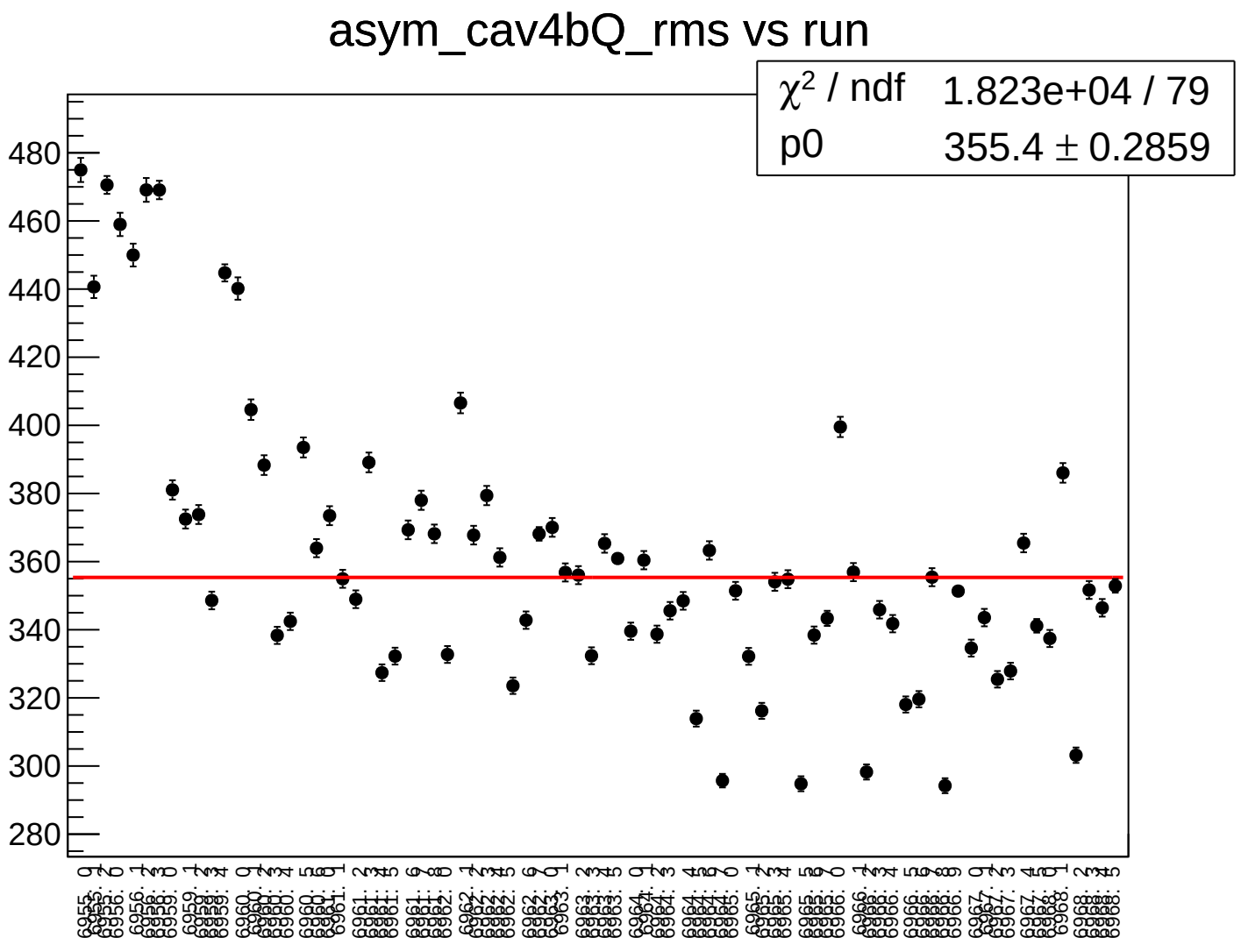

asym_bcm_dg_ds_mean vs run
χ² / ndf 13.81 / 79
p0 37 ± 155.9
4000
2000
0
−2000
−4000
pull
Entries 80
Mean 173.9
Std Dev 126.1
1.5
1
0.5
0
−0.5
−1

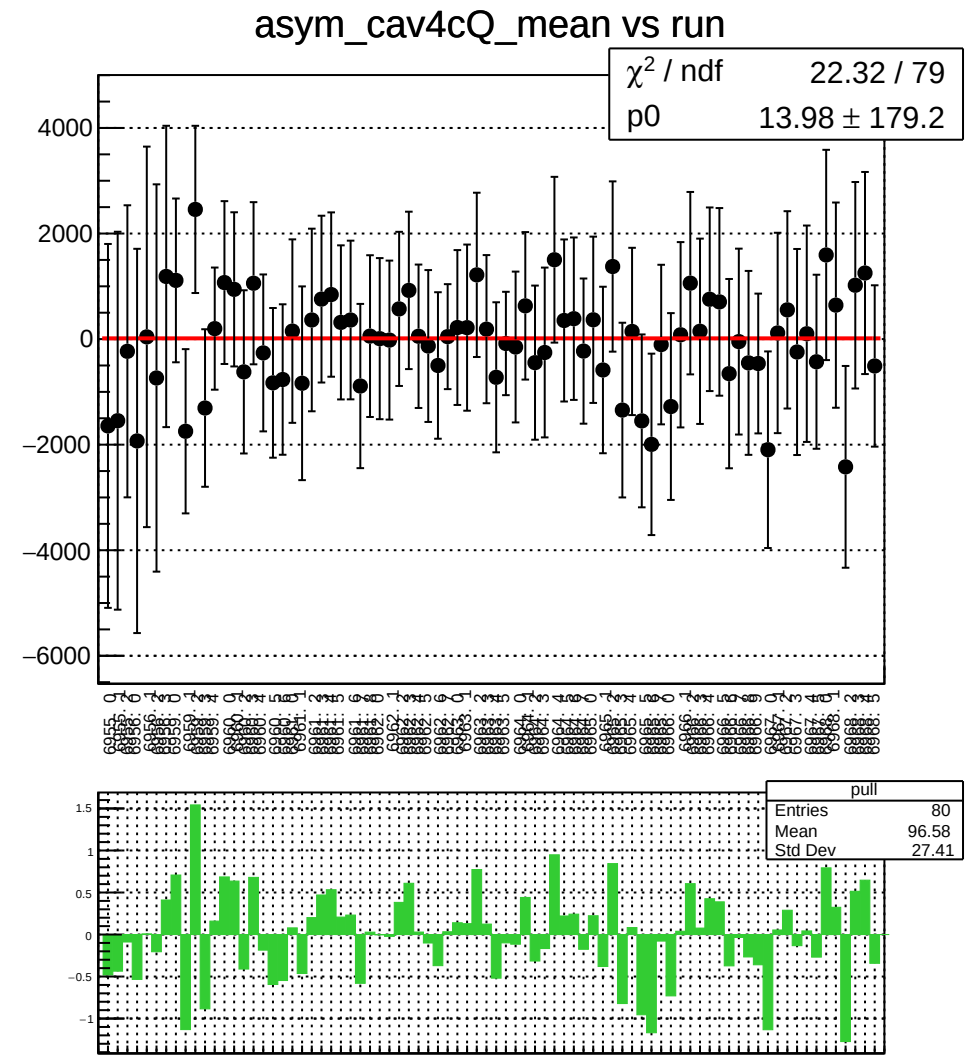

pull1D
Entries 80
Mean −0.009367
Std Dev 0.4154
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

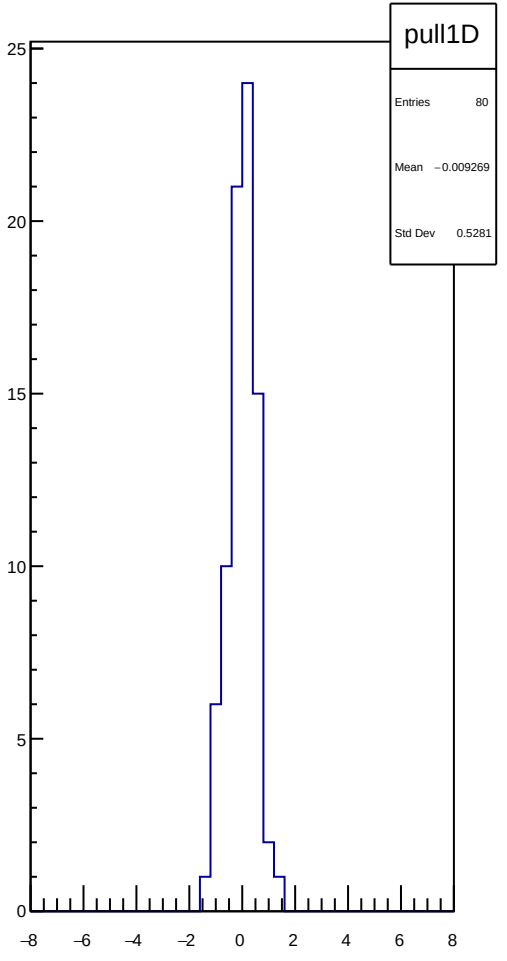

asym_bcm_dg_ds_rms vs run
χ² / ndf 7.536e+04 / 79
p0 134.5 ± 0.1103
350
300
250
200
150
100

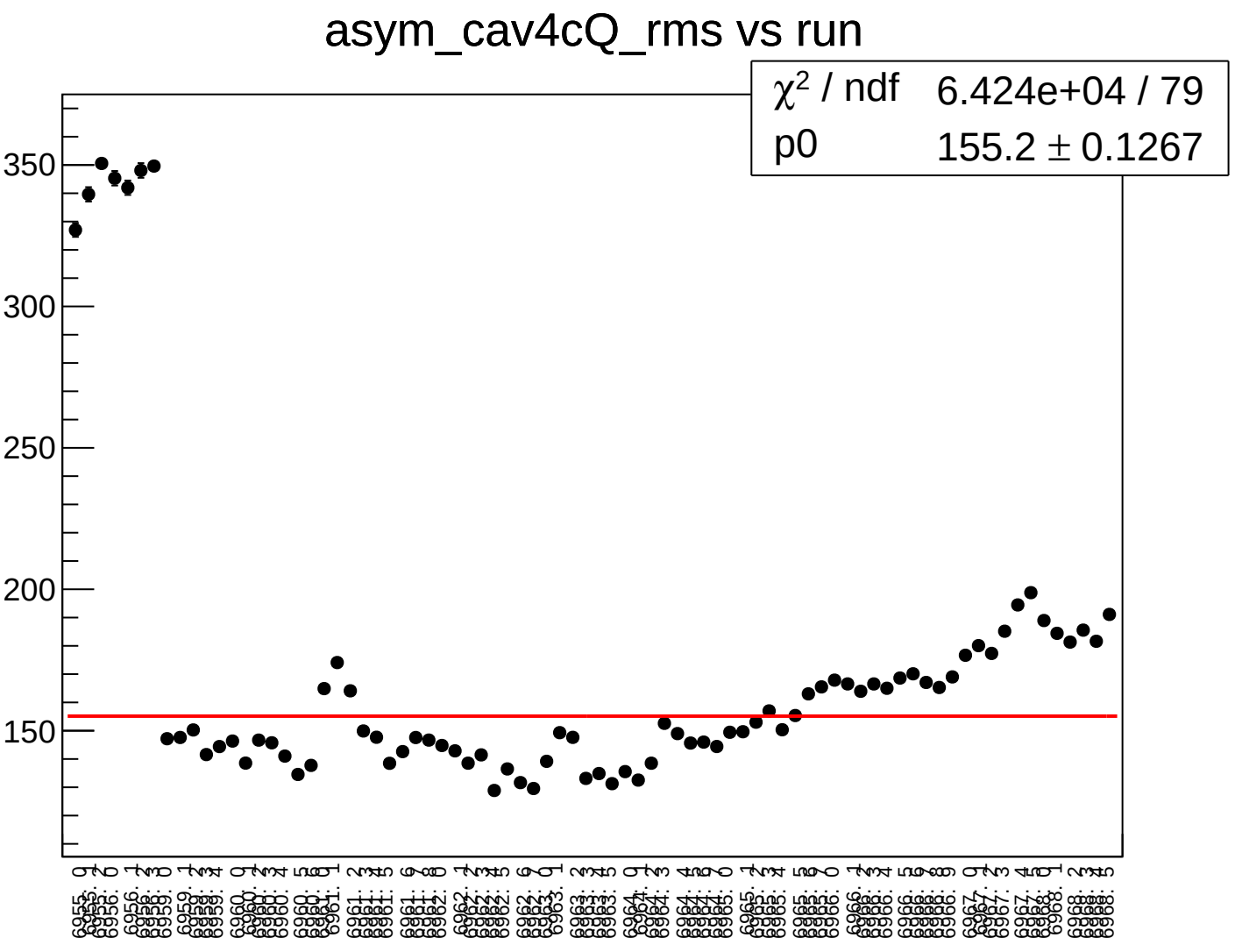

asym_cav4bQ_mean vs run
χ² / ndf 83.97 / 79
p0 22.71 ± 404.3
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 80
Mean −108.7
Std Dev 149.7
3
2
1
0
−1
−2

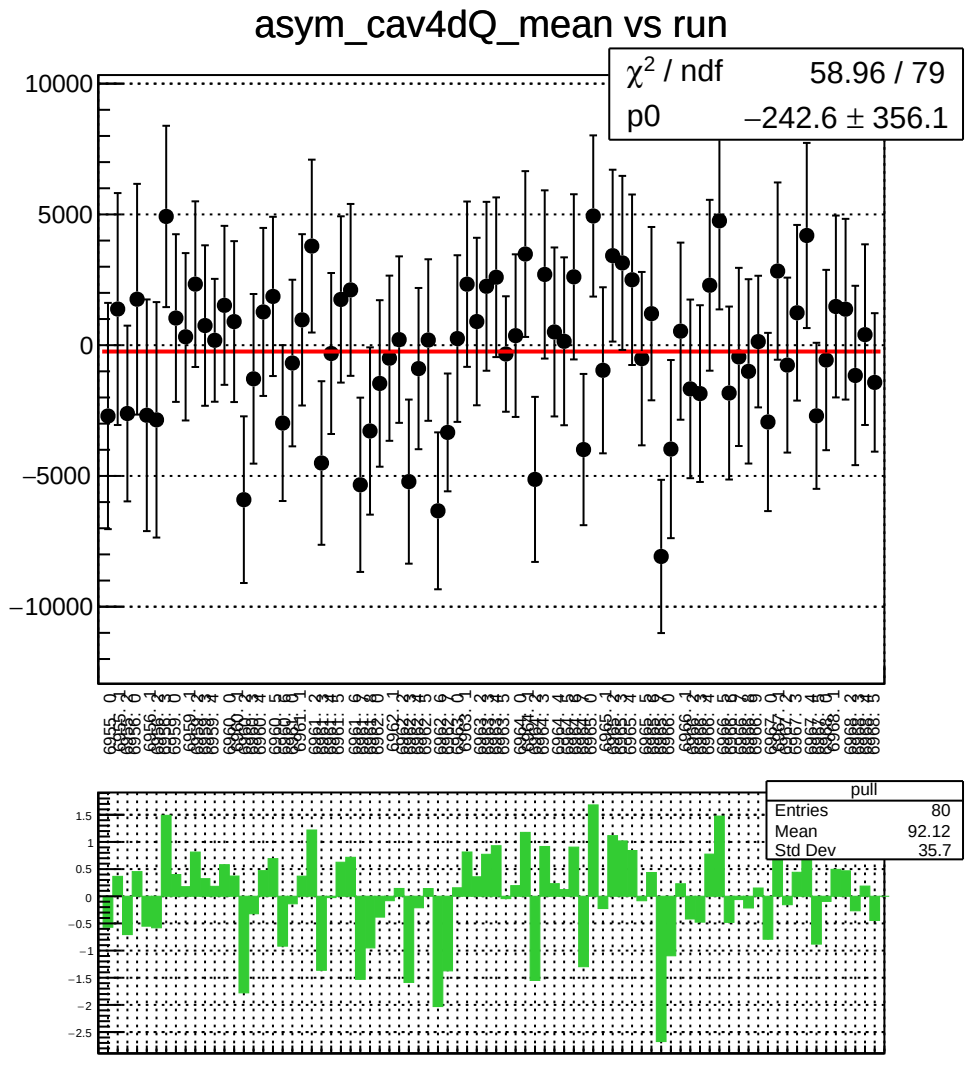

pull1D
Entries 80
Mean 0.01011
Std Dev 1.024
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

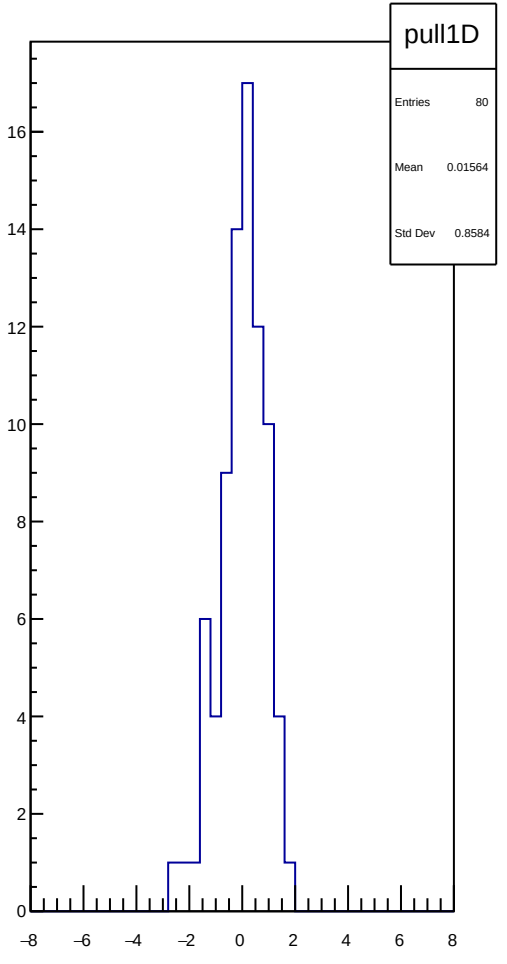

asym_cav4bQ_rms vs run
χ^2 / ndf 1.823e+04 / 79
p0 355.4 ± 0.2859
480
460
440
420
400
380
360
340
320
300
280

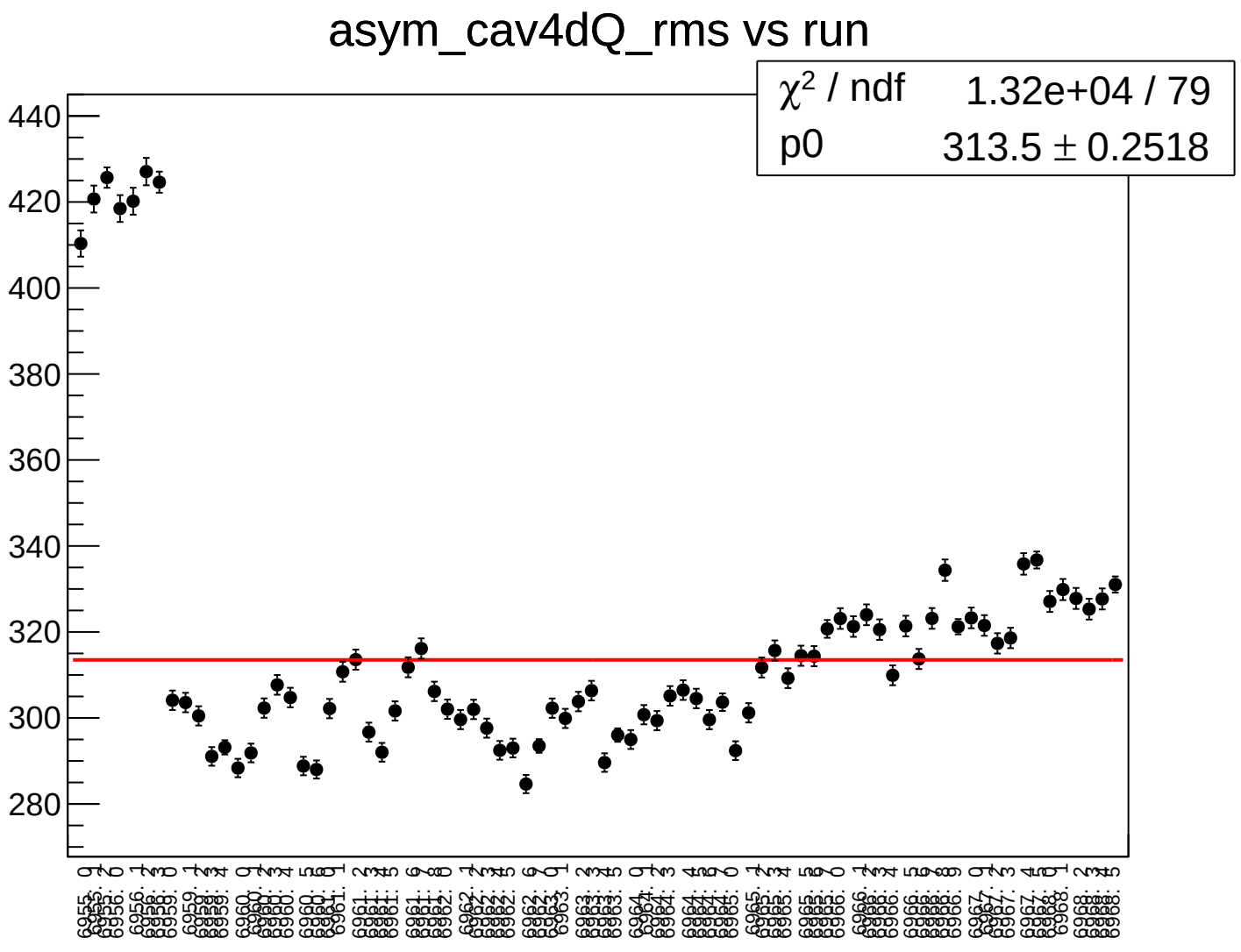

asym_cav4cQ_mean vs run
χ² / ndf 22.32 / 79
p0 13.98 ± 179.2
4000
2000
0
−2000
−4000
−6000
pull
Entries 80
Mean 96.58
Std Dev 27.41
1.5
1
0.5
0
−0.5
−1

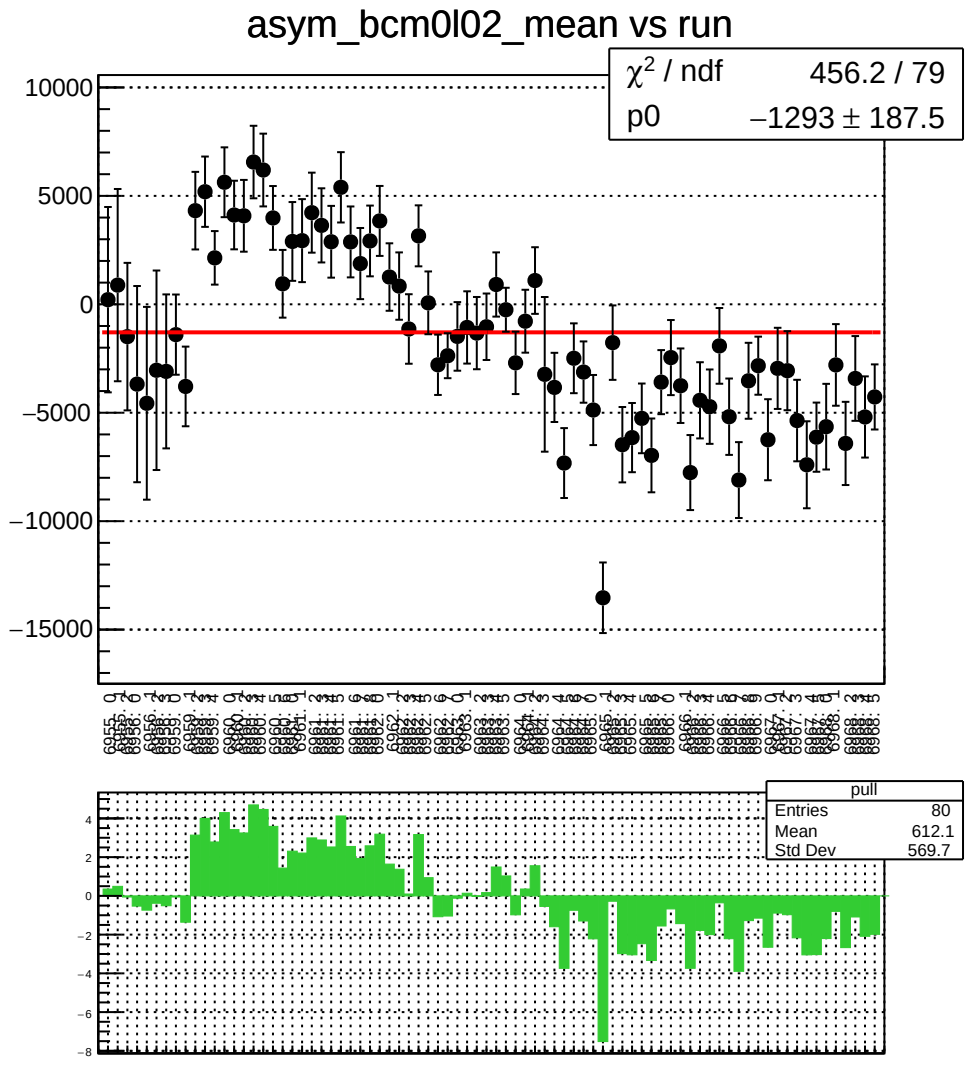

pull1D
Entries 80
Mean −0.009269
Std Dev 0.5281
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

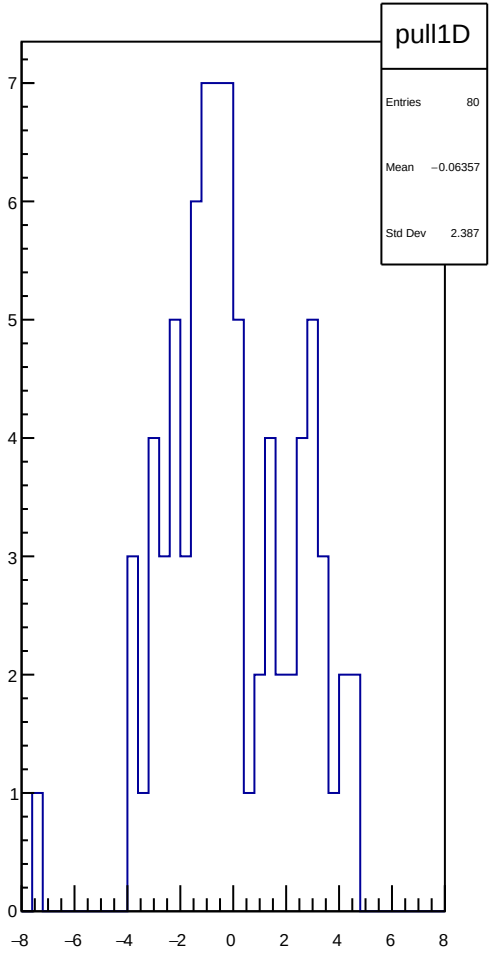

asym_cav4cQ_rms vs run
χ² / ndf 6.424e+04 / 79
p0 155.2 ± 0.1267
350
300
250
200
150

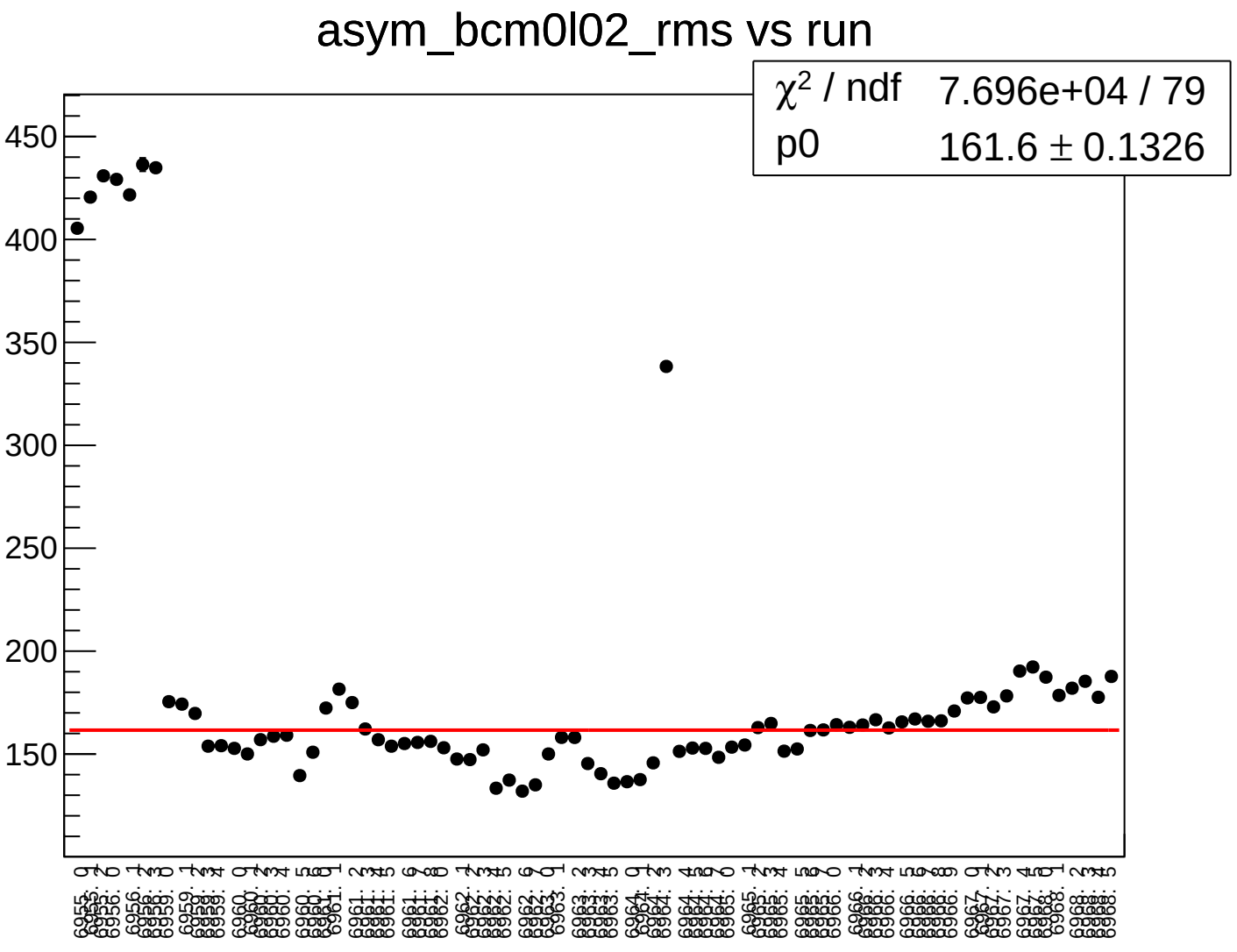

asym_cav4dQ_mean vs run
χ² / ndf 58.96 / 79
p0 −242.6 ± 356.1
10000
5000
0
−5000
−10000
pull
Entries 80
Mean 92.12
Std Dev 35.7
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

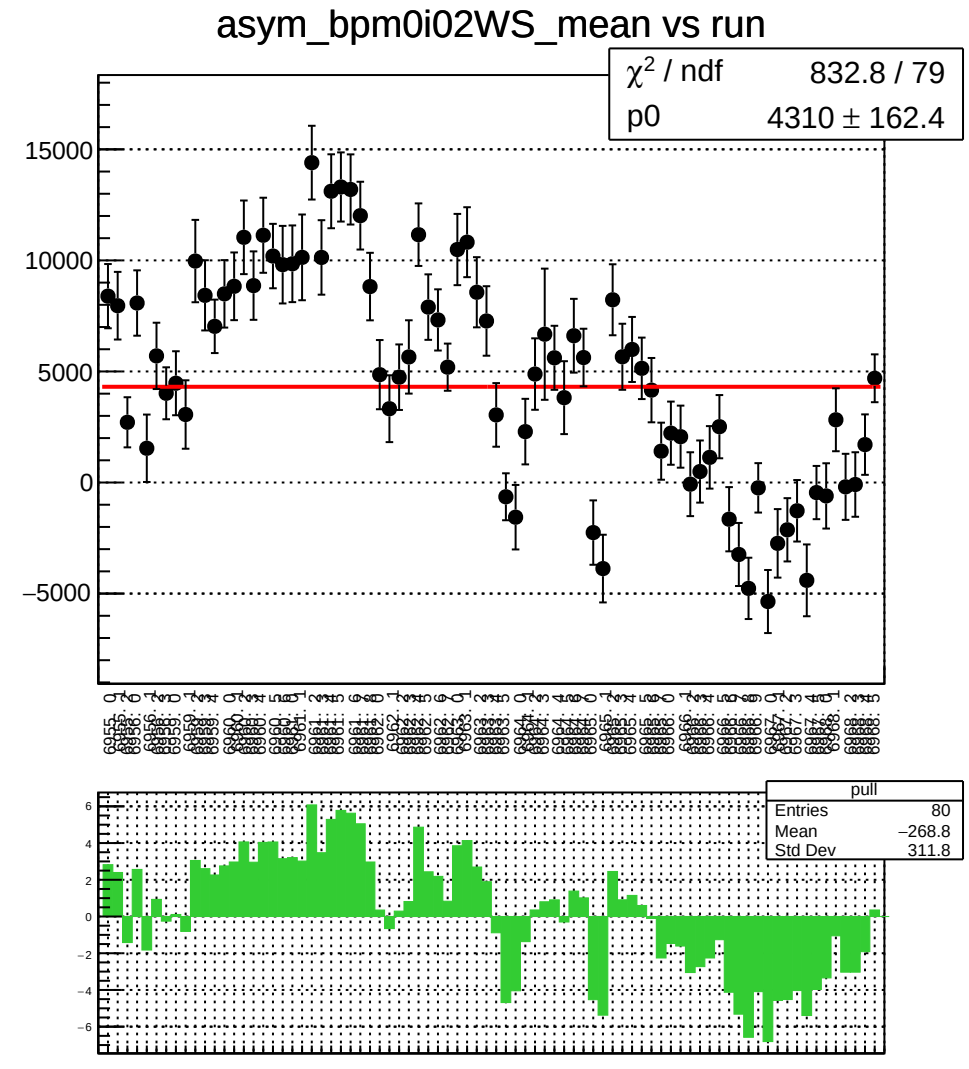

pull1D
Entries 80
Mean 0.01564
Std Dev 0.8584
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

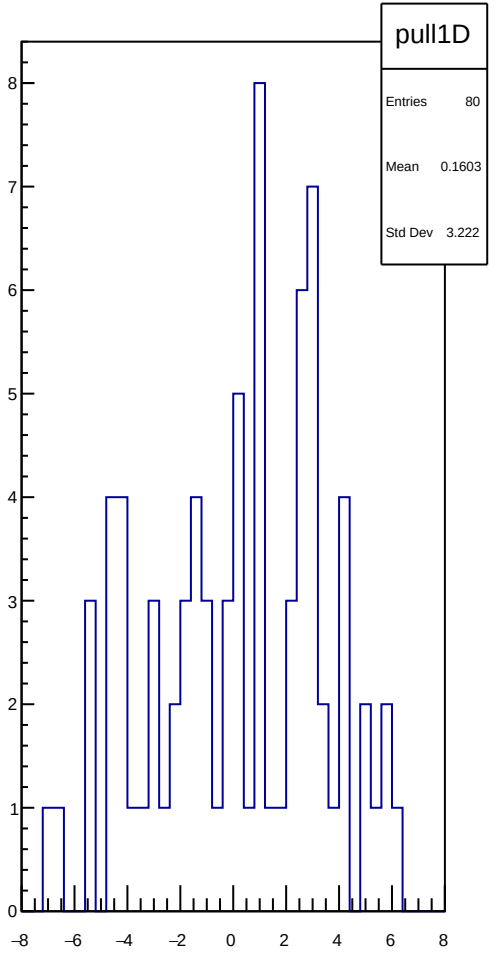

asym_cav4dQ_rms vs run
χ^2 / ndf 1.32e+04 / 79
p0 313.5 ± 0.2518
440
420
400
380
360
340
320
300
280

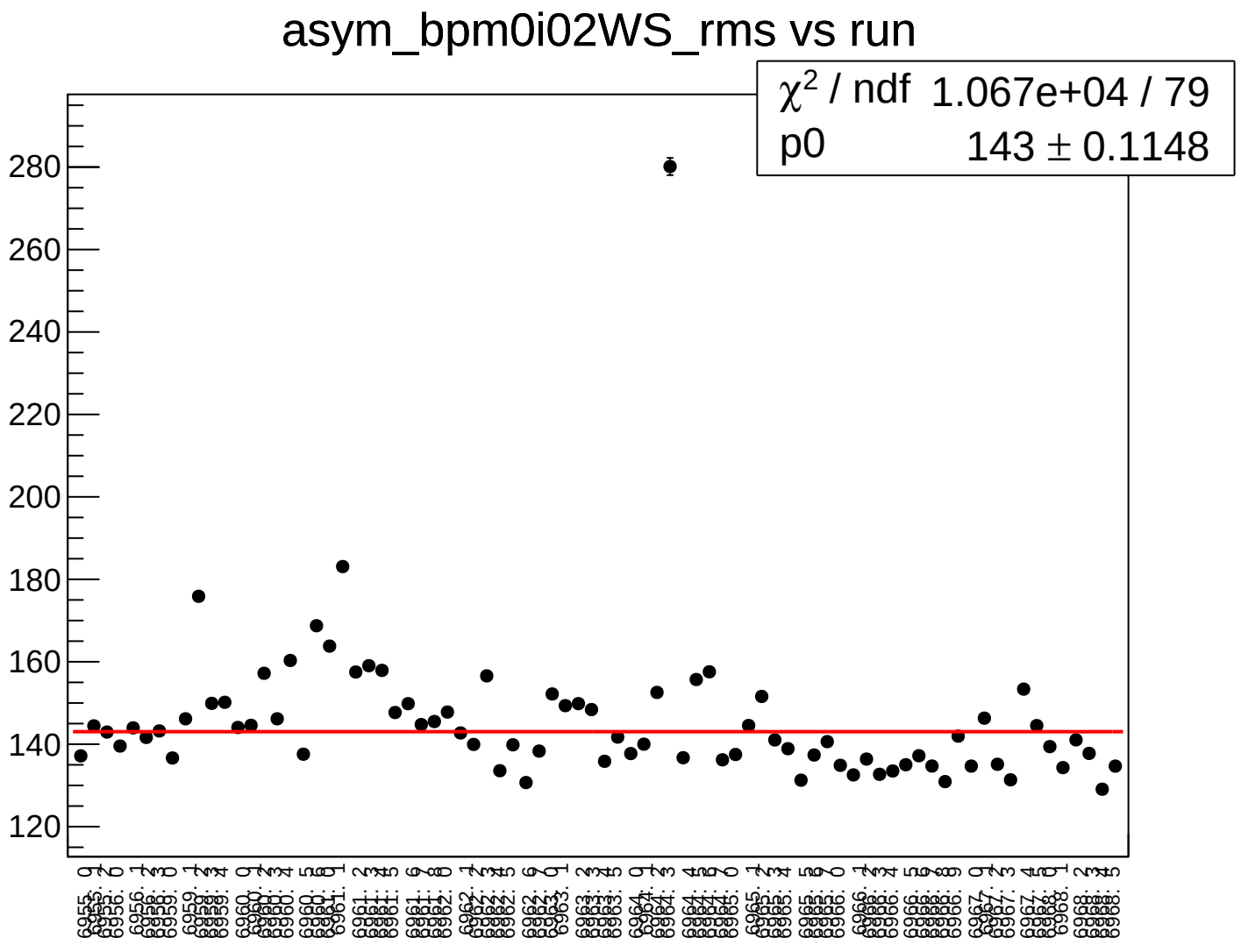

asym_bcm0l02_mean vs run
χ² / ndf 456.2 / 79
p0 −1293 ± 187.5
pull
Entries 80
Mean 612.1
Std Dev 569.7

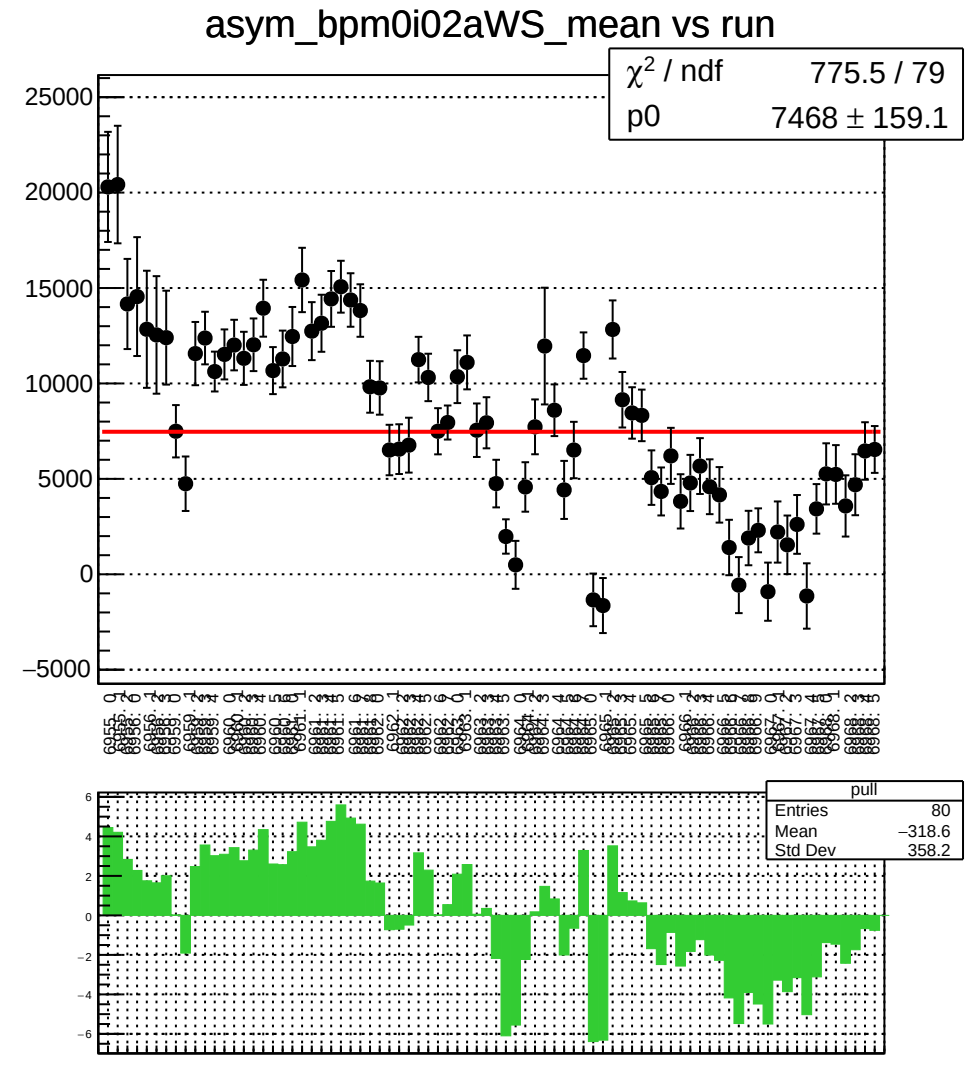

pull1D
Entries 80
Mean −0.06357
Std Dev 2.387

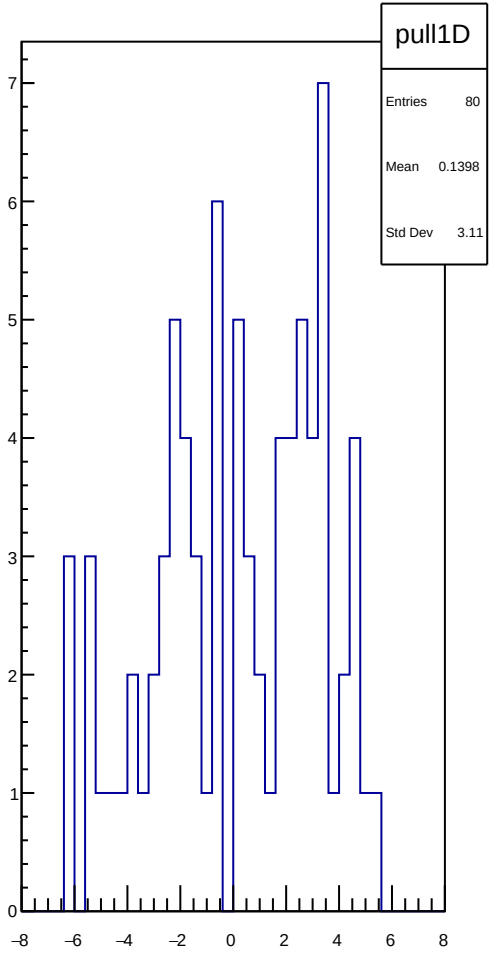

asym_bcm0l02_rms vs run
χ² / ndf 7.696e+04 / 79
p0 161.6 ± 0.1326
450
400
350
300
250
200
150

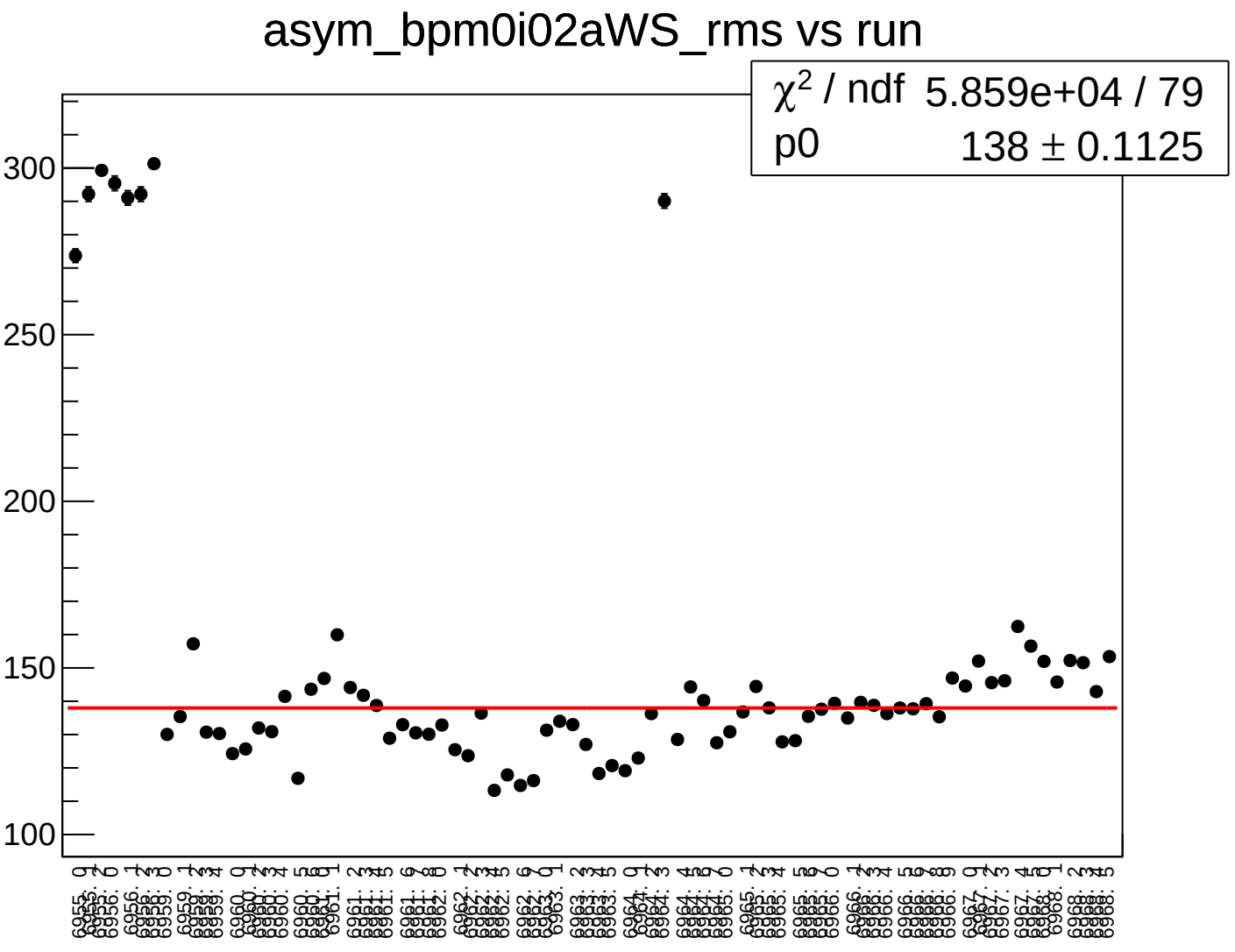

asym_bpm0i02WS_mean vs run
χ² / ndf 832.8 / 79
p0 4310 ± 162.4
15000
10000
5000
0
−5000
pull
Entries 80
Mean −268.8
Std Dev 311.8
6
4
2
0
−2
−4
−6

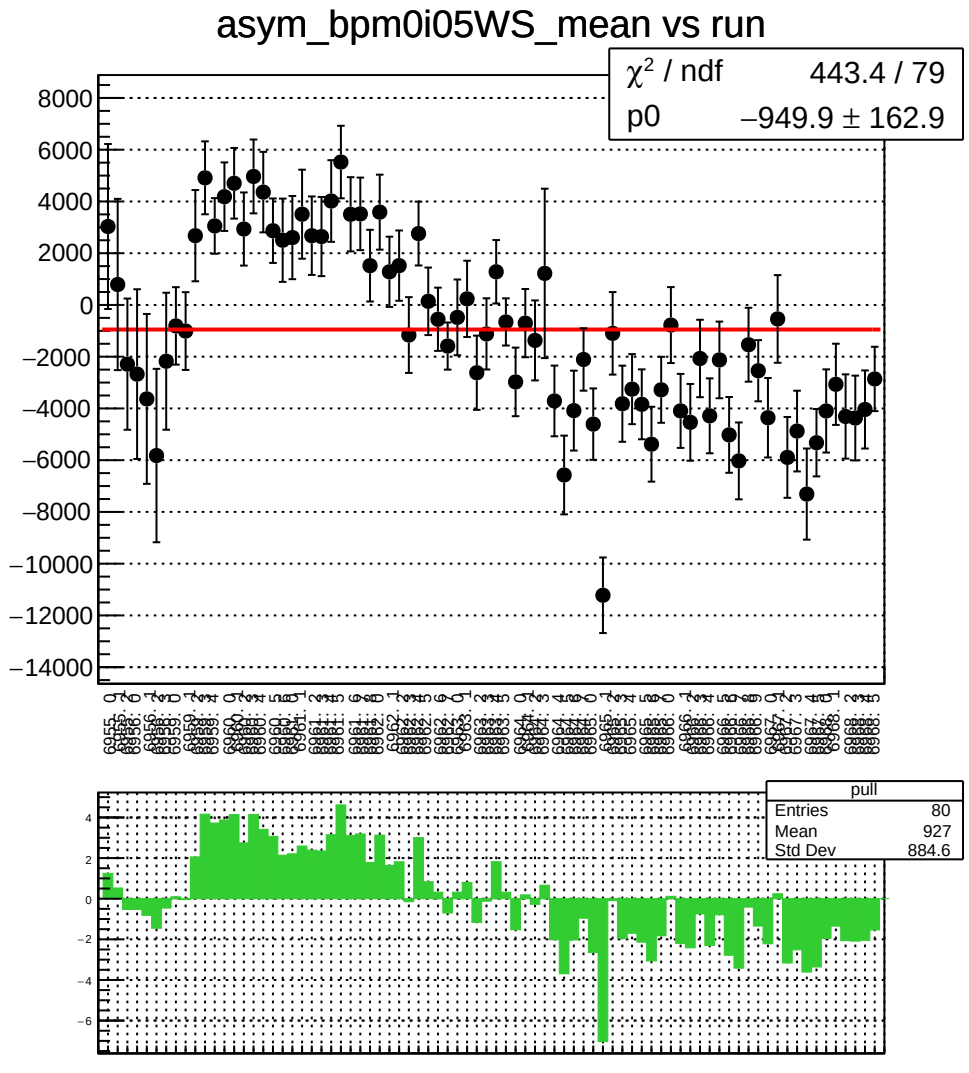

pull1D
Entries 80
Mean 0.1603
Std Dev 3.222
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

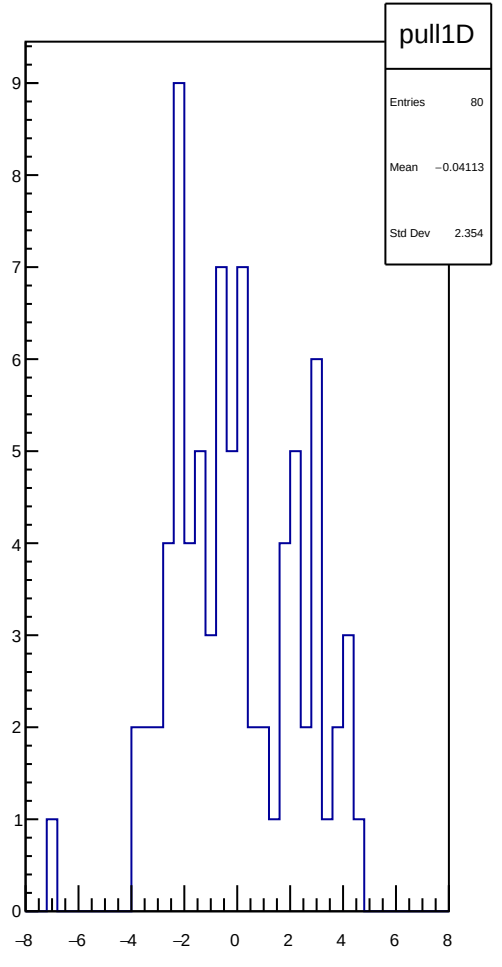

asym_bpm0i02WS_rms vs run
χ^2 / ndf 1.067e+04 / 79
p0 143 ± 0.1148
280
260
240
220
200
180
160
140
120

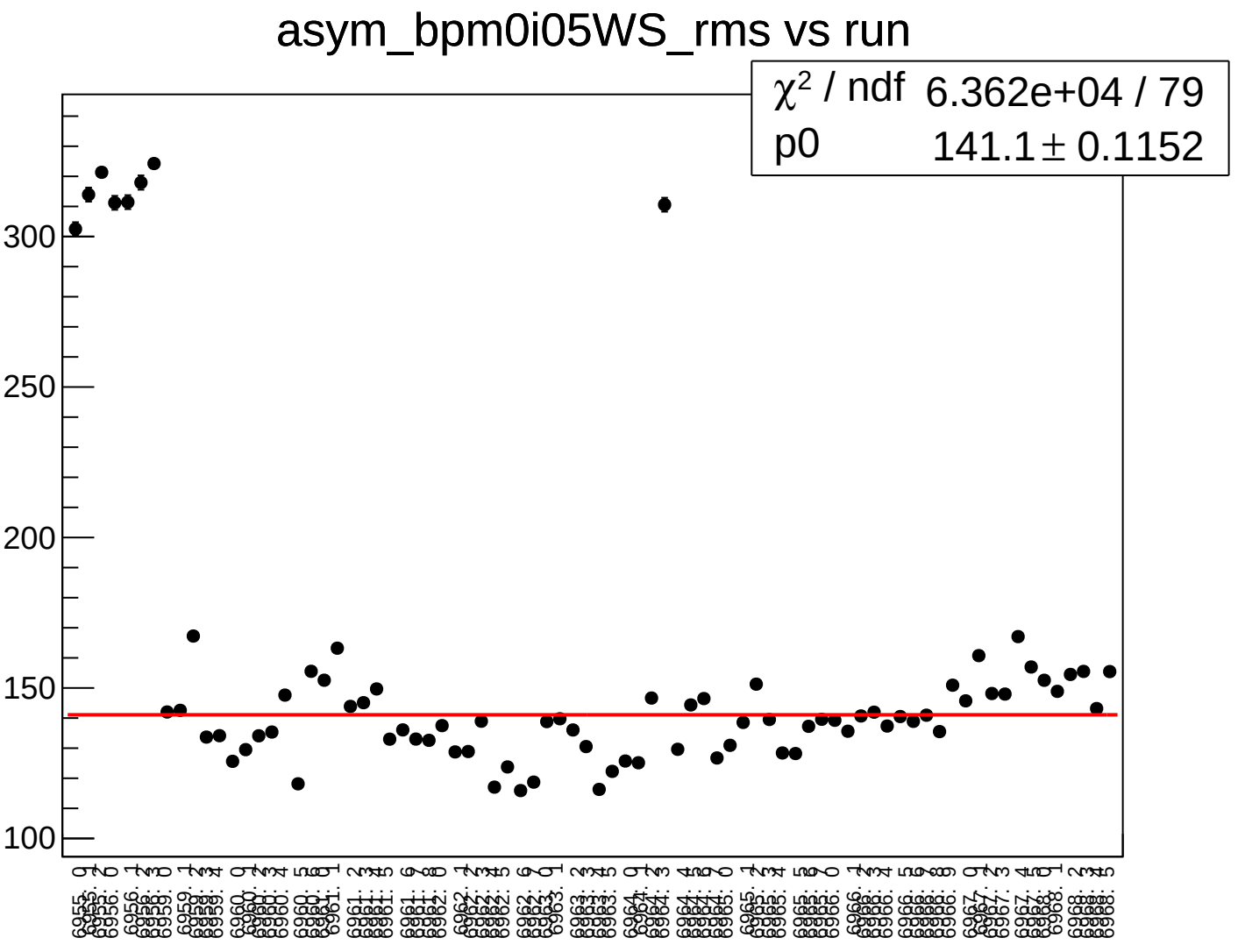

asym_bpm0i02aWS_mean vs run
χ² / ndf 775.5 / 79
p0 7468 ± 159.1
pull
Entries 80
Mean −318.6
Std Dev 358.2

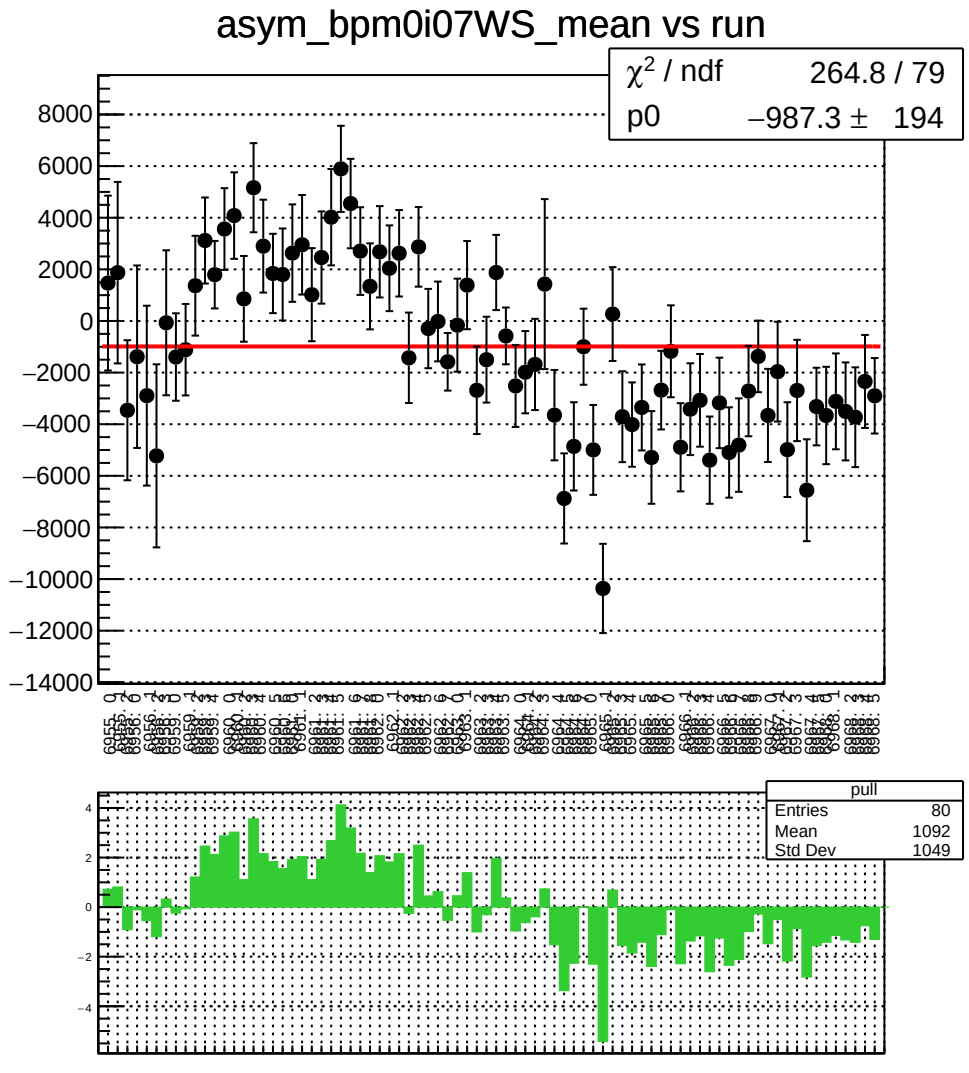

pull1D
Entries 80
Mean 0.1398
Std Dev 3.11

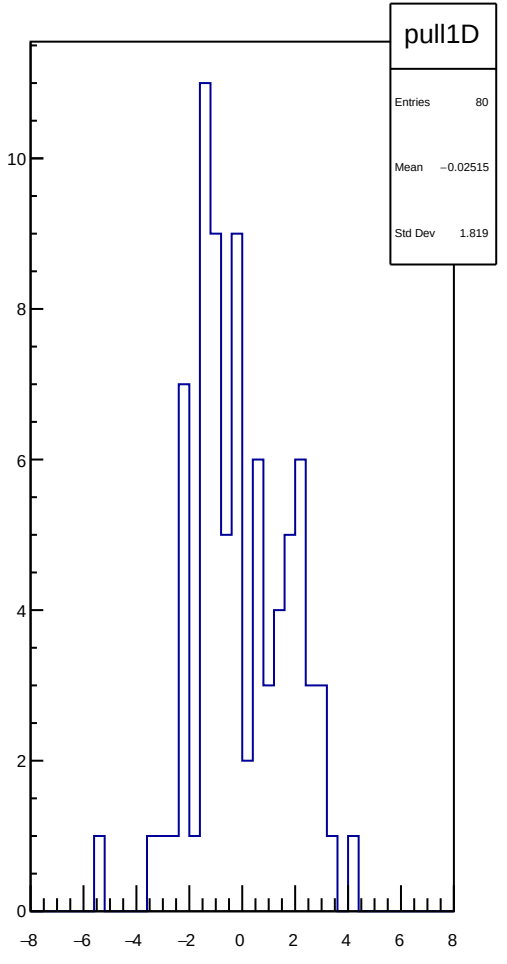

asym_bpm0i02aWS_rms vs run
χ^2 / ndf 5.859e+04 / 79
p0 138 ± 0.1125
300
250
200
150
100

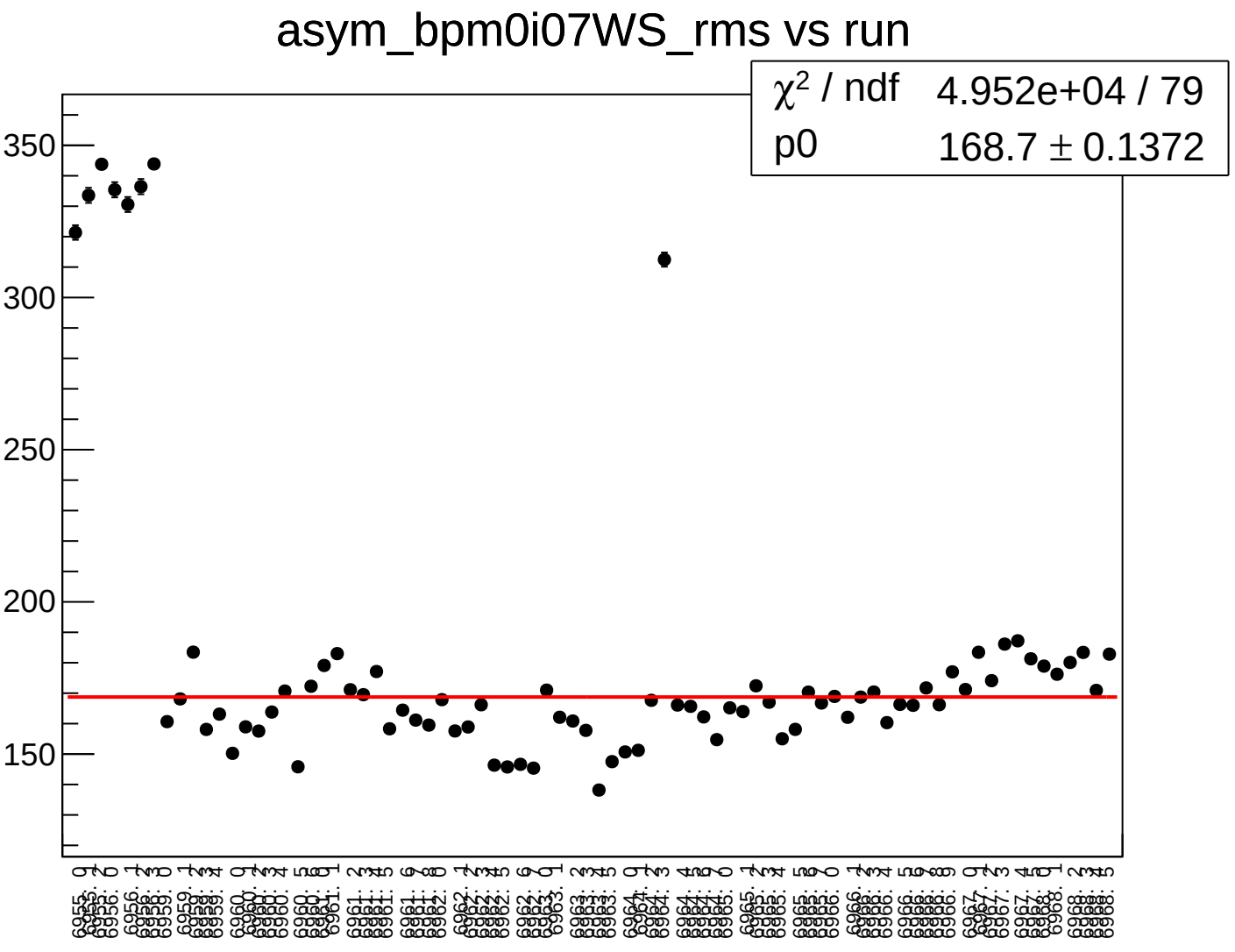

asym_bpm0i05WS_mean vs run
χ² / ndf 443.4 / 79
p0 −949.9 ± 162.9
pull
Entries 80
Mean 927
Std Dev 884.6

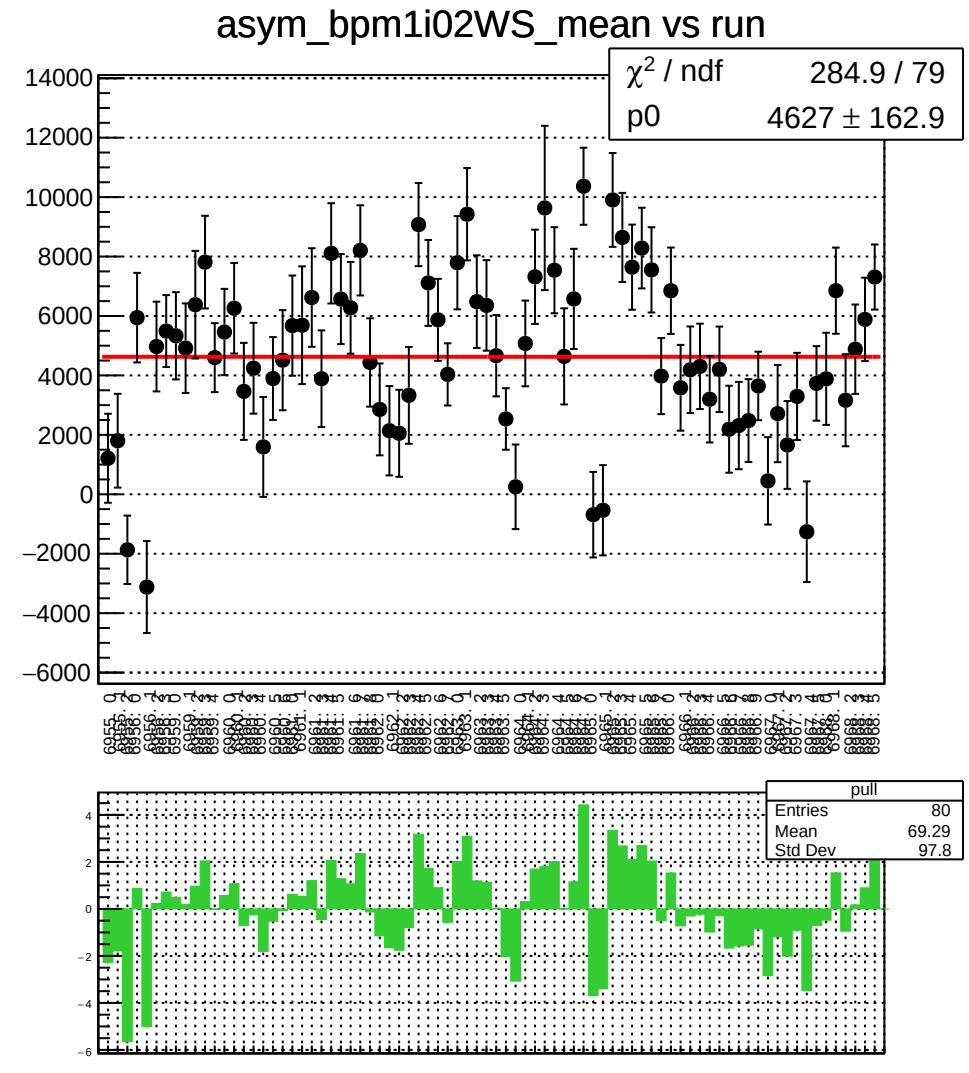

pull1D
Entries 80
Mean −0.04113
Std Dev 2.354

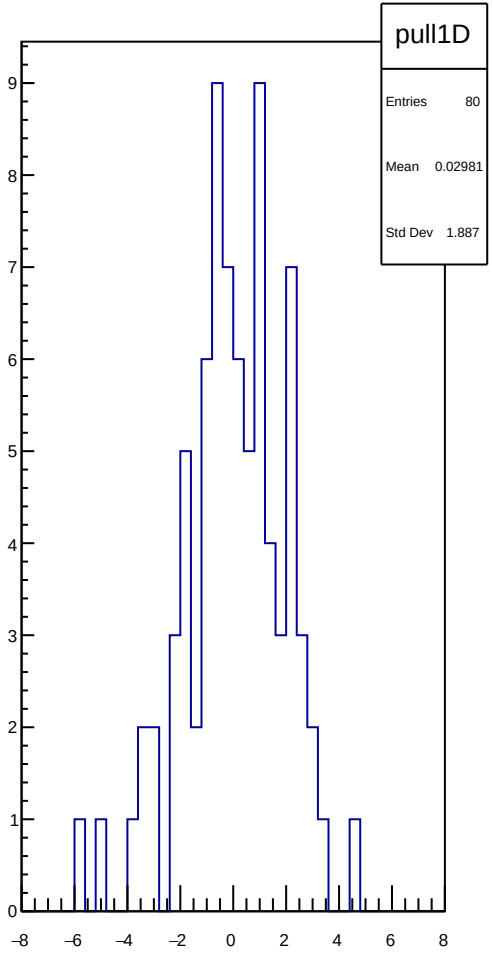

asym_bpm0i05WS_rms vs run
χ² / ndf 6.362e+04 / 79
p0 141.1 ± 0.1152
300
250
200
150
100

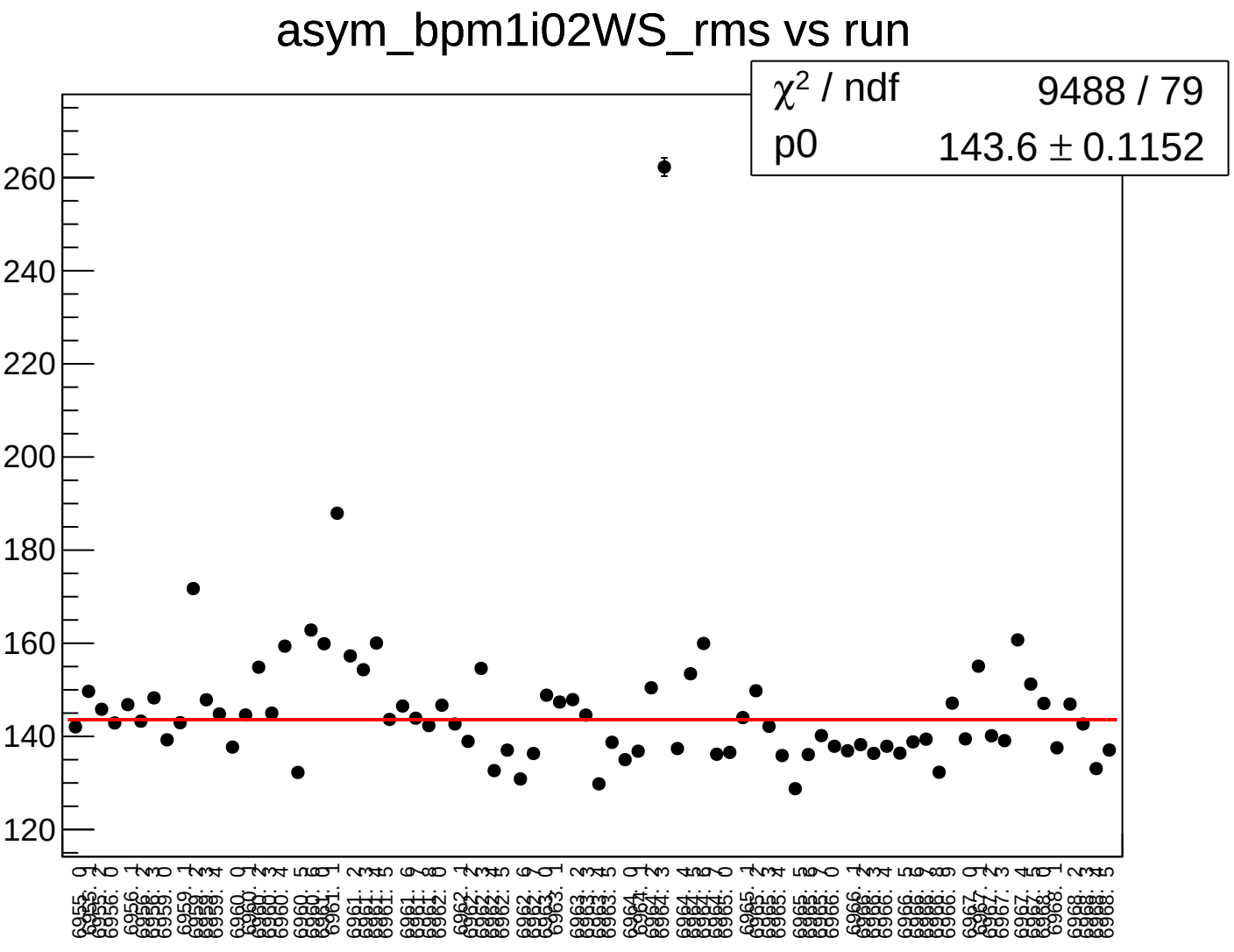

asym_bpm0i07WS_mean vs run
χ² / ndf 264.8 / 79
p0 −987.3 ± 194
pull
Entries 80
Mean 1092
Std Dev 1049

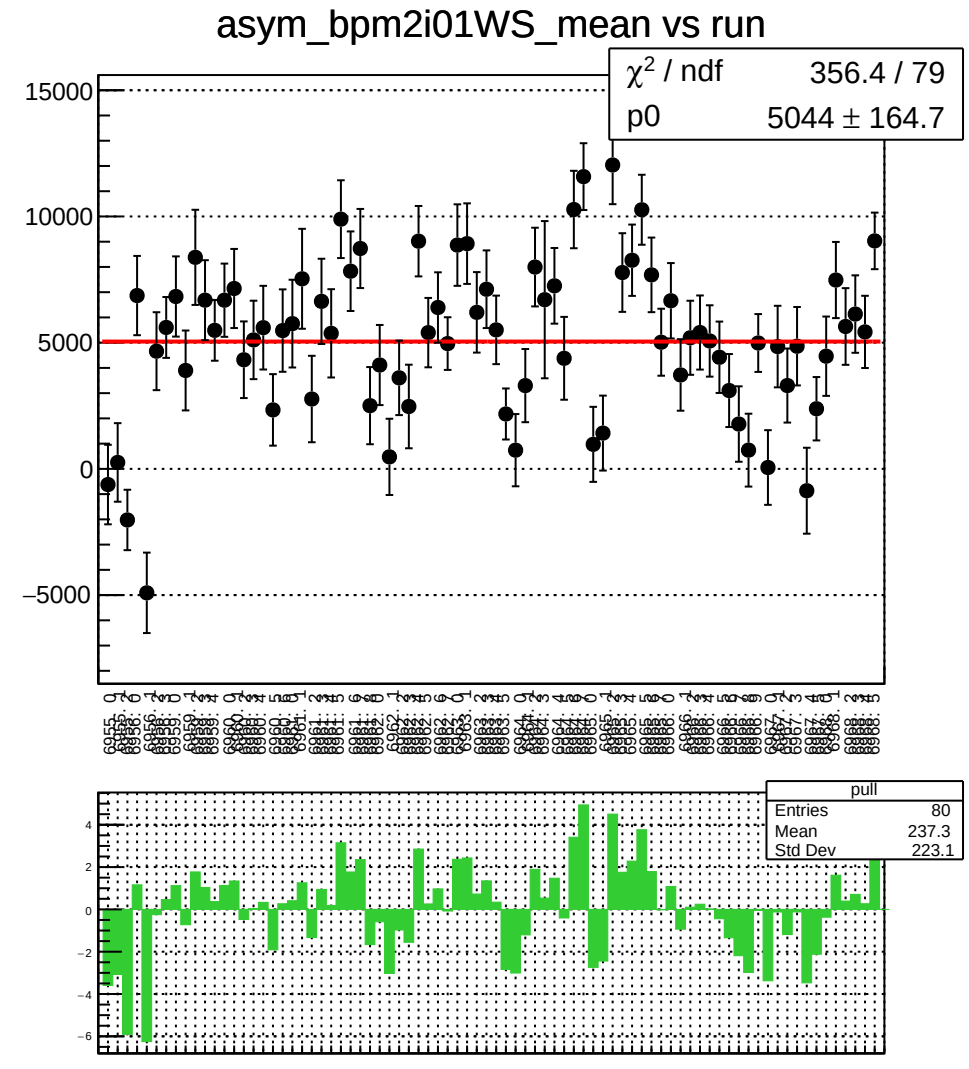

pull1D
Entries 80
Mean −0.02515
Std Dev 1.819

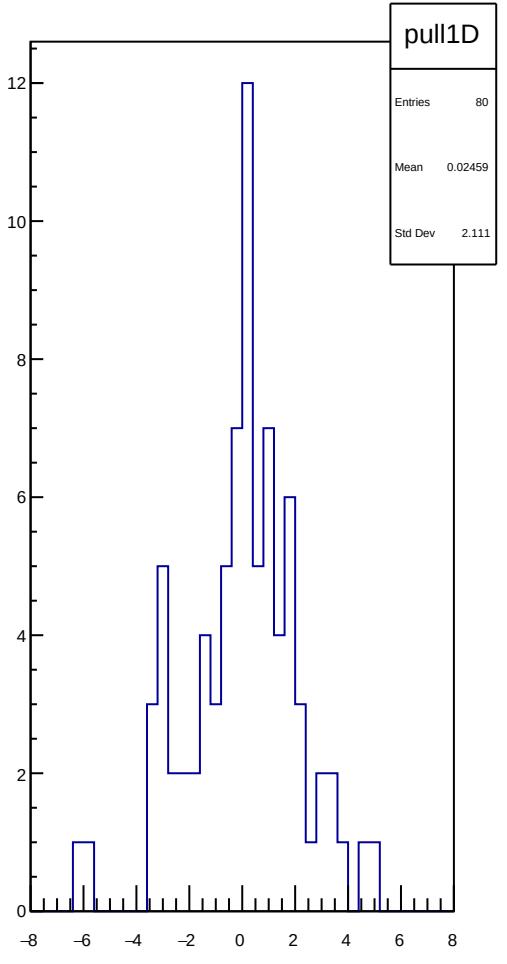

asym_bpm0i07WS_rms vs run
χ² / ndf 4.952e+04 / 79
p0 168.7 ± 0.1372
350
300
250
200
150

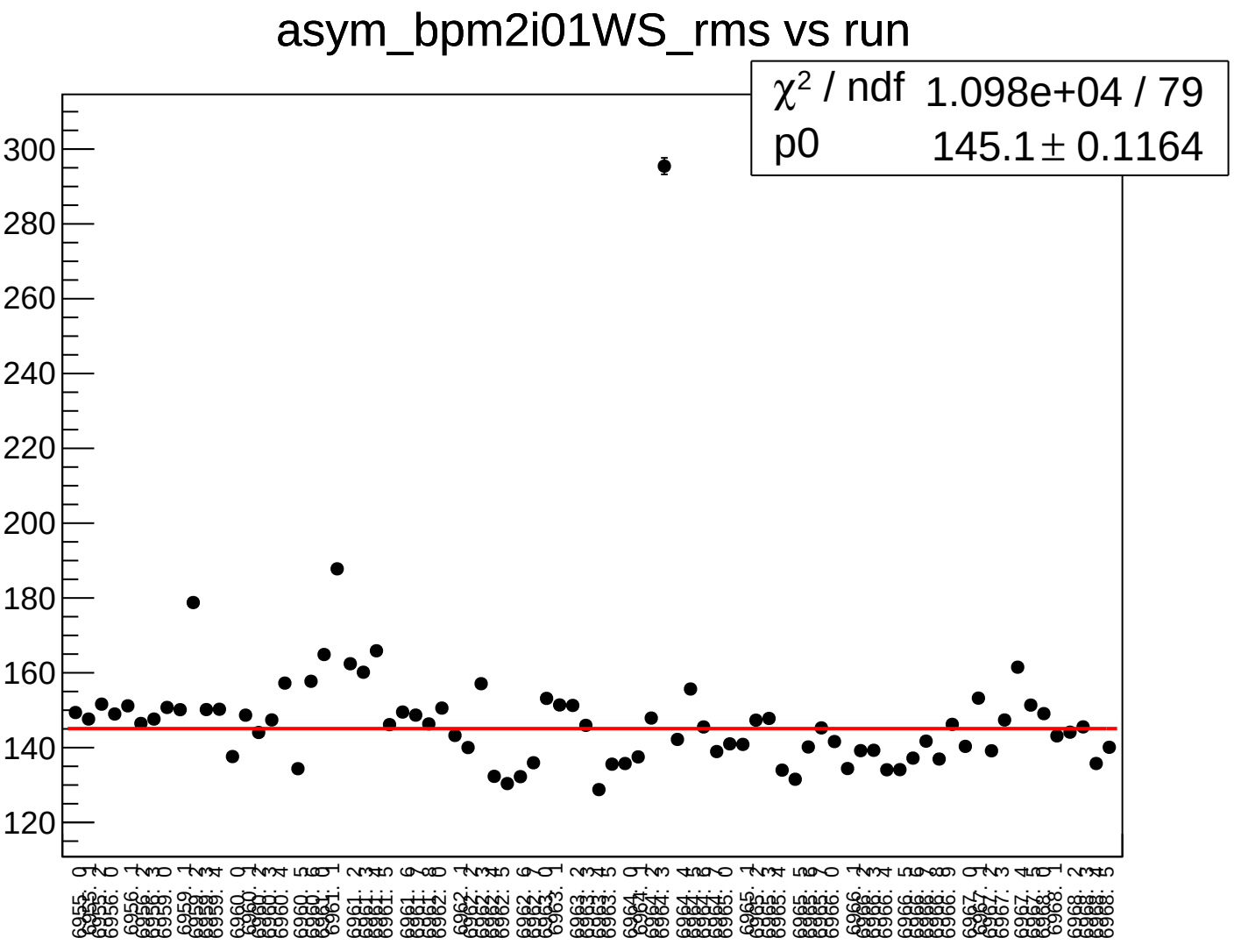

asym_bpm1i02WS_mean vs run
χ² / ndf 284.9 / 79
p0 4627 ± 162.9
pull
Entries 80
Mean 69.29
Std Dev 97.8

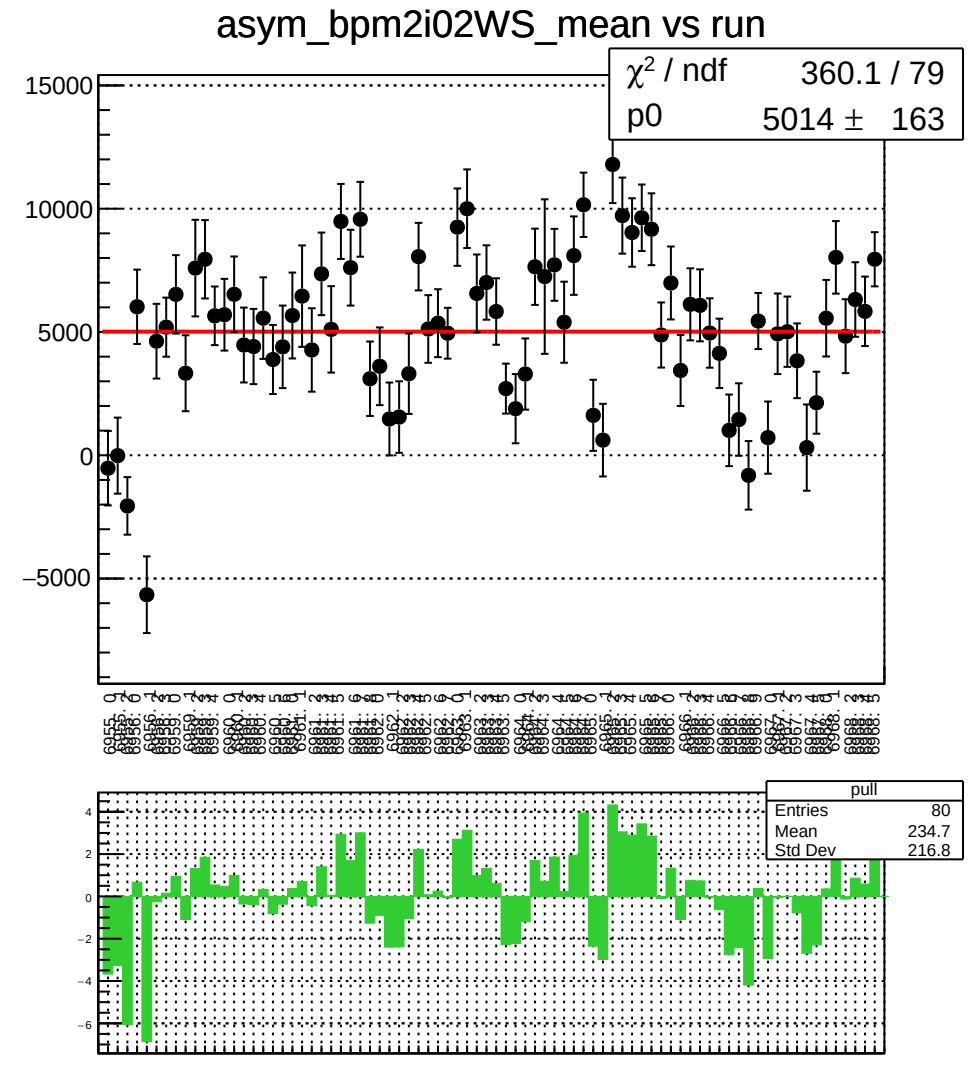

pull1D
Entries 80
Mean 0.02981
Std Dev 1.887

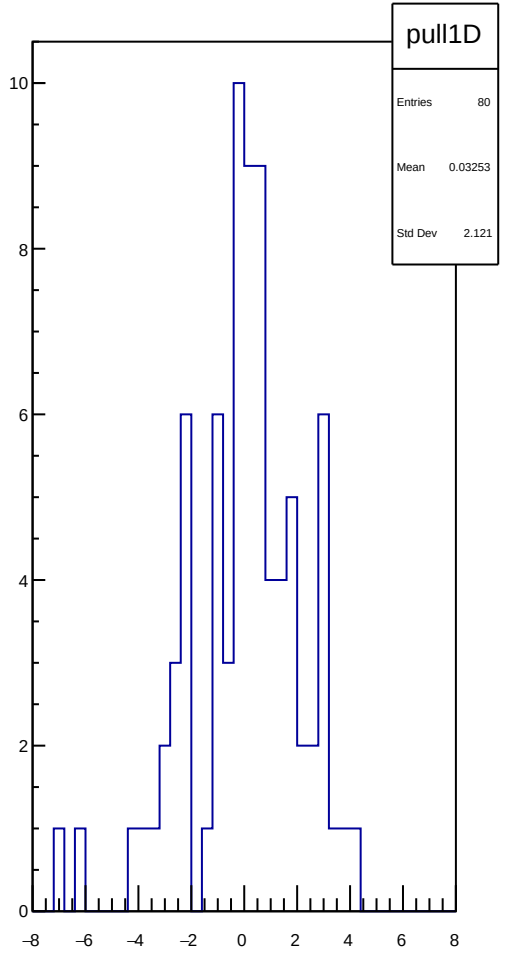

asym_bpm1i02WS_rms vs run
χ² / ndf 9488 / 79
p0 143.6 ± 0.1152
260
240
220
200
180
160
140
120

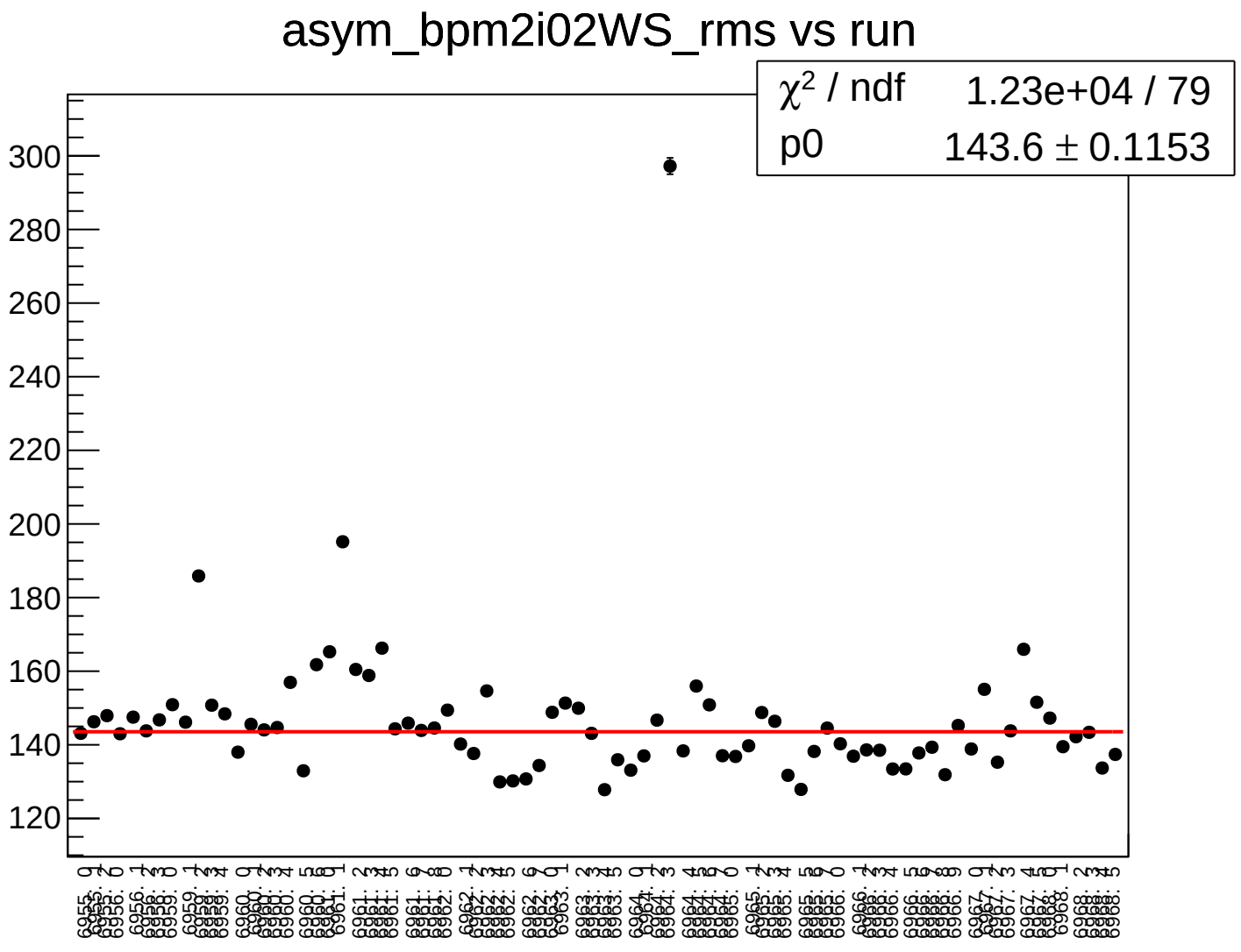

asym_bpm2i01WS_mean vs run
χ² / ndf 356.4 / 79
p0 5044 ± 164.7
15000
10000
5000
0
−5000
pull
Entries 80
Mean 237.3
Std Dev 223.1
4
2
0
−2
−4
−6

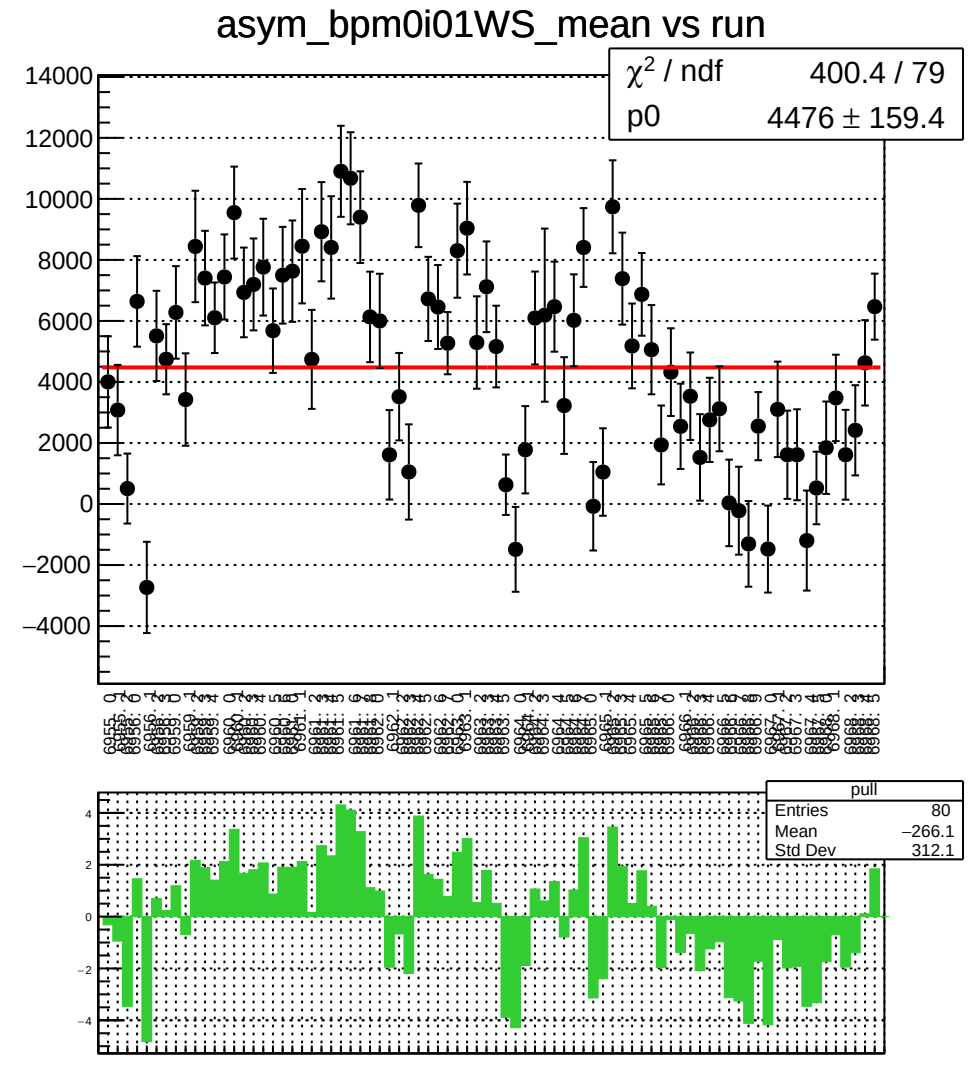

pull1D
Entries 80
Mean 0.02459
Std Dev 2.111
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

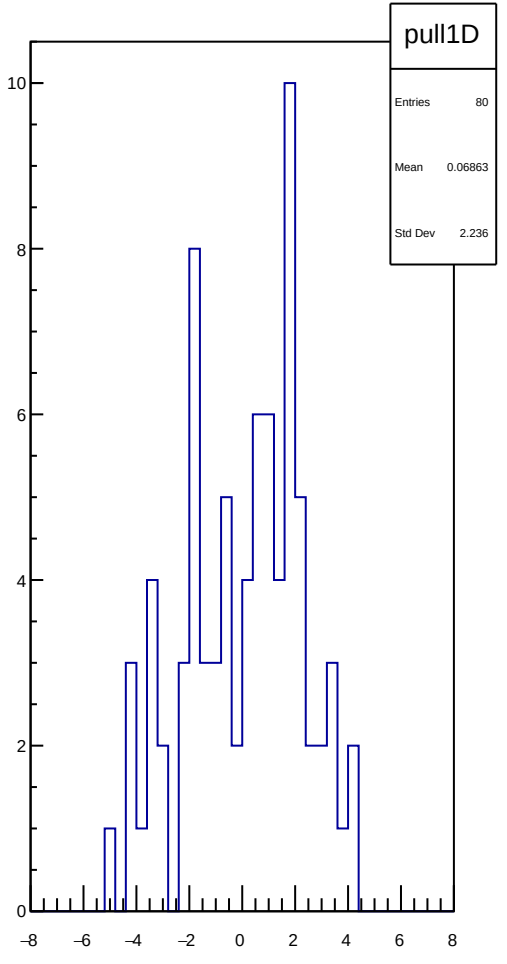

asym_bpm2i01WS_rms vs run
χ² / ndf 1.098e+04 / 79
p0 145.1 ± 0.1164
300
280
260
240
220
200
180
160
140
120

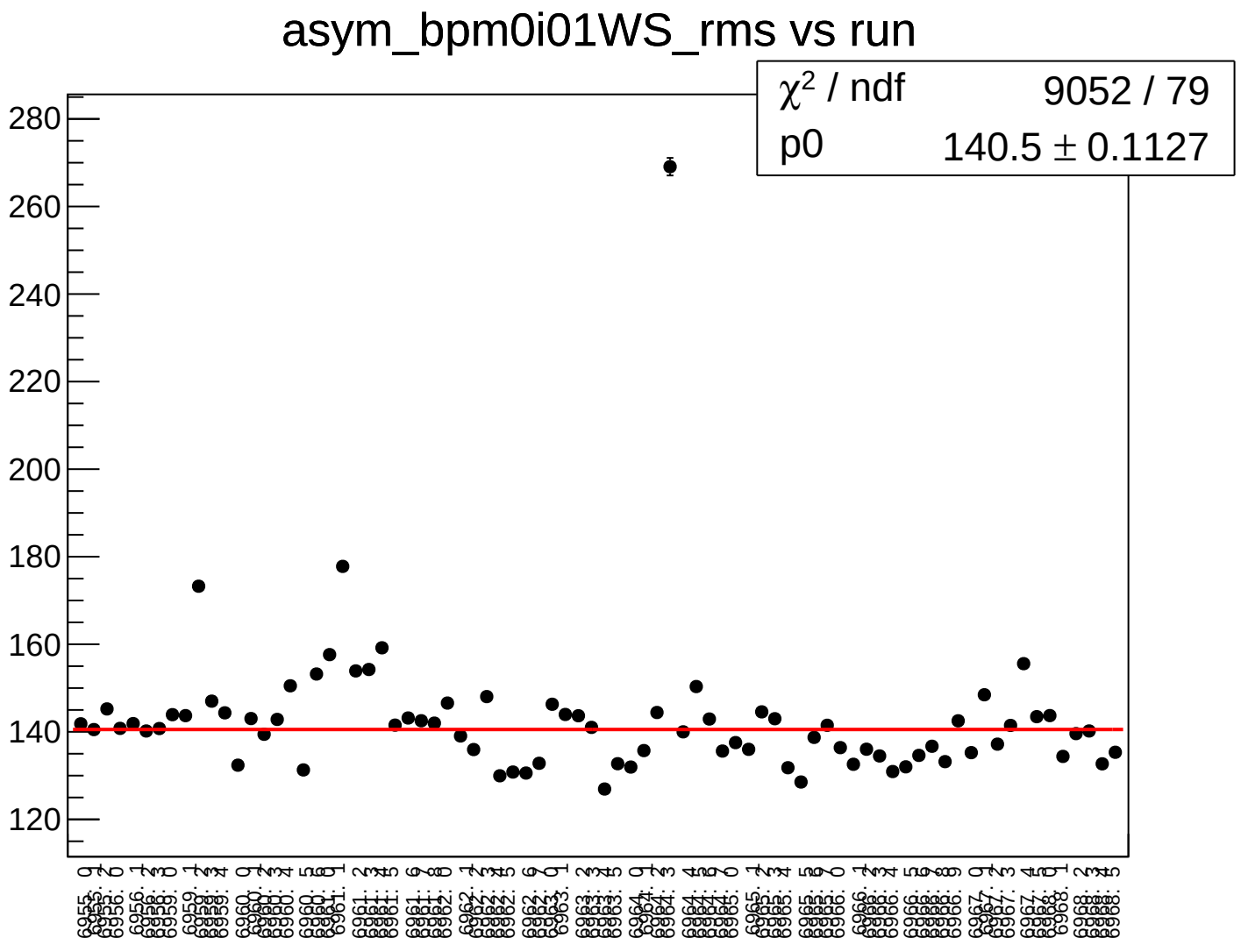

asym_bpm2i02WS_mean vs run
χ² / ndf 360.1 / 79
p0 5014 ± 163
15000
10000
5000
0
−5000
pull
Entries 80
Mean 234.7
Std Dev 216.8
4
2
0
−2
−4
−6

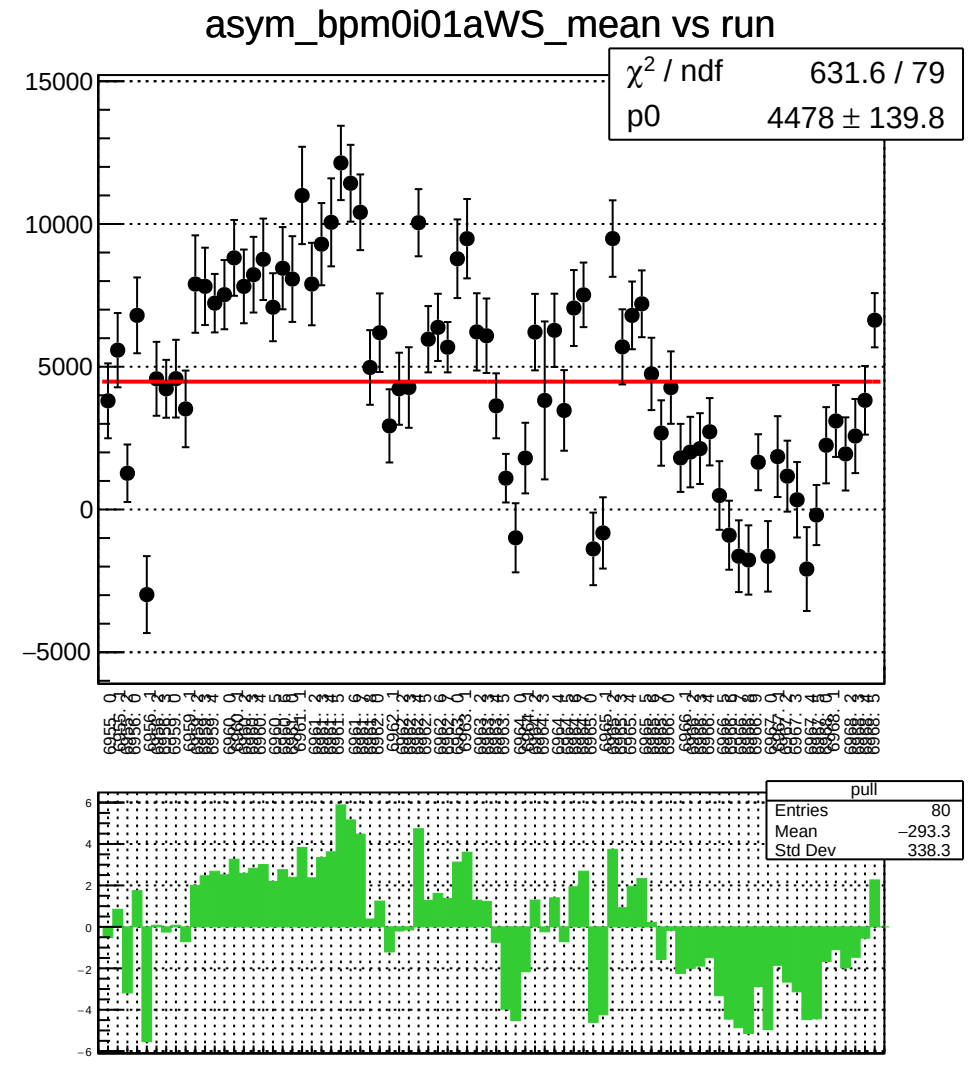

pull1D
Entries 80
Mean 0.03253
Std Dev 2.121
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

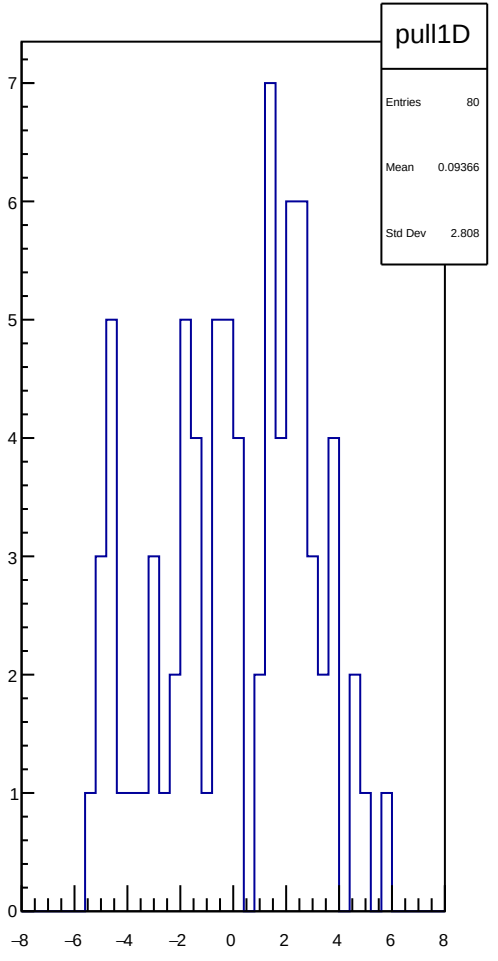

asym_bpm2i02WS_rms vs run
χ^2 / ndf 1.23e+04 / 79
p0 143.6 ± 0.1153
300
280
260
240
220
200
180
160
140
120

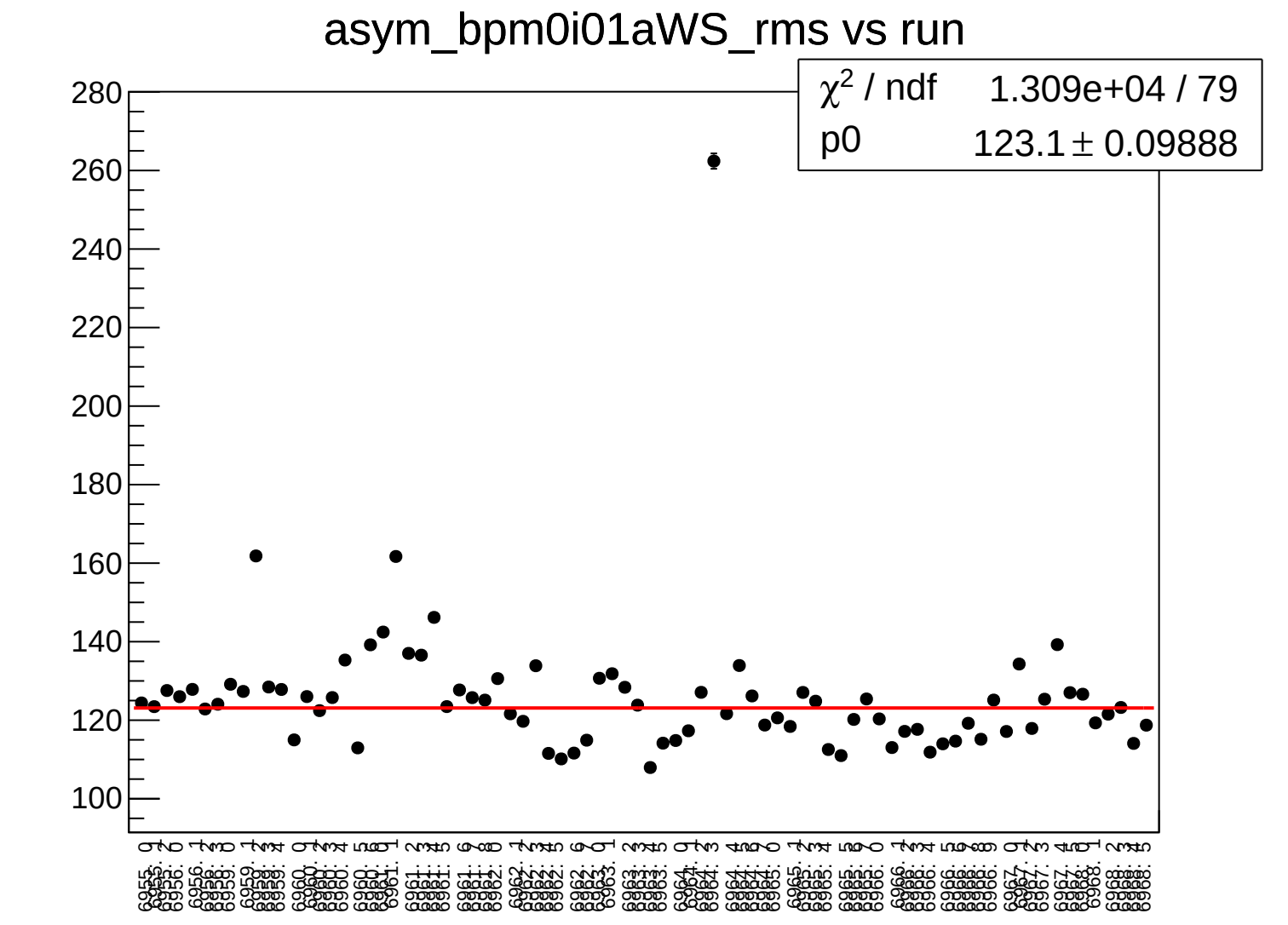

asym_bpm0i01WS_mean vs run
χ² / ndf 400.4 / 79
p0 4476 ± 159.4
pull
Entries 80
Mean −266.1
Std Dev 312.1

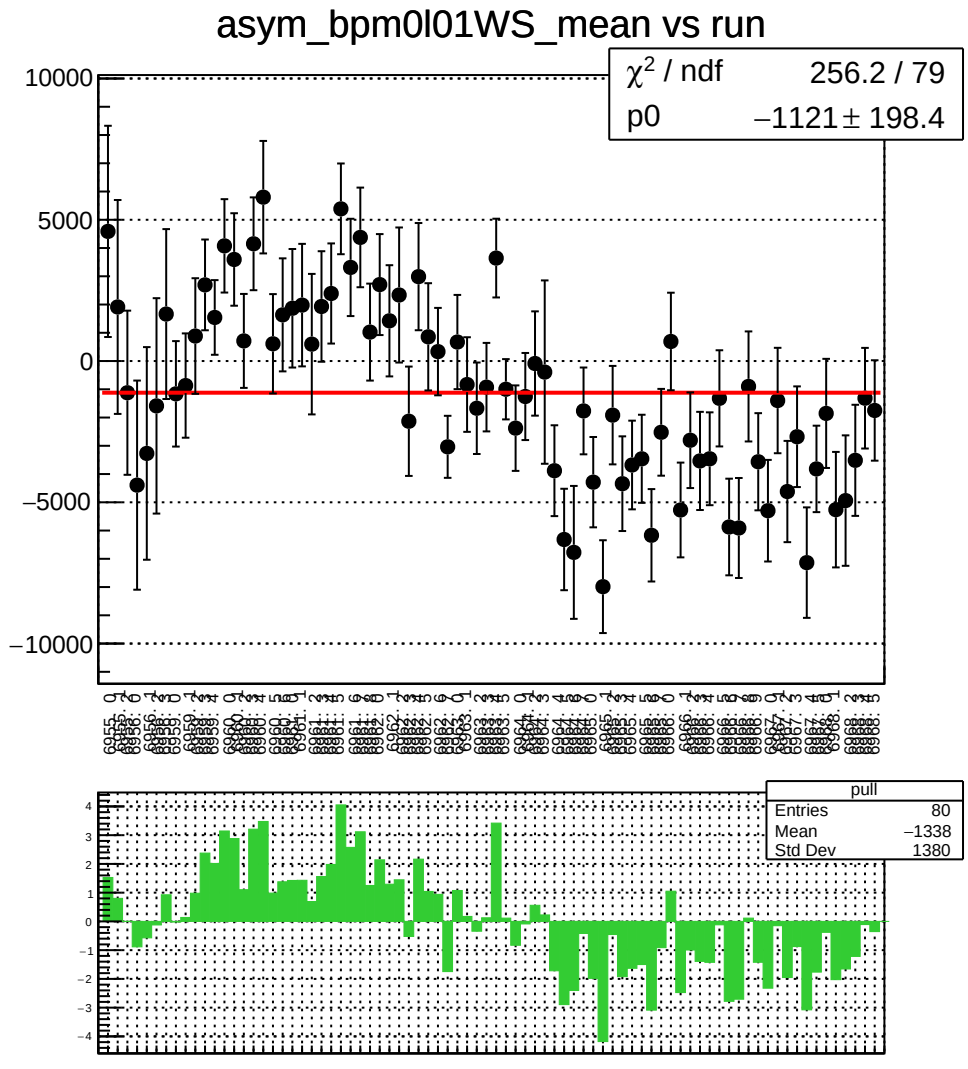

pull1D
Entries 80
Mean 0.06863
Std Dev 2.236

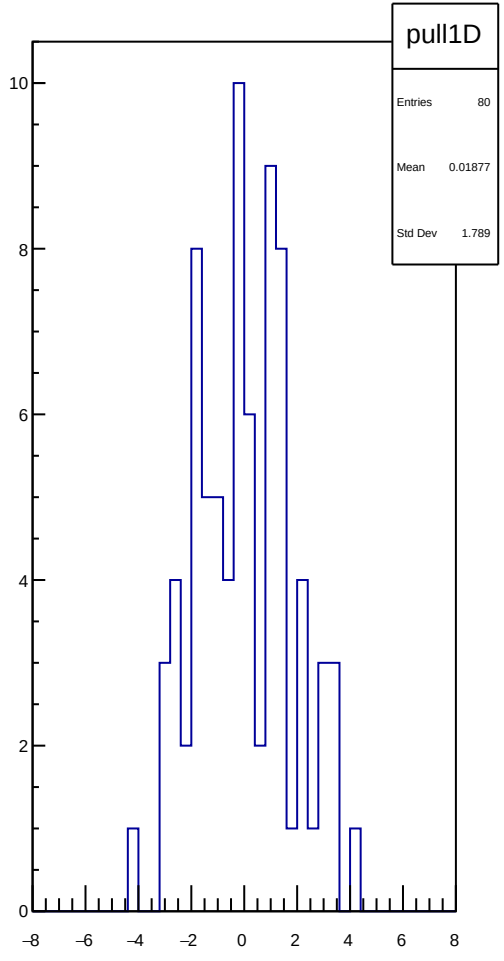

asym_bpm0i01WS_rms vs run
χ^2 / ndf 9052 / 79
p0 140.5 ± 0.1127
280
260
240
220
200
180
160
140
120

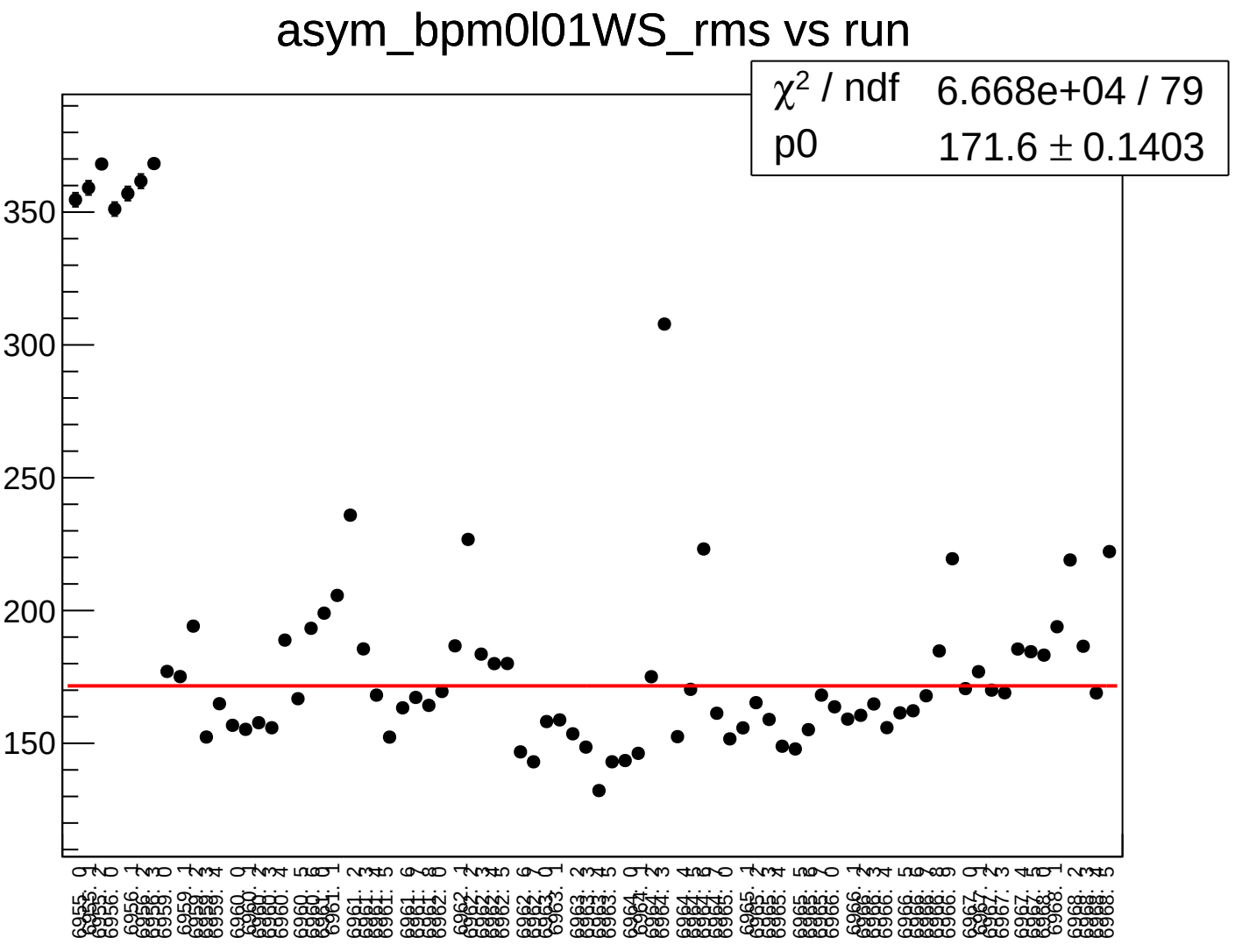

asym_bpm0i01aWS_mean vs run
χ² / ndf 631.6 / 79
p0 4478 ± 139.8
15000
10000
5000
0
−5000
pull
Entries 80
Mean −293.3
Std Dev 338.3
6
4
2
0
−2
−4
−6

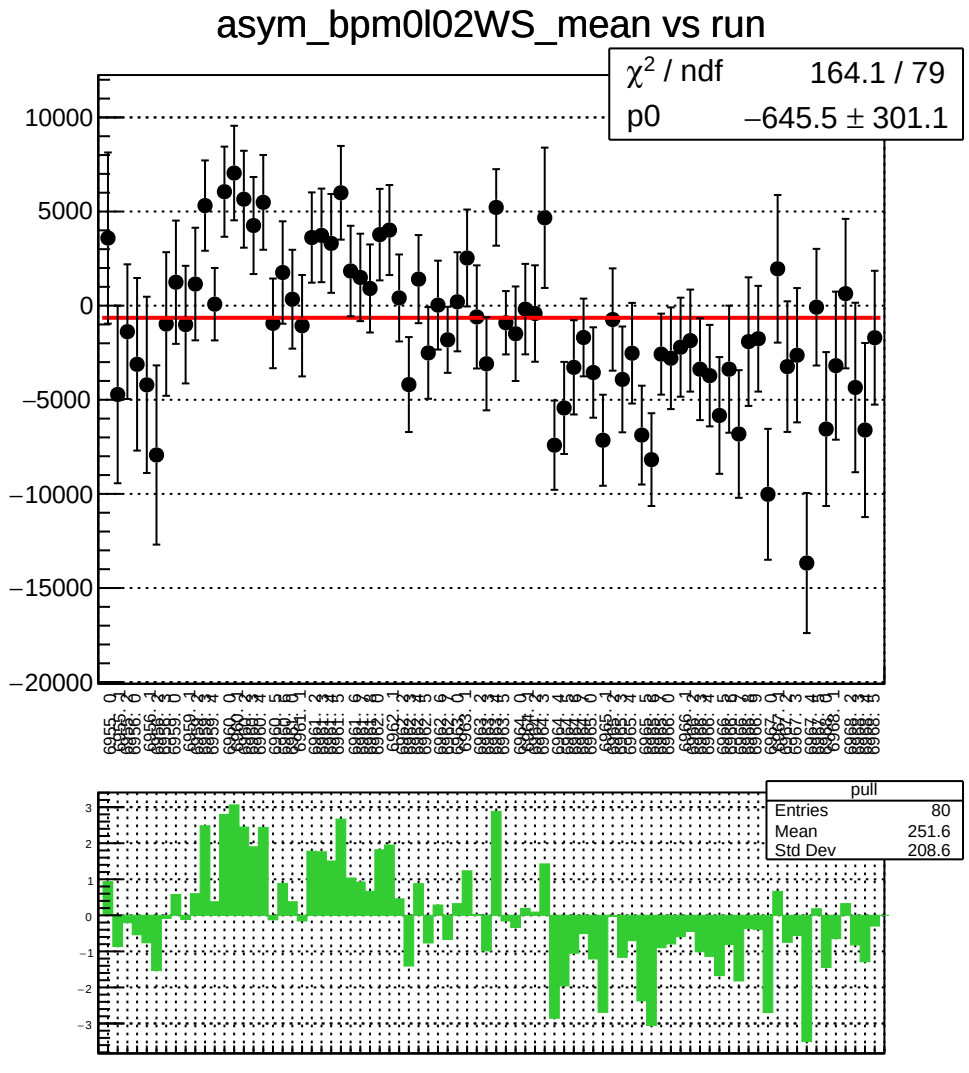

pull1D
Entries 80
Mean 0.09366
Std Dev 2.808
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

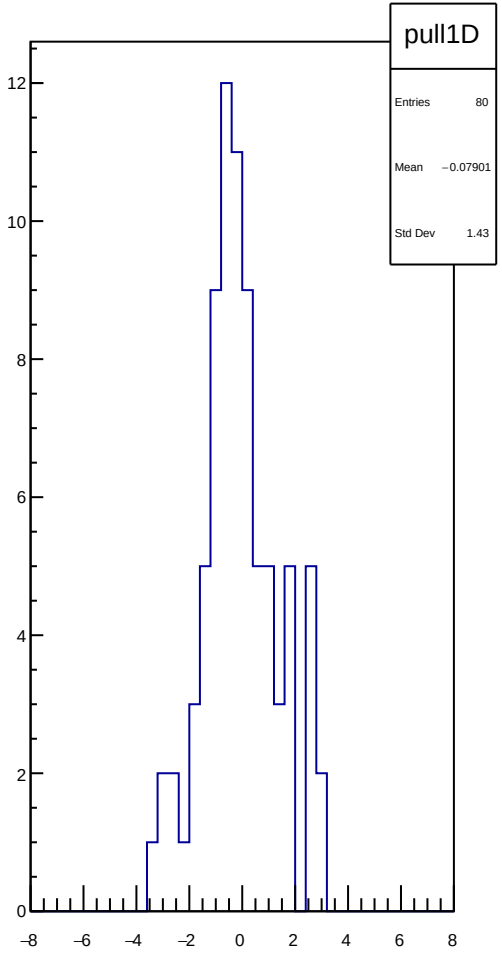

asym_bpm0i01aWS_rms vs run
χ^2 / ndf 1.309e+04 / 79
p0 123.1 ± 0.09888
280
260
240
220
200
180
160
140
120
100

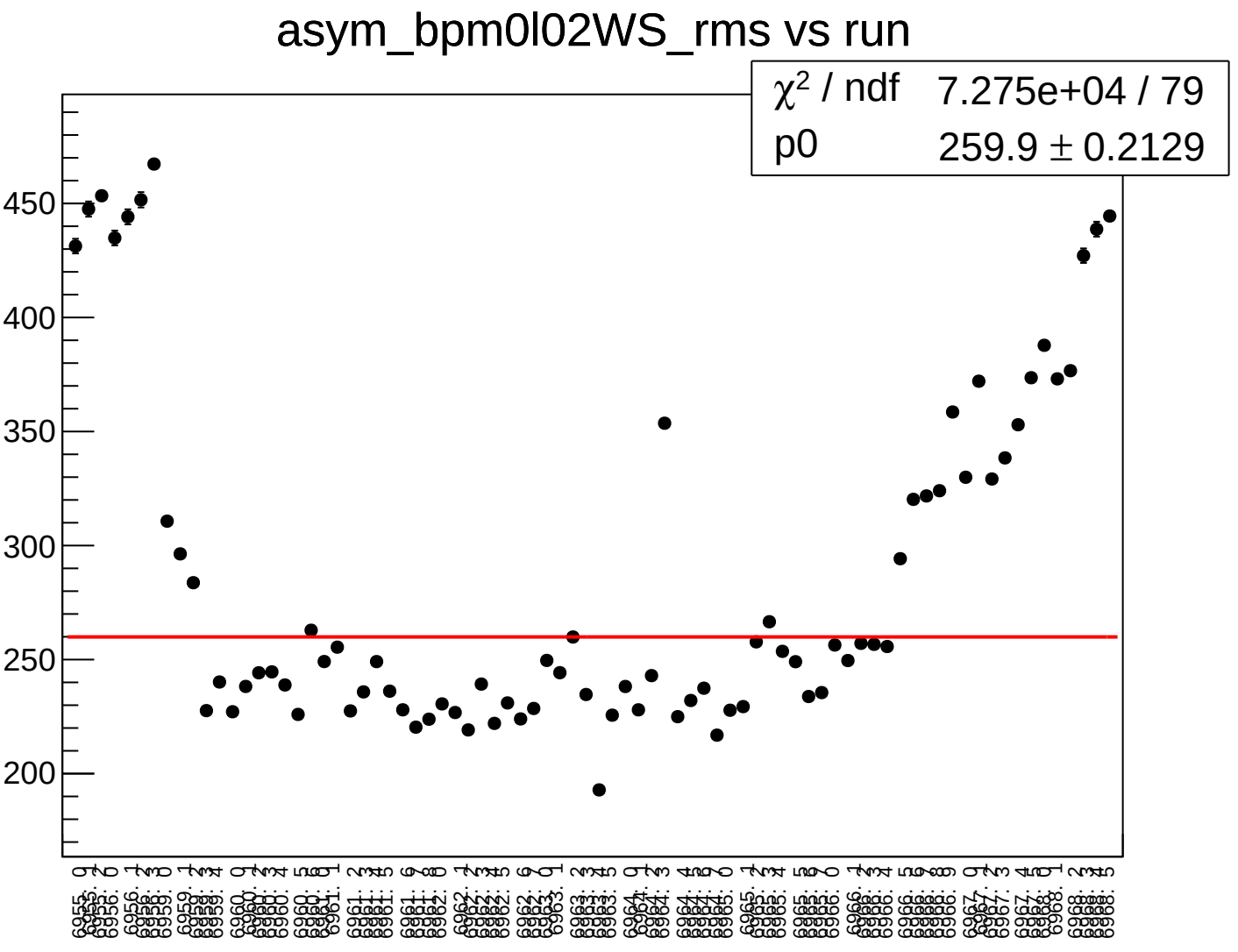

asym_bpm0l01WS_mean vs run
χ² / ndf 256.2 / 79
p0 −1121 ± 198.4
10000
5000
0
−5000
−10000
pull
Entries 80
Mean −1338
Std Dev 1380
4
3
2
1
0
−1
−2
−3
−4

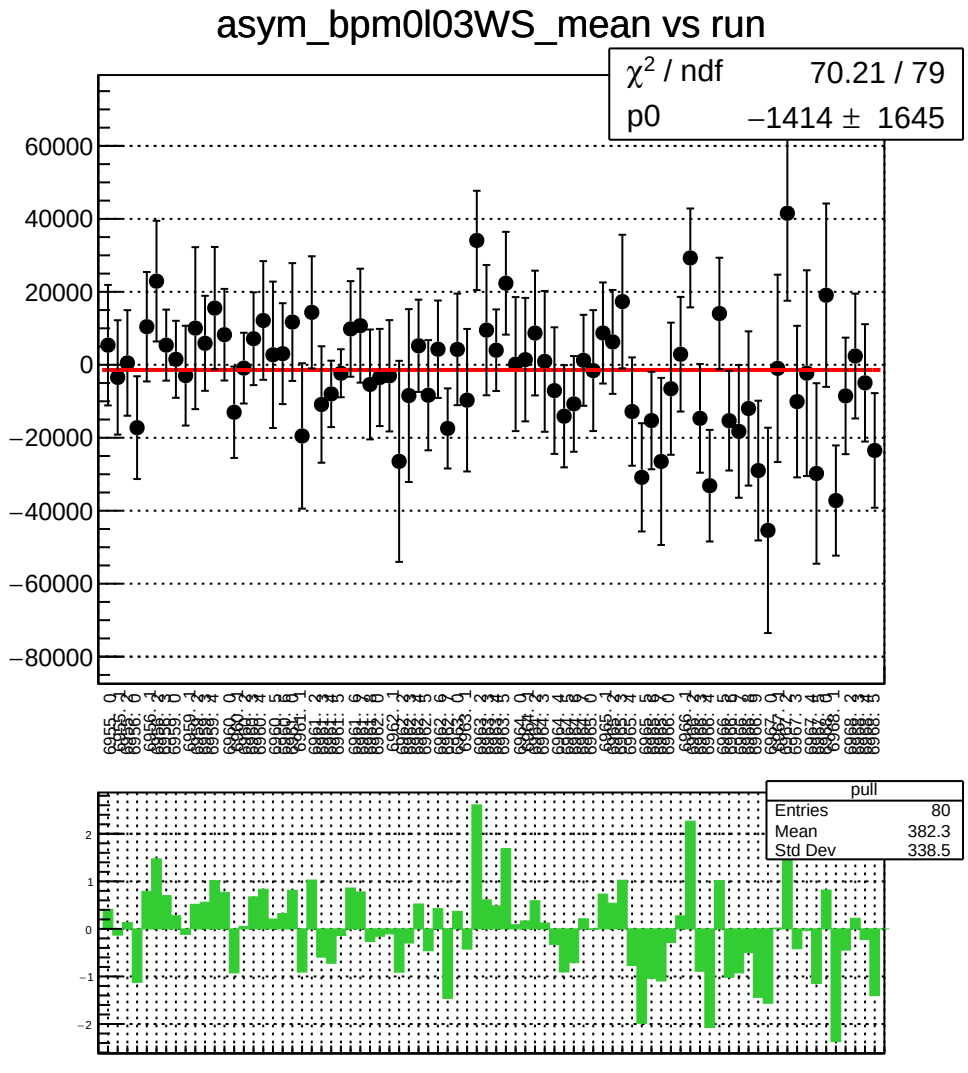

pull1D
Entries 80
Mean 0.01877
Std Dev 1.789
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

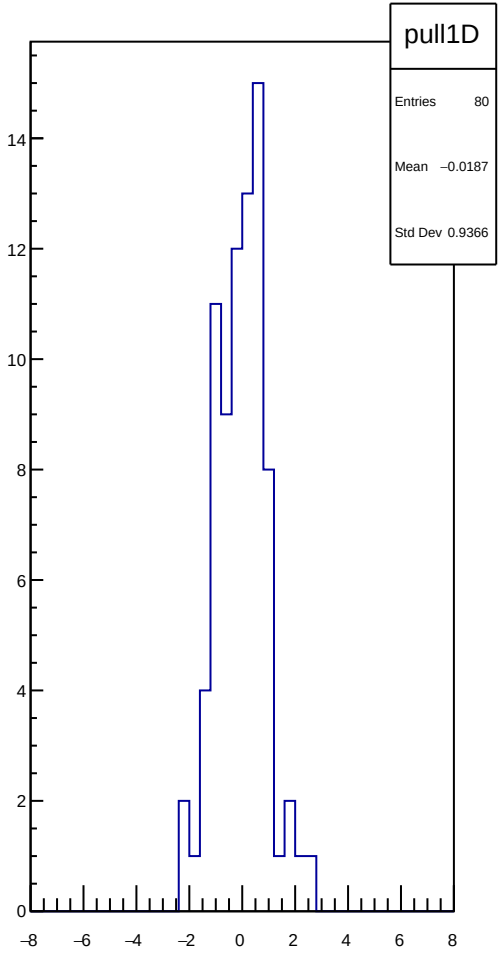

asym_bpm0l01WS_rms vs run
χ² / ndf 6.668e+04 / 79
p0 171.6 ± 0.1403
350
300
250
200
150

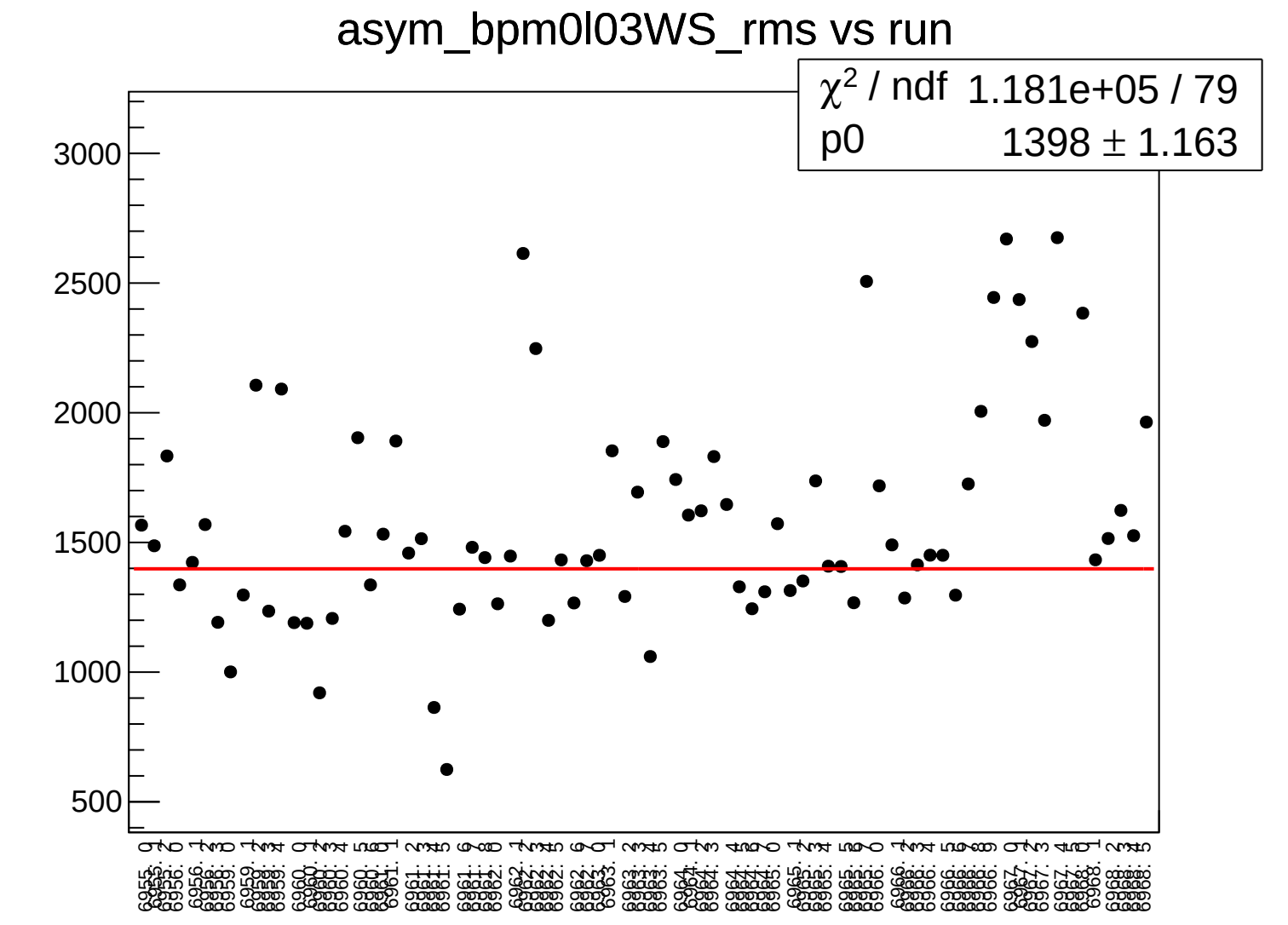

asym_bpm0l02WS_mean vs run
χ² / ndf 164.1 / 79
p0 −645.5 ± 301.1
pull
Entries 80
Mean 251.6
Std Dev 208.6

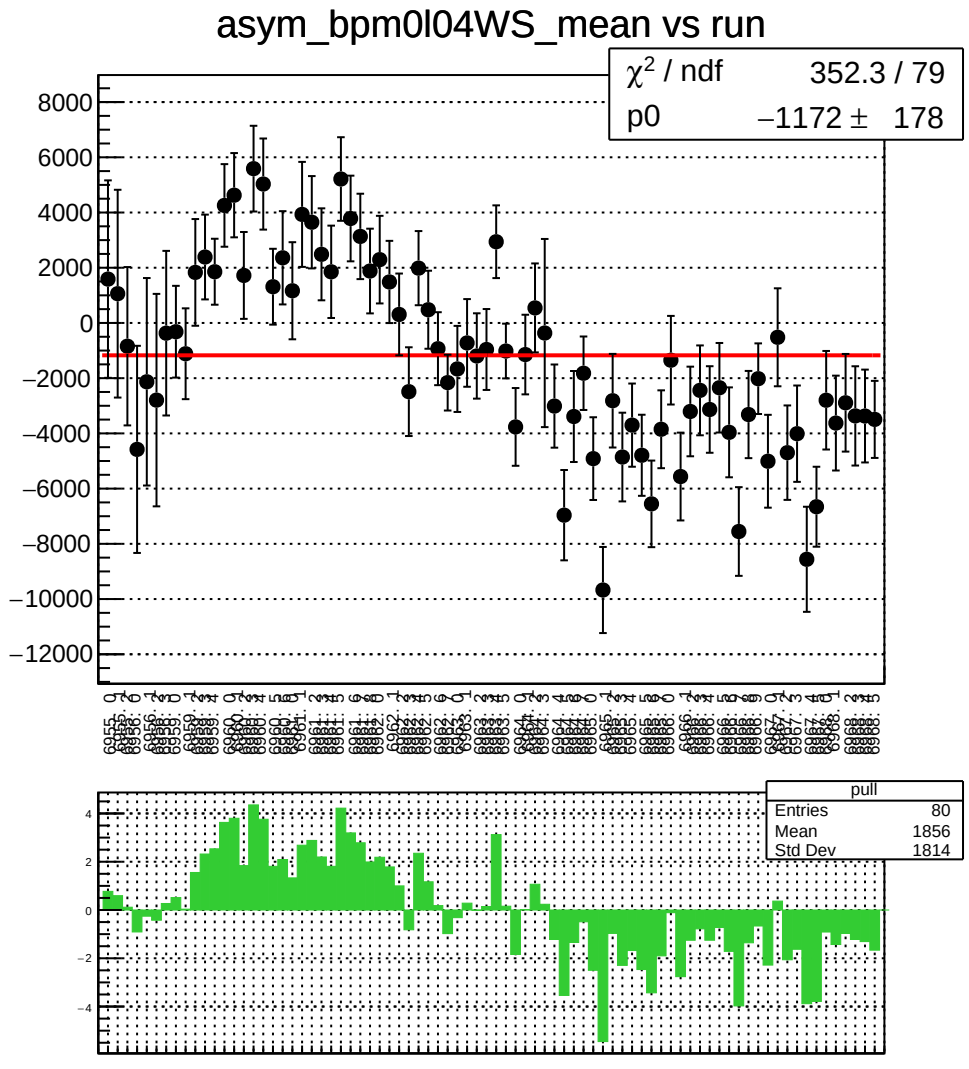

pull1D
Entries 80
Mean −0.07901
Std Dev 1.43

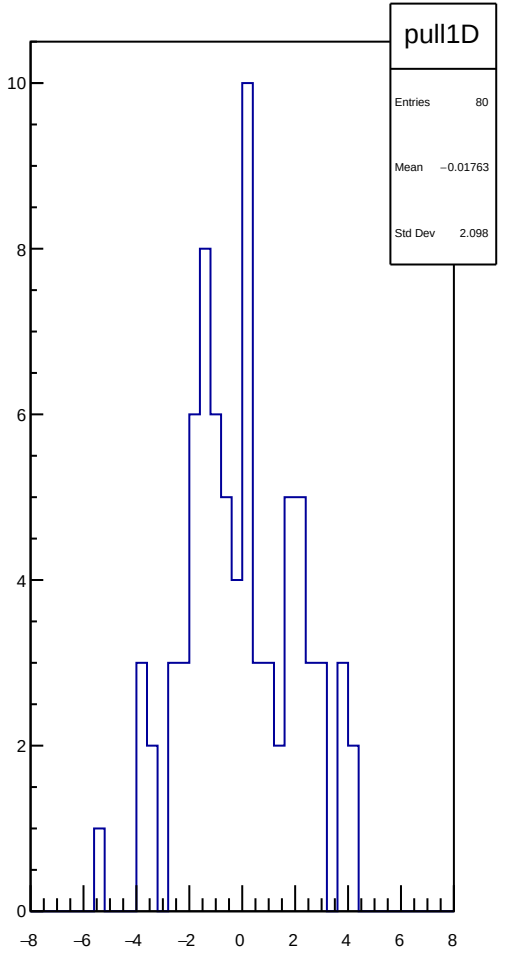

asym_bpm0l02WS_rms vs run
χ² / ndf 7.275e+04 / 79
p0 259.9 ± 0.2129
450
400
350
300
250
200

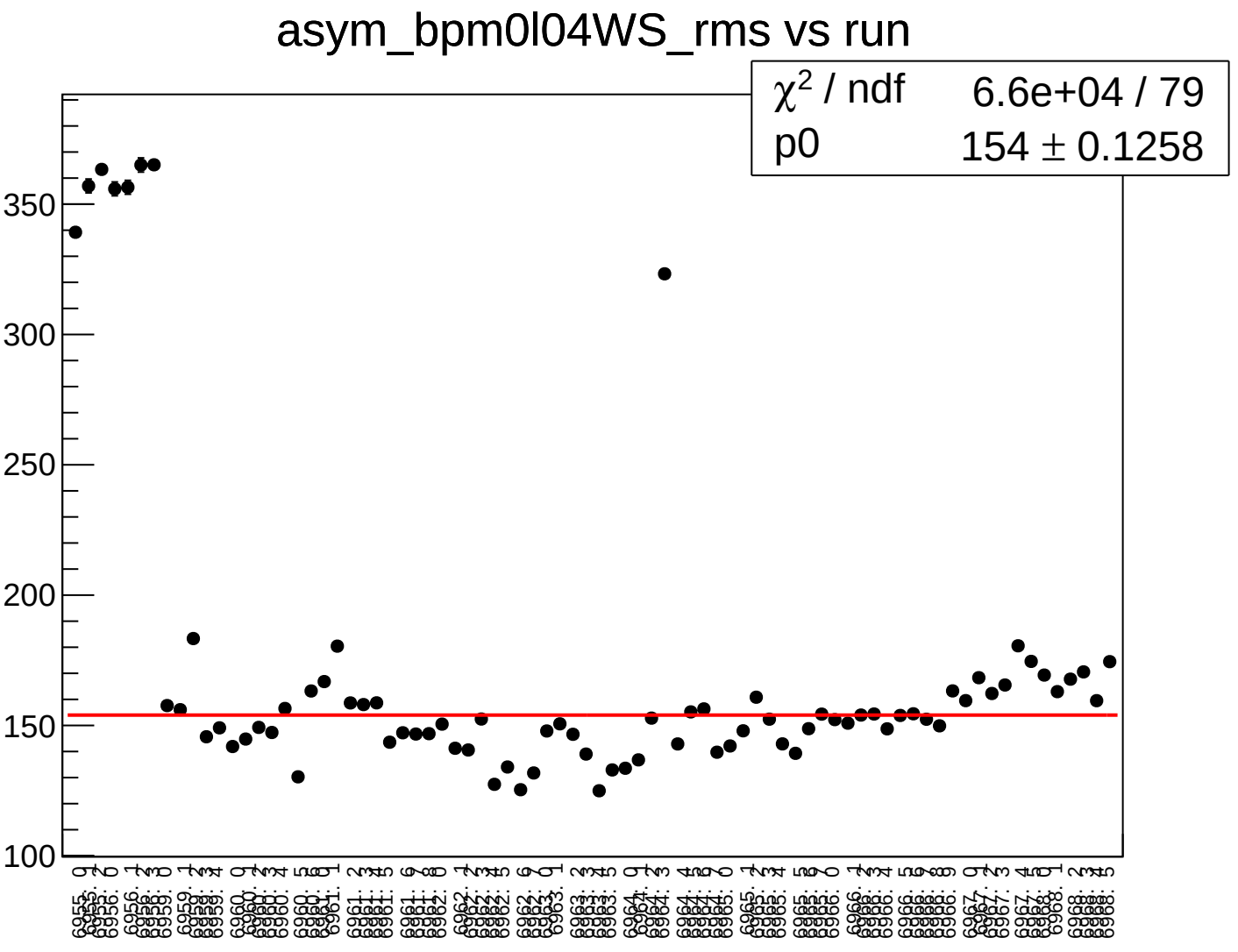

asym_bpm0l03WS_mean vs run
χ² / ndf 70.21 / 79
p0 −1414 ± 1645
pull
Entries 80
Mean 382.3
Std Dev 338.5

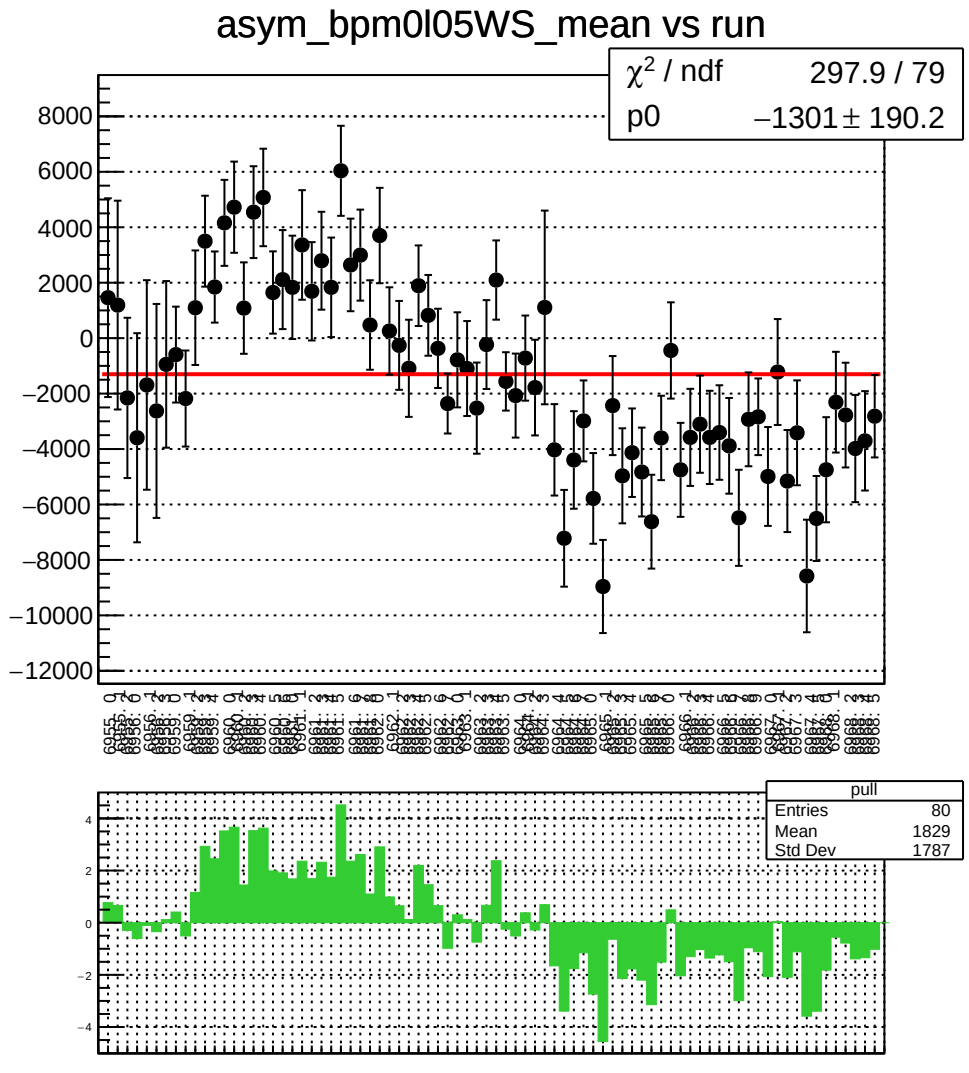

pull1D
Entries 80
Mean −0.0187
Std Dev 0.9366

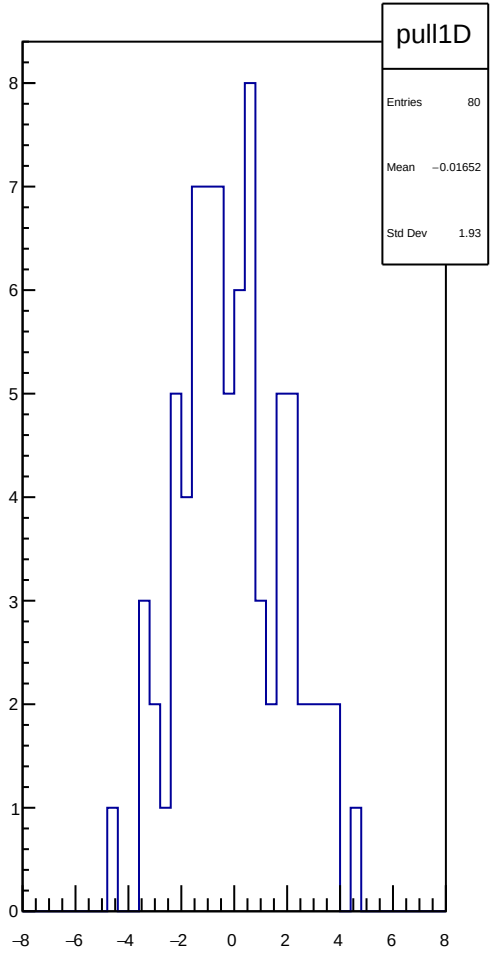

asym_bpm0l03WS_rms vs run
χ^2 / ndf 1.181e+05 / 79
p0 1398 ± 1.163
3000
2500
2000
1500
1000
500

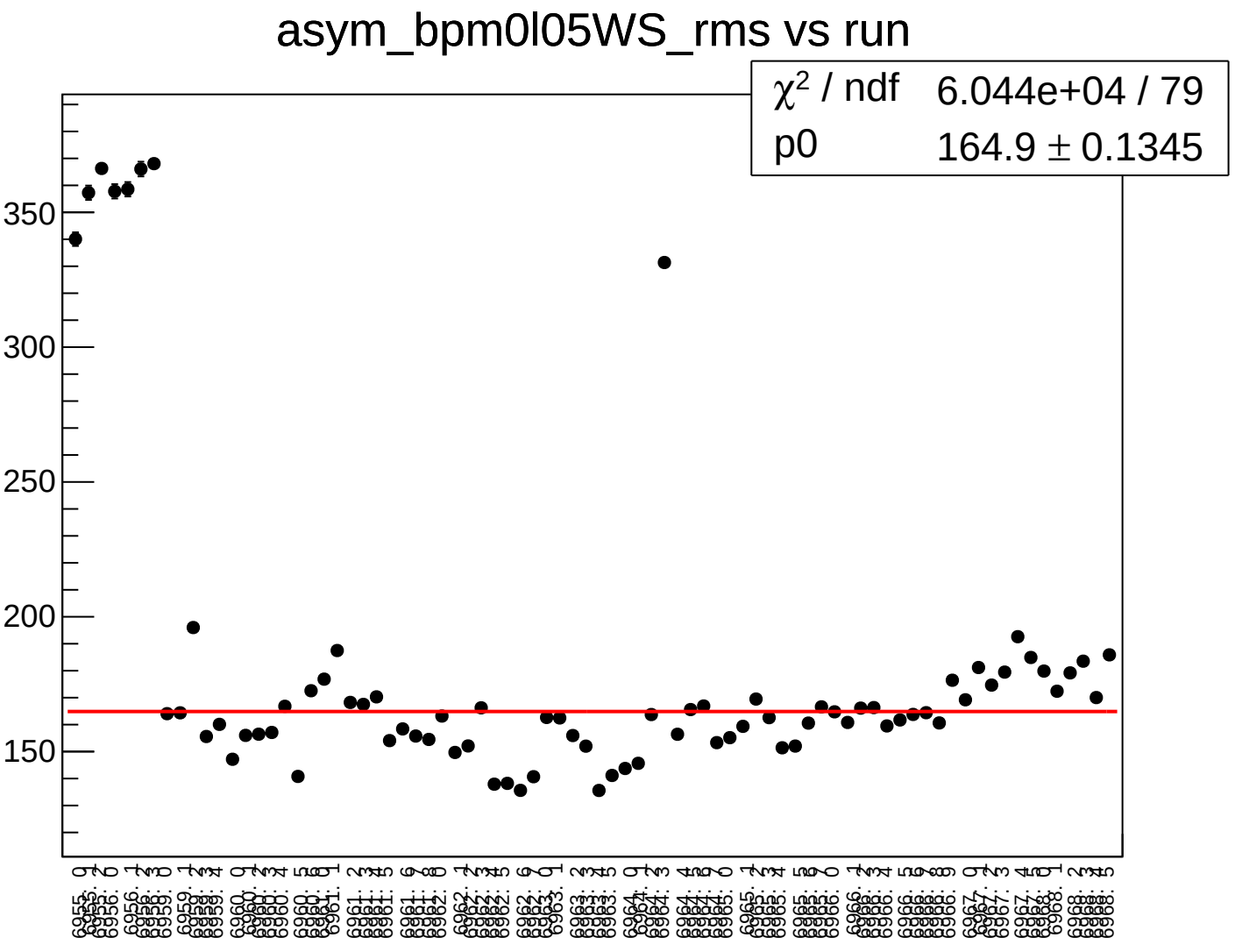

asym_bpm0l04WS_mean vs run
χ² / ndf 352.3 / 79
p0 −1172 ± 178
pull
Entries 80
Mean 1856
Std Dev 1814

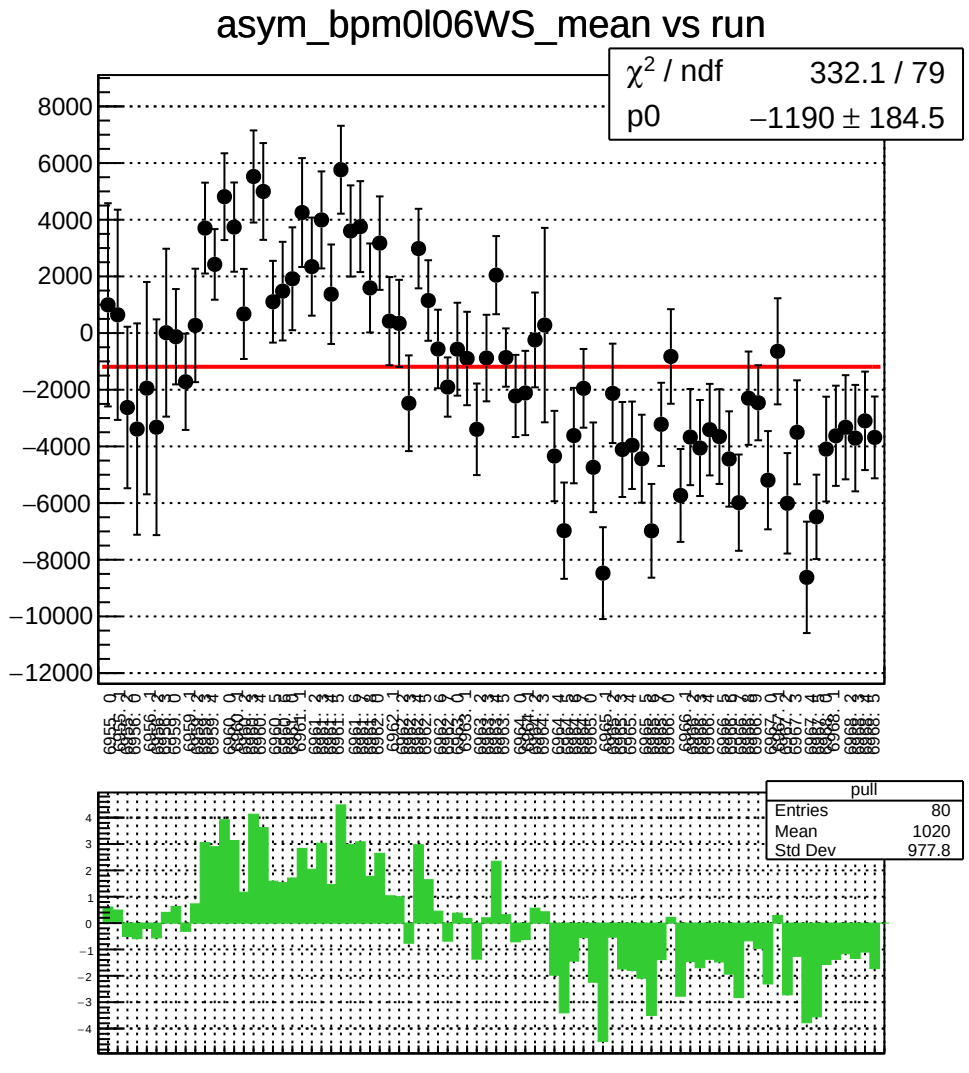

pull1D
Entries 80
Mean −0.01763
Std Dev 2.098

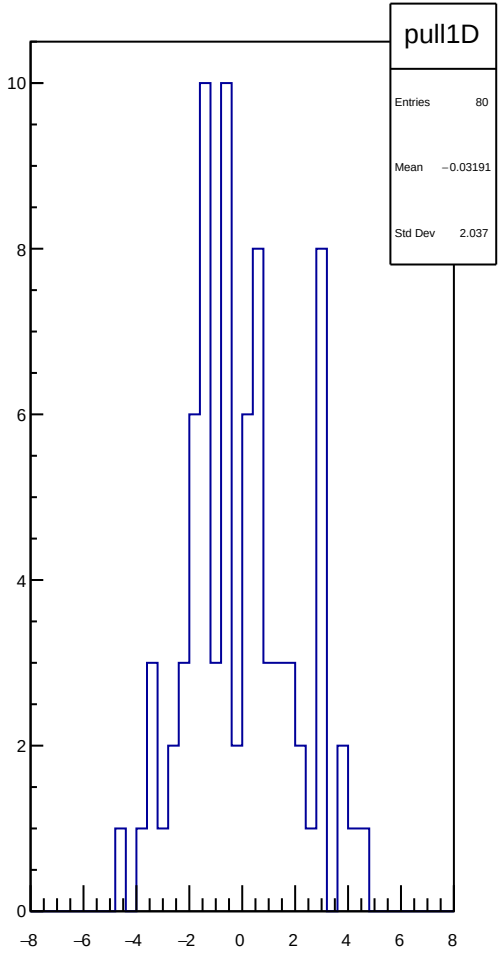

asym_bpm0l04WS_rms vs run
χ² / ndf 6.6e+04 / 79
p0 154 ± 0.1258
350
300
250
200
150
100

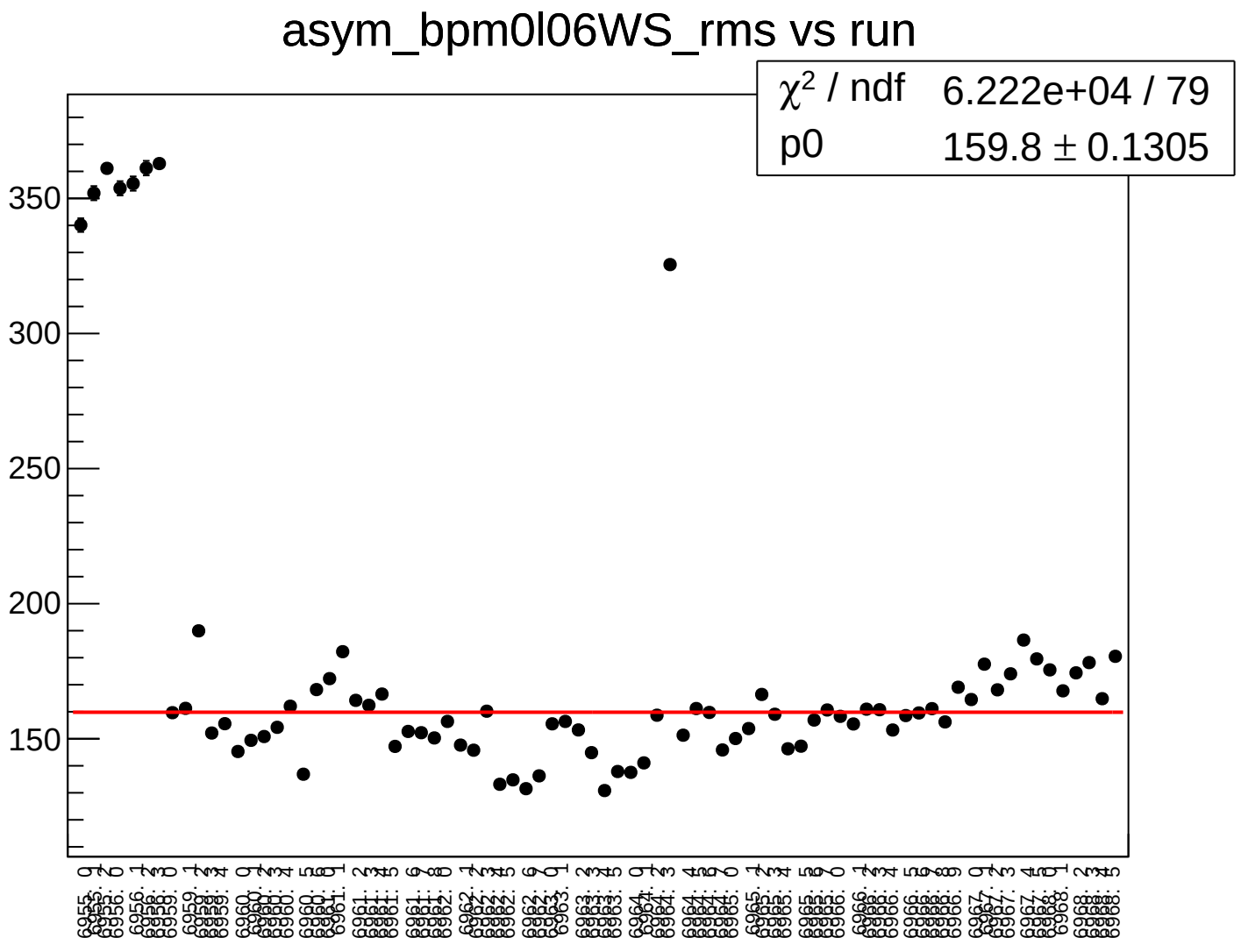

asym_bpm0l05WS_mean vs run
χ² / ndf 297.9 / 79
p0 −1301 ± 190.2
pull
Entries 80
Mean 1829
Std Dev 1787

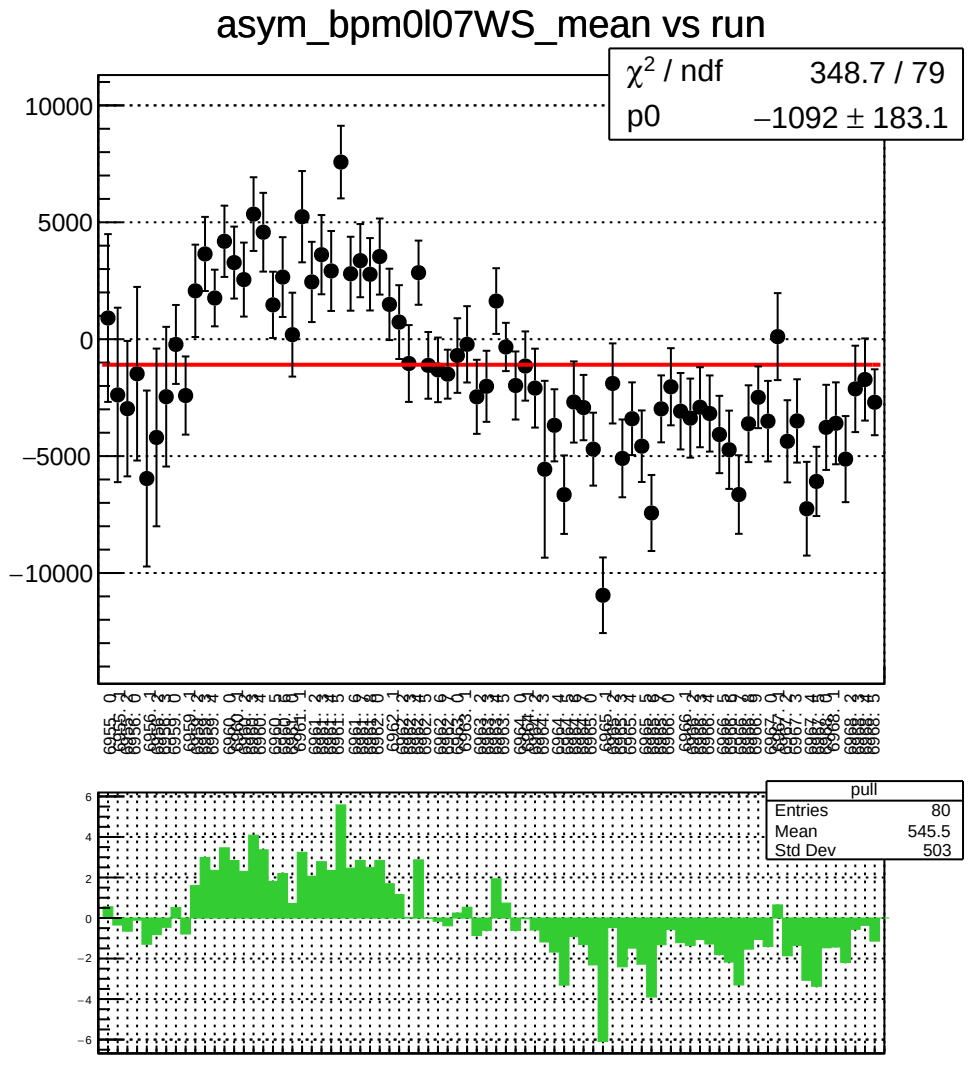

pull1D
Entries 80
Mean −0.01652
Std Dev 1.93

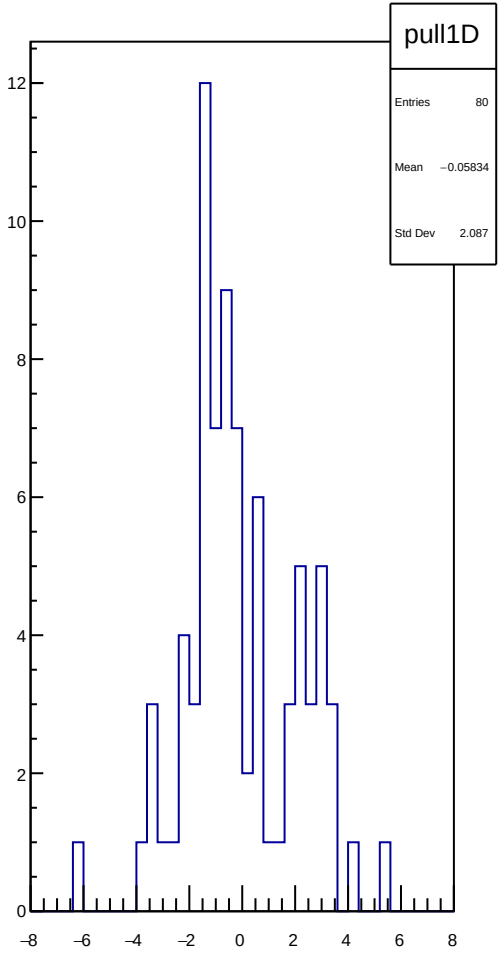

asym_bpm0l05WS_rms vs run
χ² / ndf 6.044e+04 / 79
p0 164.9 ± 0.1345
350
300
250
200
150

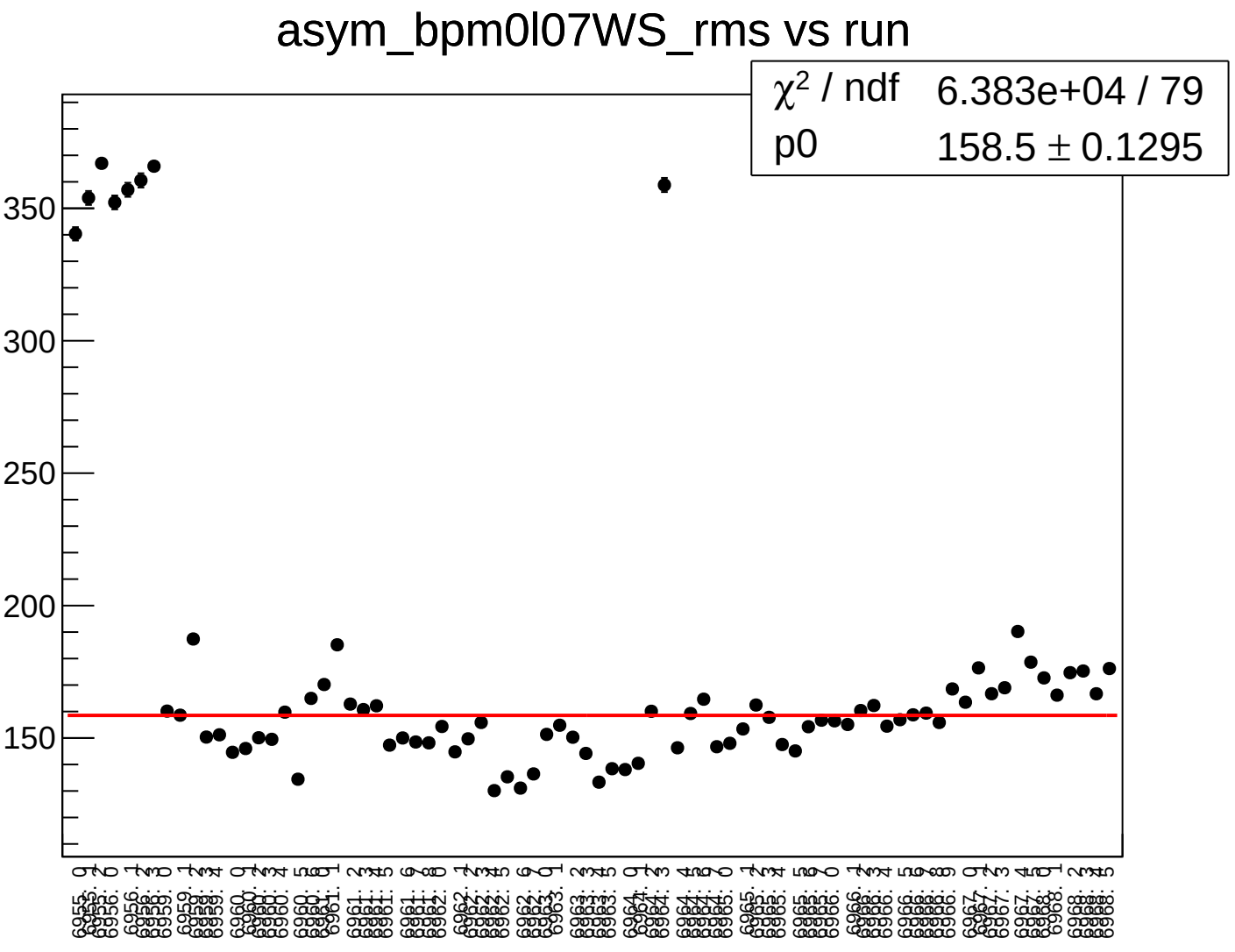

asym_bpm0l06WS_mean vs run
χ² / ndf 332.1 / 79
p0 −1190 ± 184.5
pull
Entries 80
Mean 1020
Std Dev 977.8

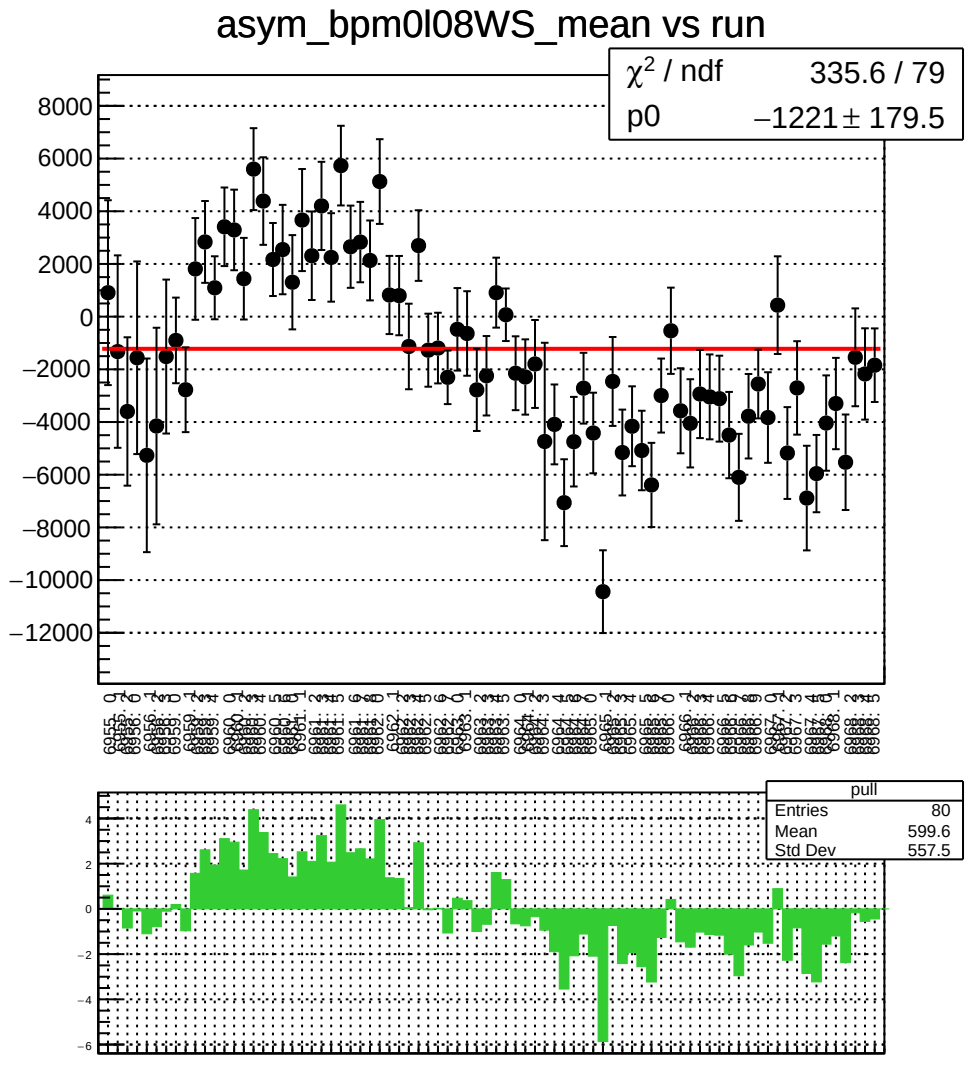

pull1D
Entries 80
Mean −0.03191
Std Dev 2.037

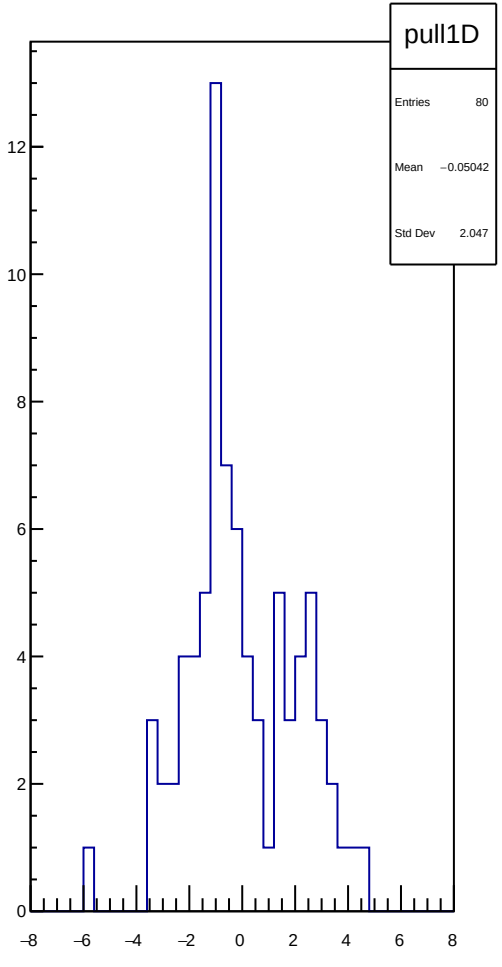

asym_bpm0l06WS_rms vs run
χ^2 / ndf 6.222e+04 / 79
p0 159.8 ± 0.1305
350
300
250
200
150

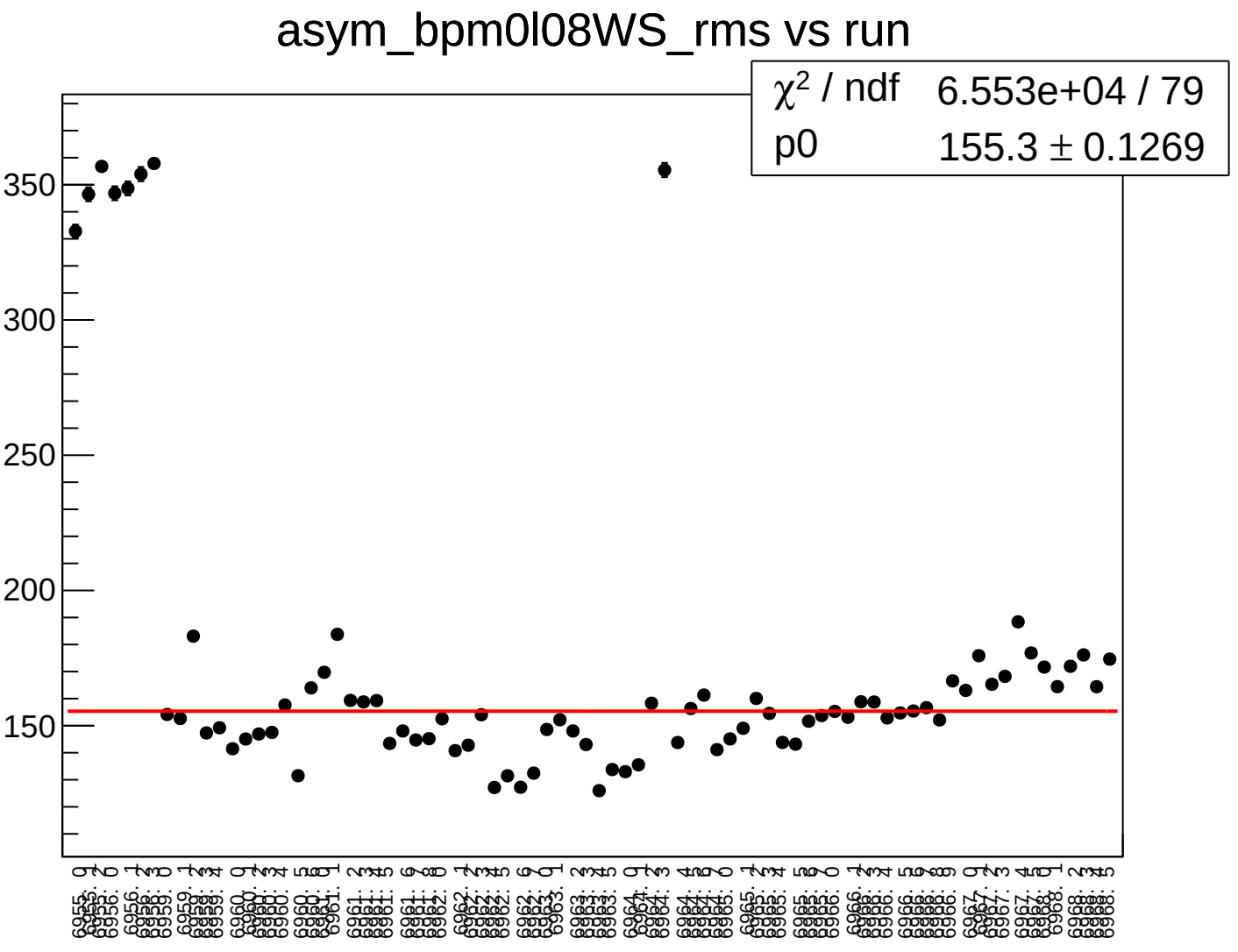

asym_bpm0l07WS_mean vs run
χ² / ndf 348.7 / 79
p0 −1092 ± 183.1
10000
5000
0
−5000
−10000
pull
Entries 80
Mean 545.5
Std Dev 503
6
4
2
0
−2
−4
−6

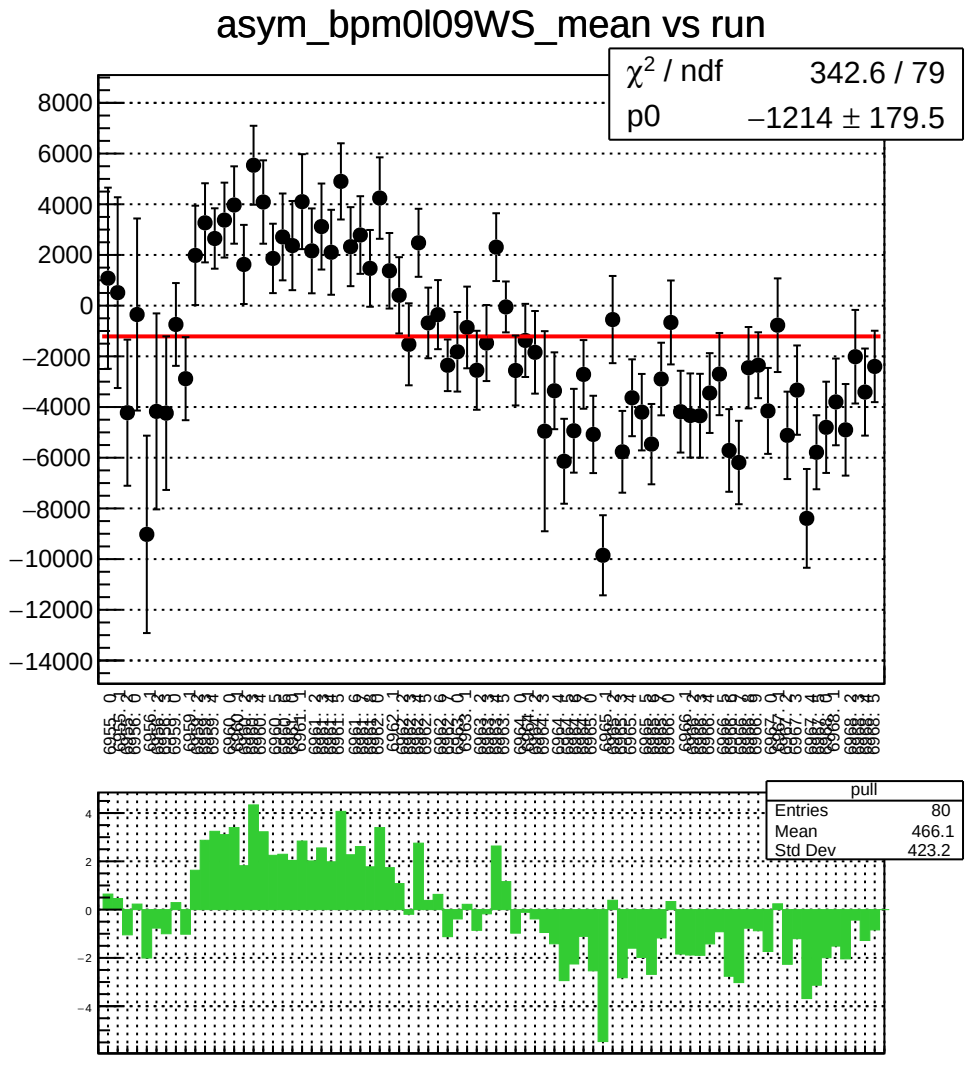

pull1D
Entries 80
Mean −0.05834
Std Dev 2.087
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

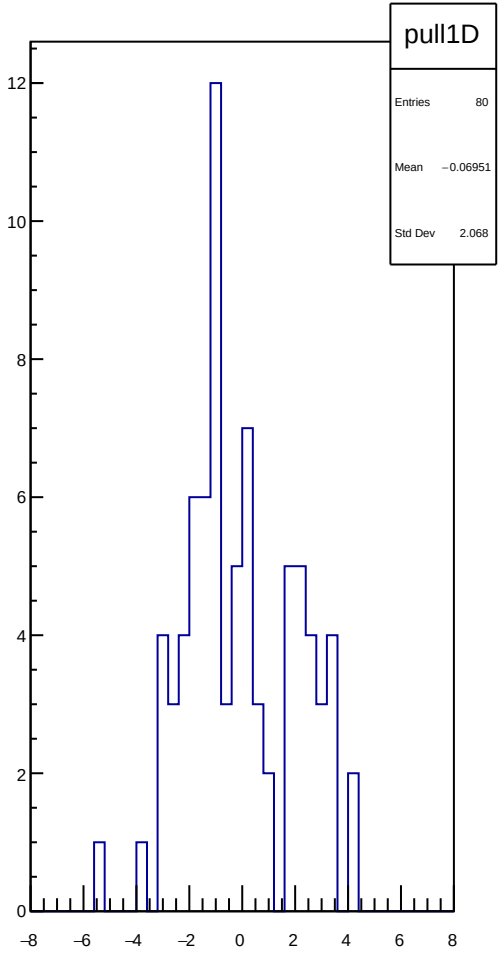

asym_bpm0l07WS_rms vs run
χ² / ndf 6.383e+04 / 79
p0 158.5 ± 0.1295
350
300
250
200
150

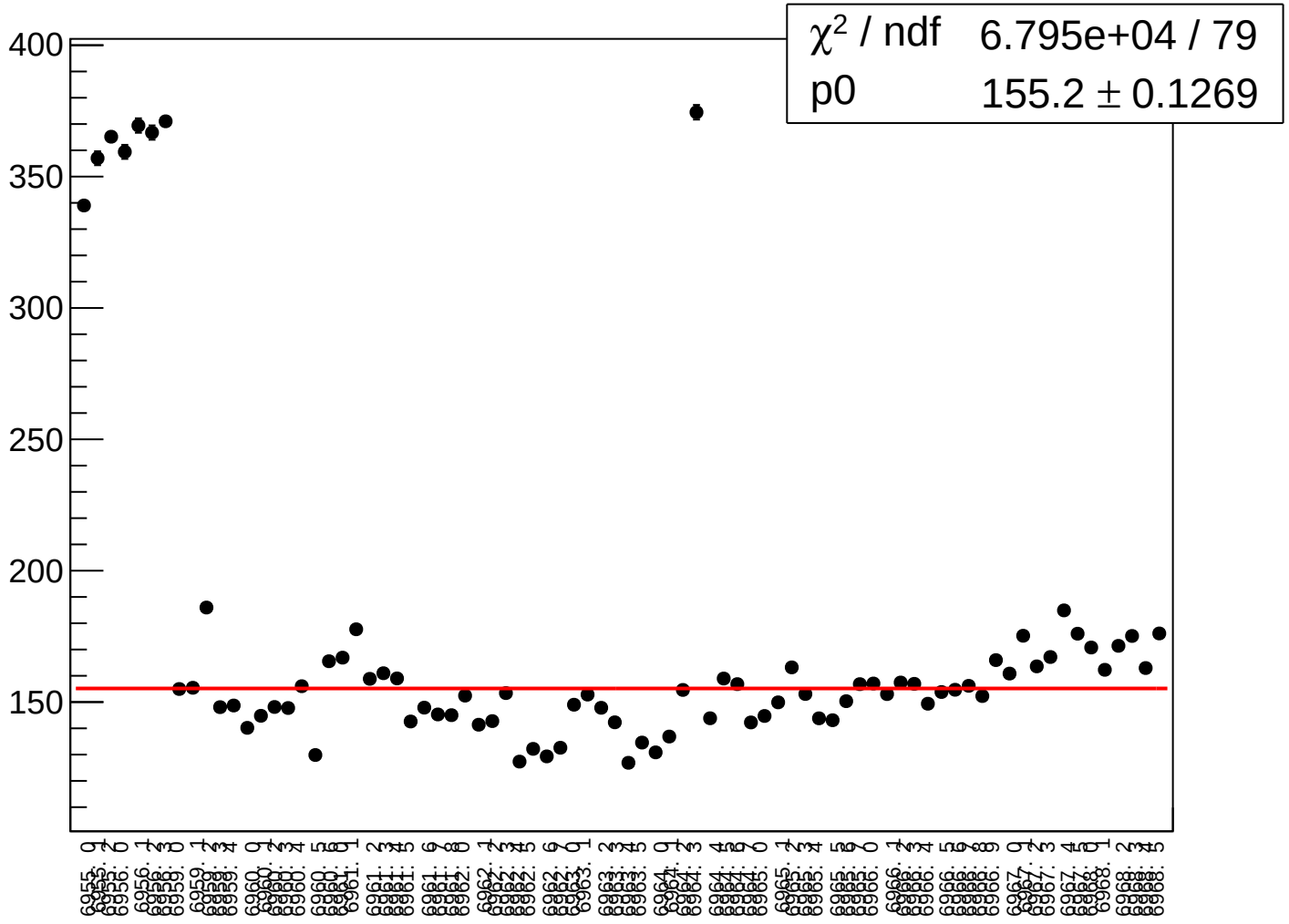

asym_bpm0l08WS_mean vs run
χ² / ndf 335.6 / 79
p0 −1221 ± 179.5
pull
Entries 80
Mean 599.6
Std Dev 557.5

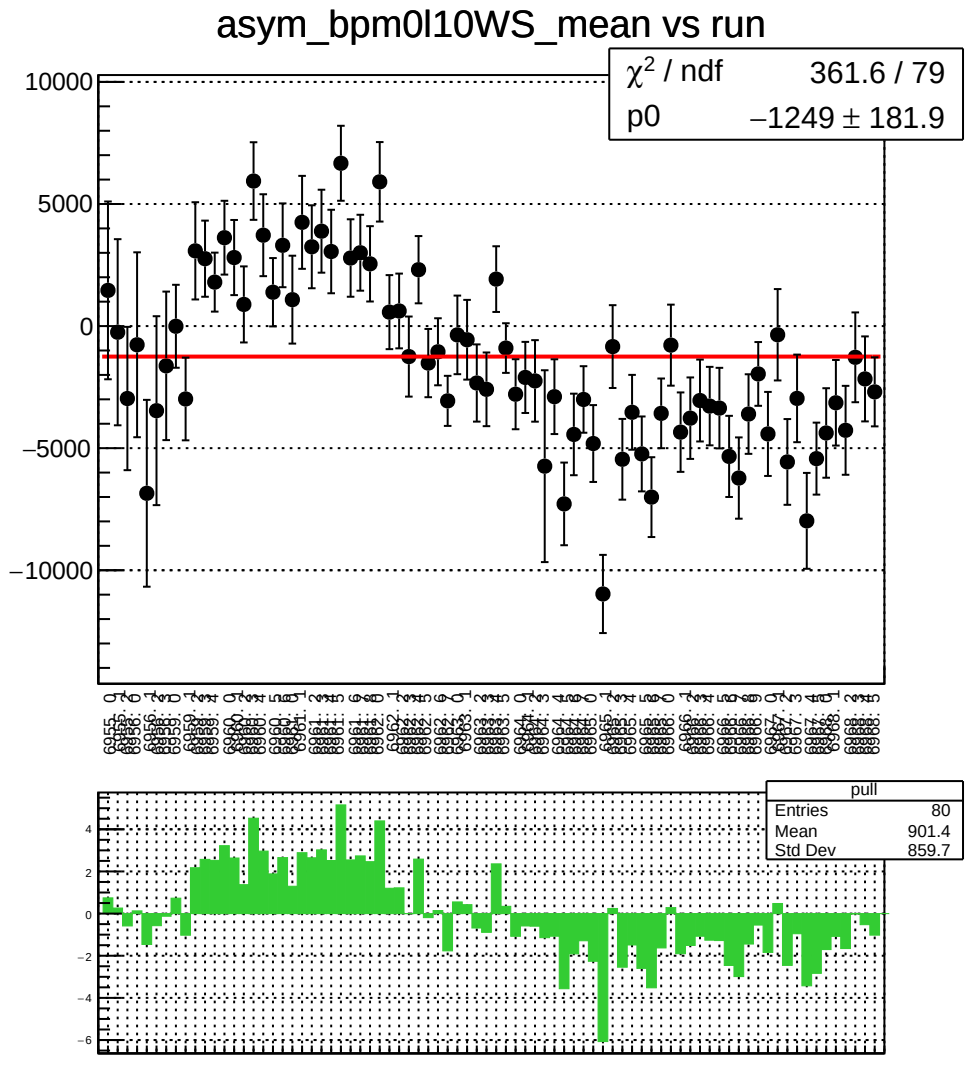

pull1D
Entries 80
Mean −0.05042
Std Dev 2.047

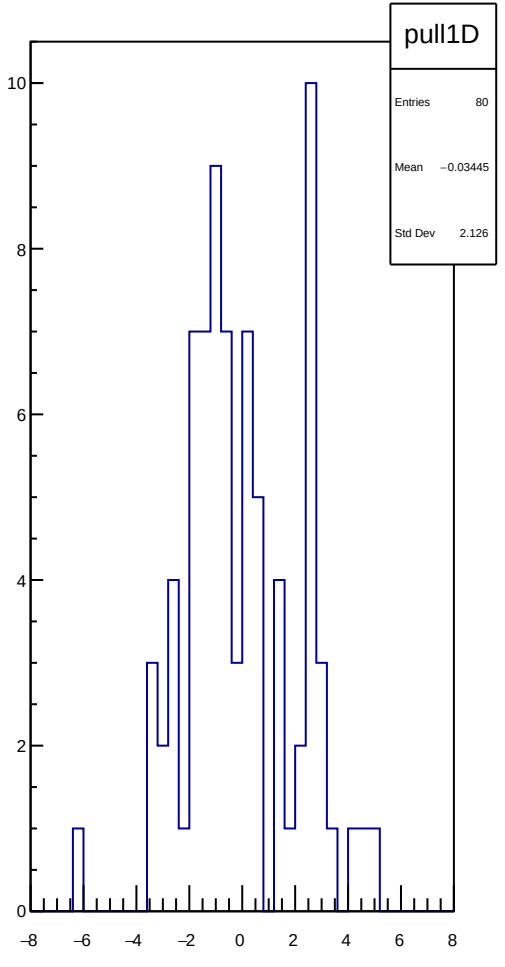

asym_bpm0l08WS_rms vs run
χ^2 / ndf 6.553e+04 / 79
p0 155.3 ± 0.1269
350
300
250
200
150

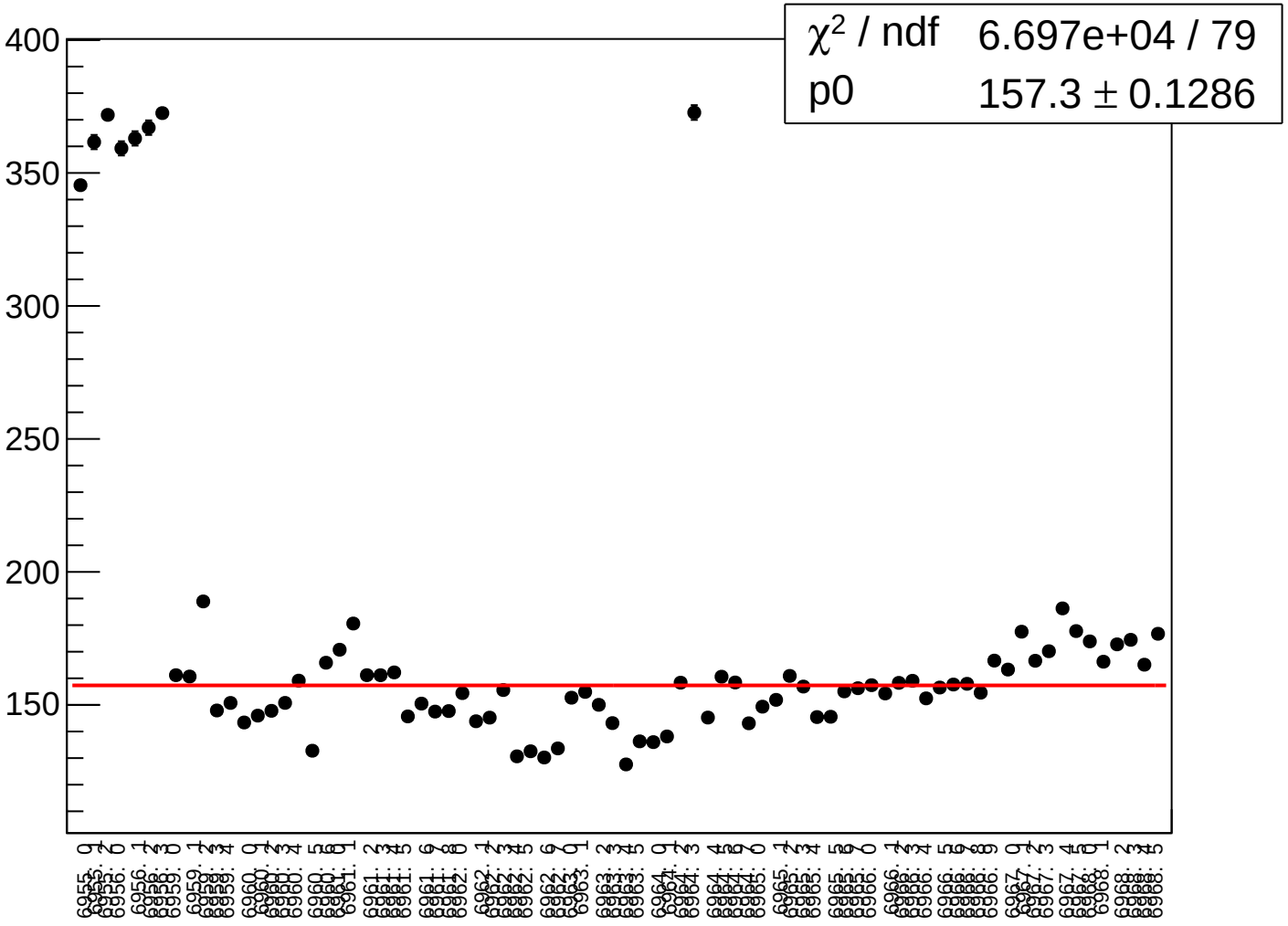

asym_bpm0l09WS_mean vs run
χ² / ndf 342.6 / 79
p0 −1214 ± 179.5
pull
Entries 80
Mean 466.1
Std Dev 423.2

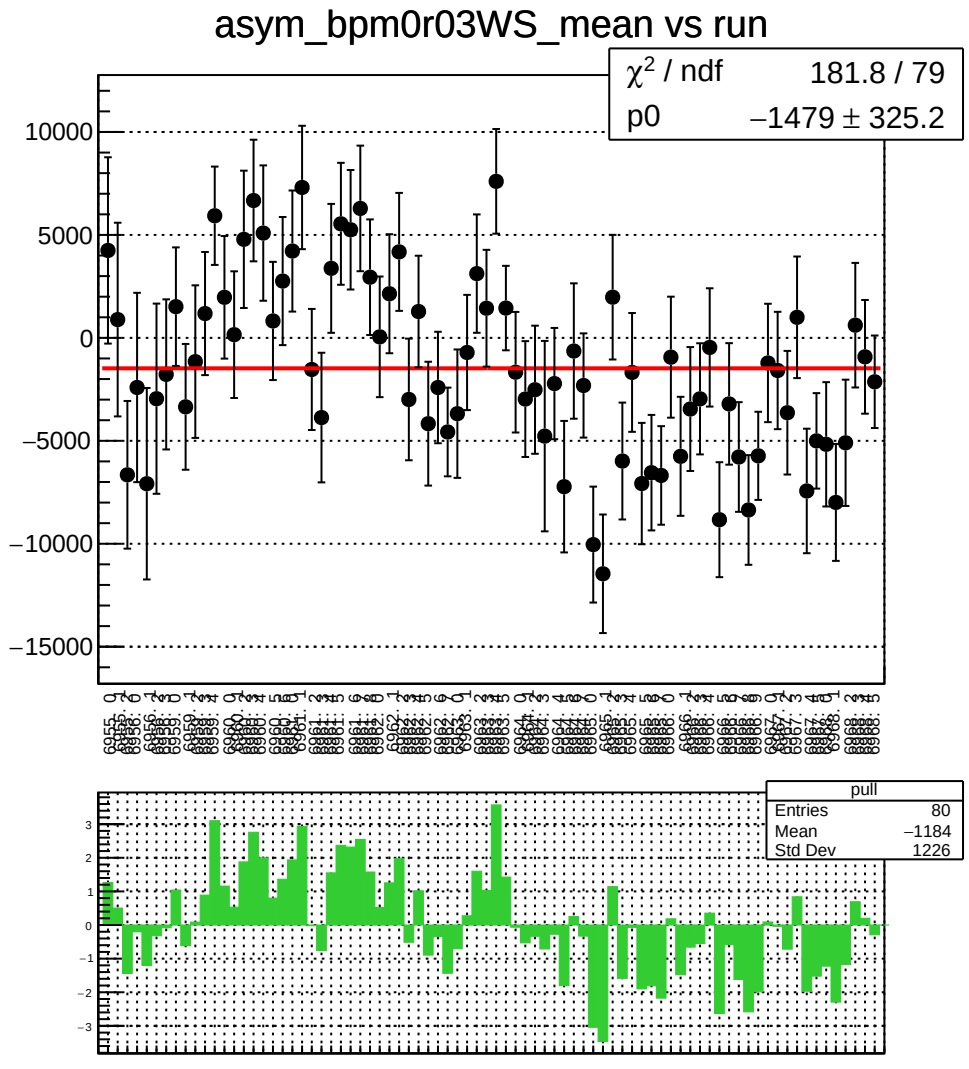

pull1D
Entries 80
Mean −0.06951
Std Dev 2.068

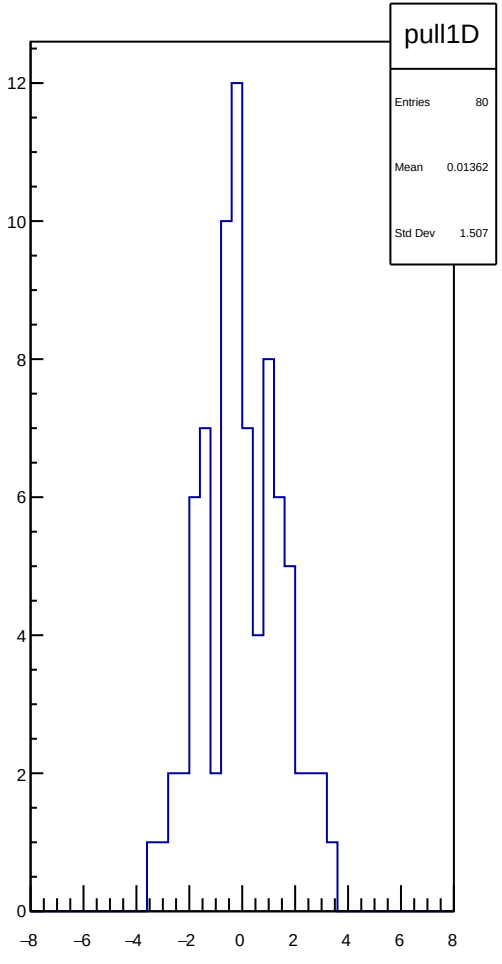

asym_bpm0l09WS_rms vs run
χ² / ndf 6.795e+04 / 79
p0 155.2 ± 0.1269
400
350
300
250
200
150

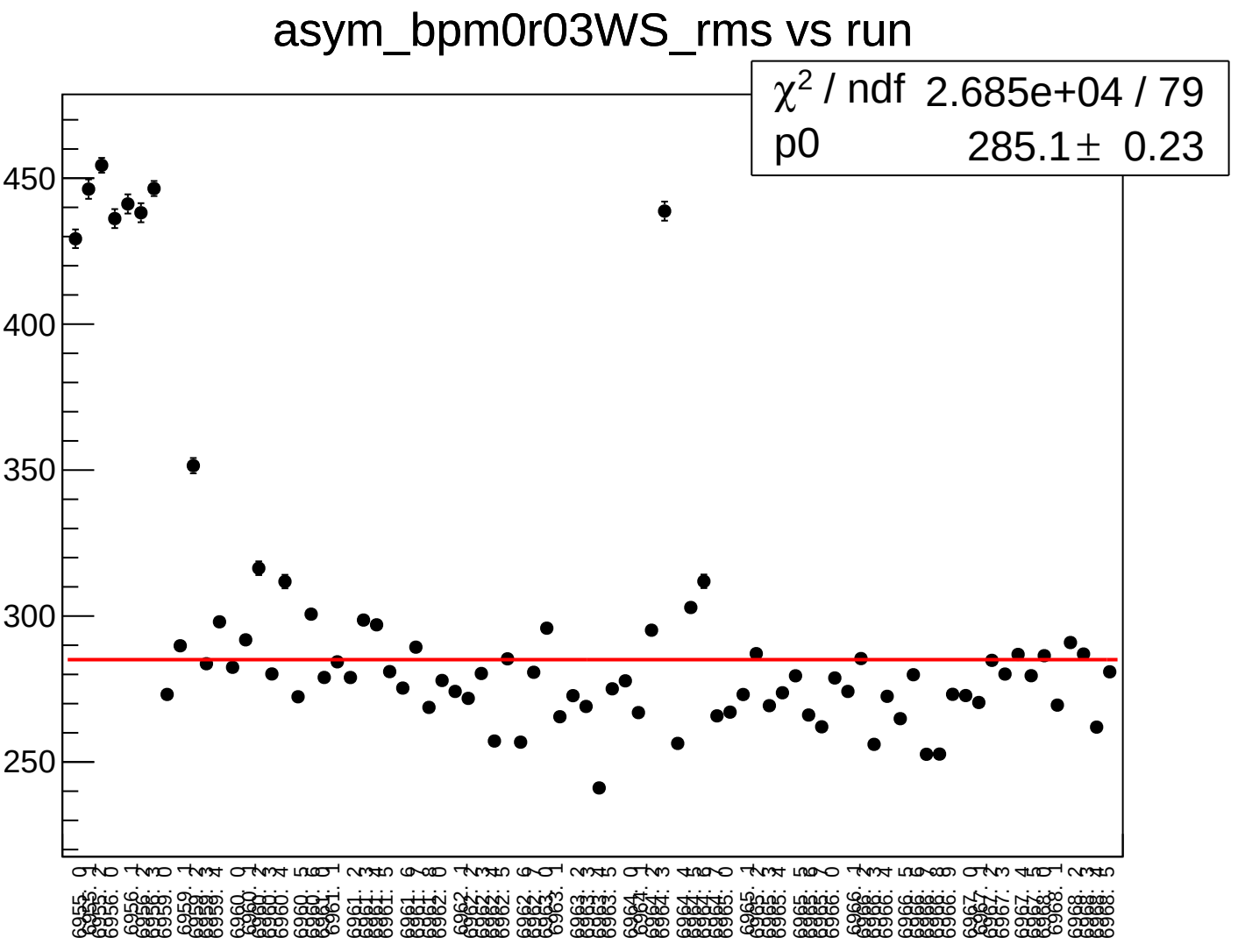

asym_bpm0l10WS_mean vs run
χ² / ndf 361.6 / 79
p0 −1249 ± 181.9
10000
5000
0
−5000
−10000
pull
Entries 80
Mean 901.4
Std Dev 859.7
4
2
0
−2
−4
−6

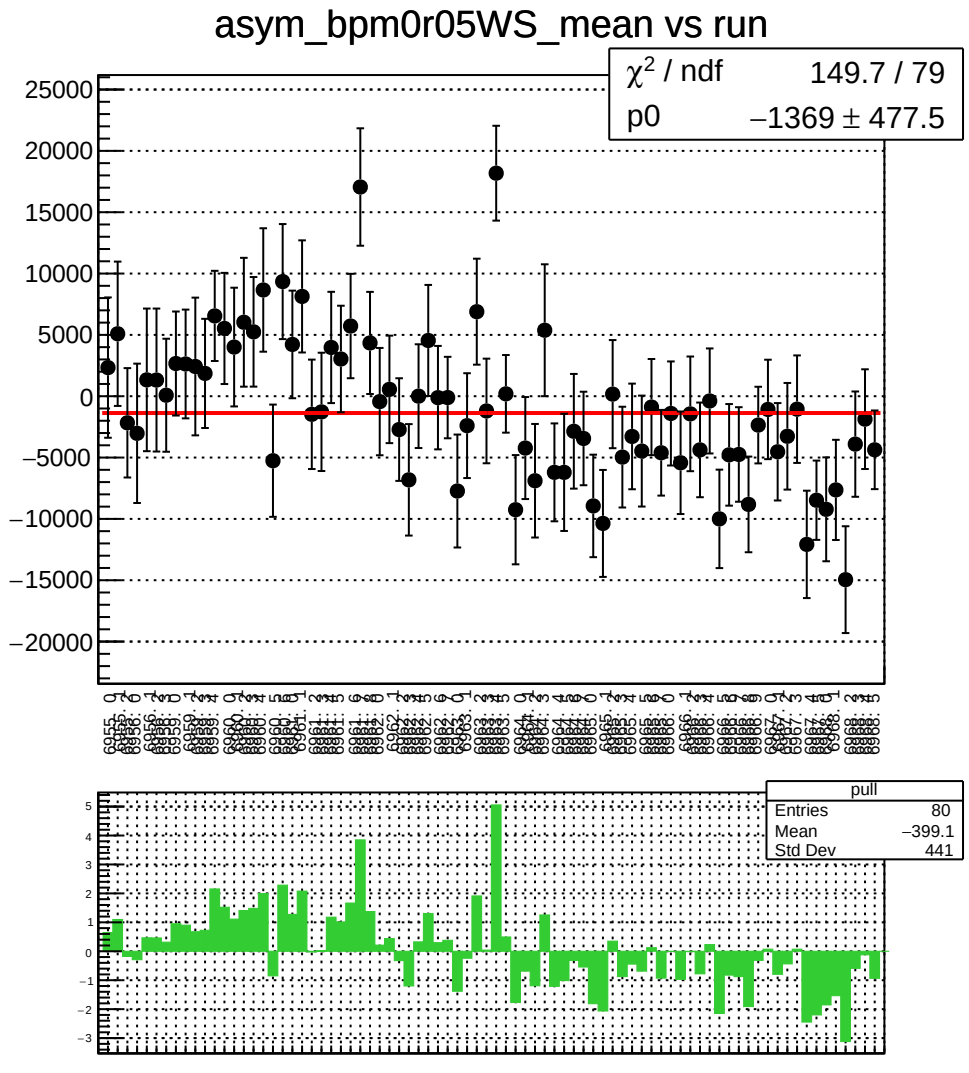

pull1D
Entries 80
Mean −0.03445
Std Dev 2.126
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

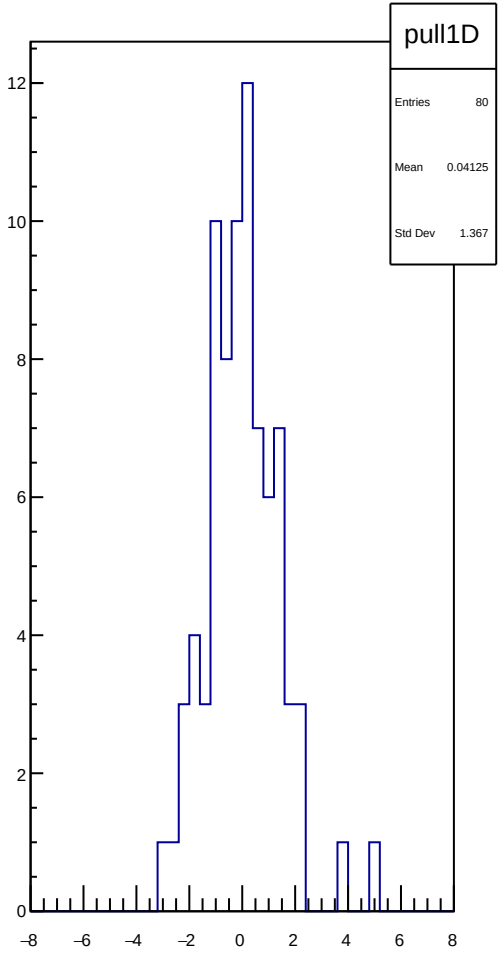

asym_bpm0l10WS_rms vs run
χ² / ndf 6.697e+04 / 79
p0 157.3 ± 0.1286
400
350
300
250
200
150

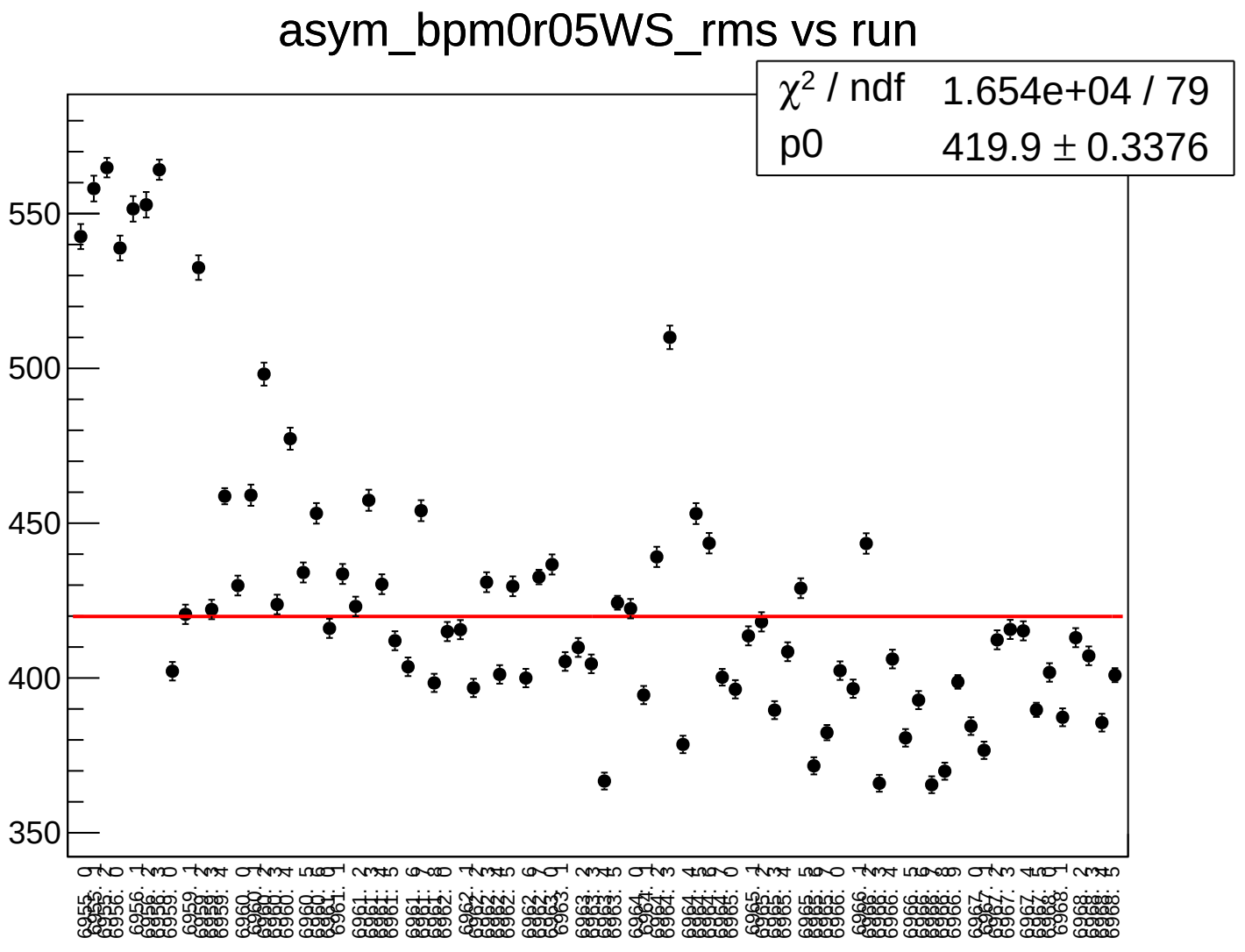

asym_bpm0r03WS_mean vs run
χ² / ndf 181.8 / 79
p0 −1479 ± 325.2
10000
5000
0
−5000
−10000
−15000
pull
Entries 80
Mean −1184
Std Dev 1226
3
2
1
0
−1
−2
−3

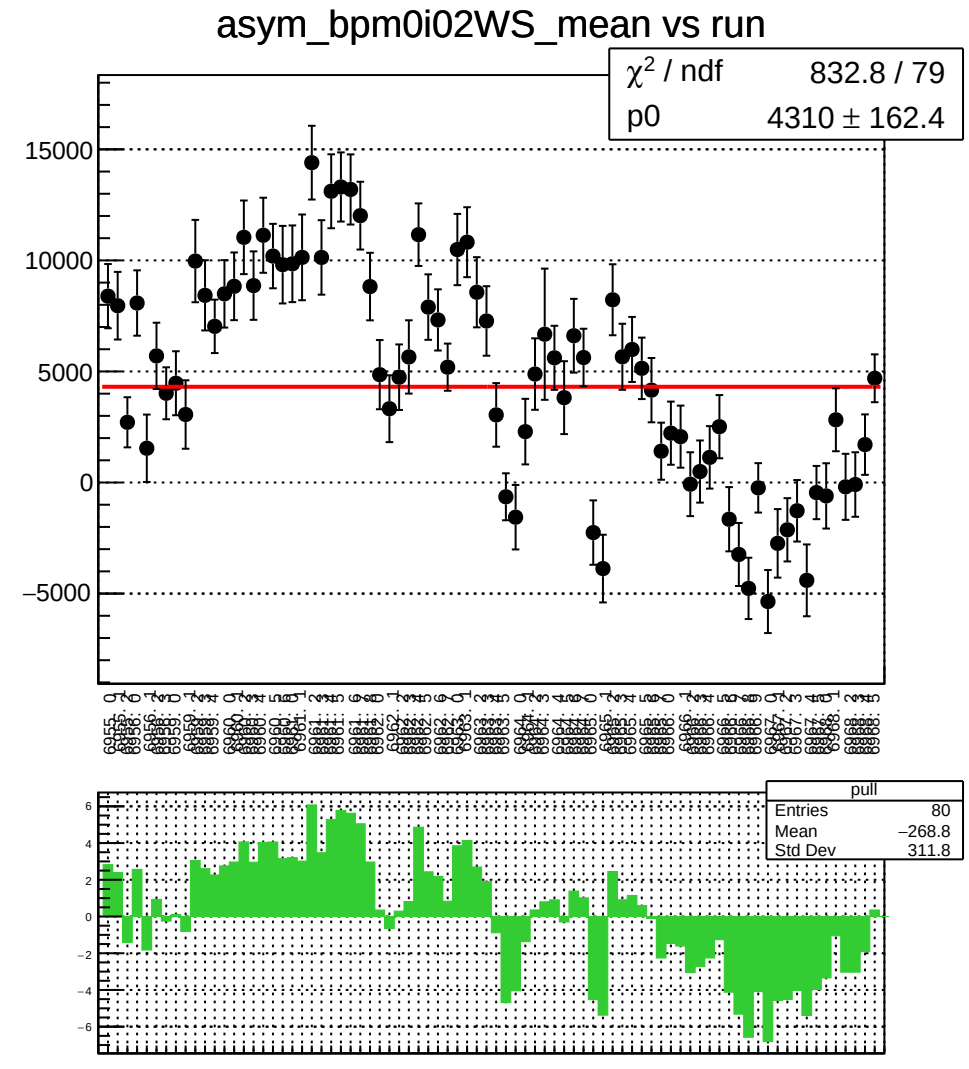

pull1D
Entries 80
Mean 0.01362
Std Dev 1.507
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

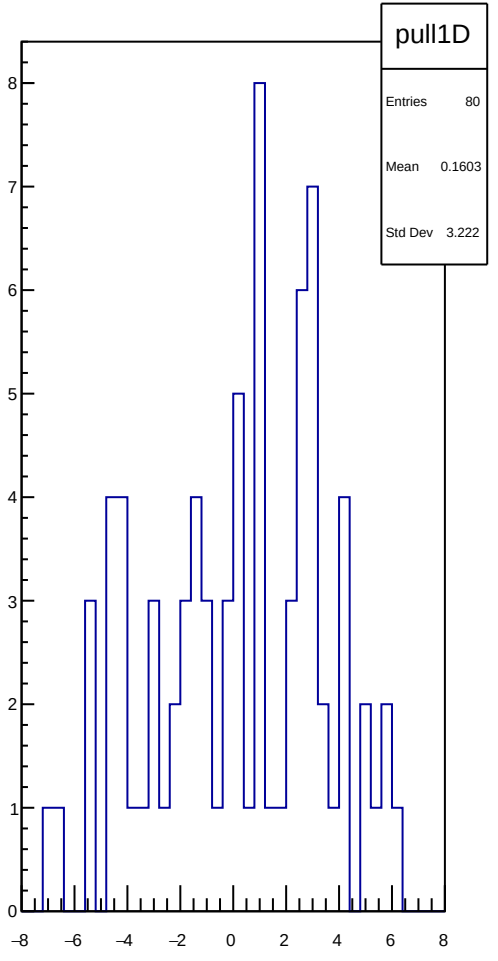

asym_bpm0r03WS_rms vs run
χ^2 / ndf 2.685e+04 / 79
p0 285.1 ± 0.23
450
400
350
300
250

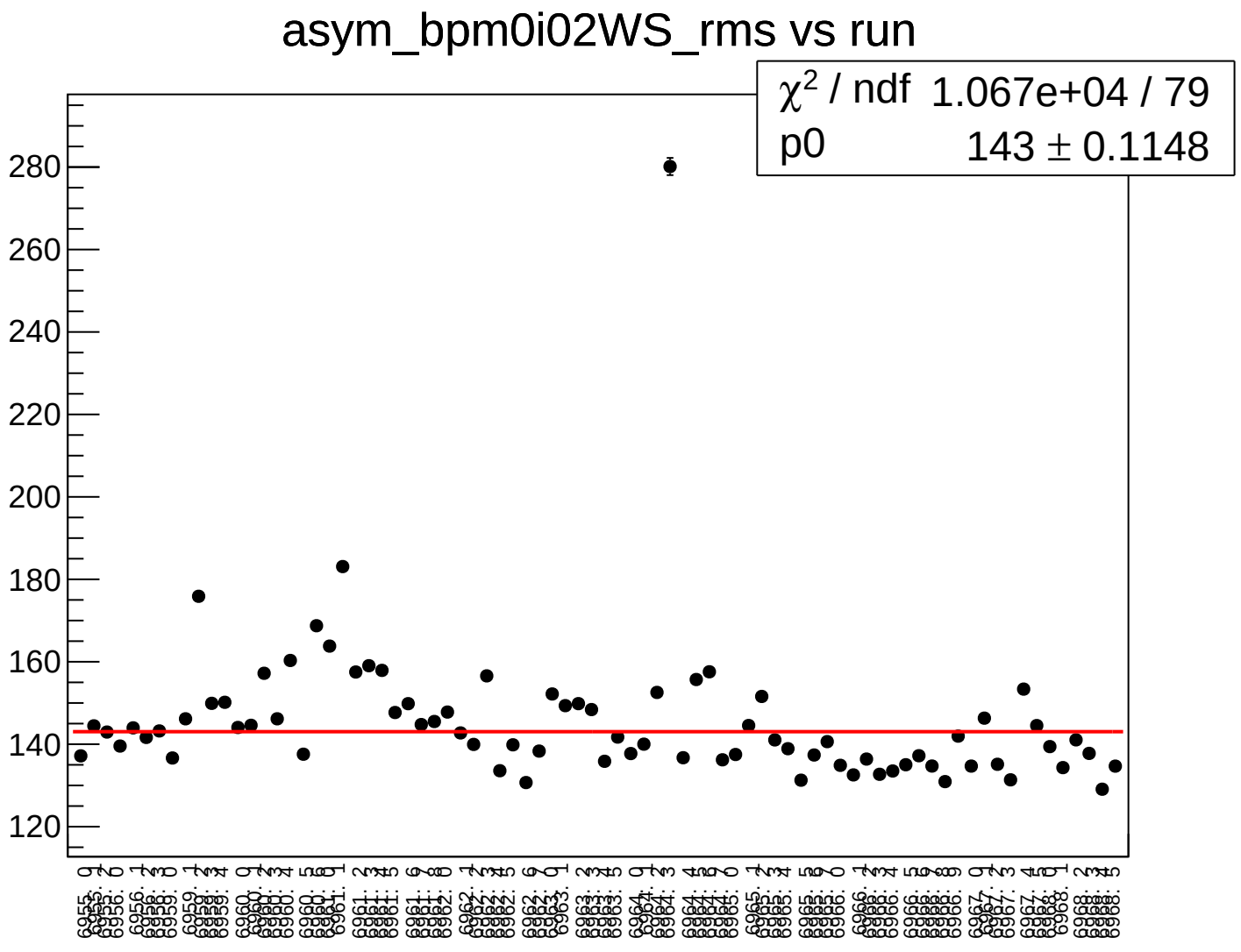

asym_bpm0r05WS_mean vs run
χ² / ndf 149.7 / 79
p0 −1369 ± 477.5
pull
Entries 80
Mean −399.1
Std Dev 441

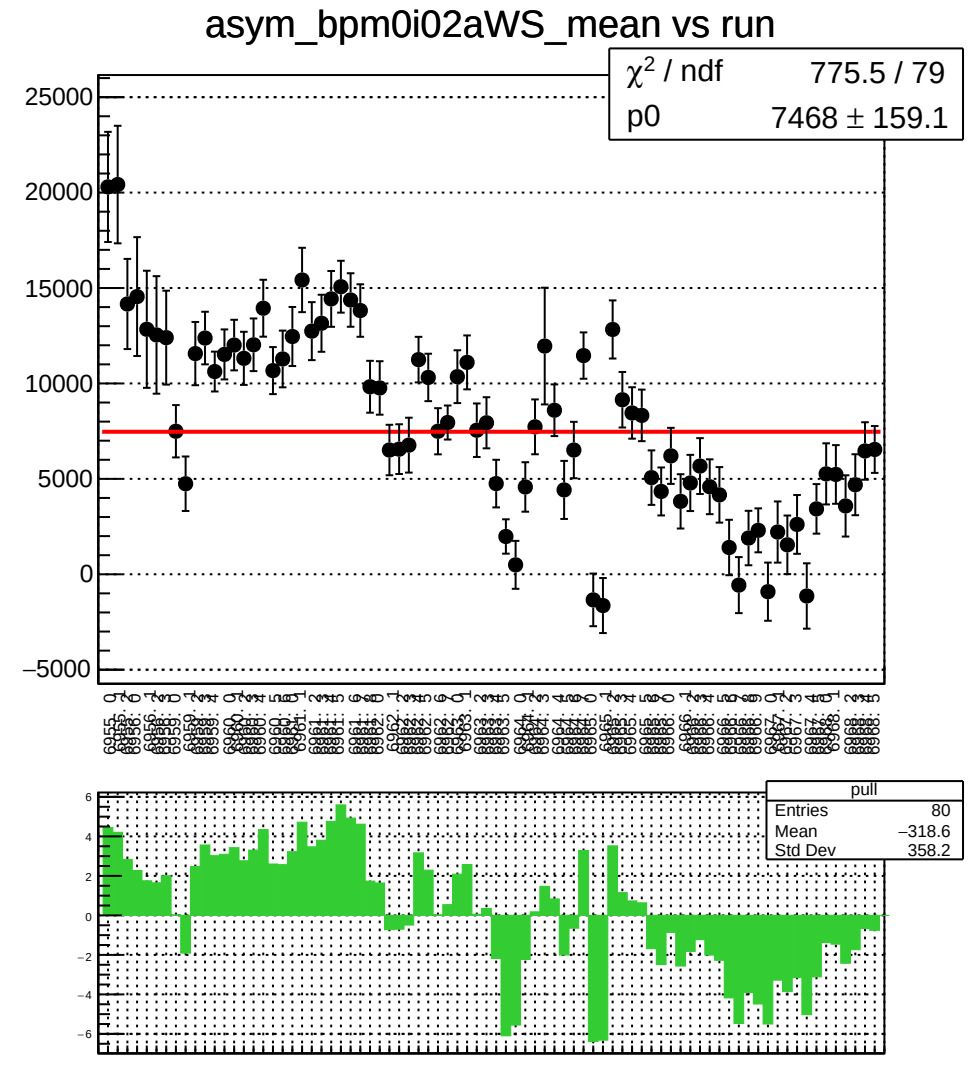

pull1D
Entries 80
Mean 0.04125
Std Dev 1.367

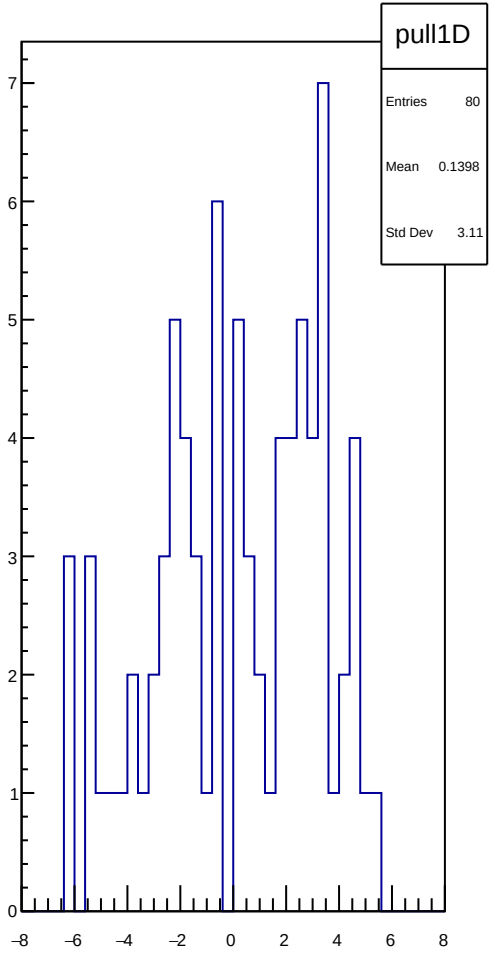

asym_bpm0r05WS_rms vs run
χ² / ndf 1.654e+04 / 79
p0 419.9 ± 0.3376
550
500
450
400
350

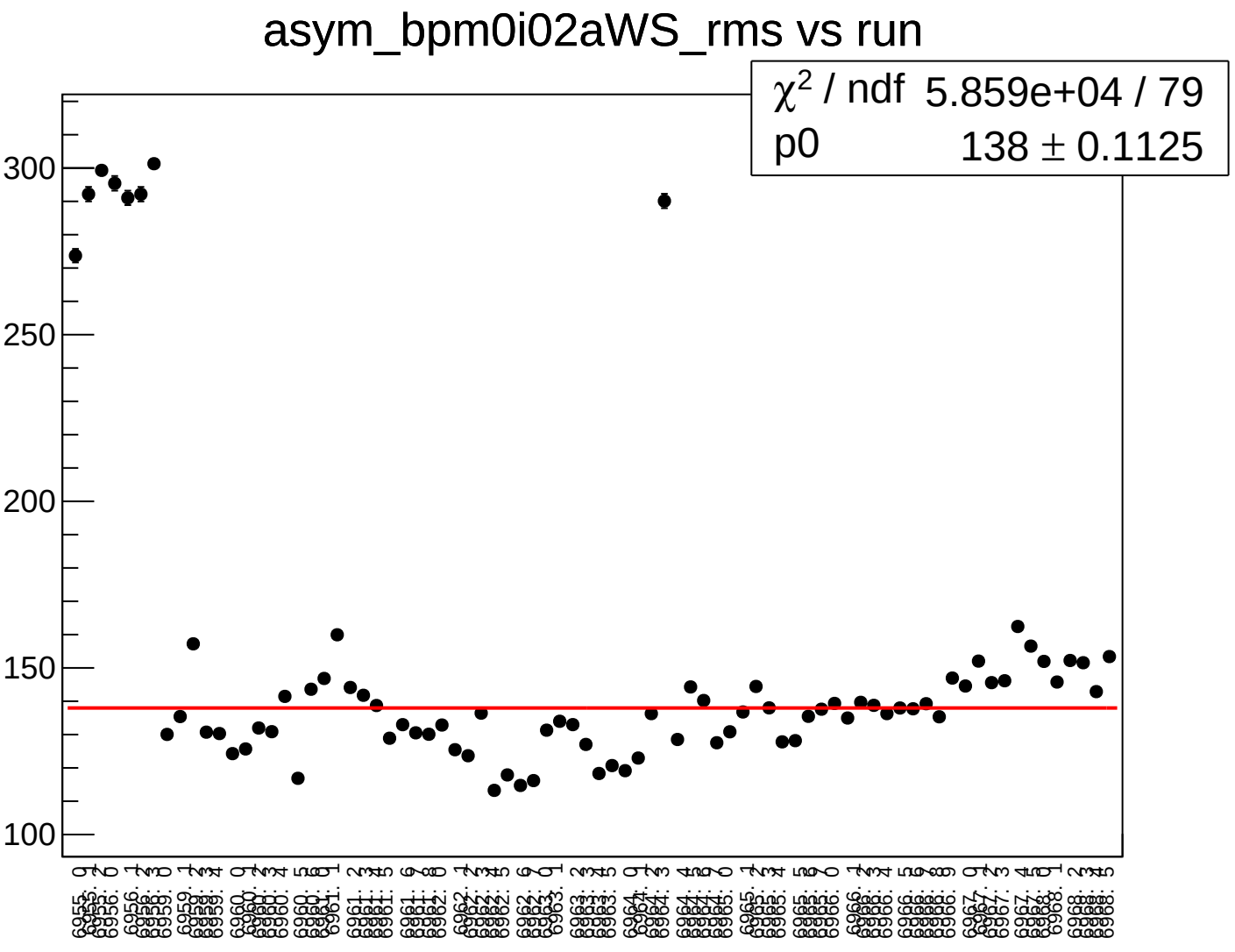

asym_bpm0i02WS_mean vs run
χ² / ndf 832.8 / 79
p0 4310 ± 162.4
15000
10000
5000
0
−5000
pull
Entries 80
Mean −268.8
Std Dev 311.8
6
4
2
0
−2
−4
−6

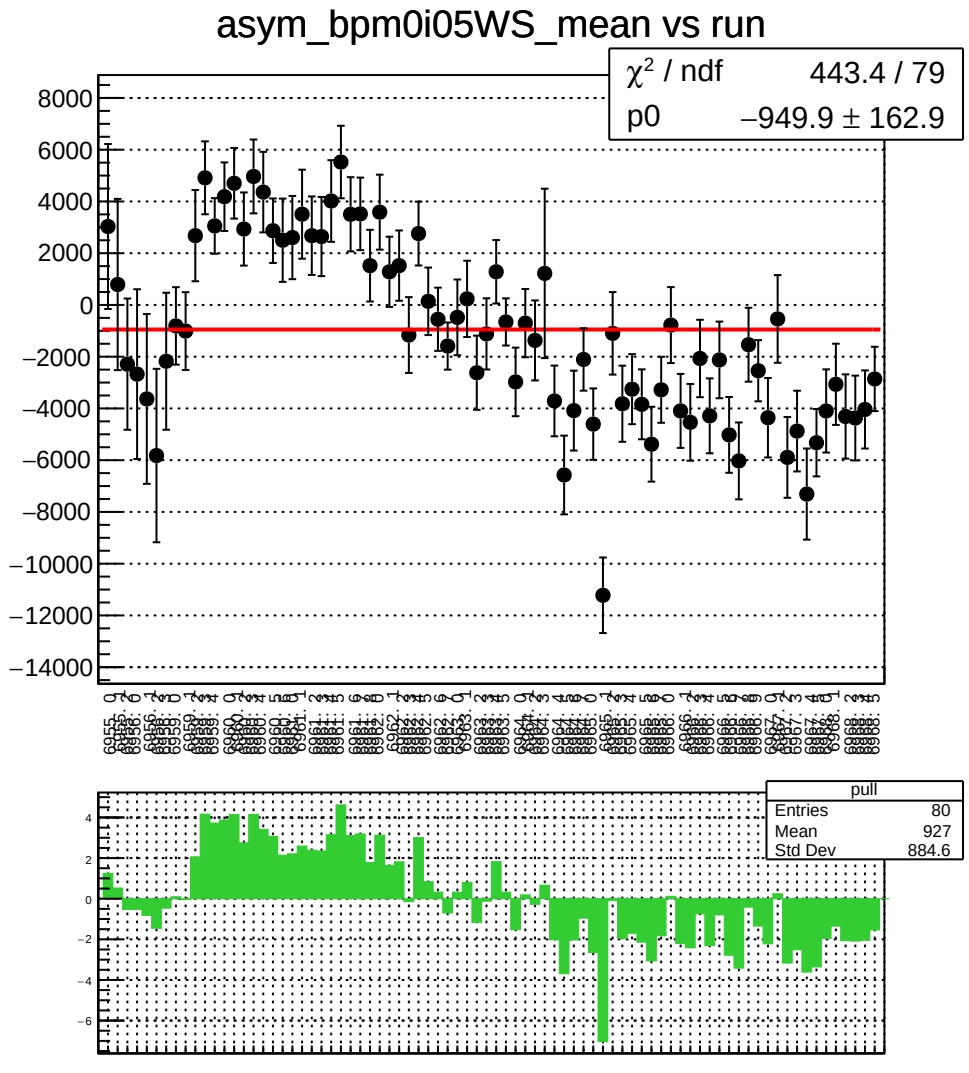

pull1D
Entries 80
Mean 0.1603
Std Dev 3.222
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

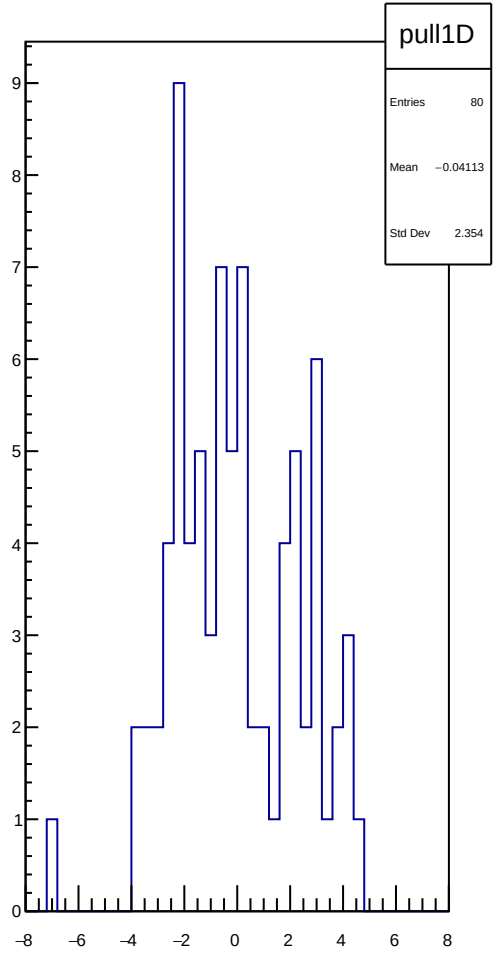

asym_bpm0i02WS_rms vs run
χ^2 / ndf 1.067e+04 / 79
p0 143 ± 0.1148
280
260
240
220
200
180
160
140
120

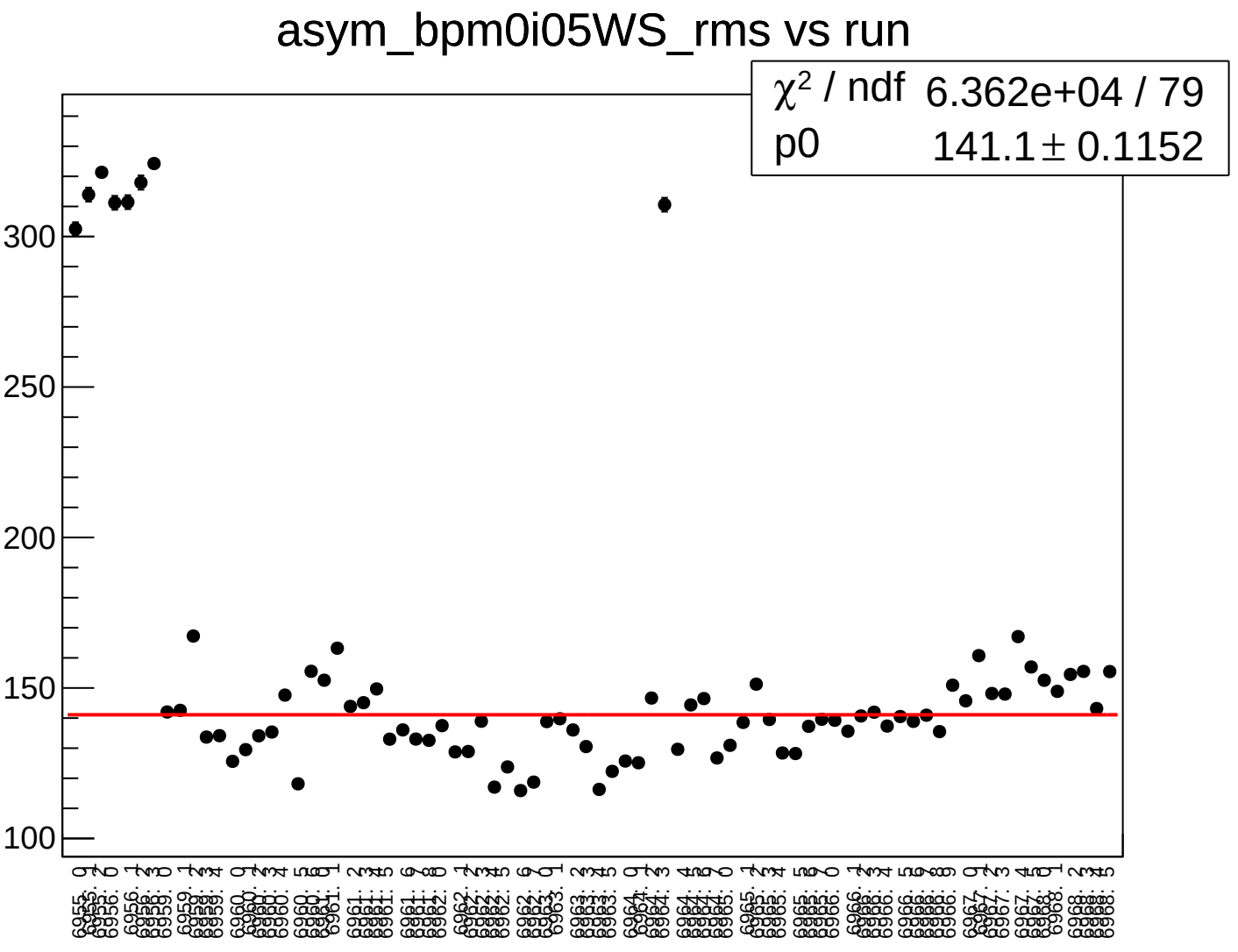

asym_bpm0i02aWS_mean vs run
χ² / ndf 775.5 / 79
p0 7468 ± 159.1
pull
Entries 80
Mean −318.6
Std Dev 358.2

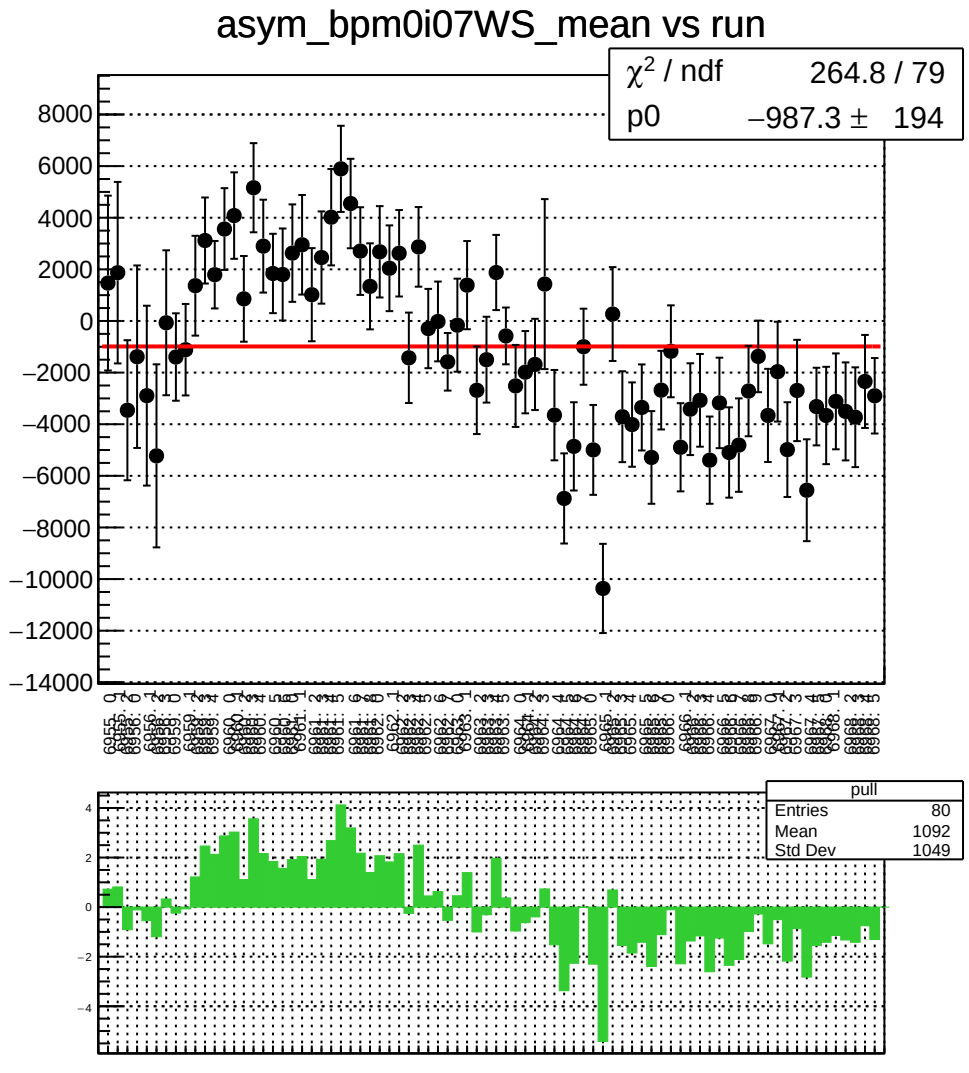

pull1D
Entries 80
Mean 0.1398
Std Dev 3.11

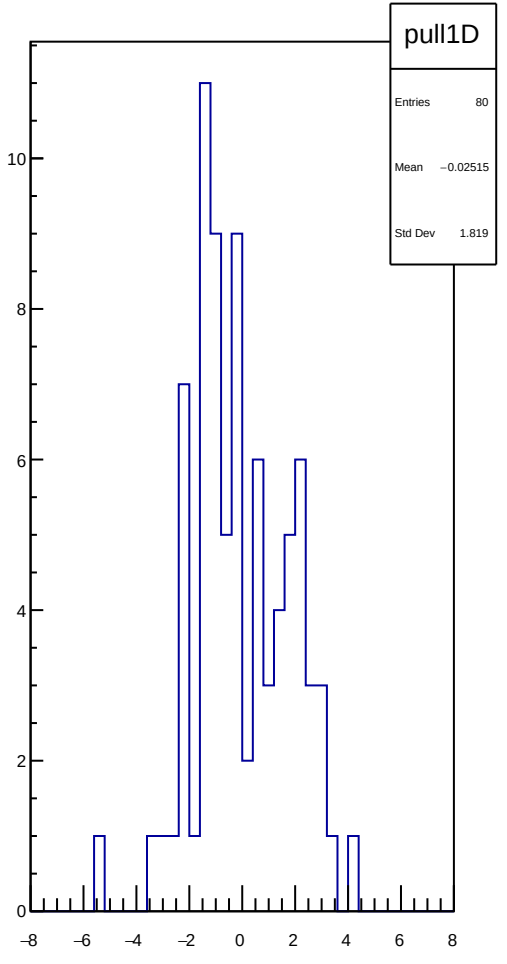

asym_bpm0i02aWS_rms vs run
χ^2 / ndf 5.859e+04 / 79
p0 138 ± 0.1125
300
250
200
150
100

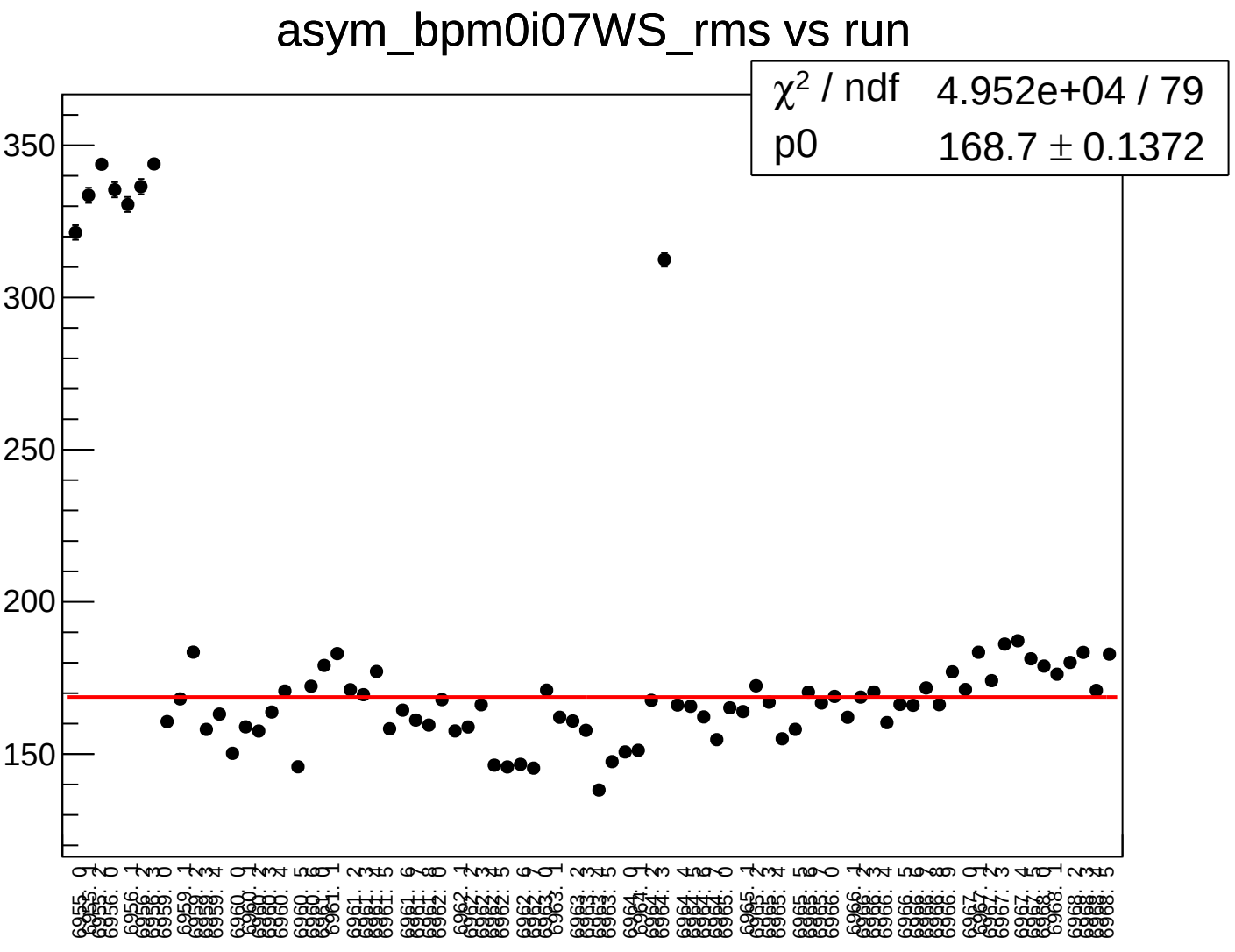

asym_bpm0i05WS_mean vs run
χ² / ndf 443.4 / 79
p0 −949.9 ± 162.9
pull
Entries 80
Mean 927
Std Dev 884.6

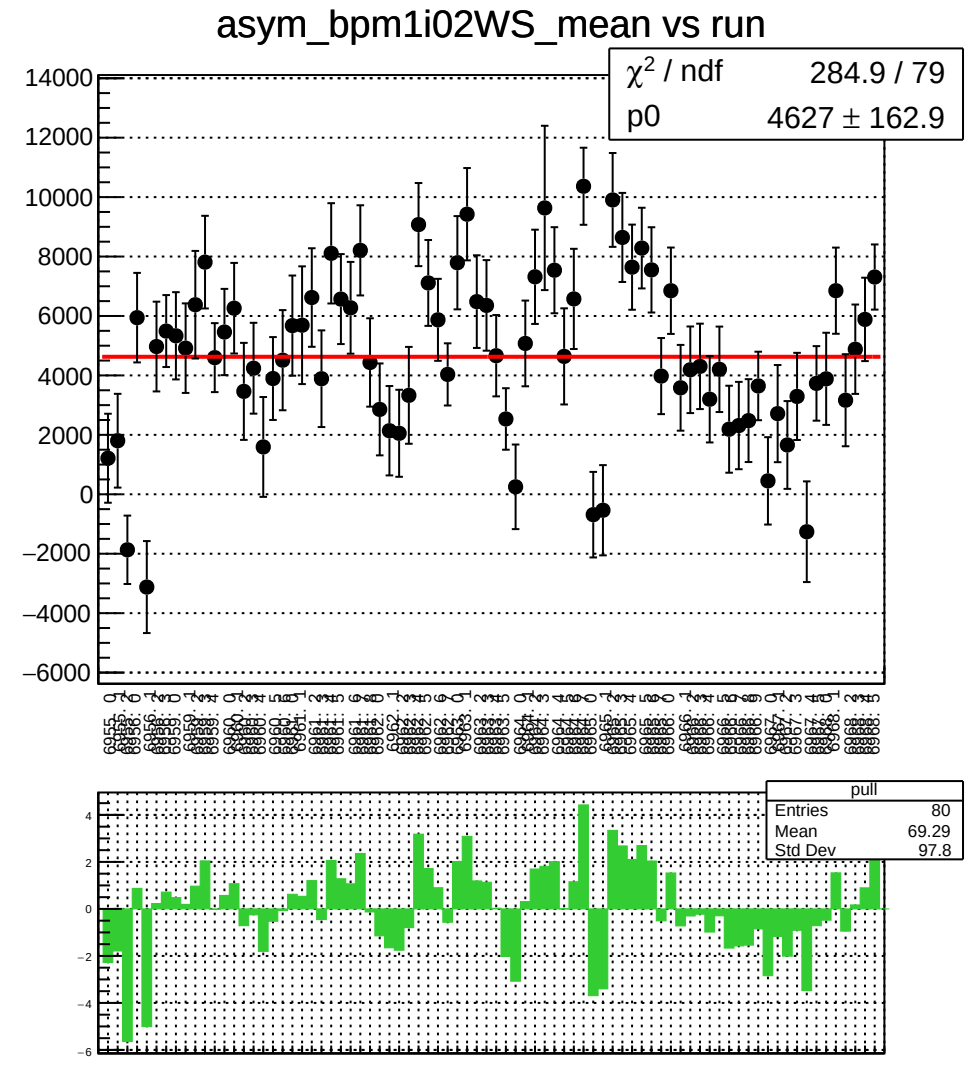

pull1D
Entries 80
Mean −0.04113
Std Dev 2.354

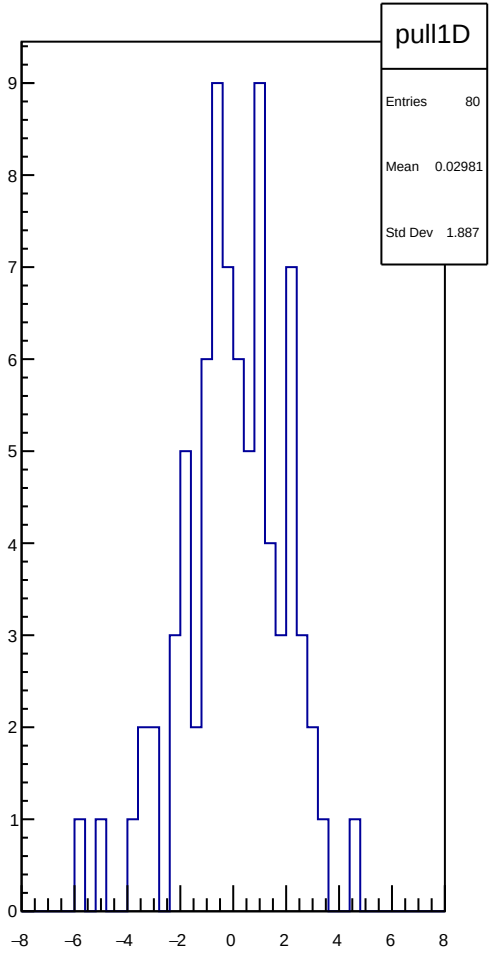

asym_bpm0i05WS_rms vs run
χ² / ndf 6.362e+04 / 79
p0 141.1 ± 0.1152
300
250
200
150
100

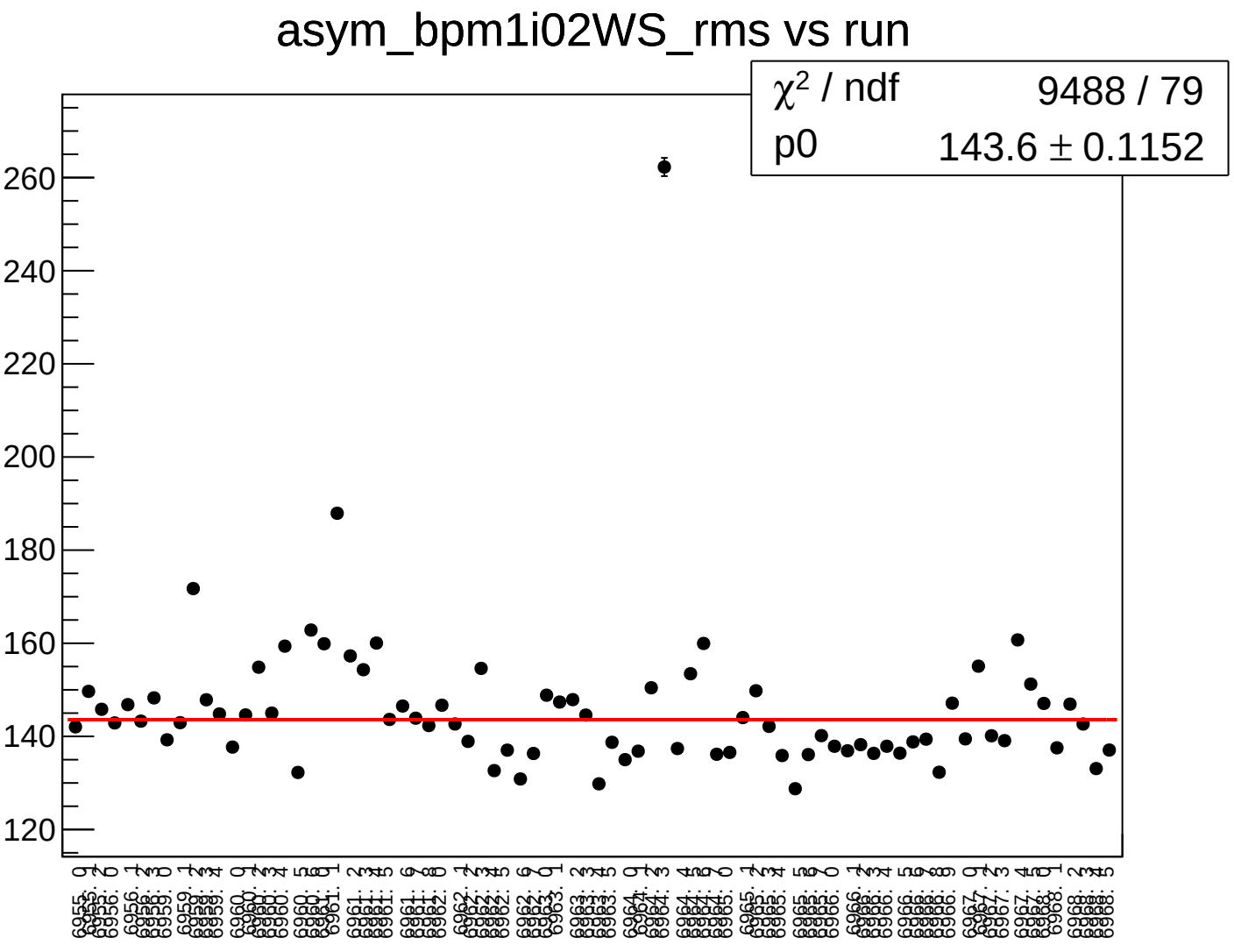

asym_bpm0i07WS_mean vs run
χ² / ndf 264.8 / 79
p0 −987.3 ± 194
pull
Entries 80
Mean 1092
Std Dev 1049

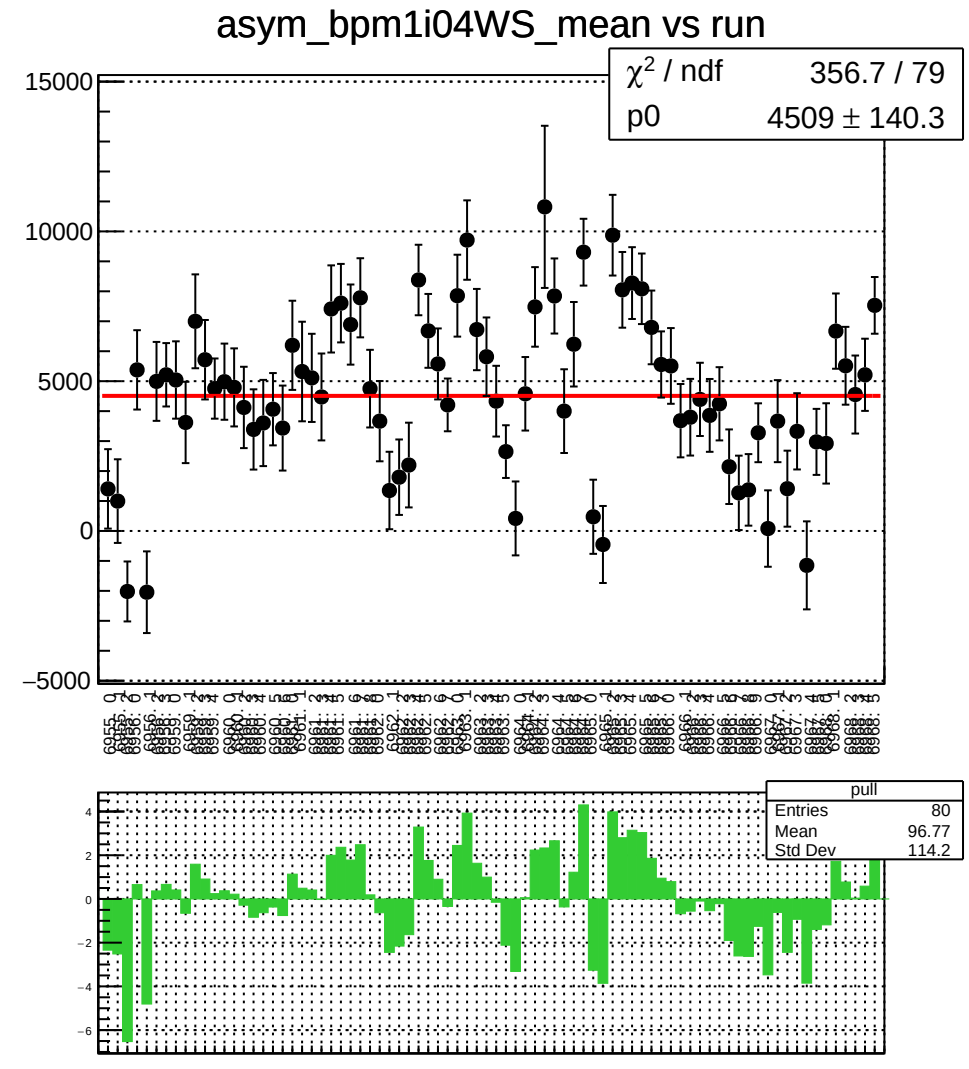

pull1D
Entries 80
Mean −0.02515
Std Dev 1.819

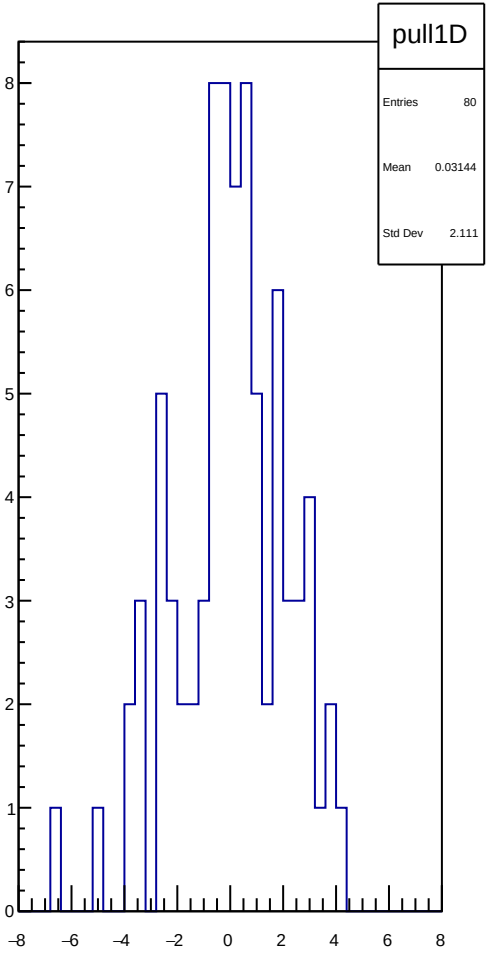

asym_bpm0i07WS_rms vs run
χ² / ndf 4.952e+04 / 79
p0 168.7 ± 0.1372
350
300
250
200
150

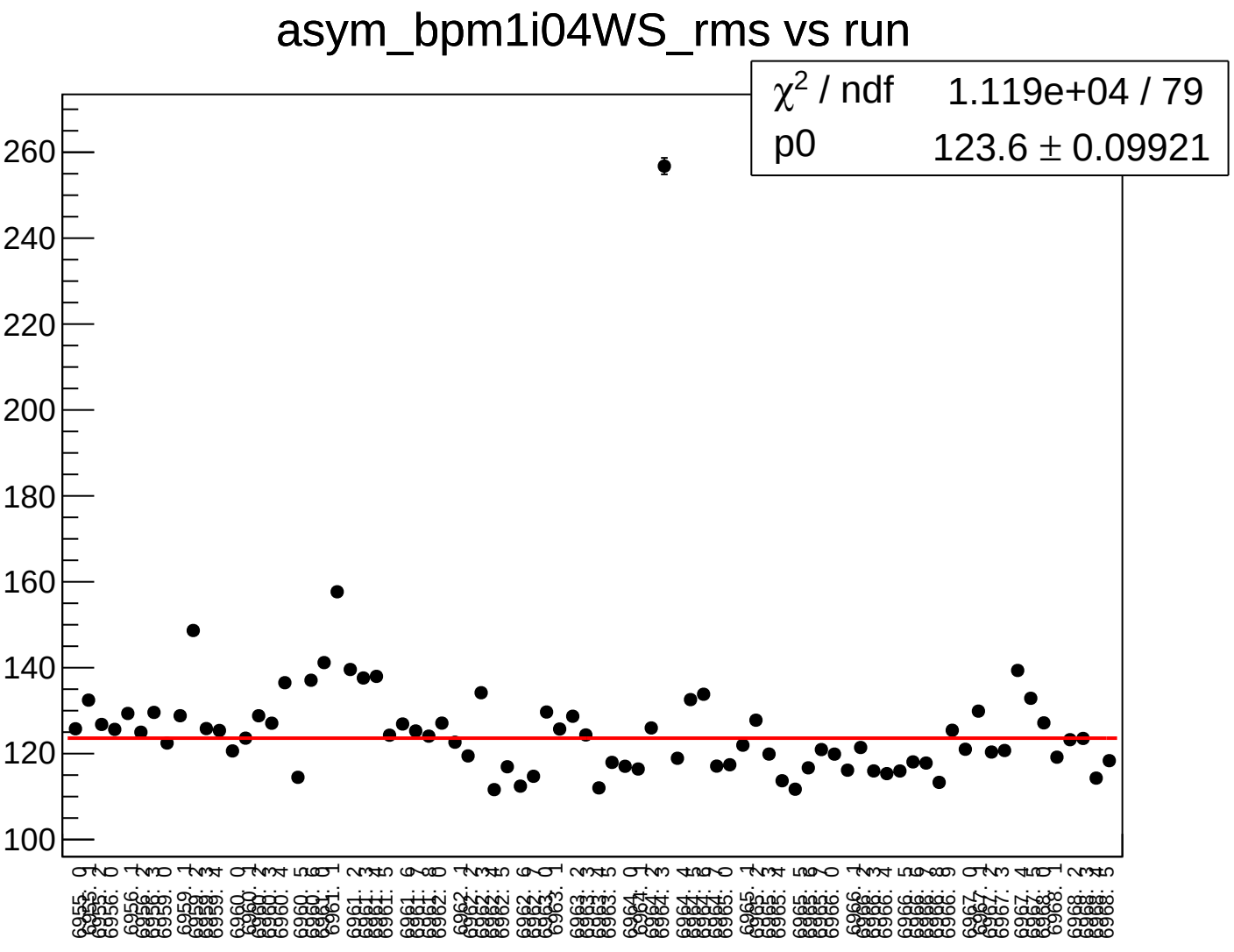

asym_bpm1i02WS_mean vs run
χ² / ndf 284.9 / 79
p0 4627 ± 162.9
pull
Entries 80
Mean 69.29
Std Dev 97.8

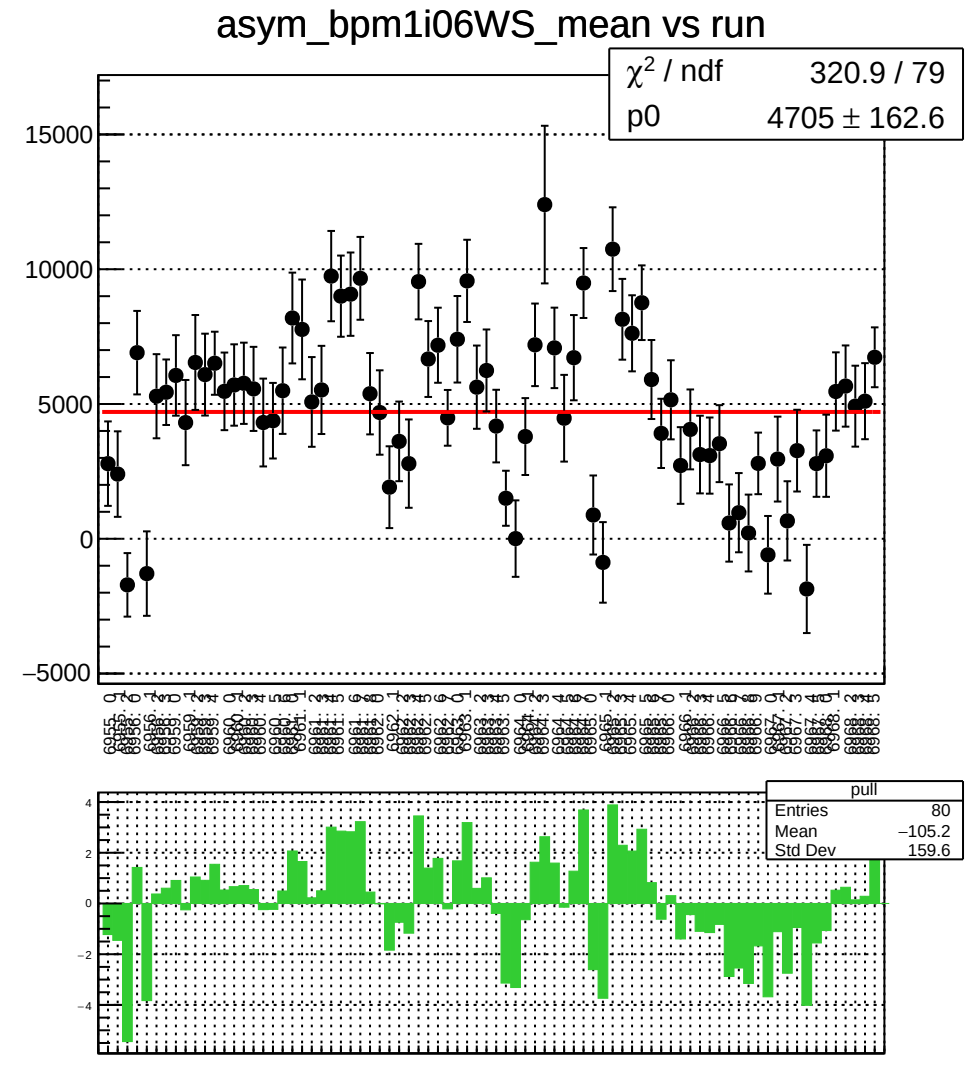

pull1D
Entries 80
Mean 0.02981
Std Dev 1.887

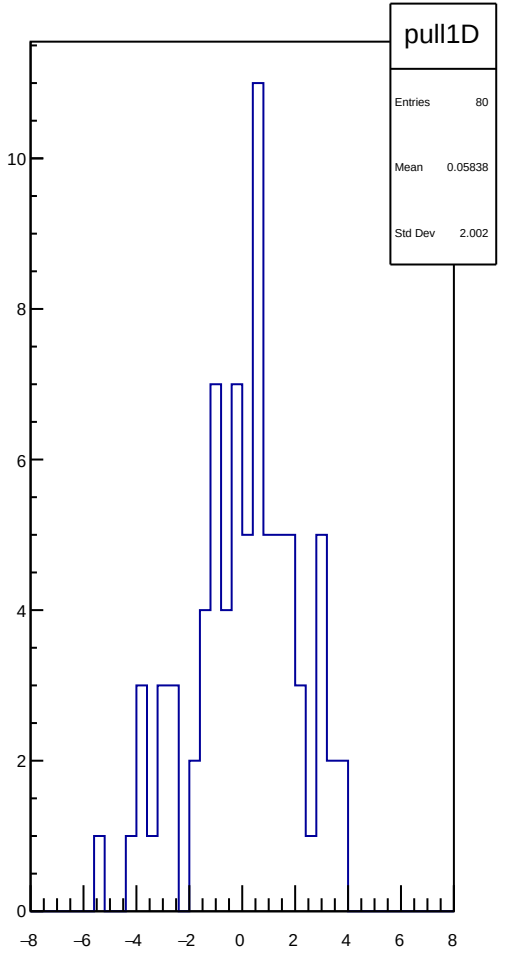

asym_bpm1i02WS_rms vs run
χ² / ndf 9488 / 79
p0 143.6 ± 0.1152
260
240
220
200
180
160
140
120

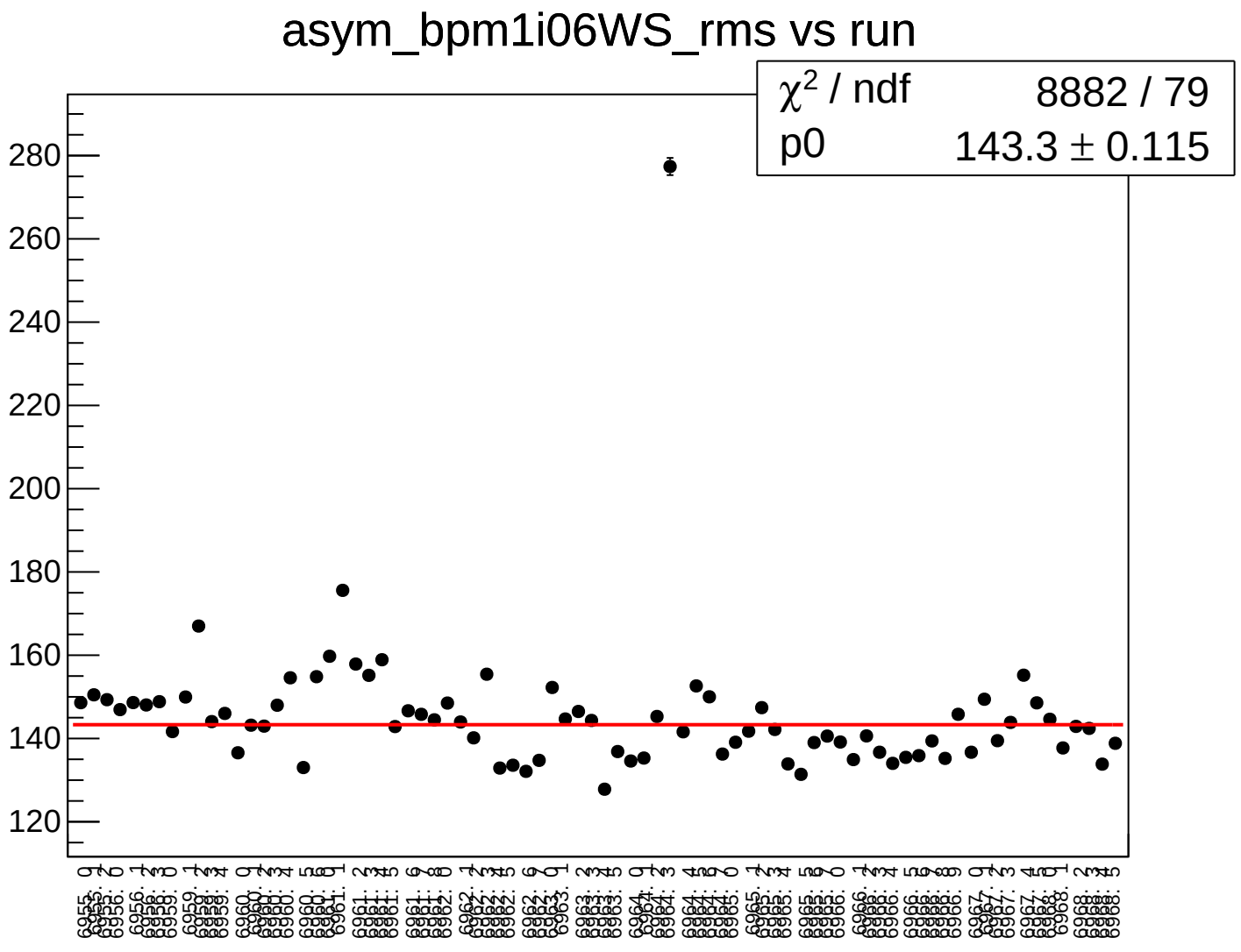

asym_bpm1i04WS_mean vs run
χ² / ndf 356.7 / 79
p0 4509 ± 140.3
15000
10000
5000
0
−5000
pull
Entries 80
Mean 96.77
Std Dev 114.2
4
2
0
−2
−4
−6

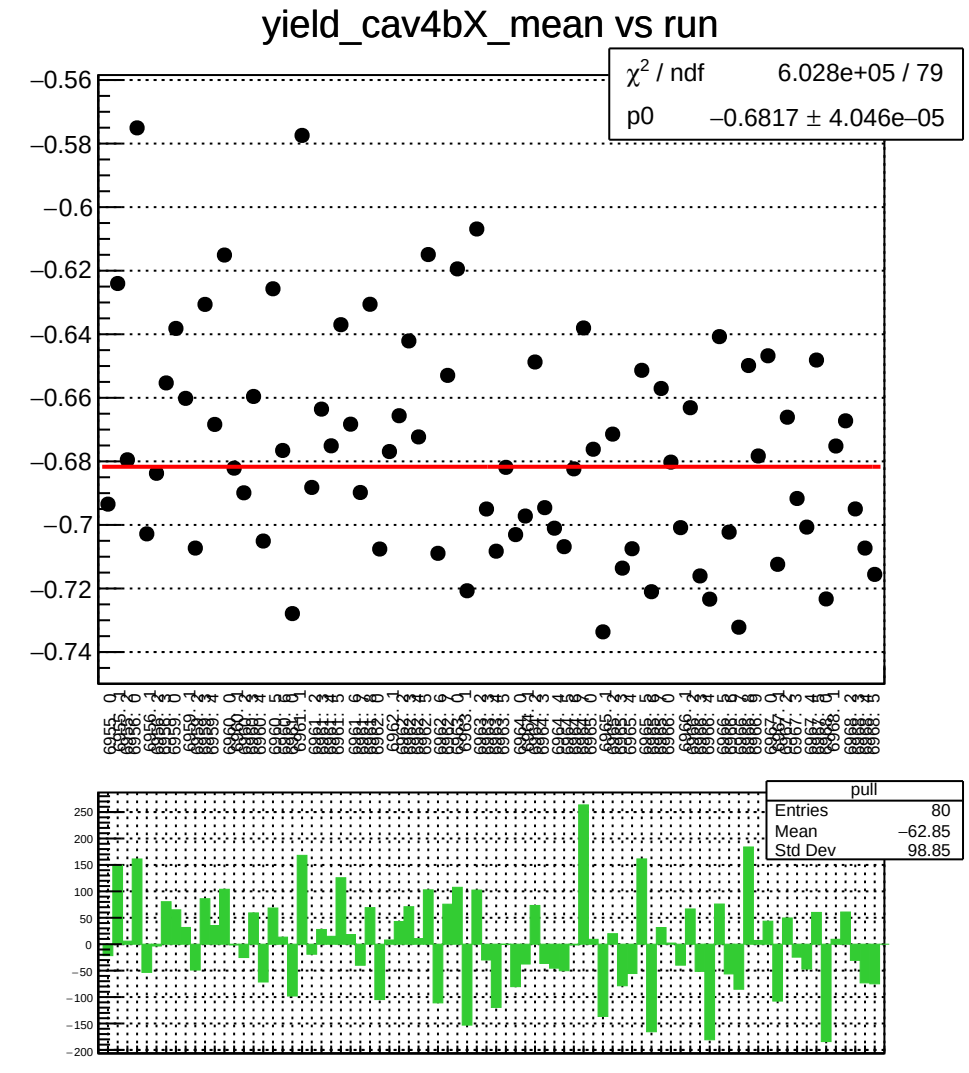

pull1D
Entries 80
Mean 0.03144
Std Dev 2.111
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

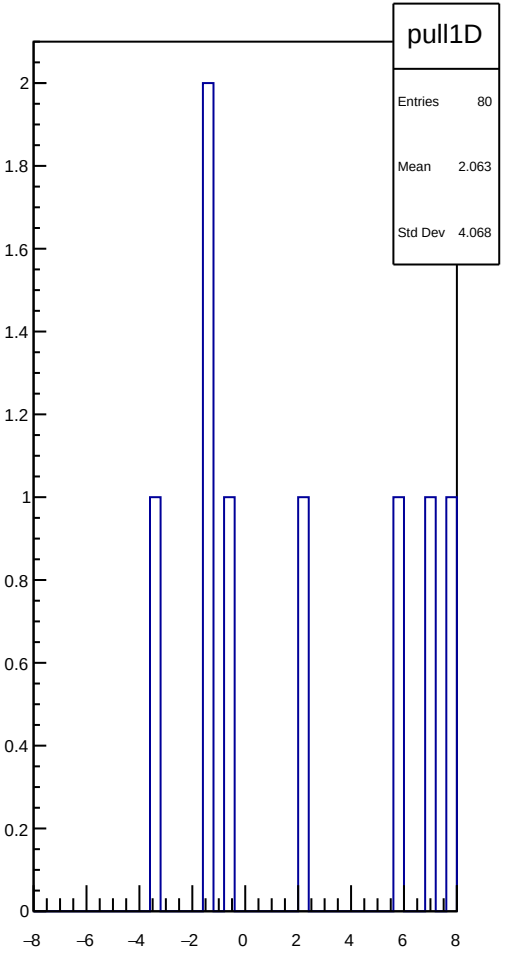

asym_bpm1i04WS_rms vs run
χ^2 / ndf 1.119e+04 / 79
p0 123.6 ± 0.09921
260
240
220
200
180
160
140
120
100

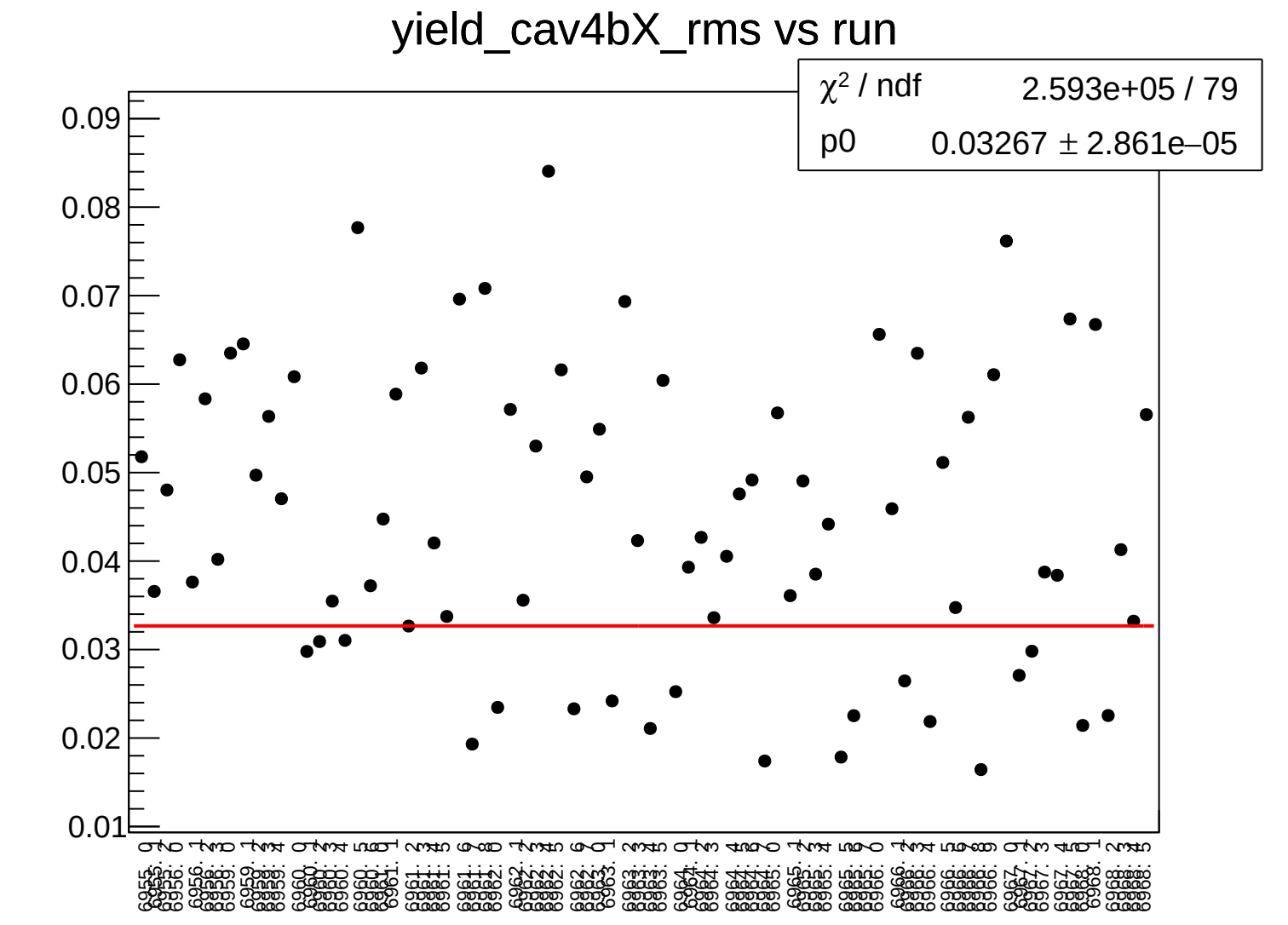

asym_bpm1i06WS_mean vs run
χ² / ndf 320.9 / 79
p0 4705 ± 162.6
15000
10000
5000
0
−5000
pull
Entries 80
Mean −105.2
Std Dev 159.6
4
2
0
−2
−4

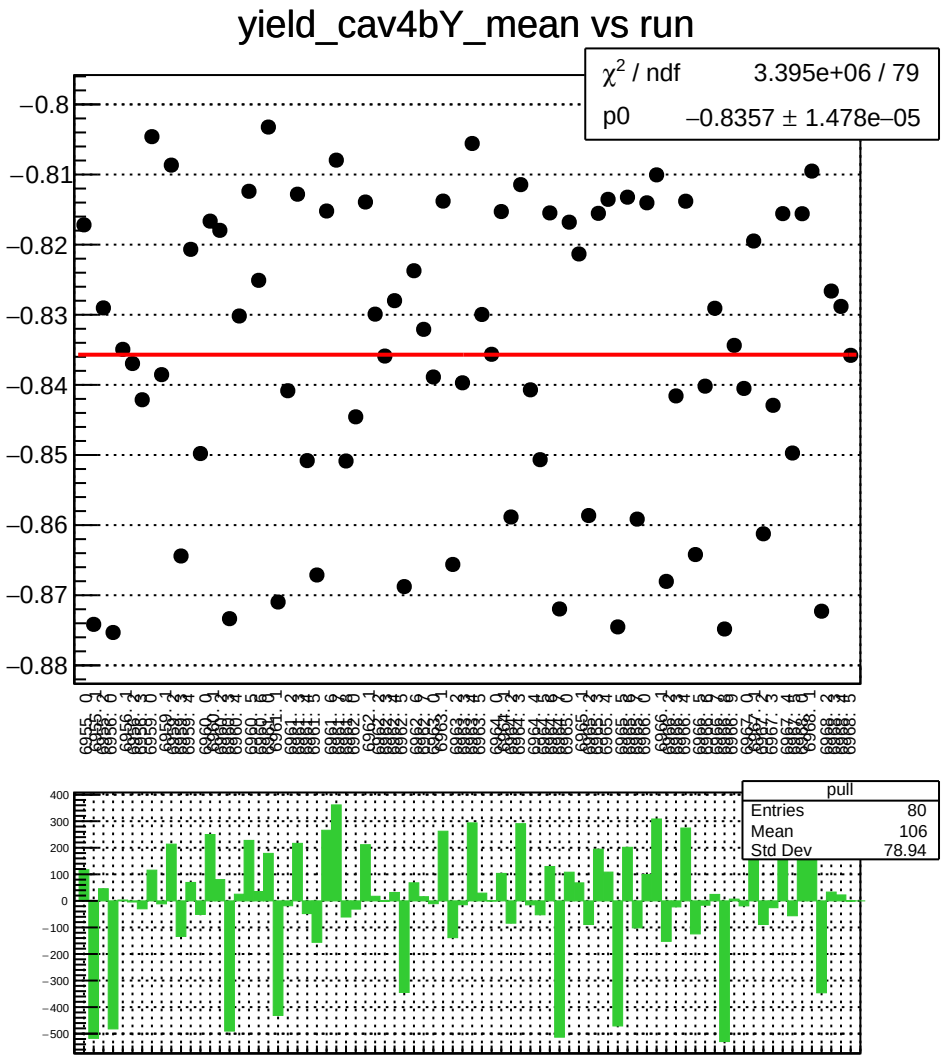

pull1D
Entries 80
Mean 0.05838
Std Dev 2.002
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

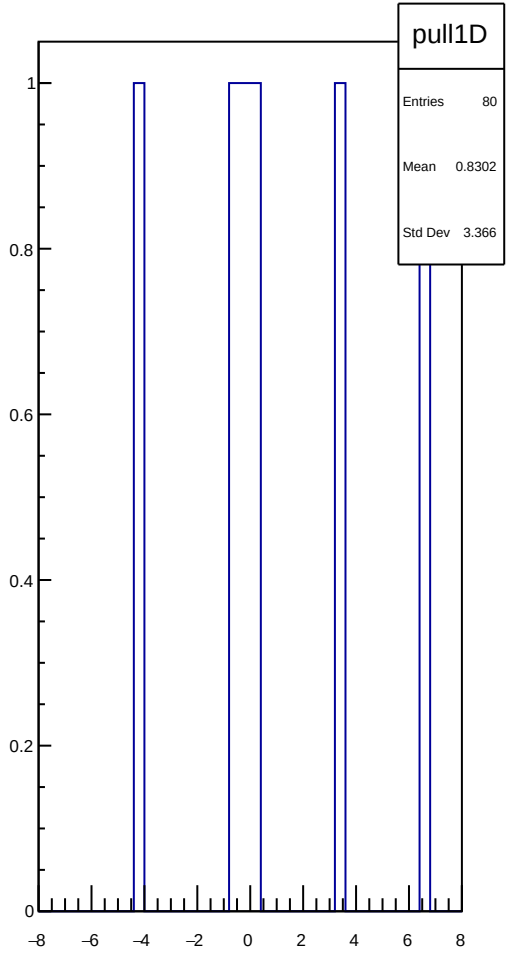

asym_bpm1i06WS_rms vs run
χ^2 / ndf 8882 / 79
p0 143.3 ± 0.115
280
260
240
220
200
180
160
140
120

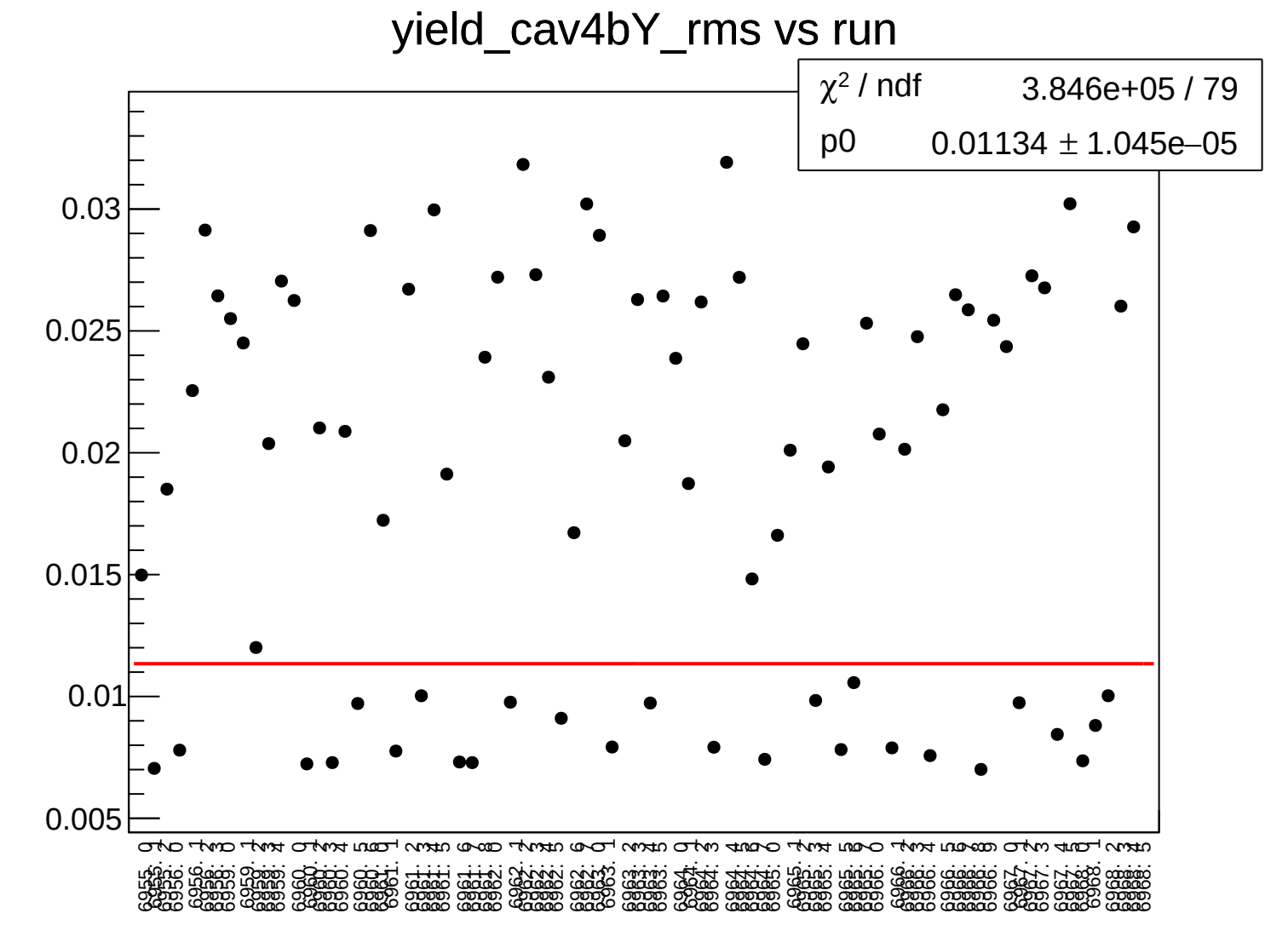

yield_cav4bX_mean vs run
χ² / ndf 6.028e+05 / 79
p0 −0.6817 ± 4.046e−05
pull
Entries 80
Mean −62.85
Std Dev 98.85

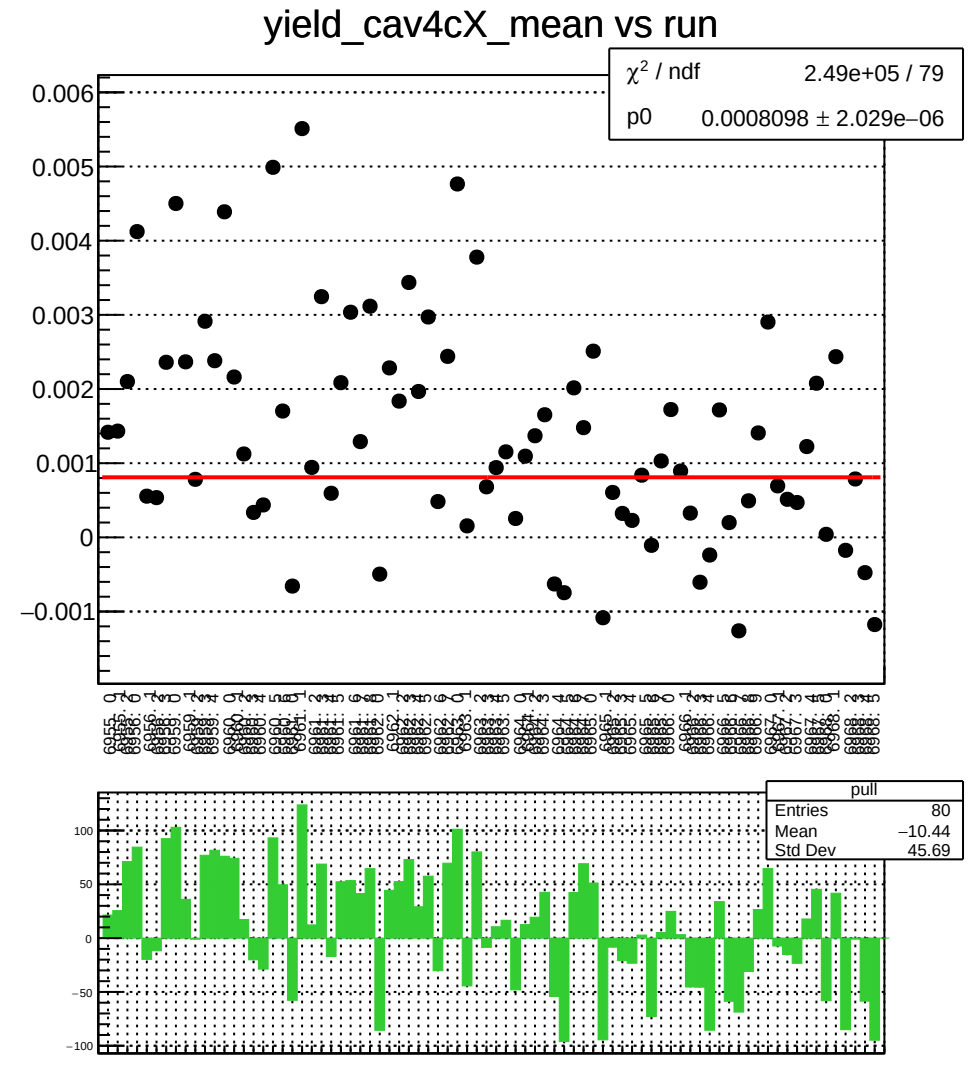

pull1D
Entries 80
Mean 2.063
Std Dev 4.068

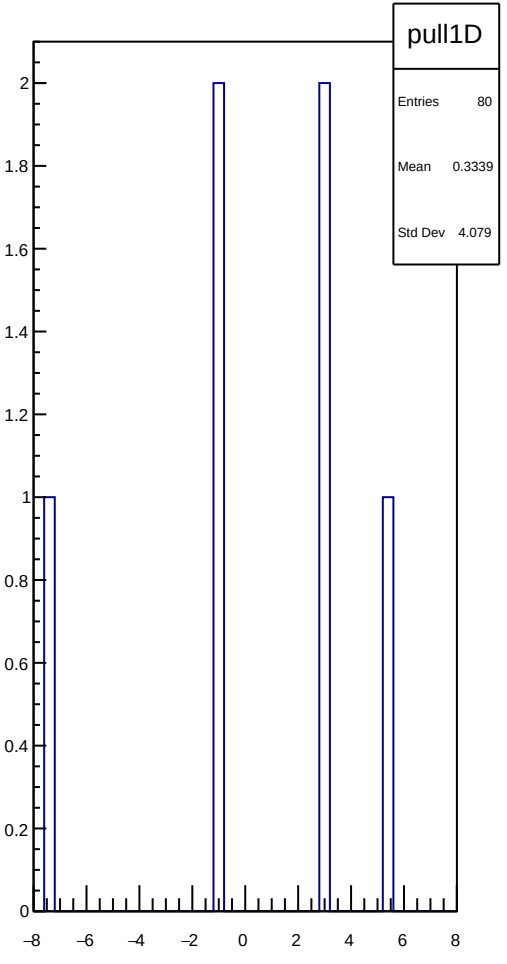

yield_cav4bX_rms vs run
χ² / ndf 2.593e+05 / 79
p0 0.03267 ± 2.861e–05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

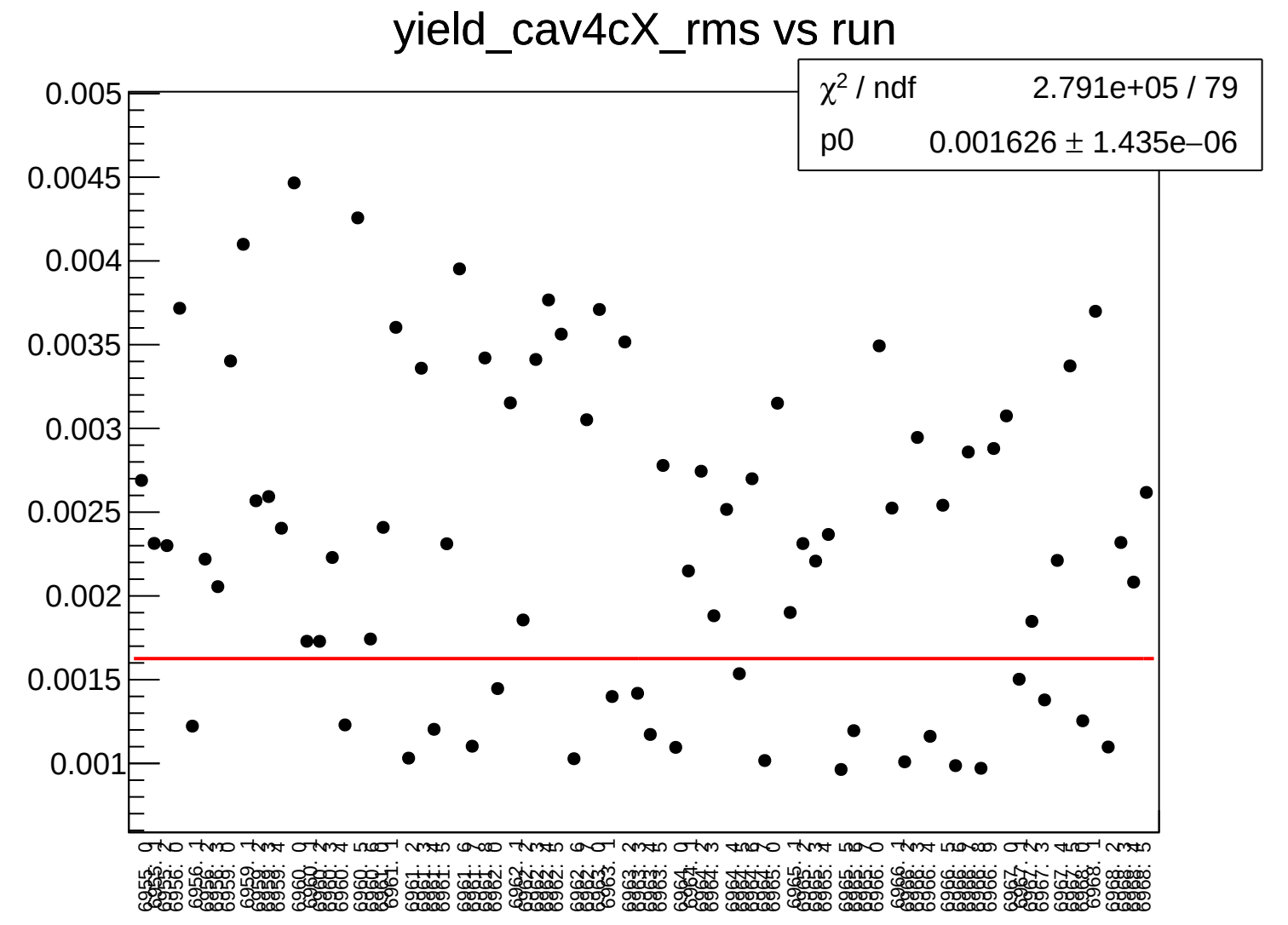

yield_cav4bY_mean vs run
χ² / ndf 3.395e+06 / 79
p0 −0.8357 ± 1.478e−05
pull
Entries 80
Mean 106
Std Dev 78.94

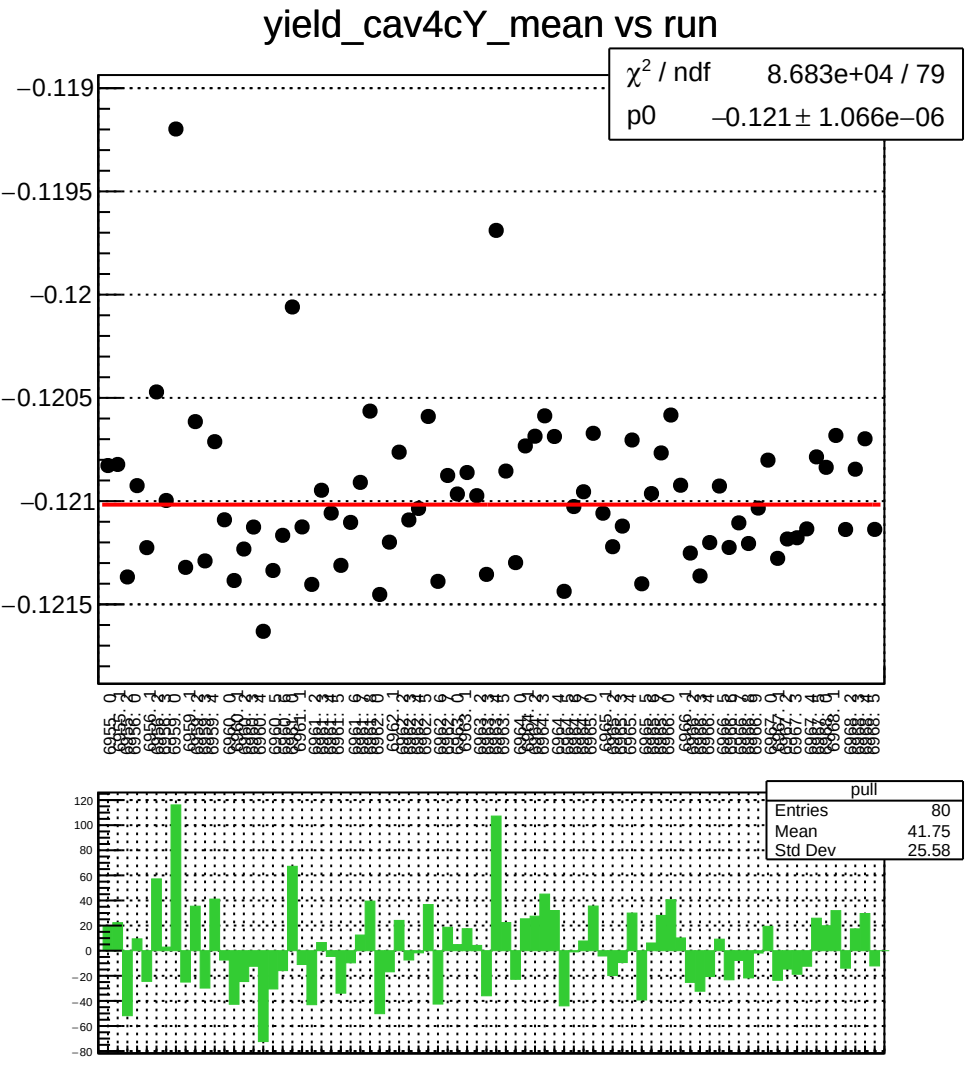

pull1D
Entries 80
Mean 0.8302
Std Dev 3.366

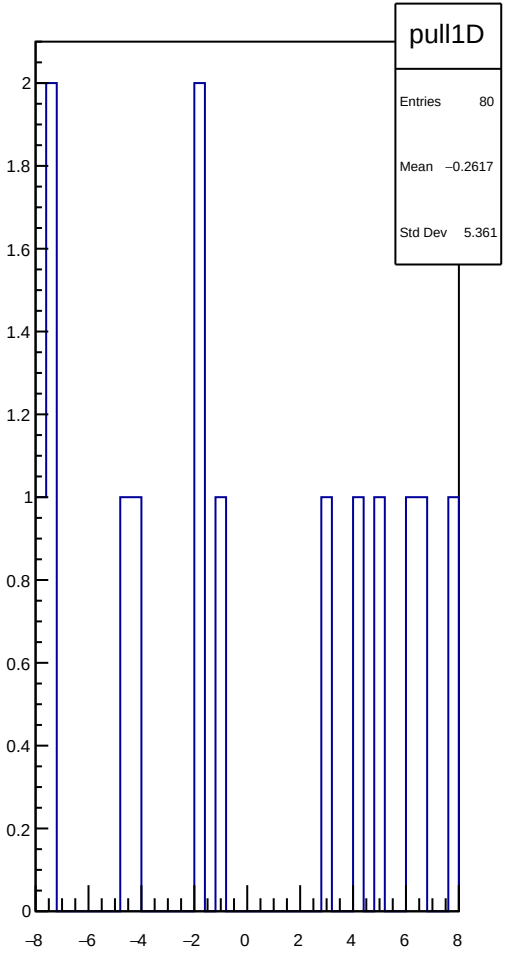

yield_cav4bY_rms vs run
χ² / ndf 3.846e+05 / 79
p0 0.01134 ± 1.045e−05
0.03
0.025
0.02
0.015
0.01
0.005

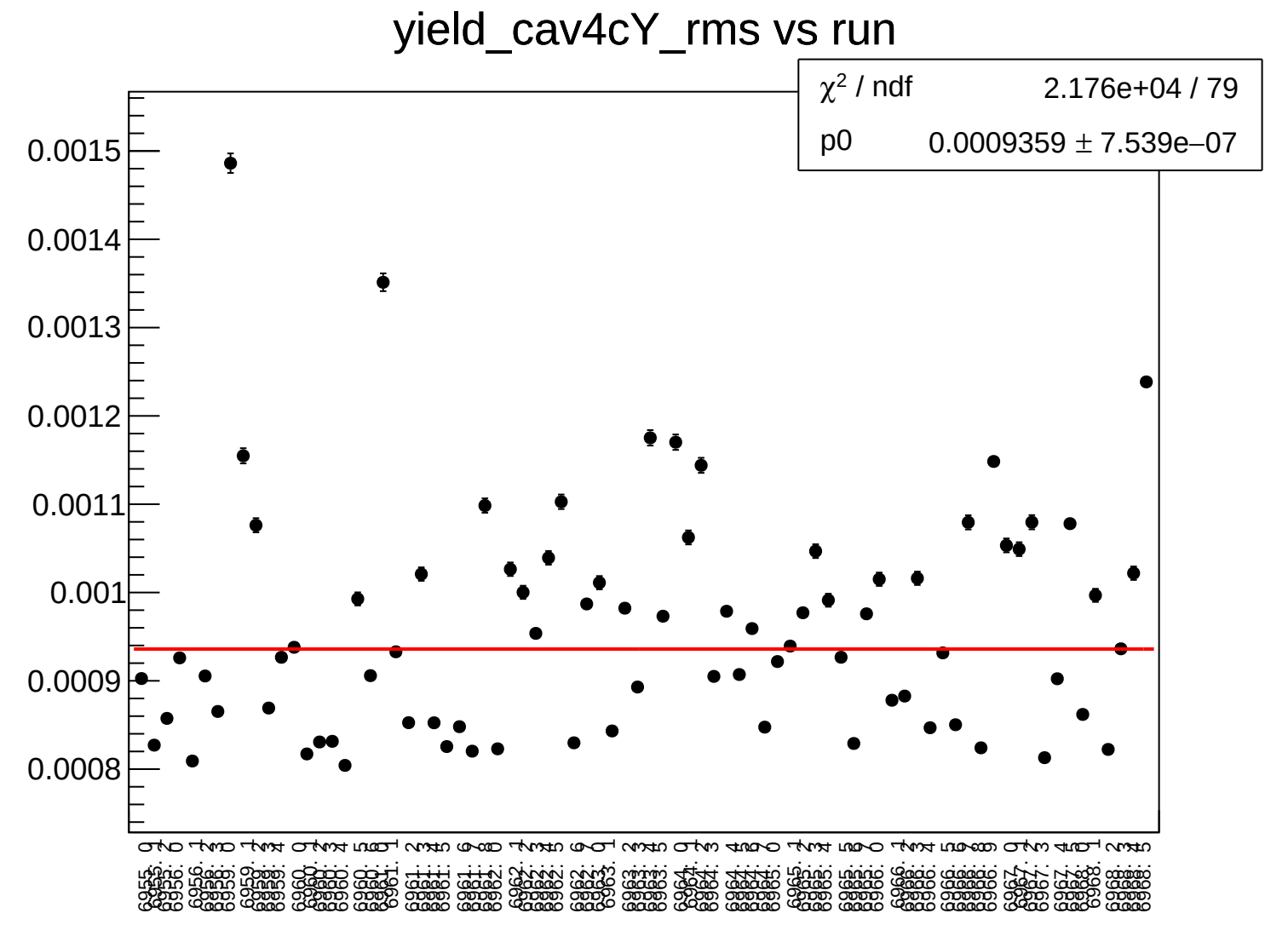

yield_cav4cX_mean vs run
χ² / ndf 2.49e+05 / 79
p0 0.0008098 ± 2.029e−06
0.006
0.005
0.004
0.003
0.002
0.001
0
−0.001
pull
Entries 80
Mean −10.44
Std Dev 45.69
100
50
0
−50
−100

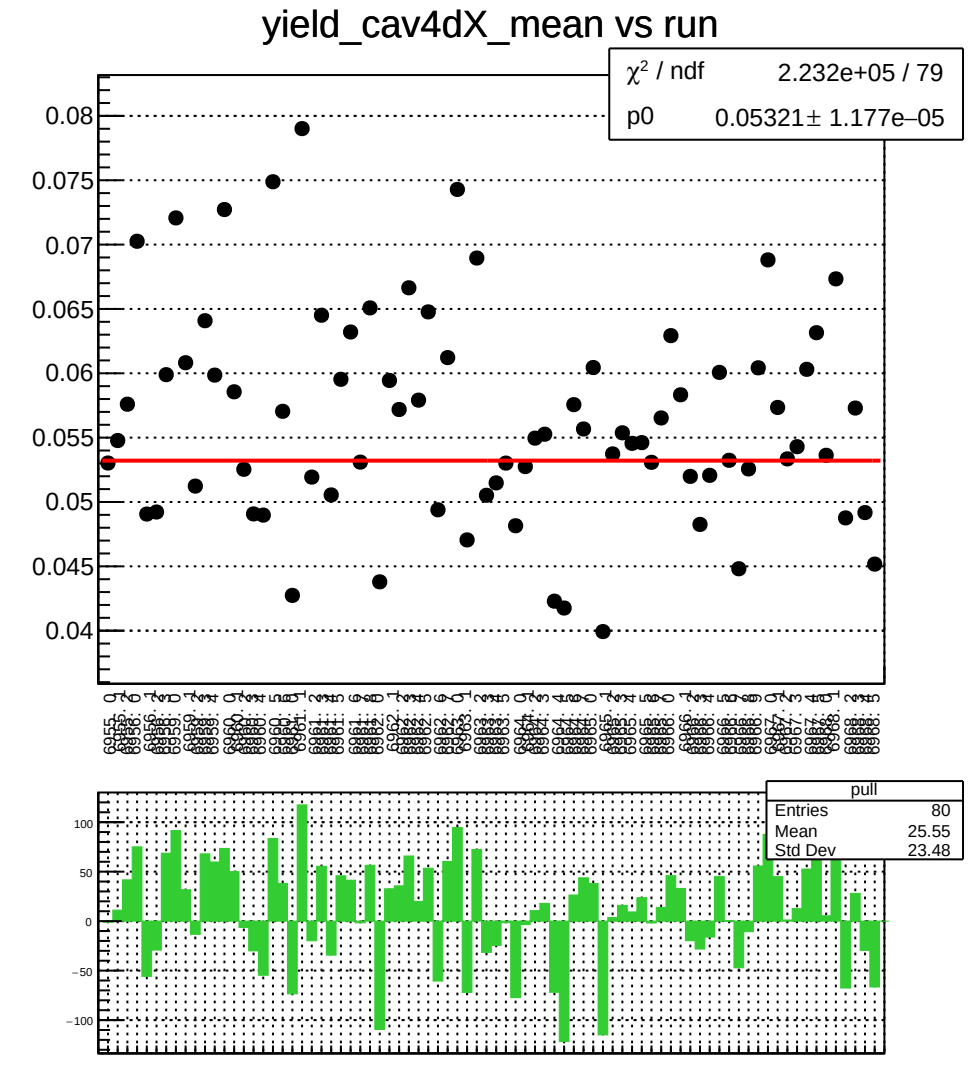

pull1D
Entries 80
Mean 0.3339
Std Dev 4.079
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

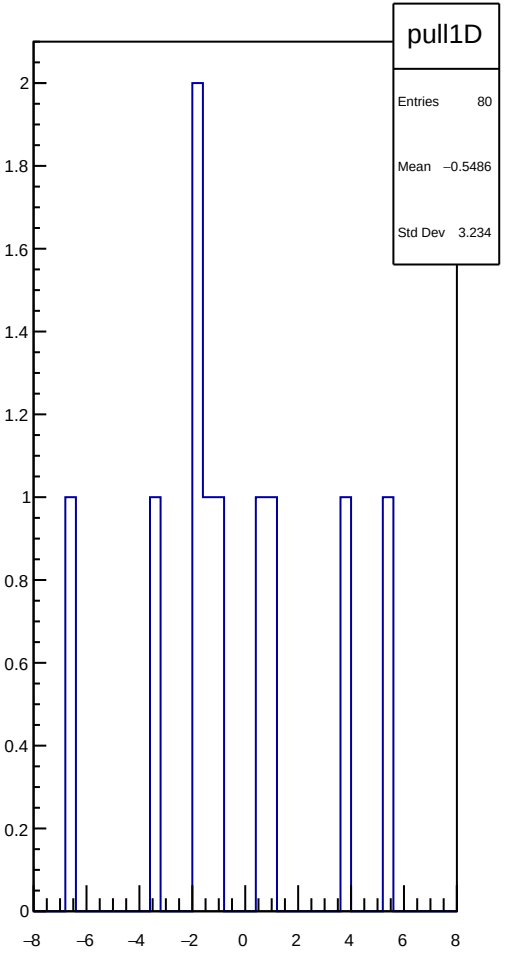

yield_cav4cX_rms vs run
χ² / ndf 2.791e+05 / 79
p0 0.001626 ± 1.435e−06
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001

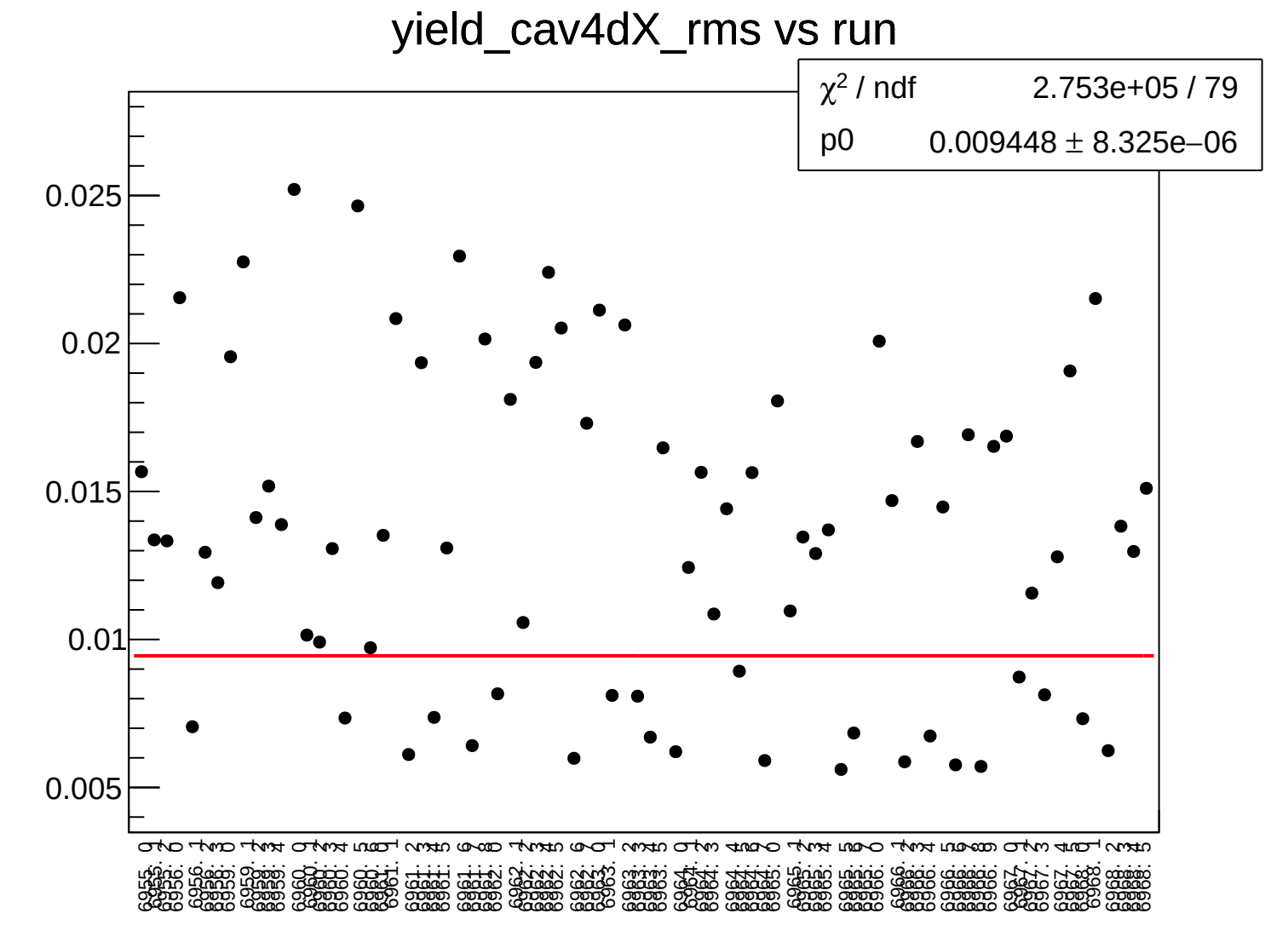

yield_cav4cY_mean vs run
χ² / ndf 8.683e+04 / 79
p0 −0.121 ± 1.066e−06
−0.119
−0.1195
−0.12
−0.1205
−0.121
−0.1215
pull
Entries 80
Mean 41.75
Std Dev 25.58
120
100
80
60
40
20
0
−20
−40
−60
−80

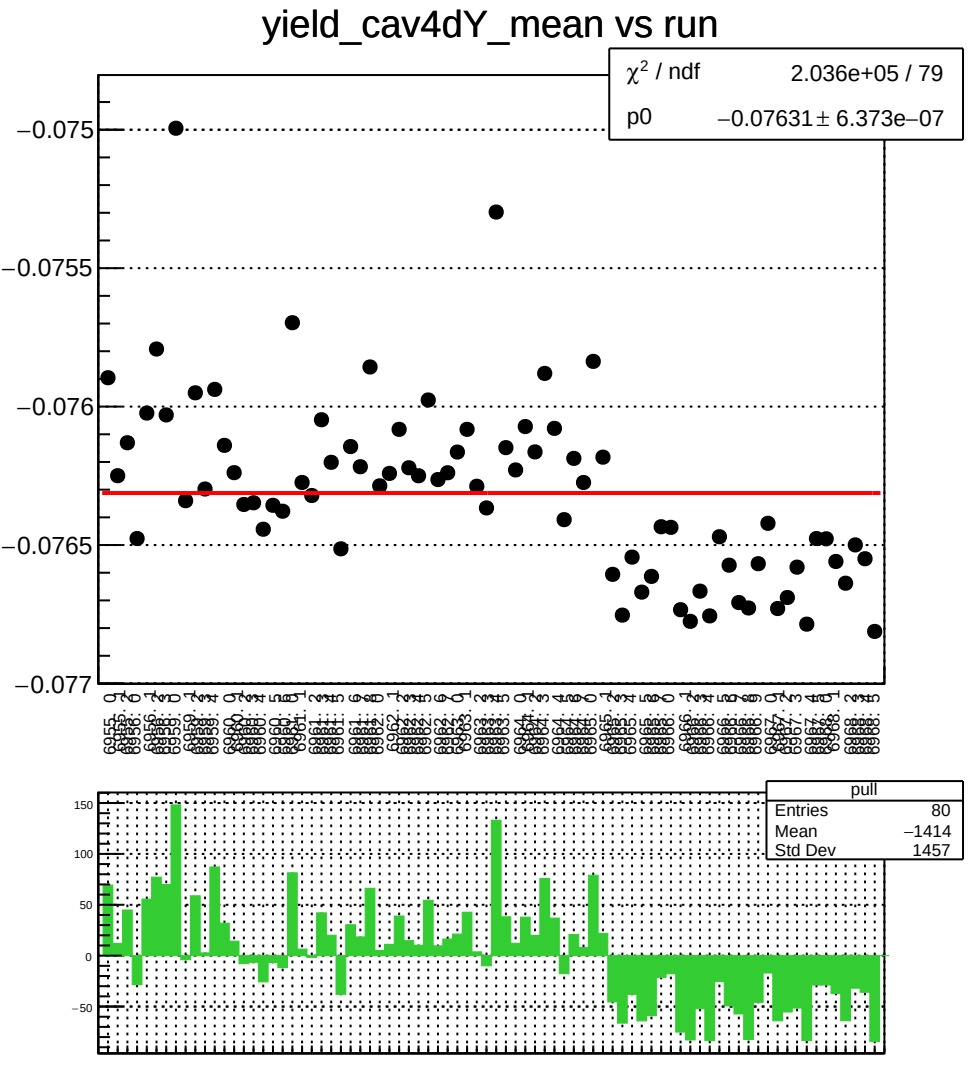

pull1D
Entries 80
Mean −0.2617
Std Dev 5.361
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

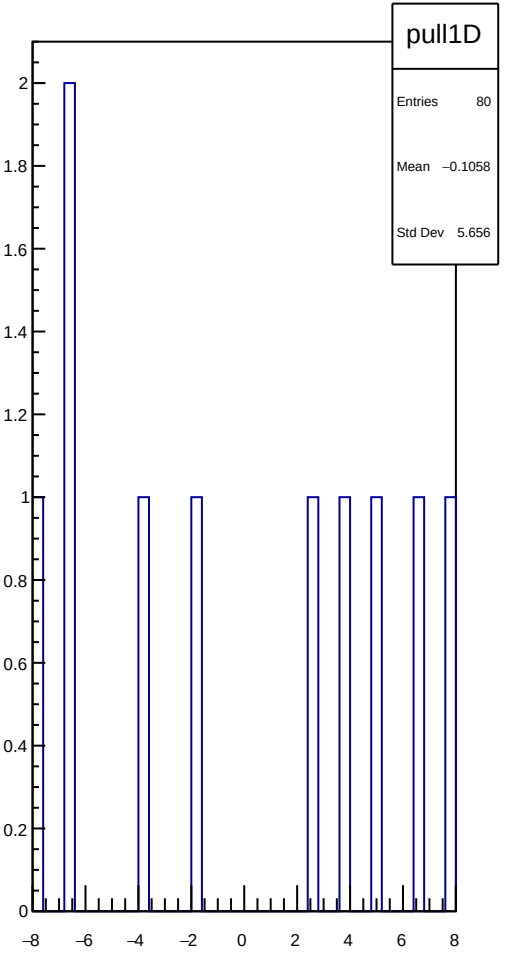

yield_cav4cY_rms vs run
χ² / ndf 2.176e+04 / 79
p0 0.0009359 ± 7.539e−07
0.0015
0.0014
0.0013
0.0012
0.0011
0.001
0.0009
0.0008

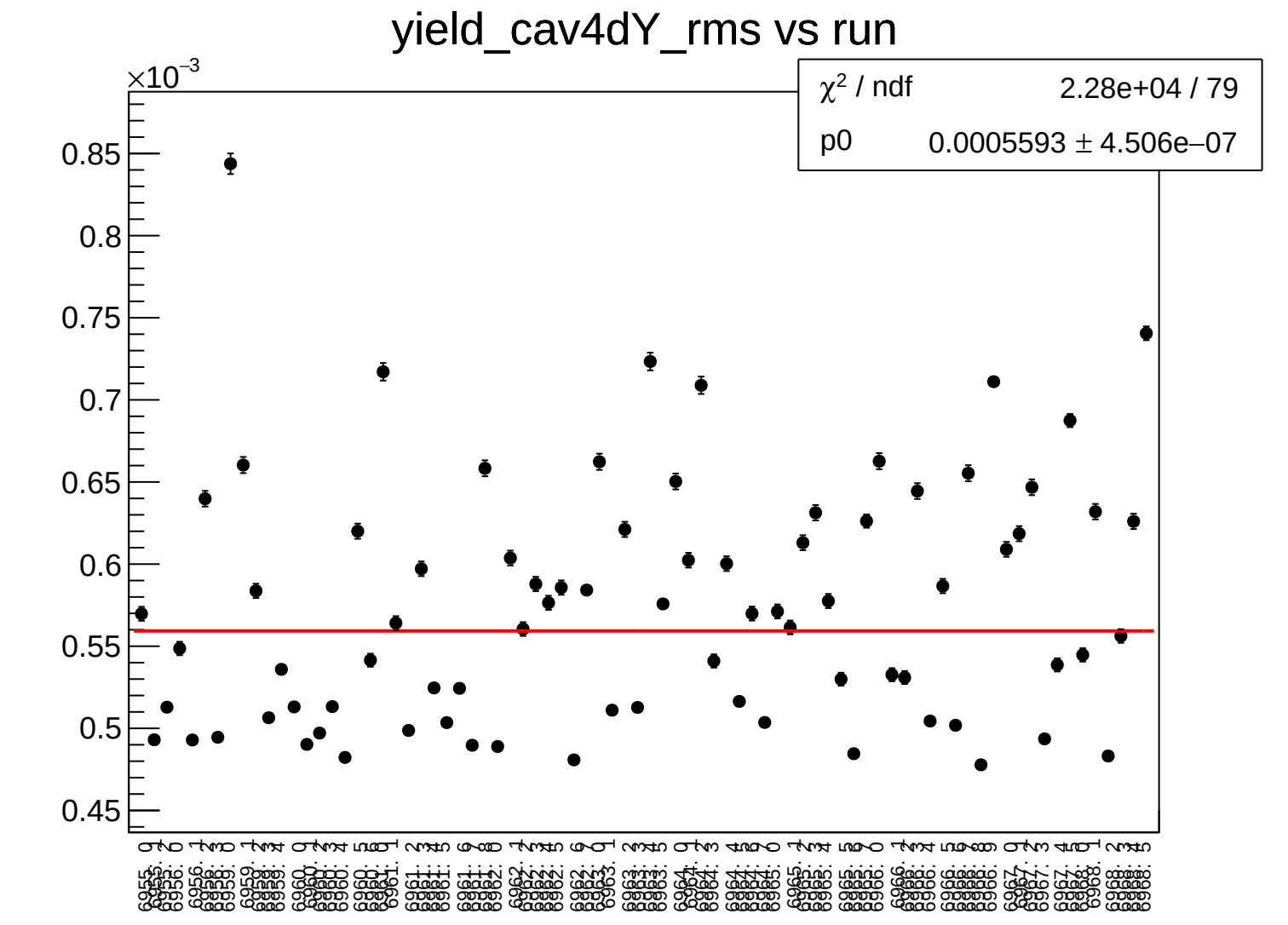

yield_cav4dX_mean vs run
χ² / ndf 2.232e+05 / 79
p0 0.05321± 1.177e−05
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
pull
Entries 80
Mean 25.55
Std Dev 23.48
100
50
0
−50
−100

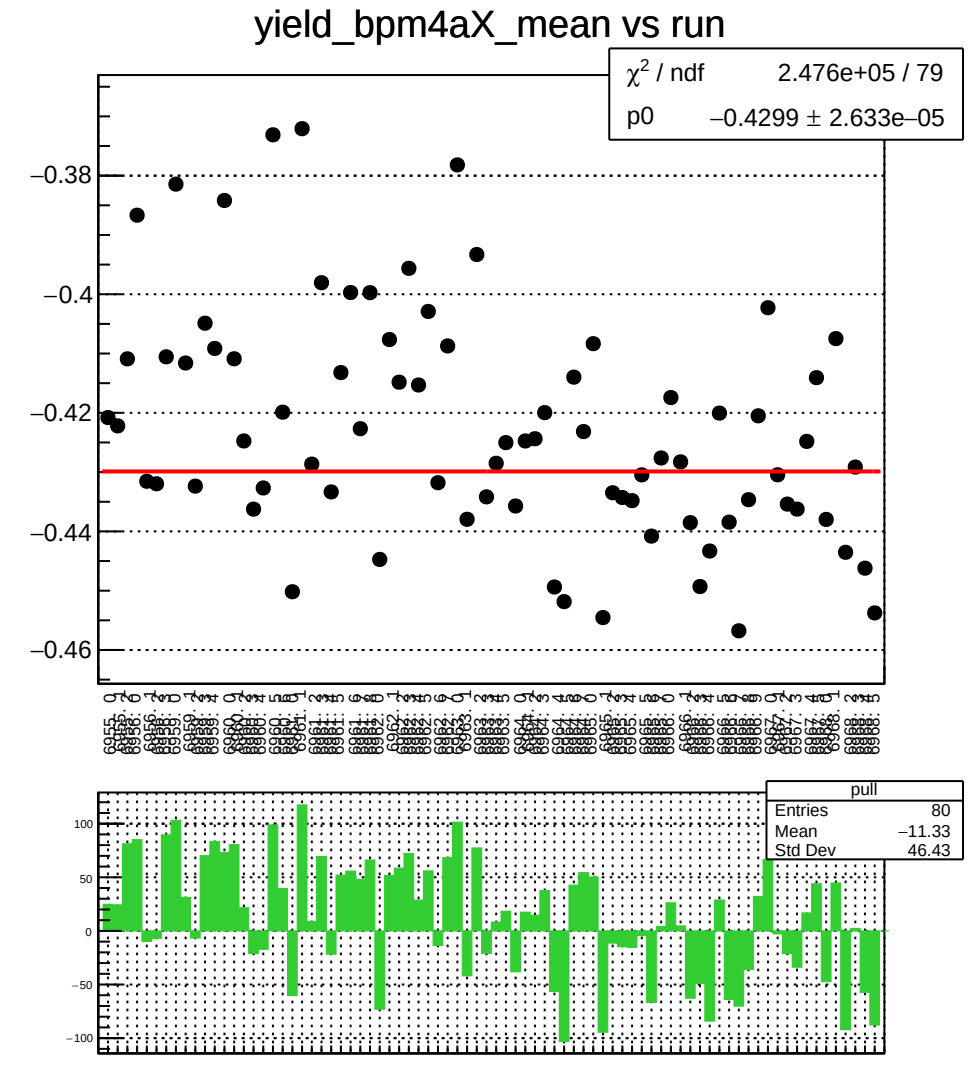

pull1D
Entries 80
Mean −0.5486
Std Dev 3.234
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

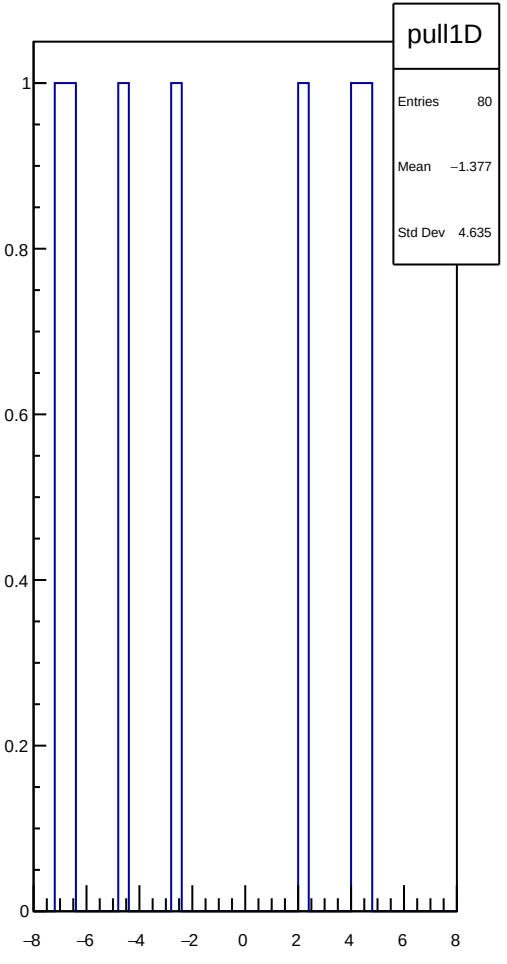

yield_cav4dX_rms vs run
χ² / ndf 2.753e+05 / 79
p0 0.009448 ± 8.325e−06
0.025
0.02
0.015
0.01
0.005

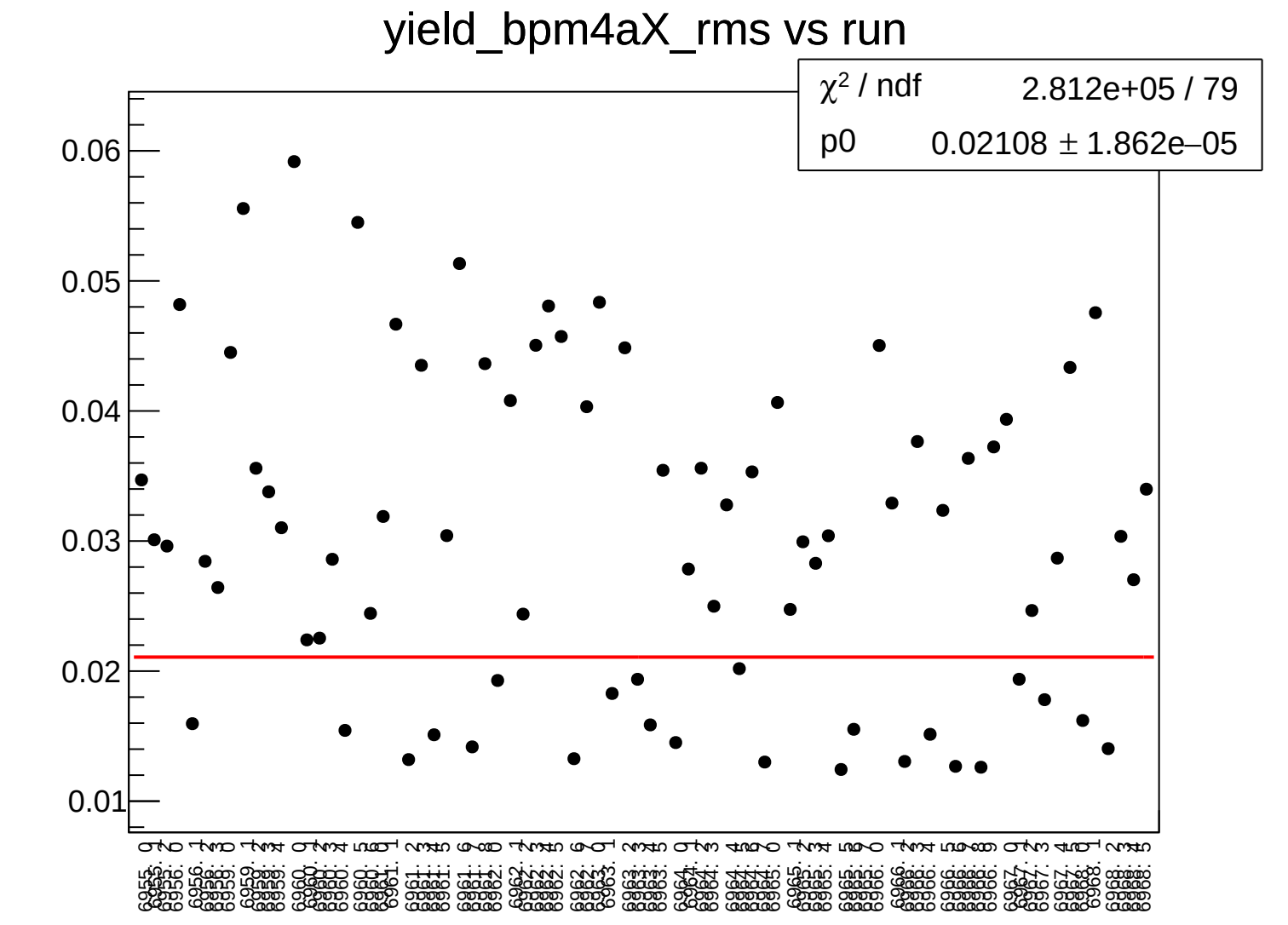

yield_cav4dY_mean vs run
χ² / ndf 2.036e+05 / 79
p0 −0.07631 ± 6.373e−07
−0.075
−0.0755
−0.076
−0.0765
−0.077
pull
Entries 80
Mean −1414
Std Dev 1457
150
100
50
0
−50

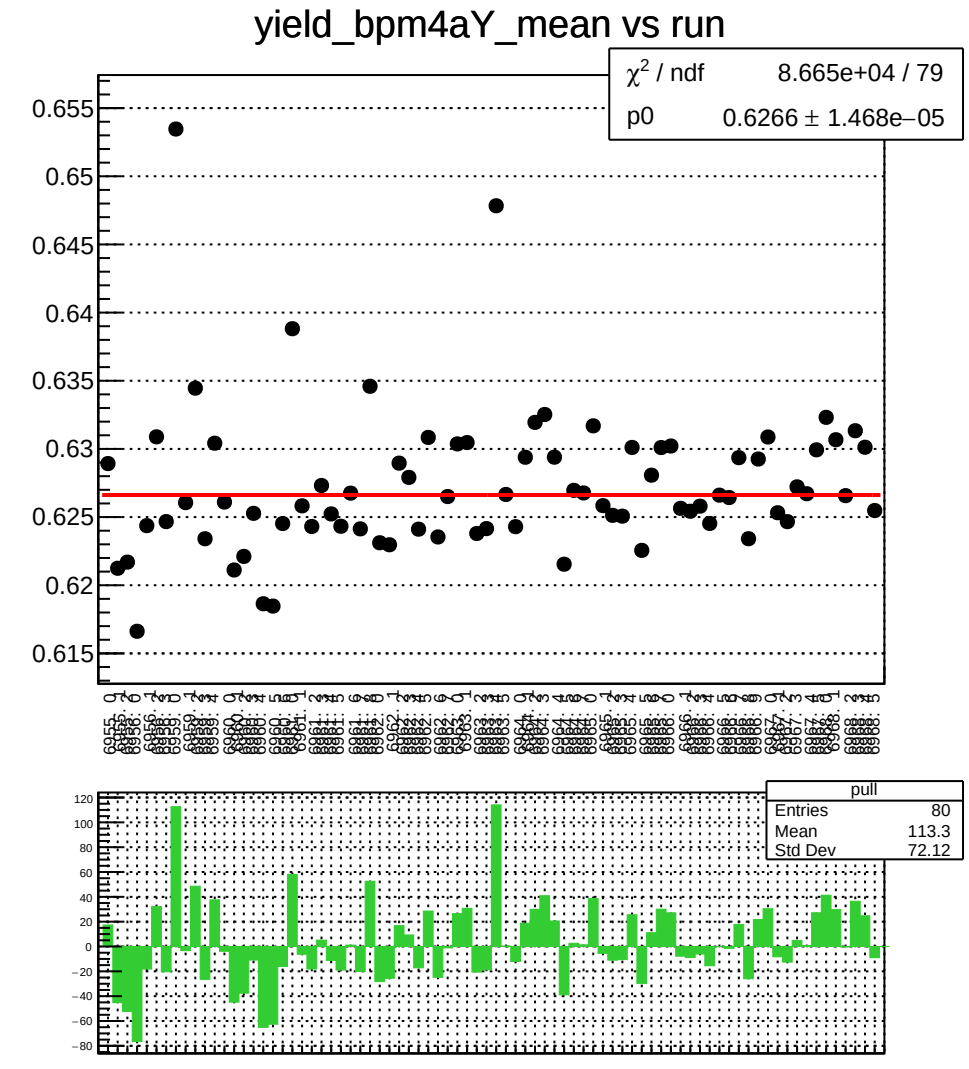

pull1D
Entries 80
Mean −0.1058
Std Dev 5.656
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

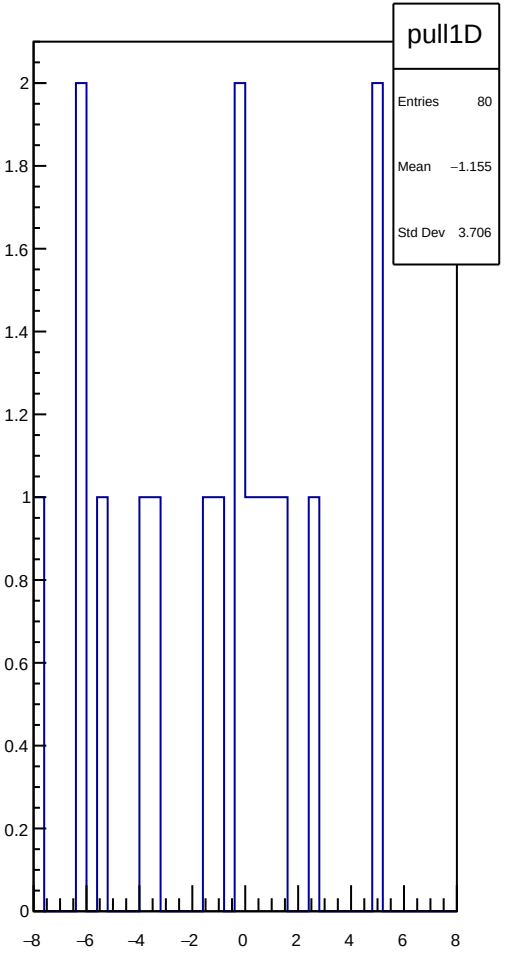

yield_cav4dY_rms vs run
×10⁻³
χ² / ndf 2.28e+04 / 79
p0 0.0005593 ± 4.506e−07
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45

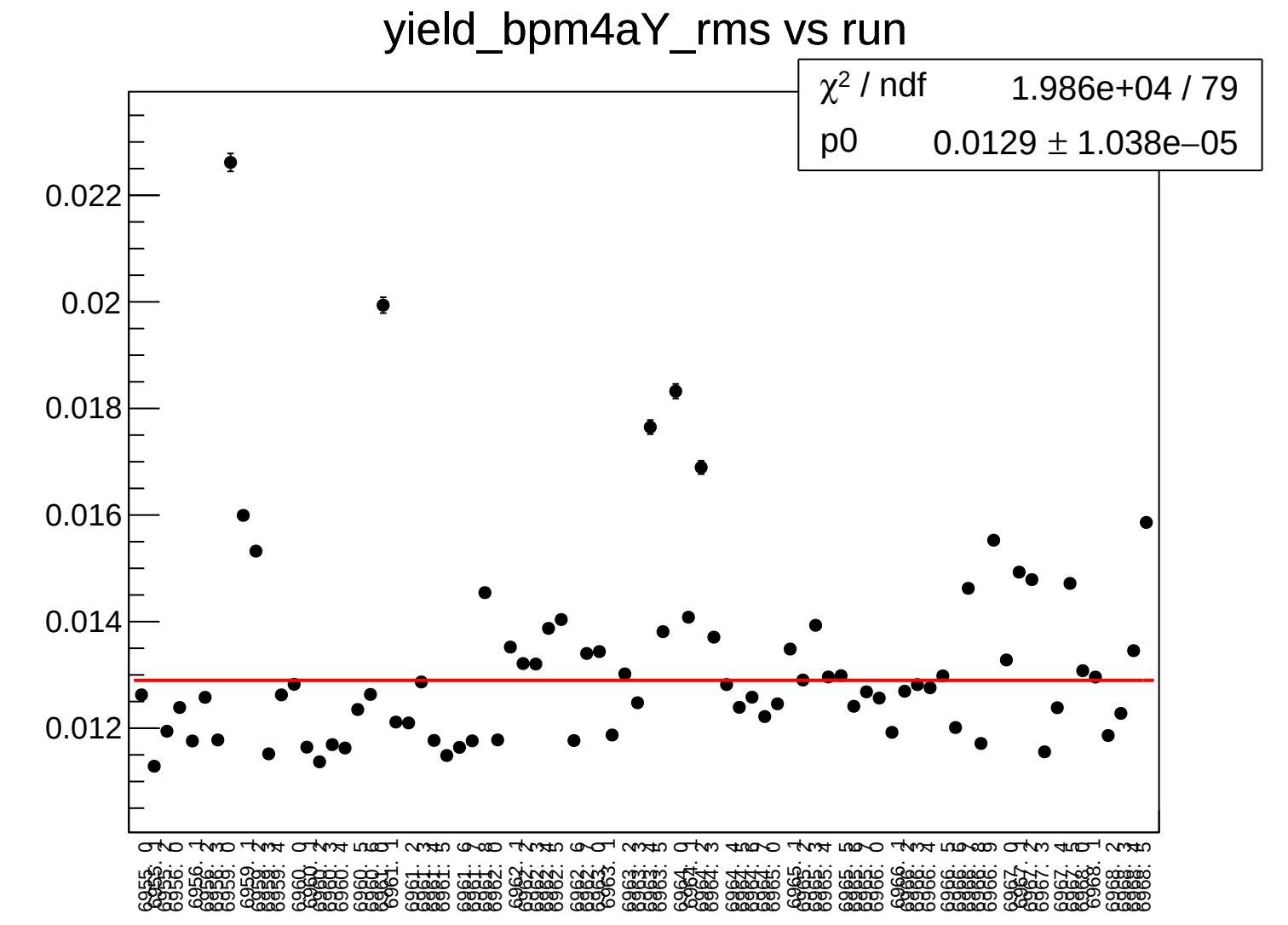

yield_bpm4aX_mean vs run
χ² / ndf 2.476e+05 / 79
p0 −0.4299 ± 2.633e−05
−0.38
−0.4
−0.42
−0.44
−0.46
pull
Entries 80
Mean −11.33
Std Dev 46.43
100
50
0
−50
−100

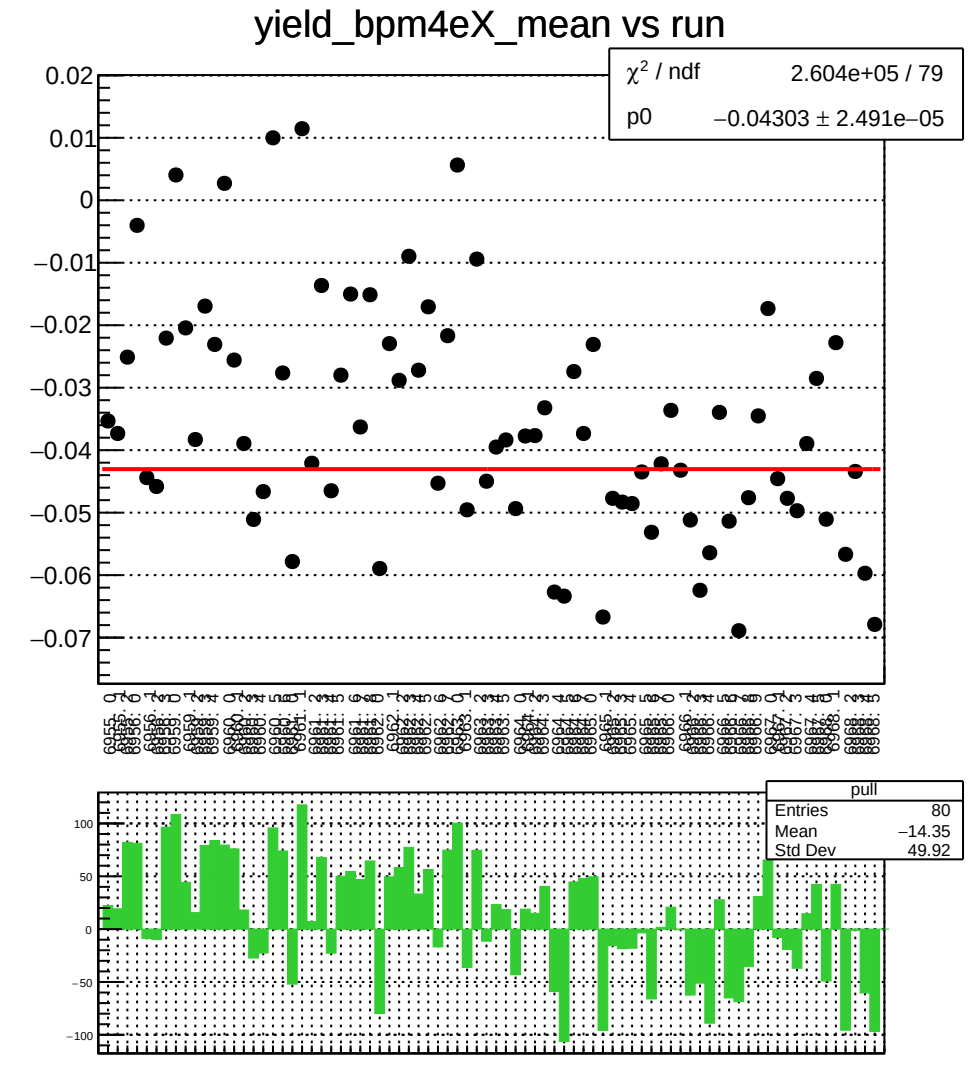

pull1D
Entries 80
Mean −1.377
Std Dev 4.635
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

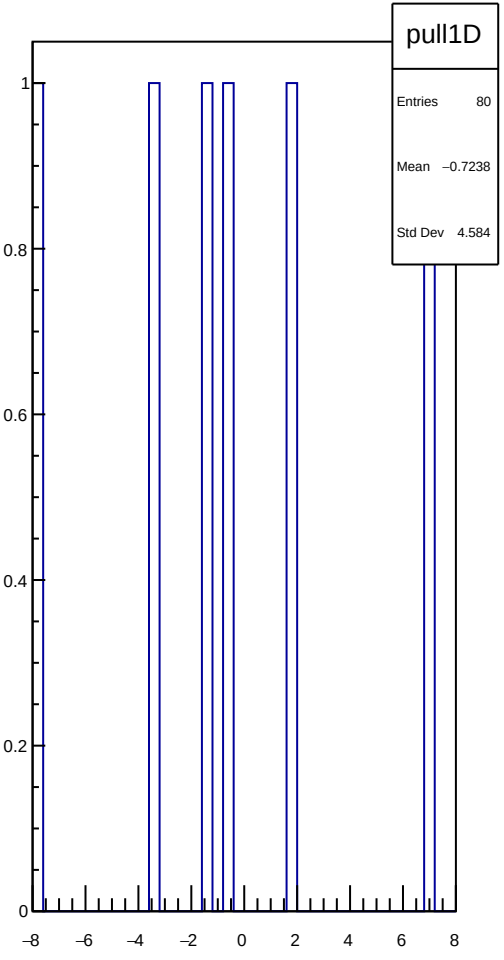

yield_bpm4aX_rms vs run
χ² / ndf 2.812e+05 / 79
p0 0.02108 ± 1.862e–05
0.06
0.05
0.04
0.03
0.02
0.01

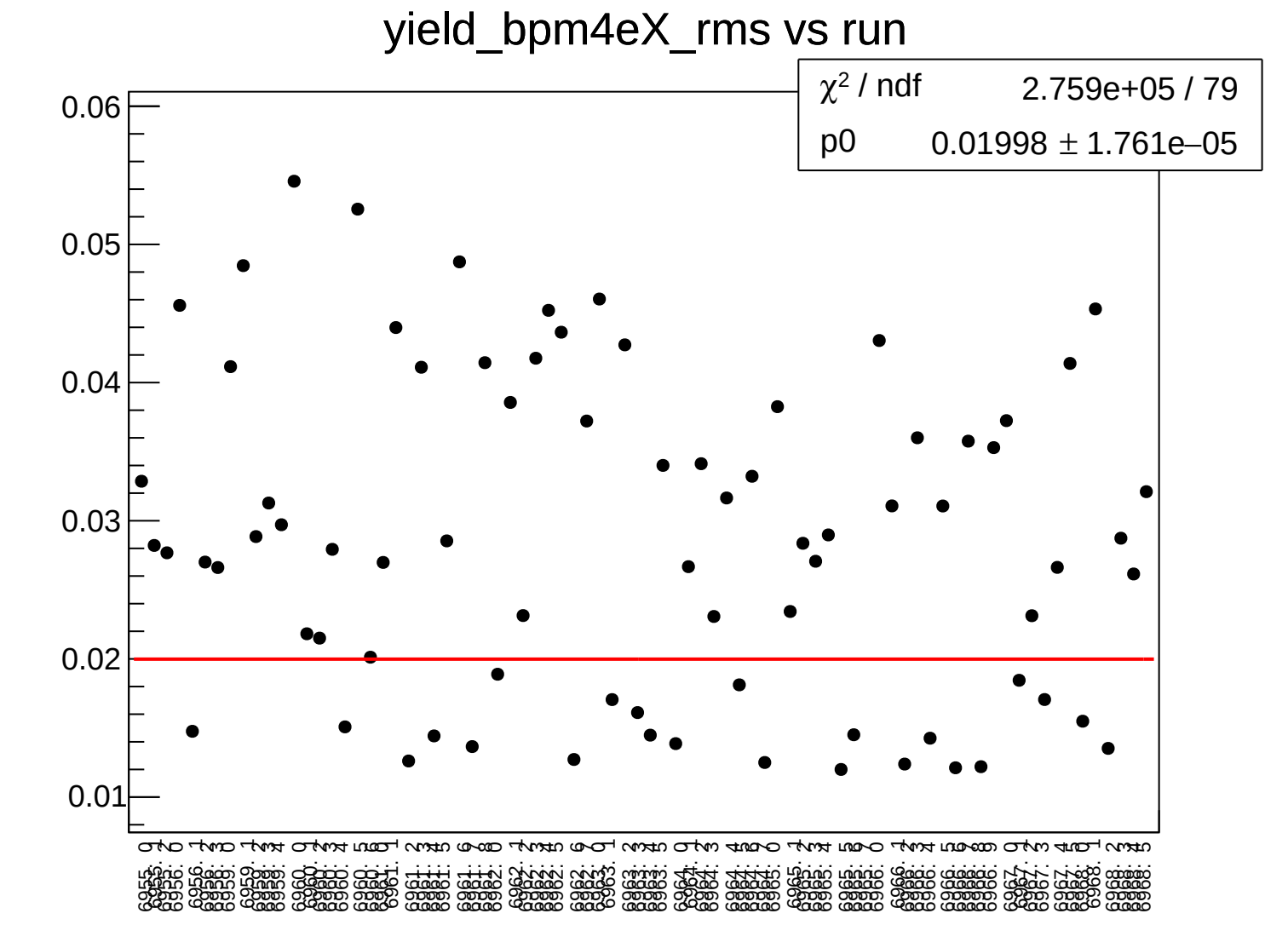

yield_bpm4aY_mean vs run
χ² / ndf 8.665e+04 / 79
p0 0.6266 ± 1.468e−05
0.655
0.65
0.645
0.64
0.635
0.63
0.625
0.62
0.615
pull
Entries 80
Mean 113.3
Std Dev 72.12
120
100
80
60
40
20
0
−20
−40
−60
−80

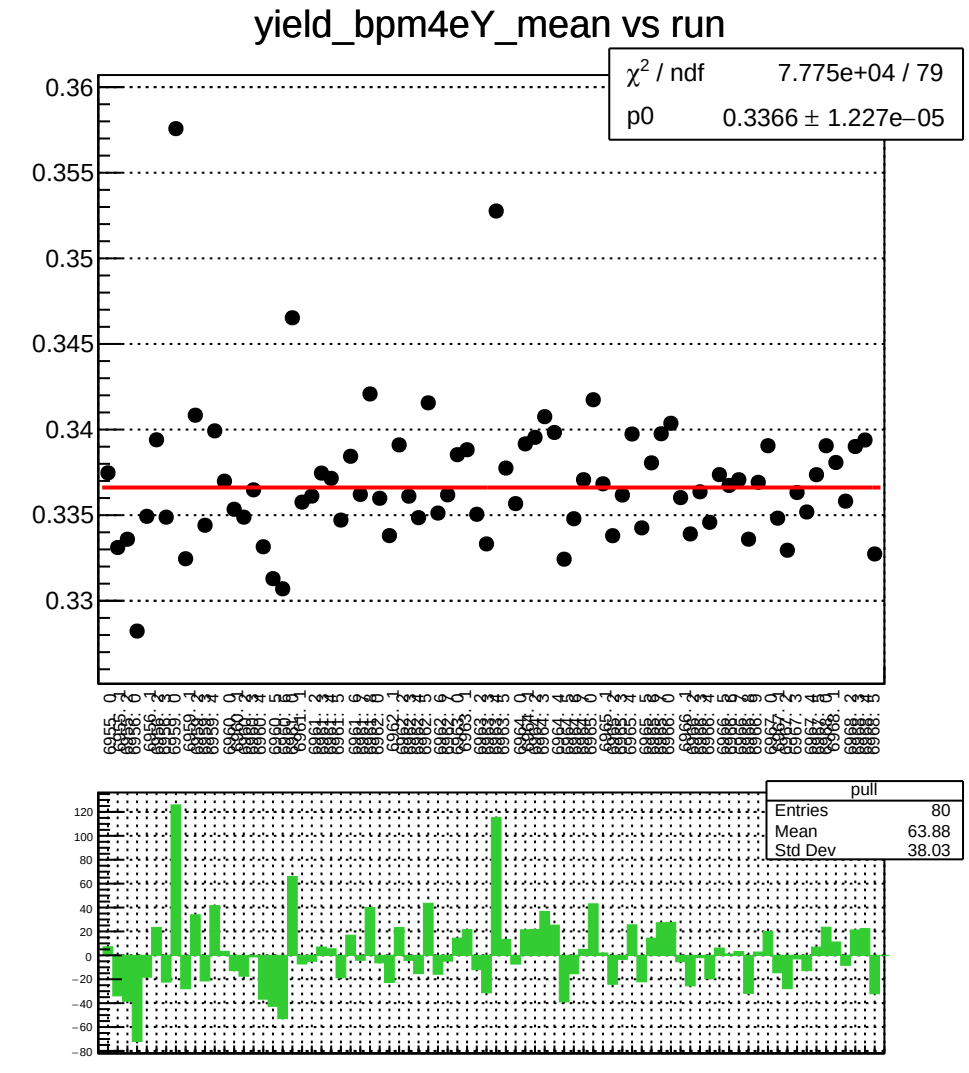

pull1D
Entries 80
Mean −1.155
Std Dev 3.706
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

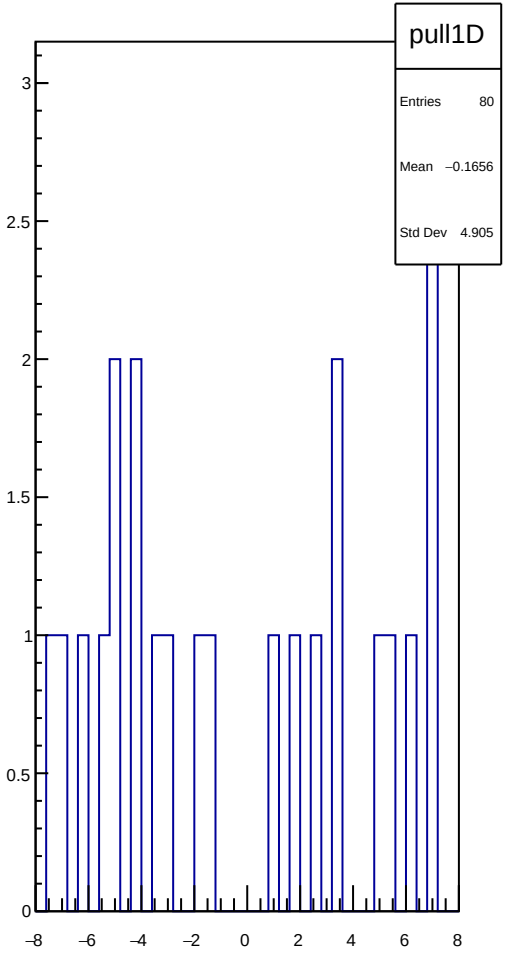

yield_bpm4aY_rms vs run
χ² / ndf 1.986e+04 / 79
p0 0.0129 ± 1.038e−05
0.022
0.02
0.018
0.016
0.014
0.012

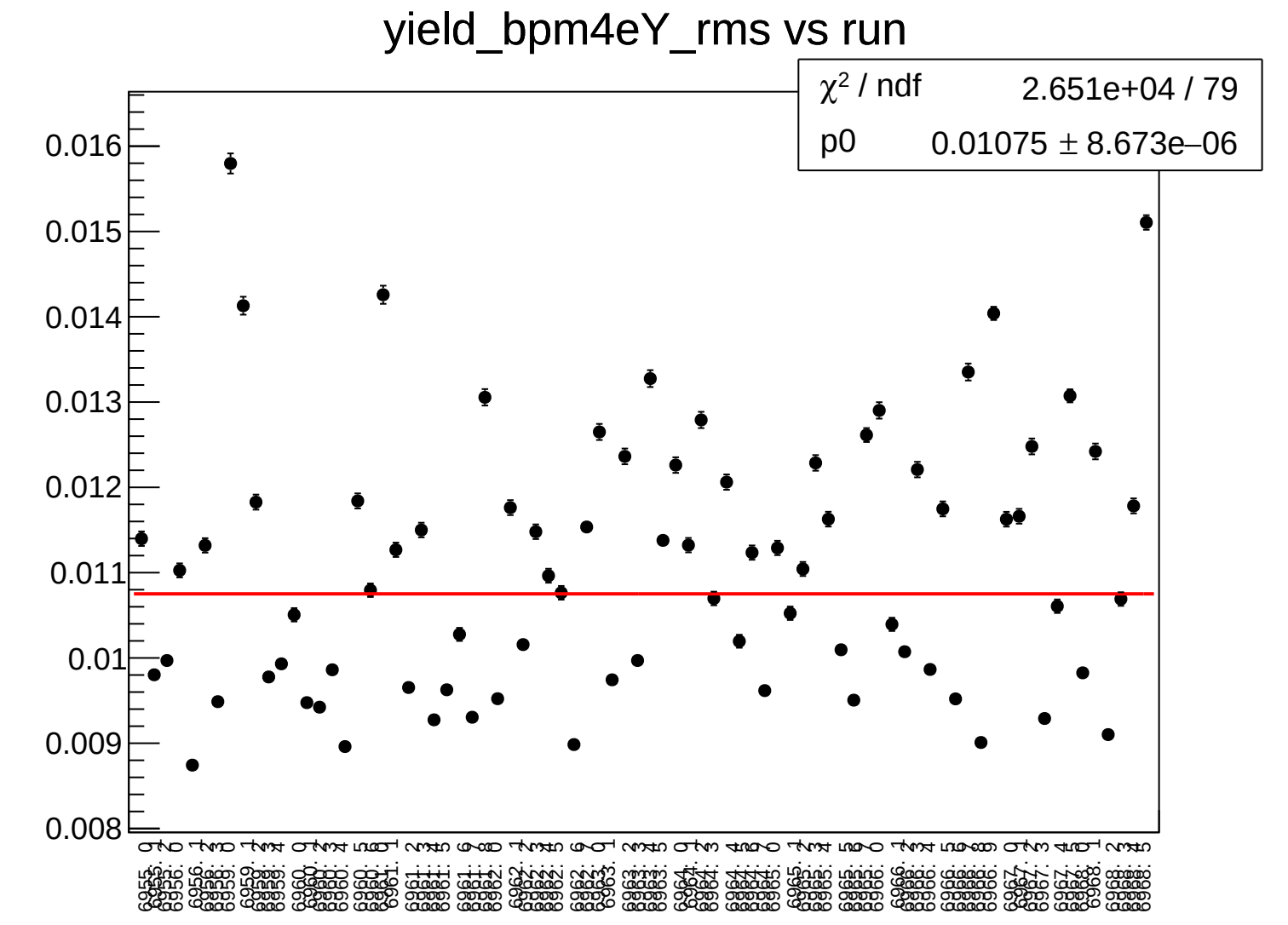

yield_bpm4eX_mean vs run
χ² / ndf 2.604e+05 / 79
p0 −0.04303 ± 2.491e−05
pull
Entries 80
Mean −14.35
Std Dev 49.92

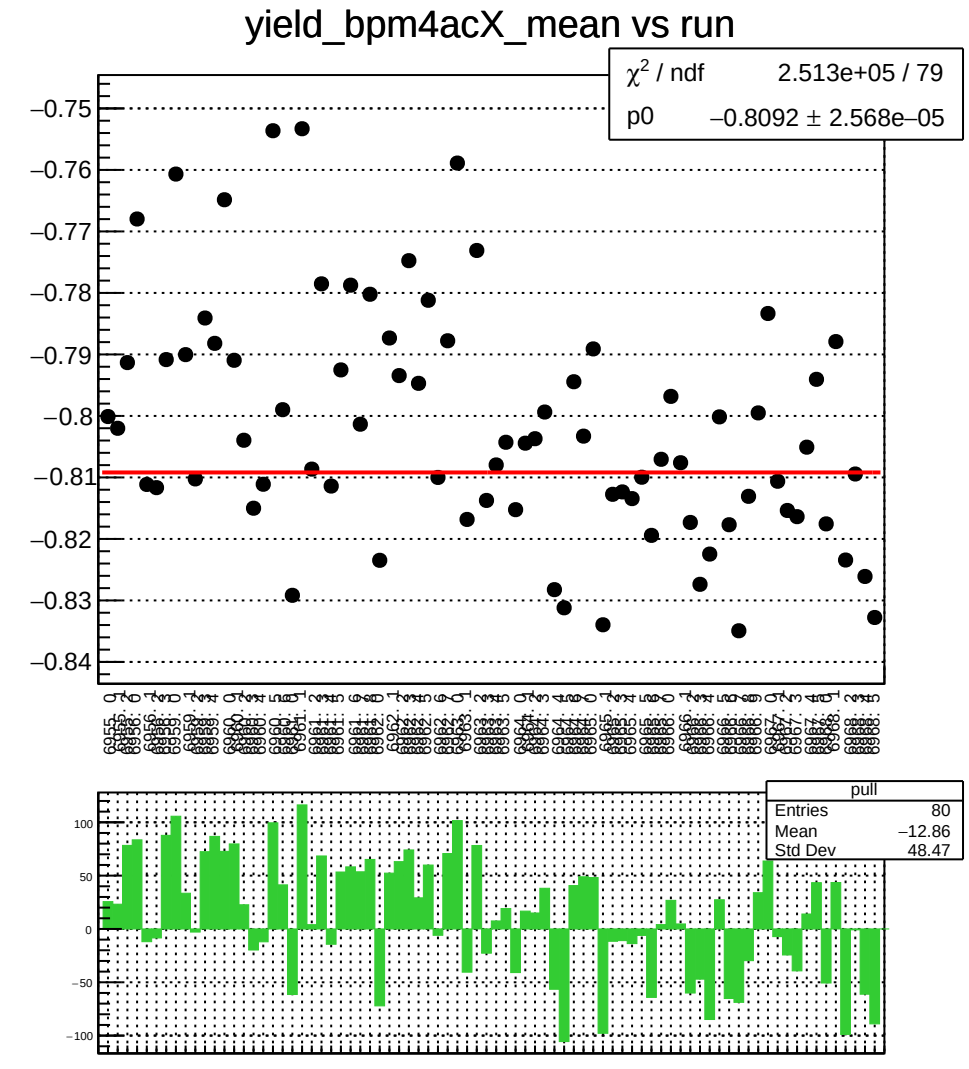

pull1D
Entries 80
Mean −0.7238
Std Dev 4.584

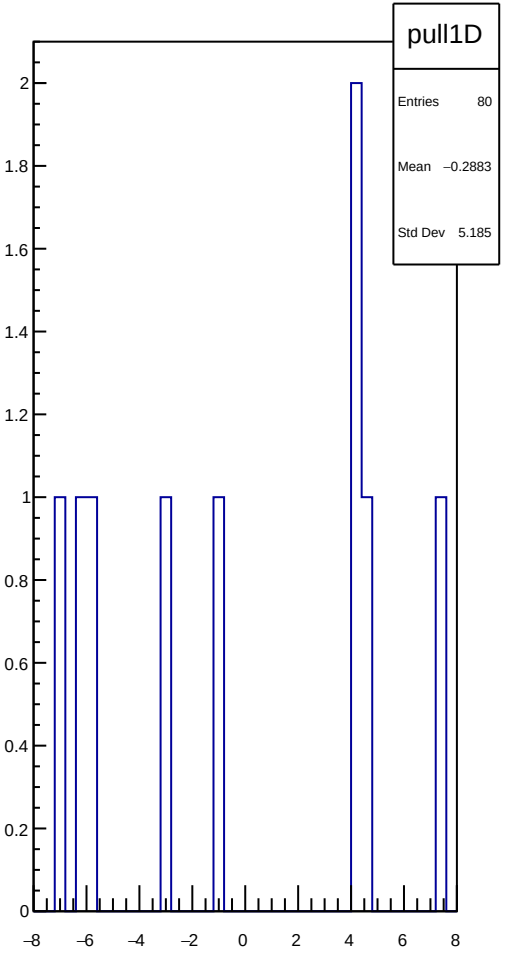

yield_bpm4eX_rms vs run
χ² / ndf 2.759e+05 / 79
p0 0.01998 ± 1.761e−05
0.06
0.05
0.04
0.03
0.02
0.01

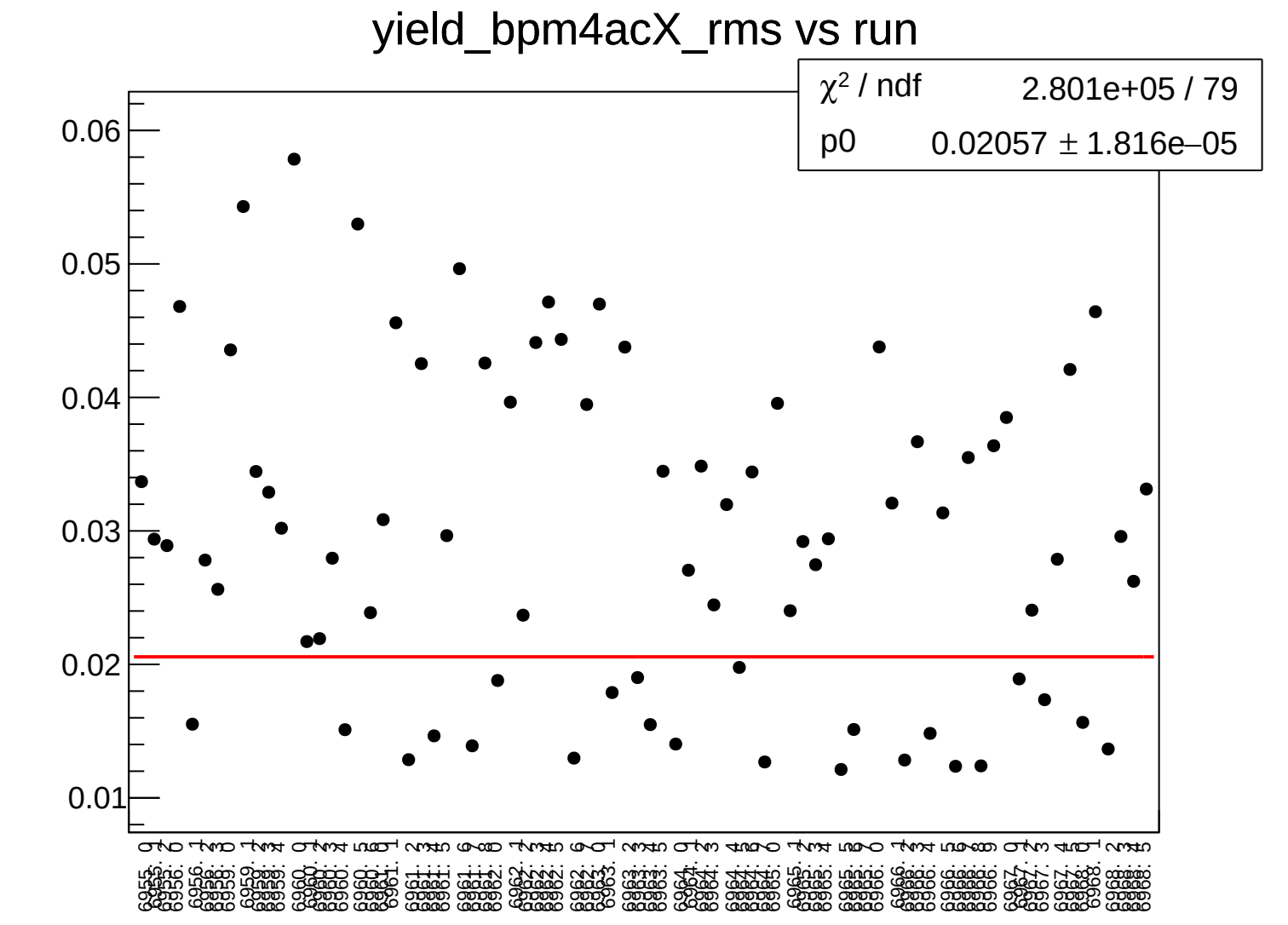

yield_bpm4eY_mean vs run
χ² / ndf 7.775e+04 / 79
p0 0.3366 ± 1.227e−05
0.36
0.355
0.35
0.345
0.34
0.335
0.33
pull
Entries 80
Mean 63.88
Std Dev 38.03
120
100
80
60
40
20
0
−20
−40
−60
−80

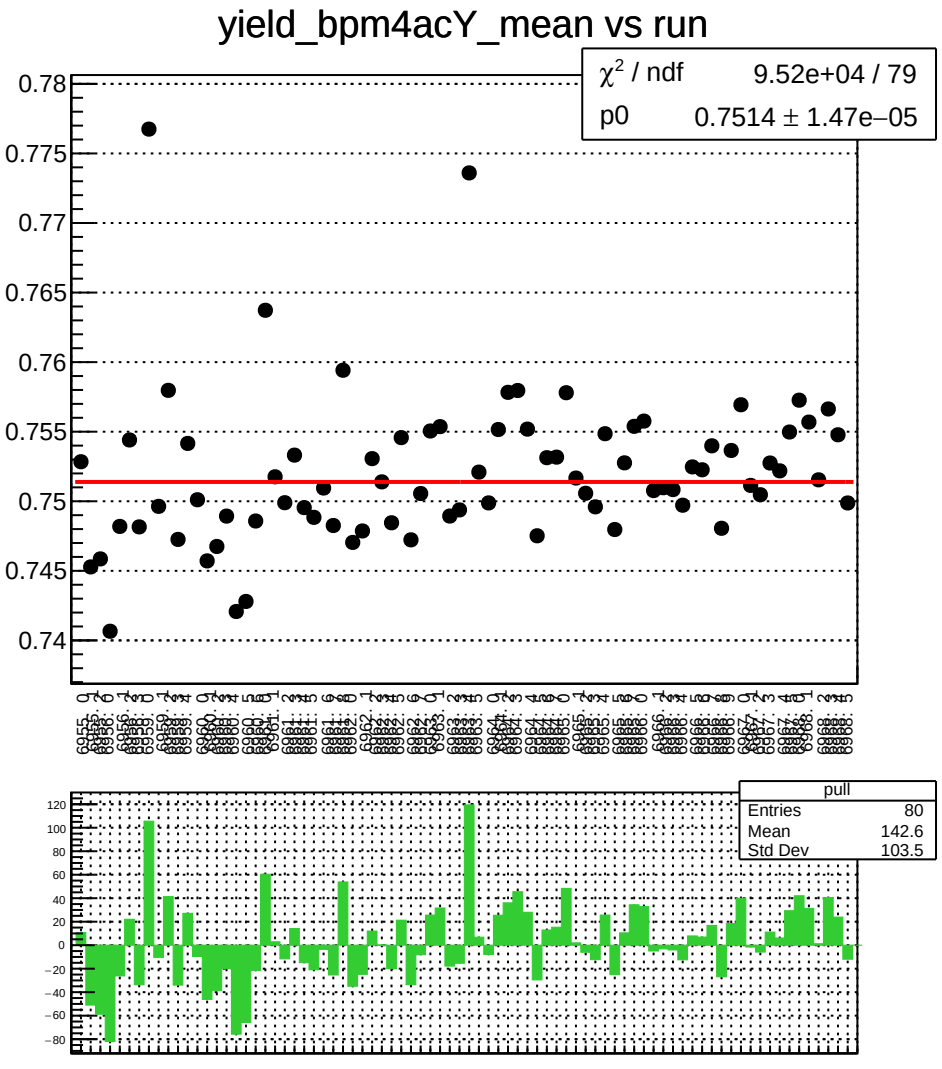

pull1D
Entries 80
Mean −0.1656
Std Dev 4.905
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

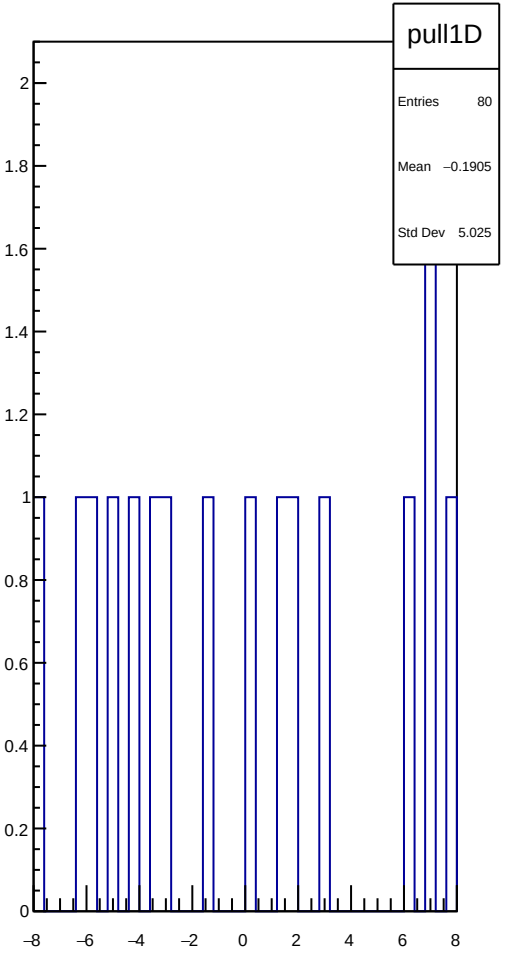

yield_bpm4eY_rms vs run
χ² / ndf 2.651e+04 / 79
p0 0.01075 ± 8.673e−06
0.016
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008

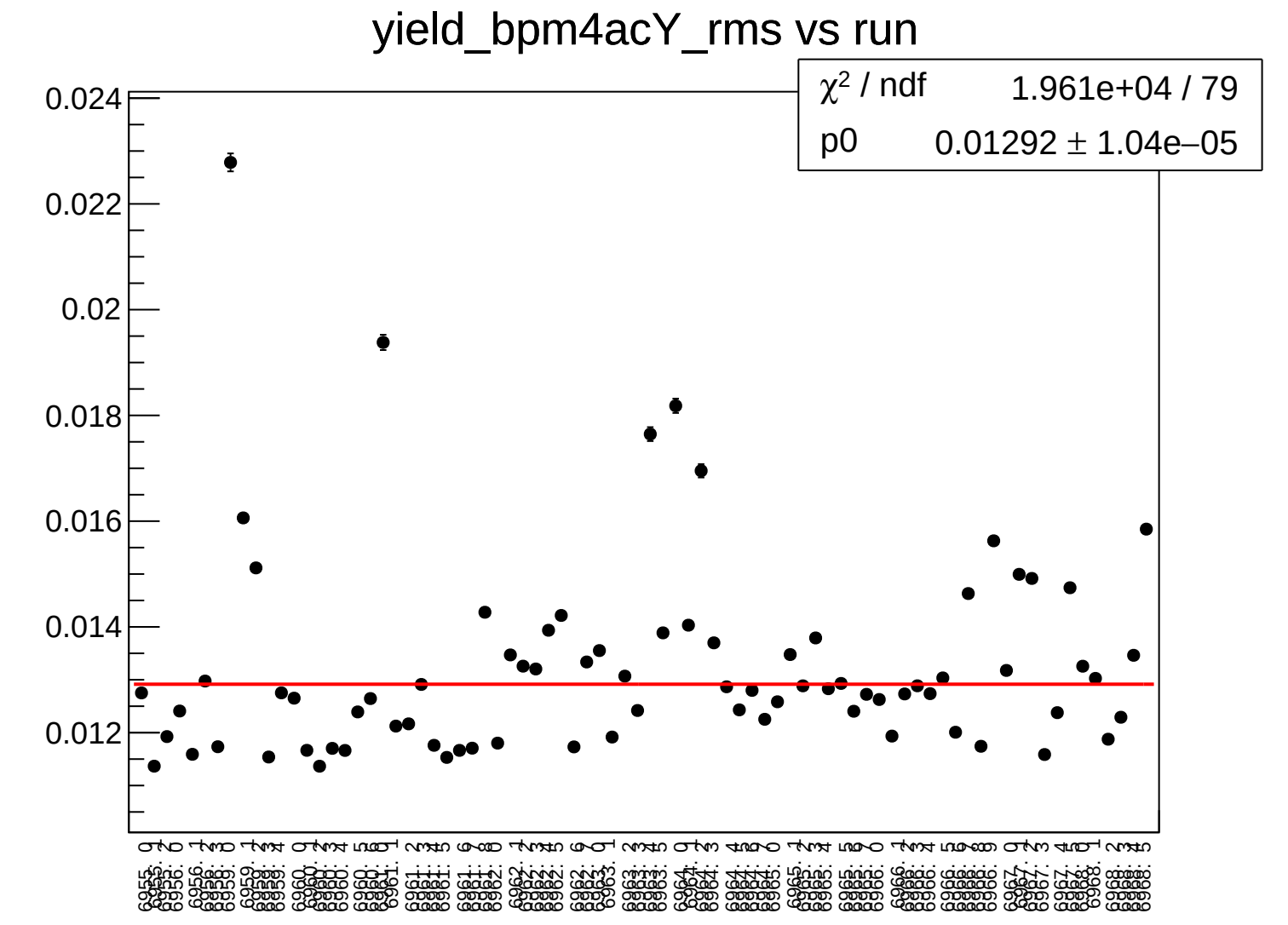

yield_bpm4acX_mean vs run
χ² / ndf 2.513e+05 / 79
p0 −0.8092 ± 2.568e−05
pull
Entries 80
Mean −12.86
Std Dev 48.47

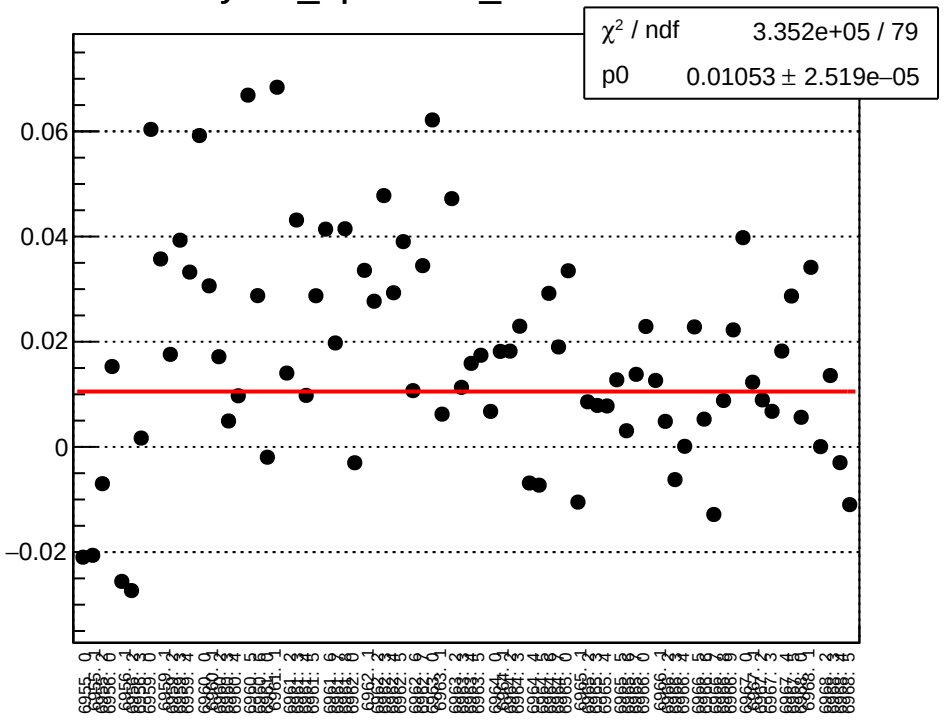

pull1D
Entries 80
Mean −0.2883
Std Dev 5.185

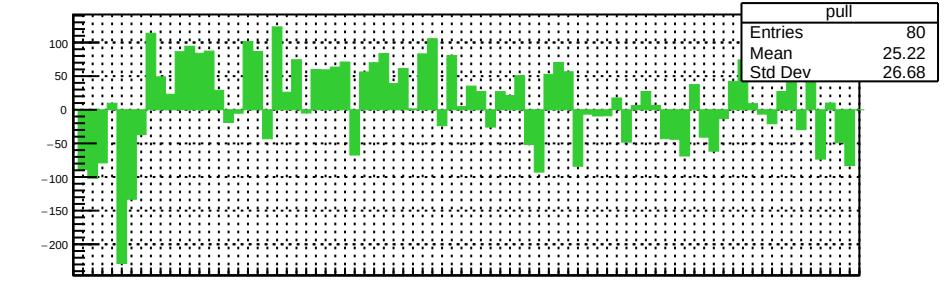

yield_bpm4acX_rms vs run
χ² / ndf 2.801e+05 / 79
p0 0.02057 ± 1.816e−05
0.06
0.05
0.04
0.03
0.02
0.01

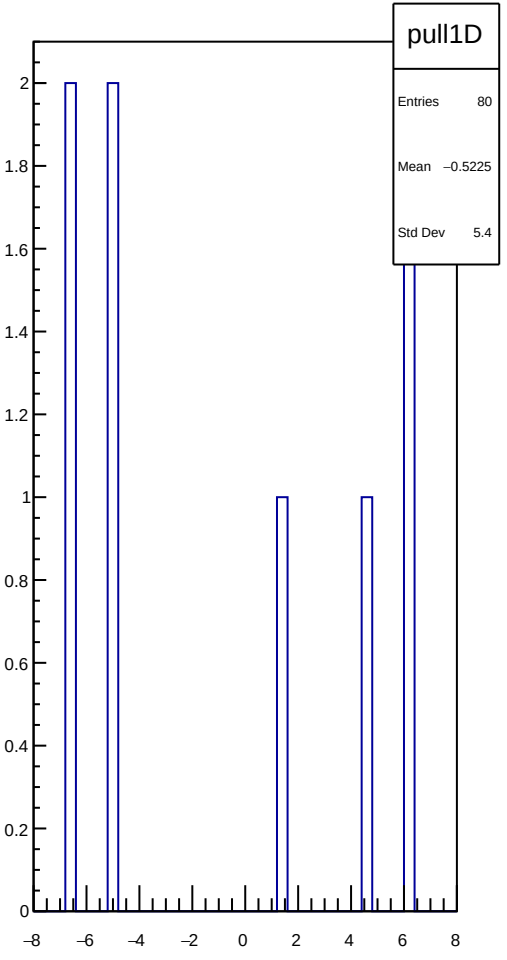

yield_bpm4acY_mean vs run
χ² / ndf 9.52e+04 / 79
p0 0.7514 ± 1.47e−05
0.78
0.775
0.77
0.765
0.76
0.755
0.75
0.745
0.74
pull
Entries 80
Mean 142.6
Std Dev 103.5
120
100
80
60
40
20
0
−20
−40
−60
−80

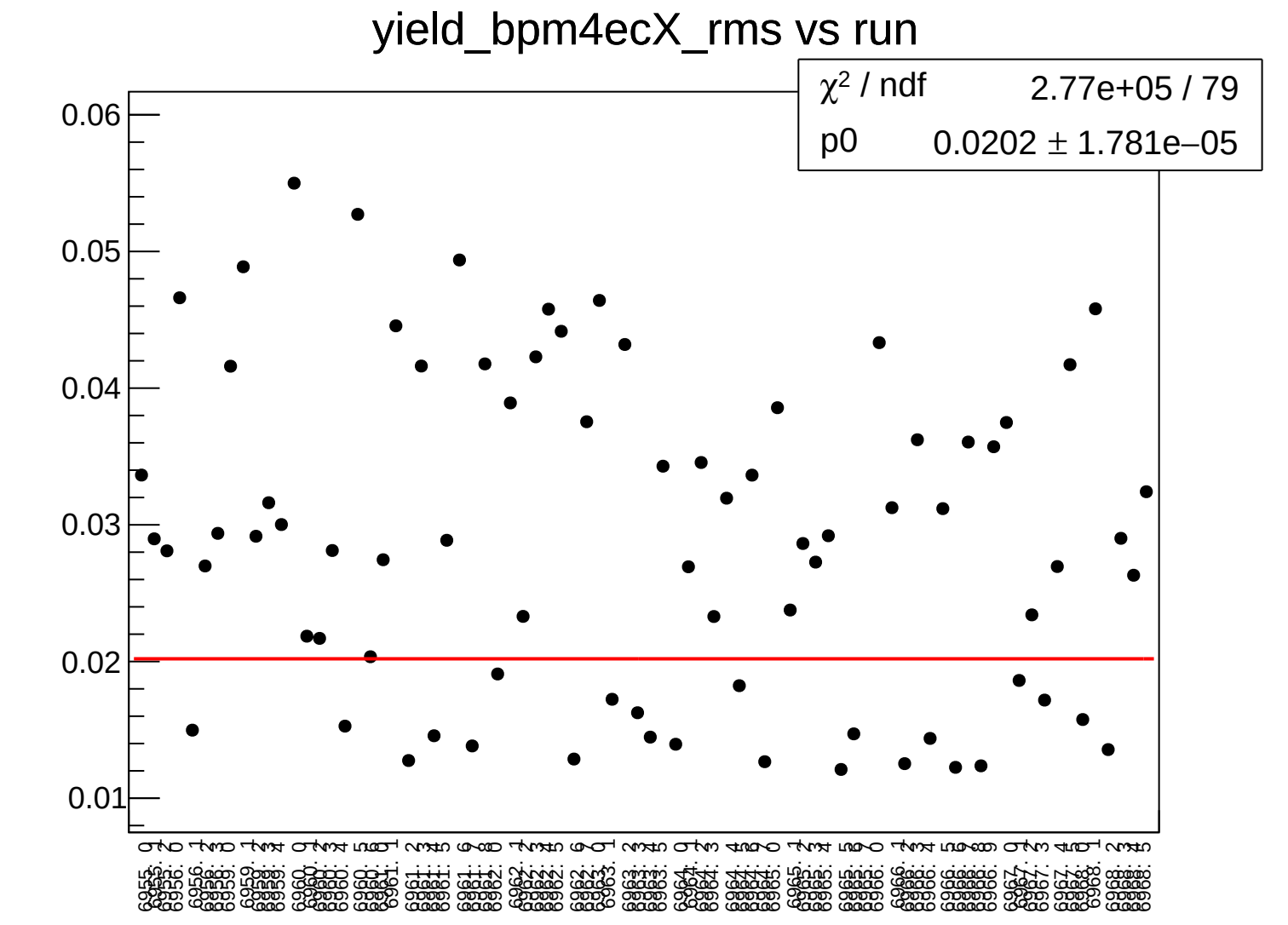

pull1D
Entries 80
Mean −0.1905
Std Dev 5.025
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

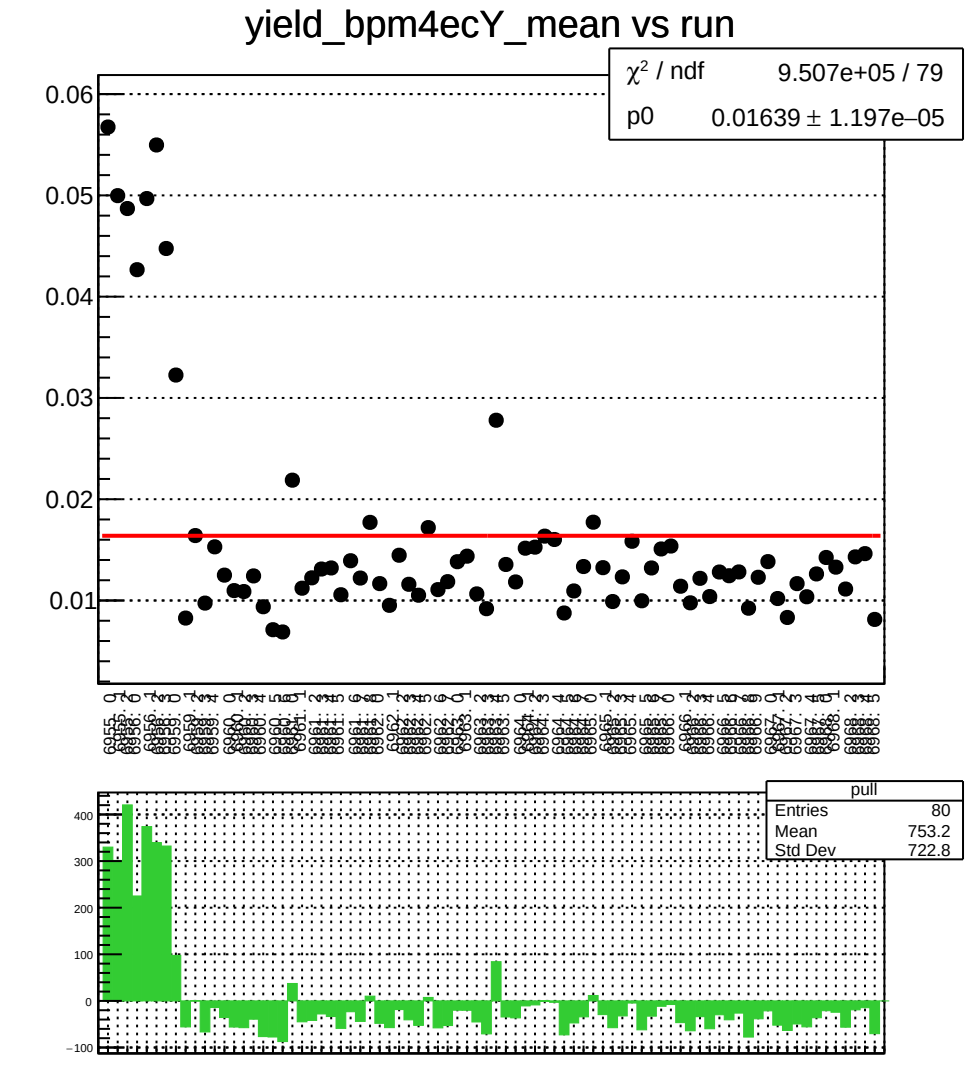

yield_bpm4acY_rms vs run
χ² / ndf 1.961e+04 / 79
p0 0.01292 ± 1.04e−05
0.024
0.022
0.02
0.018
0.016
0.014
0.012

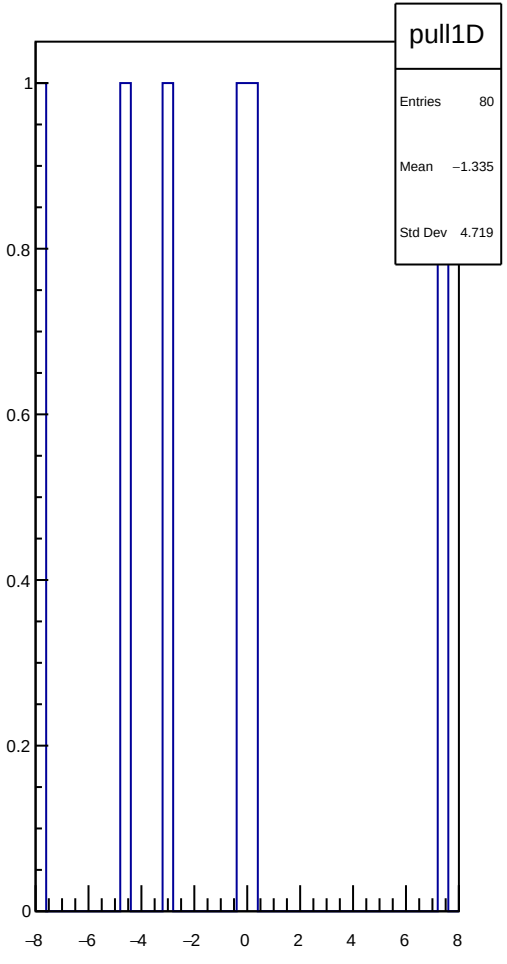

yield_bpm4ecX_mean vs run
χ² / ndf 3.352e+05 / 79
p0 0.01053 ± 2.519e–05
0.06
0.04
0.02
0
–0.02

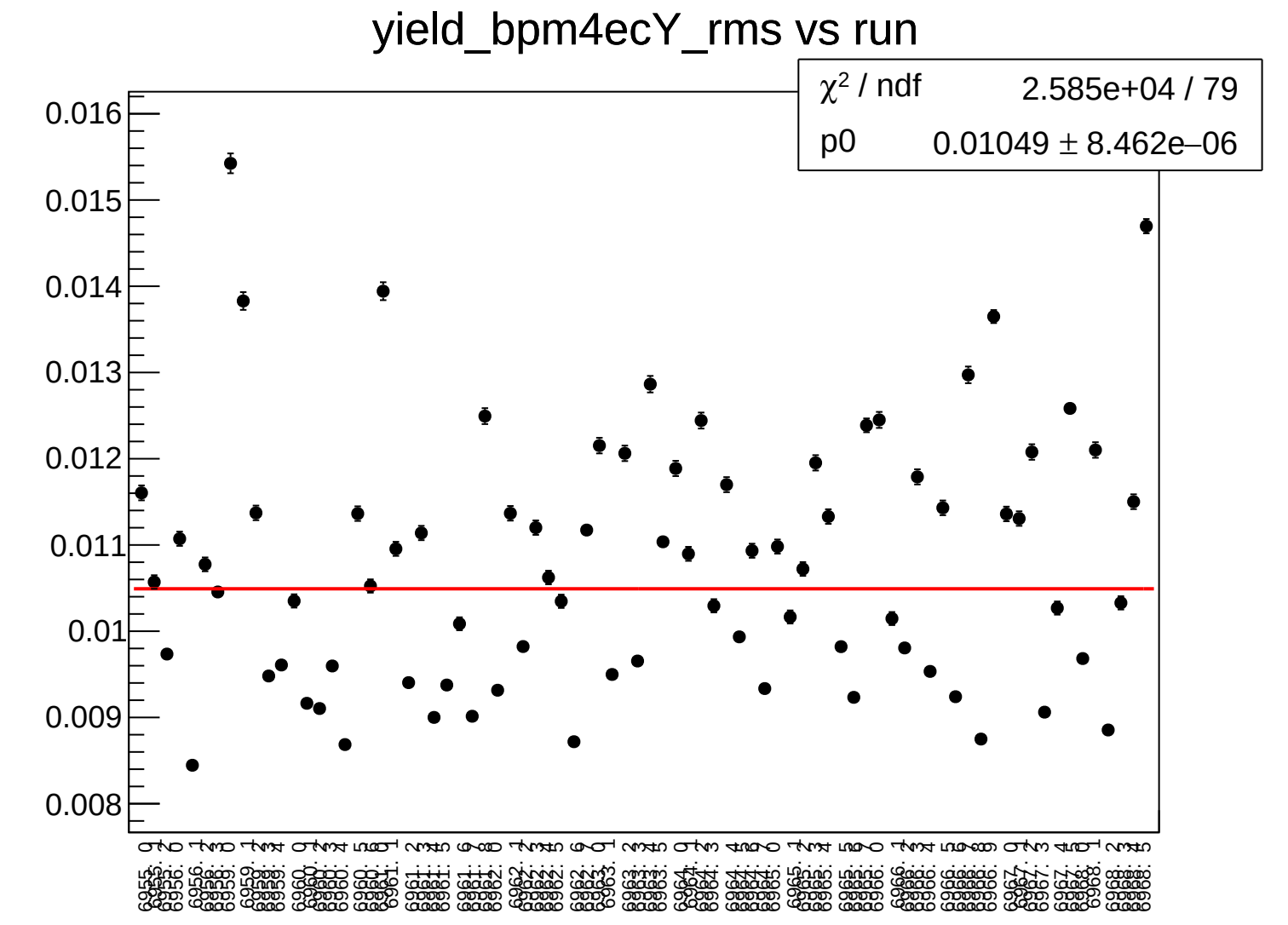

pull
Entries 80
Mean 25.22
Std Dev 26.68
100
50
0
–50
–100
–150
–200

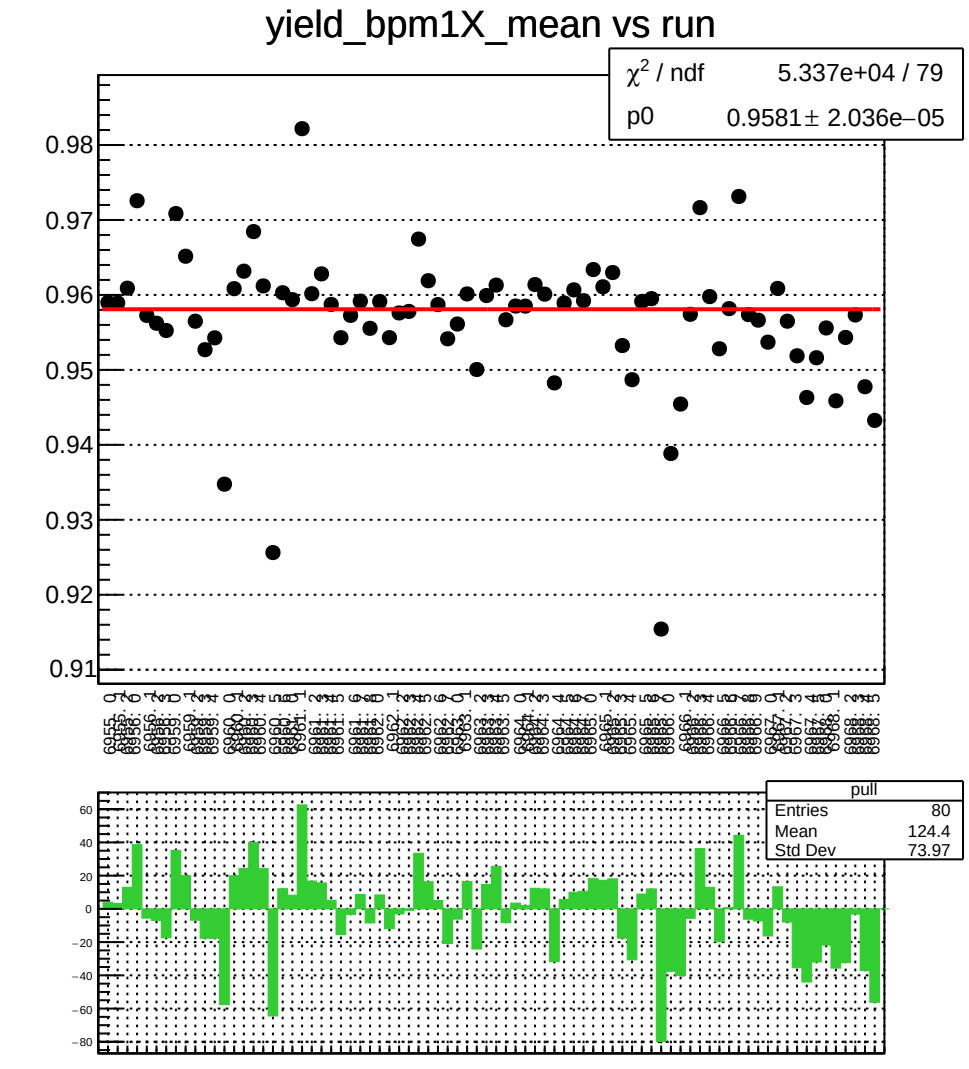

pull1D
Entries 80
Mean –0.5225
Std Dev 5.4
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

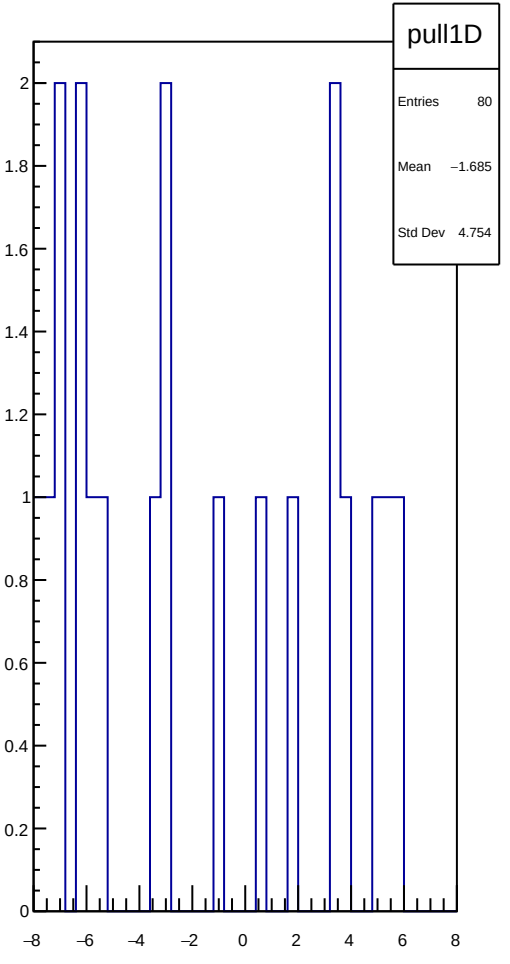

yield_bpm4ecX_rms vs run
χ² / ndf 2.77e+05 / 79
p0 0.0202 ± 1.781e−05
0.06
0.05
0.04
0.03
0.02
0.01

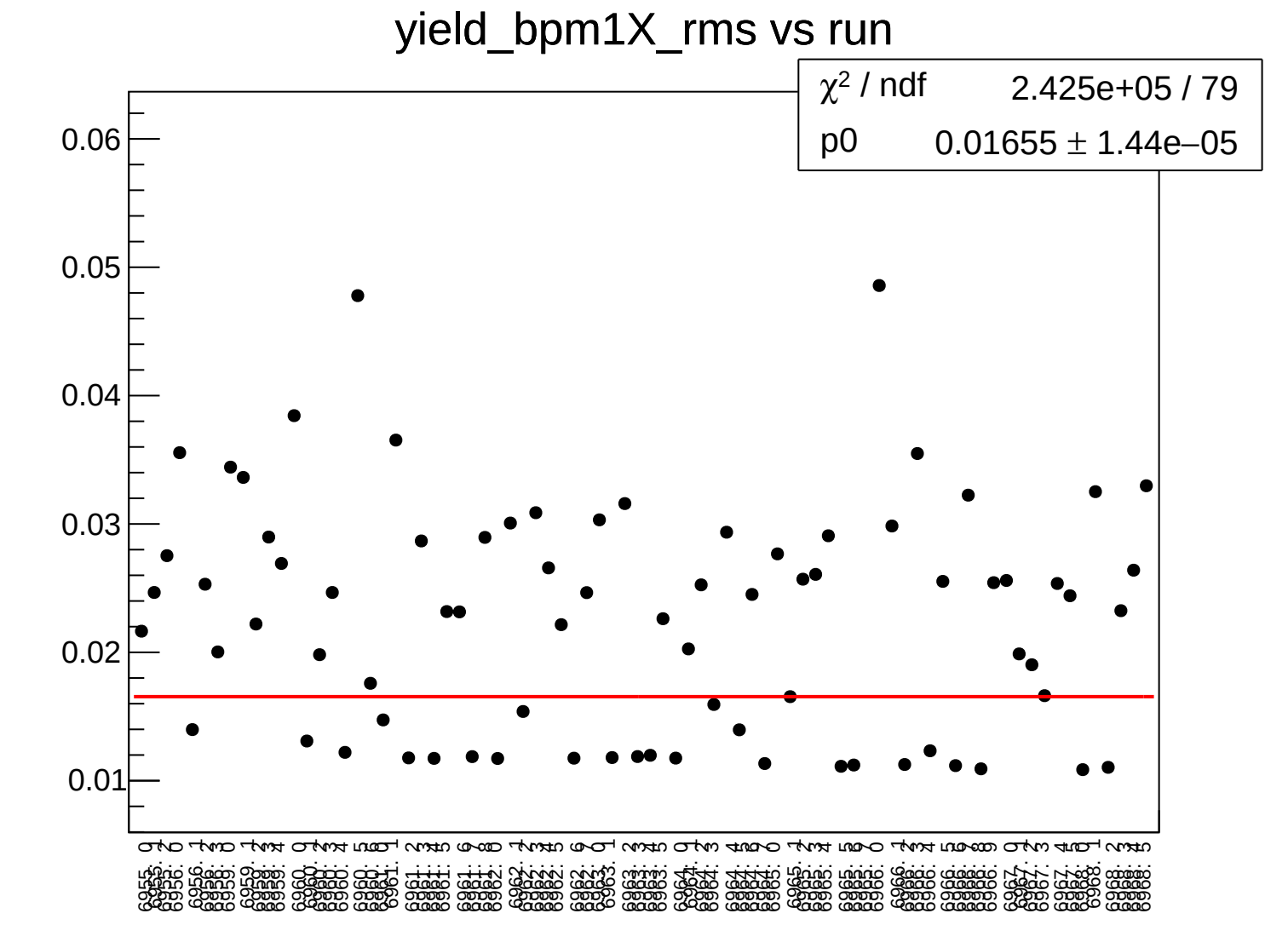

yield_bpm4ecY_mean vs run
χ² / ndf 9.507e+05 / 79
p0 0.01639 ± 1.197e−05
0.06
0.05
0.04
0.03
0.02
0.01
pull
Entries 80
Mean 753.2
Std Dev 722.8
400
300
200
100
0
−100

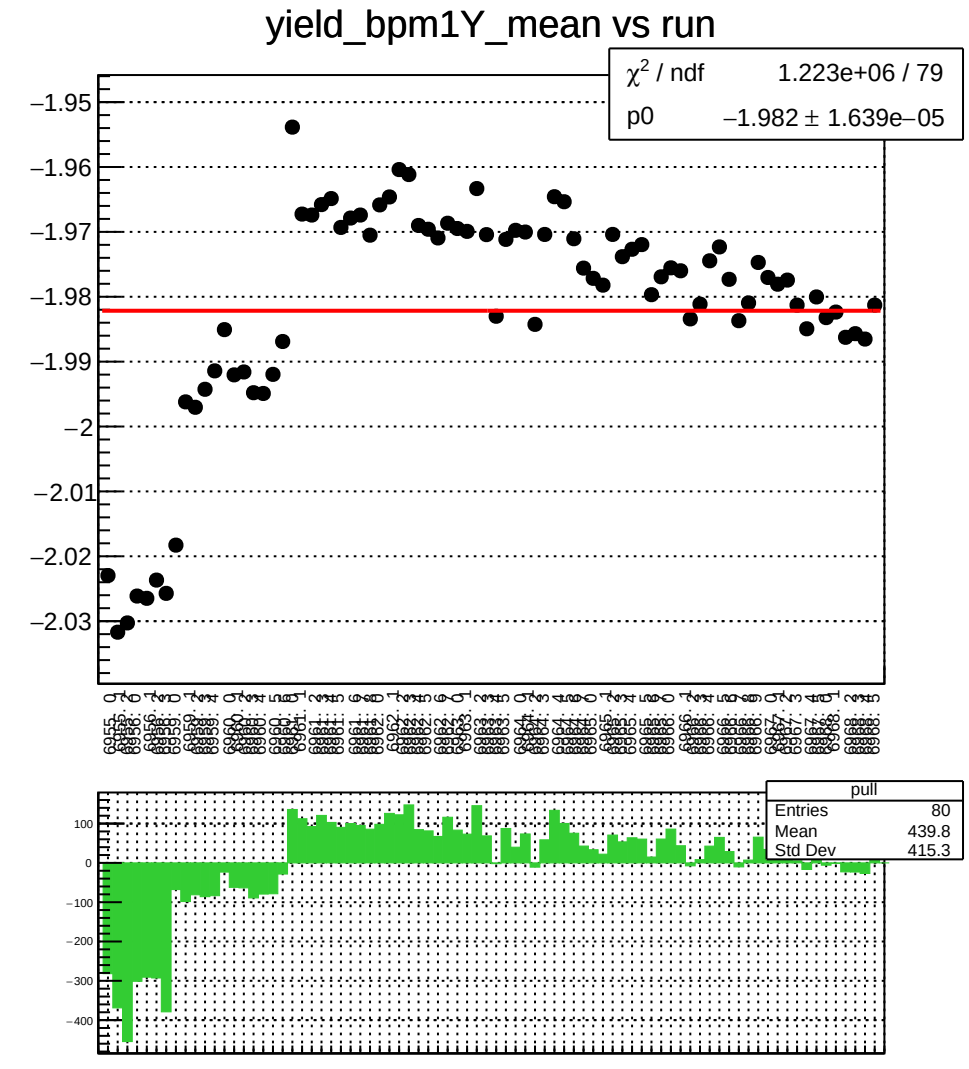

pull1D
Entries 80
Mean −1.335
Std Dev 4.719
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

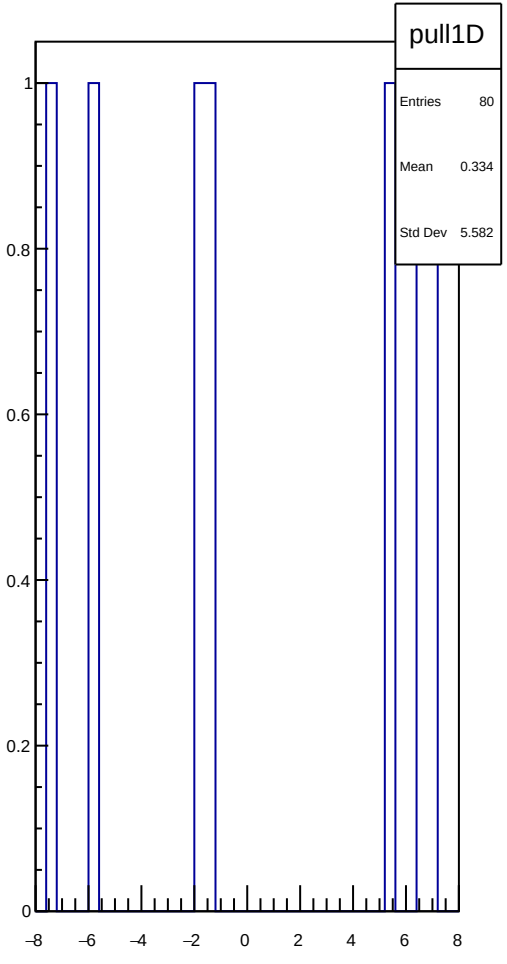

yield_bpm4ecY_rms vs run
χ² / ndf 2.585e+04 / 79
p0 0.01049 ± 8.462e–06
0.016
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008

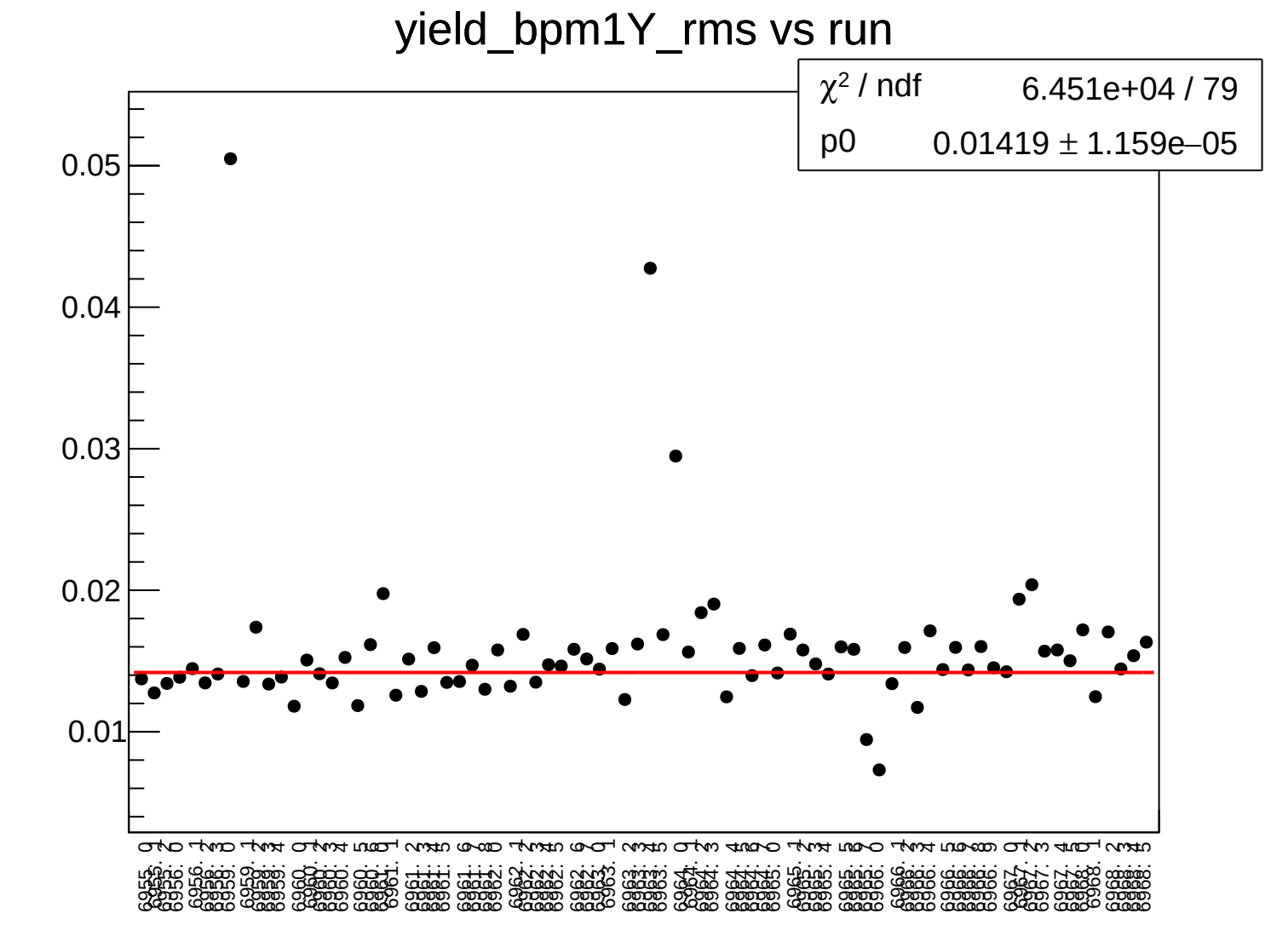

yield_bpm1X_mean vs run
χ² / ndf 5.337e+04 / 79
p0 0.9581 ± 2.036e−05
0.98
0.97
0.96
0.95
0.94
0.93
0.92
0.91
pull
Entries 80
Mean 124.4
Std Dev 73.97
60
40
20
0
−20
−40
−60
−80

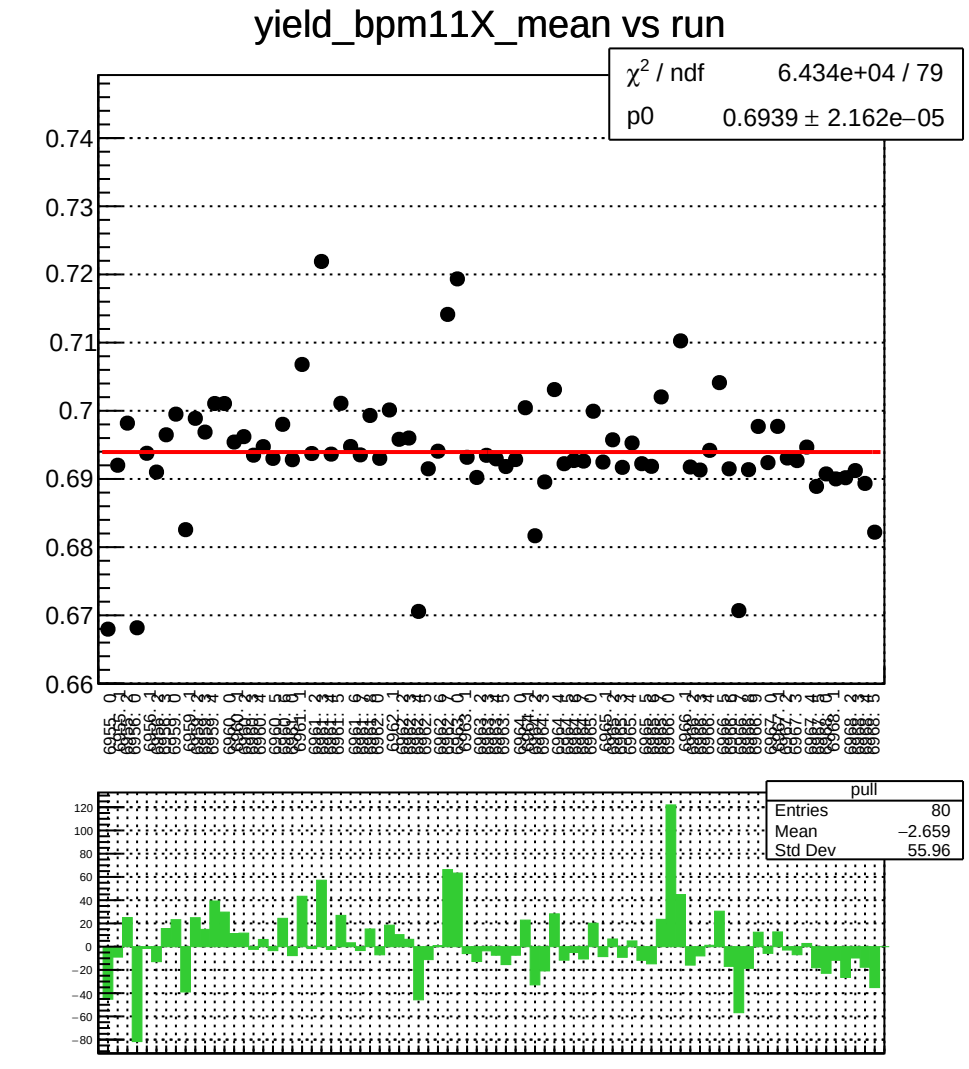

pull1D
Entries 80
Mean −1.685
Std Dev 4.754
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

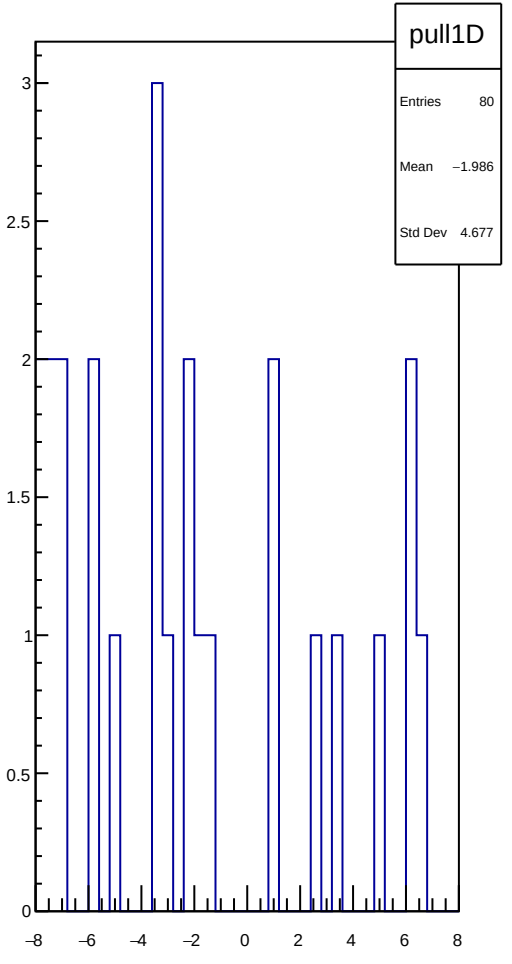

yield_bpm1X_rms vs run
χ² / ndf 2.425e+05 / 79
p0 0.01655 ± 1.44e−05
0.06
0.05
0.04
0.03
0.02
0.01

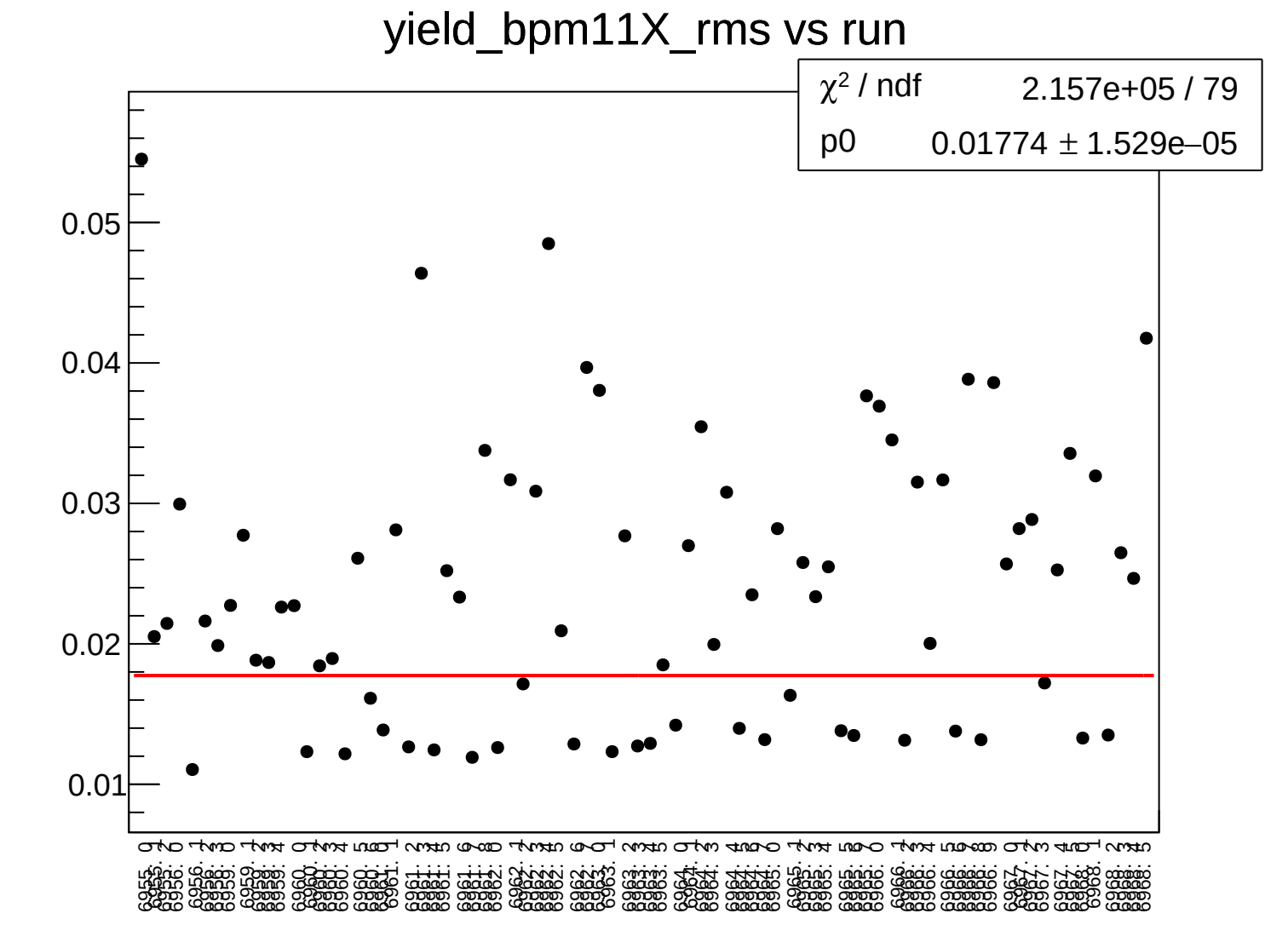

yield_bpm1Y_mean vs run
χ² / ndf 1.223e+06 / 79
p0 −1.982 ± 1.639e−05
−1.95
−1.96
−1.97
−1.98
−1.99
−2
−2.01
−2.02
−2.03
pull
Entries 80
Mean 439.8
Std Dev 415.3
100
0
−100
−200
−300
−400

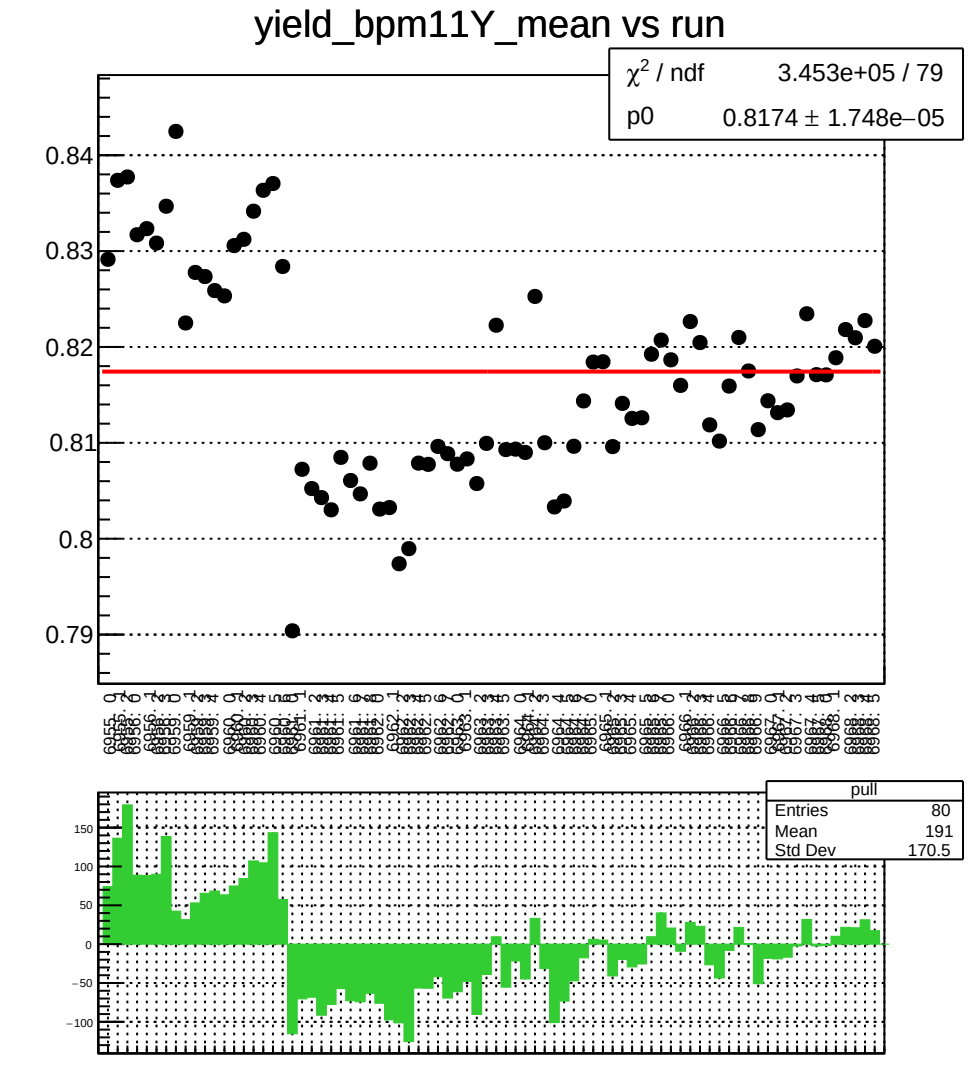

pull1D
Entries 80
Mean 0.334
Std Dev 5.582
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

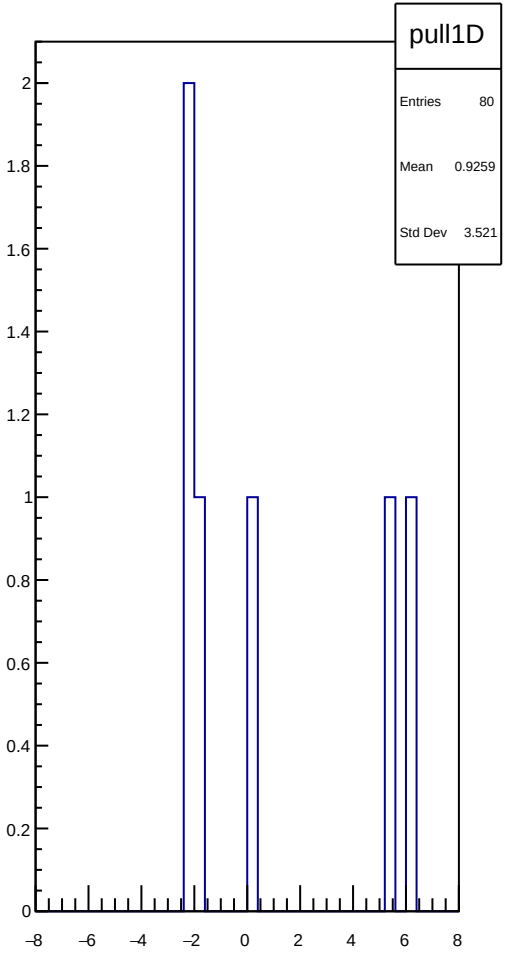

yield_bpm1Y_rms vs run
χ² / ndf 6.451e+04 / 79
p0 0.01419 ± 1.159e–05
0.05
0.04
0.03
0.02
0.01

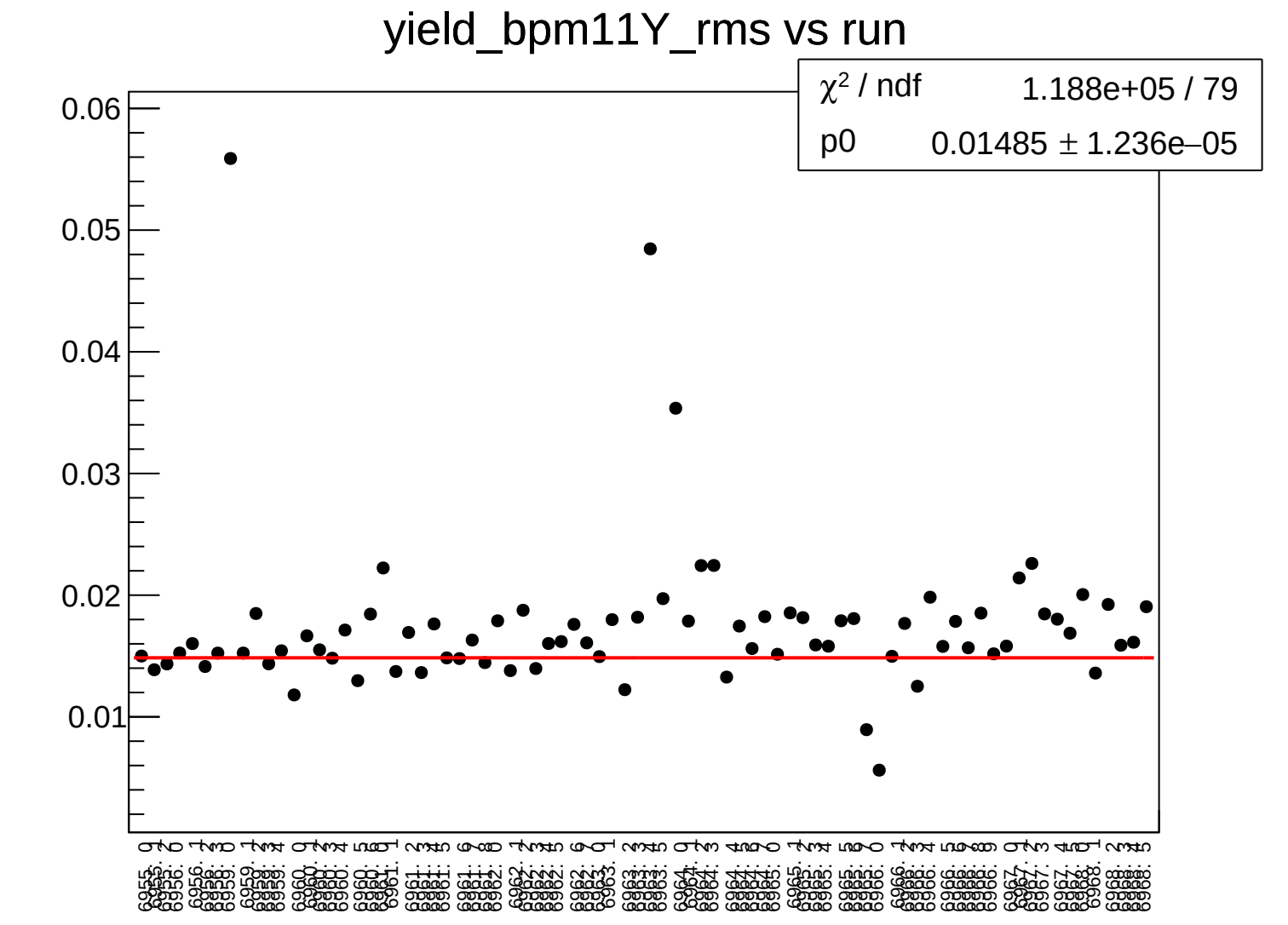

yield_bpm11X_mean vs run
χ² / ndf 6.434e+04 / 79
p0 0.6939 ± 2.162e−05
0.74
0.73
0.72
0.71
0.7
0.69
0.68
0.67
0.66
pull
Entries 80
Mean −2.659
Std Dev 55.96
120
100
80
60
40
20
0
−20
−40
−60
−80

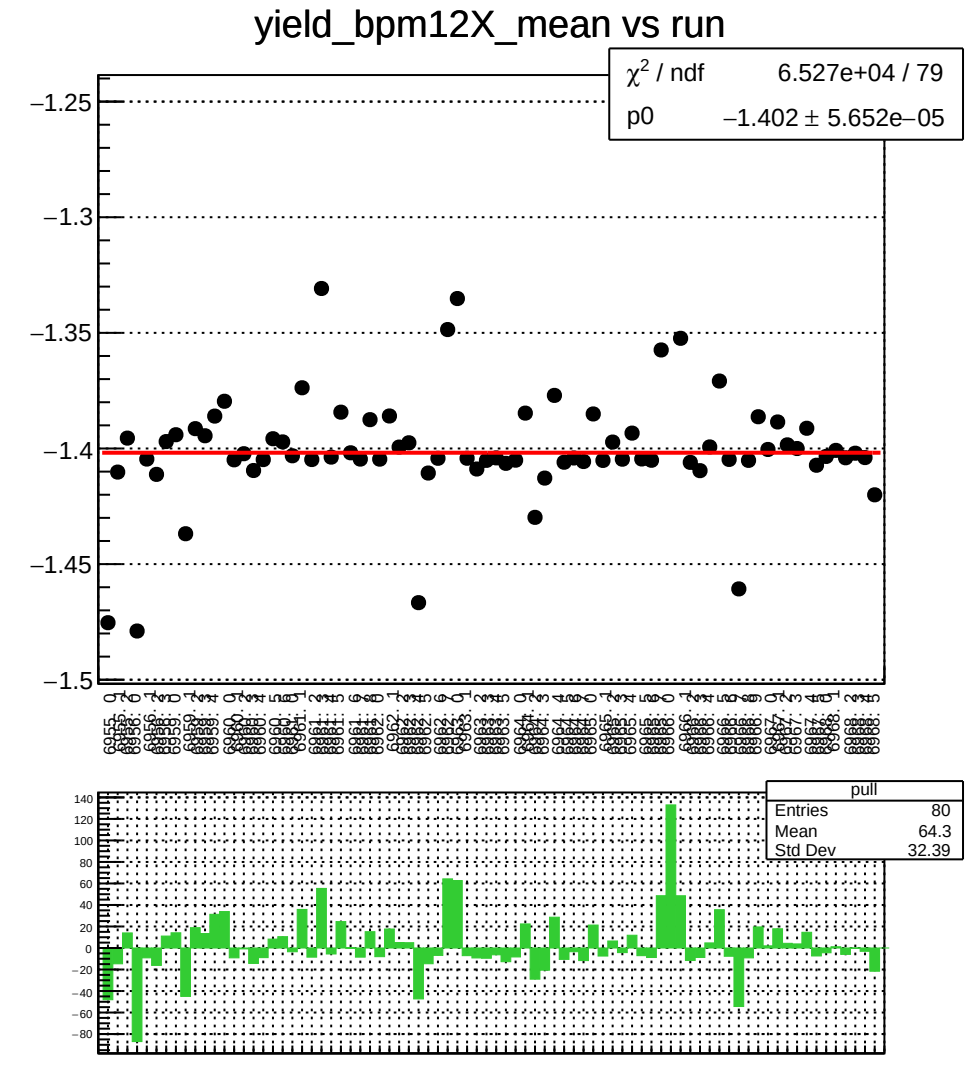

pull1D
Entries 80
Mean −1.986
Std Dev 4.677
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

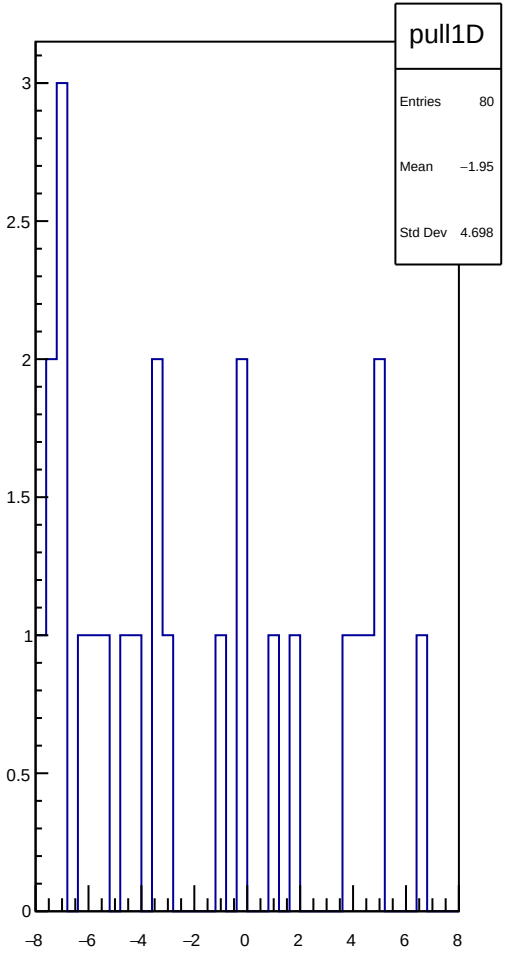

yield_bpm11X_rms vs run
χ² / ndf 2.157e+05 / 79
p0 0.01774 ± 1.529e–05
0.05
0.04
0.03
0.02
0.01

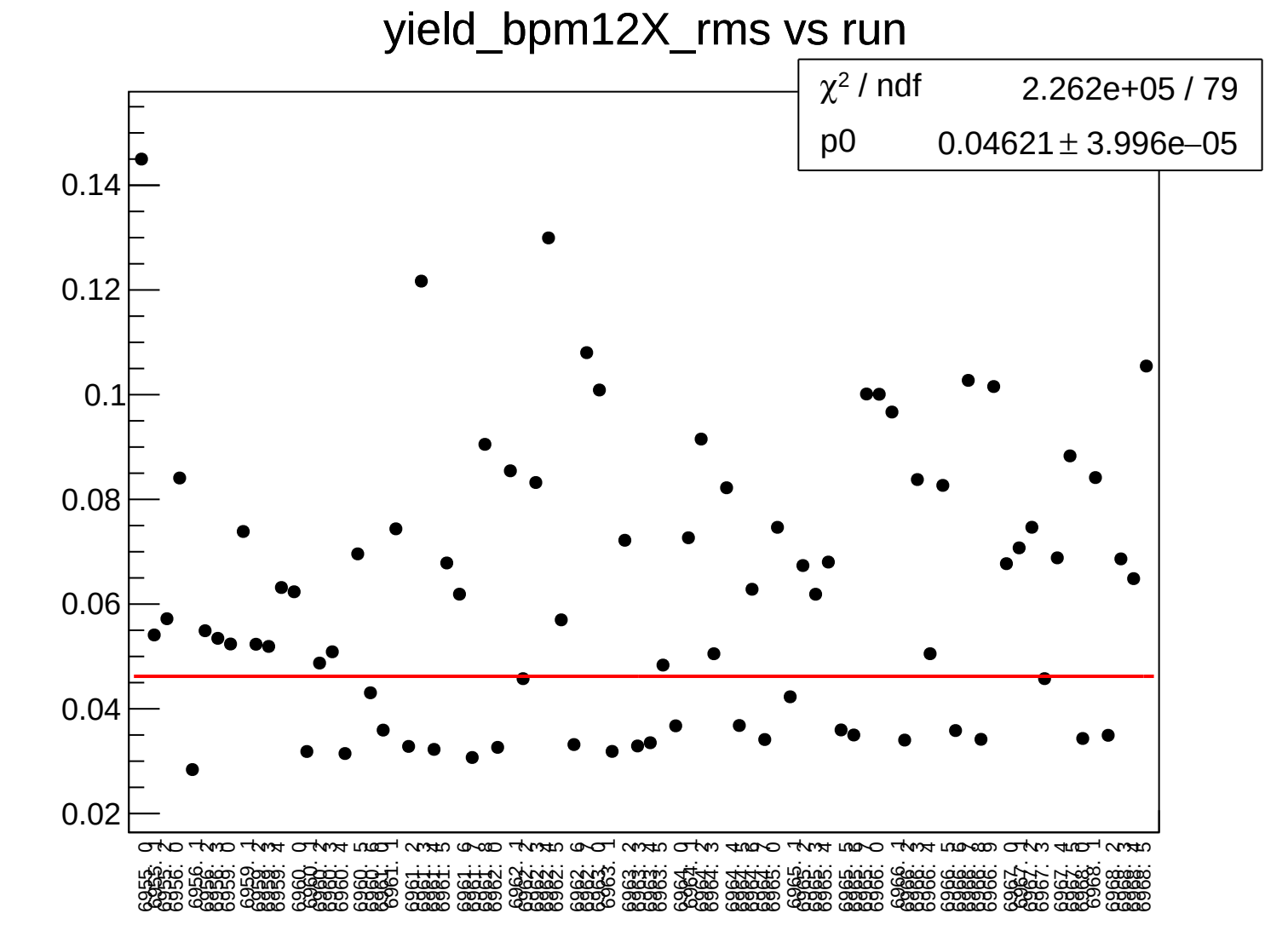

yield_bpm11Y_mean vs run
χ² / ndf 3.453e+05 / 79
p0 0.8174 ± 1.748e−05
0.84
0.83
0.82
0.81
0.8
0.79
pull
Entries 80
Mean 191
Std Dev 170.5
150
100
50
0
−50
−100

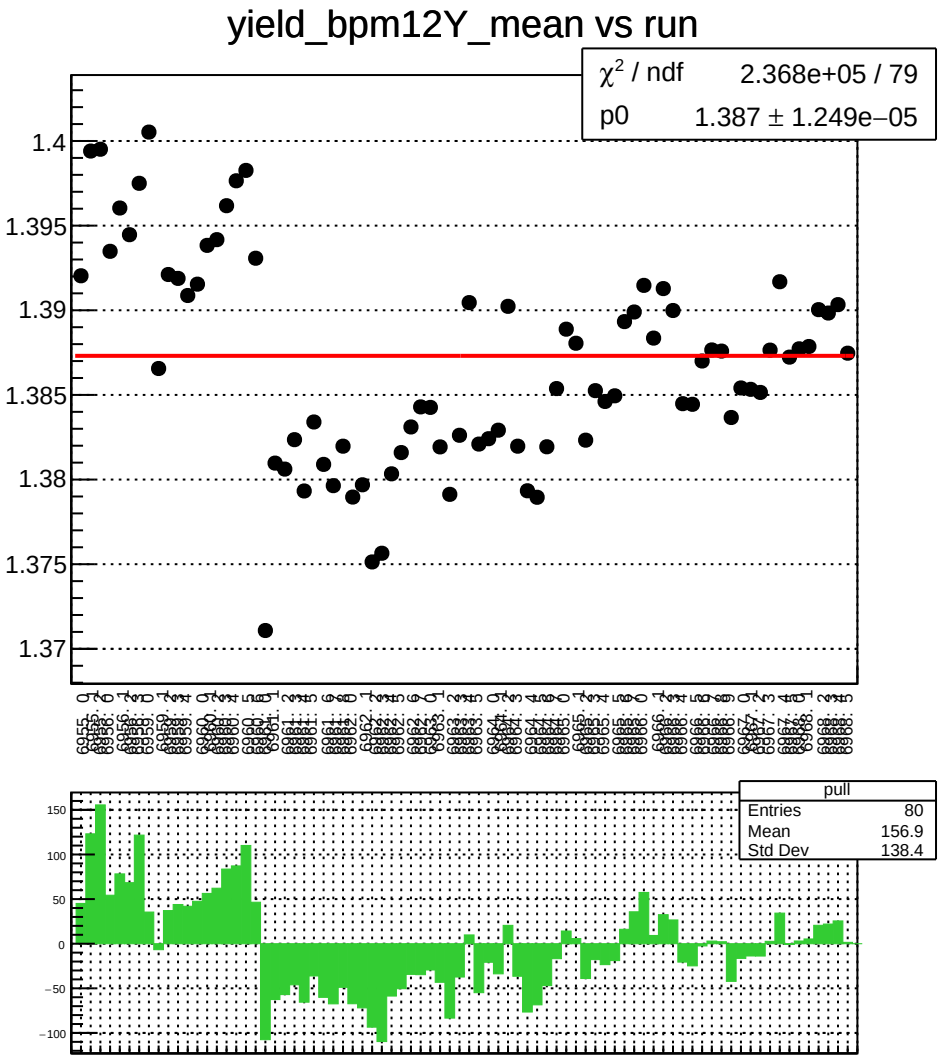

pull1D
Entries 80
Mean 0.9259
Std Dev 3.521
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

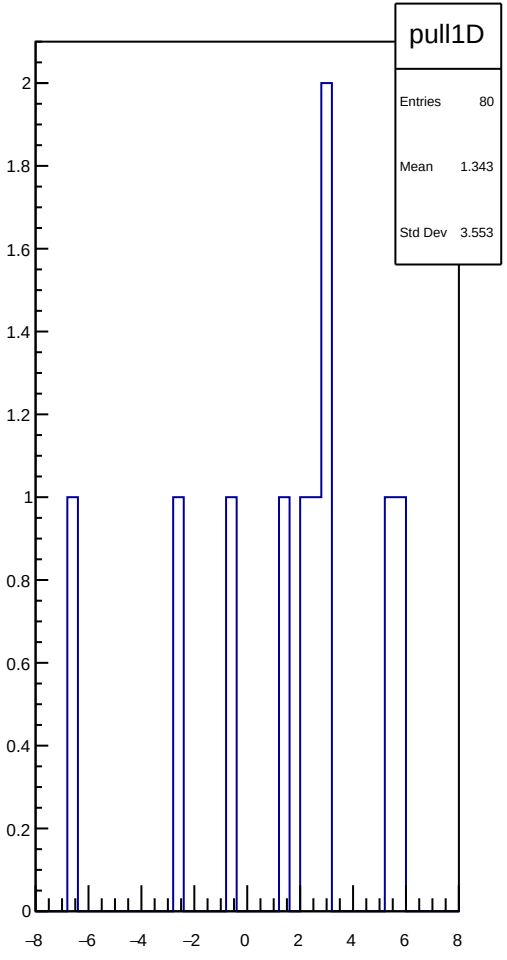

yield_bpm11Y_rms vs run
χ² / ndf 1.188e+05 / 79
p0 0.01485 ± 1.236e−05
0.06
0.05
0.04
0.03
0.02
0.01

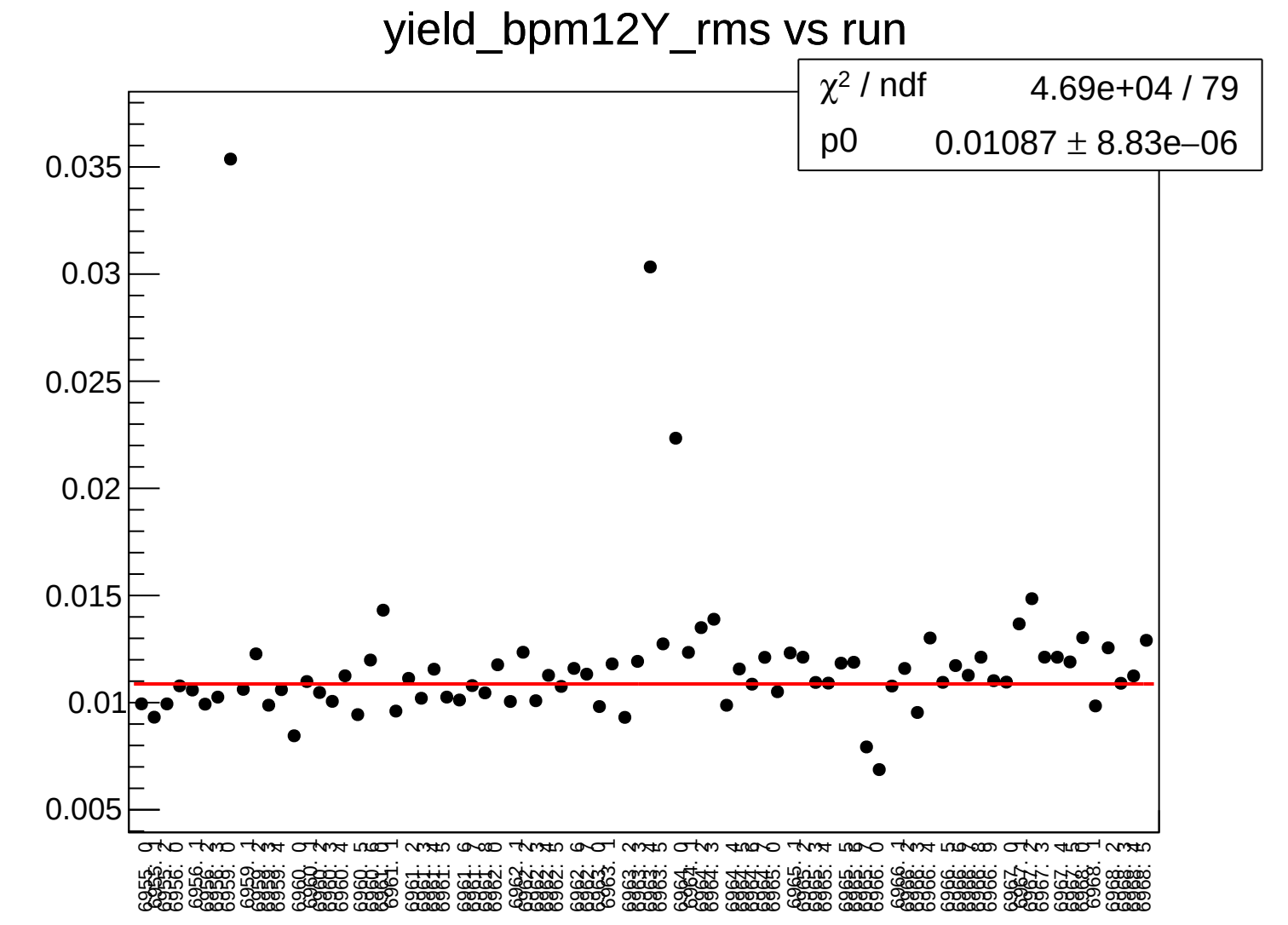

yield_bpm12X_mean vs run
χ² / ndf 6.527e+04 / 79
p0 −1.402 ± 5.652e−05
−1.25
−1.3
−1.35
−1.4
−1.45
−1.5
pull
Entries 80
Mean 64.3
Std Dev 32.39
140
120
100
80
60
40
20
0
−20
−40
−60
−80

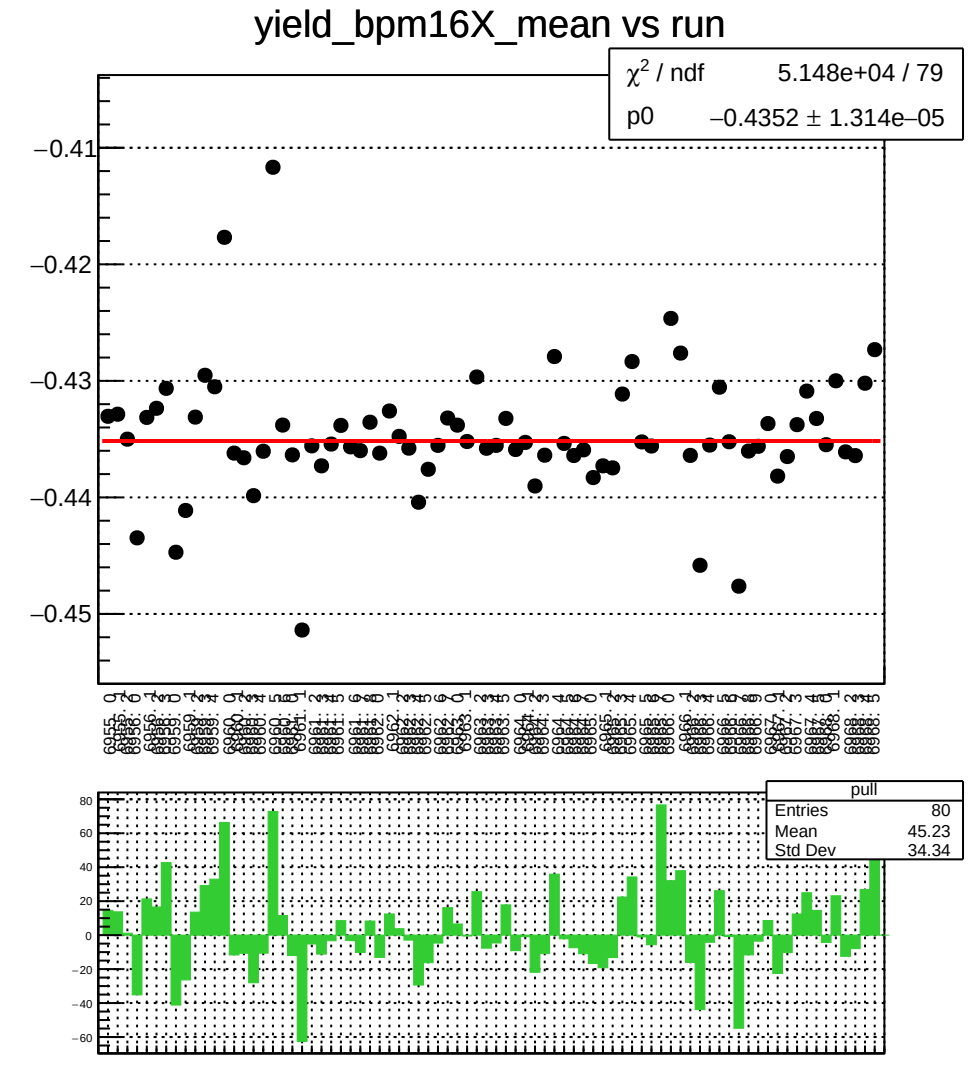

pull1D
Entries 80
Mean −1.95
Std Dev 4.698
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

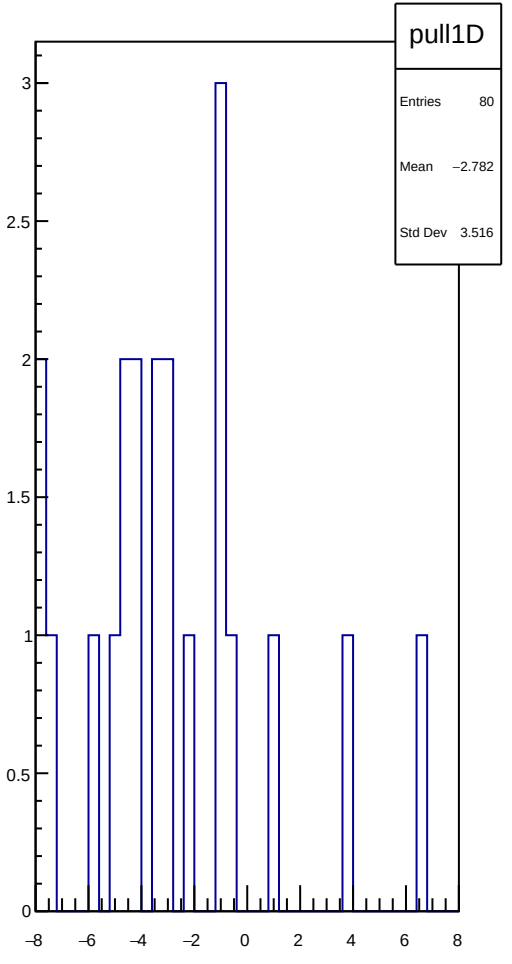

yield_bpm12X_rms vs run
χ² / ndf 2.262e+05 / 79
p0 0.04621 ± 3.996e–05
0.14
0.12
0.1
0.08
0.06
0.04
0.02

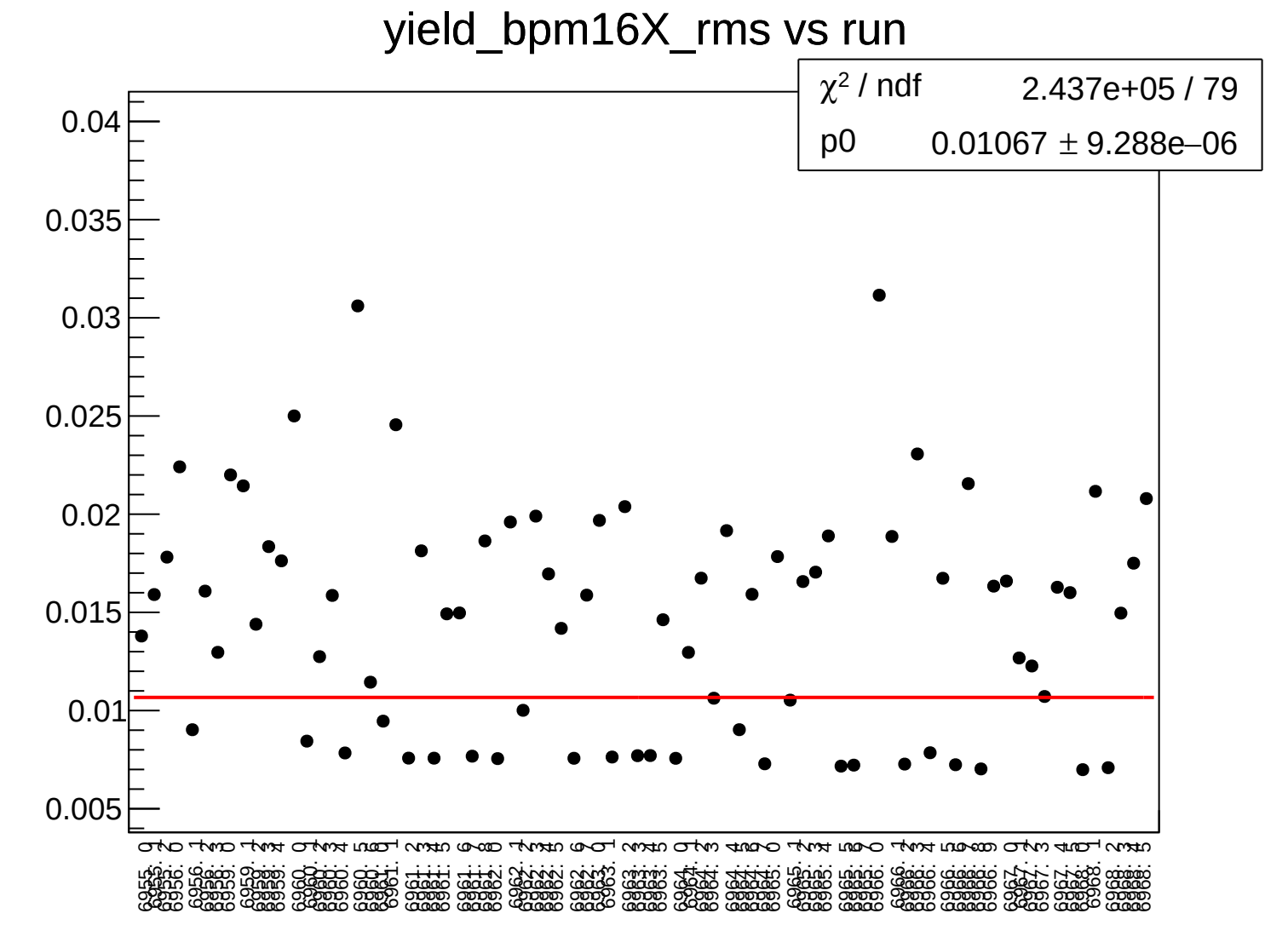

yield_bpm12Y_mean vs run
χ² / ndf 2.368e+05 / 79
p0 1.387 ± 1.249e−05
1.4
1.395
1.39
1.385
1.38
1.375
1.37
pull
Entries 80
Mean 156.9
Std Dev 138.4
150
100
50
0
−50
−100

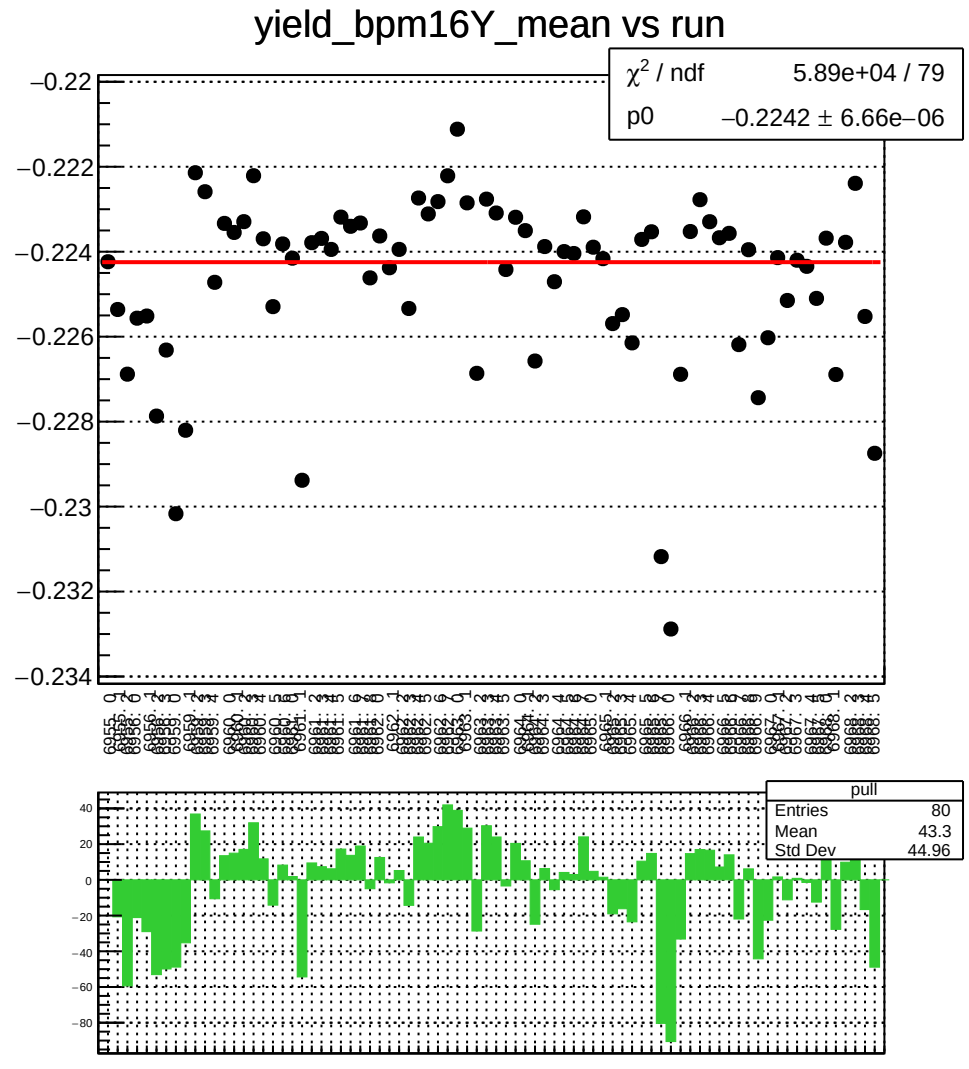

pull1D
Entries 80
Mean 1.343
Std Dev 3.553
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

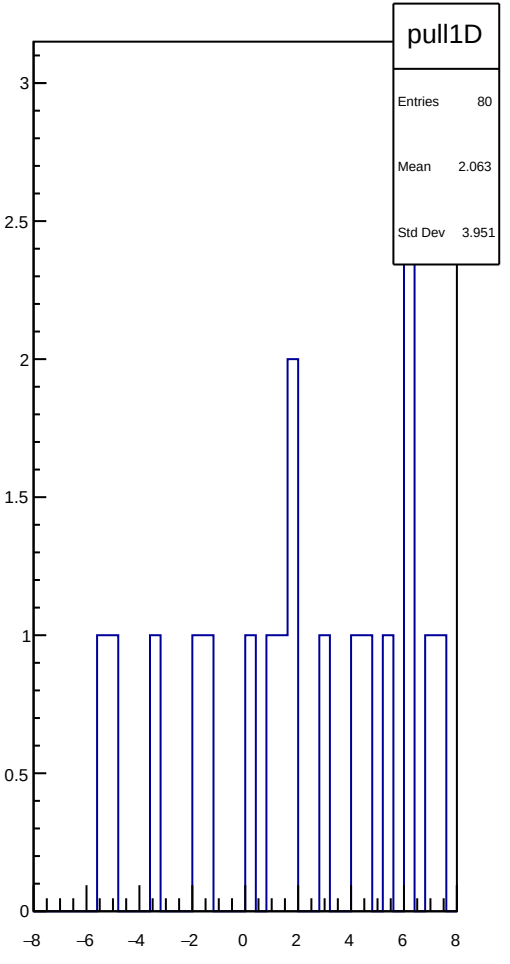

yield_bpm12Y_rms vs run
χ² / ndf 4.69e+04 / 79
p0 0.01087 ± 8.83e−06
0.035
0.03
0.025
0.02
0.015
0.01
0.005

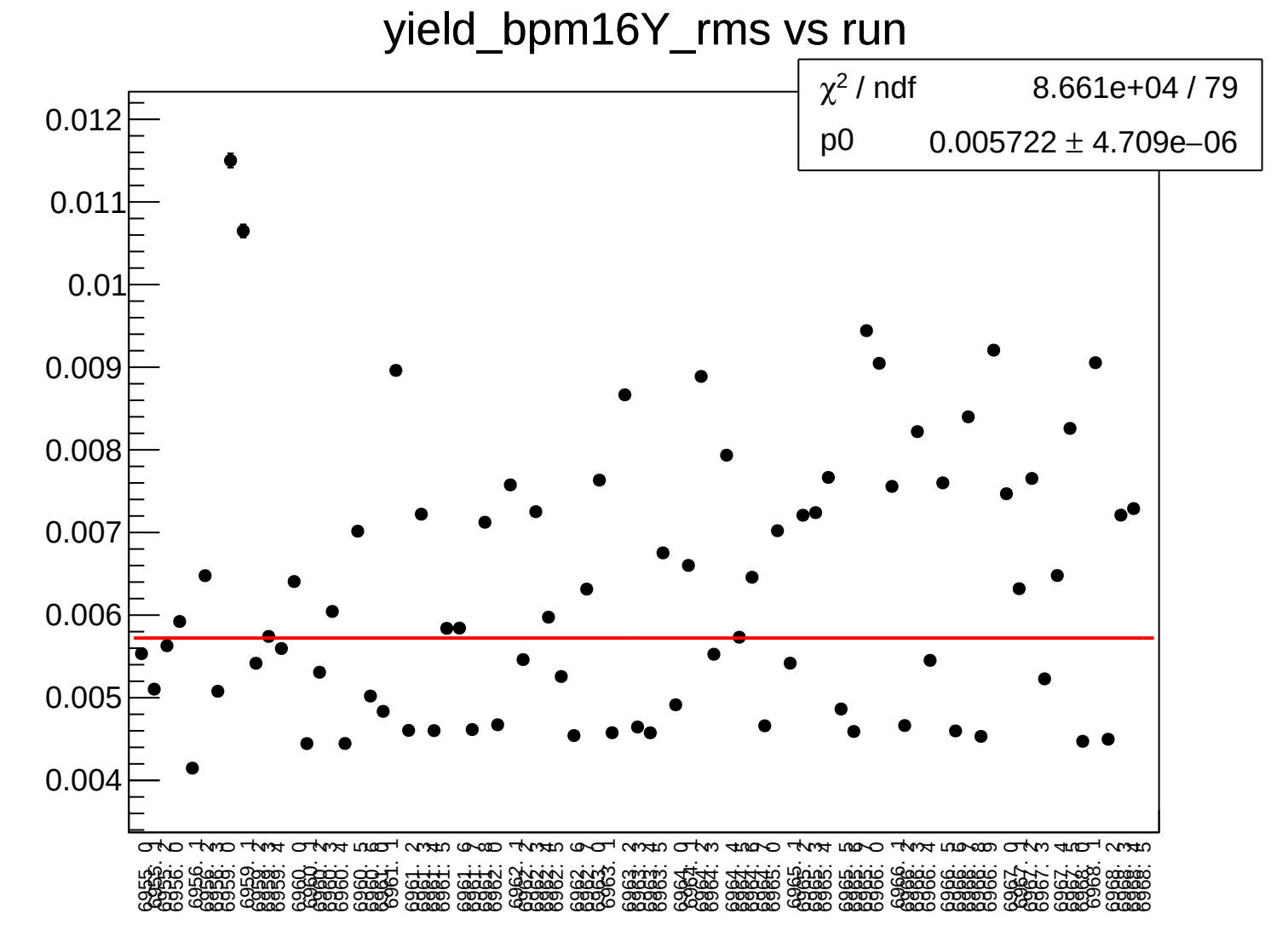

yield_bpm16X_mean vs run
χ² / ndf 5.148e+04 / 79
p0 −0.4352 ± 1.314e−05
−0.41
−0.42
−0.43
−0.44
−0.45
pull
Entries 80
Mean 45.23
Std Dev 34.34
80
60
40
20
0
−20
−40
−60

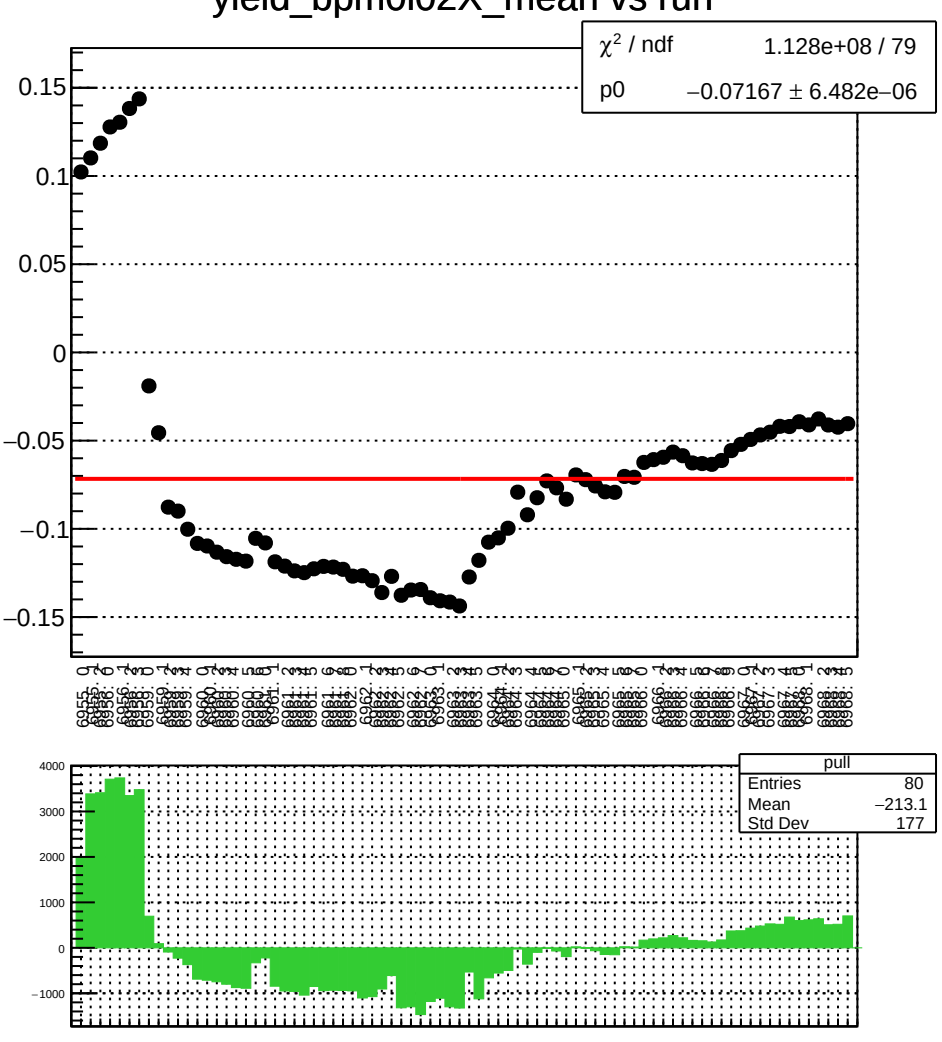

pull1D
Entries 80
Mean −2.782
Std Dev 3.516
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

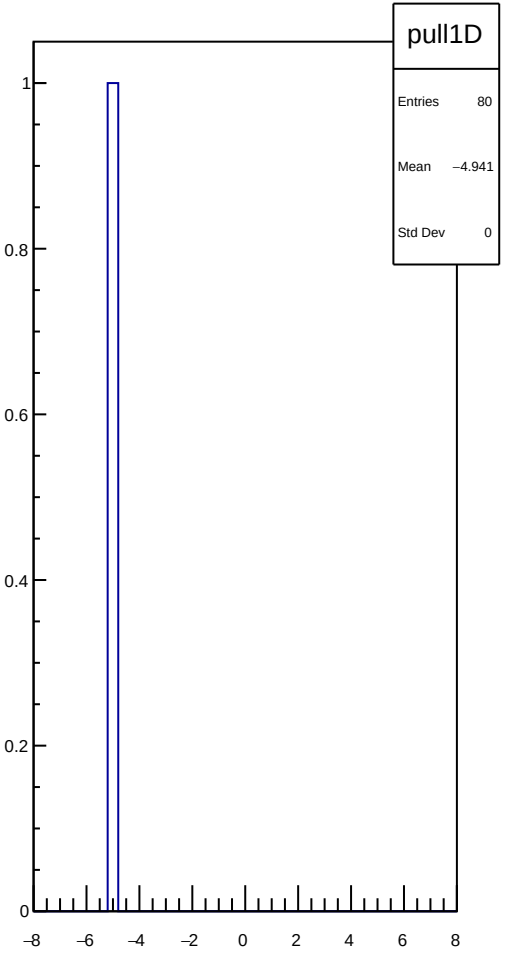

yield_bpm16X_rms vs run
χ² / ndf 2.437e+05 / 79
p0 0.01067 ± 9.288e–06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

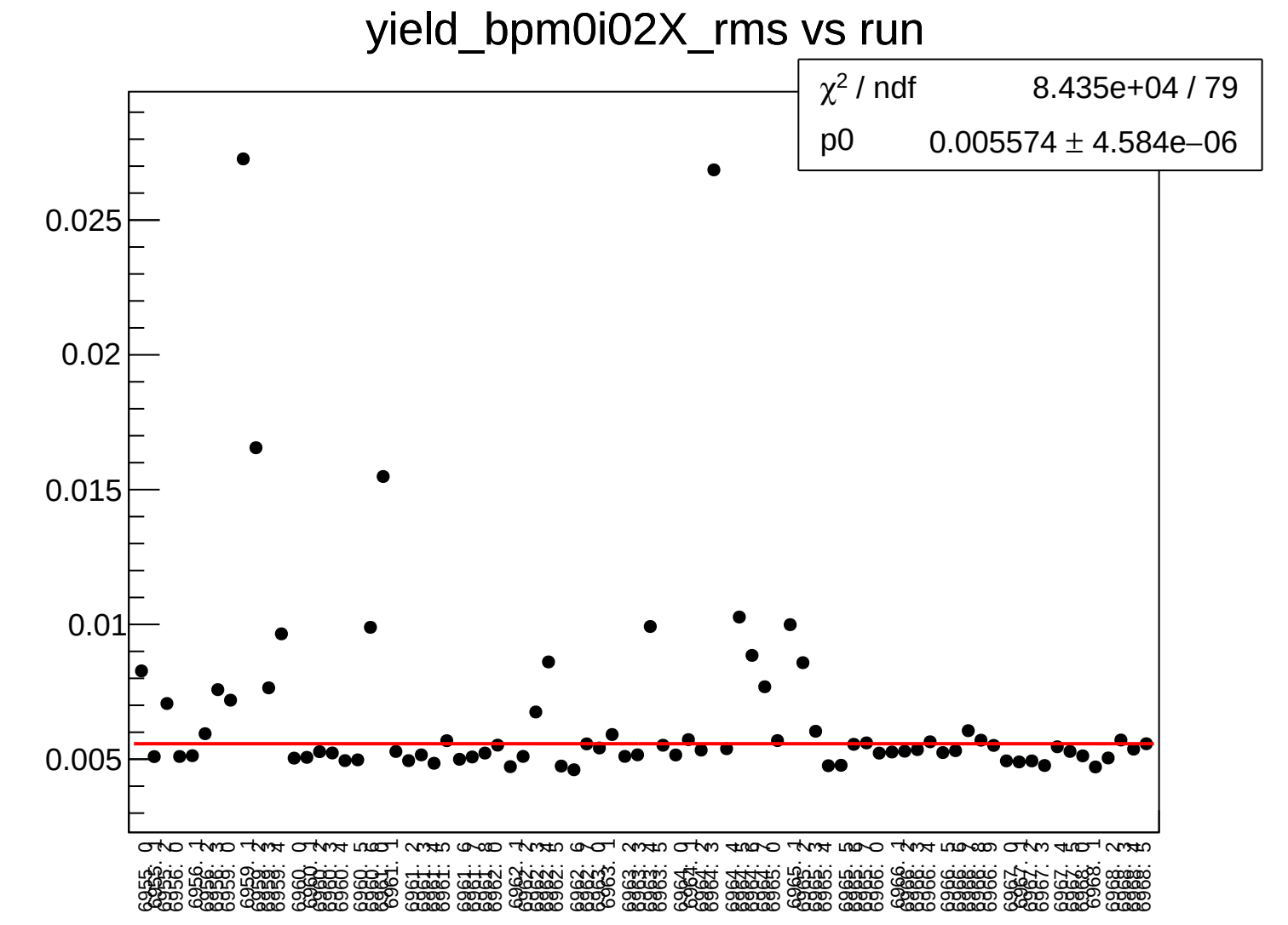

yield_bpm16Y_mean vs run
χ² / ndf 5.89e+04 / 79
p0 −0.2242 ± 6.66e−06
−0.22
−0.222
−0.224
−0.226
−0.228
−0.23
−0.232
−0.234
pull
Entries 80
Mean 43.3
Std Dev 44.96
40
20
0
−20
−40
−60
−80

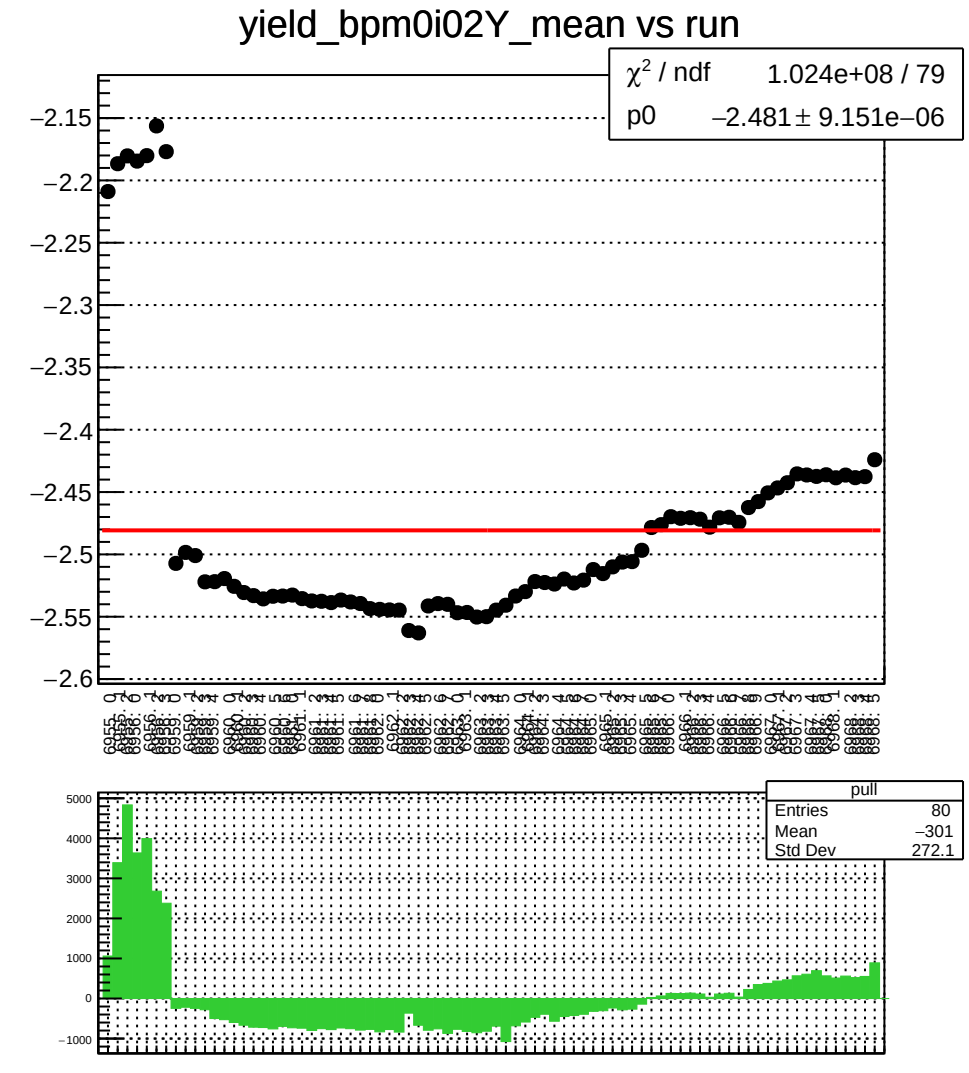

pull1D
Entries 80
Mean 2.063
Std Dev 3.951
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

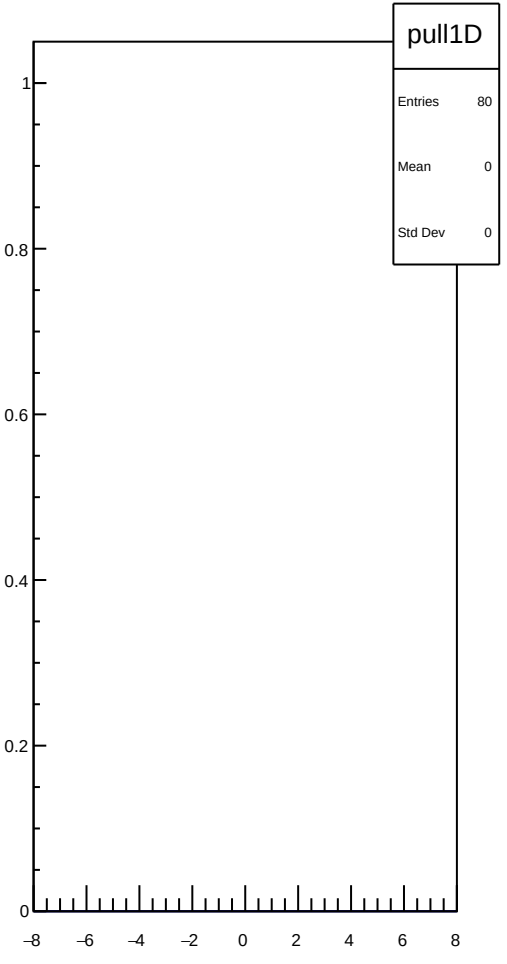

yield_bpm16Y_rms vs run
χ² / ndf 8.661e+04 / 79
p0 0.005722 ± 4.709e−06
0.012
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004

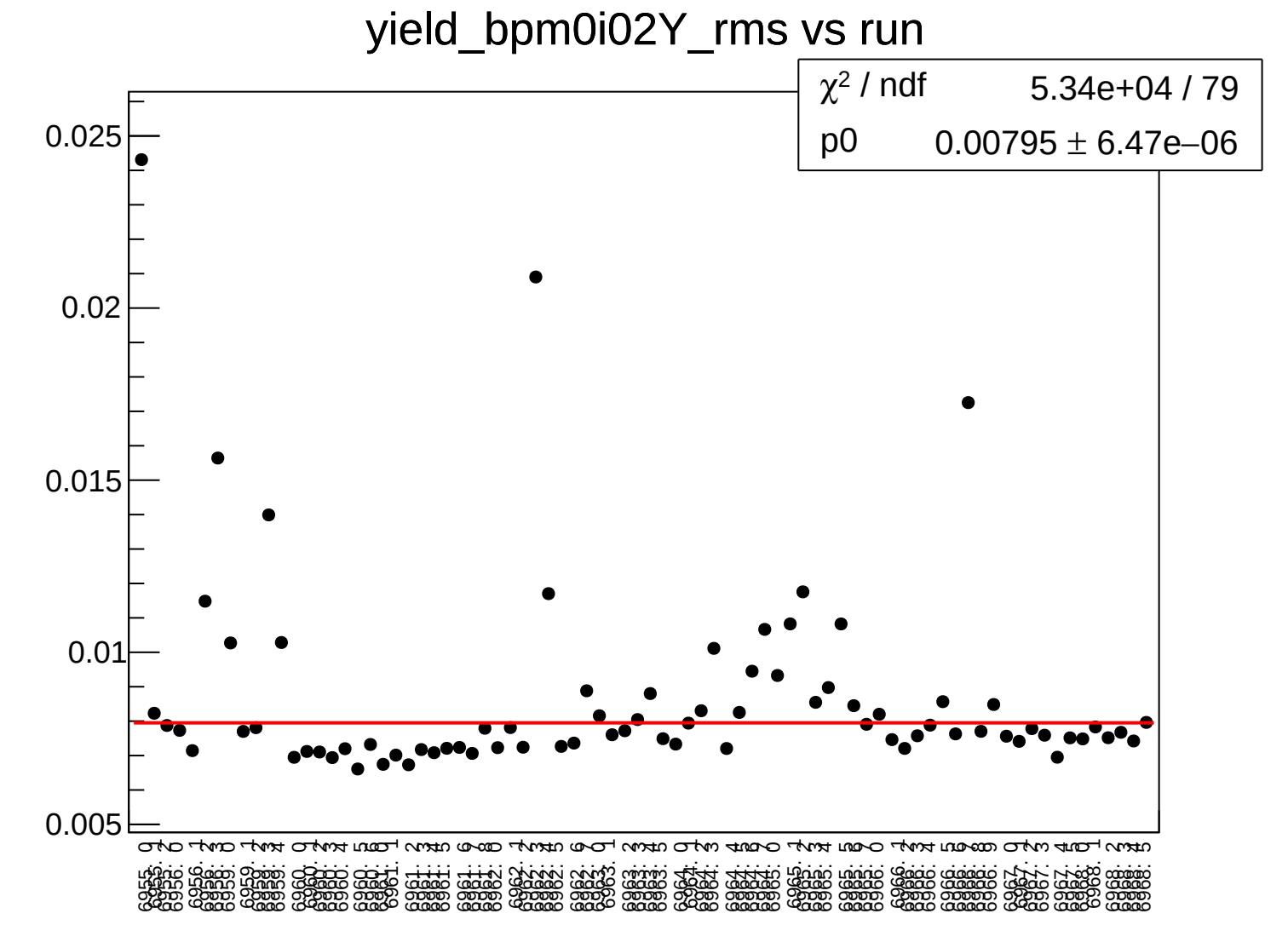

yield_bpm0i02X_mean vs run
χ² / ndf 1.128e+08 / 79
p0 −0.07167 ± 6.482e−06
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
pull
Entries 80
Mean −213.1
Std Dev 177
4000
3000
2000
1000
0
−1000

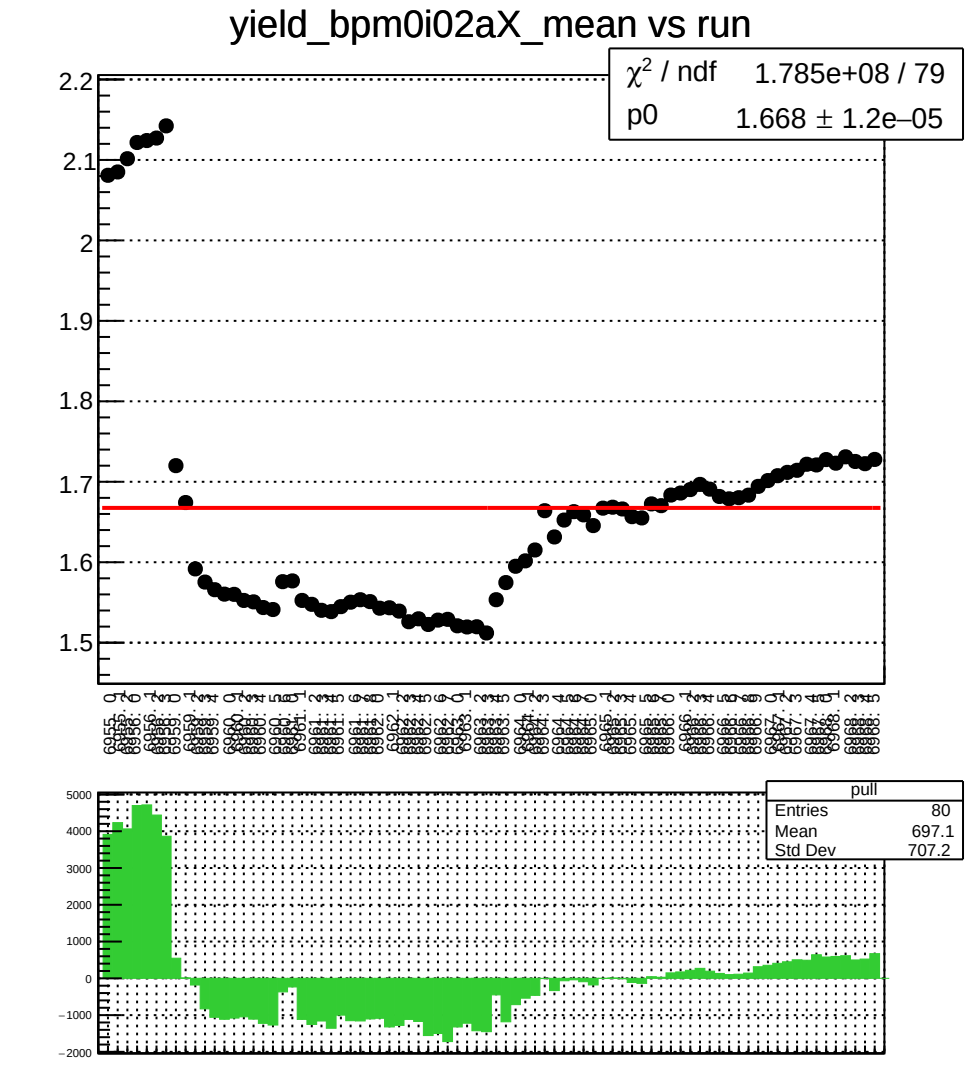

pull1D
Entries 80
Mean −4.941
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

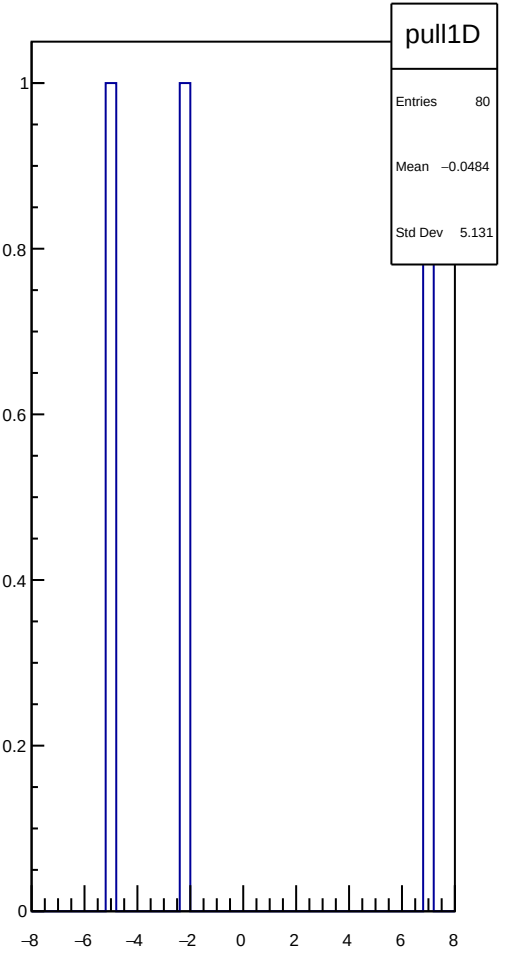

yield_bpm0i02X_rms vs run
χ² / ndf 8.435e+04 / 79
p0 0.005574 ± 4.584e−06
0.025
0.02
0.015
0.01
0.005

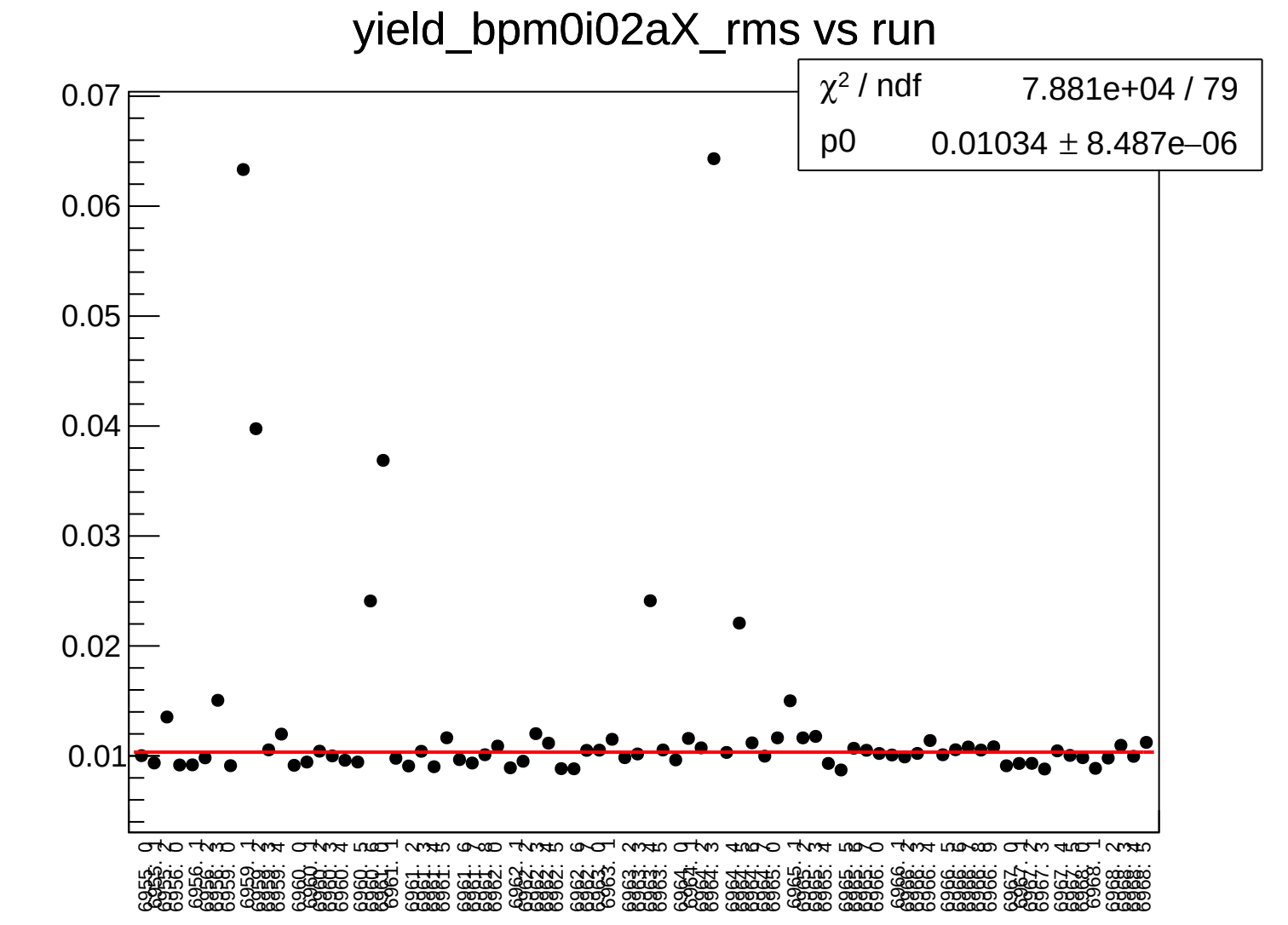

yield_bpm0i02Y_mean vs run
χ² / ndf 1.024e+08 / 79
p0 −2.481 ± 9.151e−06
pull
Entries 80
Mean −301
Std Dev 272.1

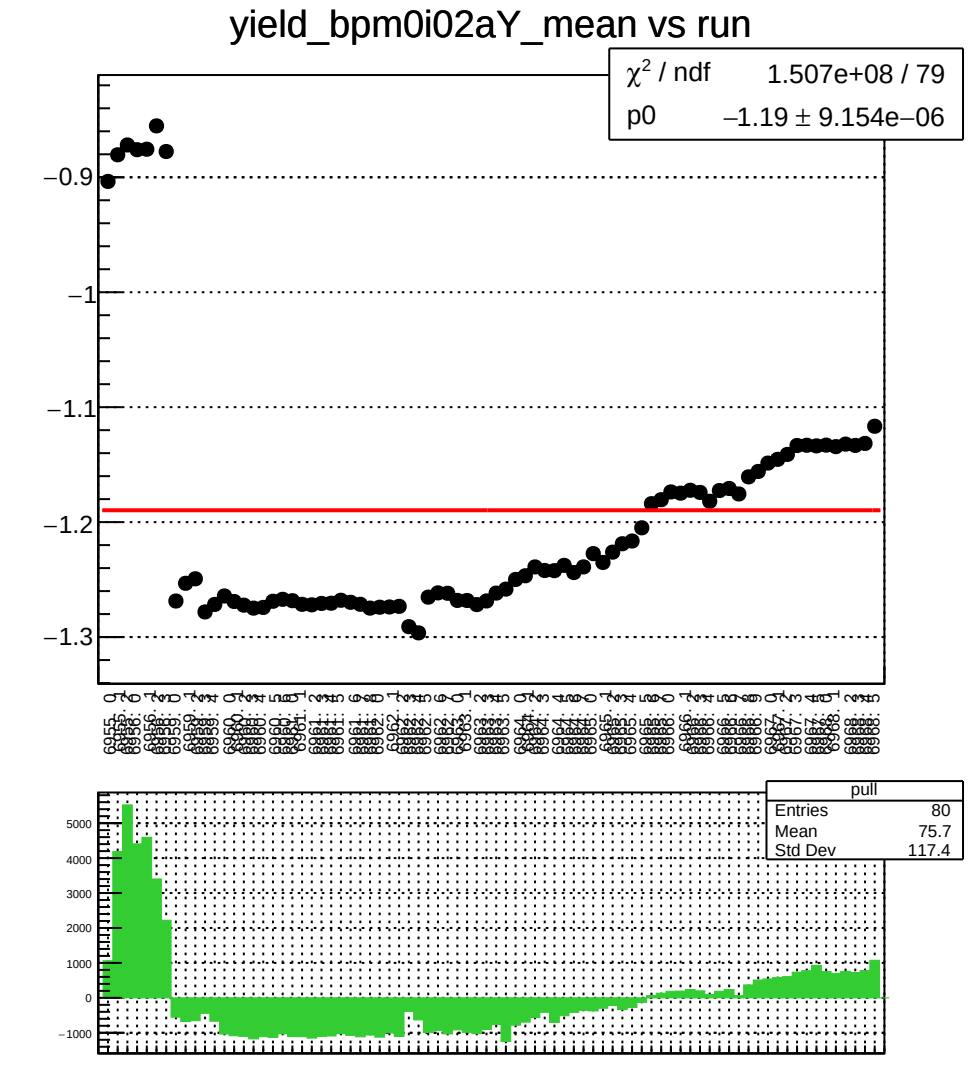

pull1D
Entries 80
Mean 0
Std Dev 0

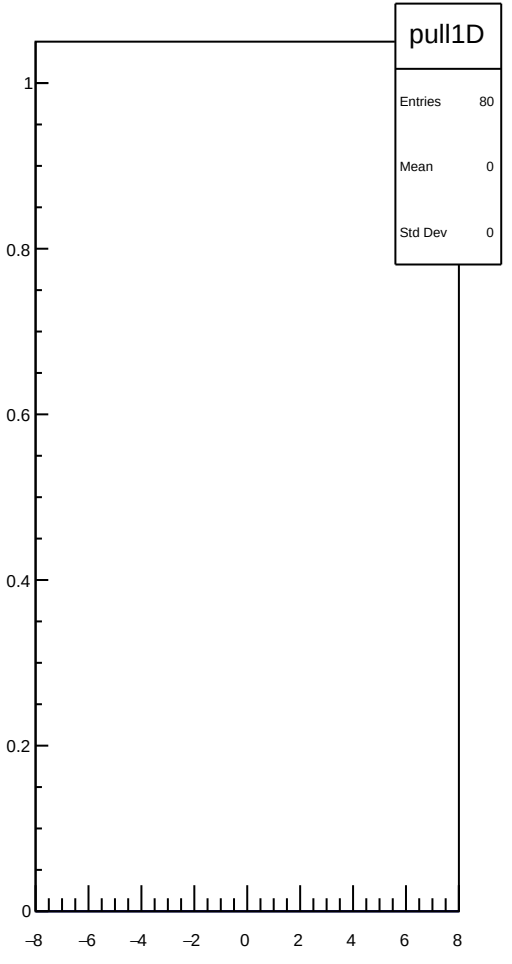

yield_bpm0i02Y_rms vs run
χ² / ndf 5.34e+04 / 79
p0 0.00795 ± 6.47e−06
0.025
0.02
0.015
0.01
0.005

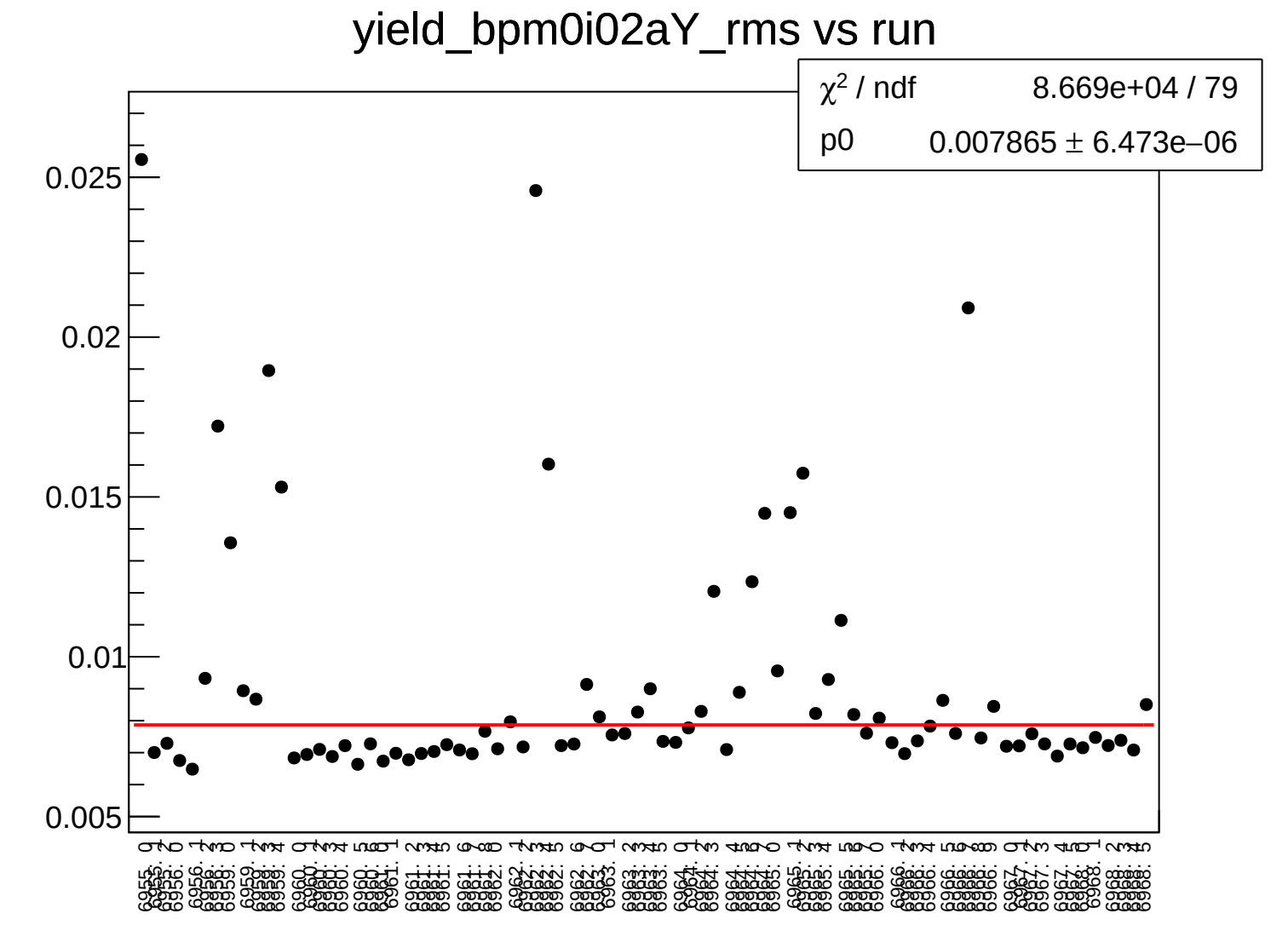

yield_bpm0i02aX_mean vs run
χ² / ndf 1.785e+08 / 79
p0 1.668 ± 1.2e–05
pull
Entries 80
Mean 697.1
Std Dev 707.2

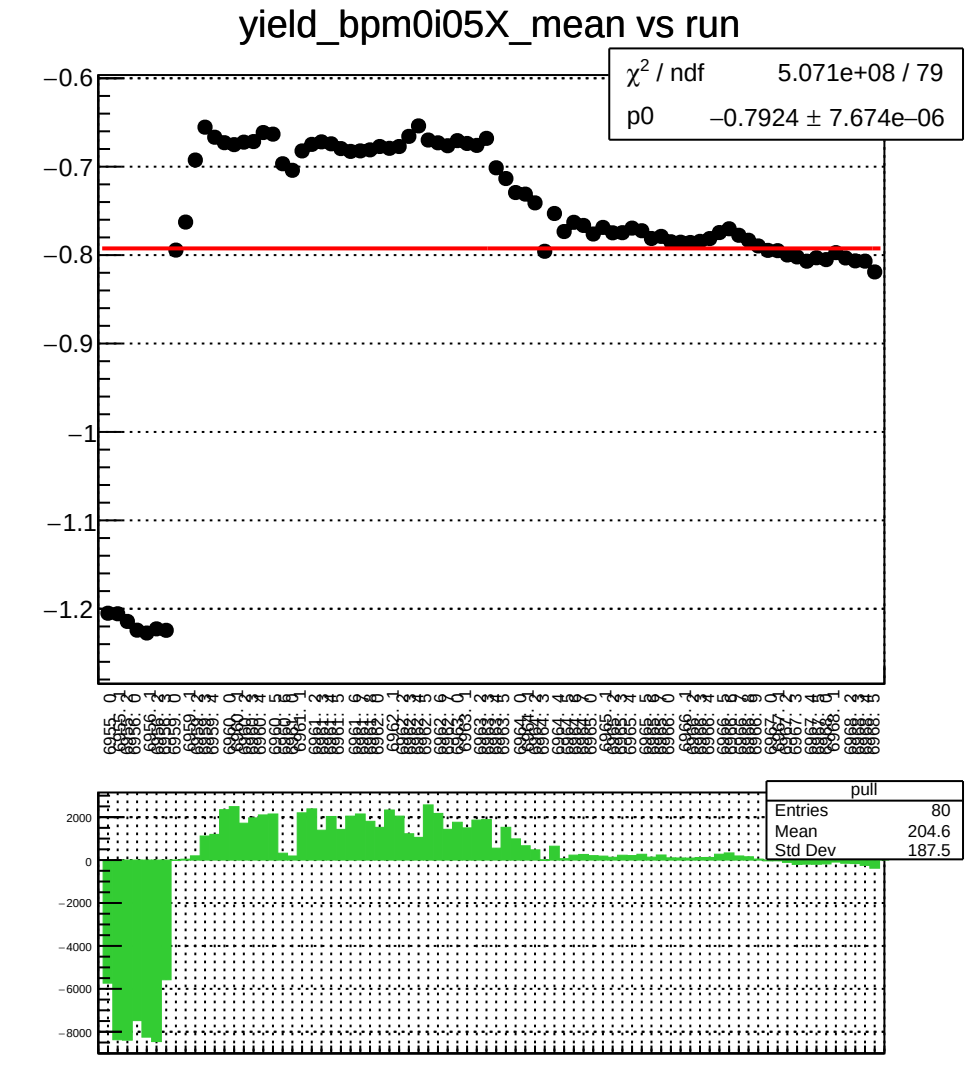

pull1D
Entries 80
Mean −0.0484
Std Dev 5.131

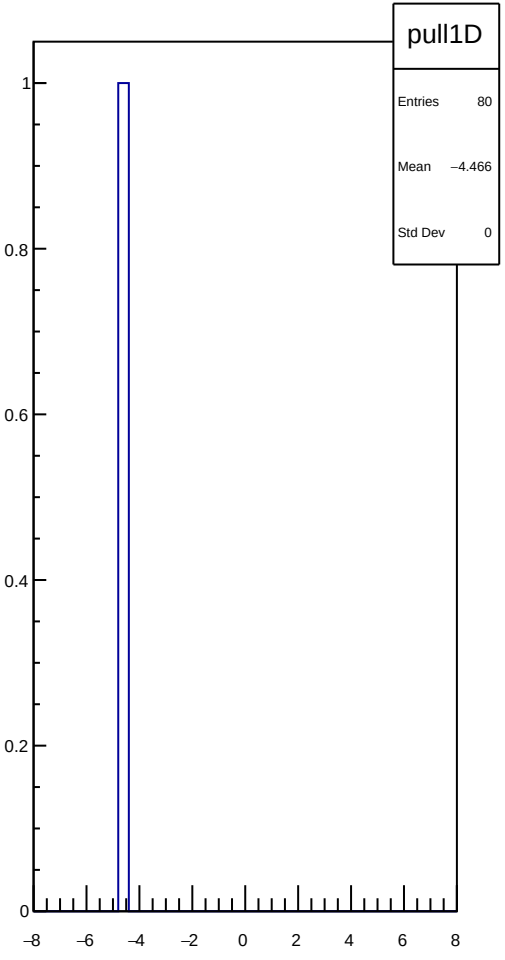

yield_bpm0i02aX_rms vs run
χ² / ndf 7.881e+04 / 79
p0 0.01034 ± 8.487e–06
0.07
0.06
0.05
0.04
0.03
0.02
0.01

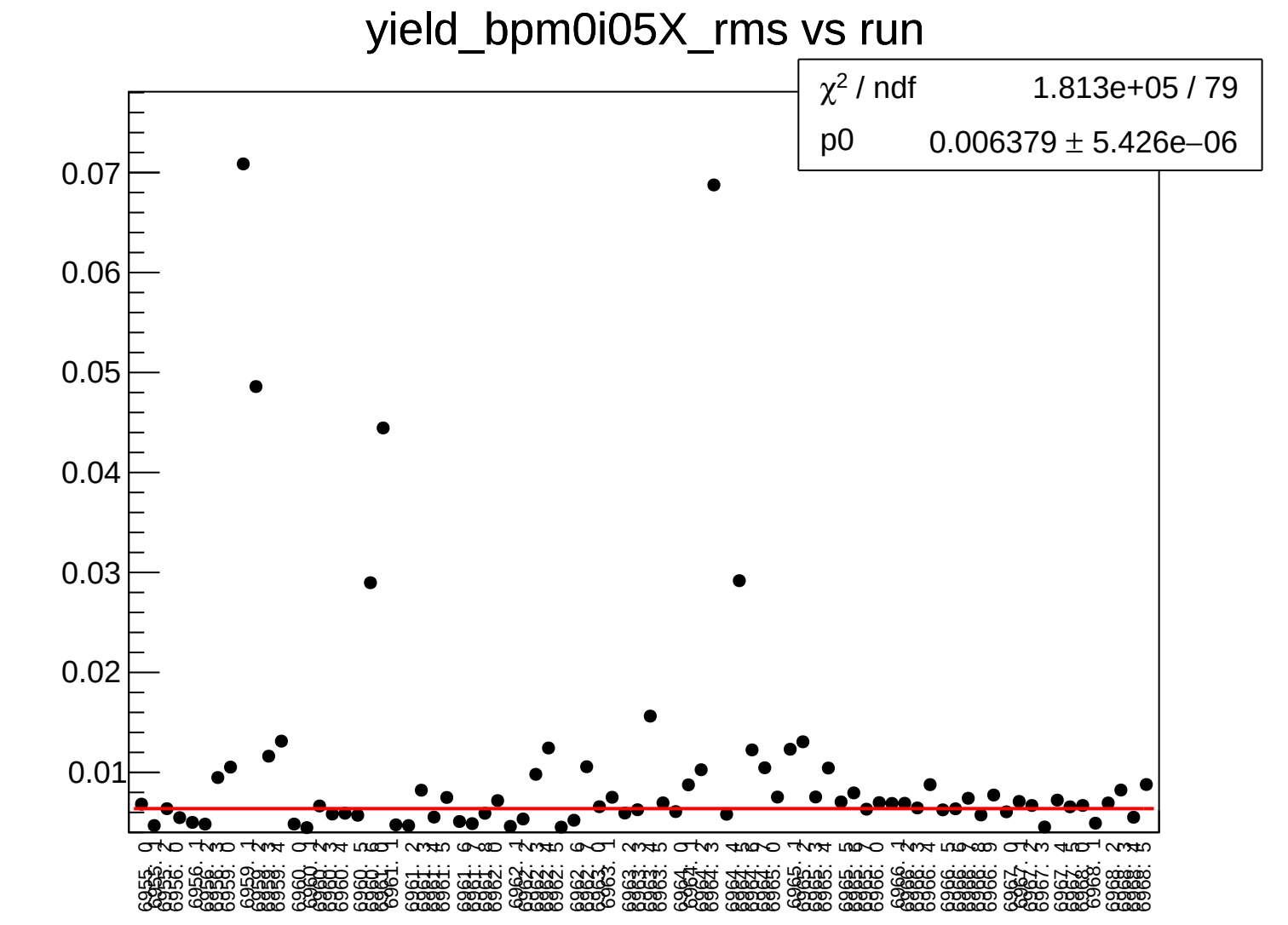

yield_bpm0i02aY_mean vs run
χ² / ndf 1.507e+08 / 79
p0 −1.19 ± 9.154e−06
−0.9
−1
−1.1
−1.2
−1.3
pull
Entries 80
Mean 75.7
Std Dev 117.4
5000
4000
3000
2000
1000
0
−1000

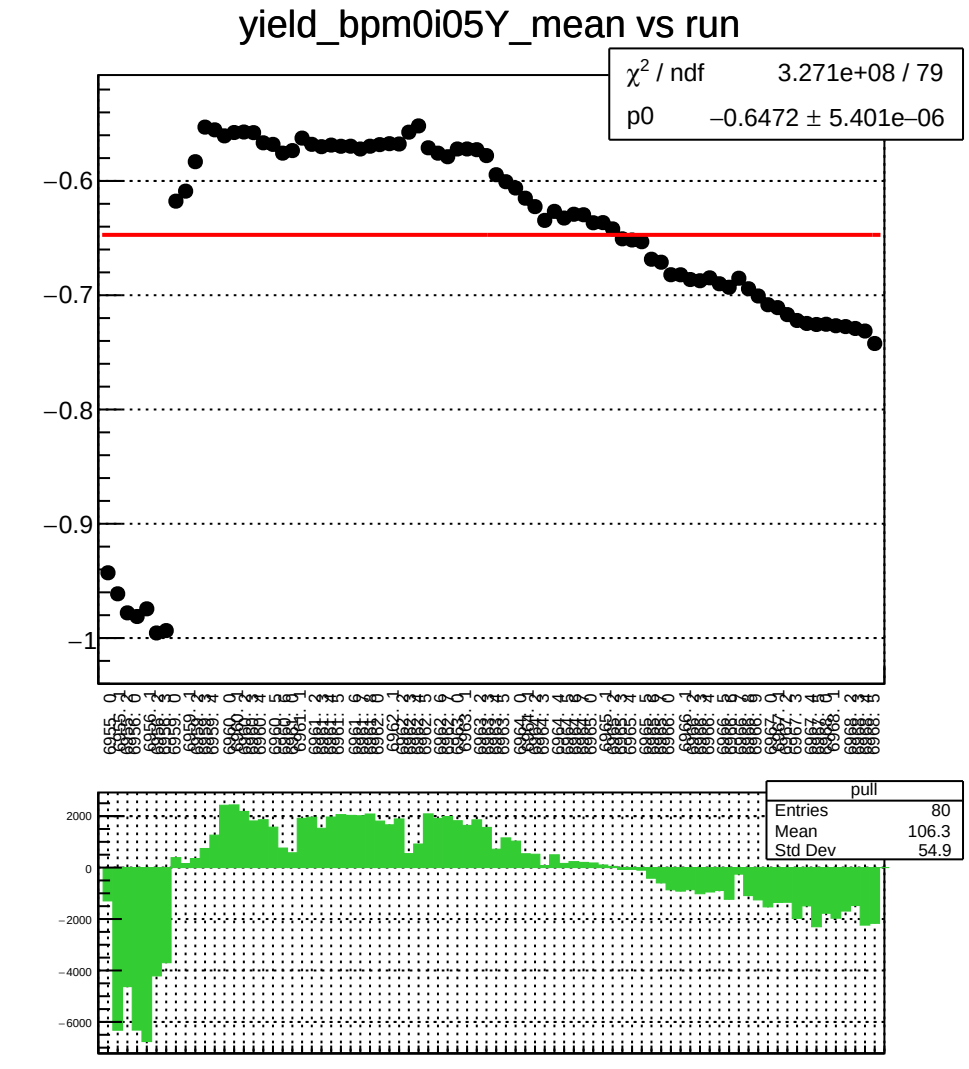

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

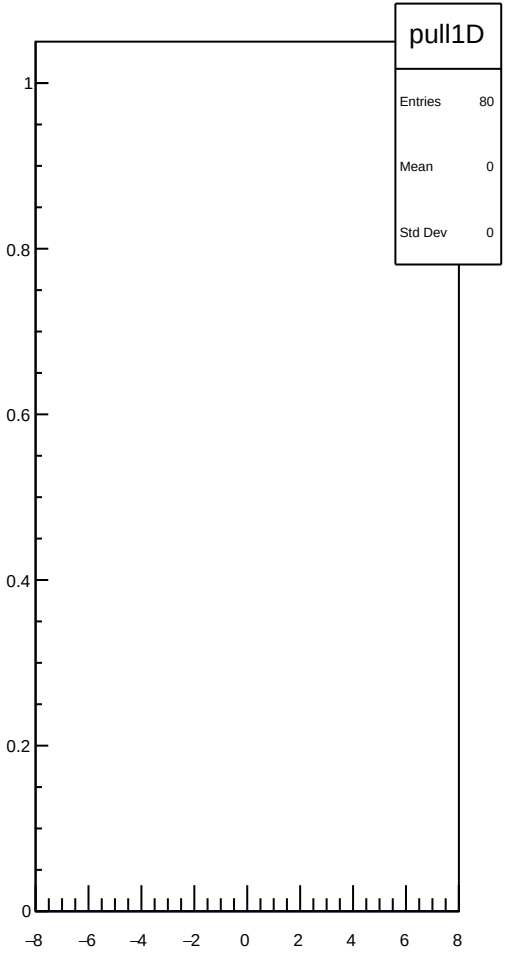

yield_bpm0i02aY_rms vs run
χ² / ndf 8.669e+04 / 79
p0 0.007865 ± 6.473e−06
0.025
0.02
0.015
0.01
0.005

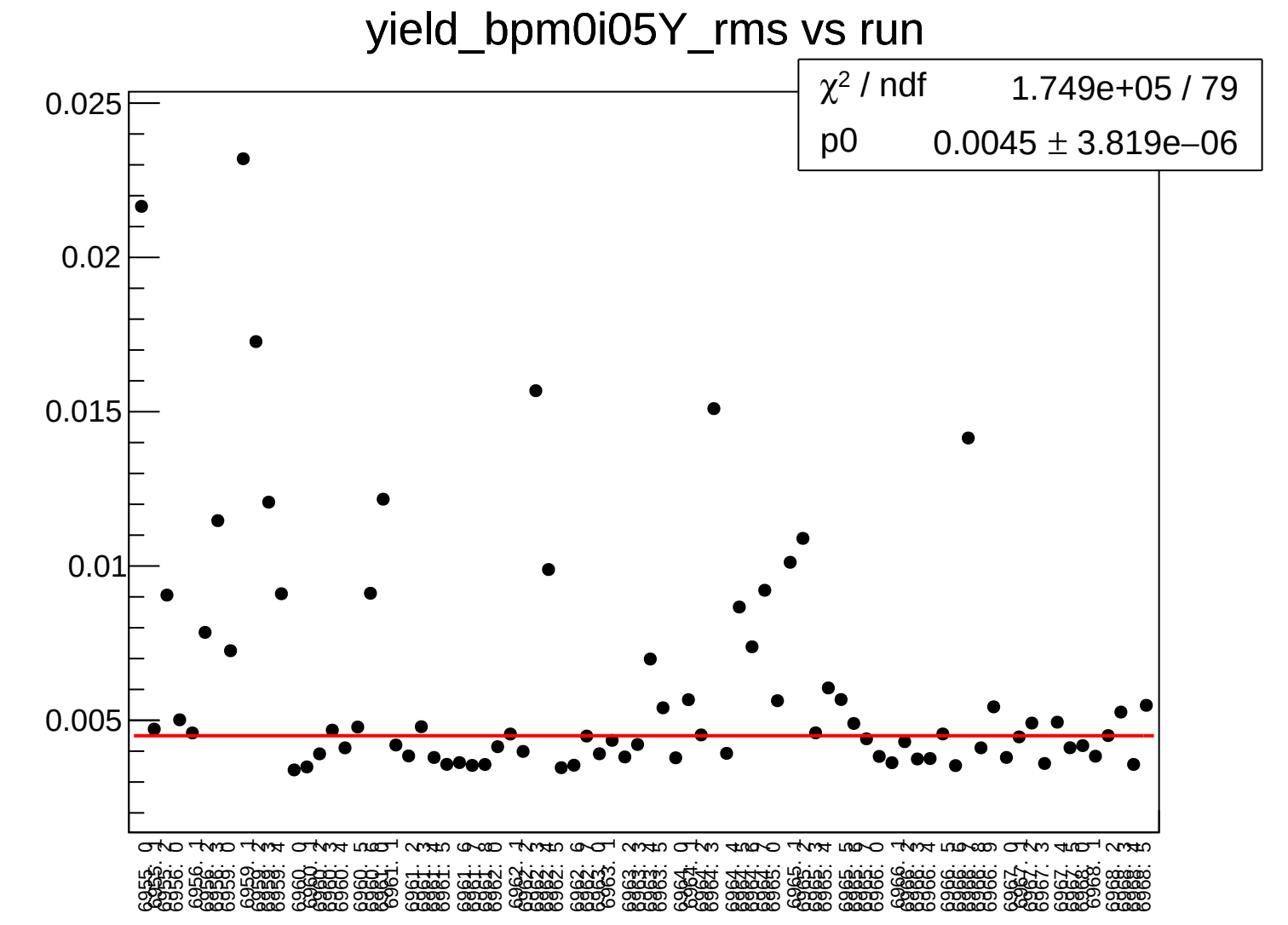

yield_bpm0i05X_mean vs run
χ² / ndf 5.071e+08 / 79
p0 −0.7924 ± 7.674e−06
pull
Entries 80
Mean 204.6
Std Dev 187.5

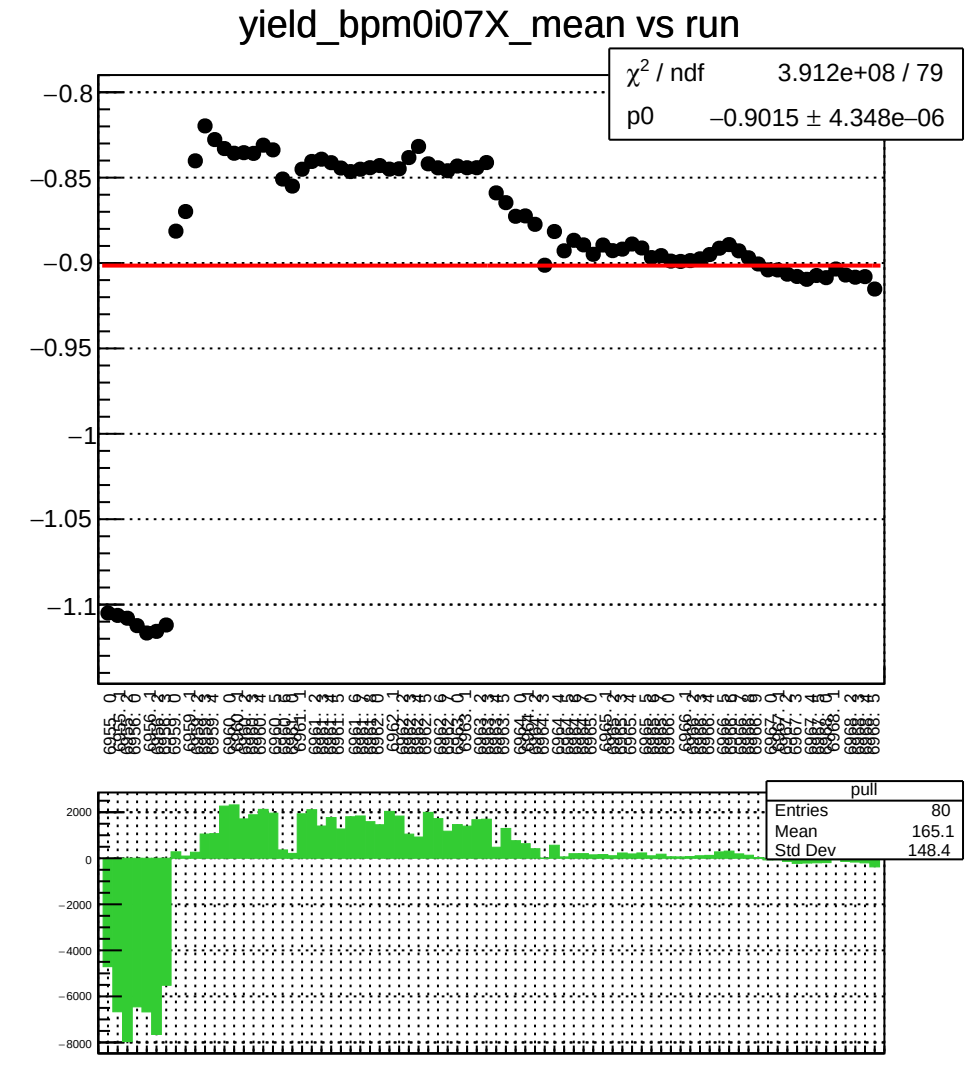

pull1D
Entries 80
Mean −4.466
Std Dev 0

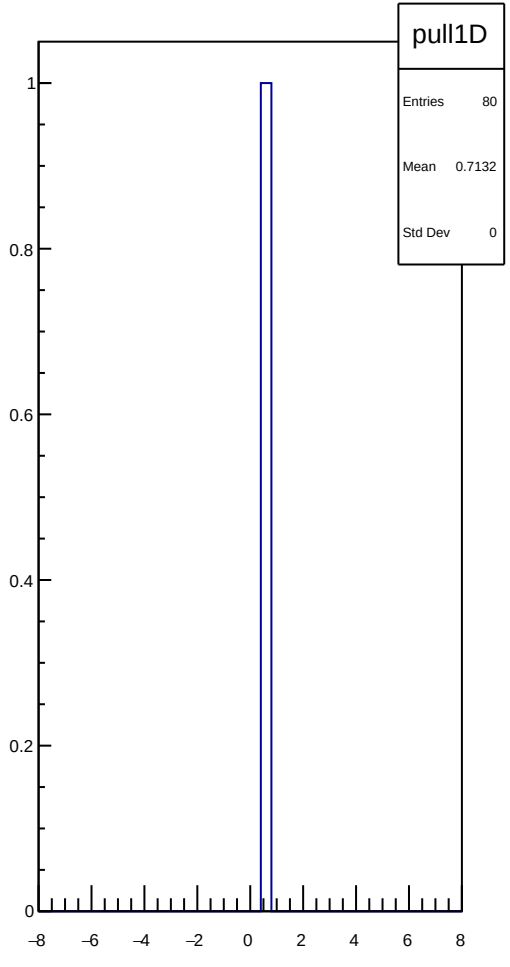

yield_bpm0i05X_rms vs run
χ² / ndf 1.813e+05 / 79
p0 0.006379 ± 5.426e−06
0.07
0.06
0.05
0.04
0.03
0.02
0.01

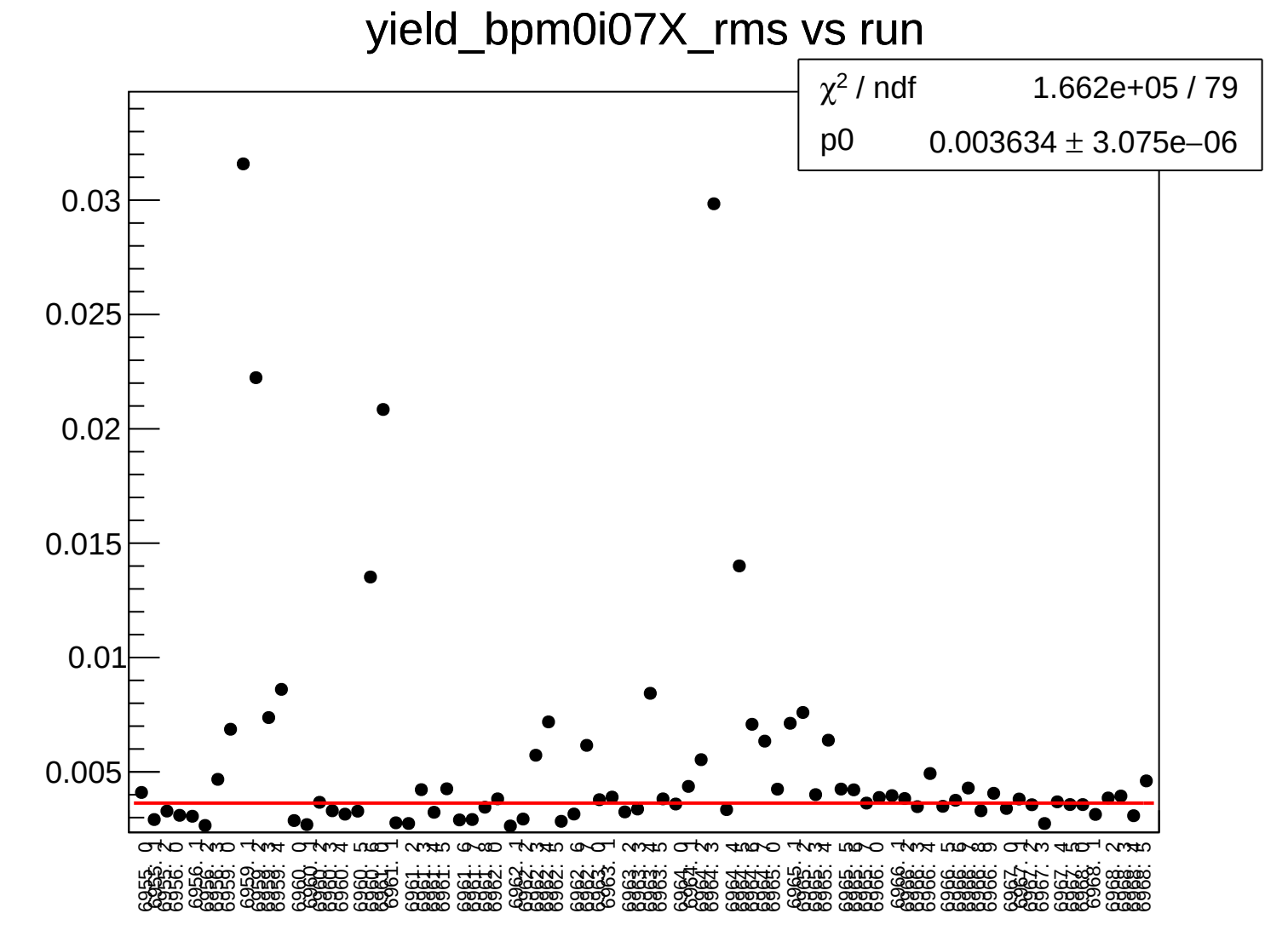

yield_bpm0i05Y_mean vs run
χ² / ndf 3.271e+08 / 79
p0 −0.6472 ± 5.401e−06
−0.6
−0.7
−0.8
−0.9
−1
pull
Entries 80
Mean 106.3
Std Dev 54.9
2000
0
−2000
−4000
−6000

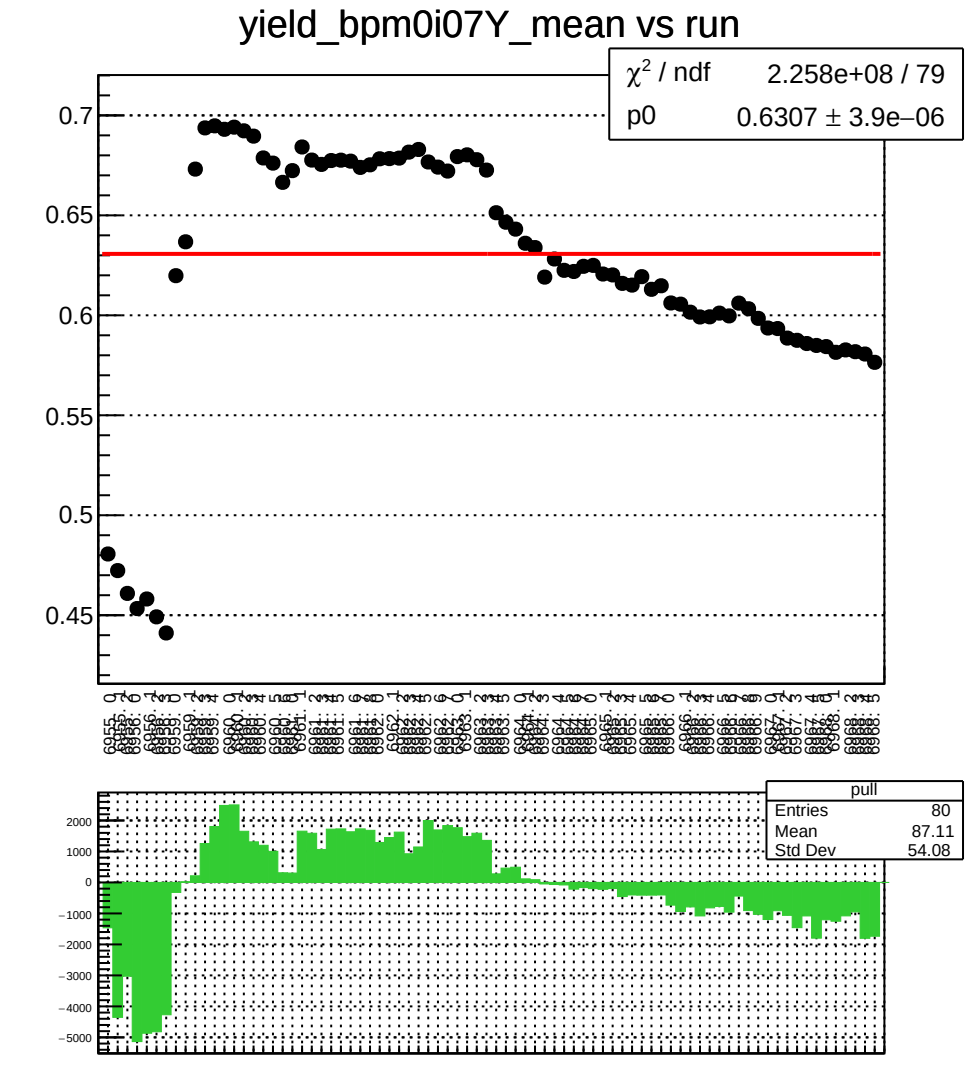

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

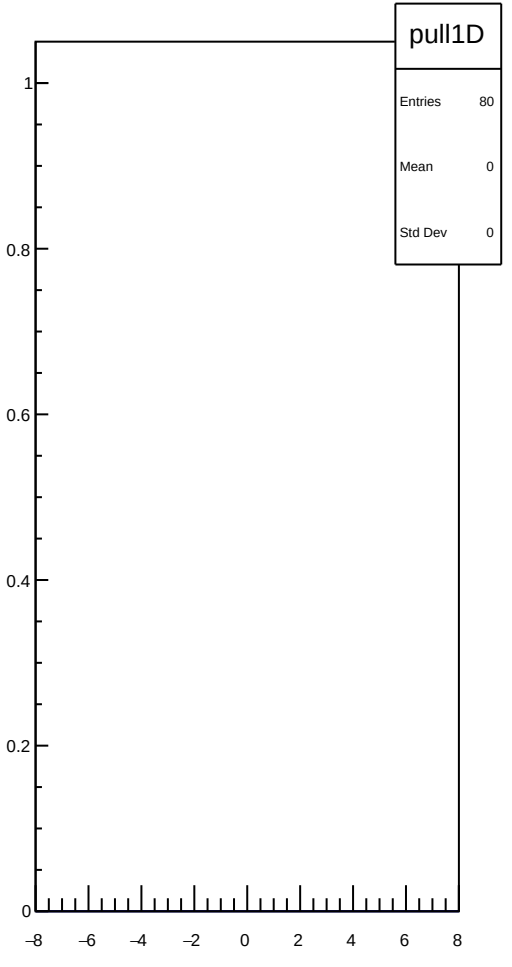

yield_bpm0i05Y_rms vs run
χ² / ndf 1.749e+05 / 79
p0 0.0045 ± 3.819e−06
0.025
0.02
0.015
0.01
0.005

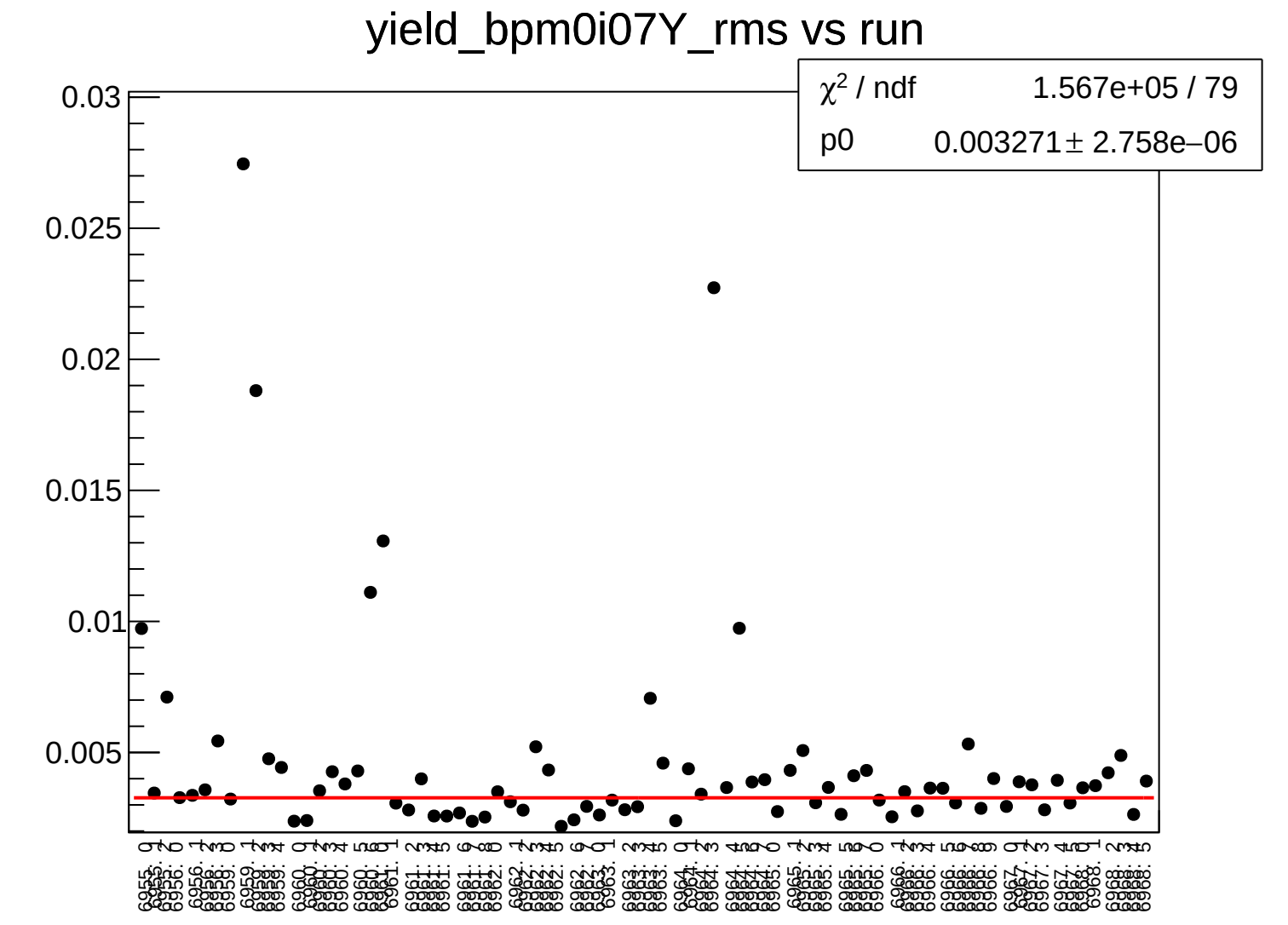

yield_bpm0i07X_mean vs run
χ² / ndf 3.912e+08 / 79
p0 −0.9015 ± 4.348e−06
pull
Entries 80
Mean 165.1
Std Dev 148.4

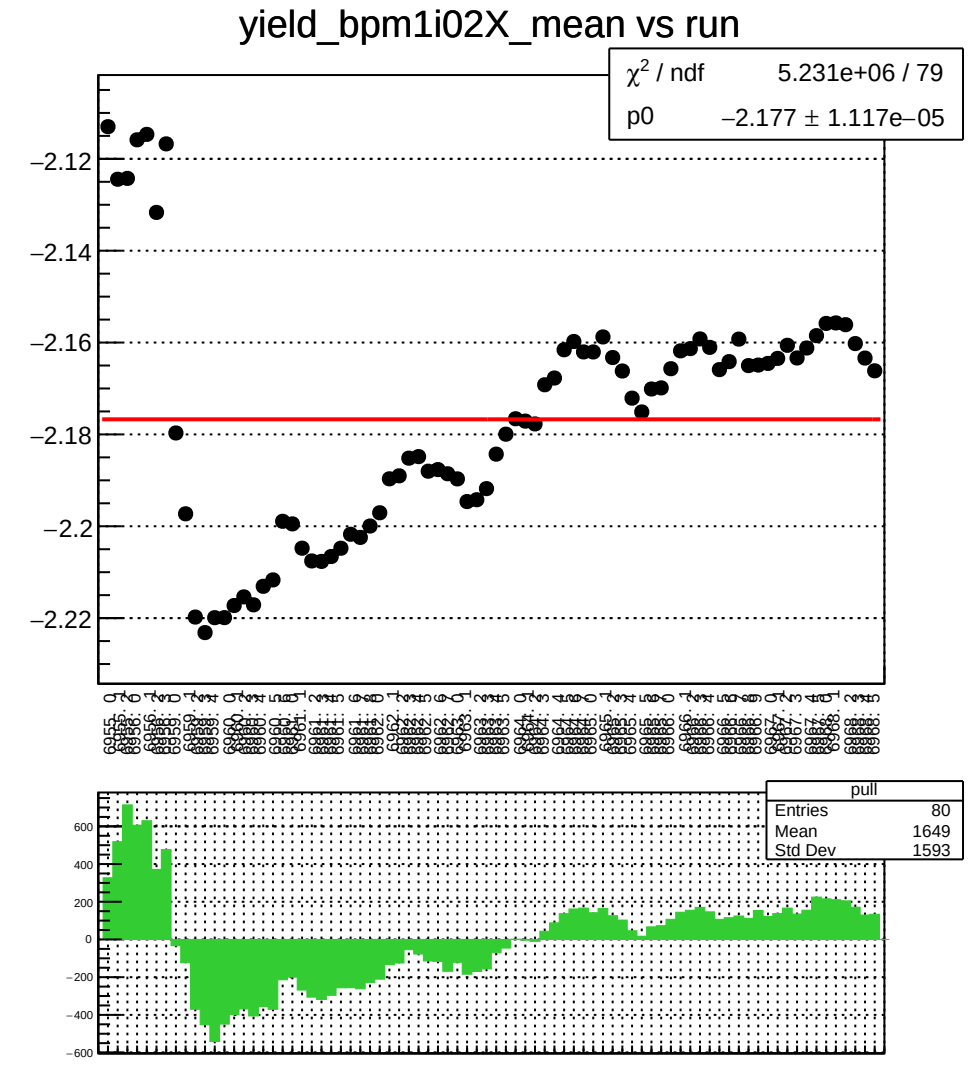

pull1D
Entries 80
Mean 0.7132
Std Dev 0

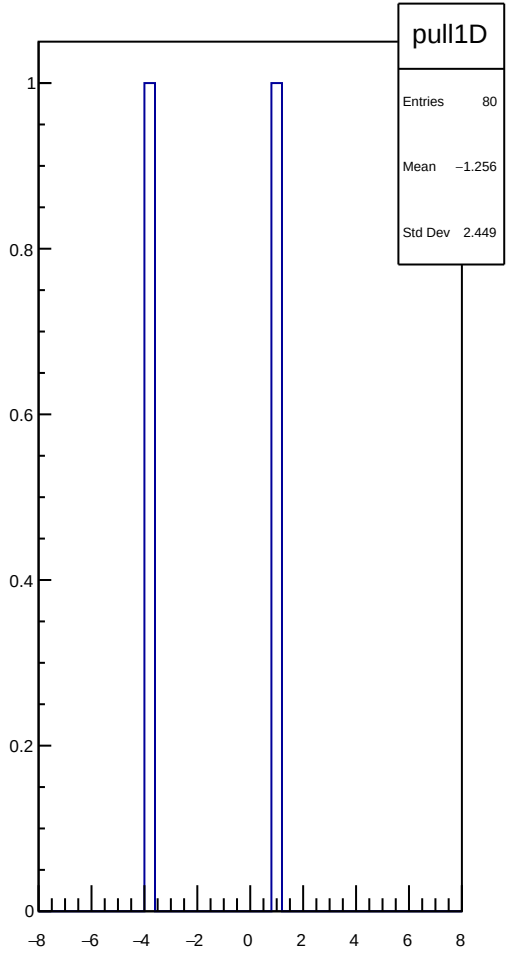

yield_bpm0i07X_rms vs run
χ² / ndf 1.662e+05 / 79
p0 0.003634 ± 3.075e−06
0.03
0.025
0.02
0.015
0.01
0.005

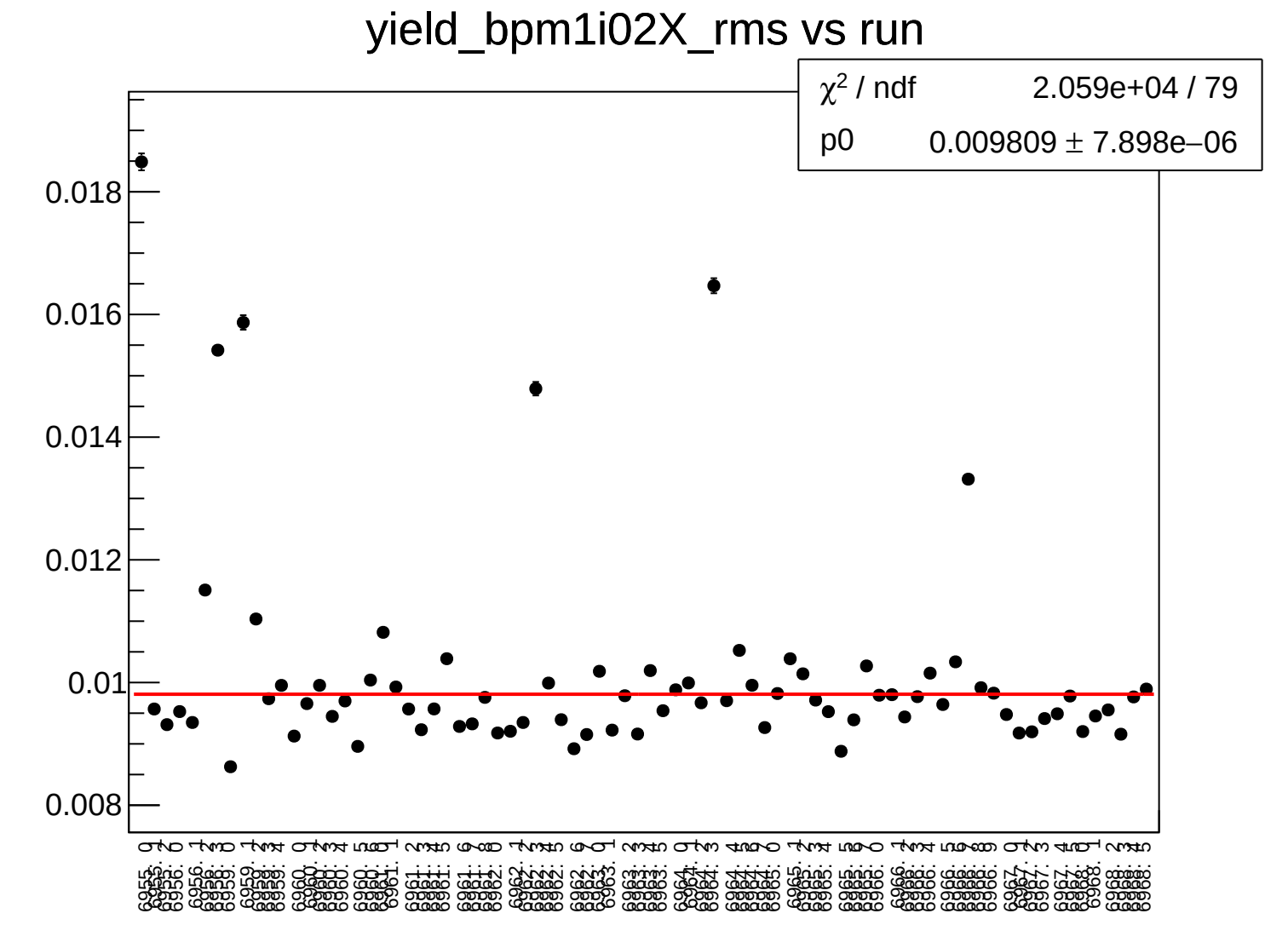

yield_bpm0i07Y_mean vs run
χ² / ndf 2.258e+08 / 79
p0 0.6307 ± 3.9e−06
0.7
0.65
0.6
0.55
0.5
0.45
pull
Entries 80
Mean 87.11
Std Dev 54.08
2000
1000
0
−1000
−2000
−3000
−4000
−5000

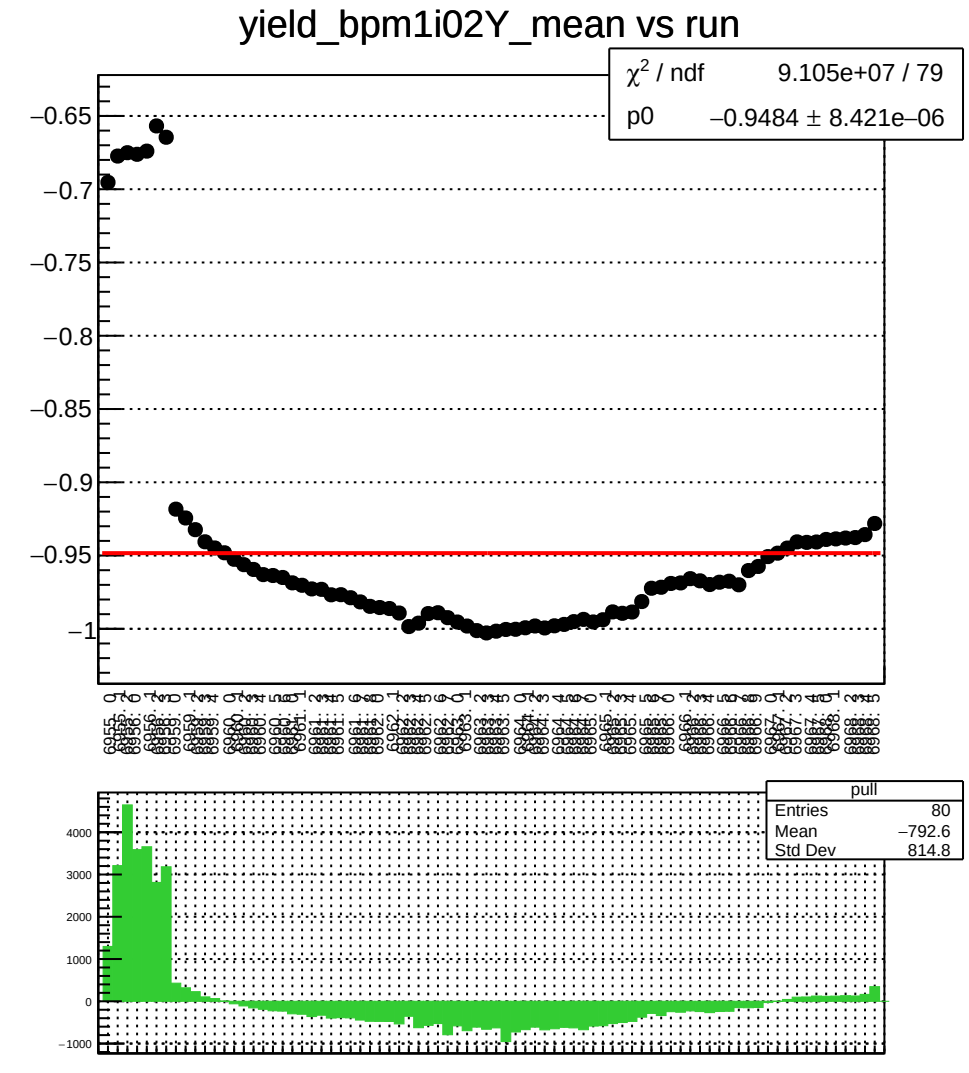

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

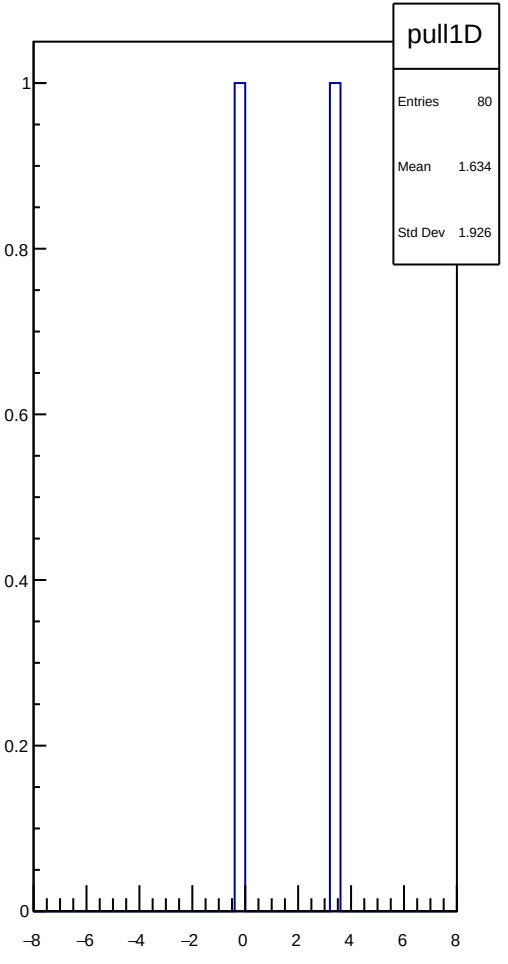

yield_bpm0i07Y_rms vs run
χ² / ndf 1.567e+05 / 79
p0 0.003271 ± 2.758e−06
0.03
0.025
0.02
0.015
0.01
0.005

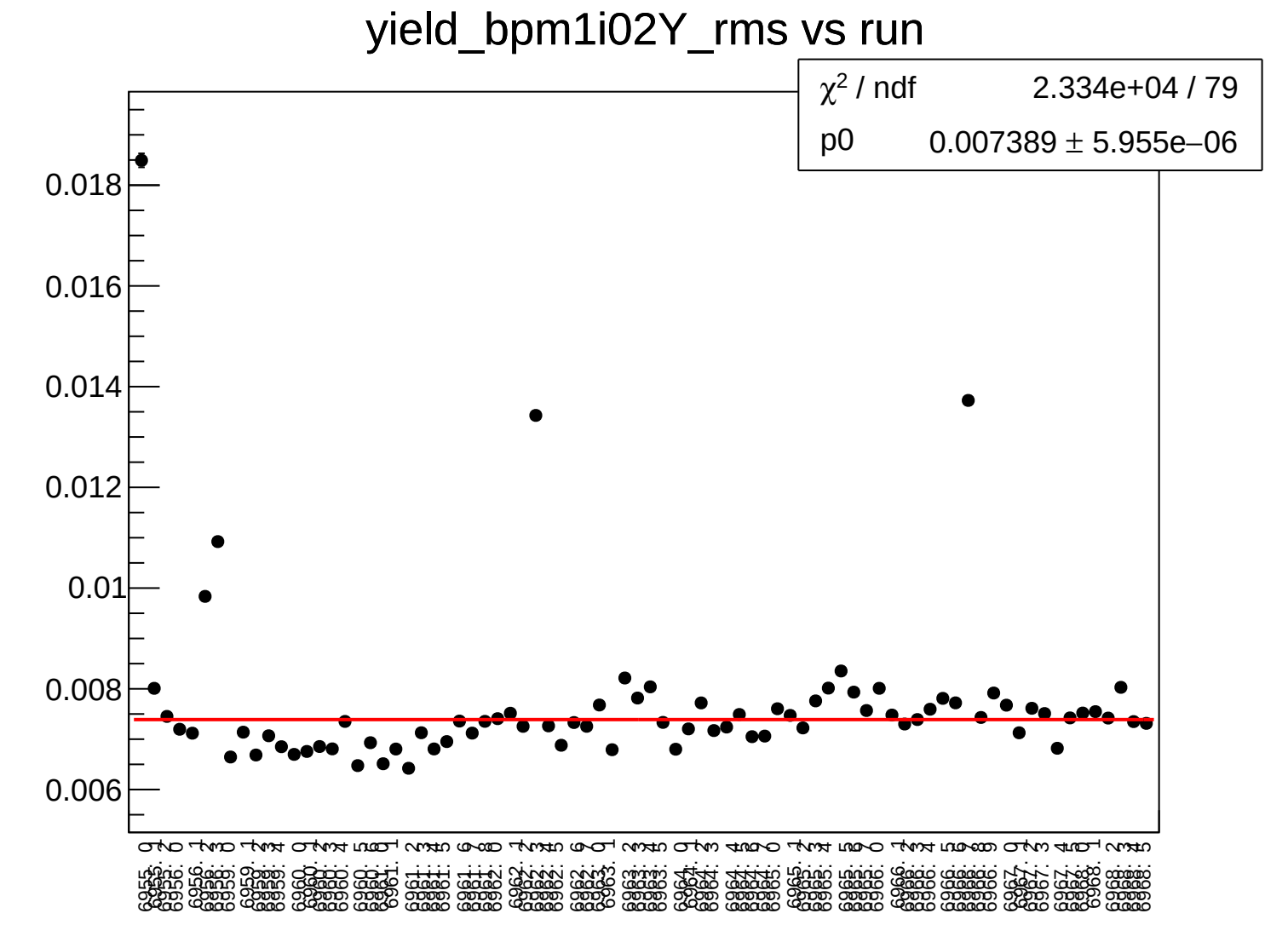

yield_bpm1i02X_mean vs run
χ² / ndf 5.231e+06 / 79
p0 −2.177 ± 1.117e−05
−2.12
−2.14
−2.16
−2.18
−2.2
−2.22
pull
Entries 80
Mean 1649
Std Dev 1593
600
400
200
0
−200
−400
−600

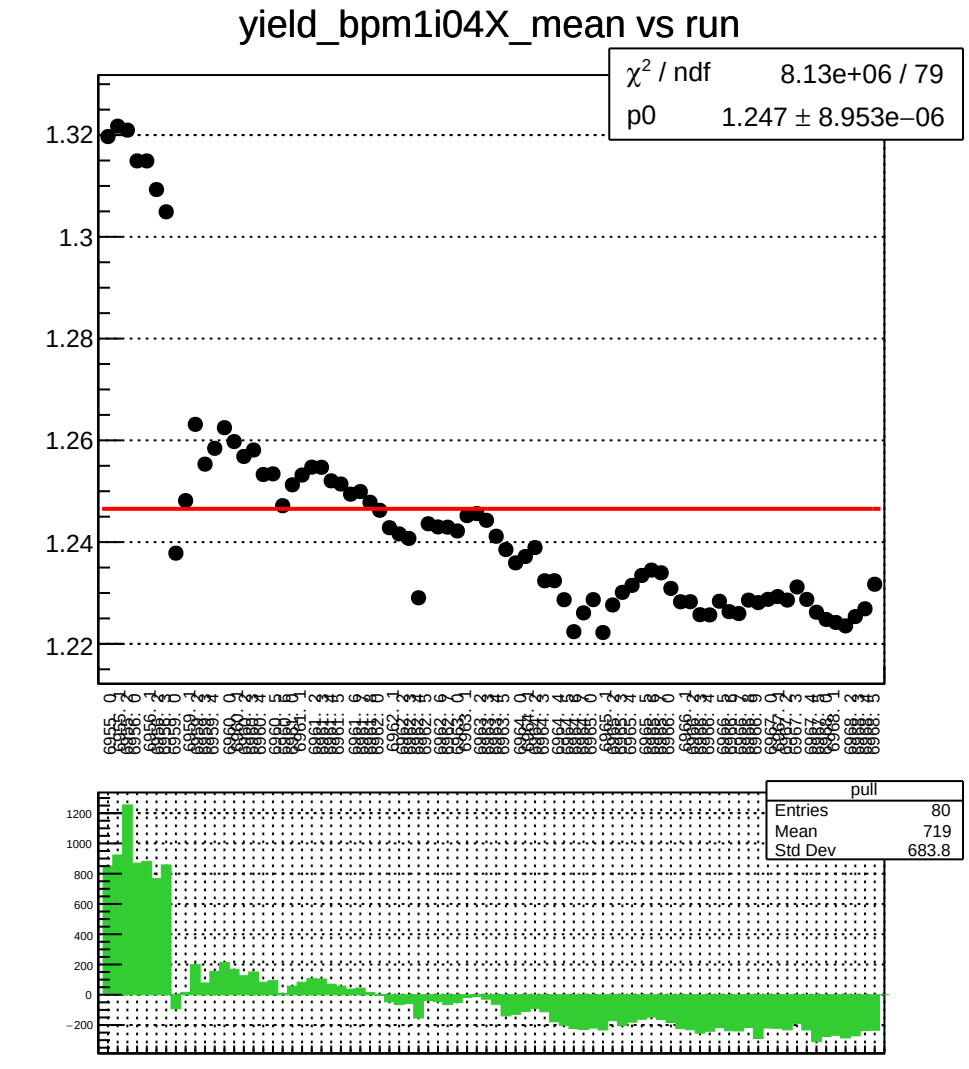

pull1D
Entries 80
Mean −1.256
Std Dev 2.449
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

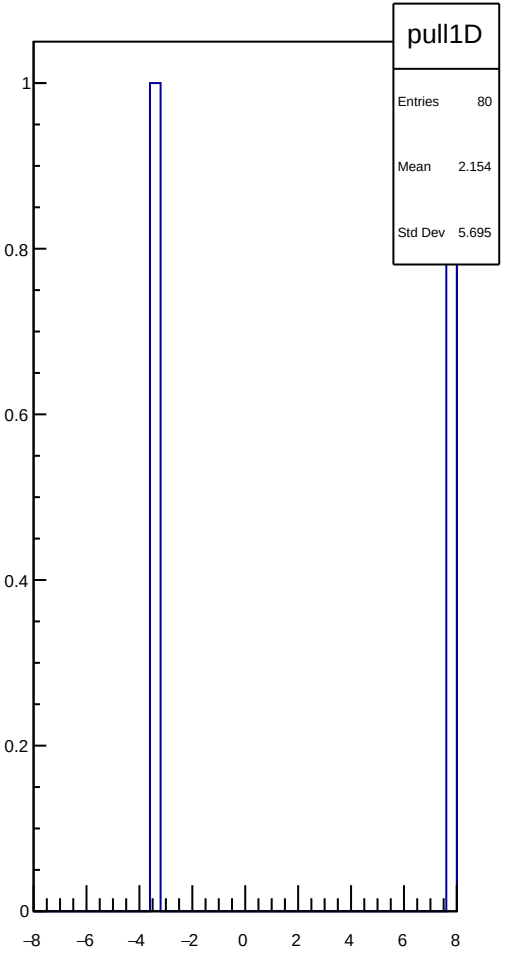

yield_bpm1i02X_rms vs run
χ^2 / ndf 2.059e+04 / 79
p0 0.009809 ± 7.898e−06
0.018
0.016
0.014
0.012
0.01
0.008

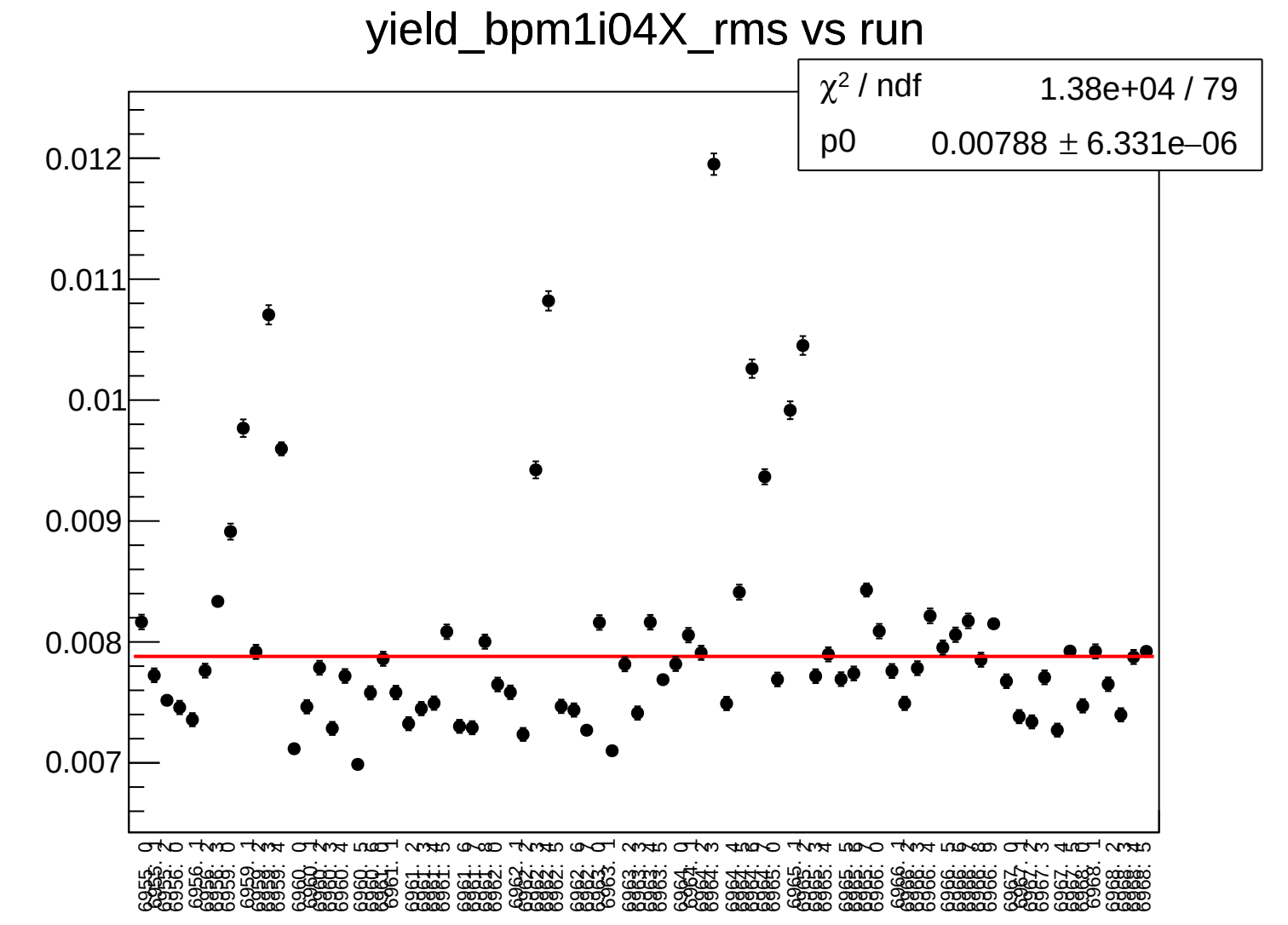

yield_bpm1i02Y_mean vs run
χ² / ndf 9.105e+07 / 79
p0 −0.9484 ± 8.421e−06
−0.65
−0.7
−0.75
−0.8
−0.85
−0.9
−0.95
−1
pull
Entries 80
Mean −792.6
Std Dev 814.8
4000
3000
2000
1000
0
−1000

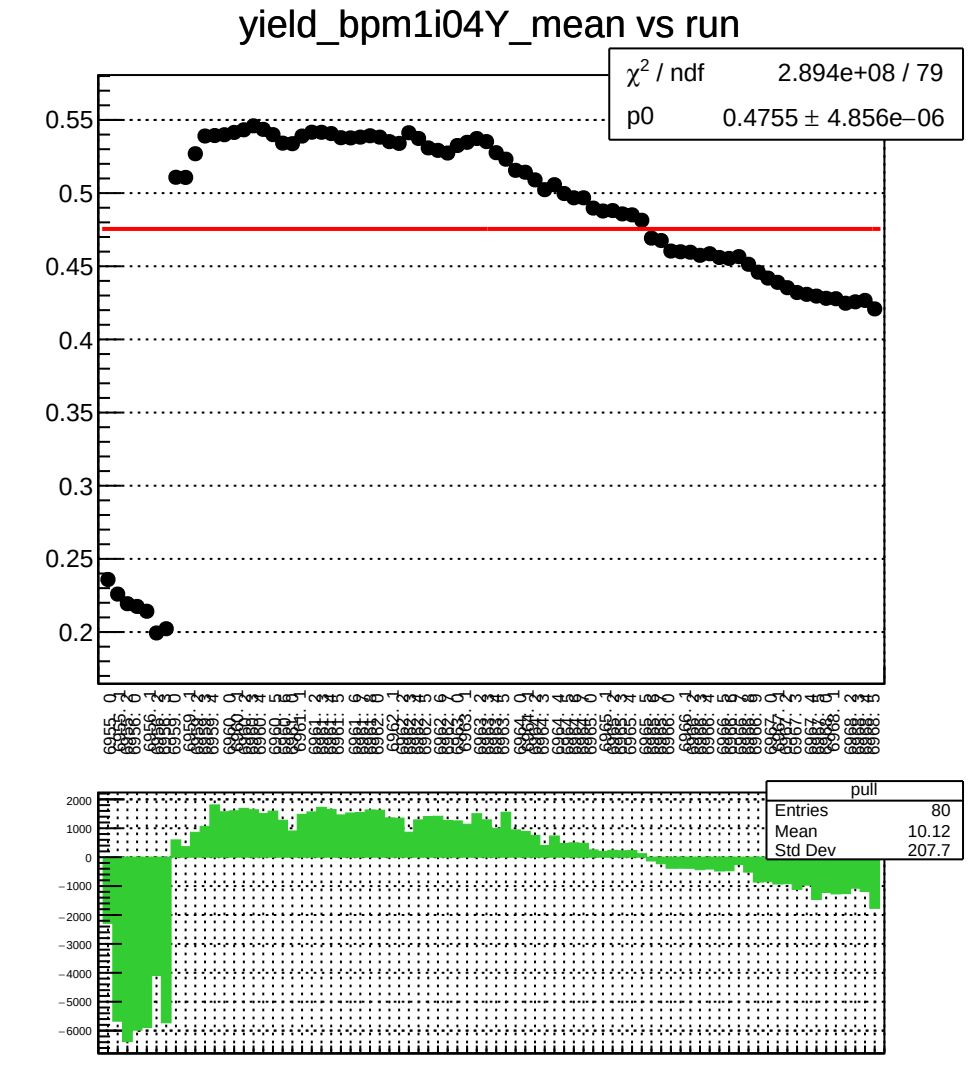

pull1D
Entries 80
Mean 1.634
Std Dev 1.926
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

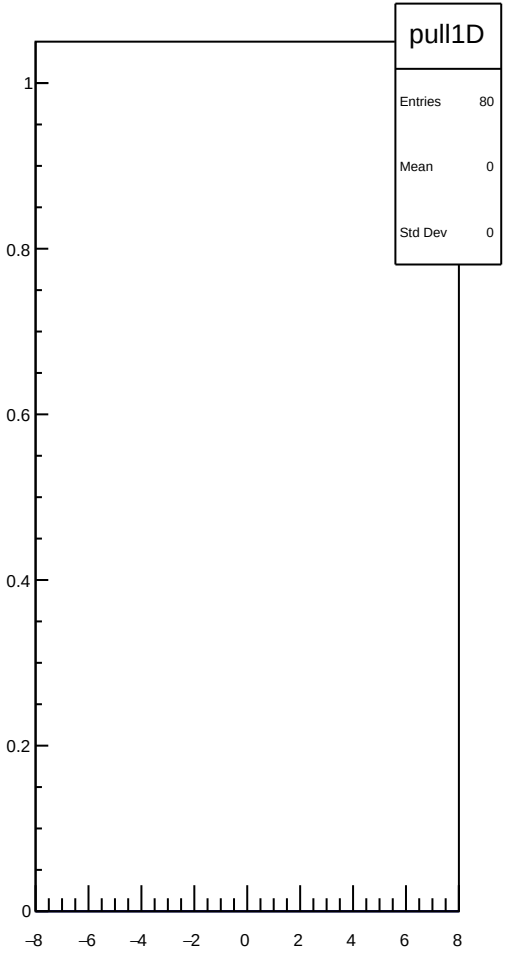

yield_bpm1i02Y_rms vs run
χ² / ndf 2.334e+04 / 79
p0 0.007389 ± 5.955e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006

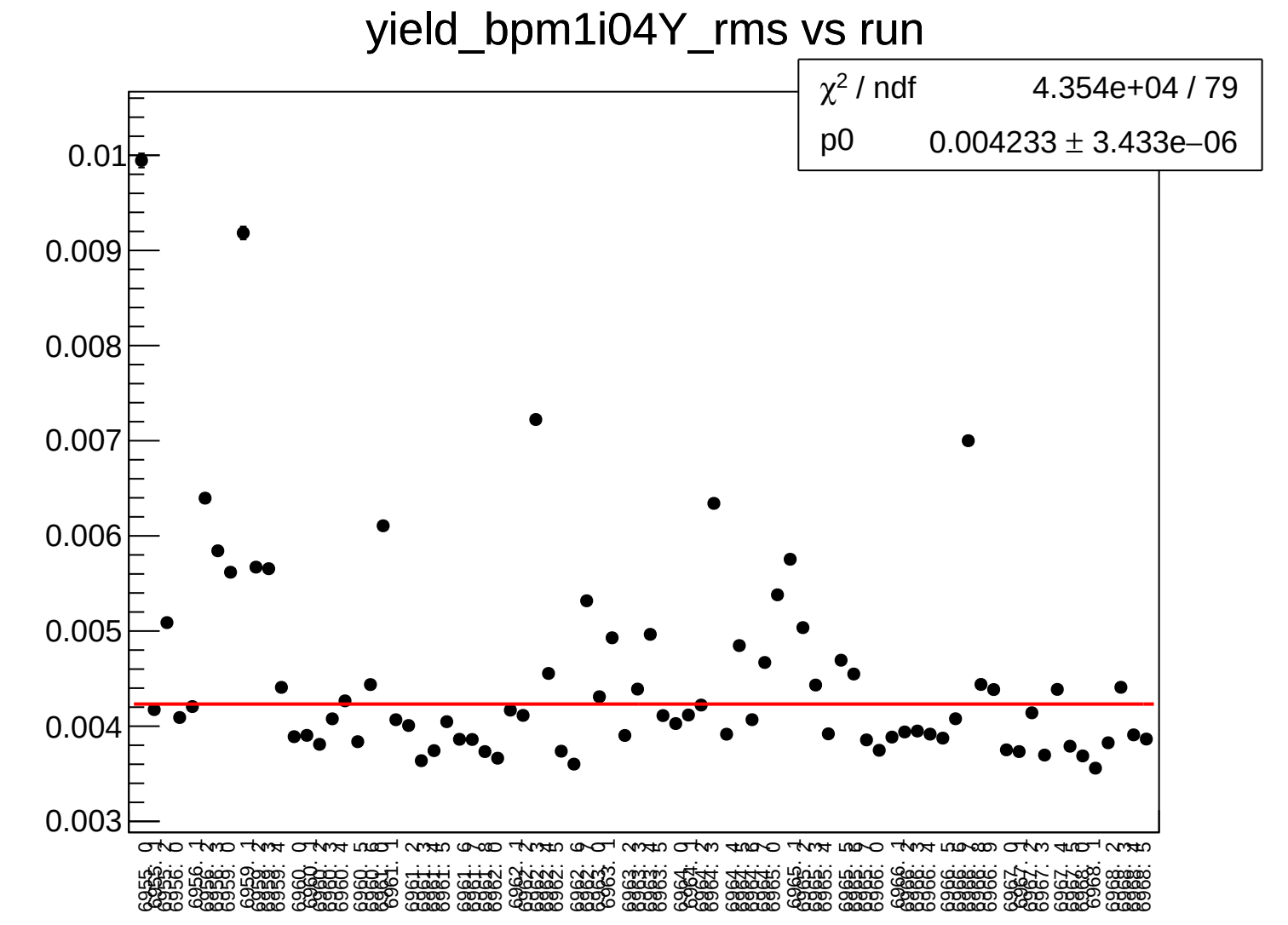

yield_bpm1i04X_mean vs run
χ² / ndf 8.13e+06 / 79
p0 1.247 ± 8.953e−06
1.32
1.3
1.28
1.26
1.24
1.22
pull
Entries 80
Mean 719
Std Dev 683.8
1200
1000
800
600
400
200
0
−200

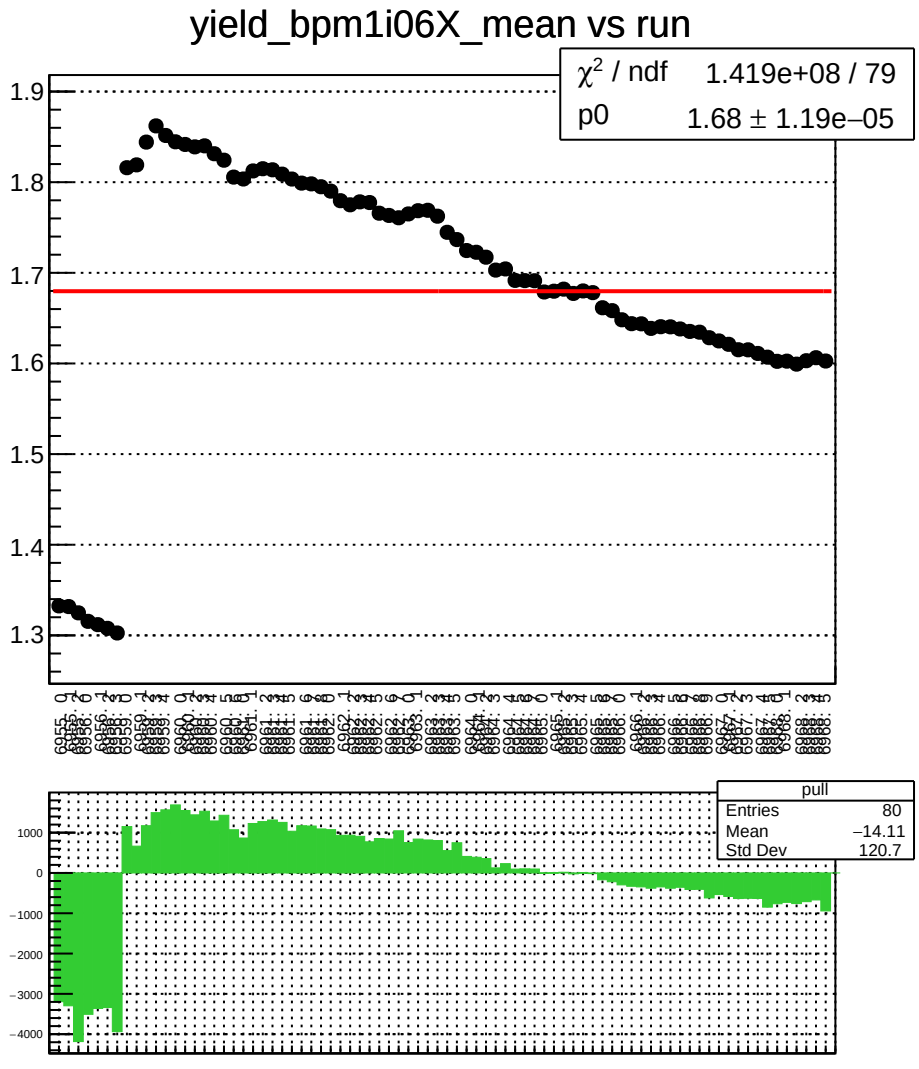

pull1D
Entries 80
Mean 2.154
Std Dev 5.695
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

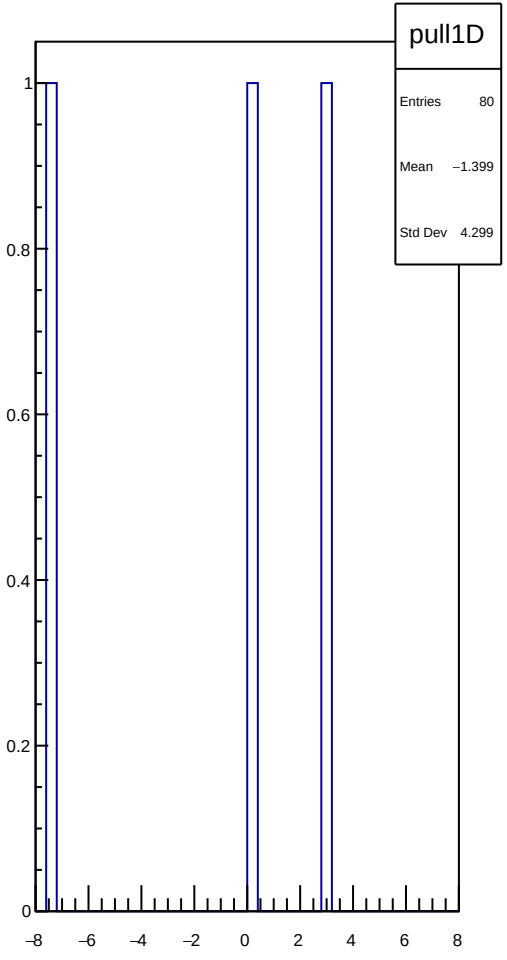

yield_bpm1i04X_rms vs run
χ² / ndf 1.38e+04 / 79
p0 0.00788 ± 6.331e–06
0.012
0.011
0.01
0.009
0.008
0.007

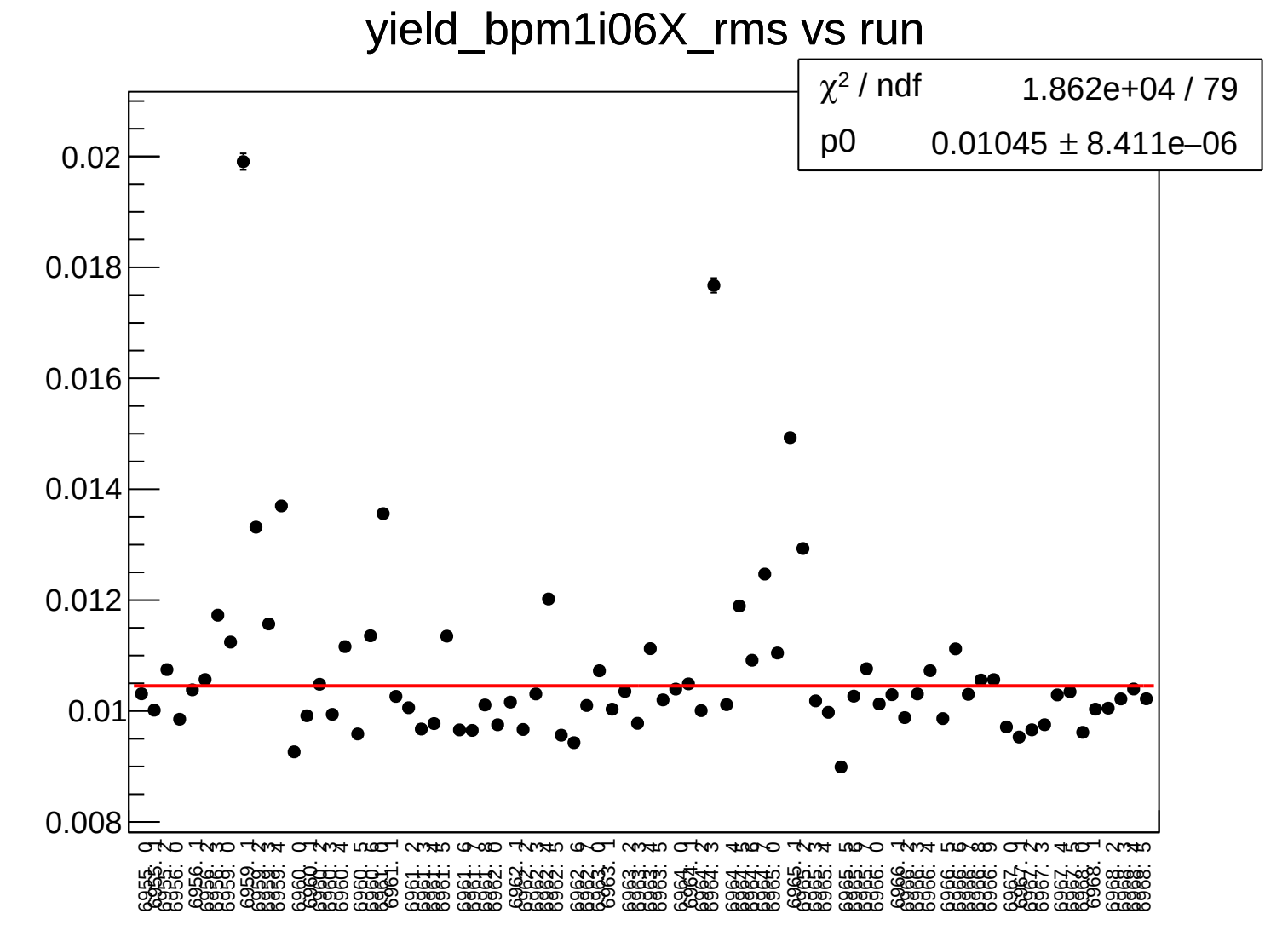

yield_bpm1i04Y_mean vs run
χ² / ndf 2.894e+08 / 79
p0 0.4755 ± 4.856e−06
0.55
0.5
0.45
0.4
0.35
0.3
0.25
0.2
pull
Entries 80
Mean 10.12
Std Dev 207.7
2000
1000
0
−1000
−2000
−3000
−4000
−5000
−6000

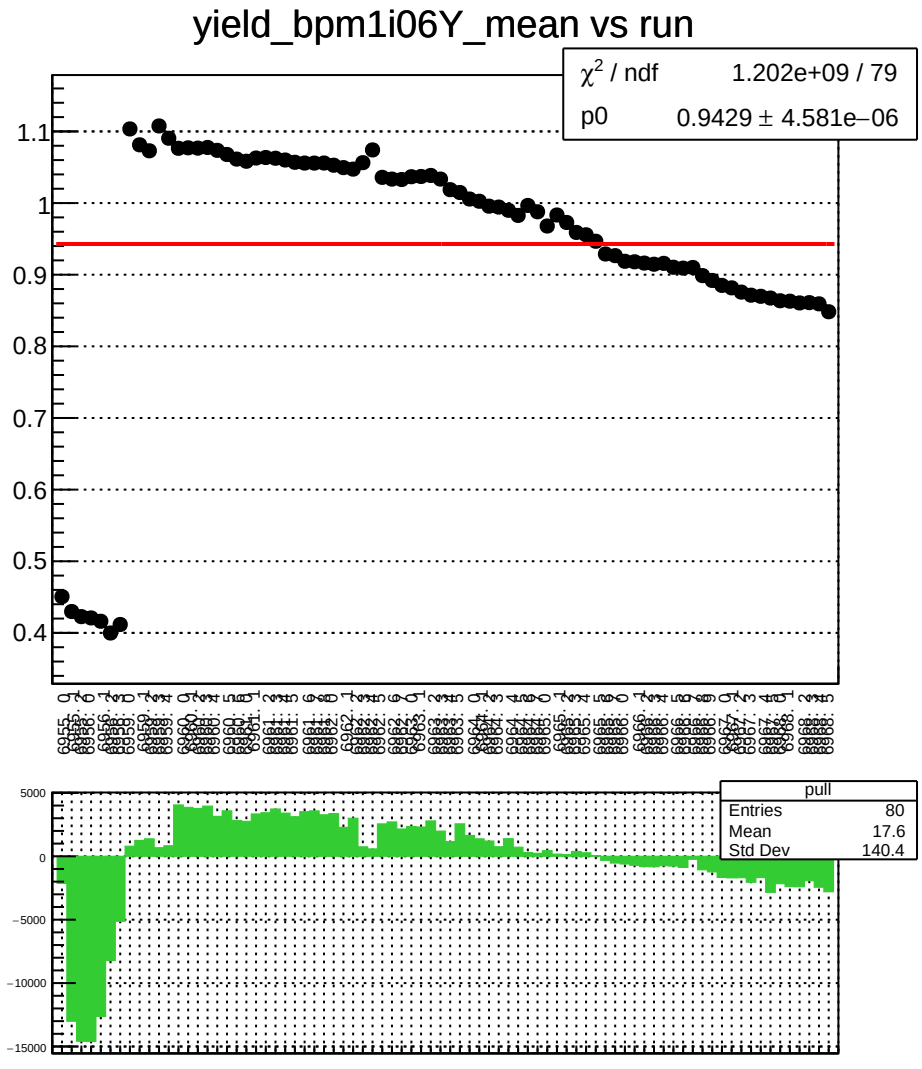

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

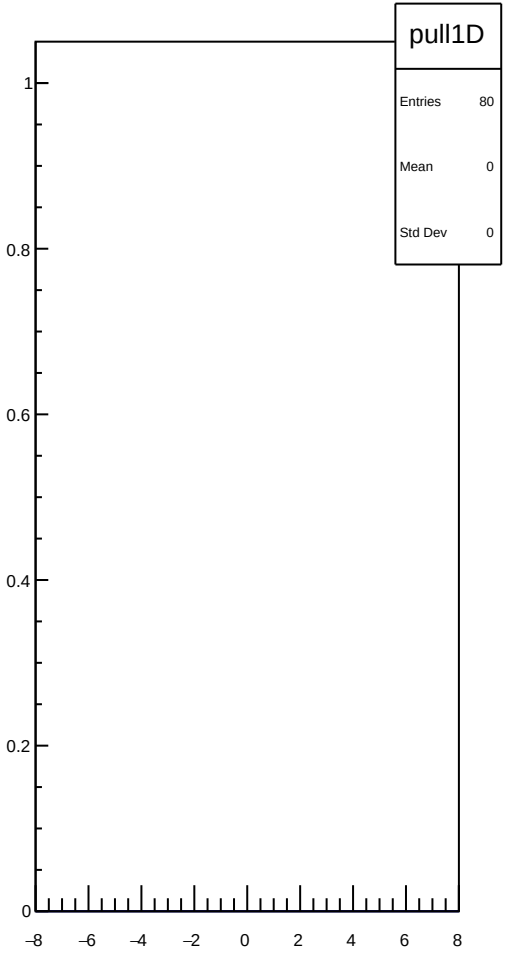

yield_bpm1i04Y_rms vs run
χ^2 / ndf 4.354e+04 / 79
p0 0.004233 ± 3.433e−06
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003

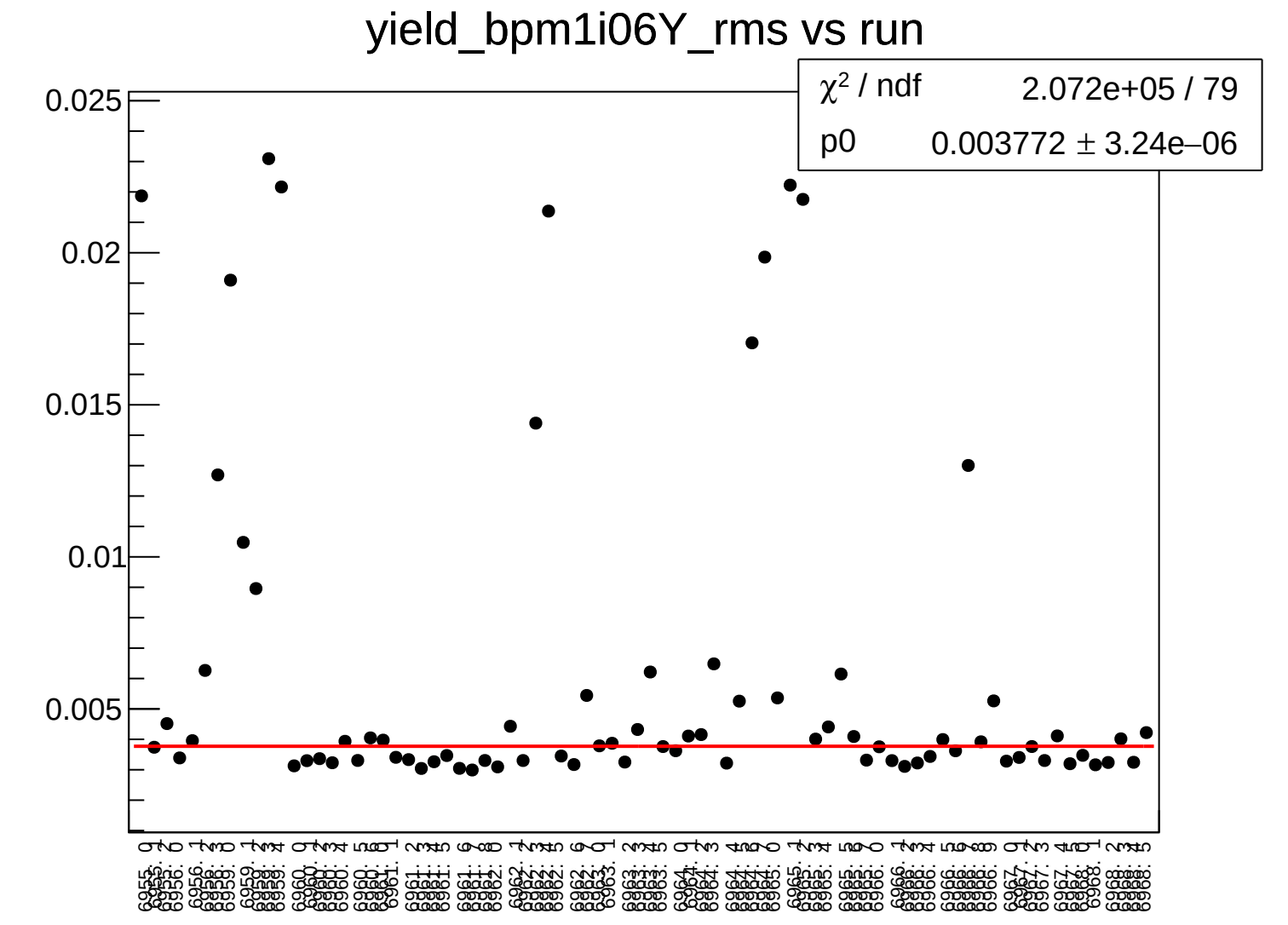

yield_bpm1i06X_mean vs run
χ² / ndf 1.419e+08 / 79
p0 1.68 ± 1.19e−05
1.9
1.8
1.7
1.6
1.5
1.4
1.3
pull
Entries 80
Mean −14.11
Std Dev 120.7
1000
0
−1000
−2000
−3000
−4000

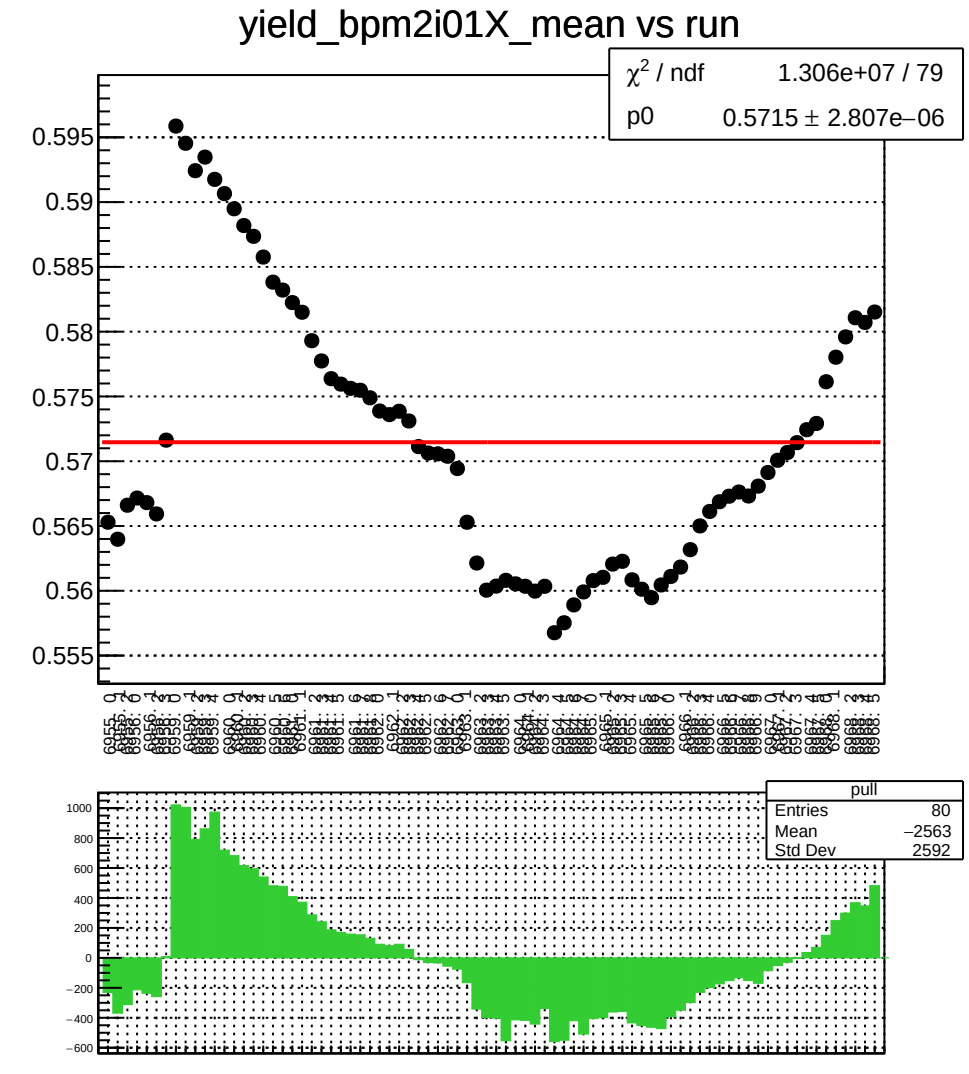

pull1D
Entries 80
Mean −1.399
Std Dev 4.299
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

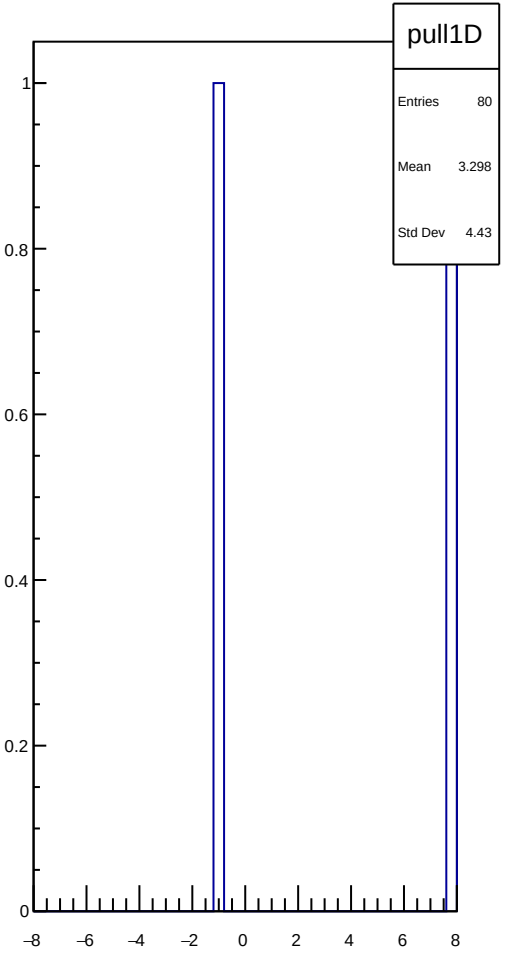

yield_bpm1i06X_rms vs run
χ² / ndf 1.862e+04 / 79
p0 0.01045 ± 8.411e–06
0.02
0.018
0.016
0.014
0.012
0.01
0.008

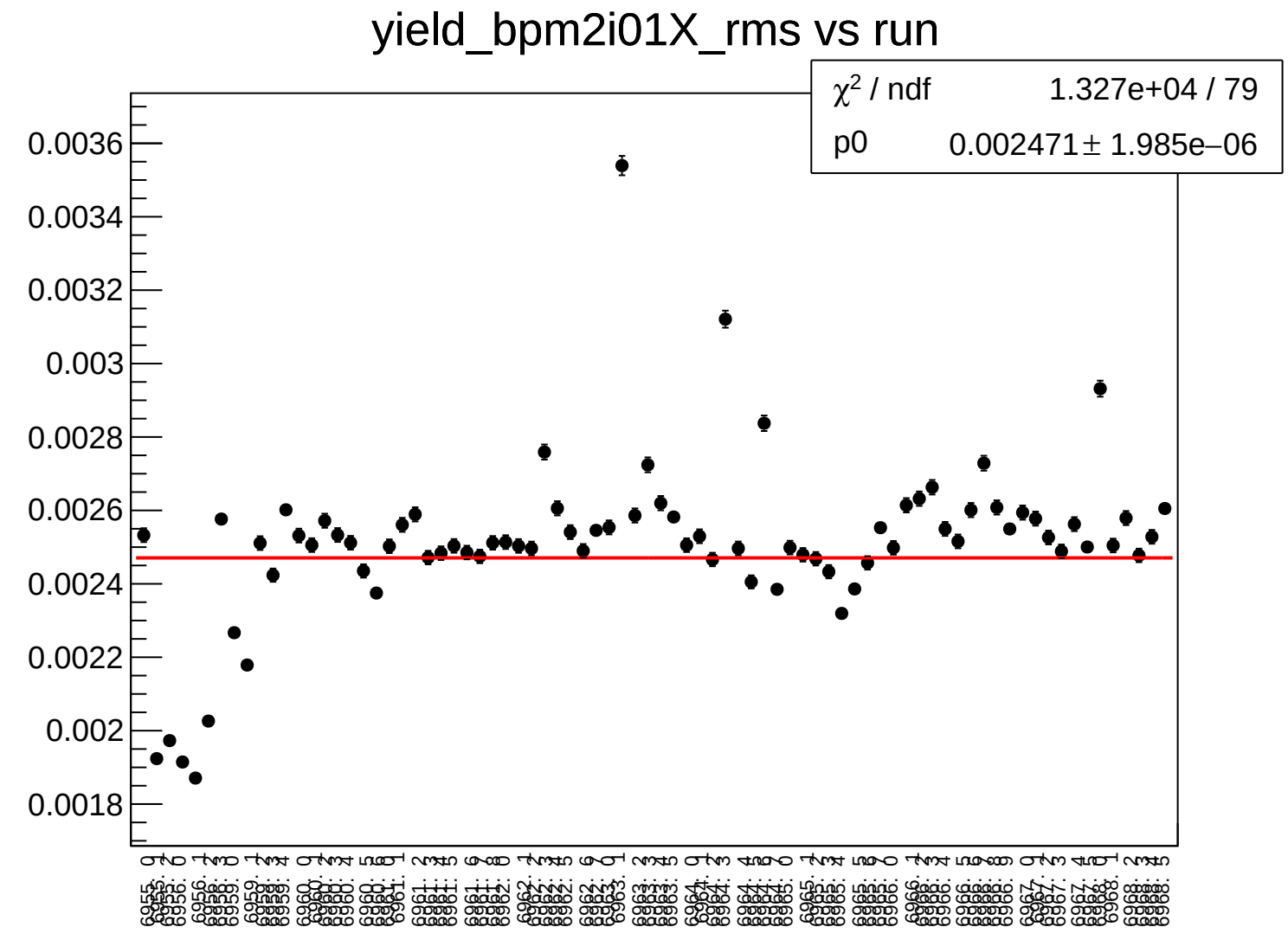

yield_bpm1i06Y_mean vs run
χ² / ndf 1.202e+09 / 79
p0 0.9429 ± 4.581e−06
pull
Entries 80
Mean 17.6
Std Dev 140.4

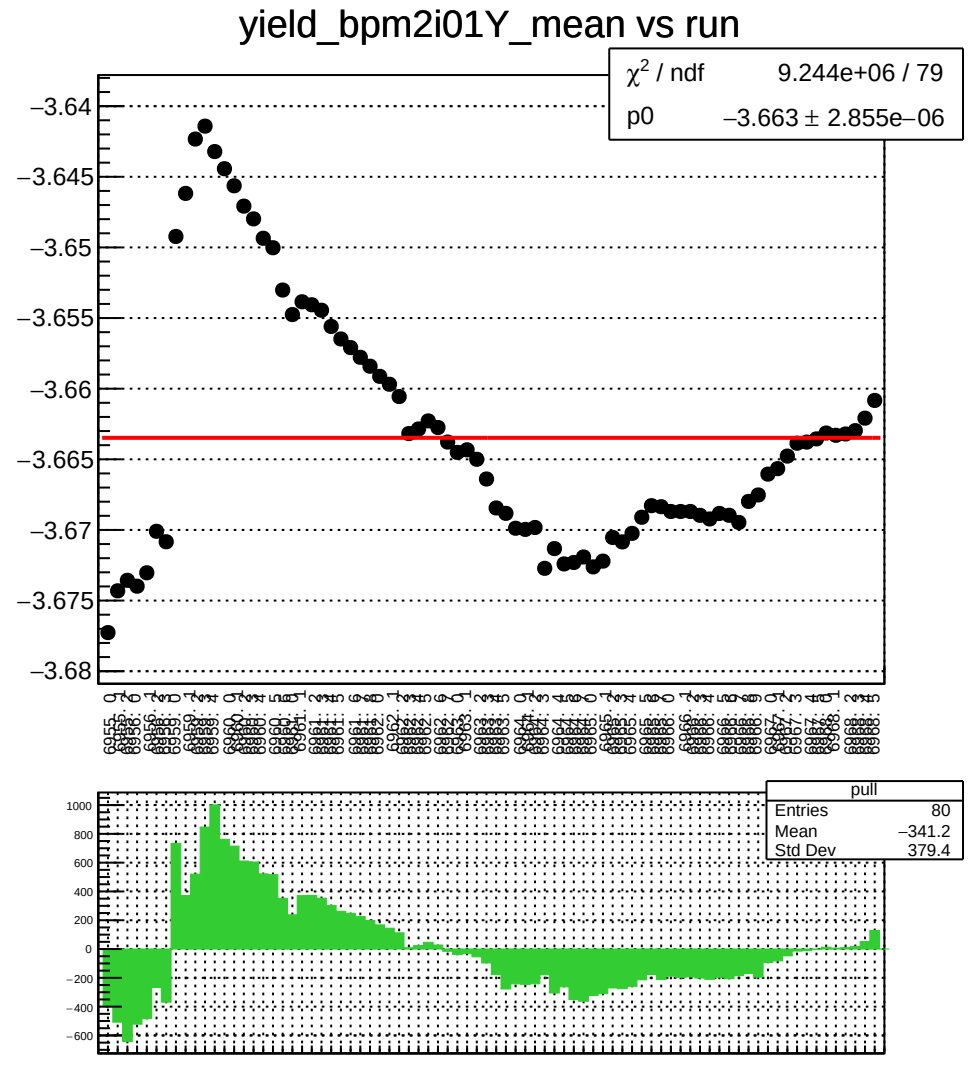

pull1D
Entries 80
Mean 0
Std Dev 0

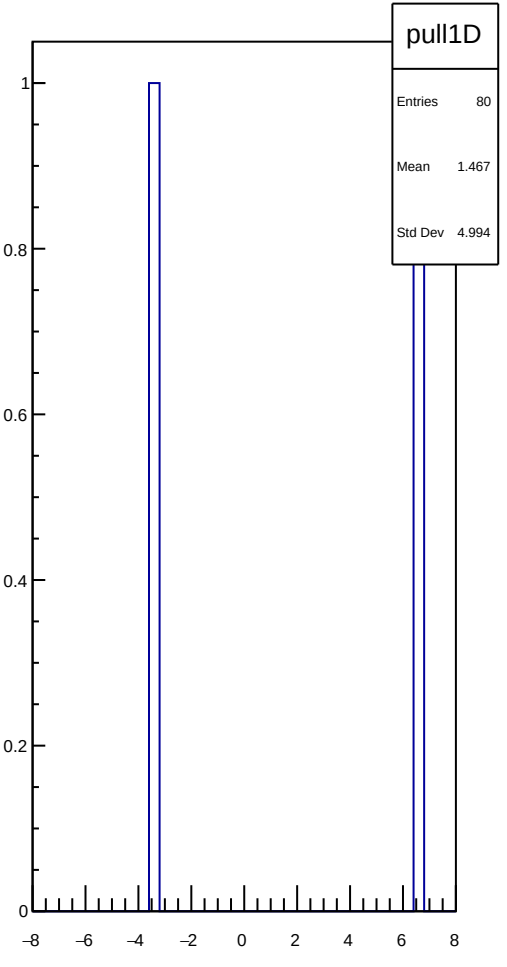

yield_bpm1i06Y_rms vs run
χ² / ndf 2.072e+05 / 79
p0 0.003772 ± 3.24e–06
0.025
0.02
0.015
0.01
0.005

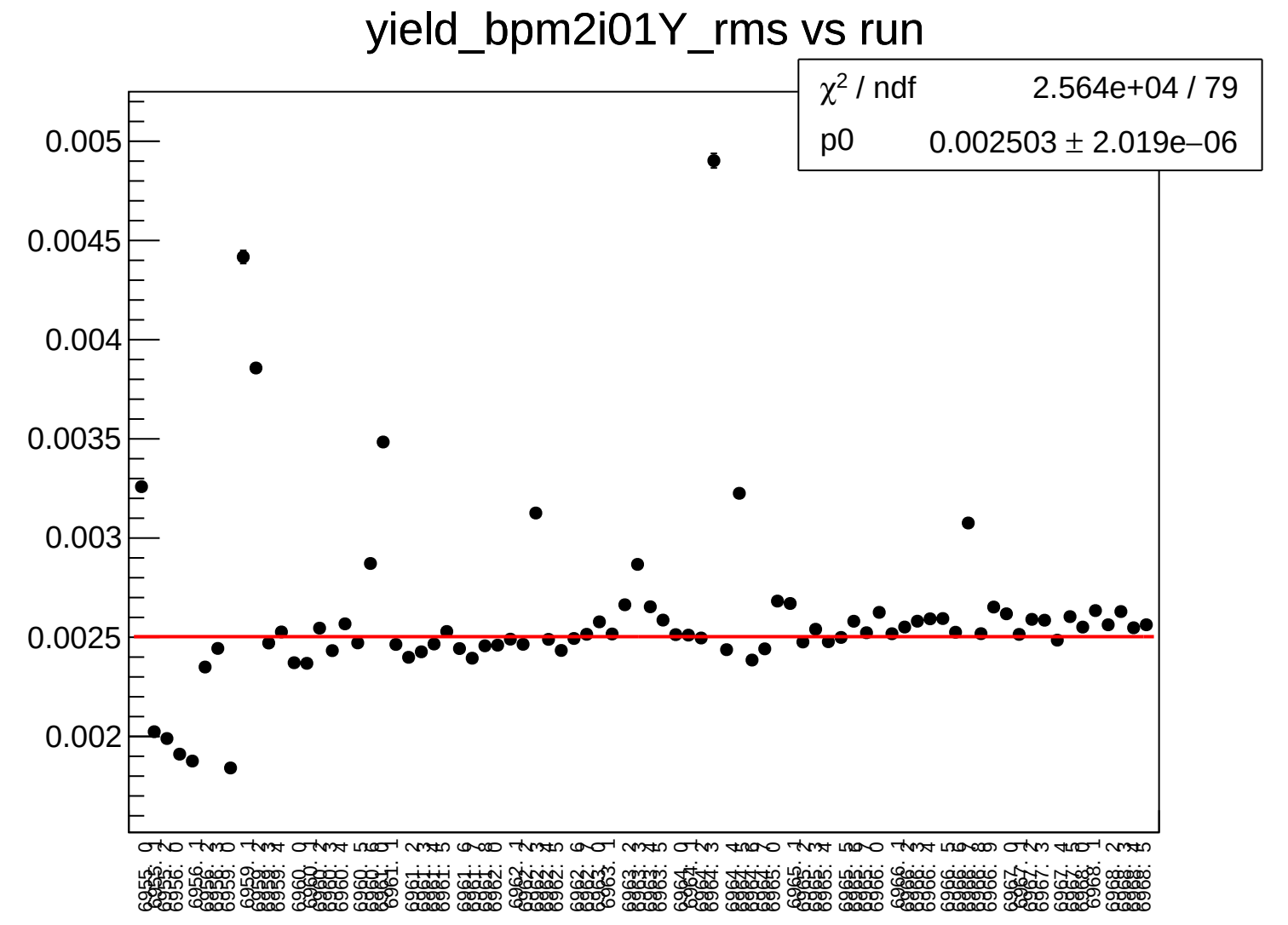

yield_bpm2i01X_mean vs run
χ² / ndf 1.306e+07 / 79
p0 0.5715 ± 2.807e−06
0.595
0.59
0.585
0.58
0.575
0.57
0.565
0.56
0.555
pull
Entries 80
Mean −2563
Std Dev 2592
1000
800
600
400
200
0
−200
−400
−600

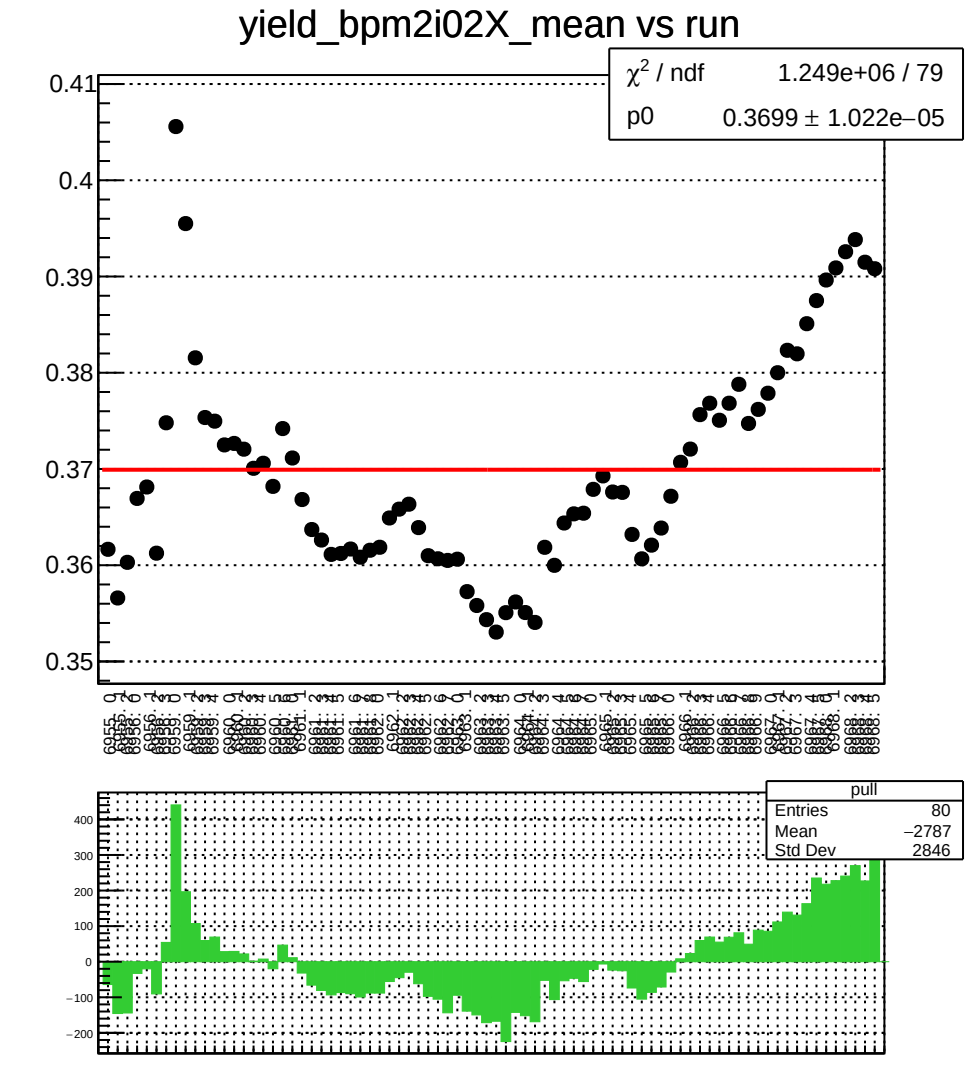

pull1D
Entries 80
Mean 3.298
Std Dev 4.43
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

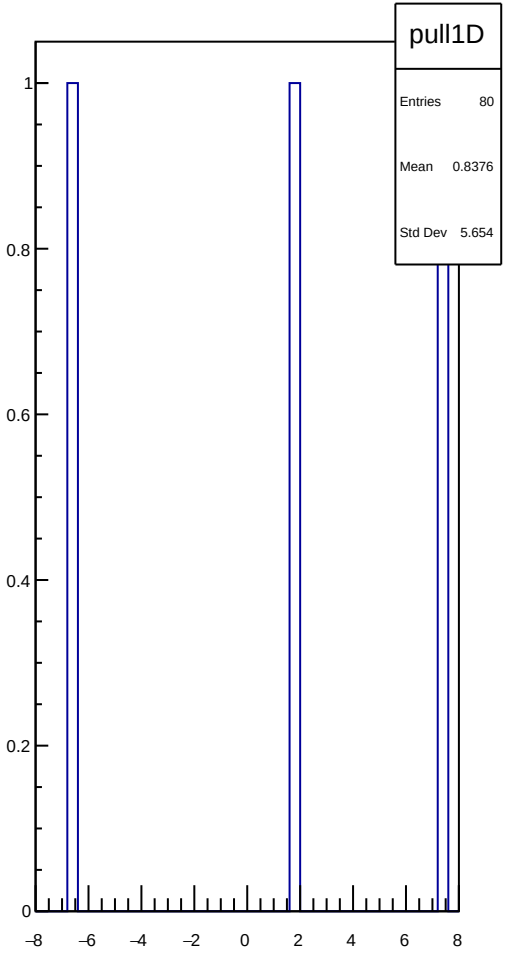

yield_bpm2i01X_rms vs run
χ² / ndf 1.327e+04 / 79
p0 0.002471 ± 1.985e−06
0.0036
0.0034
0.0032
0.003
0.0028
0.0026
0.0024
0.0022
0.002
0.0018

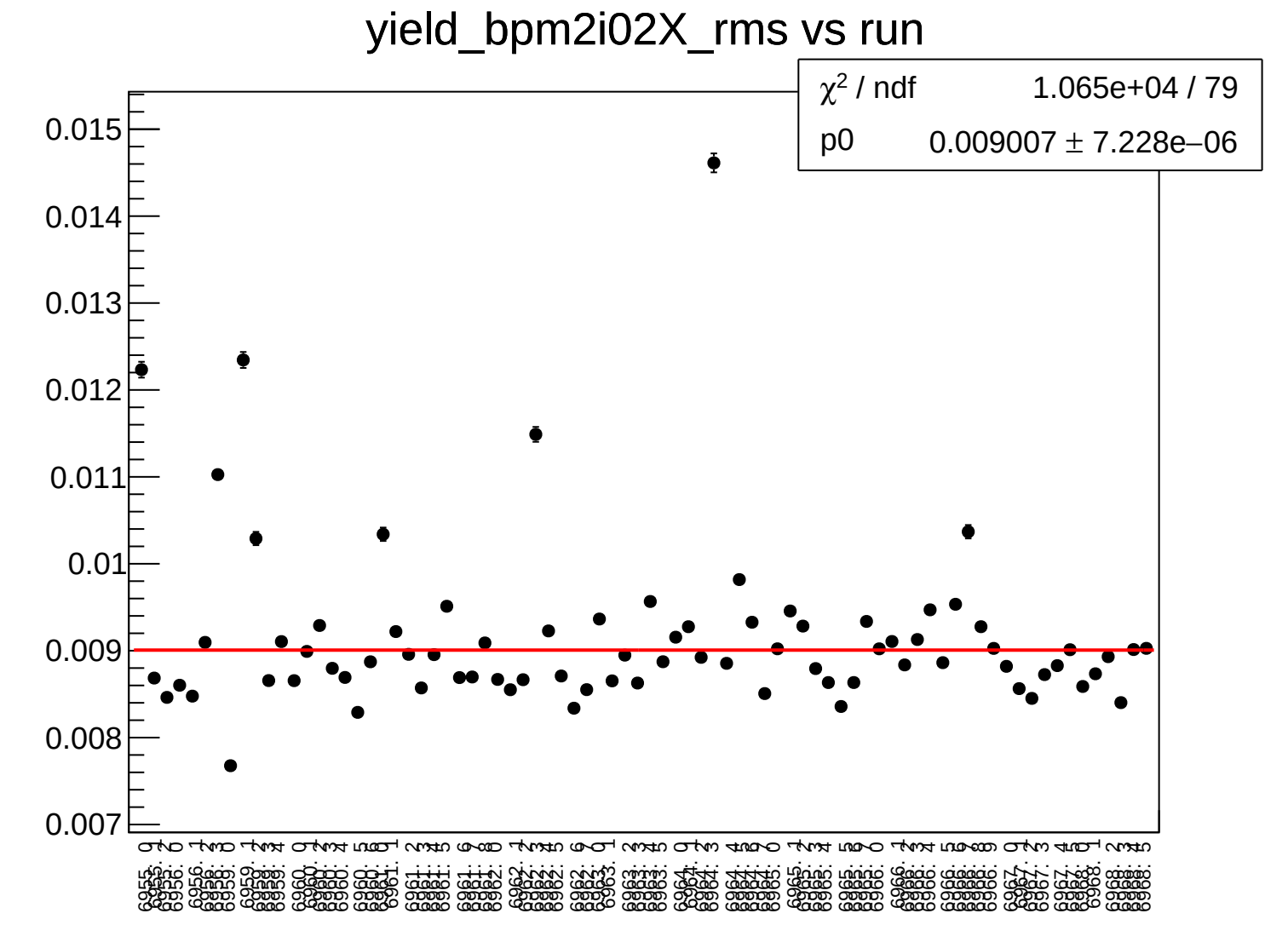

yield_bpm2i01Y_mean vs run
χ² / ndf 9.244e+06 / 79
p0 −3.663 ± 2.855e−06
−3.64
−3.645
−3.65
−3.655
−3.66
−3.665
−3.67
−3.675
−3.68
pull
Entries 80
Mean −341.2
Std Dev 379.4
1000
800
600
400
200
0
−200
−400
−600

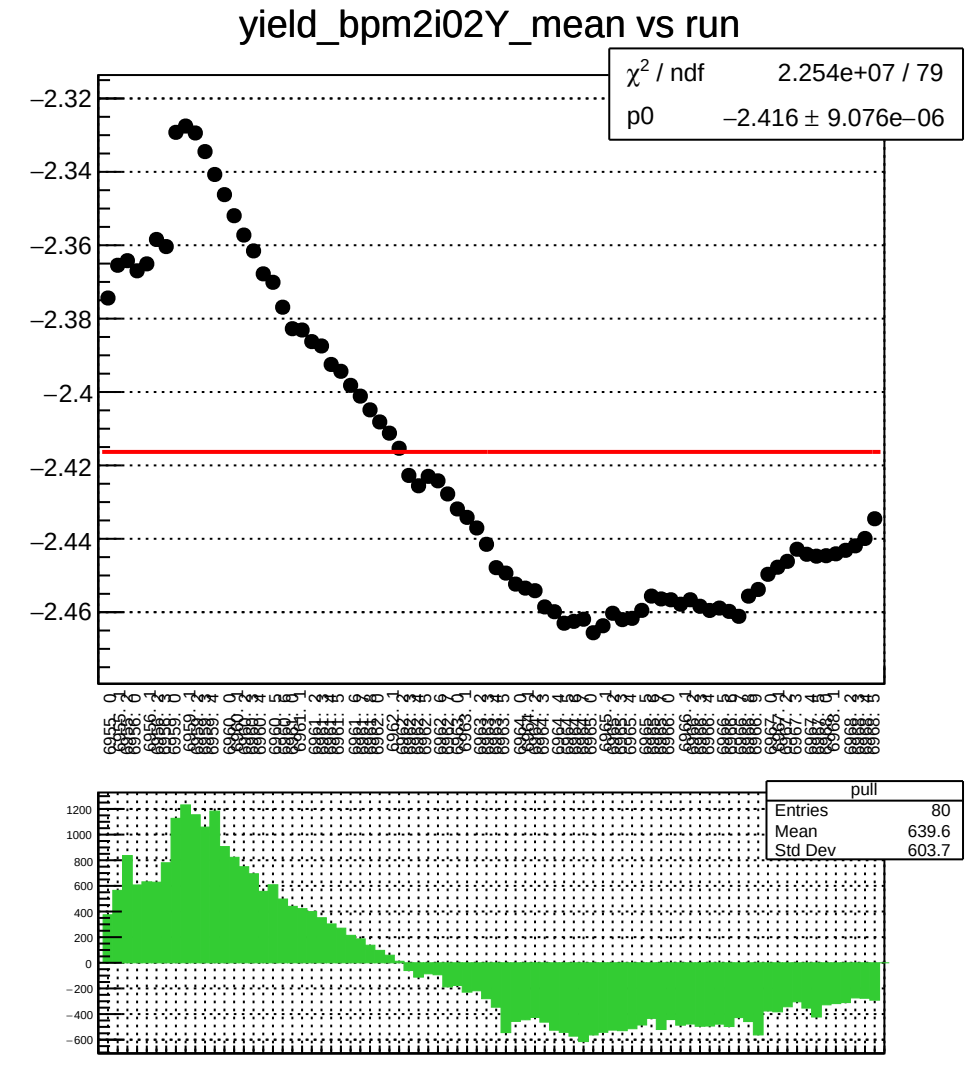

pull1D
Entries 80
Mean 1.467
Std Dev 4.994
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

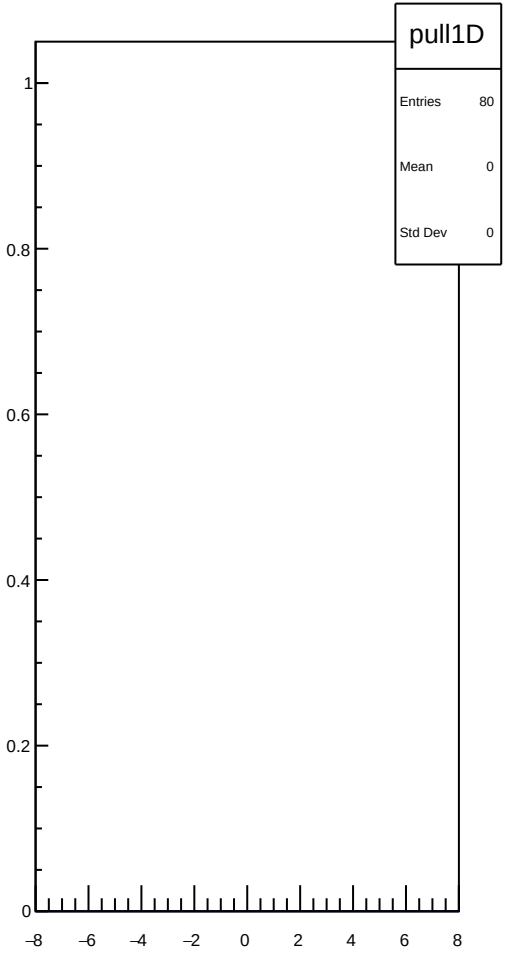

yield_bpm2i01Y_rms vs run
χ² / ndf 2.564e+04 / 79
p0 0.002503 ± 2.019e−06
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002


yield_bpm2i02X_mean vs run
χ² / ndf 1.249e+06 / 79
p0 0.3699 ± 1.022e−05
0.41
0.4
0.39
0.38
0.37
0.36
0.35
pull
Entries 80
Mean −2787
Std Dev 2846
400
300
200
100
0
−100
−200

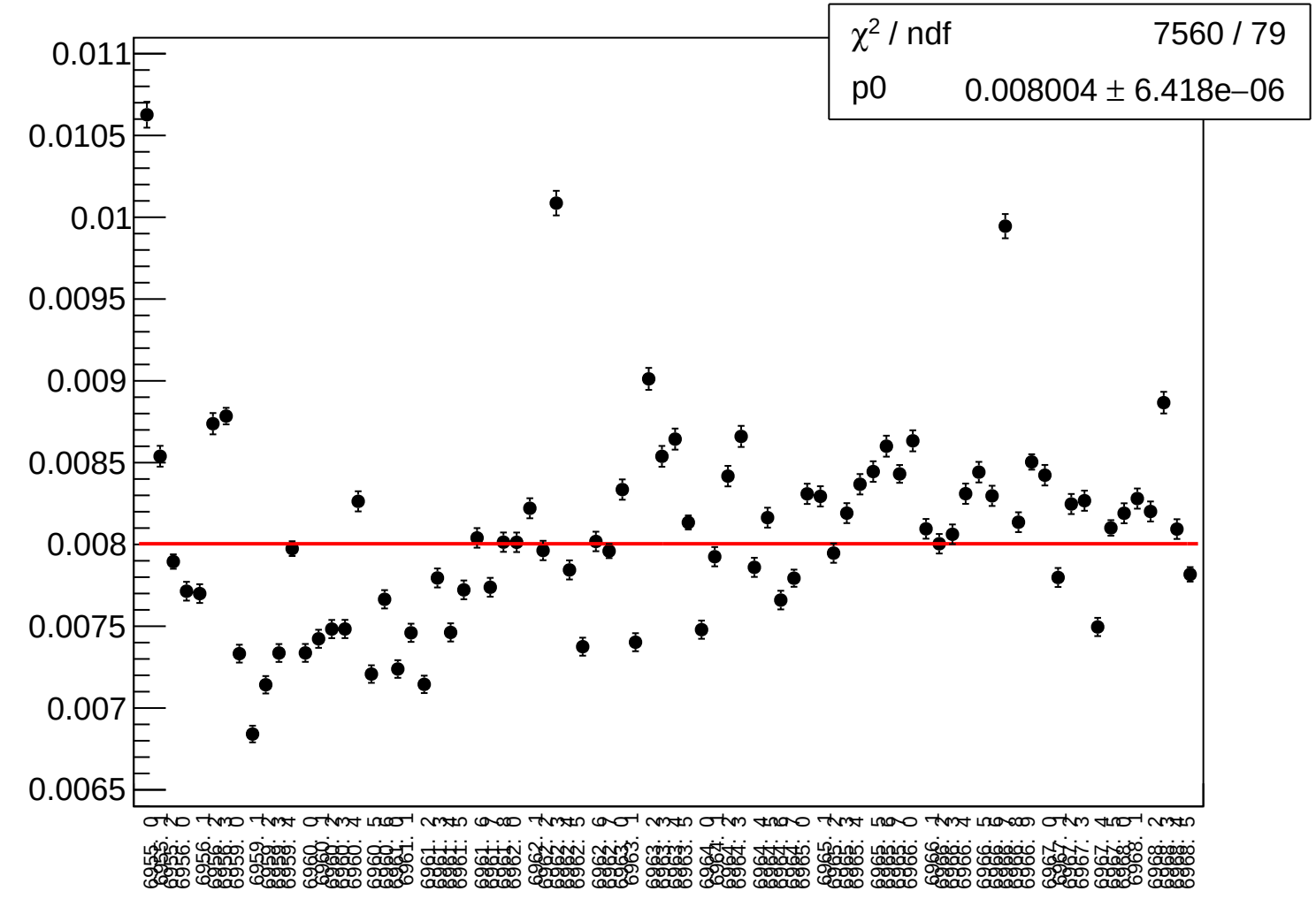

pull1D
Entries 80
Mean 0.8376
Std Dev 5.654
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

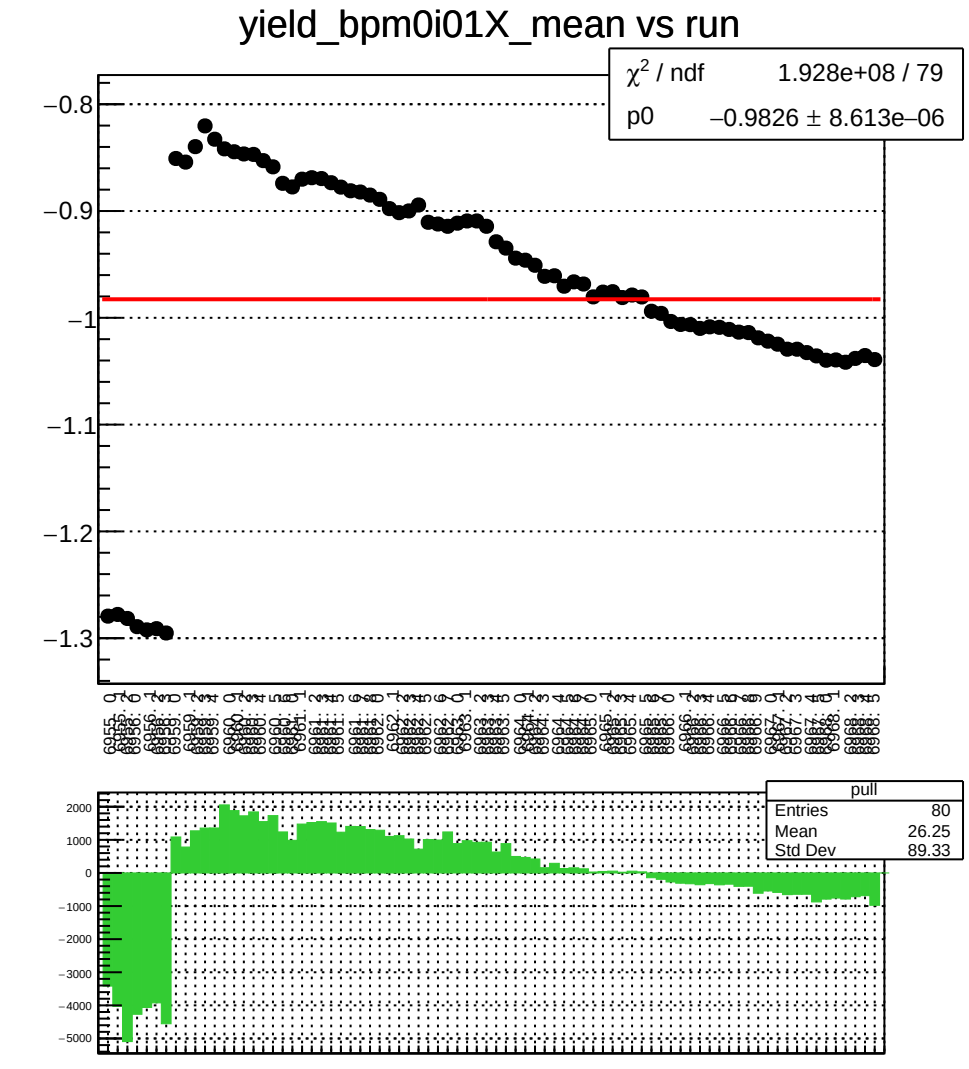

yield_bpm2i02X_rms vs run
χ² / ndf 1.065e+04 / 79
p0 0.009007 ± 7.228e−06
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008
0.007

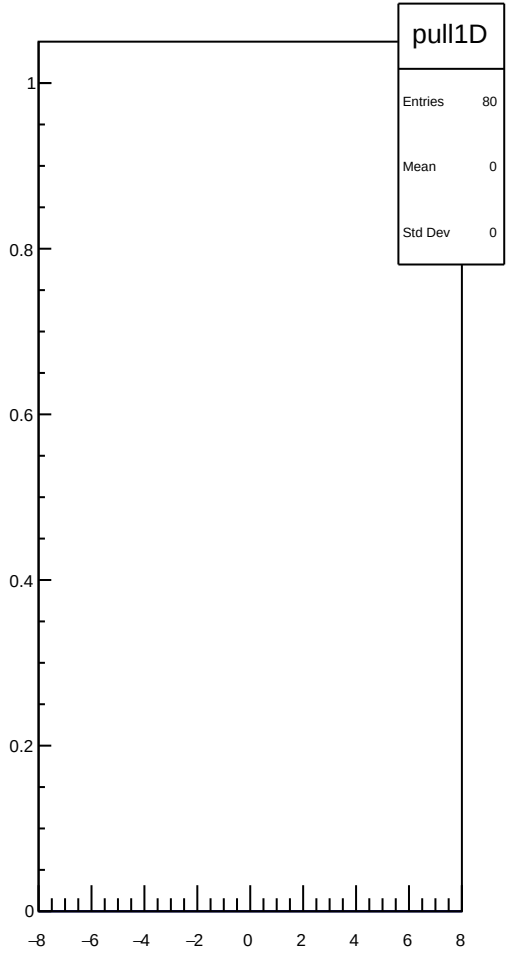

yield_bpm2i02Y_mean vs run
χ² / ndf 2.254e+07 / 79
p0 −2.416 ± 9.076e−06
−2.32
−2.34
−2.36
−2.38
−2.4
−2.42
−2.44
−2.46
pull
Entries 80
Mean 639.6
Std Dev 603.7
1200
1000
800
600
400
200
0
−200
−400
−600

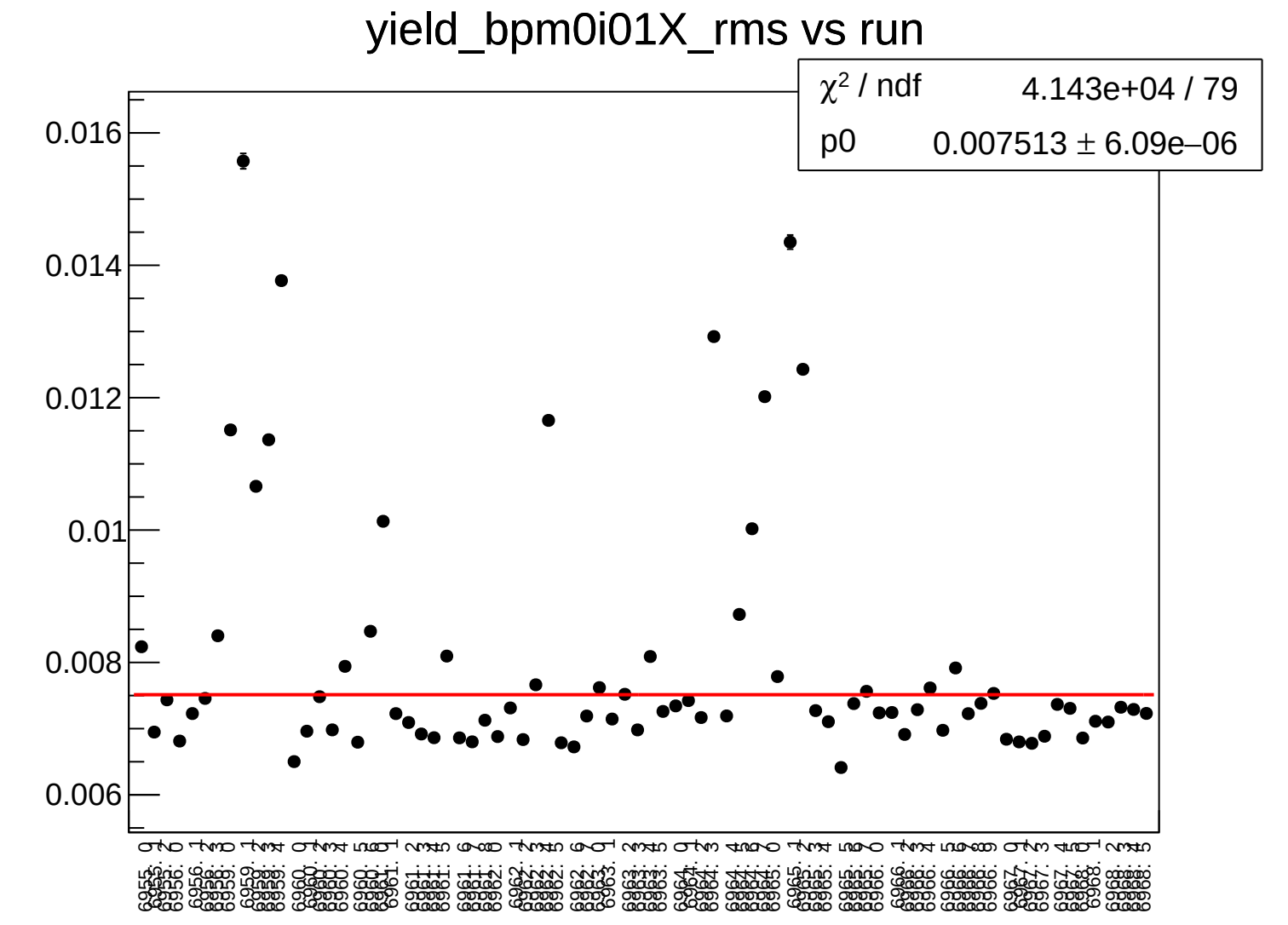

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

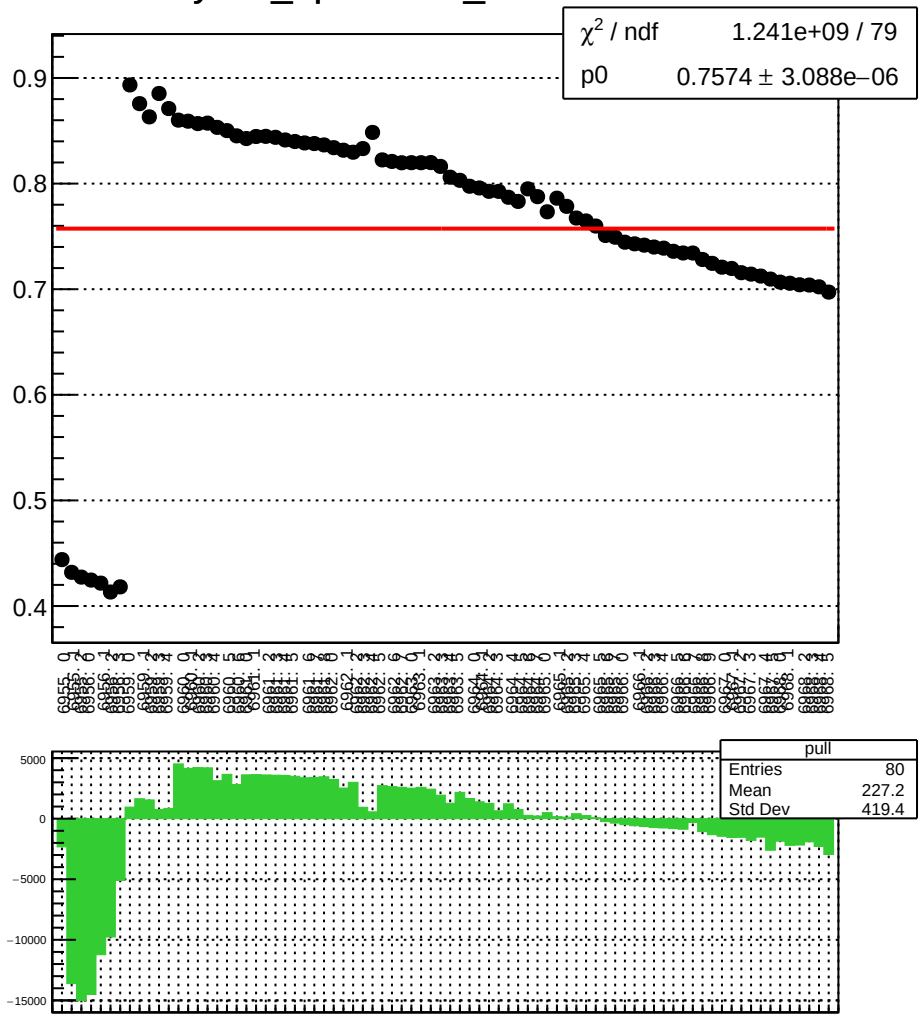
yield_bpm2i02Y_rms vs run

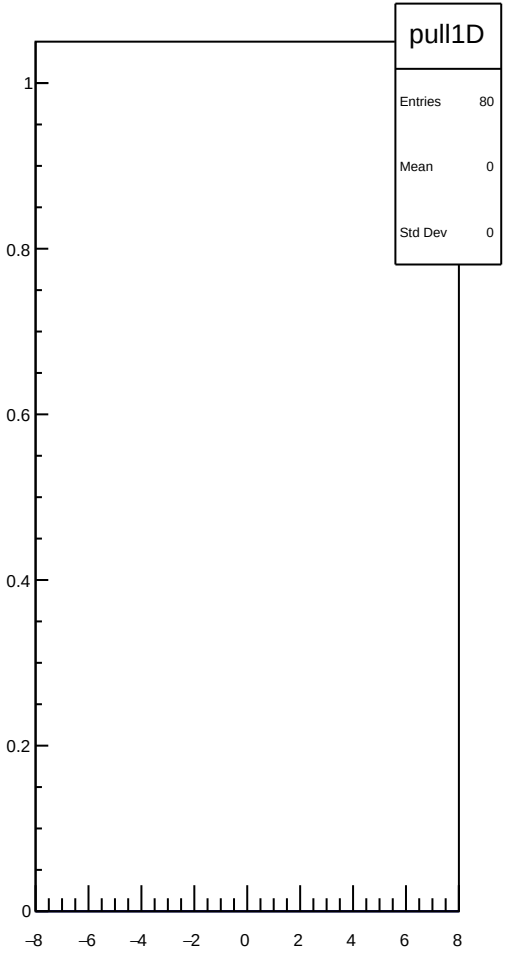


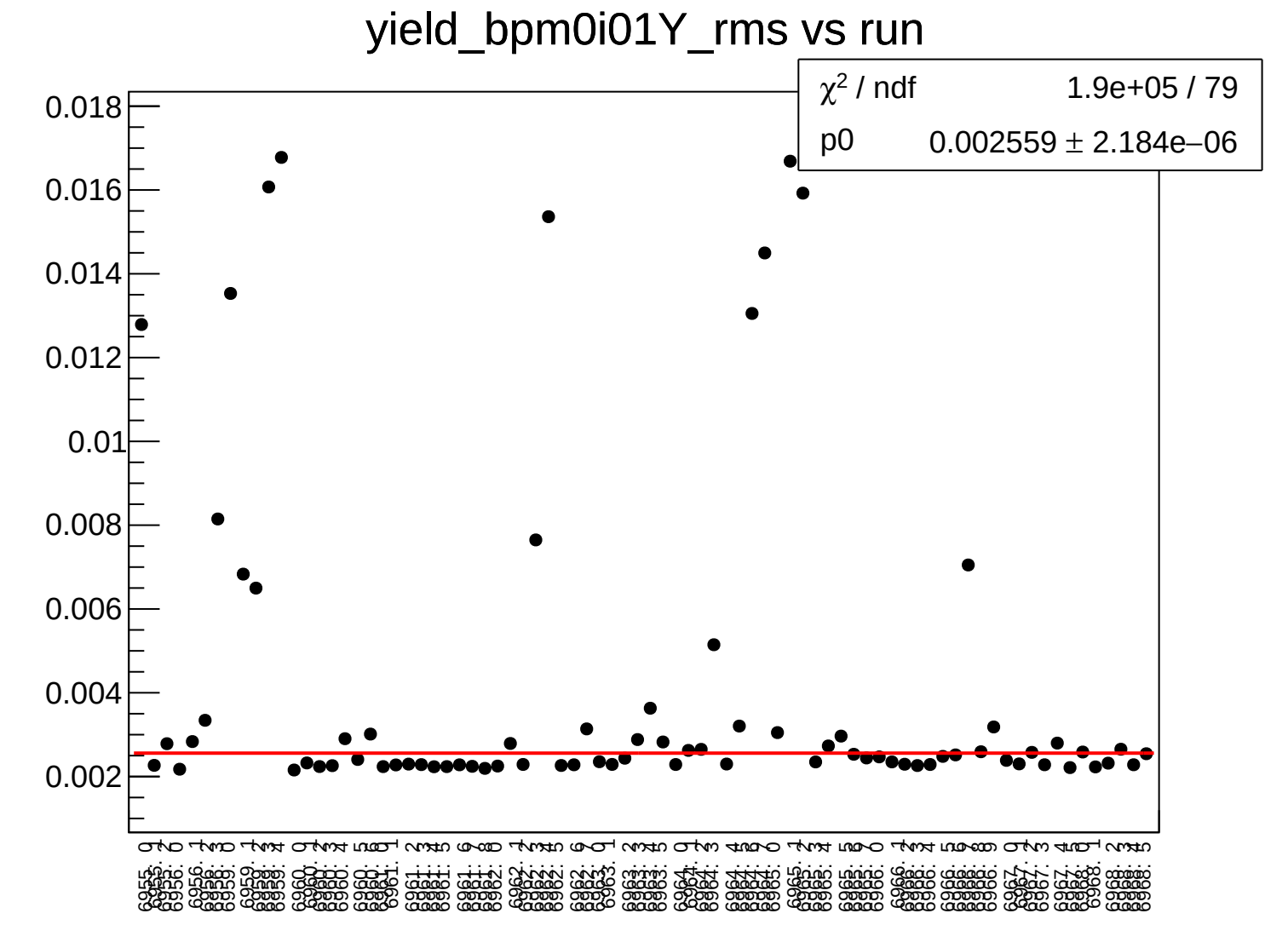

yield_bpm0i01X_mean vs run
χ² / ndf 1.928e+08 / 79
p0 −0.9826 ± 8.613e−06
−0.8
−0.9
−1
−1.1
−1.2
−1.3
pull
Entries 80
Mean 26.25
Std Dev 89.33
2000
1000
0
−1000
−2000
−3000
−4000
−5000

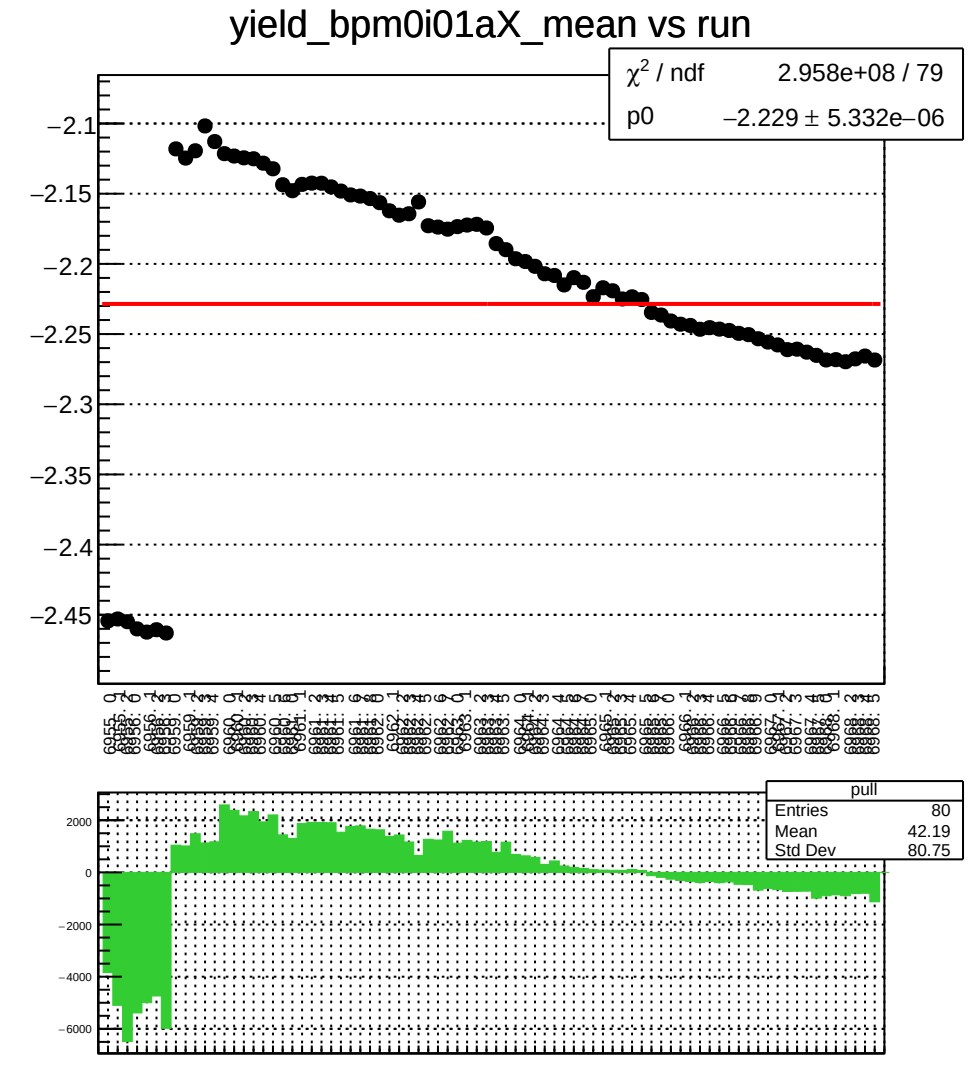

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

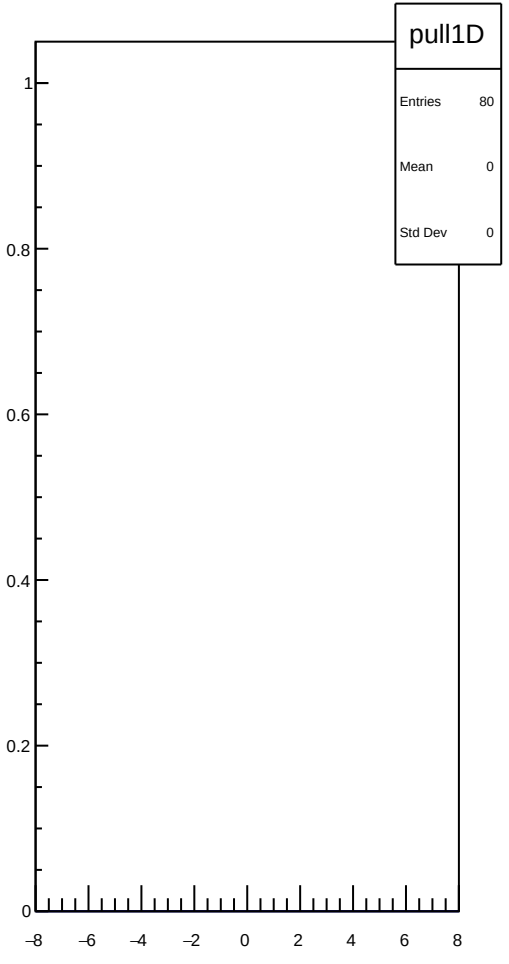

yield_bpm0i01X_rms vs run
χ² / ndf 4.143e+04 / 79
p0 0.007513 ± 6.09e–06
0.016
0.014
0.012
0.01
0.008
0.006

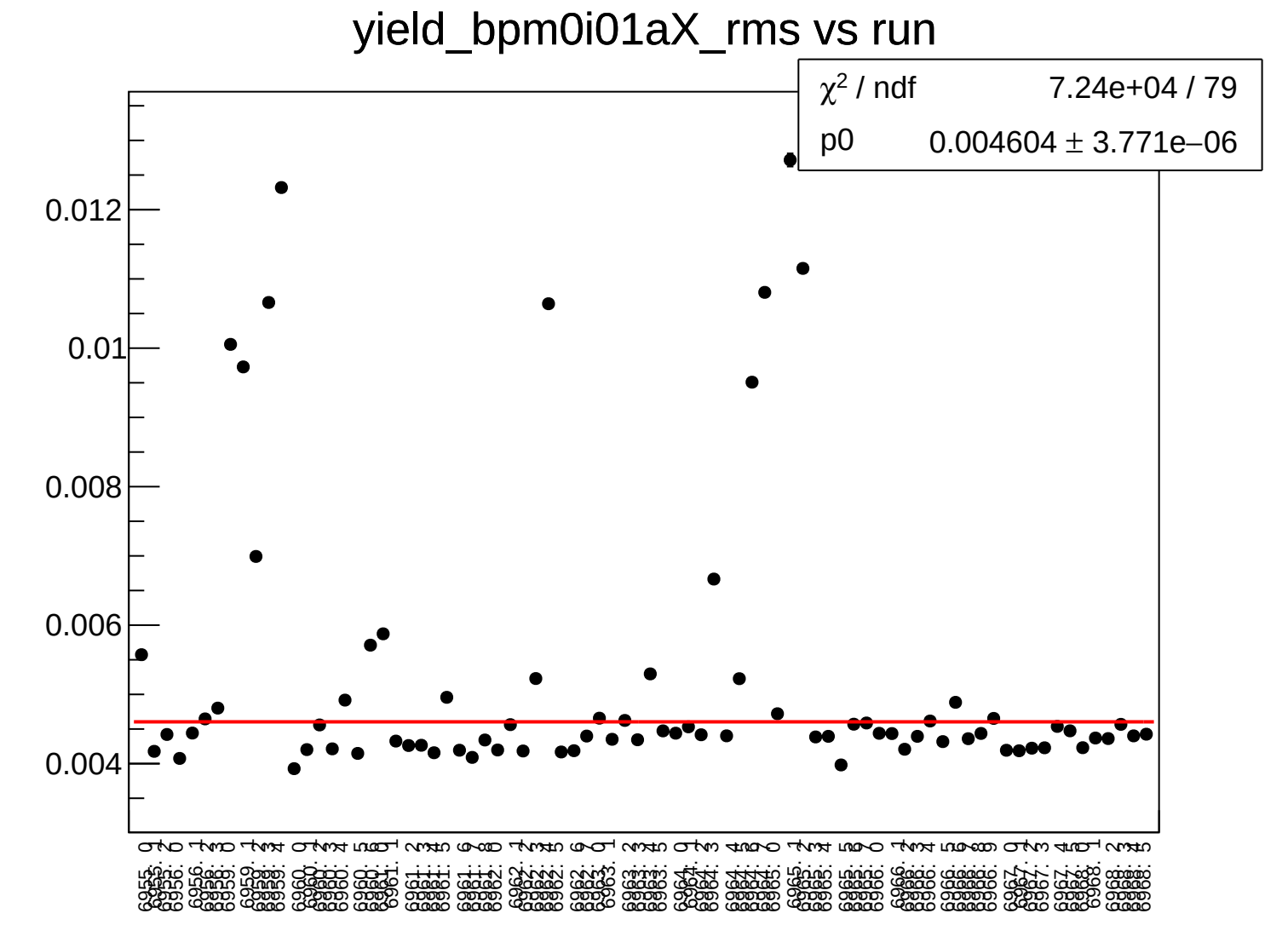

yield_bpm0i01Y_mean vs run
χ² / ndf 1.241e+09 / 79
p0 0.7574 ± 3.088e−06
pull
Entries 80
Mean 227.2
Std Dev 419.4

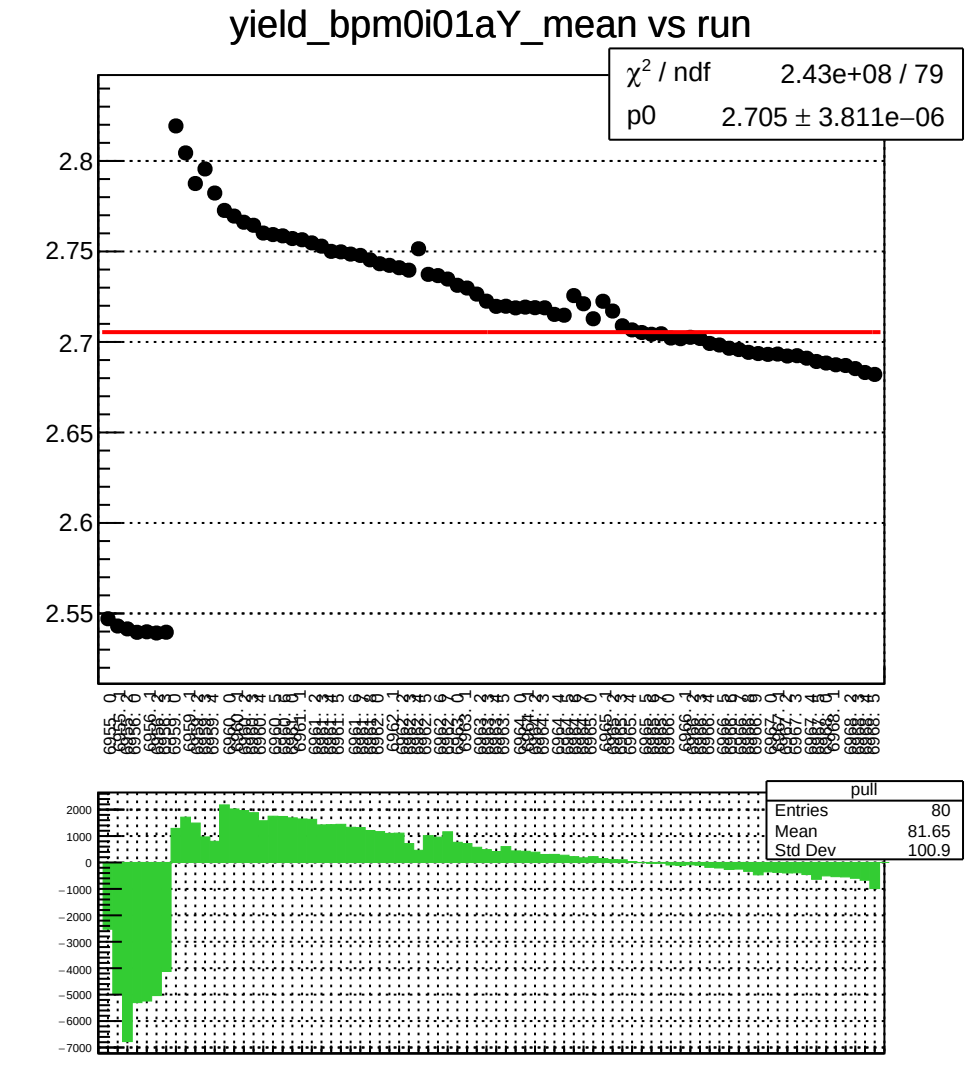

pull1D
Entries 80
Mean 0
Std Dev 0

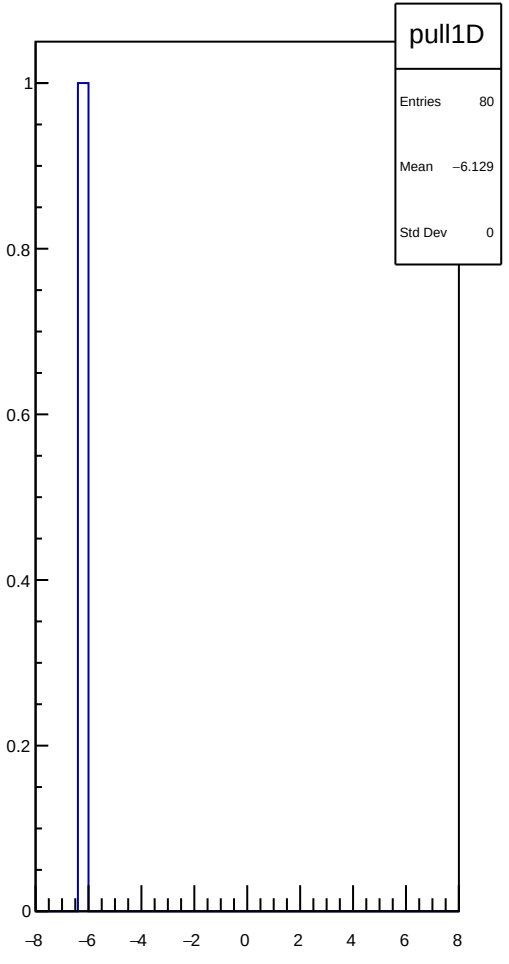

yield_bpm0i01Y_rms vs run
χ² / ndf 1.9e+05 / 79
p0 0.002559 ± 2.184e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

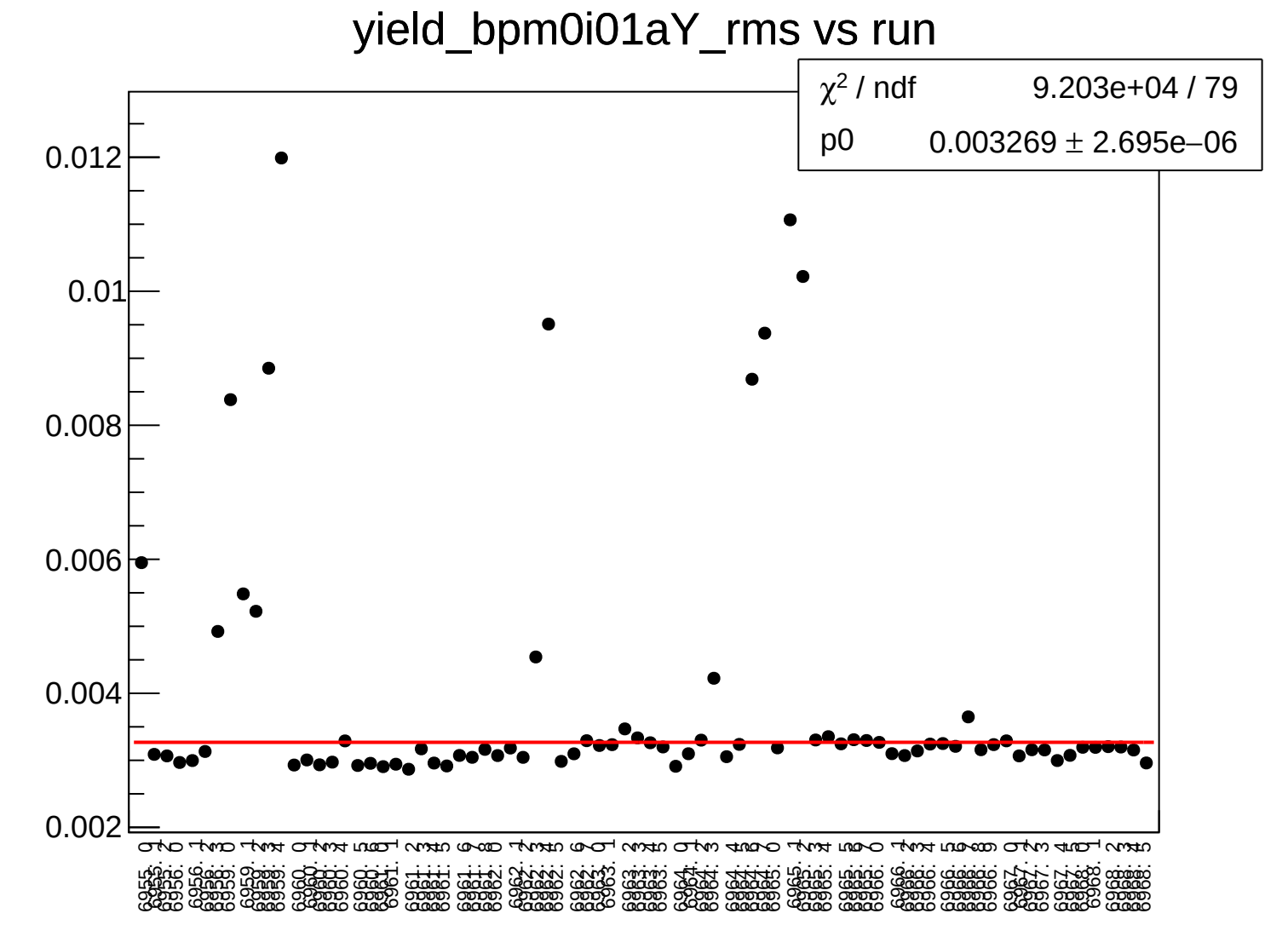

yield_bpm0i01aX_mean vs run
χ² / ndf 2.958e+08 / 79
p0 −2.229 ± 5.332e−06
−2.1
−2.15
−2.2
−2.25
−2.3
−2.35
−2.4
−2.45
pull
Entries 80
Mean 42.19
Std Dev 80.75
2000
0
−2000
−4000
−6000

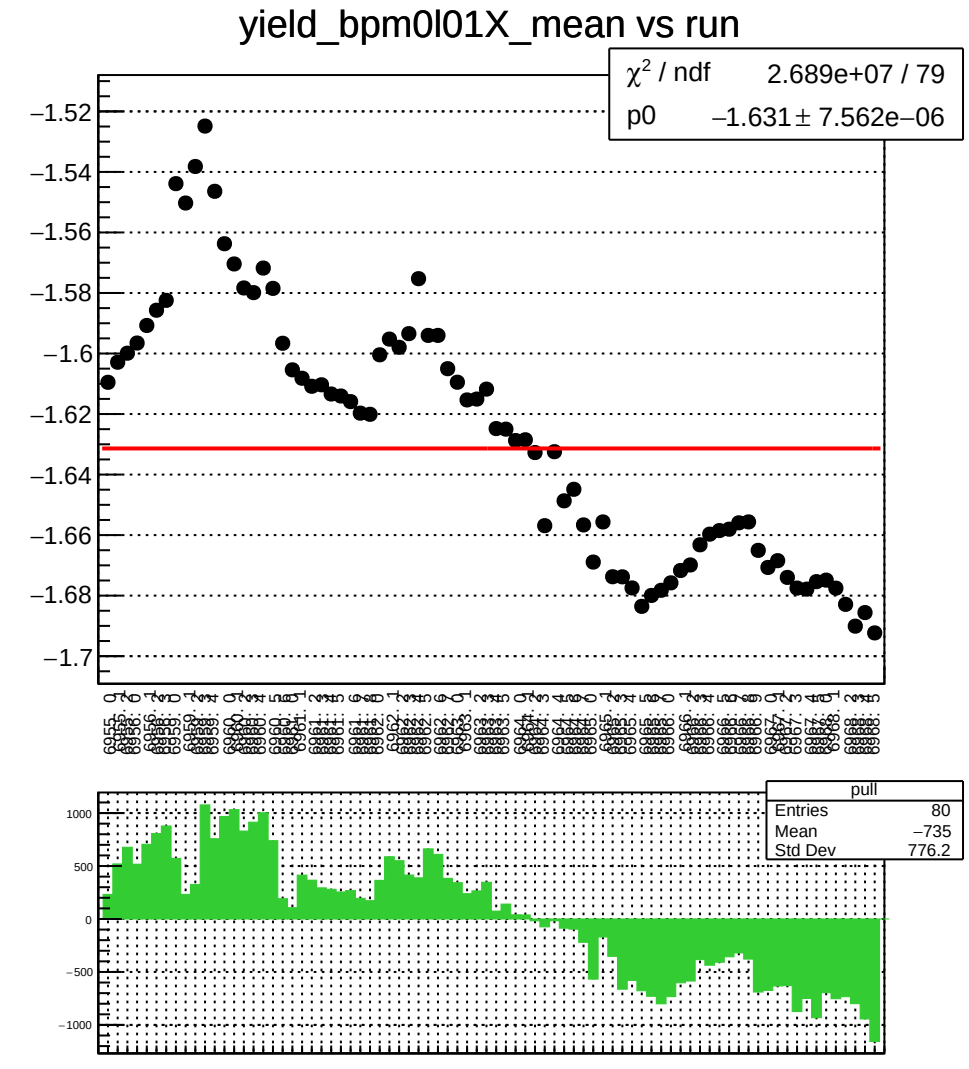

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

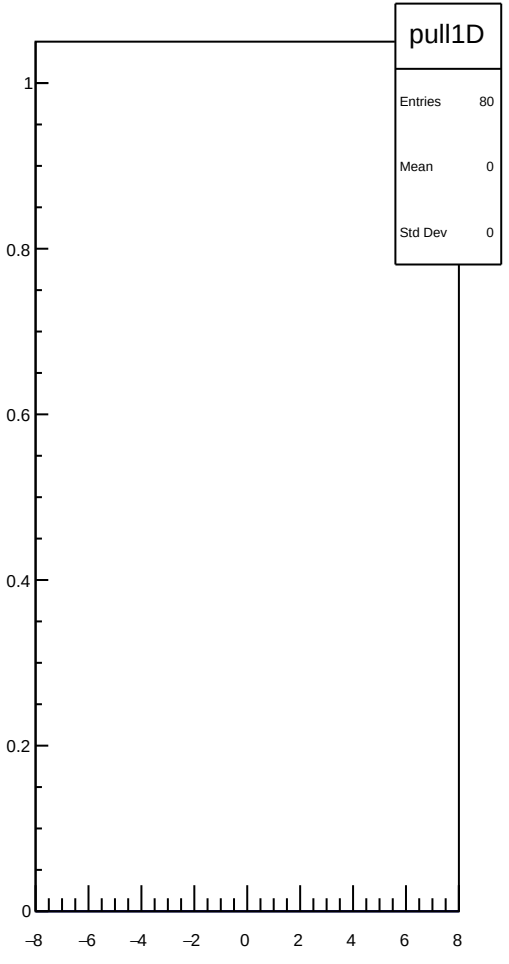

yield_bpm0i01aX_rms vs run
χ² / ndf 7.24e+04 / 79
p0 0.004604 ± 3.771e−06
0.012
0.01
0.008
0.006
0.004

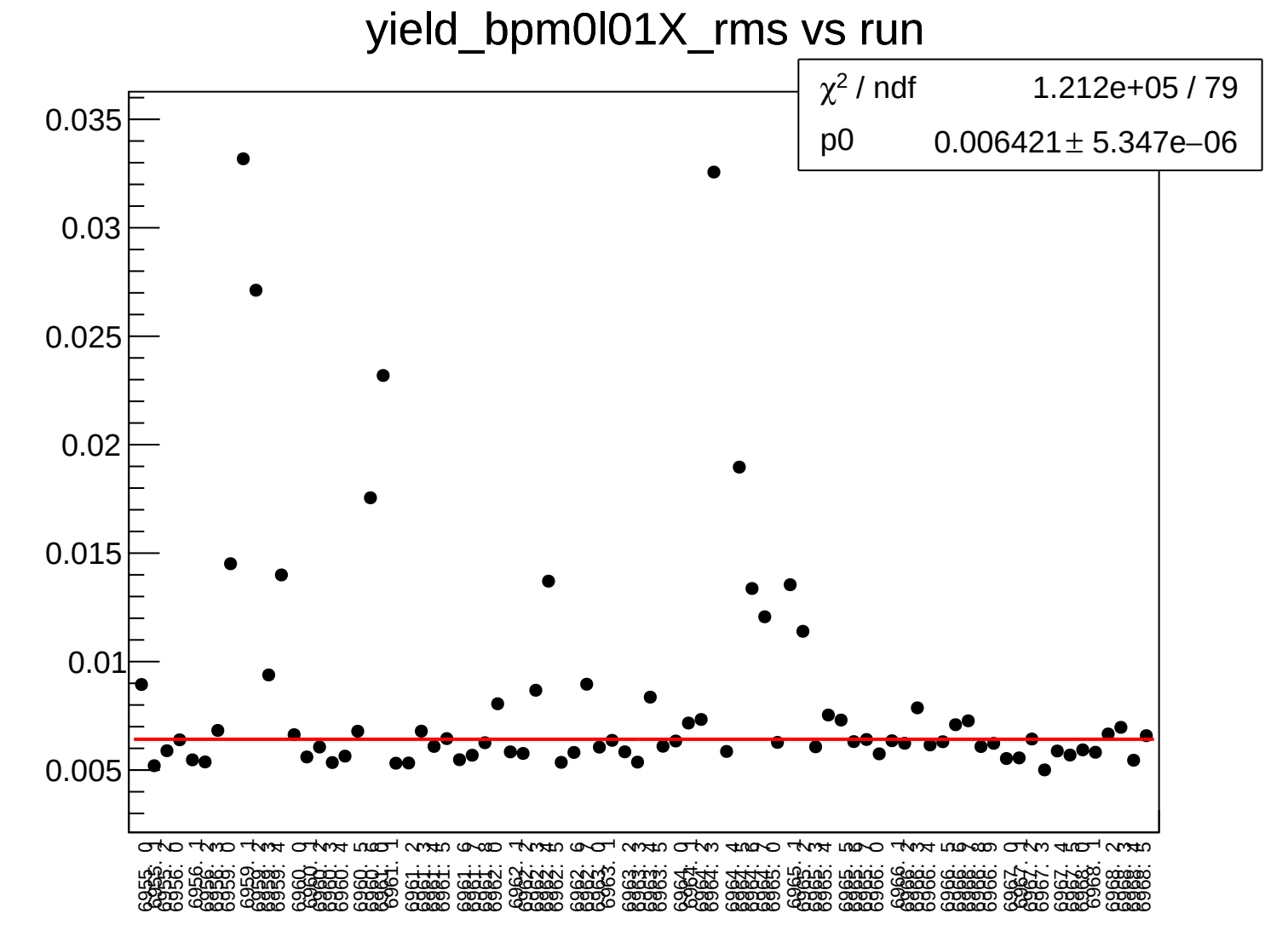

yield_bpm0i01aY_mean vs run
χ² / ndf 2.43e+08 / 79
p0 2.705 ± 3.811e−06
2.8
2.75
2.7
2.65
2.6
2.55
pull
Entries 80
Mean 81.65
Std Dev 100.9
2000
1000
0
−1000
−2000
−3000
−4000
−5000
−6000
−7000

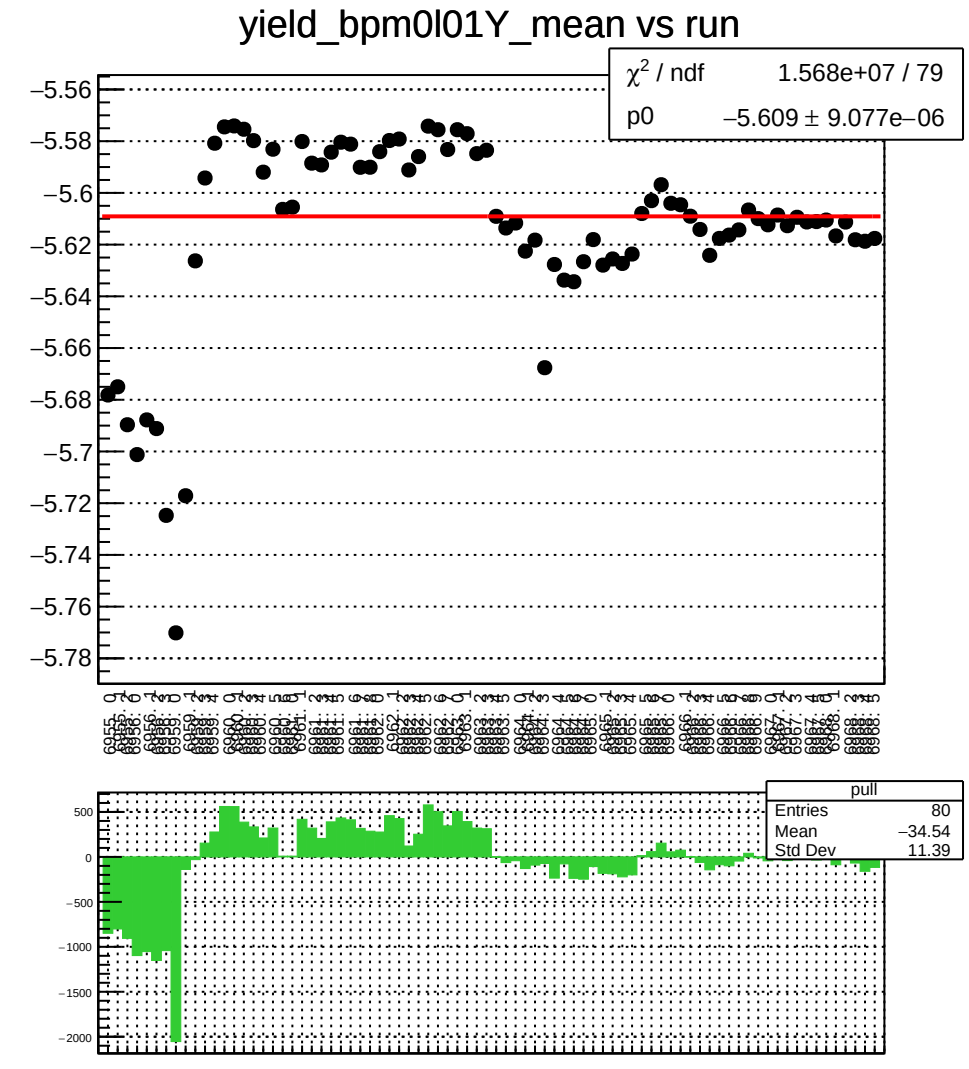

pull1D
Entries 80
Mean −6.129
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

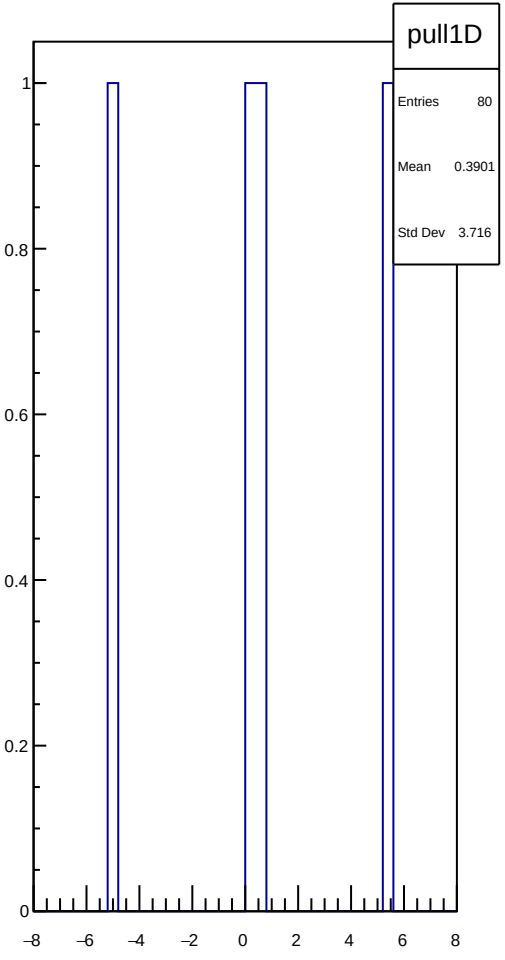

yield_bpm0i01aY_rms vs run
χ² / ndf 9.203e+04 / 79
p0 0.003269 ± 2.695e−06
0.012
0.01
0.008
0.006
0.004
0.002

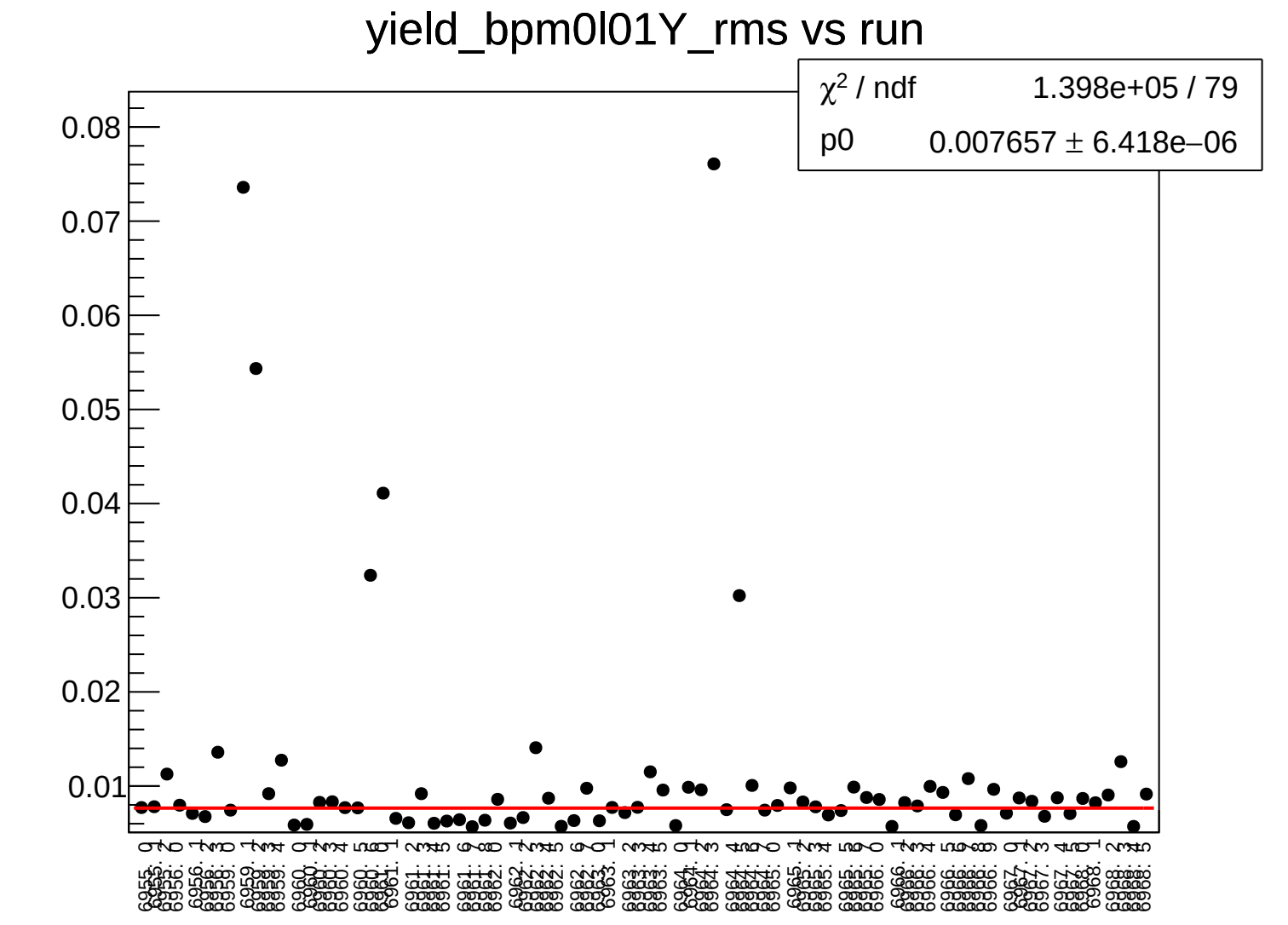

yield_bpm0l01X_mean vs run
χ² / ndf 2.689e+07 / 79
p0 −1.631 ± 7.562e−06
−1.52
−1.54
−1.56
−1.58
−1.6
−1.62
−1.64
−1.66
−1.68
−1.7
pull
Entries 80
Mean −735
Std Dev 776.2
1000
500
0
−500
−1000

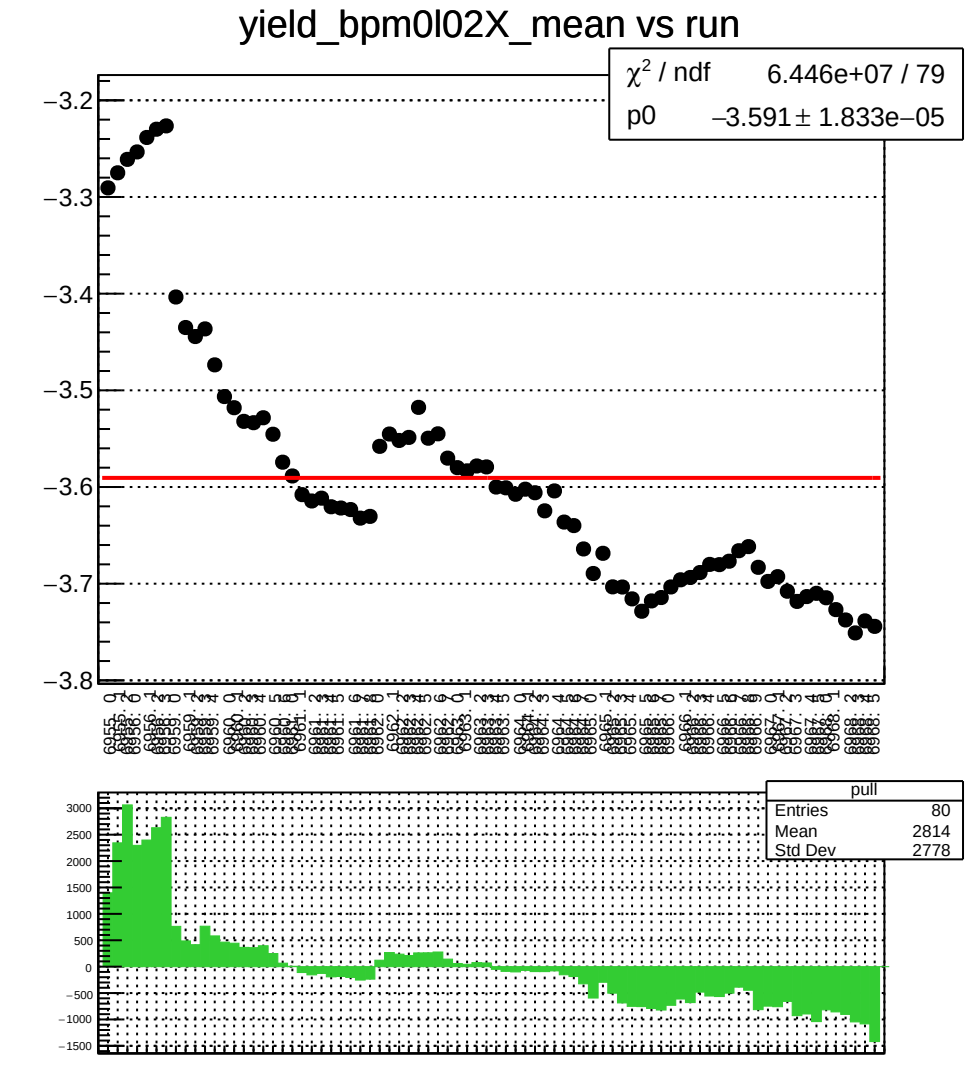

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

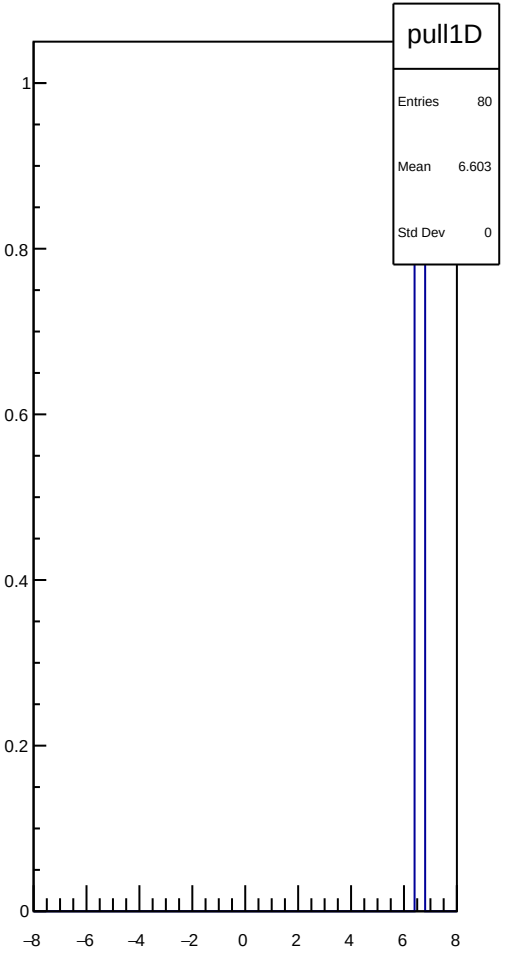

yield_bpm0l01X_rms vs run
χ² / ndf 1.212e+05 / 79
p0 0.006421 ± 5.347e−06
0.035
0.03
0.025
0.02
0.015
0.01
0.005

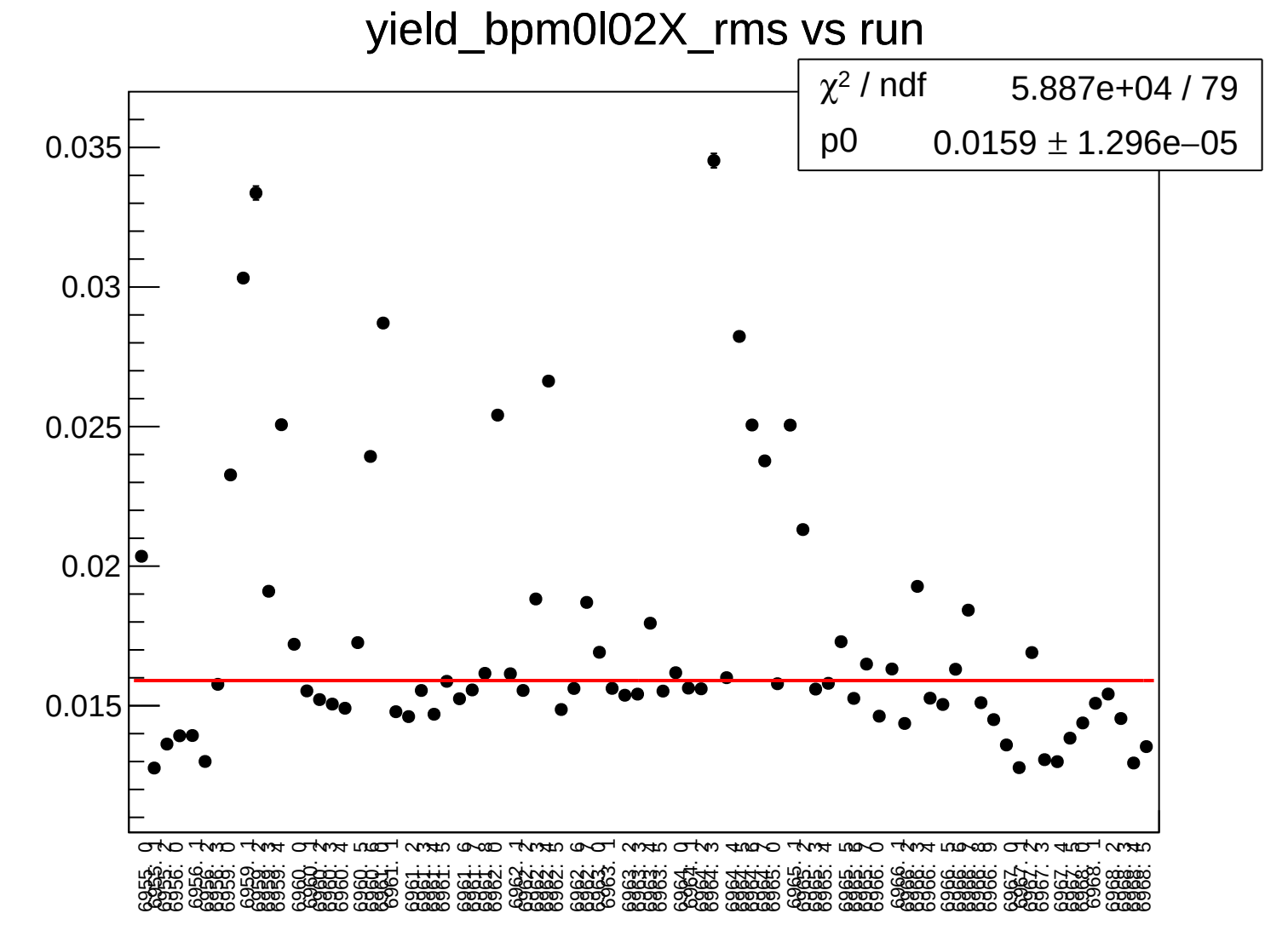

yield_bpm0l01Y_mean vs run
χ² / ndf 1.568e+07 / 79
p0 −5.609 ± 9.077e−06
pull
Entries 80
Mean −34.54
Std Dev 11.39

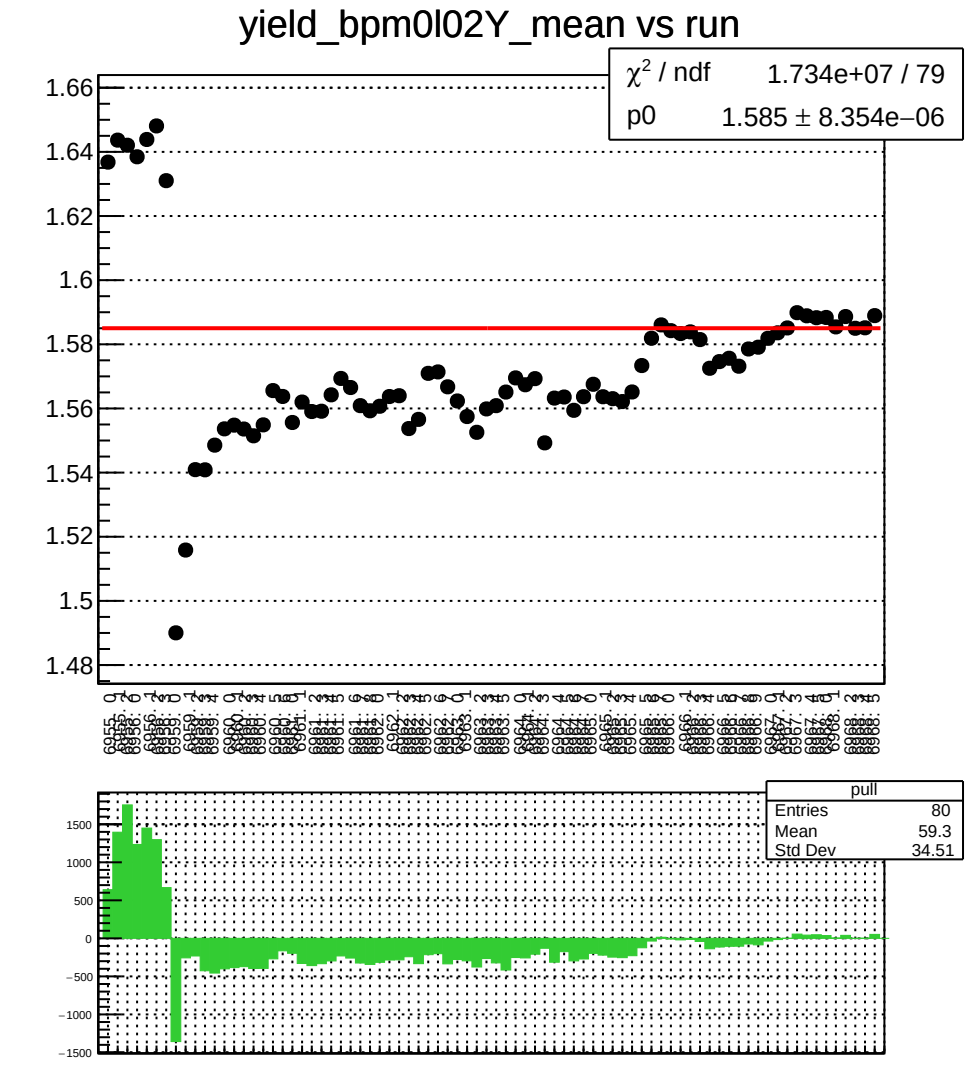

pull1D
Entries 80
Mean 0.3901
Std Dev 3.716

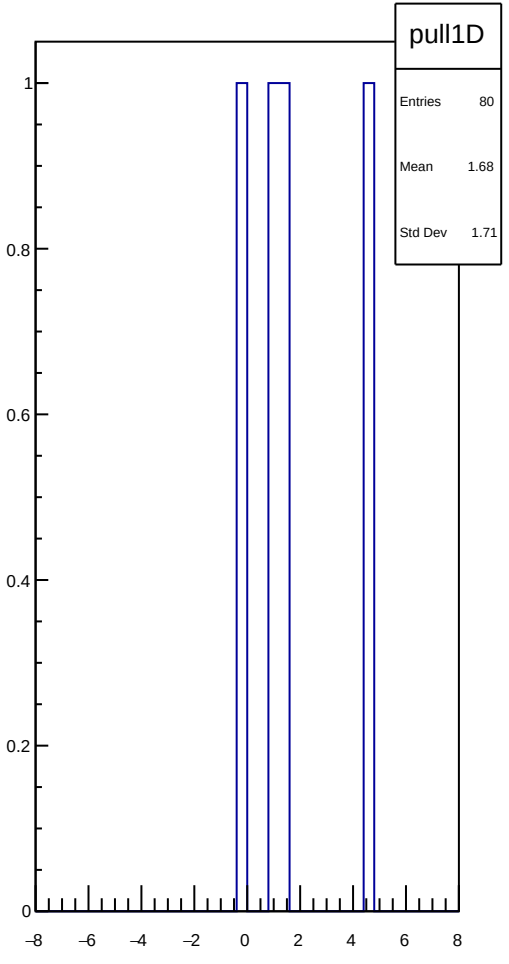

yield_bpm0l01Y_rms vs run
χ² / ndf 1.398e+05 / 79
p0 0.007657 ± 6.418e−06
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

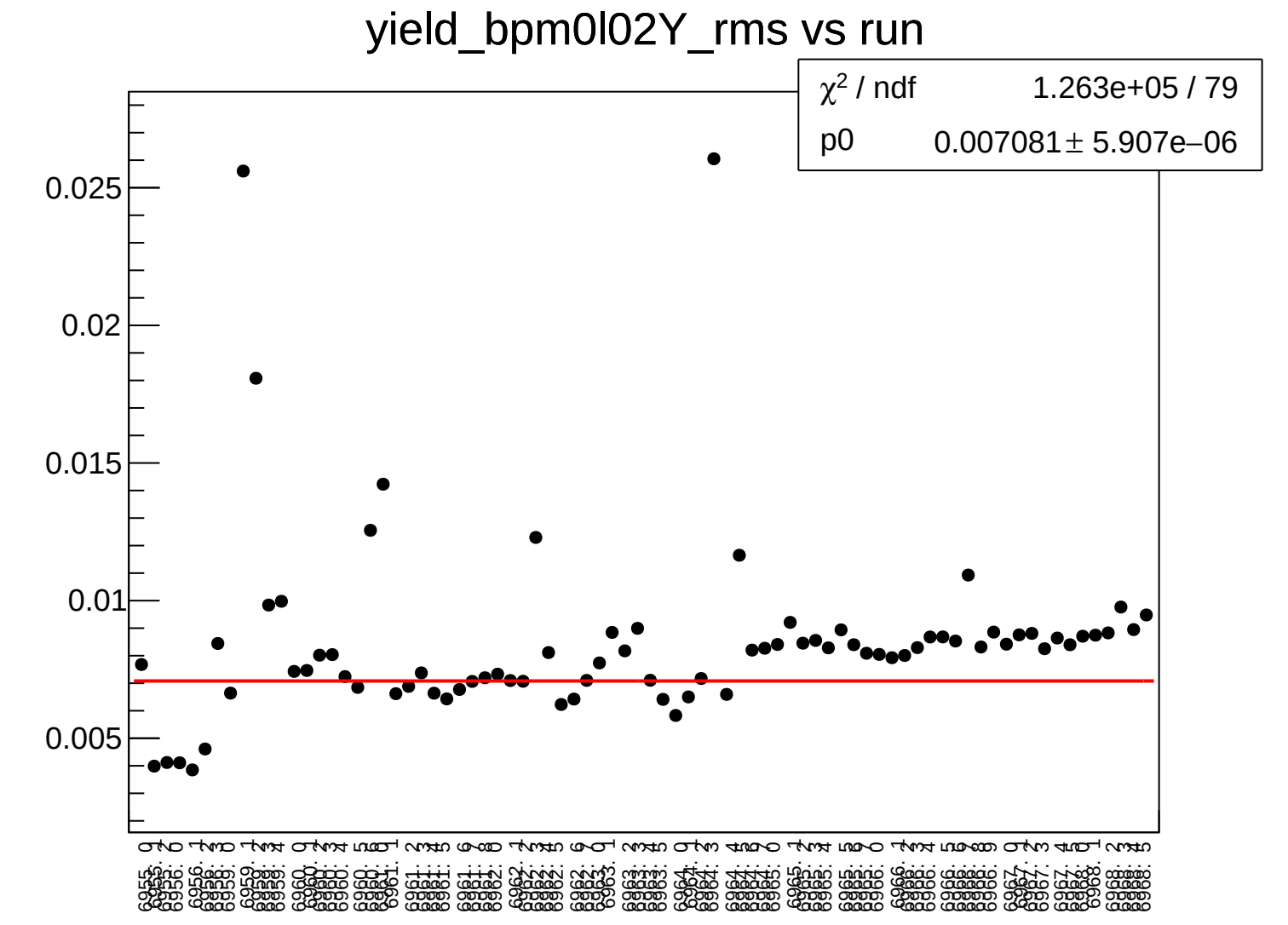

yield_bpm0l02X_mean vs run
χ² / ndf 6.446e+07 / 79
p0 −3.591 ± 1.833e−05
pull
Entries 80
Mean 2814
Std Dev 2778

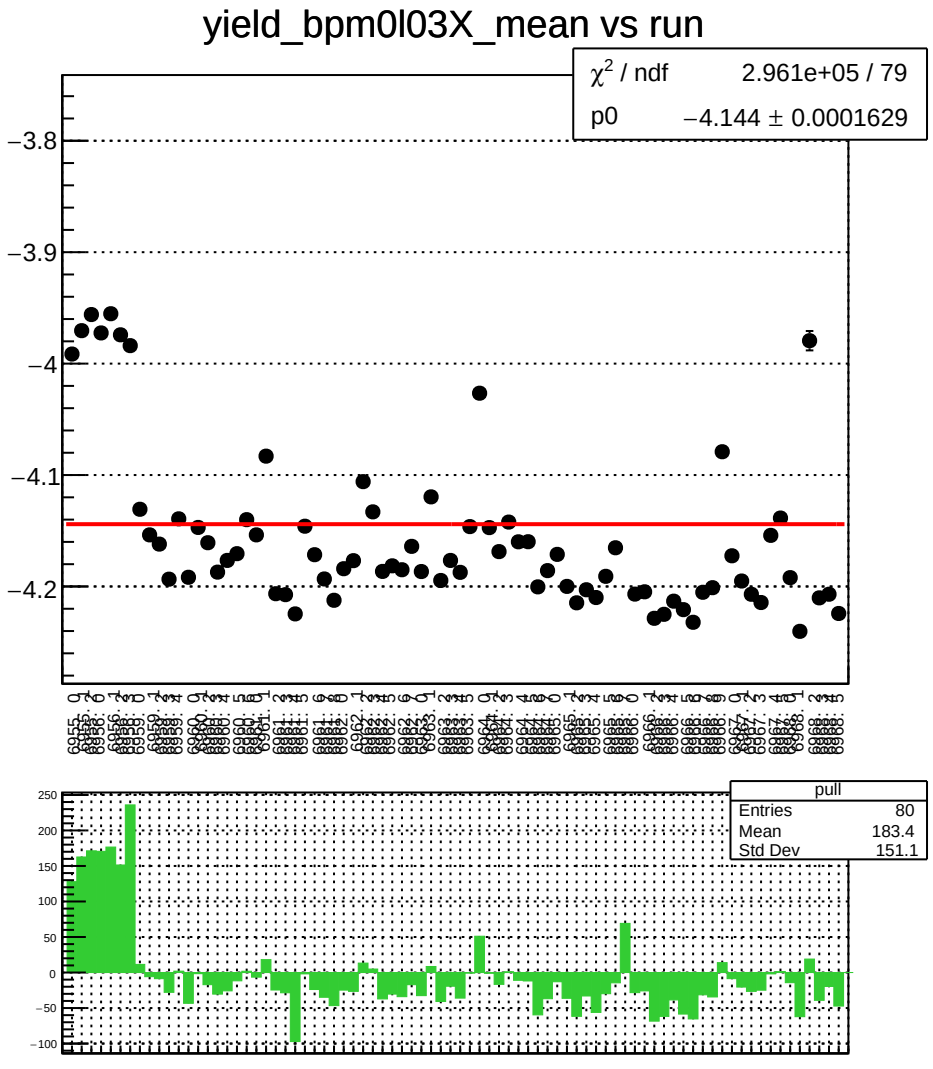

pull1D
Entries 80
Mean 6.603
Std Dev 0

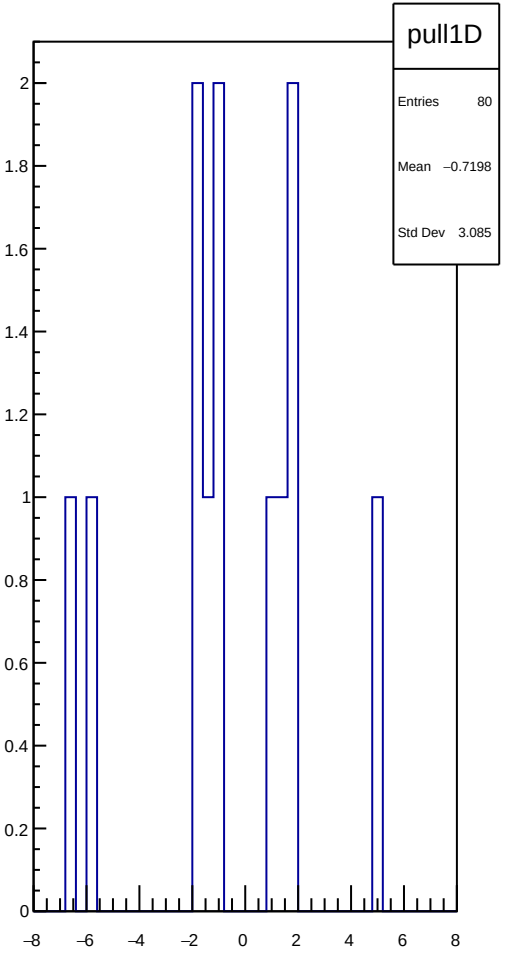

yield_bpm0l02X_rms vs run
χ² / ndf 5.887e+04 / 79
p0 0.0159 ± 1.296e−05
0.035
0.03
0.025
0.02
0.015

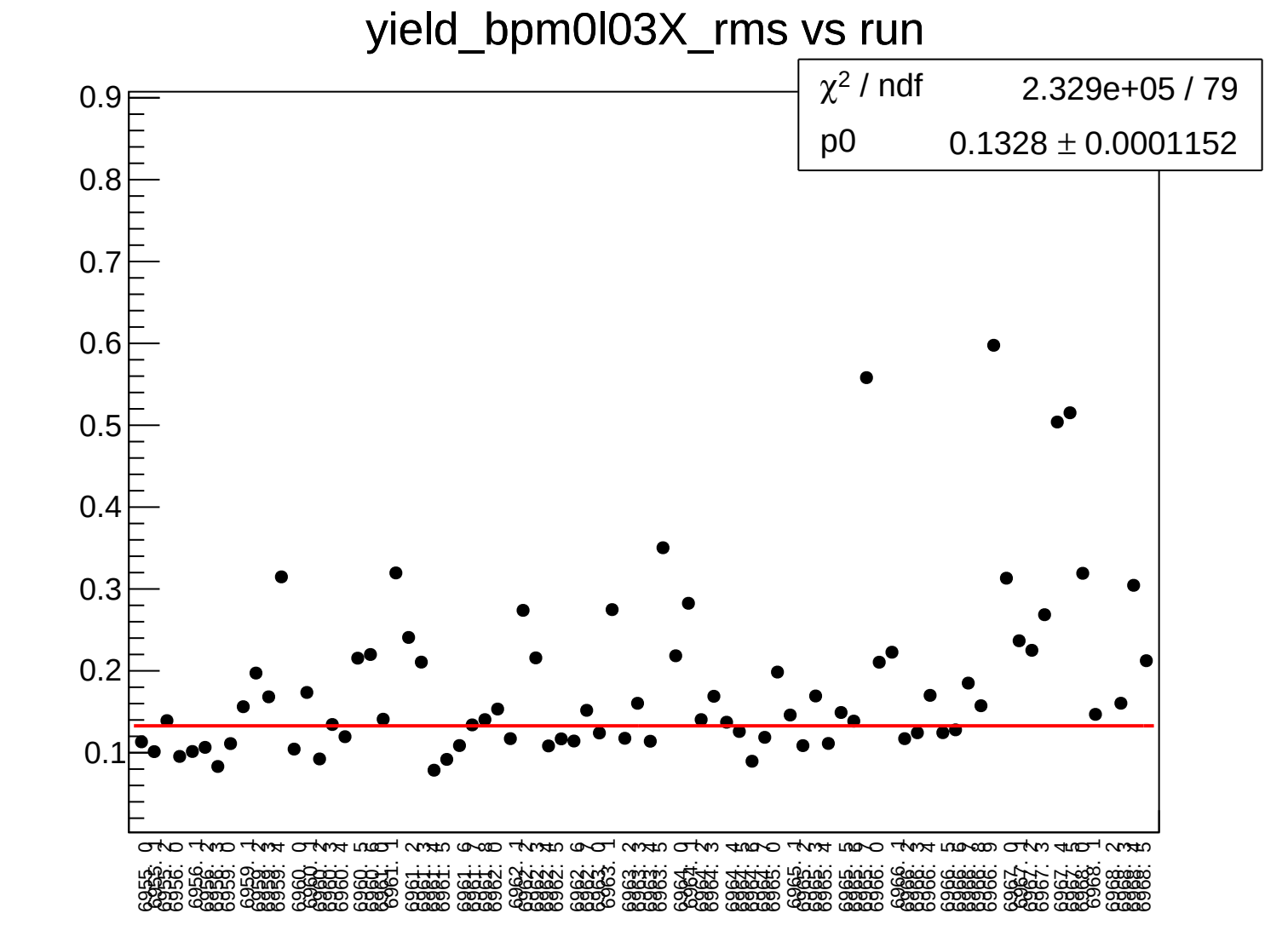

yield_bpm0l02Y_mean vs run
χ² / ndf 1.734e+07 / 79
p0 1.585 ± 8.354e−06
pull
Entries 80
Mean 59.3
Std Dev 34.51

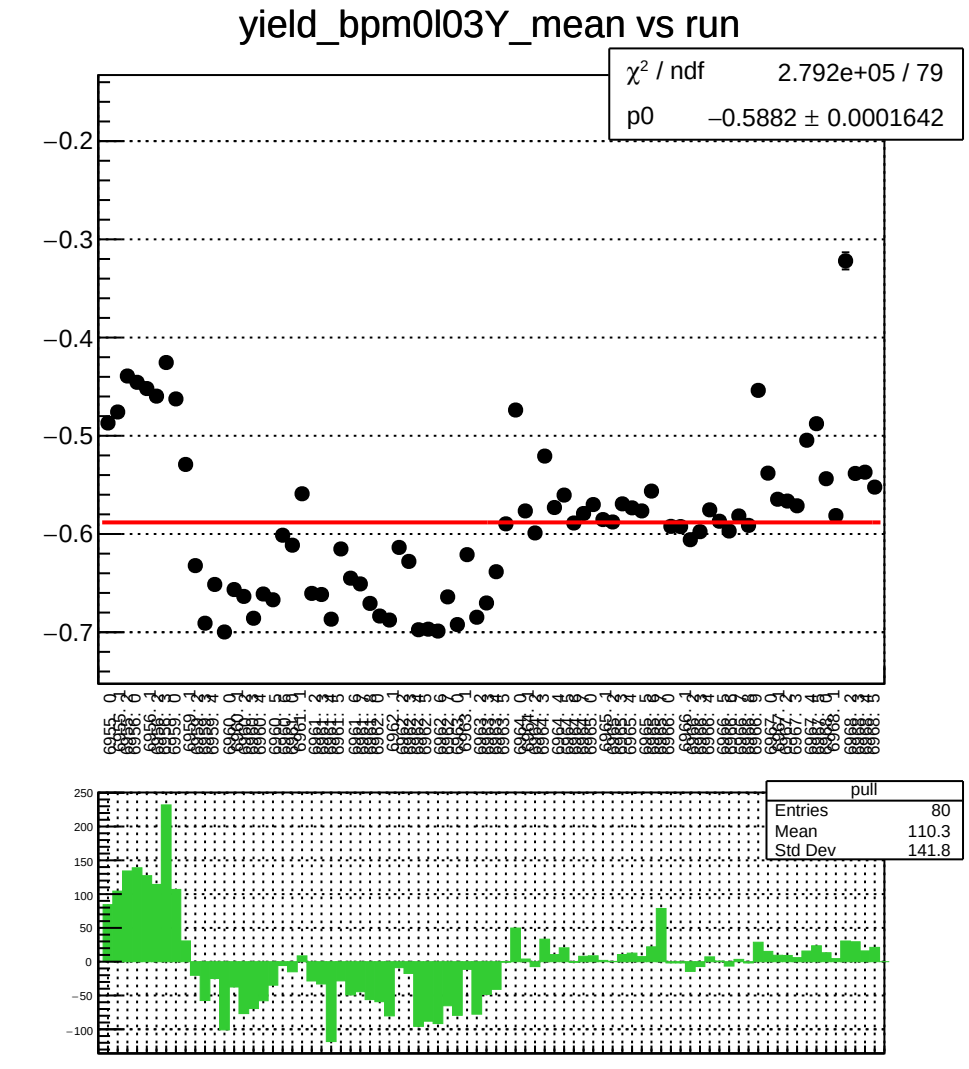

pull1D
Entries 80
Mean 1.68
Std Dev 1.71

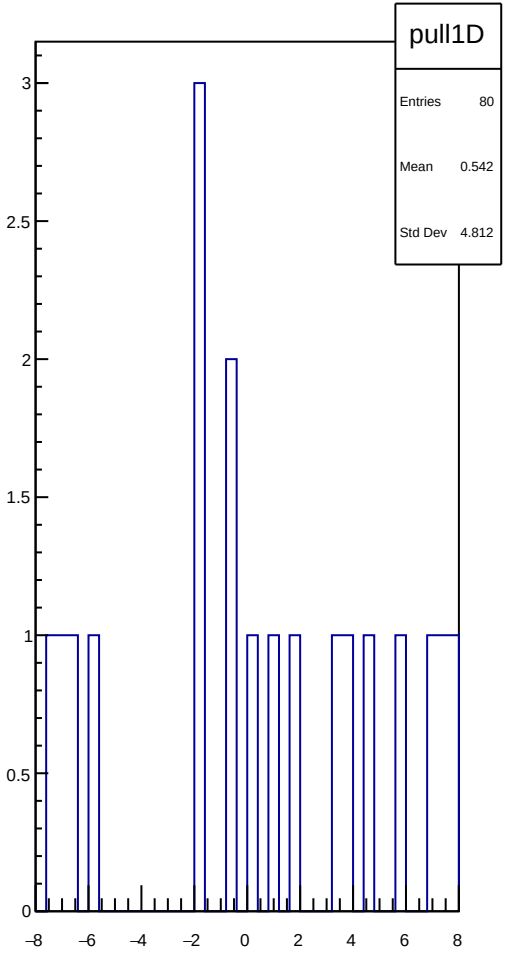

yield_bpm0l02Y_rms vs run
χ² / ndf 1.263e+05 / 79
p0 0.007081 ± 5.907e−06
0.025
0.02
0.015
0.01
0.005

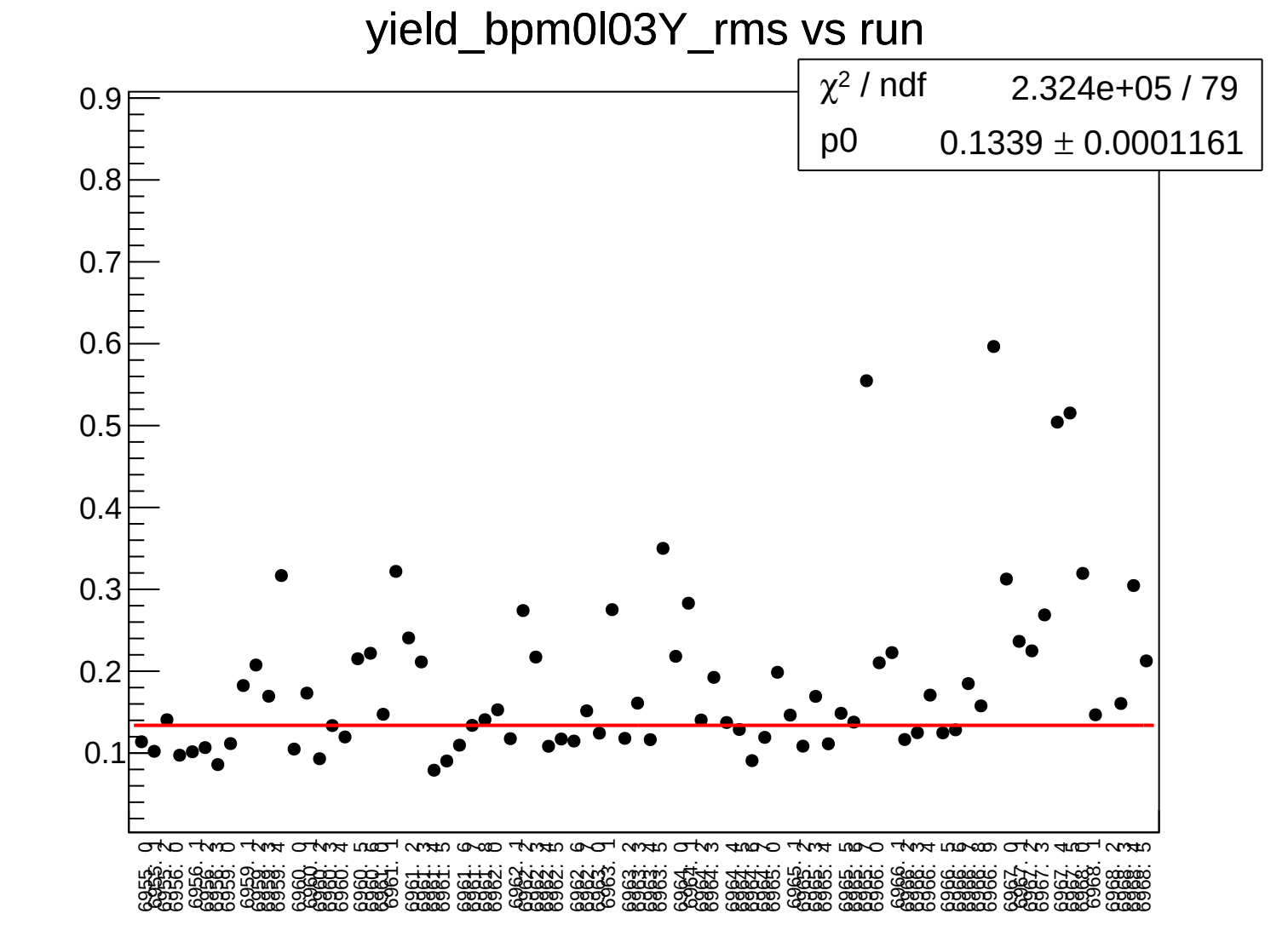

yield_bpm0l03X_mean vs run
χ² / ndf 2.961e+05 / 79
p0 −4.144 ± 0.0001629
−3.8
−3.9
−4
−4.1
−4.2
pull
Entries 80
Mean 183.4
Std Dev 151.1
250
200
150
100
50
0
−50
−100

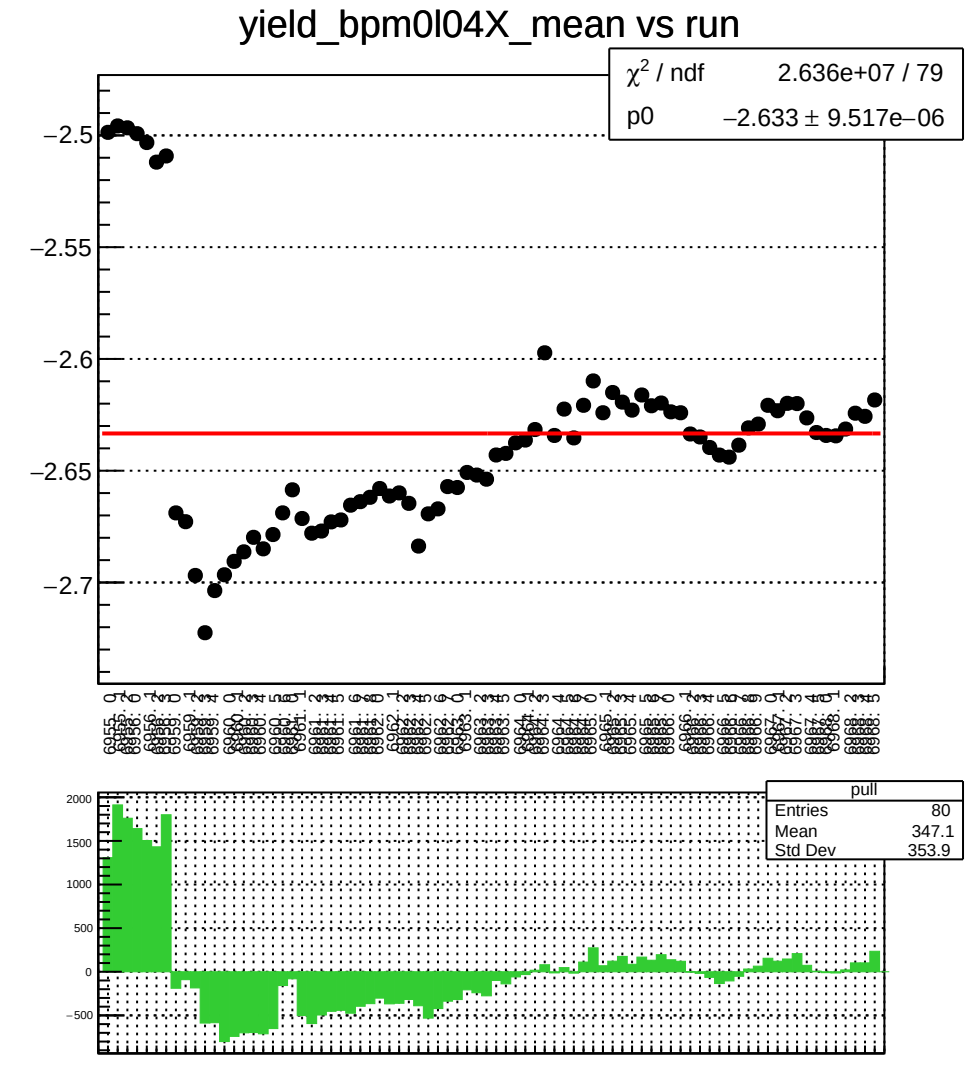

pull1D
Entries 80
Mean −0.7198
Std Dev 3.085
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

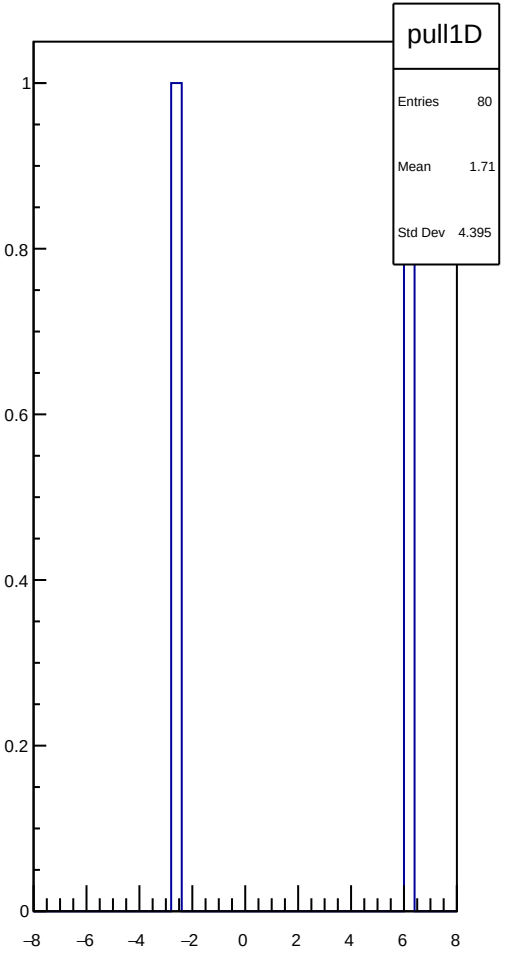

yield_bpm0l03X_rms vs run
χ² / ndf 2.329e+05 / 79
p0 0.1328 ± 0.0001152
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

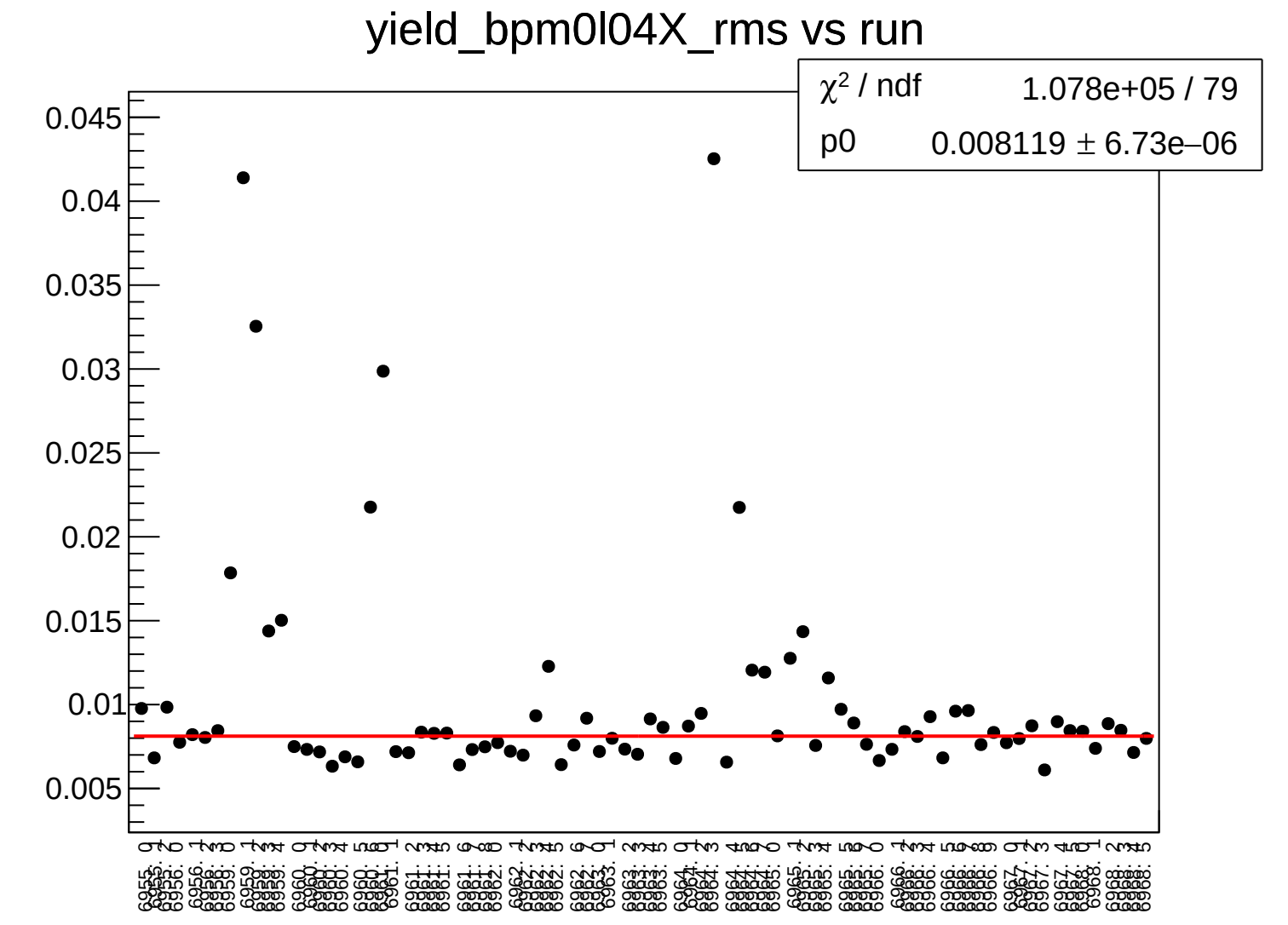

yield_bpm0l03Y_mean vs run
χ² / ndf 2.792e+05 / 79
p0 −0.5882 ± 0.0001642
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
pull
Entries 80
Mean 110.3
Std Dev 141.8
250
200
150
100
50
0
−50
−100

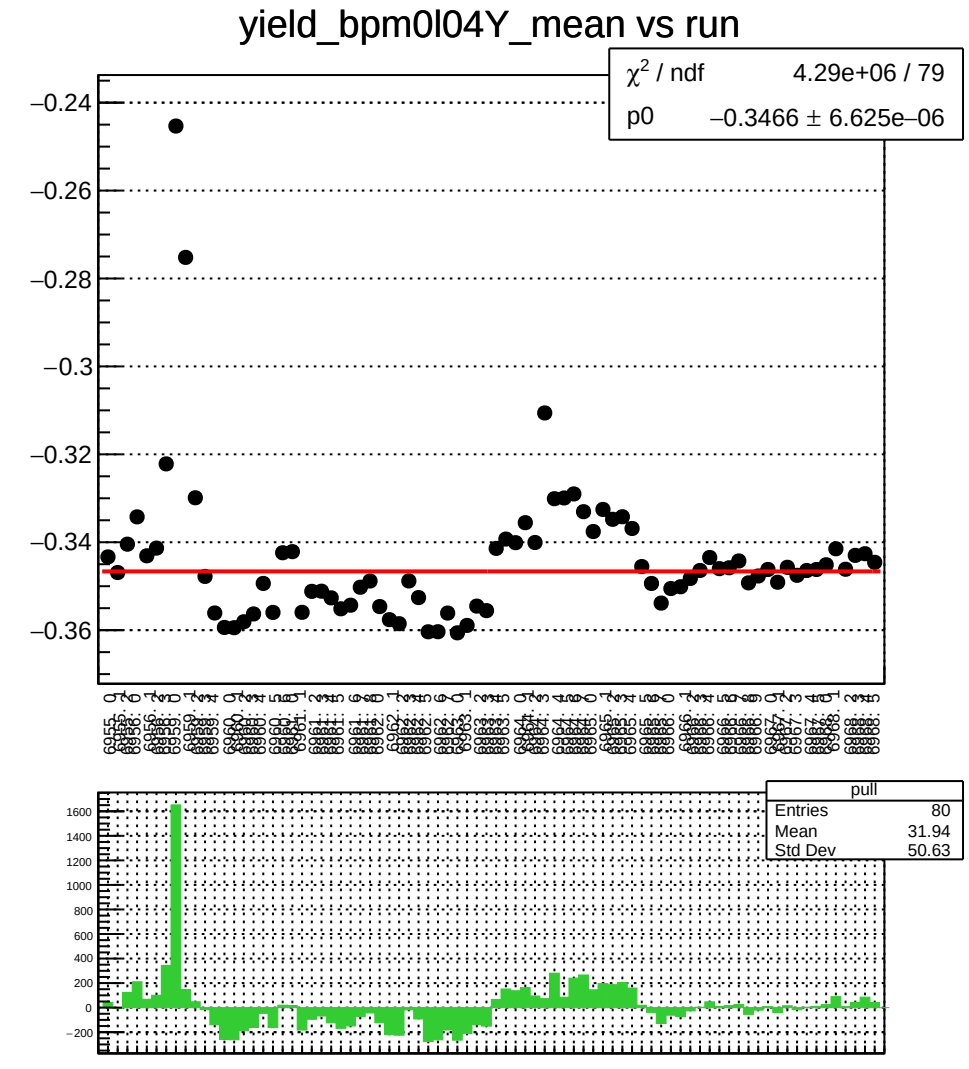

pull1D
Entries 80
Mean 0.542
Std Dev 4.812
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

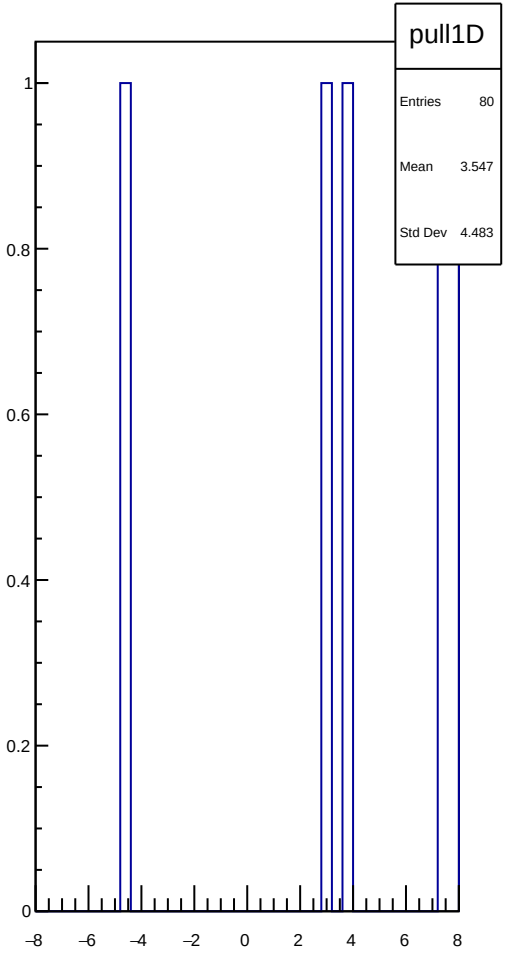

yield_bpm0l03Y_rms vs run
χ² / ndf 2.324e+05 / 79
p0 0.1339 ± 0.0001161
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

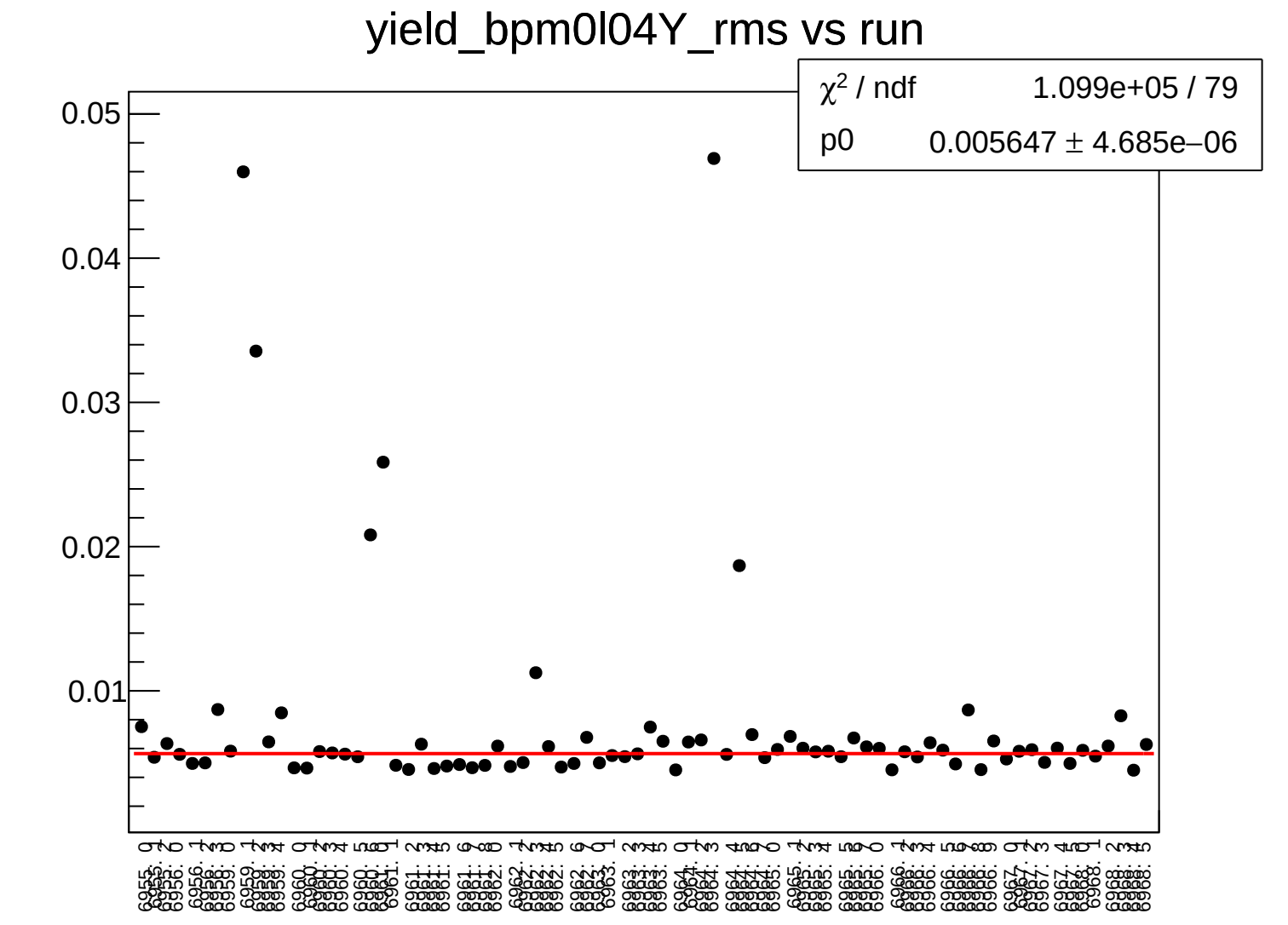

yield_bpm0l04X_mean vs run
χ² / ndf 2.636e+07 / 79
p0 −2.633 ± 9.517e−06
−2.5
−2.55
−2.6
−2.65
−2.7
pull
Entries 80
Mean 347.1
Std Dev 353.9
2000
1500
1000
500
0
−500

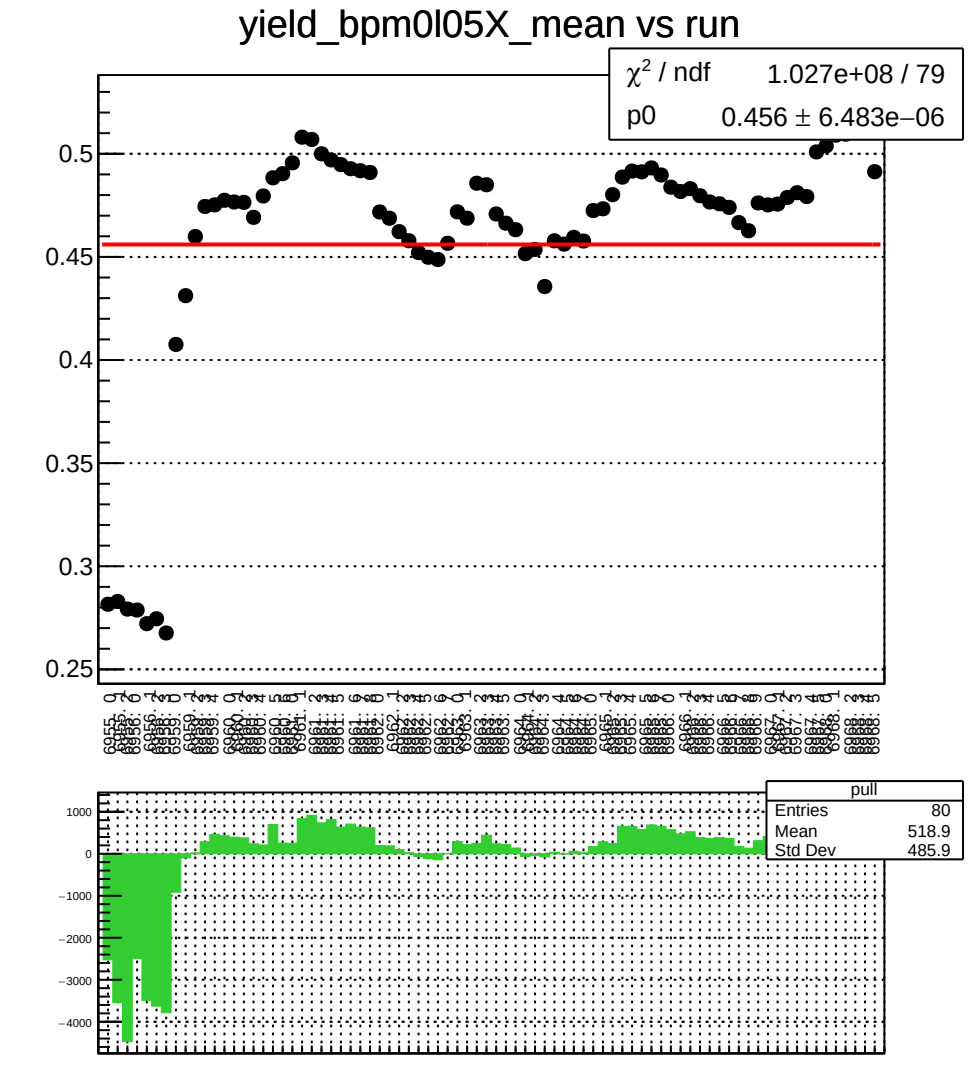

pull1D
Entries 80
Mean 1.71
Std Dev 4.395
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

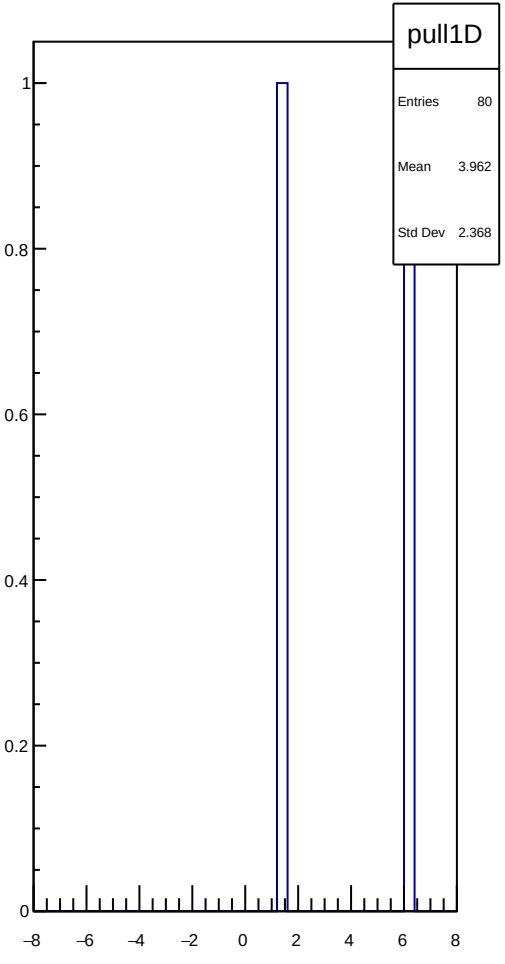

yield_bpm0l04X_rms vs run
χ² / ndf 1.078e+05 / 79
p0 0.008119 ± 6.73e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

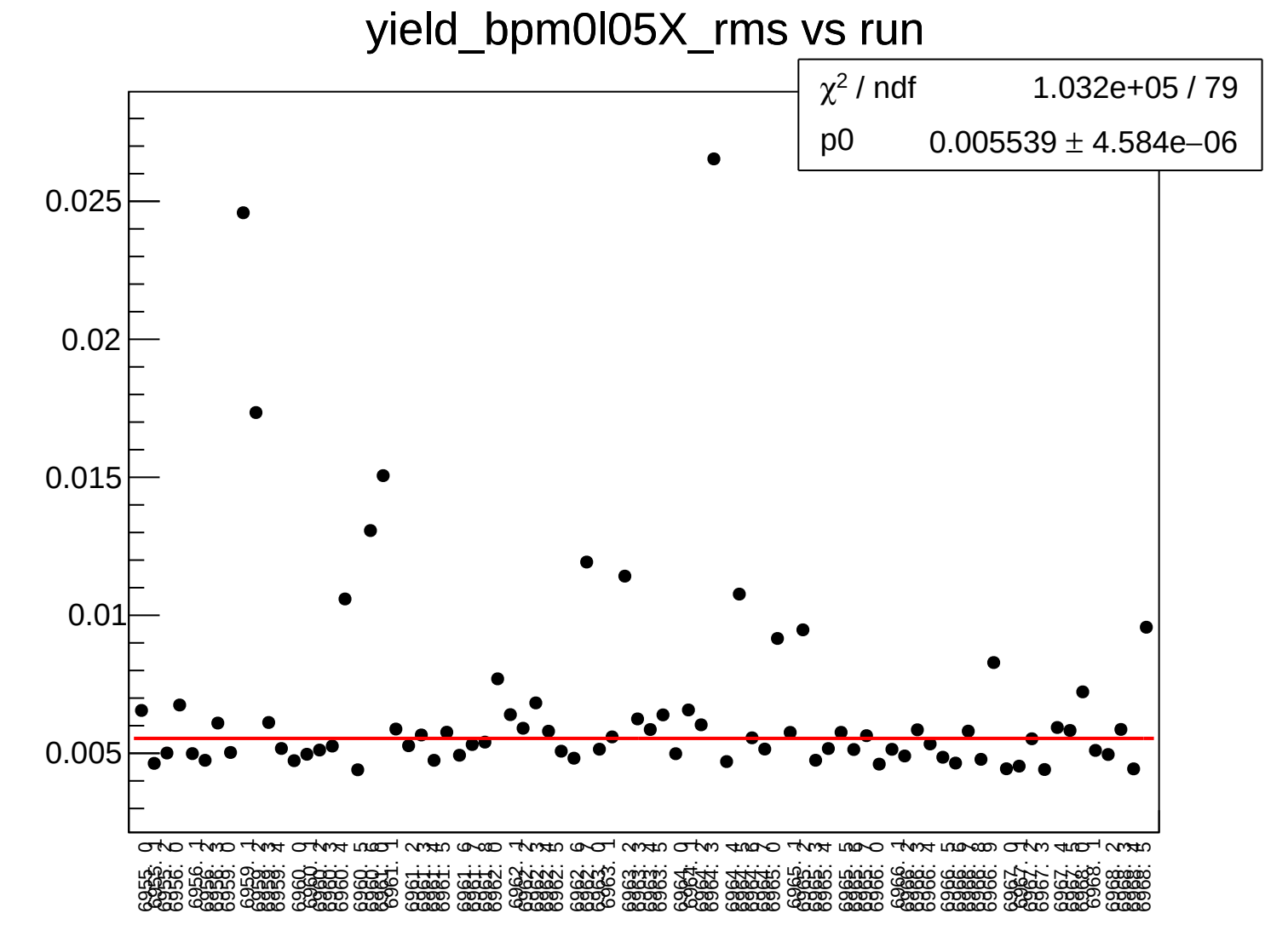

yield_bpm0l04Y_mean vs run
χ² / ndf 4.29e+06 / 79
p0 −0.3466 ± 6.625e−06
−0.24
−0.26
−0.28
−0.3
−0.32
−0.34
−0.36
pull
Entries 80
Mean 31.94
Std Dev 50.63
1600
1400
1200
1000
800
600
400
200
0
−200

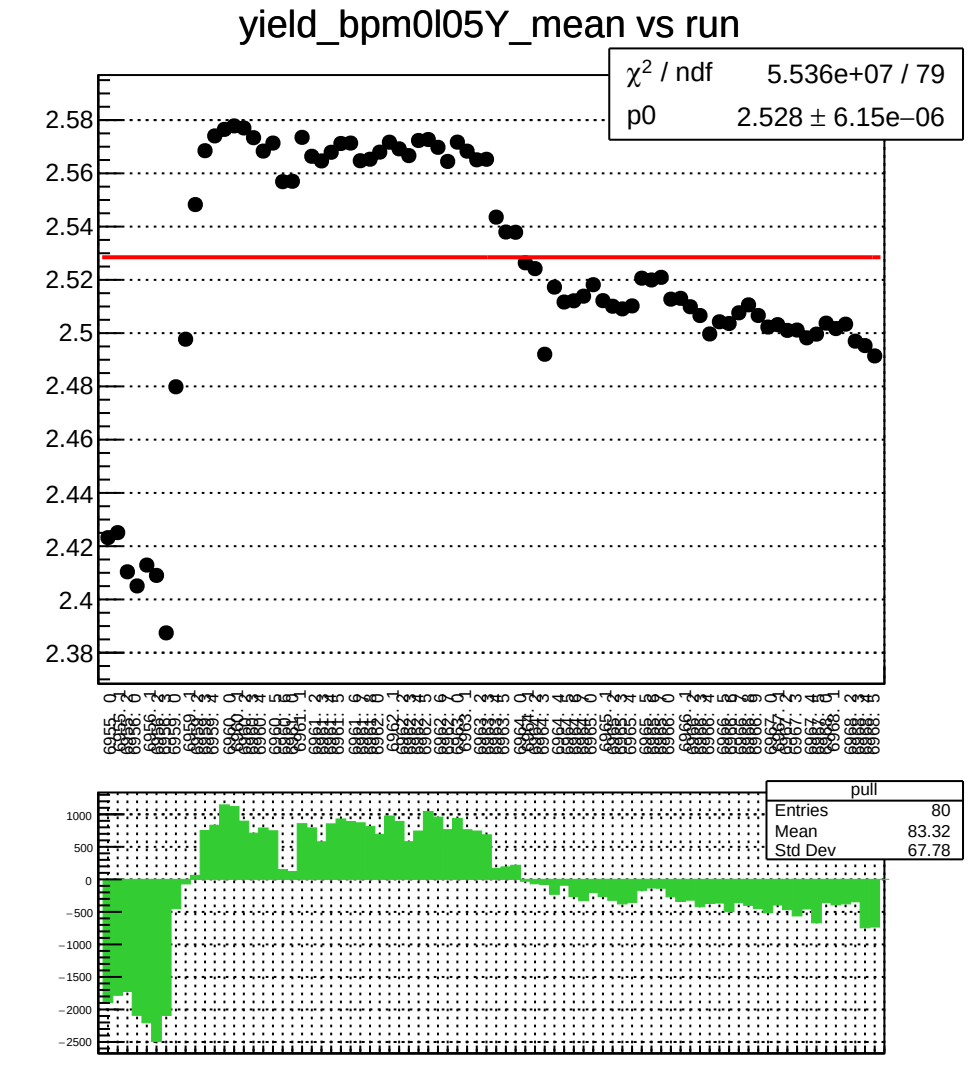

pull1D
Entries 80
Mean 3.547
Std Dev 4.483
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

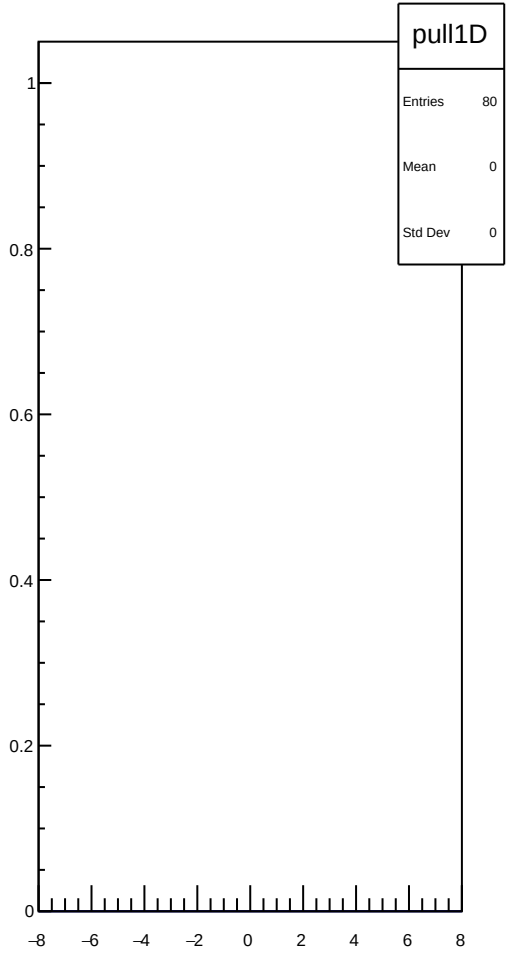

yield_bpm0l04Y_rms vs run
χ² / ndf 1.099e+05 / 79
p0 0.005647 ± 4.685e−06
0.05
0.04
0.03
0.02
0.01

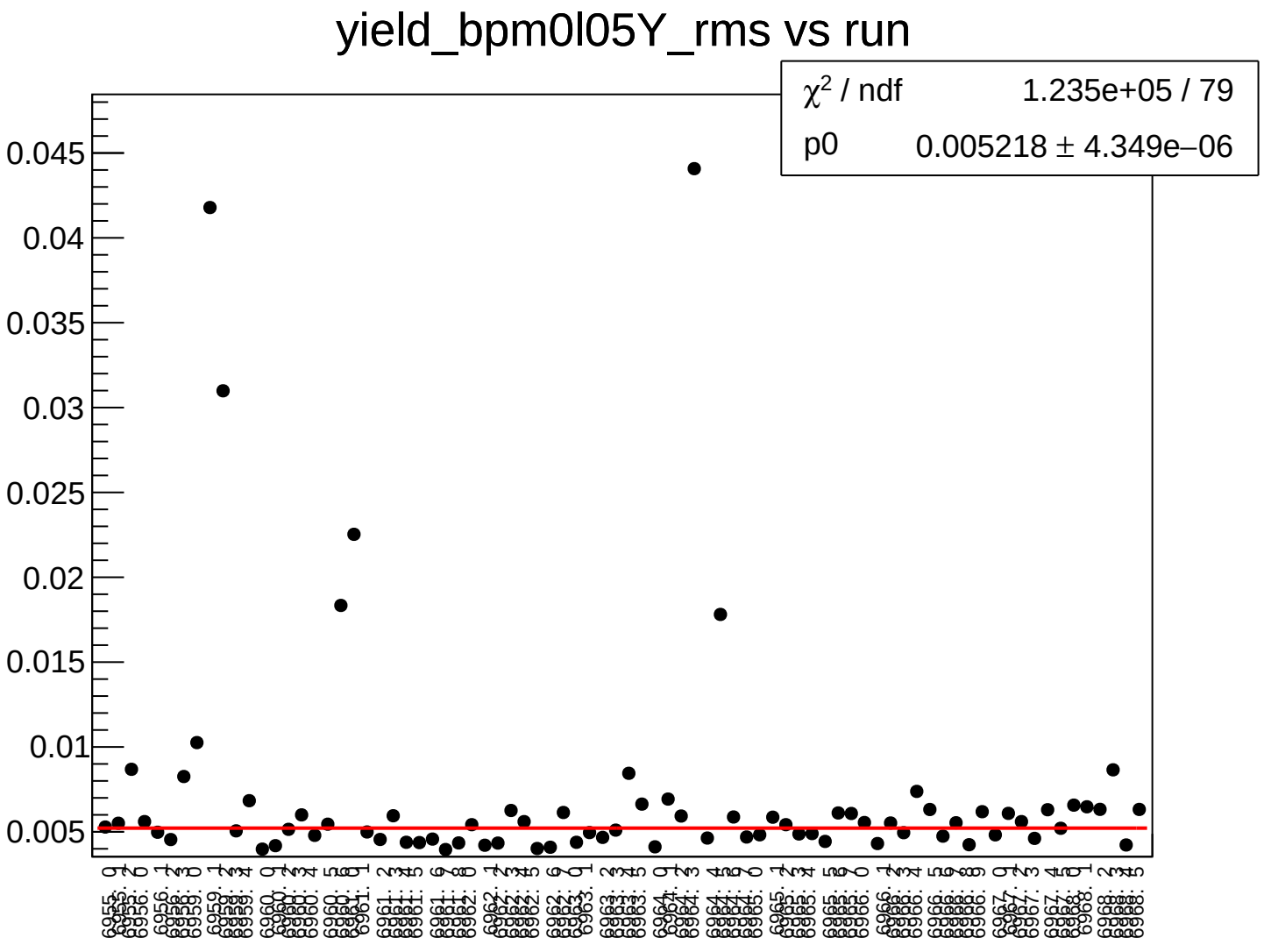

yield_bpm0l05X_mean vs run
χ² / ndf 1.027e+08 / 79
p0 0.456 ± 6.483e−06
pull
Entries 80
Mean 518.9
Std Dev 485.9

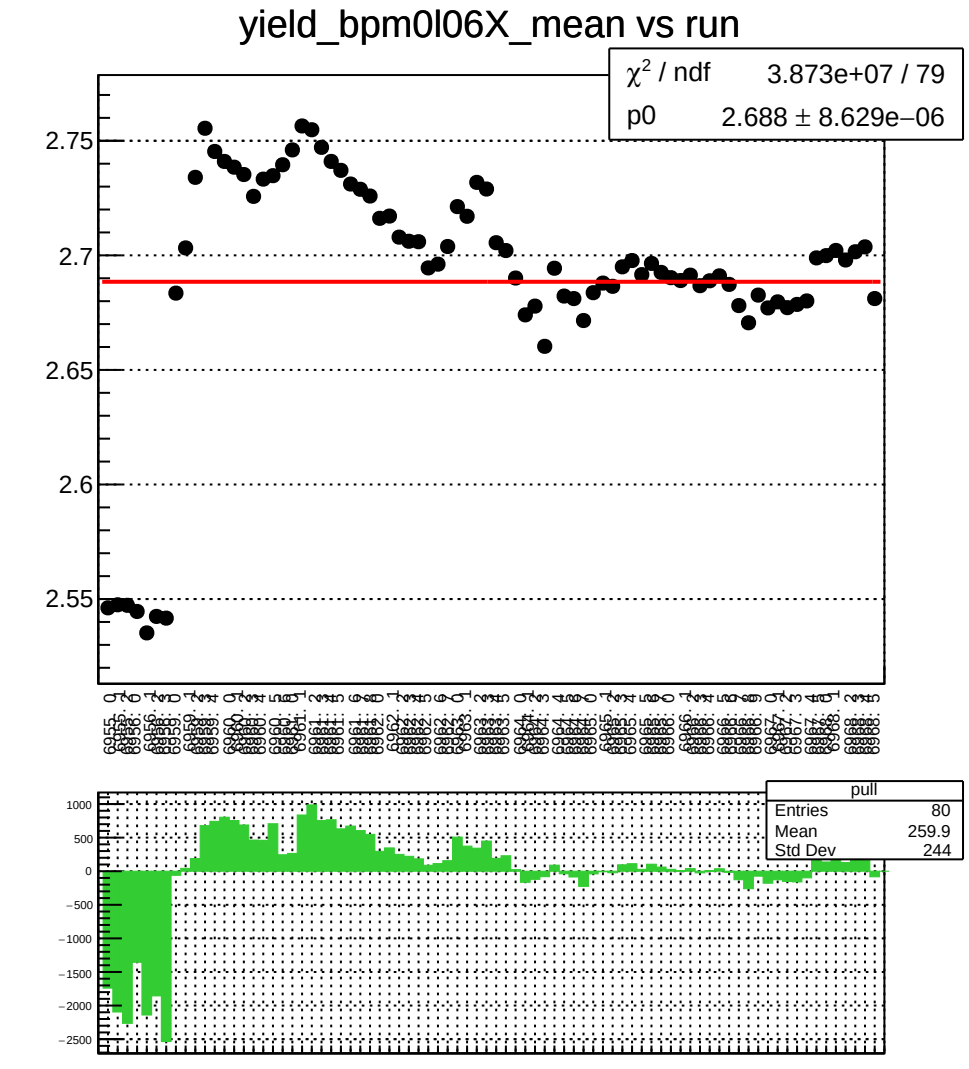

pull1D
Entries 80
Mean 3.962
Std Dev 2.368

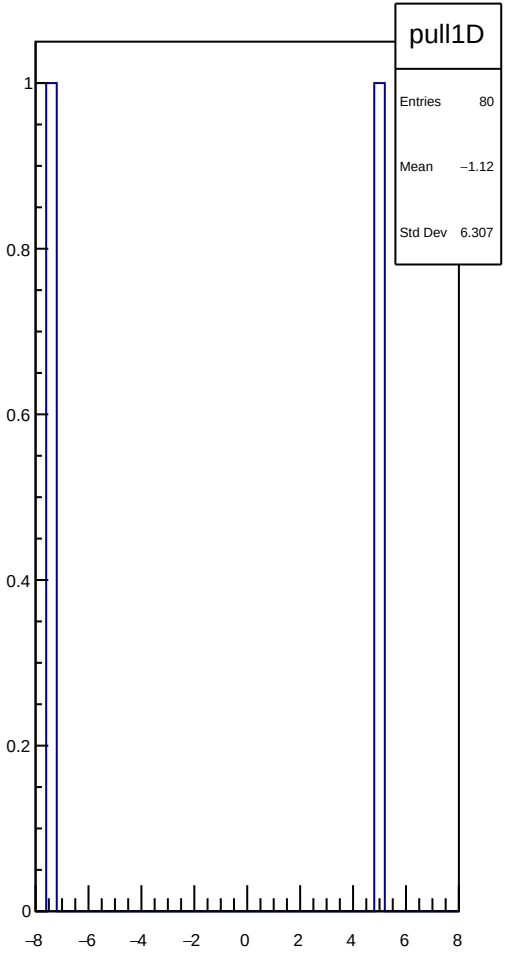

yield_bpm0l05X_rms vs run
χ² / ndf 1.032e+05 / 79
p0 0.005539 ± 4.584e−06
0.025
0.02
0.015
0.01
0.005


yield_bpm0l05Y_mean vs run
χ² / ndf 5.536e+07 / 79
p0 2.528 ± 6.15e−06
2.58
2.56
2.54
2.52
2.5
2.48
2.46
2.44
2.42
2.4
2.38
pull
Entries 80
Mean 83.32
Std Dev 67.78
1000
500
0
−500
−1000
−1500
−2000
−2500

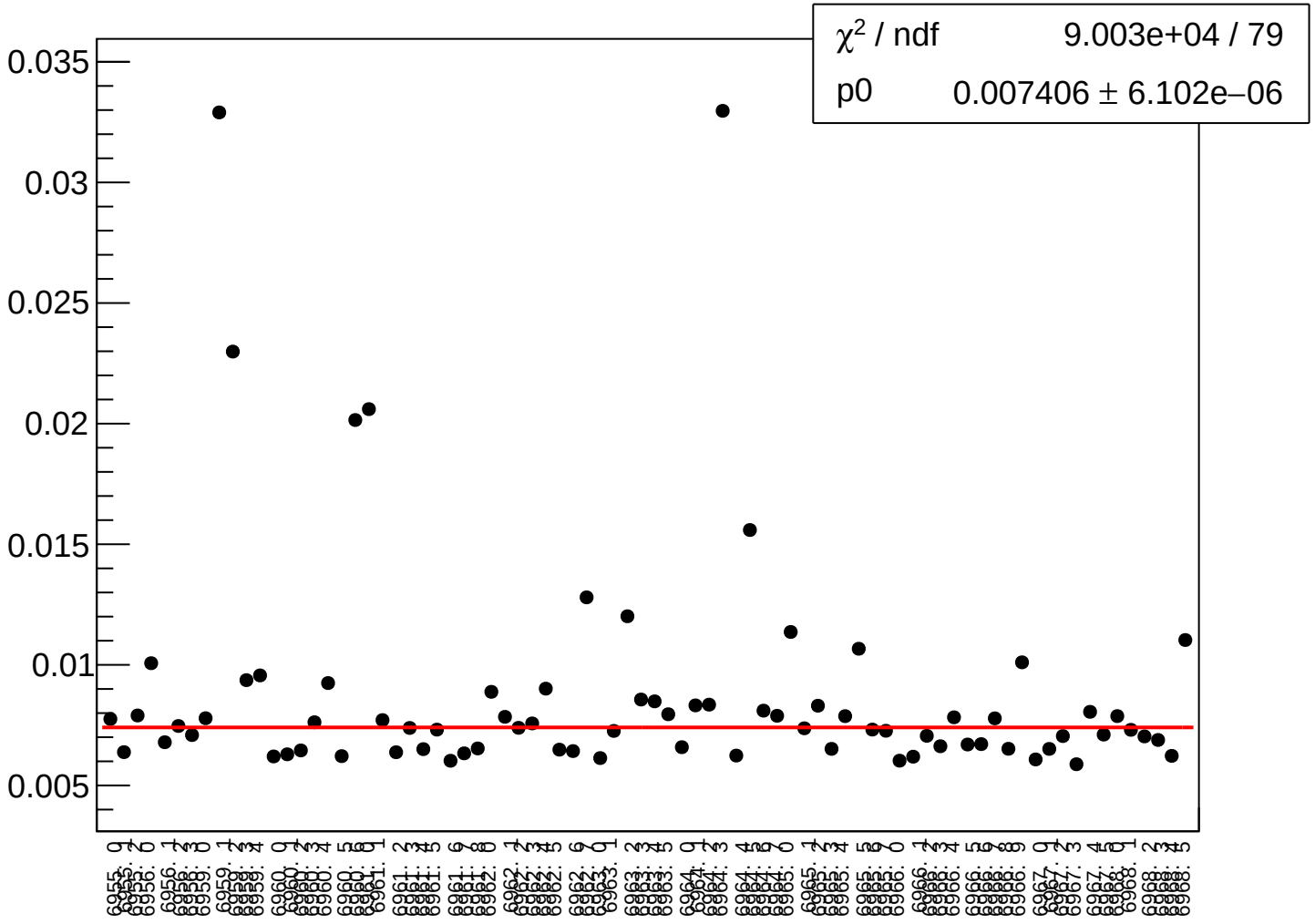

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

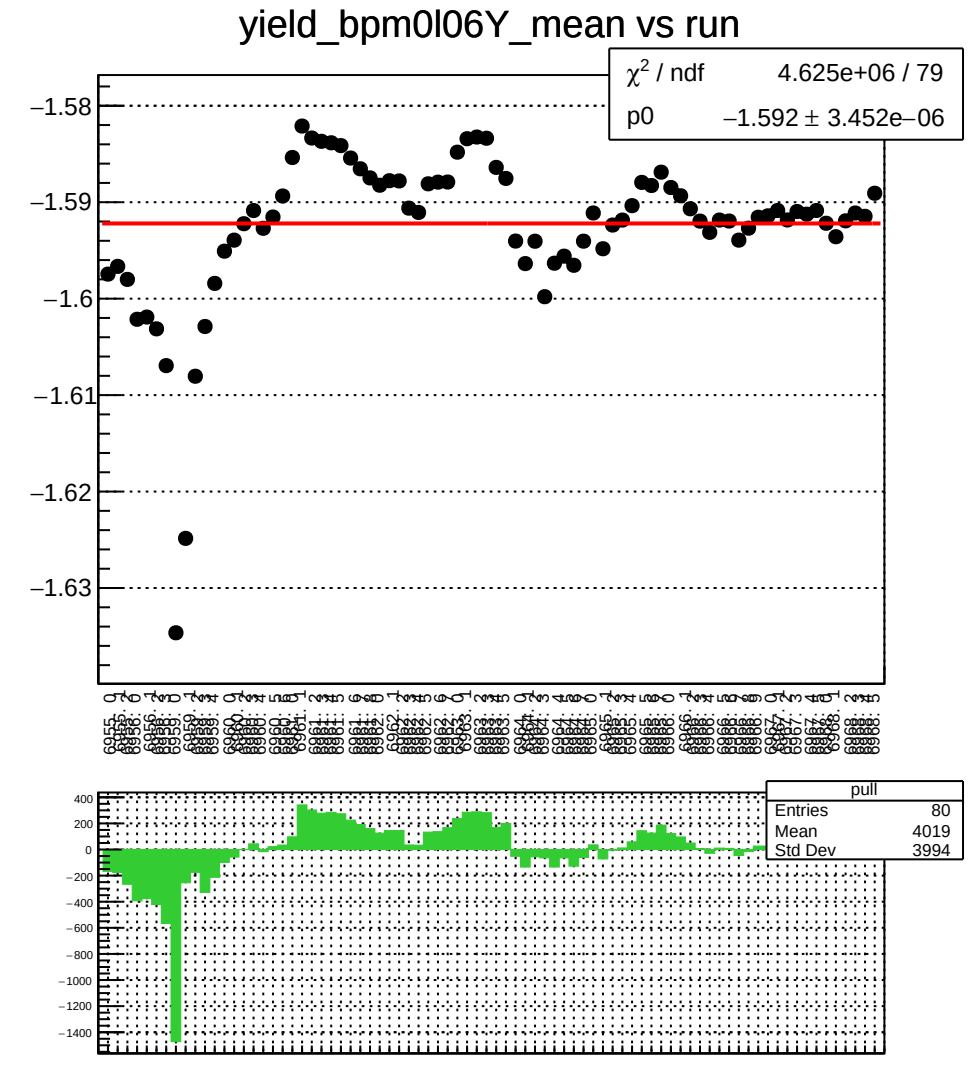

yield_bpm0l05Y_rms vs run
χ² / ndf 1.235e+05 / 79
p0 0.005218 ± 4.349e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

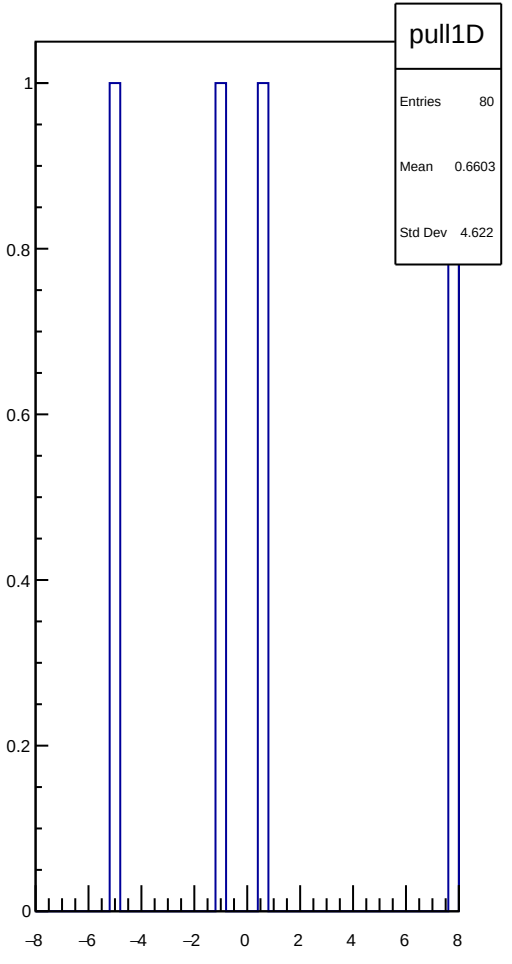

yield_bpm0l06X_mean vs run
χ² / ndf 3.873e+07 / 79
p0 2.688 ± 8.629e−06
2.75
2.7
2.65
2.6
2.55
pull
Entries 80
Mean 259.9
Std Dev 244
1000
500
0
−500
−1000
−1500
−2000
−2500

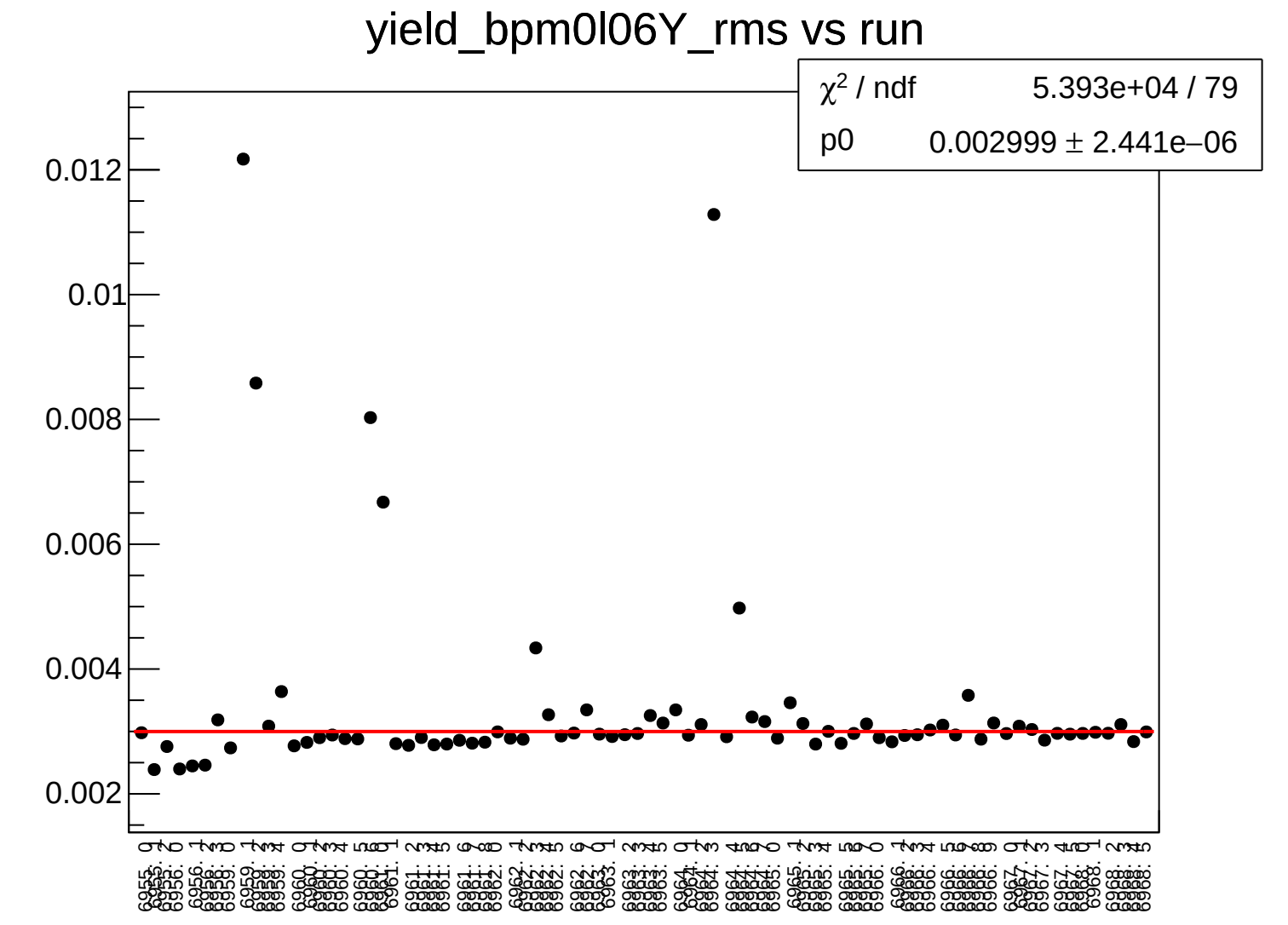

pull1D
Entries 80
Mean −1.12
Std Dev 6.307
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

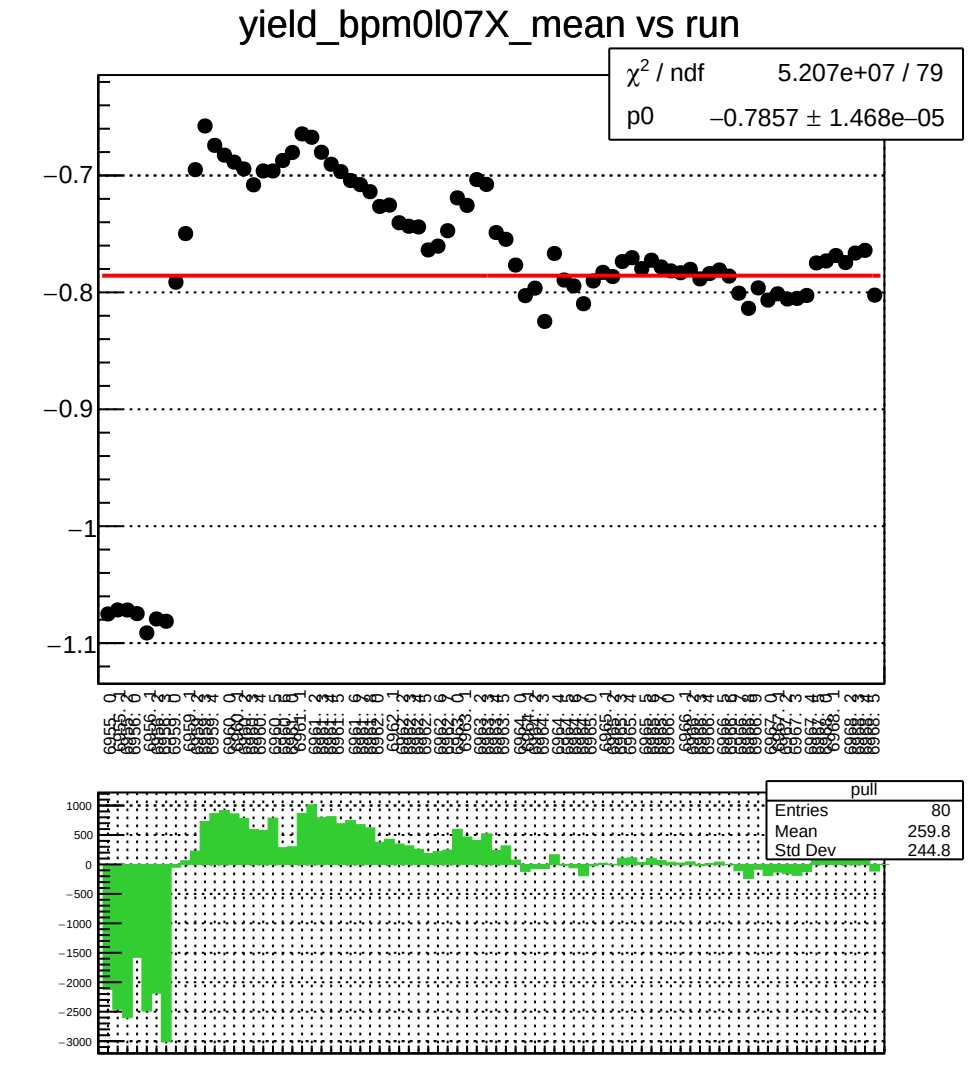
yield_bpm0l06X_rms vs run

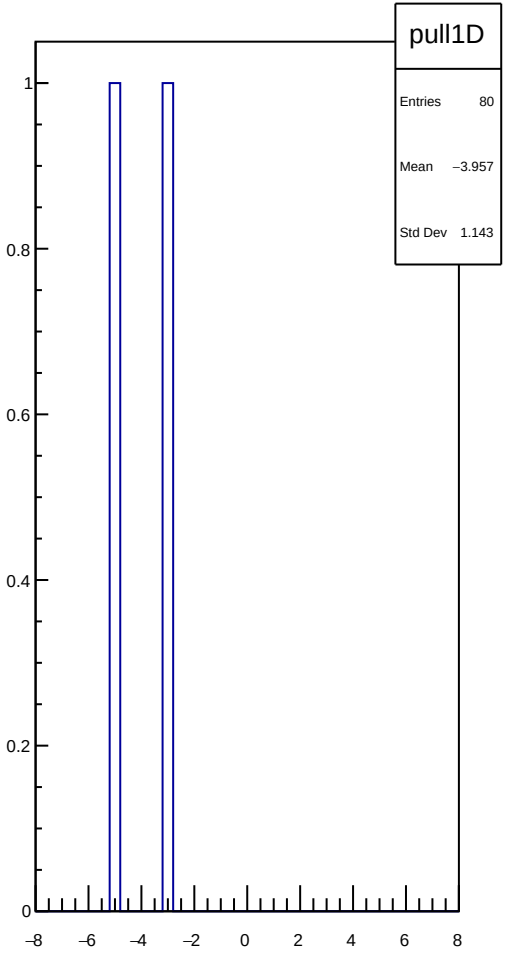


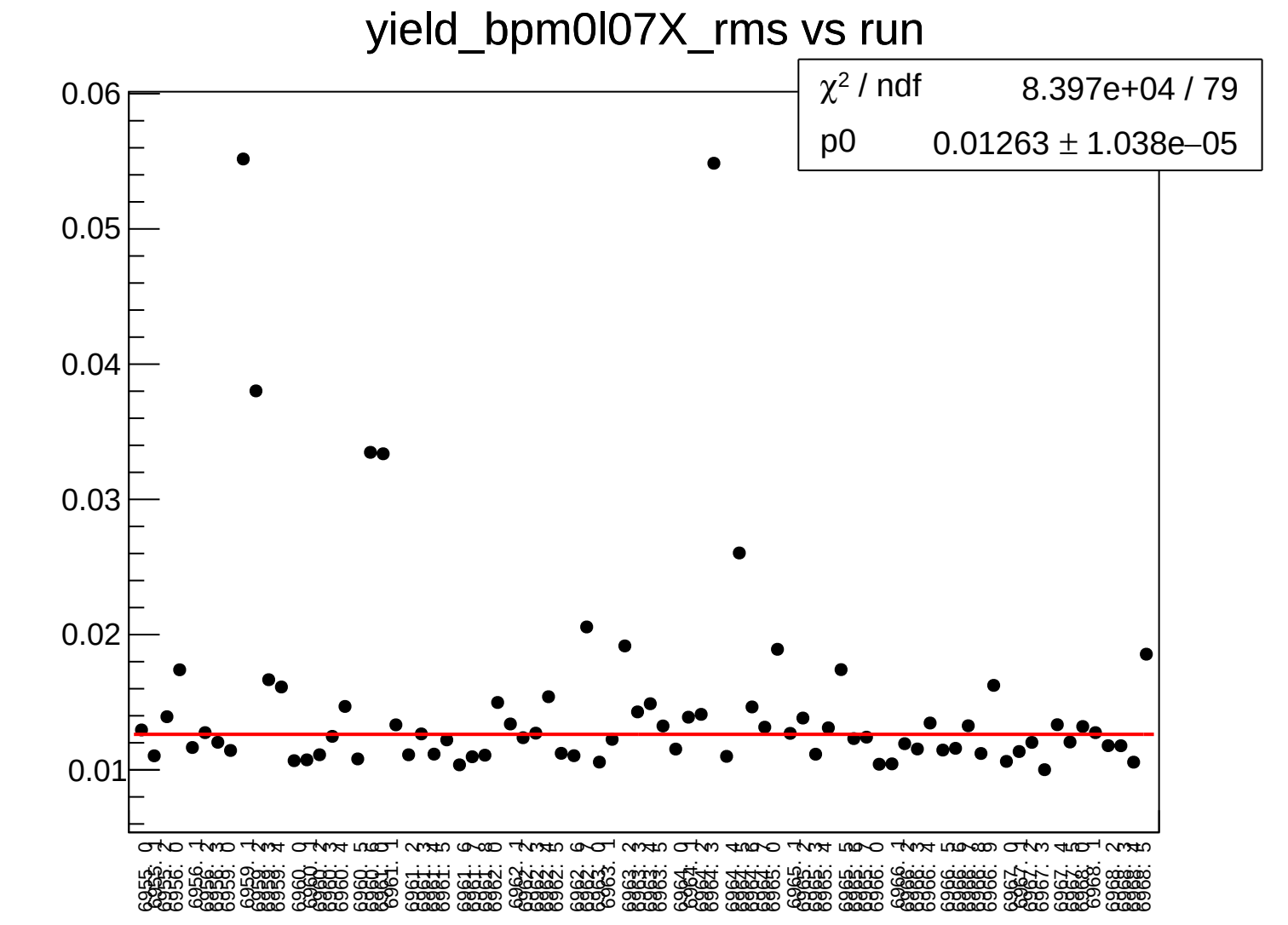

yield_bpm0l06Y_mean vs run
χ² / ndf 4.625e+06 / 79
p0 −1.592 ± 3.452e−06
−1.58
−1.59
−1.6
−1.61
−1.62
−1.63
pull
Entries 80
Mean 4019
Std Dev 3994
400
200
0
−200
−400
−600
−800
−1000
−1200
−1400

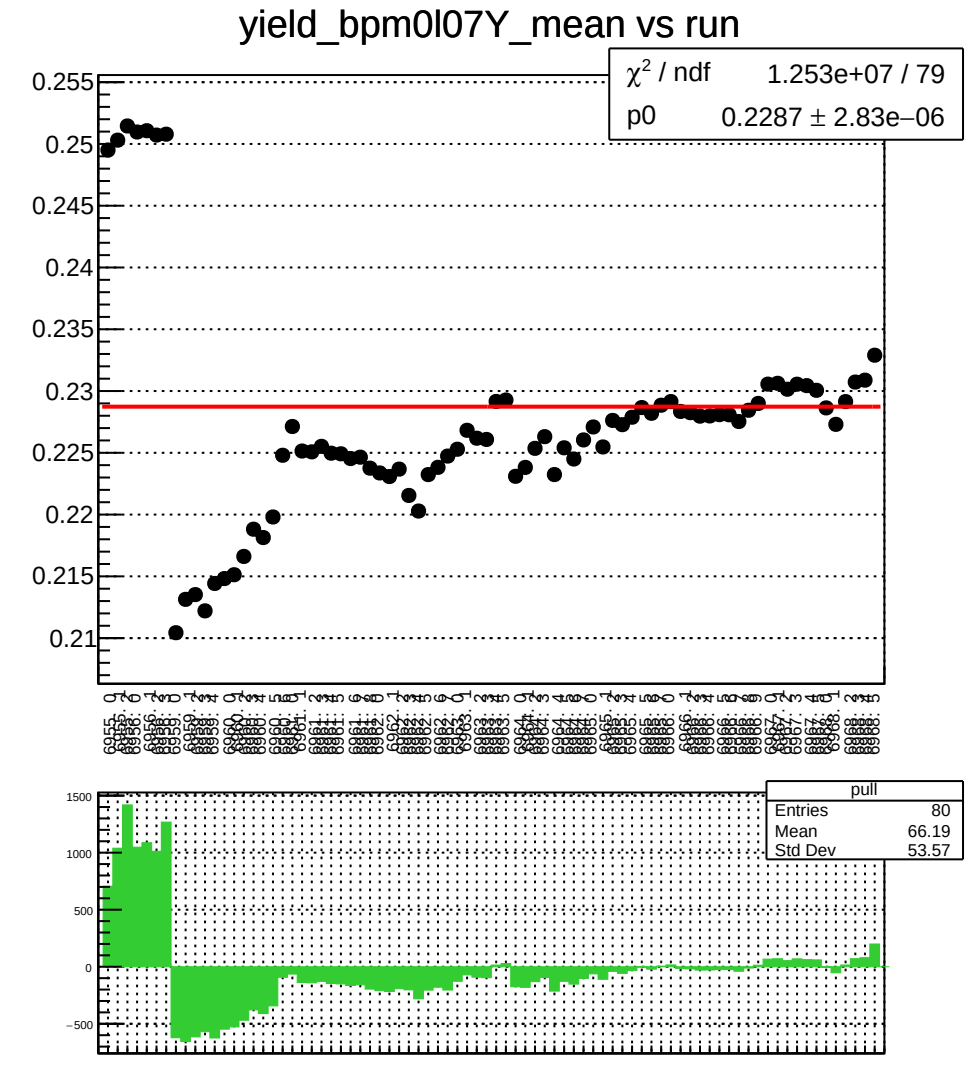

pull1D
Entries 80
Mean 0.6603
Std Dev 4.622
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

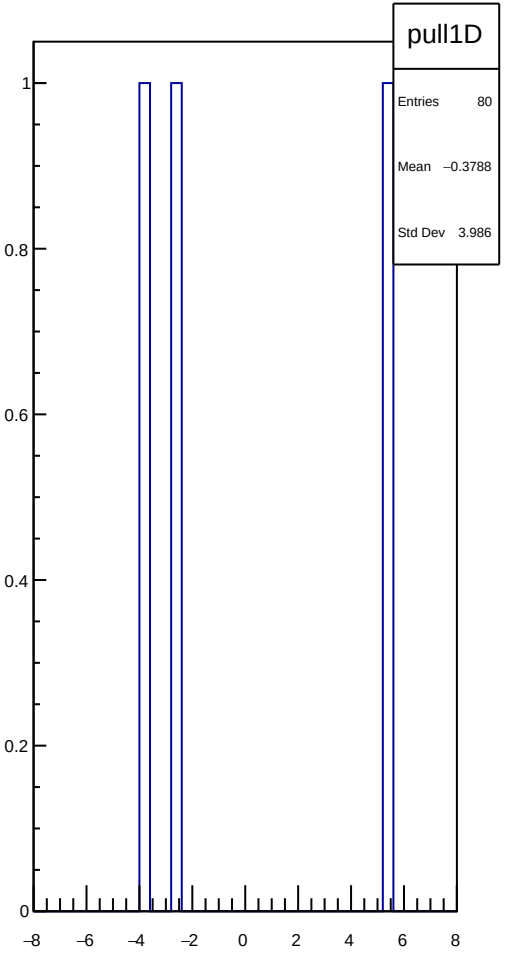

yield_bpm0l06Y_rms vs run
χ² / ndf 5.393e+04 / 79
p0 0.002999 ± 2.441e−06
0.012
0.01
0.008
0.006
0.004
0.002

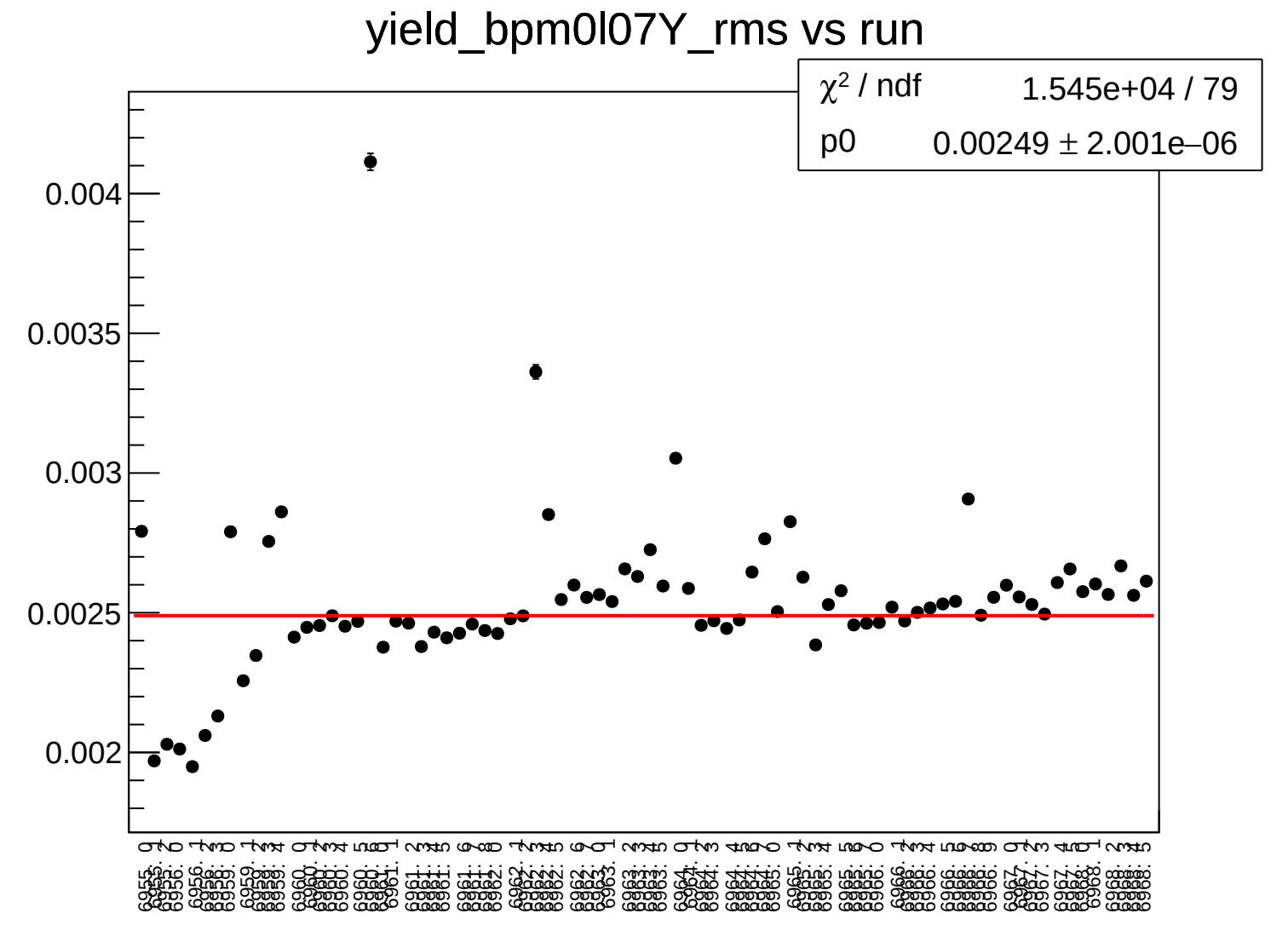

yield_bpm0l07X_mean vs run
χ² / ndf 5.207e+07 / 79
p0 −0.7857 ± 1.468e−05
−0.7
−0.8
−0.9
−1
−1.1
pull
Entries 80
Mean 259.8
Std Dev 244.8
1000
500
0
−500
−1000
−1500
−2000
−2500
−3000

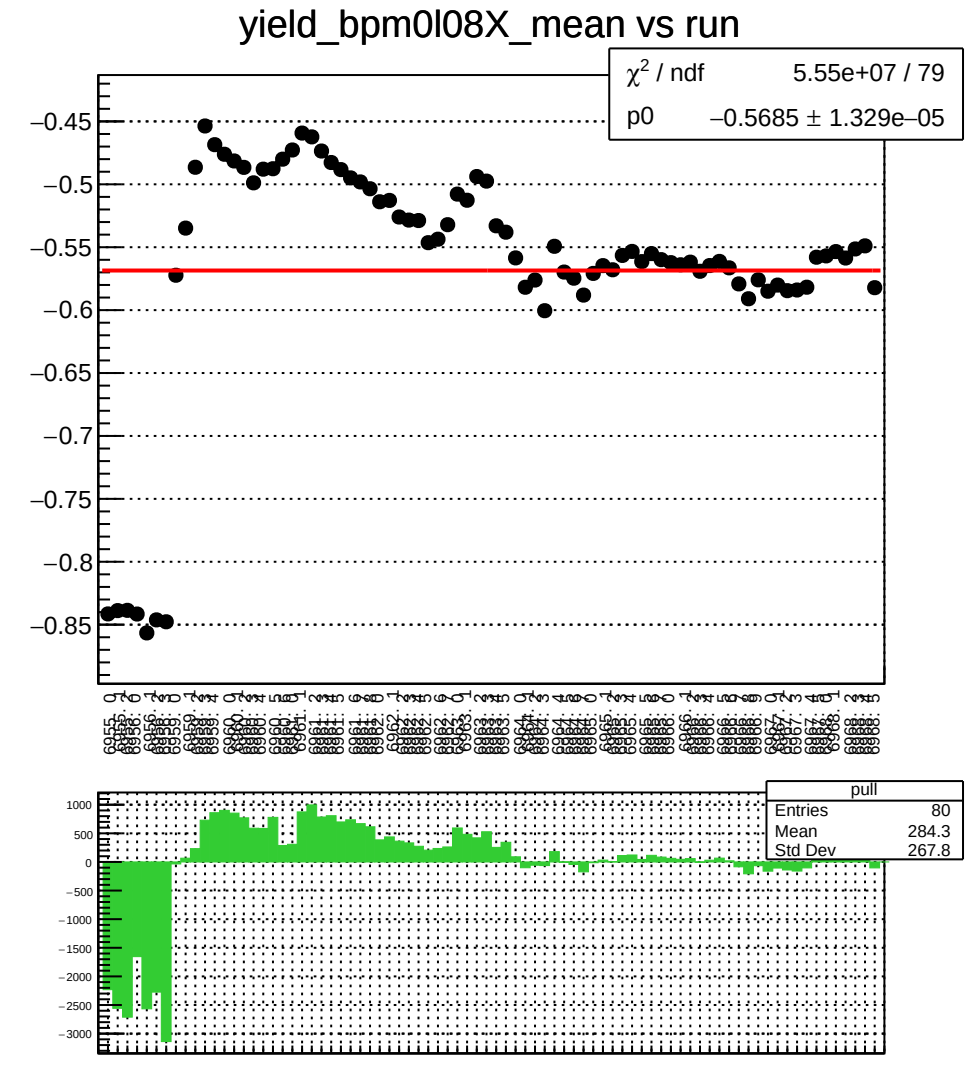

pull1D
Entries 80
Mean −3.957
Std Dev 1.143
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

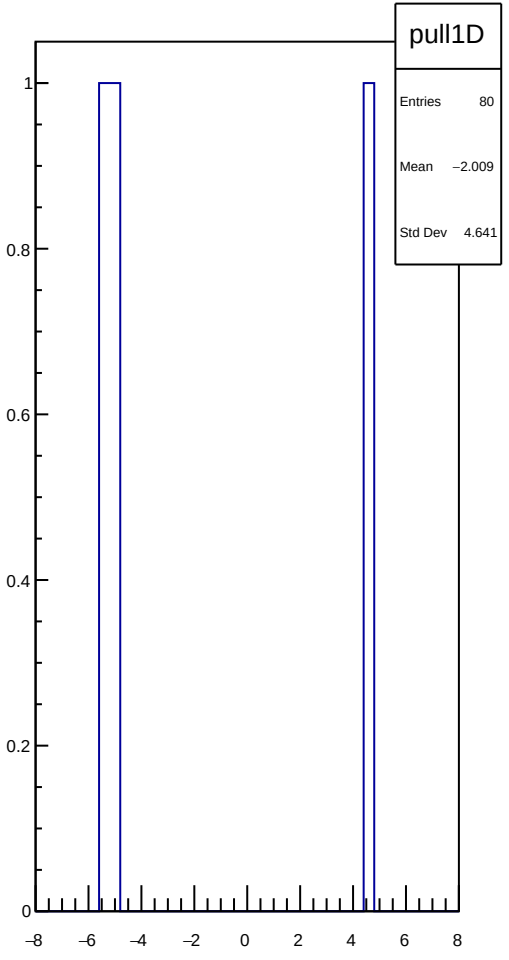

yield_bpm0l07X_rms vs run
χ² / ndf 8.397e+04 / 79
p0 0.01263 ± 1.038e−05
0.06
0.05
0.04
0.03
0.02
0.01

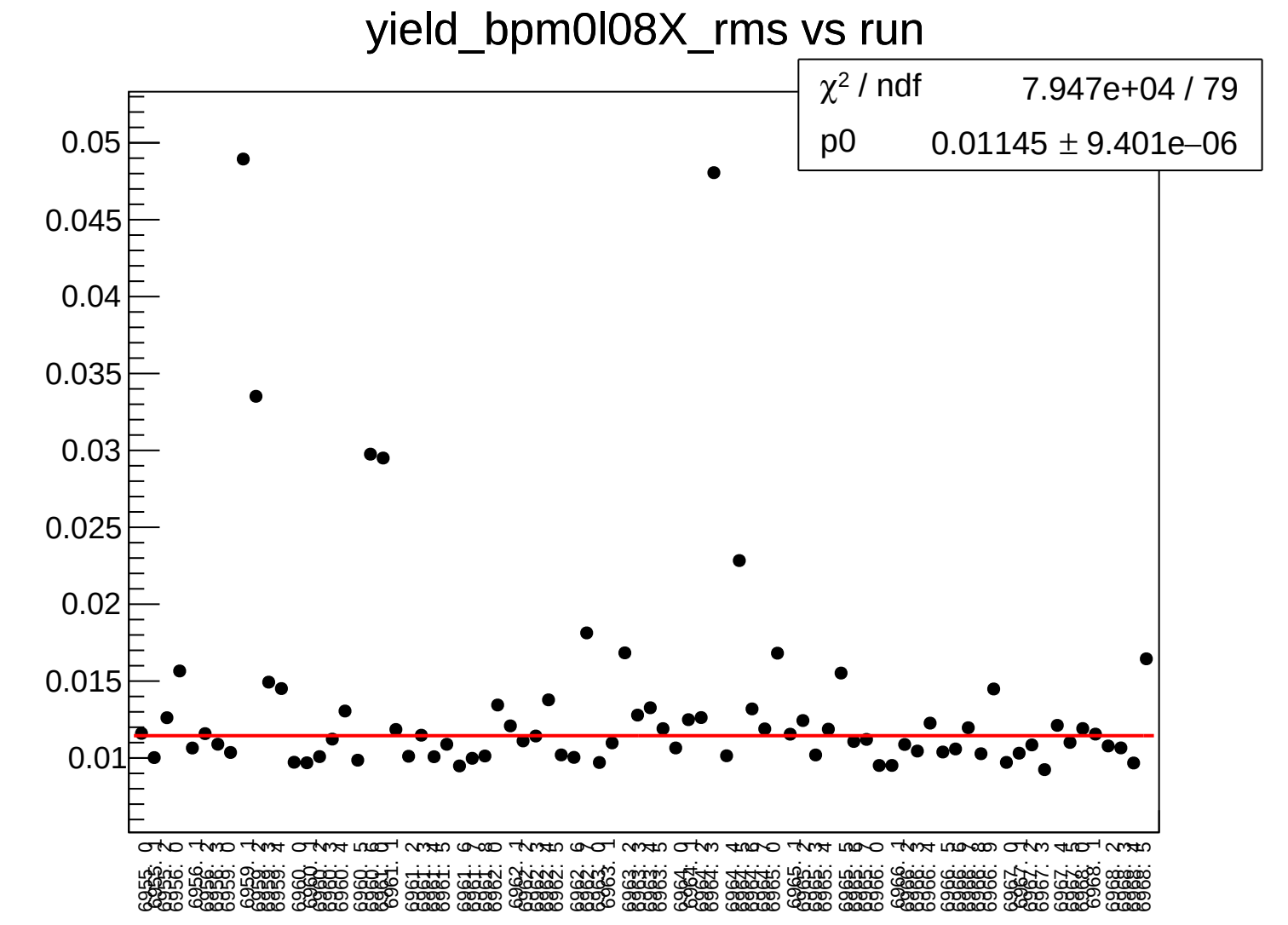

yield_bpm0l07Y_mean vs run
χ² / ndf 1.253e+07 / 79
p0 0.2287 ± 2.83e−06
0.255
0.25
0.245
0.24
0.235
0.23
0.225
0.22
0.215
0.21
pull
Entries 80
Mean 66.19
Std Dev 53.57
1500
1000
500
0
−500

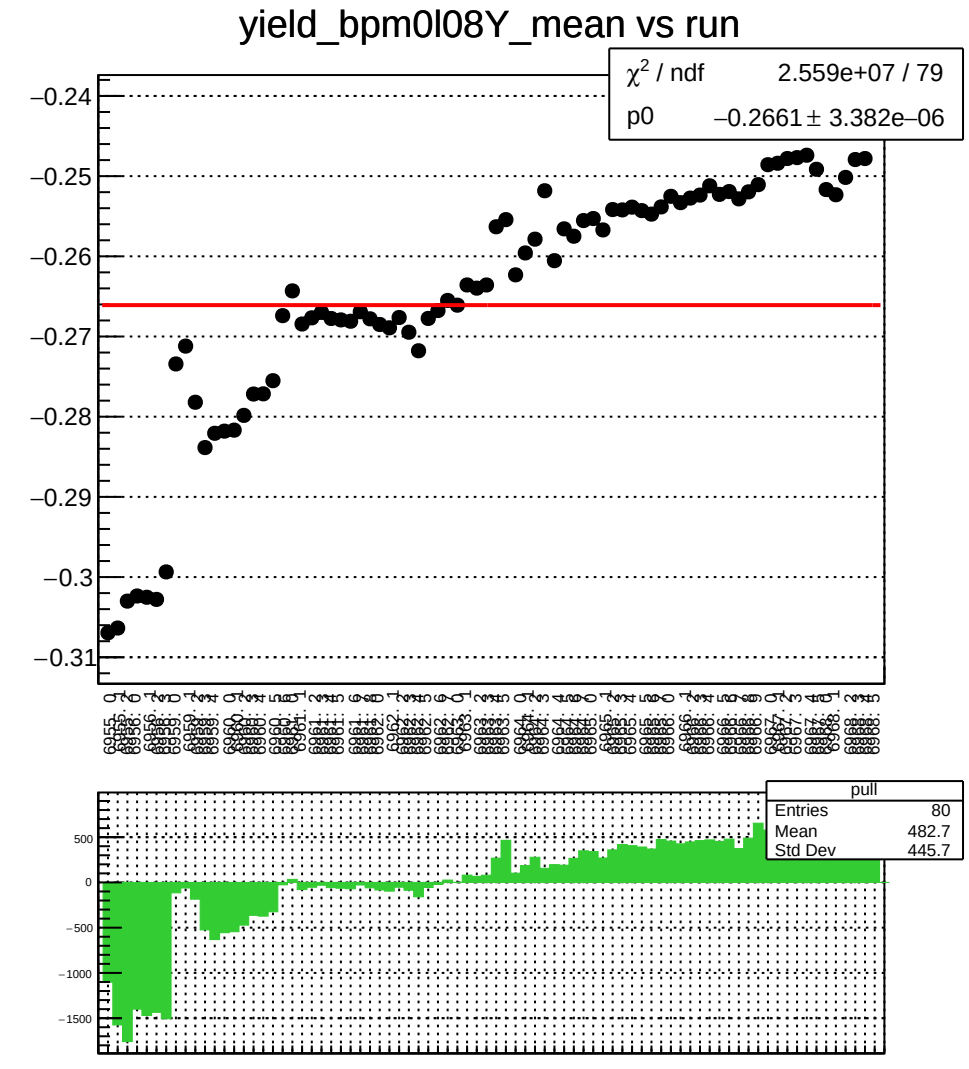

pull1D
Entries 80
Mean −0.3788
Std Dev 3.986
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

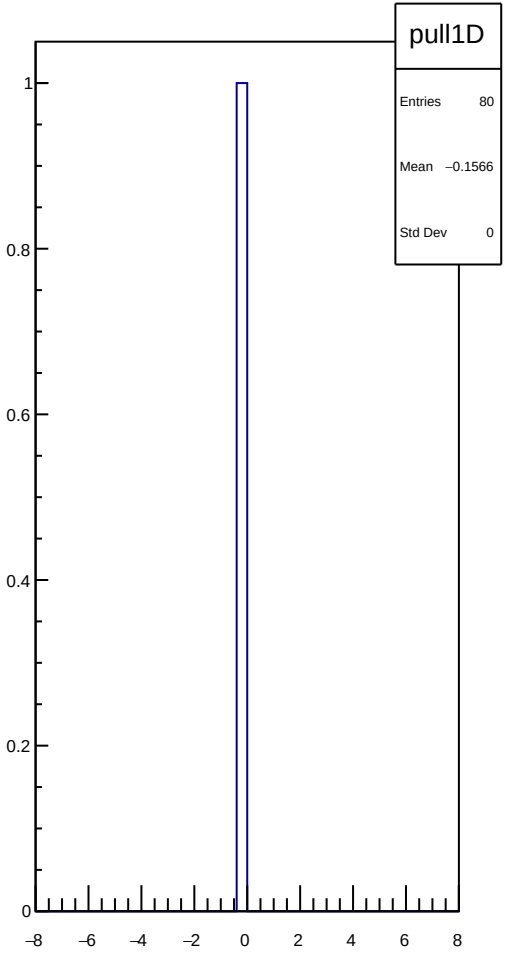

yield_bpm0l07Y_rms vs run
χ² / ndf 1.545e+04 / 79
p0 0.00249 ± 2.001e–06
0.004
0.0035
0.003
0.0025
0.002

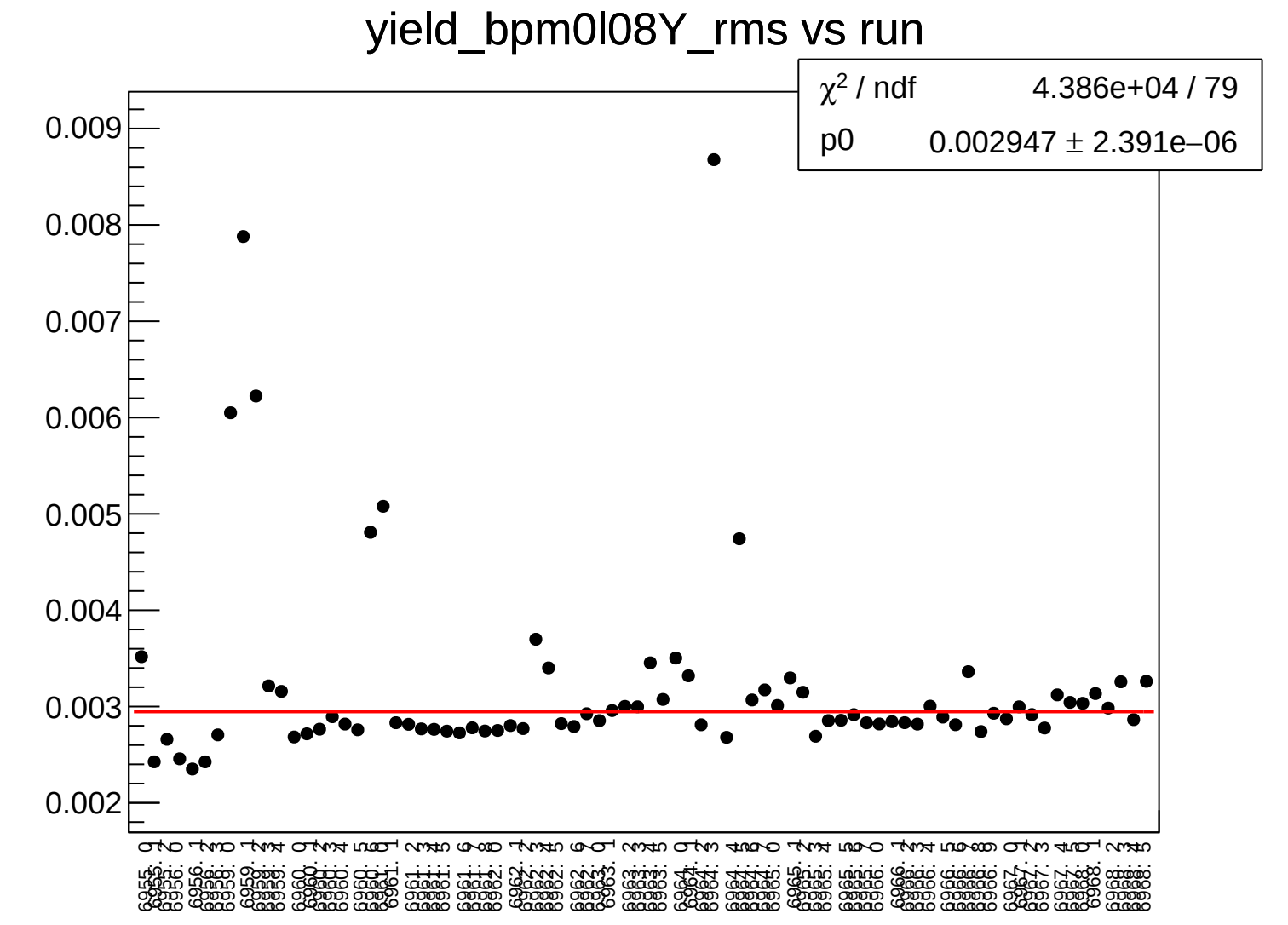

yield_bpm0l08X_mean vs run
χ² / ndf 5.55e+07 / 79
p0 −0.5685 ± 1.329e−05
−0.45
−0.5
−0.55
−0.6
−0.65
−0.7
−0.75
−0.8
−0.85
pull
Entries 80
Mean 284.3
Std Dev 267.8
1000
500
0
−500
−1000
−1500
−2000
−2500
−3000

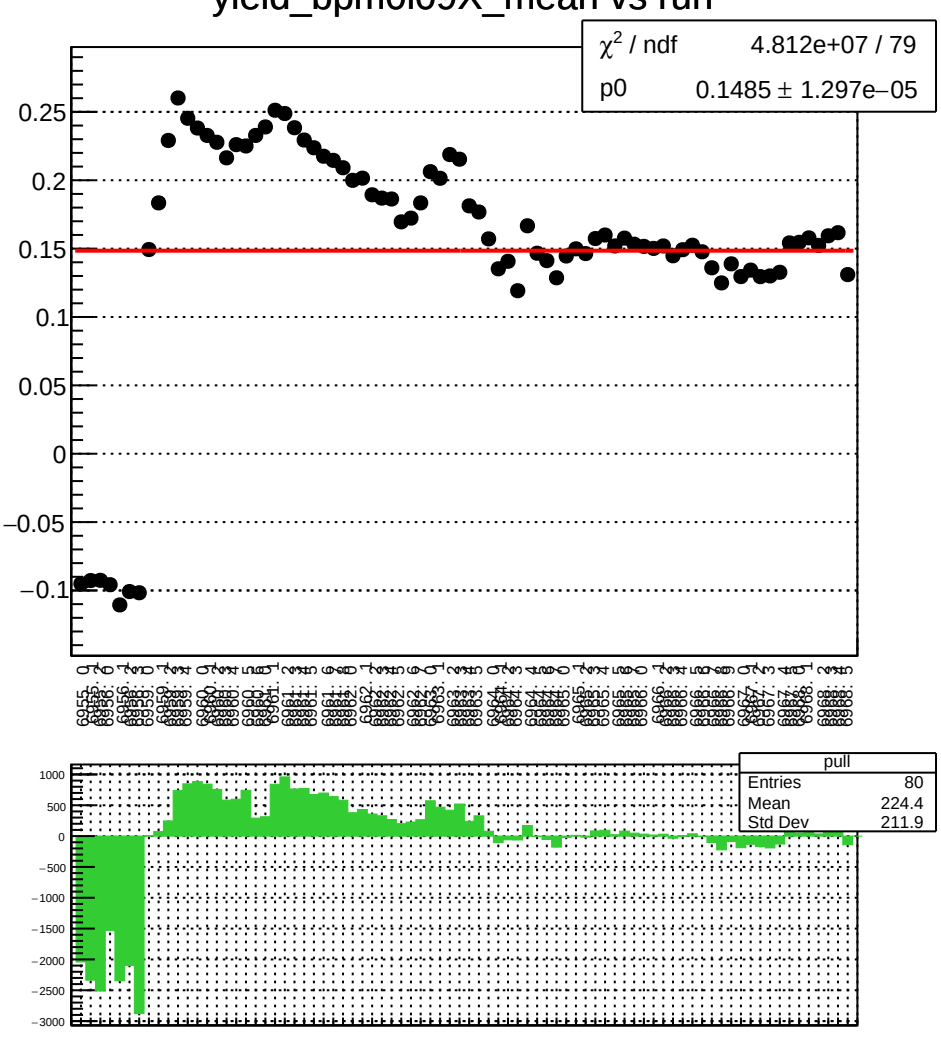

pull1D
Entries 80
Mean −2.009
Std Dev 4.641
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

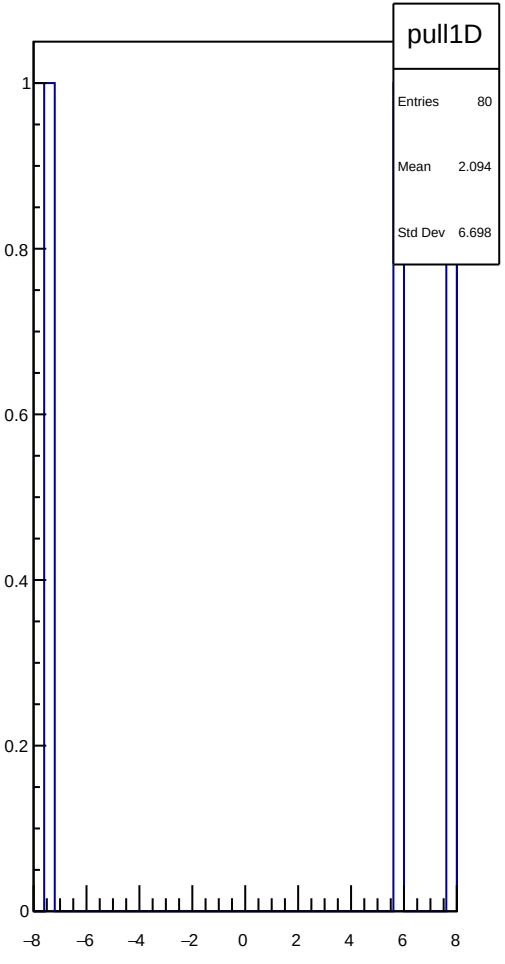

yield_bpm0l08X_rms vs run
χ² / ndf 7.947e+04 / 79
p0 0.01145 ± 9.401e–06
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

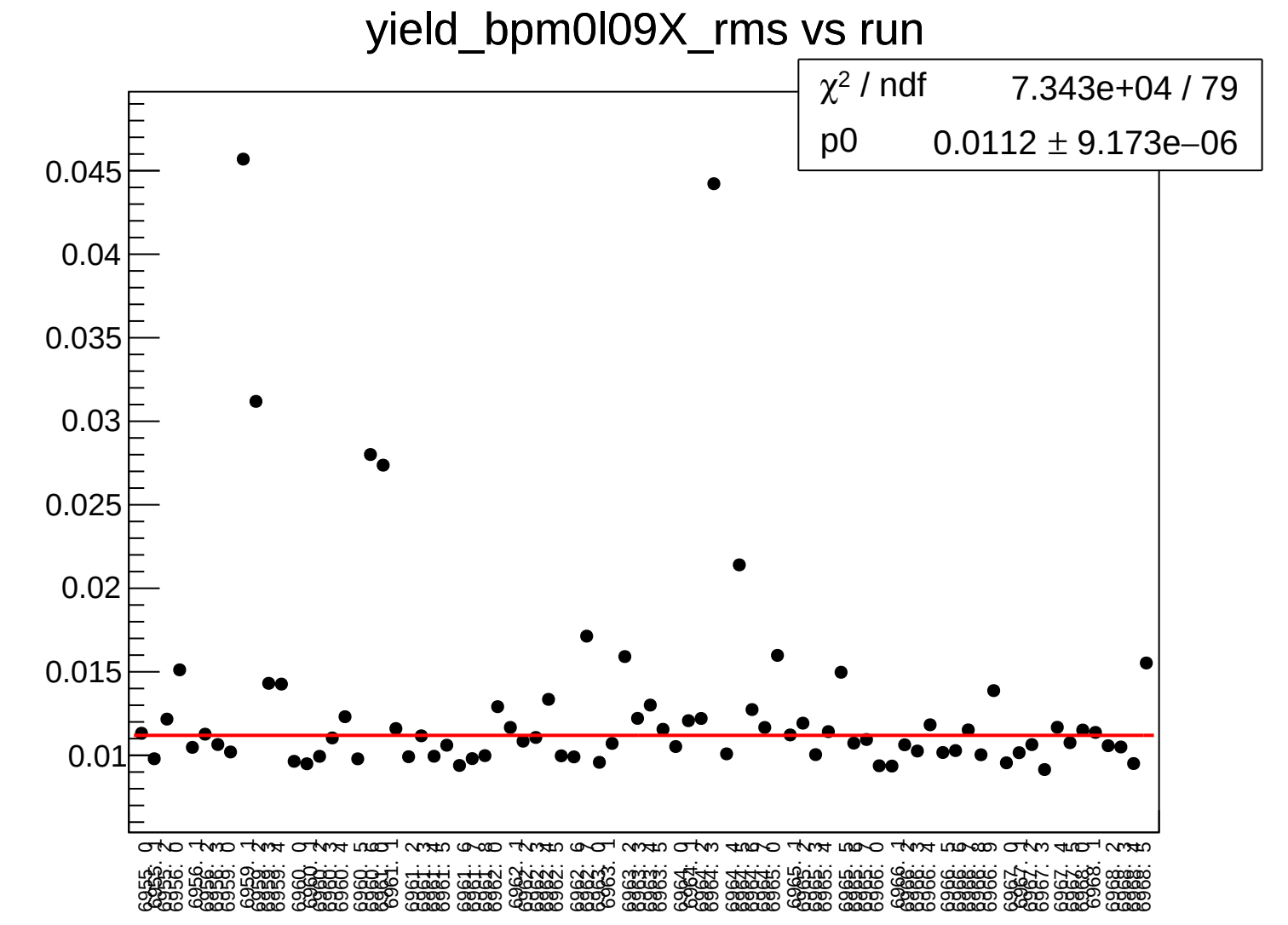

yield_bpm0l08Y_mean vs run
χ² / ndf 2.559e+07 / 79
p0 −0.2661 ± 3.382e−06
−0.24
−0.25
−0.26
−0.27
−0.28
−0.29
−0.3
−0.31
pull
Entries 80
Mean 482.7
Std Dev 445.7
500
0
−500
−1000
−1500

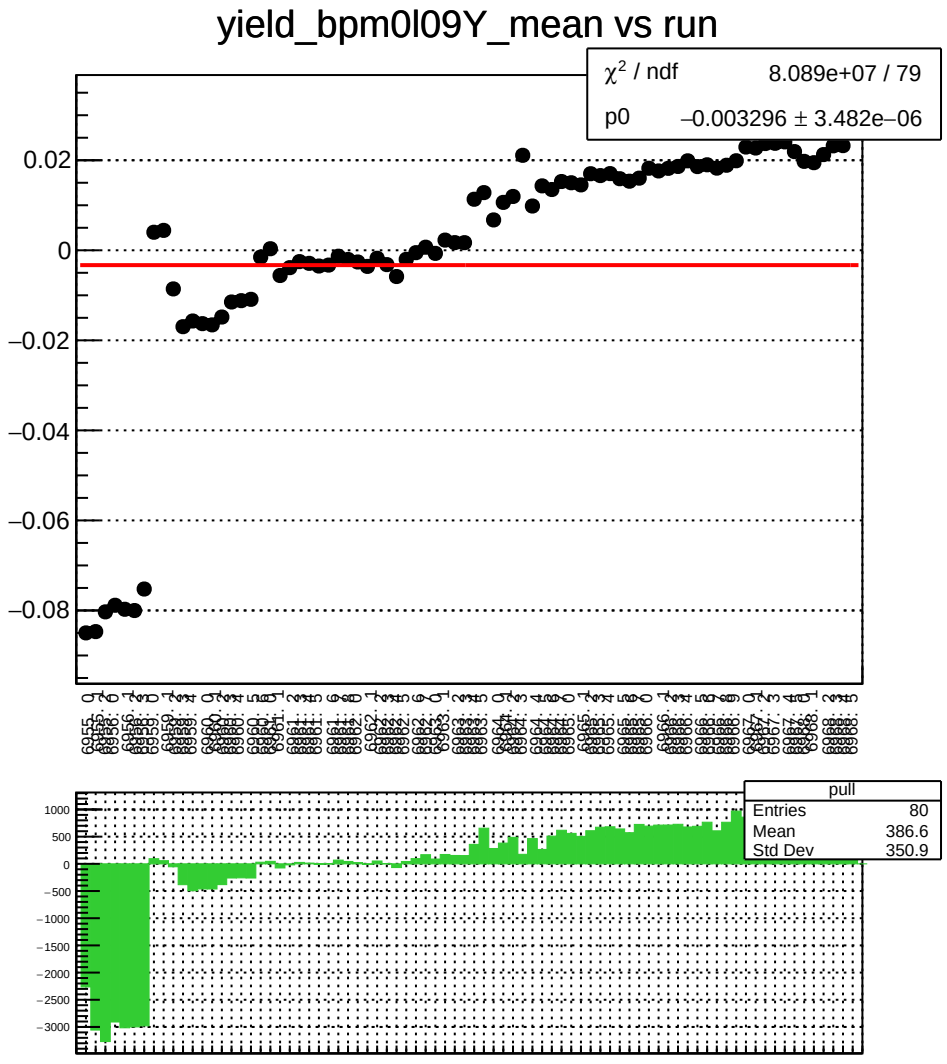

pull1D
Entries 80
Mean −0.1566
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

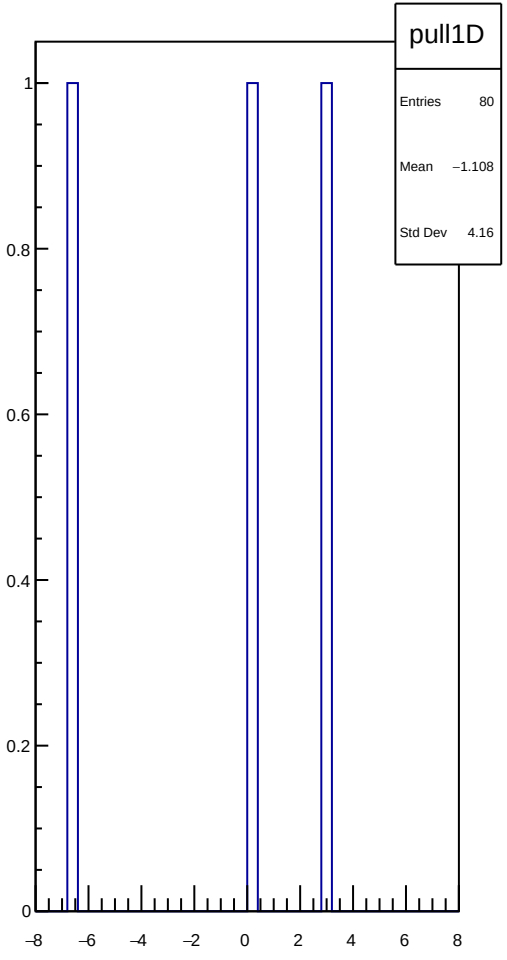

yield_bpm0l08Y_rms vs run
χ^2 / ndf 4.386e+04 / 79
p0 0.002947 ± 2.391e−06
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002

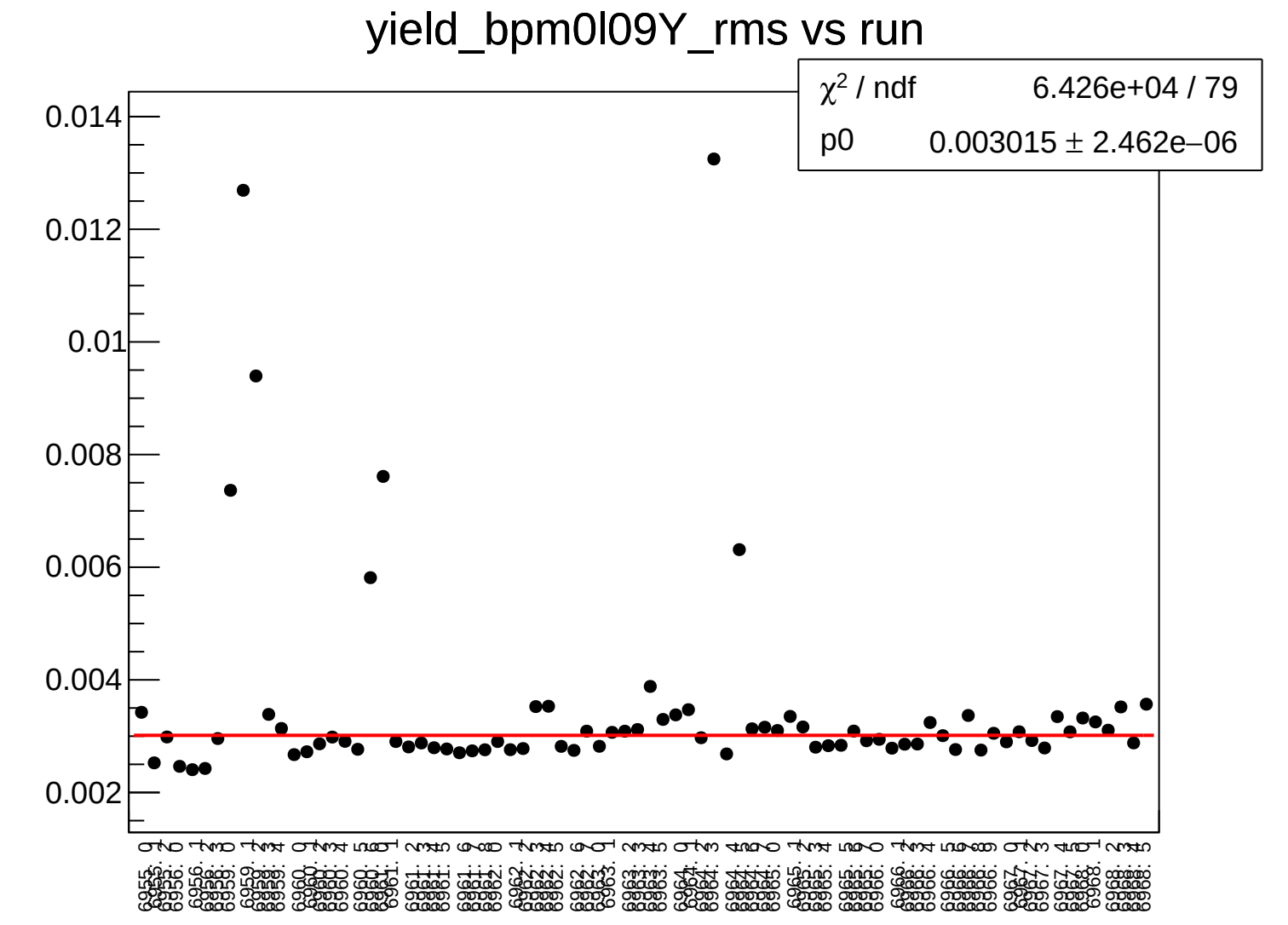

yield_bpm0l09X_mean vs run
χ² / ndf 4.812e+07 / 79
p0 0.1485 ± 1.297e−05
pull
Entries 80
Mean 224.4
Std Dev 211.9

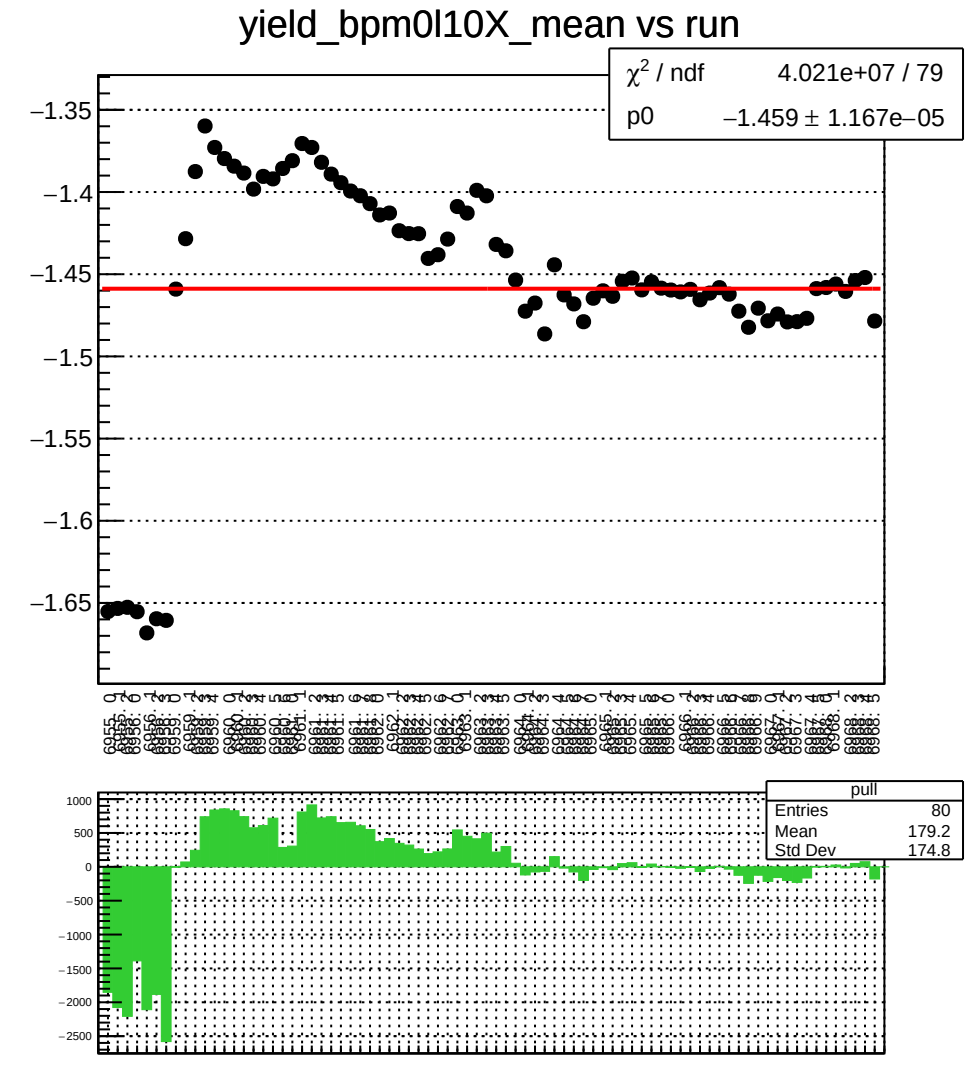

pull1D
Entries 80
Mean 2.094
Std Dev 6.698

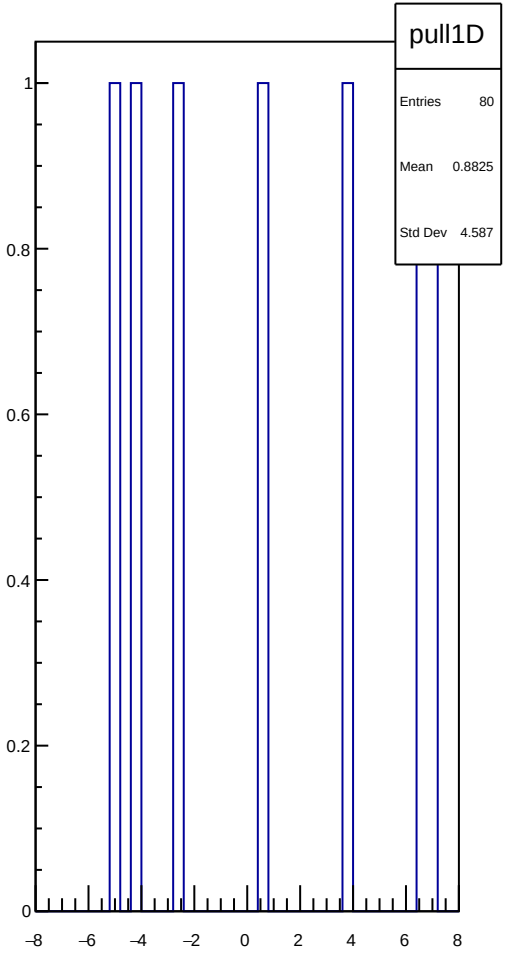

yield_bpm0l09X_rms vs run
χ² / ndf 7.343e+04 / 79
p0 0.0112 ± 9.173e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

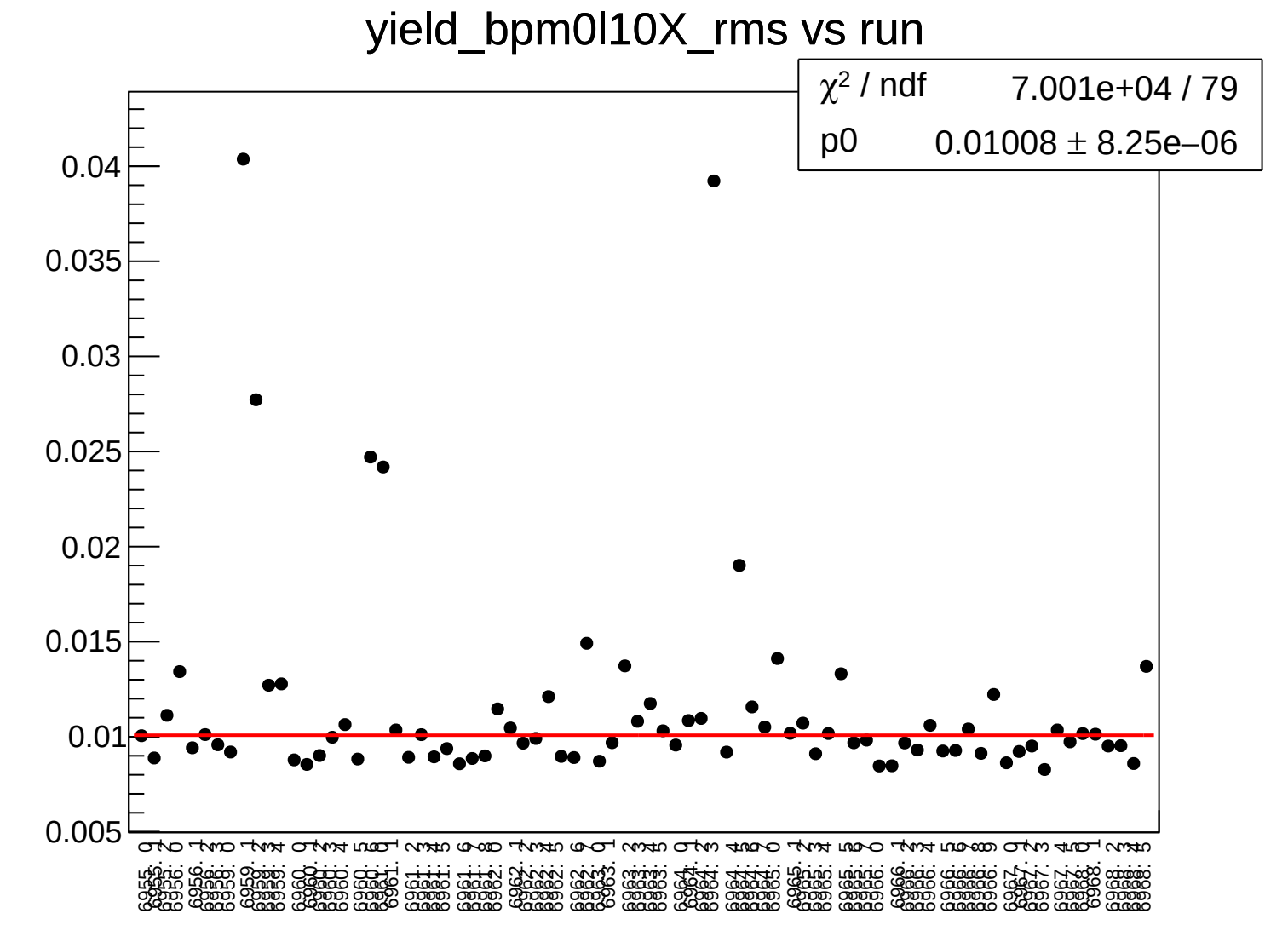

yield_bpm0l09Y_mean vs run
χ² / ndf 8.089e+07 / 79
p0 −0.003296 ± 3.482e−06
0.02
0
−0.02
−0.04
−0.06
−0.08
pull
Entries 80
Mean 386.6
Std Dev 350.9
1000
500
0
−500
−1000
−1500
−2000
−2500
−3000

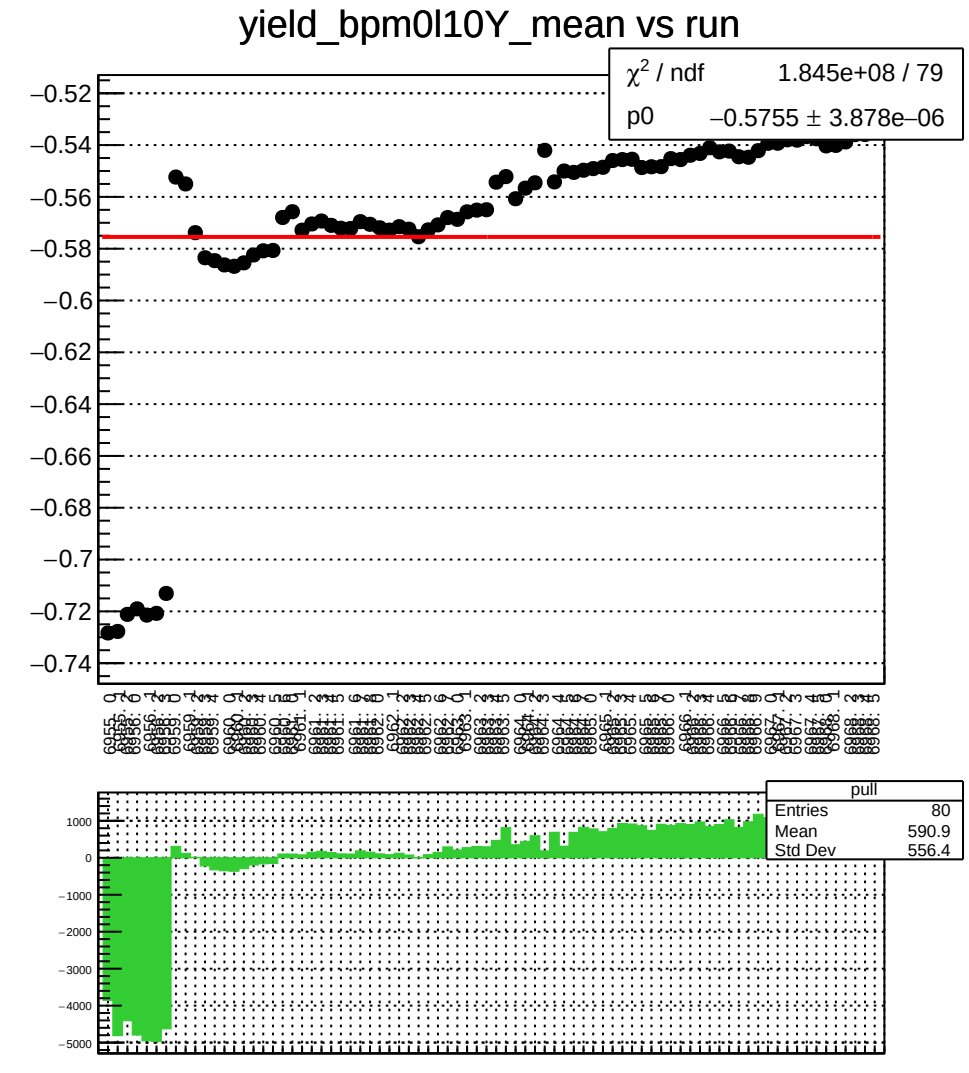

pull1D
Entries 80
Mean −1.108
Std Dev 4.16
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

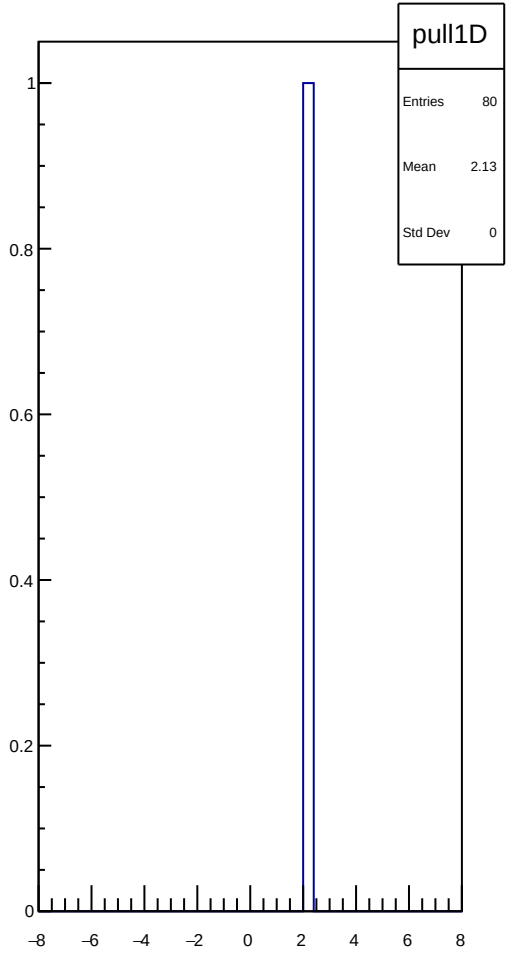

yield_bpm0l09Y_rms vs run
χ² / ndf 6.426e+04 / 79
p0 0.003015 ± 2.462e−06
0.014
0.012
0.01
0.008
0.006
0.004
0.002

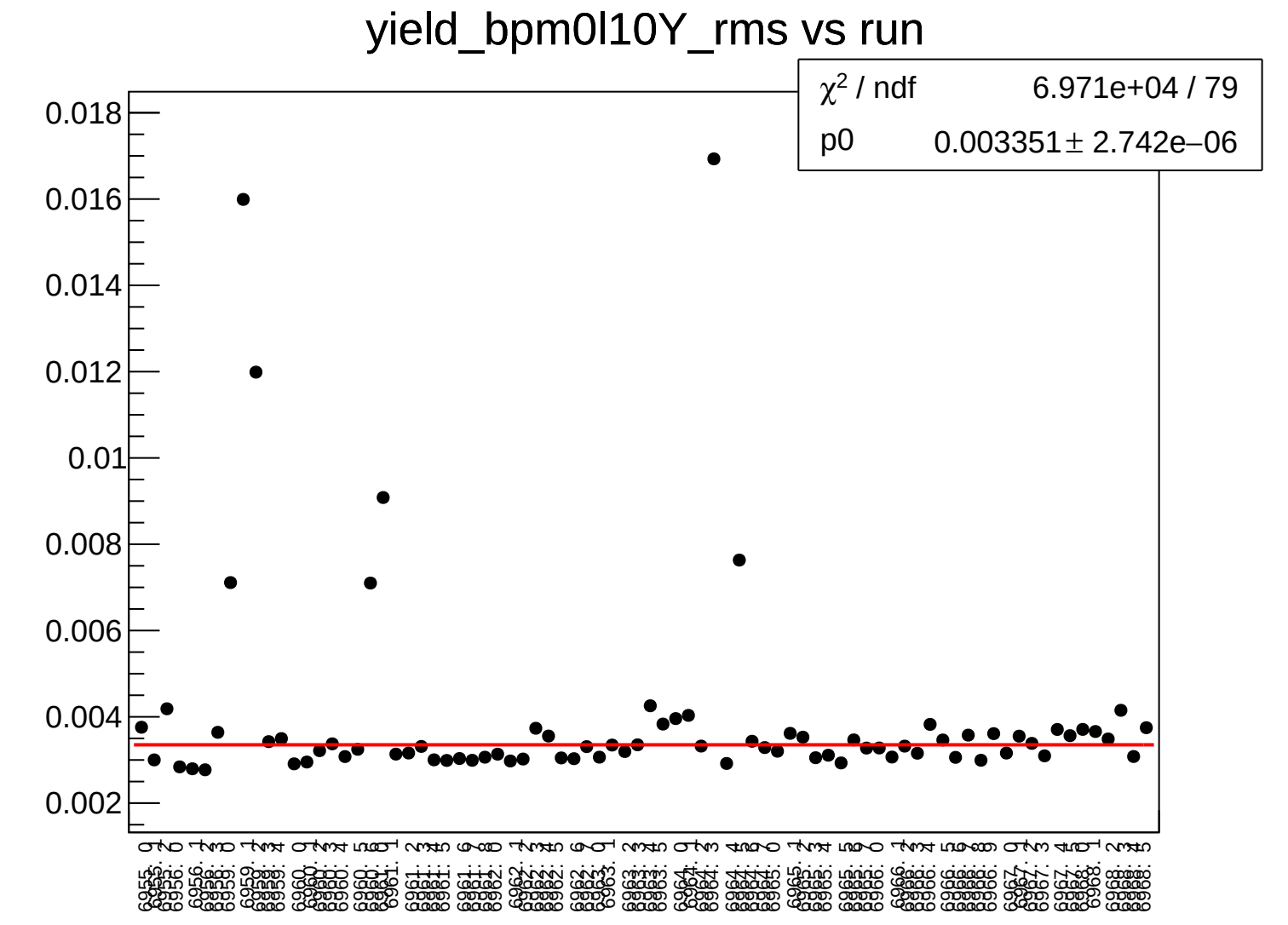

yield_bpm0l10X_mean vs run
χ² / ndf 4.021e+07 / 79
p0 −1.459 ± 1.167e−05
−1.35
−1.4
−1.45
−1.5
−1.55
−1.6
−1.65
pull
Entries 80
Mean 179.2
Std Dev 174.8
1000
500
0
−500
−1000
−1500
−2000
−2500

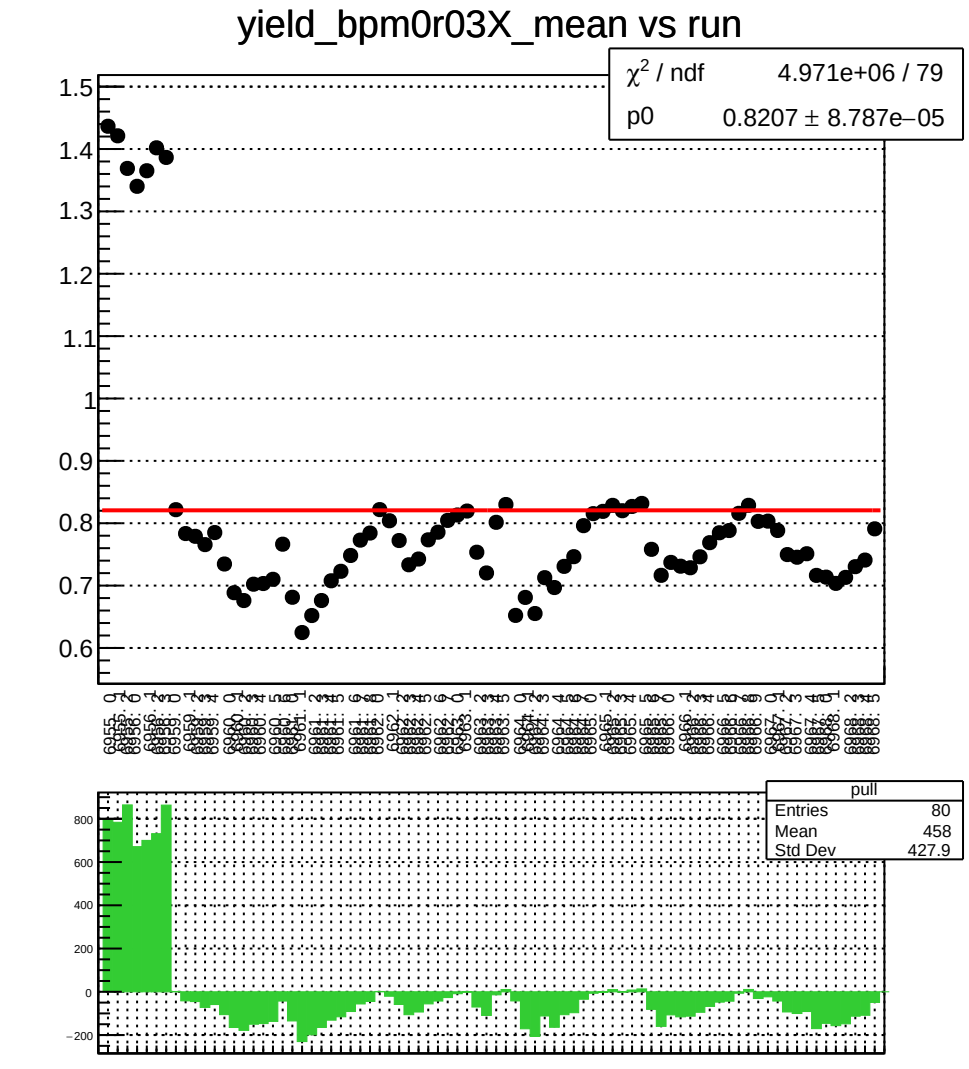

pull1D
Entries 80
Mean 0.8825
Std Dev 4.587
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

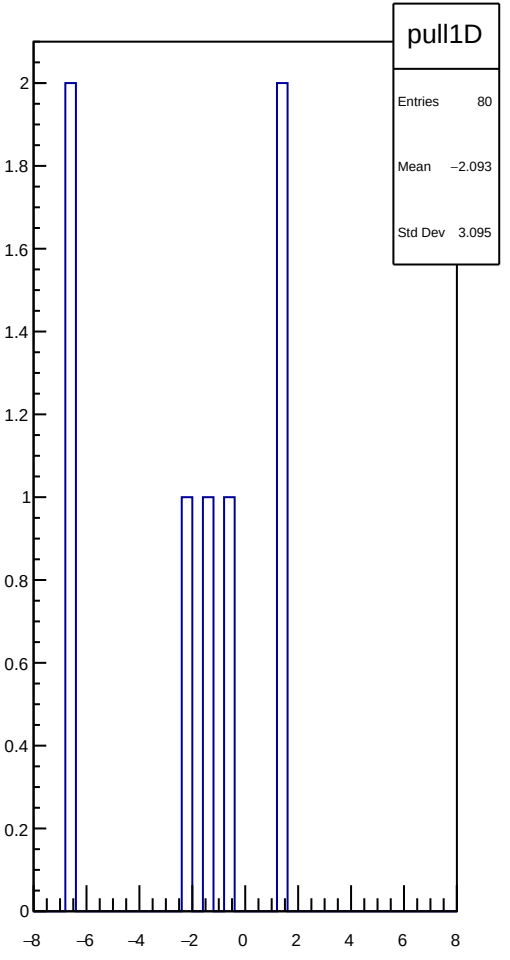

yield_bpm0l10X_rms vs run
χ² / ndf 7.001e+04 / 79
p0 0.01008 ± 8.25e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

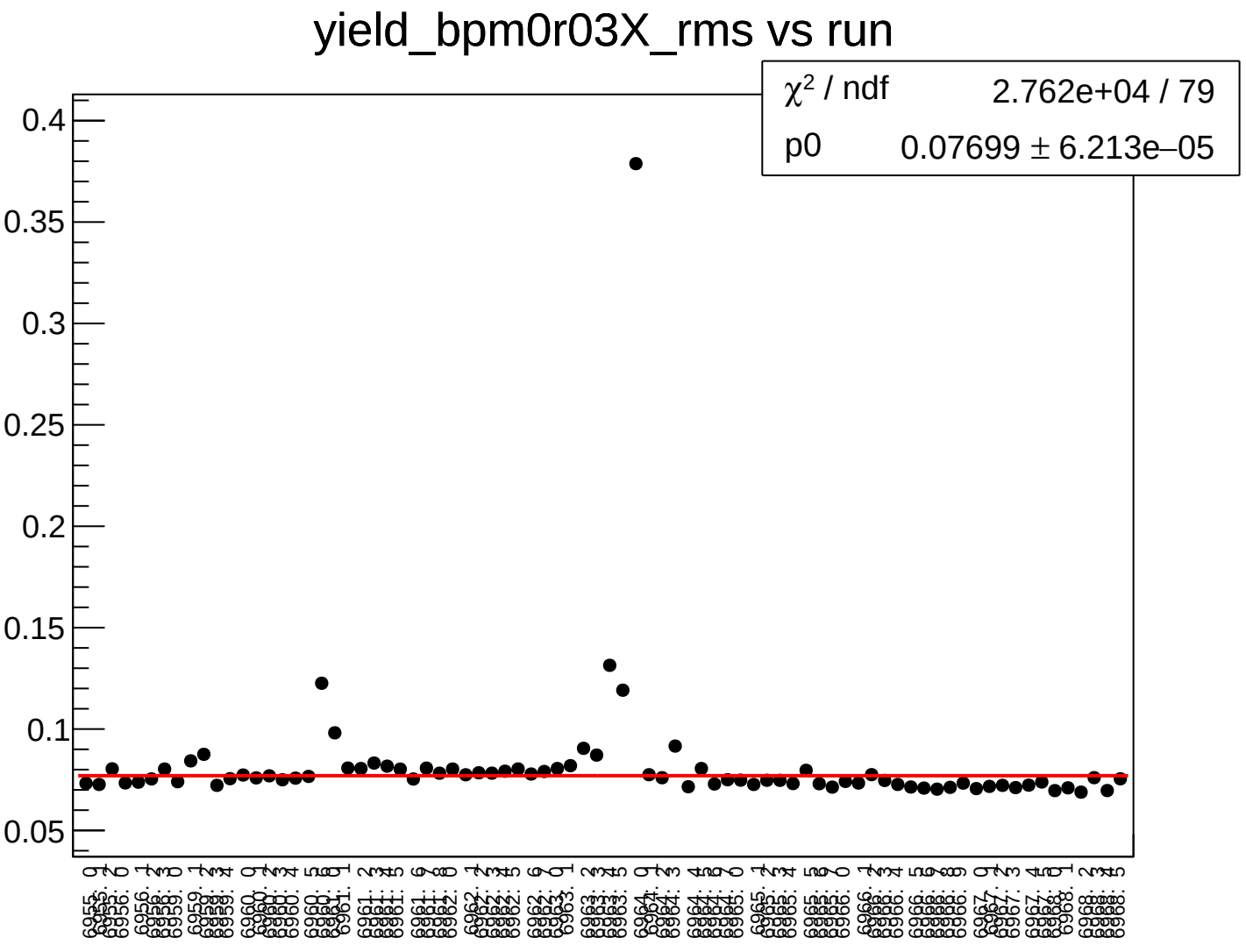

yield_bpm0l10Y_mean vs run
χ² / ndf 1.845e+08 / 79
p0 −0.5755 ± 3.878e−06
pull
Entries 80
Mean 590.9
Std Dev 556.4

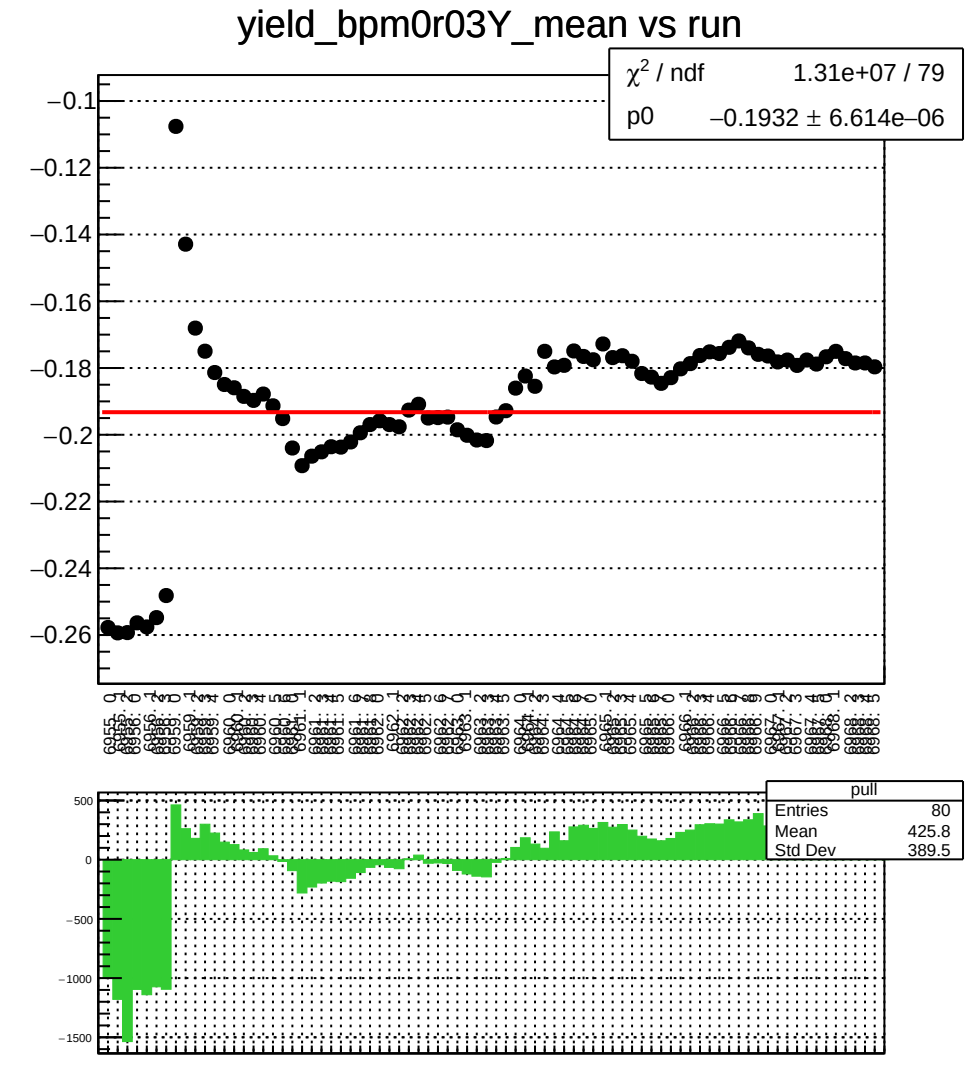

pull1D
Entries 80
Mean 2.13
Std Dev 0

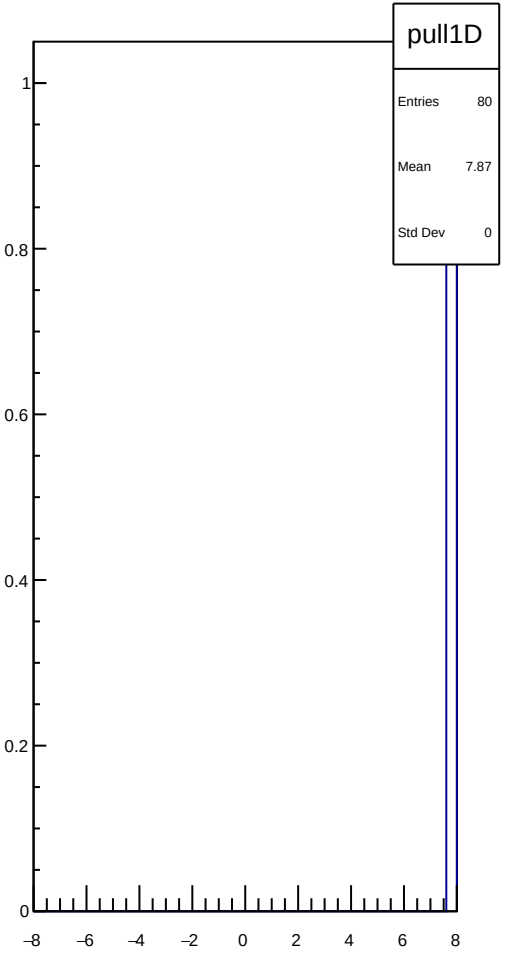

yield_bpm0l10Y_rms vs run
χ² / ndf 6.971e+04 / 79
p0 0.003351 ± 2.742e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

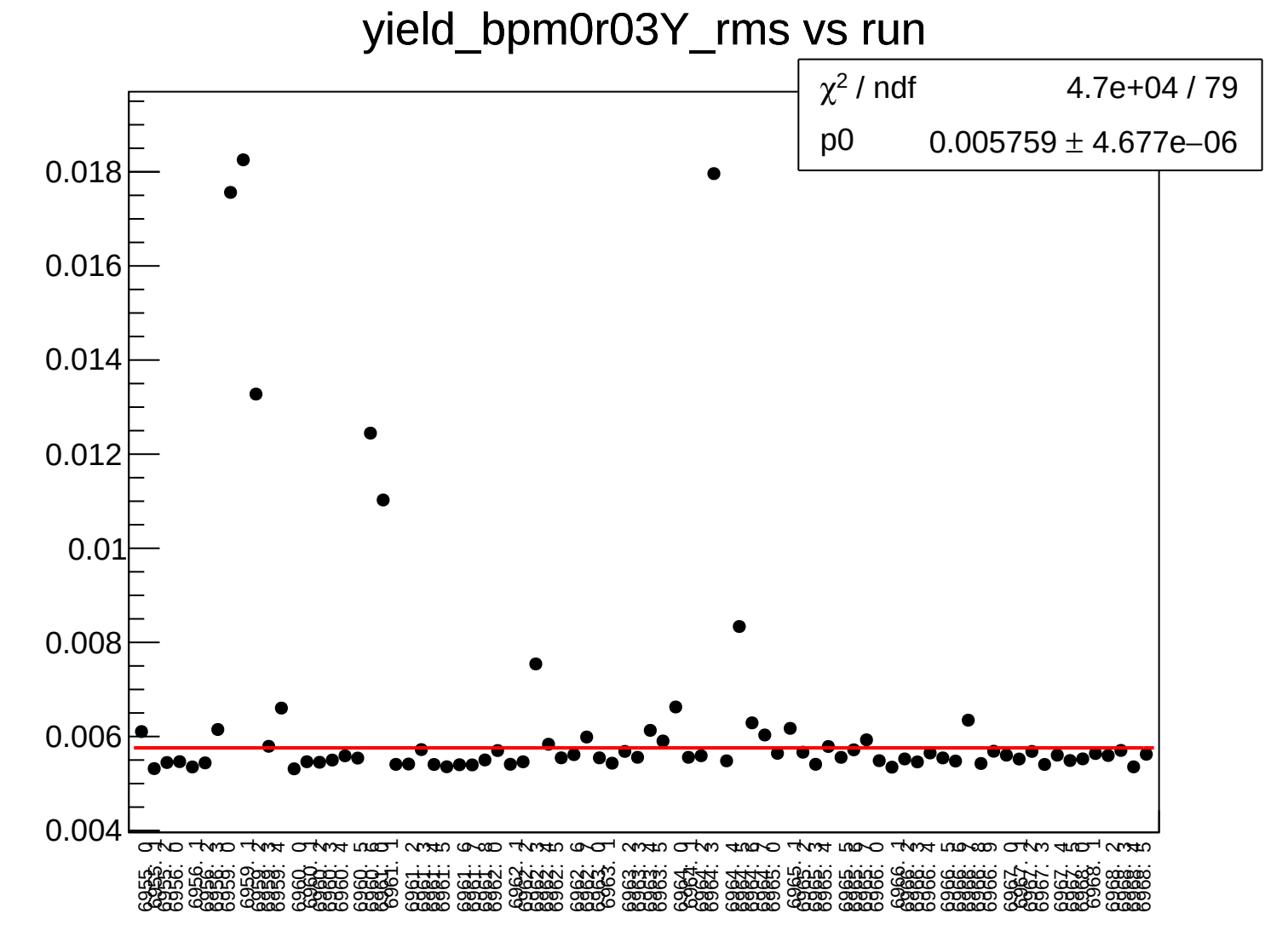

yield_bpm0r03X_mean vs run
χ² / ndf 4.971e+06 / 79
p0 0.8207 ± 8.787e−05
pull
Entries 80
Mean 458
Std Dev 427.9

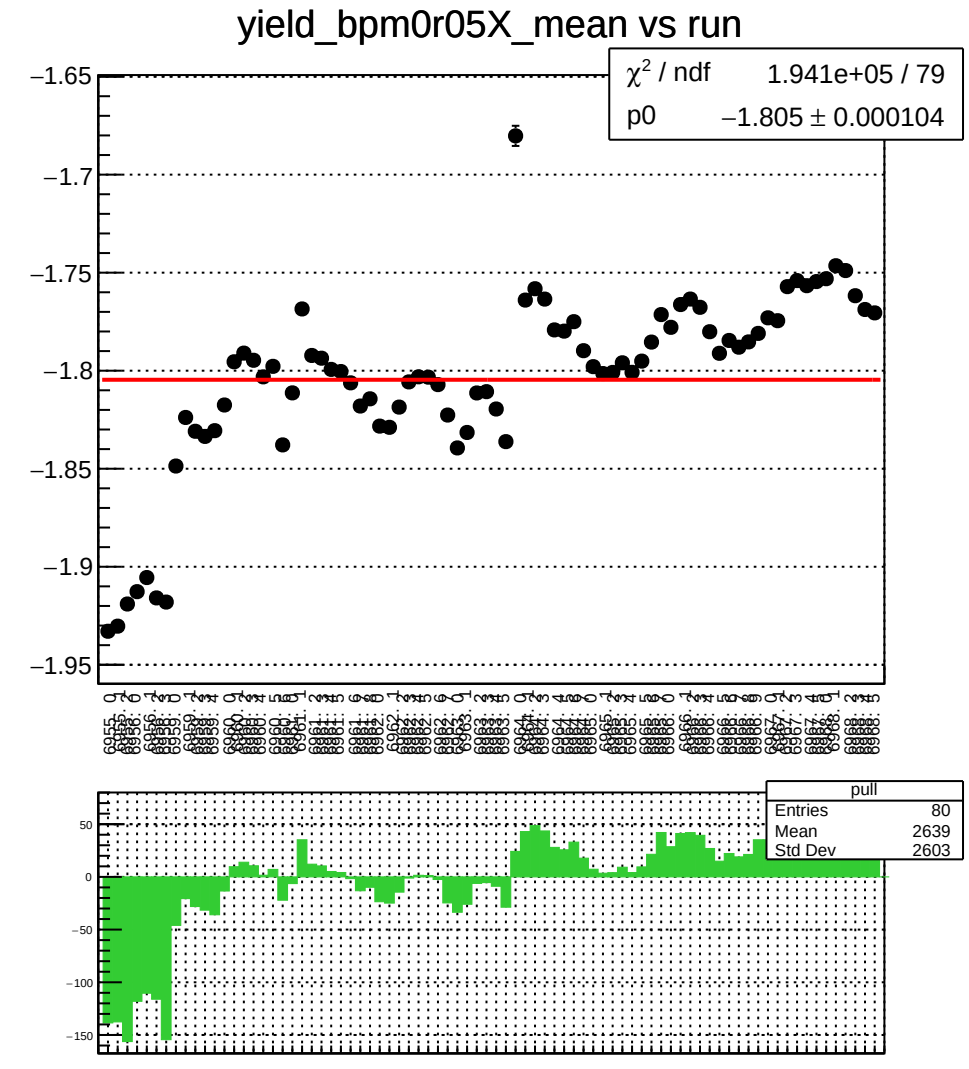

pull1D
Entries 80
Mean −2.093
Std Dev 3.095

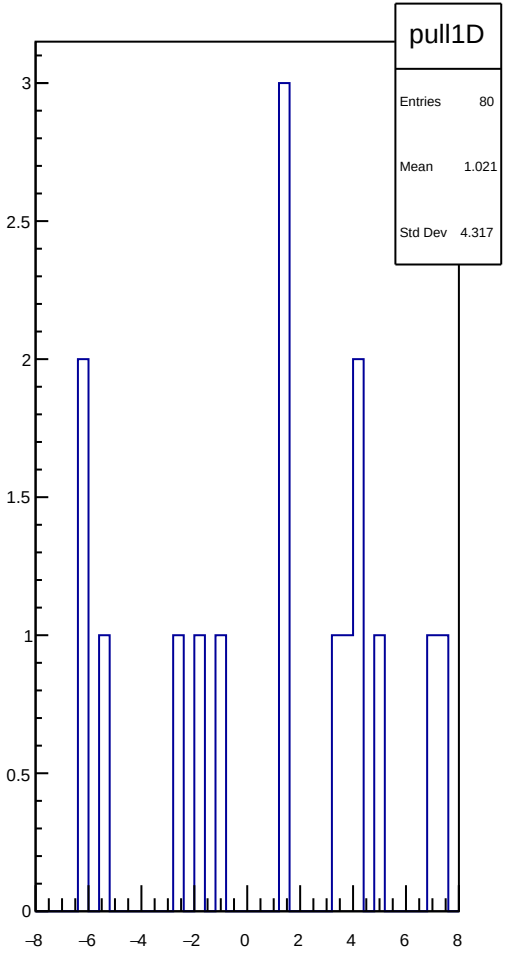

yield_bpm0r03X_rms vs run
χ² / ndf 2.762e+04 / 79
p0 0.07699 ± 6.213e–05
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

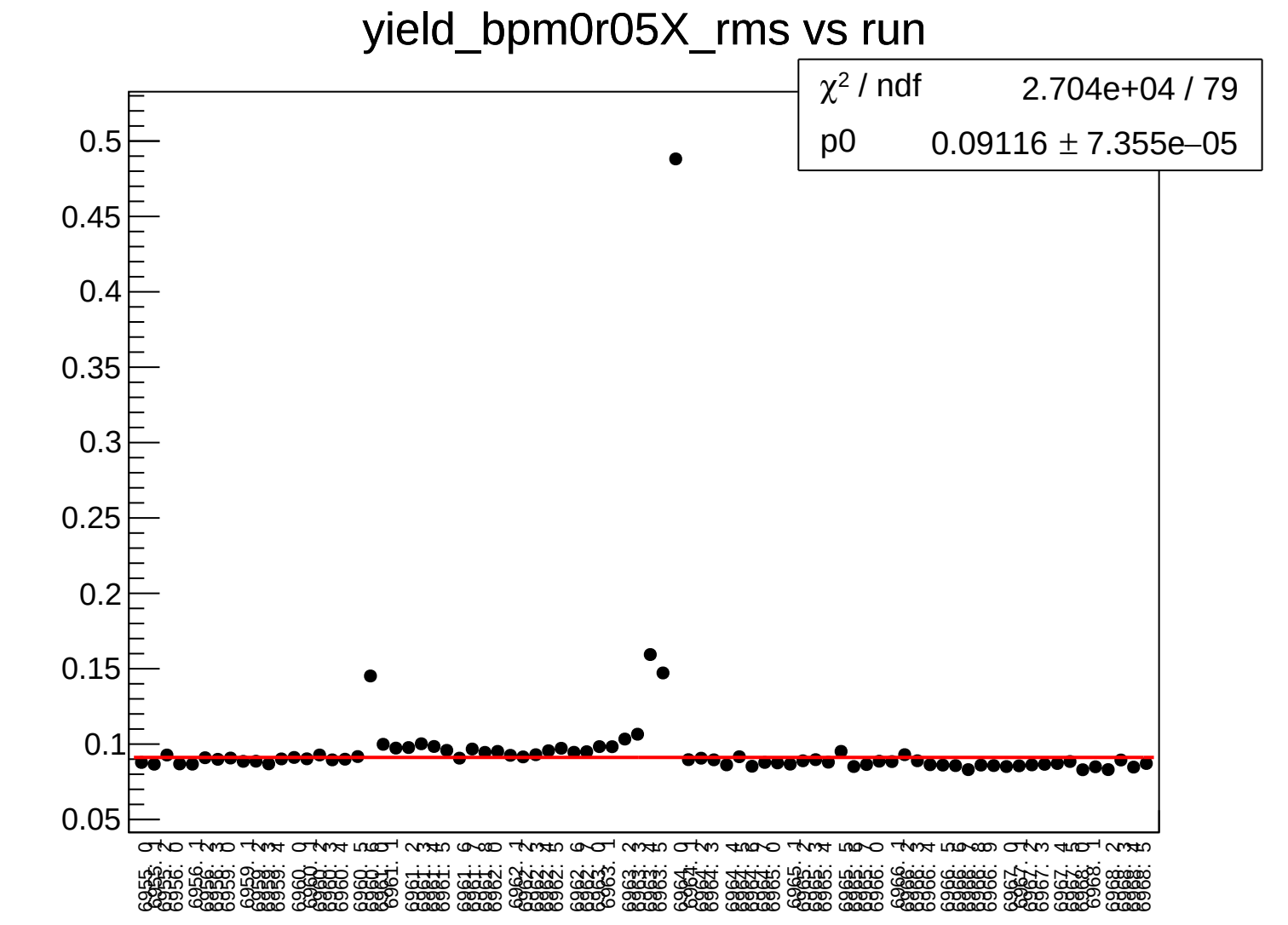

yield_bpm0r03Y_mean vs run
χ² / ndf 1.31e+07 / 79
p0 −0.1932 ± 6.614e−06
pull
Entries 80
Mean 425.8
Std Dev 389.5

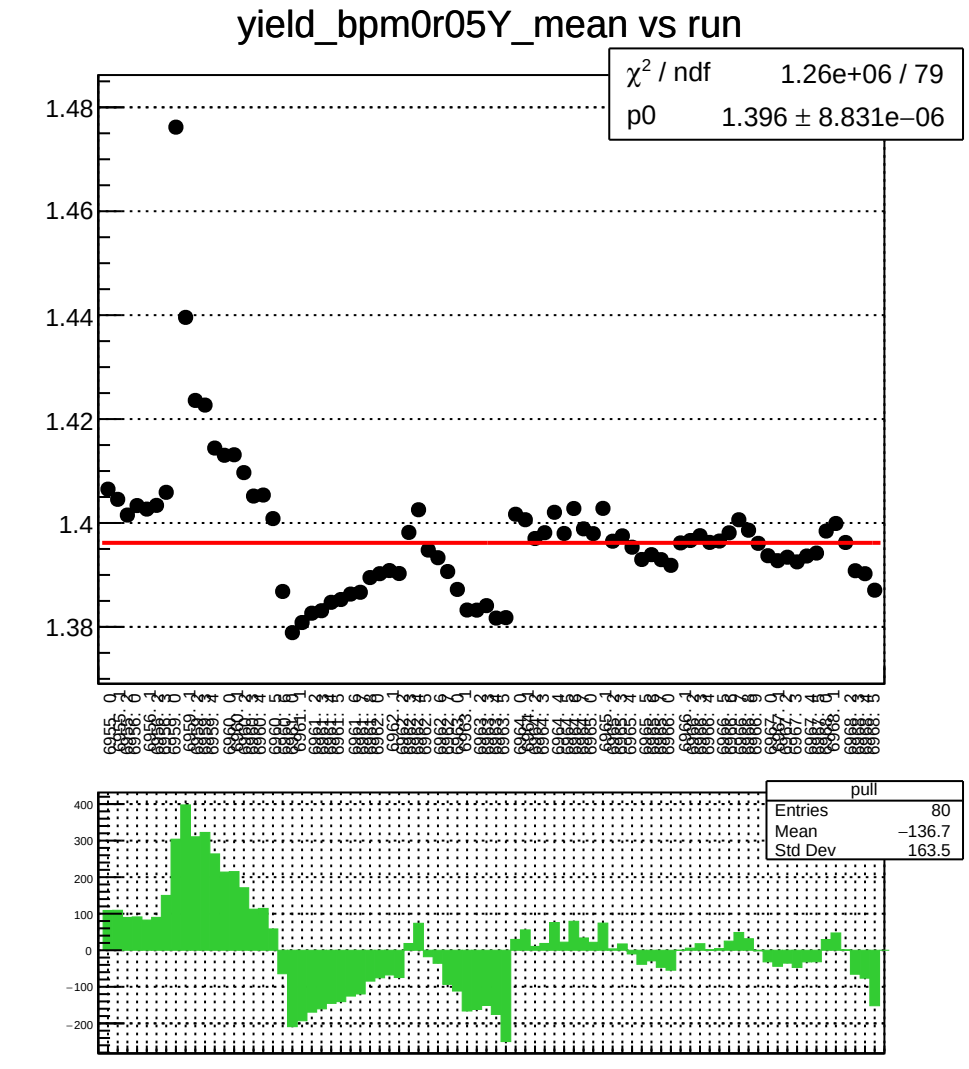

pull1D
Entries 80
Mean 7.87
Std Dev 0

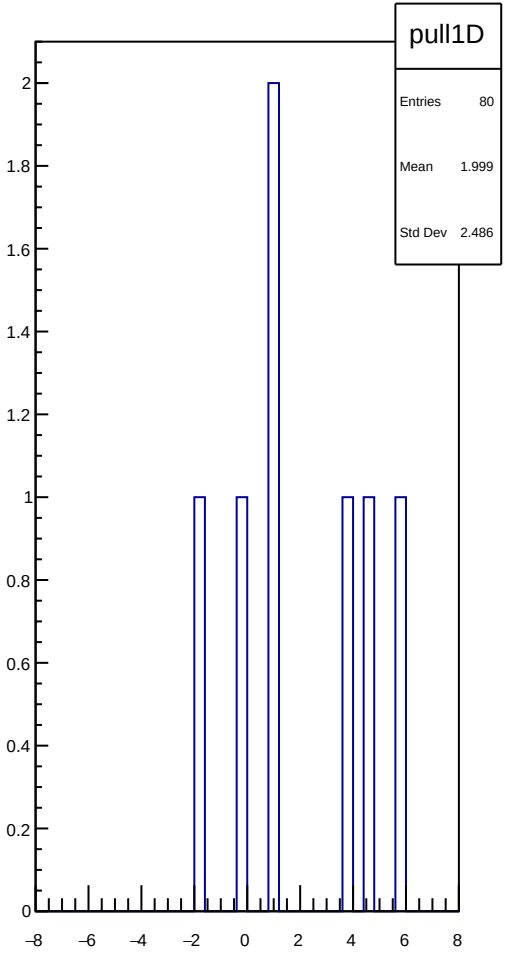

yield_bpm0r03Y_rms vs run
χ² / ndf 4.7e+04 / 79
p0 0.005759 ± 4.677e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004

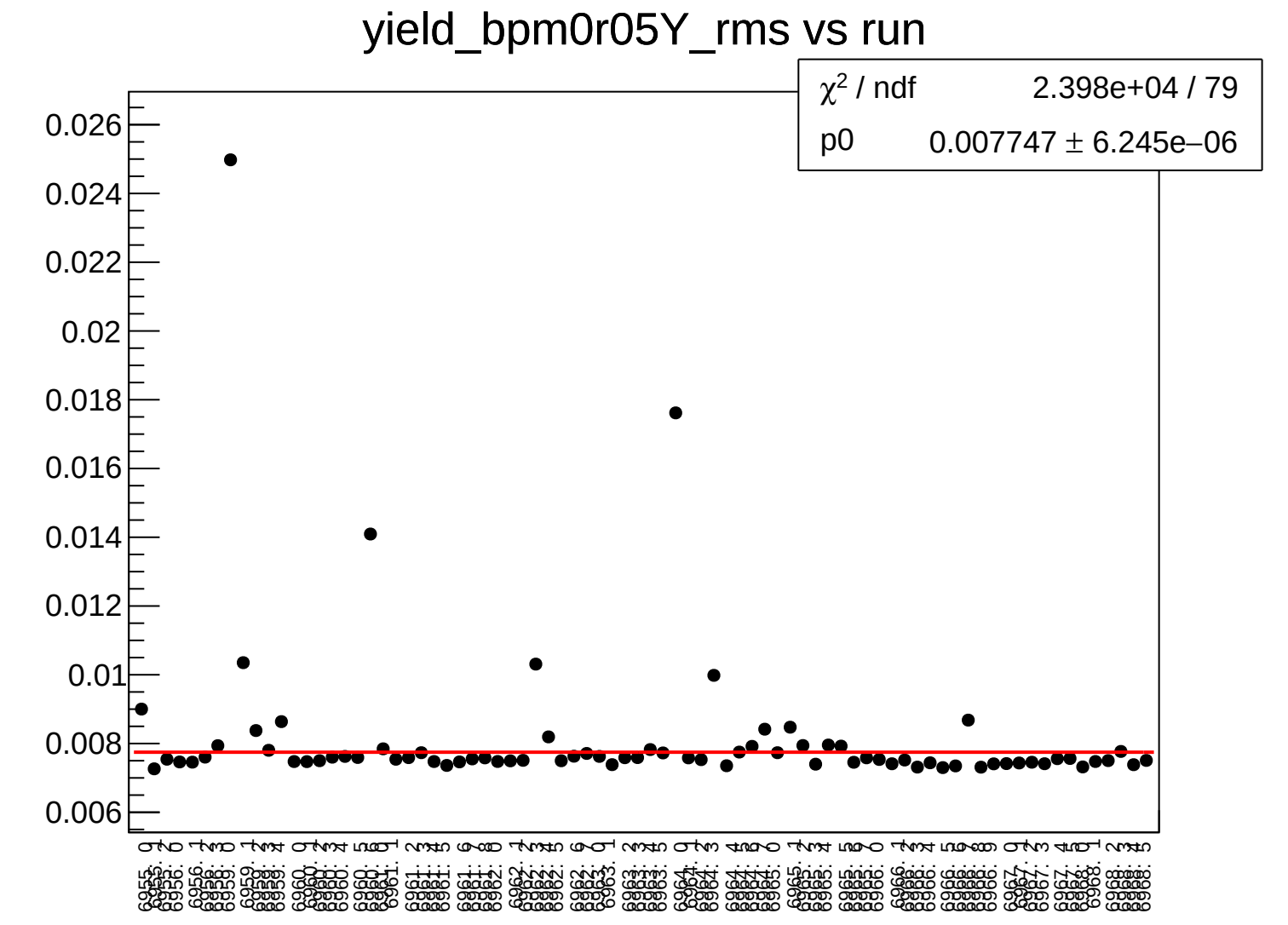

yield_bpm0r05X_mean vs run
χ² / ndf 1.941e+05 / 79
p0 −1.805 ± 0.000104
−1.65
−1.7
−1.75
−1.8
−1.85
−1.9
−1.95
pull
Entries 80
Mean 2639
Std Dev 2603
50
0
−50
−100
−150

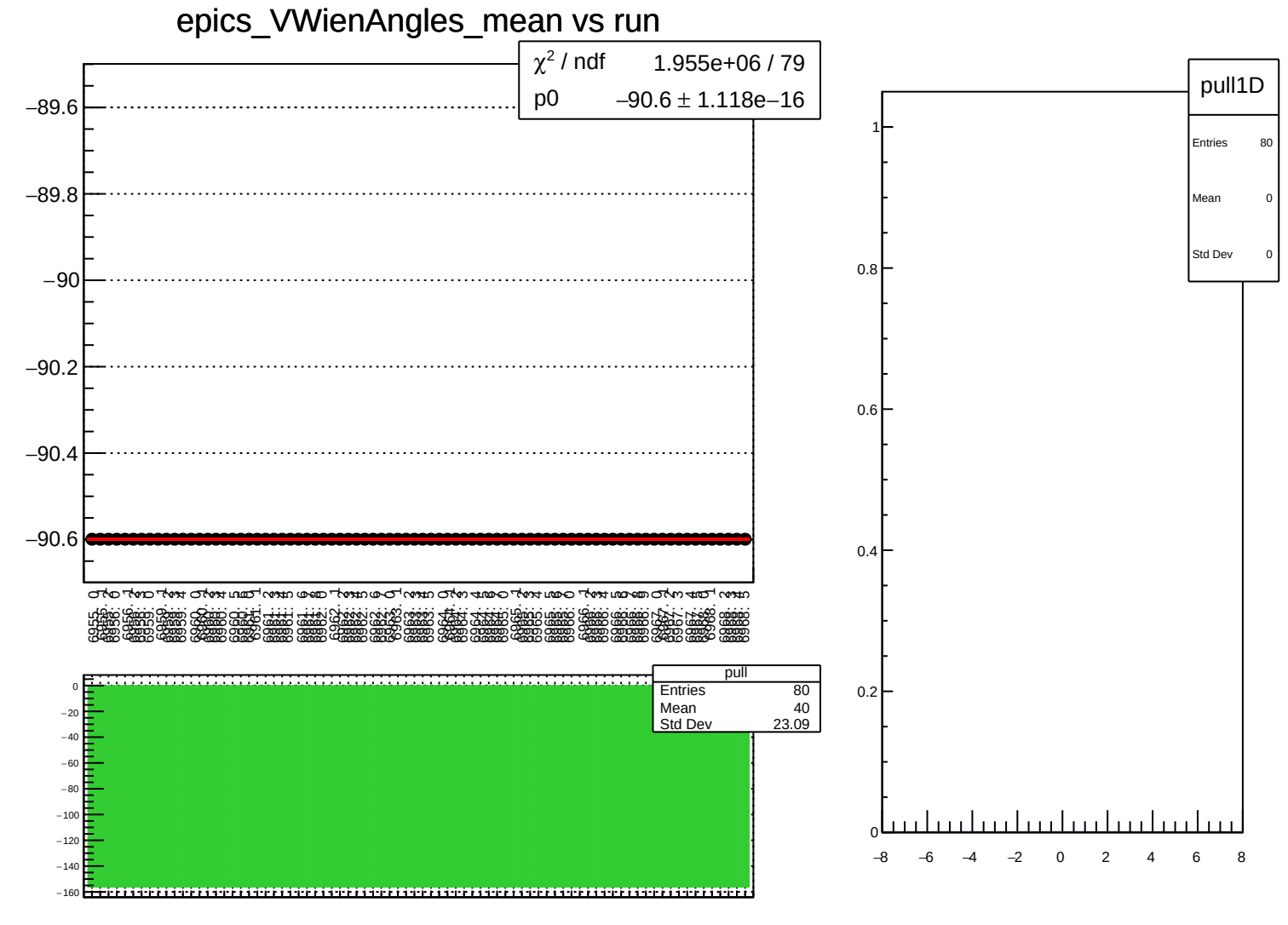

pull1D
Entries 80
Mean 1.021
Std Dev 4.317
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

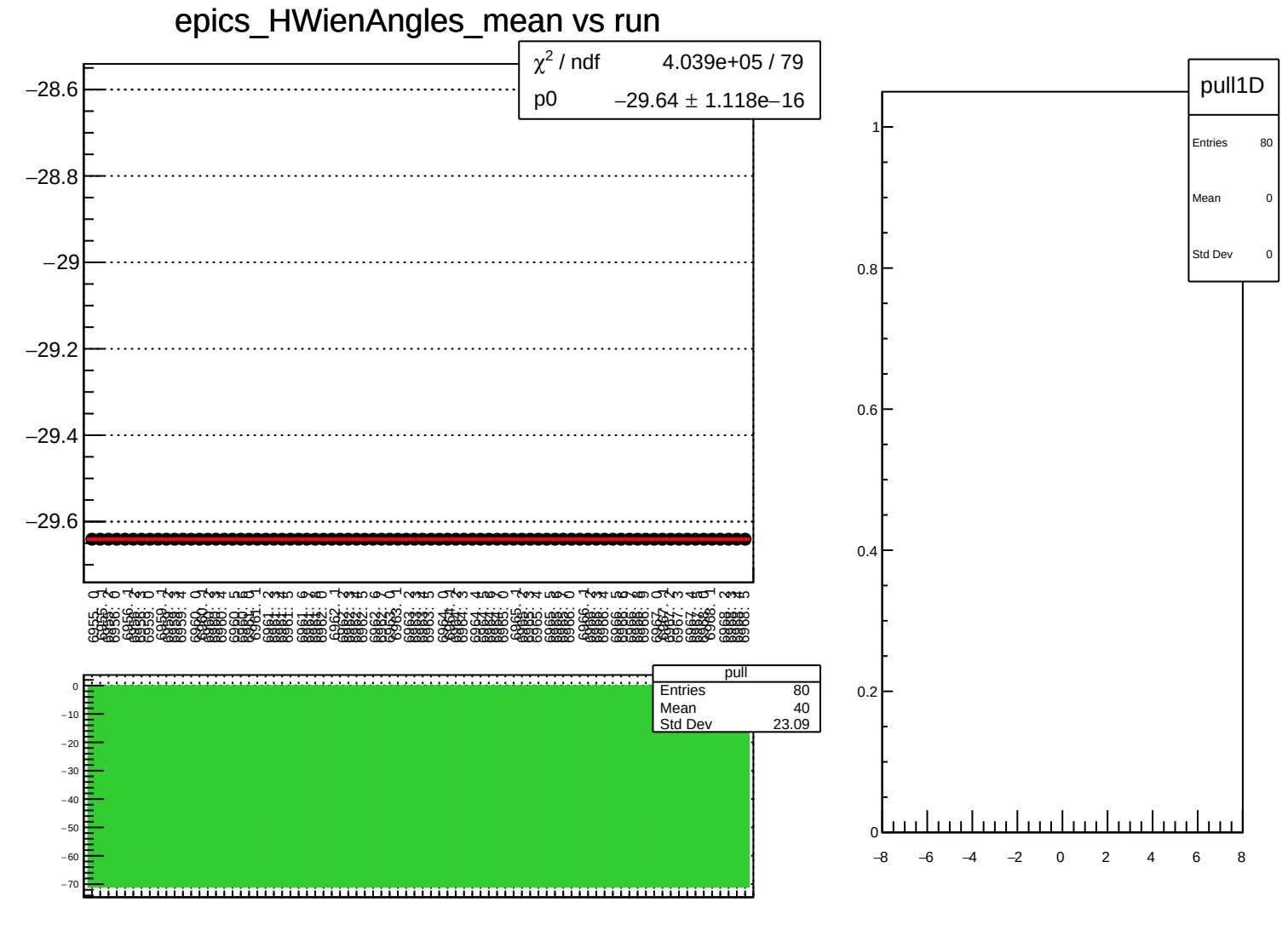

yield_bpm0r05X_rms vs run
χ² / ndf 2.704e+04 / 79
p0 0.09116 ± 7.355e–05
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

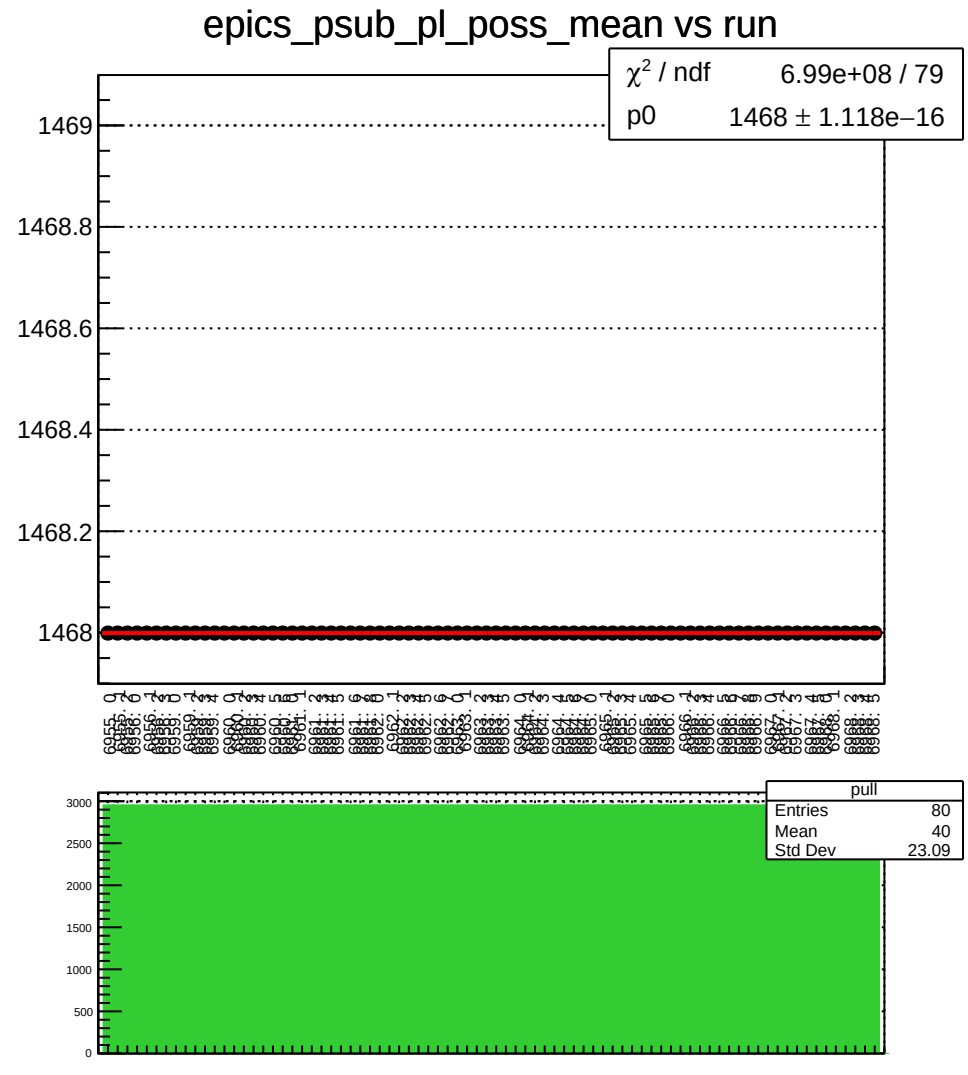

yield_bpm0r05Y_mean vs run
χ² / ndf 1.26e+06 / 79
p0 1.396 ± 8.831e−06
1.48
1.46
1.44
1.42
1.4
1.38
pull
Entries 80
Mean −136.7
Std Dev 163.5
400
300
200
100
0
−100
−200

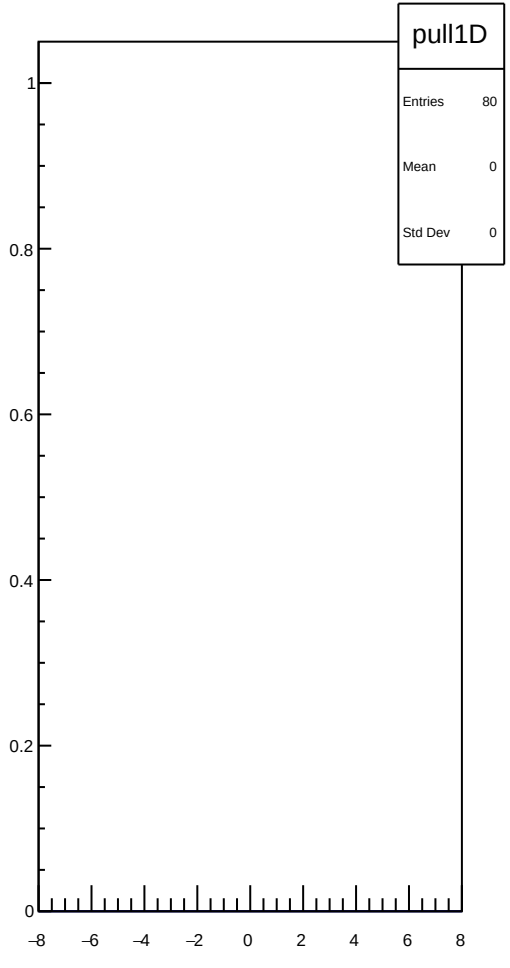

pull1D
Entries 80
Mean 1.999
Std Dev 2.486
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

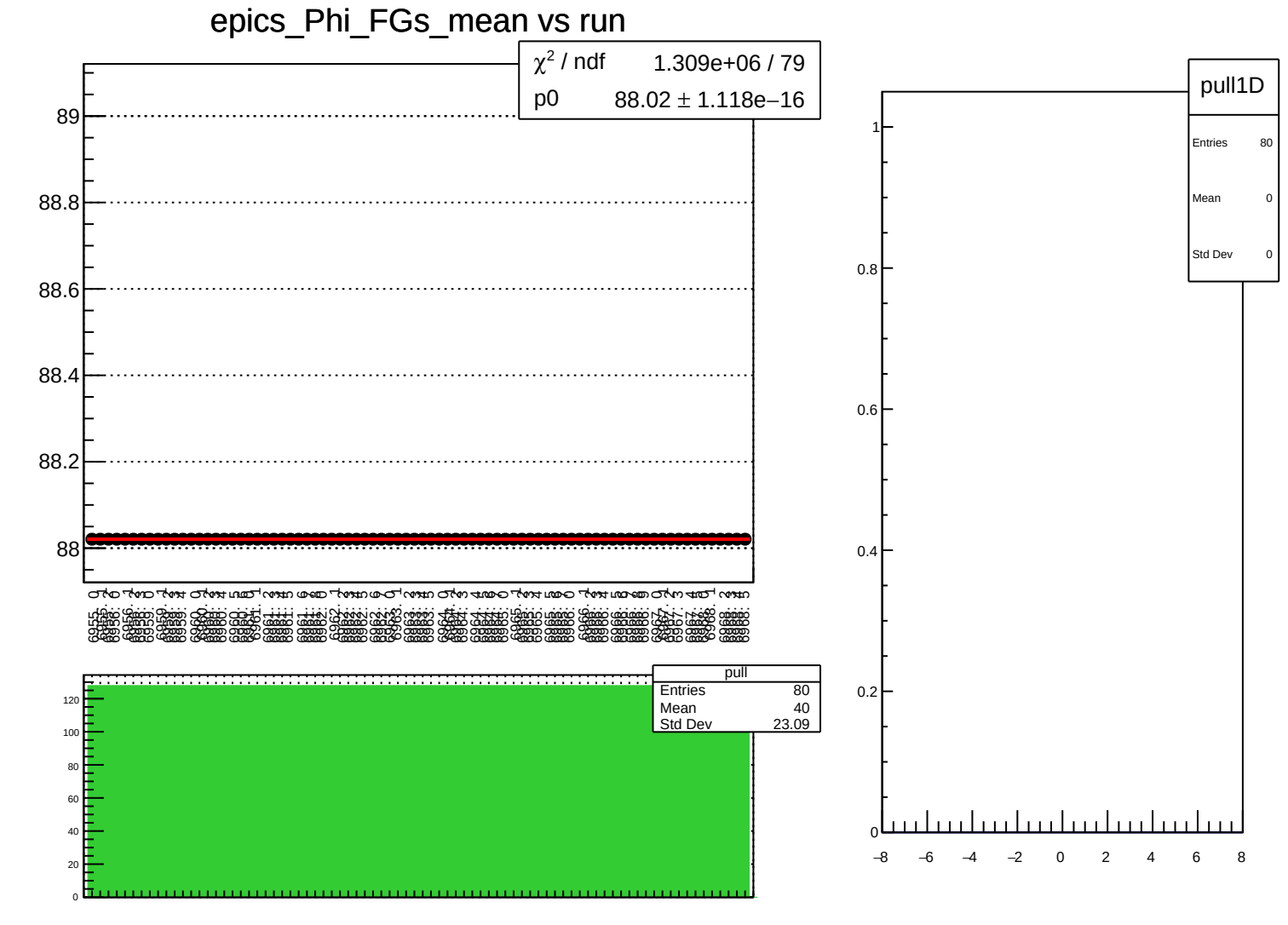

yield_bpm0r05Y_rms vs run
χ² / ndf 2.398e+04 / 79
p0 0.007747 ± 6.245e−06
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006

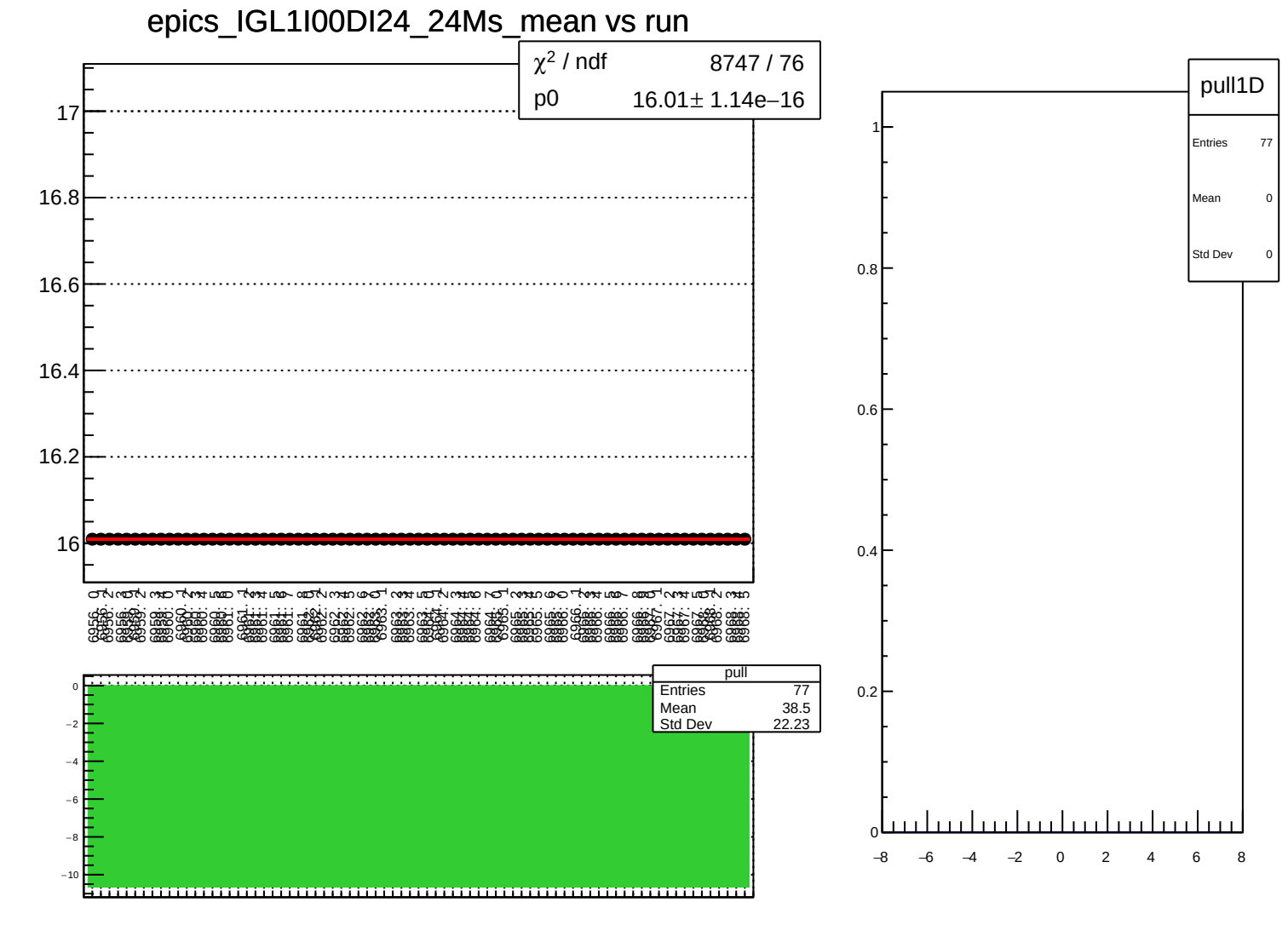

epics_VWienAngles_mean vs run
χ² / ndf 1.955e+06 / 79
p0 −90.6 ± 1.118e−16
−89.6
−89.8
−90
−90.2
−90.4
−90.6
pull
Entries 80
Mean 40
Std Dev 23.09
0
−20
−40
−60
−80
−100
−120
−140
−160
pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

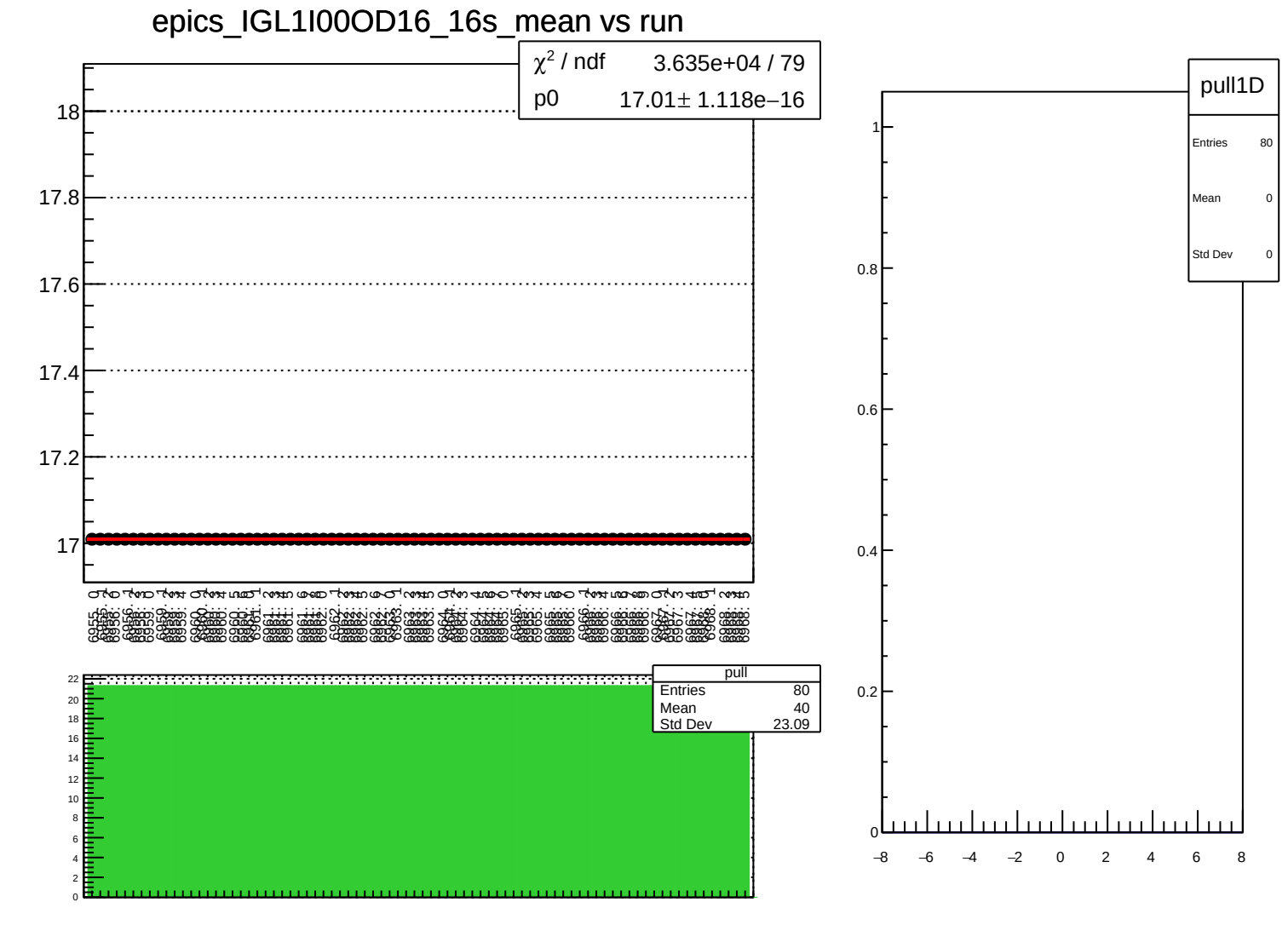

epics_HWienAngles_mean vs run
χ² / ndf 4.039e+05 / 79
p0 −29.64 ± 1.118e−16
−28.6
−28.8
−29
−29.2
−29.4
−29.6
pull
Entries 80
Mean 40
Std Dev 23.09
0
−10
−20
−30
−40
−50
−60
−70
pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

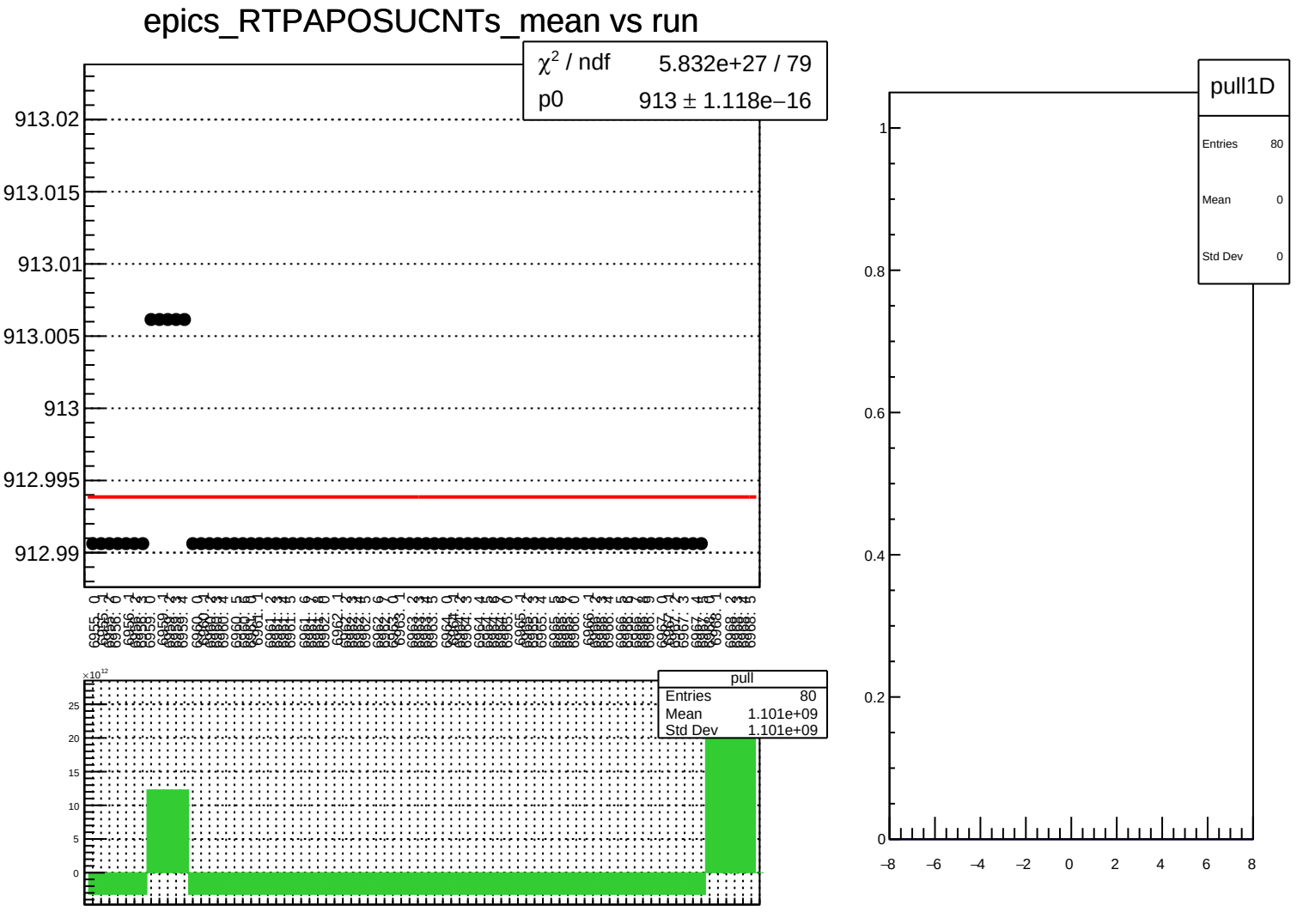

epics_psub_pl_poss_mean vs run
χ² / ndf 6.99e+08 / 79
p0 1468 ± 1.118e−16
1469
1468.8
1468.6
1468.4
1468.2
1468
pull
Entries 80
Mean 40
Std Dev 23.09
3000
2500
2000
1500
1000
500
0

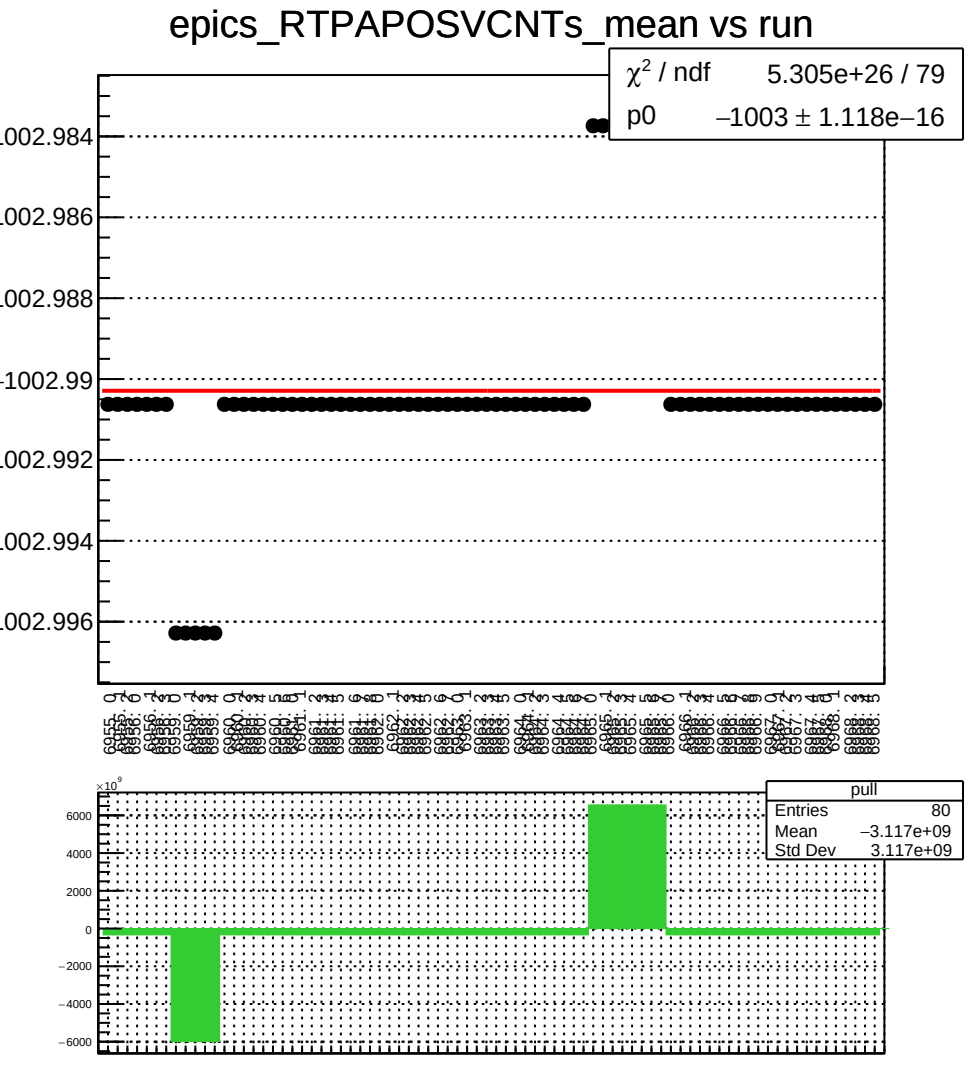

pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

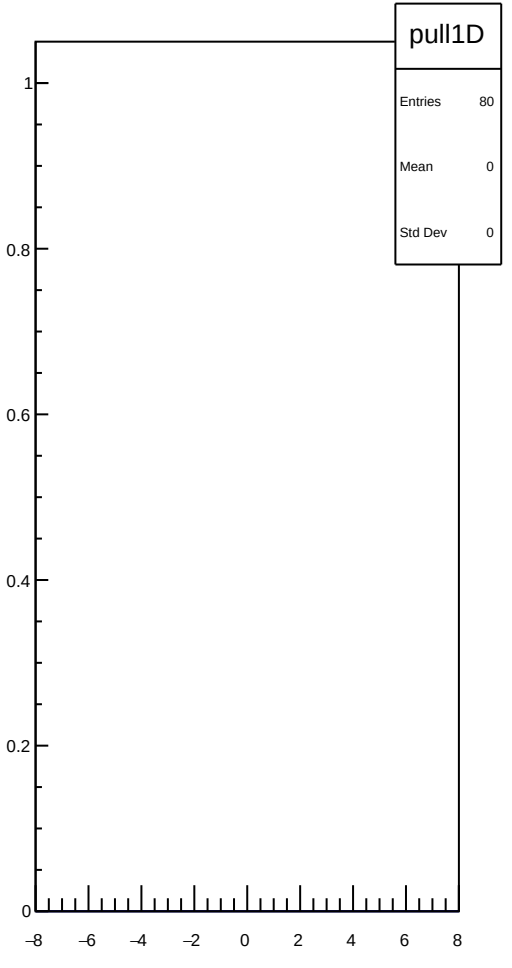

epics_Phi_FGs_mean vs run
χ² / ndf 1.309e+06 / 79
p0 88.02 ± 1.118e−16
89
88.8
88.6
88.4
88.2
88
pull
Entries 80
Mean 40
Std Dev 23.09
120
100
80
60
40
20
0
pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_IGL1I00DI24_24Ms_mean vs run
χ² / ndf 8747 / 76
p0 16.01± 1.14e−16
17
16.8
16.6
16.4
16.2
16
pull
Entries 77
Mean 38.5
Std Dev 22.23
0
−2
−4
−6
−8
−10
pull1D
Entries 77
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 3.635e+04 / 79
p0 17.01± 1.118e−16
18
17.8
17.6
17.4
17.2
17
pull
Entries 80
Mean 40
Std Dev 23.09
22
20
18
16
14
12
10
8
6
4
2
0
pull1D
Entries 80
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 5.832e+27 / 79
p0 913 ± 1.118e−16
913.02
913.015
913.01
913.005
913
912.995
912.99
pull
Entries 80
Mean 1.101e+09
Std Dev 1.101e+09
pull1D
Entries 80
Mean 0
Std Dev 0


epics_RTPAPOSVCNTs_mean vs run
χ² / ndf 5.305e+26 / 79
p0 −1003 ± 1.118e−16
−1002.984
−1002.986
−1002.988
−1002.99
−1002.992
−1002.994
−1002.996
pull
Entries 80
Mean −3.117e+09
Std Dev 3.117e+09
×10⁹
6000
4000
2000
0
−2000
−4000
−6000


pull1D
Entries 80
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8