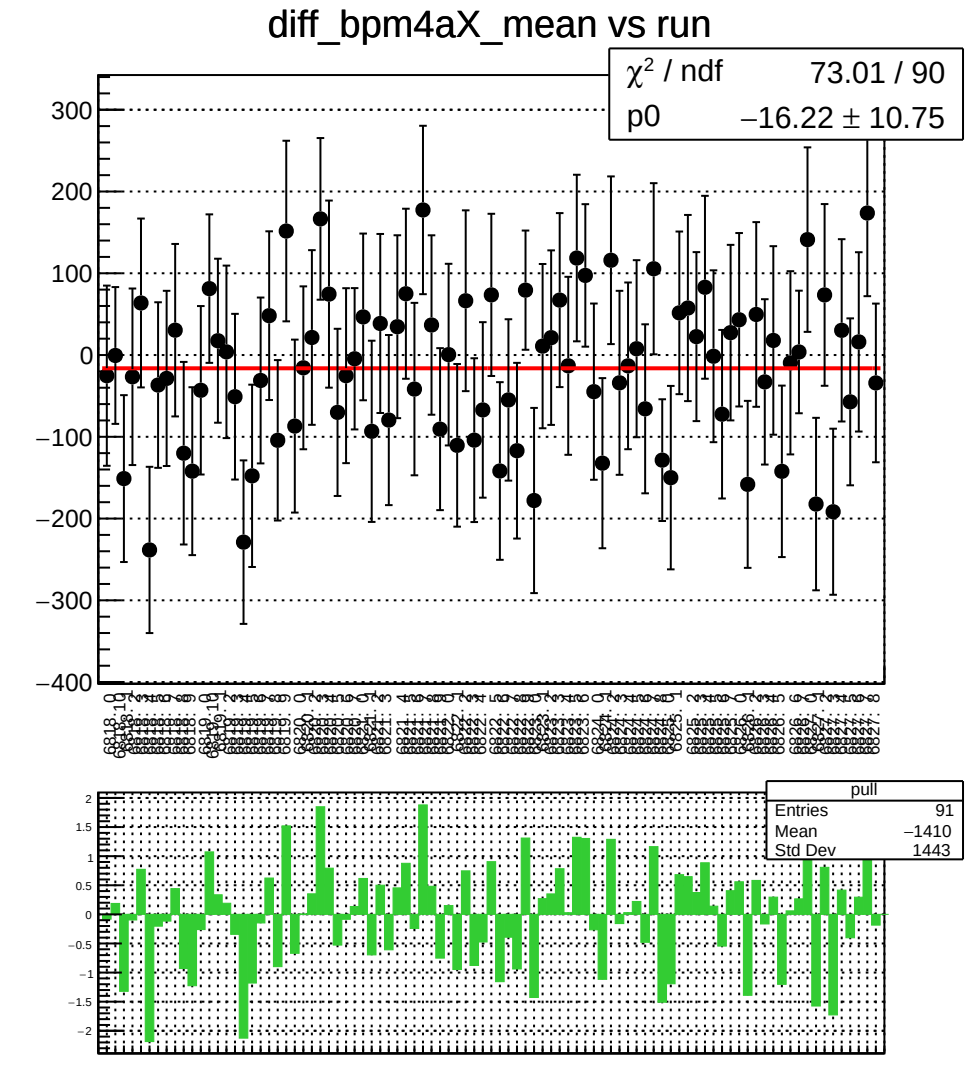
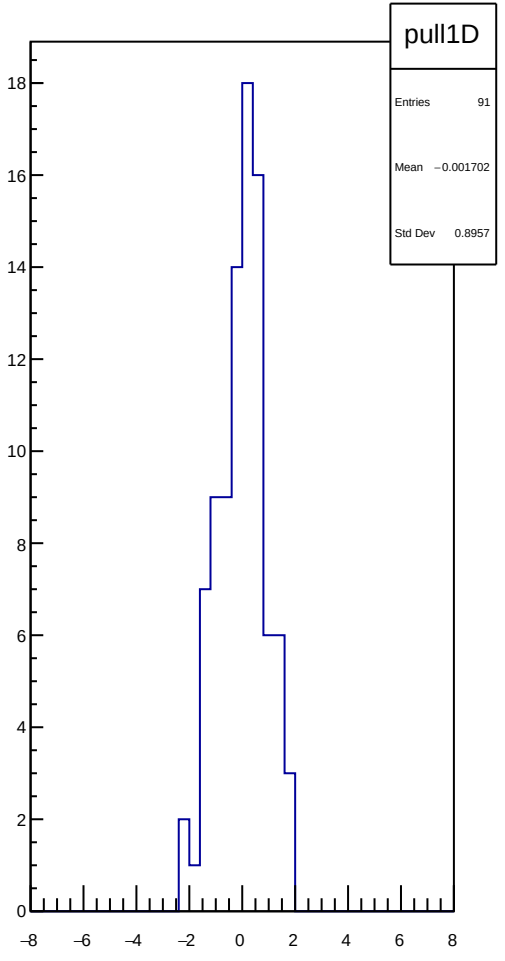
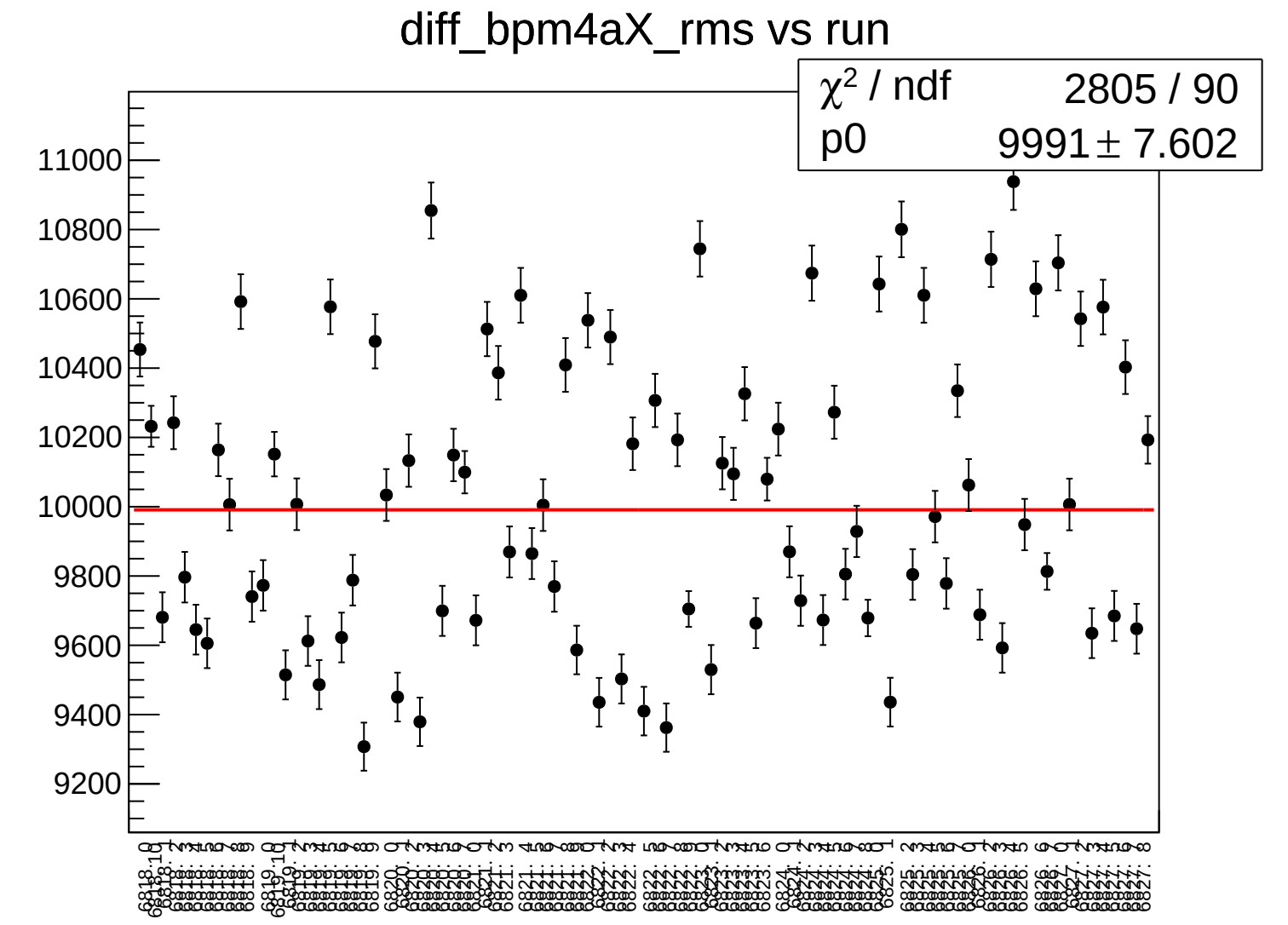
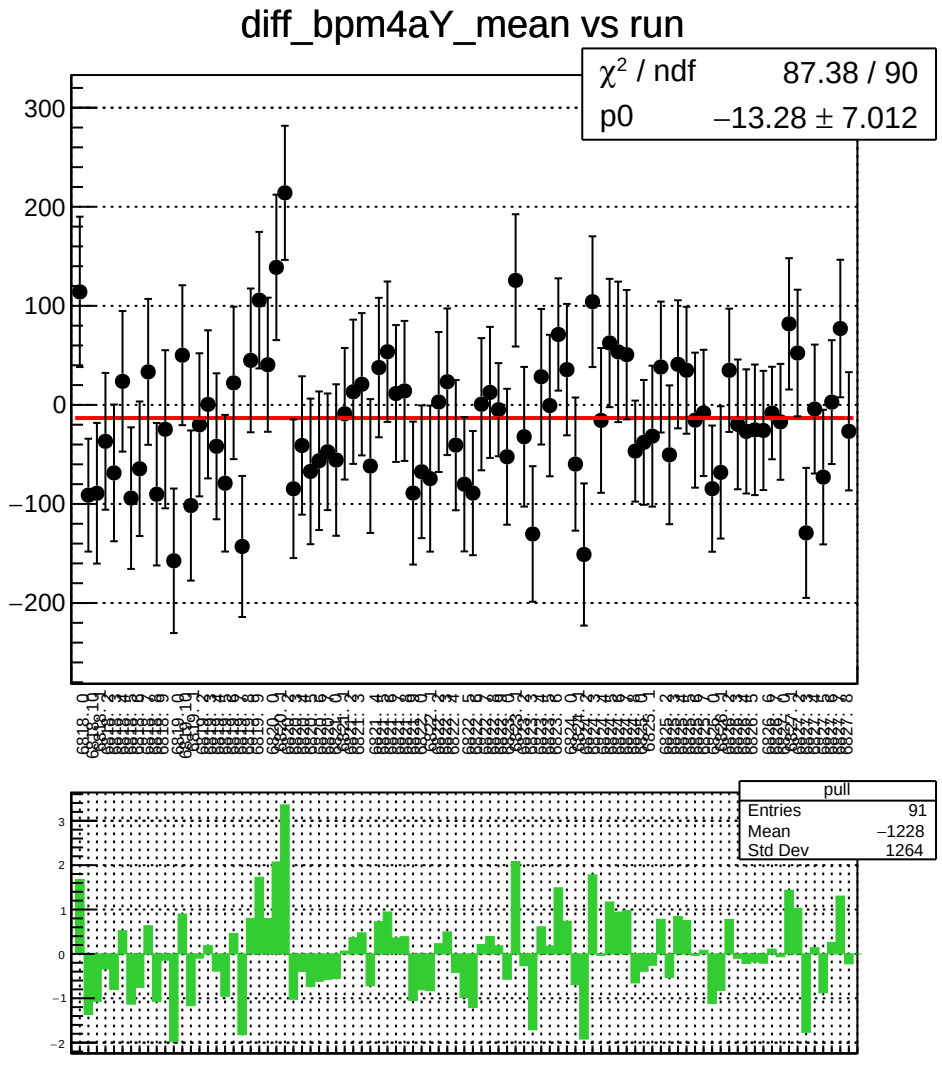
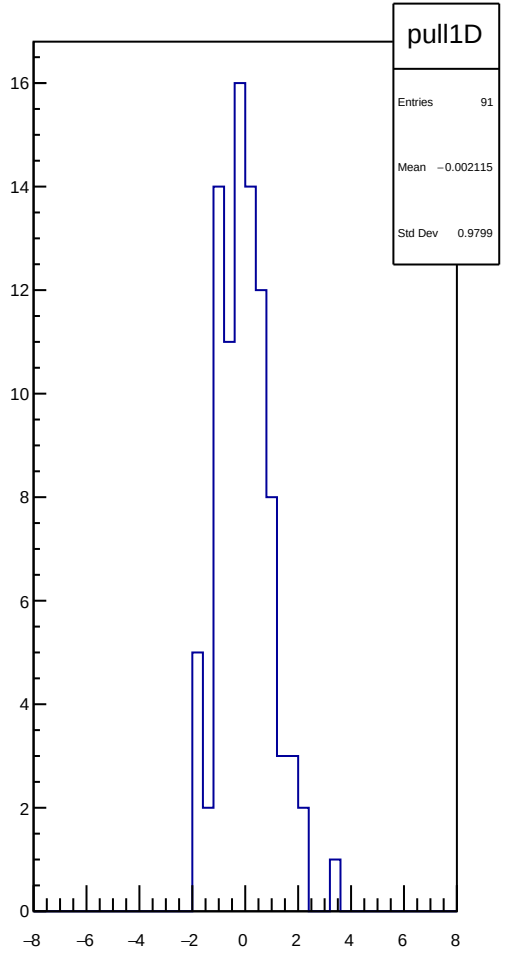
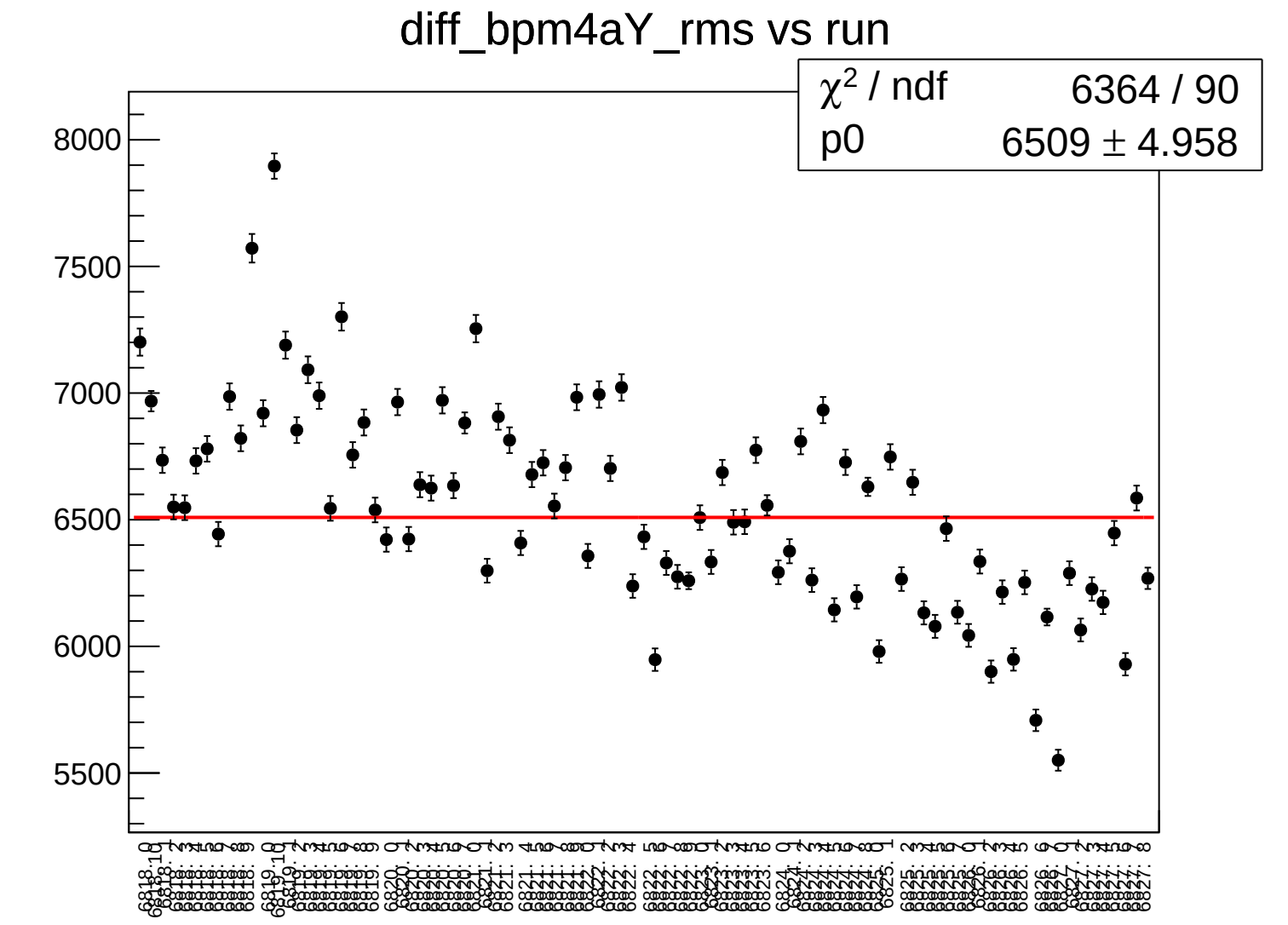

diff_bpm4aX_mean vs run
χ² / ndf 73.01 / 90
p0 −16.22 ± 10.75
pull
Entries 91
Mean −1410
Std Dev 1443

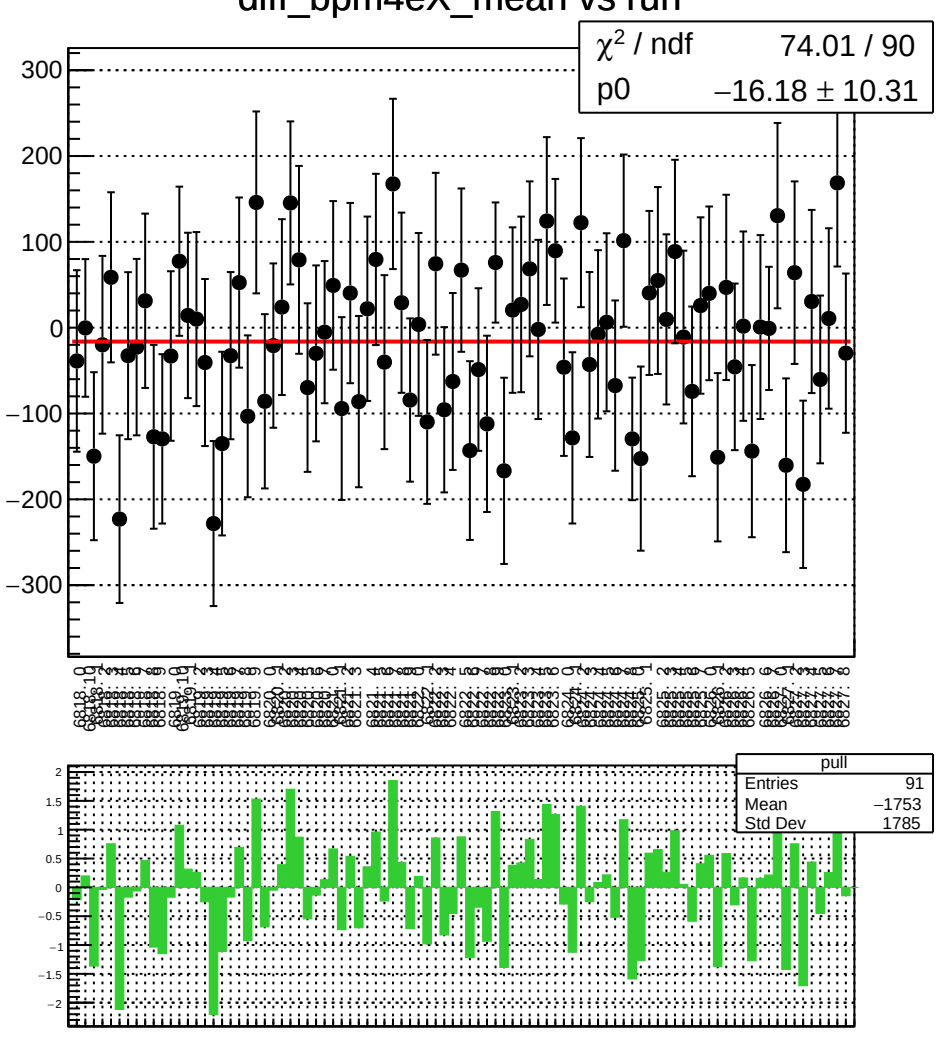

pull1D
Entries 91
Mean −0.001702
Std Dev 0.8957

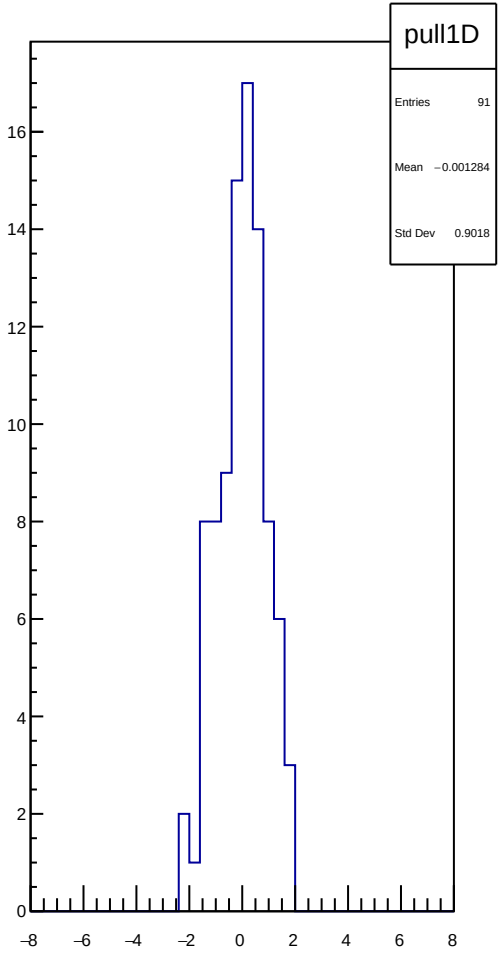

diff_bpm4aX_rms vs run
χ² / ndf 2805 / 90
p0 9991 ± 7.602
11000
10800
10600
10400
10200
10000
9800
9600
9400
9200

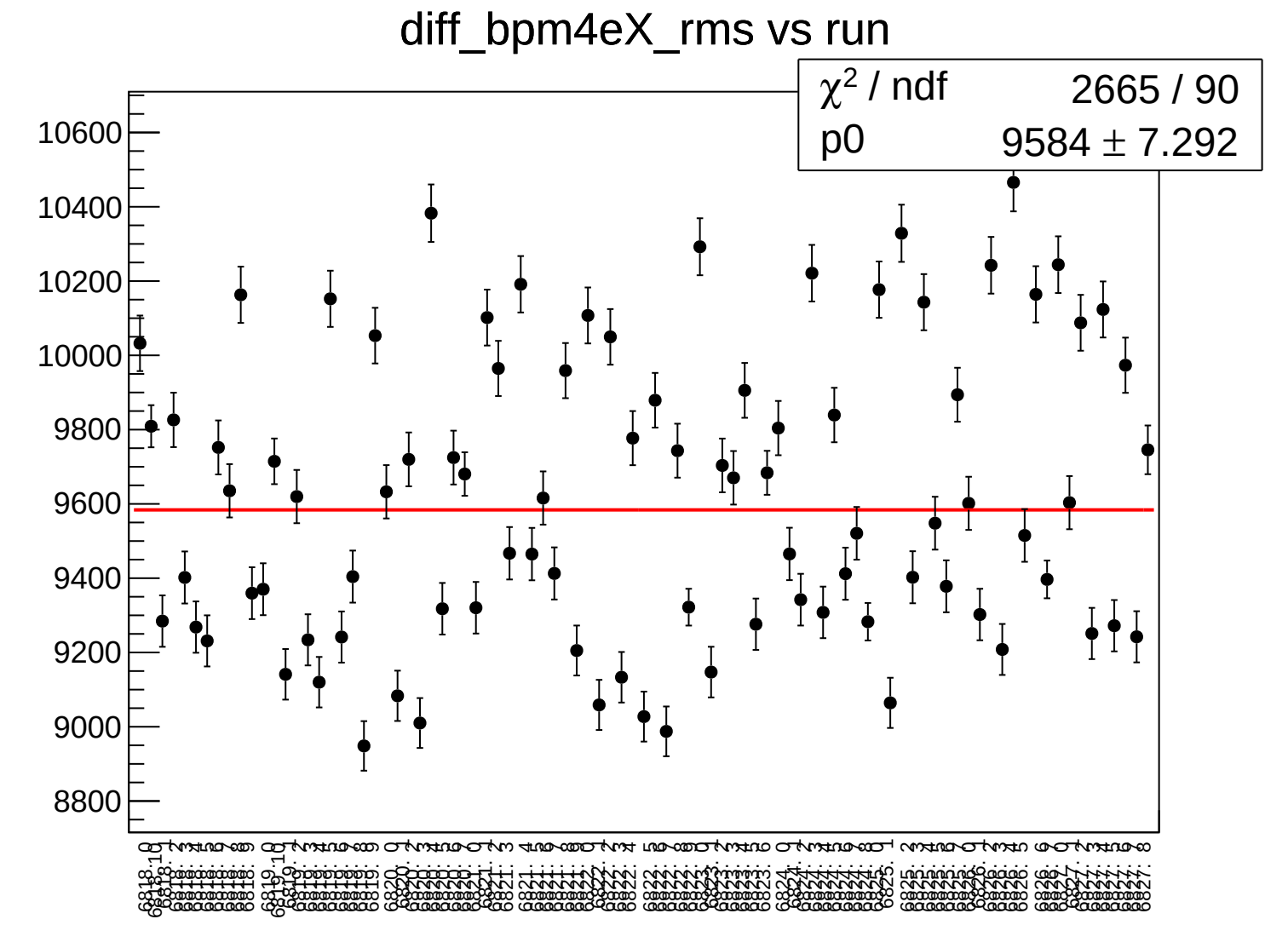

diff_bpm4aY_mean vs run
χ² / ndf 87.38 / 90
p0 −13.28 ± 7.012
300
200
100
0
−100
−200
pull
Entries 91
Mean −1228
Std Dev 1264
3
2
1
0
−1
−2

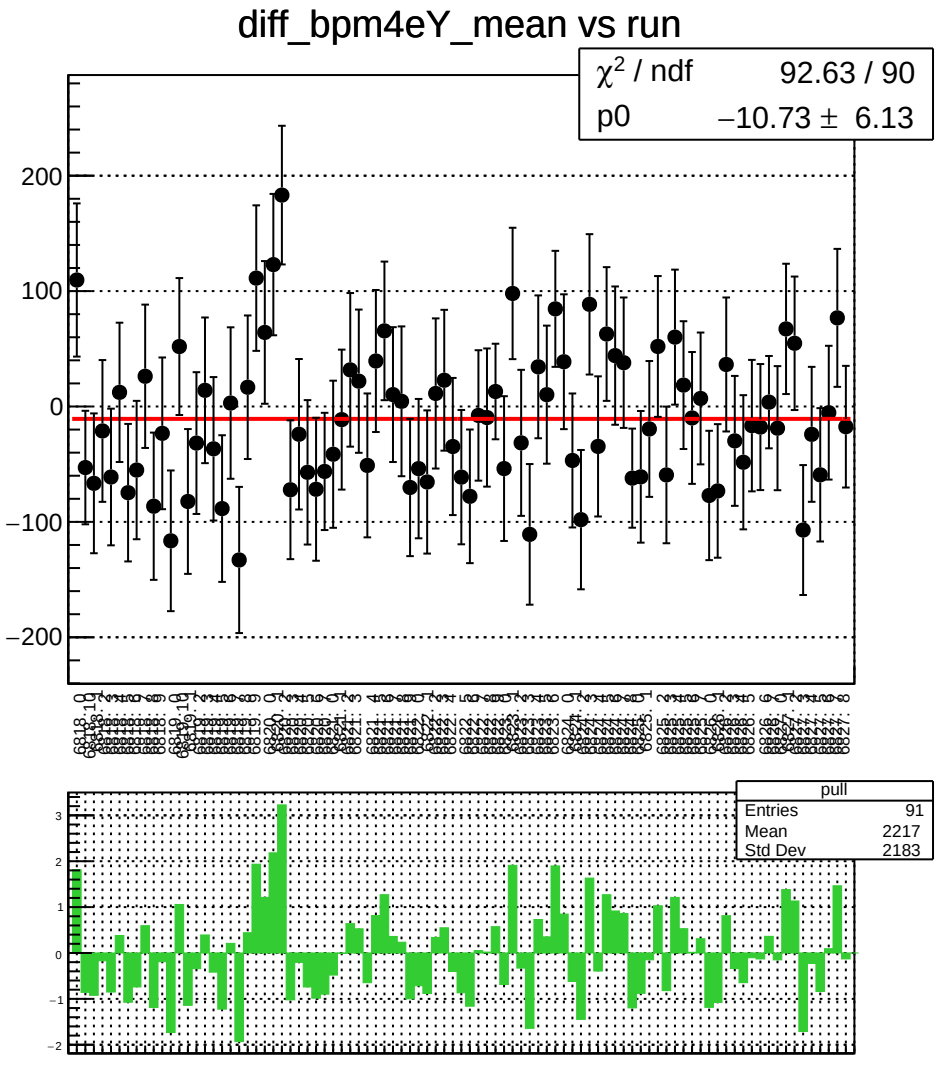

pull1D
Entries 91
Mean −0.002115
Std Dev 0.9799
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

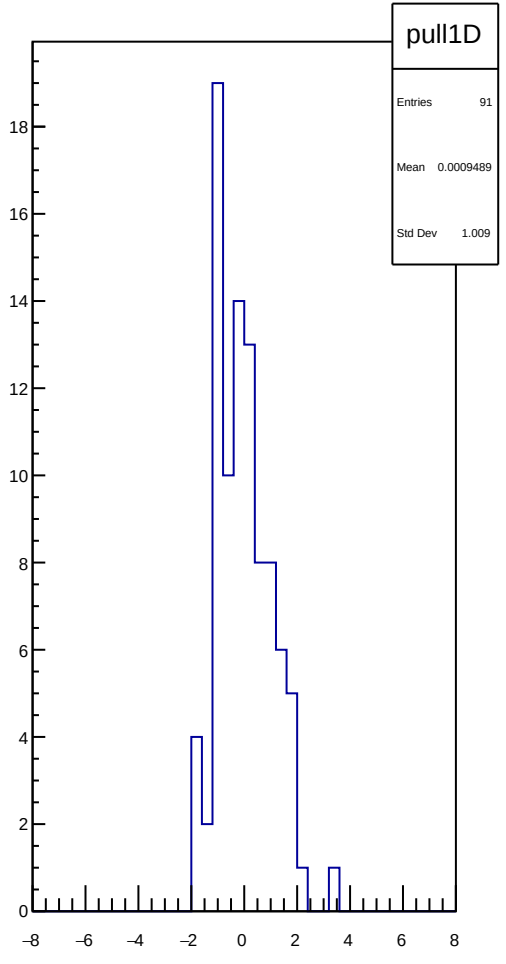

diff_bpm4aY_rms vs run
χ² / ndf 6364 / 90
p0 6509 ± 4.958
8000
7500
7000
6500
6000
5500

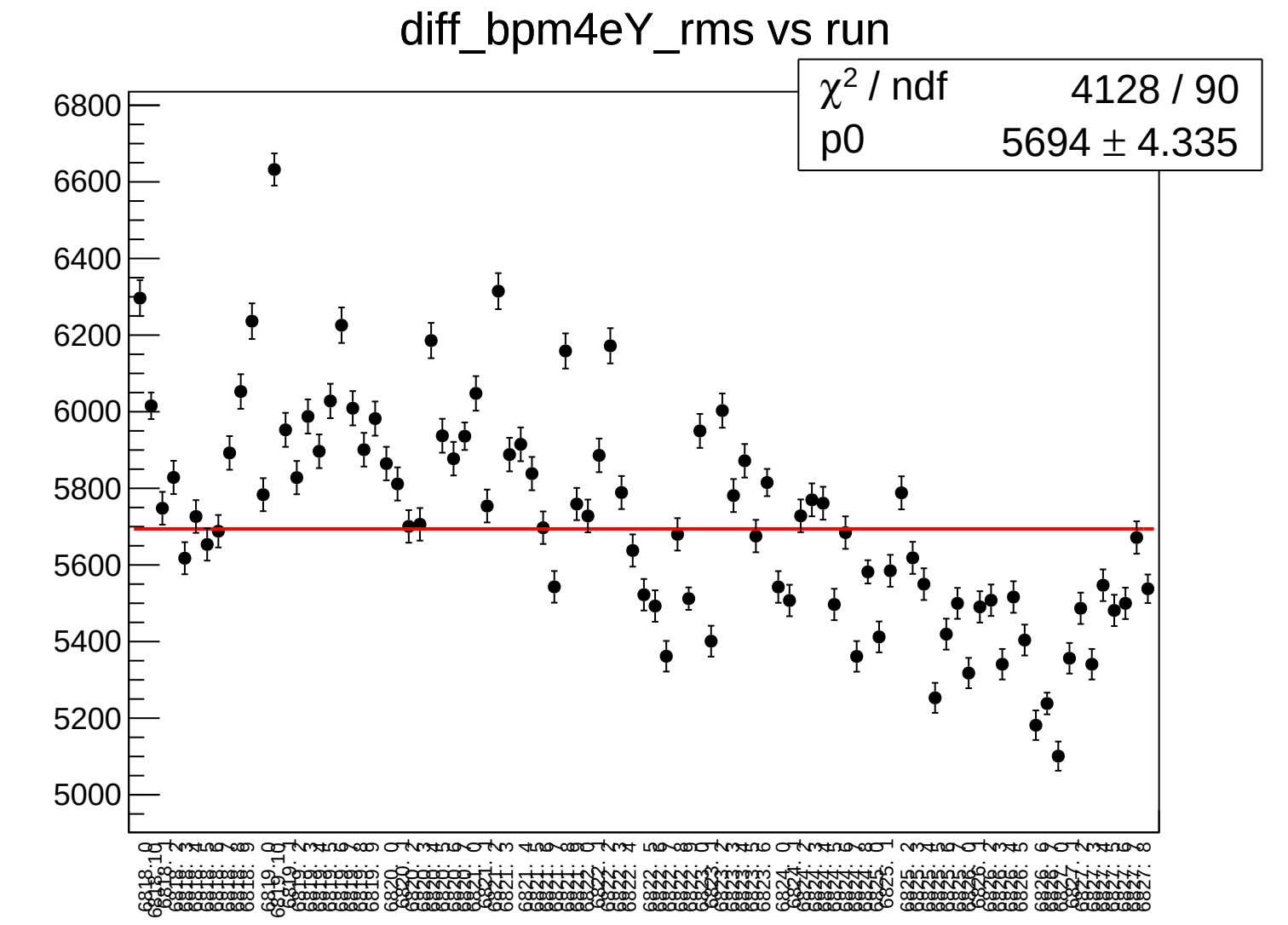

diff_bpm4eX_mean vs run
χ² / ndf 74.01 / 90
p0 −16.18 ± 10.31
pull
Entries 91
Mean −1753
Std Dev 1785

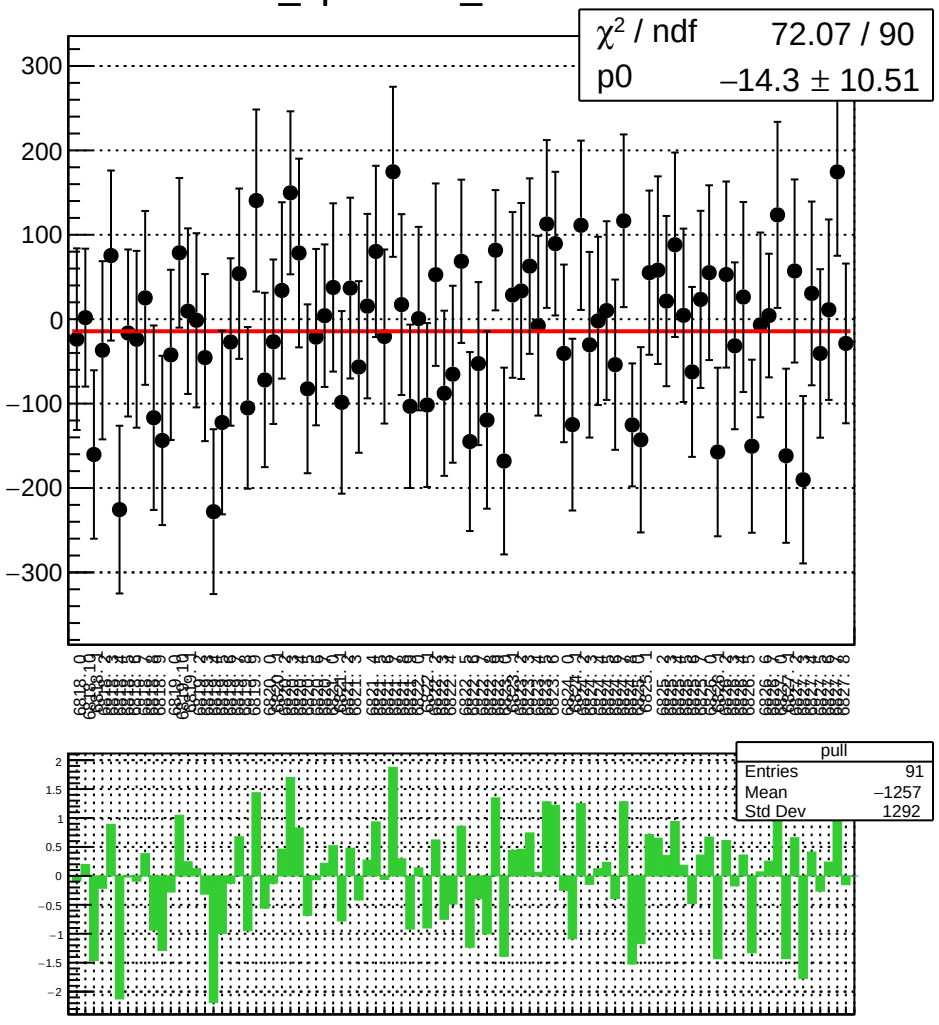

pull1D
Entries 91
Mean −0.001284
Std Dev 0.9018

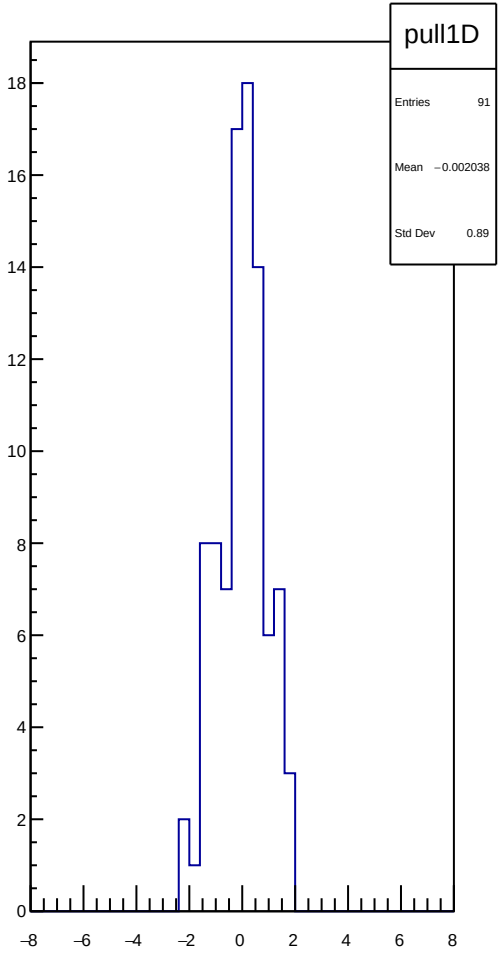

diff_bpm4eX_rms vs run
χ^2 / ndf 2665 / 90
p0 9584 ± 7.292
10600
10400
10200
10000
9800
9600
9400
9200
9000
8800

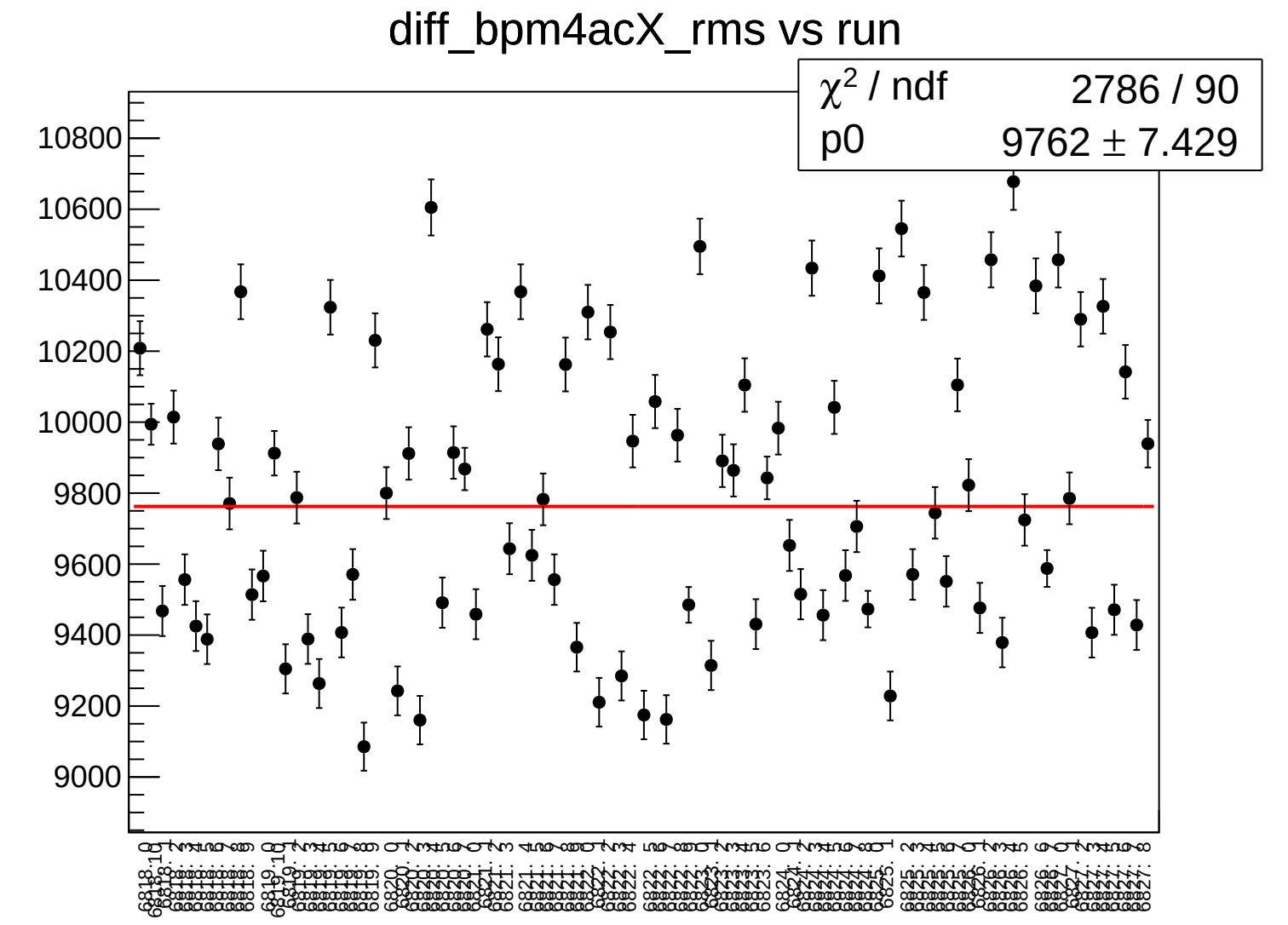

diff_bpm4eY_mean vs run
χ² / ndf 92.63 / 90
p0 −10.73 ± 6.13
200
100
0
−100
−200
pull
Entries 91
Mean 2217
Std Dev 2183
3
2
1
0
−1
−2

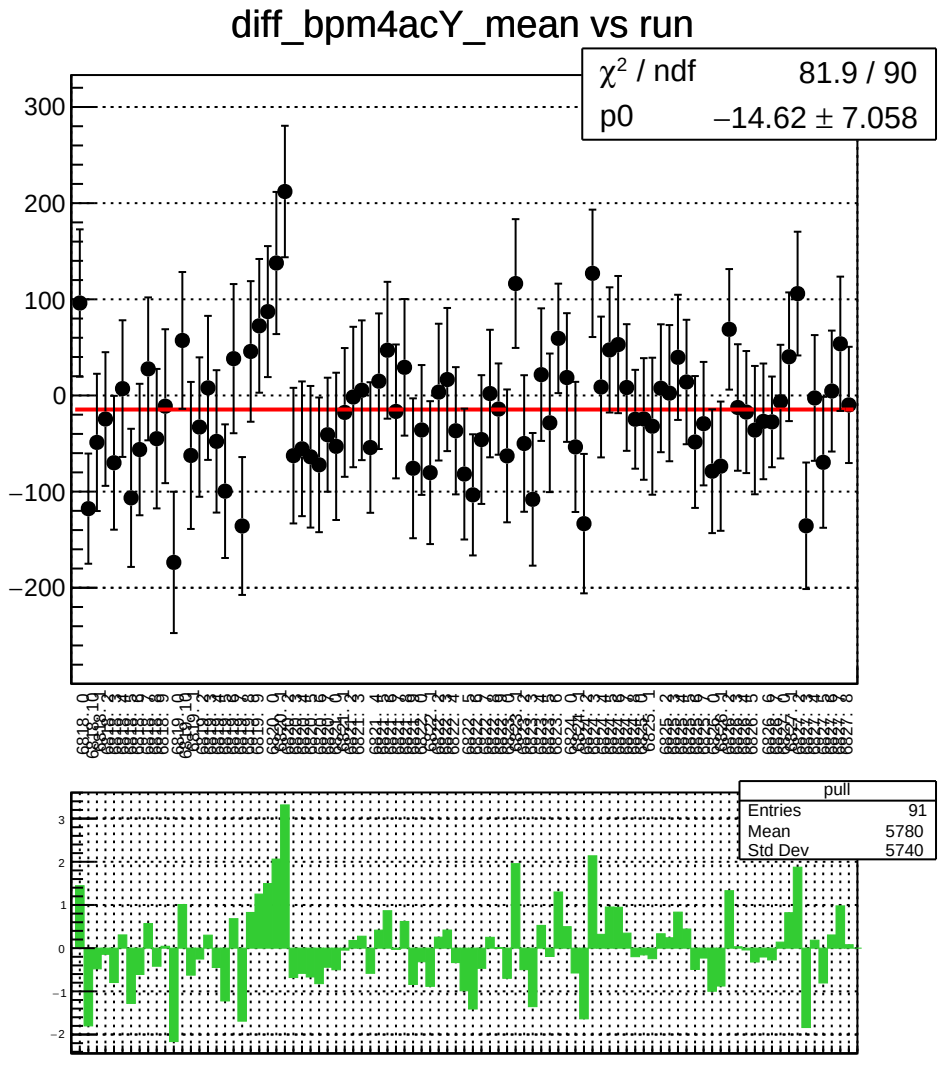

pull1D
Entries 91
Mean 0.0009489
Std Dev 1.009
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

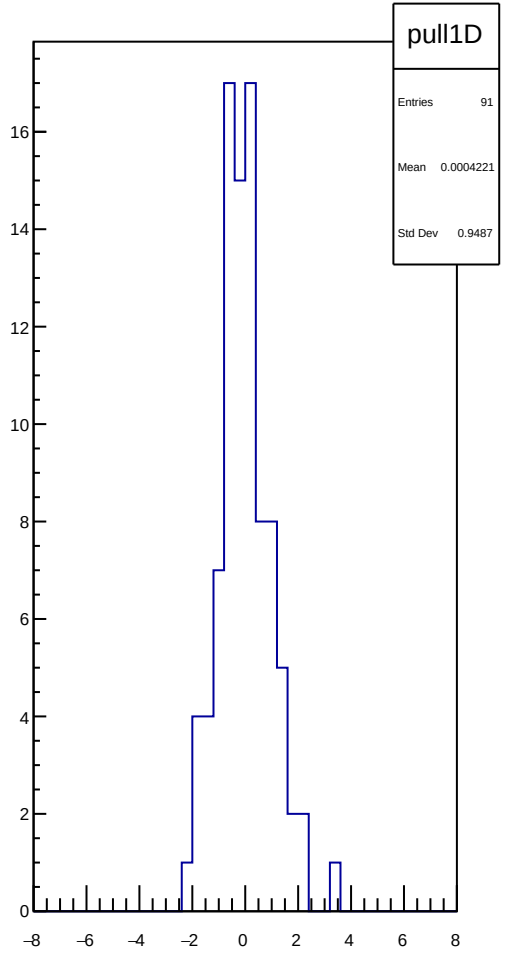

diff_bpm4eY_rms vs run
χ² / ndf 4128 / 90
p0 5694 ± 4.335
6800
6600
6400
6200
6000
5800
5600
5400
5200
5000

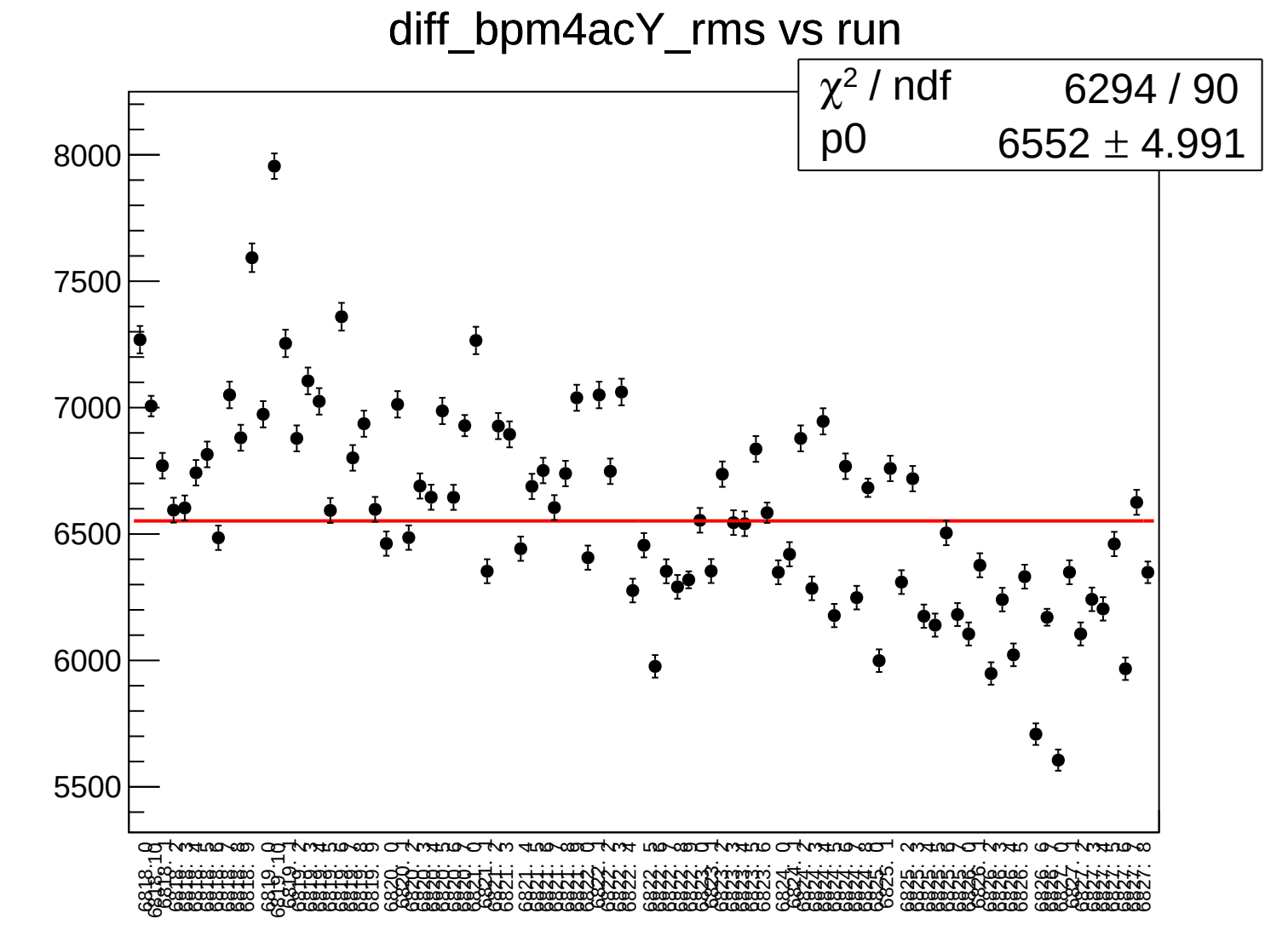

diff_bpm4acX_mean vs run
χ² / ndf 72.07 / 90
p0 −14.3 ± 10.51
pull
Entries 91
Mean −1257
Std Dev 1292

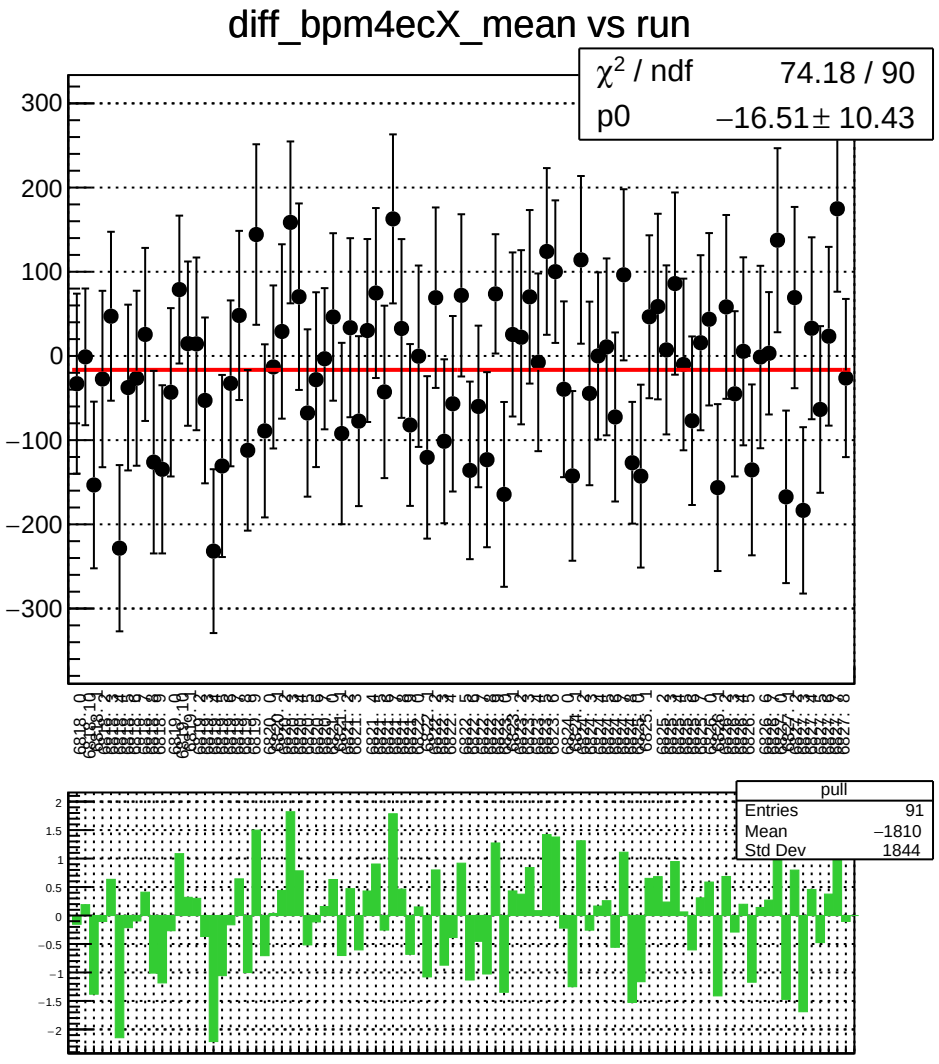

pull1D
Entries 91
Mean −0.002038
Std Dev 0.89

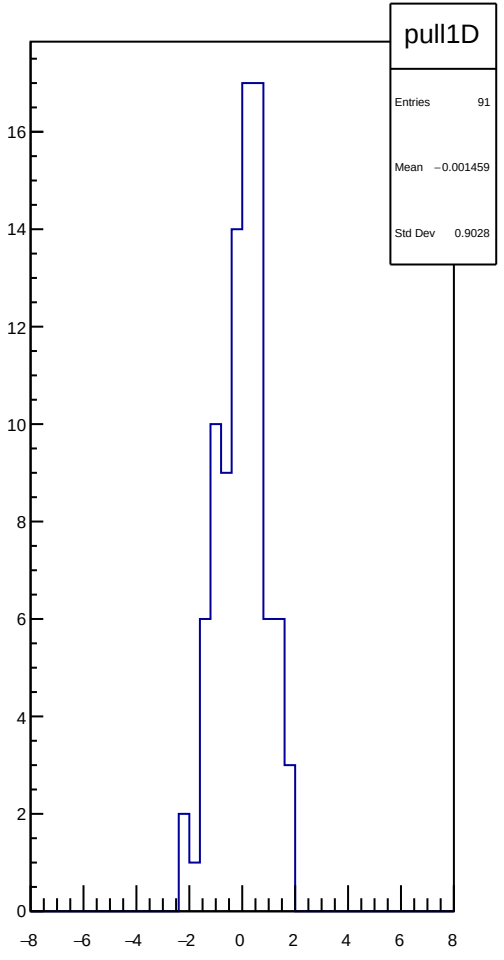

diff_bpm4acX_rms vs run
χ² / ndf 2786 / 90
p0 9762 ± 7.429
10800
10600
10400
10200
10000
9800
9600
9400
9200
9000

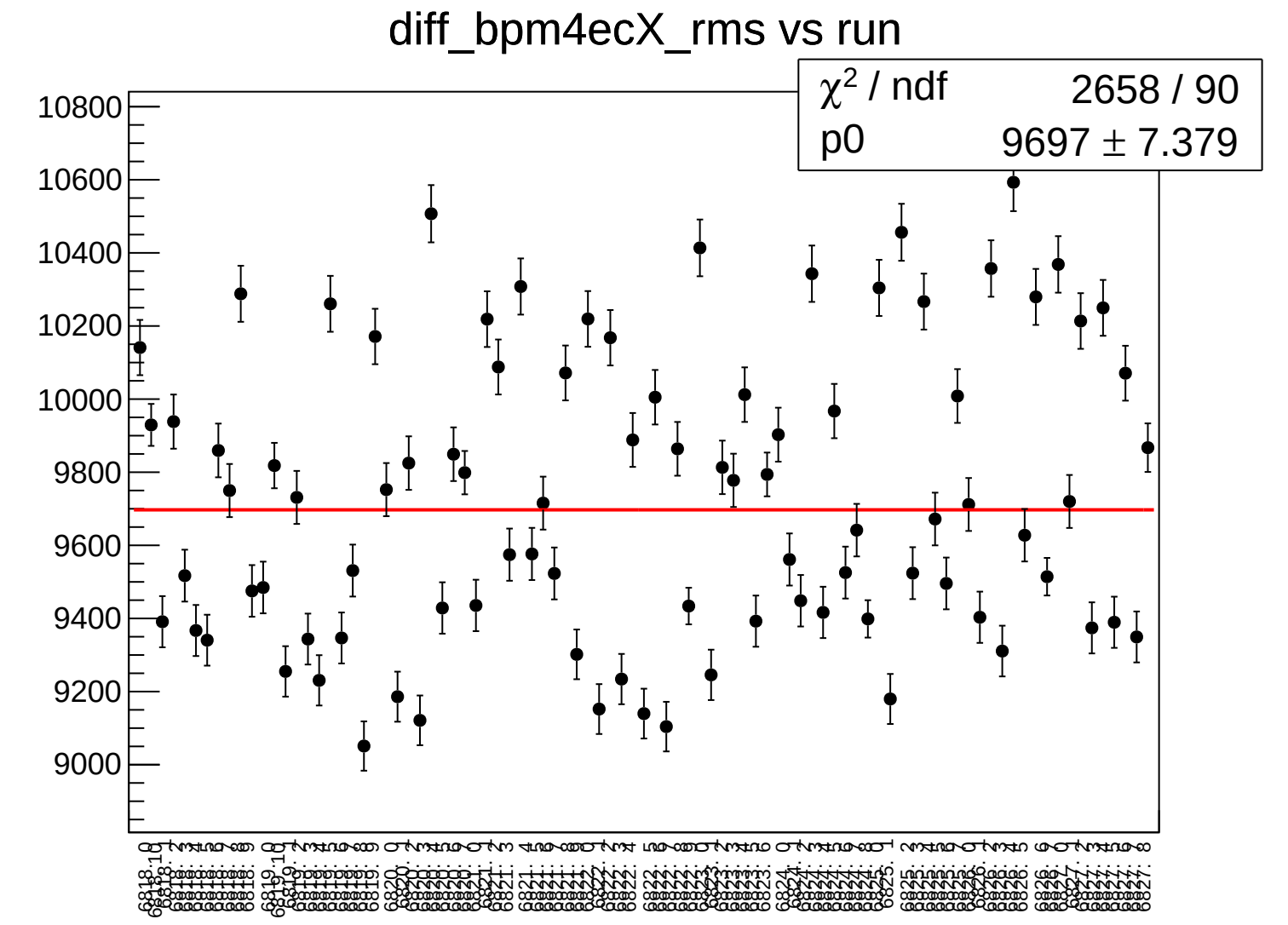

diff_bpm4acY_mean vs run
χ² / ndf 81.9 / 90
p0 −14.62 ± 7.058
300
200
100
0
−100
−200
pull
Entries 91
Mean 5780
Std Dev 5740
3
2
1
0
−1
−2

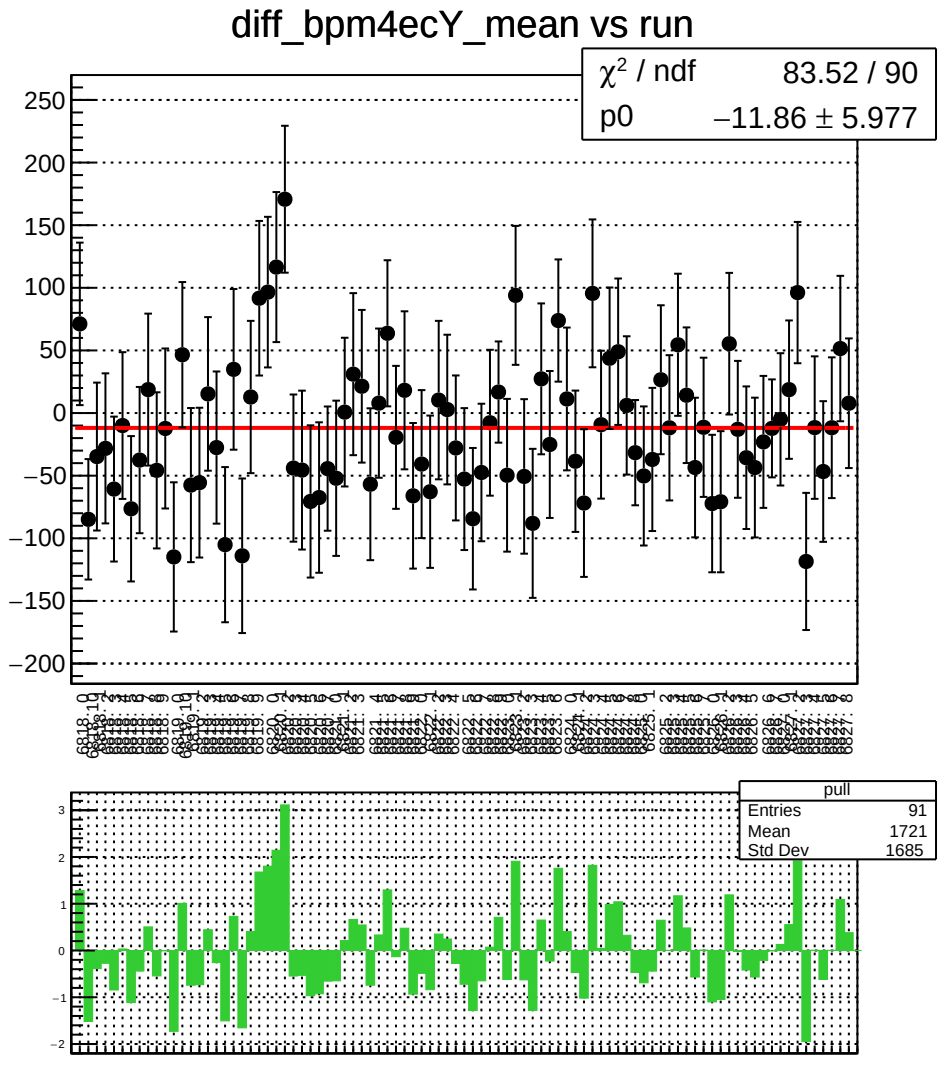

pull1D
Entries 91
Mean 0.0004221
Std Dev 0.9487
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

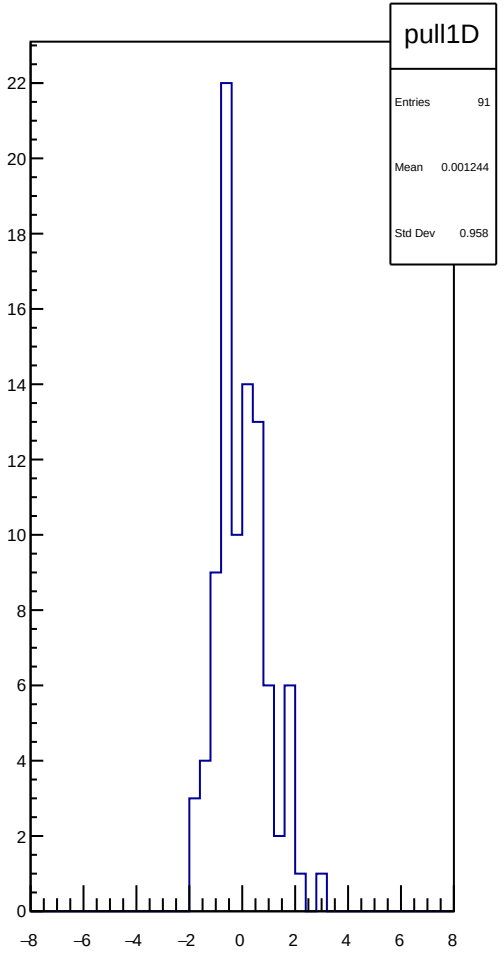

diff_bpm4acY_rms vs run
χ² / ndf 6294 / 90
p0 6552 ± 4.991
8000
7500
7000
6500
6000
5500

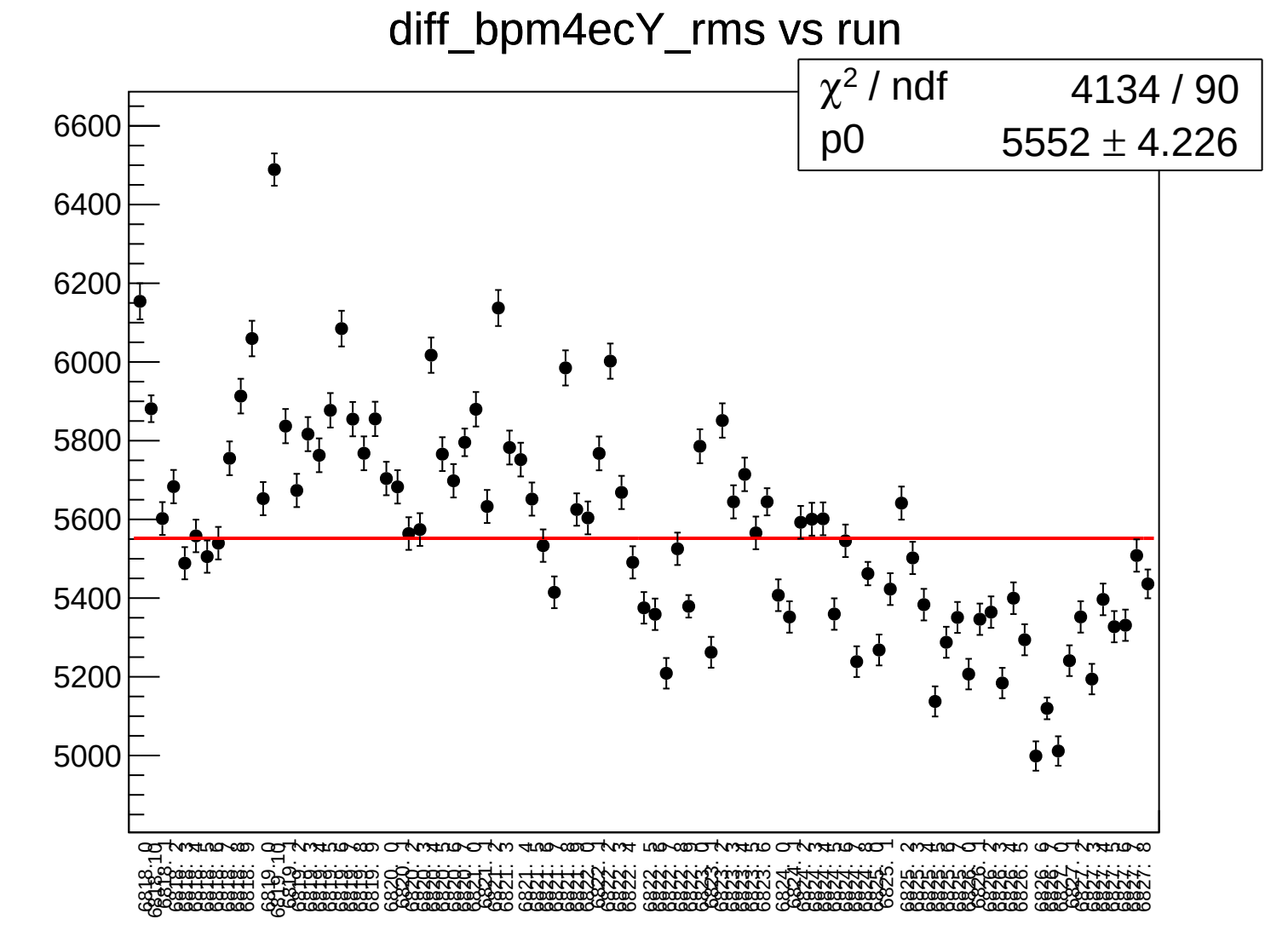

diff_bpm4ecX_mean vs run
χ² / ndf 74.18 / 90
p0 −16.51± 10.43
pull
Entries 91
Mean −1810
Std Dev 1844

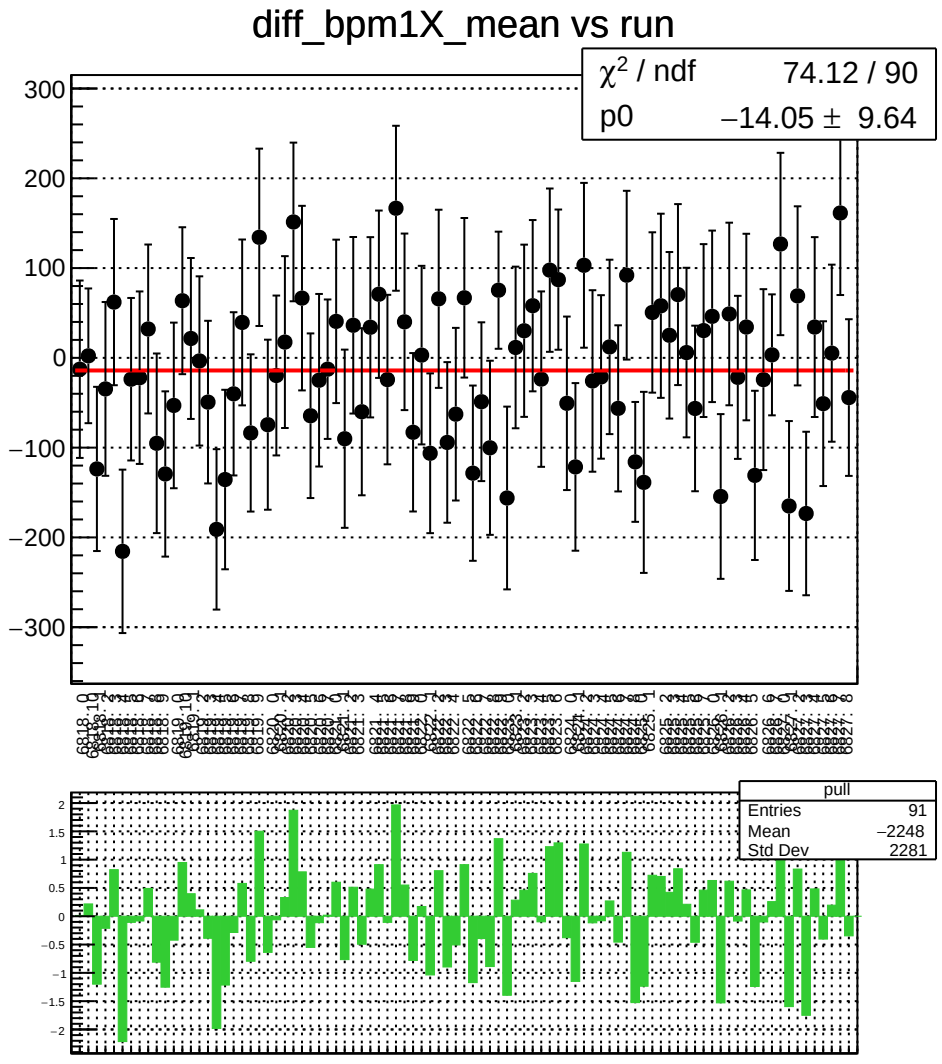

pull1D
Entries 91
Mean −0.001459
Std Dev 0.9028

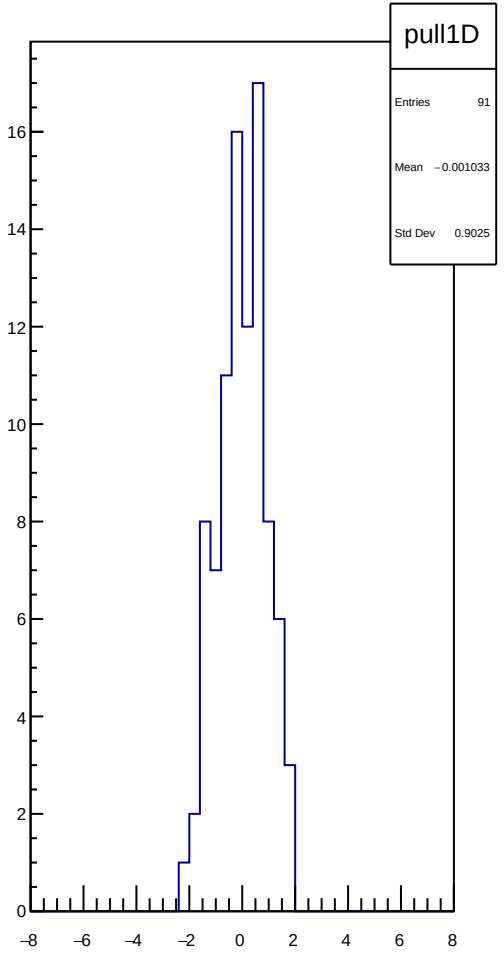

diff_bpm4ecX_rms vs run
χ² / ndf 2658 / 90
p0 9697 ± 7.379
10800
10600
10400
10200
10000
9800
9600
9400
9200
9000

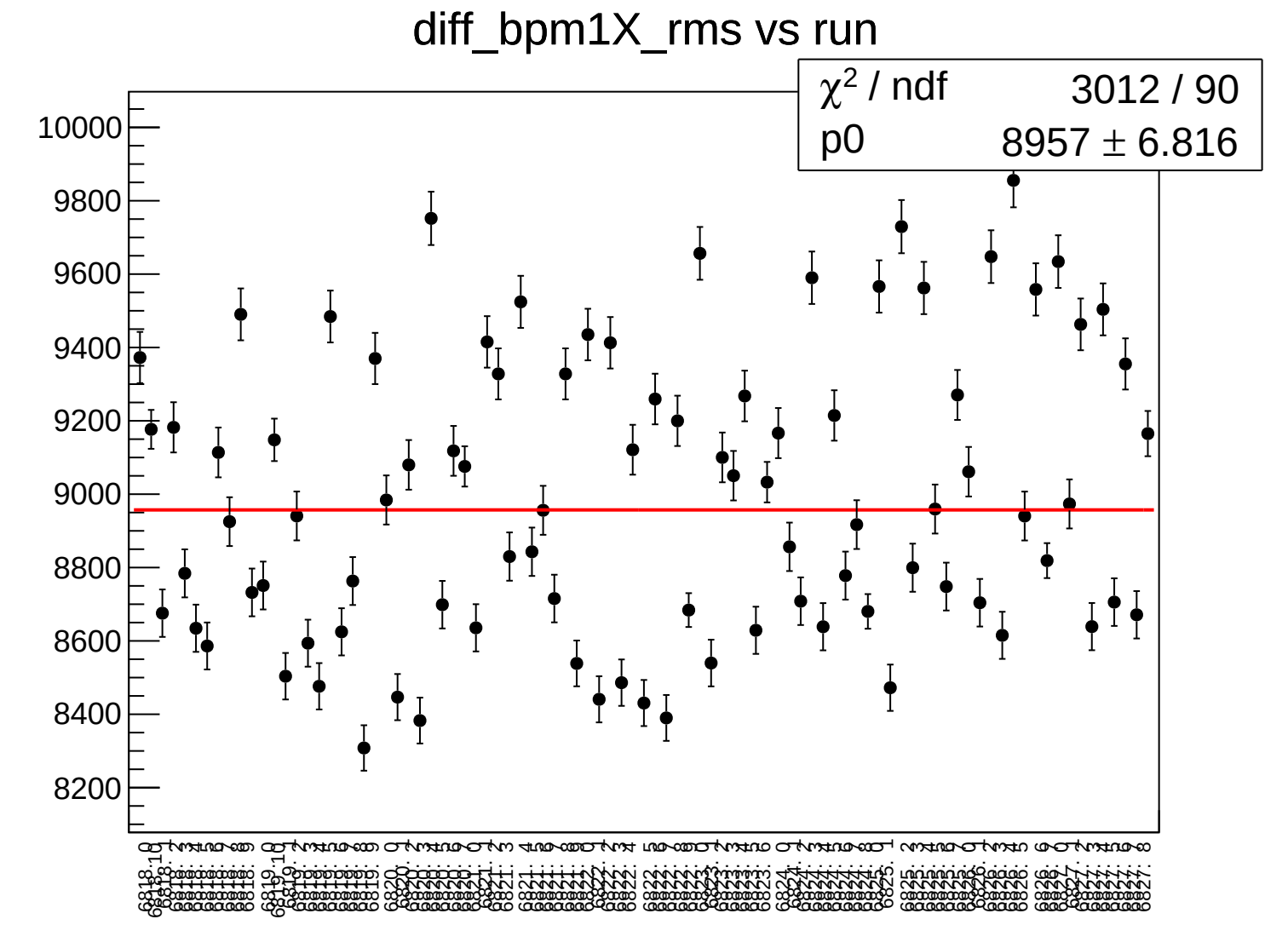

diff_bpm4ecY_mean vs run
χ² / ndf 83.52 / 90
p0 −11.86 ± 5.977
pull
Entries 91
Mean 1721
Std Dev 1685

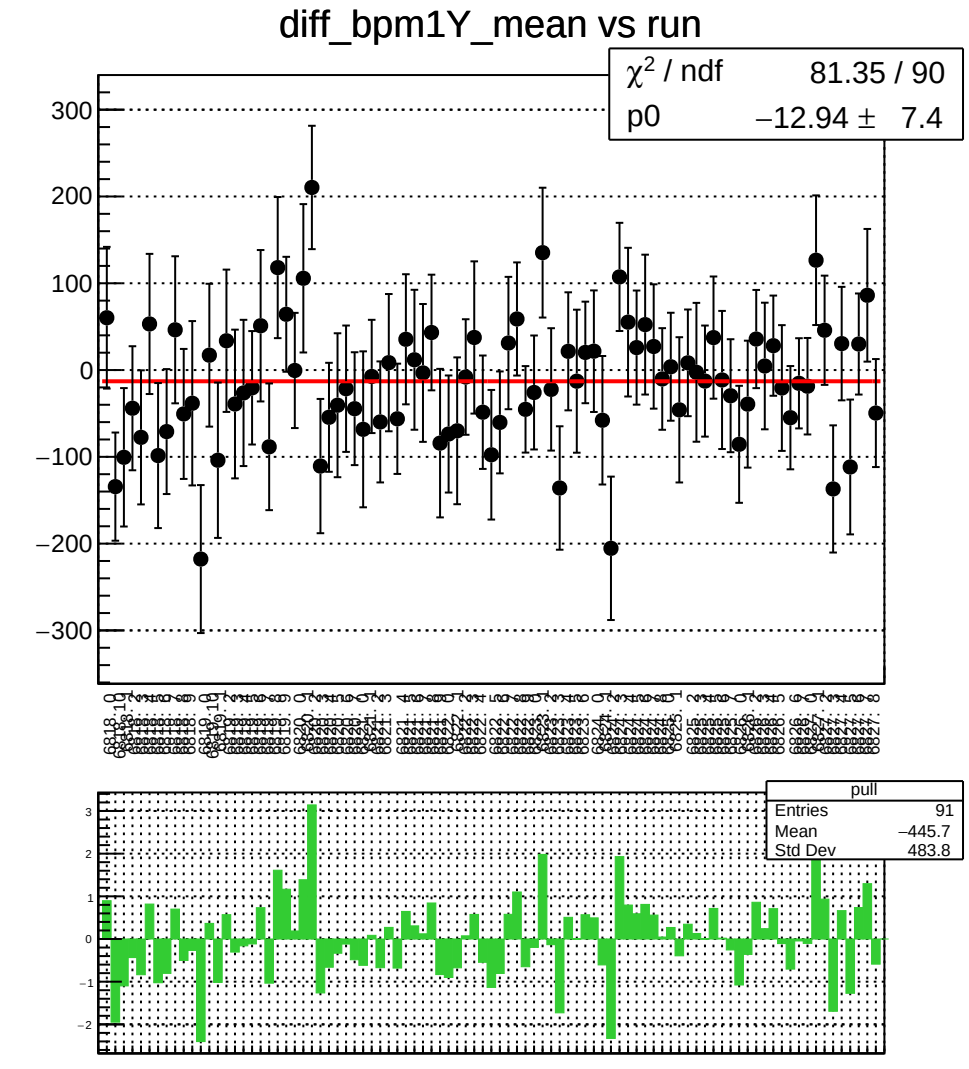

pull1D
Entries 91
Mean 0.001244
Std Dev 0.958

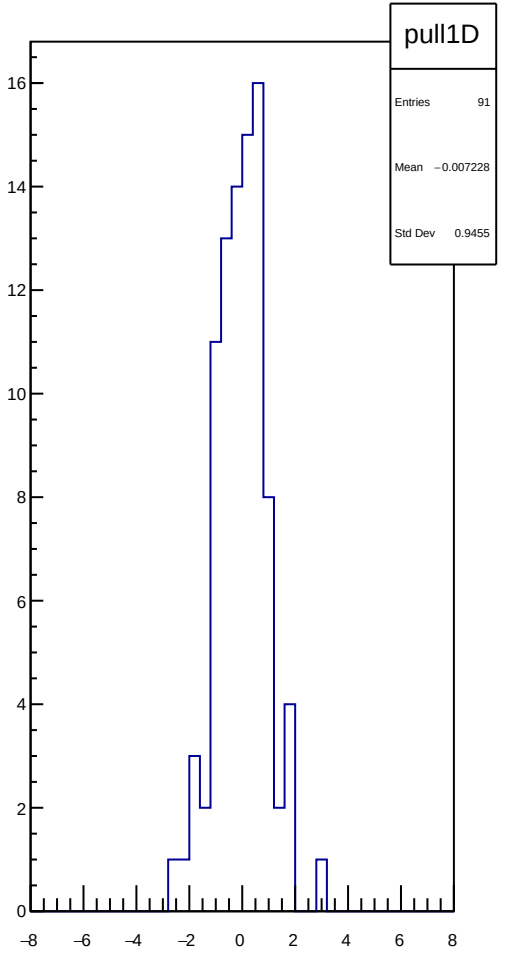

diff_bpm4ecY_rms vs run
χ² / ndf 4134 / 90
p0 5552 ± 4.226
6600
6400
6200
6000
5800
5600
5400
5200
5000

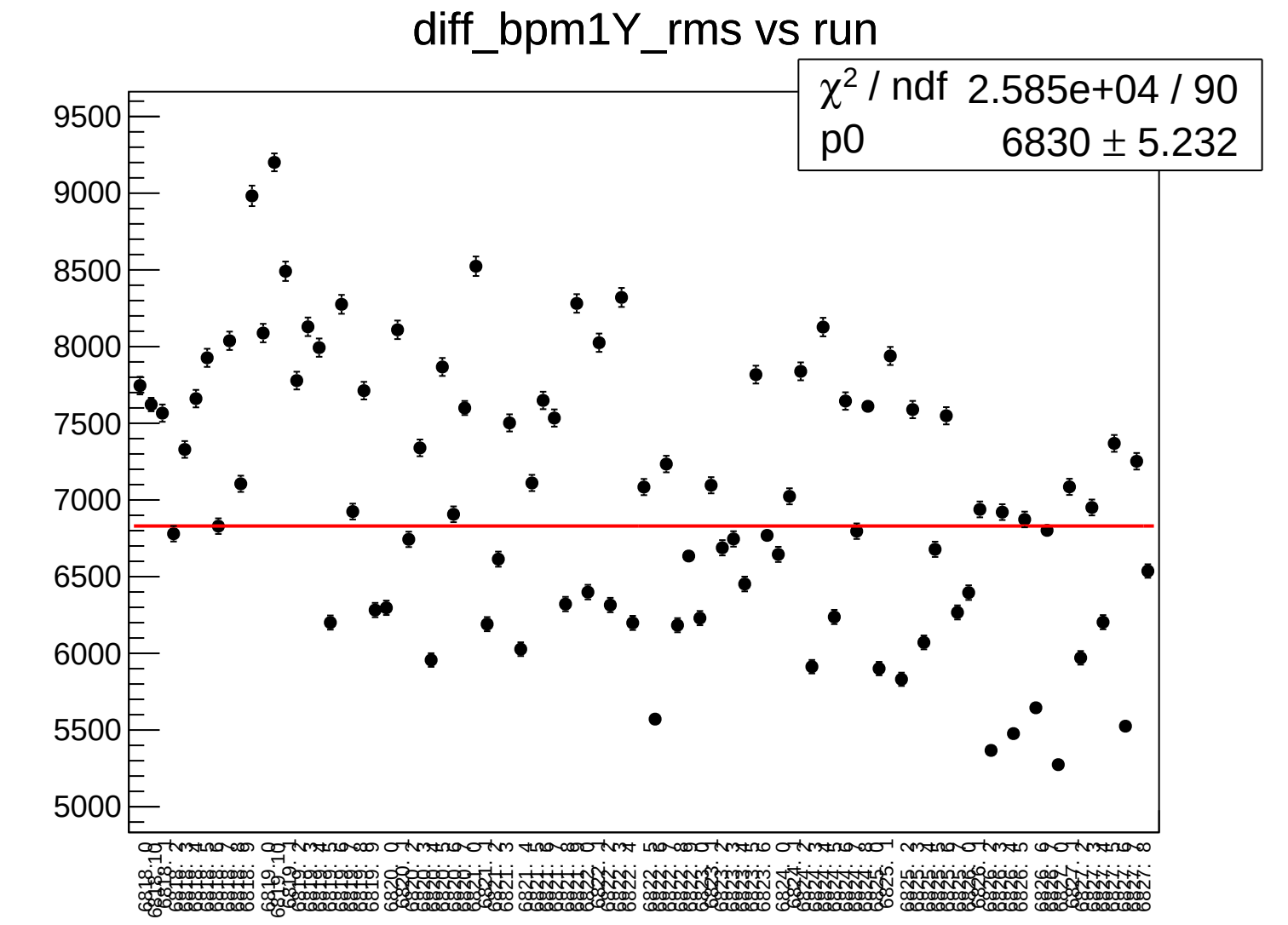

diff_bpm1X_mean vs run
χ² / ndf 74.12 / 90
p0 −14.05 ± 9.64
pull
Entries 91
Mean −2248
Std Dev 2281

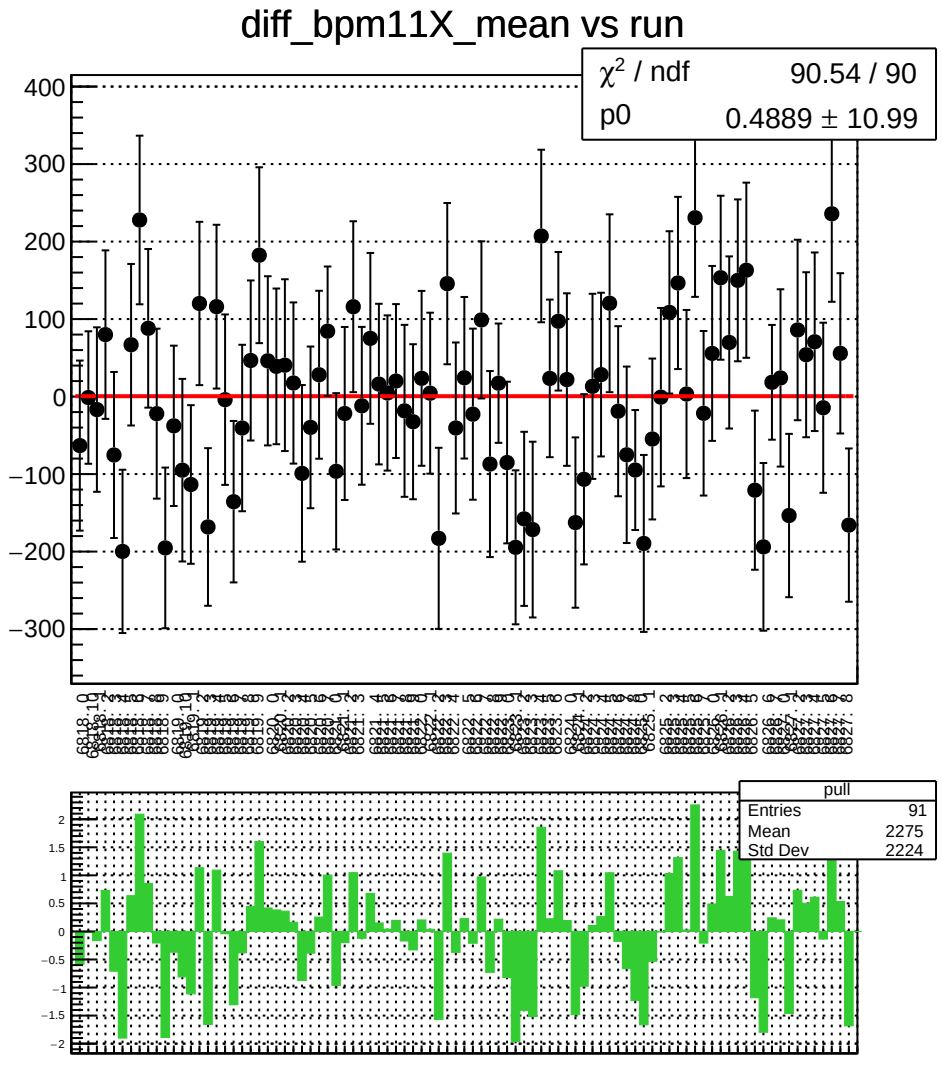

pull1D
Entries 91
Mean −0.001033
Std Dev 0.9025

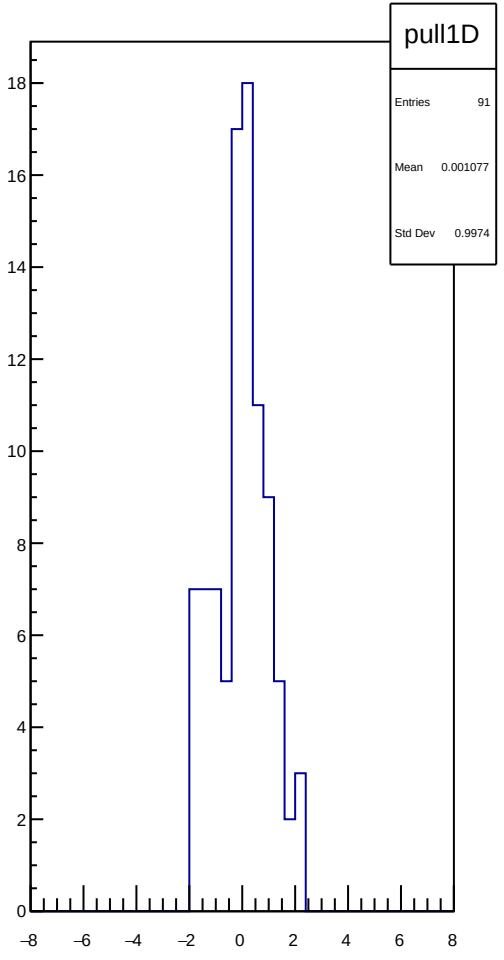

diff_bpm1X_rms vs run
χ^2 / ndf 3012 / 90
p0 8957 ± 6.816
10000
9800
9600
9400
9200
9000
8800
8600
8400
8200

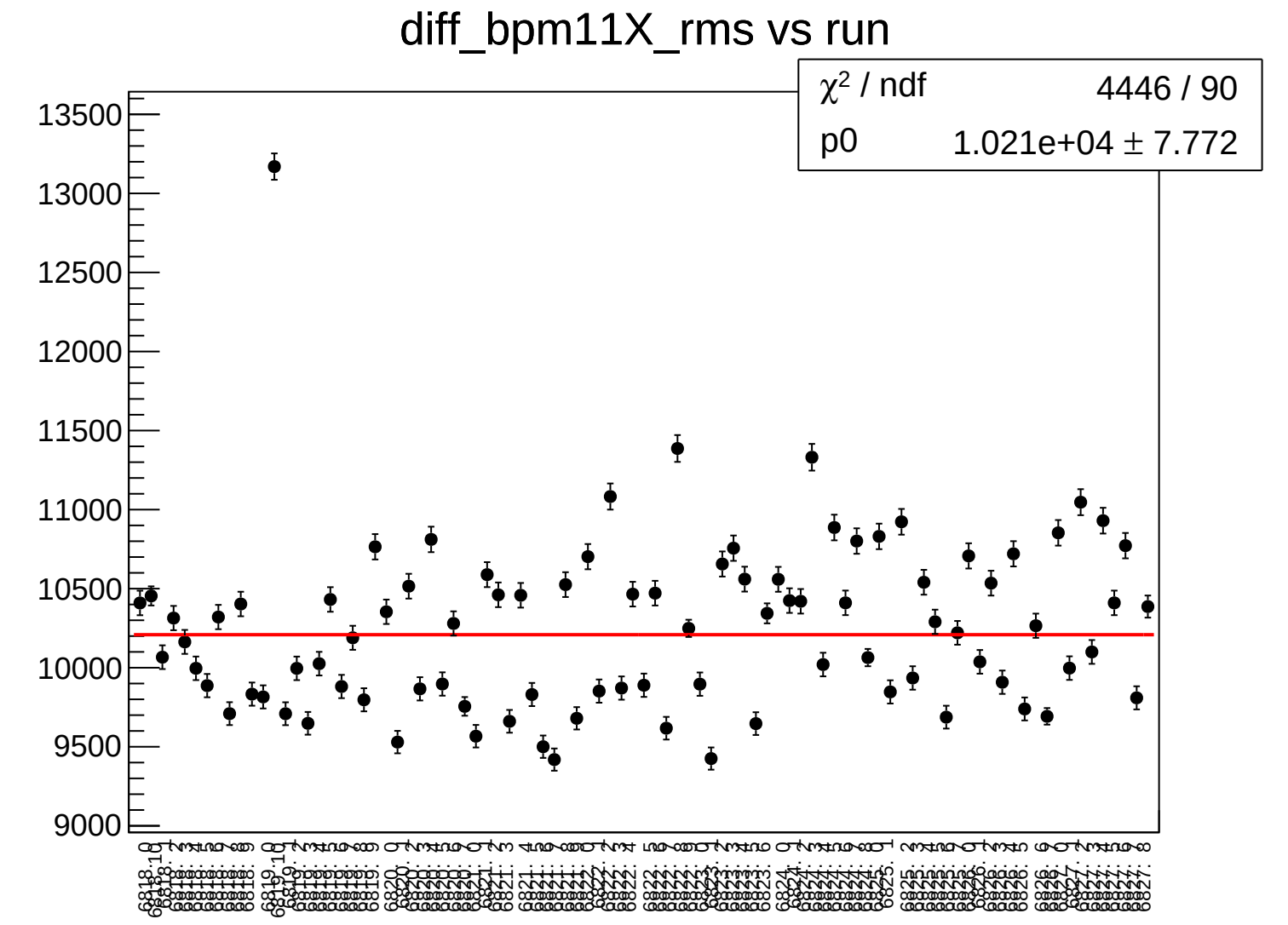

diff_bpm1Y_mean vs run
χ² / ndf 81.35 / 90
p0 −12.94 ± 7.4
pull
Entries 91
Mean −445.7
Std Dev 483.8

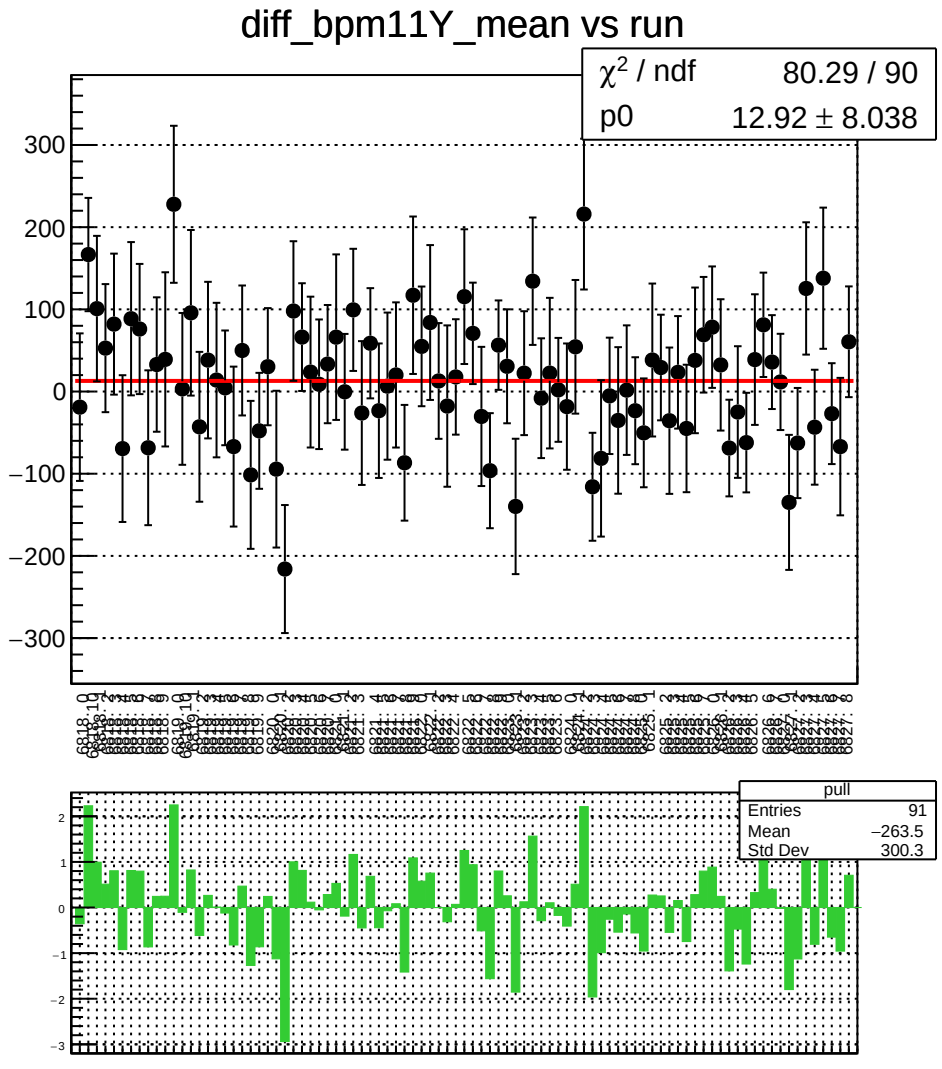

pull1D
Entries 91
Mean −0.007228
Std Dev 0.9455

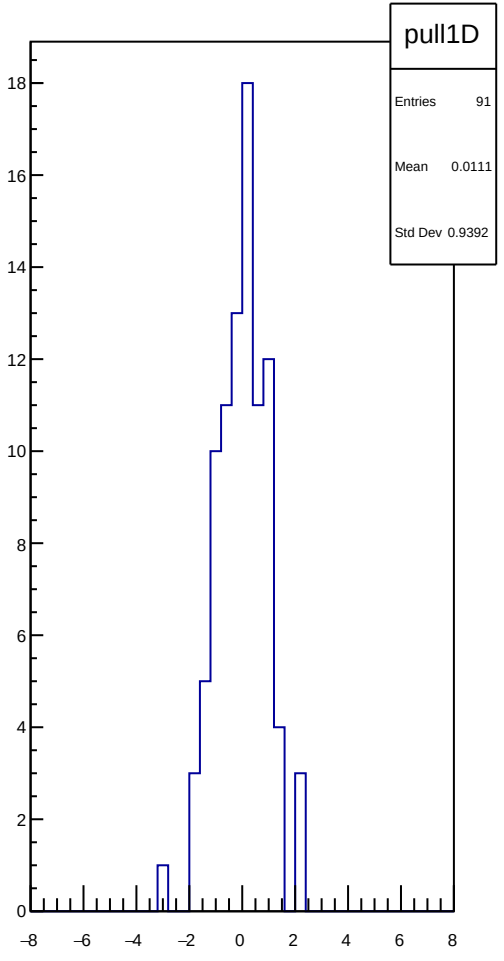

diff_bpm1Y_rms vs run
χ^2 / ndf 2.585e+04 / 90
p0 6830 ± 5.232
9500
9000
8500
8000
7500
7000
6500
6000
5500
5000

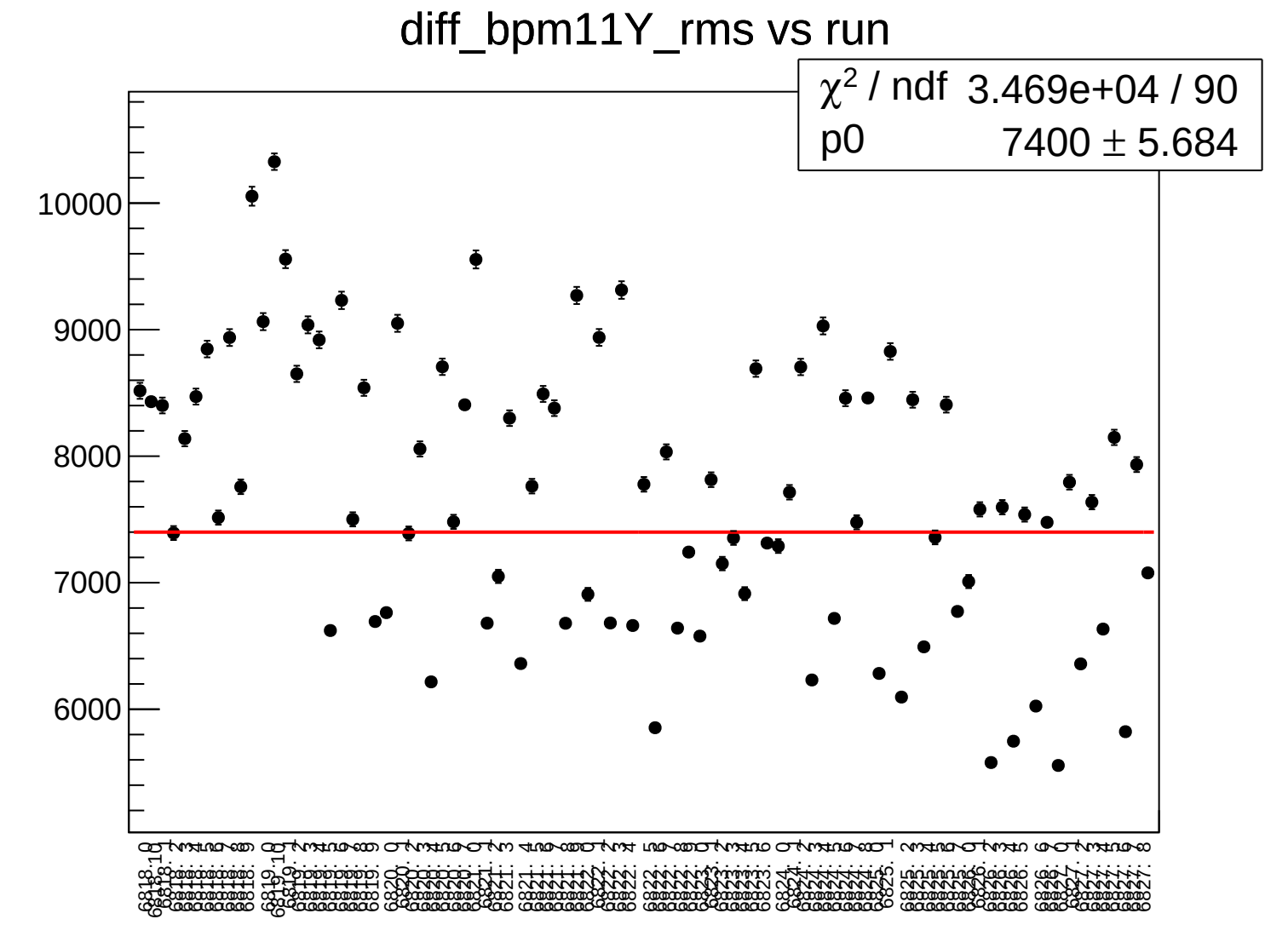

diff_bpm11X_mean vs run
χ² / ndf 90.54 / 90
p0 0.4889 ± 10.99
pull
Entries 91
Mean 2275
Std Dev 2224

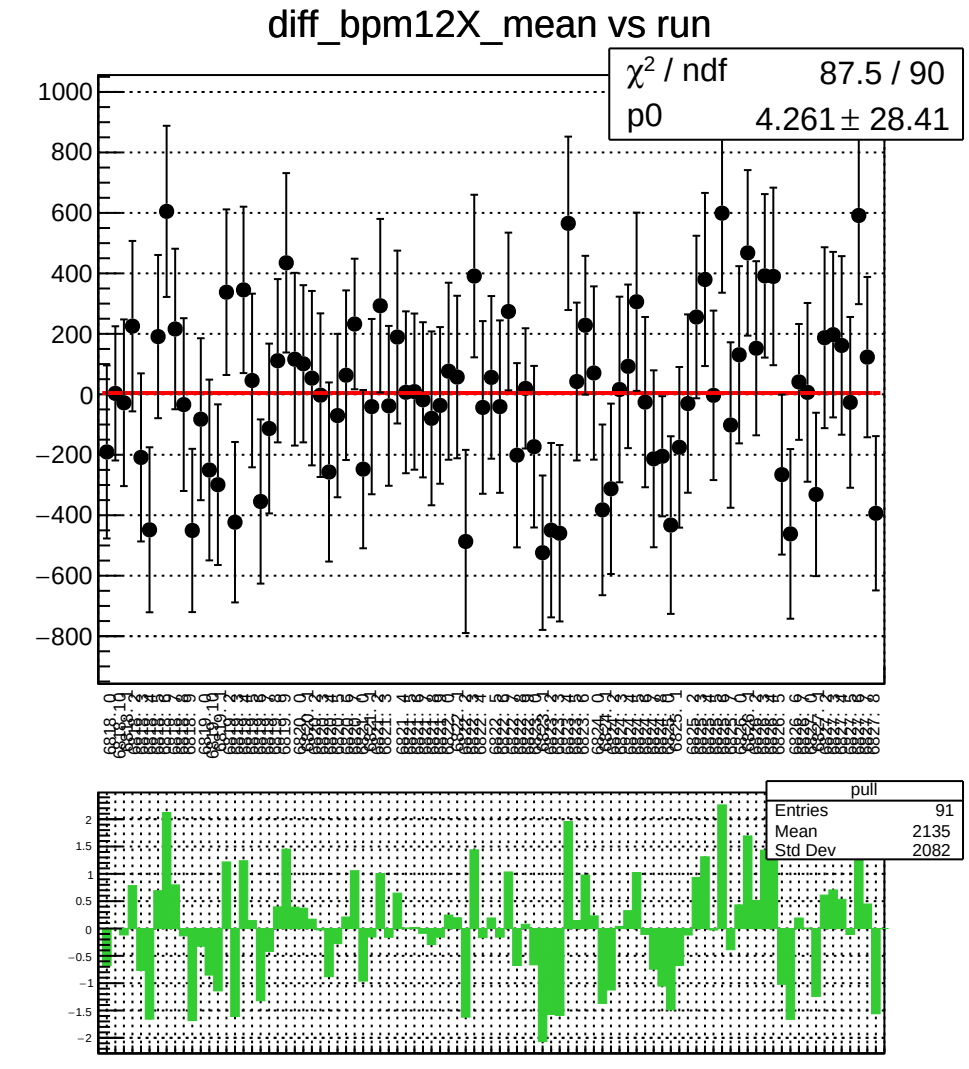

pull1D
Entries 91
Mean 0.001077
Std Dev 0.9974

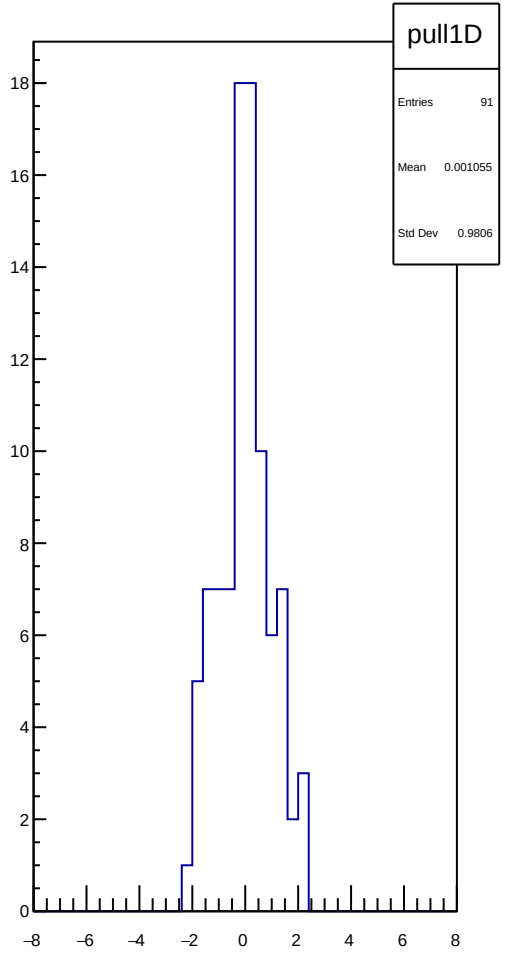

diff_bpm11X_rms vs run
χ² / ndf 4446 / 90
p0 1.021e+04 ± 7.772
13500
13000
12500
12000
11500
11000
10500
10000
9500
9000

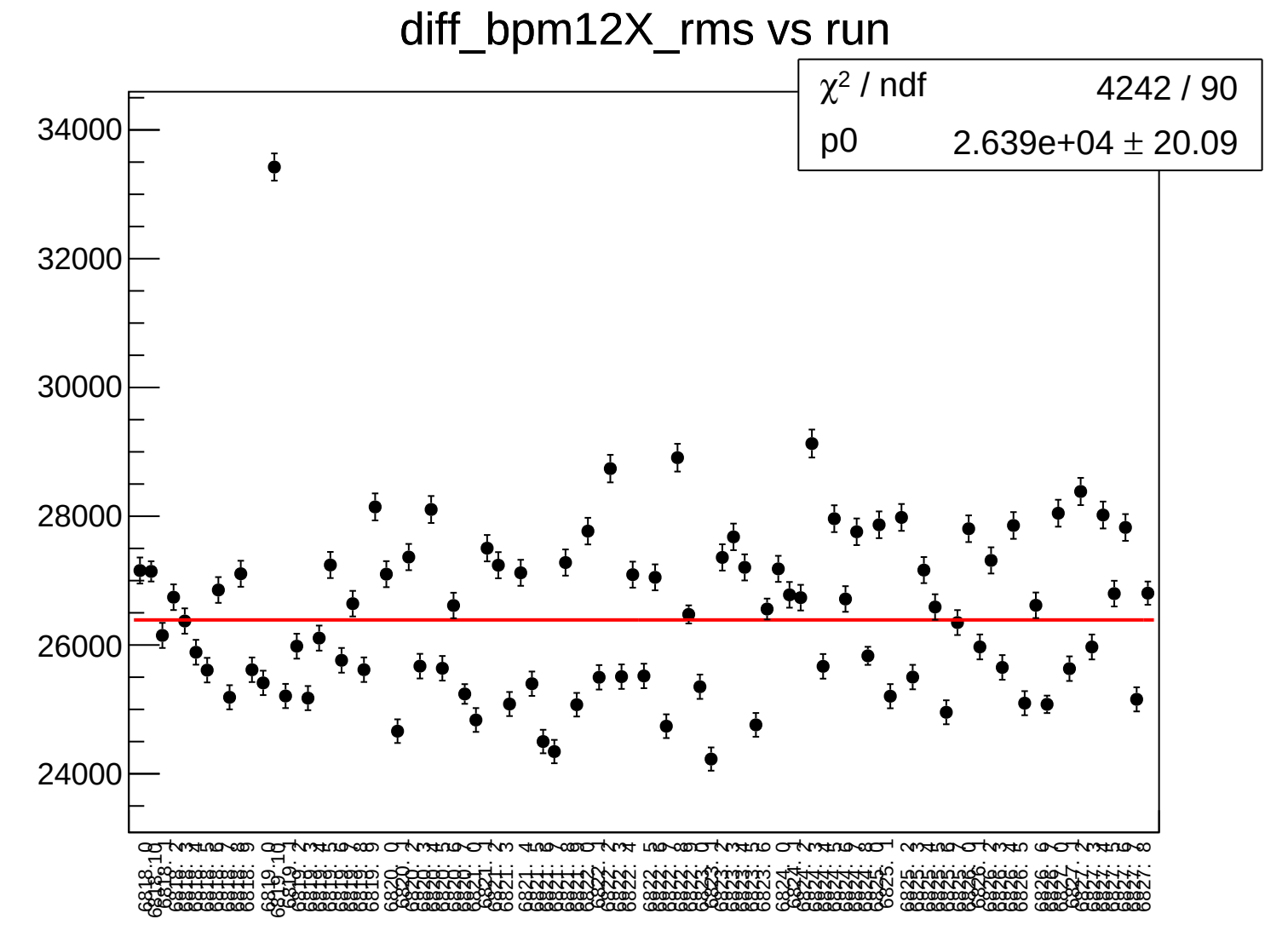

diff_bpm11Y_mean vs run
χ² / ndf 80.29 / 90
p0 12.92 ± 8.038
pull
Entries 91
Mean −263.5
Std Dev 300.3

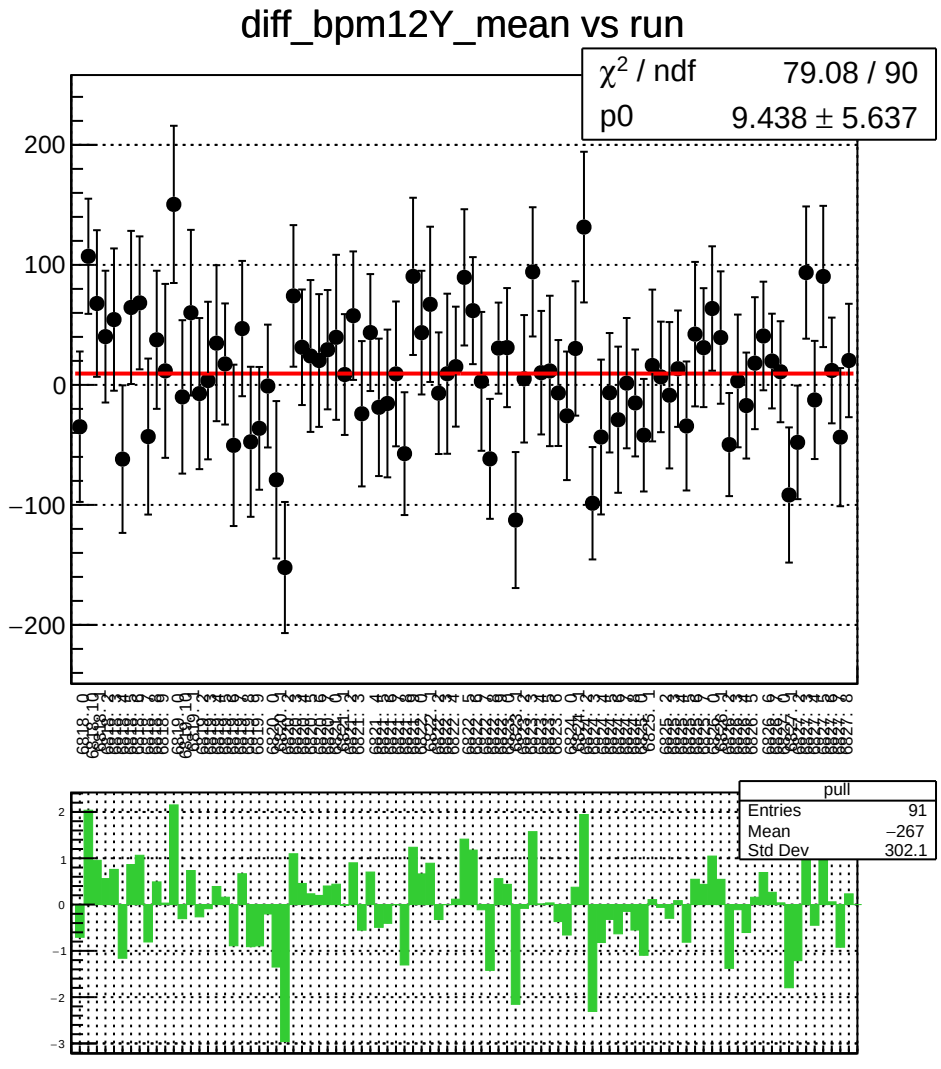

pull1D
Entries 91
Mean 0.0111
Std Dev 0.9392

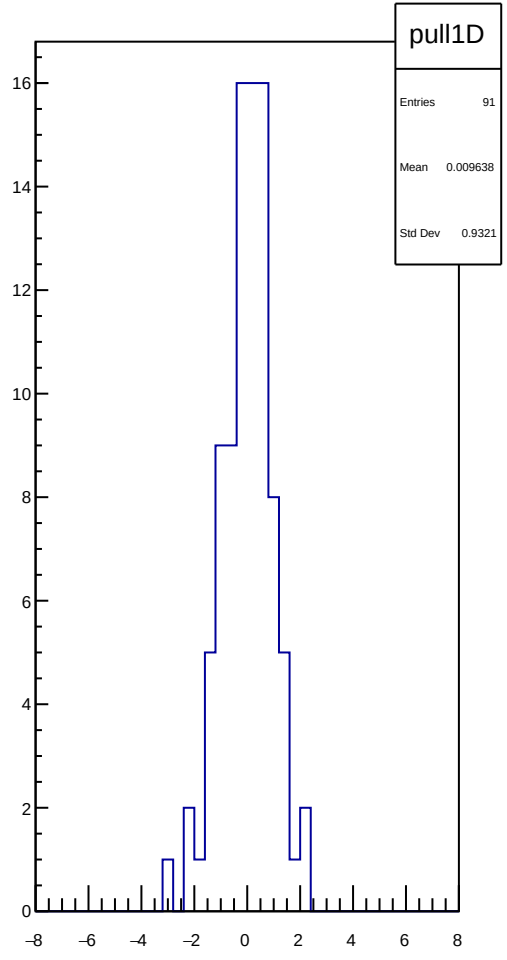

diff_bpm11Y_rms vs run
χ² / ndf 3.469e+04 / 90
p0 7400 ± 5.684
10000
9000
8000
7000
6000

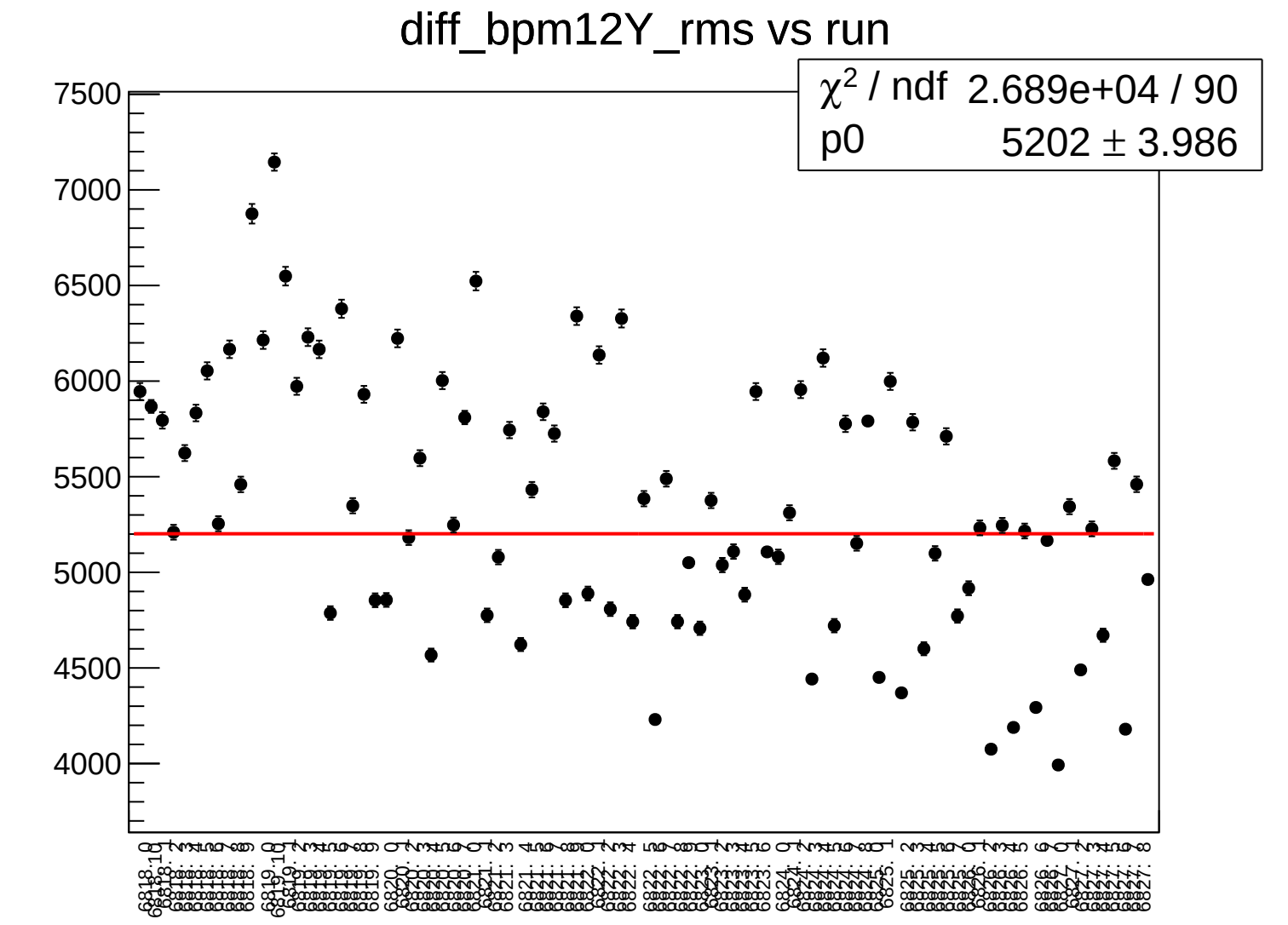

diff_bpm12X_mean vs run
χ² / ndf 87.5 / 90
p0 4.261 ± 28.41
pull
Entries 91
Mean 2135
Std Dev 2082

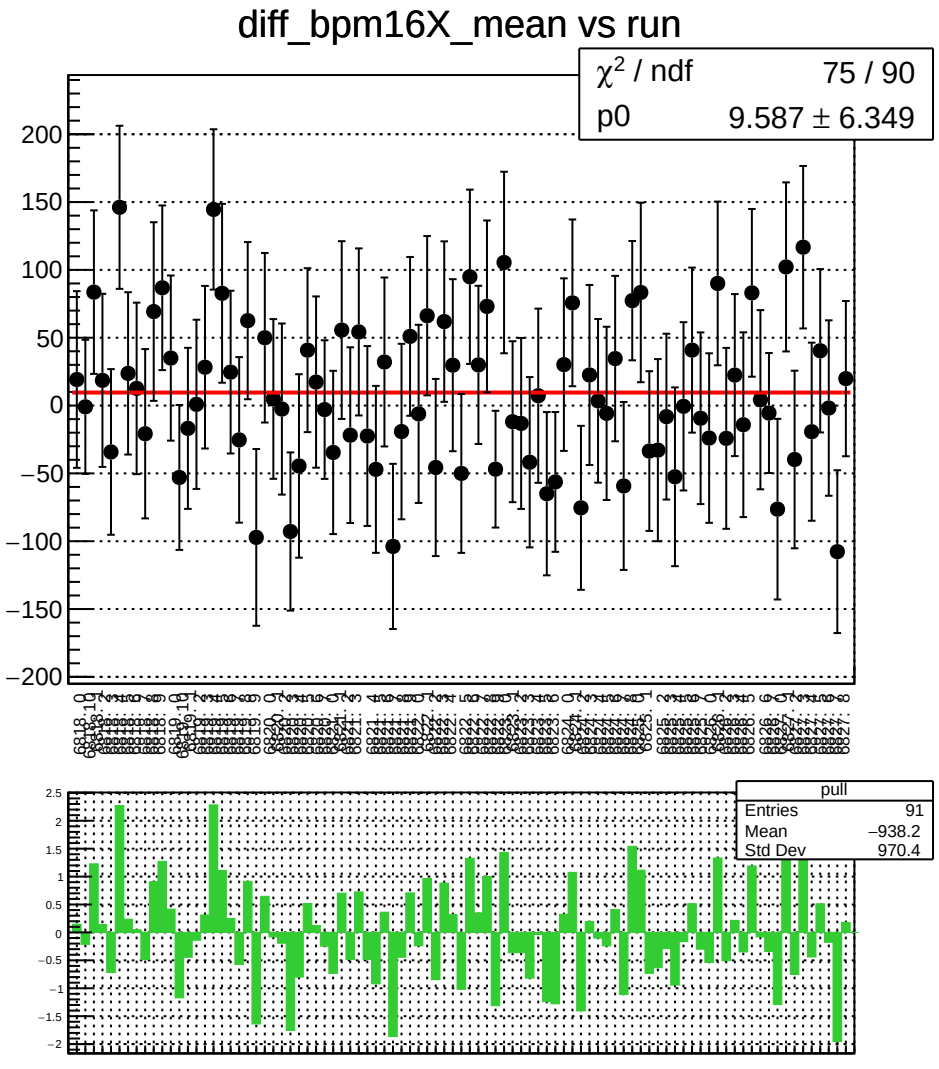

pull1D
Entries 91
Mean 0.001055
Std Dev 0.9806

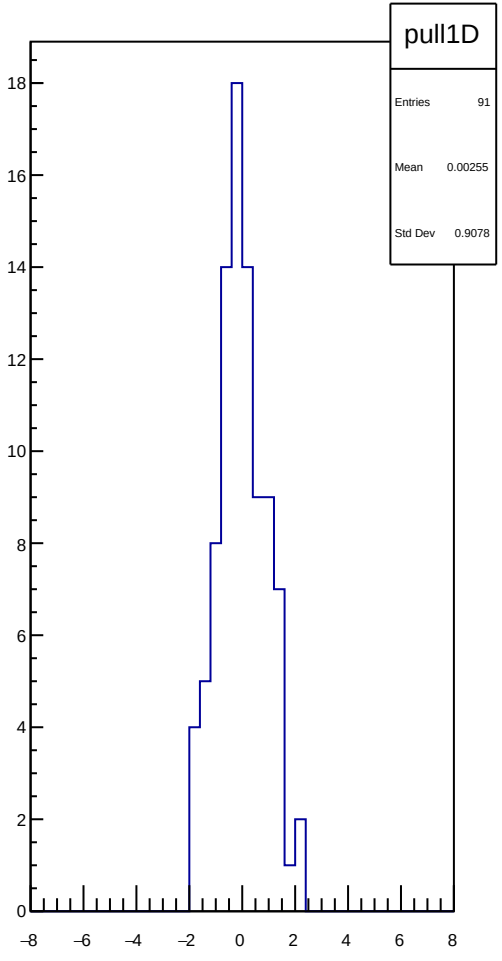

diff_bpm12X_rms vs run
χ² / ndf 4242 / 90
p0 2.639e+04 ± 20.09
34000
32000
30000
28000
26000
24000

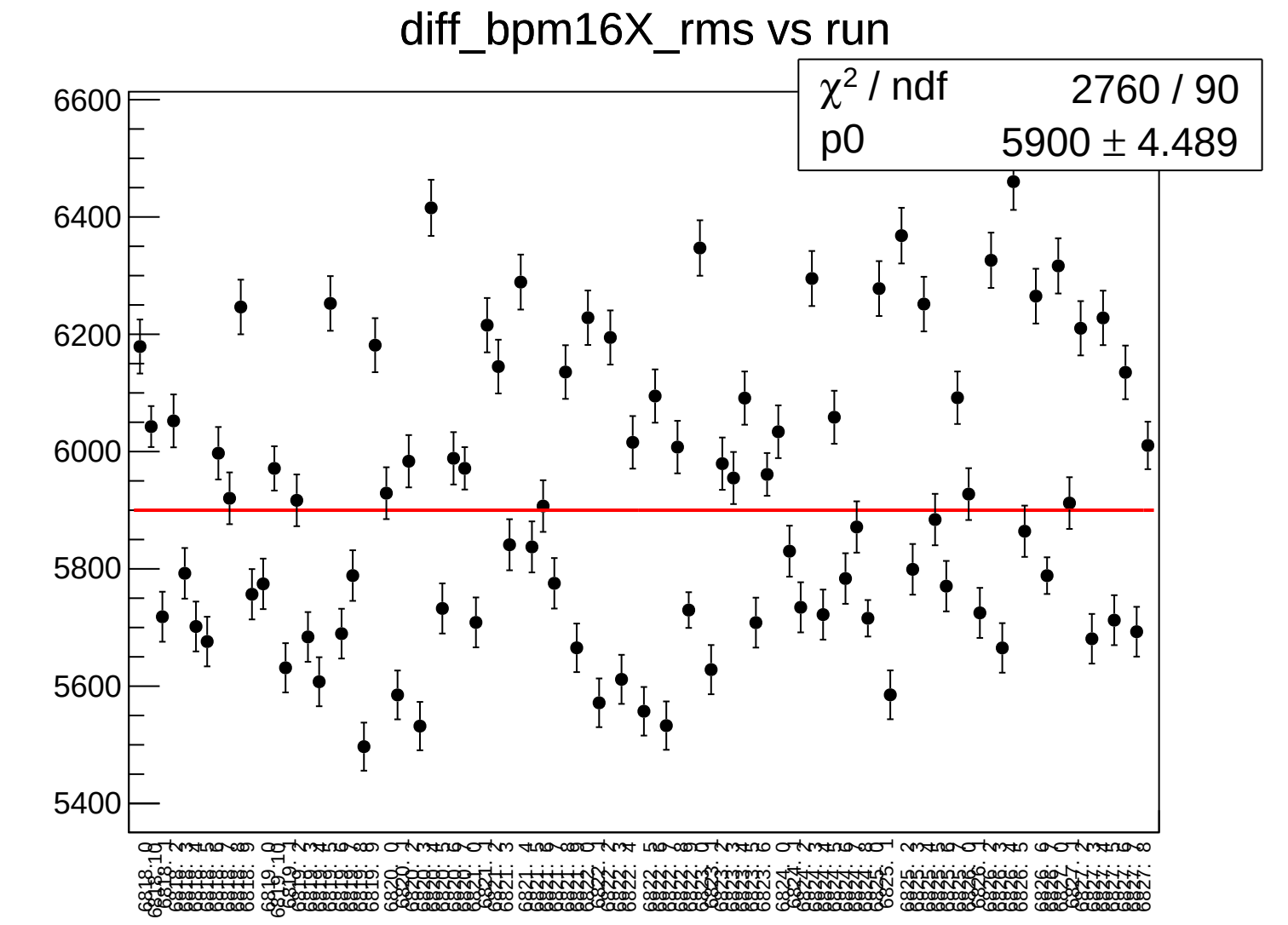

diff_bpm12Y_mean vs run
χ^2 / ndf 79.08 / 90
p0 9.438 ± 5.637
200
100
0
−100
−200
pull
Entries 91
Mean −267
Std Dev 302.1
2
1
0
−1
−2
−3

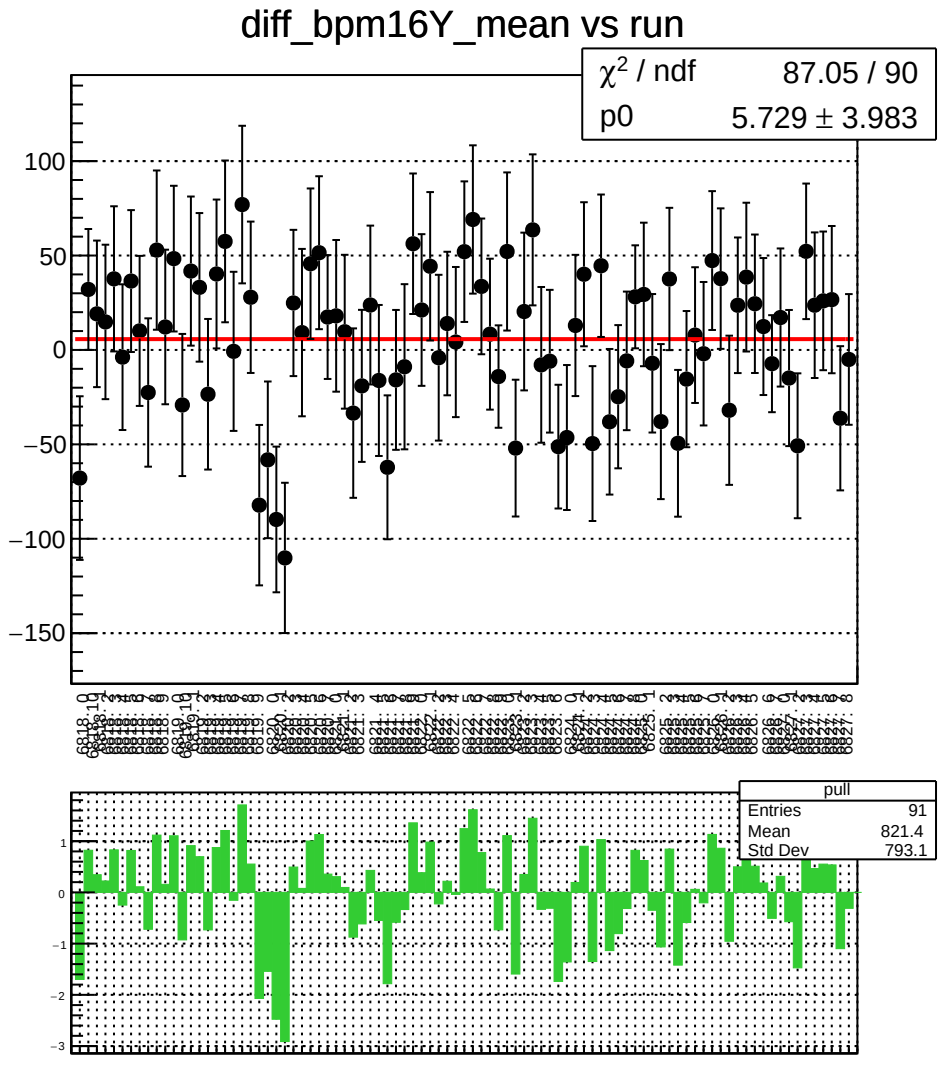

pull1D
Entries 91
Mean 0.009638
Std Dev 0.9321
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

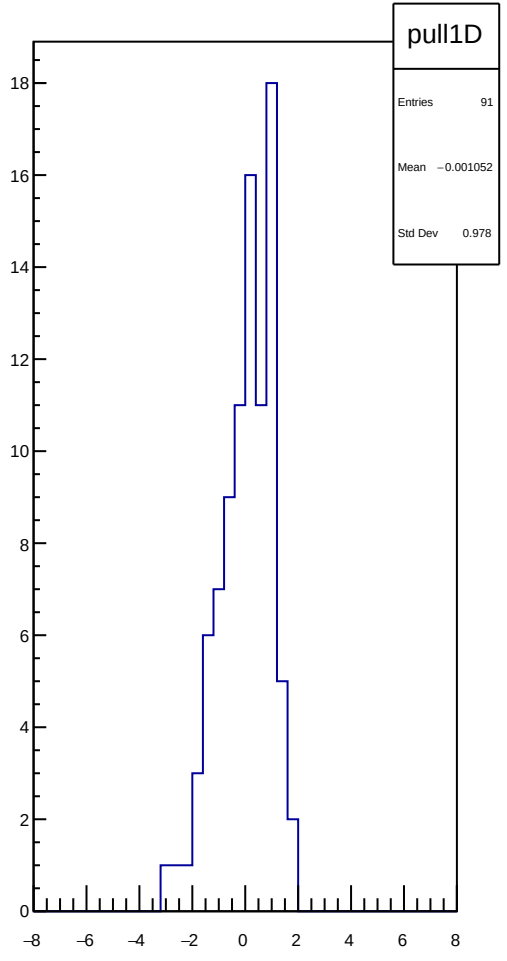

diff_bpm12Y_rms vs run
χ² / ndf 2.689e+04 / 90
p0 5202 ± 3.986
7500
7000
6500
6000
5500
5000
4500
4000

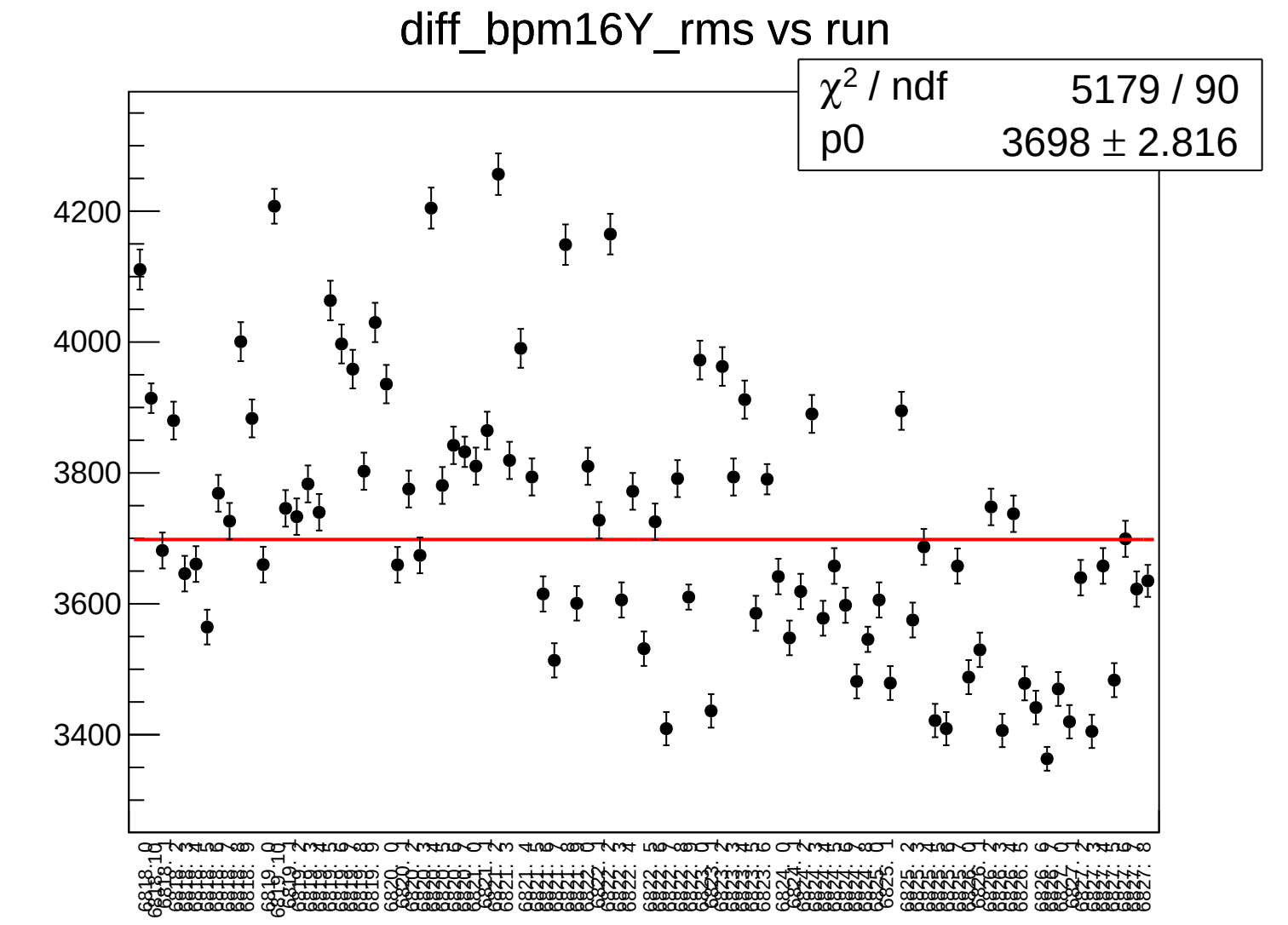

diff_bpm16X_mean vs run
χ^2 / ndf 75 / 90
p0 9.587 ± 6.349
pull
Entries 91
Mean −938.2
Std Dev 970.4

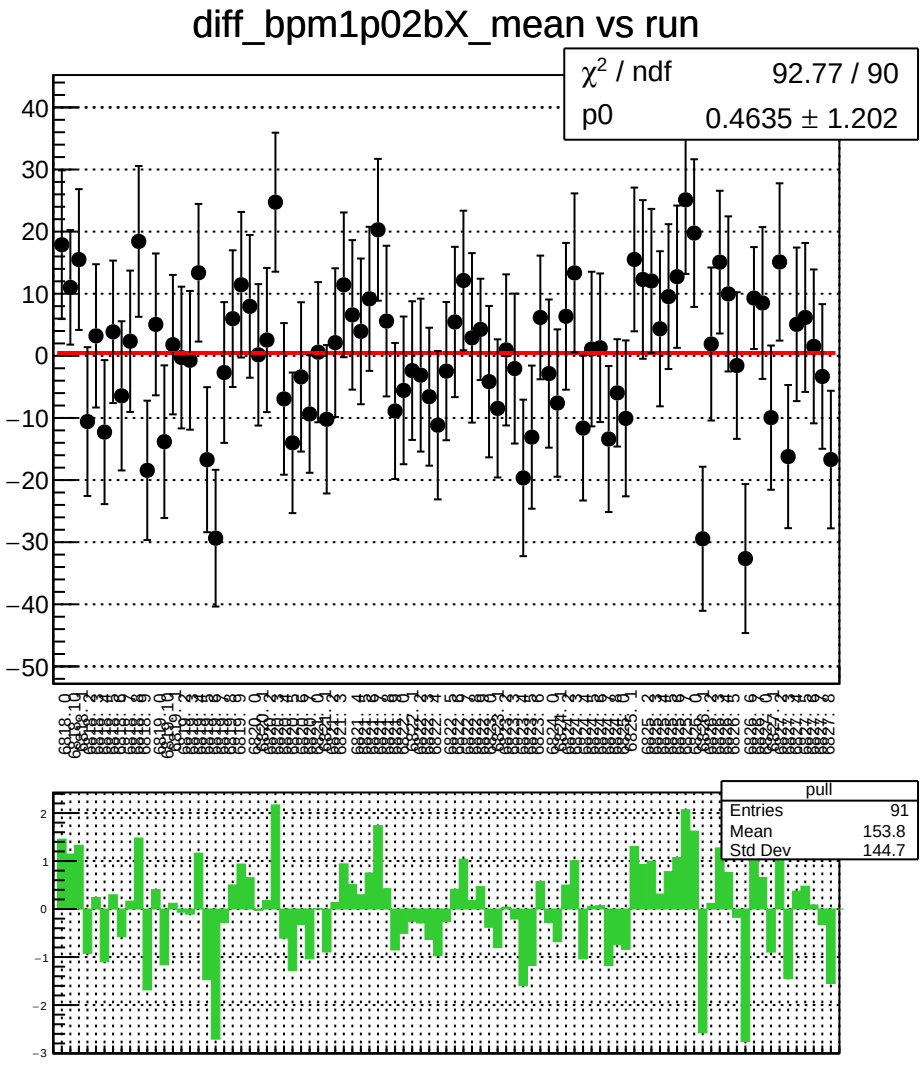

pull1D
Entries 91
Mean 0.00255
Std Dev 0.9078

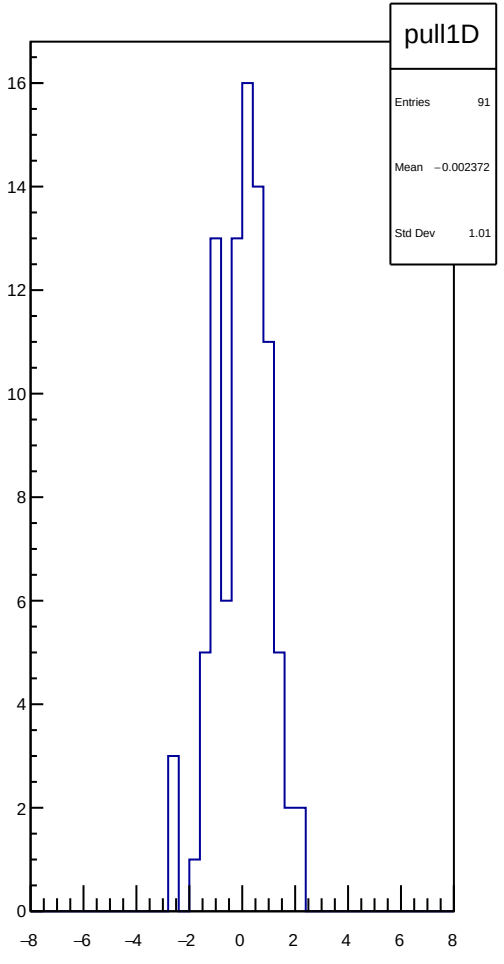

diff_bpm16X_rms vs run
χ² / ndf 2760 / 90
p0 5900 ± 4.489
6600
6400
6200
6000
5800
5600
5400

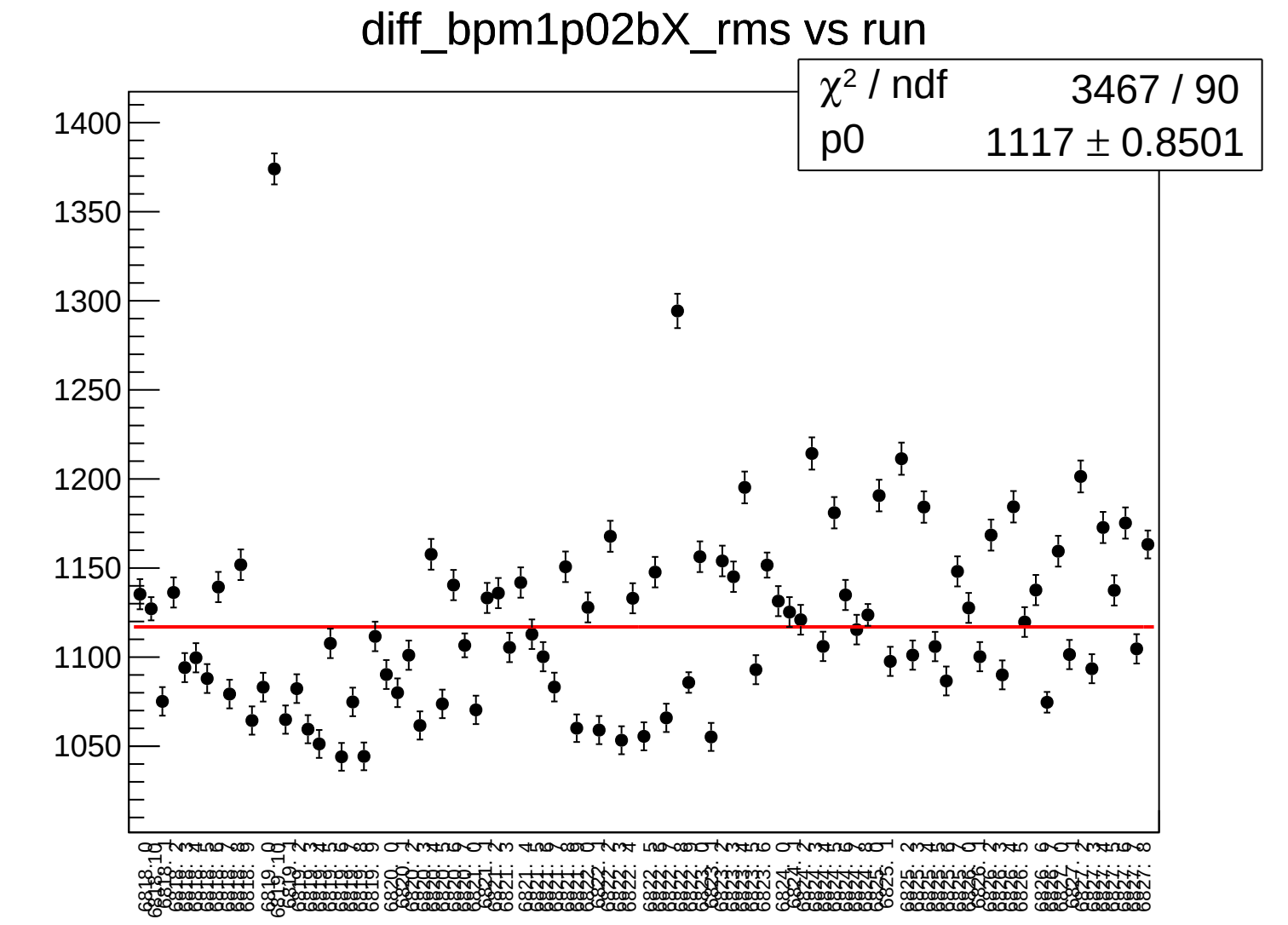

diff_bpm16Y_mean vs run
χ² / ndf 87.05 / 90
p0 5.729 ± 3.983
100
50
0
−50
−100
−150
pull
Entries 91
Mean 821.4
Std Dev 793.1
1
0
−1
−2
−3

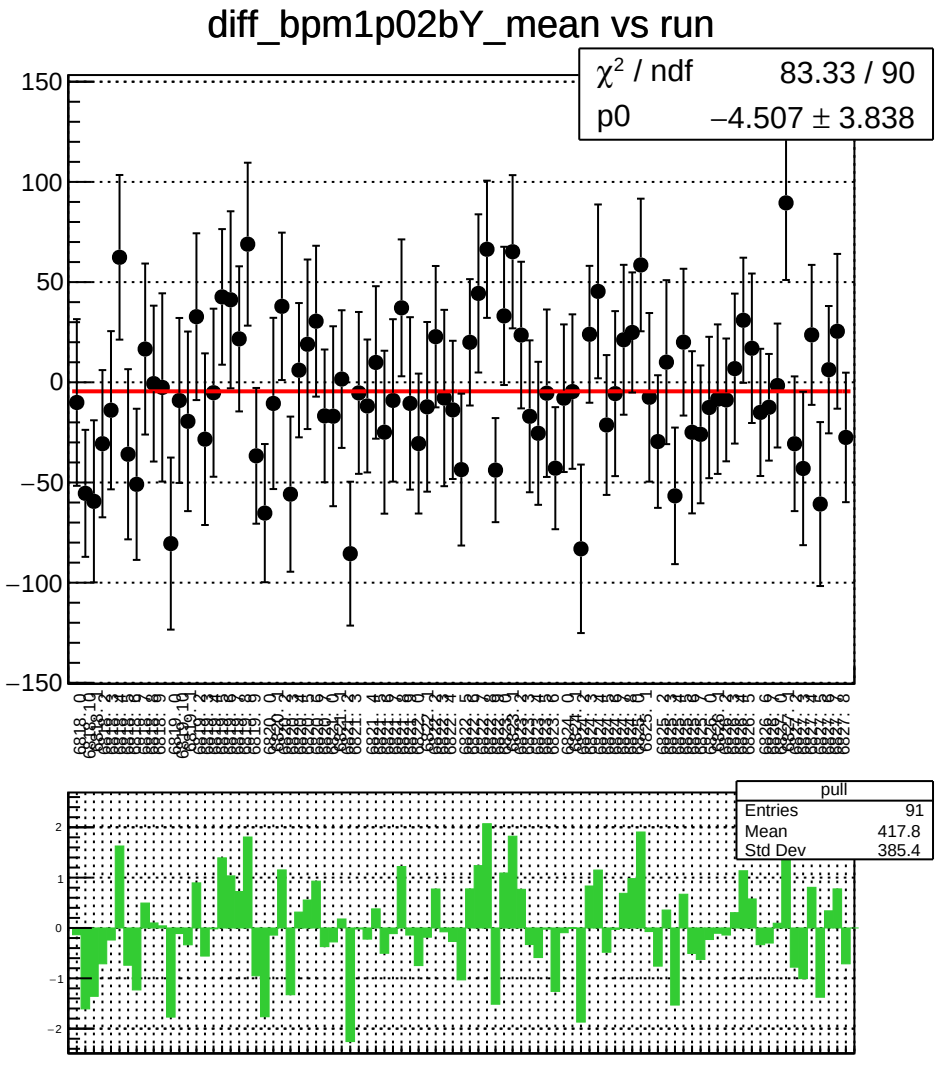

pull1D
Entries 91
Mean −0.001052
Std Dev 0.978
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

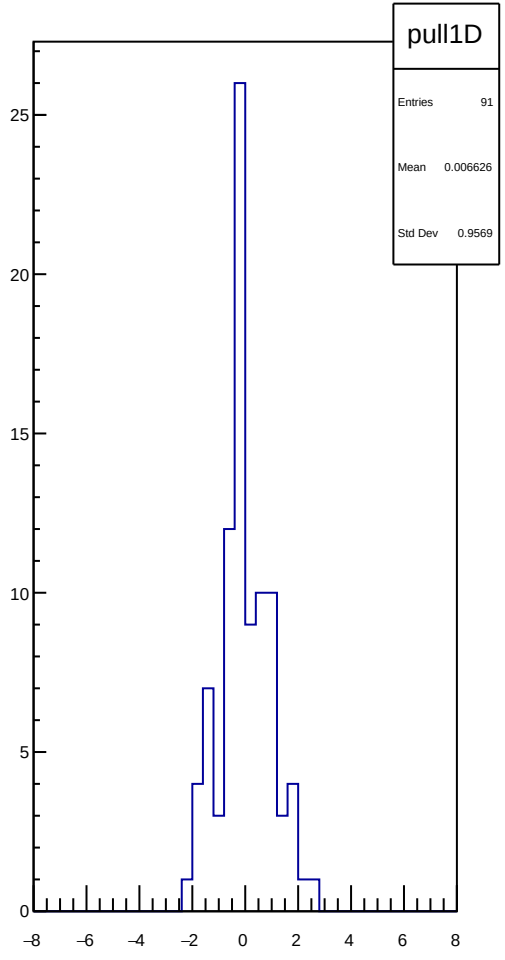

diff_bpm16Y_rms vs run
χ² / ndf 5179 / 90
p0 3698 ± 2.816
4200
4000
3800
3600
3400

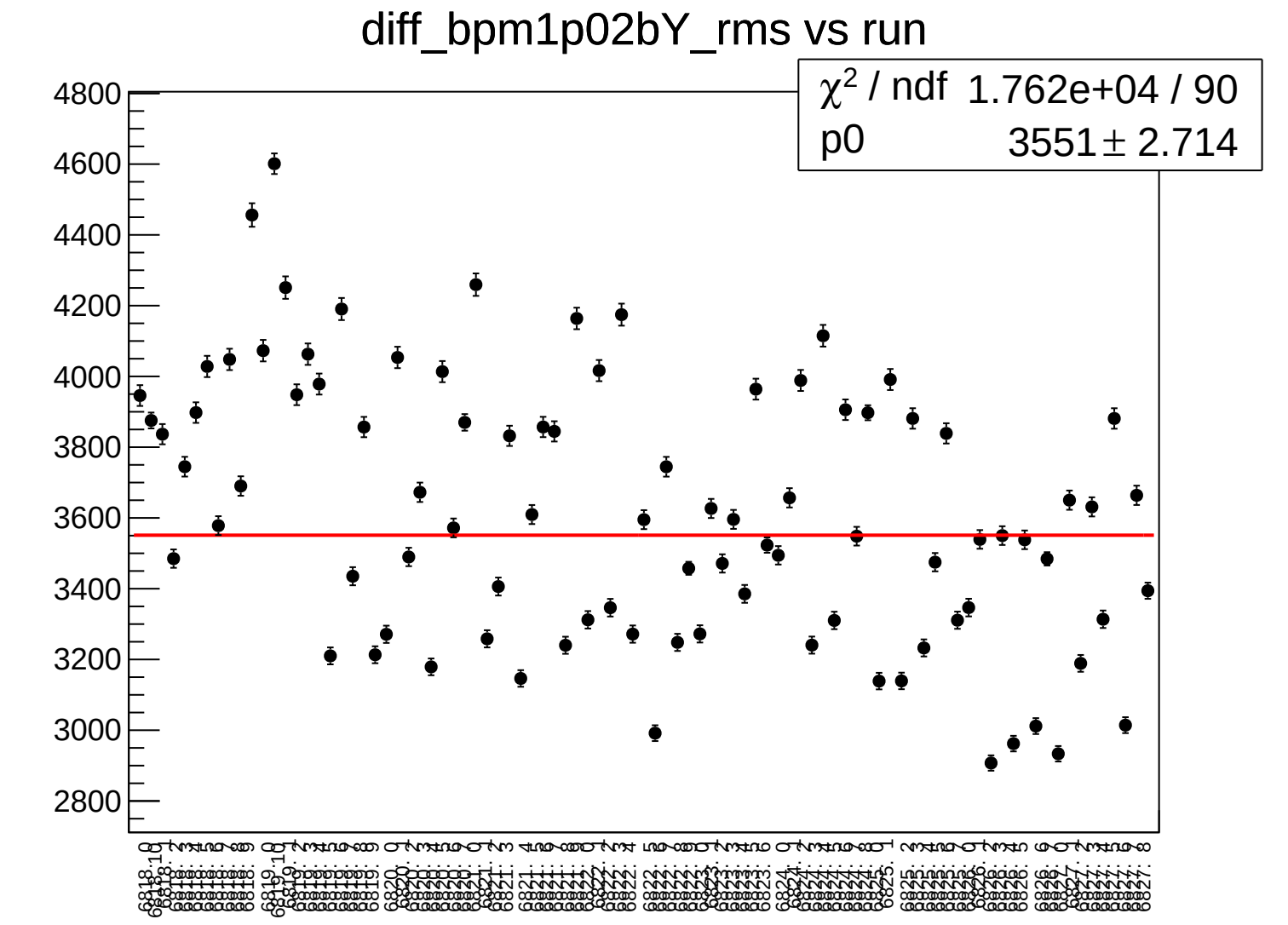

diff_bpm1p02bX_mean vs run
χ² / ndf 92.77 / 90
p0 0.4635 ± 1.202
pull
Entries 91
Mean 153.8
Std Dev 144.7

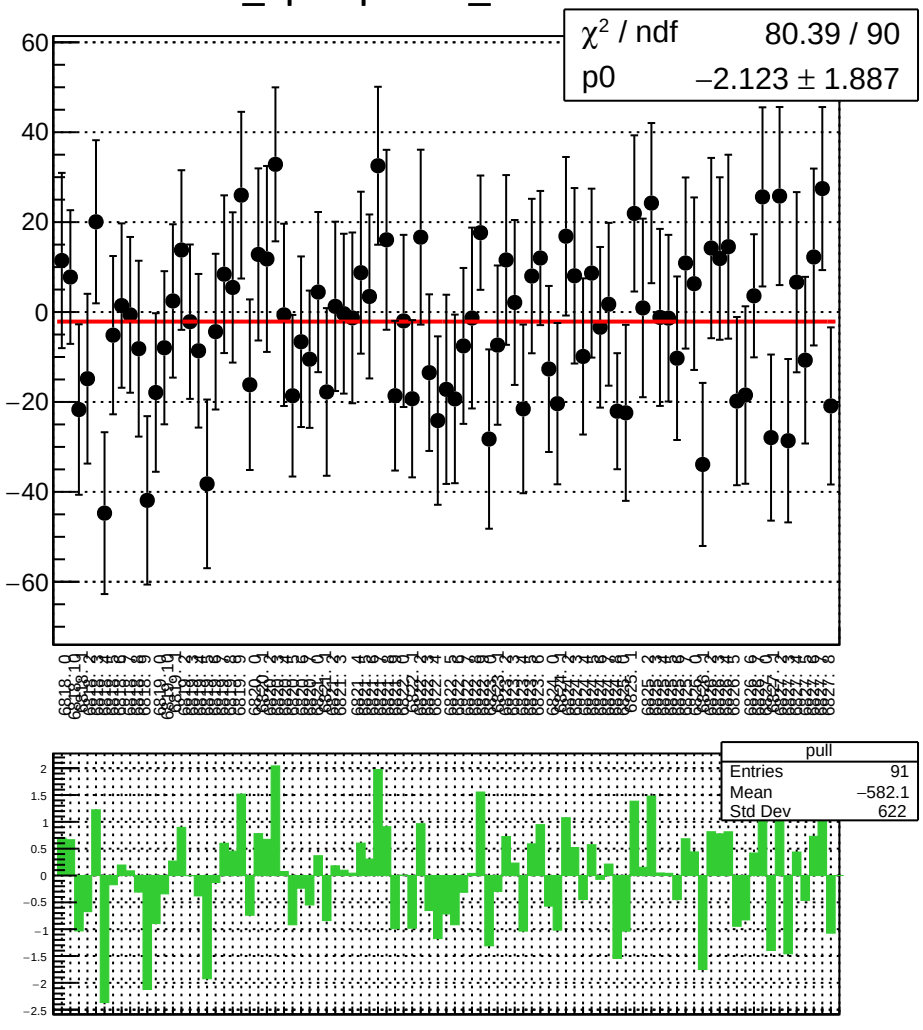

pull1D
Entries 91
Mean −0.002372
Std Dev 1.01

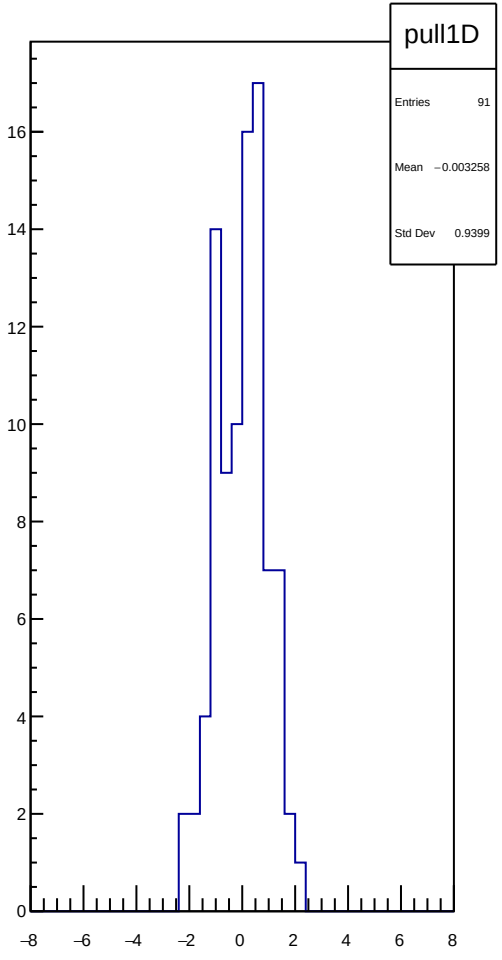

diff_bpm1p02bX_rms vs run
χ² / ndf 3467 / 90
p0 1117 ± 0.8501
1400
1350
1300
1250
1200
1150
1100
1050

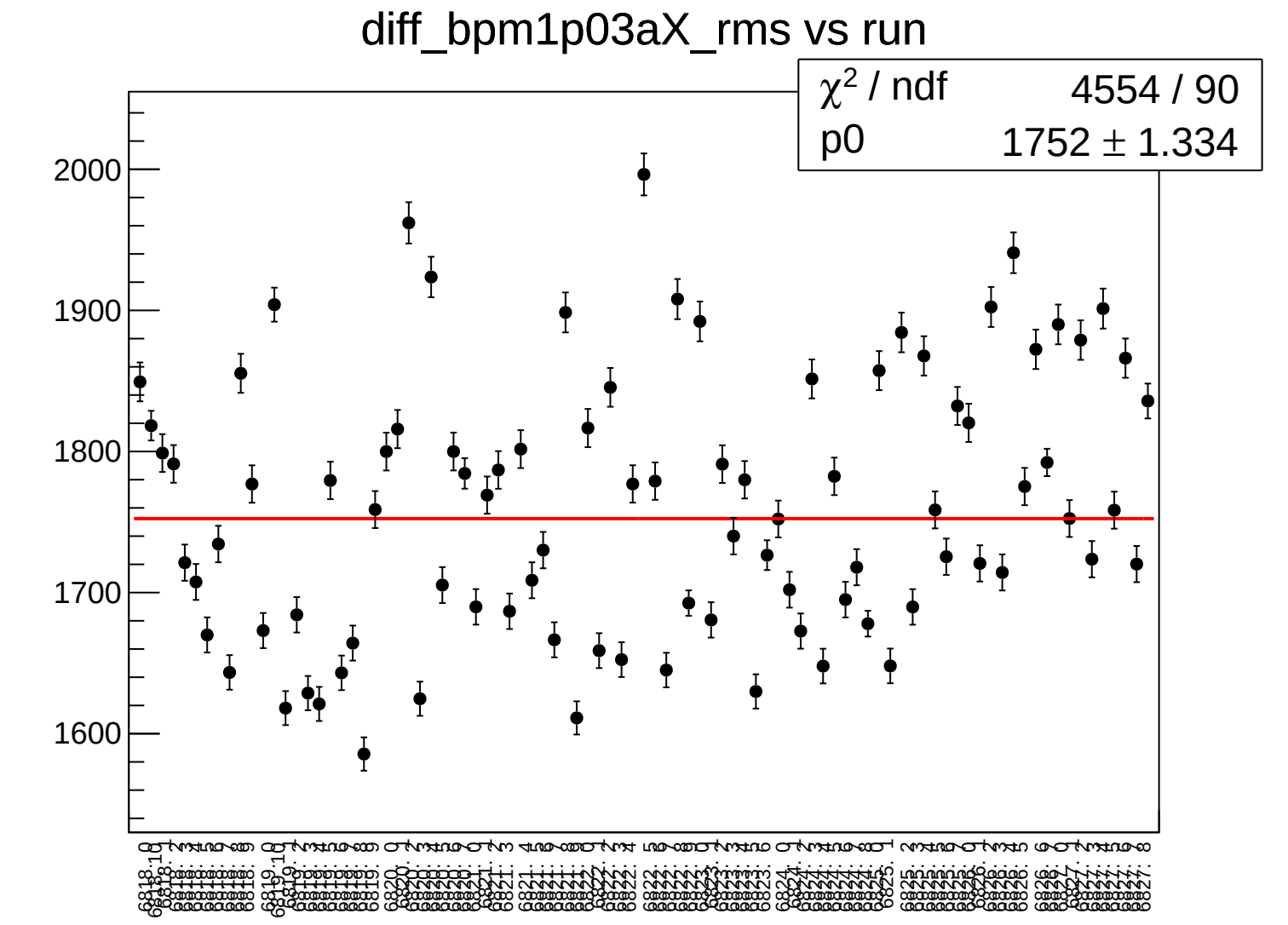

diff_bpm1p02bY_mean vs run
χ² / ndf 83.33 / 90
p0 −4.507 ± 3.838
150
100
50
0
−50
−100
−150
pull
Entries 91
Mean 417.8
Std Dev 385.4
2
1
0
−1
−2

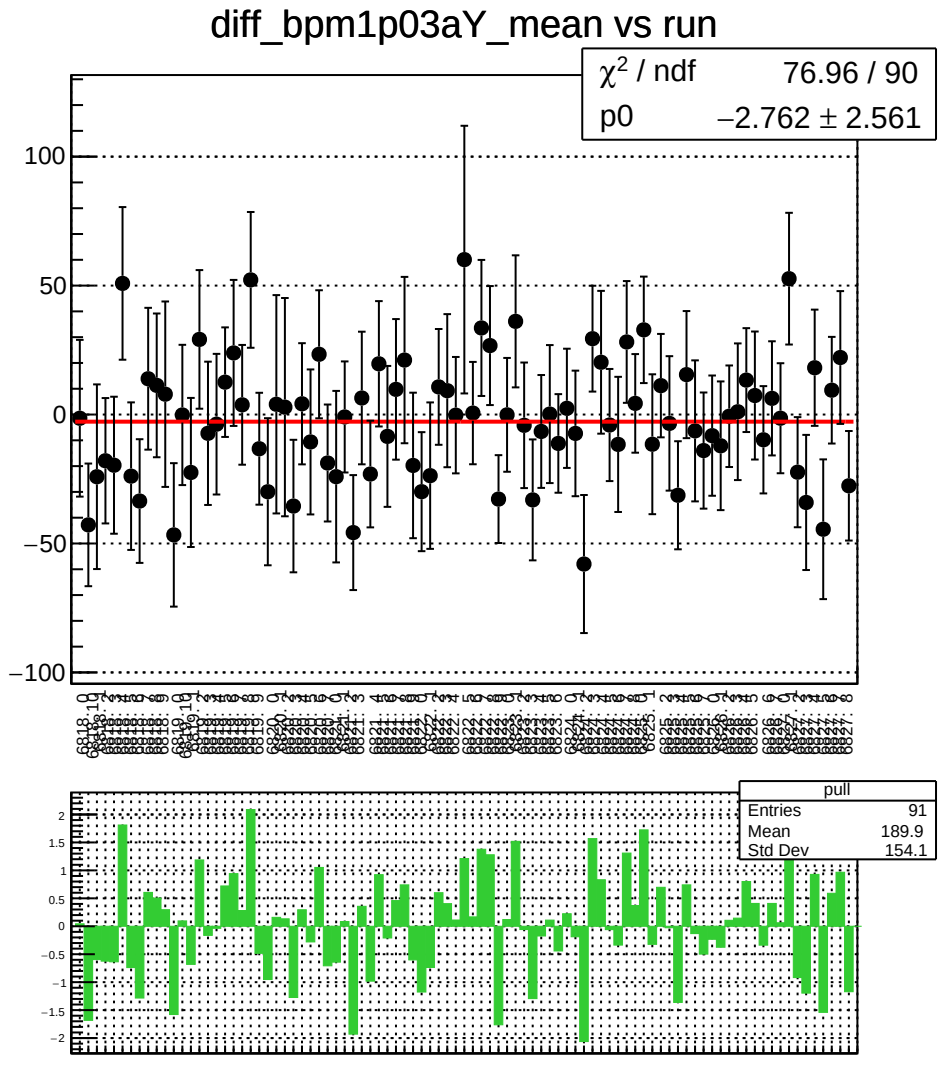

pull1D
Entries 91
Mean 0.006626
Std Dev 0.9569
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

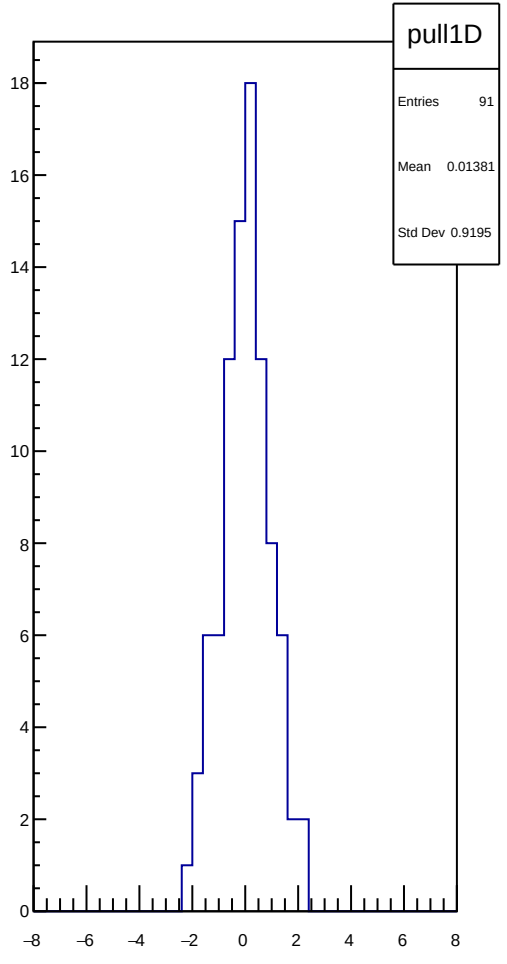

diff_bpm1p02bY_rms vs run
χ² / ndf 1.762e+04 / 90
p0 3551 ± 2.714
4800
4600
4400
4200
4000
3800
3600
3400
3200
3000
2800

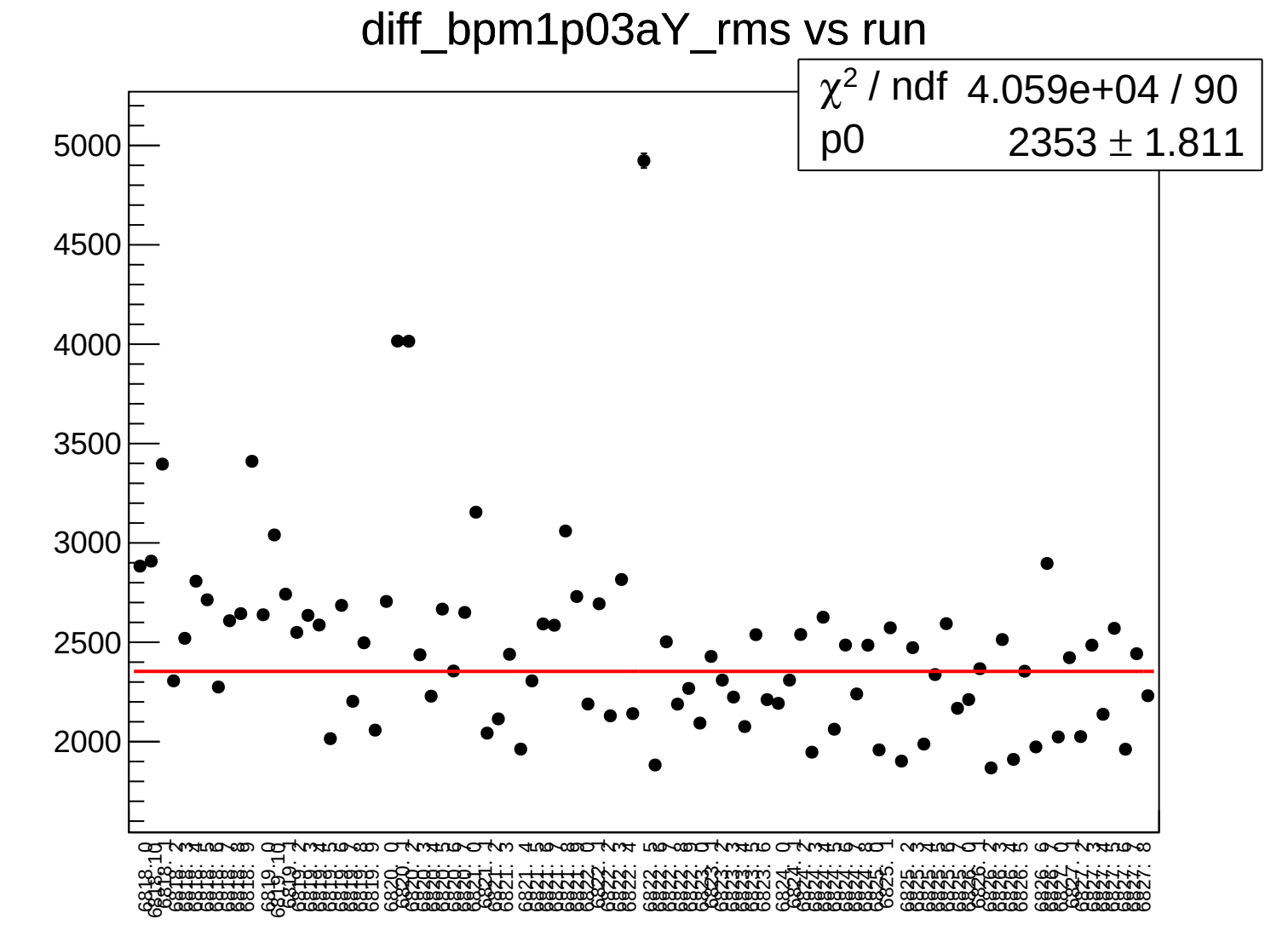

diff_bpm1p03aX_mean vs run
χ² / ndf 80.39 / 90
p0 −2.123 ± 1.887
pull
Entries 91
Mean −582.1
Std Dev 622

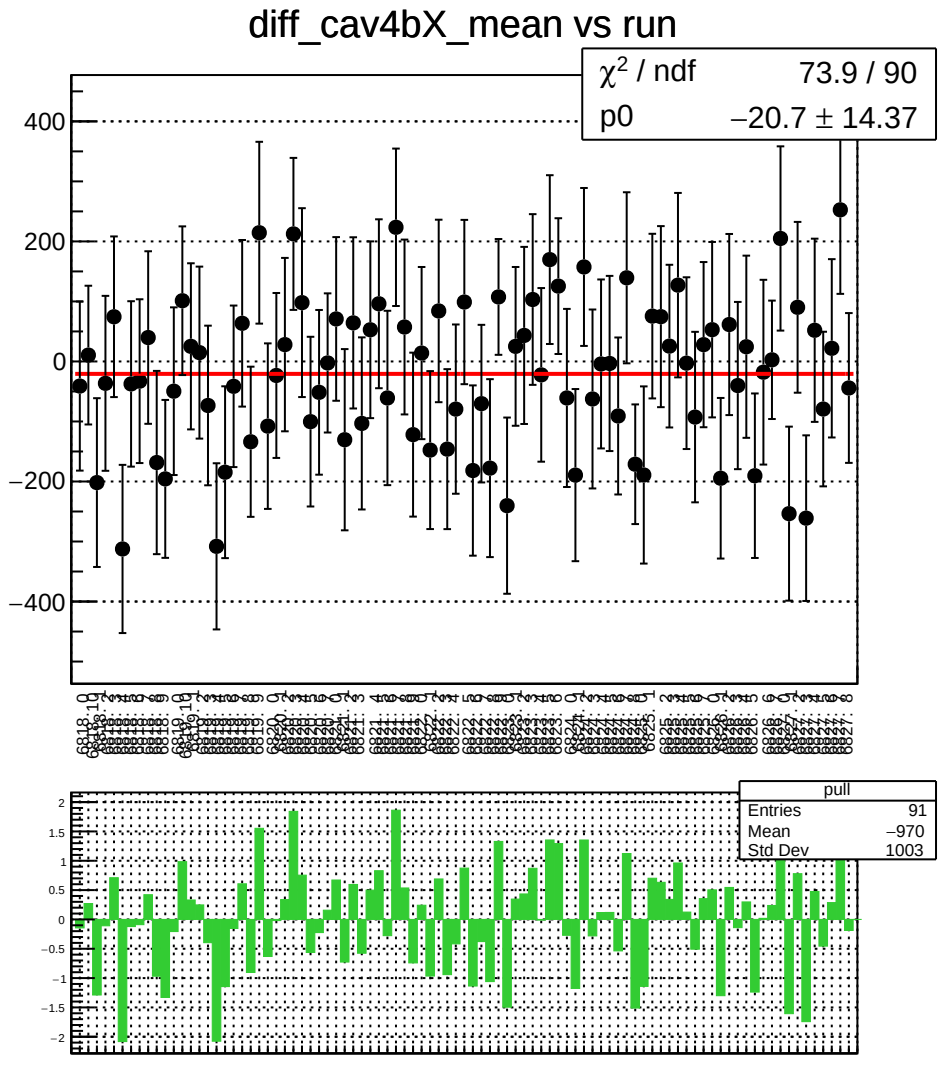

pull1D
Entries 91
Mean −0.003258
Std Dev 0.9399

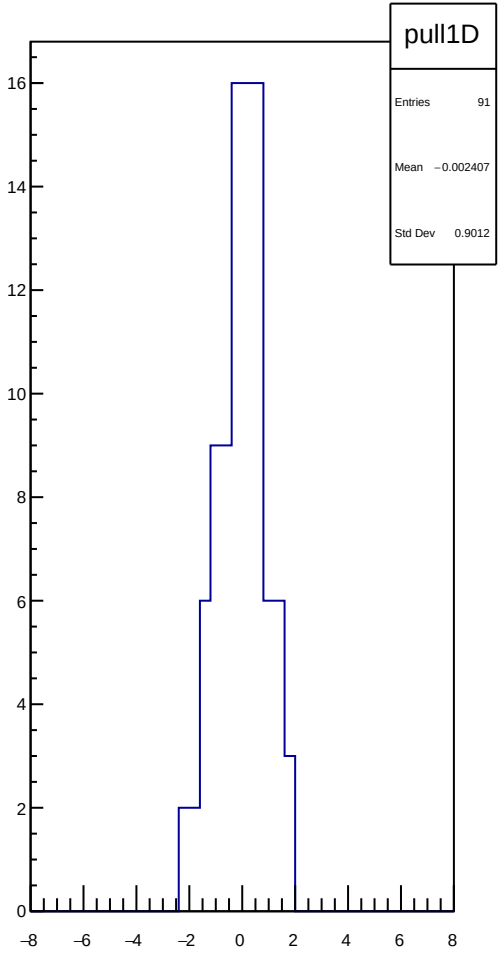

diff_bpm1p03aX_rms vs run
χ² / ndf 4554 / 90
p0 1752 ± 1.334
2000
1900
1800
1700
1600

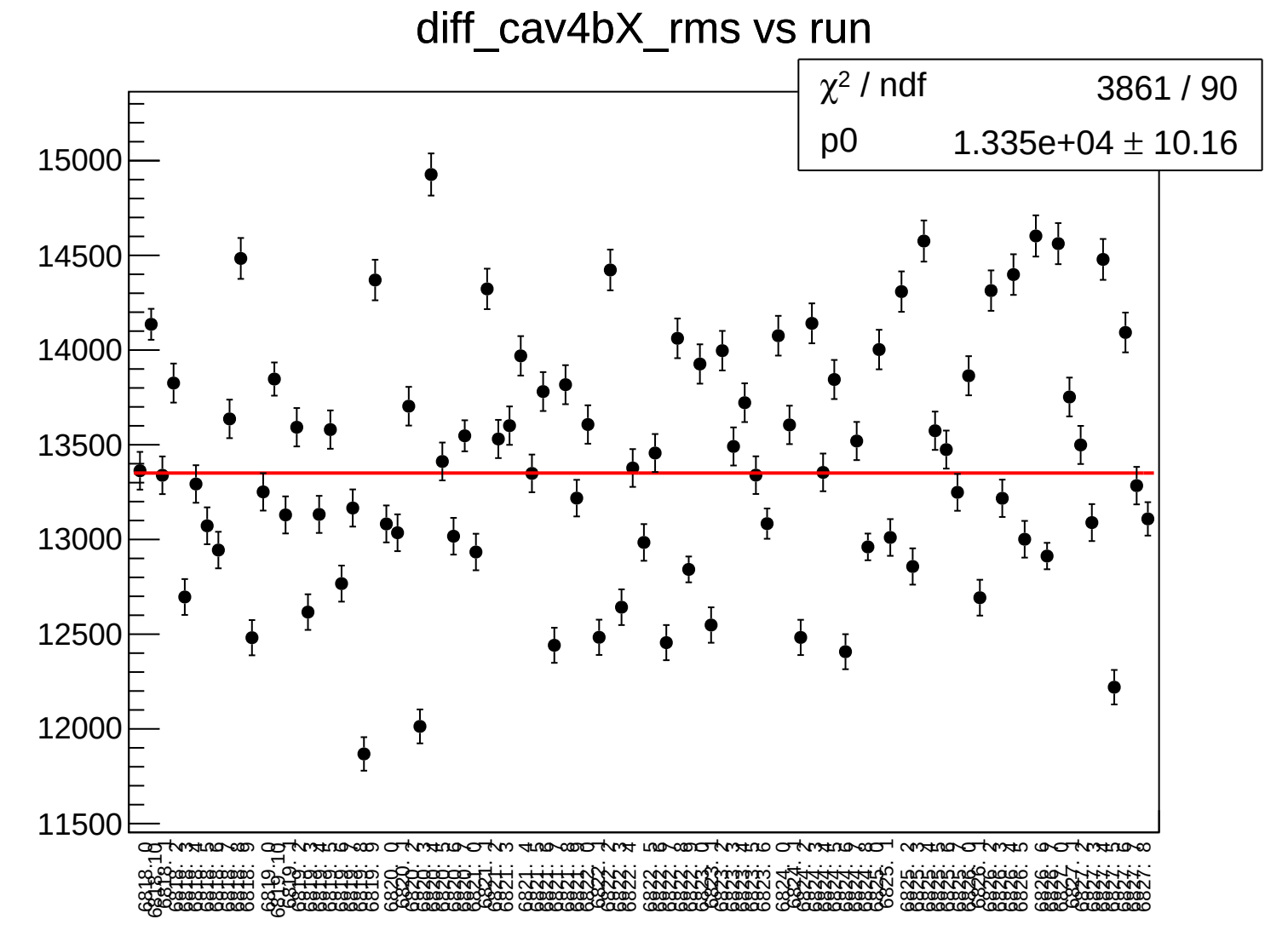

diff_bpm1p03aY_mean vs run
χ² / ndf 76.96 / 90
p0 −2.762 ± 2.561
100
50
0
−50
−100
pull
Entries 91
Mean 189.9
Std Dev 154.1
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

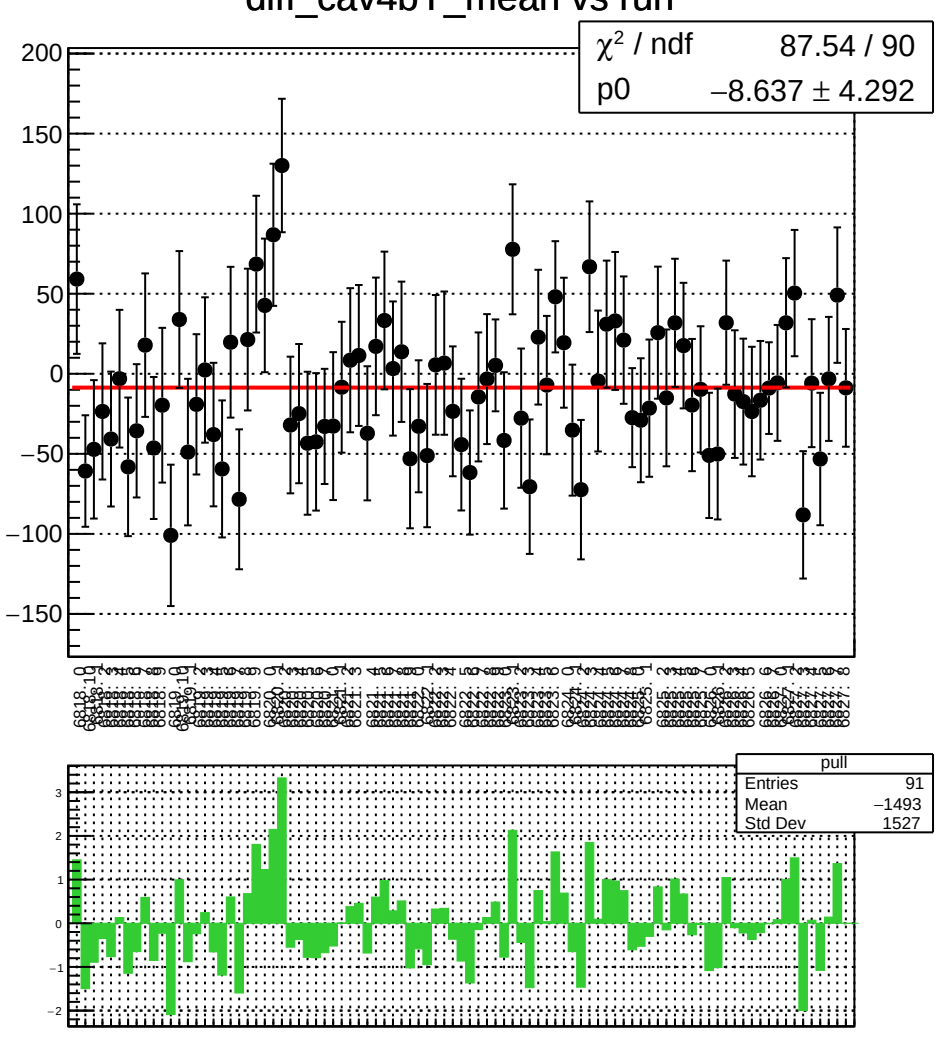

pull1D
Entries 91
Mean 0.01381
Std Dev 0.9195
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

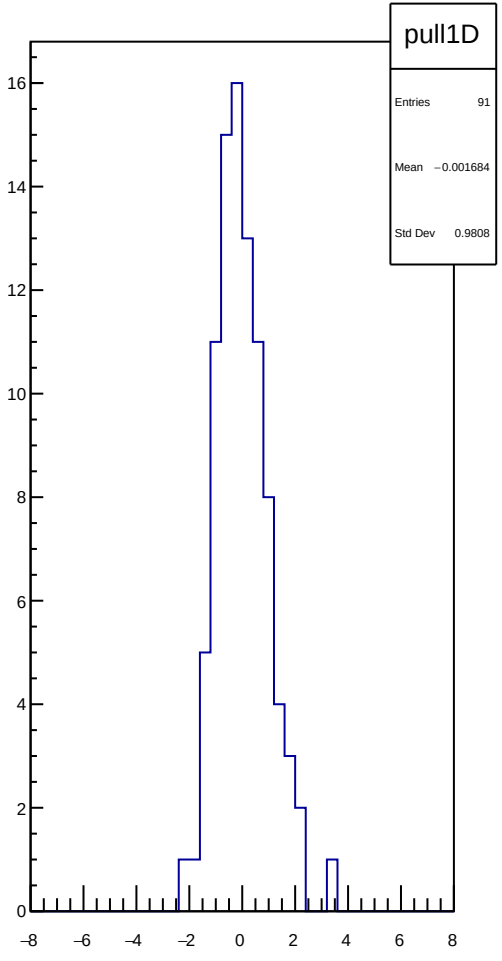

diff_bpm1p03aY_rms vs run
χ² / ndf 4.059e+04 / 90
p0 2353 ± 1.811
5000
4500
4000
3500
3000
2500
2000

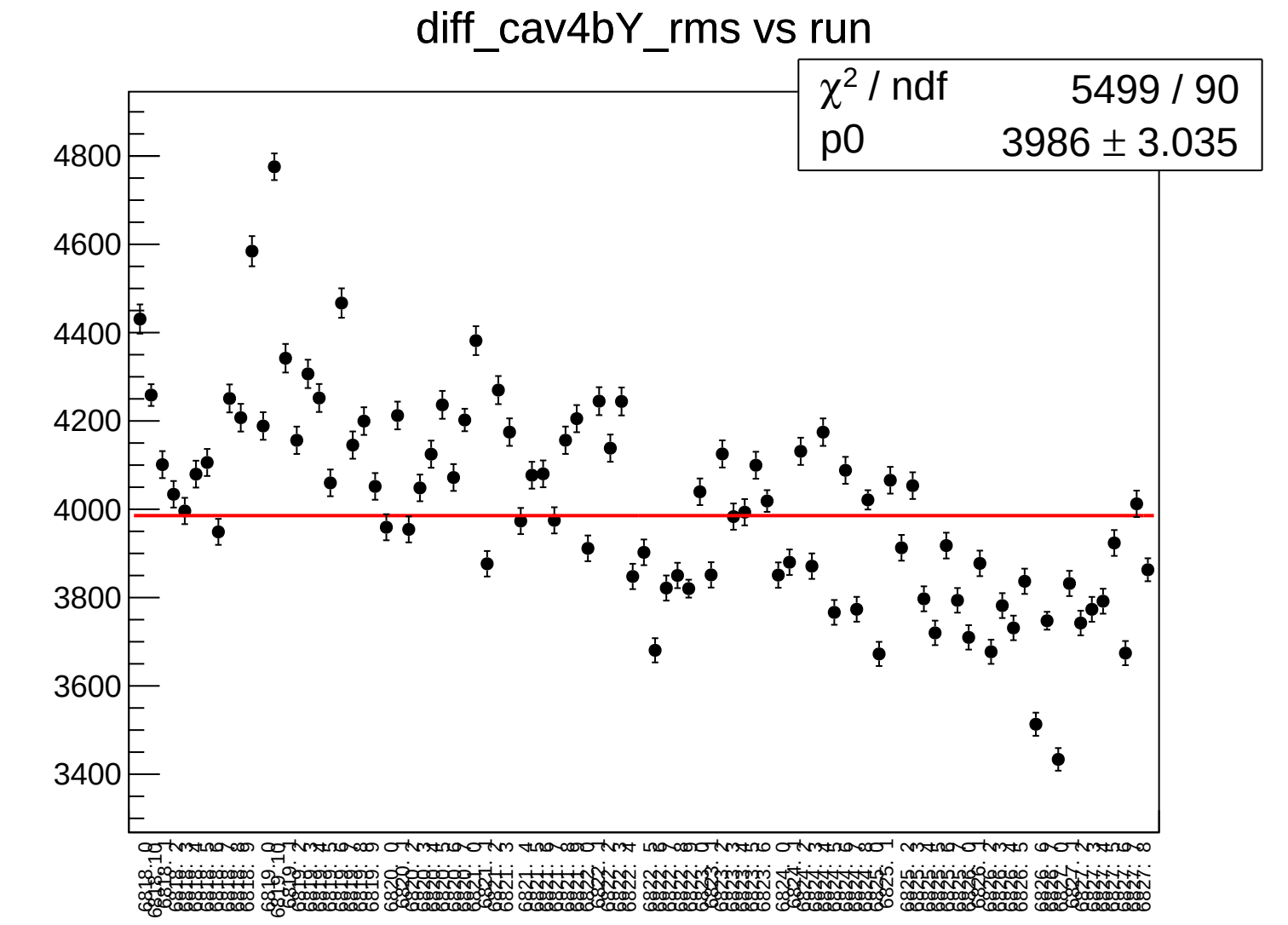

diff_cav4bX_mean vs run
χ^2 / ndf 73.9 / 90
p0 −20.7 ± 14.37
400
200
0
−200
−400
pull
Entries 91
Mean −970
Std Dev 1003
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

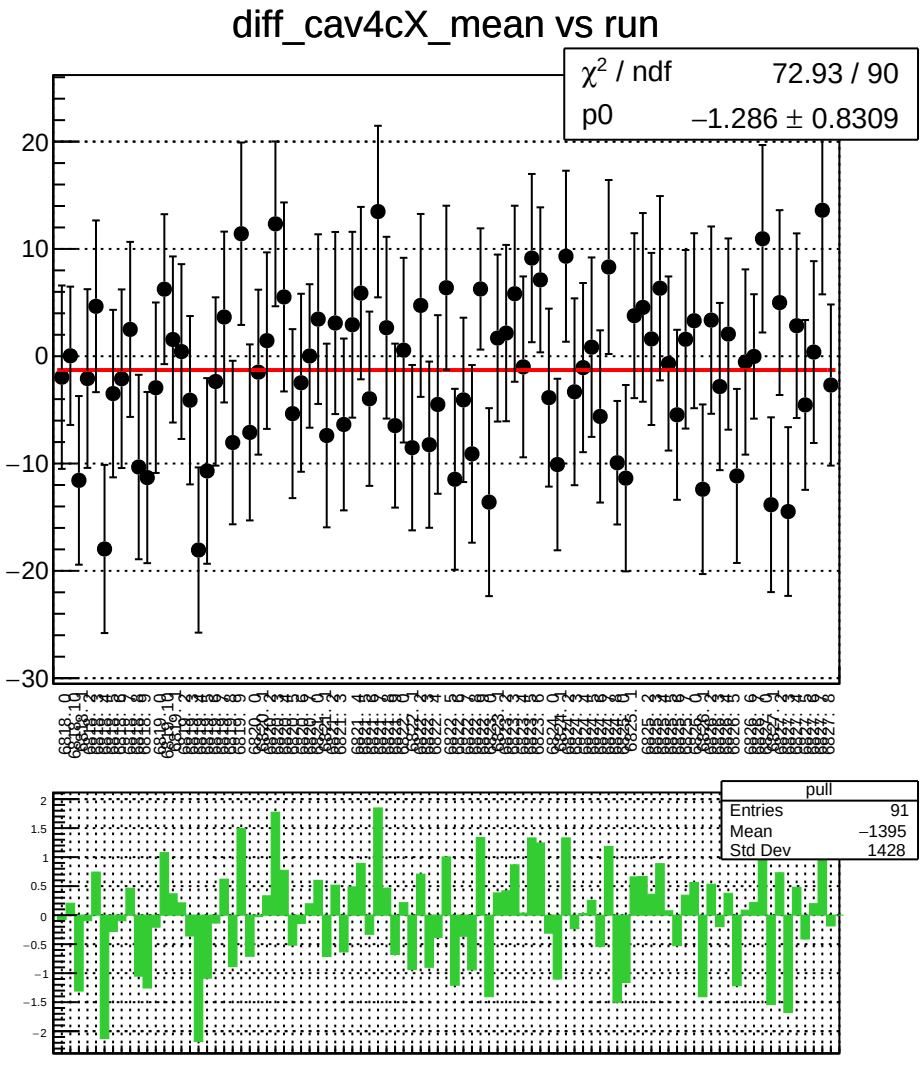

pull1D
Entries 91
Mean −0.002407
Std Dev 0.9012
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

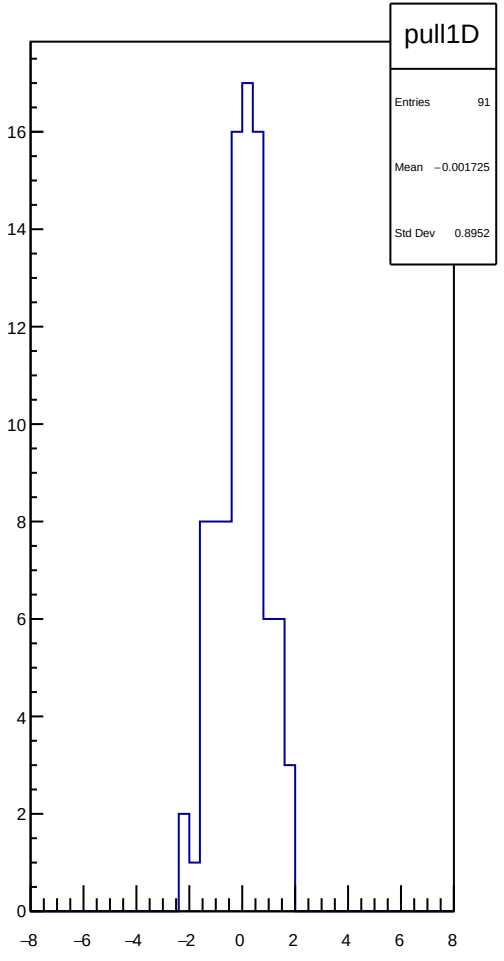

diff_cav4bX_rms vs run
χ² / ndf 3861 / 90
p0 1.335e+04 ± 10.16
15000
14500
14000
13500
13000
12500
12000
11500

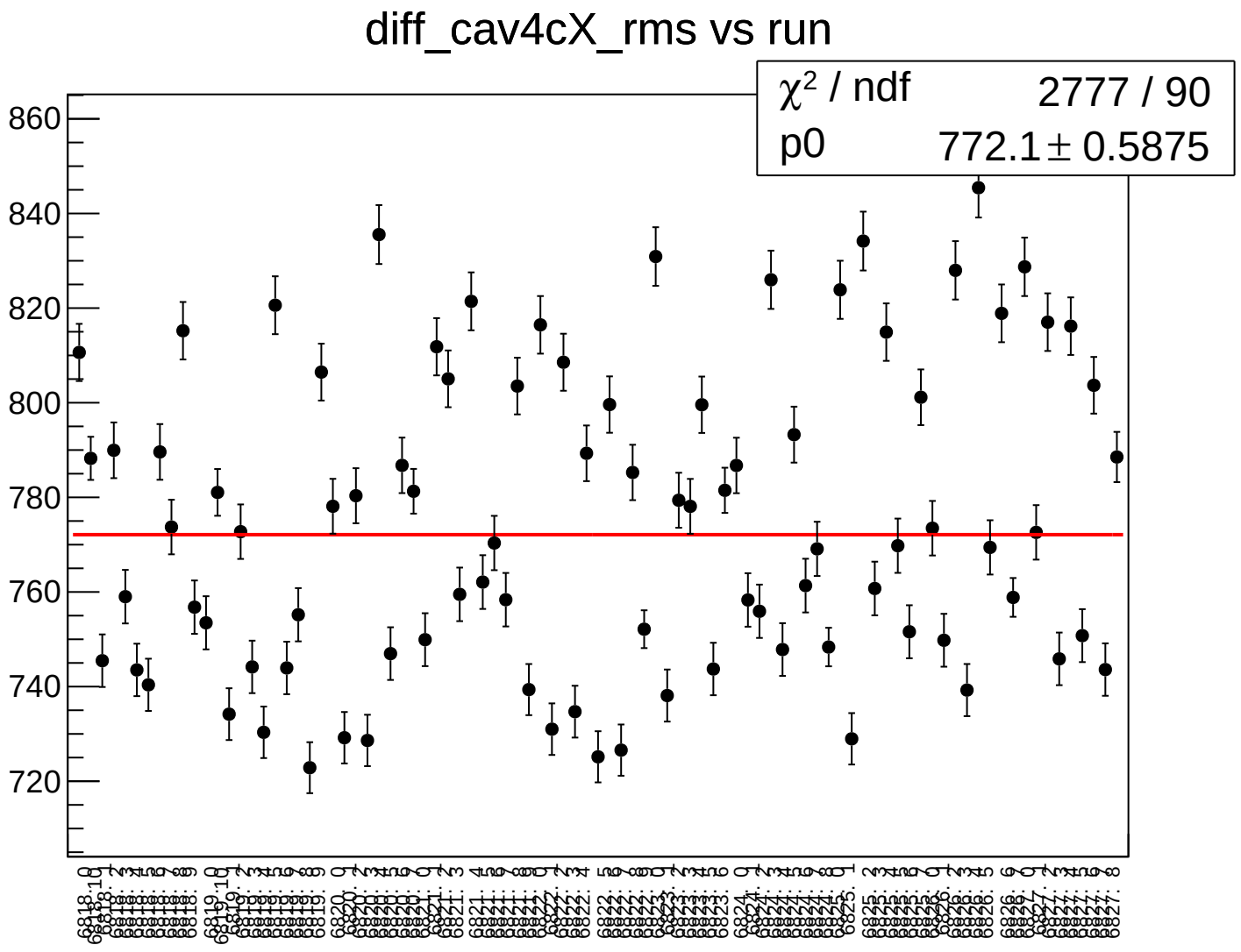

diff_cav4bY_mean vs run
χ² / ndf 87.54 / 90
p0 −8.637 ± 4.292
pull
Entries 91
Mean −1493
Std Dev 1527

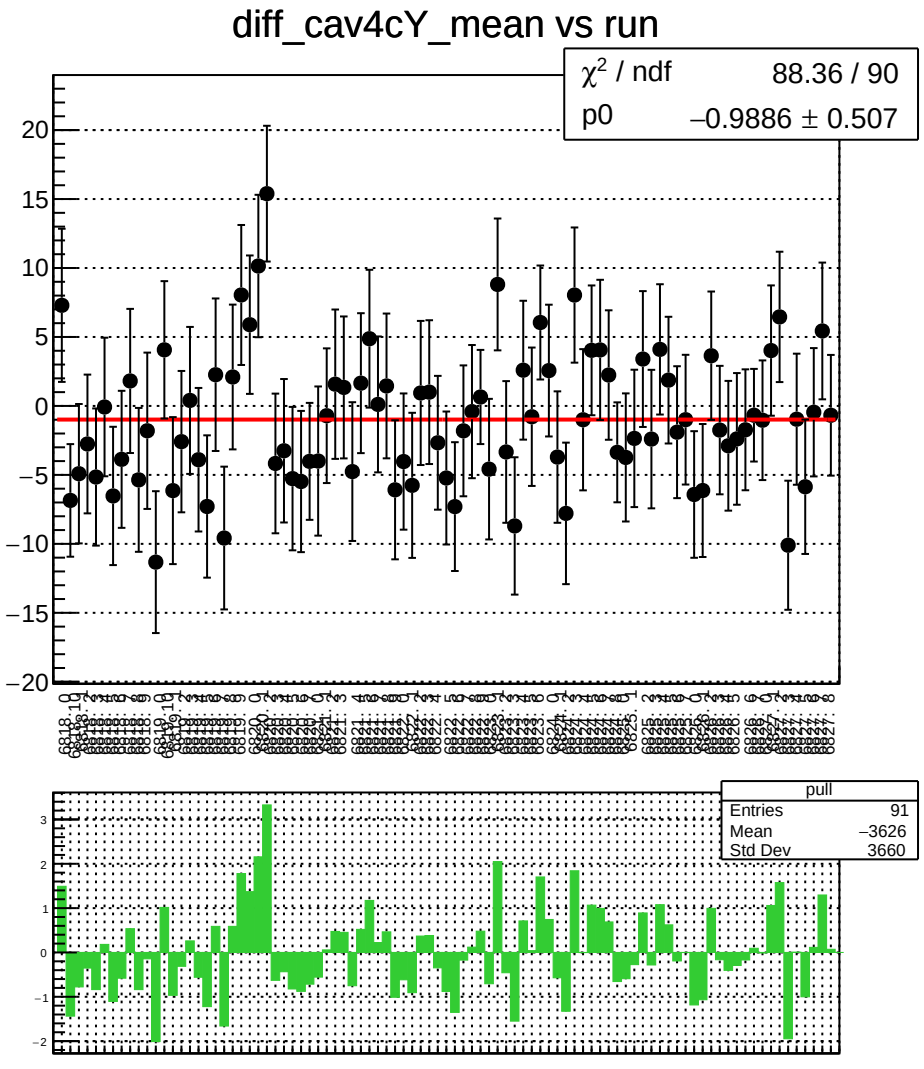

pull1D
Entries 91
Mean −0.001684
Std Dev 0.9808

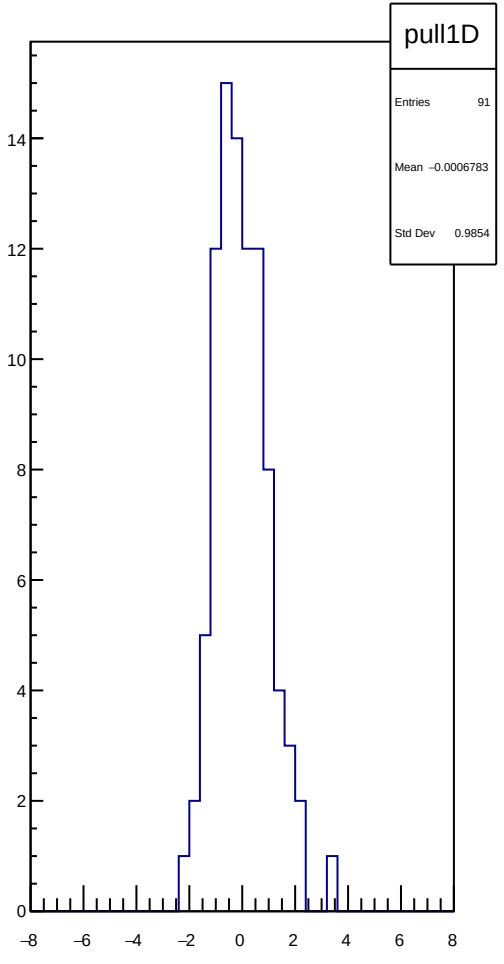

diff_cav4bY_rms vs run
χ² / ndf 5499 / 90
p0 3986 ± 3.035
4800
4600
4400
4200
4000
3800
3600
3400

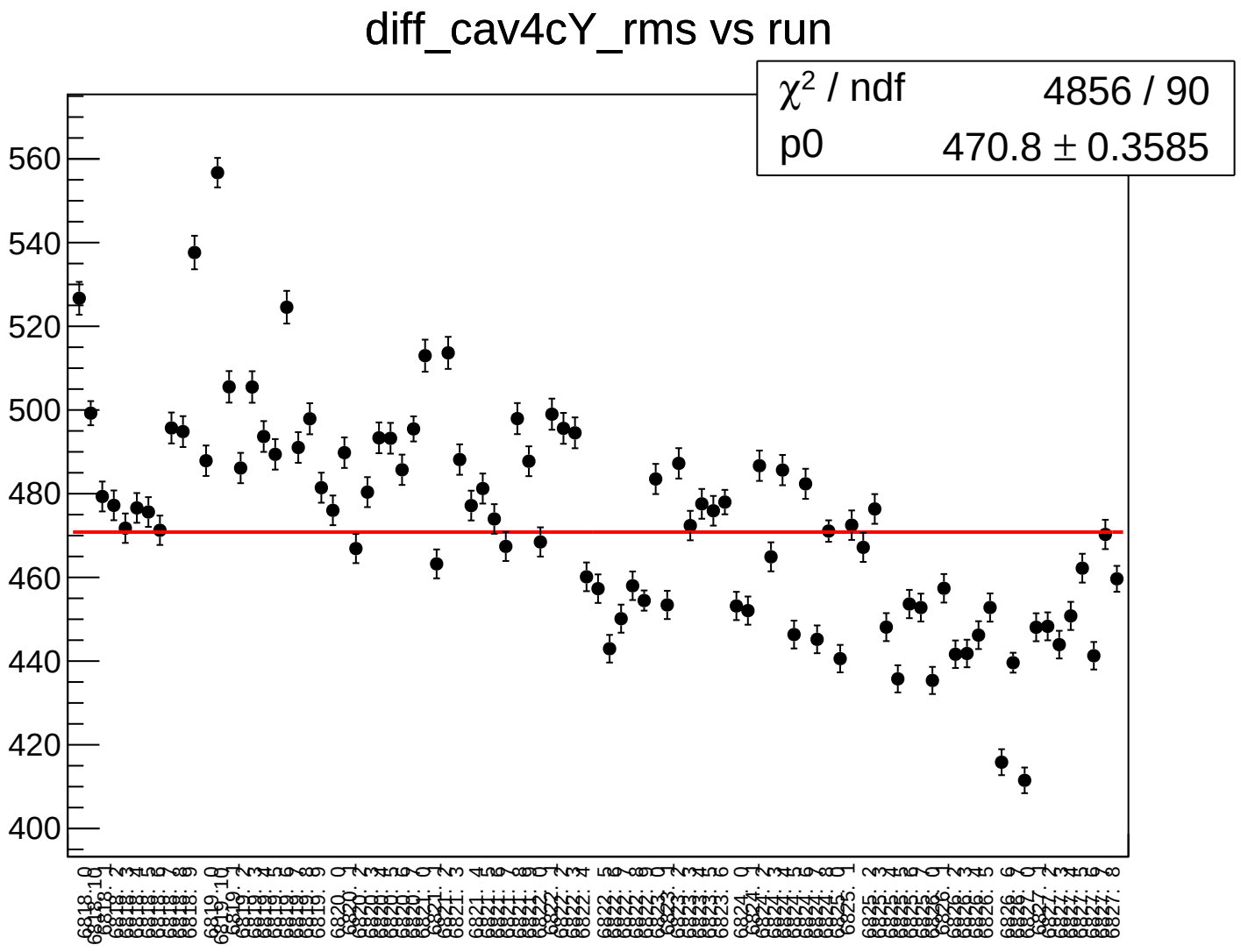

diff_cav4cX_mean vs run
χ² / ndf 72.93 / 90
p0 −1.286 ± 0.8309
pull
Entries 91
Mean −1395
Std Dev 1428

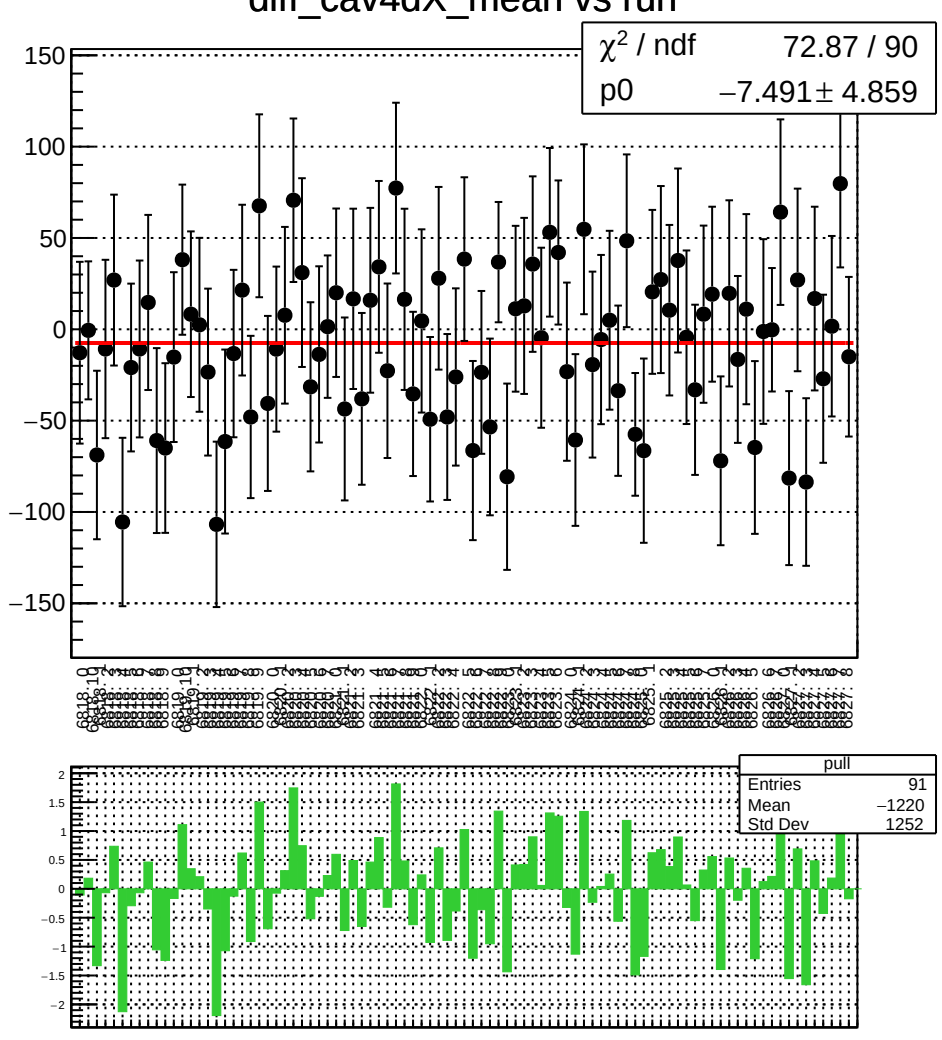

pull1D
Entries 91
Mean −0.001725
Std Dev 0.8952

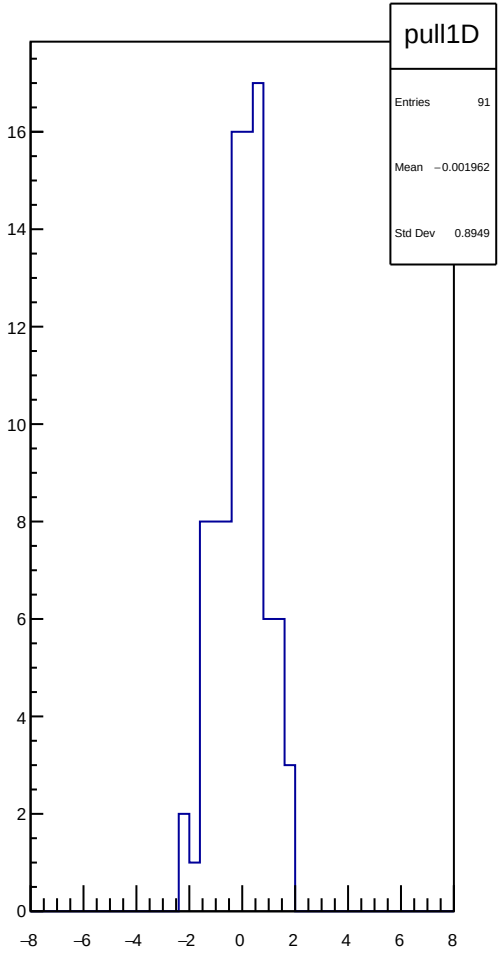

diff_cav4cX_rms vs run
χ² / ndf 2777 / 90
p0 772.1 ± 0.5875
860
840
820
800
780
760
740
720

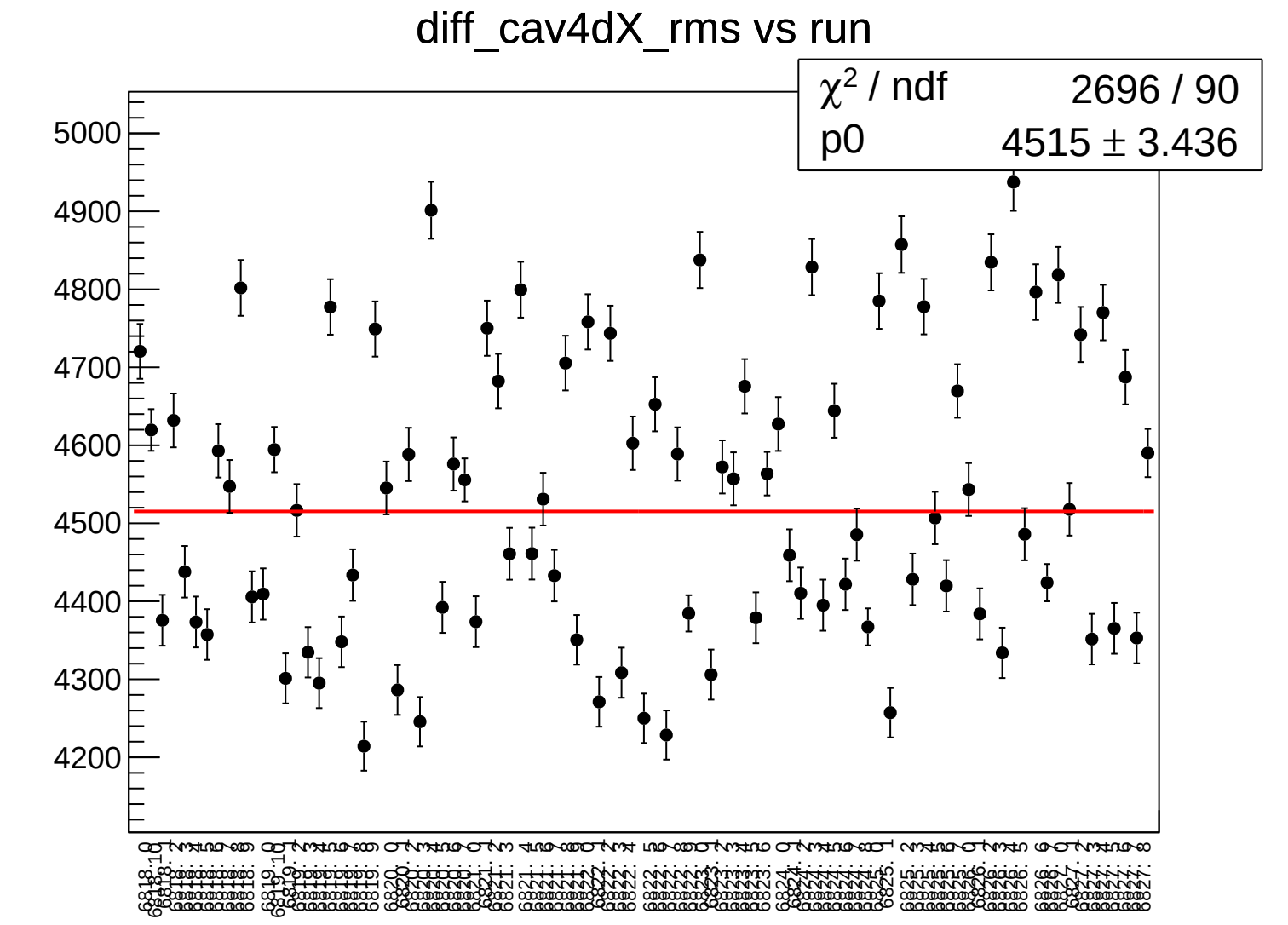

diff_cav4cY_mean vs run
χ² / ndf 88.36 / 90
p0 −0.9886 ± 0.507
pull
Entries 91
Mean −3626
Std Dev 3660

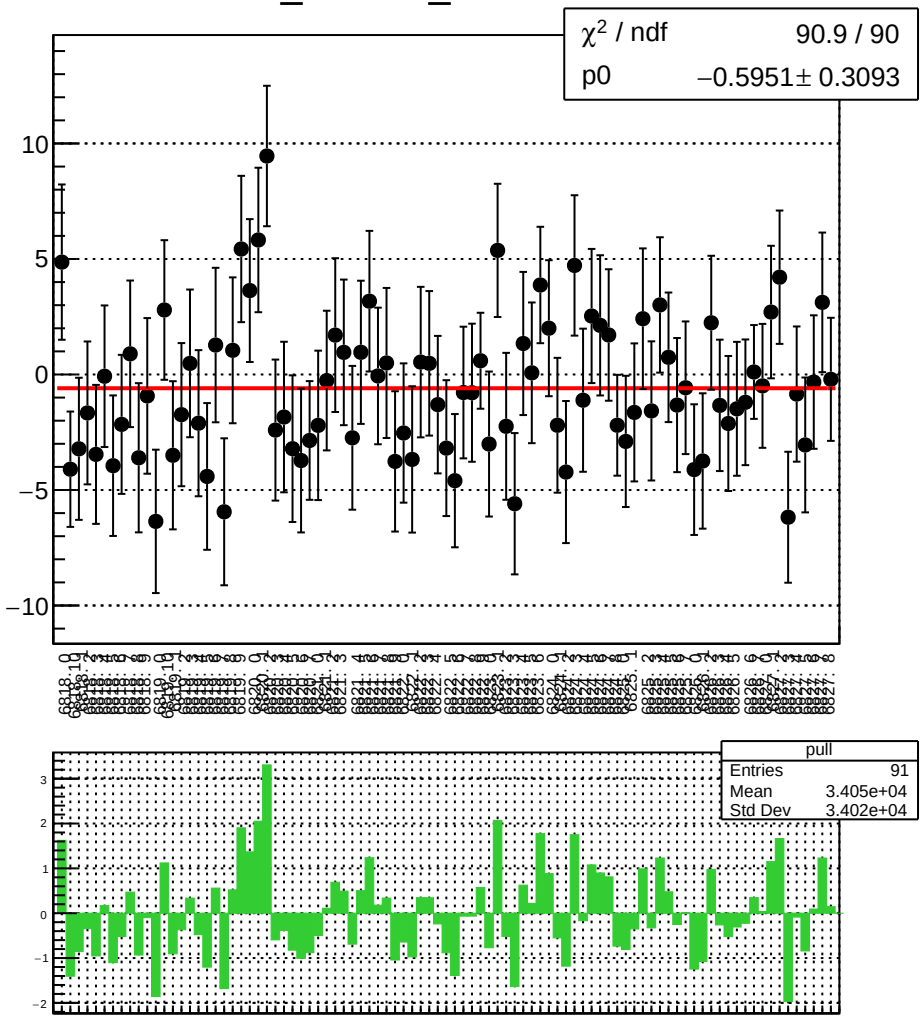

pull1D
Entries 91
Mean −0.0006783
Std Dev 0.9854

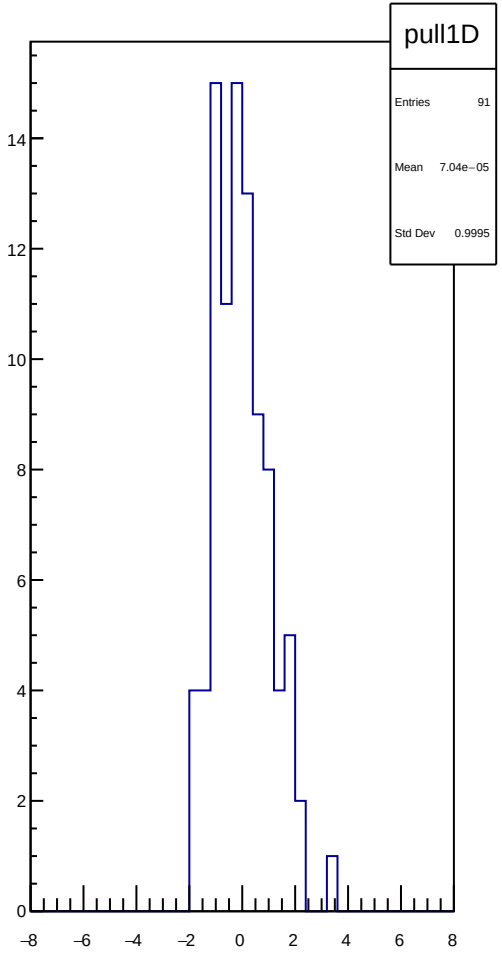

diff_cav4cY_rms vs run
χ² / ndf 4856 / 90
p0 470.8 ± 0.3585
560
540
520
500
480
460
440
420
400

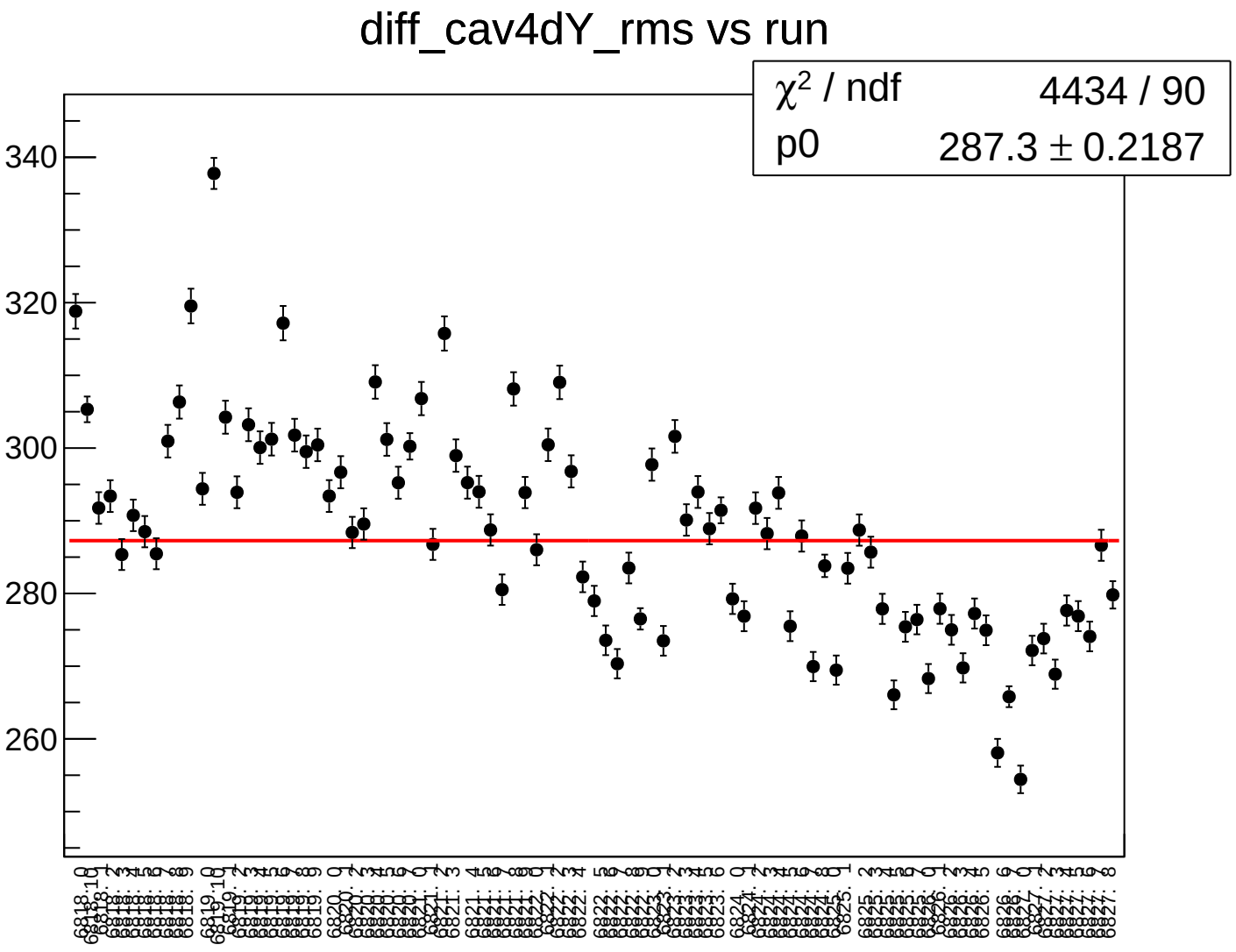

diff_cav4dX_mean vs run
χ² / ndf 72.87 / 90
p0 −7.491 ± 4.859
pull
Entries 91
Mean −1220
Std Dev 1252

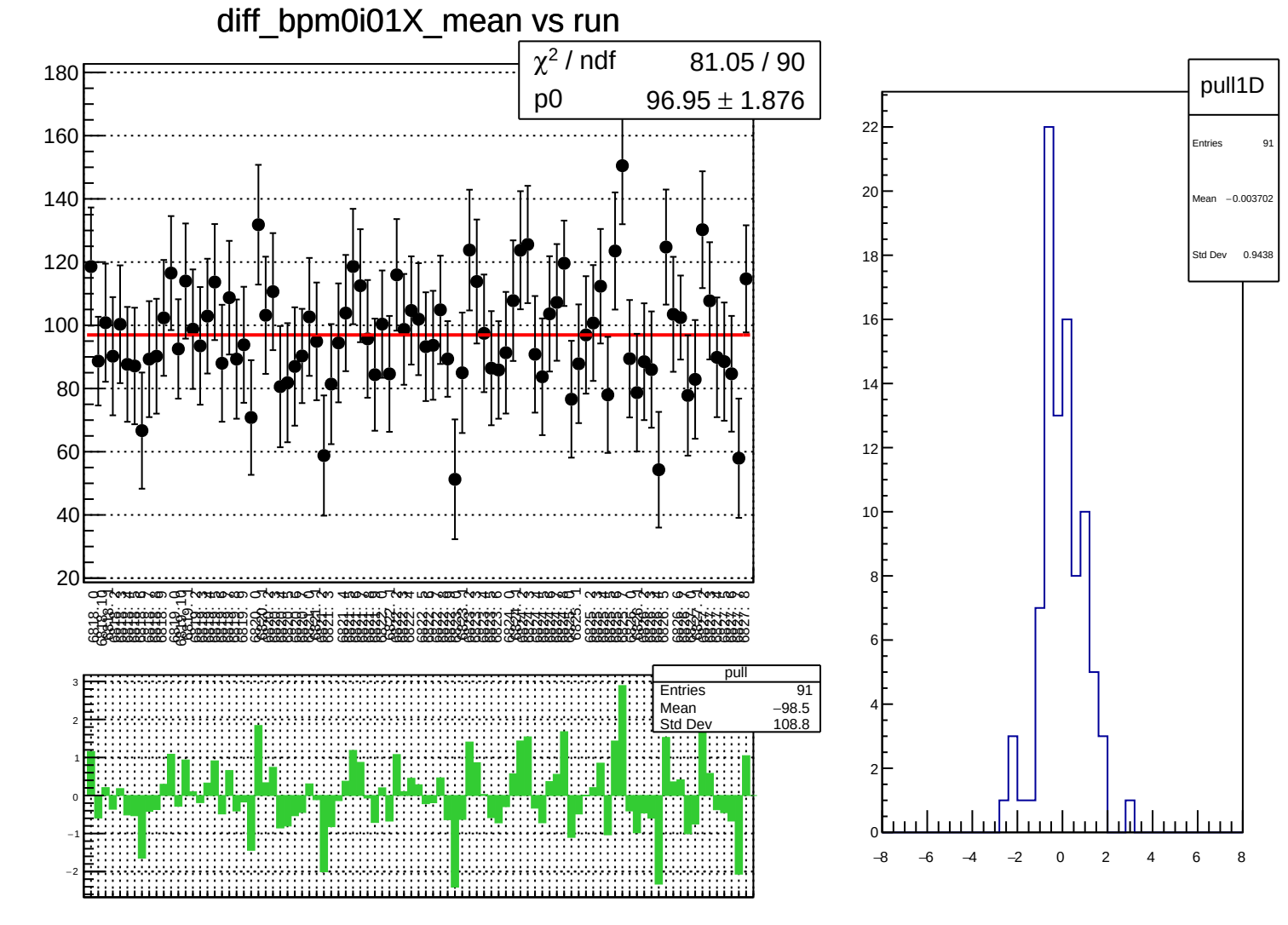

pull1D
Entries 91
Mean −0.001962
Std Dev 0.8949

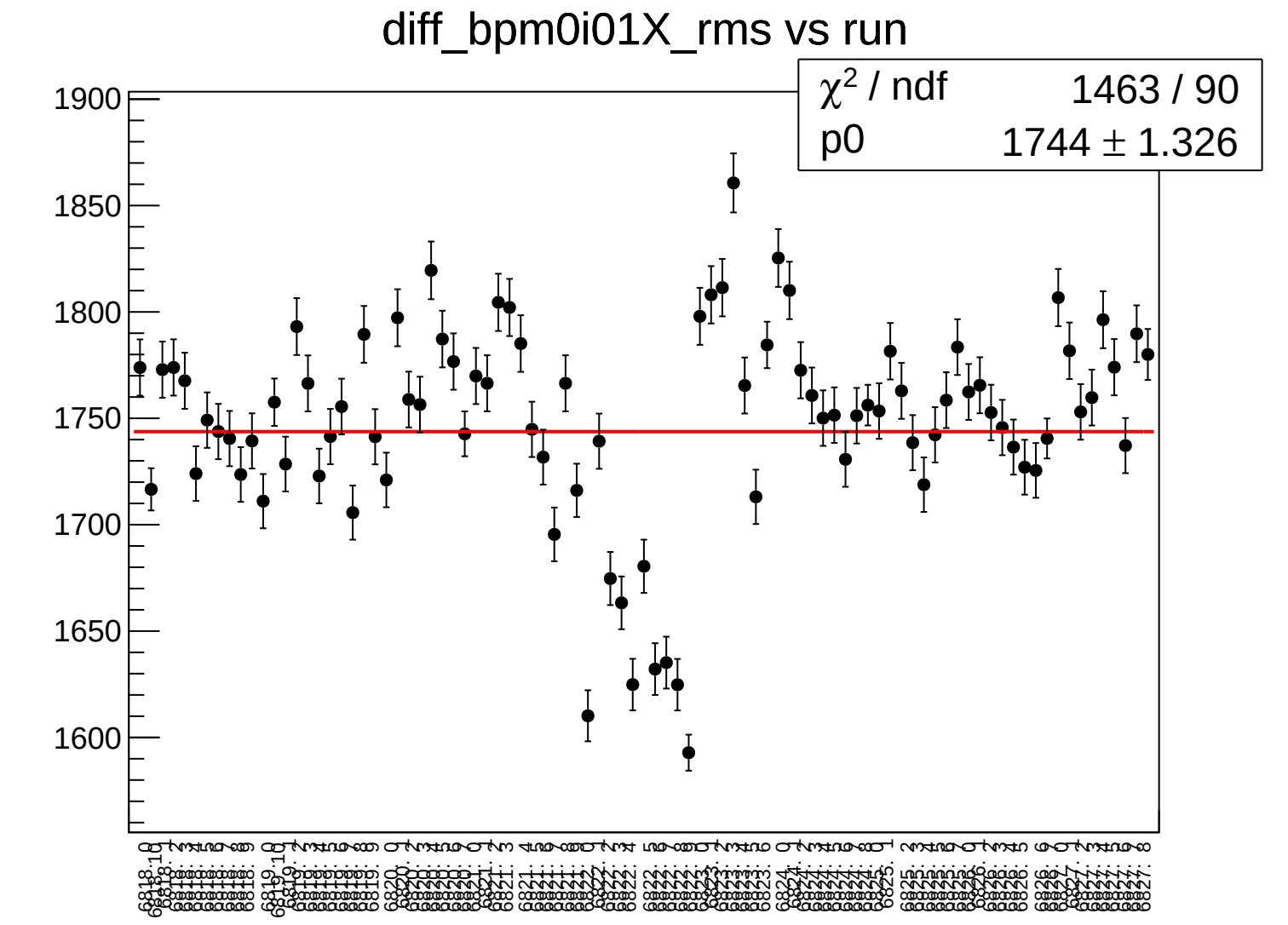

diff_cav4dX_rms vs run
χ² / ndf 2696 / 90
p0 4515 ± 3.436
5000
4900
4800
4700
4600
4500
4400
4300
4200

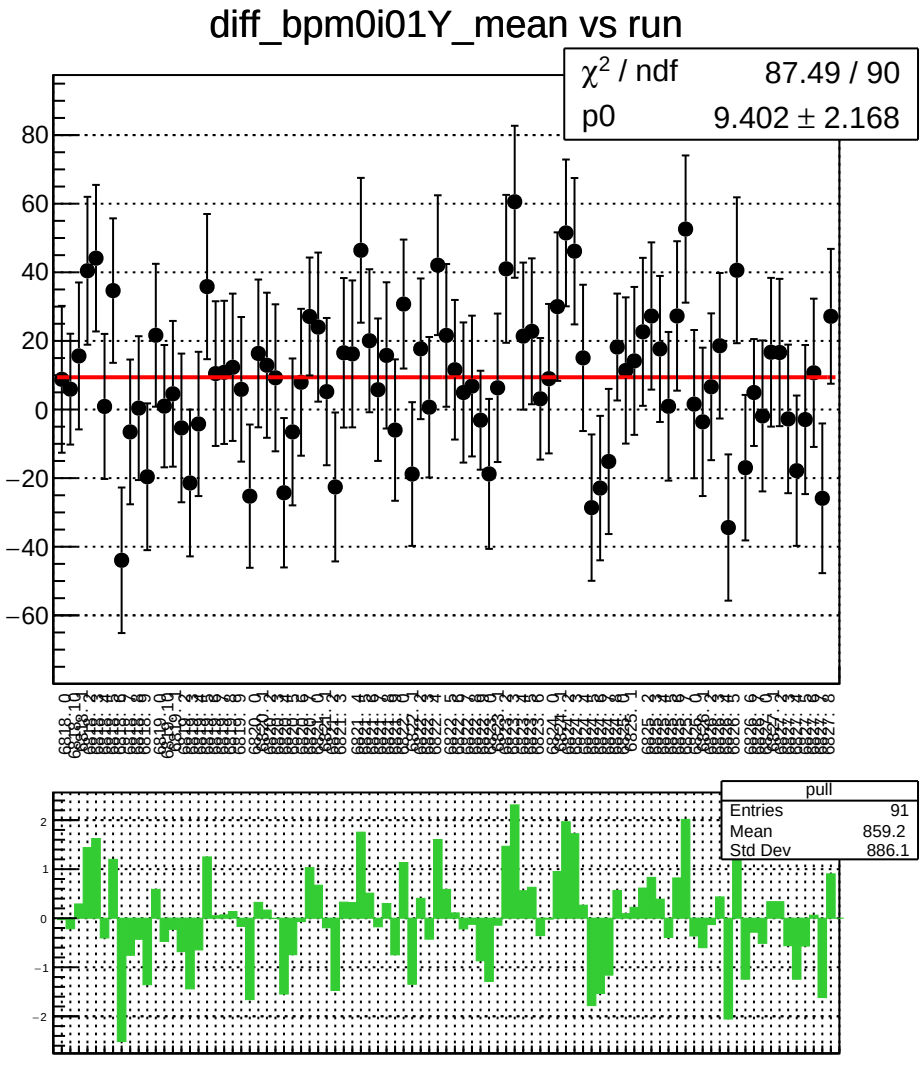

diff_cav4dY_mean vs run
χ² / ndf 90.9 / 90
p0 −0.5951± 0.3093
pull
Entries 91
Mean 3.405e+04
Std Dev 3.402e+04

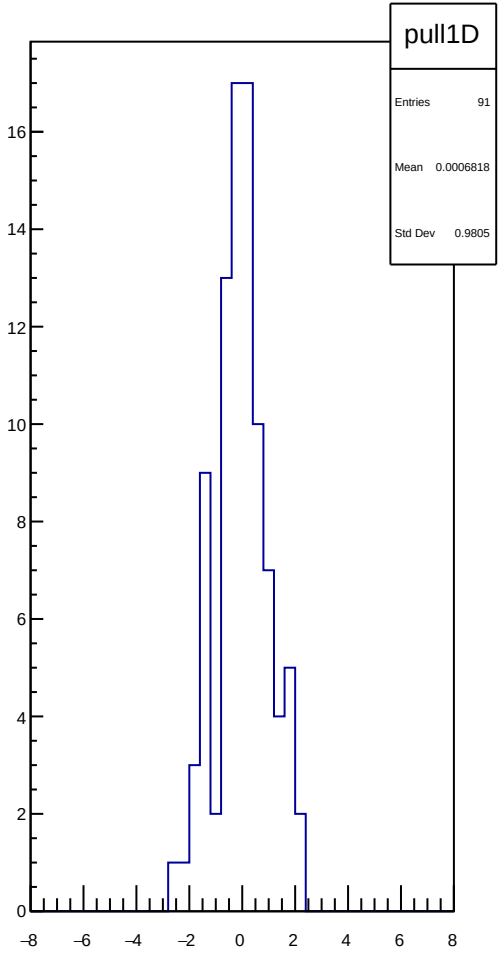

pull1D
Entries 91
Mean 7.04e−05
Std Dev 0.9995

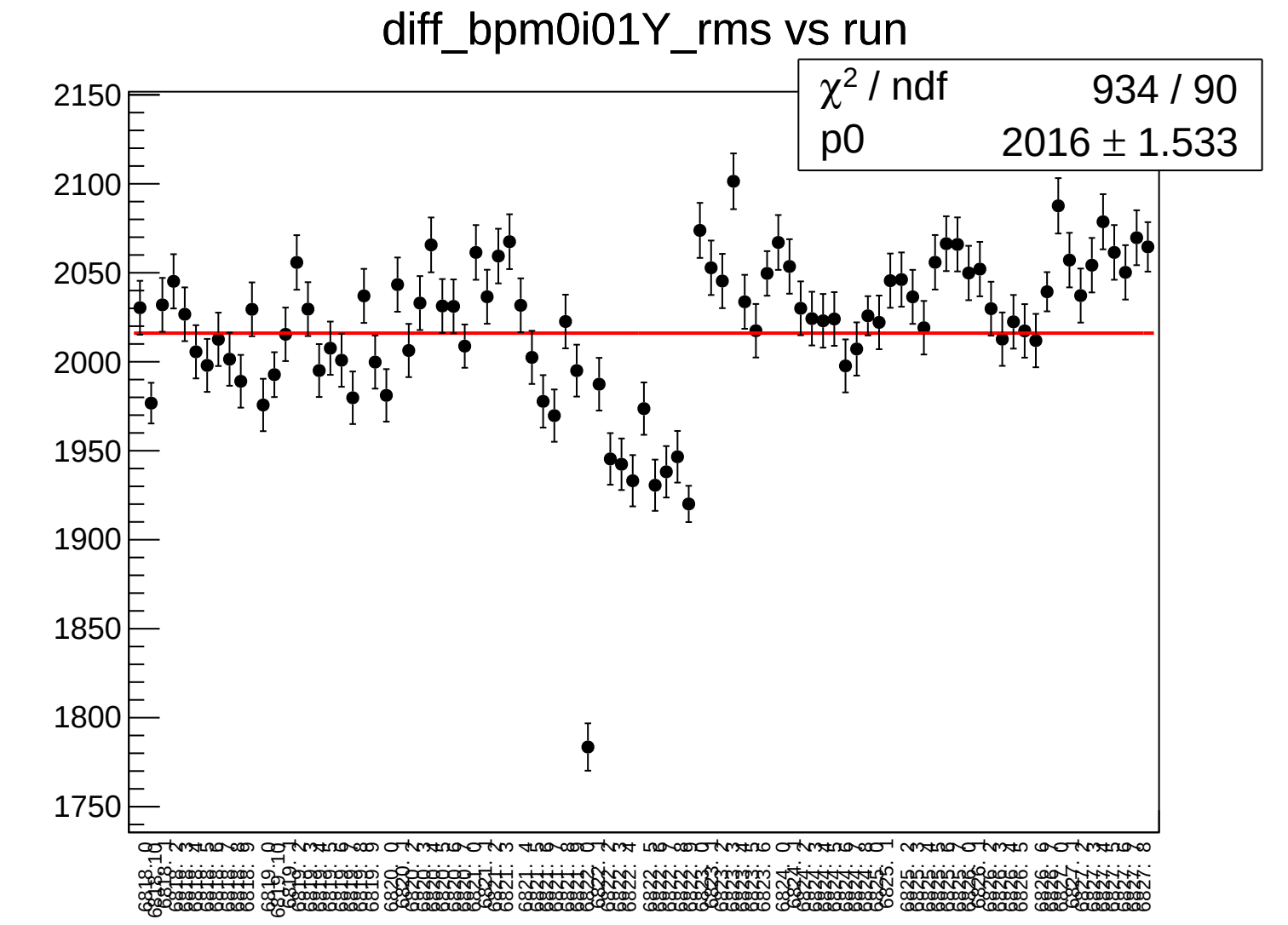

diff_cav4dY_rms vs run
χ² / ndf 4434 / 90
p0 287.3 ± 0.2187
340
320
300
280
260

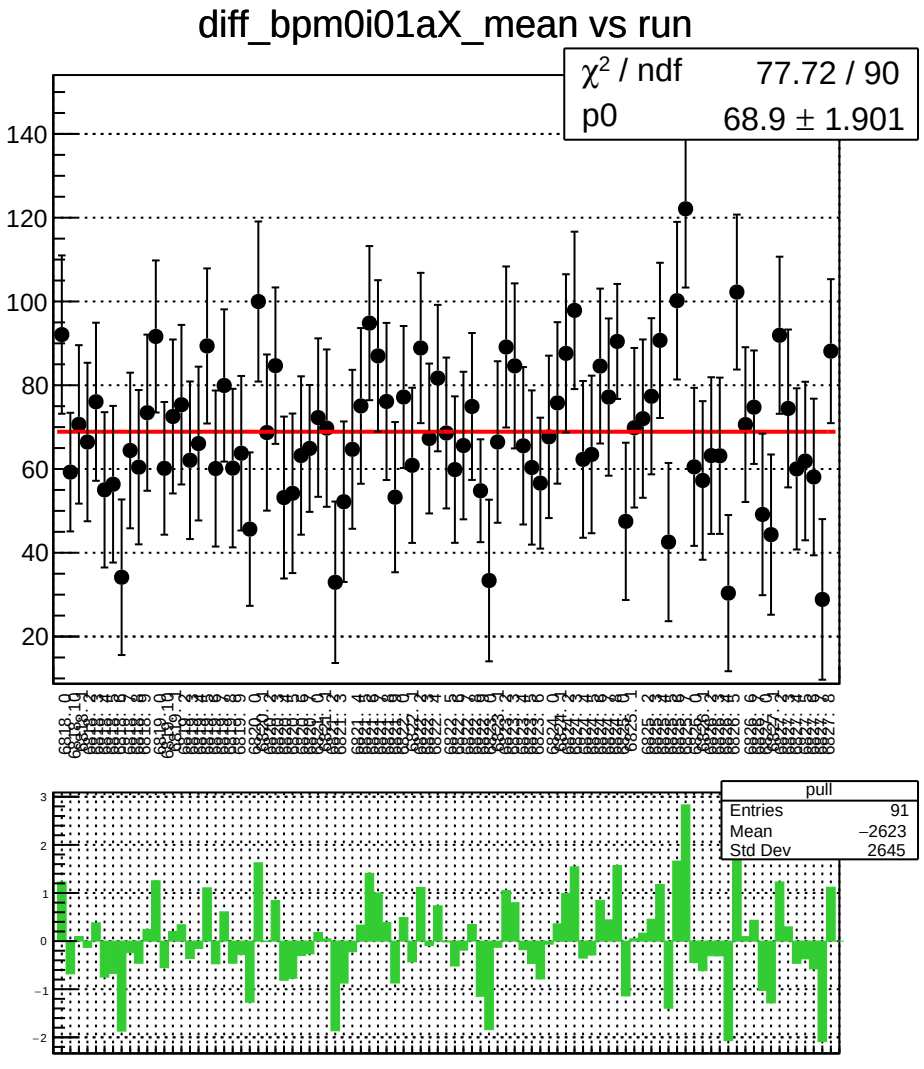

diff_bpm0i01X_mean vs run
χ² / ndf 81.05 / 90
p0 96.95 ± 1.876
pull
Entries 91
Mean −98.5
Std Dev 108.8
pull1D
Entries 91
Mean −0.003702
Std Dev 0.9438

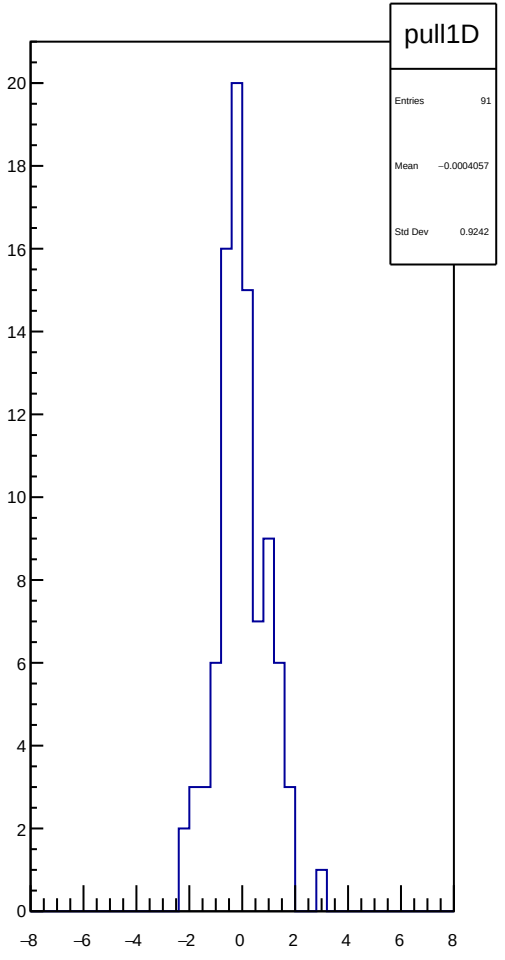

diff_bpm0i01X_rms vs run
χ^2 / ndf 1463 / 90
p0 1744 ± 1.326
1900
1850
1800
1750
1700
1650
1600

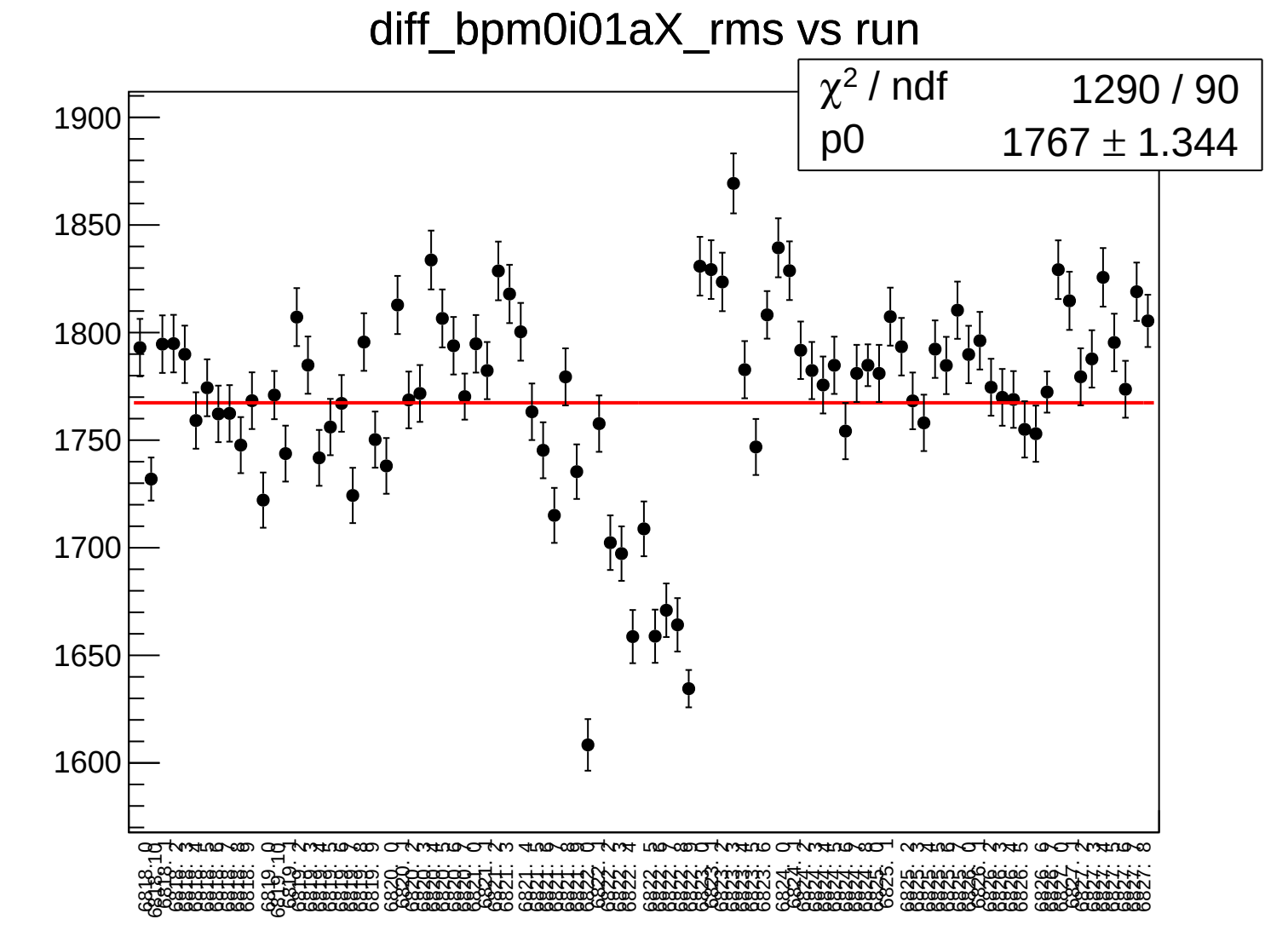

diff_bpm0i01Y_mean vs run
χ² / ndf 87.49 / 90
p0 9.402 ± 2.168
pull
Entries 91
Mean 859.2
Std Dev 886.1

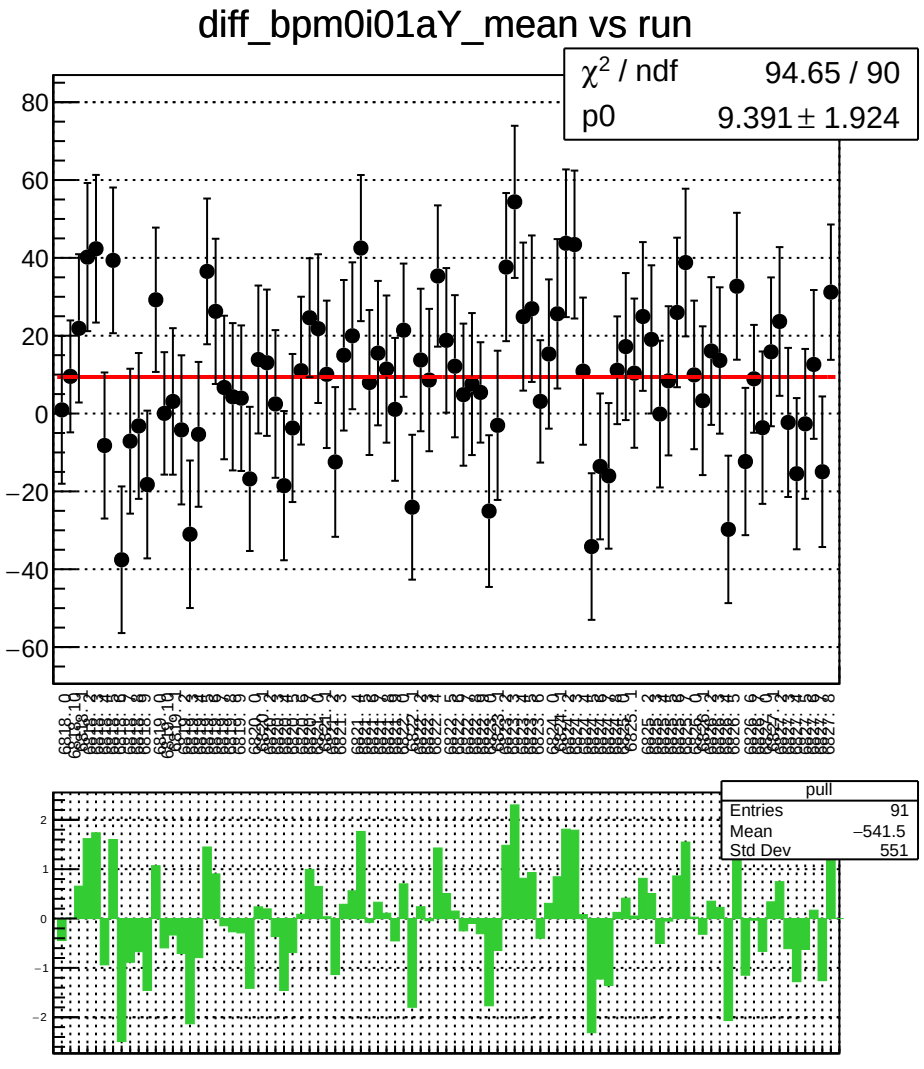

pull1D
Entries 91
Mean 0.0006818
Std Dev 0.9805

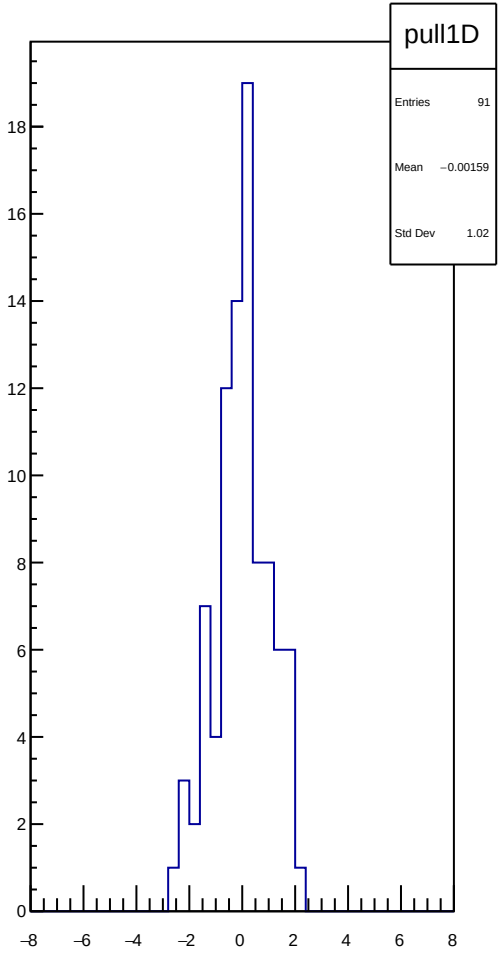

diff_bpm0i01Y_rms vs run
χ² / ndf 934 / 90
p0 2016 ± 1.533
2150
2100
2050
2000
1950
1900
1850
1800
1750

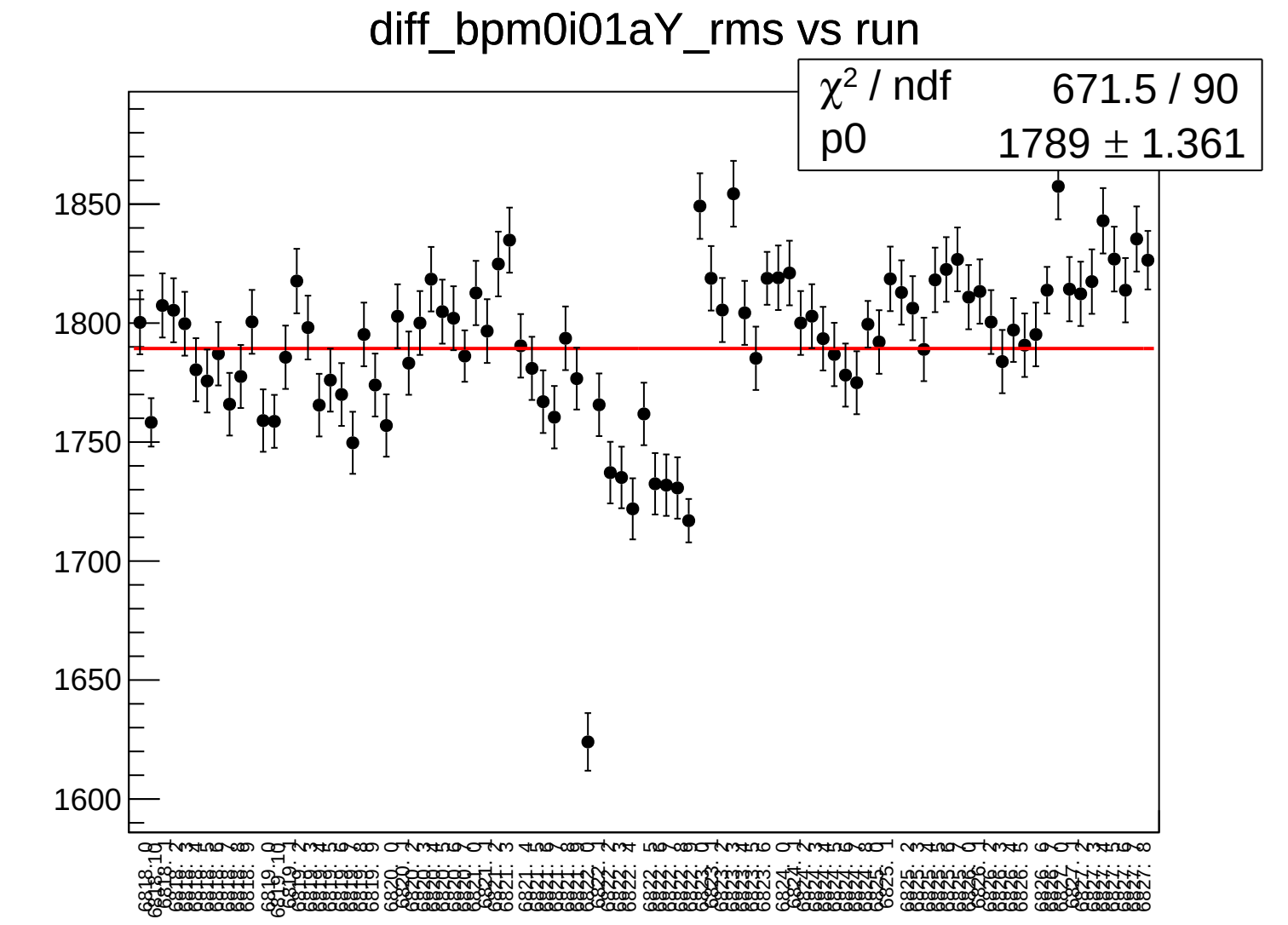

diff_bpm0i01aX_mean vs run
χ² / ndf 77.72 / 90
p0 68.9 ± 1.901
pull
Entries 91
Mean −2623
Std Dev 2645

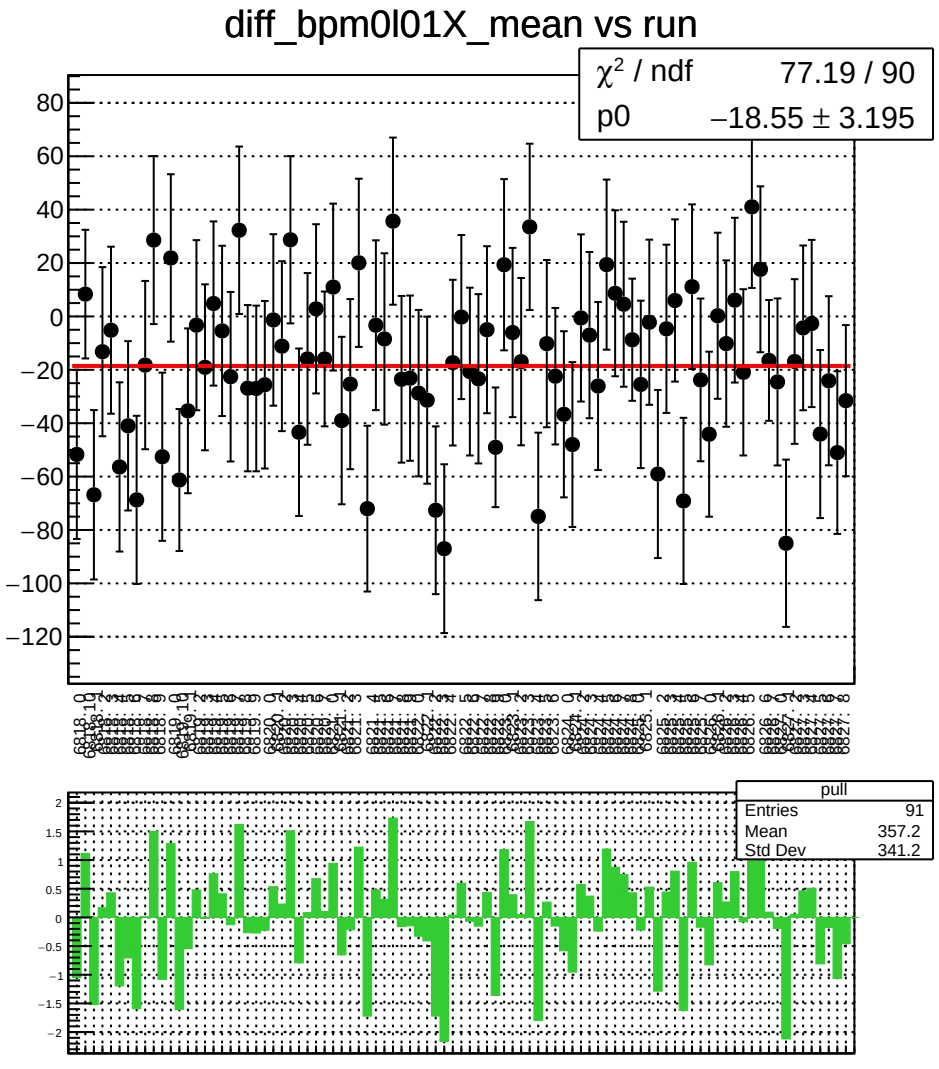

pull1D
Entries 91
Mean −0.0004057
Std Dev 0.9242

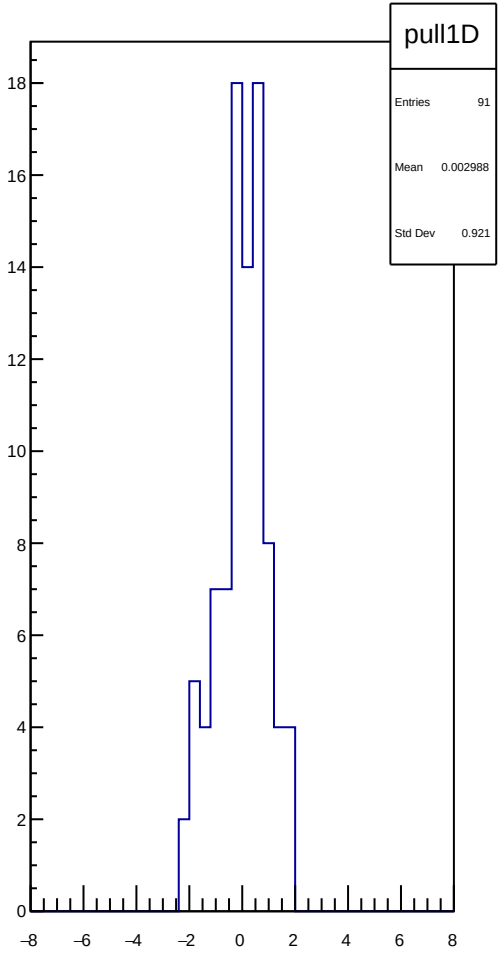

diff_bpm0i01aX_rms vs run
χ² / ndf 1290 / 90
p0 1767 ± 1.344
1900
1850
1800
1750
1700
1650
1600

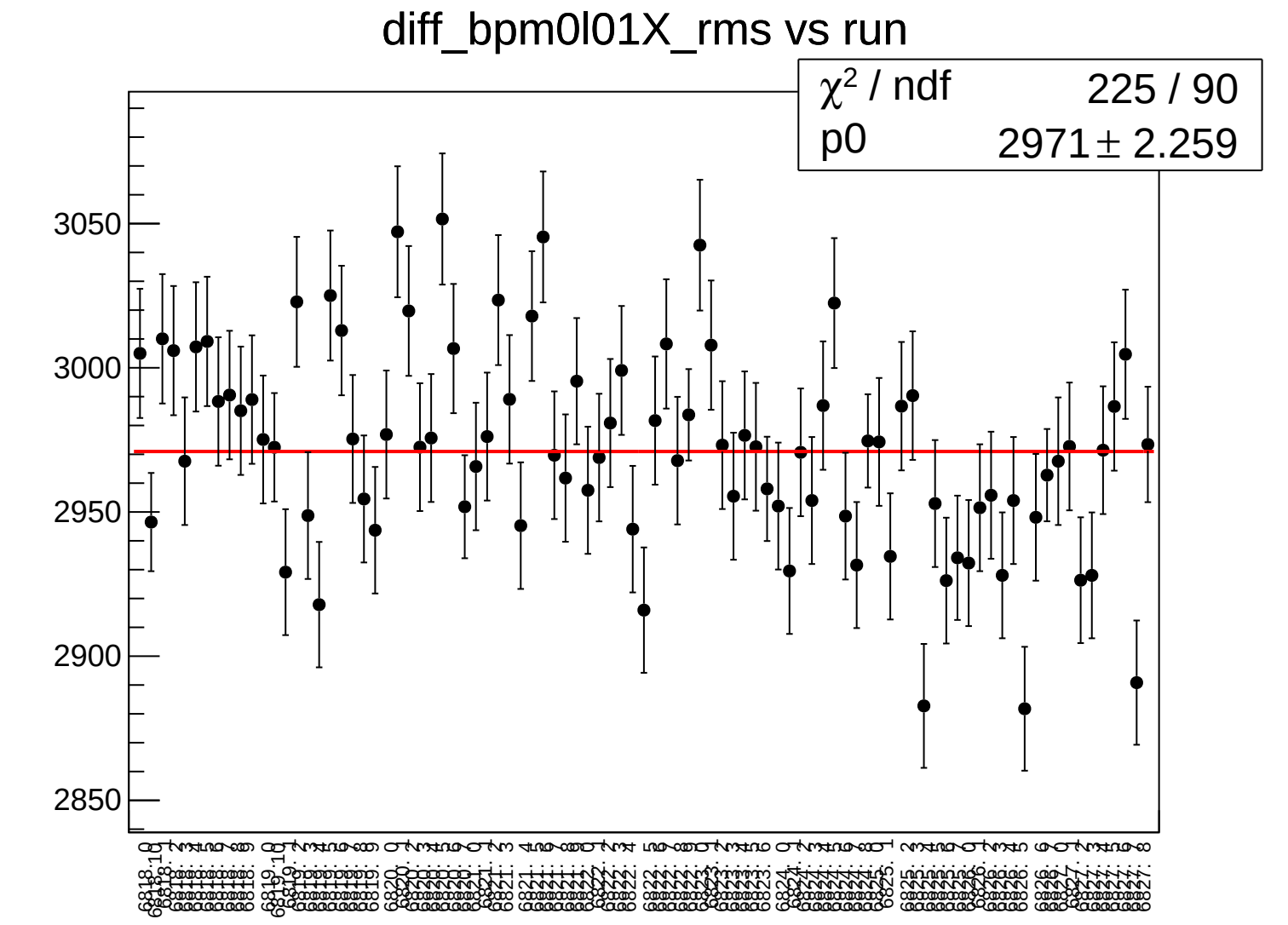

diff_bpm0i01aY_mean vs run
χ² / ndf 94.65 / 90
p0 9.391 ± 1.924
pull
Entries 91
Mean −541.5
Std Dev 551

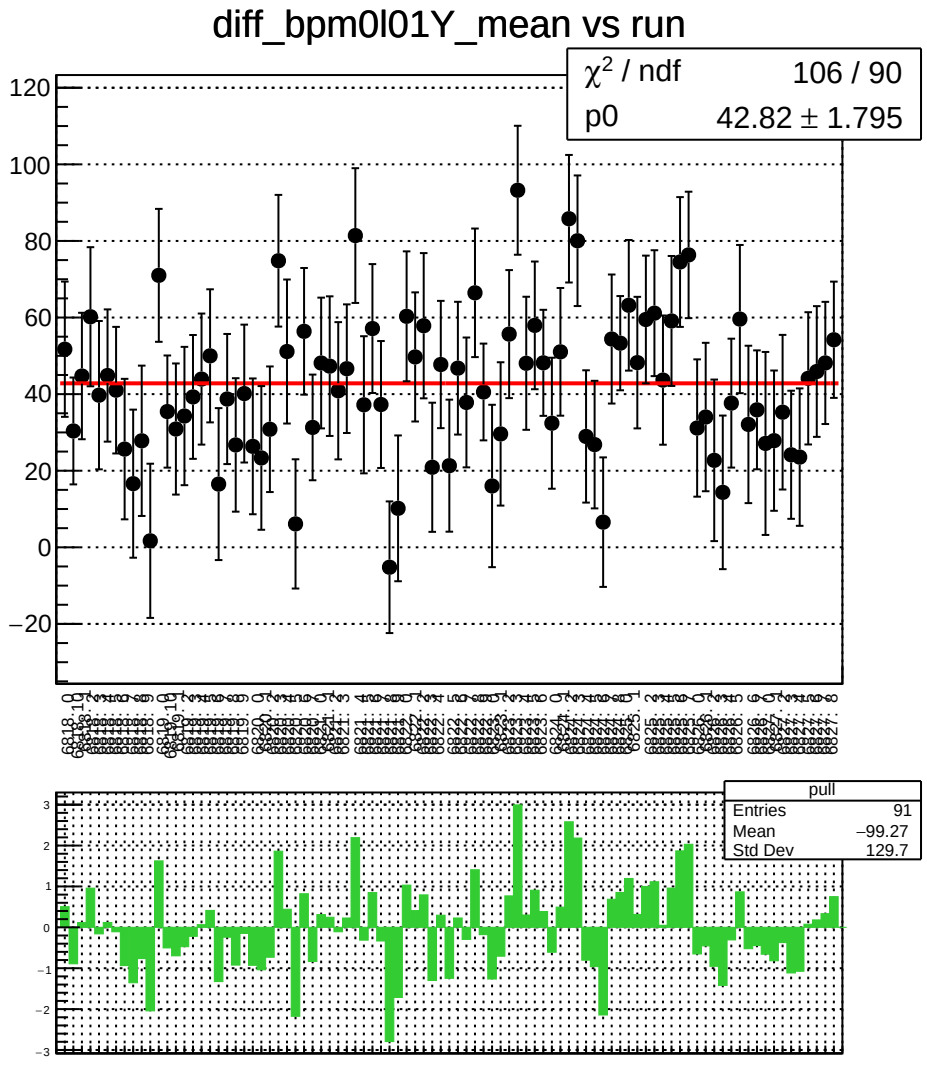

pull1D
Entries 91
Mean −0.00159
Std Dev 1.02

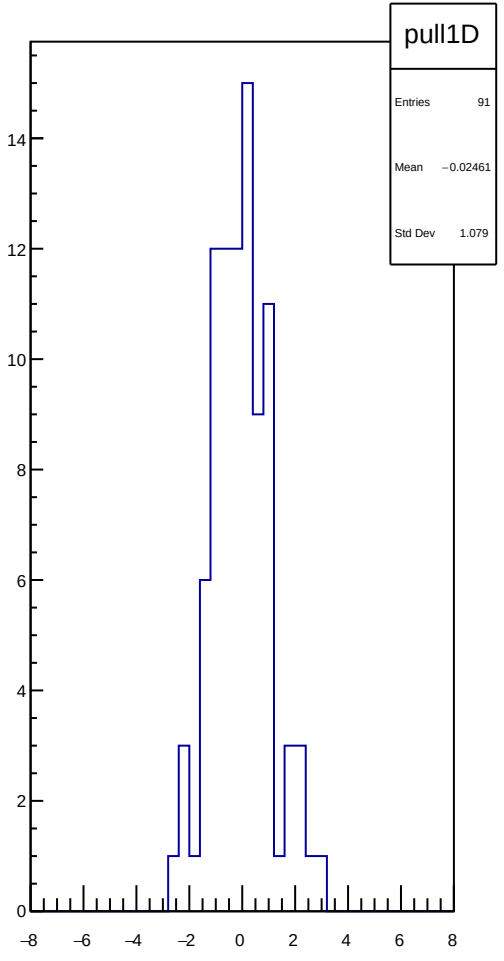

diff_bpm0i01aY_rms vs run
χ² / ndf 671.5 / 90
p0 1789 ± 1.361
1850
1800
1750
1700
1650
1600

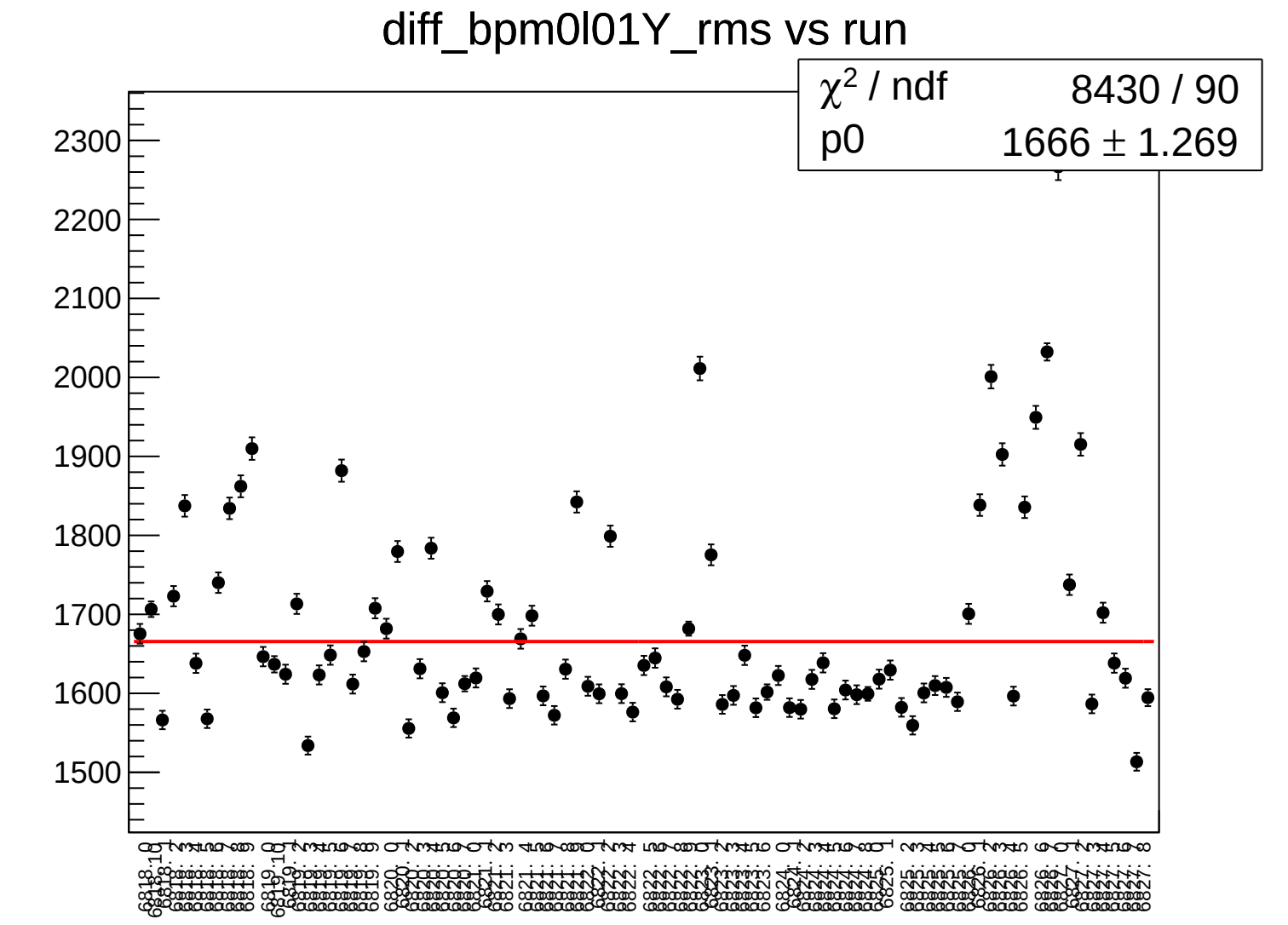

diff_bpm0l01X_mean vs run
χ² / ndf 77.19 / 90
p0 −18.55 ± 3.195
pull
Entries 91
Mean 357.2
Std Dev 341.2

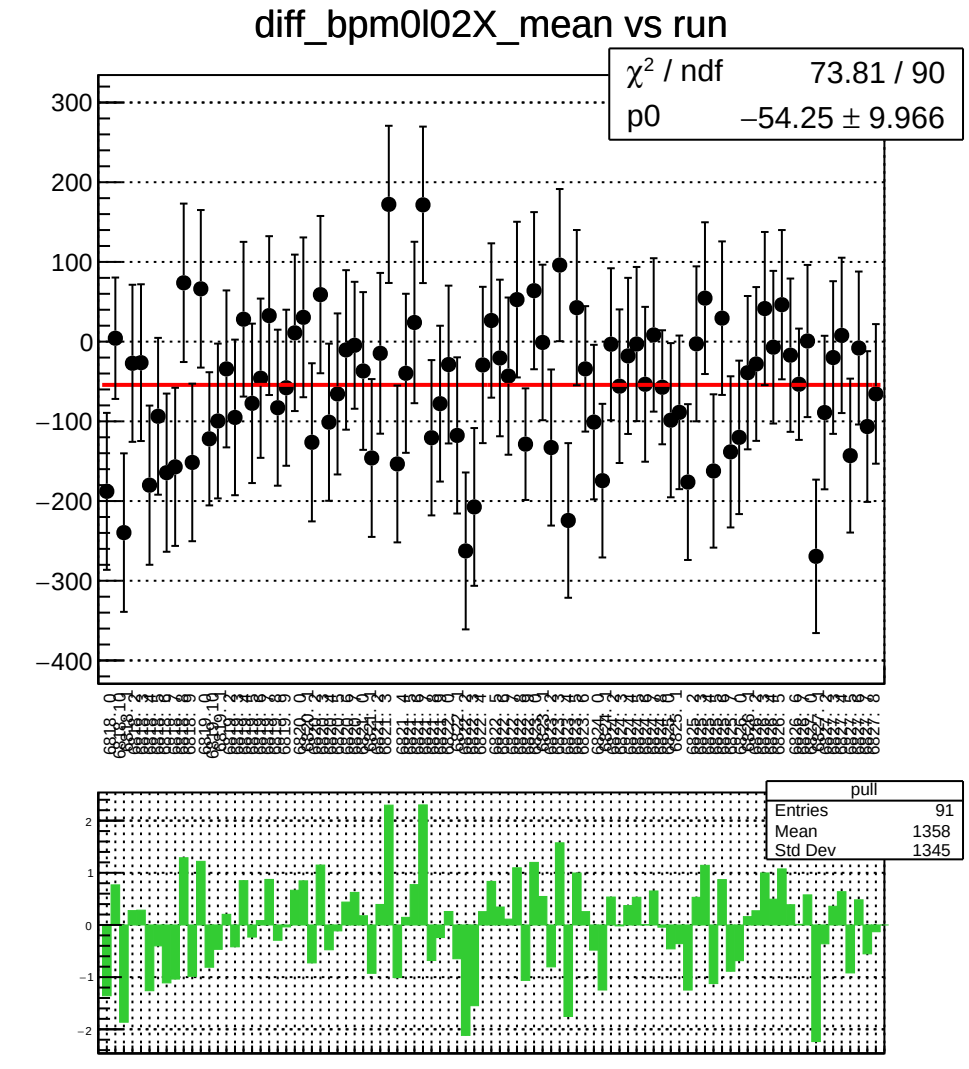

pull1D
Entries 91
Mean 0.002988
Std Dev 0.921

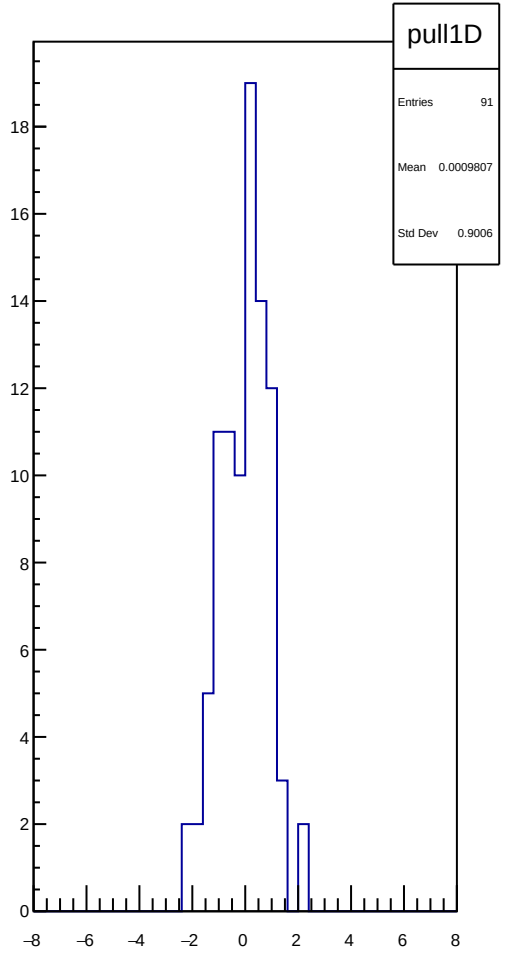

diff_bpm0l01X_rms vs run
χ² / ndf 225 / 90
p0 2971 ± 2.259
3050
3000
2950
2900
2850

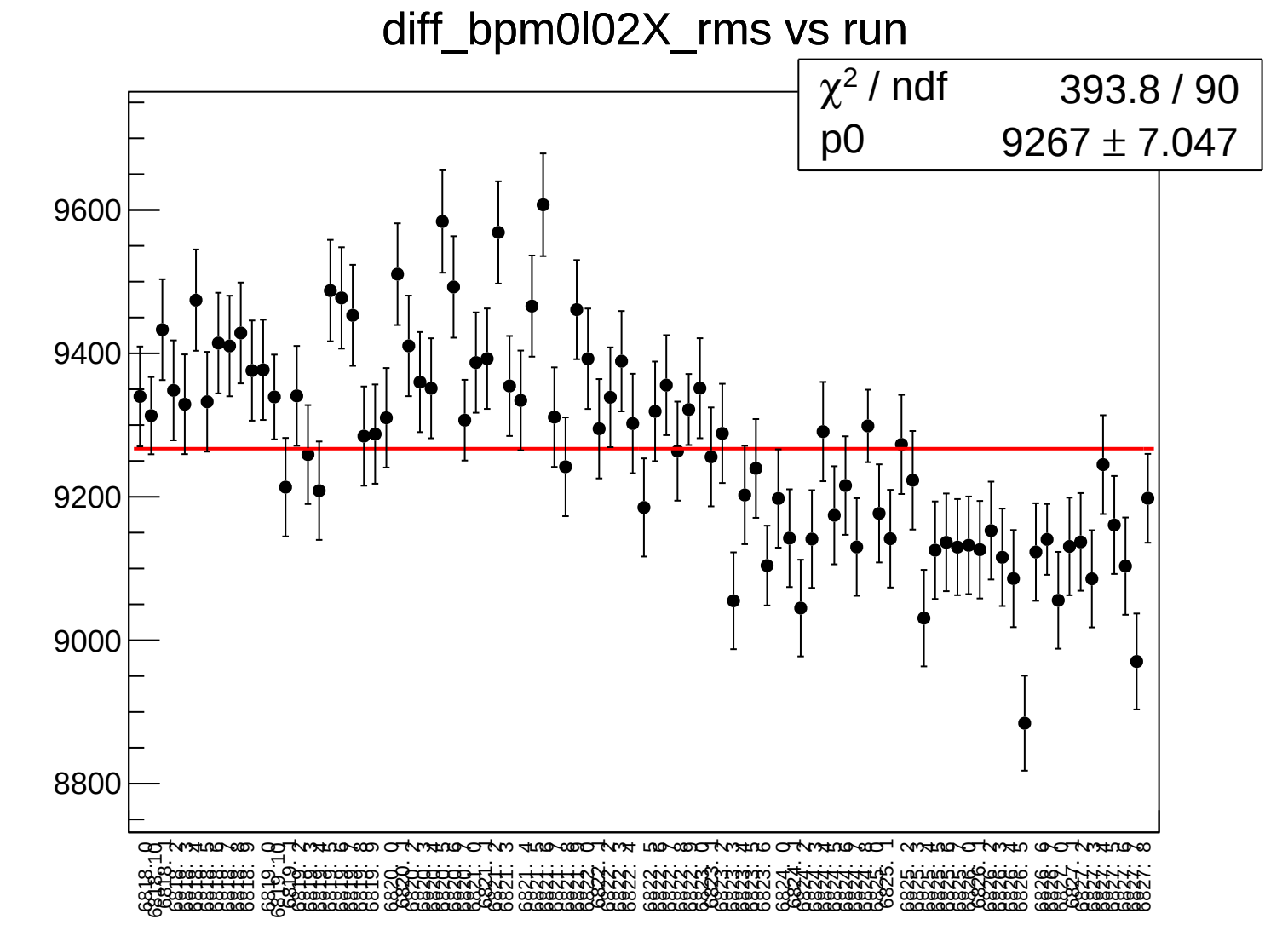

diff_bpm0l01Y_mean vs run
χ² / ndf 106 / 90
p0 42.82 ± 1.795
pull
Entries 91
Mean −99.27
Std Dev 129.7

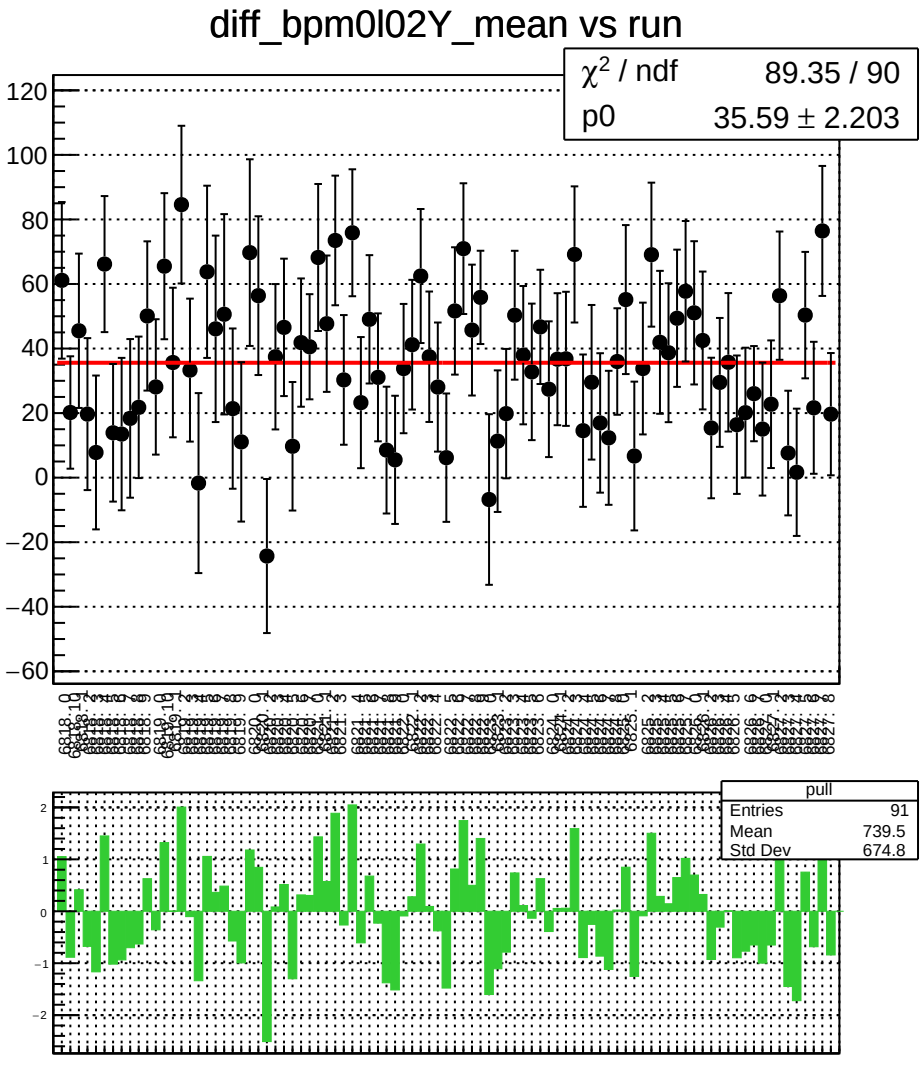

pull1D
Entries 91
Mean −0.02461
Std Dev 1.079

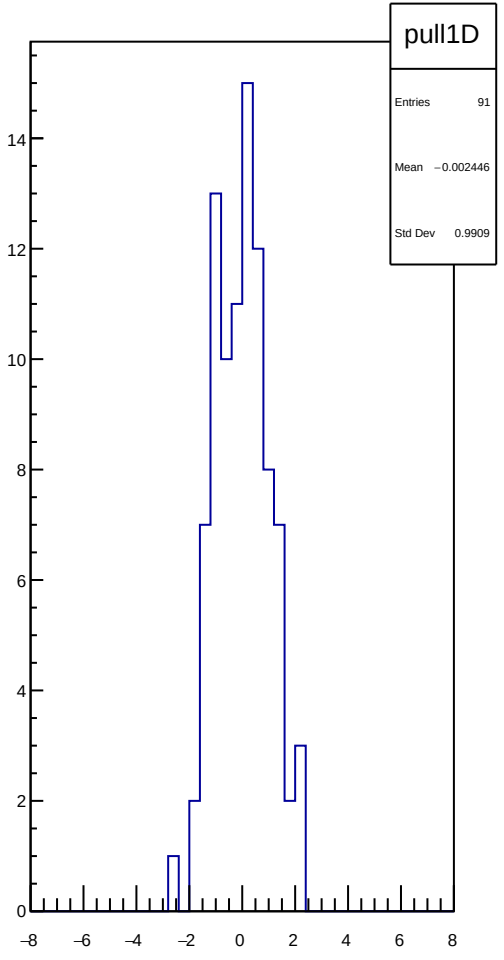

diff_bpm0l01Y_rms vs run
χ^2 / ndf 8430 / 90
p0 1666 ± 1.269
2300
2200
2100
2000
1900
1800
1700
1600
1500

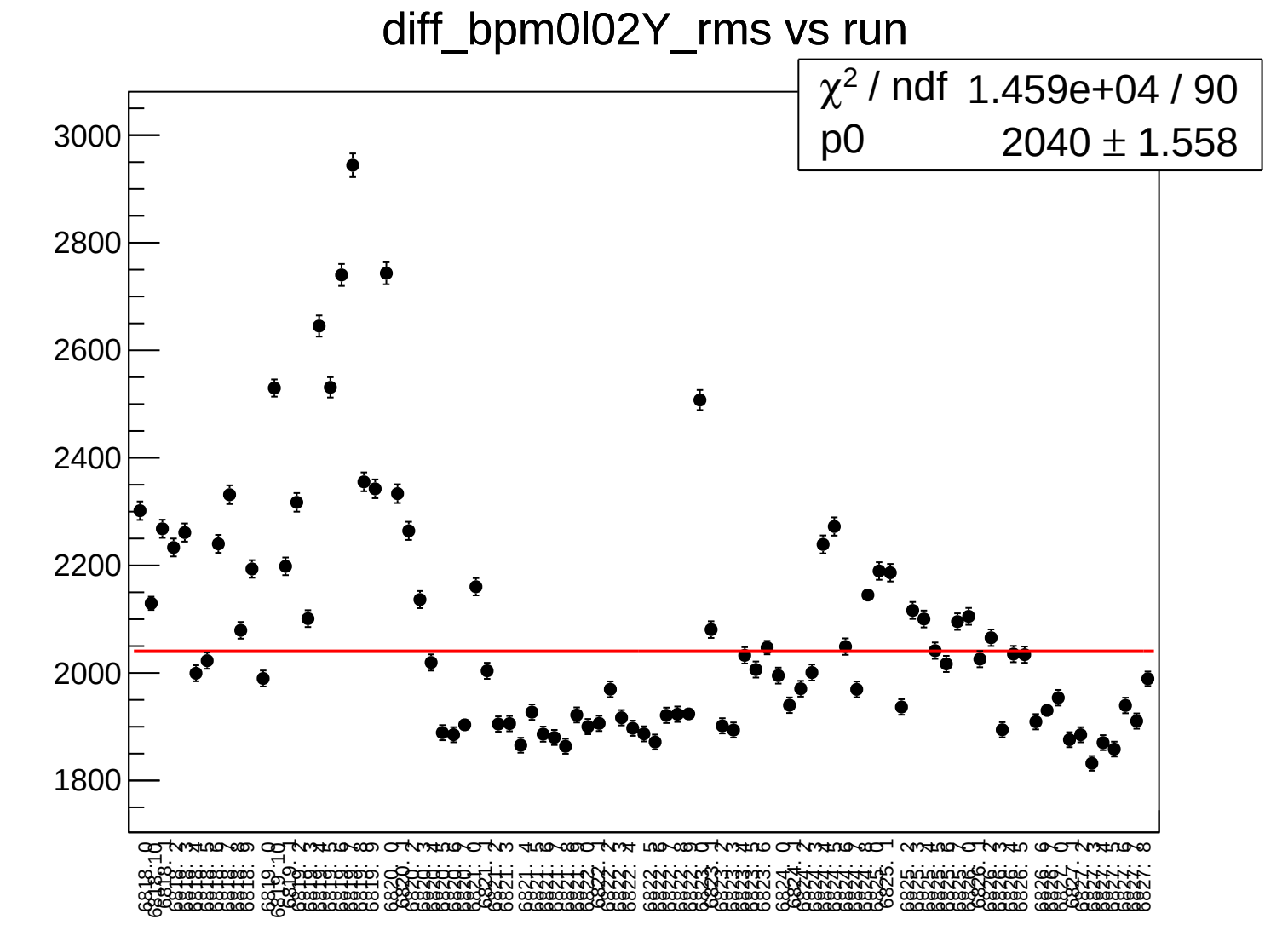

diff_bpm0l02X_mean vs run
χ² / ndf 73.81 / 90
p0 −54.25 ± 9.966
pull
Entries 91
Mean 1358
Std Dev 1345

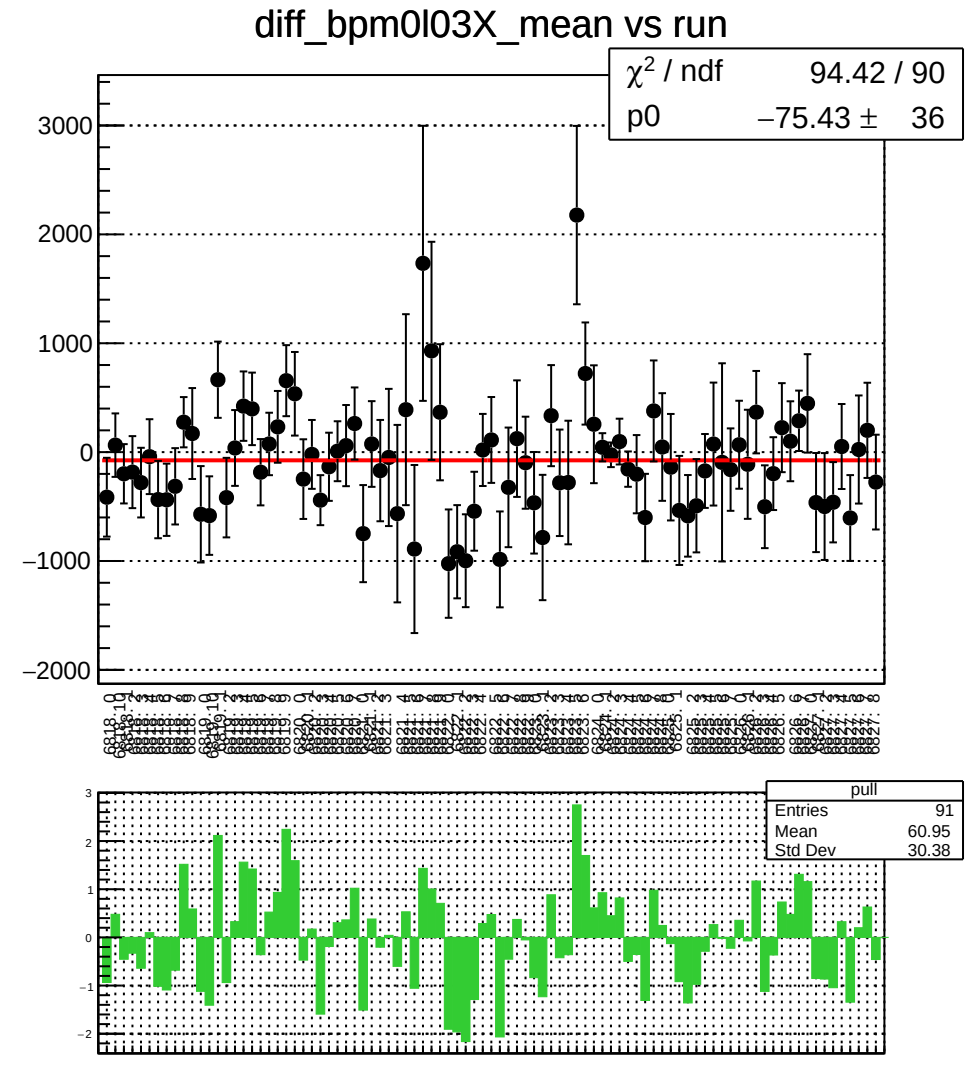

pull1D
Entries 91
Mean 0.0009807
Std Dev 0.9006

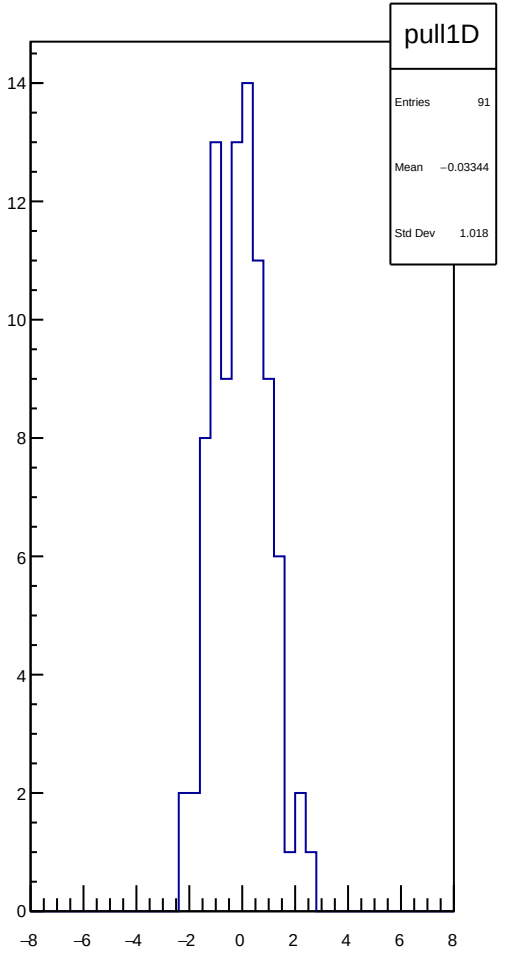

diff_bpm0l02X_rms vs run
χ² / ndf 393.8 / 90
p0 9267 ± 7.047
9600
9400
9200
9000
8800

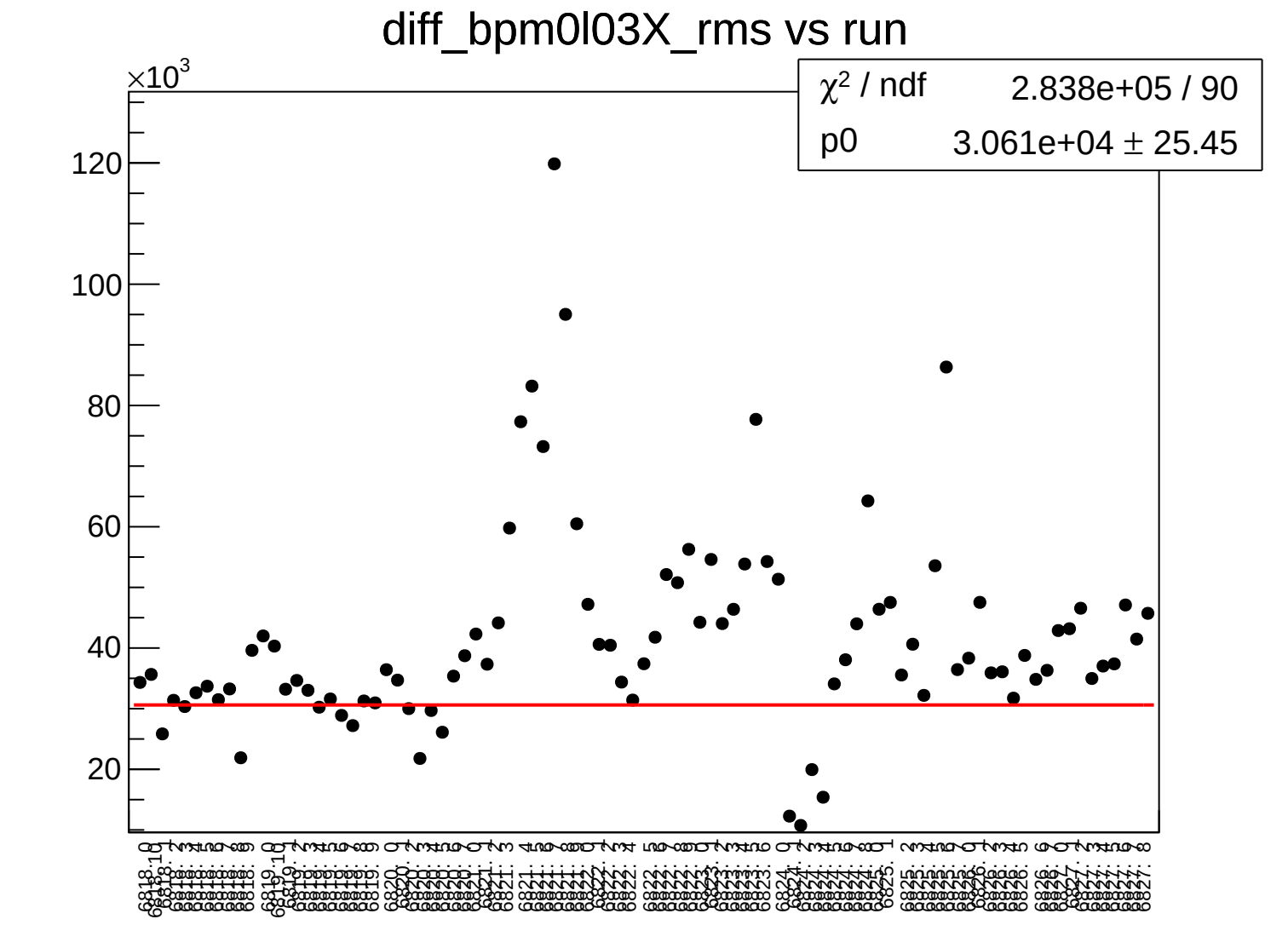

diff_bpm0l02Y_mean vs run
χ^2 / ndf 89.35 / 90
p0 35.59 ± 2.203
pull
Entries 91
Mean 739.5
Std Dev 674.8

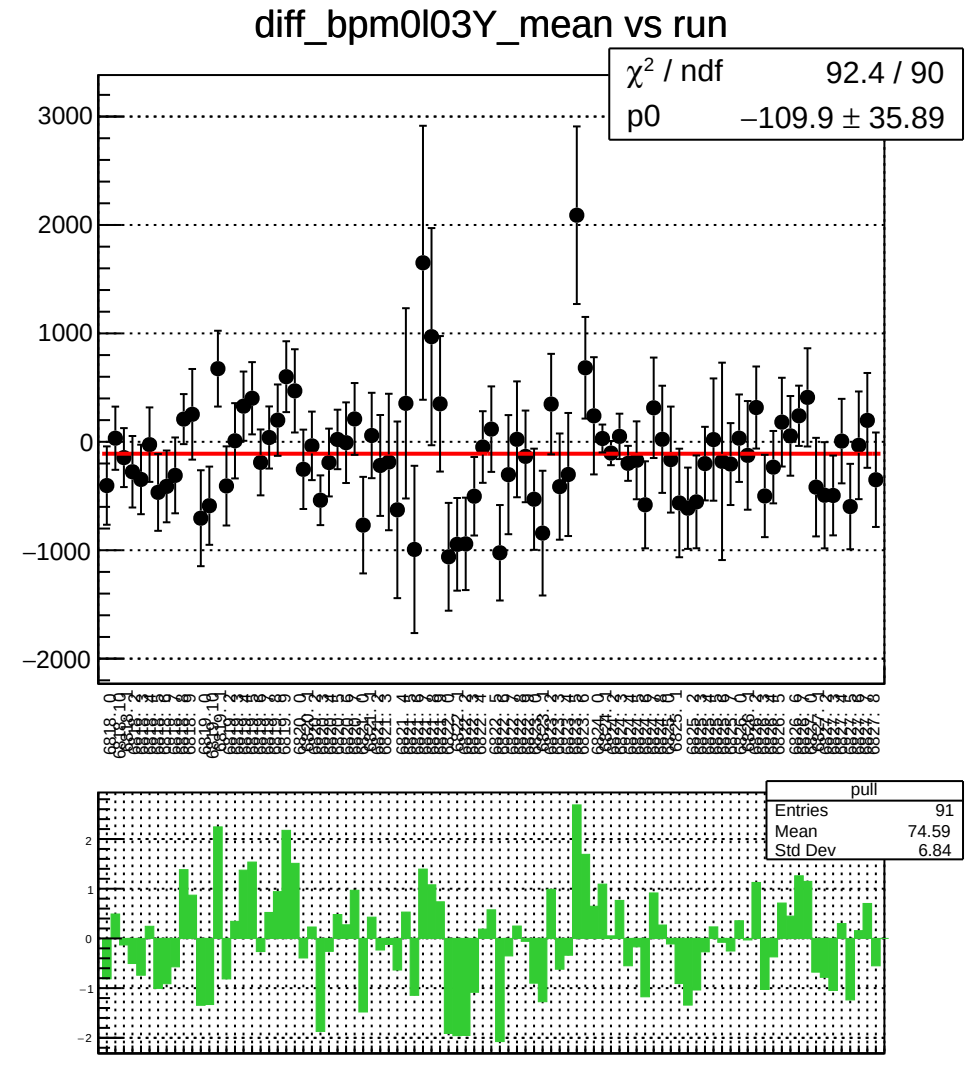

pull1D
Entries 91
Mean −0.002446
Std Dev 0.9909

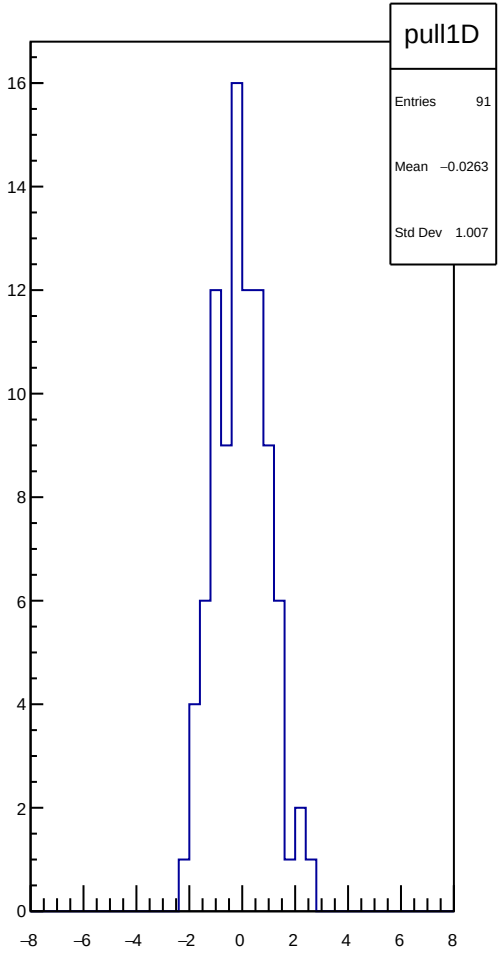

diff_bpm0l02Y_rms vs run
χ² / ndf 1.459e+04 / 90
p0 2040 ± 1.558
3000
2800
2600
2400
2200
2000
1800

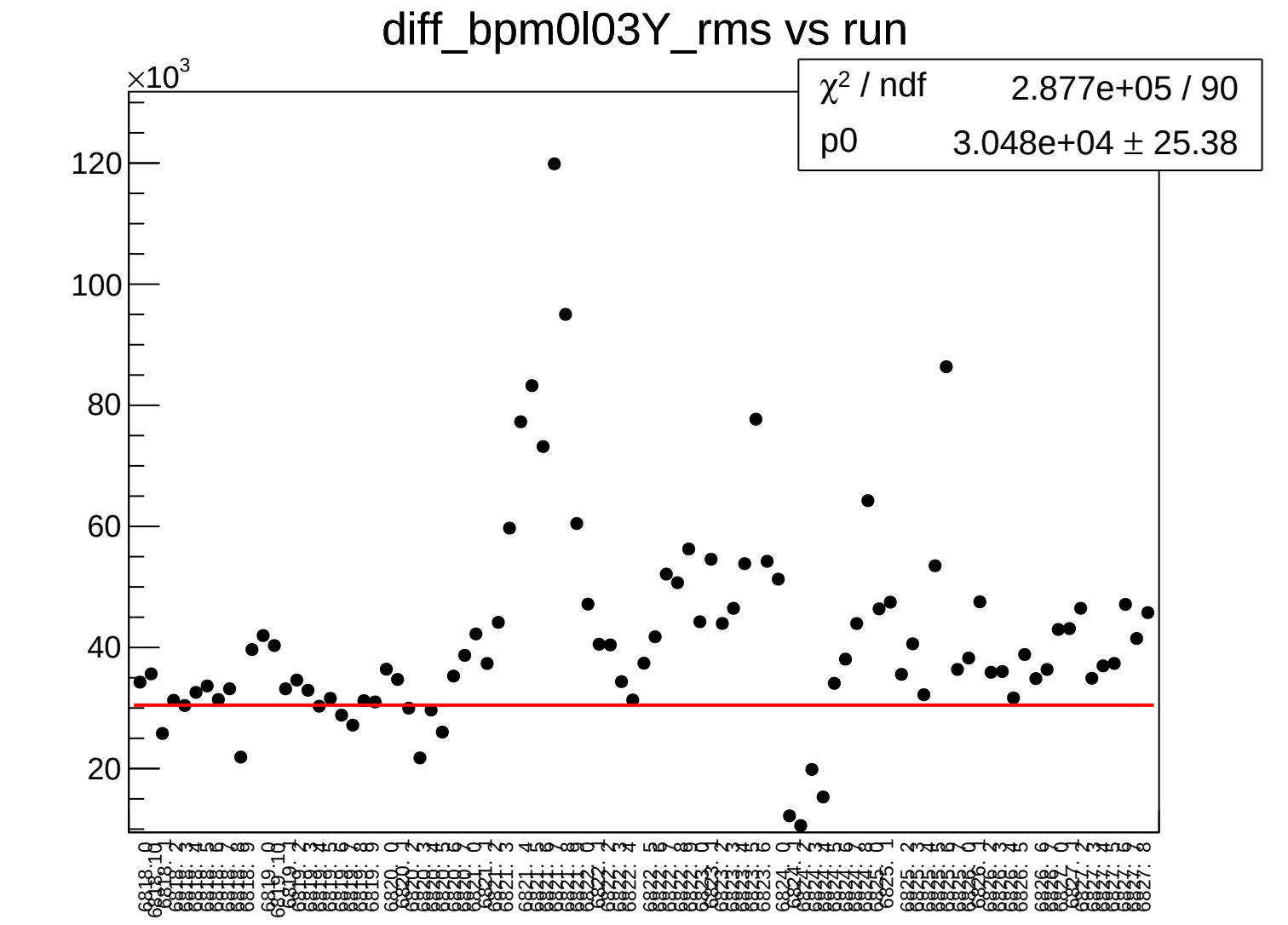

diff_bpm0l03X_mean vs run
χ² / ndf 94.42 / 90
p0 −75.43 ± 36
3000
2000
1000
0
−1000
−2000
pull
Entries 91
Mean 60.95
Std Dev 30.38
3
2
1
0
−1
−2

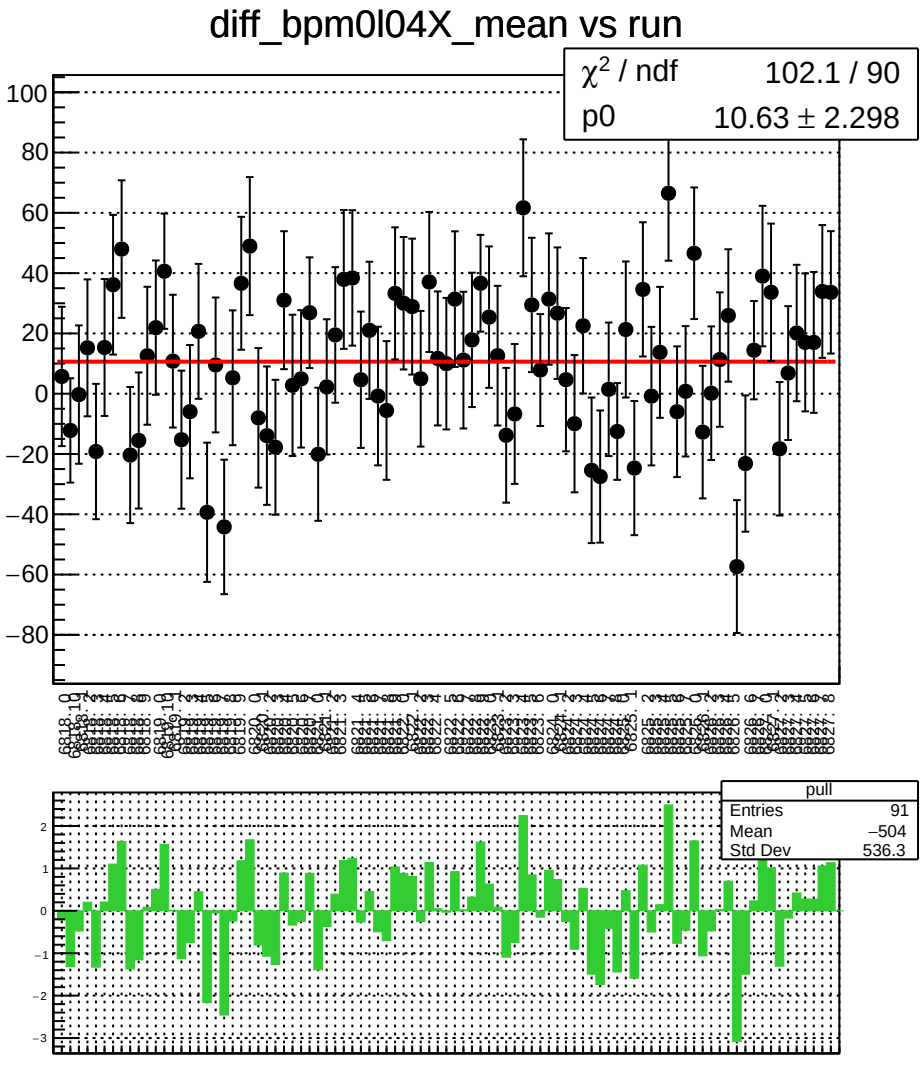

pull1D
Entries 91
Mean −0.03344
Std Dev 1.018
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

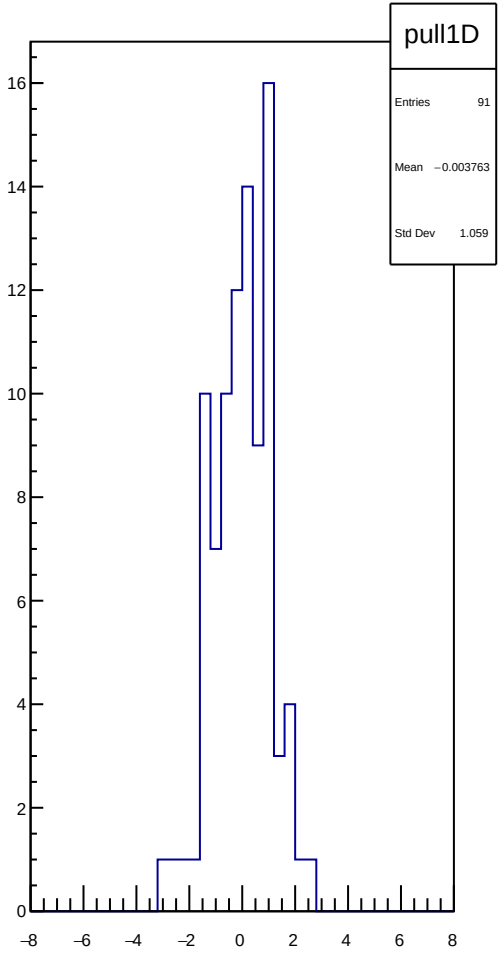

diff_bpm0l03X_rms vs run
×10^3
120
100
80
60
40
20
χ² / ndf 2.838e+05 / 90
p0 3.061e+04 ± 25.45

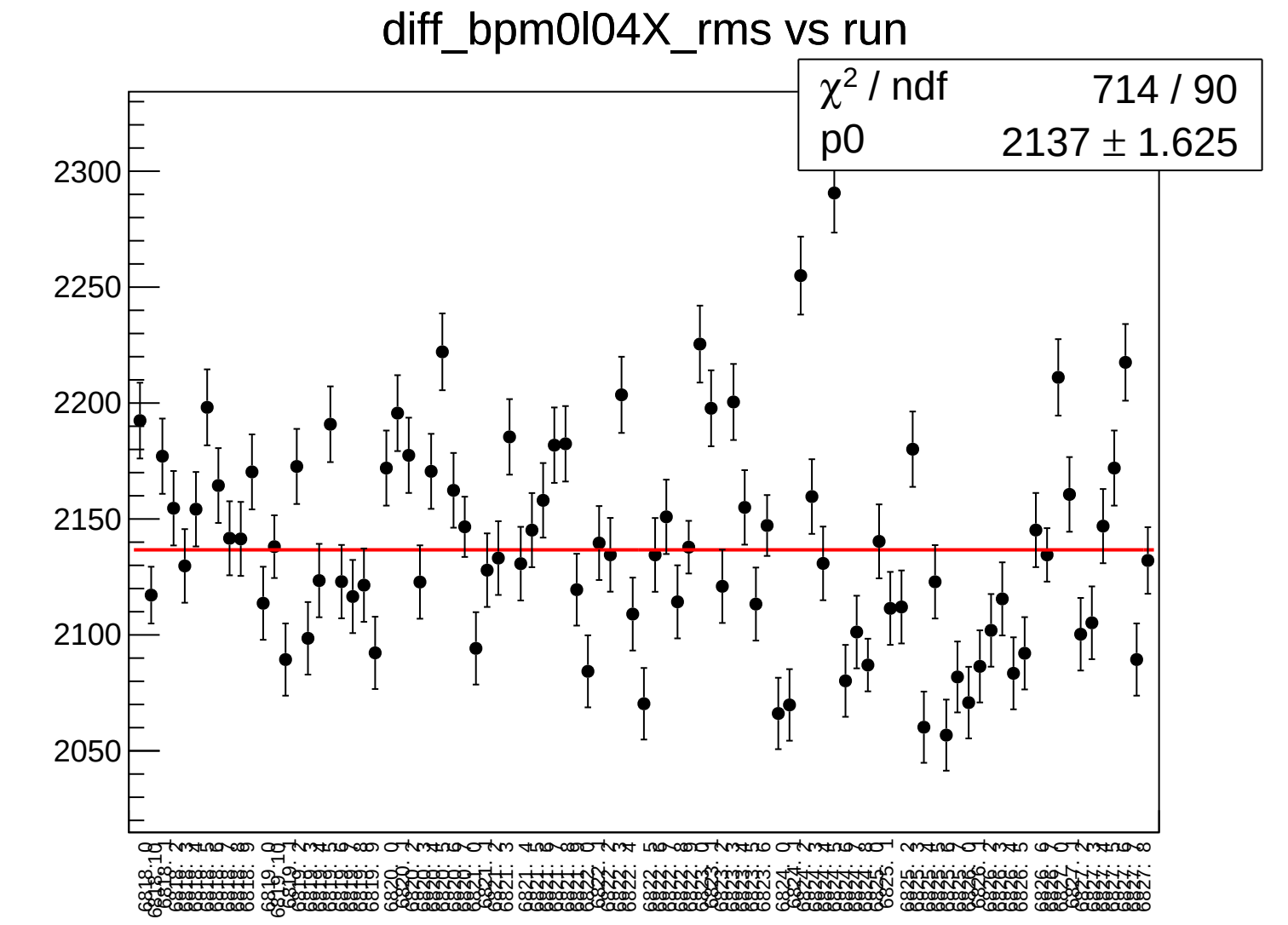

diff_bpm0l03Y_mean vs run
χ² / ndf 92.4 / 90
p0 −109.9 ± 35.89
3000
2000
1000
0
−1000
−2000
pull
Entries 91
Mean 74.59
Std Dev 6.84
2
1
0
−1
−2

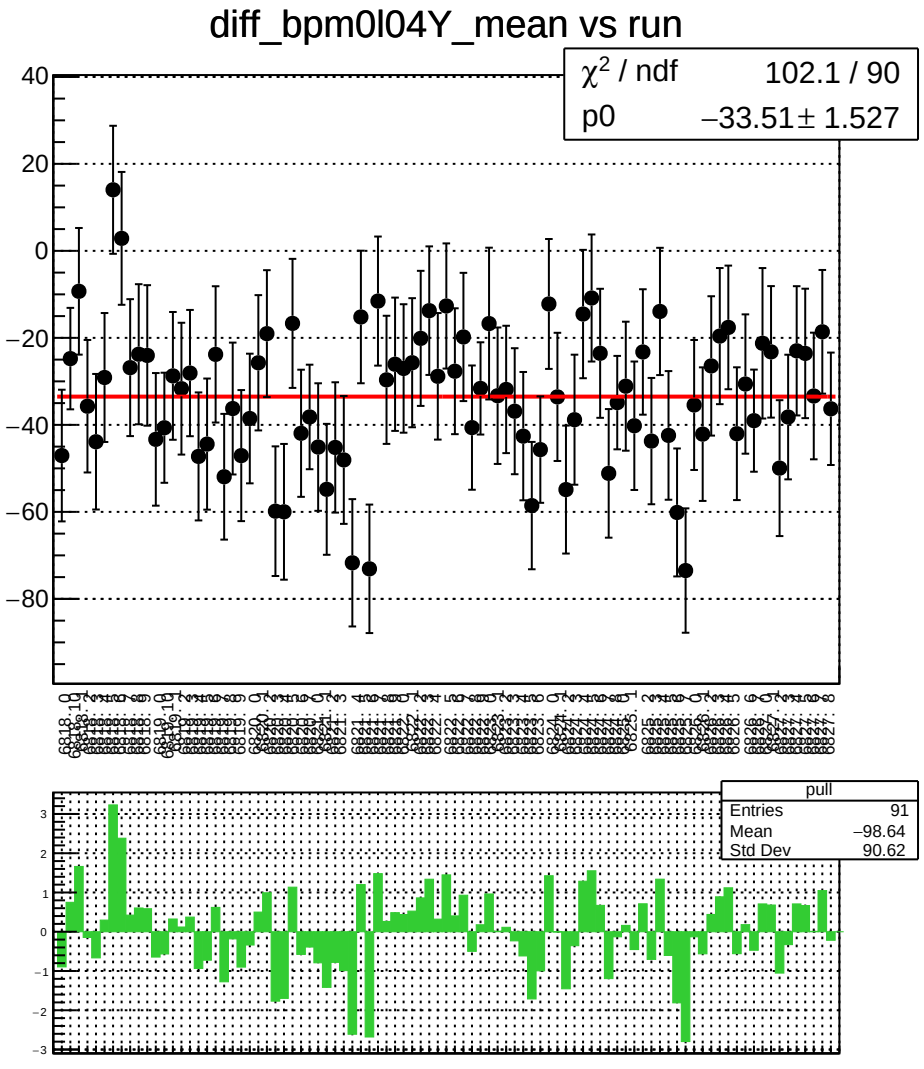

pull1D
Entries 91
Mean −0.0263
Std Dev 1.007
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

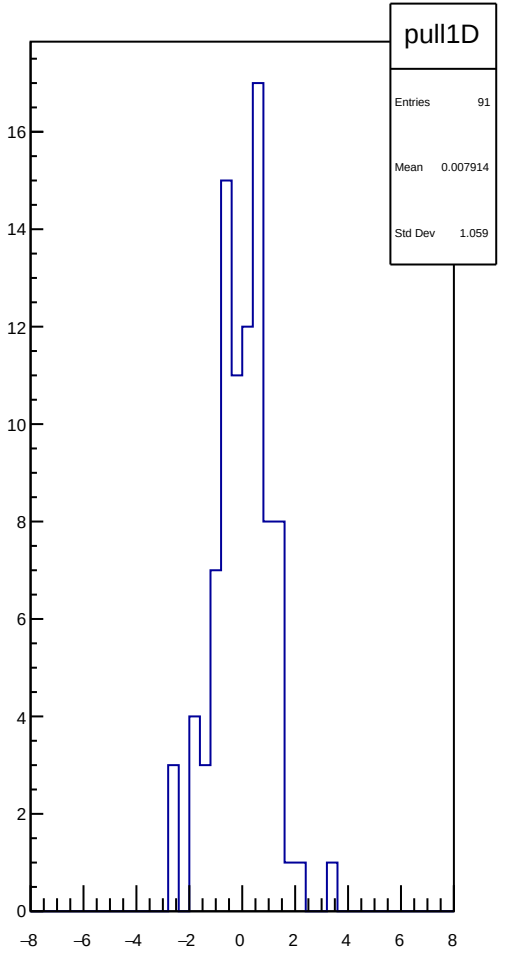

diff_bpm0l03Y_rms vs run
×10^3
120
100
80
60
40
20
χ² / ndf 2.877e+05 / 90
p0 3.048e+04 ± 25.38

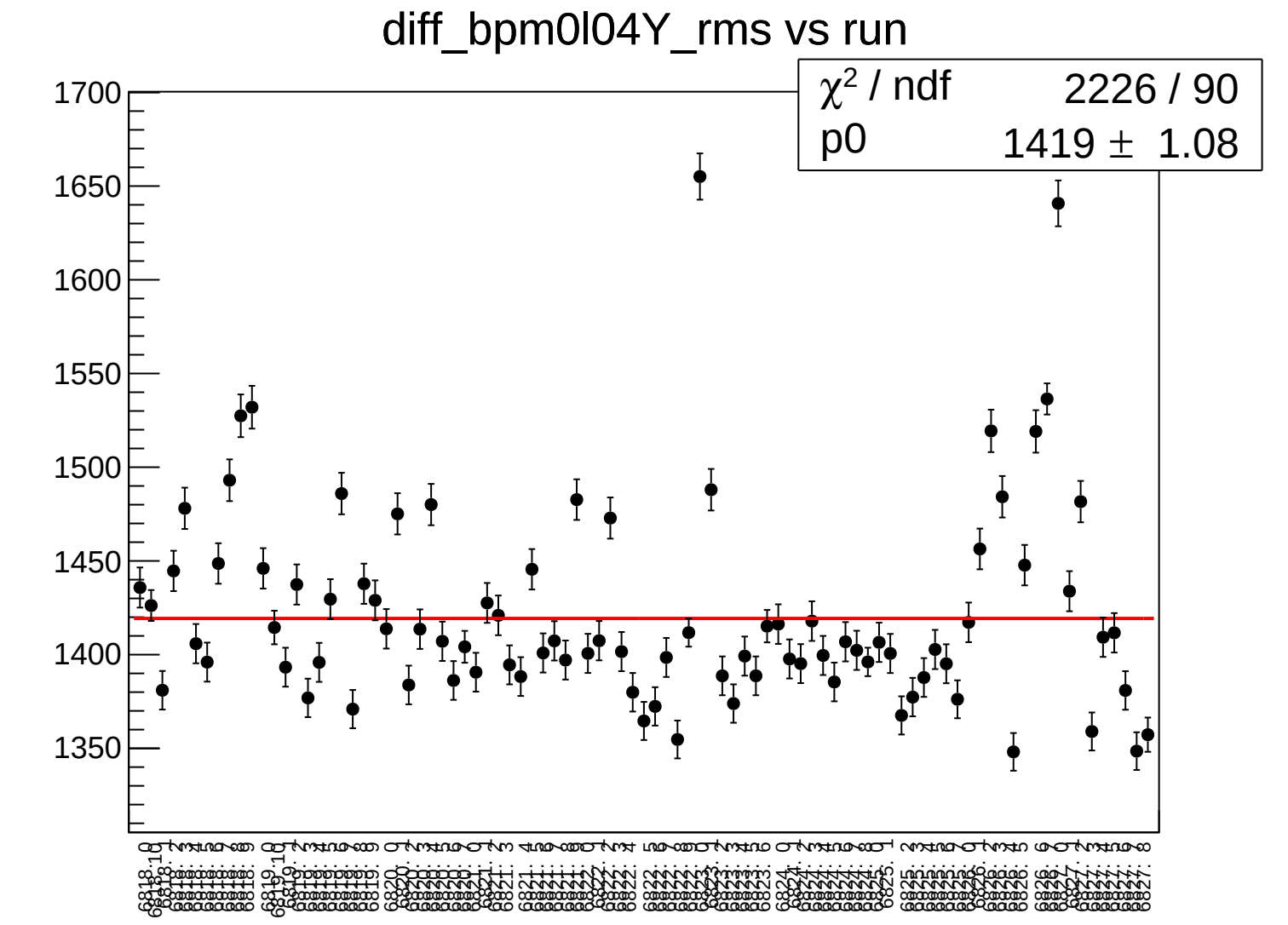

diff_bpm0l04X_mean vs run
χ² / ndf 102.1 / 90
p0 10.63 ± 2.298
pull
Entries 91
Mean −504
Std Dev 536.3

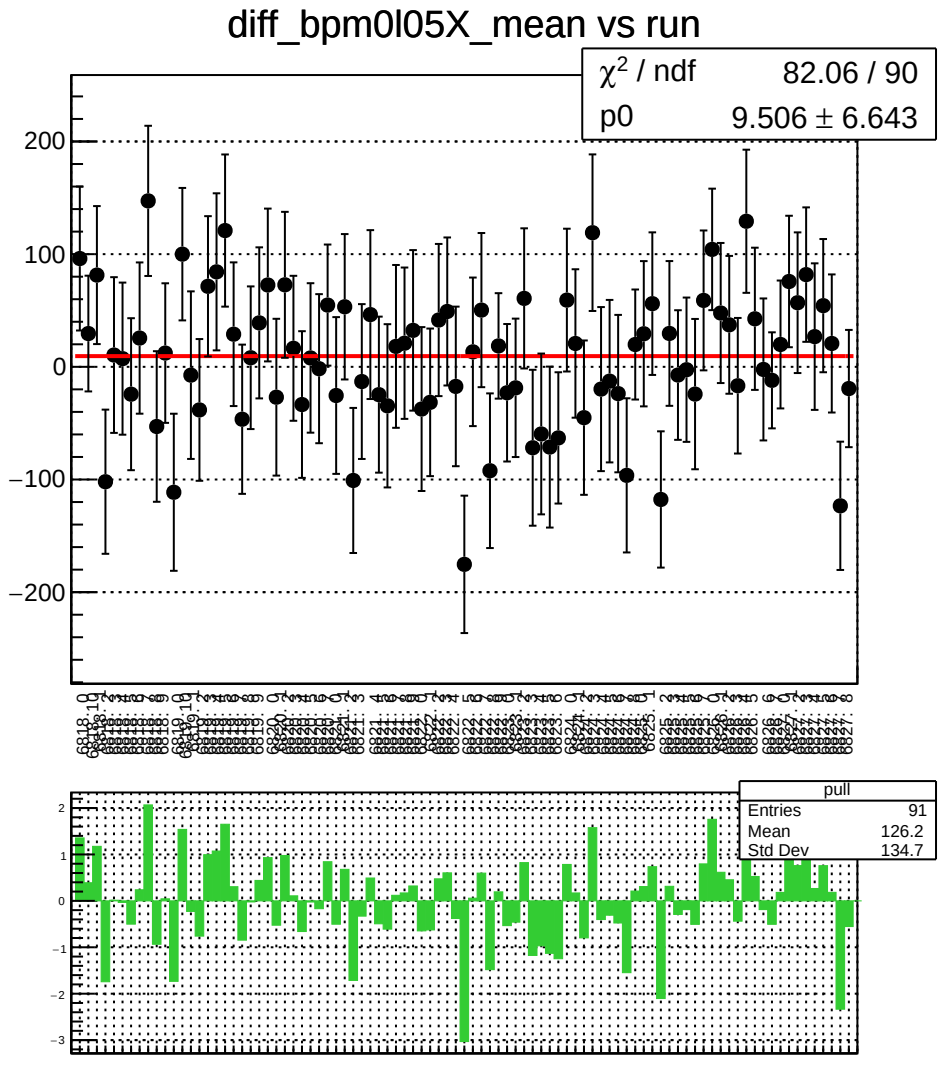

pull1D
Entries 91
Mean −0.003763
Std Dev 1.059

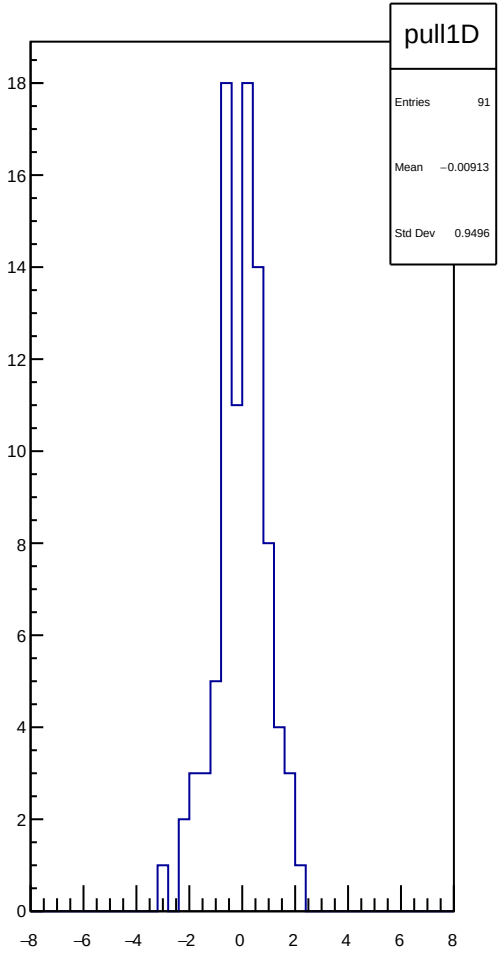

diff_bpm0l04X_rms vs run
χ² / ndf 714 / 90
p0 2137 ± 1.625
2300
2250
2200
2150
2100
2050

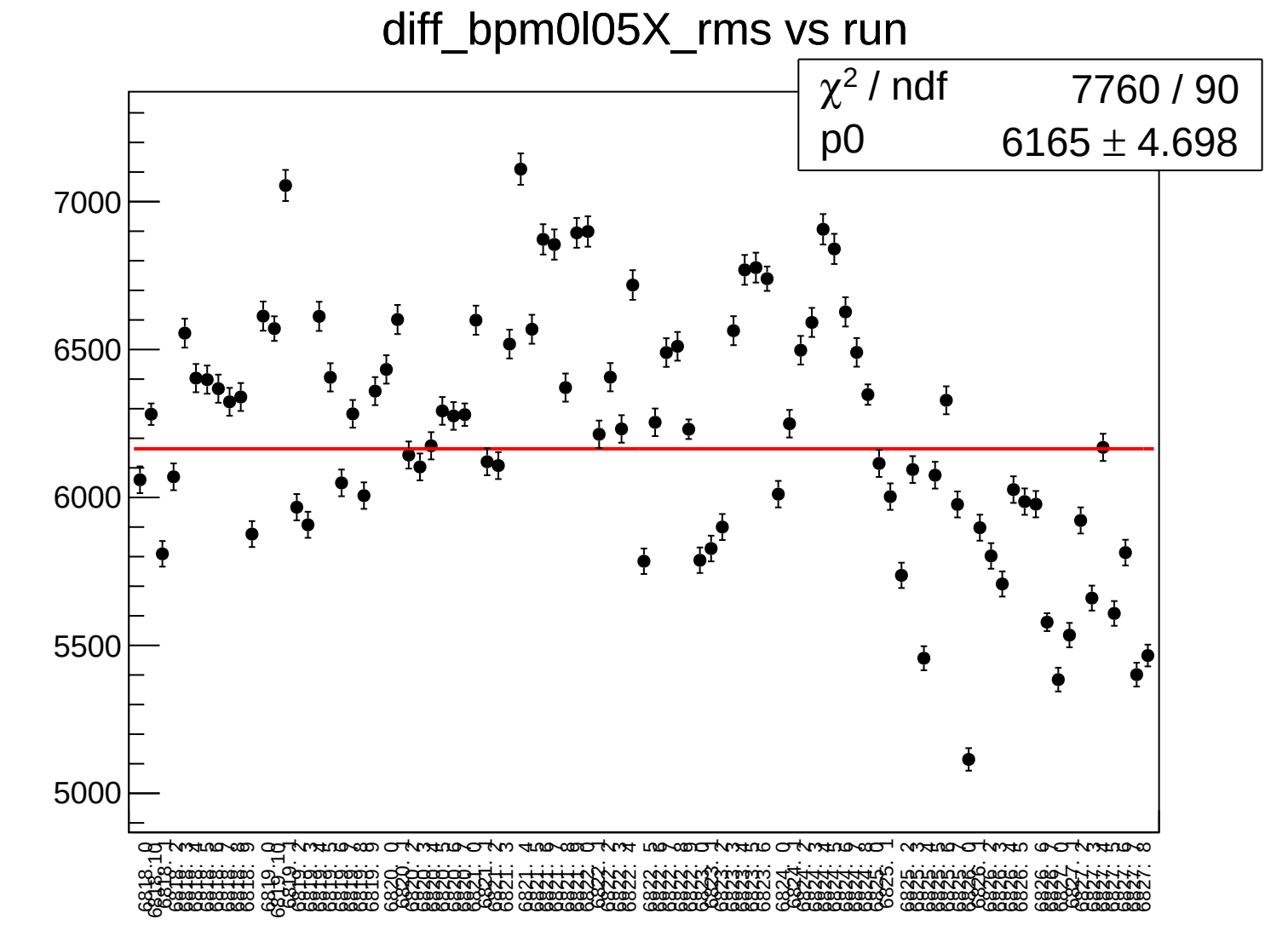

diff_bpm0l04Y_mean vs run
χ² / ndf 102.1 / 90
p0 −33.51 ± 1.527
pull
Entries 91
Mean −98.64
Std Dev 90.62

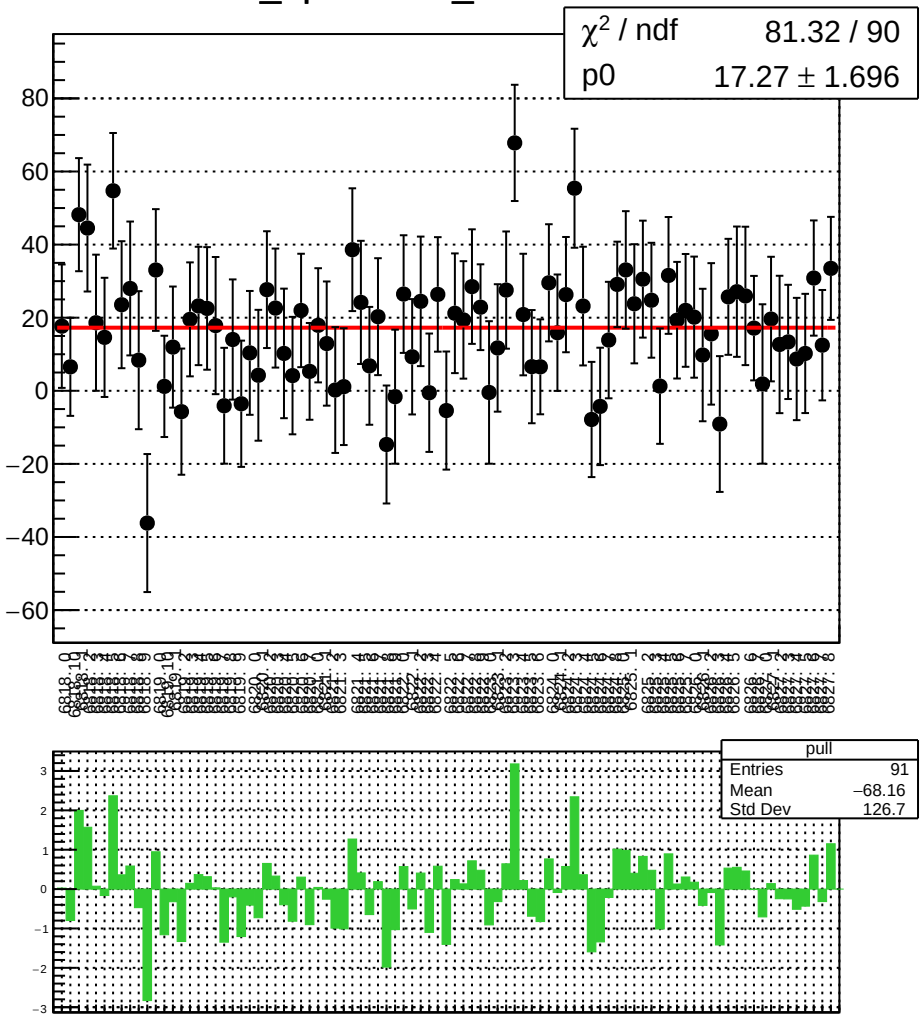

pull1D
Entries 91
Mean 0.007914
Std Dev 1.059

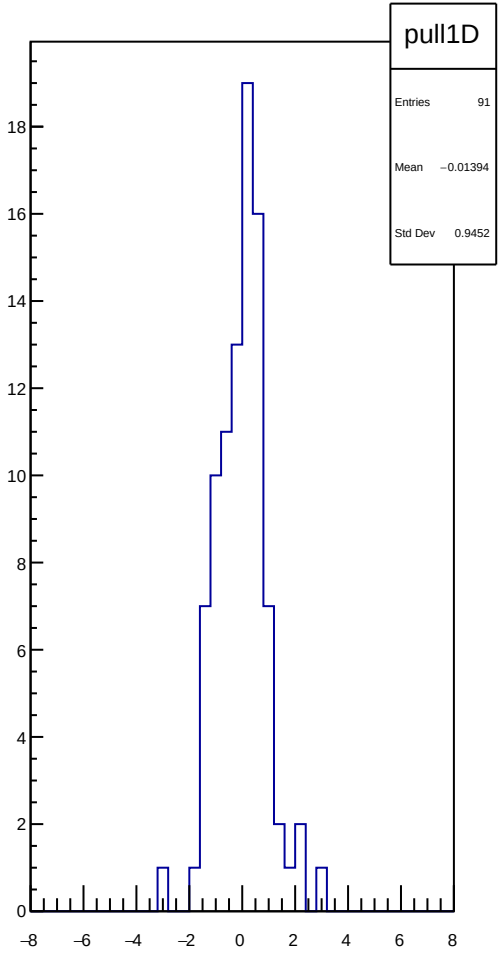

diff_bpm0l04Y_rms vs run
χ² / ndf 2226 / 90
p0 1419 ± 1.08
1700
1650
1600
1550
1500
1450
1400
1350

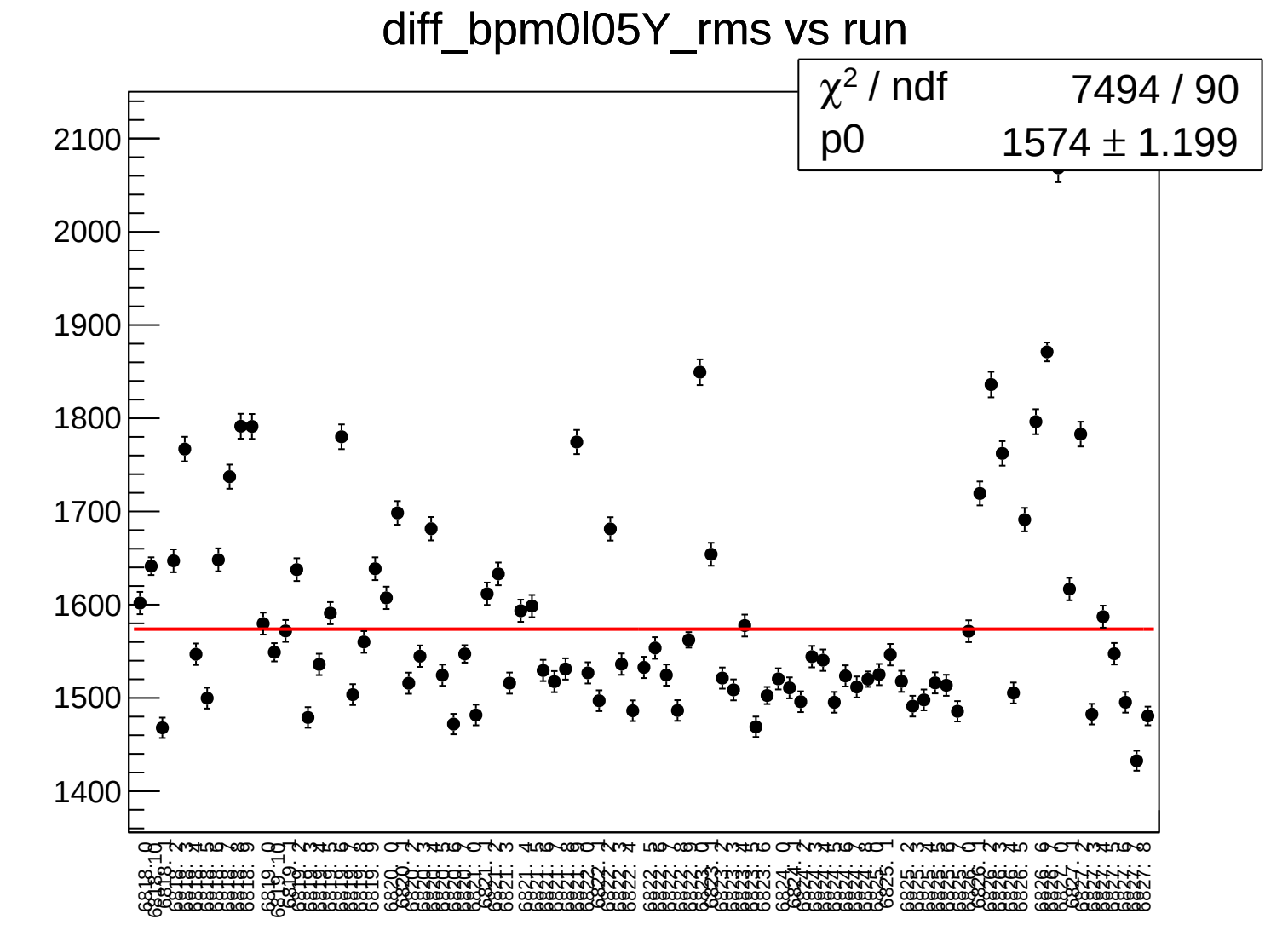

diff_bpm0l05X_mean vs run
χ² / ndf 82.06 / 90
p0 9.506 ± 6.643
pull
Entries 91
Mean 126.2
Std Dev 134.7

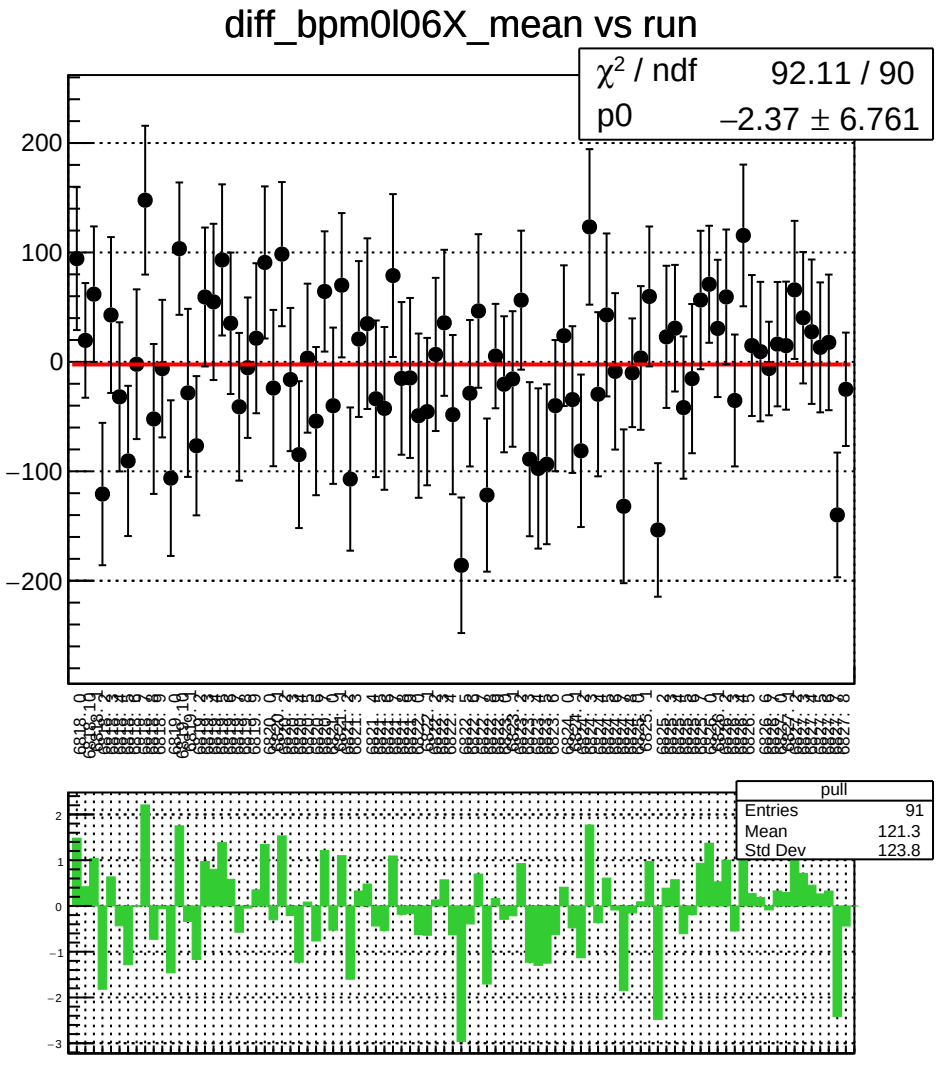

pull1D
Entries 91
Mean −0.00913
Std Dev 0.9496

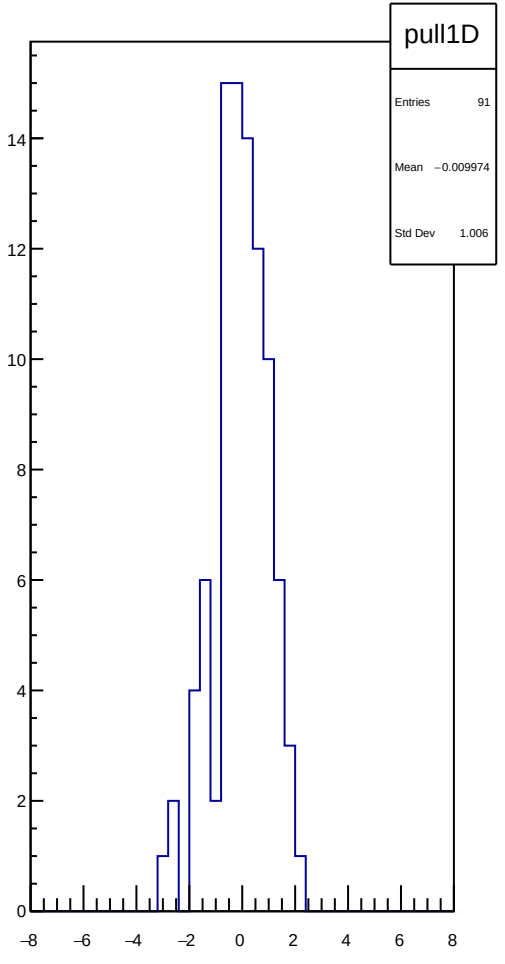

diff_bpm0l05X_rms vs run
χ² / ndf 7760 / 90
p0 6165 ± 4.698
7000
6500
6000
5500
5000

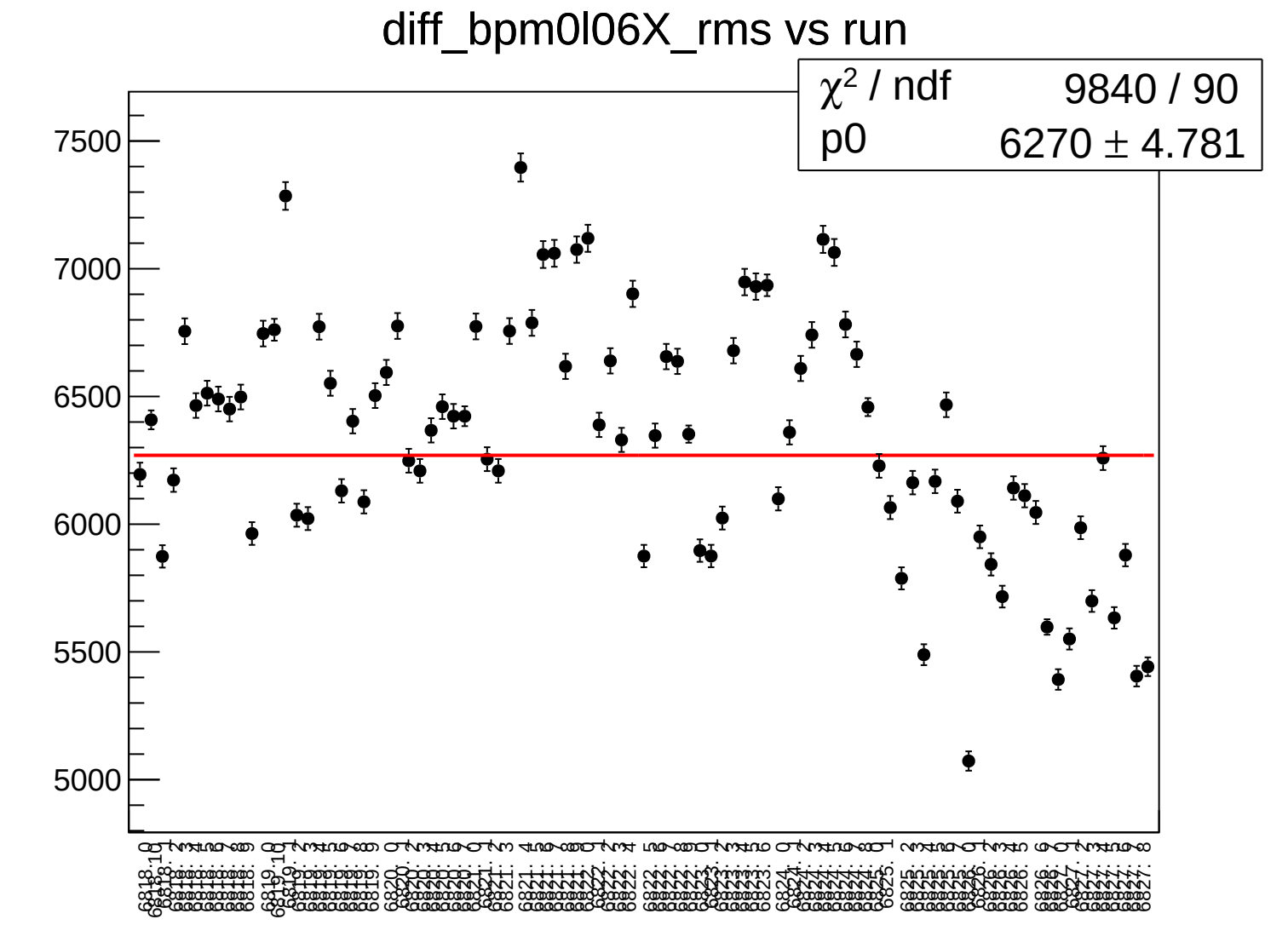

diff_bpm0l05Y_mean vs run
χ² / ndf 81.32 / 90
p0 17.27 ± 1.696
pull
Entries 91
Mean −68.16
Std Dev 126.7

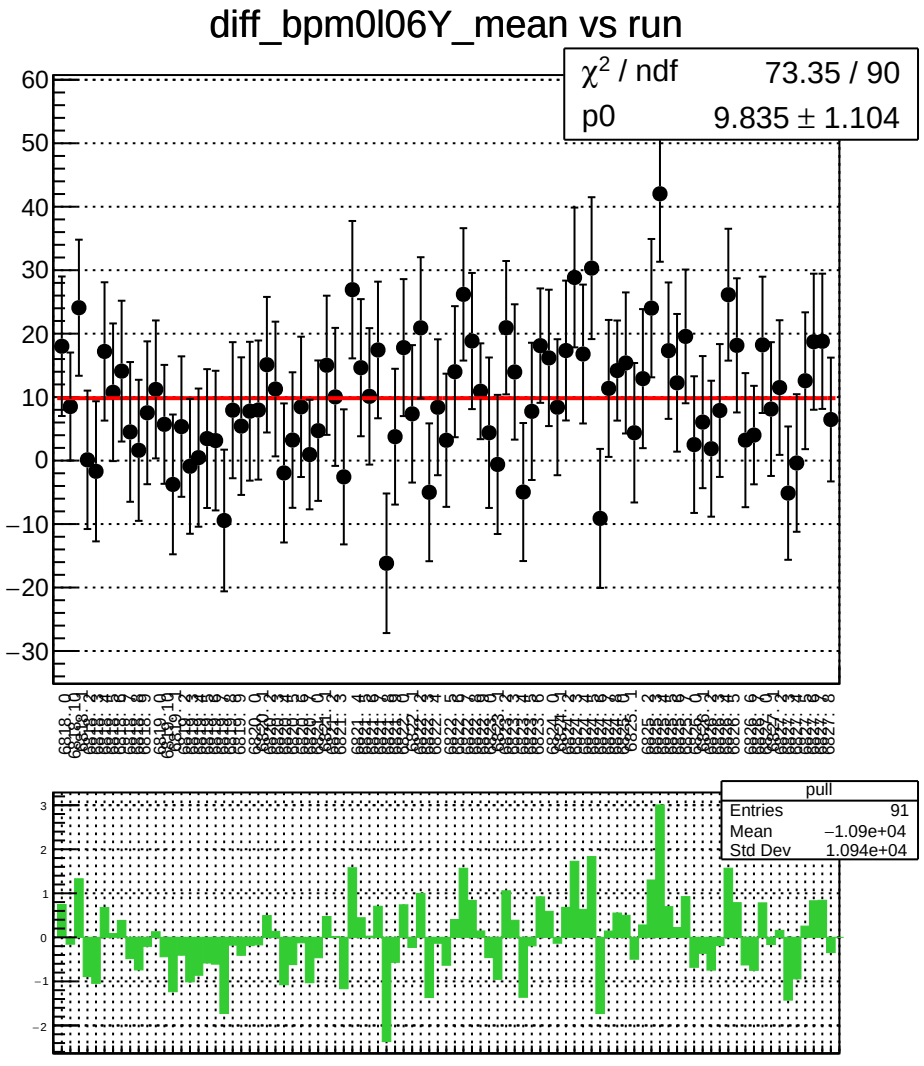

pull1D
Entries 91
Mean −0.01394
Std Dev 0.9452

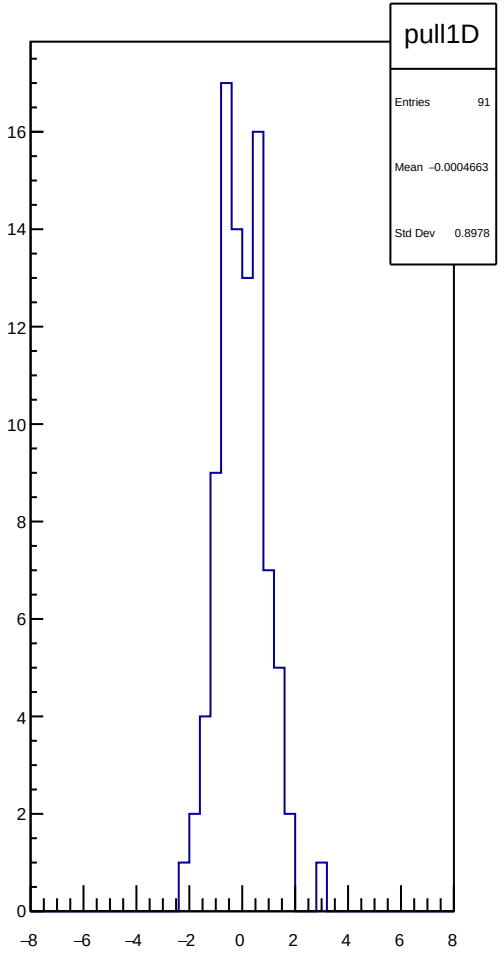

diff_bpm0l05Y_rms vs run
χ² / ndf 7494 / 90
p0 1574 ± 1.199
2100
2000
1900
1800
1700
1600
1500
1400

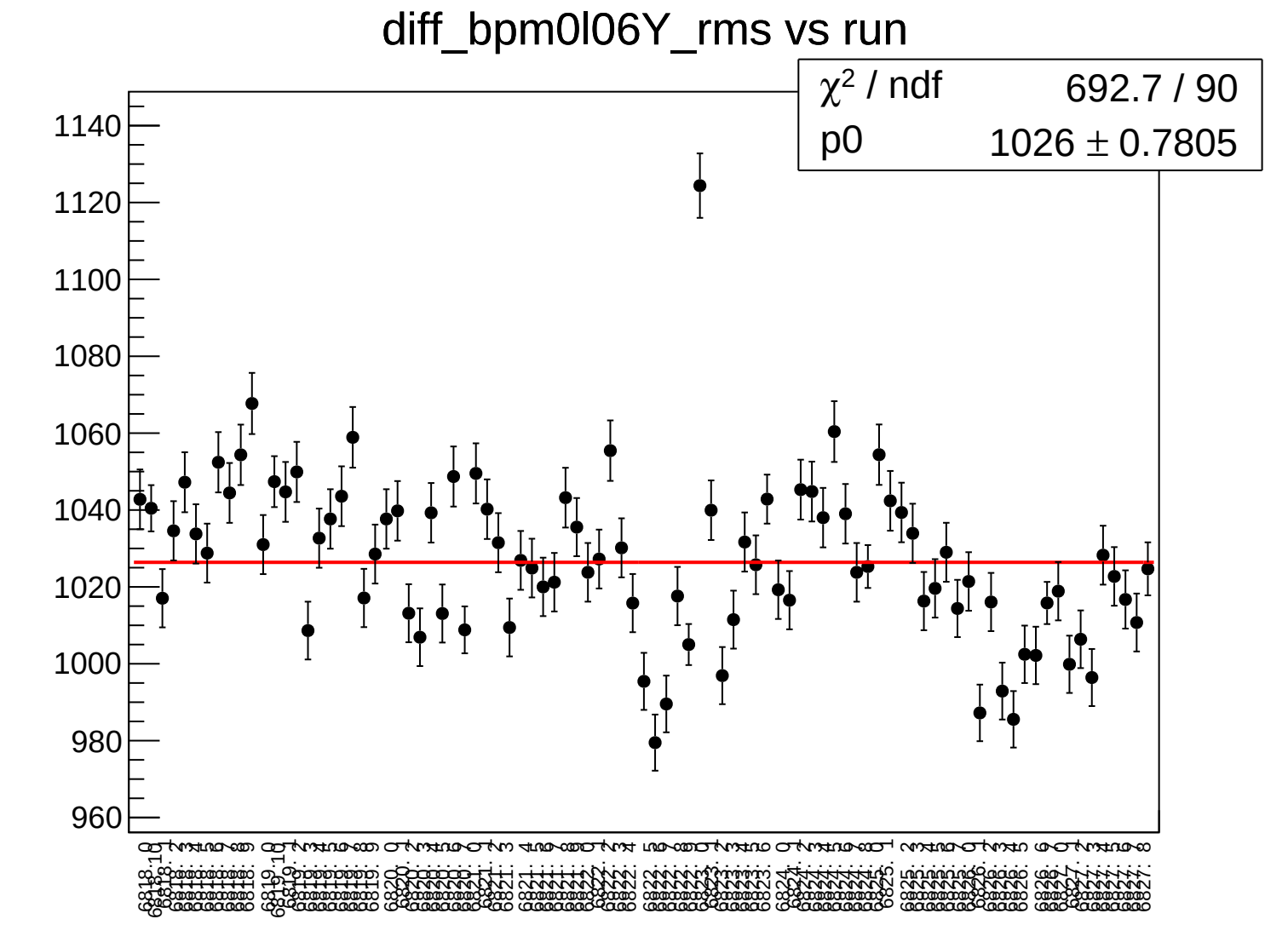

diff_bpm0l06X_mean vs run
χ^2 / ndf 92.11 / 90
p0 −2.37 ± 6.761
pull
Entries 91
Mean 121.3
Std Dev 123.8

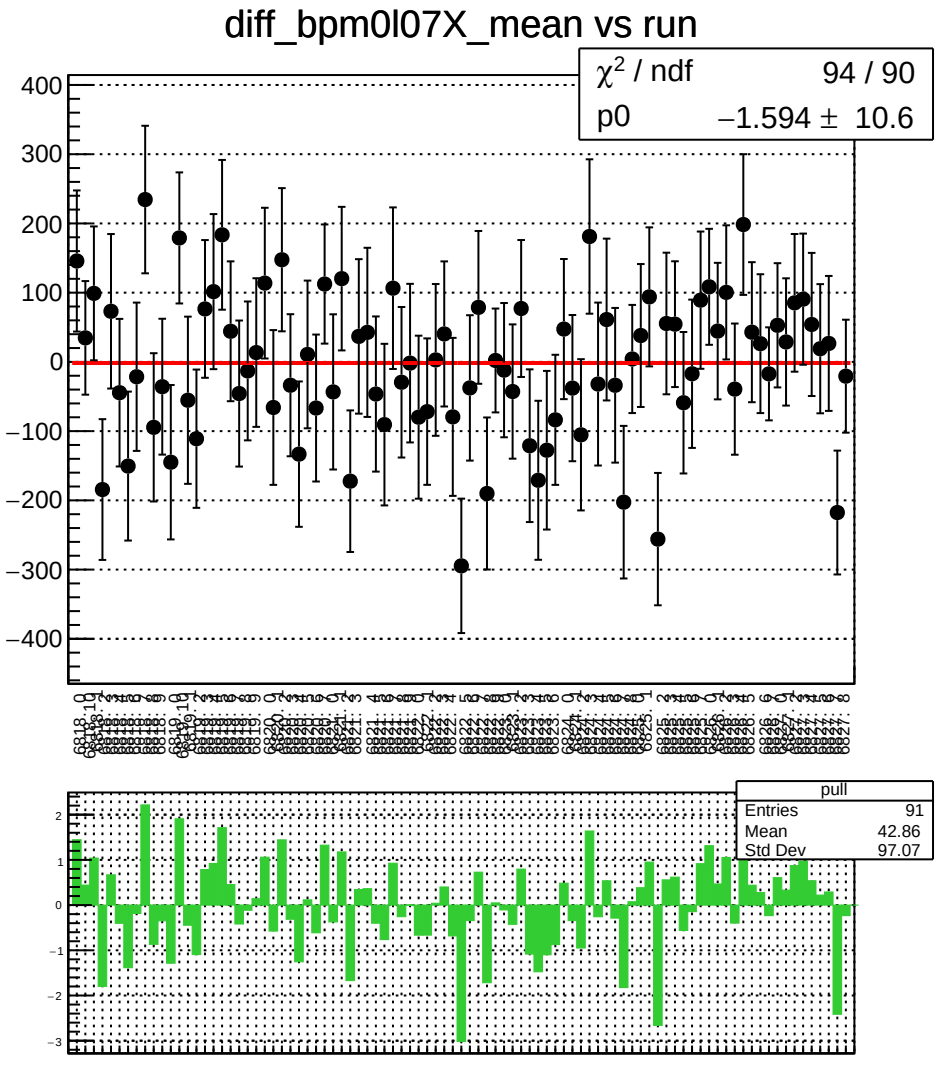

pull1D
Entries 91
Mean −0.009974
Std Dev 1.006

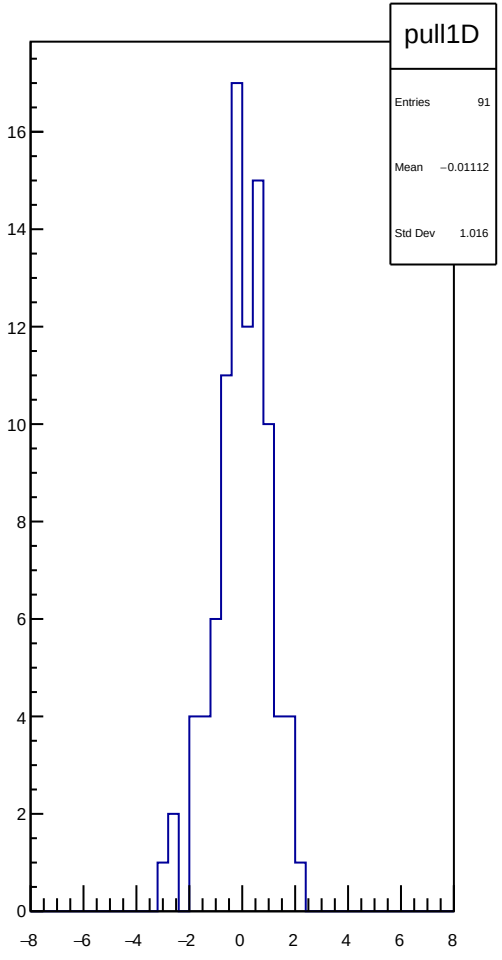

diff_bpm0l06X_rms vs run
χ² / ndf 9840 / 90
p0 6270 ± 4.781
7500
7000
6500
6000
5500
5000

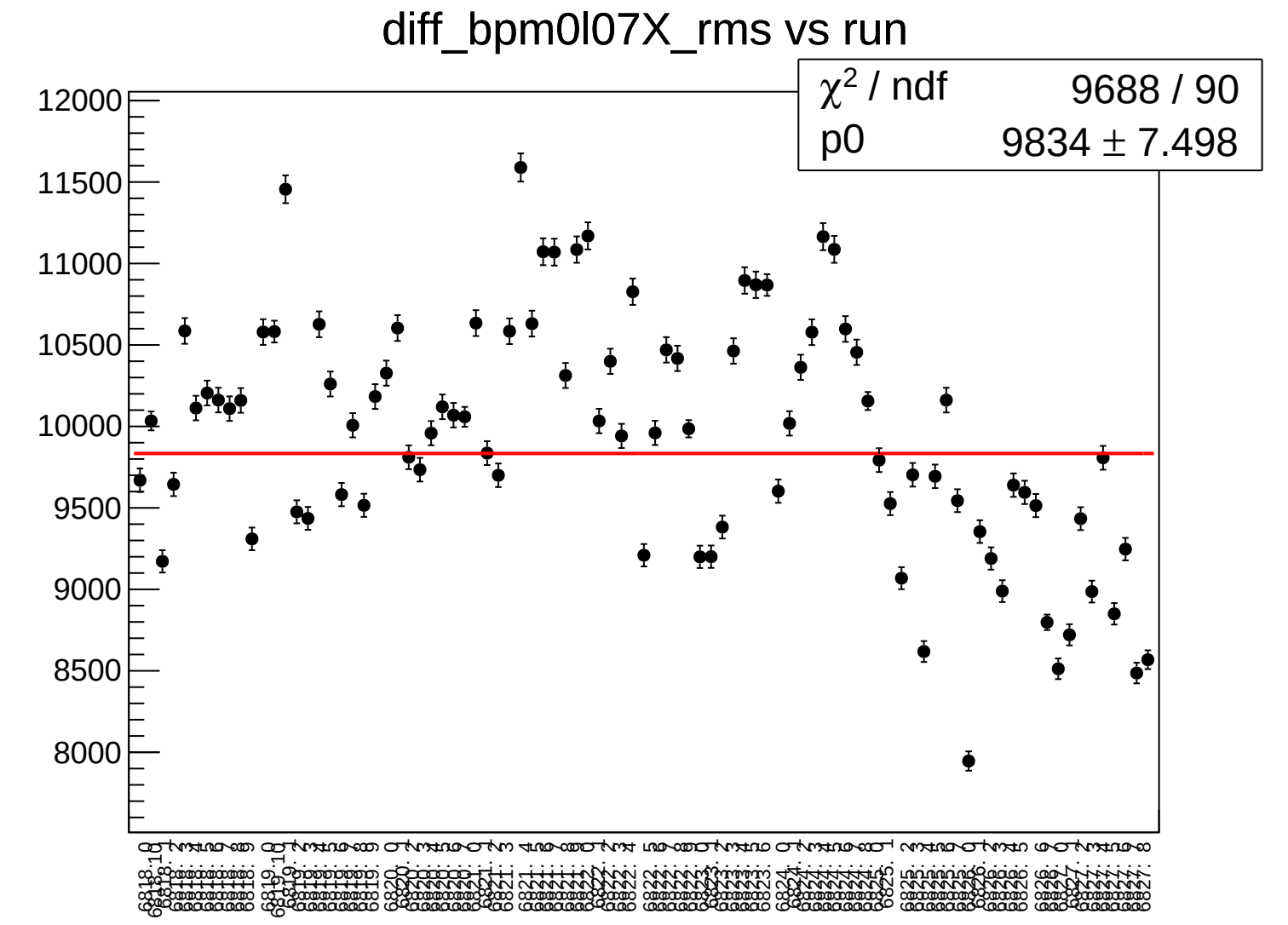

diff_bpm0l06Y_mean vs run
χ² / ndf 73.35 / 90
p0 9.835 ± 1.104
pull
Entries 91
Mean −1.09e+04
Std Dev 1.094e+04

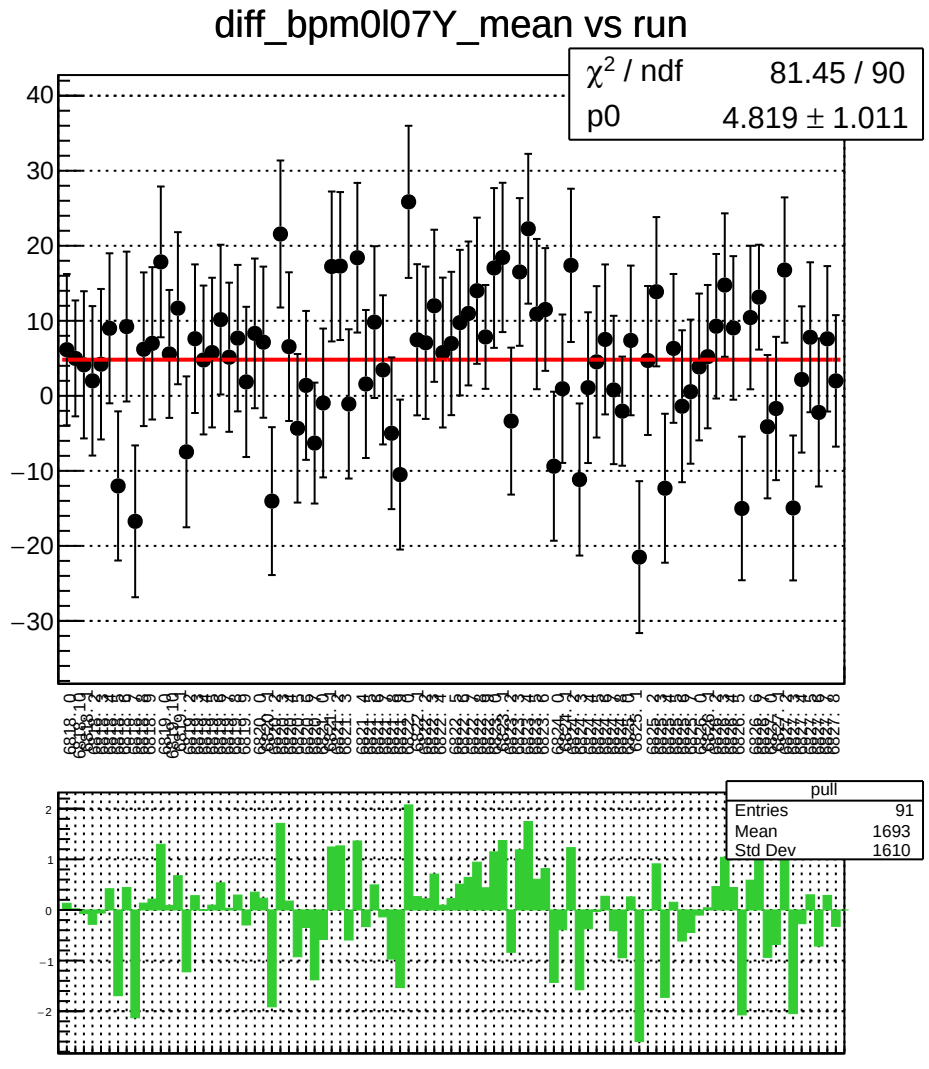

pull1D
Entries 91
Mean −0.0004663
Std Dev 0.8978

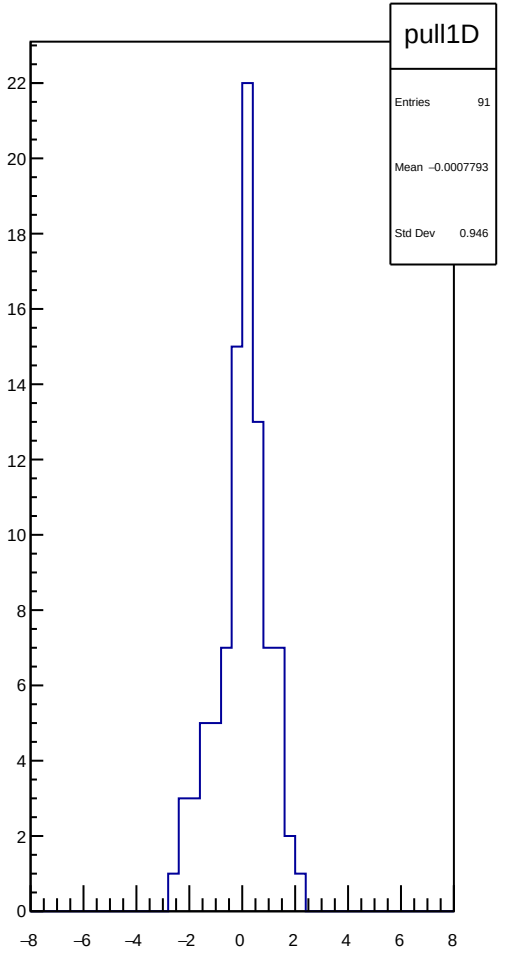

diff_bpm0l06Y_rms vs run
χ² / ndf 692.7 / 90
p0 1026 ± 0.7805
1140
1120
1100
1080
1060
1040
1020
1000
980
960

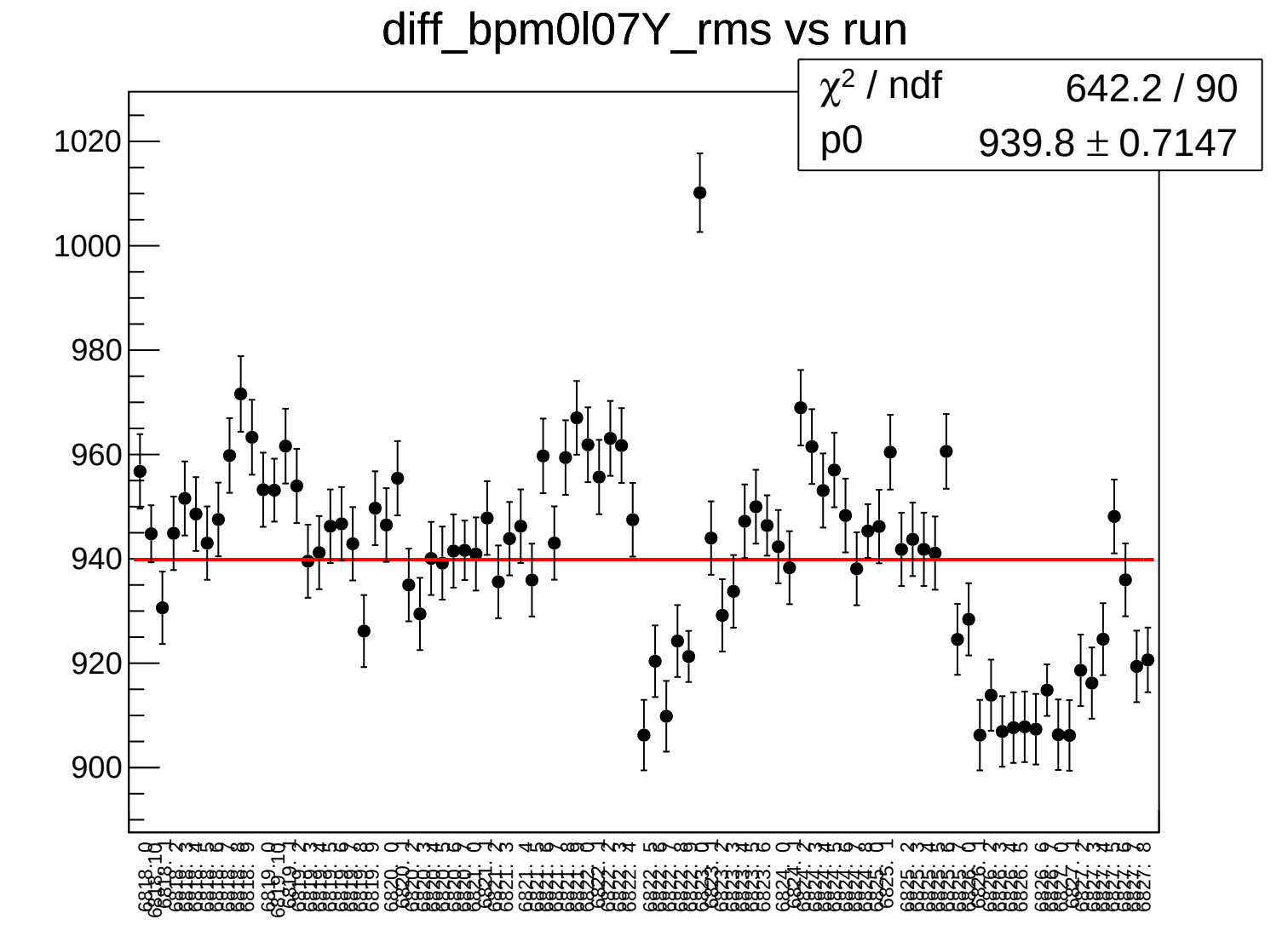

diff_bpm0l07X_mean vs run
χ² / ndf 94 / 90
p0 −1.594 ± 10.6
pull
Entries 91
Mean 42.86
Std Dev 97.07

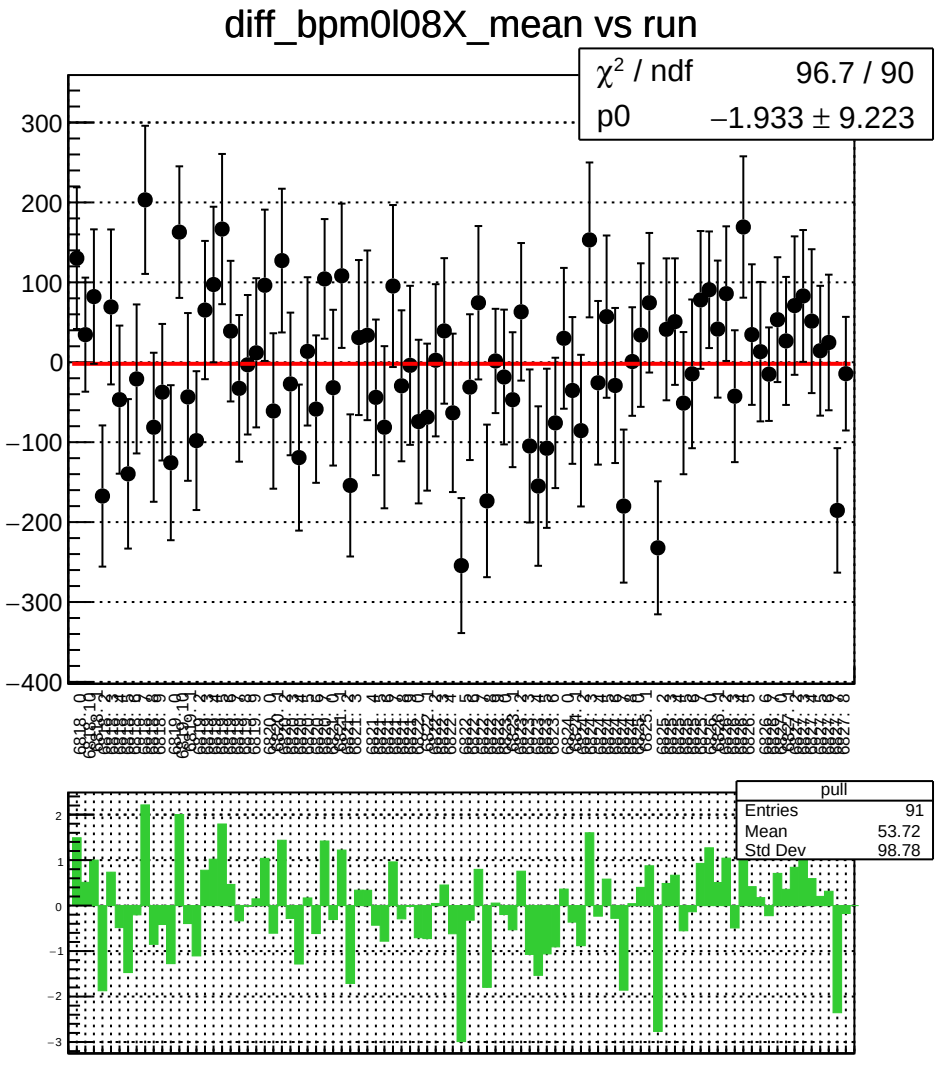

pull1D
Entries 91
Mean −0.01112
Std Dev 1.016

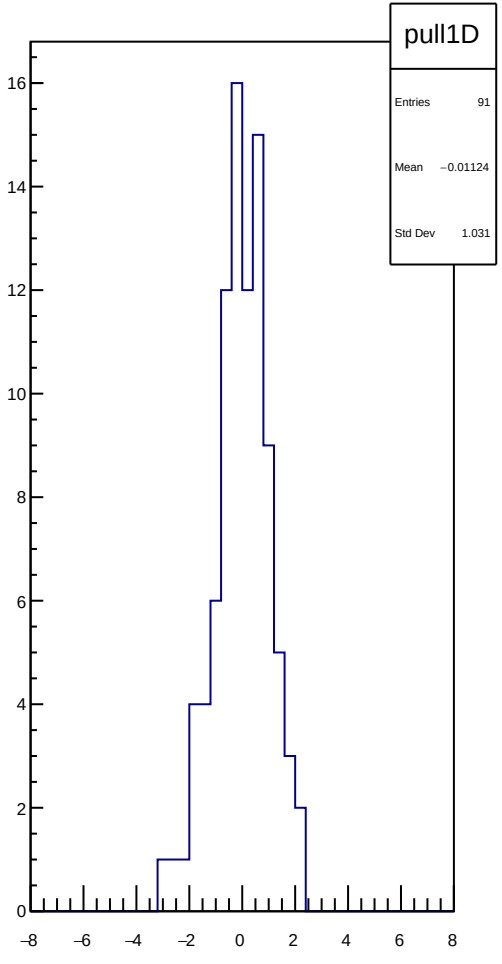

diff_bpm0l07X_rms vs run
χ² / ndf 9688 / 90
p0 9834 ± 7.498
12000
11500
11000
10500
10000
9500
9000
8500
8000

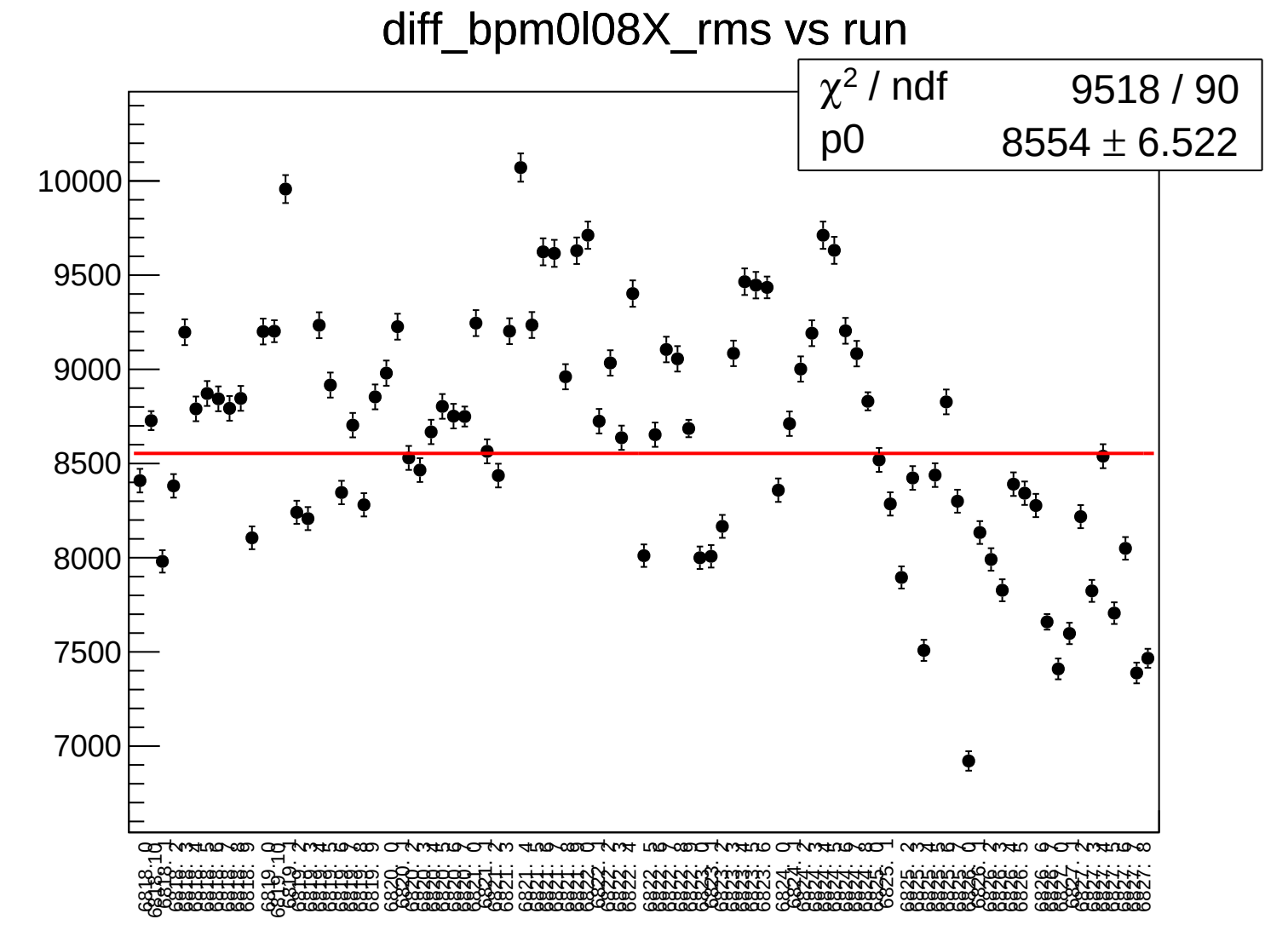

diff_bpm0l07Y_mean vs run
χ² / ndf 81.45 / 90
p0 4.819 ± 1.011
pull
Entries 91
Mean 1693
Std Dev 1610

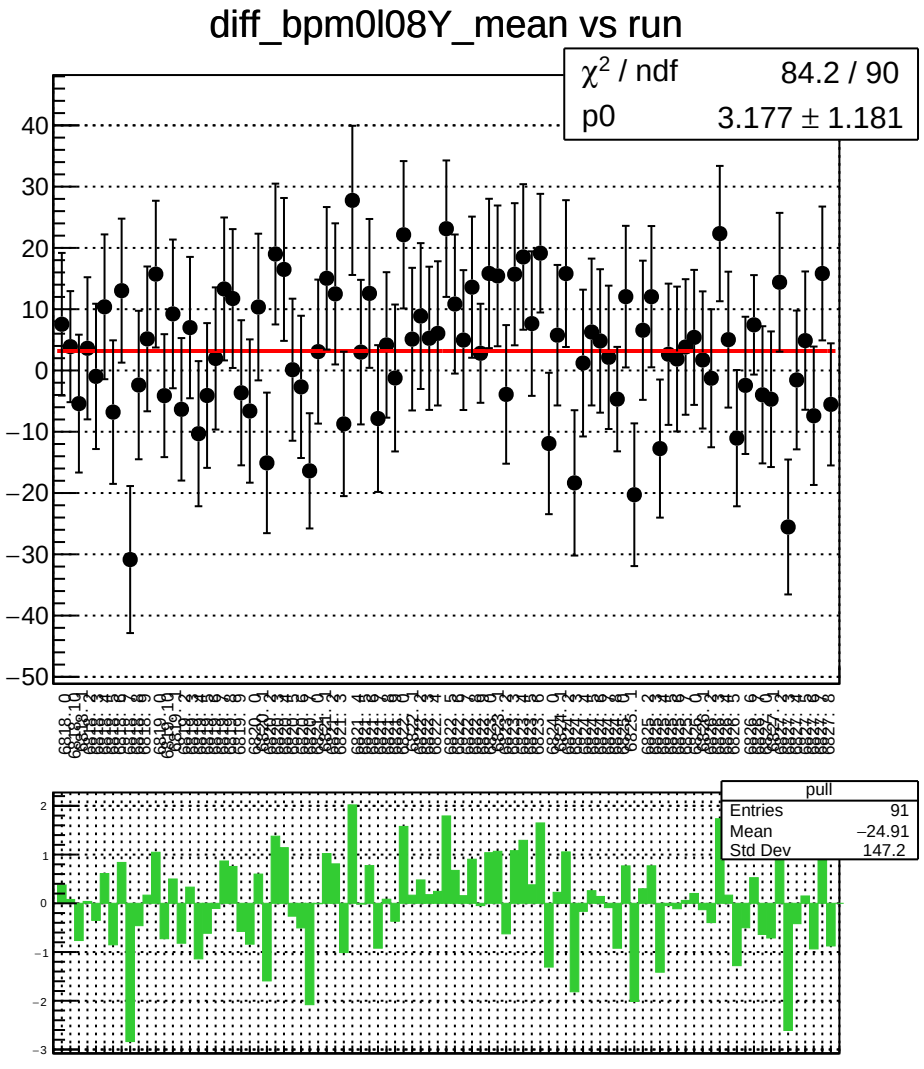

pull1D
Entries 91
Mean −0.0007793
Std Dev 0.946

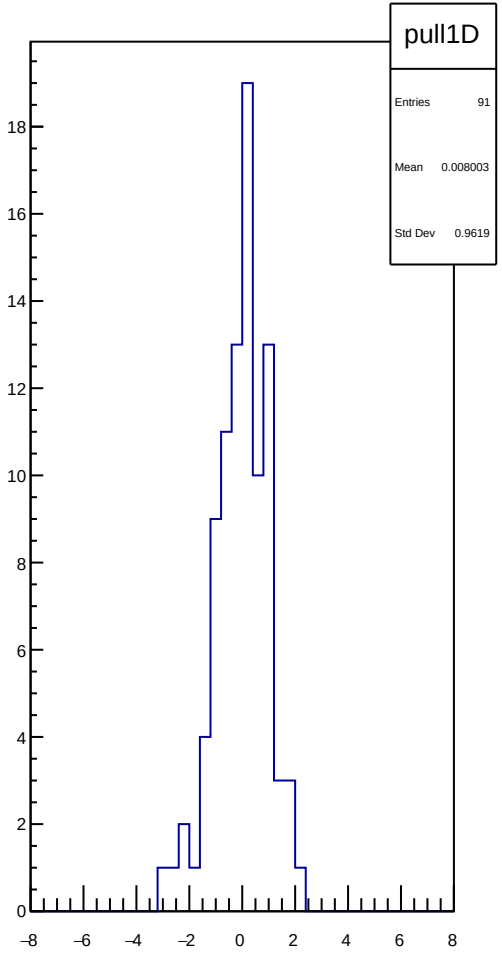

diff_bpm0l07Y_rms vs run
χ² / ndf 642.2 / 90
p0 939.8 ± 0.7147
1020
1000
980
960
940
920
900

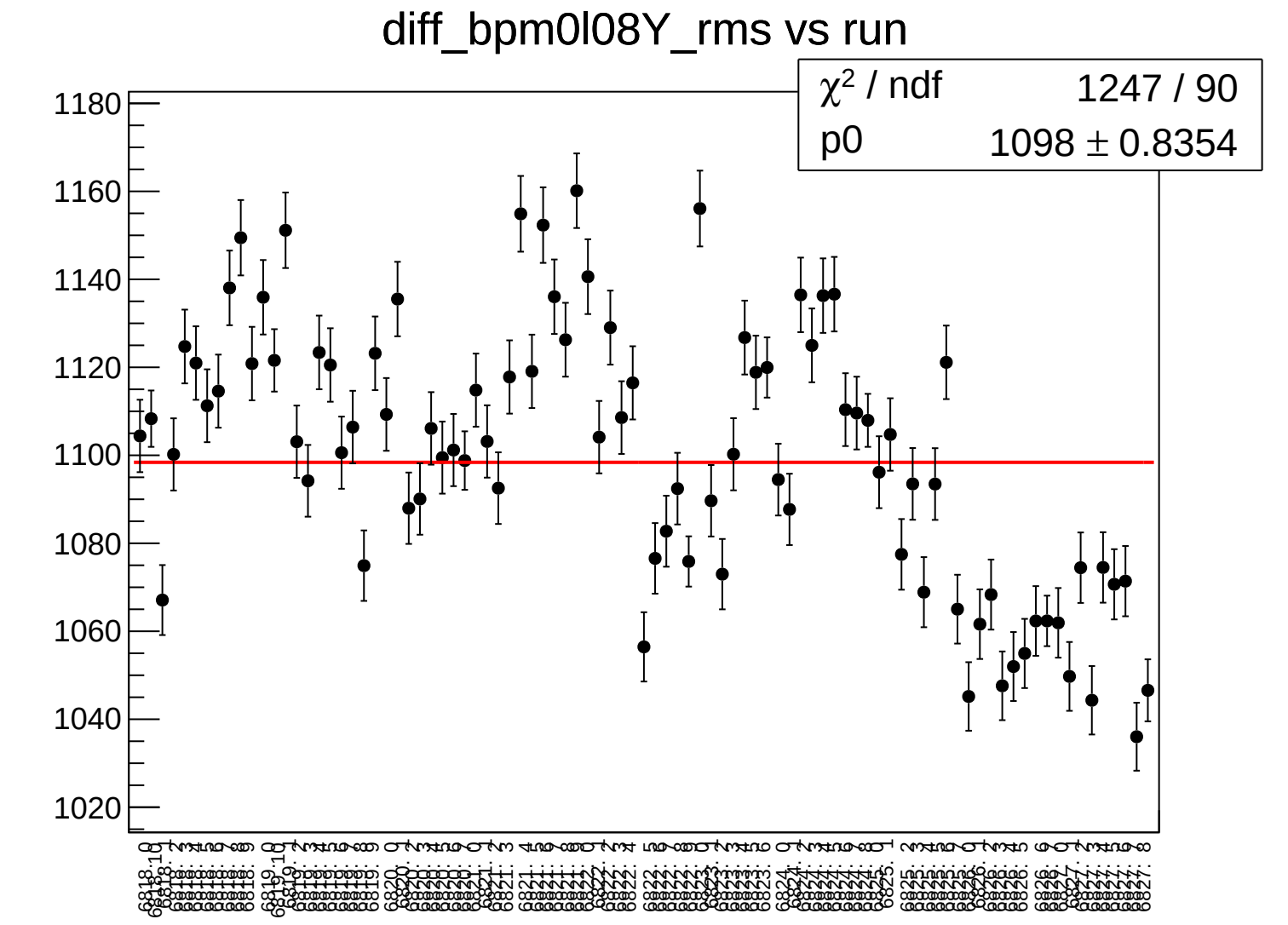

diff_bpm0l08X_mean vs run
χ² / ndf 96.7 / 90
p0 −1.933 ± 9.223
pull
Entries 91
Mean 53.72
Std Dev 98.78

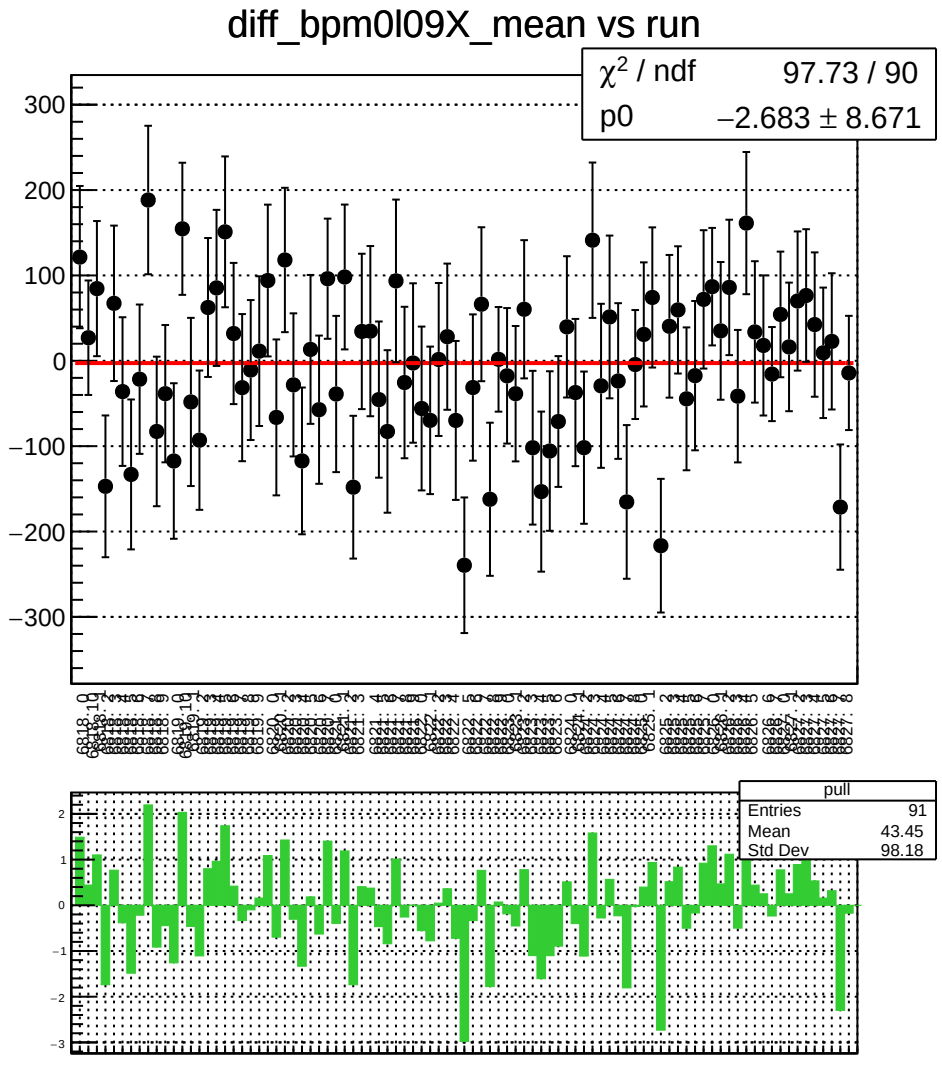

pull1D
Entries 91
Mean −0.01124
Std Dev 1.031

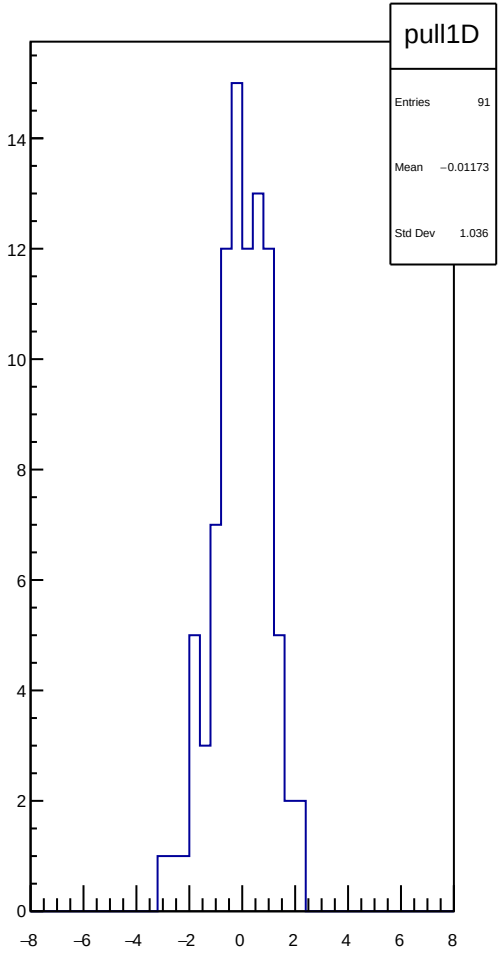

diff_bpm0l08X_rms vs run
χ² / ndf 9518 / 90
p0 8554 ± 6.522
10000
9500
9000
8500
8000
7500
7000

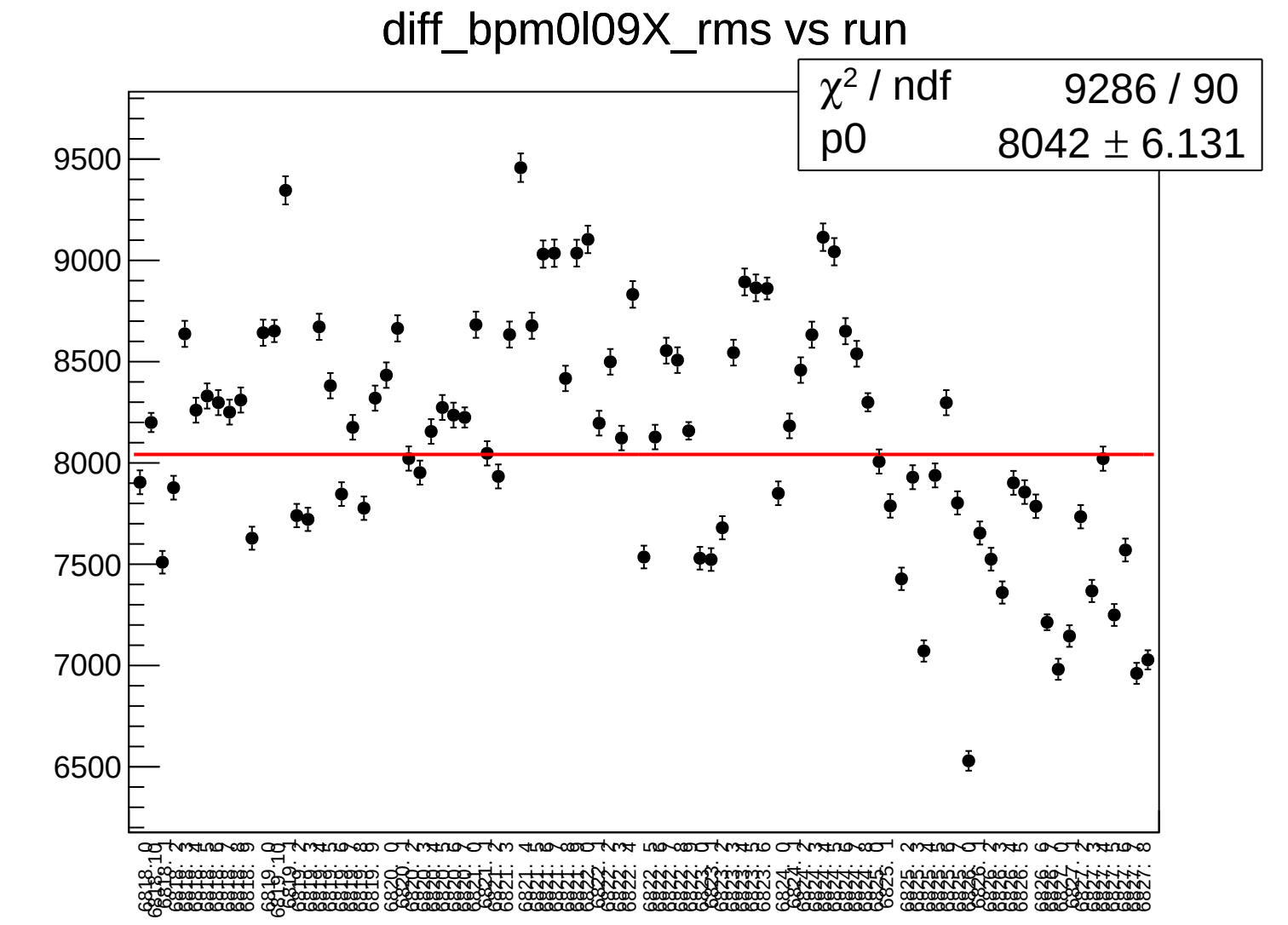

diff_bpm0l08Y_mean vs run
χ^2 / ndf 84.2 / 90
p0 3.177 ± 1.181
pull
Entries 91
Mean −24.91
Std Dev 147.2

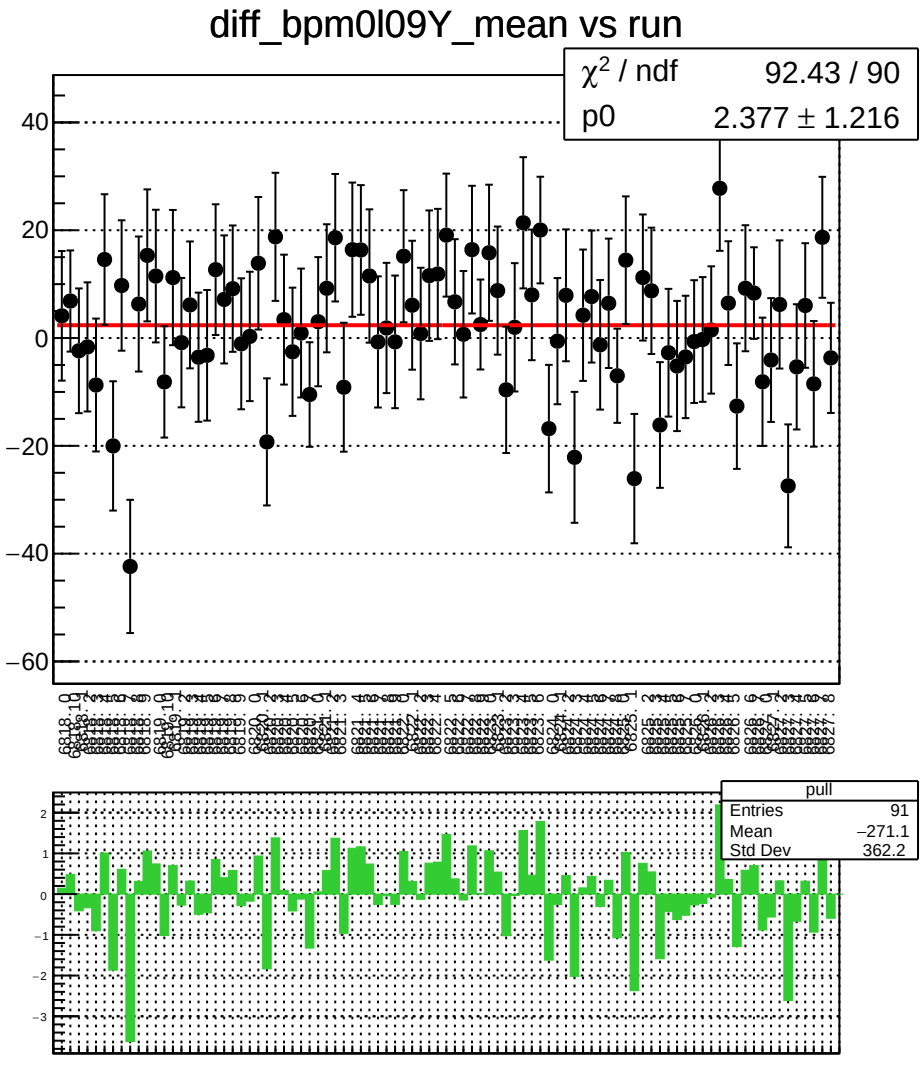

pull1D
Entries 91
Mean 0.008003
Std Dev 0.9619

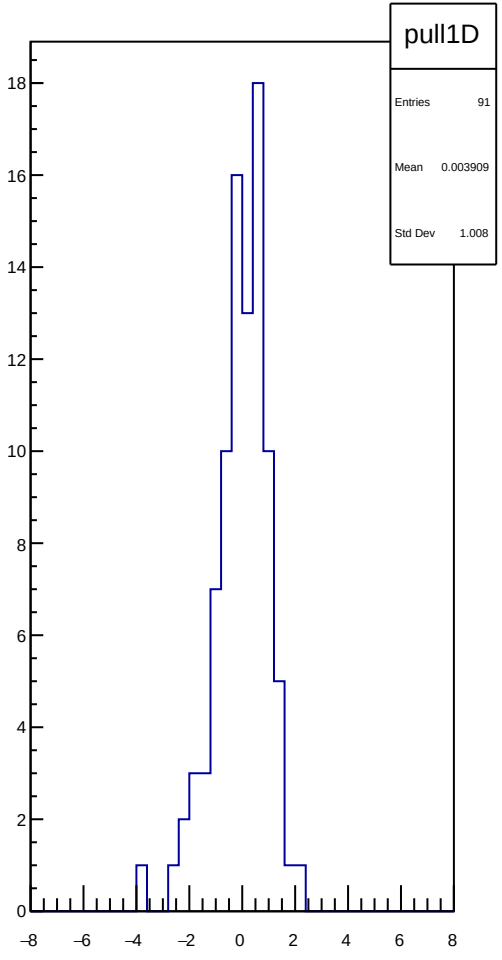

diff_bpm0l08Y_rms vs run
χ² / ndf 1247 / 90
p0 1098 ± 0.8354
1180
1160
1140
1120
1100
1080
1060
1040
1020

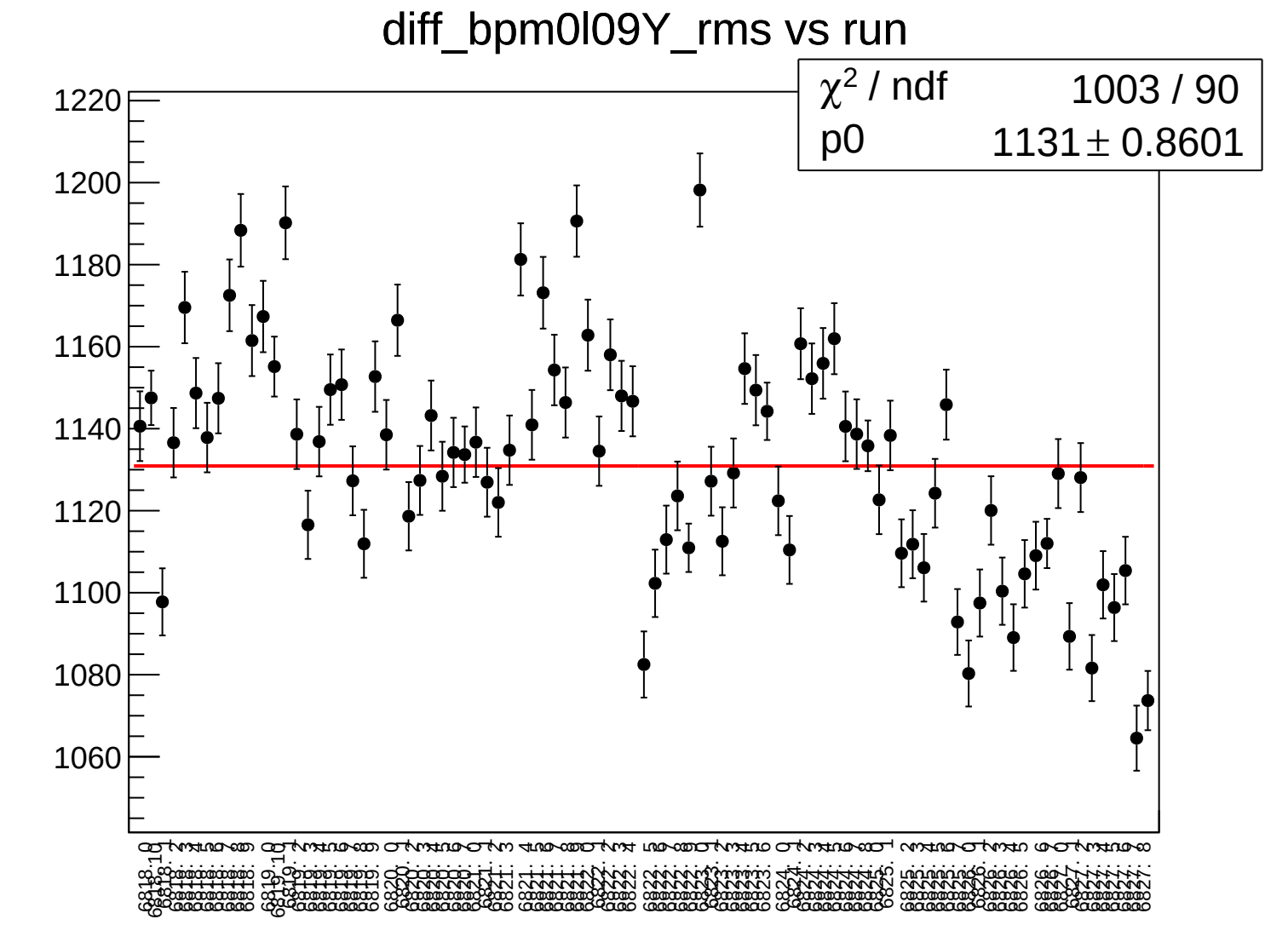

diff_bpm0l09X_mean vs run
χ² / ndf 97.73 / 90
p0 −2.683 ± 8.671
pull
Entries 91
Mean 43.45
Std Dev 98.18

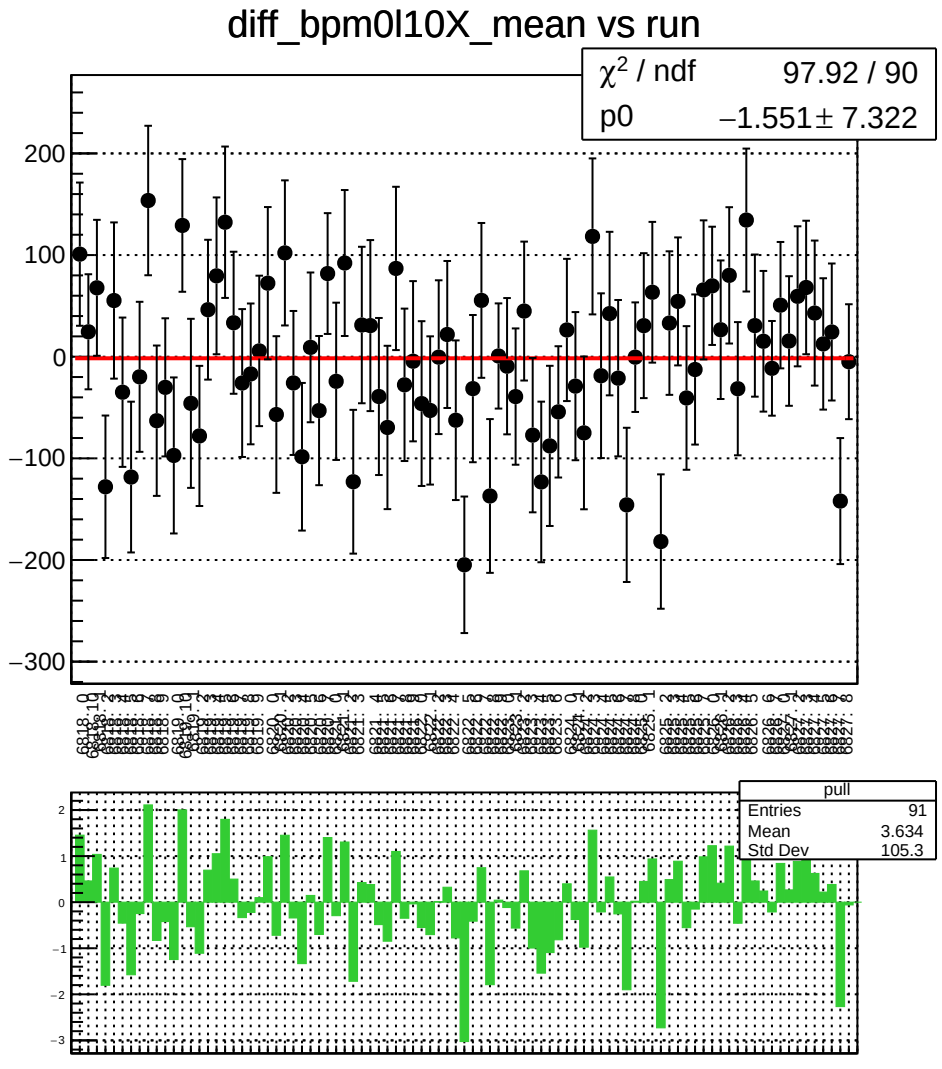

pull1D
Entries 91
Mean −0.01173
Std Dev 1.036

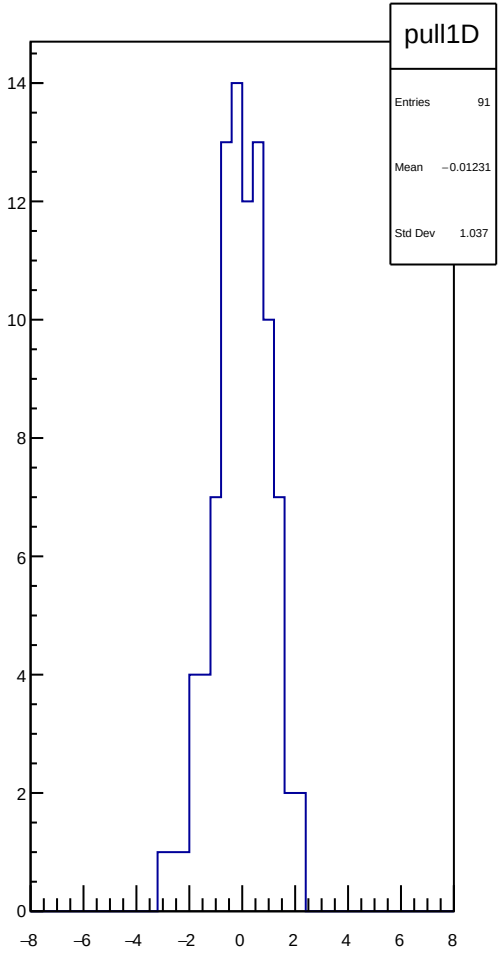

diff_bpm0l09X_rms vs run
χ² / ndf 9286 / 90
p0 8042 ± 6.131
9500
9000
8500
8000
7500
7000
6500

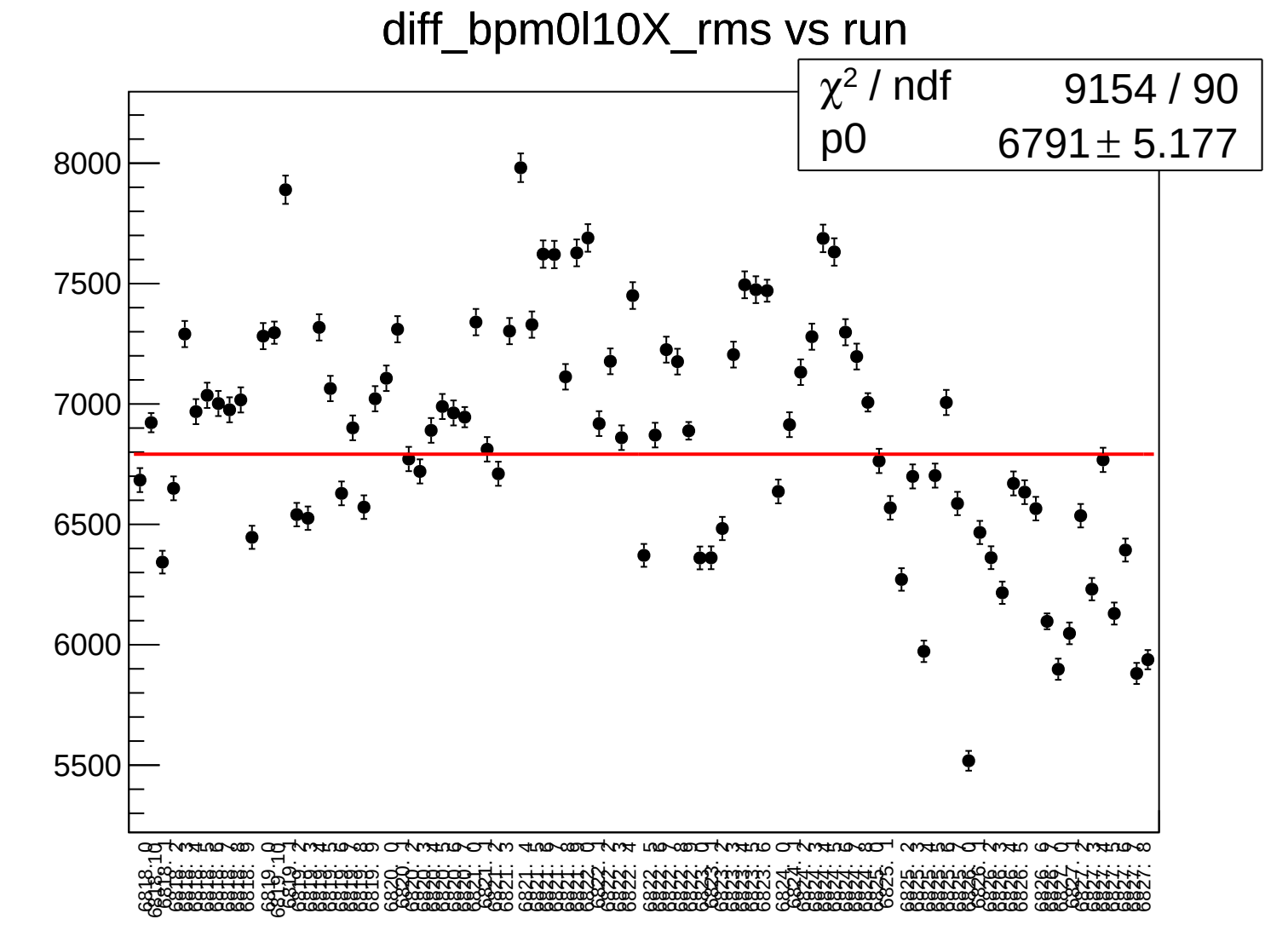

diff_bpm0l09Y_mean vs run
χ² / ndf 92.43 / 90
p0 2.377 ± 1.216
pull
Entries 91
Mean −271.1
Std Dev 362.2

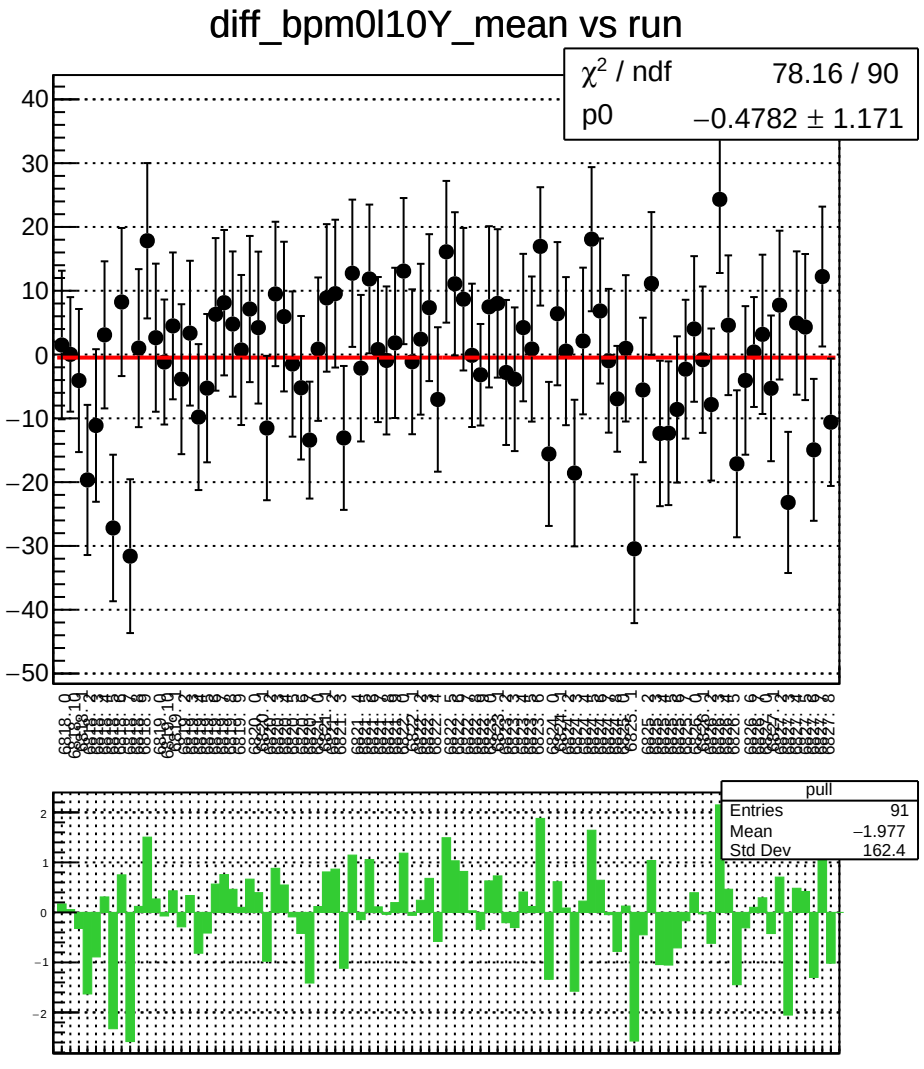

pull1D
Entries 91
Mean 0.003909
Std Dev 1.008

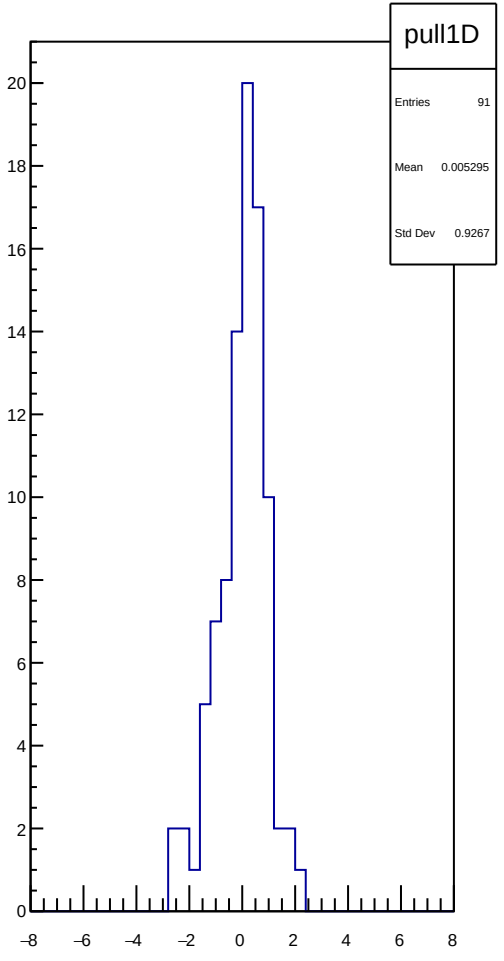

diff_bpm0l09Y_rms vs run
χ² / ndf 1003 / 90
p0 1131 ± 0.8601
1220
1200
1180
1160
1140
1120
1100
1080
1060

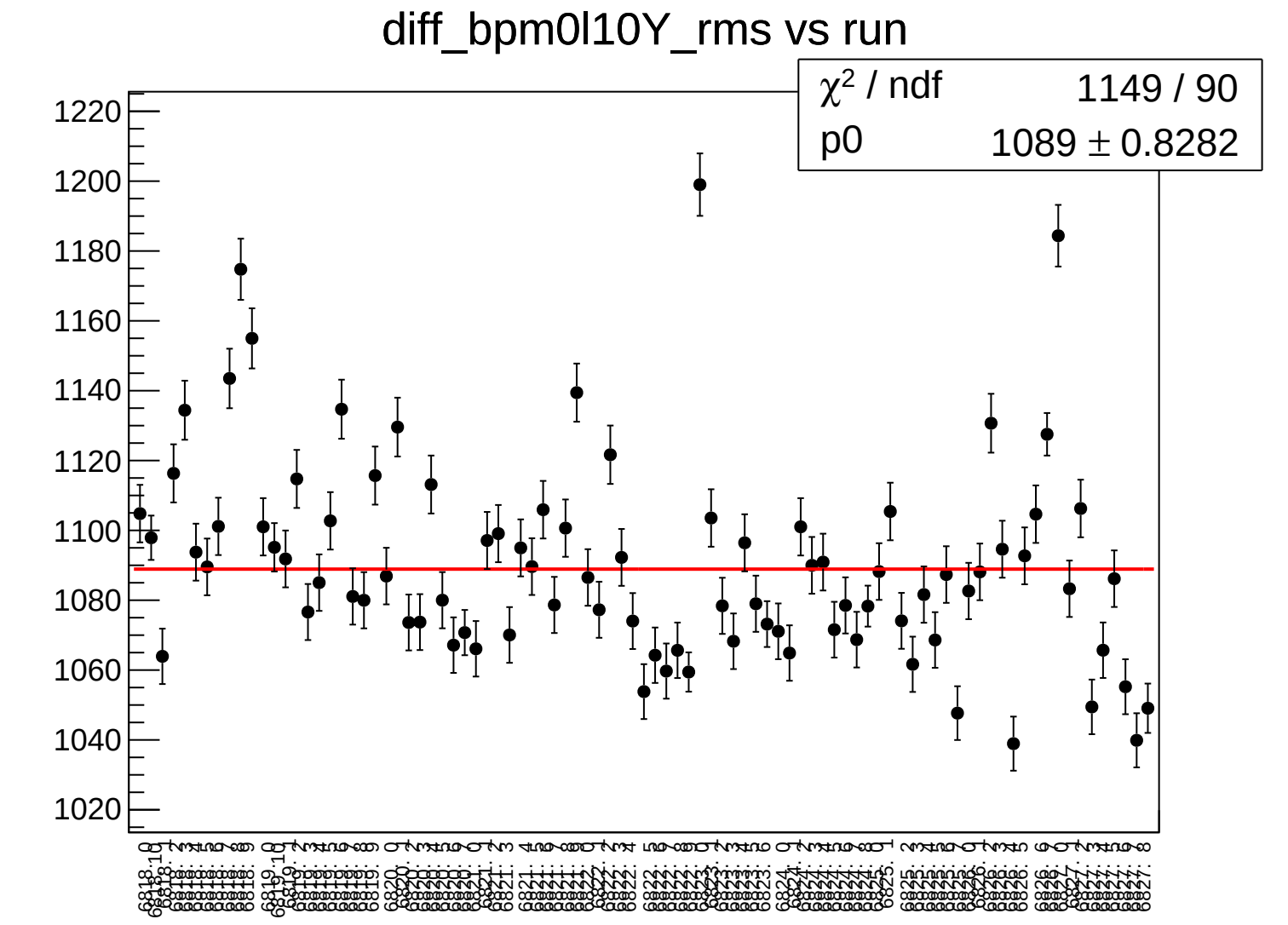

diff_bpm0l10X_mean vs run
χ² / ndf 97.92 / 90
p0 −1.551± 7.322
pull
Entries 91
Mean 3.634
Std Dev 105.3

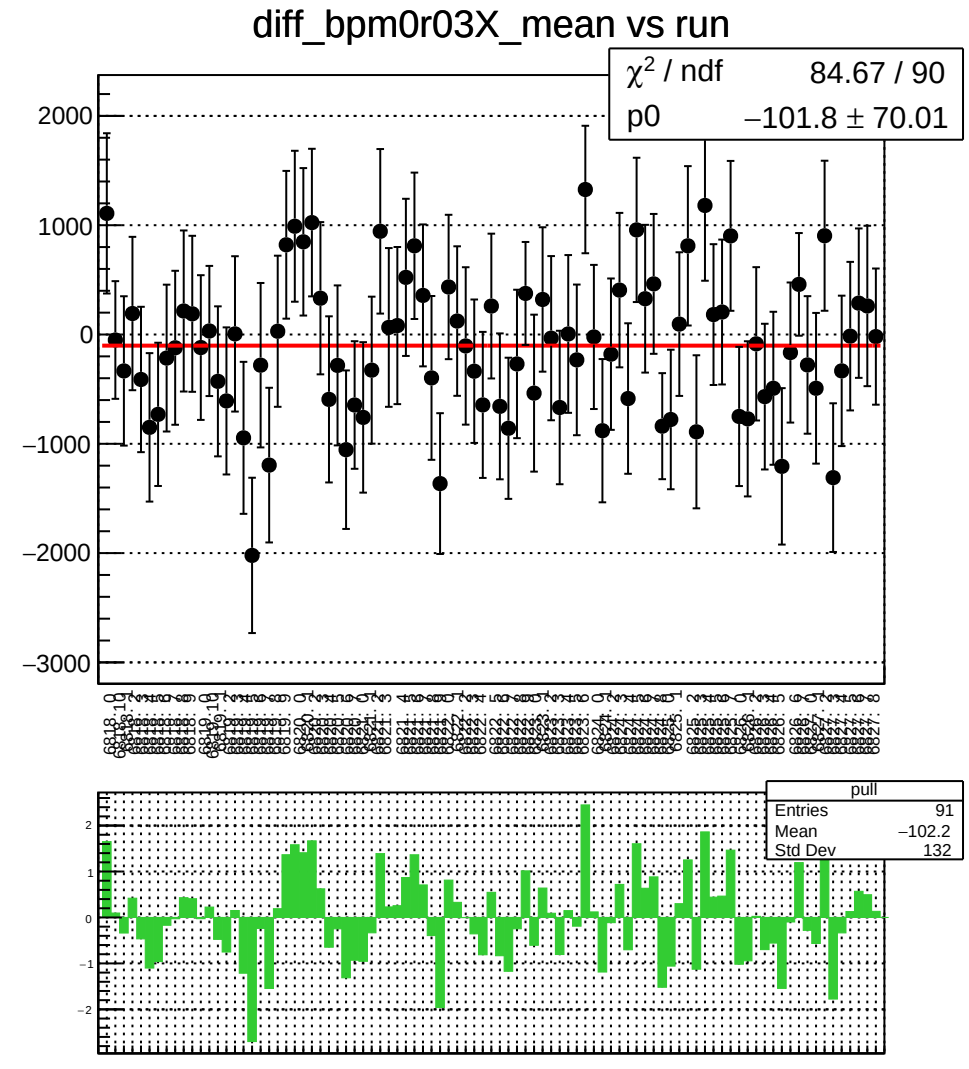

pull1D
Entries 91
Mean −0.01231
Std Dev 1.037

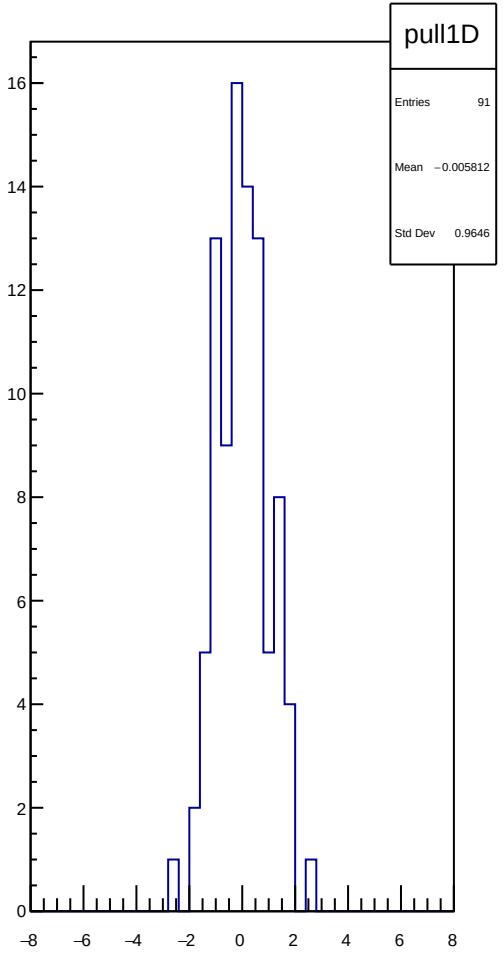

diff_bpm0l10X_rms vs run
χ² / ndf 9154 / 90
p0 6791 ± 5.177
8000
7500
7000
6500
6000
5500

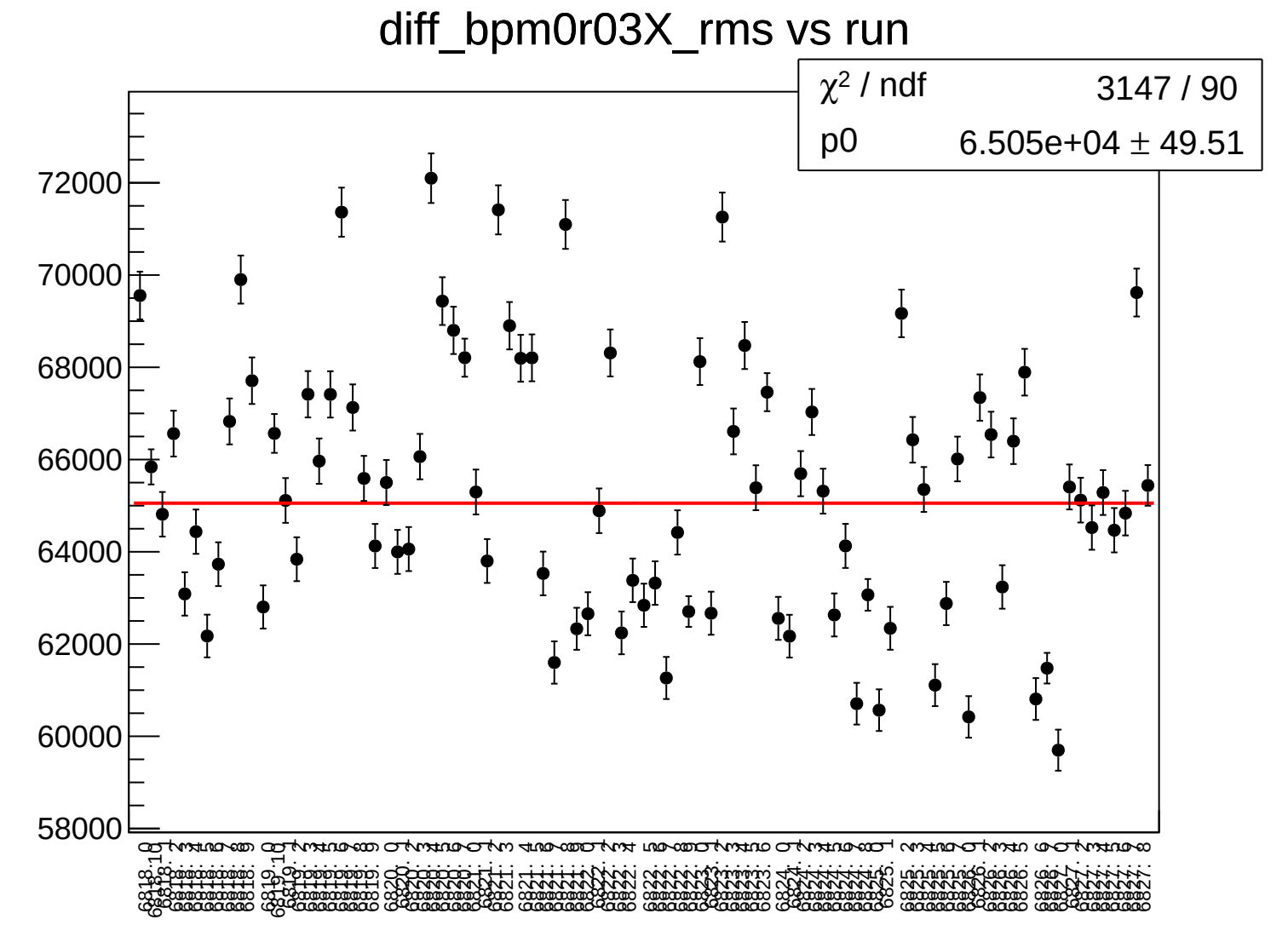

diff_bpm0l10Y_mean vs run
χ² / ndf 78.16 / 90
p0 −0.4782 ± 1.171
pull
Entries 91
Mean −1.977
Std Dev 162.4

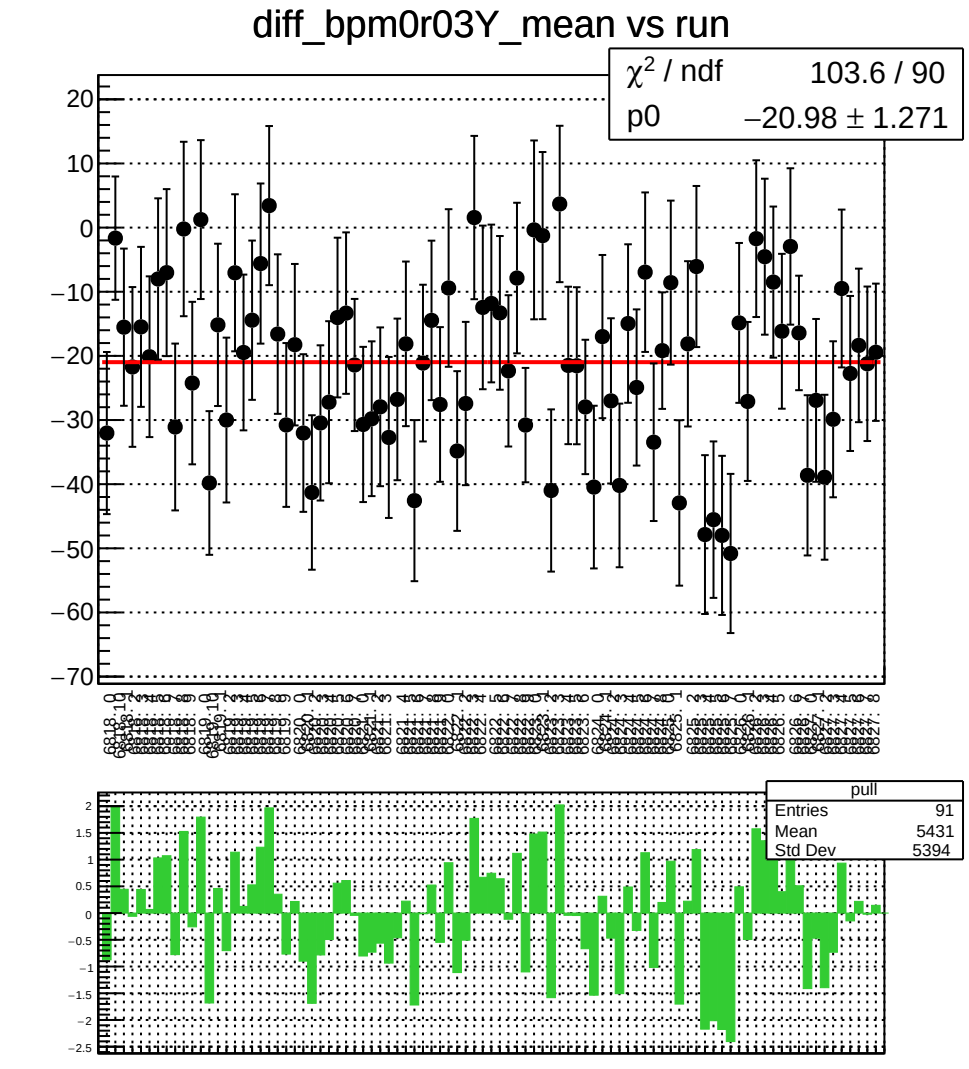

pull1D
Entries 91
Mean 0.005295
Std Dev 0.9267

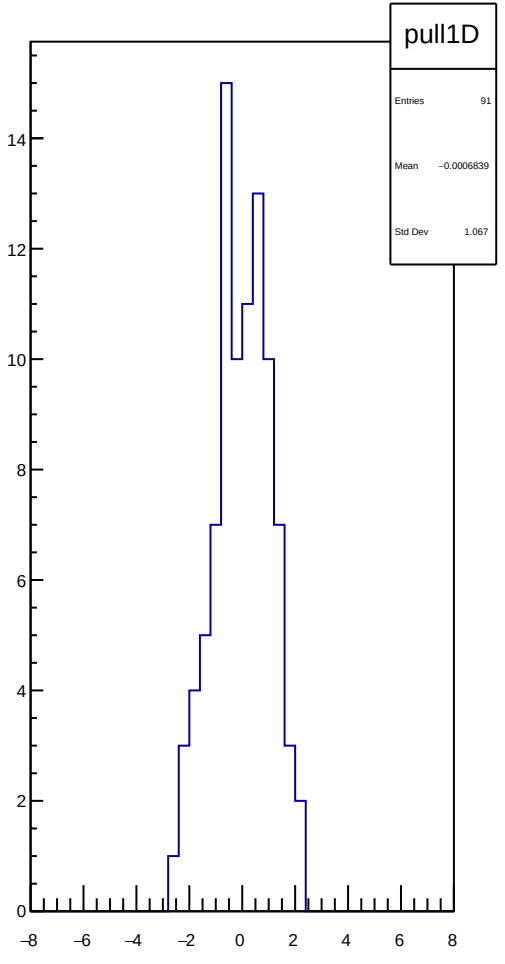

diff_bpm0l10Y_rms vs run
χ² / ndf 1149 / 90
p0 1089 ± 0.8282
1220
1200
1180
1160
1140
1120
1100
1080
1060
1040
1020

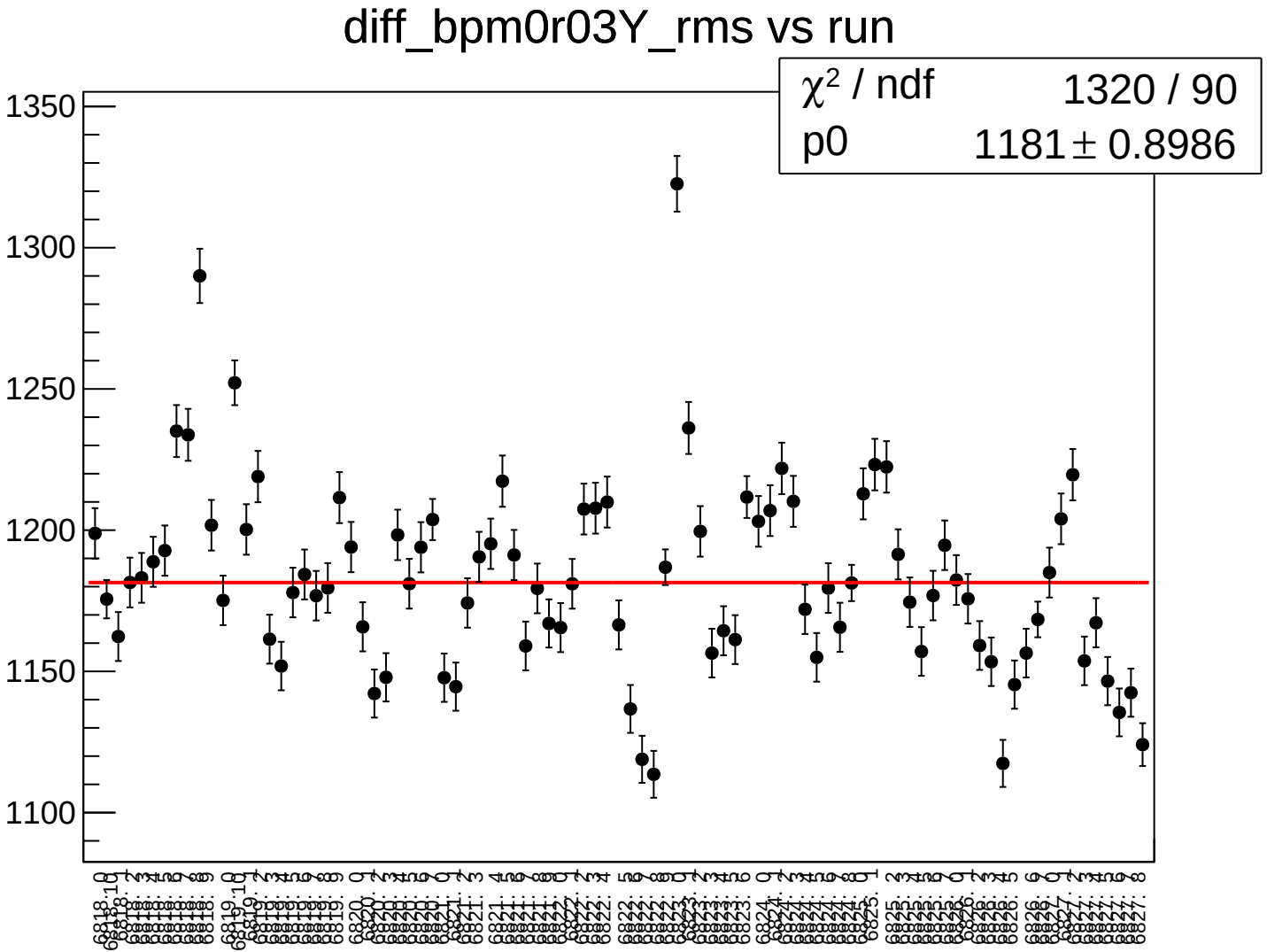

diff_bpm0r03X_mean vs run
χ² / ndf 84.67 / 90
p0 −101.8 ± 70.01
pull
Entries 91
Mean −102.2
Std Dev 132

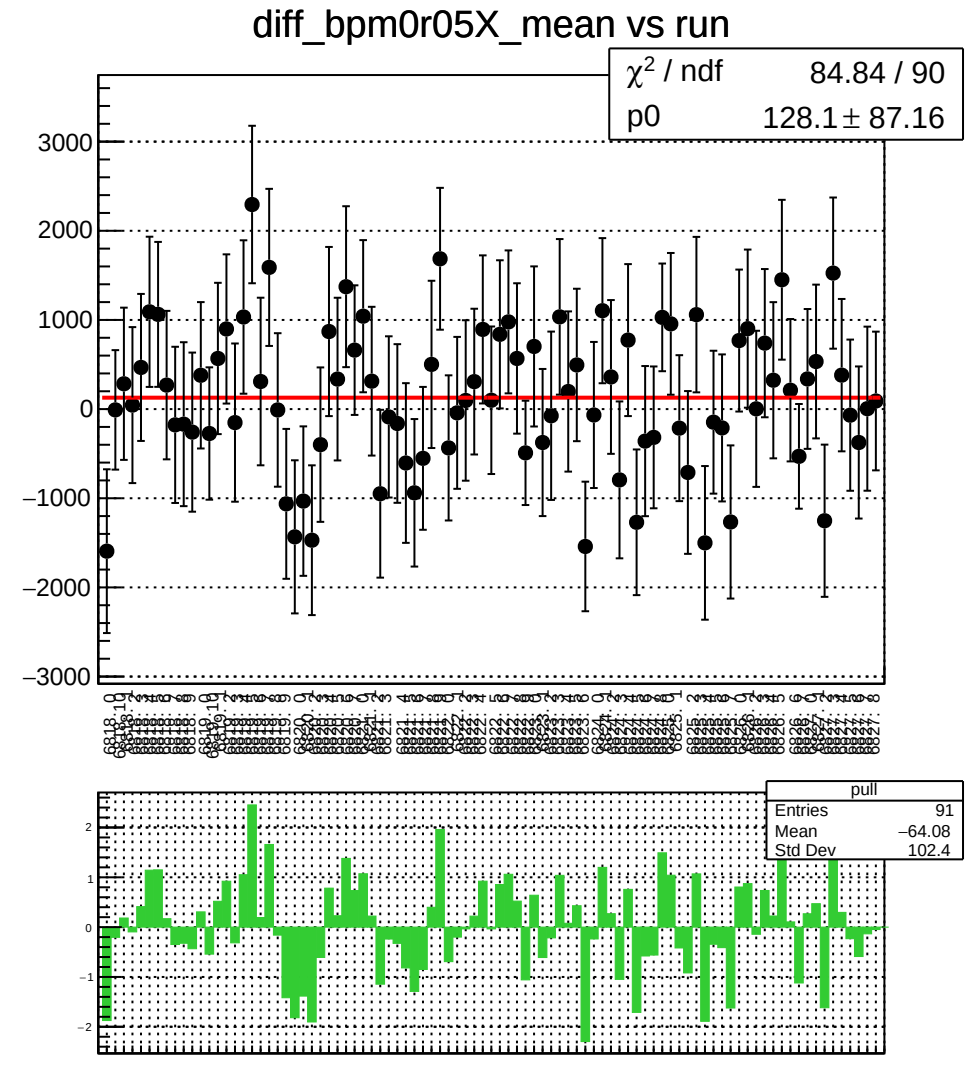

pull1D
Entries 91
Mean −0.005812
Std Dev 0.9646

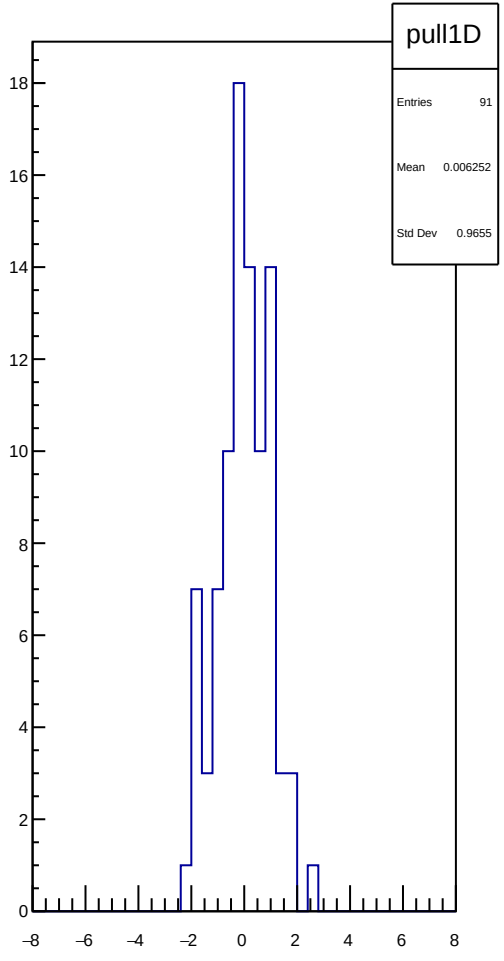

diff_bpm0r03X_rms vs run
χ² / ndf 3147 / 90
p0 6.505e+04 ± 49.51
72000
70000
68000
66000
64000
62000
60000
58000

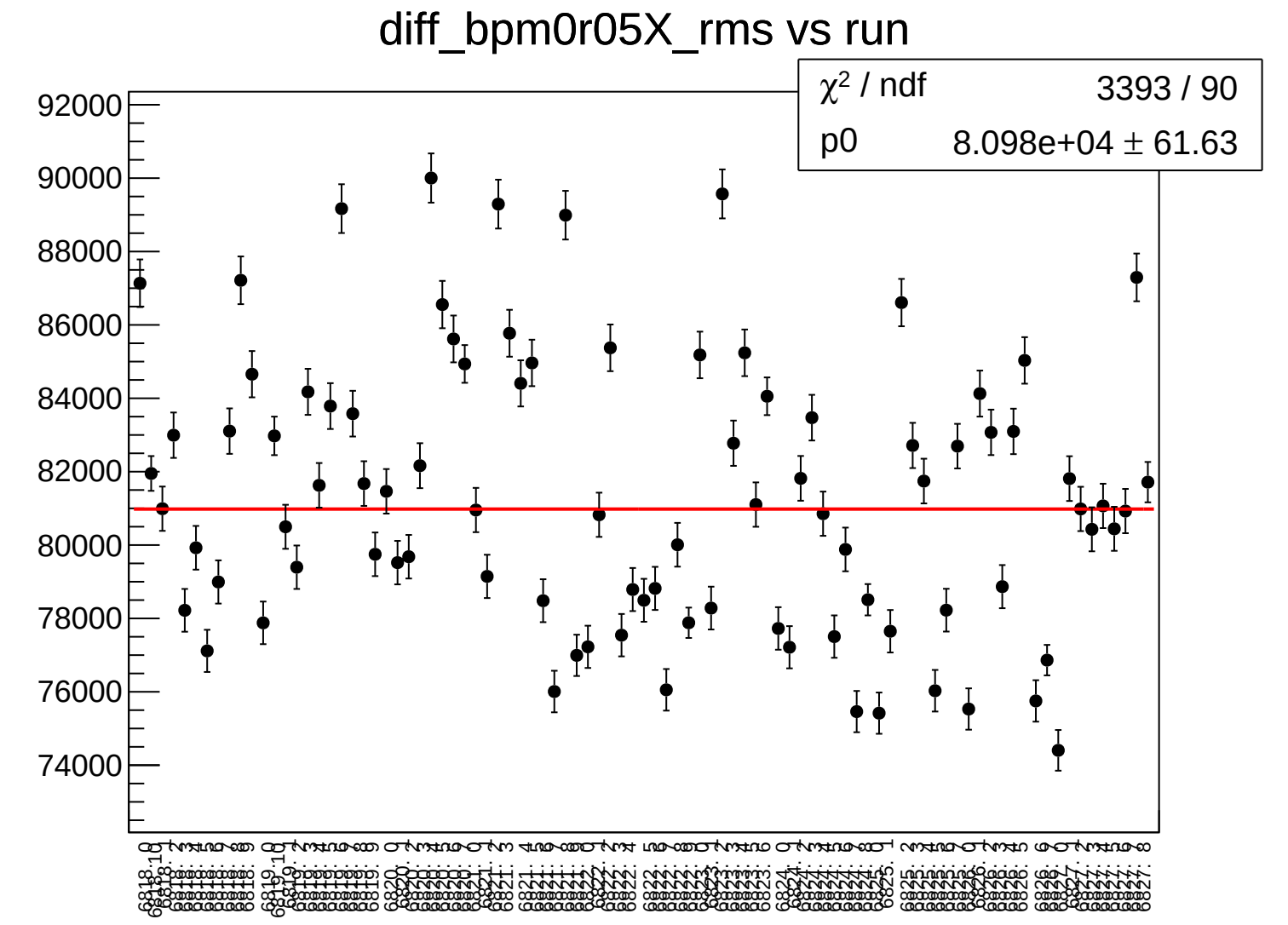

diff_bpm0r03Y_mean vs run
χ² / ndf 103.6 / 90
p0 −20.98 ± 1.271
pull
Entries 91
Mean 5431
Std Dev 5394

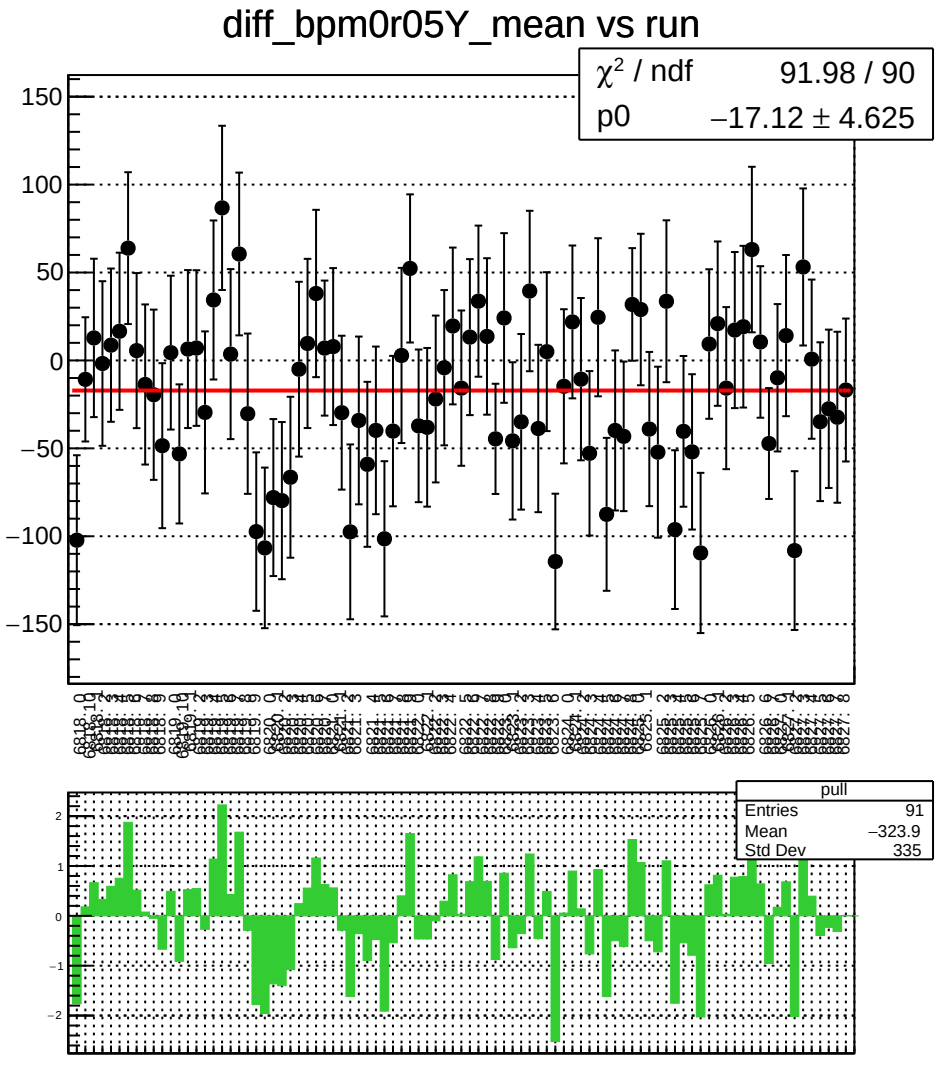

pull1D
Entries 91
Mean −0.0006839
Std Dev 1.067

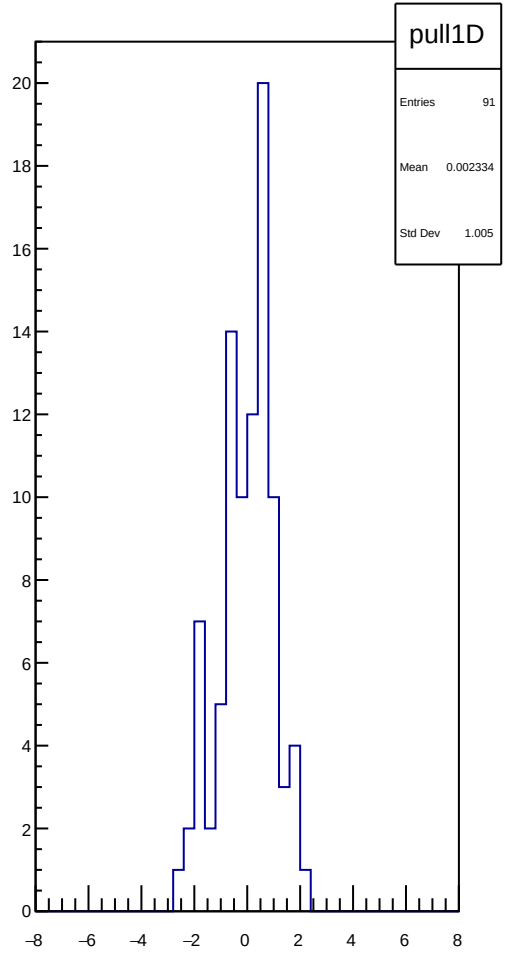

diff_bpm0r03Y_rms vs run
χ² / ndf 1320 / 90
p0 1181 ± 0.8986
1350
1300
1250
1200
1150
1100

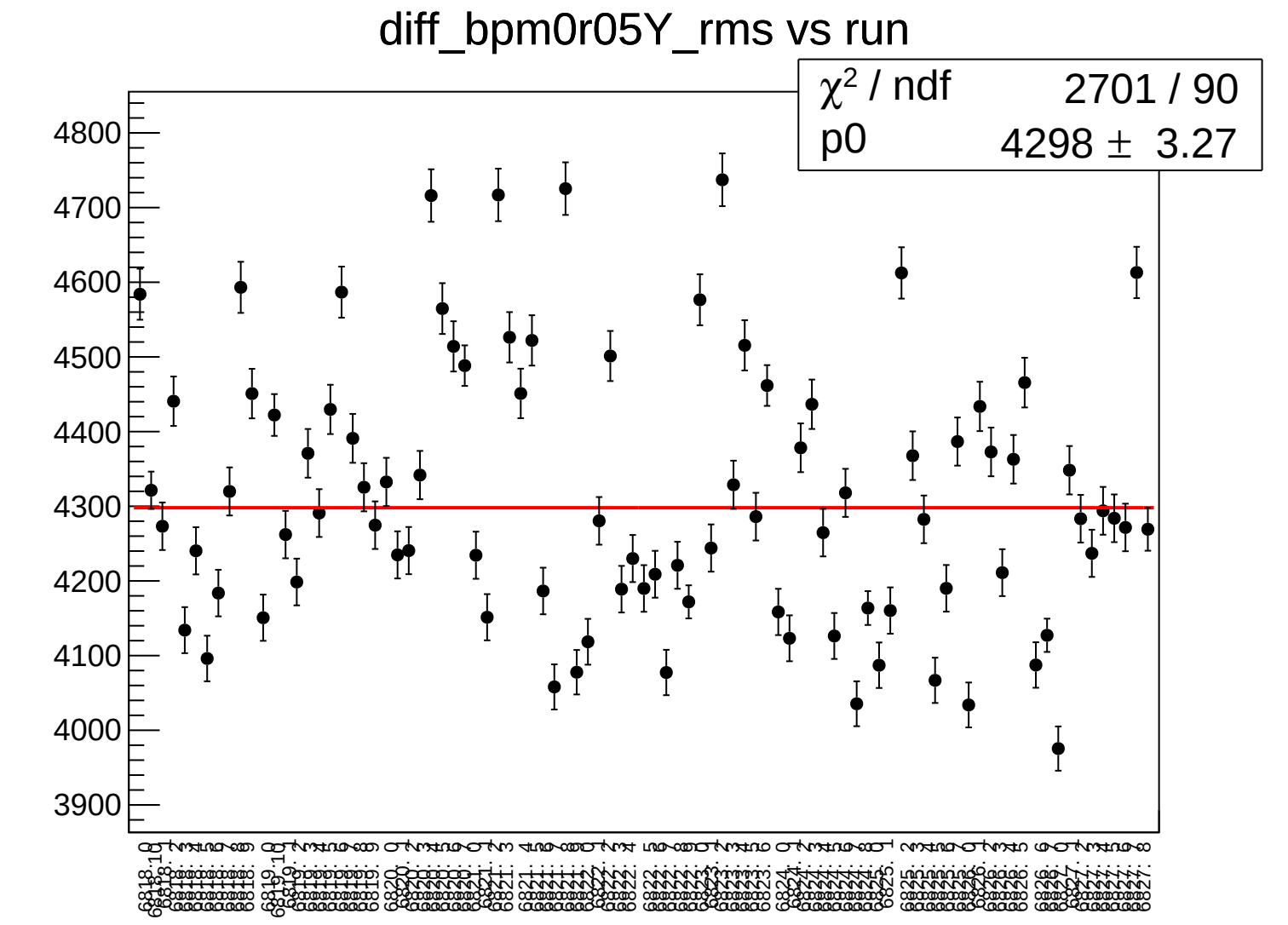

diff_bpm0r05X_mean vs run
χ² / ndf 84.84 / 90
p0 128.1 ± 87.16
pull
Entries 91
Mean −64.08
Std Dev 102.4

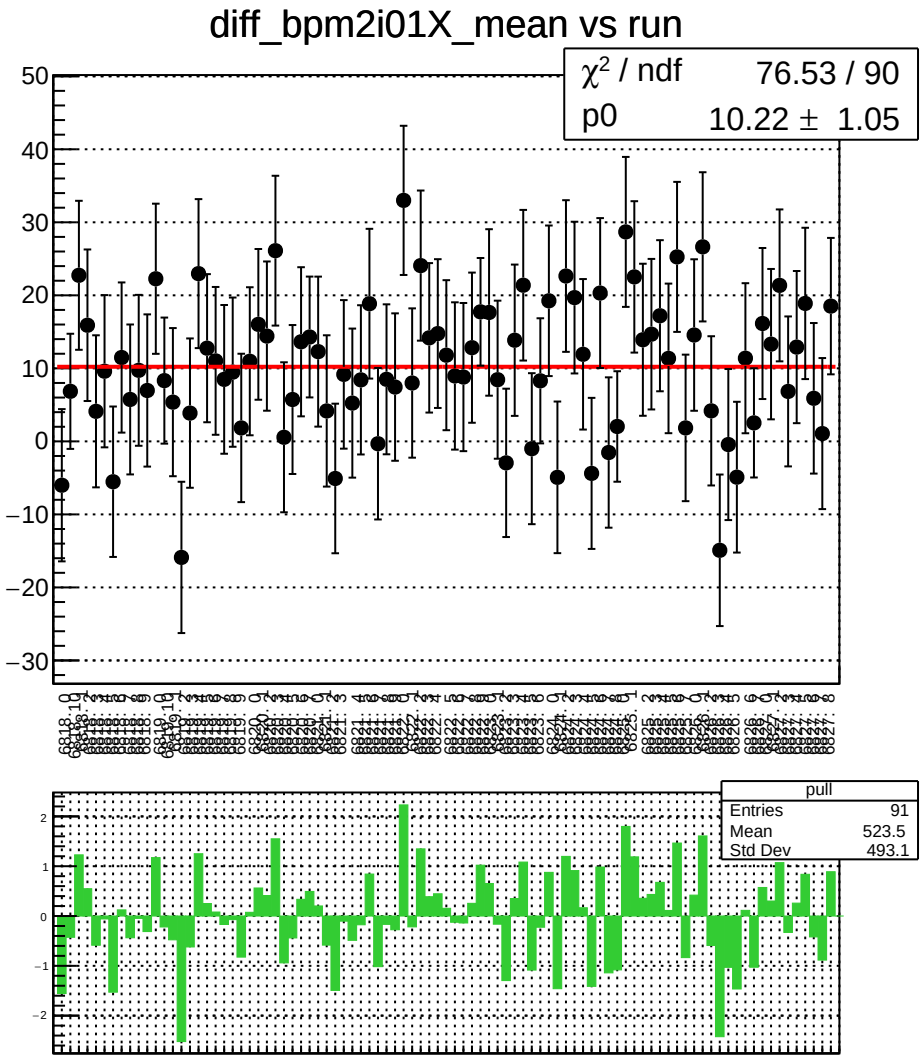

pull1D
Entries 91
Mean 0.006252
Std Dev 0.9655

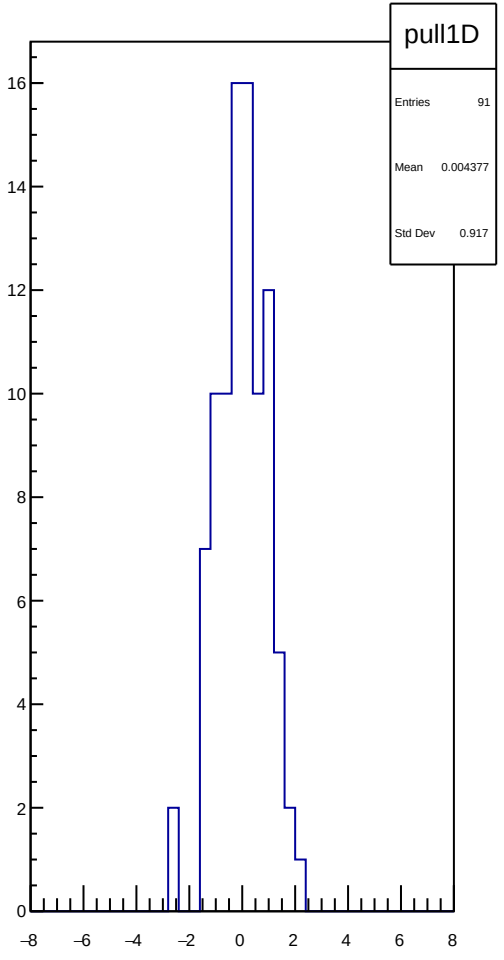

diff_bpm0r05X_rms vs run
χ² / ndf 3393 / 90
p0 8.098e+04 ± 61.63
92000
90000
88000
86000
84000
82000
80000
78000
76000
74000

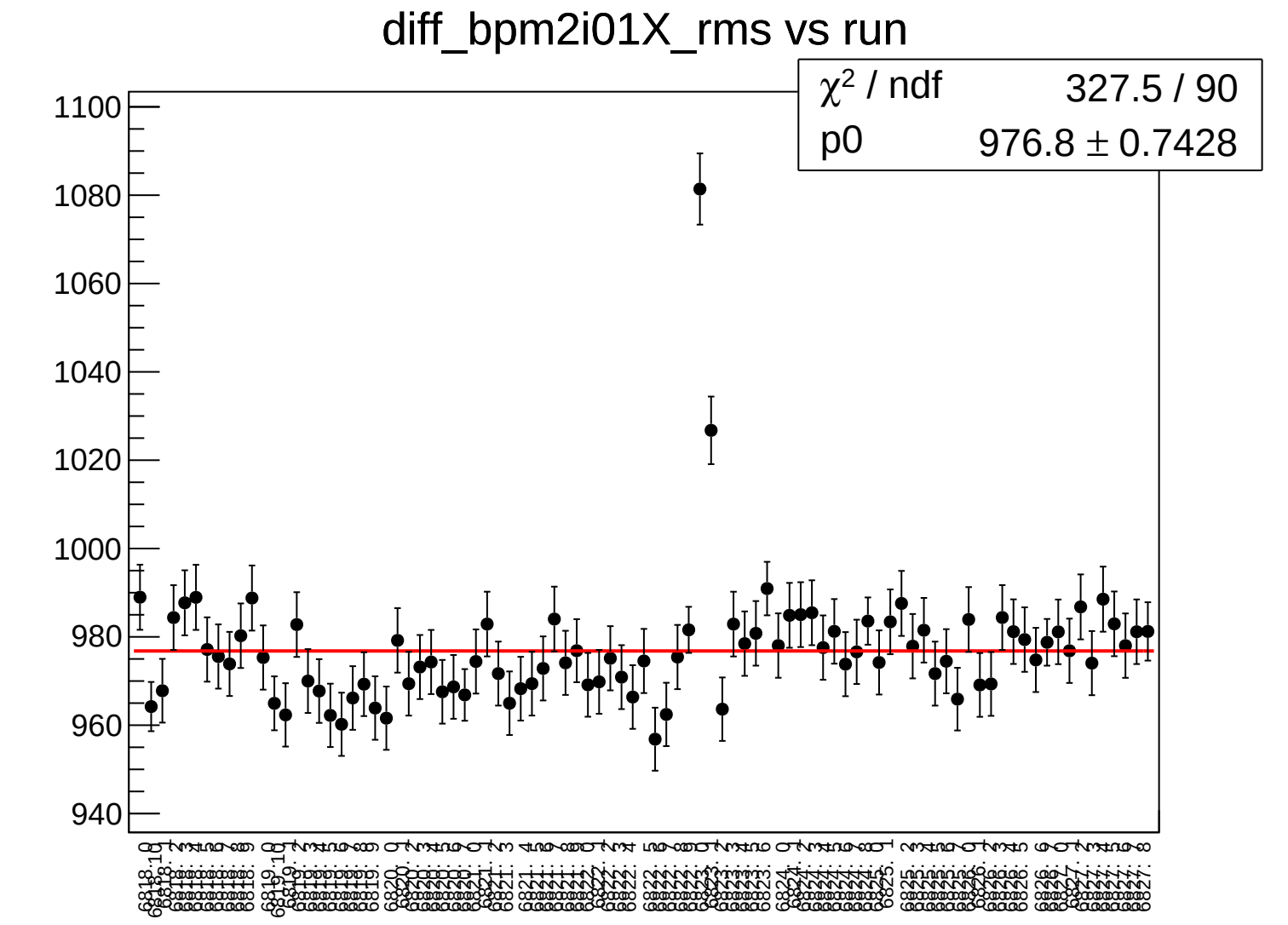

diff_bpm0r05Y_mean vs run
χ² / ndf 91.98 / 90
p0 −17.12 ± 4.625
150
100
50
0
−50
−100
−150
pull
Entries 91
Mean −323.9
Std Dev 335
2
1
0
−1
−2

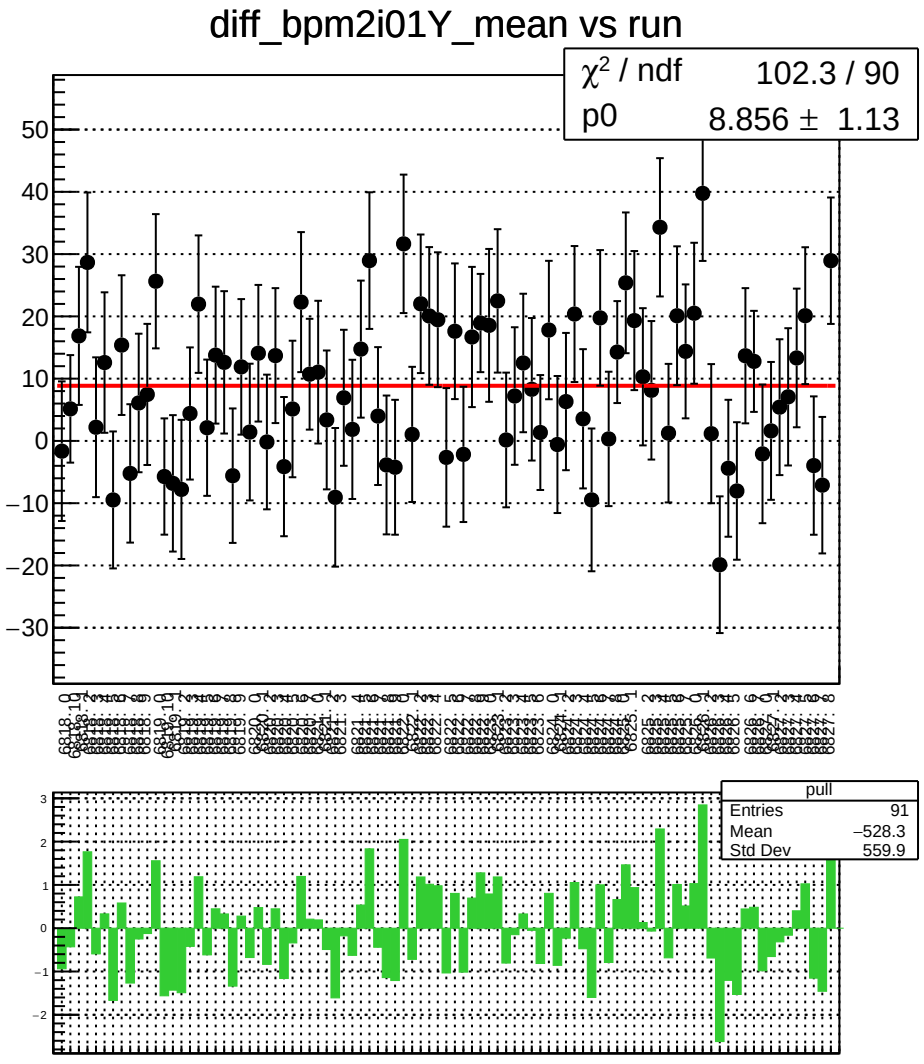

pull1D
Entries 91
Mean 0.002334
Std Dev 1.005
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

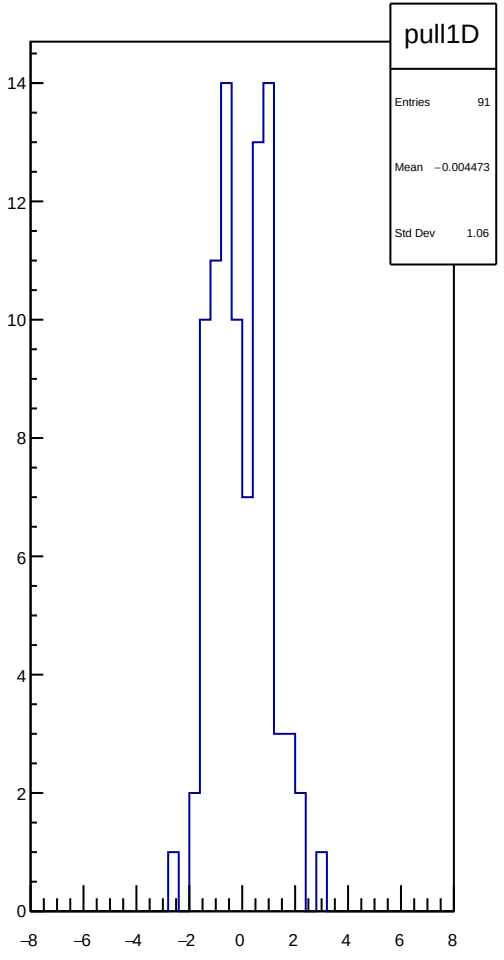

diff_bpm0r05Y_rms vs run
χ² / ndf 2701 / 90
p0 4298 ± 3.27
4800
4700
4600
4500
4400
4300
4200
4100
4000
3900

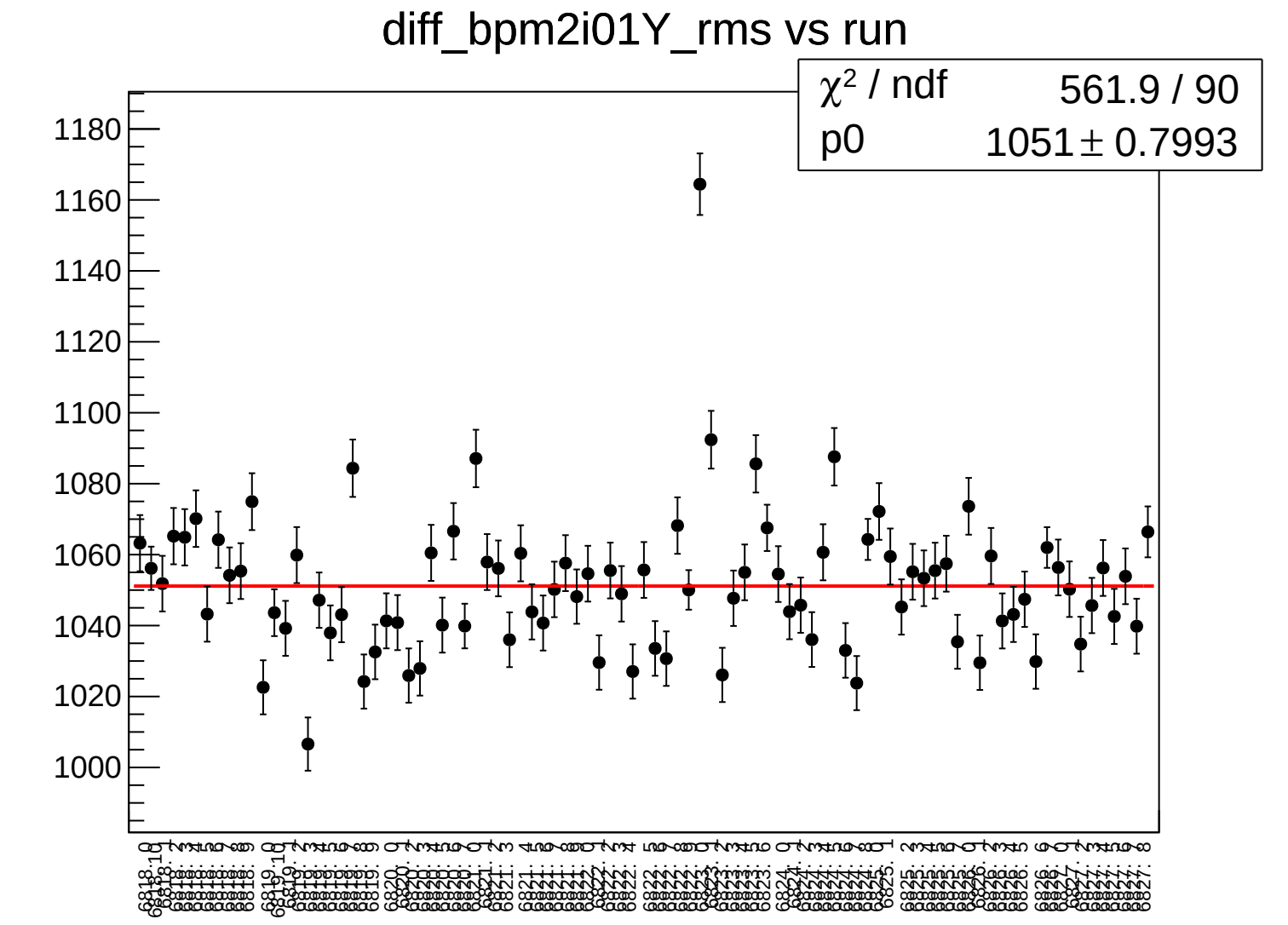

diff_bpm2i01X_mean vs run
χ² / ndf 76.53 / 90
p0 10.22 ± 1.05
pull
Entries 91
Mean 523.5
Std Dev 493.1

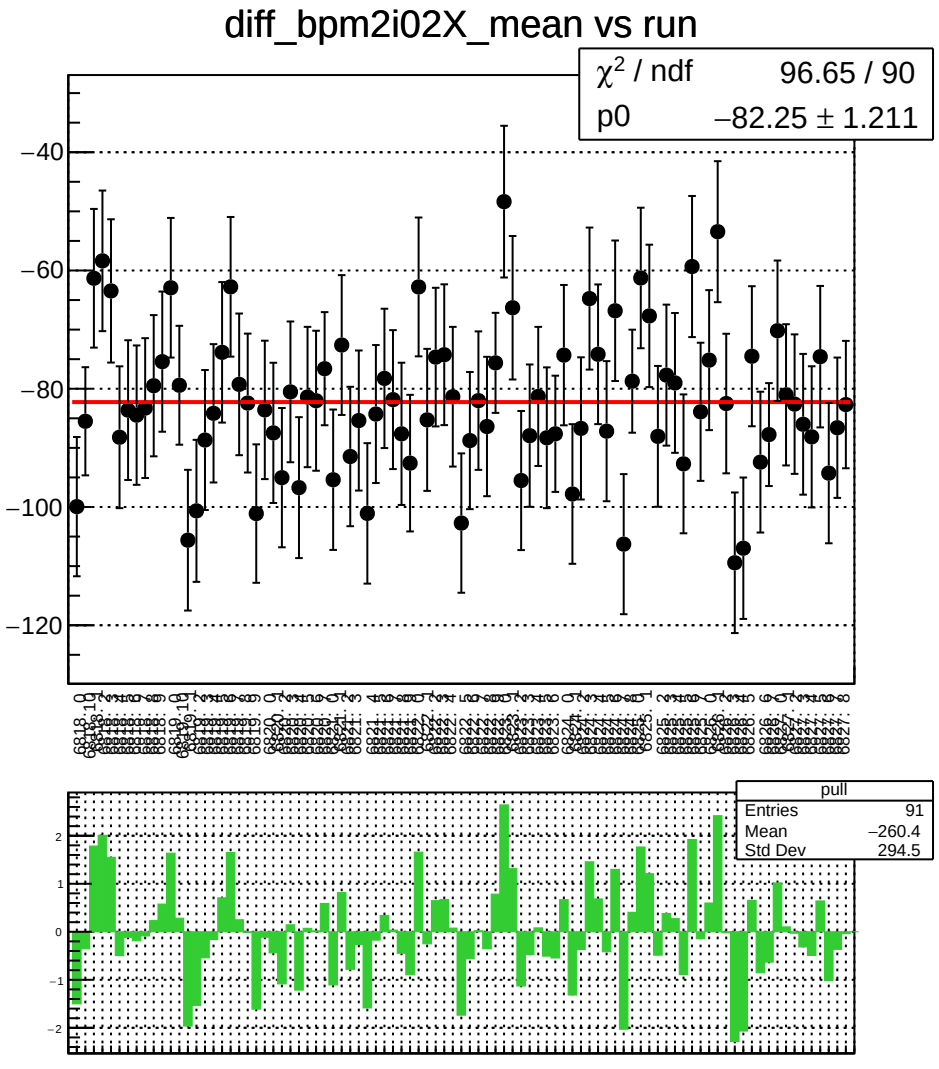

pull1D
Entries 91
Mean 0.004377
Std Dev 0.917

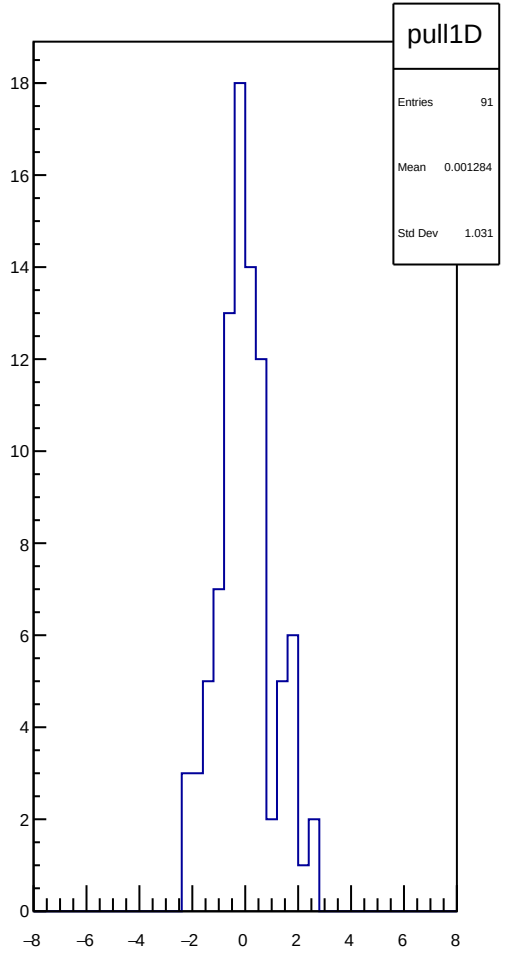

diff_bpm2i01X_rms vs run
χ² / ndf 327.5 / 90
p0 976.8 ± 0.7428
1100
1080
1060
1040
1020
1000
980
960
940

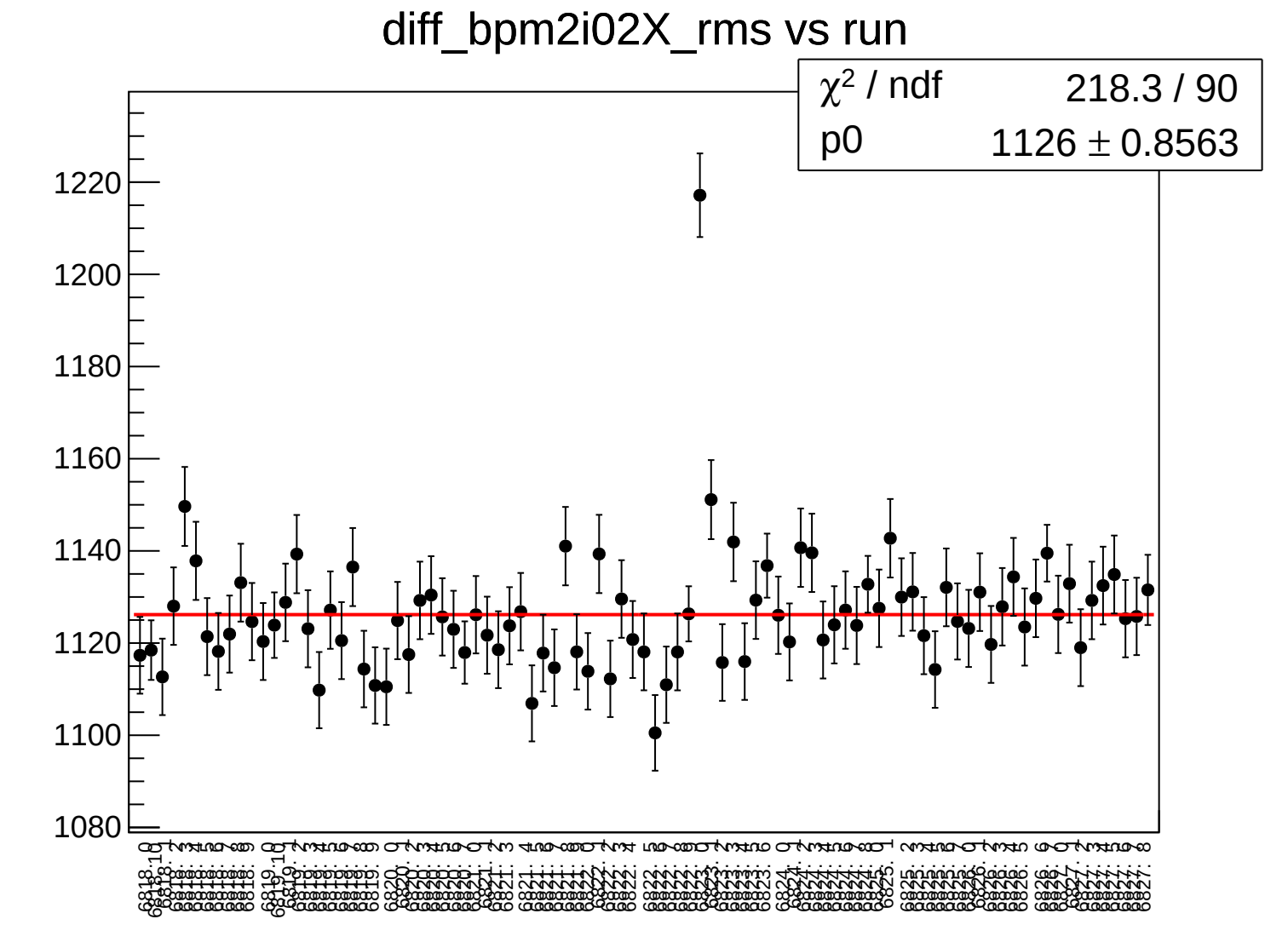

diff_bpm2i01Y_mean vs run
χ² / ndf 102.3 / 90
p0 8.856 ± 1.13
pull
Entries 91
Mean −528.3
Std Dev 559.9

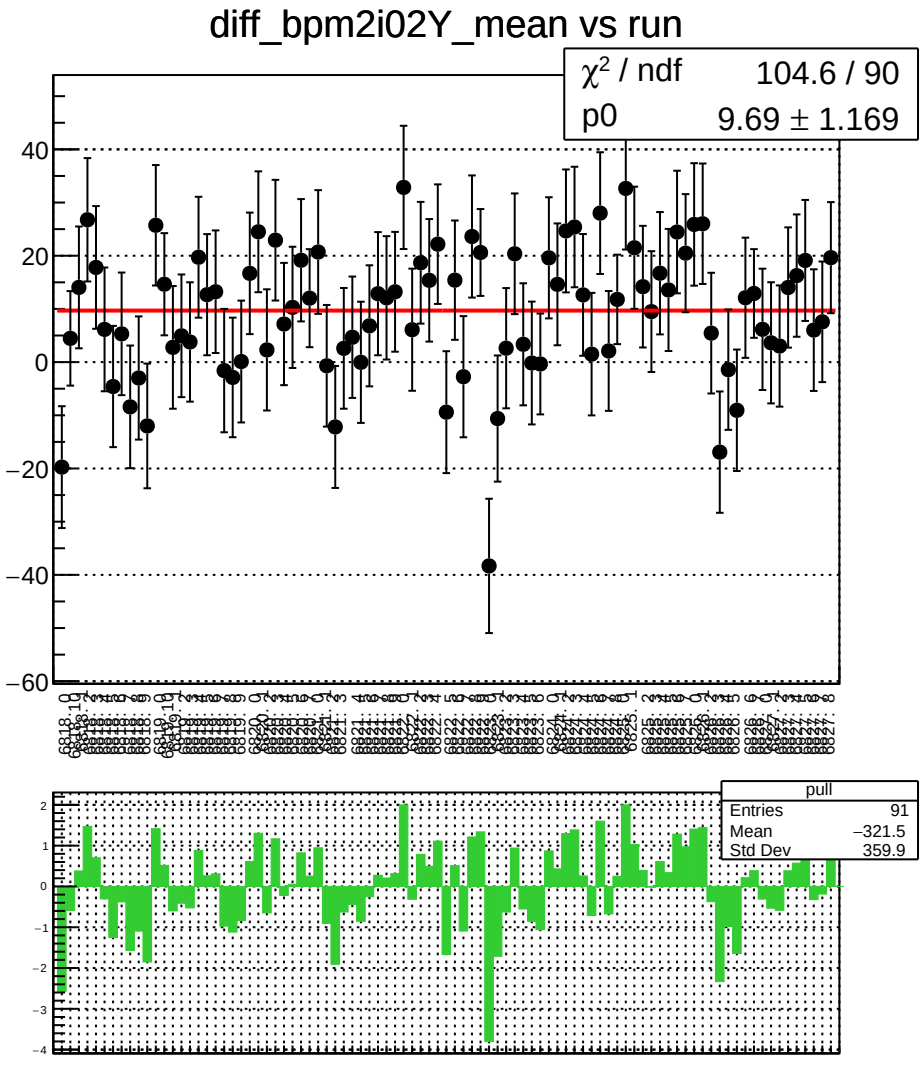

pull1D
Entries 91
Mean −0.004473
Std Dev 1.06

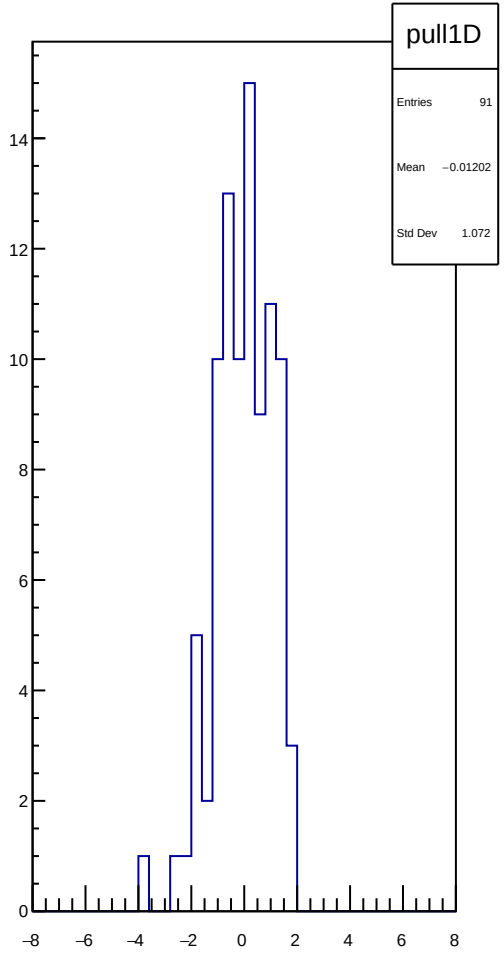

diff_bpm2i01Y_rms vs run
χ² / ndf 561.9 / 90
p0 1051 ± 0.7993
1180
1160
1140
1120
1100
1080
1060
1040
1020
1000

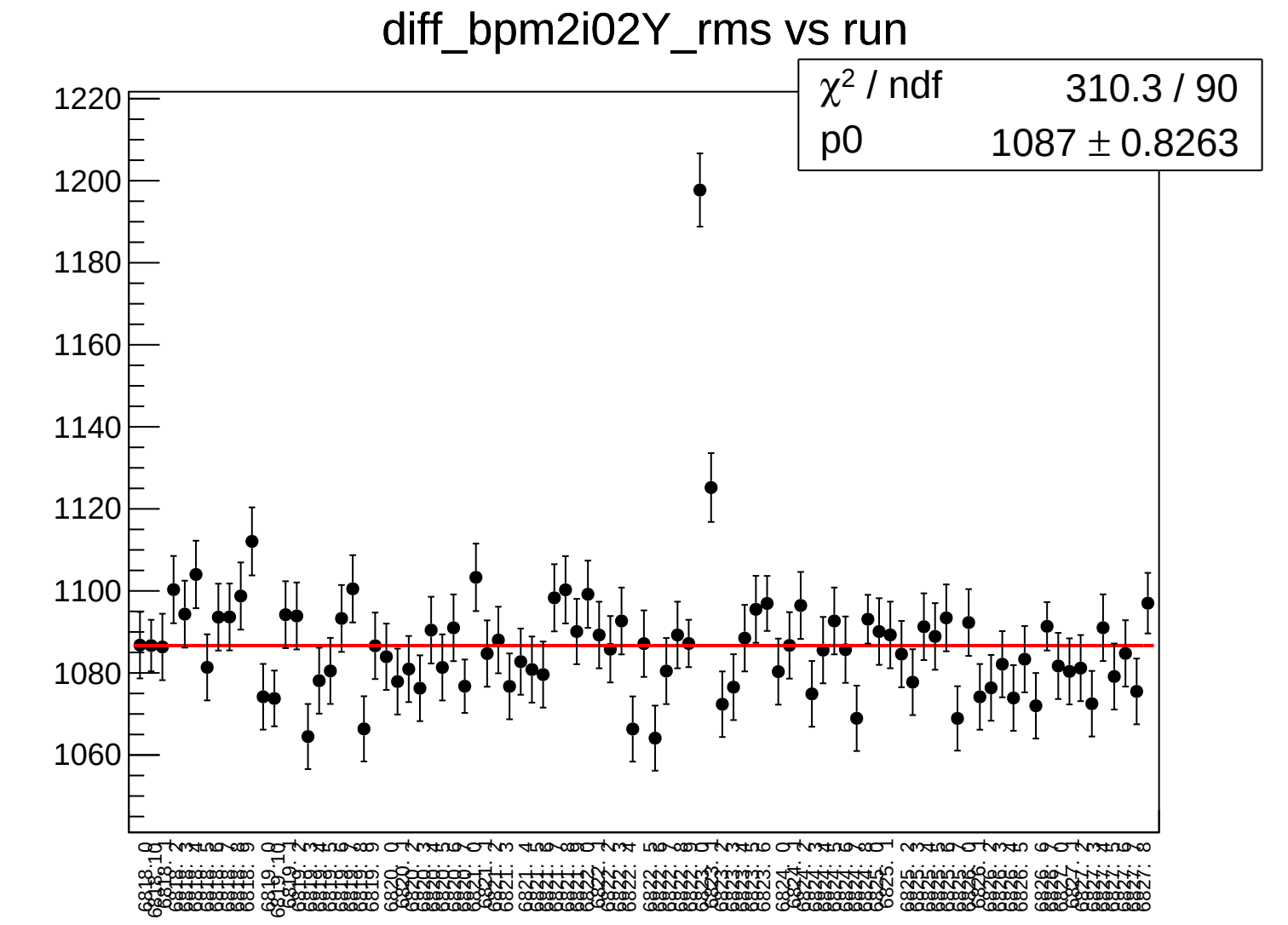

diff_bpm2i02X_mean vs run
χ² / ndf 96.65 / 90
p0 −82.25 ± 1.211
−40
−60
−80
−100
−120
pull
Entries 91
Mean −260.4
Std Dev 294.5
2
1
0
−1
−2

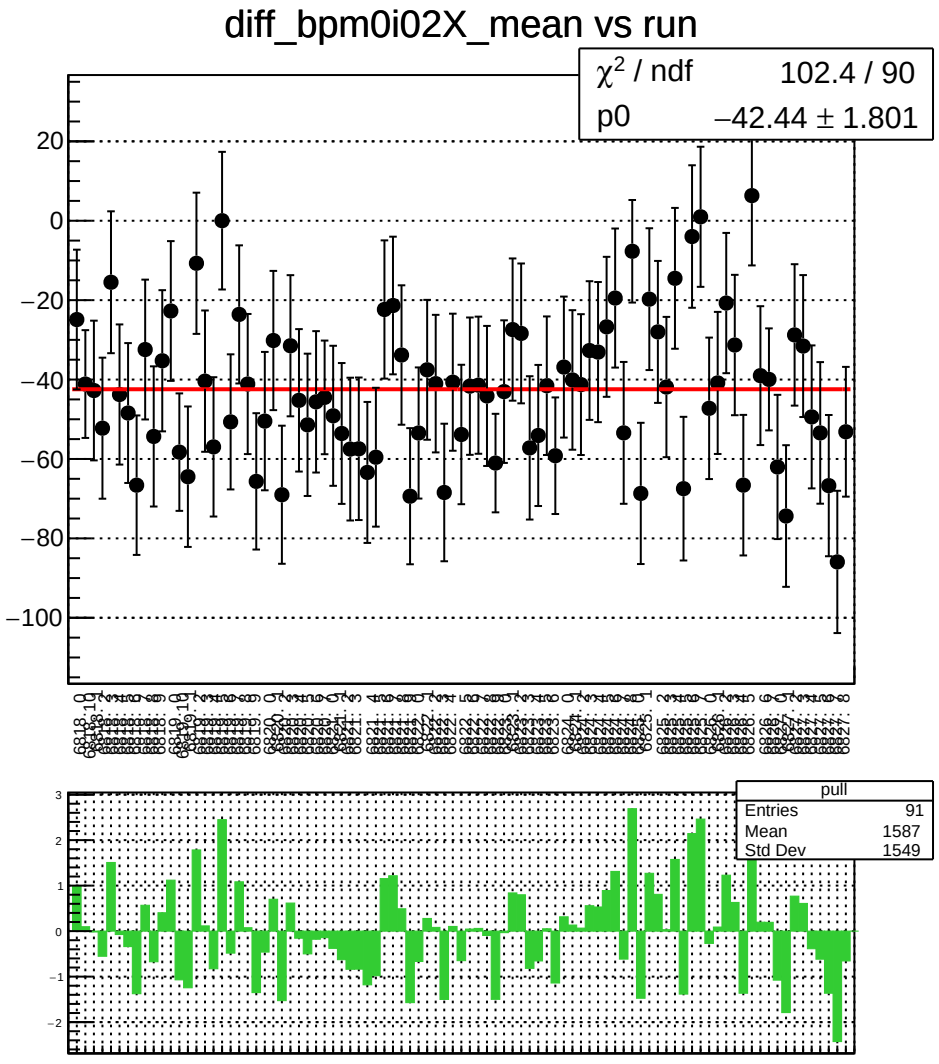

pull1D
Entries 91
Mean 0.001284
Std Dev 1.031
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

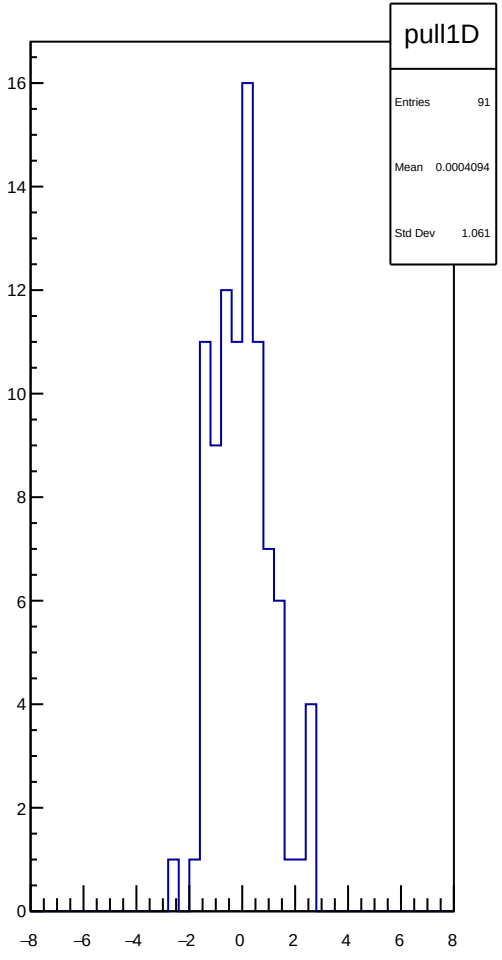

diff_bpm2i02X_rms vs run
χ² / ndf 218.3 / 90
p0 1126 ± 0.8563
1220
1200
1180
1160
1140
1120
1100
1080

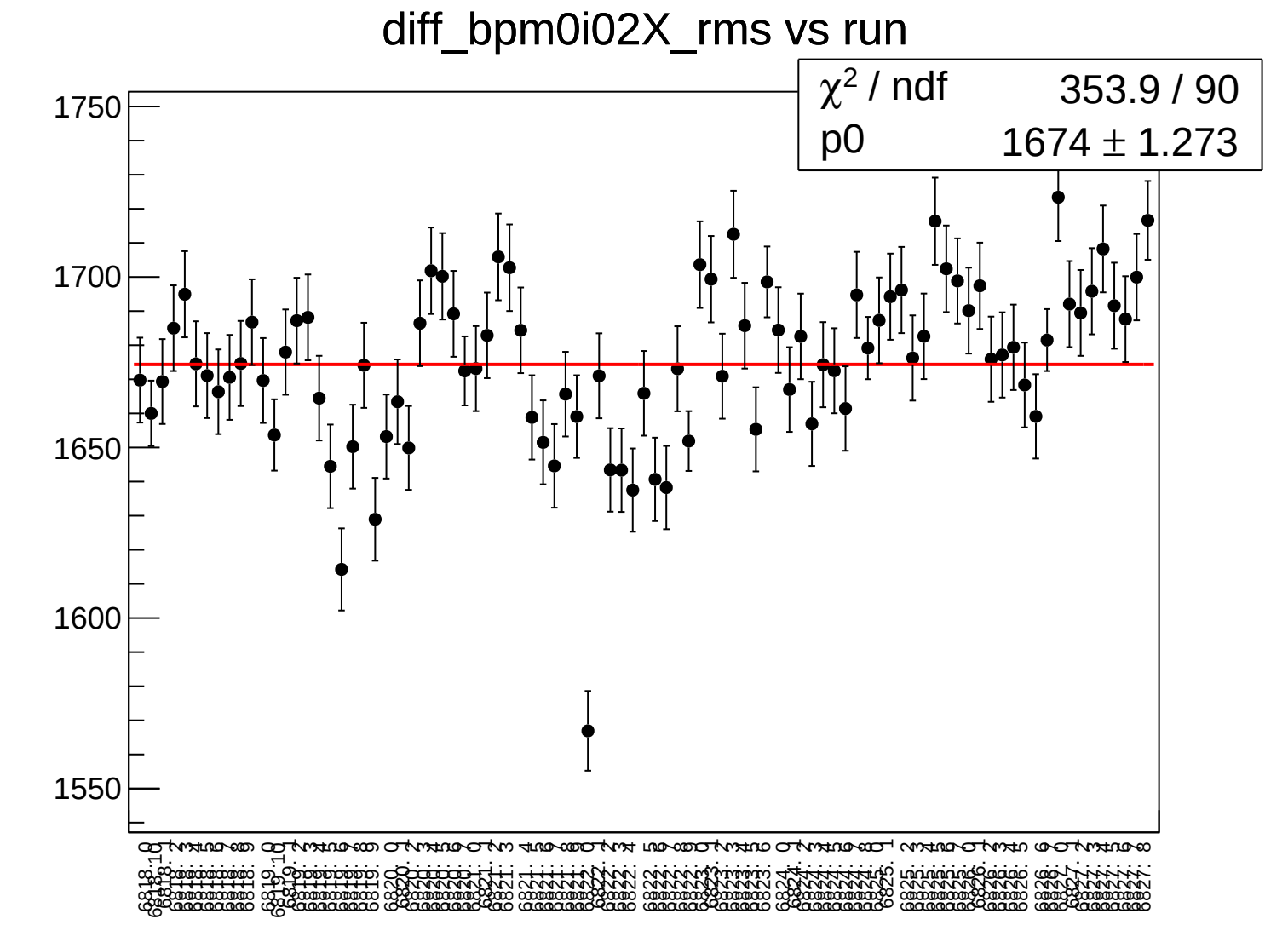

diff_bpm2i02Y_mean vs run
χ² / ndf 104.6 / 90
p0 9.69 ± 1.169
pull
Entries 91
Mean −321.5
Std Dev 359.9

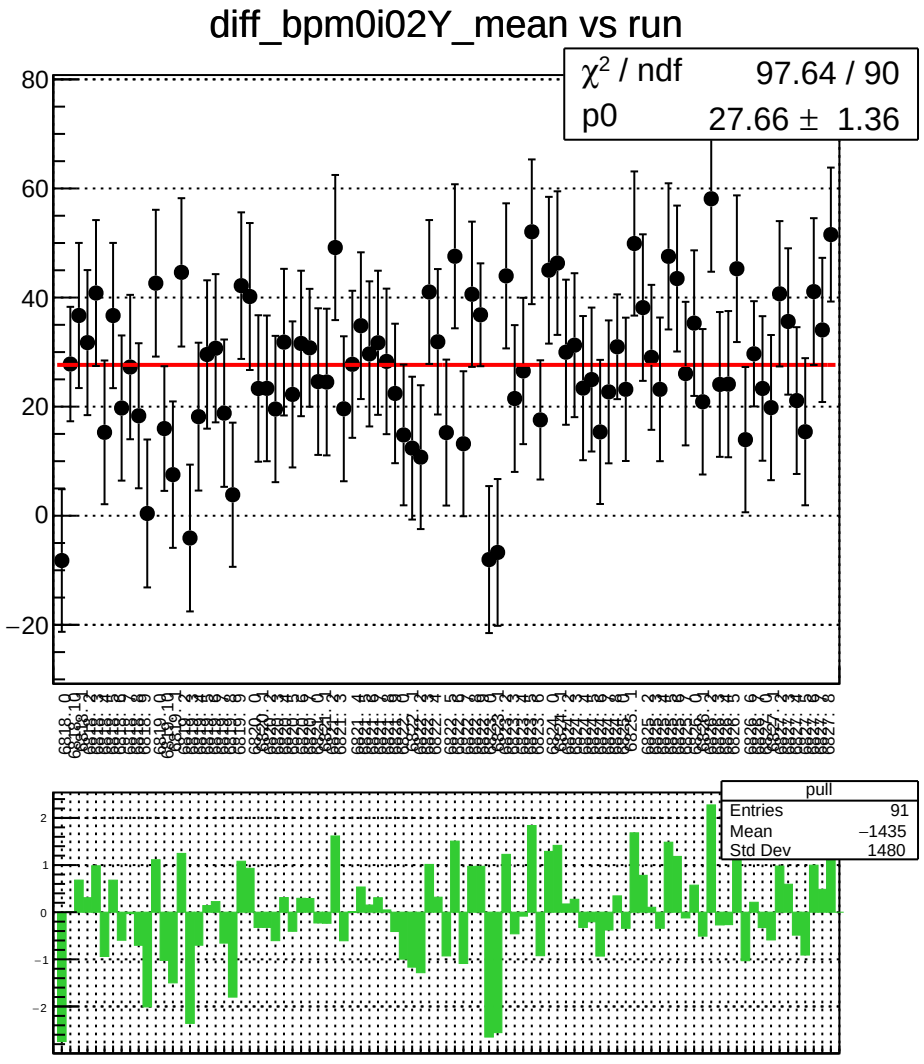

pull1D
Entries 91
Mean −0.01202
Std Dev 1.072

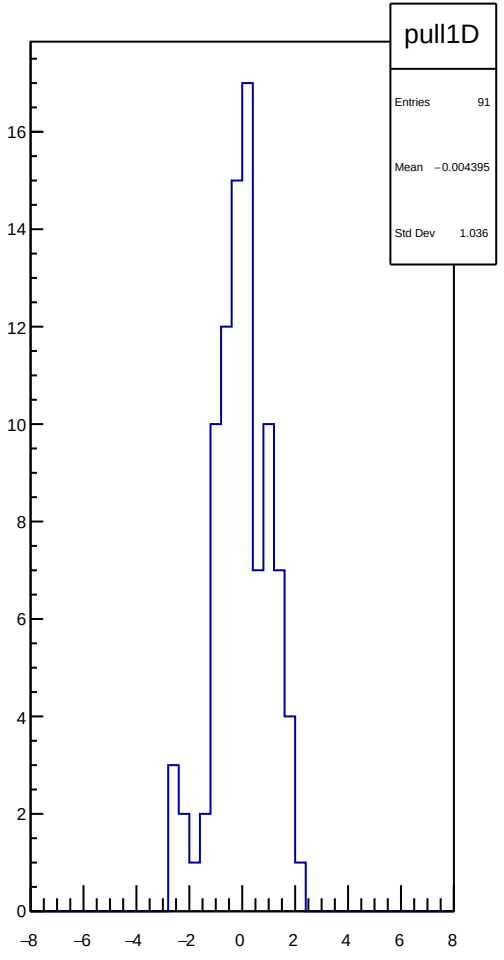

diff_bpm2i02Y_rms vs run
χ² / ndf 310.3 / 90
p0 1087 ± 0.8263
1220
1200
1180
1160
1140
1120
1100
1080
1060

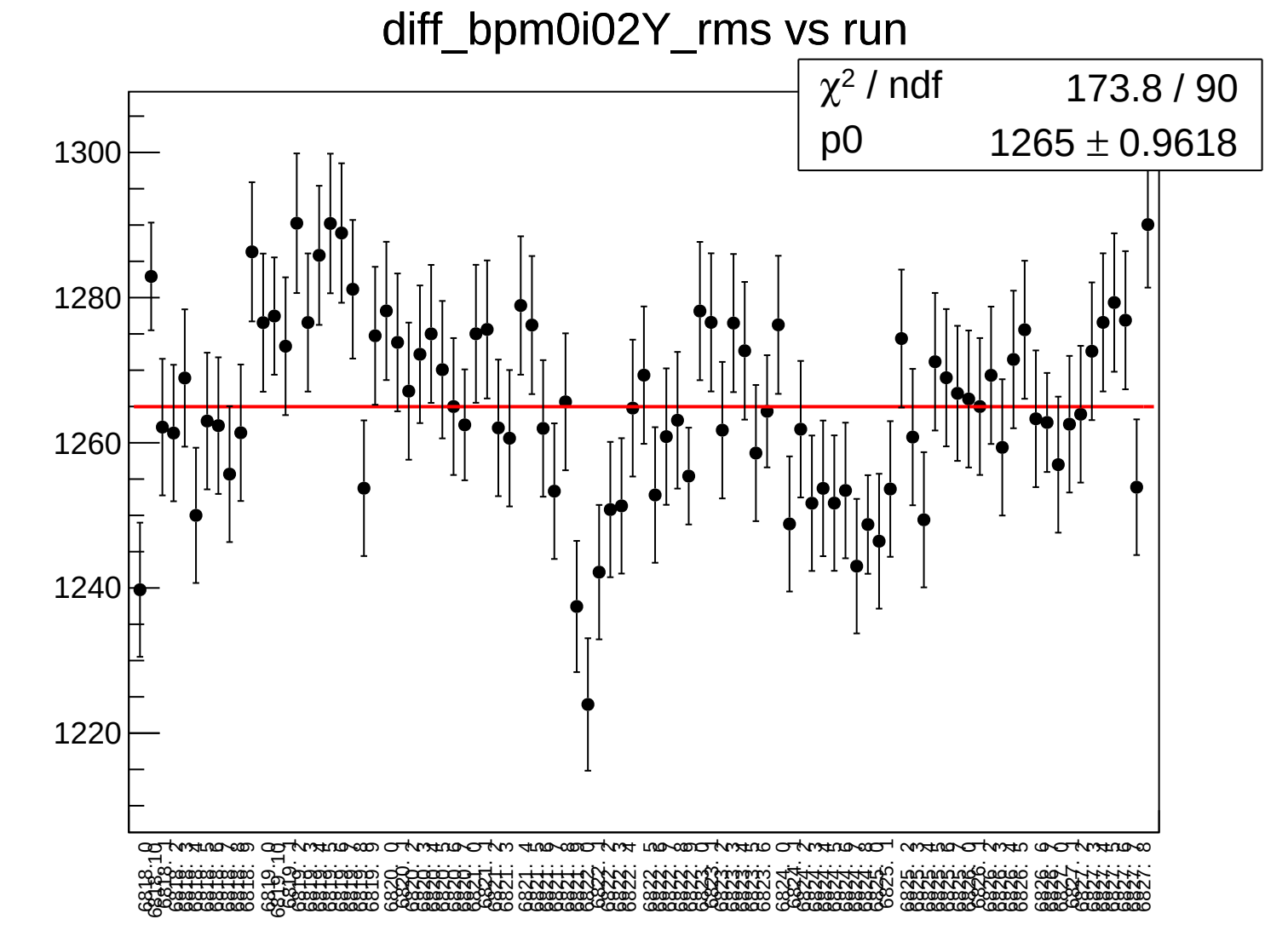

diff_bpm0i02X_mean vs run
χ² / ndf 102.4 / 90
p0 −42.44 ± 1.801
pull
Entries 91
Mean 1587
Std Dev 1549

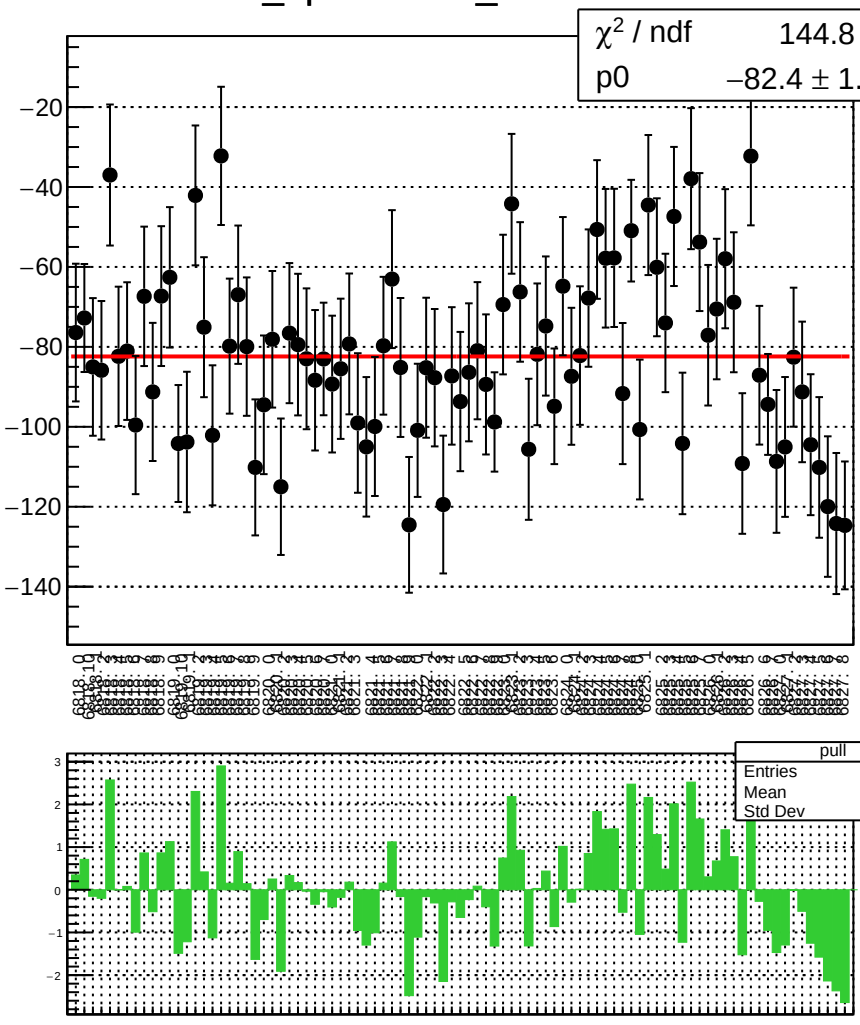

pull1D
Entries 91
Mean 0.0004094
Std Dev 1.061

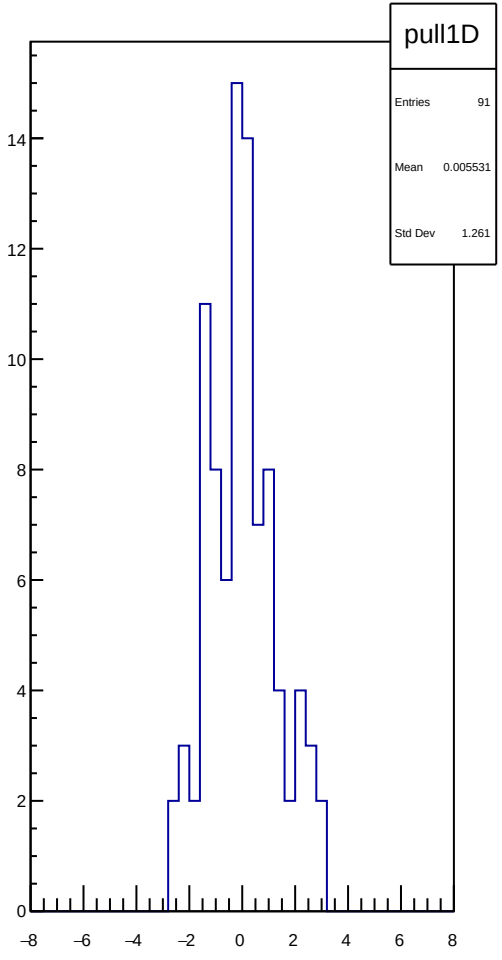

diff_bpm0i02X_rms vs run
χ^2 / ndf 353.9 / 90
p0 1674 ± 1.273
1750
1700
1650
1600
1550

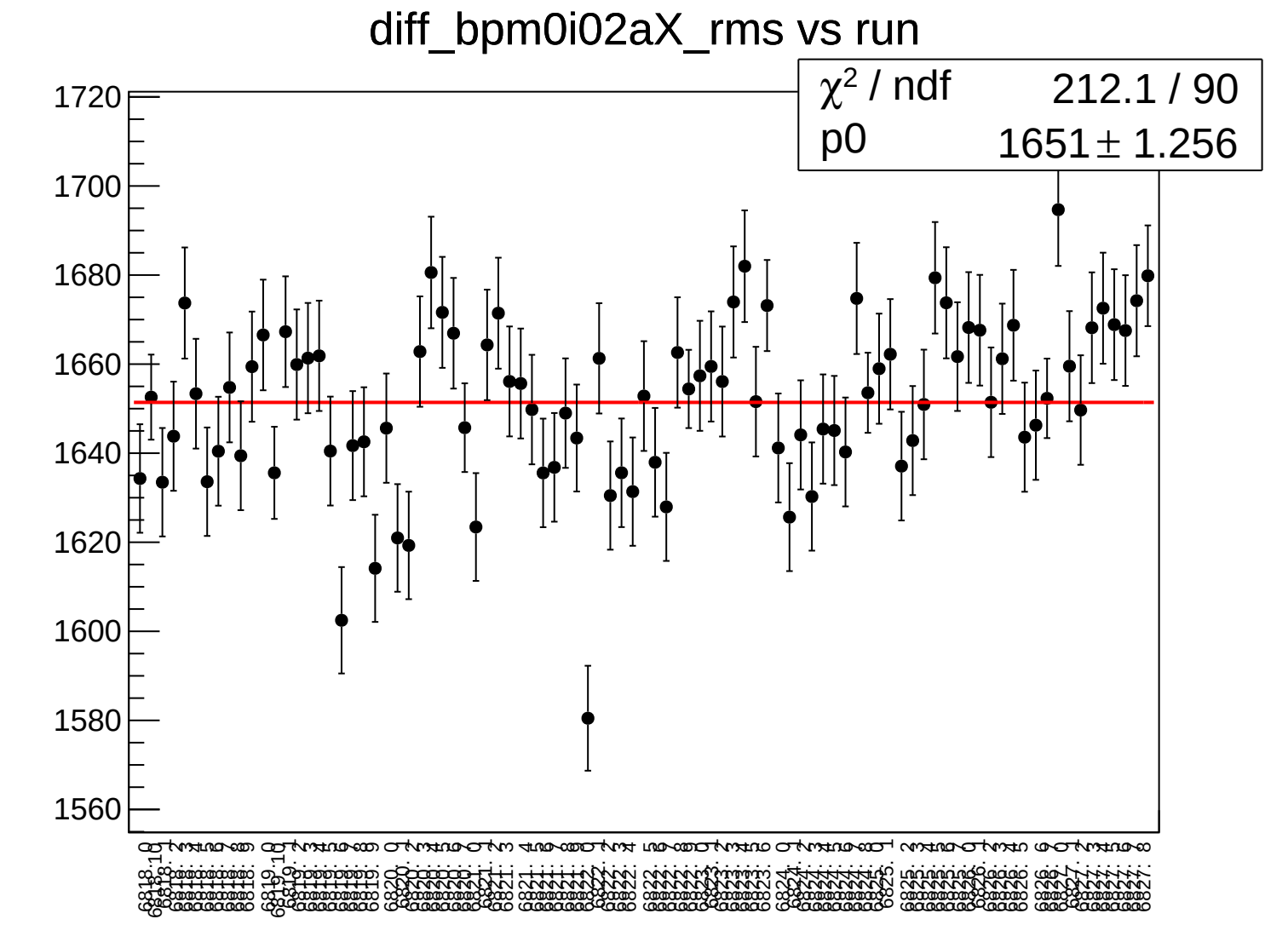

diff_bpm0i02Y_mean vs run
χ² / ndf 97.64 / 90
p0 27.66 ± 1.36
pull
Entries 91
Mean −1435
Std Dev 1480

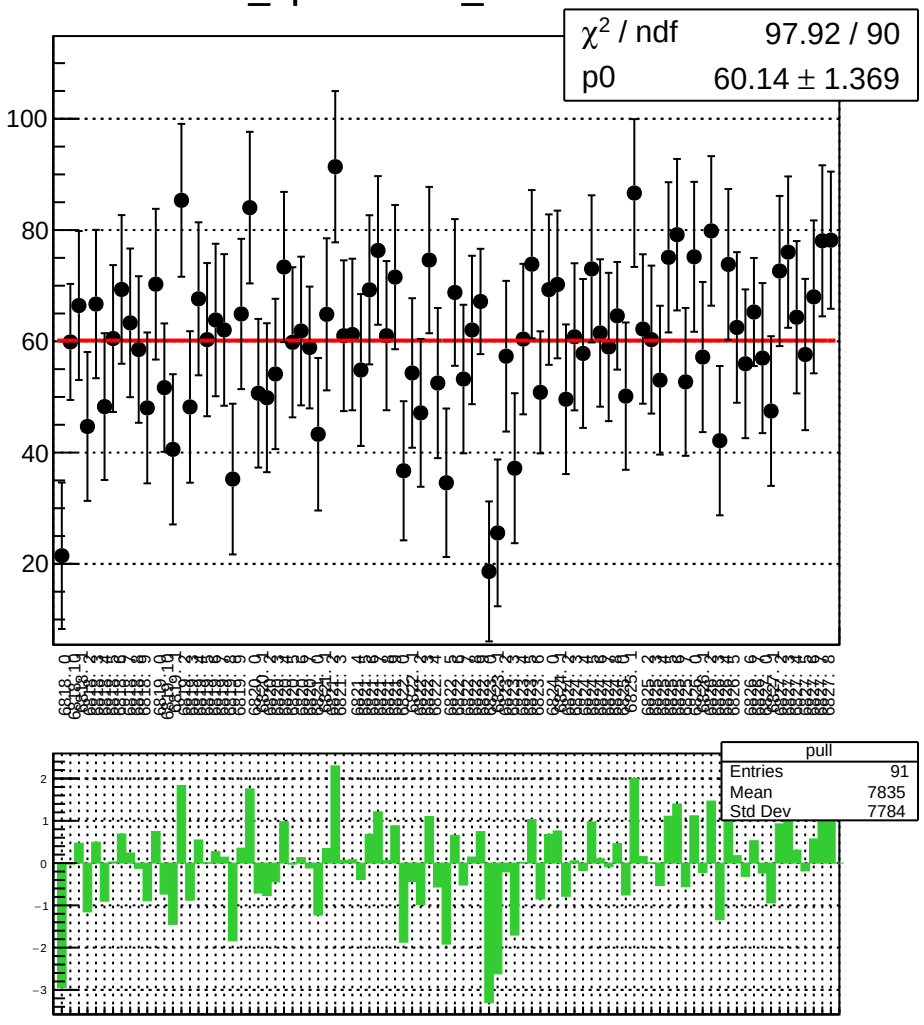

pull1D
Entries 91
Mean −0.004395
Std Dev 1.036

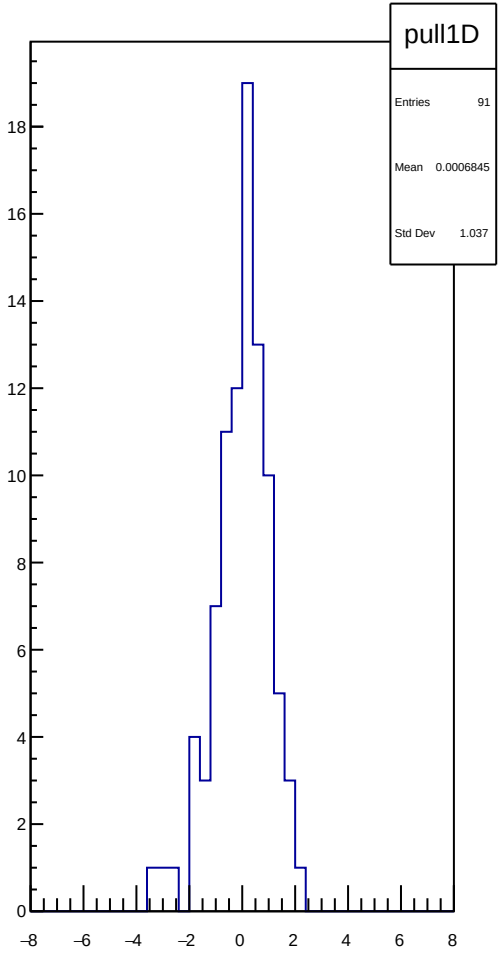

diff_bpm0i02Y_rms vs run
χ² / ndf 173.8 / 90
p0 1265 ± 0.9618
1300
1280
1260
1240
1220

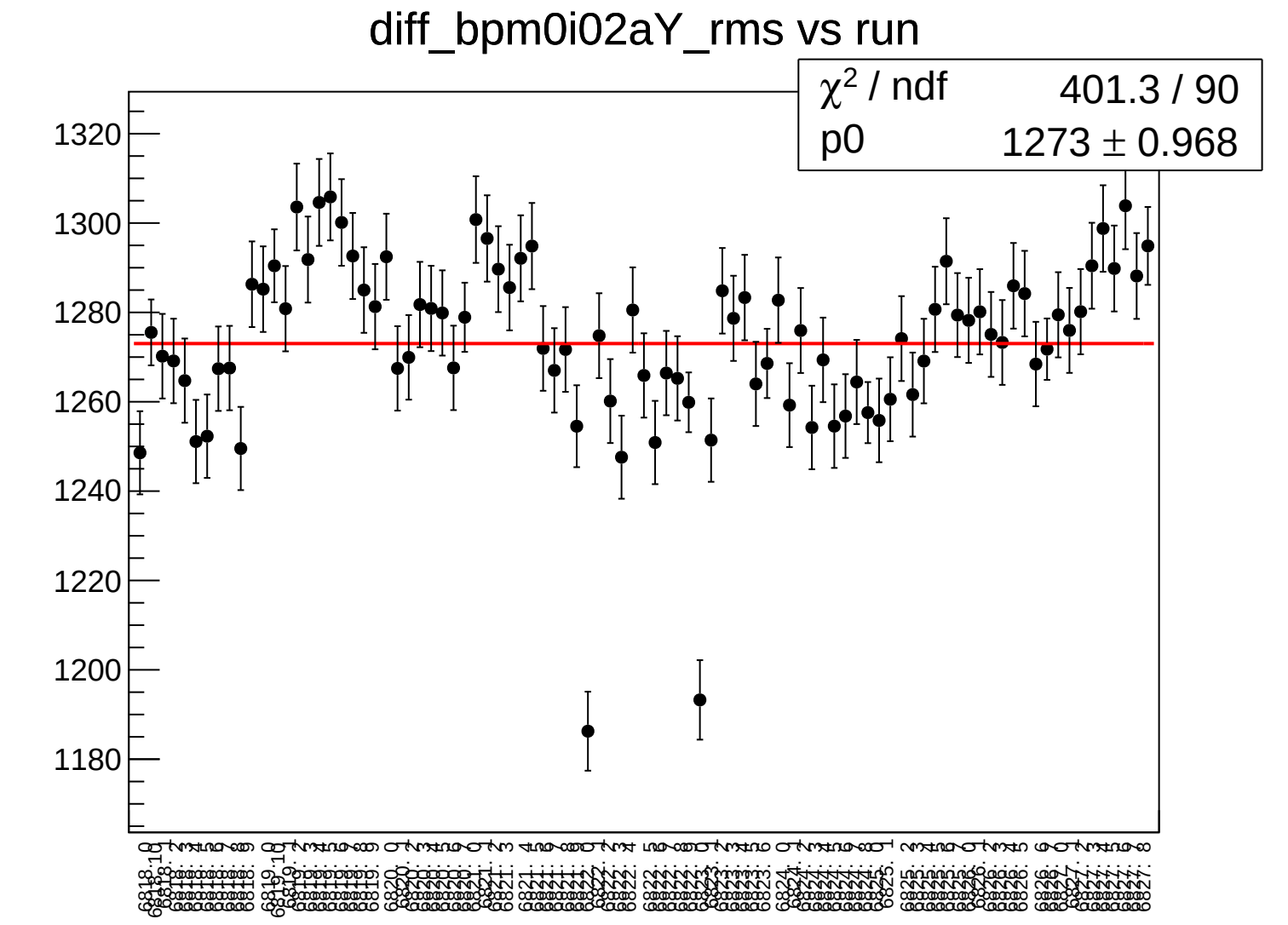

diff_bpm0i02aX_mean vs run
χ² / ndf 144.8 / 90
p0 −82.4 ± 1.776
pull
Entries 91
Mean −407.2
Std Dev 465.9

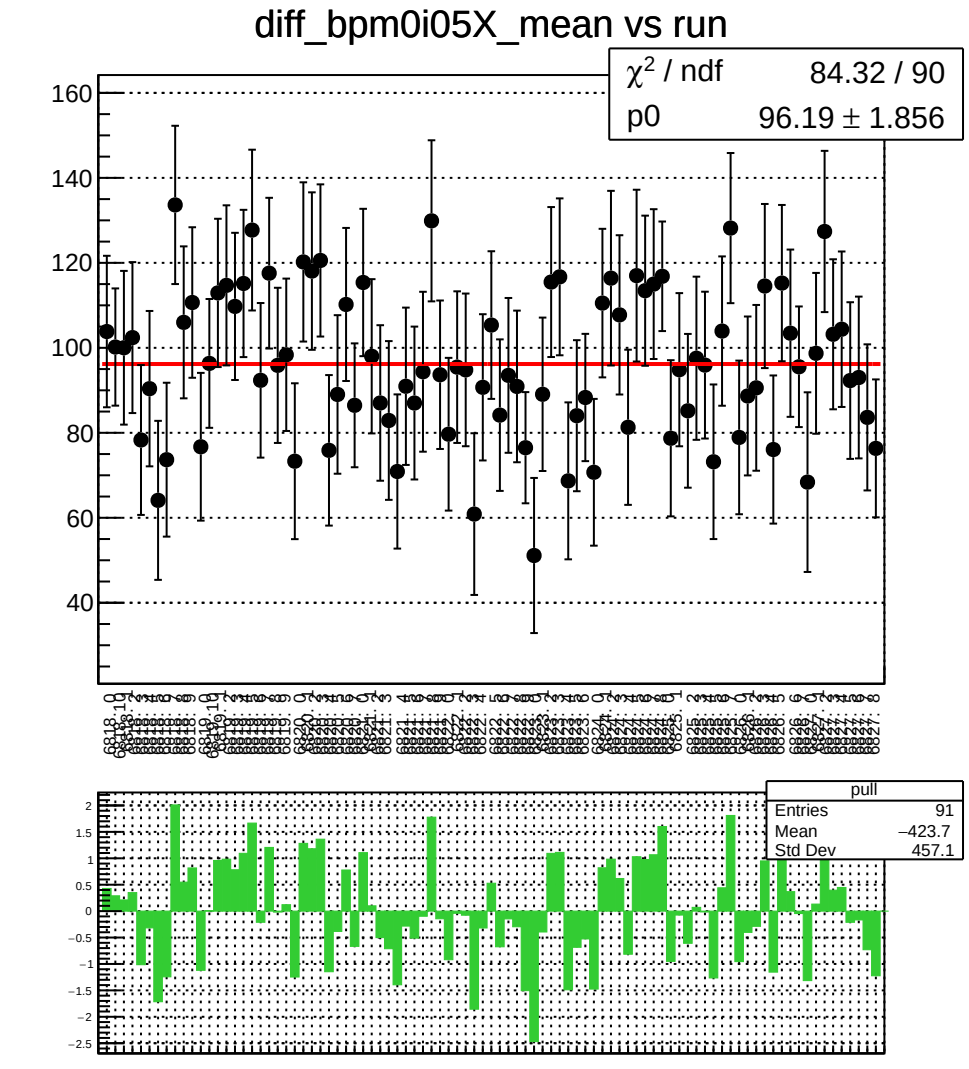

pull1D
Entries 91
Mean 0.005531
Std Dev 1.261

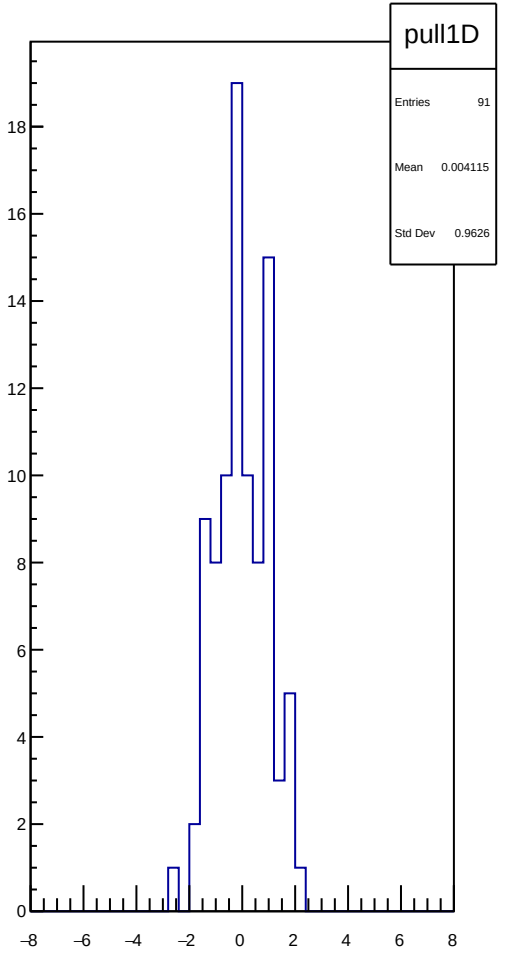

diff_bpm0i02aX_rms vs run
χ² / ndf 212.1 / 90
p0 1651 ± 1.256
1720
1700
1680
1660
1640
1620
1600
1580
1560

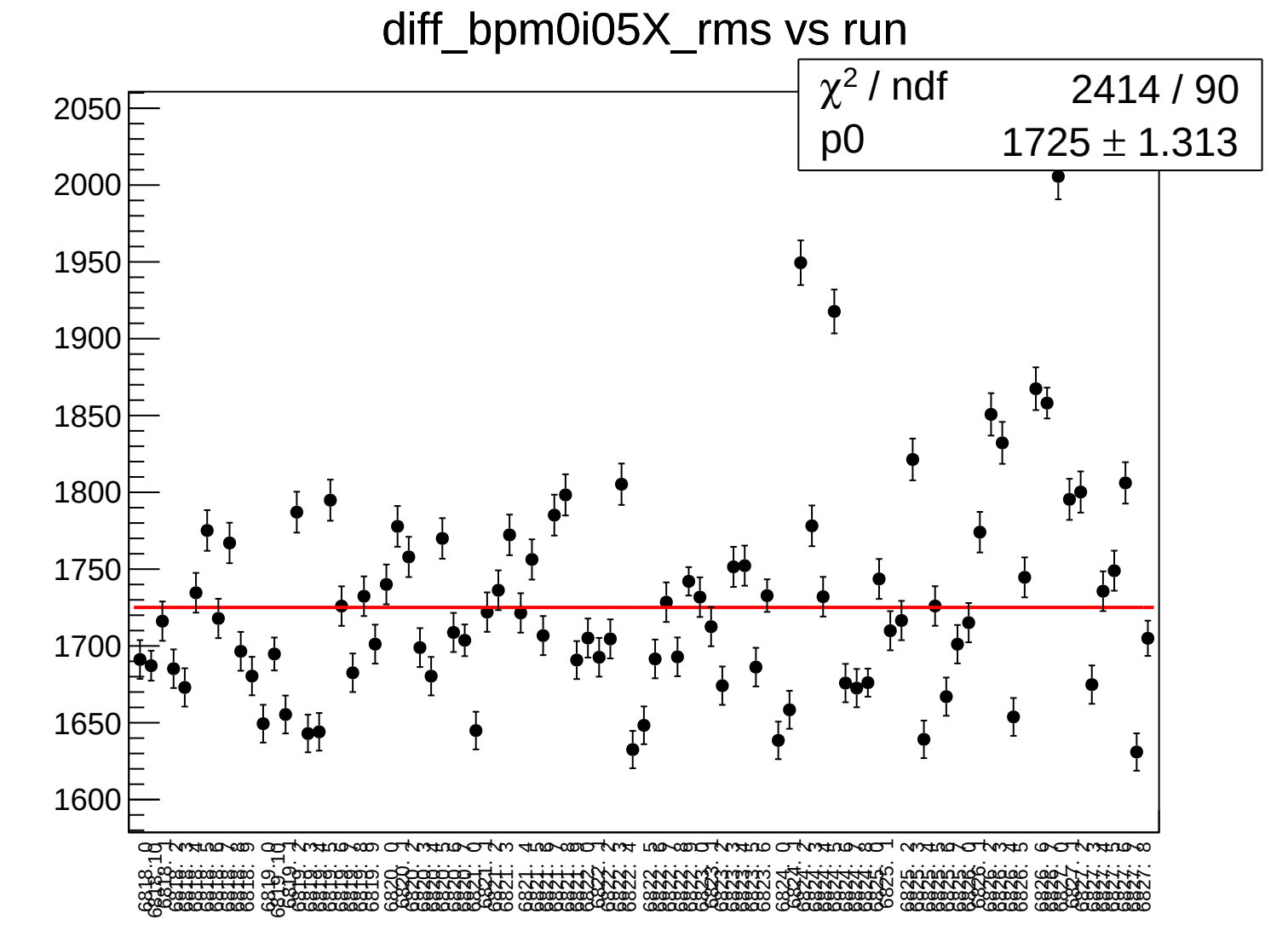

diff_bpm0i02aY_mean vs run
χ^2 / ndf 97.92 / 90
p0 60.14 ± 1.369
pull
Entries 91
Mean 7835
Std Dev 7784

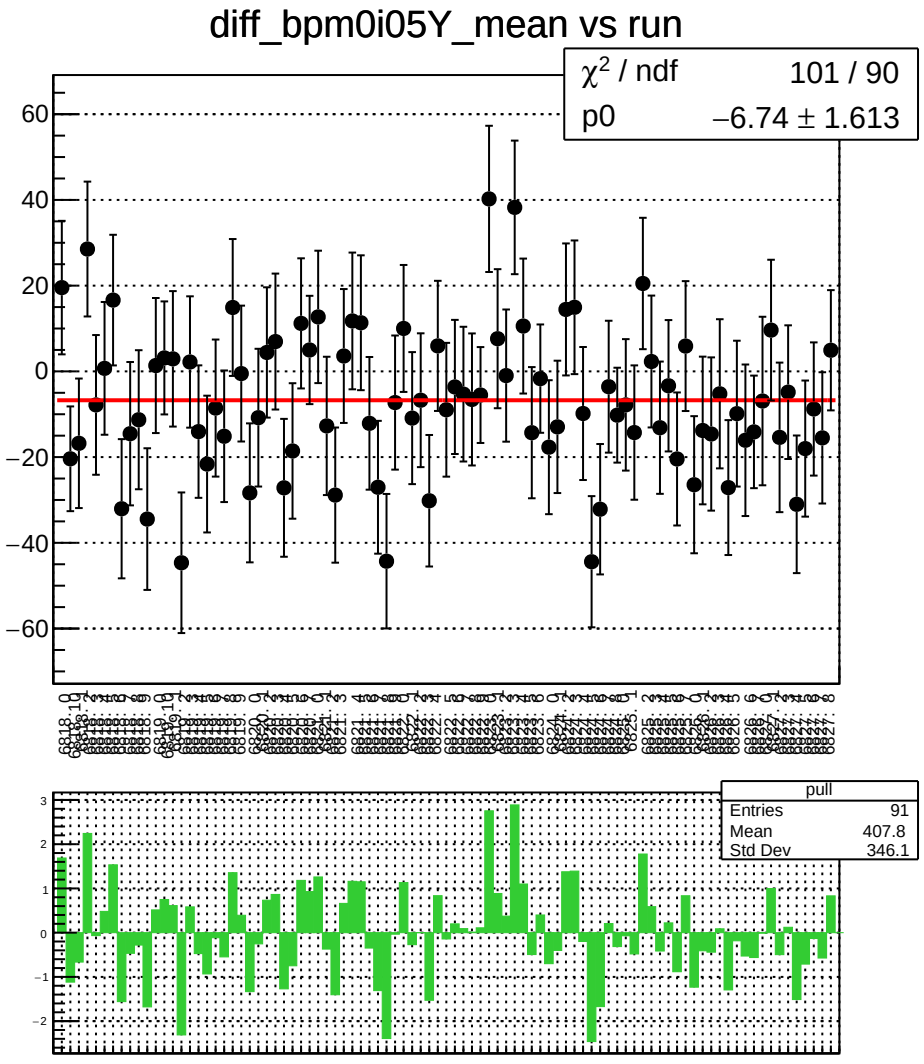

pull1D
Entries 91
Mean 0.0006845
Std Dev 1.037

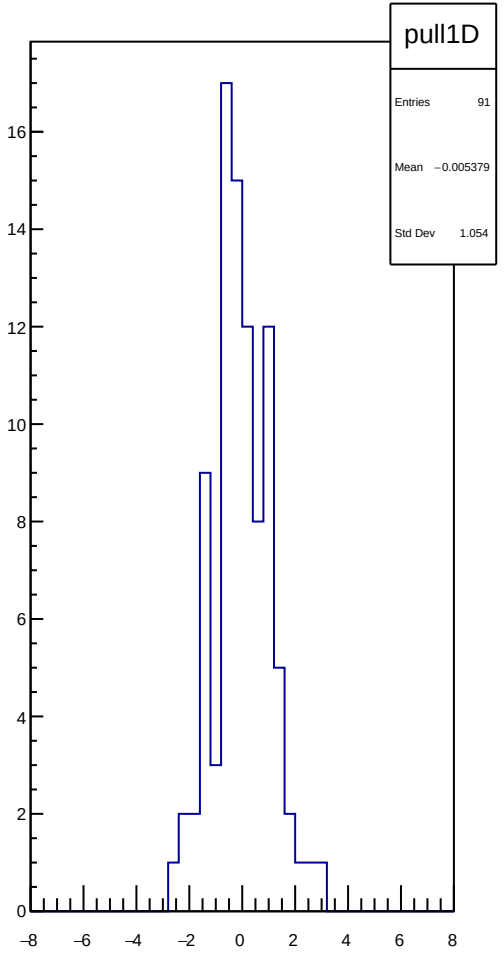

diff_bpm0i02aY_rms vs run
χ^2 / ndf 401.3 / 90
p0 1273 ± 0.968
1320
1300
1280
1260
1240
1220
1200
1180

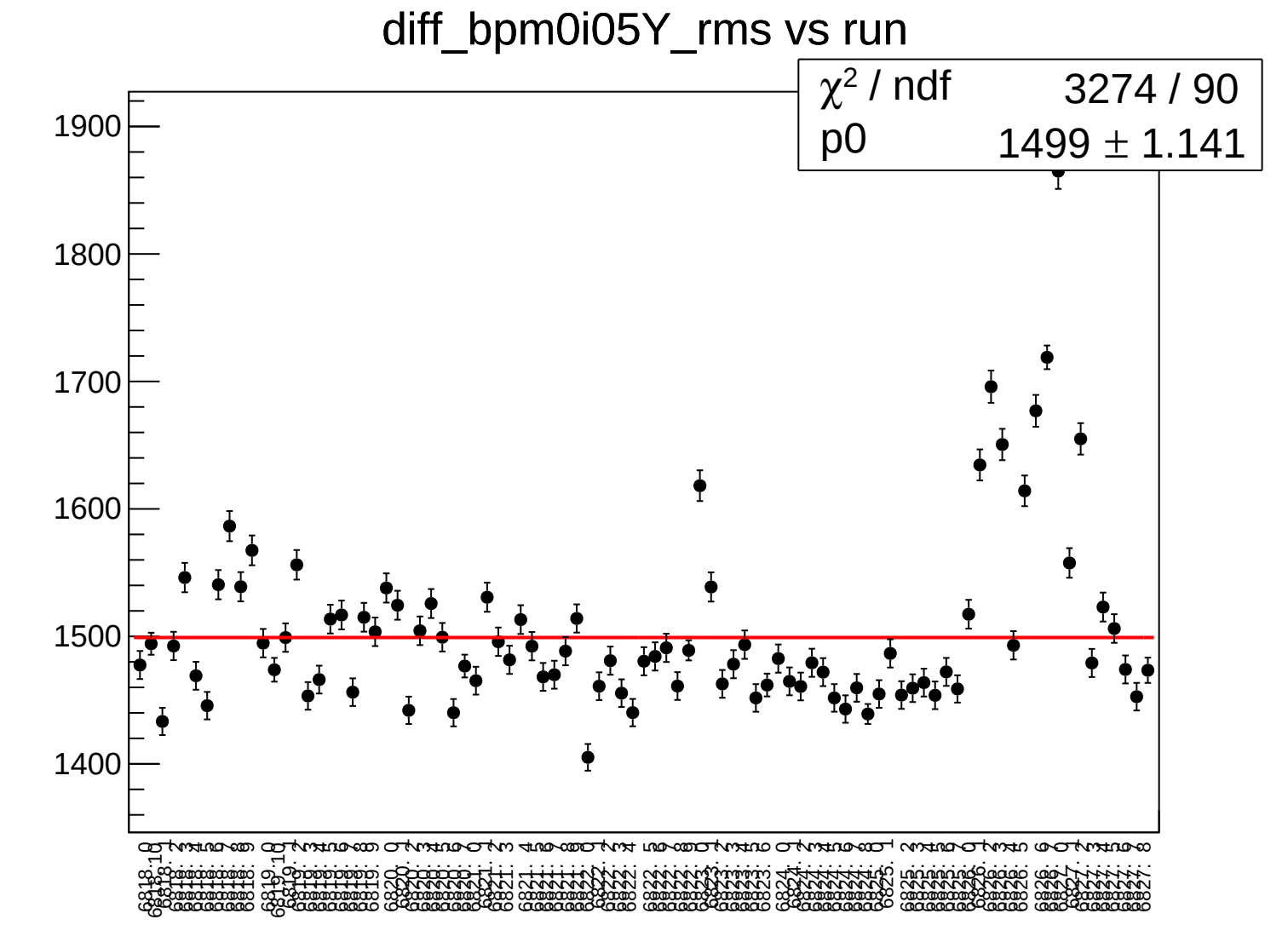

diff_bpm0i05X_mean vs run
χ² / ndf 84.32 / 90
p0 96.19 ± 1.856
160
140
120
100
80
60
40
pull
Entries 91
Mean −423.7
Std Dev 457.1
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

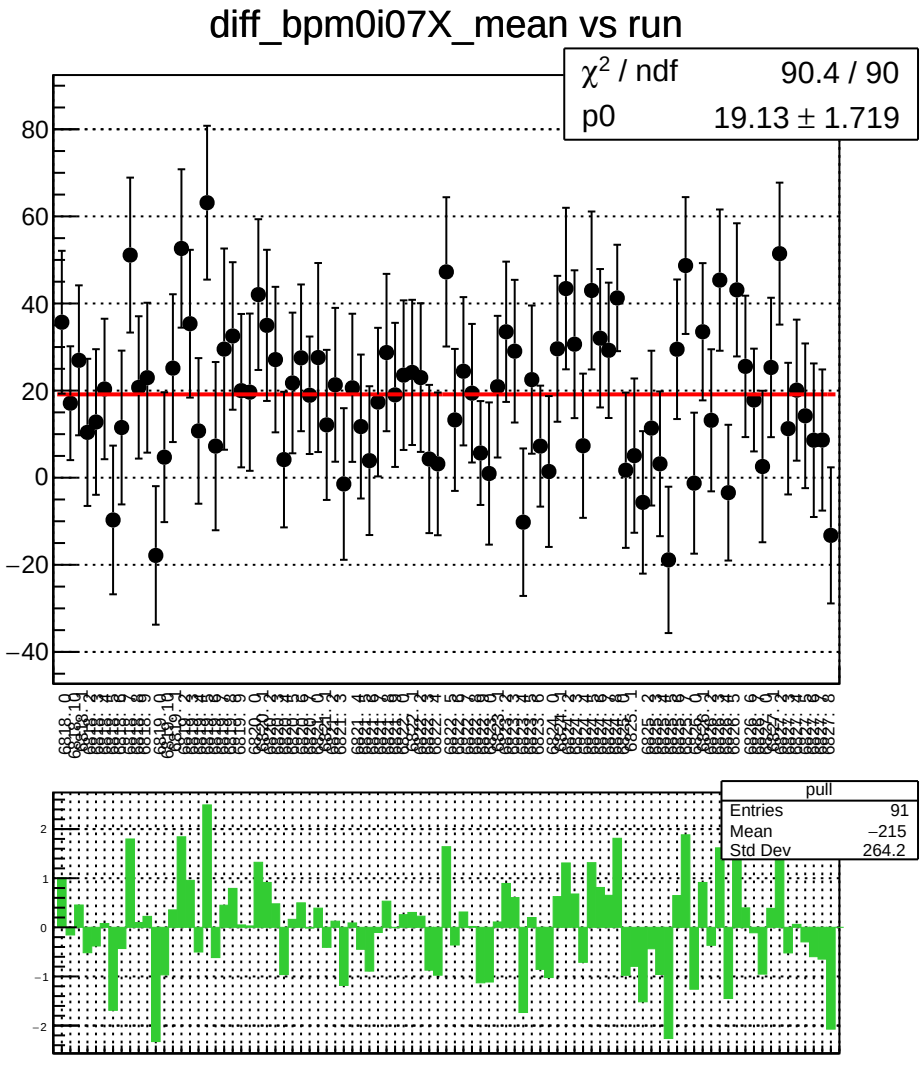

pull1D
Entries 91
Mean 0.004115
Std Dev 0.9626
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

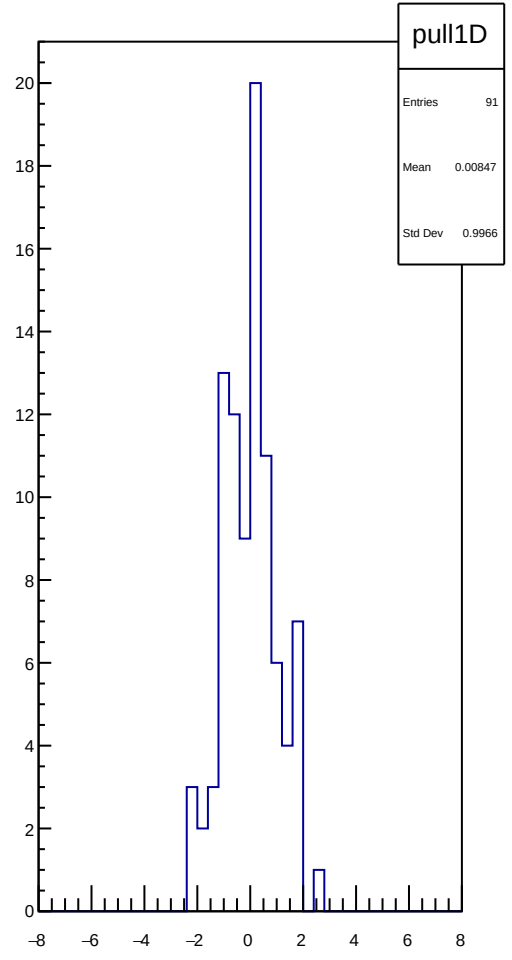

diff_bpm0i05X_rms vs run
χ² / ndf 2414 / 90
p0 1725 ± 1.313
2050
2000
1950
1900
1850
1800
1750
1700
1650
1600

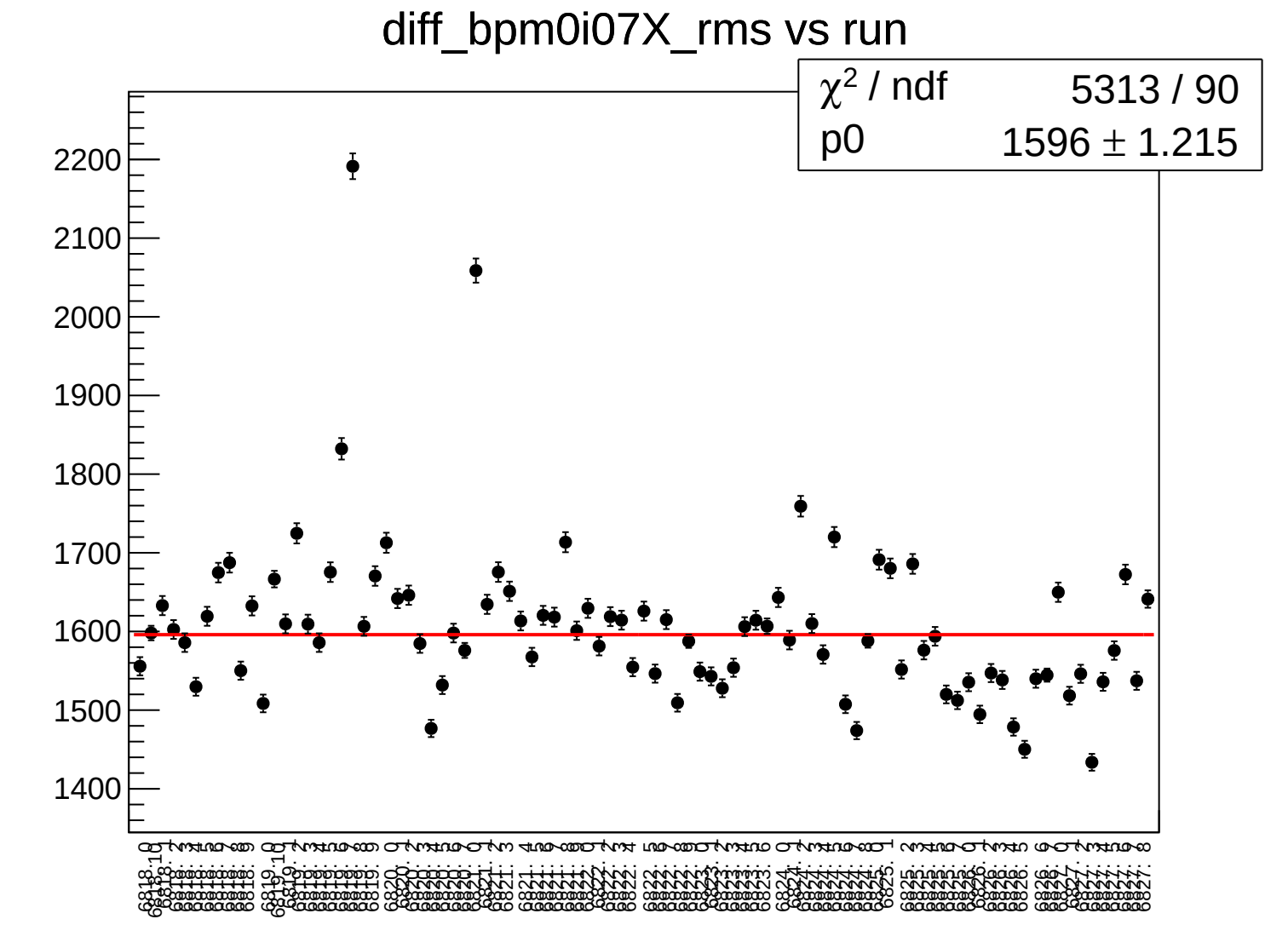

diff_bpm0i05Y_mean vs run
χ² / ndf 101 / 90
p0 −6.74 ± 1.613
pull
Entries 91
Mean 407.8
Std Dev 346.1

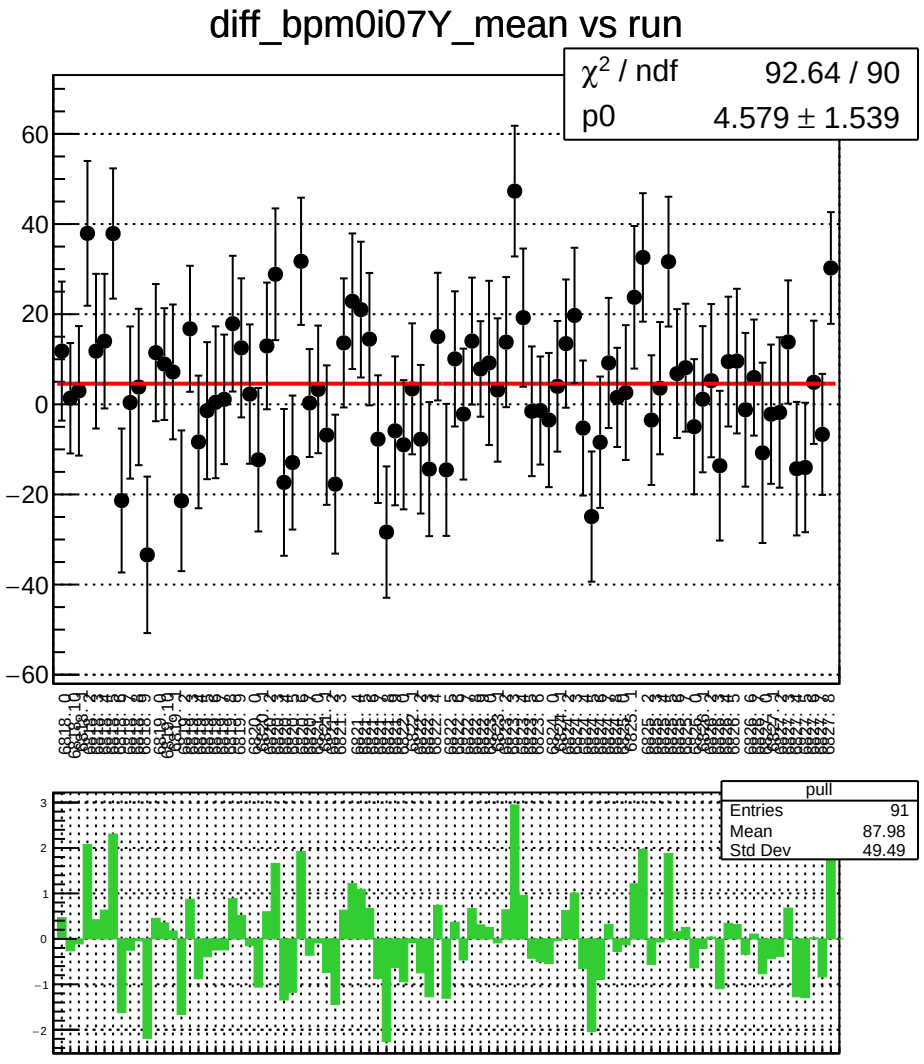

pull1D
Entries 91
Mean −0.005379
Std Dev 1.054

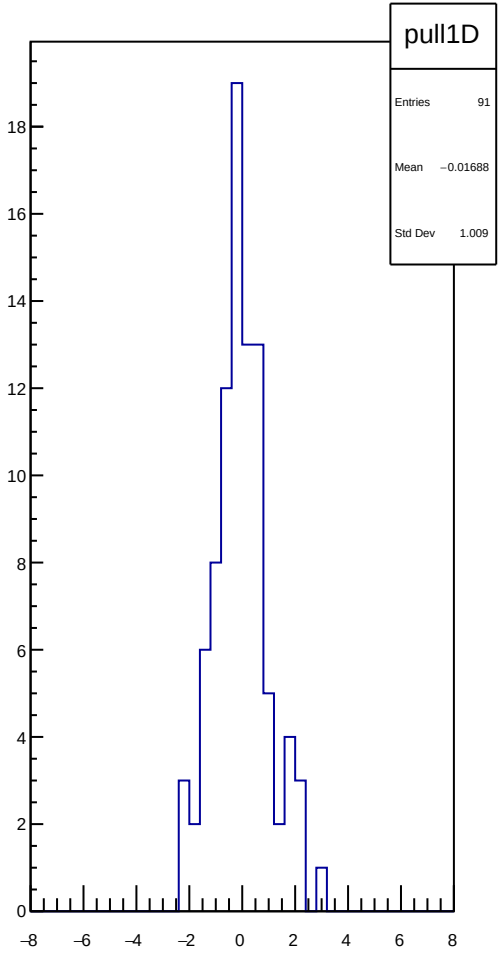

diff_bpm0i05Y_rms vs run
χ² / ndf 3274 / 90
p0 1499 ± 1.141
1900
1800
1700
1600
1500
1400

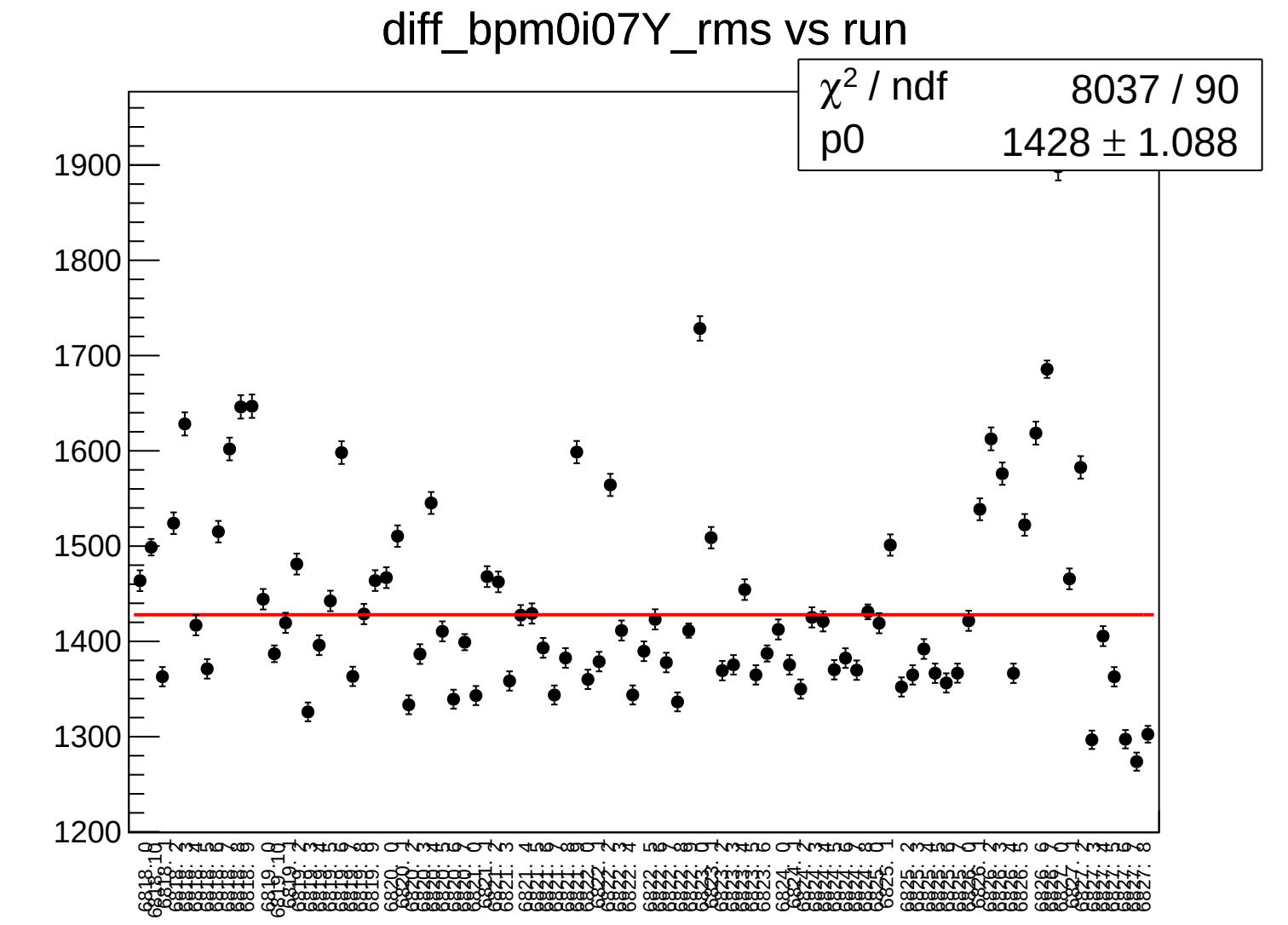

diff_bpm0i07X_mean vs run
χ² / ndf 90.4 / 90
p0 19.13 ± 1.719
pull
Entries 91
Mean −215
Std Dev 264.2

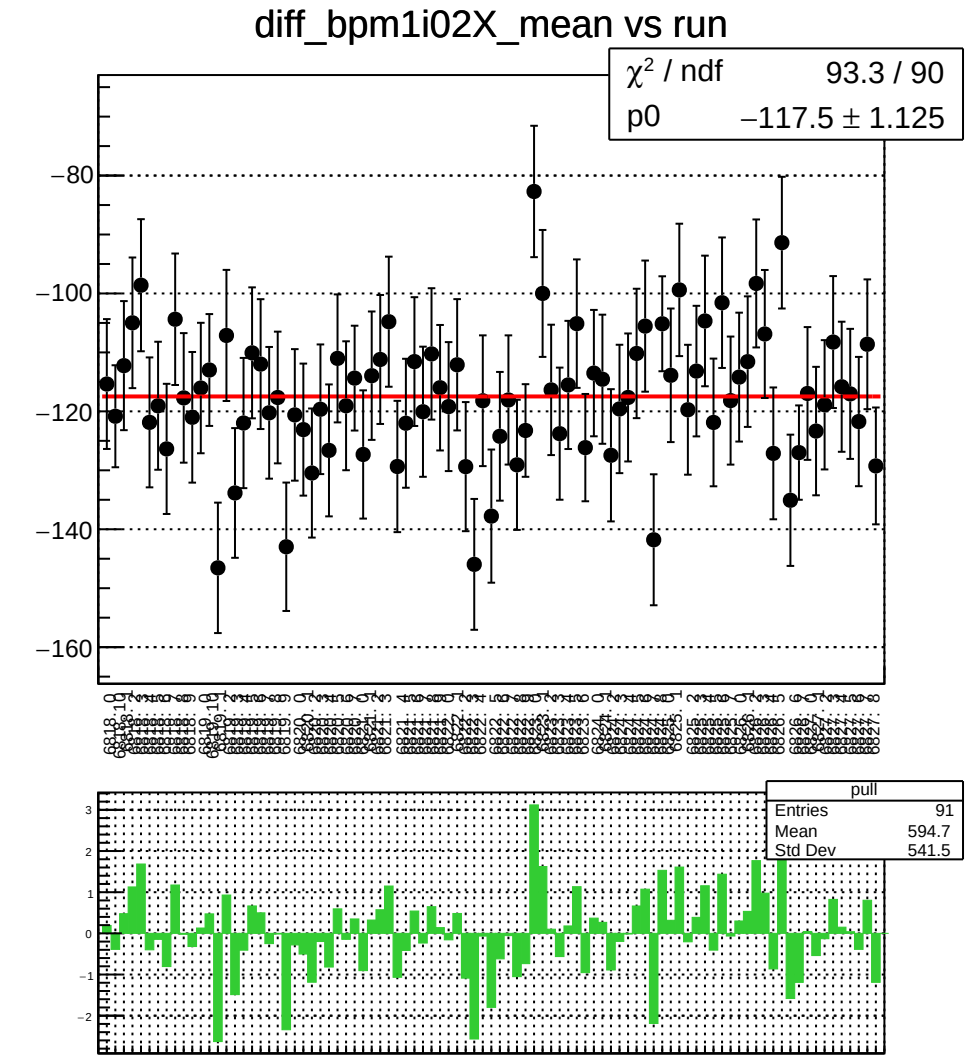

pull1D
Entries 91
Mean 0.00847
Std Dev 0.9966

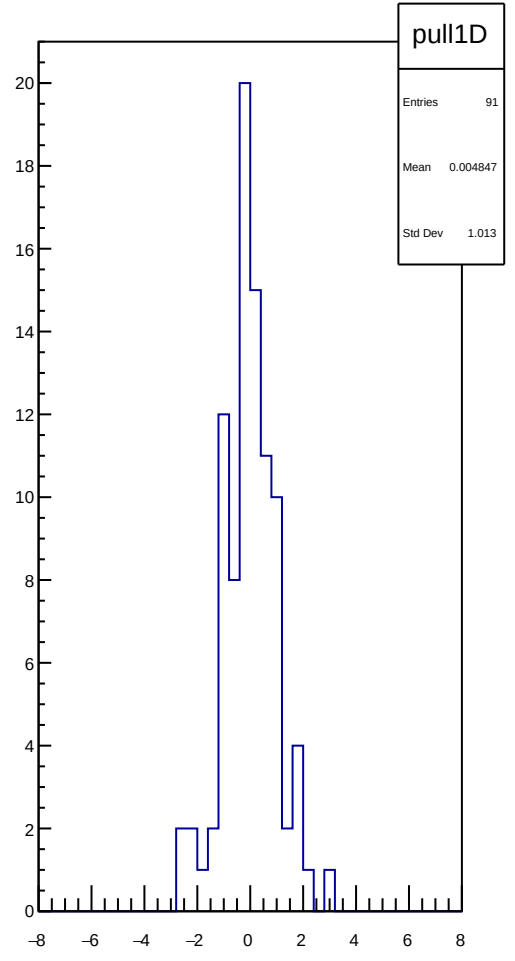

diff_bpm0i07X_rms vs run
χ^2 / ndf 5313 / 90
p0 1596 ± 1.215
2200
2100
2000
1900
1800
1700
1600
1500
1400

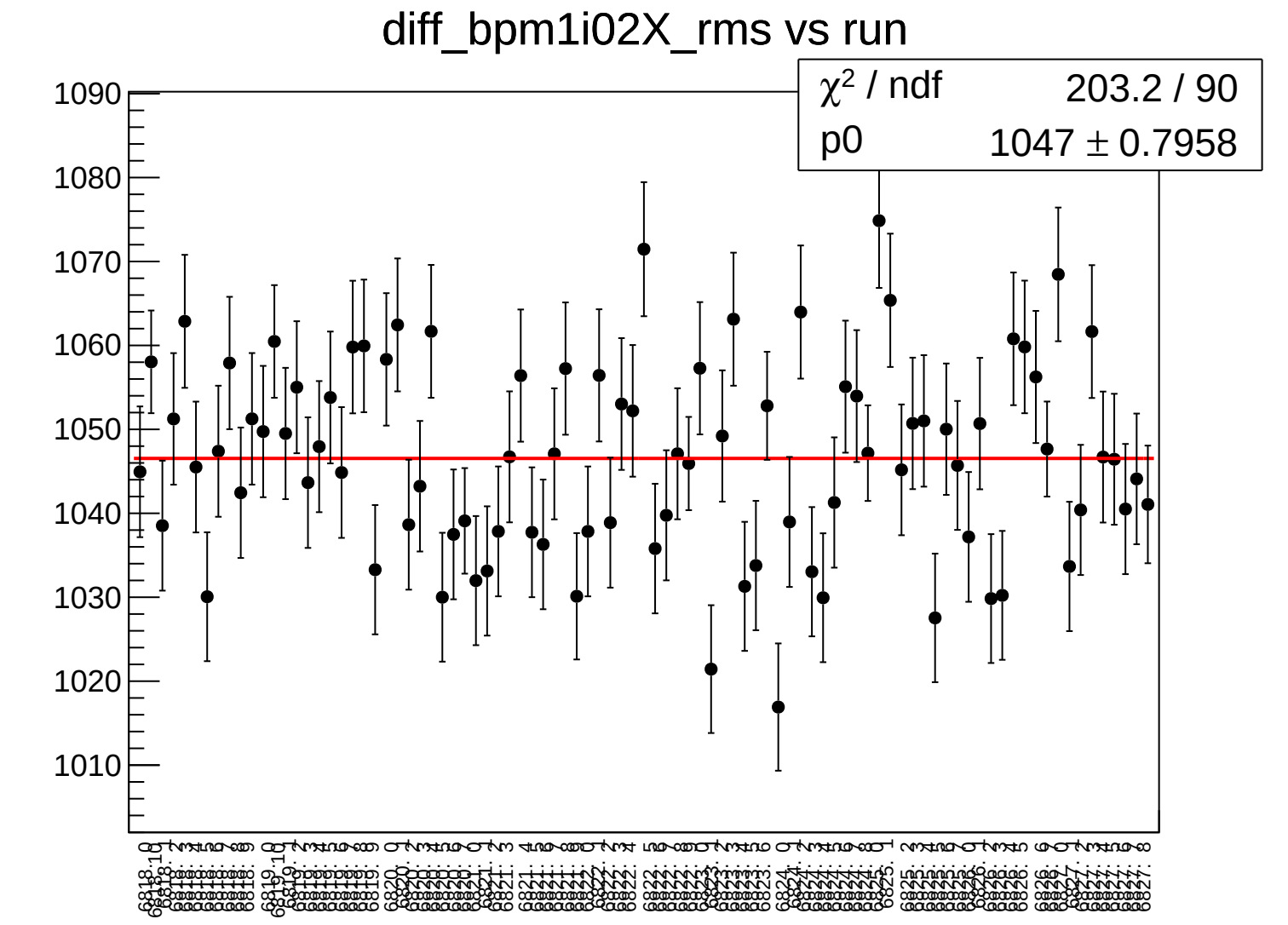

diff_bpm0i07Y_mean vs run
χ² / ndf 92.64 / 90
p0 4.579 ± 1.539
pull
Entries 91
Mean 87.98
Std Dev 49.49

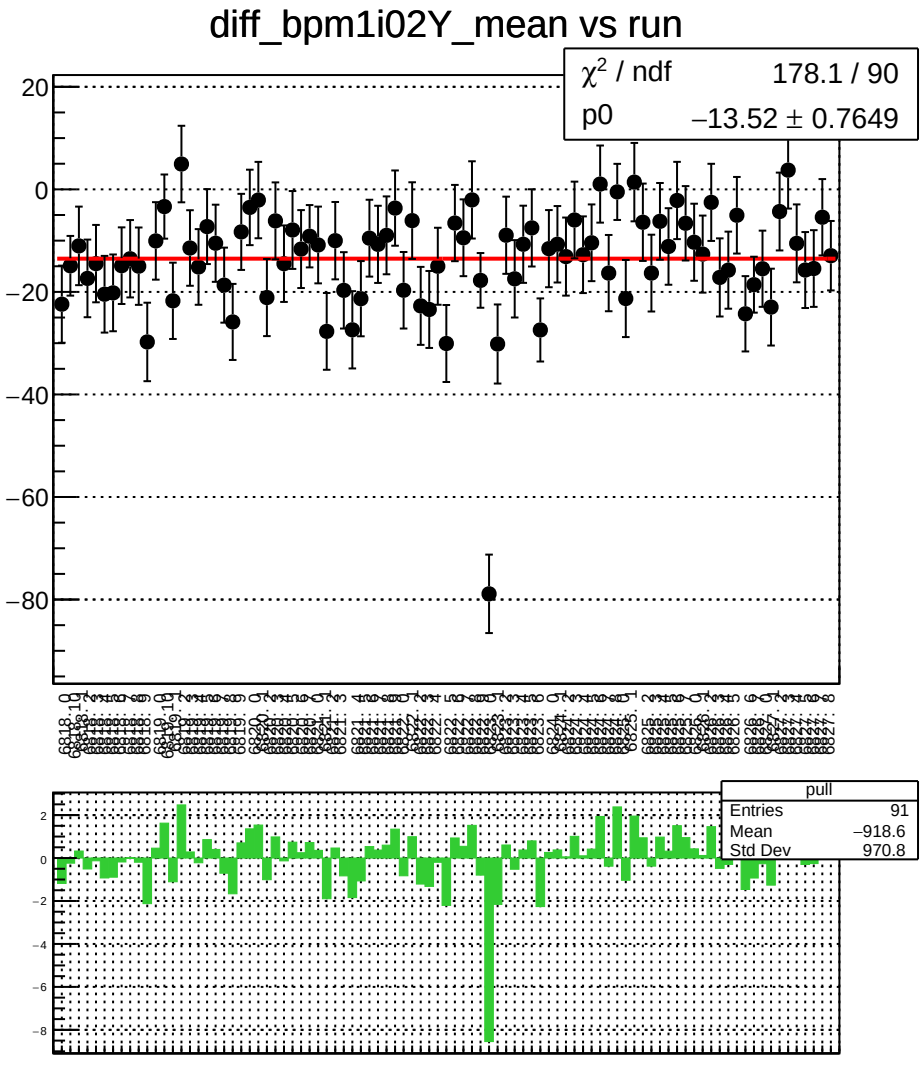

pull1D
Entries 91
Mean −0.01688
Std Dev 1.009

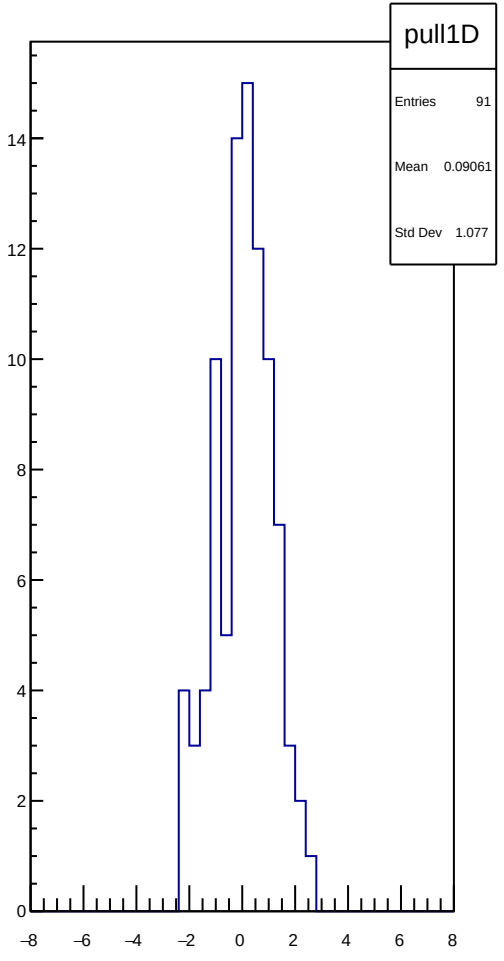

diff_bpm0i07Y_rms vs run
χ² / ndf 8037 / 90
p0 1428 ± 1.088
1900
1800
1700
1600
1500
1400
1300
1200

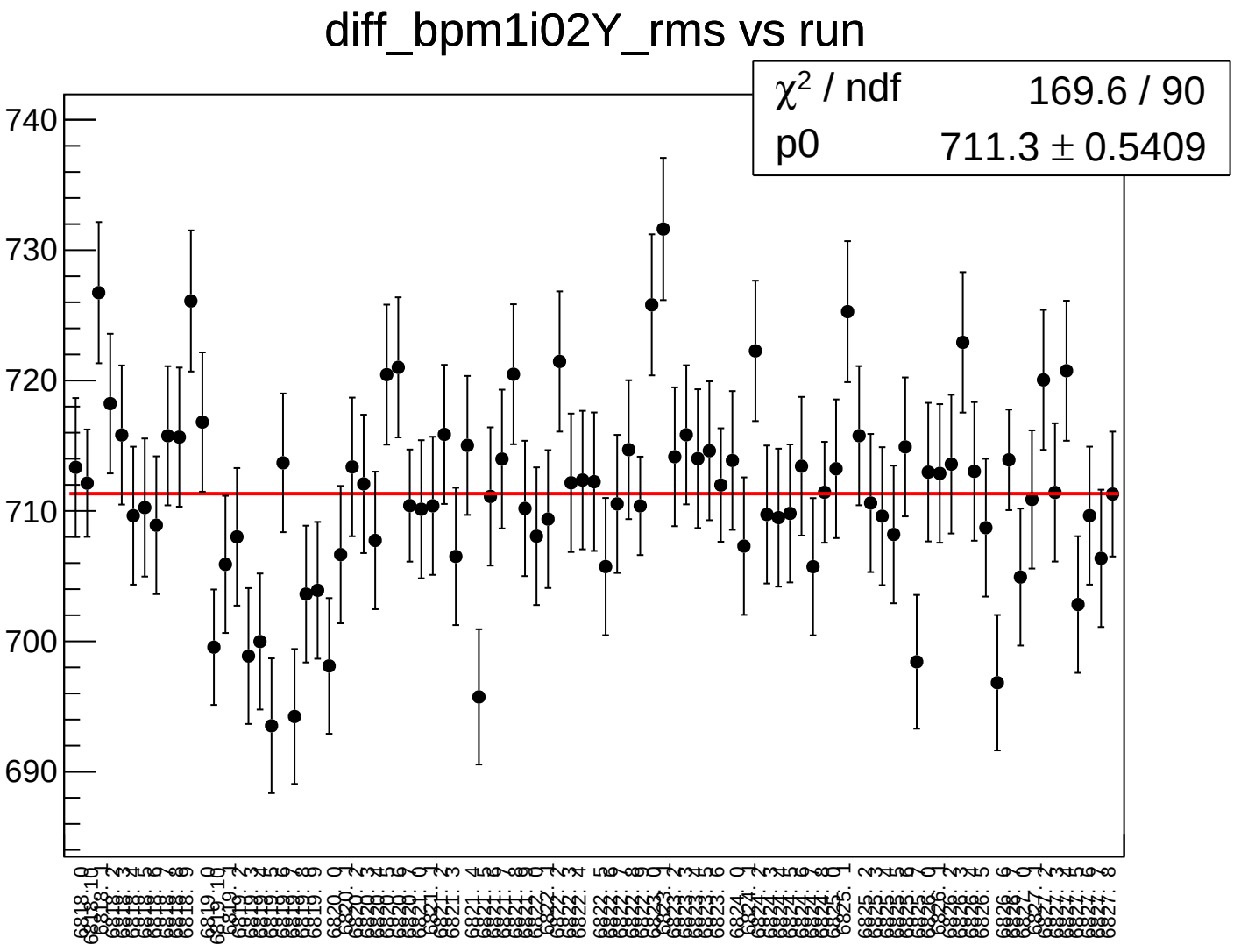

diff_bpm1i02X_mean vs run
χ² / ndf 93.3 / 90
p0 −117.5 ± 1.125
−80
−100
−120
−140
−160
pull
Entries 91
Mean 594.7
Std Dev 541.5
3
2
1
0
−1
−2

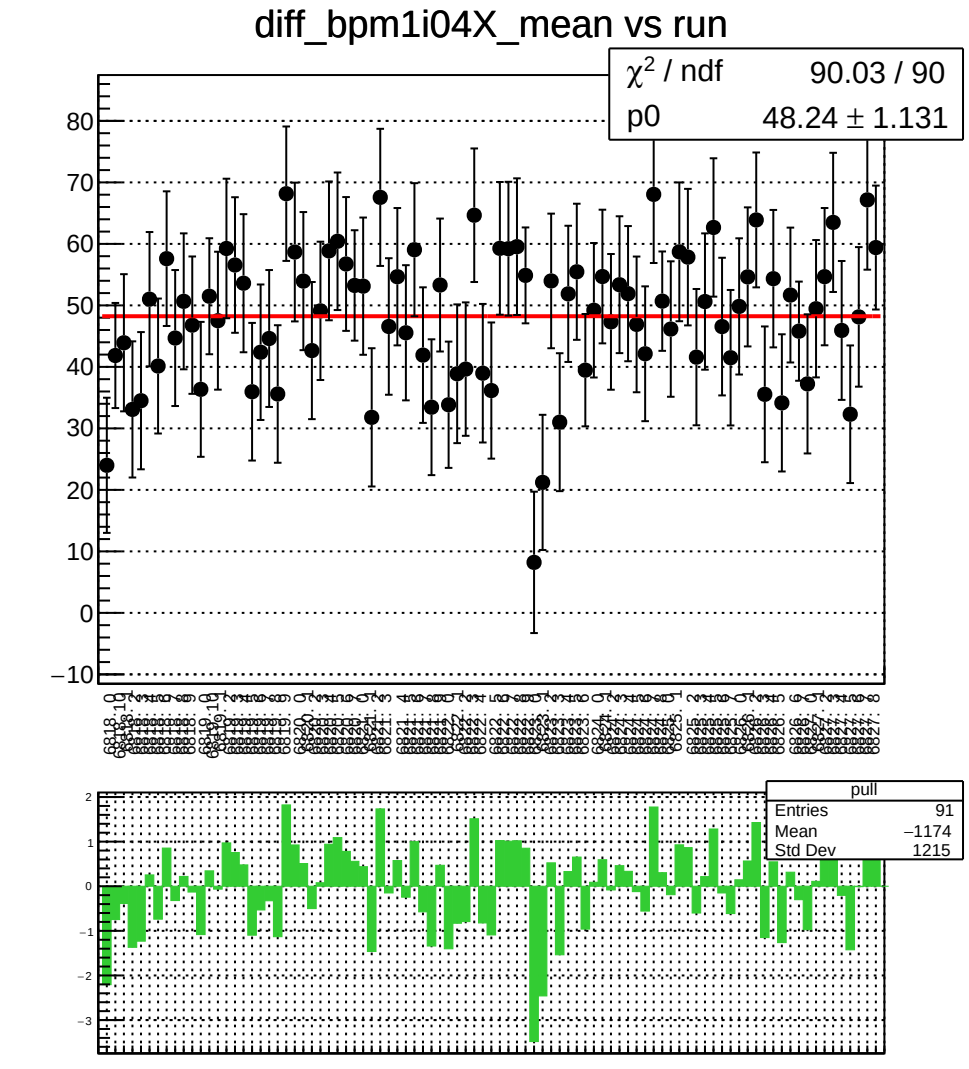

pull1D
Entries 91
Mean 0.004847
Std Dev 1.013
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

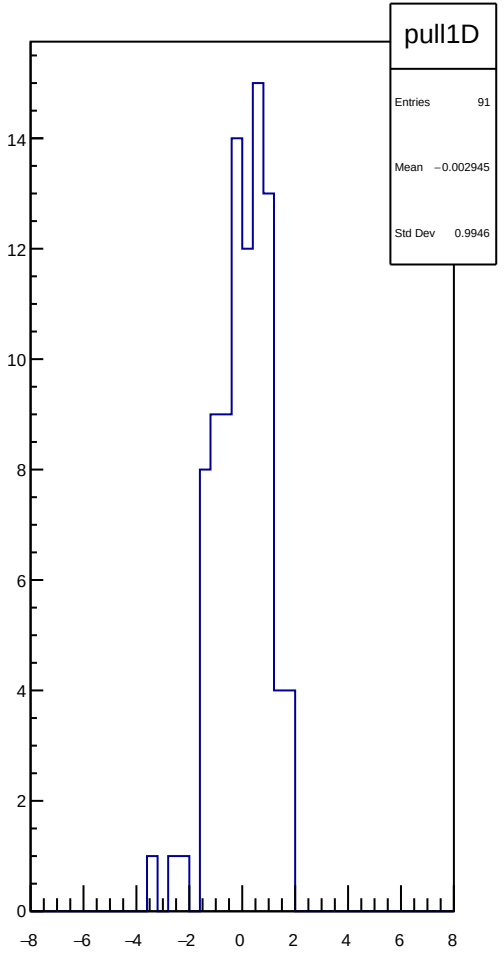

diff_bpm1i02X_rms vs run
χ² / ndf 203.2 / 90
p0 1047 ± 0.7958
1090
1080
1070
1060
1050
1040
1030
1020
1010

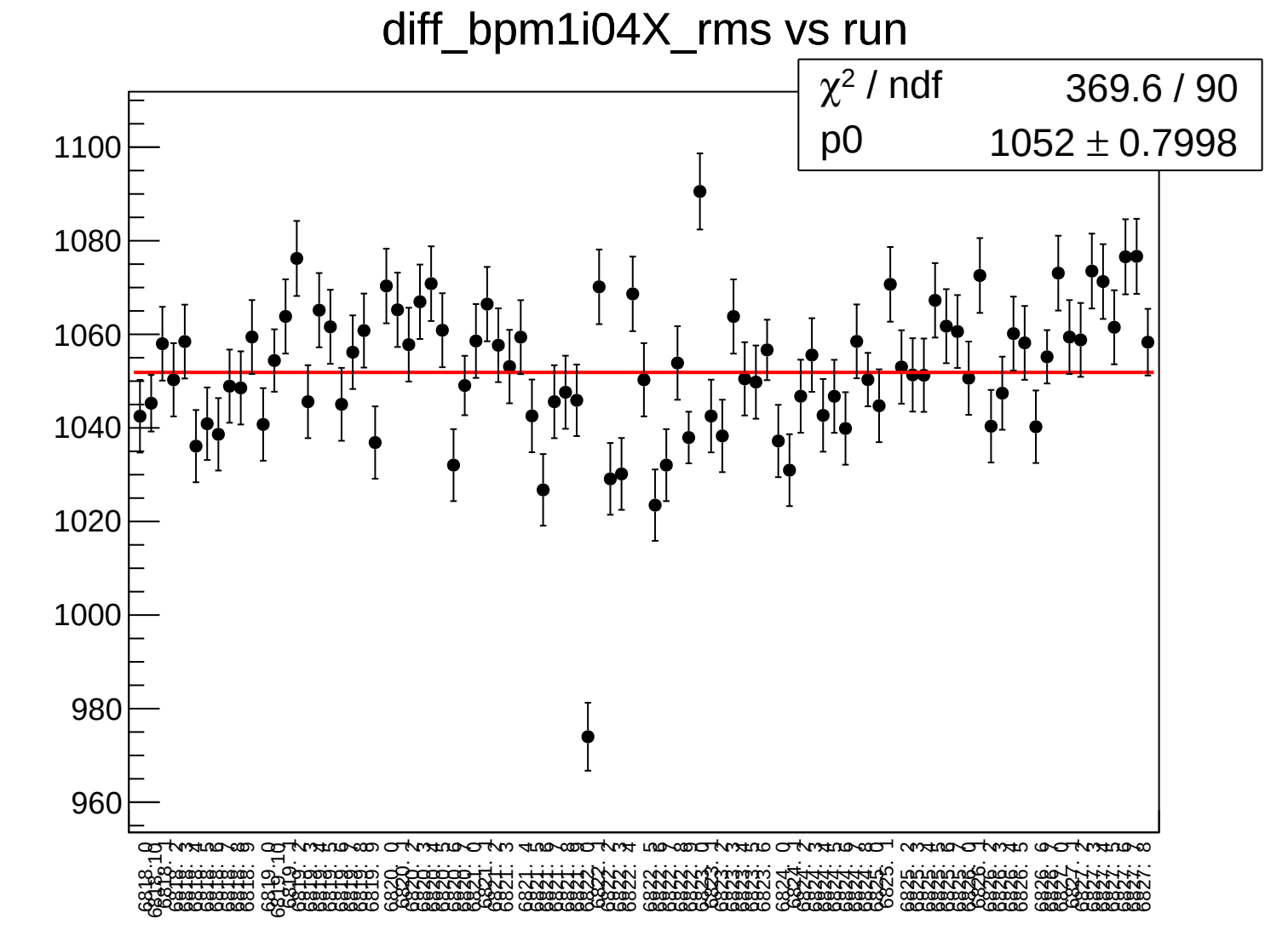

diff_bpm1i02Y_mean vs run
χ² / ndf 178.1 / 90
p0 −13.52 ± 0.7649
pull
Entries 91
Mean −918.6
Std Dev 970.8

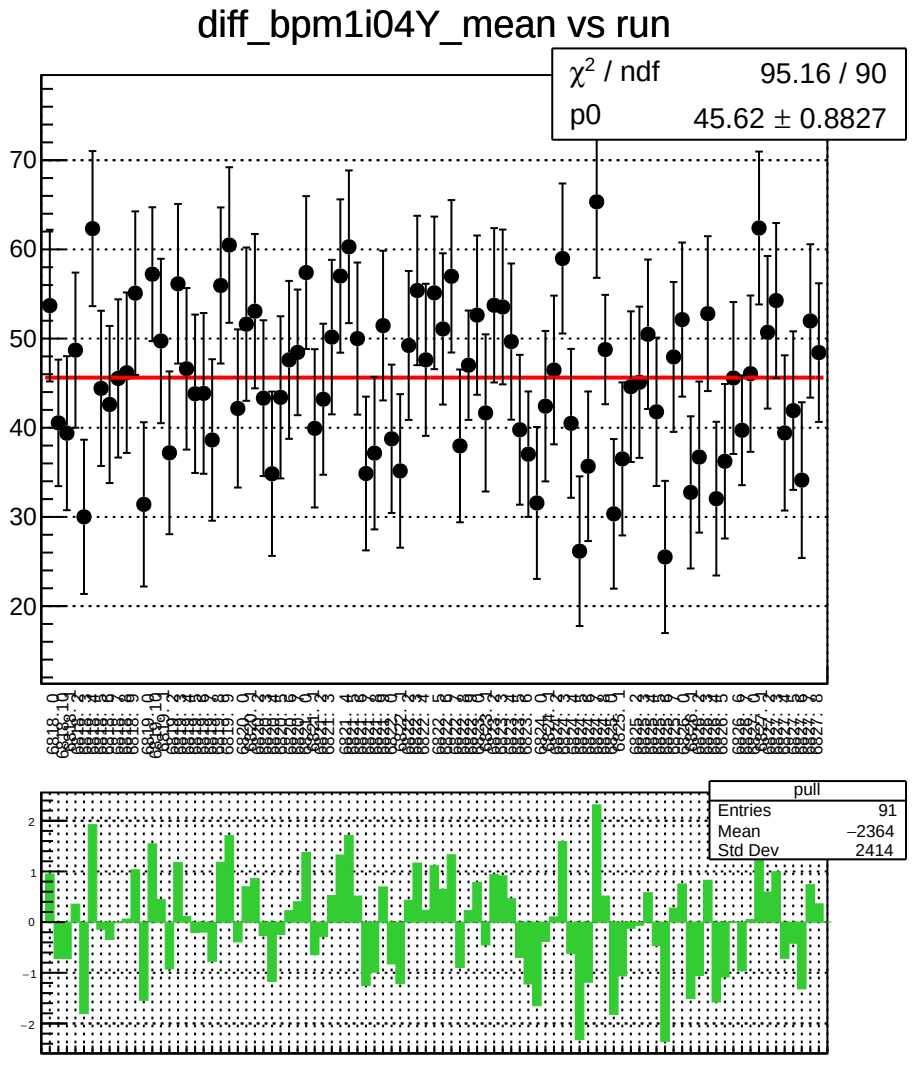

pull1D
Entries 91
Mean 0.09061
Std Dev 1.077

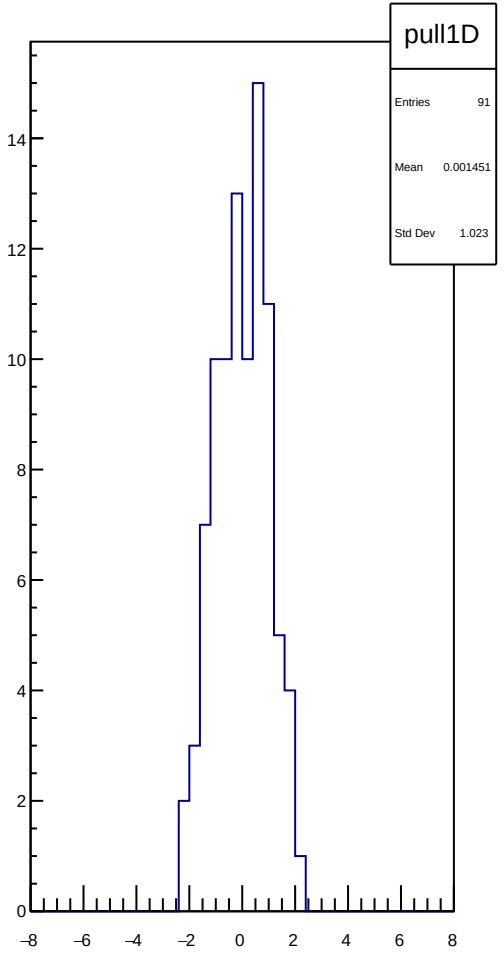

diff_bpm1i02Y_rms vs run
χ² / ndf 169.6 / 90
p0 711.3 ± 0.5409
740
730
720
710
700
690

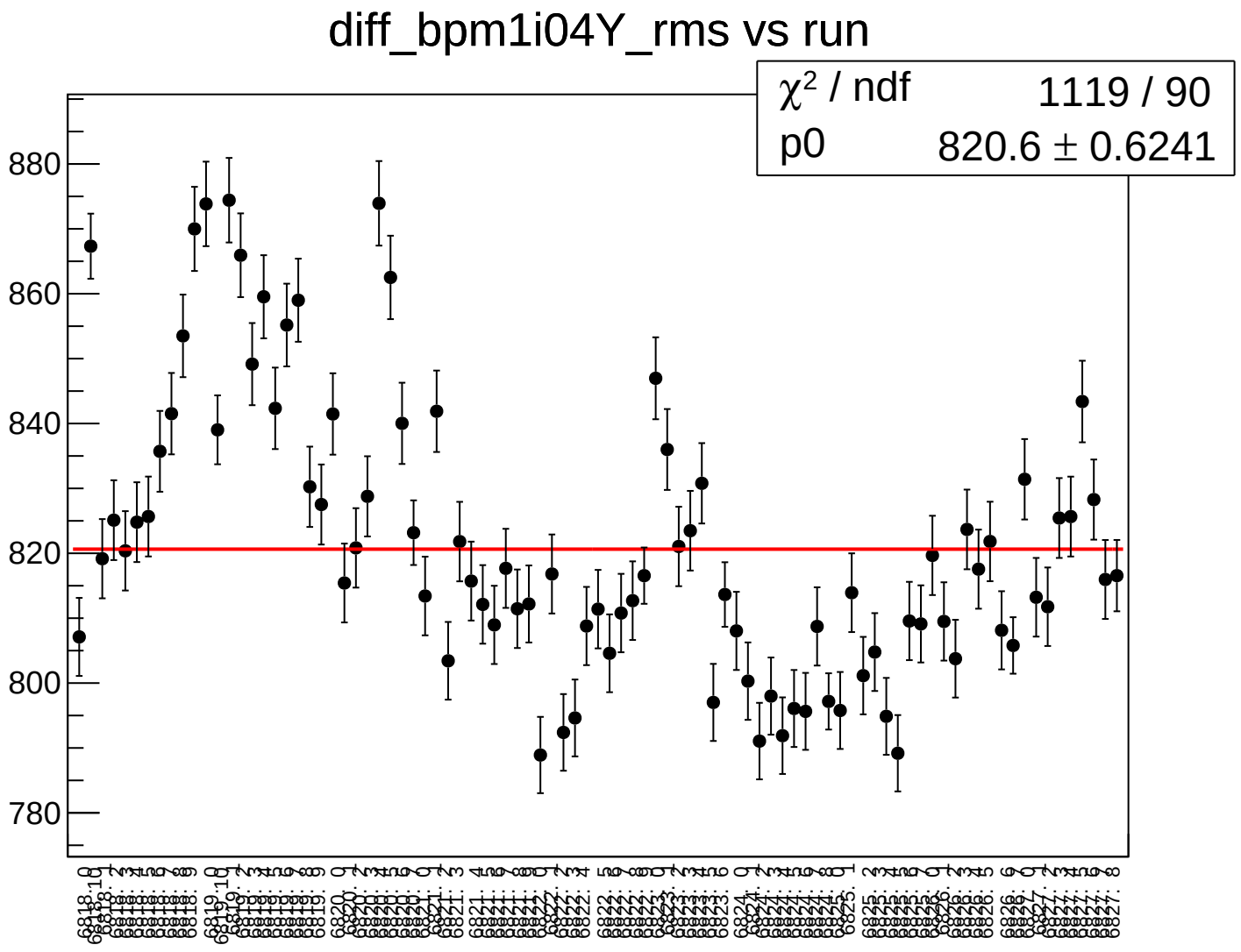

diff_bpm1i04X_mean vs run
χ² / ndf 90.03 / 90
p0 48.24 ± 1.131
pull
Entries 91
Mean −1174
Std Dev 1215

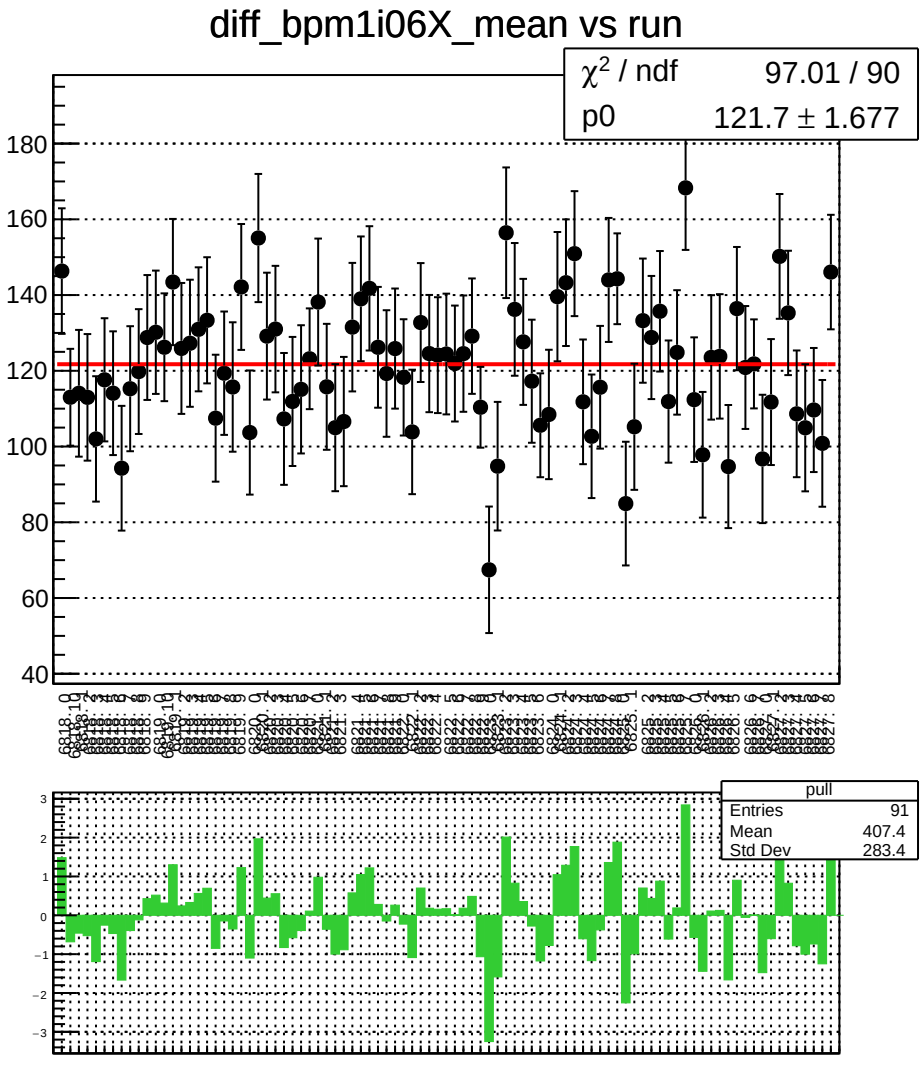

pull1D
Entries 91
Mean −0.002945
Std Dev 0.9946

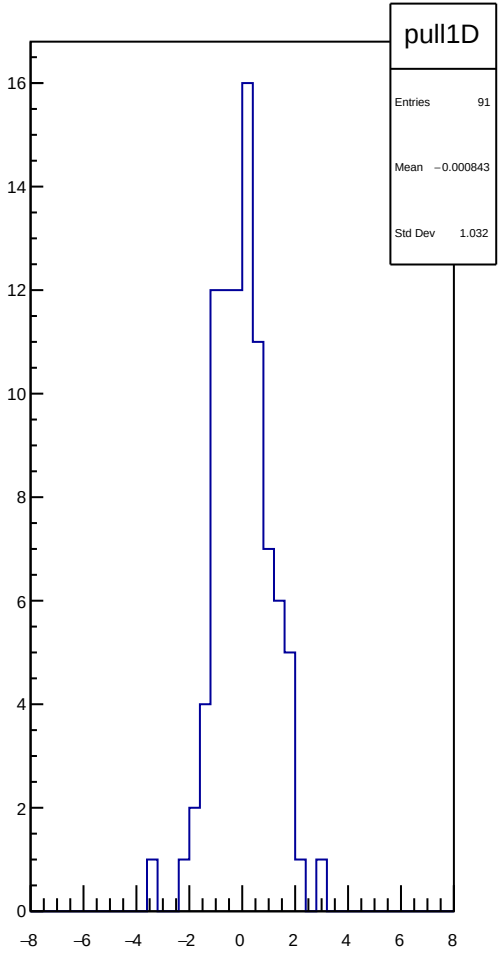

diff_bpm1i04X_rms vs run
χ² / ndf 369.6 / 90
p0 1052 ± 0.7998
1100
1080
1060
1040
1020
1000
980
960

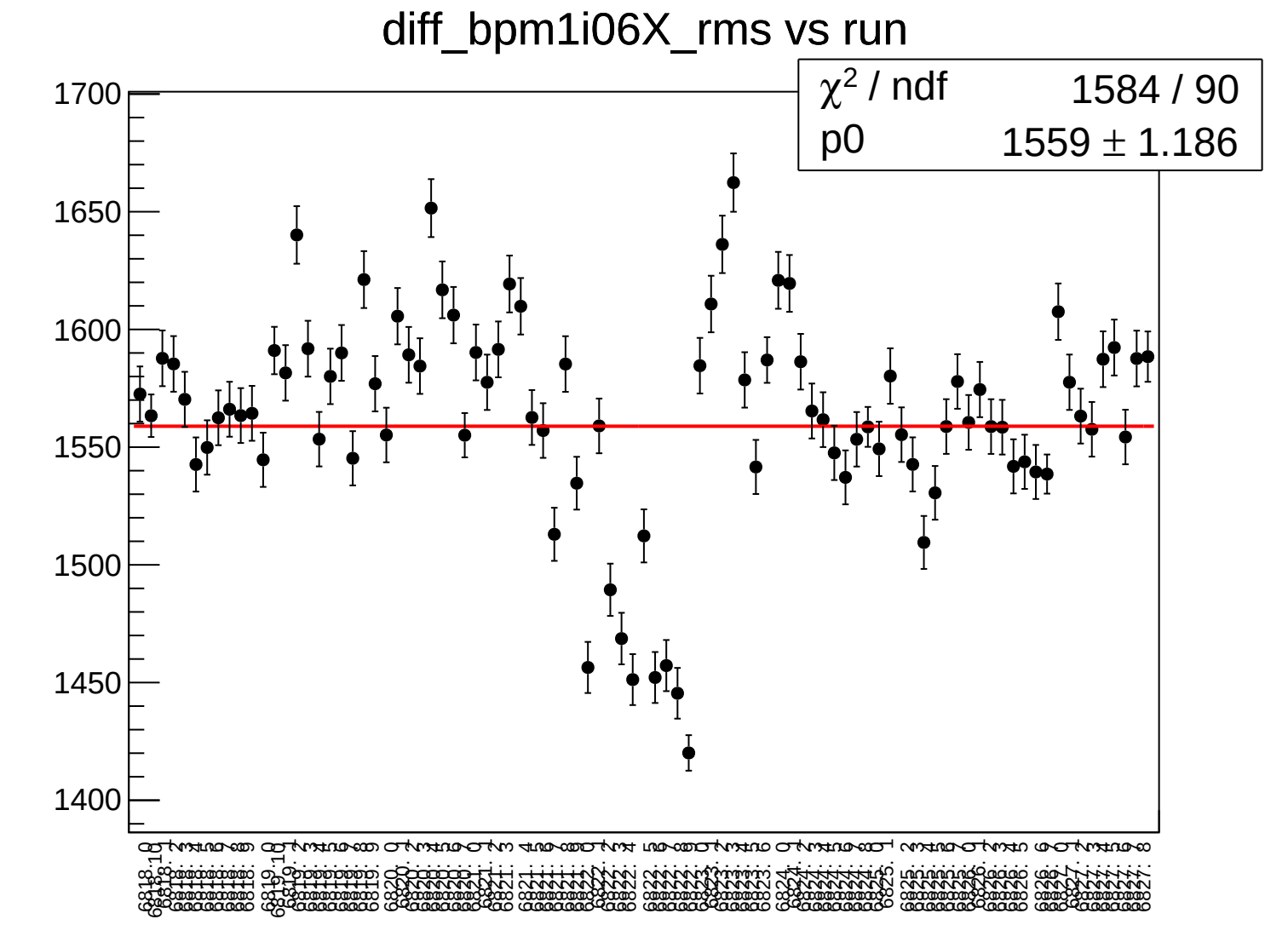

diff_bpm1i04Y_mean vs run
χ^2 / ndf 95.16 / 90
p0 45.62 ± 0.8827
pull
Entries 91
Mean −2364
Std Dev 2414

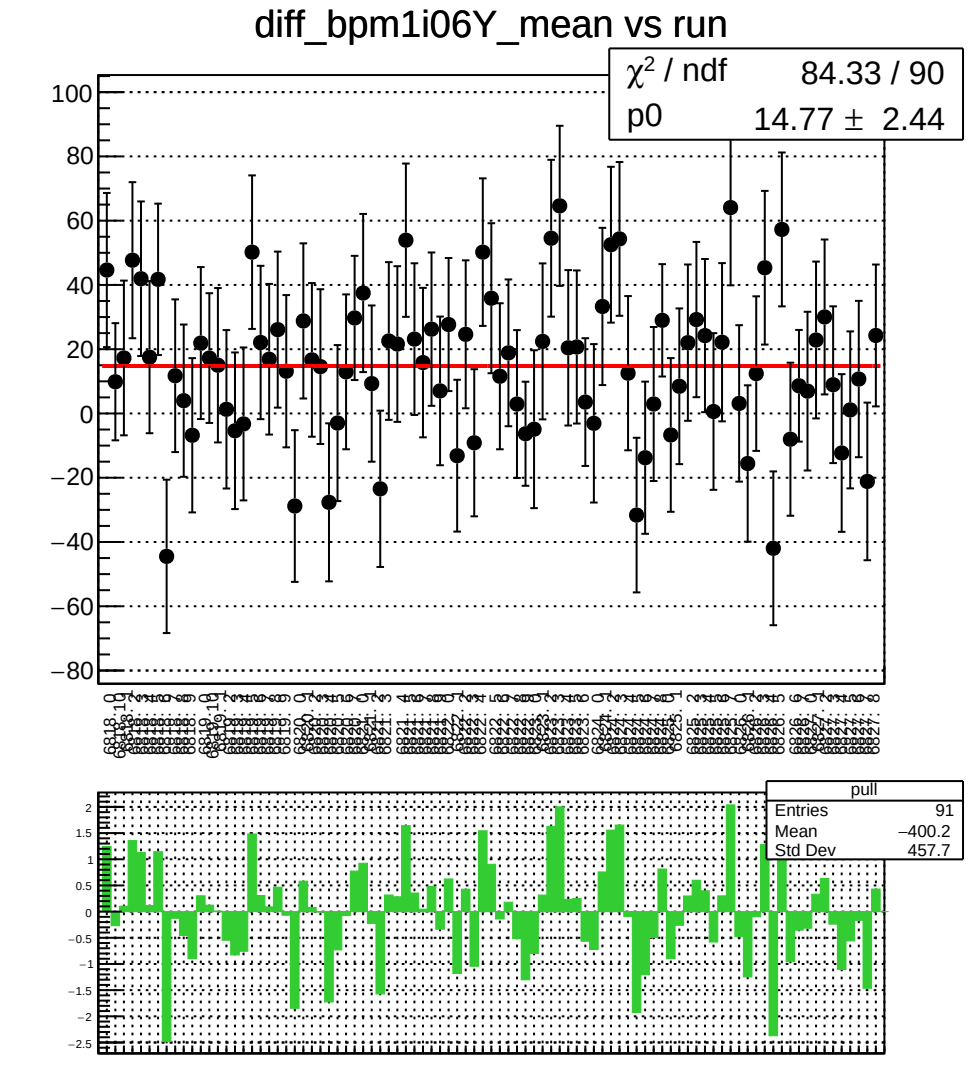

pull1D
Entries 91
Mean 0.001451
Std Dev 1.023

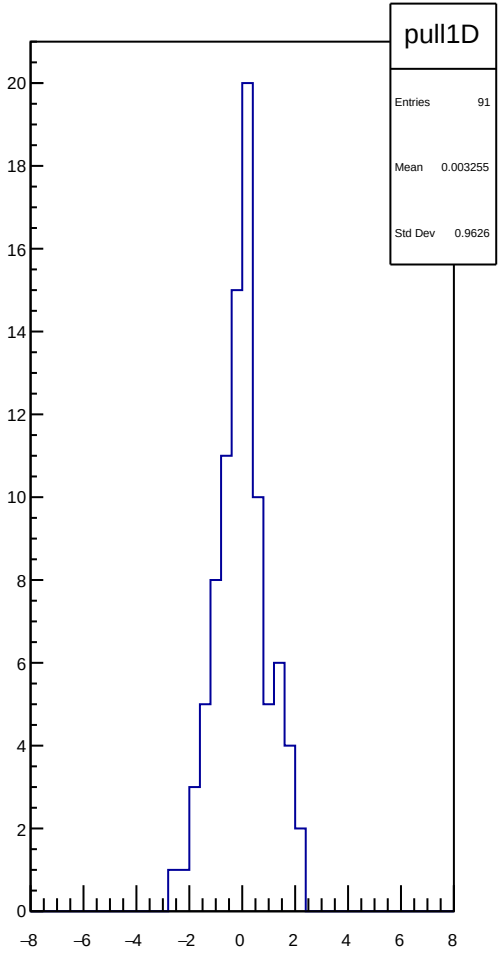

diff_bpm1i04Y_rms vs run
χ² / ndf 1119 / 90
p0 820.6 ± 0.6241
880
860
840
820
800
780

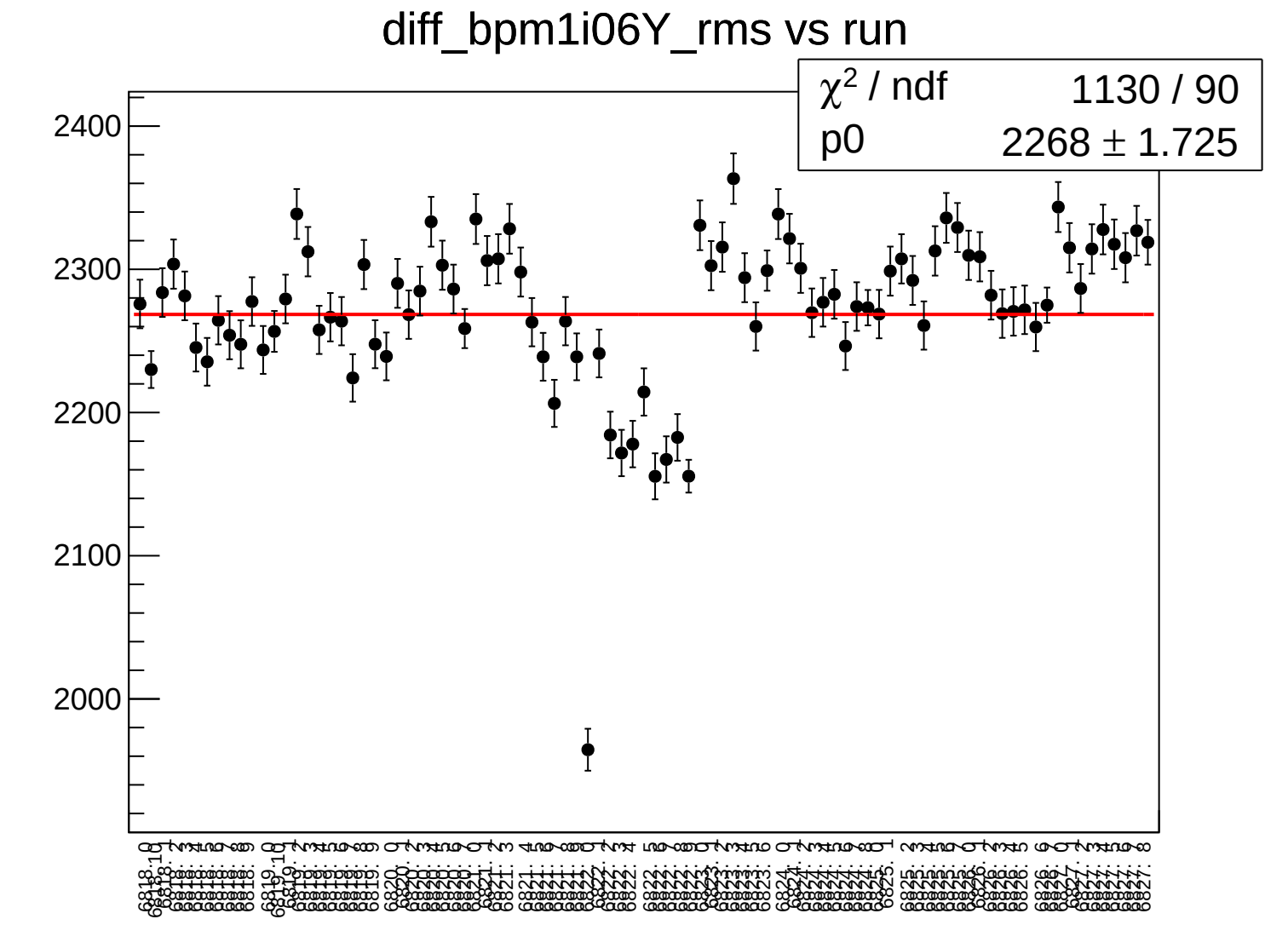

diff_bpm1i06X_mean vs run
χ^2 / ndf 97.01 / 90
p0 121.7 ± 1.677
pull
Entries 91
Mean 407.4
Std Dev 283.4

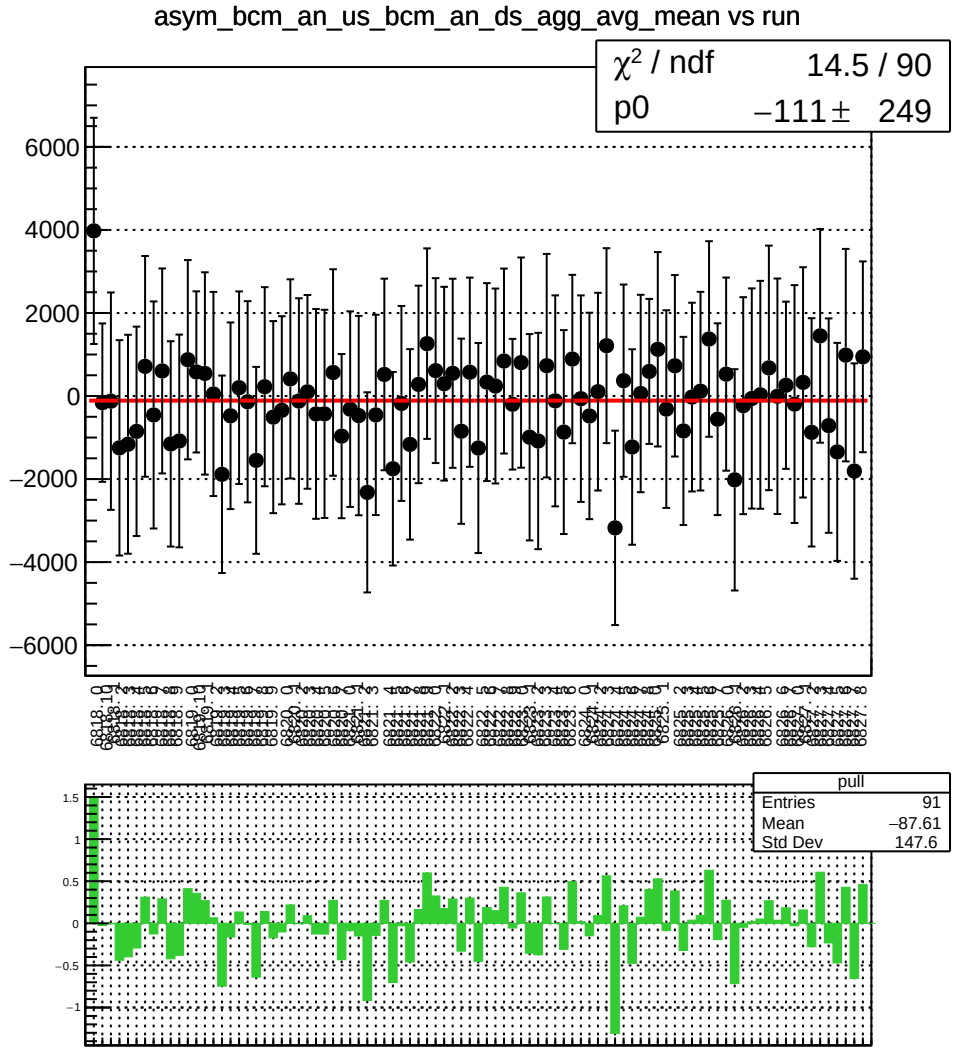

pull1D
Entries 91
Mean −0.000843
Std Dev 1.032

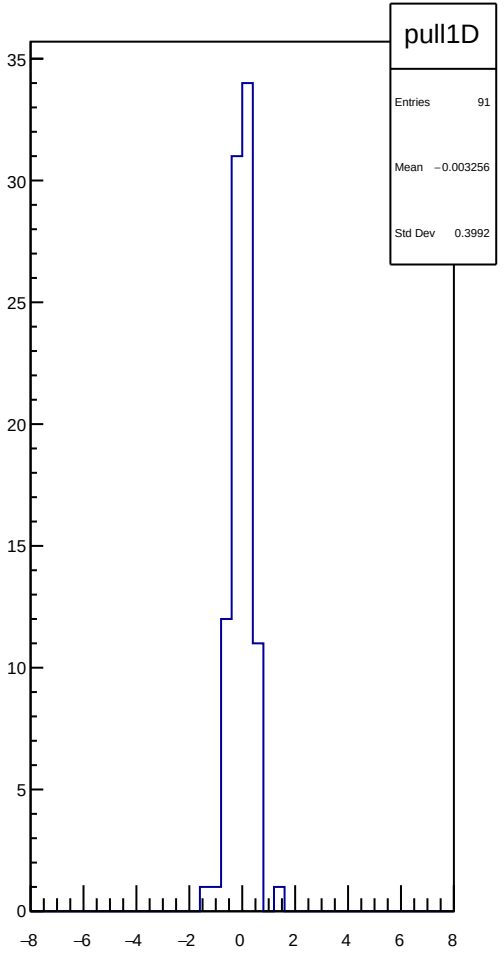

diff_bpm1i06X_rms vs run
χ² / ndf 1584 / 90
p0 1559 ± 1.186
1700
1650
1600
1550
1500
1450
1400

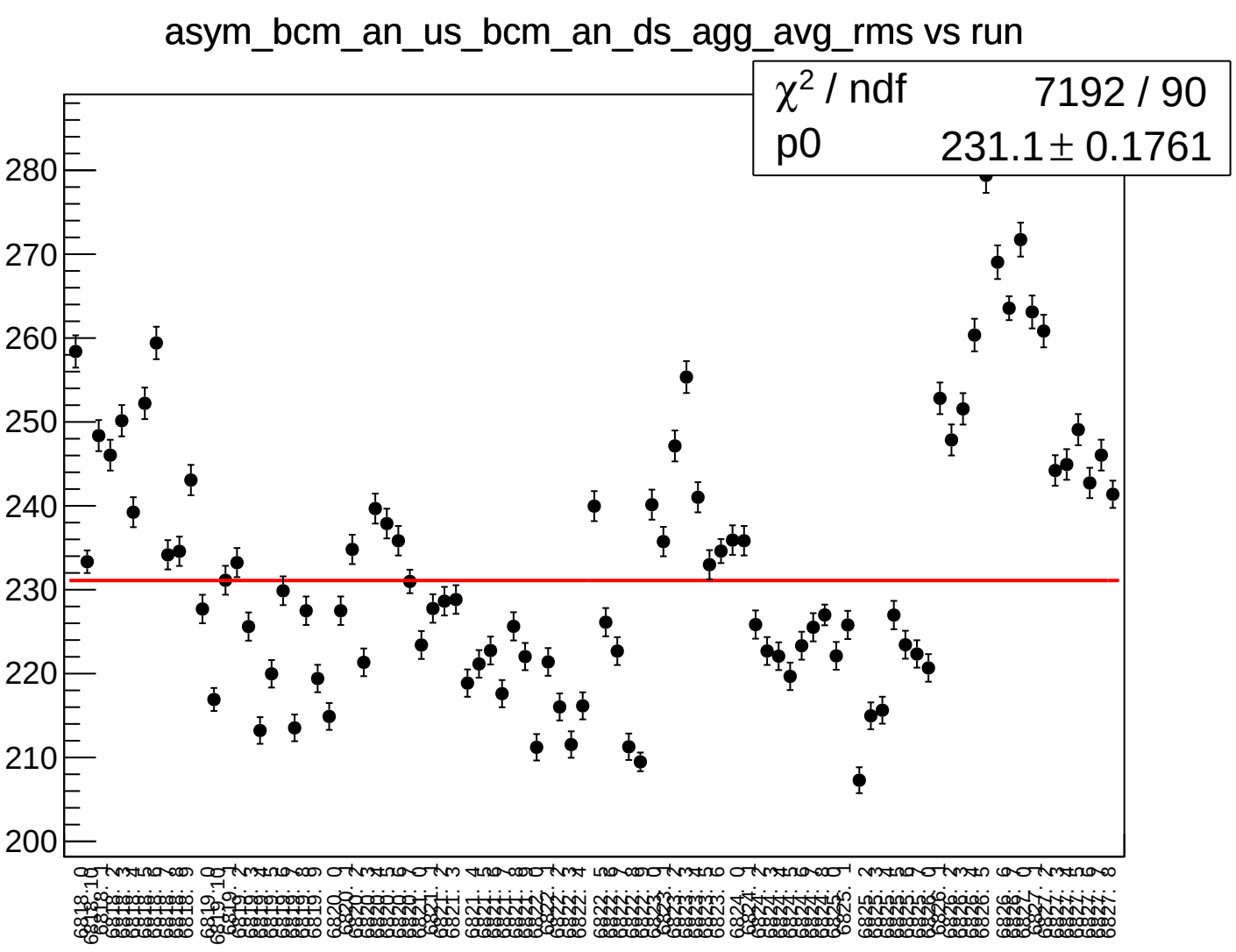

diff_bpm1i06Y_mean vs run
χ² / ndf 84.33 / 90
p0 14.77 ± 2.44
pull
Entries 91
Mean −400.2
Std Dev 457.7

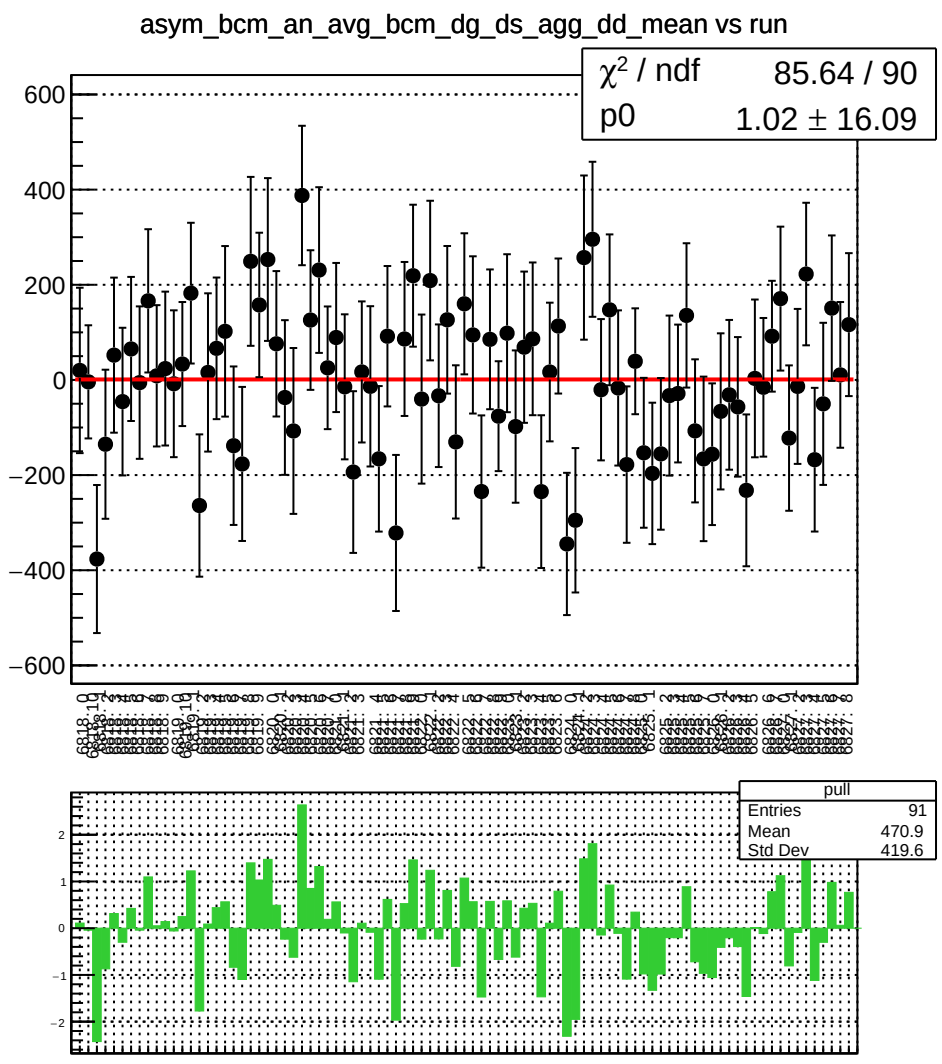

pull1D
Entries 91
Mean 0.003255
Std Dev 0.9626

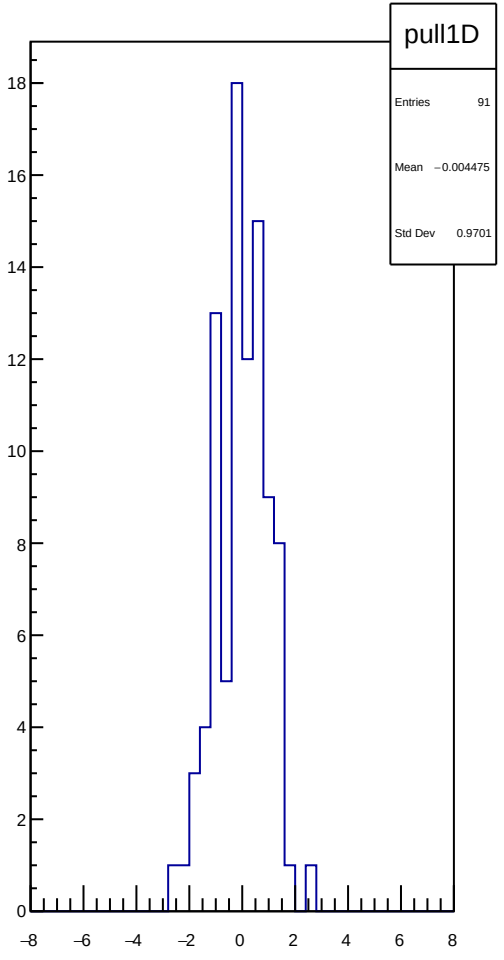

diff_bpm1i06Y_rms vs run
χ² / ndf 1130 / 90
p0 2268 ± 1.725
2400
2300
2200
2100
2000

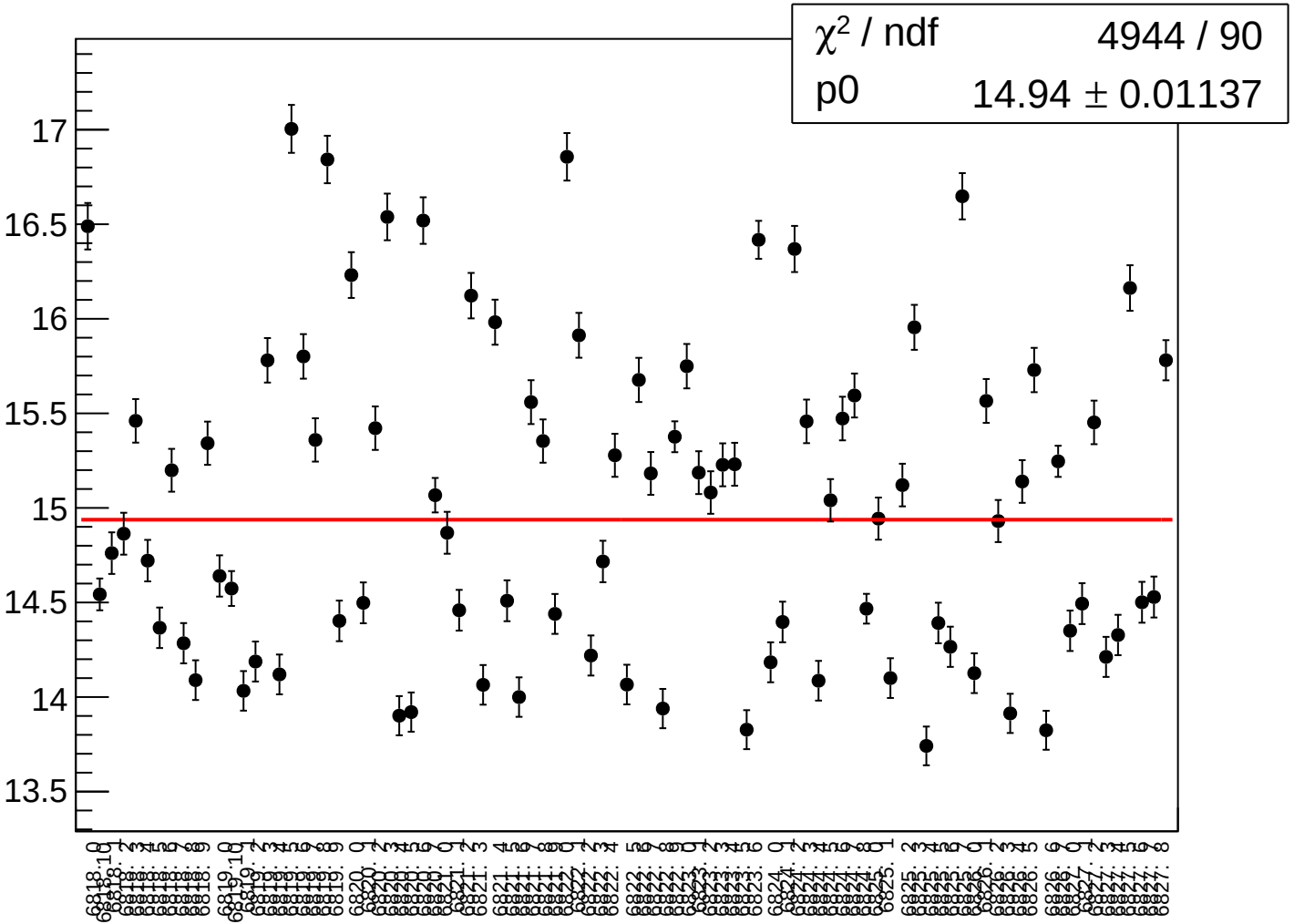

asym_bcm_an_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 14.5 / 90
p0 −111 ± 249
pull
Entries 91
Mean −87.61
Std Dev 147.6

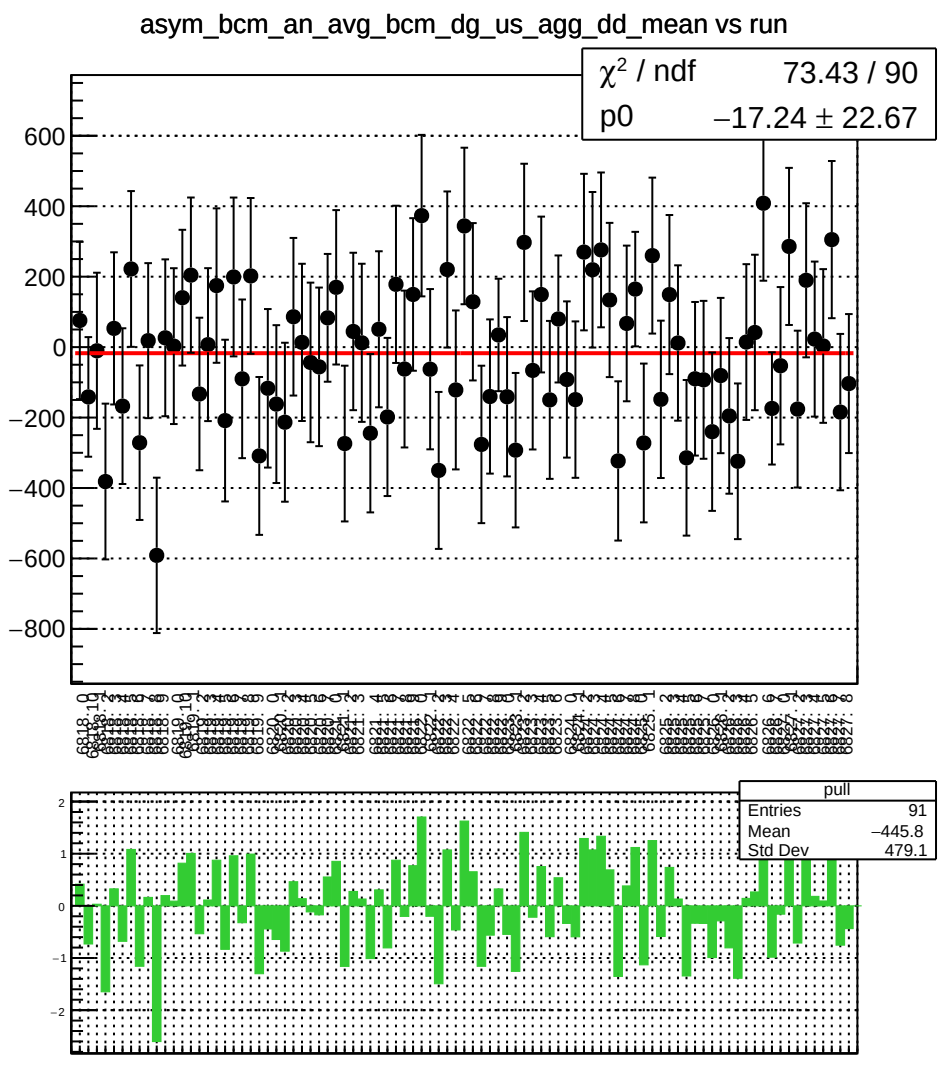

pull1D
Entries 91
Mean −0.003256
Std Dev 0.3992

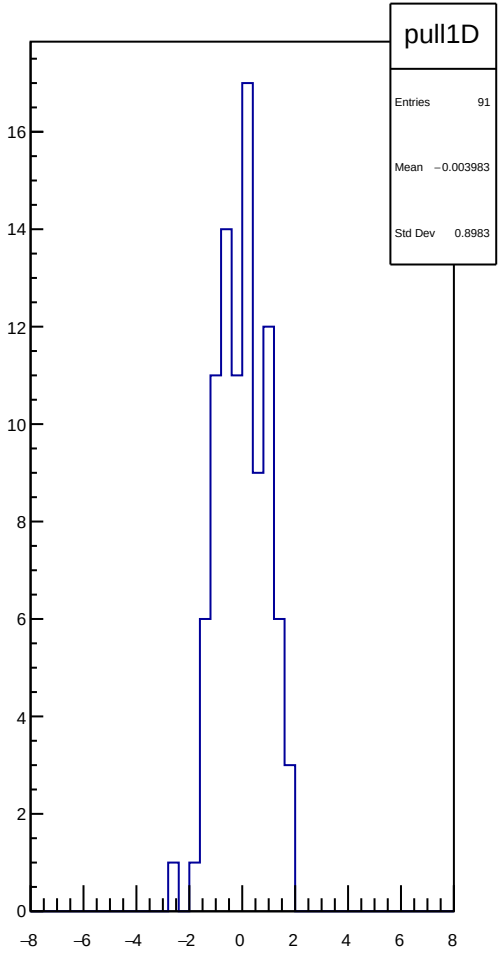

asym_bcm_an_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7192 / 90
p0 231.1 ± 0.1761
280
270
260
250
240
230
220
210
200

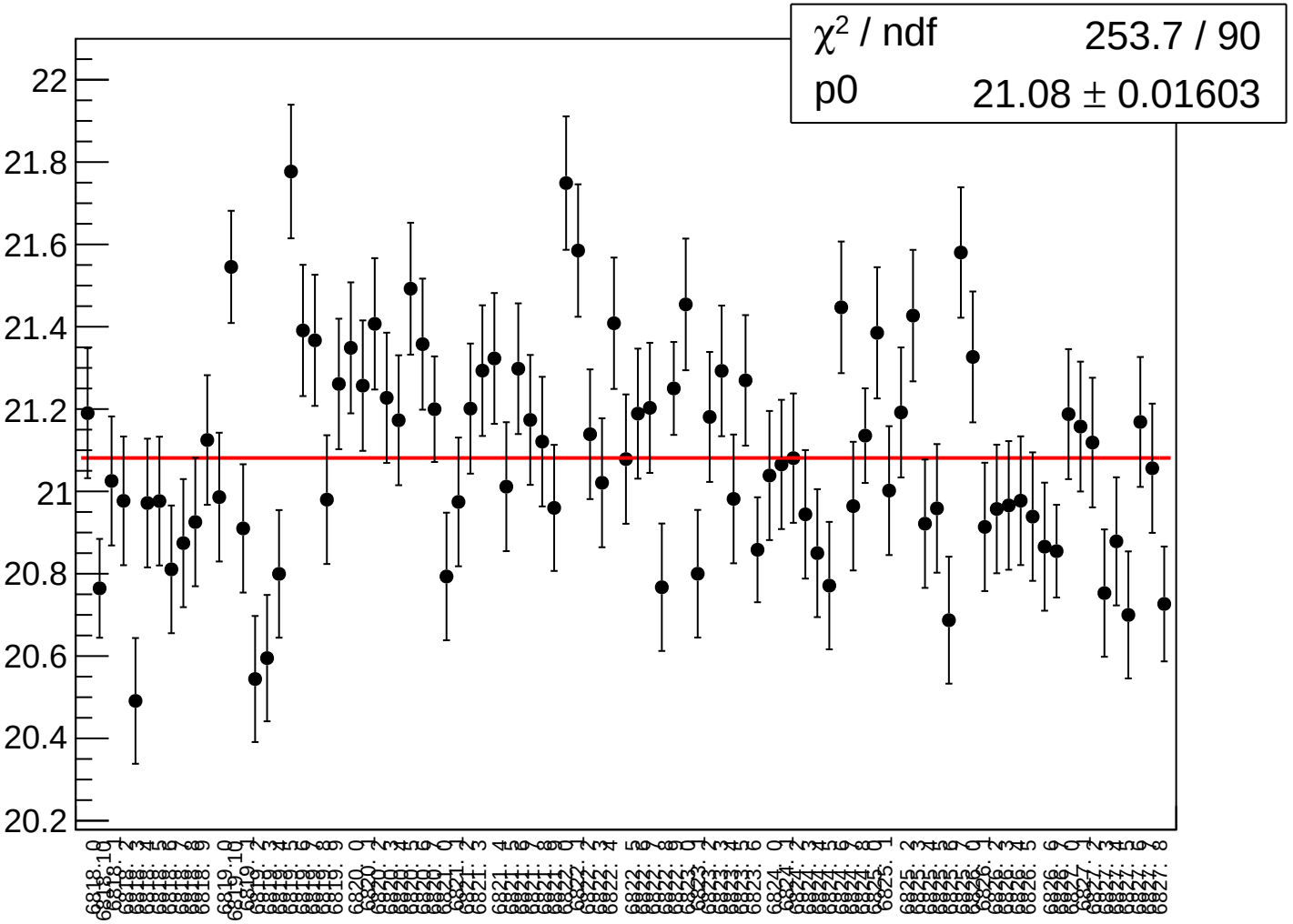

asym_bcm_an_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 85.64 / 90
p0 1.02 ± 16.09
pull
Entries 91
Mean 470.9
Std Dev 419.6

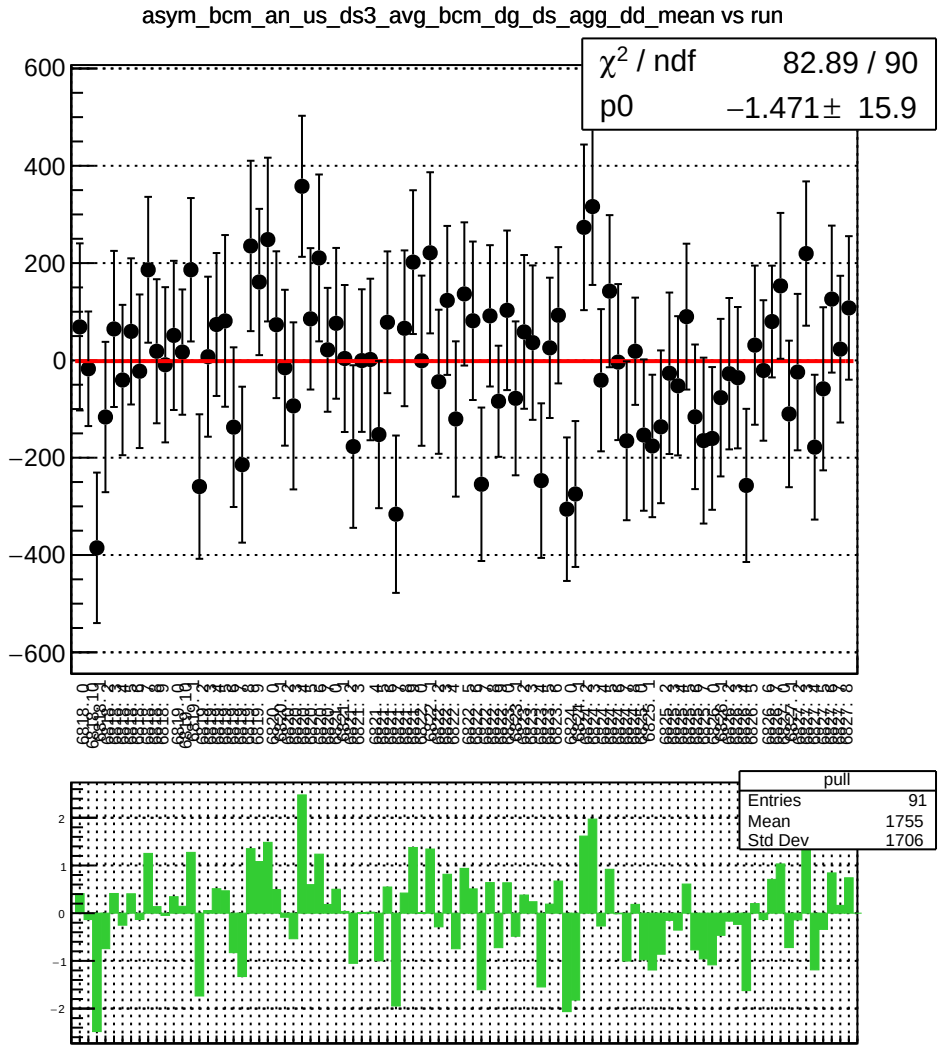

pull1D
Entries 91
Mean −0.004475
Std Dev 0.9701

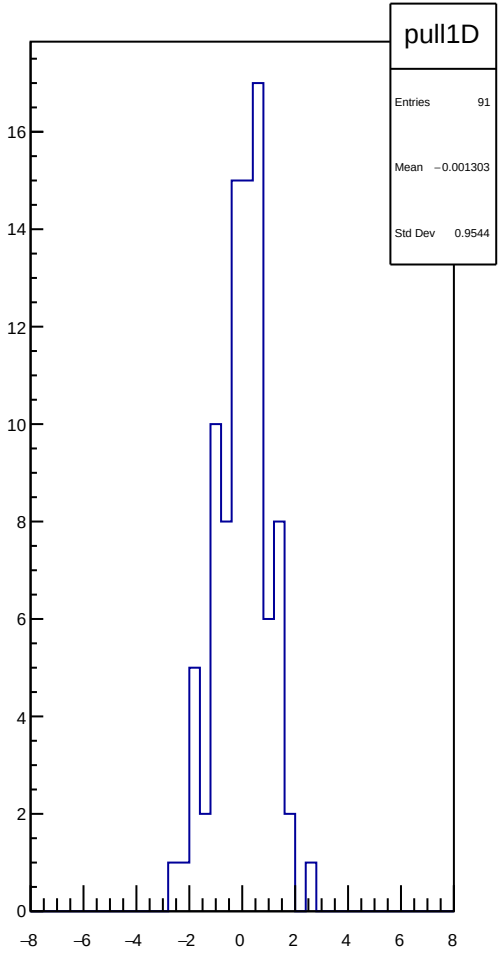

asym_bcm_an_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 4944 / 90
p0 14.94 ± 0.01137
17
16.5
16
15.5
15
14.5
14
13.5

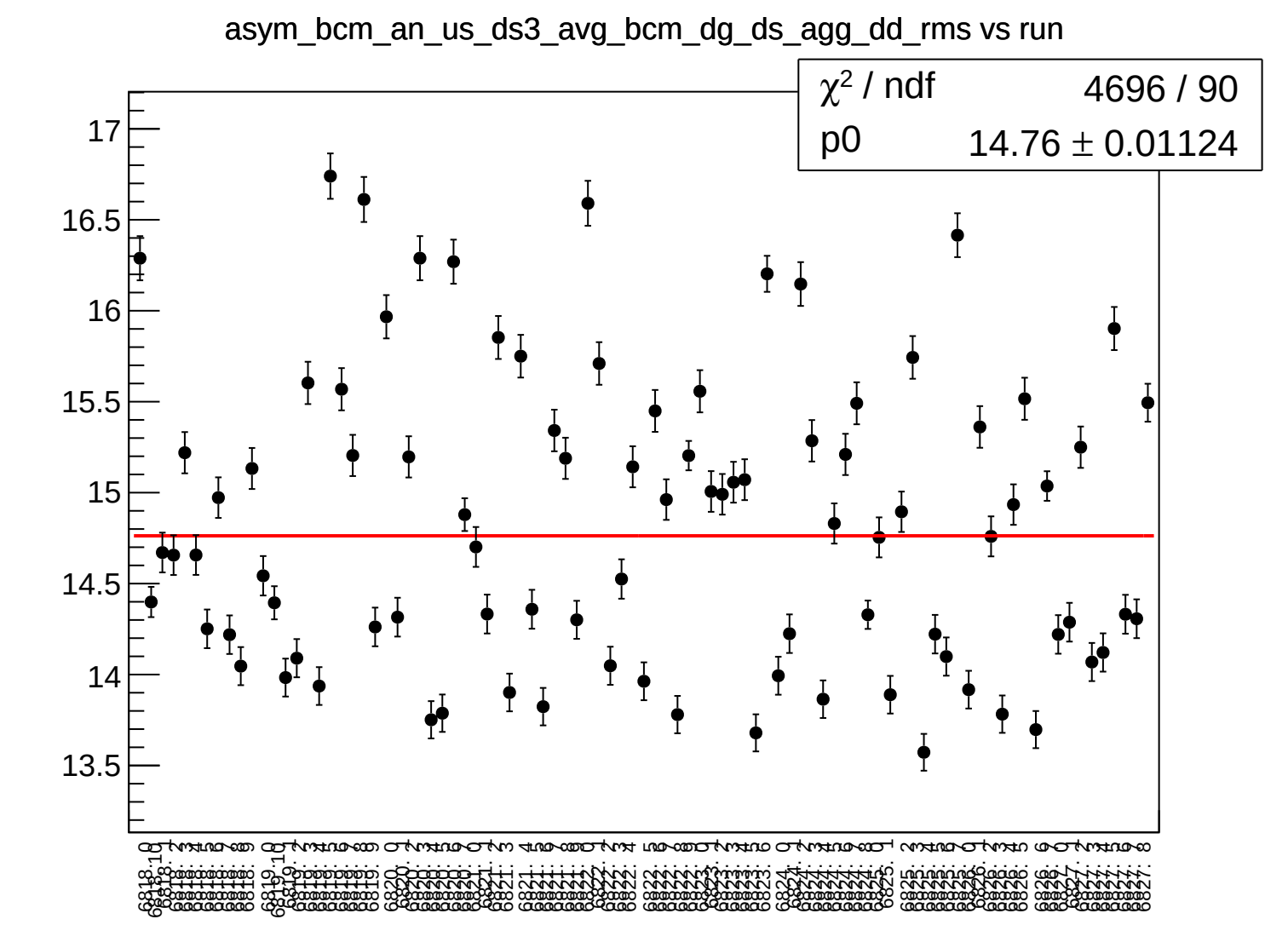

asym_bcm_an_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 73.43 / 90
p0 −17.24 ± 22.67
pull
Entries 91
Mean −445.8
Std Dev 479.1

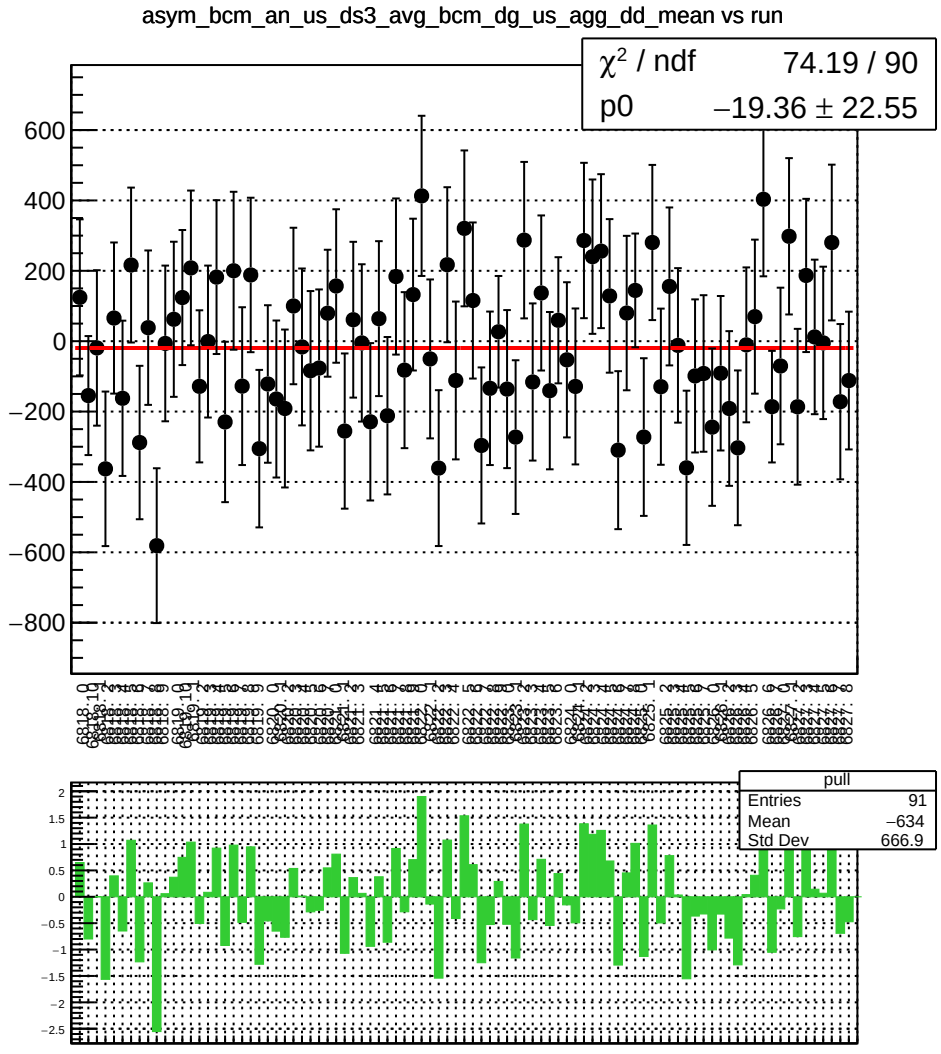

pull1D
Entries 91
Mean −0.003983
Std Dev 0.8983

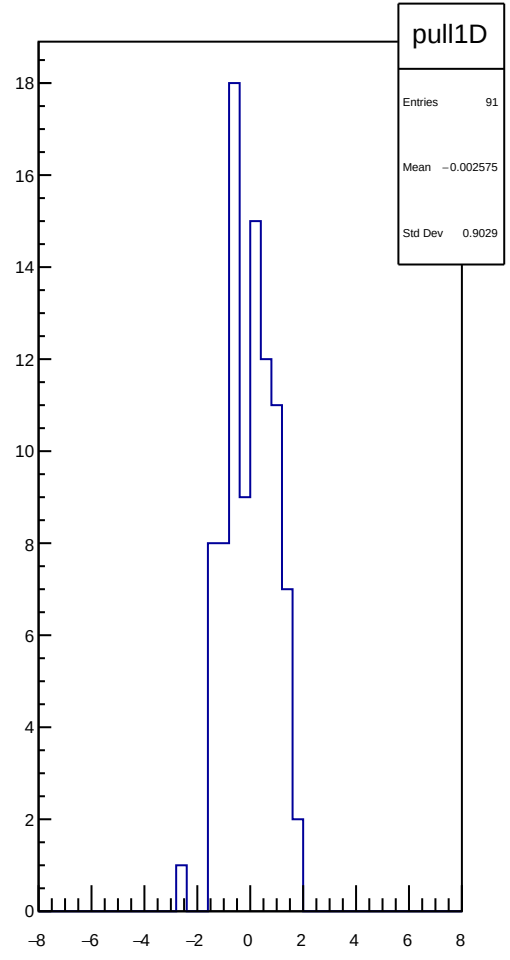

asym_bcm_an_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 253.7 / 90
p0 21.08 ± 0.01603
22
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2

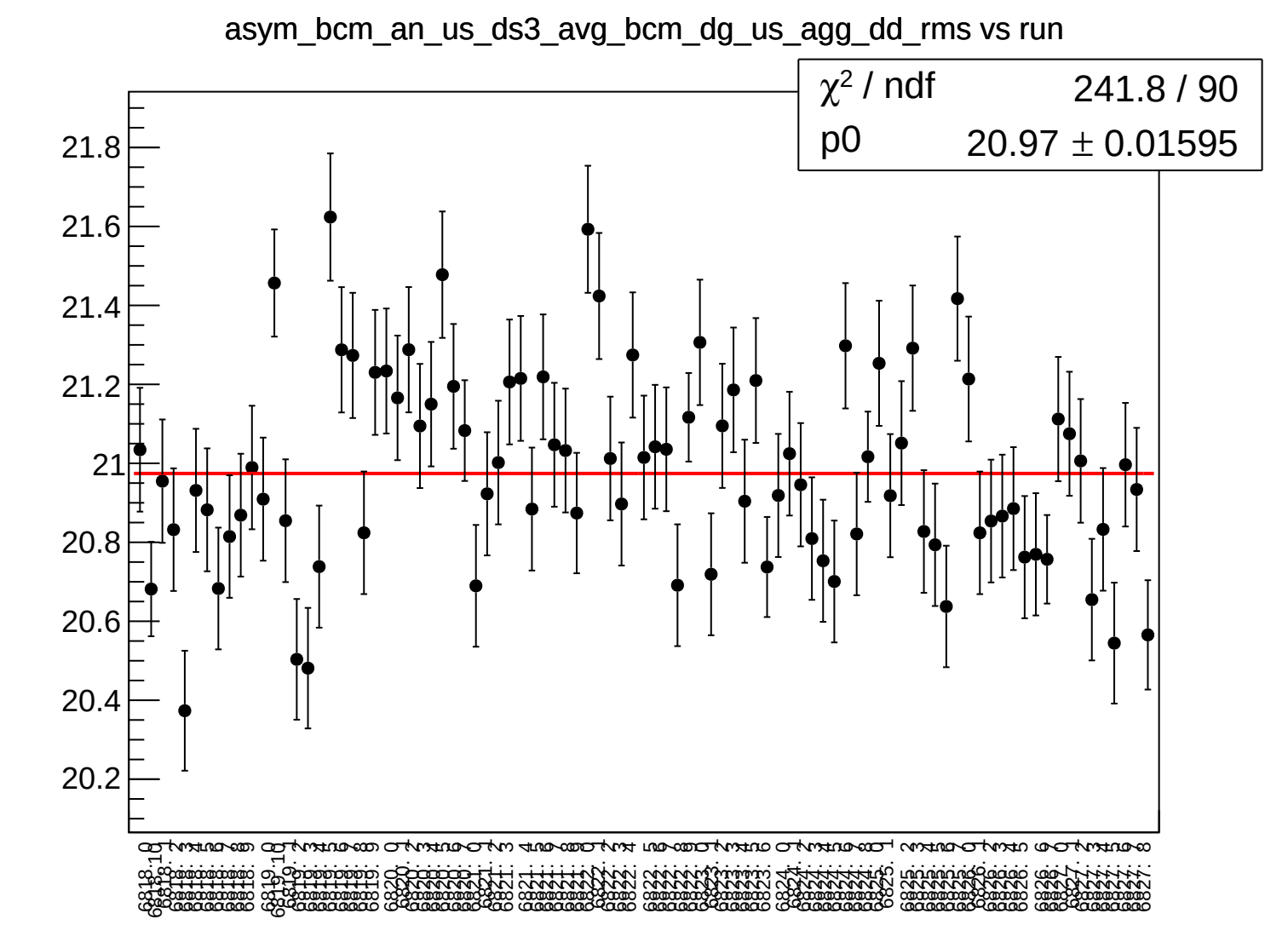

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 82.89 / 90
p0 −1.471± 15.9
pull
Entries 91
Mean 1755
Std Dev 1706

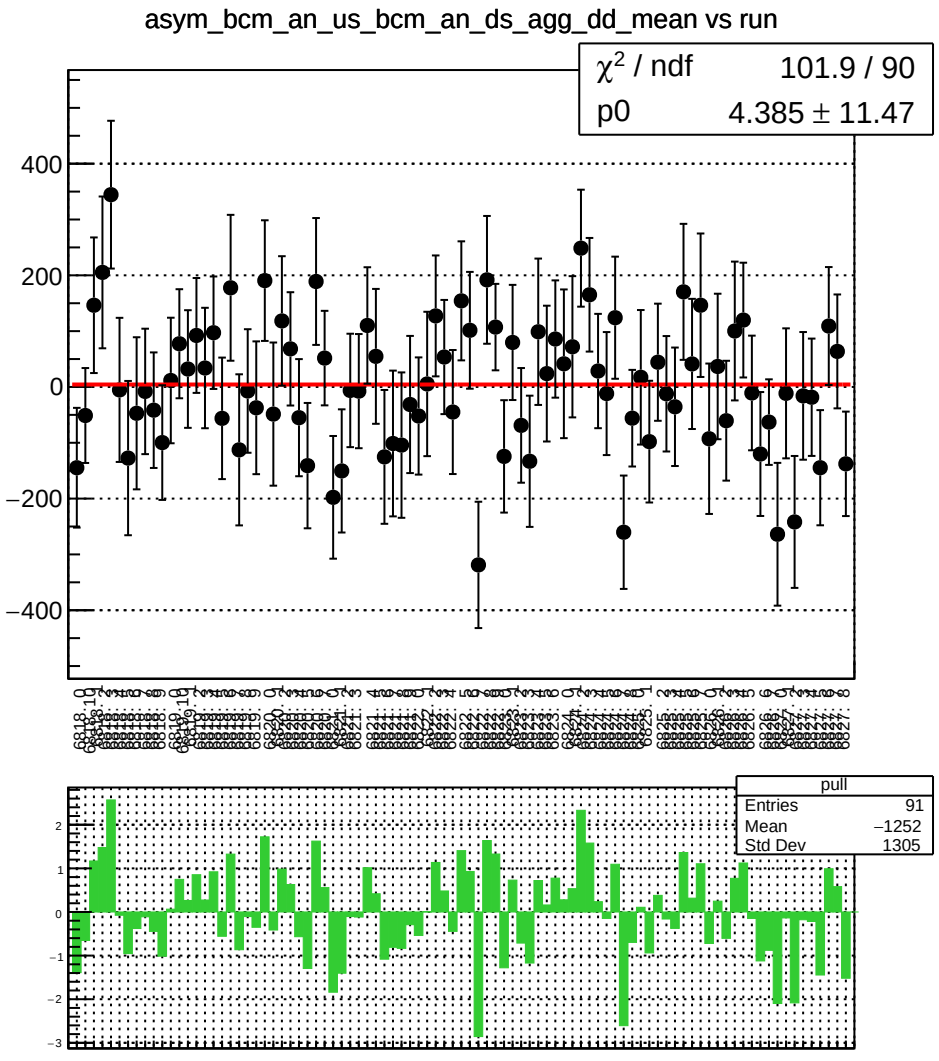

pull1D
Entries 91
Mean −0.001303
Std Dev 0.9544

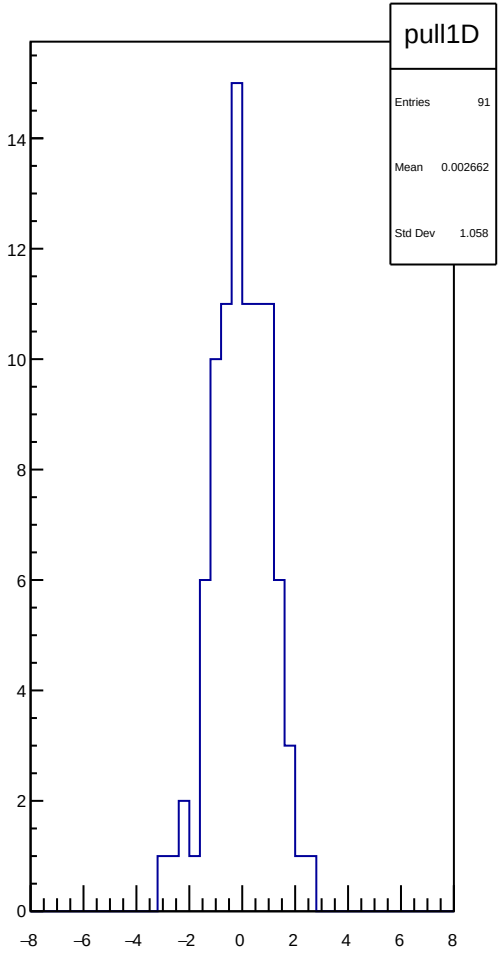

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 4696 / 90
p0 14.76 ± 0.01124
17
16.5
16
15.5
15
14.5
14
13.5

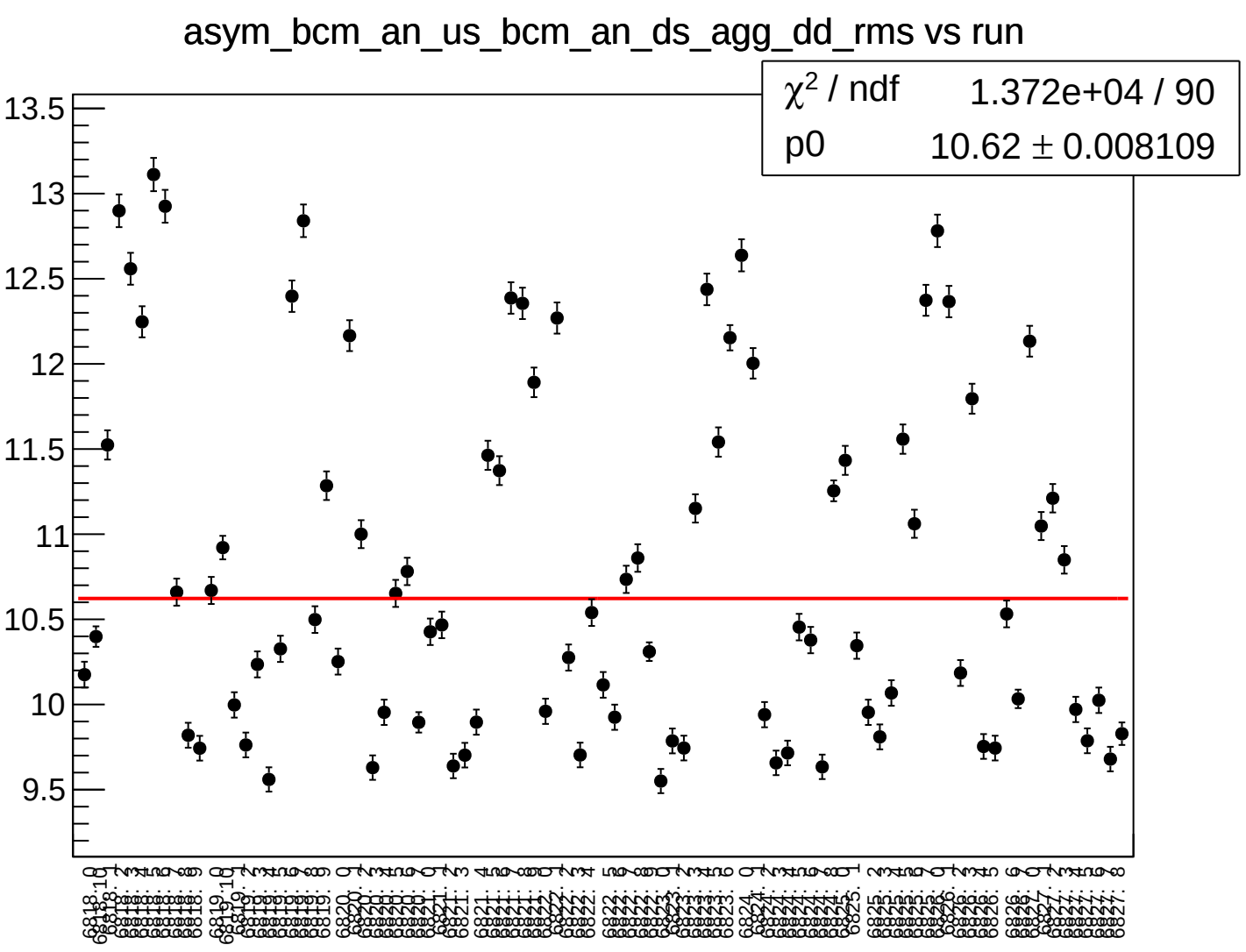

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 74.19 / 90
p0 −19.36 ± 22.55
pull
Entries 91
Mean −634
Std Dev 666.9

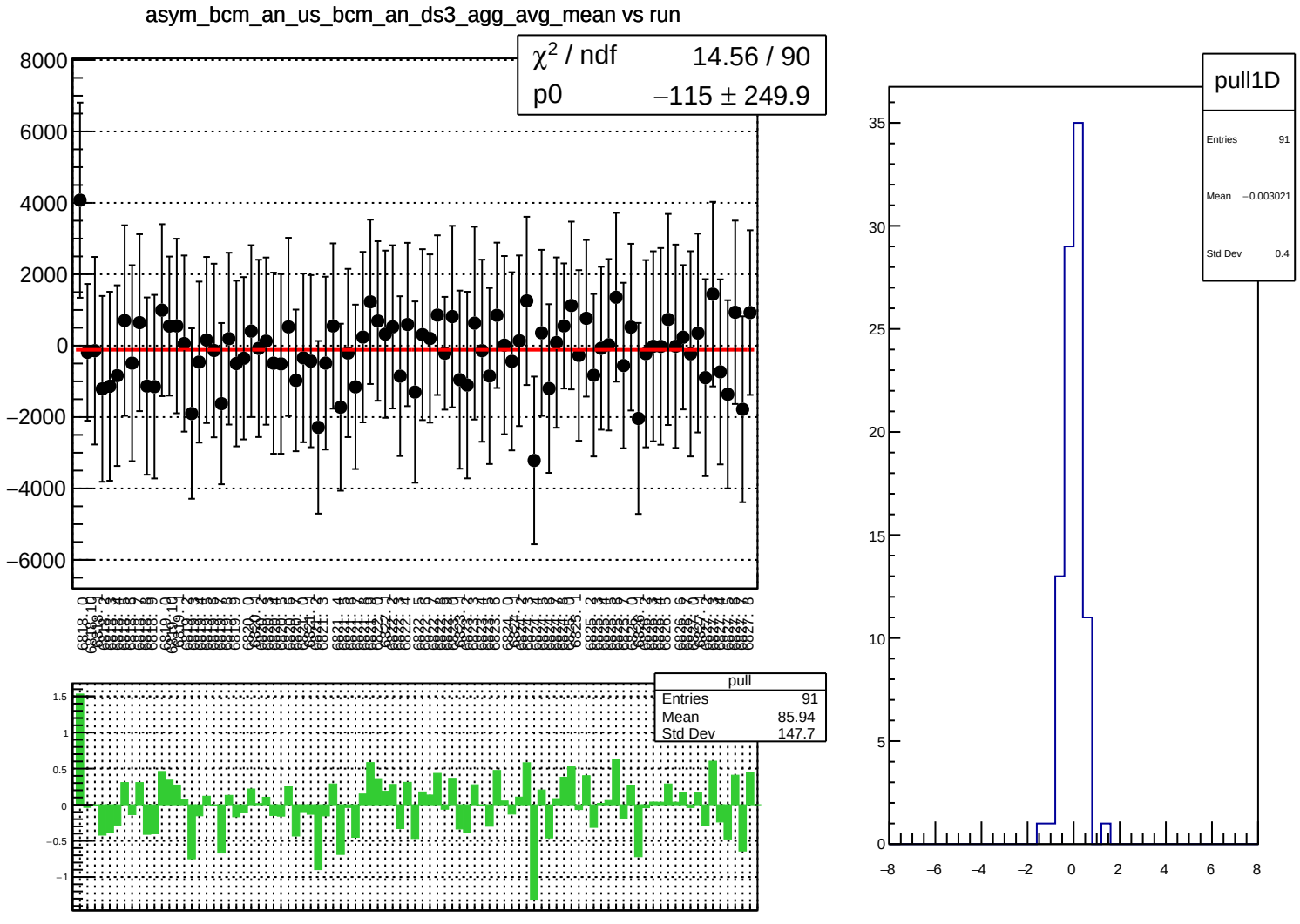

pull1D
Entries 91
Mean −0.002575
Std Dev 0.9029

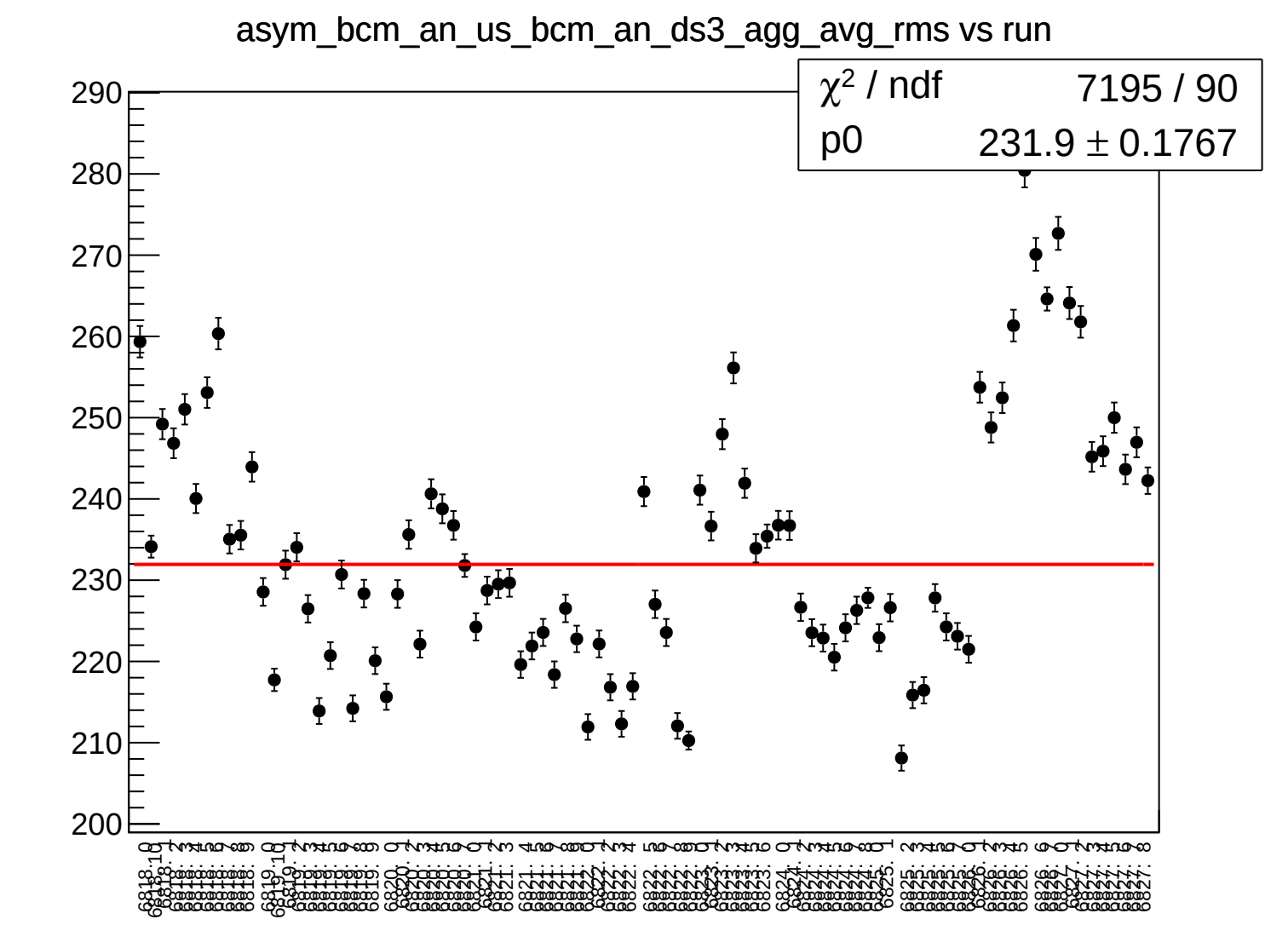

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 241.8 / 90
p0 20.97 ± 0.01595
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2

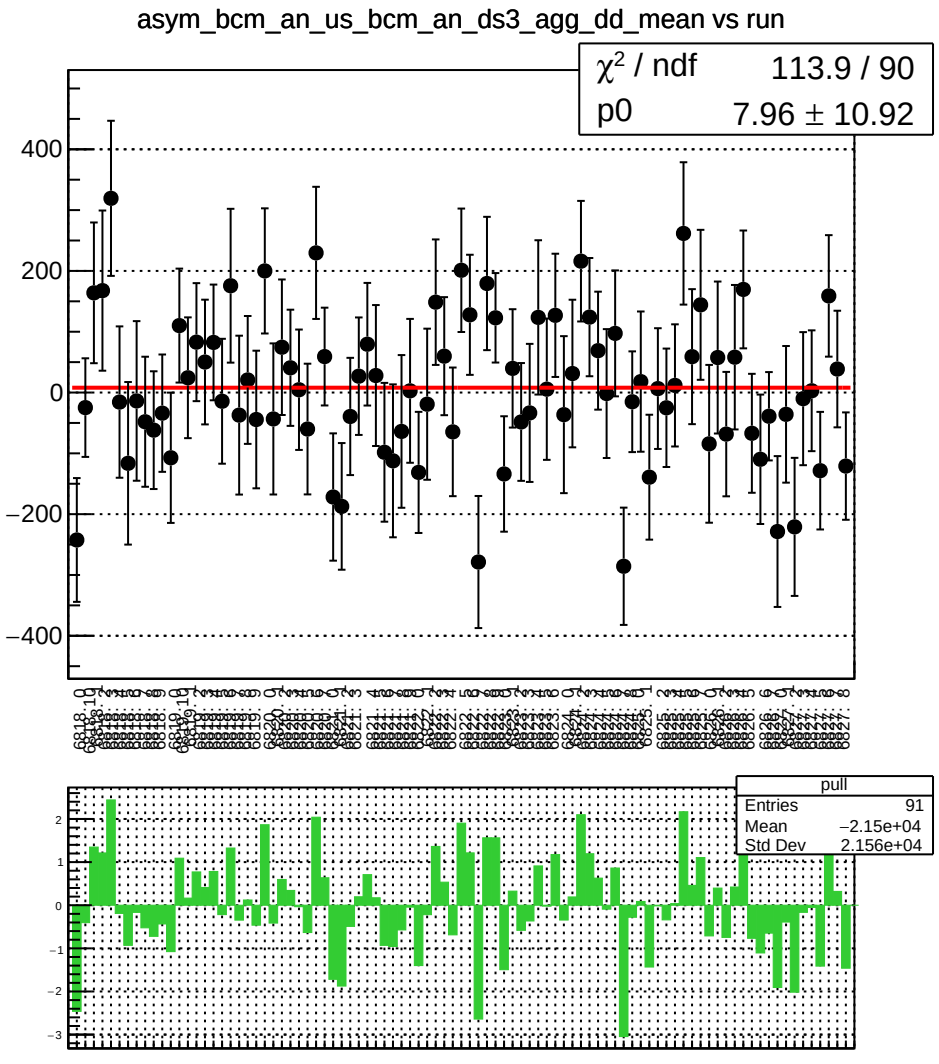

asym_bcm_an_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 101.9 / 90
p0 4.385 ± 11.47
400
200
0
−200
−400
pull
Entries 91
Mean −1252
Std Dev 1305
2
1
0
−1
−2
−3

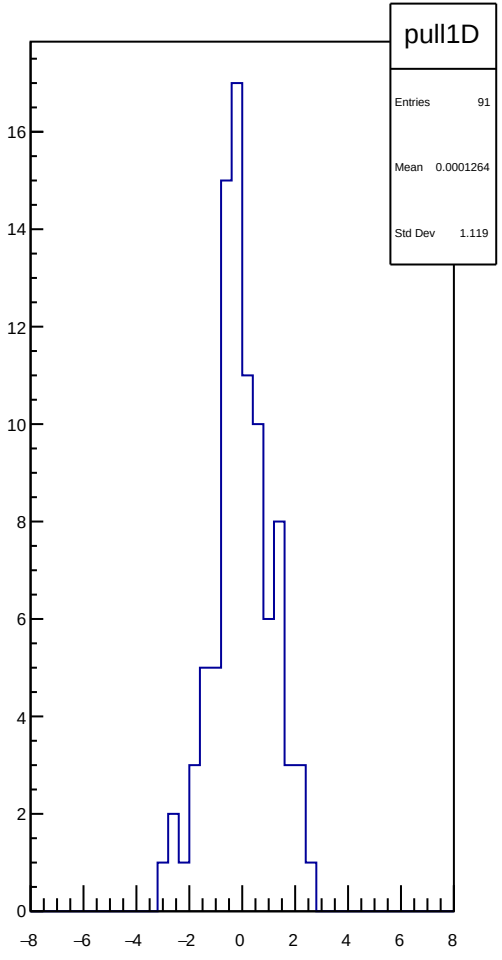

pull1D
Entries 91
Mean 0.002662
Std Dev 1.058
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

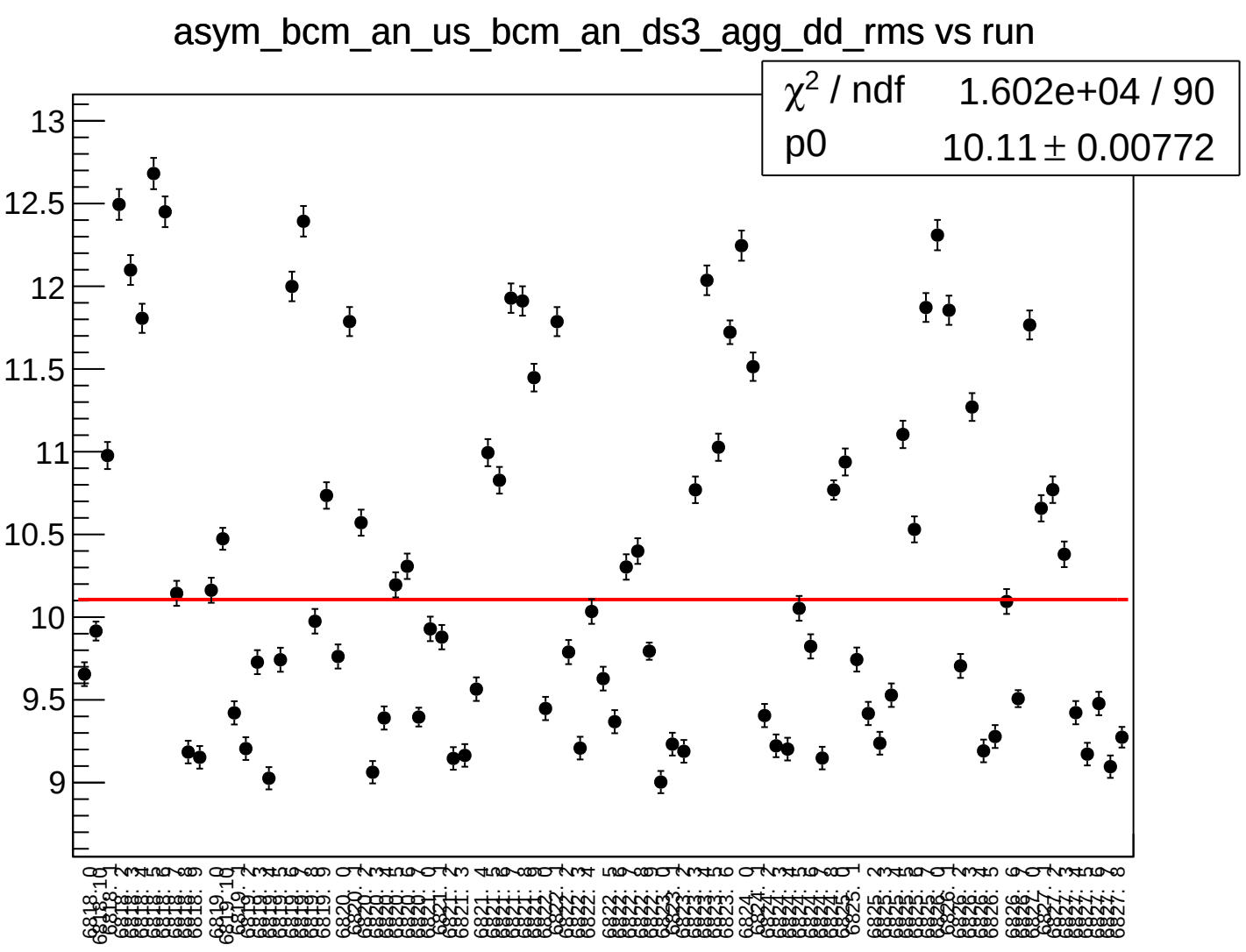

asym_bcm_an_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 1.372e+04 / 90
p0 10.62 ± 0.008109
13.5
13
12.5
12
11.5
11
10.5
10
9.5

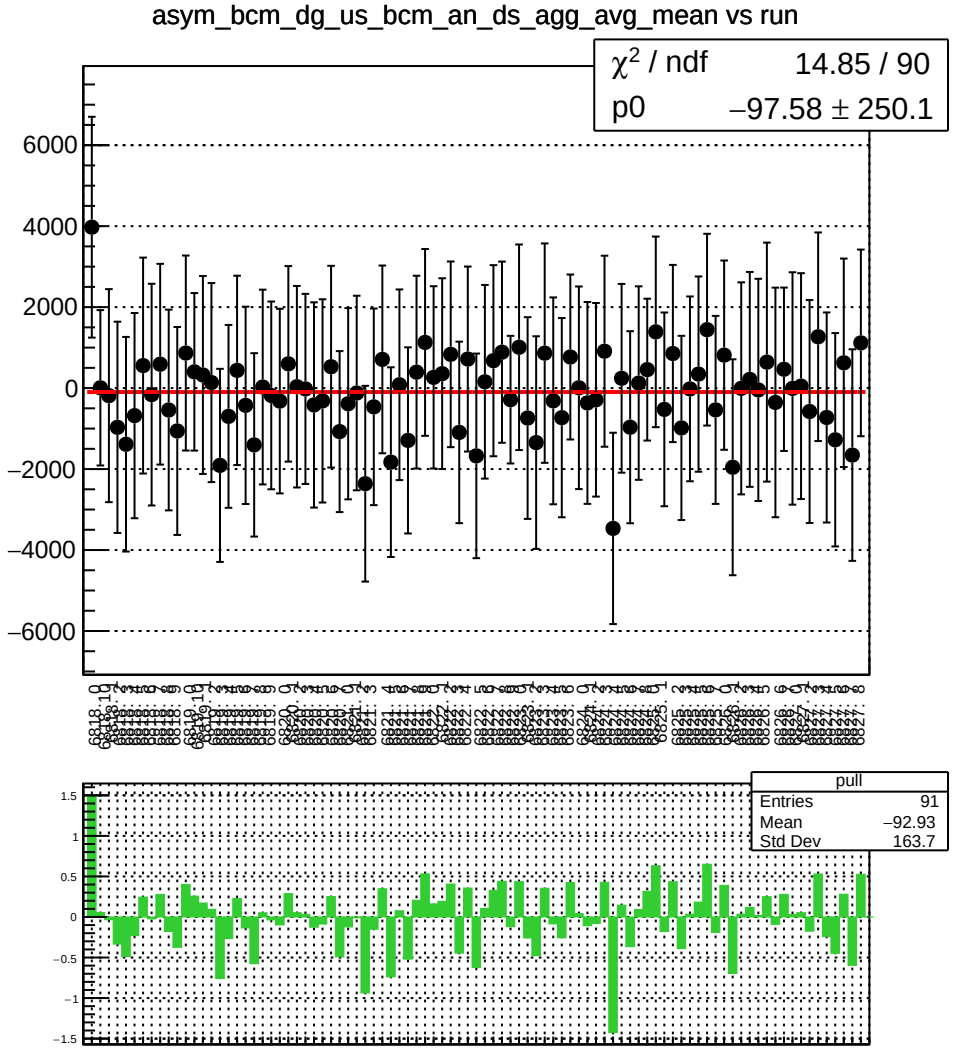

asym_bcm_an_us_bcm_an_ds3_agg_avg_mean vs run
χ² / ndf 14.56 / 90
p0 −115 ± 249.9
pull
Entries 91
Mean −85.94
Std Dev 147.7
pull1D
Entries 91
Mean −0.003021
Std Dev 0.4

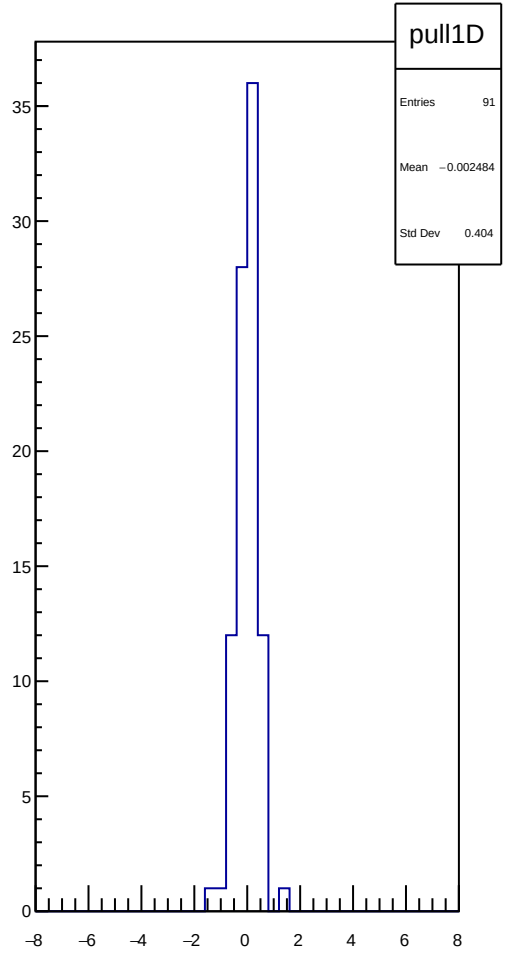

asym_bcm_an_us_bcm_an_ds3_agg_avg_rms vs run
χ² / ndf 7195 / 90
p0 231.9 ± 0.1767
290
280
270
260
250
240
230
220
210
200

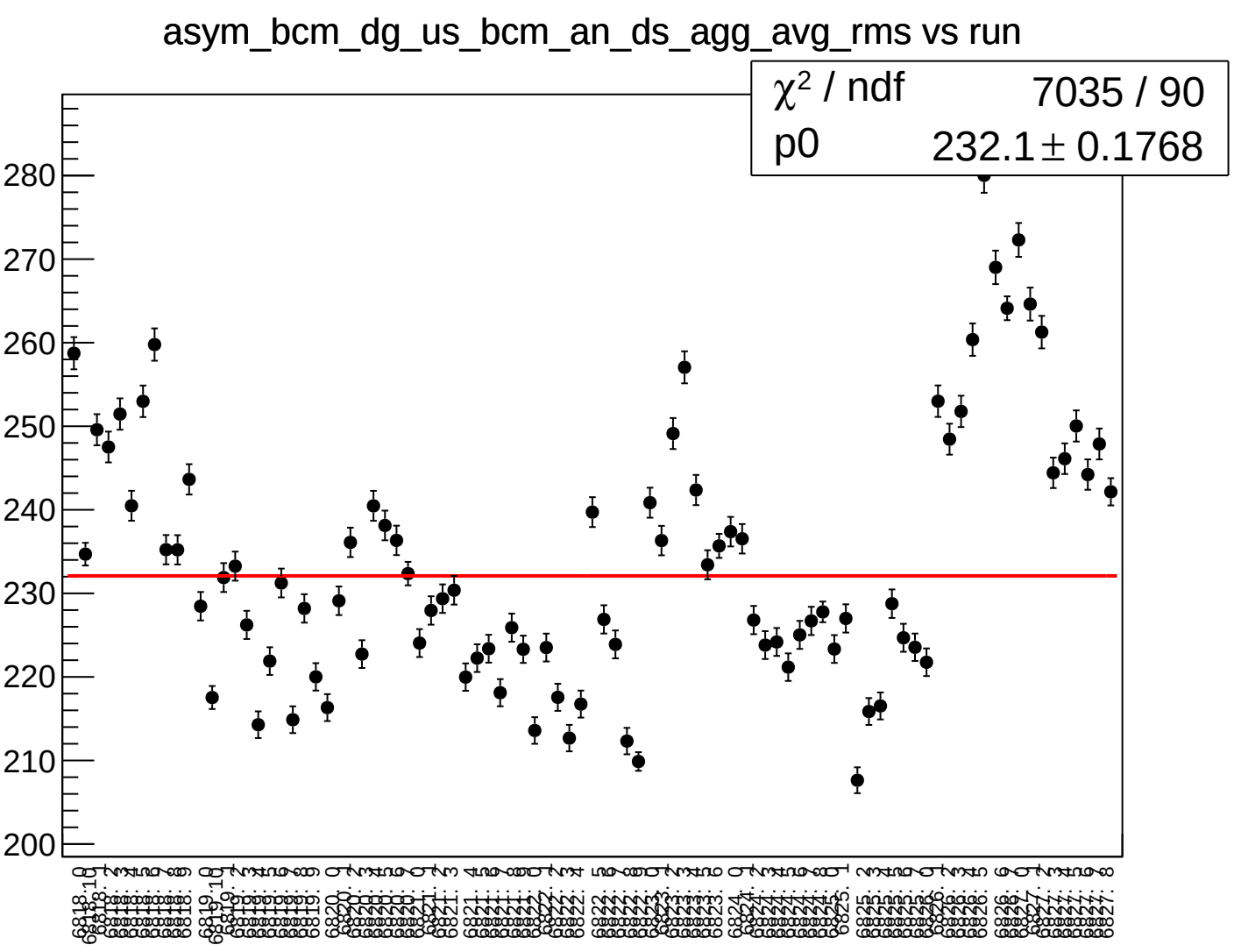

asym_bcm_an_us_bcm_an_ds3_agg_dd_mean vs run
χ² / ndf 113.9 / 90
p0 7.96 ± 10.92
400
200
0
−200
−400
pull
Entries 91
Mean −2.15e+04
Std Dev 2.156e+04
2
1
0
−1
−2
−3

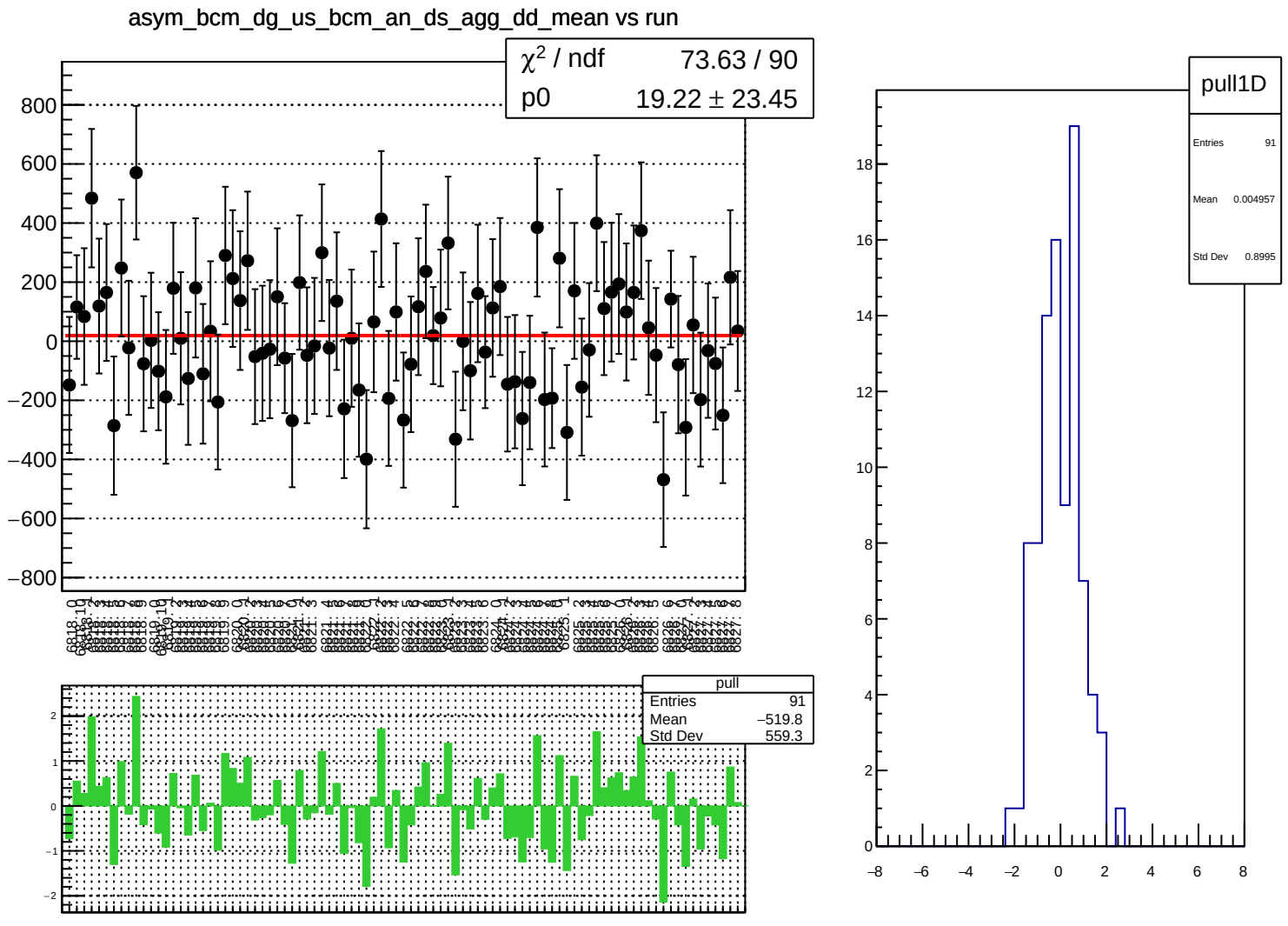

pull1D
Entries 91
Mean 0.0001264
Std Dev 1.119
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

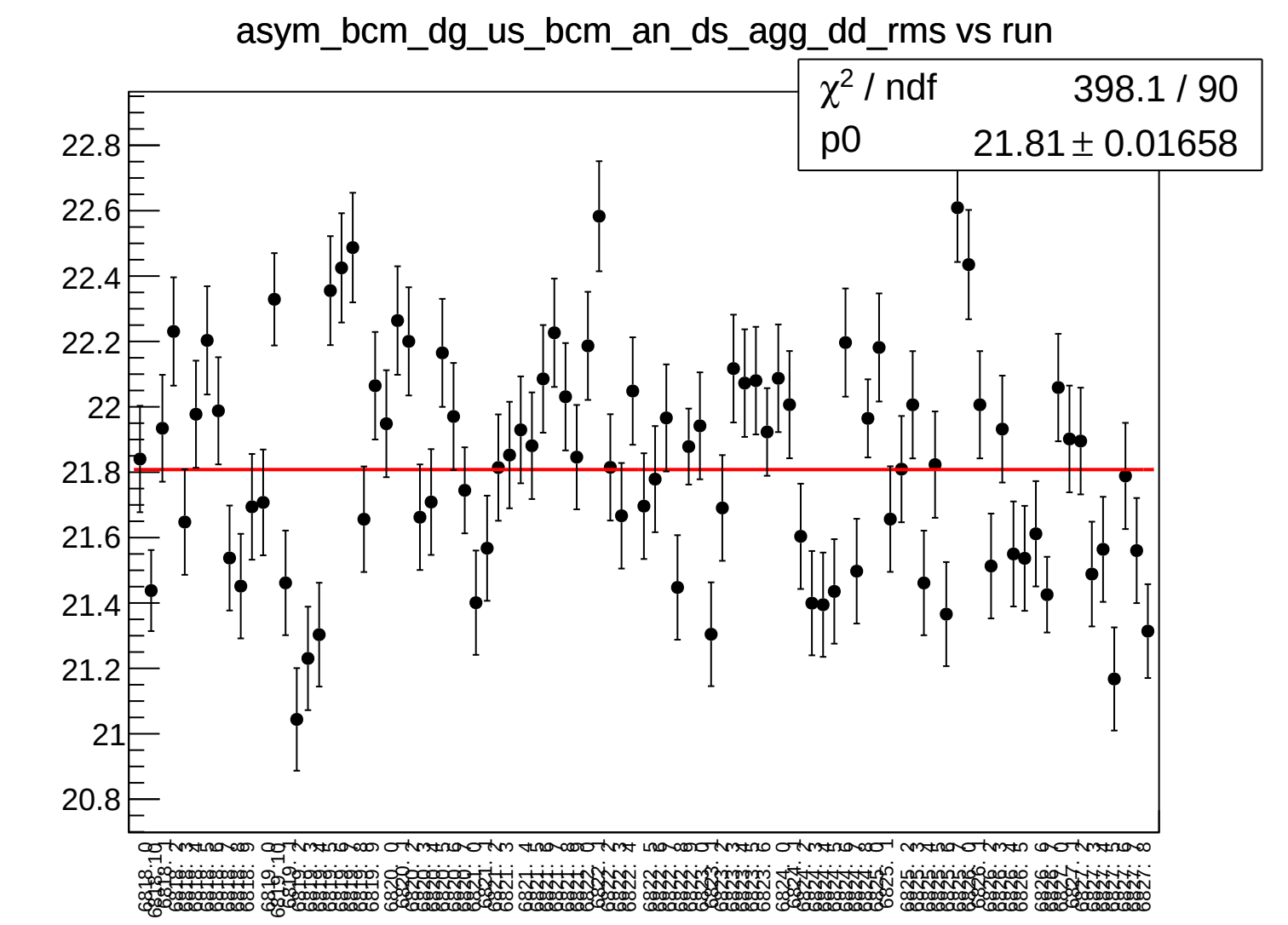

asym_bcm_an_us_bcm_an_ds3_agg_dd_rms vs run
χ² / ndf 1.602e+04 / 90
p0 10.11 ± 0.00772
13
12.5
12
11.5
11
10.5
10
9.5
9

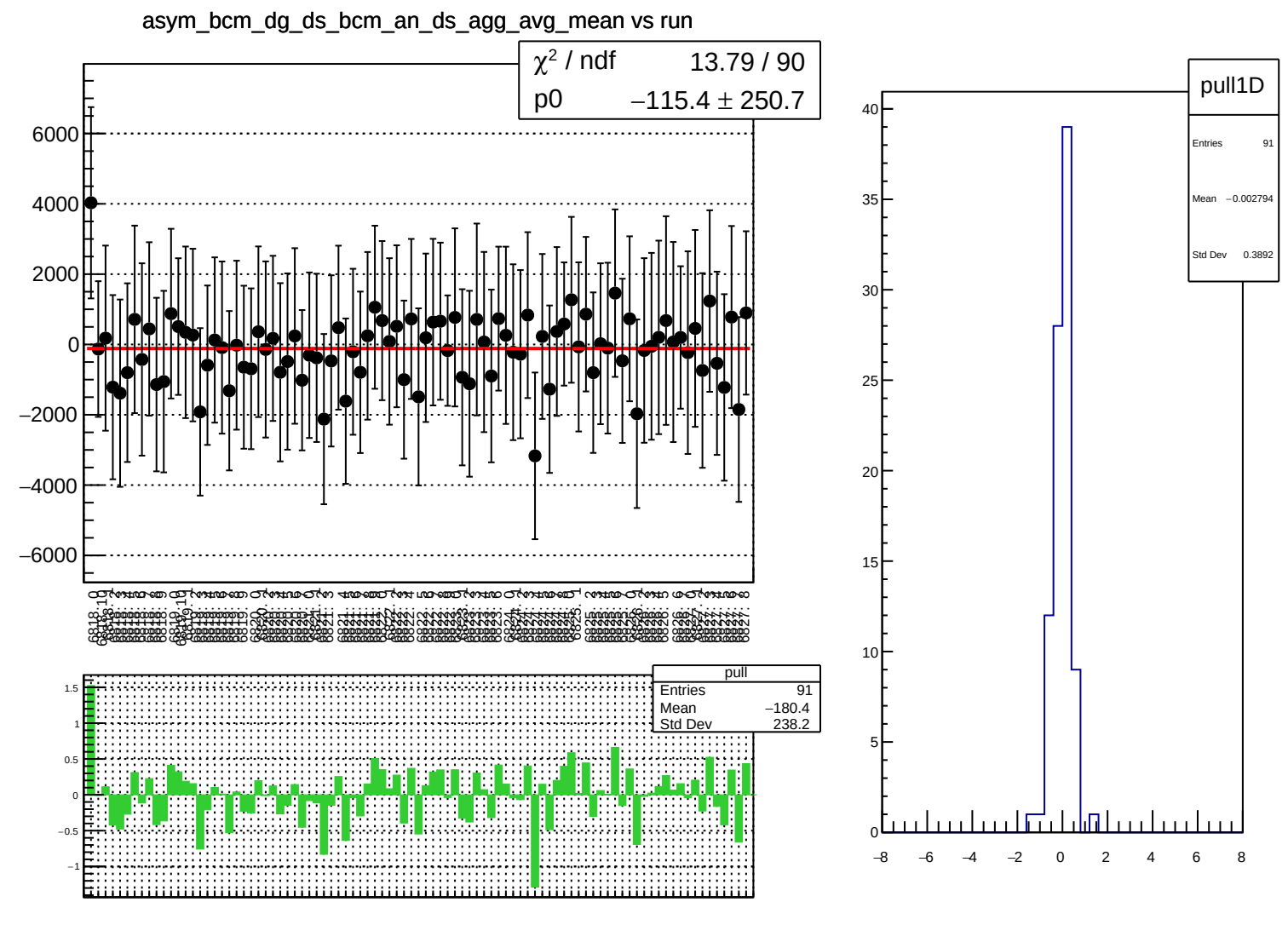

asym_bcm_dg_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 14.85 / 90
p0 −97.58 ± 250.1
pull
Entries 91
Mean −92.93
Std Dev 163.7

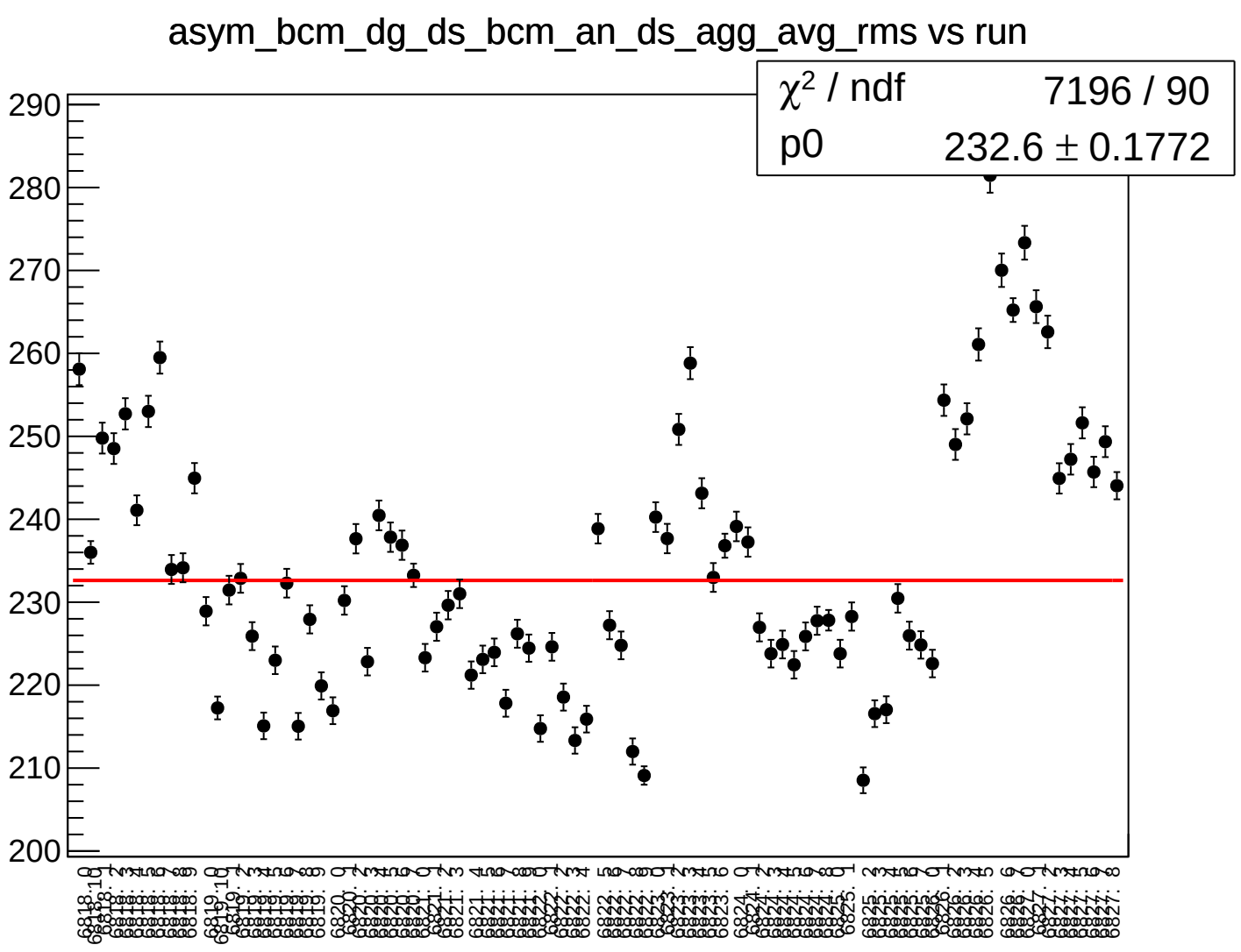

pull1D
Entries 91
Mean −0.002484
Std Dev 0.404

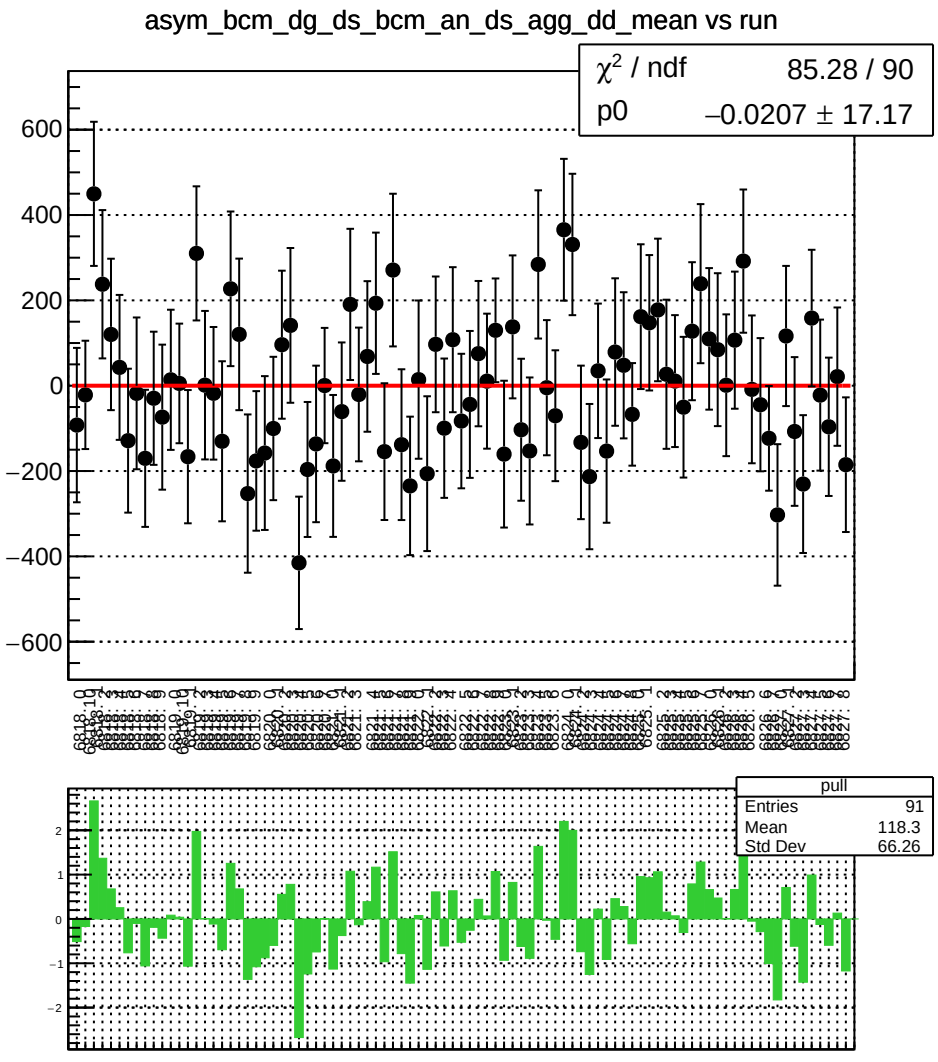

asym_bcm_dg_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7035 / 90
p0 232.1 ± 0.1768
280
270
260
250
240
230
220
210
200

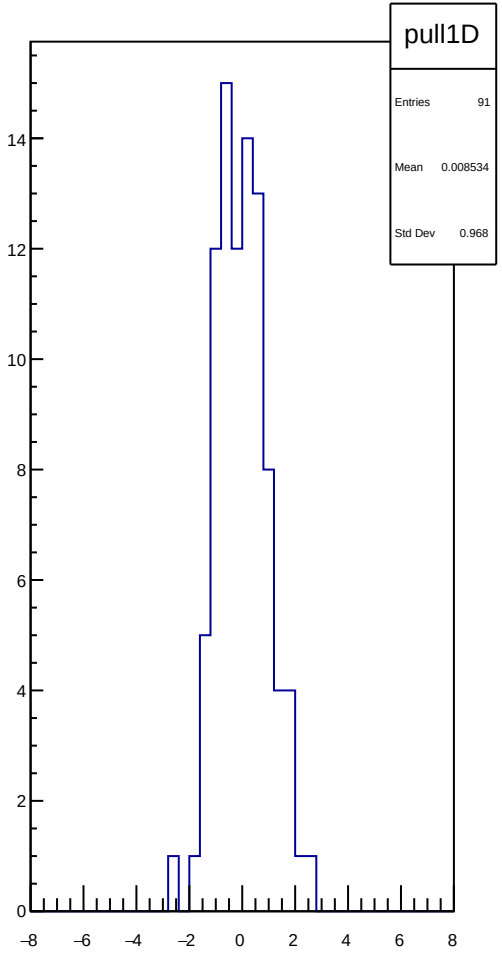

asym_bcm_dg_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 73.63 / 90
p0 19.22 ± 23.45
800
600
400
200
0
−200
−400
−600
−800
pull
Entries 91
Mean −519.8
Std Dev 559.3
2
1
0
−1
−2
pull1D
Entries 91
Mean 0.004957
Std Dev 0.8995
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

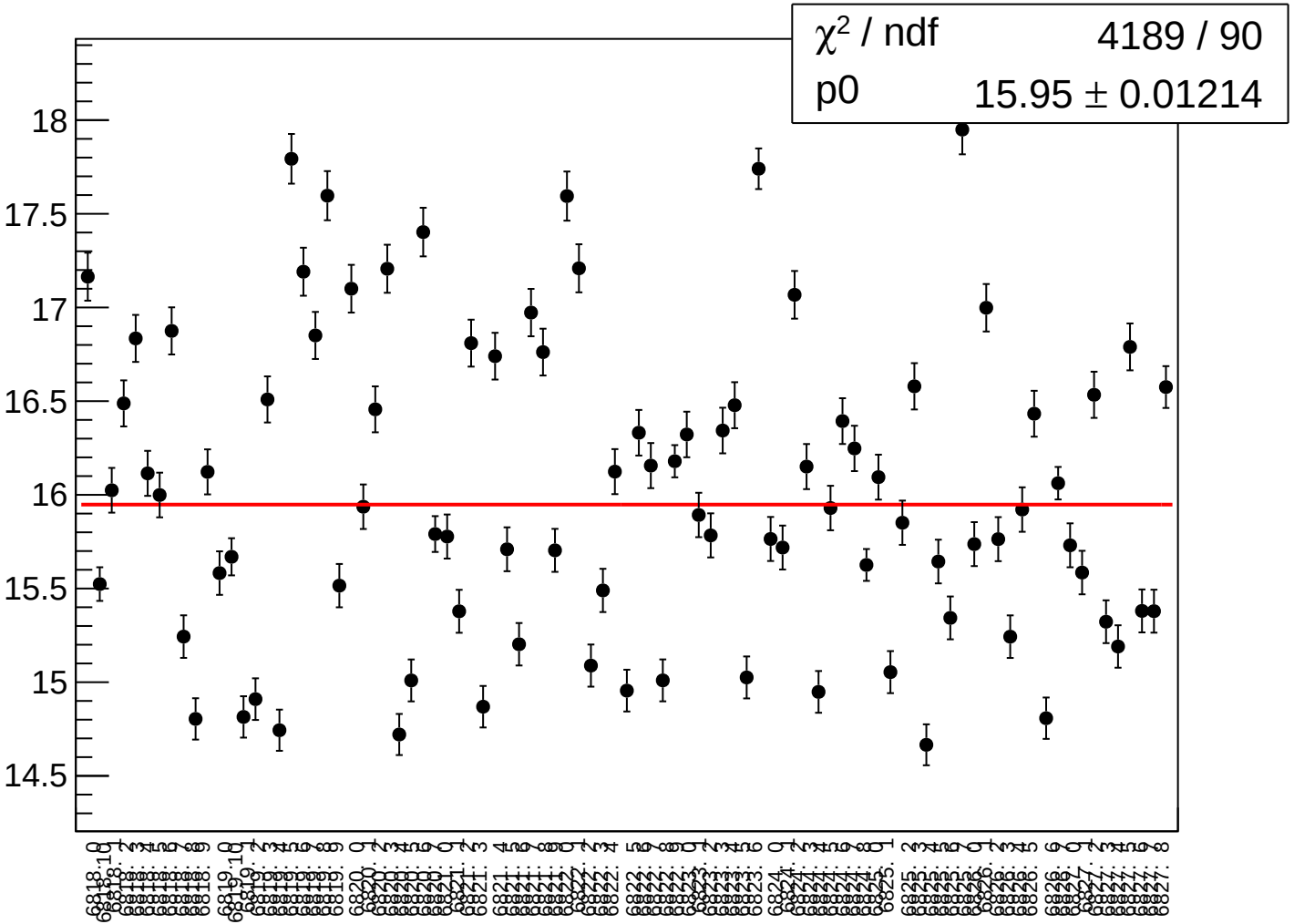

asym_bcm_dg_us_bcm_an_ds_agg_dd_rms vs run
χ^2 / ndf 398.1 / 90
p0 21.81 ± 0.01658
22.8
22.6
22.4
22.2
22
21.8
21.6
21.4
21.2
21
20.8

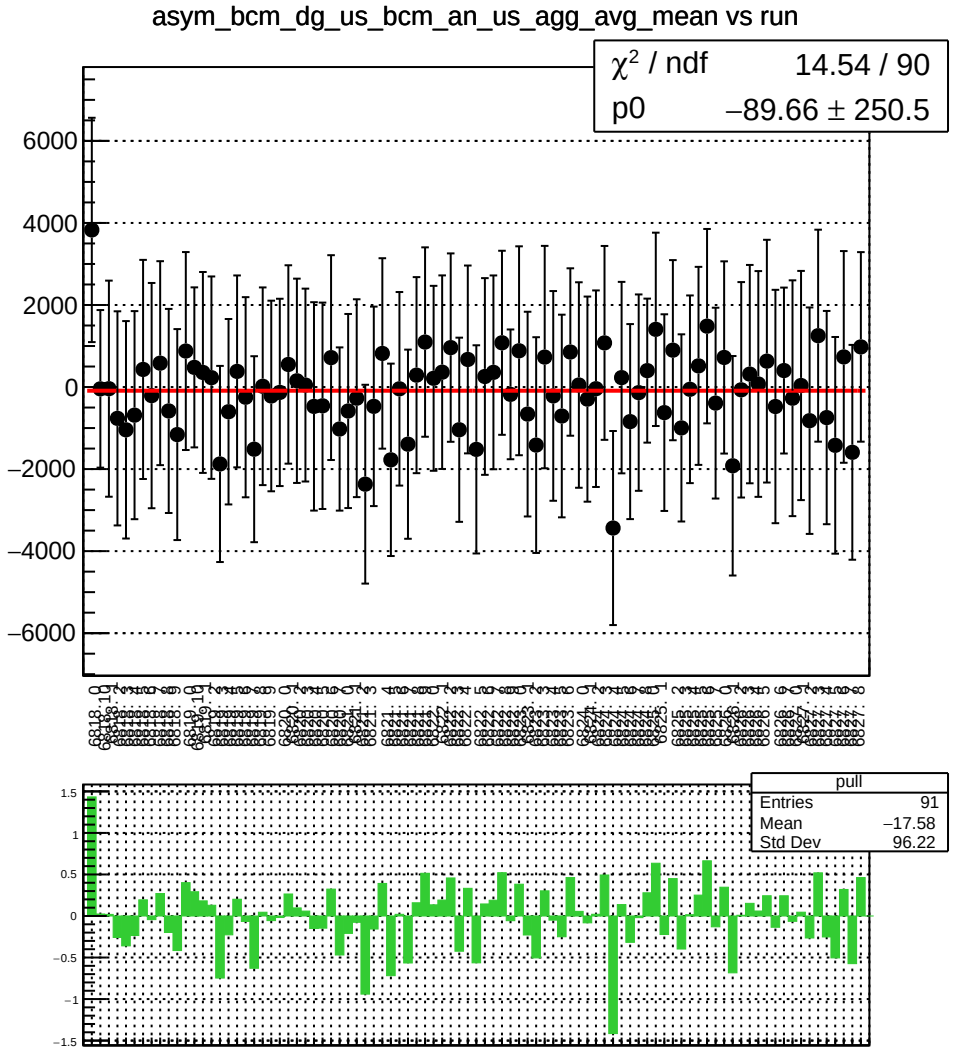

asym_bcm_dg_ds_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 13.79 / 90
p0 −115.4 ± 250.7
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −180.4
Std Dev 238.2
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 91
Mean −0.002794
Std Dev 0.3892
40
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

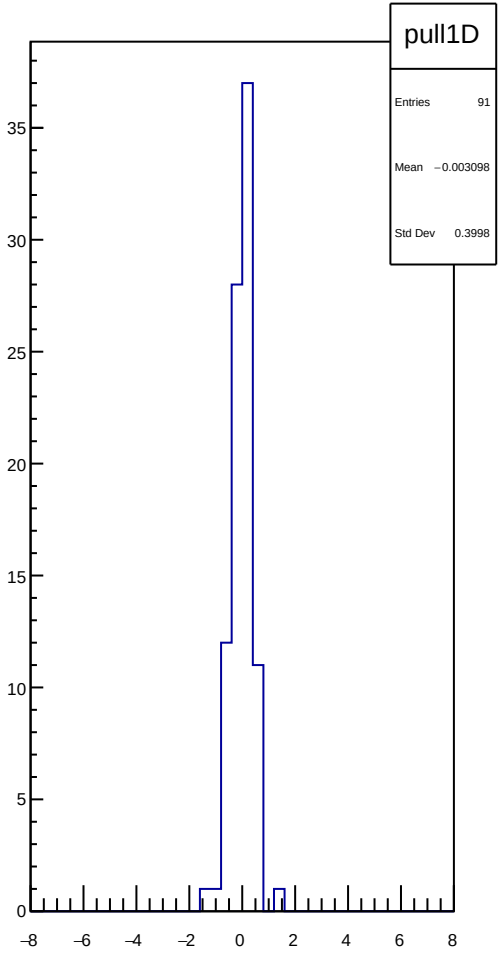

asym_bcm_dg_ds_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7196 / 90
p0 232.6 ± 0.1772
290
280
270
260
250
240
230
220
210
200

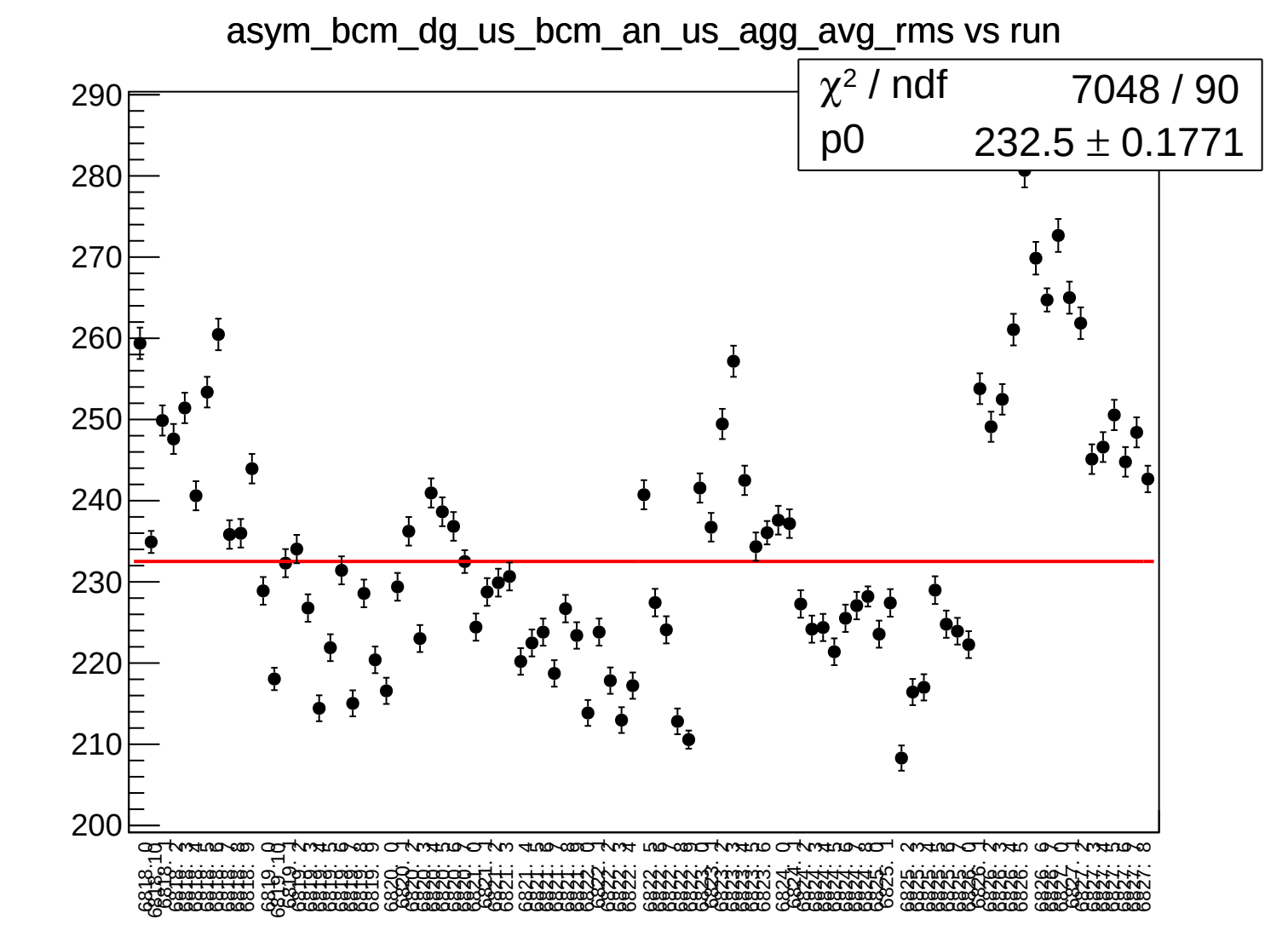

asym_bcm_dg_ds_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 85.28 / 90
p0 −0.0207 ± 17.17
pull
Entries 91
Mean 118.3
Std Dev 66.26

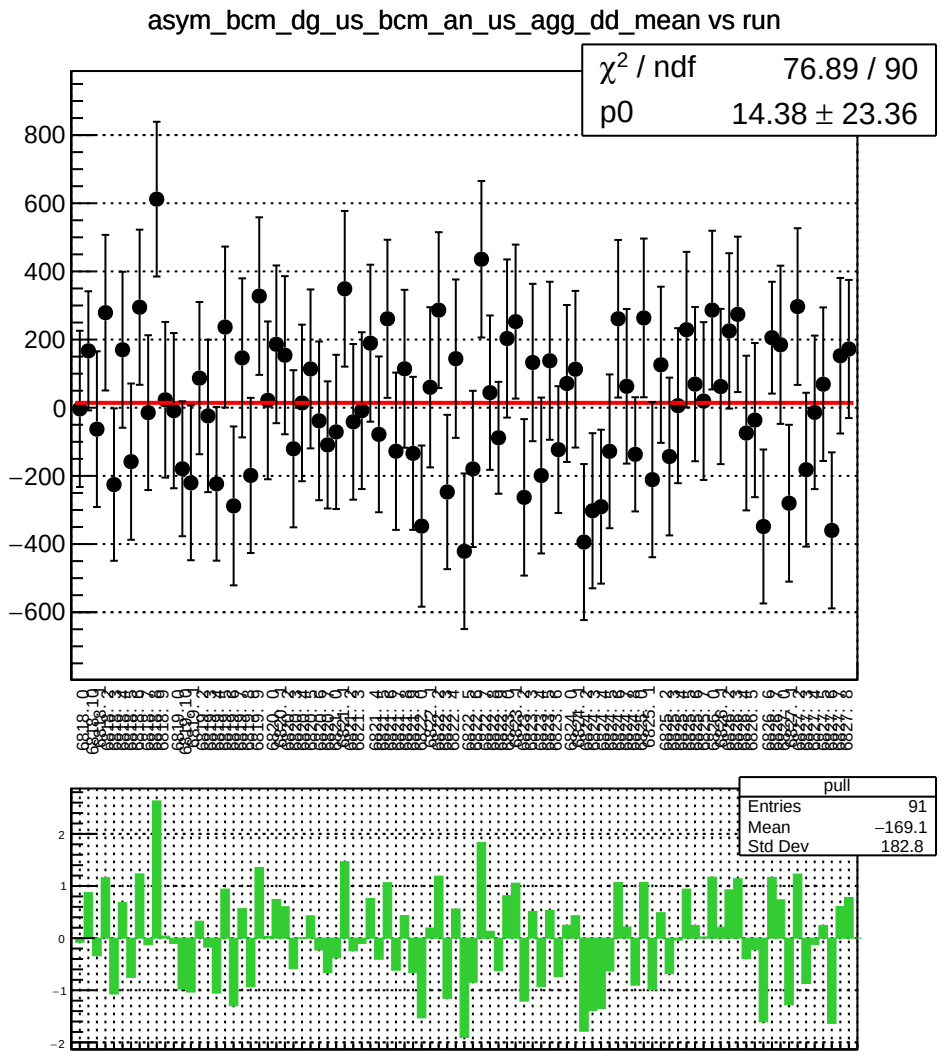

pull1D
Entries 91
Mean 0.008534
Std Dev 0.968

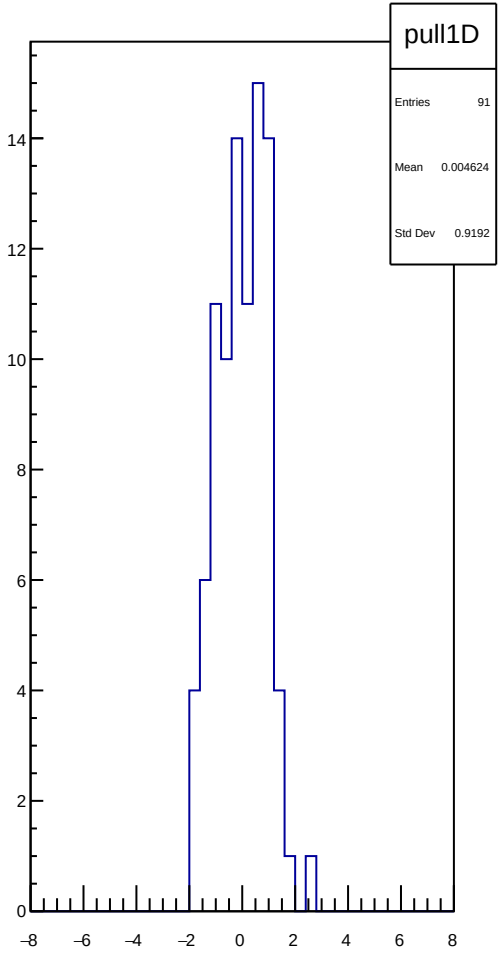

asym_bcm_dg_ds_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 4189 / 90
p0 15.95 ± 0.01214
18
17.5
17
16.5
16
15.5
15
14.5

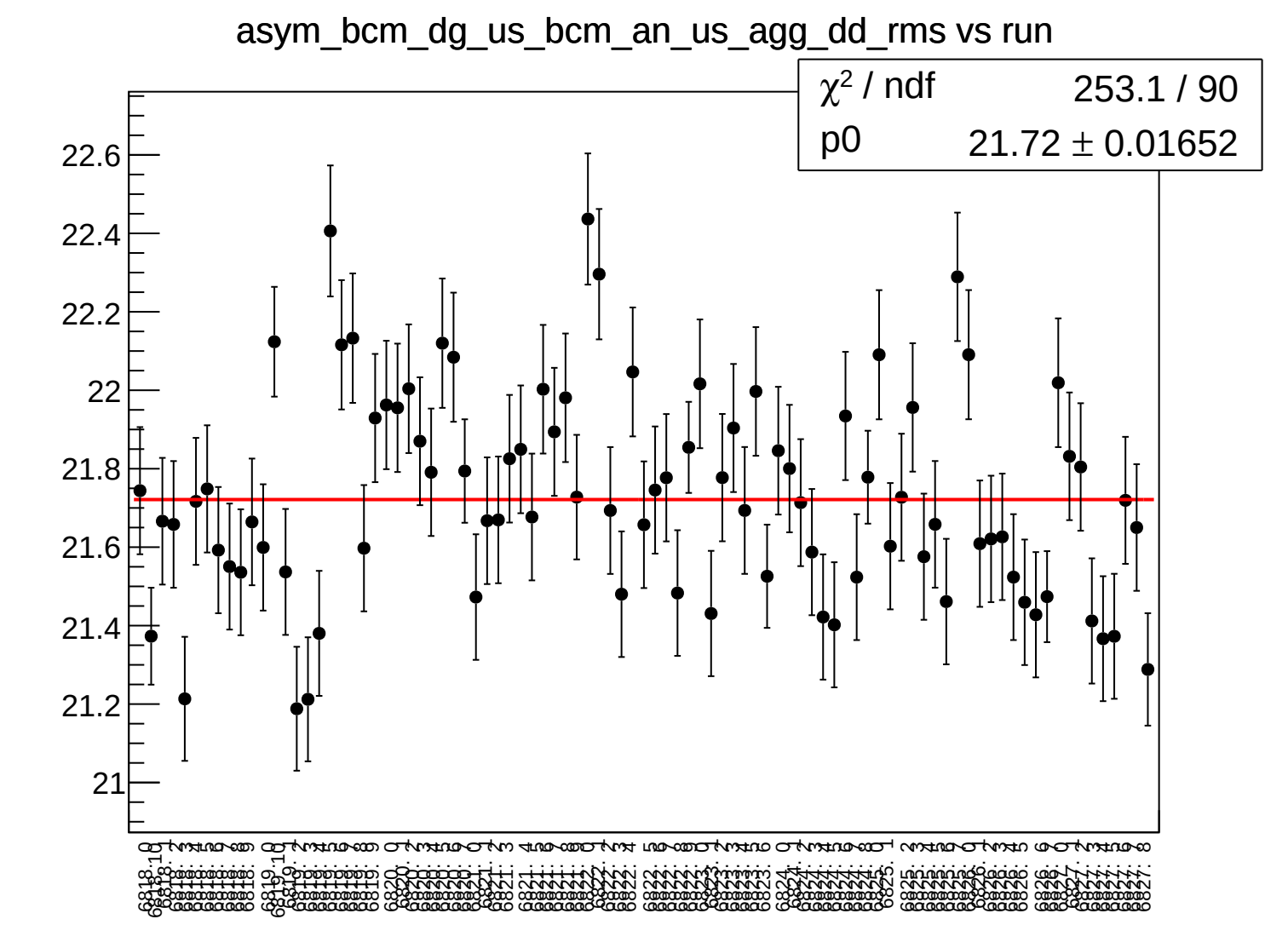

asym_bcm_dg_us_bcm_an_us_agg_avg_mean vs run
χ² / ndf 14.54 / 90
p0 −89.66 ± 250.5
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −17.58
Std Dev 96.22
1.5
1
0.5
0
−0.5
−1
−1.5

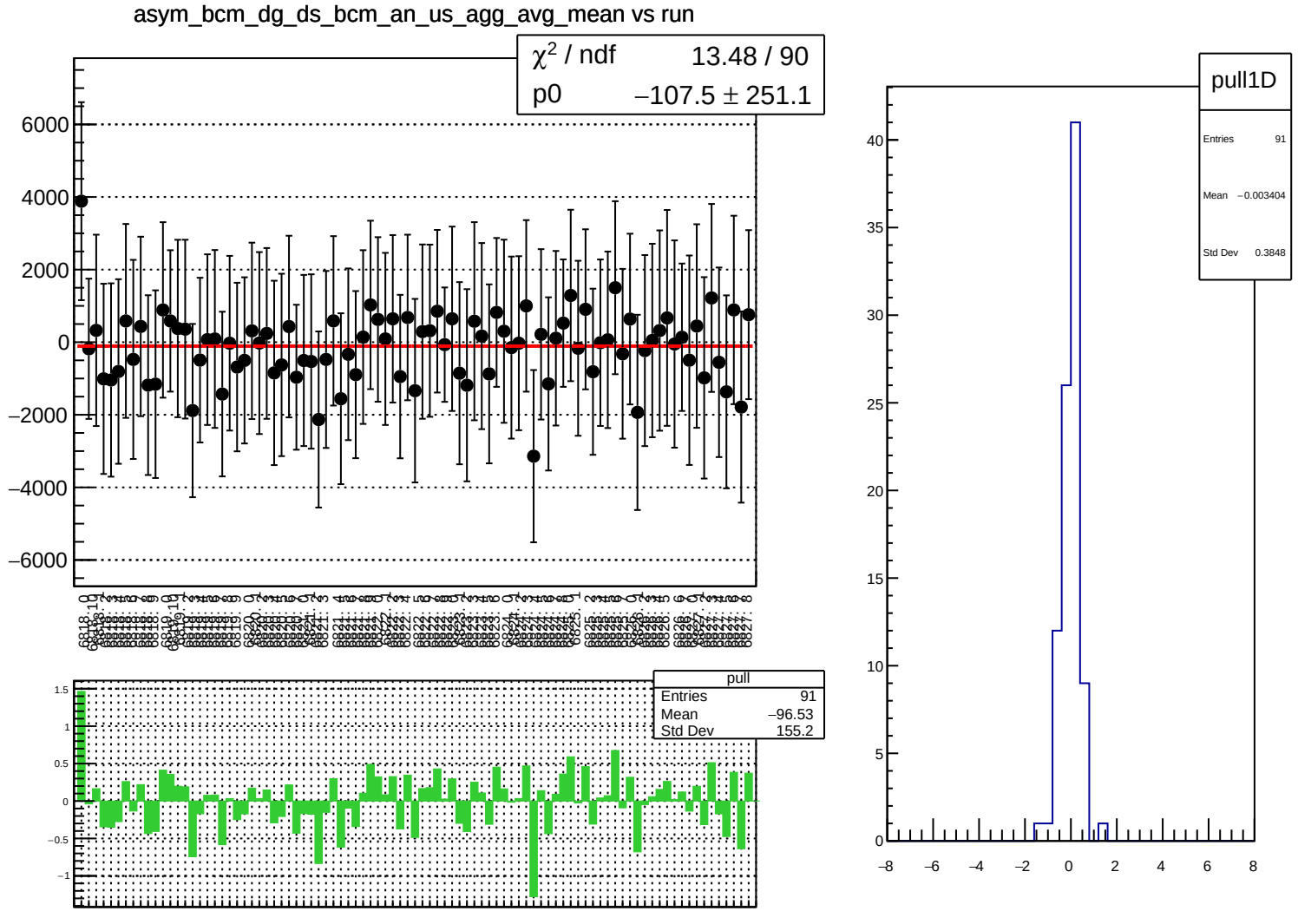

pull1D
Entries 91
Mean −0.003098
Std Dev 0.3998
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

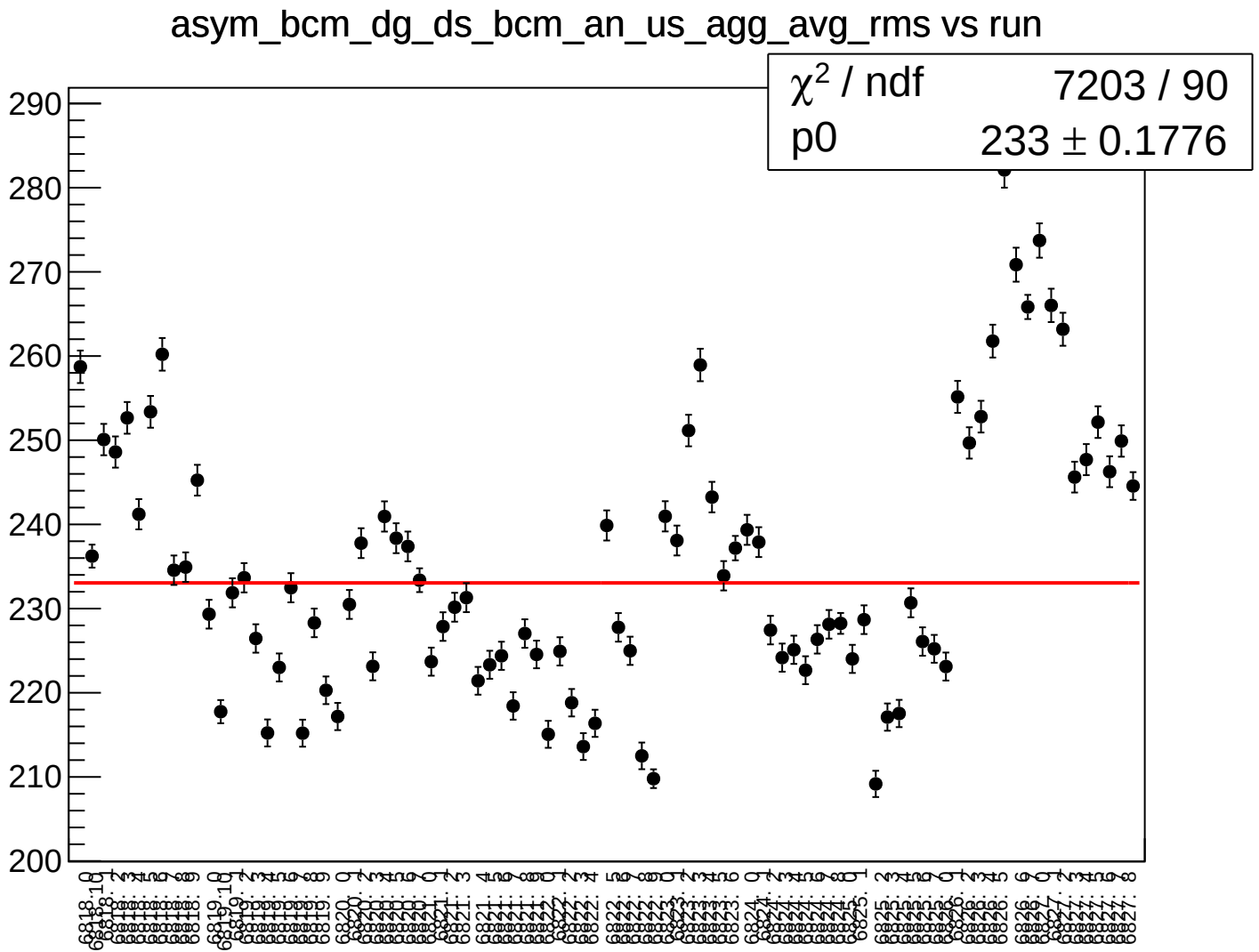

asym_bcm_dg_us_bcm_an_us_agg_avg_rms vs run
χ² / ndf 7048 / 90
p0 232.5 ± 0.1771
290
280
270
260
250
240
230
220
210
200

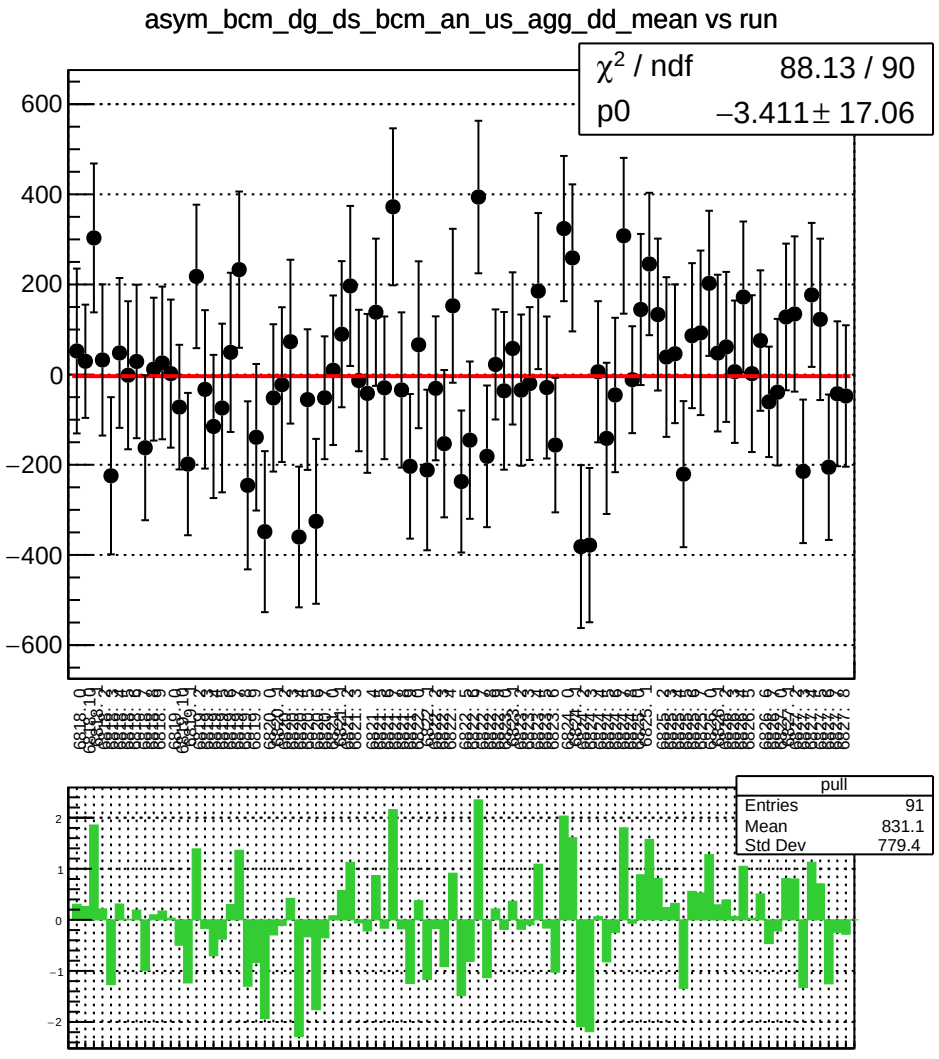

asym_bcm_dg_us_bcm_an_us_agg_dd_mean vs run
χ² / ndf 76.89 / 90
p0 14.38 ± 23.36
pull
Entries 91
Mean −169.1
Std Dev 182.8

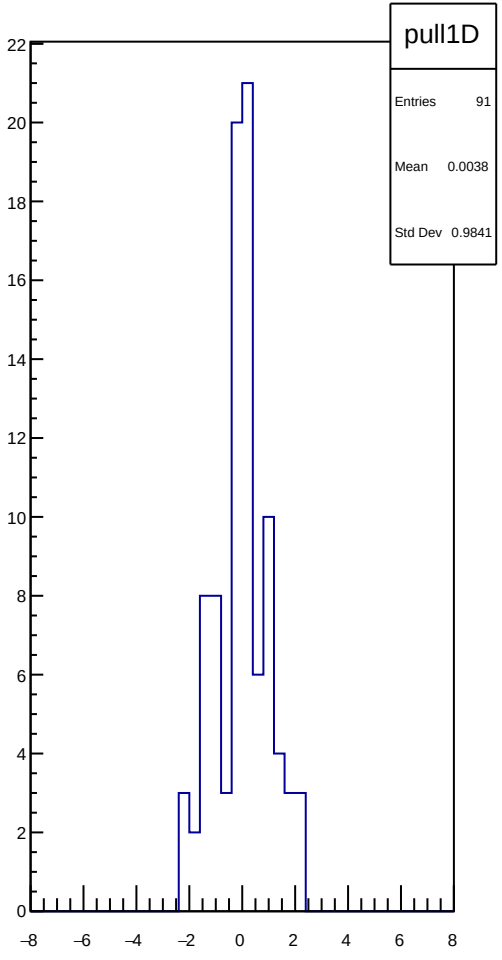

pull1D
Entries 91
Mean 0.004624
Std Dev 0.9192

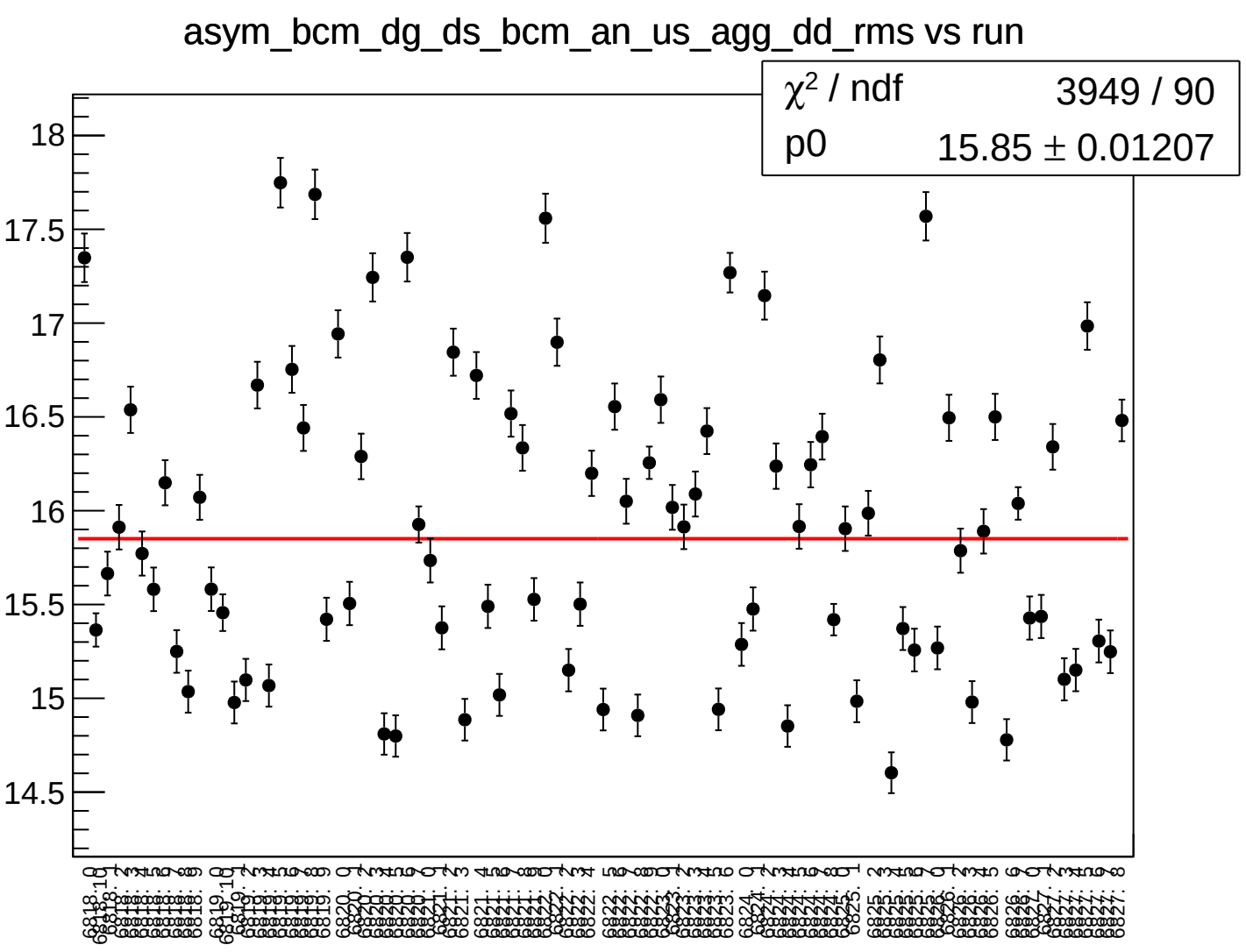

asym_bcm_dg_us_bcm_an_us_agg_dd_rms vs run
χ² / ndf 253.1 / 90
p0 21.72 ± 0.01652
22.6
22.4
22.2
22
21.8
21.6
21.4
21.2
21

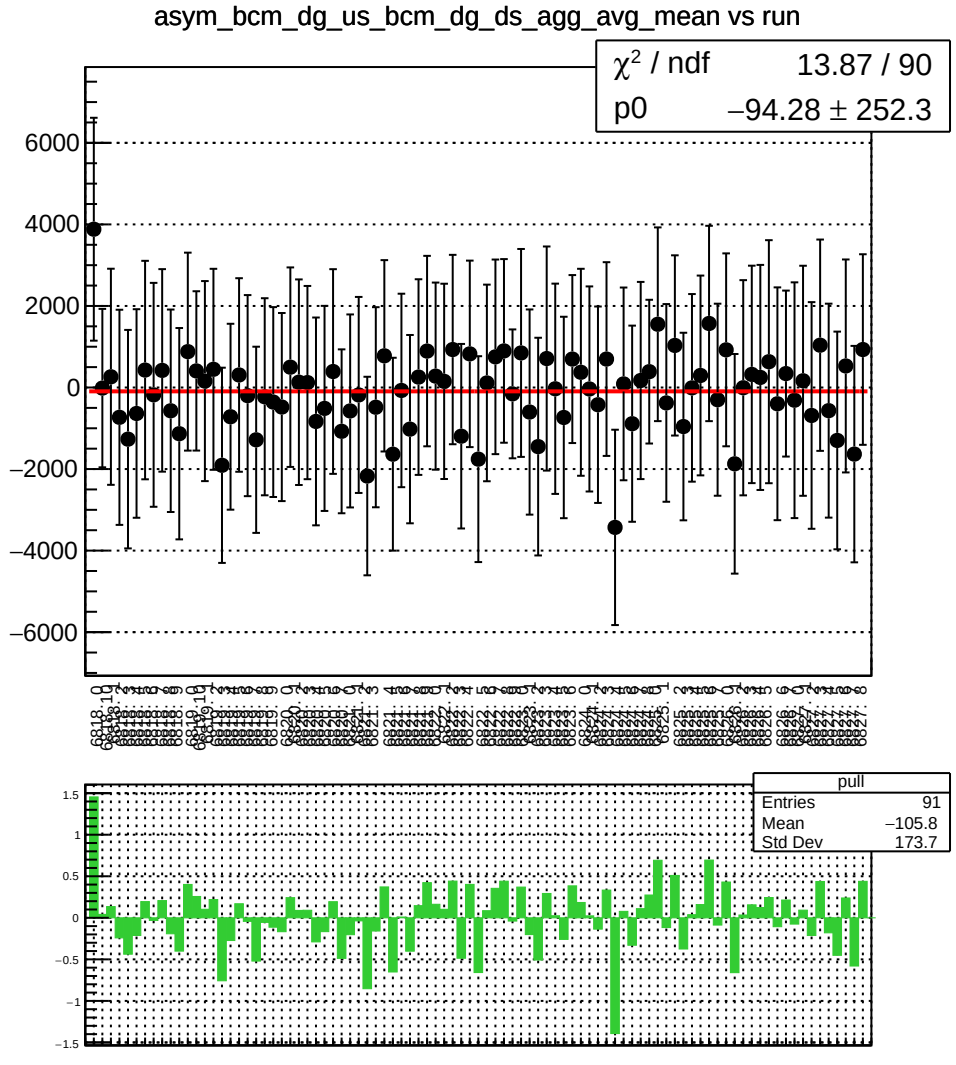

asym_bcm_dg_ds_bcm_an_us_agg_avg_mean vs run
χ² / ndf 13.48 / 90
p0 −107.5 ± 251.1
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −96.53
Std Dev 155.2
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 91
Mean −0.003404
Std Dev 0.3848
40
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

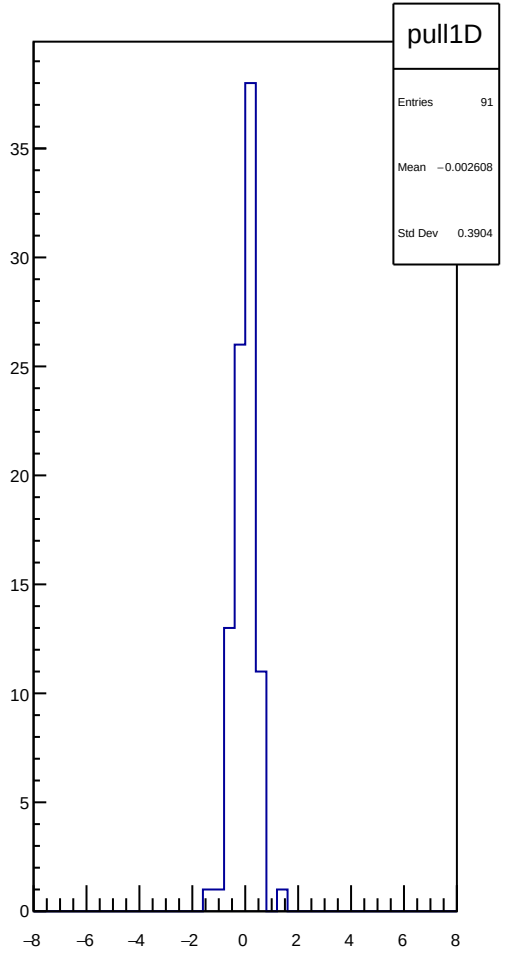

asym_bcm_dg_ds_bcm_an_us_agg_avg_rms vs run
χ² / ndf 7203 / 90
p0 233 ± 0.1776
290
280
270
260
250
240
230
220
210
200

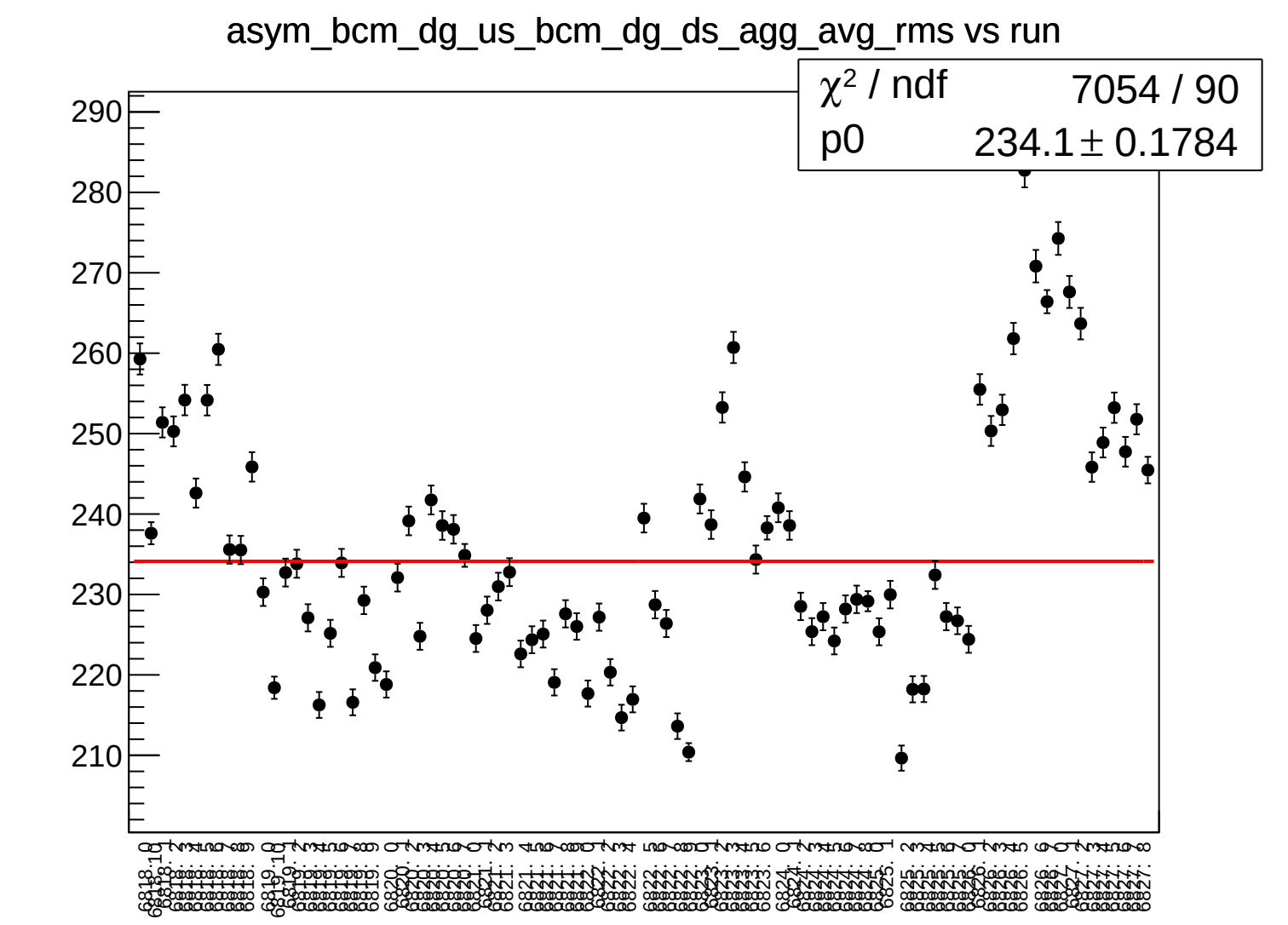

asym_bcm_dg_ds_bcm_an_us_agg_dd_mean vs run
χ² / ndf 88.13 / 90
p0 −3.411 ± 17.06
600
400
200
0
−200
−400
−600
pull
Entries 91
Mean 831.1
Std Dev 779.4
2
1
0
−1
−2

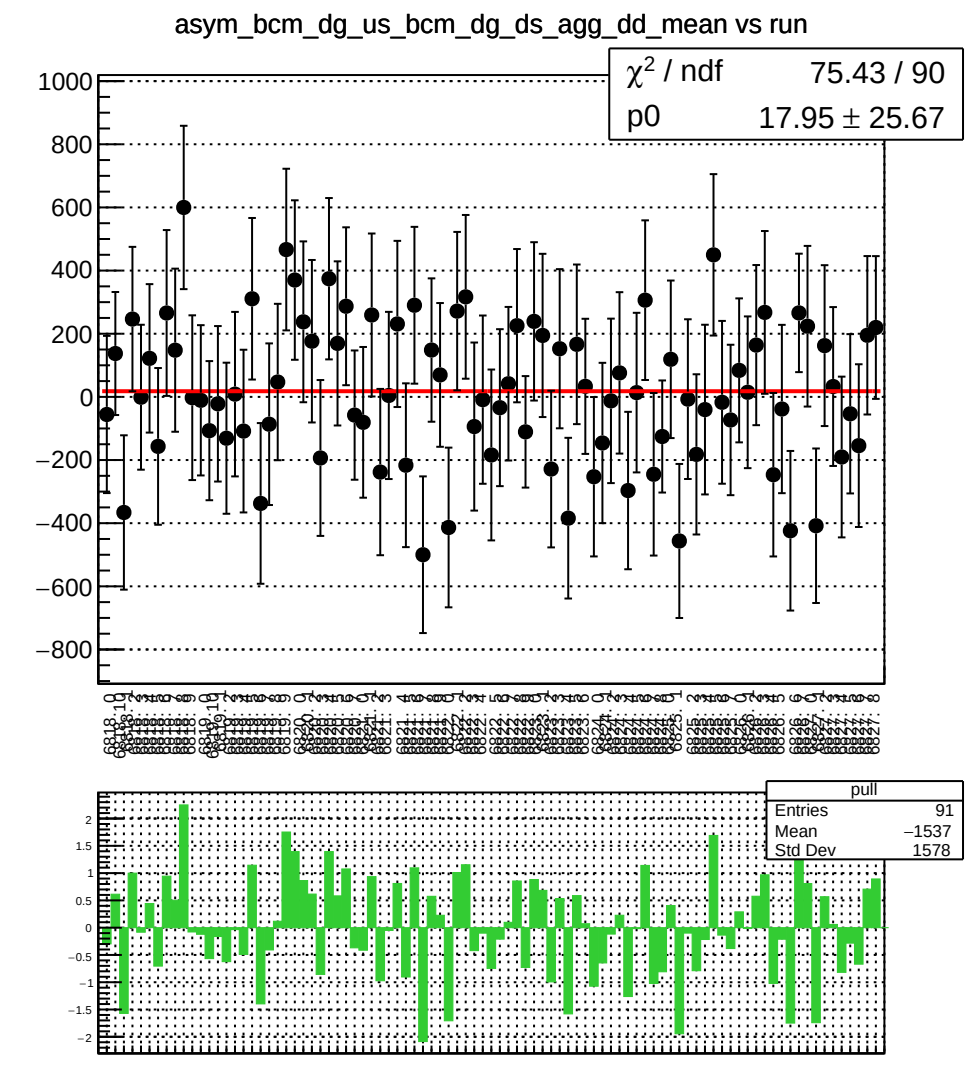

pull1D
Entries 91
Mean 0.0038
Std Dev 0.9841
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

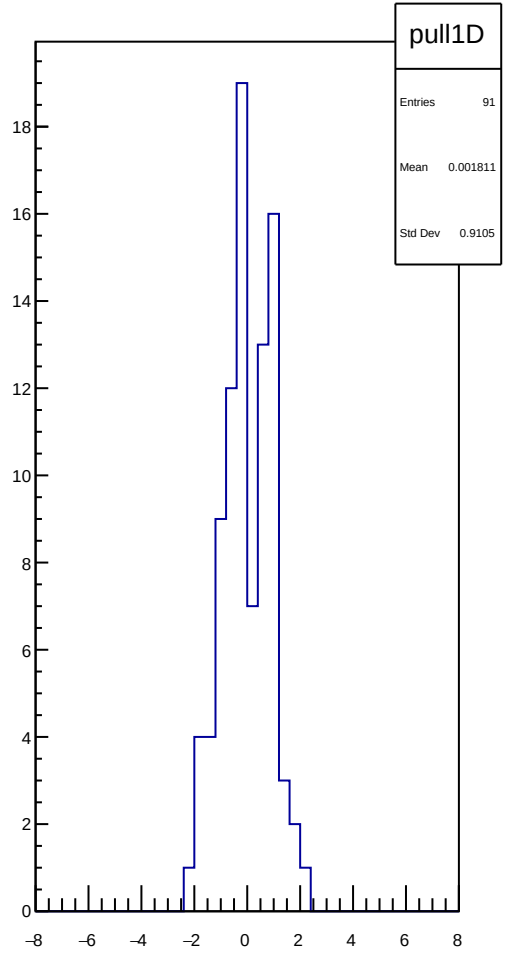

asym_bcm_dg_ds_bcm_an_us_agg_dd_rms vs run
χ² / ndf 3949 / 90
p0 15.85 ± 0.01207
18
17.5
17
16.5
16
15.5
15
14.5

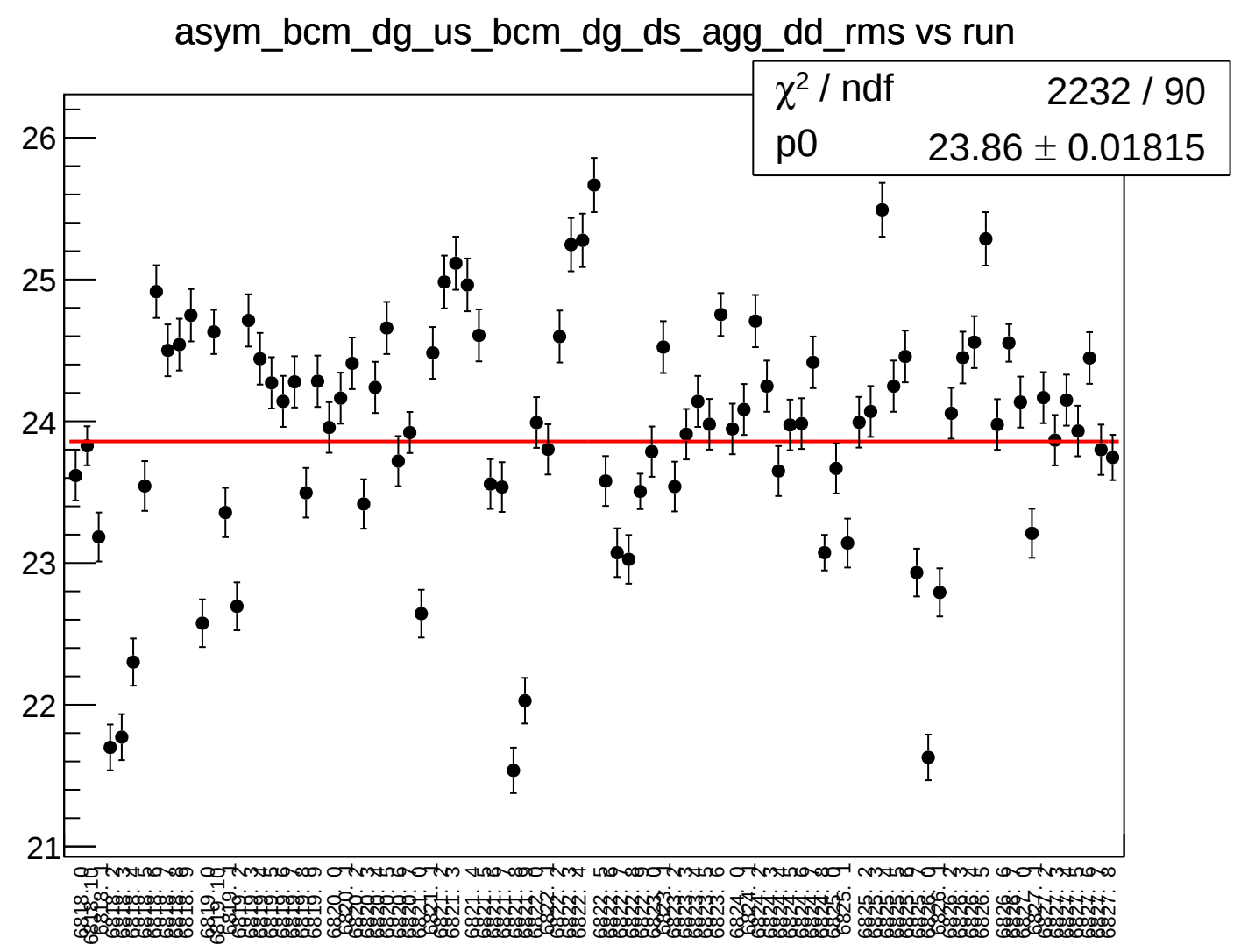

asym_bcm_dg_us_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 13.87 / 90
p0 −94.28 ± 252.3
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −105.8
Std Dev 173.7
1.5
1
0.5
0
−0.5
−1
−1.5

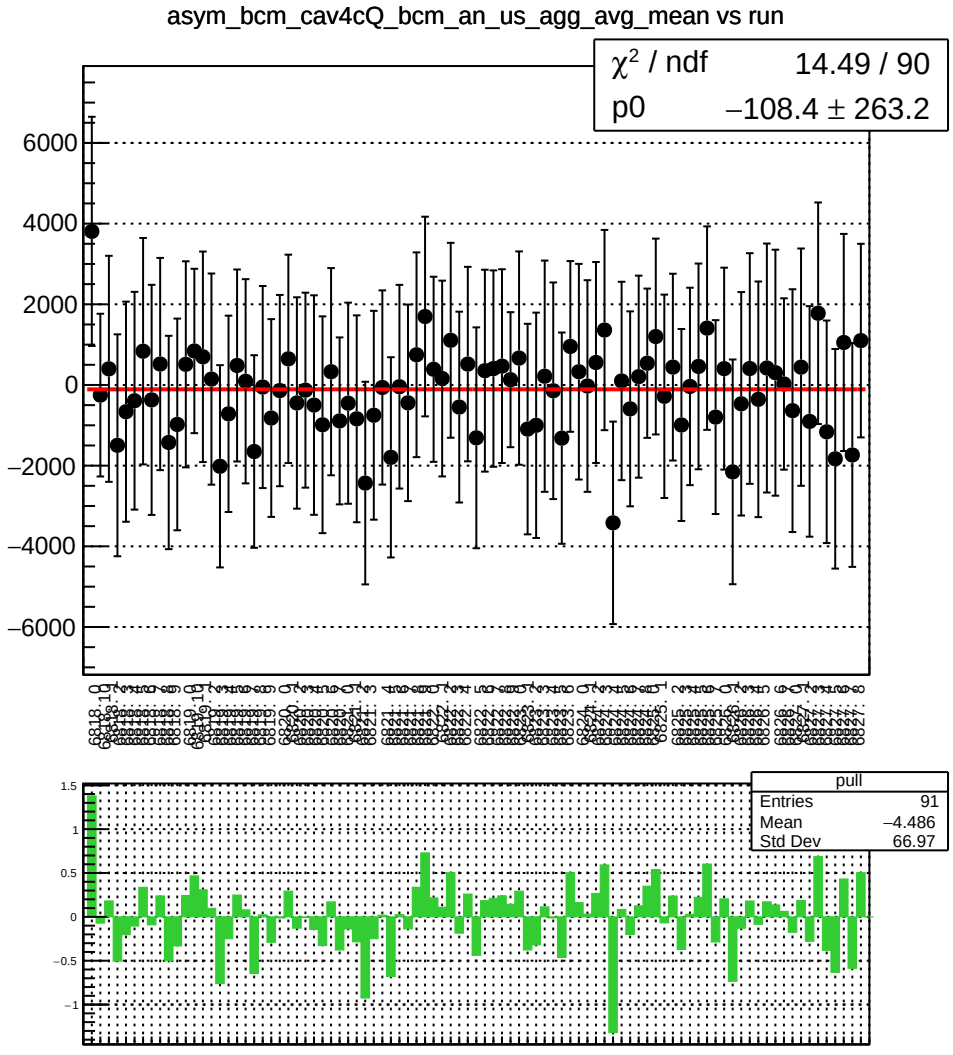

pull1D
Entries 91
Mean −0.002608
Std Dev 0.3904
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

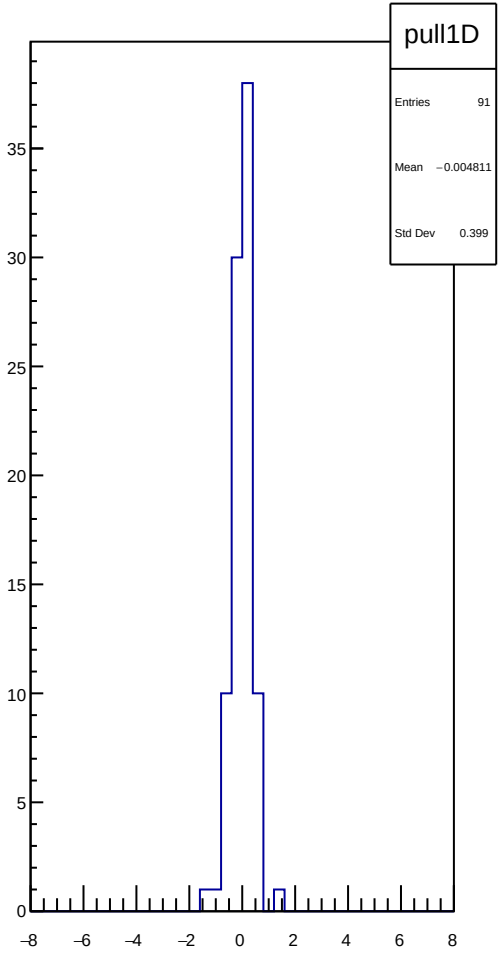

asym_bcm_dg_us_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 7054 / 90
p0 234.1 ± 0.1784
290
280
270
260
250
240
230
220
210

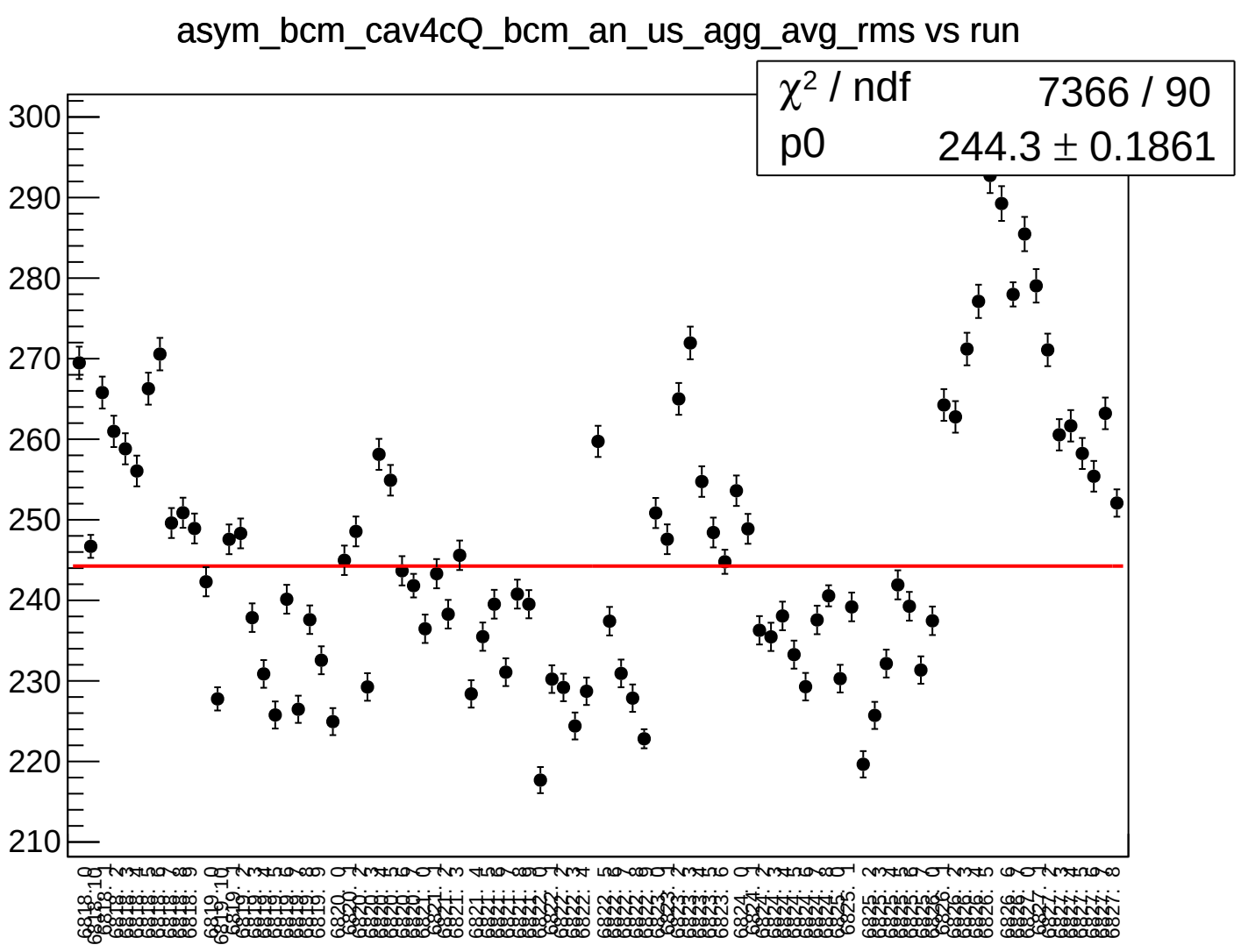

asym_bcm_dg_us_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 75.43 / 90
p0 17.95 ± 25.67
pull
Entries 91
Mean −1537
Std Dev 1578

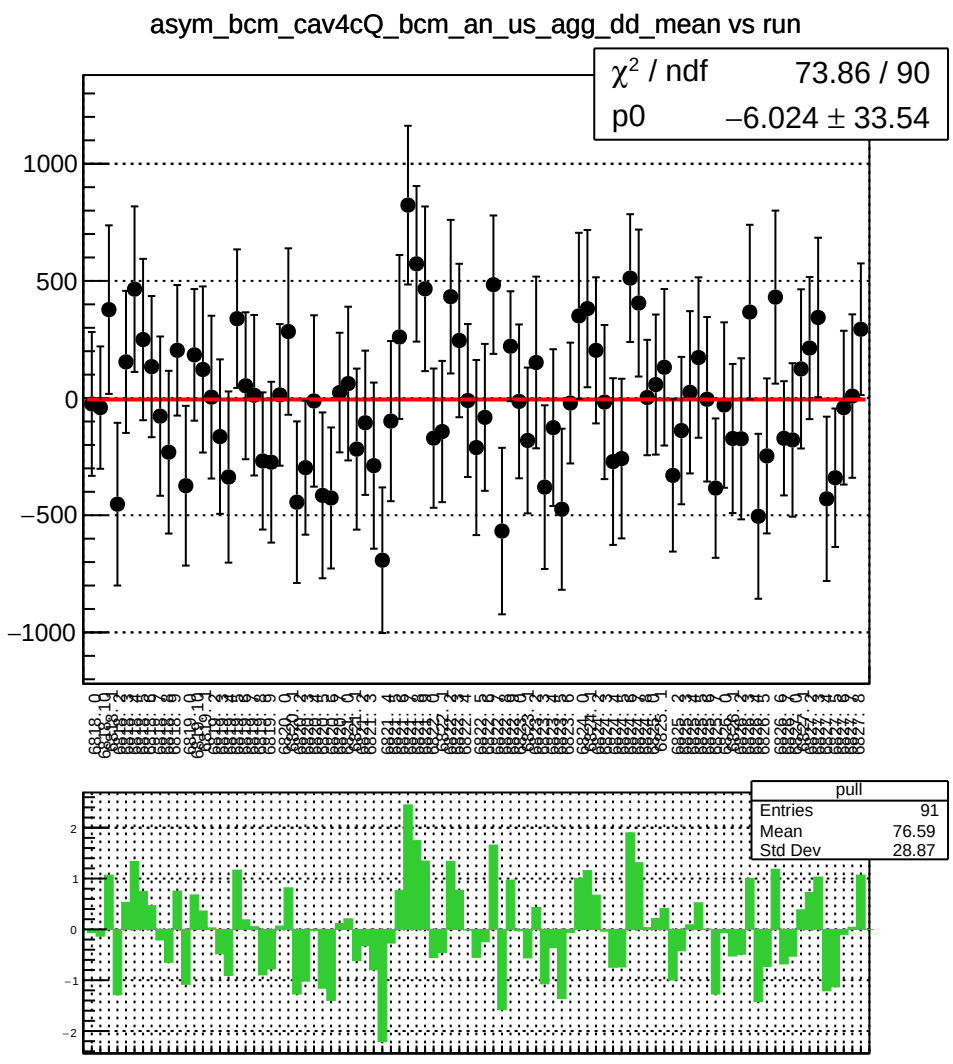

pull1D
Entries 91
Mean 0.001811
Std Dev 0.9105

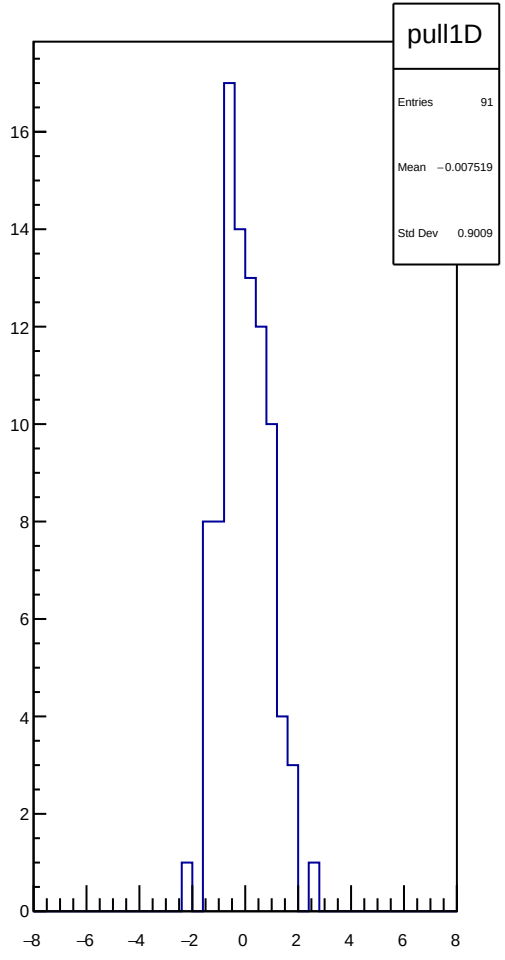

asym_bcm_dg_us_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 2232 / 90
p0 23.86 ± 0.01815
26
25
24
23
22
21

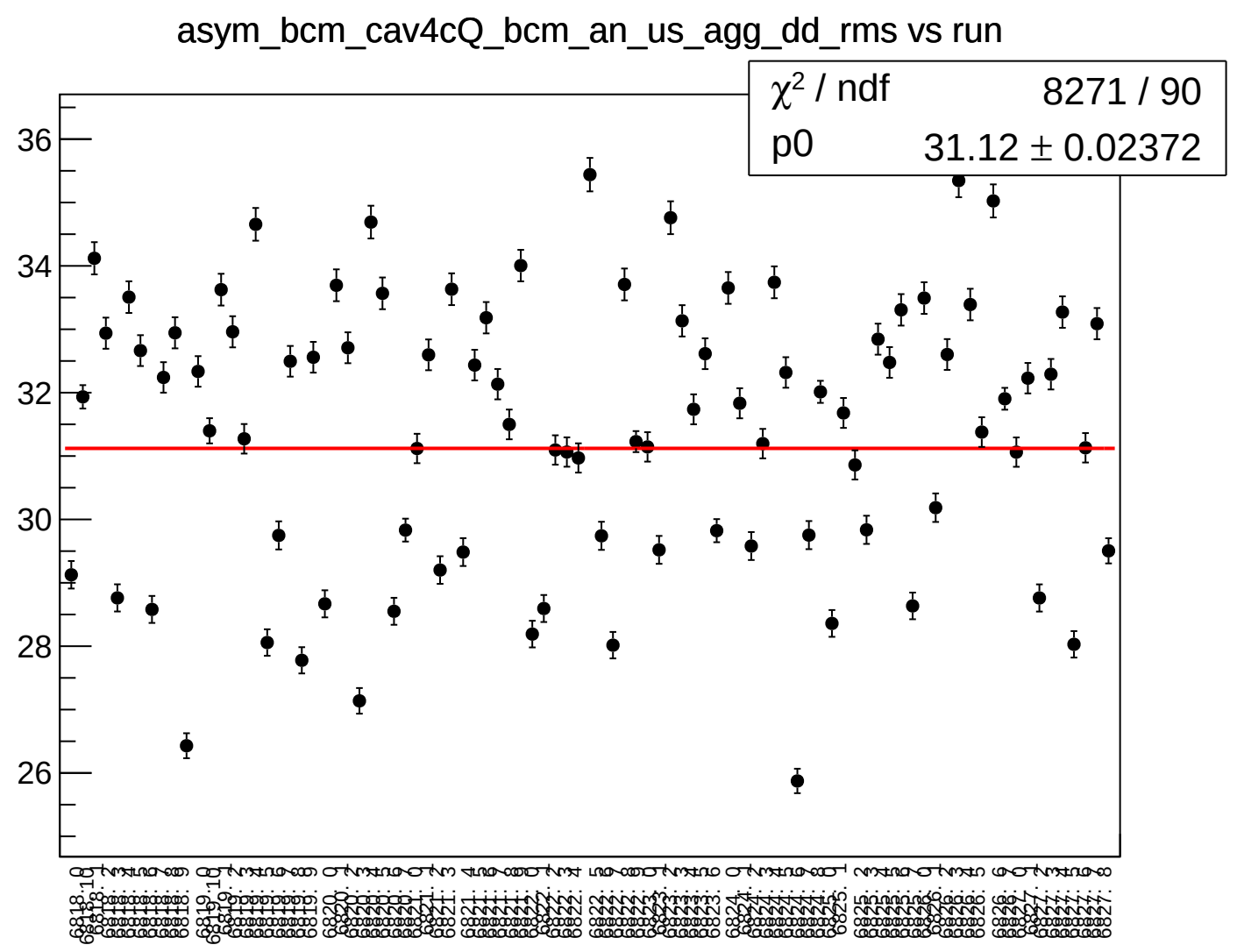

asym_bcm_cav4cQ_bcm_an_us_agg_avg_mean vs run
χ² / ndf 14.49 / 90
p0 −108.4 ± 263.2
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −4.486
Std Dev 66.97
1.5
1
0.5
0
−0.5
−1

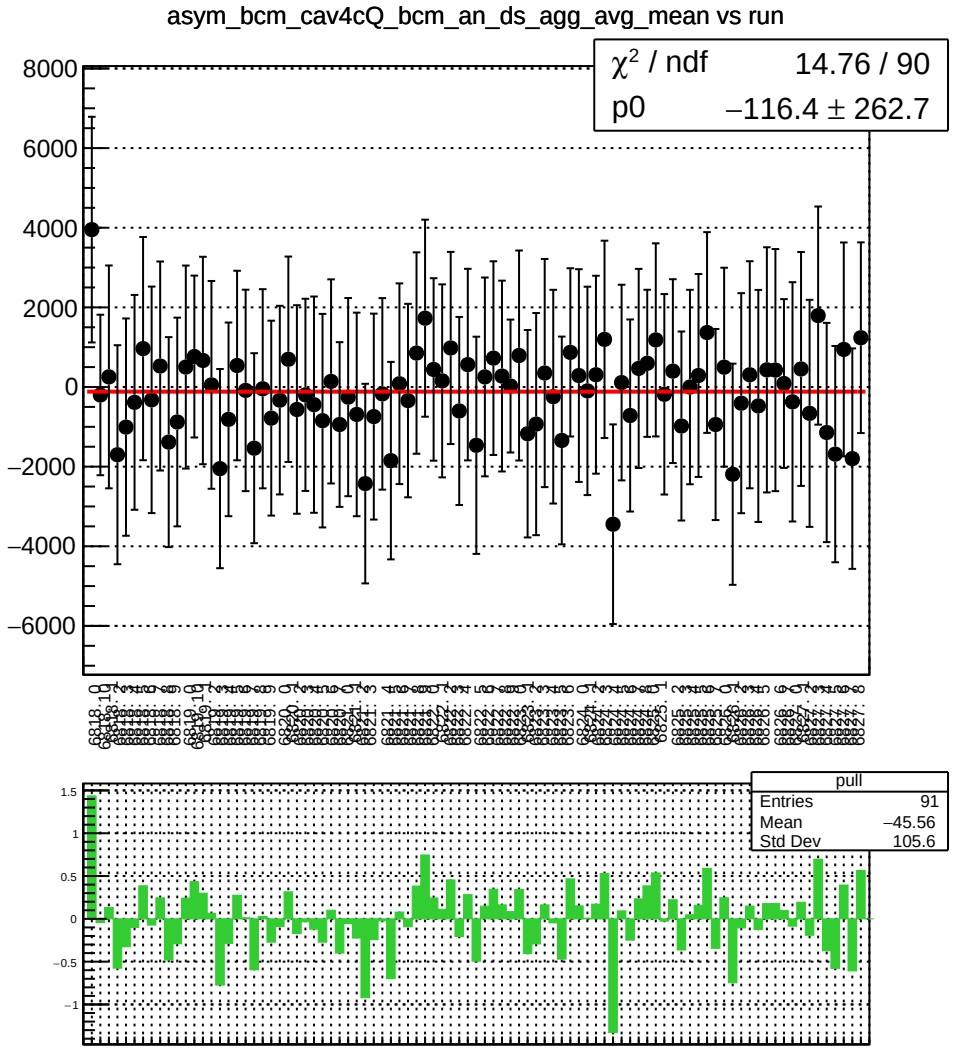

pull1D
Entries 91
Mean −0.004811
Std Dev 0.399
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

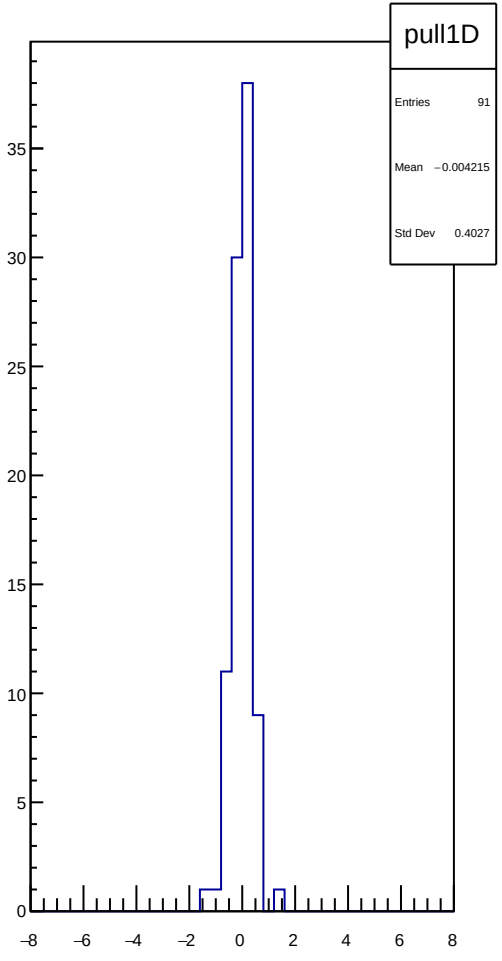

asym_bcm_cav4cQ_bcm_an_us_agg_avg_rms vs run
χ² / ndf 7366 / 90
p0 244.3 ± 0.1861
300
290
280
270
260
250
240
230
220
210

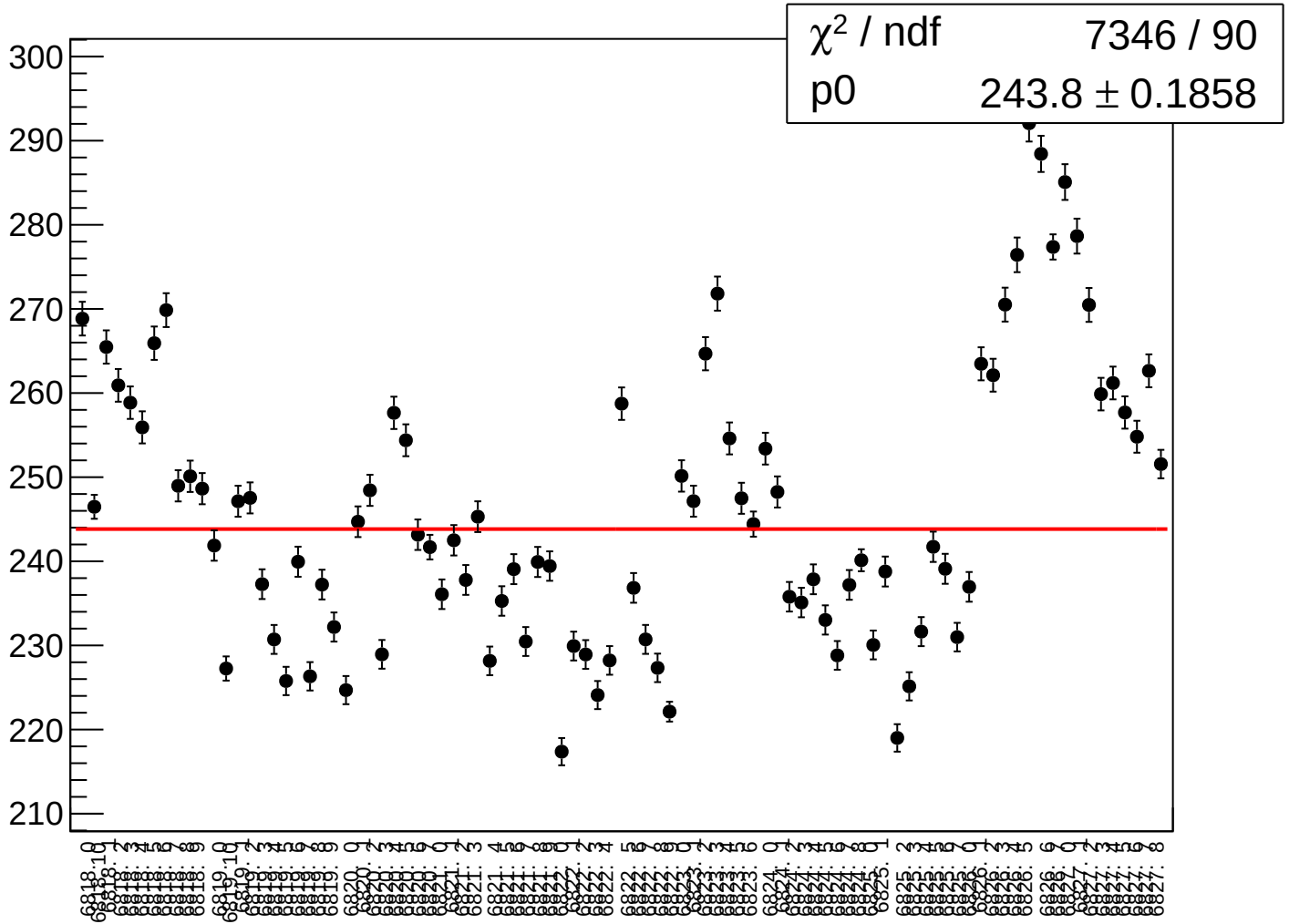

asym_bcm_cav4cQ_bcm_an_us_agg_dd_mean vs run
χ² / ndf 73.86 / 90
p0 −6.024 ± 33.54
1000
500
0
−500
−1000
pull
Entries 91
Mean 76.59
Std Dev 28.87
2
1
0
−1
−2

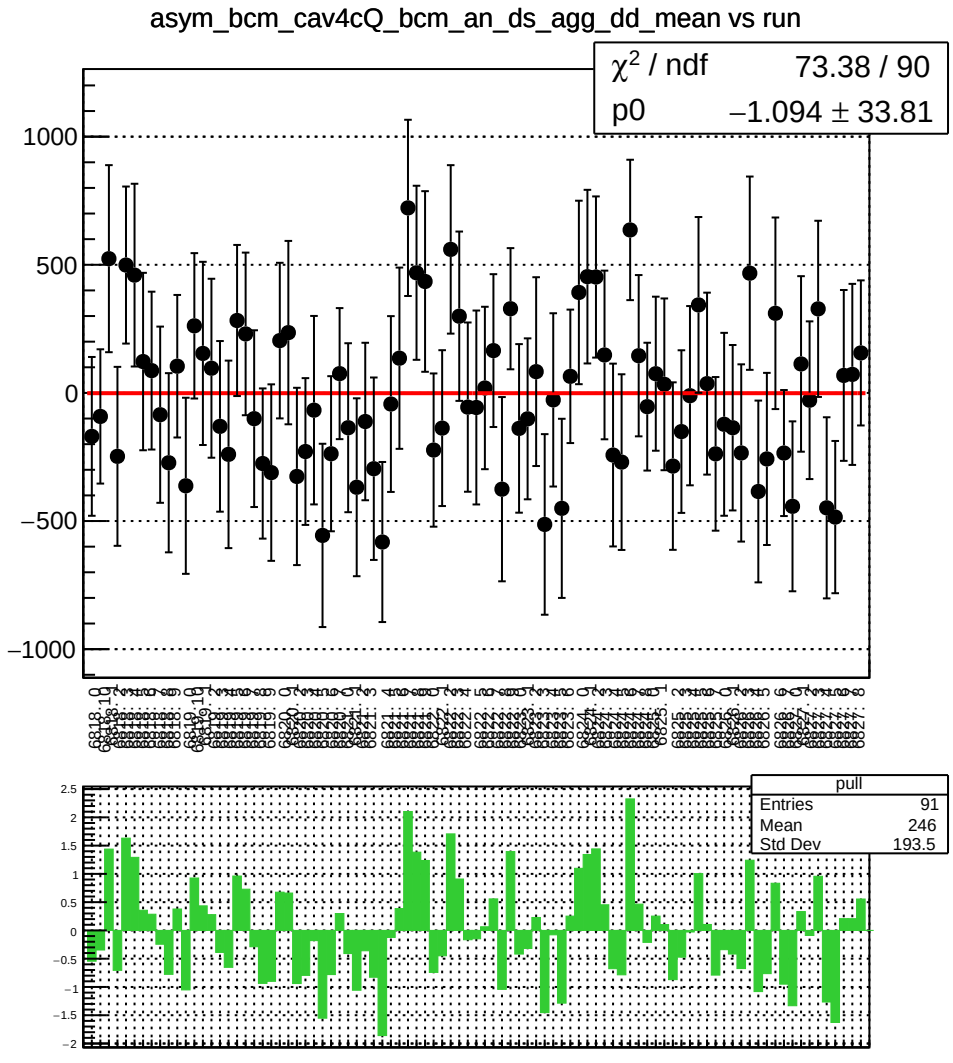

pull1D
Entries 91
Mean −0.007519
Std Dev 0.9009
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

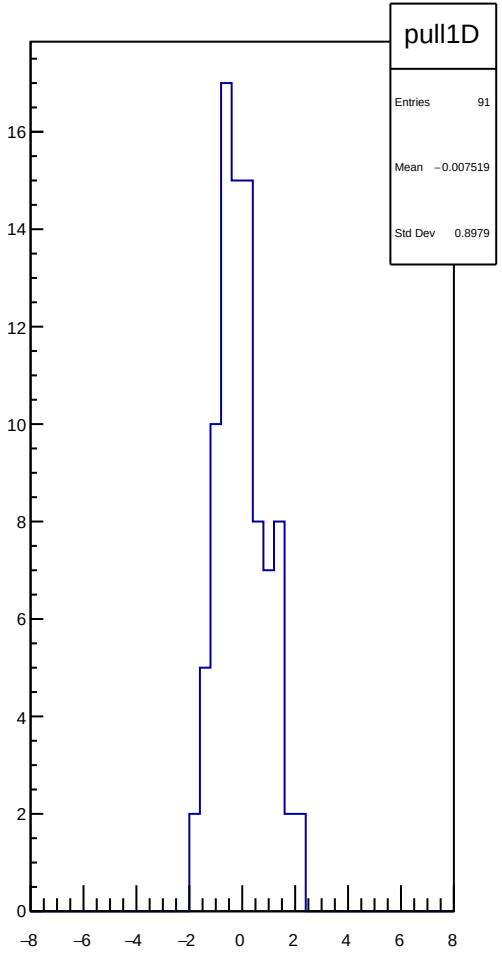

asym_bcm_cav4cQ_bcm_an_us_agg_dd_rms vs run
χ² / ndf 8271 / 90
p0 31.12 ± 0.02372
36
34
32
30
28
26

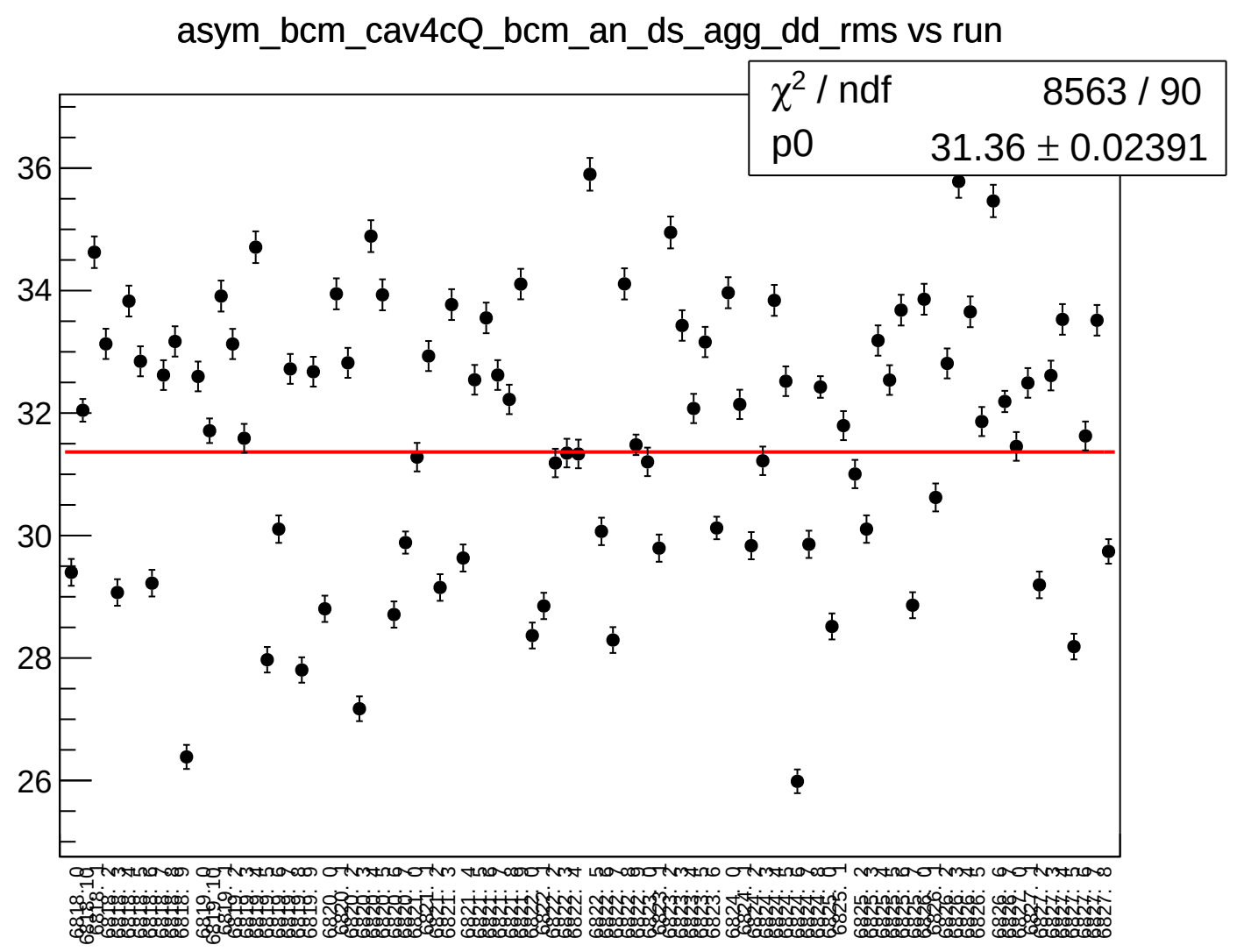

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 14.76 / 90
p0 −116.4 ± 262.7
pull
Entries 91
Mean −45.56
Std Dev 105.6

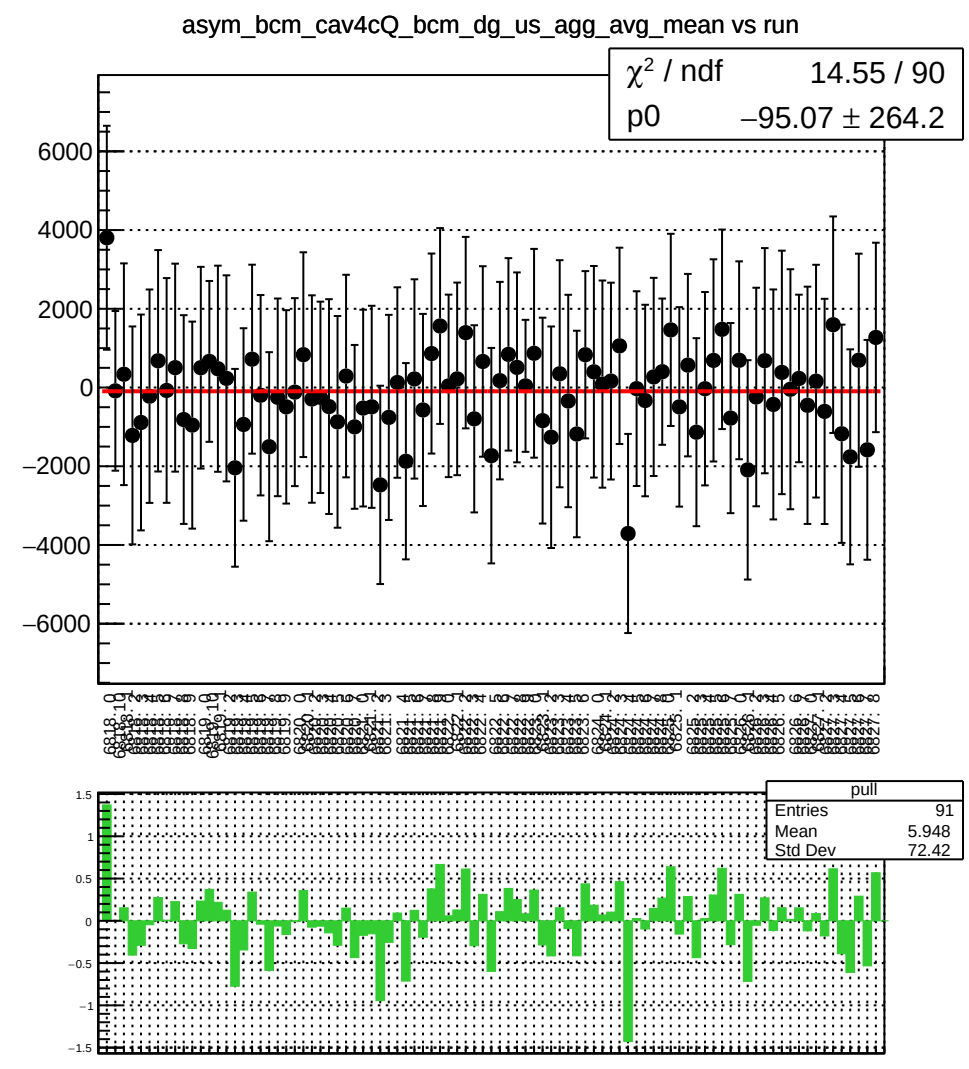

pull1D
Entries 91
Mean −0.004215
Std Dev 0.4027

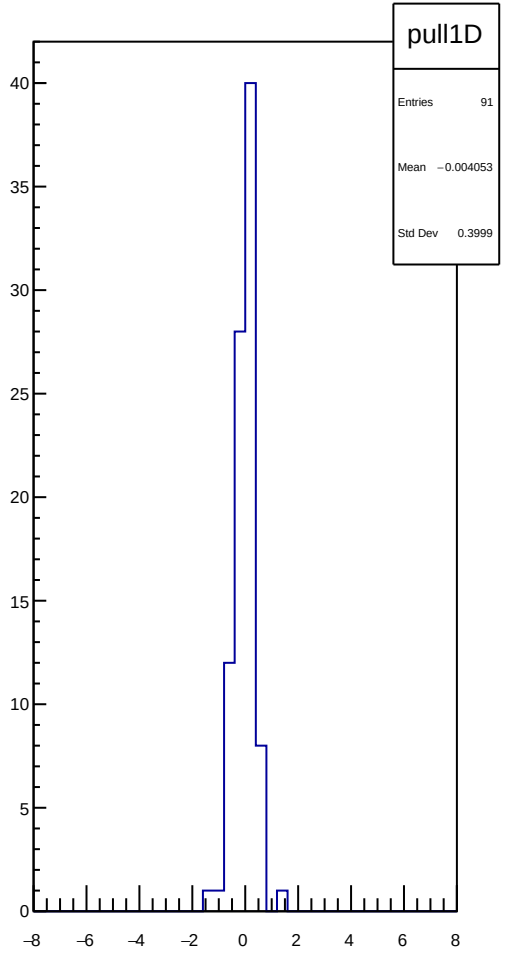

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 7346 / 90
p0 243.8 ± 0.1858
300
290
280
270
260
250
240
230
220
210

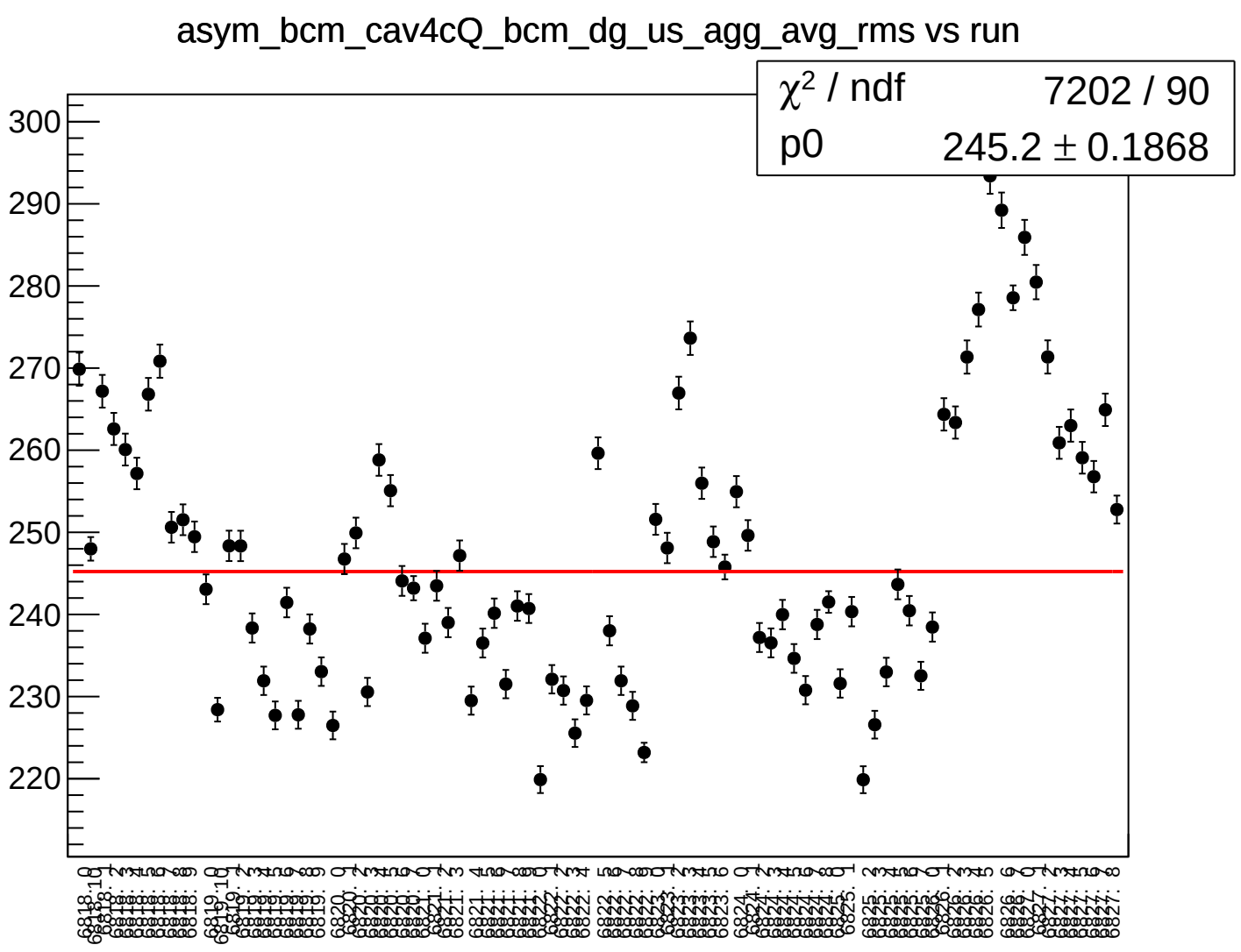

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 73.38 / 90
p0 −1.094 ± 33.81
pull
Entries 91
Mean 246
Std Dev 193.5

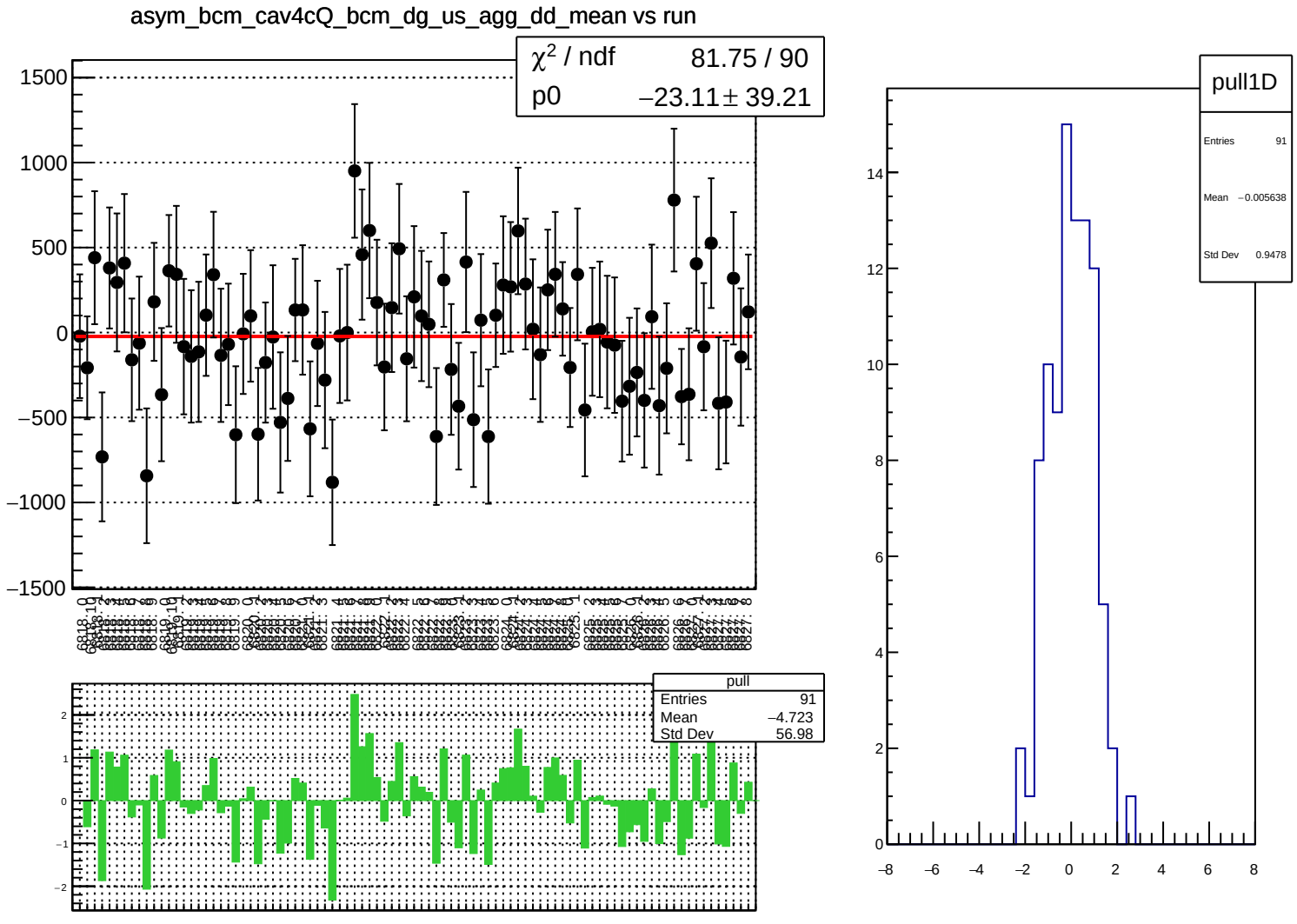

pull1D
Entries 91
Mean −0.007519
Std Dev 0.8979

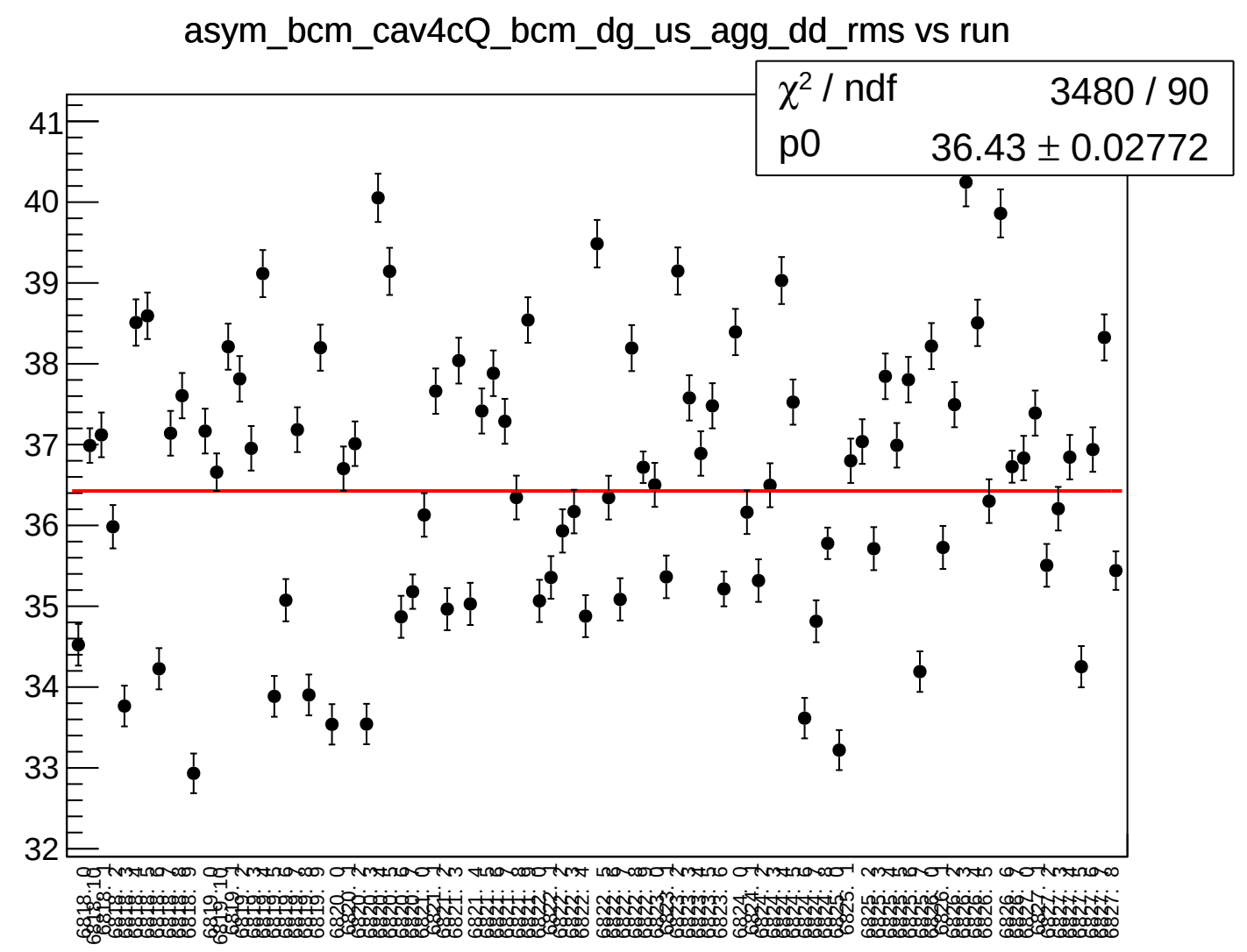

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 8563 / 90
p0 31.36 ± 0.02391
36
34
32
30
28
26

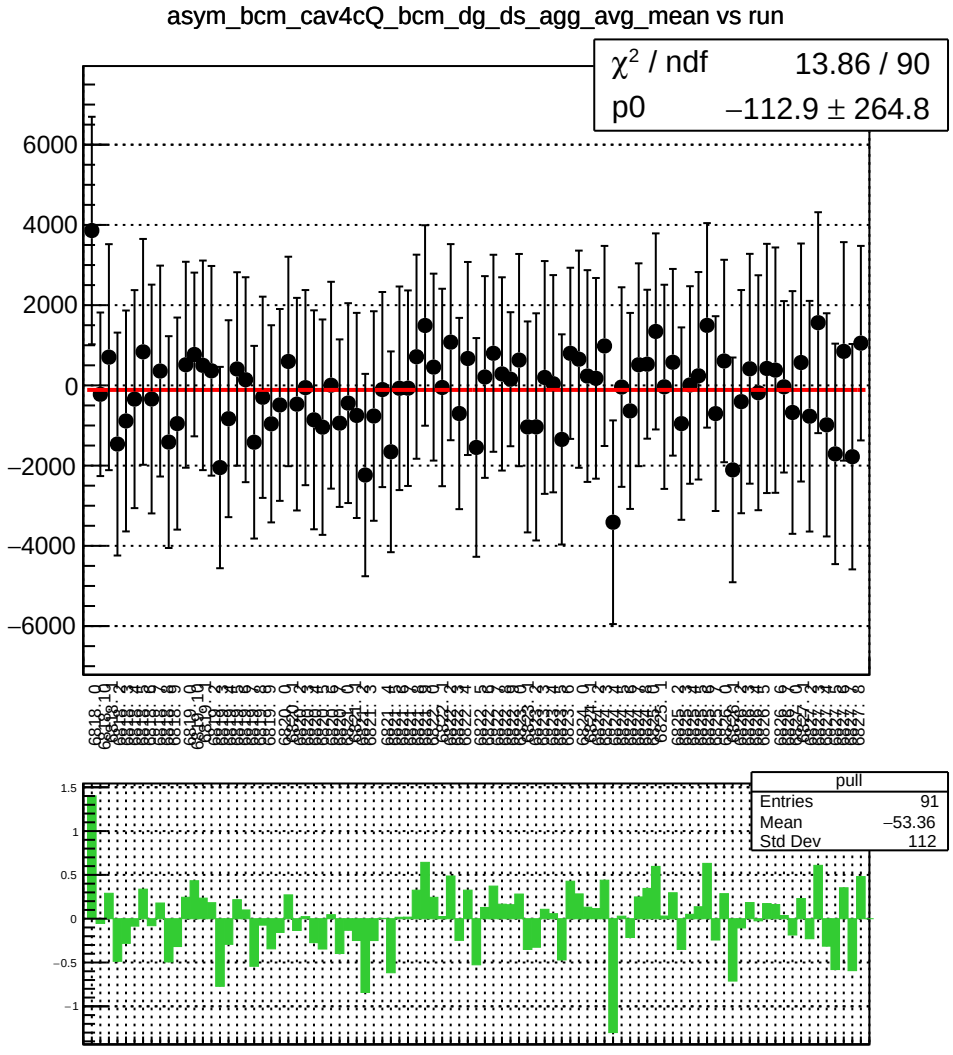

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_mean vs run
χ² / ndf 14.55 / 90
p0 −95.07 ± 264.2
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean 5.948
Std Dev 72.42
1.5
1
0.5
0
−0.5
−1
−1.5

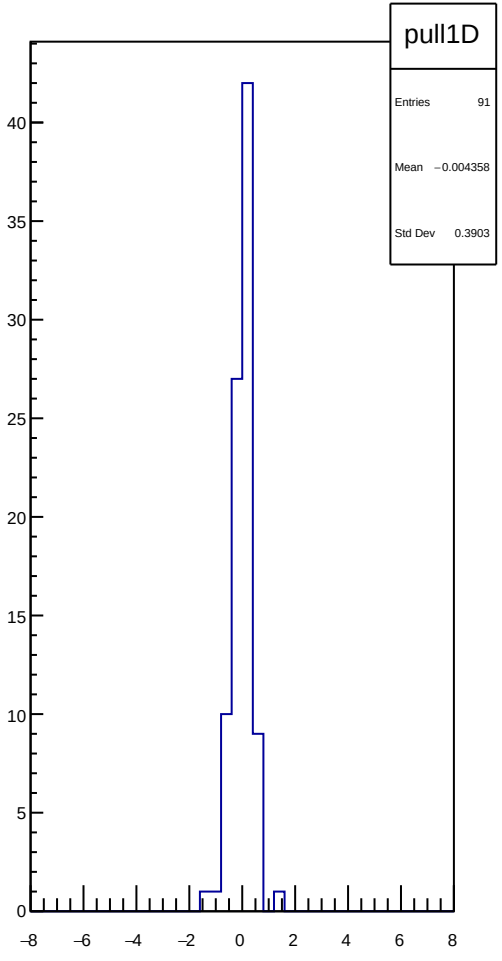

pull1D
Entries 91
Mean −0.004053
Std Dev 0.3999
40
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

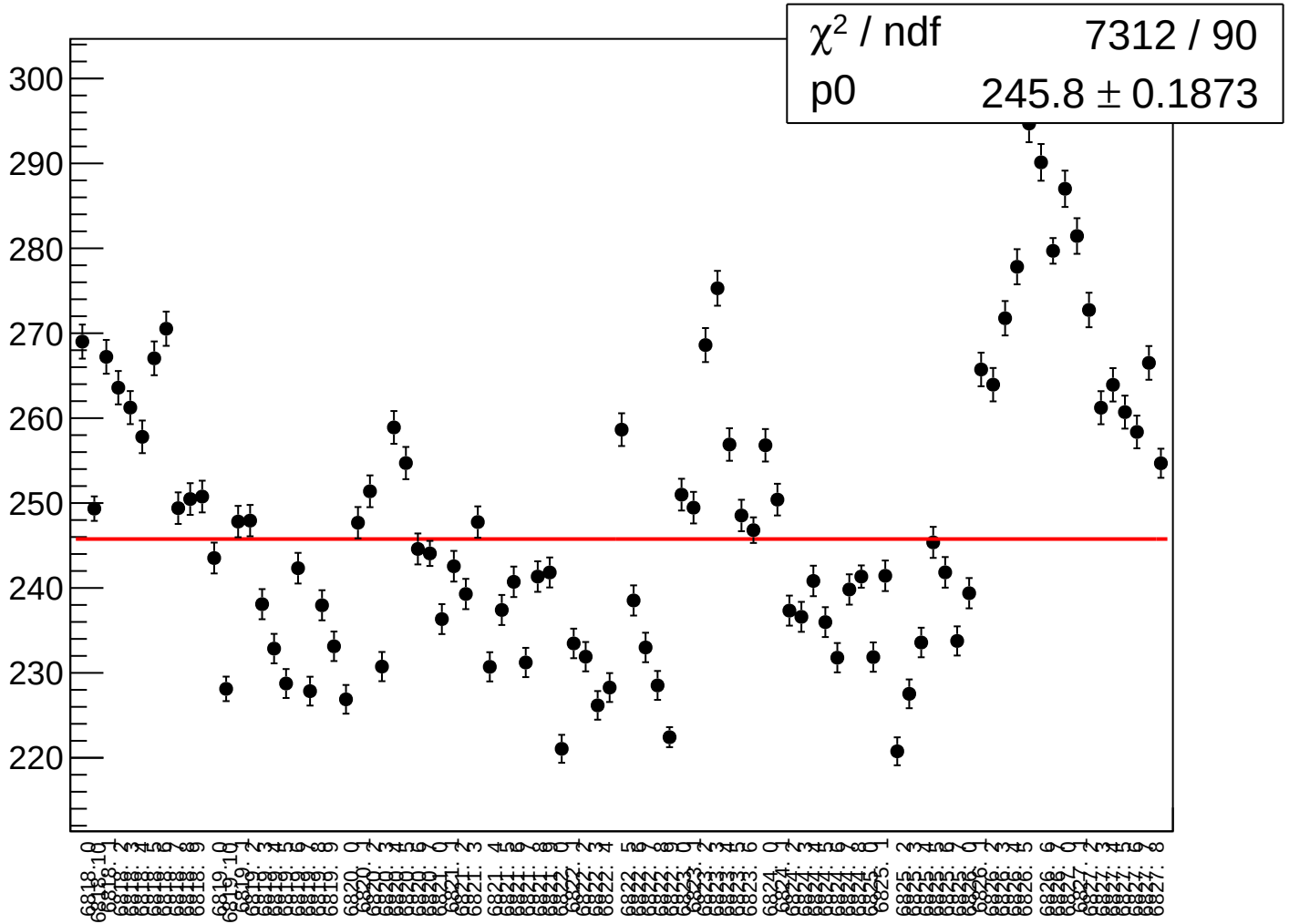

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_rms vs run
χ² / ndf 7202 / 90
p0 245.2 ± 0.1868
300
290
280
270
260
250
240
230
220

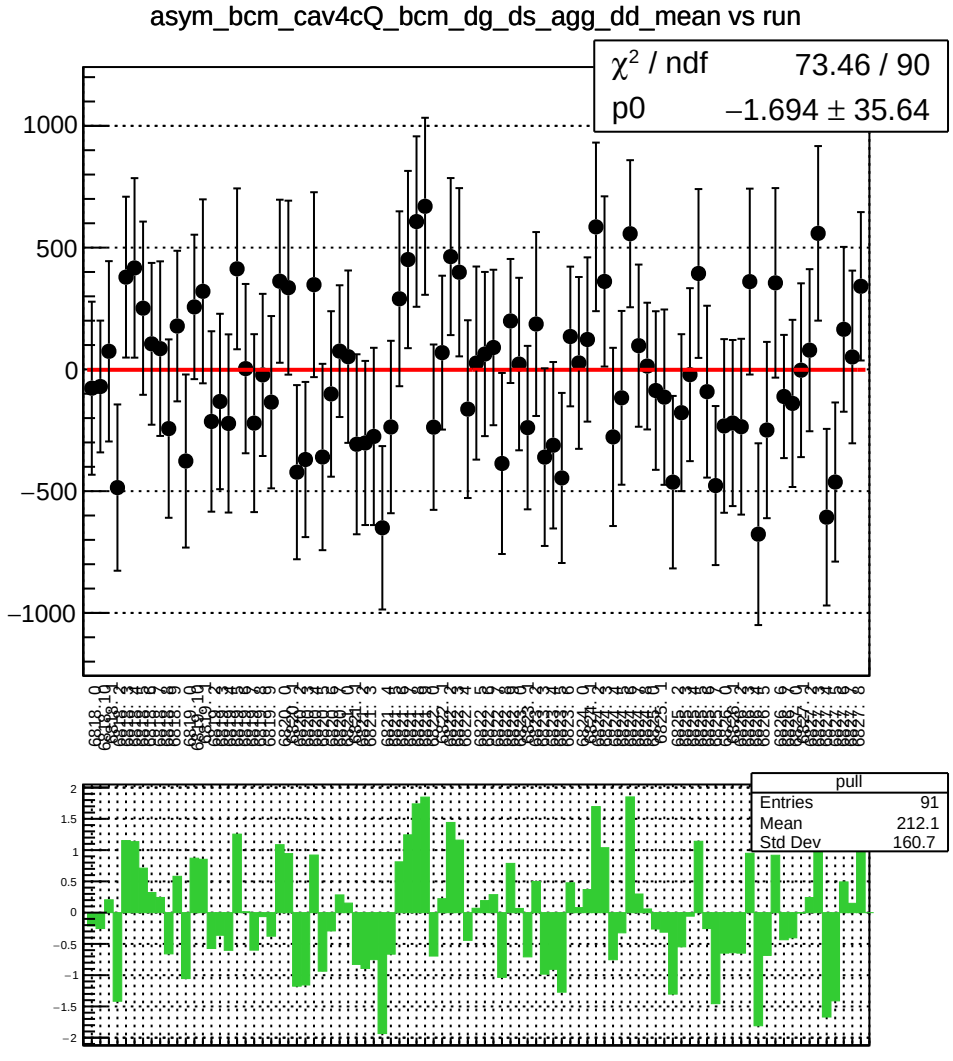

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 81.75 / 90
p0 −23.11 ± 39.21
pull
Entries 91
Mean −4.723
Std Dev 56.98
pull1D
Entries 91
Mean −0.005638
Std Dev 0.9478

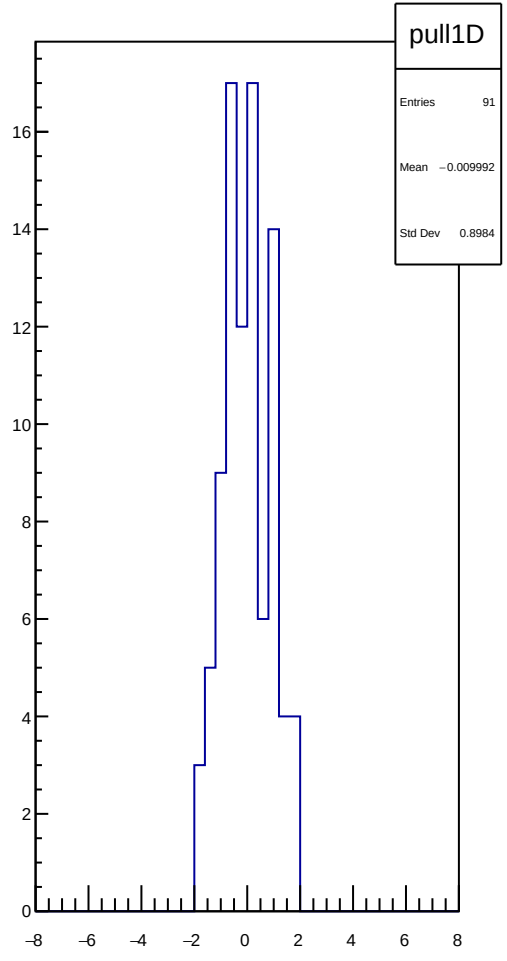

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 3480 / 90
p0 36.43 ± 0.02772
41
40
39
38
37
36
35
34
33
32

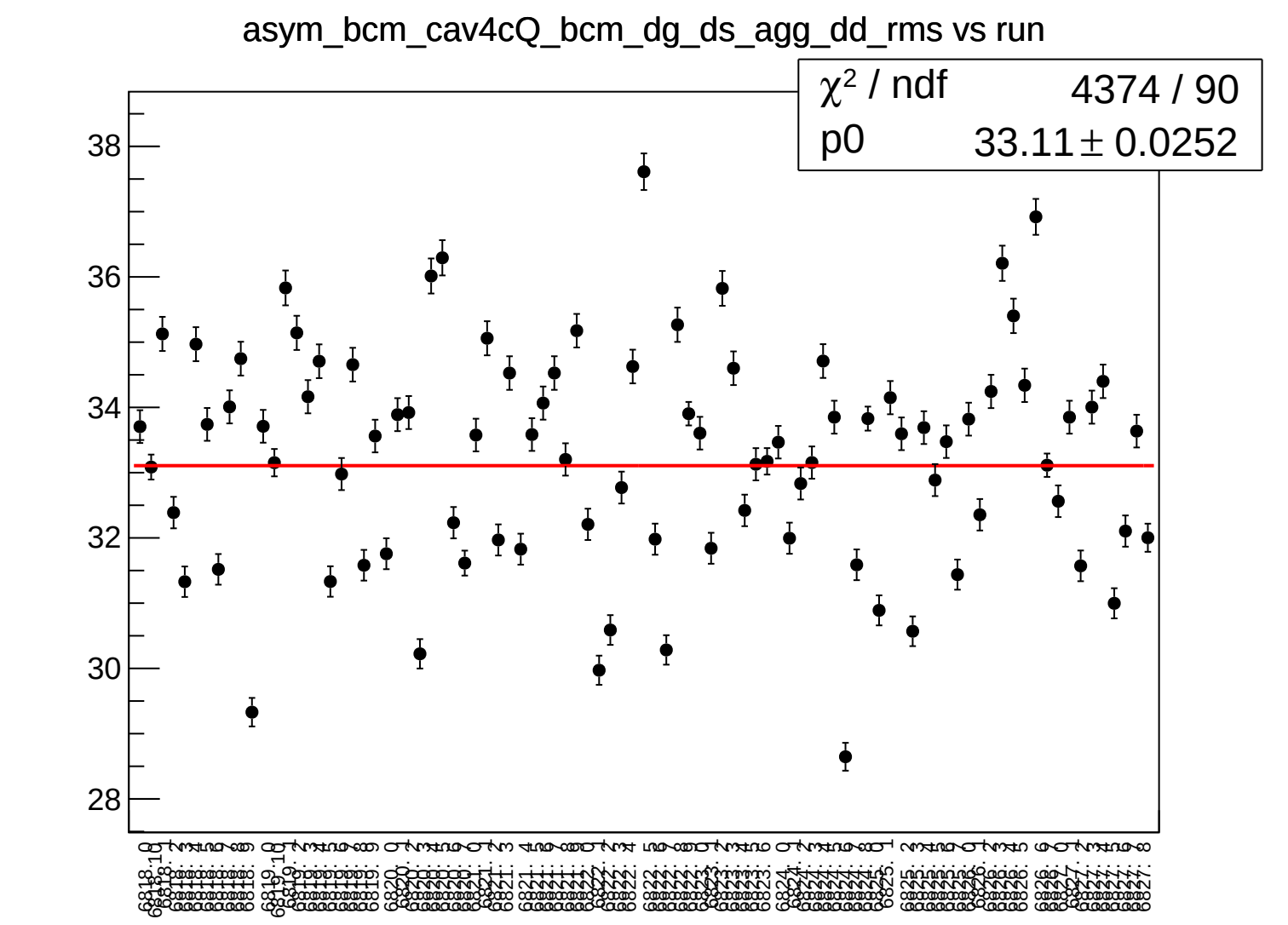

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 13.86 / 90
p0 −112.9 ± 264.8
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −53.36
Std Dev 112
1.5
1
0.5
0
−0.5
−1

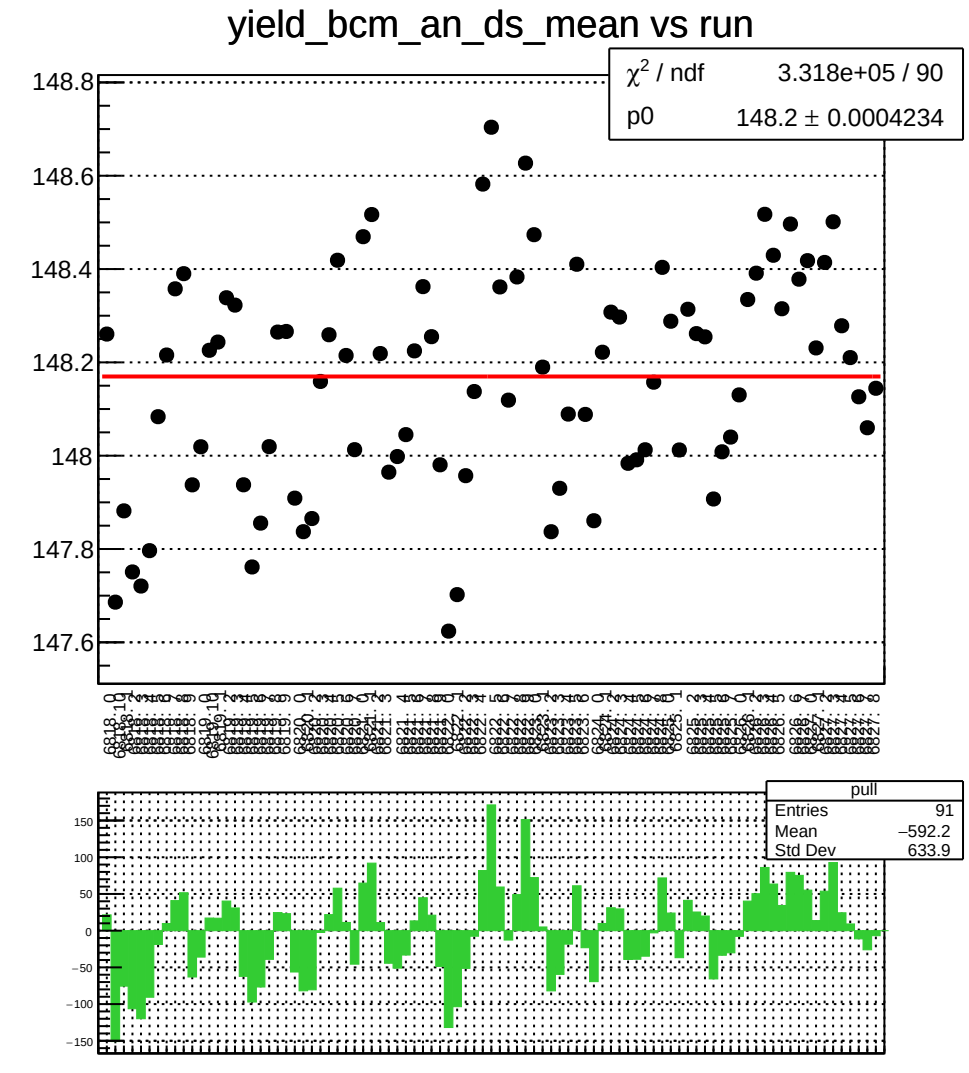

pull1D
Entries 91
Mean −0.004358
Std Dev 0.3903
40
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

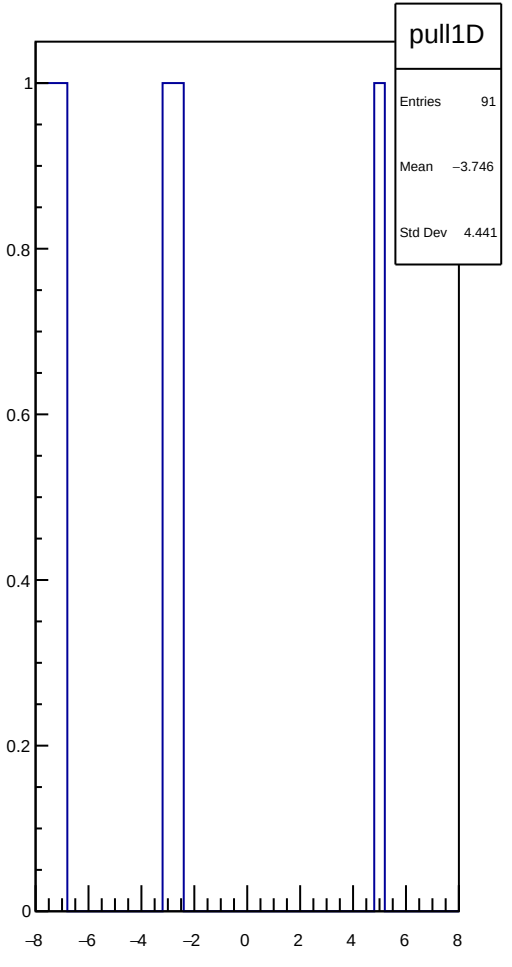

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 7312 / 90
p0 245.8 ± 0.1873
300
290
280
270
260
250
240
230
220

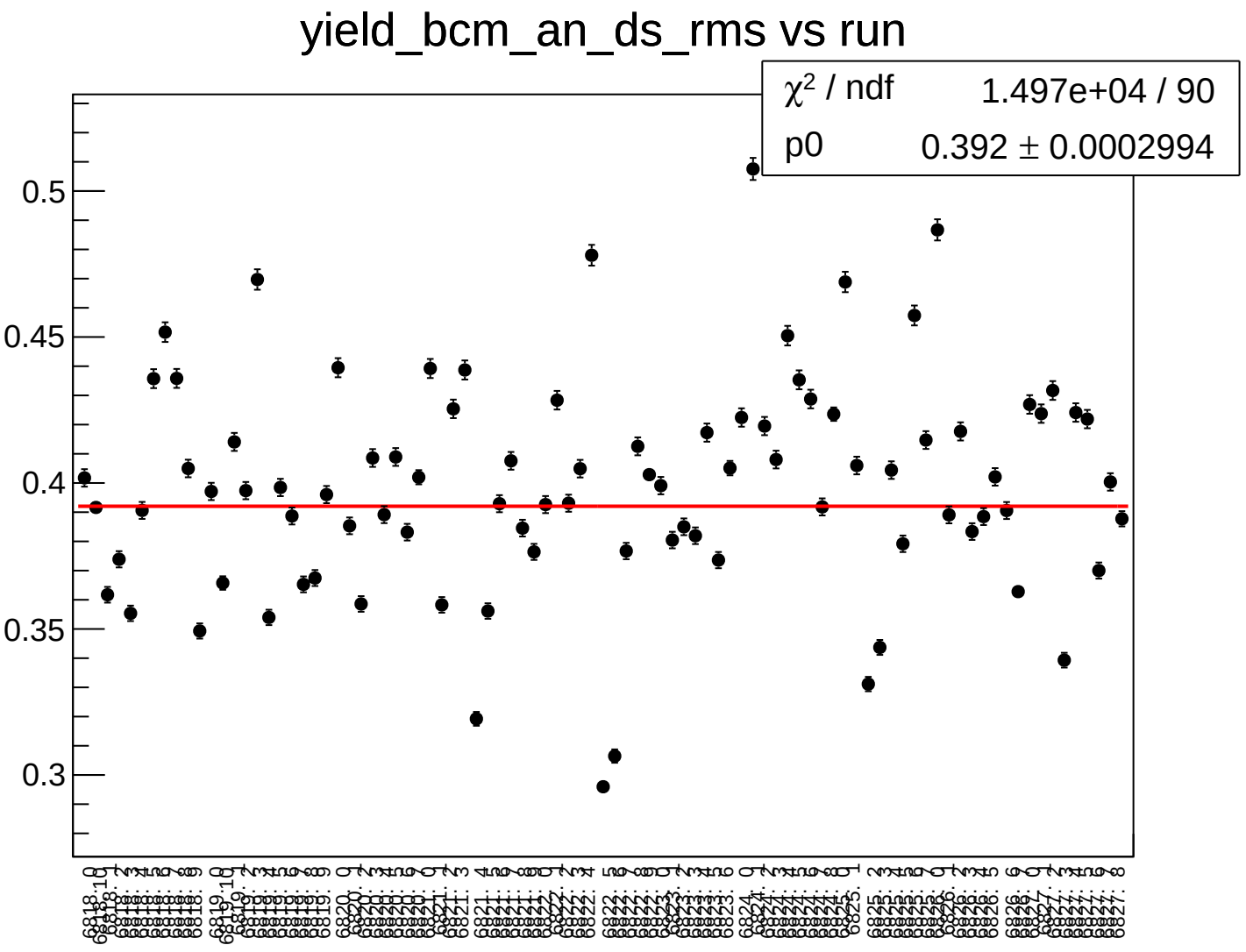

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 73.46 / 90
p0 −1.694 ± 35.64
pull
Entries 91
Mean 212.1
Std Dev 160.7

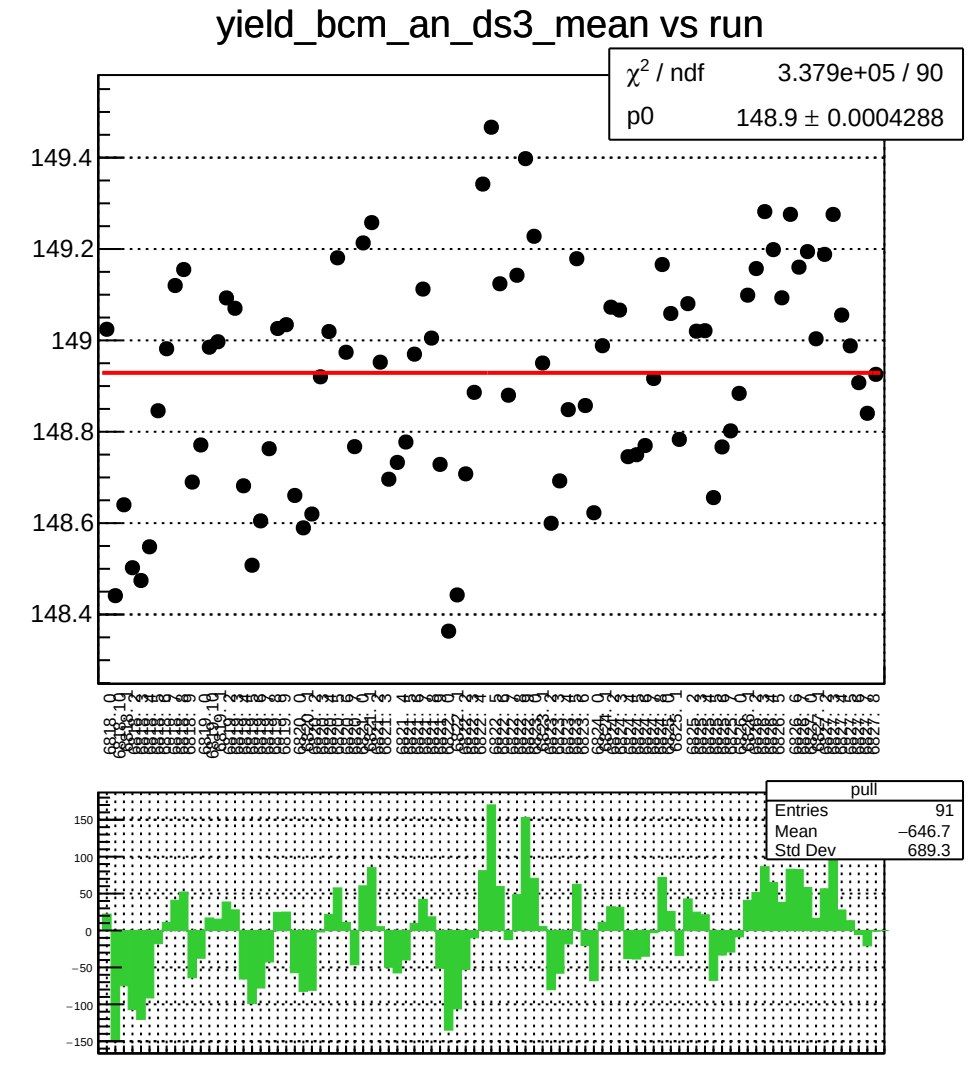

pull1D
Entries 91
Mean −0.009992
Std Dev 0.8984

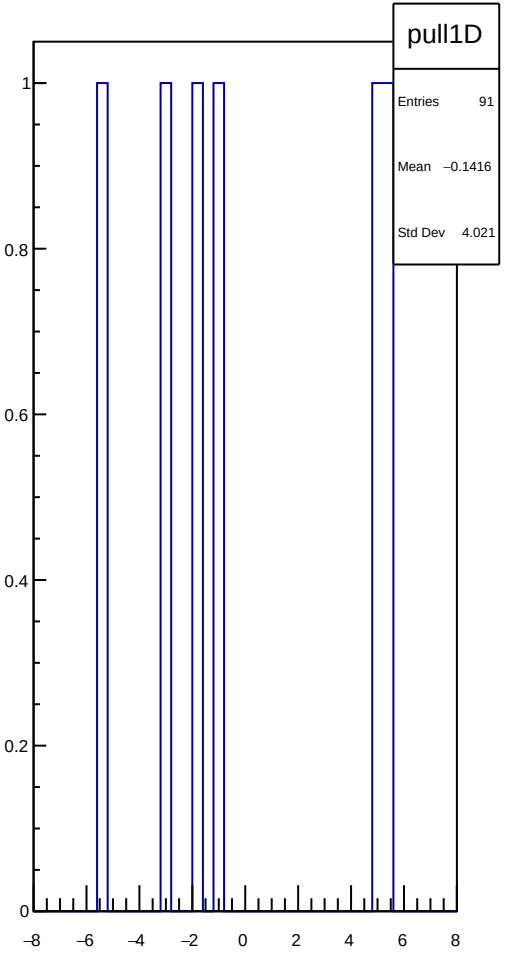

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 4374 / 90
p0 33.11 ± 0.0252
38
36
34
32
30
28

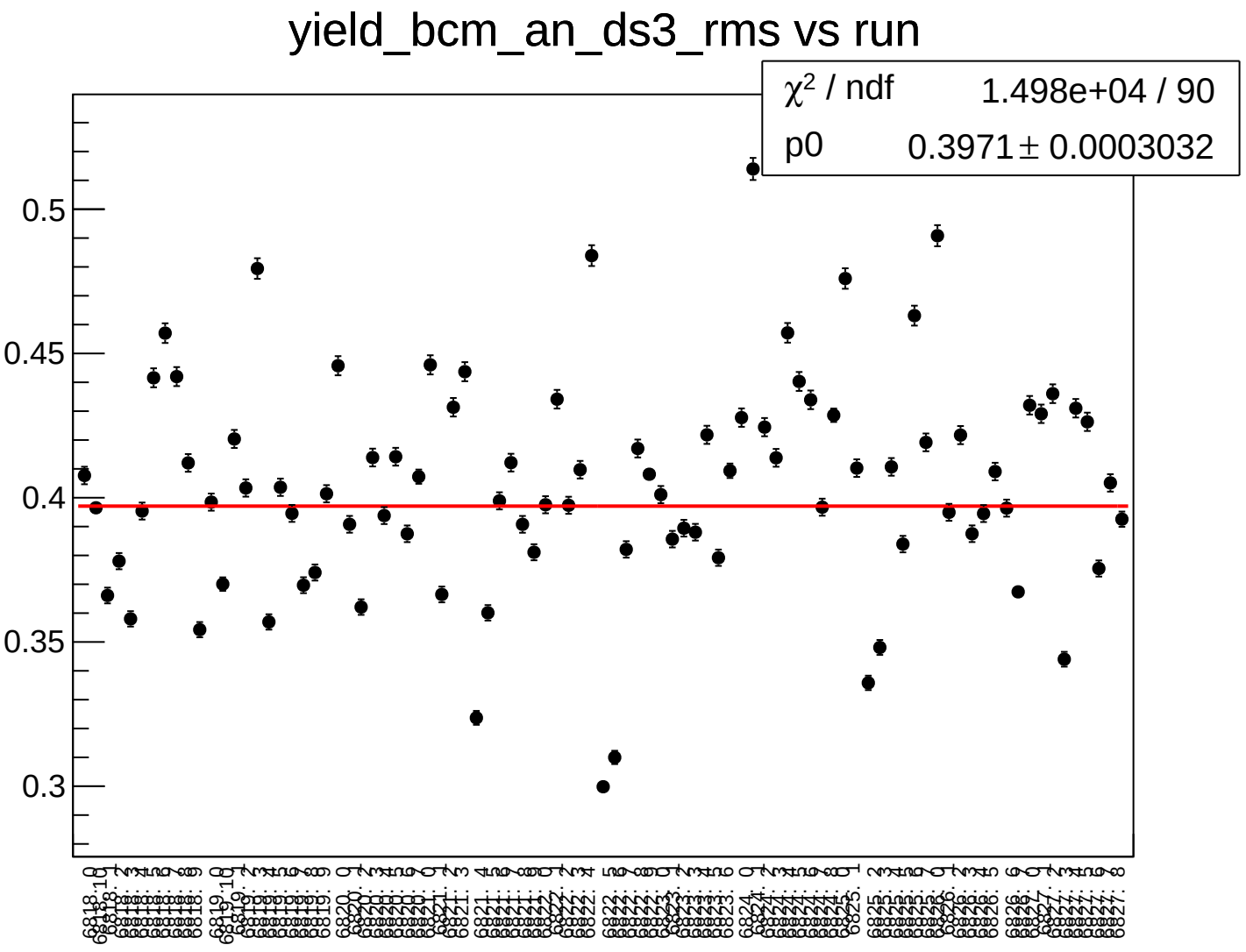

yield_bcm_an_ds_mean vs run
χ² / ndf 3.318e+05 / 90
p0 148.2 ± 0.0004234
148.8
148.6
148.4
148.2
148
147.8
147.6
pull
Entries 91
Mean −592.2
Std Dev 633.9
150
100
50
0
−50
−100
−150

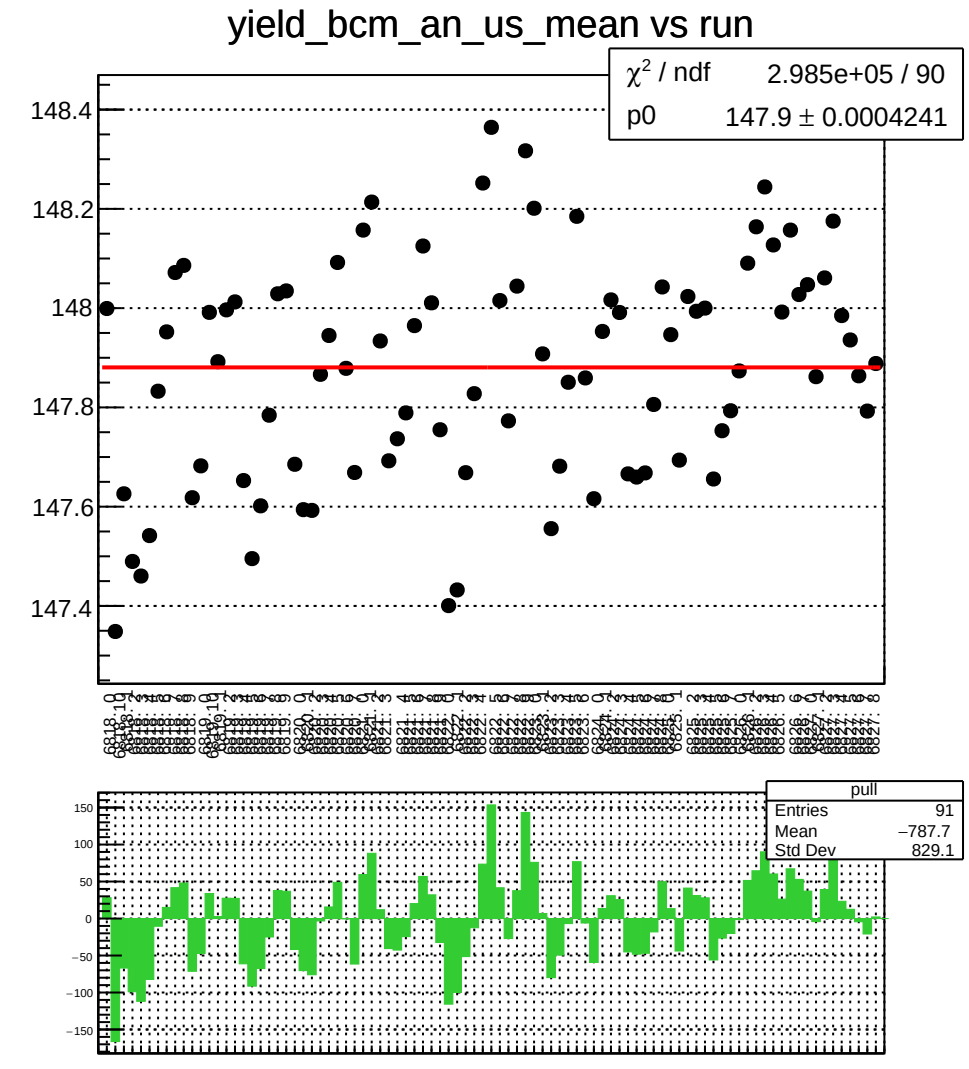

pull1D
Entries 91
Mean −3.746
Std Dev 4.441
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

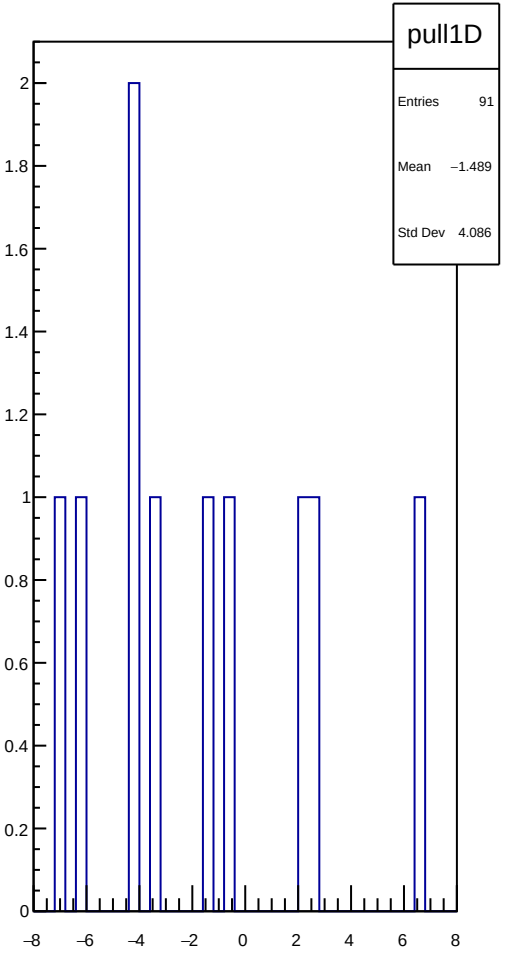

yield_bcm_an_ds_rms vs run
χ² / ndf 1.497e+04 / 90
p0 0.392 ± 0.0002994
0.5
0.45
0.4
0.35
0.3

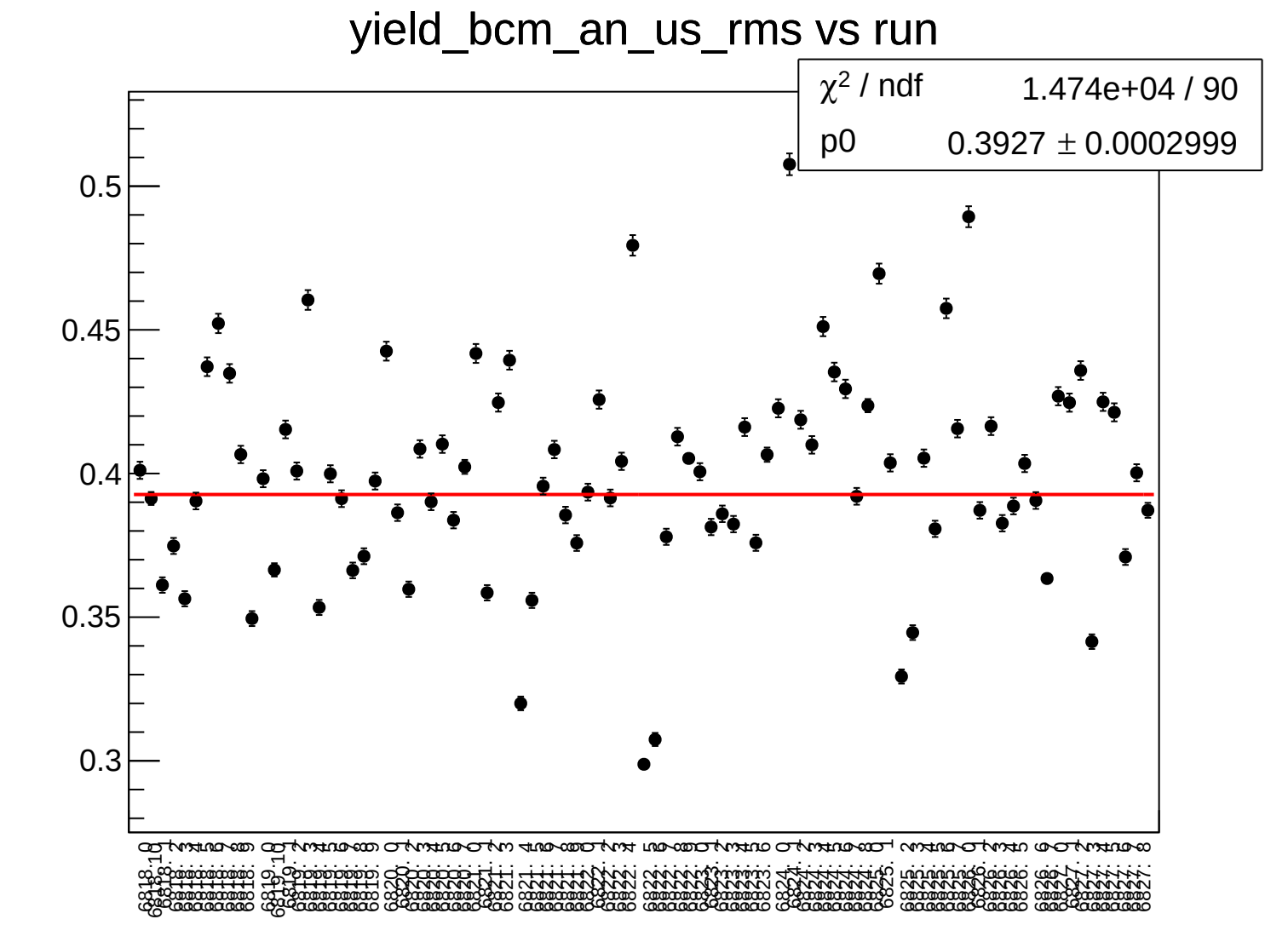

yield_bcm_an_ds3_mean vs run
χ² / ndf 3.379e+05 / 90
p0 148.9 ± 0.0004288
149.4
149.2
149
148.8
148.6
148.4
pull
Entries 91
Mean −646.7
Std Dev 689.3
150
100
50
0
−50
−100
−150

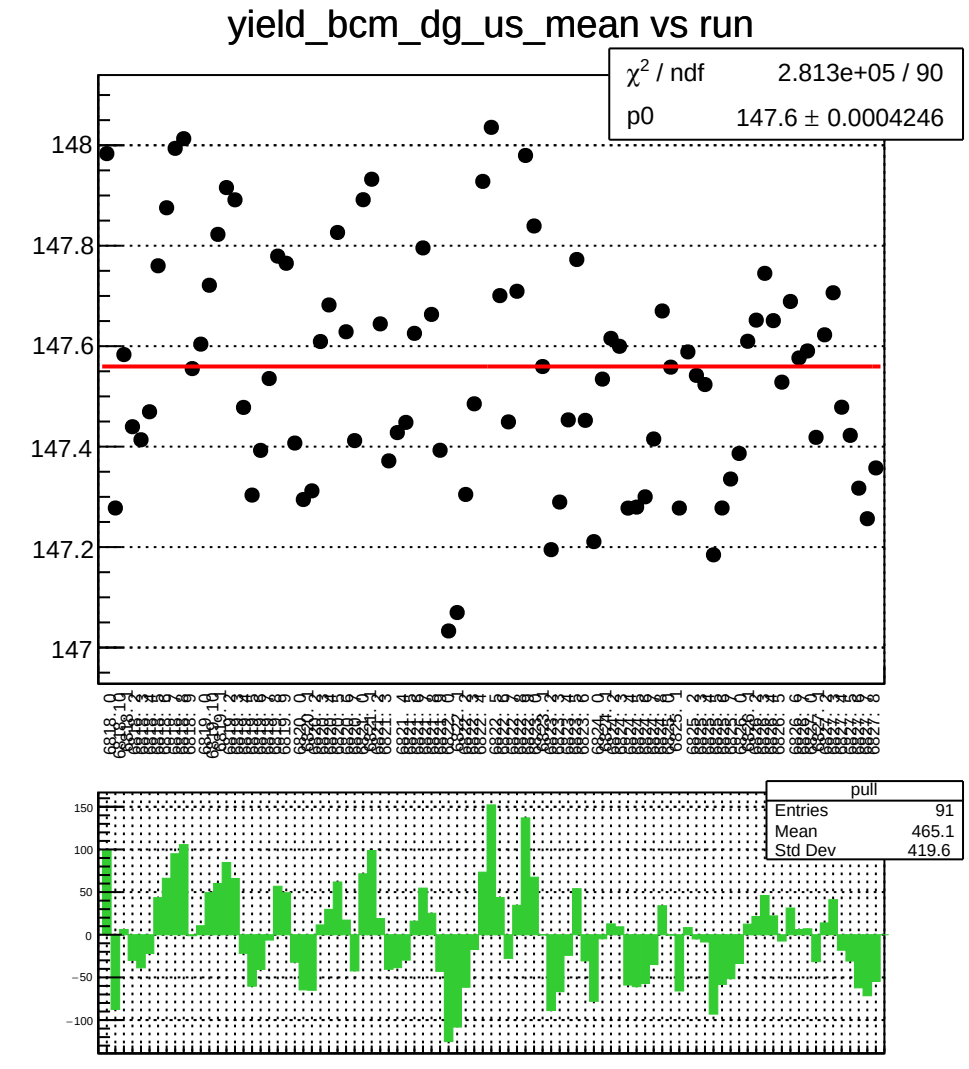

pull1D
Entries 91
Mean −0.1416
Std Dev 4.021
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

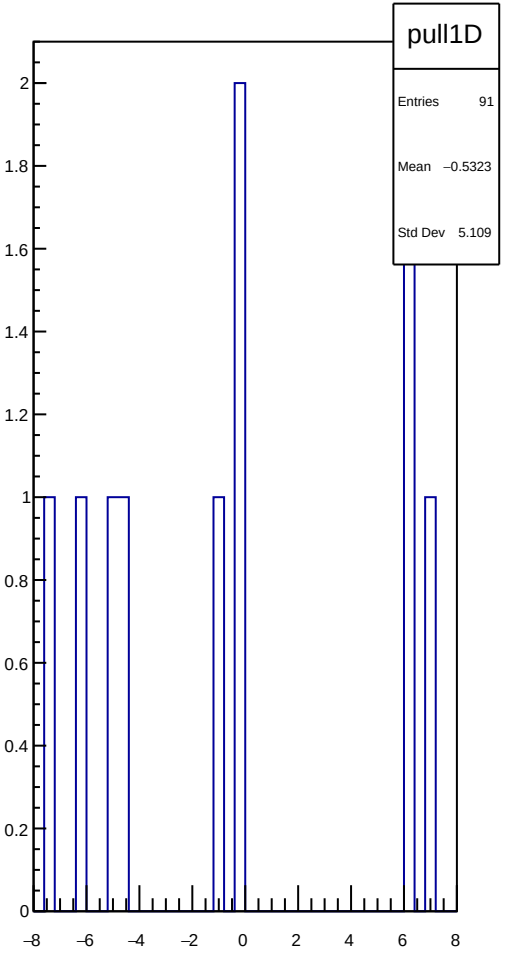

yield_bcm_an_ds3_rms vs run
χ² / ndf 1.498e+04 / 90
p0 0.3971 ± 0.0003032
0.5
0.45
0.4
0.35
0.3

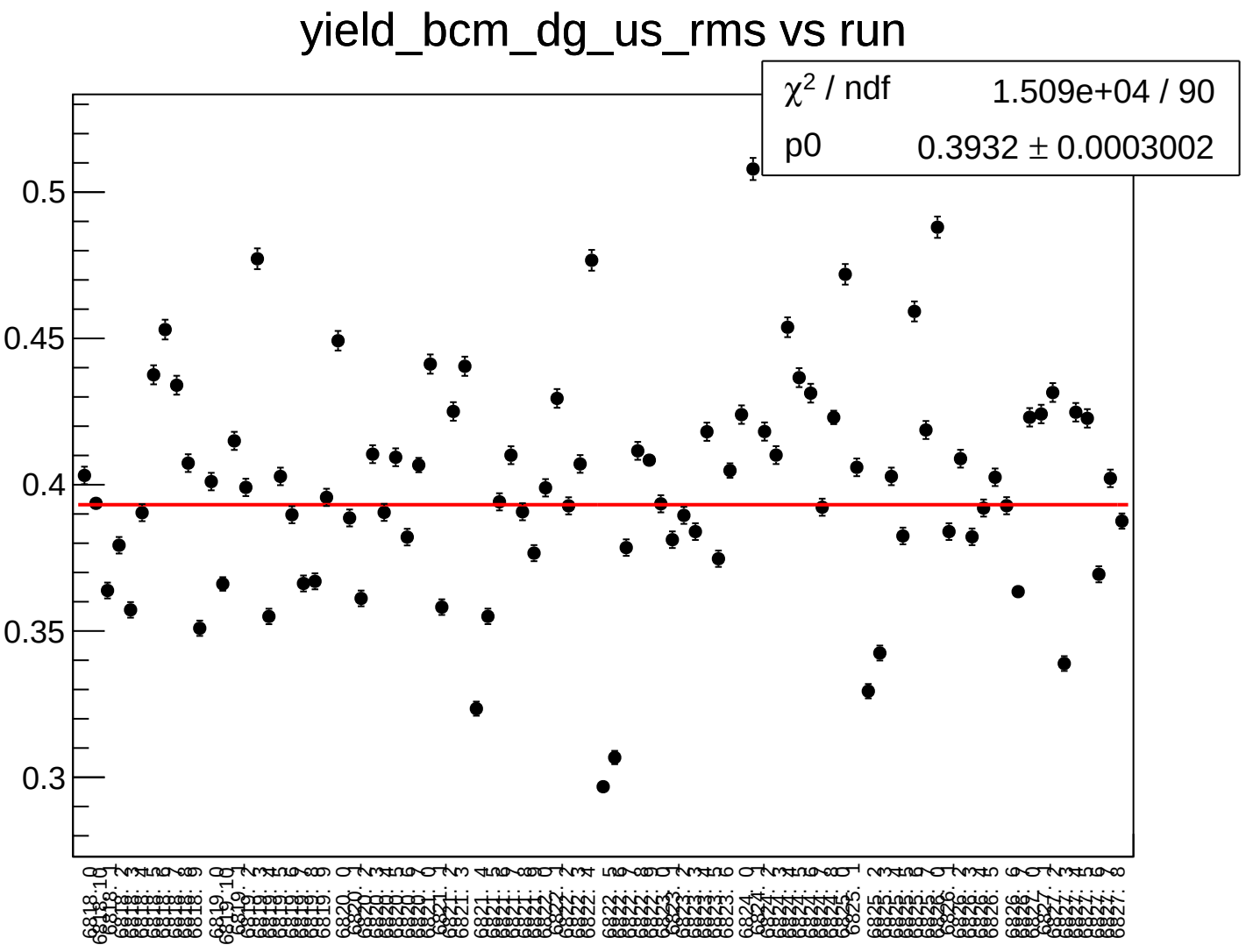

yield_bcm_an_us_mean vs run
χ² / ndf 2.985e+05 / 90
p0 147.9 ± 0.0004241
148.4
148.2
148
147.8
147.6
147.4
pull
Entries 91
Mean −787.7
Std Dev 829.1
150
100
50
0
−50
−100
−150

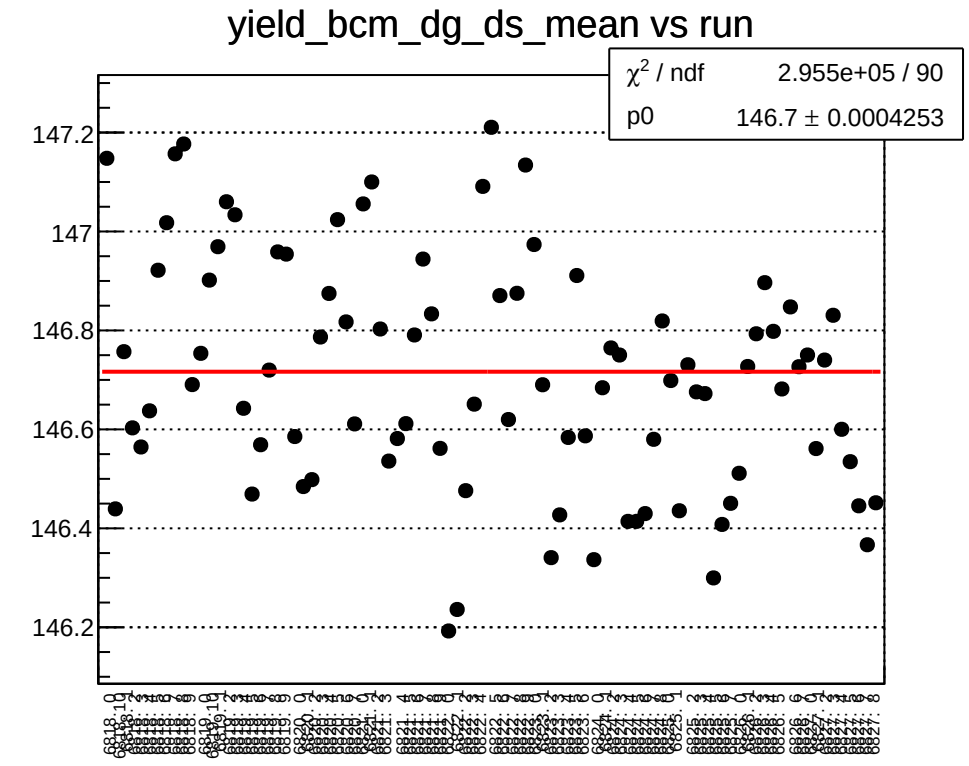

pull1D
Entries 91
Mean −1.489
Std Dev 4.086
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

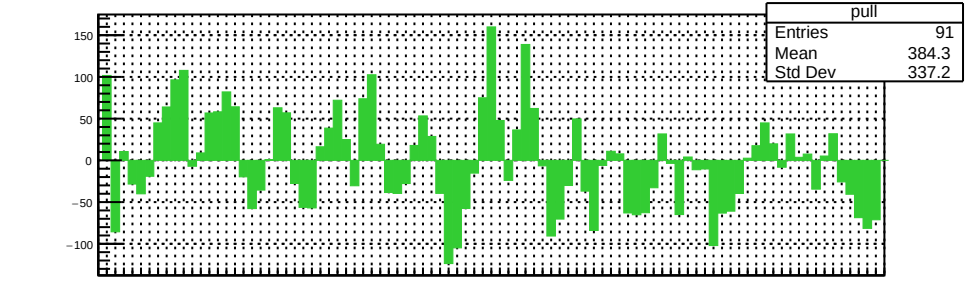

yield_bcm_an_us_rms vs run
χ² / ndf 1.474e+04 / 90
p0 0.3927 ± 0.0002999
0.5
0.45
0.4
0.35
0.3

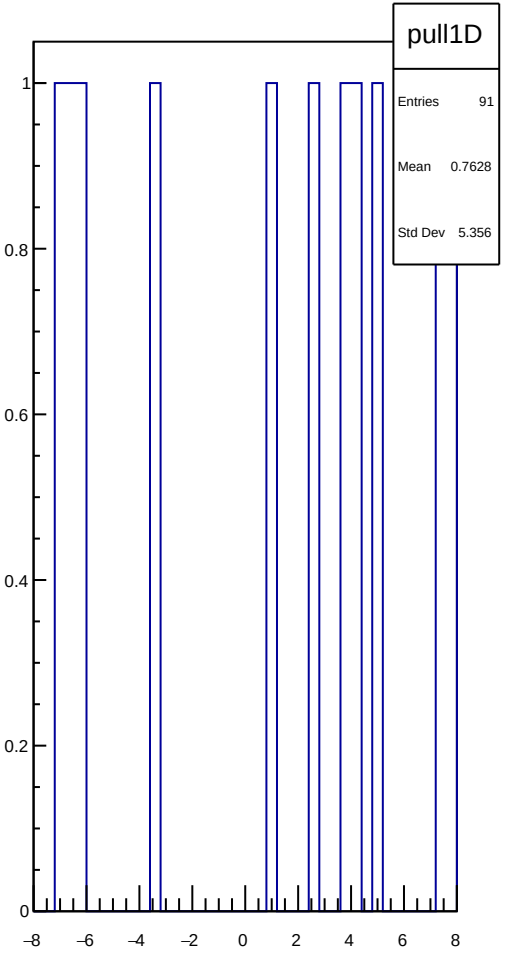

yield_bcm_dg_us_mean vs run
χ² / ndf 2.813e+05 / 90
p0 147.6 ± 0.0004246
148
147.8
147.6
147.4
147.2
147
pull
Entries 91
Mean 465.1
Std Dev 419.6
150
100
50
0
−50
−100

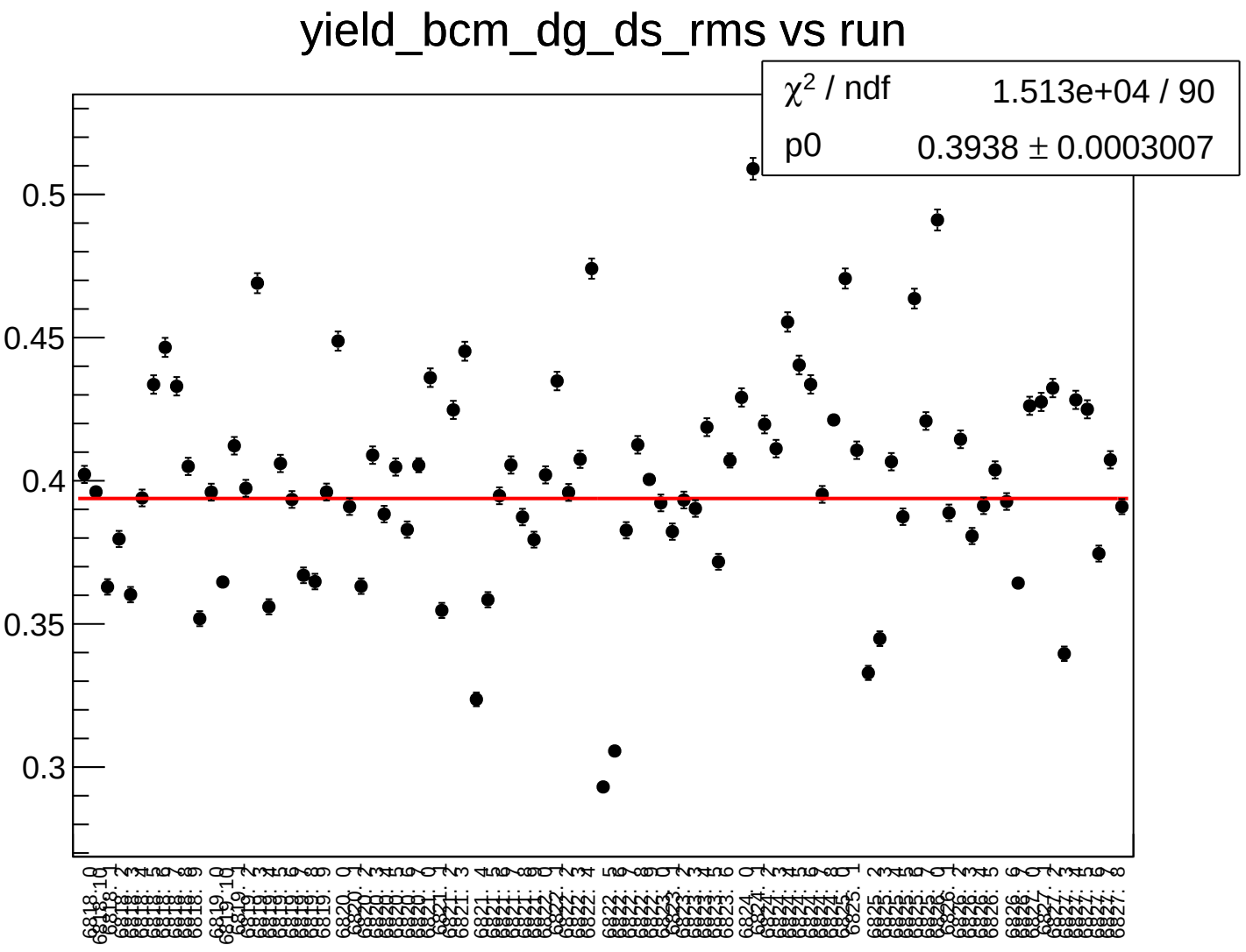

pull1D
Entries 91
Mean −0.5323
Std Dev 5.109
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

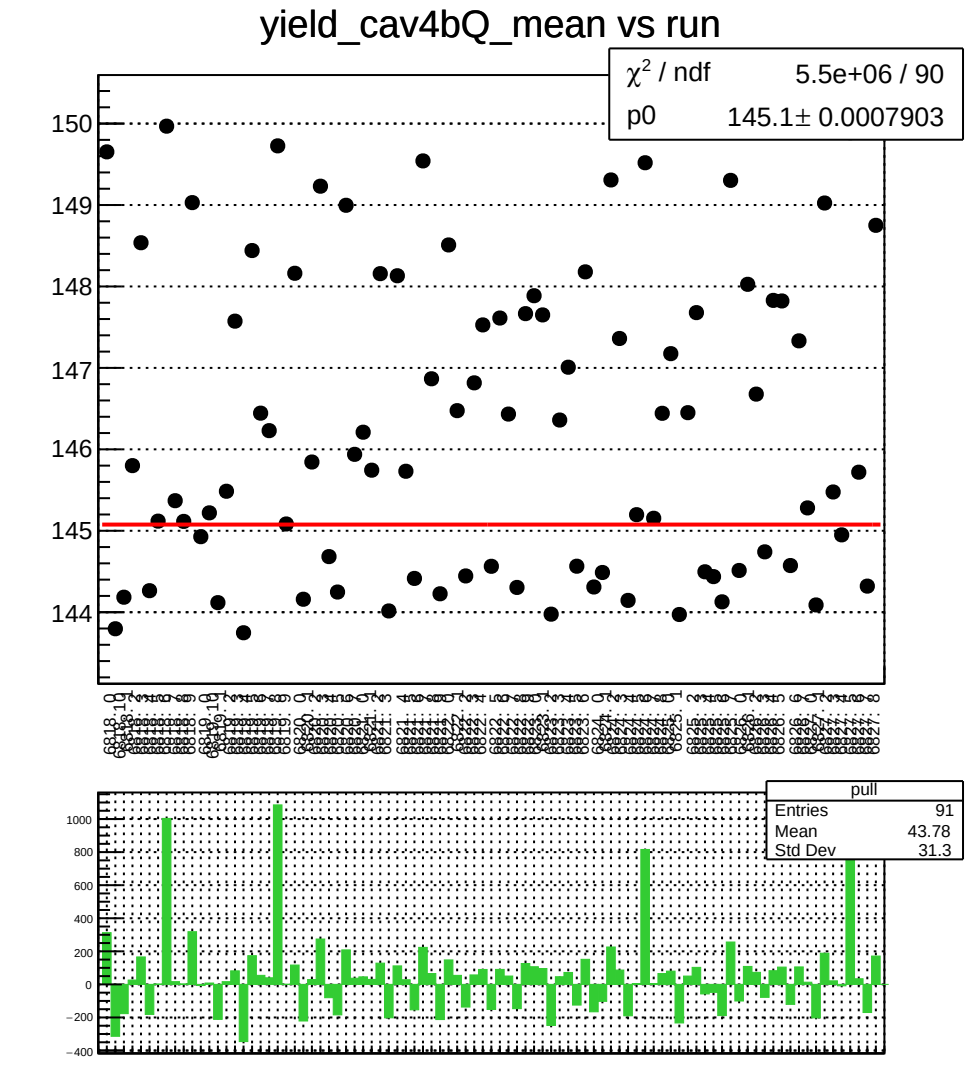

yield_bcm_dg_us_rms vs run
χ² / ndf 1.509e+04 / 90
p0 0.3932 ± 0.0003002
0.5
0.45
0.4
0.35
0.3

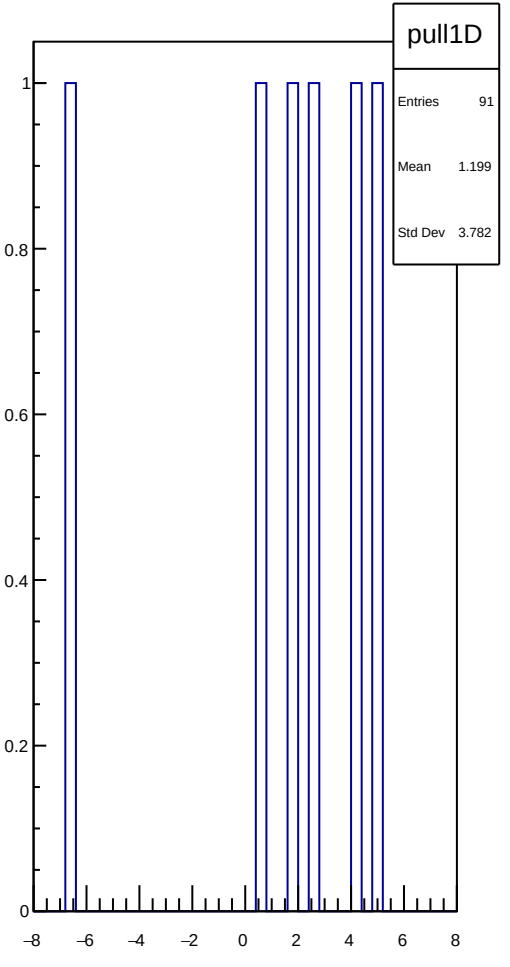

yield_bcm_dg_ds_mean vs run
χ² / ndf 2.955e+05 / 90
p0 146.7 ± 0.0004253
147.2
147
146.8
146.6
146.4
146.2

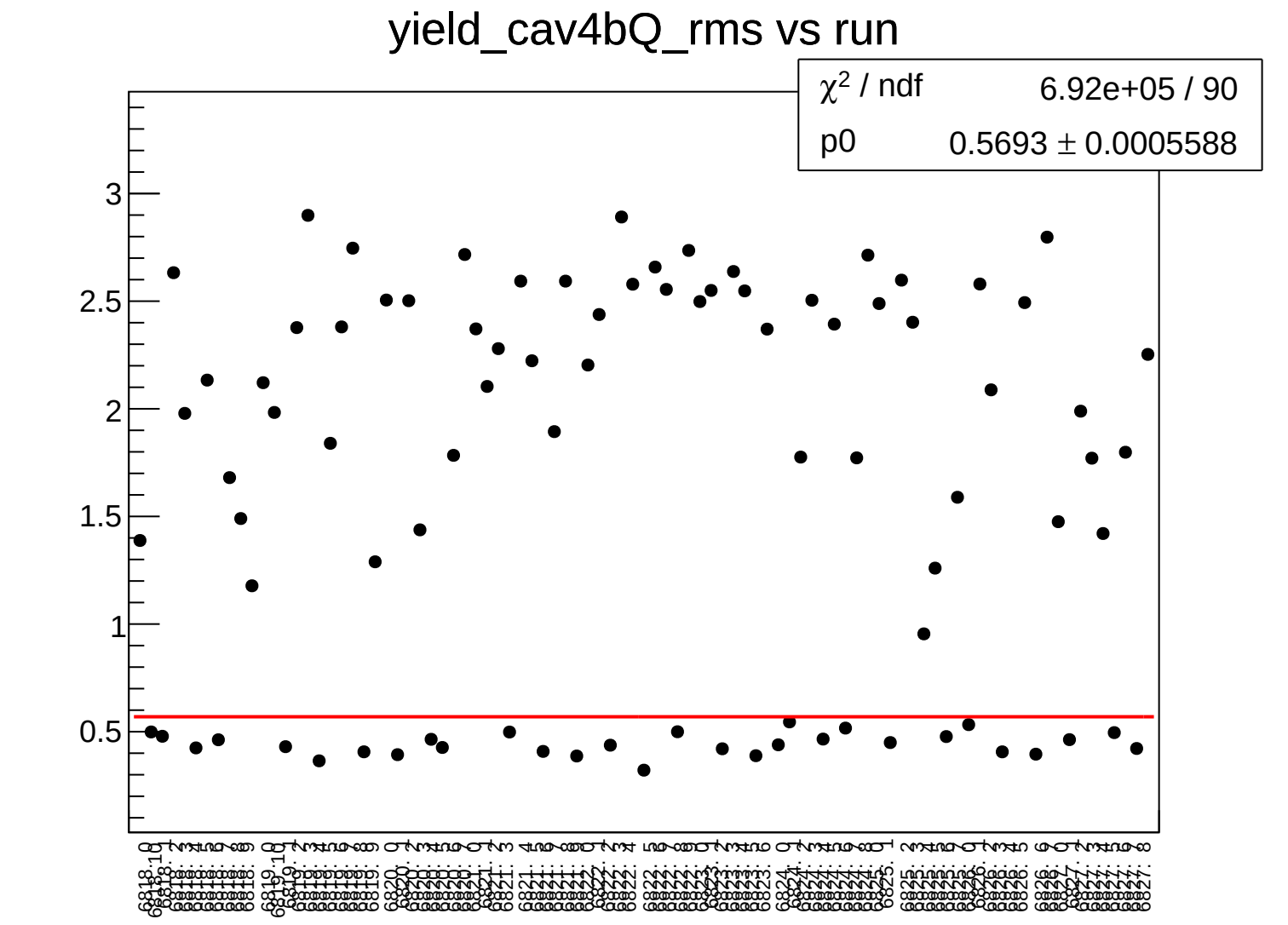

pull
Entries 91
Mean 384.3
Std Dev 337.2
150
100
50
0
−50
−100

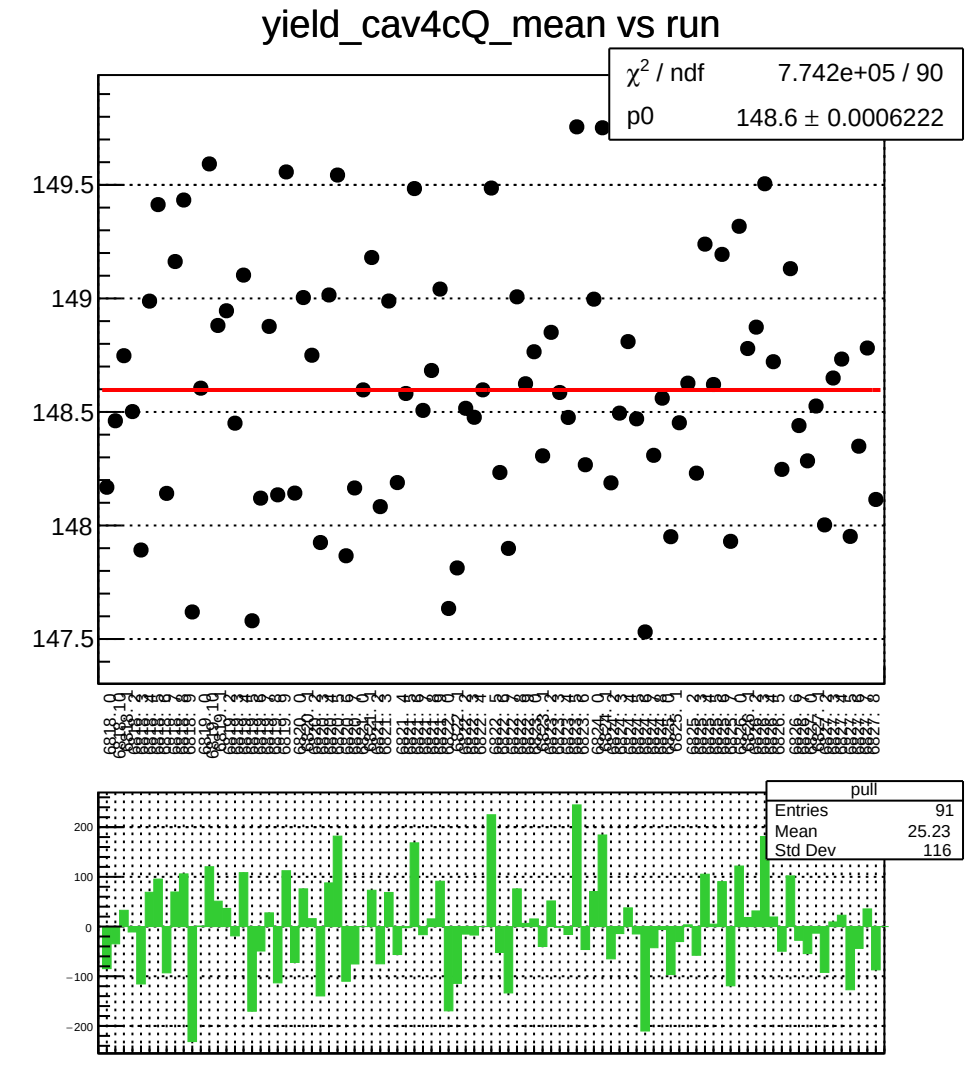

pull1D
Entries 91
Mean 0.7628
Std Dev 5.356
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

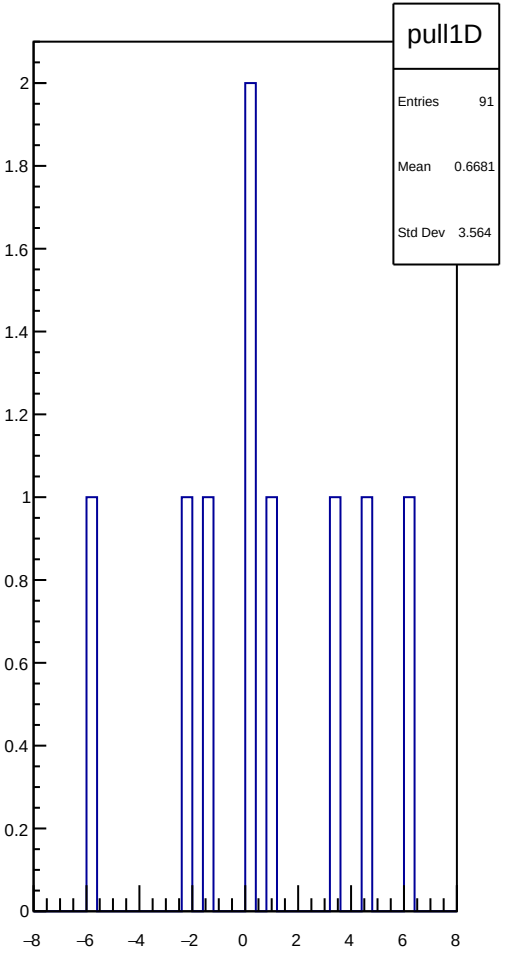

yield_bcm_dg_ds_rms vs run
χ² / ndf 1.513e+04 / 90
p0 0.3938 ± 0.0003007
0.5
0.45
0.4
0.35
0.3

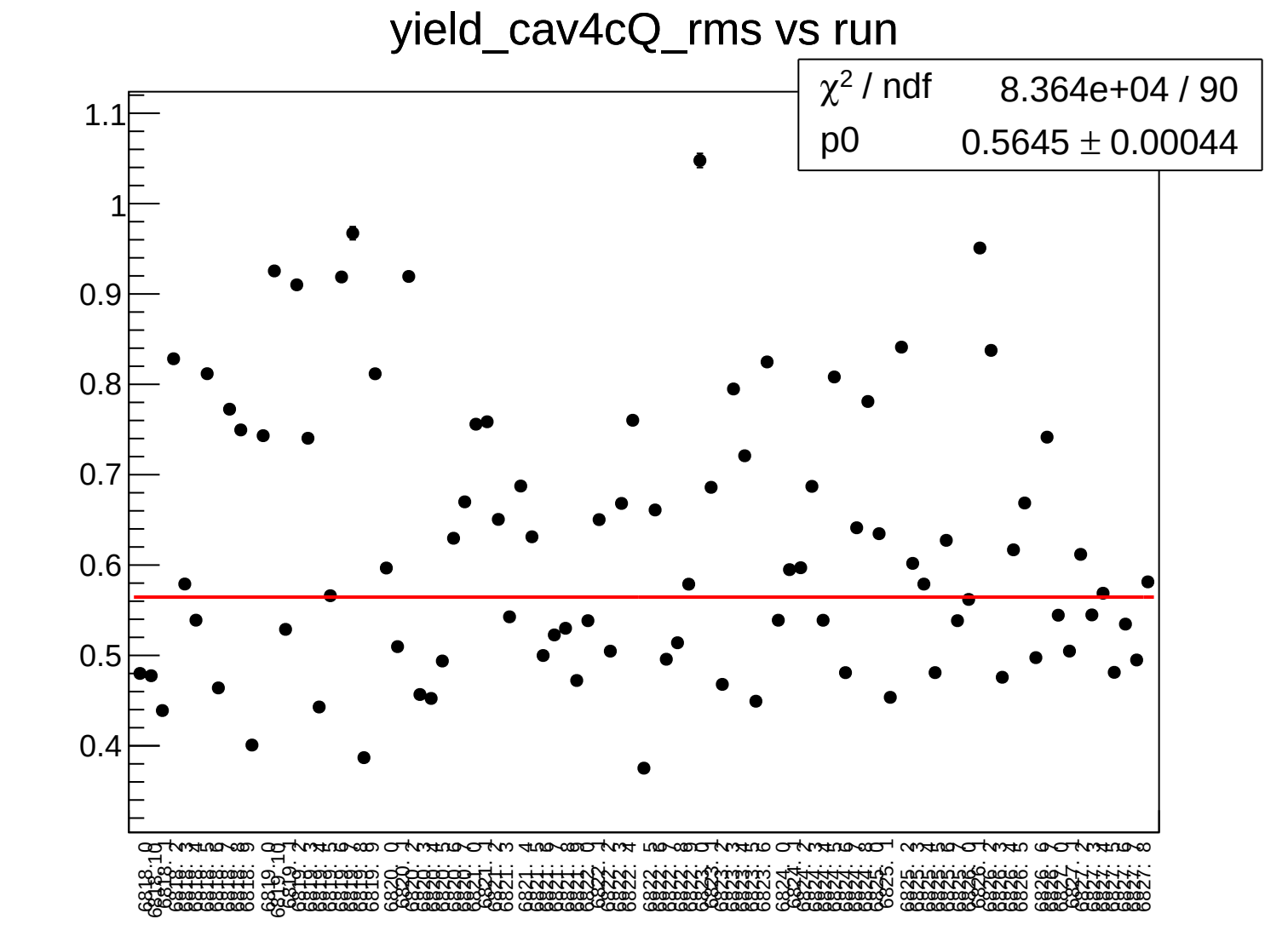

yield_cav4bQ_mean vs run
χ² / ndf 5.5e+06 / 90
p0 145.1± 0.0007903
150
149
148
147
146
145
144
pull
Entries 91
Mean 43.78
Std Dev 31.3
1000
800
600
400
200
0
−200
−400

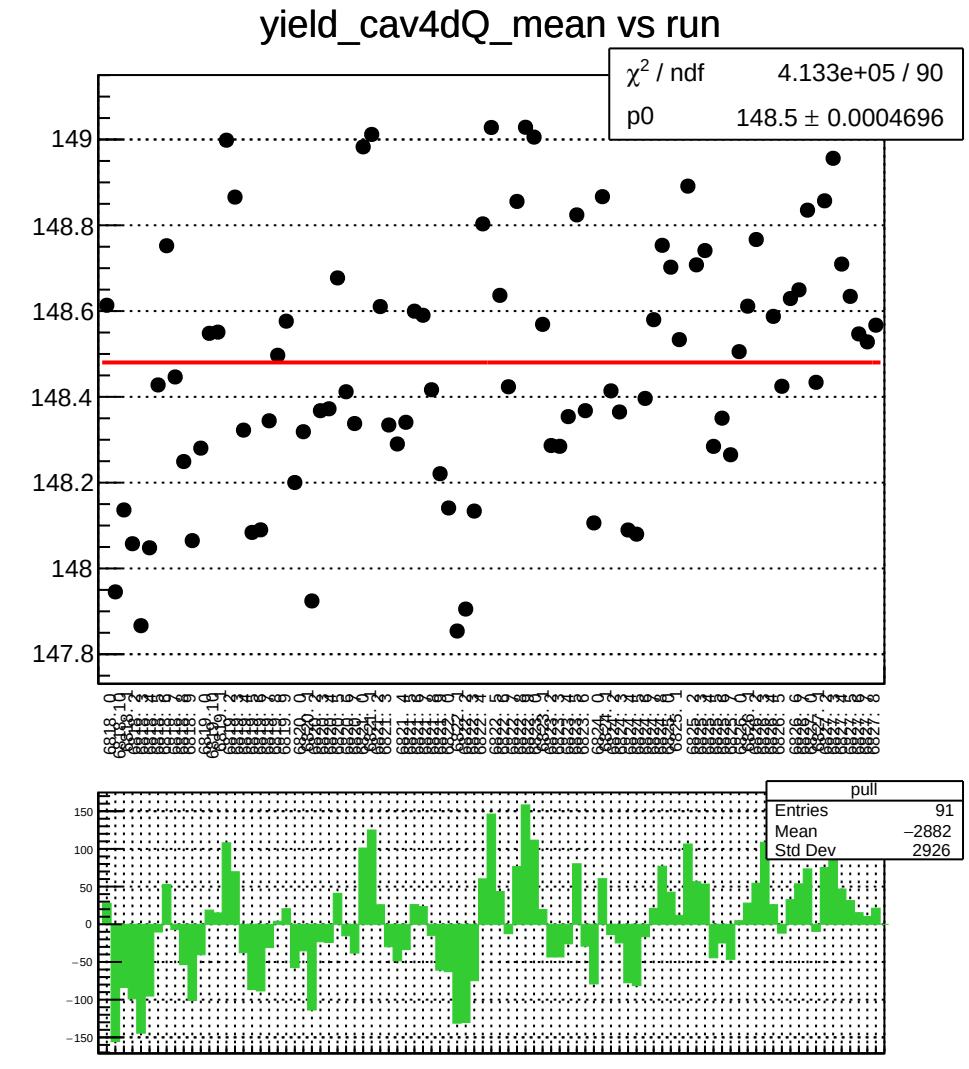

pull1D
Entries 91
Mean 1.199
Std Dev 3.782
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

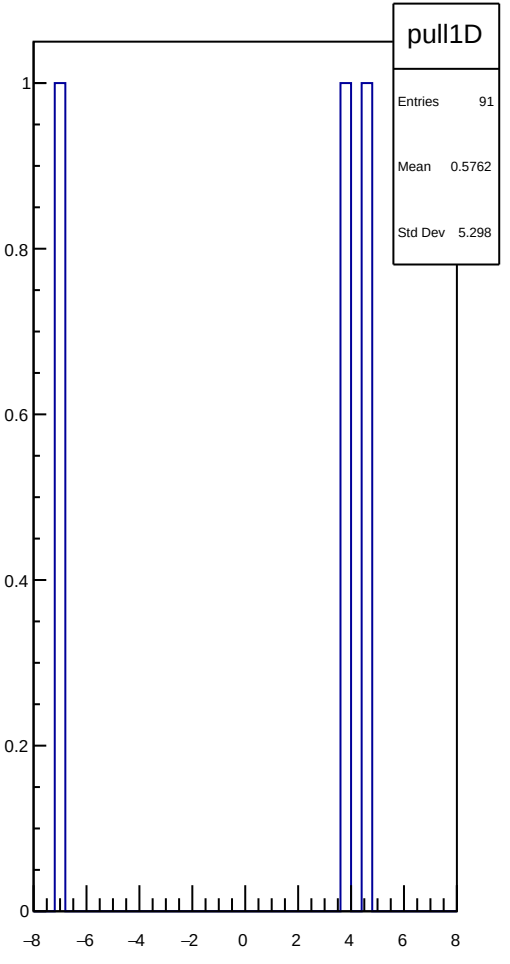

yield_cav4bQ_rms vs run
χ² / ndf 6.92e+05 / 90
p0 0.5693 ± 0.0005588
3
2.5
2
1.5
1
0.5

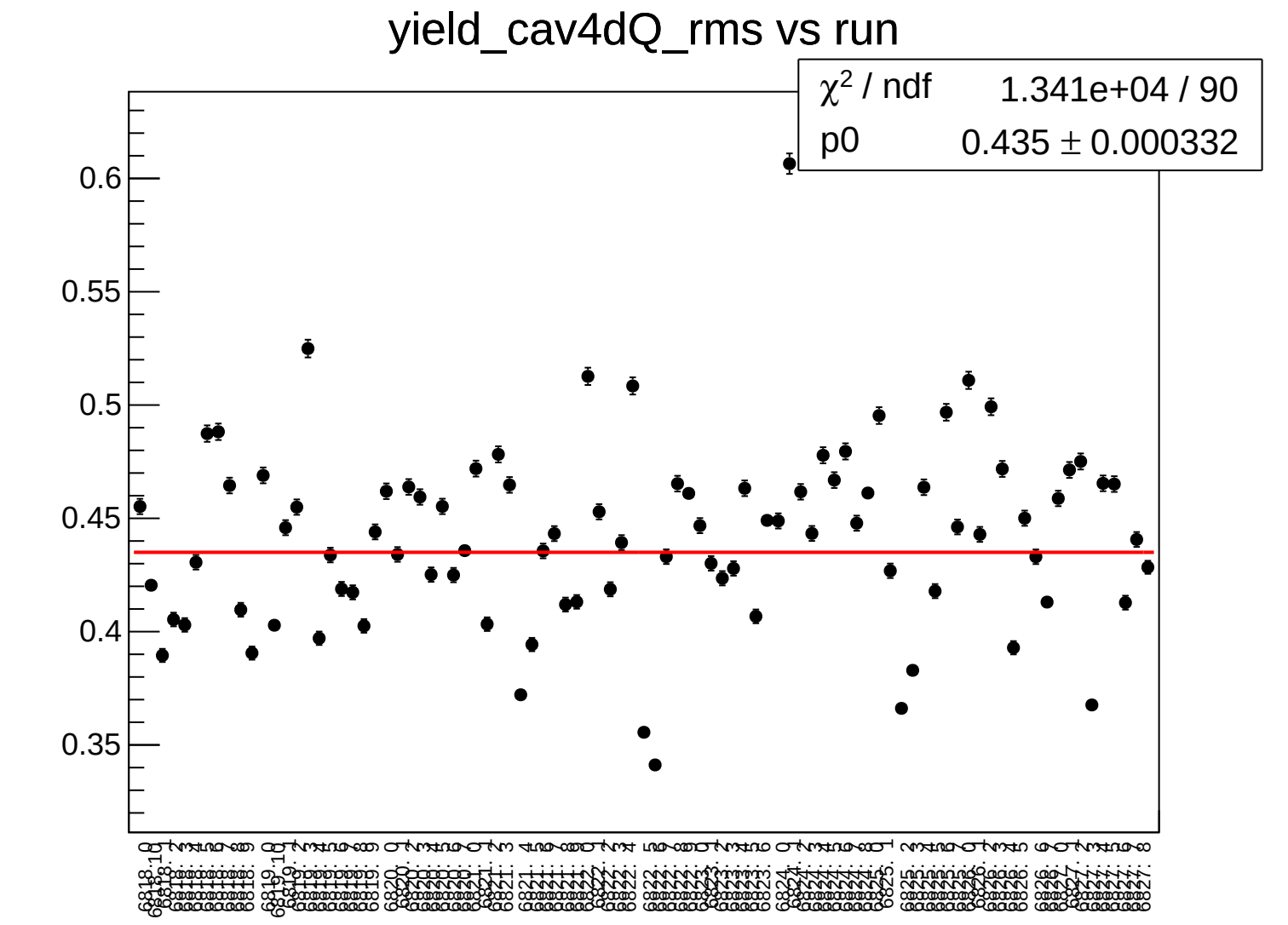

yield_cav4cQ_mean vs run
χ² / ndf 7.742e+05 / 90
p0 148.6 ± 0.0006222
149.5
149
148.5
148
147.5
pull
Entries 91
Mean 25.23
Std Dev 116
200
100
0
−100
−200

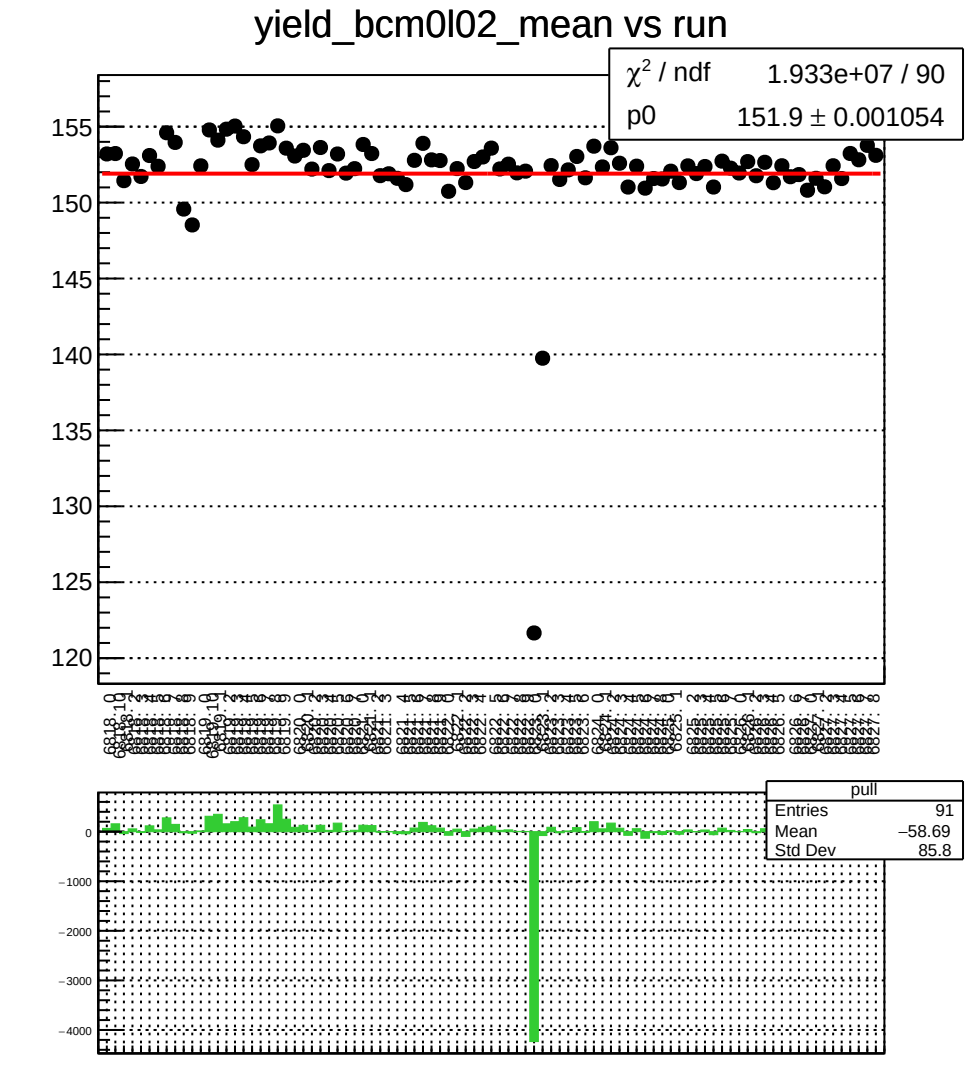

pull1D
Entries 91
Mean 0.6681
Std Dev 3.564
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

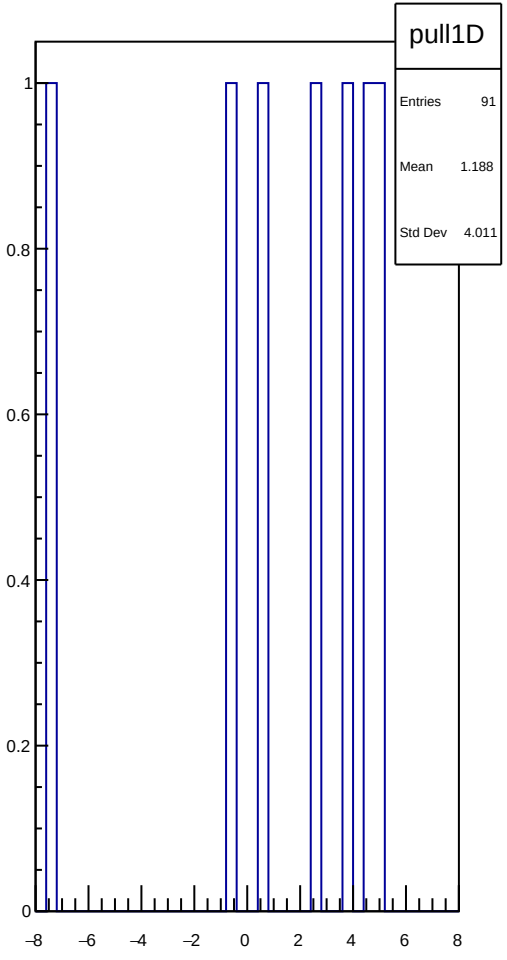

yield_cav4cQ_rms vs run
χ^2 / ndf 8.364e+04 / 90
p0 0.5645 ± 0.00044
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4

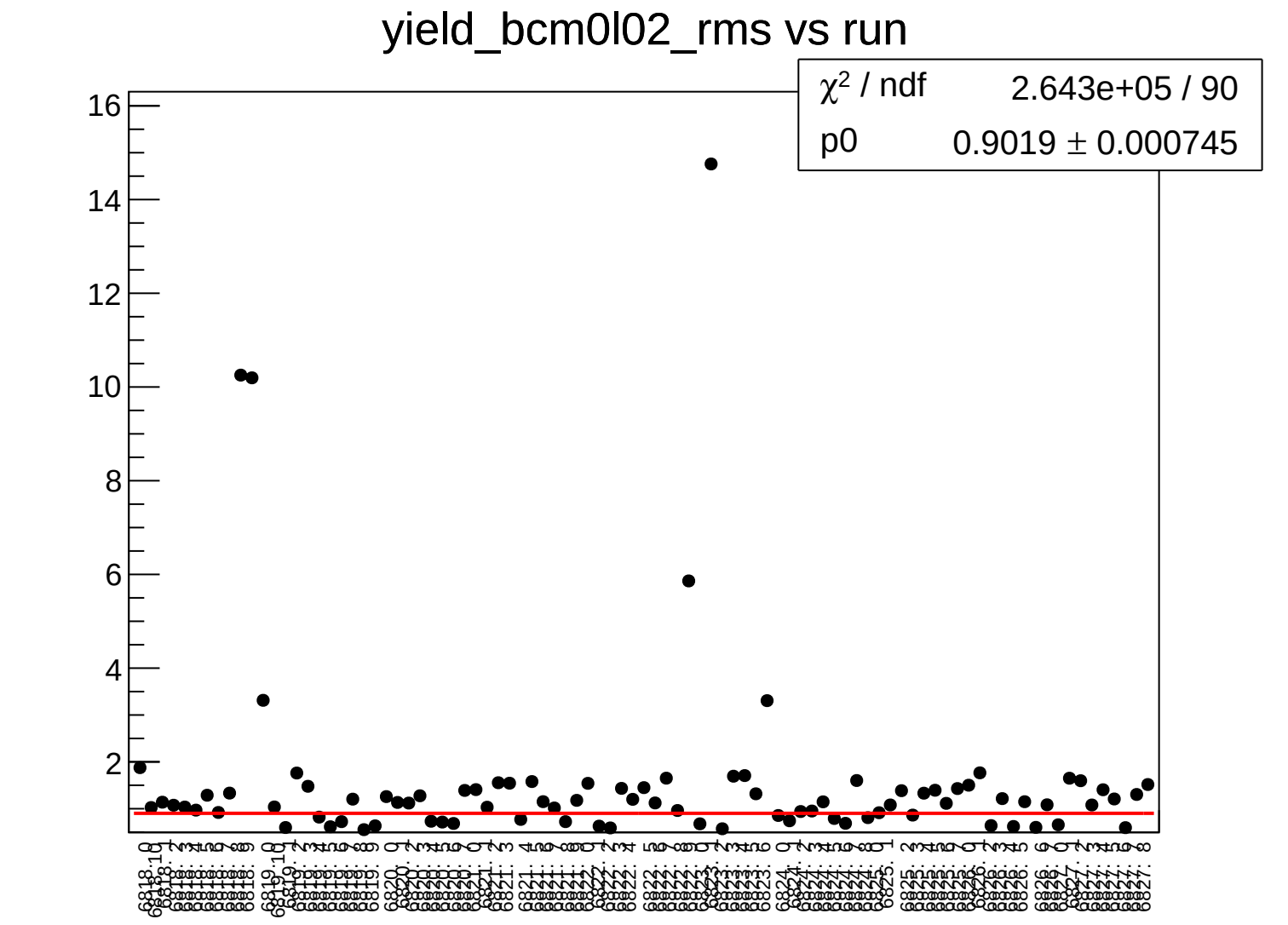

yield_cav4dQ_mean vs run
χ² / ndf 4.133e+05 / 90
p0 148.5 ± 0.0004696
149
148.8
148.6
148.4
148.2
148
147.8
pull
Entries 91
Mean −2882
Std Dev 2926
150
100
50
0
−50
−100
−150

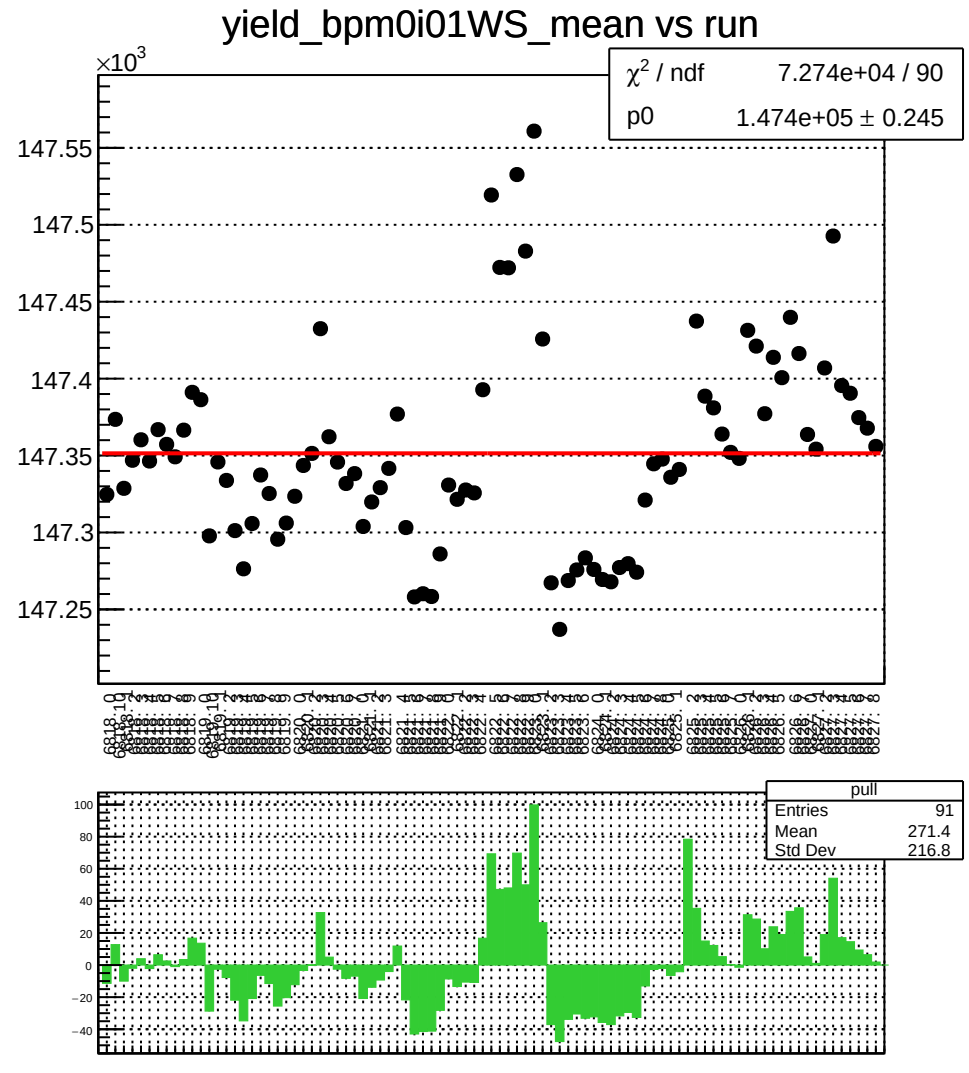

pull1D
Entries 91
Mean 0.5762
Std Dev 5.298
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

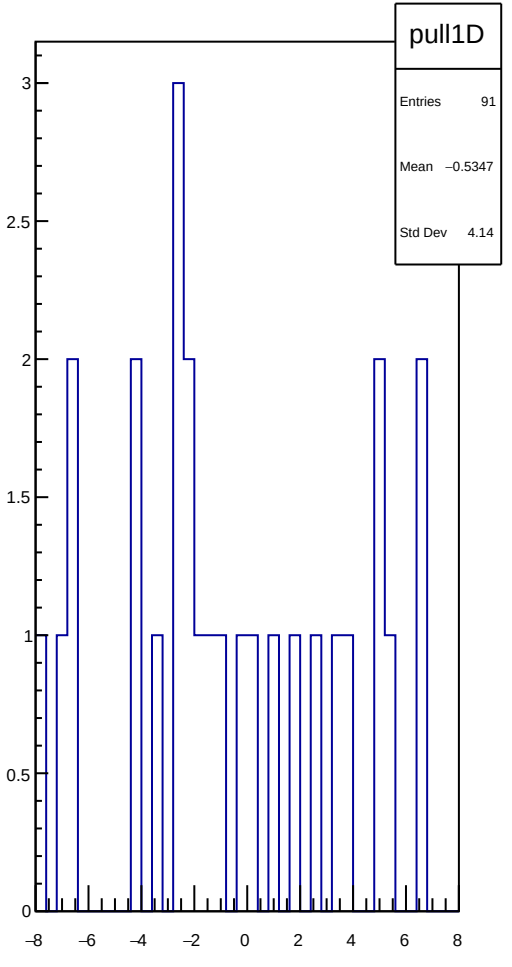

yield_cav4dQ_rms vs run
χ² / ndf 1.341e+04 / 90
p0 0.435 ± 0.000332
0.6
0.55
0.5
0.45
0.4
0.35

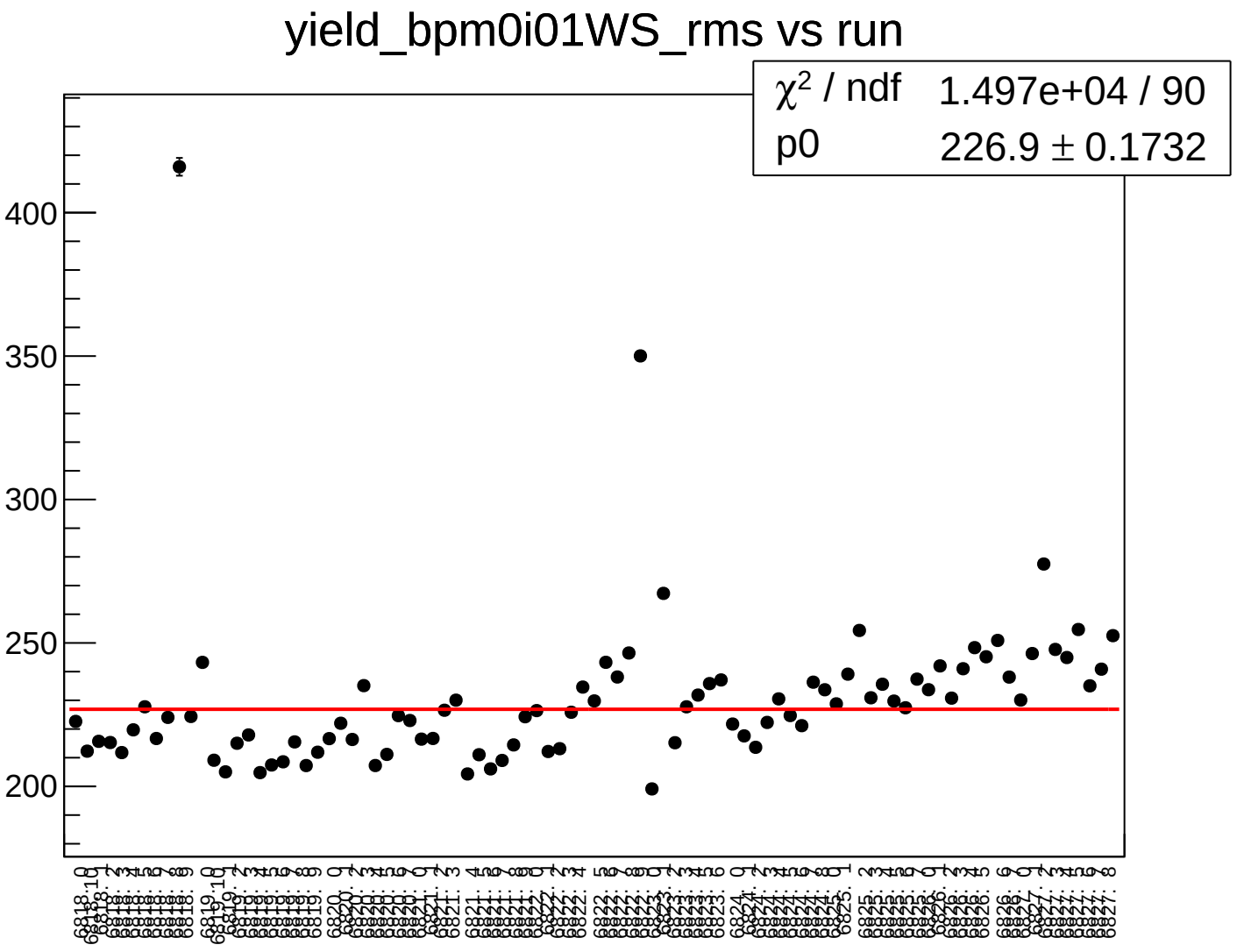

yield_bcm0l02_mean vs run
χ² / ndf 1.933e+07 / 90
p0 151.9 ± 0.001054
155
150
145
140
135
130
125
120
pull
Entries 91
Mean −58.69
Std Dev 85.8
0
−1000
−2000
−3000
−4000

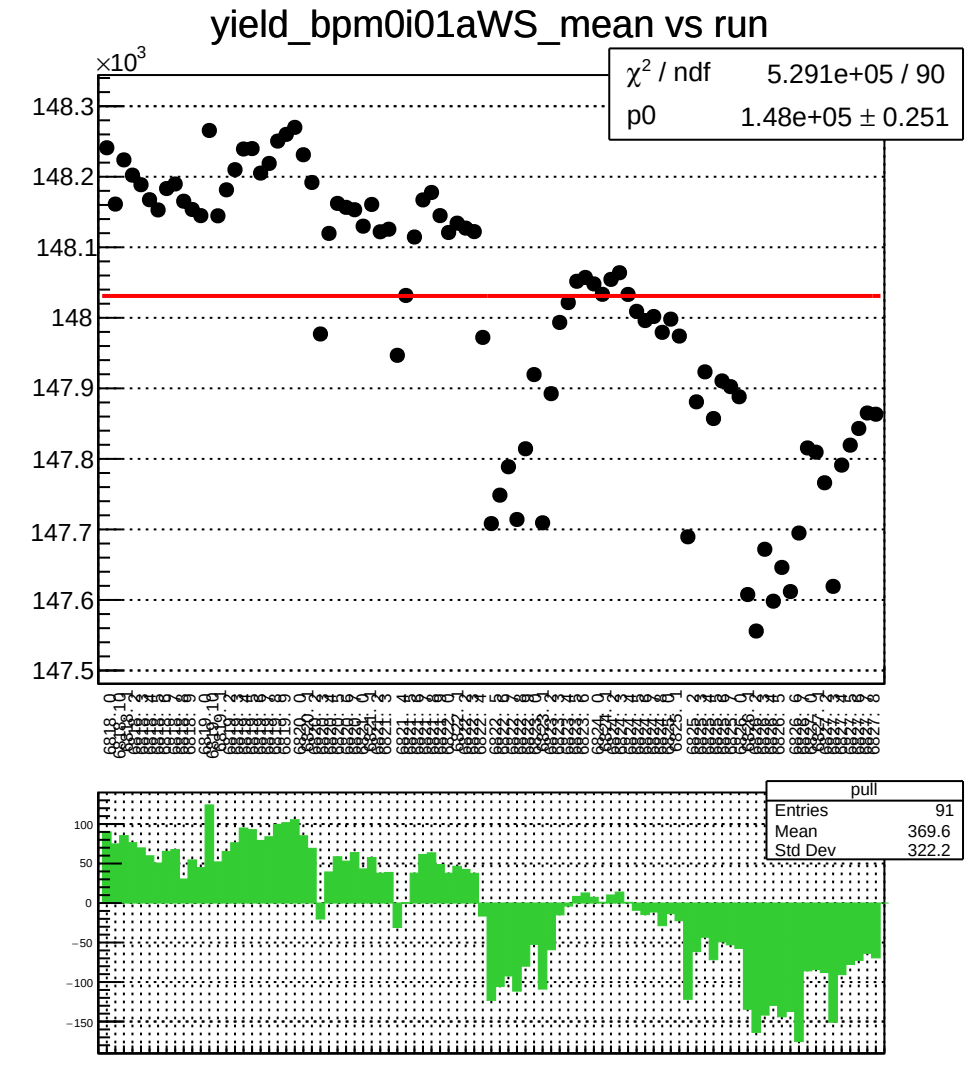

pull1D
Entries 91
Mean 1.188
Std Dev 4.011
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

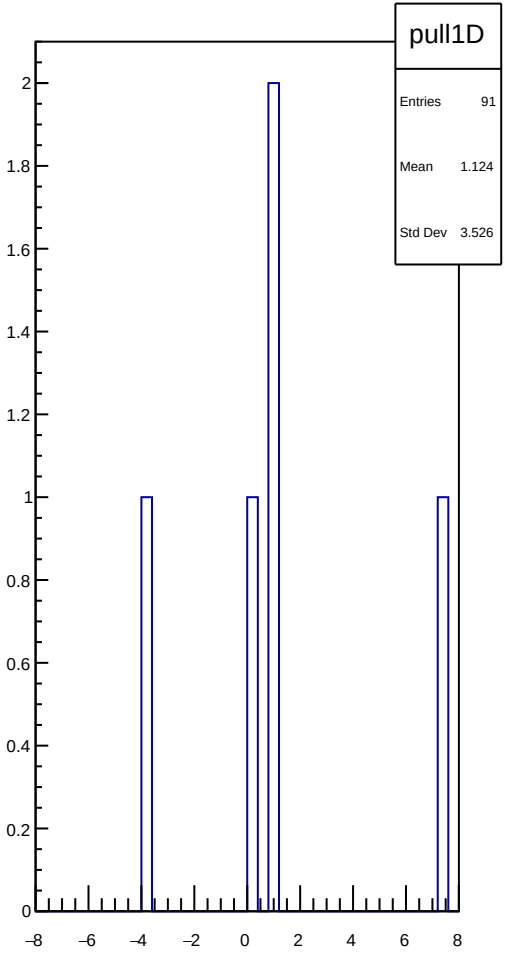

yield_bcm0l02_rms vs run
χ² / ndf 2.643e+05 / 90
p0 0.9019 ± 0.000745
16
14
12
10
8
6
4
2

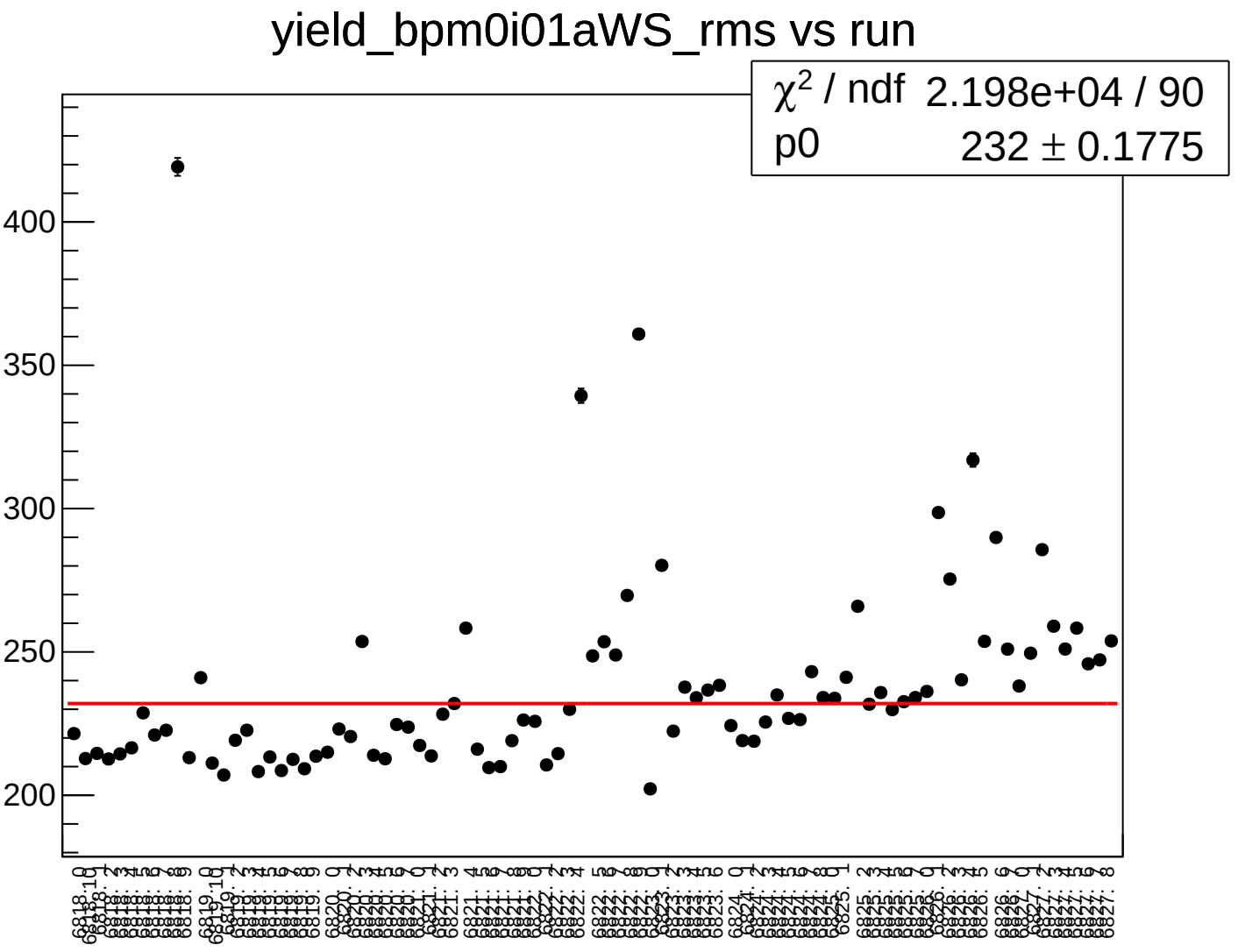

yield_bpm0i01WS_mean vs run
×10^3
χ² / ndf 7.274e+04 / 90
p0 1.474e+05 ± 0.245
147.55
147.5
147.45
147.4
147.35
147.3
147.25
pull
Entries 91
Mean 271.4
Std Dev 216.8
100
80
60
40
20
0
−20
−40

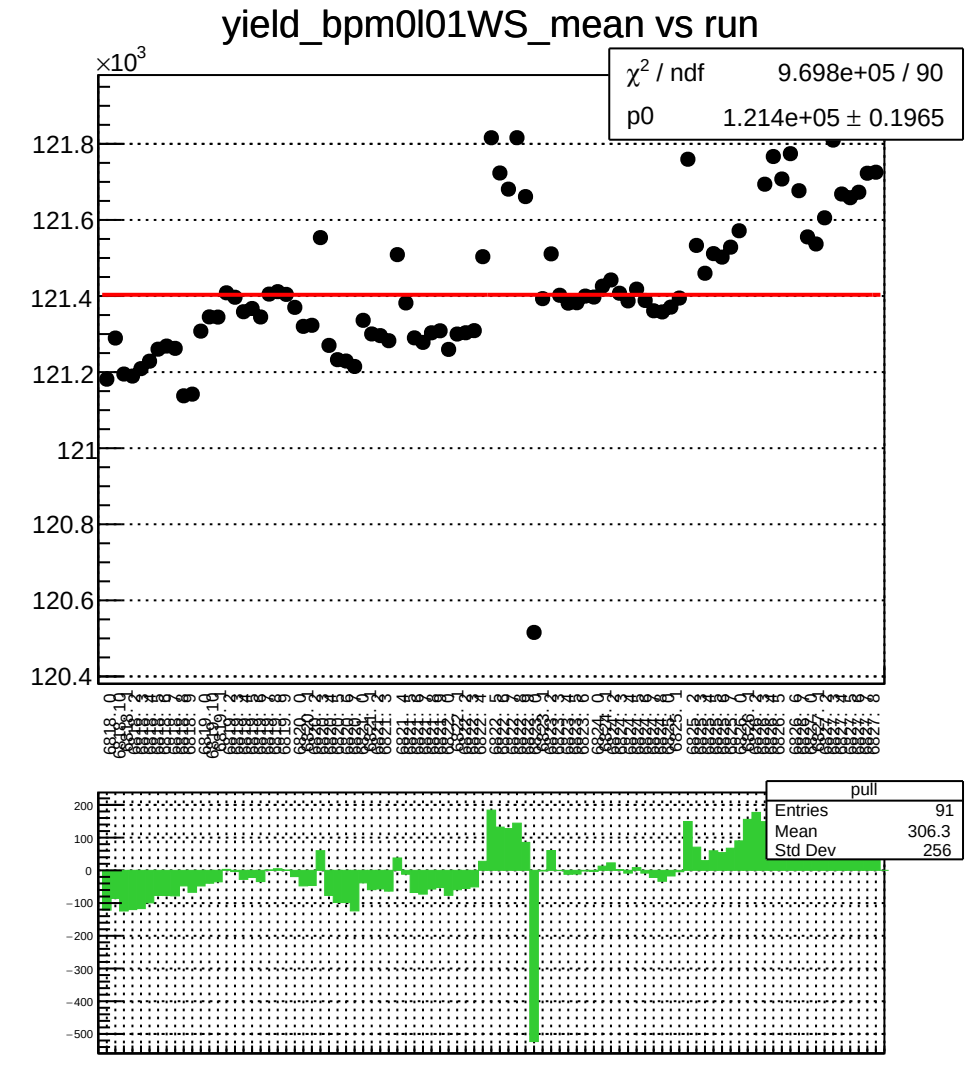

pull1D
Entries 91
Mean −0.5347
Std Dev 4.14
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

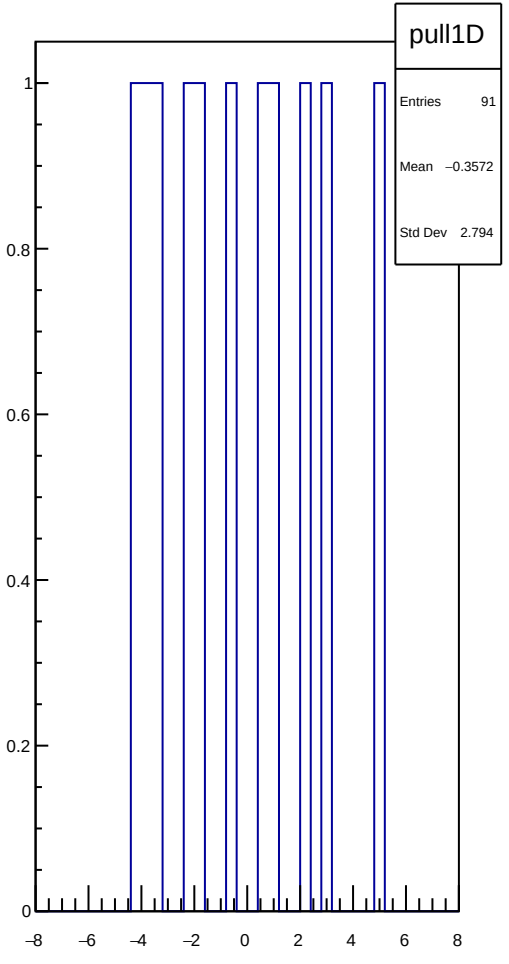

yield_bpm0i01WS_rms vs run
χ² / ndf 1.497e+04 / 90
p0 226.9 ± 0.1732
400
350
300
250
200

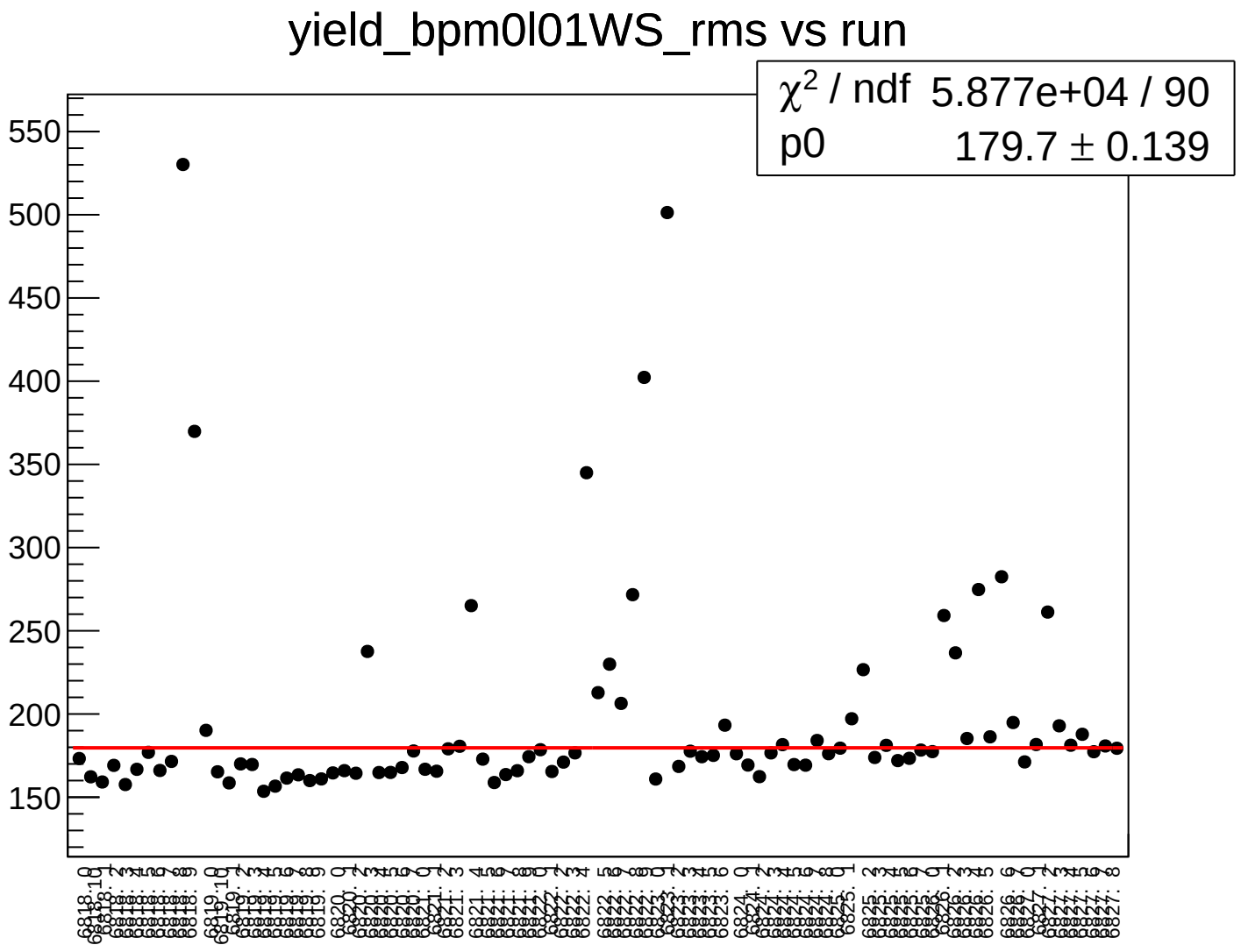

yield_bpm0i01aWS_mean vs run
×10^3
χ² / ndf 5.291e+05 / 90
p0 1.48e+05 ± 0.251
148.3
148.2
148.1
148
147.9
147.8
147.7
147.6
147.5
pull
Entries 91
Mean 369.6
Std Dev 322.2
100
50
0
−50
−100
−150

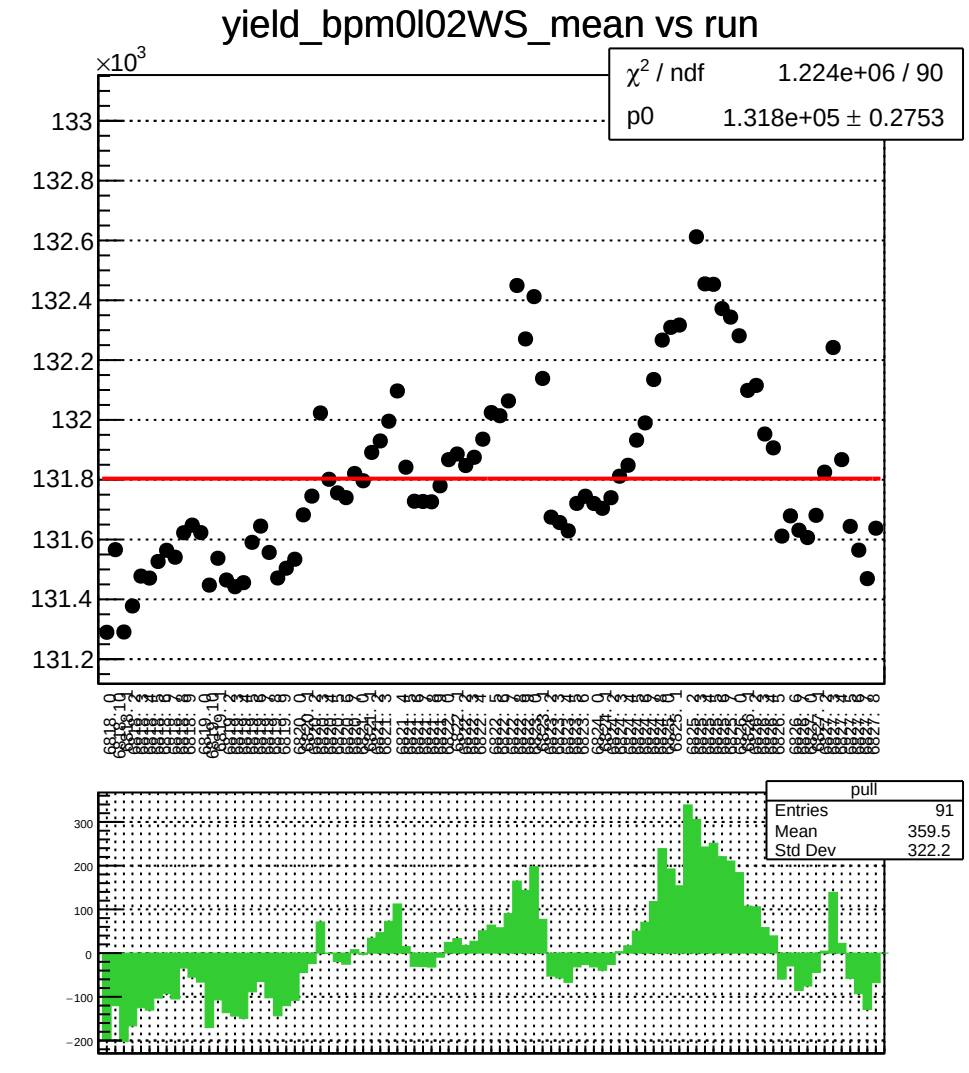

pull1D
Entries 91
Mean 1.124
Std Dev 3.526
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

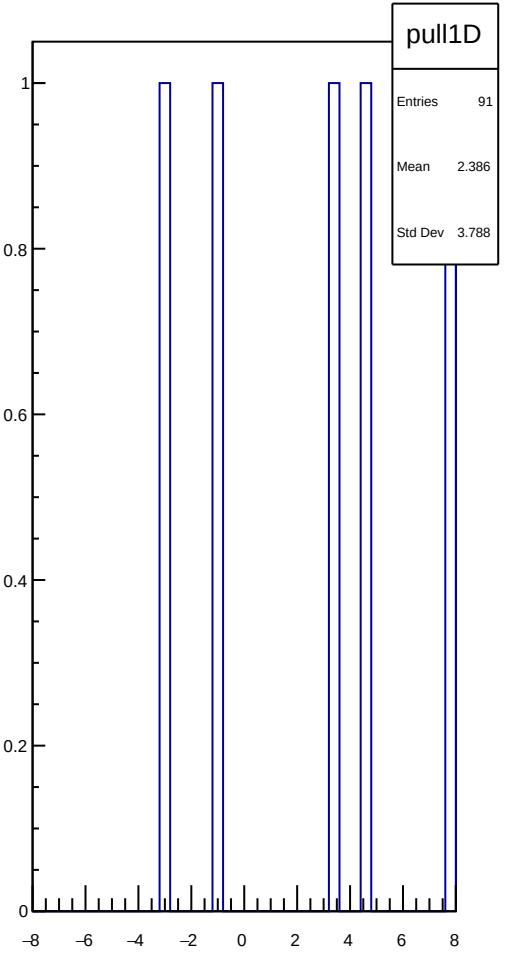

yield_bpm0i01aWS_rms vs run
χ² / ndf 2.198e+04 / 90
p0 232 ± 0.1775
400
350
300
250
200

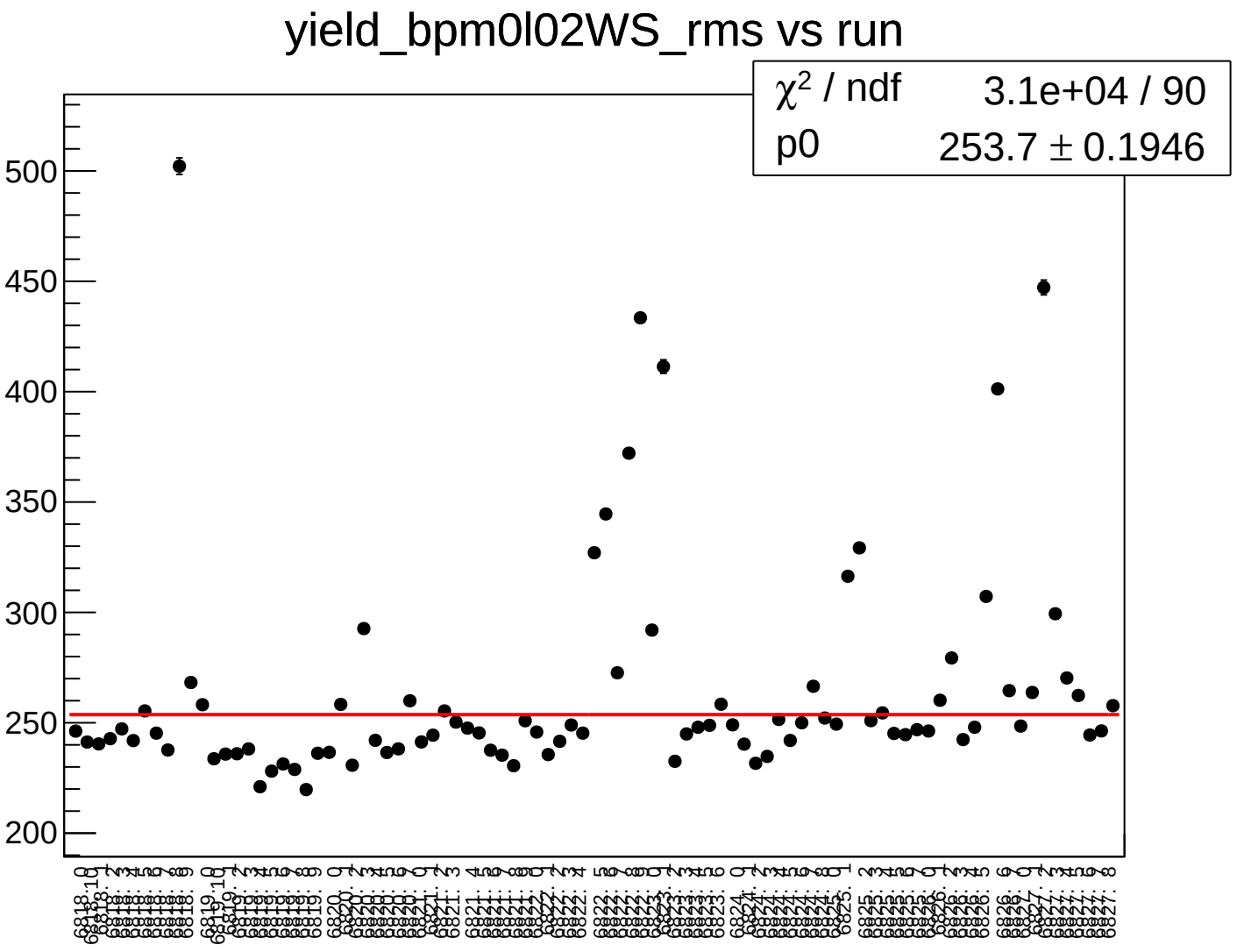

yield_bpm0l01WS_mean vs run
×10^3
χ² / ndf 9.698e+05 / 90
p0 1.214e+05 ± 0.1965
121.8
121.6
121.4
121.2
121
120.8
120.6
120.4
pull
Entries 91
Mean 306.3
Std Dev 256
200
100
0
−100
−200
−300
−400
−500

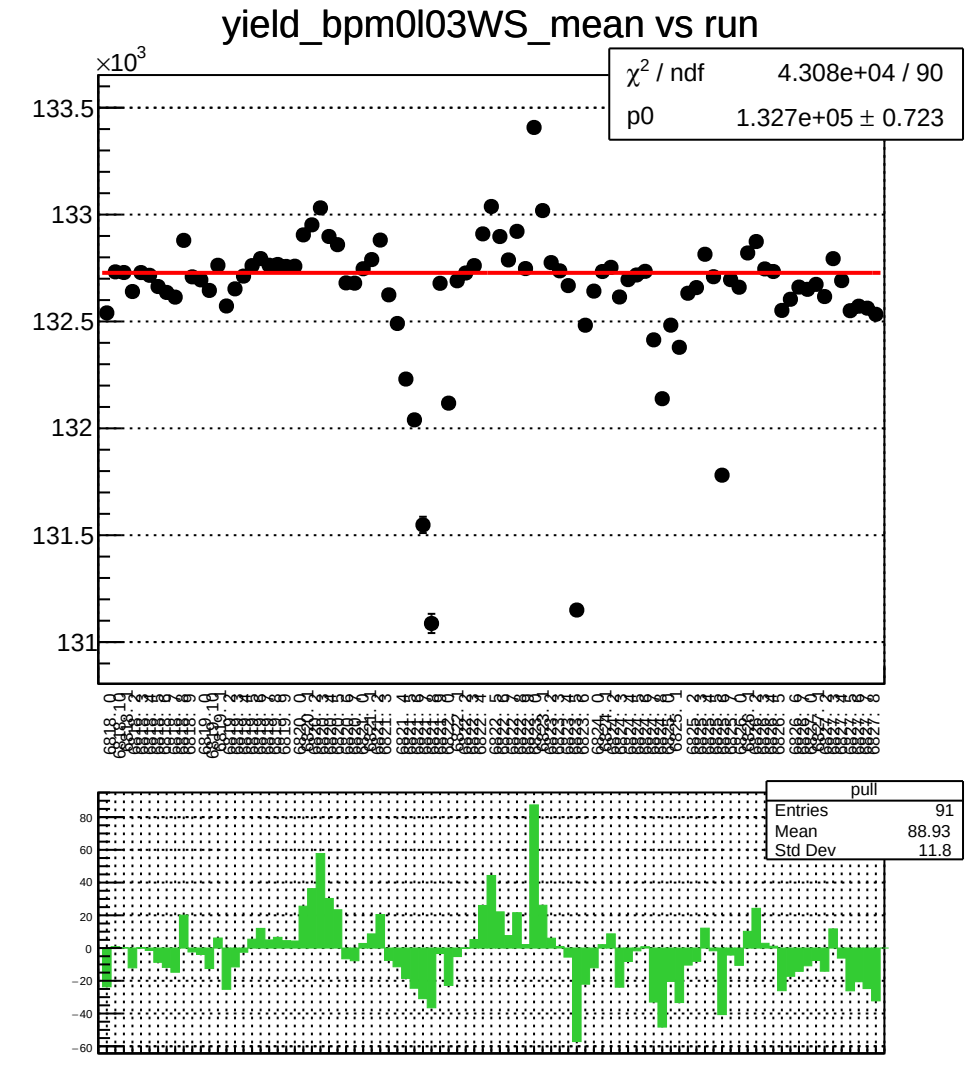

pull1D
Entries 91
Mean −0.3572
Std Dev 2.794
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

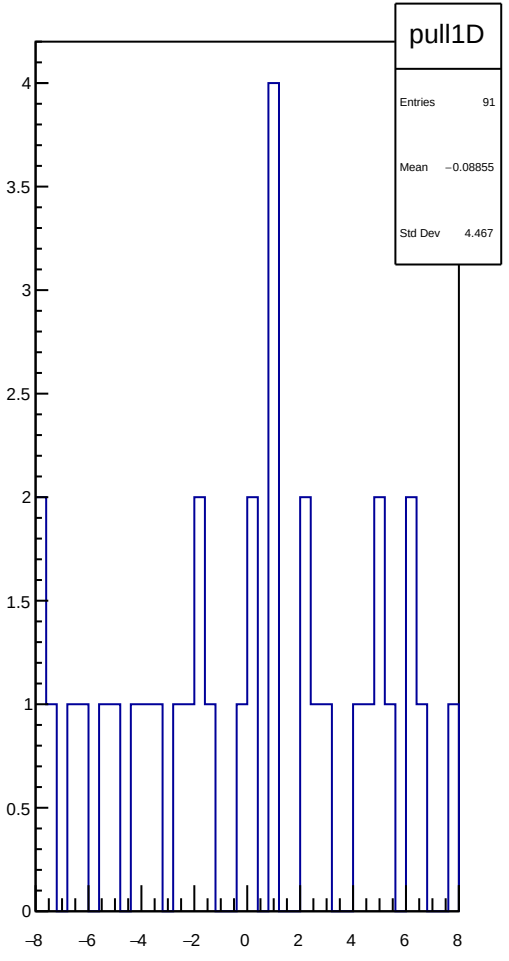

yield_bpm0l01WS_rms vs run
χ^2 / ndf 5.877e+04 / 90
p0 179.7 ± 0.139
550
500
450
400
350
300
250
200
150

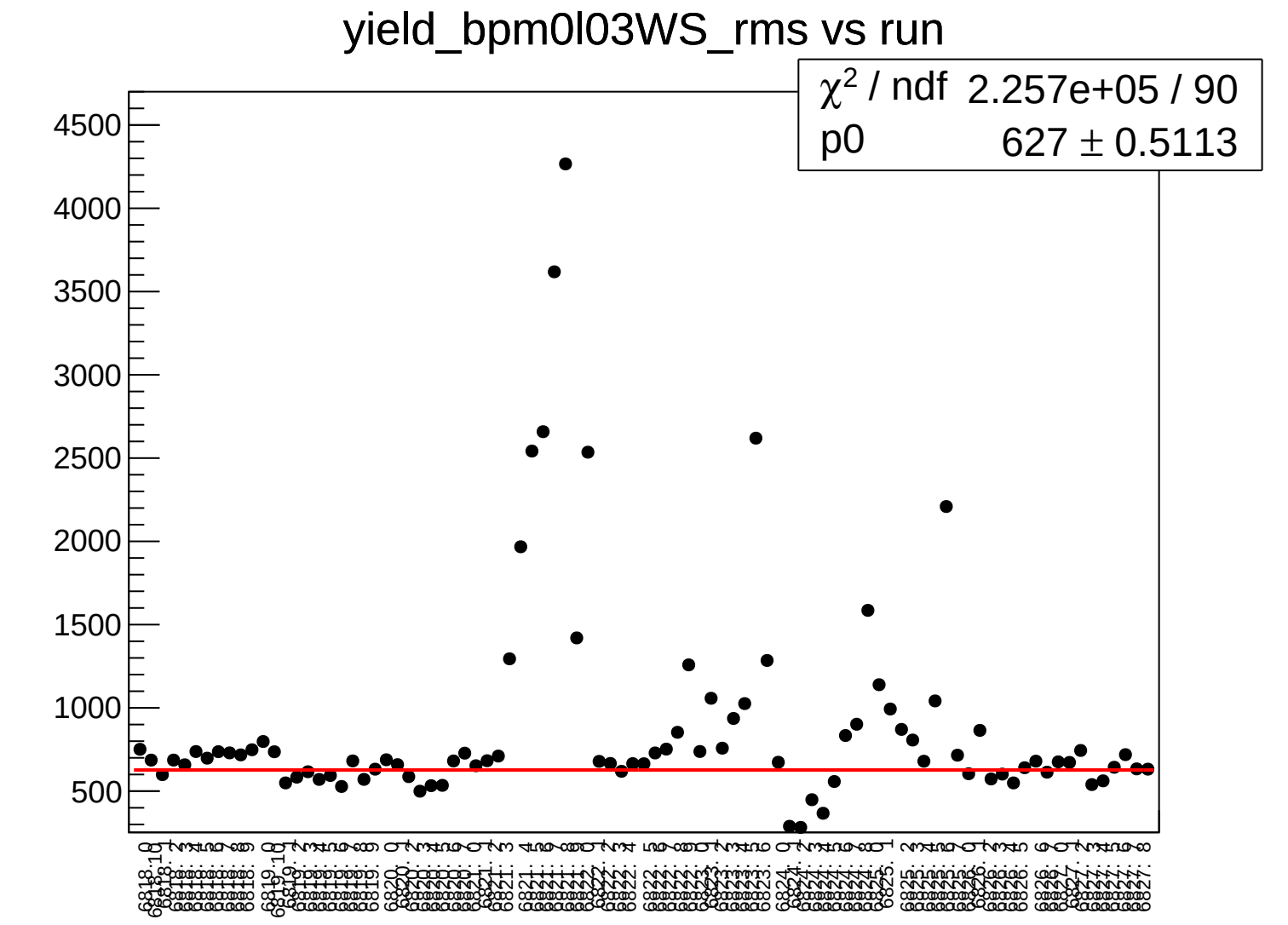

yield_bpm0l02WS_mean vs run
×10^3
χ² / ndf 1.224e+06 / 90
p0 1.318e+05 ± 0.2753
133
132.8
132.6
132.4
132.2
132
131.8
131.6
131.4
131.2
pull
Entries 91
Mean 359.5
Std Dev 322.2
300
200
100
0
−100
−200

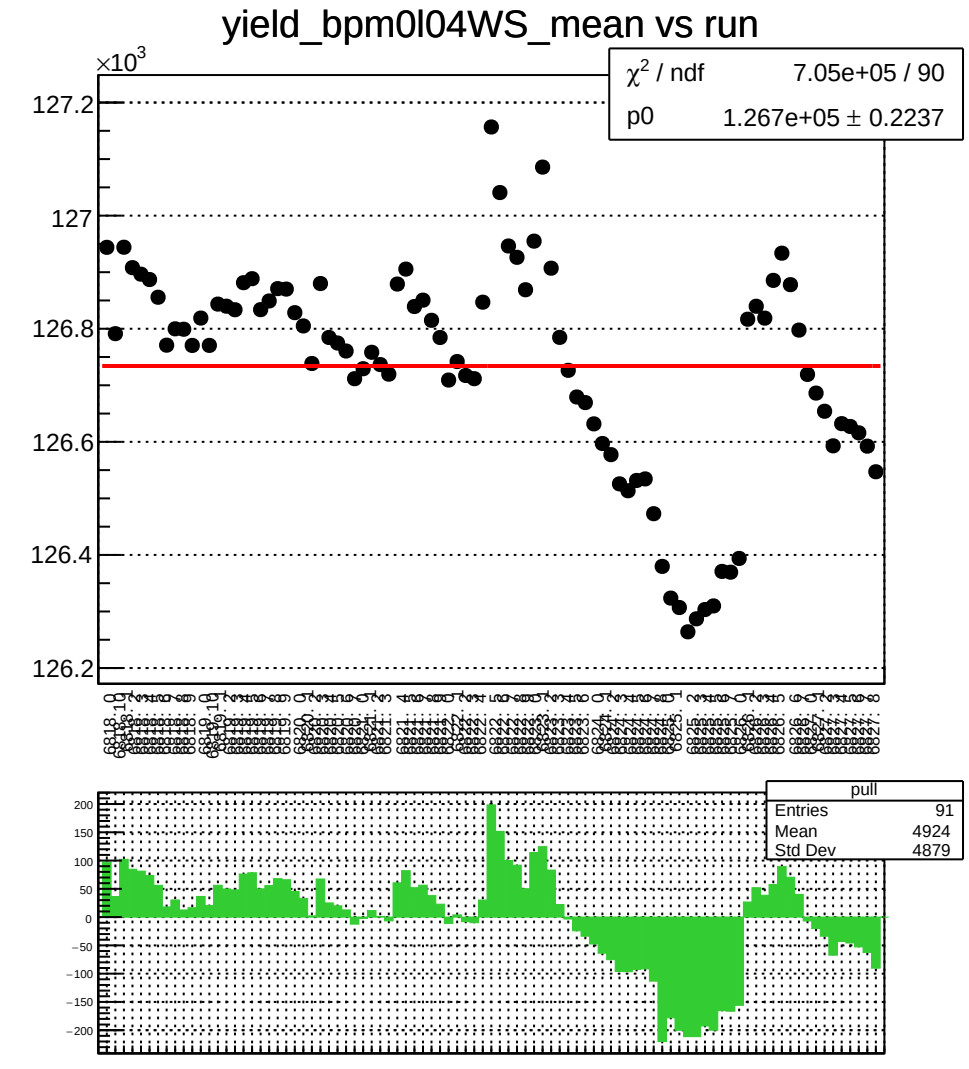

pull1D
Entries 91
Mean 2.386
Std Dev 3.788
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

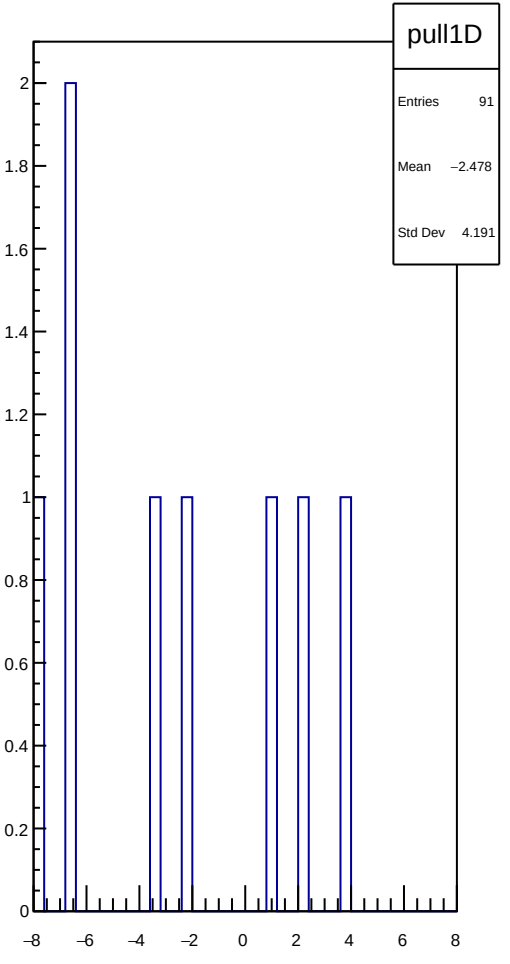

yield_bpm0l02WS_rms vs run
χ² / ndf 3.1e+04 / 90
p0 253.7 ± 0.1946
500
450
400
350
300
250
200

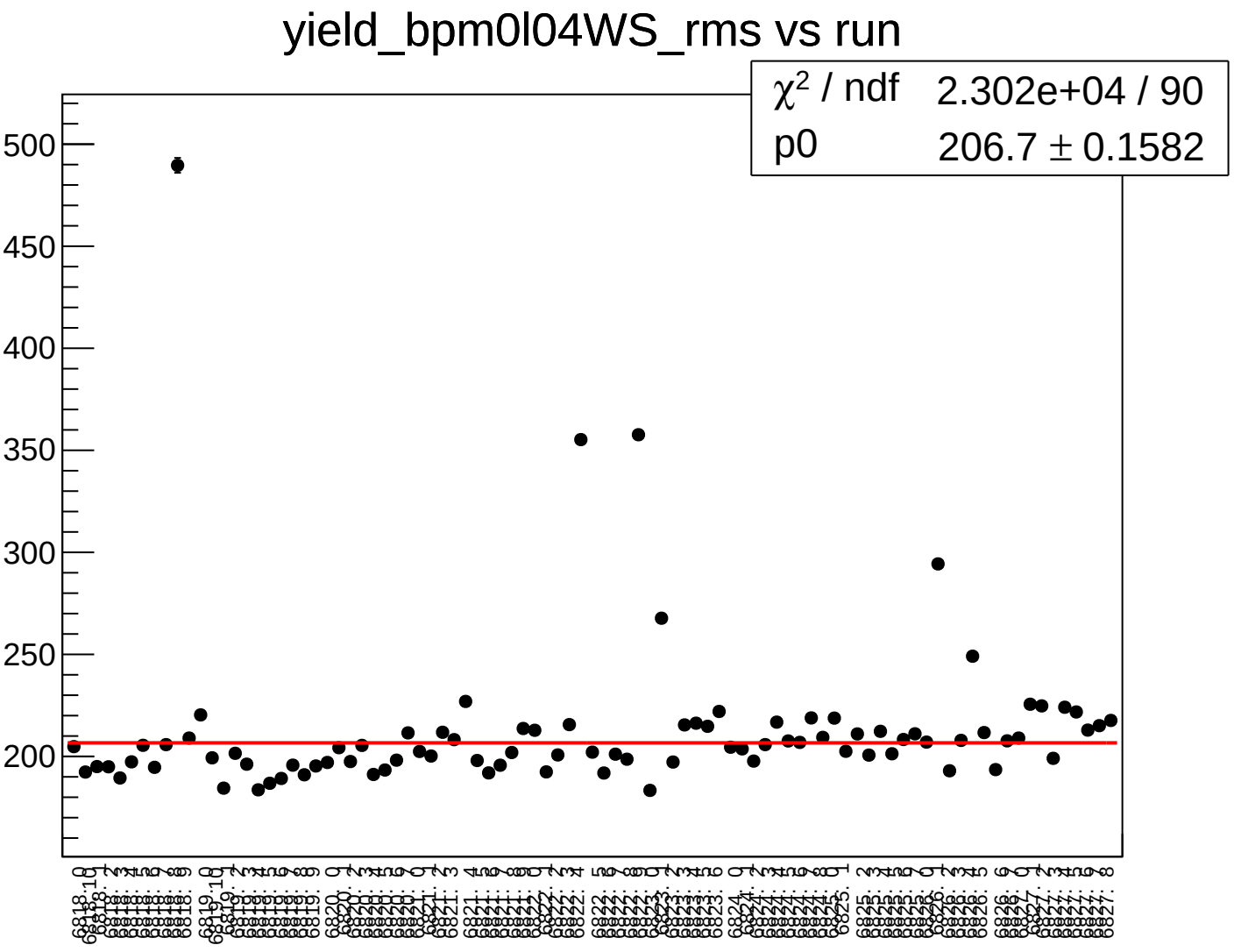

yield_bpm0l03WS_mean vs run
×10^3
χ² / ndf 4.308e+04 / 90
p0 1.327e+05 ± 0.723
133.5
133
132.5
132
131.5
131
pull
Entries 91
Mean 88.93
Std Dev 11.8
80
60
40
20
0
−20
−40
−60

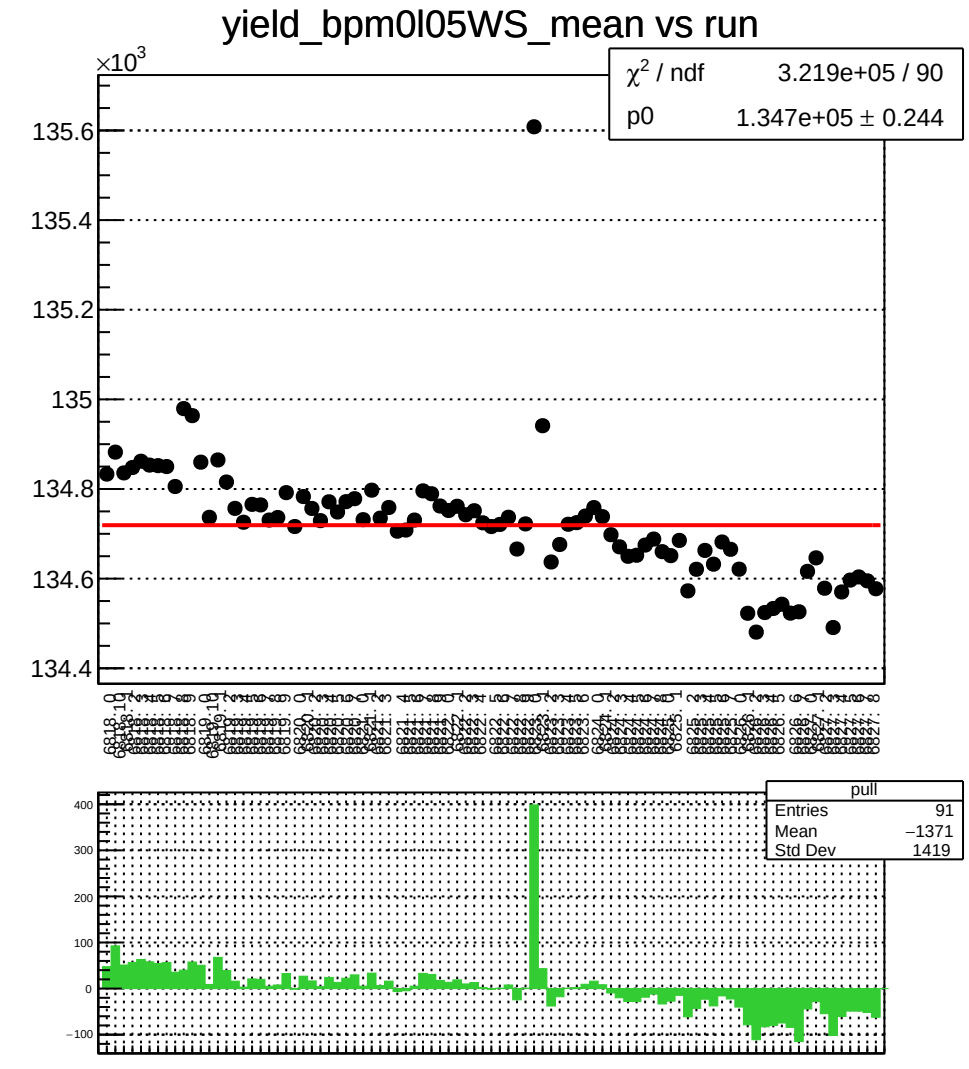

pull1D
Entries 91
Mean −0.08855
Std Dev 4.467
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

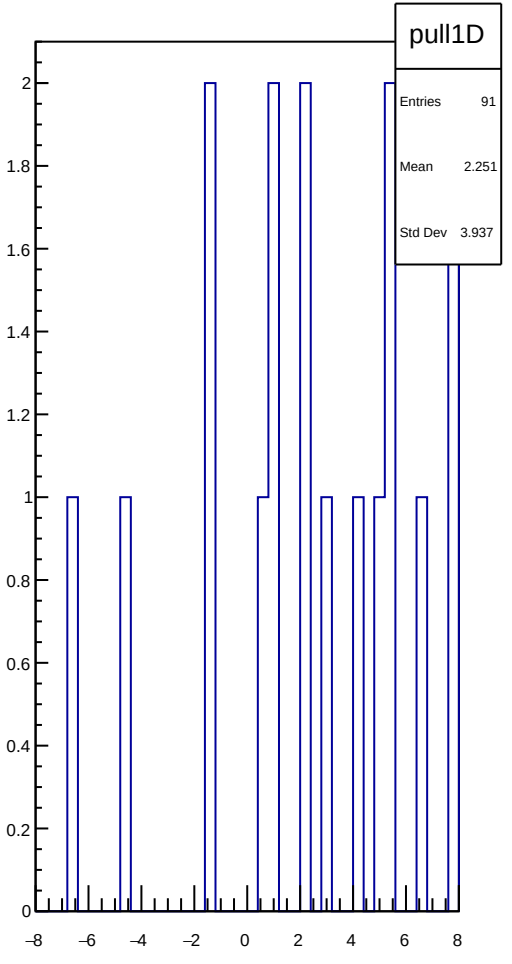

yield_bpm0l03WS_rms vs run
χ^2 / ndf 2.257e+05 / 90
p0 627 ± 0.5113
4500
4000
3500
3000
2500
2000
1500
1000
500

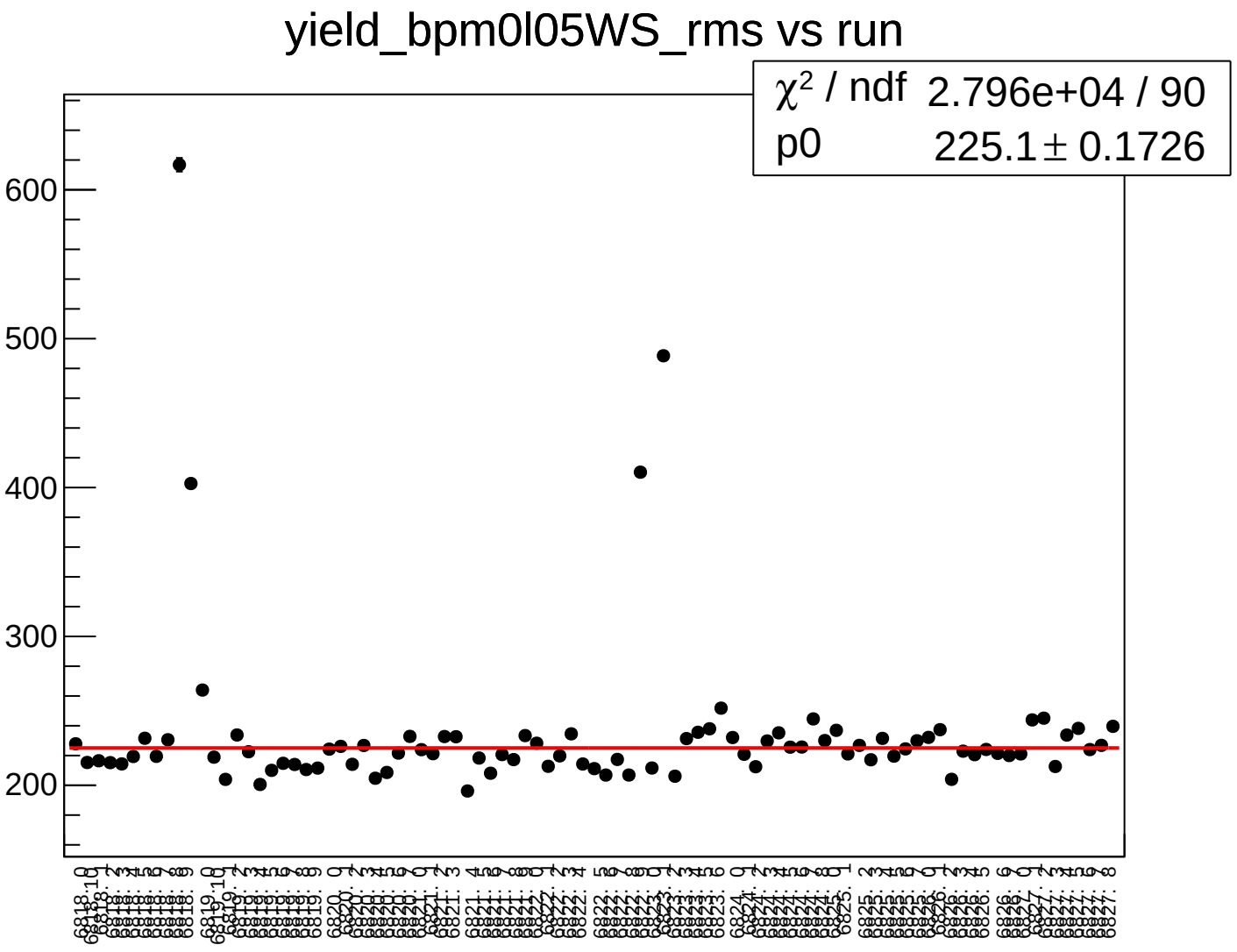

yield_bpm0l04WS_mean vs run
×10^3
χ² / ndf 7.05e+05 / 90
p0 1.267e+05 ± 0.2237
127.2
127
126.8
126.6
126.4
126.2
pull
Entries 91
Mean 4924
Std Dev 4879
200
150
100
50
0
−50
−100
−150
−200

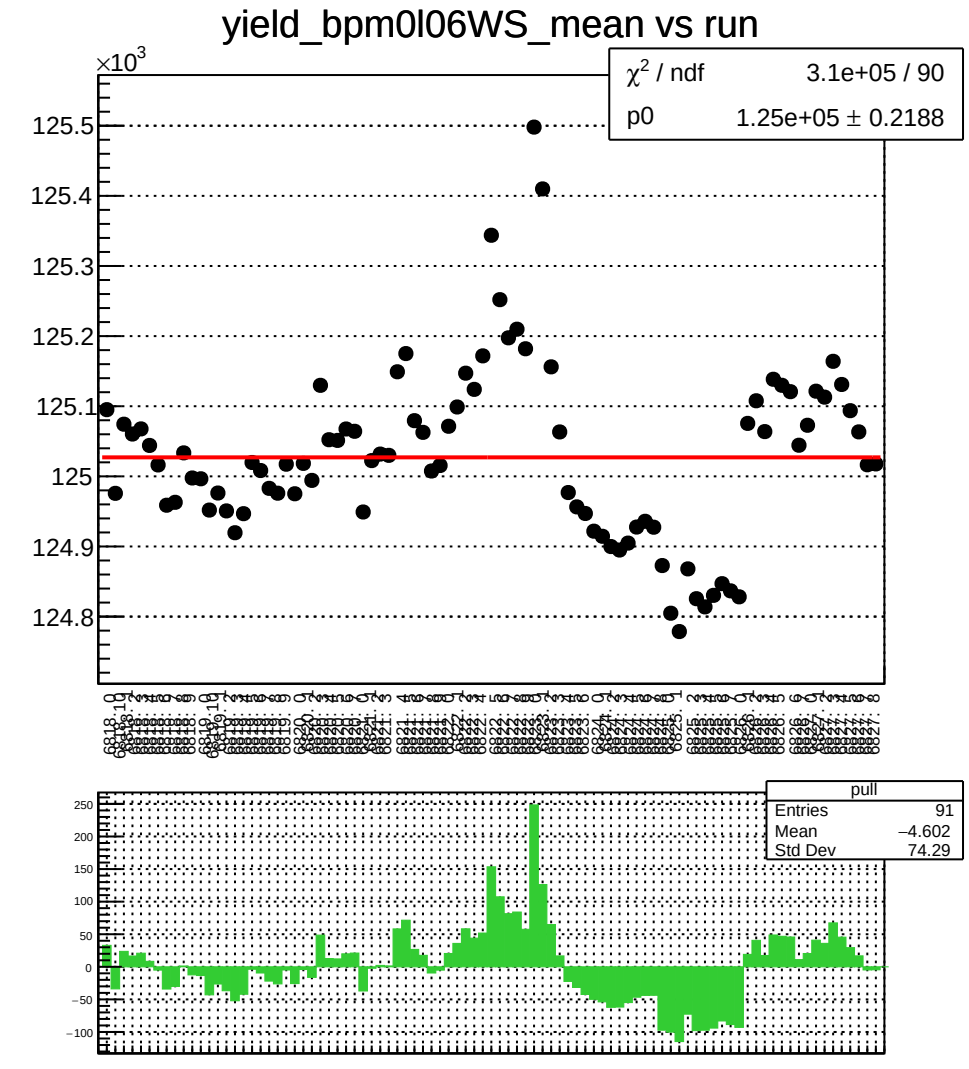

pull1D
Entries 91
Mean −2.478
Std Dev 4.191
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

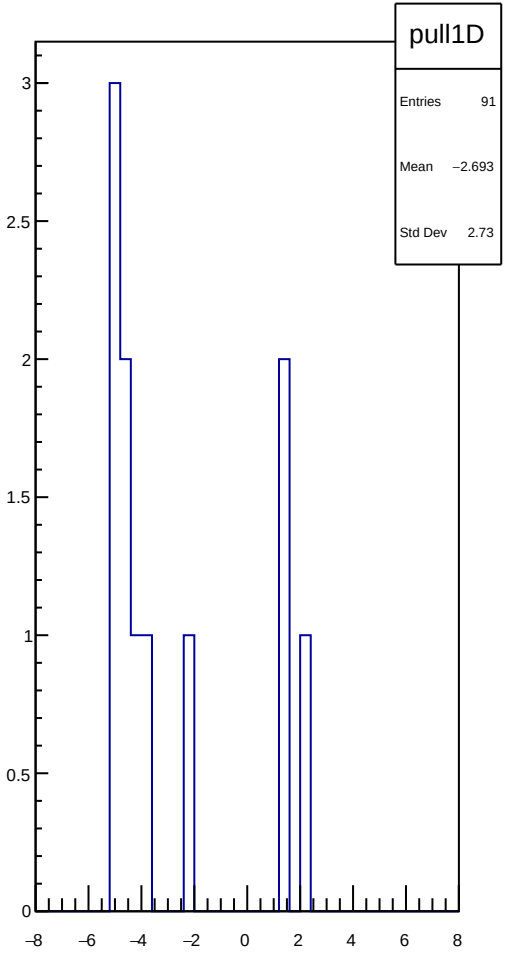

yield_bpm0l04WS_rms vs run
χ² / ndf 2.302e+04 / 90
p0 206.7 ± 0.1582
500
450
400
350
300
250
200

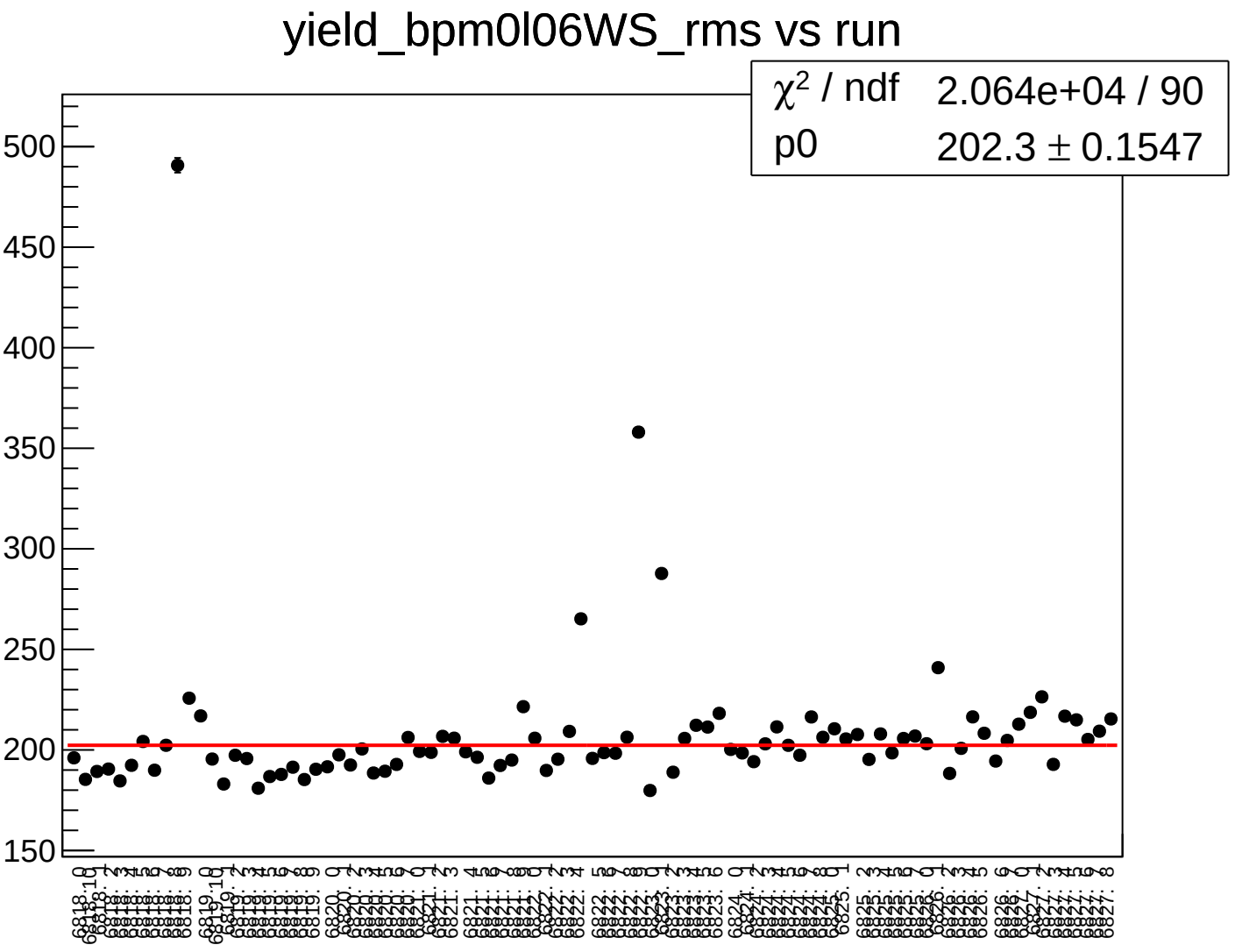

yield_bpm0l05WS_mean vs run
×10^3
χ² / ndf 3.219e+05 / 90
p0 1.347e+05 ± 0.244
135.6
135.4
135.2
135
134.8
134.6
134.4
pull
Entries 91
Mean −1371
Std Dev 1419
400
300
200
100
0
−100

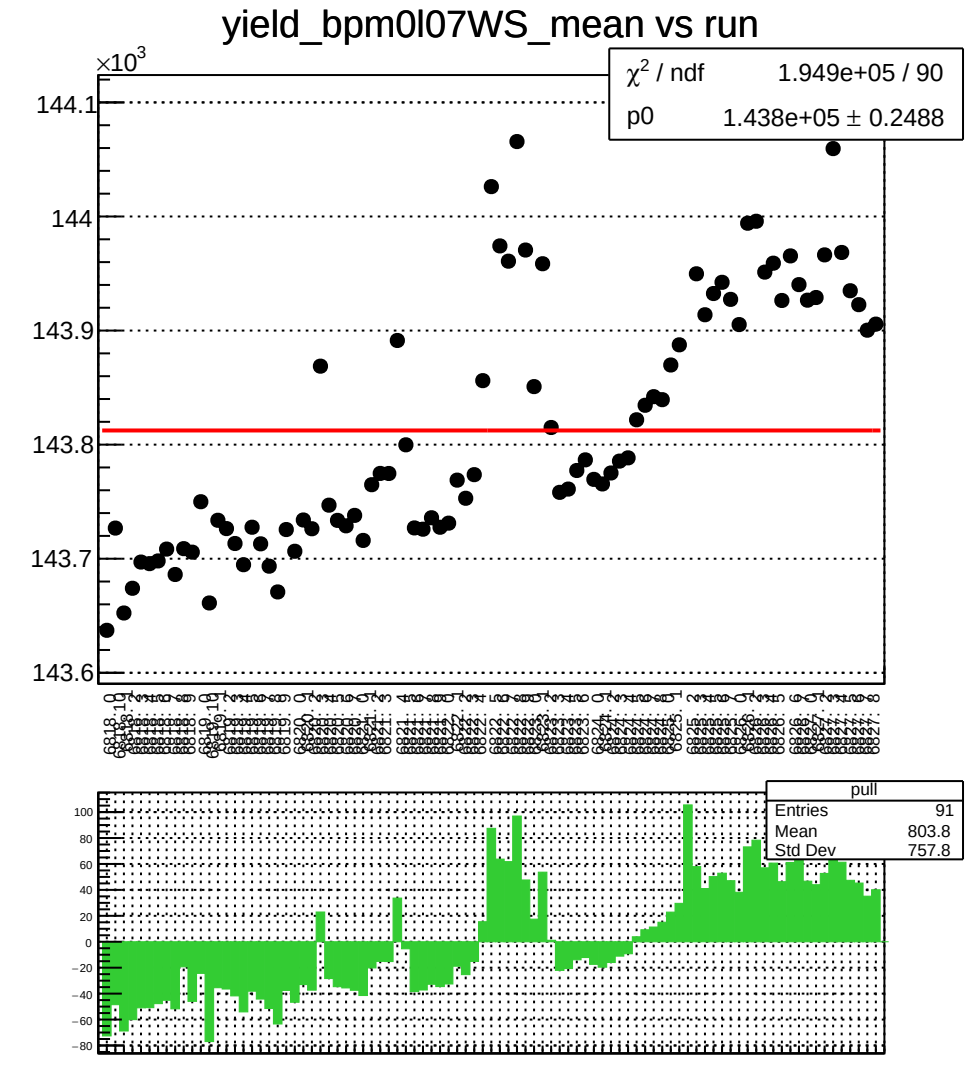

pull1D
Entries 91
Mean 2.251
Std Dev 3.937
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

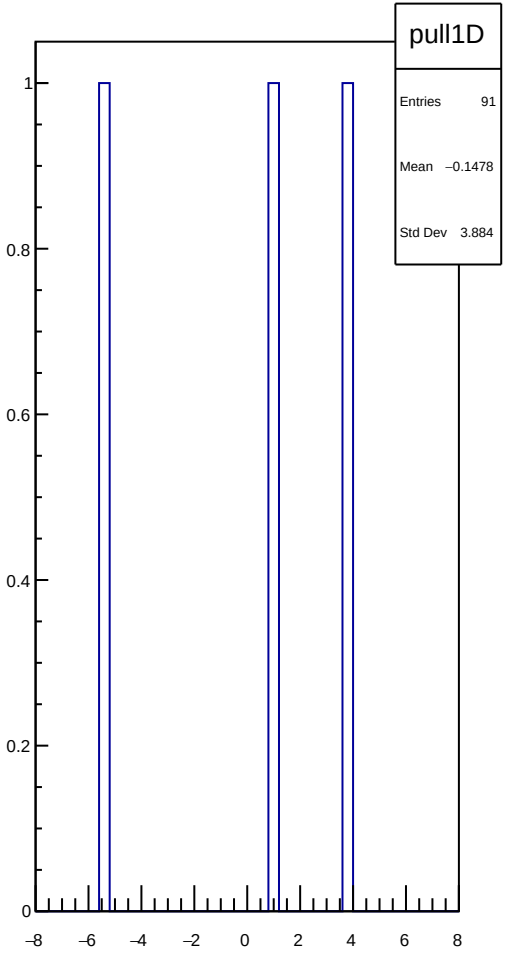

yield_bpm0l05WS_rms vs run
χ² / ndf 2.796e+04 / 90
p0 225.1 ± 0.1726
600
500
400
300
200

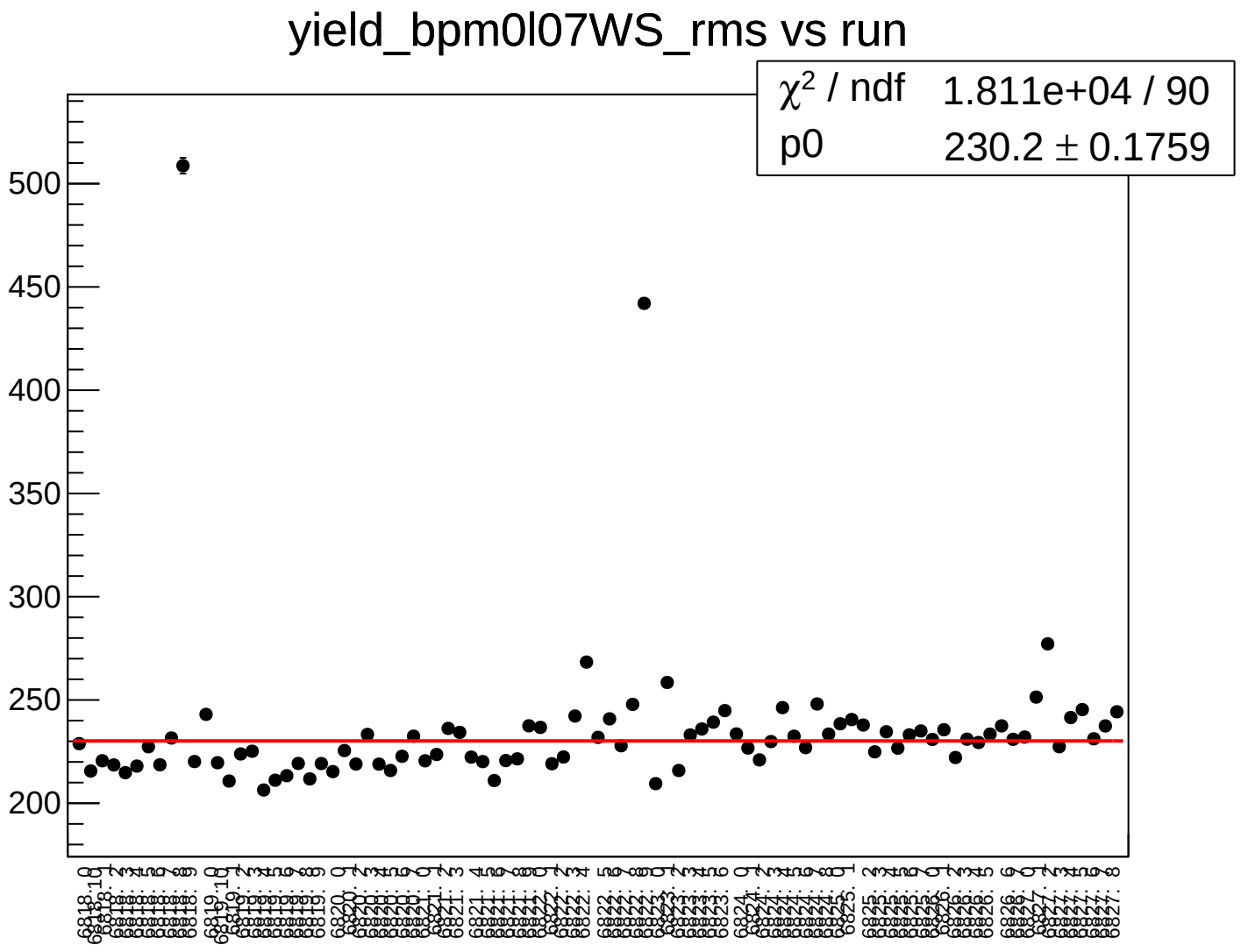

yield_bpm0l06WS_mean vs run
×10^3
χ² / ndf 3.1e+05 / 90
p0 1.25e+05 ± 0.2188
125.5
125.4
125.3
125.2
125.1
125
124.9
124.8
pull
Entries 91
Mean −4.602
Std Dev 74.29
250
200
150
100
50
0
−50
−100

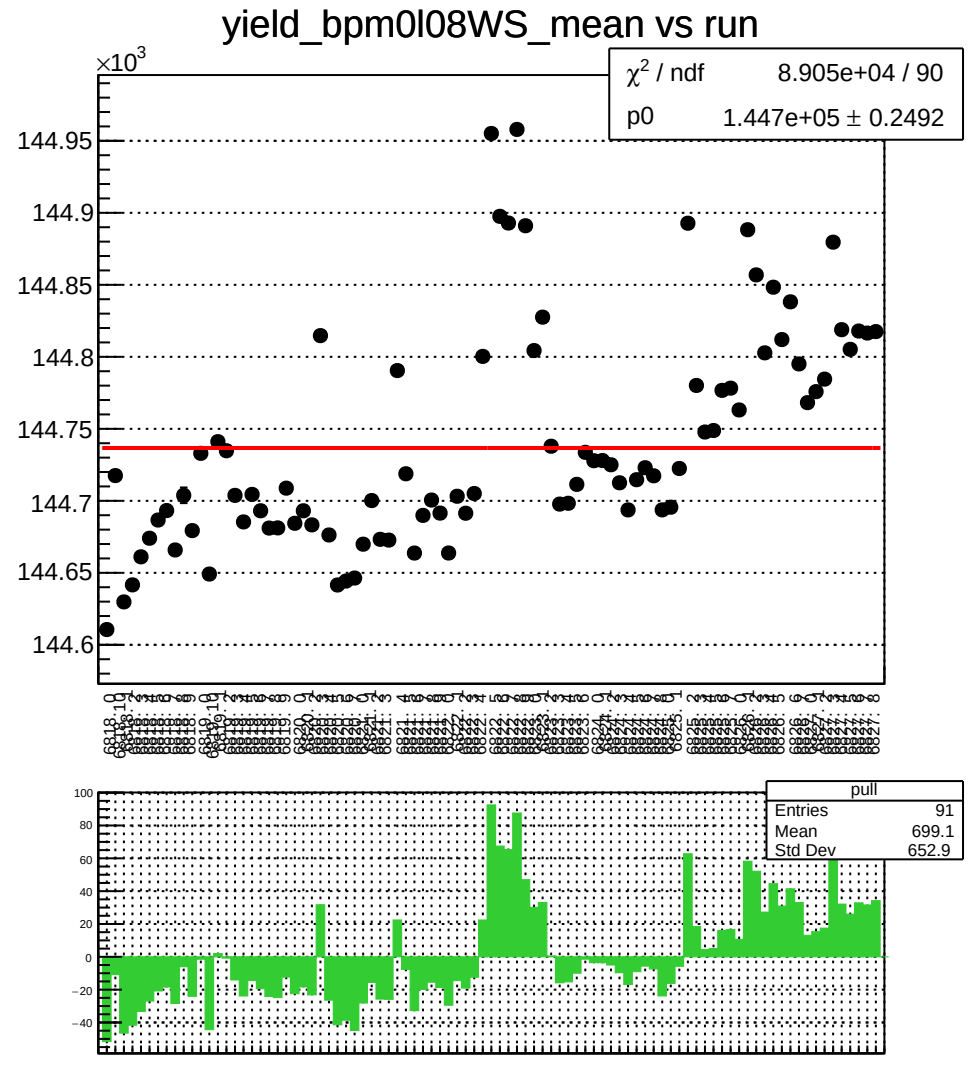

pull1D
Entries 91
Mean −2.693
Std Dev 2.73
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

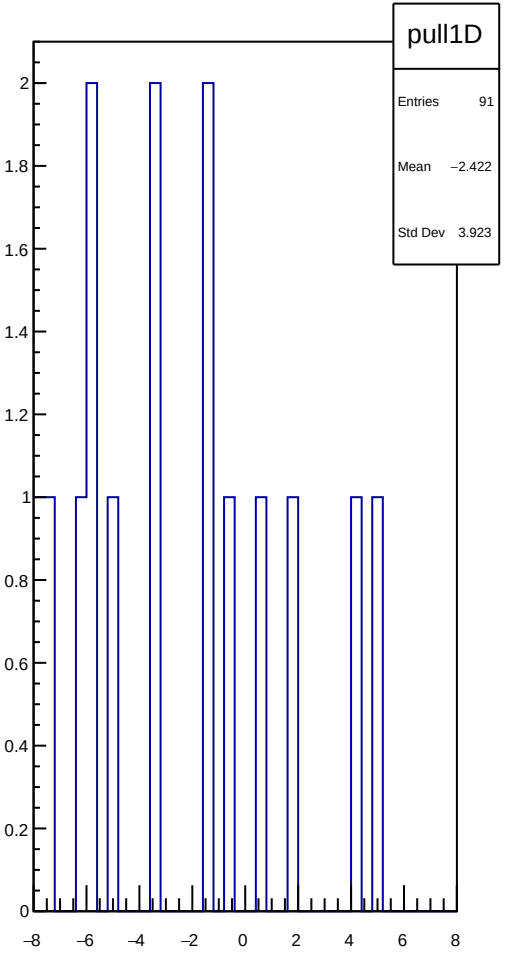

yield_bpm0l06WS_rms vs run
χ² / ndf 2.064e+04 / 90
p0 202.3 ± 0.1547
500
450
400
350
300
250
200
150

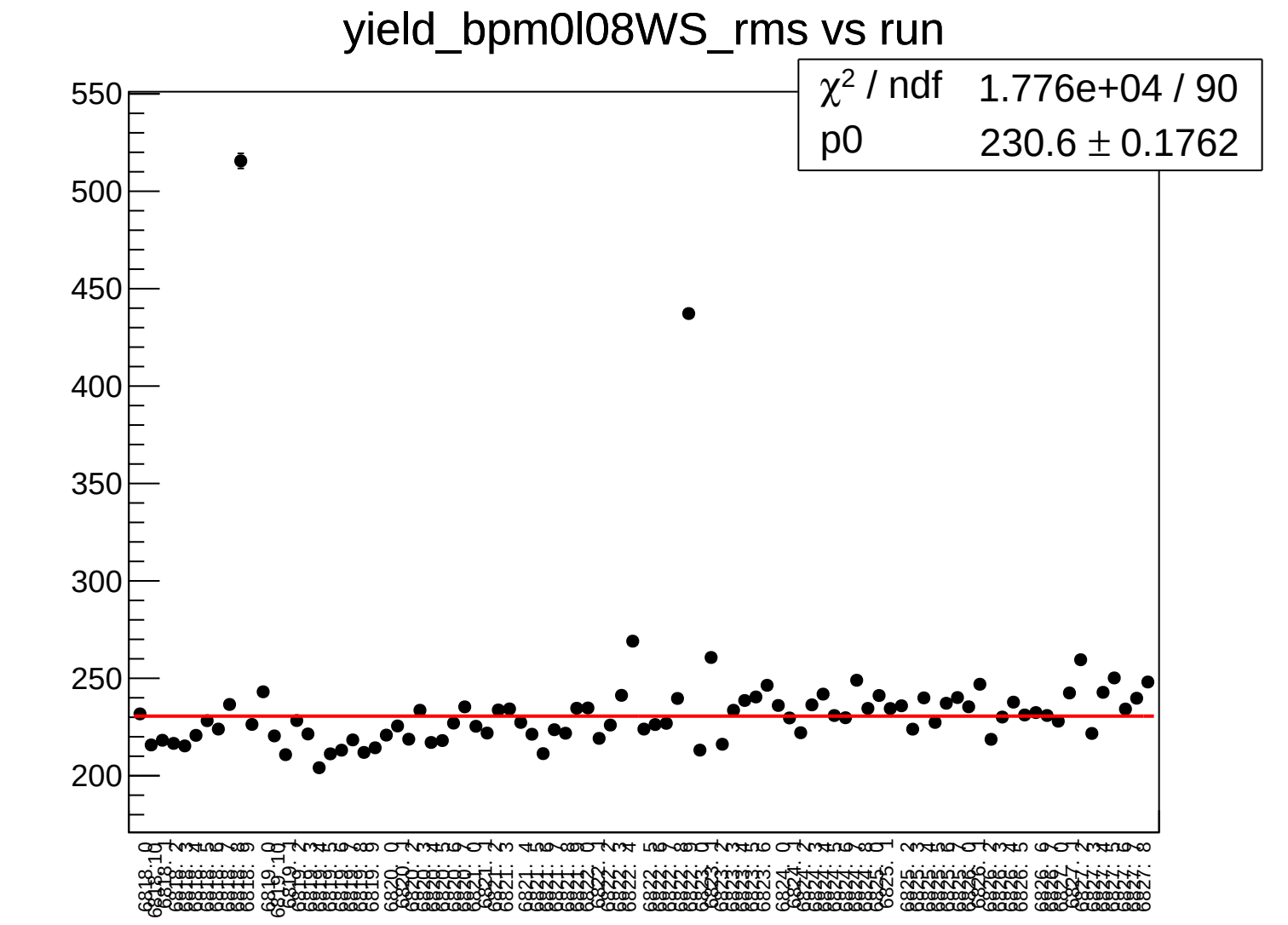

yield_bpm0l07WS_mean vs run
×10^3
χ² / ndf 1.949e+05 / 90
p0 1.438e+05 ± 0.2488
144.1
144
143.9
143.8
143.7
143.6
pull
Entries 91
Mean 803.8
Std Dev 757.8
100
80
60
40
20
0
−20
−40
−60
−80

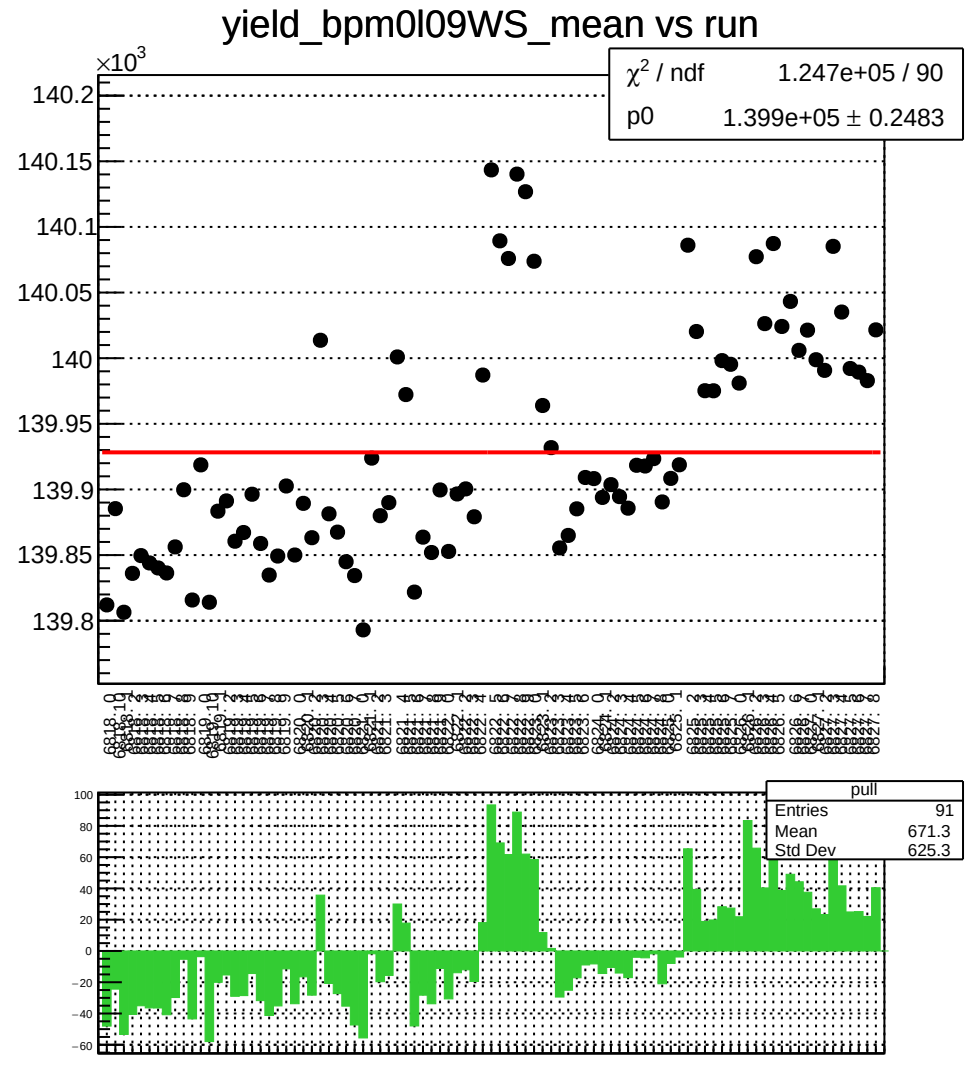

pull1D
Entries 91
Mean −0.1478
Std Dev 3.884
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

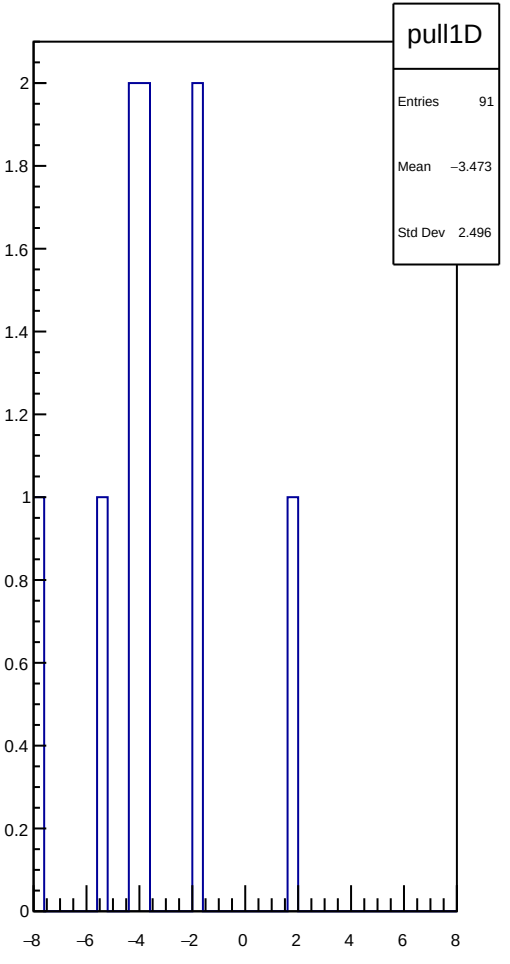

yield_bpm0l07WS_rms vs run
χ² / ndf 1.811e+04 / 90
p0 230.2 ± 0.1759
500
450
400
350
300
250
200

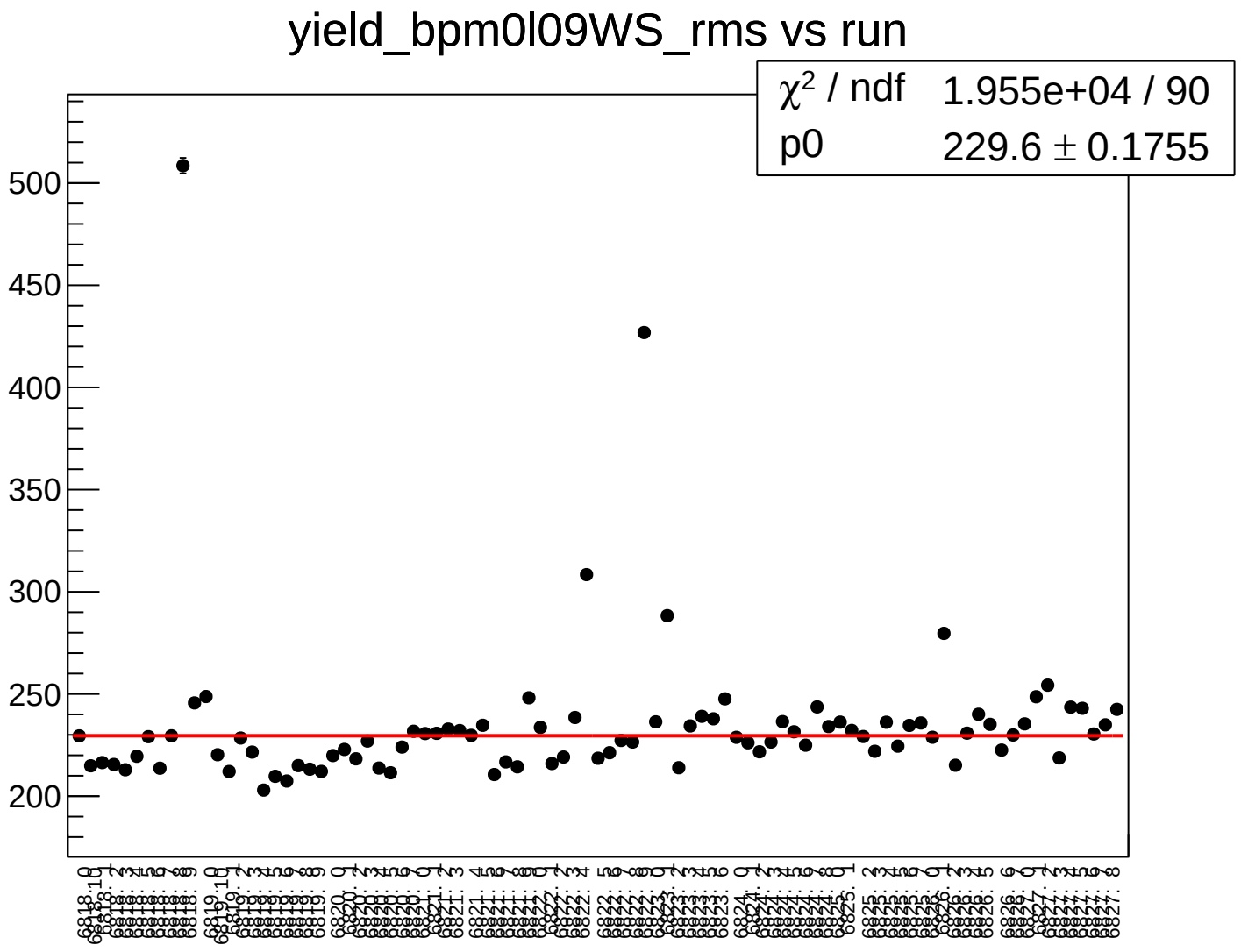

yield_bpm0l08WS_mean vs run
×10^3
χ² / ndf 8.905e+04 / 90
p0 1.447e+05 ± 0.2492
144.95
144.9
144.85
144.8
144.75
144.7
144.65
144.6
pull
Entries 91
Mean 699.1
Std Dev 652.9
100
80
60
40
20
0
−20
−40

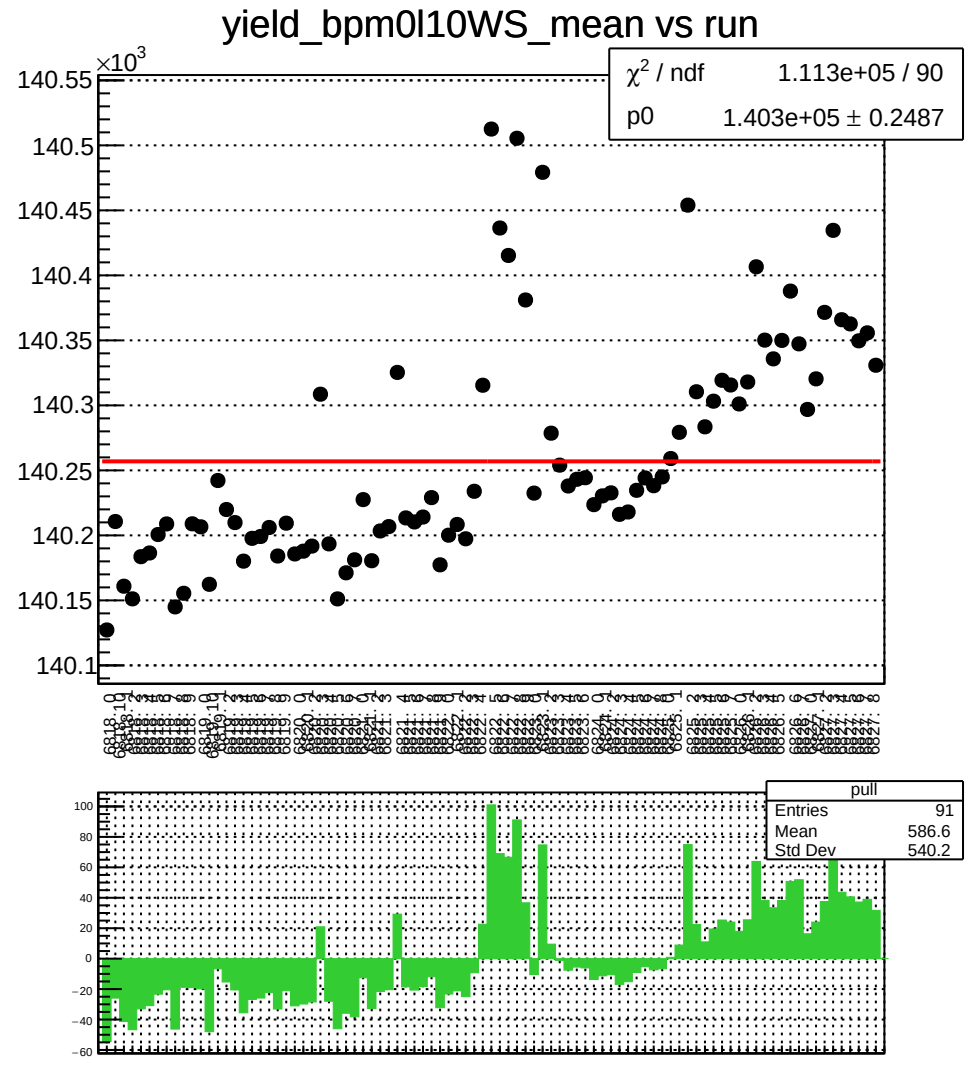

pull1D
Entries 91
Mean −2.422
Std Dev 3.923
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

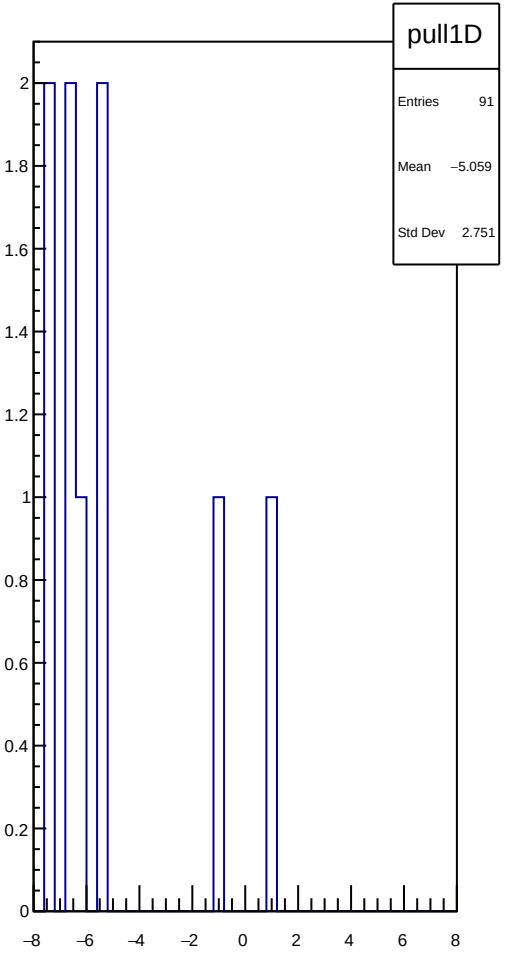

yield_bpm0l08WS_rms vs run
χ² / ndf 1.776e+04 / 90
p0 230.6 ± 0.1762
550
500
450
400
350
300
250
200

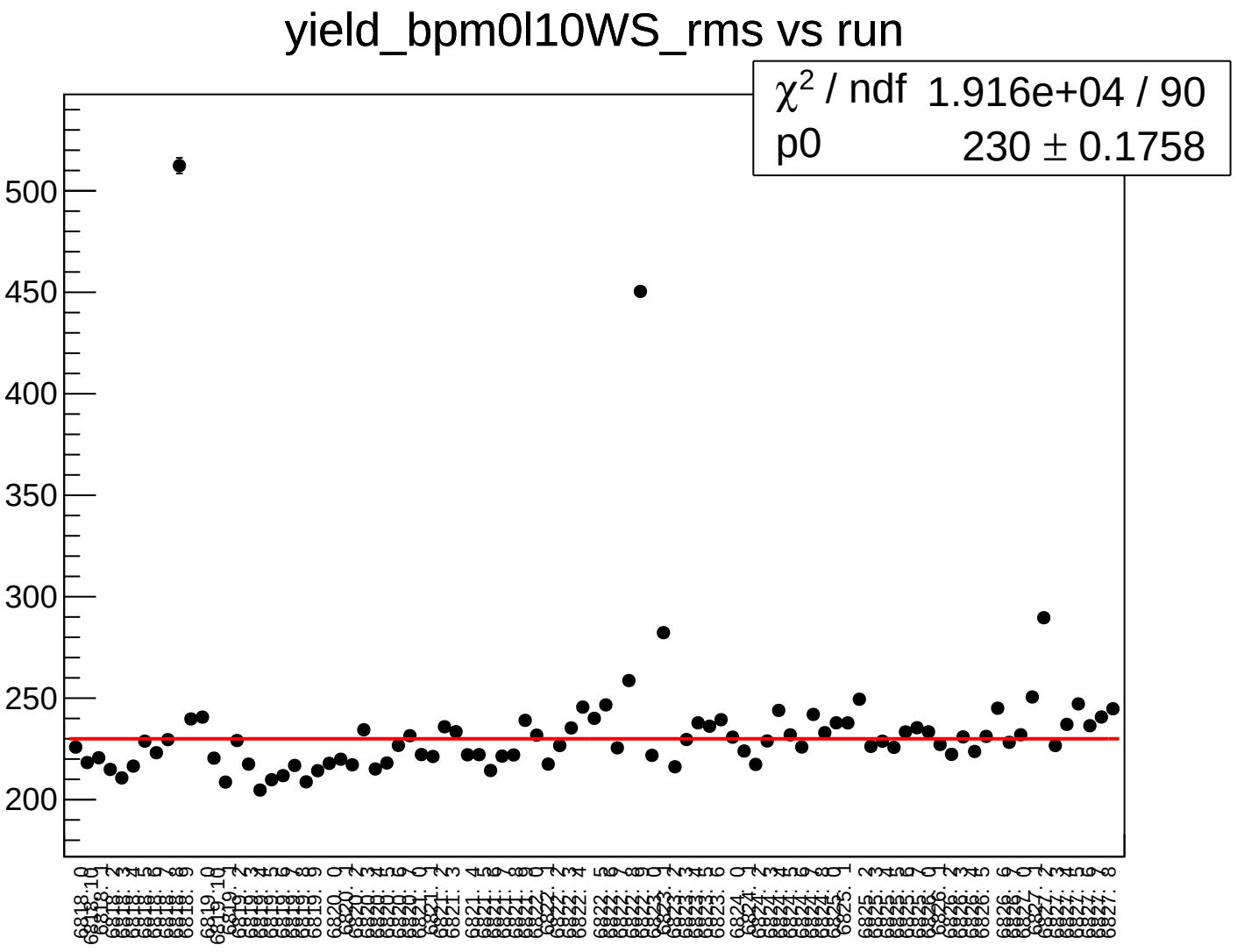

yield_bpm0l09WS_mean vs run
×10^3
χ² / ndf 1.247e+05 / 90
p0 1.399e+05 ± 0.2483
140.2
140.15
140.1
140.05
140
139.95
139.9
139.85
139.8
pull
Entries 91
Mean 671.3
Std Dev 625.3
100
80
60
40
20
0
−20
−40
−60

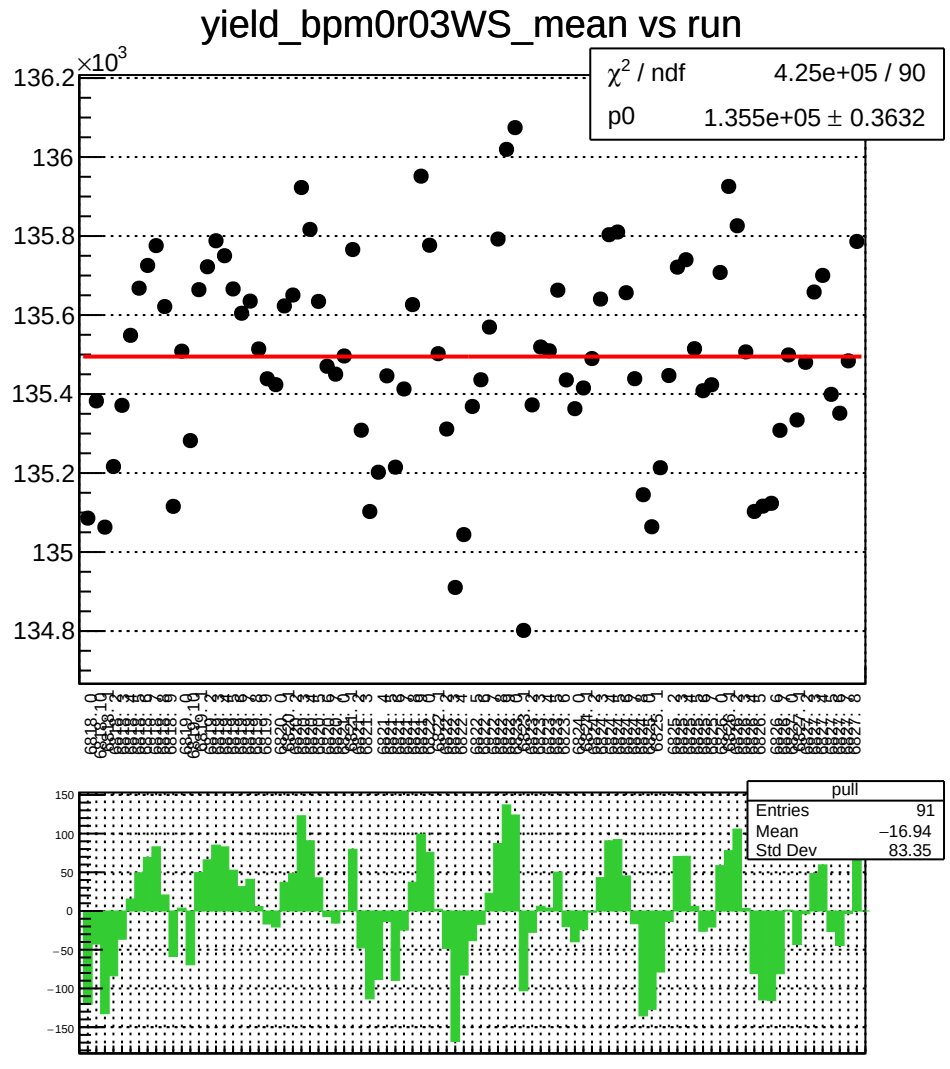

pull1D
Entries 91
Mean −3.473
Std Dev 2.496
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

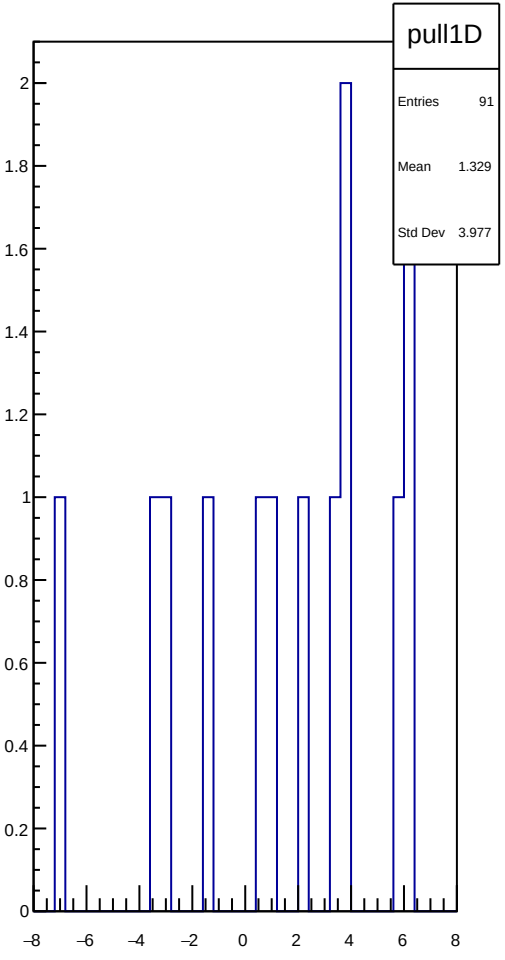

yield_bpm0l09WS_rms vs run
χ² / ndf 1.955e+04 / 90
p0 229.6 ± 0.1755
500
450
400
350
300
250
200

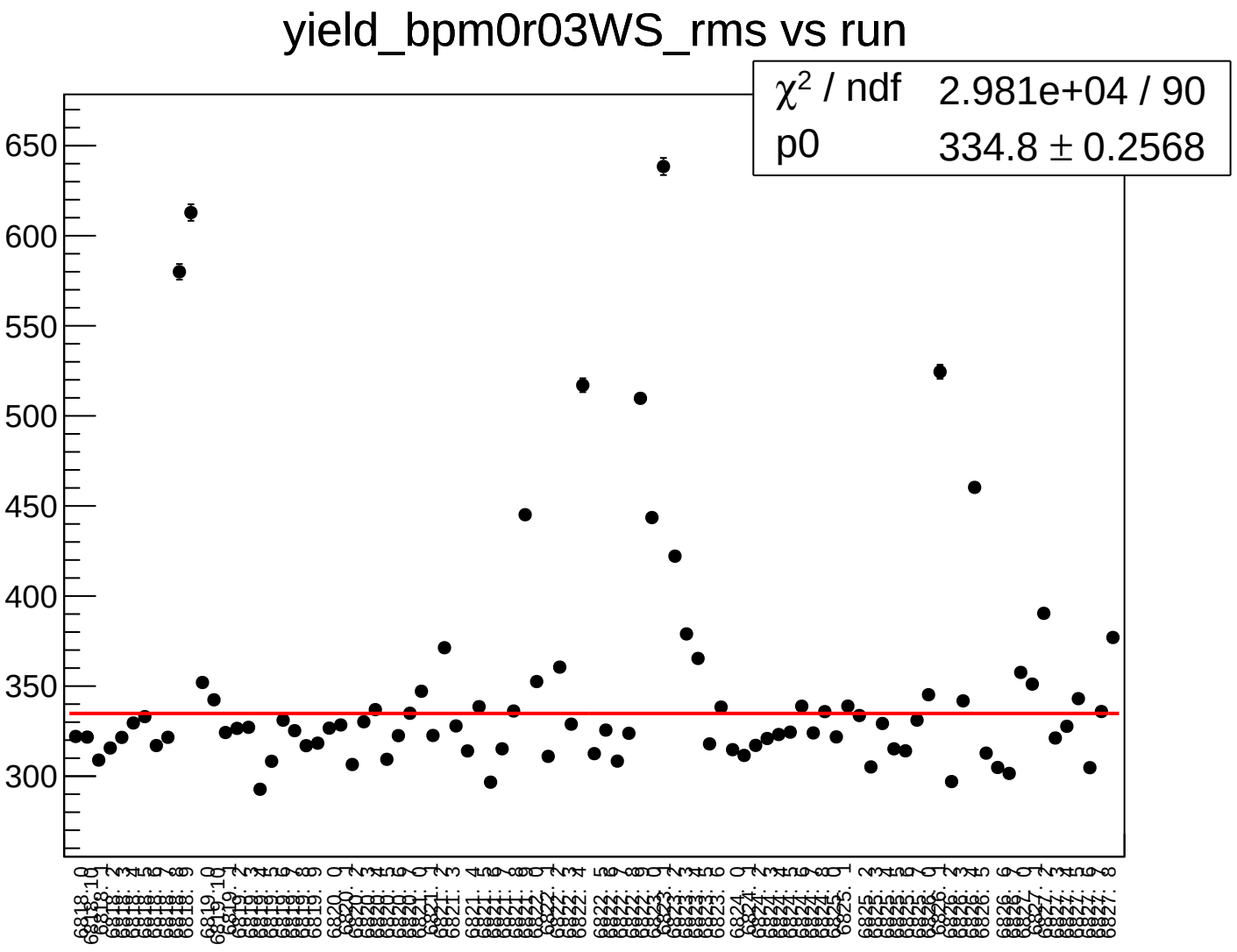

yield_bpm0l10WS_mean vs run
×10^3
χ² / ndf 1.113e+05 / 90
p0 1.403e+05 ± 0.2487
140.55
140.5
140.45
140.4
140.35
140.3
140.25
140.2
140.15
140.1
pull
Entries 91
Mean 586.6
Std Dev 540.2
100
80
60
40
20
0
−20
−40
−60

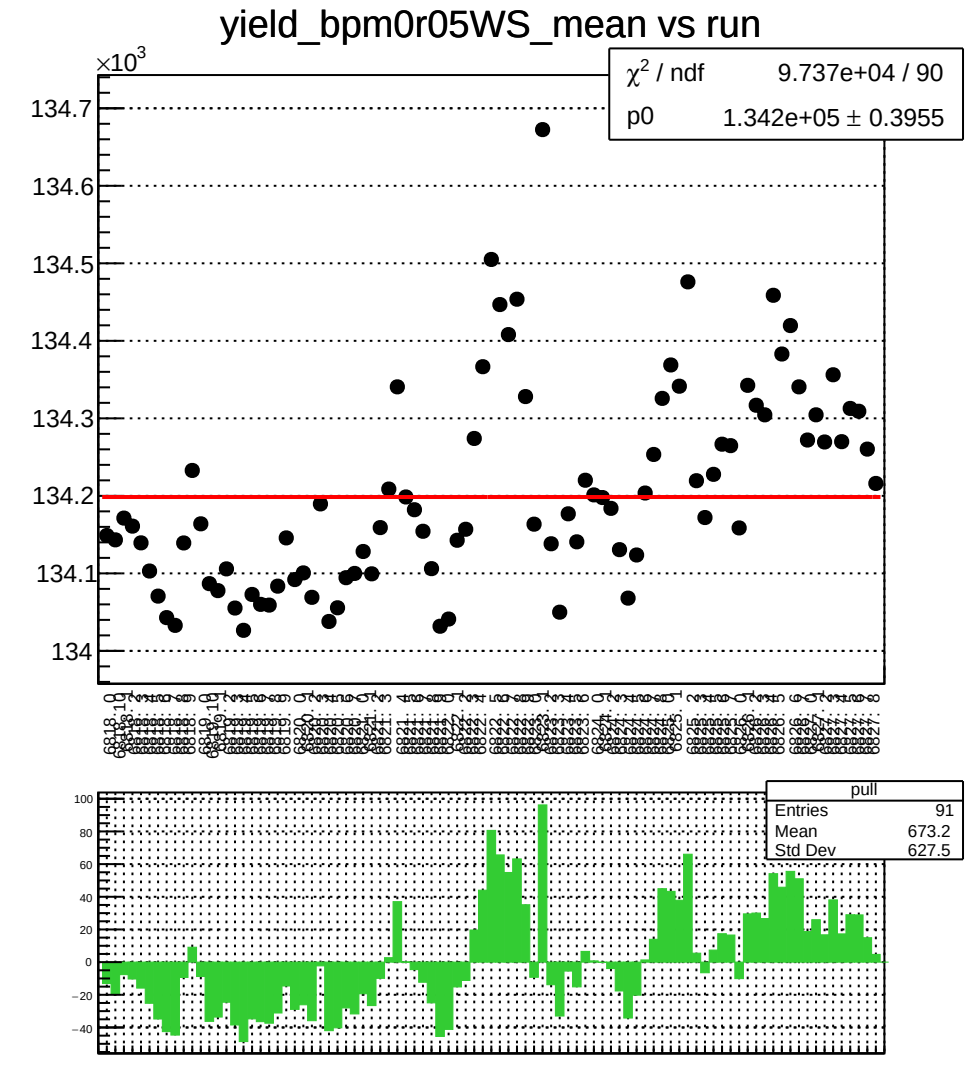

pull1D
Entries 91
Mean −5.059
Std Dev 2.751
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

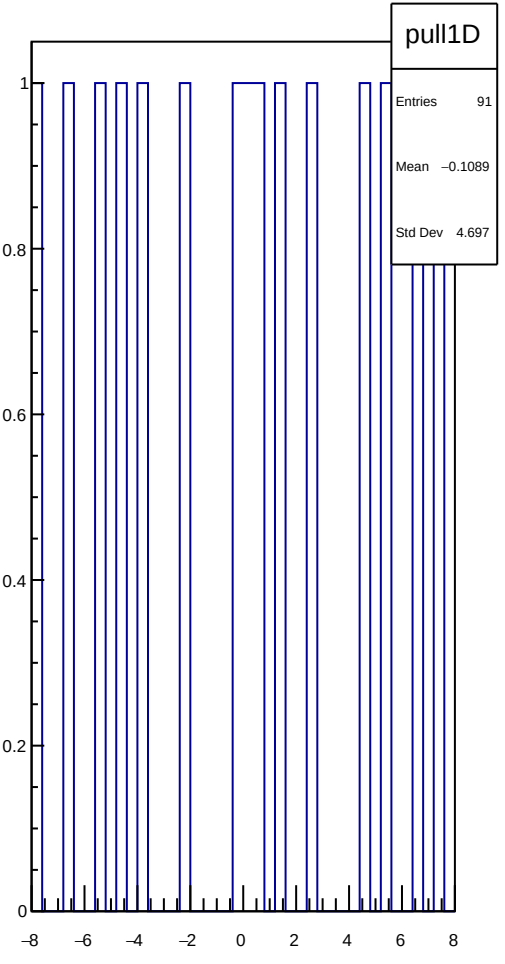

yield_bpm0l10WS_rms vs run
χ² / ndf 1.916e+04 / 90
p0 230 ± 0.1758
500
450
400
350
300
250
200

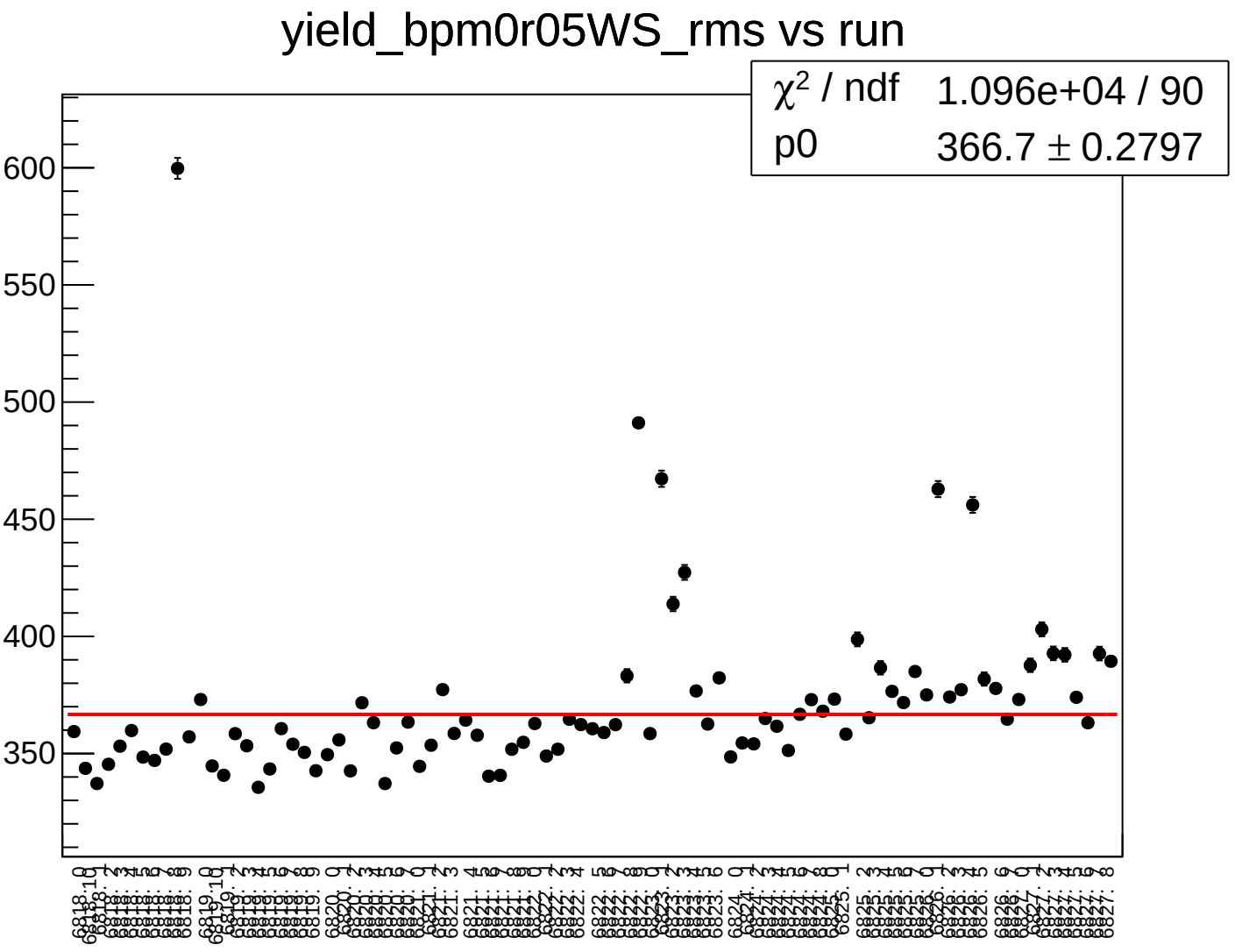

yield_bpm0r03WS_mean vs run
χ² / ndf 4.25e+05 / 90
p0 1.355e+05 ± 0.3632
×10³
136.2
136
135.8
135.6
135.4
135.2
135
134.8
pull
Entries 91
Mean −16.94
Std Dev 83.35
150
100
50
0
−50
−100
−150

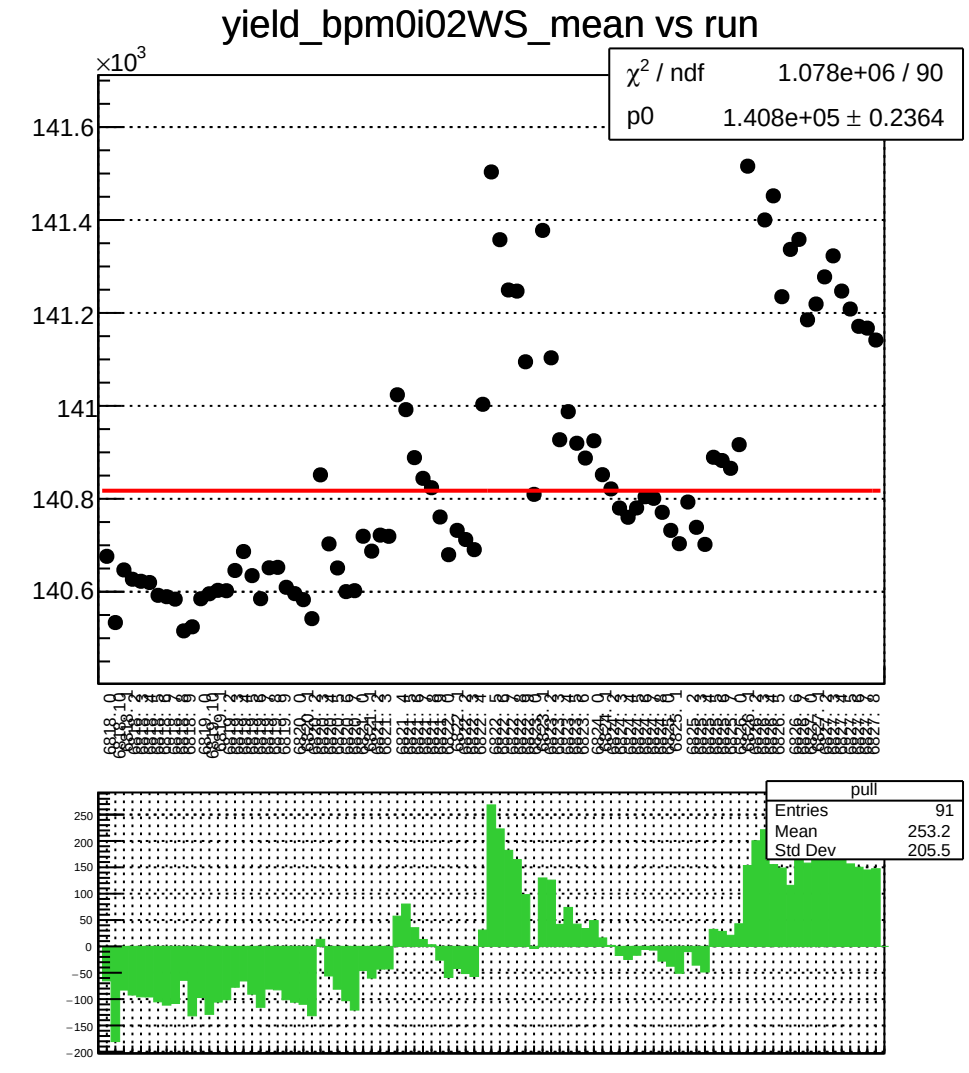

pull1D
Entries 91
Mean 1.329
Std Dev 3.977
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

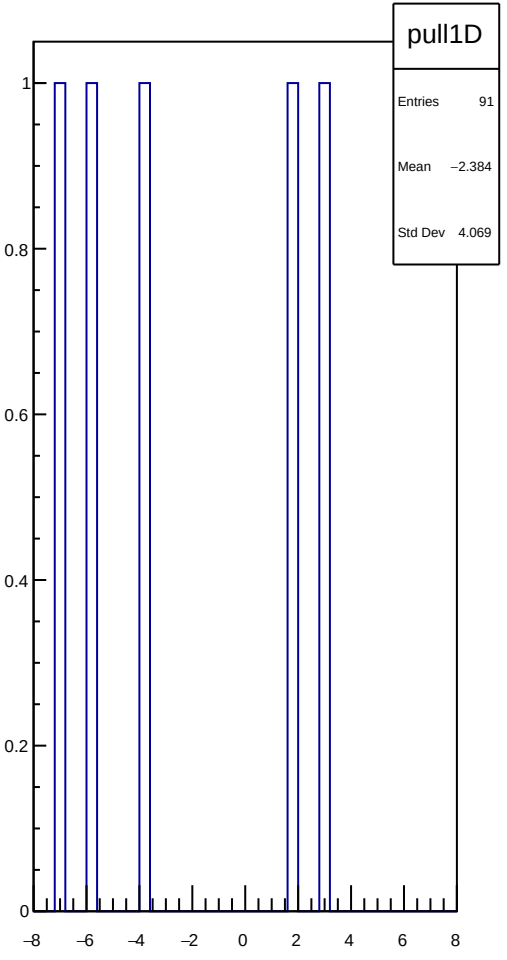

yield_bpm0r03WS_rms vs run
χ² / ndf 2.981e+04 / 90
p0 334.8 ± 0.2568
650
600
550
500
450
400
350
300

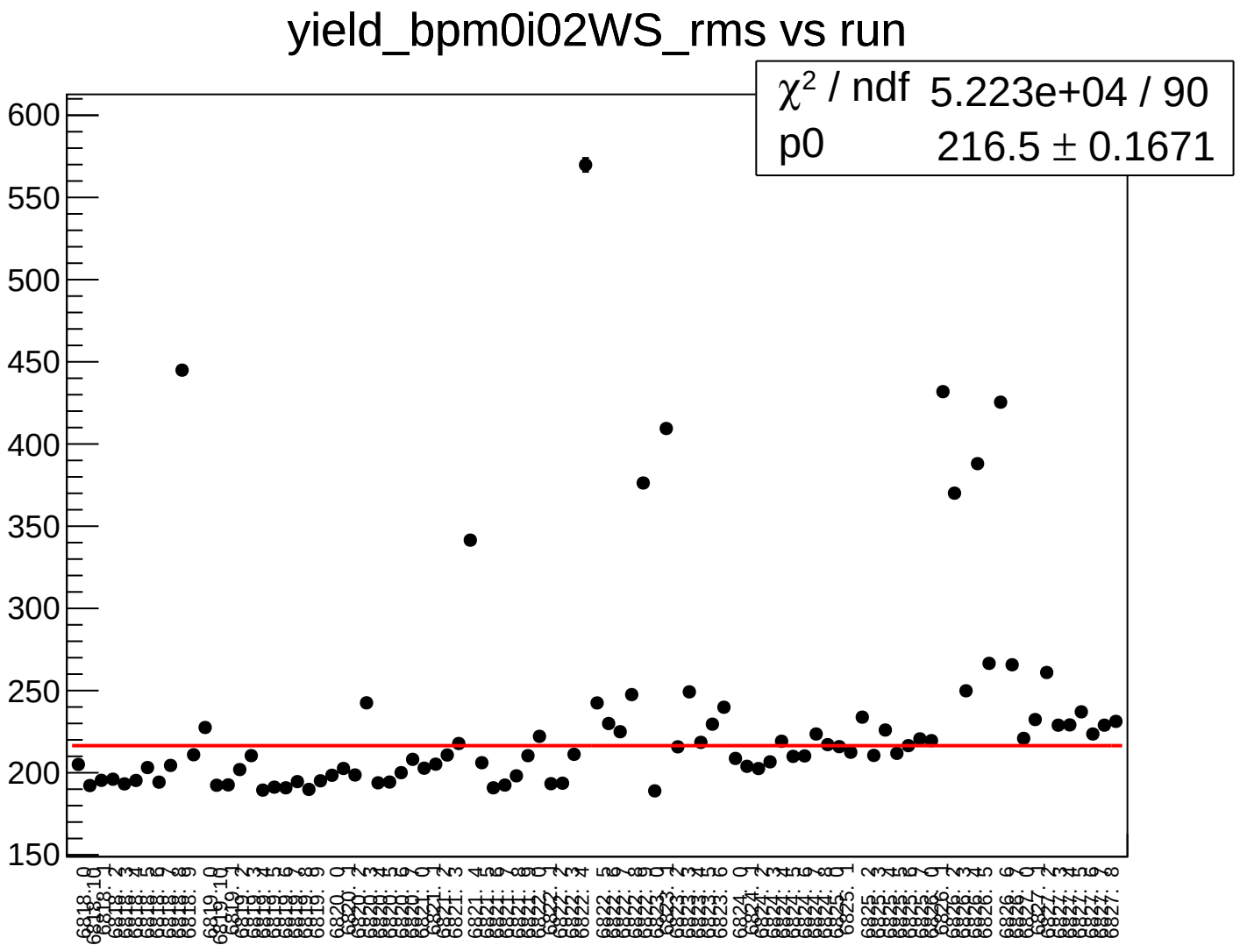

yield_bpm0r05WS_mean vs run
×10^3
χ^2 / ndf 9.737e+04 / 90
p0 1.342e+05 ± 0.3955
134.7
134.6
134.5
134.4
134.3
134.2
134.1
134
pull
Entries 91
Mean 673.2
Std Dev 627.5
100
80
60
40
20
0
−20
−40

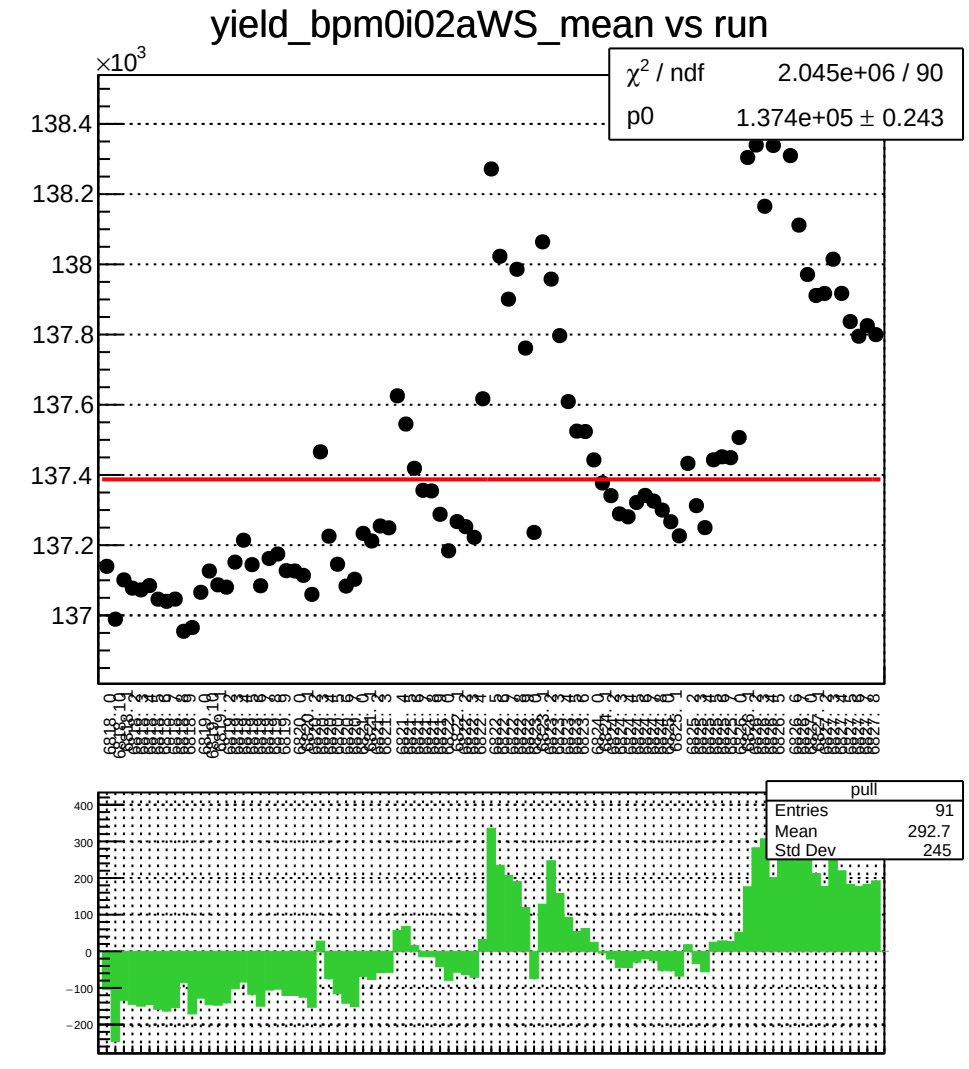

pull1D
Entries 91
Mean −0.1089
Std Dev 4.697
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

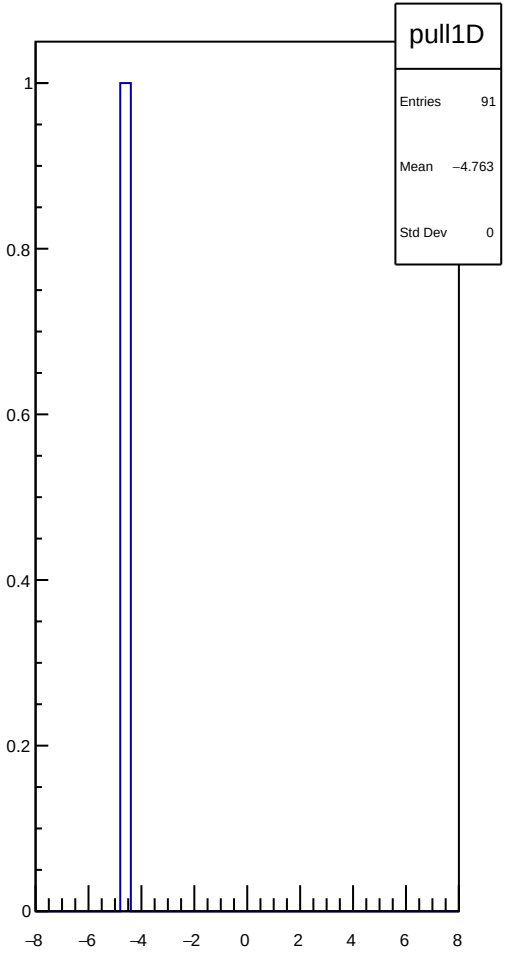

yield_bpm0r05WS_rms vs run
χ² / ndf 1.096e+04 / 90
p0 366.7 ± 0.2797
600
550
500
450
400
350

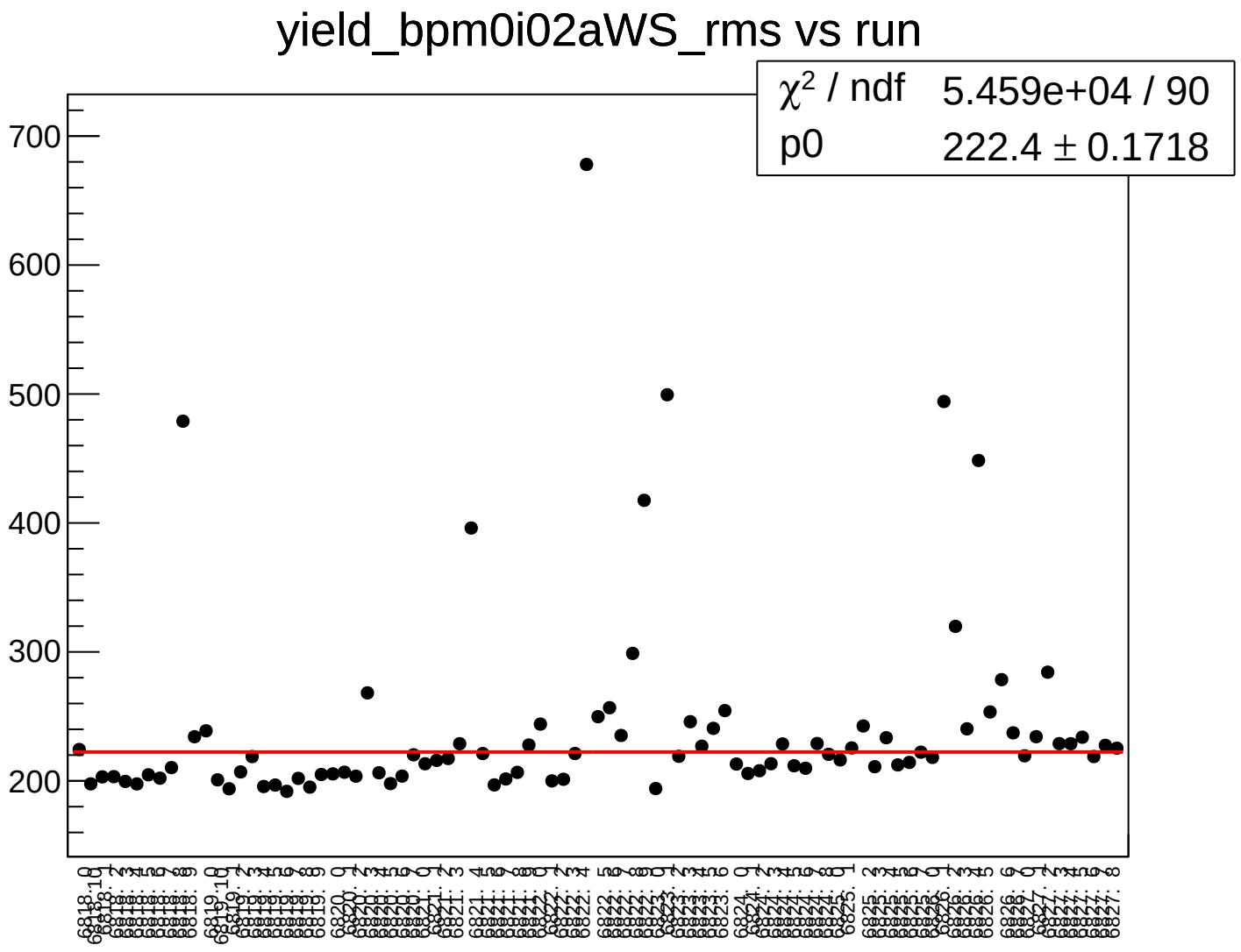

yield_bpm0i02WS_mean vs run
×10^3
χ² / ndf 1.078e+06 / 90
p0 1.408e+05 ± 0.2364
141.6
141.4
141.2
141
140.8
140.6
pull
Entries 91
Mean 253.2
Std Dev 205.5
250
200
150
100
50
0
−50
−100
−150
−200

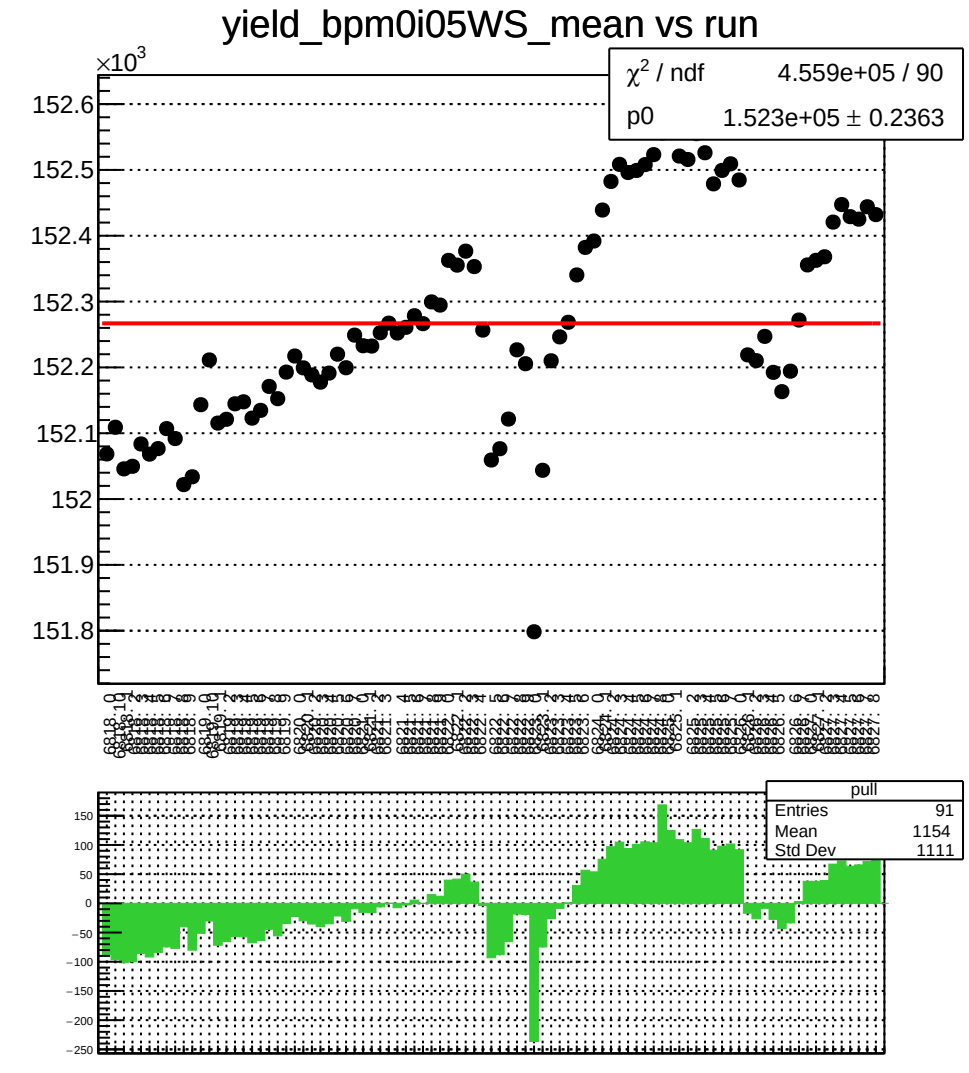

pull1D
Entries 91
Mean −2.384
Std Dev 4.069
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

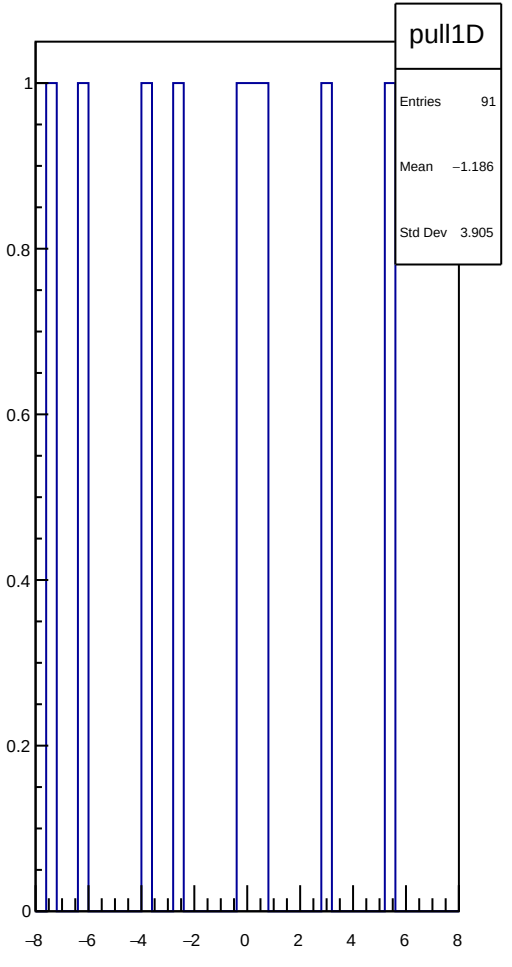

yield_bpm0i02WS_rms vs run
χ² / ndf 5.223e+04 / 90
p0 216.5 ± 0.1671
600
550
500
450
400
350
300
250
200
150

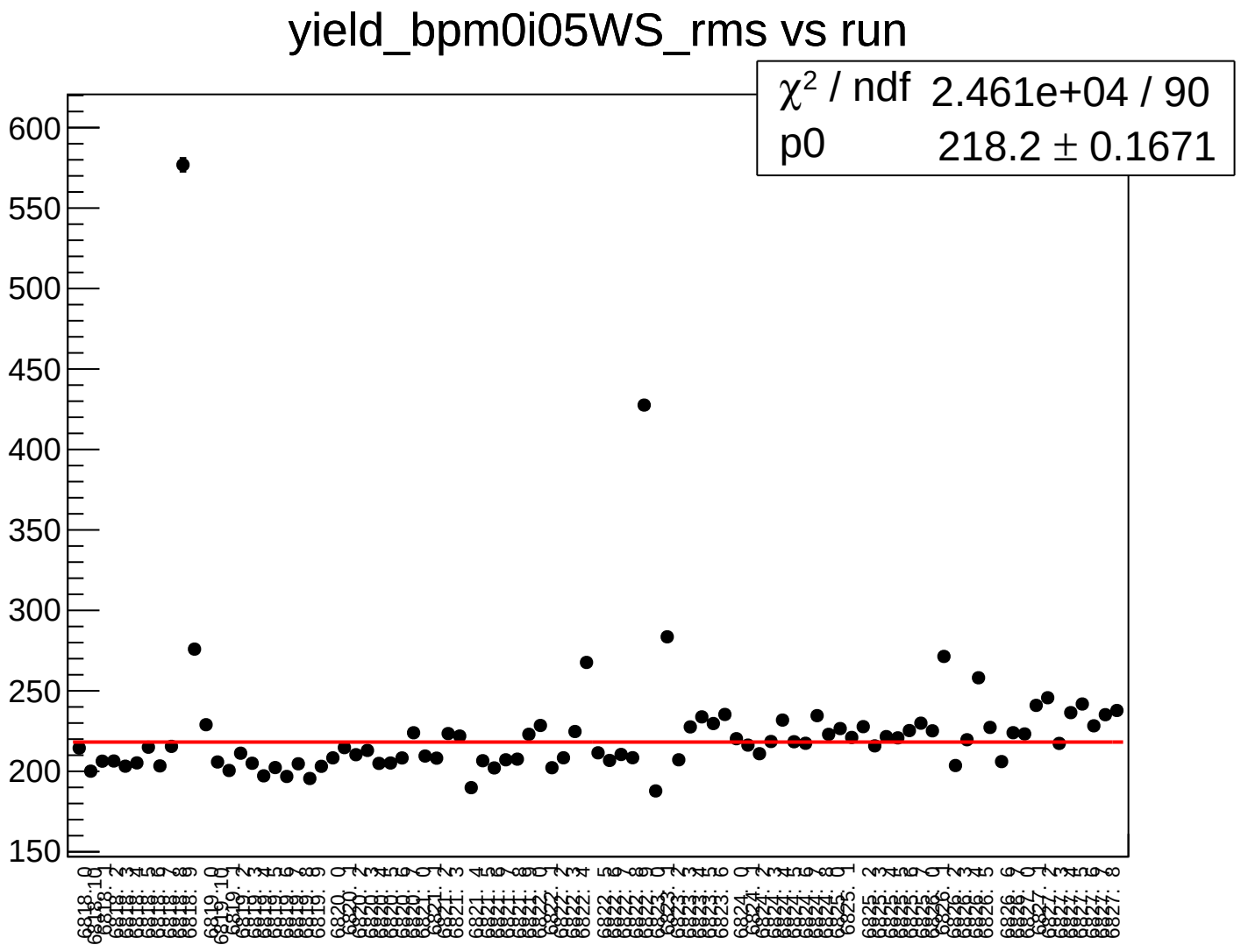

yield_bpm0i02aWS_mean vs run
χ² / ndf 2.045e+06 / 90
p0 1.374e+05 ± 0.243
×10³
138.4
138.2
138
137.8
137.6
137.4
137.2
137
pull
Entries 91
Mean 292.7
Std Dev 245
400
300
200
100
0
−100
−200

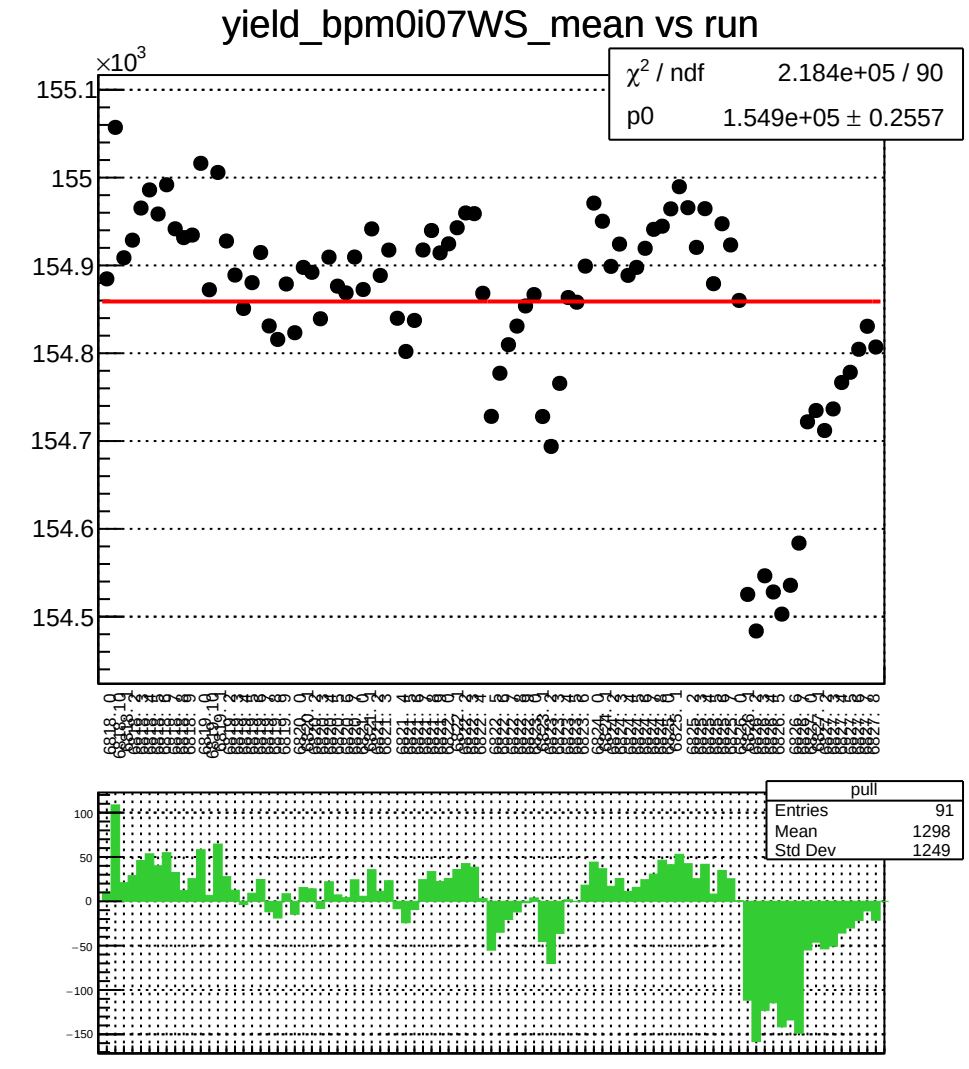

pull1D
Entries 91
Mean −4.763
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

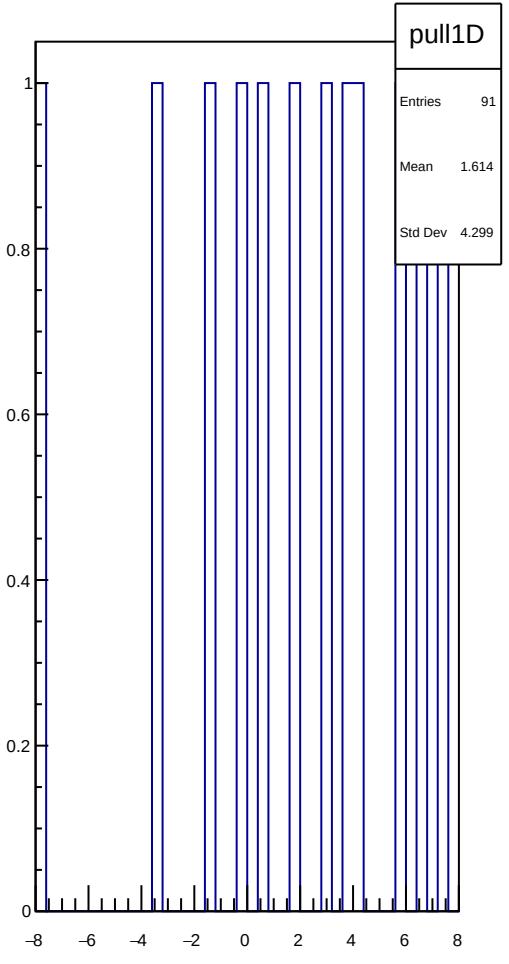

yield_bpm0i02aWS_rms vs run
χ² / ndf 5.459e+04 / 90
p0 222.4 ± 0.1718
700
600
500
400
300
200

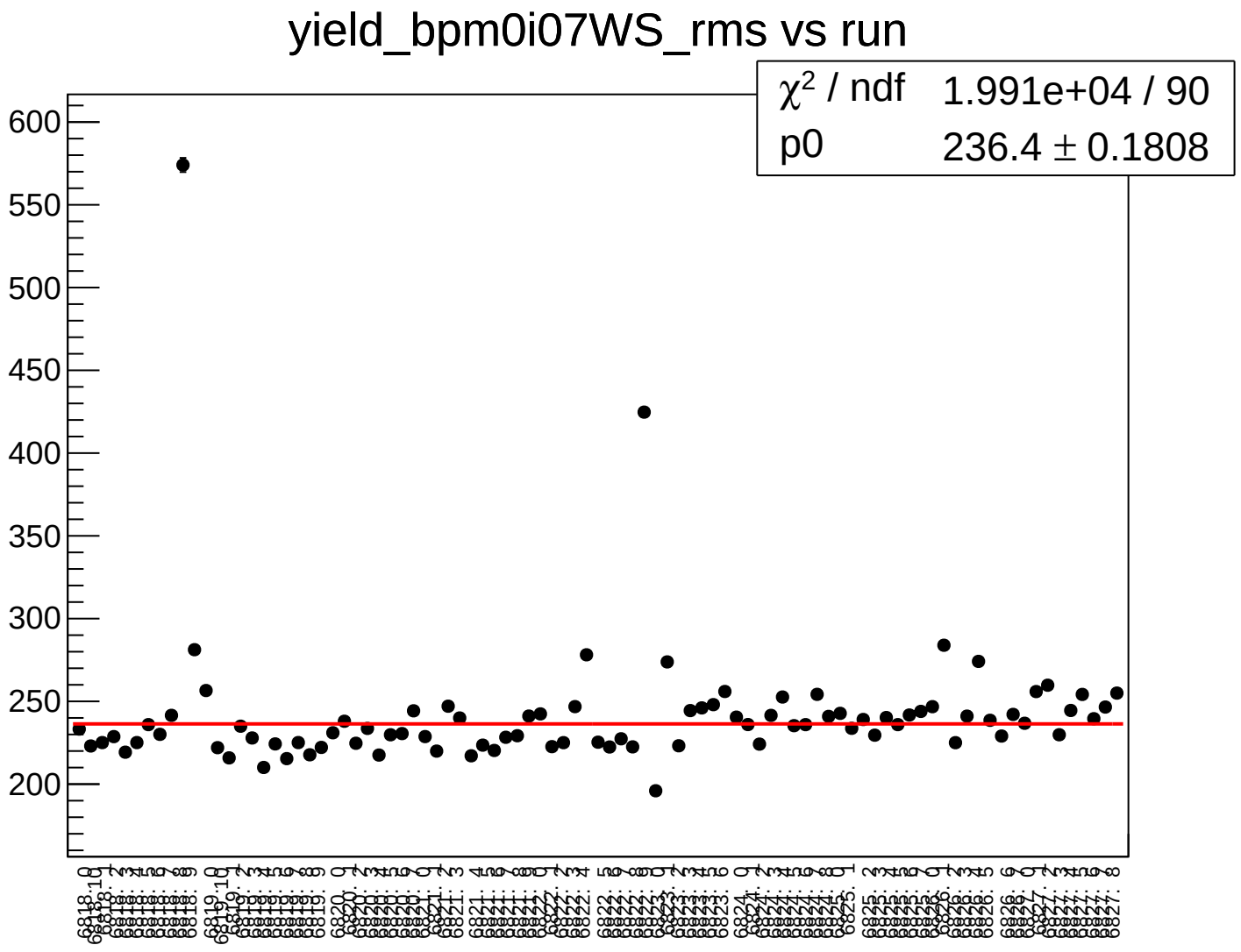

yield_bpm0i05WS_mean vs run
×10^3
χ² / ndf 4.559e+05 / 90
p0 1.523e+05 ± 0.2363
152.6
152.5
152.4
152.3
152.2
152.1
152
151.9
151.8
pull
Entries 91
Mean 1154
Std Dev 1111
150
100
50
0
−50
−100
−150
−200
−250

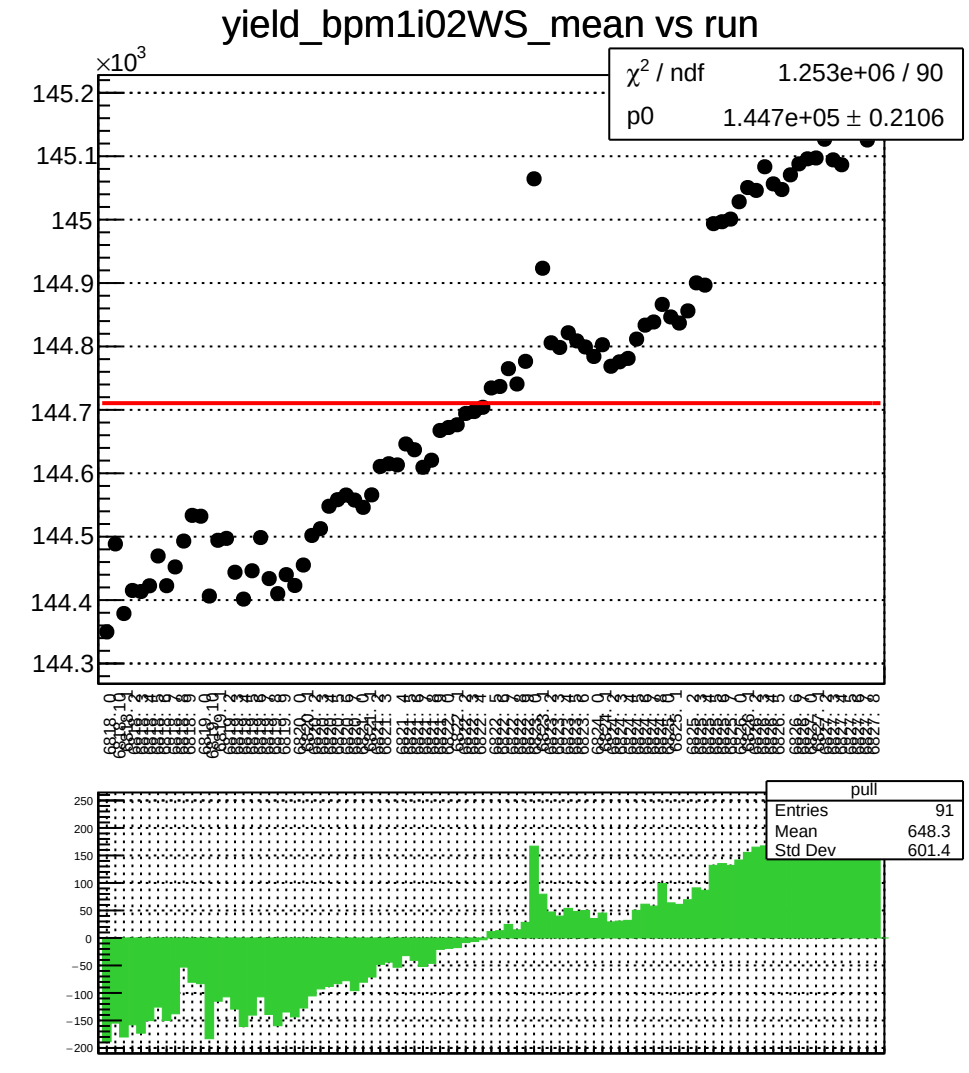

pull1D
Entries 91
Mean −1.186
Std Dev 3.905
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

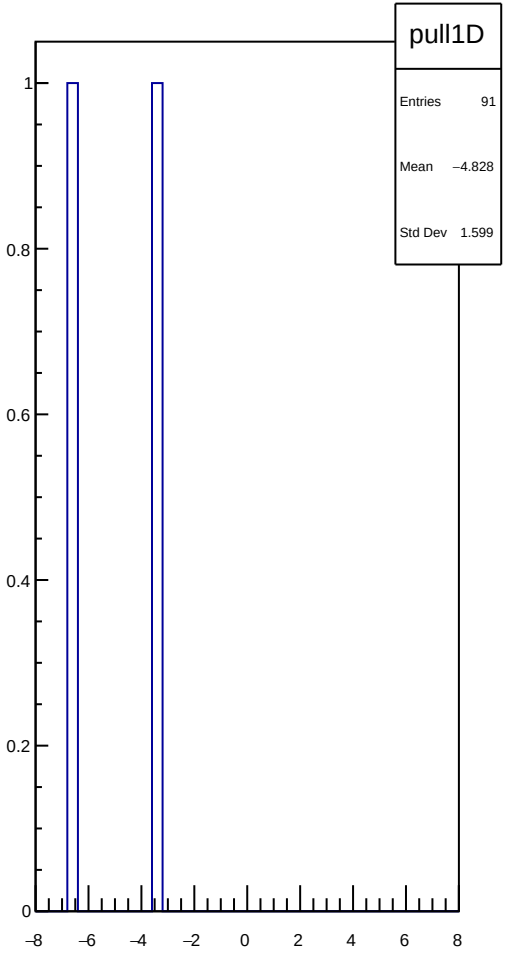

yield_bpm0i05WS_rms vs run
χ² / ndf 2.461e+04 / 90
p0 218.2 ± 0.1671
600
550
500
450
400
350
300
250
200
150

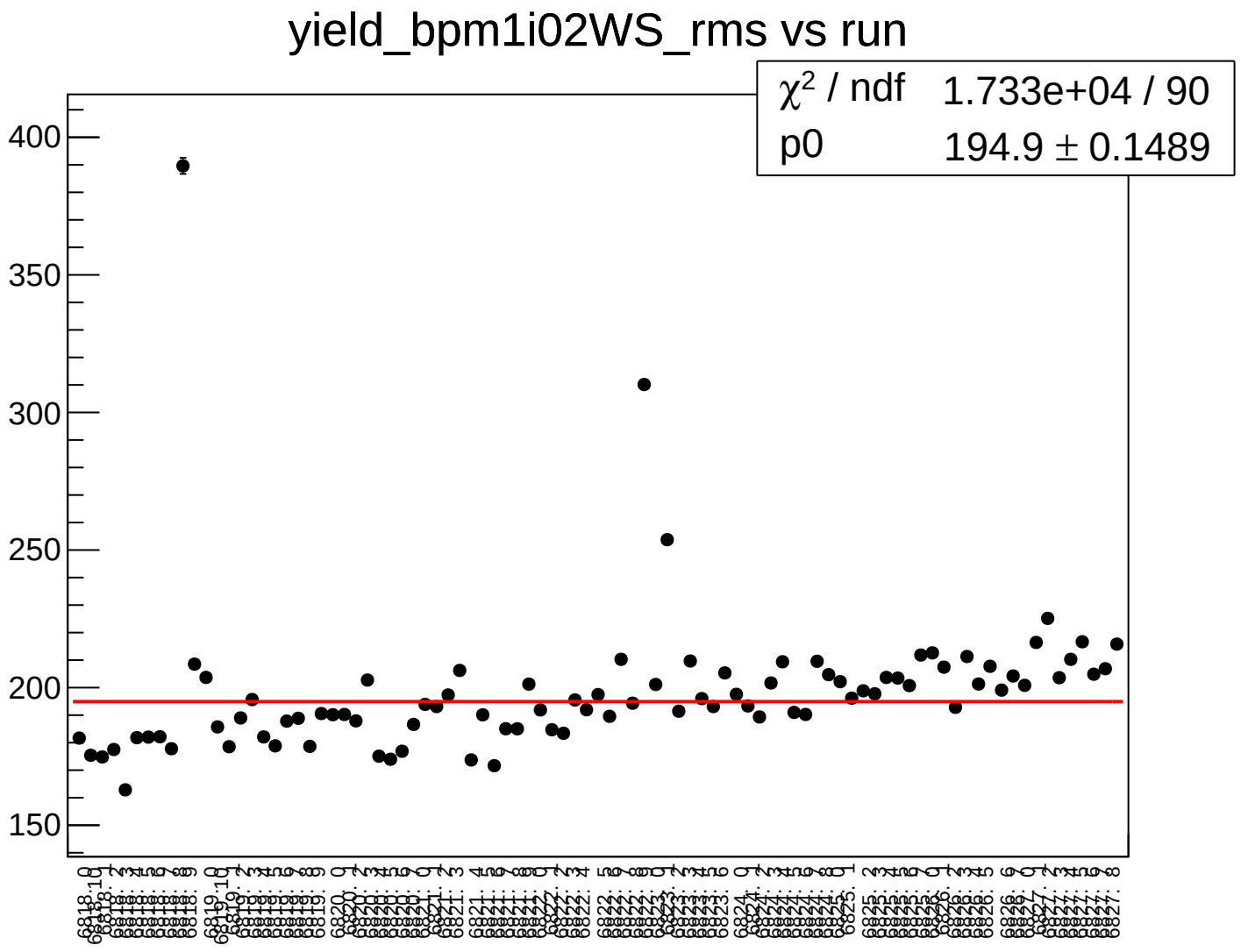

yield_bpm0i07WS_mean vs run
×10^3
155.1
155
154.9
154.8
154.7
154.6
154.5
χ² / ndf 2.184e+05 / 90
p0 1.549e+05 ± 0.2557
pull
Entries 91
Mean 1298
Std Dev 1249
100
50
0
−50
−100
−150

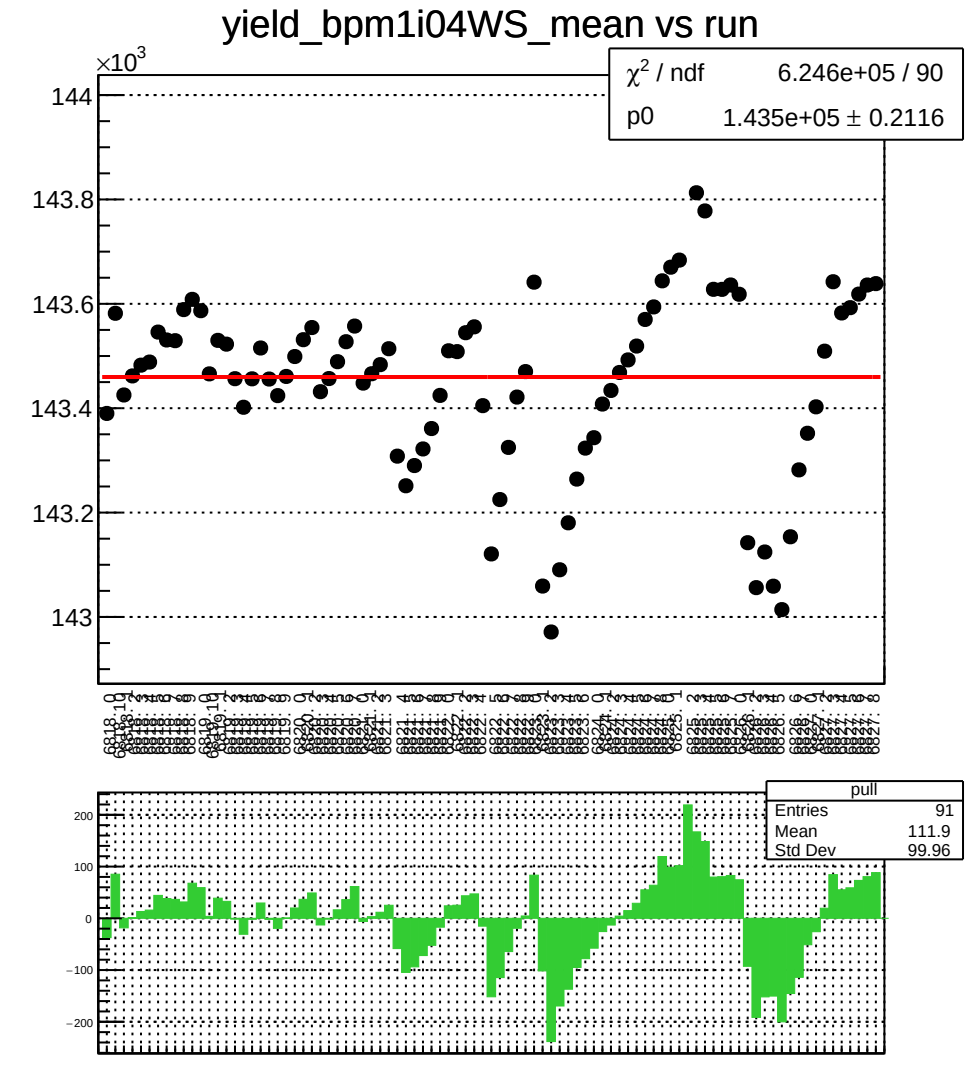

pull1D
Entries 91
Mean 1.614
Std Dev 4.299
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

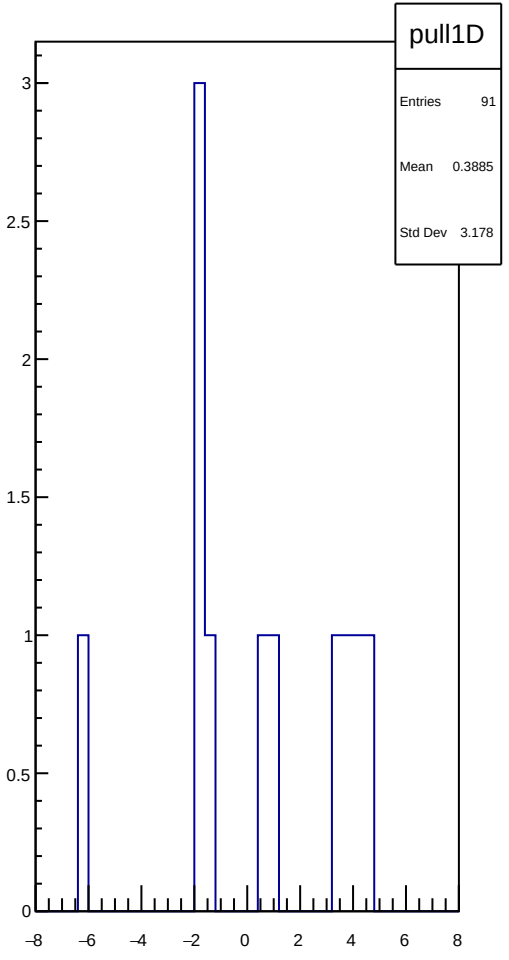

yield_bpm0i07WS_rms vs run
χ² / ndf 1.991e+04 / 90
p0 236.4 ± 0.1808
600
550
500
450
400
350
300
250
200

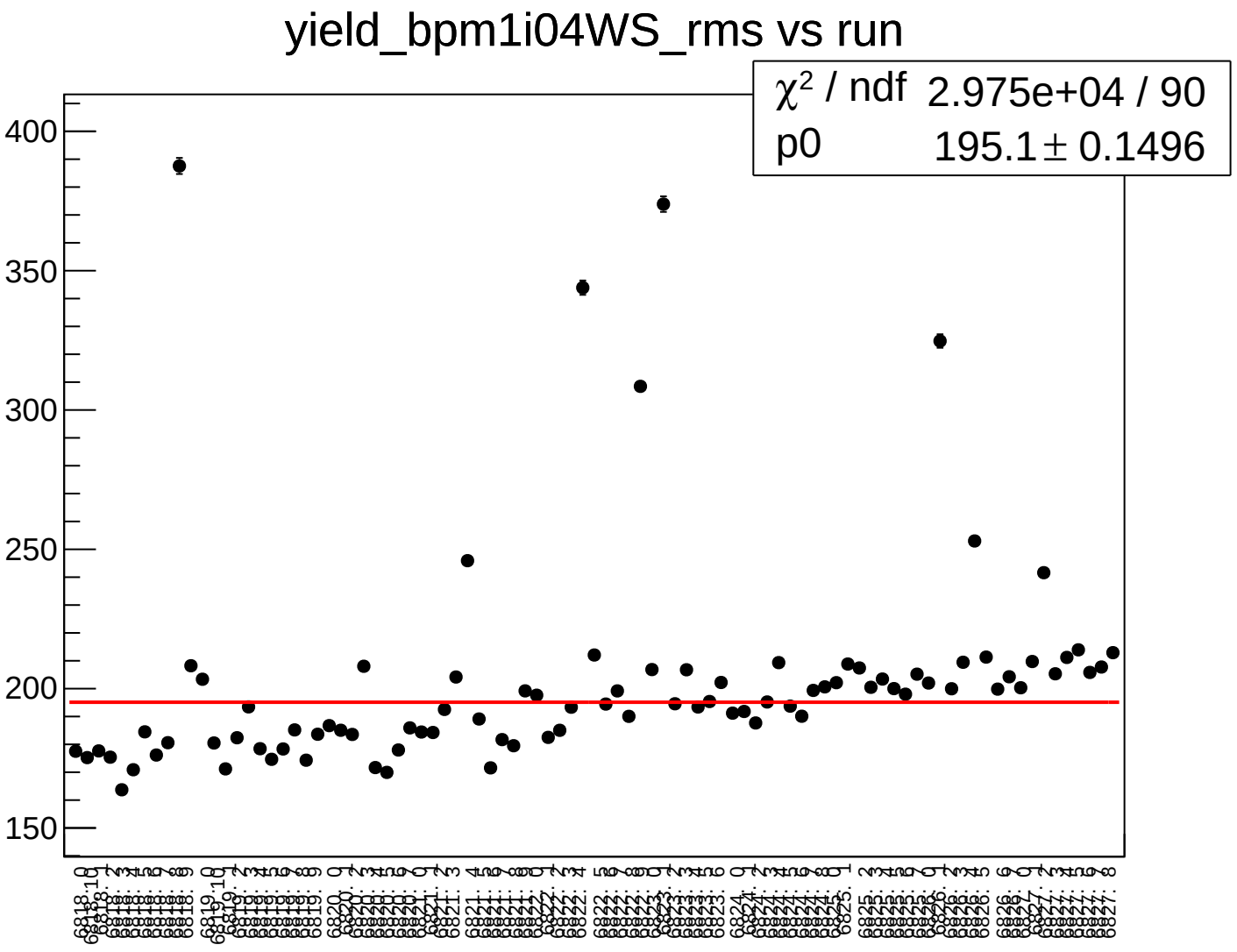

yield_bpm1i02WS_mean vs run
×10^3
χ² / ndf 1.253e+06 / 90
p0 1.447e+05 ± 0.2106
145.2
145.1
145
144.9
144.8
144.7
144.6
144.5
144.4
144.3
pull
Entries 91
Mean 648.3
Std Dev 601.4
250
200
150
100
50
0
−50
−100
−150
−200

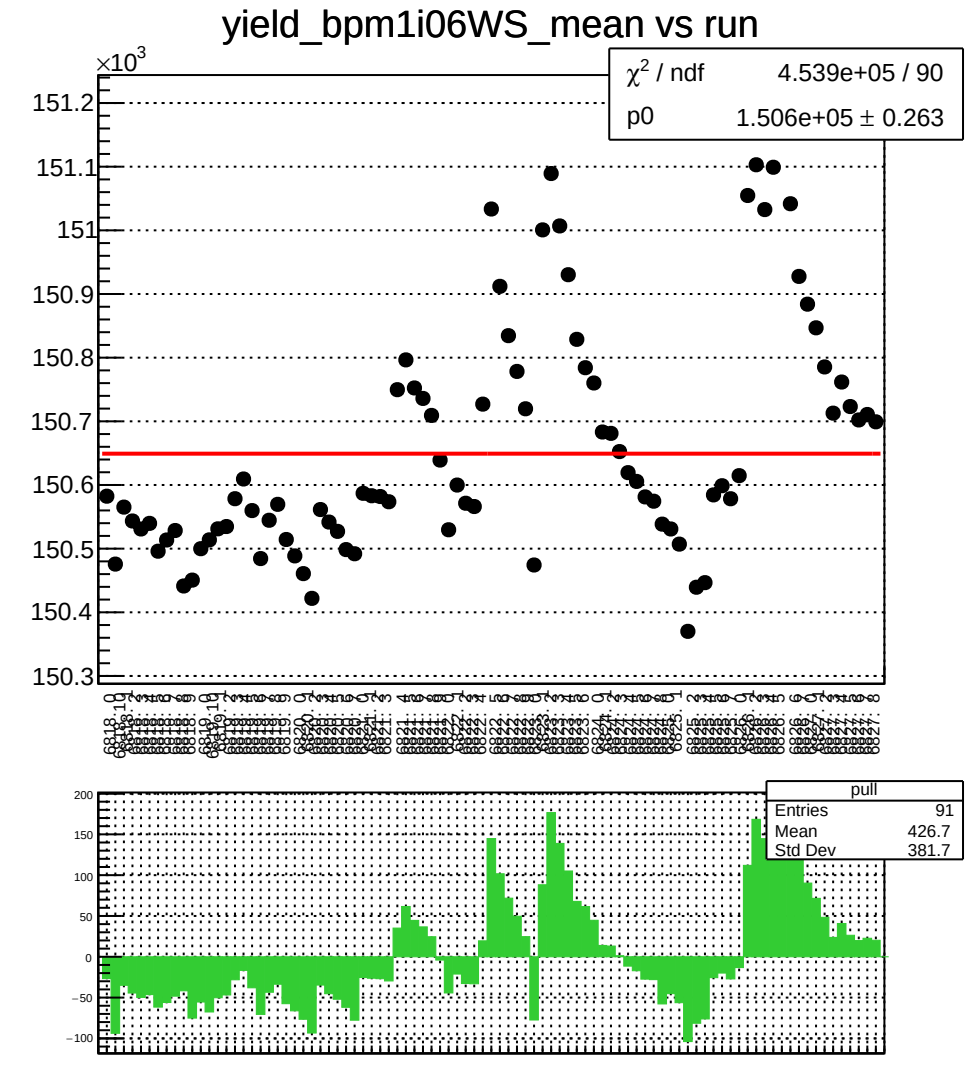

pull1D
Entries 91
Mean −4.828
Std Dev 1.599
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

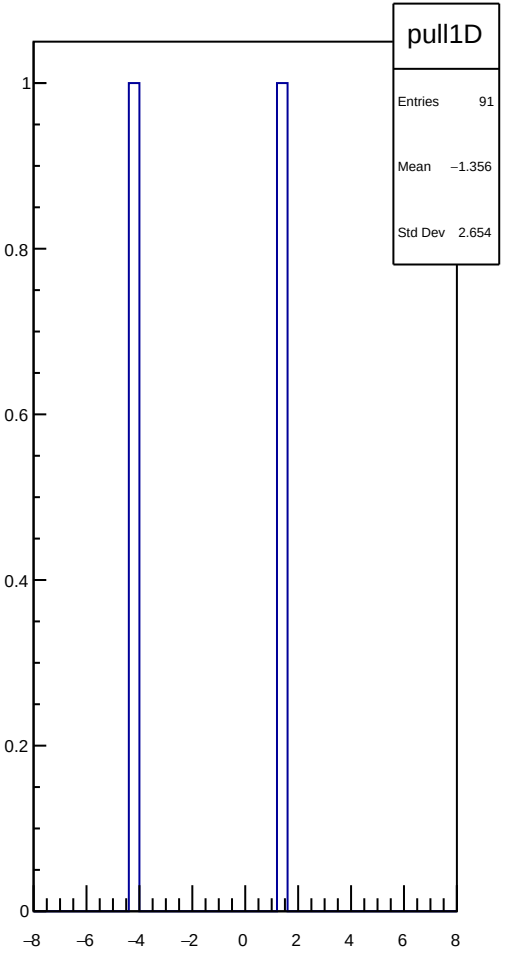

yield_bpm1i02WS_rms vs run
χ² / ndf 1.733e+04 / 90
p0 194.9 ± 0.1489
400
350
300
250
200
150

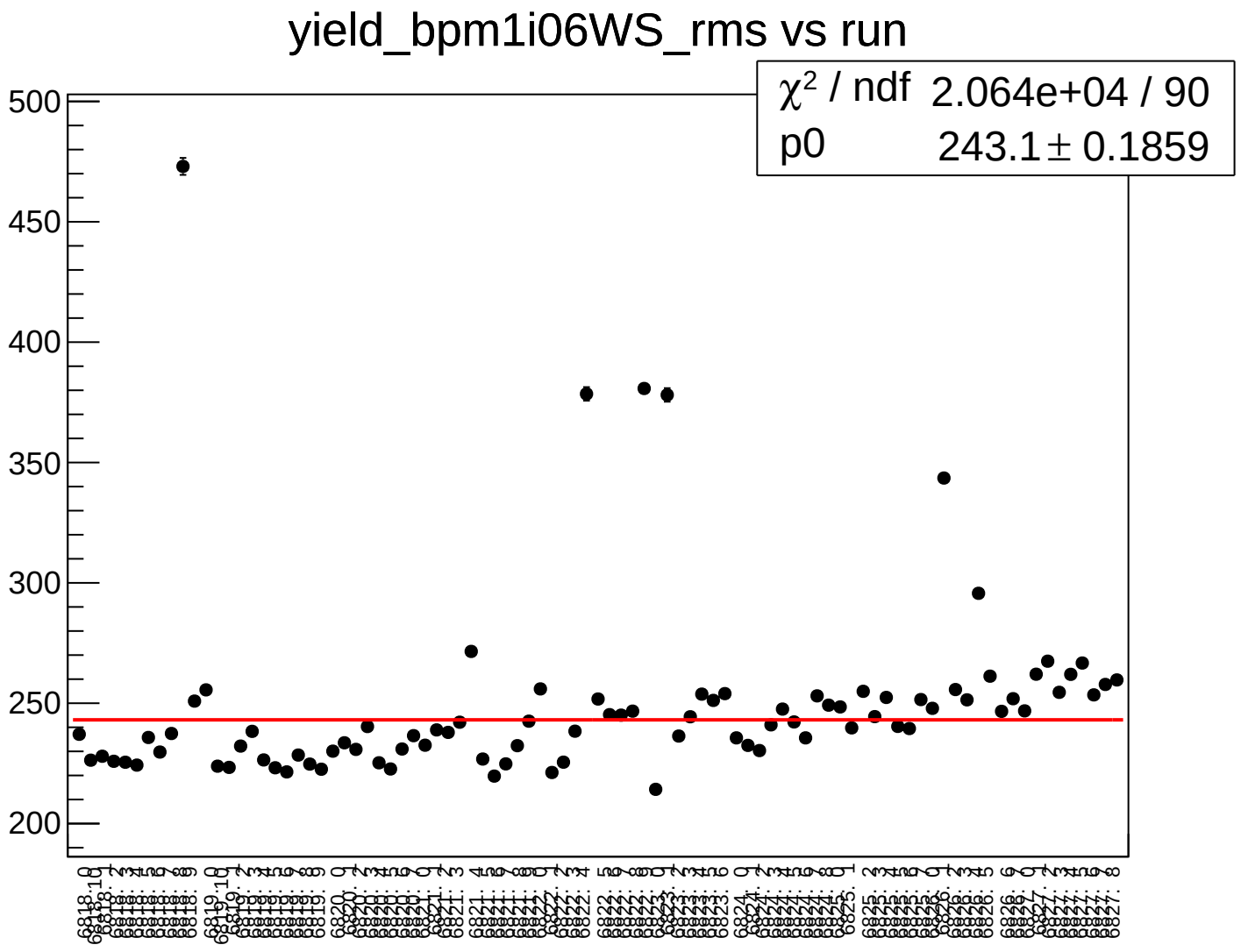

yield_bpm1i04WS_mean vs run
×10^3
144
143.8
143.6
143.4
143.2
143
χ² / ndf 6.246e+05 / 90
p0 1.435e+05 ± 0.2116
pull
Entries 91
Mean 111.9
Std Dev 99.96
200
100
0
−100
−200

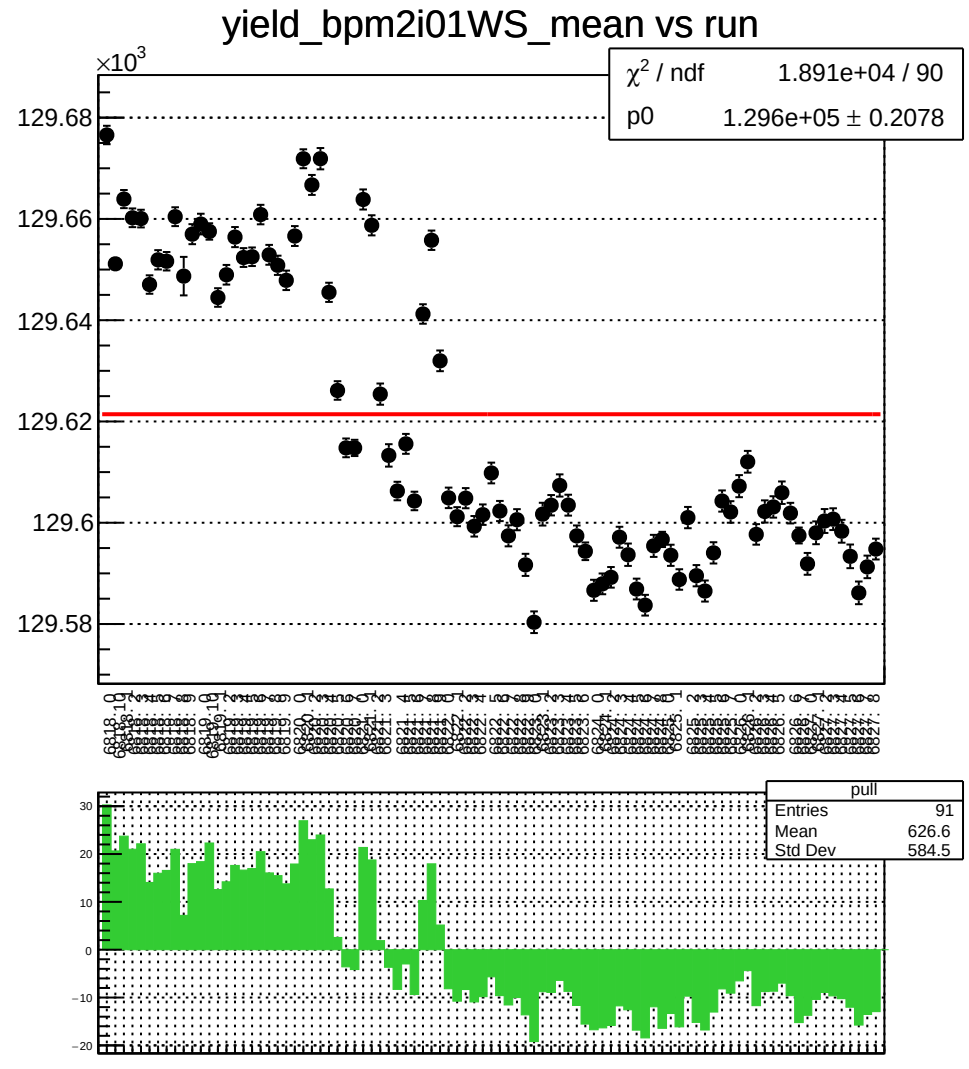

pull1D
Entries 91
Mean 0.3885
Std Dev 3.178
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

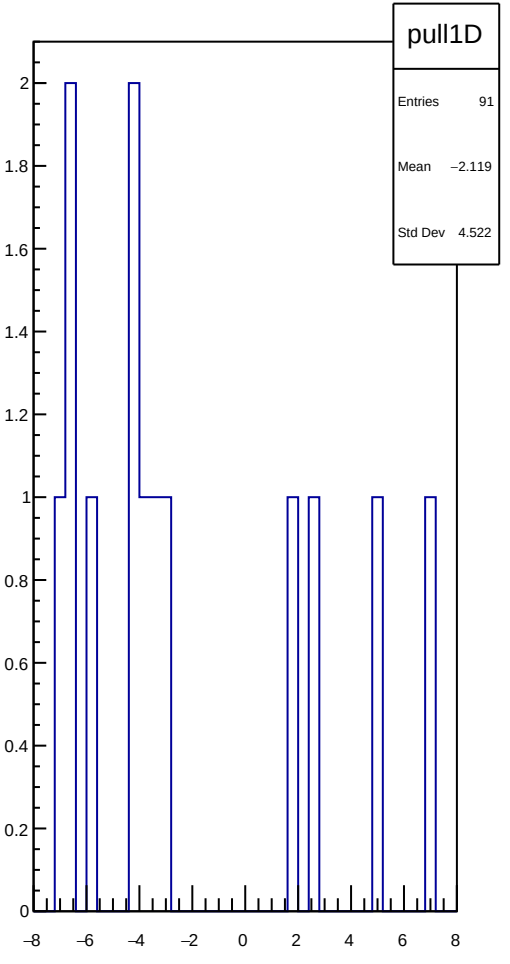

yield_bpm1i04WS_rms vs run
χ² / ndf 2.975e+04 / 90
p0 195.1 ± 0.1496
400
350
300
250
200
150

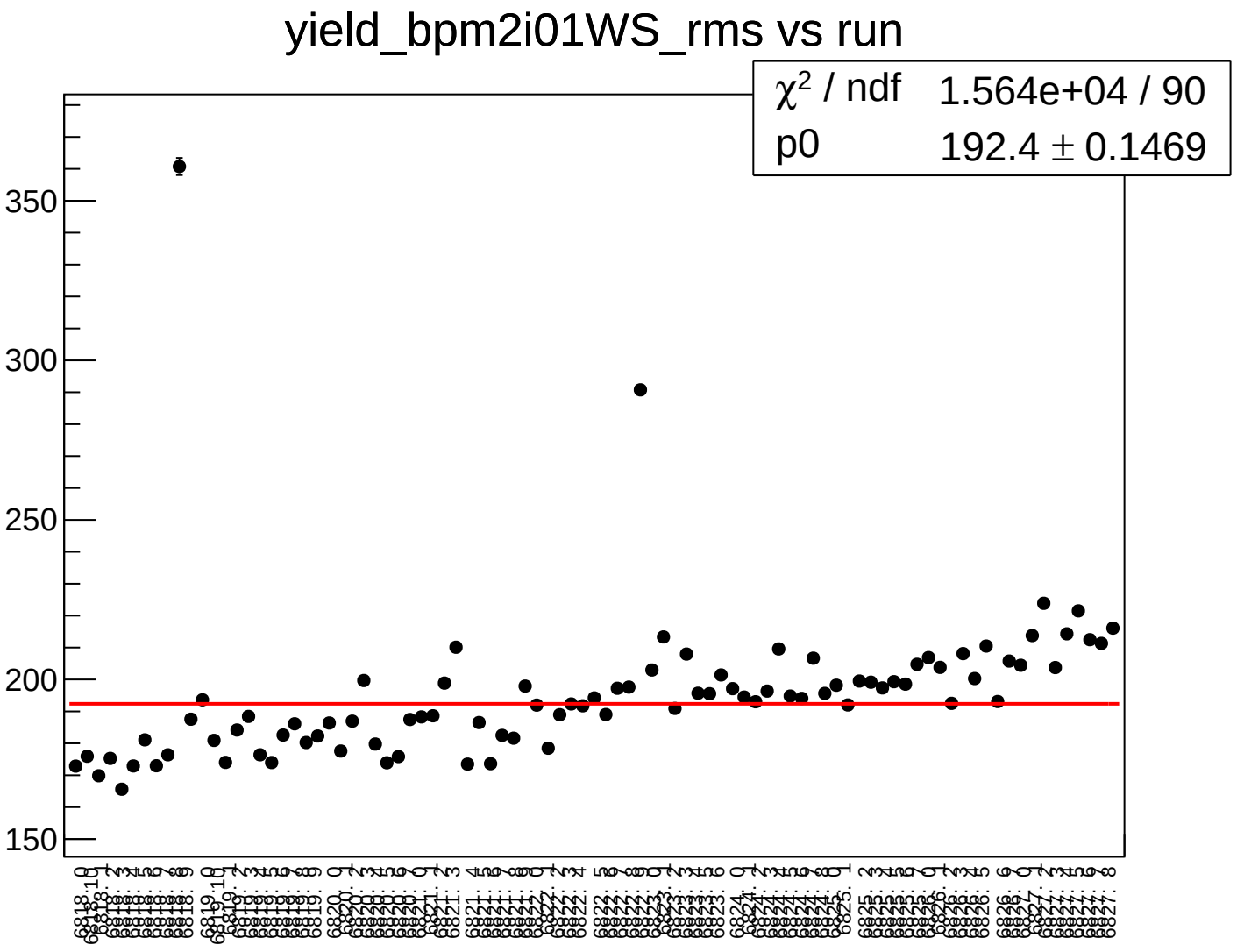

yield_bpm1i06WS_mean vs run
×10^3
χ² / ndf 4.539e+05 / 90
p0 1.506e+05 ± 0.263
151.2
151.1
151
150.9
150.8
150.7
150.6
150.5
150.4
150.3
pull
Entries 91
Mean 426.7
Std Dev 381.7
200
150
100
50
0
−50
−100

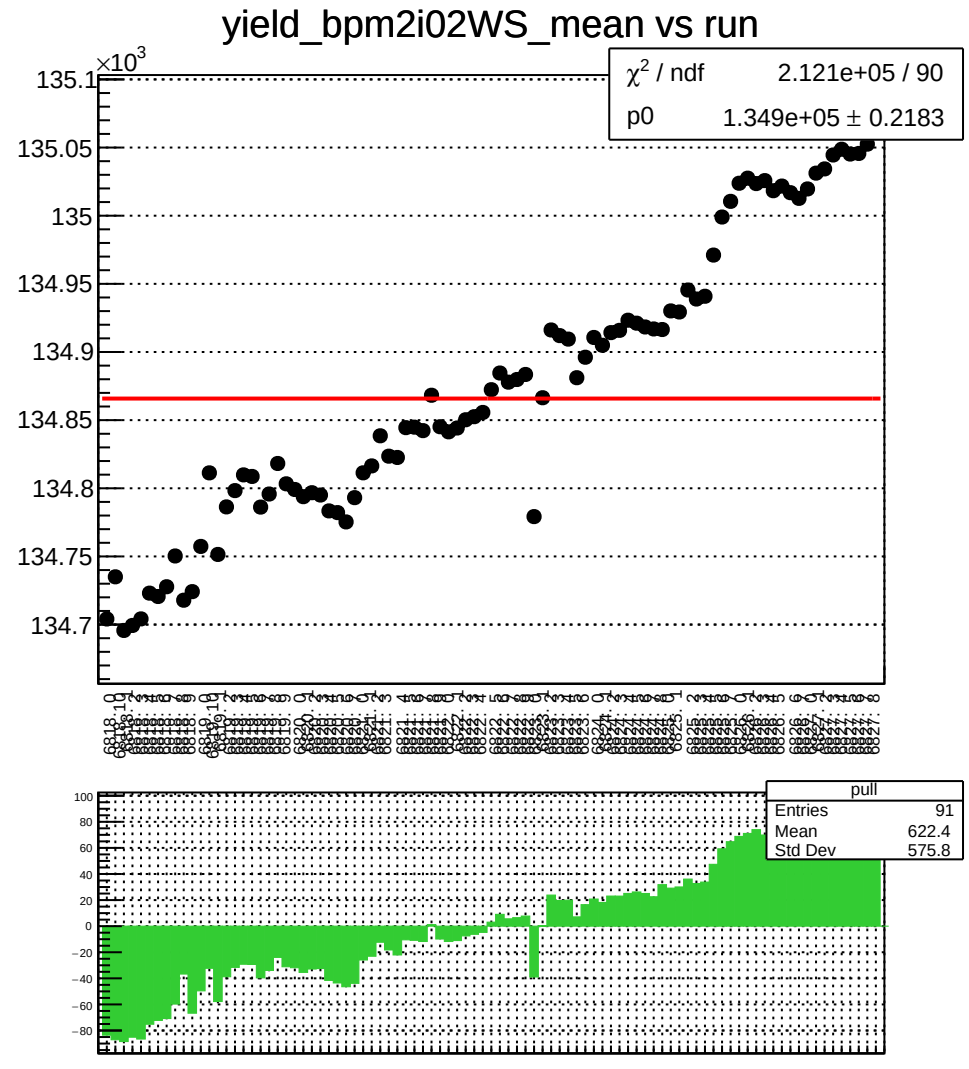

pull1D
Entries 91
Mean −1.356
Std Dev 2.654
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

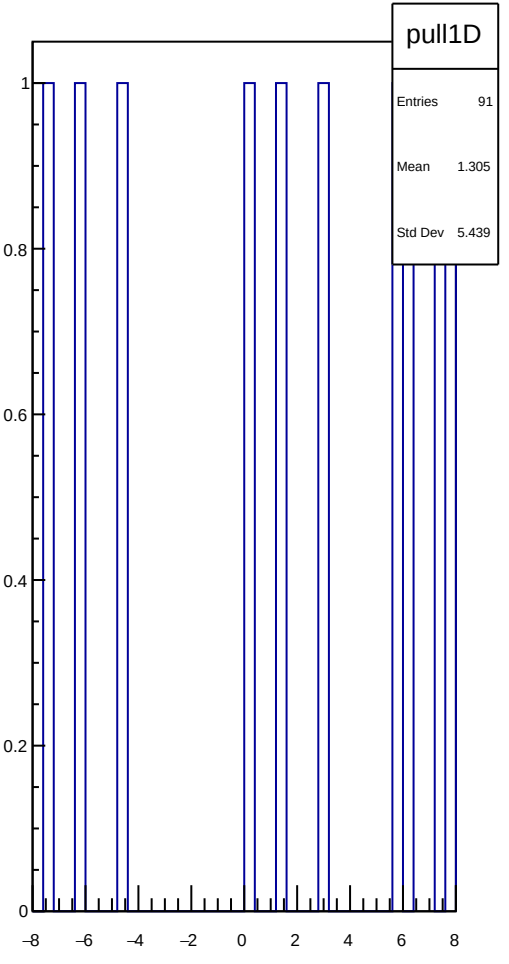

yield_bpm1i06WS_rms vs run
χ² / ndf 2.064e+04 / 90
p0 243.1 ± 0.1859
500
450
400
350
300
250
200

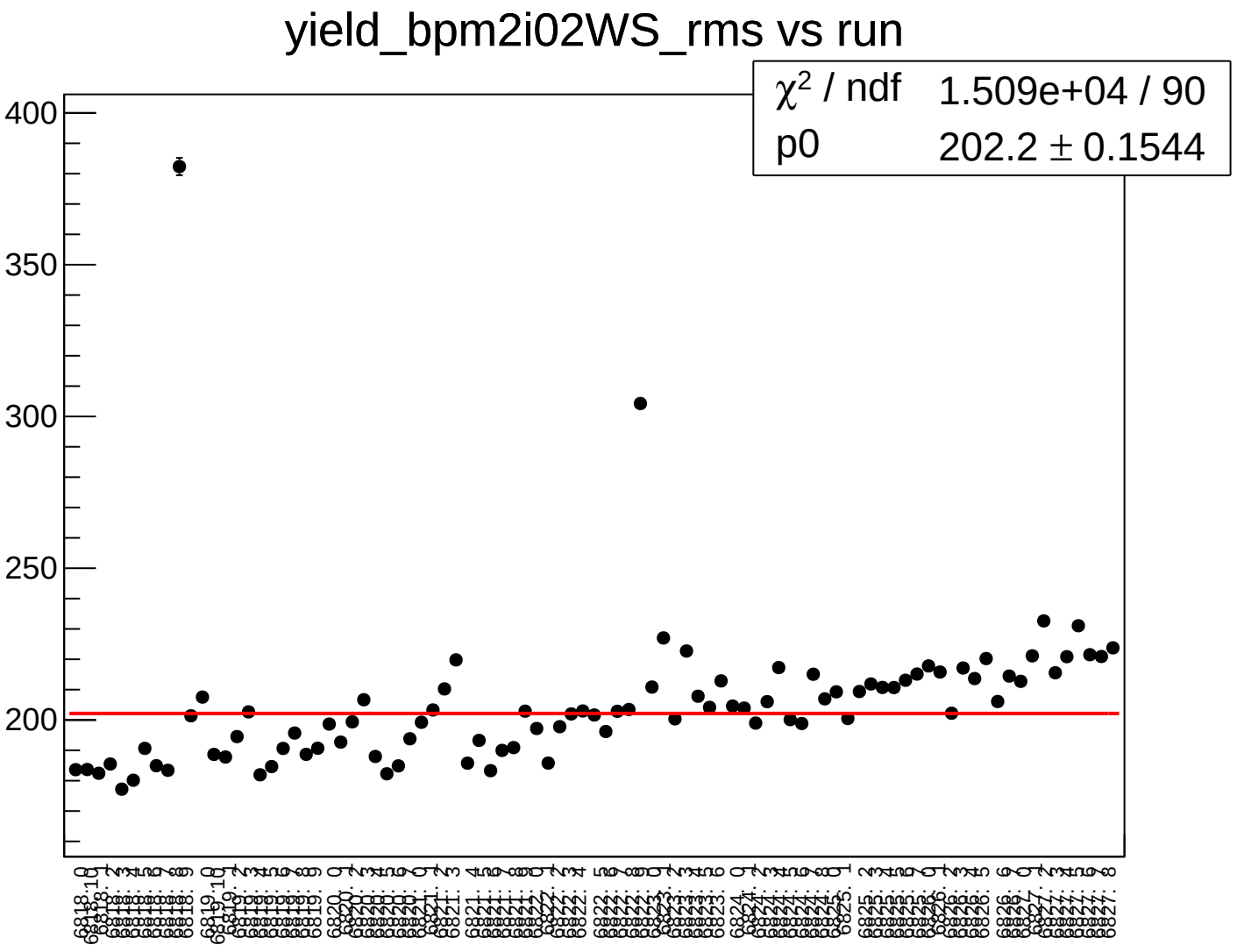

yield_bpm2i01WS_mean vs run
×10^3
χ² / ndf 1.891e+04 / 90
p0 1.296e+05 ± 0.2078
129.68
129.66
129.64
129.62
129.6
129.58
pull
Entries 91
Mean 626.6
Std Dev 584.5
30
20
10
0
−10
−20

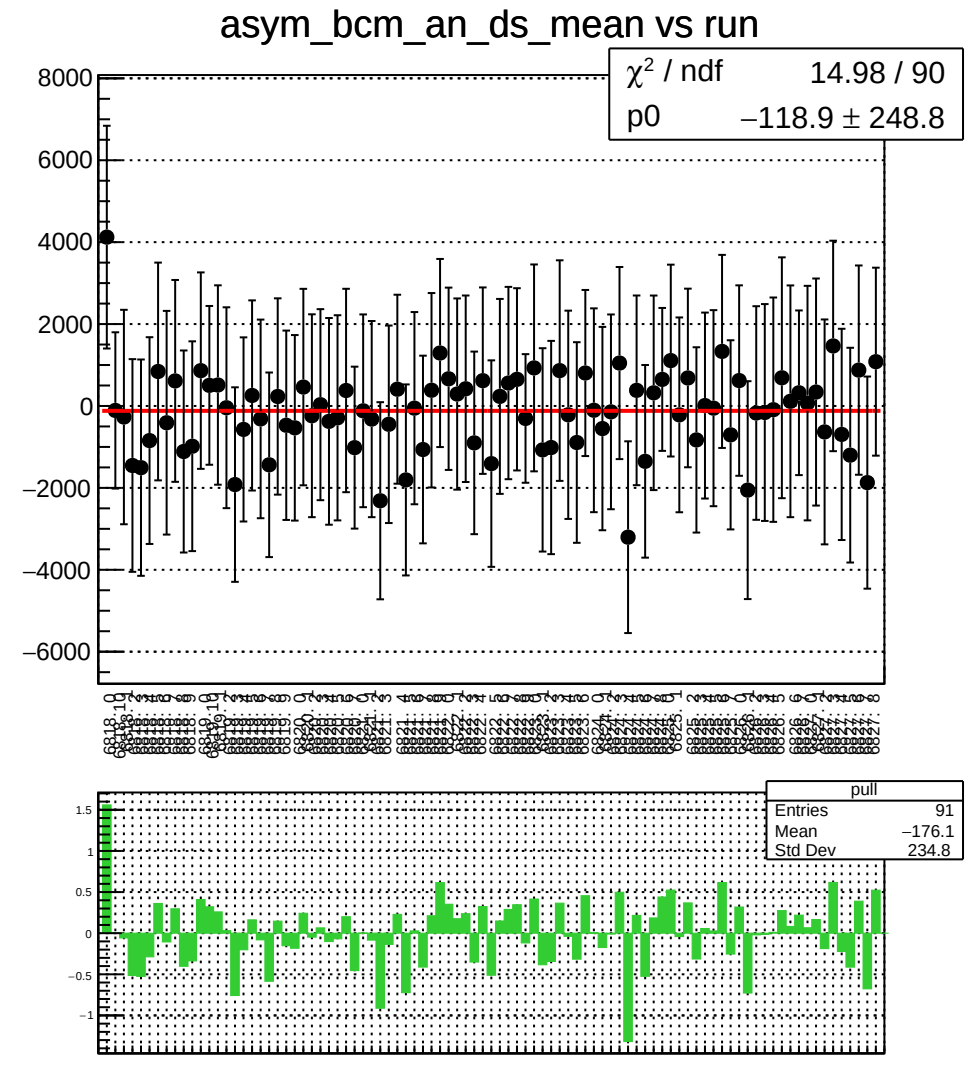

pull1D
Entries 91
Mean −2.119
Std Dev 4.522
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

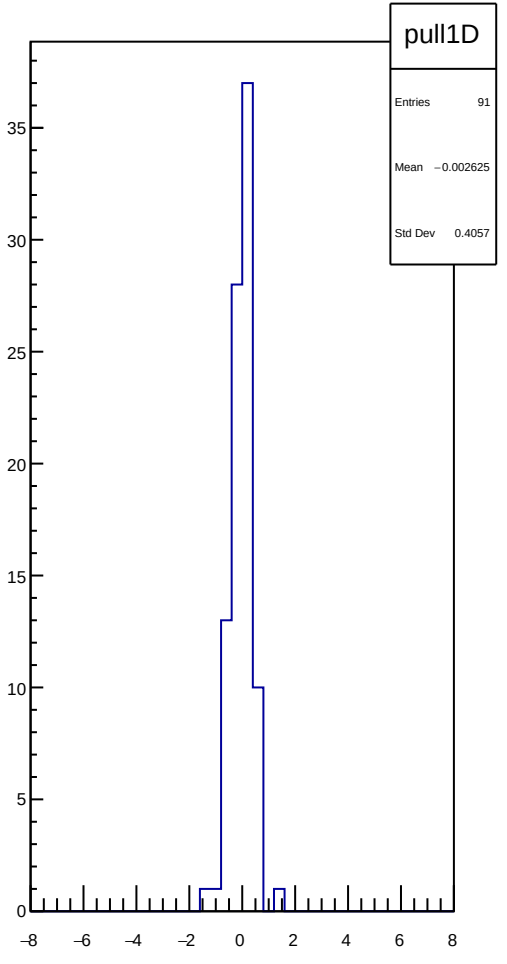

yield_bpm2i01WS_rms vs run
χ² / ndf 1.564e+04 / 90
p0 192.4 ± 0.1469
350
300
250
200
150

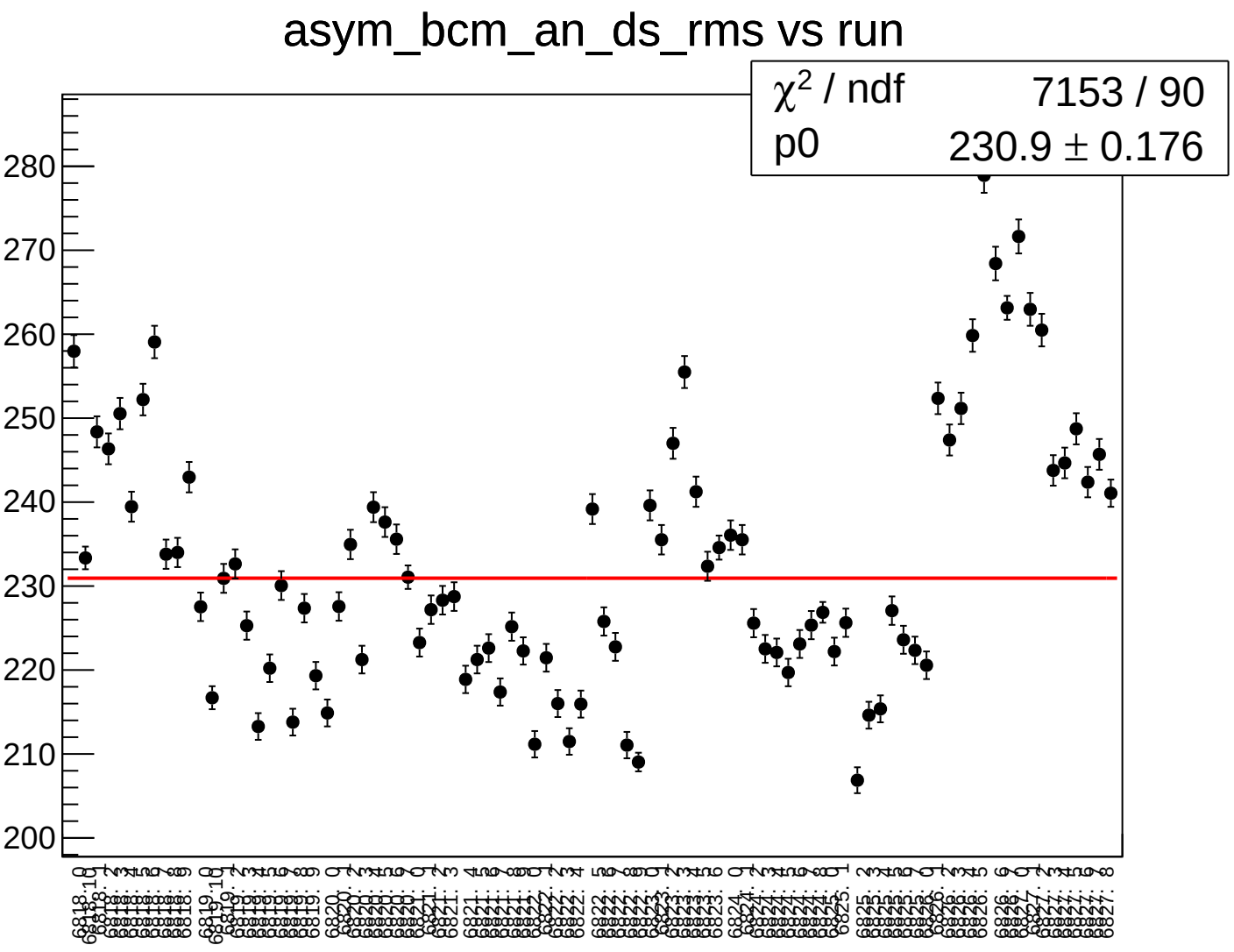

yield_bpm2i02WS_mean vs run
×10^3
χ² / ndf 2.121e+05 / 90
p0 1.349e+05 ± 0.2183
135.1
135.05
135
134.95
134.9
134.85
134.8
134.75
134.7
pull
Entries 91
Mean 622.4
Std Dev 575.8
100
80
60
40
20
0
−20
−40
−60
−80

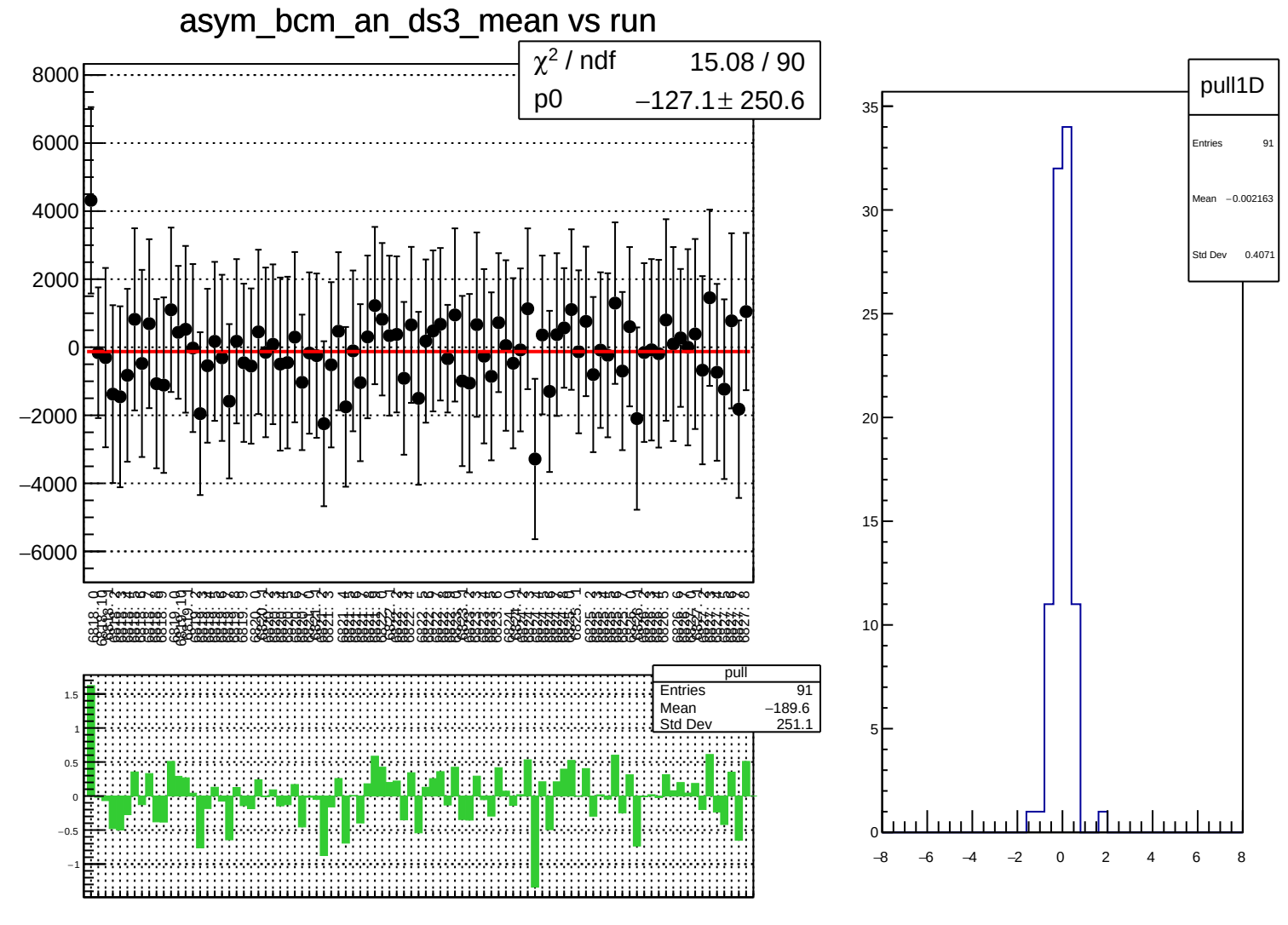

pull1D
Entries 91
Mean 1.305
Std Dev 5.439
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

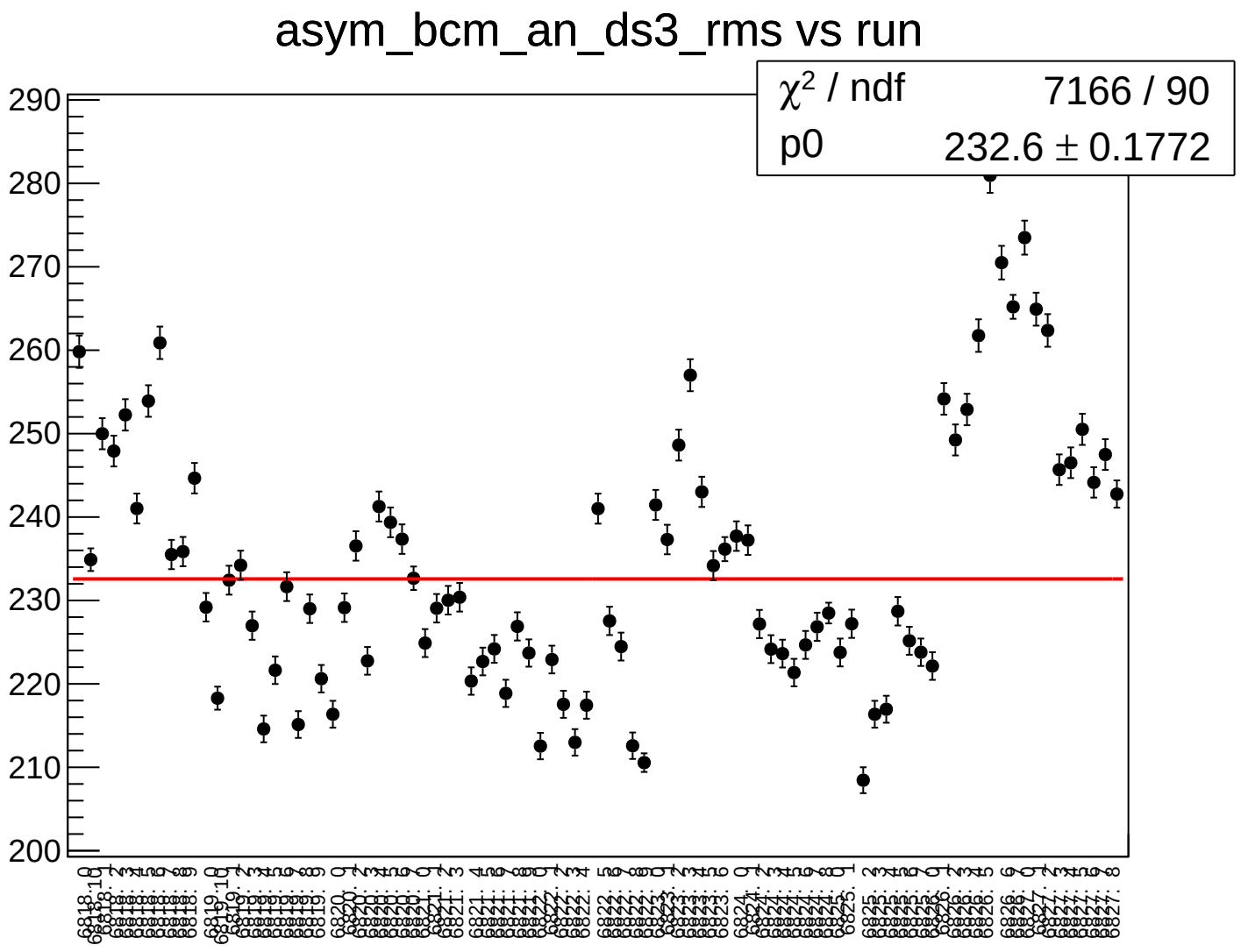

yield_bpm2i02WS_rms vs run
χ² / ndf 1.509e+04 / 90
p0 202.2 ± 0.1544
400
350
300
250
200

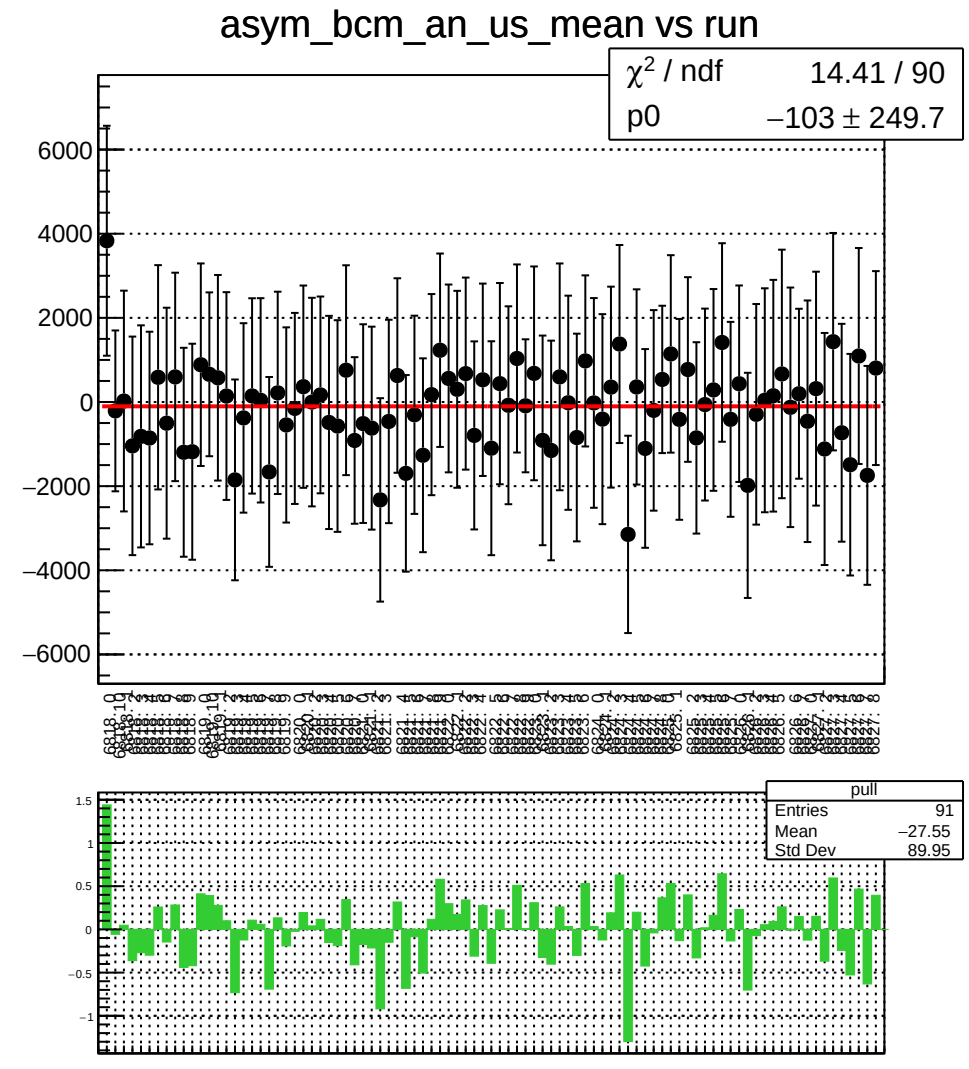

asym_bcm_an_ds_mean vs run
χ² / ndf 14.98 / 90
p0 −118.9 ± 248.8
8000
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −176.1
Std Dev 234.8
1.5
1
0.5
0
−0.5
−1

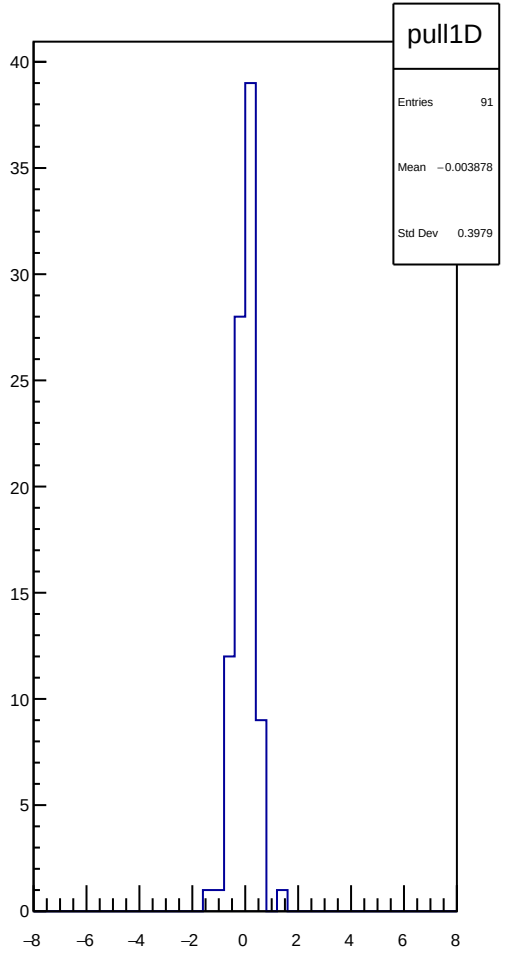

pull1D
Entries 91
Mean −0.002625
Std Dev 0.4057
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

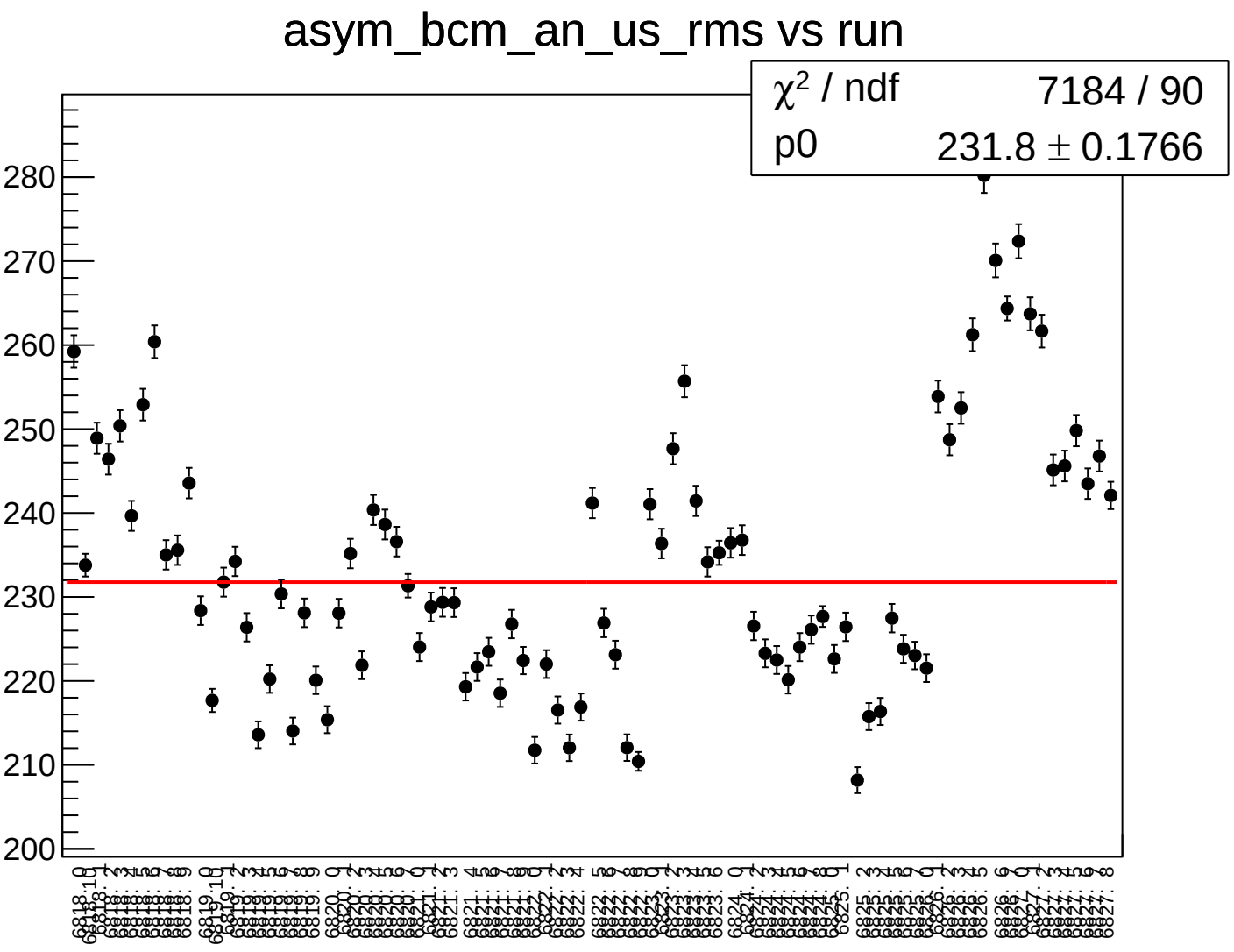

asym_bcm_an_ds_rms vs run
χ^2 / ndf 7153 / 90
p0 230.9 ± 0.176
280
270
260
250
240
230
220
210
200

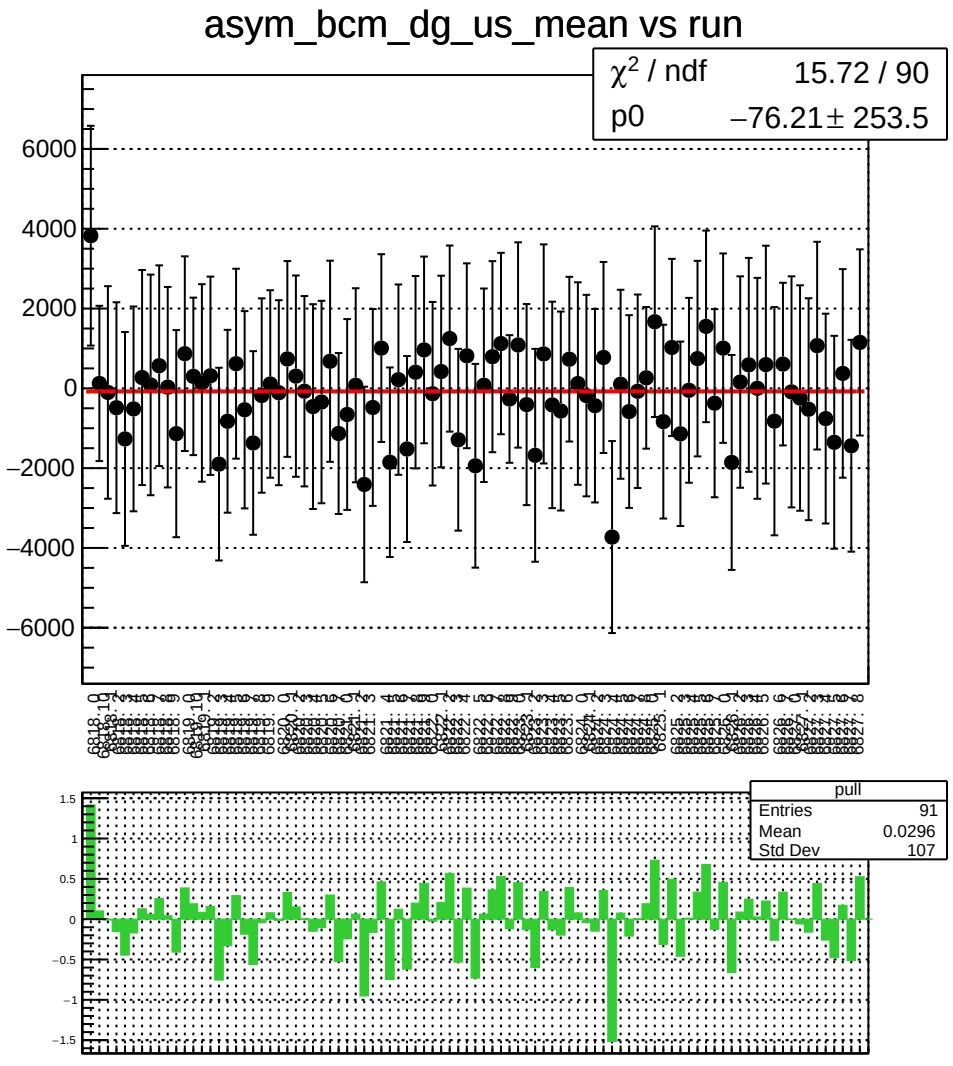

asym_bcm_an_ds3_mean vs run
χ² / ndf 15.08 / 90
p0 −127.1± 250.6
pull
Entries 91
Mean −189.6
Std Dev 251.1
pull1D
Entries 91
Mean −0.002163
Std Dev 0.4071

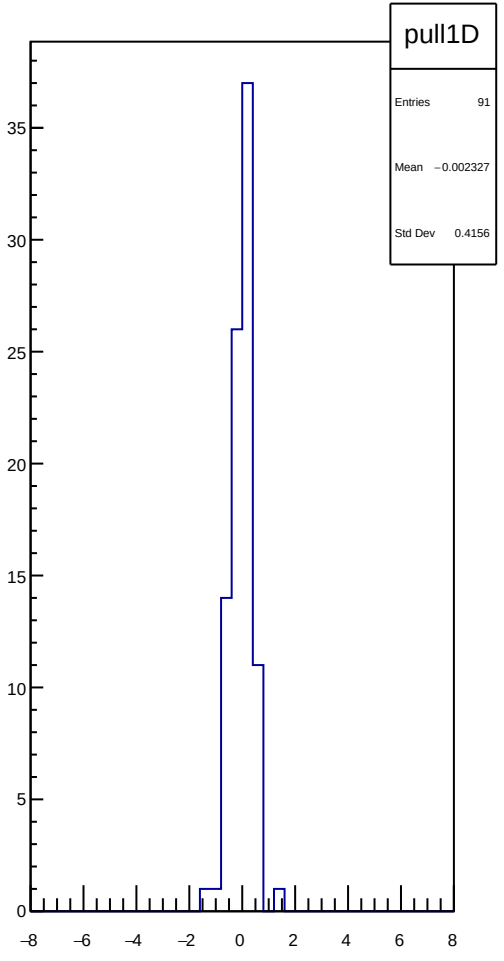

asym_bcm_an_ds3_rms vs run
χ² / ndf 7166 / 90
p0 232.6 ± 0.1772
290
280
270
260
250
240
230
220
210
200

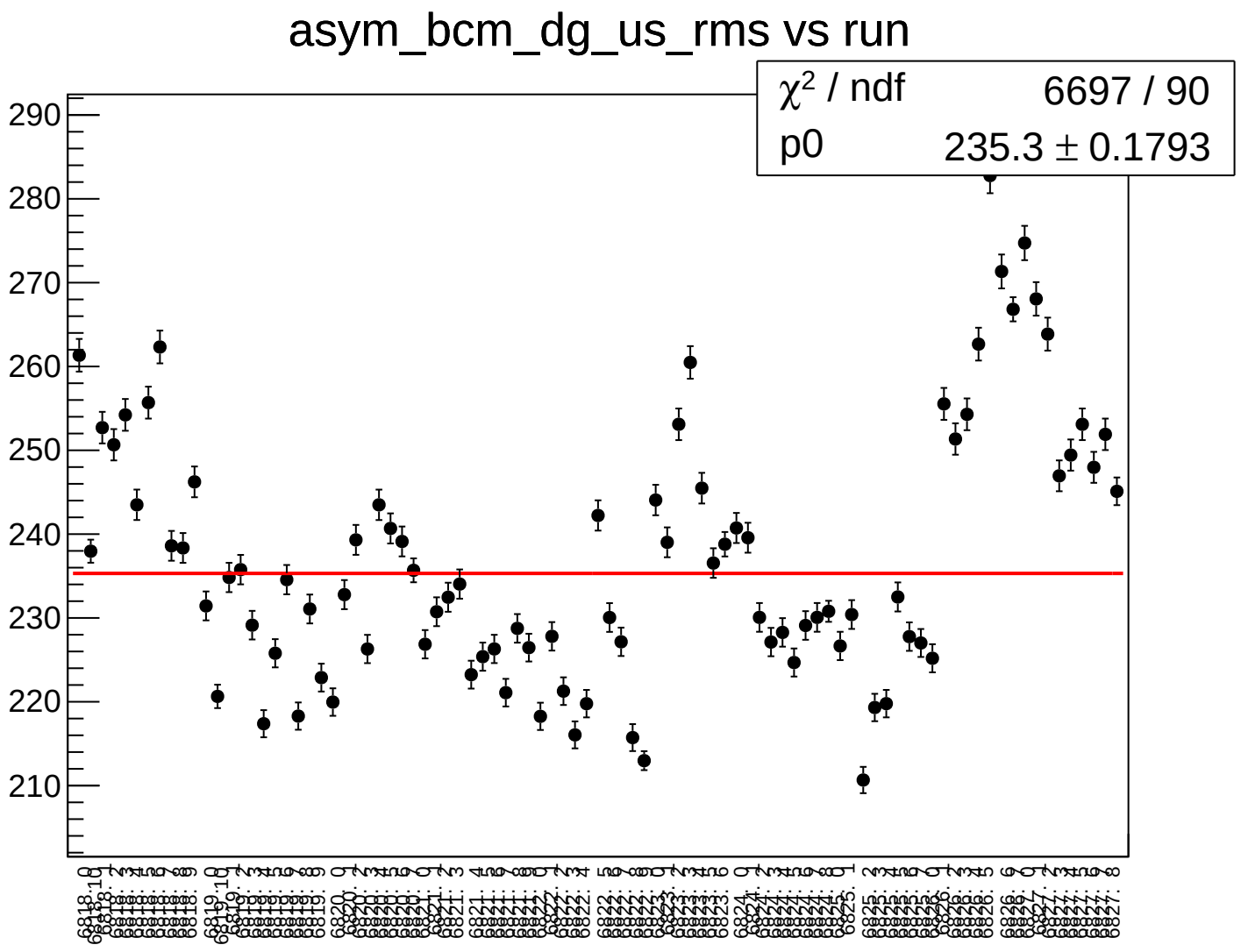

asym_bcm_an_us_mean vs run
χ² / ndf 14.41 / 90
p0 −103 ± 249.7
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean −27.55
Std Dev 89.95
1.5
1
0.5
0
−0.5
−1

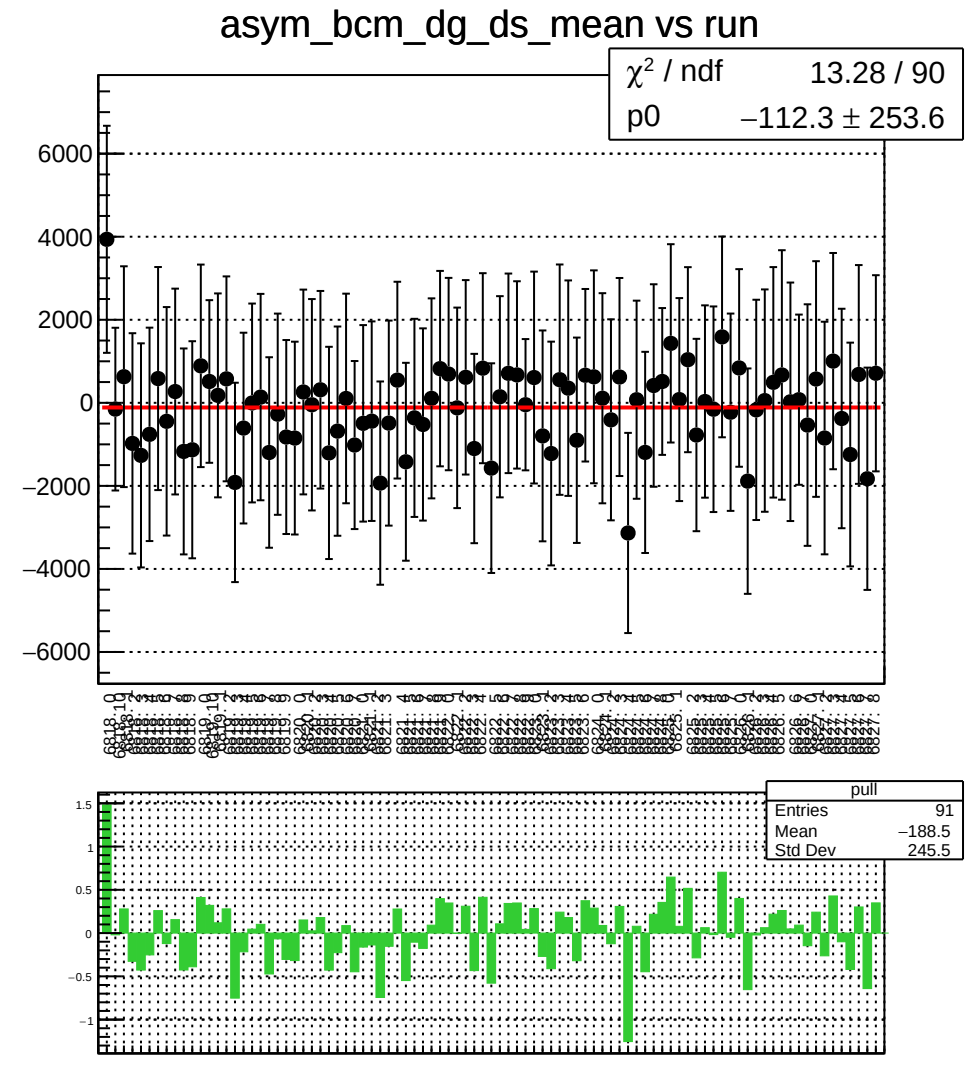

pull1D
Entries 91
Mean −0.003878
Std Dev 0.3979
40
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

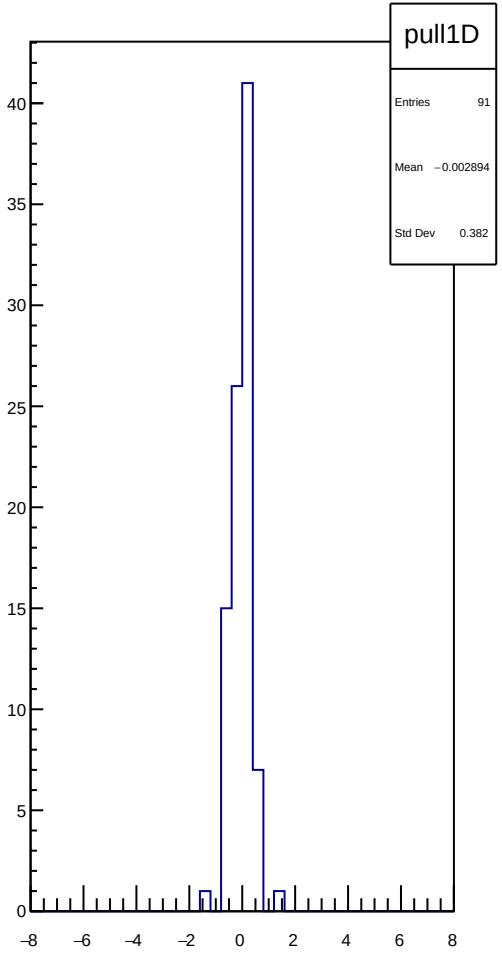

asym_bcm_an_us_rms vs run
χ^2 / ndf 7184 / 90
p0 231.8 ± 0.1766
280
270
260
250
240
230
220
210
200

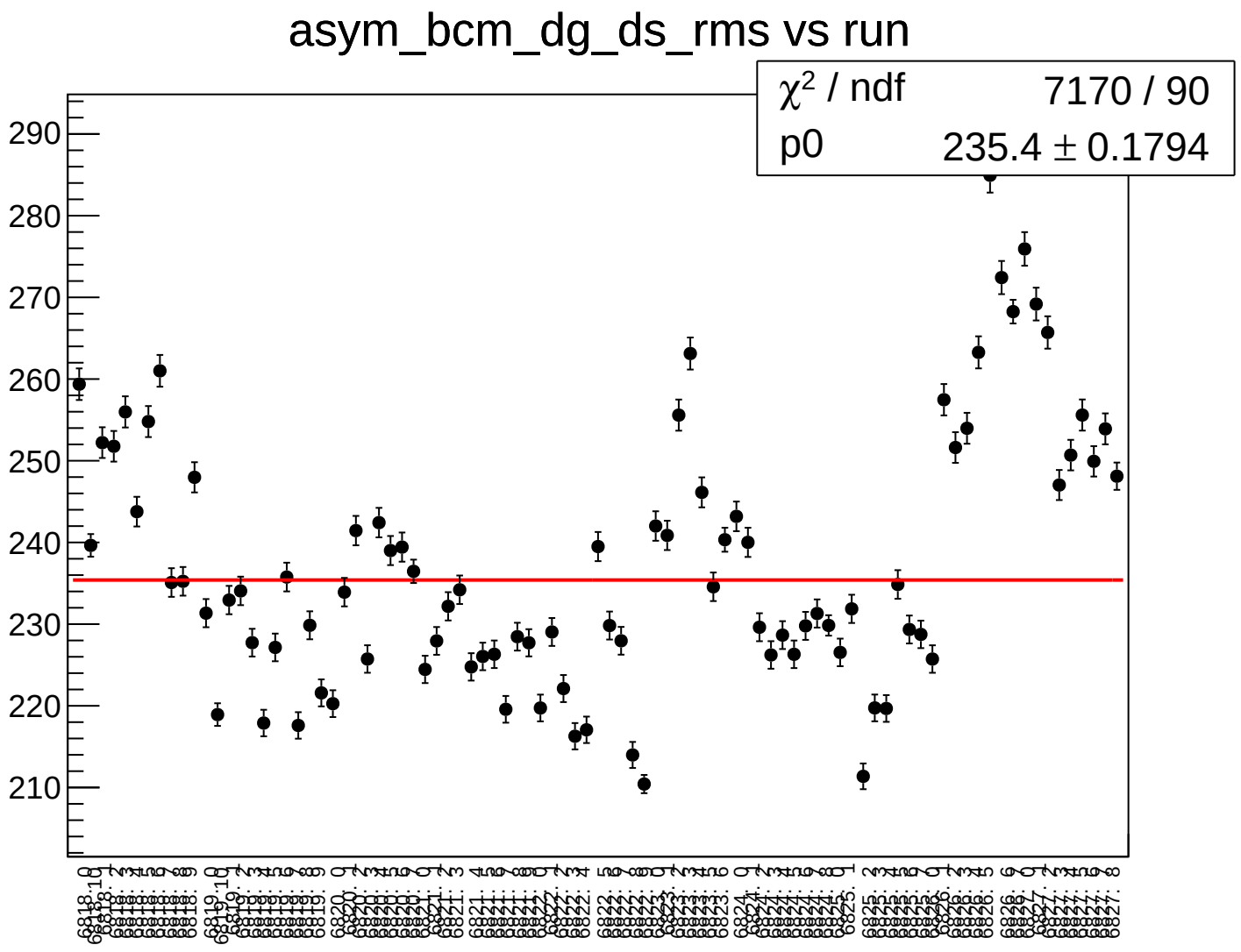

asym_bcm_dg_us_mean vs run
χ² / ndf 15.72 / 90
p0 −76.21 ± 253.5
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 91
Mean 0.0296
Std Dev 107
1.5
1
0.5
0
−0.5
−1
−1.5

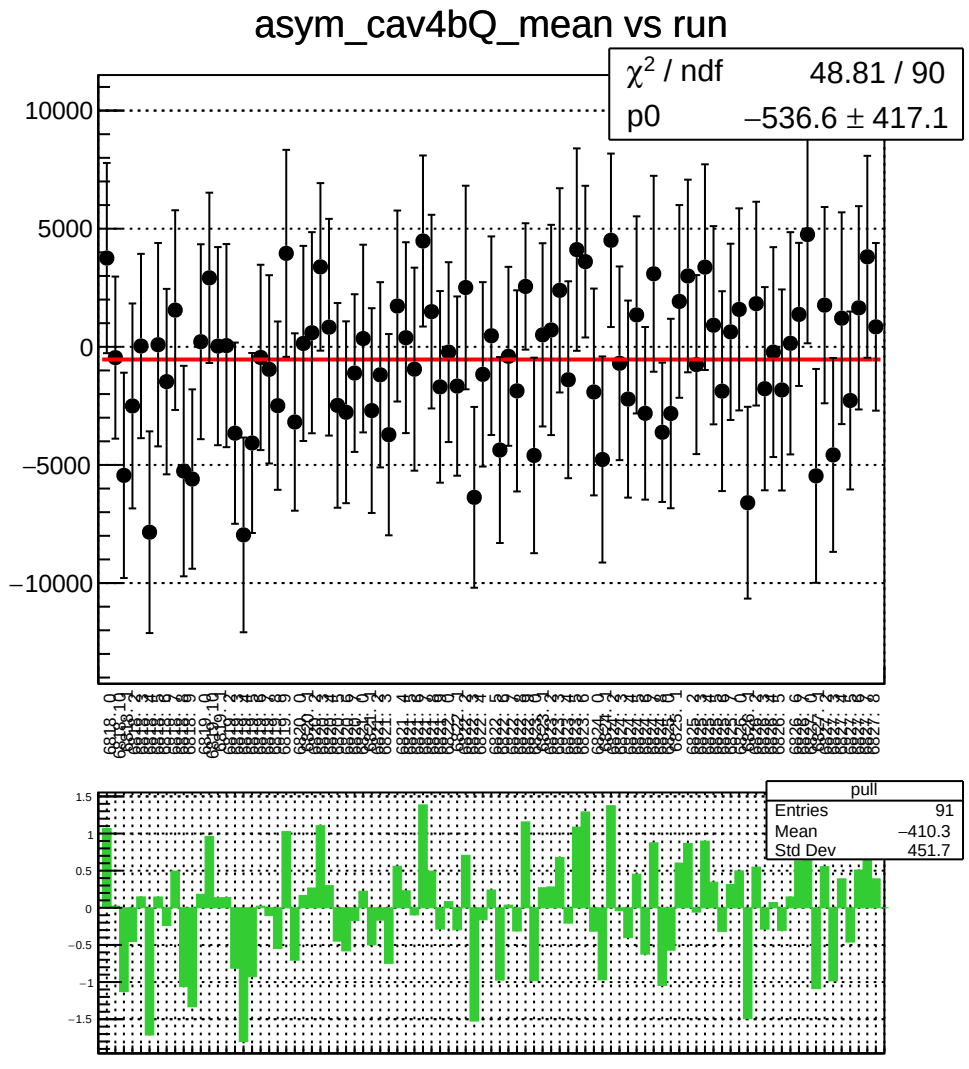

pull1D
Entries 91
Mean −0.002327
Std Dev 0.4156
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

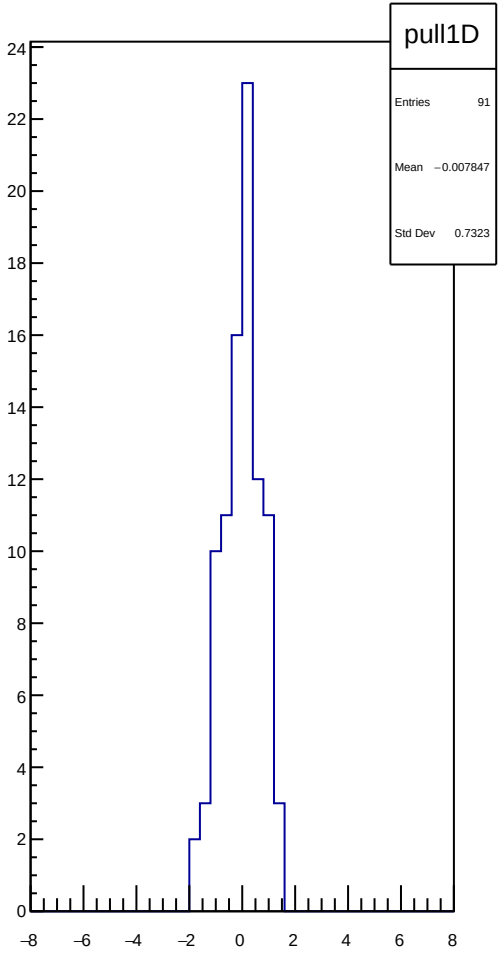

asym_bcm_dg_us_rms vs run
χ^2 / ndf 6697 / 90
p0 235.3 ± 0.1793
290
280
270
260
250
240
230
220
210

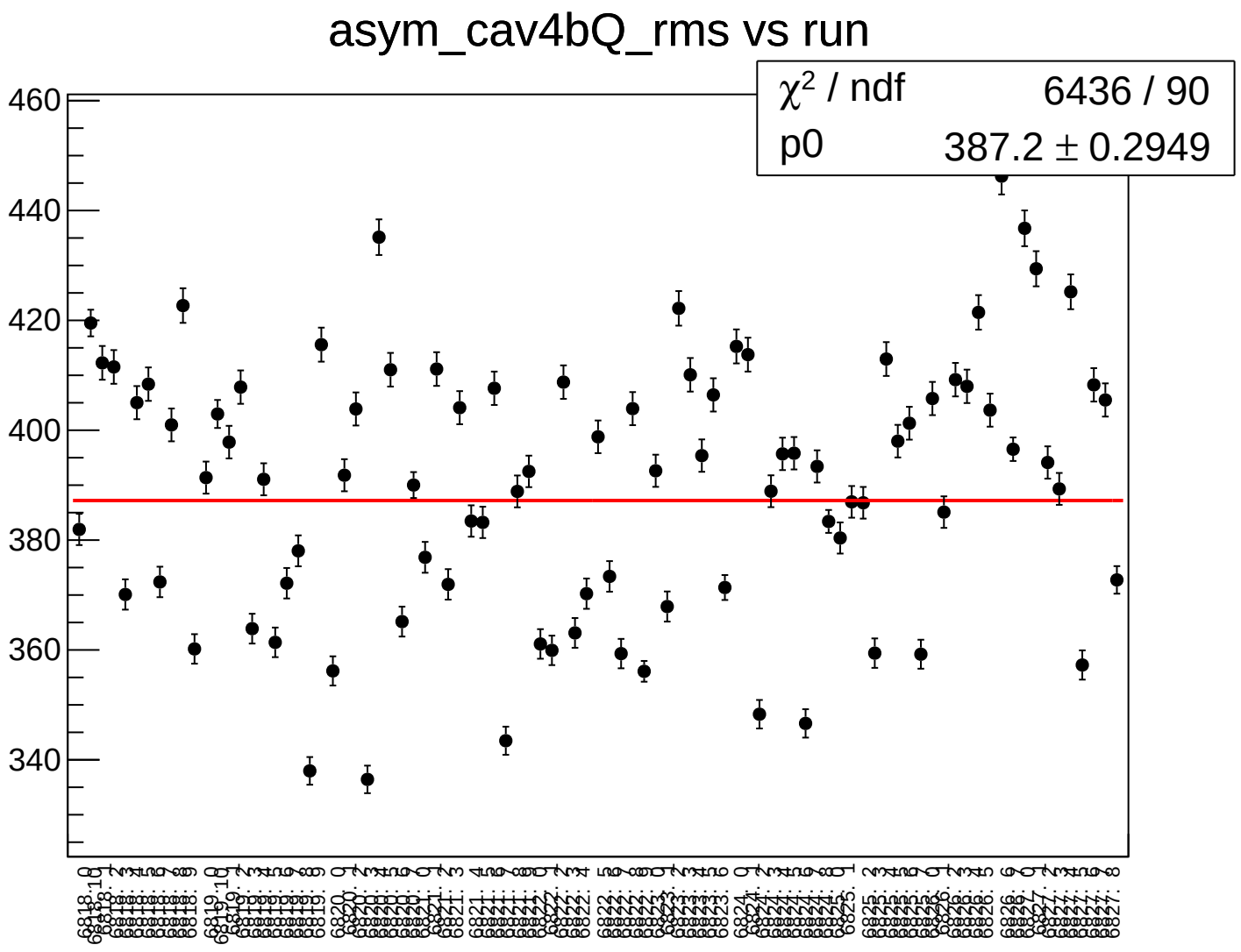

asym_bcm_dg_ds_mean vs run
χ² / ndf 13.28 / 90
p0 −112.3 ± 253.6
pull
Entries 91
Mean −188.5
Std Dev 245.5

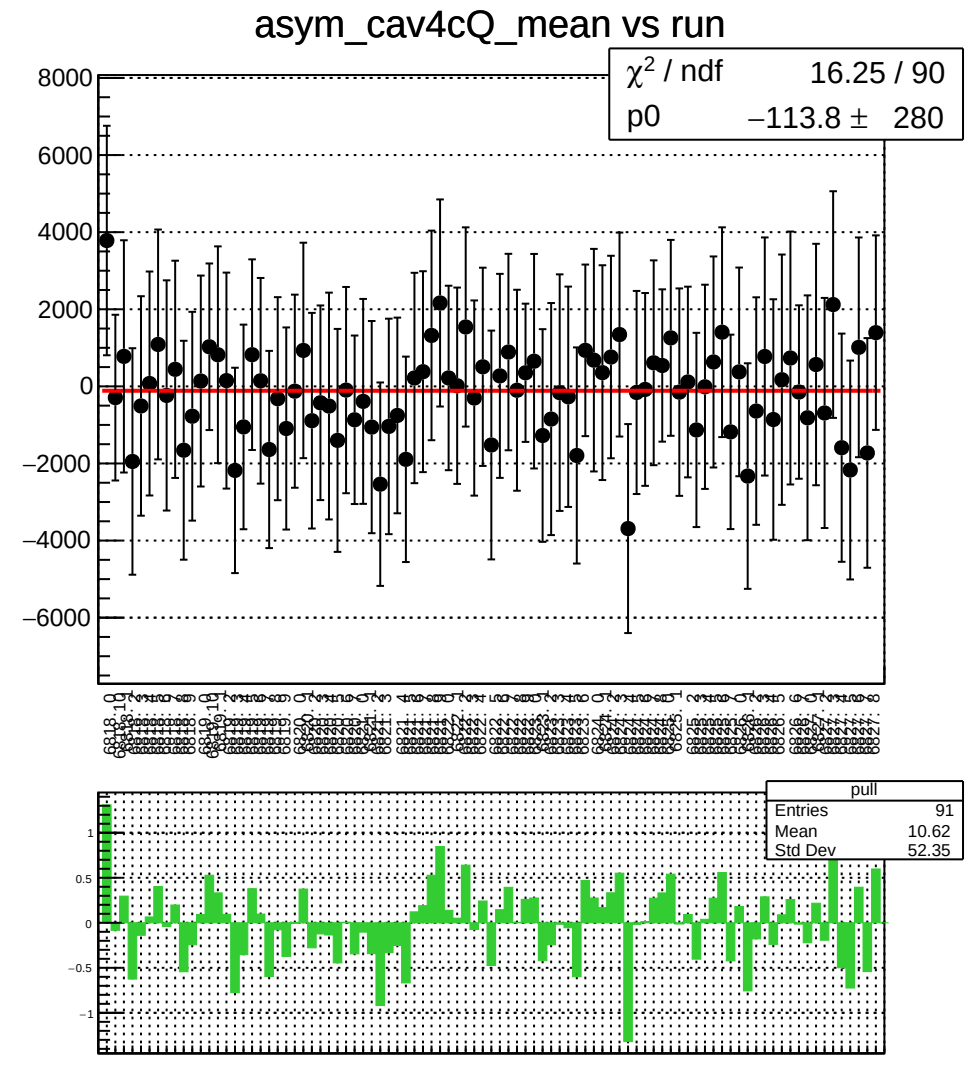

pull1D
Entries 91
Mean −0.002894
Std Dev 0.382

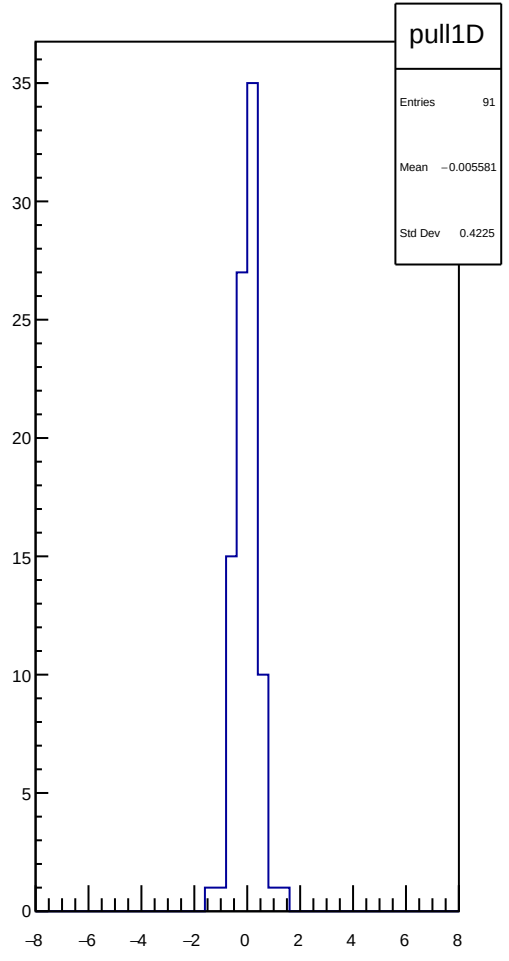

asym_bcm_dg_ds_rms vs run
χ² / ndf 7170 / 90
p0 235.4 ± 0.1794
290
280
270
260
250
240
230
220
210

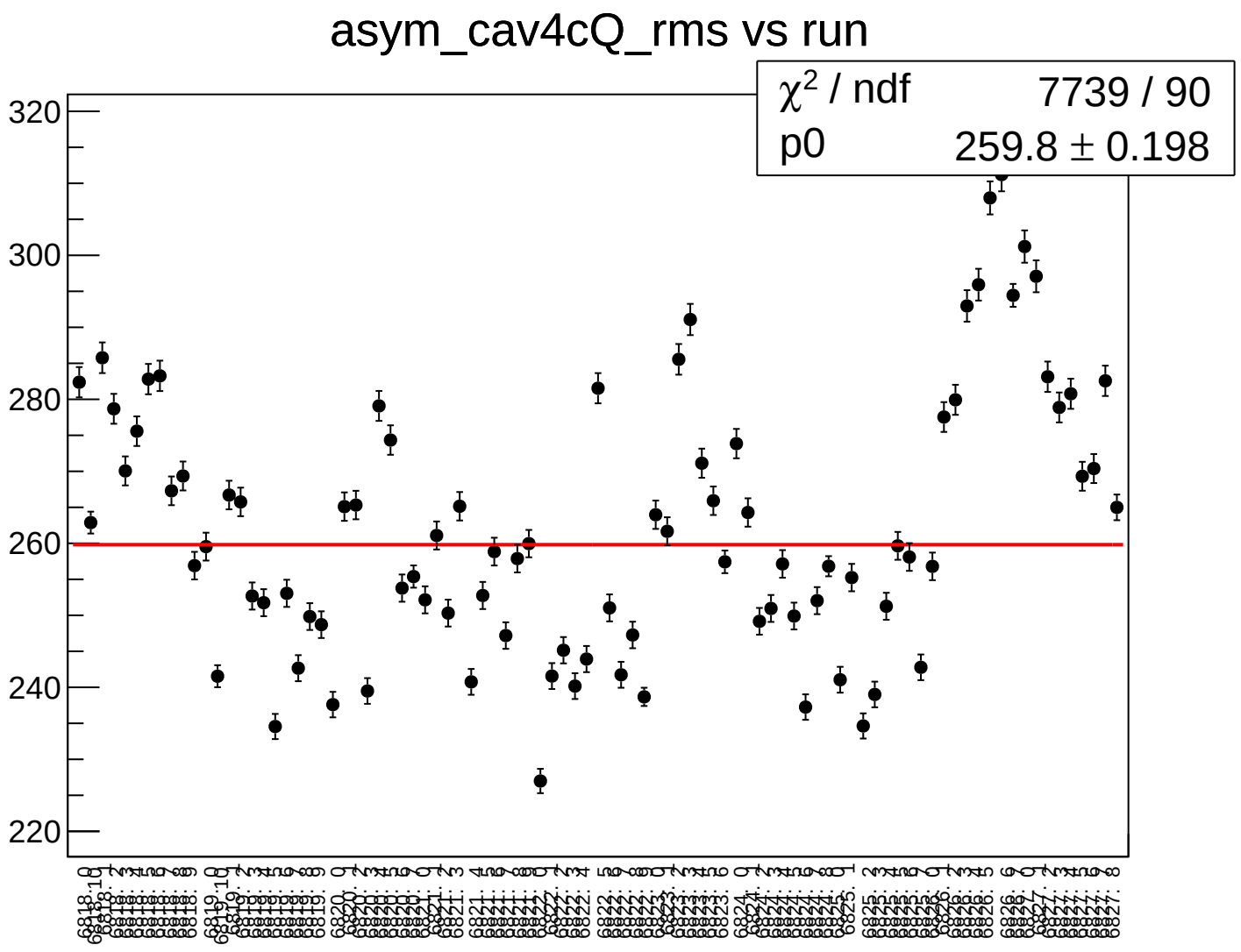

asym_cav4bQ_mean vs run
χ² / ndf 48.81 / 90
p0 −536.6 ± 417.1
10000
5000
0
−5000
−10000
pull
Entries 91
Mean −410.3
Std Dev 451.7
1.5
1
0.5
0
−0.5
−1
−1.5

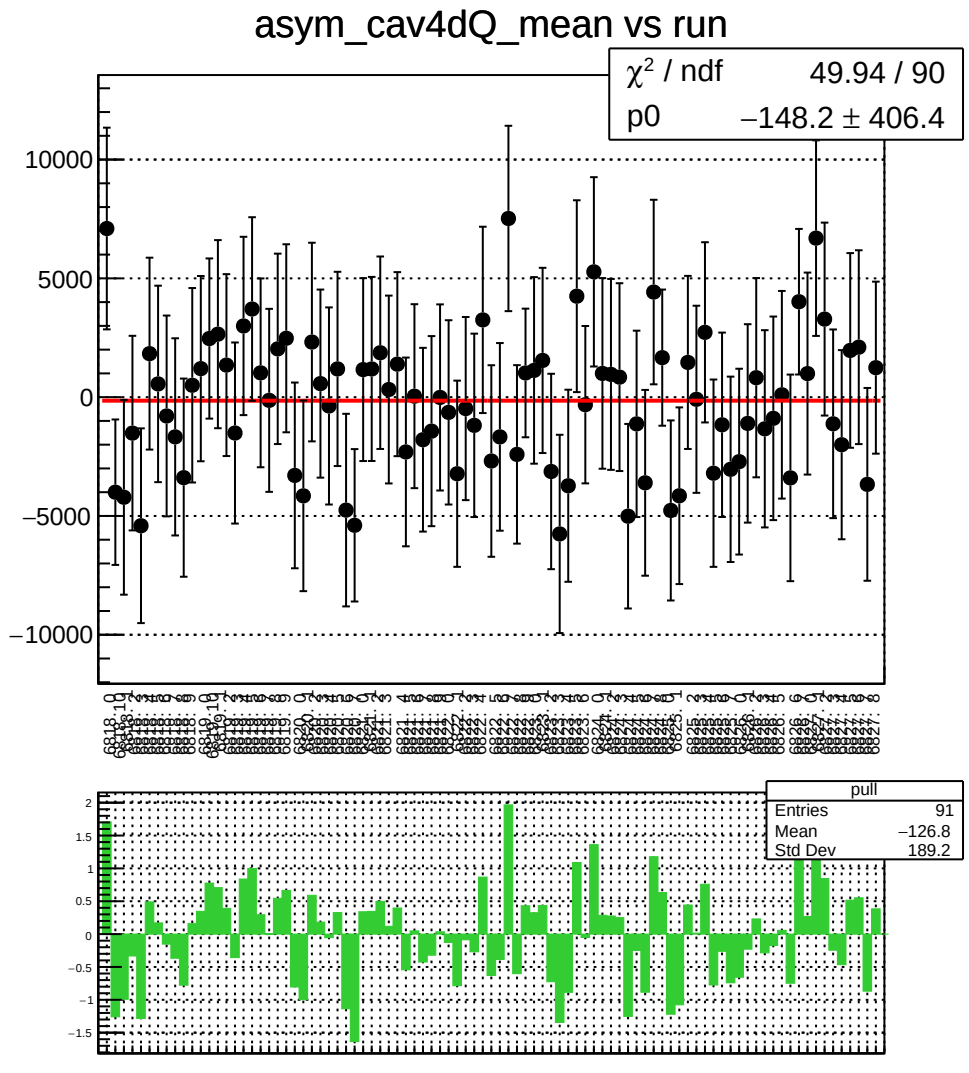

pull1D
Entries 91
Mean −0.007847
Std Dev 0.7323
24
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

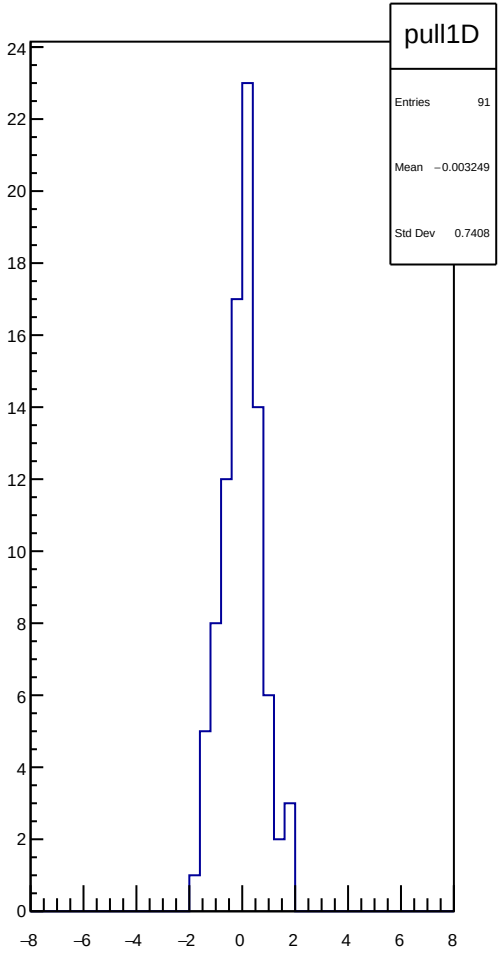

asym_cav4bQ_rms vs run
χ² / ndf 6436 / 90
p0 387.2 ± 0.2949
460
440
420
400
380
360
340

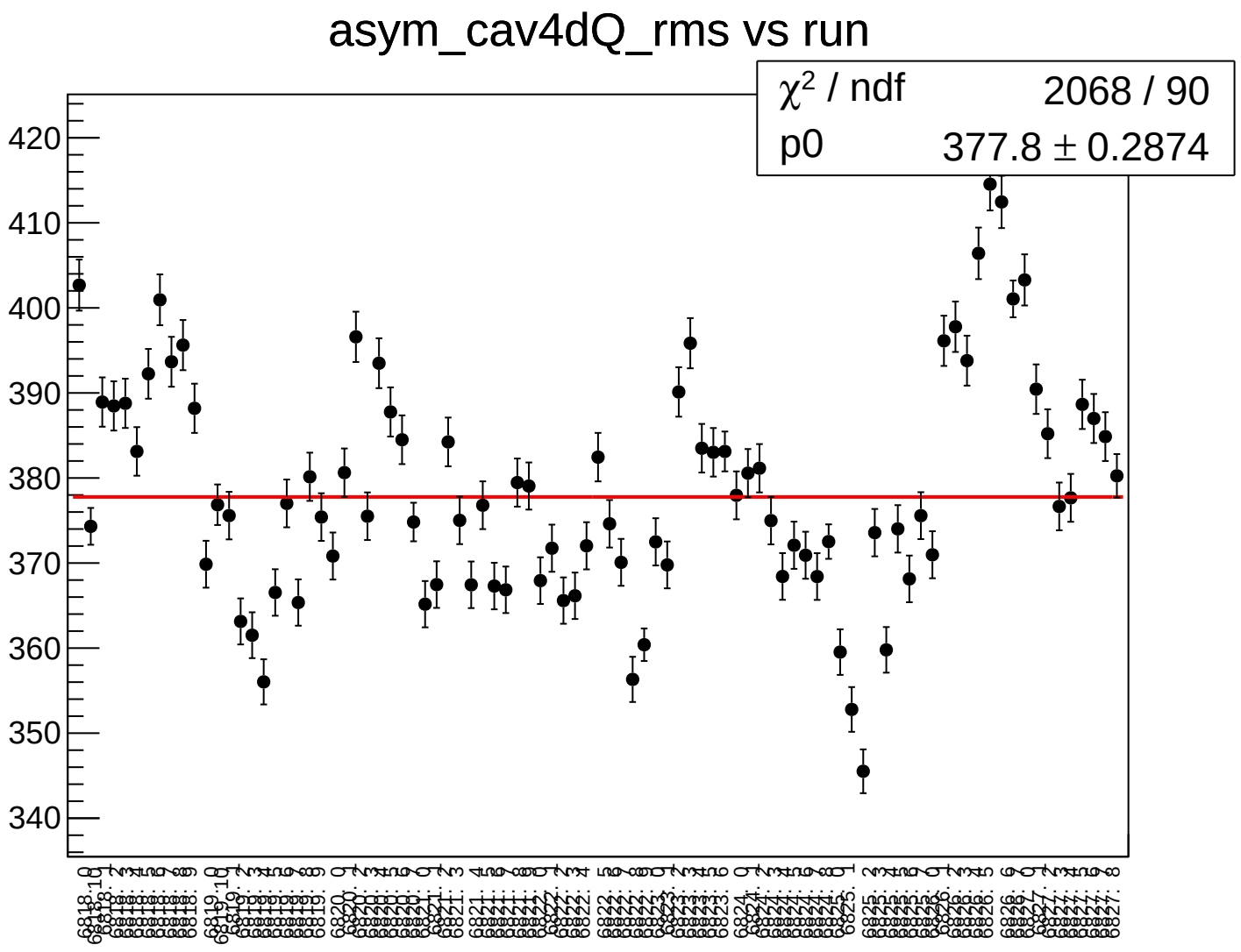

asym_cav4cQ_mean vs run
χ² / ndf 16.25 / 90
p0 −113.8 ± 280
pull
Entries 91
Mean 10.62
Std Dev 52.35

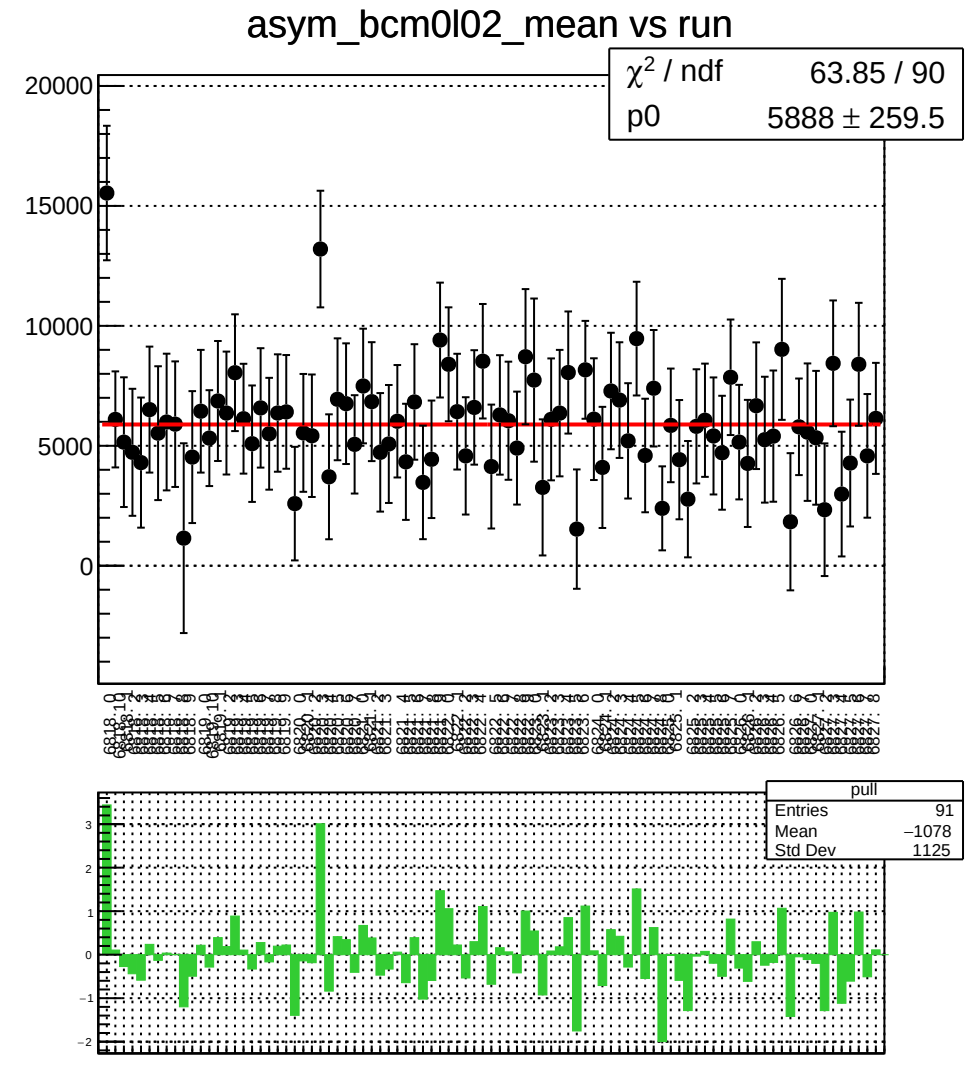

pull1D
Entries 91
Mean −0.005581
Std Dev 0.4225

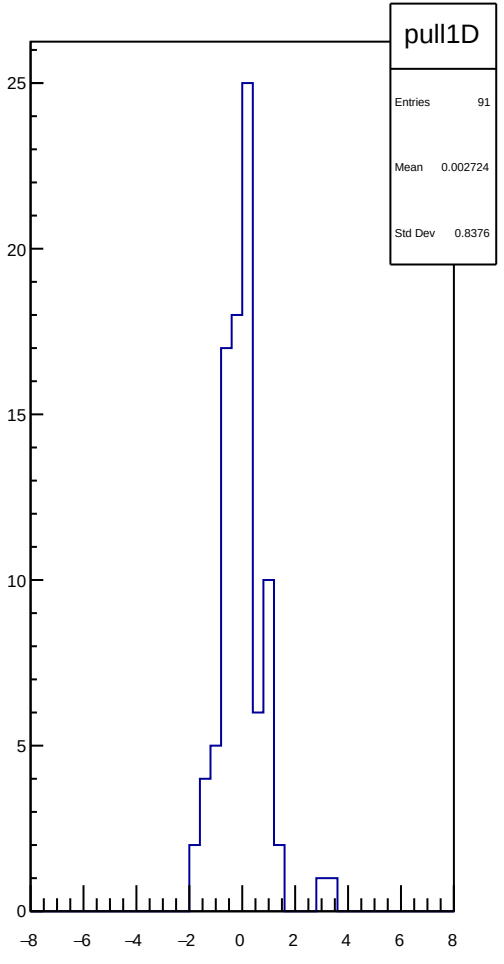

asym_cav4cQ_rms vs run
χ² / ndf 7739 / 90
p0 259.8 ± 0.198
320
300
280
260
240
220

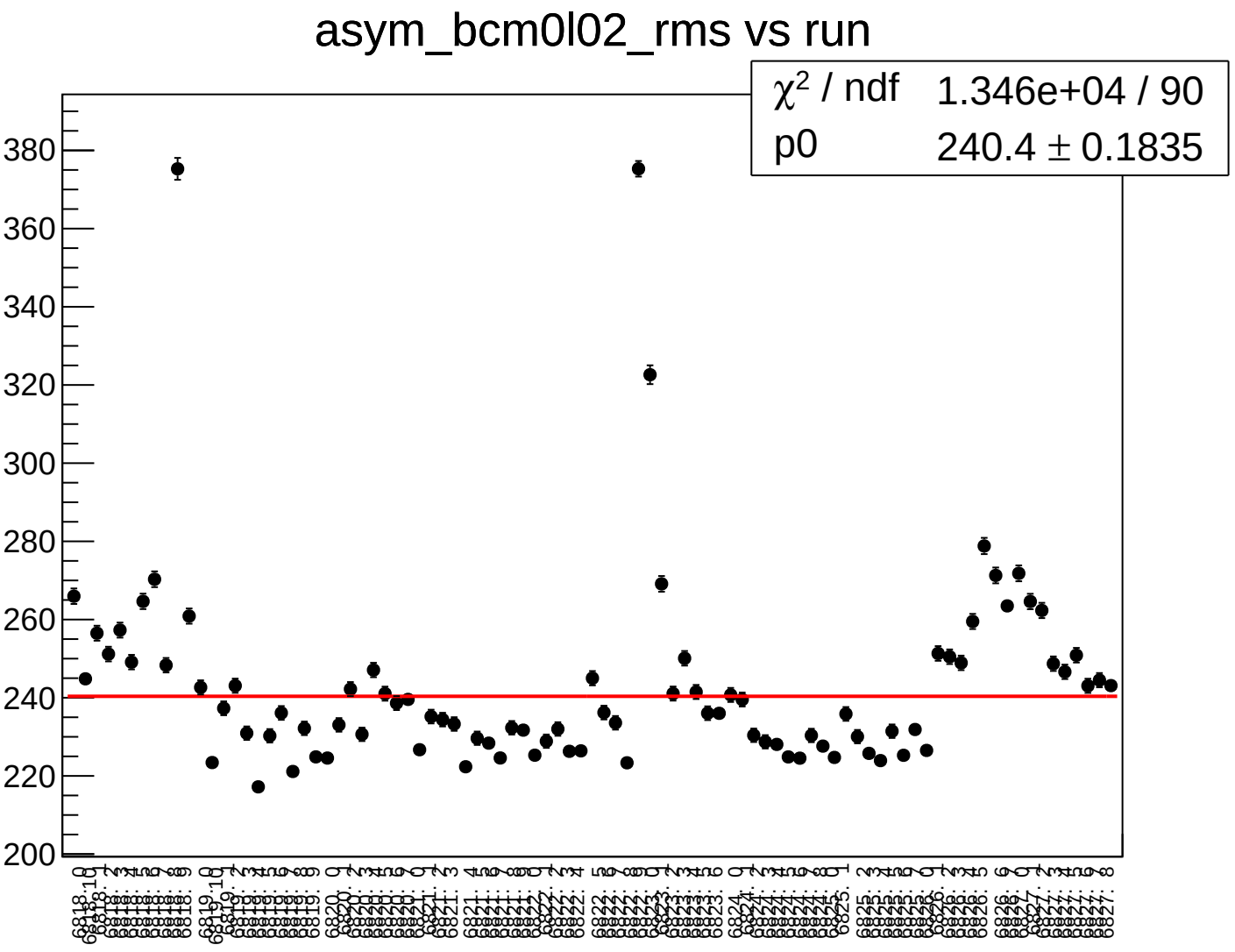

asym_cav4dQ_mean vs run
χ² / ndf 49.94 / 90
p0 −148.2 ± 406.4
10000
5000
0
−5000
−10000
pull
Entries 91
Mean −126.8
Std Dev 189.2
2
1.5
1
0.5
0
−0.5
−1
−1.5

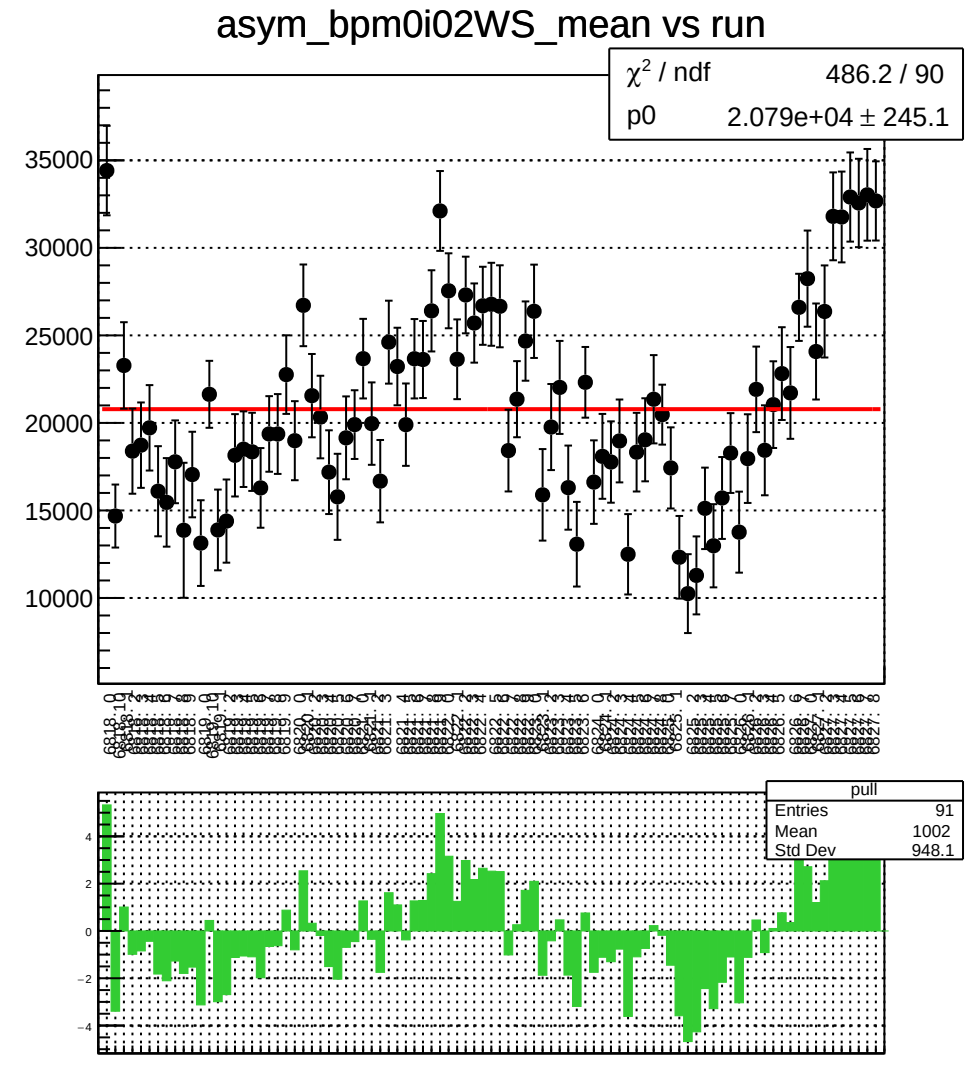

pull1D
Entries 91
Mean −0.003249
Std Dev 0.7408
24
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

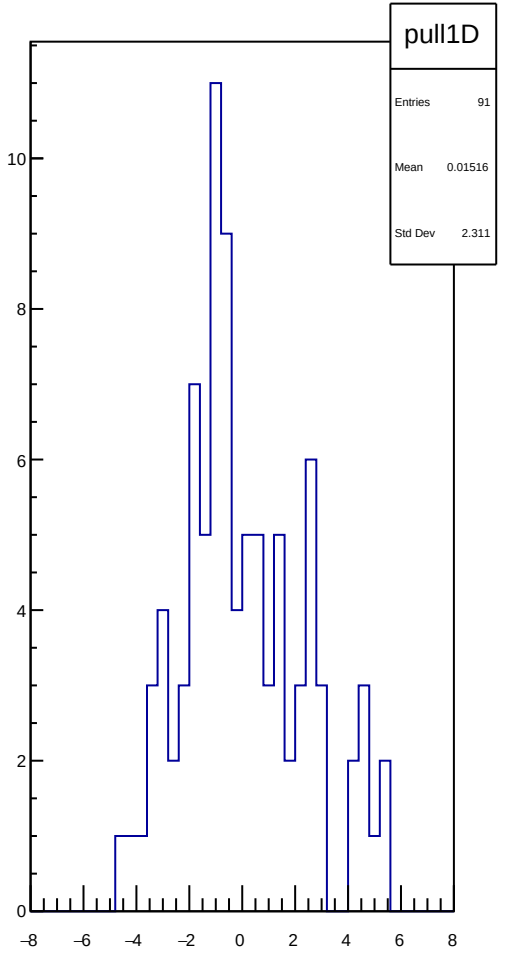

asym_cav4dQ_rms vs run
χ² / ndf 2068 / 90
p0 377.8 ± 0.2874
420
410
400
390
380
370
360
350
340

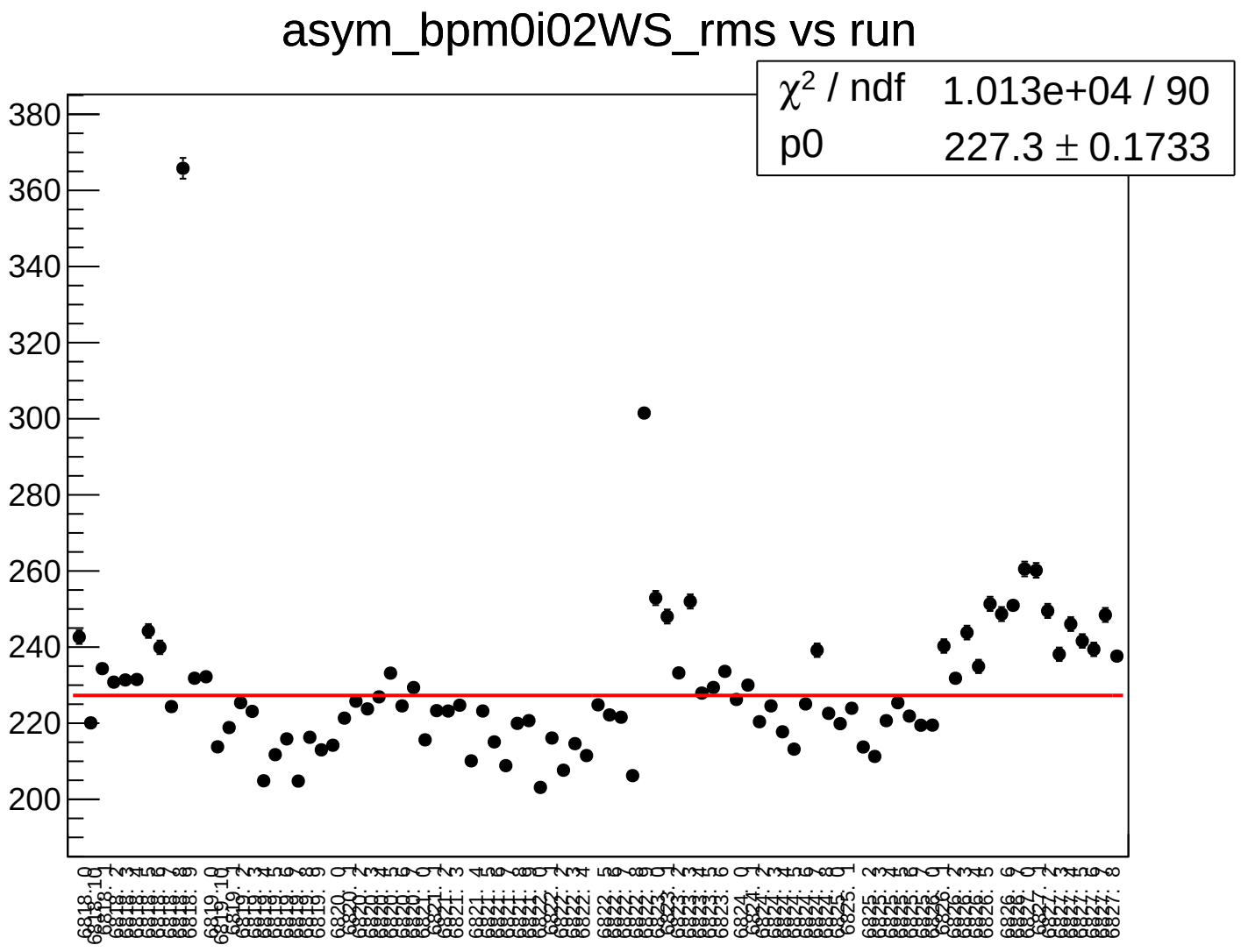

asym_bcm0l02_mean vs run
χ² / ndf 63.85 / 90
p0 5888 ± 259.5
20000
15000
10000
5000
0
pull
Entries 91
Mean −1078
Std Dev 1125
3
2
1
0
−1
−2

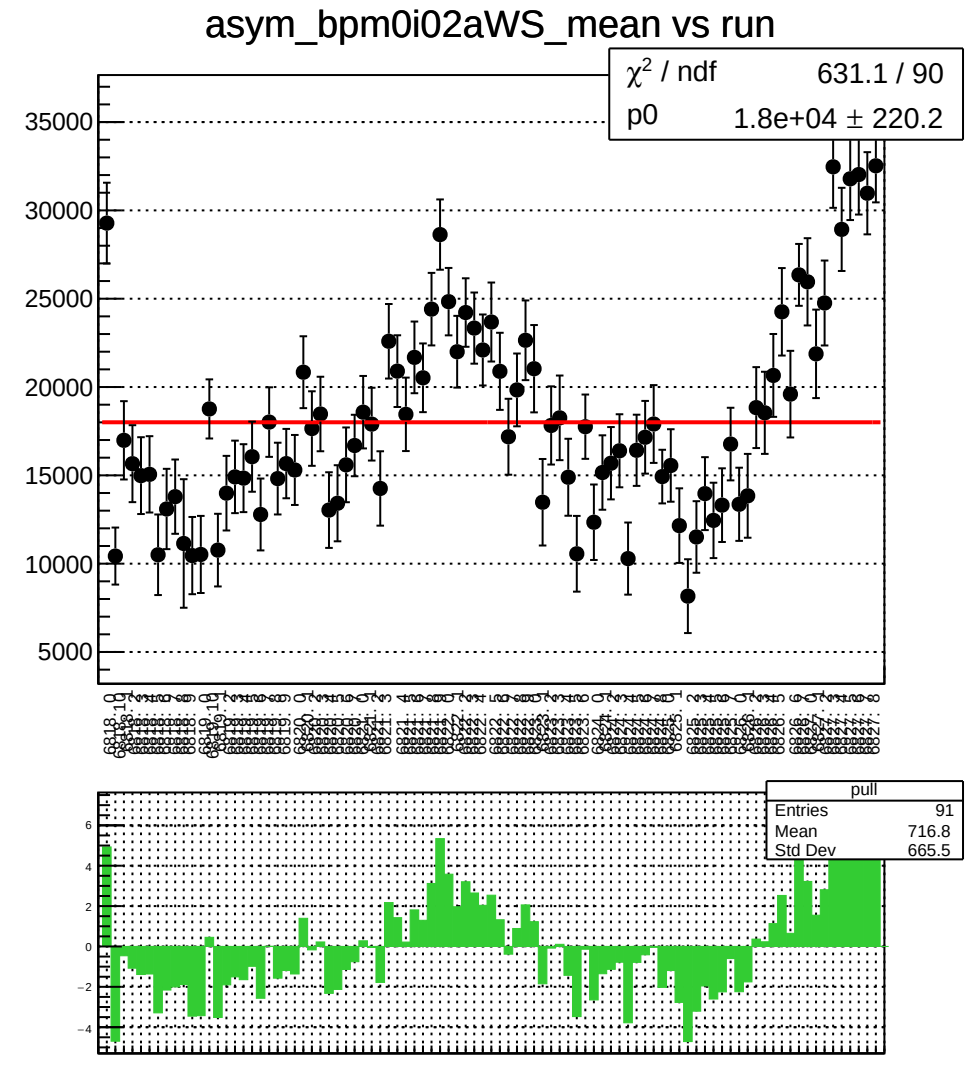

pull1D
Entries 91
Mean 0.002724
Std Dev 0.8376
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

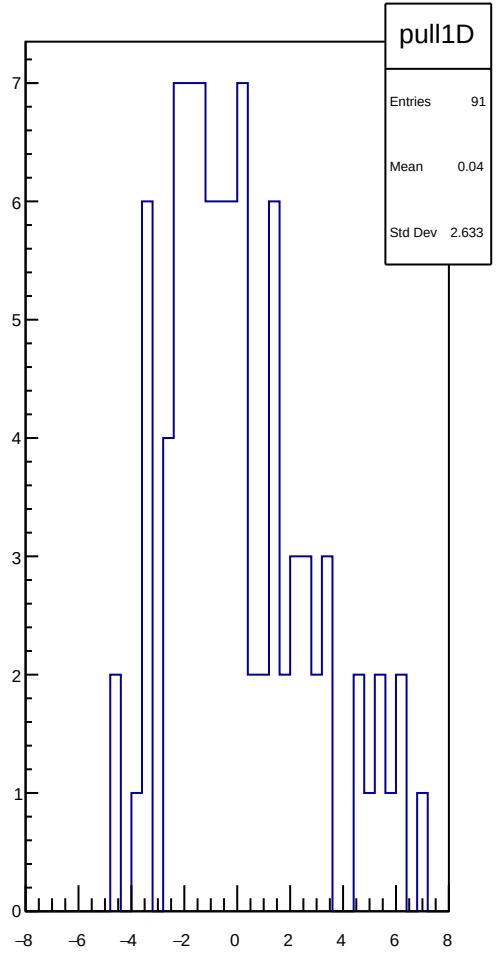

asym_bcm0l02_rms vs run
χ² / ndf 1.346e+04 / 90
p0 240.4 ± 0.1835
380
360
340
320
300
280
260
240
220
200

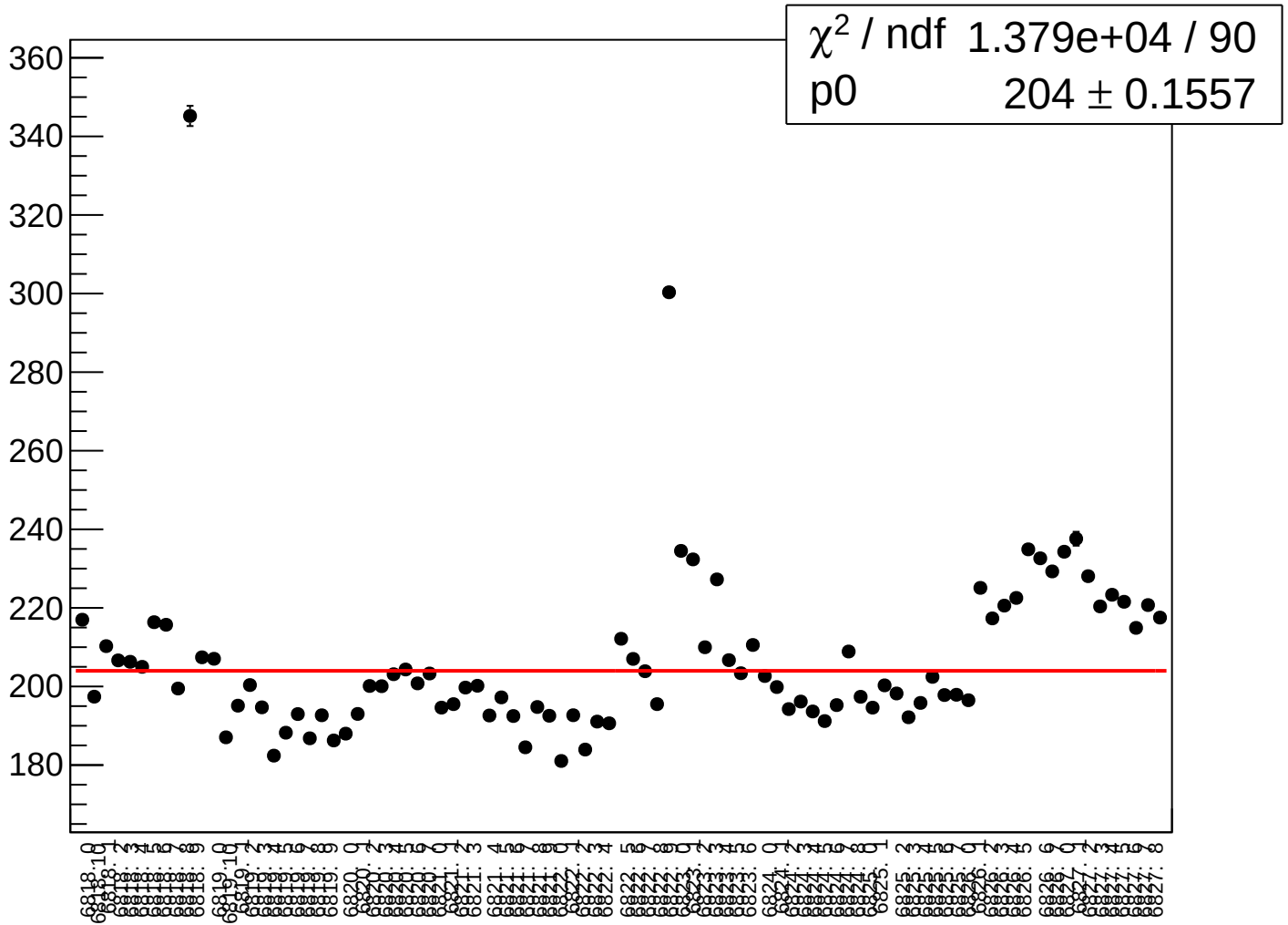

asym_bpm0i02WS_mean vs run
χ² / ndf 486.2 / 90
p0 2.079e+04 ± 245.1
35000
30000
25000
20000
15000
10000
pull
Entries 91
Mean 1002
Std Dev 948.1
4
2
0
−2
−4

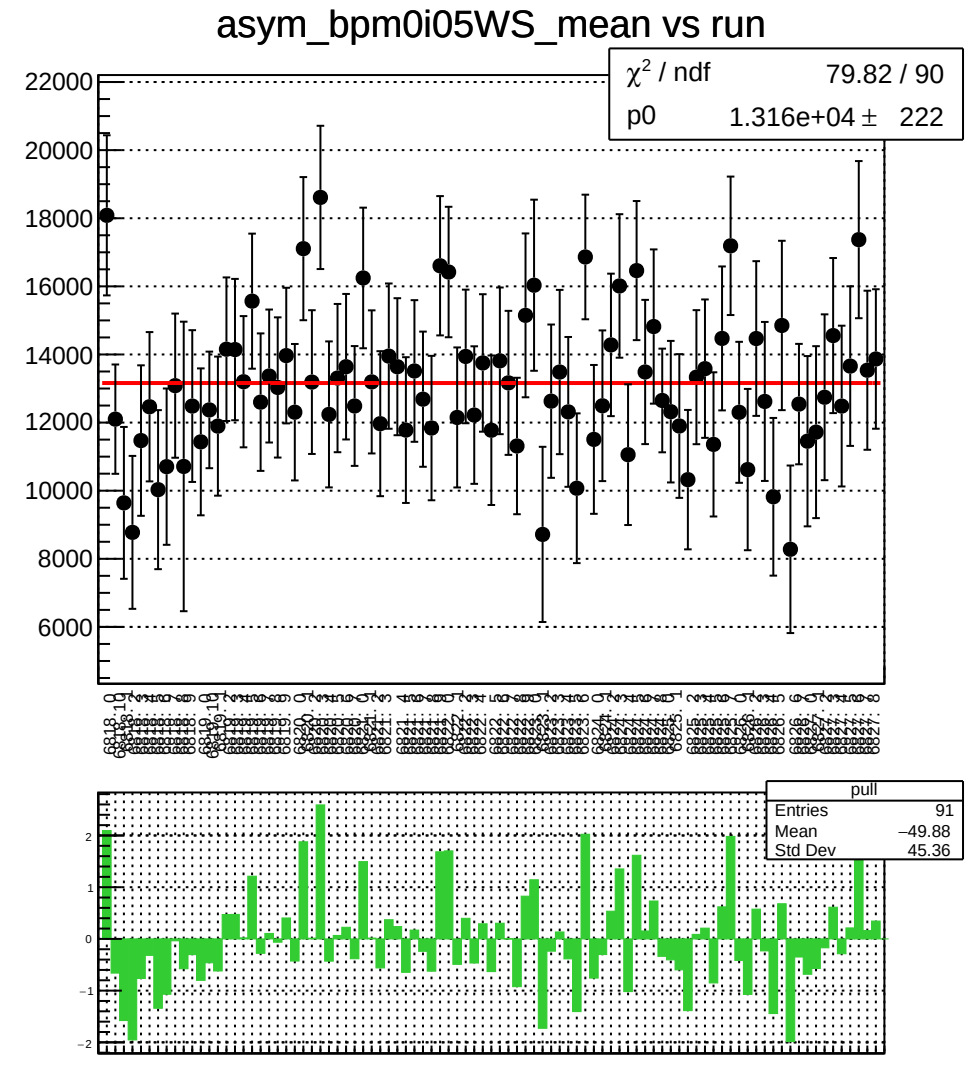

pull1D
Entries 91
Mean 0.01516
Std Dev 2.311
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

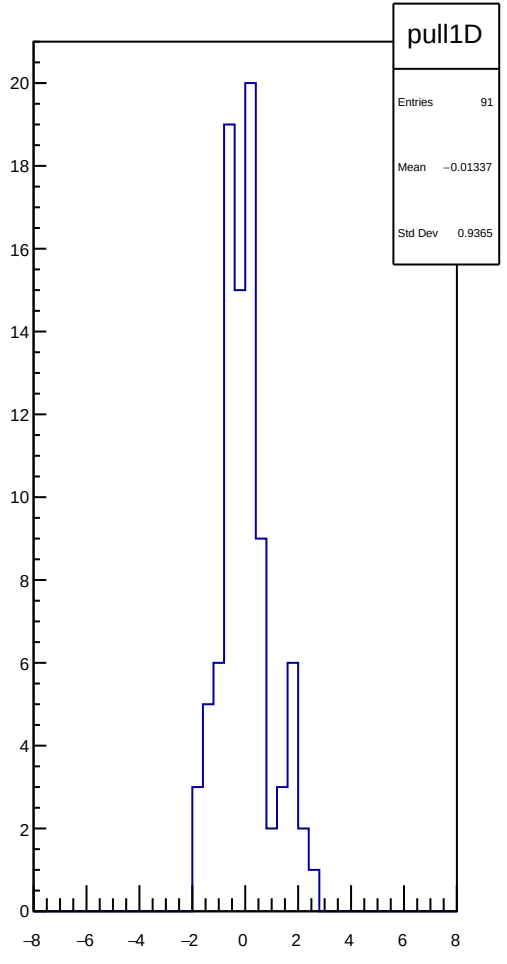

asym_bpm0i02WS_rms vs run
χ² / ndf 1.013e+04 / 90
p0 227.3 ± 0.1733
380
360
340
320
300
280
260
240
220
200

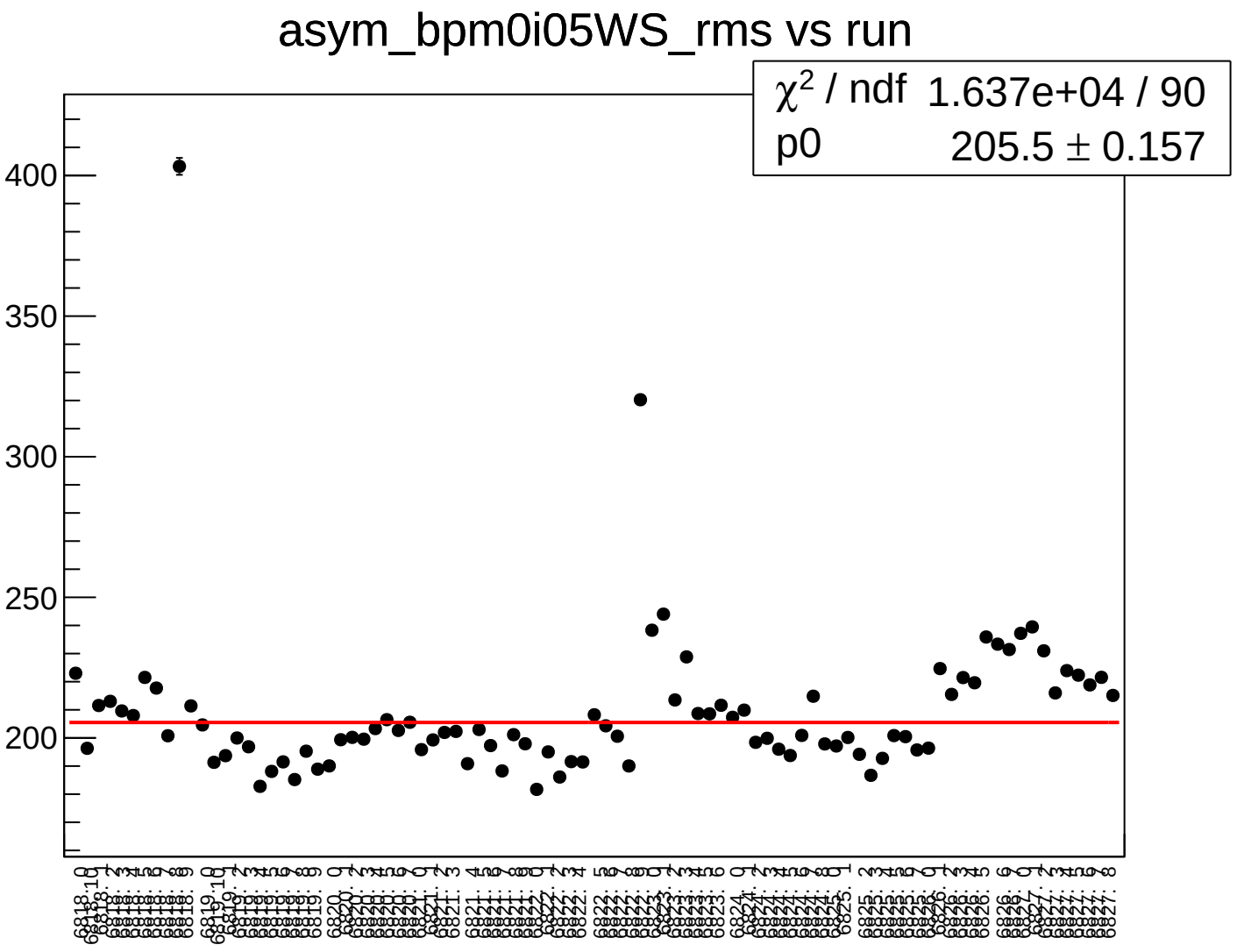

asym_bpm0i02aWS_mean vs run
χ² / ndf 631.1 / 90
p0 1.8e+04 ± 220.2
35000
30000
25000
20000
15000
10000
5000
pull
Entries 91
Mean 716.8
Std Dev 665.5
6
4
2
0
−2
−4

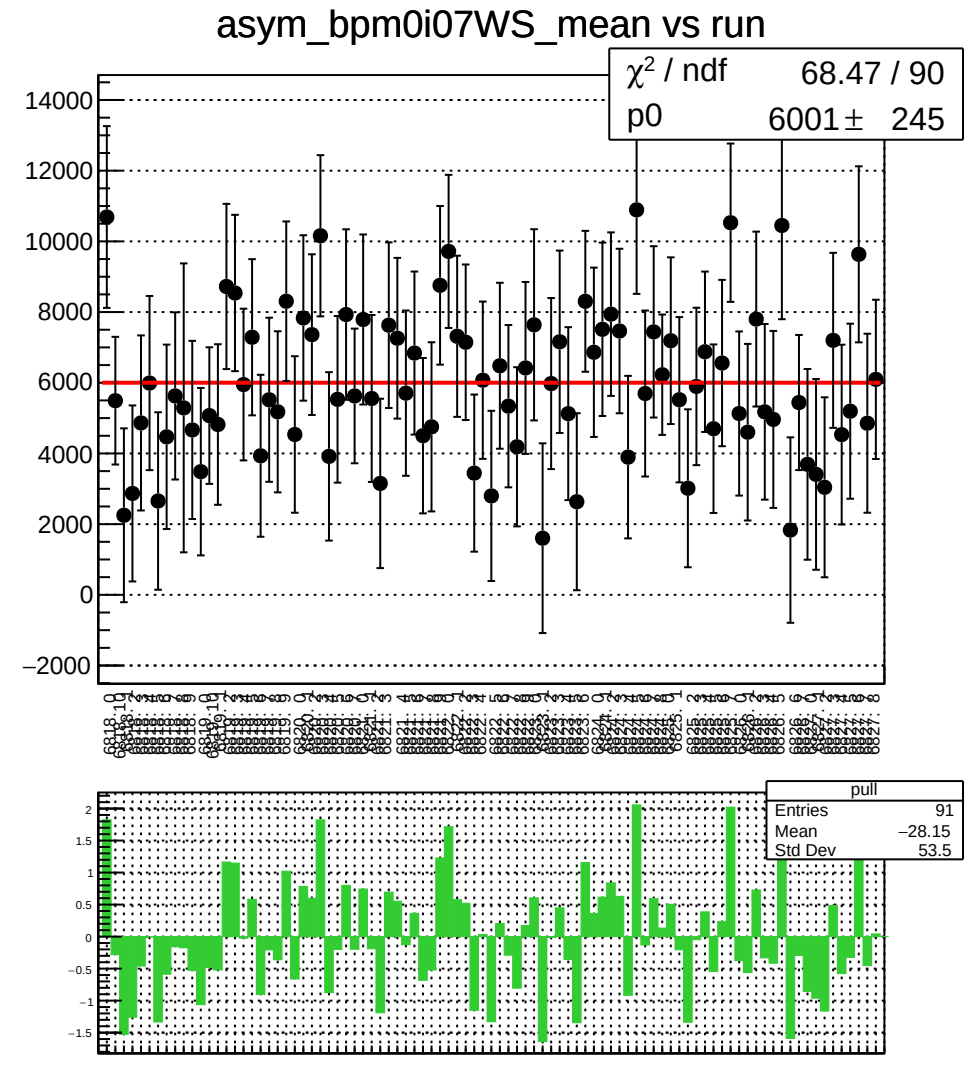

pull1D
Entries 91
Mean 0.04
Std Dev 2.633
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

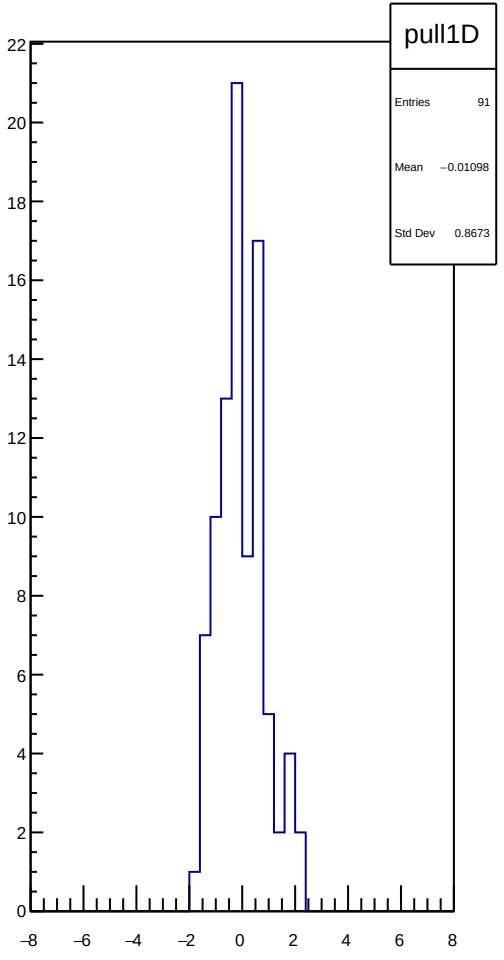

asym_bpm0i02aWS_rms vs run
χ² / ndf 1.379e+04 / 90
p0 204 ± 0.1557
360
340
320
300
280
260
240
220
200
180

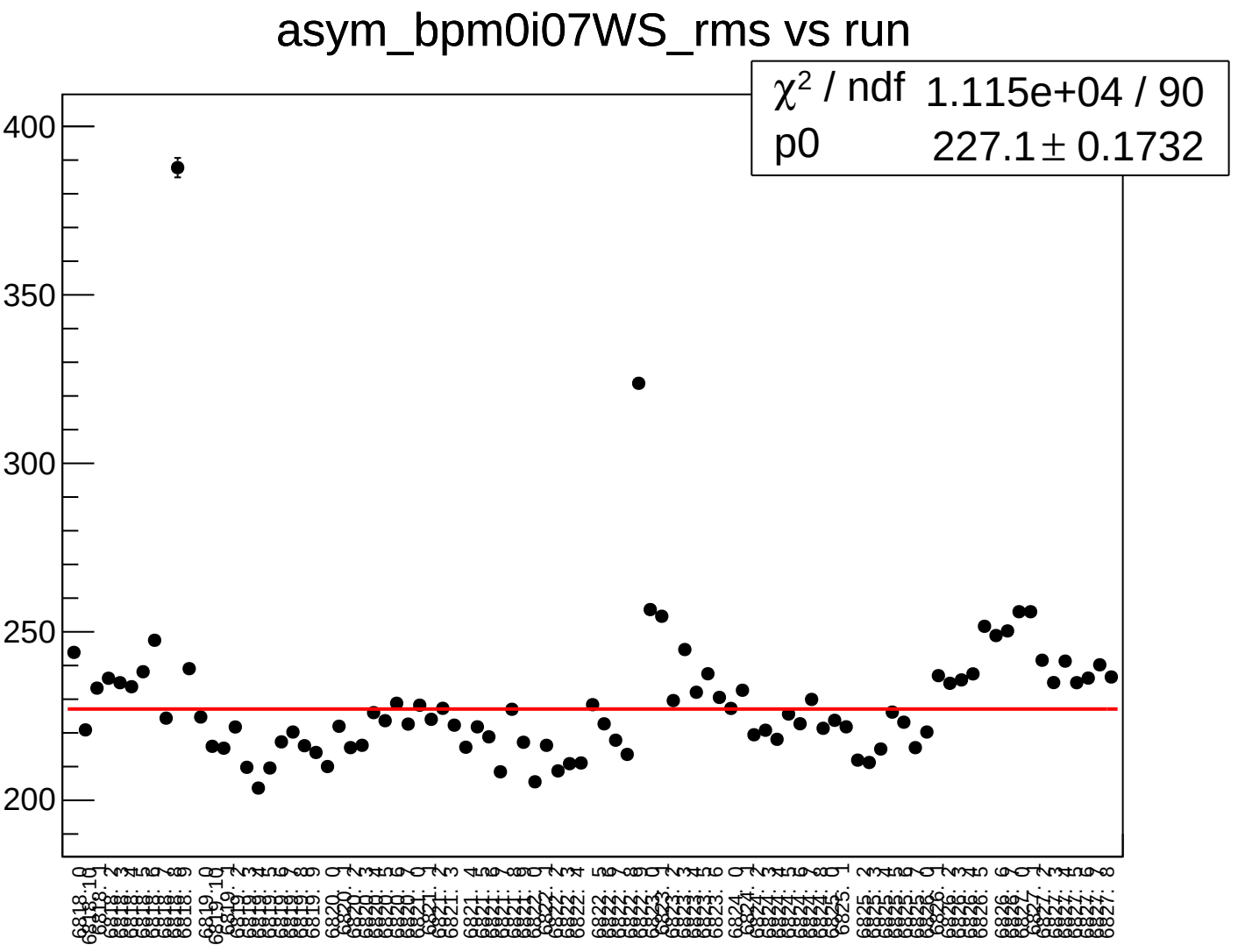

asym_bpm0i05WS_mean vs run
χ² / ndf 79.82 / 90
p0 1.316e+04 ± 222
pull
Entries 91
Mean −49.88
Std Dev 45.36

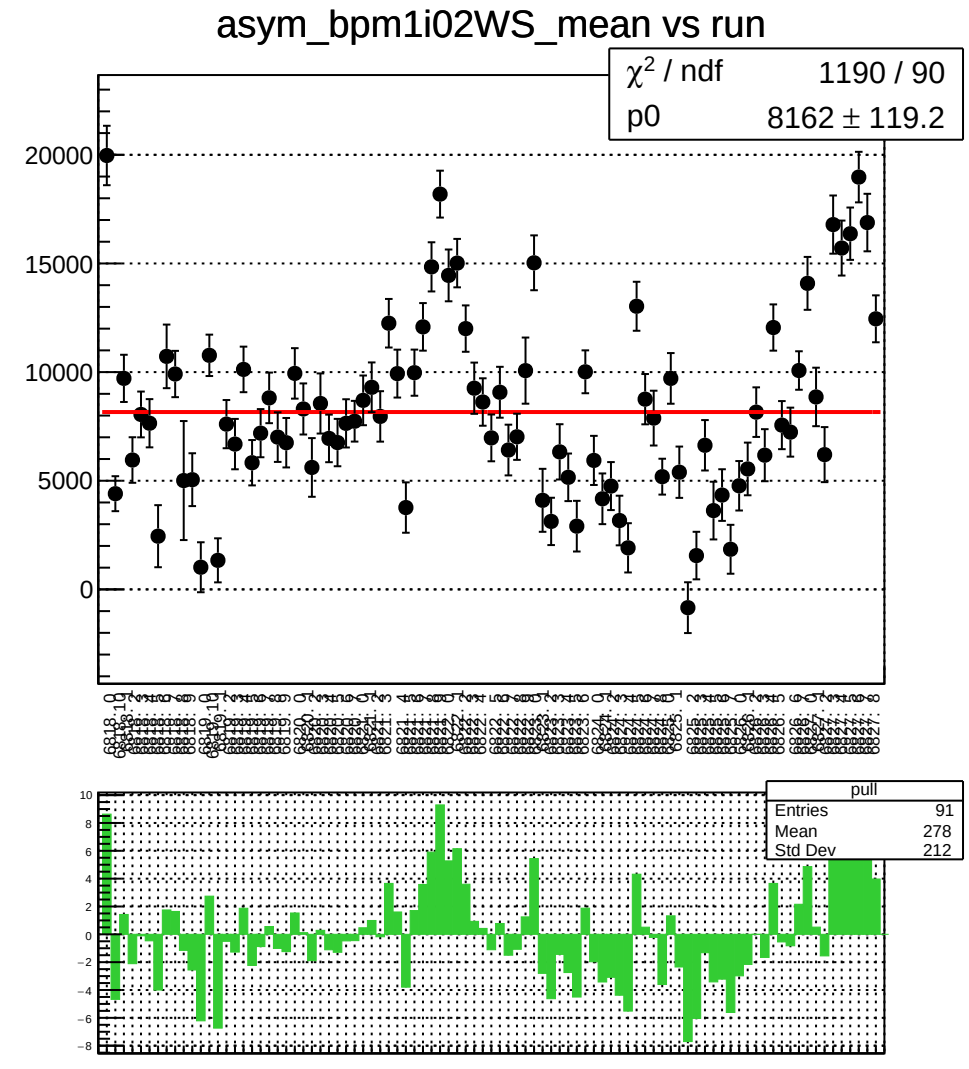

pull1D
Entries 91
Mean −0.01337
Std Dev 0.9365

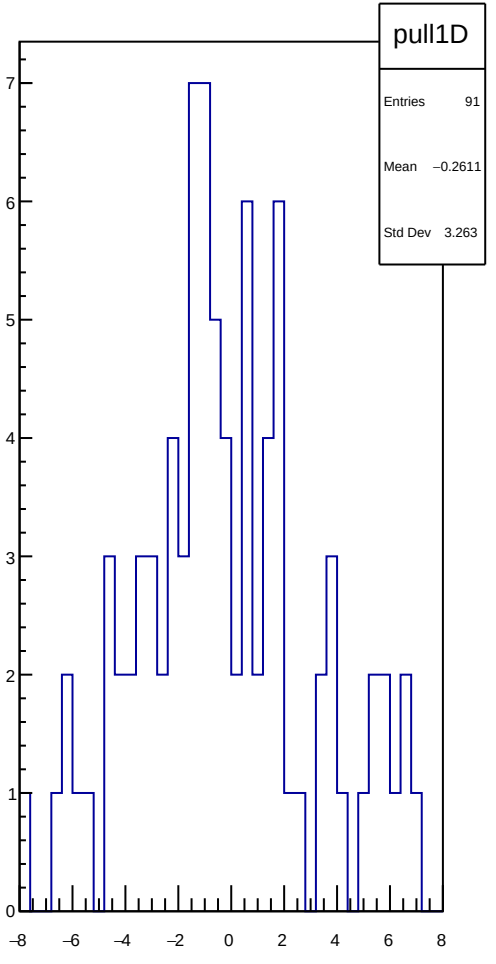

asym_bpm0i05WS_rms vs run
χ^2 / ndf 1.637e+04 / 90
p0 205.5 ± 0.157
400
350
300
250
200

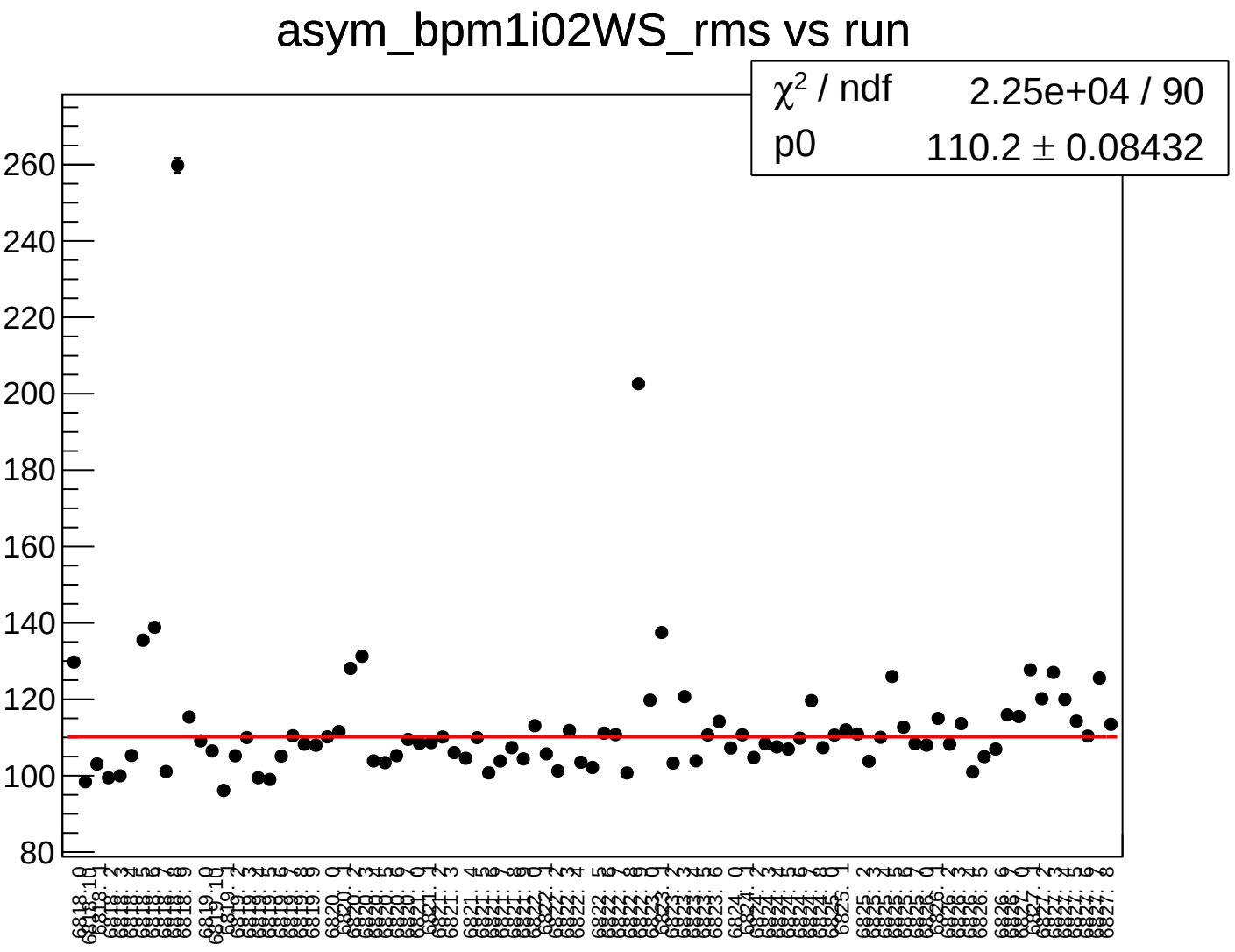

asym_bpm0i07WS_mean vs run
χ² / ndf 68.47 / 90
p0 6001 ± 245
pull
Entries 91
Mean −28.15
Std Dev 53.5

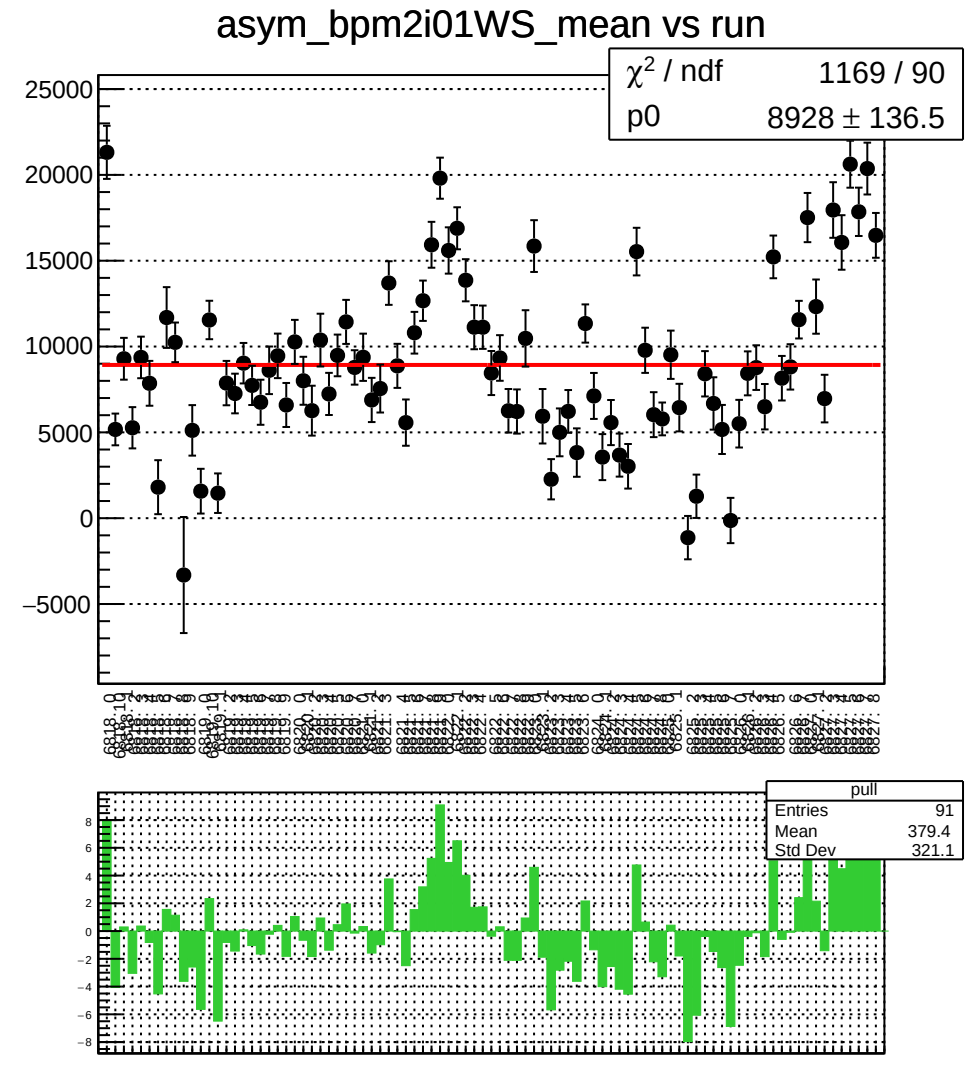

pull1D
Entries 91
Mean −0.01098
Std Dev 0.8673

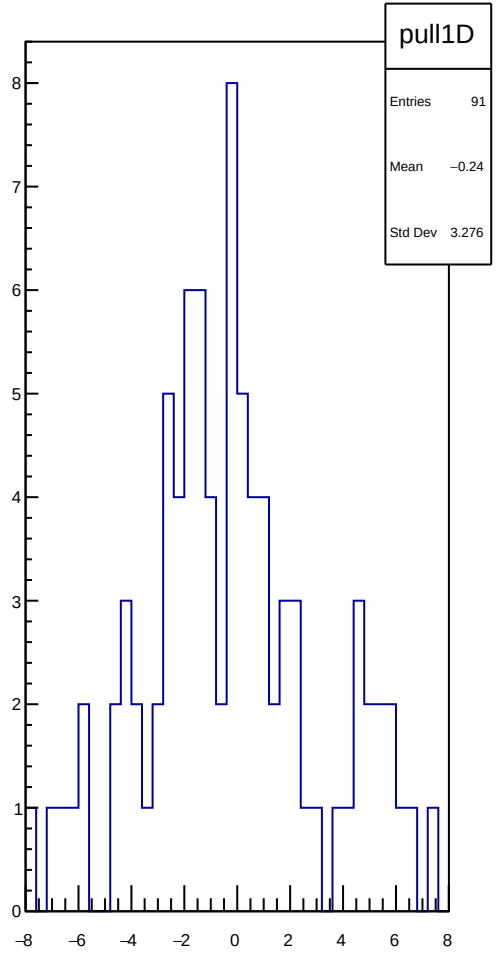

asym_bpm0i07WS_rms vs run
χ² / ndf 1.115e+04 / 90
p0 227.1 ± 0.1732
400
350
300
250
200

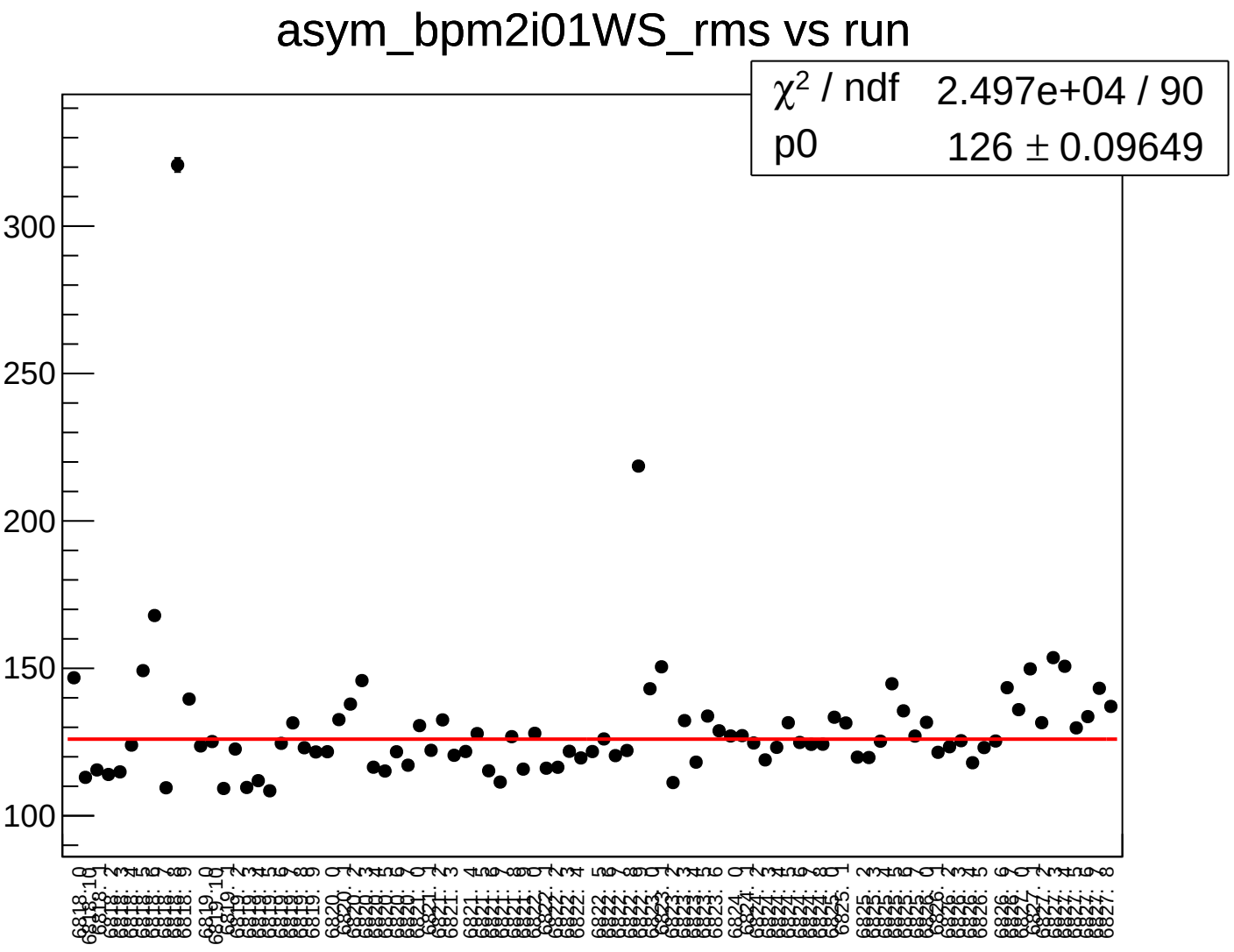

asym_bpm1i02WS_mean vs run
χ² / ndf 1190 / 90
p0 8162 ± 119.2
20000
15000
10000
5000
0
pull
Entries 91
Mean 278
Std Dev 212
10
8
6
4
2
0
−2
−4
−6
−8

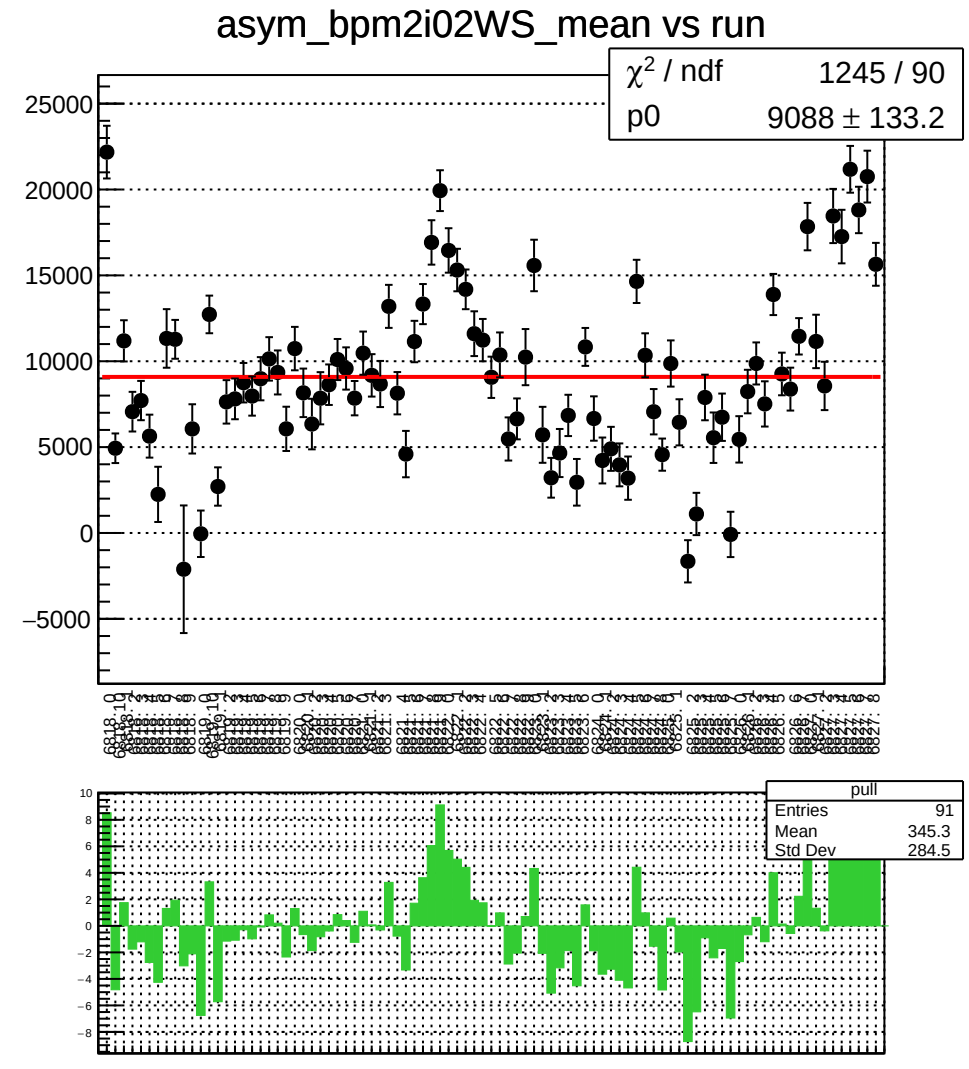

pull1D
Entries 91
Mean −0.2611
Std Dev 3.263
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

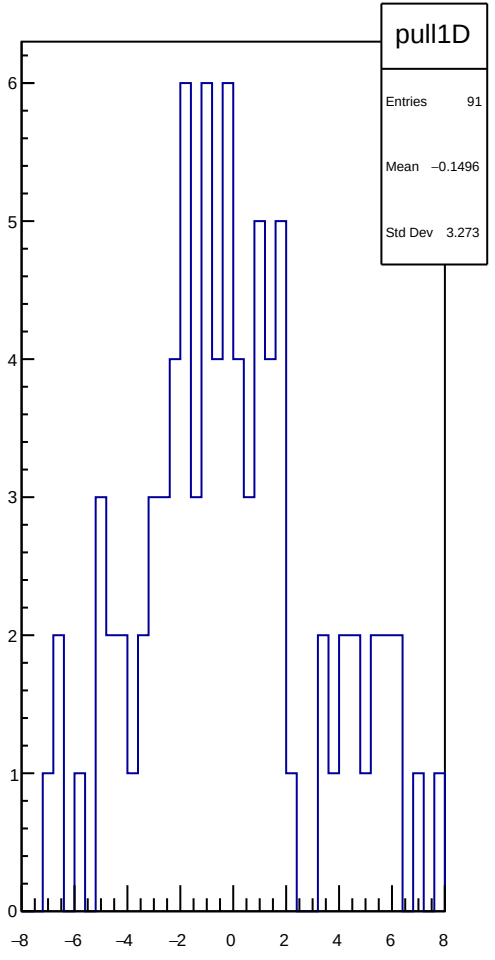

asym_bpm1i02WS_rms vs run
χ² / ndf 2.25e+04 / 90
p0 110.2 ± 0.08432
260
240
220
200
180
160
140
120
100
80

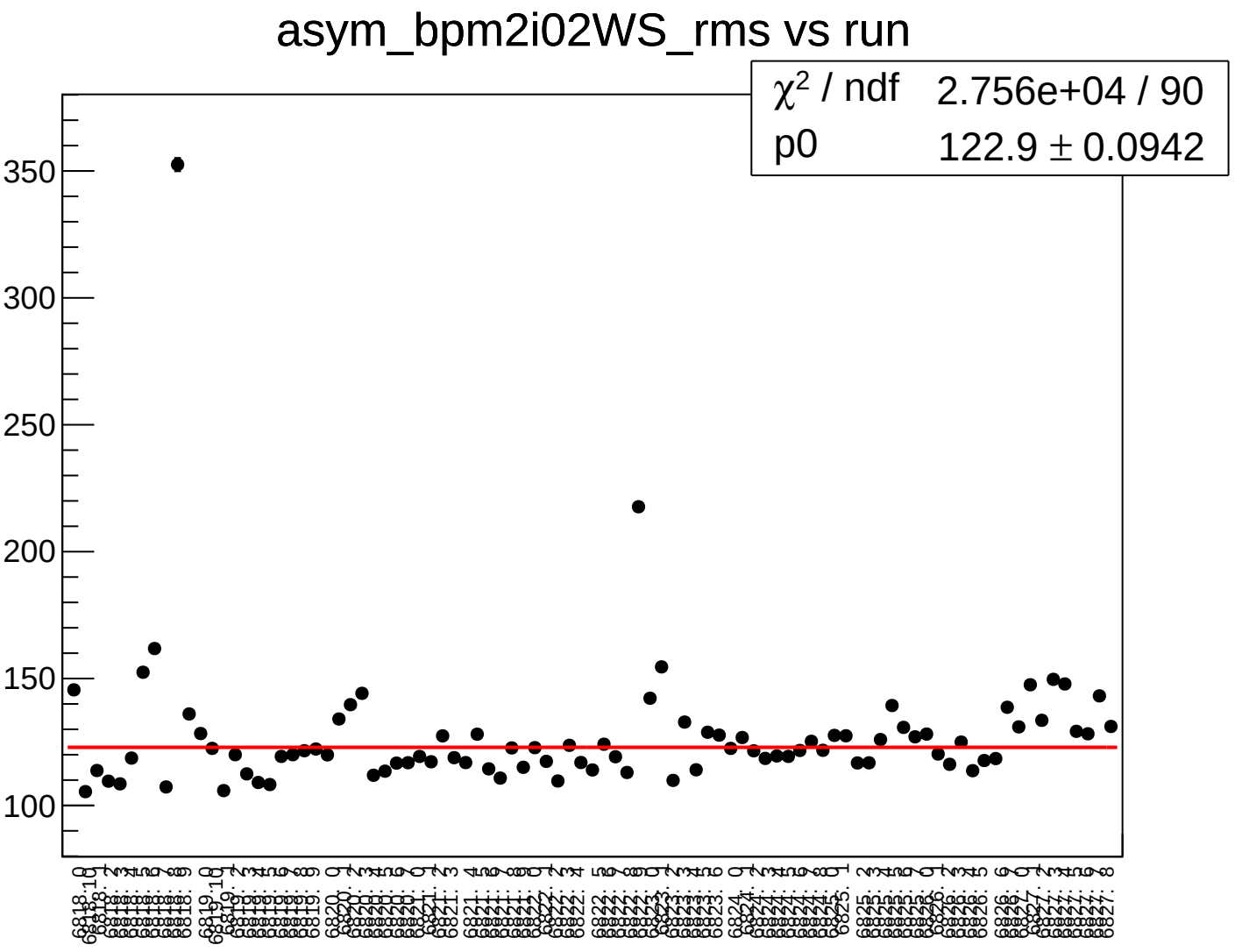

asym_bpm2i01WS_mean vs run
χ² / ndf 1169 / 90
p0 8928 ± 136.5
25000
20000
15000
10000
5000
0
−5000
pull
Entries 91
Mean 379.4
Std Dev 321.1
8
6
4
2
0
−2
−4
−6
−8

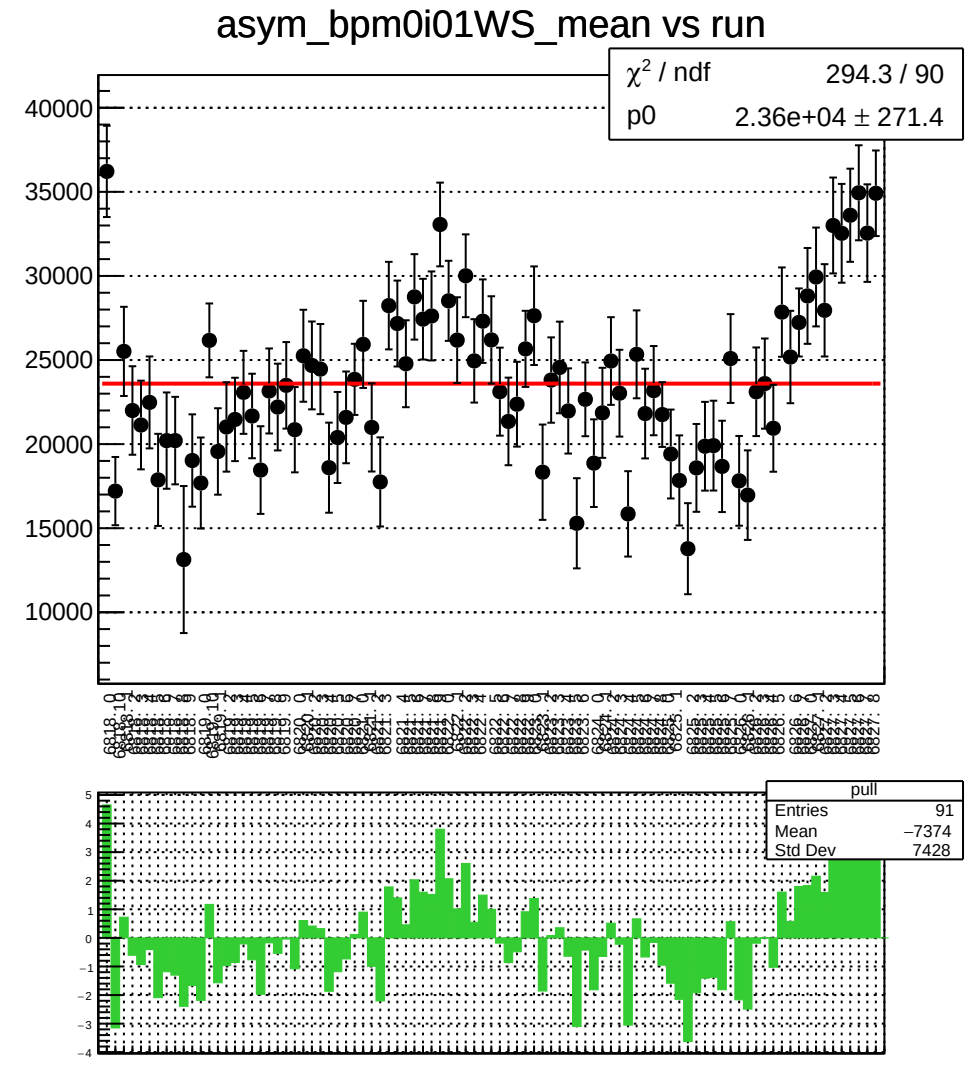

pull1D
Entries 91
Mean −0.24
Std Dev 3.276
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

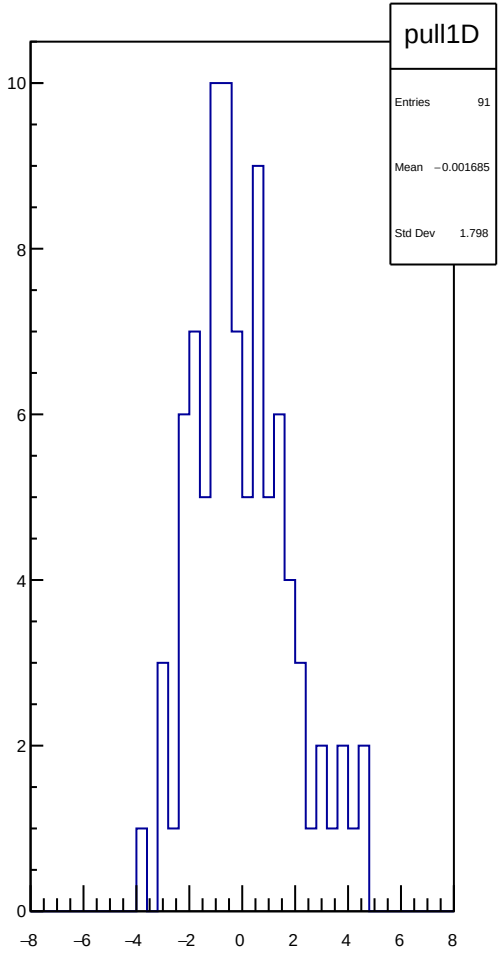

asym_bpm2i01WS_rms vs run
χ² / ndf 2.497e+04 / 90
p0 126 ± 0.09649
300
250
200
150
100

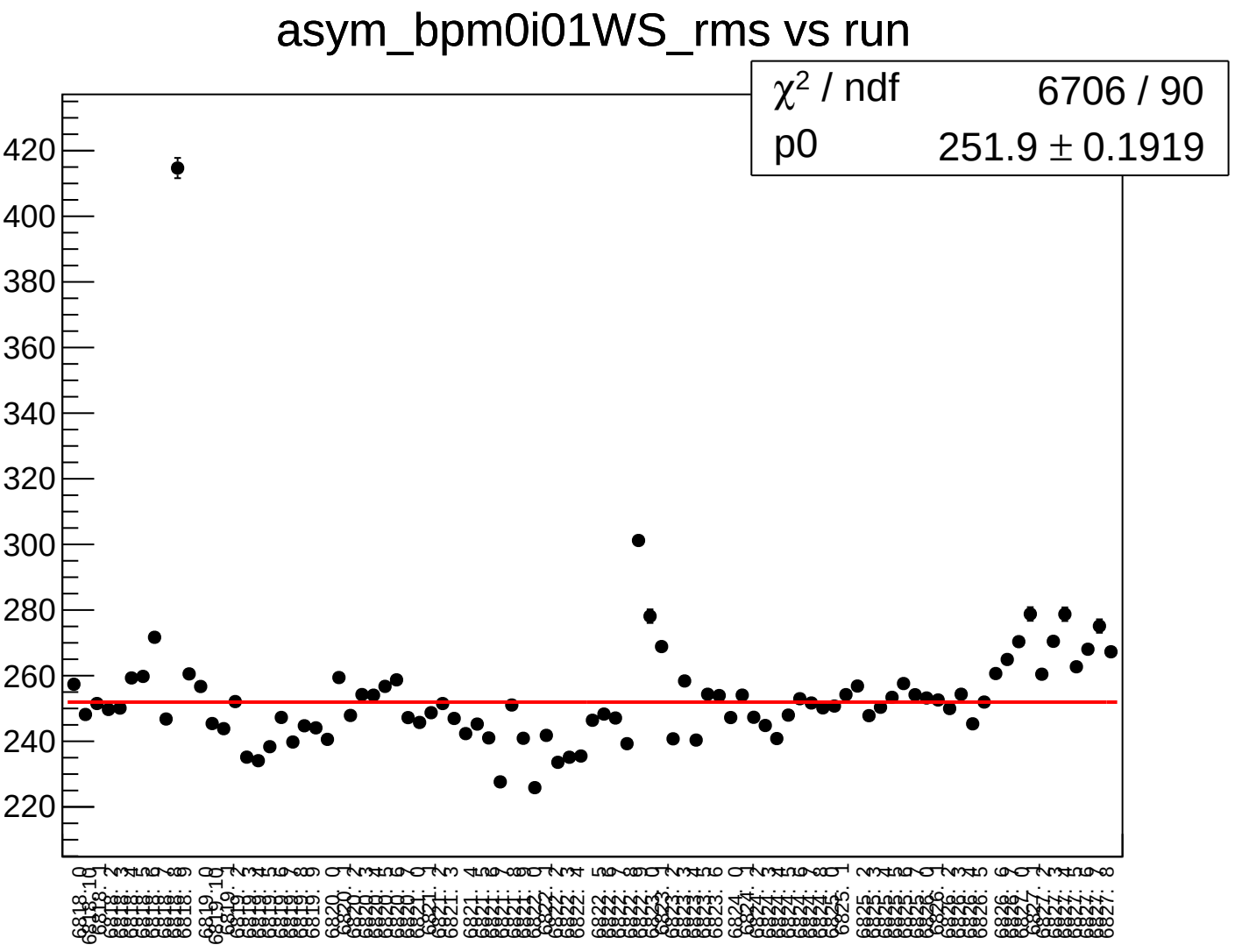

asym_bpm2i02WS_mean vs run
χ² / ndf 1245 / 90
p0 9088 ± 133.2
pull
Entries 91
Mean 345.3
Std Dev 284.5

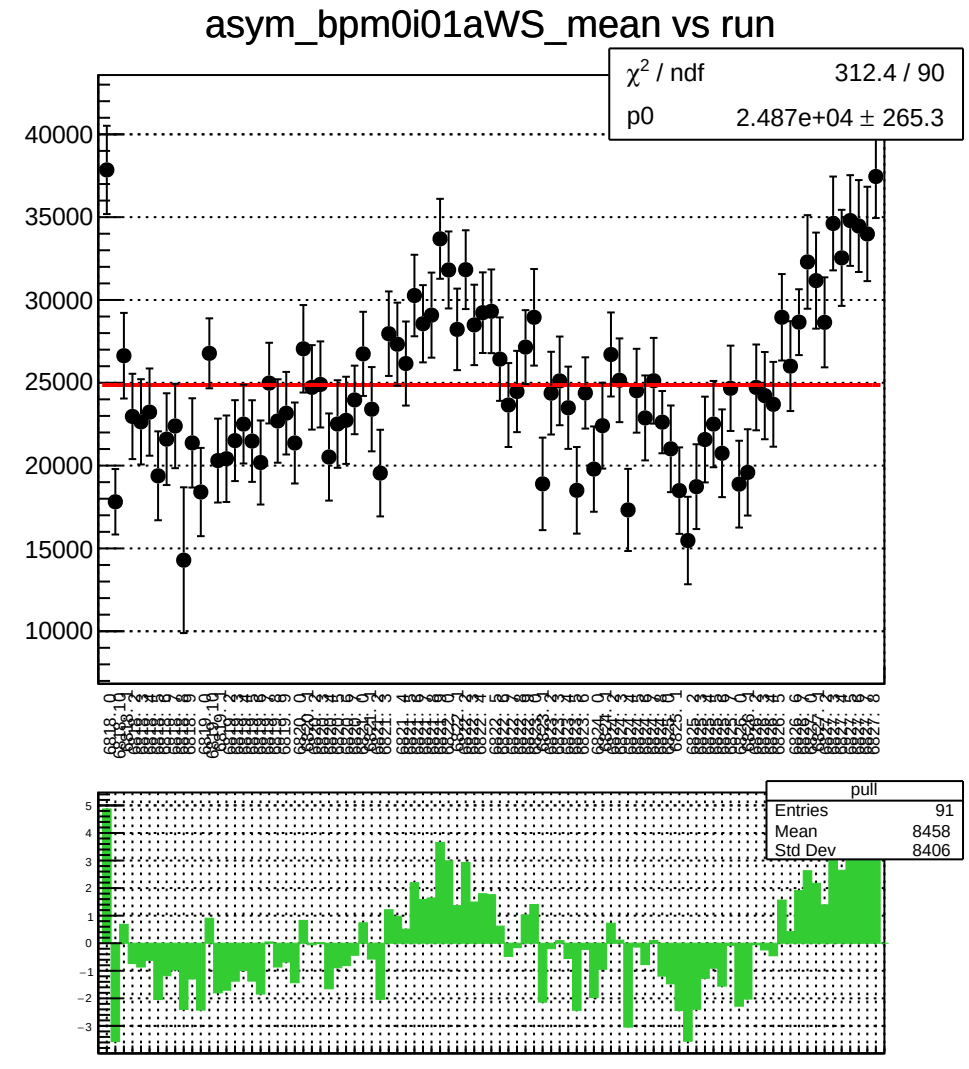

pull1D
Entries 91
Mean −0.1496
Std Dev 3.273

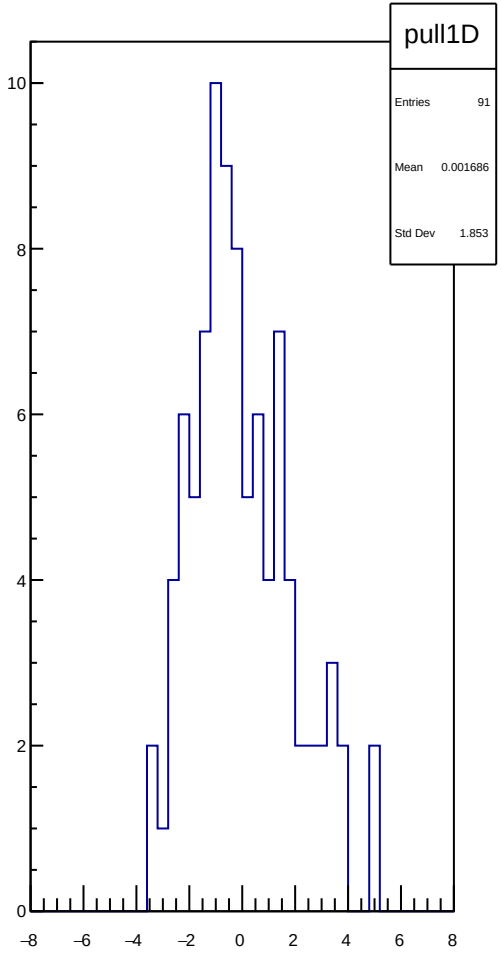

asym_bpm2i02WS_rms vs run
χ^2 / ndf 2.756e+04 / 90
p0 122.9 ± 0.0942
350
300
250
200
150
100

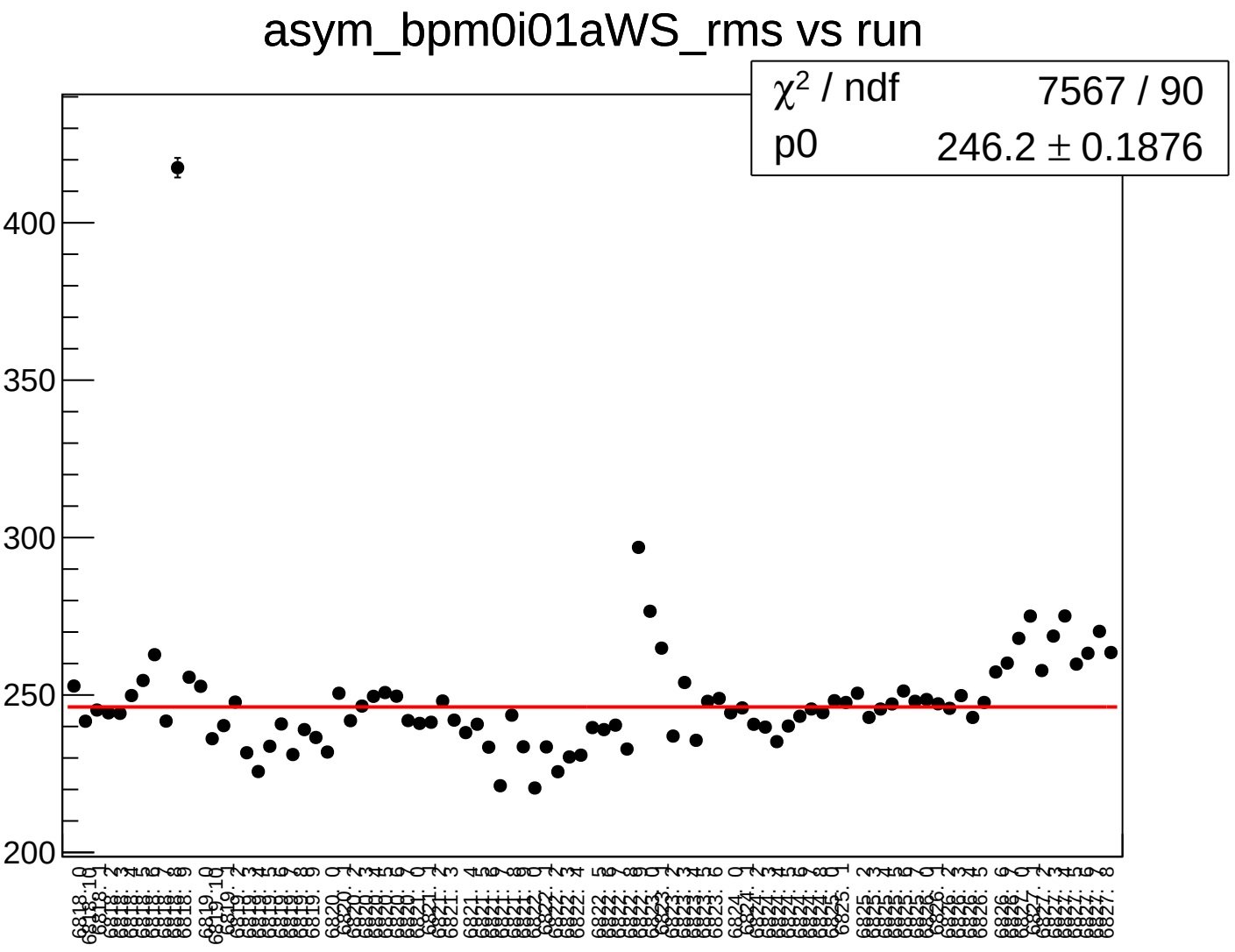

asym_bpm0i01WS_mean vs run
χ² / ndf 294.3 / 90
p0 2.36e+04 ± 271.4
40000
35000
30000
25000
20000
15000
10000
pull
Entries 91
Mean −7374
Std Dev 7428
5
4
3
2
1
0
−1
−2
−3
−4

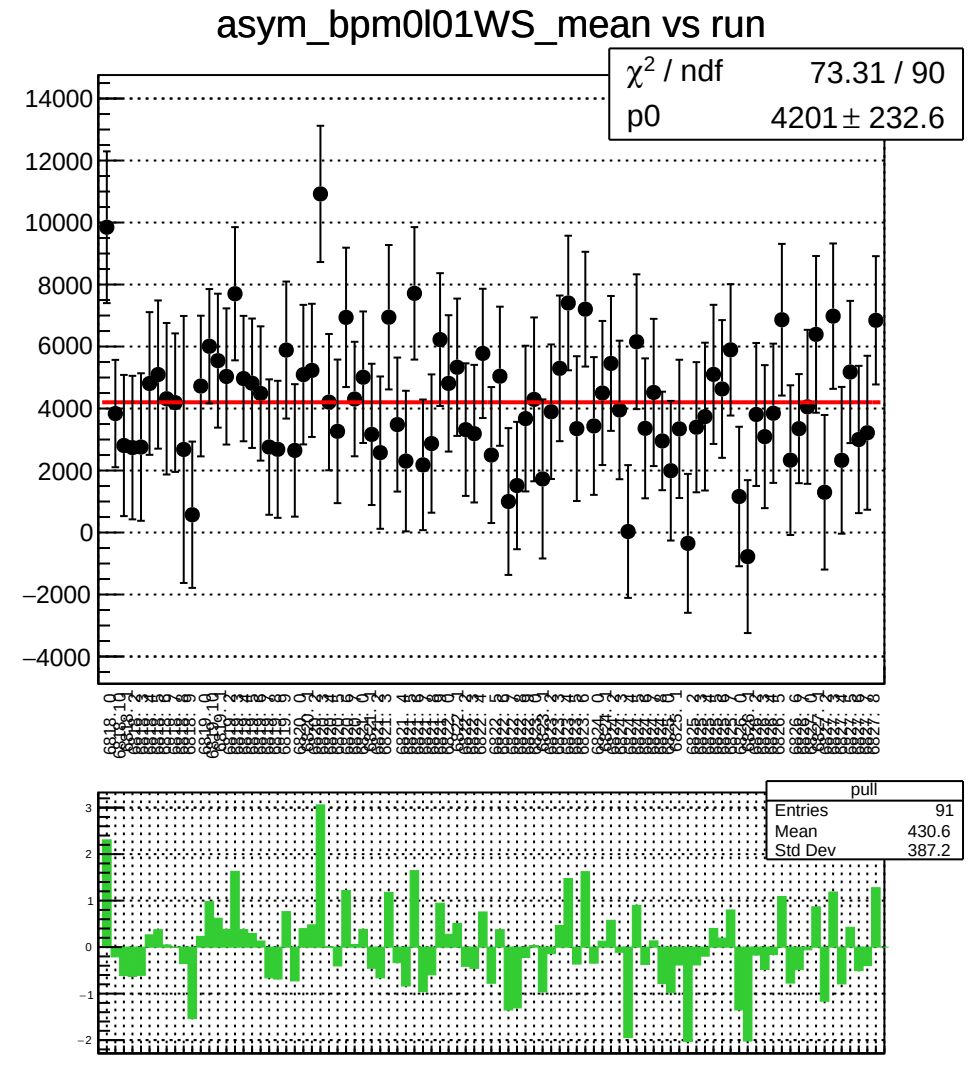

pull1D
Entries 91
Mean −0.001685
Std Dev 1.798
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

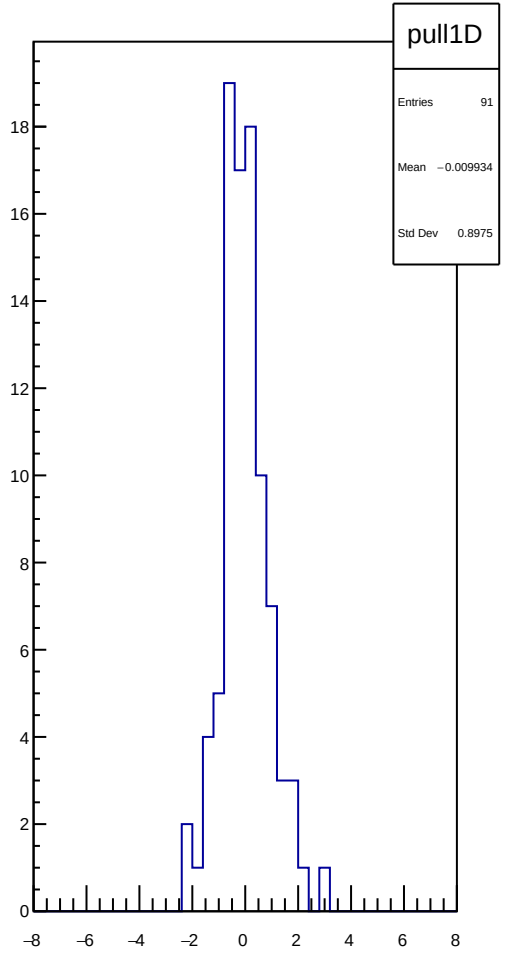

asym_bpm0i01WS_rms vs run
χ^2 / ndf 6706 / 90
p0 251.9 ± 0.1919
420
400
380
360
340
320
300
280
260
240
220

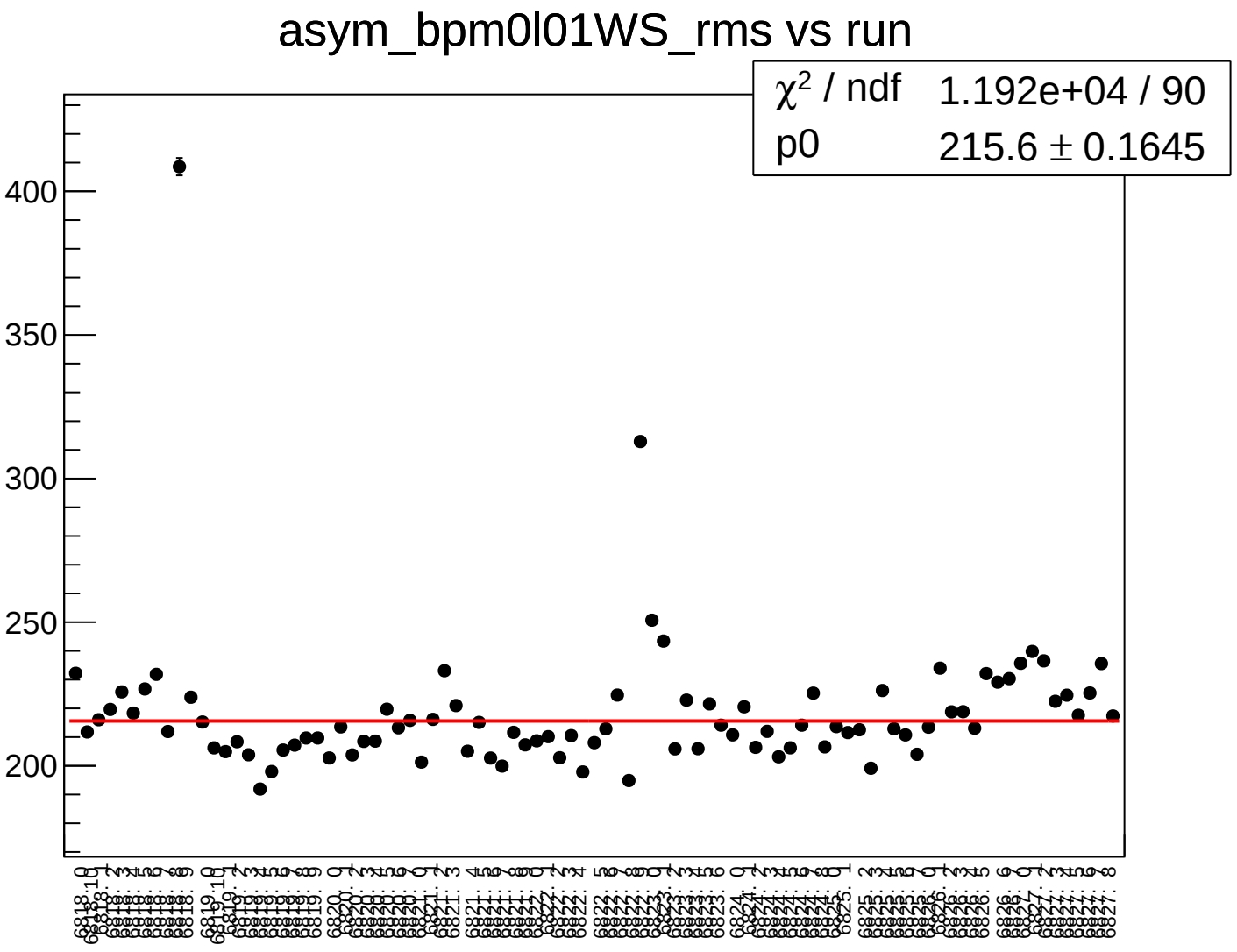

asym_bpm0i01aWS_mean vs run
χ² / ndf 312.4 / 90
p0 2.487e+04 ± 265.3
40000
35000
30000
25000
20000
15000
10000
pull
Entries 91
Mean 8458
Std Dev 8406
5
4
3
2
1
0
−1
−2
−3

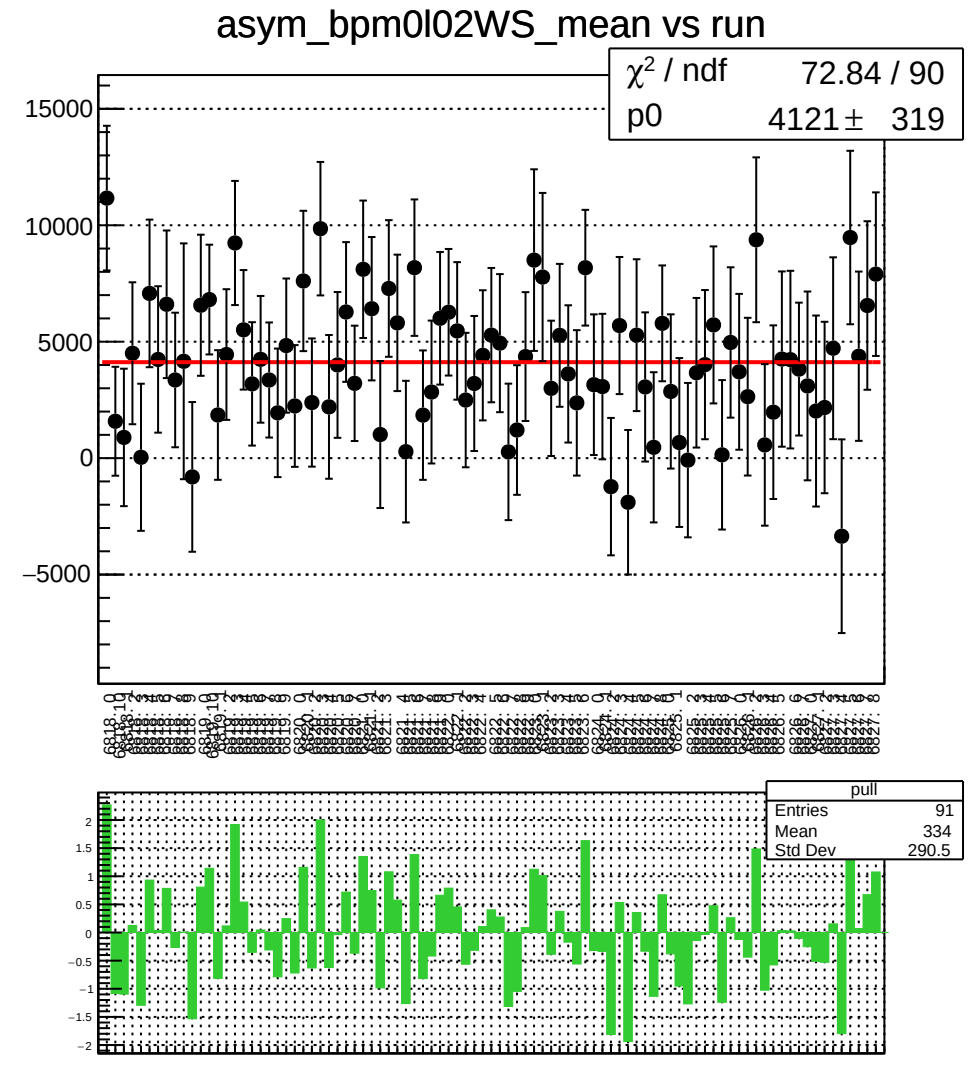

pull1D
Entries 91
Mean 0.001686
Std Dev 1.853
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

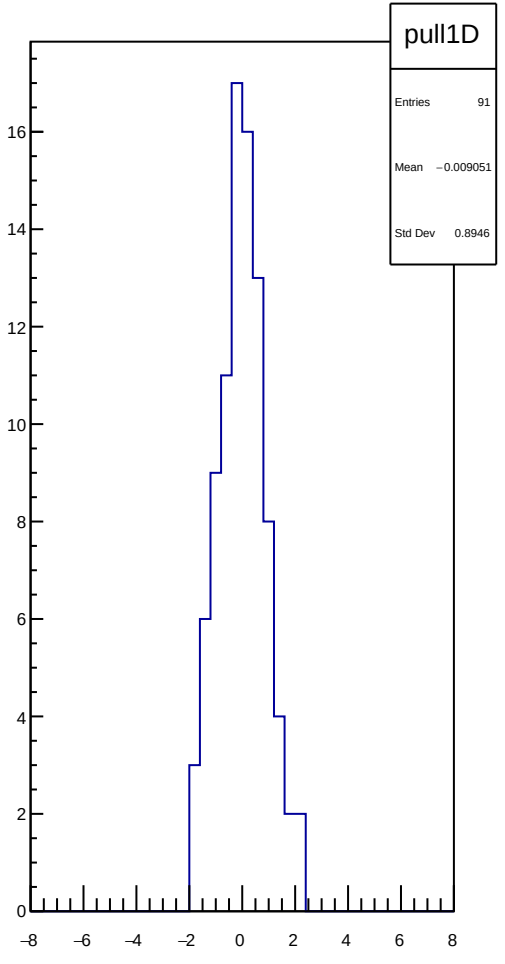

asym_bpm0i01aWS_rms vs run
χ² / ndf 7567 / 90
p0 246.2 ± 0.1876
400
350
300
250
200

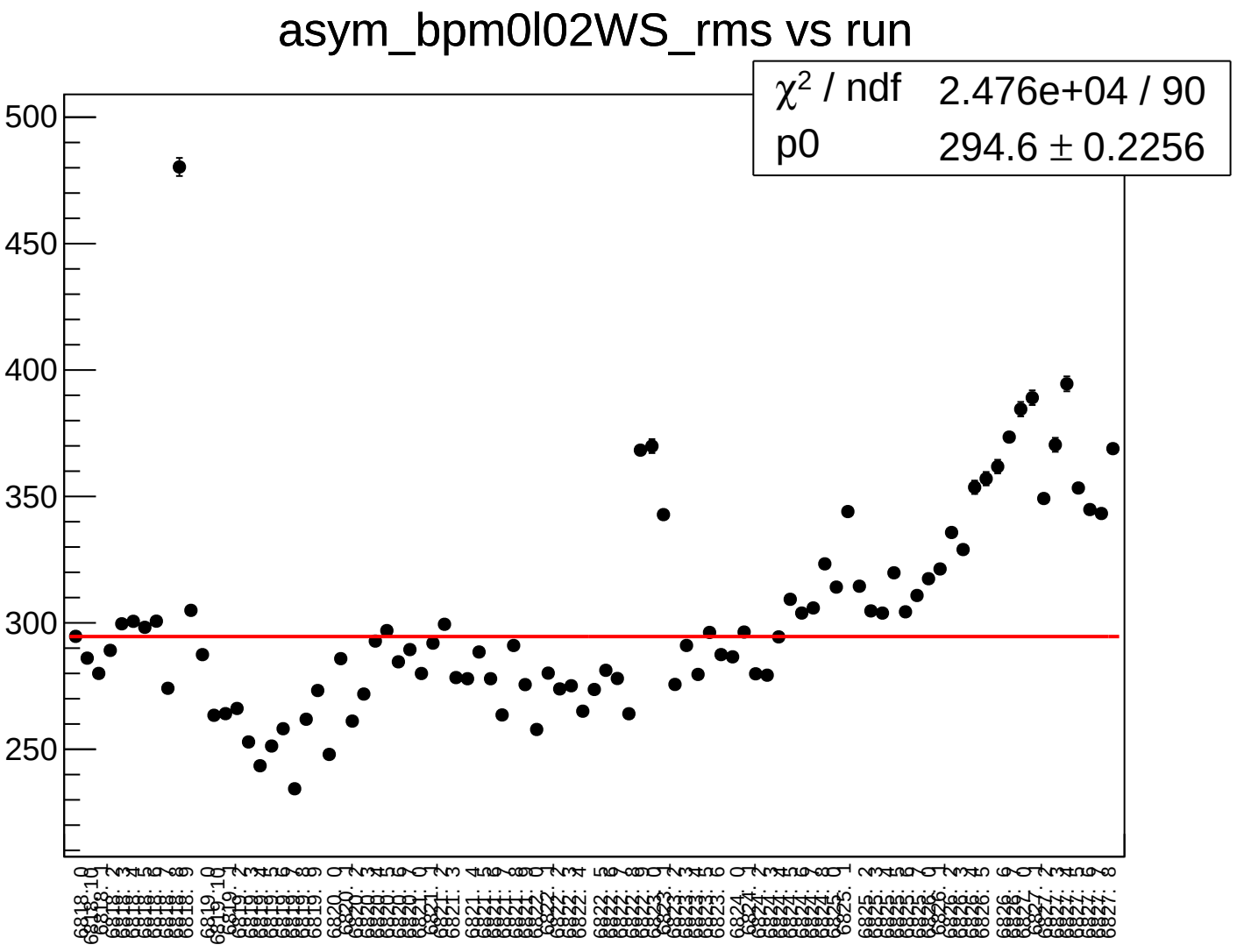

asym_bpm0l01WS_mean vs run
χ² / ndf 73.31 / 90
p0 4201 ± 232.6
pull
Entries 91
Mean 430.6
Std Dev 387.2

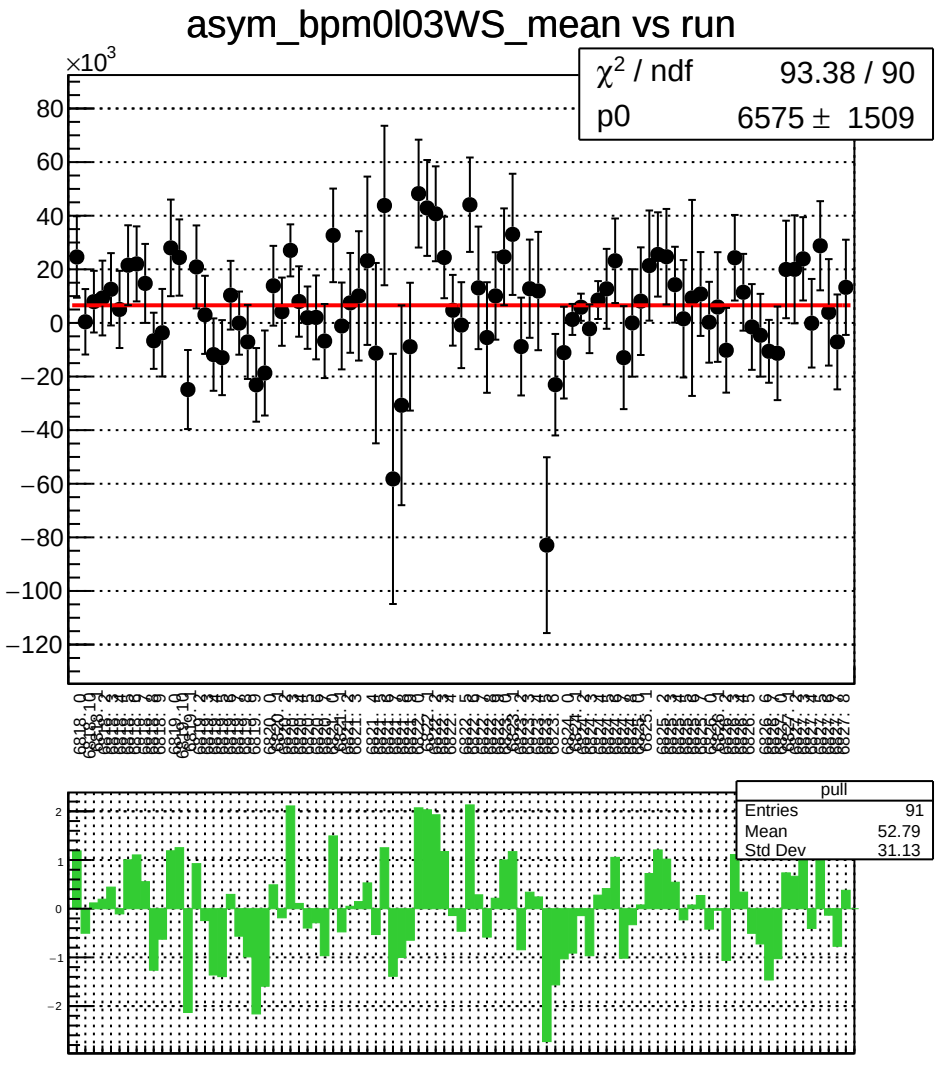

pull1D
Entries 91
Mean −0.009934
Std Dev 0.8975

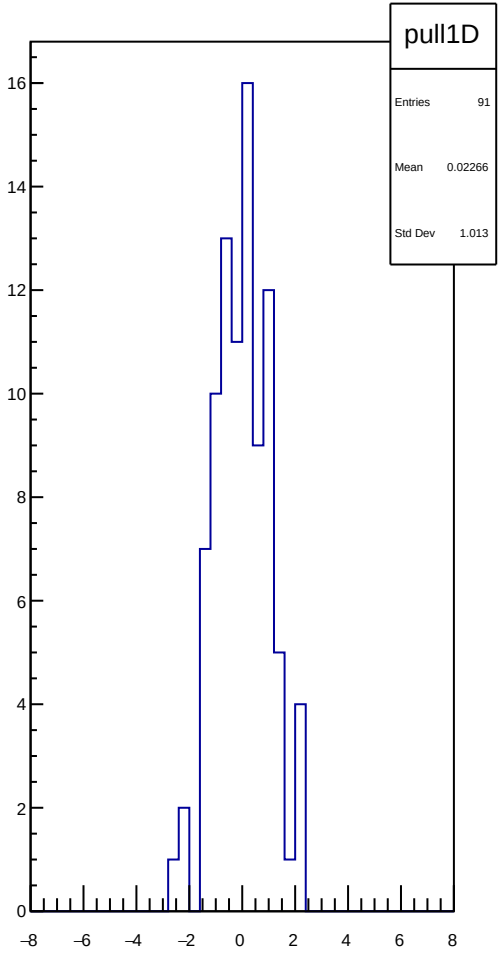

asym_bpm0l01WS_rms vs run
χ² / ndf 1.192e+04 / 90
p0 215.6 ± 0.1645
400
350
300
250
200

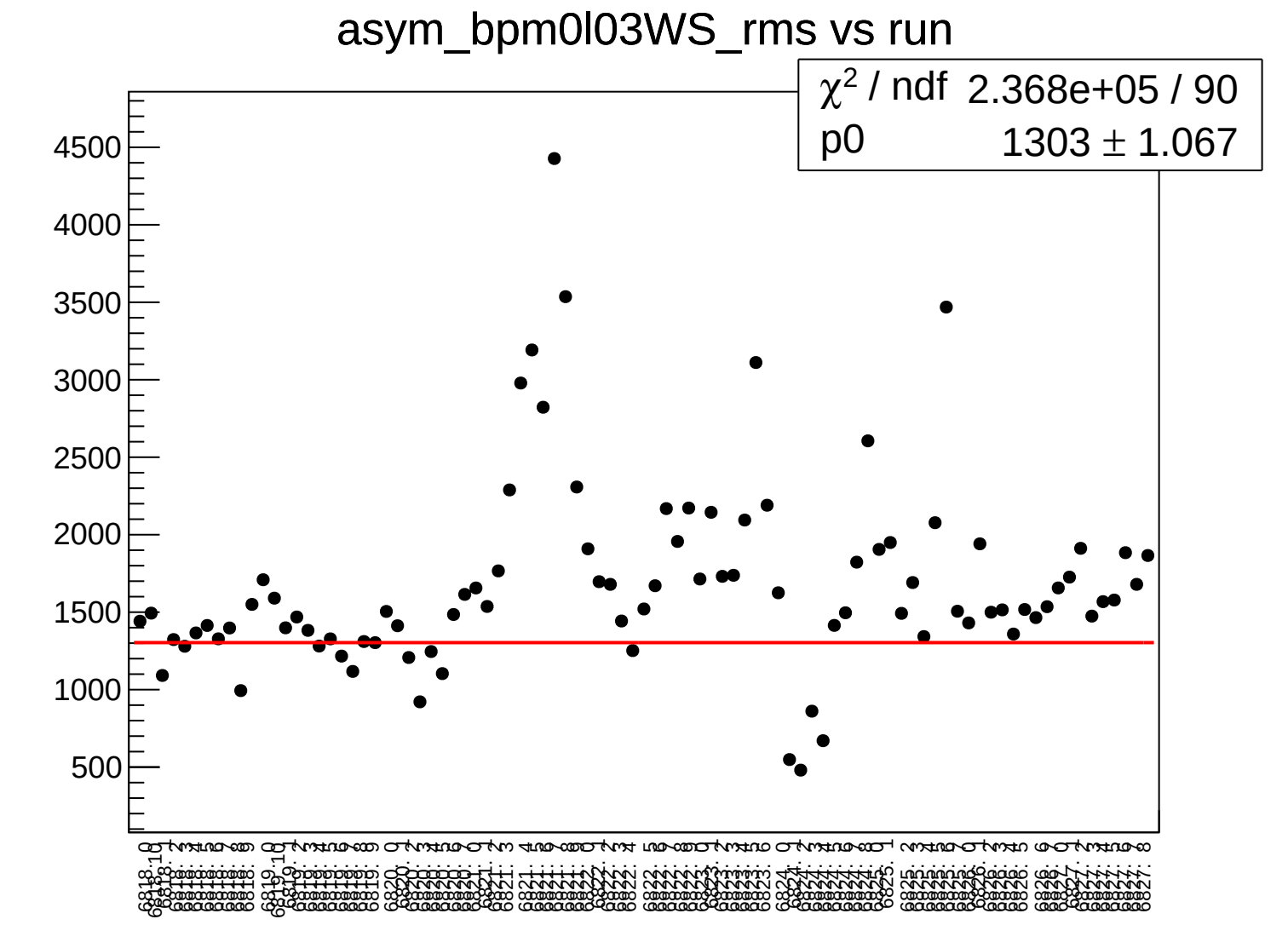

asym_bpm0l02WS_mean vs run
χ² / ndf 72.84 / 90
p0 4121 ± 319
15000
10000
5000
0
−5000
pull
Entries 91
Mean 334
Std Dev 290.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

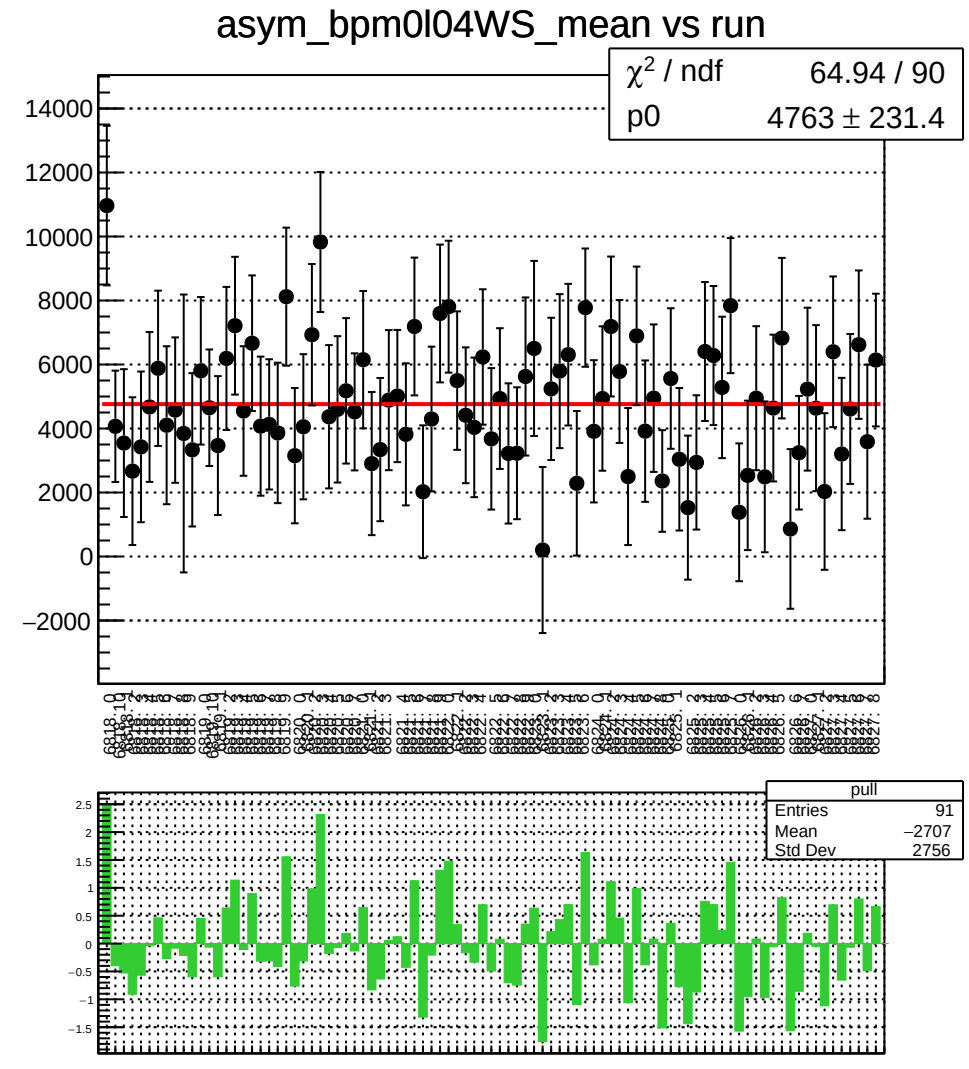

pull1D
Entries 91
Mean −0.009051
Std Dev 0.8946
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

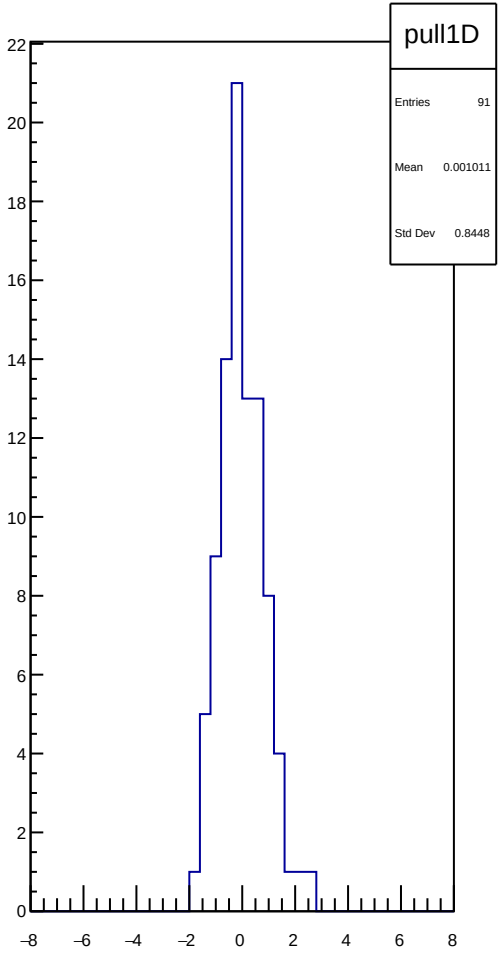

asym_bpm0l02WS_rms vs run
χ² / ndf 2.476e+04 / 90
p0 294.6 ± 0.2256
500
450
400
350
300
250

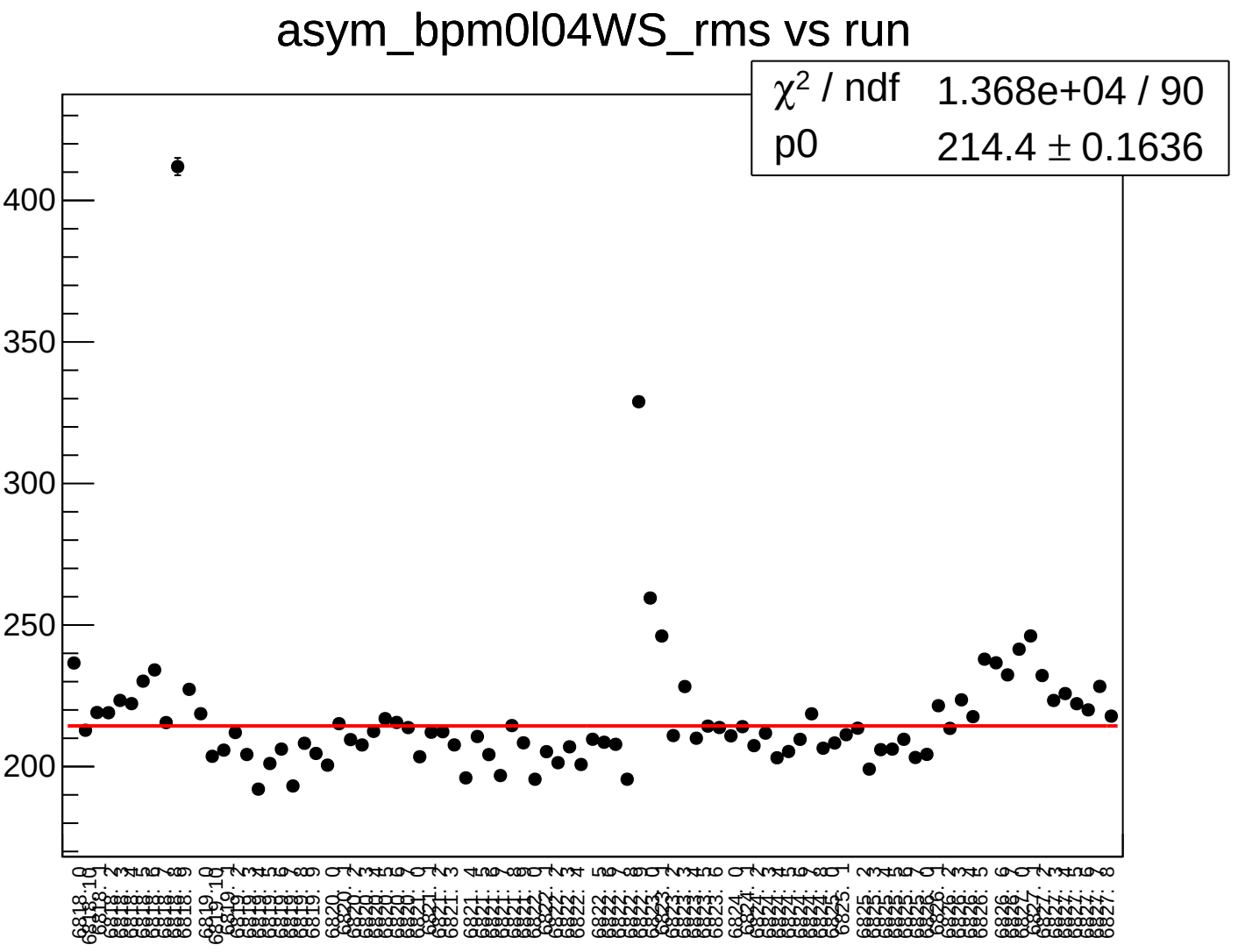

asym_bpm0l03WS_mean vs run
×10^3
χ^2 / ndf 93.38 / 90
p0 6575 ± 1509
pull
Entries 91
Mean 52.79
Std Dev 31.13

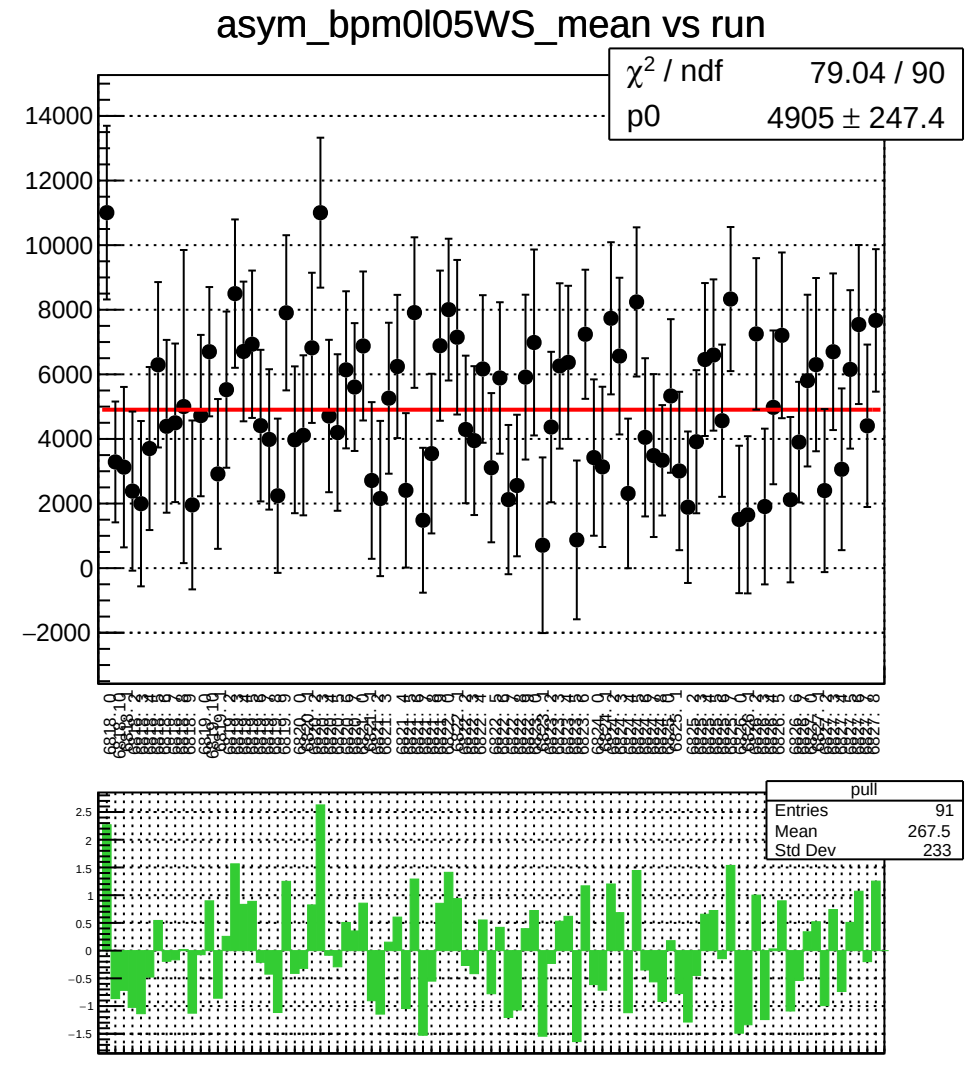

pull1D
Entries 91
Mean 0.02266
Std Dev 1.013

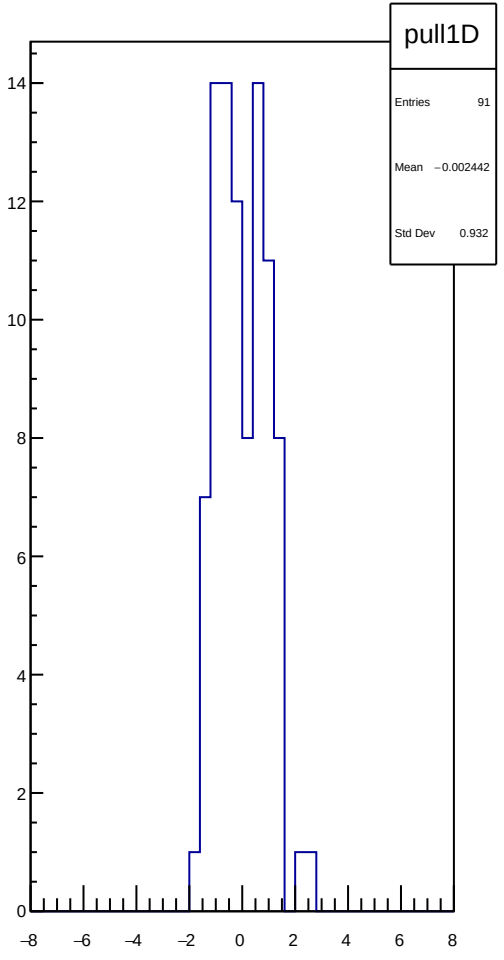

asym_bpm0l03WS_rms vs run
χ^2 / ndf 2.368e+05 / 90
p0 1303 ± 1.067
4500
4000
3500
3000
2500
2000
1500
1000
500

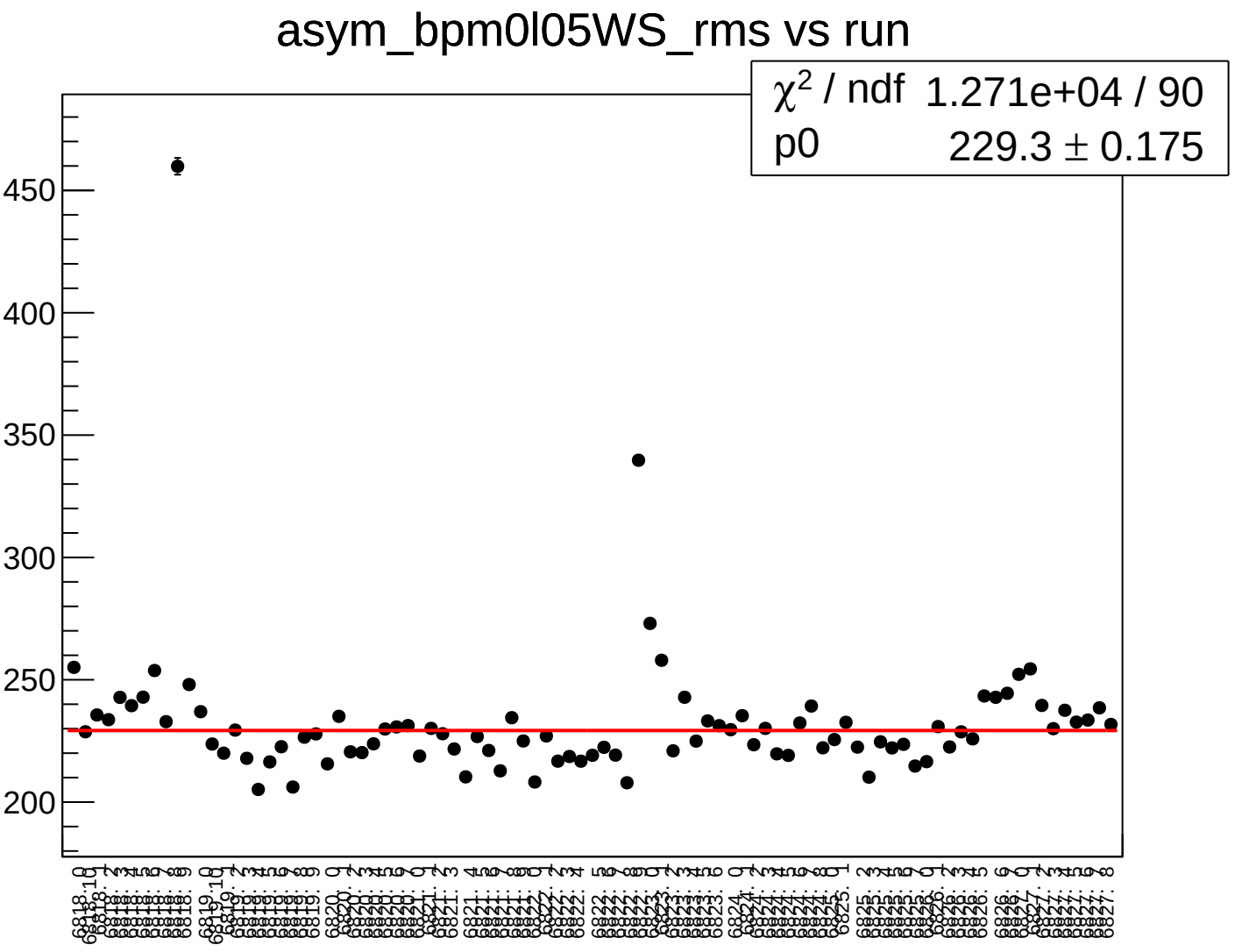

asym_bpm0l04WS_mean vs run
χ² / ndf 64.94 / 90
p0 4763 ± 231.4
pull
Entries 91
Mean −2707
Std Dev 2756

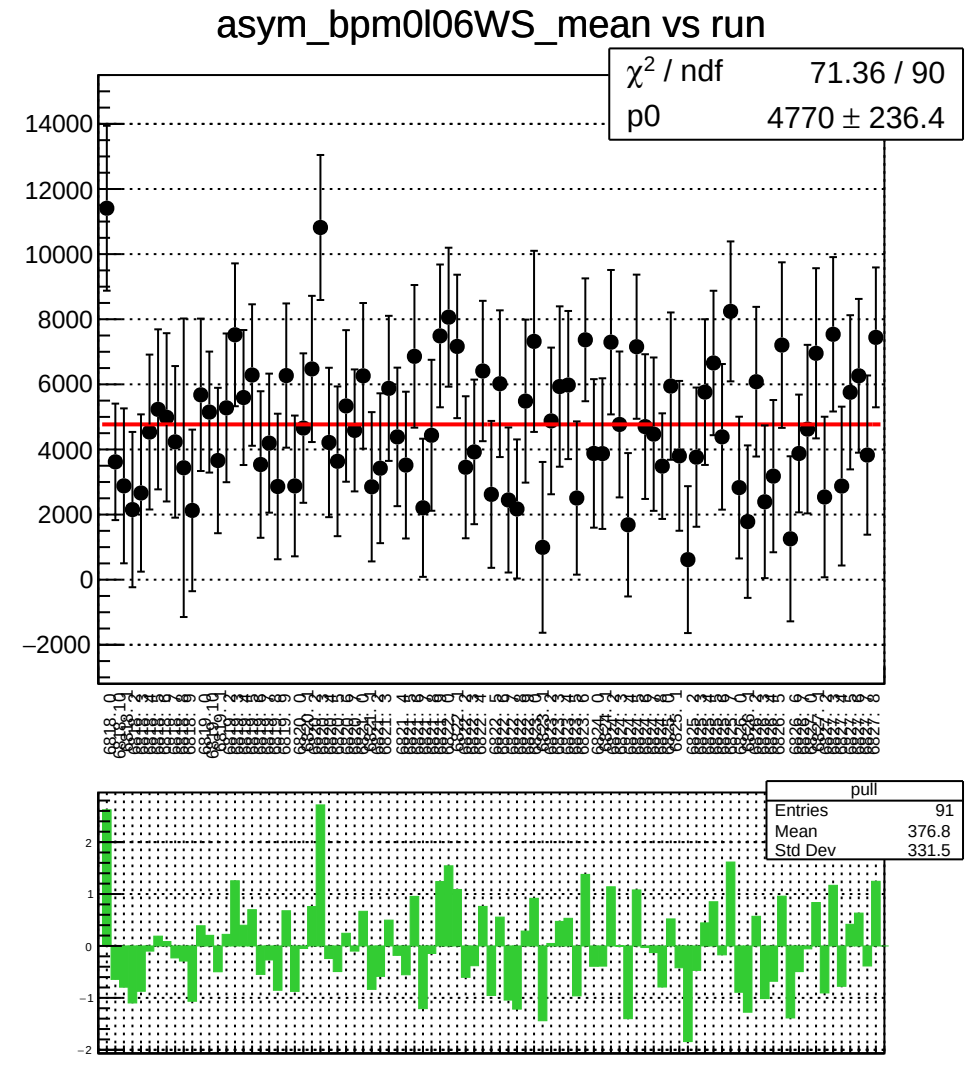

pull1D
Entries 91
Mean 0.001011
Std Dev 0.8448

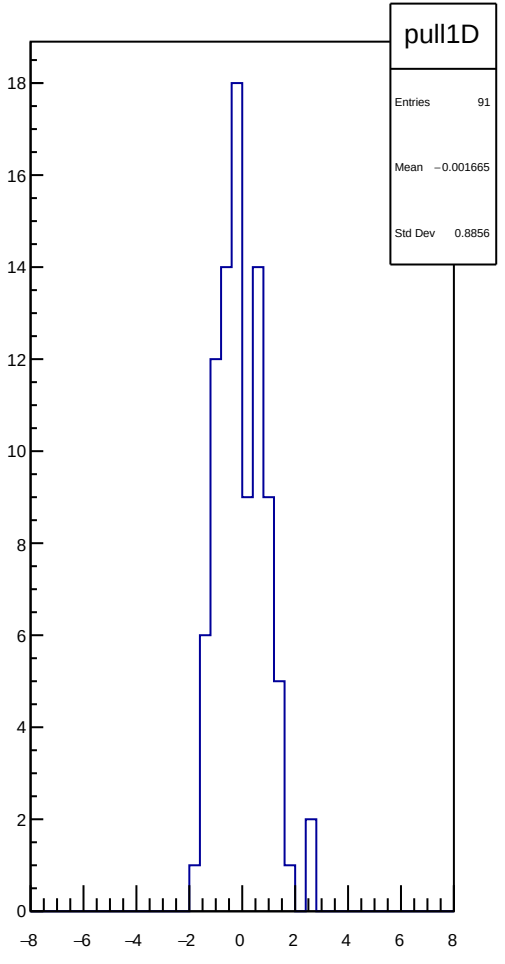

asym_bpm0l04WS_rms vs run
χ² / ndf 1.368e+04 / 90
p0 214.4 ± 0.1636
400
350
300
250
200

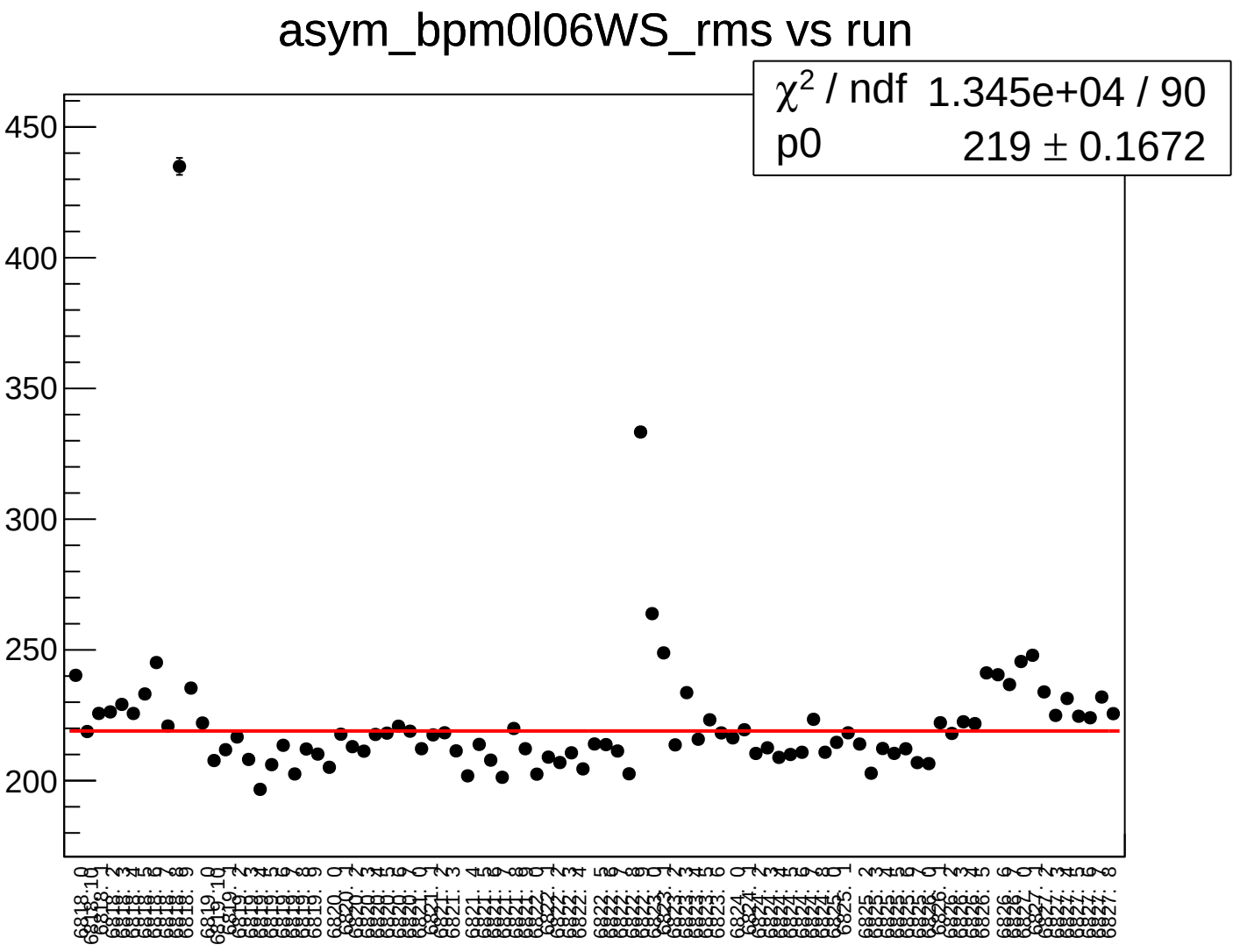

asym_bpm0l05WS_mean vs run
χ² / ndf 79.04 / 90
p0 4905 ± 247.4
pull
Entries 91
Mean 267.5
Std Dev 233

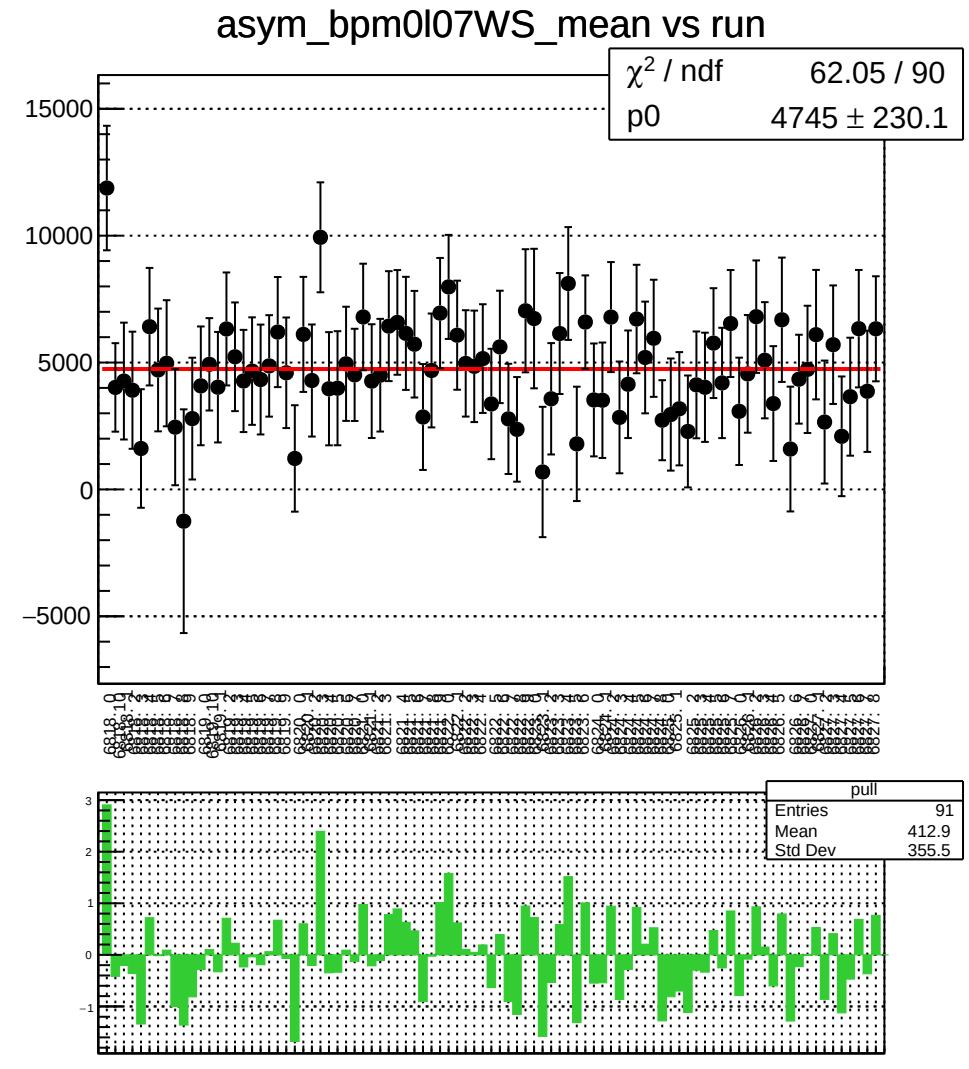

pull1D
Entries 91
Mean −0.002442
Std Dev 0.932

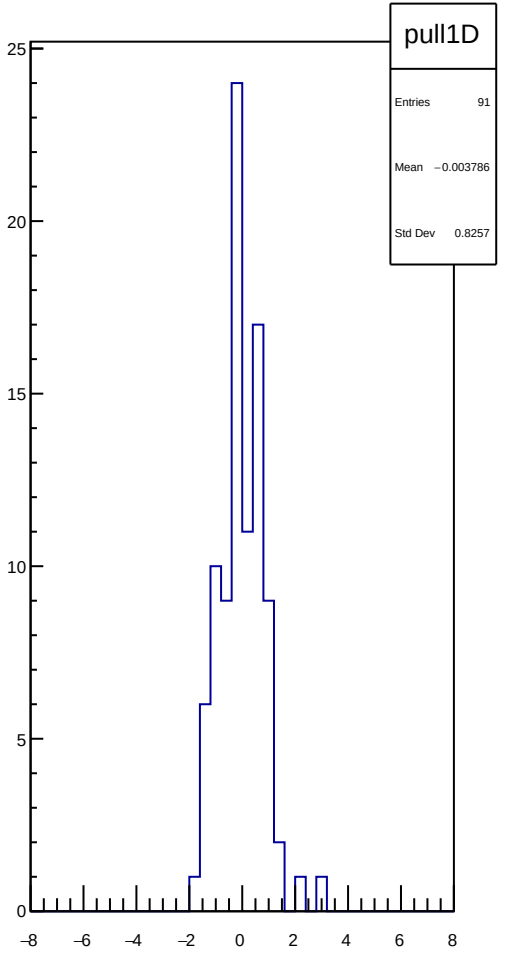

asym_bpm0l05WS_rms vs run
χ^2 / ndf 1.271e+04 / 90
p0 229.3 ± 0.175
450
400
350
300
250
200

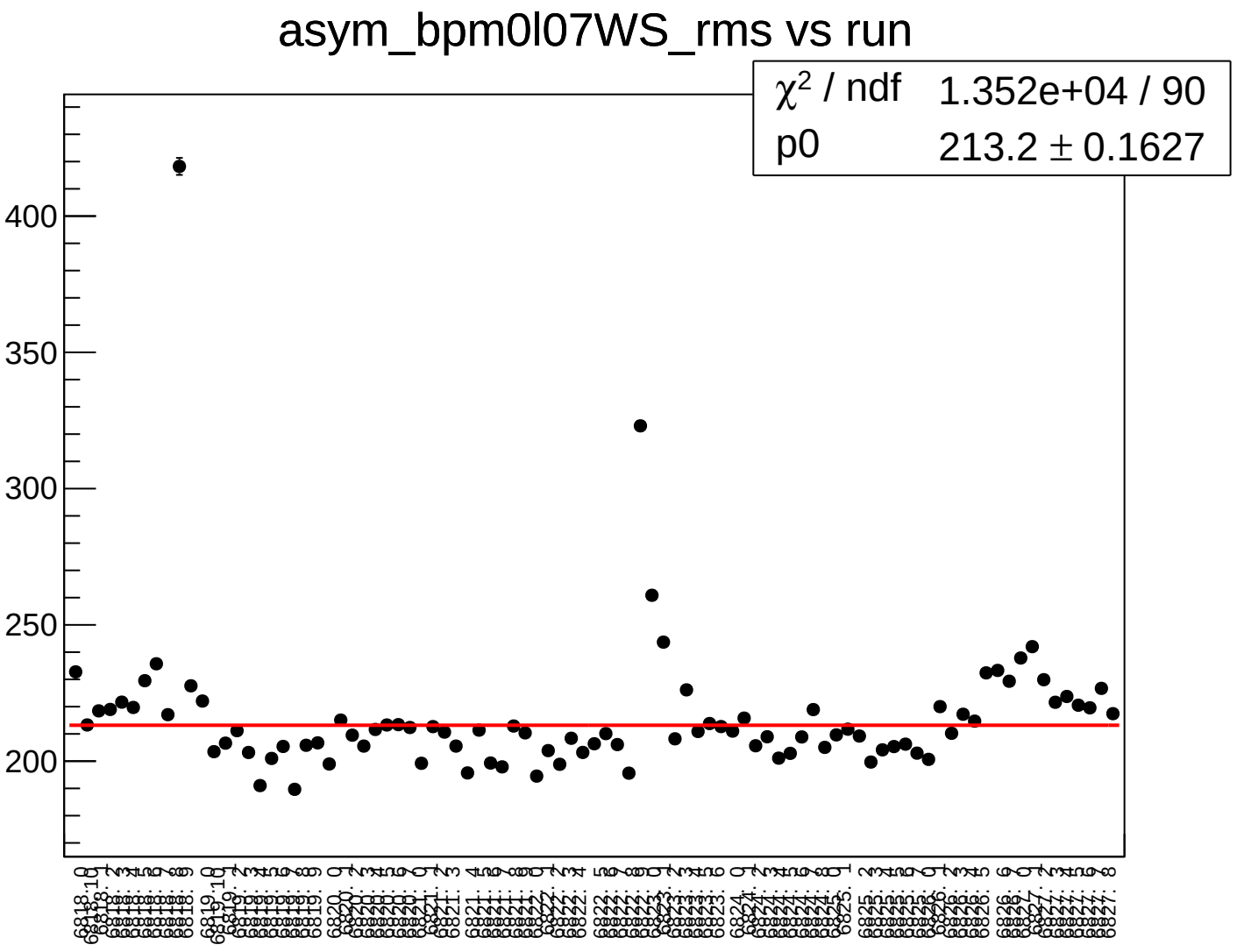

asym_bpm0l06WS_mean vs run
χ² / ndf 71.36 / 90
p0 4770 ± 236.4
pull
Entries 91
Mean 376.8
Std Dev 331.5

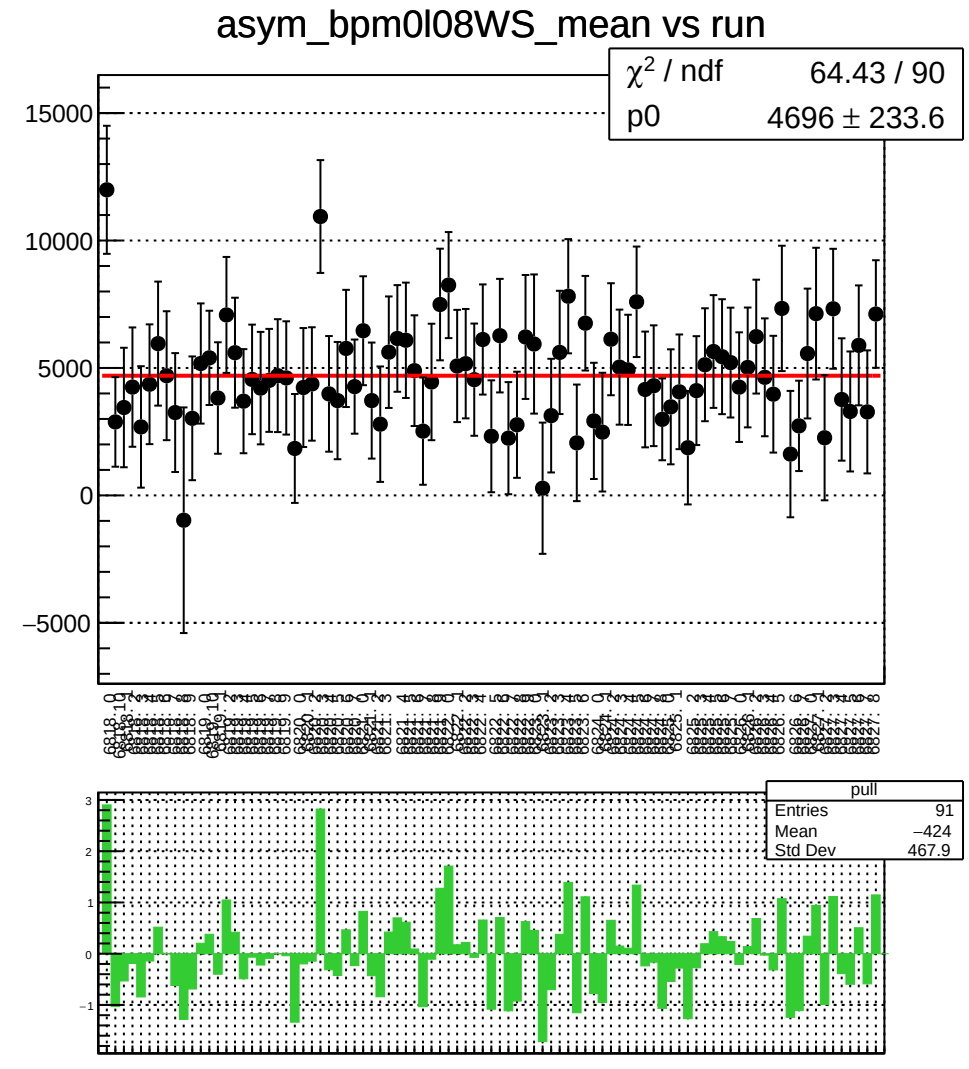

pull1D
Entries 91
Mean −0.001665
Std Dev 0.8856

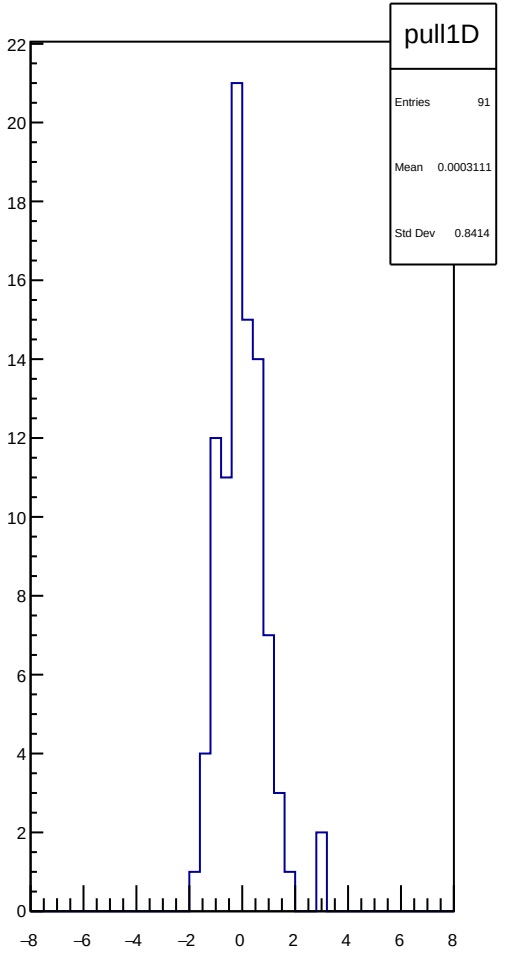

asym_bpm0l06WS_rms vs run
χ^2 / ndf 1.345e+04 / 90
p0 219 ± 0.1672
450
400
350
300
250
200

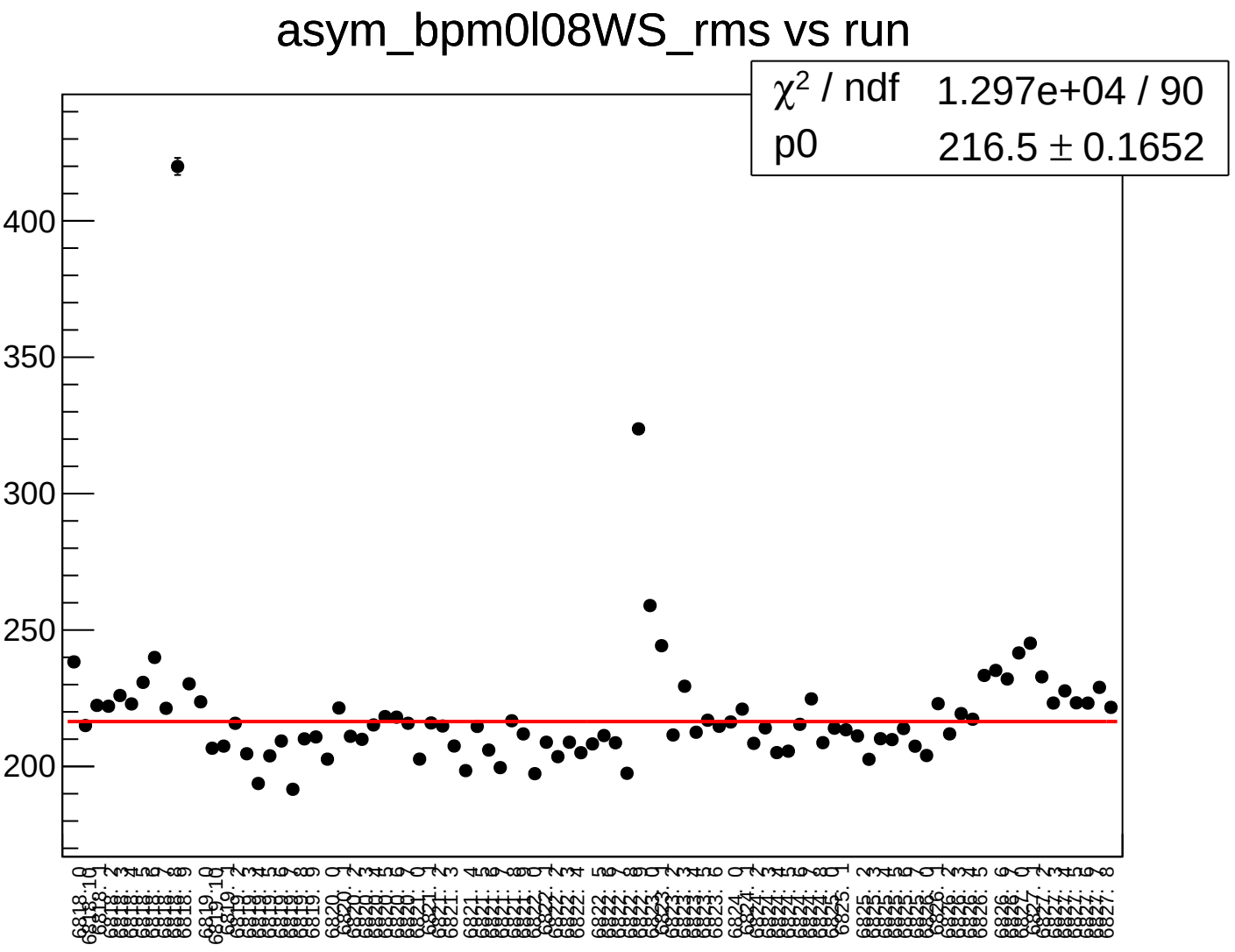

asym_bpm0l07WS_mean vs run
χ² / ndf 62.05 / 90
p0 4745 ± 230.1
15000
10000
5000
0
−5000
pull
Entries 91
Mean 412.9
Std Dev 355.5
3
2
1
0
−1

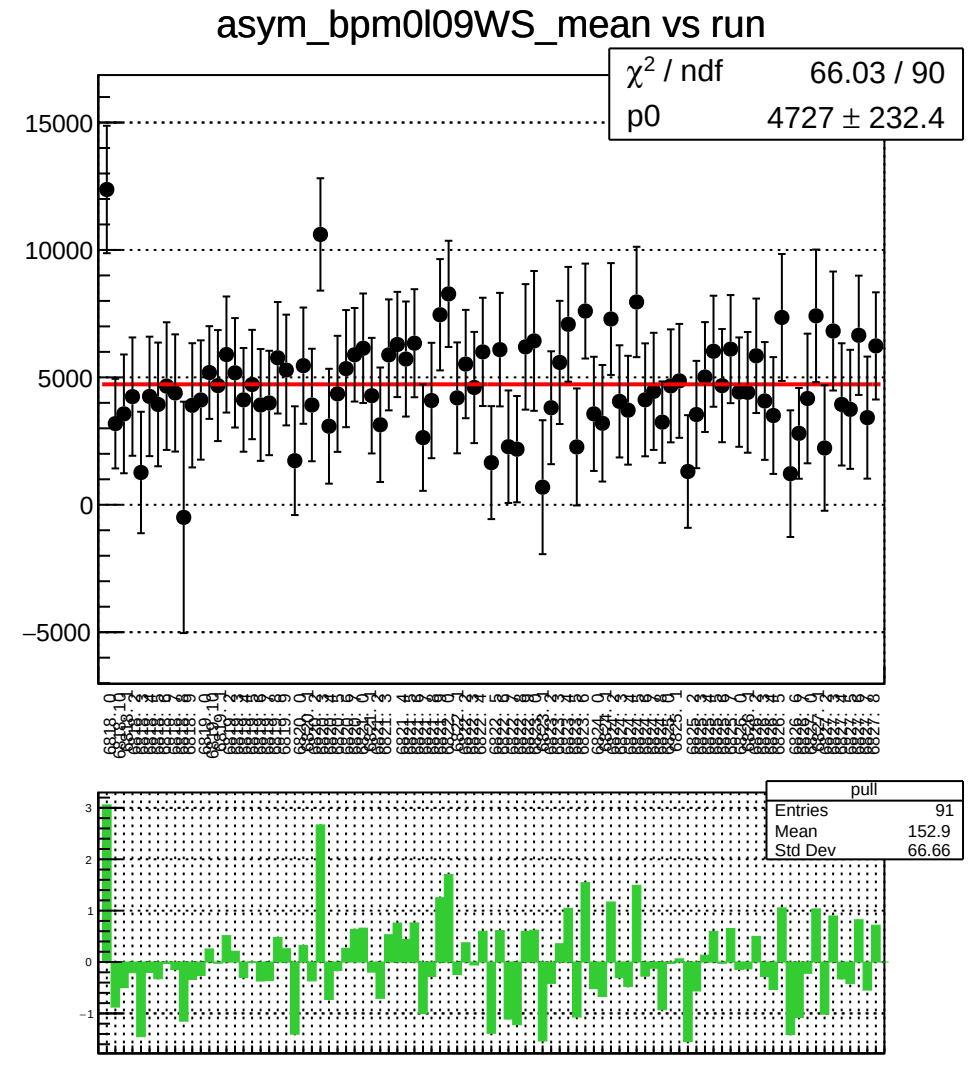

pull1D
Entries 91
Mean −0.003786
Std Dev 0.8257
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

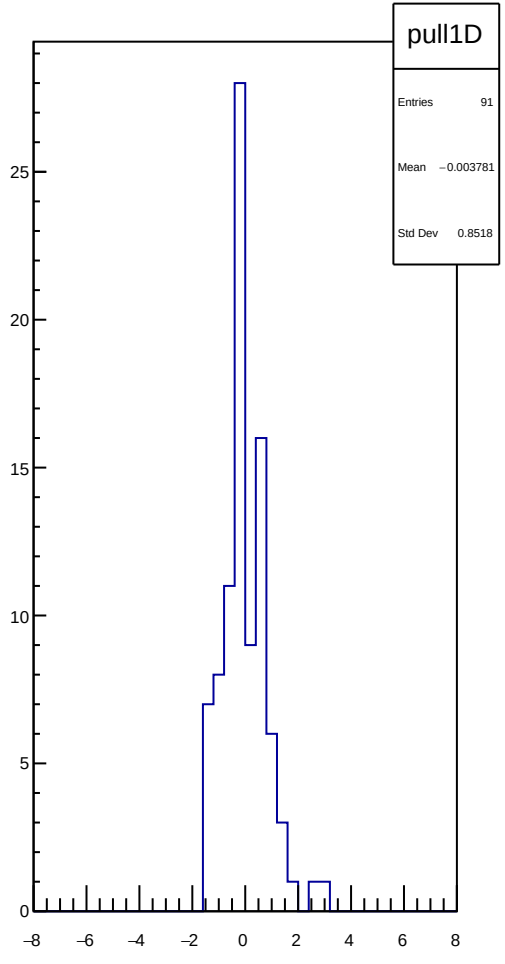

asym_bpm0l07WS_rms vs run
χ² / ndf 1.352e+04 / 90
p0 213.2 ± 0.1627
400
350
300
250
200

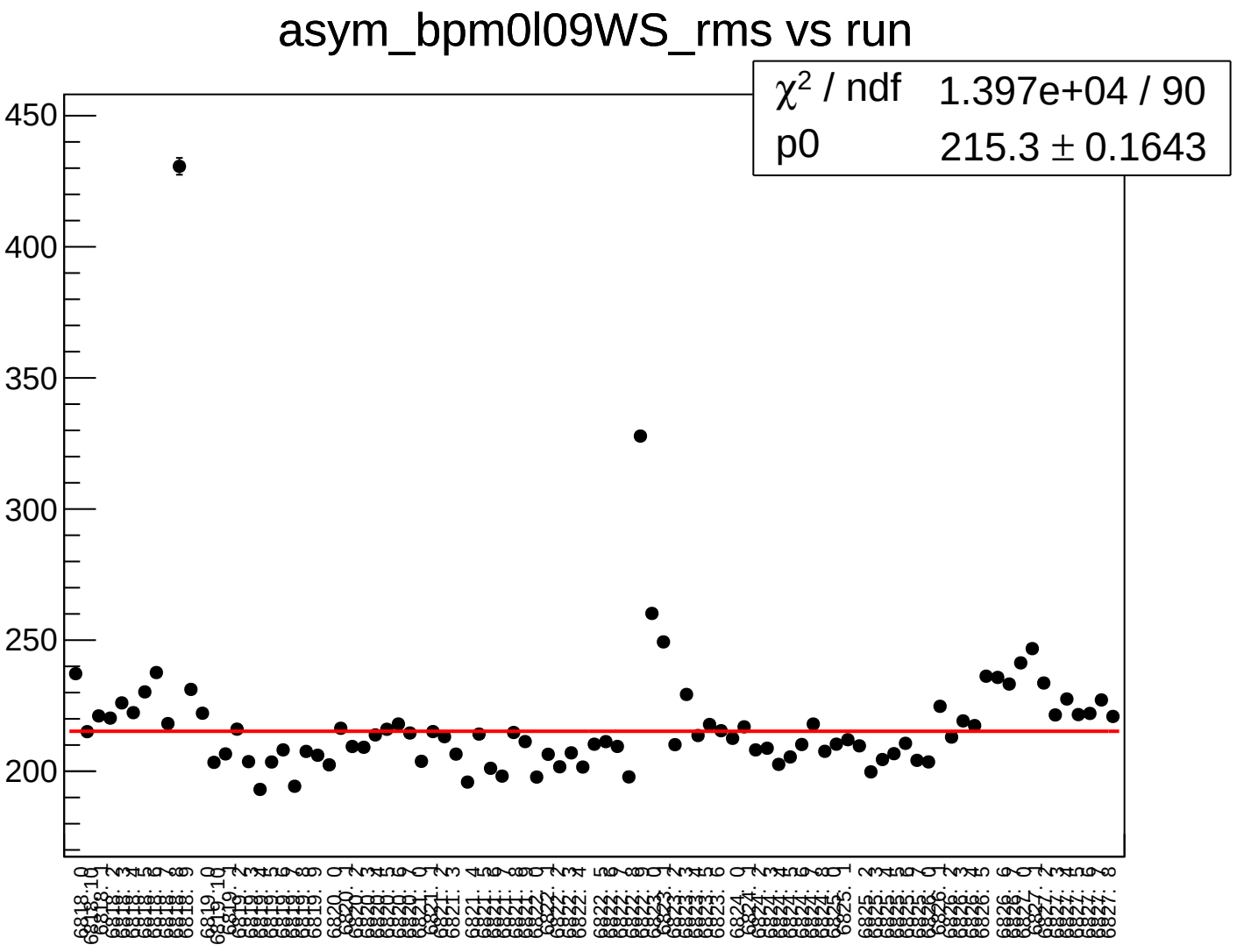

asym_bpm0l08WS_mean vs run
χ² / ndf 64.43 / 90
p0 4696 ± 233.6
15000
10000
5000
0
−5000
pull
Entries 91
Mean −424
Std Dev 467.9
3
2
1
0
−1

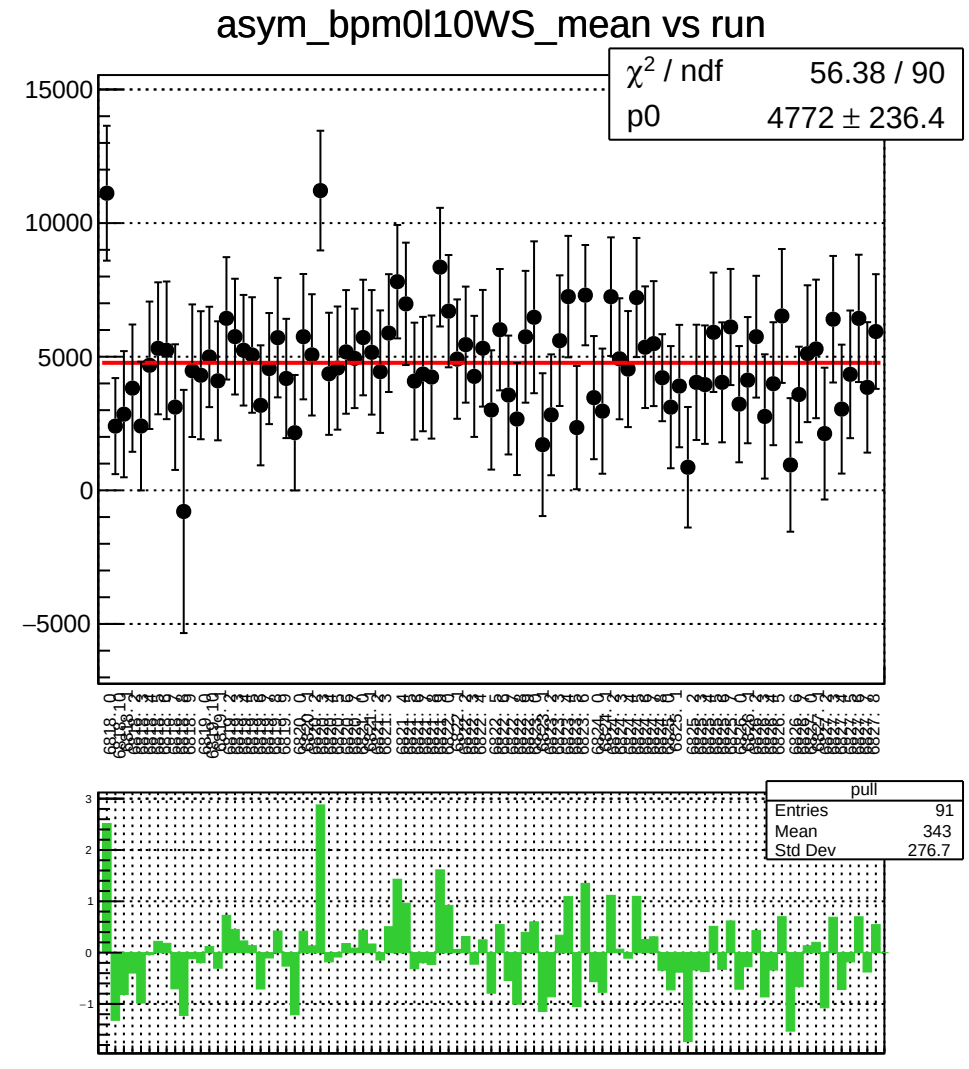

pull1D
Entries 91
Mean 0.0003111
Std Dev 0.8414
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

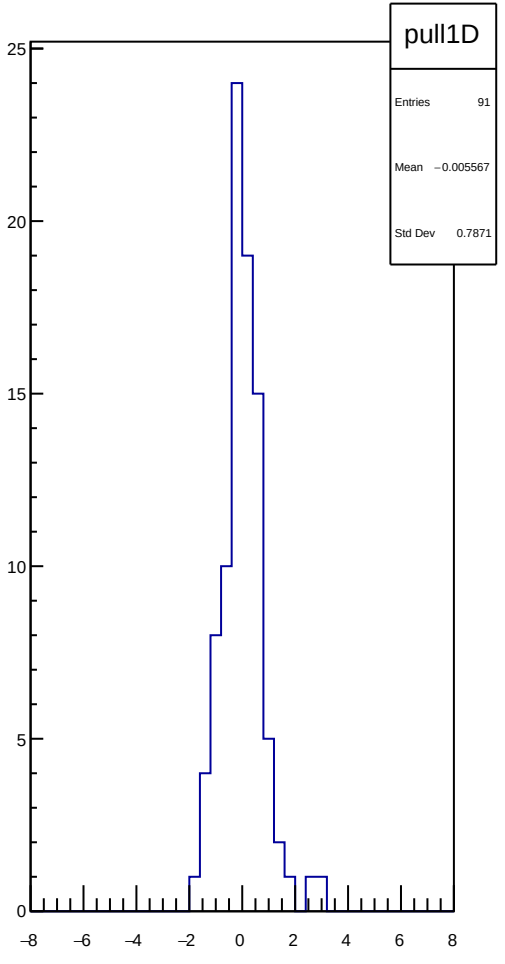

asym_bpm0l08WS_rms vs run
χ² / ndf 1.297e+04 / 90
p0 216.5 ± 0.1652
400
350
300
250
200

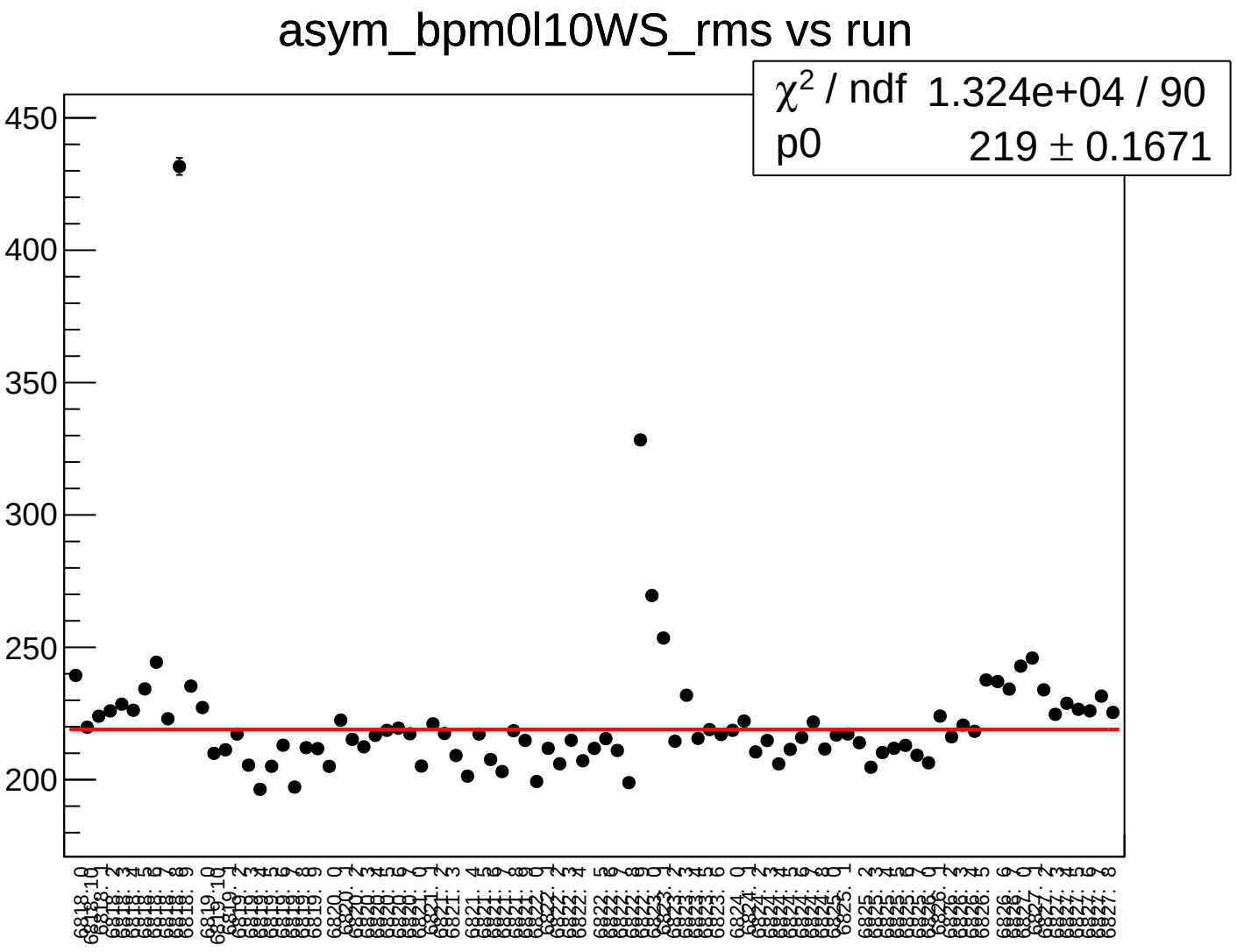

asym_bpm0l09WS_mean vs run
χ² / ndf 66.03 / 90
p0 4727 ± 232.4
15000
10000
5000
0
−5000
pull
Entries 91
Mean 152.9
Std Dev 66.66
3
2
1
0
−1

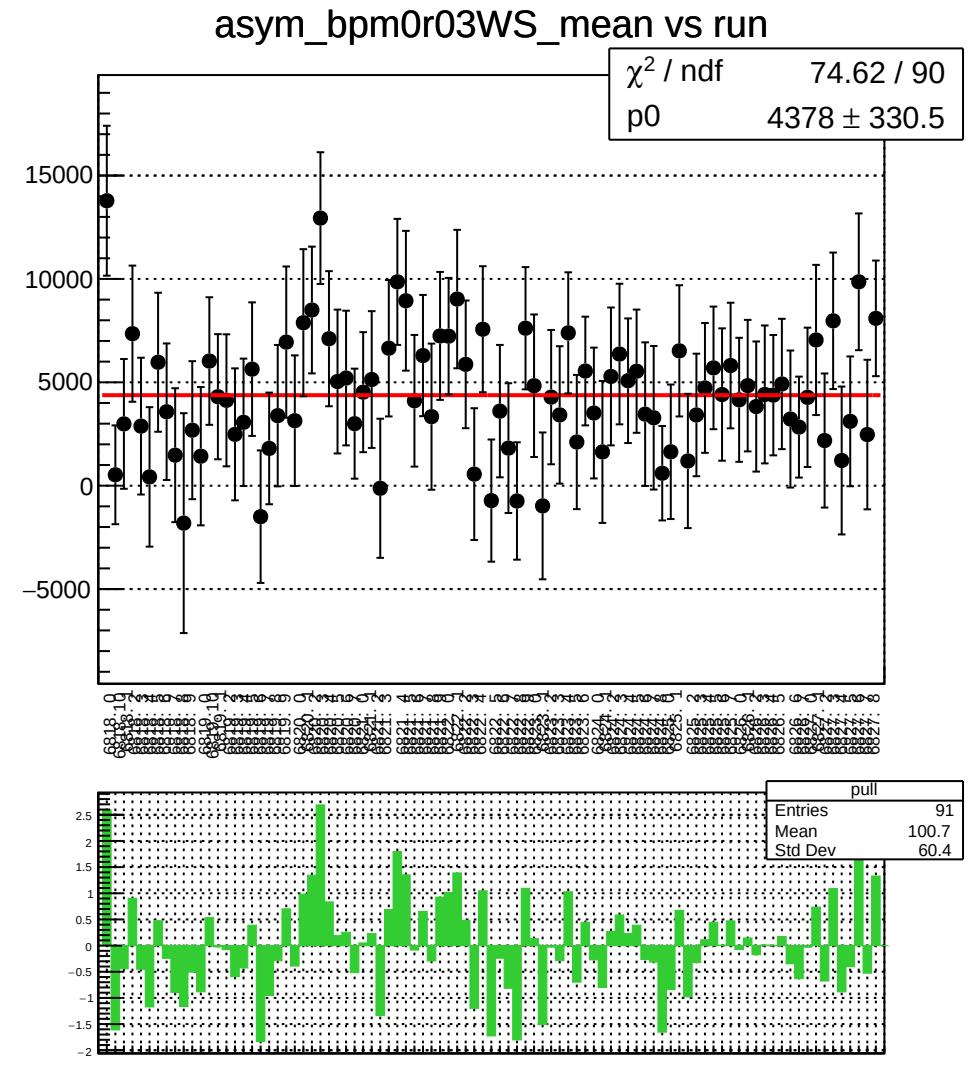

pull1D
Entries 91
Mean −0.003781
Std Dev 0.8518
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

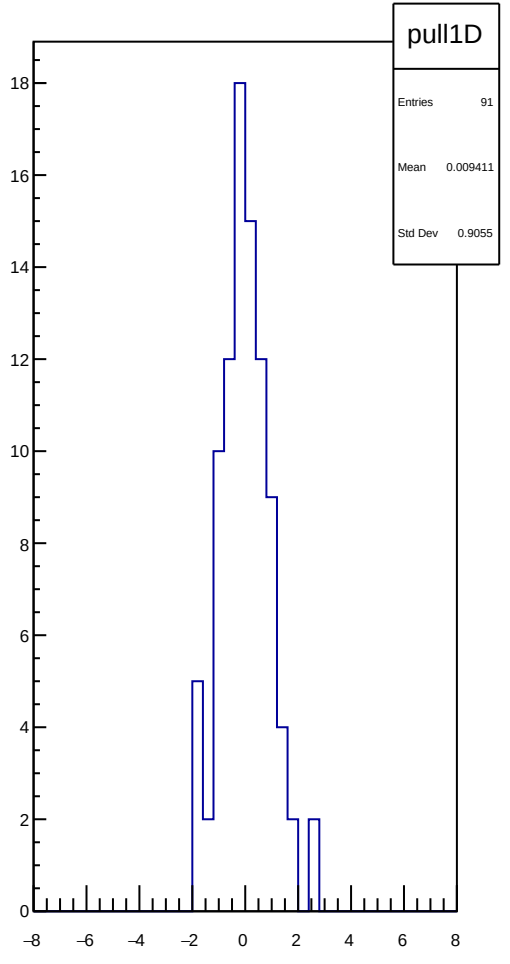

asym_bpm0l09WS_rms vs run
χ^2 / ndf 1.397e+04 / 90
p0 215.3 ± 0.1643
450
400
350
300
250
200

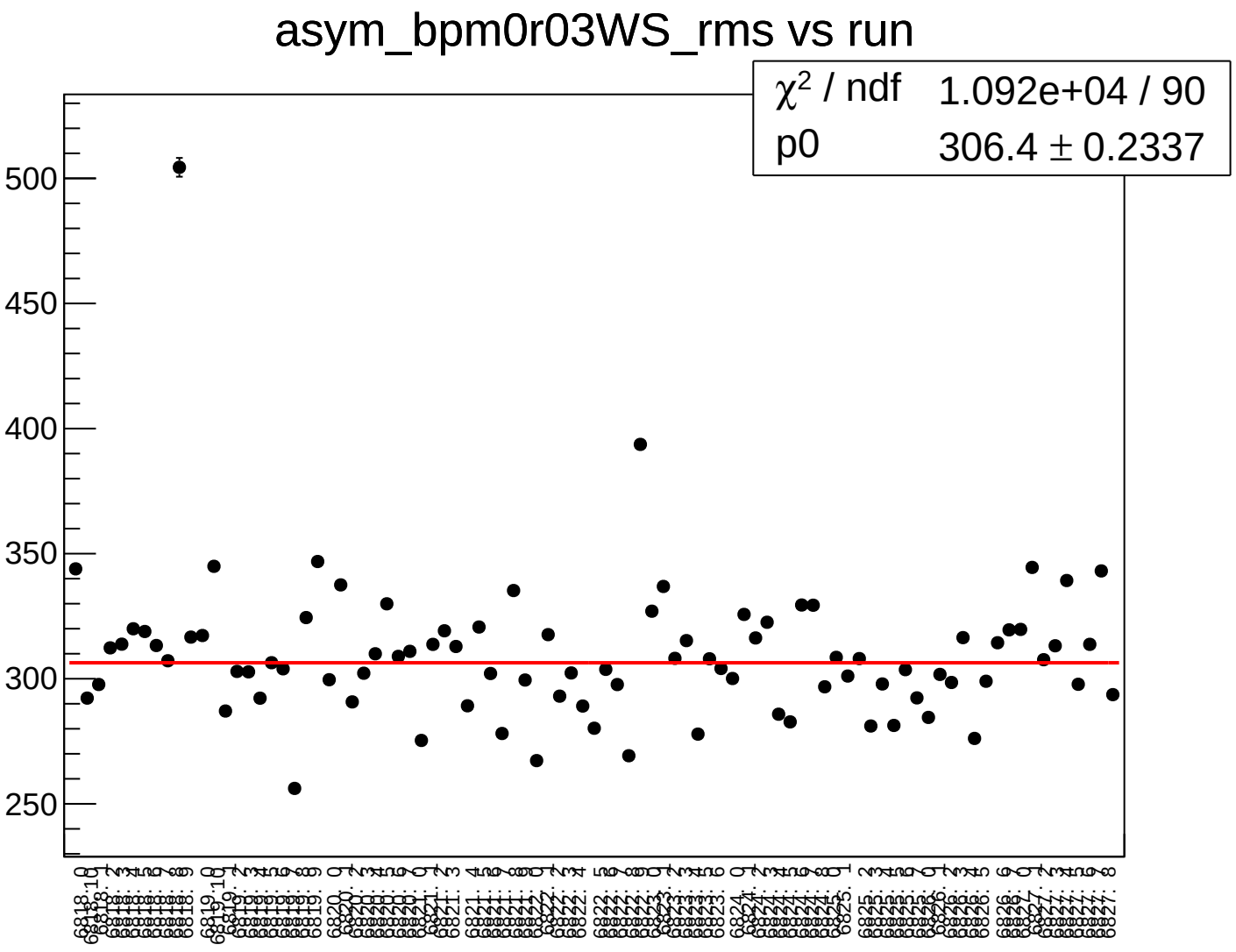

asym_bpm0l10WS_mean vs run
χ² / ndf 56.38 / 90
p0 4772 ± 236.4
15000
10000
5000
0
−5000
pull
Entries 91
Mean 343
Std Dev 276.7
3
2
1
0
−1

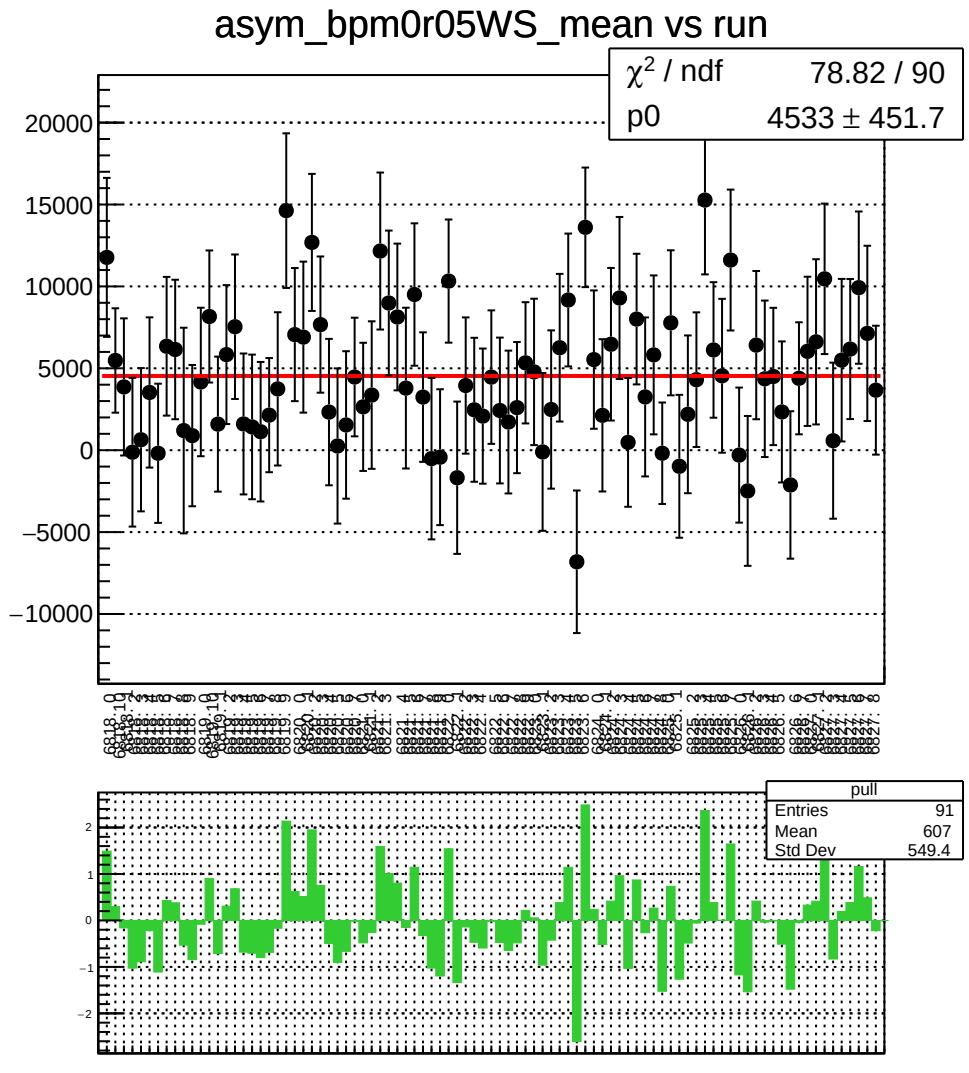

pull1D
Entries 91
Mean −0.005567
Std Dev 0.7871
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

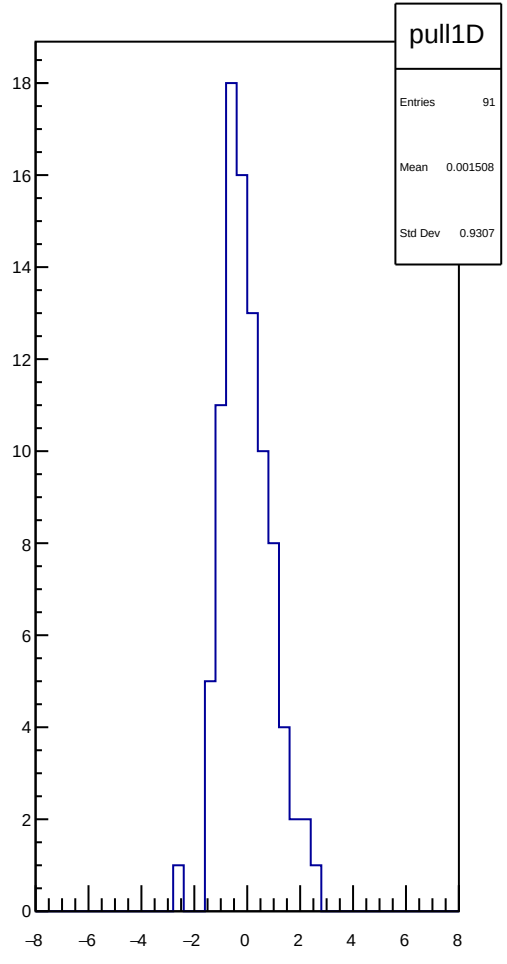

asym_bpm0l10WS_rms vs run
χ^2 / ndf 1.324e+04 / 90
p0 219 ± 0.1671
450
400
350
300
250
200

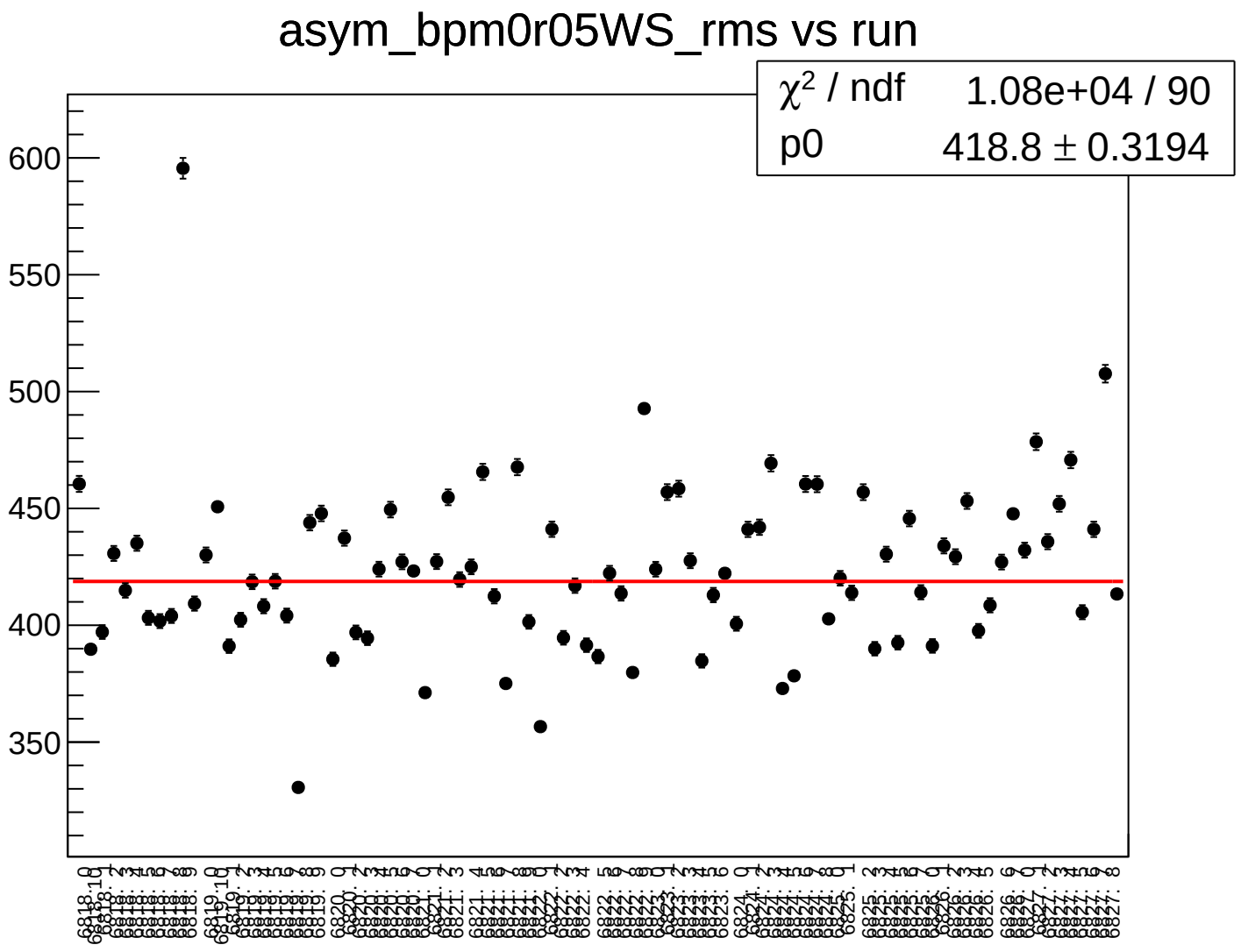

asym_bpm0r03WS_mean vs run
χ² / ndf 74.62 / 90
p0 4378 ± 330.5
15000
10000
5000
0
−5000
pull
Entries 91
Mean 100.7
Std Dev 60.4
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

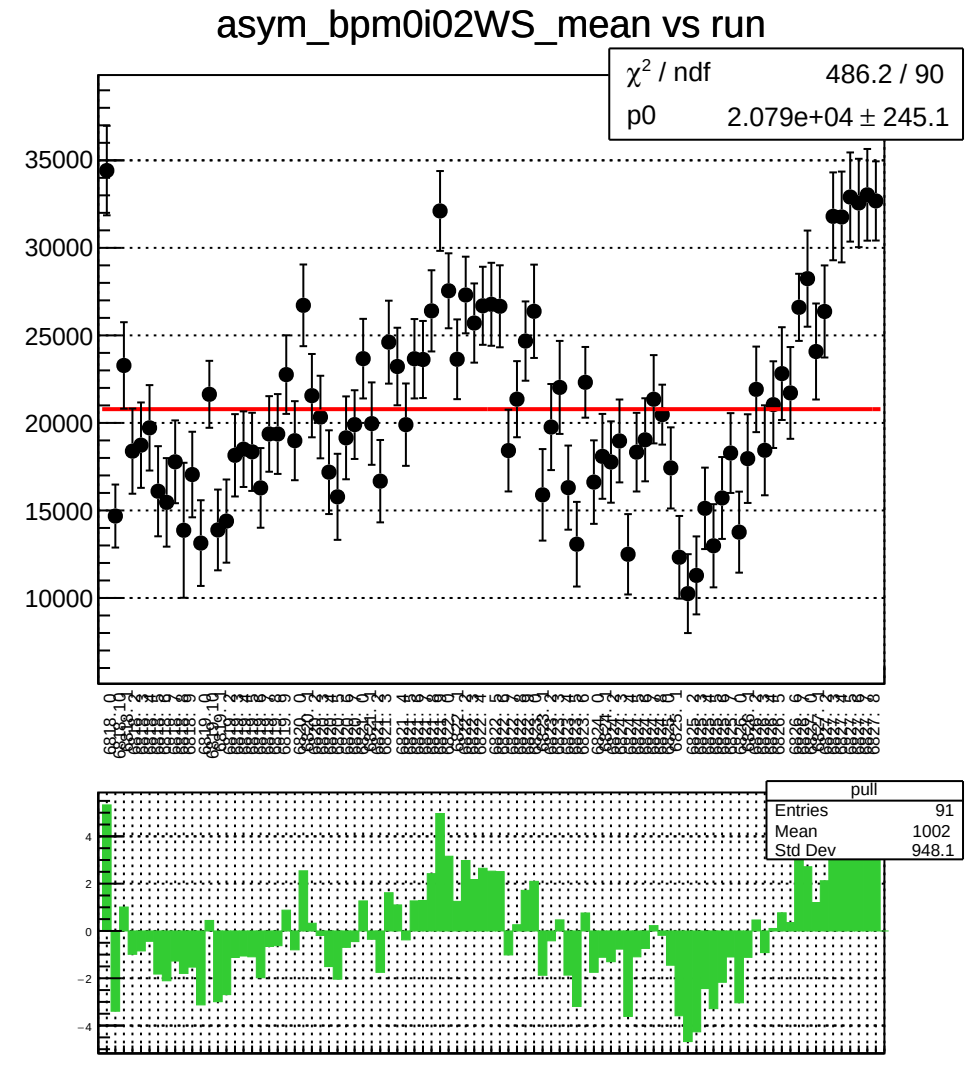

pull1D
Entries 91
Mean 0.009411
Std Dev 0.9055
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

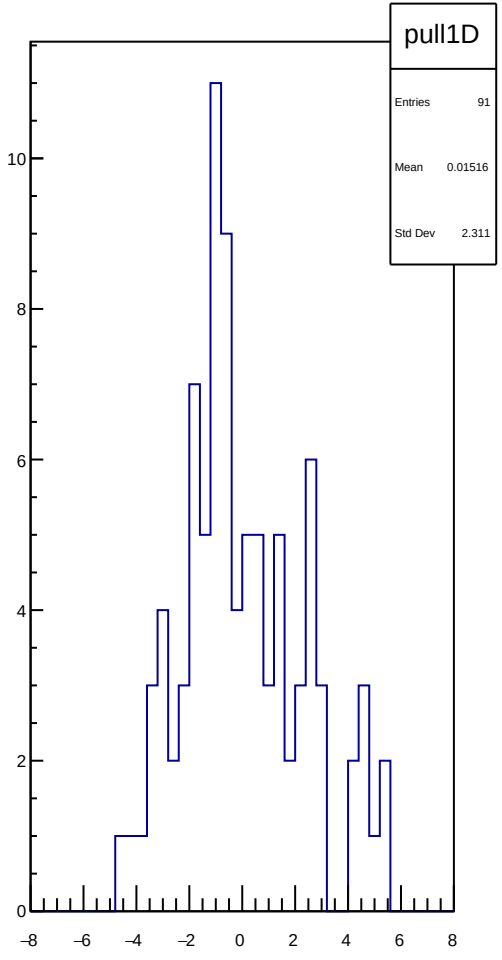

asym_bpm0r03WS_rms vs run
χ² / ndf 1.092e+04 / 90
p0 306.4 ± 0.2337
500
450
400
350
300
250

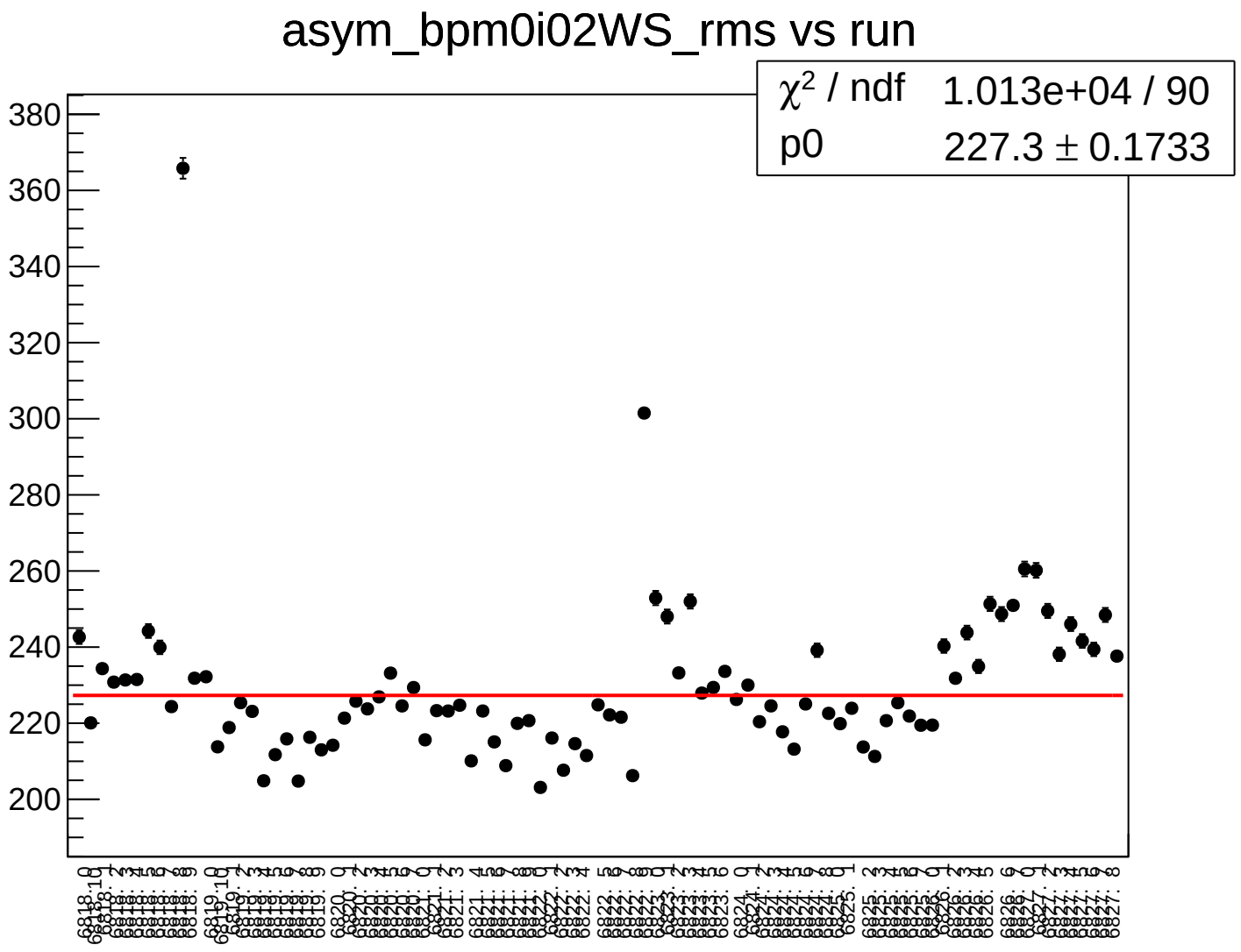

asym_bpm0r05WS_mean vs run
χ² / ndf 78.82 / 90
p0 4533 ± 451.7
20000
15000
10000
5000
0
−5000
−10000
pull
Entries 91
Mean 607
Std Dev 549.4
2
1
0
−1
−2

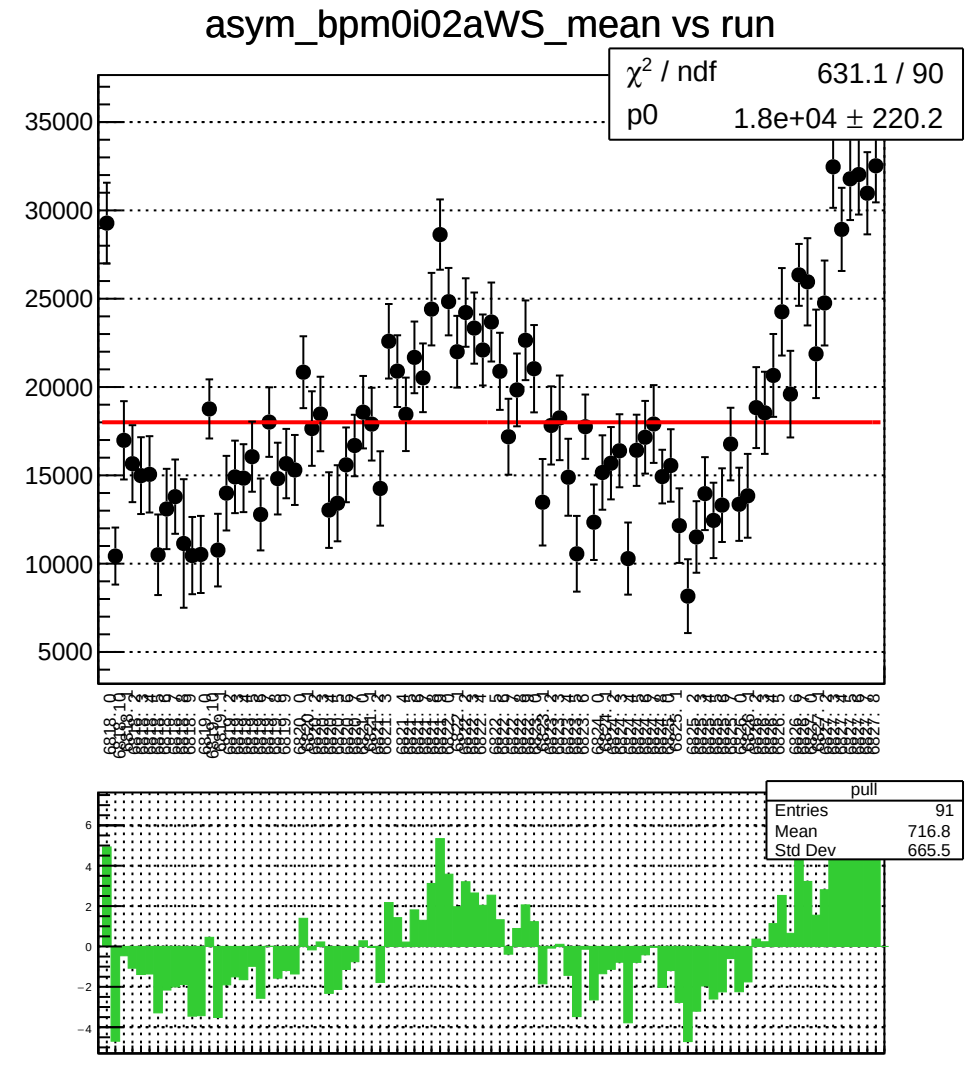

pull1D
Entries 91
Mean 0.001508
Std Dev 0.9307
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

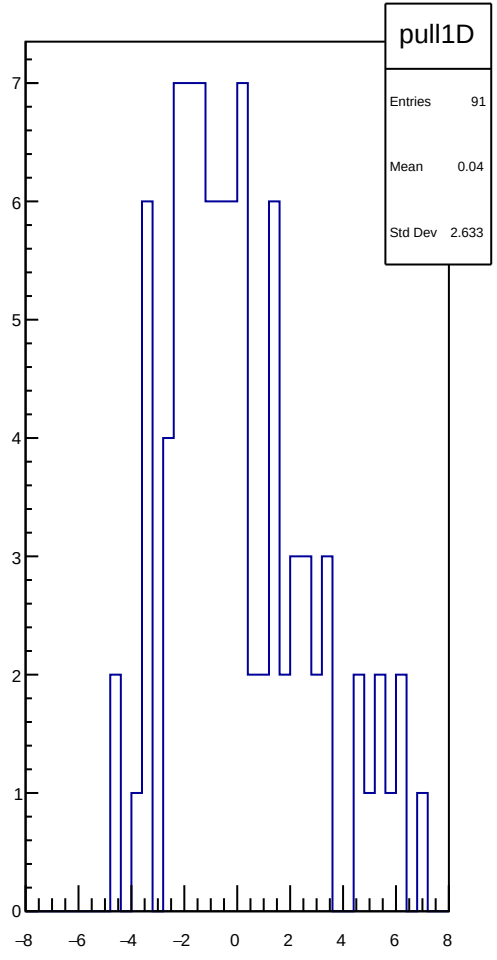

asym_bpm0r05WS_rms vs run
χ² / ndf 1.08e+04 / 90
p0 418.8 ± 0.3194
600
550
500
450
400
350

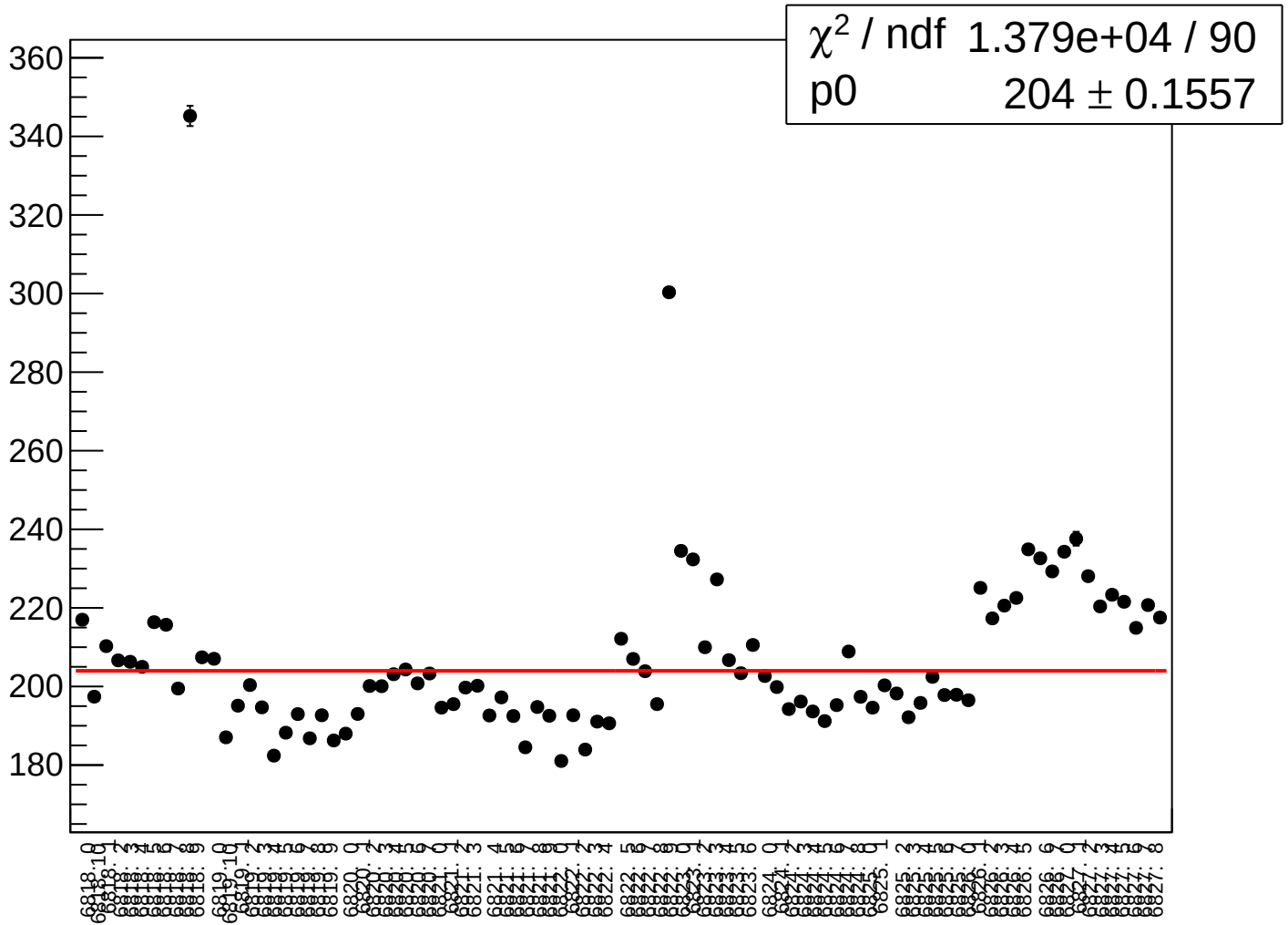

asym_bpm0i02WS_mean vs run
χ² / ndf 486.2 / 90
p0 2.079e+04 ± 245.1
35000
30000
25000
20000
15000
10000
pull
Entries 91
Mean 1002
Std Dev 948.1
4
2
0
−2
−4

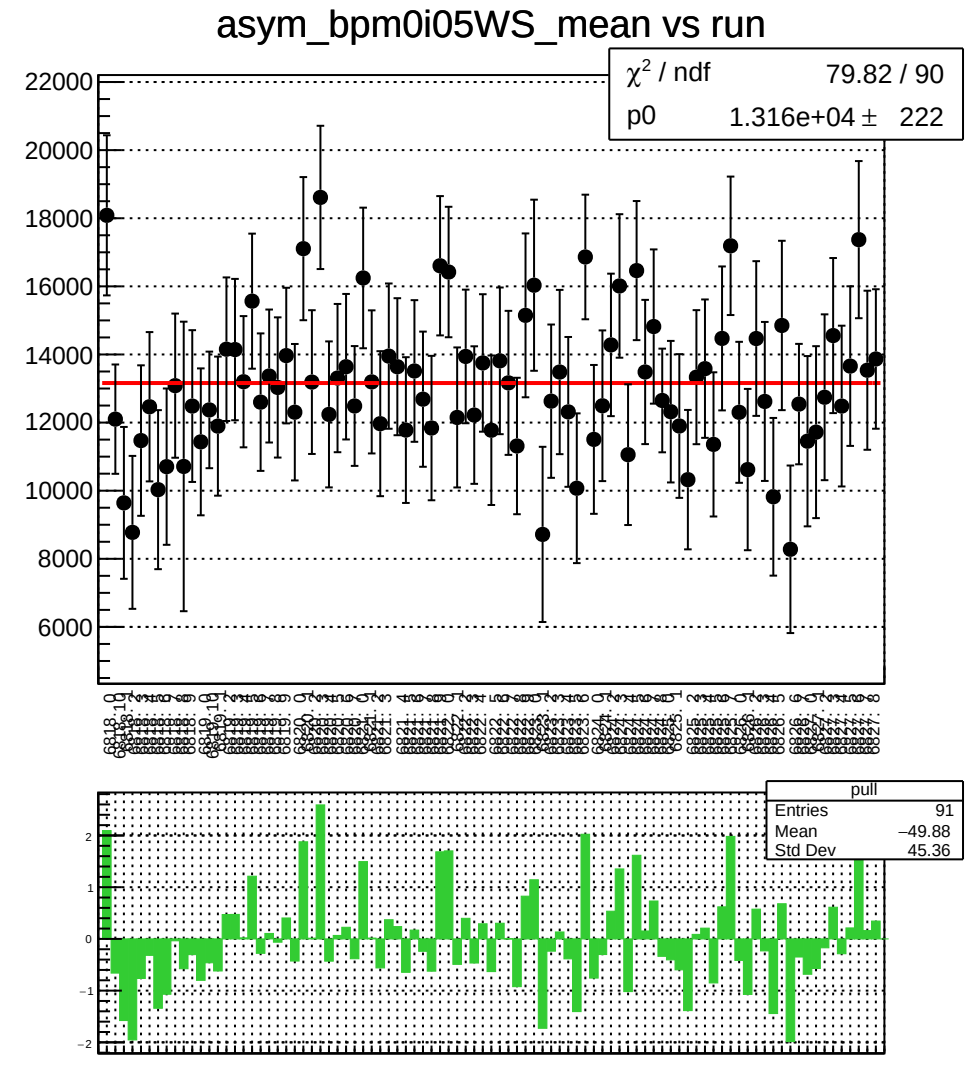

pull1D
Entries 91
Mean 0.01516
Std Dev 2.311
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

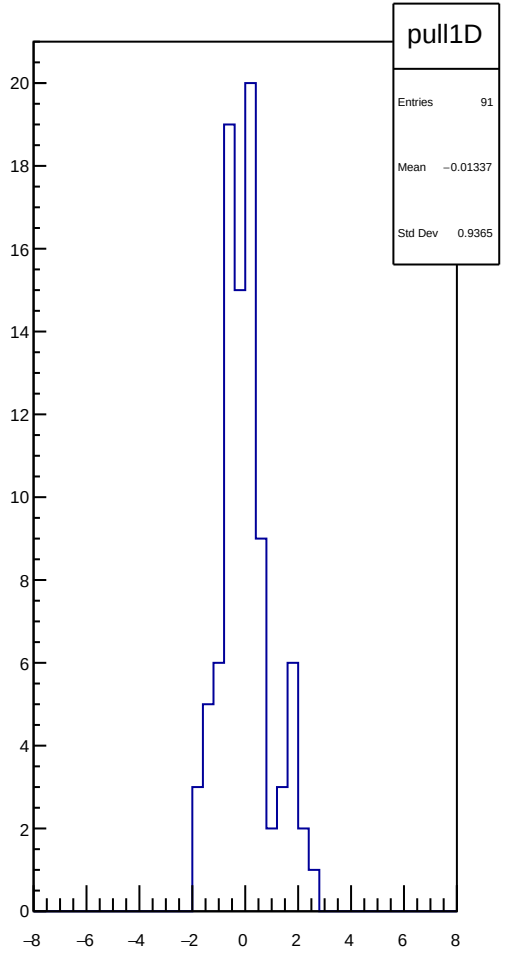

asym_bpm0i02WS_rms vs run
χ² / ndf 1.013e+04 / 90
p0 227.3 ± 0.1733
380
360
340
320
300
280
260
240
220
200

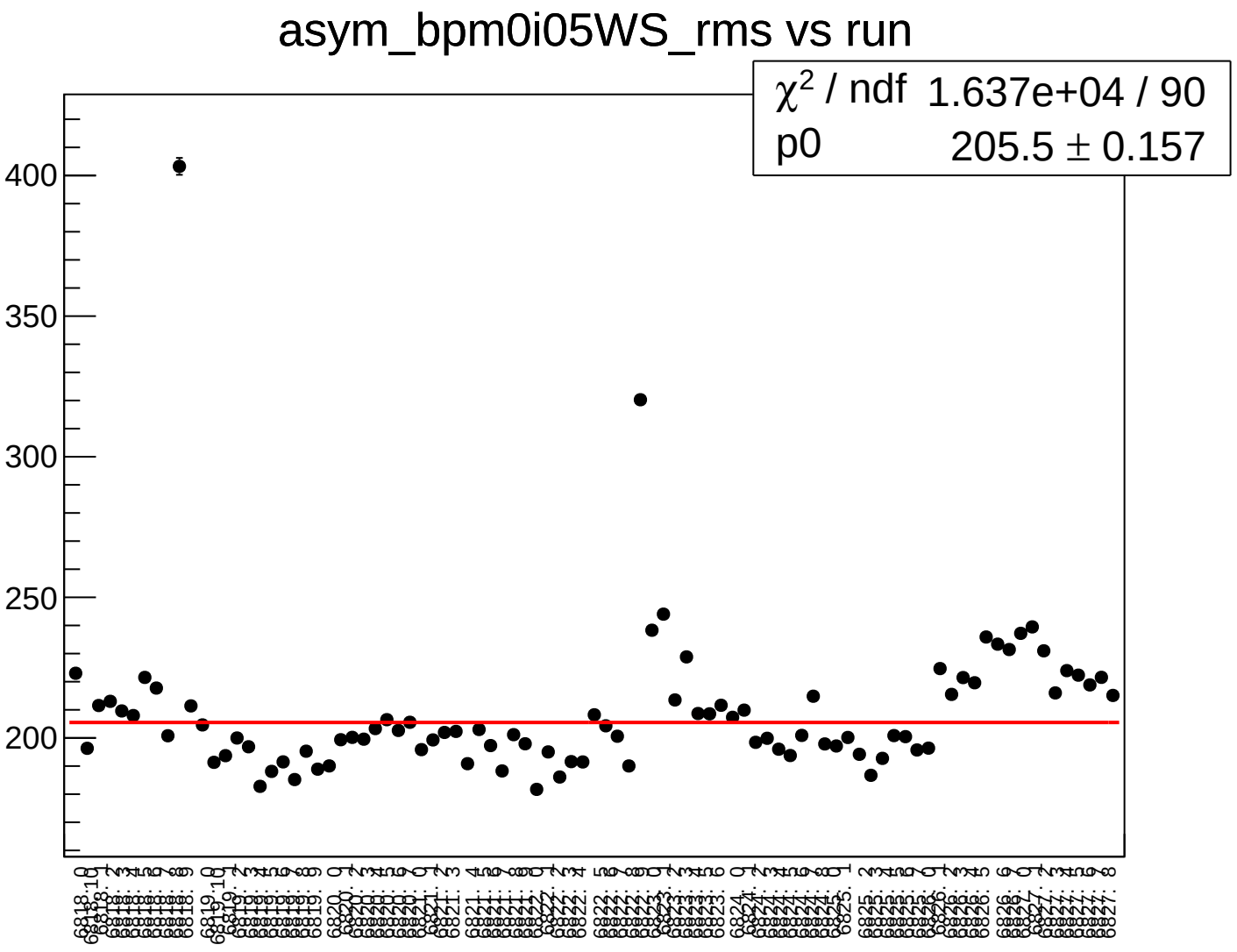

asym_bpm0i02aWS_mean vs run
χ² / ndf 631.1 / 90
p0 1.8e+04 ± 220.2
35000
30000
25000
20000
15000
10000
5000
pull
Entries 91
Mean 716.8
Std Dev 665.5
6
4
2
0
−2
−4

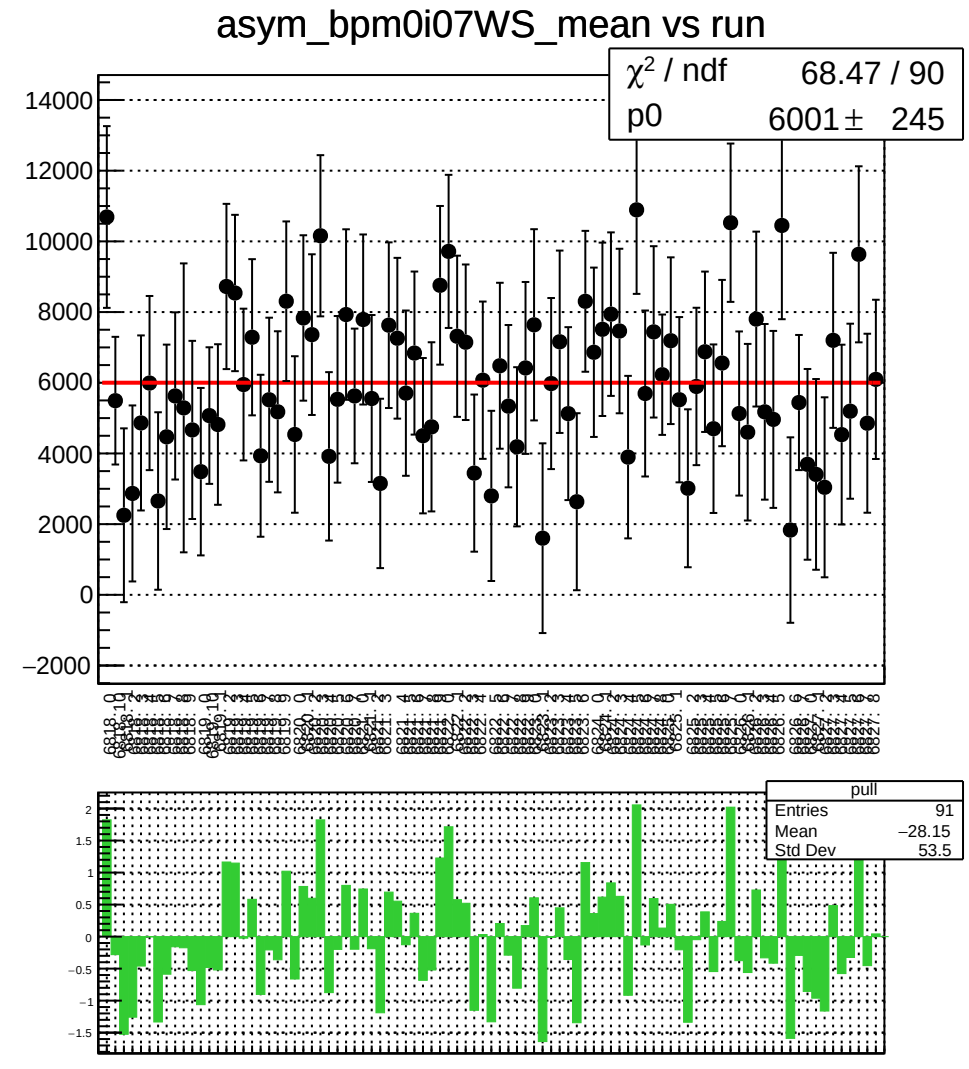

pull1D
Entries 91
Mean 0.04
Std Dev 2.633
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

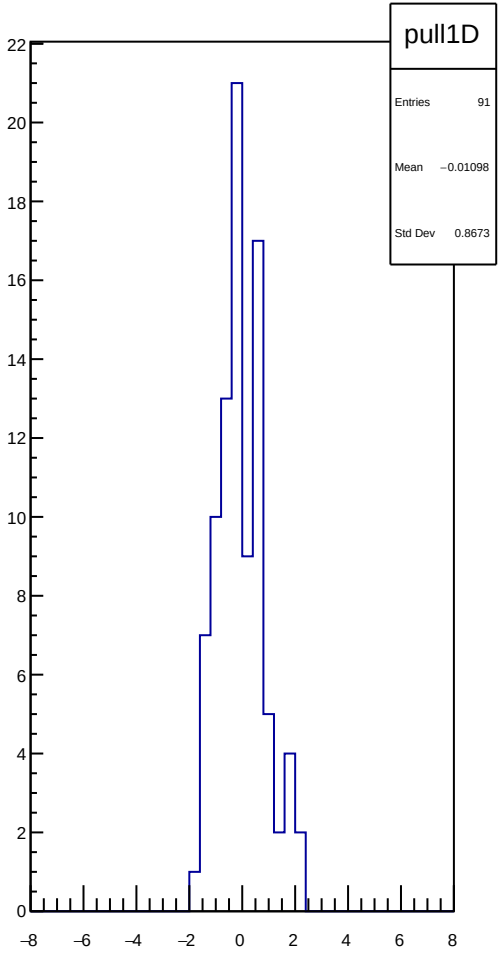

asym_bpm0i02aWS_rms vs run
χ² / ndf 1.379e+04 / 90
p0 204 ± 0.1557
360
340
320
300
280
260
240
220
200
180

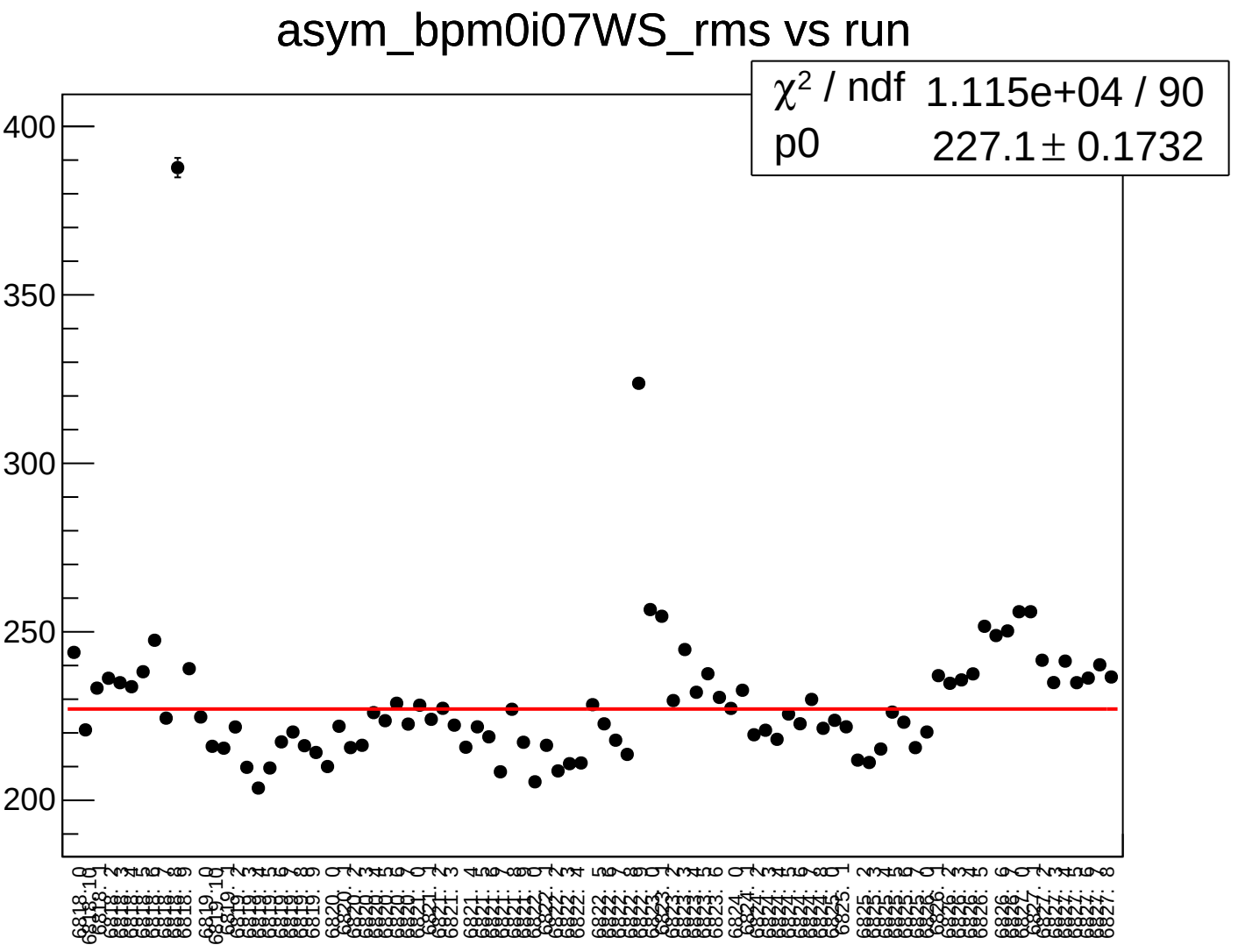

asym_bpm0i05WS_mean vs run
χ² / ndf 79.82 / 90
p0 1.316e+04 ± 222
pull
Entries 91
Mean −49.88
Std Dev 45.36

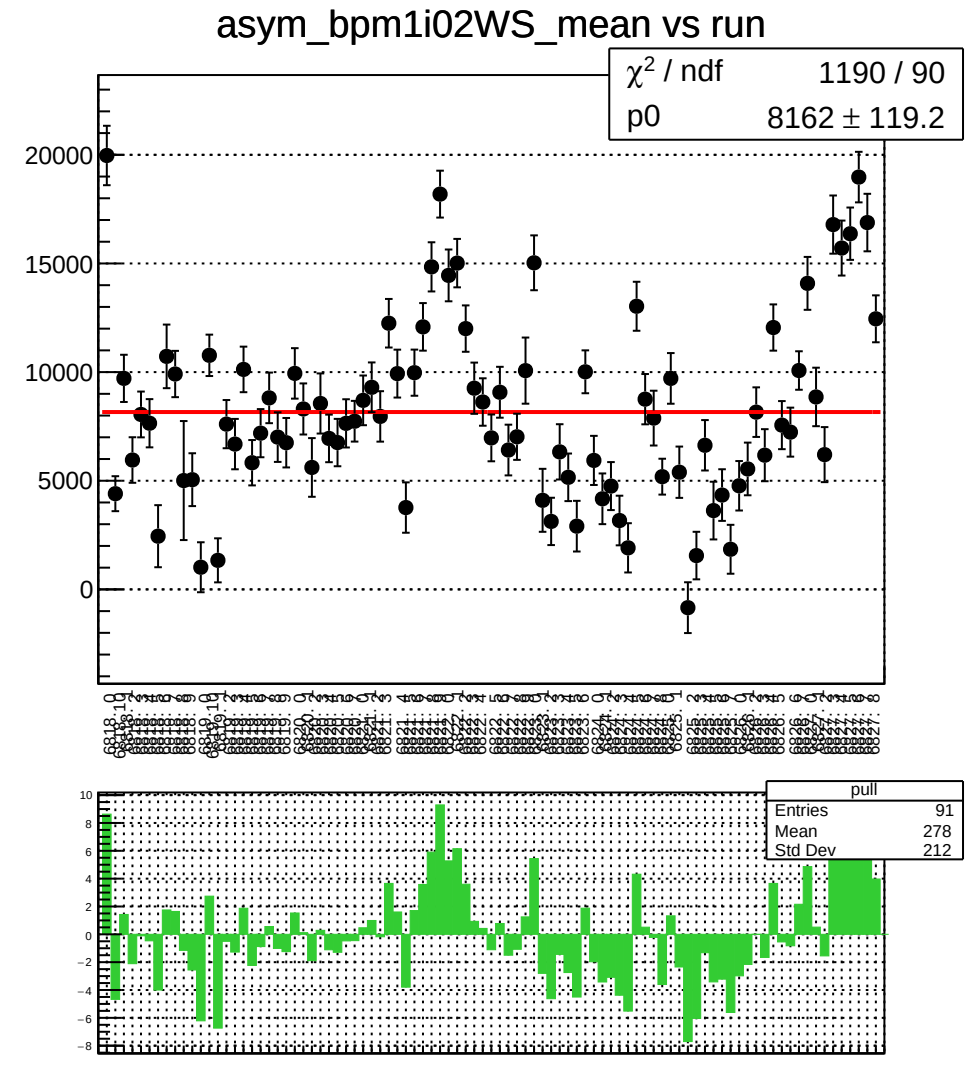

pull1D
Entries 91
Mean −0.01337
Std Dev 0.9365

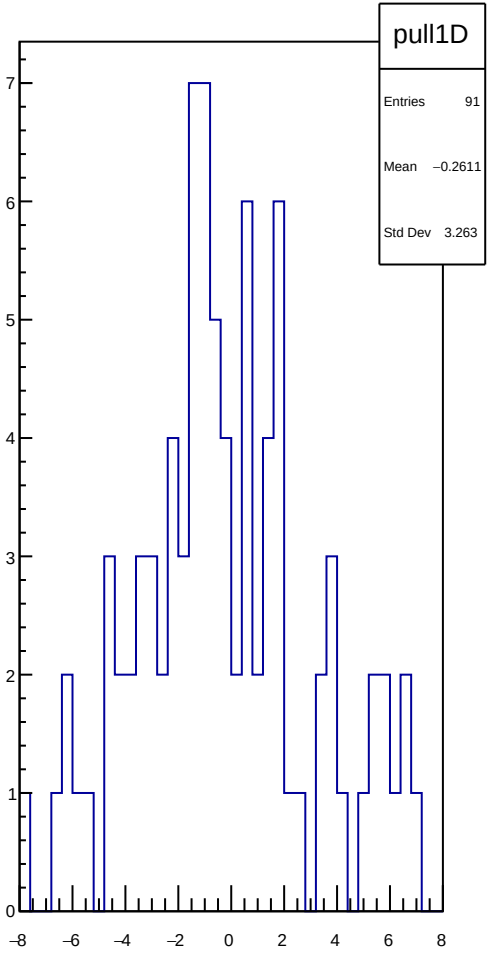

asym_bpm0i05WS_rms vs run
χ^2 / ndf 1.637e+04 / 90
p0 205.5 ± 0.157
400
350
300
250
200

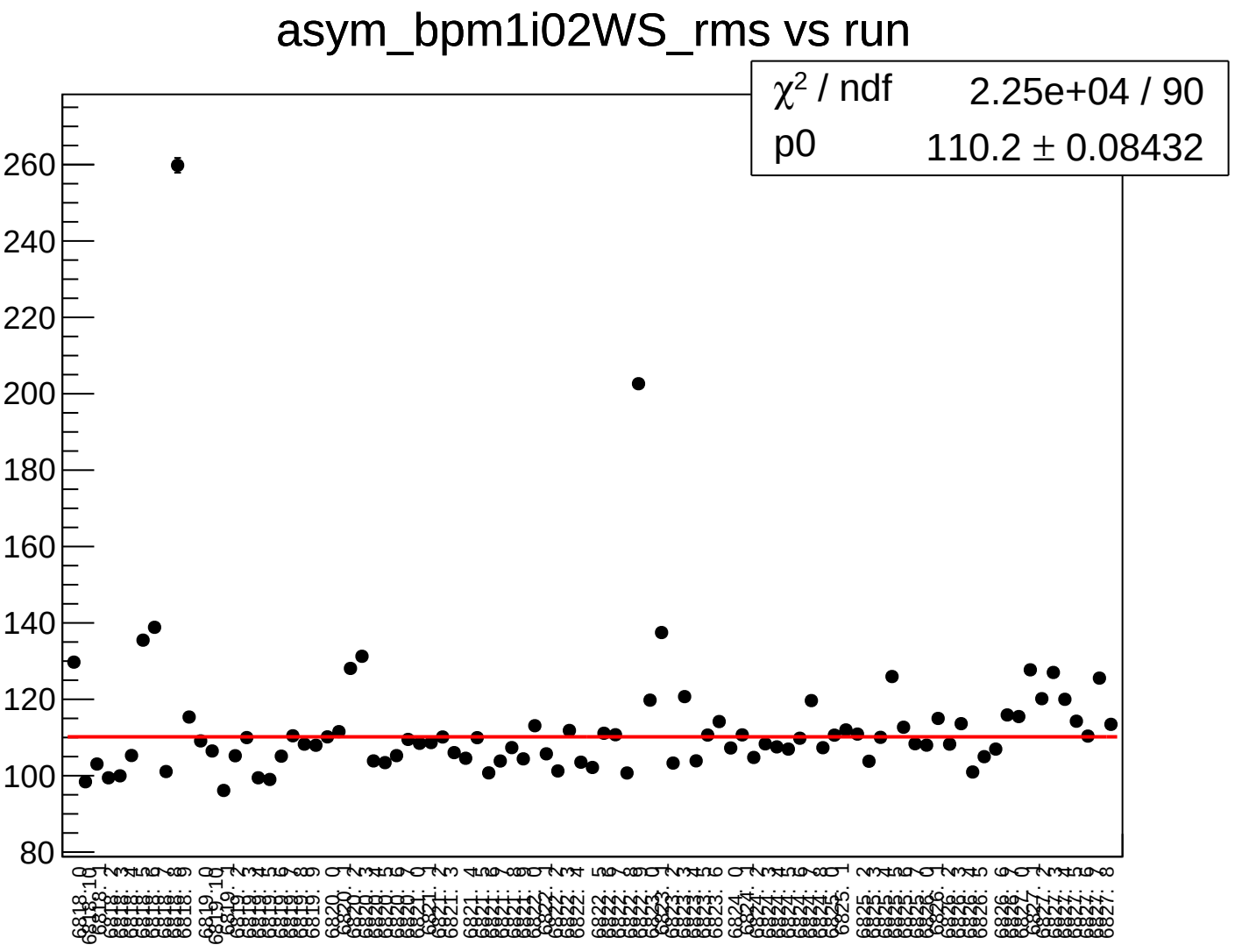

asym_bpm0i07WS_mean vs run
χ² / ndf 68.47 / 90
p0 6001 ± 245
pull
Entries 91
Mean −28.15
Std Dev 53.5

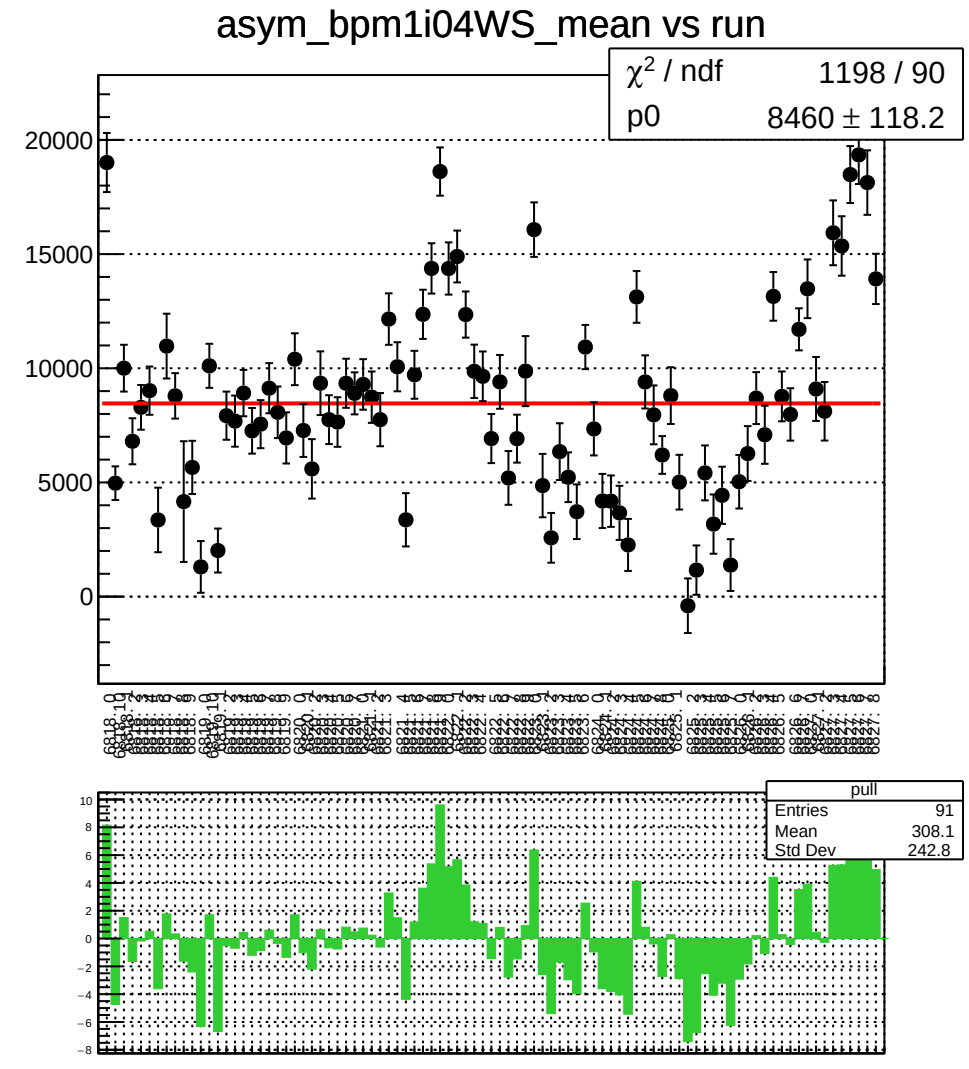

pull1D
Entries 91
Mean −0.01098
Std Dev 0.8673

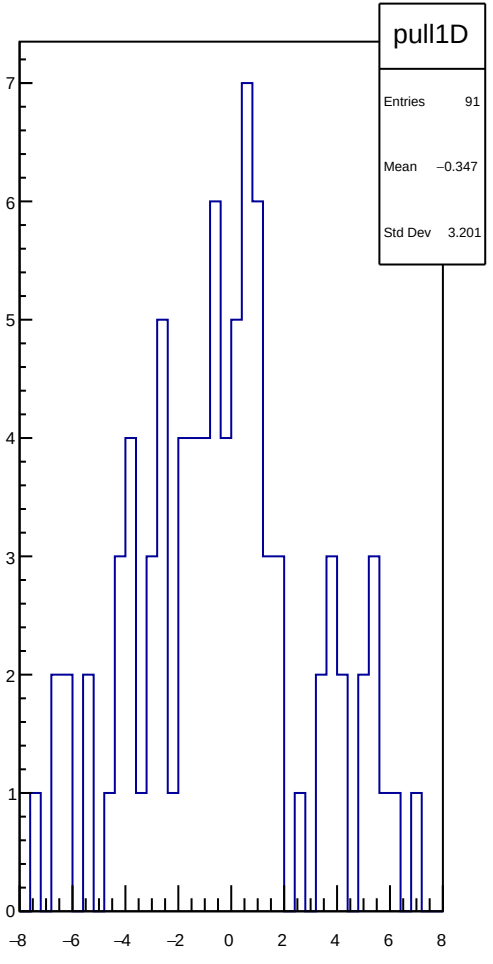

asym_bpm0i07WS_rms vs run
χ² / ndf 1.115e+04 / 90
p0 227.1 ± 0.1732
400
350
300
250
200

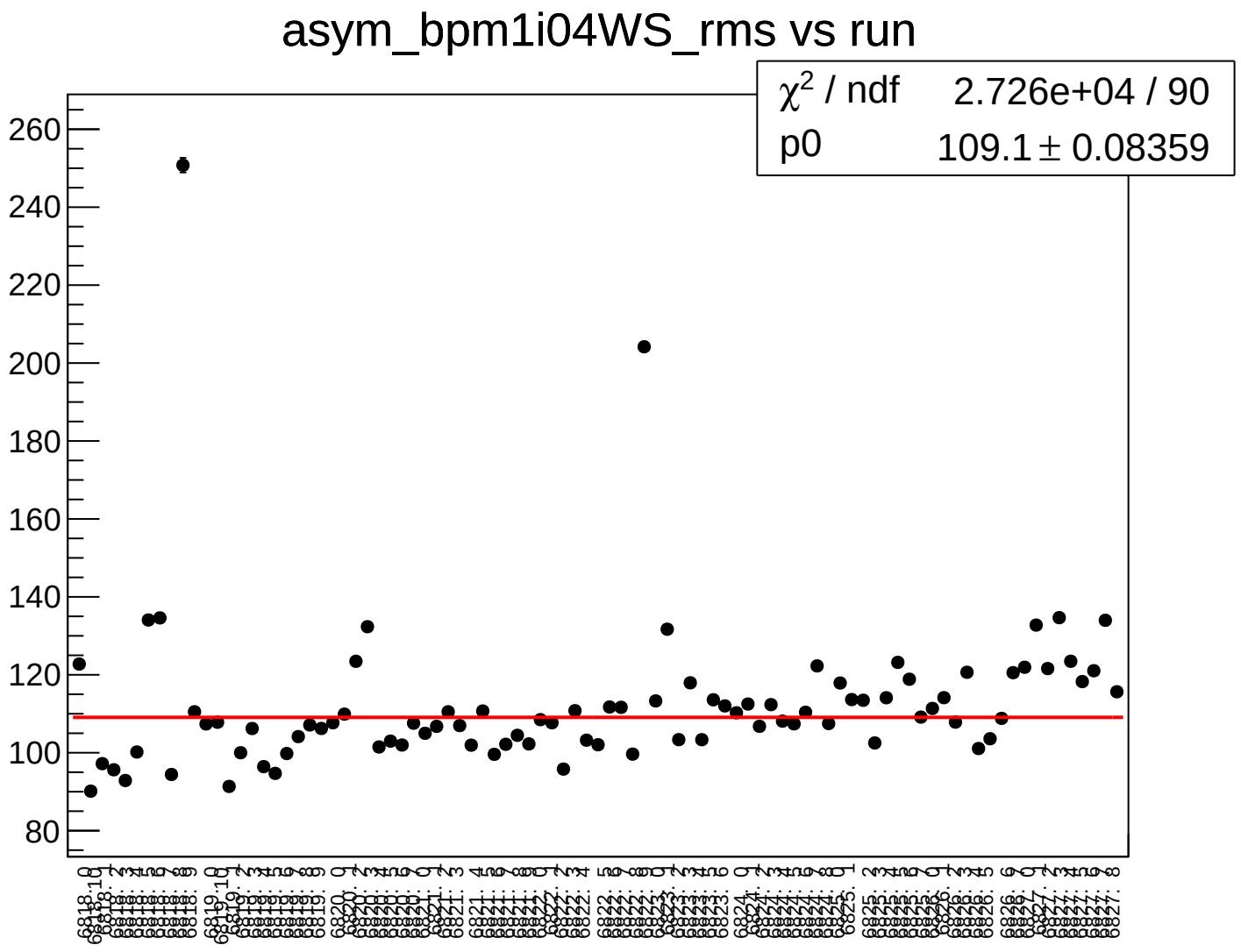

asym_bpm1i02WS_mean vs run
χ² / ndf 1190 / 90
p0 8162 ± 119.2
20000
15000
10000
5000
0
pull
Entries 91
Mean 278
Std Dev 212
10
8
6
4
2
0
−2
−4
−6
−8

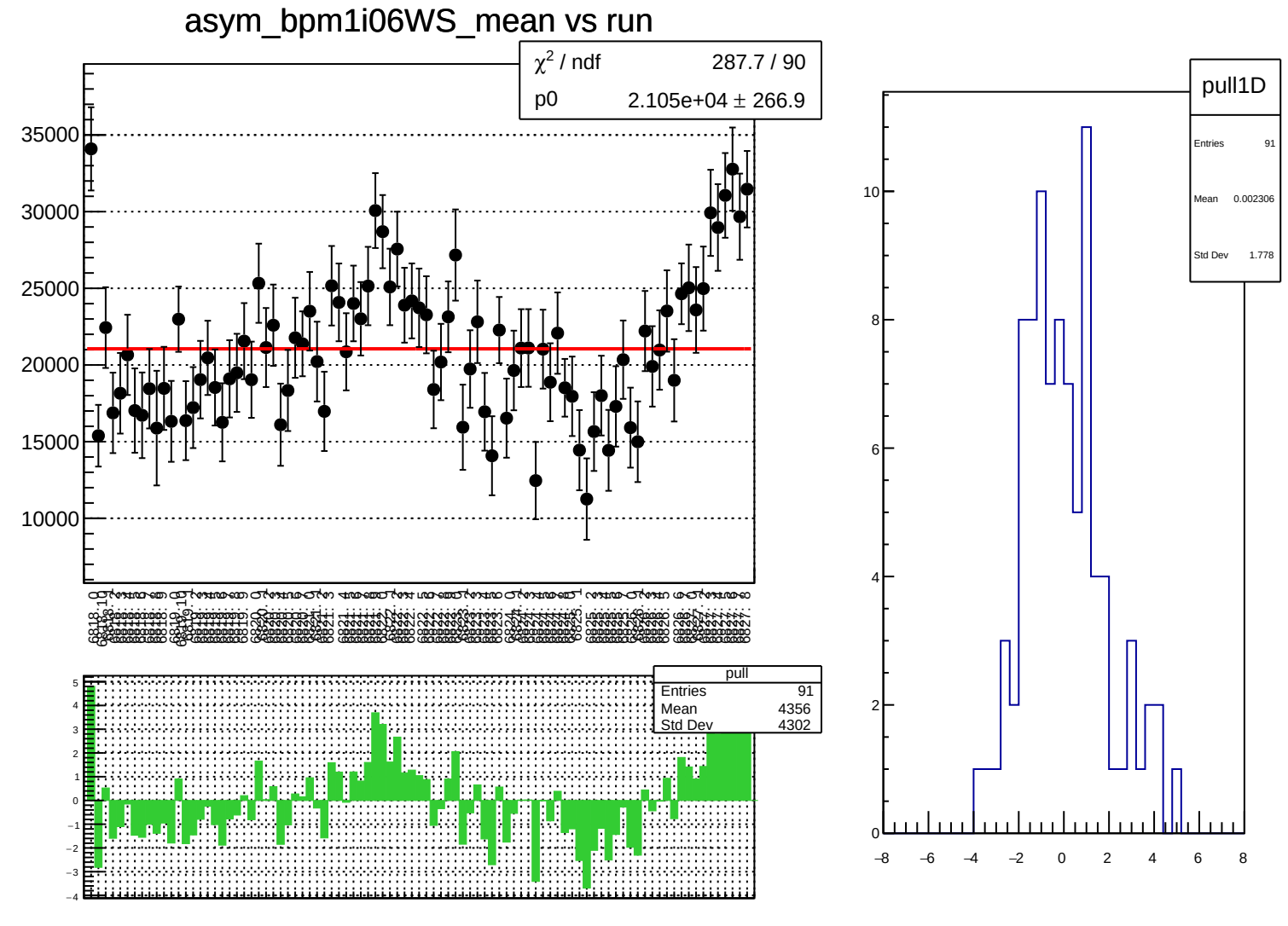

pull1D
Entries 91
Mean −0.2611
Std Dev 3.263
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

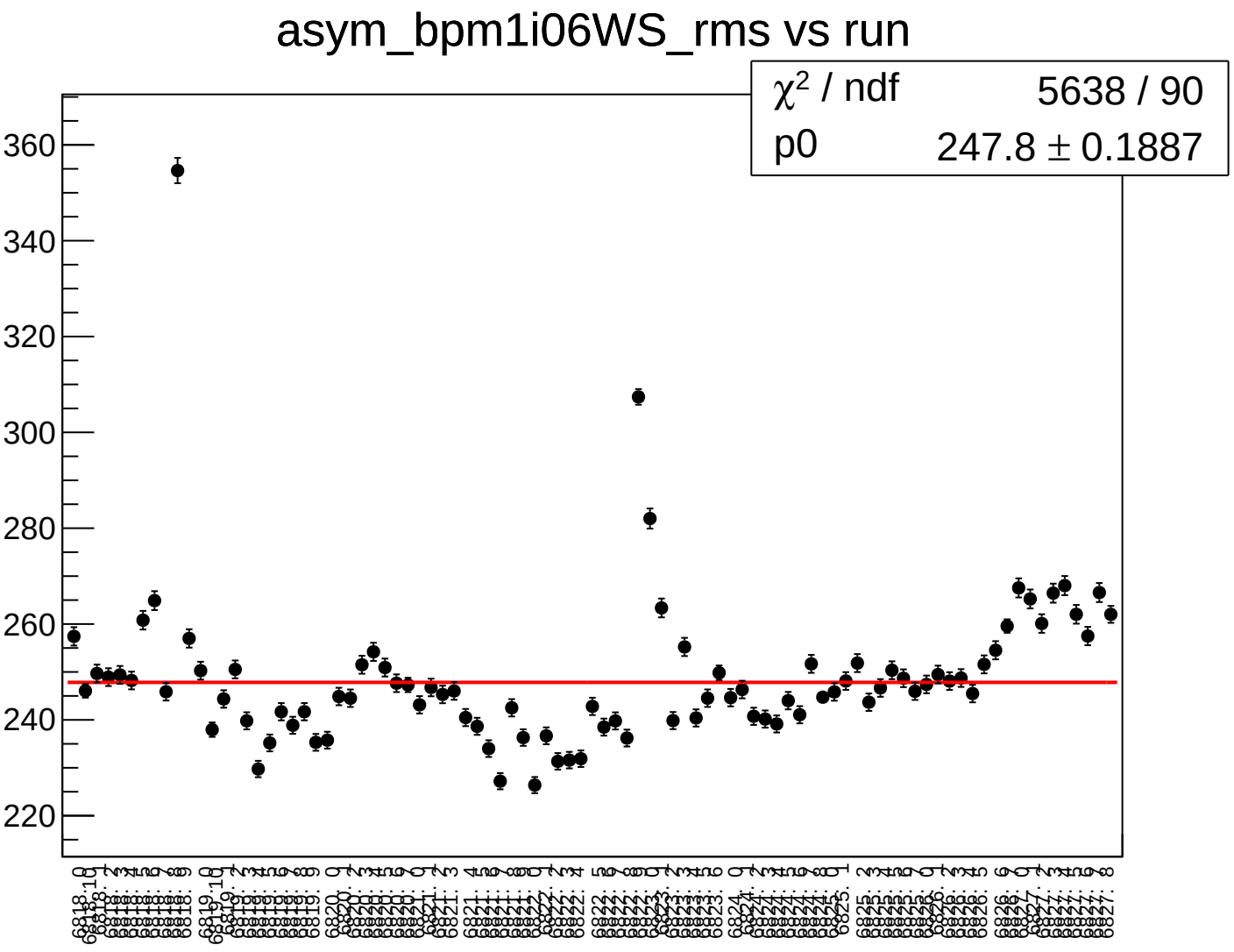

asym_bpm1i02WS_rms vs run
χ² / ndf 2.25e+04 / 90
p0 110.2 ± 0.08432
260
240
220
200
180
160
140
120
100
80

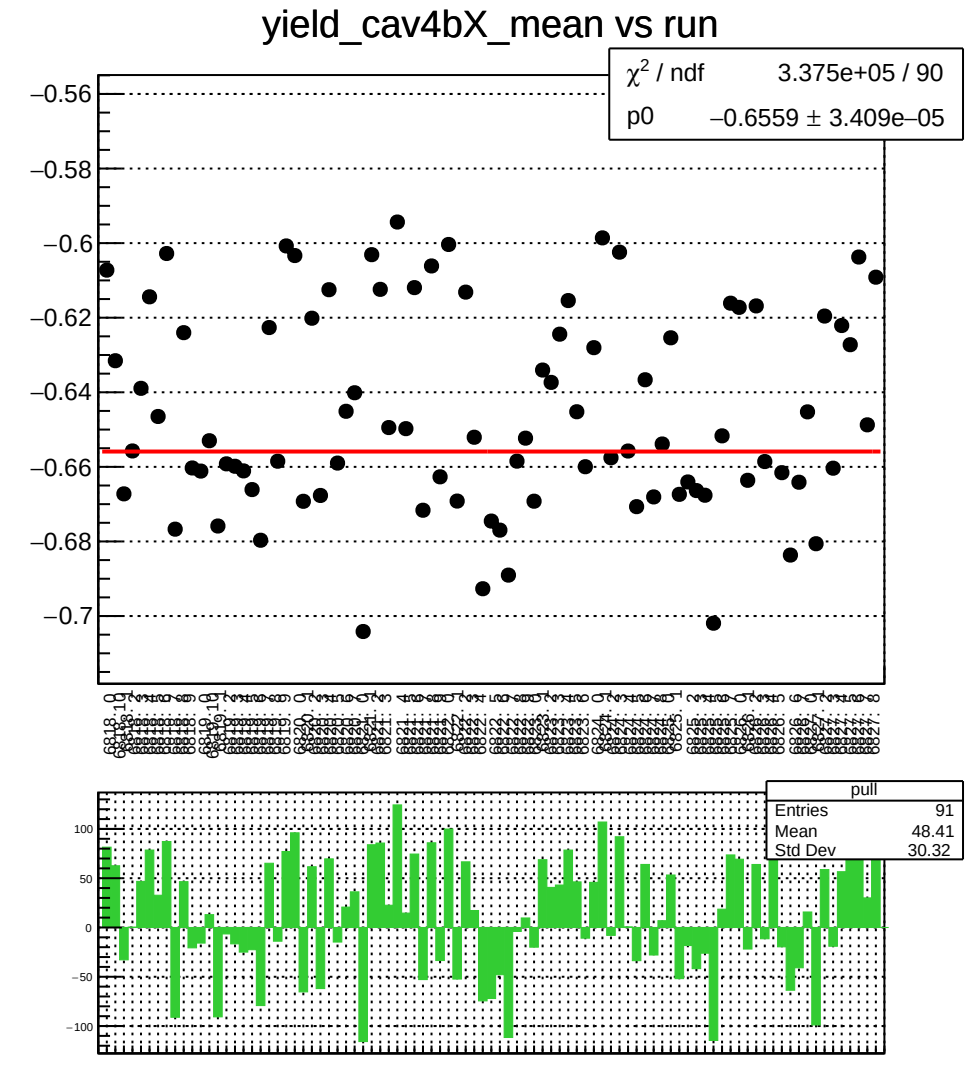

asym_bpm1i04WS_mean vs run
χ² / ndf 1198 / 90
p0 8460 ± 118.2
20000
15000
10000
5000
0
pull
Entries 91
Mean 308.1
Std Dev 242.8
10
8
6
4
2
0
−2
−4
−6
−8

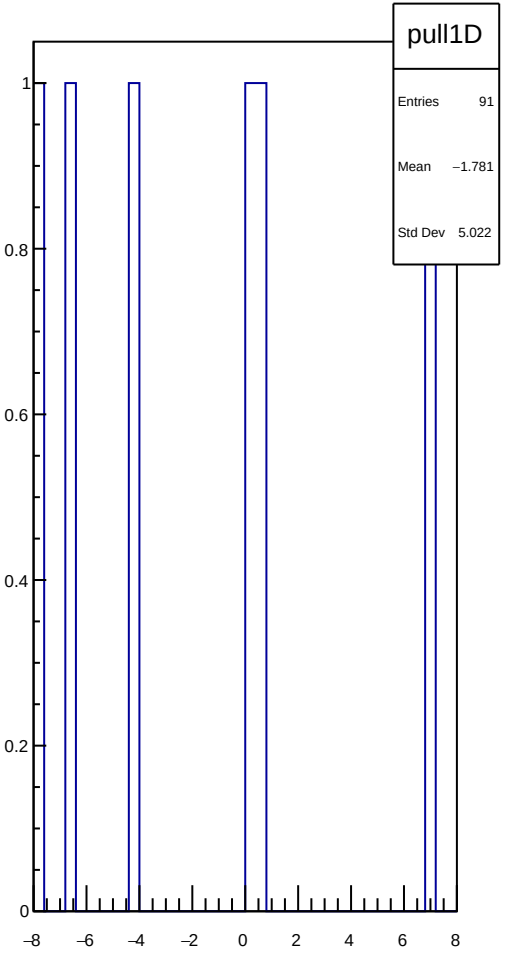

pull1D
Entries 91
Mean −0.347
Std Dev 3.201
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

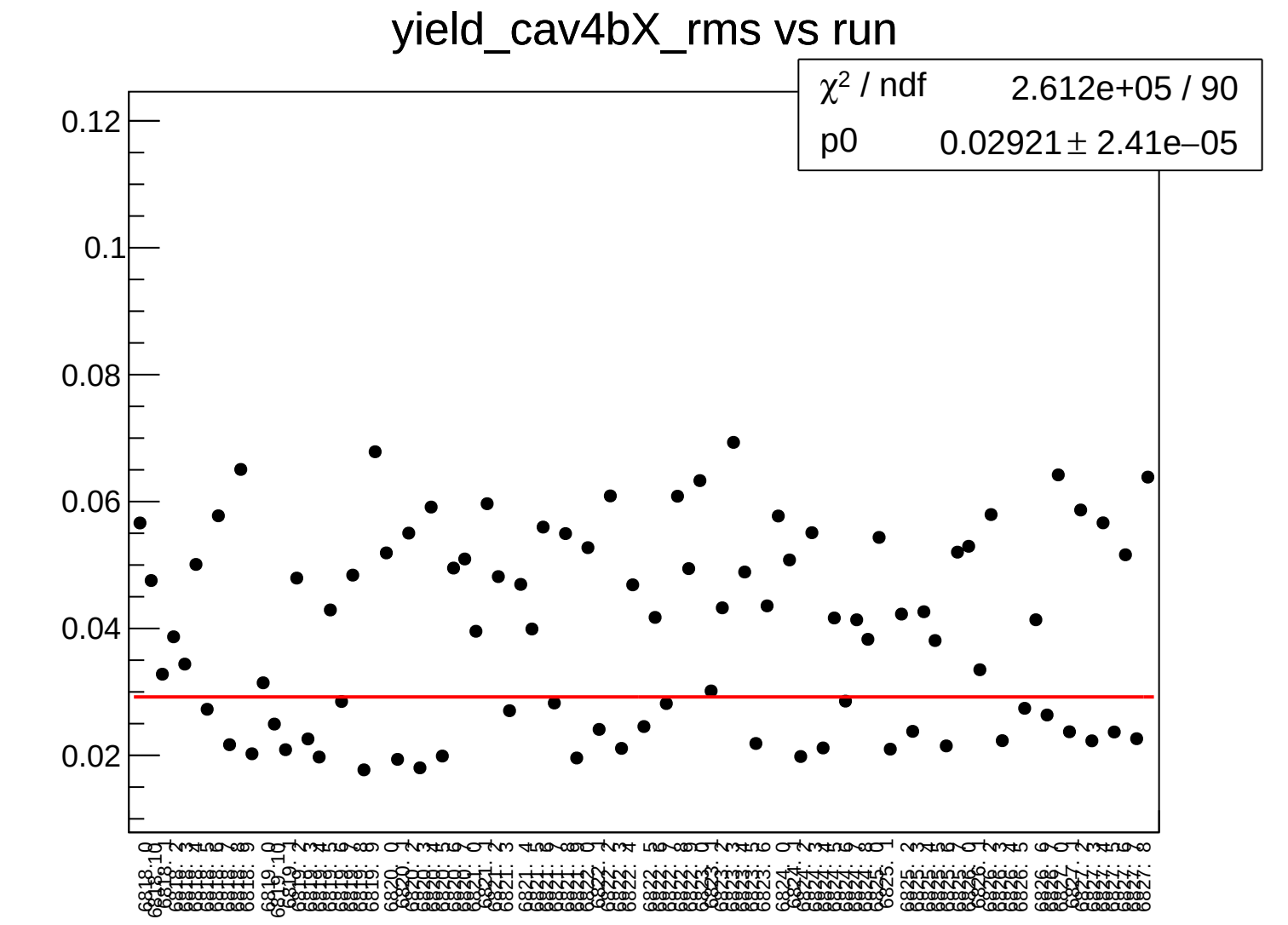

asym_bpm1i04WS_rms vs run
χ^2 / ndf 2.726e+04 / 90
p0 109.1 ± 0.08359
260
240
220
200
180
160
140
120
100
80

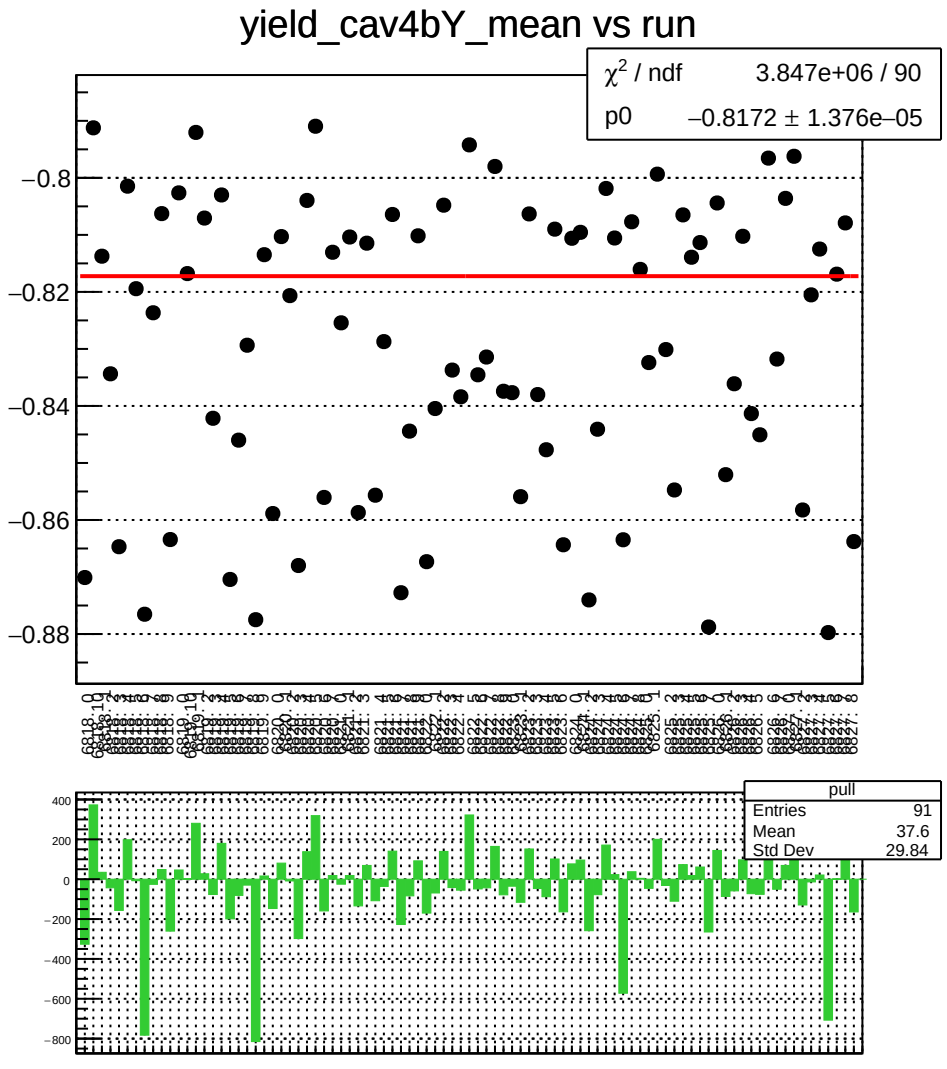

asym_bpm1i06WS_mean vs run
χ² / ndf 287.7 / 90
p0 2.105e+04 ± 266.9
35000
30000
25000
20000
15000
10000
pull
Entries 91
Mean 4356
Std Dev 4302
5
4
3
2
1
0
−1
−2
−3
−4
pull1D
Entries 91
Mean 0.002306
Std Dev 1.778
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

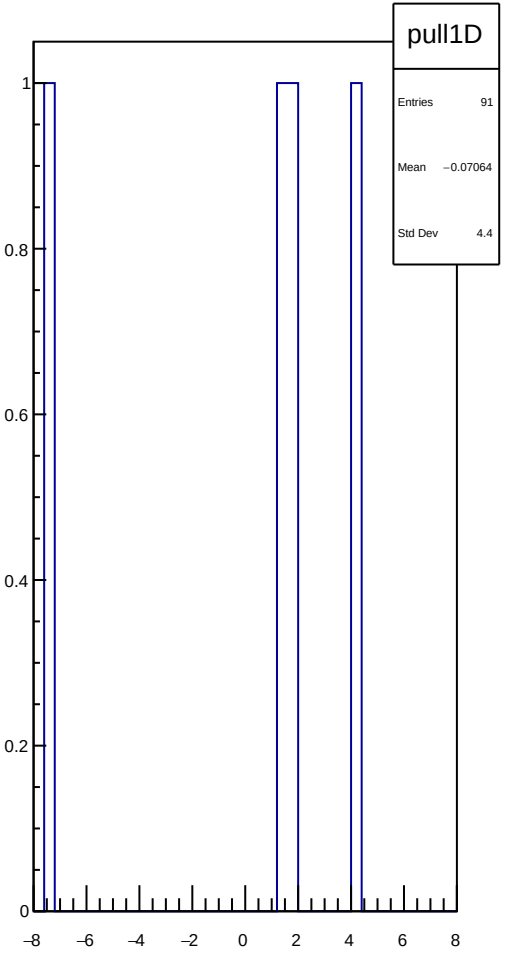

asym_bpm1i06WS_rms vs run
χ^2 / ndf 5638 / 90
p0 247.8 ± 0.1887
360
340
320
300
280
260
240
220

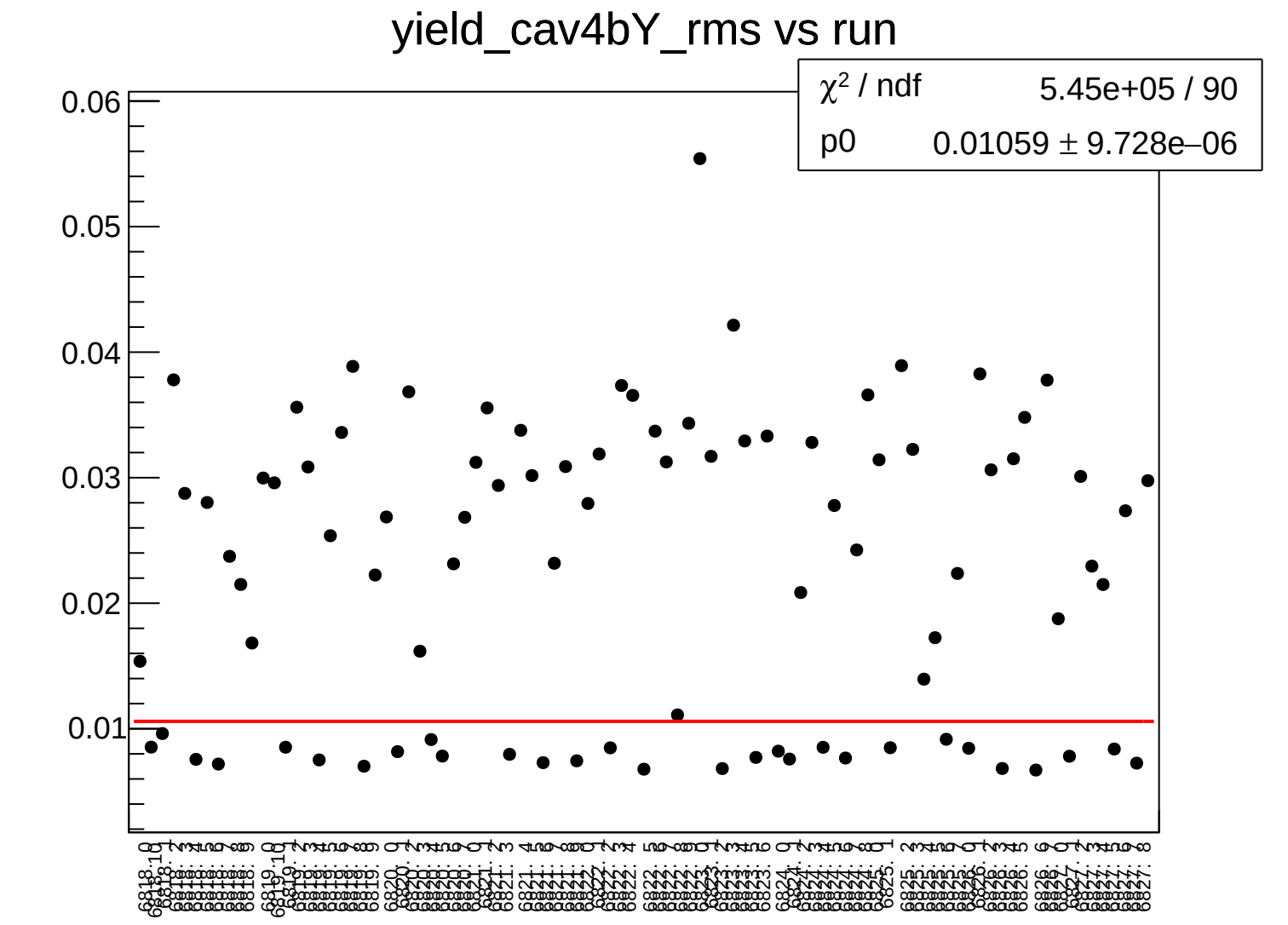

yield_cav4bX_mean vs run
χ² / ndf 3.375e+05 / 90
p0 −0.6559 ± 3.409e−05
−0.56
−0.58
−0.6
−0.62
−0.64
−0.66
−0.68
−0.7
pull
Entries 91
Mean 48.41
Std Dev 30.32
100
50
0
−50
−100

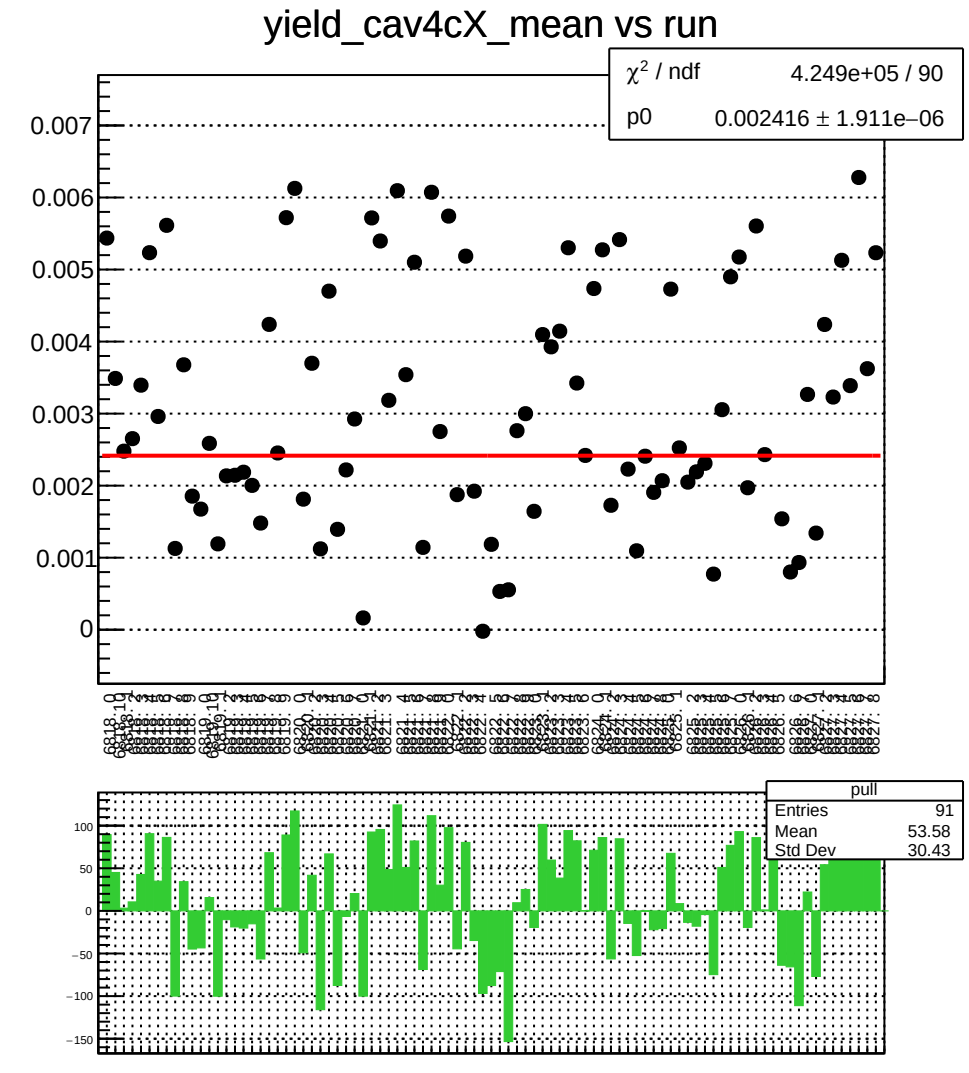

pull1D
Entries 91
Mean −1.781
Std Dev 5.022
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

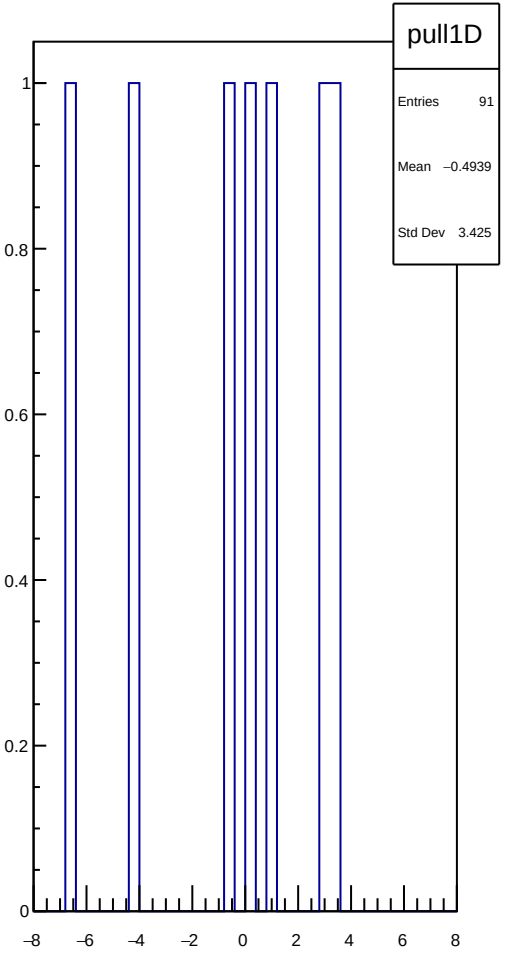

yield_cav4bX_rms vs run
χ² / ndf 2.612e+05 / 90
p0 0.02921 ± 2.41e−05
0.12
0.1
0.08
0.06
0.04
0.02

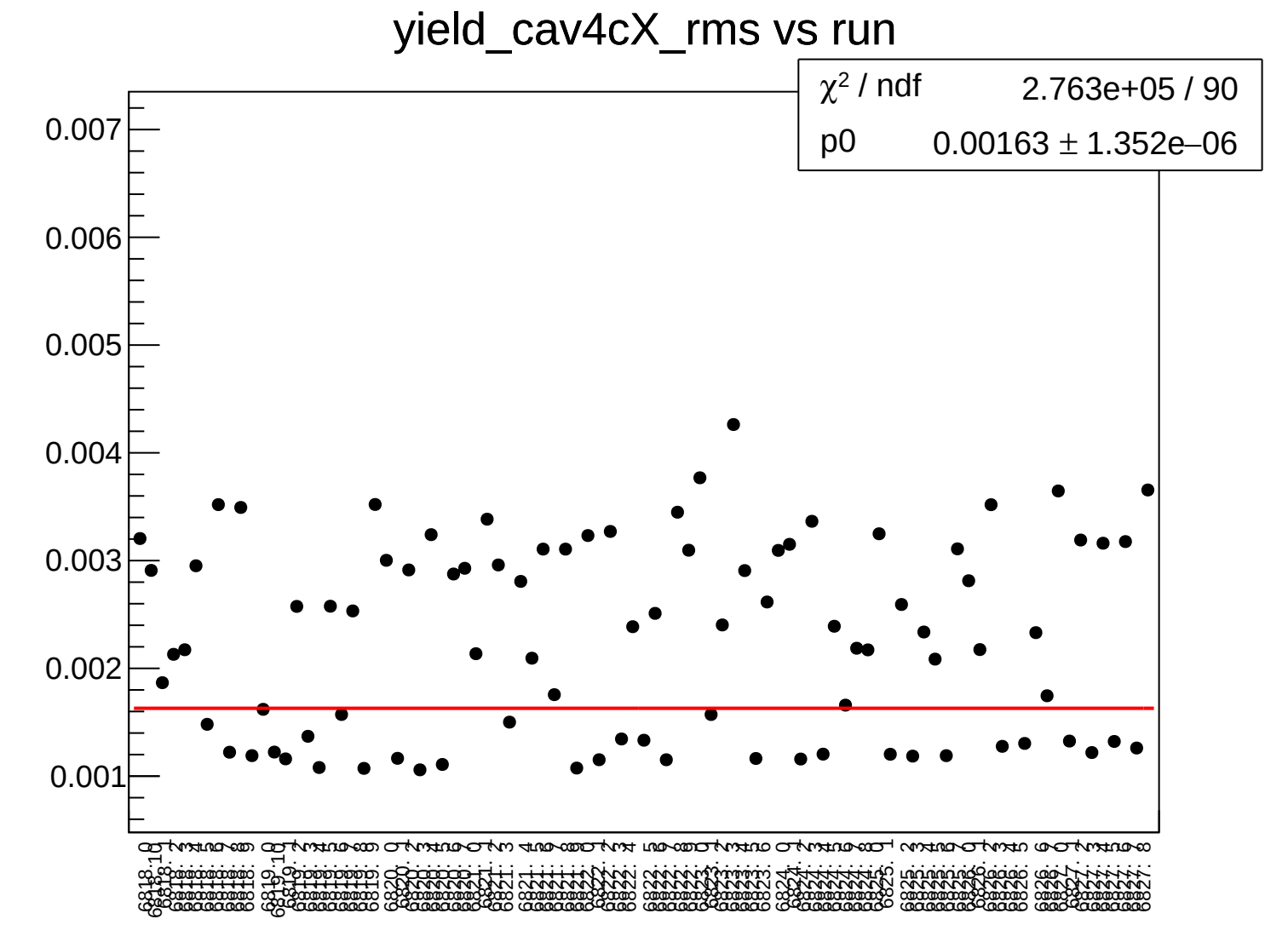

yield_cav4bY_mean vs run
χ² / ndf 3.847e+06 / 90
p0 −0.8172 ± 1.376e−05
−0.8
−0.82
−0.84
−0.86
−0.88
pull
Entries 91
Mean 37.6
Std Dev 29.84
400
200
0
−200
−400
−600
−800

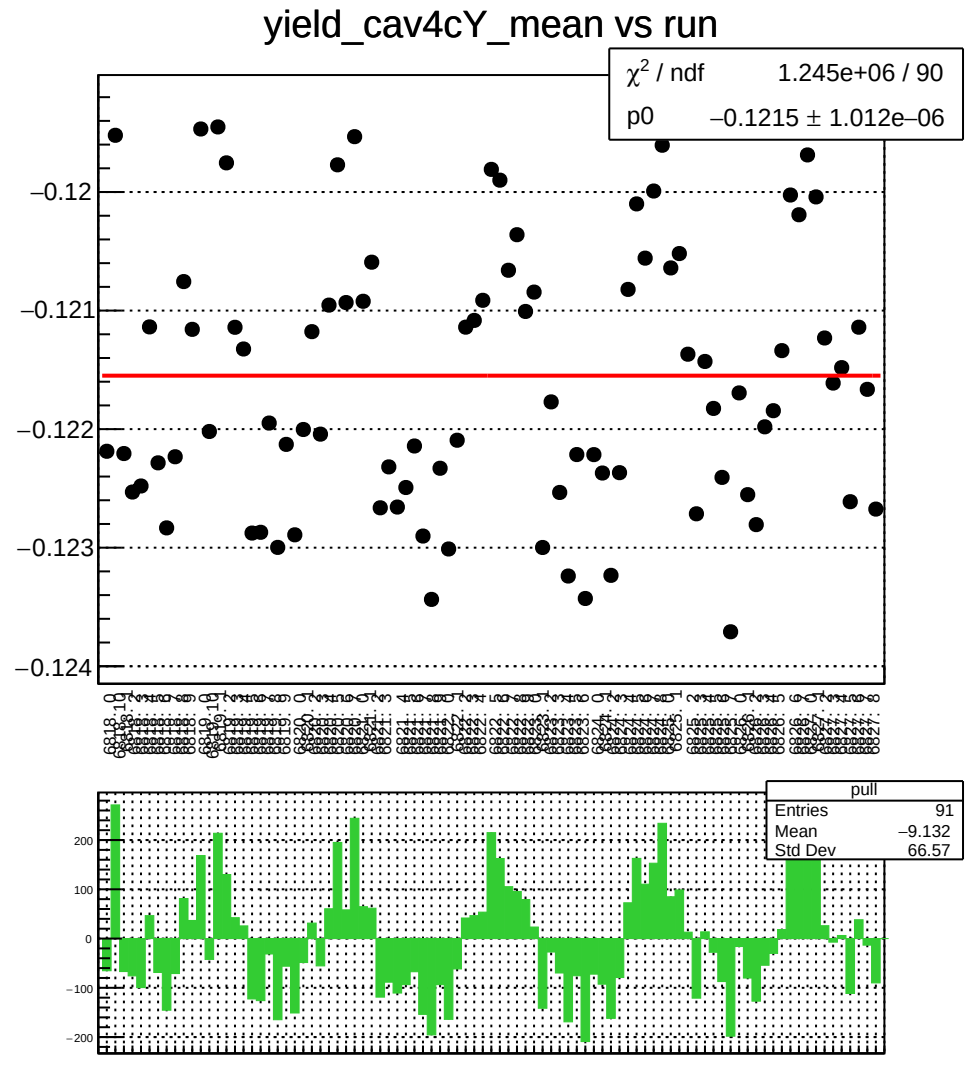

pull1D
Entries 91
Mean −0.07064
Std Dev 4.4
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

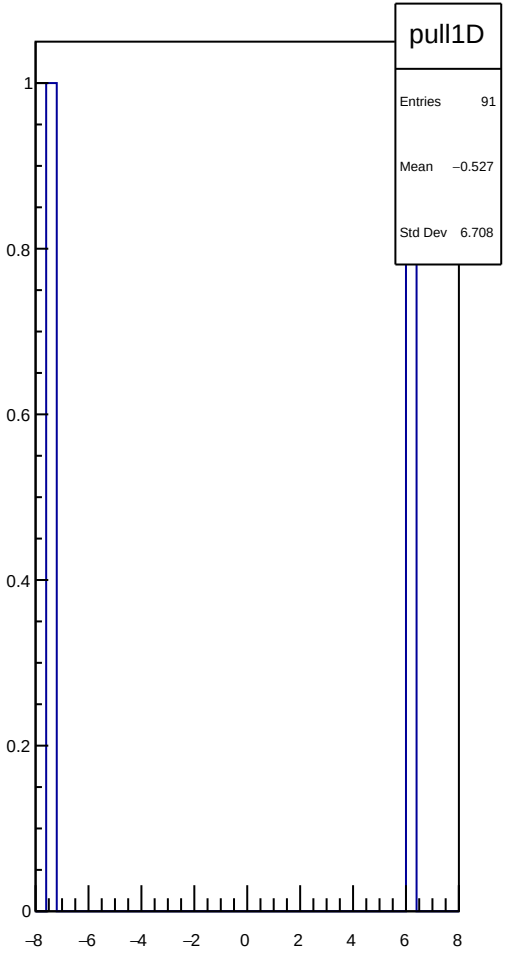

yield_cav4bY_rms vs run
χ² / ndf 5.45e+05 / 90
p0 0.01059 ± 9.728e–06
0.06
0.05
0.04
0.03
0.02
0.01

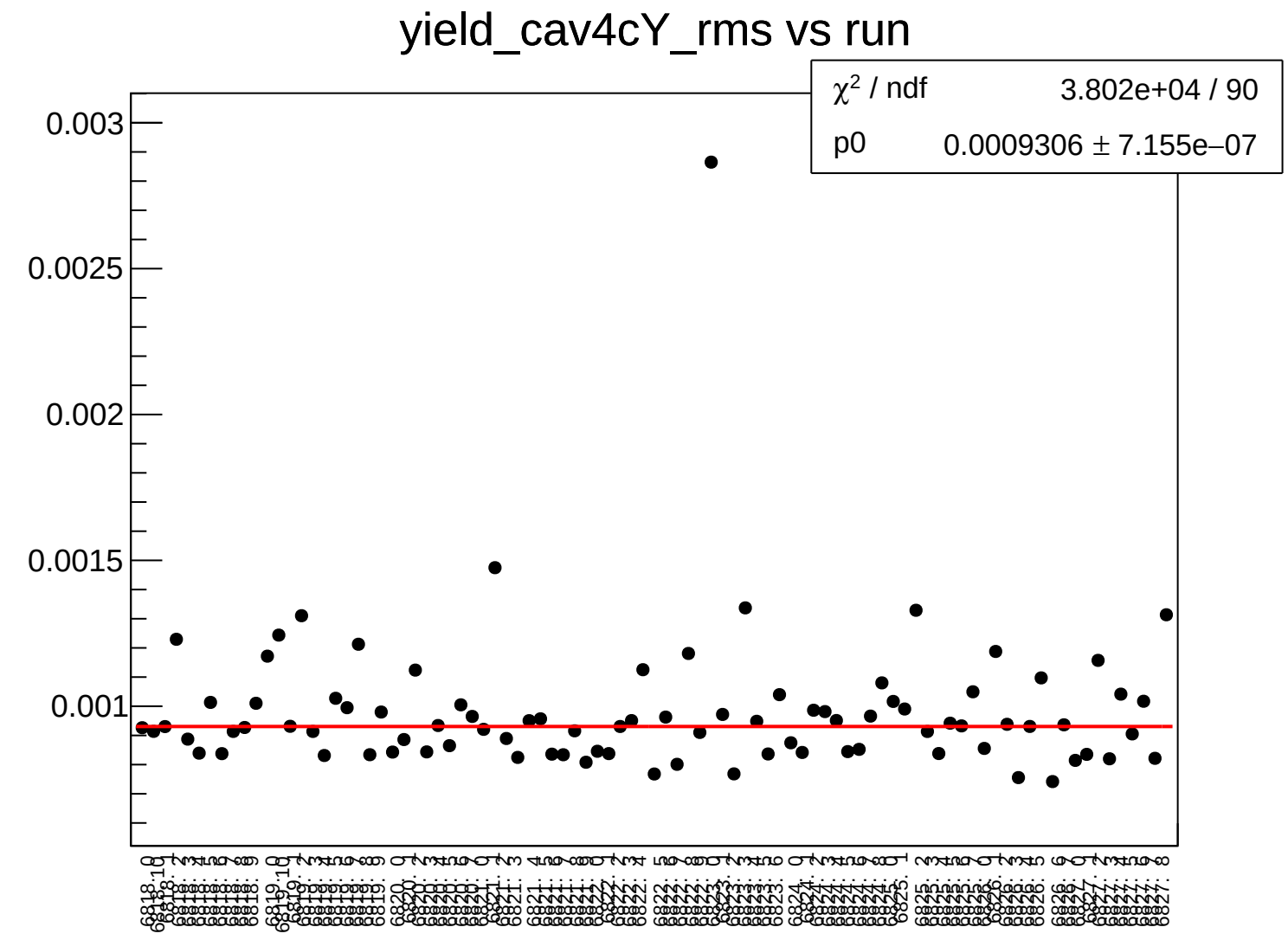

yield_cav4cX_mean vs run
χ² / ndf 4.249e+05 / 90
p0 0.002416 ± 1.911e−06
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
pull
Entries 91
Mean 53.58
Std Dev 30.43
100
50
0
−50
−100
−150

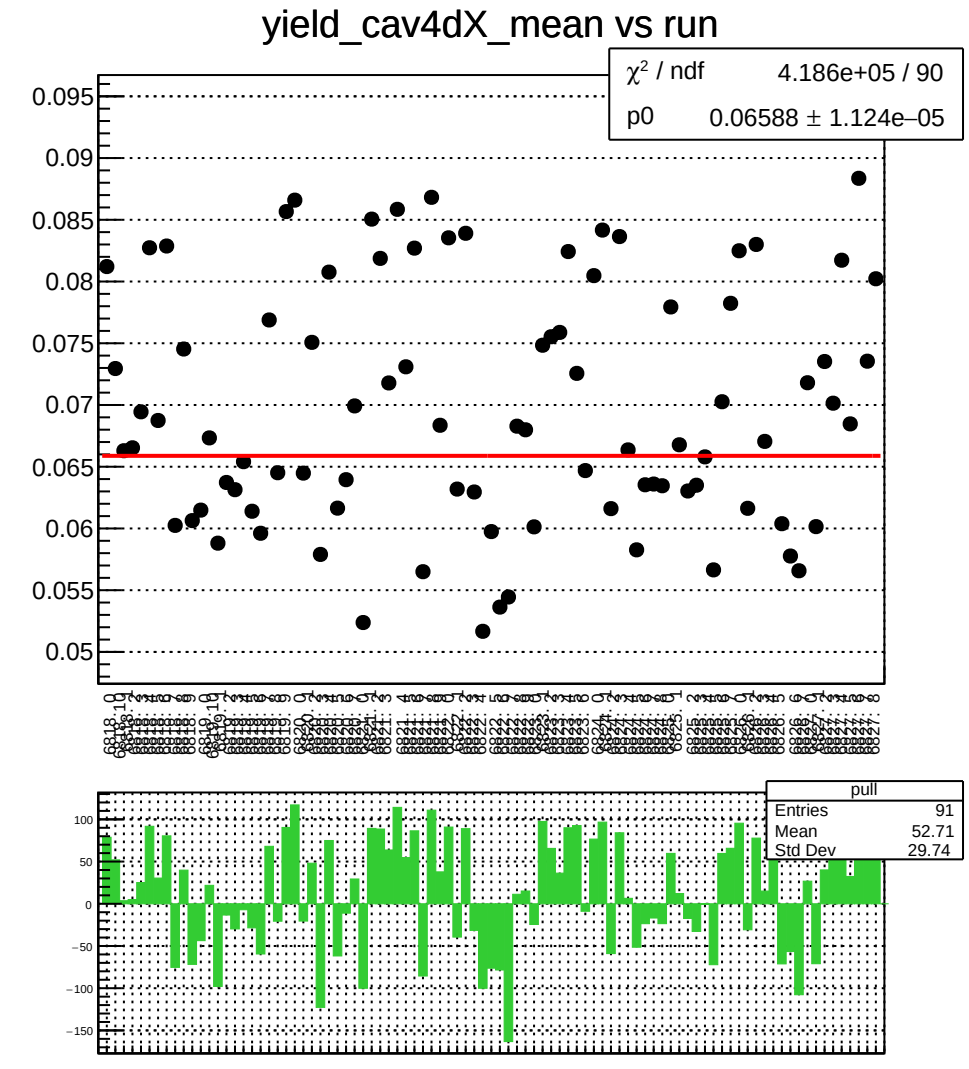

pull1D
Entries 91
Mean −0.4939
Std Dev 3.425
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

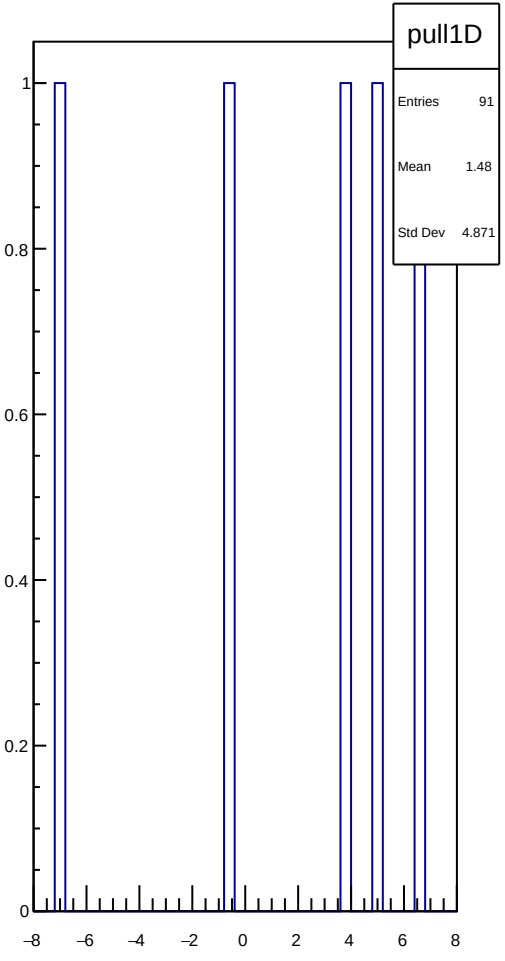

yield_cav4cX_rms vs run
χ² / ndf 2.763e+05 / 90
p0 0.00163 ± 1.352e–06
0.007
0.006
0.005
0.004
0.003
0.002
0.001

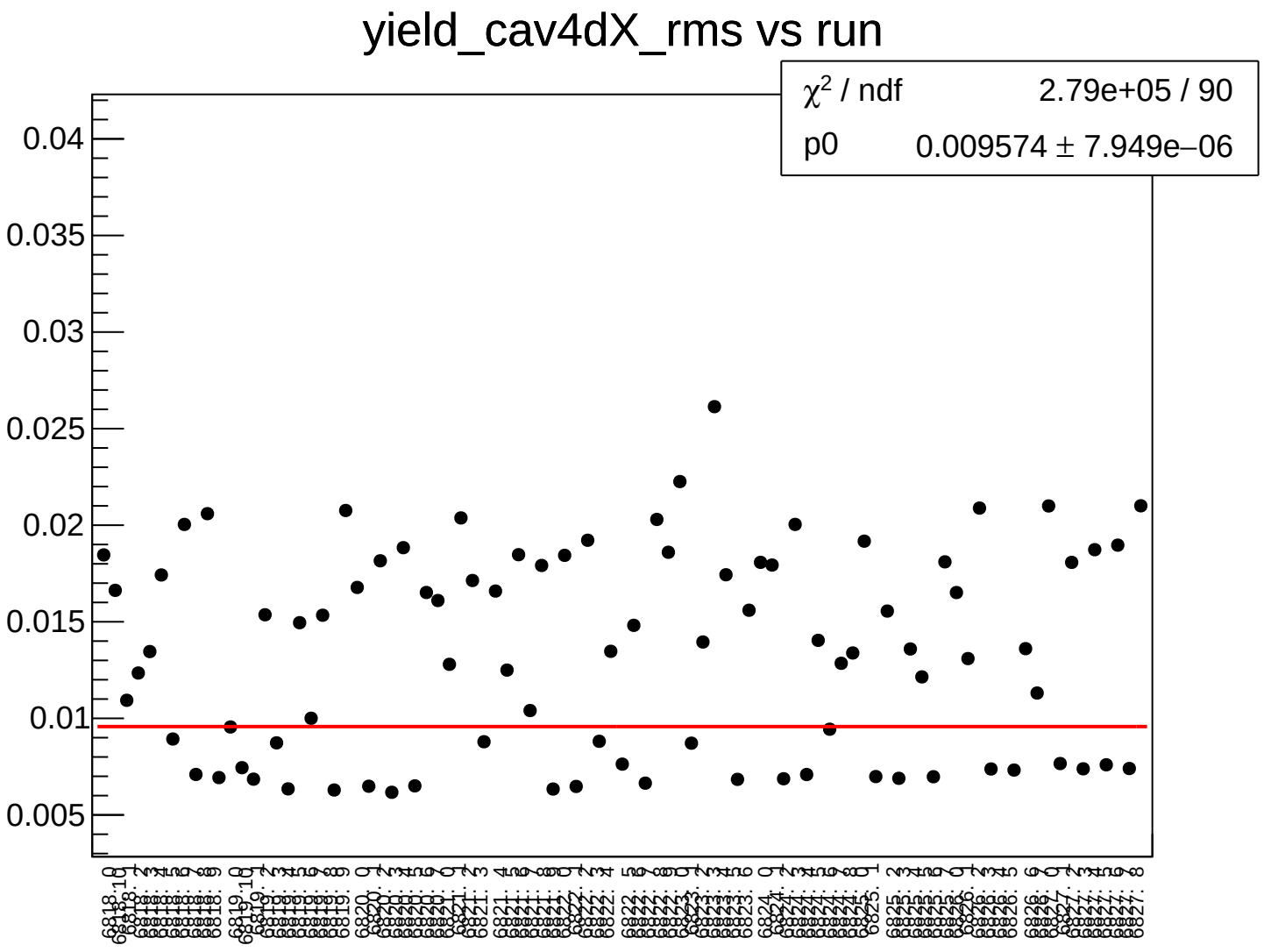

yield_cav4cY_mean vs run
χ² / ndf 1.245e+06 / 90
p0 −0.1215 ± 1.012e−06
−0.12
−0.121
−0.122
−0.123
−0.124
pull
Entries 91
Mean −9.132
Std Dev 66.57
200
100
0
−100
−200

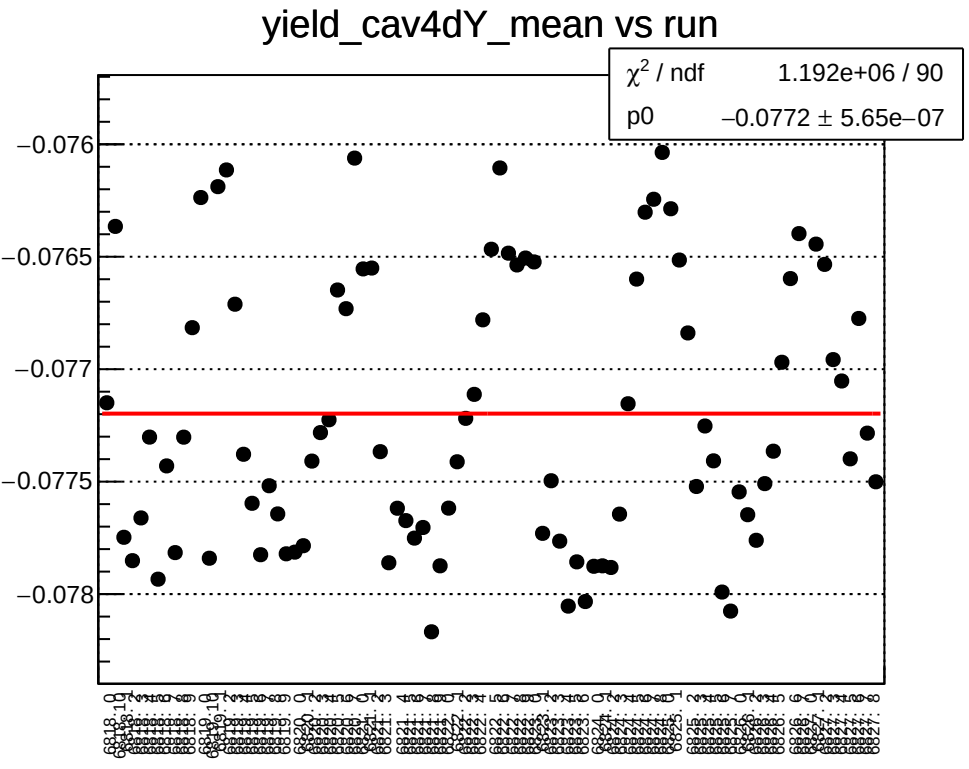

pull1D
Entries 91
Mean −0.527
Std Dev 6.708
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

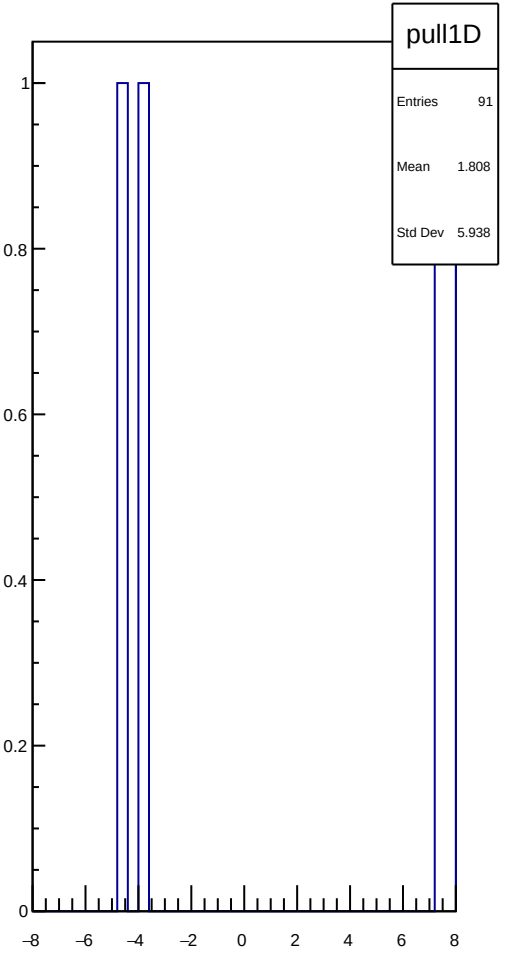

yield_cav4cY_rms vs run
χ² / ndf 3.802e+04 / 90
p0 0.0009306 ± 7.155e−07
0.003
0.0025
0.002
0.0015
0.001

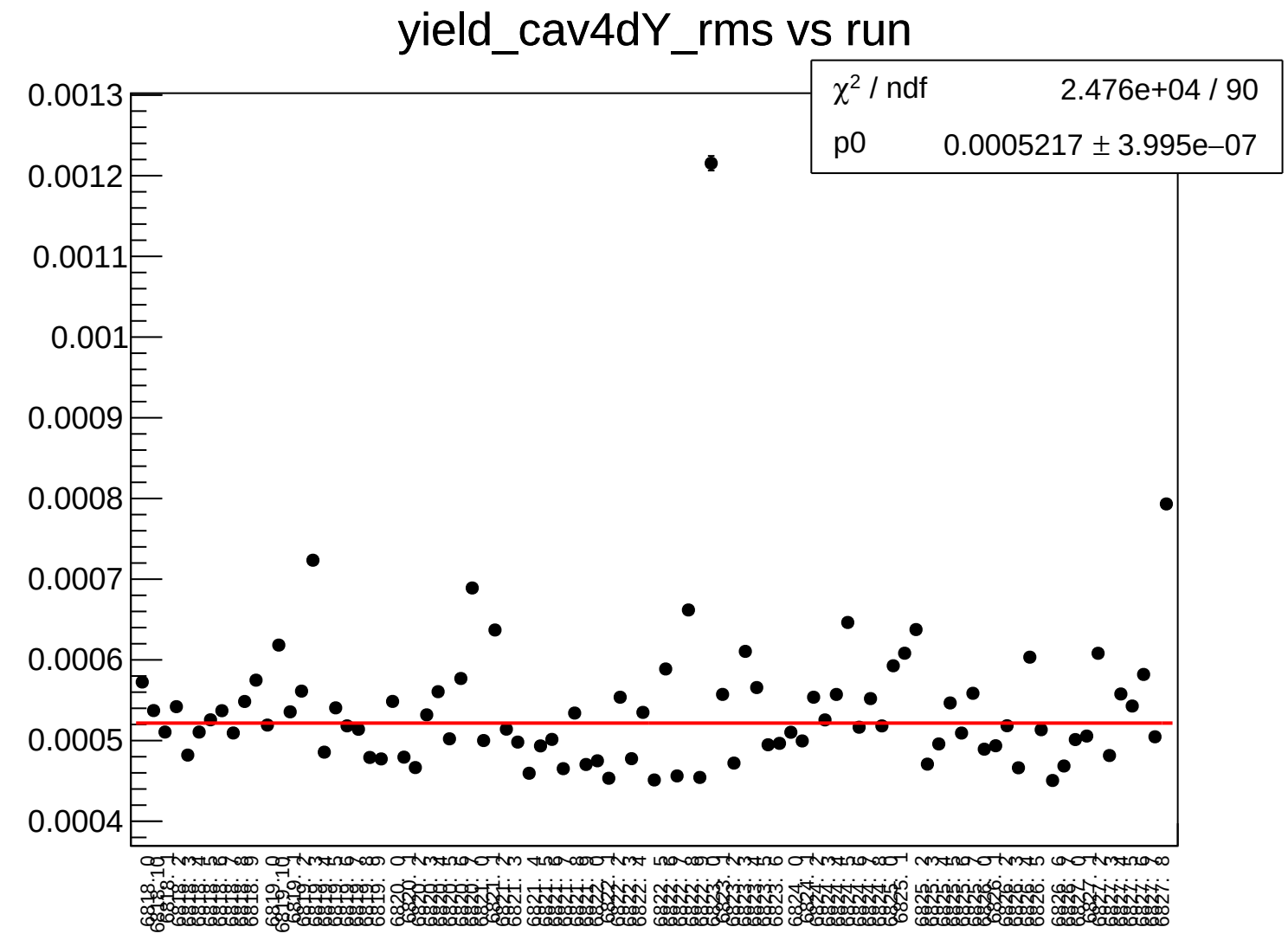

yield_cav4dX_mean vs run
χ² / ndf 4.186e+05 / 90
p0 0.06588 ± 1.124e−05
pull
Entries 91
Mean 52.71
Std Dev 29.74

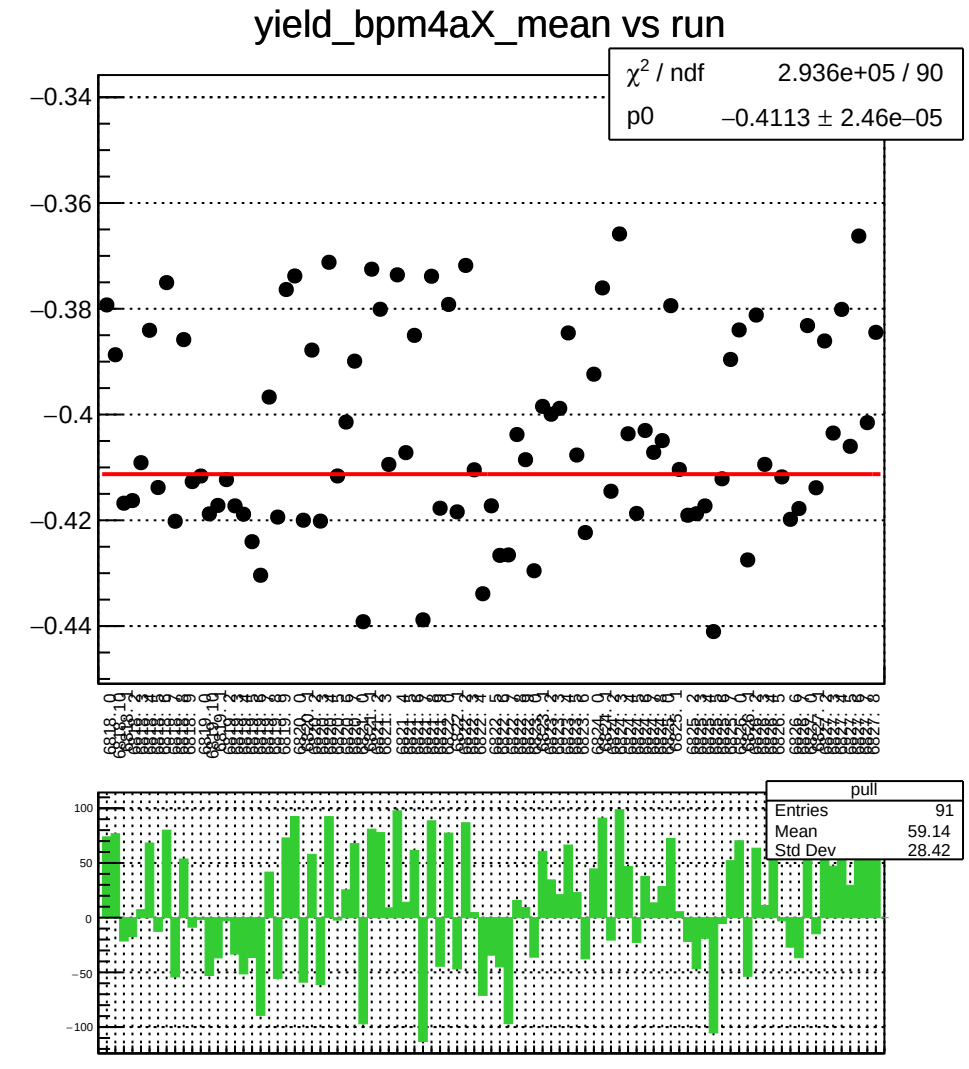

pull1D
Entries 91
Mean 1.48
Std Dev 4.871

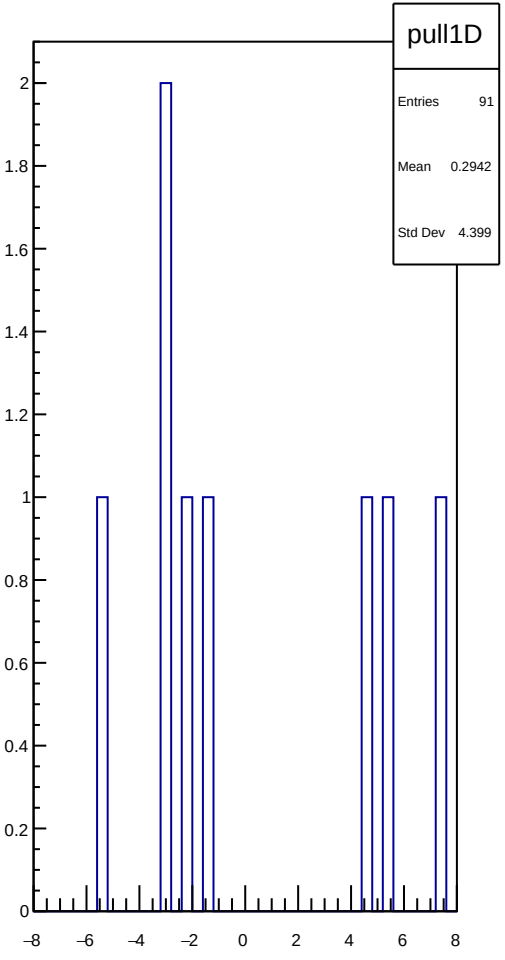

yield_cav4dX_rms vs run
χ² / ndf 2.79e+05 / 90
p0 0.009574 ± 7.949e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

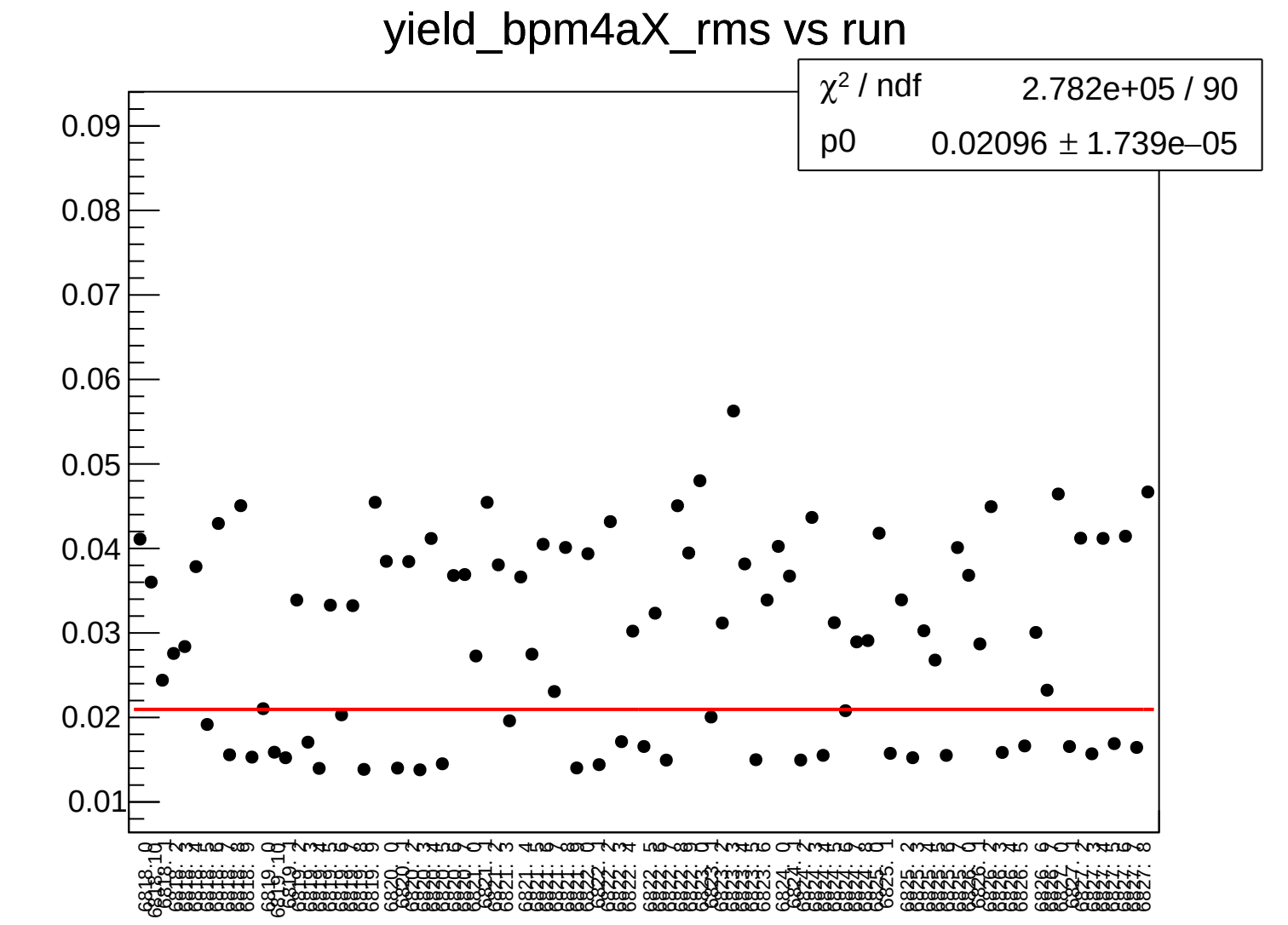

yield_cav4dY_mean vs run
χ² / ndf 1.192e+06 / 90
p0 −0.0772 ± 5.65e−07
−0.076
−0.0765
−0.077
−0.0775
−0.078
pull
Entries 91
Mean −314.4
Std Dev 365.5
300
200
100
0
−100
−200

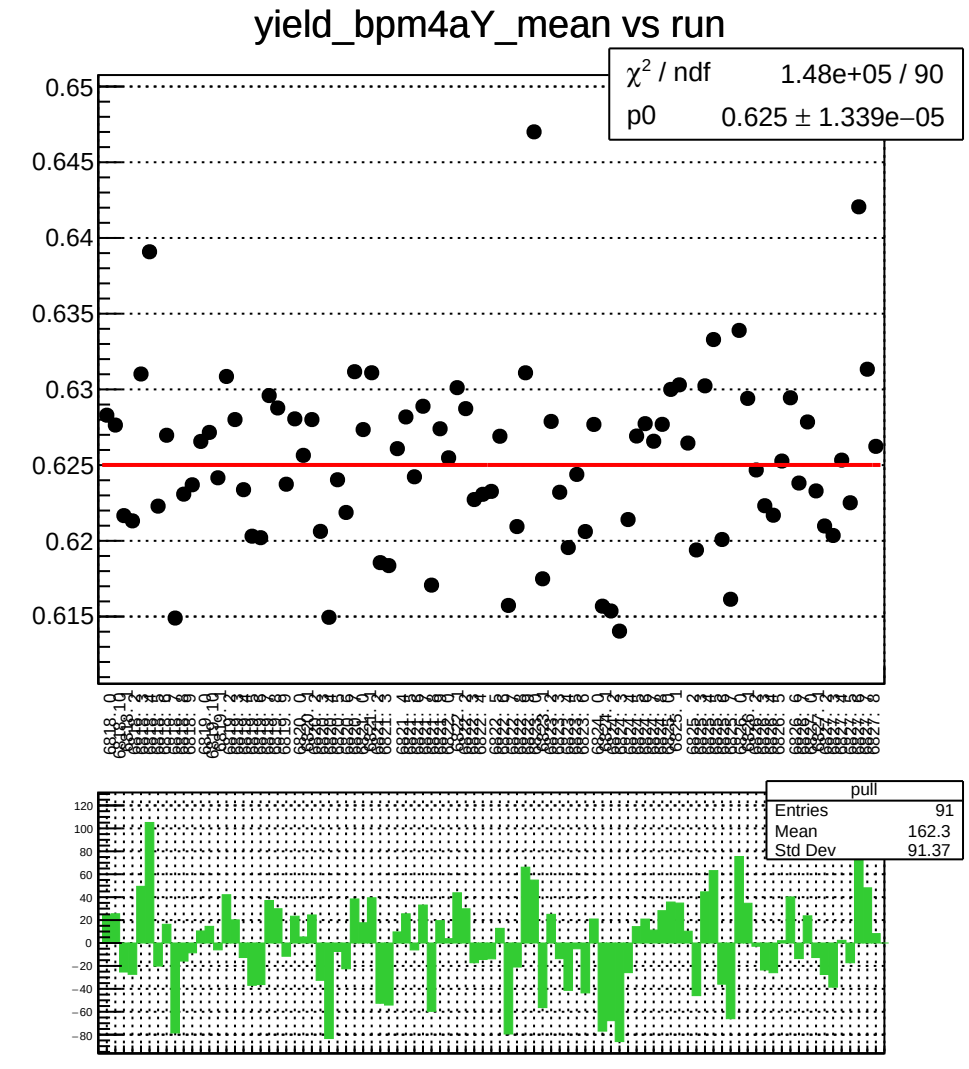

pull1D
Entries 91
Mean 1.808
Std Dev 5.938
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

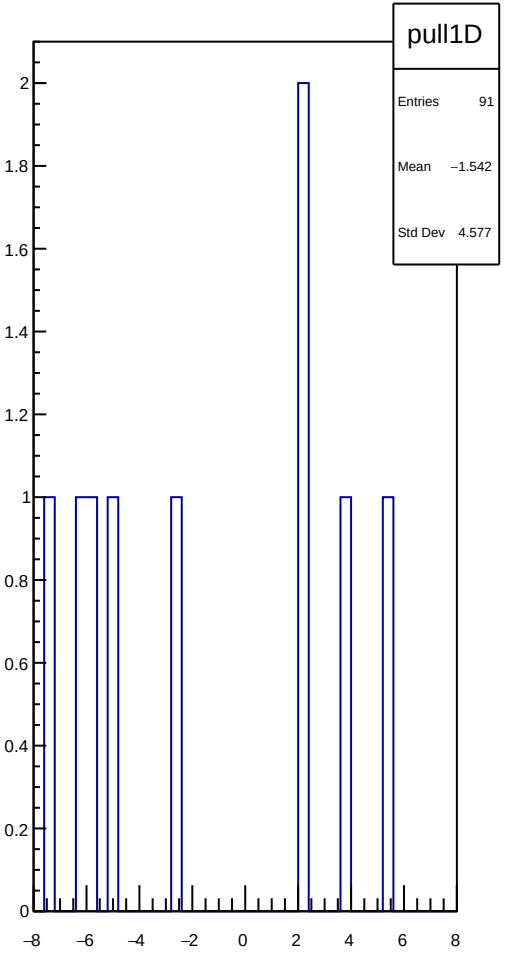

yield_cav4dY_rms vs run
χ² / ndf 2.476e+04 / 90
p0 0.0005217 ± 3.995e−07
0.0013
0.0012
0.0011
0.001
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004

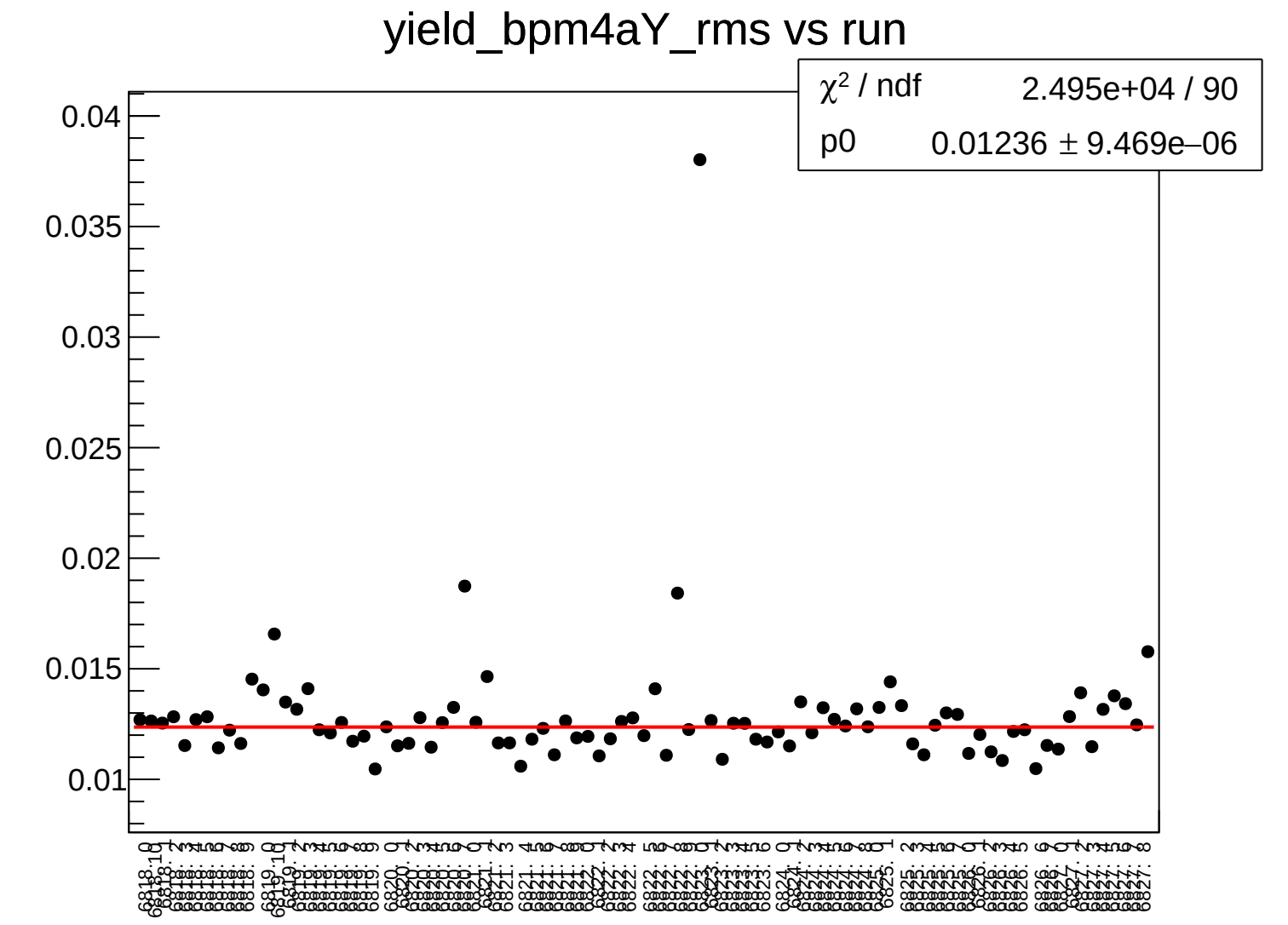

yield_bpm4aX_mean vs run
χ² / ndf 2.936e+05 / 90
p0 –0.4113 ± 2.46e–05
–0.34
–0.36
–0.38
–0.4
–0.42
–0.44
pull
Entries 91
Mean 59.14
Std Dev 28.42
100
50
0
–50
–100

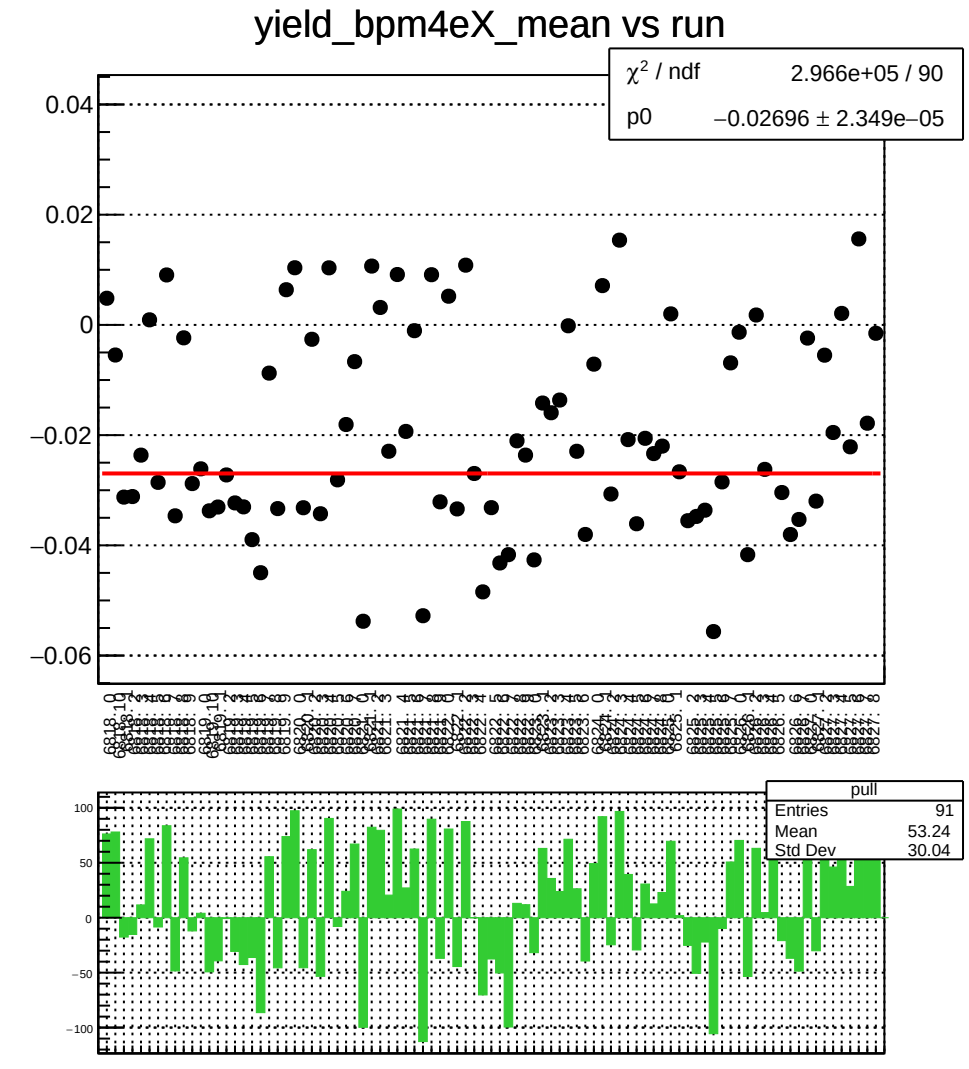

pull1D
Entries 91
Mean 0.2942
Std Dev 4.399
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

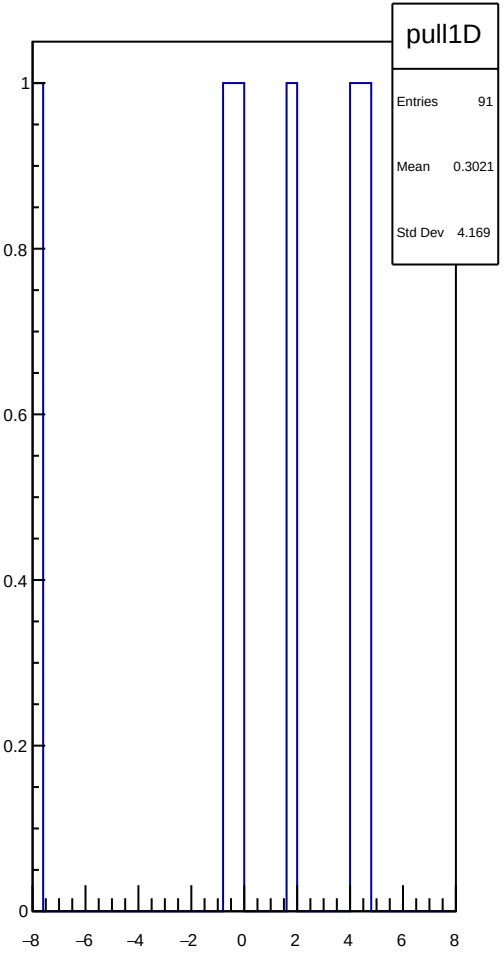

yield_bpm4aX_rms vs run
χ² / ndf 2.782e+05 / 90
p0 0.02096 ± 1.739e−05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

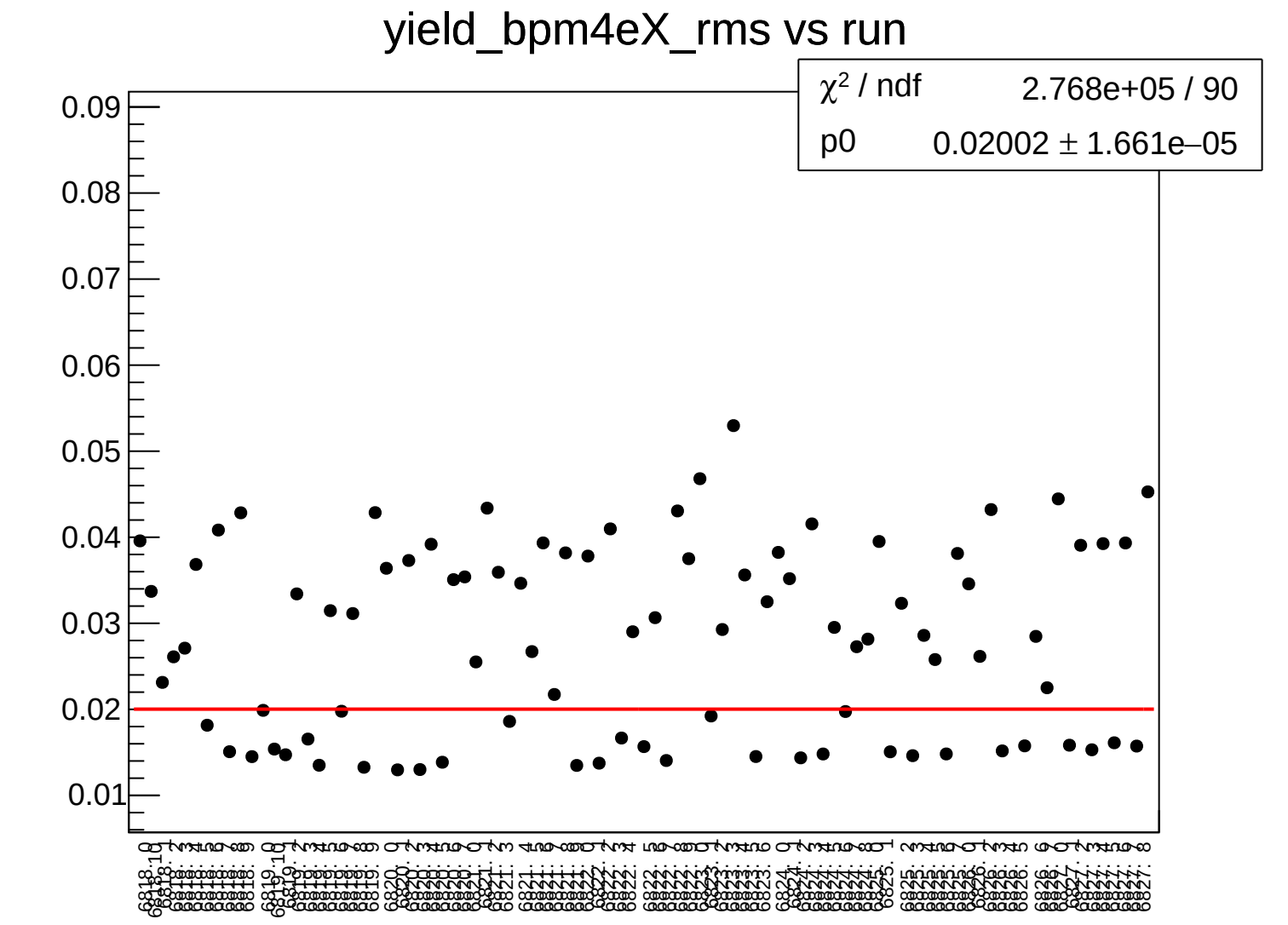

yield_bpm4aY_mean vs run
χ² / ndf 1.48e+05 / 90
p0 0.625 ± 1.339e−05
0.65
0.645
0.64
0.635
0.63
0.625
0.62
0.615
pull
Entries 91
Mean 162.3
Std Dev 91.37
120
100
80
60
40
20
0
−20
−40
−60
−80

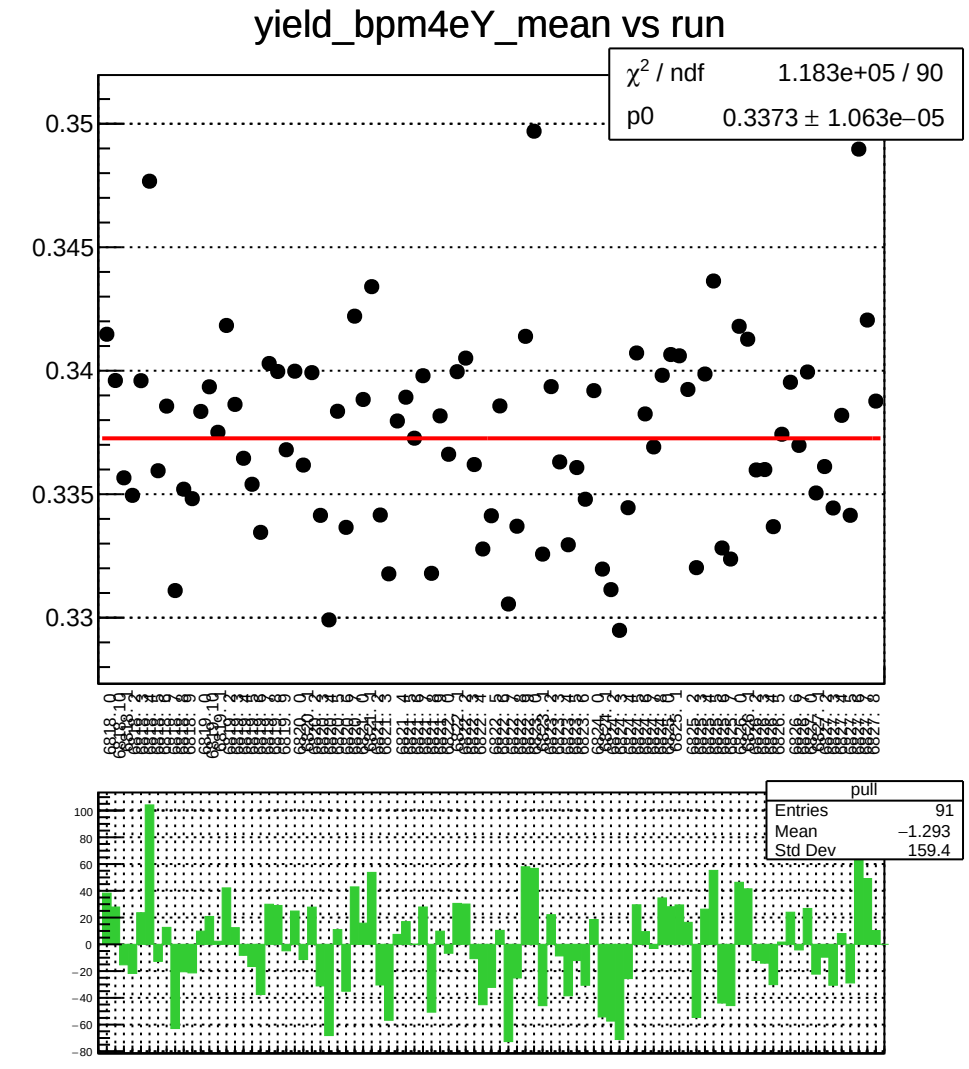

pull1D
Entries 91
Mean −1.542
Std Dev 4.577
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

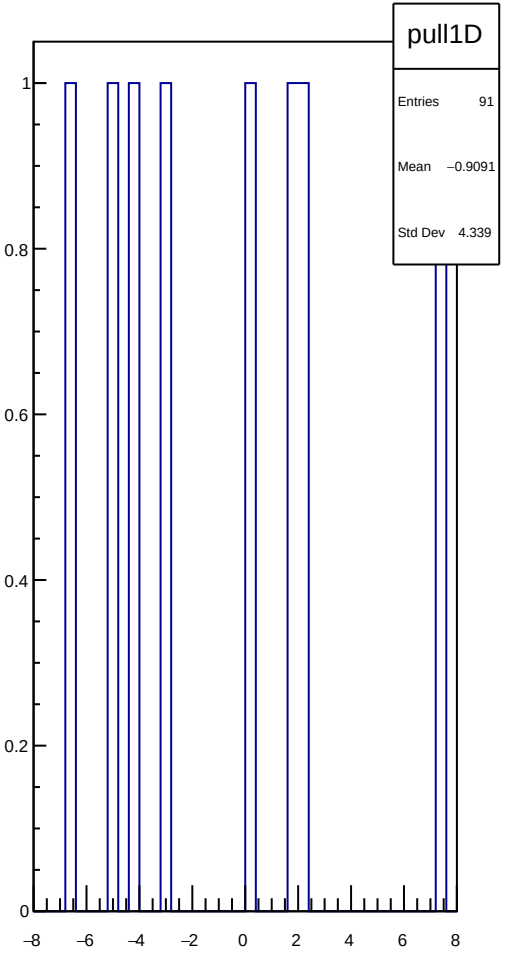

yield_bpm4aY_rms vs run
χ² / ndf 2.495e+04 / 90
p0 0.01236 ± 9.469e–06
0.04
0.035
0.03
0.025
0.02
0.015
0.01

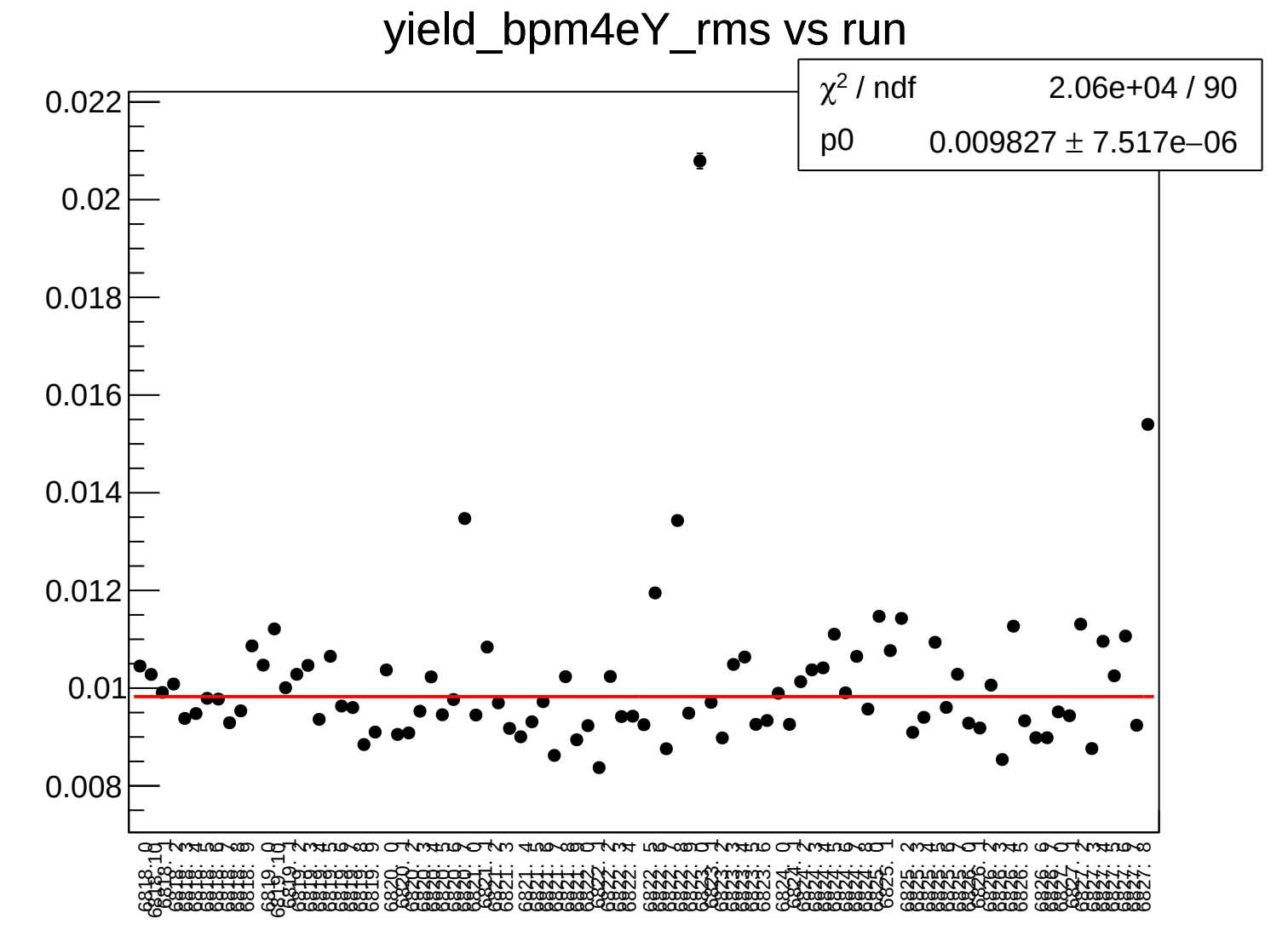

yield_bpm4eX_mean vs run
χ² / ndf 2.966e+05 / 90
p0 −0.02696 ± 2.349e−05
0.04
0.02
0
−0.02
−0.04
−0.06
pull
Entries 91
Mean 53.24
Std Dev 30.04
100
50
0
−50
−100

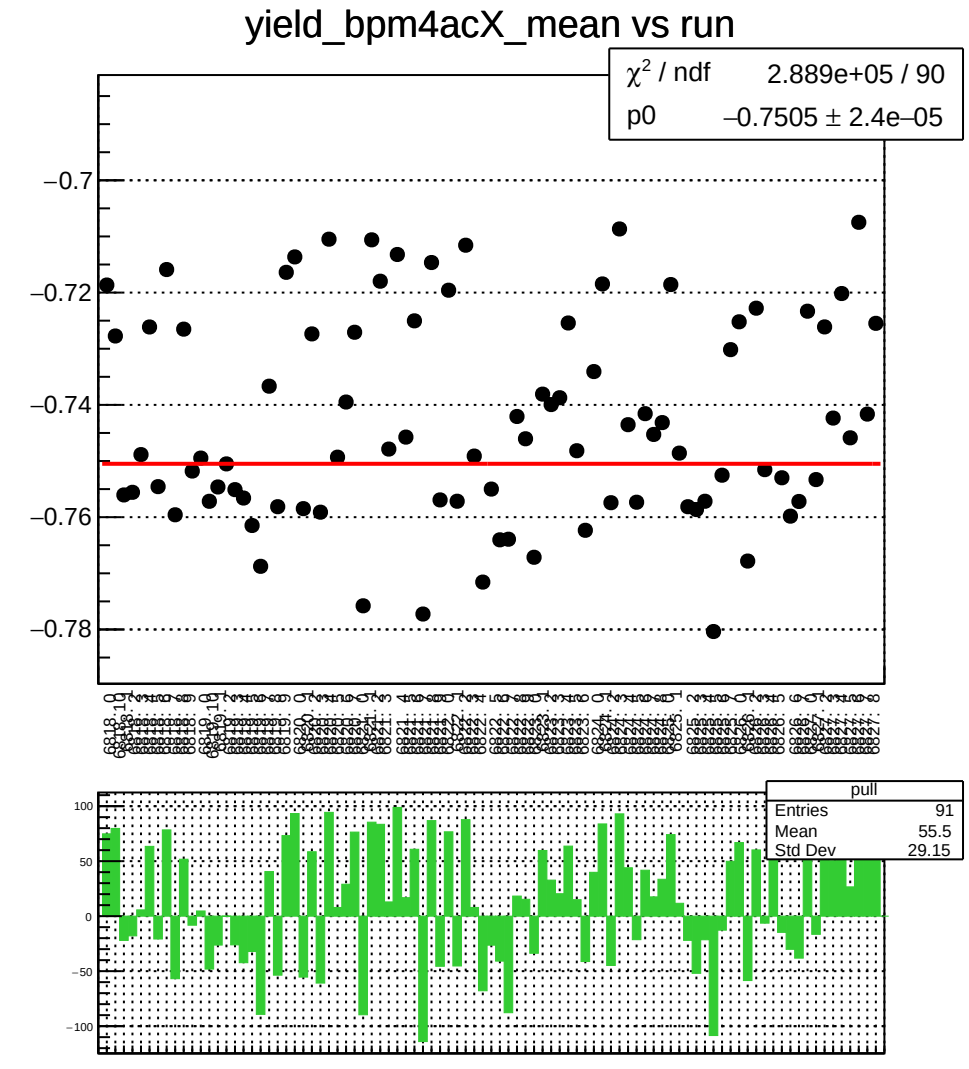

pull1D
Entries 91
Mean 0.3021
Std Dev 4.169
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

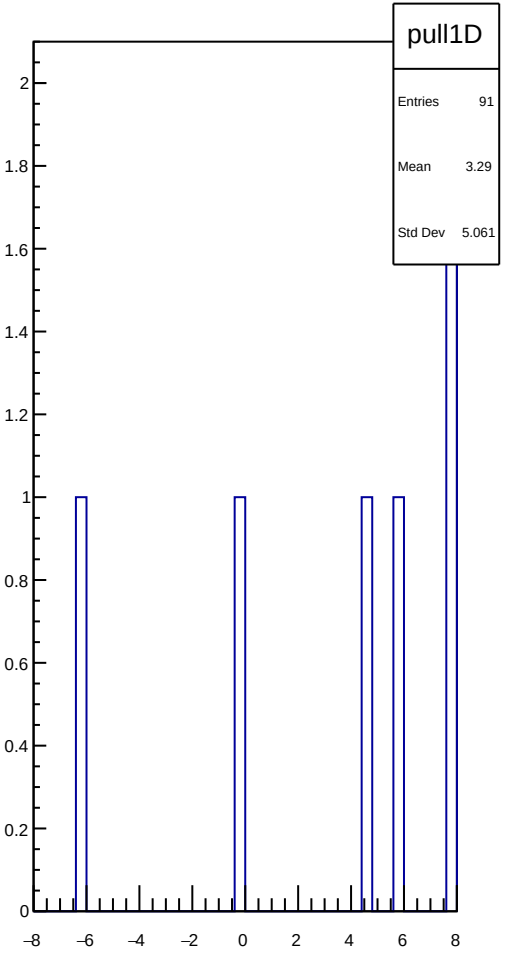

yield_bpm4eX_rms vs run
χ² / ndf 2.768e+05 / 90
p0 0.02002 ± 1.661e−05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

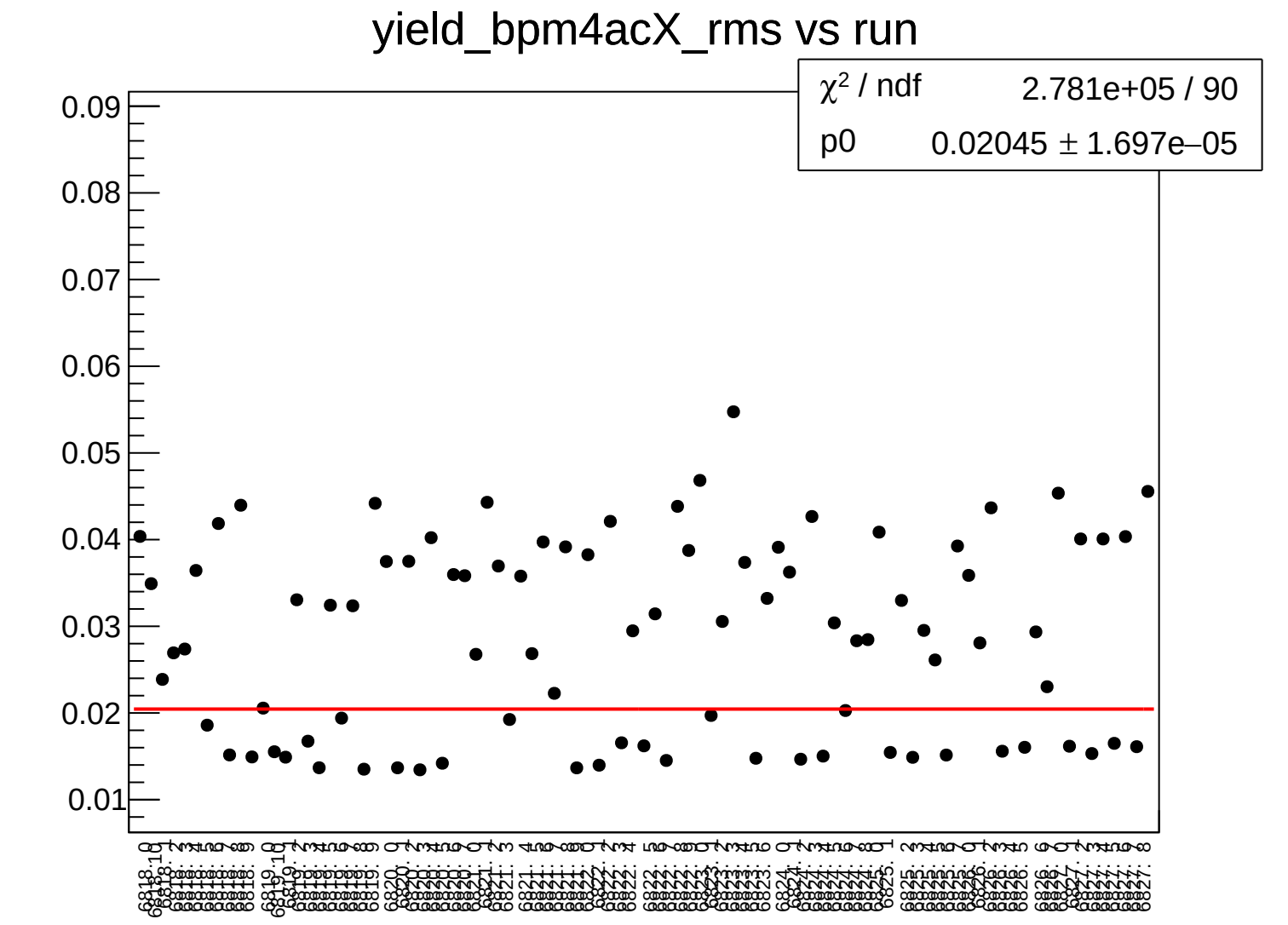

yield_bpm4eY_mean vs run
χ² / ndf 1.183e+05 / 90
p0 0.3373 ± 1.063e−05
0.35
0.345
0.34
0.335
0.33
pull
Entries 91
Mean −1.293
Std Dev 159.4
100
80
60
40
20
0
−20
−40
−60
−80

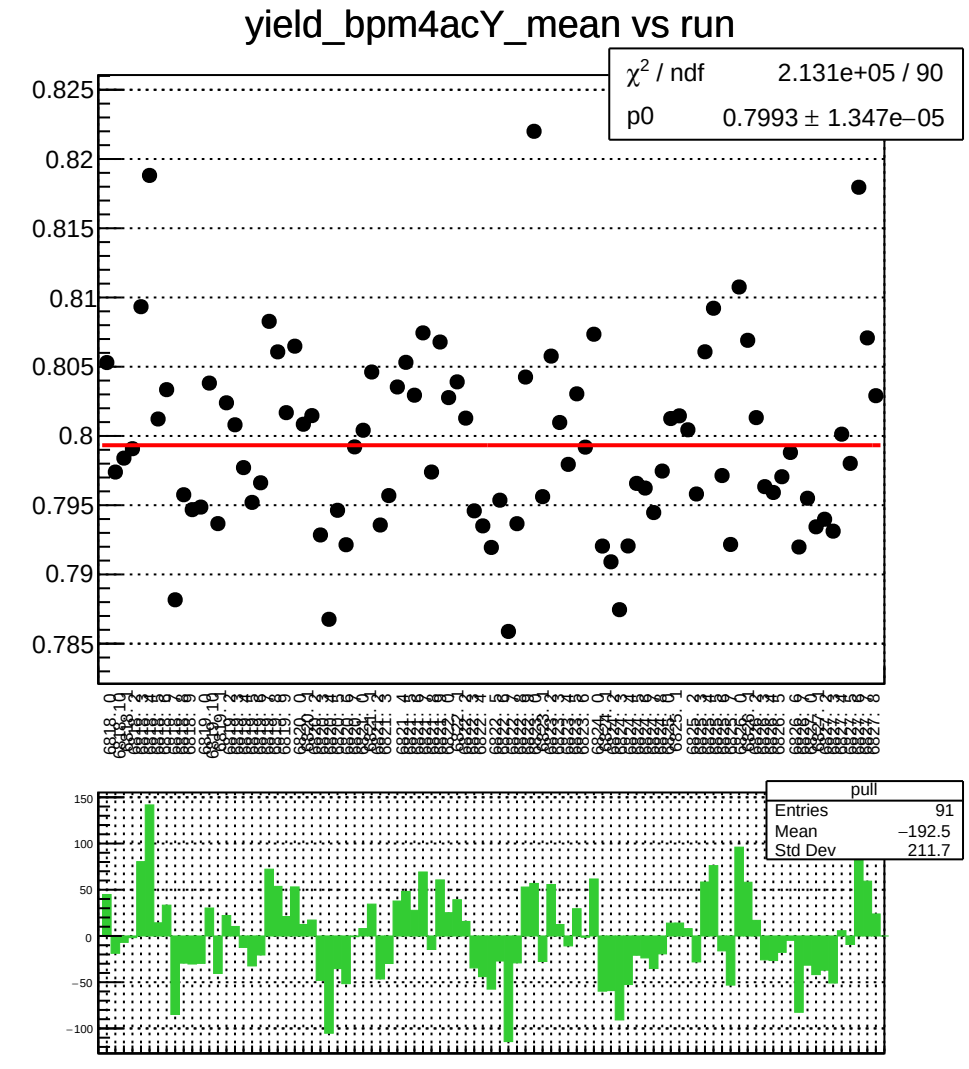

pull1D
Entries 91
Mean −0.9091
Std Dev 4.339
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

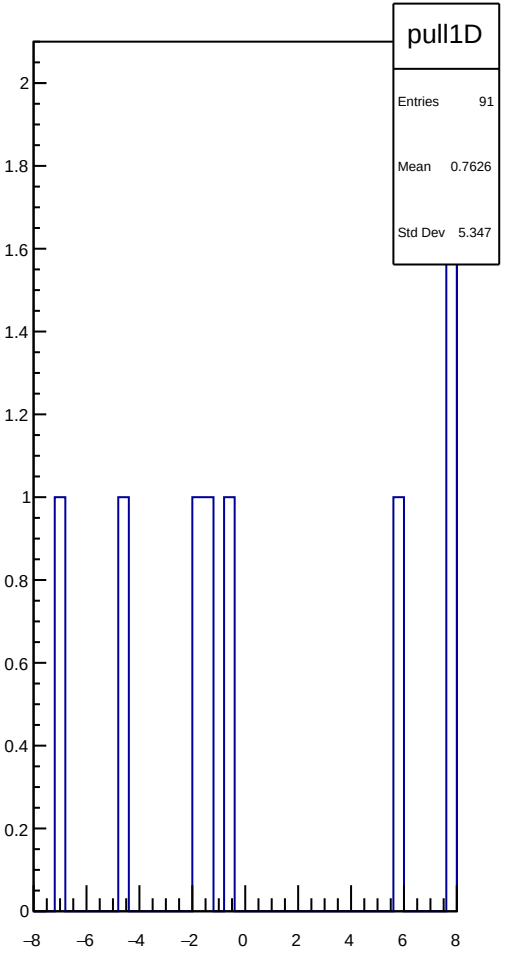

yield_bpm4eY_rms vs run
χ² / ndf 2.06e+04 / 90
p0 0.009827 ± 7.517e−06
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

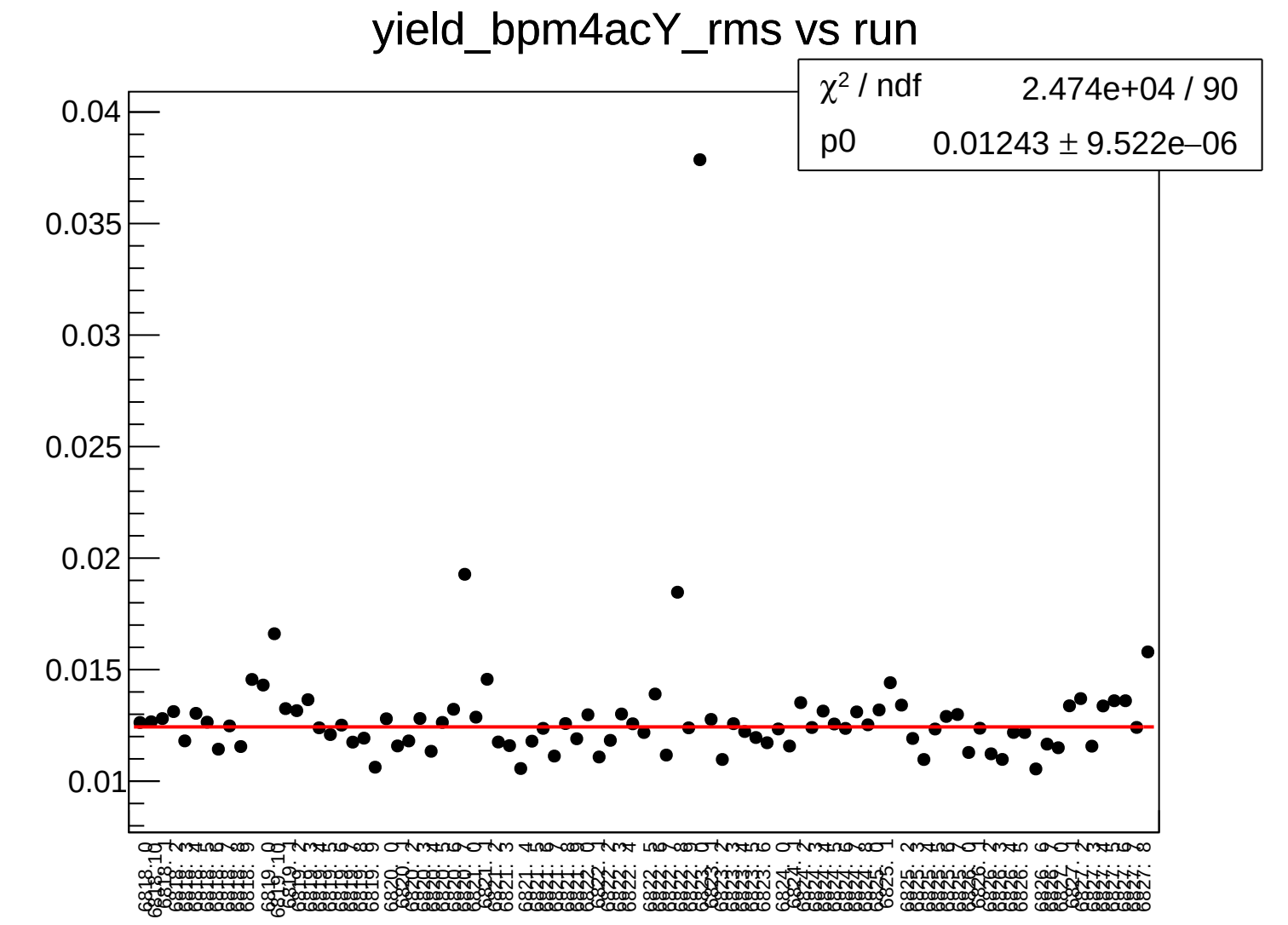

yield_bpm4acX_mean vs run
χ² / ndf 2.889e+05 / 90
p0 –0.7505 ± 2.4e–05
–0.7
–0.72
–0.74
–0.76
–0.78
pull
Entries 91
Mean 55.5
Std Dev 29.15
100
50
0
–50
–100

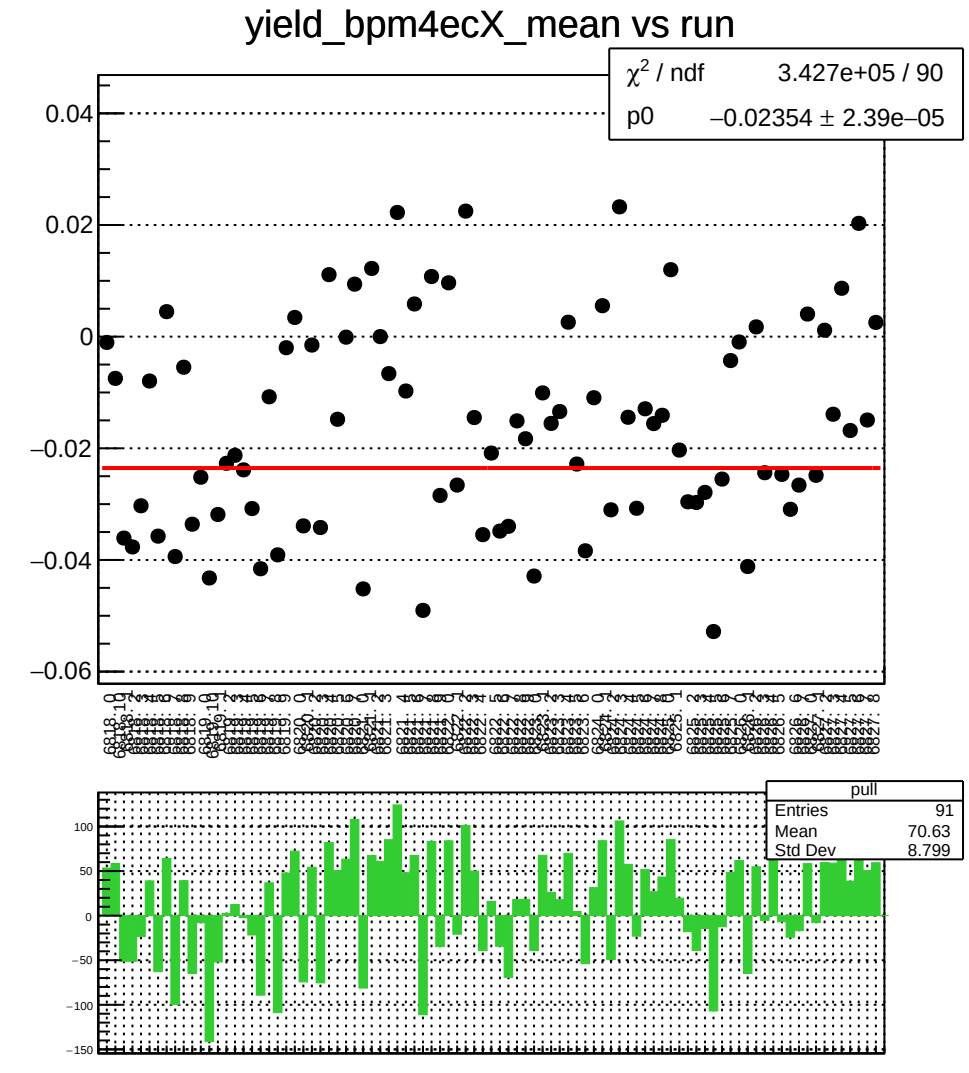

pull1D
Entries 91
Mean 3.29
Std Dev 5.061
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

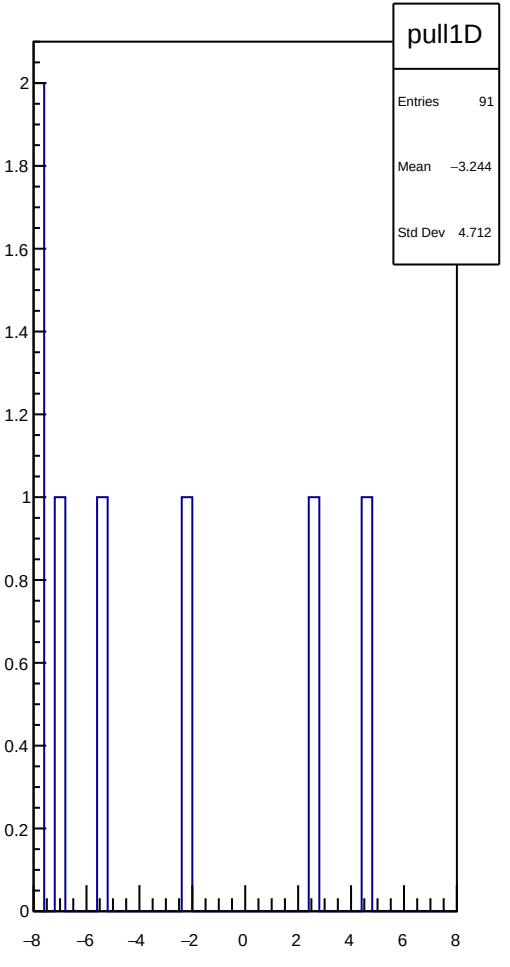

yield_bpm4acX_rms vs run
χ² / ndf 2.781e+05 / 90
p0 0.02045 ± 1.697e−05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

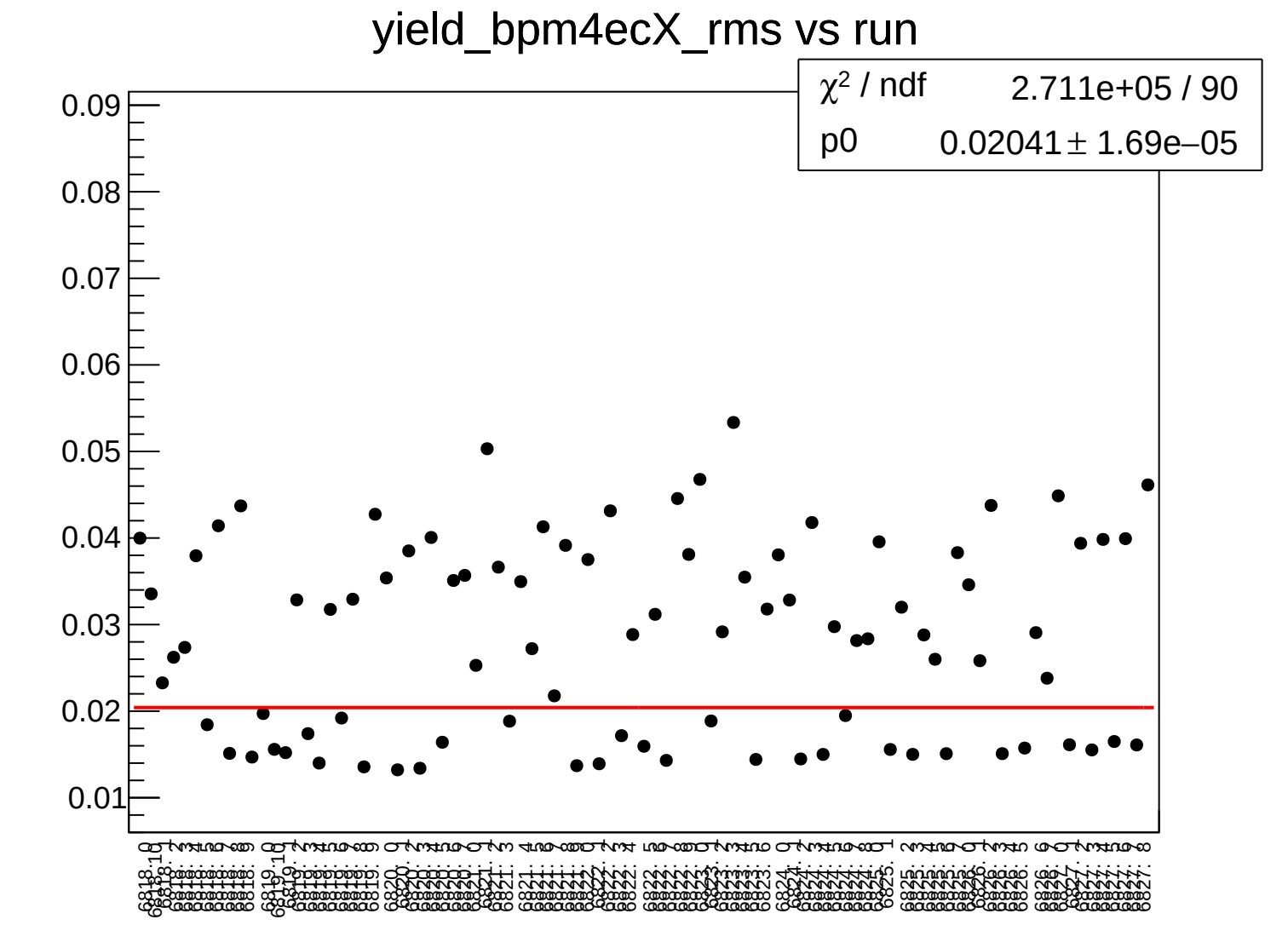

yield_bpm4acY_mean vs run
χ² / ndf 2.131e+05 / 90
p0 0.7993 ± 1.347e−05
0.825
0.82
0.815
0.81
0.805
0.8
0.795
0.79
0.785
pull
Entries 91
Mean −192.5
Std Dev 211.7
150
100
50
0
−50
−100

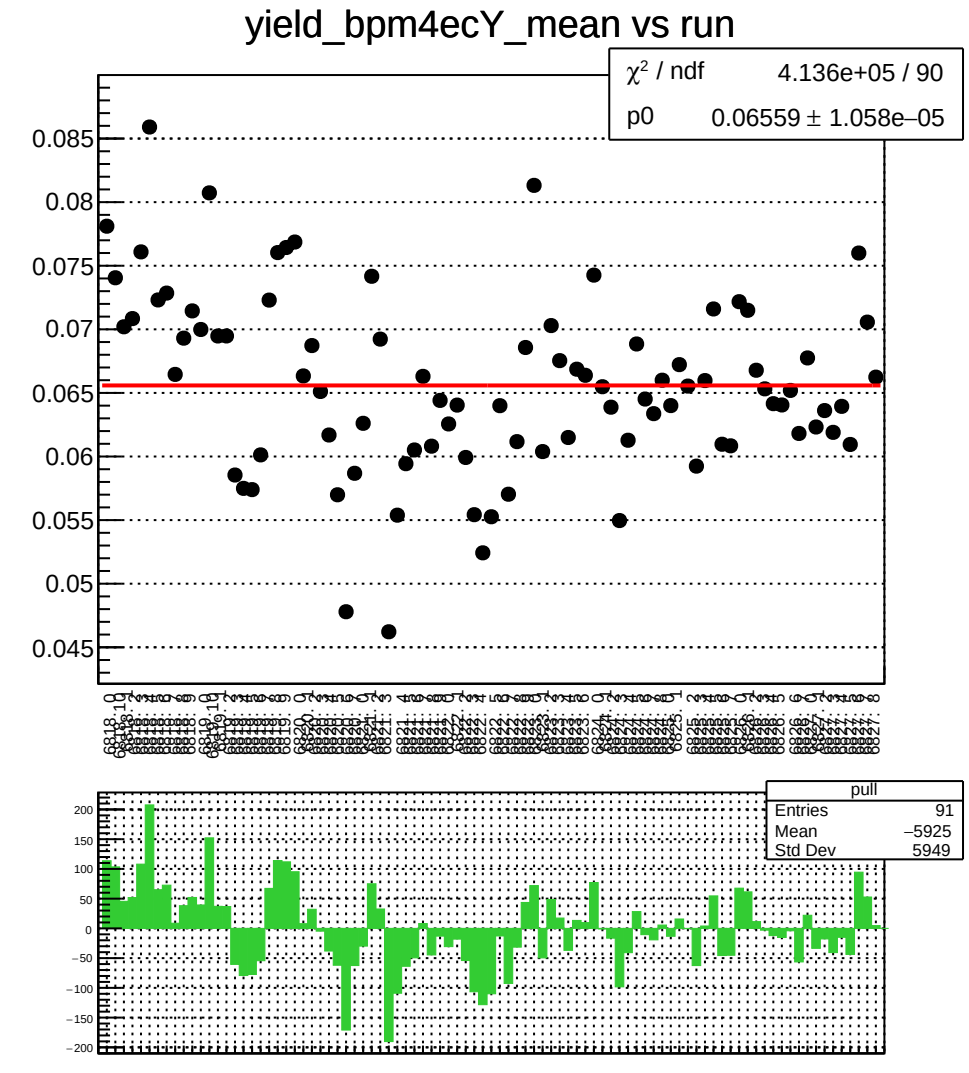

pull1D
Entries 91
Mean 0.7626
Std Dev 5.347
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

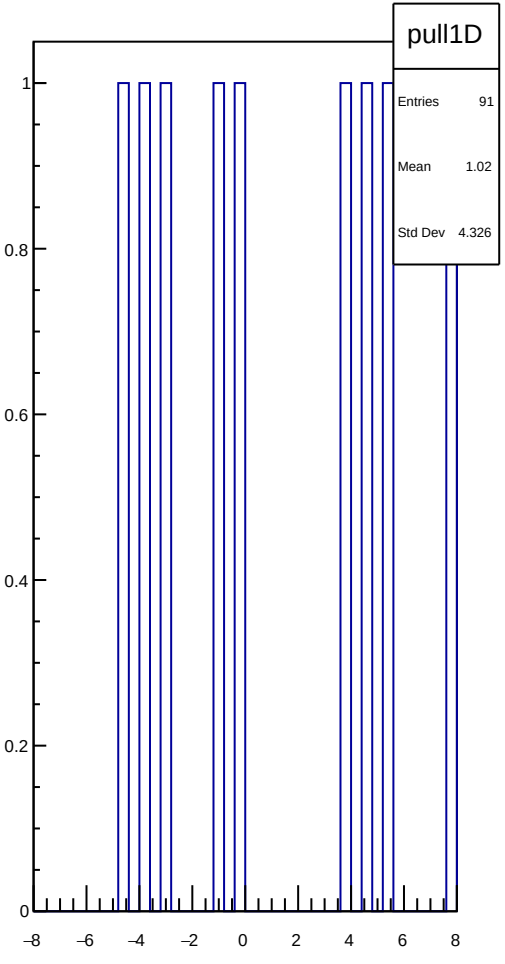

yield_bpm4acY_rms vs run
χ² / ndf 2.474e+04 / 90
p0 0.01243 ± 9.522e–06
0.04
0.035
0.03
0.025
0.02
0.015
0.01

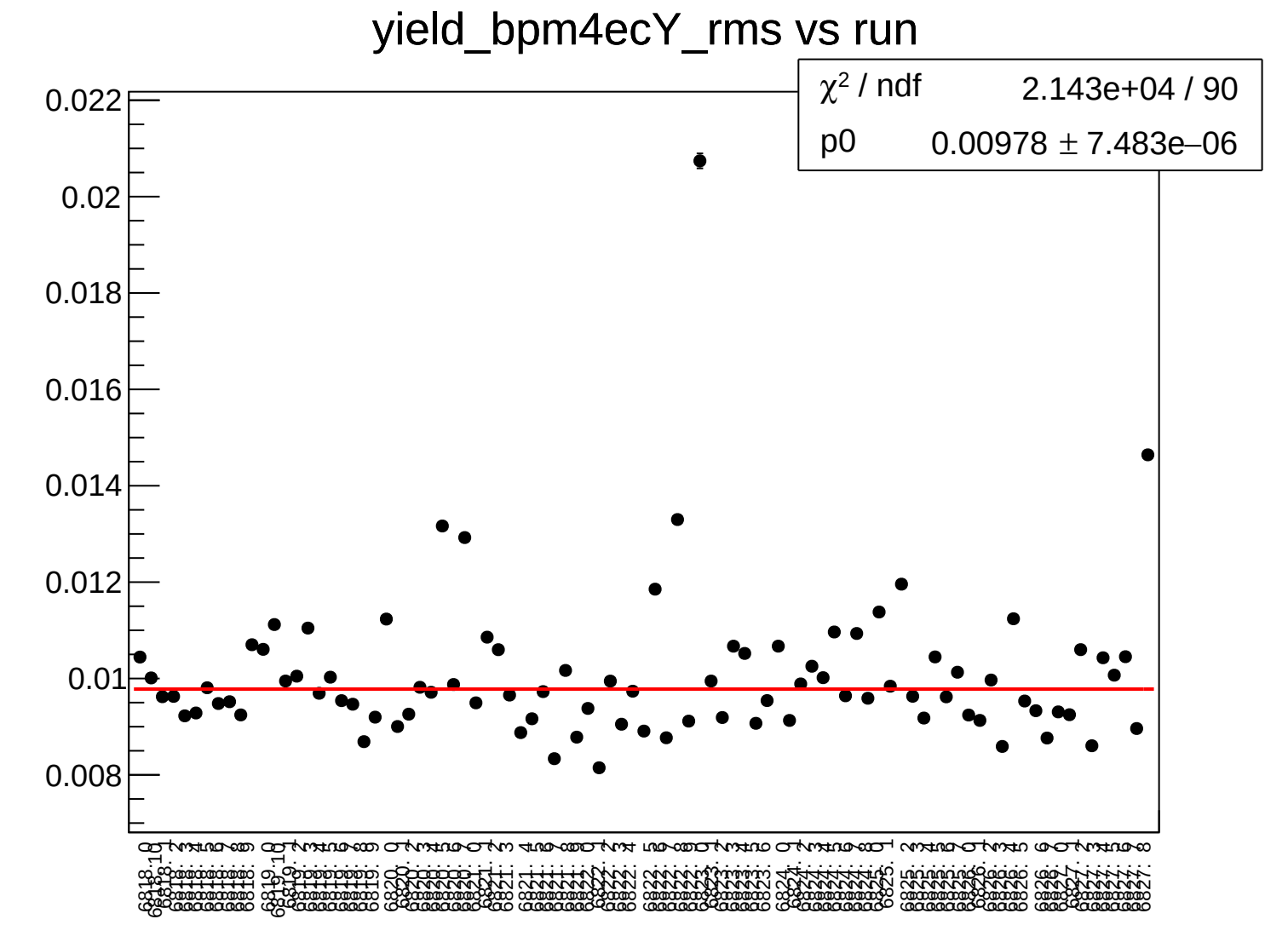

yield_bpm4ecX_mean vs run
χ² / ndf 3.427e+05 / 90
p0 −0.02354 ± 2.39e−05
0.04
0.02
0
−0.02
−0.04
−0.06
pull
Entries 91
Mean 70.63
Std Dev 8.799
100
50
0
−50
−100
−150

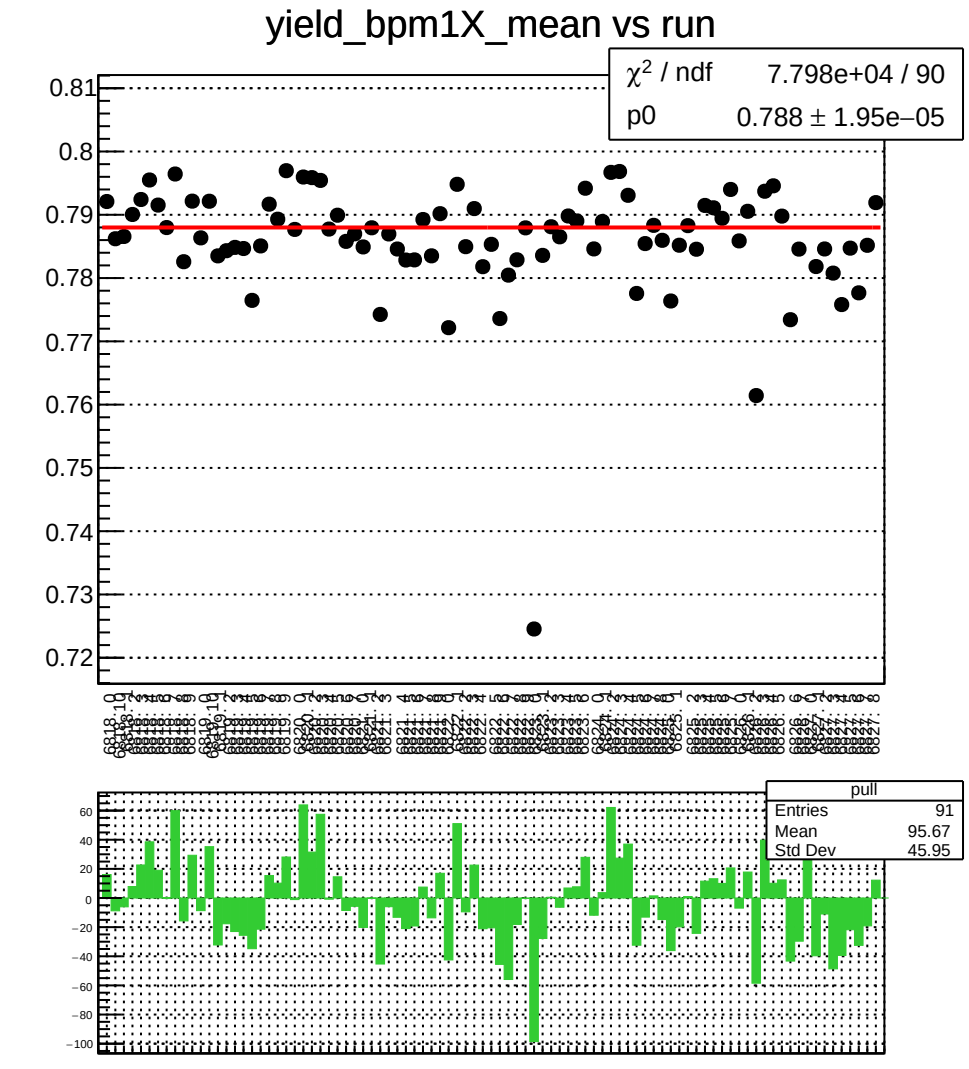

pull1D
Entries 91
Mean −3.244
Std Dev 4.712
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

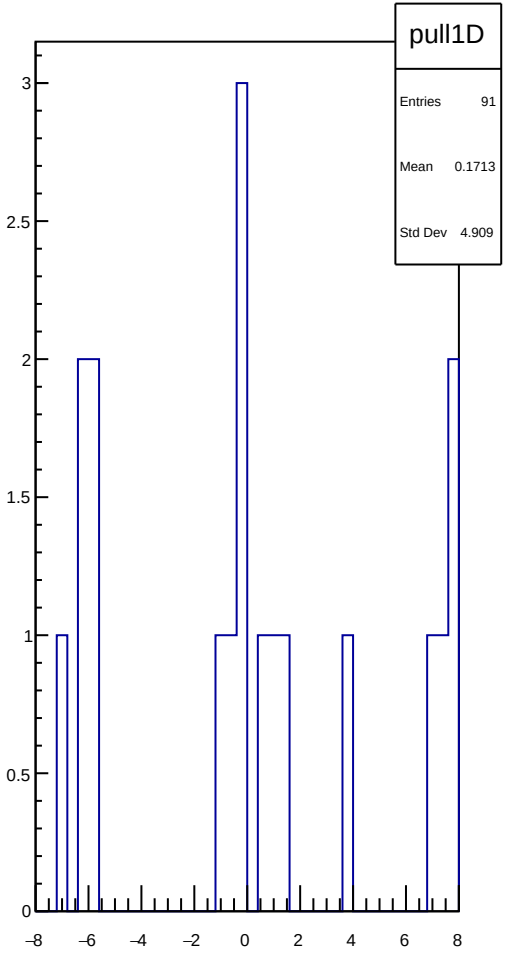

yield_bpm4ecX_rms vs run
χ² / ndf 2.711e+05 / 90
p0 0.02041 ± 1.69e–05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

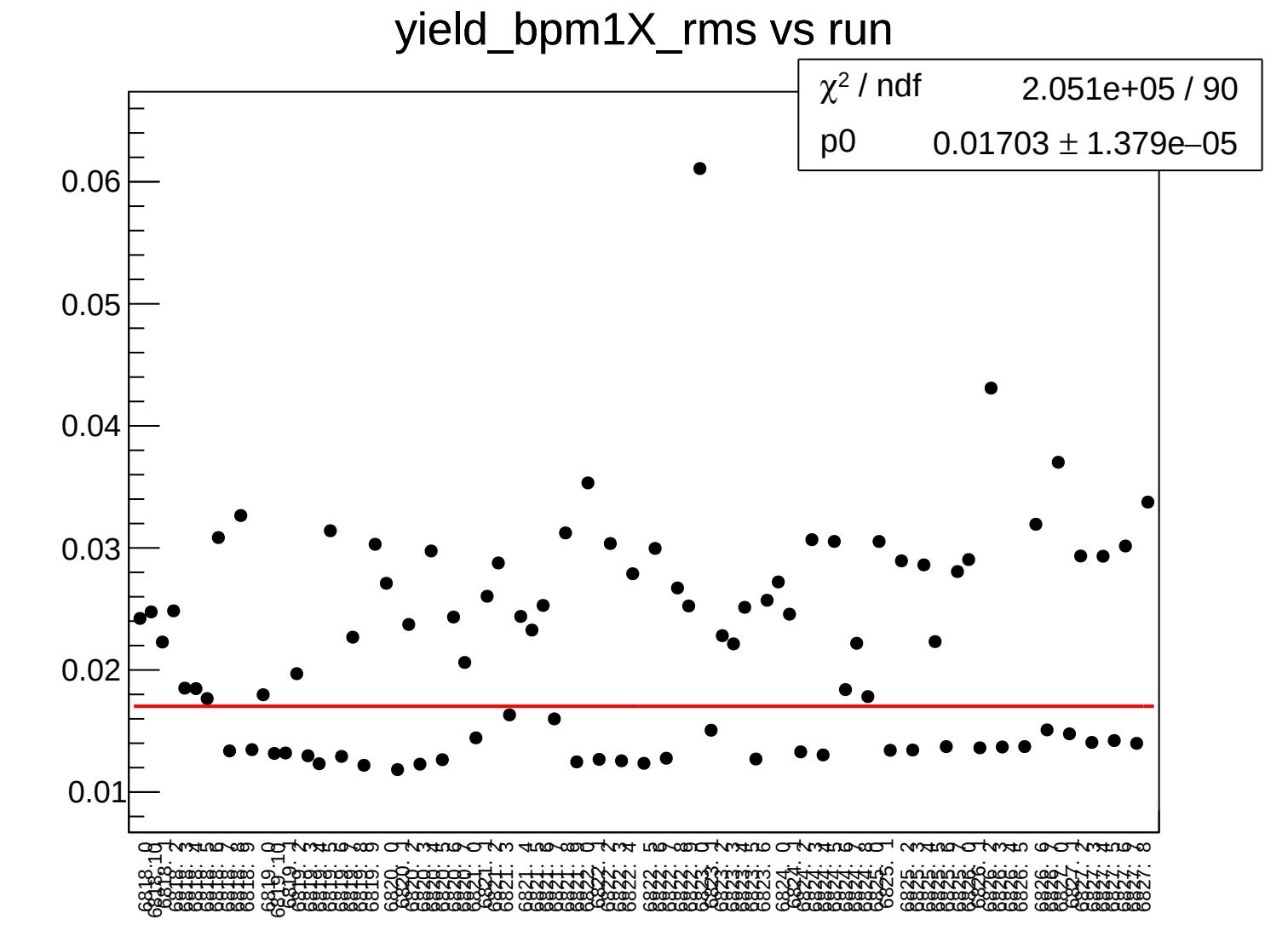

yield_bpm4ecY_mean vs run
χ² / ndf 4.136e+05 / 90
p0 0.06559 ± 1.058e−05
pull
Entries 91
Mean −5925
Std Dev 5949

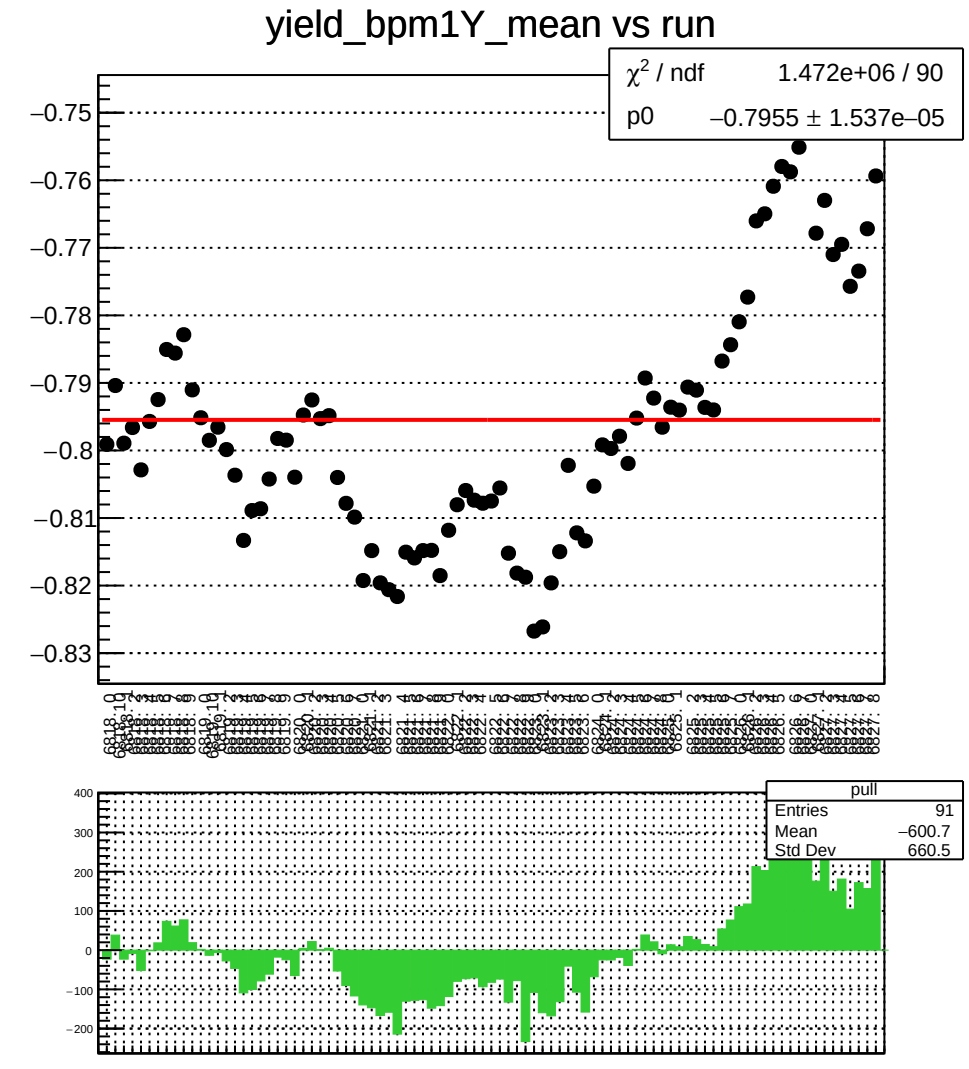

pull1D
Entries 91
Mean 1.02
Std Dev 4.326

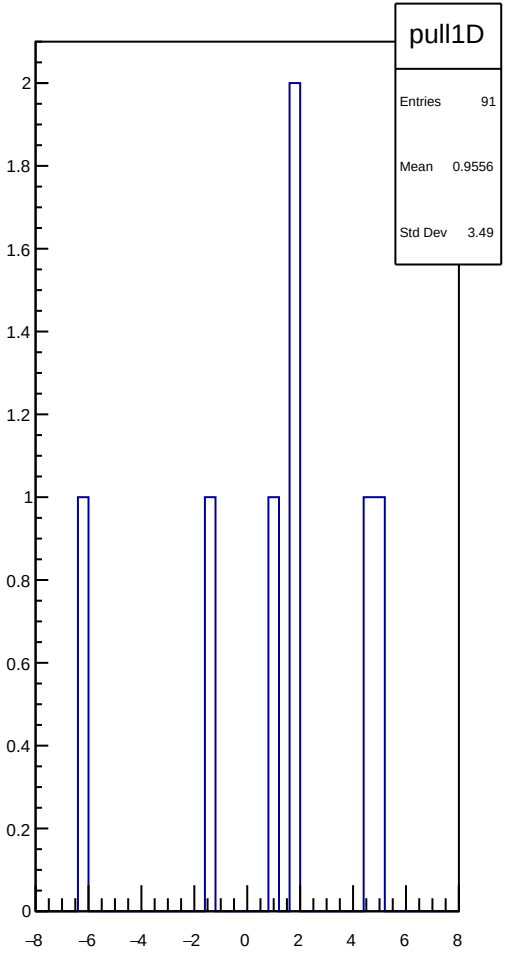

yield_bpm4ecY_rms vs run
χ² / ndf 2.143e+04 / 90
p0 0.00978 ± 7.483e–06
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

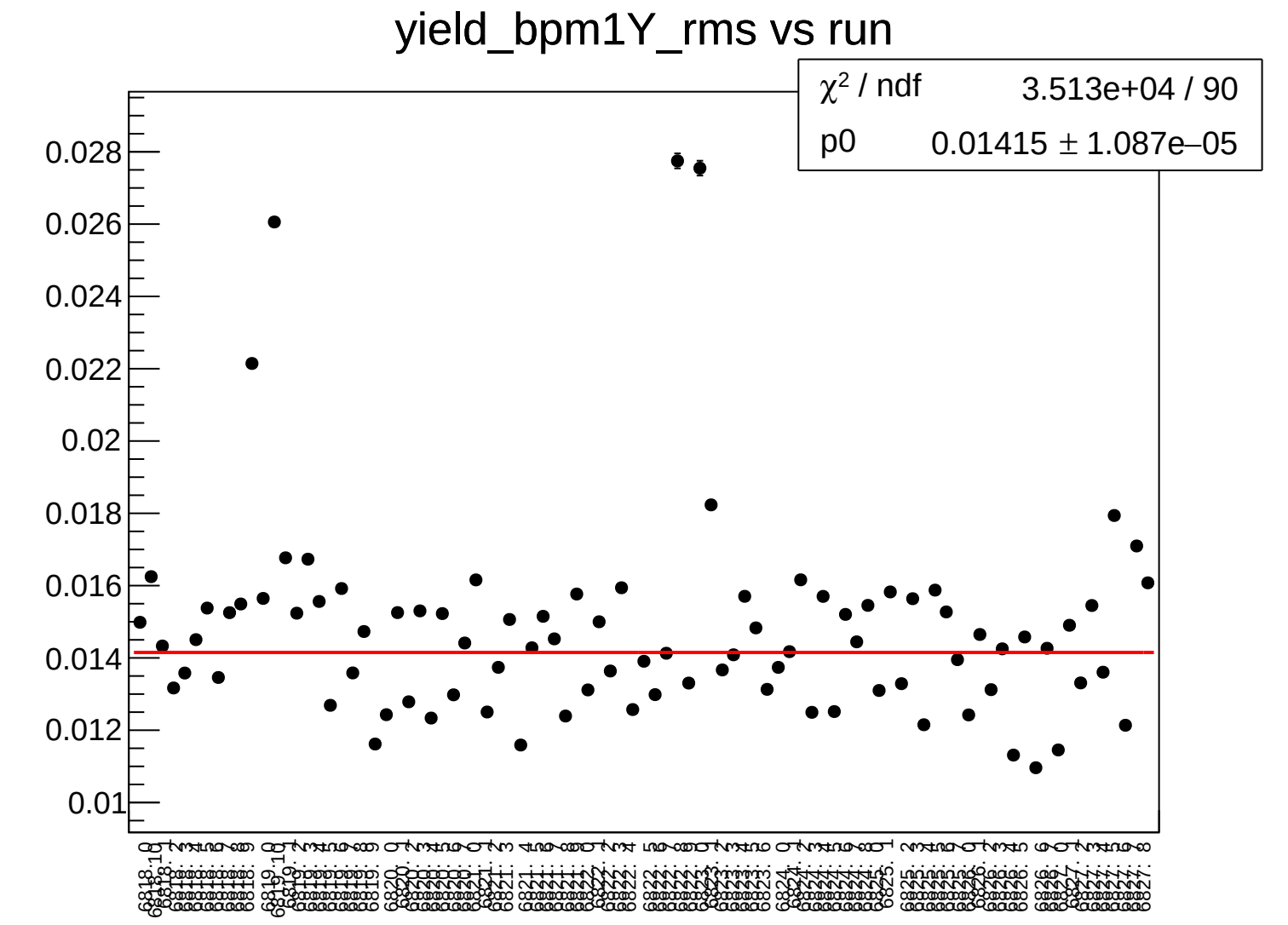

yield_bpm1X_mean vs run
χ² / ndf 7.798e+04 / 90
p0 0.788 ± 1.95e−05
pull
Entries 91
Mean 95.67
Std Dev 45.95

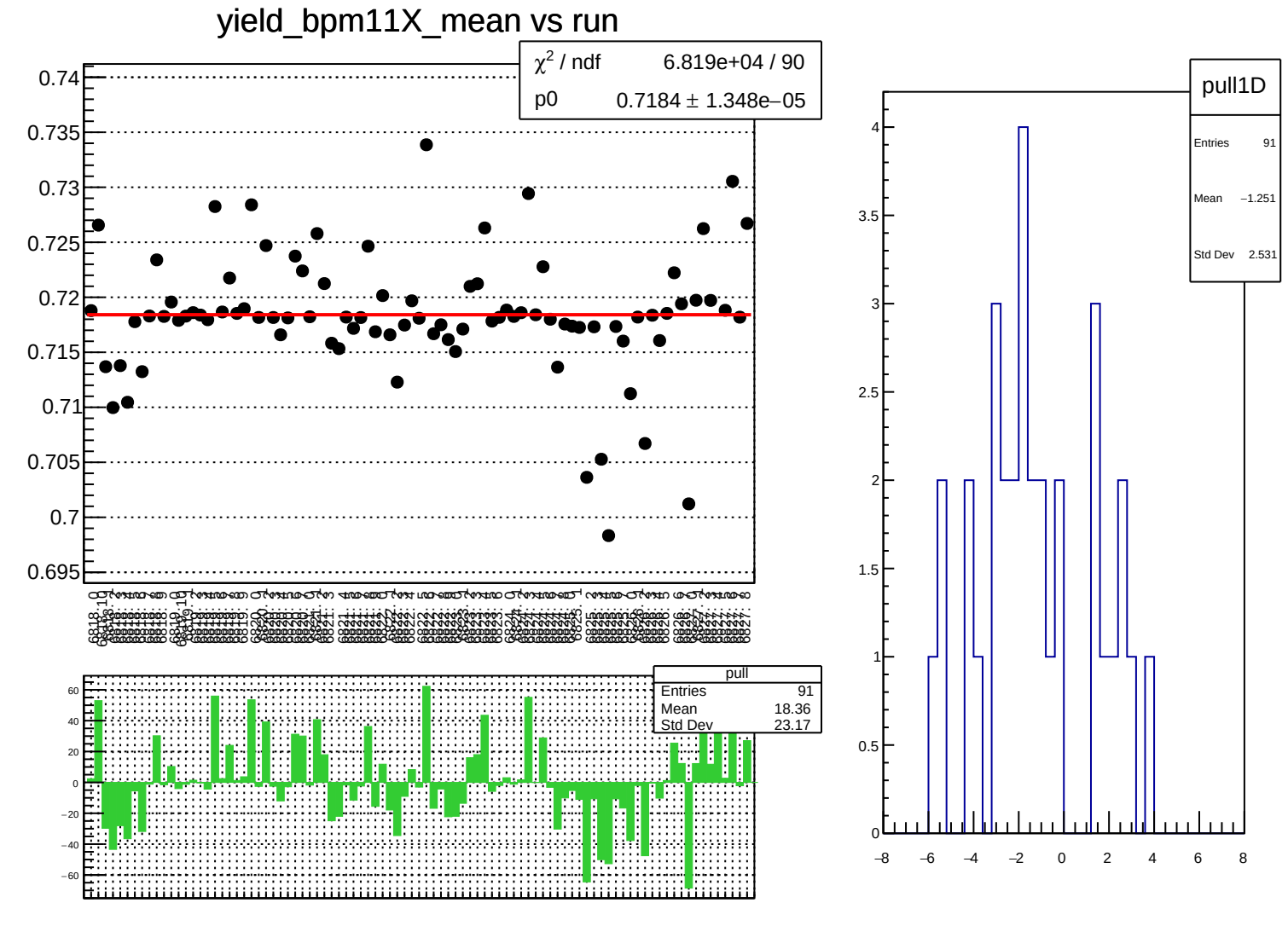

pull1D
Entries 91
Mean 0.1713
Std Dev 4.909

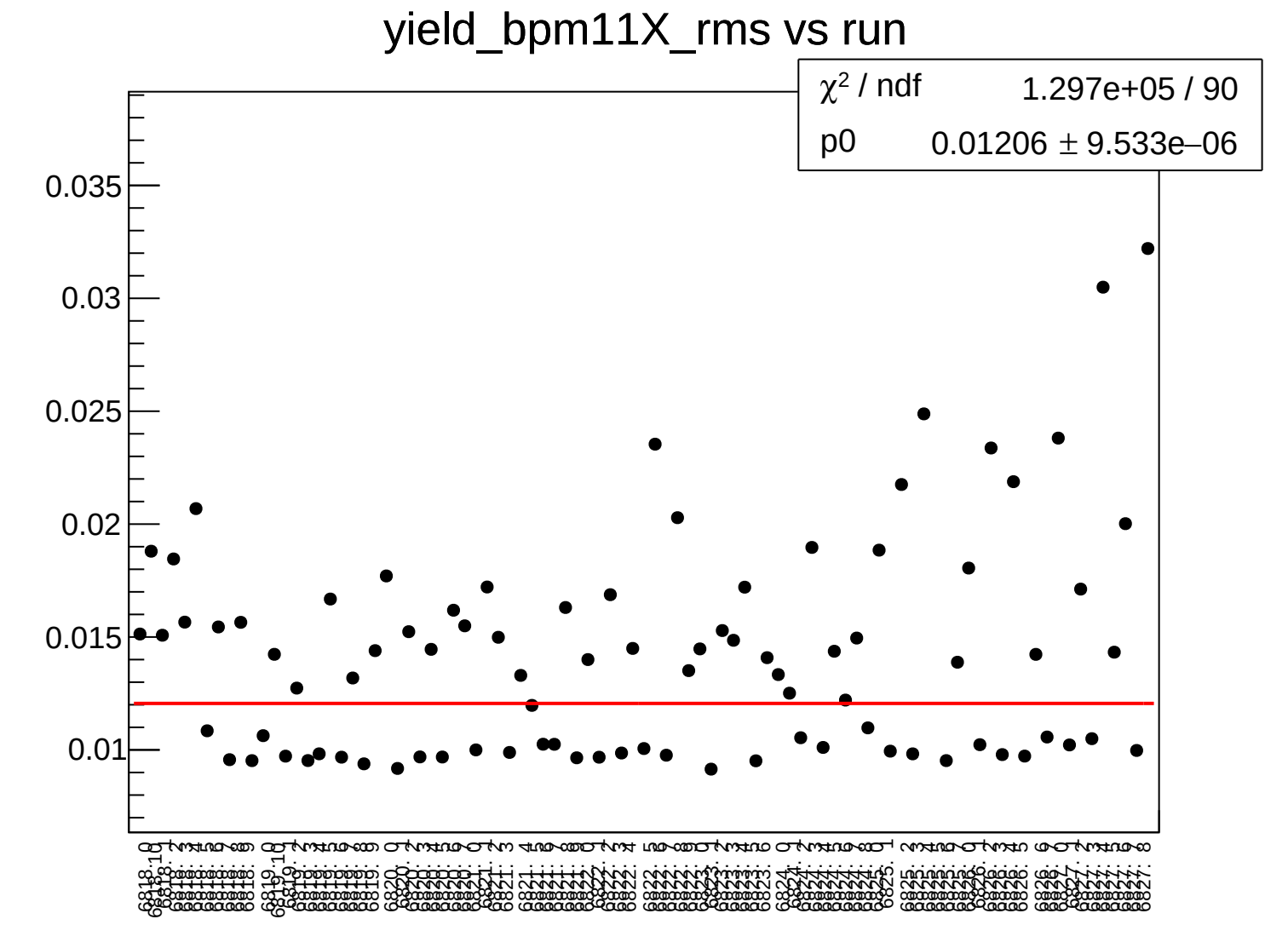

yield_bpm1X_rms vs run
χ² / ndf 2.051e+05 / 90
p0 0.01703 ± 1.379e−05
0.06
0.05
0.04
0.03
0.02
0.01

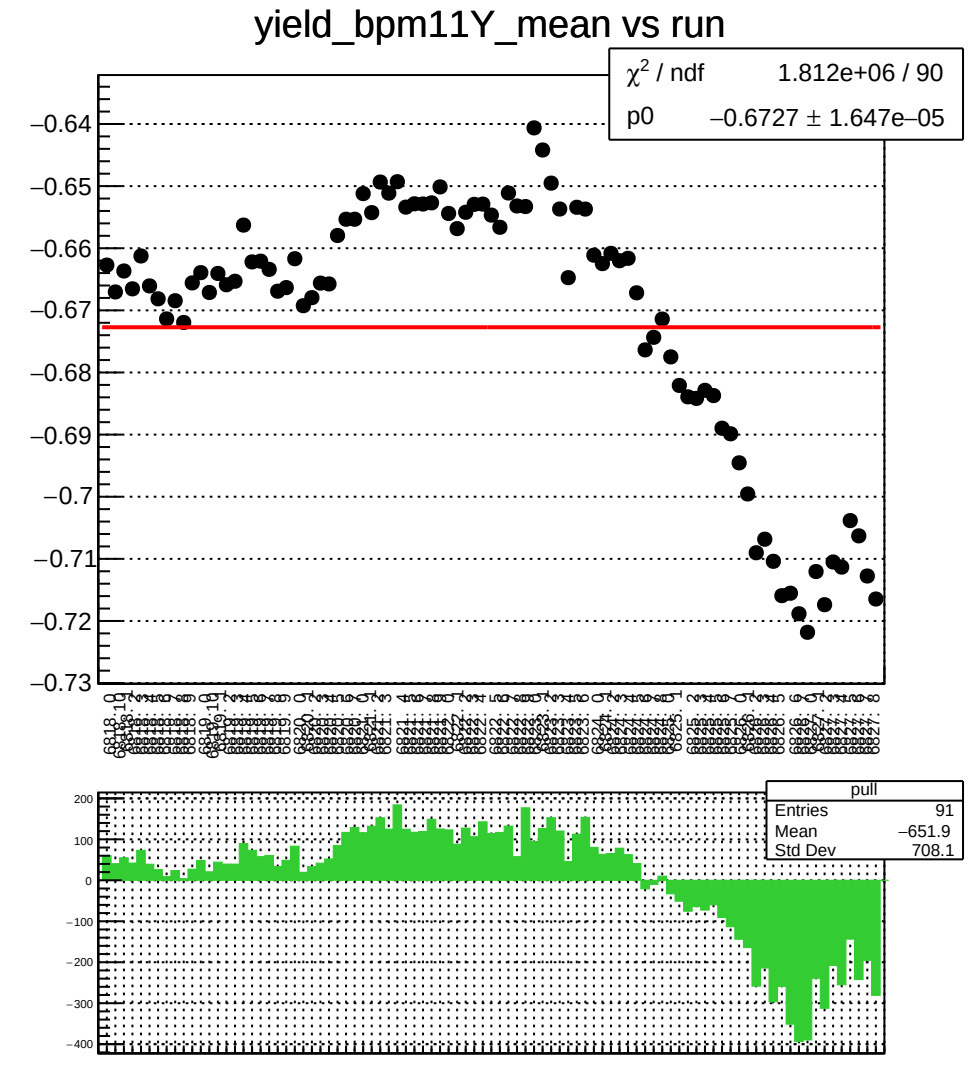

yield_bpm1Y_mean vs run
χ² / ndf 1.472e+06 / 90
p0 −0.7955 ± 1.537e−05
−0.75
−0.76
−0.77
−0.78
−0.79
−0.8
−0.81
−0.82
−0.83
pull
Entries 91
Mean −600.7
Std Dev 660.5
400
300
200
100
0
−100
−200

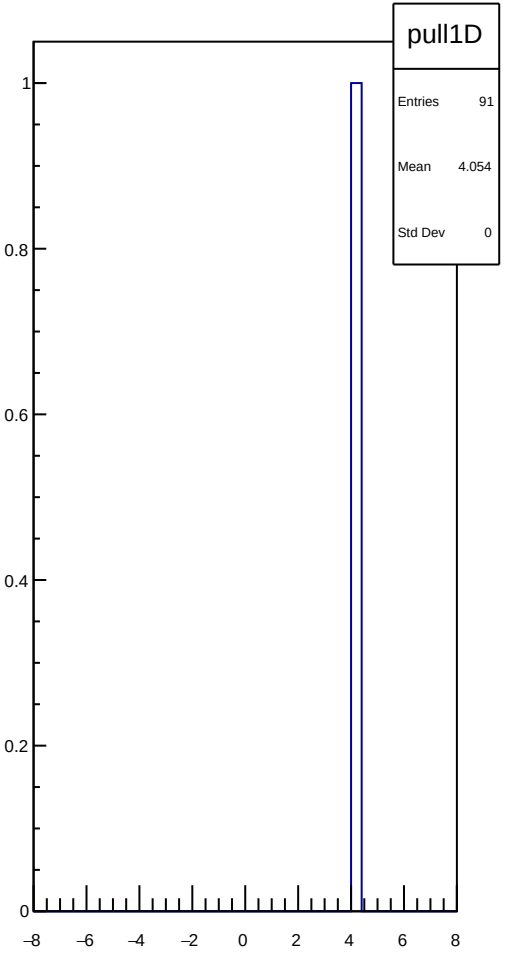

pull1D
Entries 91
Mean 0.9556
Std Dev 3.49
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

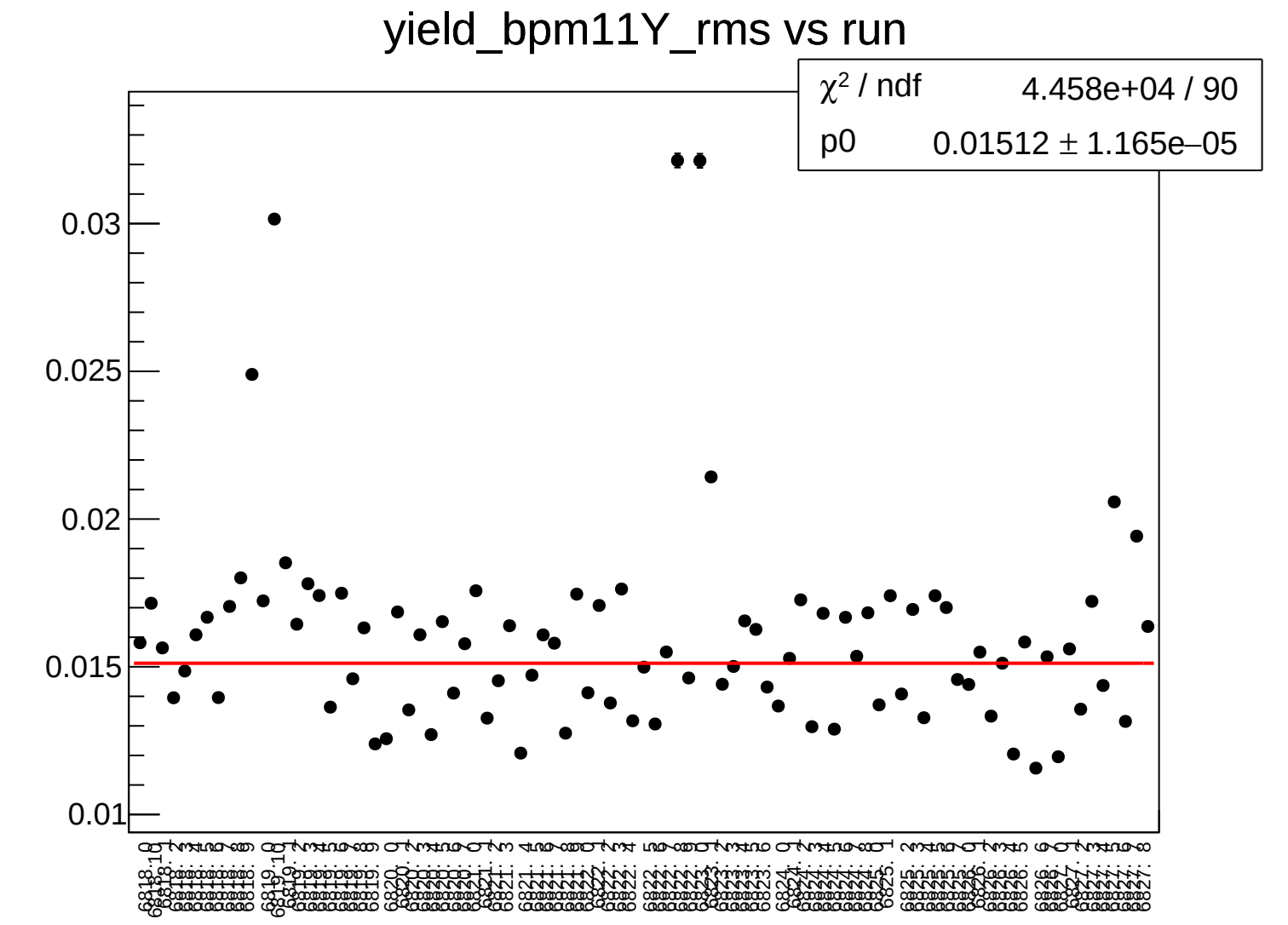

yield_bpm1Y_rms vs run
χ² / ndf 3.513e+04 / 90
p0 0.01415 ± 1.087e–05
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01

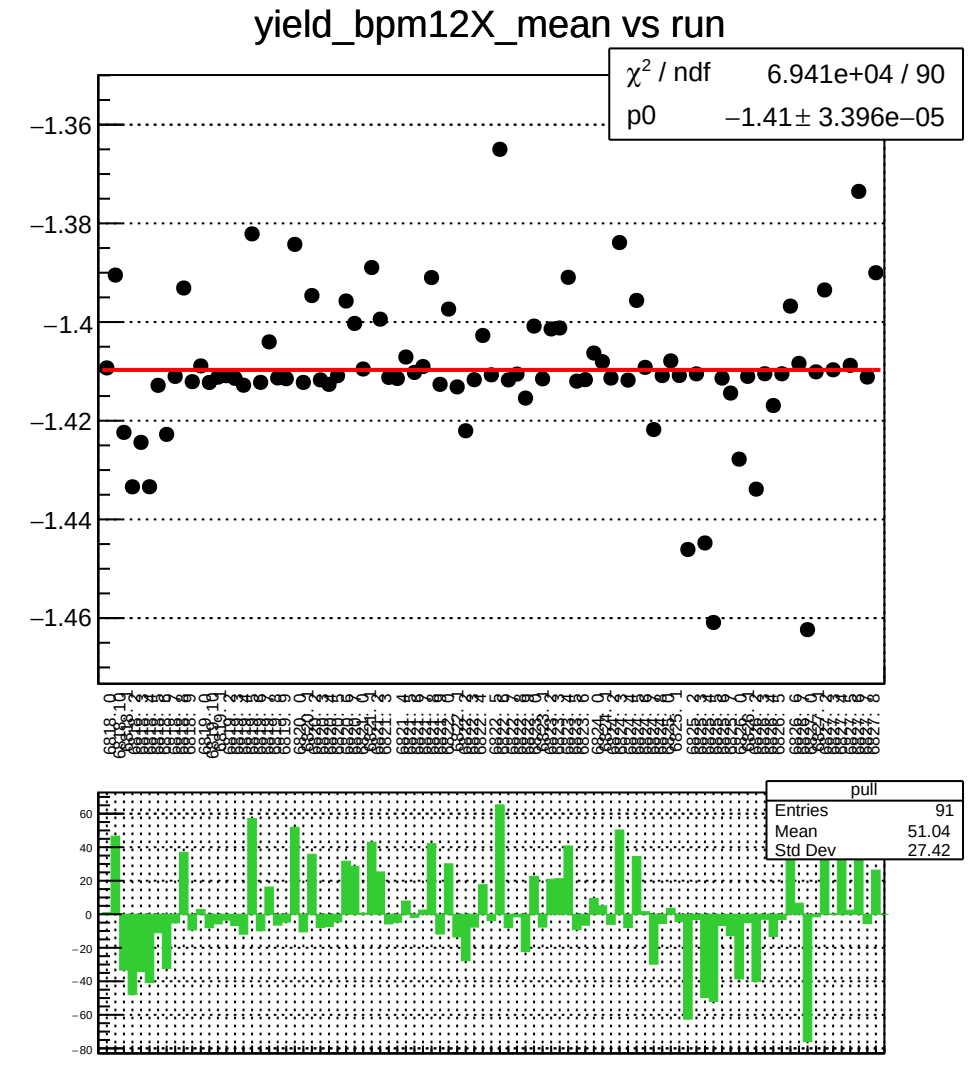

yield_bpm11X_mean vs run
χ² / ndf 6.819e+04 / 90
p0 0.7184 ± 1.348e−05
pull
Entries 91
Mean 18.36
Std Dev 23.17
pull1D
Entries 91
Mean −1.251
Std Dev 2.531

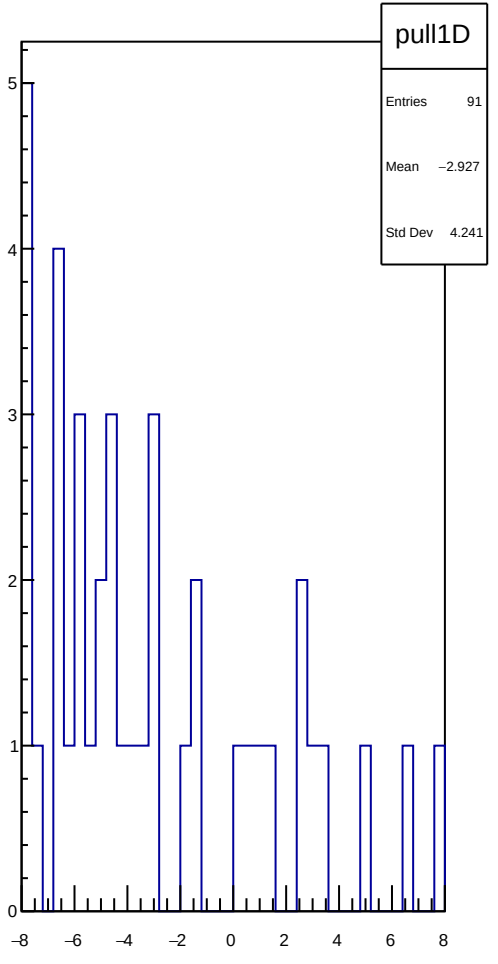

yield_bpm11X_rms vs run
χ² / ndf 1.297e+05 / 90
p0 0.01206 ± 9.533e–06
0.035
0.03
0.025
0.02
0.015
0.01

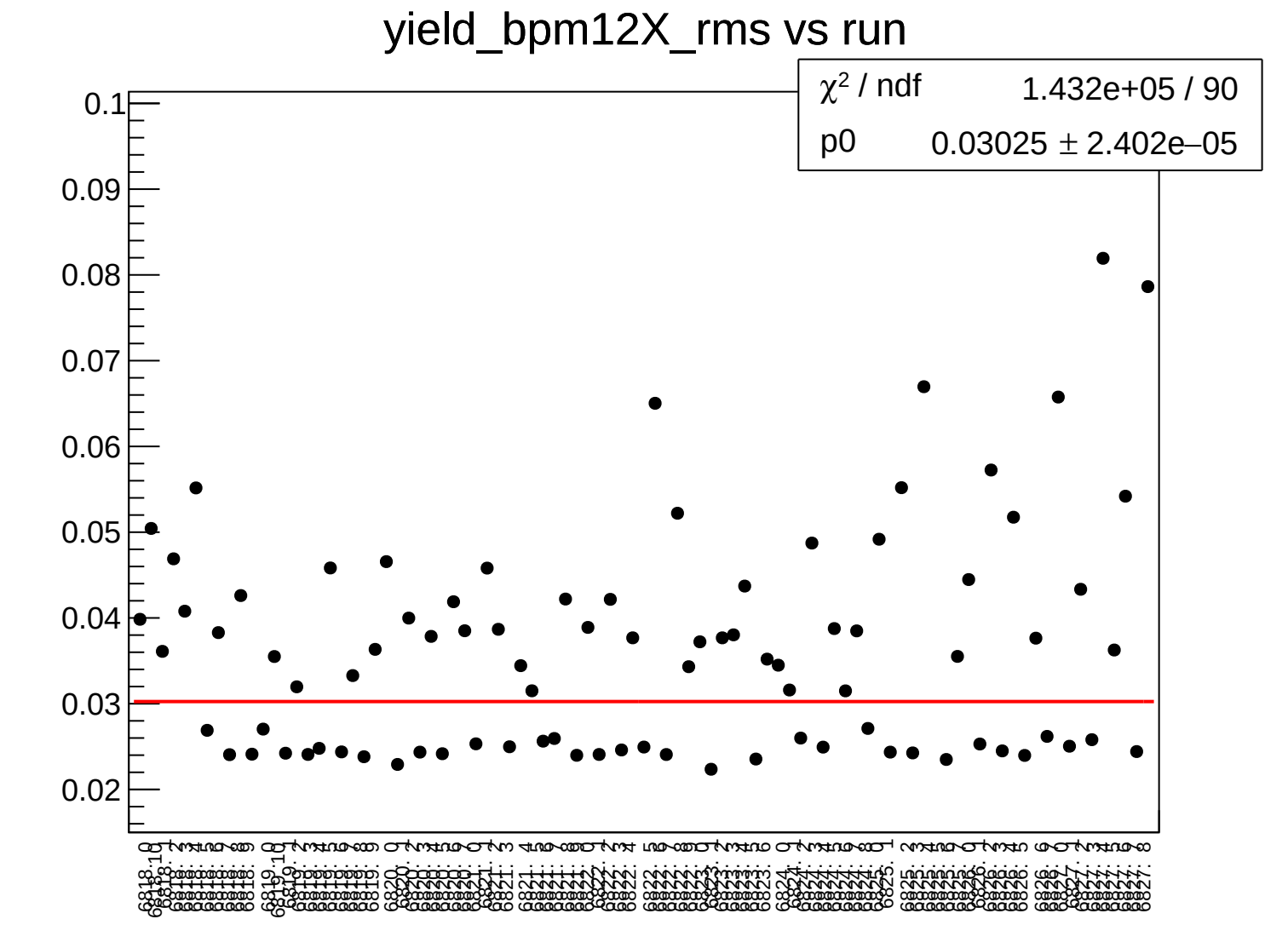

yield_bpm11Y_mean vs run
χ² / ndf 1.812e+06 / 90
p0 −0.6727 ± 1.647e−05
−0.64
−0.65
−0.66
−0.67
−0.68
−0.69
−0.7
−0.71
−0.72
−0.73
pull
Entries 91
Mean −651.9
Std Dev 708.1
200
100
0
−100
−200
−300
−400

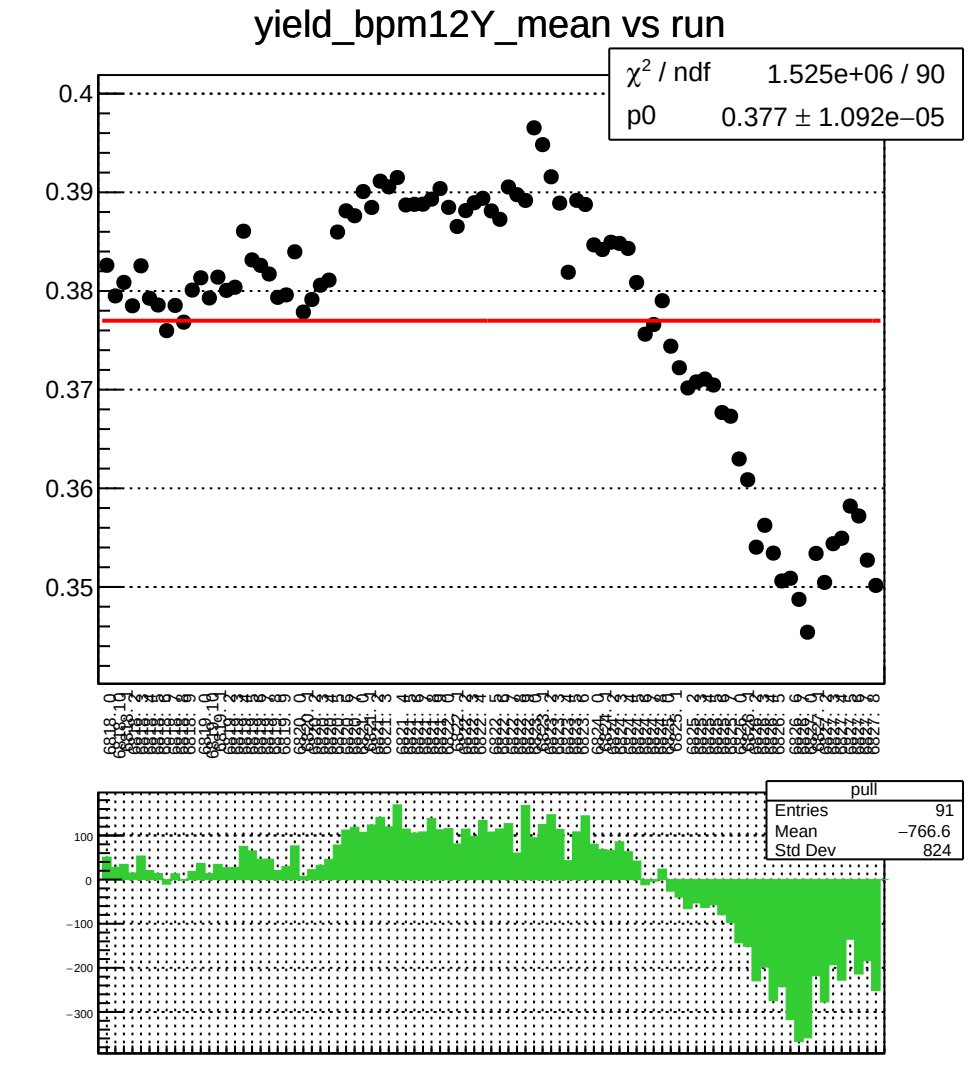

pull1D
Entries 91
Mean 4.054
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

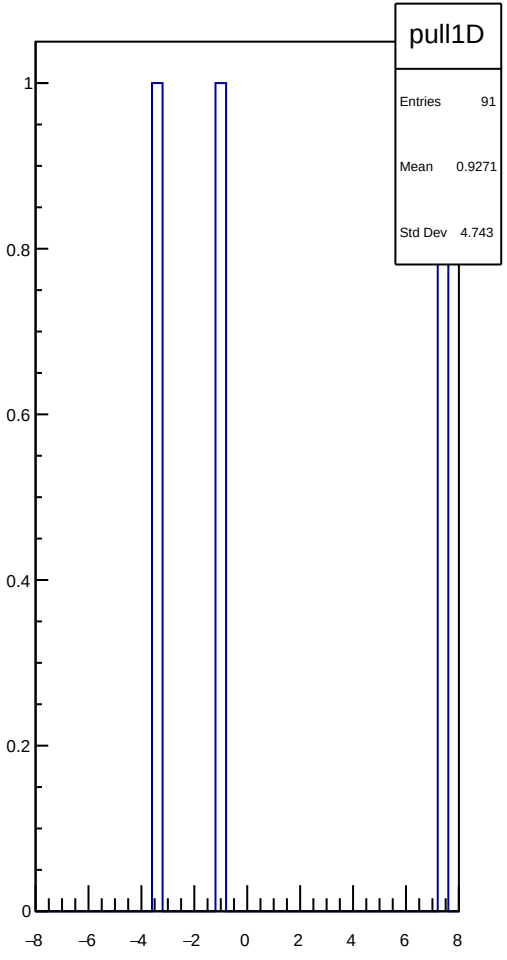

yield_bpm11Y_rms vs run
χ^2 / ndf 4.458e+04 / 90
p0 0.01512 ± 1.165e−05
0.03
0.025
0.02
0.015
0.01

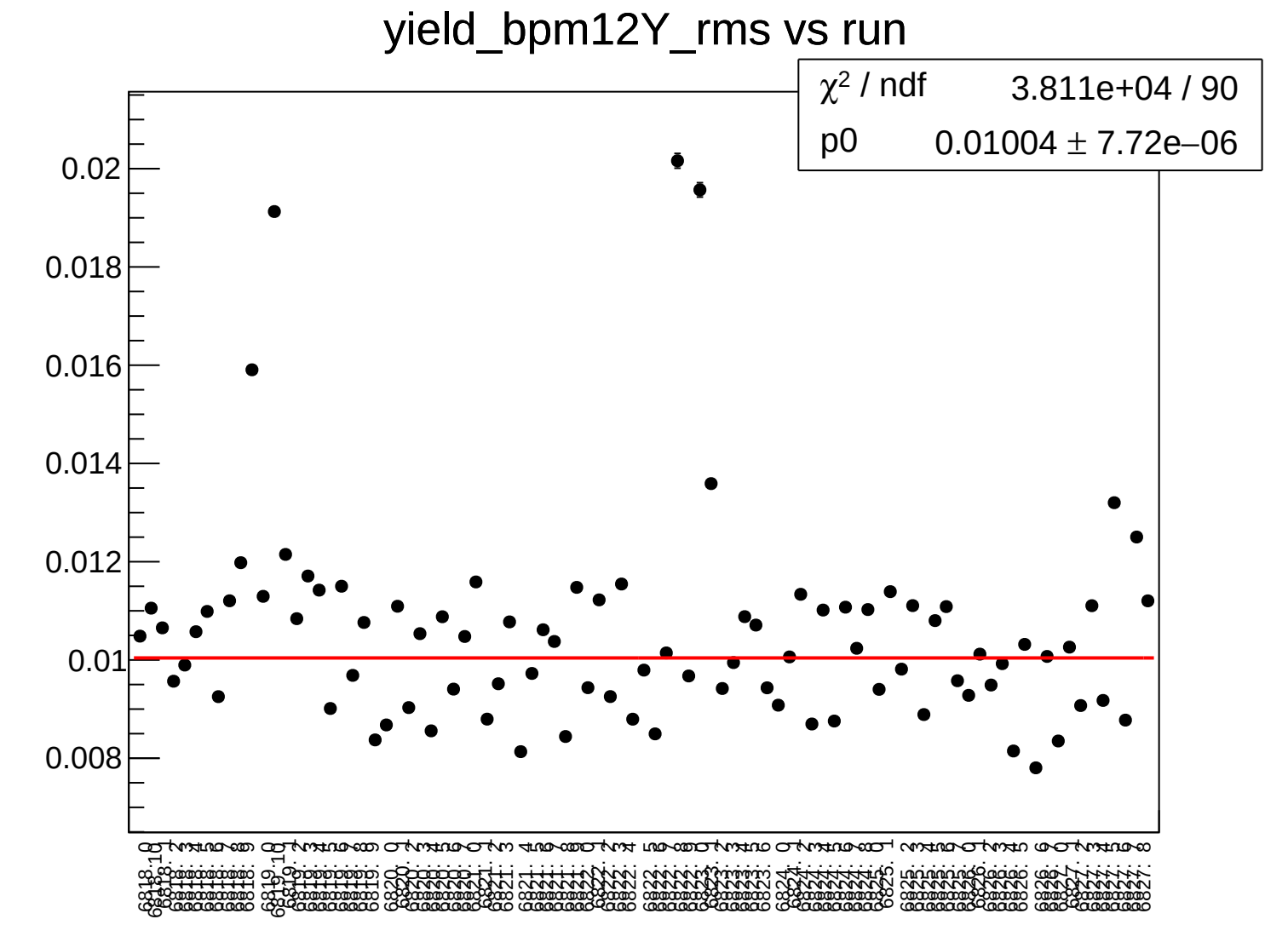

yield_bpm12X_mean vs run
χ² / ndf 6.941e+04 / 90
p0 −1.41 ± 3.396e−05
−1.36
−1.38
−1.4
−1.42
−1.44
−1.46
pull
Entries 91
Mean 51.04
Std Dev 27.42
60
40
20
0
−20
−40
−60
−80

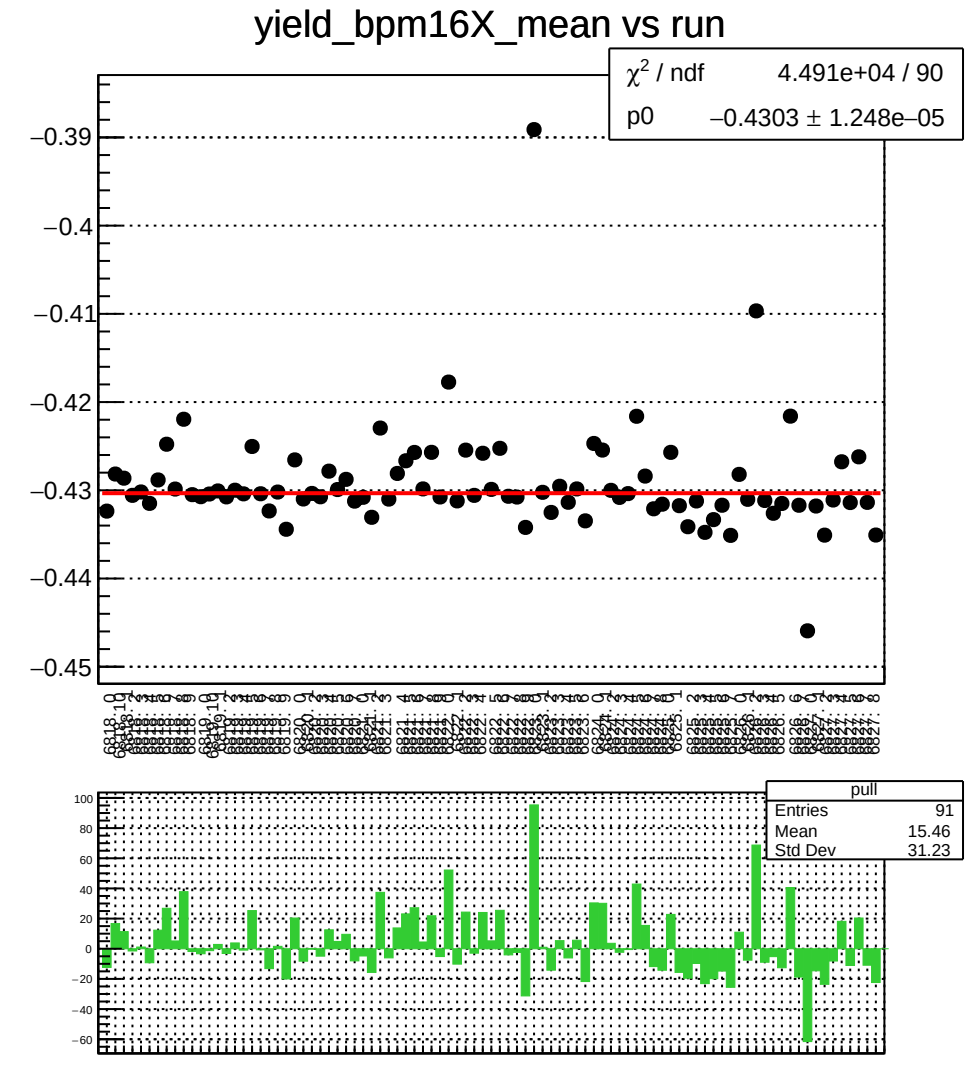

pull1D
Entries 91
Mean −2.927
Std Dev 4.241
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

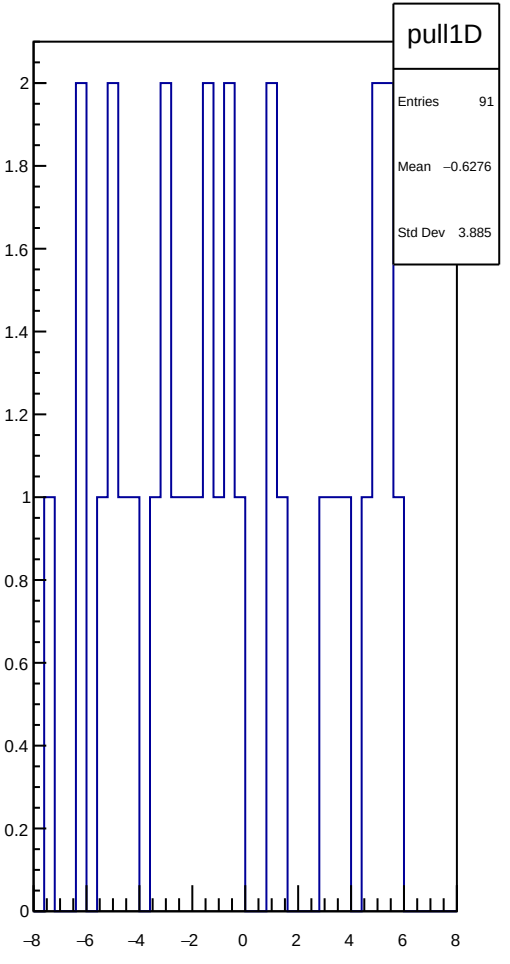

yield_bpm12X_rms vs run
χ² / ndf 1.432e+05 / 90
p0 0.03025 ± 2.402e−05
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02

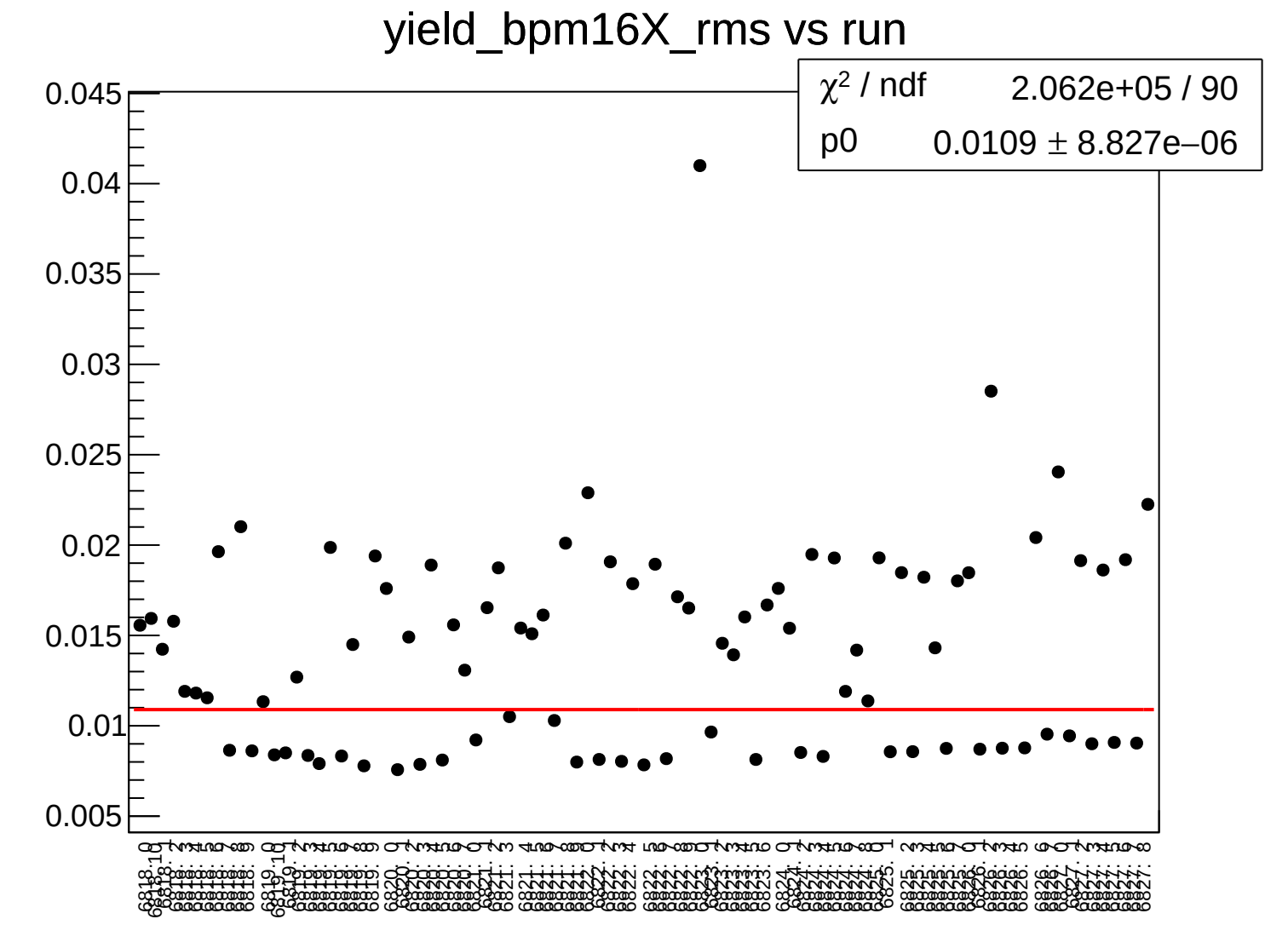

yield_bpm12Y_mean vs run
χ² / ndf 1.525e+06 / 90
p0 0.377 ± 1.092e−05
0.4
0.39
0.38
0.37
0.36
0.35
pull
Entries 91
Mean −766.6
Std Dev 824
100
0
−100
−200
−300

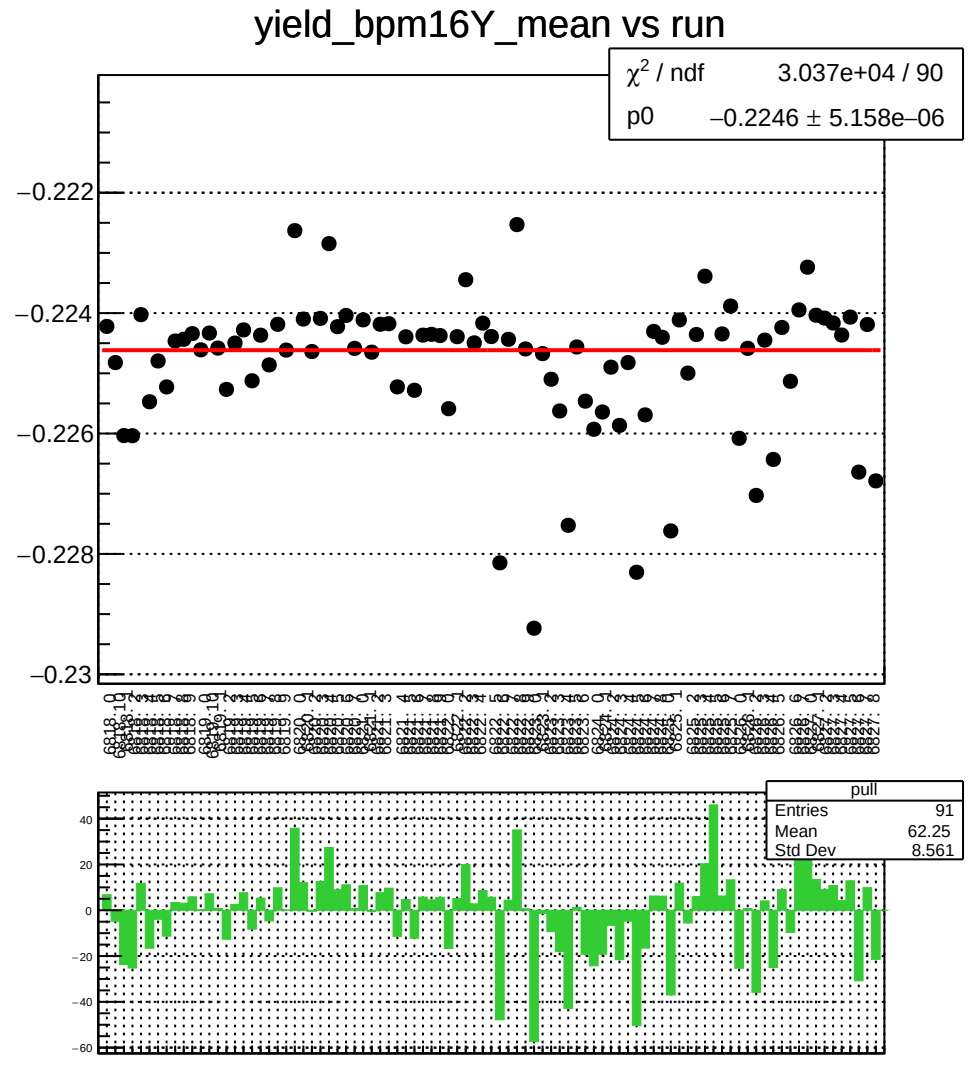

pull1D
Entries 91
Mean 0.9271
Std Dev 4.743
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

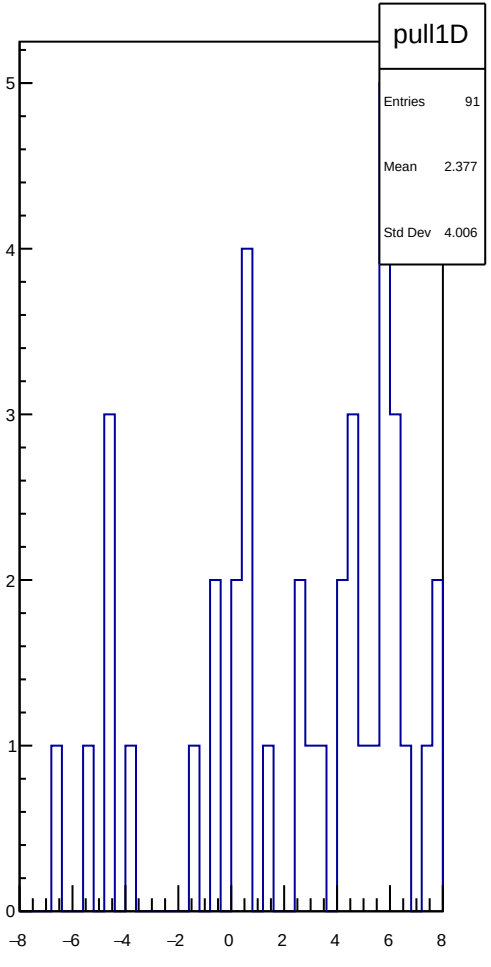

yield_bpm12Y_rms vs run
χ² / ndf 3.811e+04 / 90
p0 0.01004 ± 7.72e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008

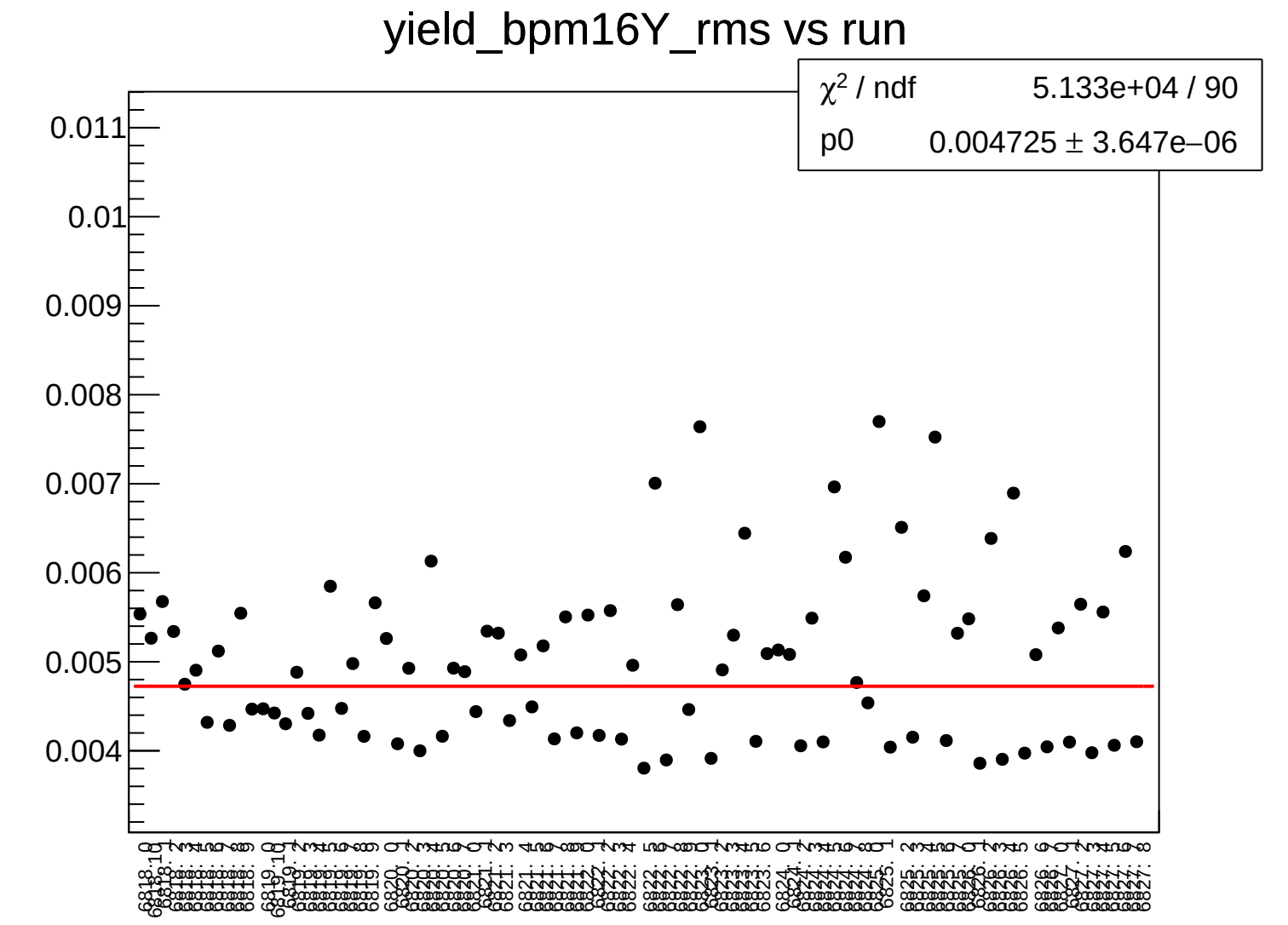

yield_bpm16X_mean vs run
χ² / ndf 4.491e+04 / 90
p0 −0.4303 ± 1.248e−05
−0.39
−0.4
−0.41
−0.42
−0.43
−0.44
−0.45
pull
Entries 91
Mean 15.46
Std Dev 31.23
100
80
60
40
20
0
−20
−40
−60

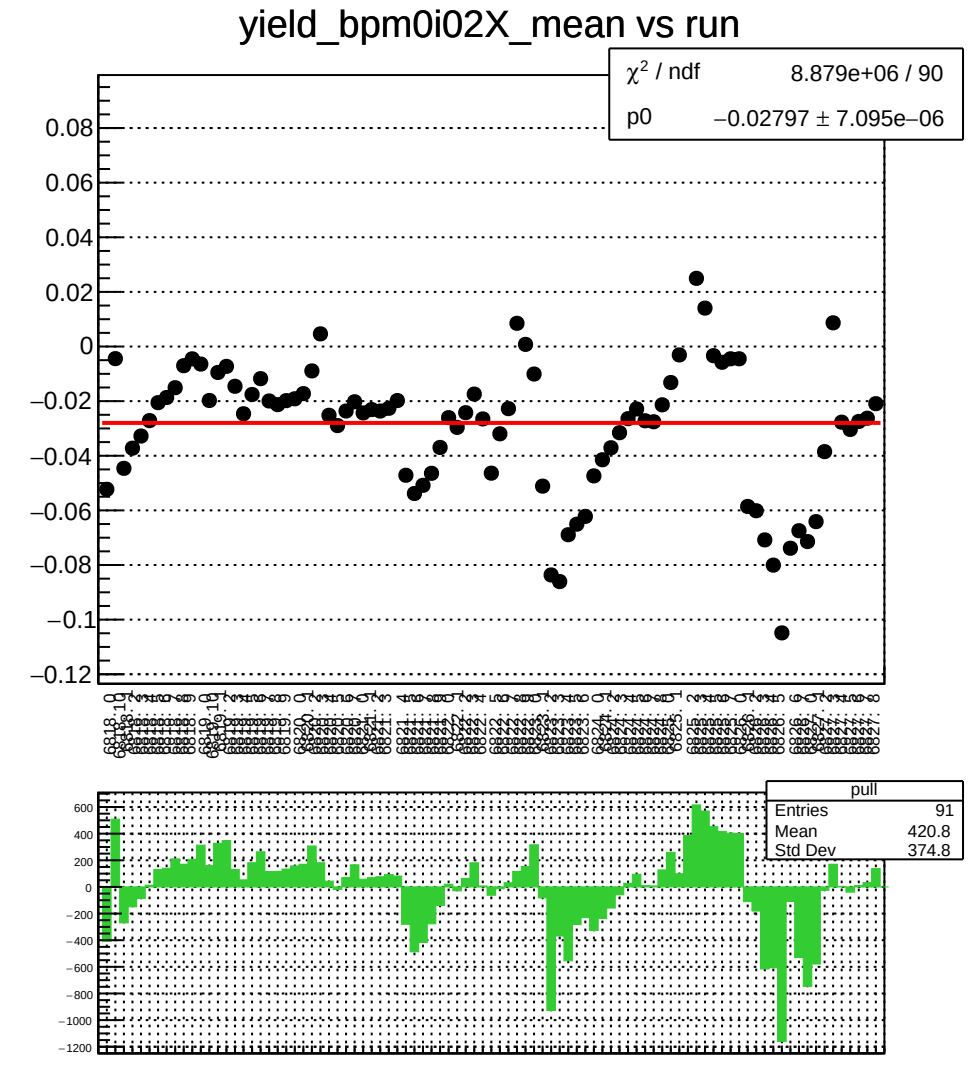

pull1D
Entries 91
Mean −0.6276
Std Dev 3.885
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

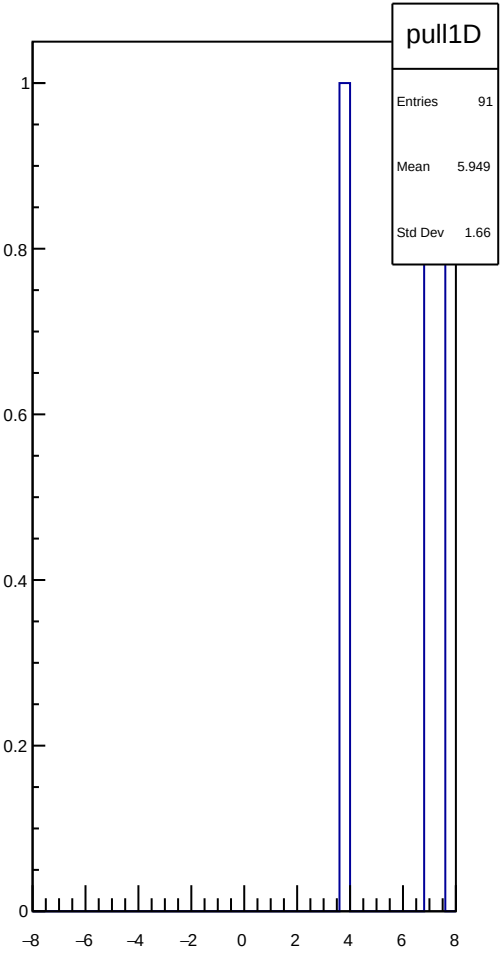

yield_bpm16X_rms vs run
χ² / ndf 2.062e+05 / 90
p0 0.0109 ± 8.827e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

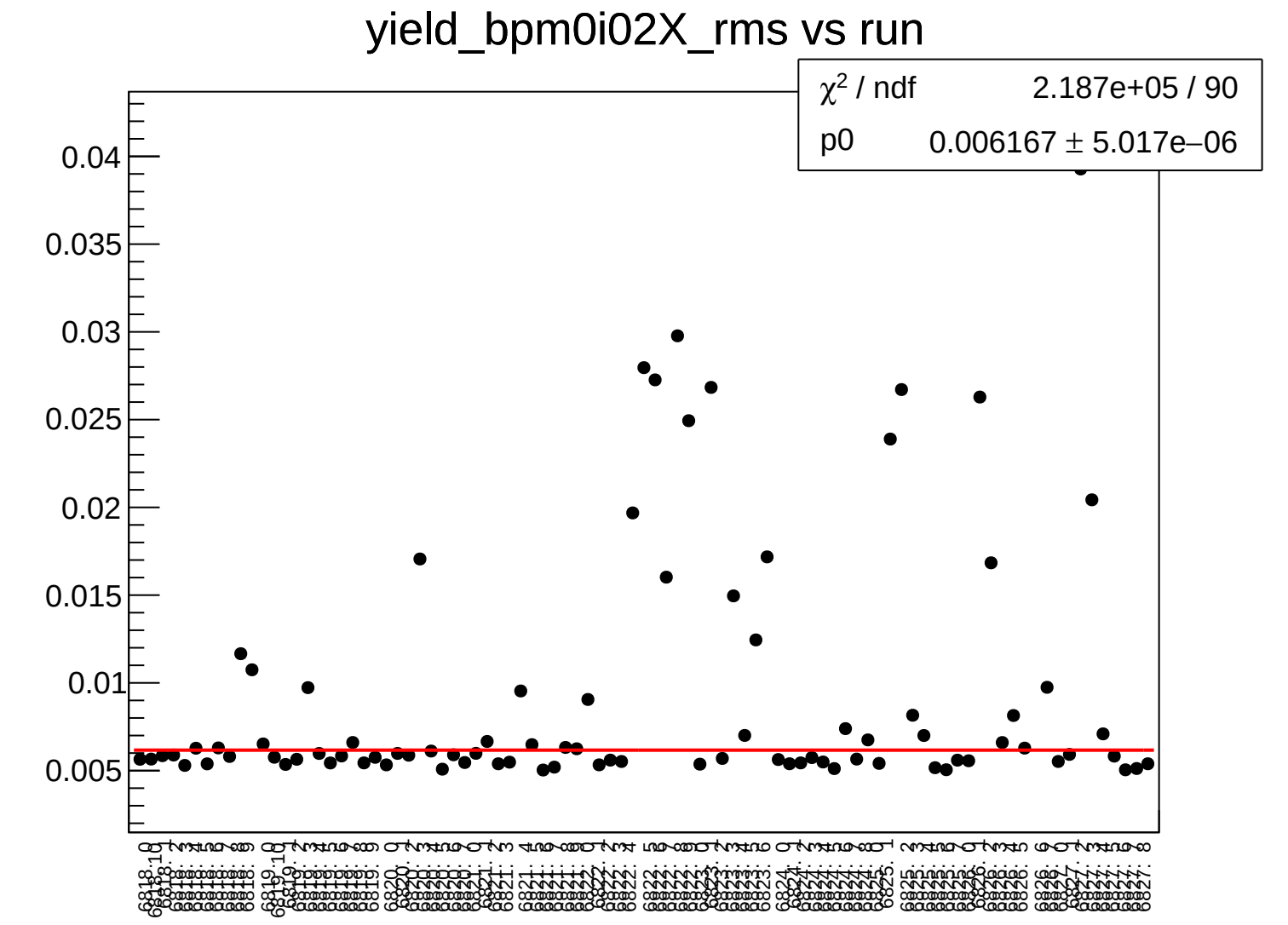

yield_bpm16Y_mean vs run
χ² / ndf 3.037e+04 / 90
p0 −0.2246 ± 5.158e−06
−0.222
−0.224
−0.226
−0.228
−0.23
pull
Entries 91
Mean 62.25
Std Dev 8.561
40
20
0
−20
−40
−60

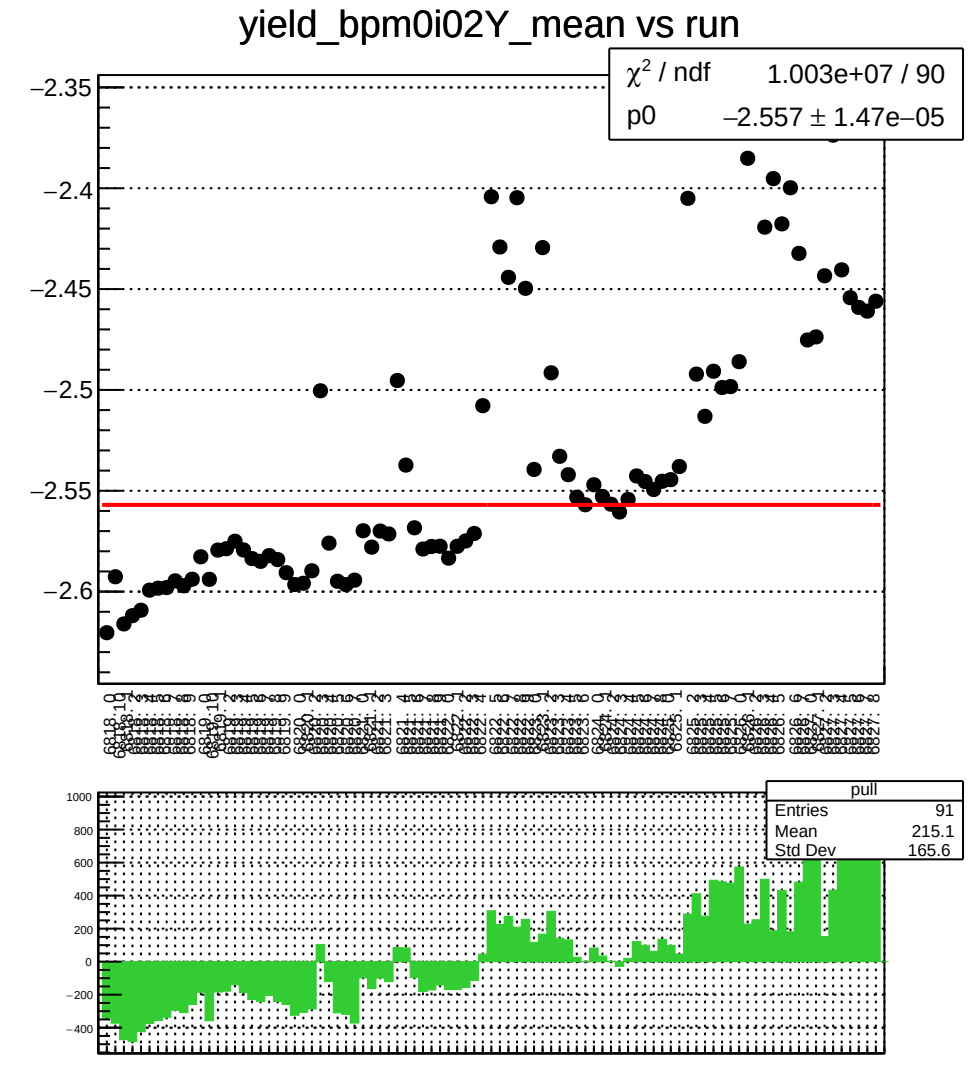

pull1D
Entries 91
Mean 2.377
Std Dev 4.006
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

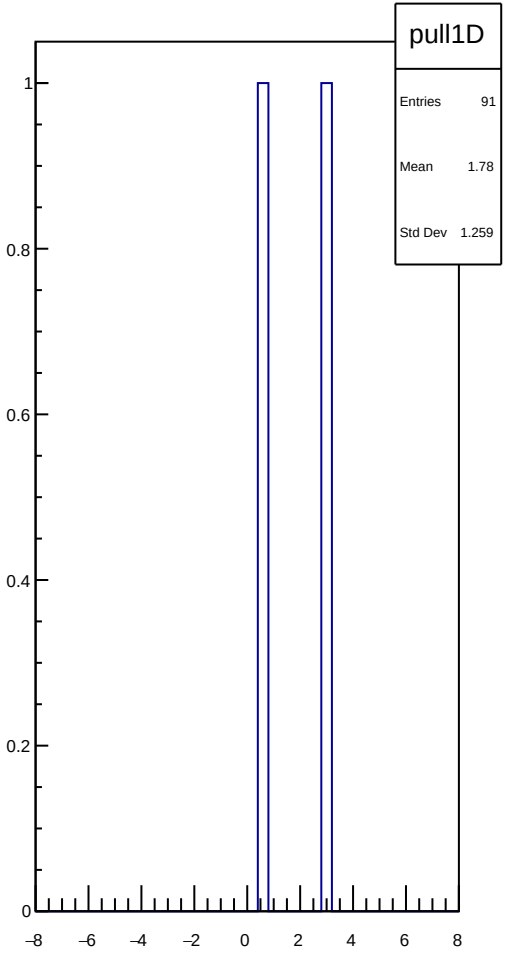

yield_bpm16Y_rms vs run
χ² / ndf 5.133e+04 / 90
p0 0.004725 ± 3.647e−06
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004

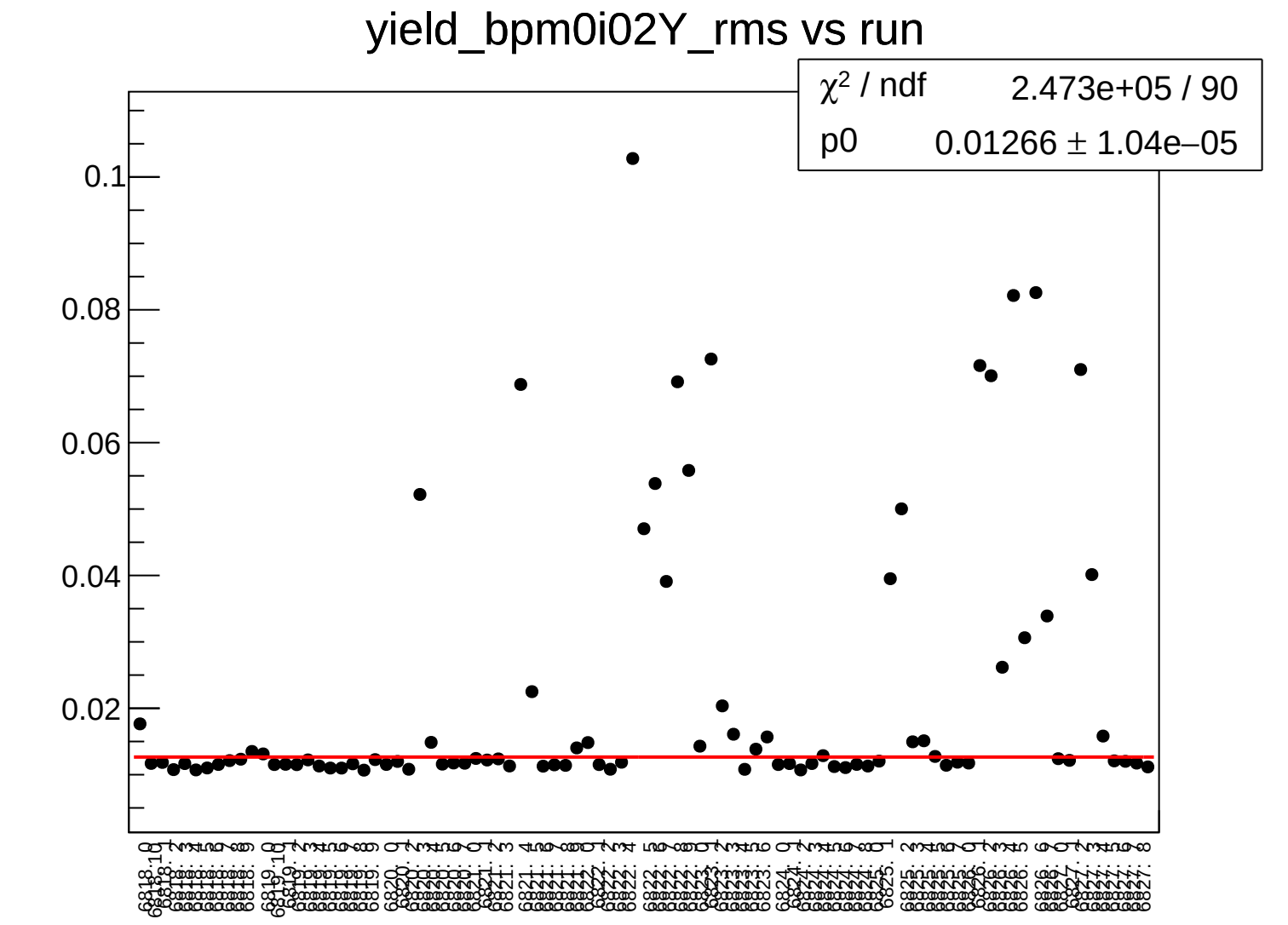

yield_bpm0i02X_mean vs run
χ² / ndf 8.879e+06 / 90
p0 −0.02797 ± 7.095e−06
pull
Entries 91
Mean 420.8
Std Dev 374.8

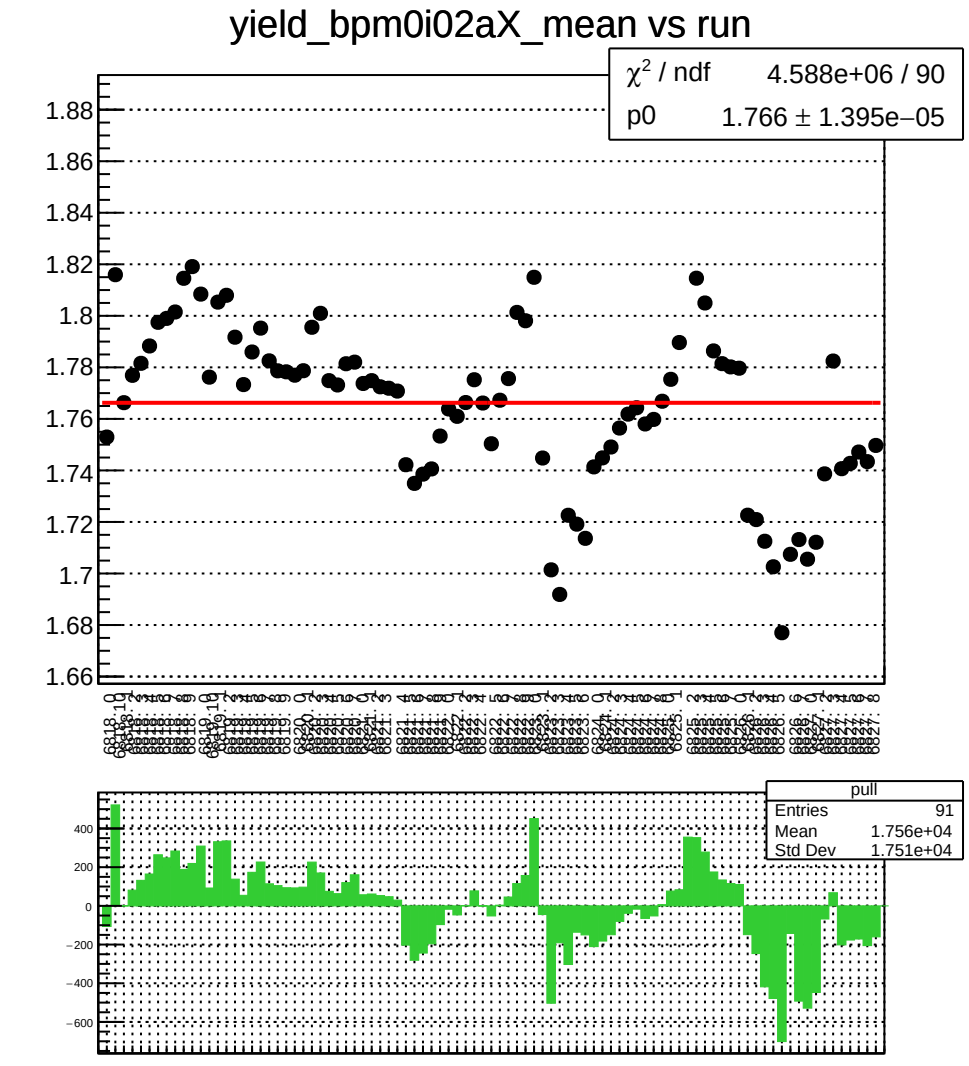

pull1D
Entries 91
Mean 5.949
Std Dev 1.66

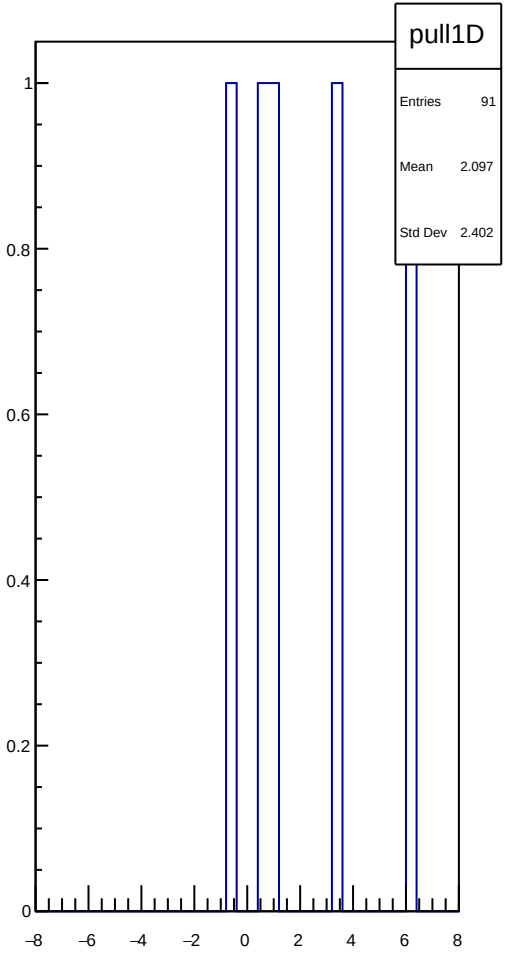

yield_bpm0i02X_rms vs run
χ² / ndf 2.187e+05 / 90
p0 0.006167 ± 5.017e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

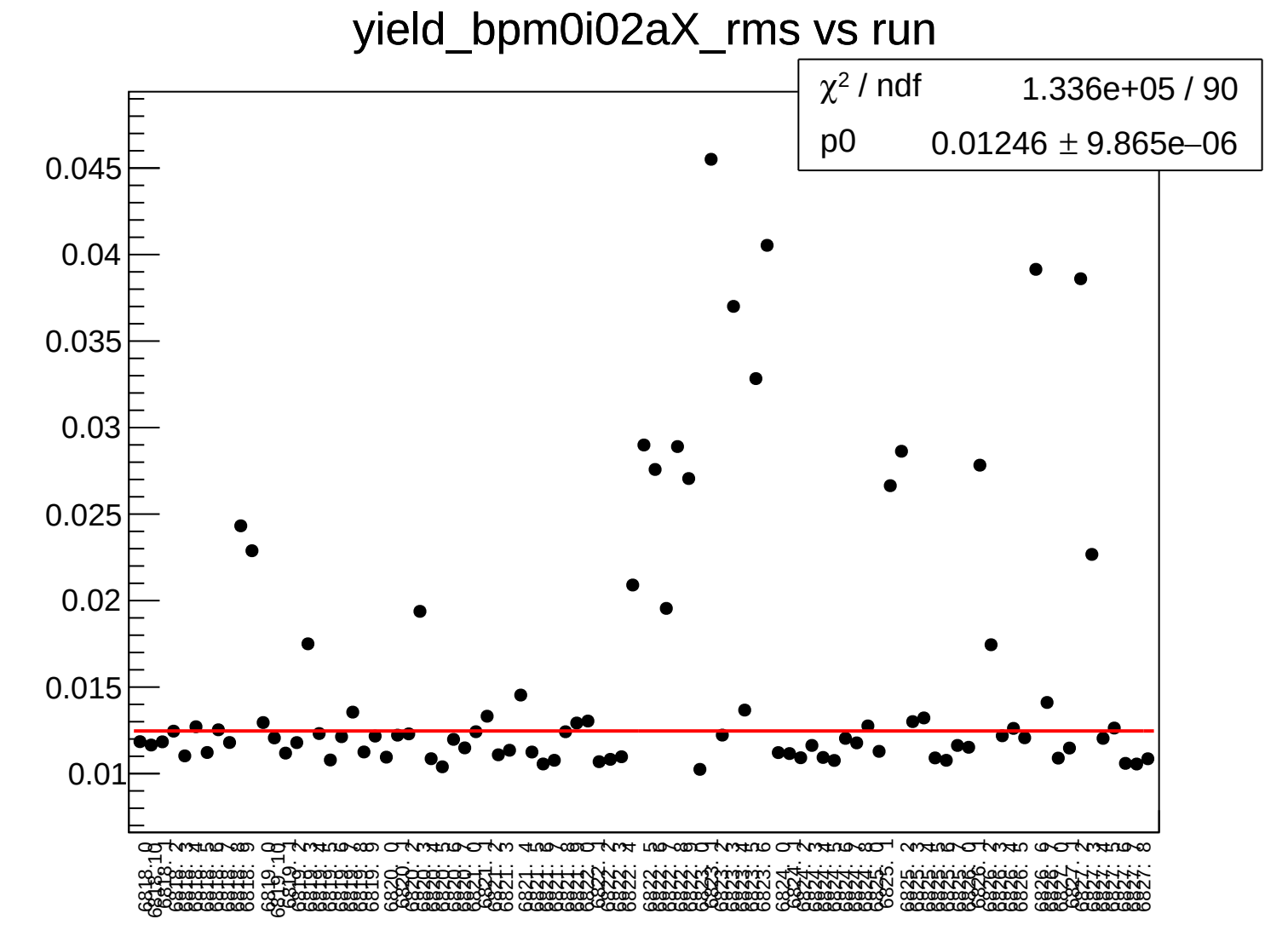

yield_bpm0i02Y_mean vs run
χ² / ndf 1.003e+07 / 90
p0 −2.557 ± 1.47e−05
−2.35
−2.4
−2.45
−2.5
−2.55
−2.6
pull
Entries 91
Mean 215.1
Std Dev 165.6
1000
800
600
400
200
0
−200
−400

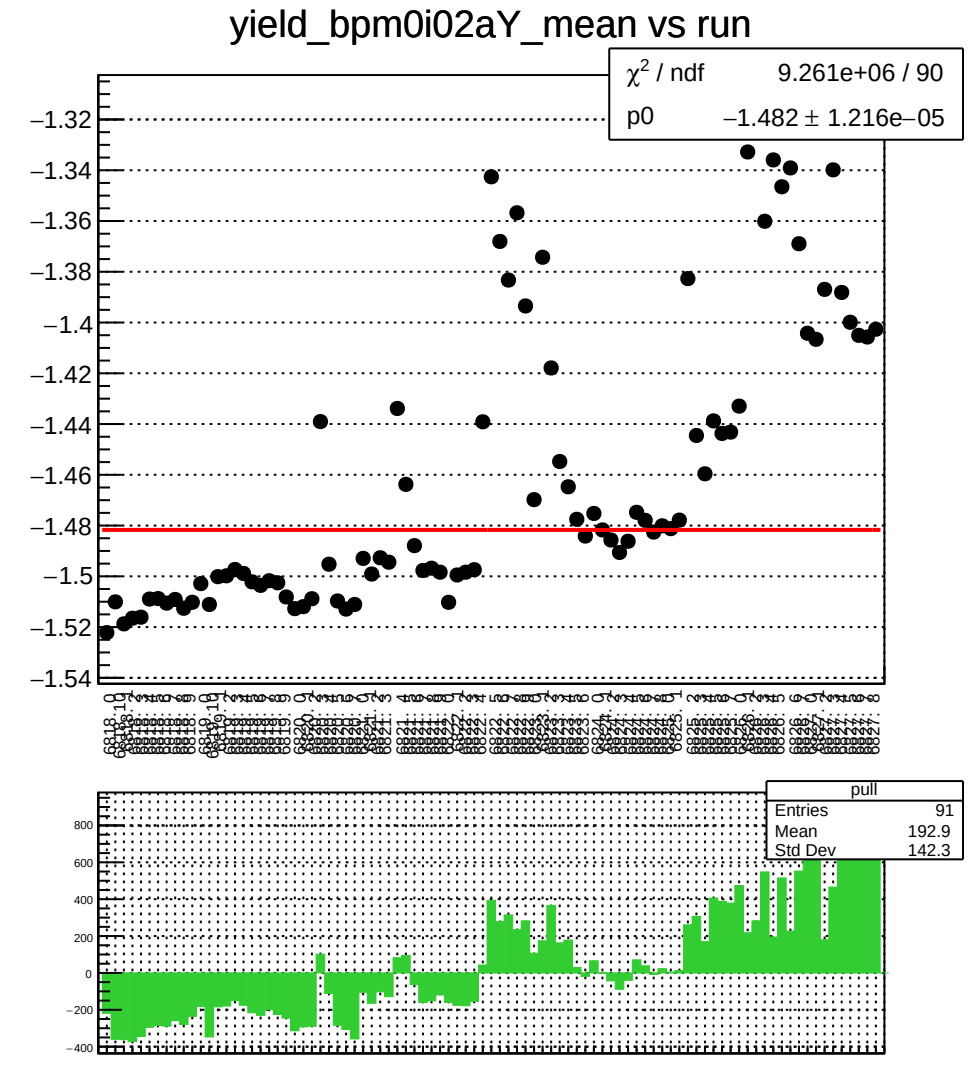

pull1D
Entries 91
Mean 1.78
Std Dev 1.259
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

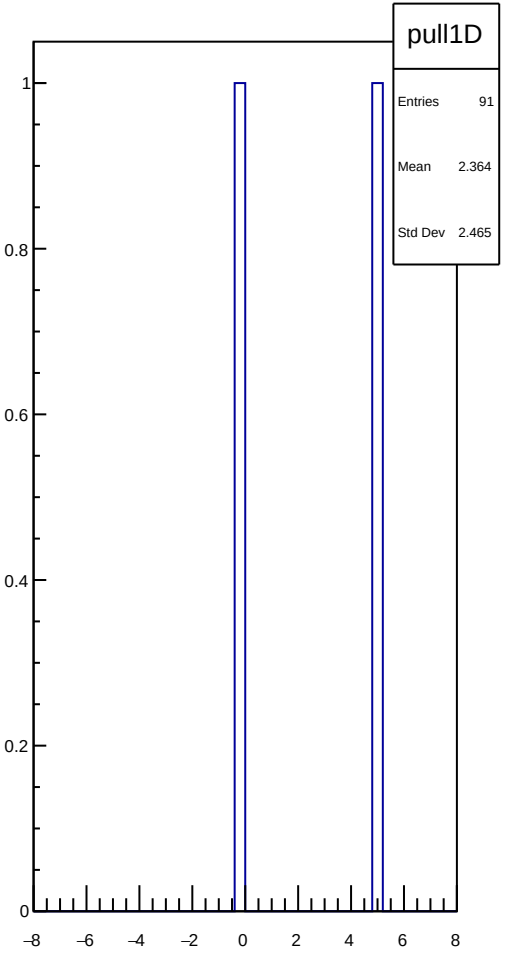

yield_bpm0i02Y_rms vs run
χ² / ndf 2.473e+05 / 90
p0 0.01266 ± 1.04e−05
0.1
0.08
0.06
0.04
0.02

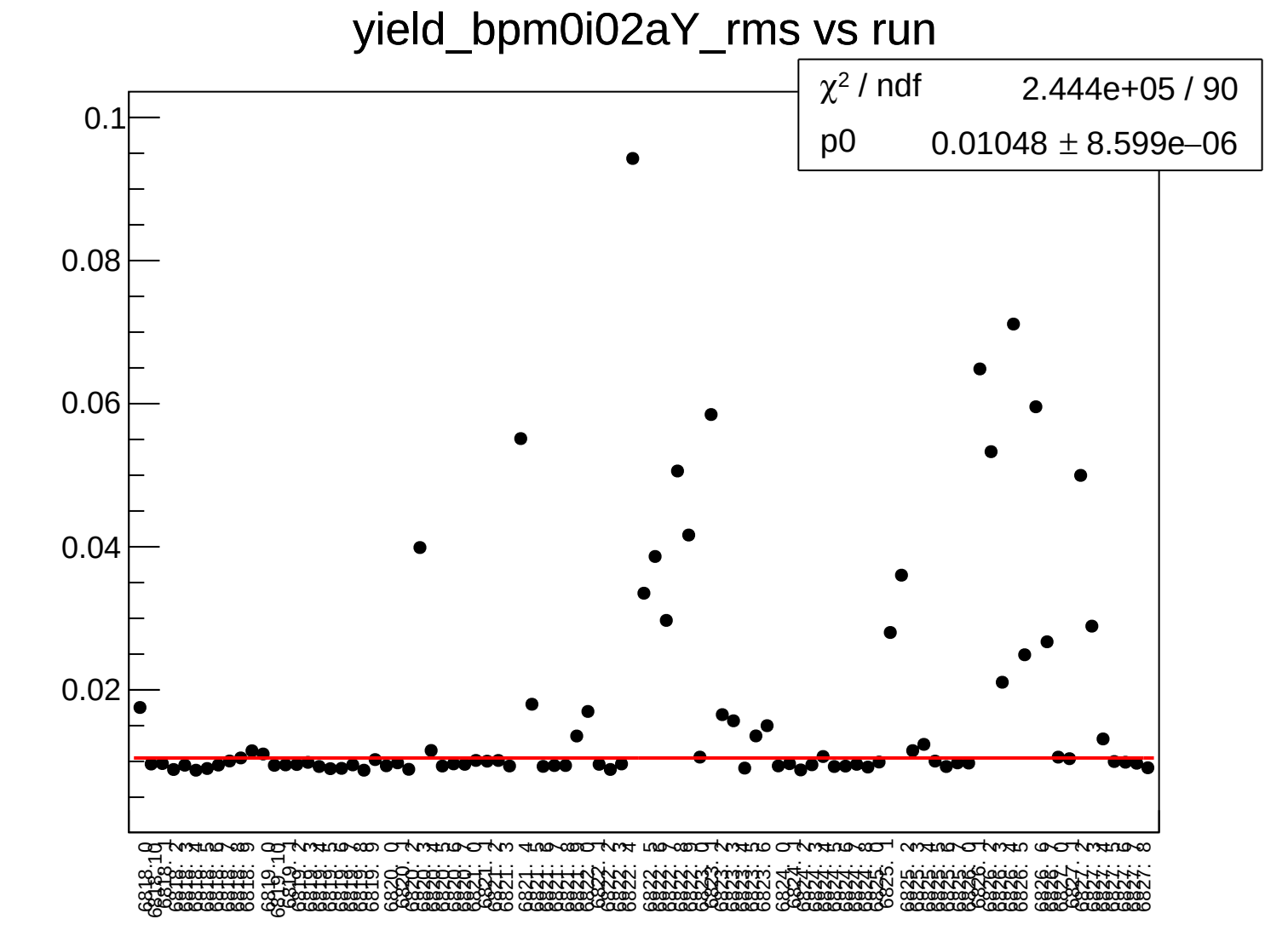

yield_bpm0i02aX_mean vs run
χ² / ndf 4.588e+06 / 90
p0 1.766 ± 1.395e−05
pull
Entries 91
Mean 1.756e+04
Std Dev 1.751e+04

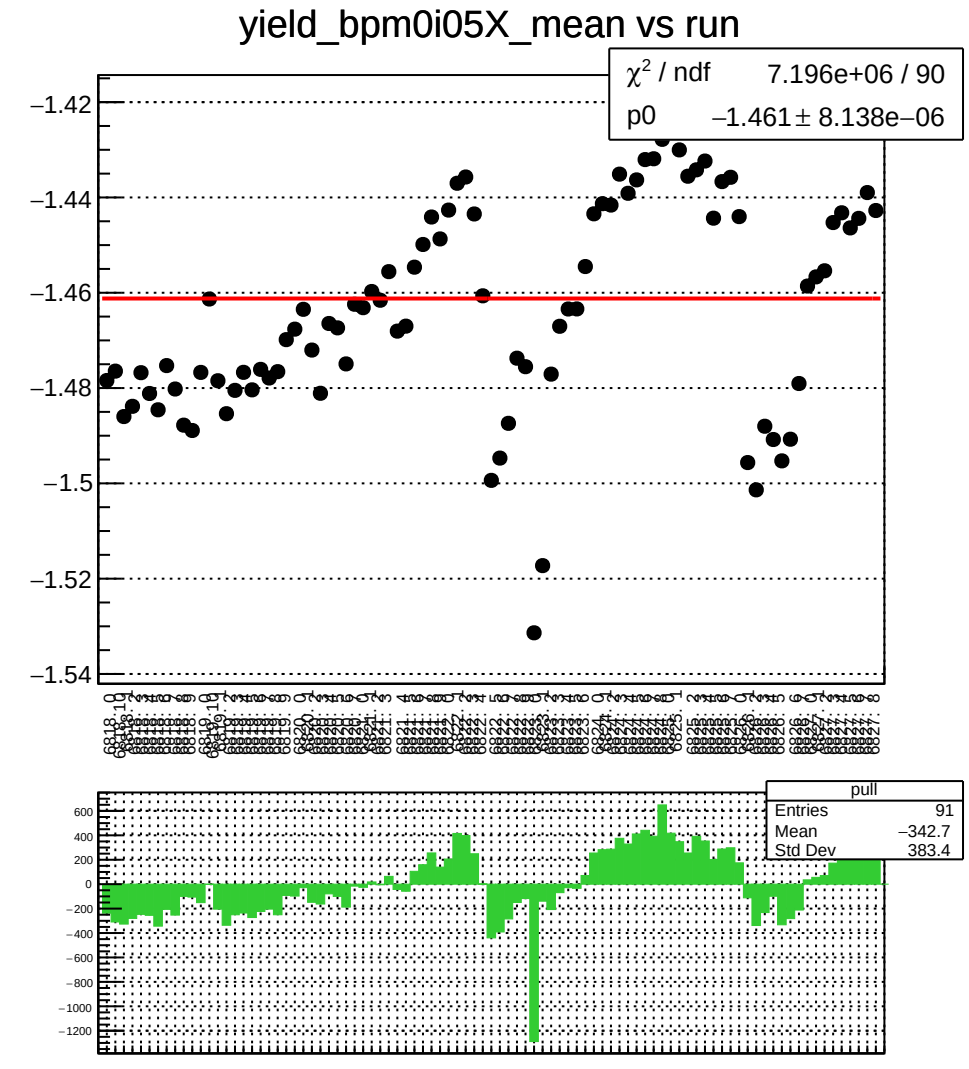

pull1D
Entries 91
Mean 2.097
Std Dev 2.402

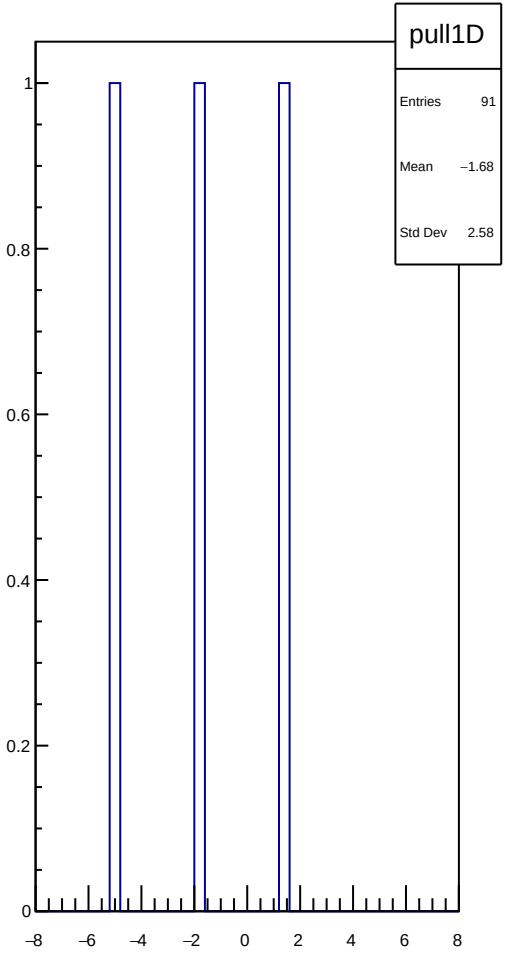

yield_bpm0i02aX_rms vs run
χ² / ndf 1.336e+05 / 90
p0 0.01246 ± 9.865e–06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

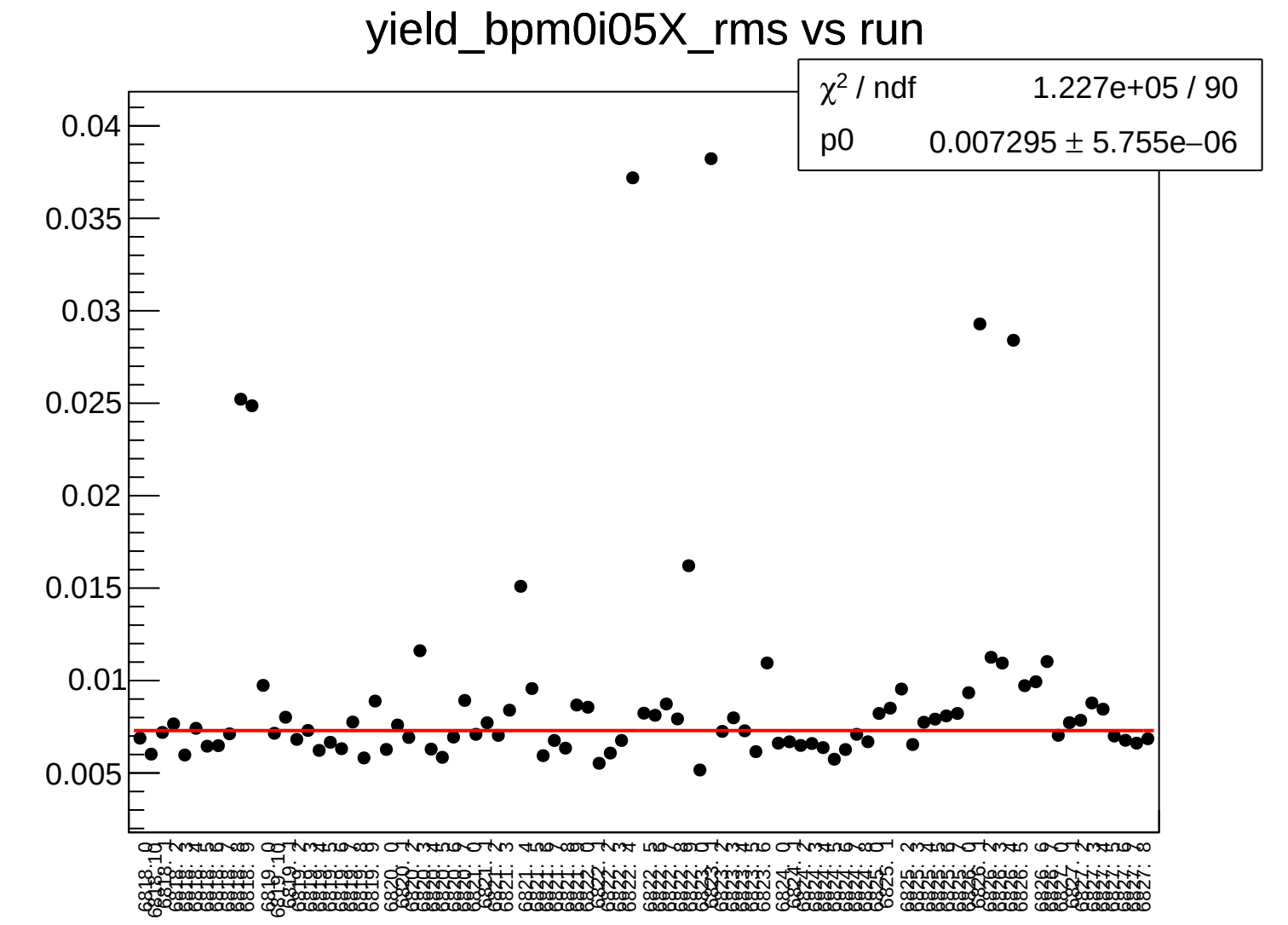

yield_bpm0i02aY_mean vs run
χ² / ndf 9.261e+06 / 90
p0 −1.482 ± 1.216e−05
−1.32
−1.34
−1.36
−1.38
−1.4
−1.42
−1.44
−1.46
−1.48
−1.5
−1.52
−1.54
pull
Entries 91
Mean 192.9
Std Dev 142.3
800
600
400
200
0
−200
−400

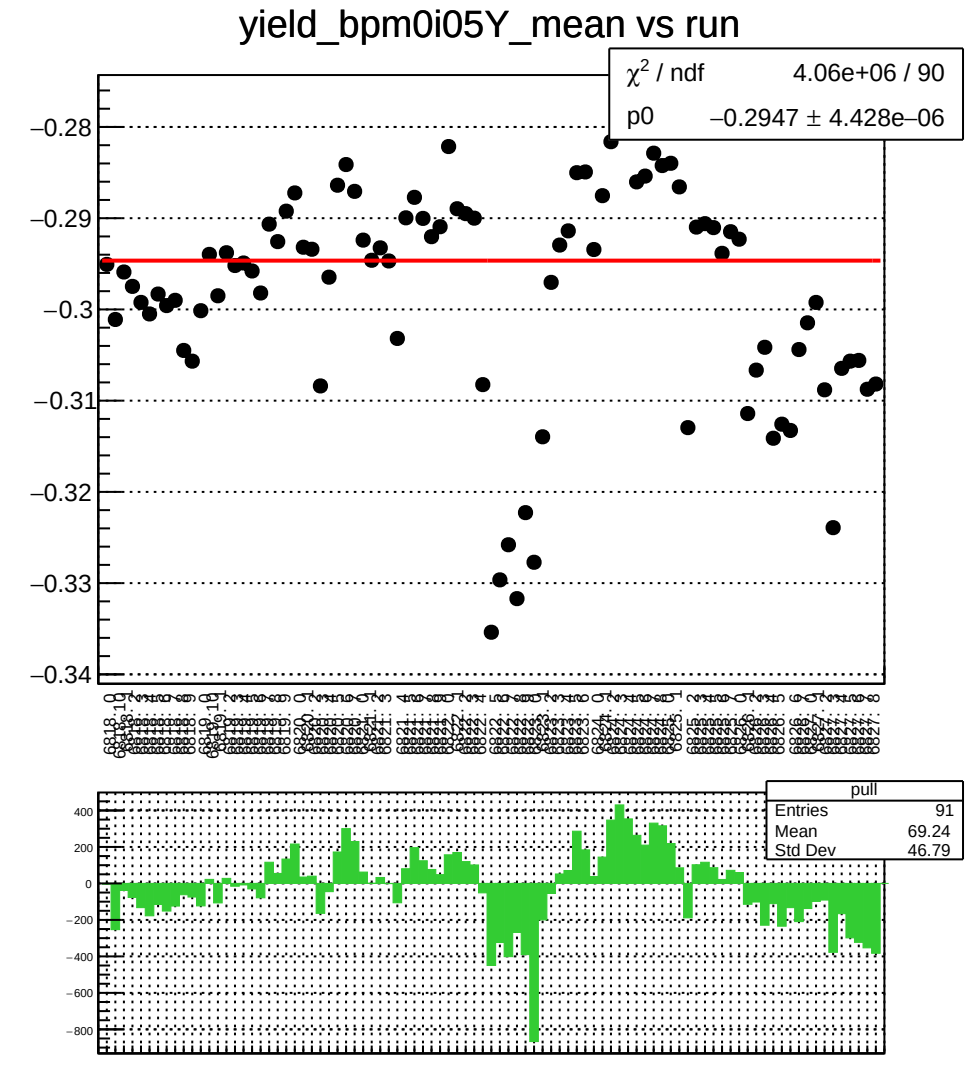

pull1D
Entries 91
Mean 2.364
Std Dev 2.465
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

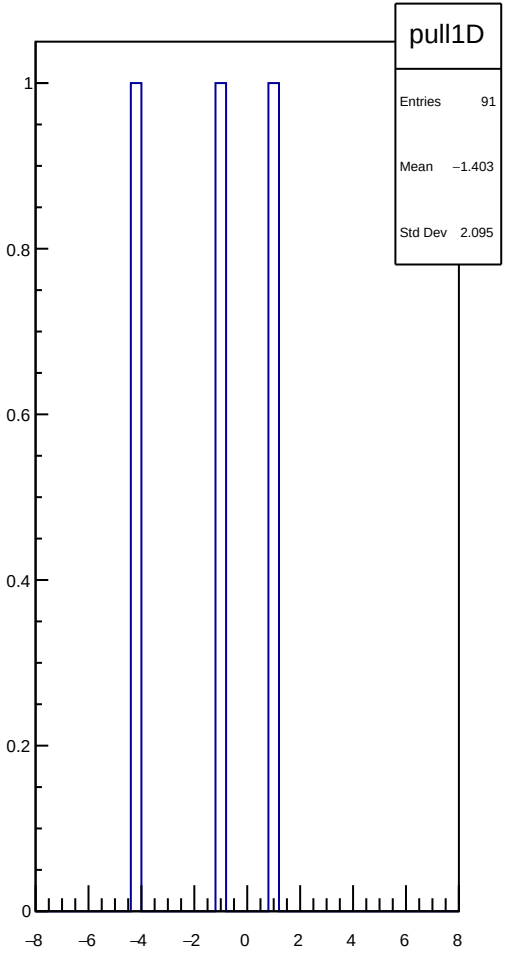

yield_bpm0i02aY_rms vs run
χ² / ndf 2.444e+05 / 90
p0 0.01048 ± 8.599e–06
0.1
0.08
0.06
0.04
0.02

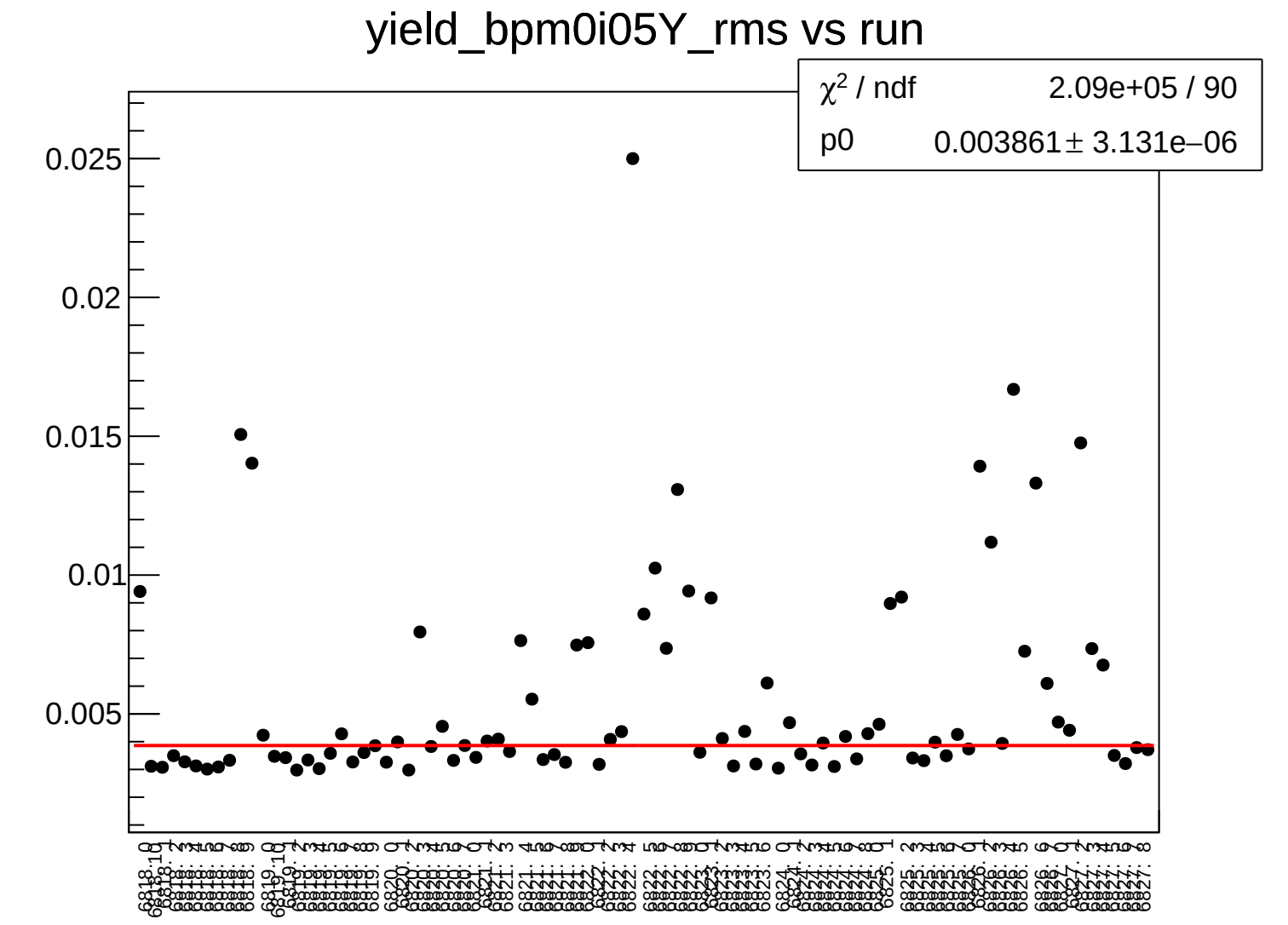

yield_bpm0i05X_mean vs run
χ² / ndf 7.196e+06 / 90
p0 −1.461 ± 8.138e−06
−1.42
−1.44
−1.46
−1.48
−1.5
−1.52
−1.54
pull
Entries 91
Mean −342.7
Std Dev 383.4
600
400
200
0
−200
−400
−600
−800
−1000
−1200

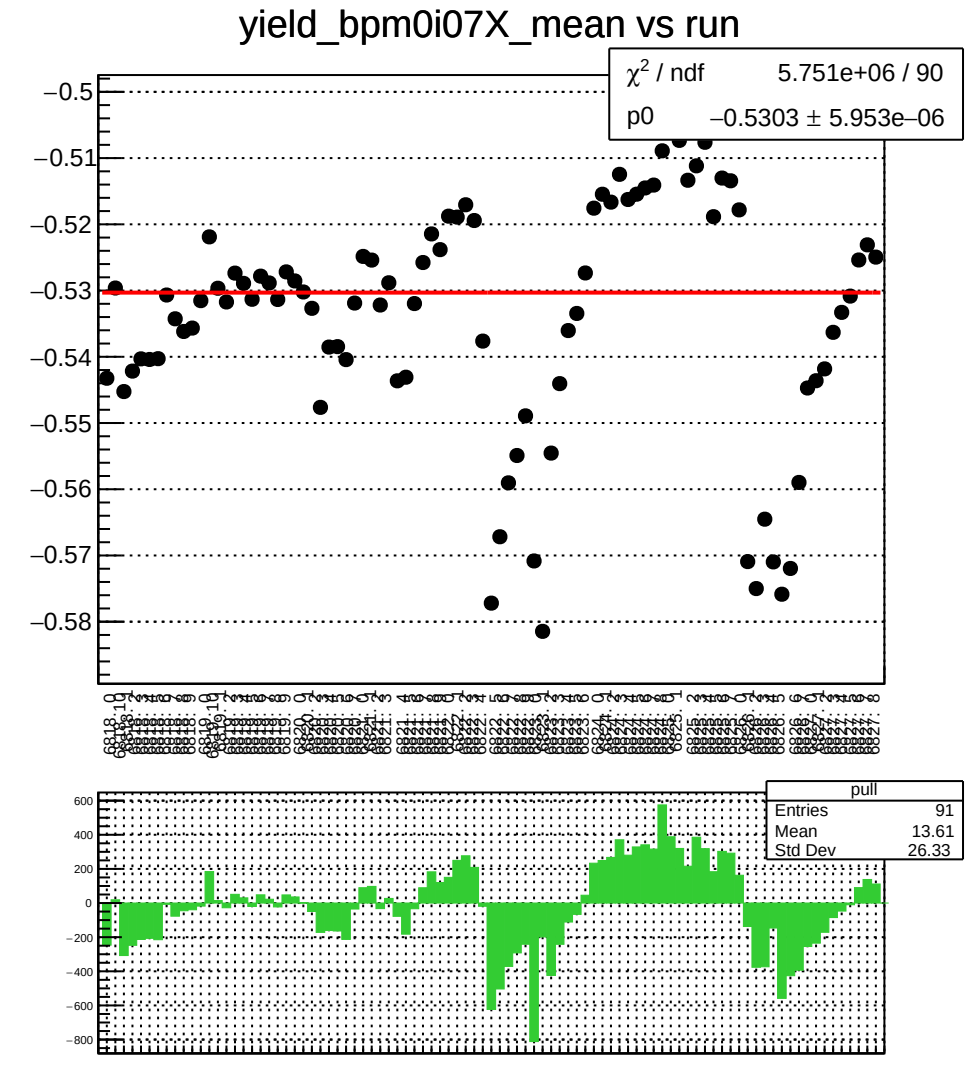

pull1D
Entries 91
Mean −1.68
Std Dev 2.58
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

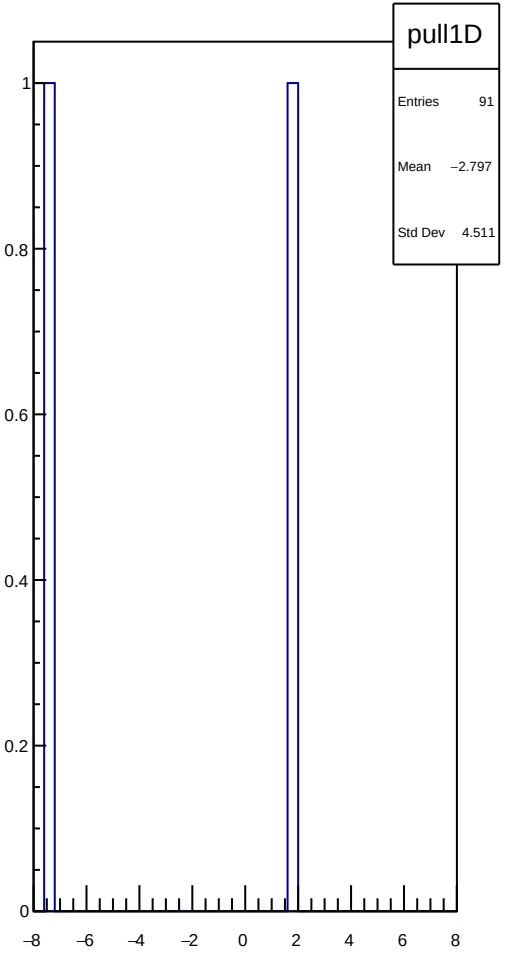

yield_bpm0i05X_rms vs run
χ² / ndf 1.227e+05 / 90
p0 0.007295 ± 5.755e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

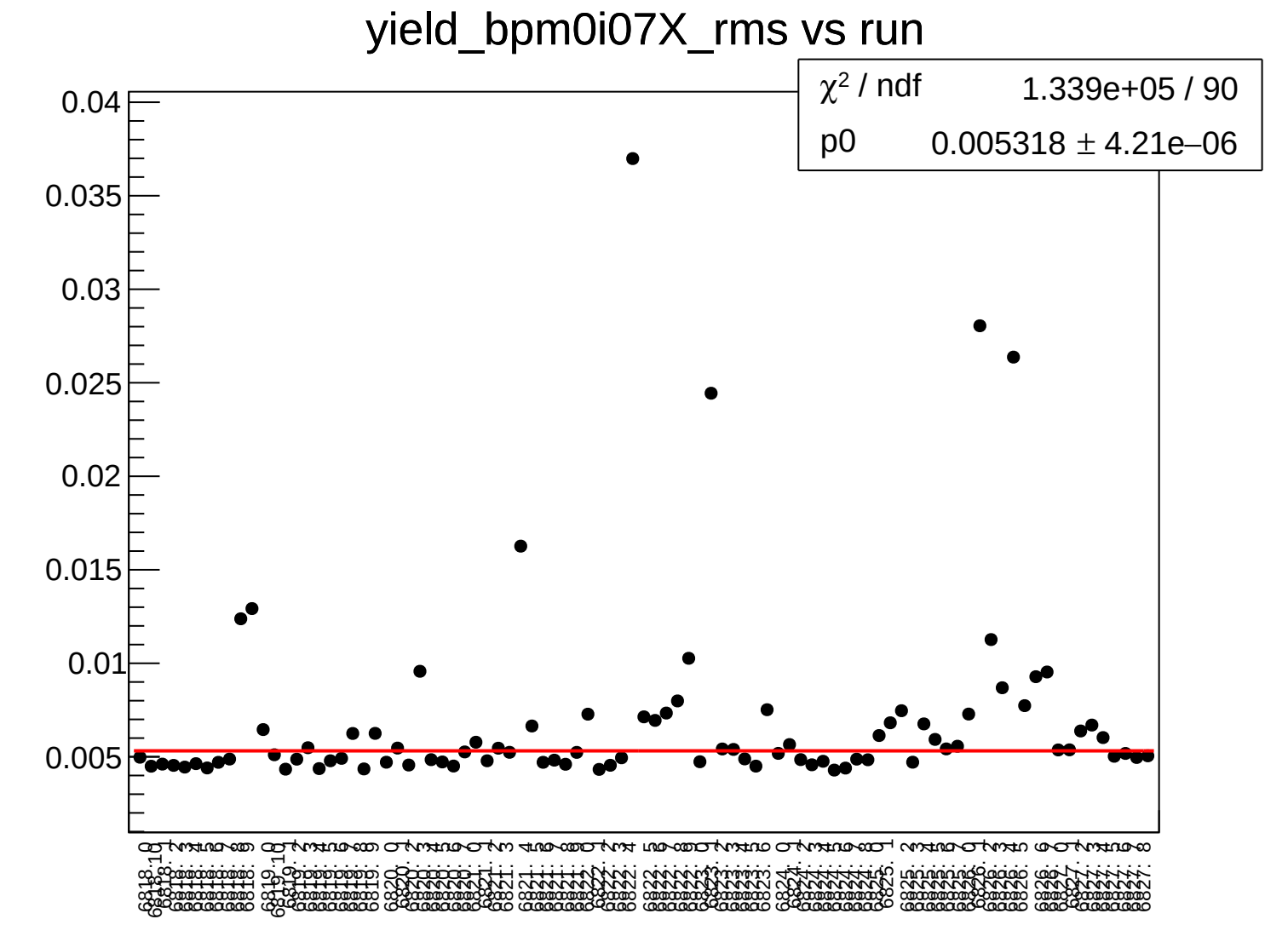

yield_bpm0i05Y_mean vs run
χ² / ndf 4.06e+06 / 90
p0 −0.2947 ± 4.428e−06
−0.28
−0.29
−0.3
−0.31
−0.32
−0.33
−0.34
pull
Entries 91
Mean 69.24
Std Dev 46.79
400
200
0
−200
−400
−600
−800

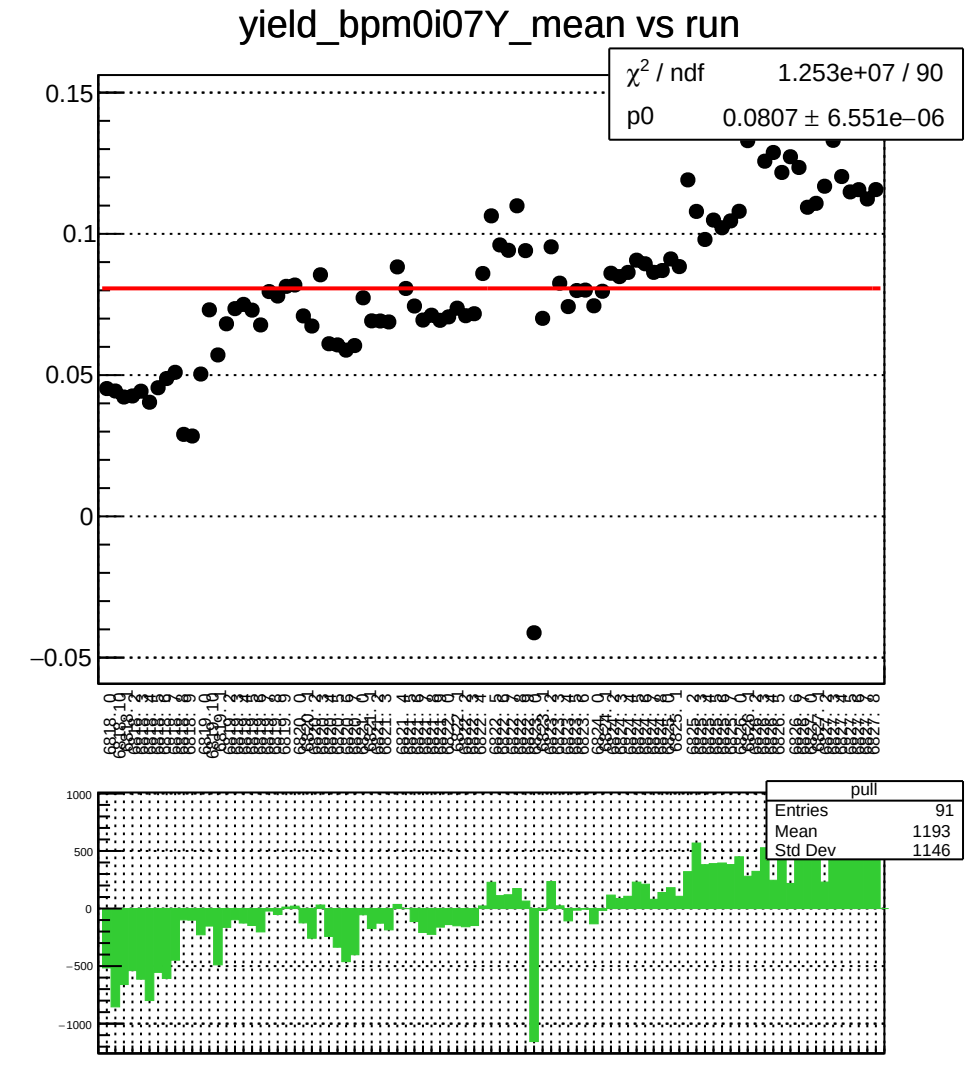

pull1D
Entries 91
Mean −1.403
Std Dev 2.095
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

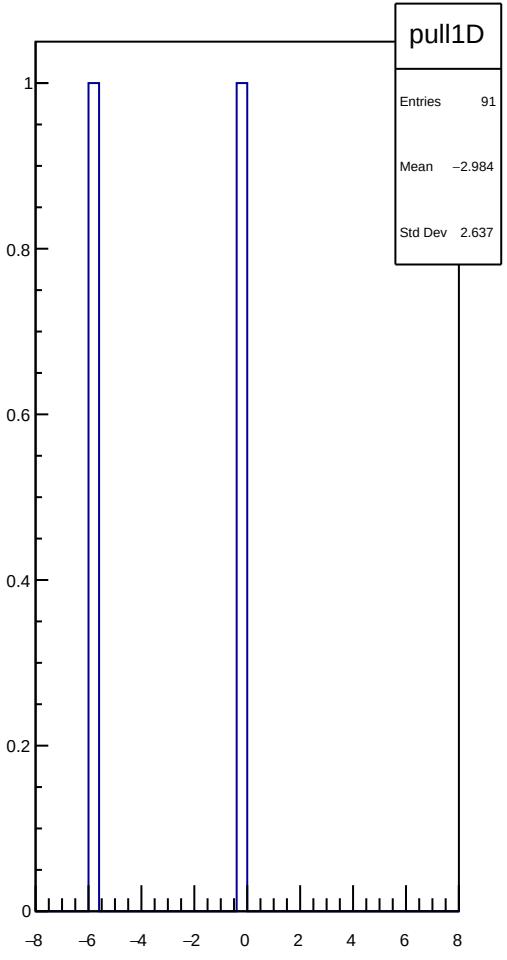

yield_bpm0i05Y_rms vs run
χ² / ndf 2.09e+05 / 90
p0 0.003861 ± 3.131e−06
0.025
0.02
0.015
0.01
0.005

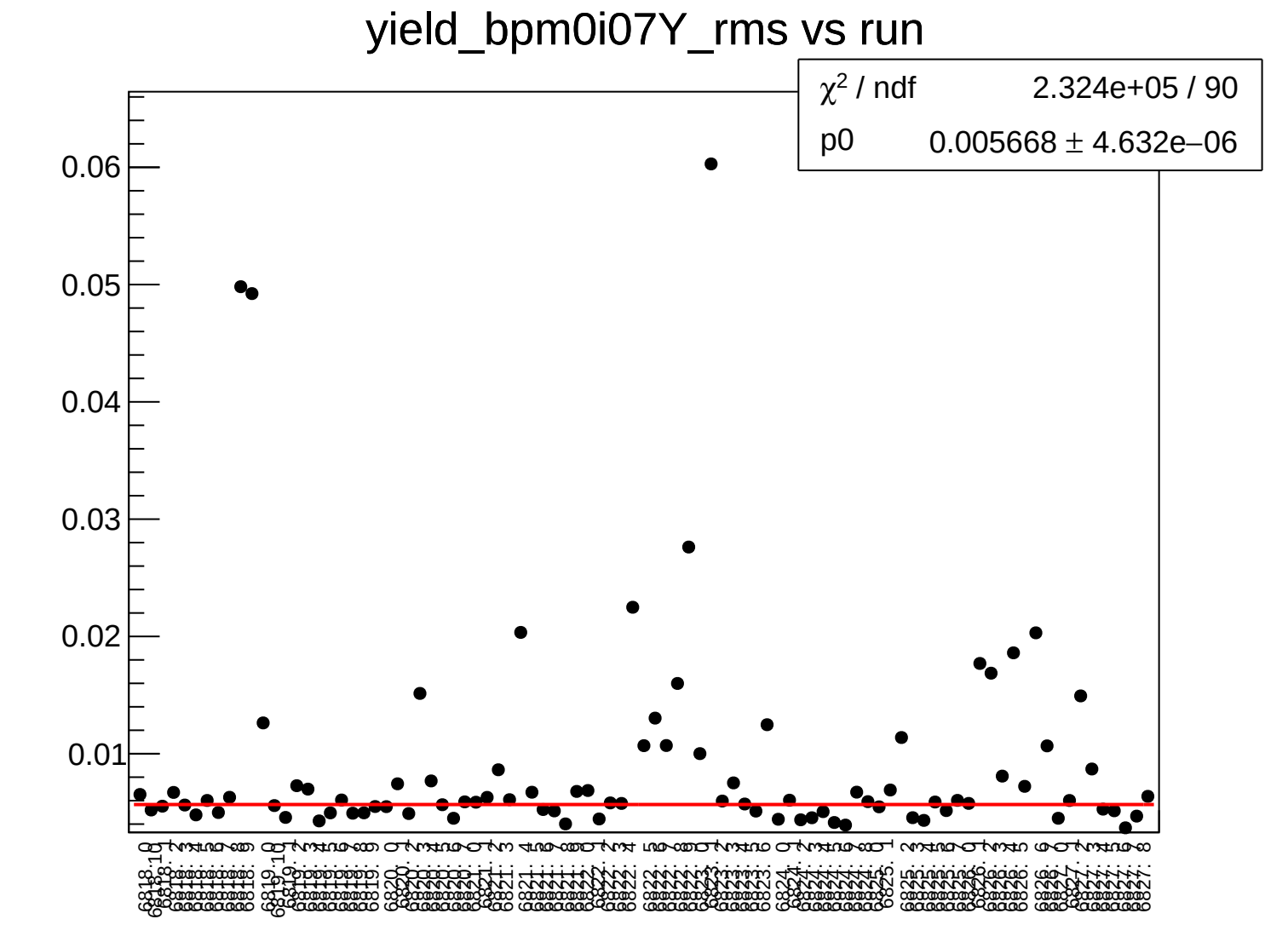

yield_bpm0i07X_mean vs run
χ² / ndf 5.751e+06 / 90
p0 −0.5303 ± 5.953e−06
pull
Entries 91
Mean 13.61
Std Dev 26.33

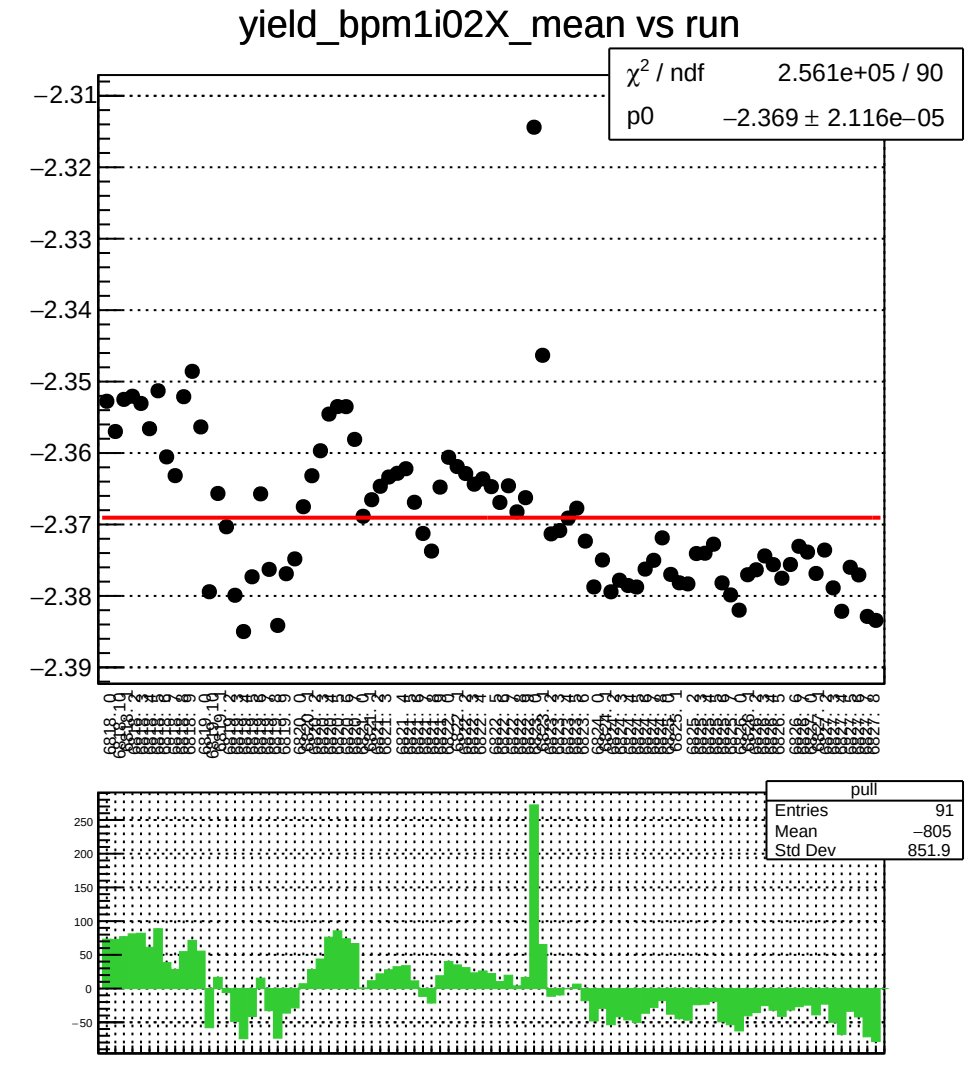

pull1D
Entries 91
Mean −2.797
Std Dev 4.511

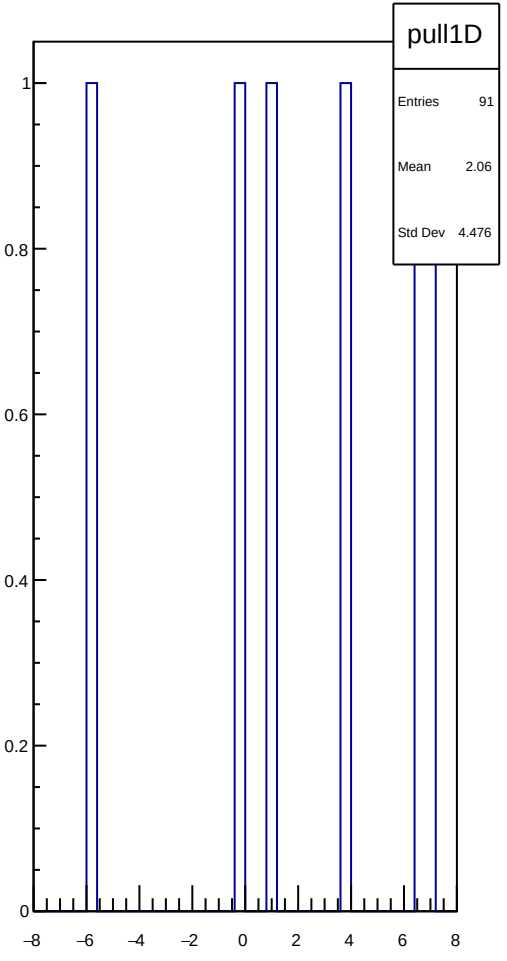

yield_bpm0i07X_rms vs run
χ² / ndf 1.339e+05 / 90
p0 0.005318 ± 4.21e–06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

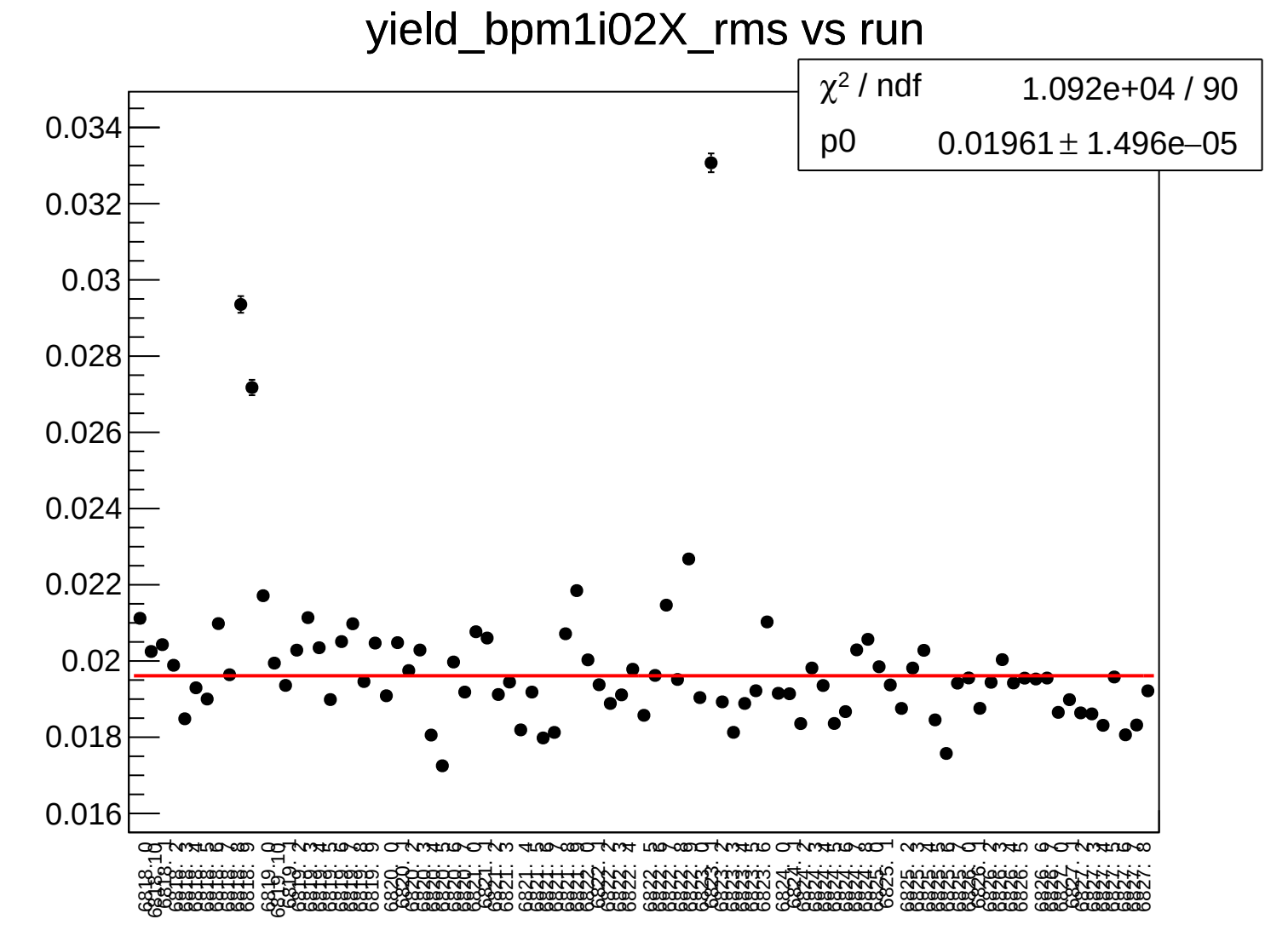

yield_bpm0i07Y_mean vs run
χ² / ndf 1.253e+07 / 90
p0 0.0807 ± 6.551e−06
0.15
0.1
0.05
0
−0.05
pull
Entries 91
Mean 1193
Std Dev 1146
1000
500
0
−500
−1000

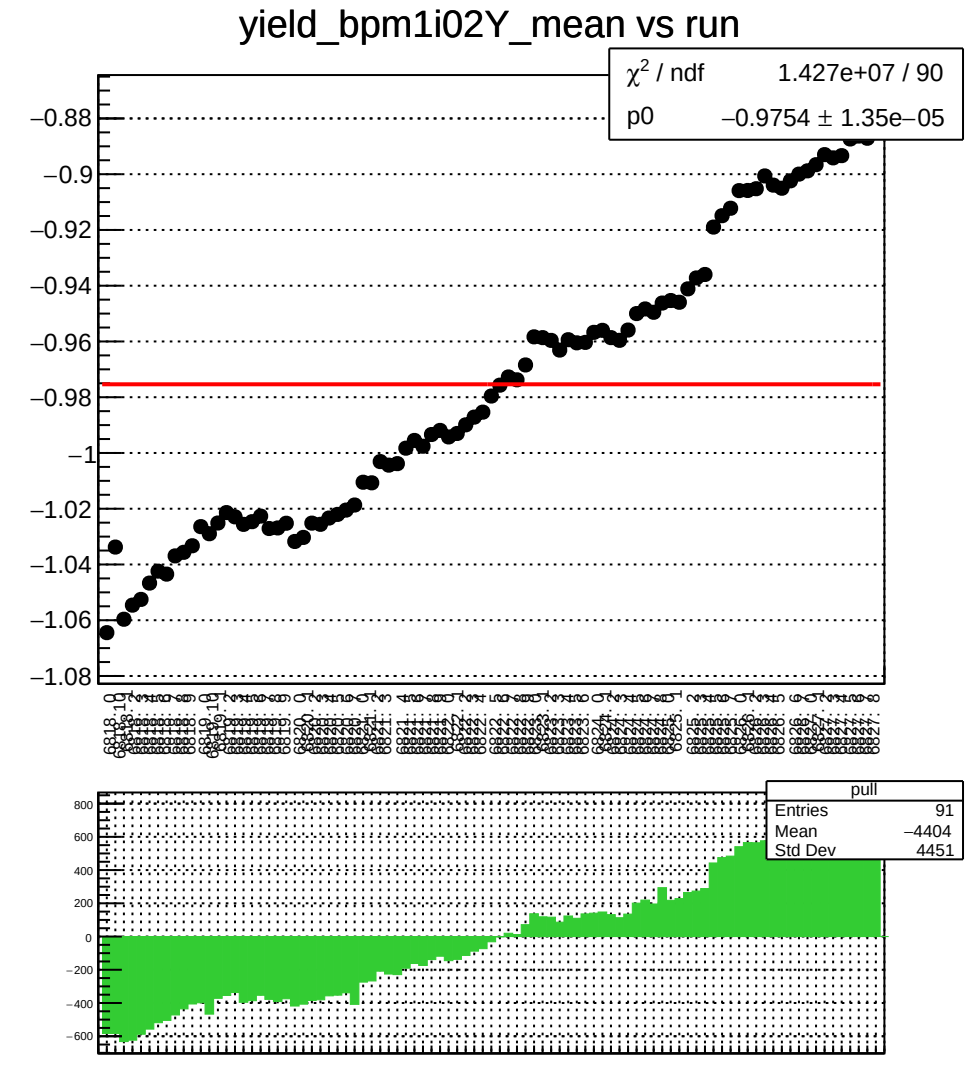

pull1D
Entries 91
Mean −2.984
Std Dev 2.637
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

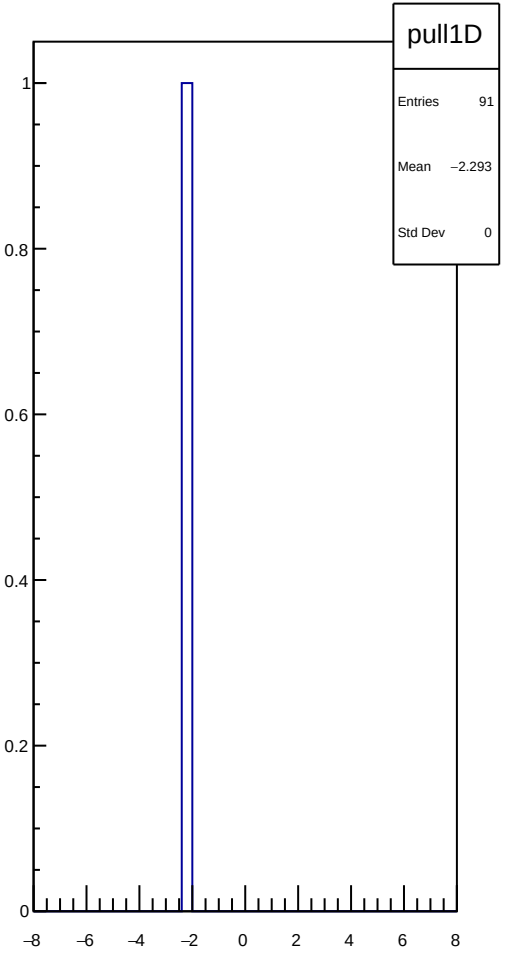

yield_bpm0i07Y_rms vs run
χ² / ndf 2.324e+05 / 90
p0 0.005668 ± 4.632e−06
0.06
0.05
0.04
0.03
0.02
0.01


yield_bpm1i02X_mean vs run
χ² / ndf 2.561e+05 / 90
p0 −2.369 ± 2.116e−05
−2.31
−2.32
−2.33
−2.34
−2.35
−2.36
−2.37
−2.38
−2.39
pull
Entries 91
Mean −805
Std Dev 851.9
250
200
150
100
50
0
−50

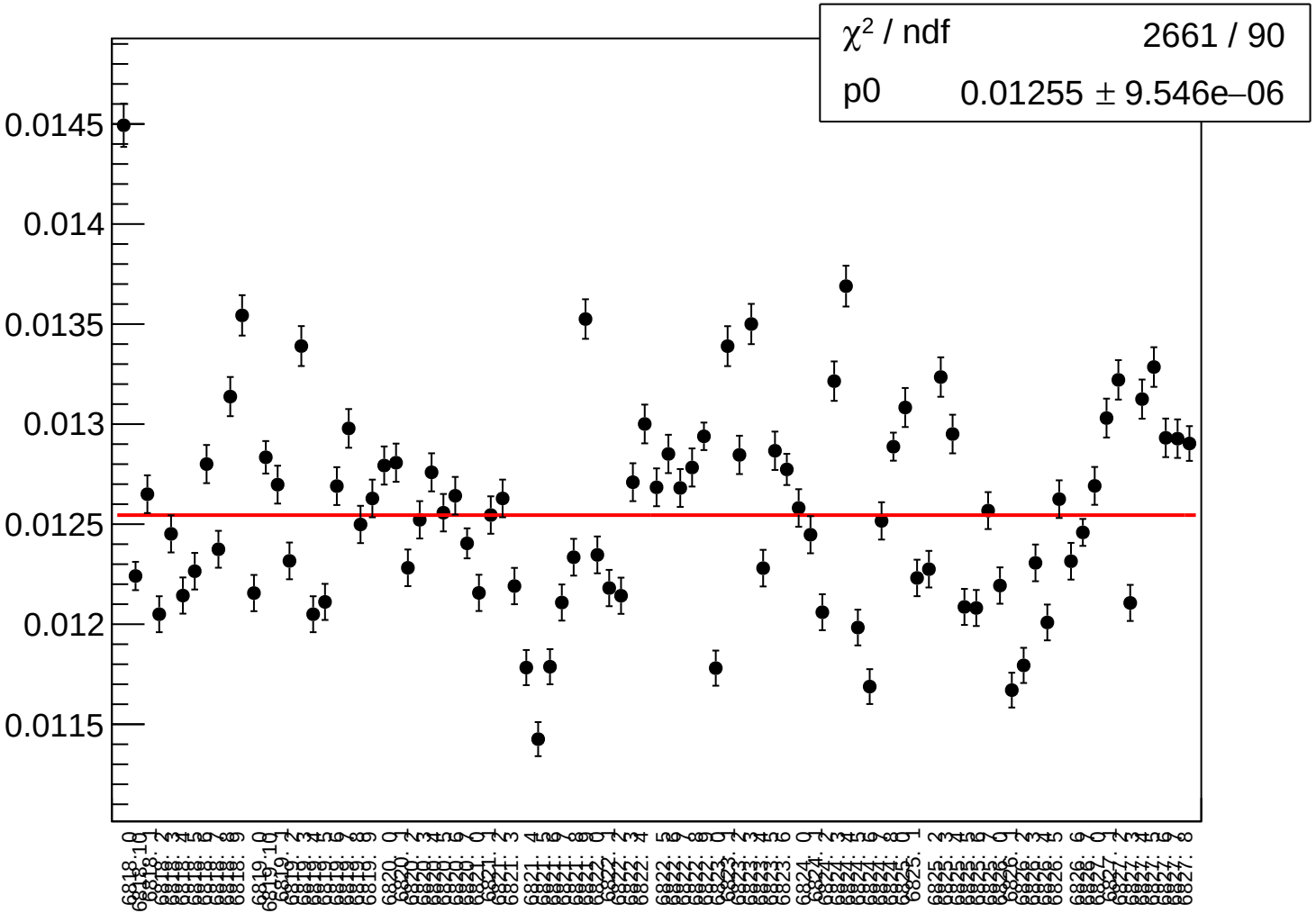

pull1D
Entries 91
Mean 2.06
Std Dev 4.476
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

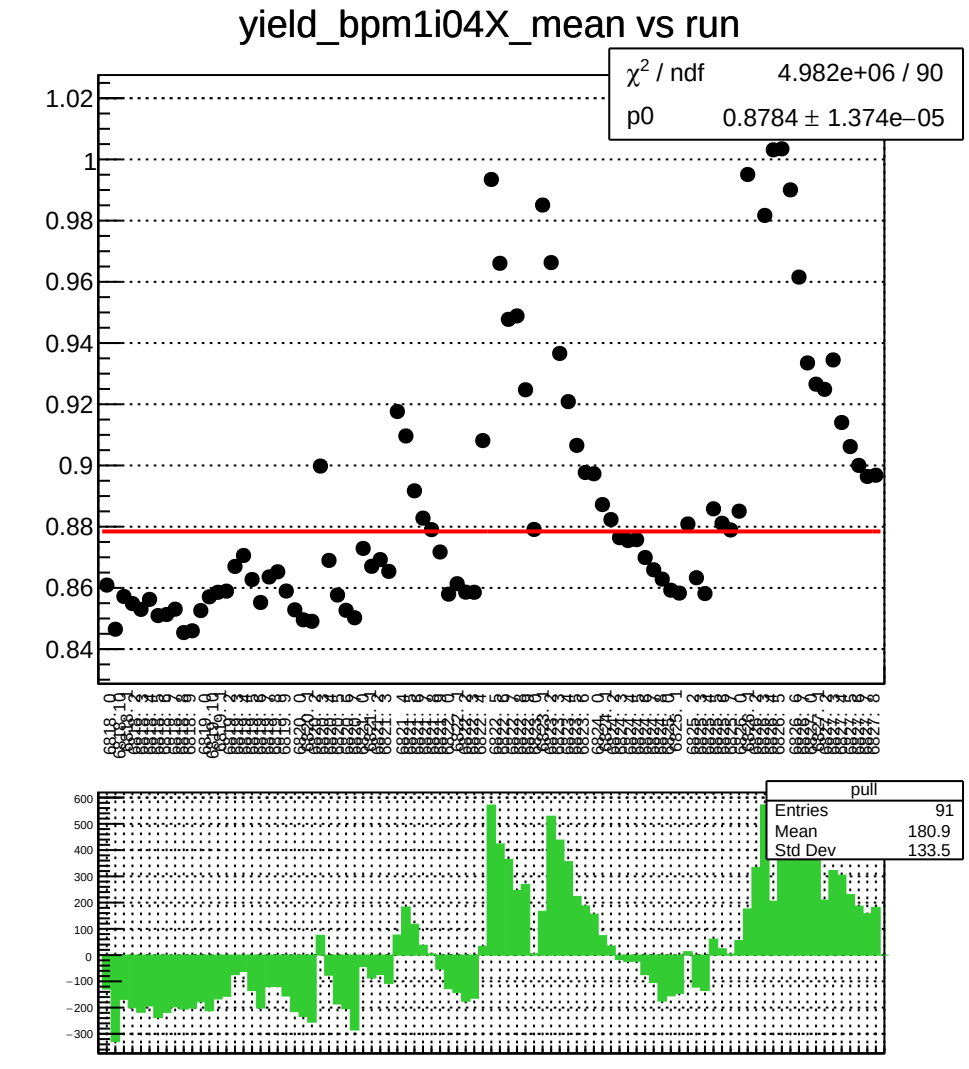

yield_bpm1i02X_rms vs run
χ² / ndf 1.092e+04 / 90
p0 0.01961 ± 1.496e–05
0.034
0.032
0.03
0.028
0.026
0.024
0.022
0.02
0.018
0.016

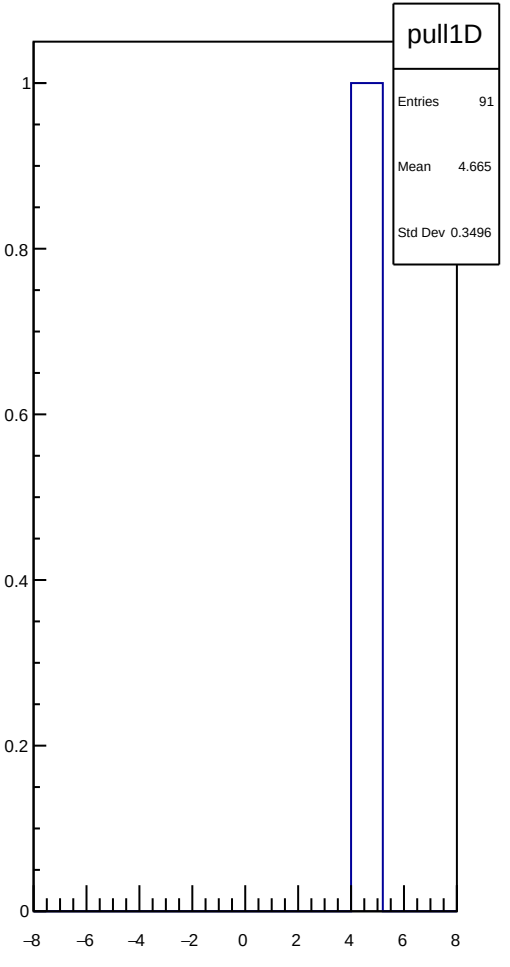

yield_bpm1i02Y_mean vs run
χ² / ndf 1.427e+07 / 90
p0 −0.9754 ± 1.35e−05
pull
Entries 91
Mean −4404
Std Dev 4451

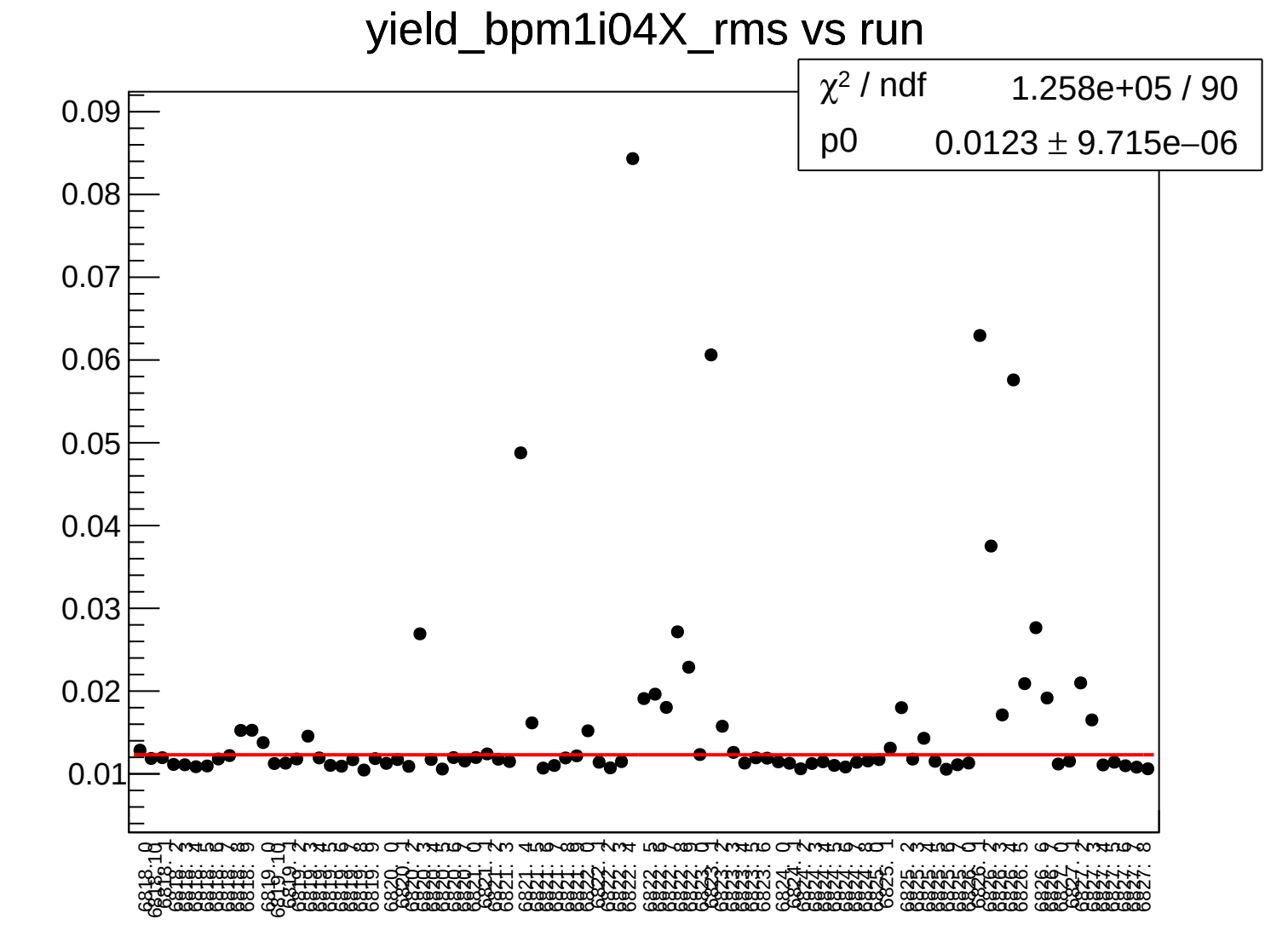

pull1D
Entries 91
Mean −2.293
Std Dev 0

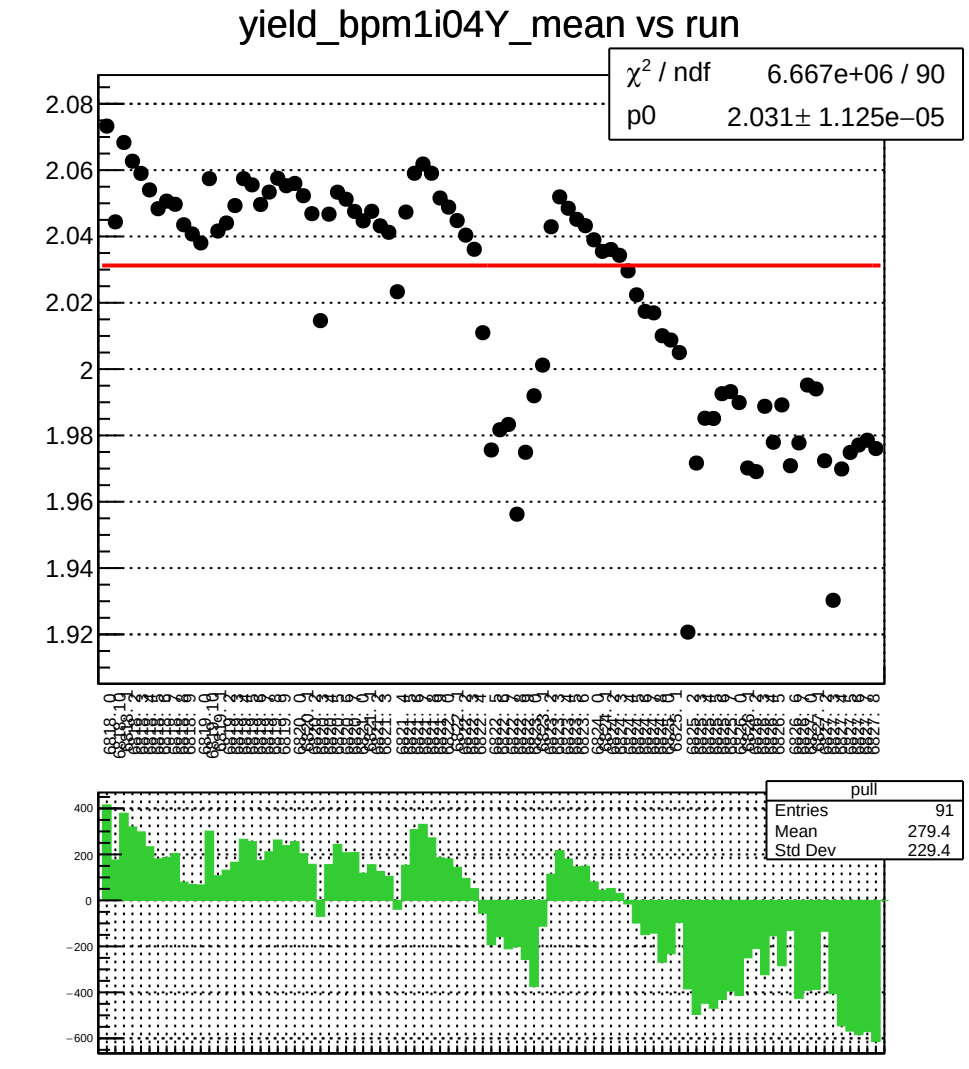
yield_bpm1i02Y_rms vs run

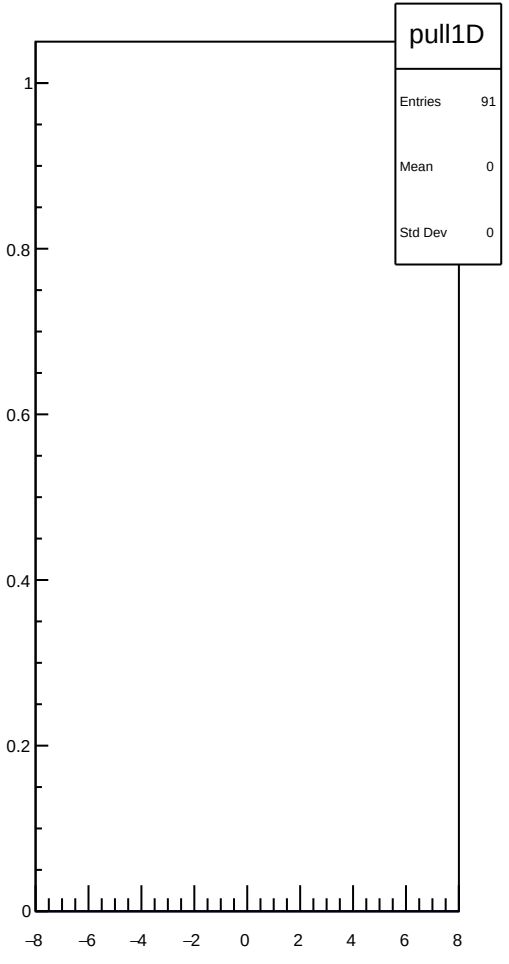


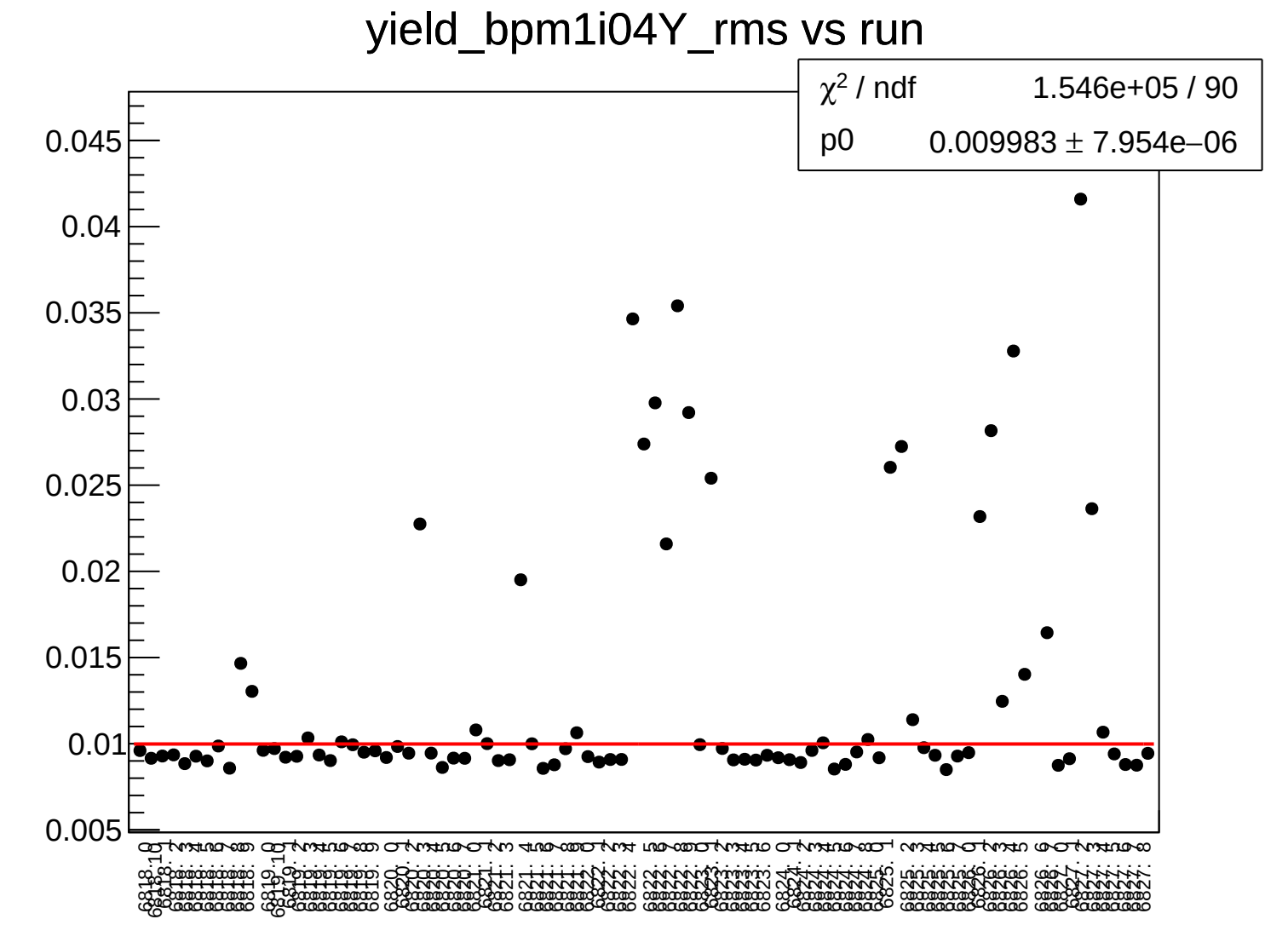

yield_bpm1i04X_mean vs run
χ² / ndf 4.982e+06 / 90
p0 0.8784 ± 1.374e−05
1.02
1
0.98
0.96
0.94
0.92
0.9
0.88
0.86
0.84
pull
Entries 91
Mean 180.9
Std Dev 133.5
600
500
400
300
200
100
0
−100
−200
−300

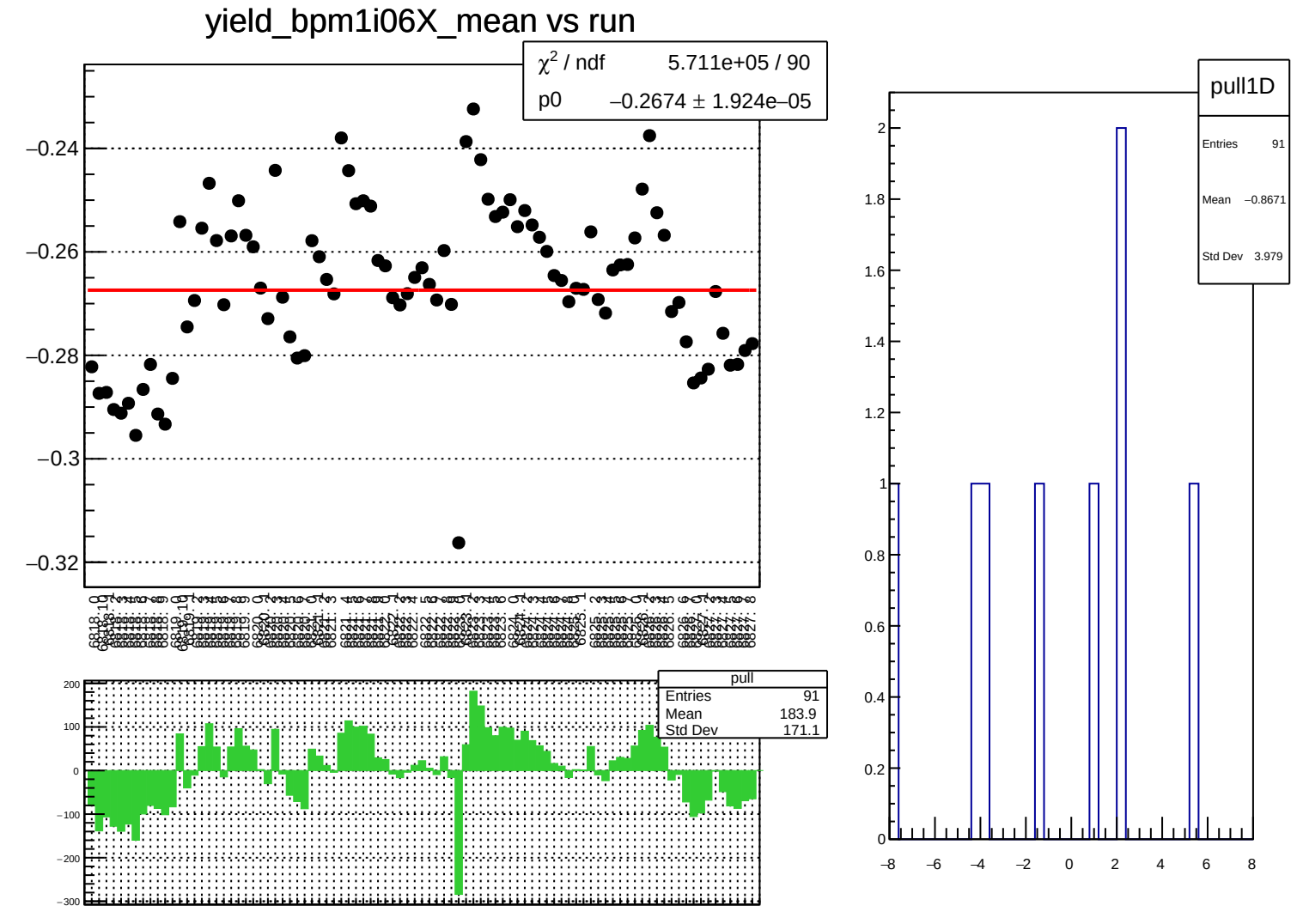

pull1D
Entries 91
Mean 4.665
Std Dev 0.3496
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

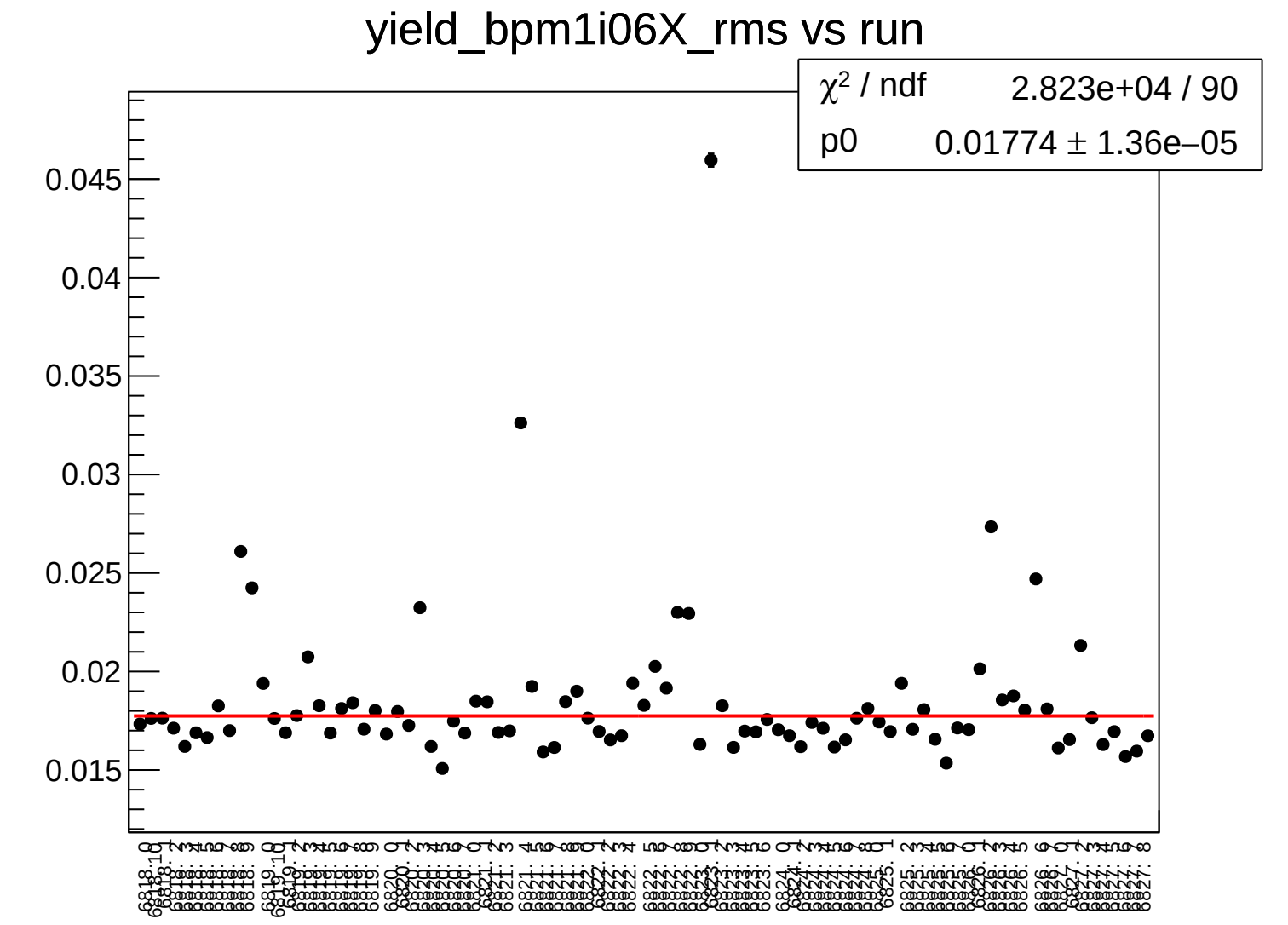

yield_bpm1i04X_rms vs run
χ² / ndf 1.258e+05 / 90
p0 0.0123 ± 9.715e−06
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

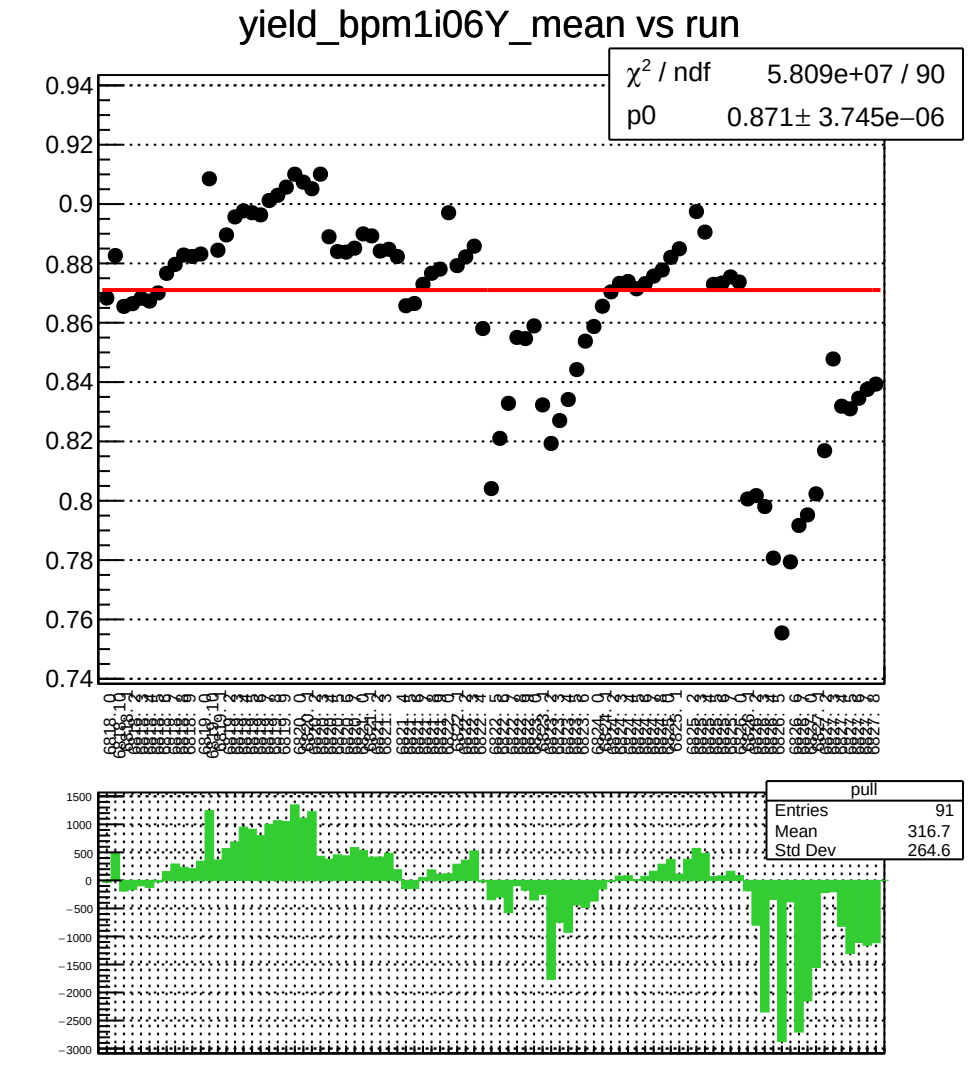

yield_bpm1i04Y_mean vs run
χ² / ndf 6.667e+06 / 90
p0 2.031± 1.125e−05
2.08
2.06
2.04
2.02
2
1.98
1.96
1.94
1.92
pull
Entries 91
Mean 279.4
Std Dev 229.4
400
200
0
−200
−400
−600

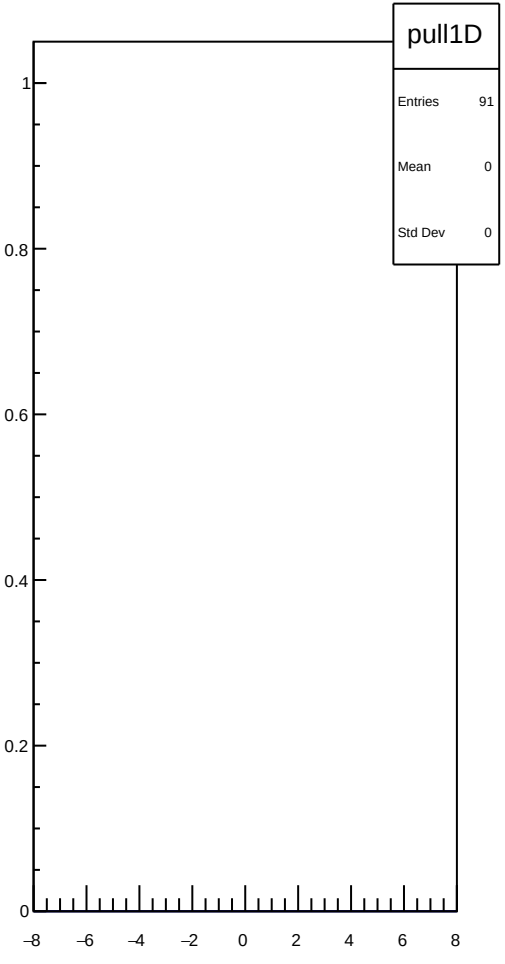

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

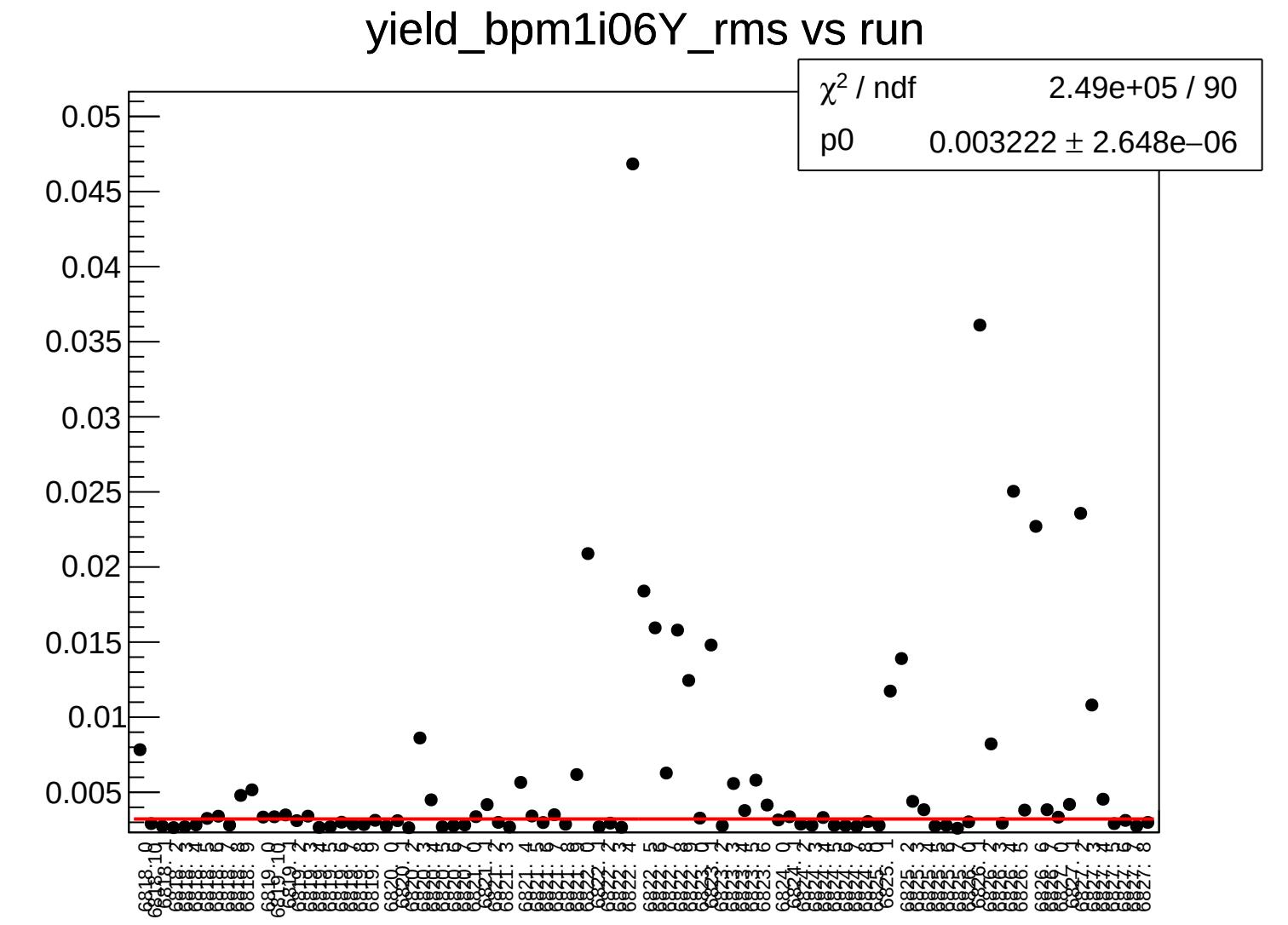

yield_bpm1i04Y_rms vs run
χ² / ndf 1.546e+05 / 90
p0 0.009983 ± 7.954e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

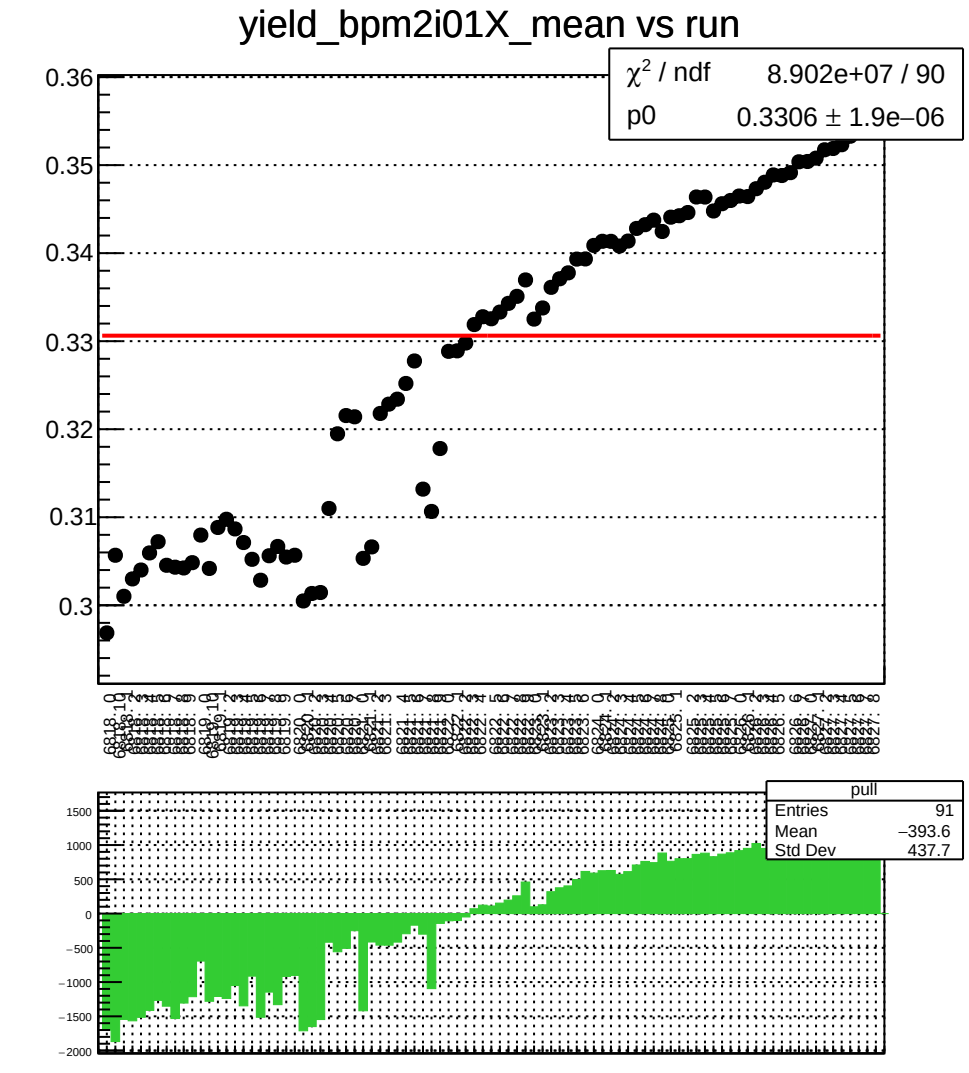

yield_bpm1i06X_mean vs run
χ² / ndf 5.711e+05 / 90
p0 −0.2674 ± 1.924e−05
−0.24
−0.26
−0.28
−0.3
−0.32
pull
Entries 91
Mean 183.9
Std Dev 171.1
200
100
0
−100
−200
−300
pull1D
Entries 91
Mean −0.8671
Std Dev 3.979
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

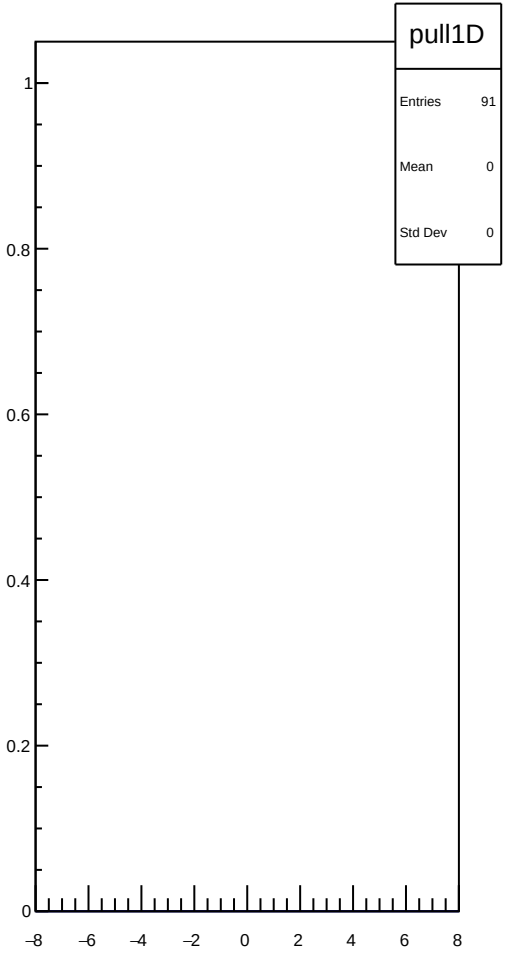

yield_bpm1i06X_rms vs run
χ² / ndf 2.823e+04 / 90
p0 0.01774 ± 1.36e−05
0.045
0.04
0.035
0.03
0.025
0.02
0.015

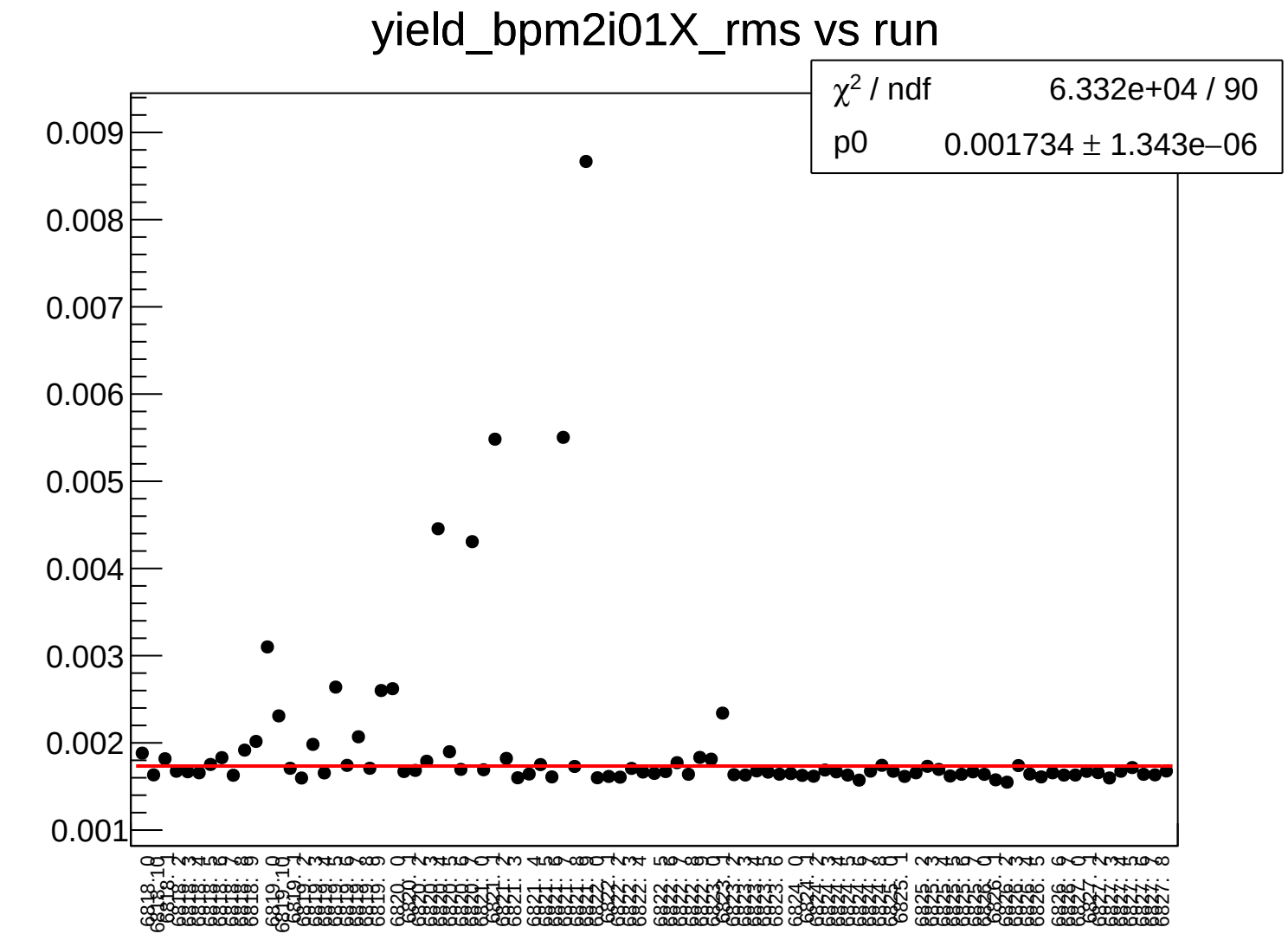

yield_bpm1i06Y_mean vs run
χ² / ndf 5.809e+07 / 90
p0 0.871± 3.745e−06
pull
Entries 91
Mean 316.7
Std Dev 264.6

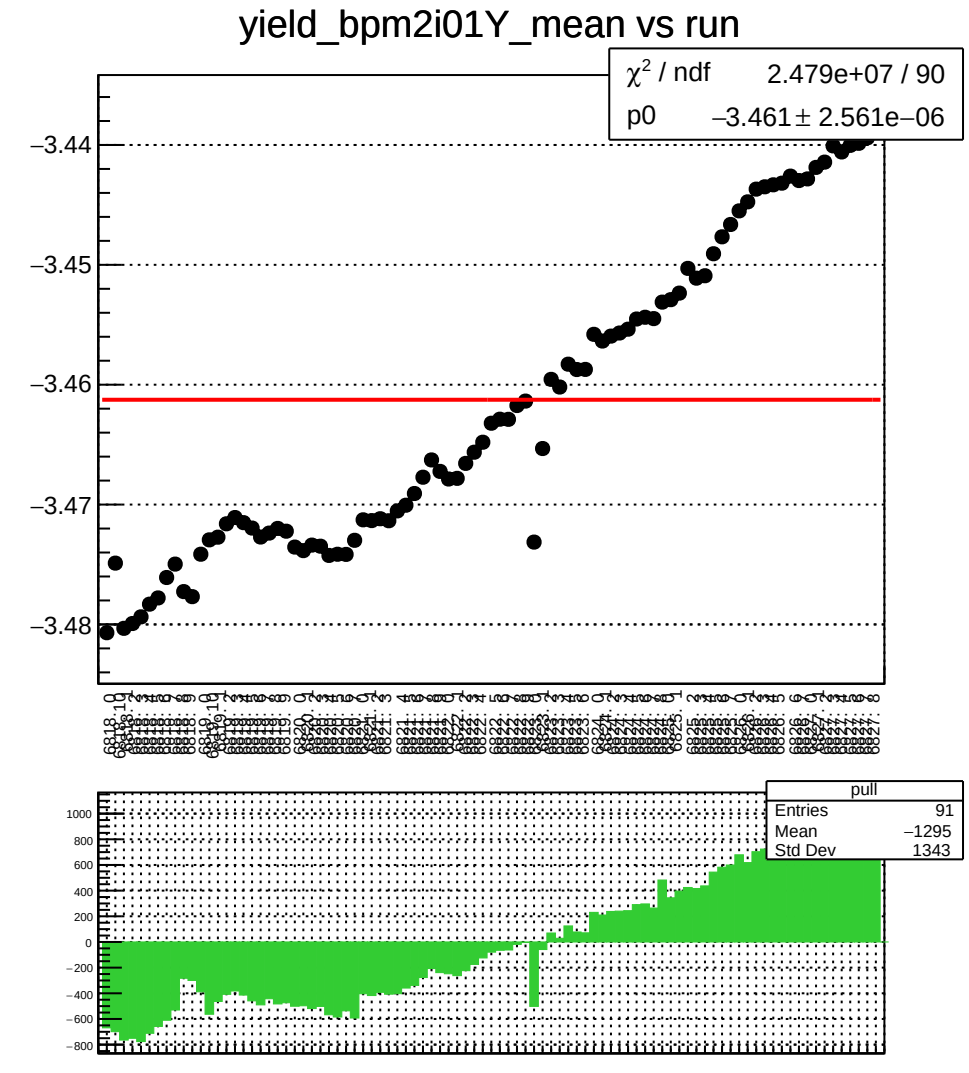

pull1D
Entries 91
Mean 0
Std Dev 0

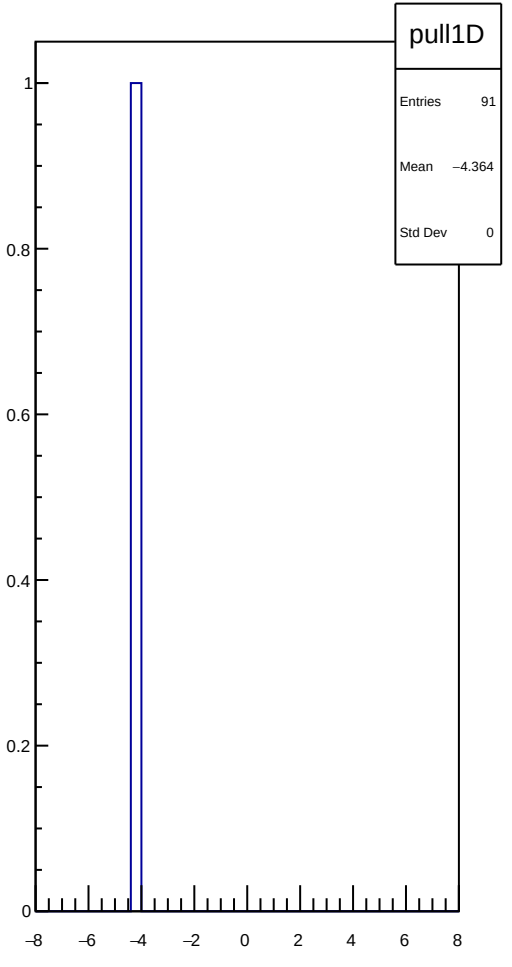

yield_bpm1i06Y_rms vs run
χ² / ndf 2.49e+05 / 90
p0 0.003222 ± 2.648e−06
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

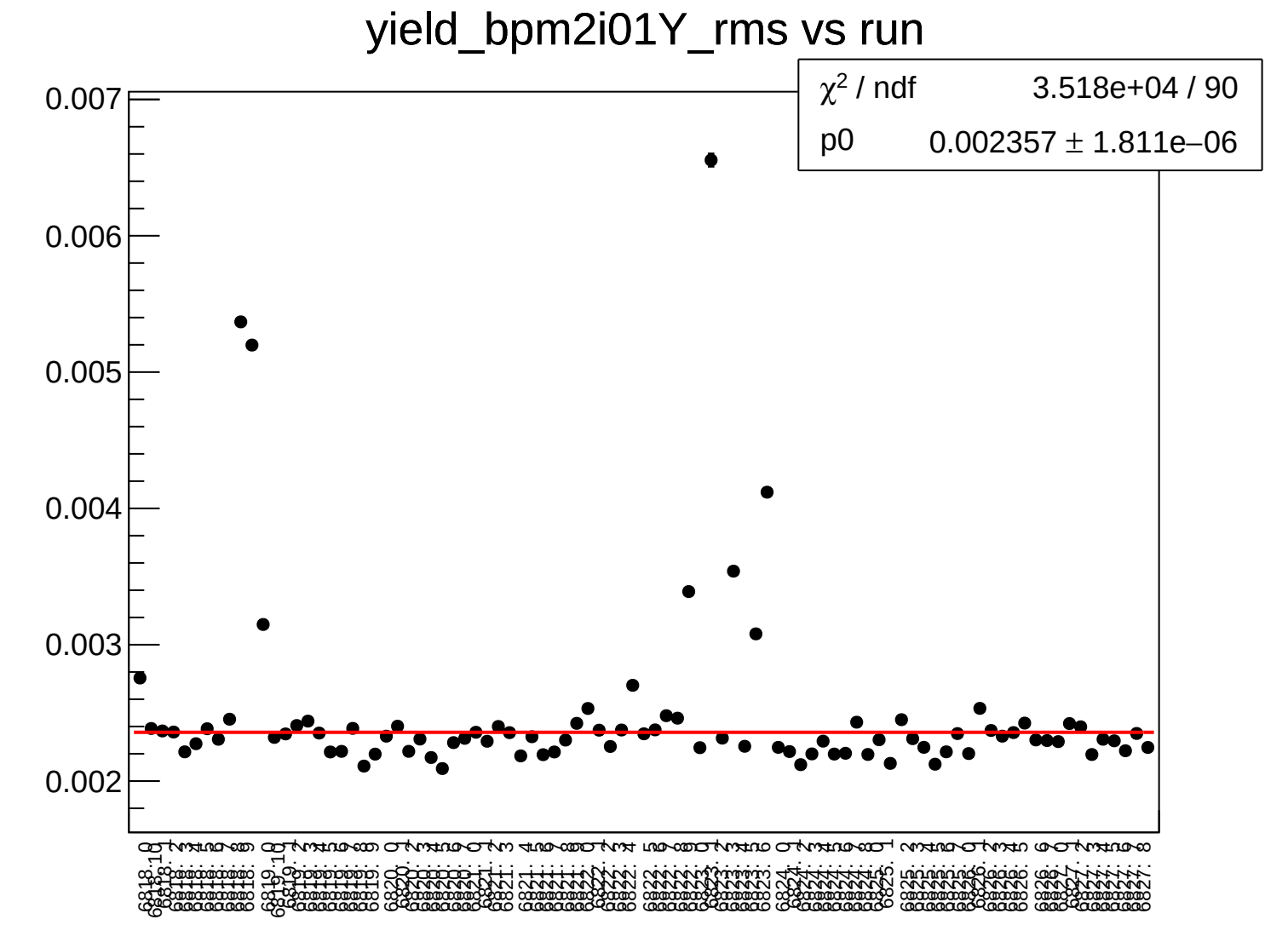

yield_bpm2i01X_mean vs run
χ² / ndf 8.902e+07 / 90
p0 0.3306 ± 1.9e−06
0.36
0.35
0.34
0.33
0.32
0.31
0.3
pull
Entries 91
Mean −393.6
Std Dev 437.7
1500
1000
500
0
−500
−1000
−1500
−2000

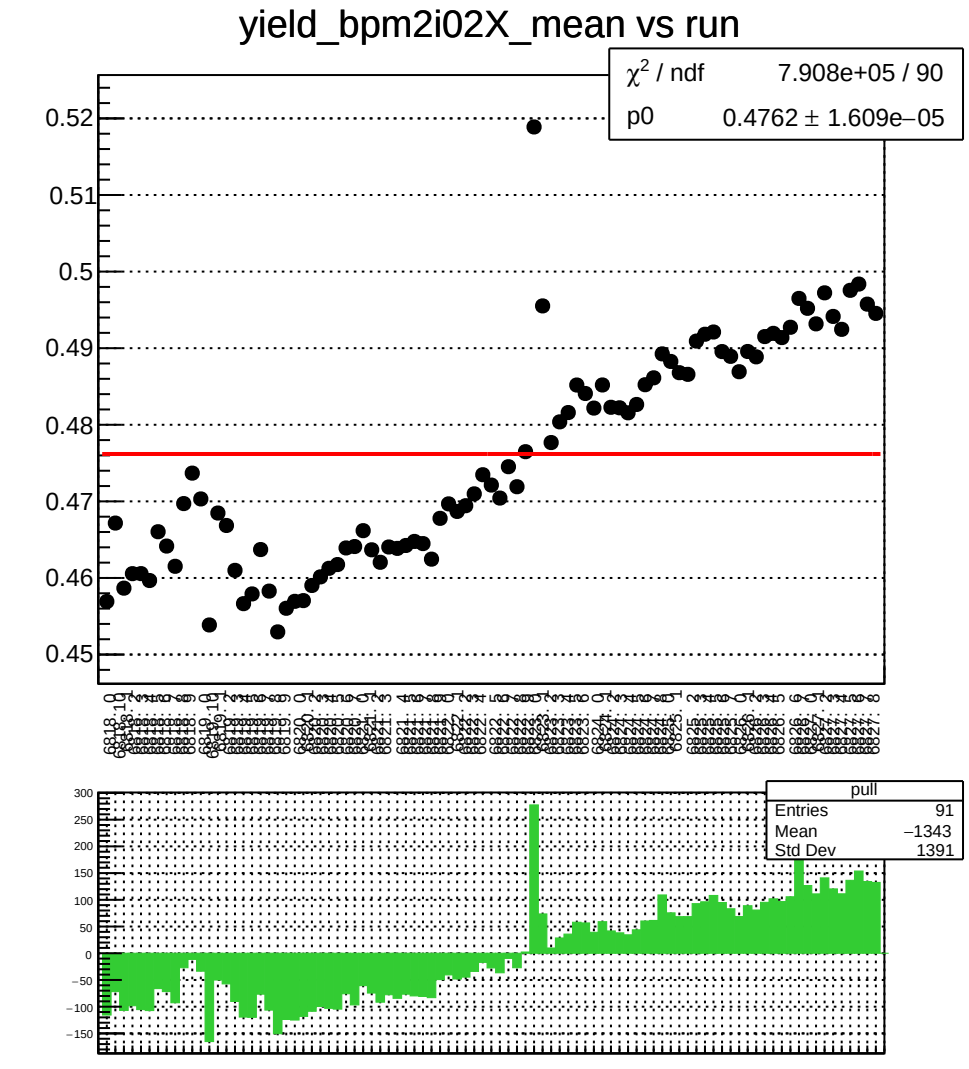

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

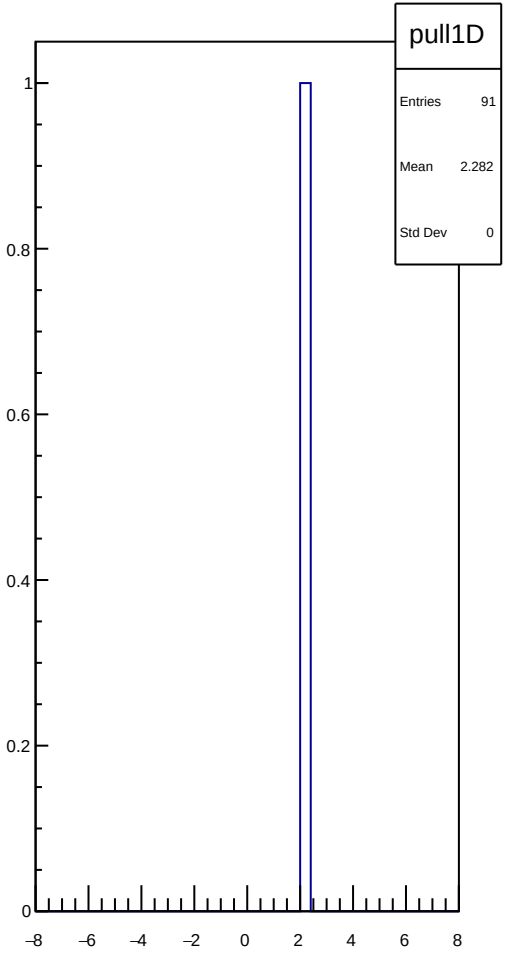

yield_bpm2i01X_rms vs run
χ² / ndf 6.332e+04 / 90
p0 0.001734 ± 1.343e−06
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001

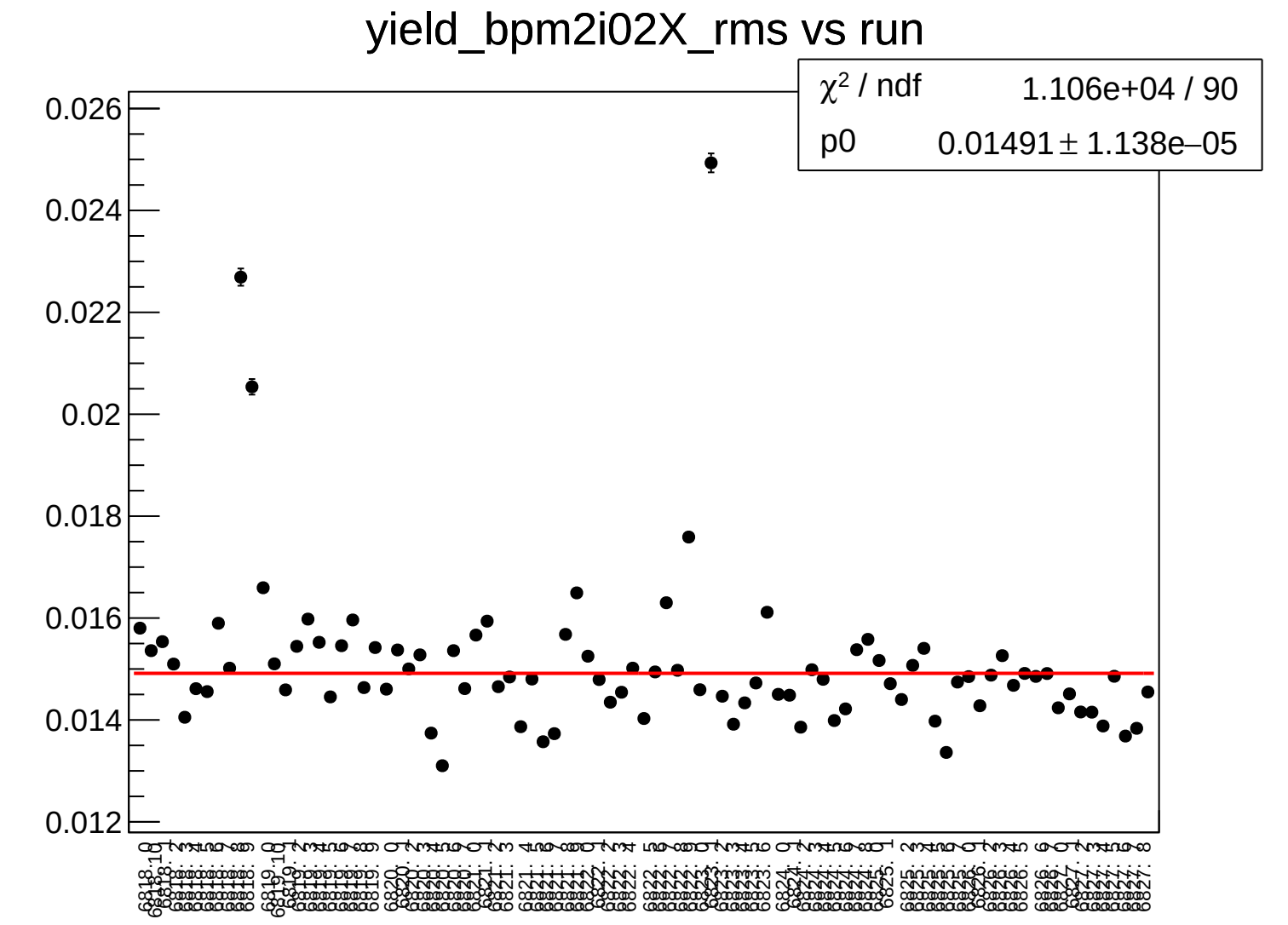

yield_bpm2i01Y_mean vs run
χ² / ndf 2.479e+07 / 90
p0 −3.461 ± 2.561e−06
−3.44
−3.45
−3.46
−3.47
−3.48
pull
Entries 91
Mean −1295
Std Dev 1343
1000
800
600
400
200
0
−200
−400
−600
−800

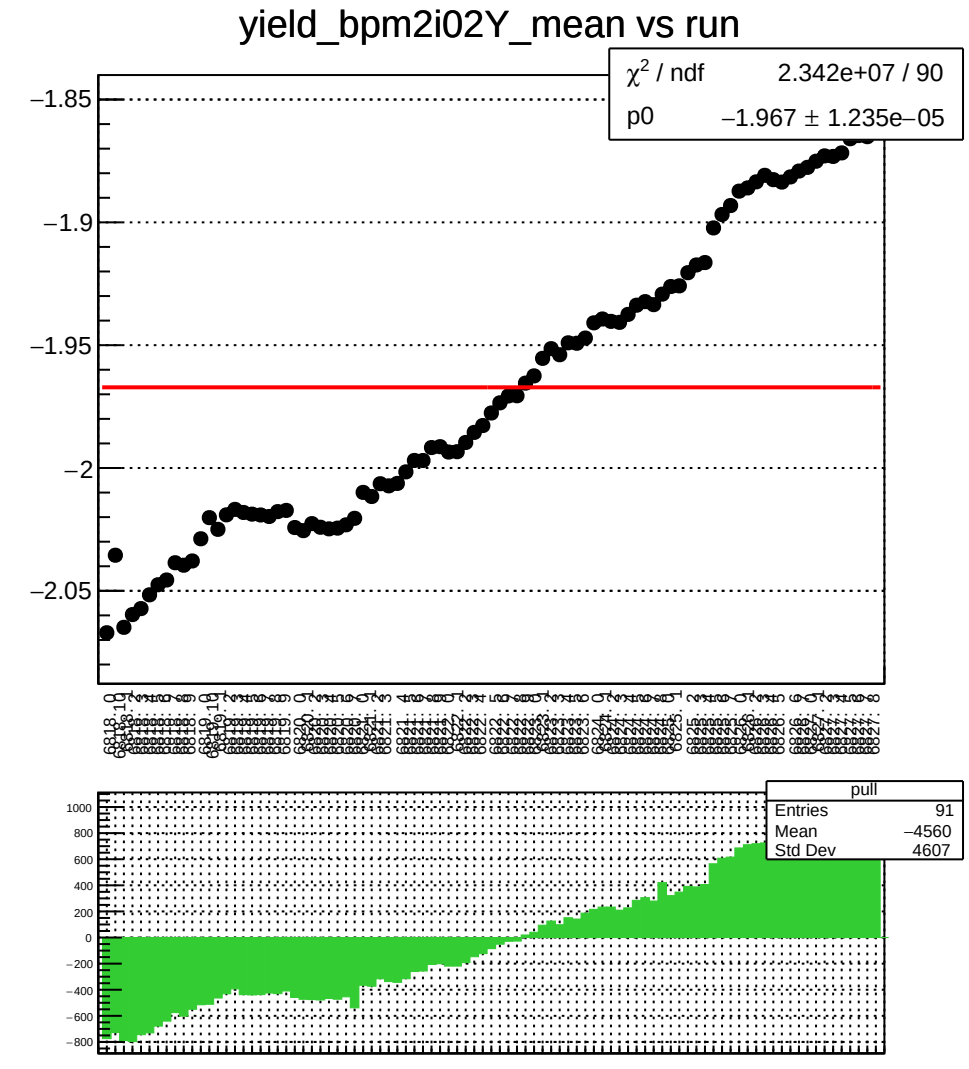

pull1D
Entries 91
Mean −4.364
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

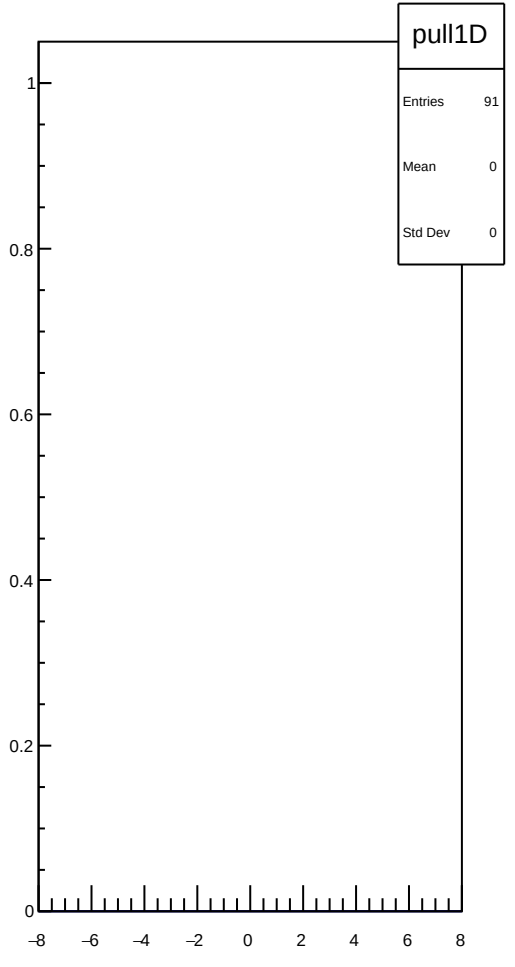

yield_bpm2i01Y_rms vs run
χ² / ndf 3.518e+04 / 90
p0 0.002357 ± 1.811e−06
0.007
0.006
0.005
0.004
0.003
0.002

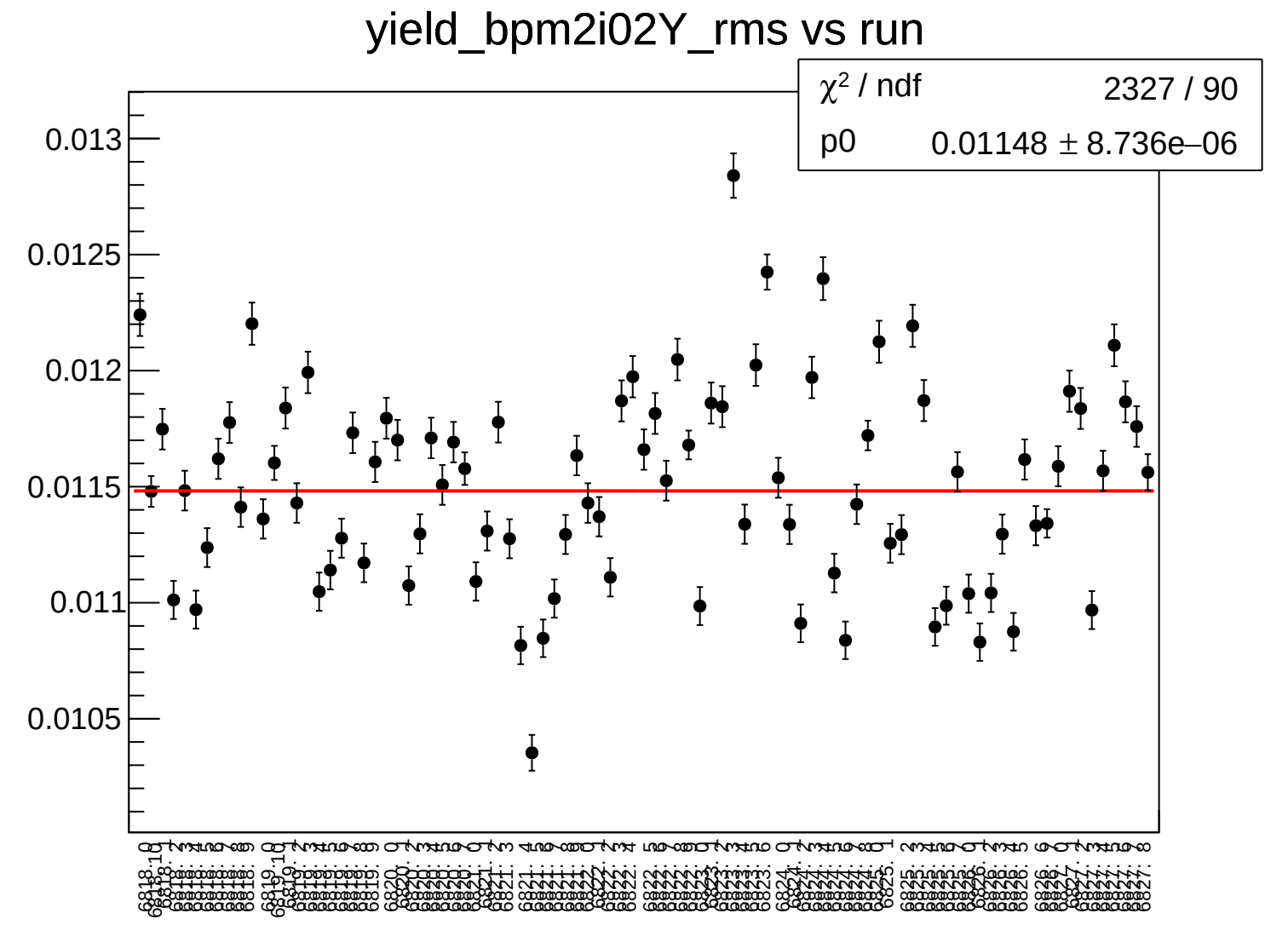

yield_bpm2i02X_mean vs run
χ² / ndf 7.908e+05 / 90
p0 0.4762 ± 1.609e−05
0.52
0.51
0.5
0.49
0.48
0.47
0.46
0.45
pull
Entries 91
Mean −1343
Std Dev 1391
300
250
200
150
100
50
0
−50
−100
−150

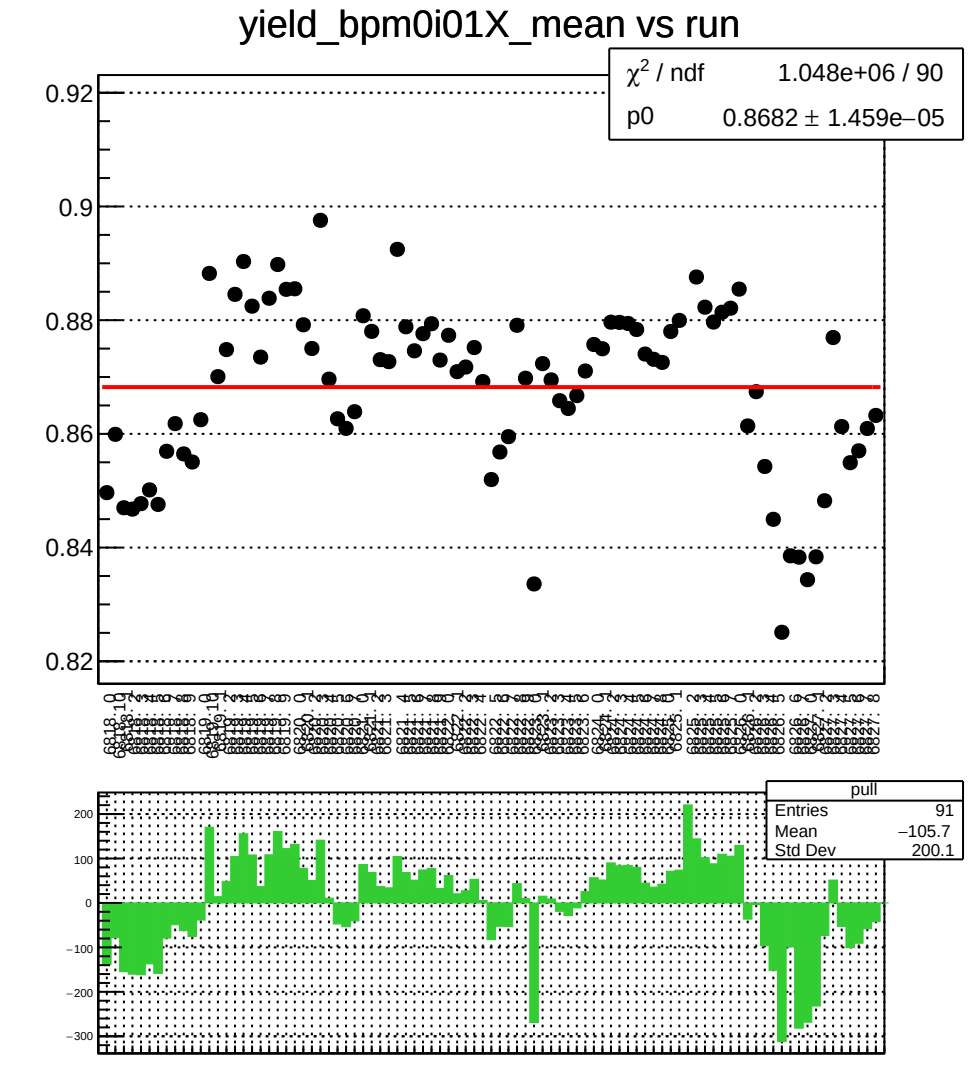

pull1D
Entries 91
Mean 2.282
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

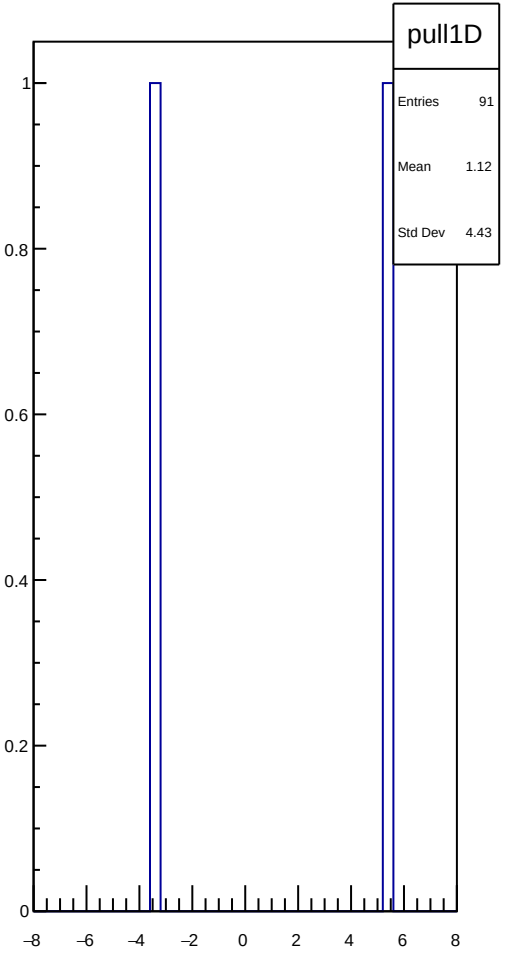

yield_bpm2i02X_rms vs run
χ² / ndf 1.106e+04 / 90
p0 0.01491 ± 1.138e–05
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012

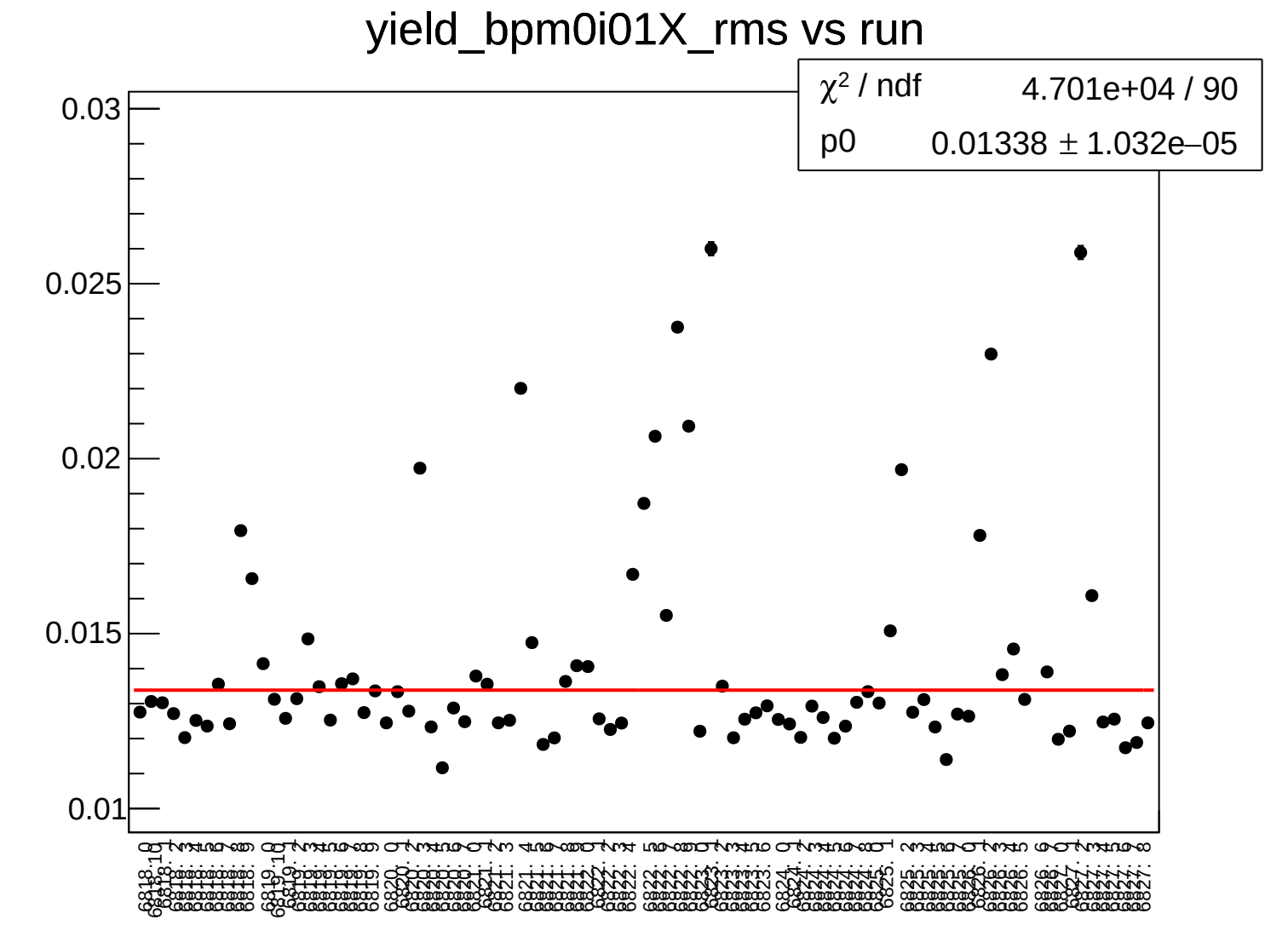

yield_bpm2i02Y_mean vs run
χ² / ndf 2.342e+07 / 90
p0 −1.967 ± 1.235e−05
−1.85
−1.9
−1.95
−2
−2.05
pull
Entries 91
Mean −4560
Std Dev 4607
1000
800
600
400
200
0
−200
−400
−600
−800

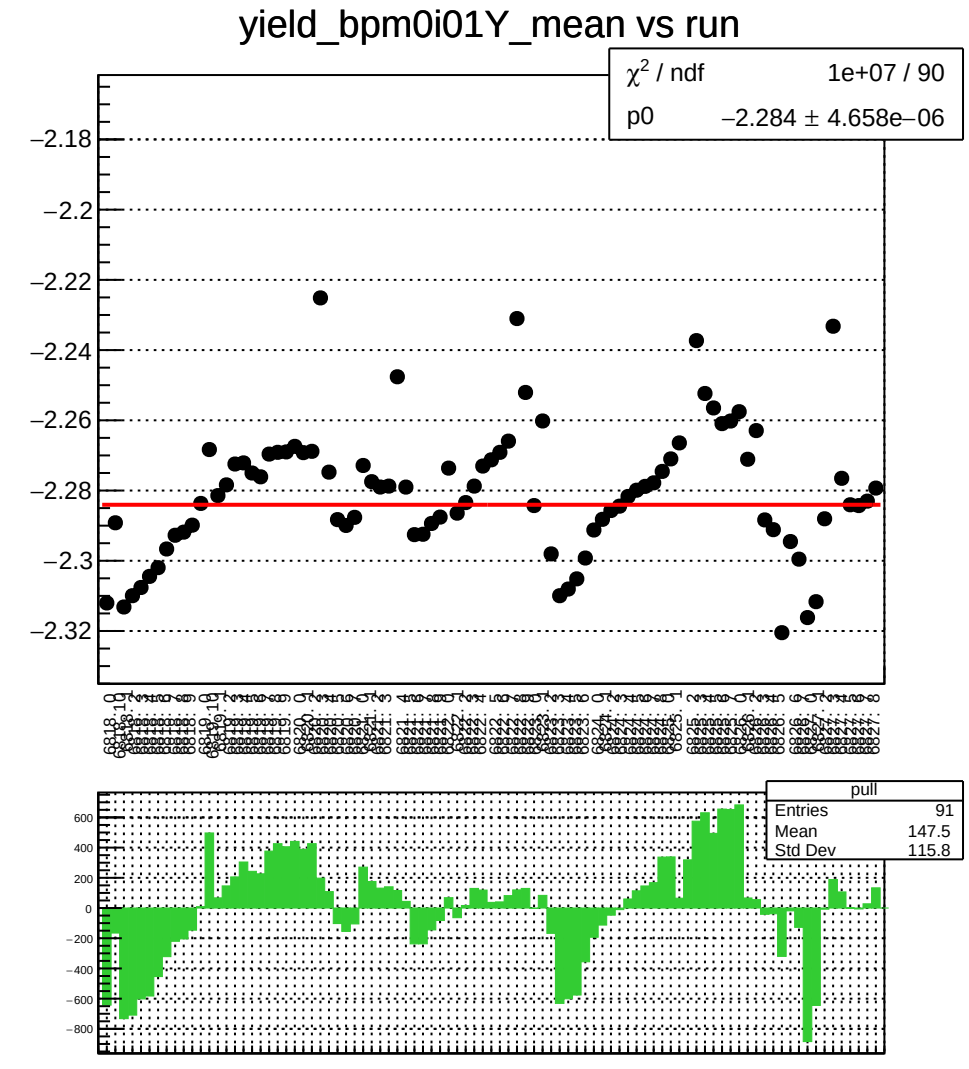

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

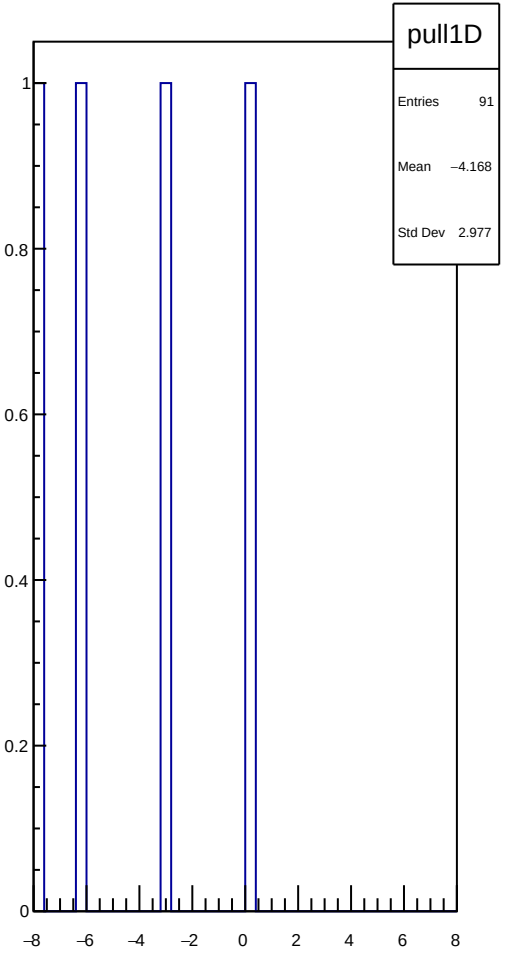

yield_bpm2i02Y_rms vs run
χ² / ndf 2327 / 90
p0 0.01148 ± 8.736e–06
0.013
0.0125
0.012
0.0115
0.011
0.0105

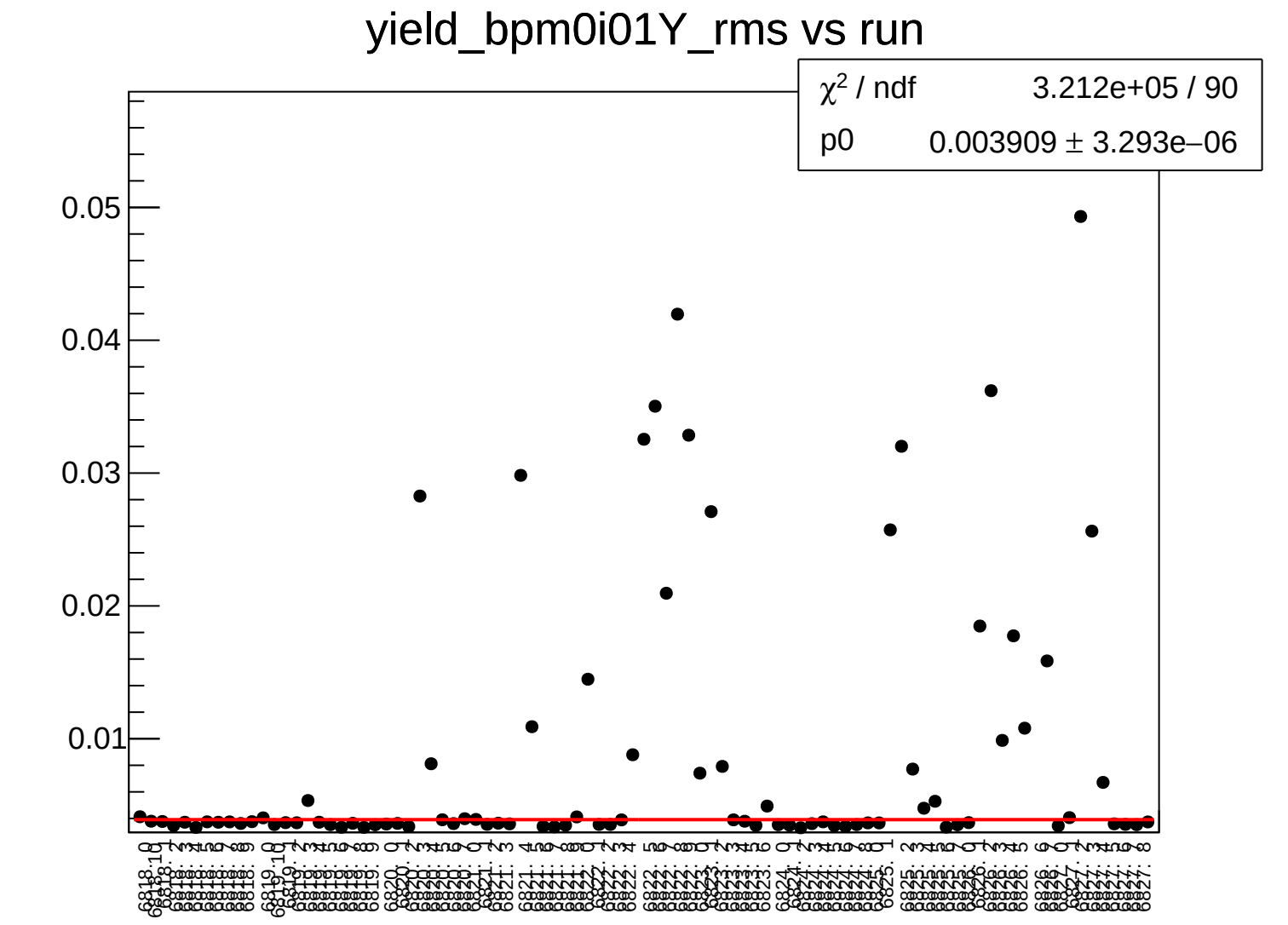

yield_bpm0i01X_mean vs run
χ² / ndf 1.048e+06 / 90
p0 0.8682 ± 1.459e−05
0.92
0.9
0.88
0.86
0.84
0.82
pull
Entries 91
Mean −105.7
Std Dev 200.1
200
100
0
−100
−200
−300

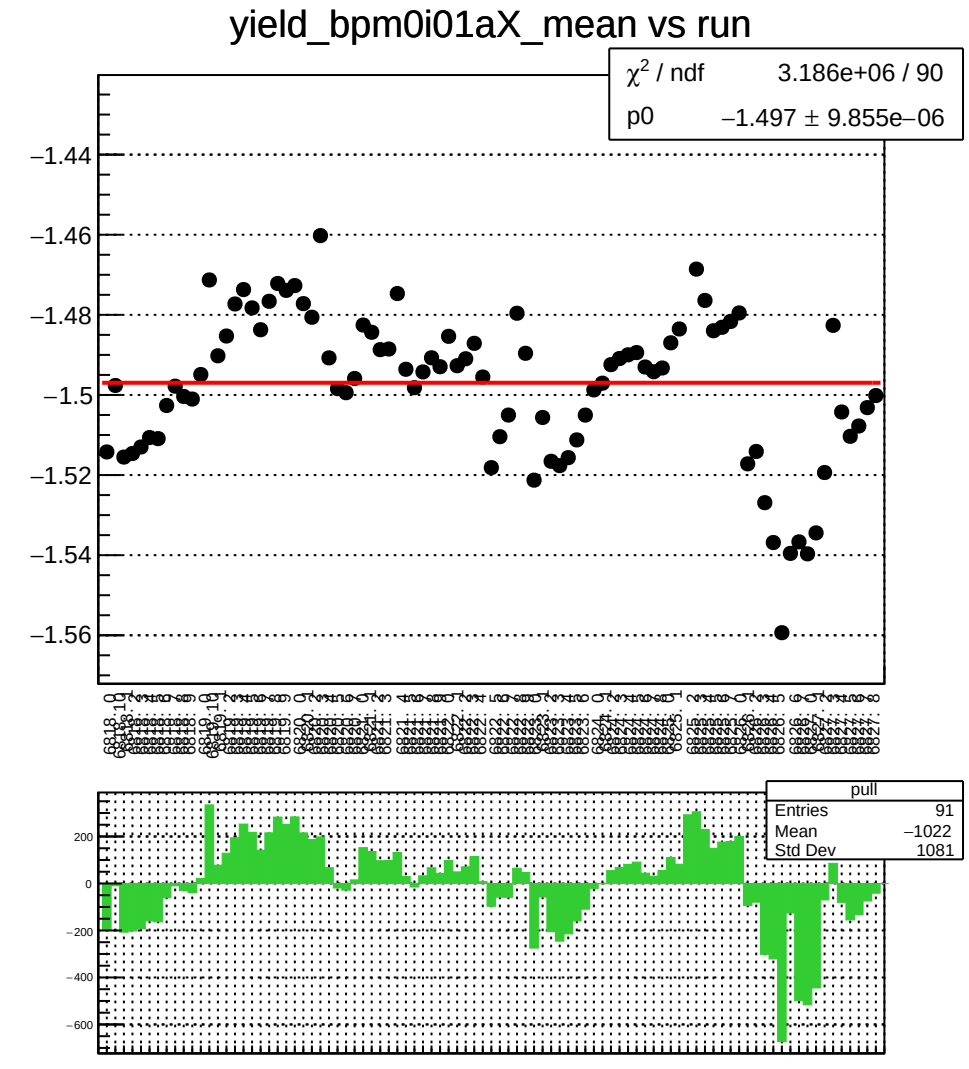

pull1D
Entries 91
Mean 1.12
Std Dev 4.43
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

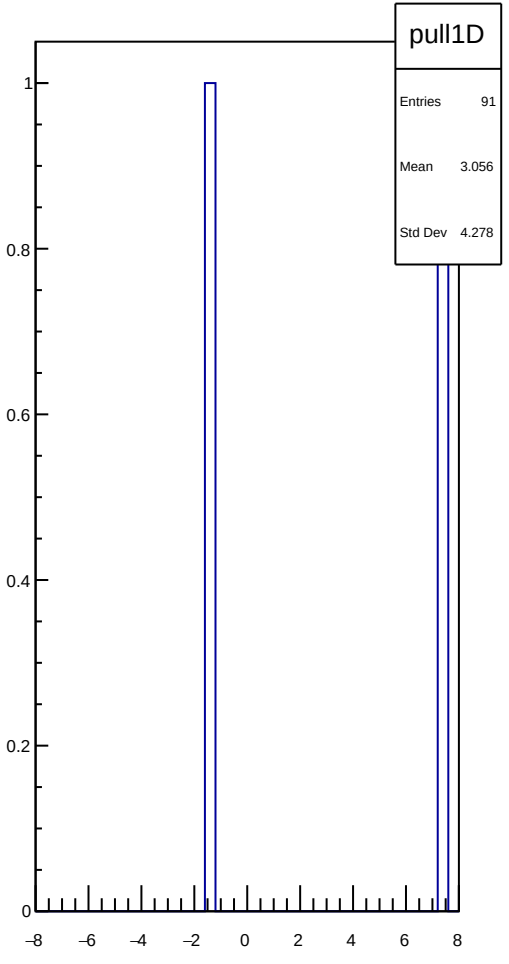

yield_bpm0i01X_rms vs run
χ² / ndf 4.701e+04 / 90
p0 0.01338 ± 1.032e–05
0.03
0.025
0.02
0.015
0.01

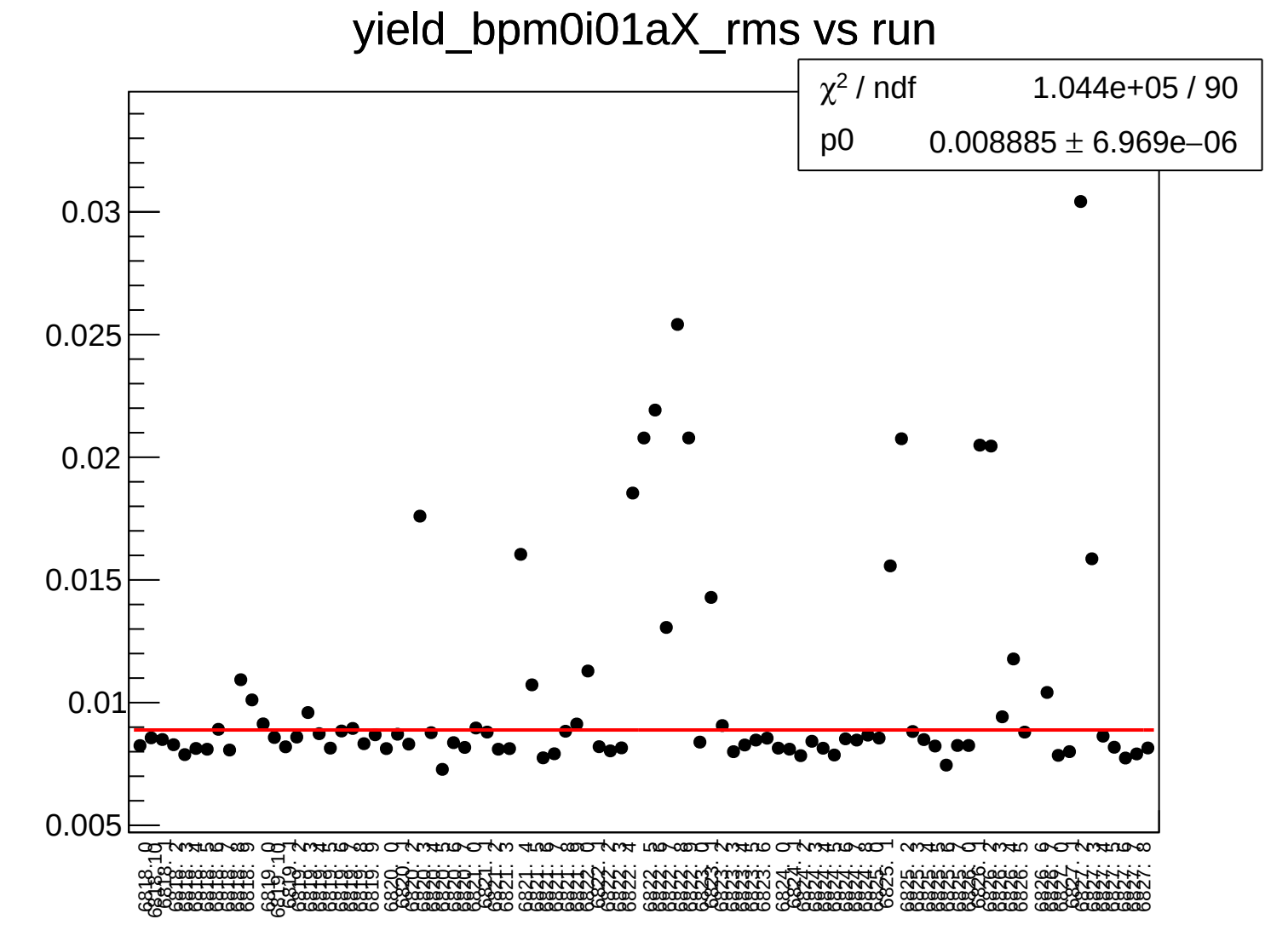

yield_bpm0i01Y_mean vs run
χ² / ndf 1e+07 / 90
p0 −2.284 ± 4.658e−06
−2.18
−2.2
−2.22
−2.24
−2.26
−2.28
−2.3
−2.32
pull
Entries 91
Mean 147.5
Std Dev 115.8
600
400
200
0
−200
−400
−600
−800

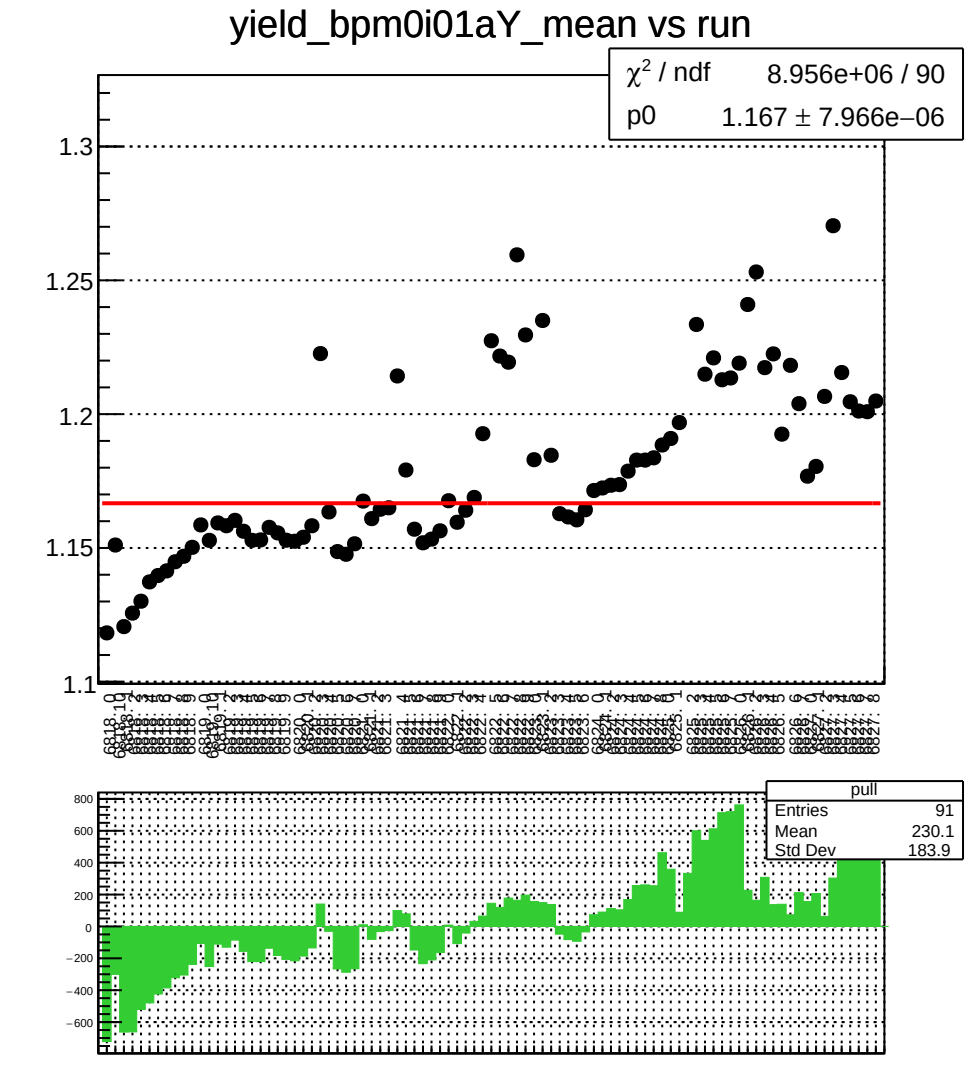

pull1D
Entries 91
Mean −4.168
Std Dev 2.977
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

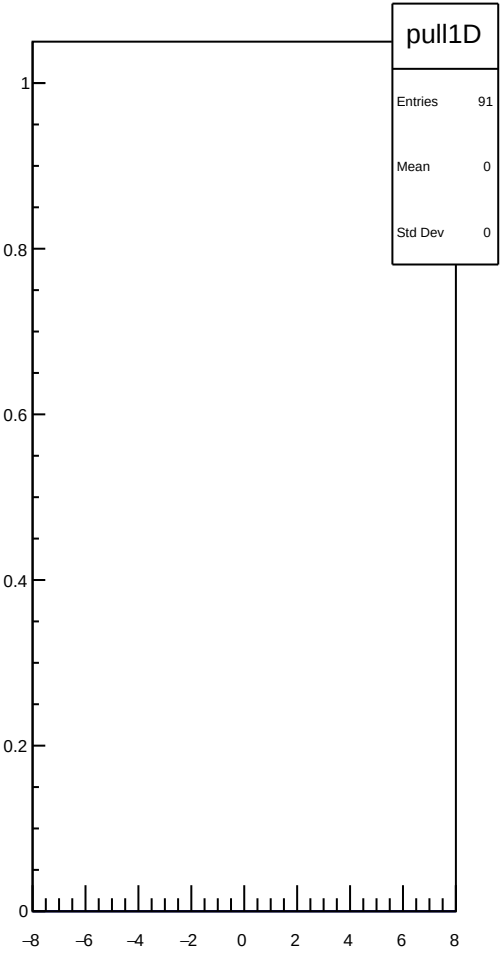

yield_bpm0i01Y_rms vs run
χ² / ndf 3.212e+05 / 90
p0 0.003909 ± 3.293e−06
0.05
0.04
0.03
0.02
0.01

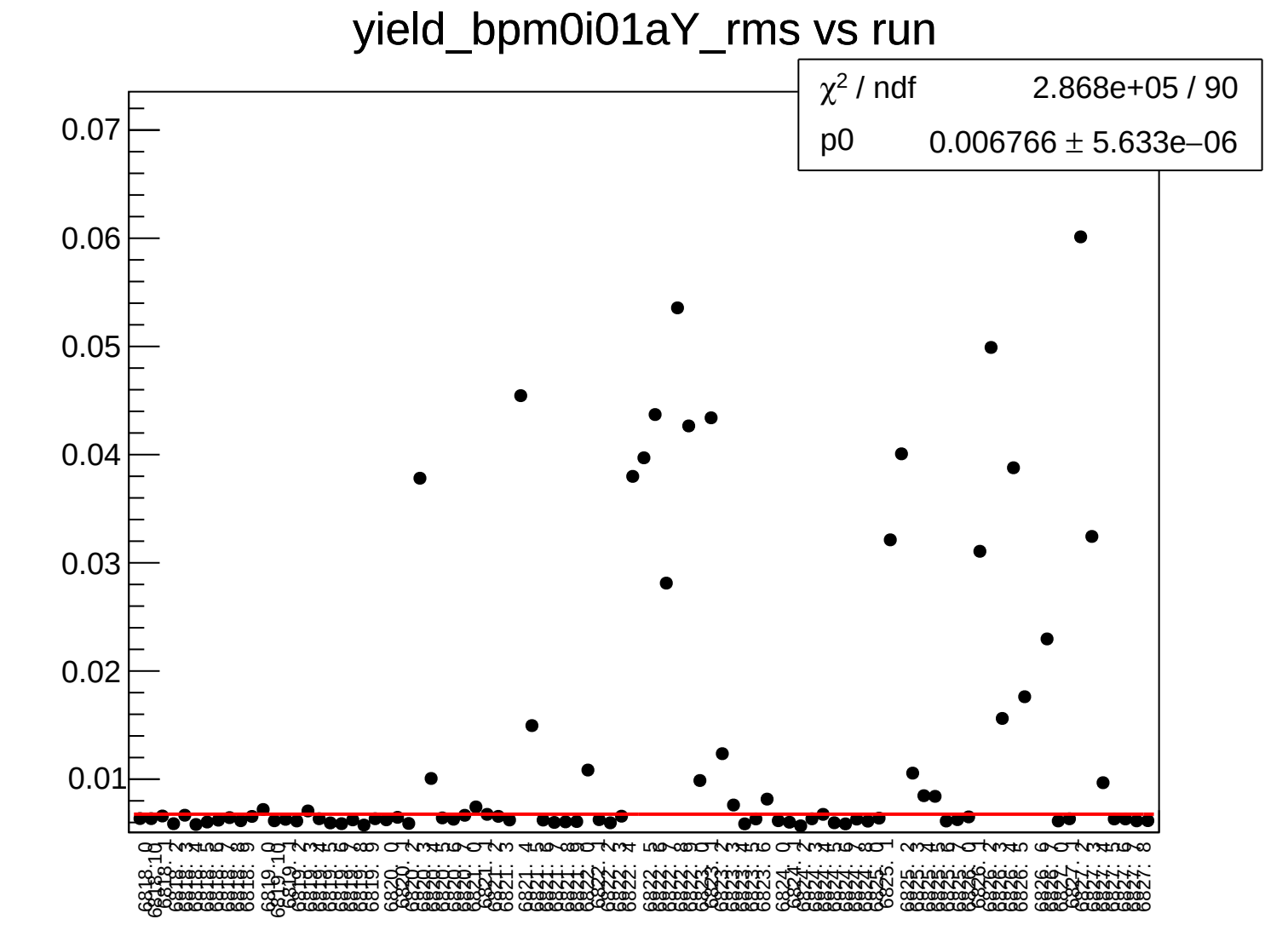

yield_bpm0i01aX_mean vs run
χ² / ndf 3.186e+06 / 90
p0 −1.497 ± 9.855e−06
−1.44
−1.46
−1.48
−1.5
−1.52
−1.54
−1.56
pull
Entries 91
Mean −1022
Std Dev 1081
200
0
−200
−400
−600

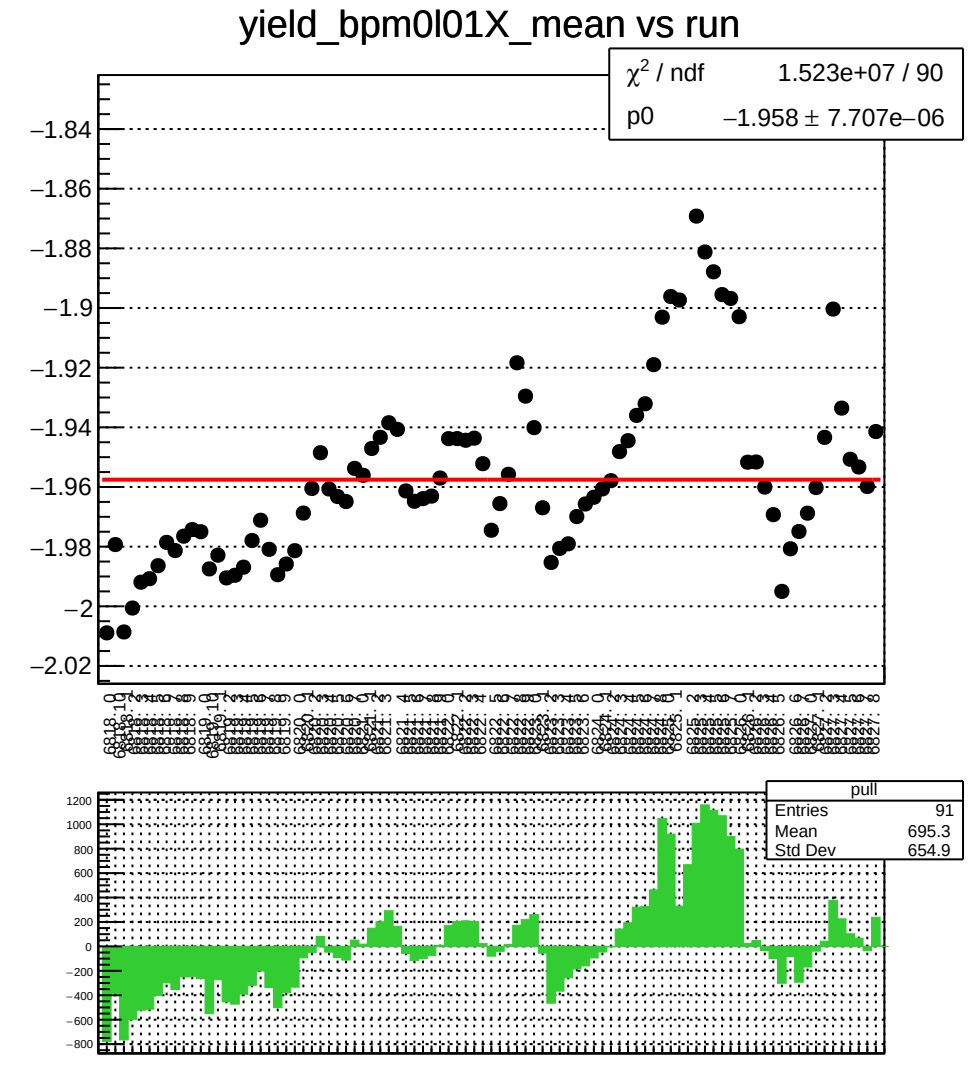

pull1D
Entries 91
Mean 3.056
Std Dev 4.278
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

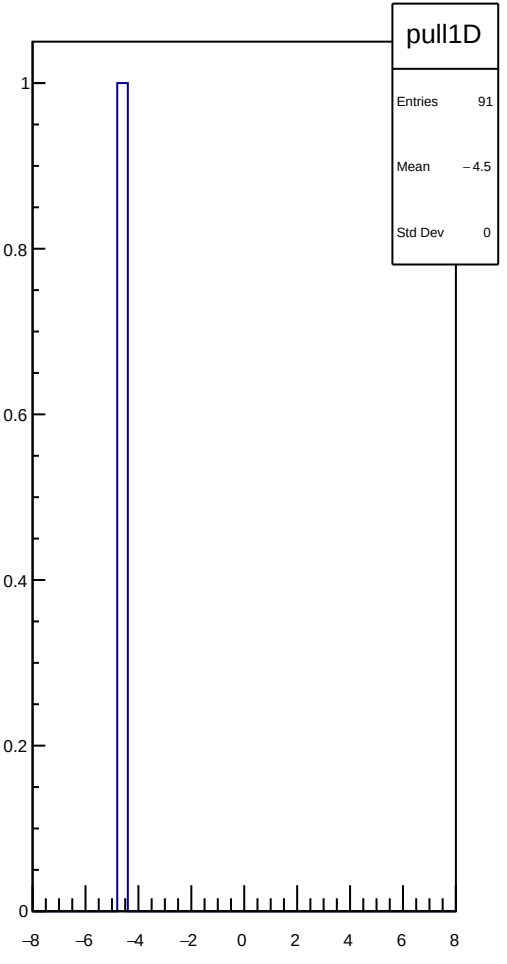

yield_bpm0i01aX_rms vs run
χ² / ndf 1.044e+05 / 90
p0 0.008885 ± 6.969e−06
0.03
0.025
0.02
0.015
0.01
0.005

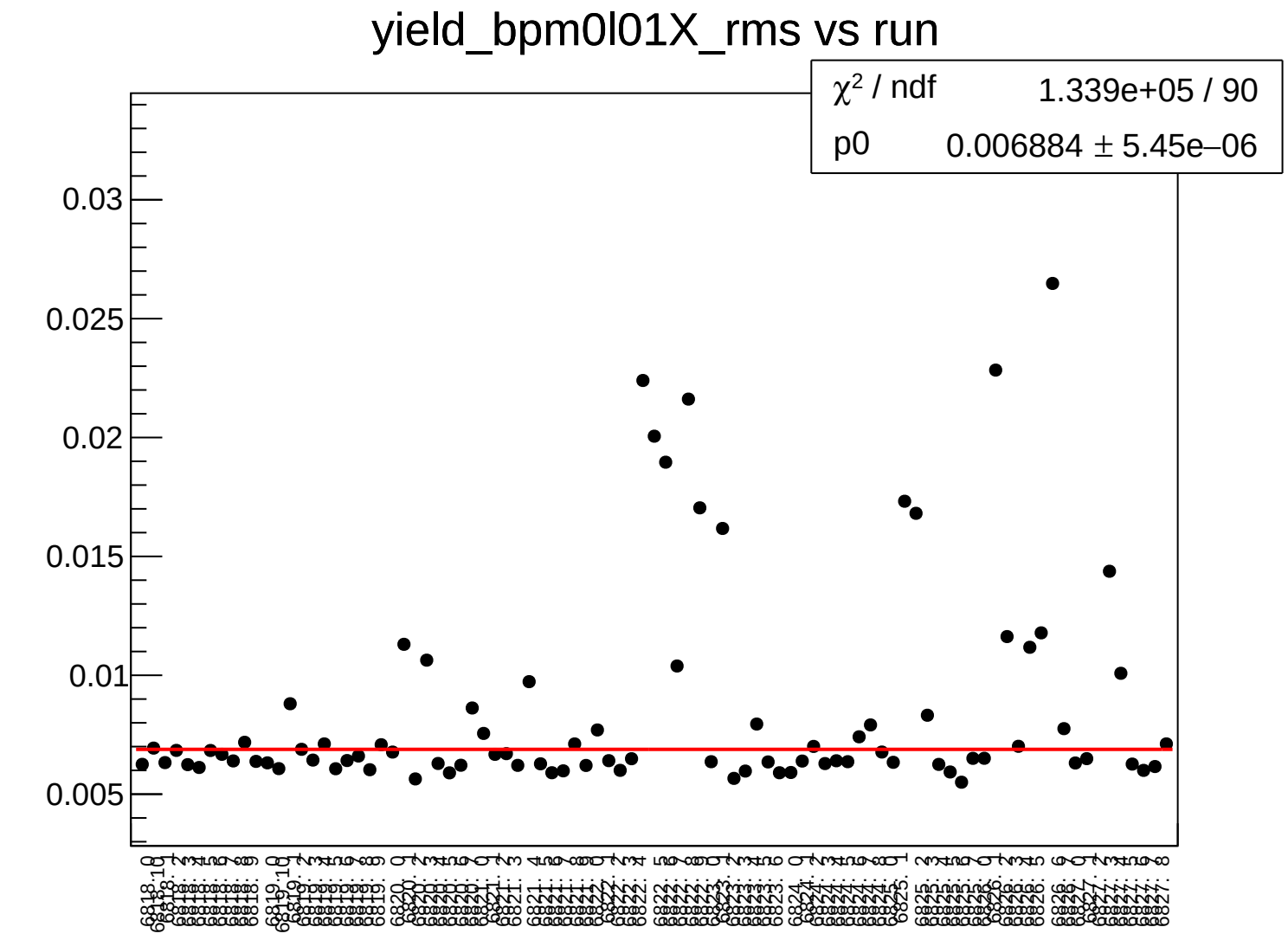

yield_bpm0i01aY_mean vs run
χ² / ndf 8.956e+06 / 90
p0 1.167 ± 7.966e−06
1.3
1.25
1.2
1.15
1.1
pull
Entries 91
Mean 230.1
Std Dev 183.9
800
600
400
200
0
−200
−400
−600

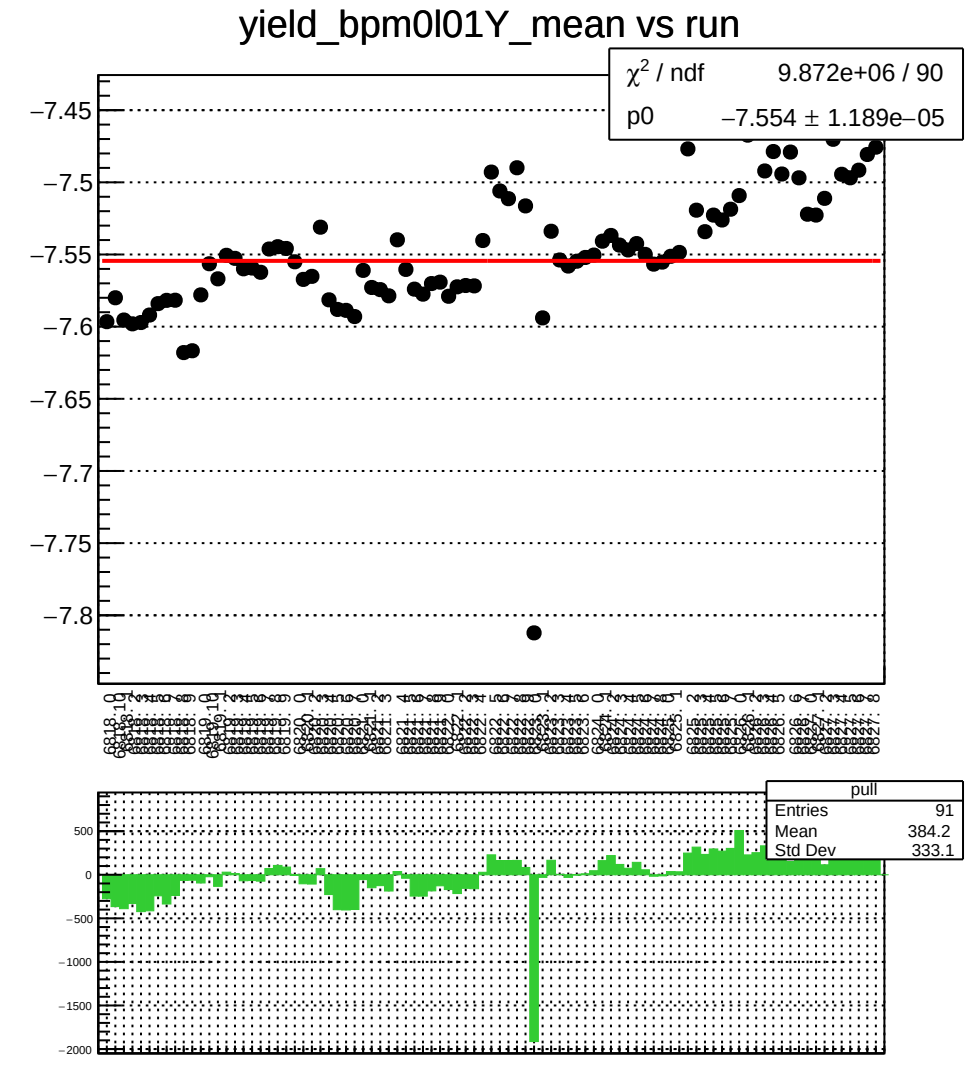

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

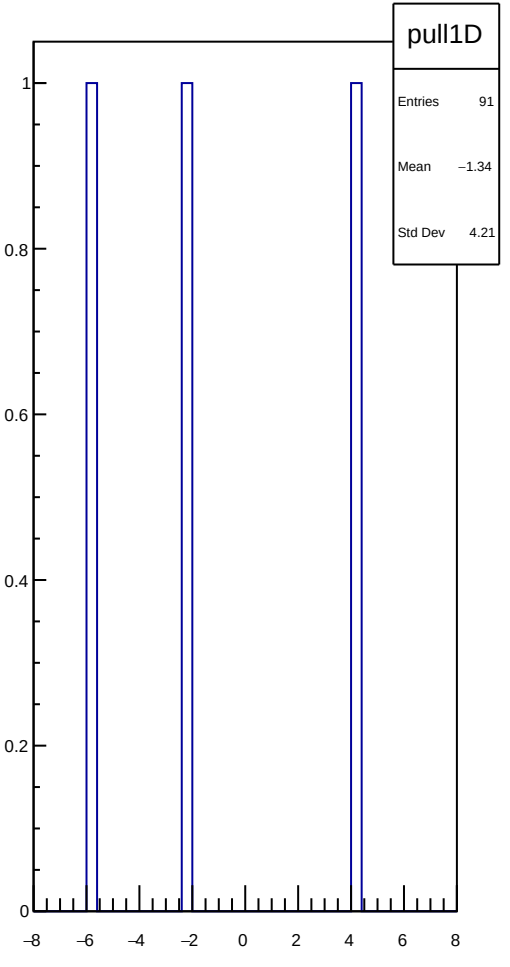

yield_bpm0i01aY_rms vs run
χ² / ndf 2.868e+05 / 90
p0 0.006766 ± 5.633e−06
0.07
0.06
0.05
0.04
0.03
0.02
0.01

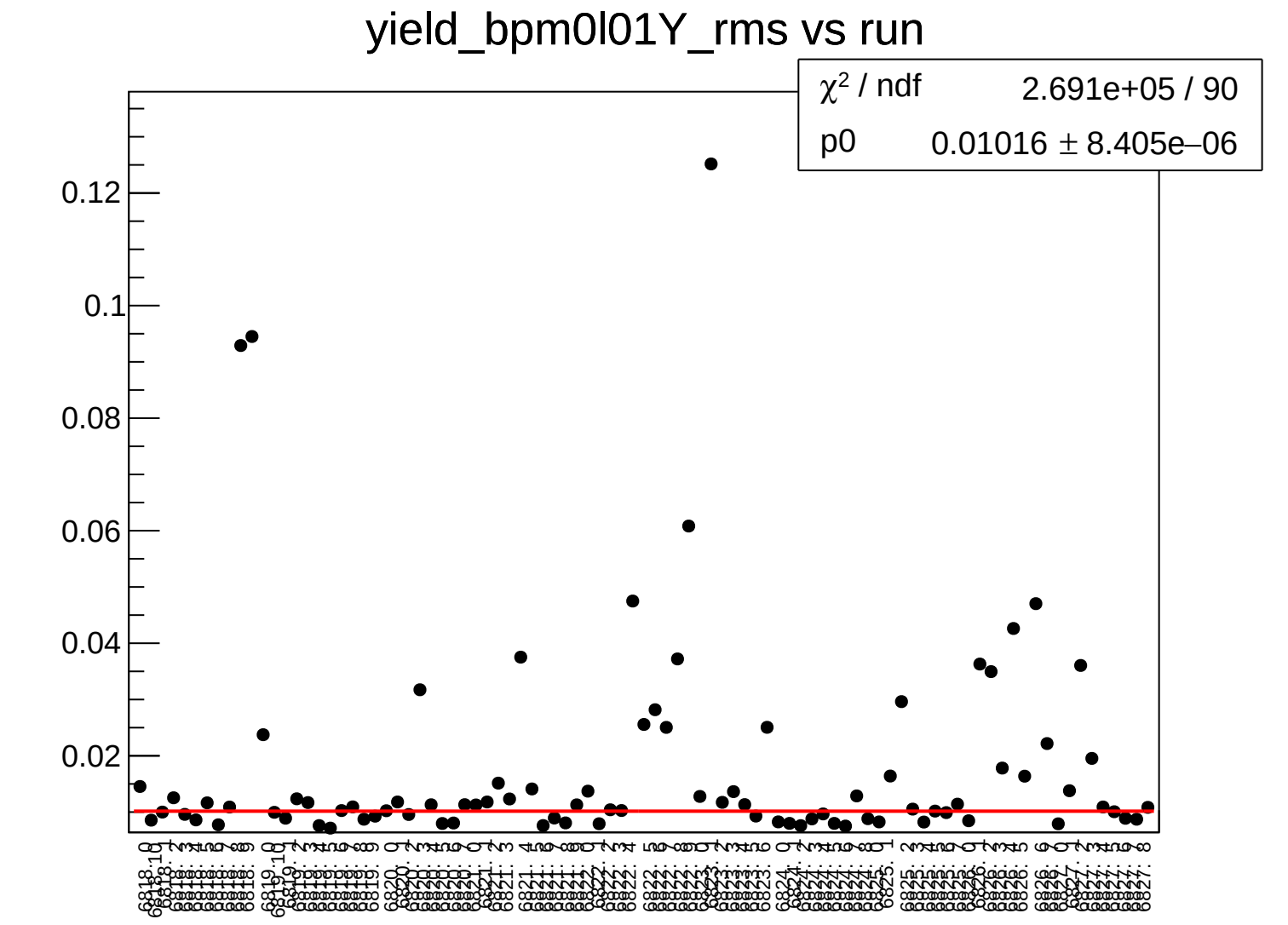

yield_bpm0l01X_mean vs run
χ² / ndf 1.523e+07 / 90
p0 −1.958 ± 7.707e−06
−1.84
−1.86
−1.88
−1.9
−1.92
−1.94
−1.96
−1.98
−2
−2.02
pull
Entries 91
Mean 695.3
Std Dev 654.9
1200
1000
800
600
400
200
0
−200
−400
−600
−800

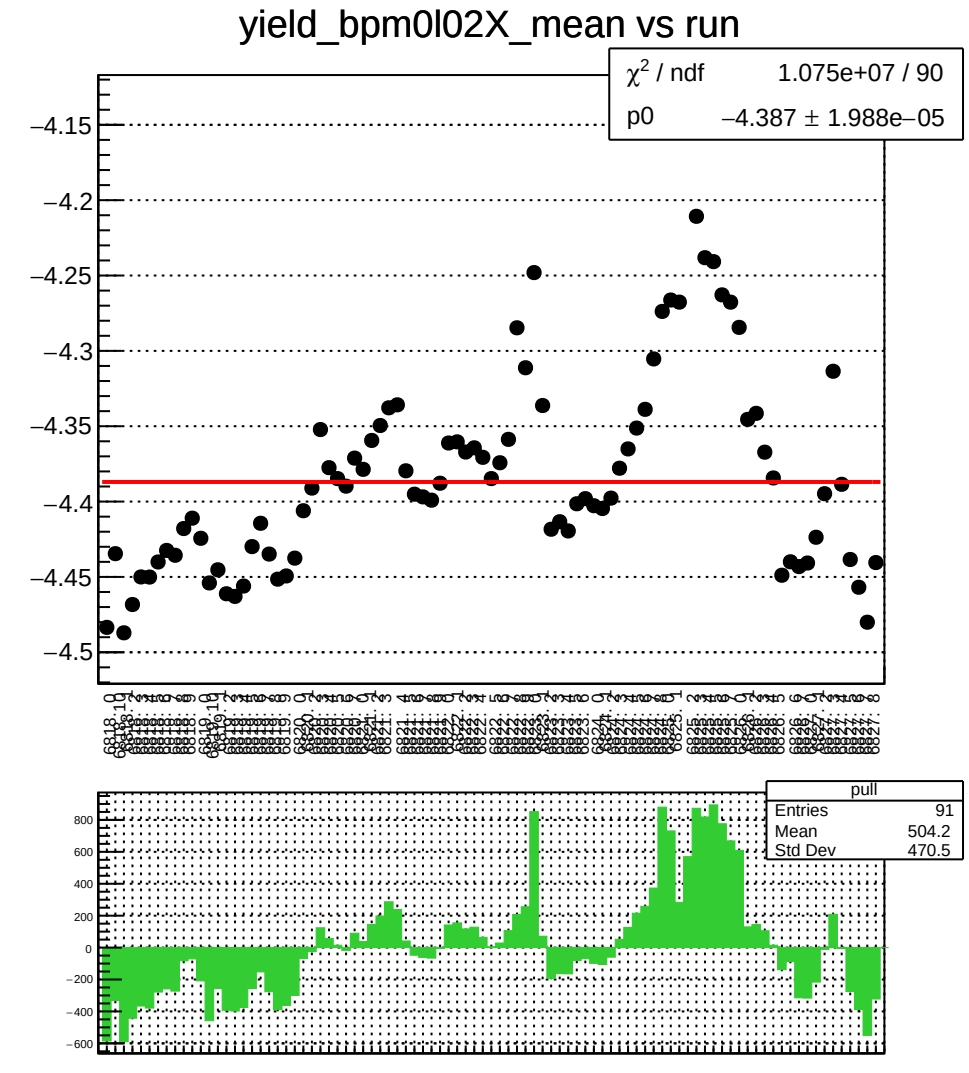

pull1D
Entries 91
Mean −4.5
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

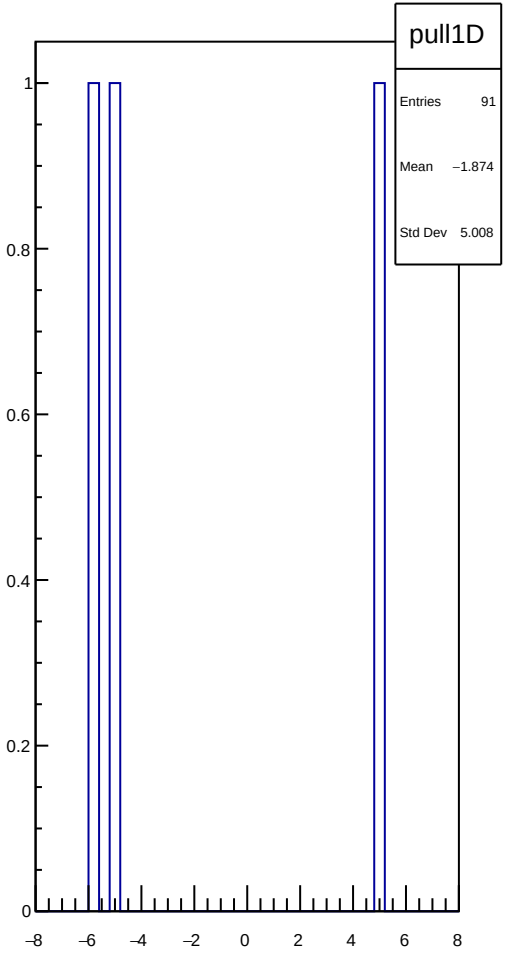

yield_bpm0l01X_rms vs run
χ² / ndf 1.339e+05 / 90
p0 0.006884 ± 5.45e–06
0.03
0.025
0.02
0.015
0.01
0.005

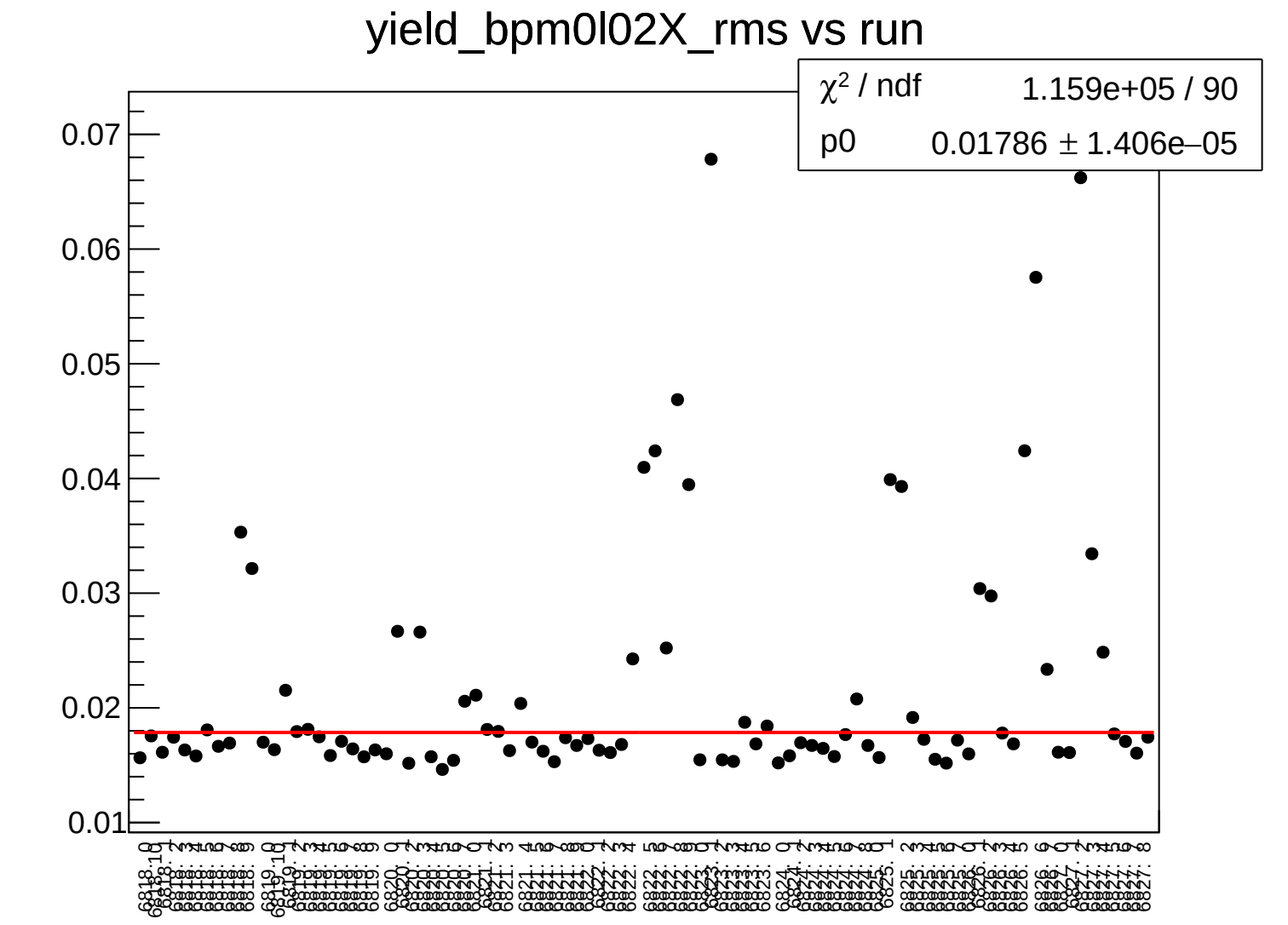

yield_bpm0l01Y_mean vs run
χ² / ndf 9.872e+06 / 90
p0 −7.554 ± 1.189e−05
−7.45
−7.5
−7.55
−7.6
−7.65
−7.7
−7.75
−7.8
pull
Entries 91
Mean 384.2
Std Dev 333.1
500
0
−500
−1000
−1500
−2000

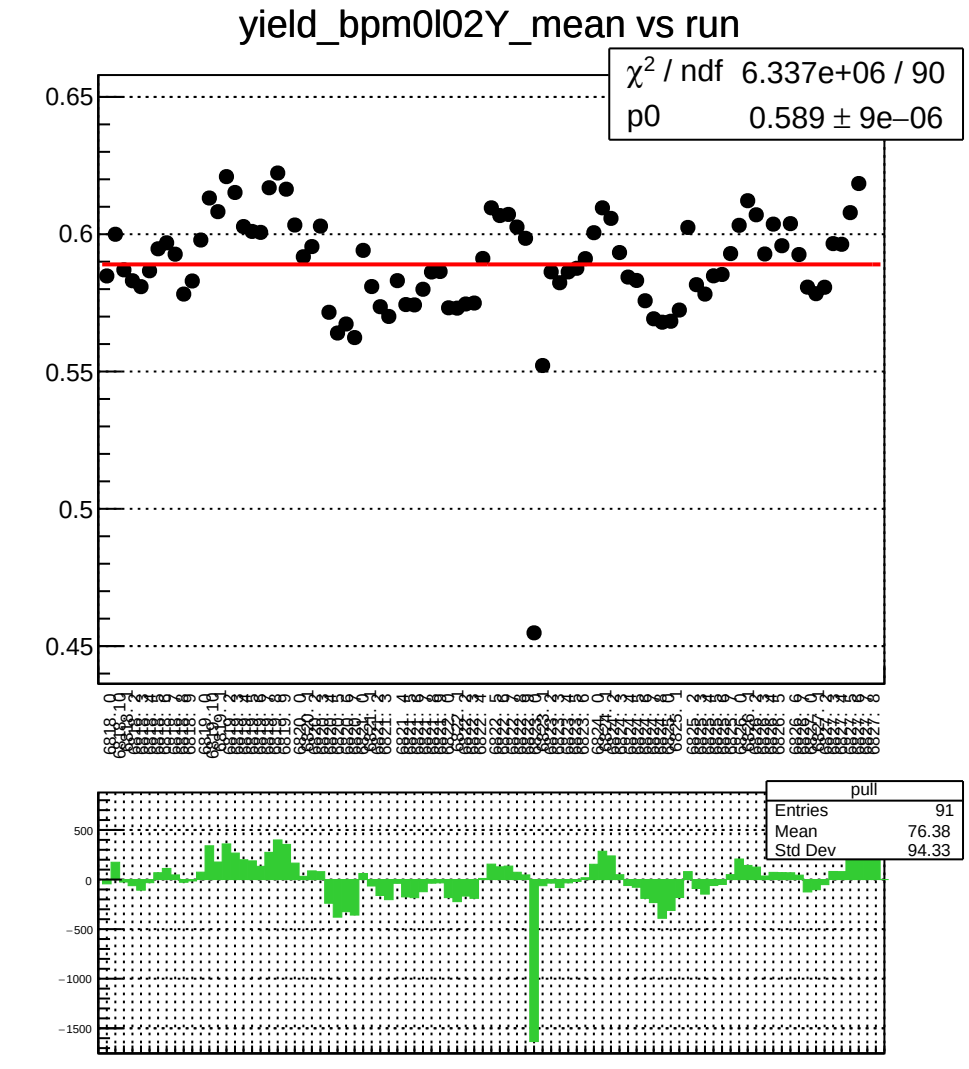

pull1D
Entries 91
Mean −1.34
Std Dev 4.21
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

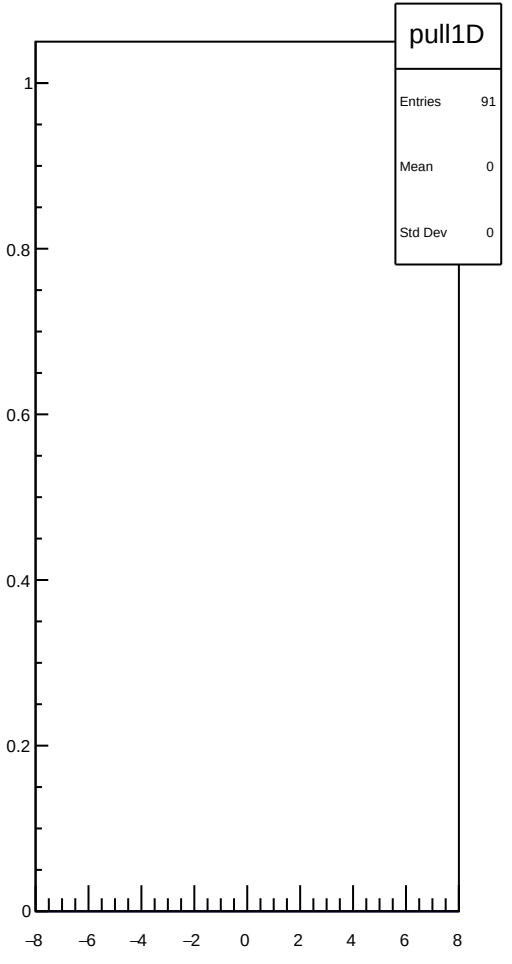

yield_bpm0l01Y_rms vs run
χ² / ndf 2.691e+05 / 90
p0 0.01016 ± 8.405e–06
0.12
0.1
0.08
0.06
0.04
0.02

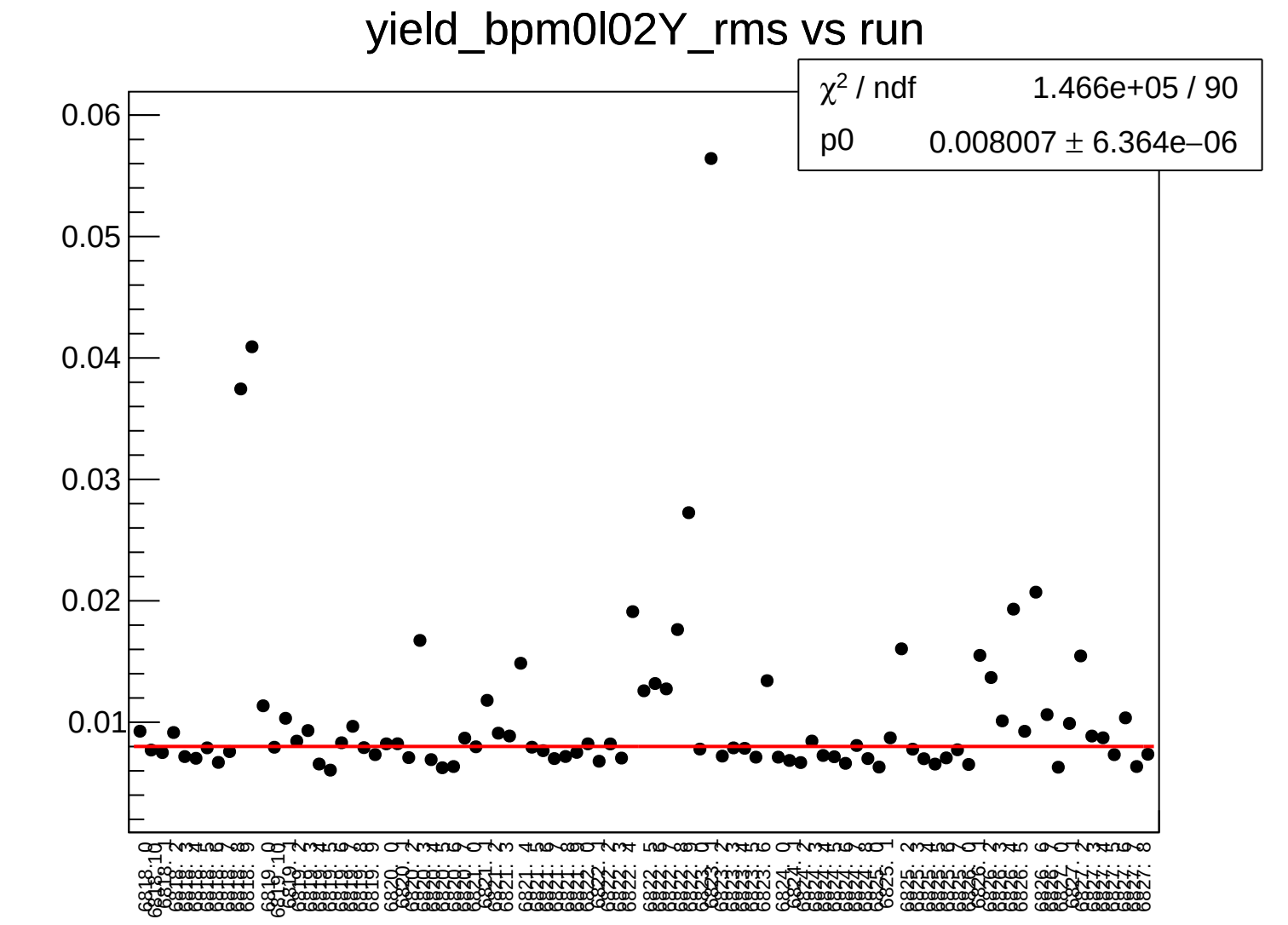

yield_bpm0l02X_mean vs run
χ² / ndf 1.075e+07 / 90
p0 −4.387 ± 1.988e−05
−4.15
−4.2
−4.25
−4.3
−4.35
−4.4
−4.45
−4.5
pull
Entries 91
Mean 504.2
Std Dev 470.5
800
600
400
200
0
−200
−400
−600

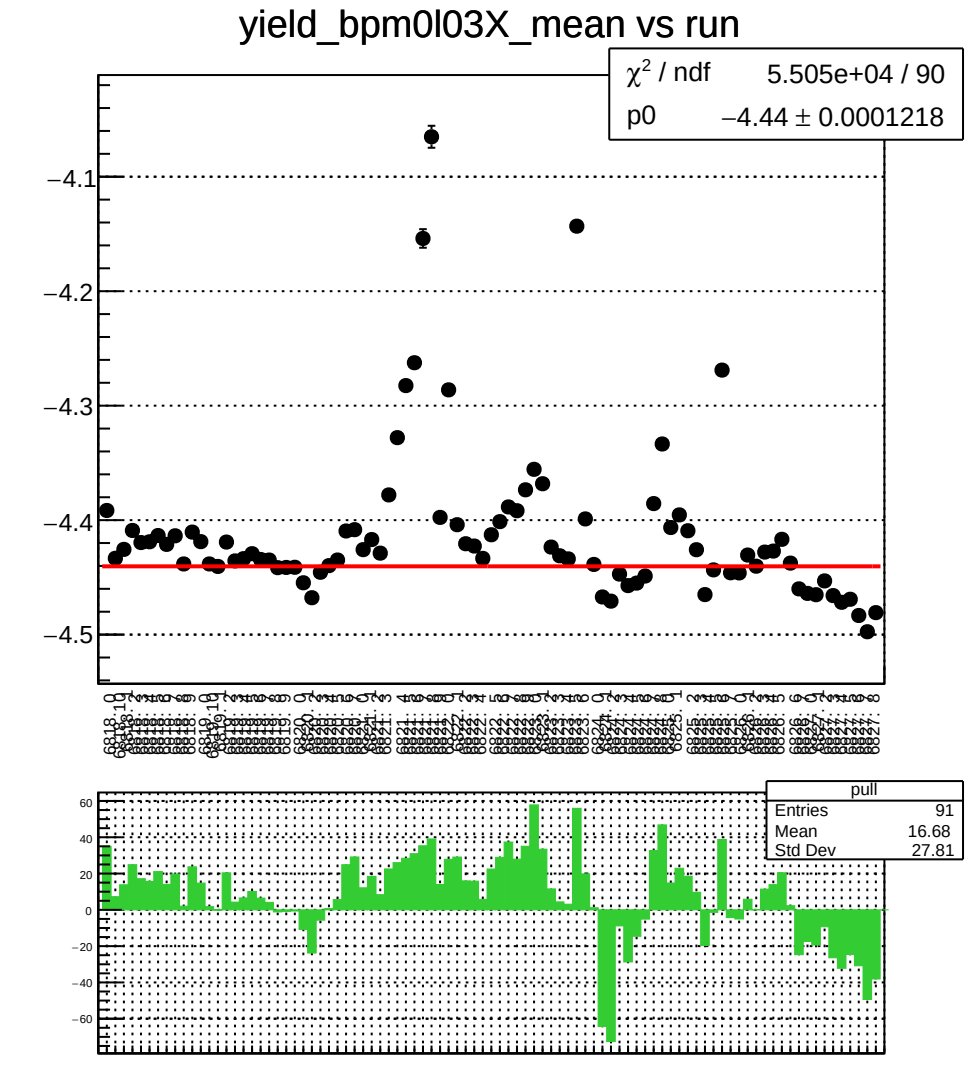

pull1D
Entries 91
Mean −1.874
Std Dev 5.008
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

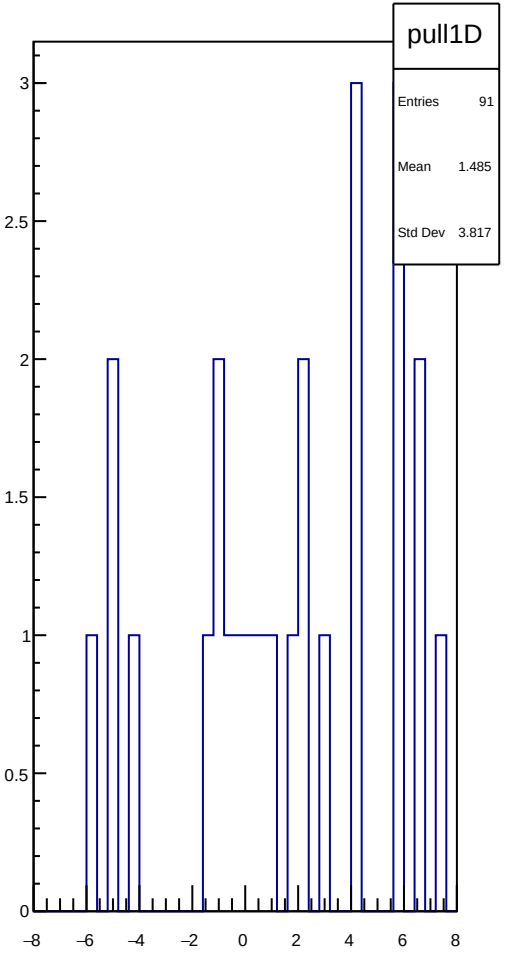

yield_bpm0l02X_rms vs run
χ² / ndf 1.159e+05 / 90
p0 0.01786 ± 1.406e–05
0.07
0.06
0.05
0.04
0.03
0.02
0.01

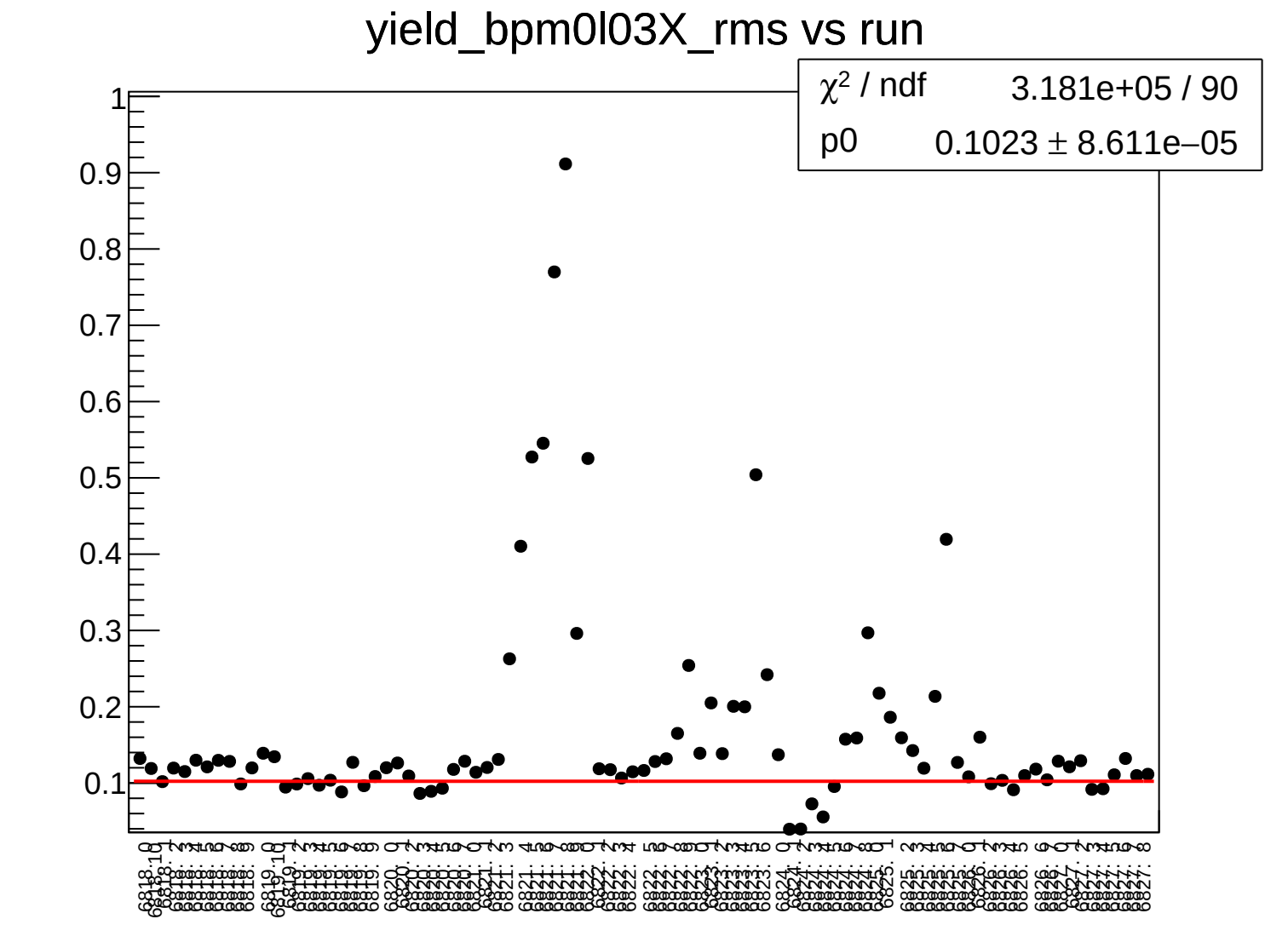

yield_bpm0l02Y_mean vs run
χ² / ndf 6.337e+06 / 90
p0 0.589 ± 9e−06
0.65
0.6
0.55
0.5
0.45
pull
Entries 91
Mean 76.38
Std Dev 94.33
500
0
−500
−1000
−1500

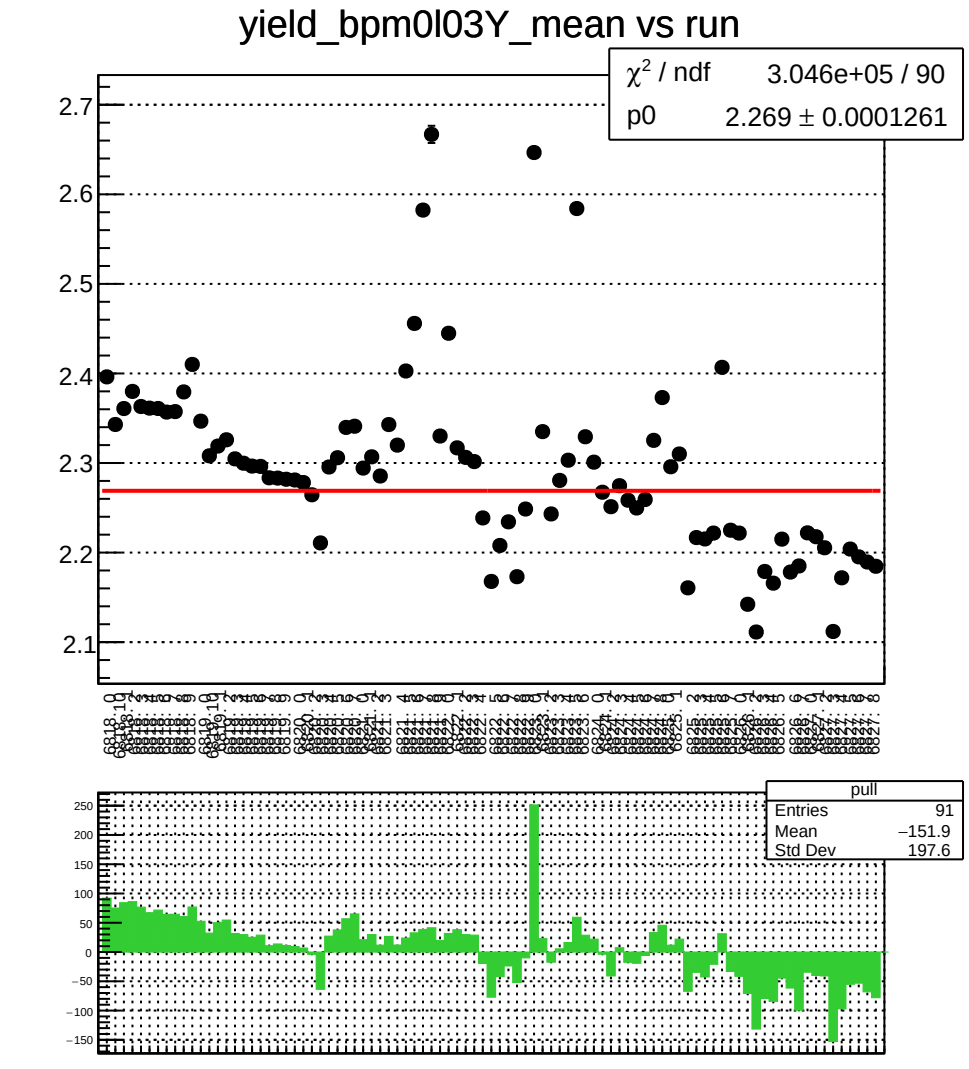

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

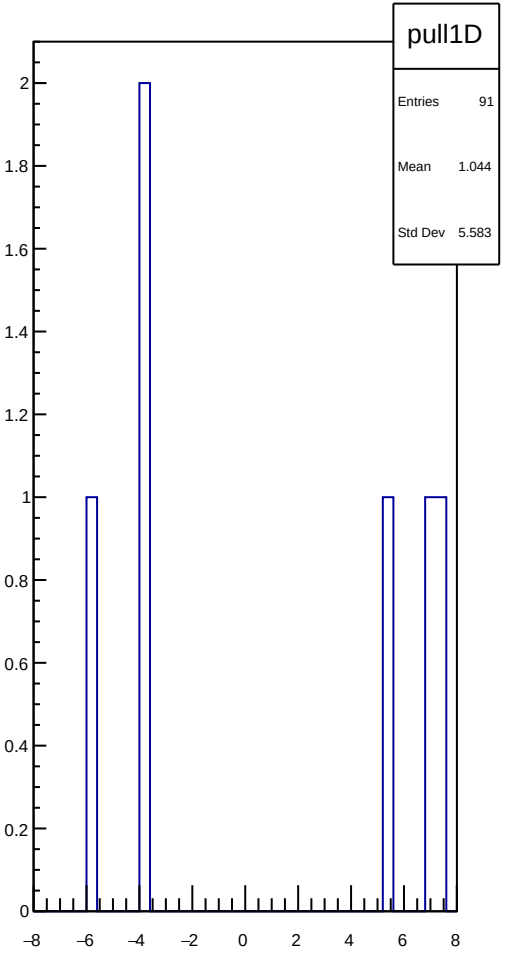

yield_bpm0l02Y_rms vs run
χ² / ndf 1.466e+05 / 90
p0 0.008007 ± 6.364e−06
0.06
0.05
0.04
0.03
0.02
0.01

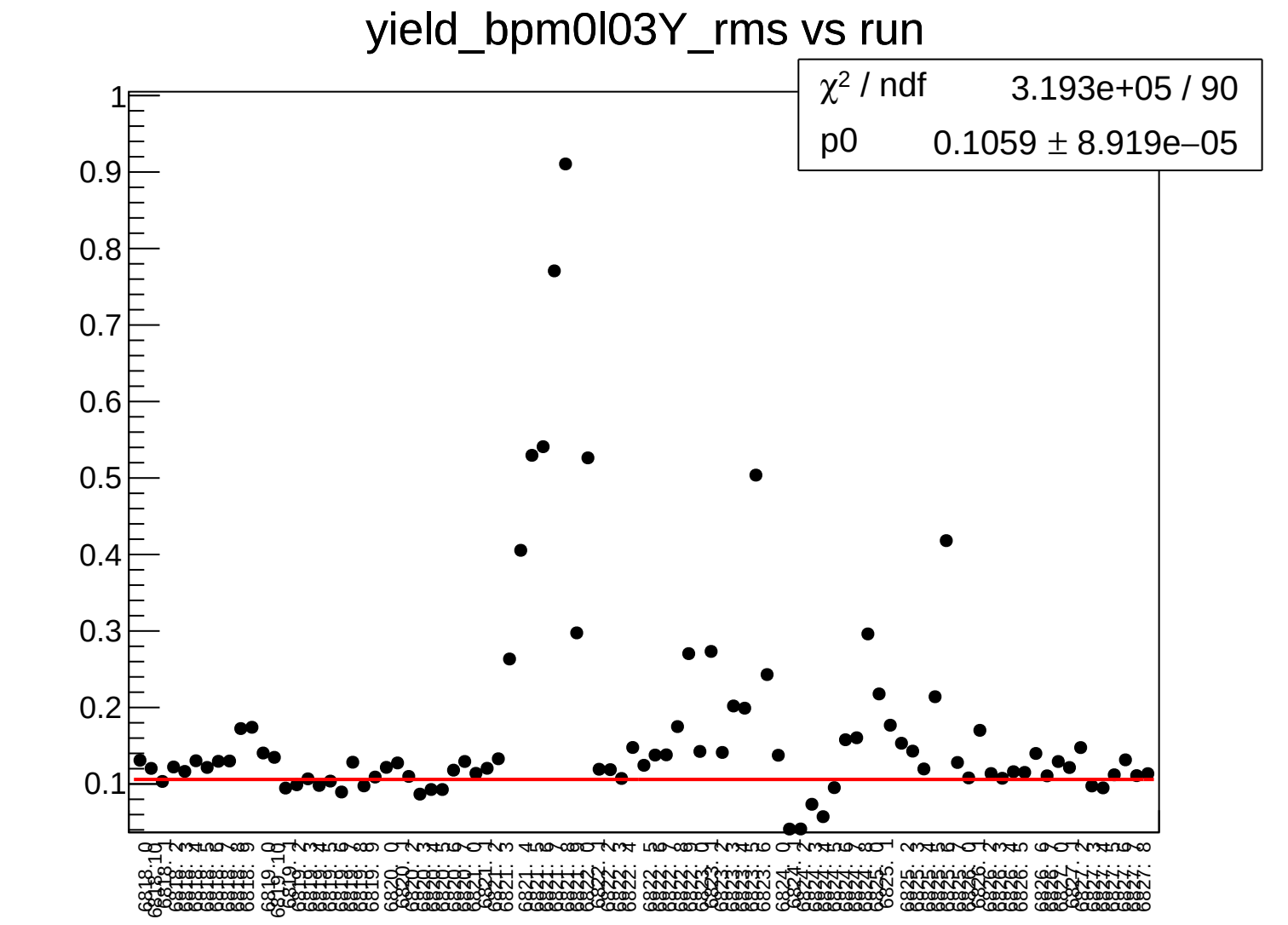

yield_bpm0l03X_mean vs run
χ² / ndf 5.505e+04 / 90
p0 −4.44 ± 0.0001218
−4.1
−4.2
−4.3
−4.4
−4.5
pull
Entries 91
Mean 16.68
Std Dev 27.81
60
40
20
0
−20
−40
−60

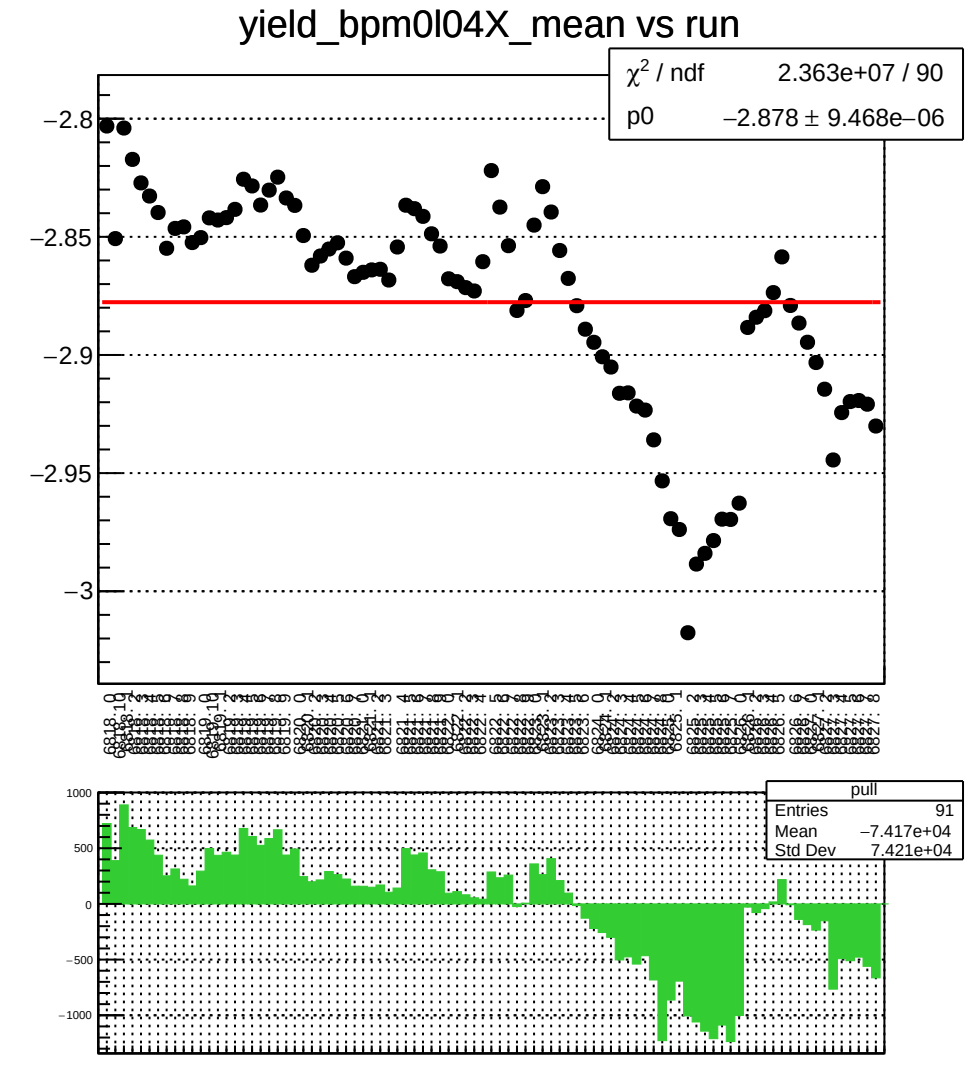

pull1D
Entries 91
Mean 1.485
Std Dev 3.817
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

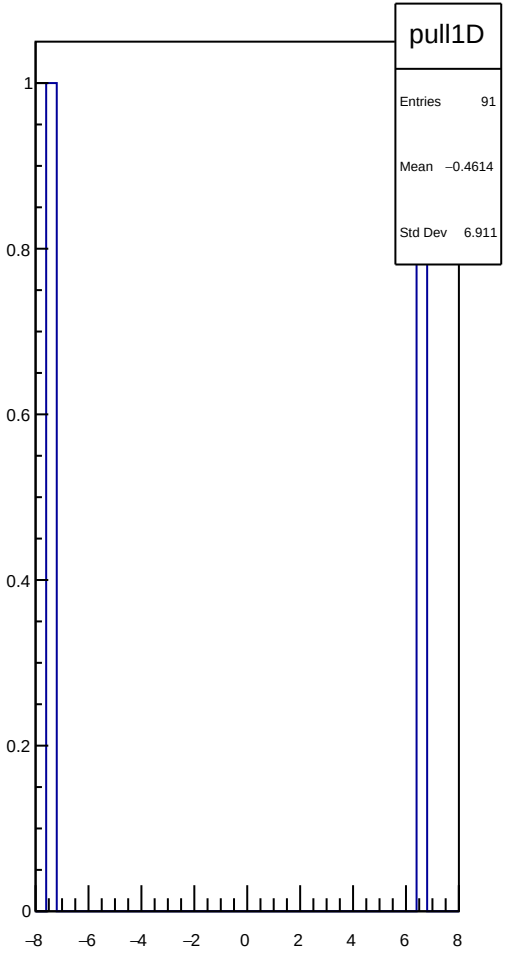

yield_bpm0l03X_rms vs run
χ² / ndf 3.181e+05 / 90
p0 0.1023 ± 8.611e−05
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

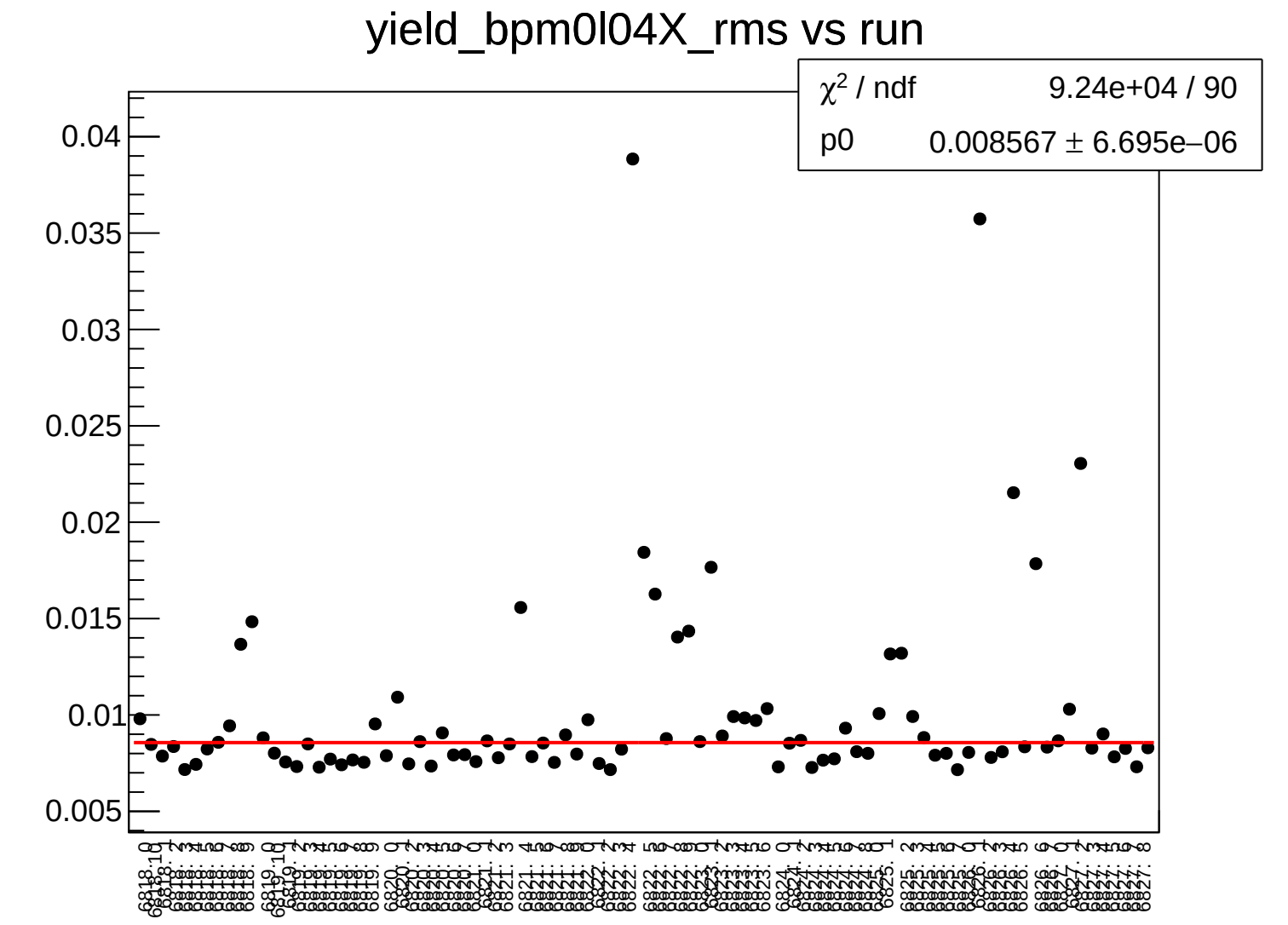

yield_bpm0l03Y_mean vs run
χ² / ndf 3.046e+05 / 90
p0 2.269 ± 0.0001261
pull
Entries 91
Mean −151.9
Std Dev 197.6

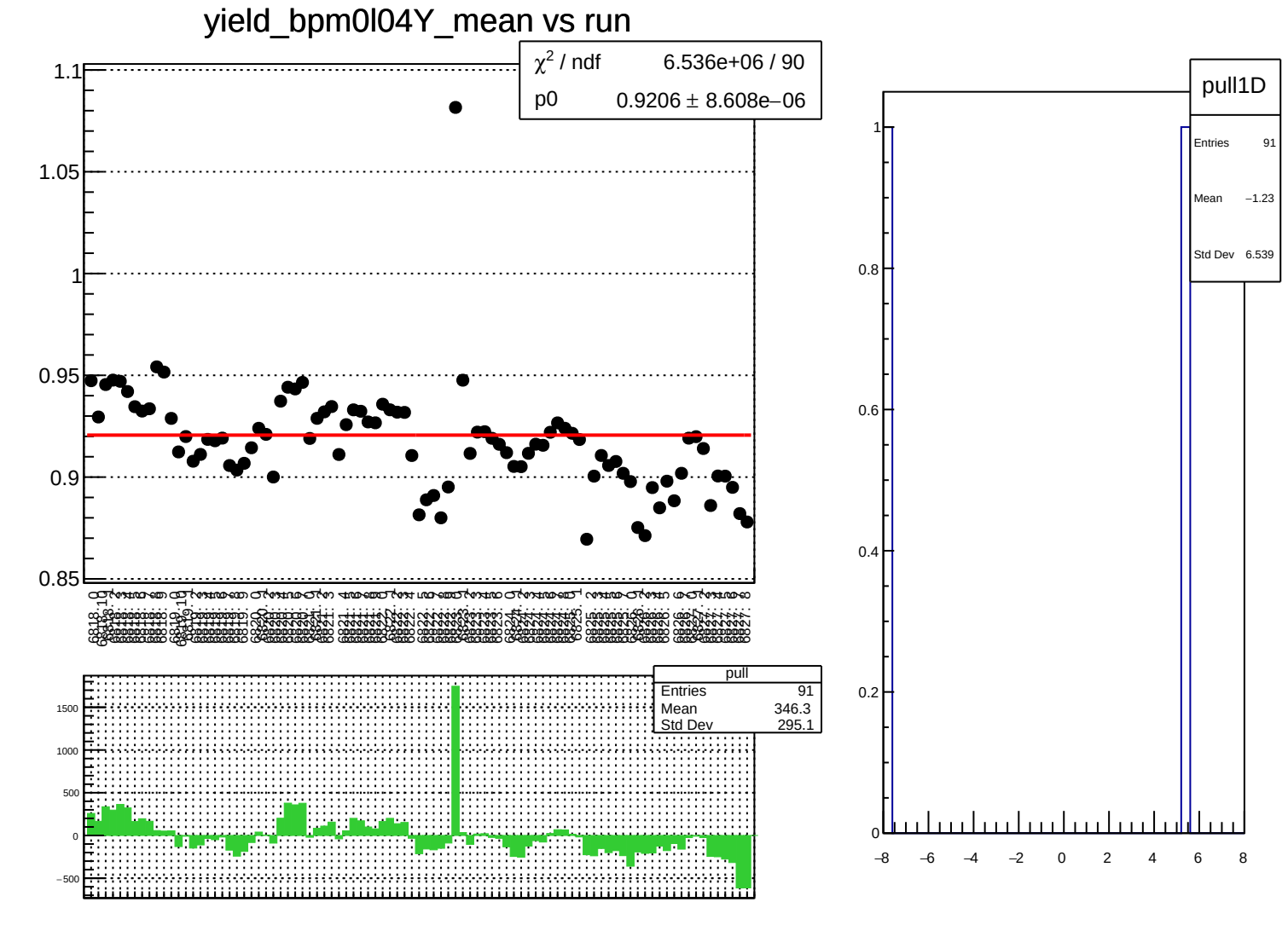

pull1D
Entries 91
Mean 1.044
Std Dev 5.583

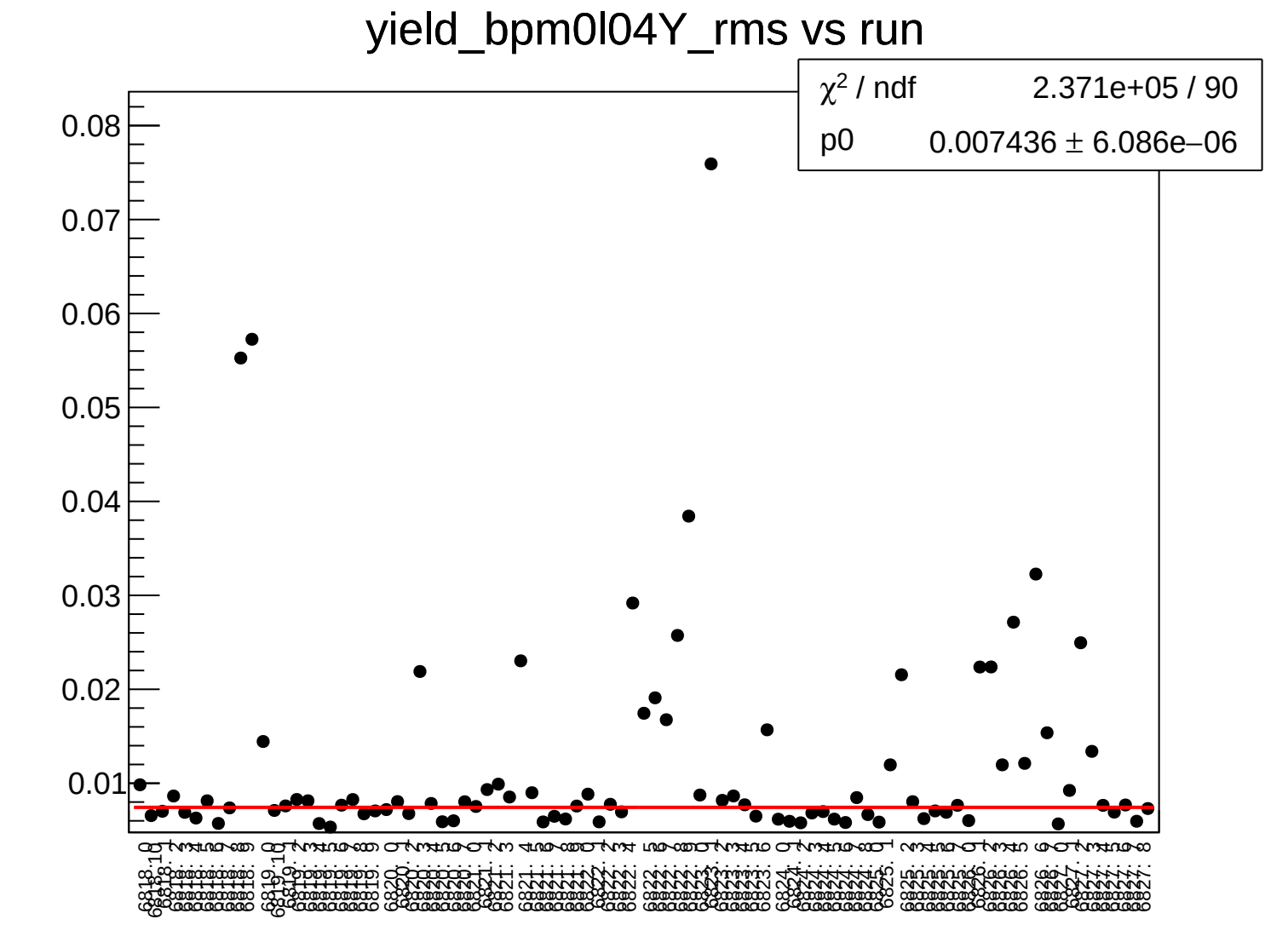

yield_bpm0l03Y_rms vs run
χ² / ndf 3.193e+05 / 90
p0 0.1059 ± 8.919e−05
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

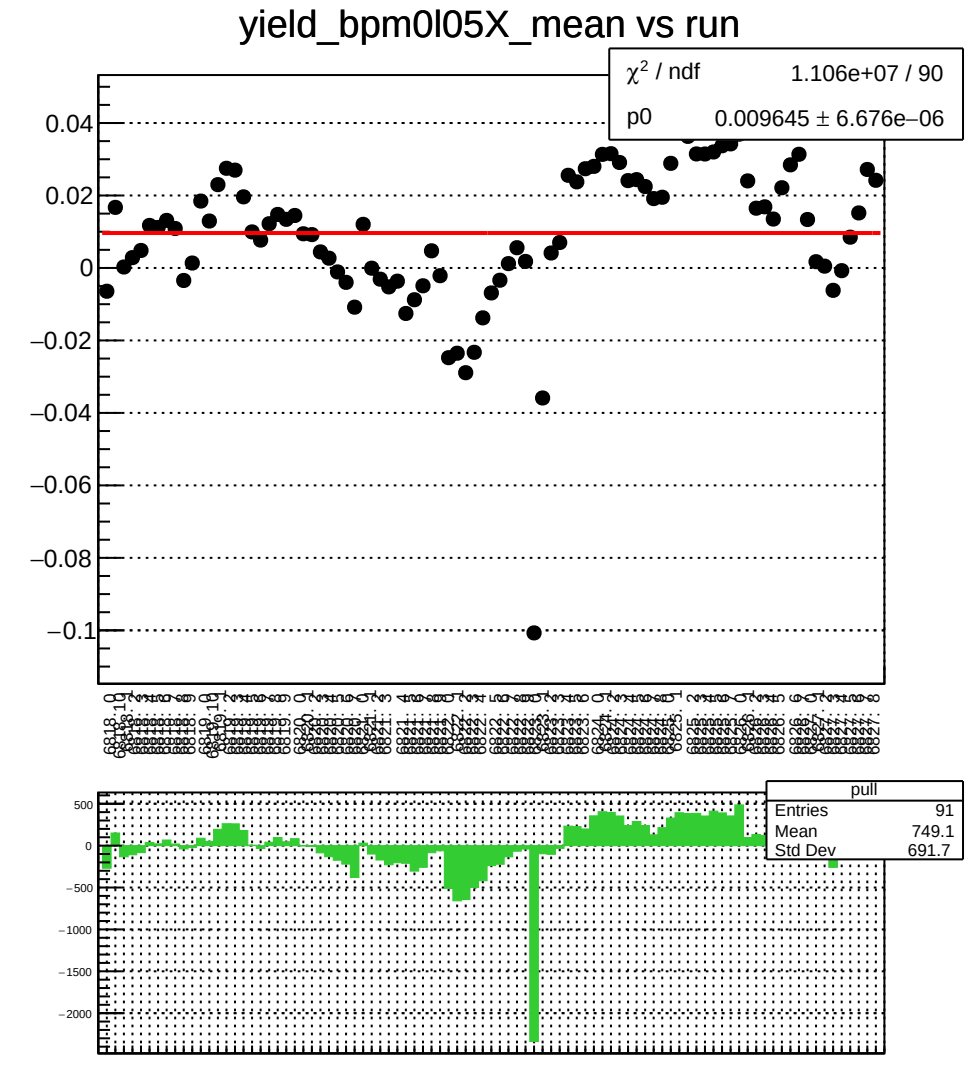

yield_bpm0l04X_mean vs run
χ² / ndf 2.363e+07 / 90
p0 −2.878 ± 9.468e−06
−2.8
−2.85
−2.9
−2.95
−3
pull
Entries 91
Mean −7.417e+04
Std Dev 7.421e+04
1000
500
0
−500
−1000

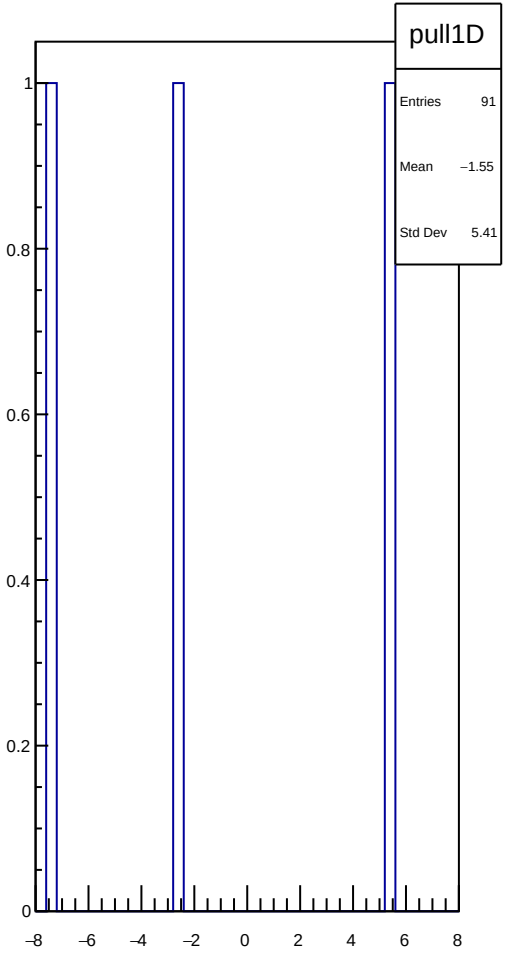

pull1D
Entries 91
Mean −0.4614
Std Dev 6.911
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

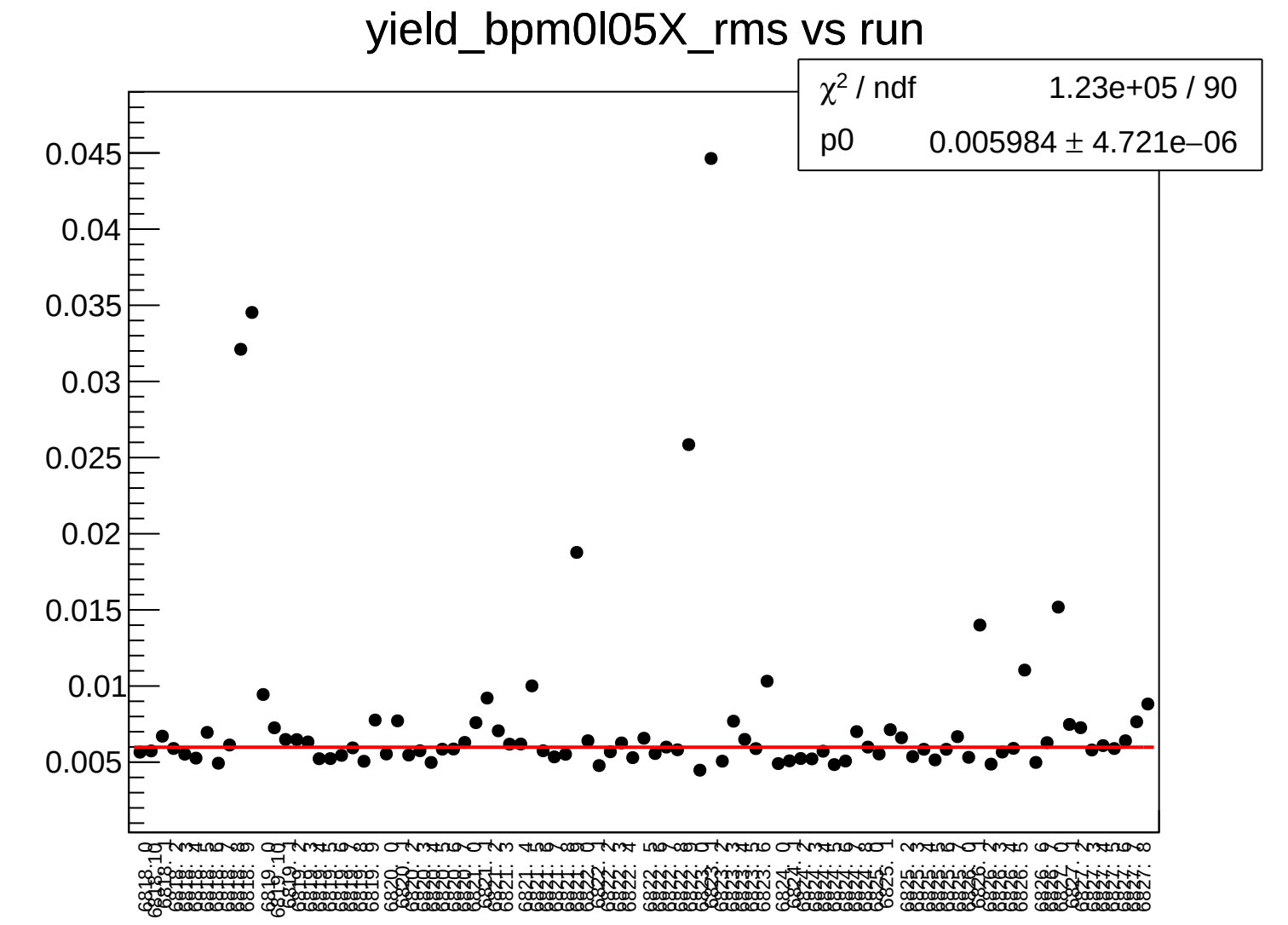

yield_bpm0l04X_rms vs run
χ² / ndf 9.24e+04 / 90
p0 0.008567 ± 6.695e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

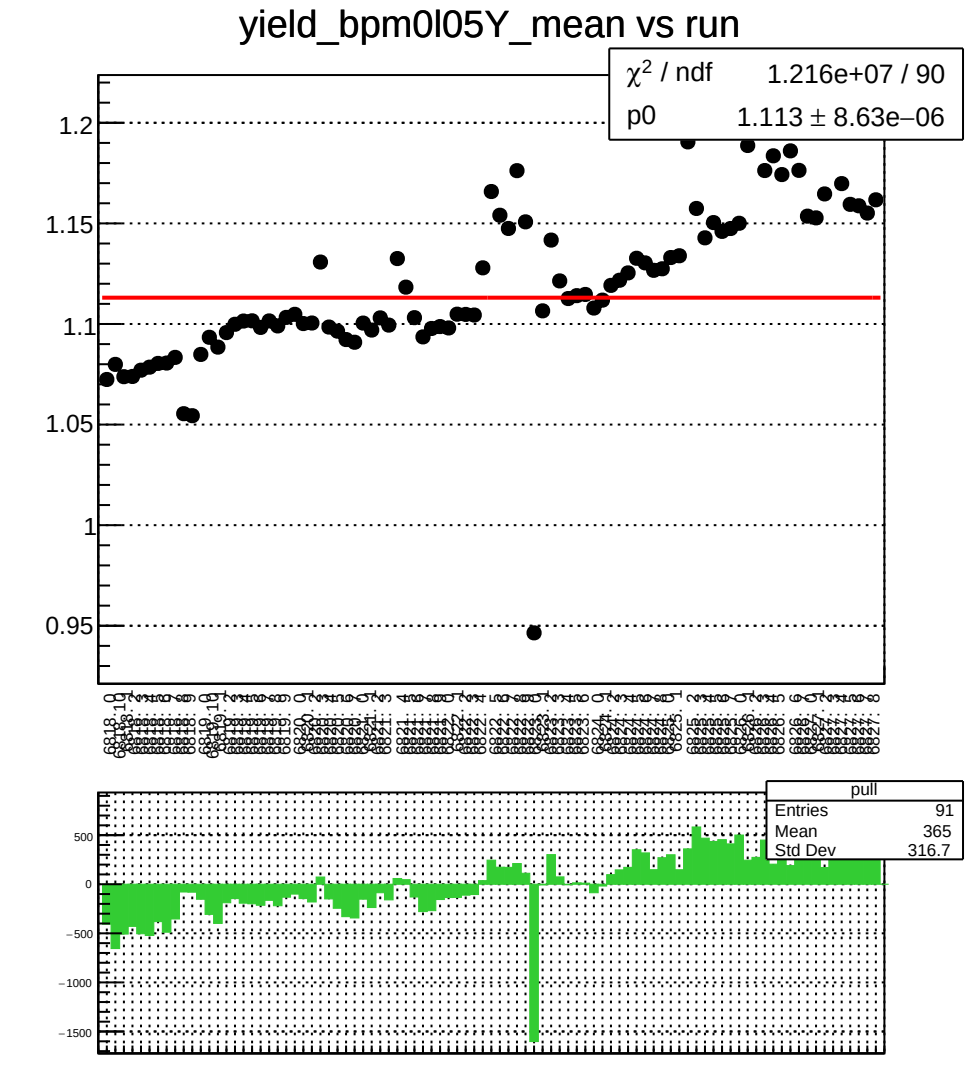

yield_bpm0l04Y_mean vs run
χ² / ndf 6.536e+06 / 90
p0 0.9206 ± 8.608e−06
1.1
1.05
1
0.95
0.9
0.85
pull
Entries 91
Mean 346.3
Std Dev 295.1
1500
1000
500
0
−500
pull1D
Entries 91
Mean −1.23
Std Dev 6.539
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

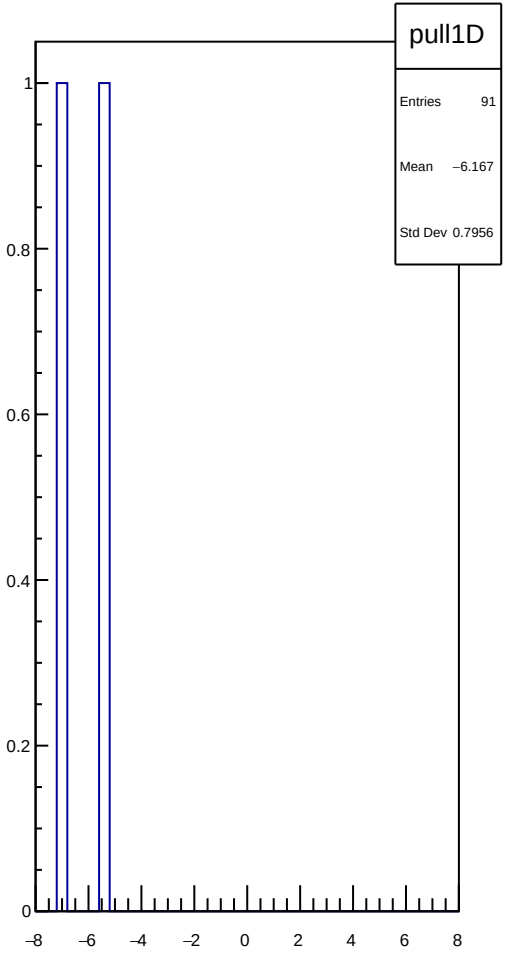

yield_bpm0l04Y_rms vs run
χ² / ndf 2.371e+05 / 90
p0 0.007436 ± 6.086e−06
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

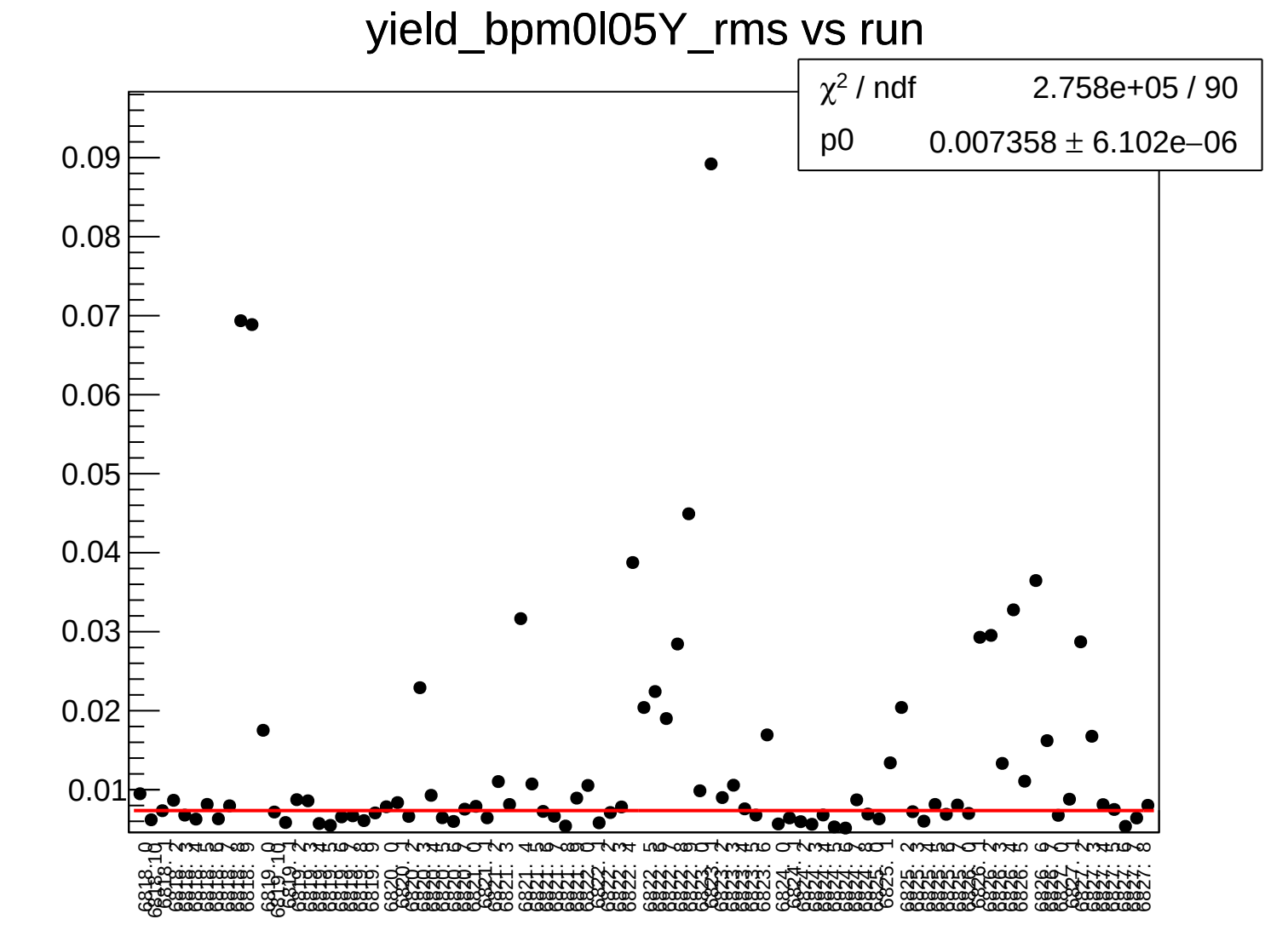

yield_bpm0l05X_mean vs run
χ² / ndf 1.106e+07 / 90
p0 0.009645 ± 6.676e−06
0.04
0.02
0
−0.02
−0.04
−0.06
−0.08
−0.1
pull
Entries 91
Mean 749.1
Std Dev 691.7
500
0
−500
−1000
−1500
−2000

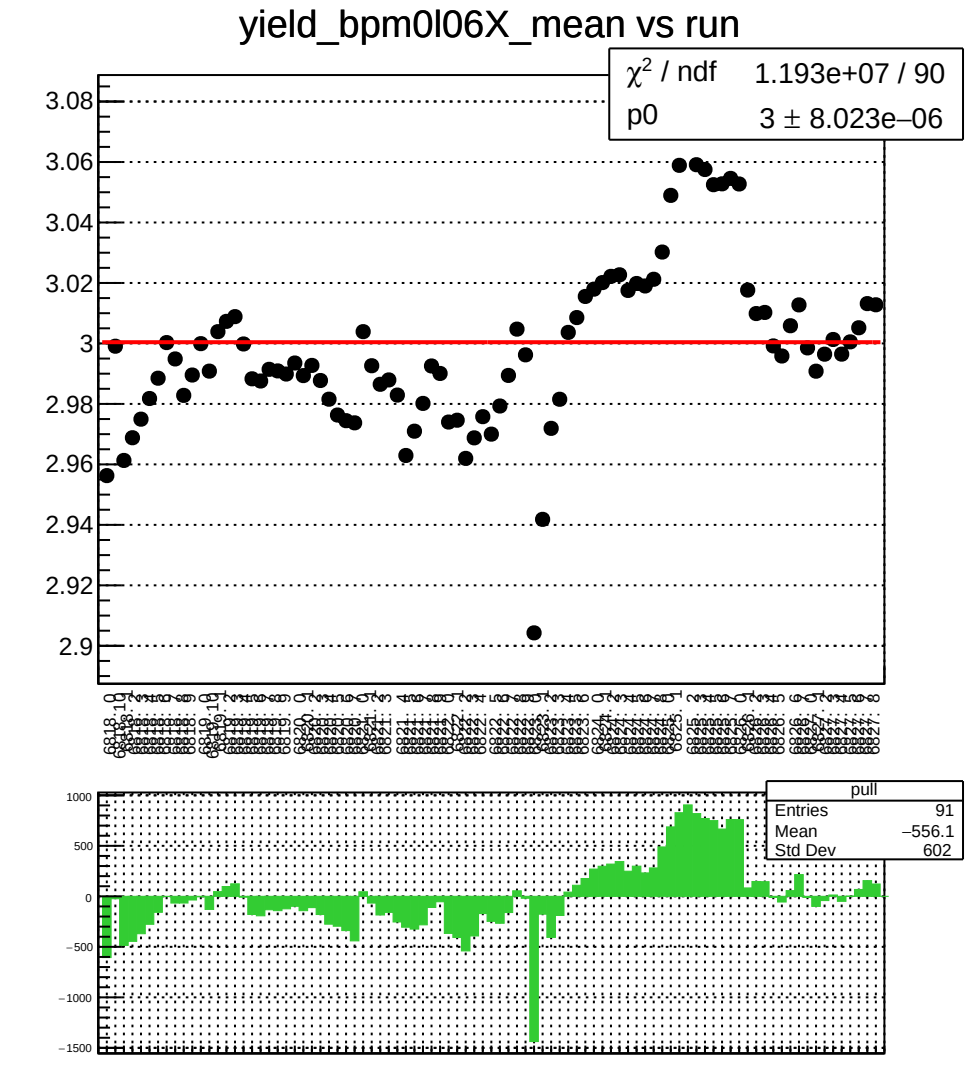

pull1D
Entries 91
Mean −1.55
Std Dev 5.41
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

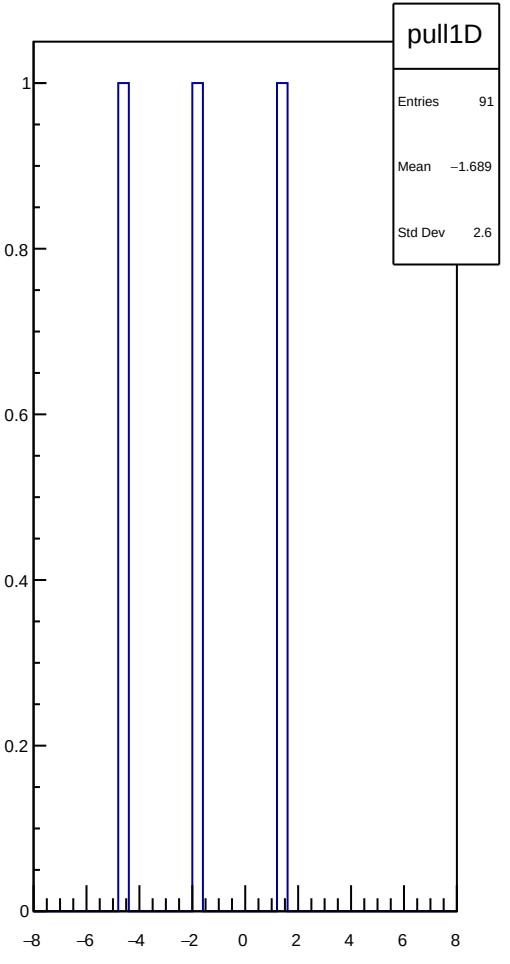

yield_bpm0l05X_rms vs run
χ² / ndf 1.23e+05 / 90
p0 0.005984 ± 4.721e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

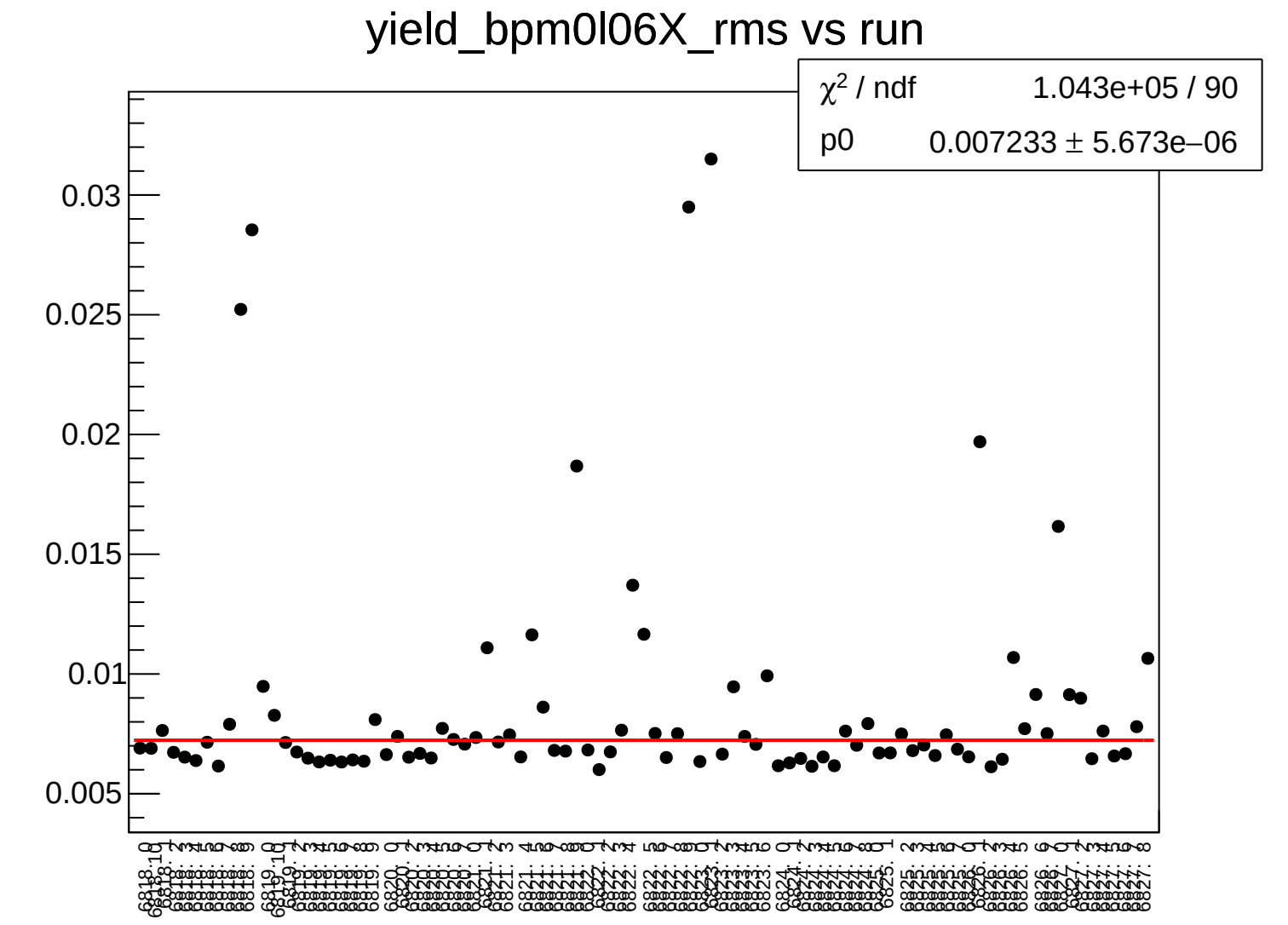

yield_bpm0l05Y_mean vs run
χ² / ndf 1.216e+07 / 90
p0 1.113 ± 8.63e−06
pull
Entries 91
Mean 365
Std Dev 316.7

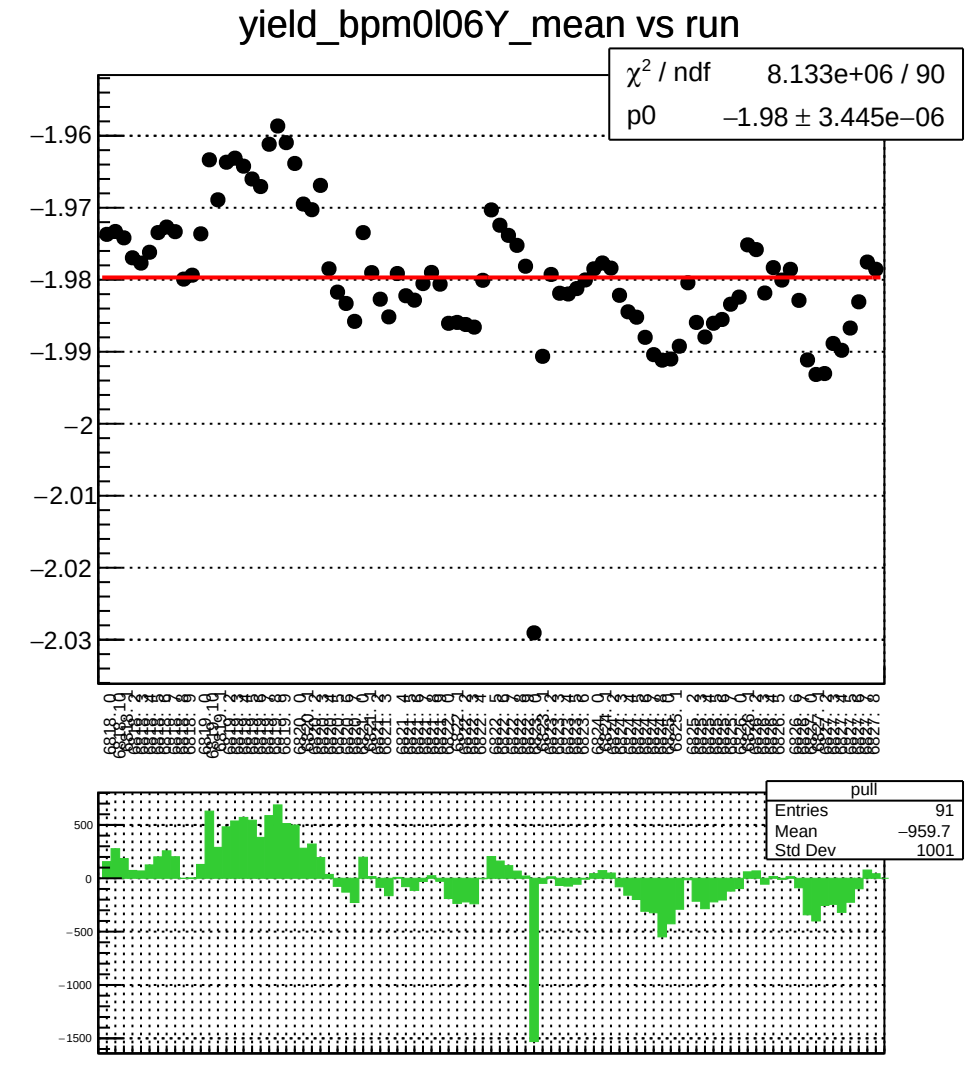

pull1D
Entries 91
Mean −6.167
Std Dev 0.7956

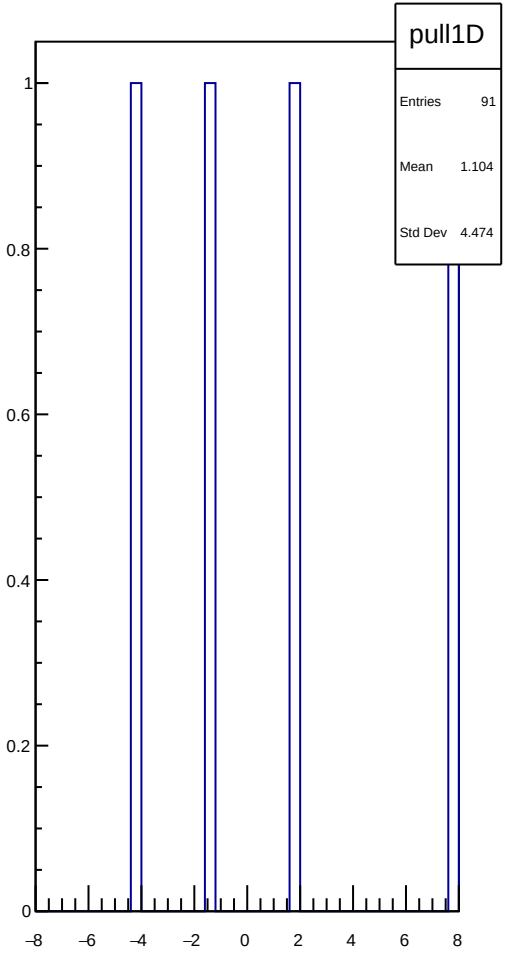

yield_bpm0l05Y_rms vs run
χ² / ndf 2.758e+05 / 90
p0 0.007358 ± 6.102e−06
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

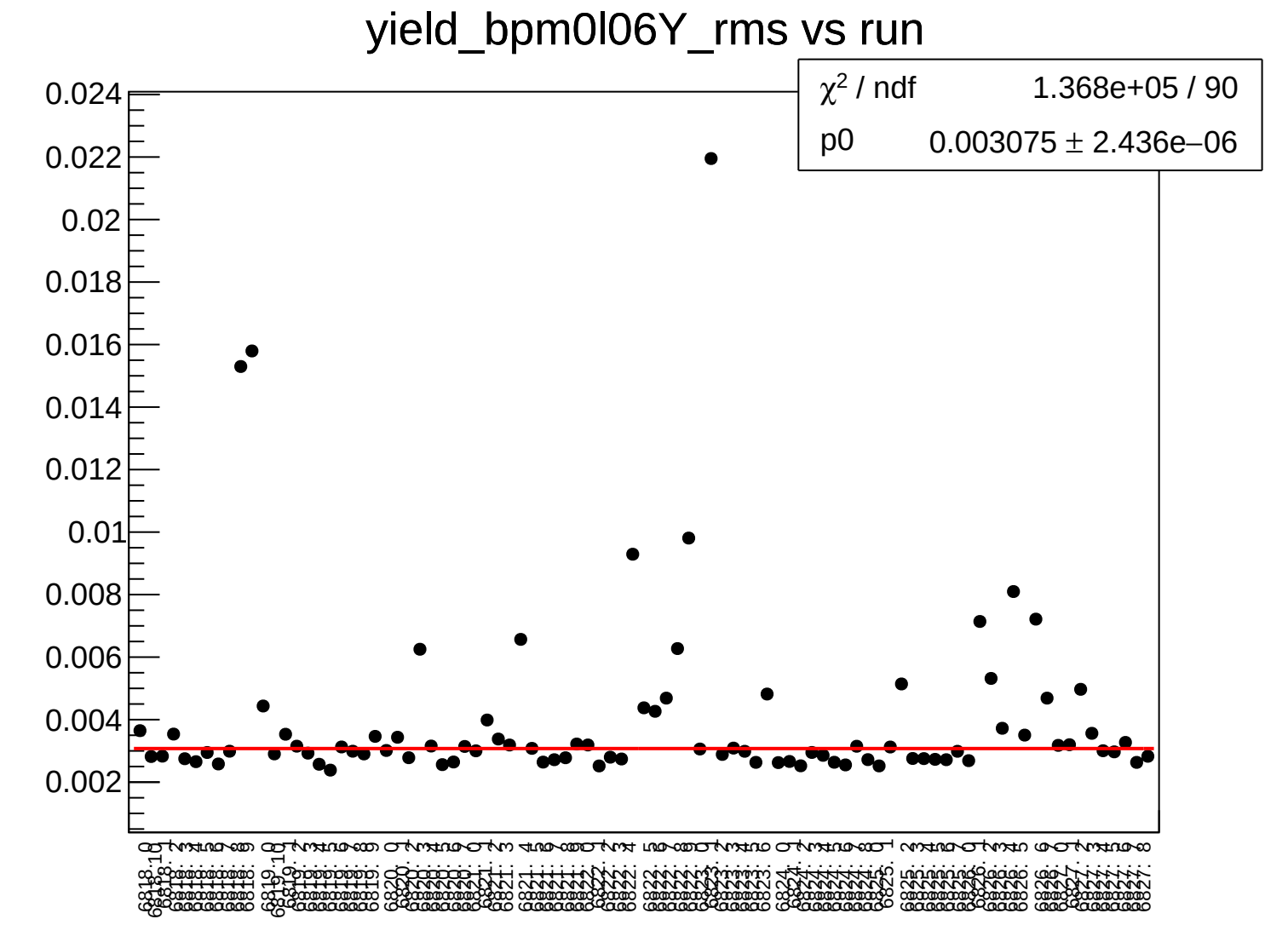

yield_bpm0l06X_mean vs run
χ² / ndf 1.193e+07 / 90
p0 3 ± 8.023e−06
3.08
3.06
3.04
3.02
3
2.98
2.96
2.94
2.92
2.9
pull
Entries 91
Mean −556.1
Std Dev 602
1000
500
0
−500
−1000
−1500

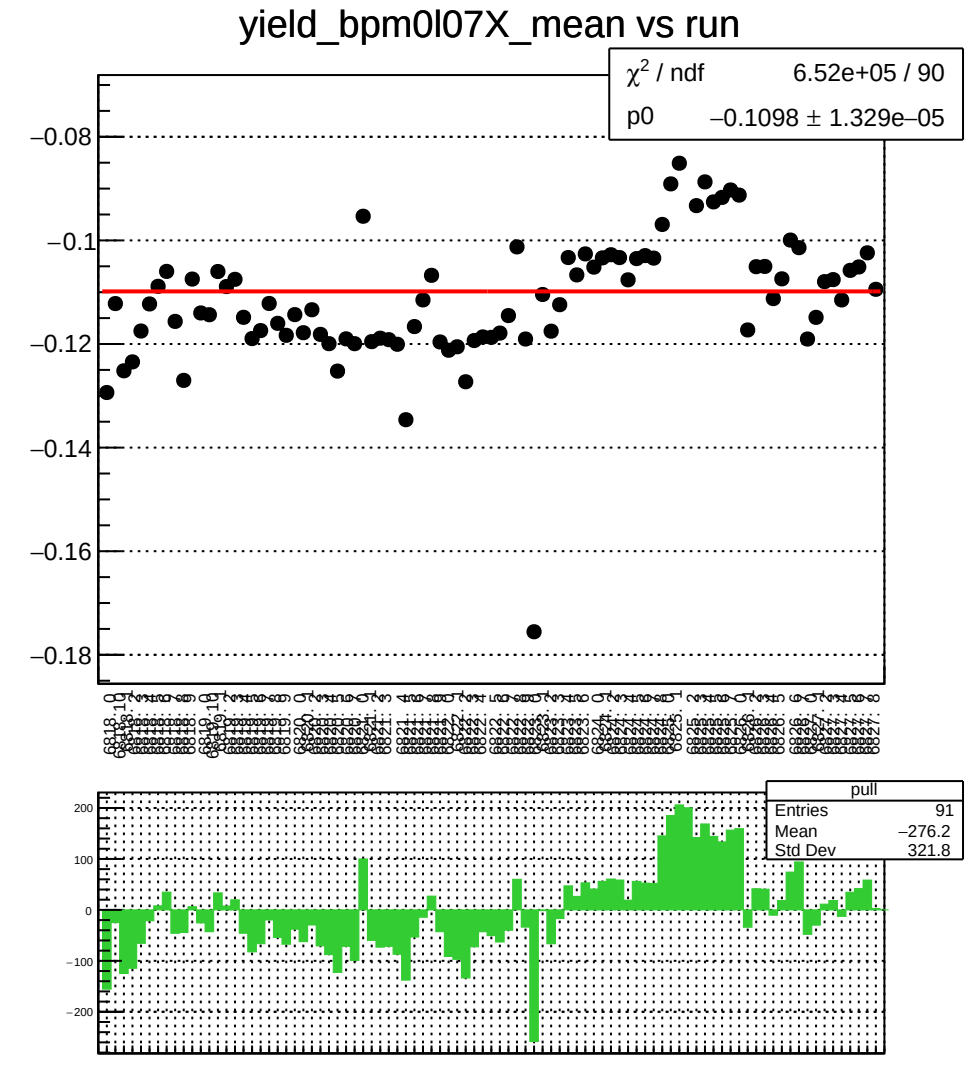

pull1D
Entries 91
Mean −1.689
Std Dev 2.6
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

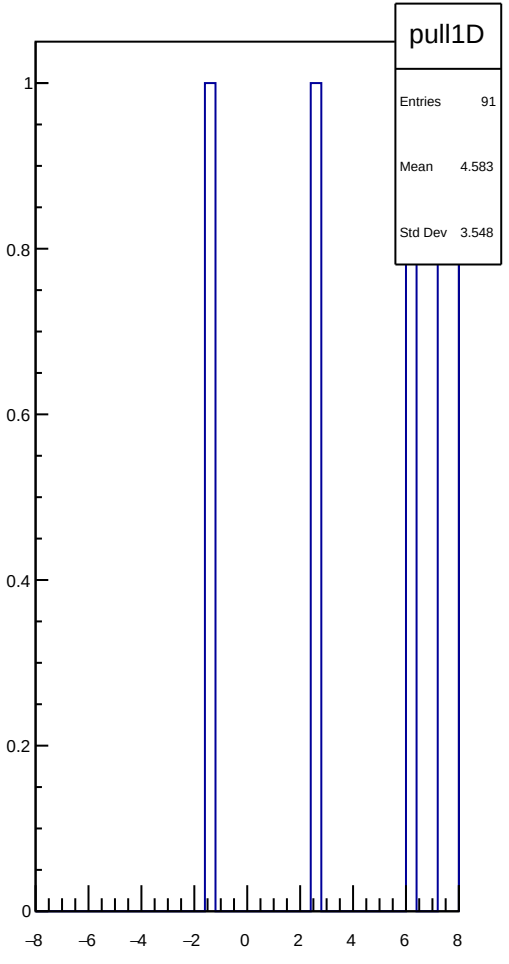

yield_bpm0l06X_rms vs run
χ^2 / ndf 1.043e+05 / 90
p0 0.007233 ± 5.673e−06
0.03
0.025
0.02
0.015
0.01
0.005

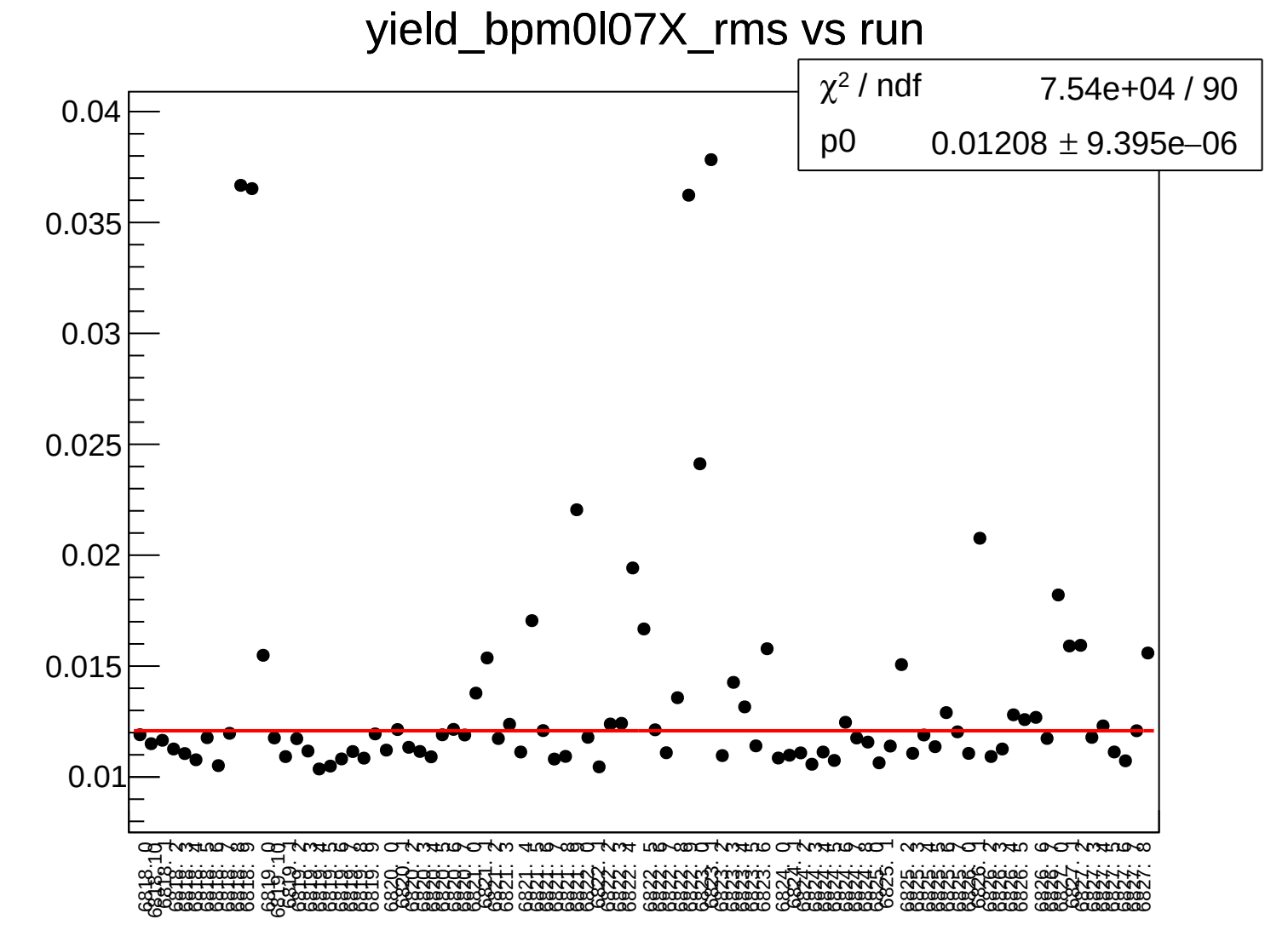

yield_bpm0l06Y_mean vs run
χ² / ndf 8.133e+06 / 90
p0 −1.98 ± 3.445e−06
−1.96
−1.97
−1.98
−1.99
−2
−2.01
−2.02
−2.03
pull
Entries 91
Mean −959.7
Std Dev 1001
500
0
−500
−1000
−1500

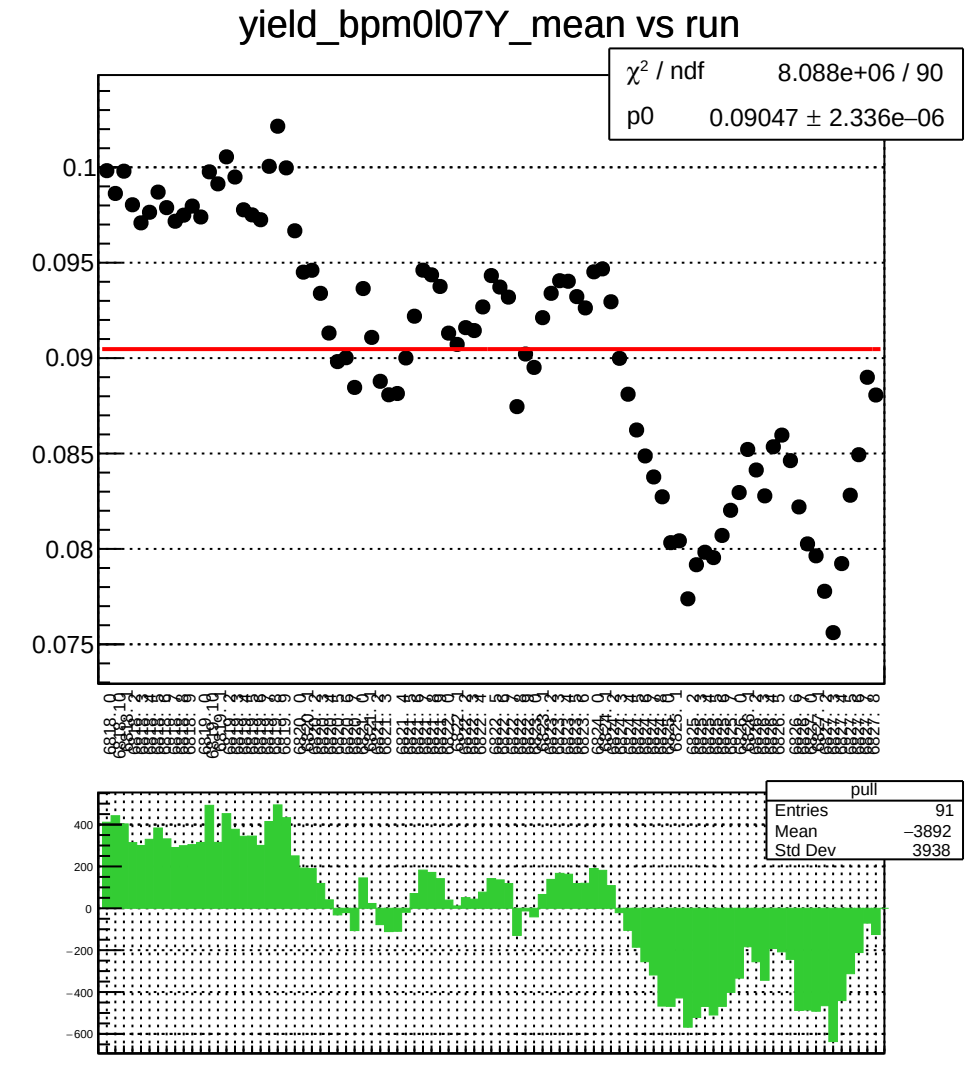

pull1D
Entries 91
Mean 1.104
Std Dev 4.474
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

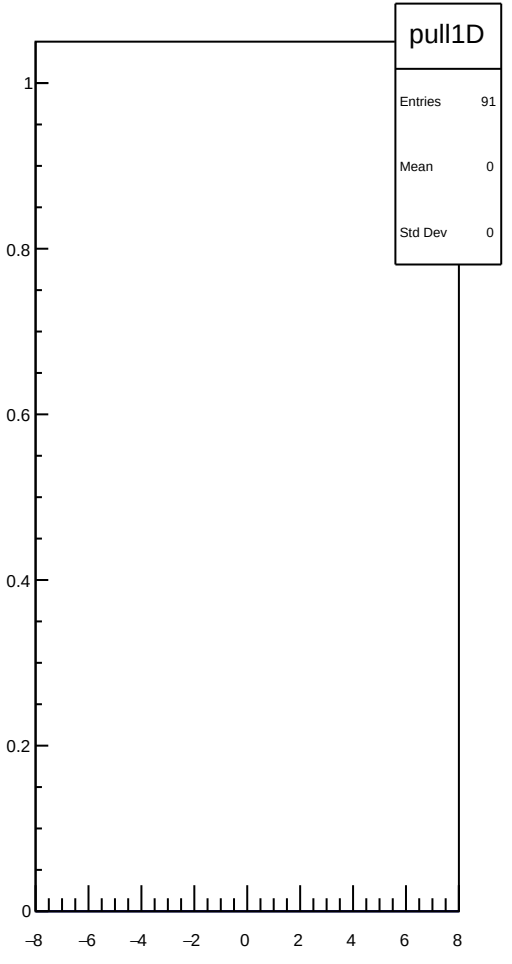

yield_bpm0l06Y_rms vs run
χ² / ndf 1.368e+05 / 90
p0 0.003075 ± 2.436e−06
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

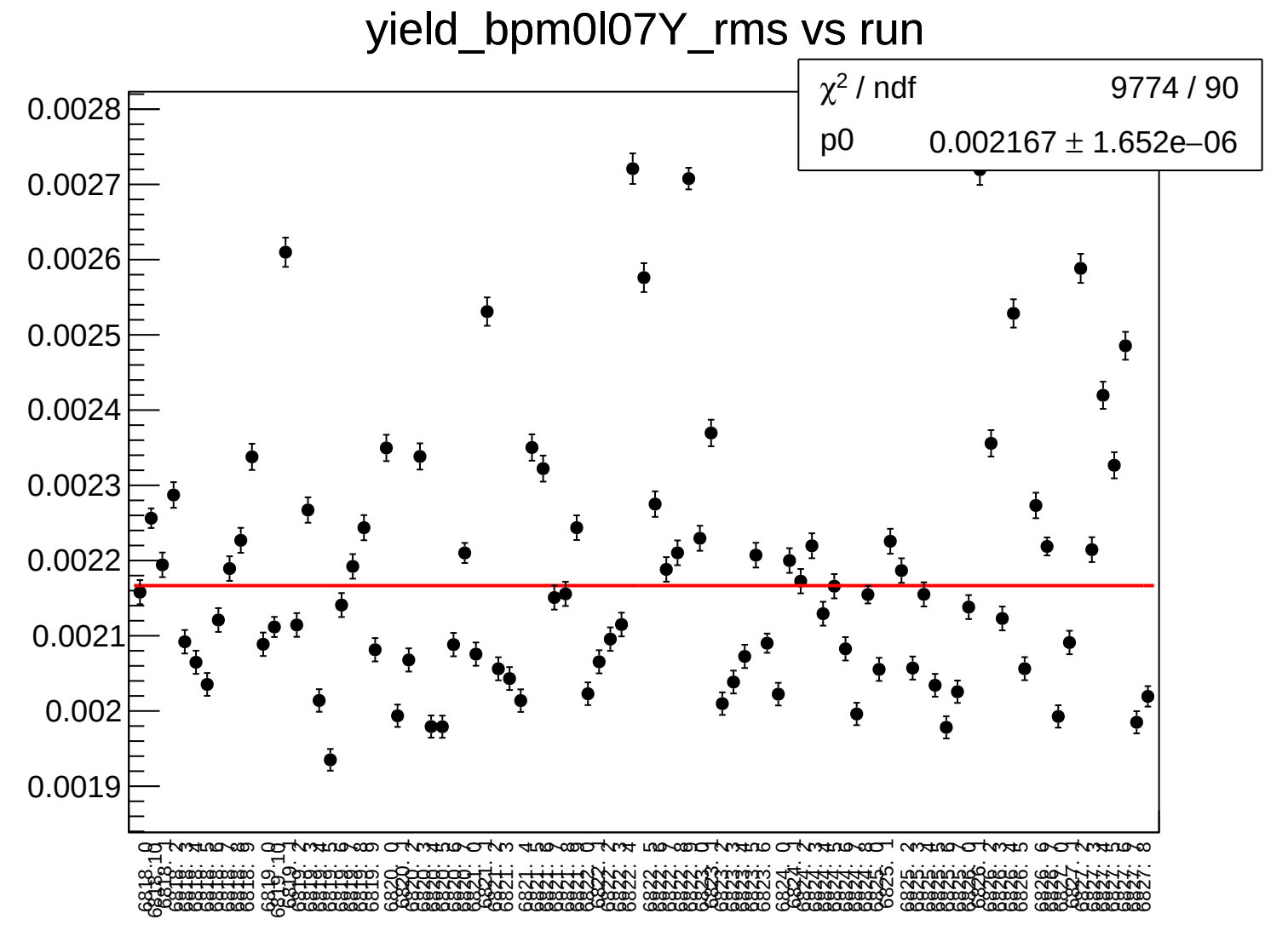

yield_bpm0l07X_mean vs run
χ² / ndf 6.52e+05 / 90
p0 −0.1098 ± 1.329e−05
−0.08
−0.1
−0.12
−0.14
−0.16
−0.18
pull
Entries 91
Mean −276.2
Std Dev 321.8
200
100
0
−100
−200

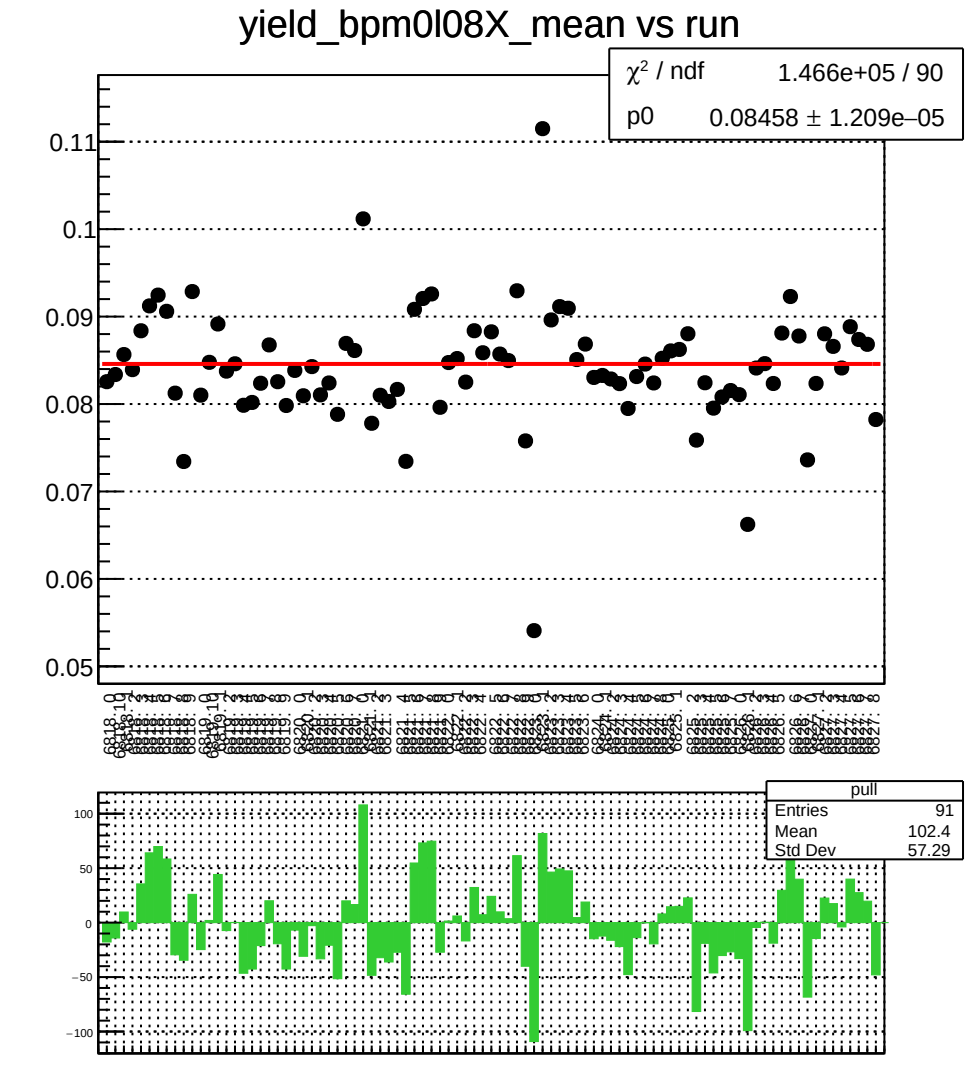

pull1D
Entries 91
Mean 4.583
Std Dev 3.548
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

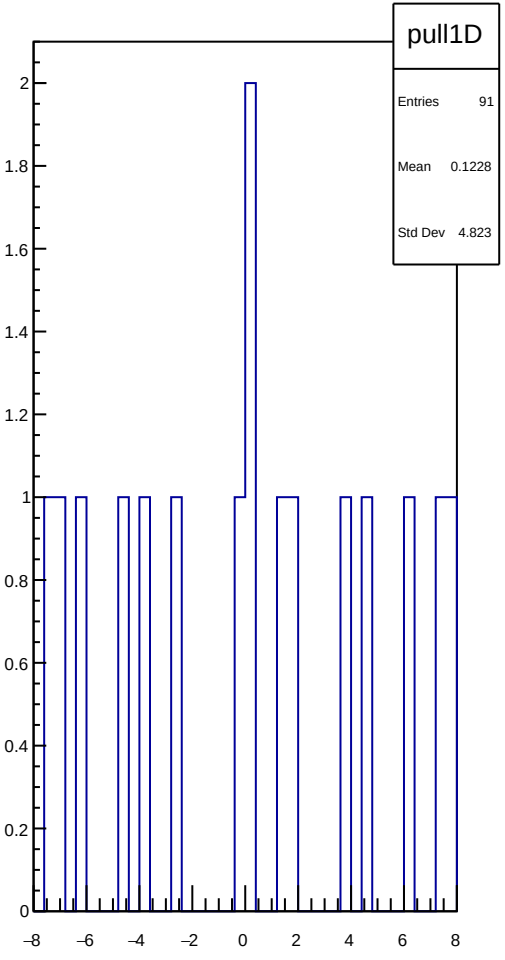

yield_bpm0l07X_rms vs run
χ² / ndf 7.54e+04 / 90
p0 0.01208 ± 9.395e–06
0.04
0.035
0.03
0.025
0.02
0.015
0.01

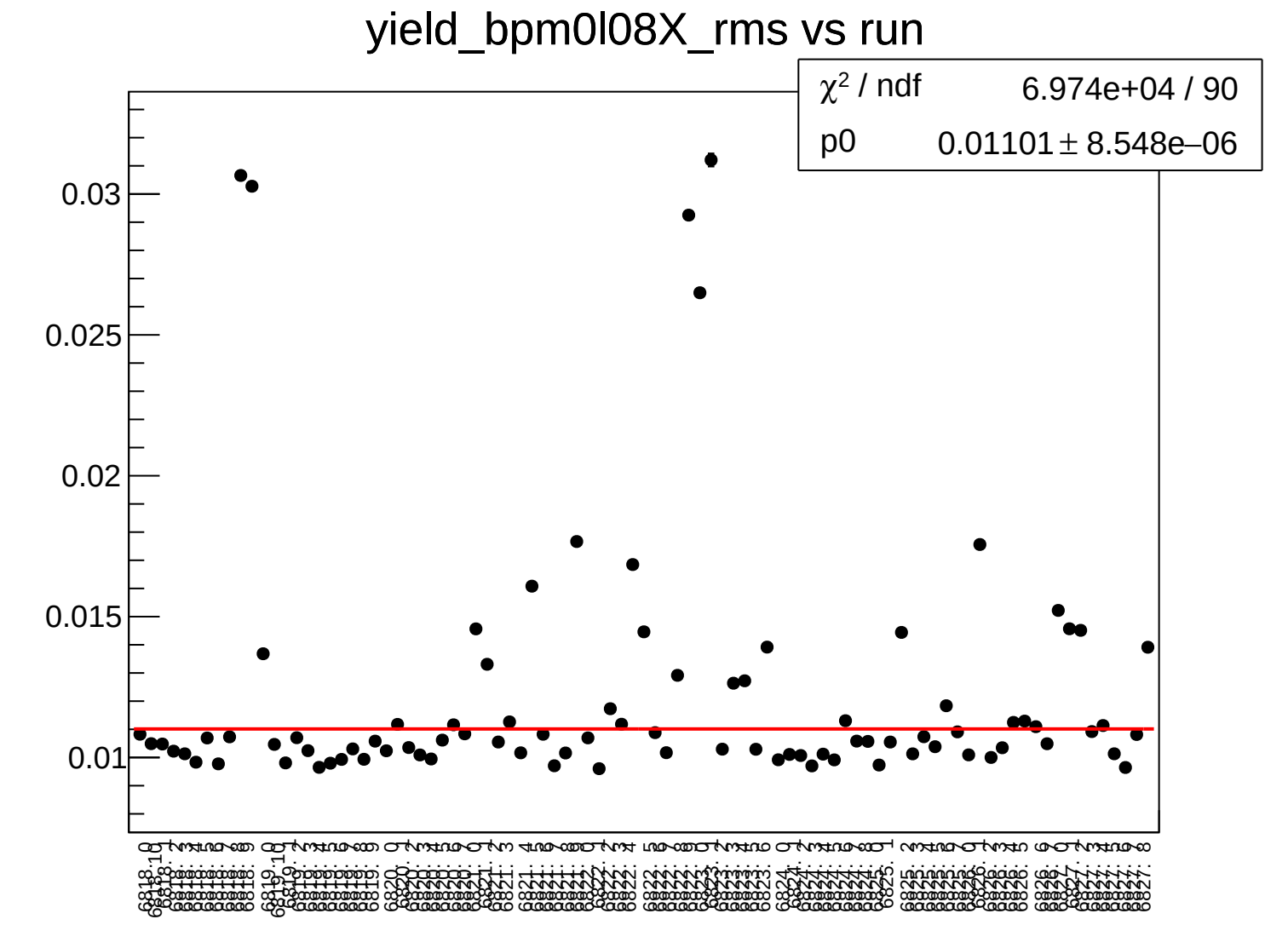

yield_bpm0l07Y_mean vs run
χ² / ndf 8.088e+06 / 90
p0 0.09047 ± 2.336e−06
0.1
0.095
0.09
0.085
0.08
0.075
pull
Entries 91
Mean −3892
Std Dev 3938
400
200
0
−200
−400
−600

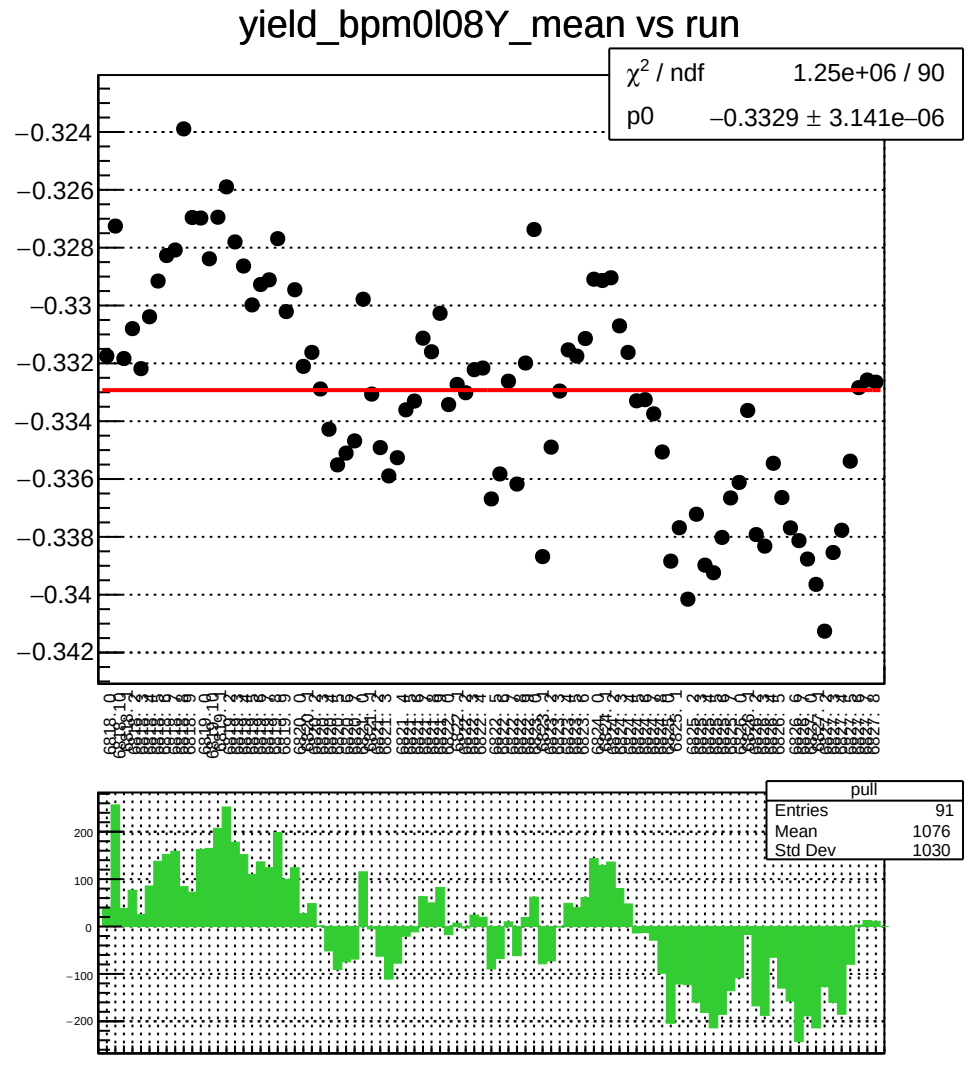

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

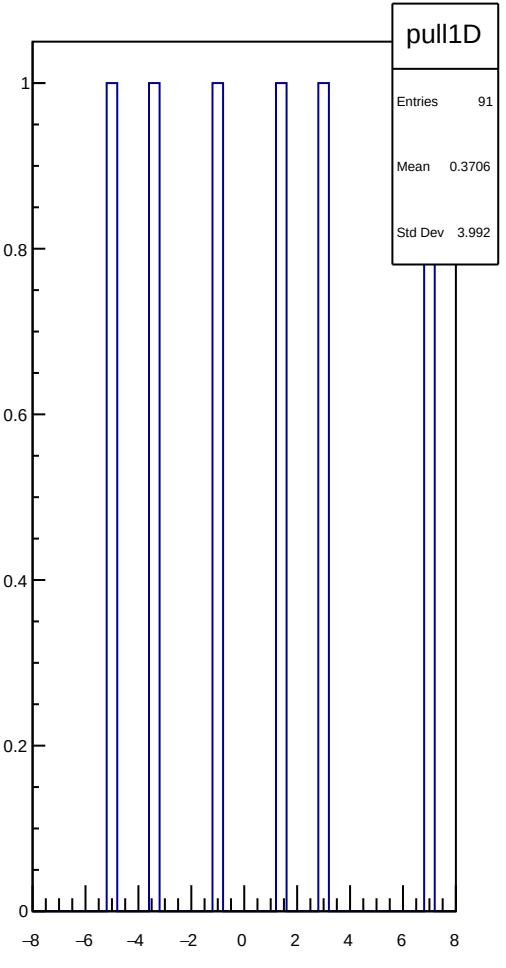

yield_bpm0l07Y_rms vs run
χ² / ndf 9774 / 90
p0 0.002167 ± 1.652e−06
0.0028
0.0027
0.0026
0.0025
0.0024
0.0023
0.0022
0.0021
0.002
0.0019

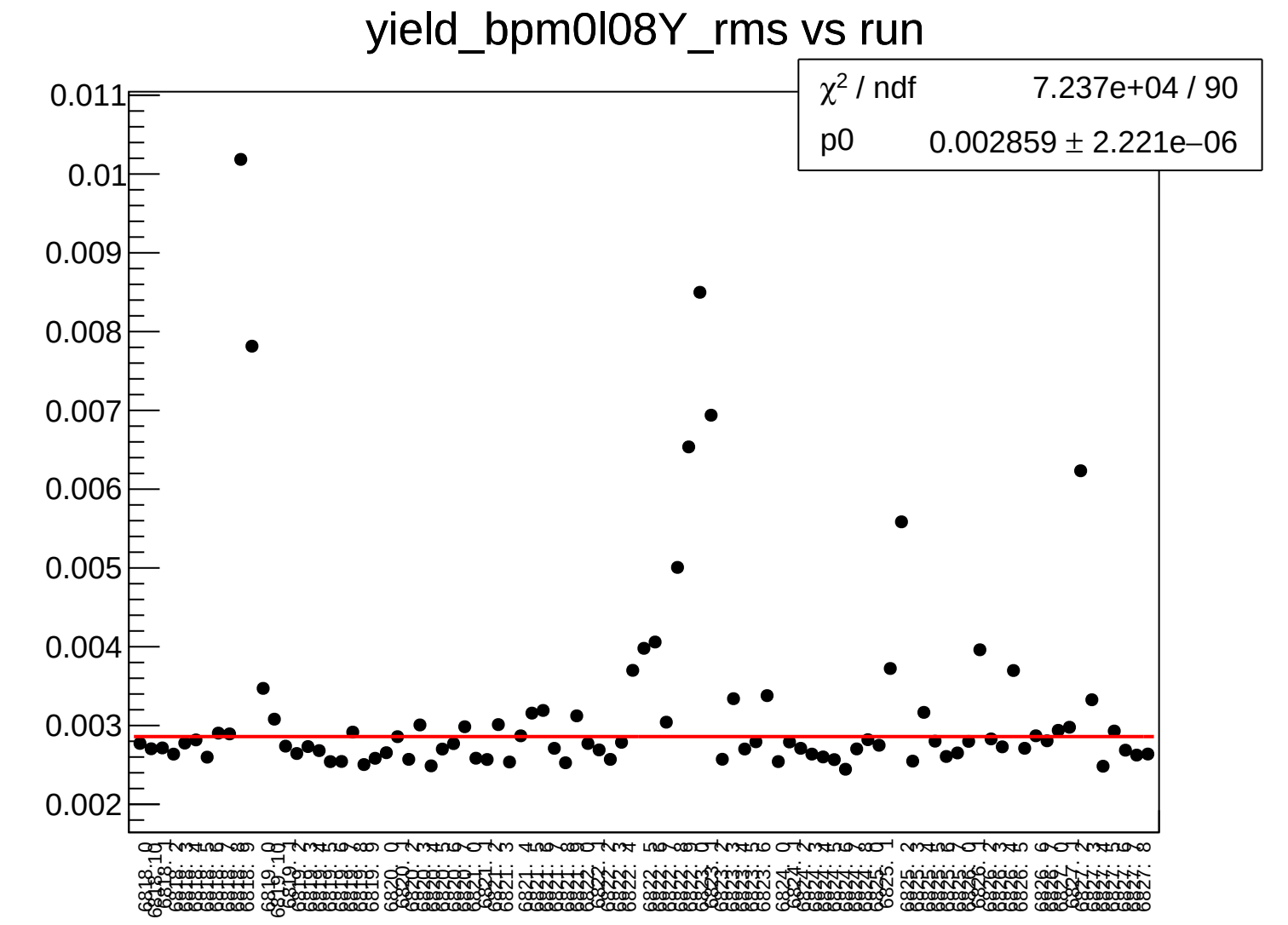

yield_bpm0l08X_mean vs run
χ² / ndf 1.466e+05 / 90
p0 0.08458 ± 1.209e−05
0.11
0.1
0.09
0.08
0.07
0.06
0.05
pull
Entries 91
Mean 102.4
Std Dev 57.29
100
50
0
−50
−100

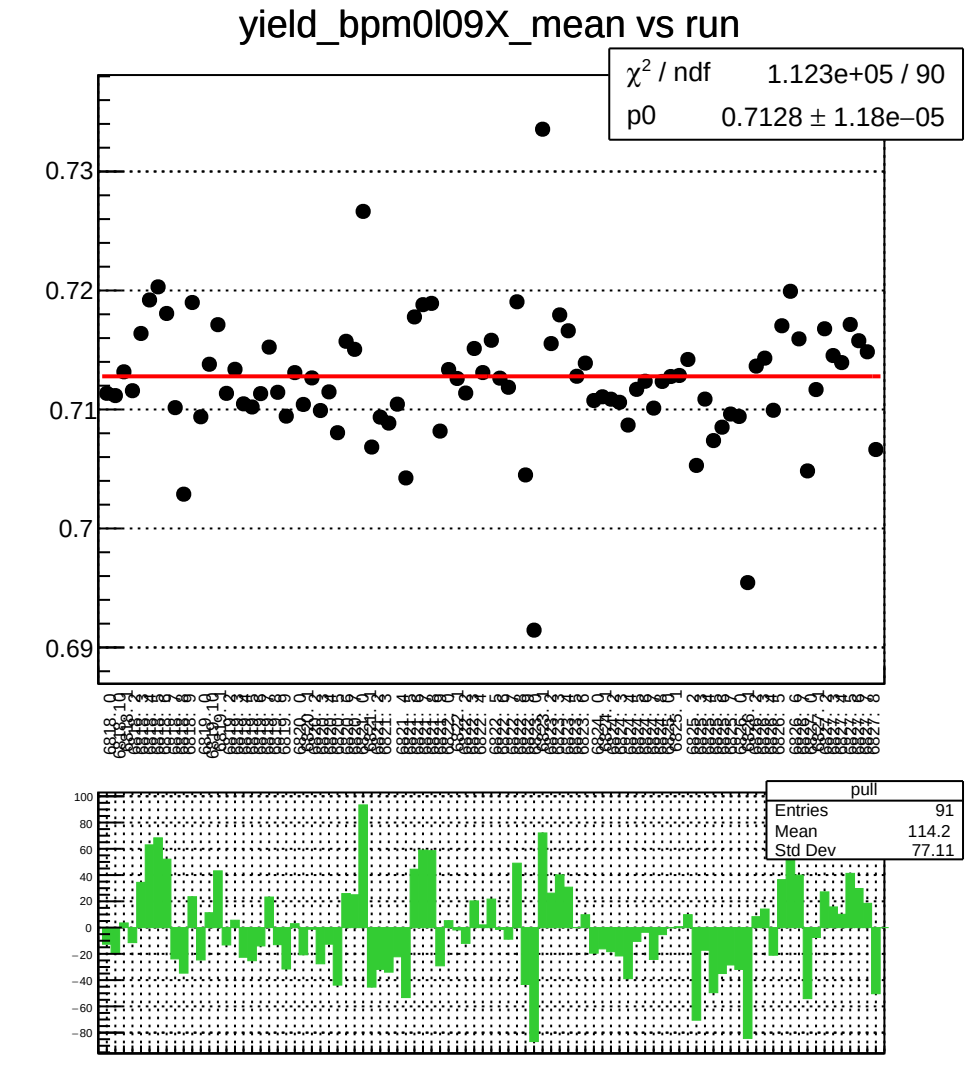

pull1D
Entries 91
Mean 0.1228
Std Dev 4.823
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

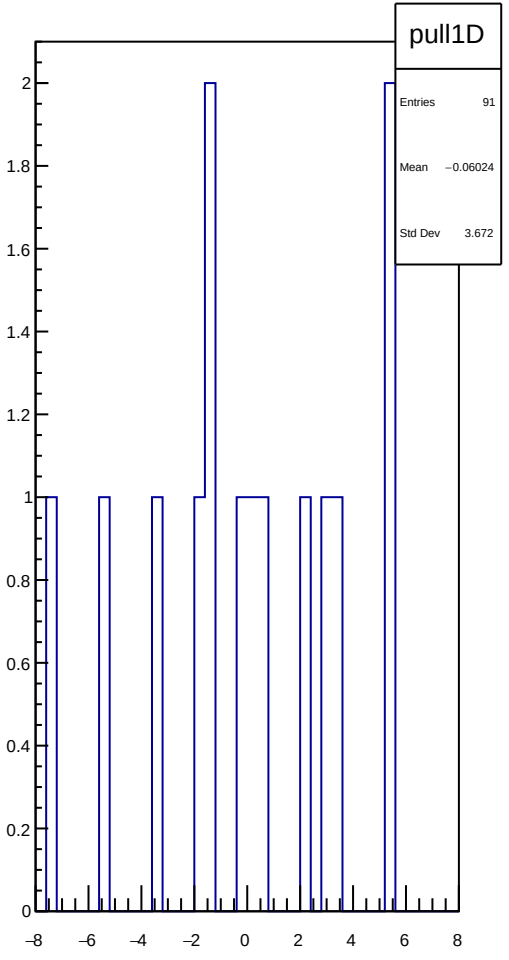

yield_bpm0l08X_rms vs run
χ² / ndf 6.974e+04 / 90
p0 0.01101 ± 8.548e–06
0.03
0.025
0.02
0.015
0.01

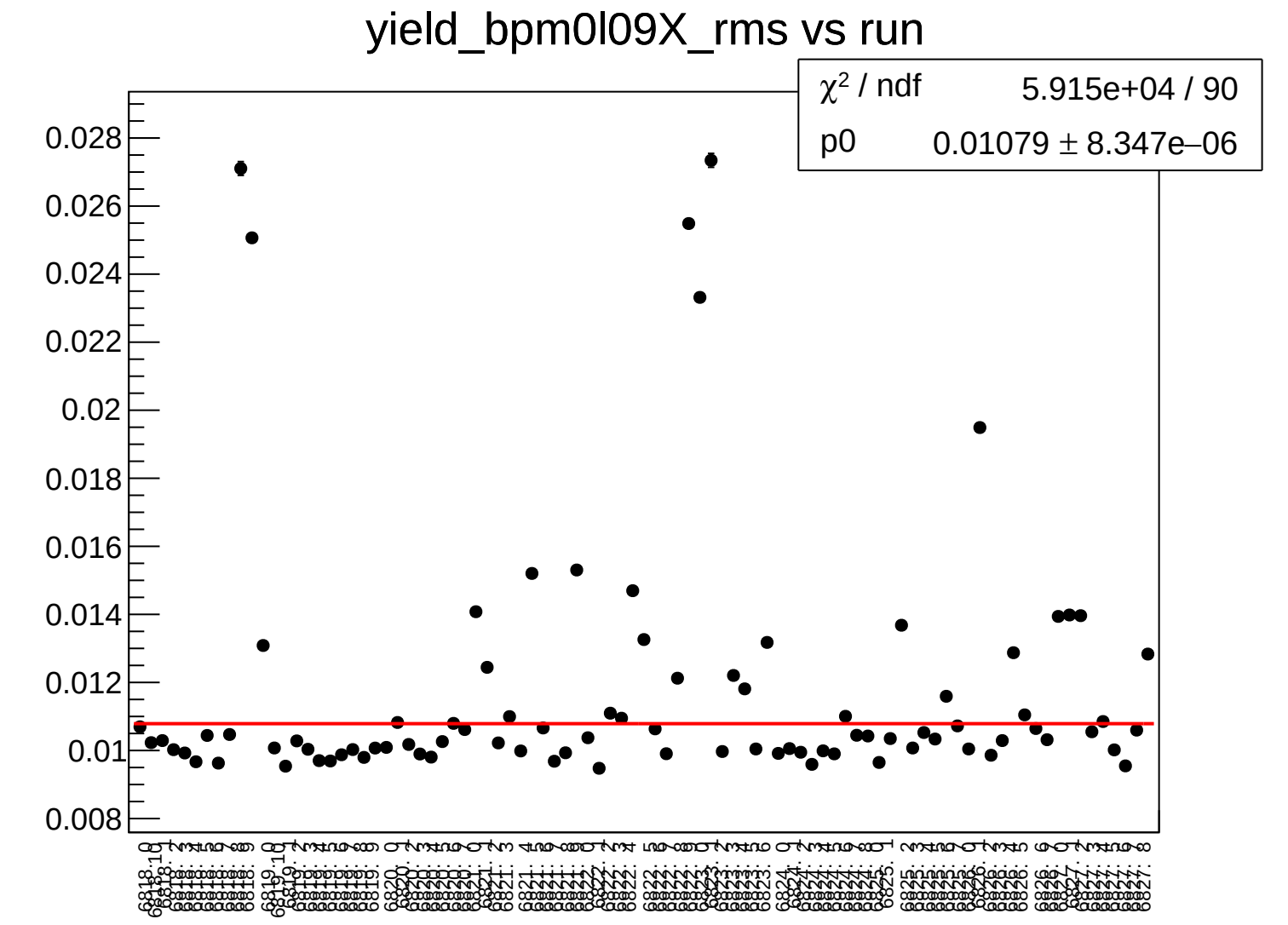

yield_bpm0l08Y_mean vs run
χ² / ndf 1.25e+06 / 90
p0 −0.3329 ± 3.141e−06
−0.324
−0.326
−0.328
−0.33
−0.332
−0.334
−0.336
−0.338
−0.34
−0.342
pull
Entries 91
Mean 1076
Std Dev 1030
200
100
0
−100
−200

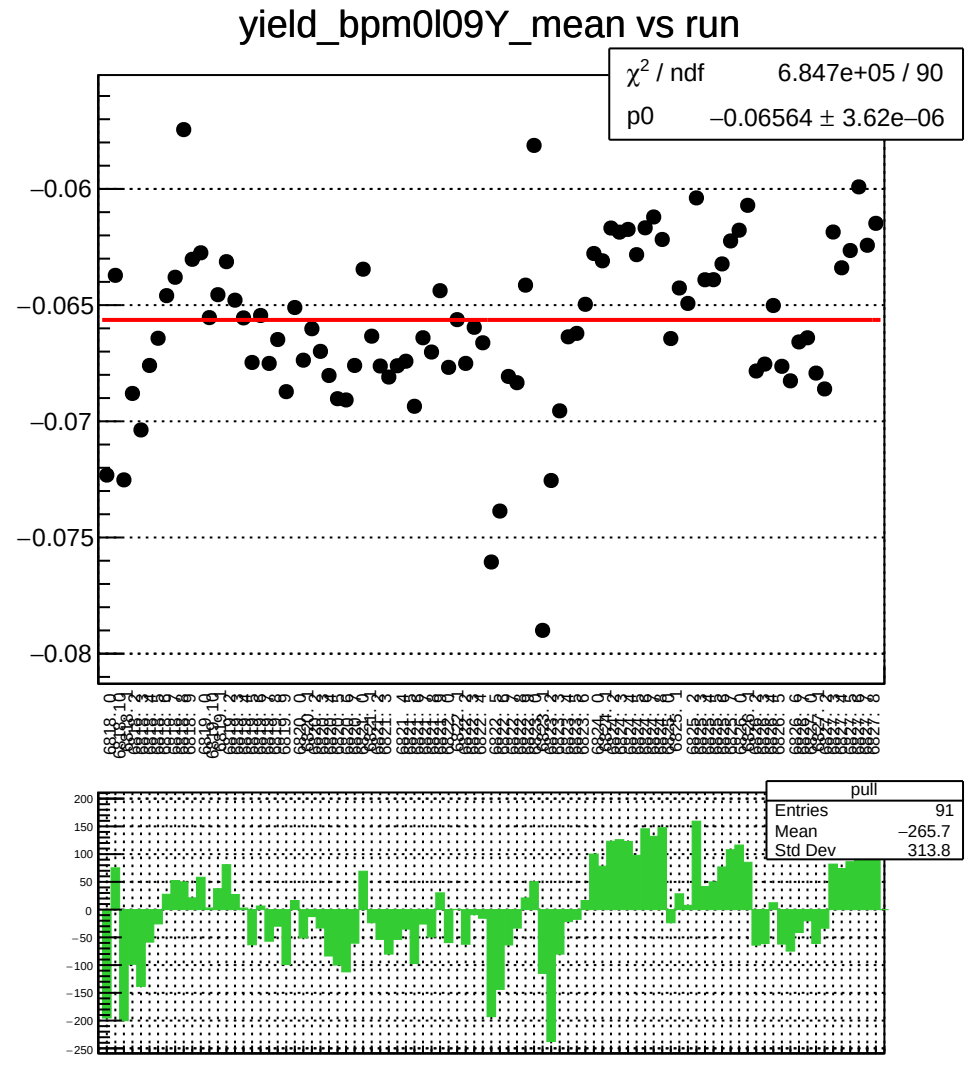

pull1D
Entries 91
Mean 0.3706
Std Dev 3.992
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

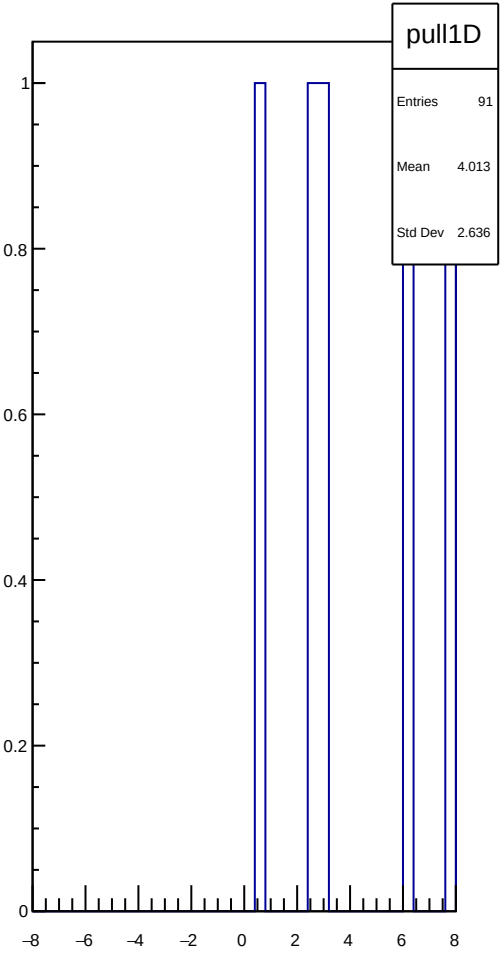

yield_bpm0l08Y_rms vs run
χ² / ndf 7.237e+04 / 90
p0 0.002859 ± 2.221e−06
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002

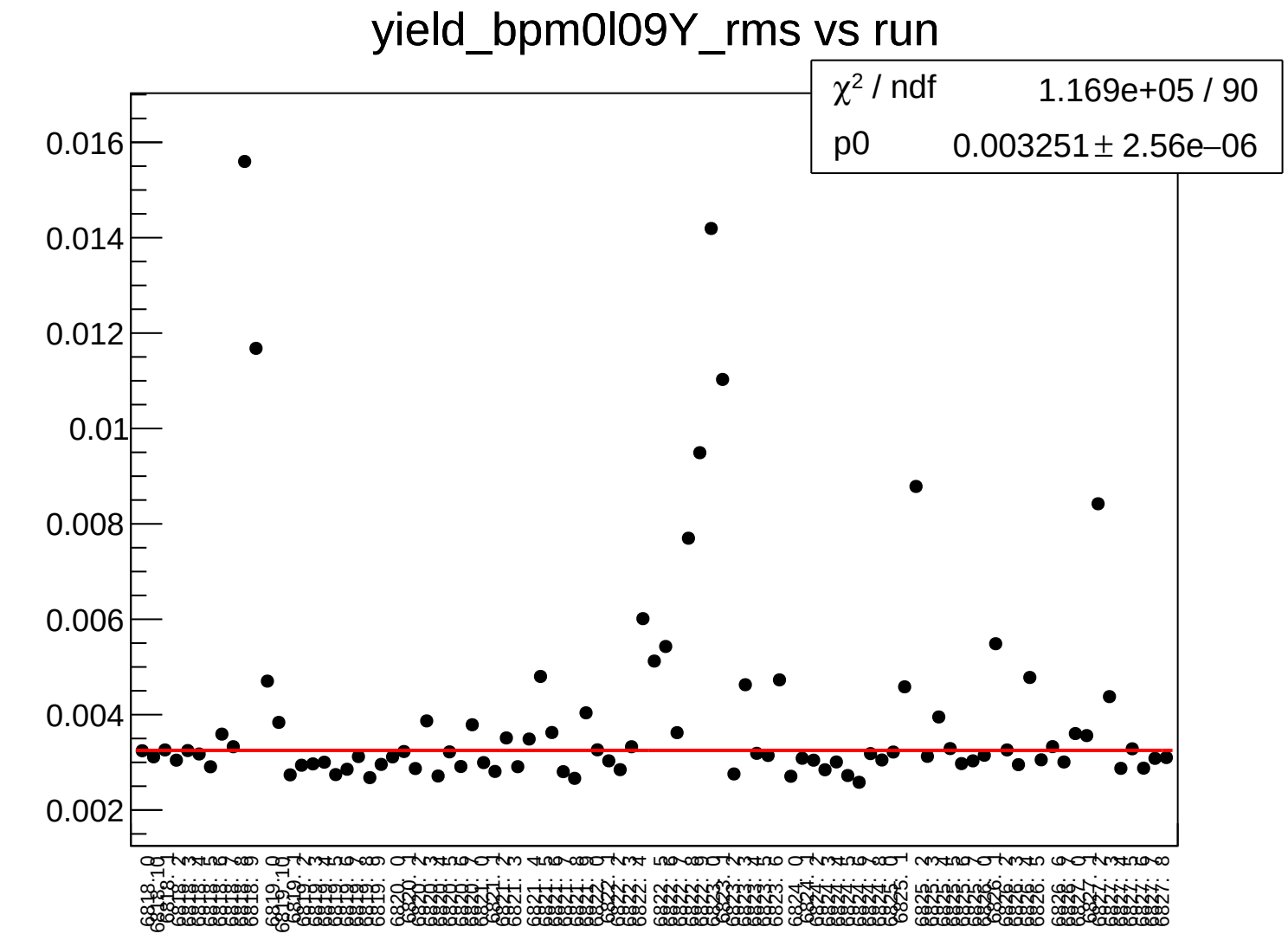

yield_bpm0l09X_mean vs run
χ² / ndf 1.123e+05 / 90
p0 0.7128 ± 1.18e−05
0.73
0.72
0.71
0.7
0.69
pull
Entries 91
Mean 114.2
Std Dev 77.11
100
80
60
40
20
0
−20
−40
−60
−80

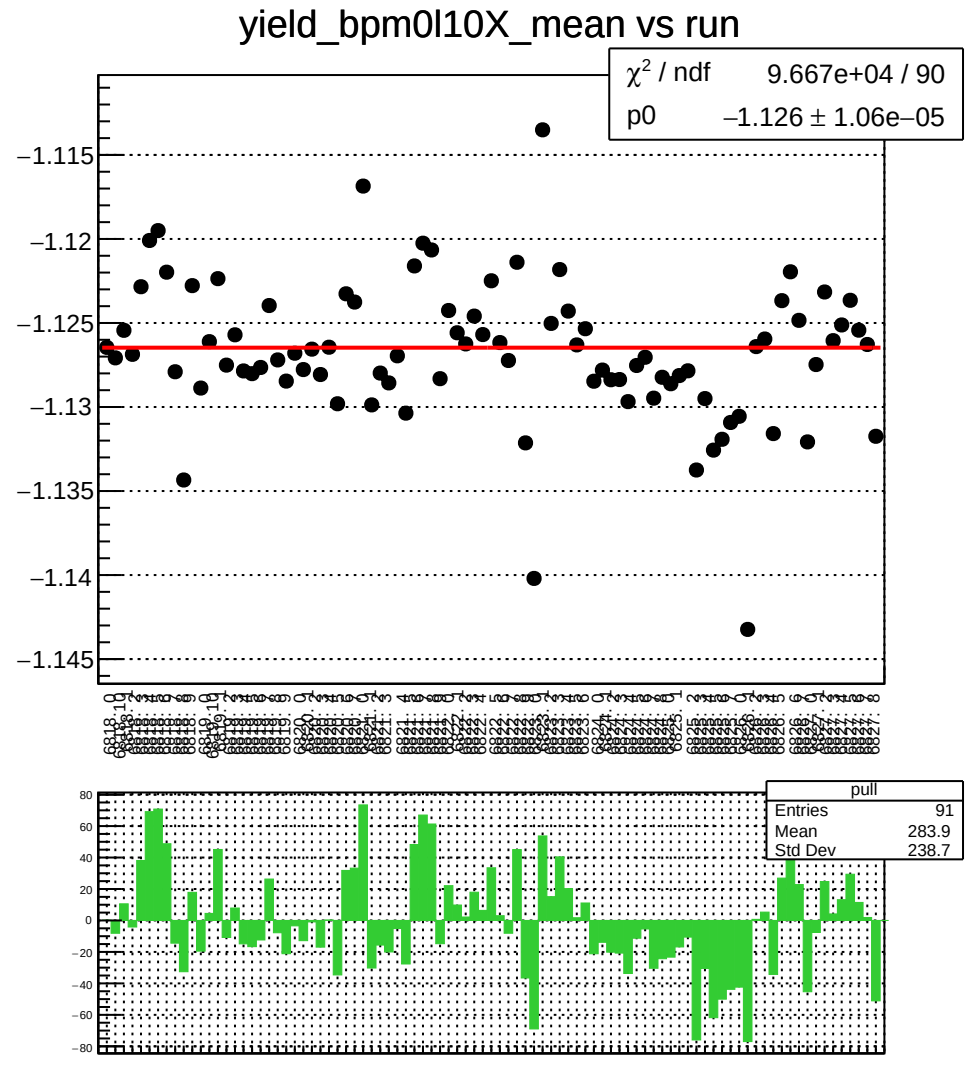

pull1D
Entries 91
Mean −0.06024
Std Dev 3.672
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

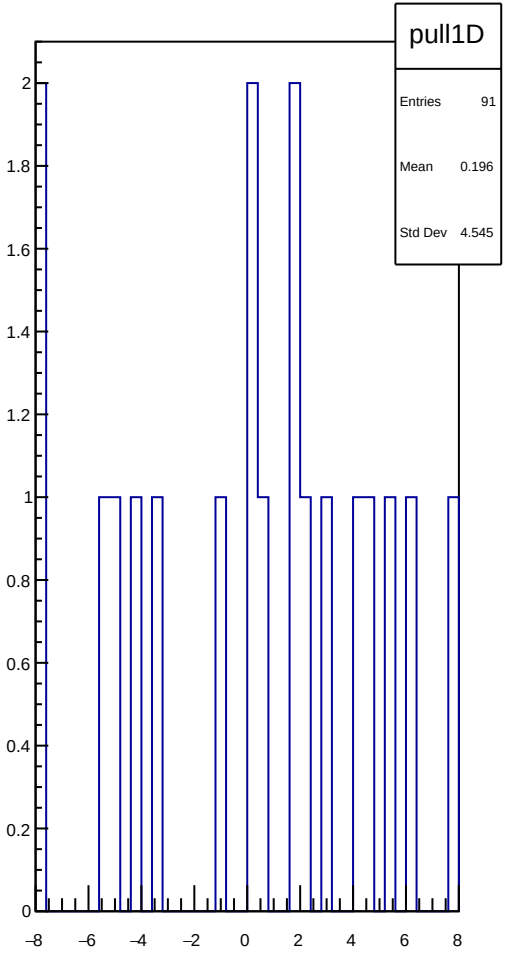

yield_bpm0l09X_rms vs run
χ² / ndf 5.915e+04 / 90
p0 0.01079 ± 8.347e–06
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

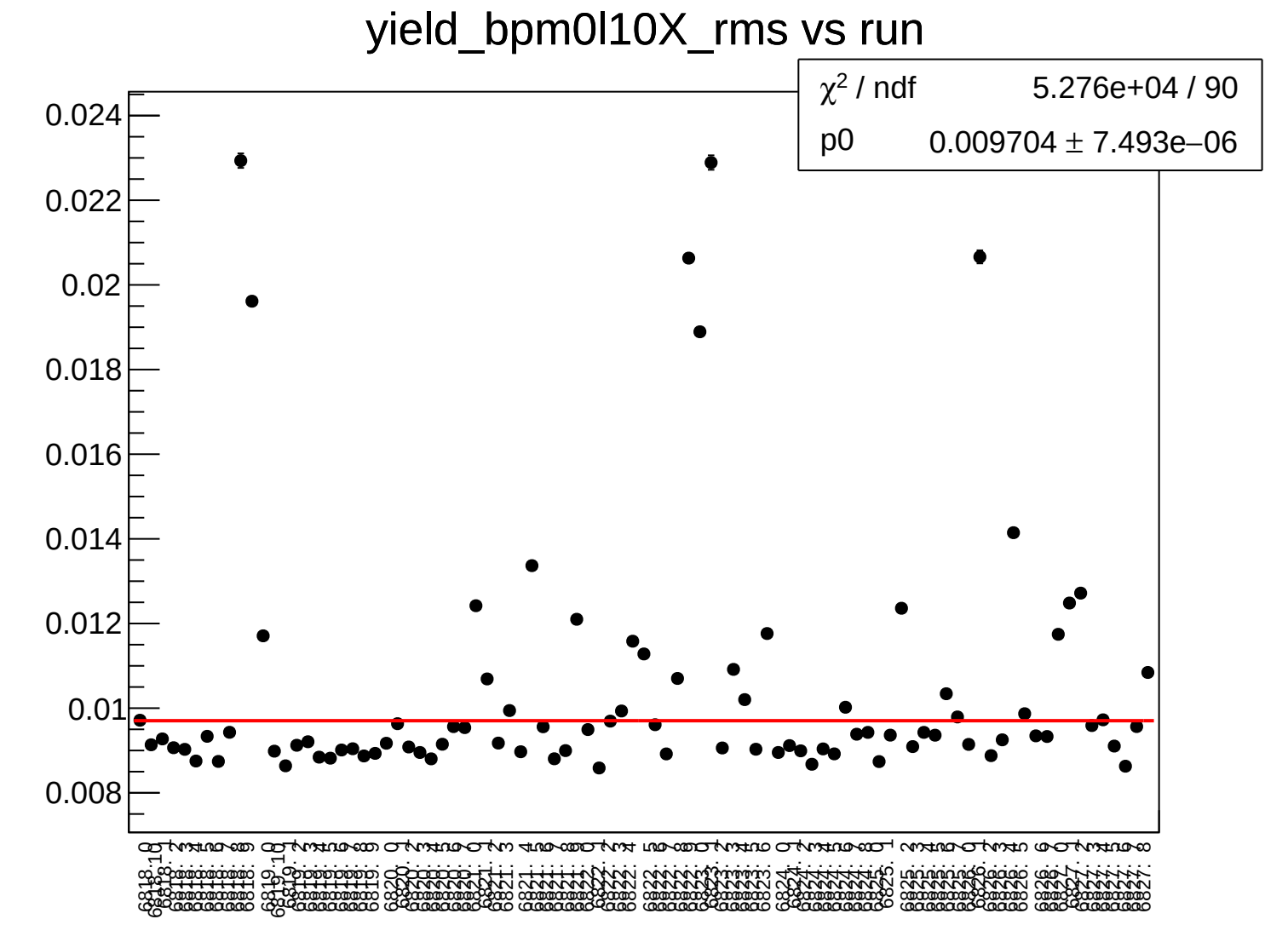

yield_bpm0l09Y_mean vs run
χ² / ndf 6.847e+05 / 90
p0 −0.06564 ± 3.62e−06
−0.06
−0.065
−0.07
−0.075
−0.08
pull
Entries 91
Mean −265.7
Std Dev 313.8
200
150
100
50
0
−50
−100
−150
−200
−250

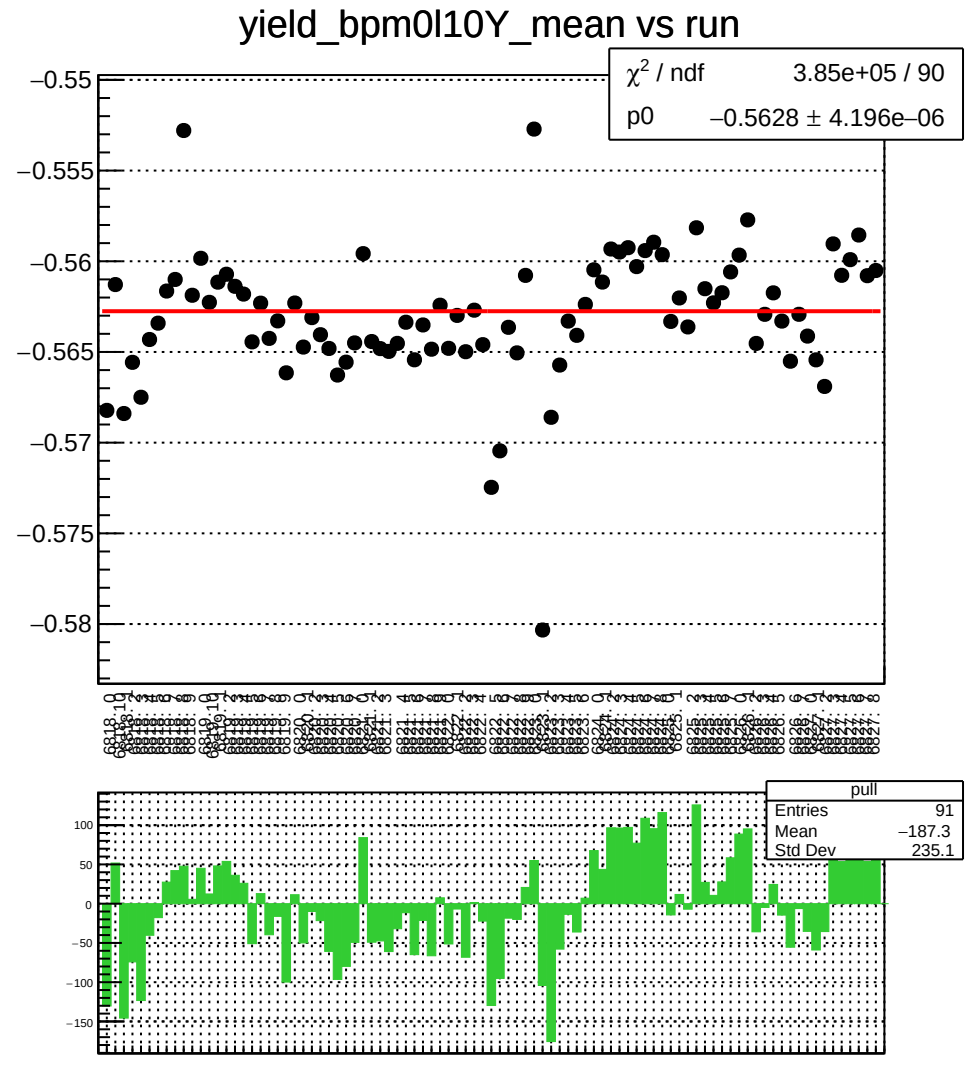

pull1D
Entries 91
Mean 4.013
Std Dev 2.636
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

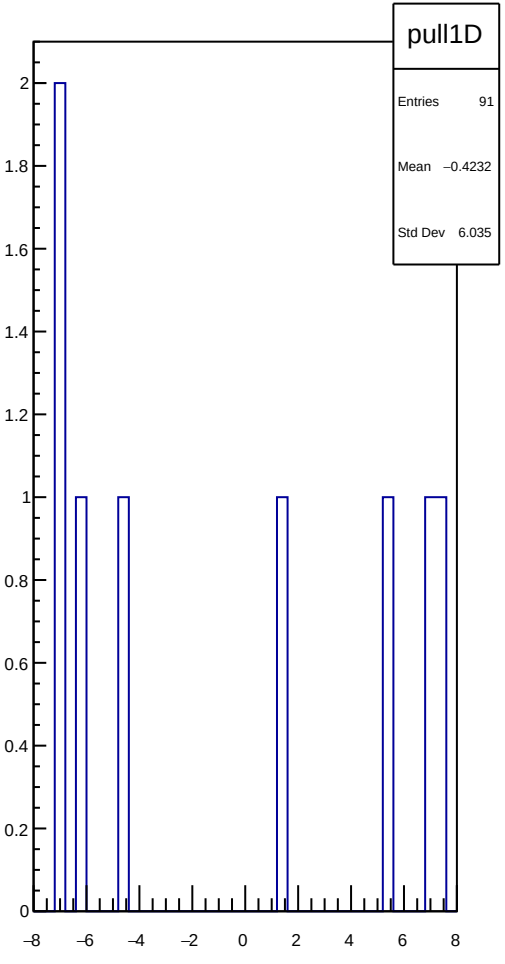

yield_bpm0l09Y_rms vs run
χ² / ndf 1.169e+05 / 90
p0 0.003251 ± 2.56e–06
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

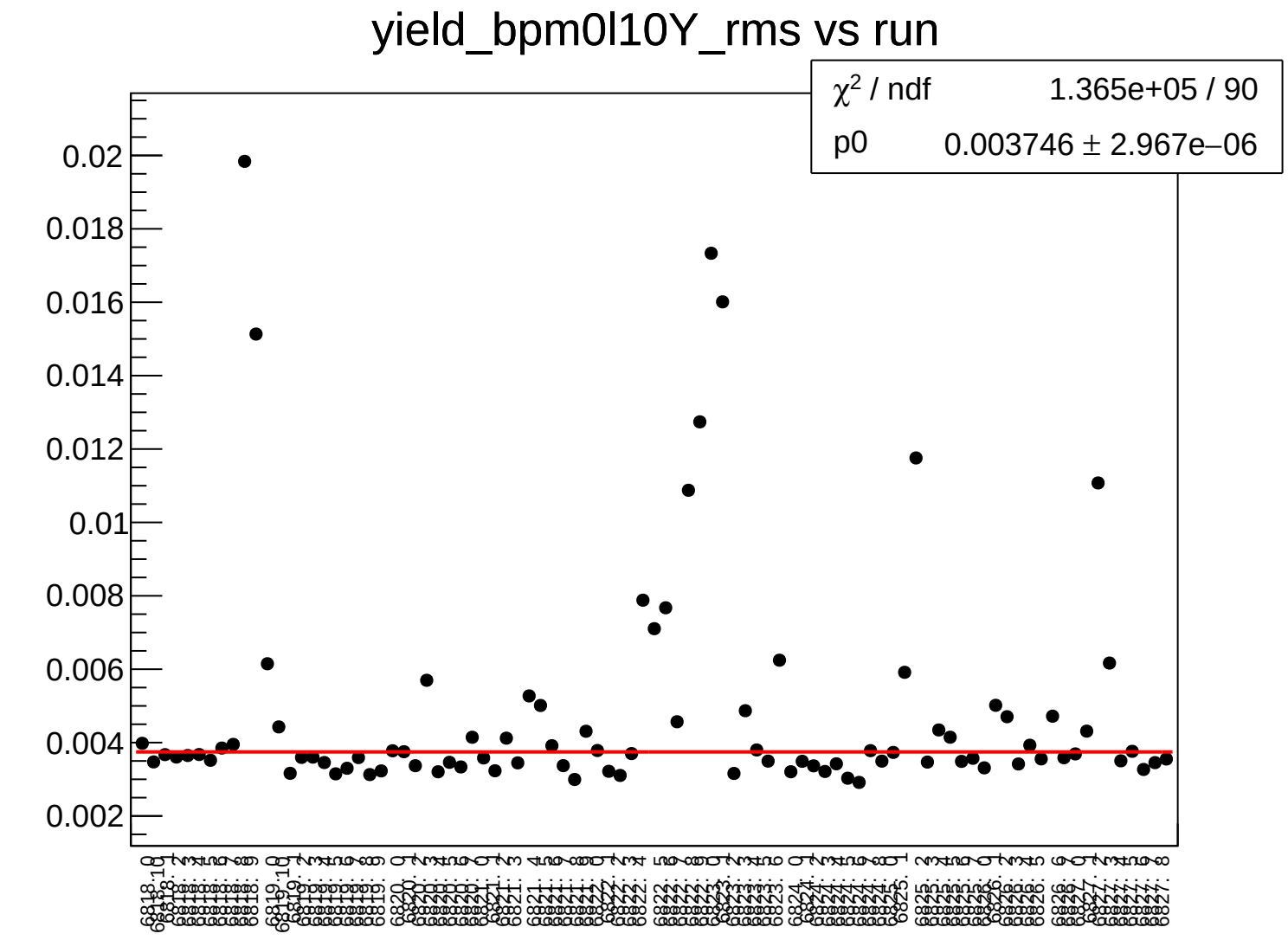

yield_bpm0l10X_mean vs run
χ² / ndf 9.667e+04 / 90
p0 –1.126 ± 1.06e–05
–1.115
–1.12
–1.125
–1.13
–1.135
–1.14
–1.145
pull
Entries 91
Mean 283.9
Std Dev 238.7
80
60
40
20
0
–20
–40
–60
–80

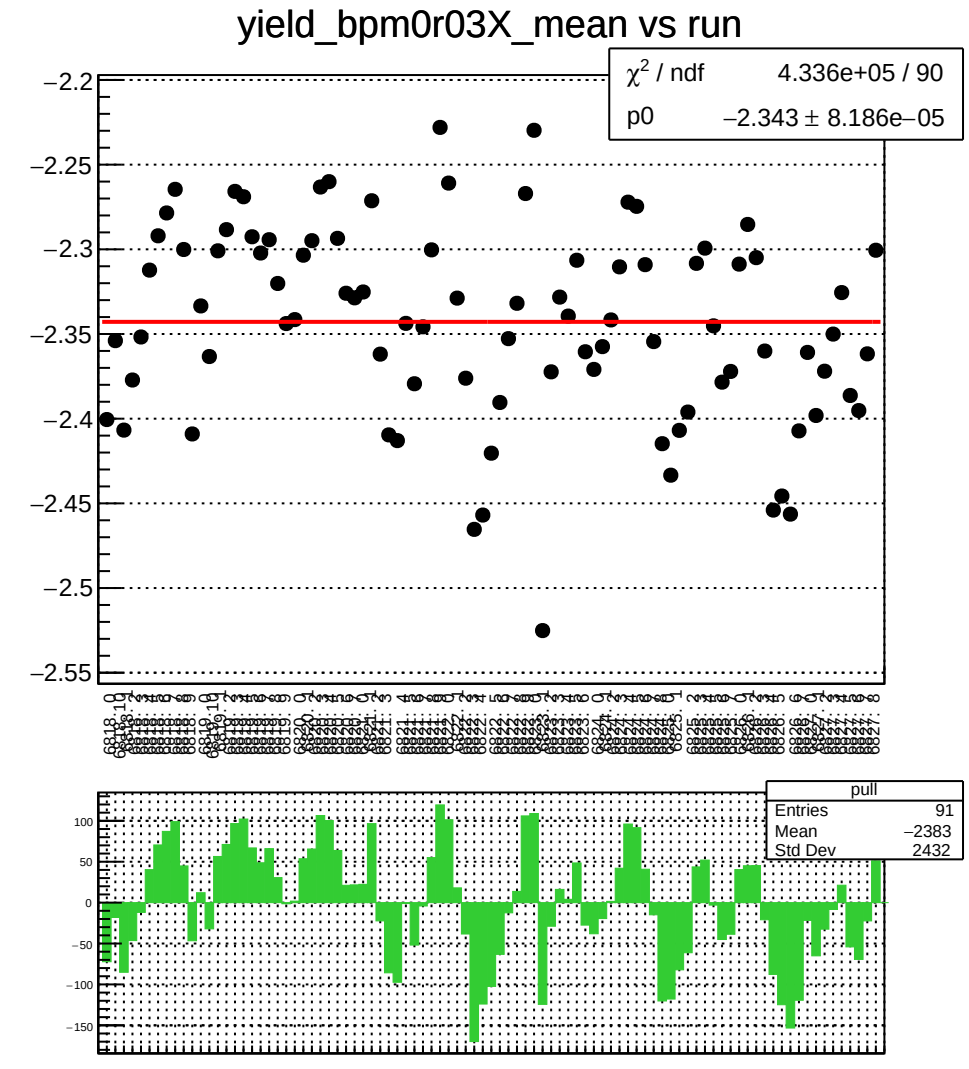

pull1D
Entries 91
Mean 0.196
Std Dev 4.545
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

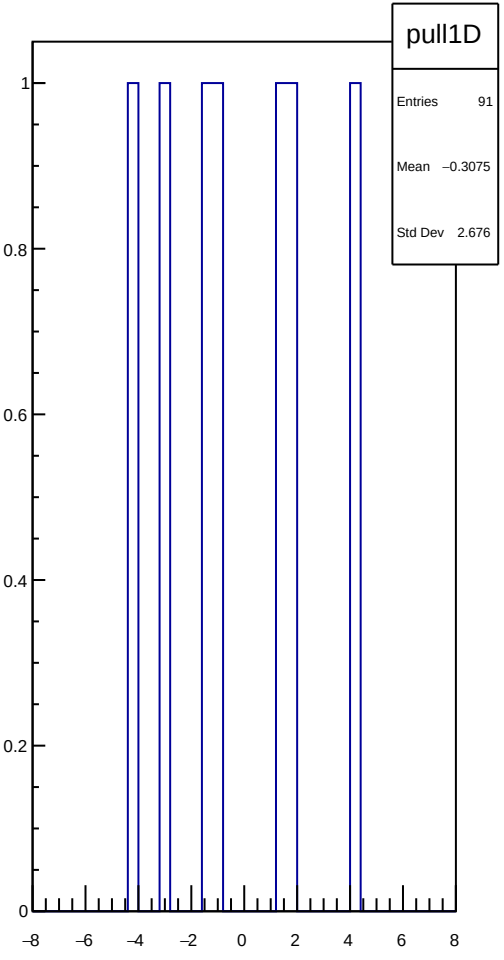

yield_bpm0l10X_rms vs run
χ² / ndf 5.276e+04 / 90
p0 0.009704 ± 7.493e−06
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

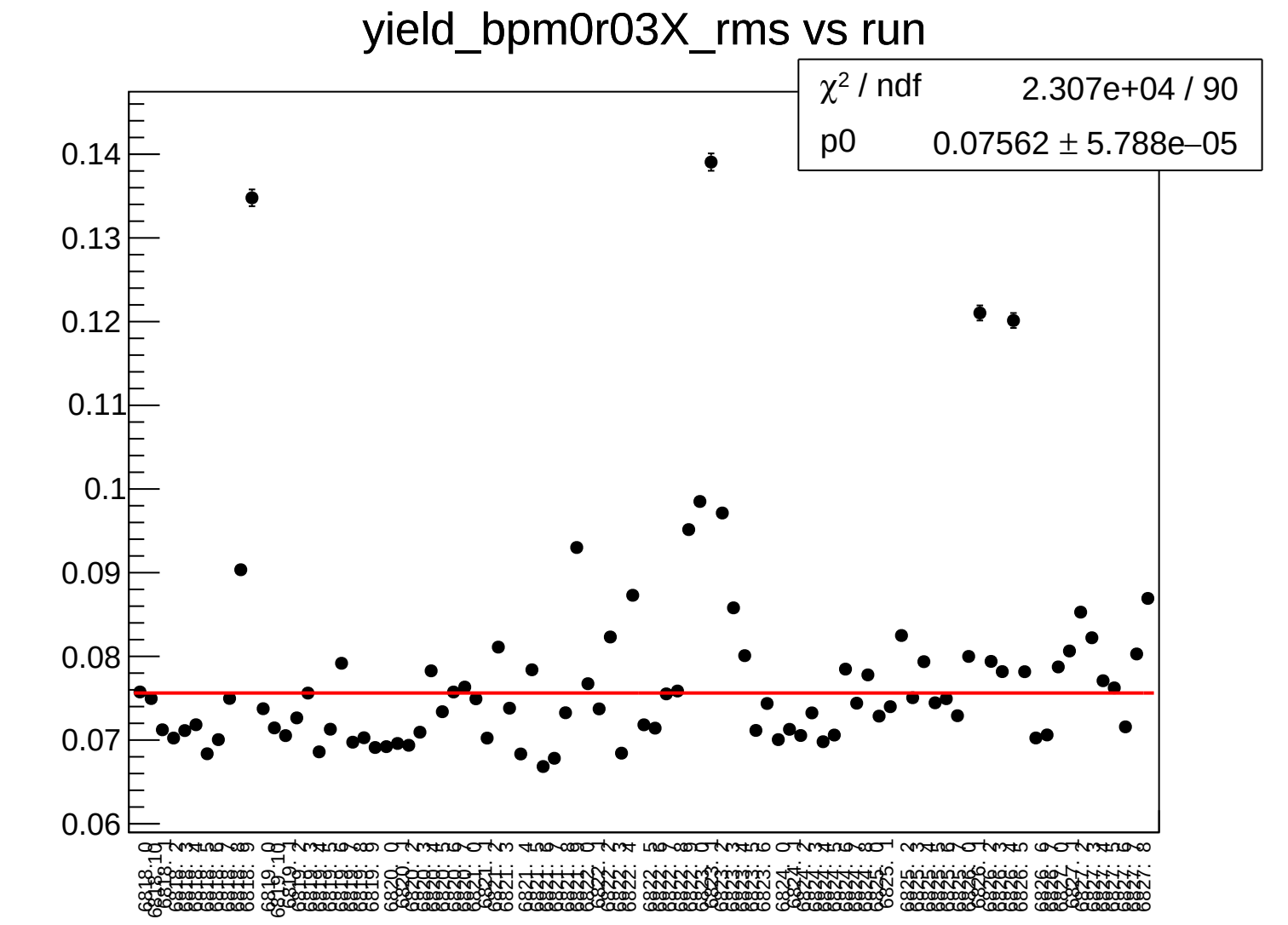

yield_bpm0l10Y_mean vs run
χ² / ndf 3.85e+05 / 90
p0 −0.5628 ± 4.196e−06
−0.55
−0.555
−0.56
−0.565
−0.57
−0.575
−0.58
pull
Entries 91
Mean −187.3
Std Dev 235.1
100
50
0
−50
−100
−150

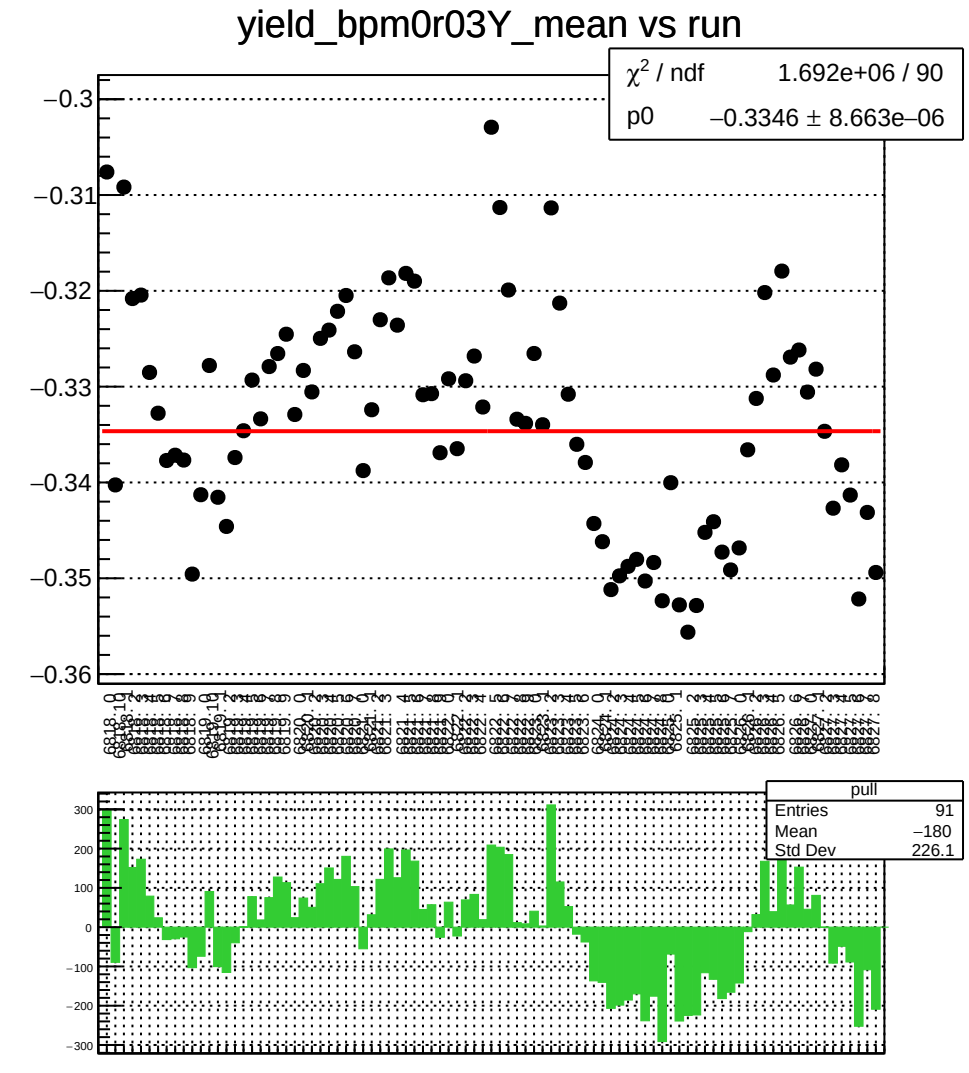

pull1D
Entries 91
Mean −0.4232
Std Dev 6.035
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

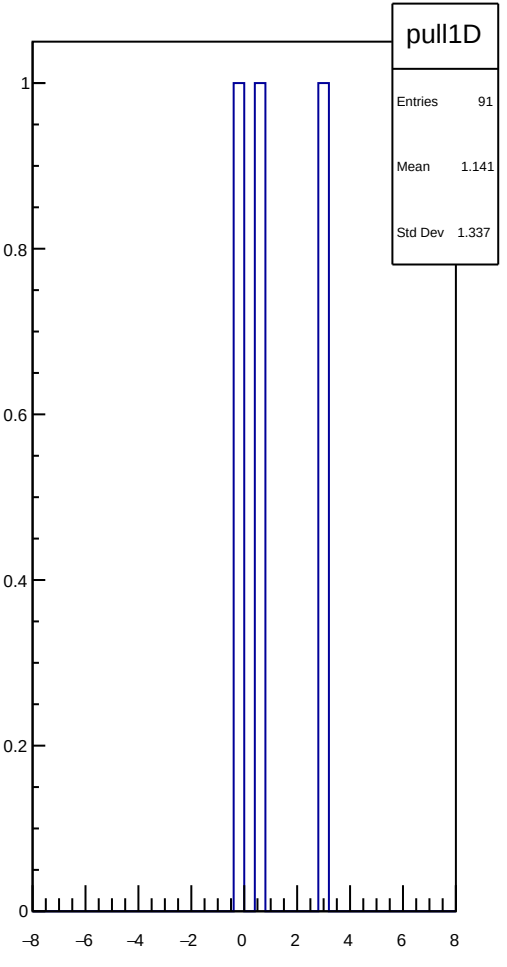

yield_bpm0l10Y_rms vs run
χ² / ndf 1.365e+05 / 90
p0 0.003746 ± 2.967e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

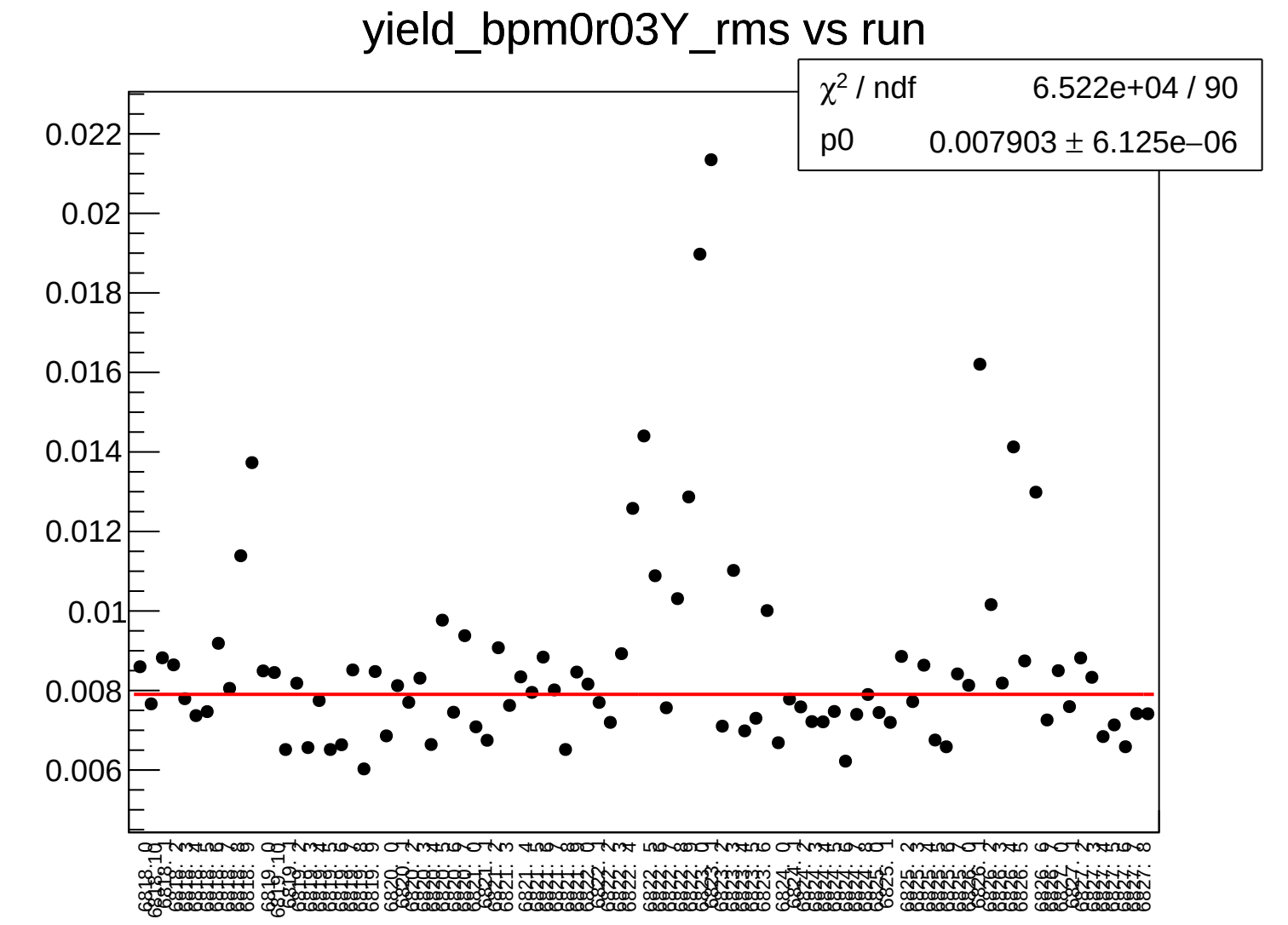

yield_bpm0r03X_mean vs run
χ² / ndf 4.336e+05 / 90
p0 −2.343 ± 8.186e−05
−2.2
−2.25
−2.3
−2.35
−2.4
−2.45
−2.5
−2.55
pull
Entries 91
Mean −2383
Std Dev 2432
100
50
0
−50
−100
−150

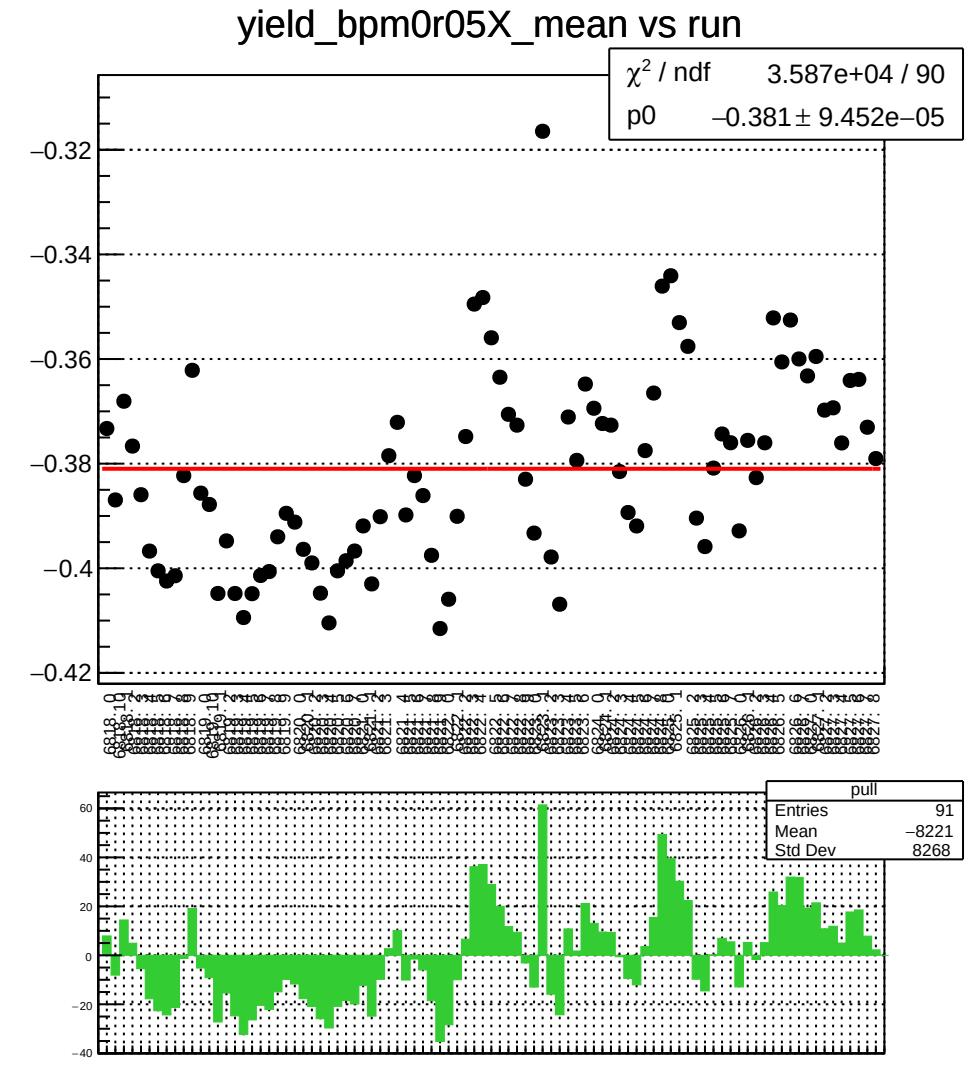

pull1D
Entries 91
Mean −0.3075
Std Dev 2.676
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

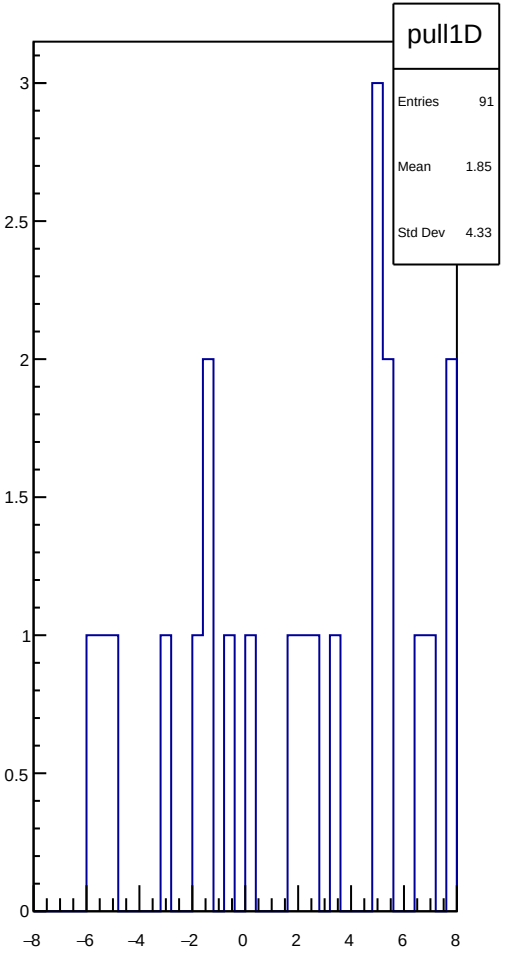

yield_bpm0r03X_rms vs run
χ² / ndf 2.307e+04 / 90
p0 0.07562 ± 5.788e–05
0.14
0.13
0.12
0.11
0.1
0.09
0.08
0.07
0.06

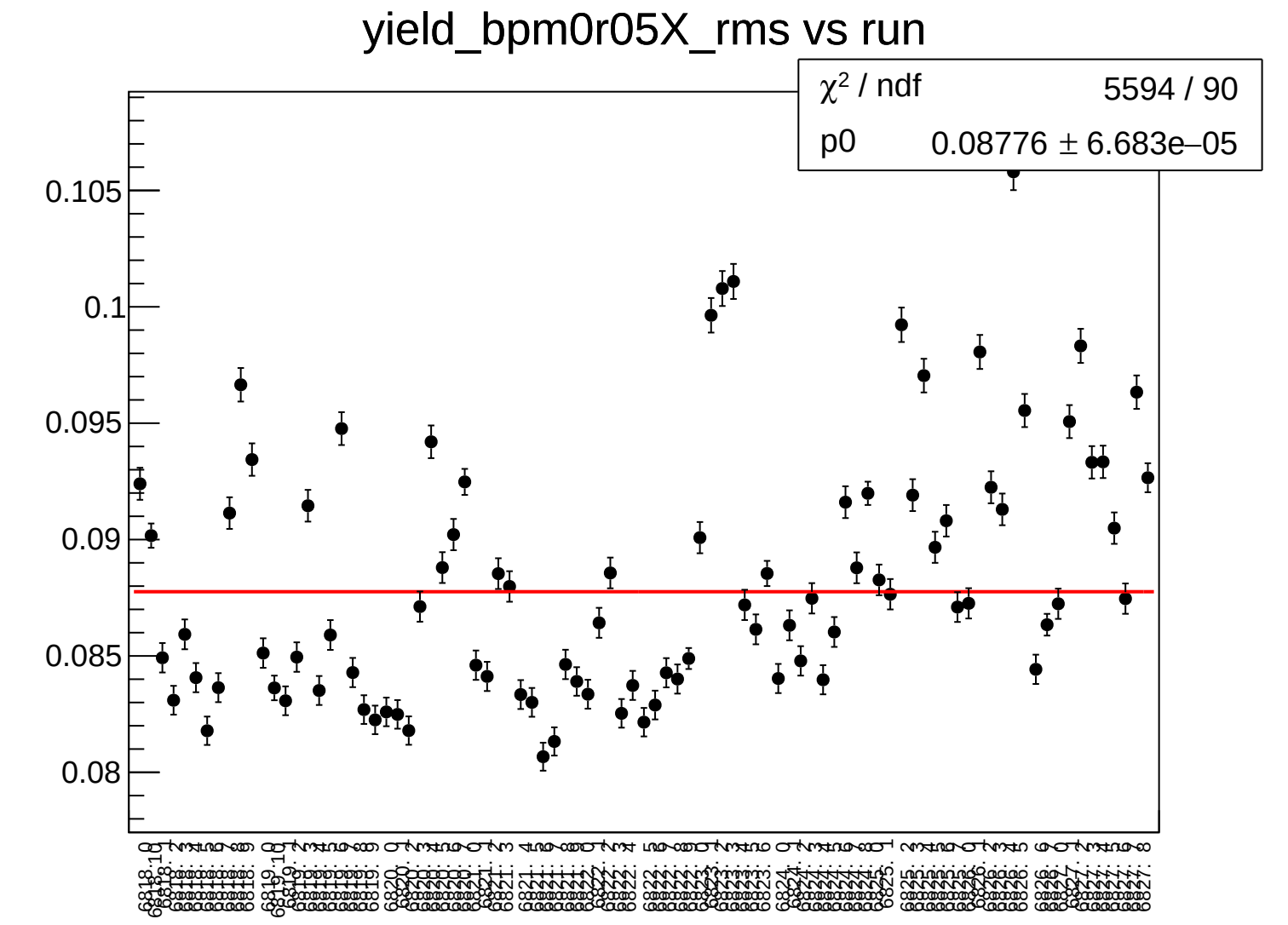

yield_bpm0r03Y_mean vs run
χ² / ndf 1.692e+06 / 90
p0 −0.3346 ± 8.663e−06
−0.3
−0.31
−0.32
−0.33
−0.34
−0.35
−0.36
pull
Entries 91
Mean −180
Std Dev 226.1
300
200
100
0
−100
−200
−300

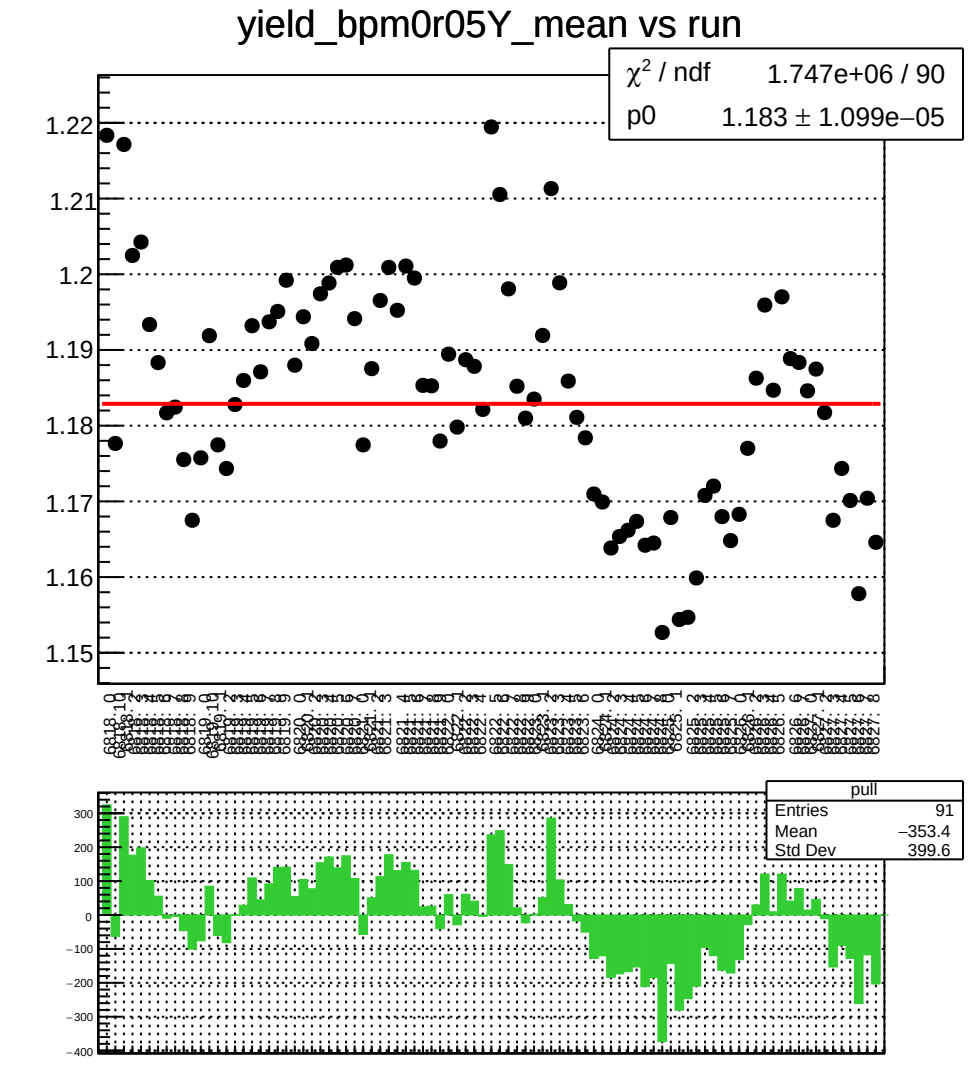

pull1D
Entries 91
Mean 1.141
Std Dev 1.337
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

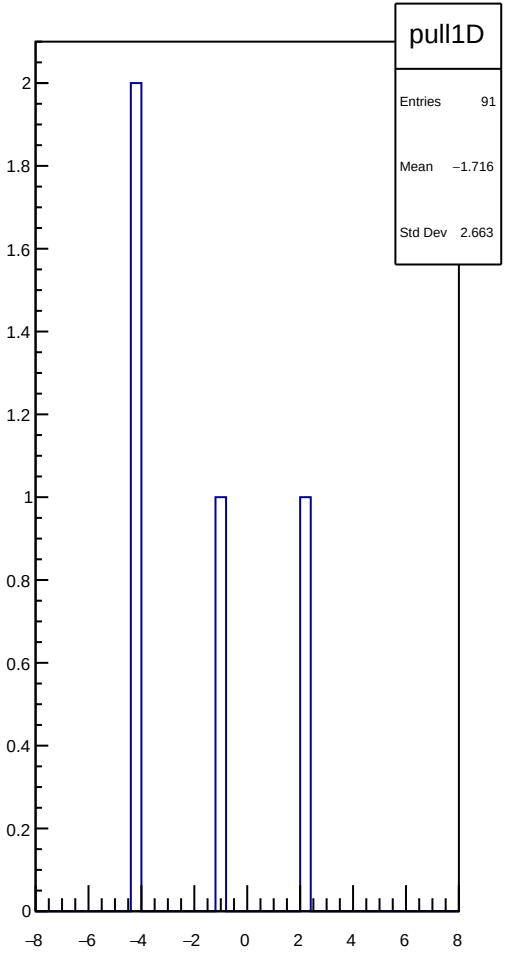

yield_bpm0r03Y_rms vs run
χ² / ndf 6.522e+04 / 90
p0 0.007903 ± 6.125e−06
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006

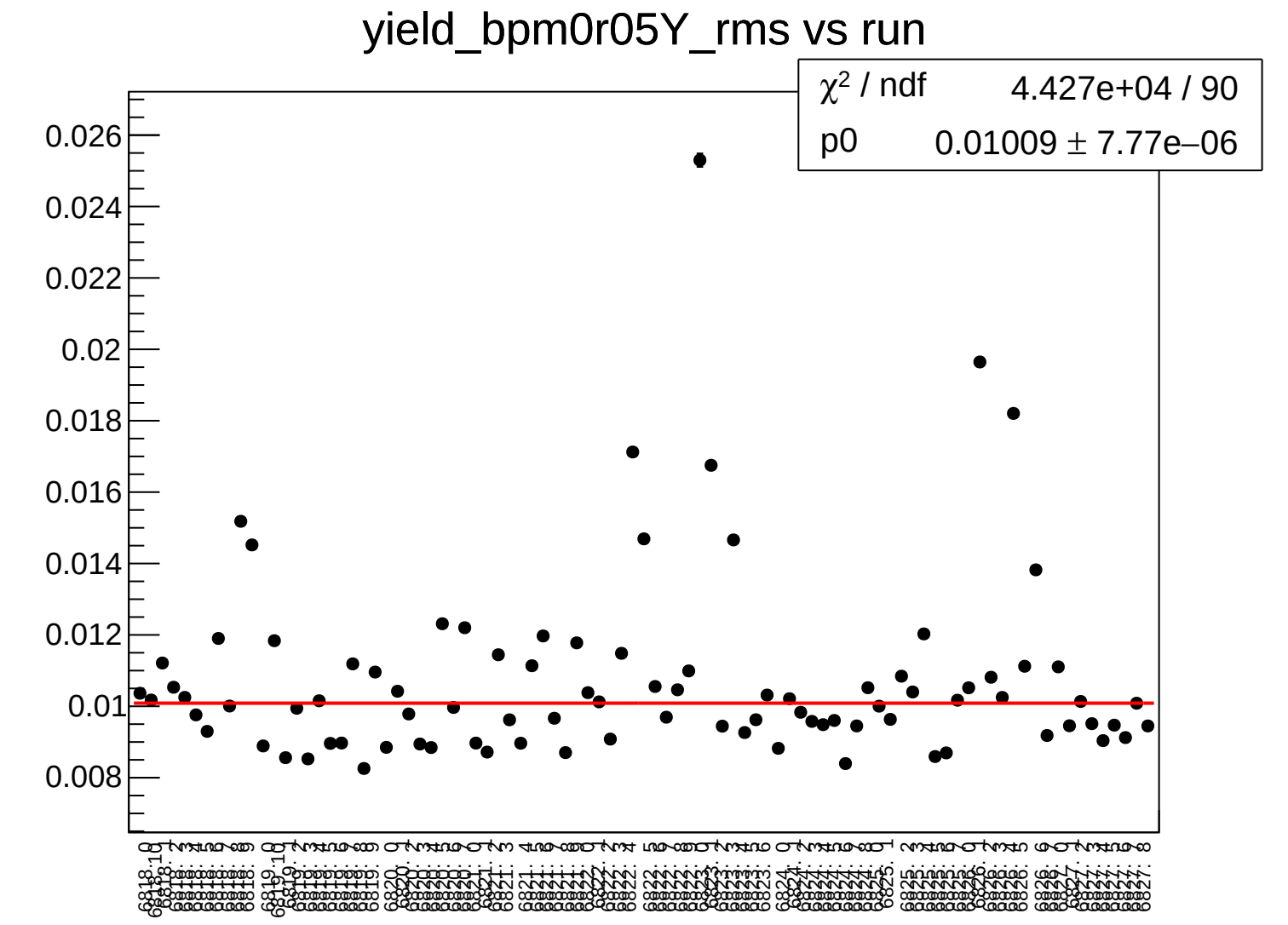

yield_bpm0r05X_mean vs run
χ² / ndf 3.587e+04 / 90
p0 −0.381 ± 9.452e−05
−0.32
−0.34
−0.36
−0.38
−0.4
−0.42
pull
Entries 91
Mean −8221
Std Dev 8268
60
40
20
0
−20
−40

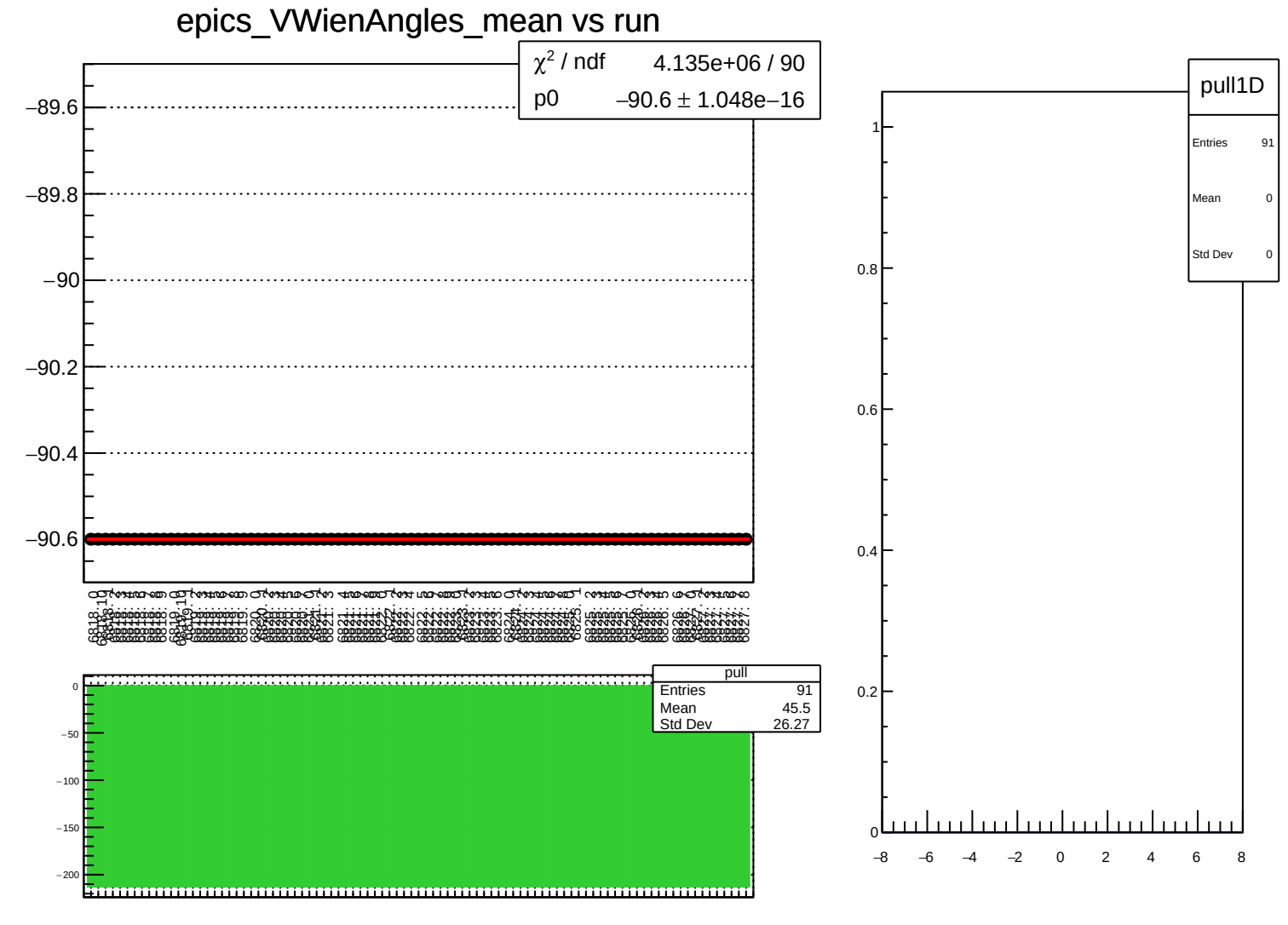

pull1D
Entries 91
Mean 1.85
Std Dev 4.33
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

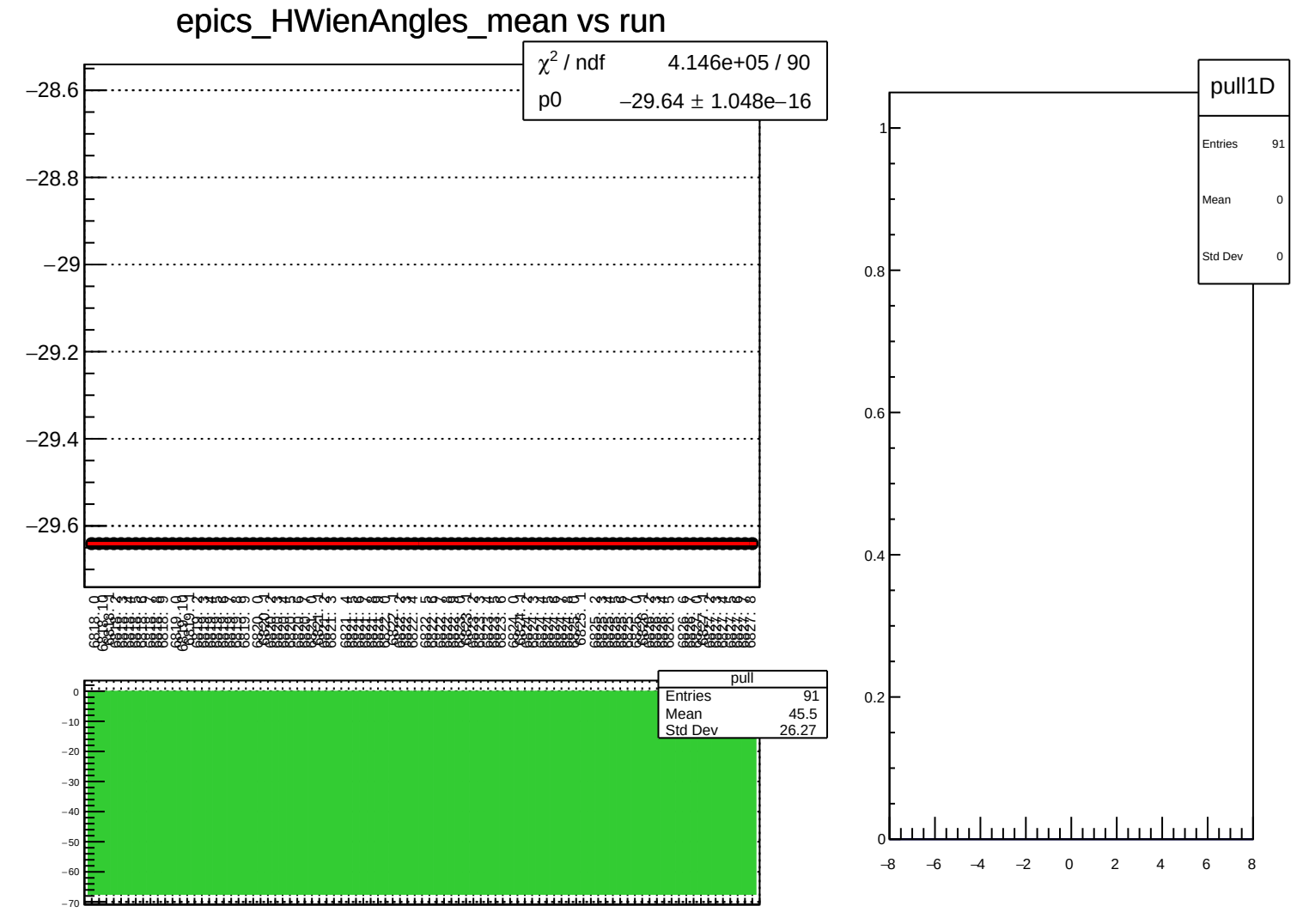

yield_bpm0r05X_rms vs run
χ² / ndf 5594 / 90
p0 0.08776 ± 6.683e–05
0.105
0.1
0.095
0.09
0.085
0.08

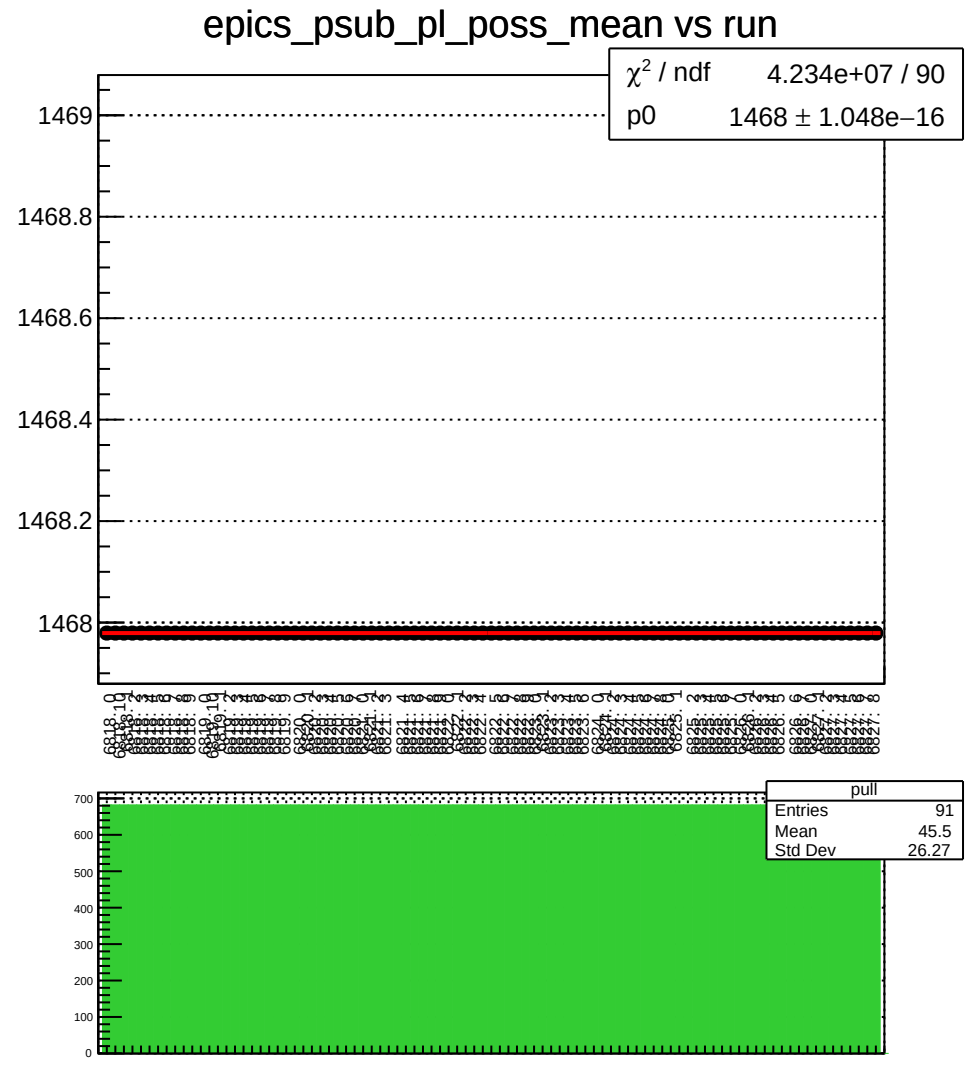

yield_bpm0r05Y_mean vs run
χ² / ndf 1.747e+06 / 90
p0 1.183 ± 1.099e−05
1.22
1.21
1.2
1.19
1.18
1.17
1.16
1.15
pull
Entries 91
Mean −353.4
Std Dev 399.6
300
200
100
0
−100
−200
−300
−400

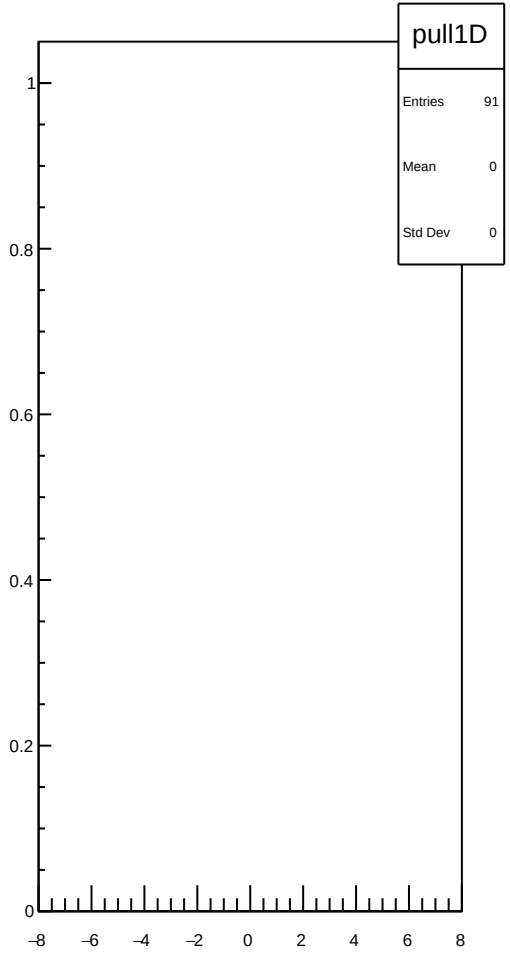

pull1D
Entries 91
Mean −1.716
Std Dev 2.663
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

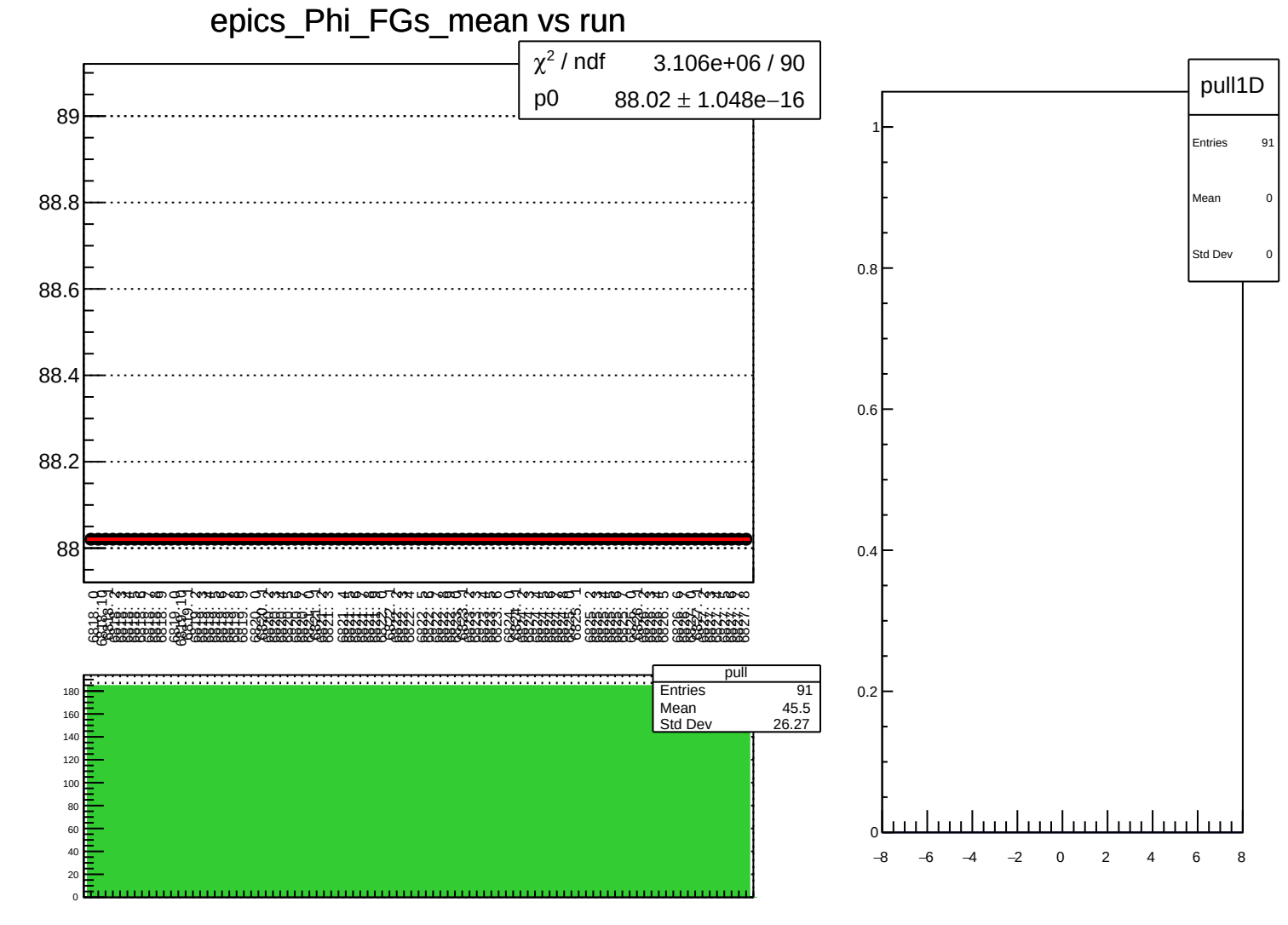

yield_bpm0r05Y_rms vs run
χ² / ndf 4.427e+04 / 90
p0 0.01009 ± 7.77e−06
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

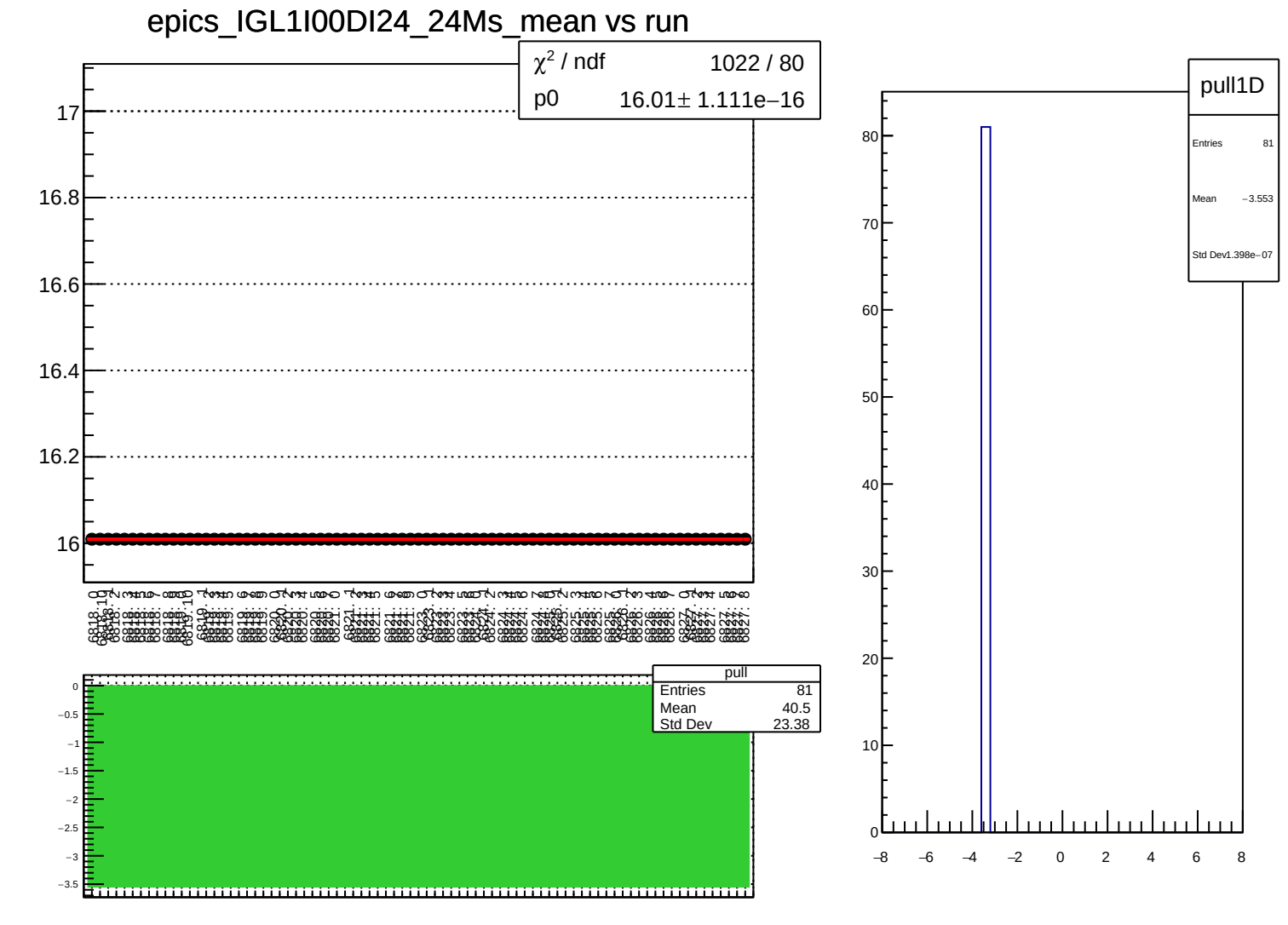

epics_VWienAngles_mean vs run
χ² / ndf 4.135e+06 / 90
p0 −90.6 ± 1.048e−16
−89.6
−89.8
−90
−90.2
−90.4
−90.6
pull
Entries 91
Mean 45.5
Std Dev 26.27
0
−50
−100
−150
−200
pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

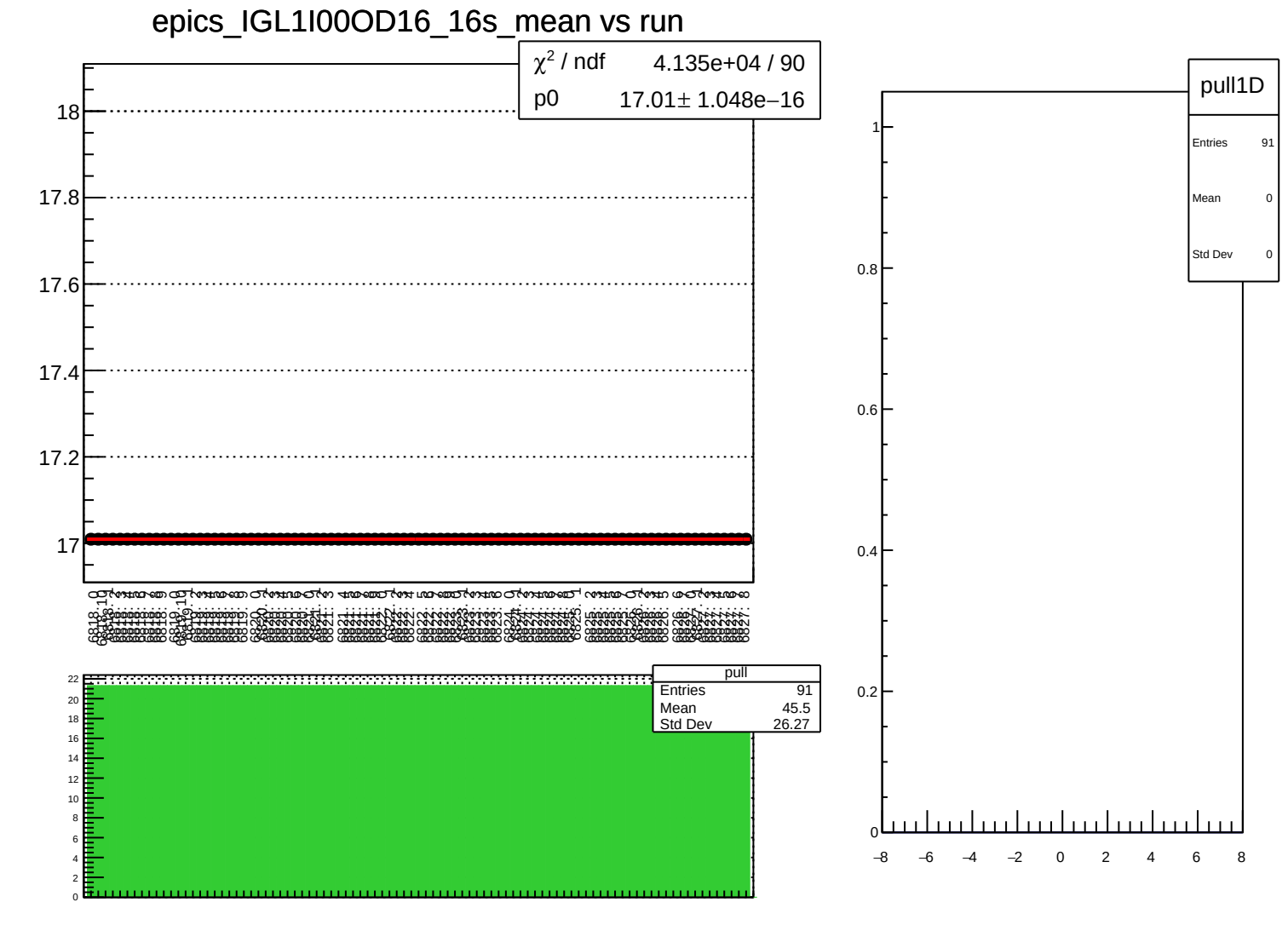

epics_HWienAngles_mean vs run
χ² / ndf 4.146e+05 / 90
p0 −29.64 ± 1.048e−16
−28.6
−28.8
−29
−29.2
−29.4
−29.6
pull
Entries 91
Mean 45.5
Std Dev 26.27
0
−10
−20
−30
−40
−50
−60
−70
pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

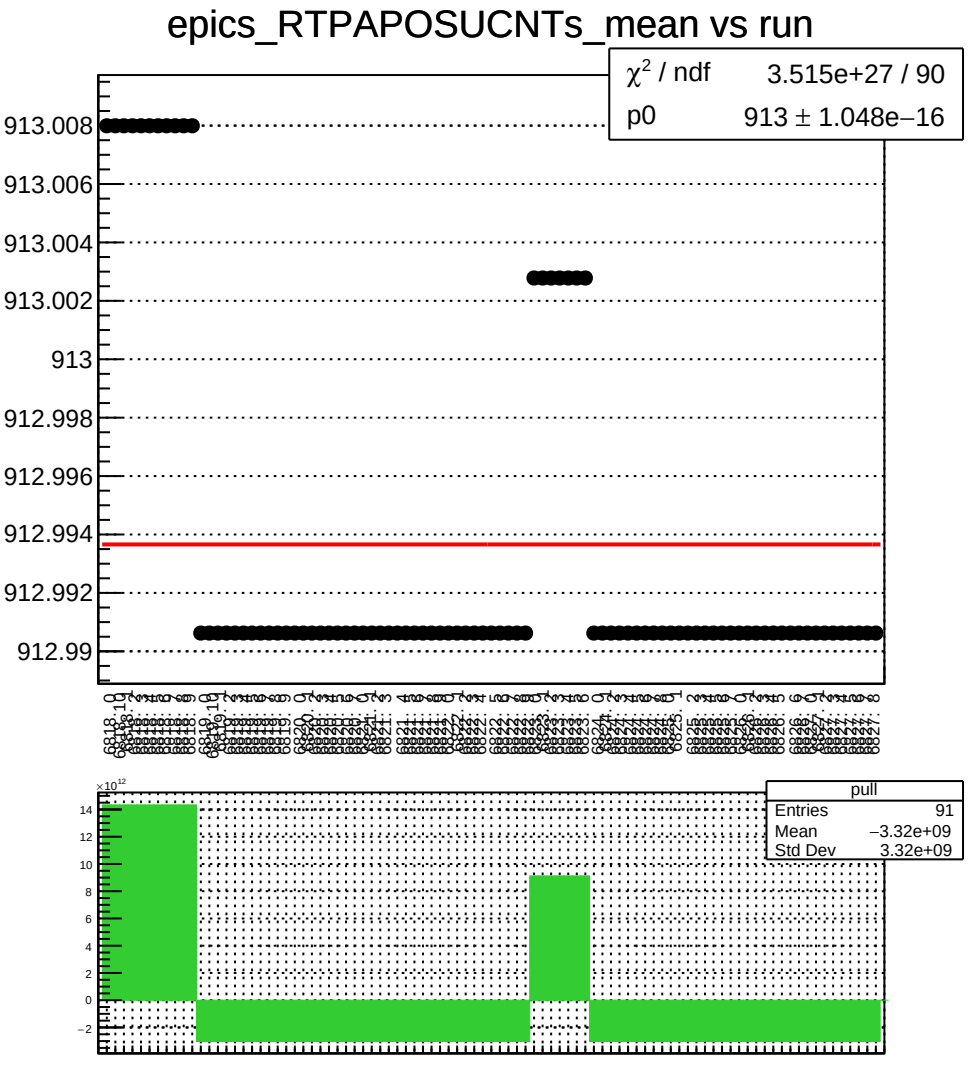

epics_psub_pl_poss_mean vs run
χ² / ndf 4.234e+07 / 90
p0 1468 ± 1.048e−16
1469
1468.8
1468.6
1468.4
1468.2
1468
pull
Entries 91
Mean 45.5
Std Dev 26.27
700
600
500
400
300
200
100
0

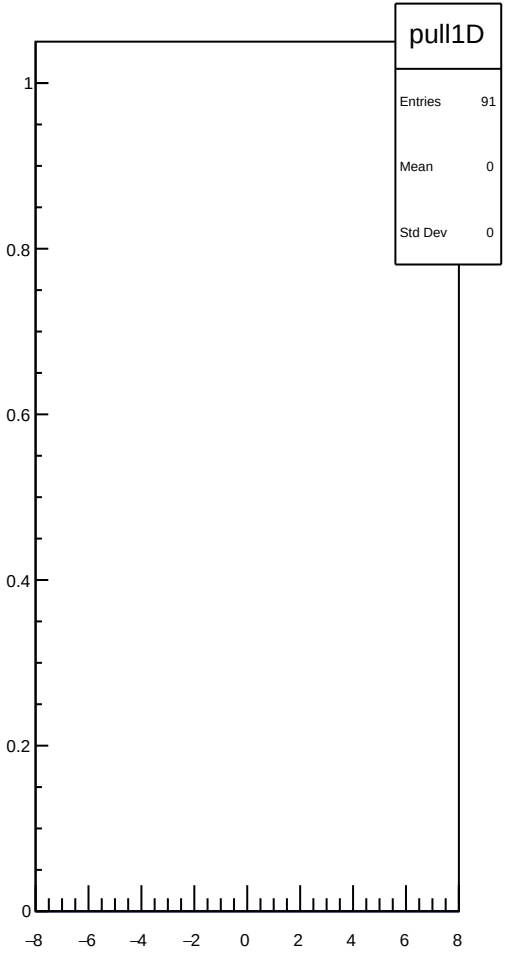

pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

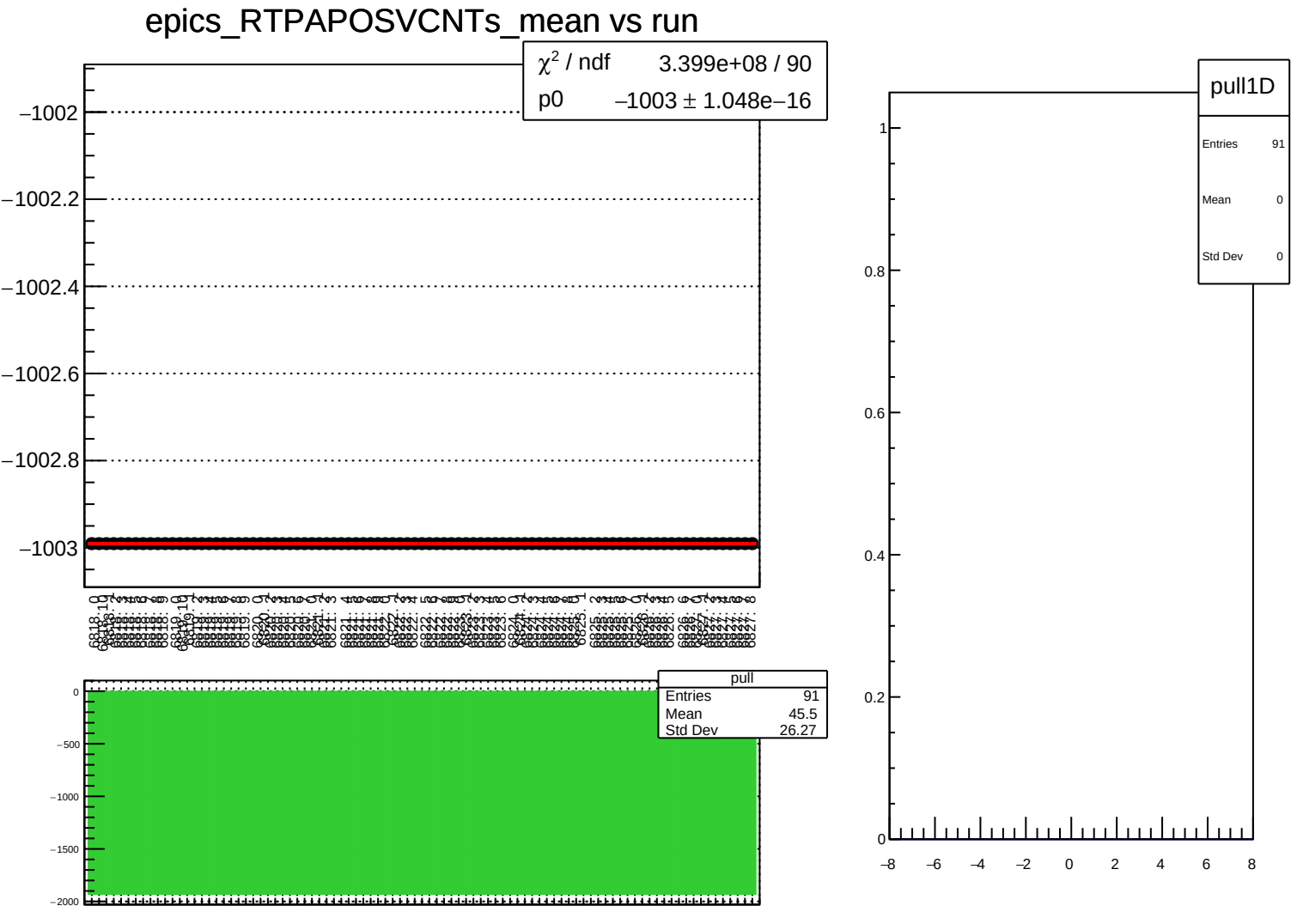

epics_Phi_FGs_mean vs run
χ² / ndf 3.106e+06 / 90
p0 88.02 ± 1.048e−16
89
88.8
88.6
88.4
88.2
88
pull
Entries 91
Mean 45.5
Std Dev 26.27
180
160
140
120
100
80
60
40
20
0
pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_IGL1I00DI24_24Ms_mean vs run
χ² / ndf 1022 / 80
p0 16.01± 1.111e−16
17
16.8
16.6
16.4
16.2
16
pull
Entries 81
Mean 40.5
Std Dev 23.38
0
−0.5
−1
−1.5
−2
−2.5
−3
−3.5
pull1D
Entries 81
Mean −3.553
Std Dev1.398e−07
80
70
60
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8


epics_IGL1I00OD16_16s_mean vs run
χ² / ndf 4.135e+04 / 90
p0 17.01± 1.048e−16
18
17.8
17.6
17.4
17.2
17
pull
Entries 91
Mean 45.5
Std Dev 26.27
22
20
18
16
14
12
10
8
6
4
2
0
pull1D
Entries 91
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 3.515e+27 / 90
p0 913 ± 1.048e−16
913.008
913.006
913.004
913.002
913
912.998
912.996
912.994
912.992
912.99
pull
Entries 91
Mean −3.32e+09
Std Dev 3.32e+09
×10¹²
14
12
10
8
6
4
2
0
−2


pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_RTPAPOSVCNTs_mean vs run
χ² / ndf 3.399e+08 / 90
p0 −1003 ± 1.048e−16
−1002
−1002.2
−1002.4
−1002.6
−1002.8
−1003
pull
Entries 91
Mean 45.5
Std Dev 26.27
0
−500
−1000
−1500
−2000
pull1D
Entries 91
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8