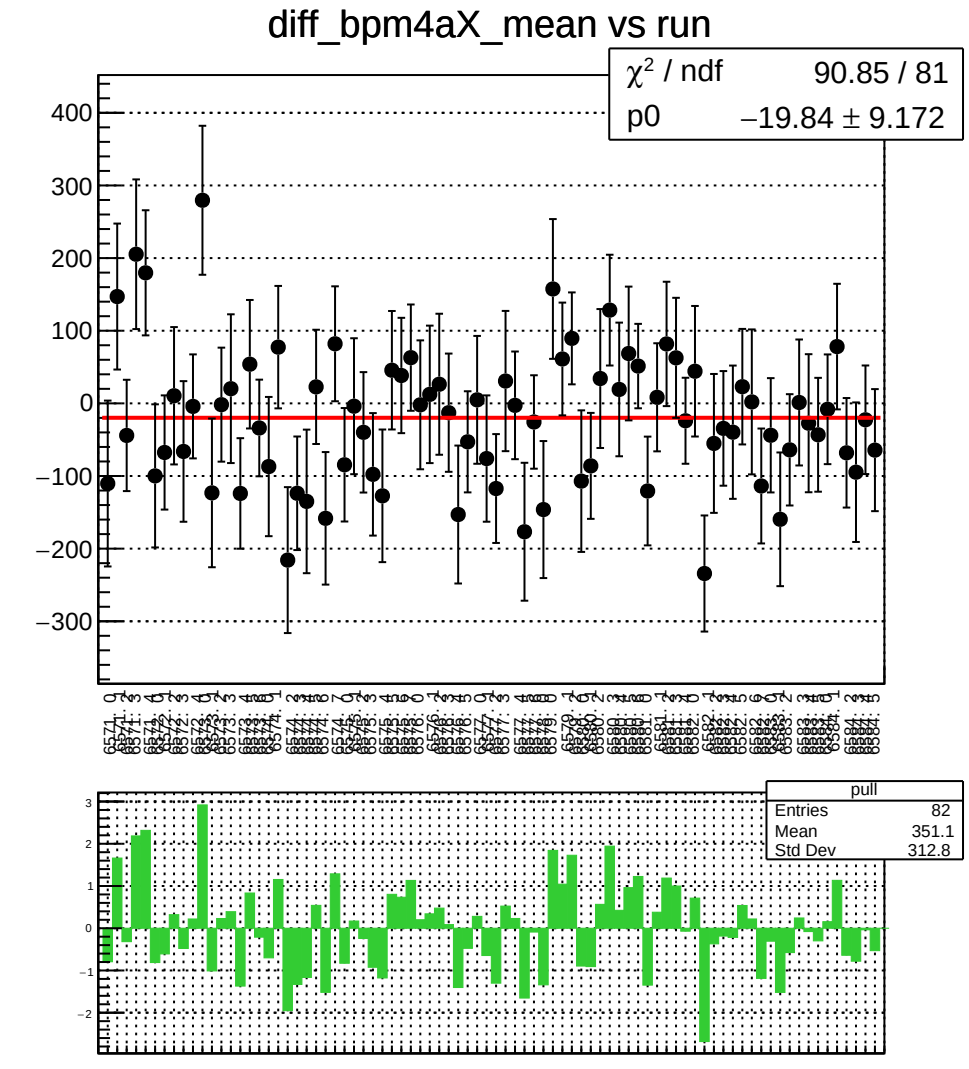
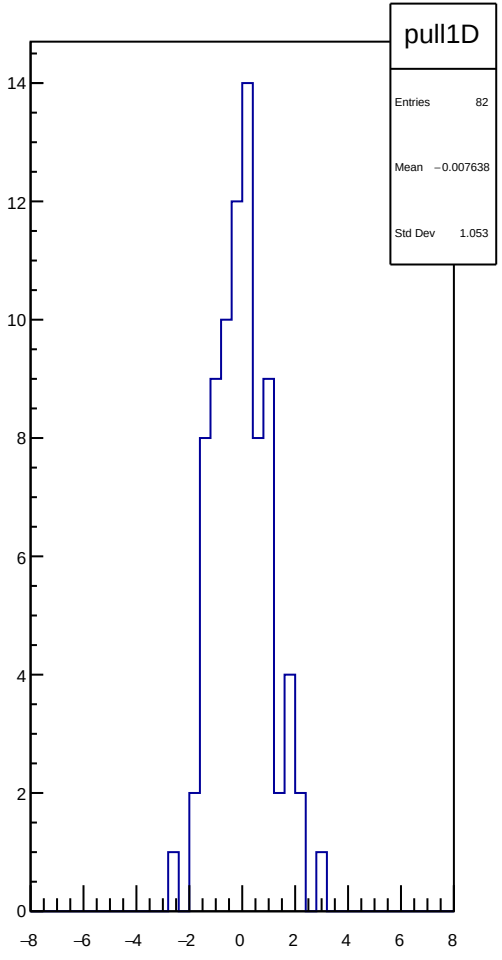
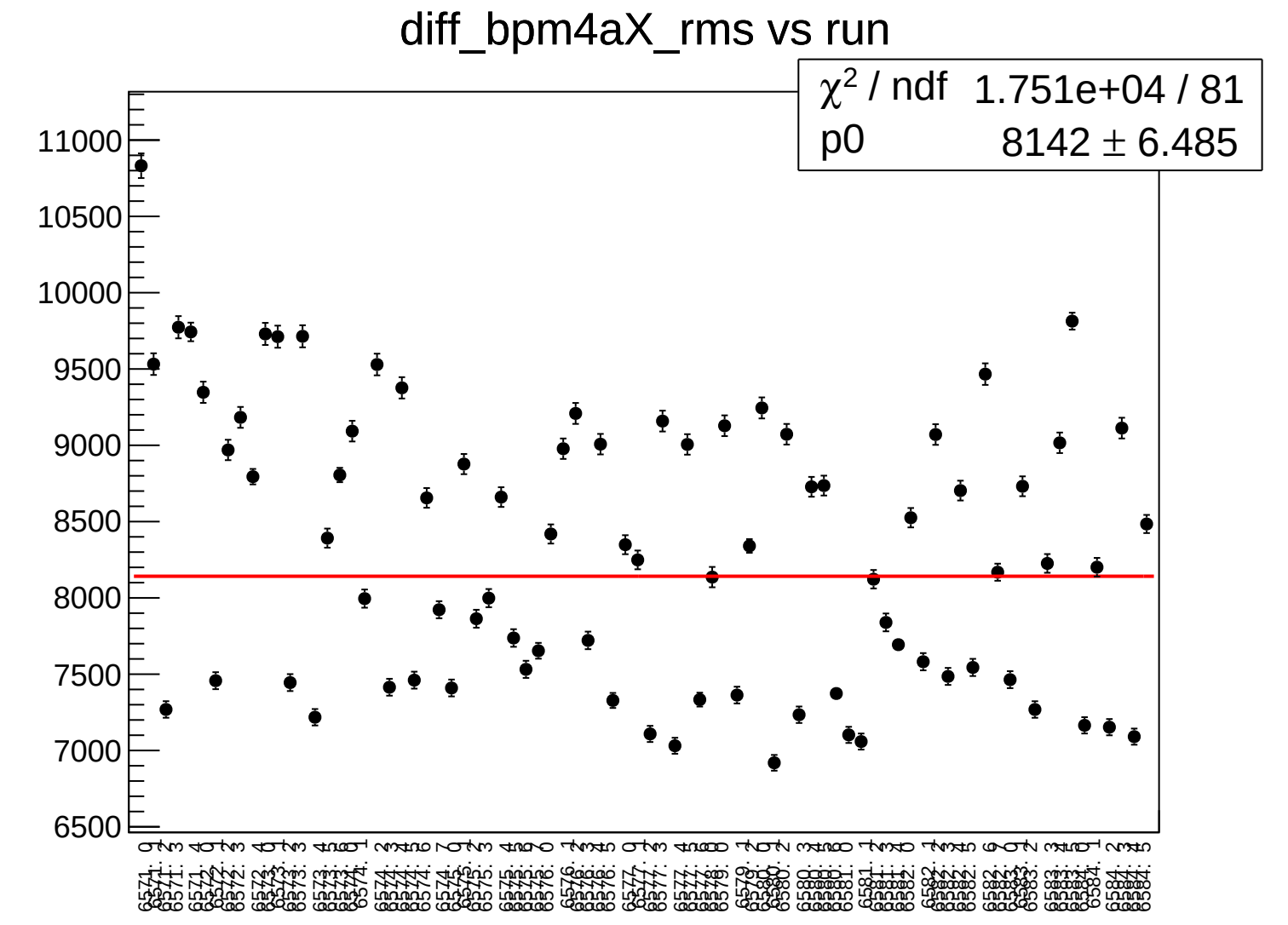
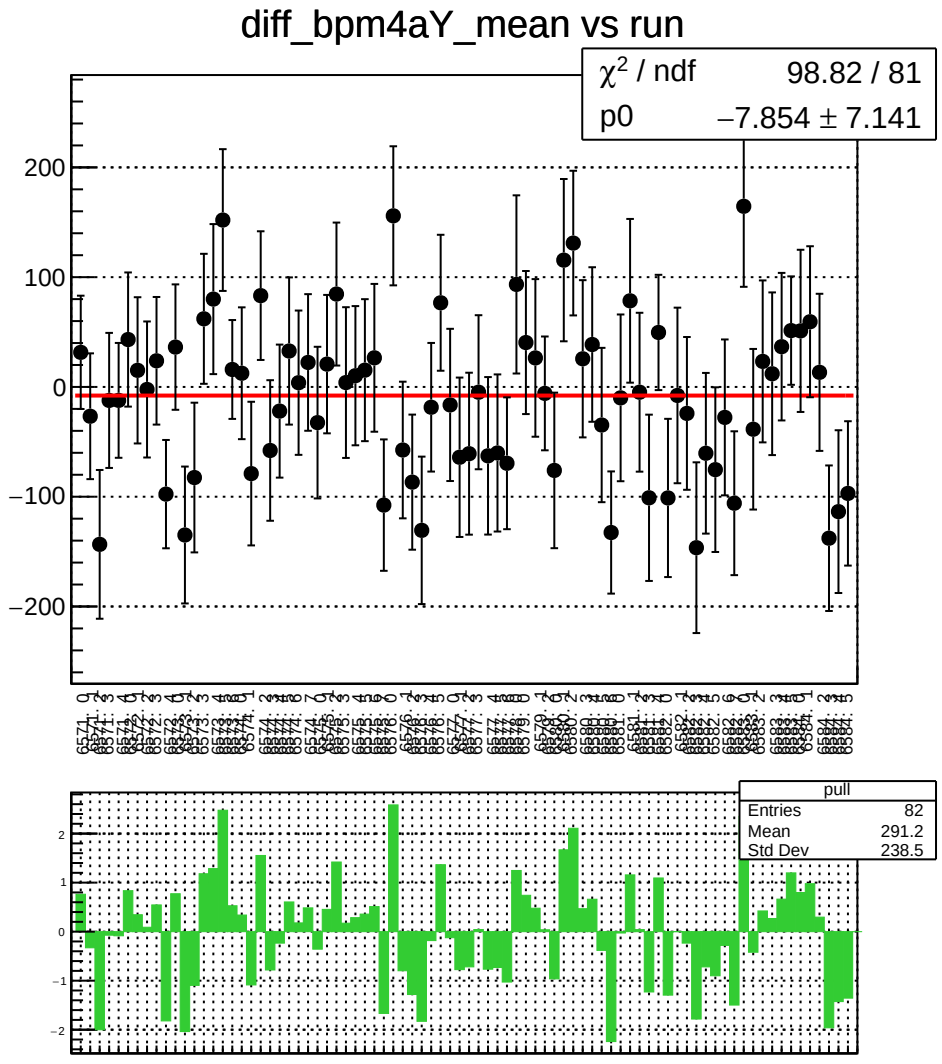
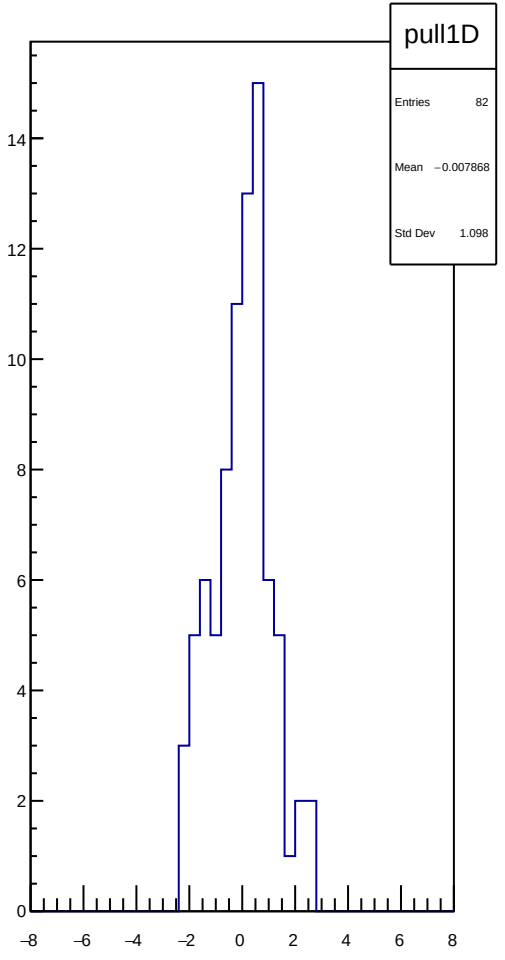
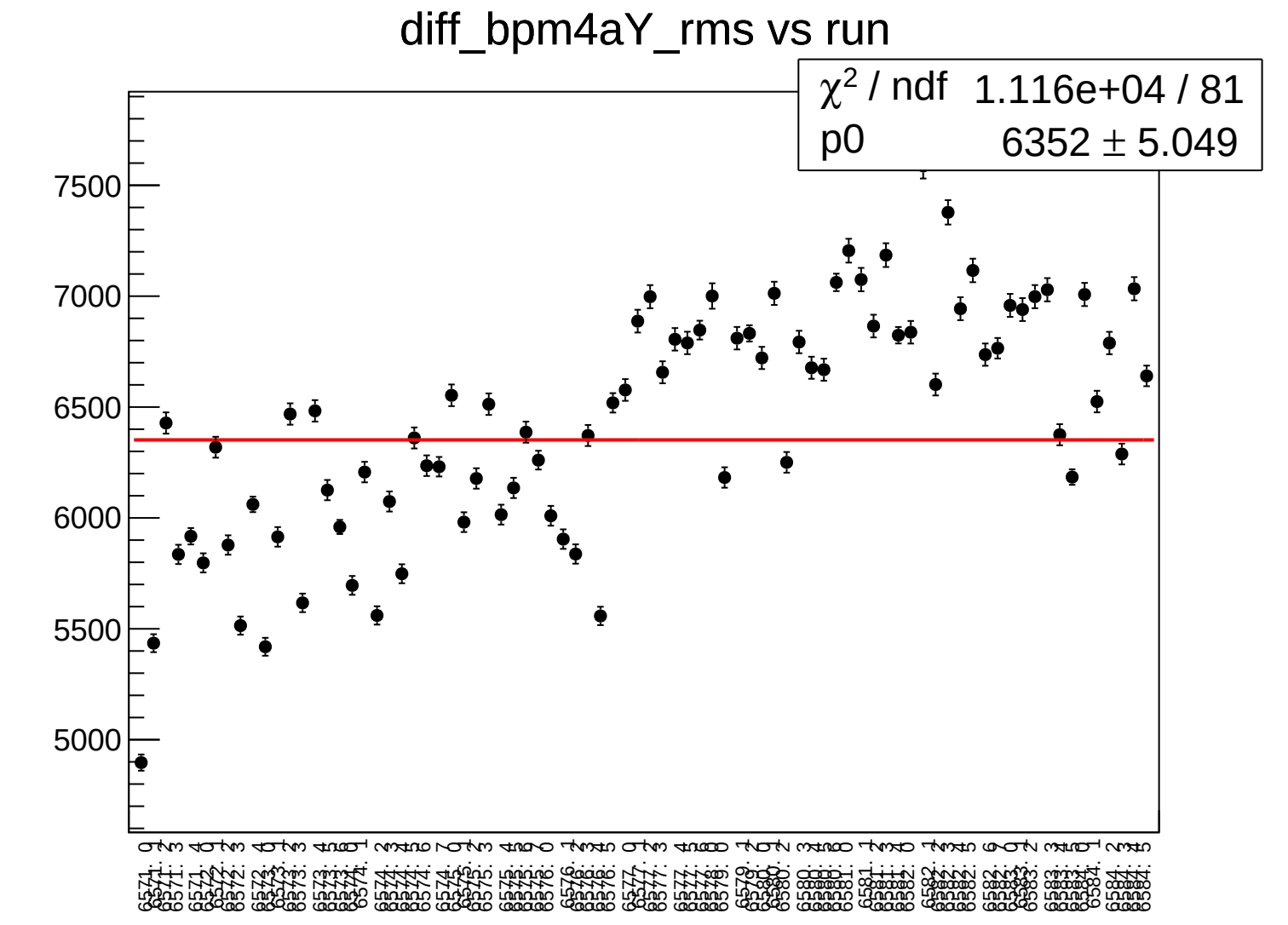

diff_bpm4aX_mean vs run
χ² / ndf 90.85 / 81
p0 −19.84 ± 9.172
pull
Entries 82
Mean 351.1
Std Dev 312.8

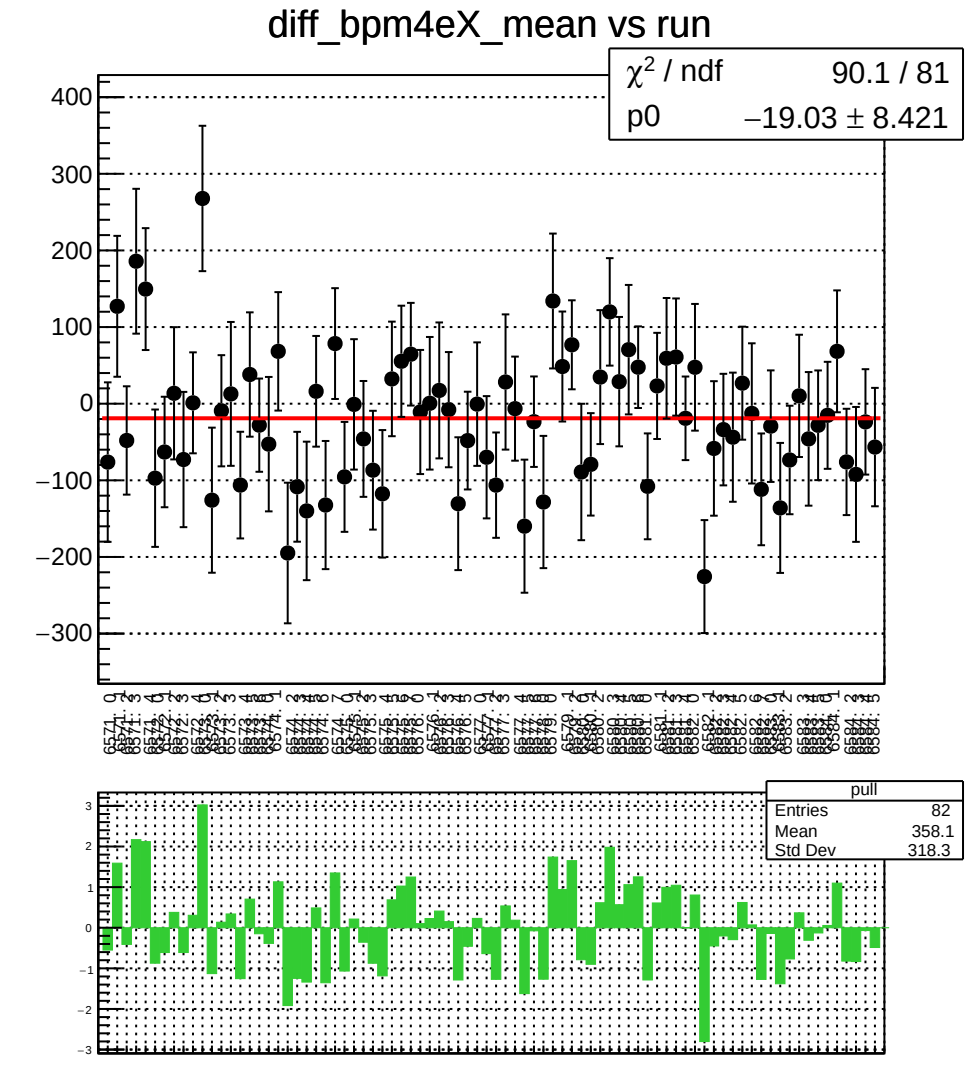

pull1D
Entries 82
Mean −0.007638
Std Dev 1.053

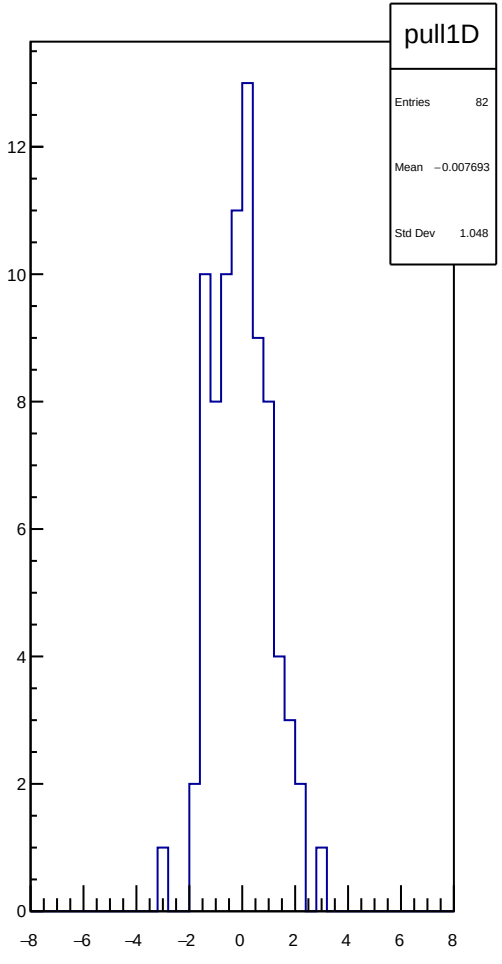

diff_bpm4aX_rms vs run
χ² / ndf 1.751e+04 / 81
p0 8142 ± 6.485
11000
10500
10000
9500
9000
8500
8000
7500
7000
6500

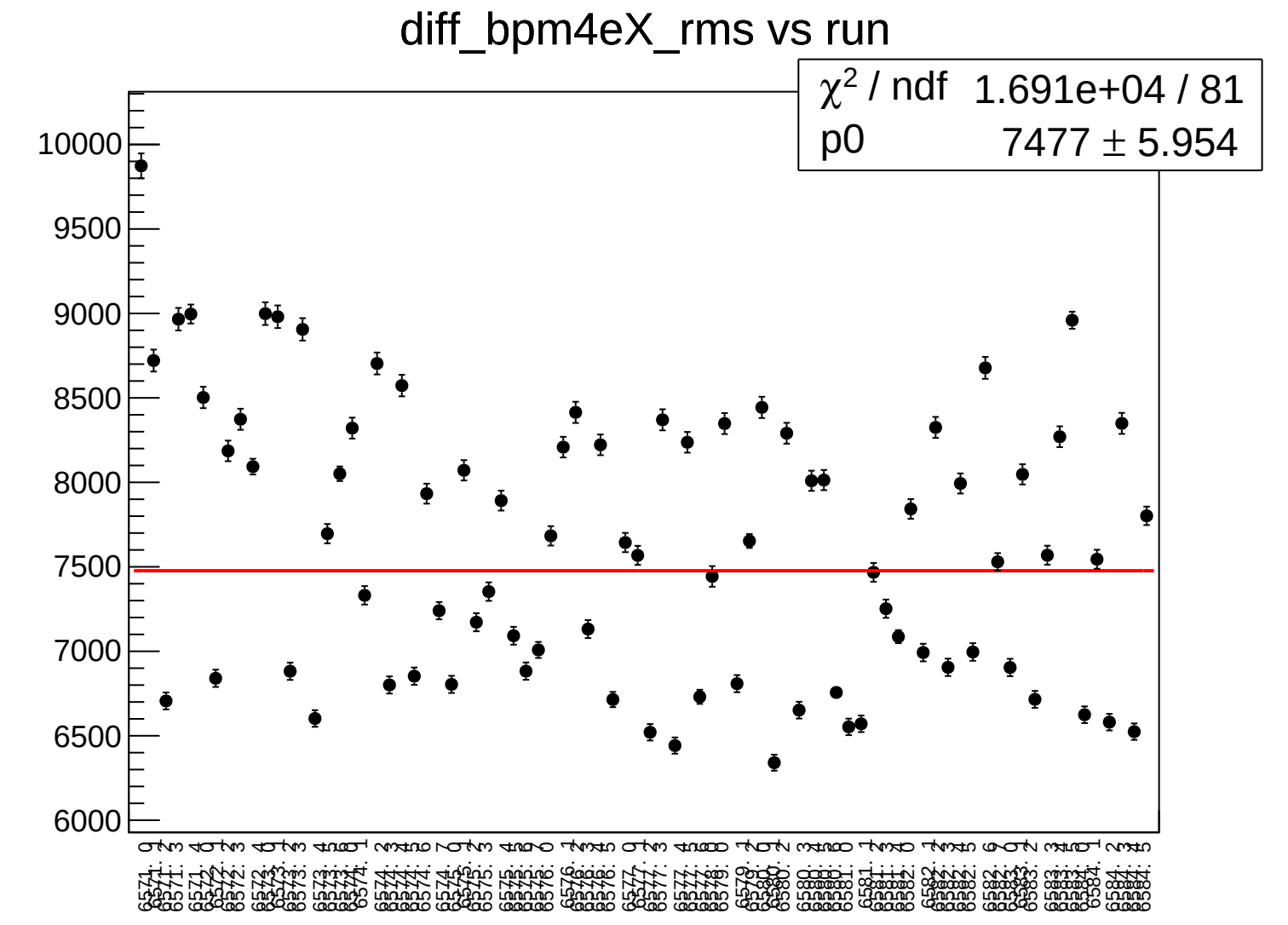

diff_bpm4aY_mean vs run
χ² / ndf 98.82 / 81
p0 −7.854 ± 7.141
200
100
0
−100
−200
pull
Entries 82
Mean 291.2
Std Dev 238.5
2
1
0
−1
−2

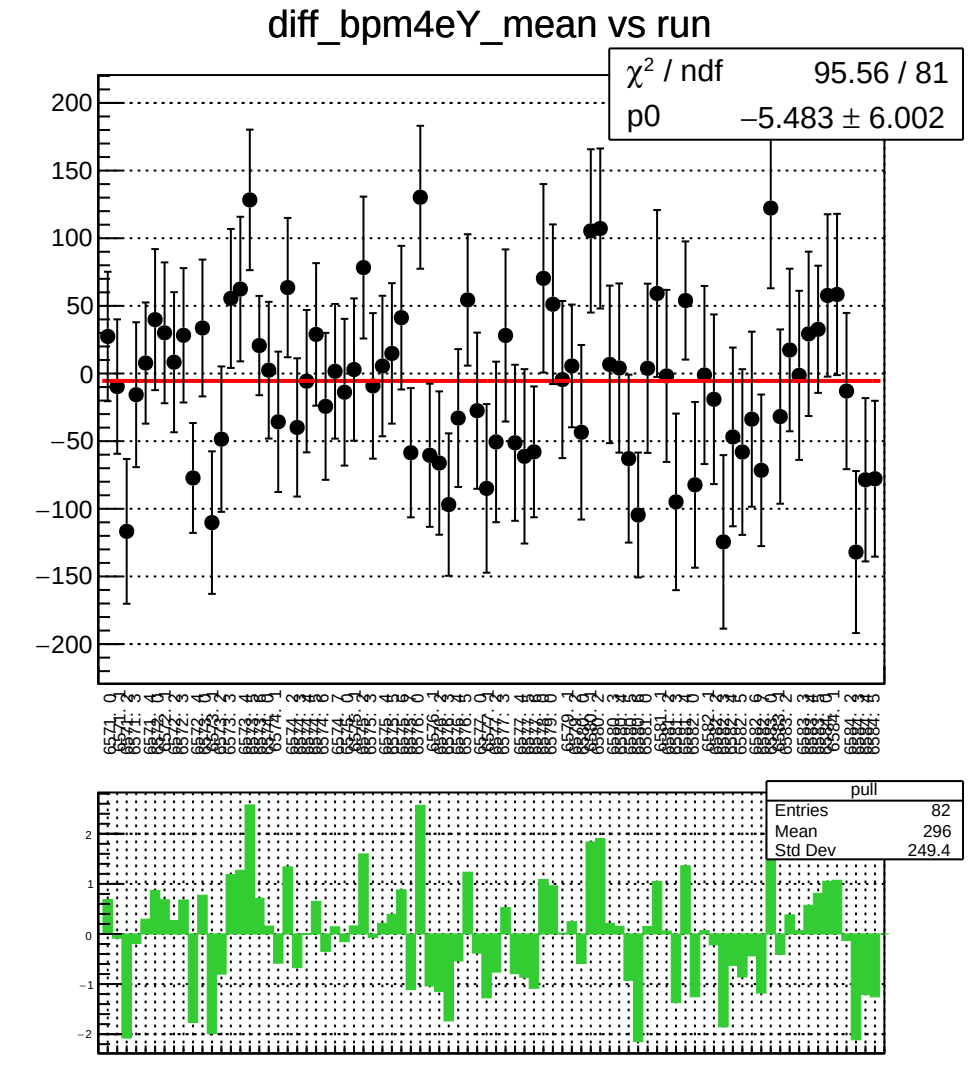

pull1D
Entries 82
Mean −0.007868
Std Dev 1.098
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

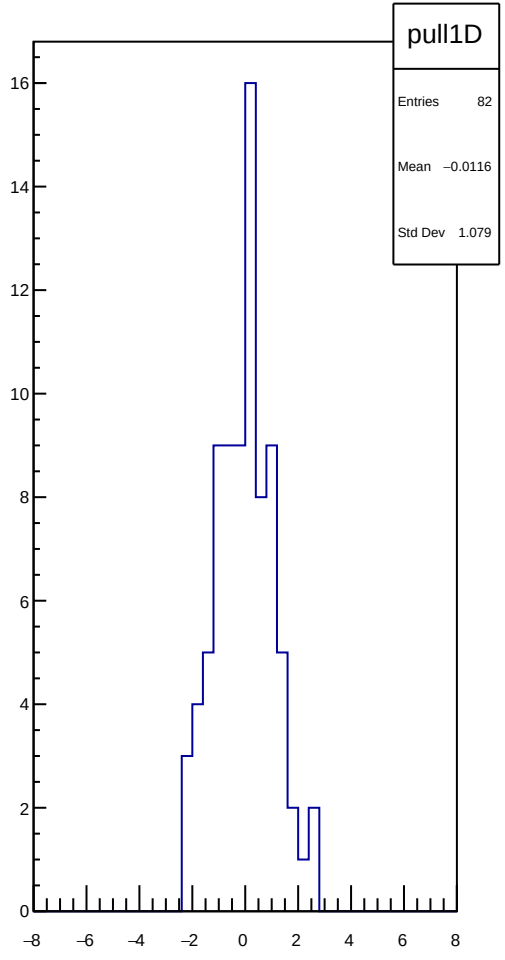

diff_bpm4aY_rms vs run
χ^2 / ndf 1.116e+04 / 81
p0 6352 ± 5.049
7500
7000
6500
6000
5500
5000

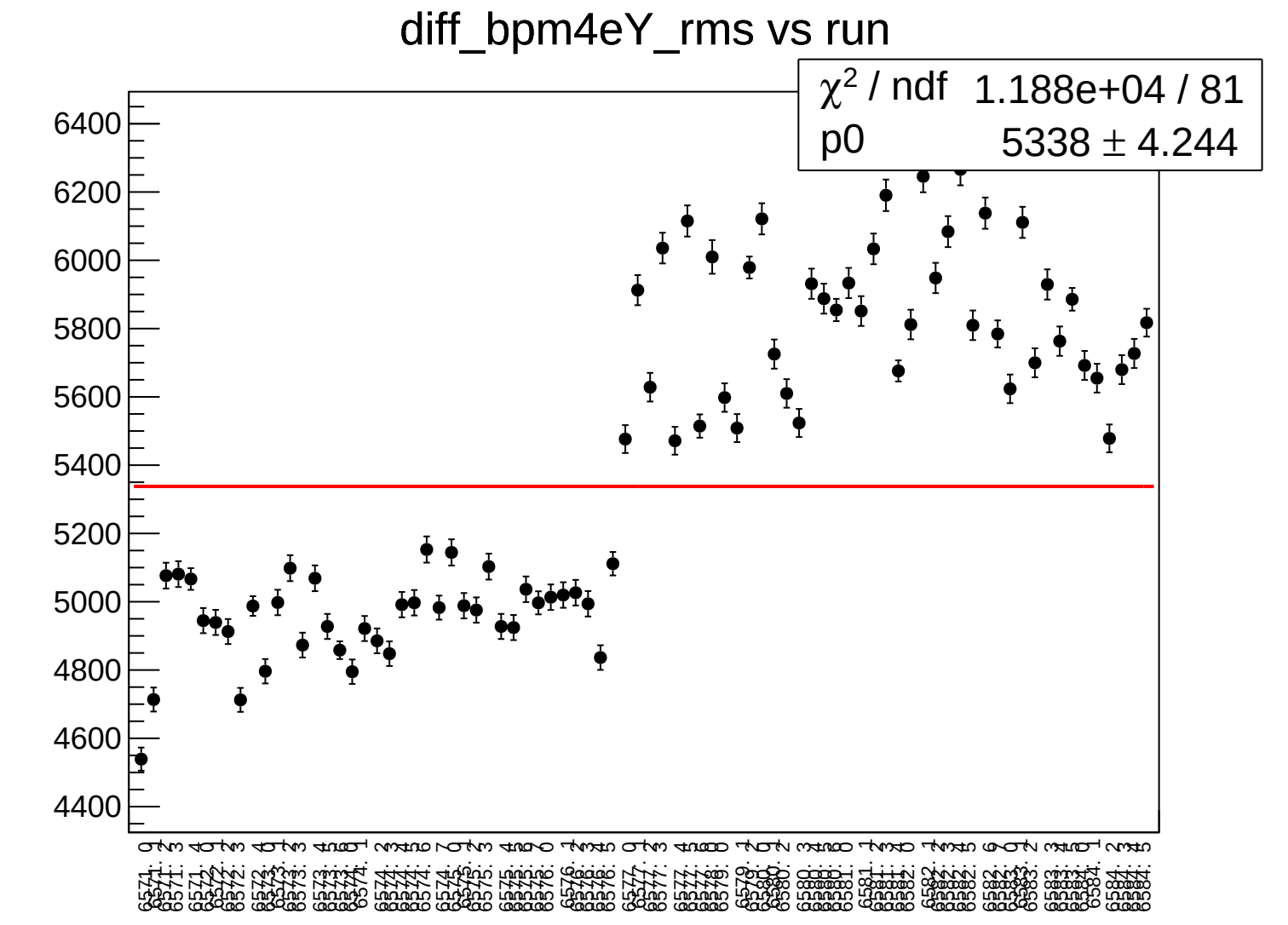

diff_bpm4eX_mean vs run
χ² / ndf 90.1 / 81
p0 −19.03 ± 8.421
pull
Entries 82
Mean 358.1
Std Dev 318.3

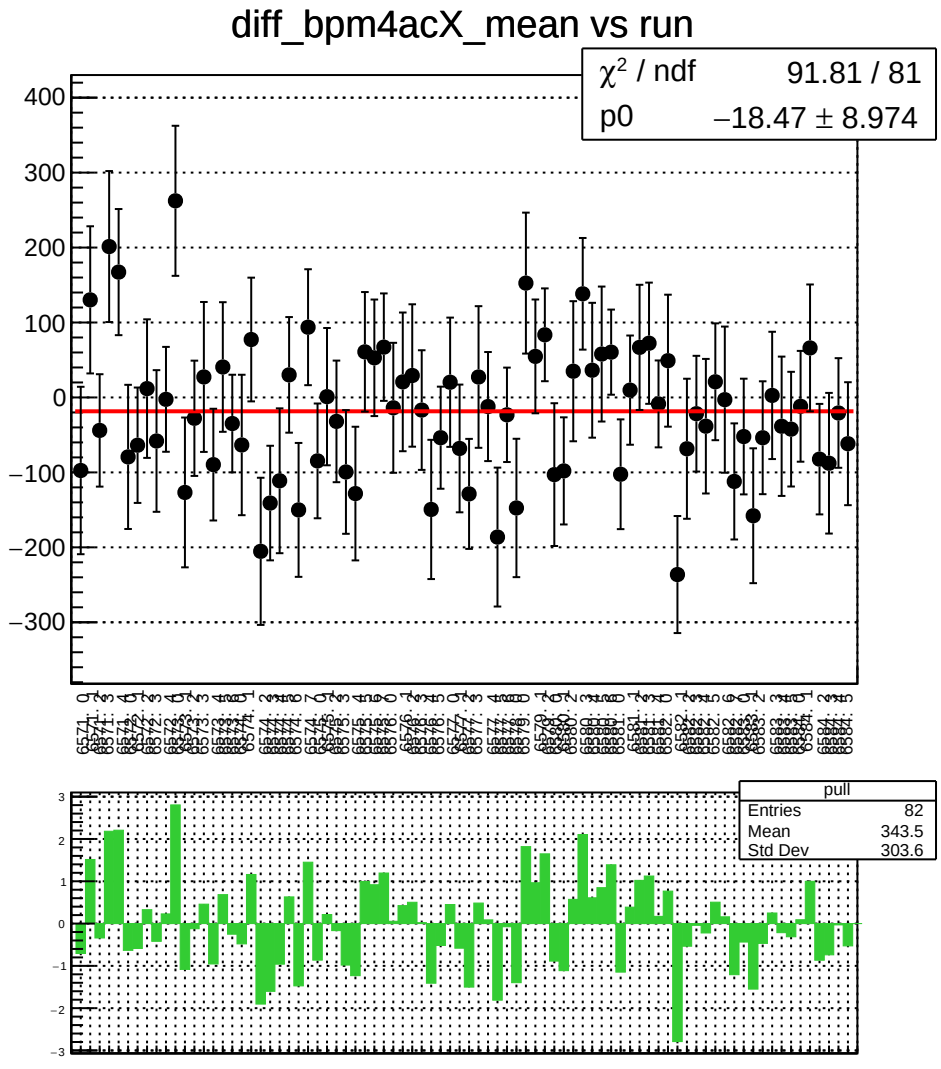

pull1D
Entries 82
Mean −0.007693
Std Dev 1.048

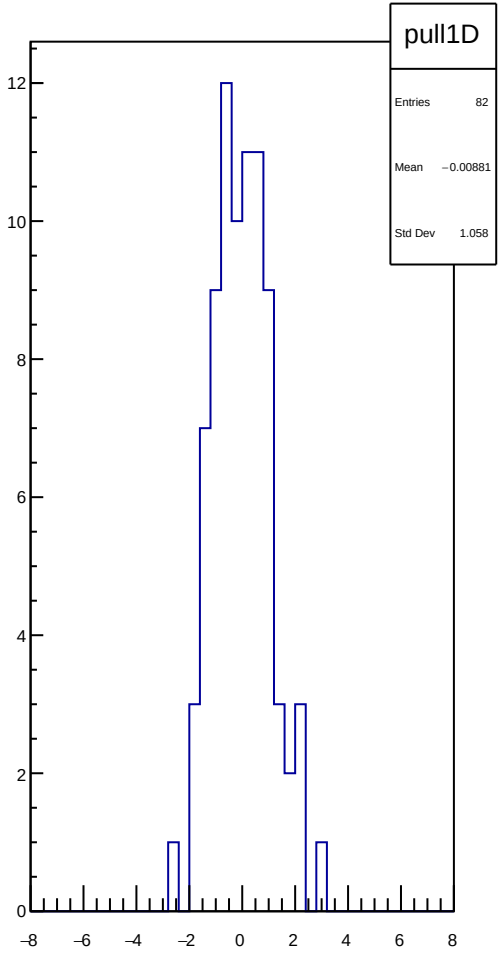

diff_bpm4eX_rms vs run
χ² / ndf 1.691e+04 / 81
p0 7477 ± 5.954
10000
9500
9000
8500
8000
7500
7000
6500
6000

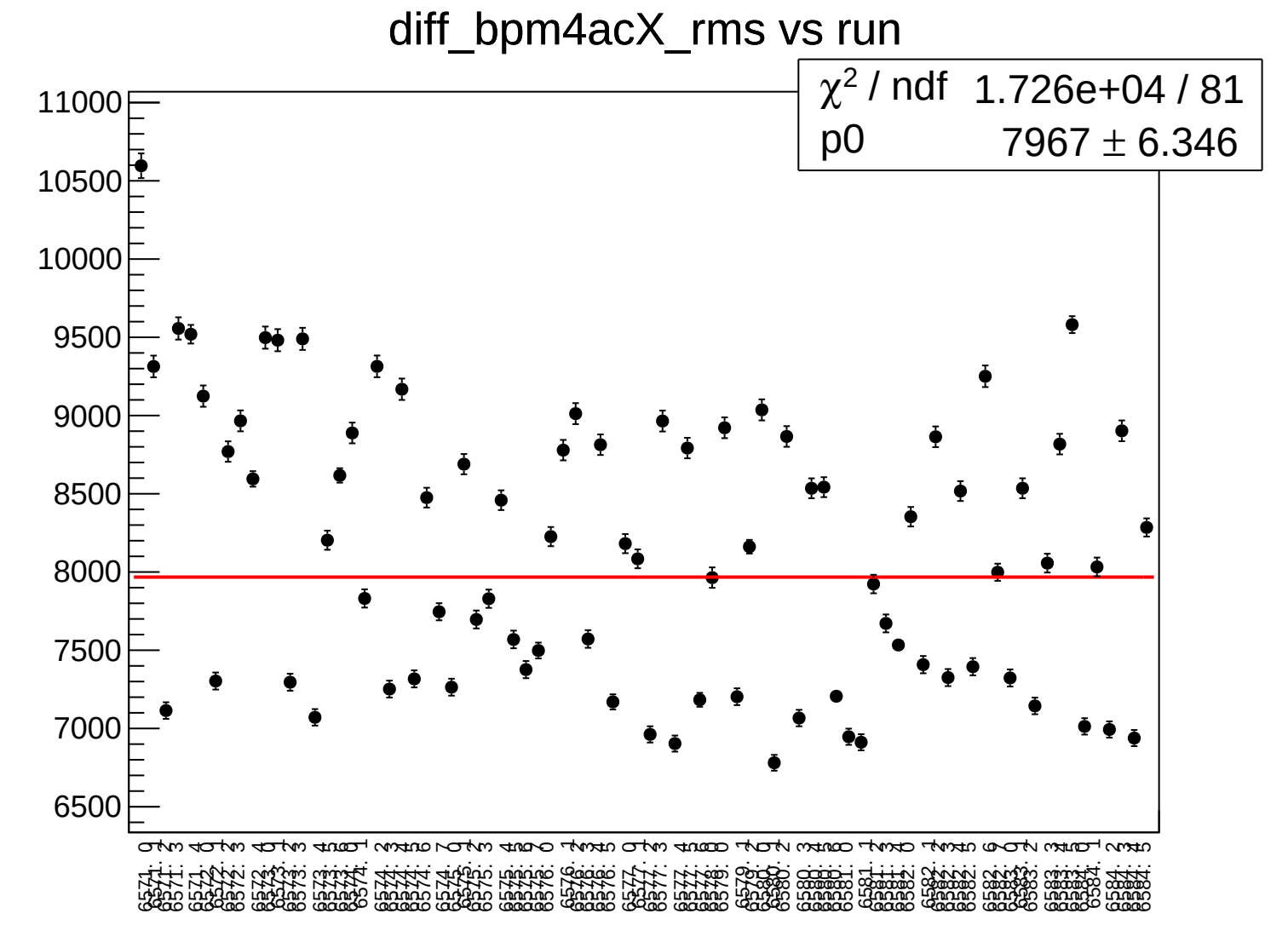

diff_bpm4eY_mean vs run
χ² / ndf 95.56 / 81
p0 −5.483 ± 6.002
200
150
100
50
0
−50
−100
−150
−200
pull
Entries 82
Mean 296
Std Dev 249.4
2
1
0
−1
−2

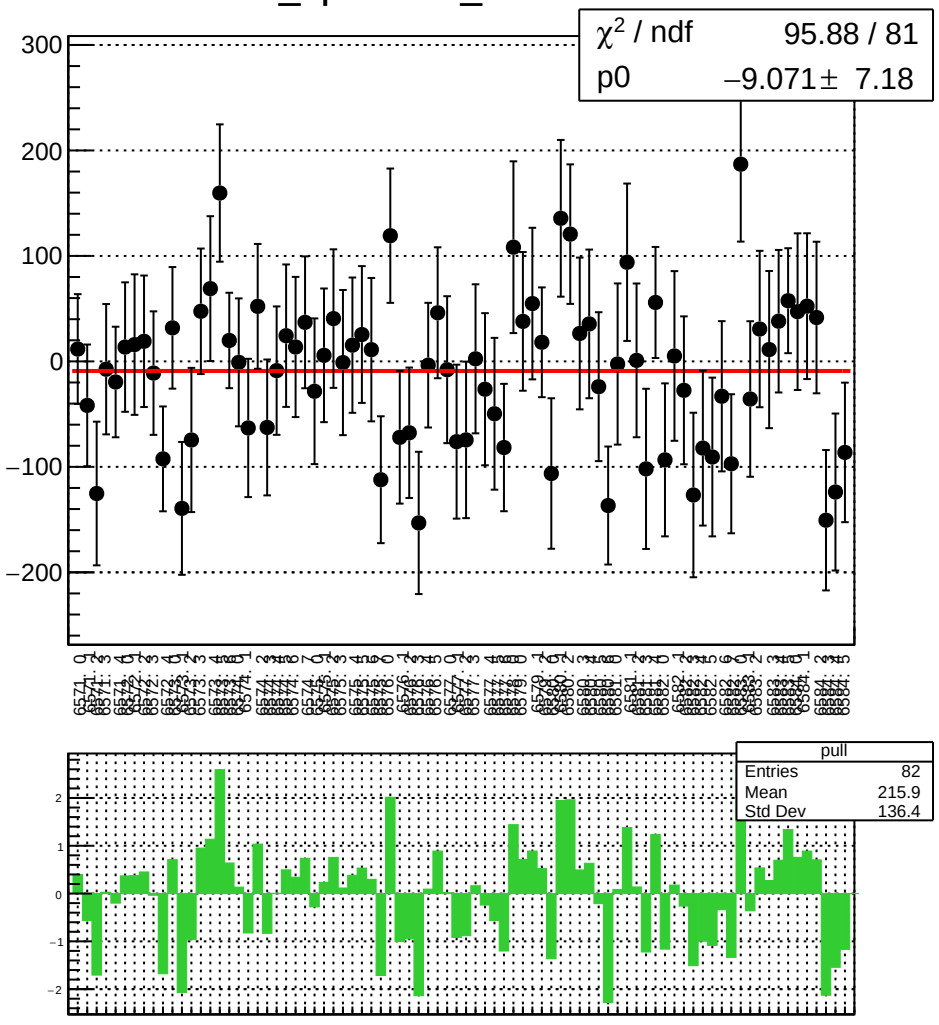

pull1D
Entries 82
Mean −0.0116
Std Dev 1.079
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

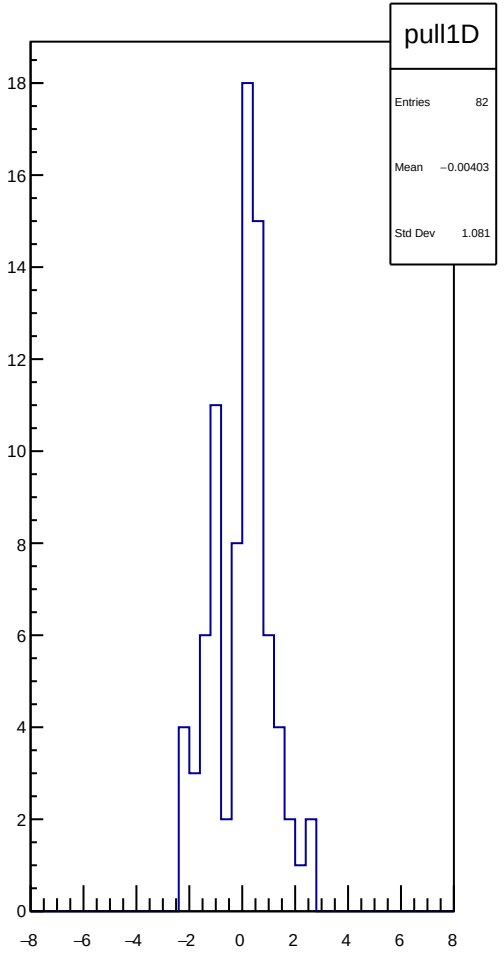

diff_bpm4eY_rms vs run
χ^2 / ndf 1.188e+04 / 81
p0 5338 ± 4.244
6400
6200
6000
5800
5600
5400
5200
5000
4800
4600
4400

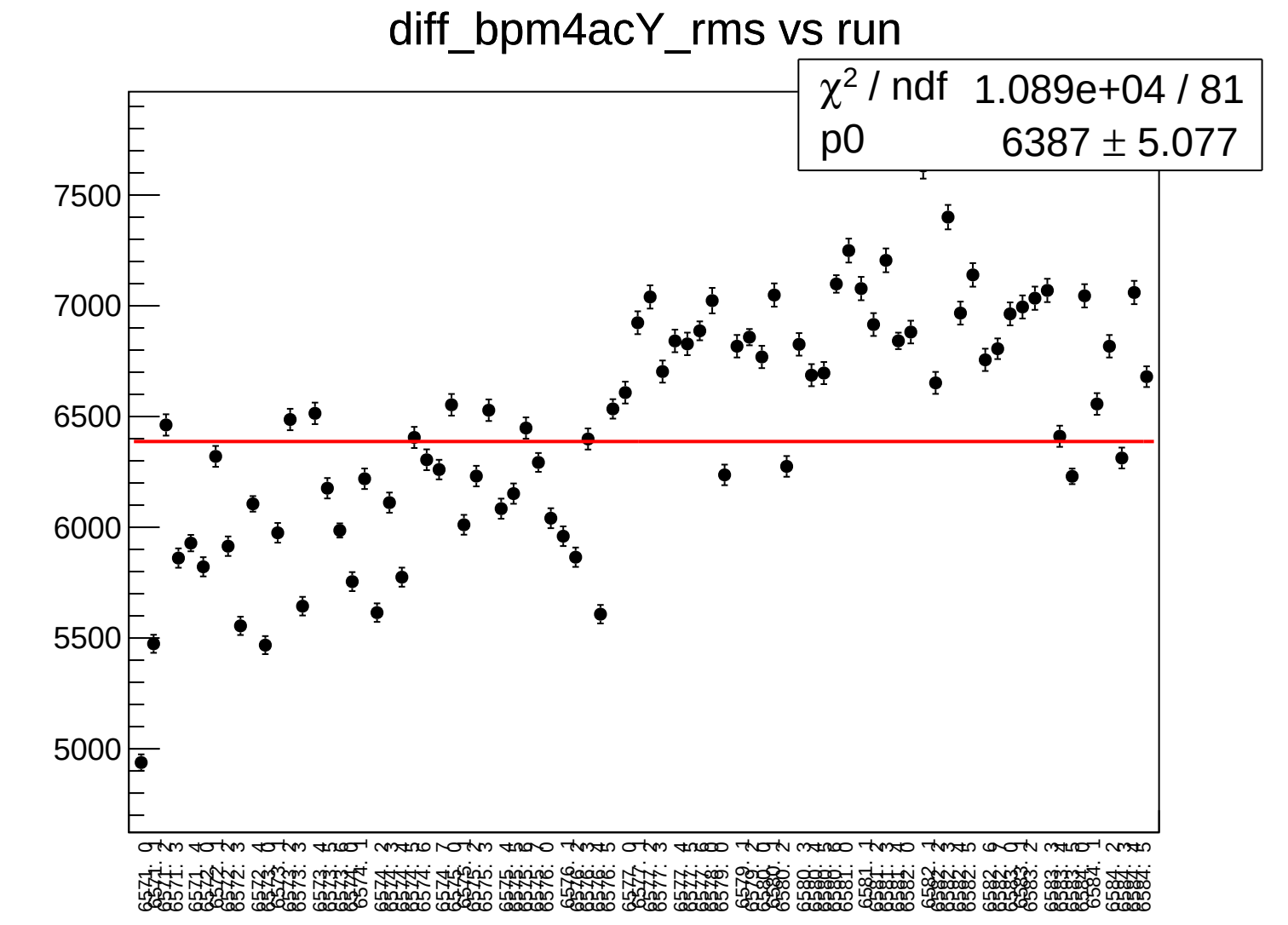

diff_bpm4acX_mean vs run
χ² / ndf 91.81 / 81
p0 −18.47 ± 8.974
pull
Entries 82
Mean 343.5
Std Dev 303.6

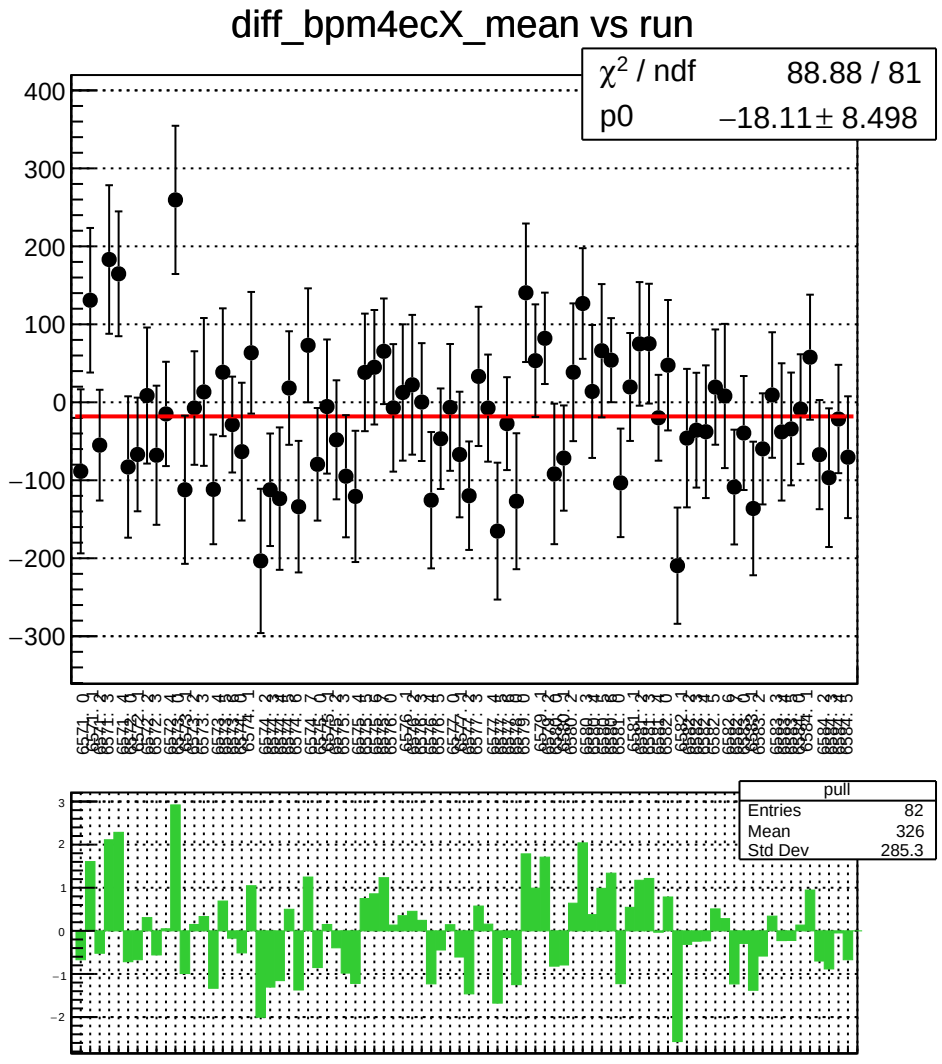

pull1D
Entries 82
Mean −0.00881
Std Dev 1.058

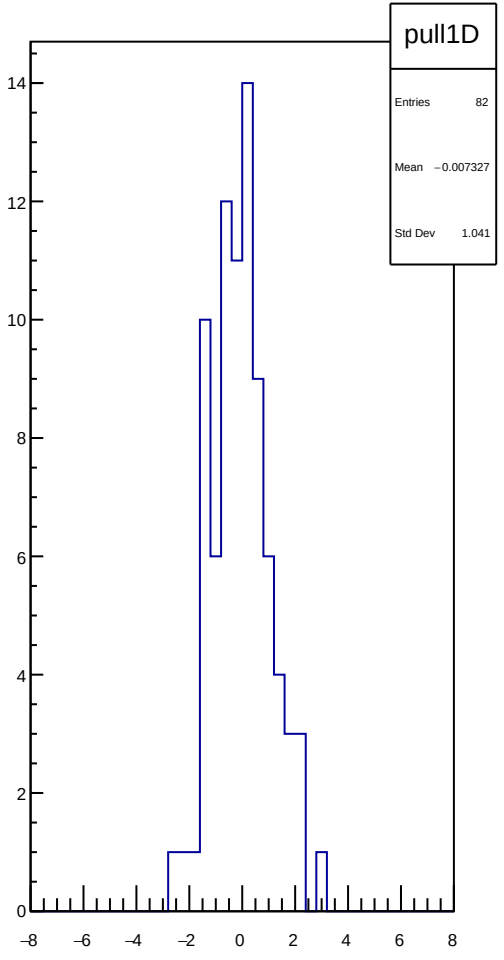

diff_bpm4acX_rms vs run
χ² / ndf 1.726e+04 / 81
p0 7967 ± 6.346
11000
10500
10000
9500
9000
8500
8000
7500
7000
6500

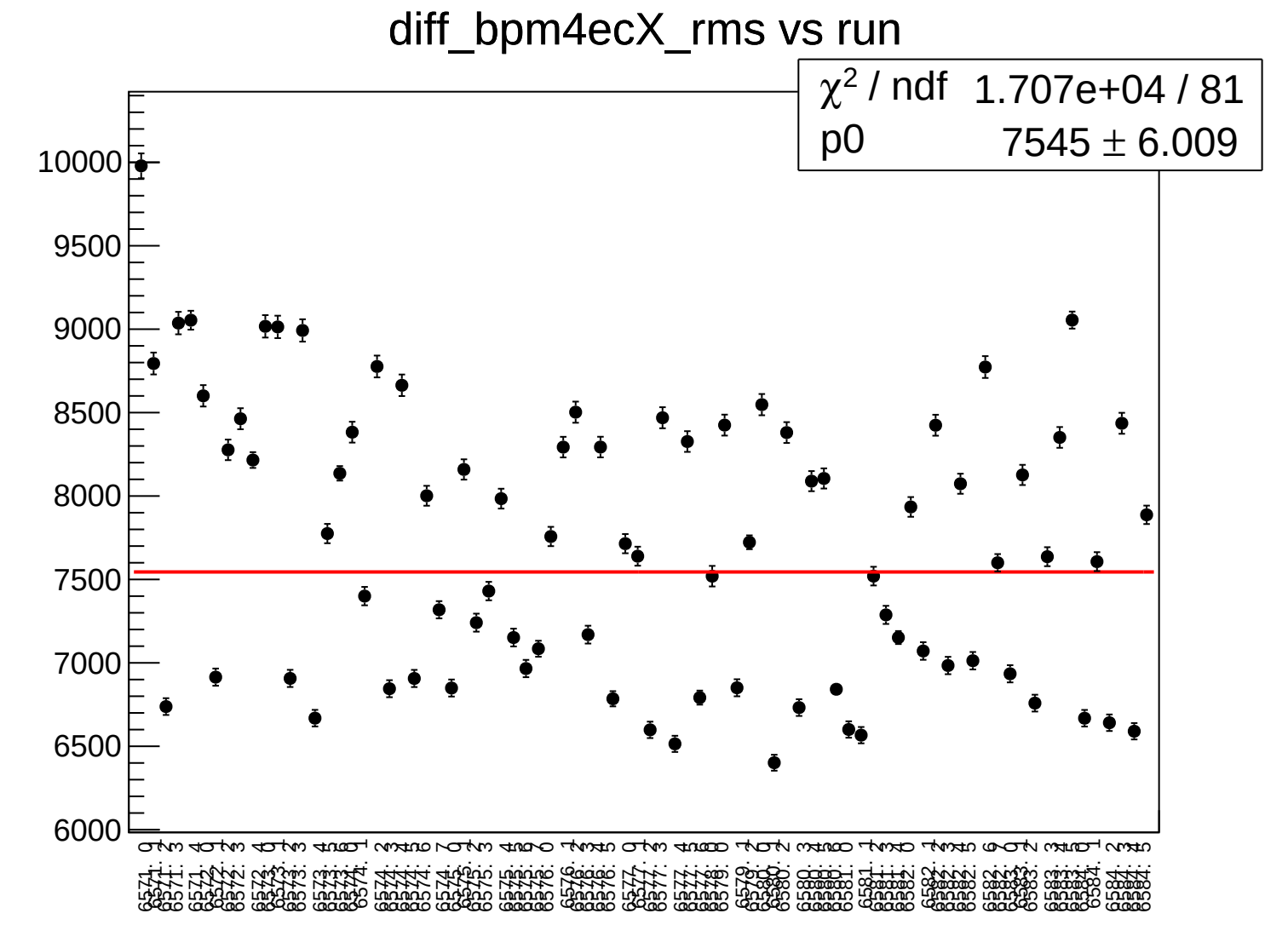

diff_bpm4acY_mean vs run
χ² / ndf 95.88 / 81
p0 −9.071± 7.18
pull
Entries 82
Mean 215.9
Std Dev 136.4

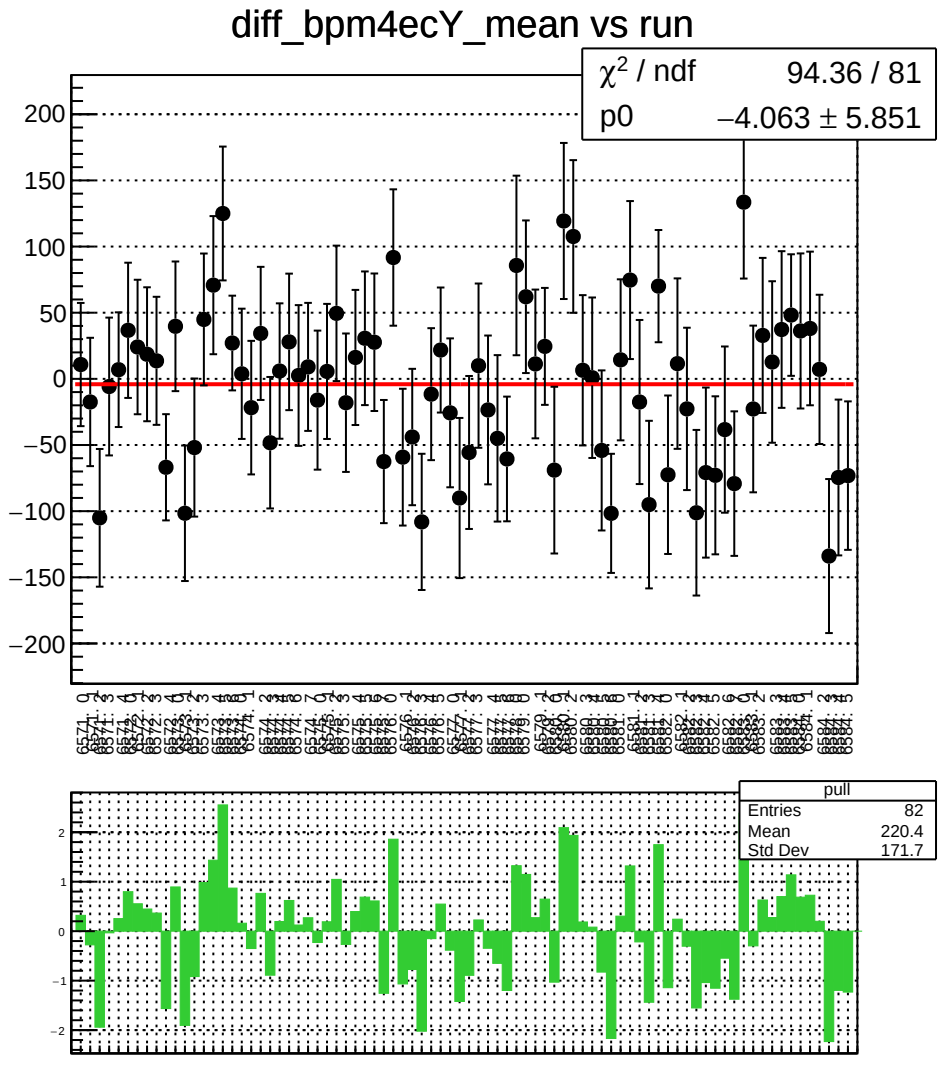

pull1D
Entries 82
Mean −0.00403
Std Dev 1.081

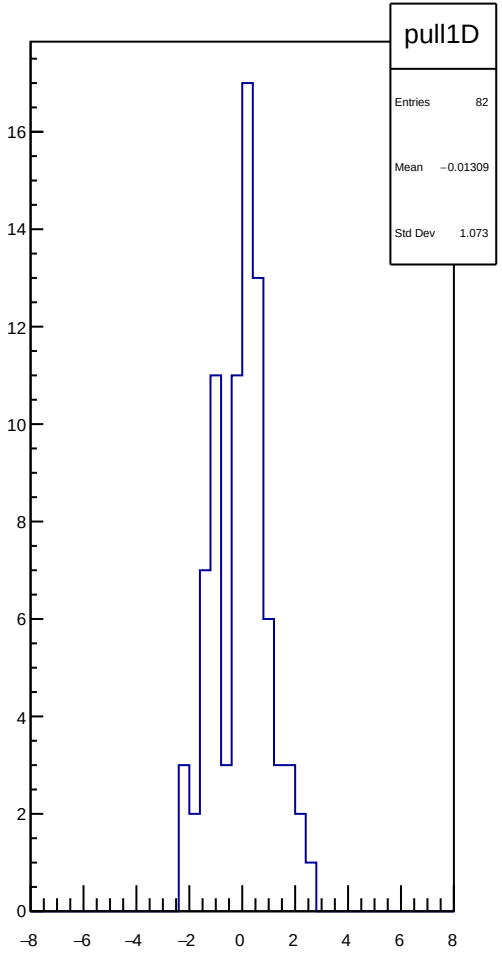

diff_bpm4acY_rms vs run
χ² / ndf 1.089e+04 / 81
p0 6387 ± 5.077
7500
7000
6500
6000
5500
5000

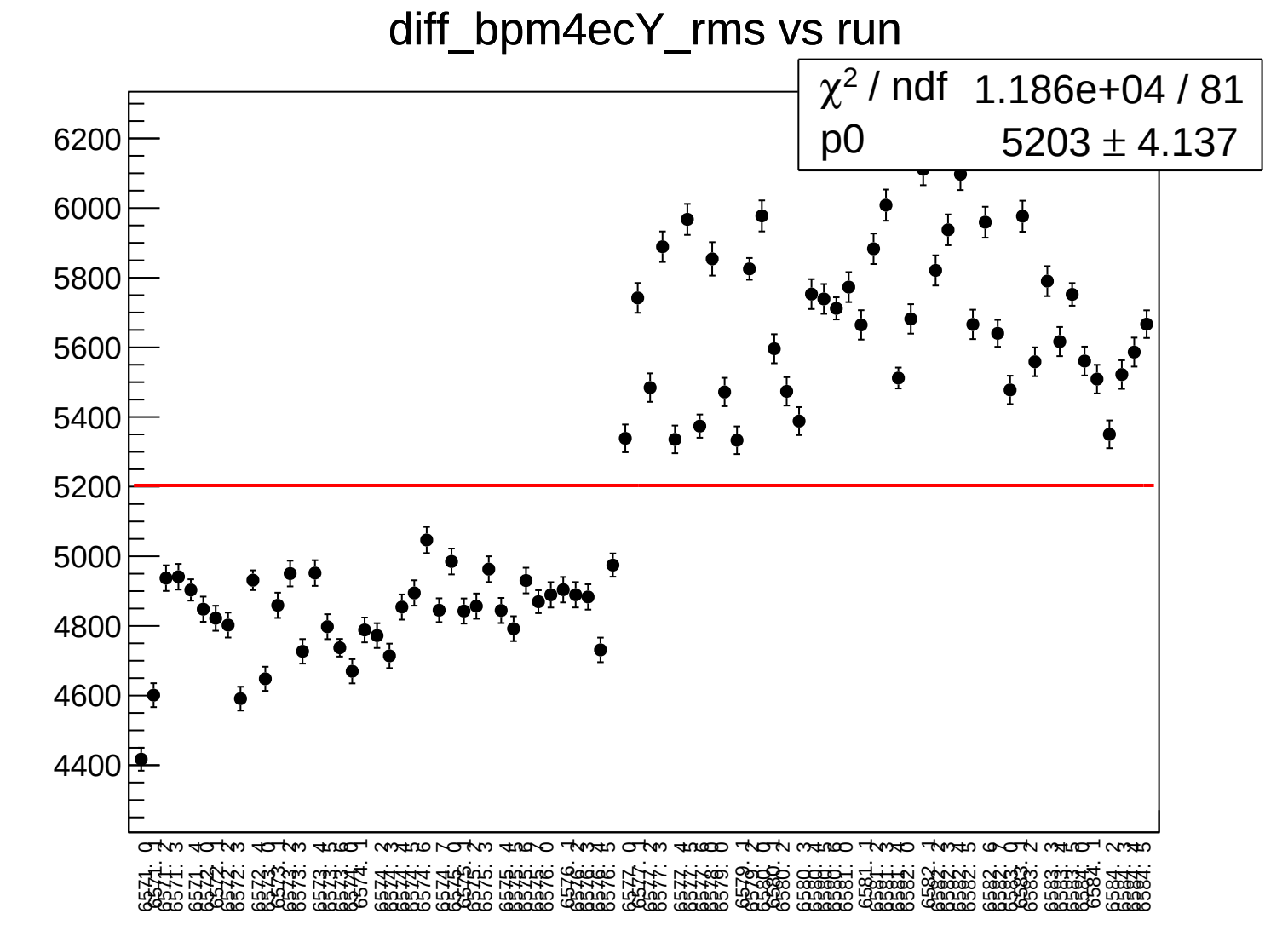

diff_bpm4ecX_mean vs run
χ² / ndf 88.88 / 81
p0 −18.11 ± 8.498
pull
Entries 82
Mean 326
Std Dev 285.3

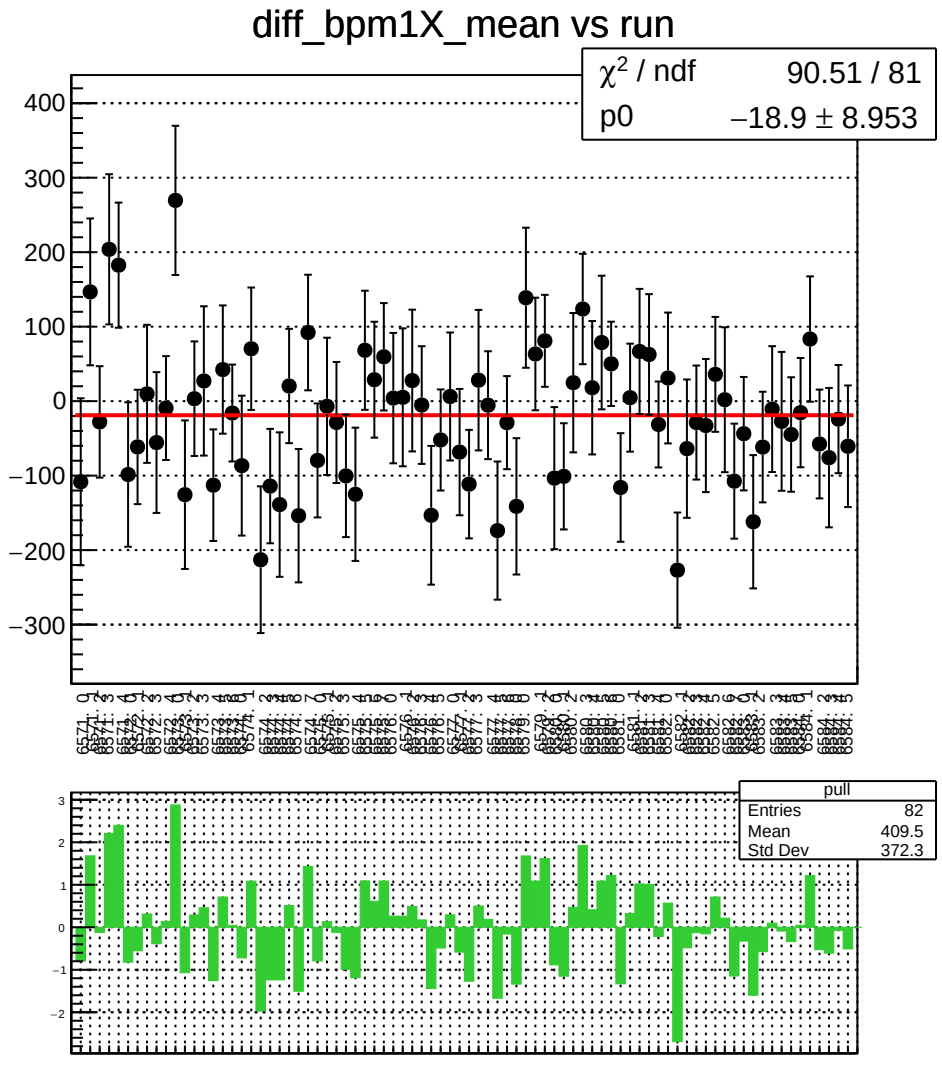

pull1D
Entries 82
Mean −0.007327
Std Dev 1.041

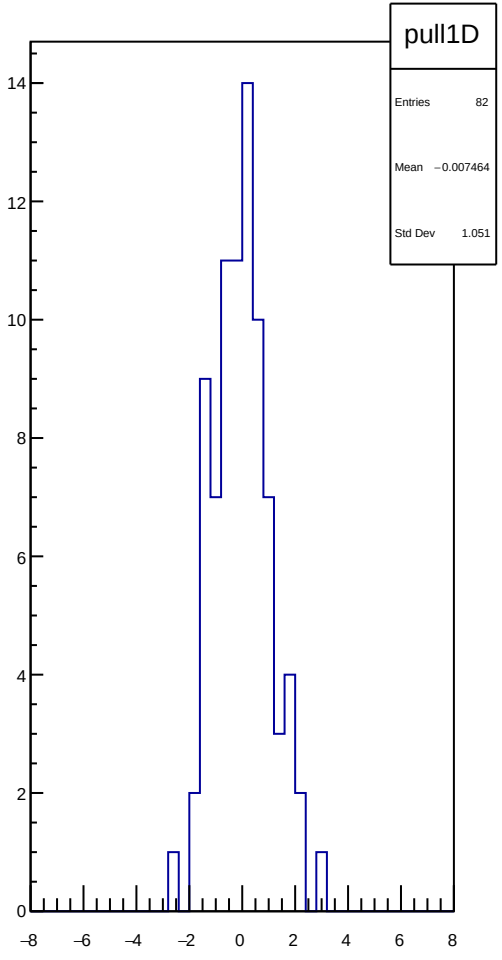

diff_bpm4ecX_rms vs run
χ² / ndf 1.707e+04 / 81
p0 7545 ± 6.009
10000
9500
9000
8500
8000
7500
7000
6500
6000

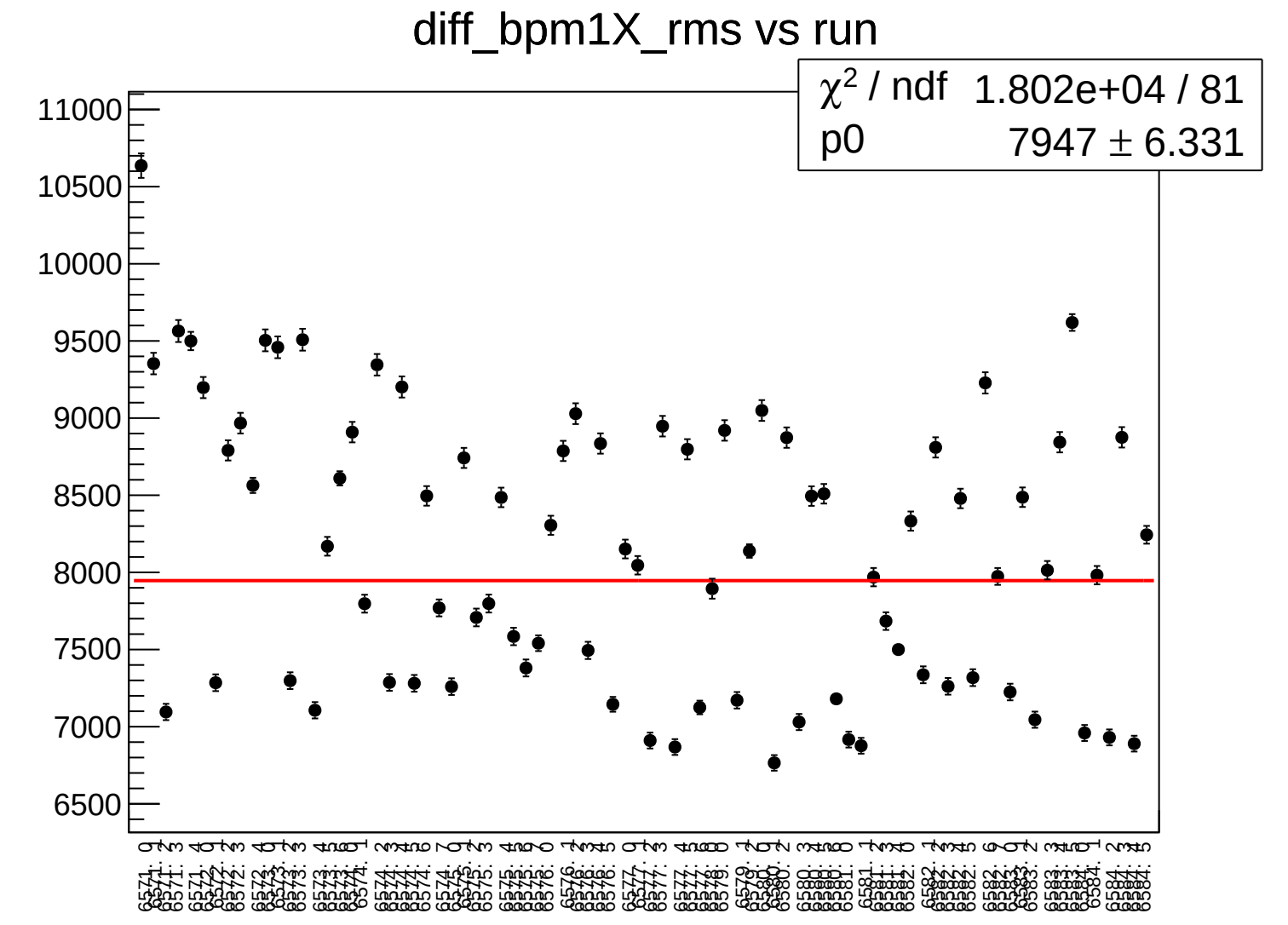

diff_bpm4ecY_mean vs run
χ² / ndf 94.36 / 81
p0 −4.063 ± 5.851
pull
Entries 82
Mean 220.4
Std Dev 171.7

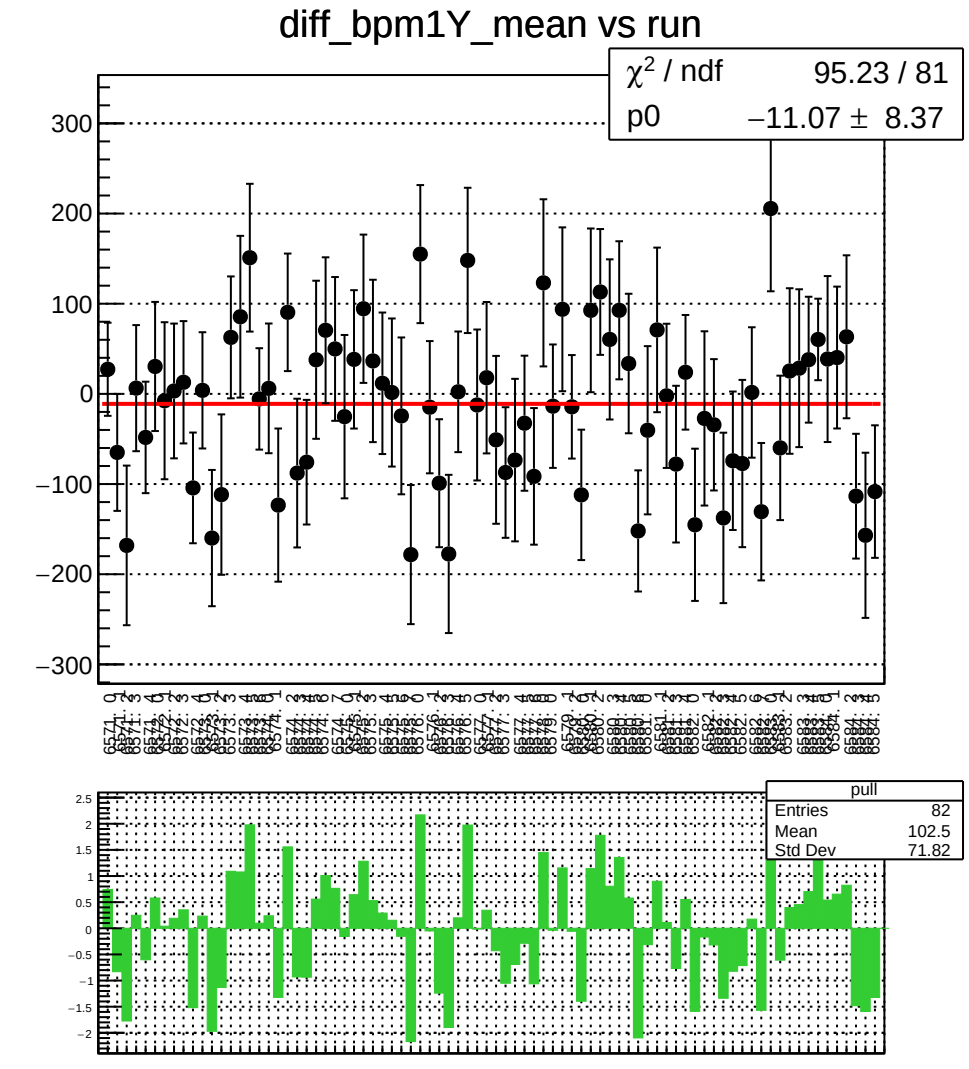

pull1D
Entries 82
Mean −0.01309
Std Dev 1.073

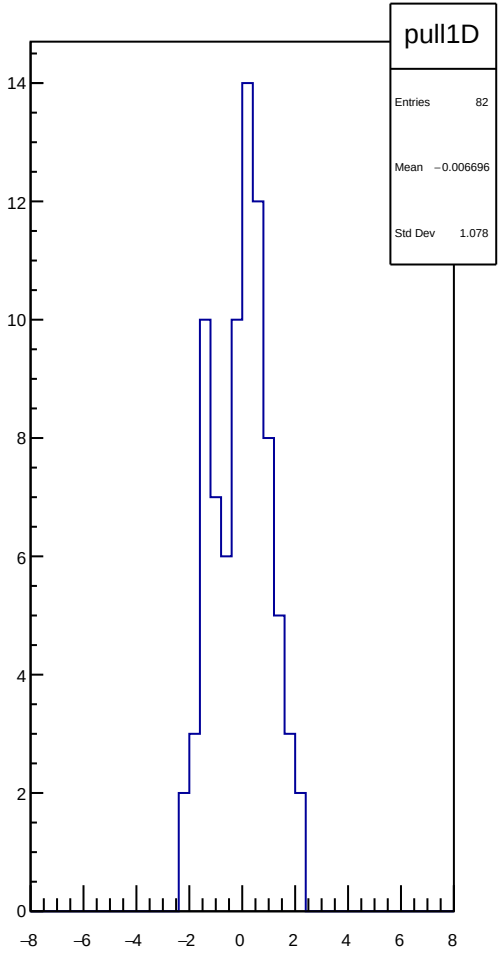

diff_bpm4ecY_rms vs run
χ² / ndf 1.186e+04 / 81
p0 5203 ± 4.137
6200
6000
5800
5600
5400
5200
5000
4800
4600
4400

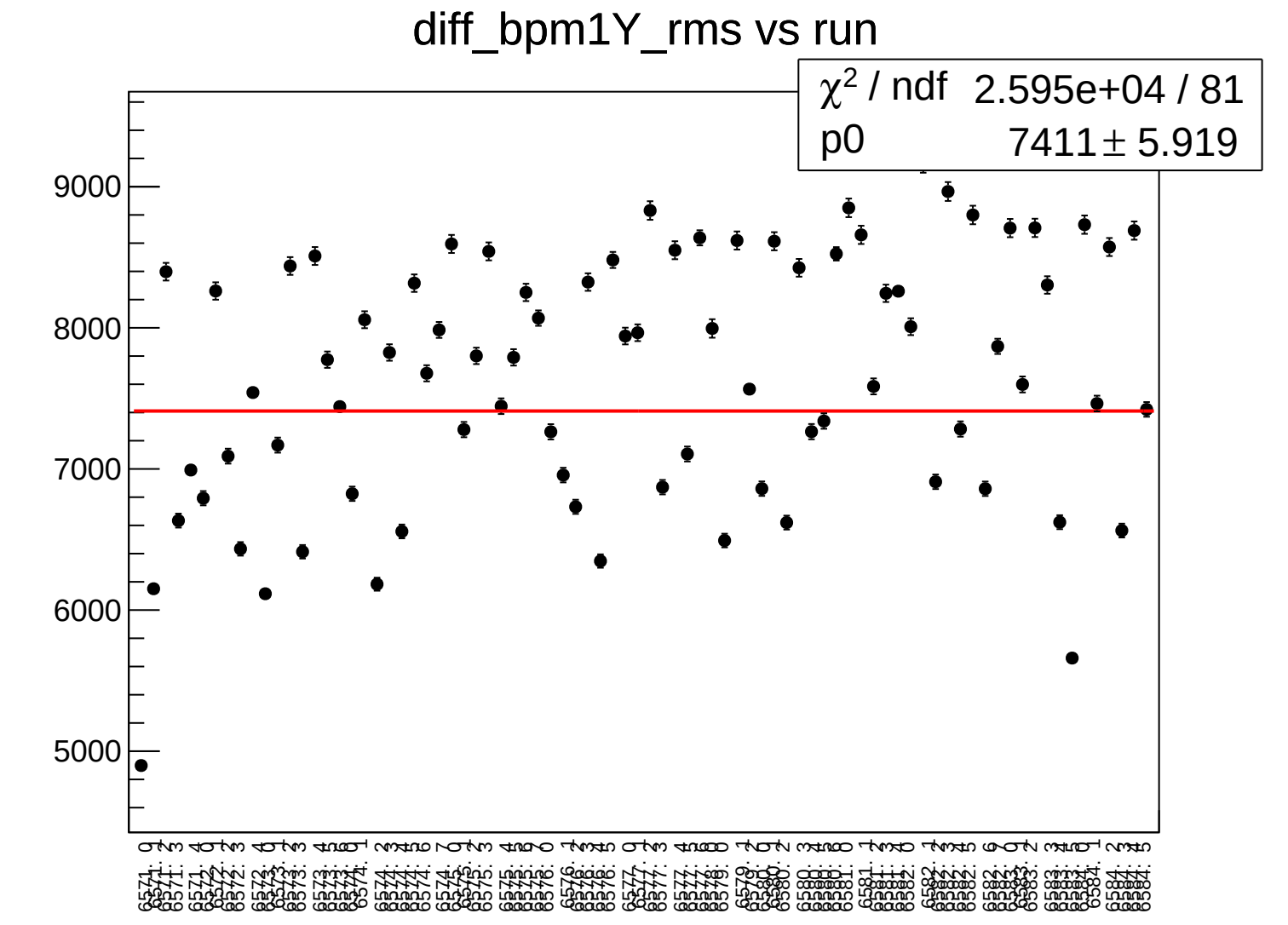

diff_bpm1X_mean vs run
χ² / ndf 90.51 / 81
p0 −18.9 ± 8.953
pull
Entries 82
Mean 409.5
Std Dev 372.3

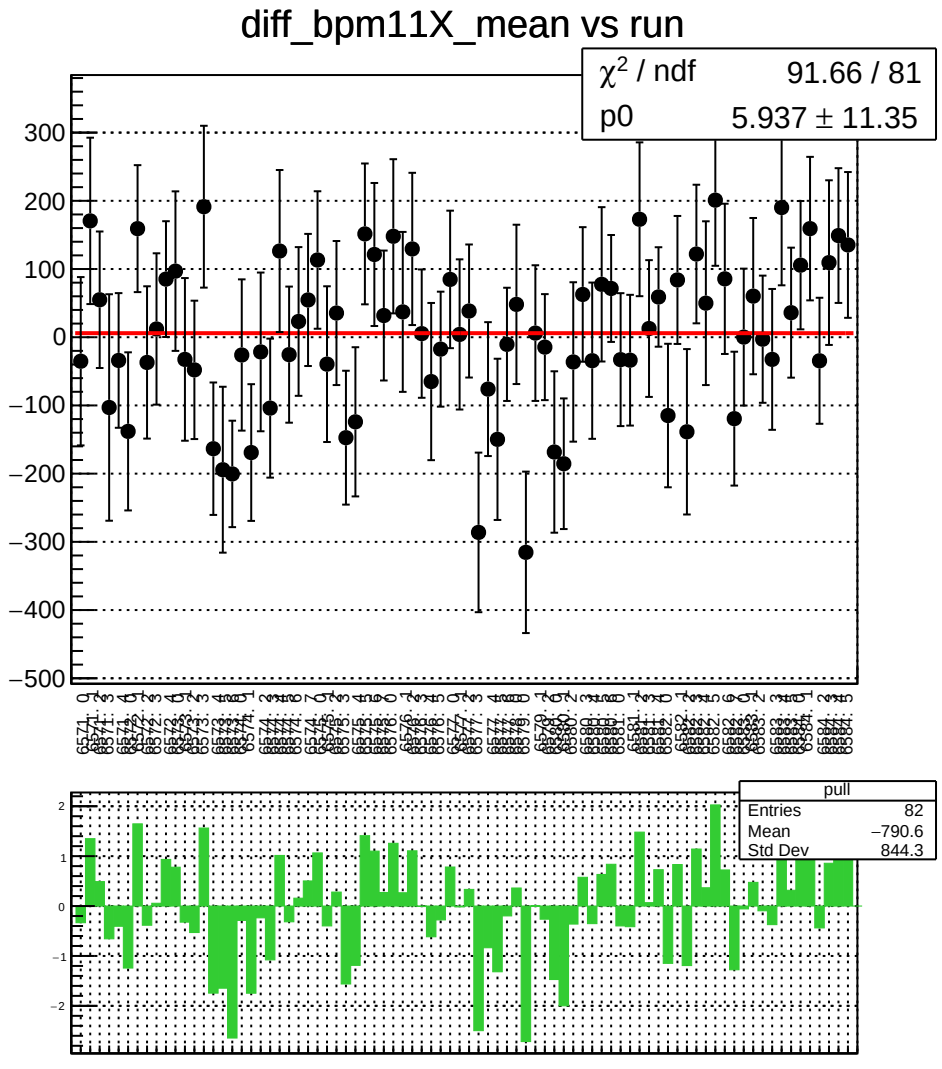

pull1D
Entries 82
Mean −0.007464
Std Dev 1.051

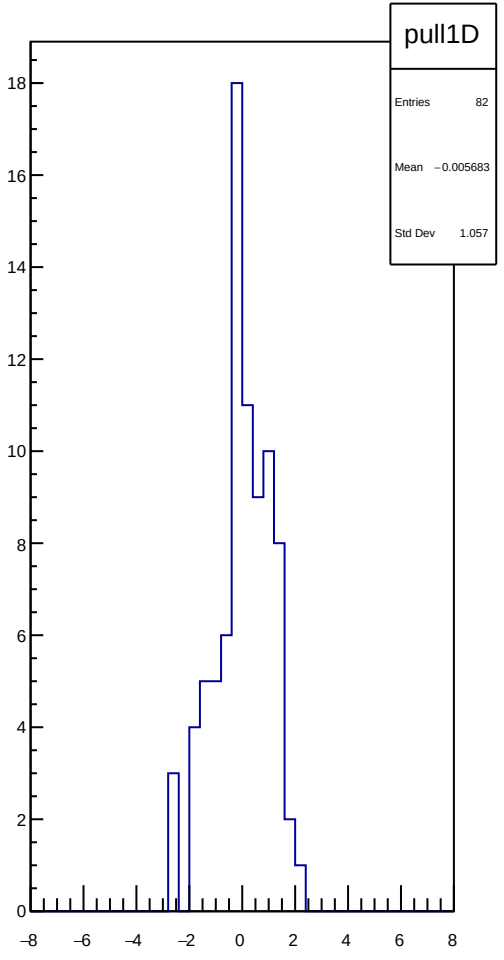

diff_bpm1X_rms vs run
χ² / ndf 1.802e+04 / 81
p0 7947 ± 6.331
11000
10500
10000
9500
9000
8500
8000
7500
7000
6500


diff_bpm1Y_mean vs run
χ² / ndf 95.23 / 81
p0 −11.07 ± 8.37
pull
Entries 82
Mean 102.5
Std Dev 71.82

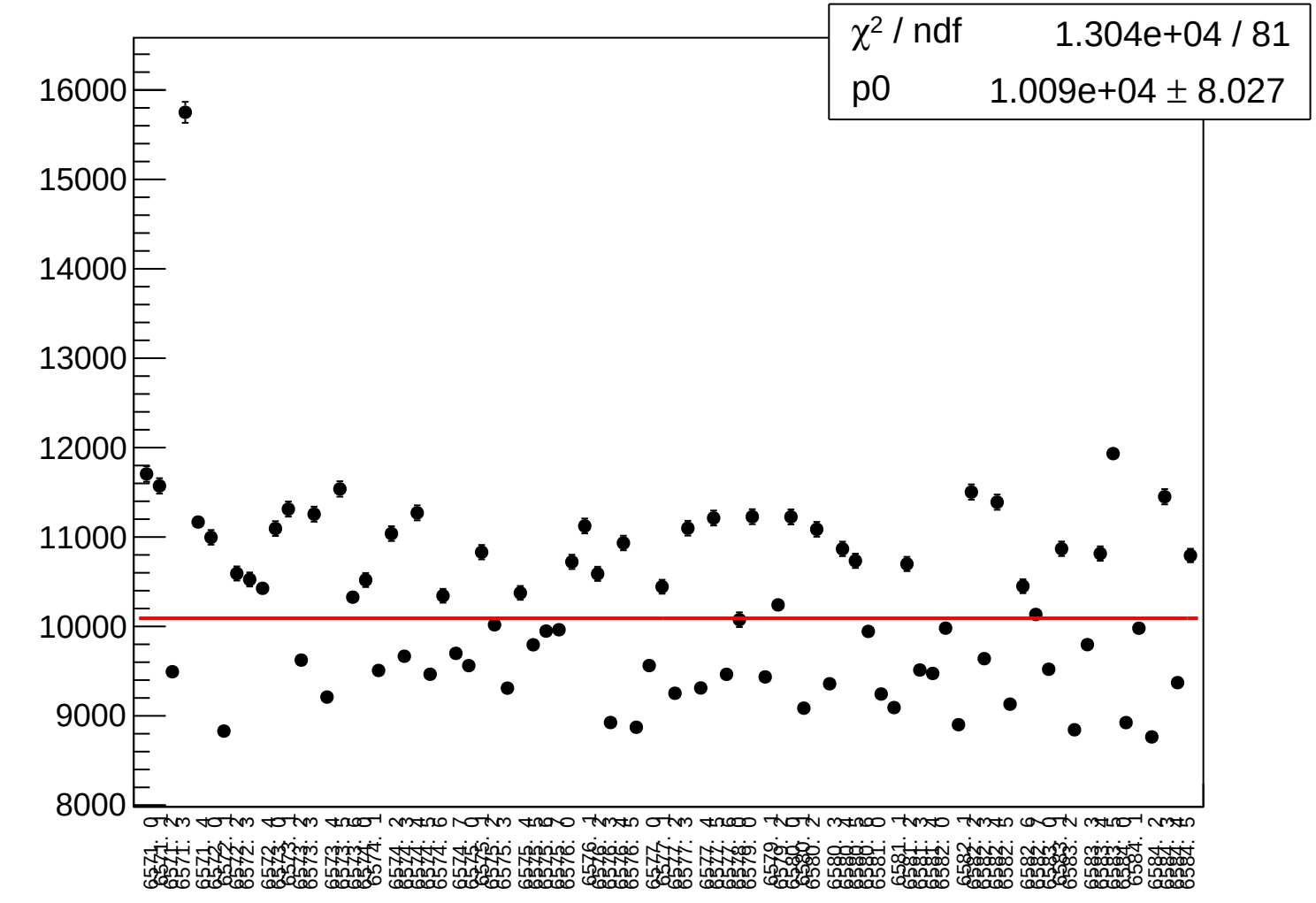

pull1D
Entries 82
Mean −0.006696
Std Dev 1.078

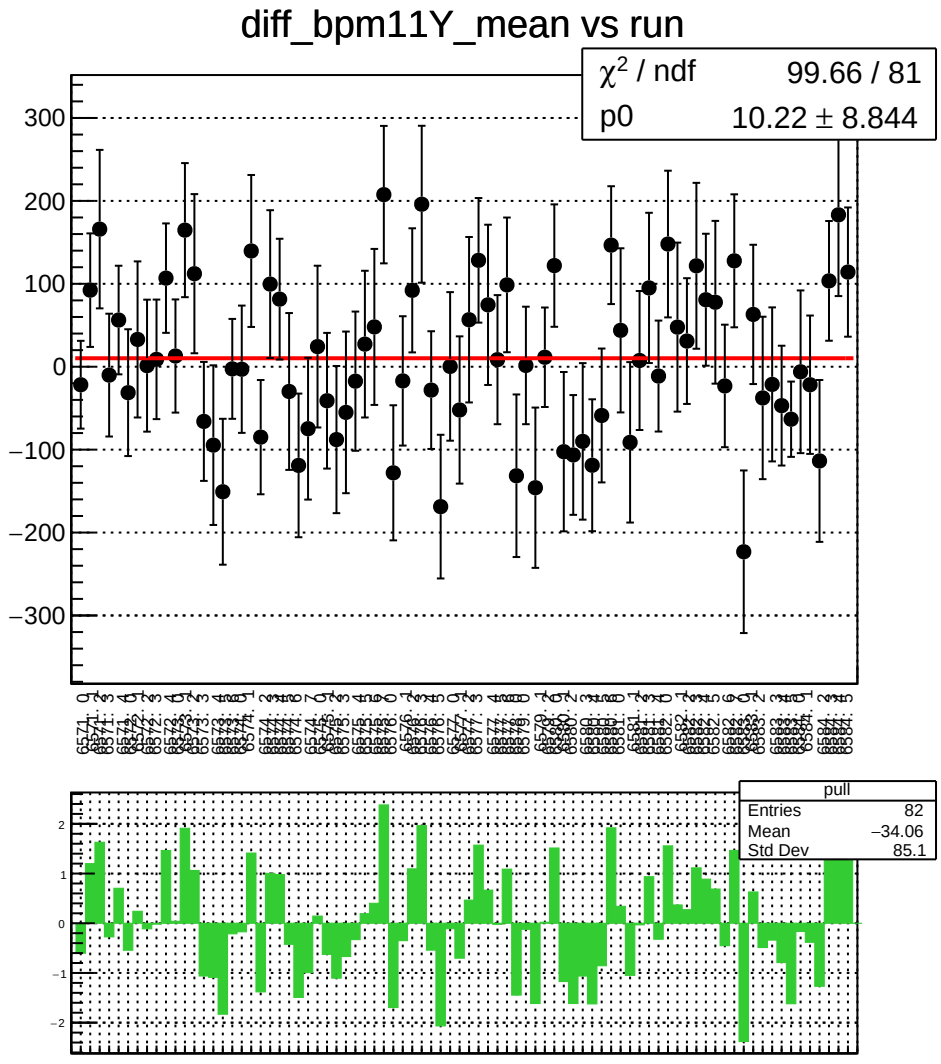

diff_bpm1Y_rms vs run
χ^2 / ndf 2.595e+04 / 81
p0 7411 ± 5.919
9000
8000
7000
6000
5000

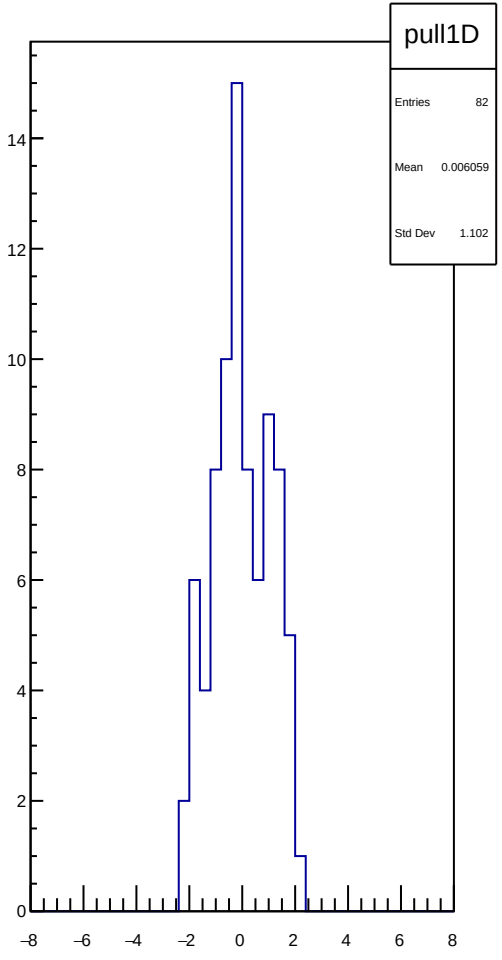

diff_bpm11X_mean vs run
χ^2 / ndf 91.66 / 81
p0 5.937 ± 11.35
pull
Entries 82
Mean −790.6
Std Dev 844.3

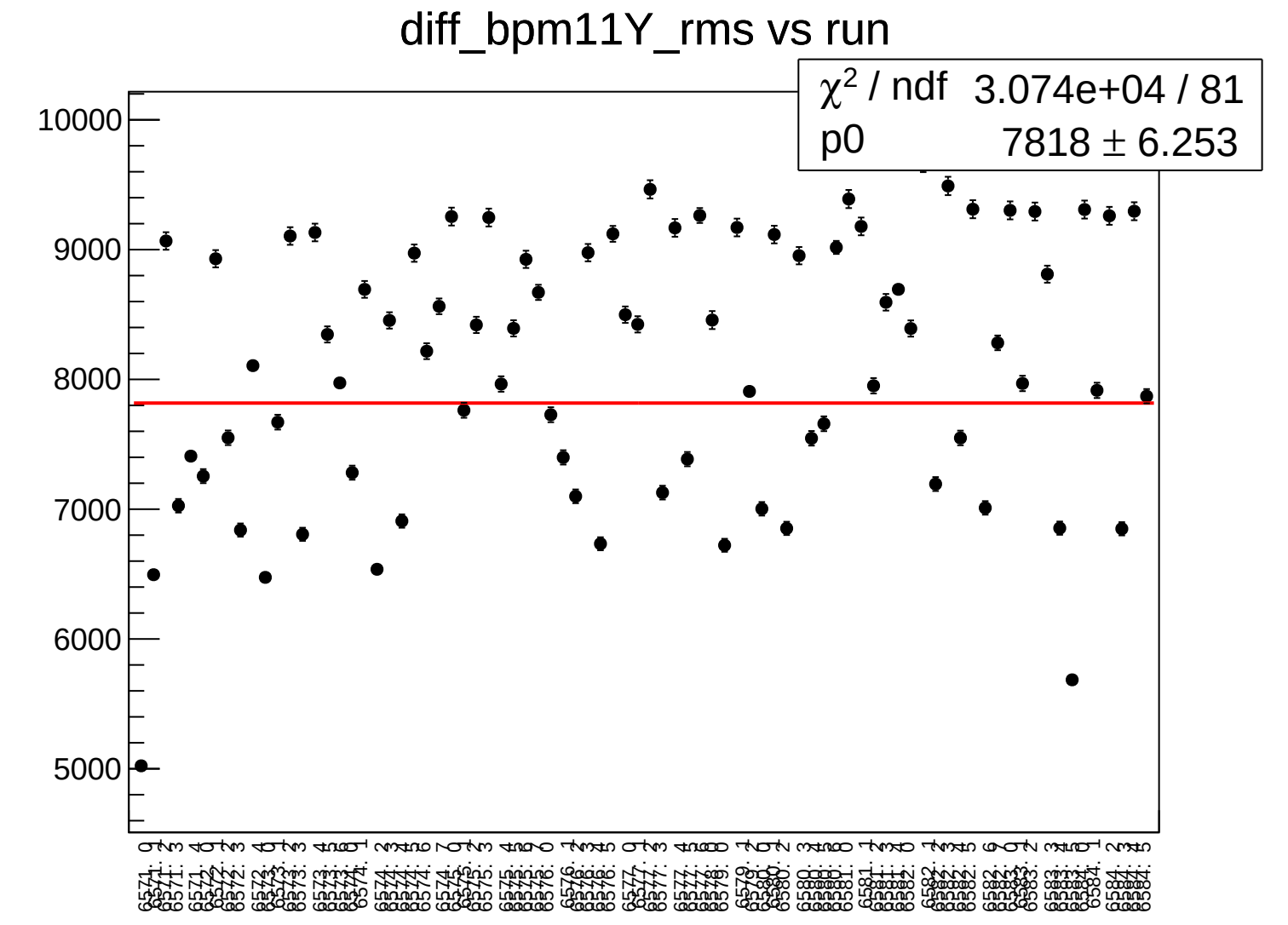

pull1D
Entries 82
Mean −0.005683
Std Dev 1.057

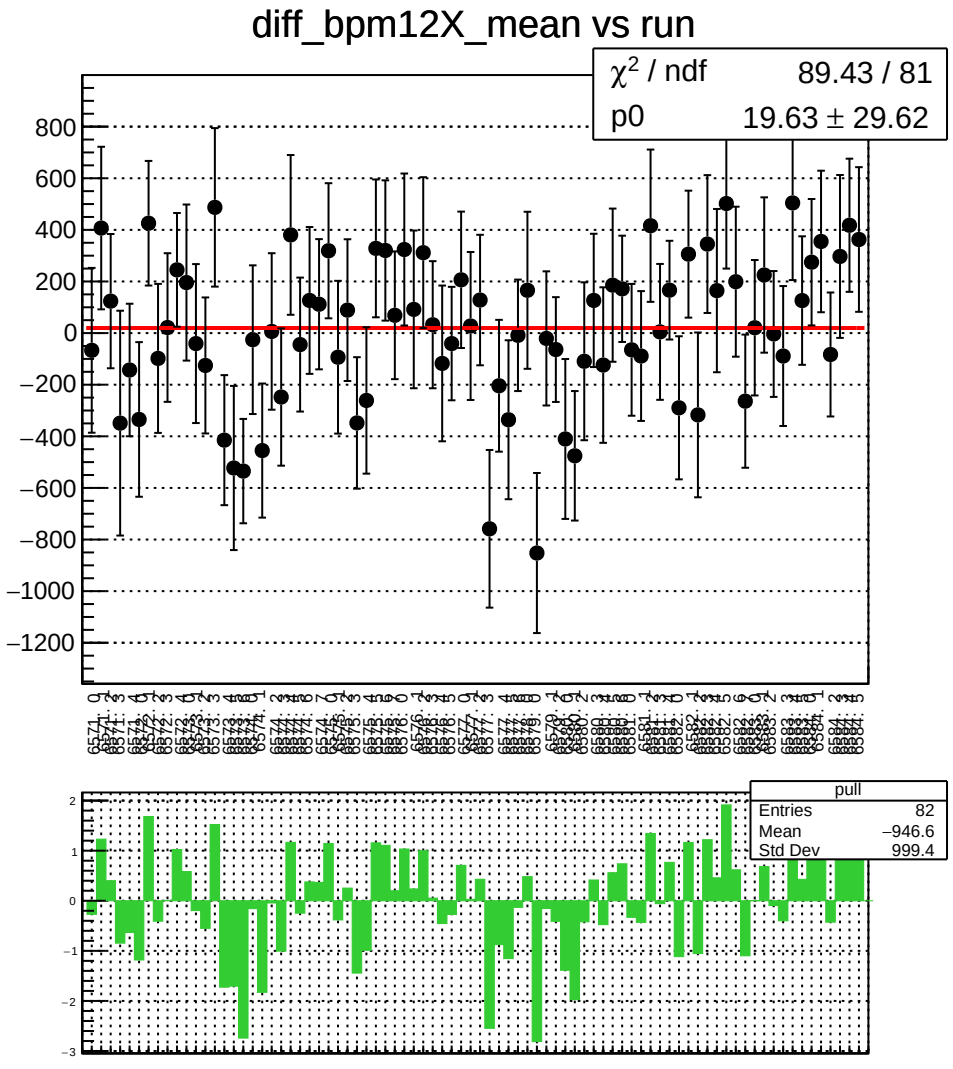
diff_bpm11X_rms vs run

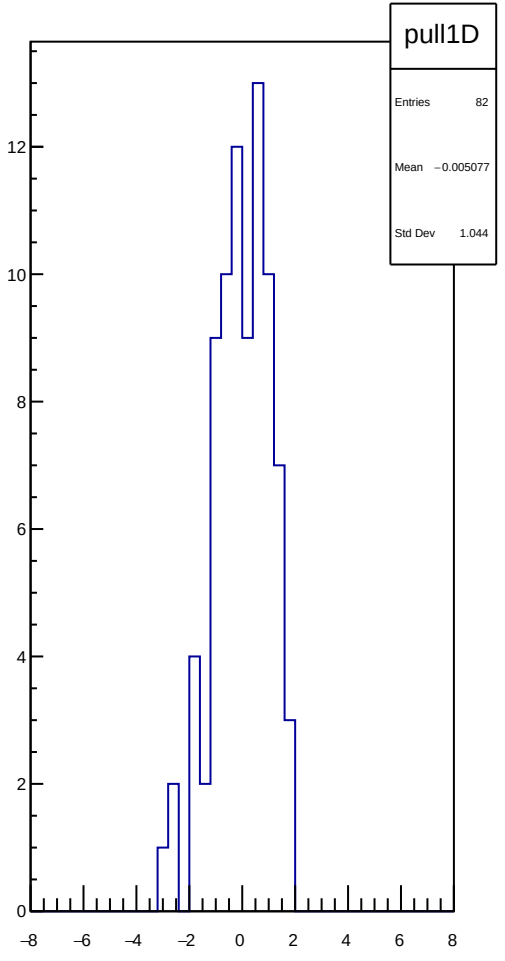



diff_bpm11Y_mean vs run
χ² / ndf 99.66 / 81
p0 10.22 ± 8.844
pull
Entries 82
Mean −34.06
Std Dev 85.1

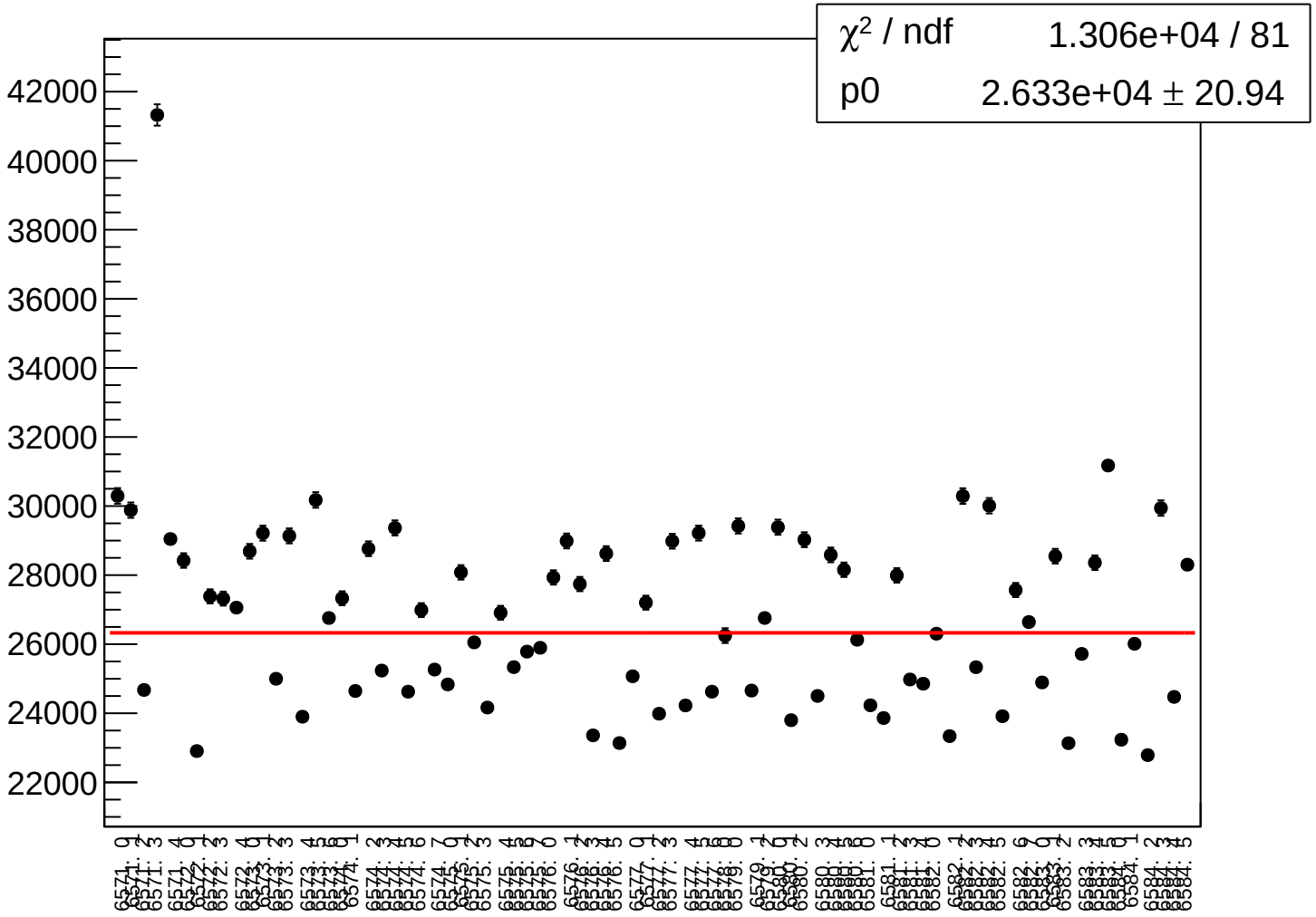

pull1D
Entries 82
Mean 0.006059
Std Dev 1.102

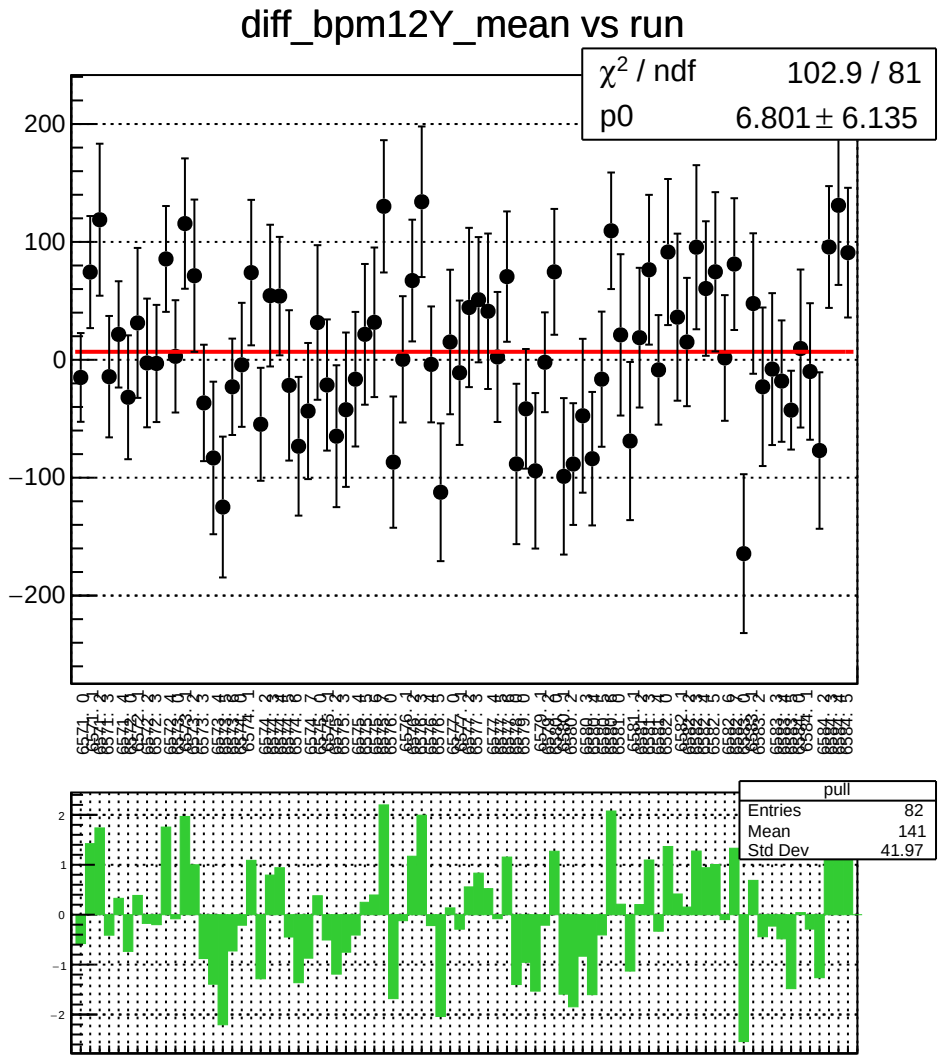

diff_bpm11Y_rms vs run
χ² / ndf 3.074e+04 / 81
p0 7818 ± 6.253
10000
9000
8000
7000
6000
5000

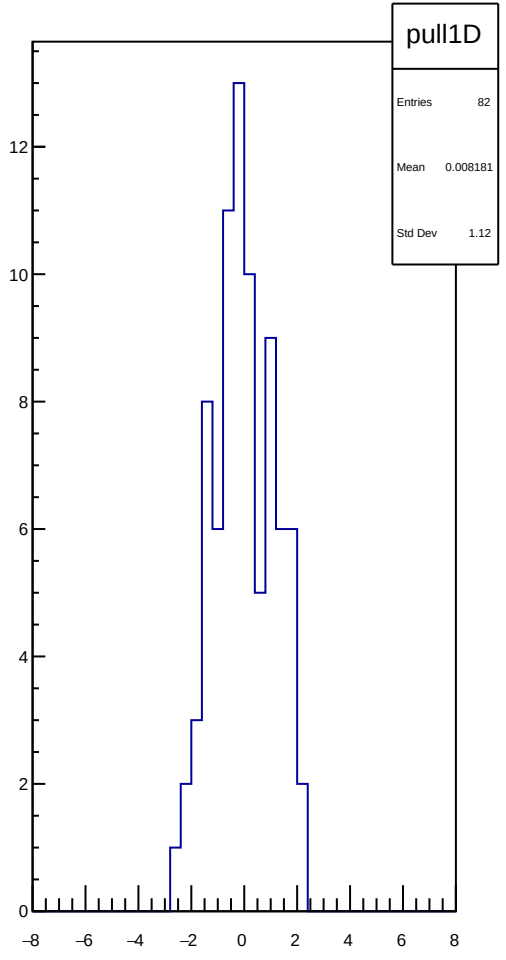

diff_bpm12X_mean vs run
χ² / ndf 89.43 / 81
p0 19.63 ± 29.62
pull
Entries 82
Mean −946.6
Std Dev 999.4

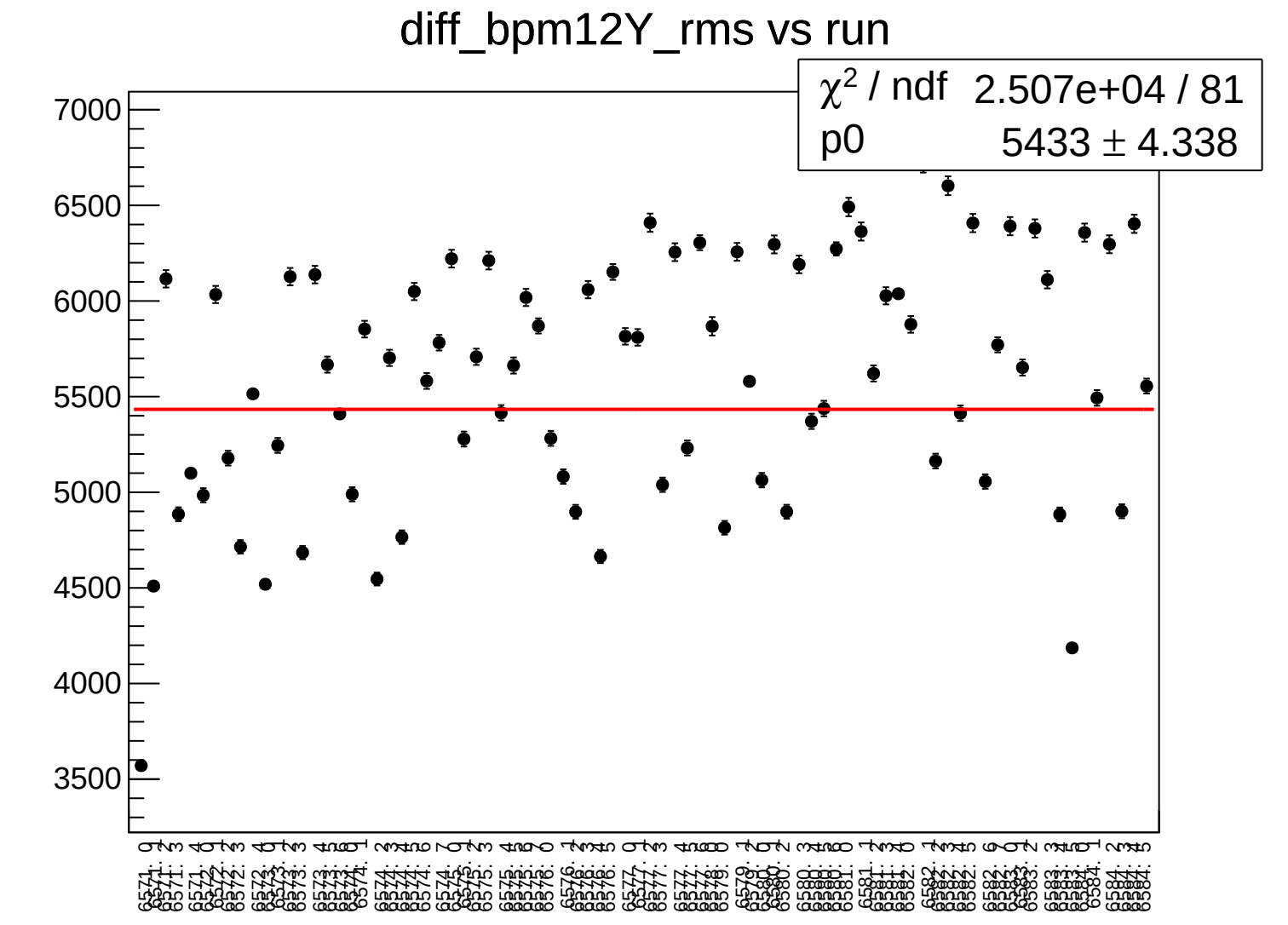

pull1D
Entries 82
Mean −0.005077
Std Dev 1.044

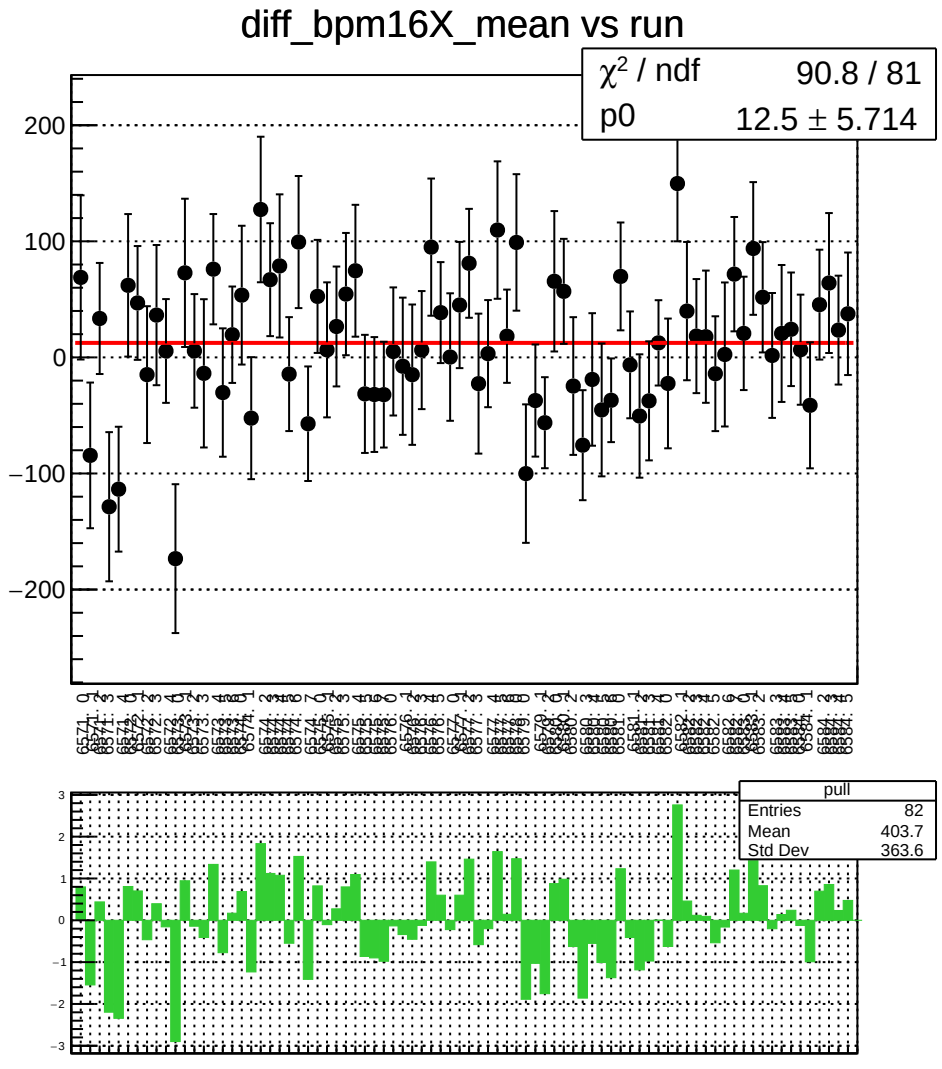
diff_bpm12X_rms vs run

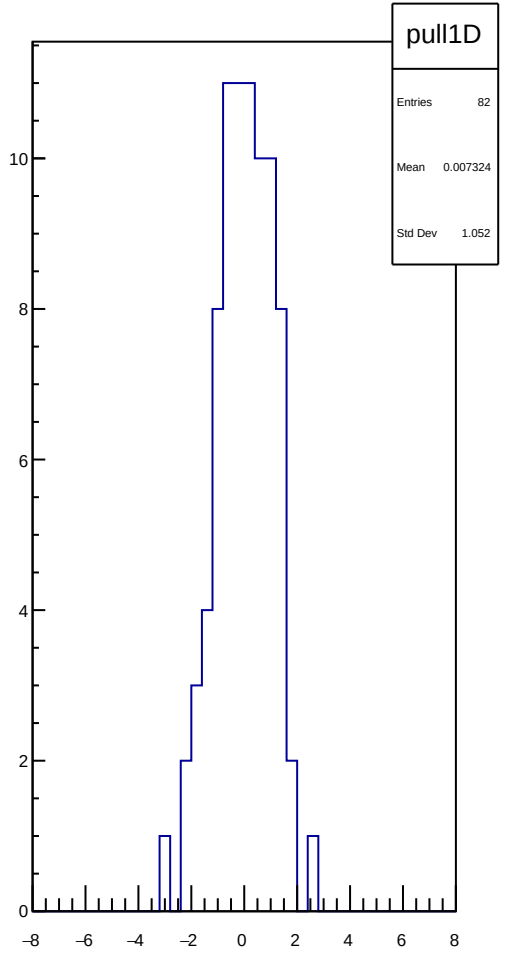


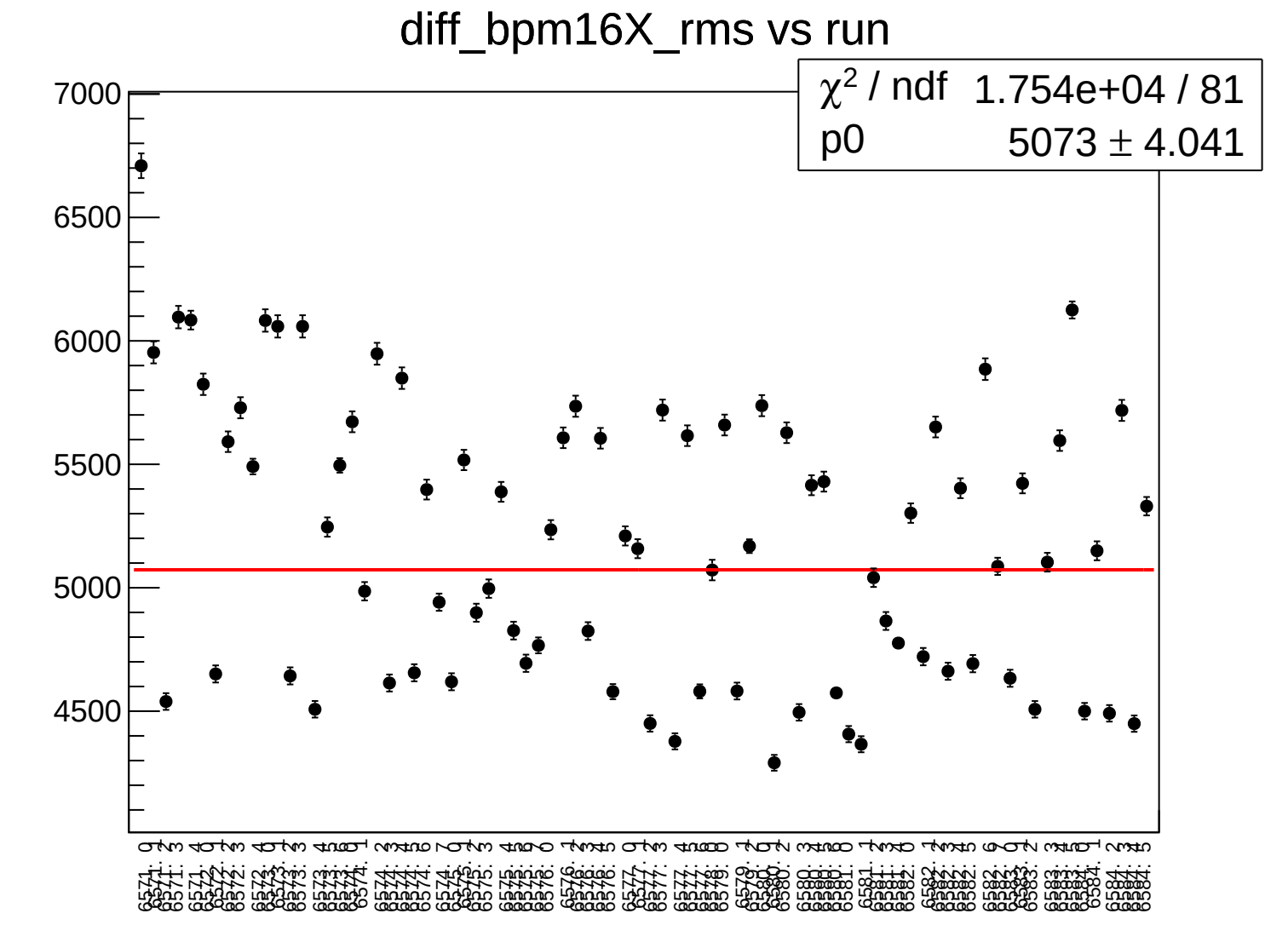

diff_bpm12Y_mean vs run
χ² / ndf 102.9 / 81
p0 6.801 ± 6.135
200
100
0
−100
−200
pull
Entries 82
Mean 141
Std Dev 41.97
2
1
0
−1
−2

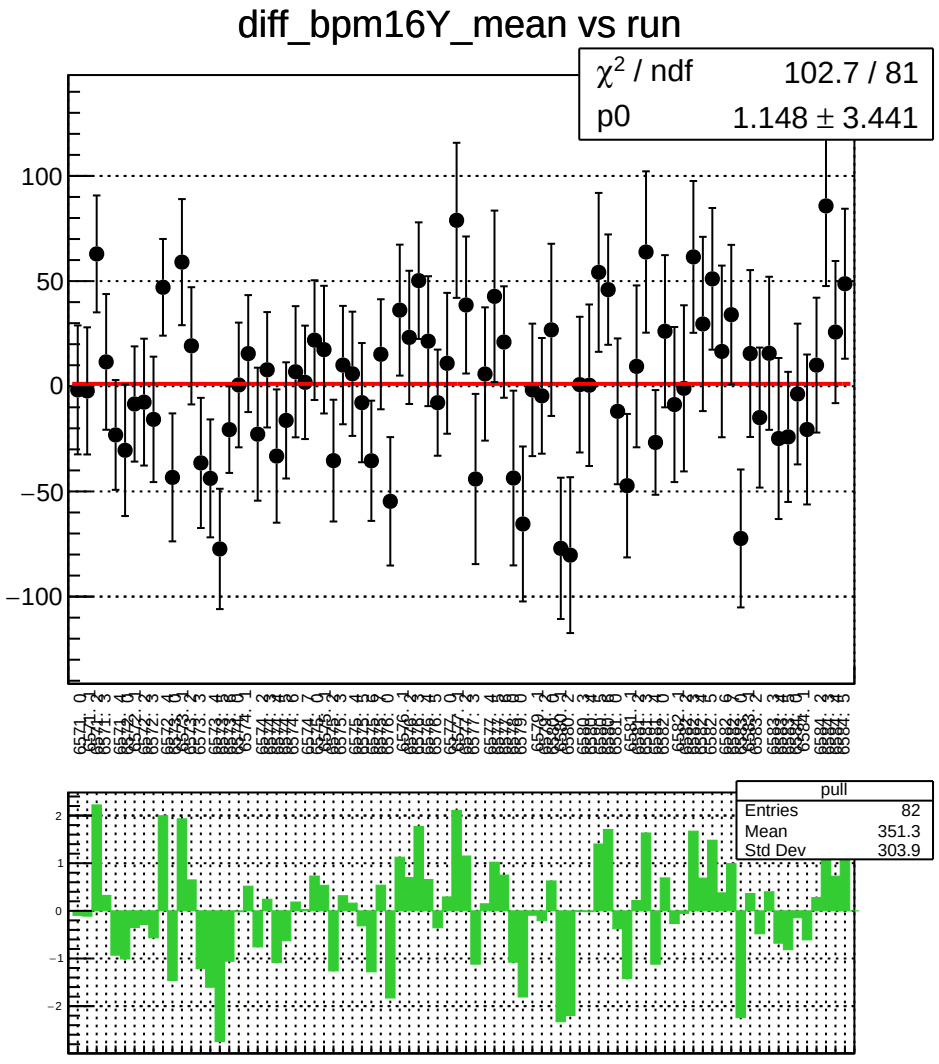

pull1D
Entries 82
Mean 0.008181
Std Dev 1.12
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

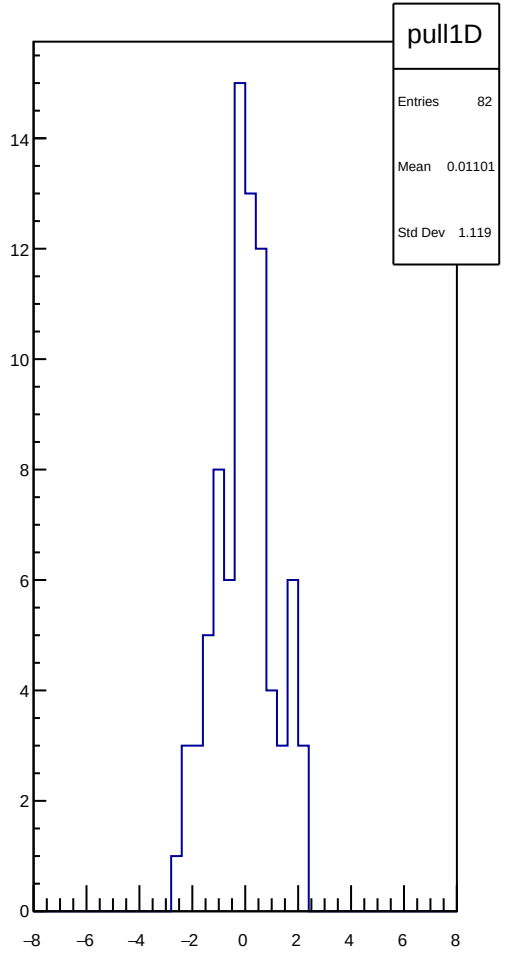

diff_bpm12Y_rms vs run
χ² / ndf 2.507e+04 / 81
p0 5433 ± 4.338
7000
6500
6000
5500
5000
4500
4000
3500

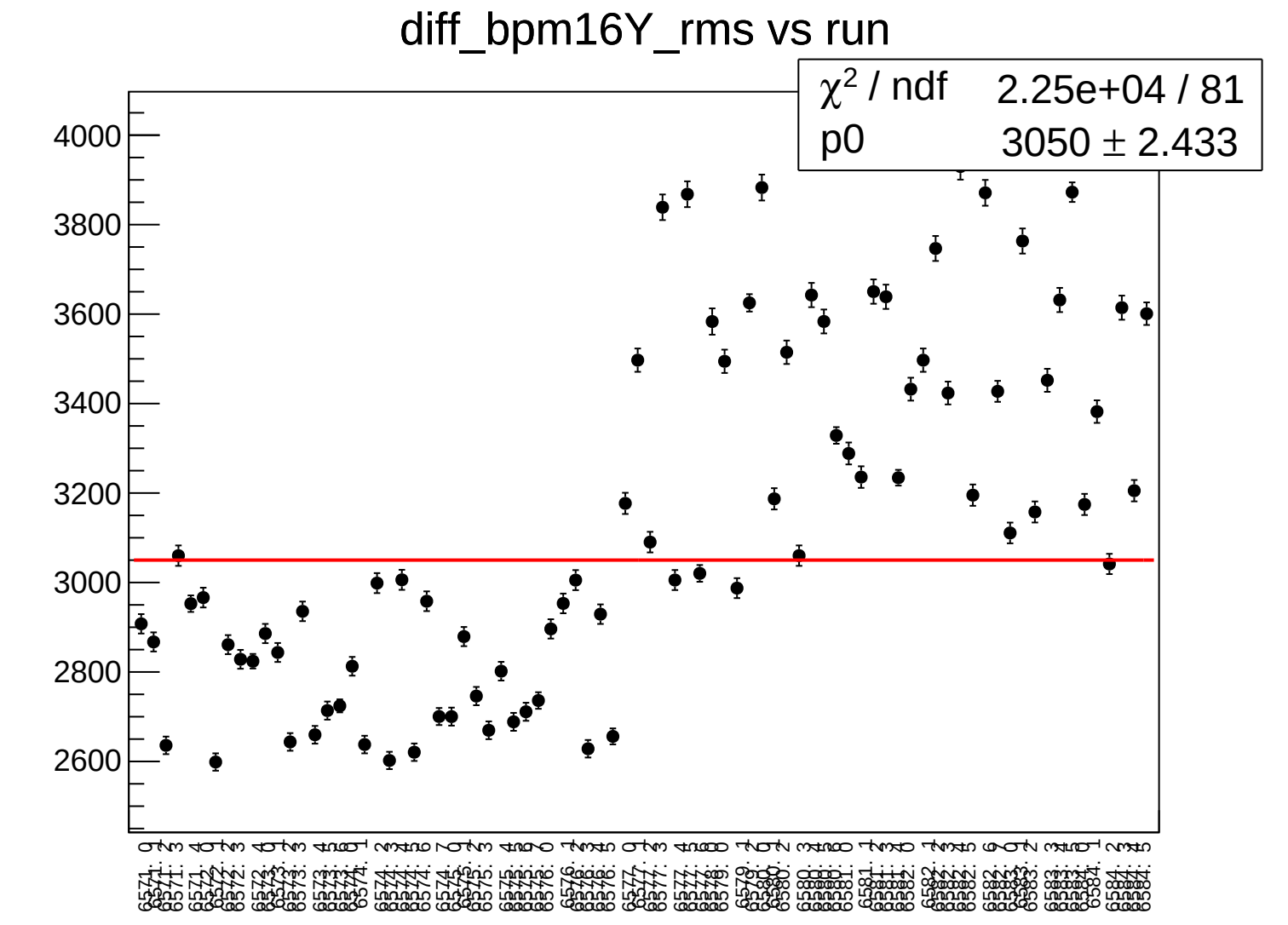

diff_bpm16X_mean vs run
χ² / ndf 90.8 / 81
p0 12.5 ± 5.714
200
100
0
−100
−200
pull
Entries 82
Mean 403.7
Std Dev 363.6
3
2
1
0
−1
−2
−3

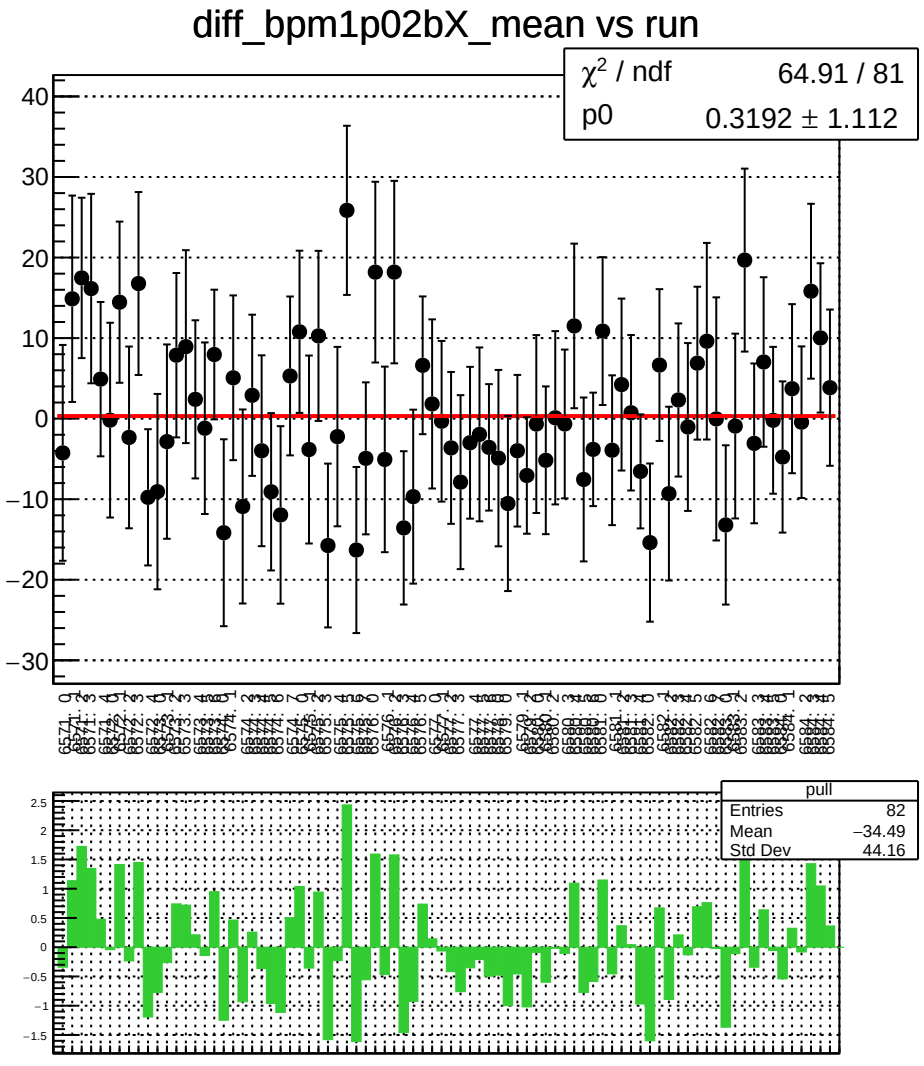

pull1D
Entries 82
Mean 0.007324
Std Dev 1.052
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

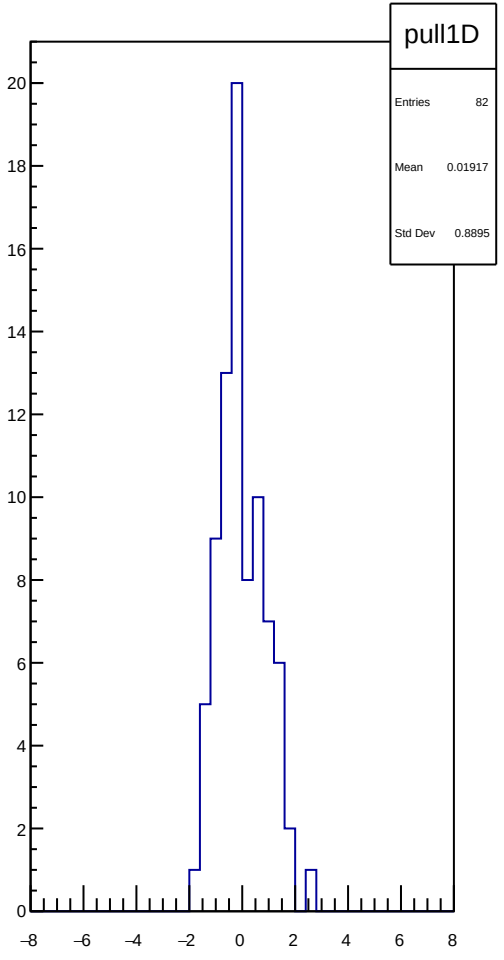

diff_bpm16X_rms vs run
χ² / ndf 1.754e+04 / 81
p0 5073 ± 4.041
7000
6500
6000
5500
5000
4500

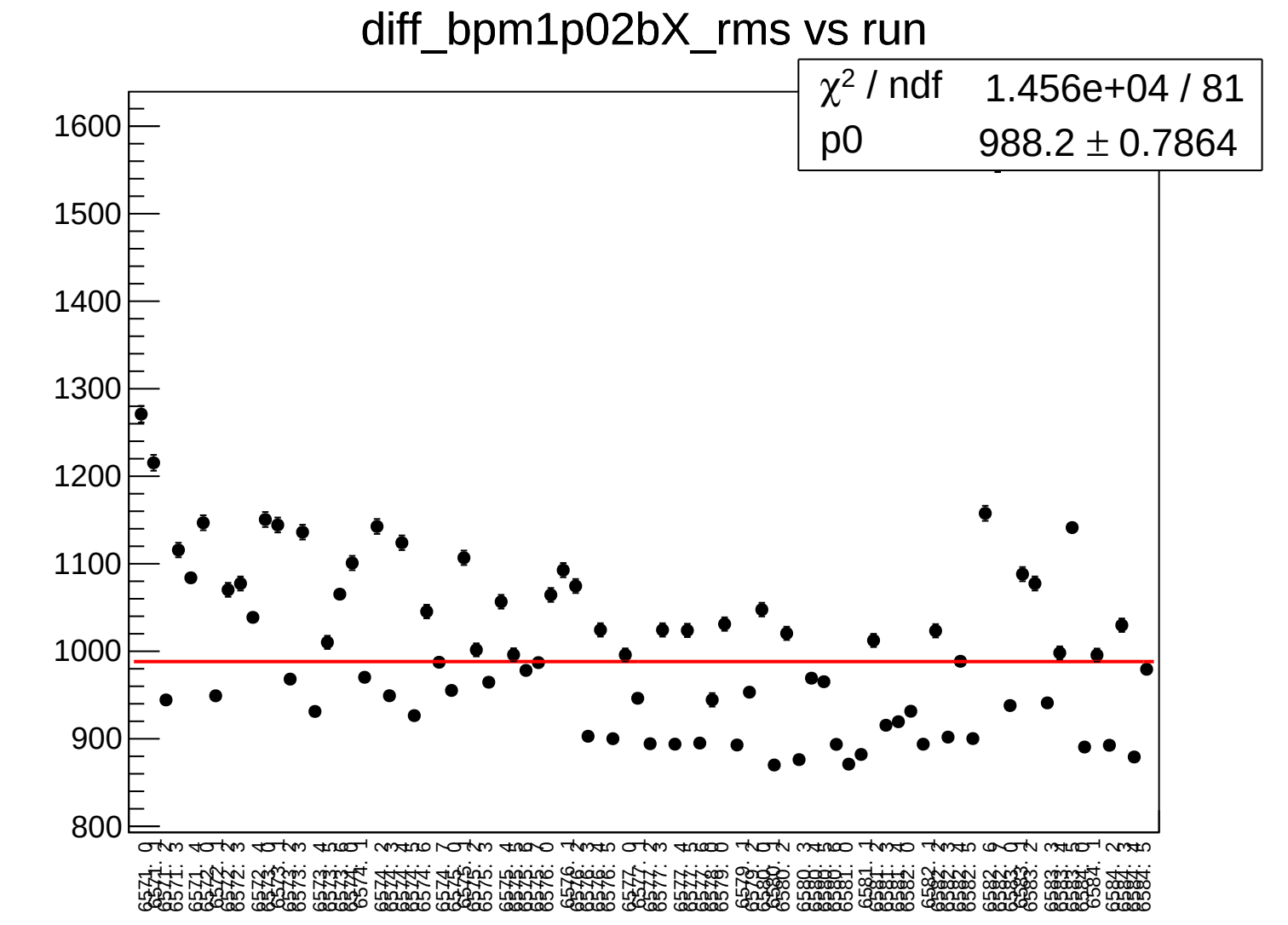

diff_bpm16Y_mean vs run
χ² / ndf 102.7 / 81
p0 1.148 ± 3.441
100
50
0
−50
−100
pull
Entries 82
Mean 351.3
Std Dev 303.9
2
1
0
−1
−2

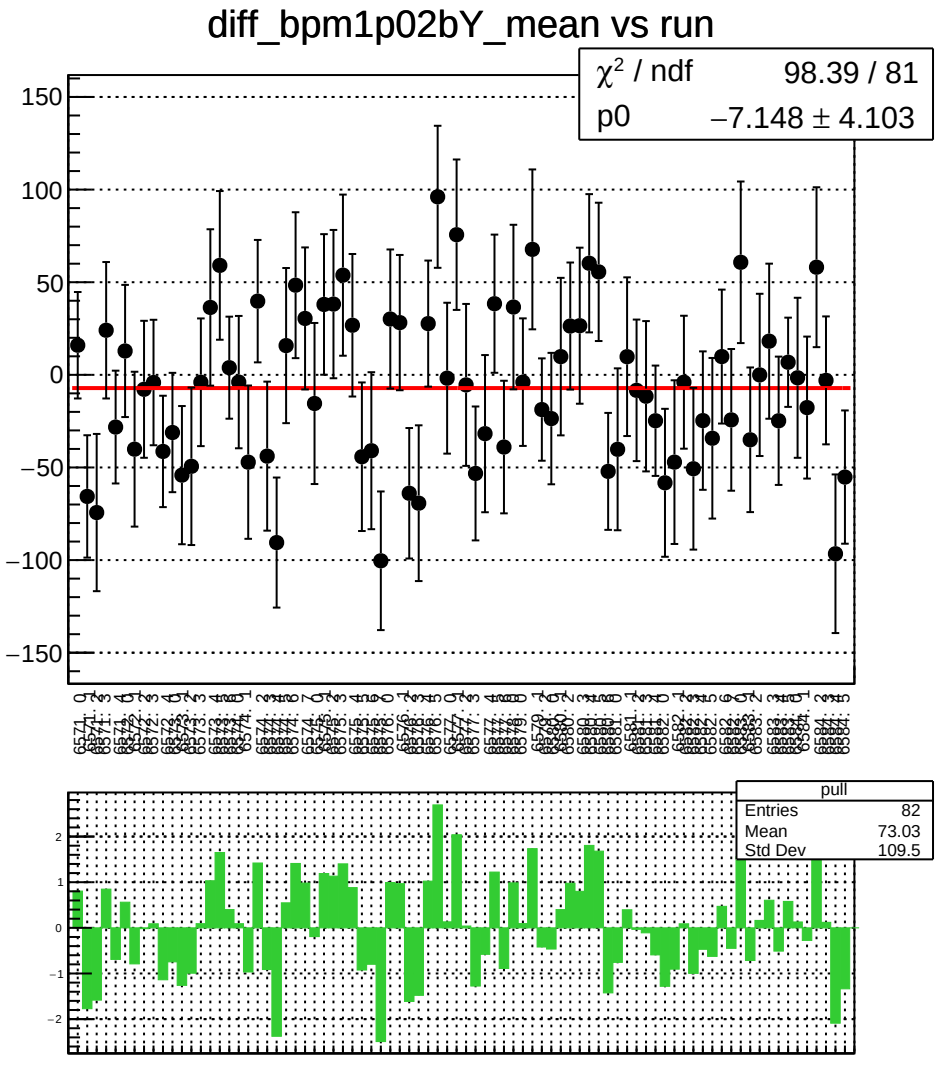

pull1D
Entries 82
Mean 0.01101
Std Dev 1.119
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

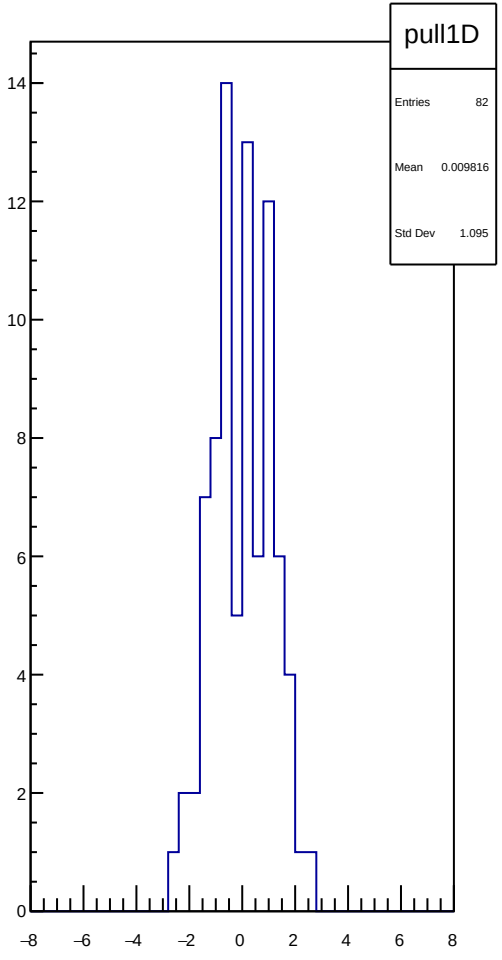

diff_bpm16Y_rms vs run
χ² / ndf 2.25e+04 / 81
p0 3050 ± 2.433
4000
3800
3600
3400
3200
3000
2800
2600

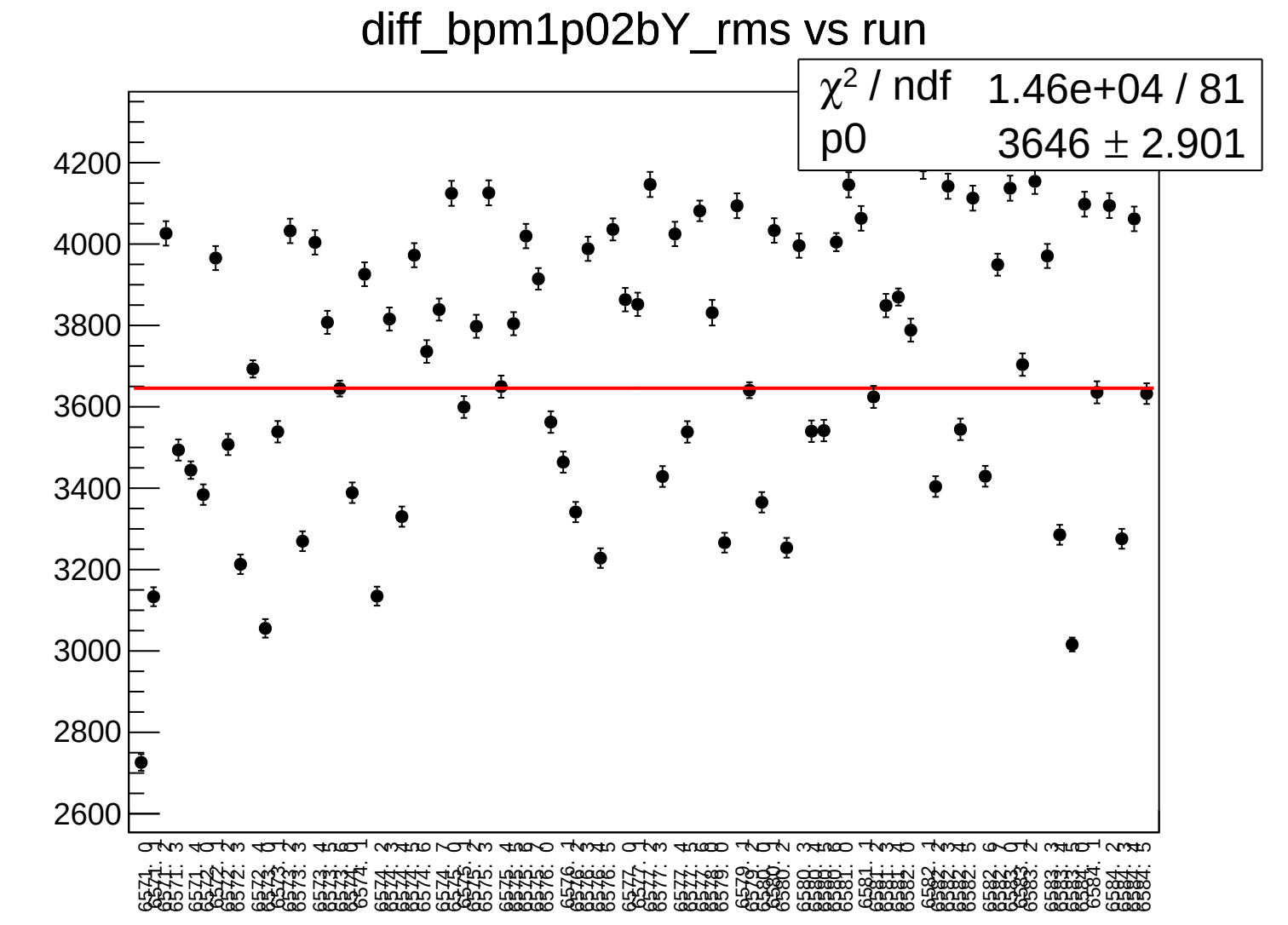

diff_bpm1p02bX_mean vs run
χ² / ndf 64.91 / 81
p0 0.3192 ± 1.112
pull
Entries 82
Mean −34.49
Std Dev 44.16

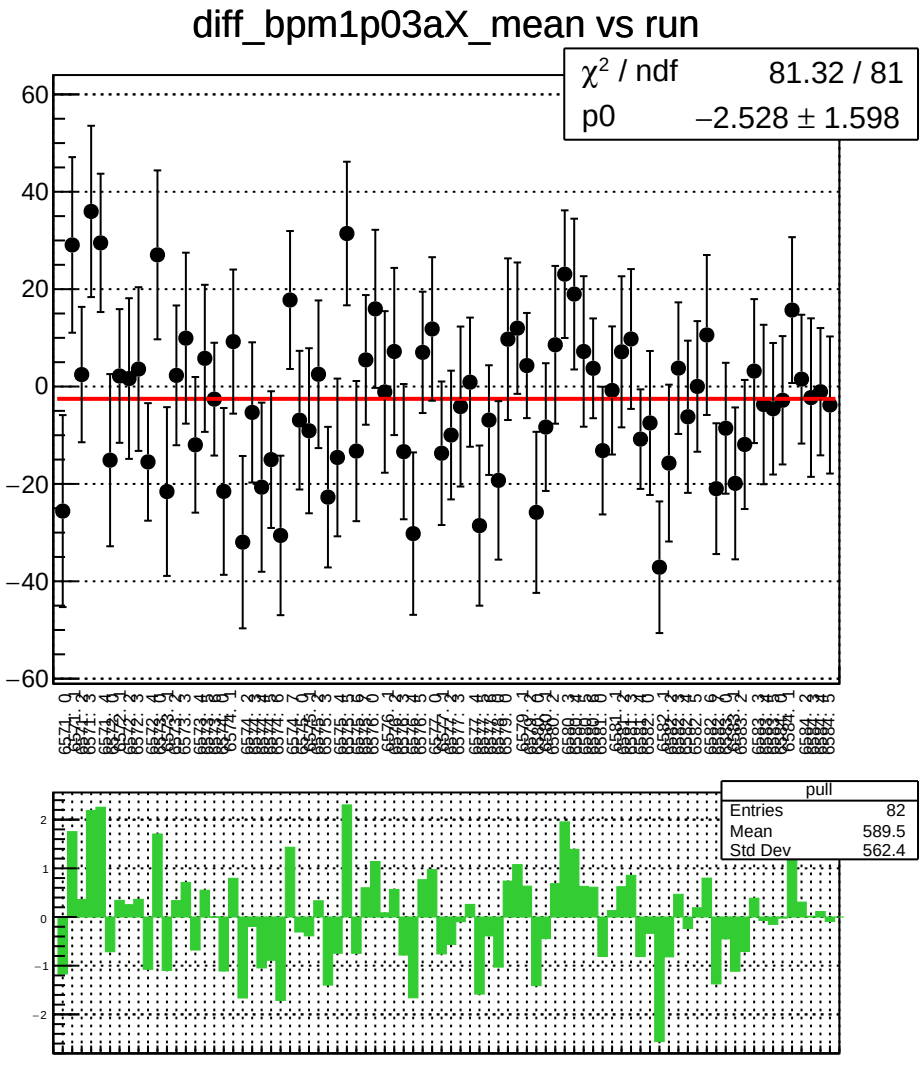

pull1D
Entries 82
Mean 0.01917
Std Dev 0.8895

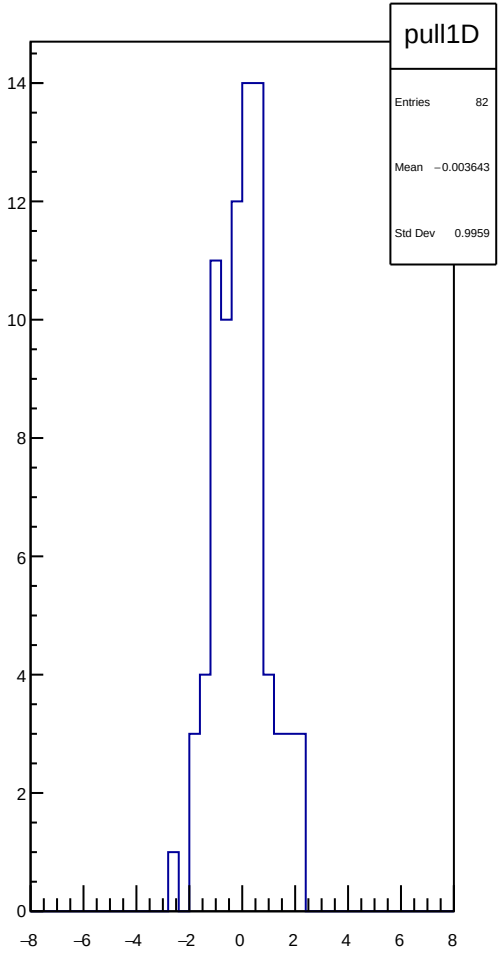

diff_bpm1p02bX_rms vs run
χ² / ndf 1.456e+04 / 81
p0 988.2 ± 0.7864
1600
1500
1400
1300
1200
1100
1000
900
800

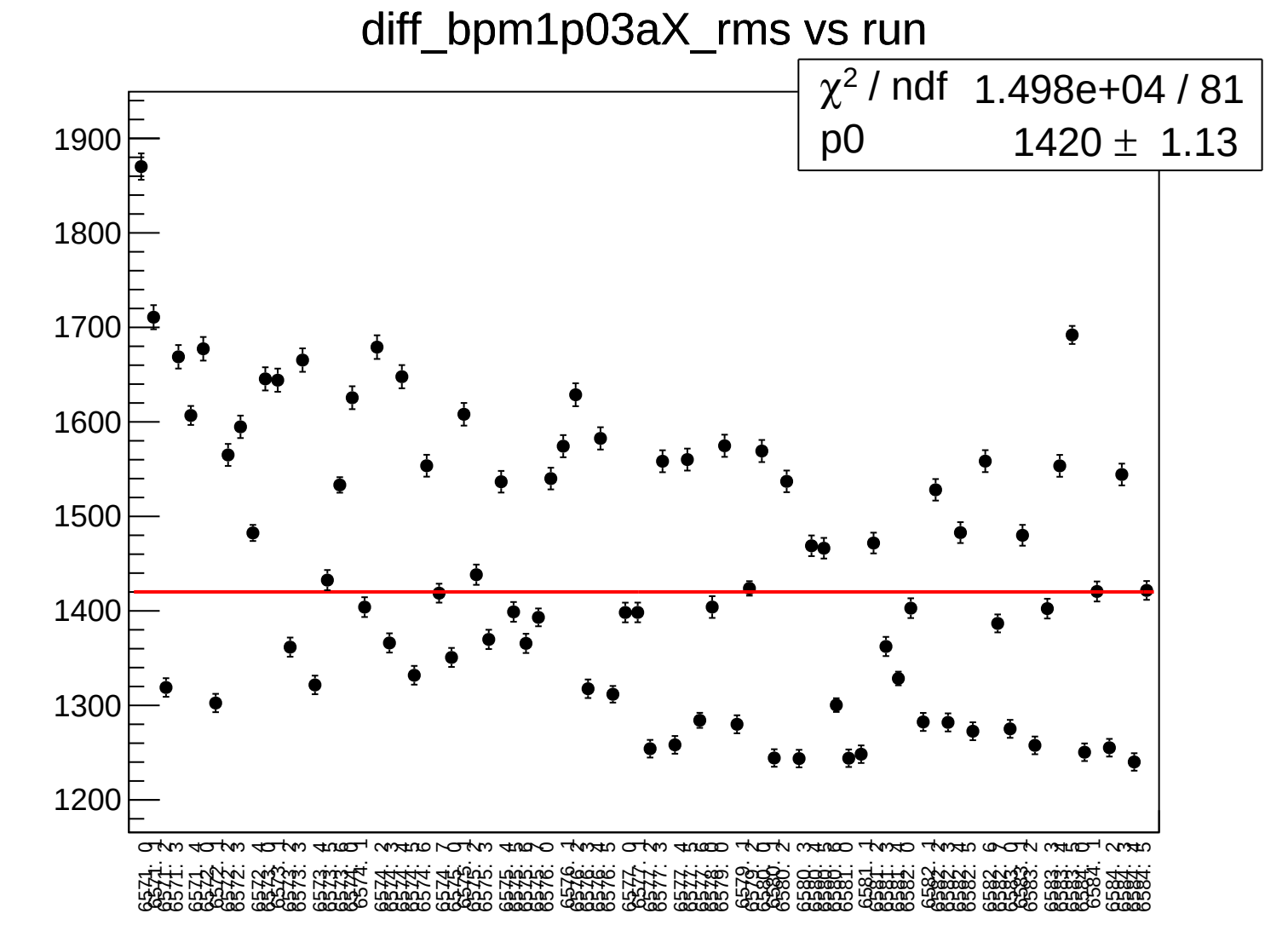

diff_bpm1p02bY_mean vs run
χ² / ndf 98.39 / 81
p0 −7.148 ± 4.103
150
100
50
0
−50
−100
−150
pull
Entries 82
Mean 73.03
Std Dev 109.5
2
1
0
−1
−2

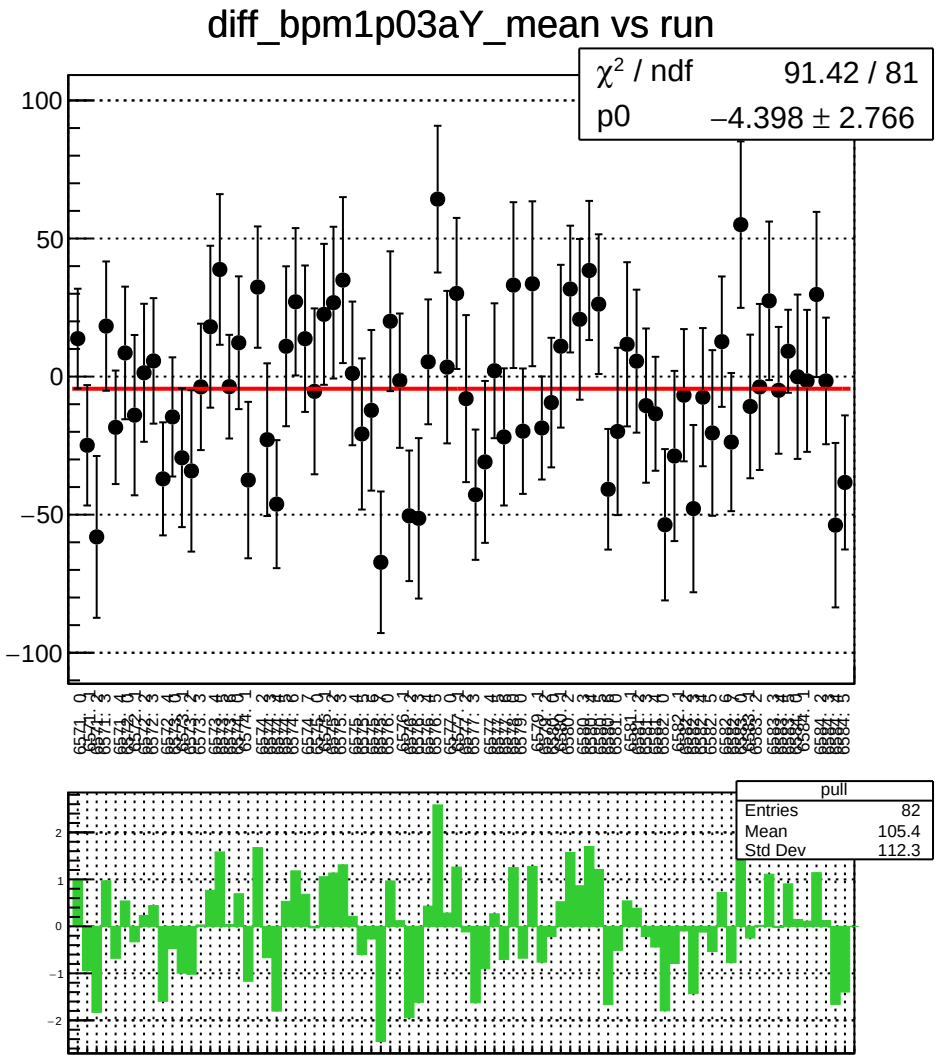

pull1D
Entries 82
Mean 0.009816
Std Dev 1.095
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

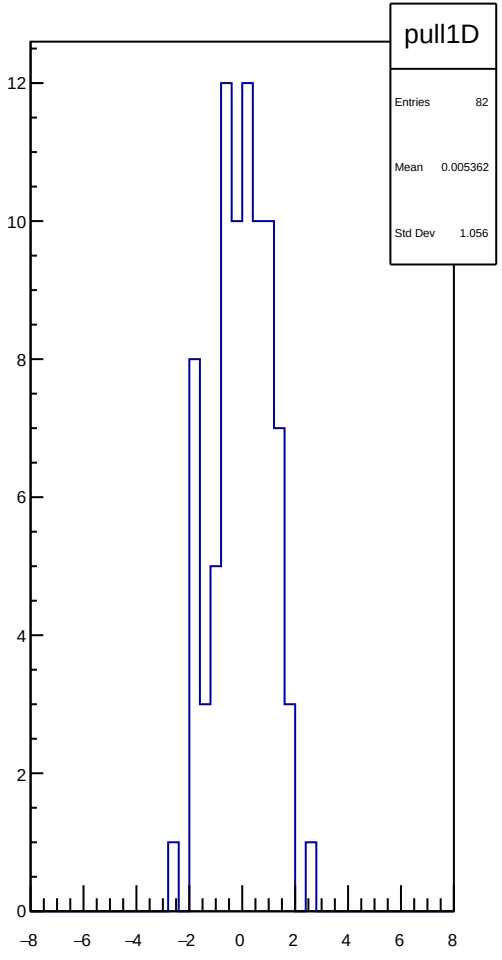

diff_bpm1p02bY_rms vs run
χ² / ndf 1.46e+04 / 81
p0 3646 ± 2.901
4200
4000
3800
3600
3400
3200
3000
2800
2600

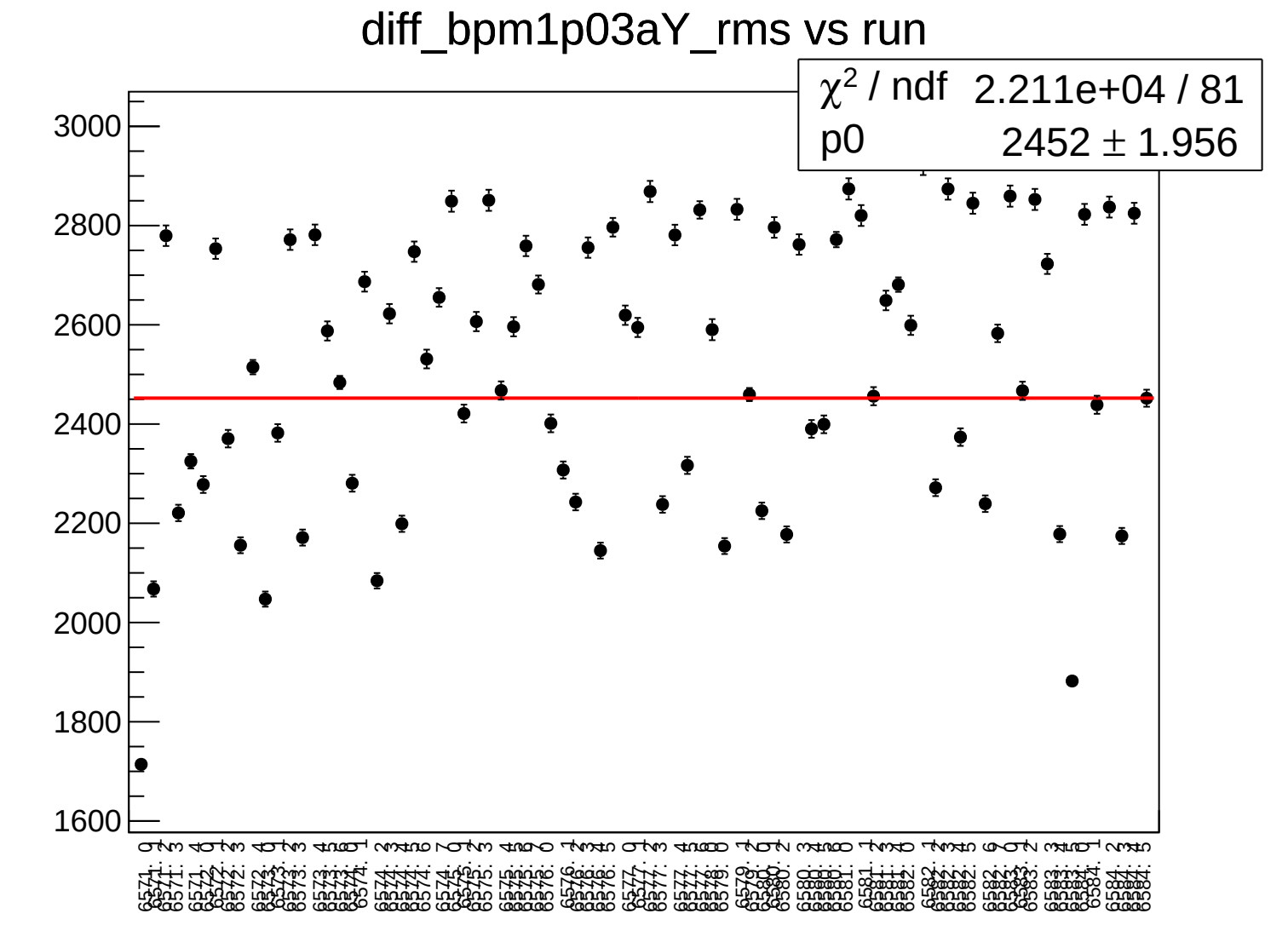

diff_bpm1p03aX_mean vs run
χ² / ndf 81.32 / 81
p0 −2.528 ± 1.598
pull
Entries 82
Mean 589.5
Std Dev 562.4

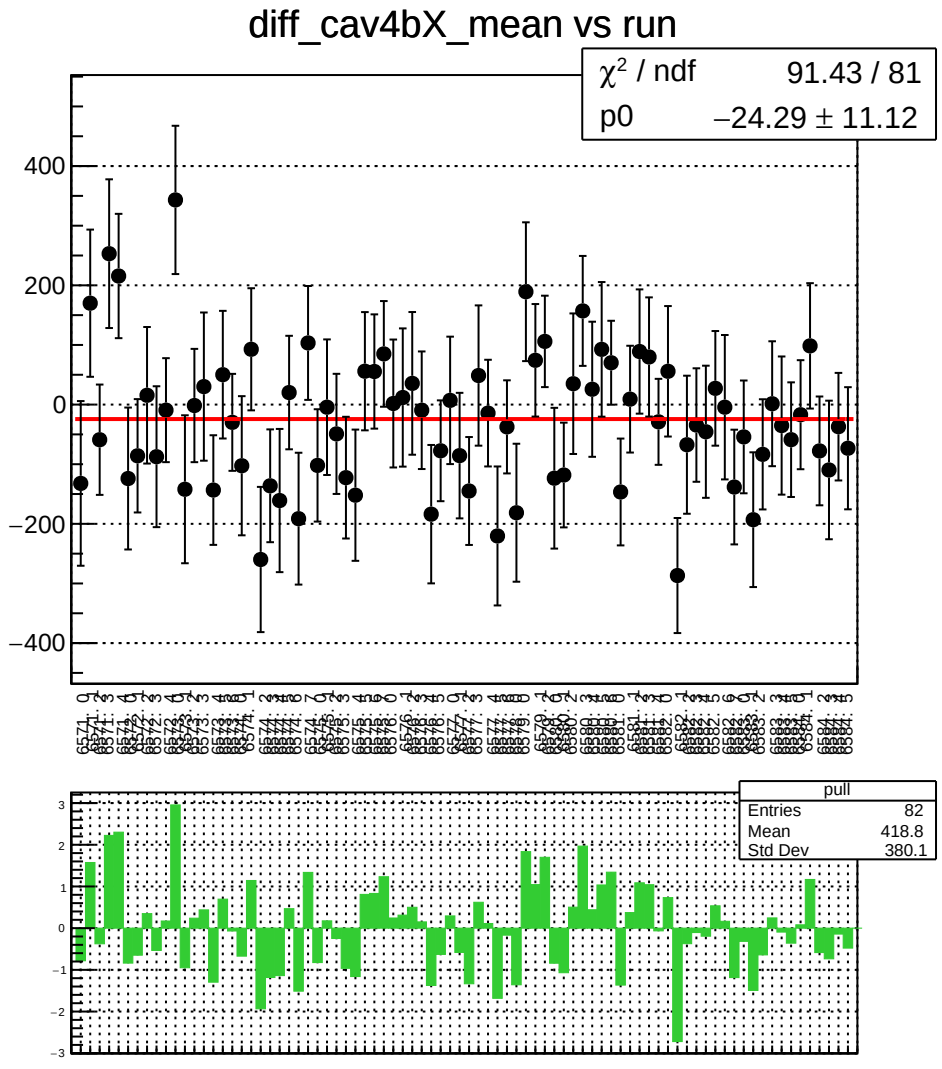

pull1D
Entries 82
Mean −0.003643
Std Dev 0.9959

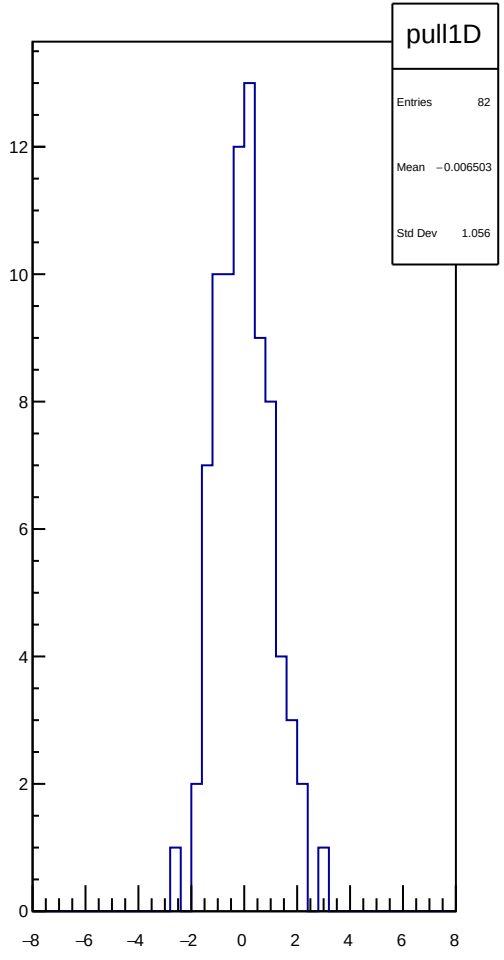

diff_bpm1p03aX_rms vs run
χ² / ndf 1.498e+04 / 81
p0 1420 ± 1.13
1900
1800
1700
1600
1500
1400
1300
1200

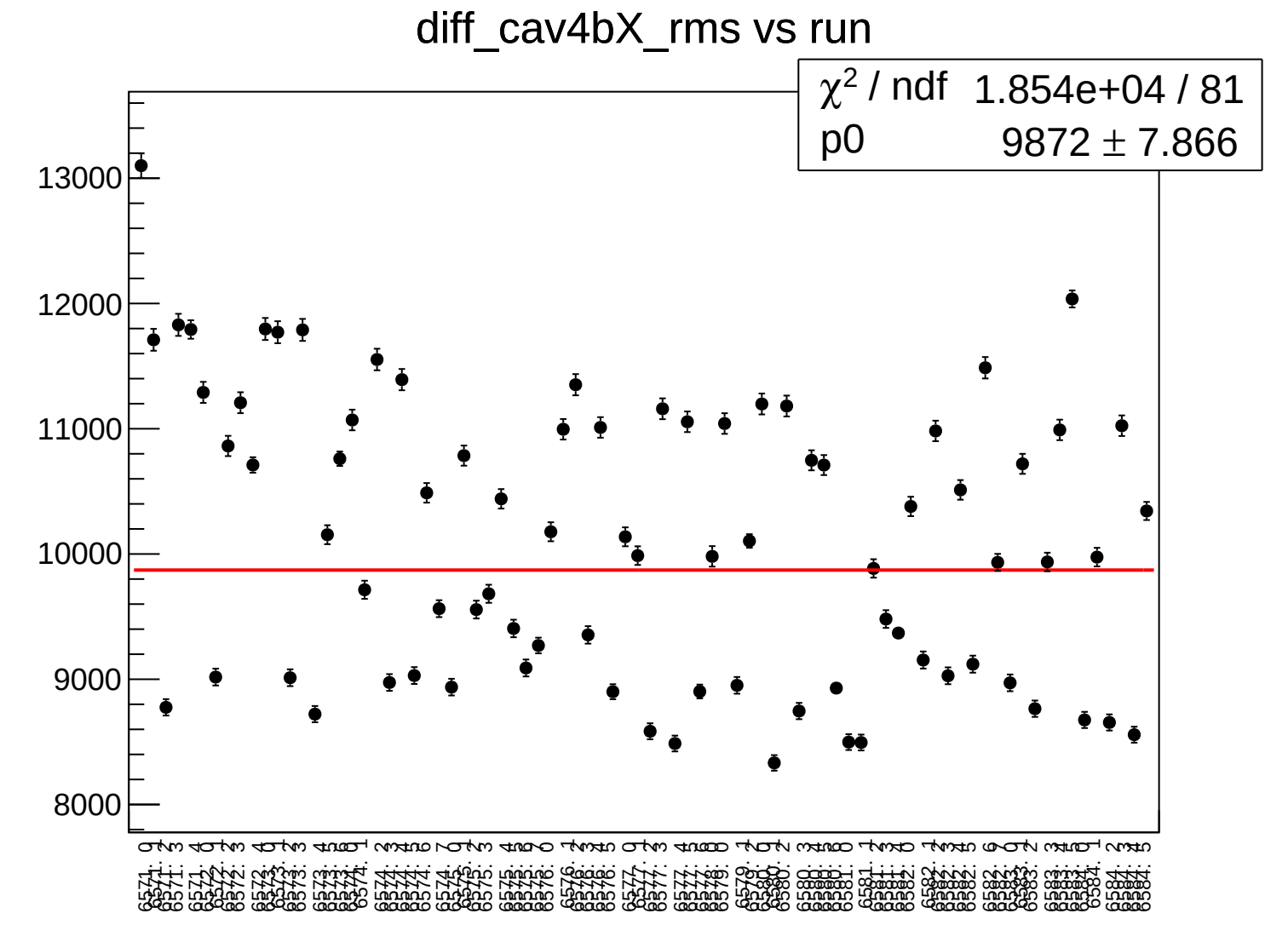

diff_bpm1p03aY_mean vs run
χ² / ndf 91.42 / 81
p0 −4.398 ± 2.766
100
50
0
−50
−100
pull
Entries 82
Mean 105.4
Std Dev 112.3
2
1
0
−1
−2

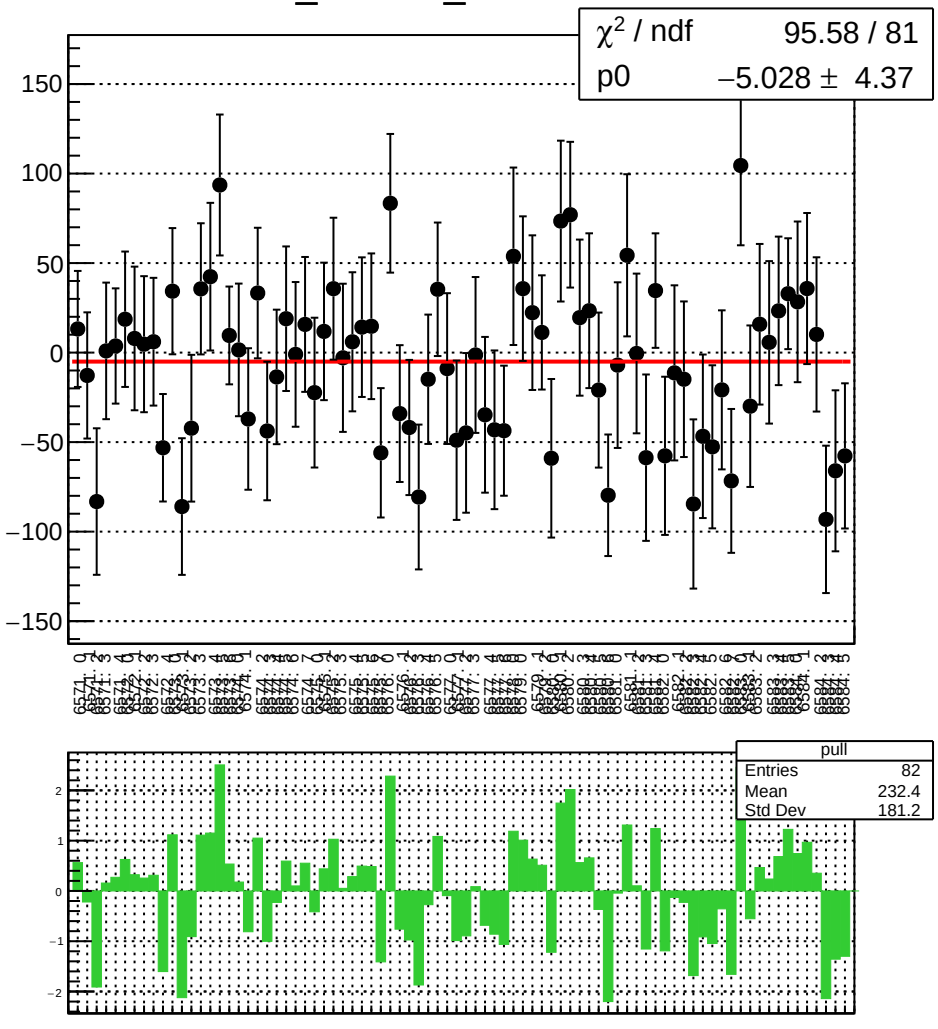

pull1D
Entries 82
Mean 0.005362
Std Dev 1.056
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

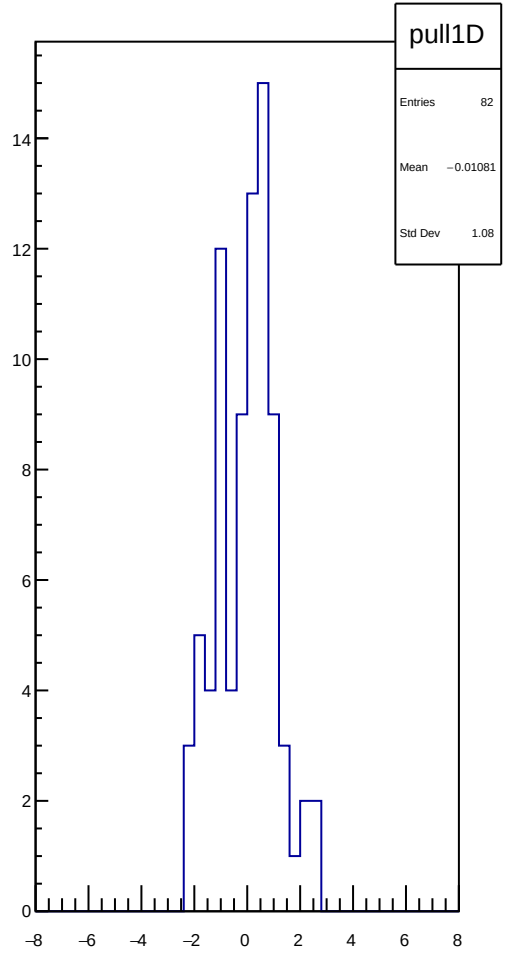

diff_bpm1p03aY_rms vs run
χ² / ndf 2.211e+04 / 81
p0 2452 ± 1.956
3000
2800
2600
2400
2200
2000
1800
1600

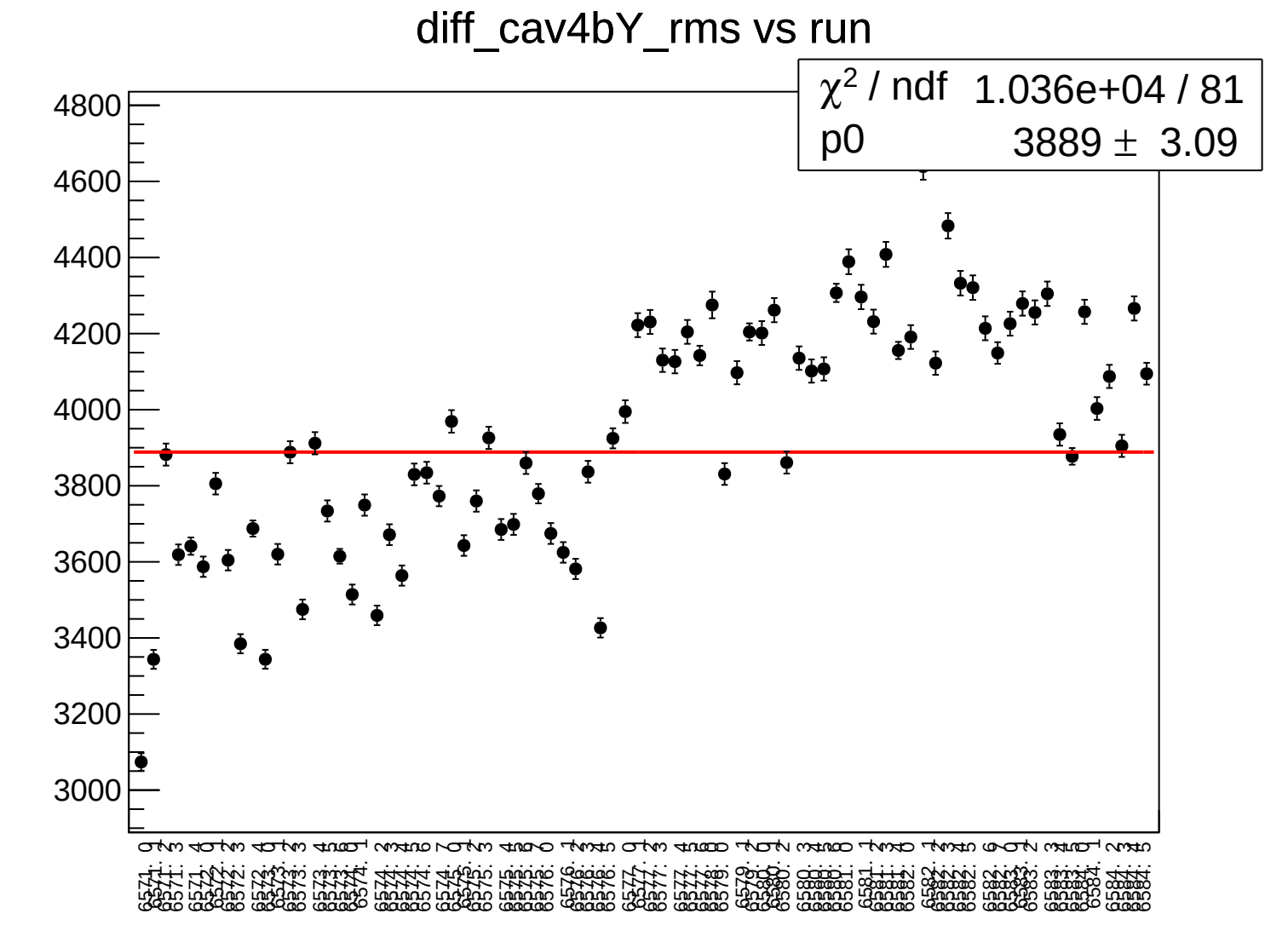

diff_cav4bX_mean vs run
χ² / ndf 91.43 / 81
p0 −24.29 ± 11.12
400
200
0
−200
−400
pull
Entries 82
Mean 418.8
Std Dev 380.1
3
2
1
0
−1
−2
−3

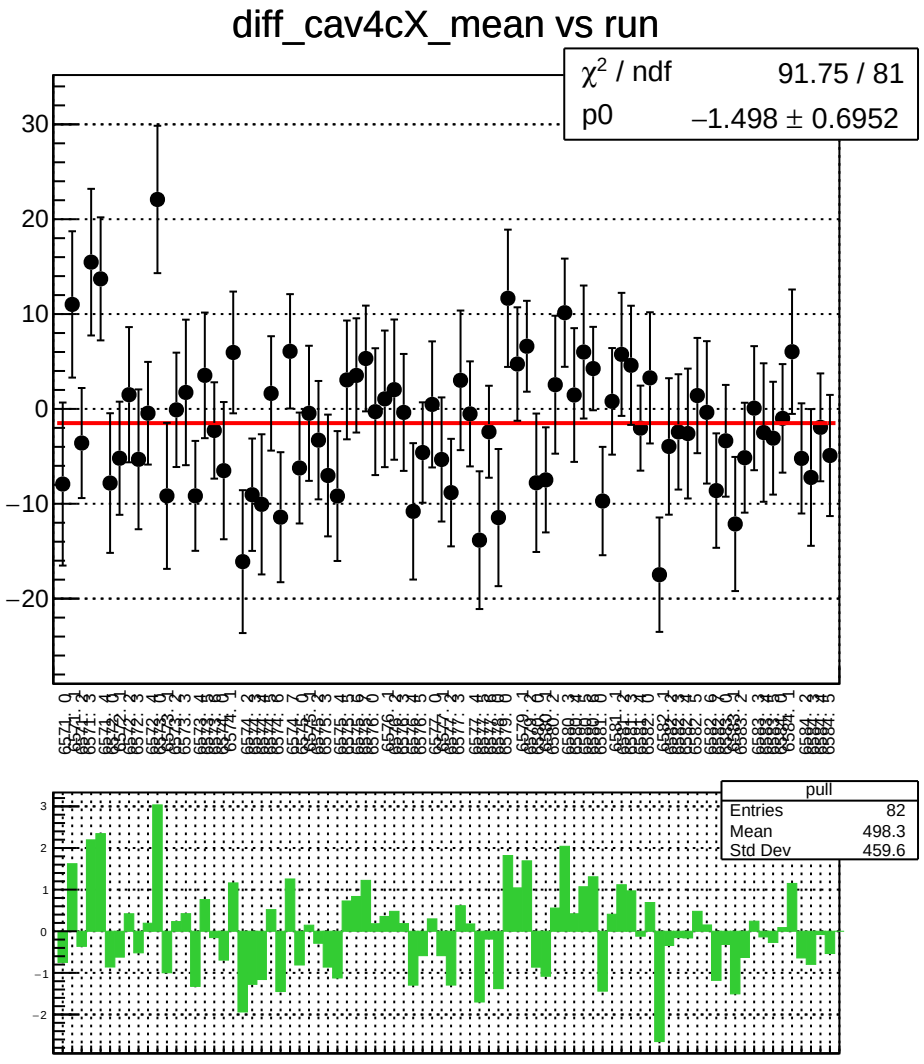

pull1D
Entries 82
Mean −0.006503
Std Dev 1.056
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

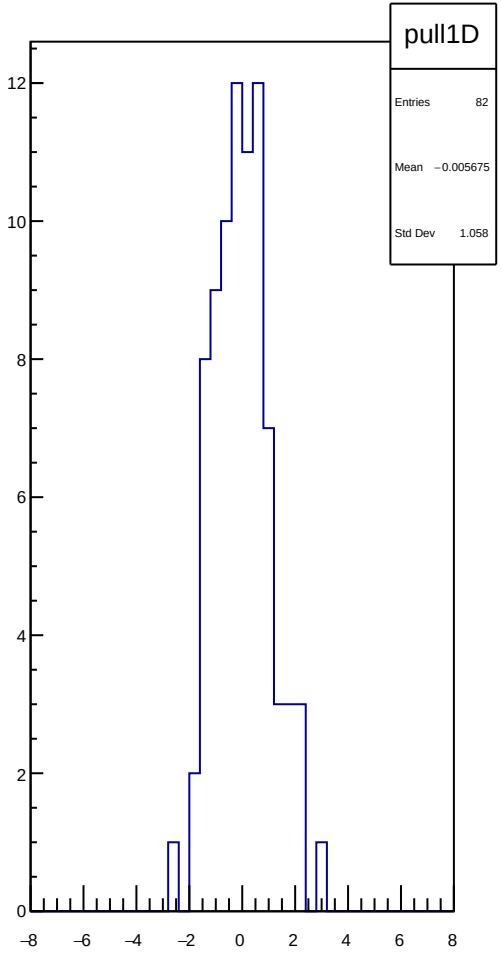

diff_cav4bX_rms vs run
χ² / ndf 1.854e+04 / 81
p0 9872 ± 7.866
13000
12000
11000
10000
9000
8000

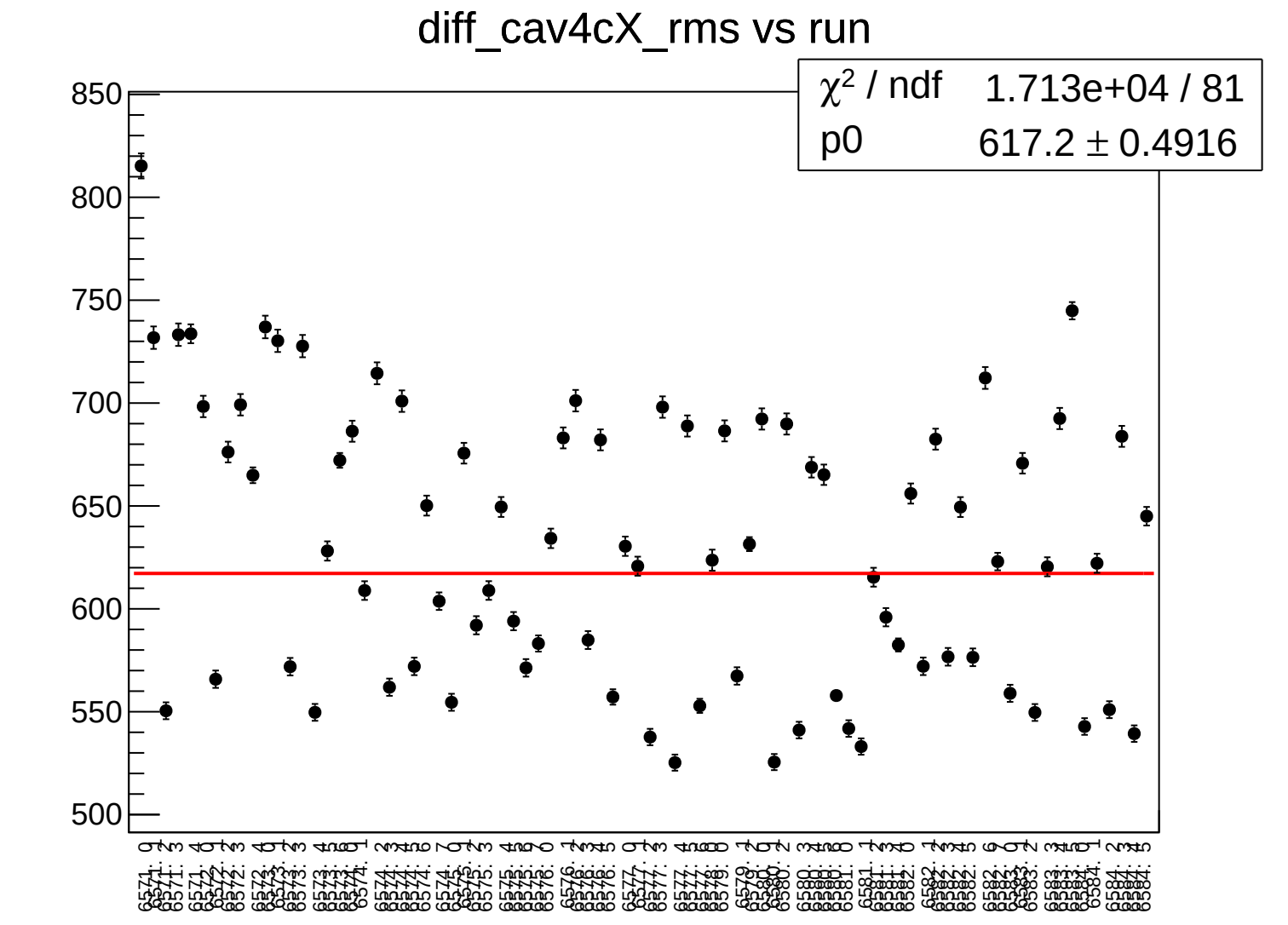

diff_cav4bY_mean vs run
χ² / ndf 95.58 / 81
p0 −5.028 ± 4.37
150
100
50
0
−50
−100
−150
pull
Entries 82
Mean 232.4
Std Dev 181.2
2
1
0
−1
−2

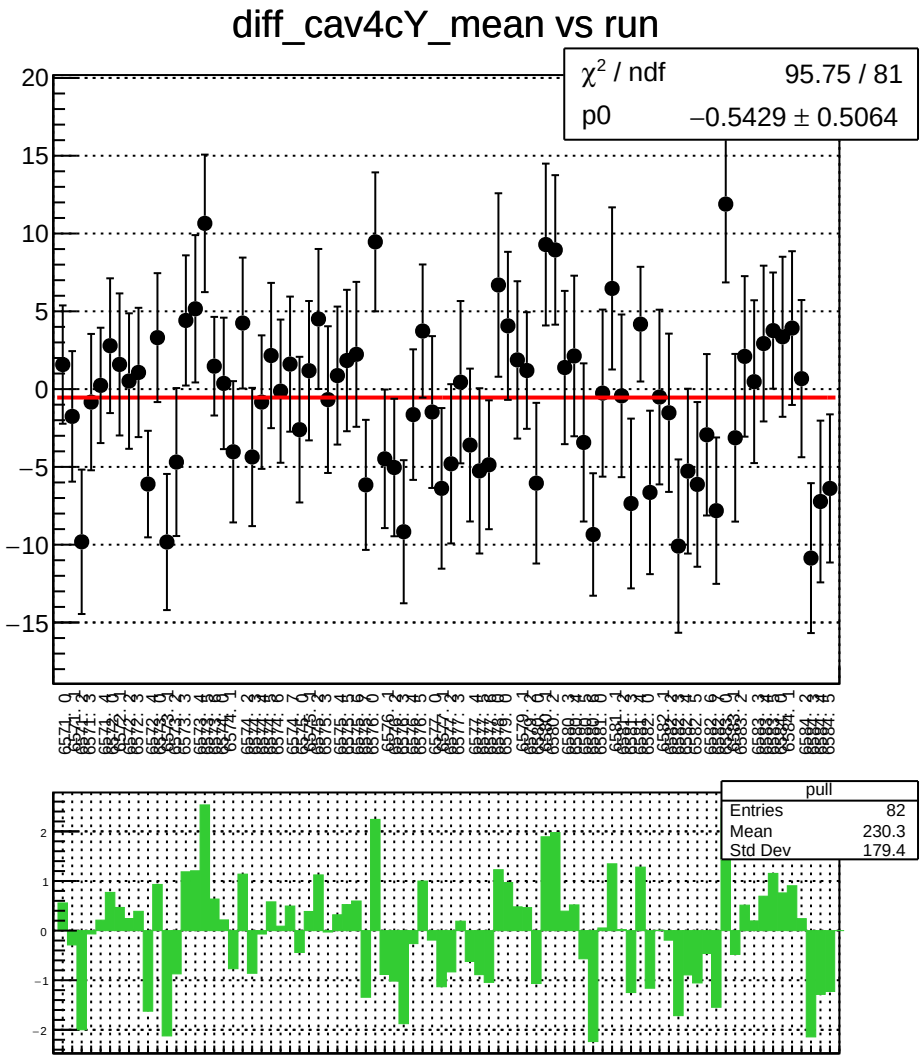

pull1D
Entries 82
Mean −0.01081
Std Dev 1.08
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

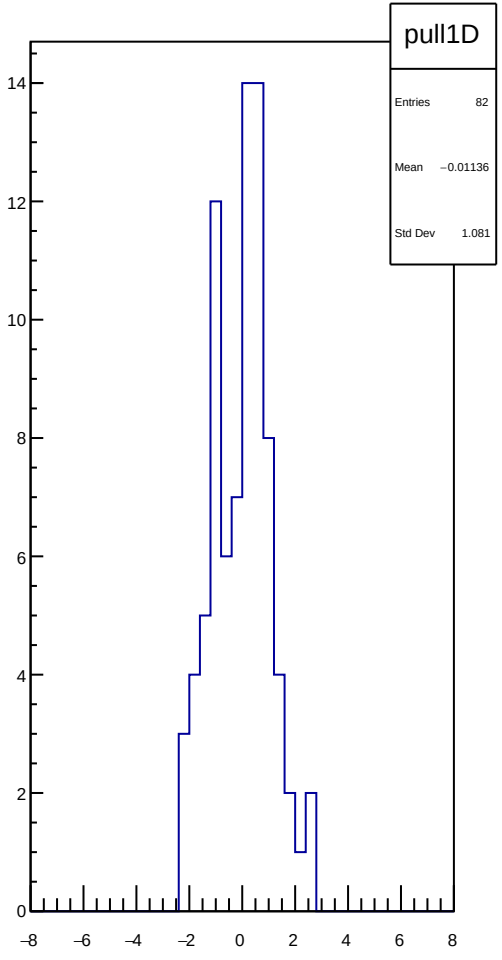

diff_cav4bY_rms vs run
χ² / ndf 1.036e+04 / 81
p0 3889 ± 3.09
4800
4600
4400
4200
4000
3800
3600
3400
3200
3000

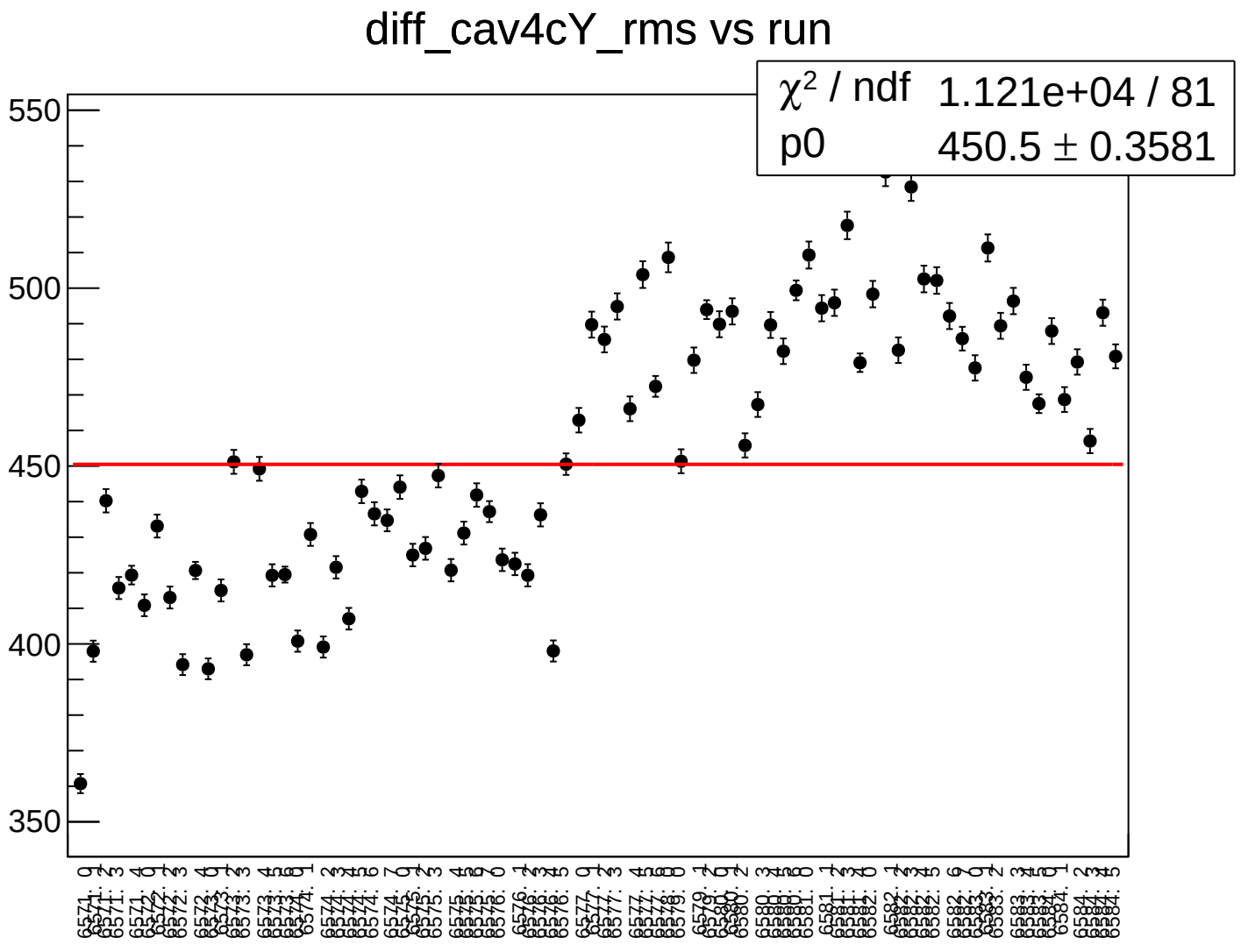

diff_cav4cX_mean vs run
χ² / ndf 91.75 / 81
p0 −1.498 ± 0.6952
pull
Entries 82
Mean 498.3
Std Dev 459.6

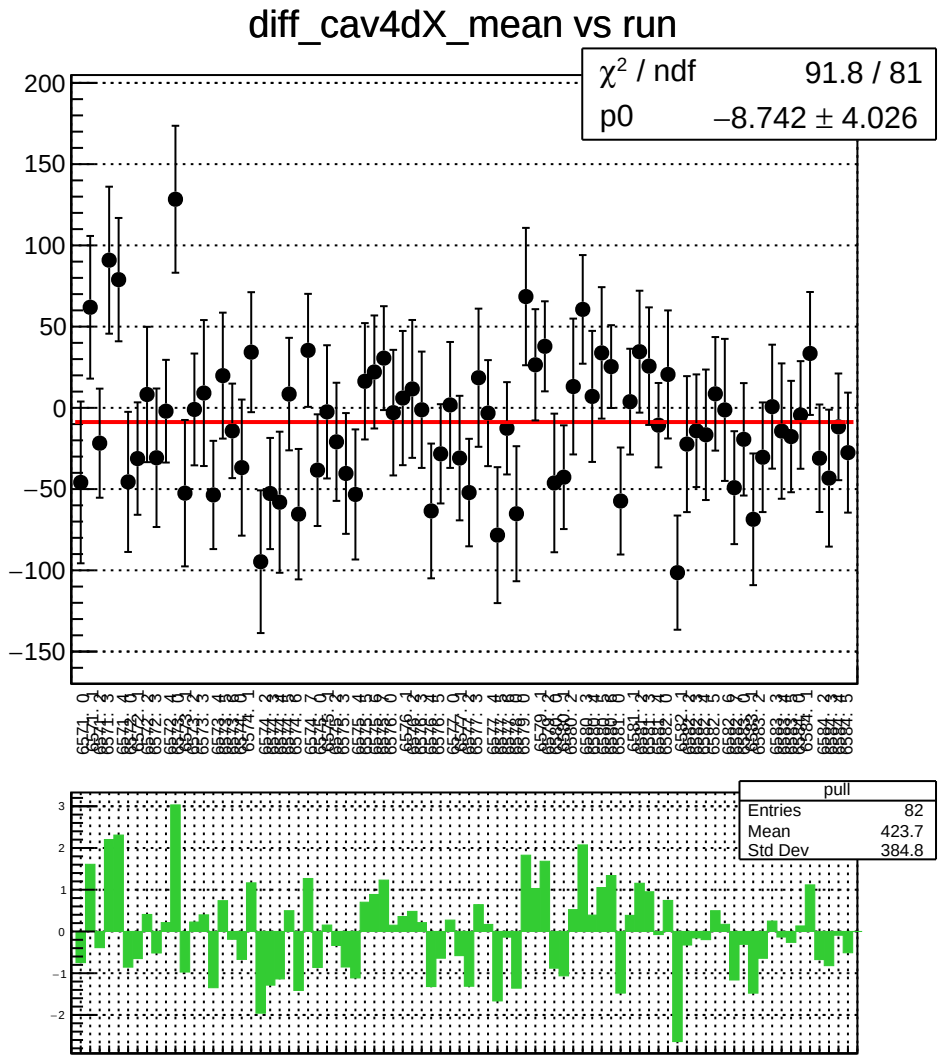

pull1D
Entries 82
Mean −0.005675
Std Dev 1.058

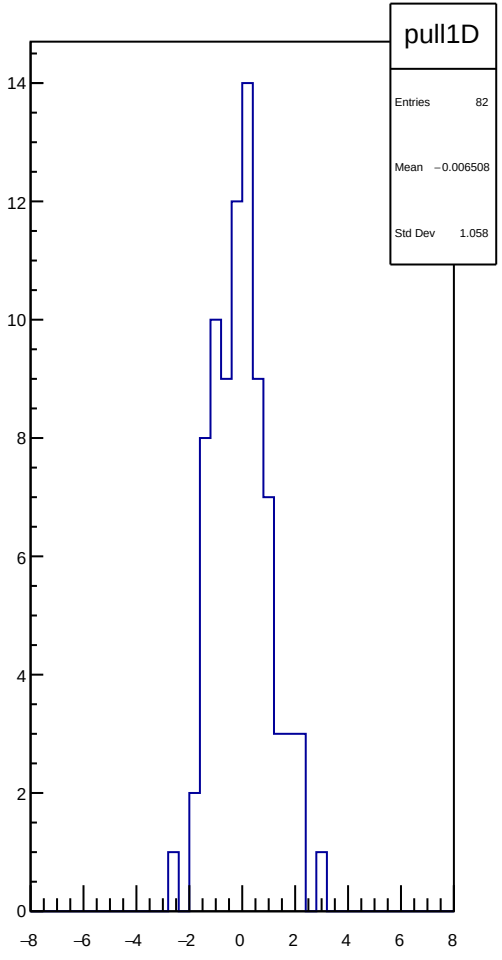

diff_cav4cX_rms vs run
χ² / ndf 1.713e+04 / 81
p0 617.2 ± 0.4916
850
800
750
700
650
600
550
500

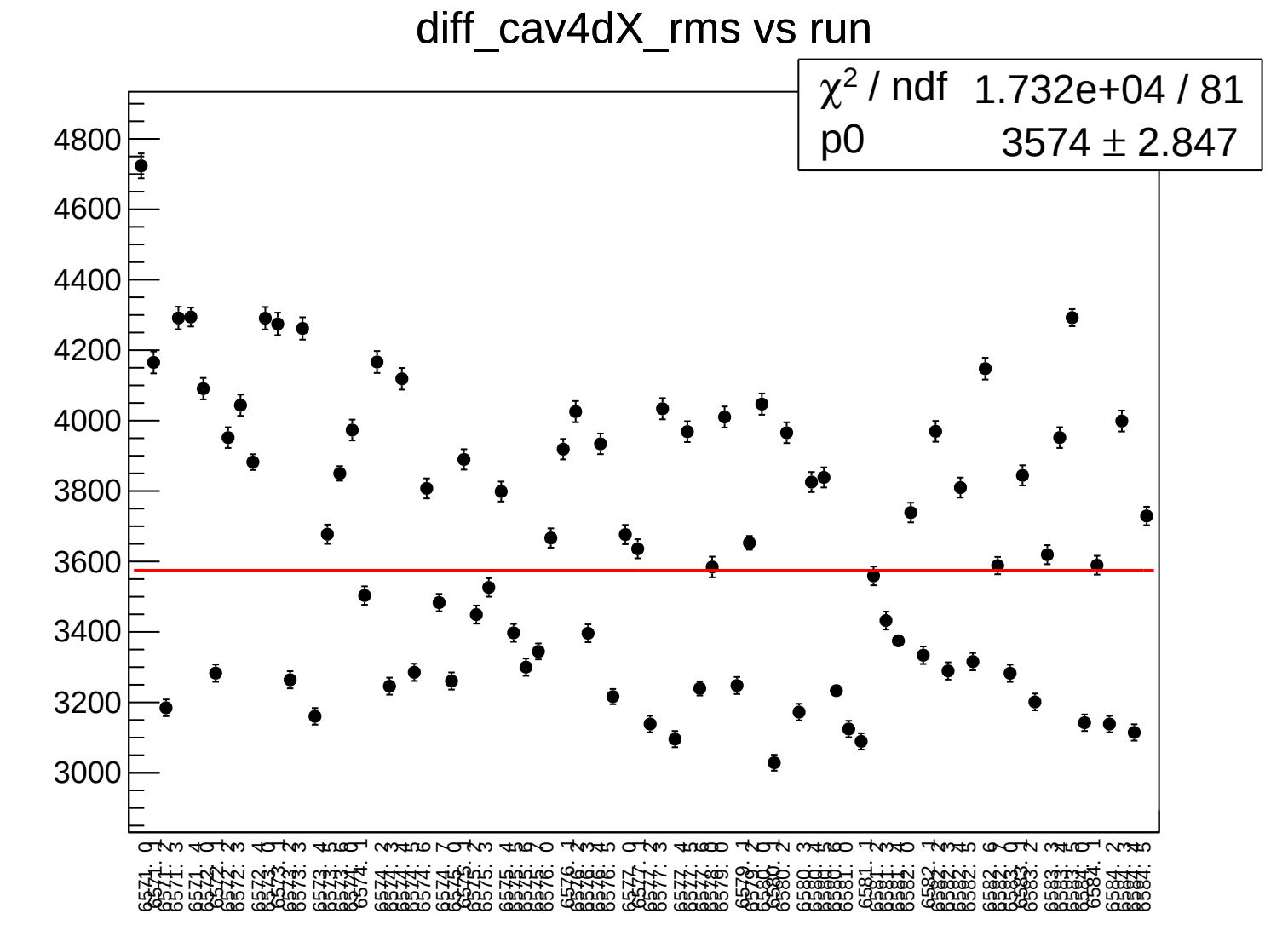

diff_cav4cY_mean vs run
χ² / ndf 95.75 / 81
p0 −0.5429 ± 0.5064
pull
Entries 82
Mean 230.3
Std Dev 179.4

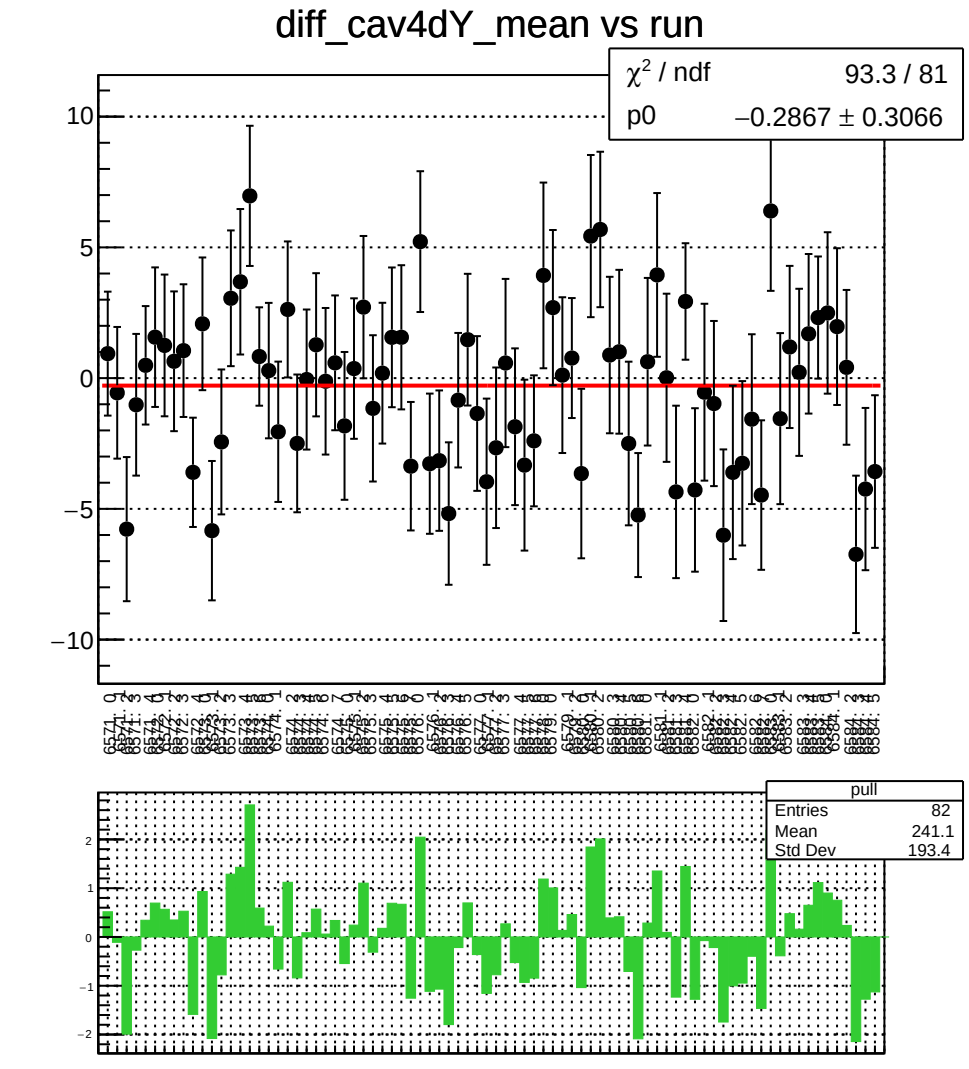

pull1D
Entries 82
Mean −0.01136
Std Dev 1.081

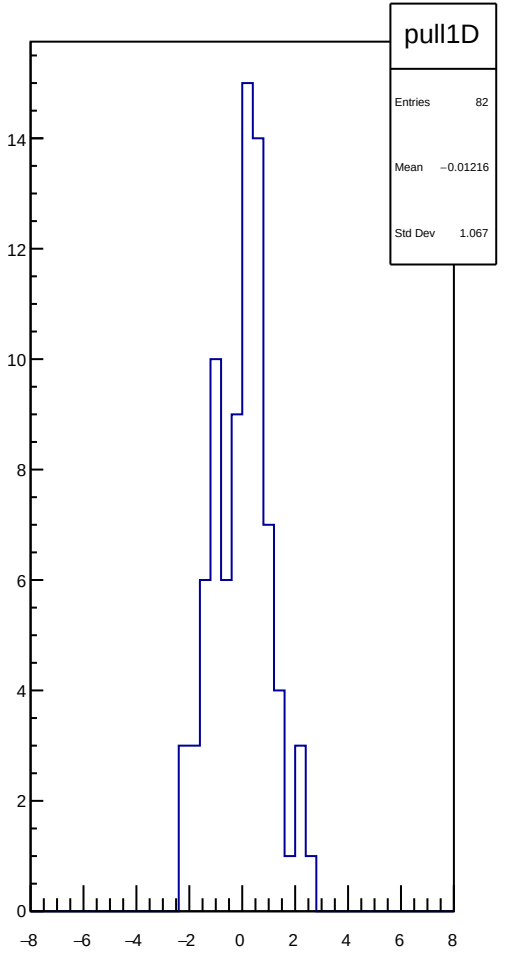

diff_cav4cY_rms vs run
χ² / ndf 1.121e+04 / 81
p0 450.5 ± 0.3581
550
500
450
400
350

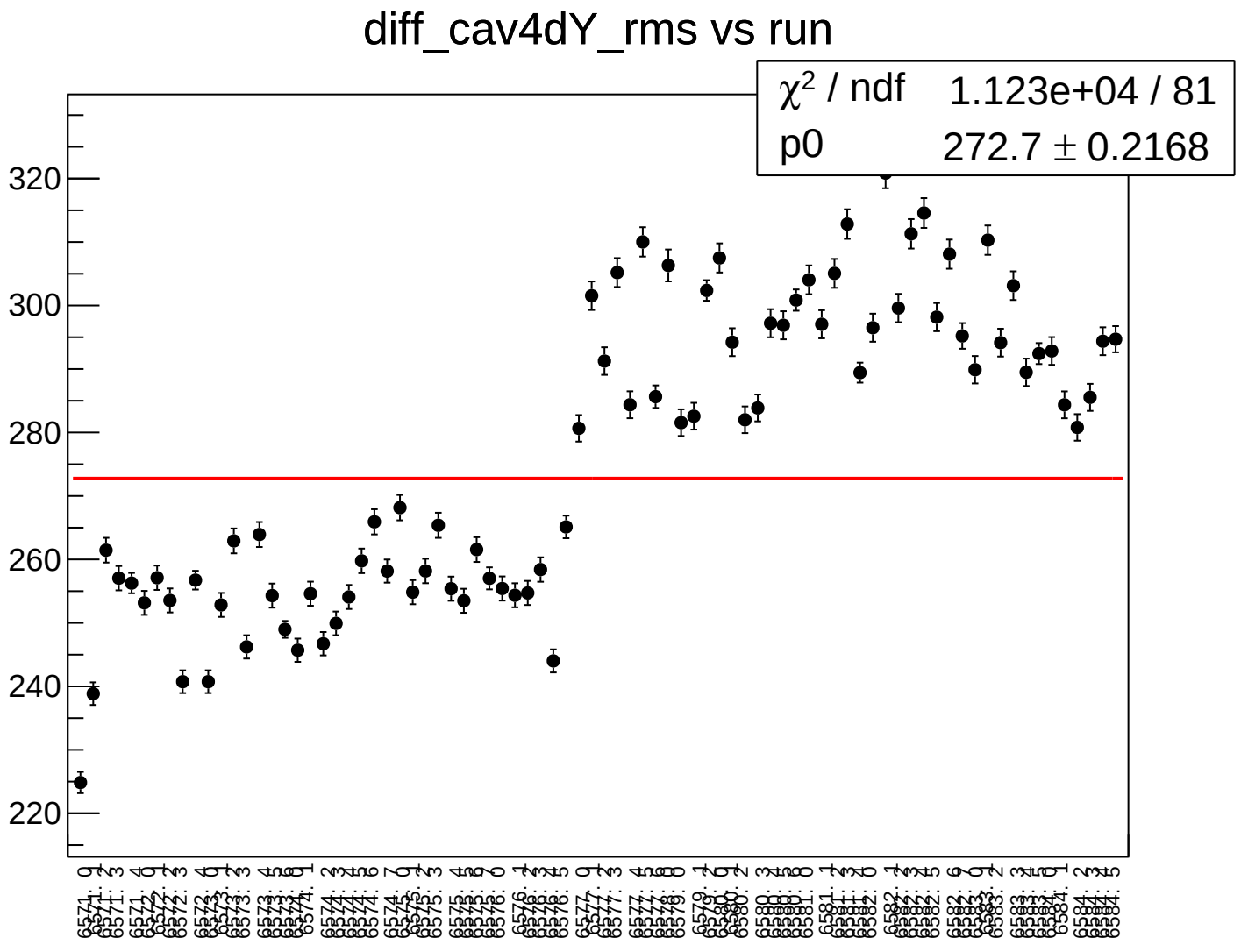

diff_cav4dX_mean vs run
χ² / ndf 91.8 / 81
p0 −8.742 ± 4.026
pull
Entries 82
Mean 423.7
Std Dev 384.8

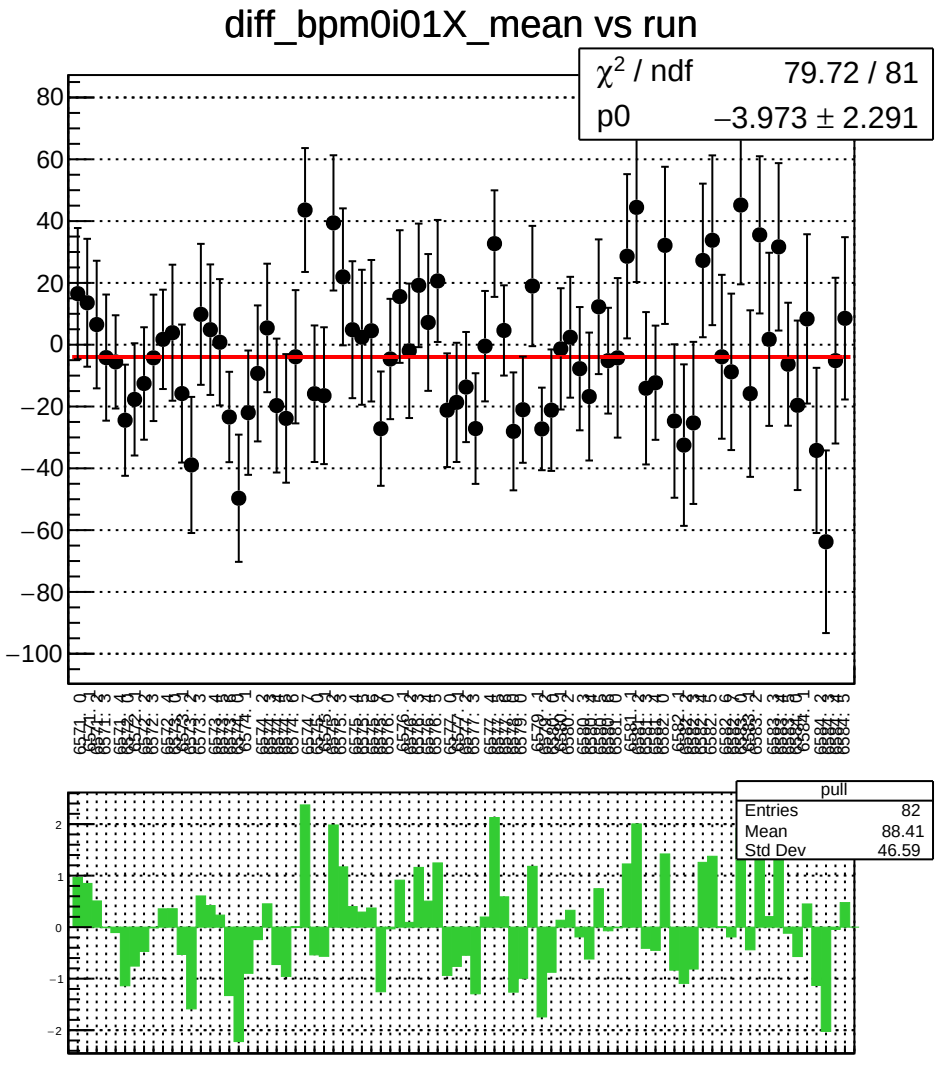

pull1D
Entries 82
Mean −0.006508
Std Dev 1.058

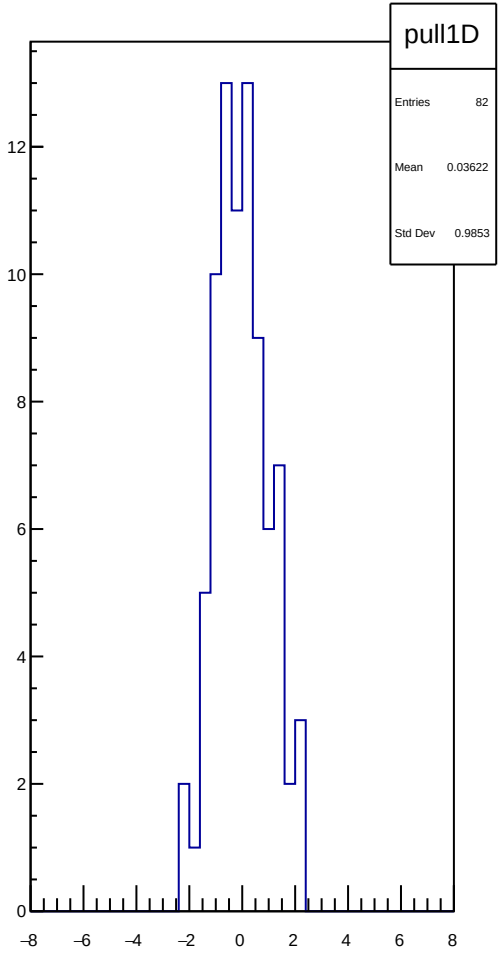

diff_cav4dX_rms vs run
χ² / ndf 1.732e+04 / 81
p0 3574 ± 2.847
4800
4600
4400
4200
4000
3800
3600
3400
3200
3000

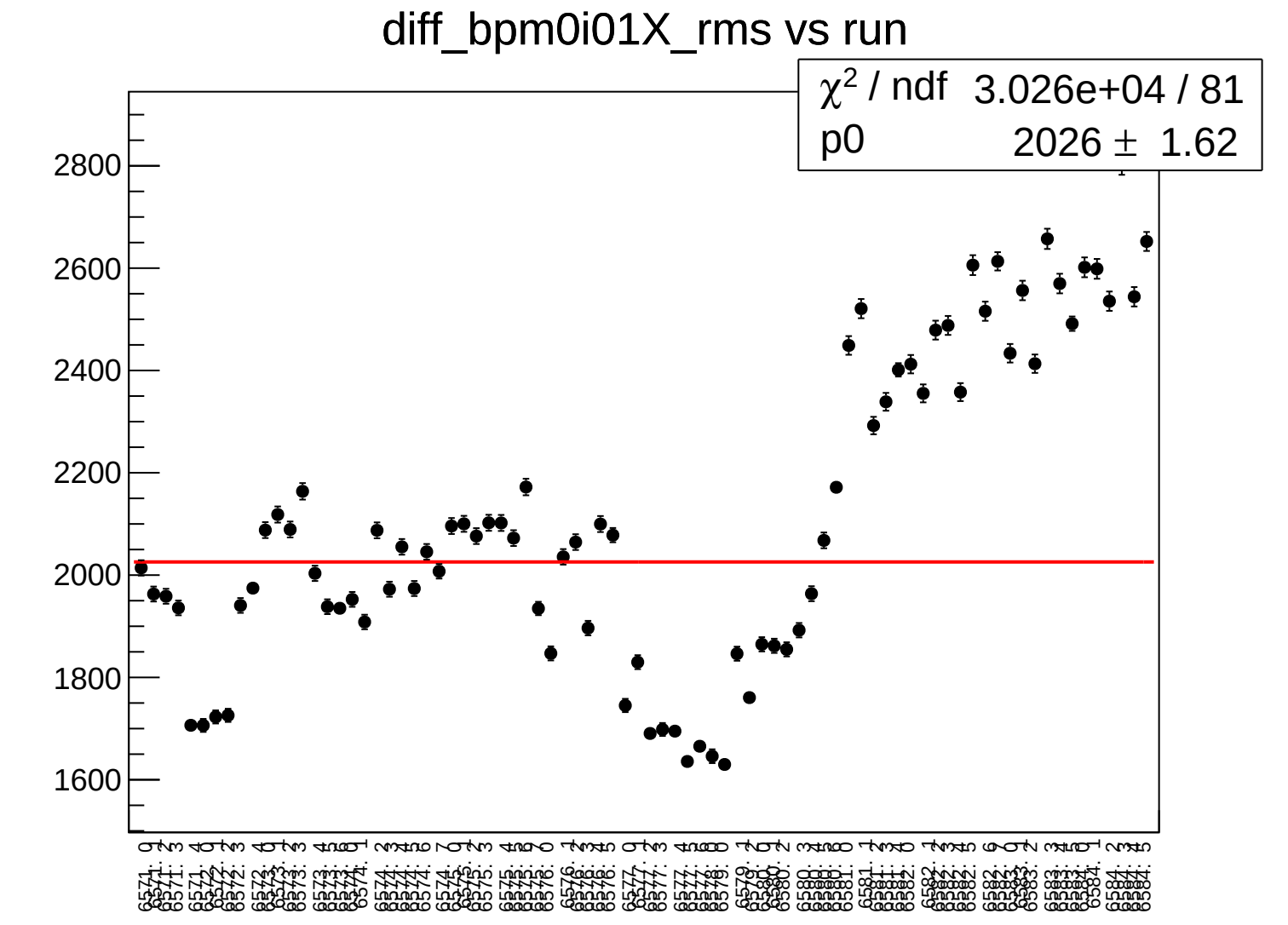

diff_cav4dY_mean vs run
χ² / ndf 93.3 / 81
p0 −0.2867 ± 0.3066
10
5
0
−5
−10
pull
Entries 82
Mean 241.1
Std Dev 193.4
2
1
0
−1
−2

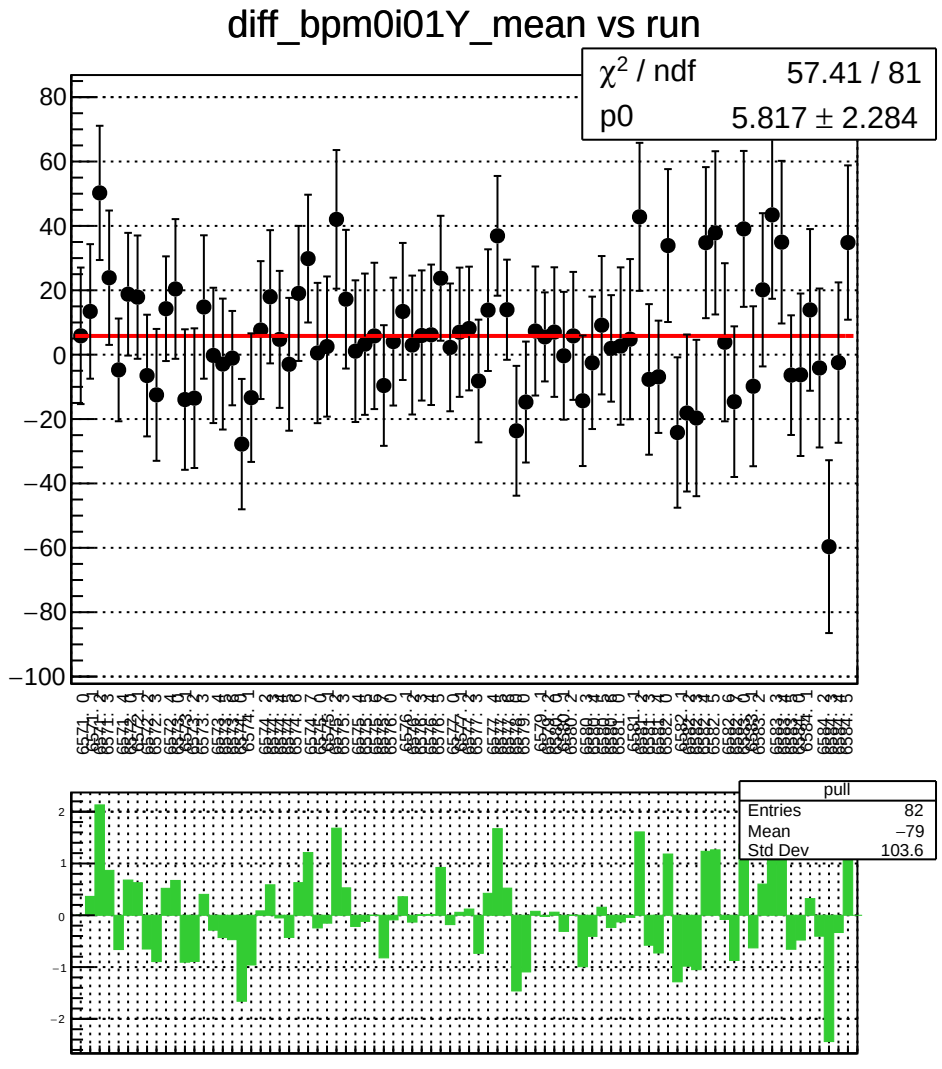

pull1D
Entries 82
Mean −0.01216
Std Dev 1.067
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

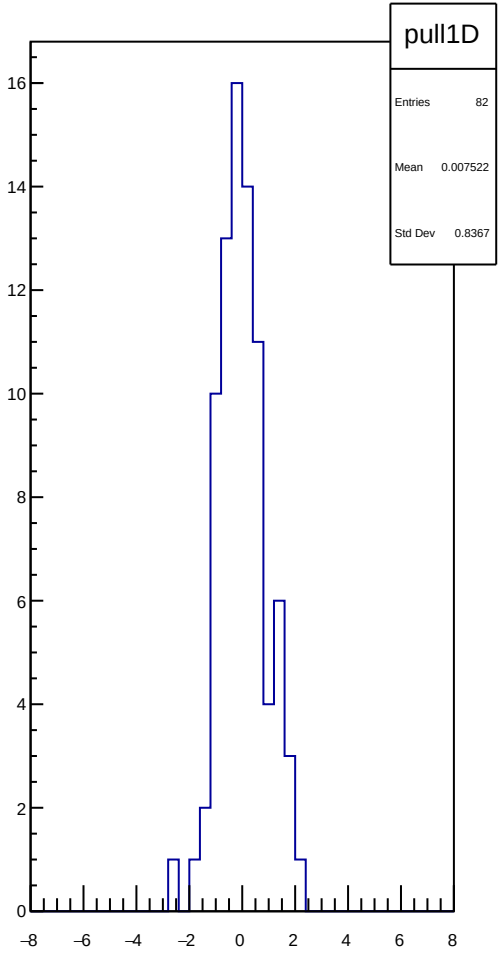

diff_cav4dY_rms vs run
χ² / ndf 1.123e+04 / 81
p0 272.7 ± 0.2168
320
300
280
260
240
220

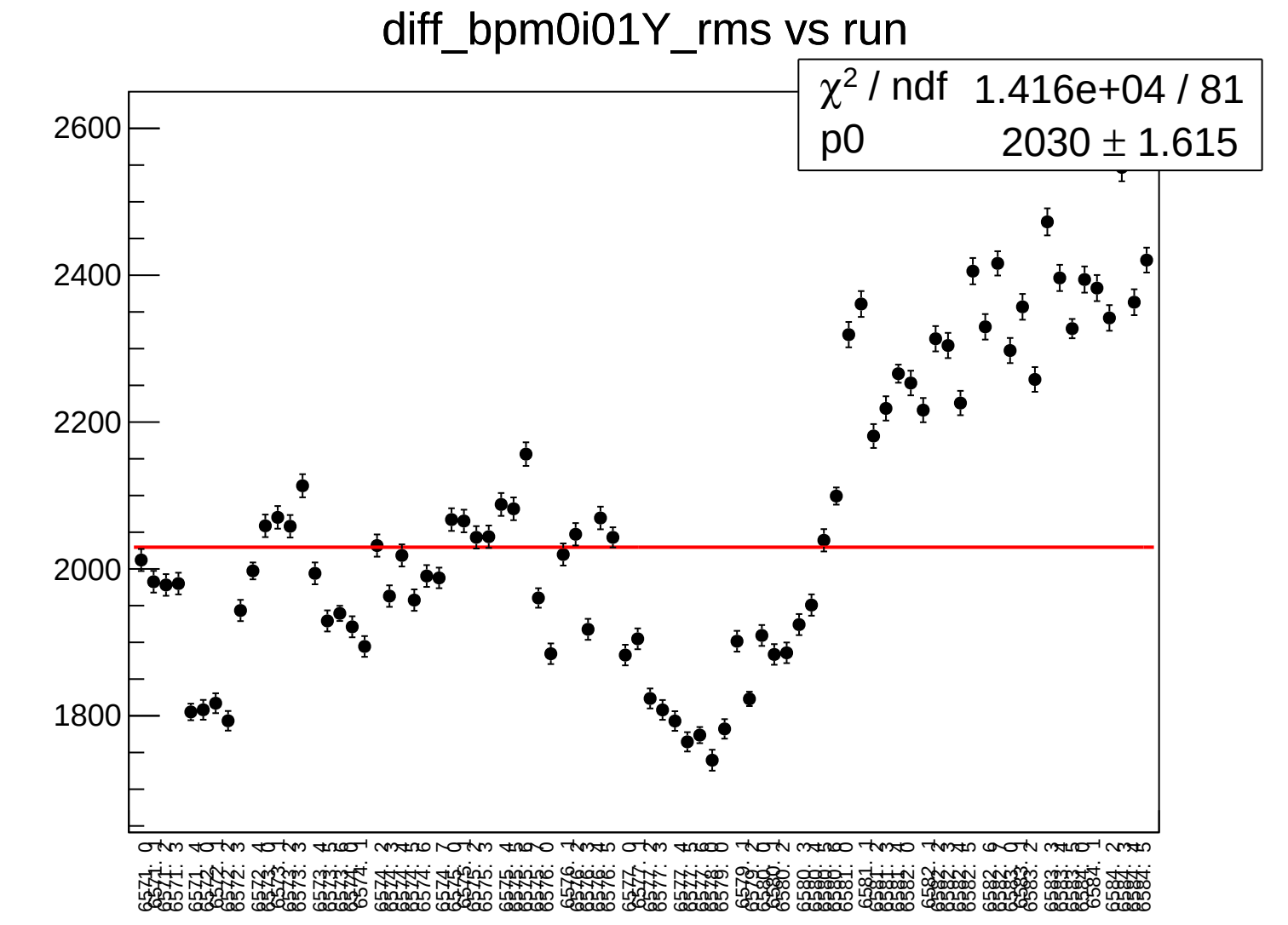

diff_bpm0i01X_mean vs run
χ^2 / ndf 79.72 / 81
p0 −3.973 ± 2.291
pull
Entries 82
Mean 88.41
Std Dev 46.59

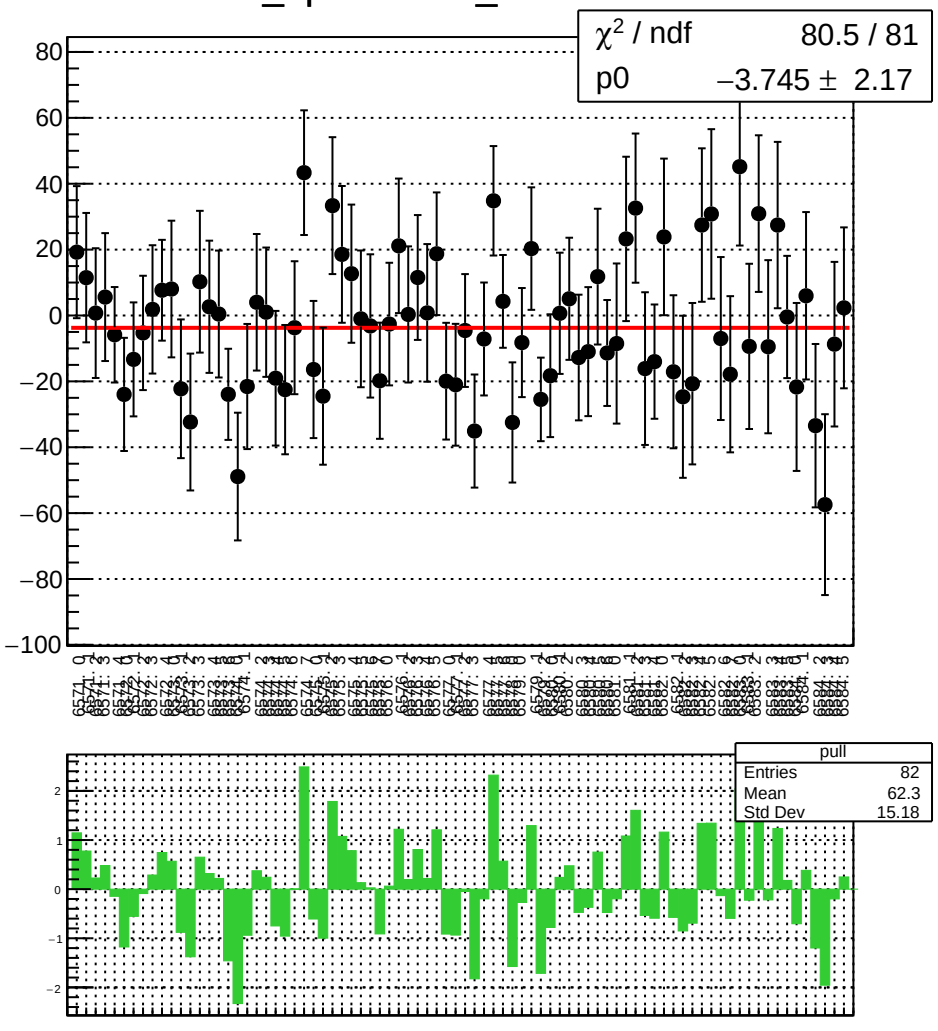

pull1D
Entries 82
Mean 0.03622
Std Dev 0.9853

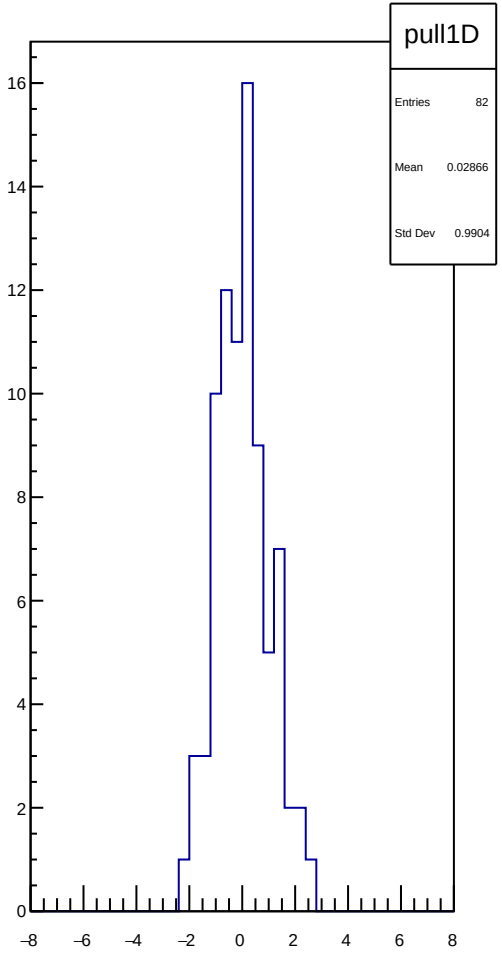

diff_bpm0i01X_rms vs run
χ² / ndf 3.026e+04 / 81
p0 2026 ± 1.62
2800
2600
2400
2200
2000
1800
1600

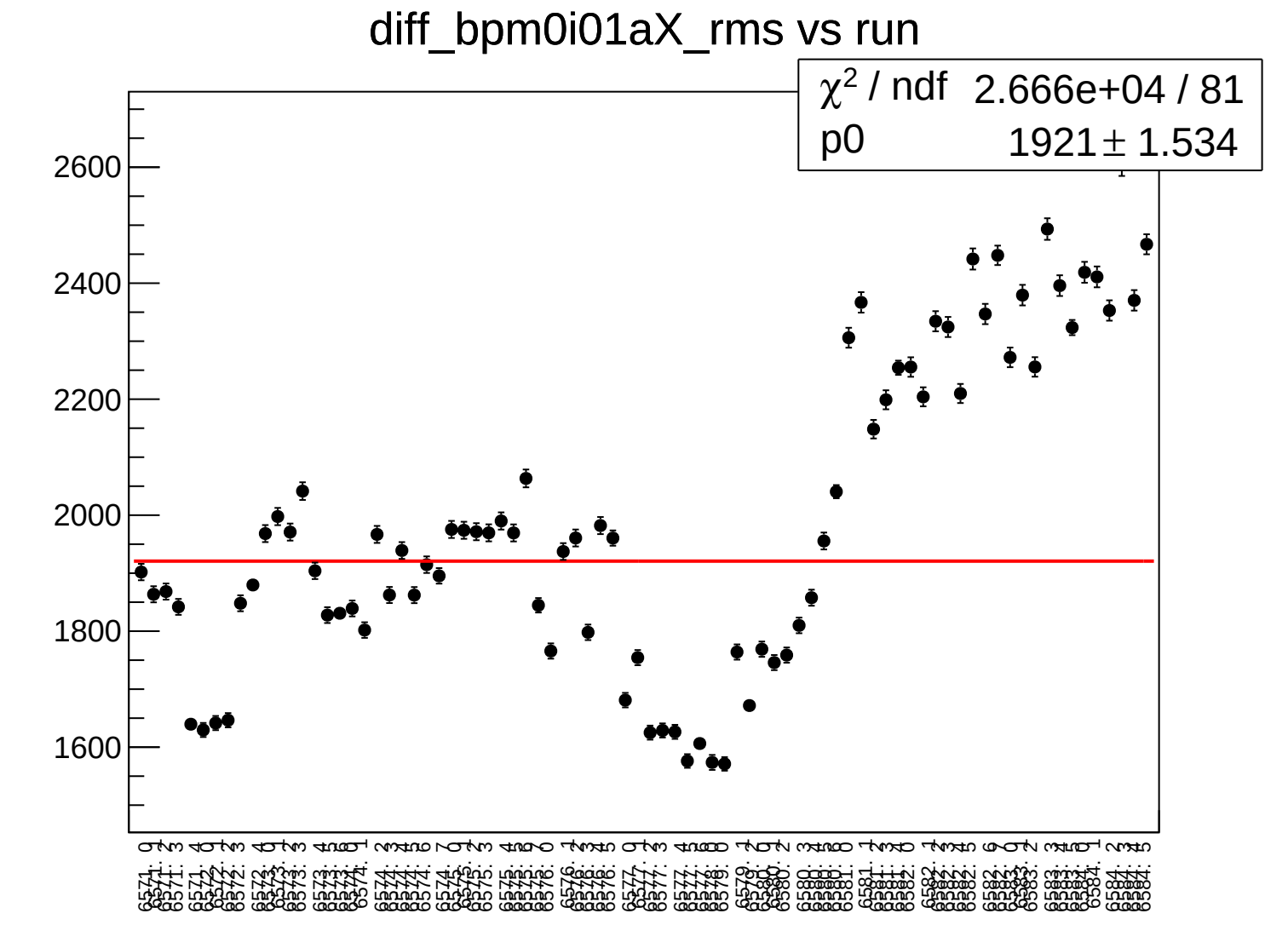

diff_bpm0i01Y_mean vs run
χ² / ndf 57.41 / 81
p0 5.817 ± 2.284
pull
Entries 82
Mean −79
Std Dev 103.6

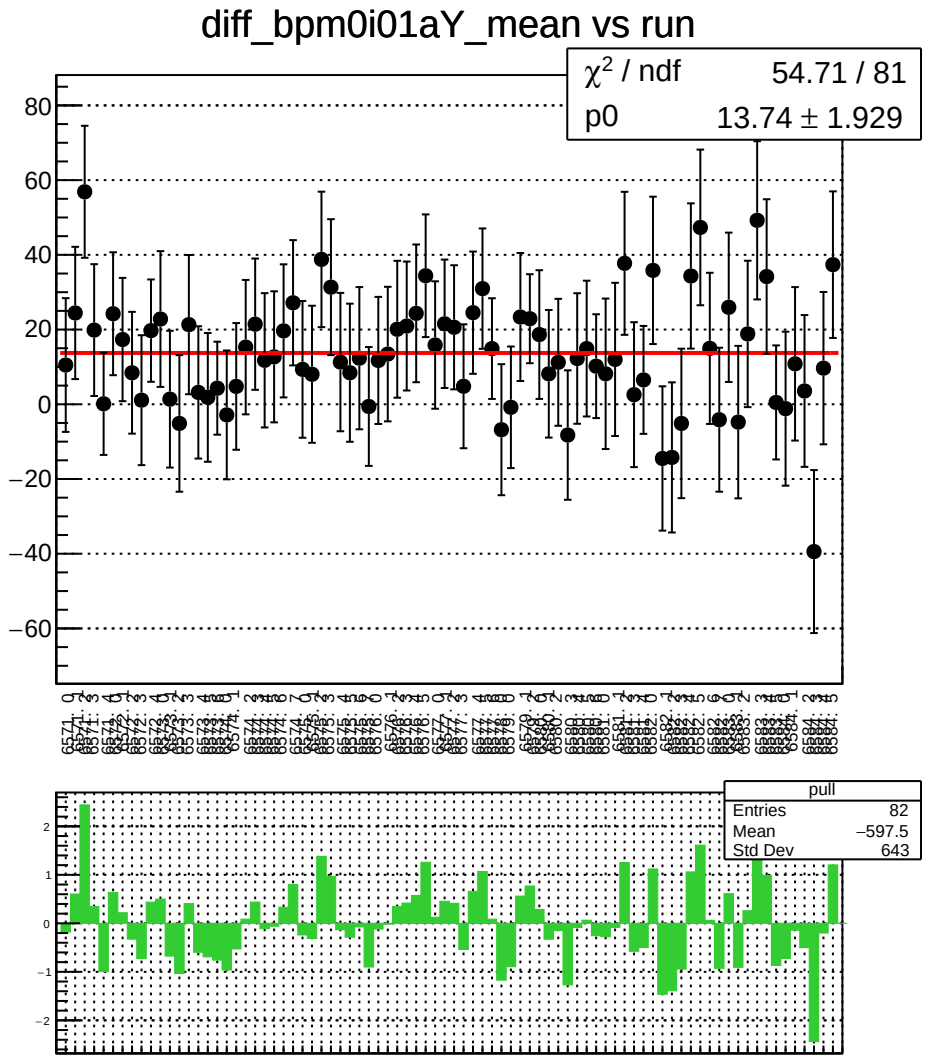

pull1D
Entries 82
Mean 0.007522
Std Dev 0.8367

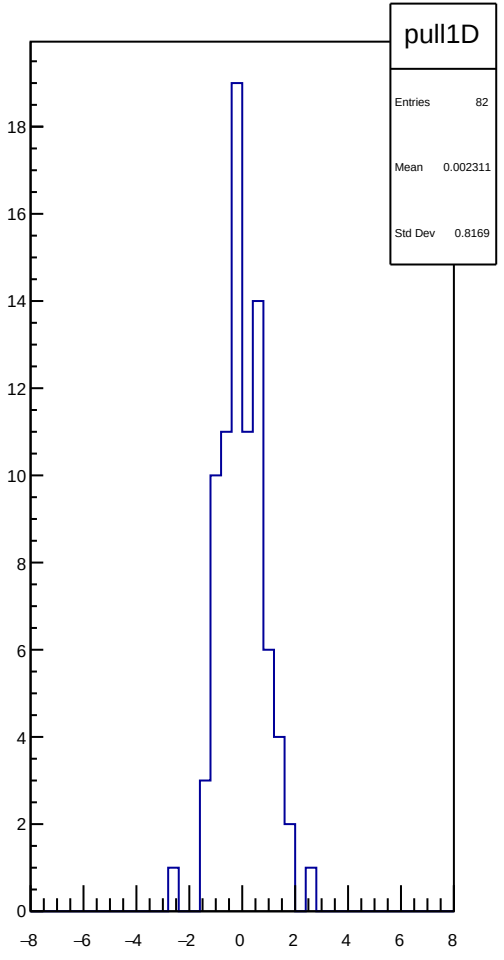

diff_bpm0i01Y_rms vs run
χ² / ndf 1.416e+04 / 81
p0 2030 ± 1.615
2600
2400
2200
2000
1800

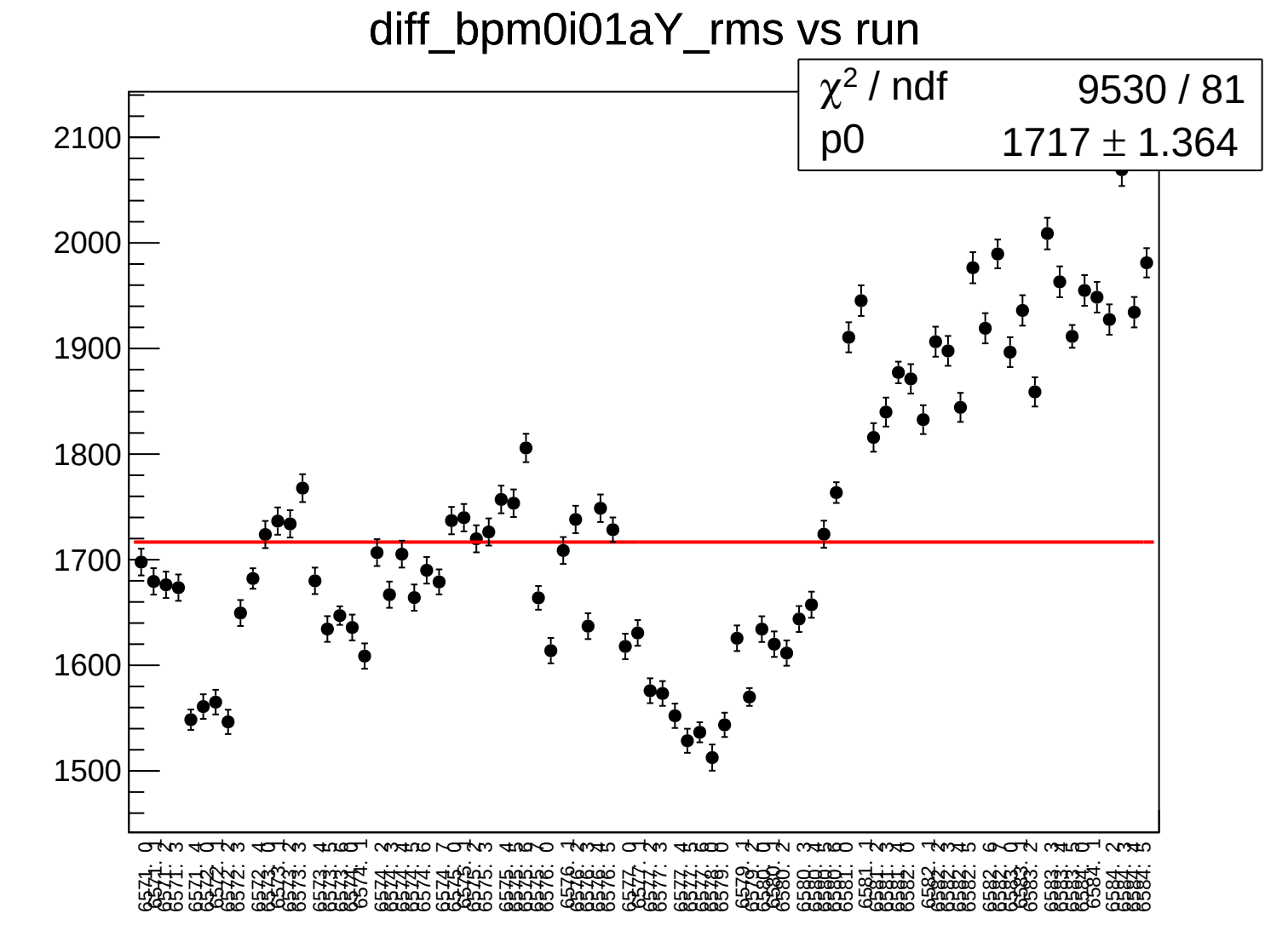

diff_bpm0i01aX_mean vs run
χ² / ndf 80.5 / 81
p0 −3.745 ± 2.17
pull
Entries 82
Mean 62.3
Std Dev 15.18

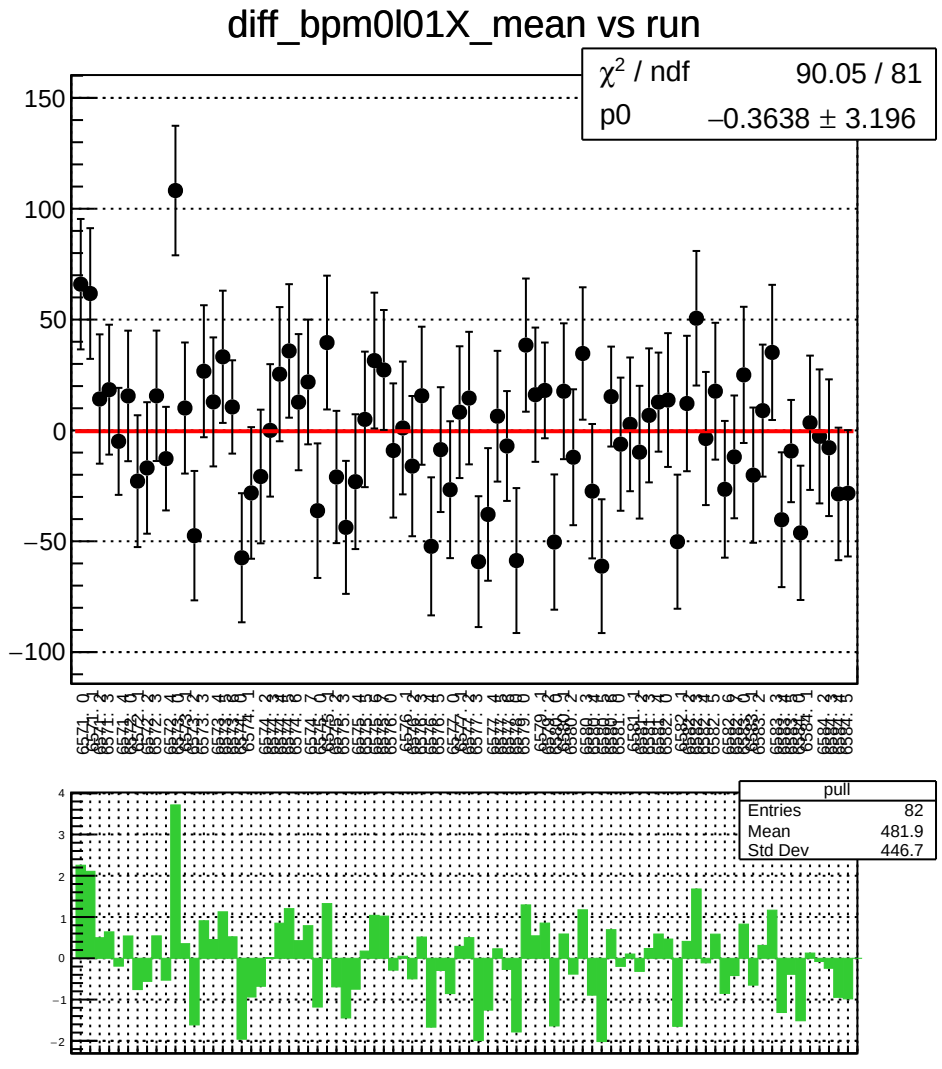

pull1D
Entries 82
Mean 0.02866
Std Dev 0.9904

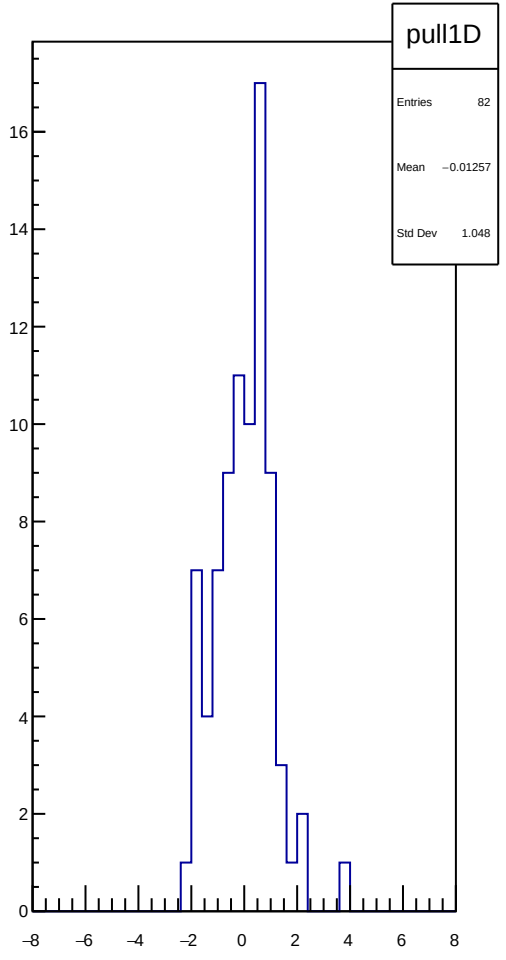

diff_bpm0i01aX_rms vs run
χ^2 / ndf 2.666e+04 / 81
p0 1921 ± 1.534
2600
2400
2200
2000
1800
1600

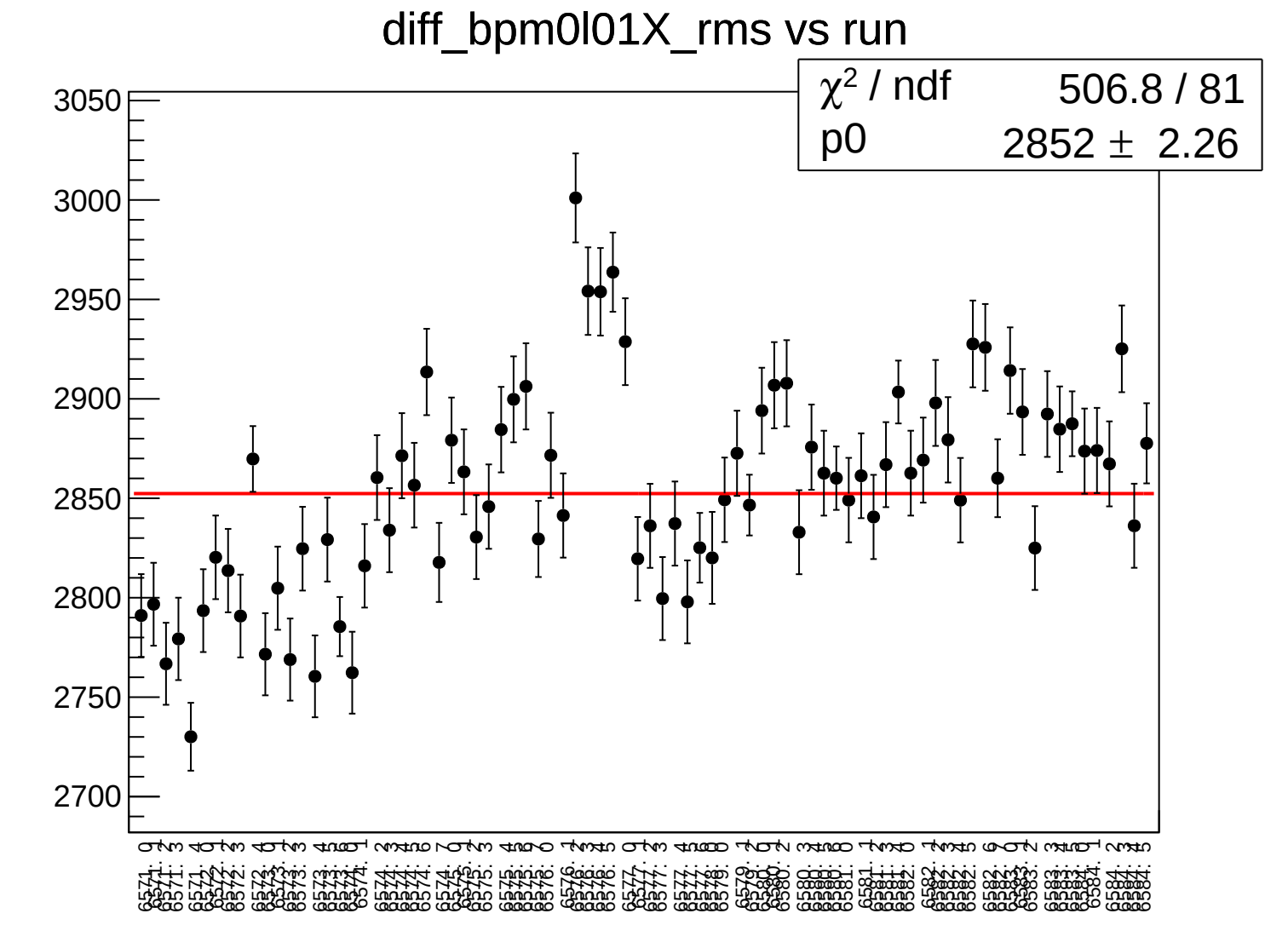

diff_bpm0i01aY_mean vs run
χ² / ndf 54.71 / 81
p0 13.74 ± 1.929
pull
Entries 82
Mean −597.5
Std Dev 643

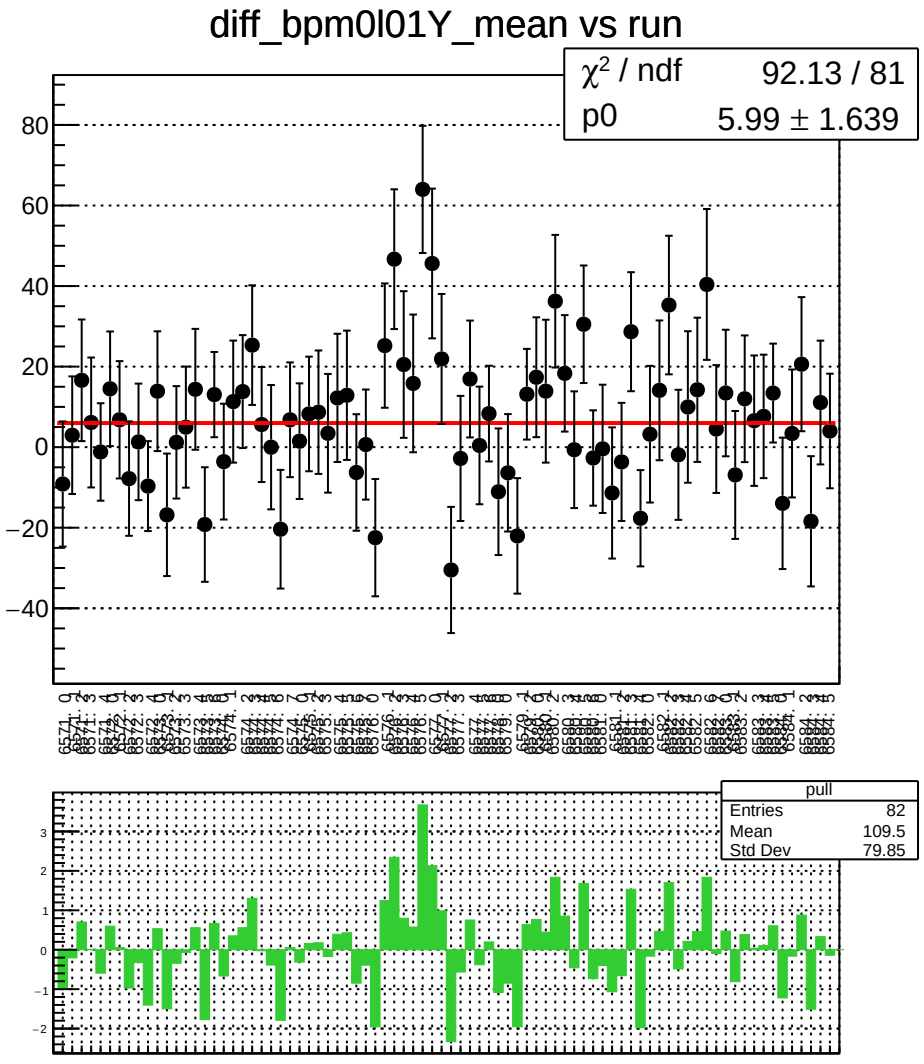

pull1D
Entries 82
Mean 0.002311
Std Dev 0.8169

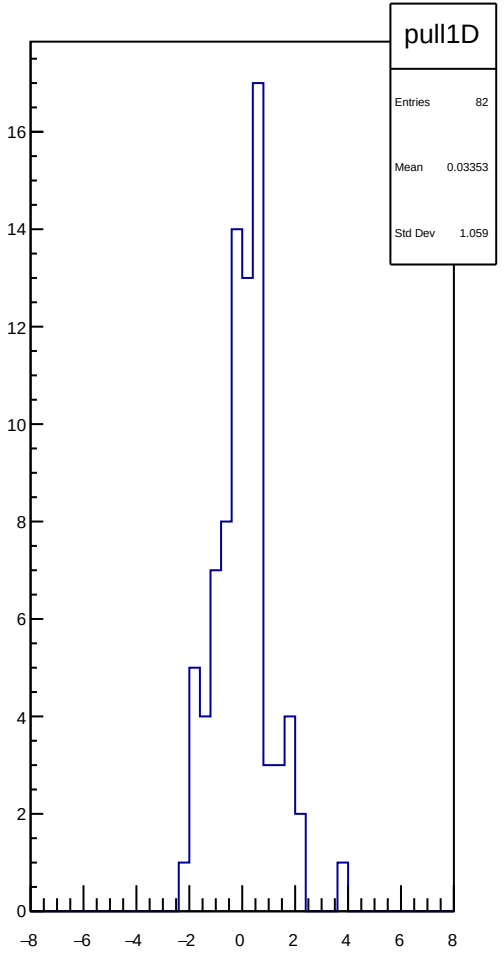

diff_bpm0i01aY_rms vs run
χ² / ndf 9530 / 81
p0 1717 ± 1.364
2100
2000
1900
1800
1700
1600
1500

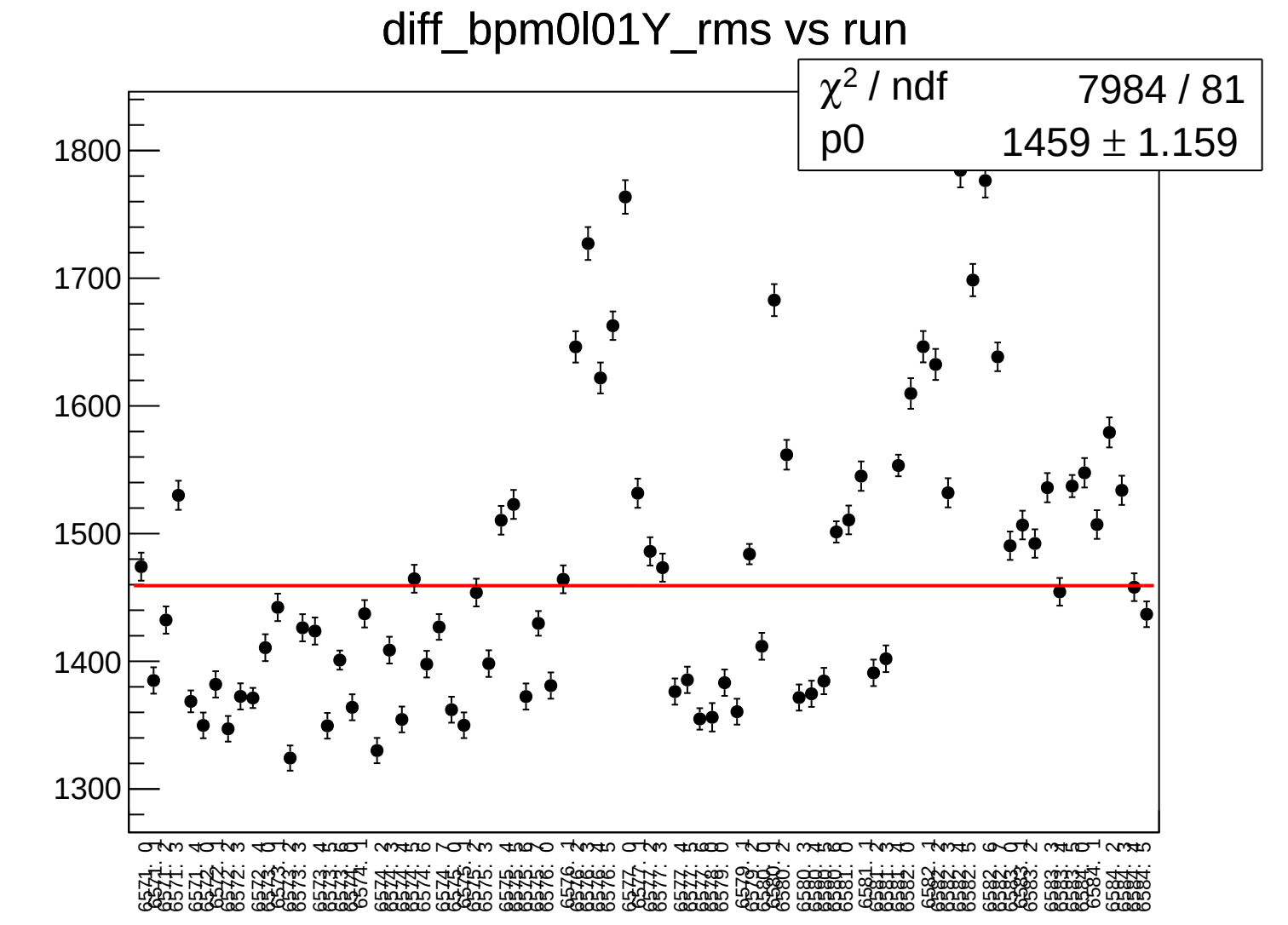

diff_bpm0l01X_mean vs run
χ² / ndf 90.05 / 81
p0 −0.3638 ± 3.196
150
100
50
0
−50
−100
pull
Entries 82
Mean 481.9
Std Dev 446.7
4
3
2
1
0
−1
−2

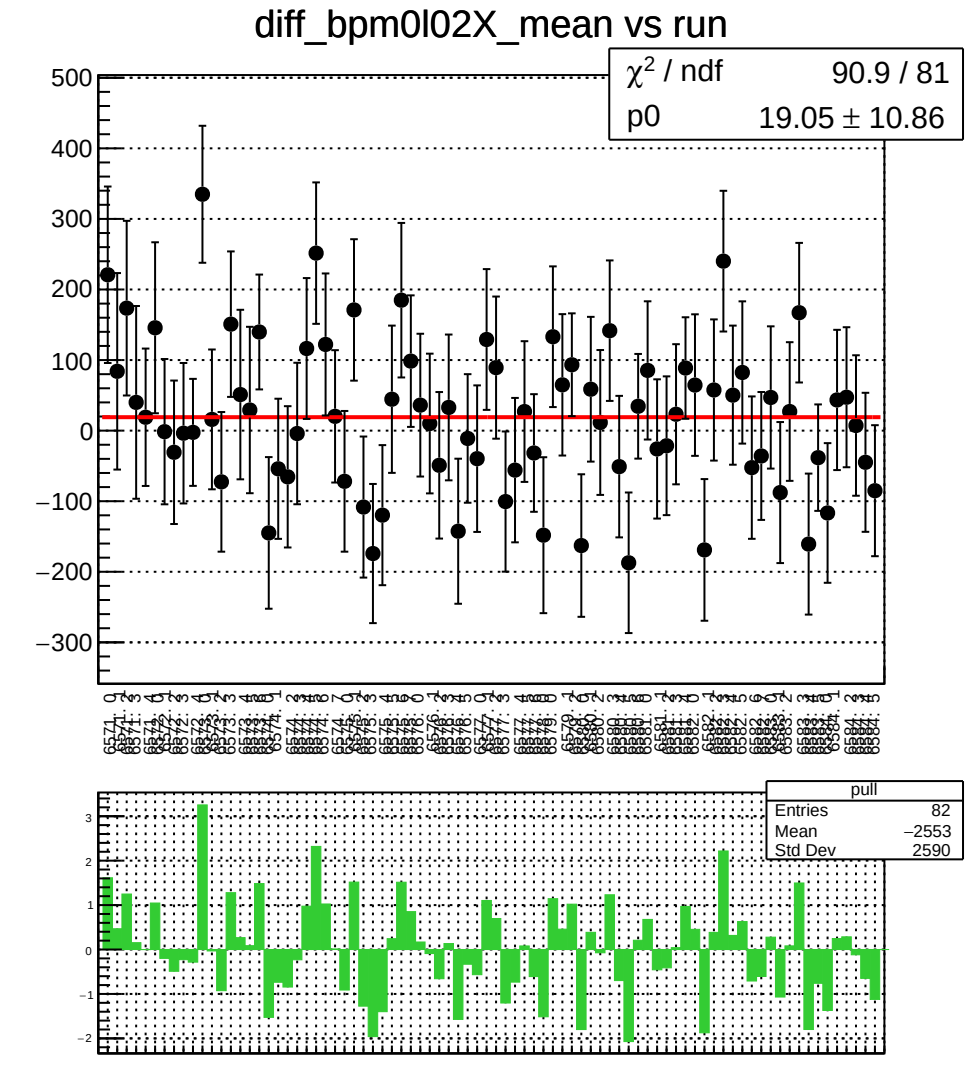

pull1D
Entries 82
Mean −0.01257
Std Dev 1.048
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

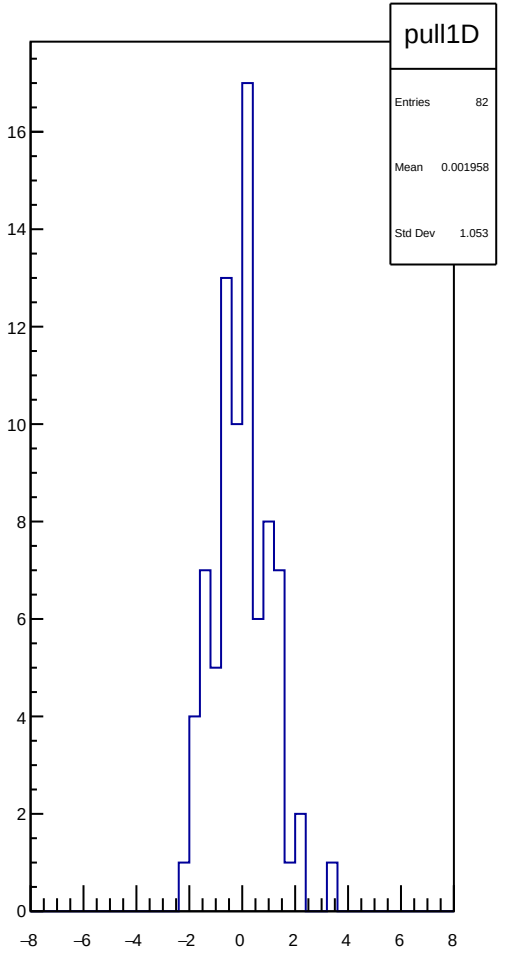

diff_bpm0l01X_rms vs run
χ² / ndf 506.8 / 81
p0 2852 ± 2.26
3050
3000
2950
2900
2850
2800
2750
2700

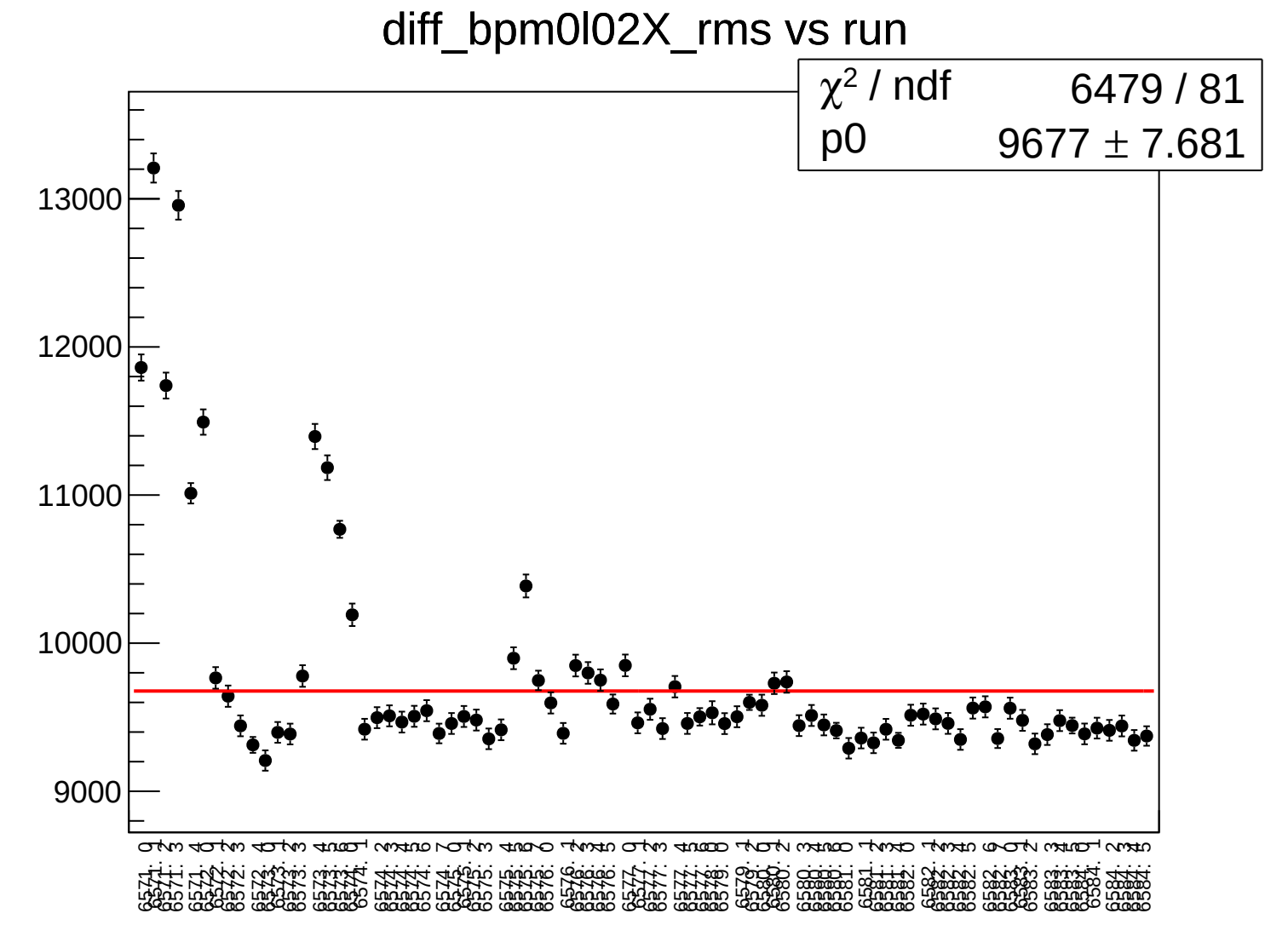

diff_bpm0l01Y_mean vs run
χ² / ndf 92.13 / 81
p0 5.99 ± 1.639
pull
Entries 82
Mean 109.5
Std Dev 79.85

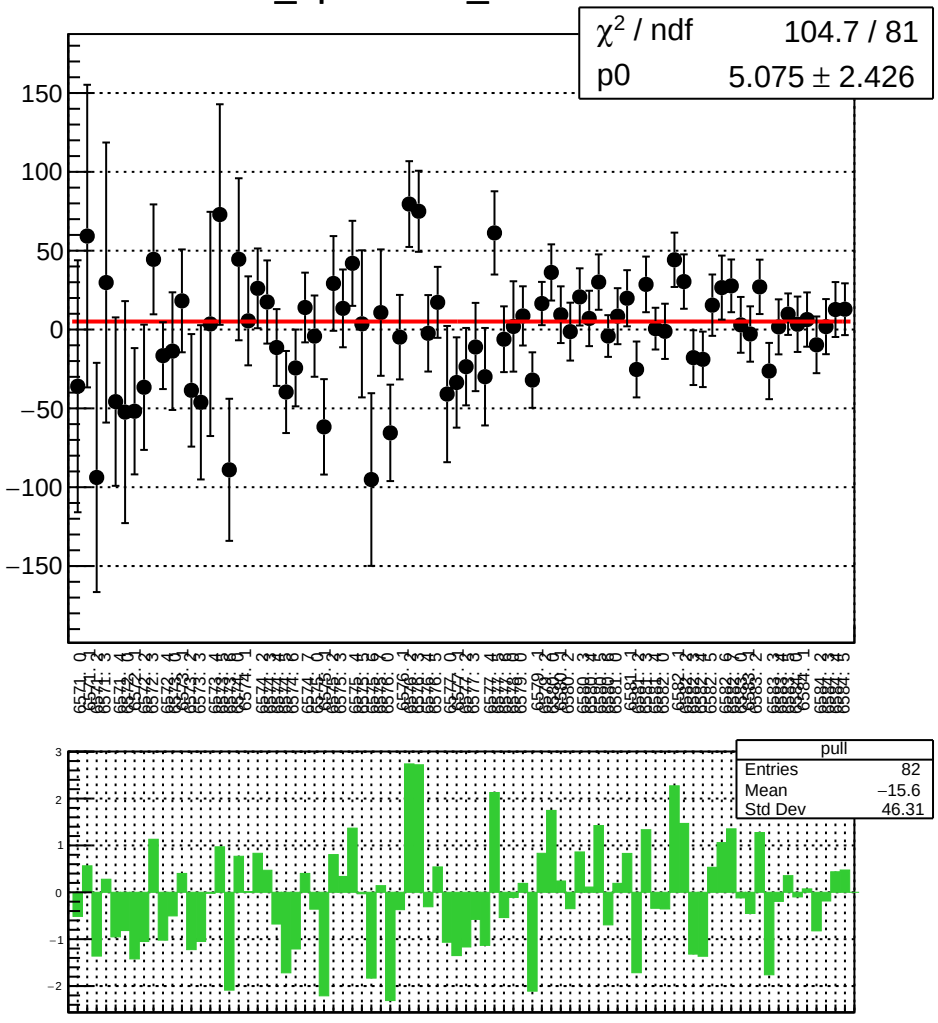

pull1D
Entries 82
Mean 0.03353
Std Dev 1.059

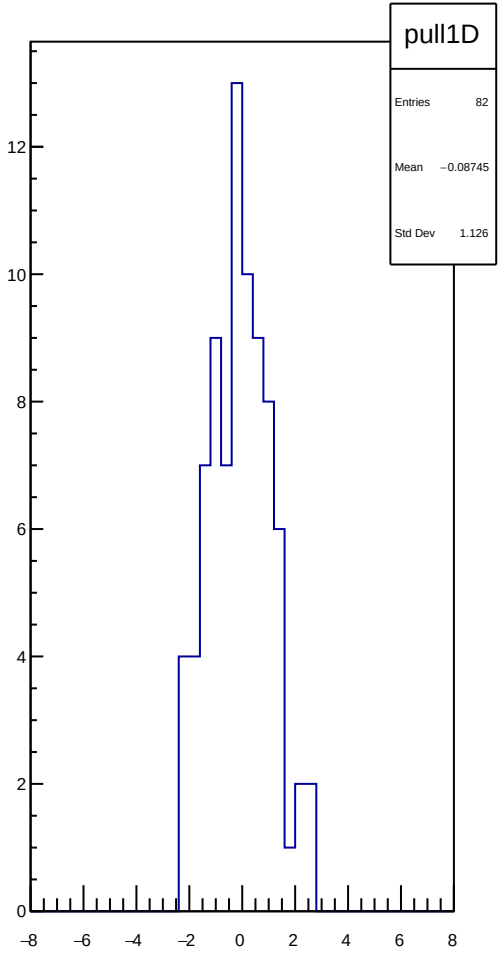

diff_bpm0l01Y_rms vs run
χ² / ndf 7984 / 81
p0 1459 ± 1.159
1800
1700
1600
1500
1400
1300

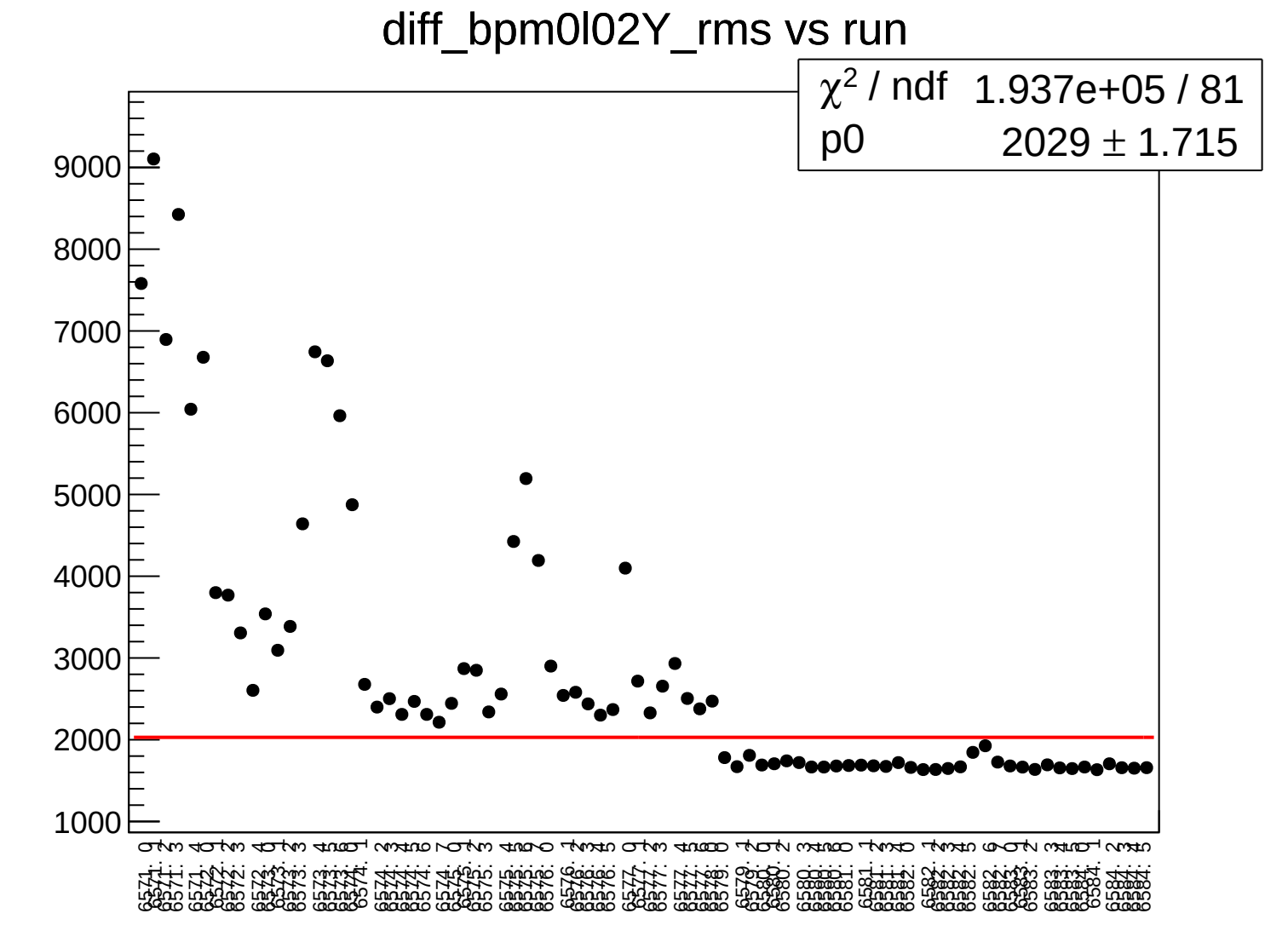

diff_bpm0l02X_mean vs run
χ² / ndf 90.9 / 81
p0 19.05 ± 10.86
pull
Entries 82
Mean −2553
Std Dev 2590

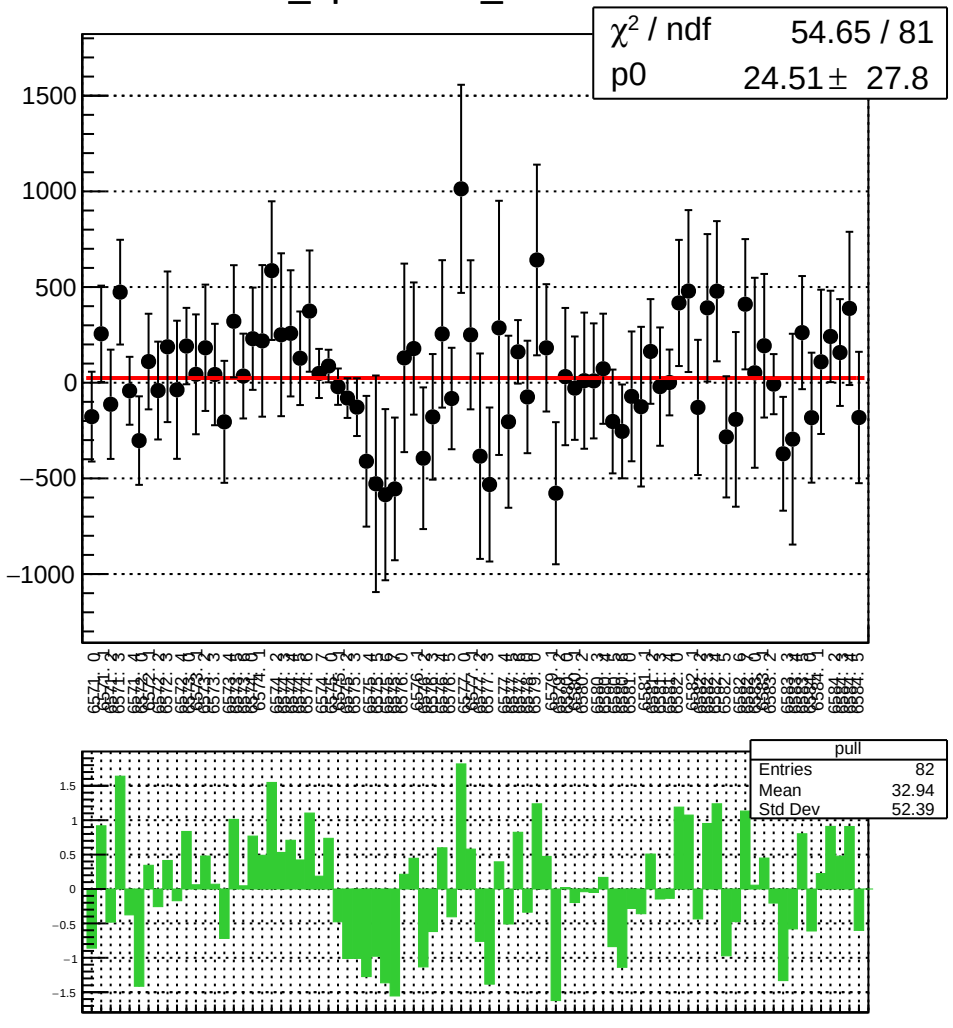

pull1D
Entries 82
Mean 0.001958
Std Dev 1.053

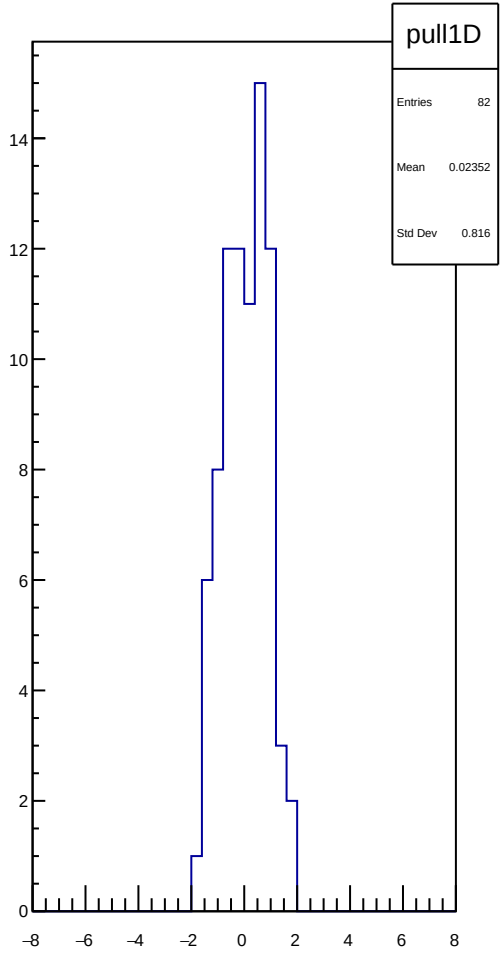

diff_bpm0l02X_rms vs run
χ² / ndf 6479 / 81
p0 9677 ± 7.681
13000
12000
11000
10000
9000

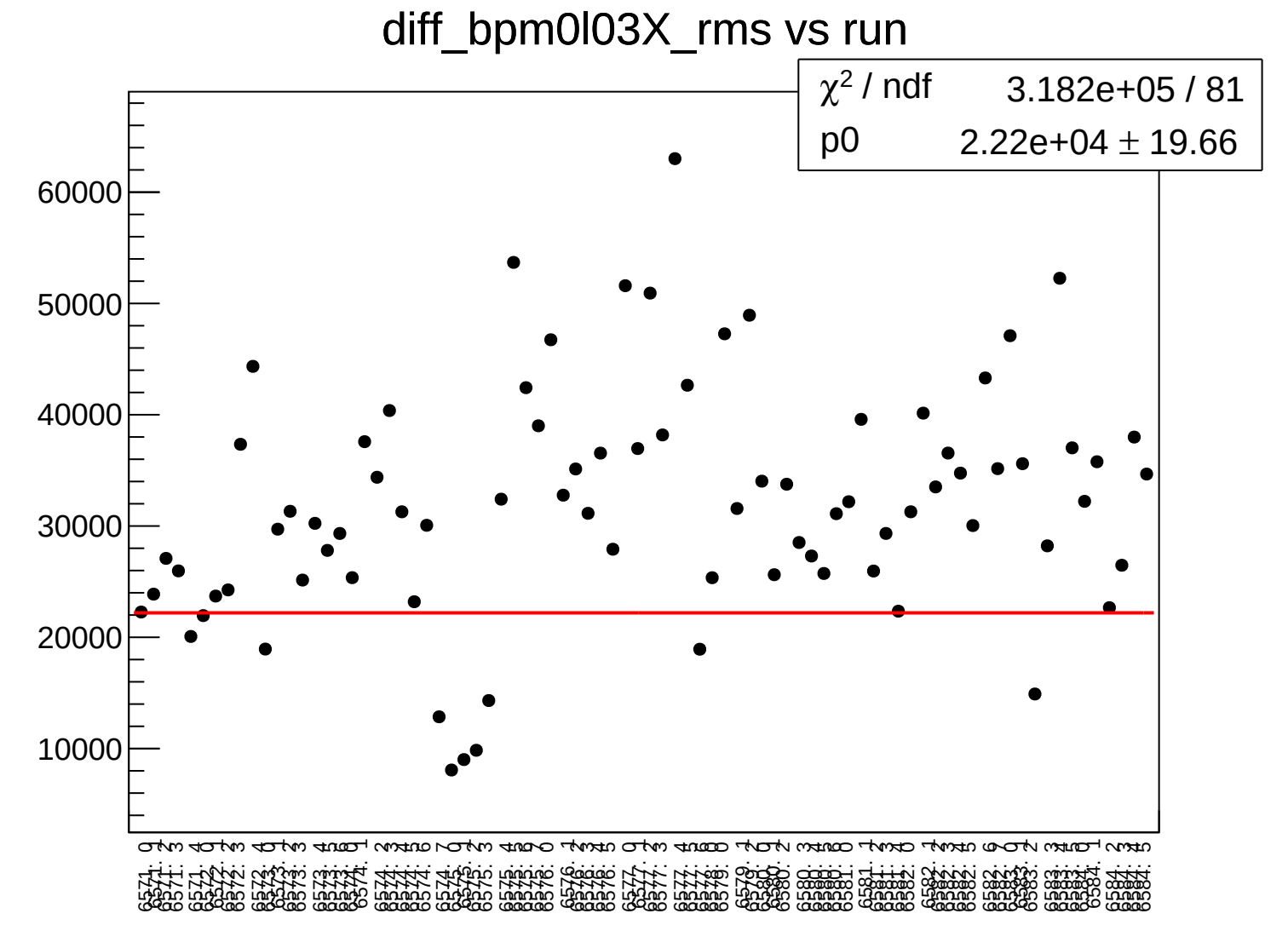

diff_bpm0l02Y_mean vs run
χ² / ndf 104.7 / 81
p0 5.075 ± 2.426
150
100
50
0
−50
−100
−150
pull
Entries 82
Mean −15.6
Std Dev 46.31
3
2
1
0
−1
−2

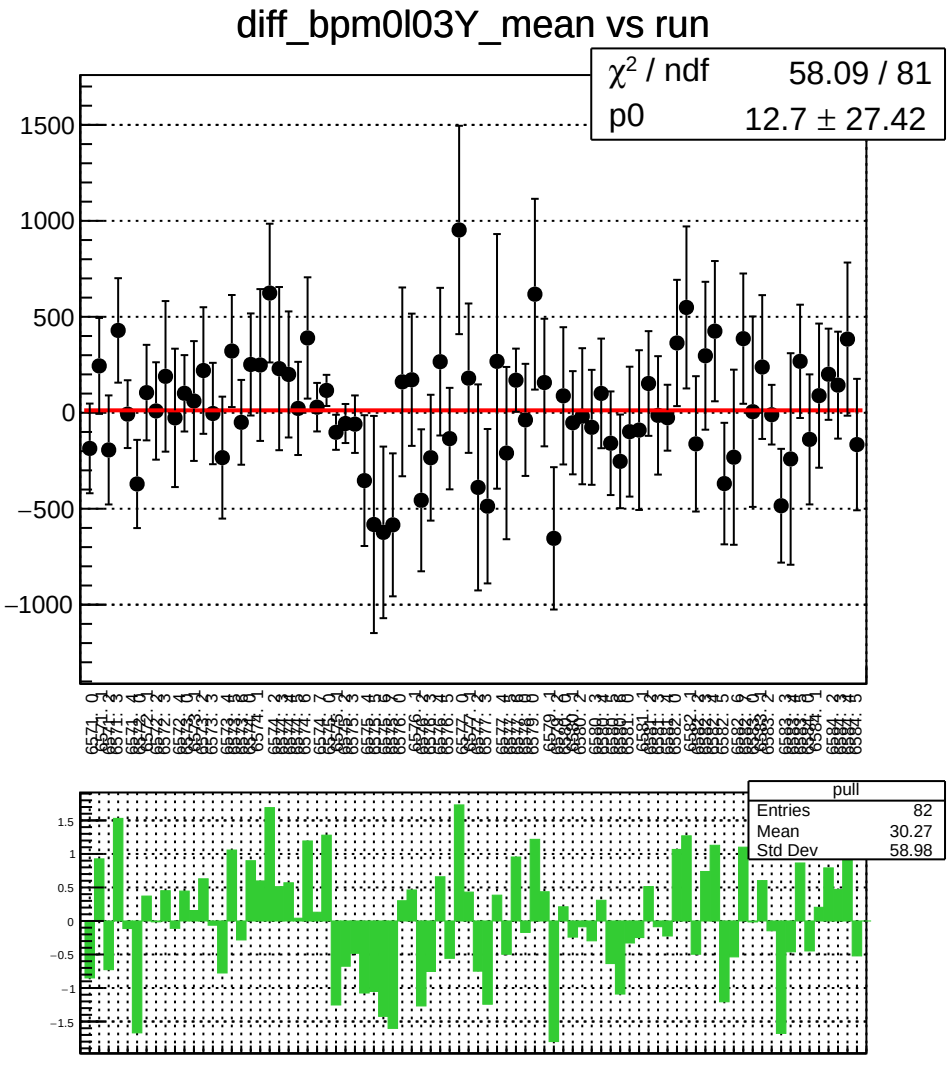

pull1D
Entries 82
Mean −0.08745
Std Dev 1.126
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

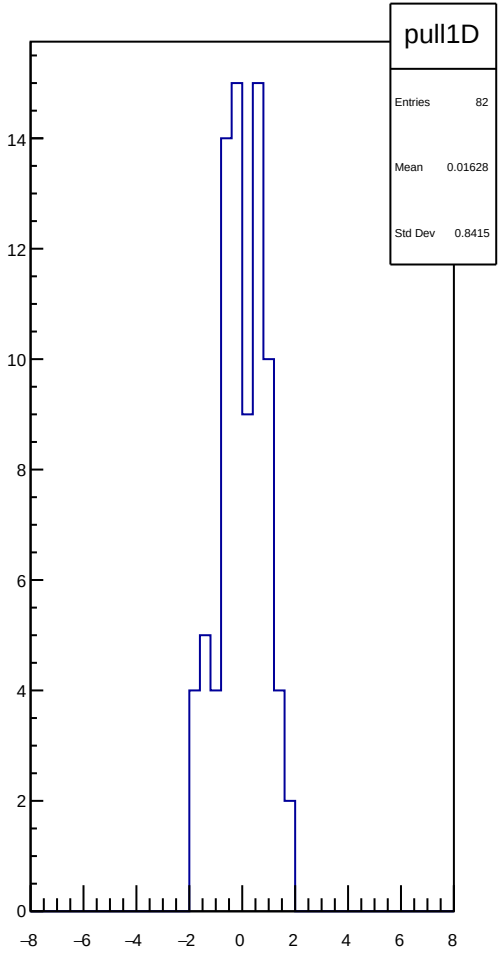

diff_bpm0l02Y_rms vs run
χ² / ndf 1.937e+05 / 81
p0 2029 ± 1.715
9000
8000
7000
6000
5000
4000
3000
2000
1000

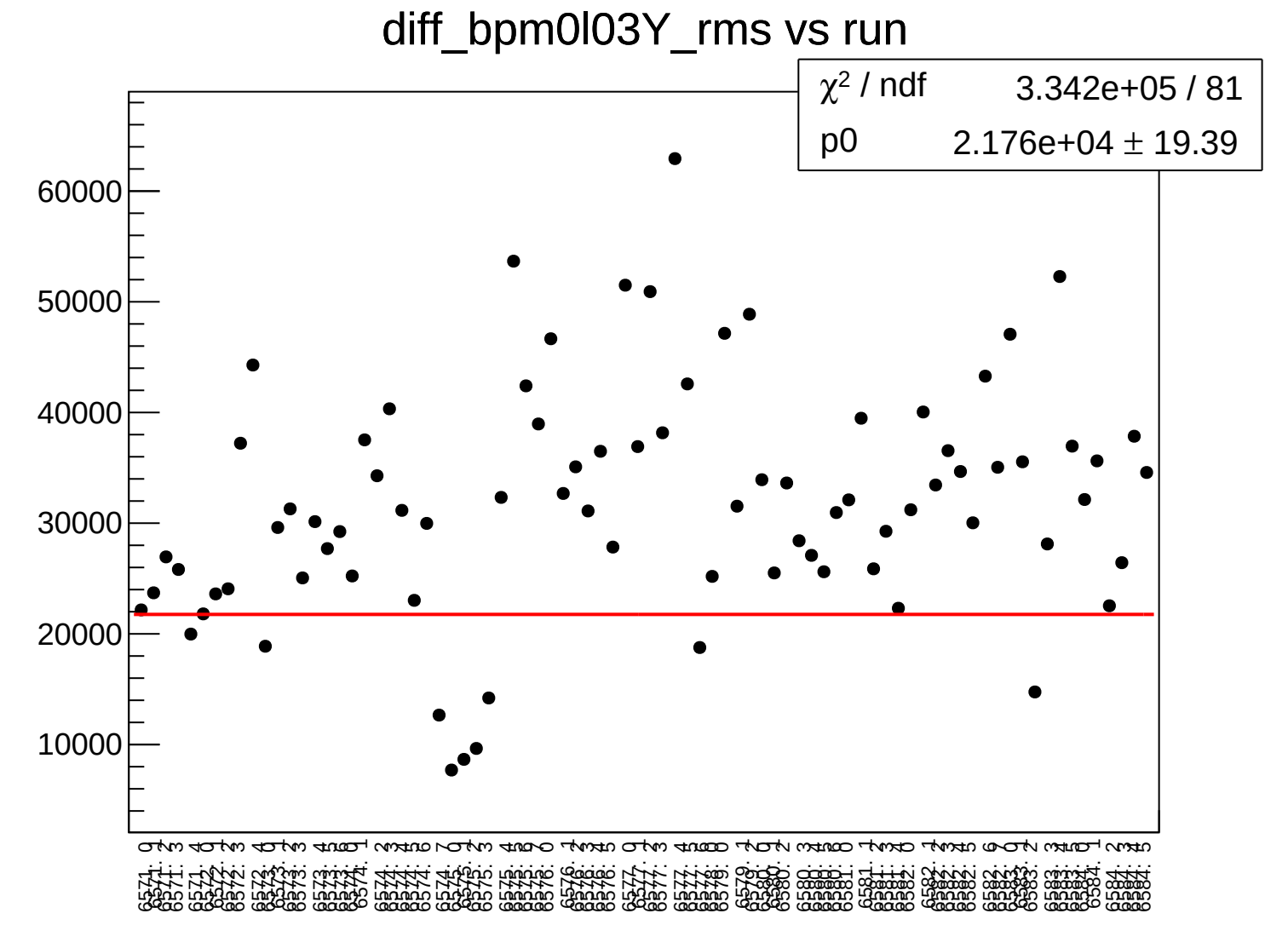

diff_bpm0l03X_mean vs run
χ^2 / ndf 54.65 / 81
p0 24.51 ± 27.8
1500
1000
500
0
−500
−1000
pull
Entries 82
Mean 32.94
Std Dev 52.39
1.5
1
0.5
0
−0.5
−1
−1.5

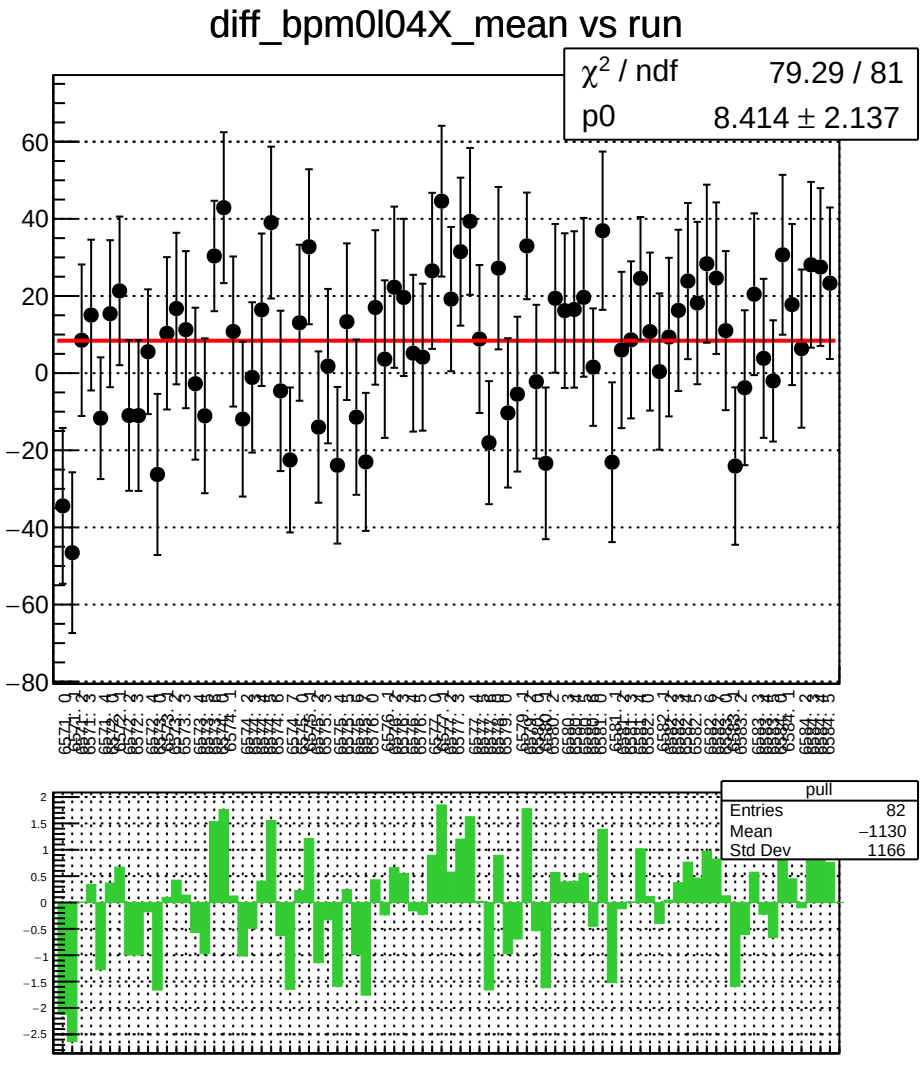

pull1D
Entries 82
Mean 0.02352
Std Dev 0.816
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

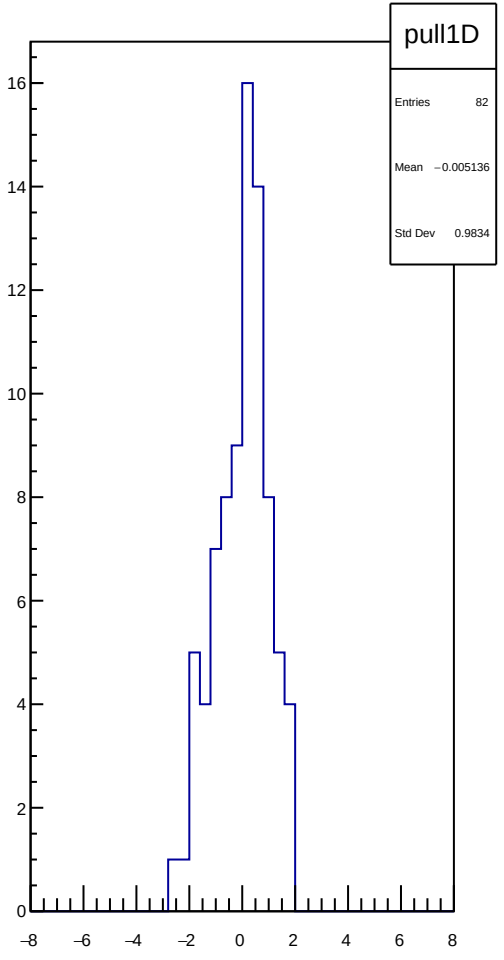

diff_bpm0l03X_rms vs run
χ² / ndf 3.182e+05 / 81
p0 2.22e+04 ± 19.66
60000
50000
40000
30000
20000
10000

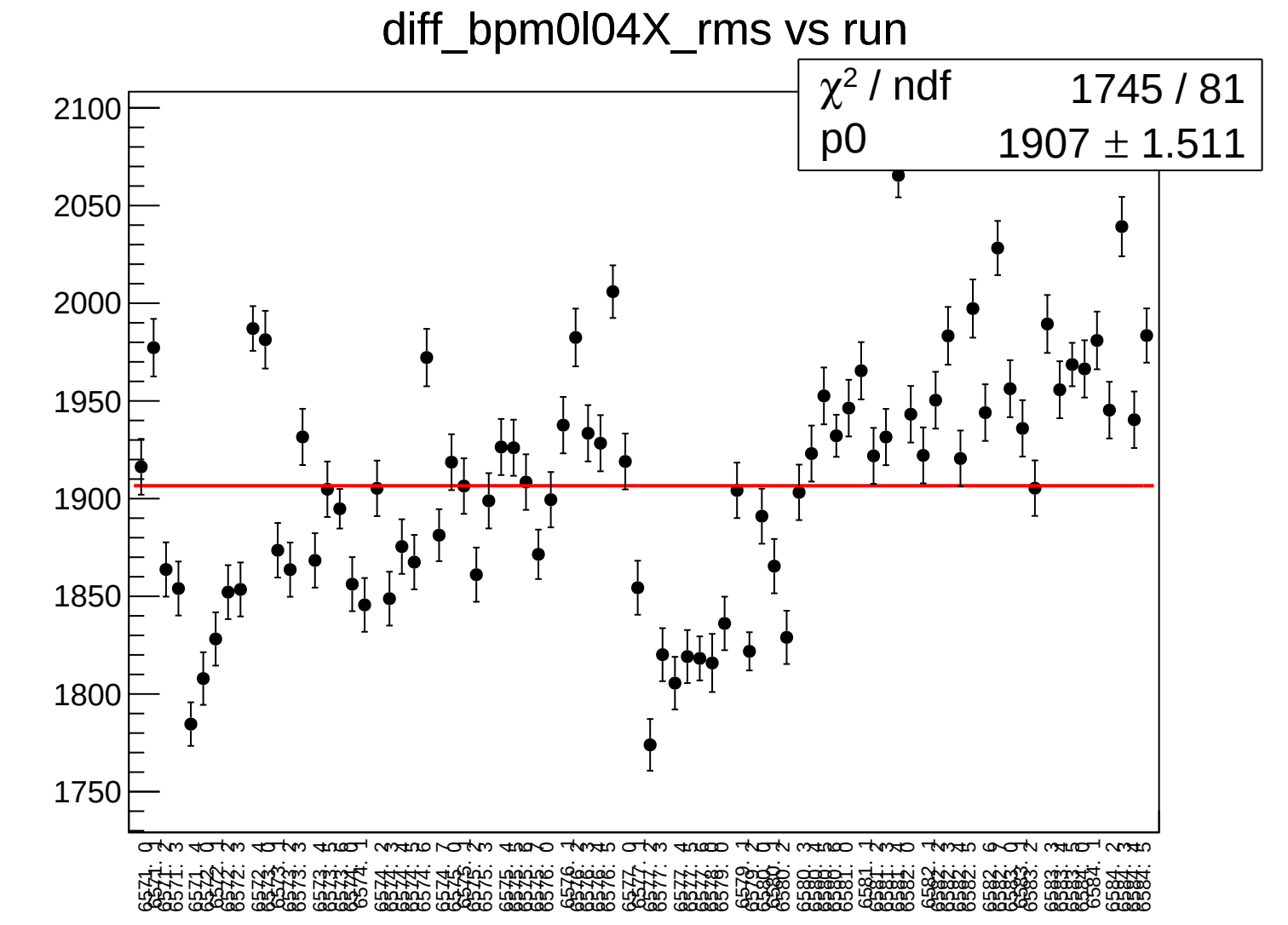

diff_bpm0l03Y_mean vs run
χ² / ndf 58.09 / 81
p0 12.7 ± 27.42
1500
1000
500
0
−500
−1000
pull
Entries 82
Mean 30.27
Std Dev 58.98
1.5
1
0.5
0
−0.5
−1
−1.5

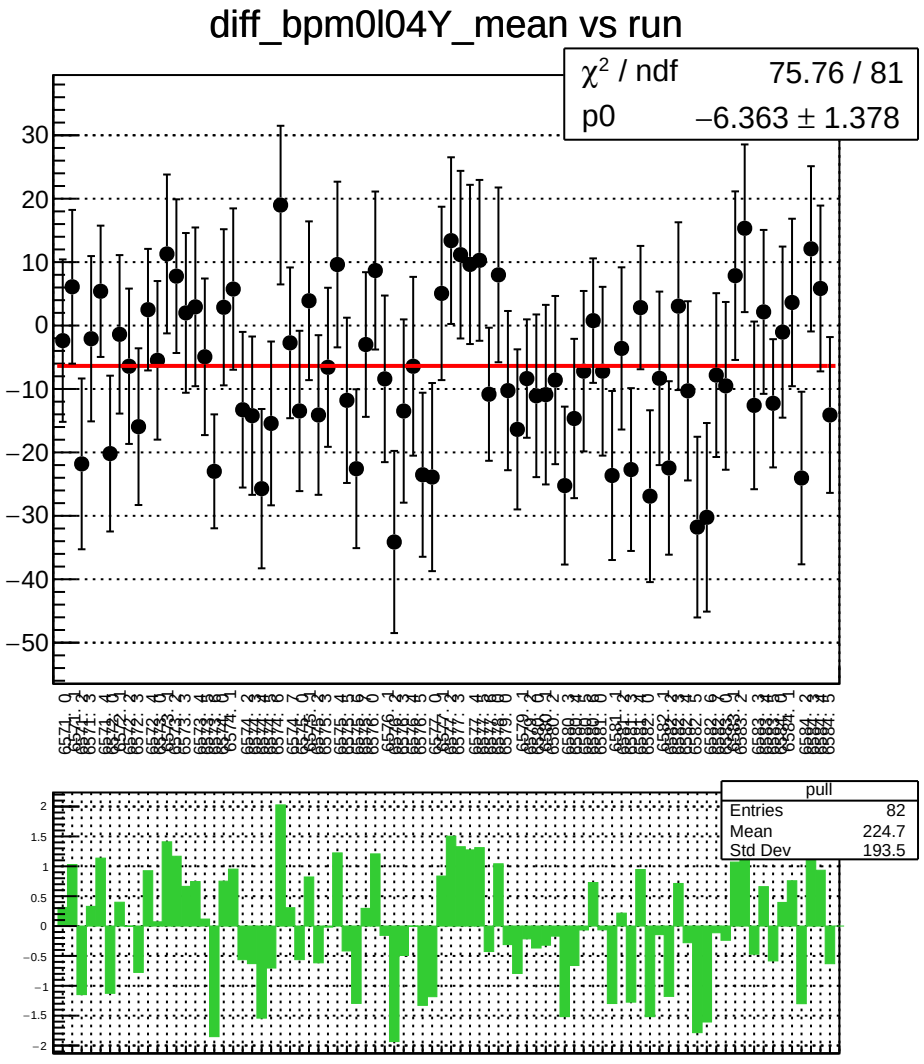

pull1D
Entries 82
Mean 0.01628
Std Dev 0.8415
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

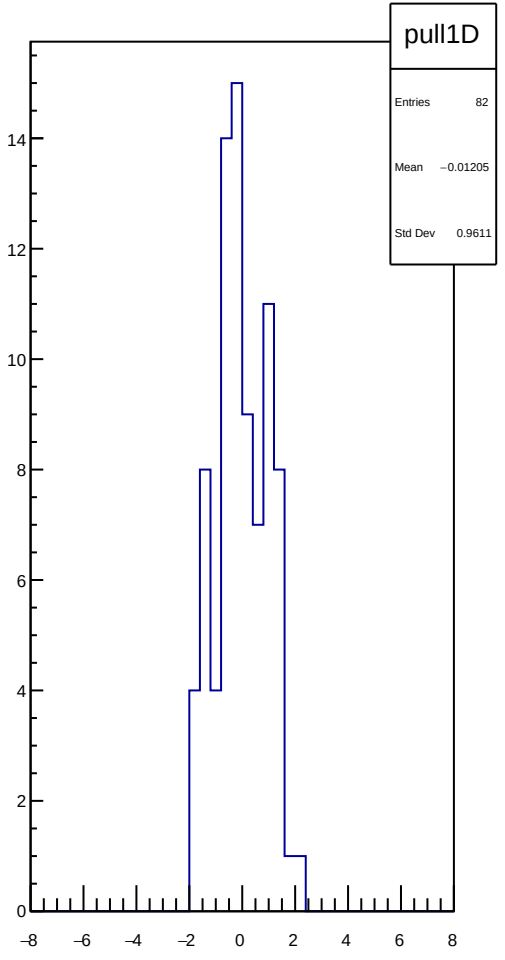

diff_bpm0l03Y_rms vs run
χ² / ndf 3.342e+05 / 81
p0 2.176e+04 ± 19.39
60000
50000
40000
30000
20000
10000

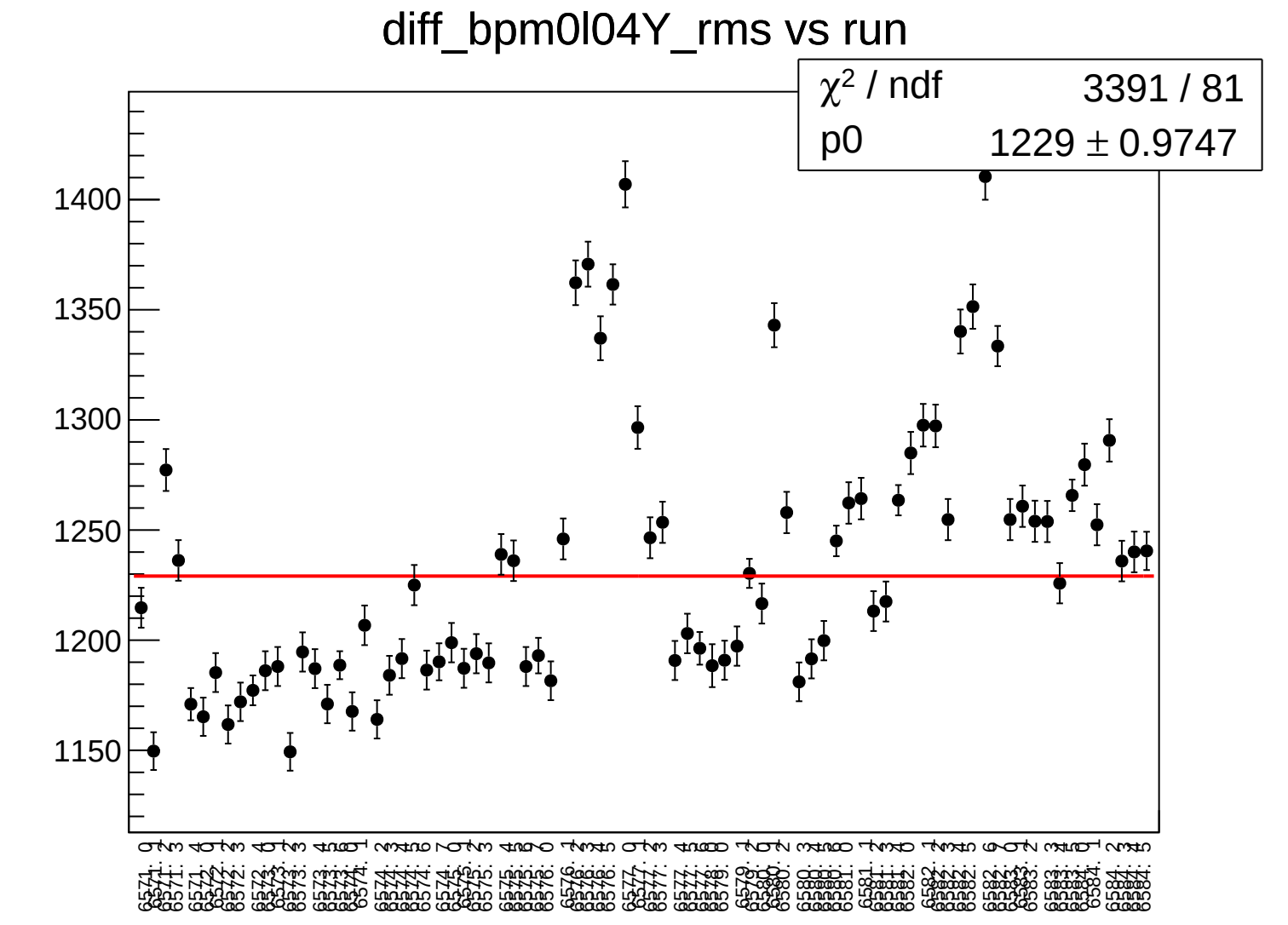

diff_bpm0l04X_mean vs run
χ² / ndf 79.29 / 81
p0 8.414 ± 2.137
pull
Entries 82
Mean −1130
Std Dev 1166

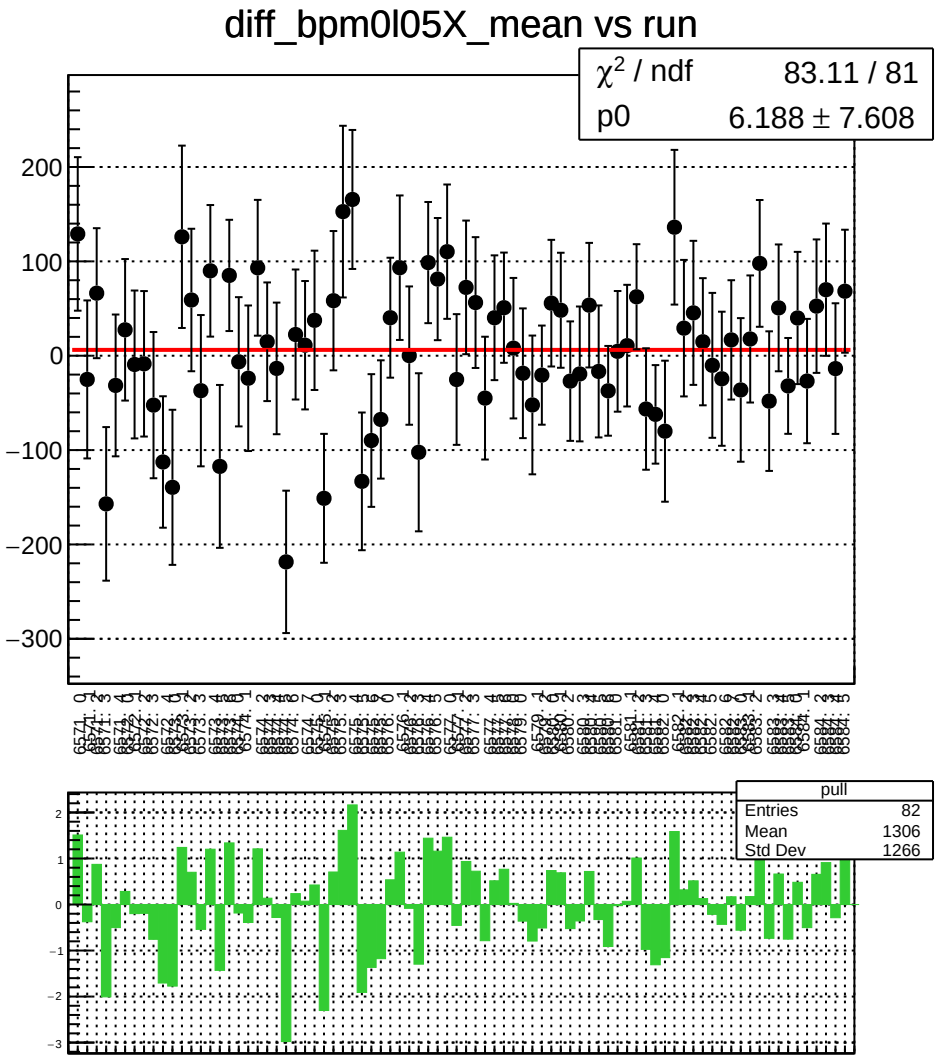

pull1D
Entries 82
Mean −0.005136
Std Dev 0.9834

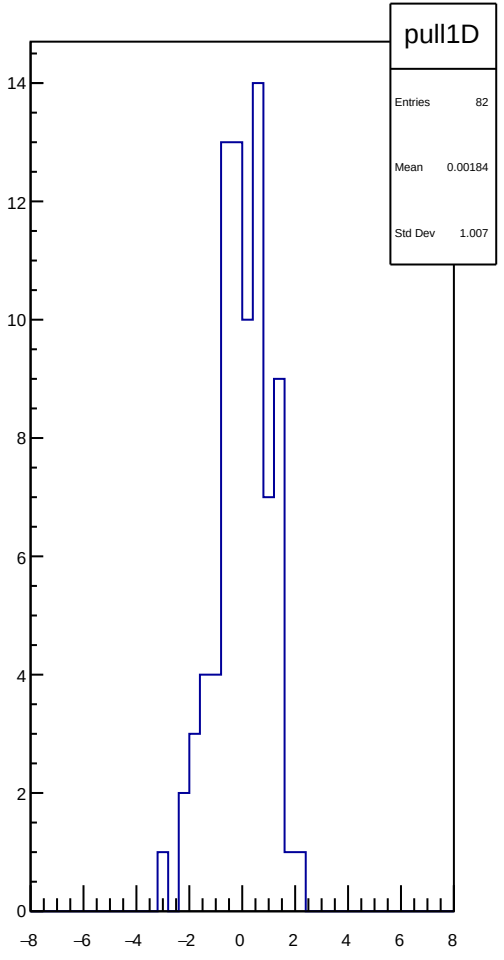

diff_bpm0l04X_rms vs run
χ² / ndf 1745 / 81
p0 1907 ± 1.511
2100
2050
2000
1950
1900
1850
1800
1750

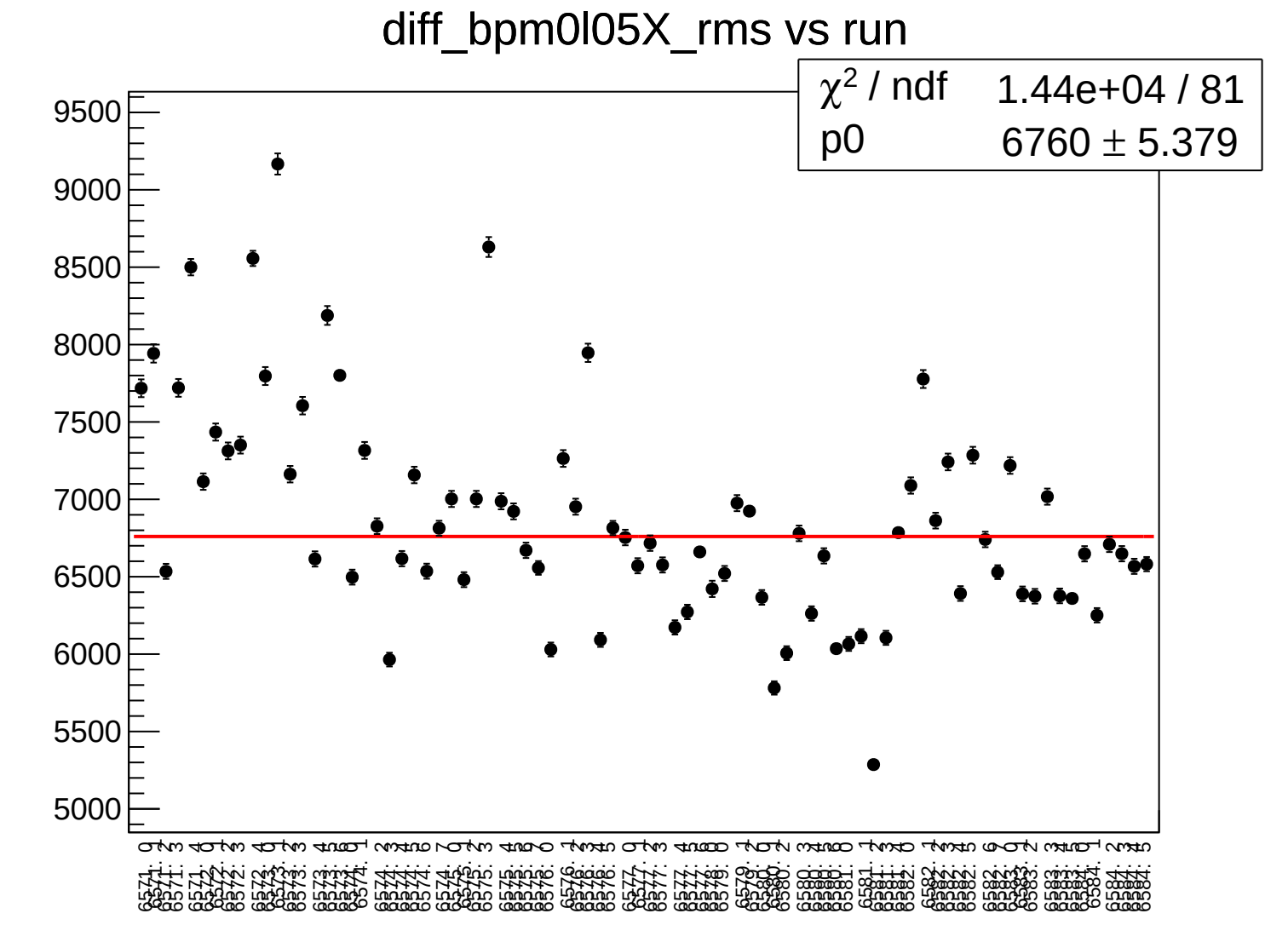

diff_bpm0l04Y_mean vs run
χ² / ndf 75.76 / 81
p0 −6.363 ± 1.378
pull
Entries 82
Mean 224.7
Std Dev 193.5

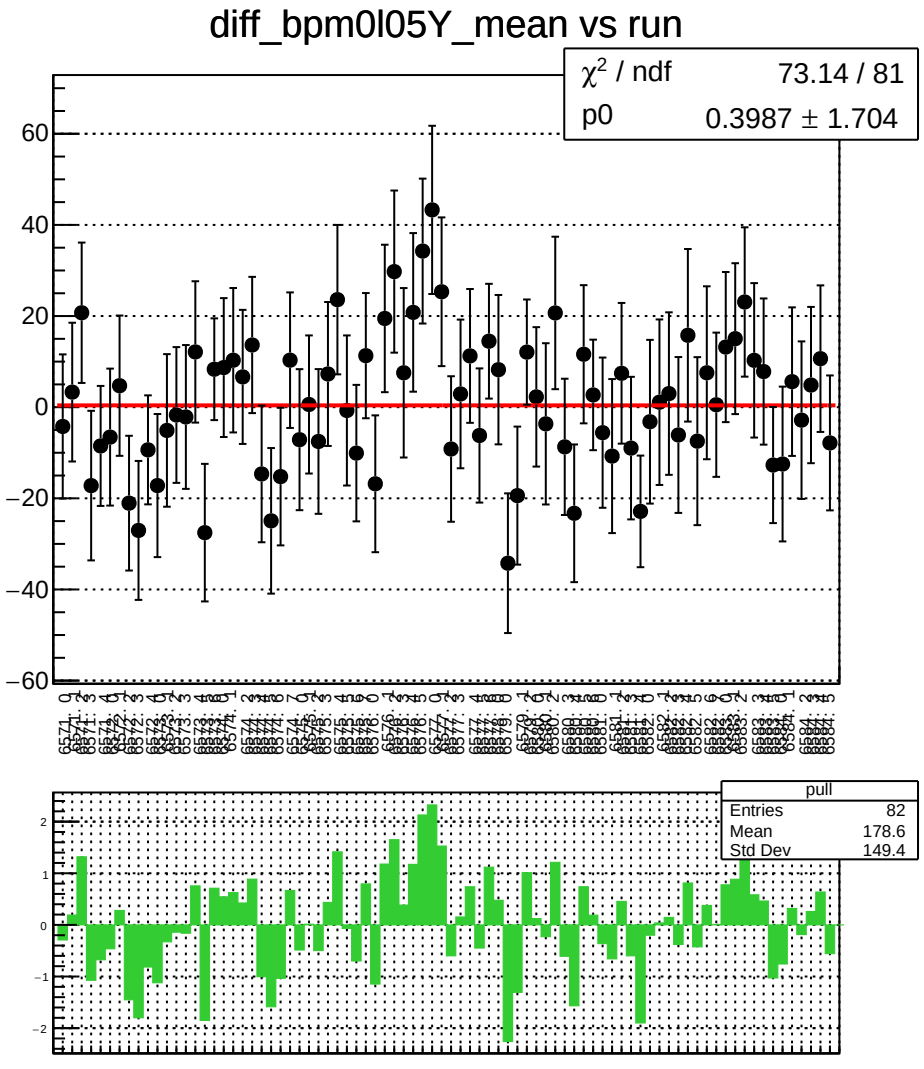

pull1D
Entries 82
Mean −0.01205
Std Dev 0.9611

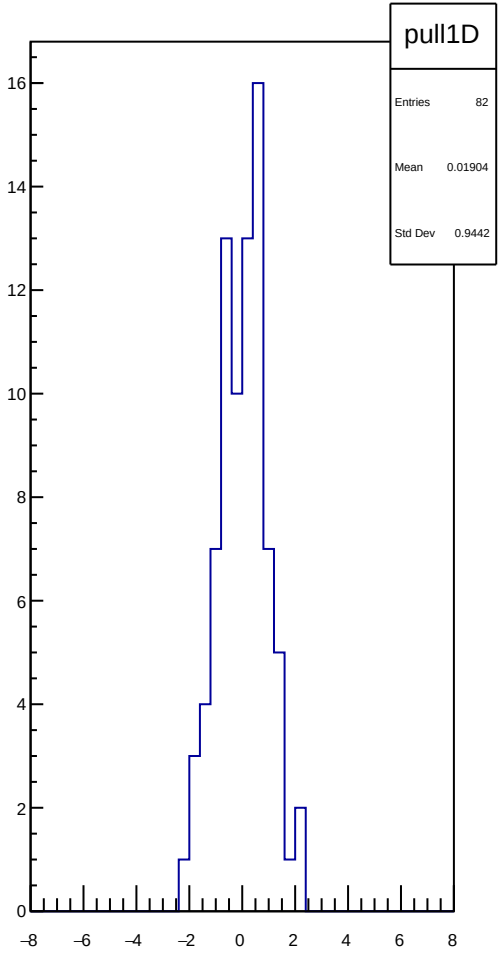

diff_bpm0l04Y_rms vs run
χ² / ndf 3391 / 81
p0 1229 ± 0.9747
1400
1350
1300
1250
1200
1150

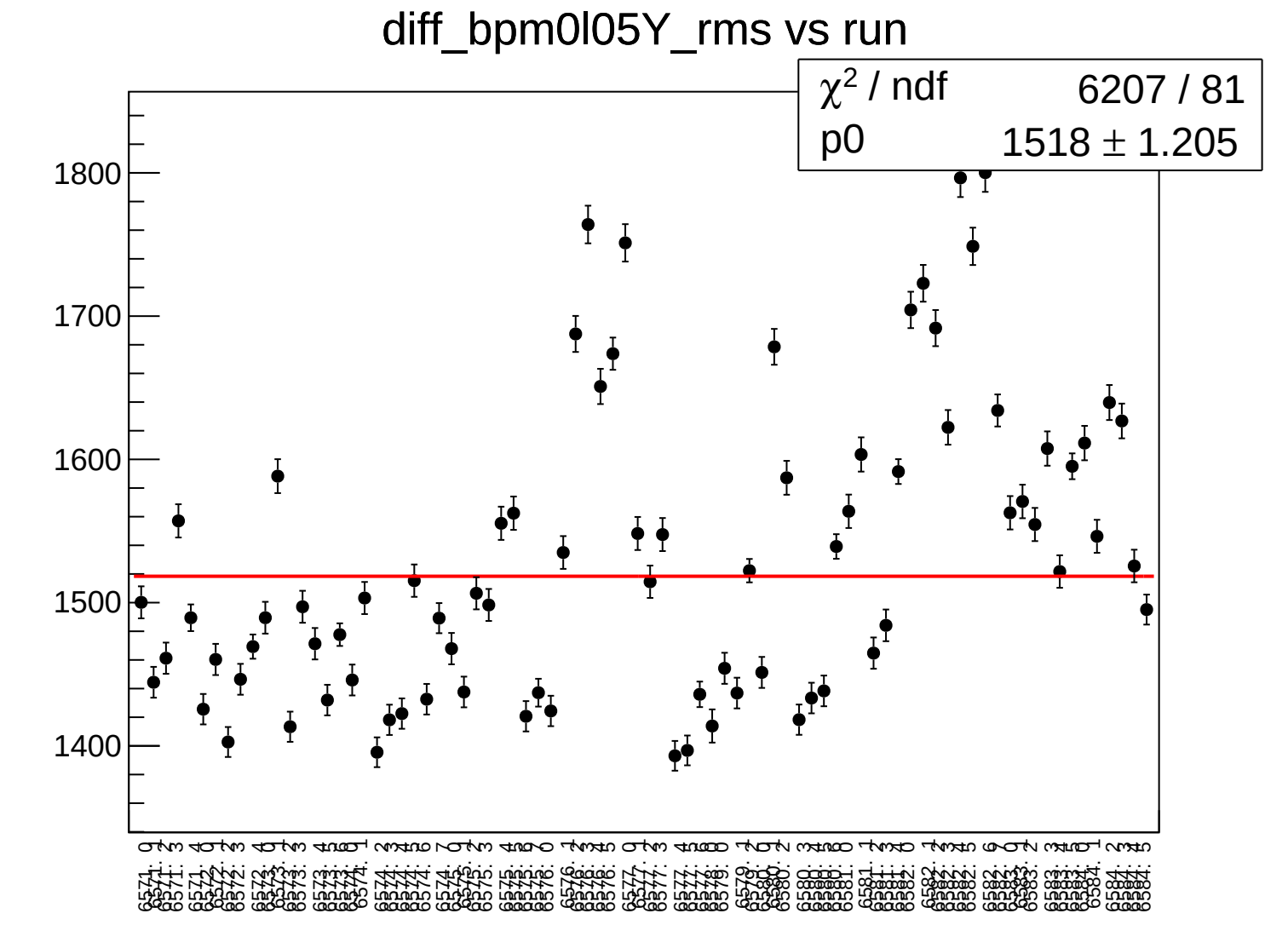

diff_bpm0l05X_mean vs run
χ² / ndf 83.11 / 81
p0 6.188 ± 7.608
pull
Entries 82
Mean 1306
Std Dev 1266

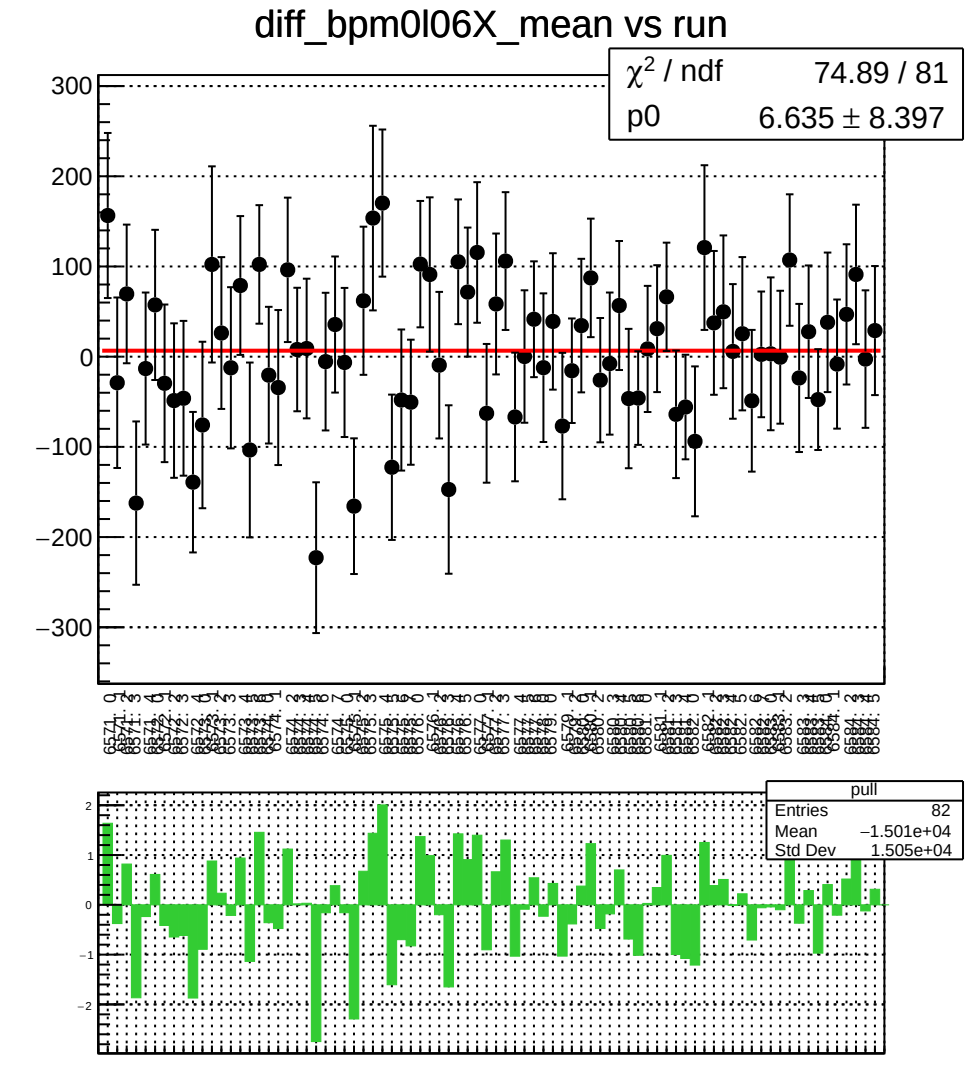

pull1D
Entries 82
Mean 0.00184
Std Dev 1.007

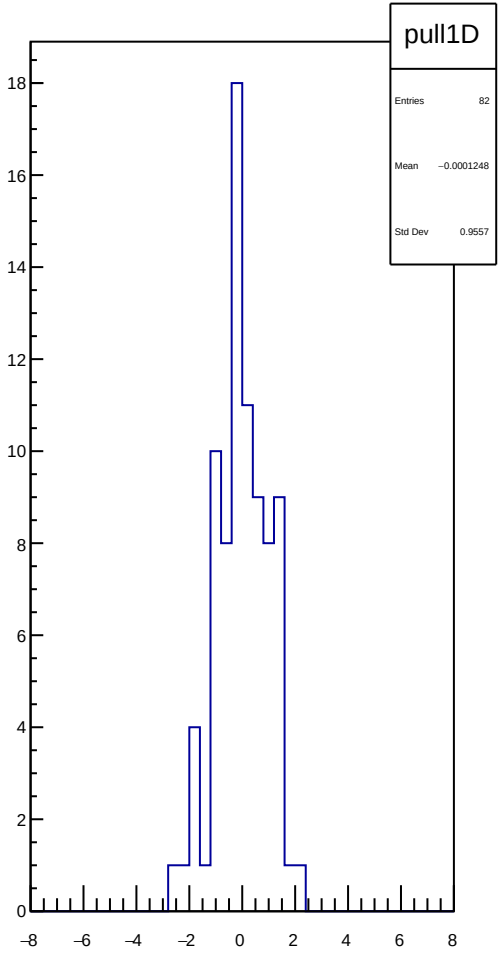

diff_bpm0l05X_rms vs run
χ^2 / ndf 1.44e+04 / 81
p0 6760 ± 5.379
9500
9000
8500
8000
7500
7000
6500
6000
5500
5000

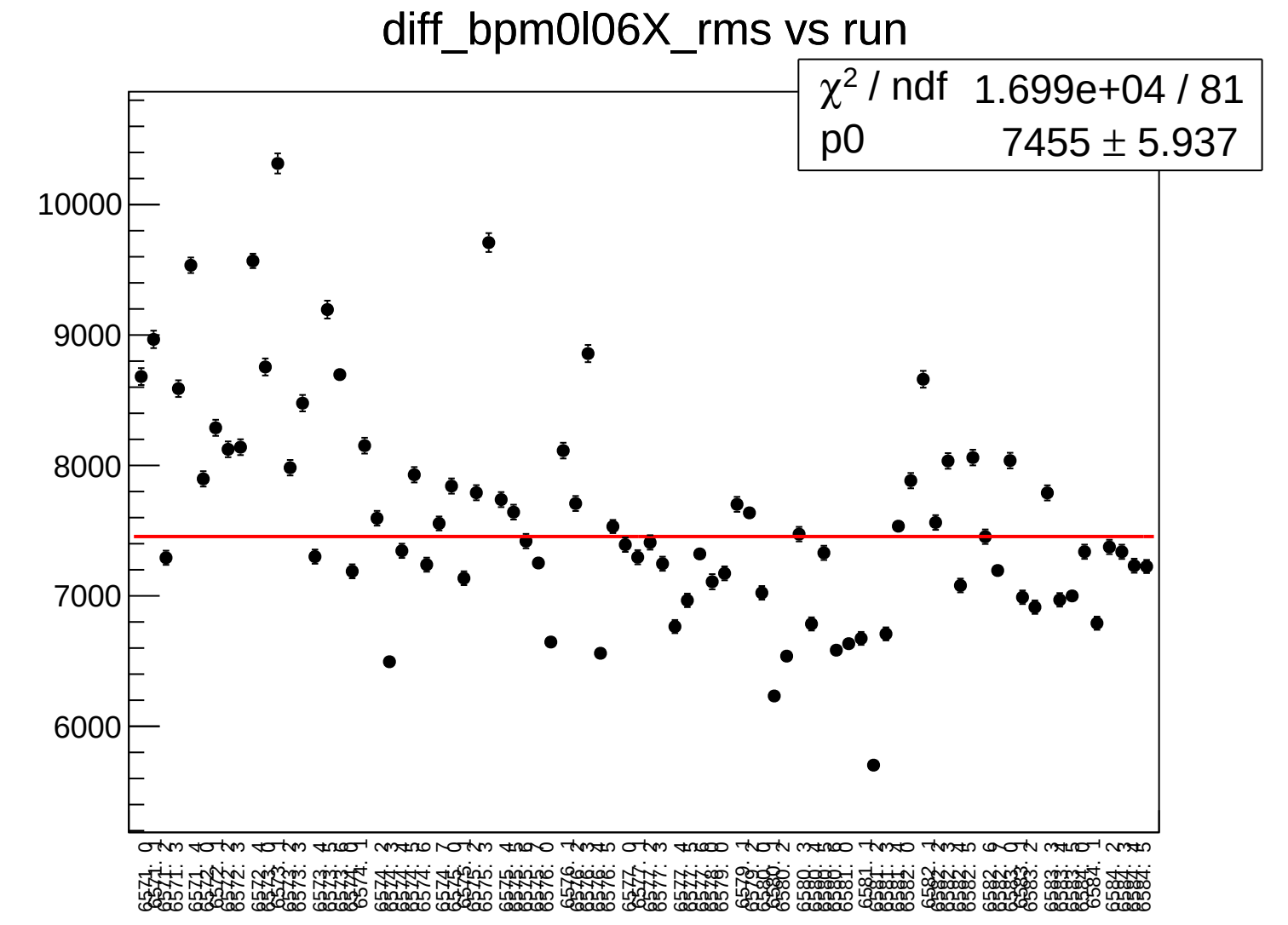

diff_bpm0l05Y_mean vs run
χ² / ndf 73.14 / 81
p0 0.3987 ± 1.704
pull
Entries 82
Mean 178.6
Std Dev 149.4

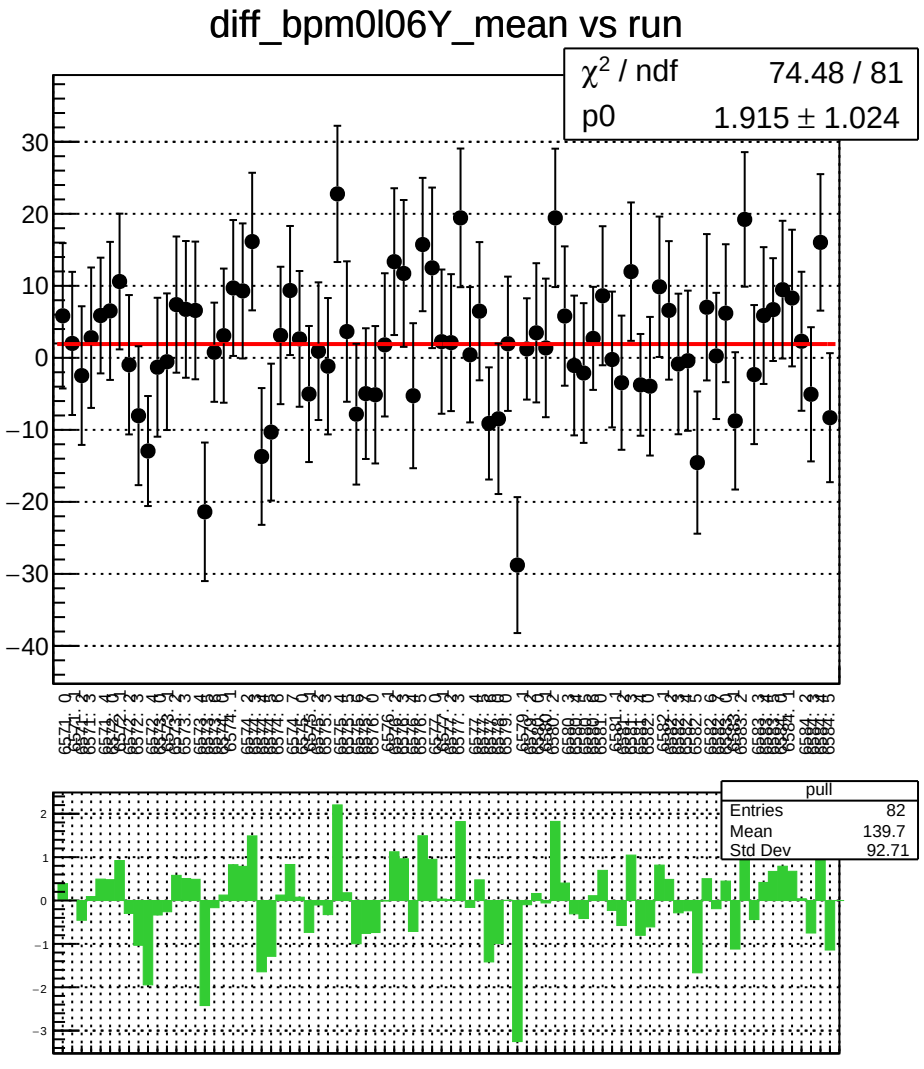

pull1D
Entries 82
Mean 0.01904
Std Dev 0.9442

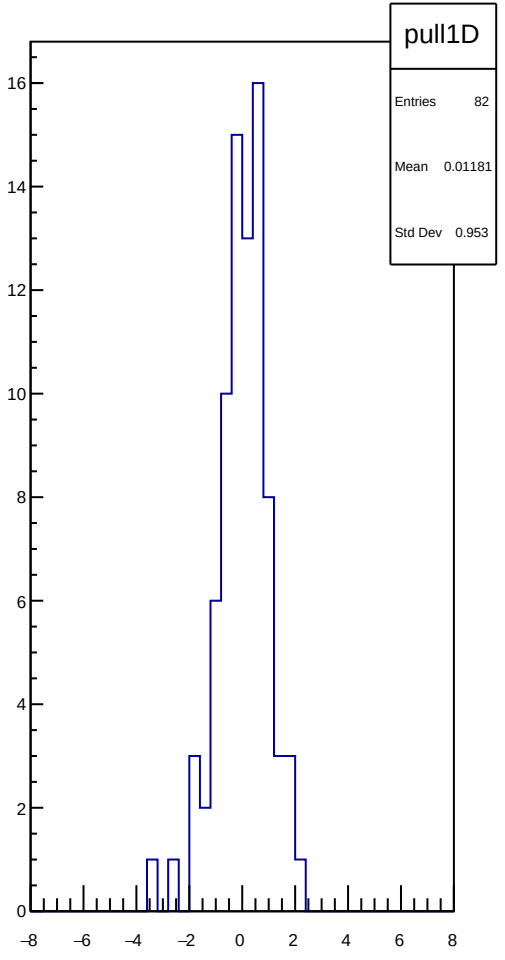

diff_bpm0l05Y_rms vs run
χ² / ndf 6207 / 81
p0 1518 ± 1.205
1800
1700
1600
1500
1400

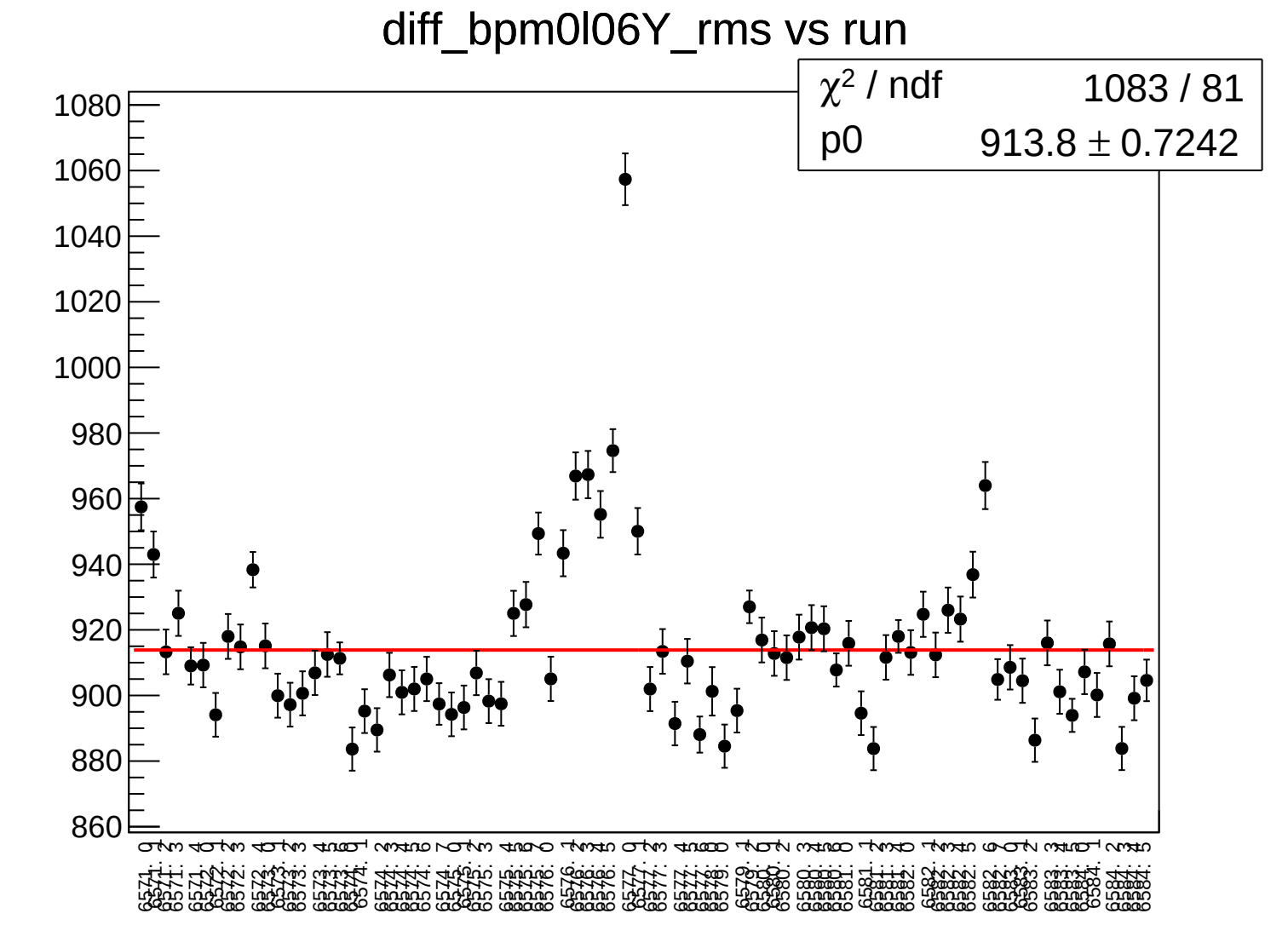

diff_bpm0l06X_mean vs run
χ² / ndf 74.89 / 81
p0 6.635 ± 8.397
pull
Entries 82
Mean −1.501e+04
Std Dev 1.505e+04

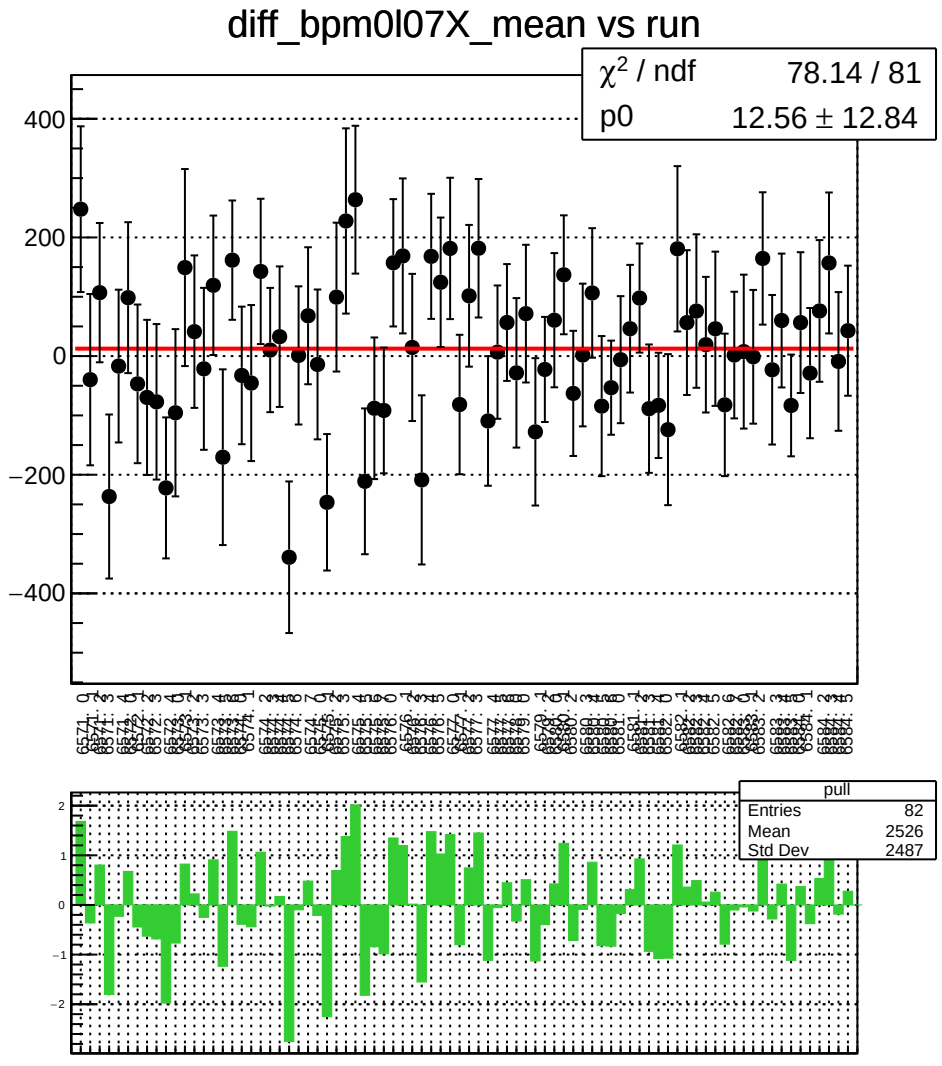

pull1D
Entries 82
Mean −0.0001248
Std Dev 0.9557

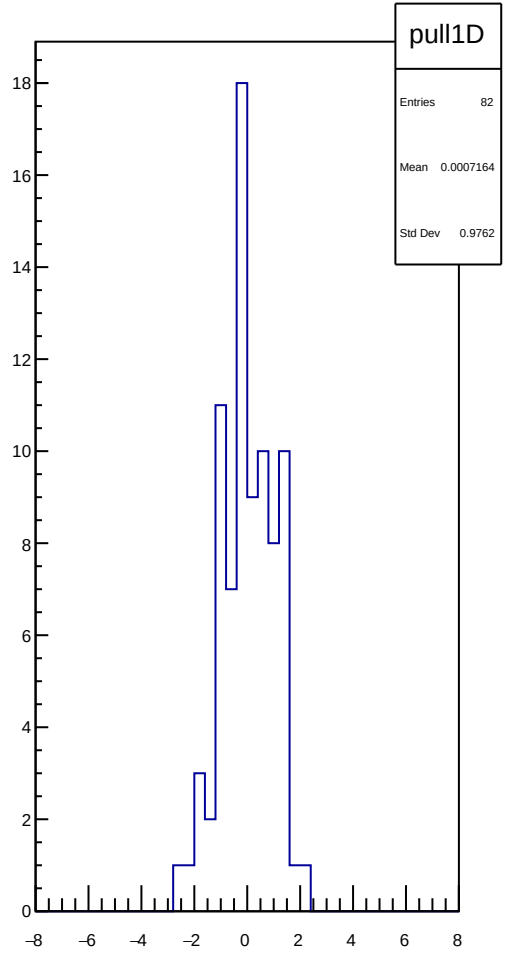

diff_bpm0l06X_rms vs run
χ^2 / ndf 1.699e+04 / 81
p0 7455 ± 5.937
10000
9000
8000
7000
6000

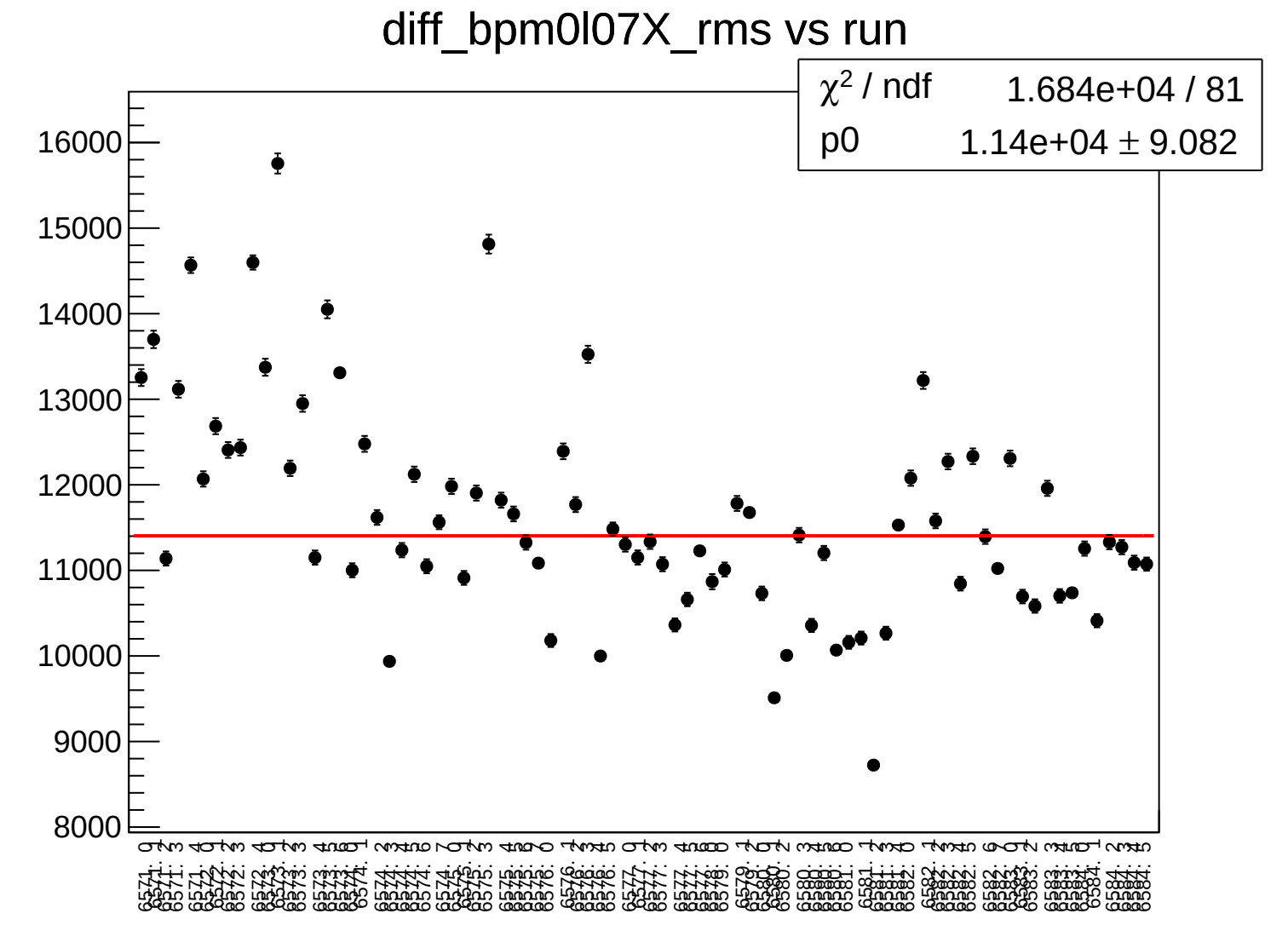

diff_bpm0l06Y_mean vs run
χ^2 / ndf 74.48 / 81
p0 1.915 ± 1.024
pull
Entries 82
Mean 139.7
Std Dev 92.71

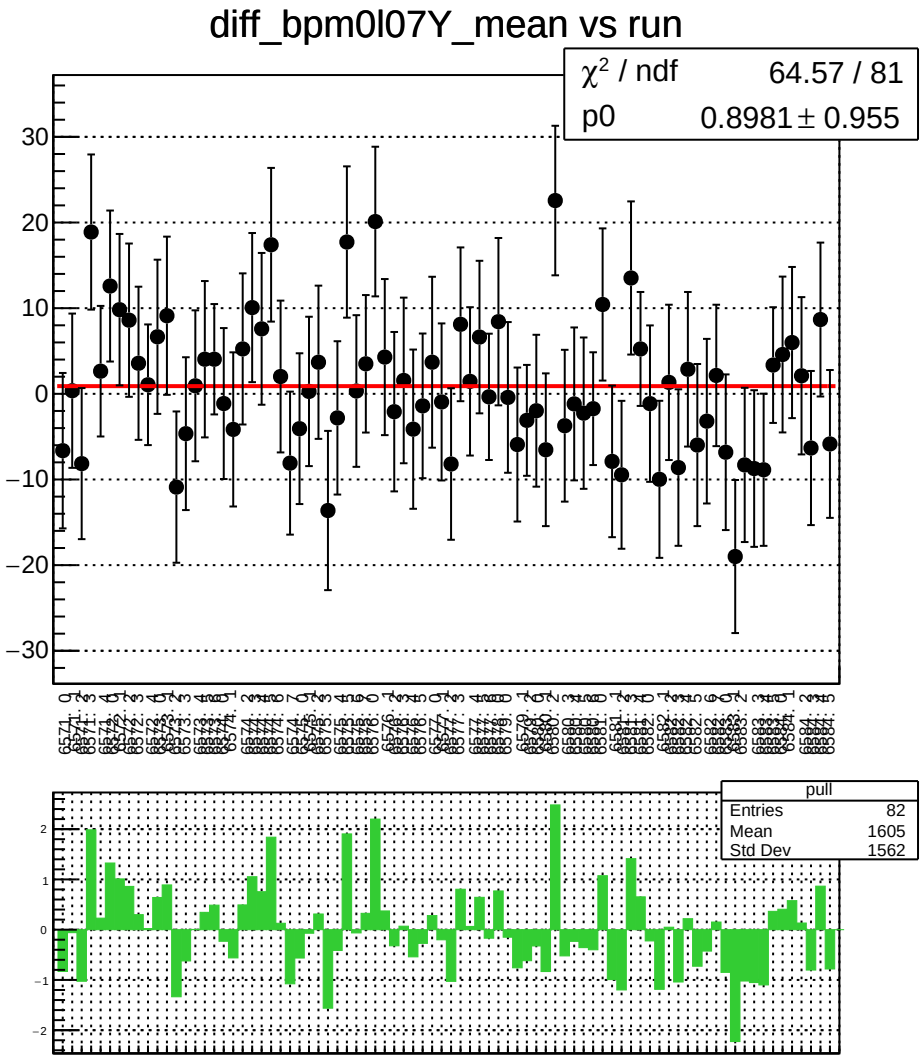

pull1D
Entries 82
Mean 0.01181
Std Dev 0.953

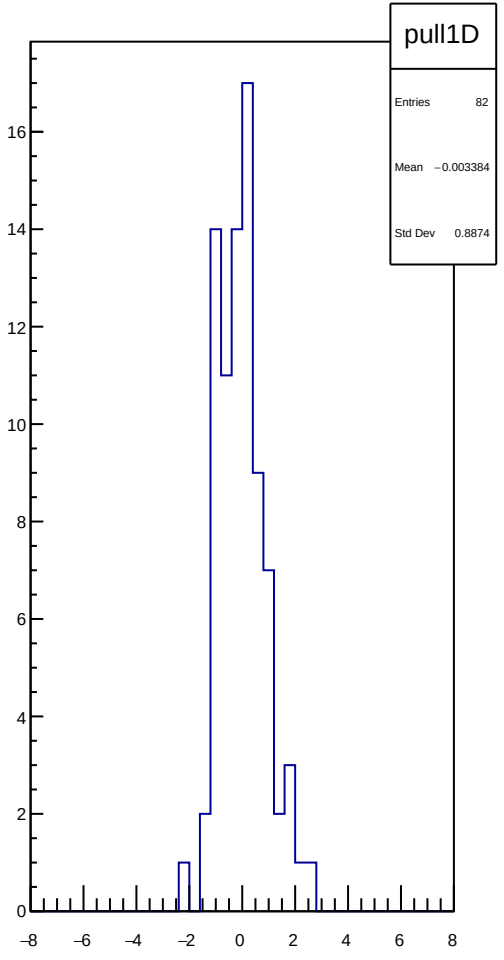

diff_bpm0l06Y_rms vs run
χ² / ndf 1083 / 81
p0 913.8 ± 0.7242
1080
1060
1040
1020
1000
980
960
940
920
900
880
860

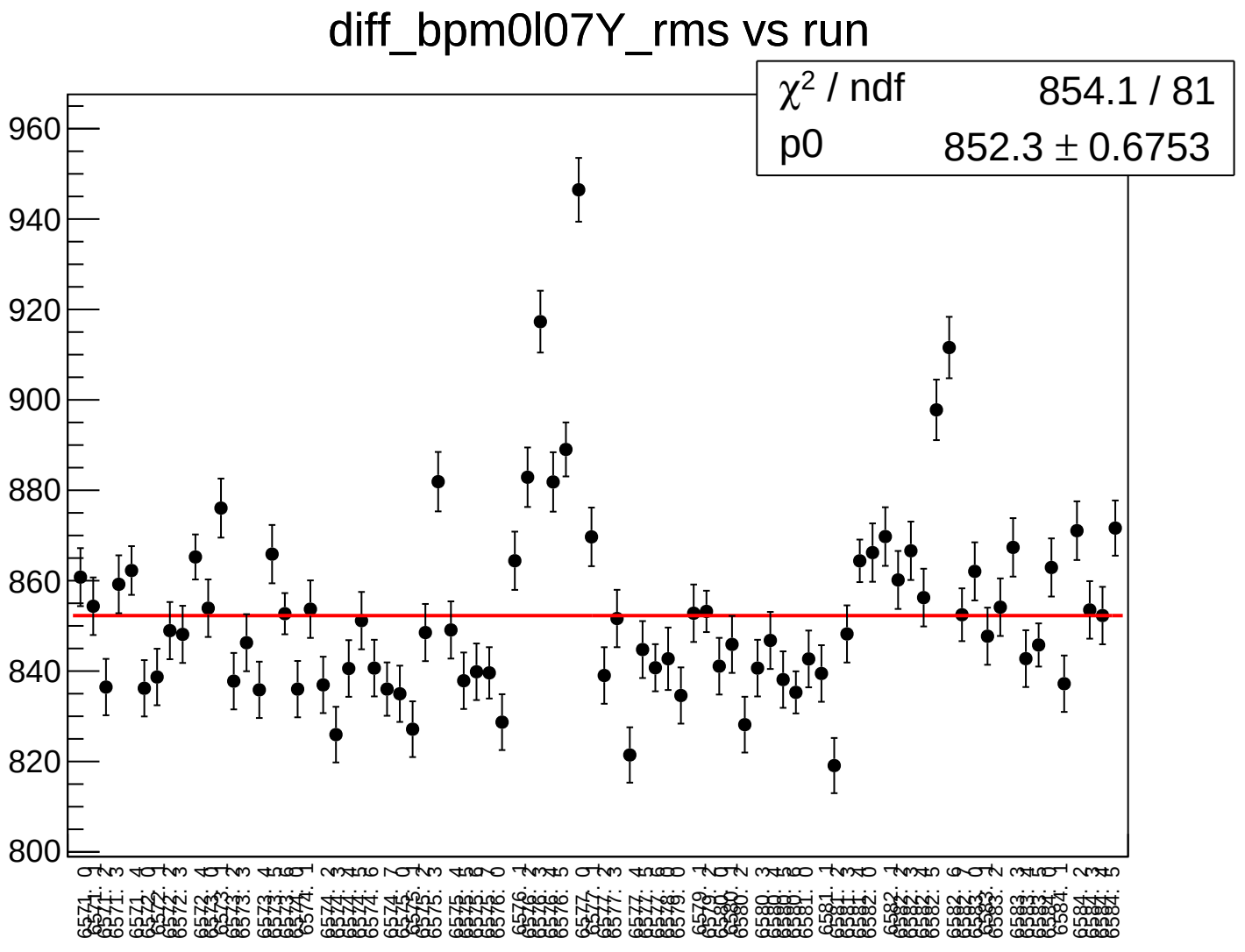

diff_bpm0l07X_mean vs run
χ^2 / ndf 78.14 / 81
p0 12.56 ± 12.84
400
200
0
−200
−400
pull
Entries 82
Mean 2526
Std Dev 2487
2
1
0
−1
−2

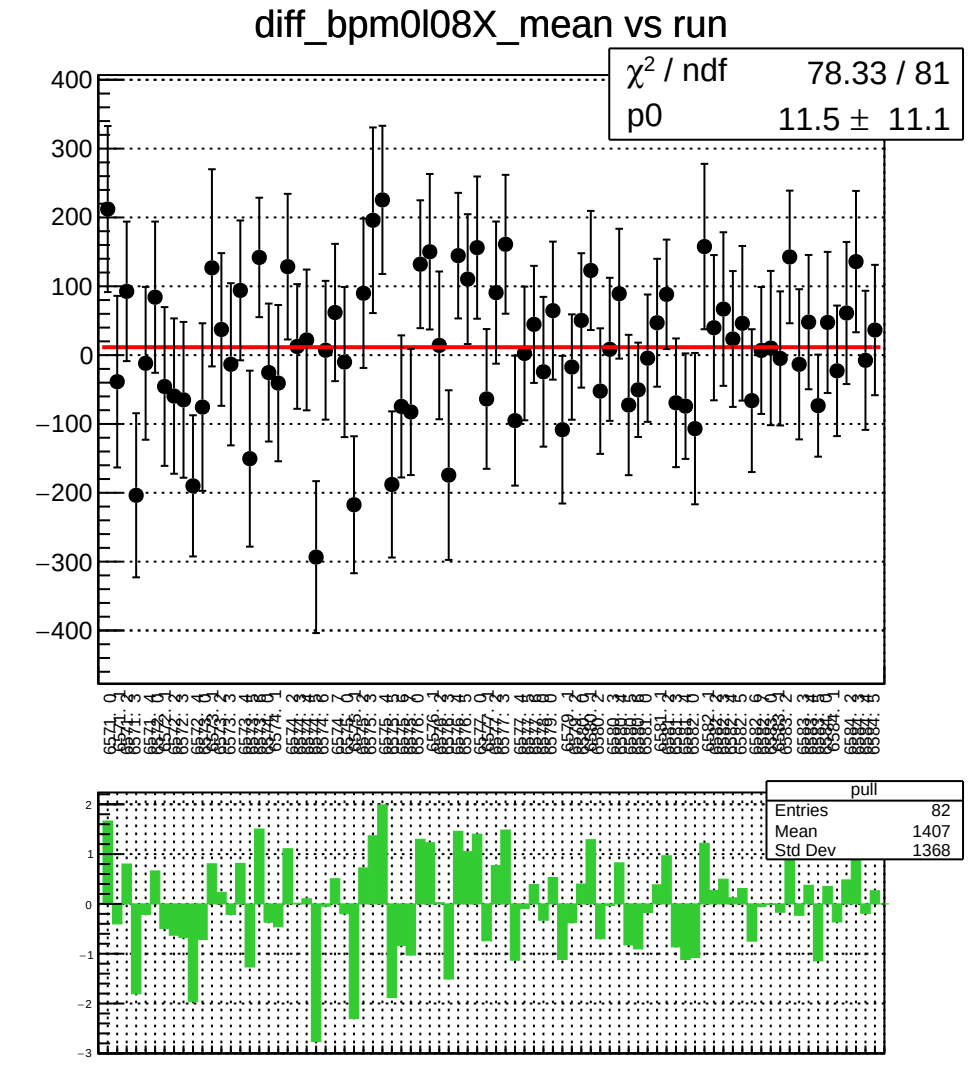

pull1D
Entries 82
Mean 0.0007164
Std Dev 0.9762
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

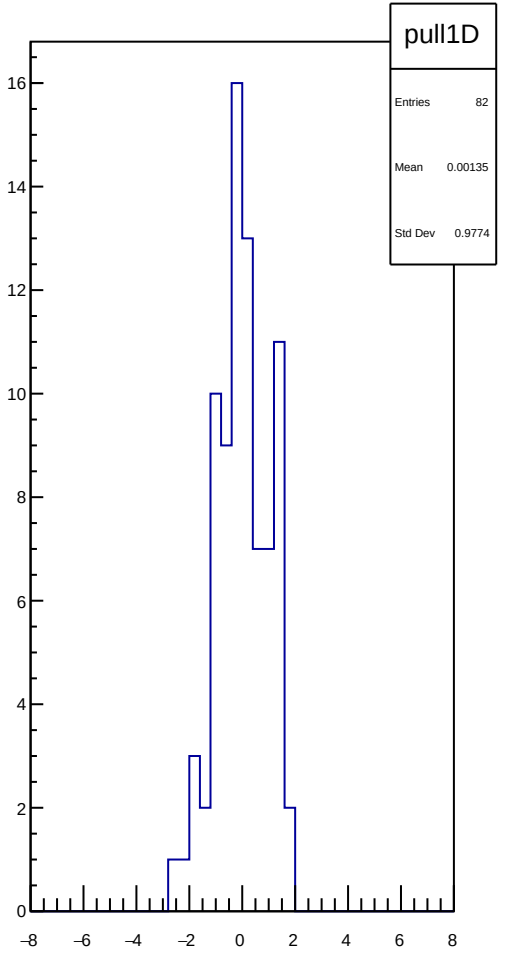

diff_bpm0l07X_rms vs run
χ² / ndf 1.684e+04 / 81
p0 1.14e+04 ± 9.082
16000
15000
14000
13000
12000
11000
10000
9000
8000

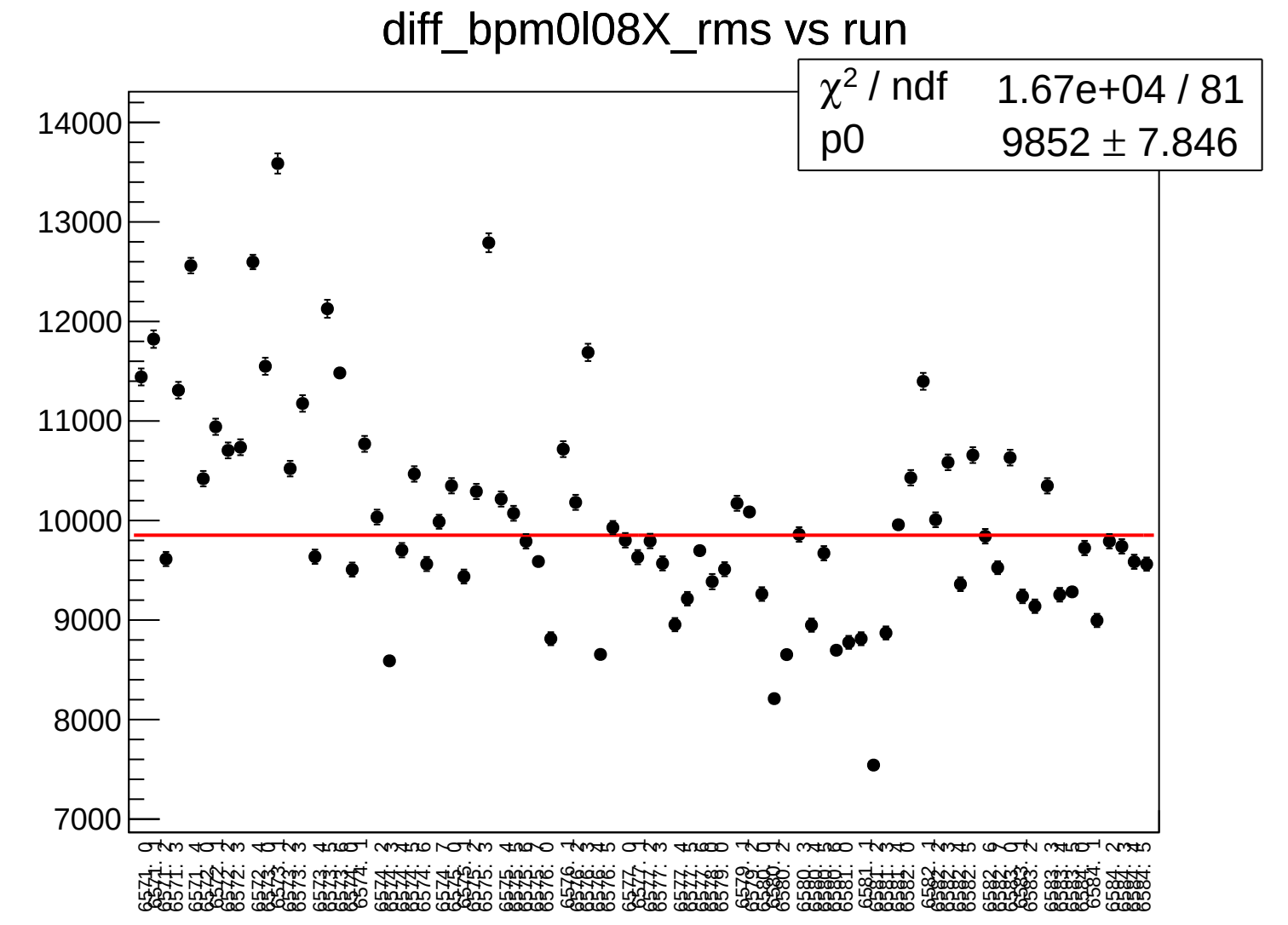

diff_bpm0l07Y_mean vs run
χ^2 / ndf 64.57 / 81
p0 0.8981 ± 0.955
pull
Entries 82
Mean 1605
Std Dev 1562

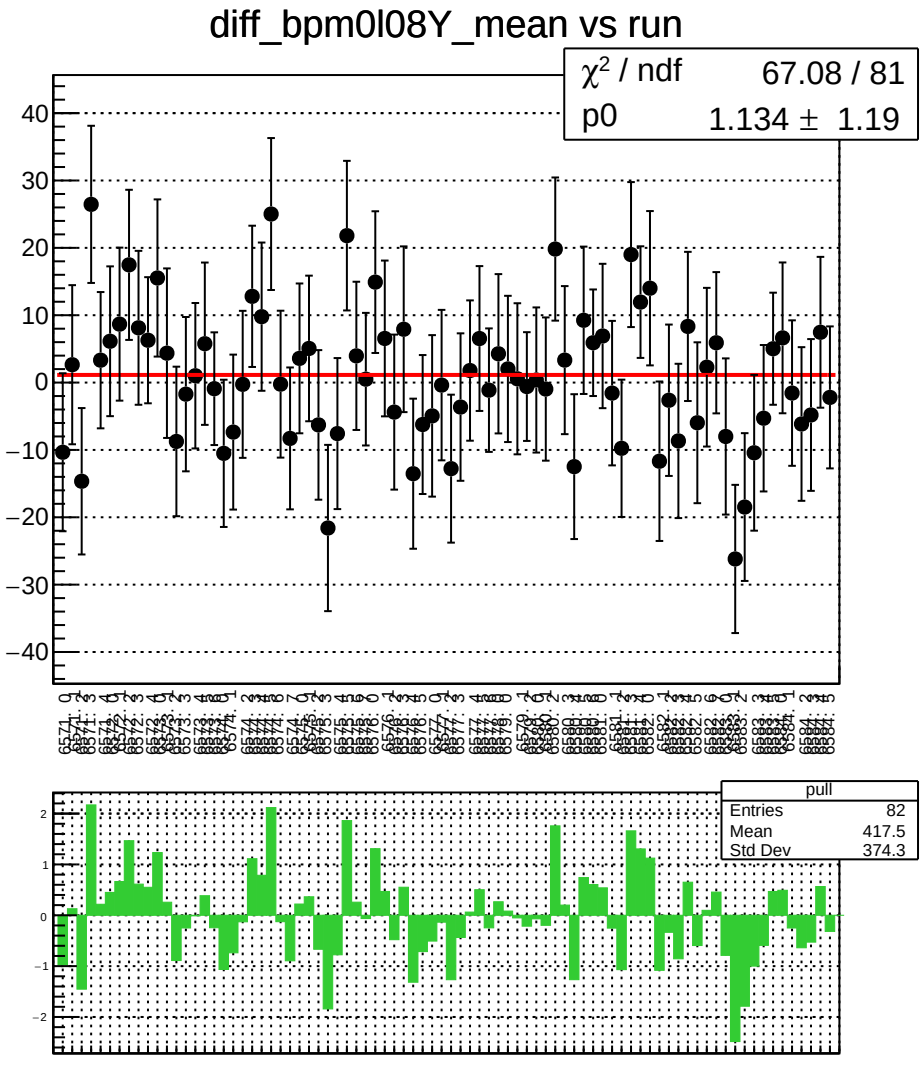

pull1D
Entries 82
Mean −0.003384
Std Dev 0.8874

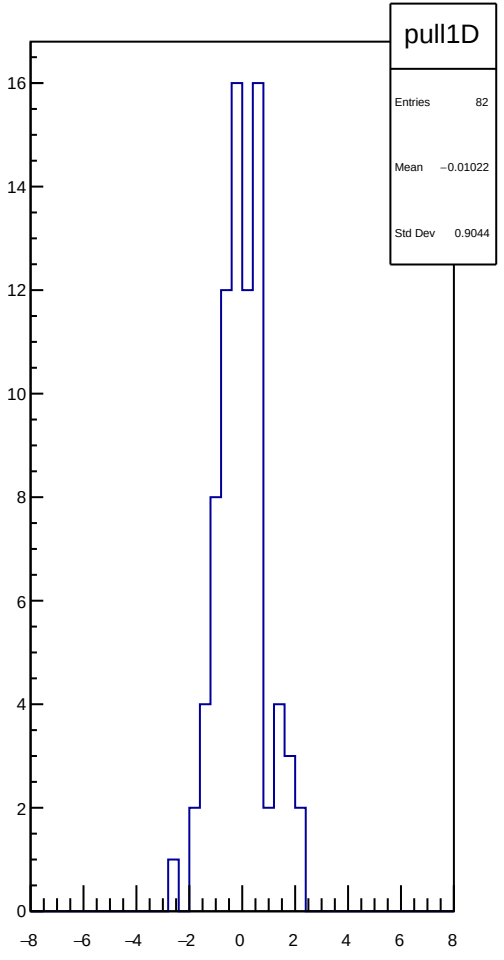

diff_bpm0l07Y_rms vs run
χ² / ndf 854.1 / 81
p0 852.3 ± 0.6753
960
940
920
900
880
860
840
820
800

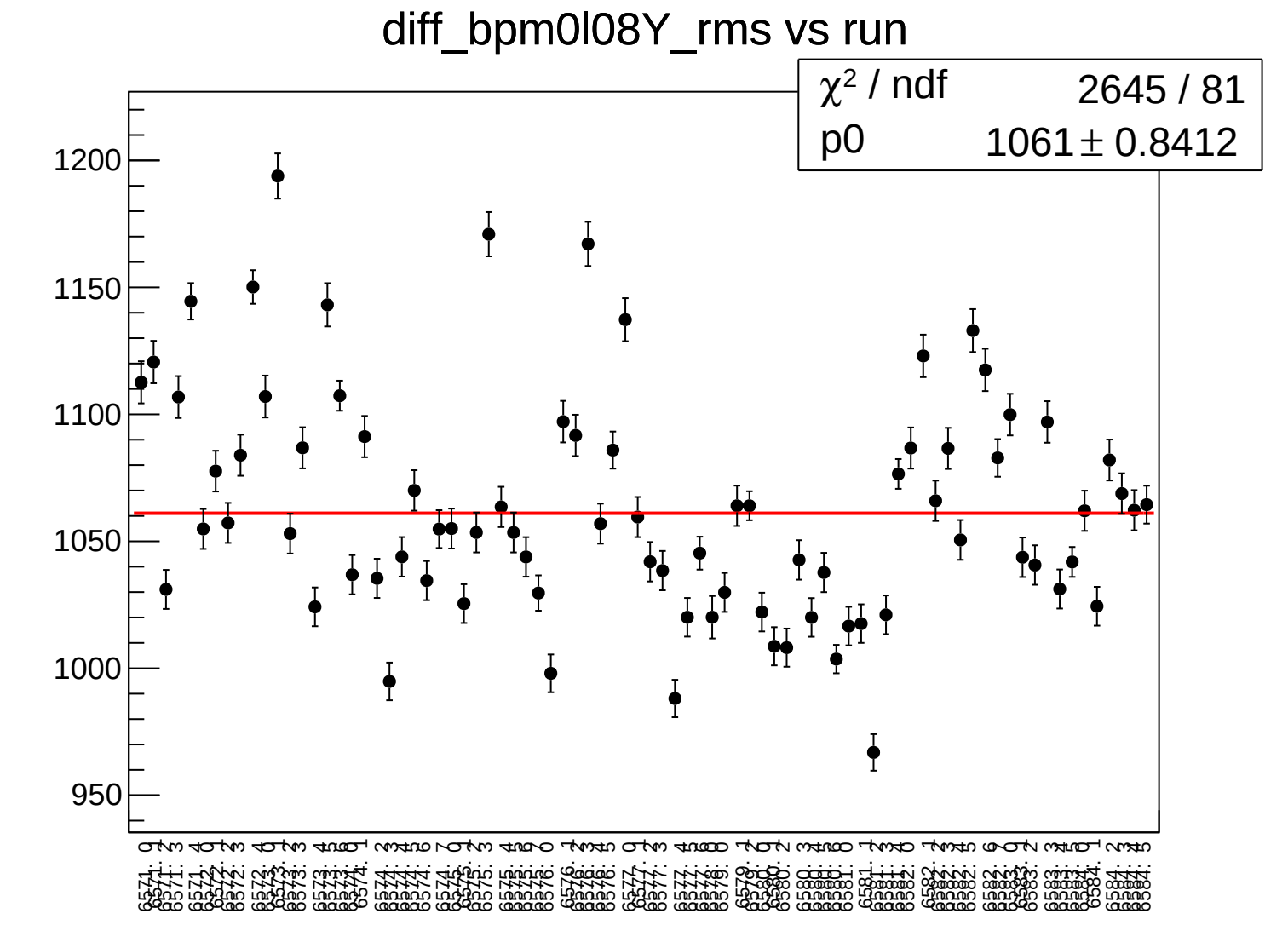

diff_bpm0l08X_mean vs run
χ² / ndf 78.33 / 81
p0 11.5 ± 11.1
pull
Entries 82
Mean 1407
Std Dev 1368

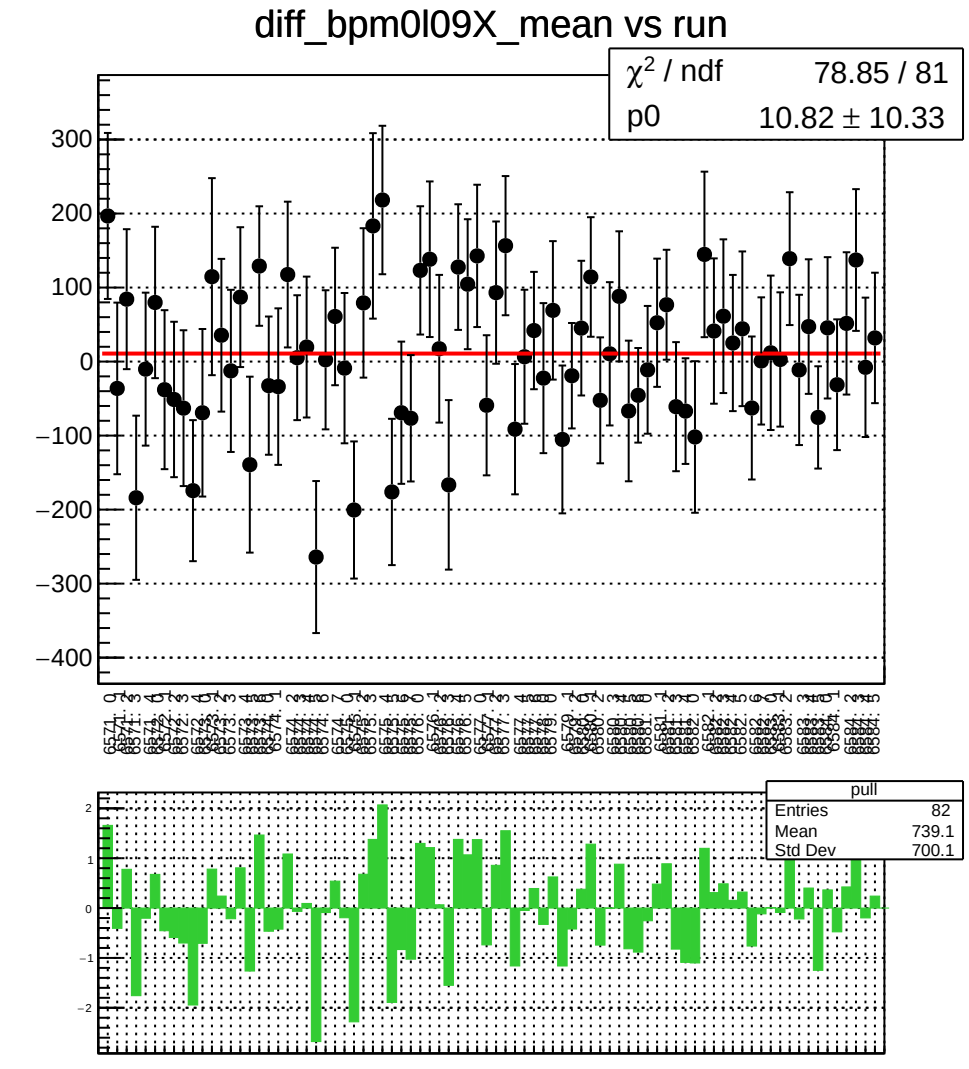

pull1D
Entries 82
Mean 0.00135
Std Dev 0.9774

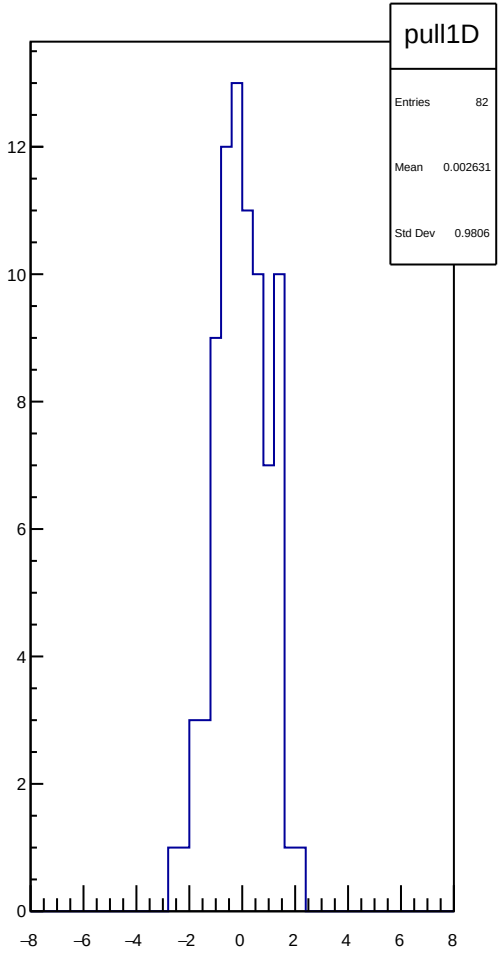

diff_bpm0l08X_rms vs run
χ² / ndf 1.67e+04 / 81
p0 9852 ± 7.846
14000
13000
12000
11000
10000
9000
8000
7000

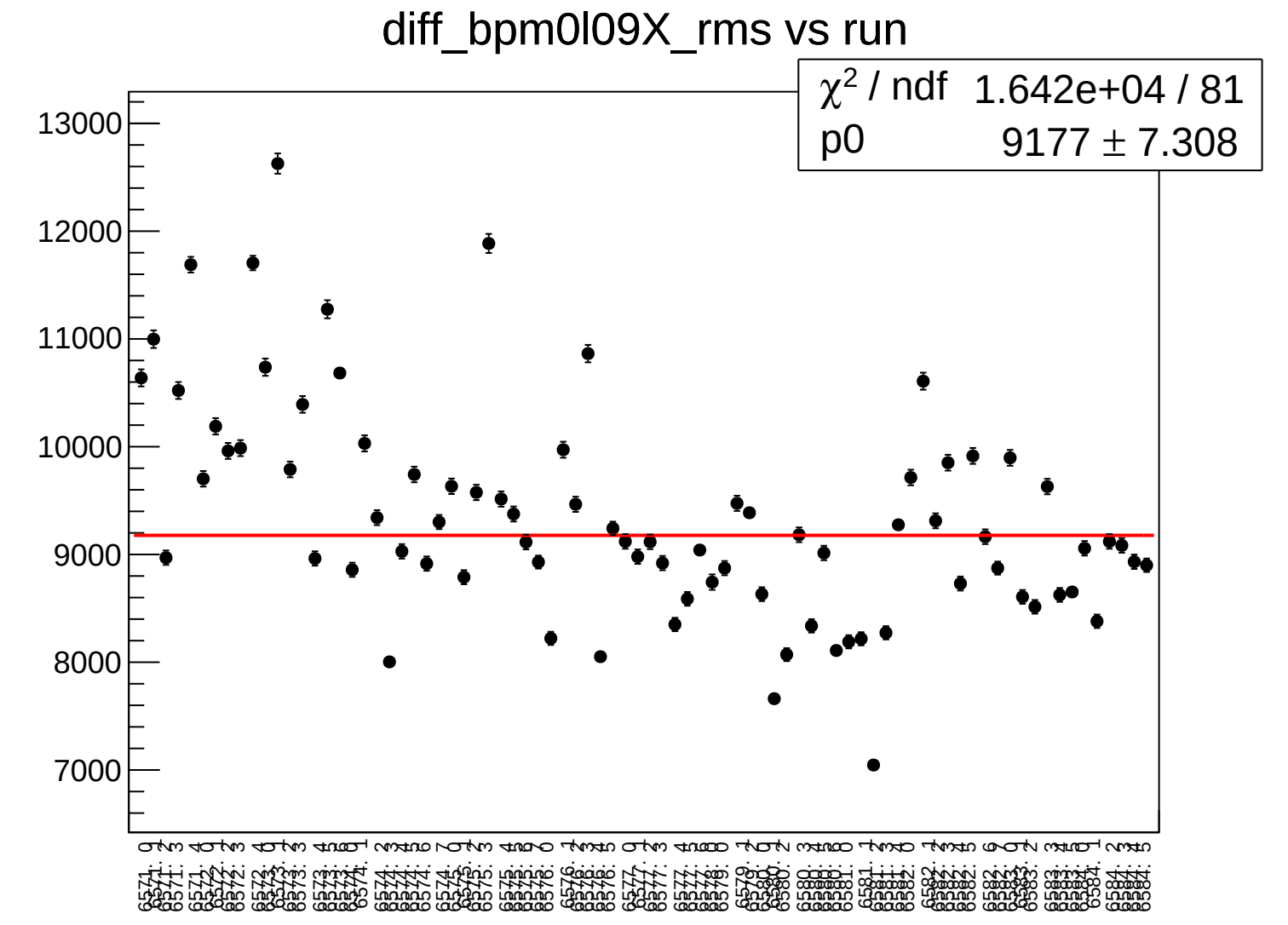

diff_bpm0l08Y_mean vs run
χ² / ndf 67.08 / 81
p0 1.134 ± 1.19
pull
Entries 82
Mean 417.5
Std Dev 374.3

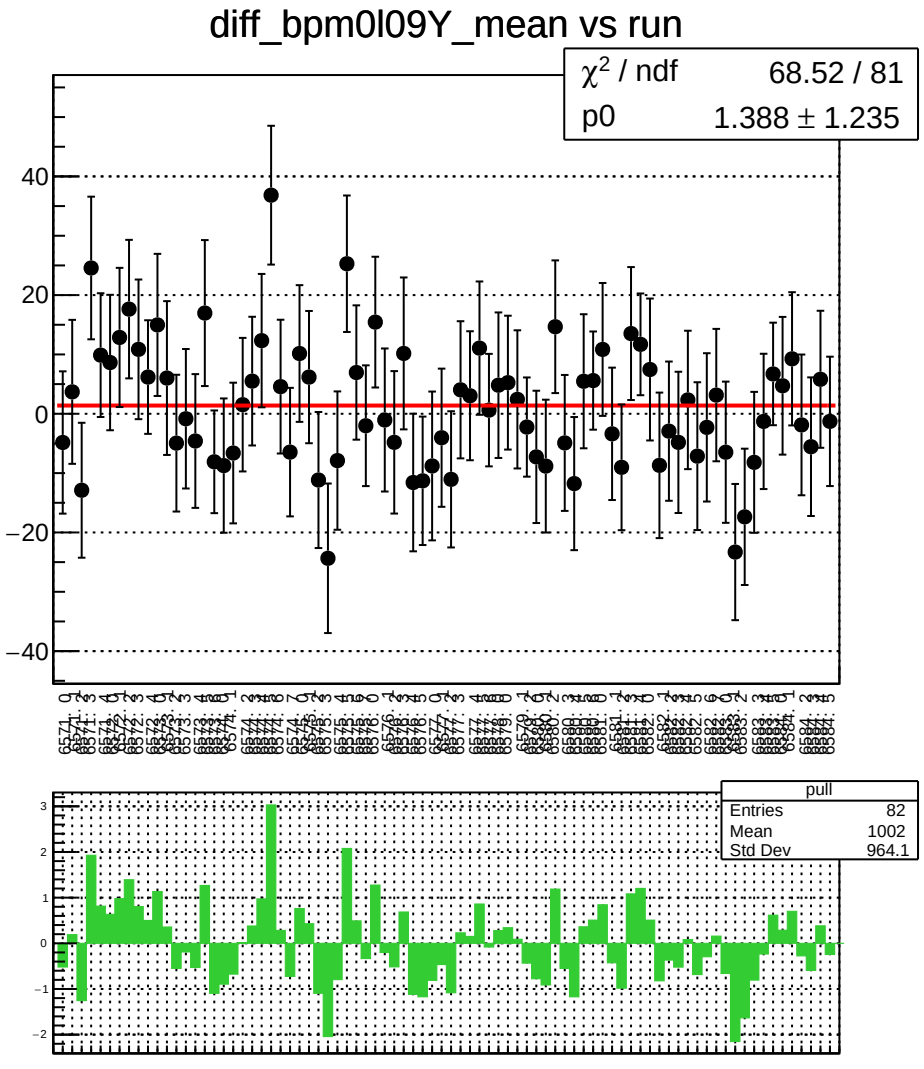

pull1D
Entries 82
Mean −0.01022
Std Dev 0.9044

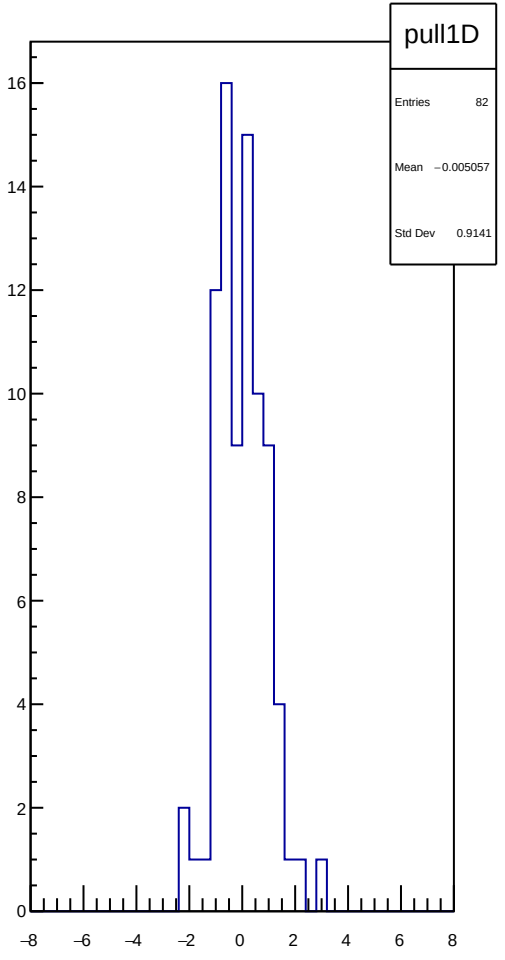

diff_bpm0l08Y_rms vs run
χ² / ndf 2645 / 81
p0 1061 ± 0.8412
1200
1150
1100
1050
1000
950

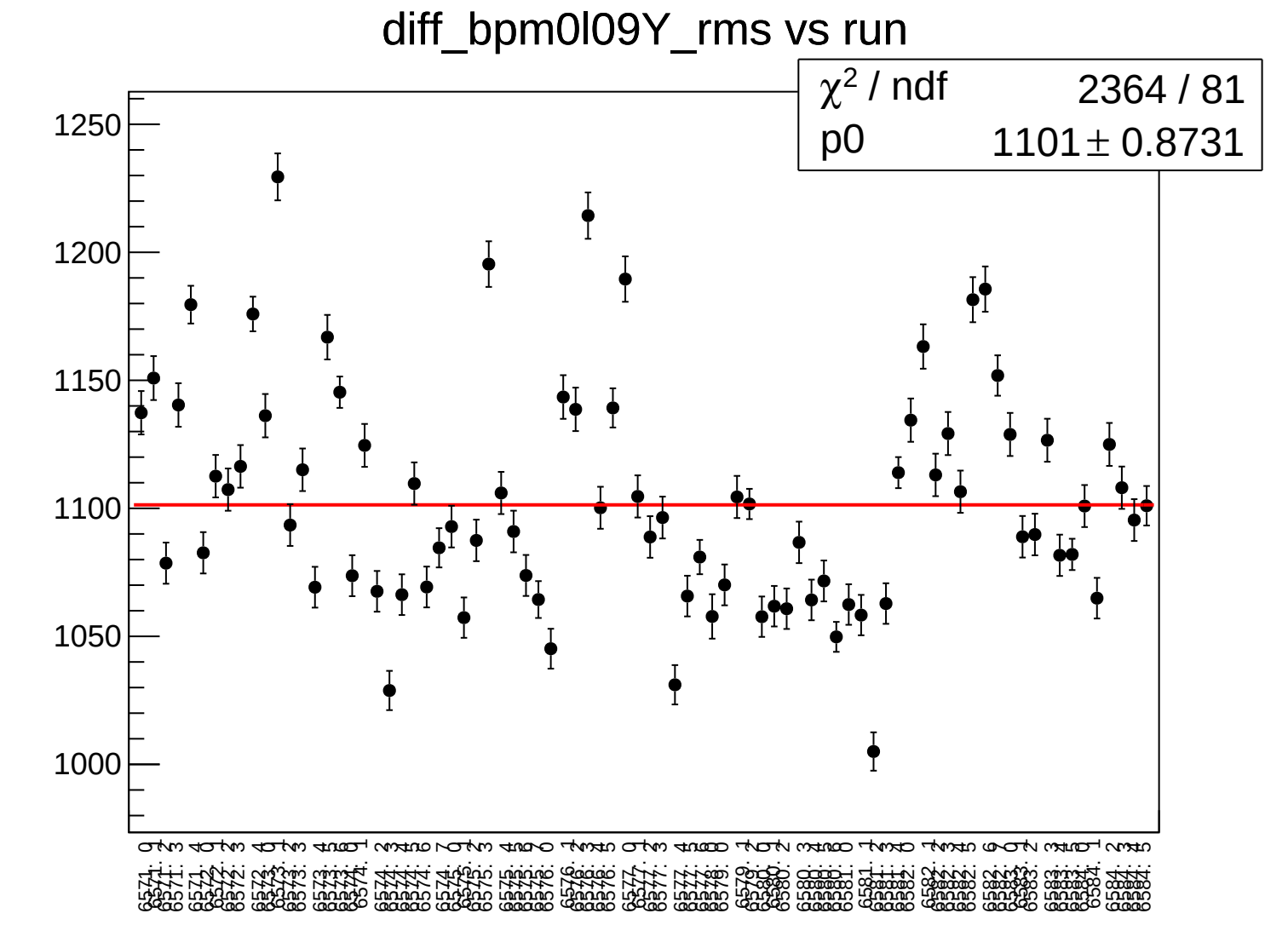

diff_bpm0l09X_mean vs run
χ^2 / ndf 78.85 / 81
p0 10.82 ± 10.33
pull
Entries 82
Mean 739.1
Std Dev 700.1

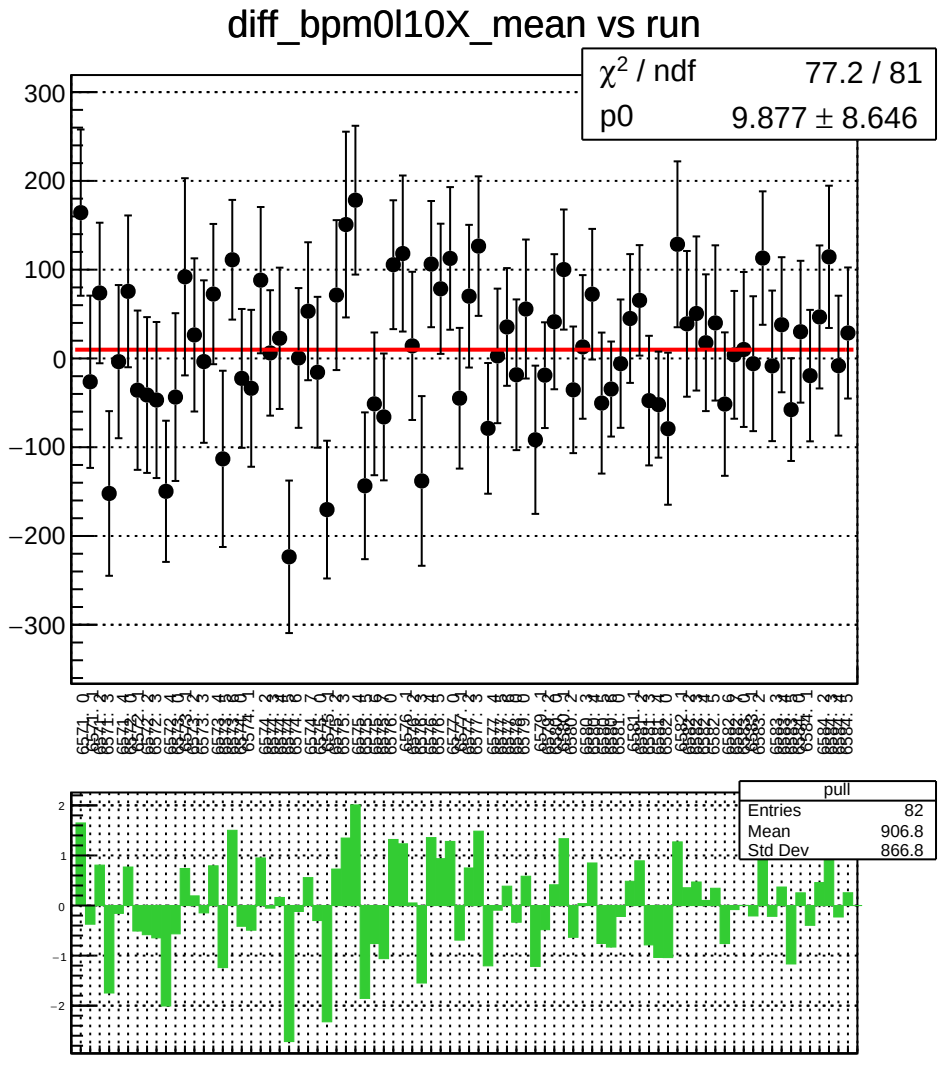

pull1D
Entries 82
Mean 0.002631
Std Dev 0.9806

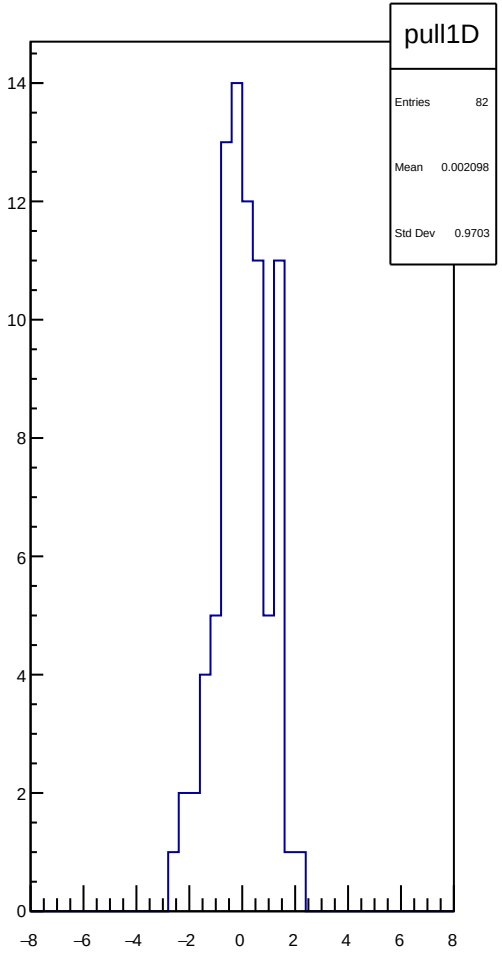

diff_bpm0l09X_rms vs run
χ² / ndf 1.642e+04 / 81
p0 9177 ± 7.308
13000
12000
11000
10000
9000
8000
7000

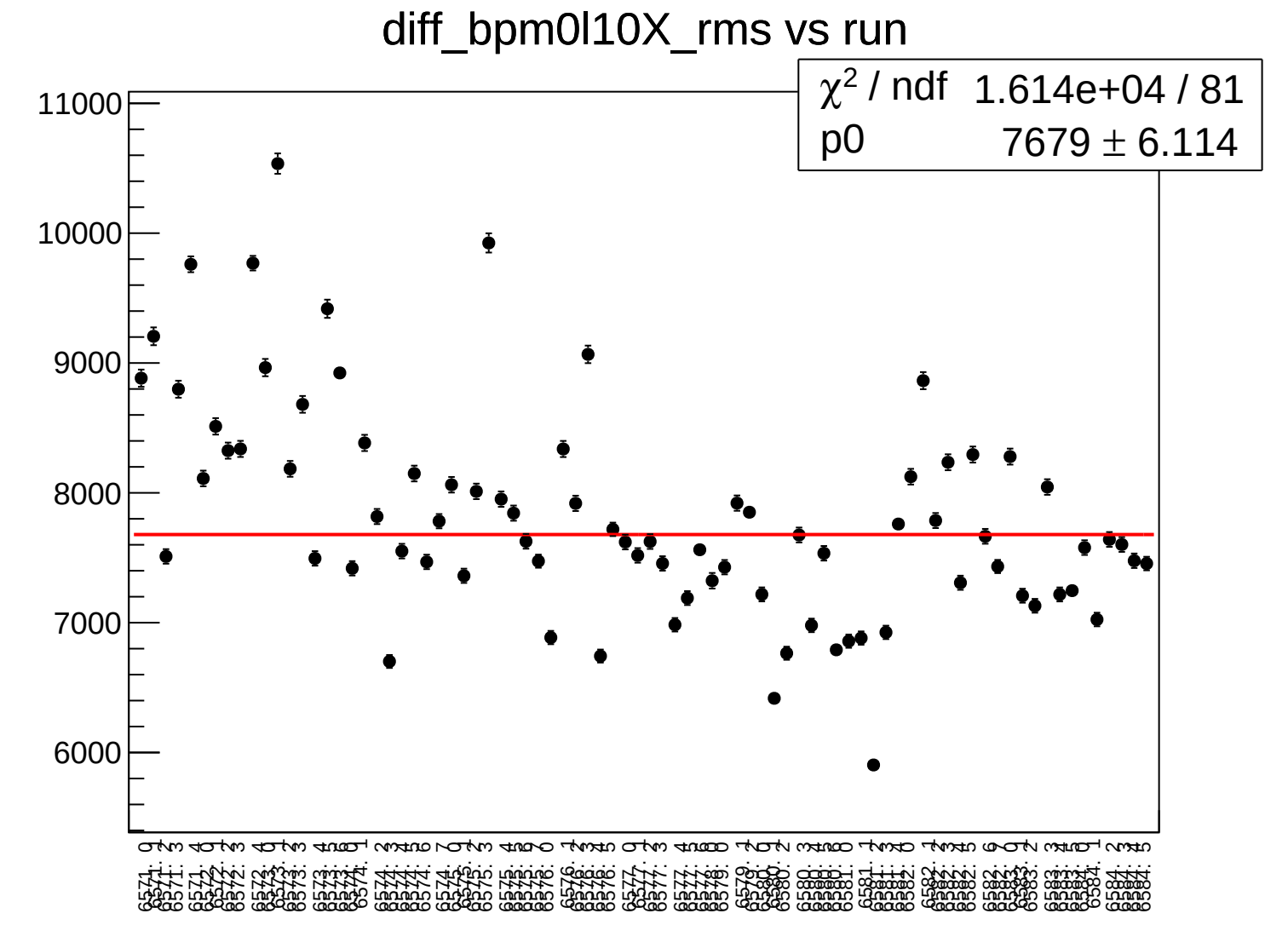

diff_bpm0l09Y_mean vs run
χ² / ndf 68.52 / 81
p0 1.388 ± 1.235
pull
Entries 82
Mean 1002
Std Dev 964.1

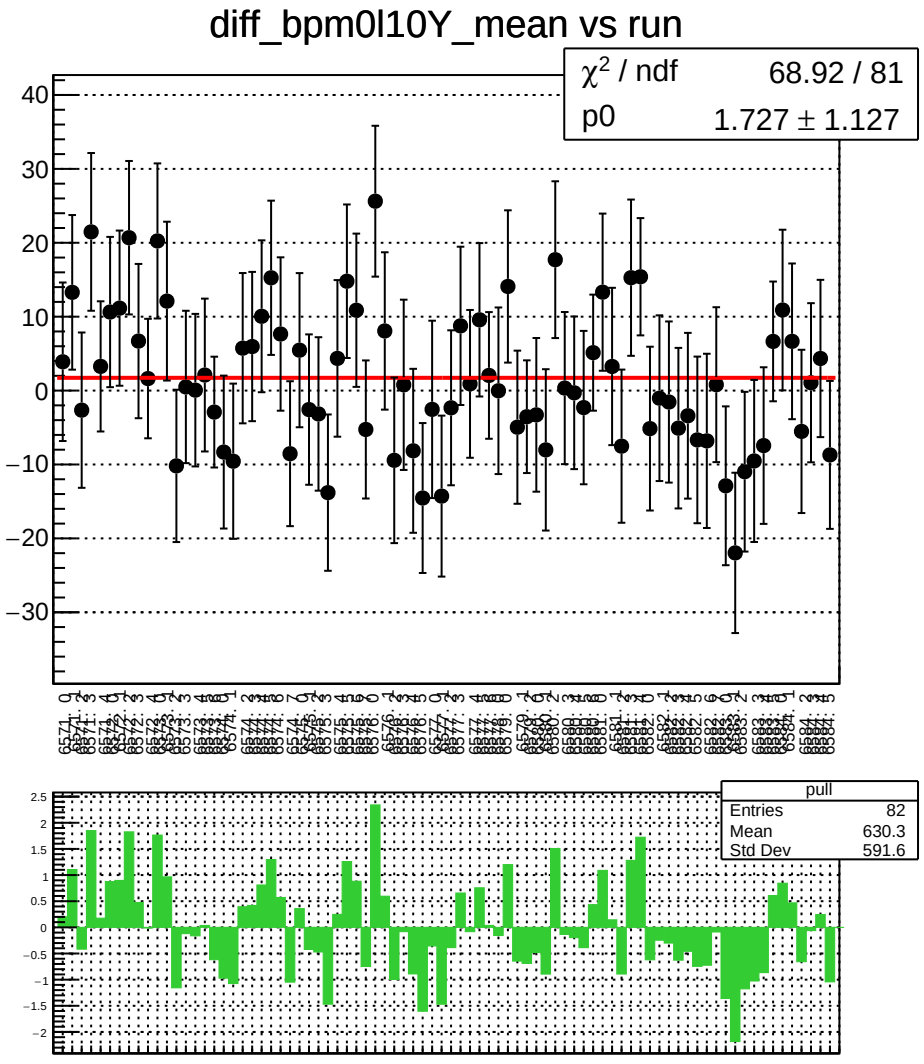

pull1D
Entries 82
Mean −0.005057
Std Dev 0.9141

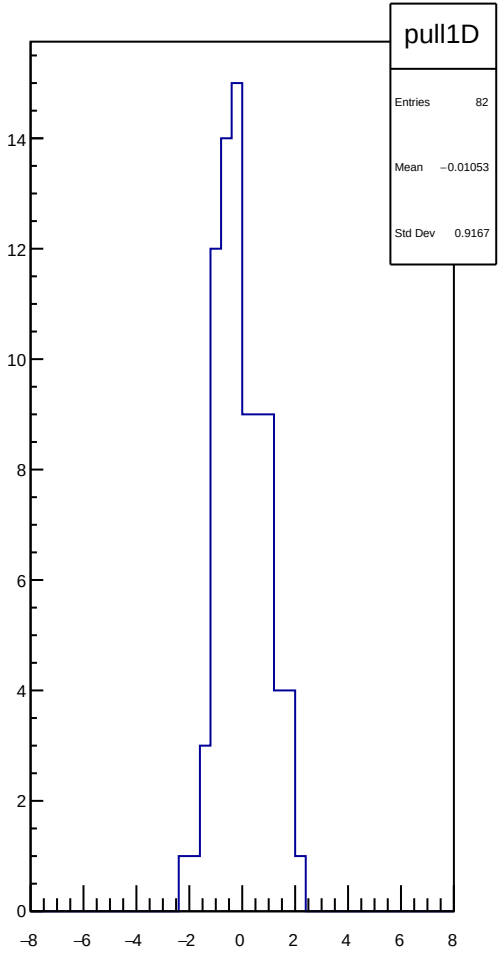

diff_bpm0l09Y_rms vs run
χ² / ndf 2364 / 81
p0 1101 ± 0.8731
1250
1200
1150
1100
1050
1000

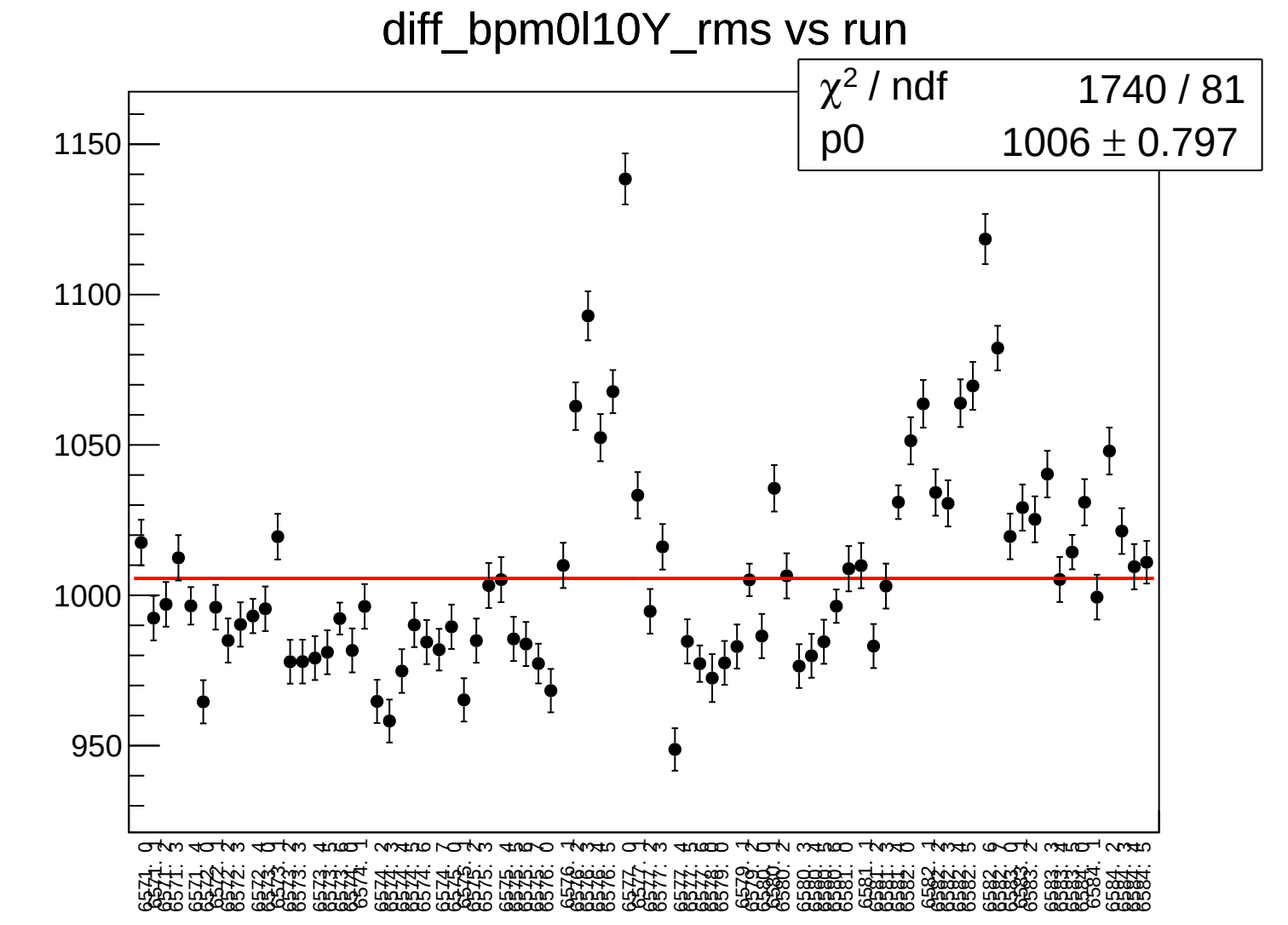

diff_bpm0l10X_mean vs run
χ² / ndf 77.2 / 81
p0 9.877 ± 8.646
pull
Entries 82
Mean 906.8
Std Dev 866.8

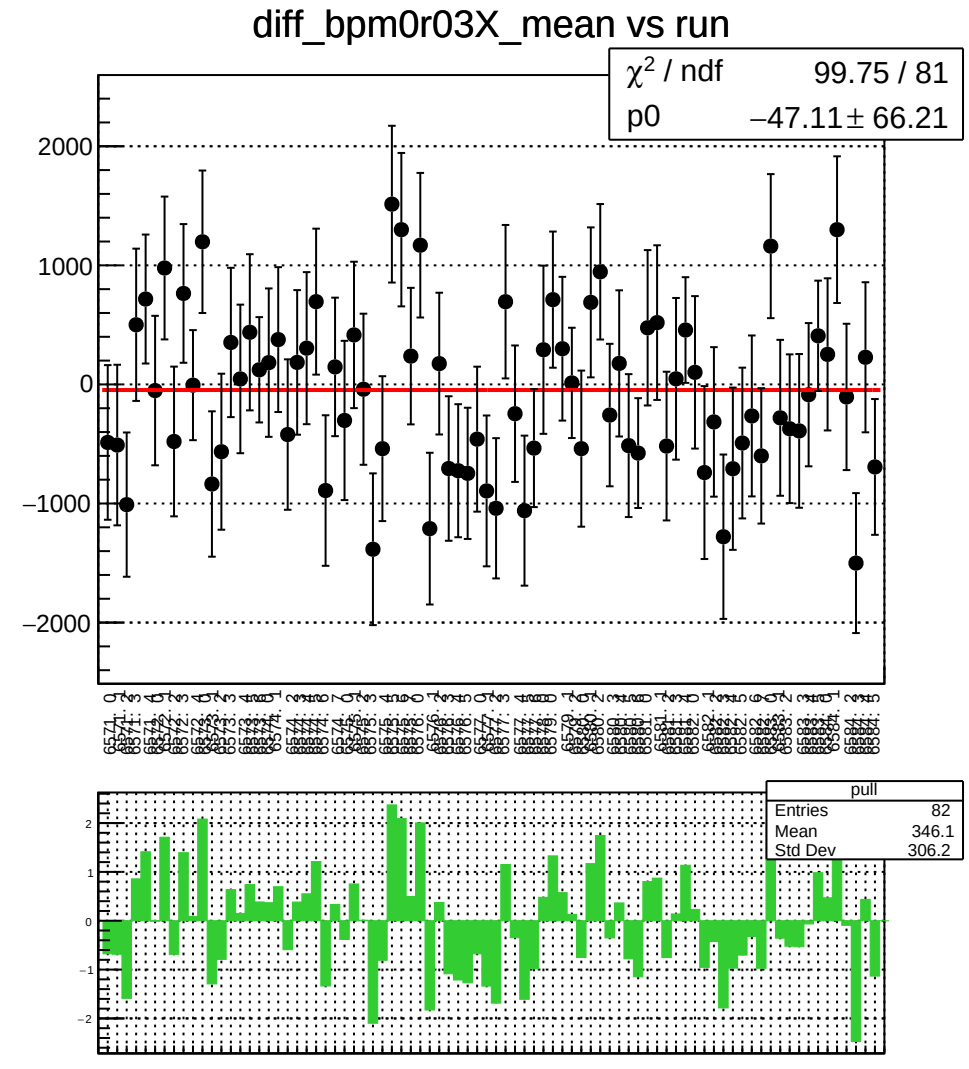

pull1D
Entries 82
Mean 0.002098
Std Dev 0.9703

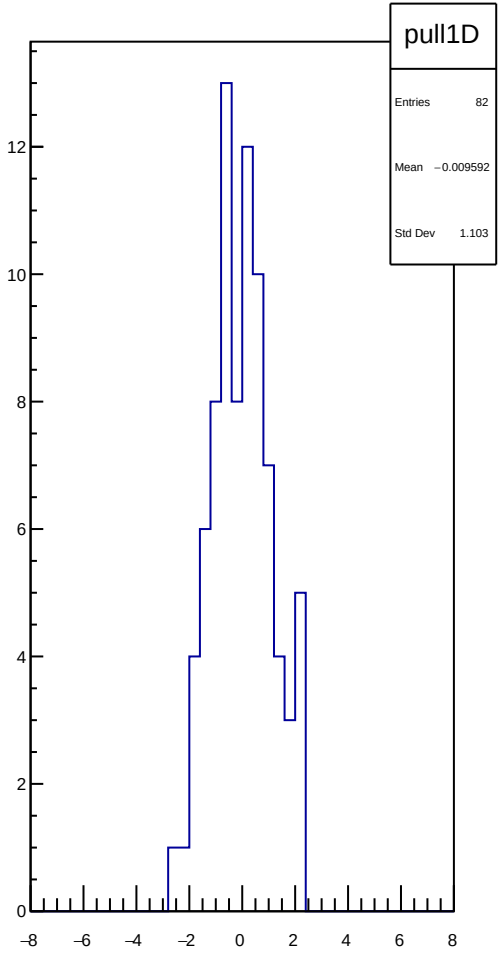

diff_bpm0l10X_rms vs run
χ² / ndf 1.614e+04 / 81
p0 7679 ± 6.114
11000
10000
9000
8000
7000
6000

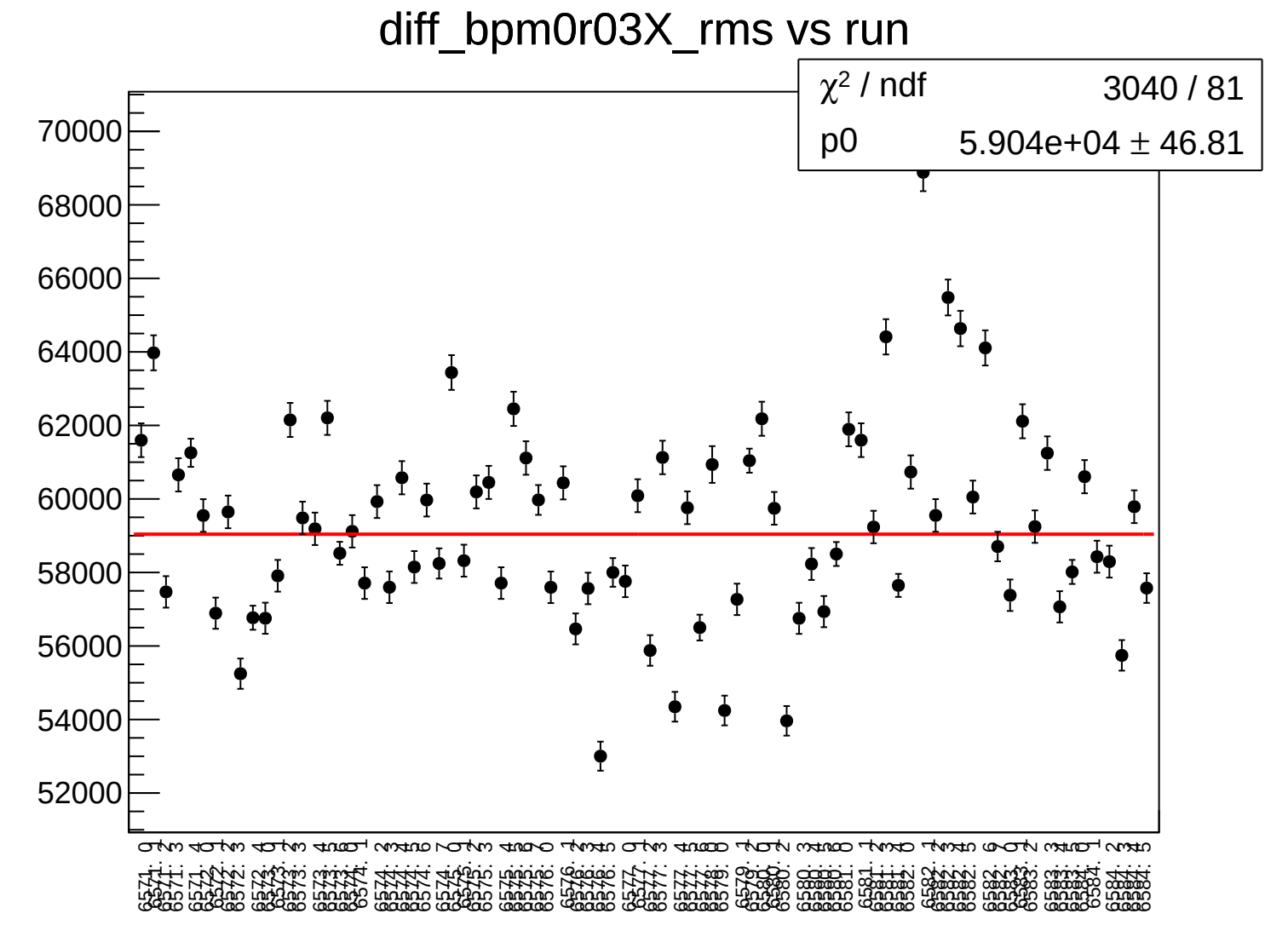

diff_bpm0l10Y_mean vs run
χ² / ndf 68.92 / 81
p0 1.727 ± 1.127
pull
Entries 82
Mean 630.3
Std Dev 591.6

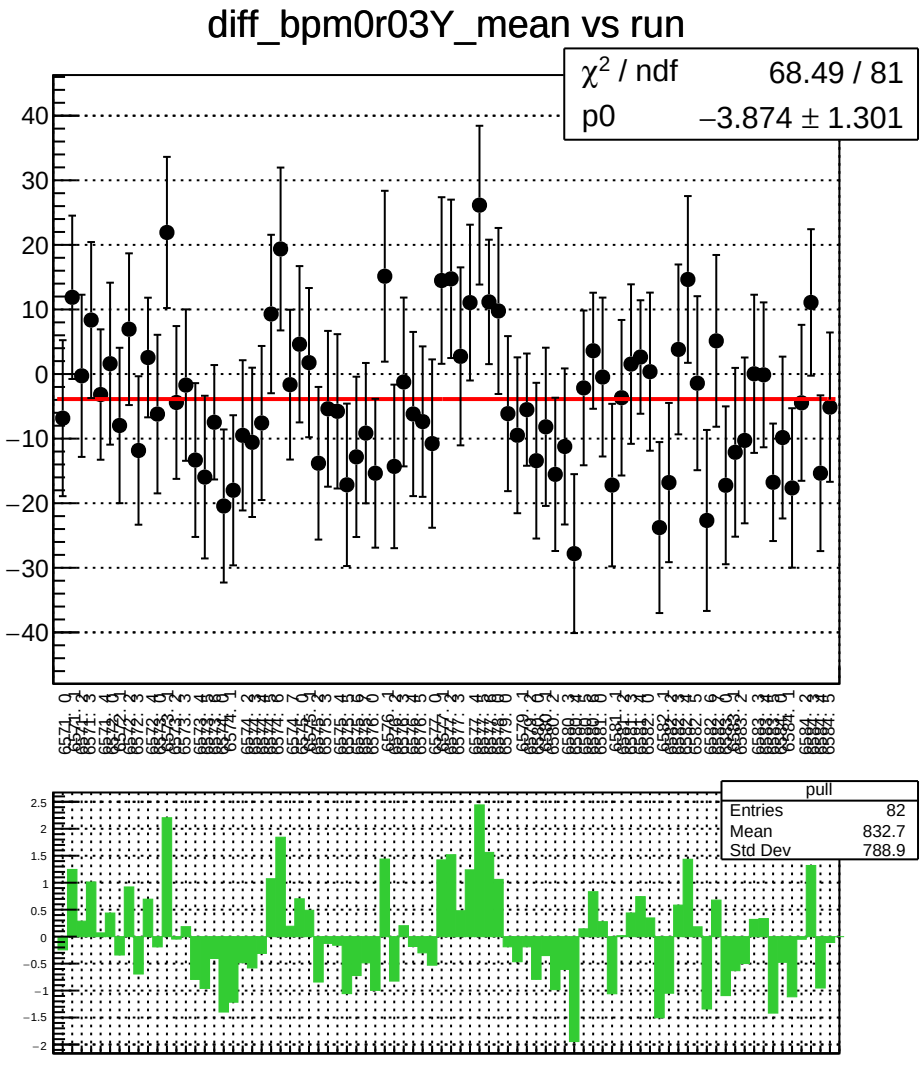

pull1D
Entries 82
Mean −0.01053
Std Dev 0.9167

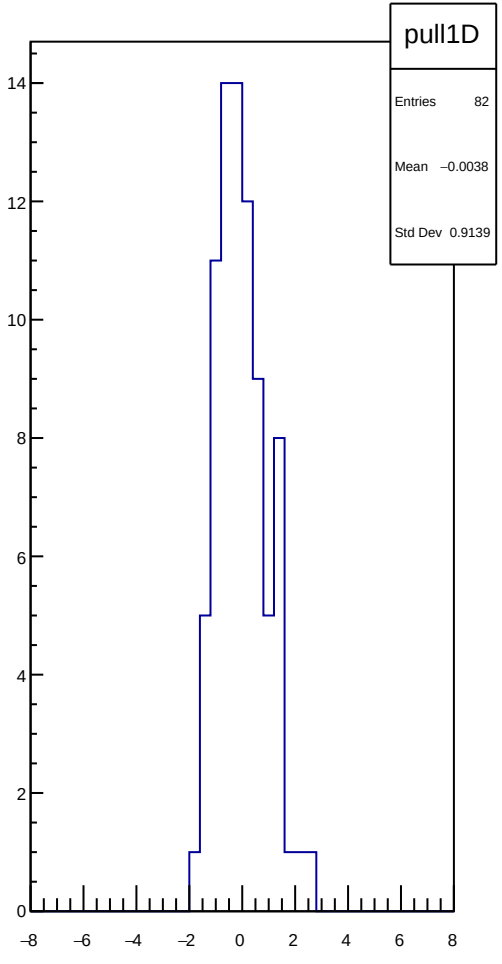

diff_bpm0l10Y_rms vs run
χ² / ndf 1740 / 81
p0 1006 ± 0.797
1150
1100
1050
1000
950

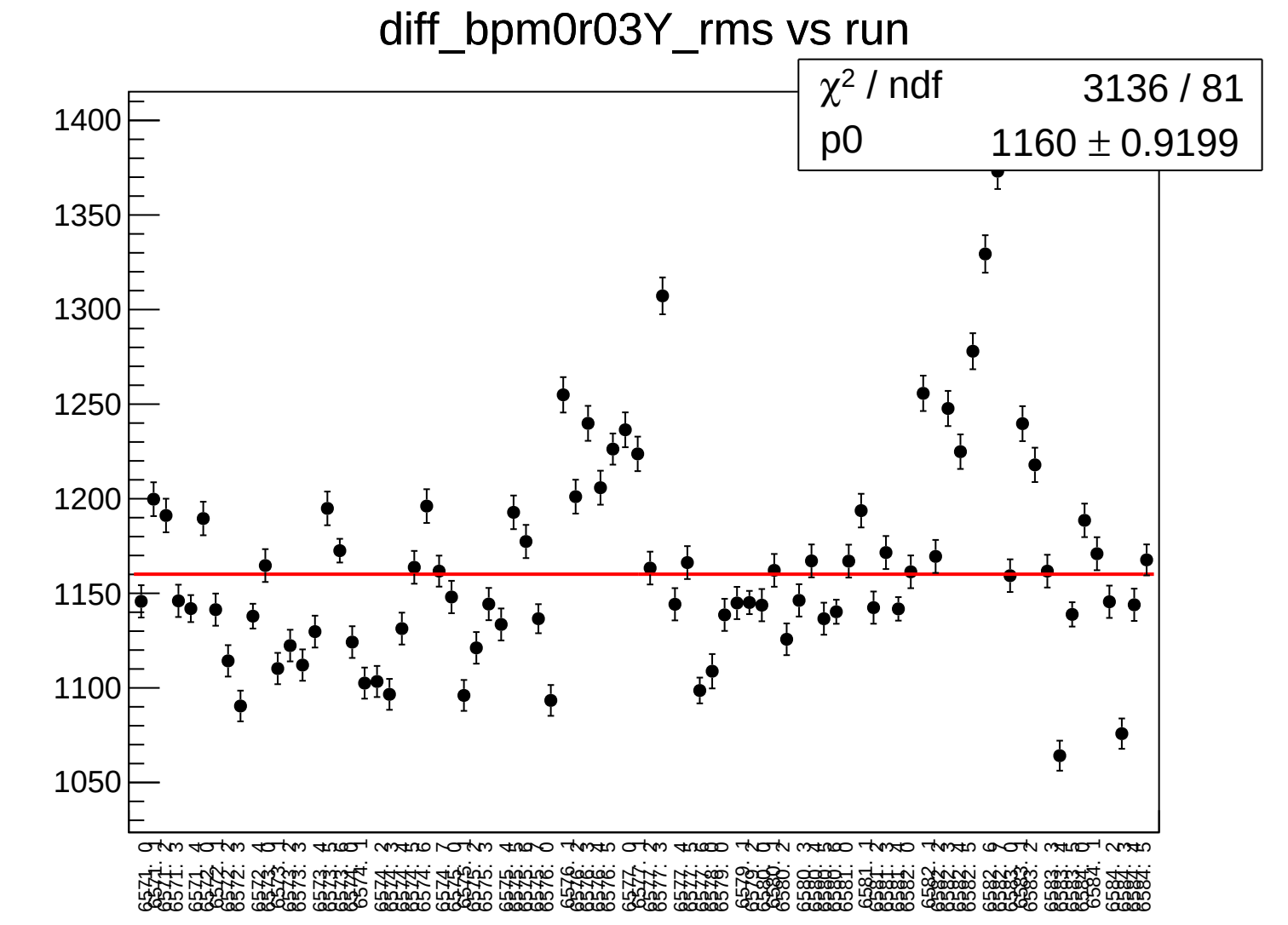

diff_bpm0r03X_mean vs run
χ² / ndf 99.75 / 81
p0 −47.11 ± 66.21
2000
1000
0
−1000
−2000
pull
Entries 82
Mean 346.1
Std Dev 306.2
2
1
0
−1
−2

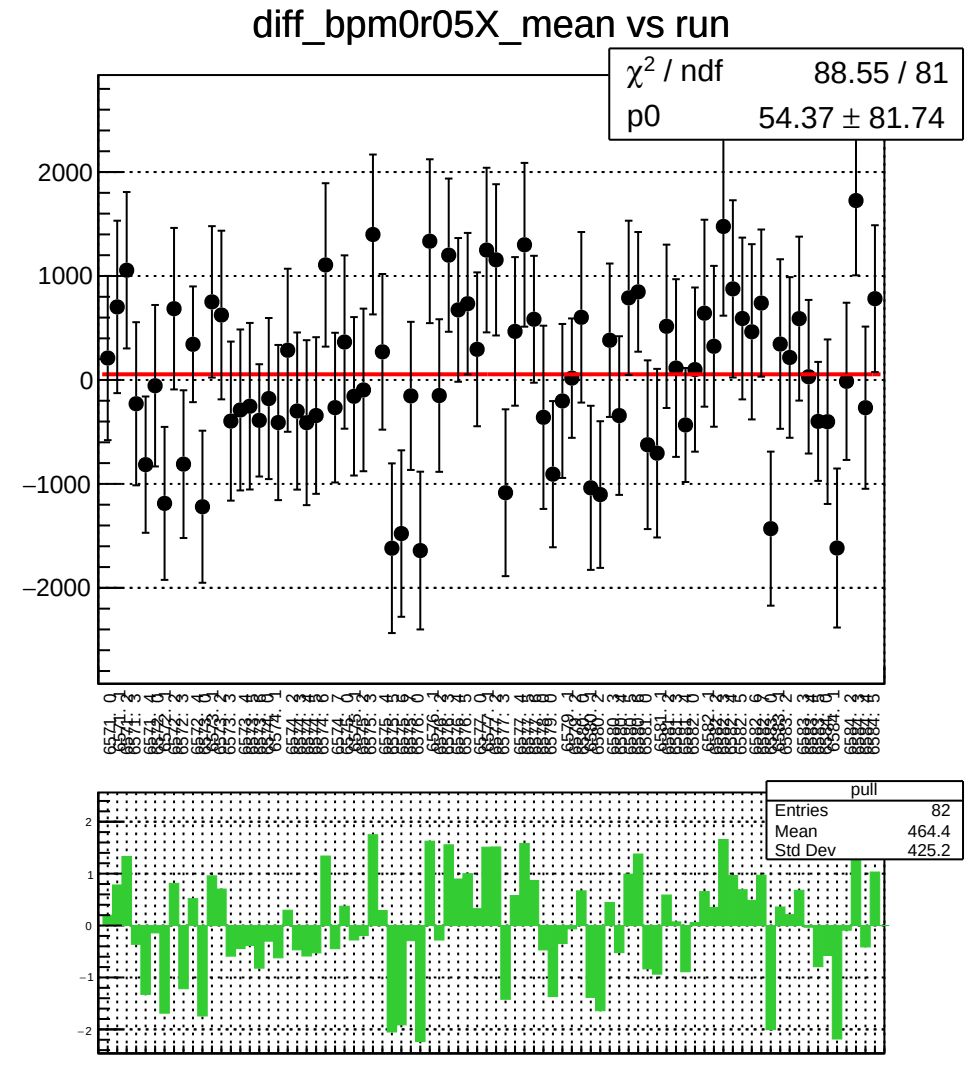

pull1D
Entries 82
Mean −0.009592
Std Dev 1.103
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

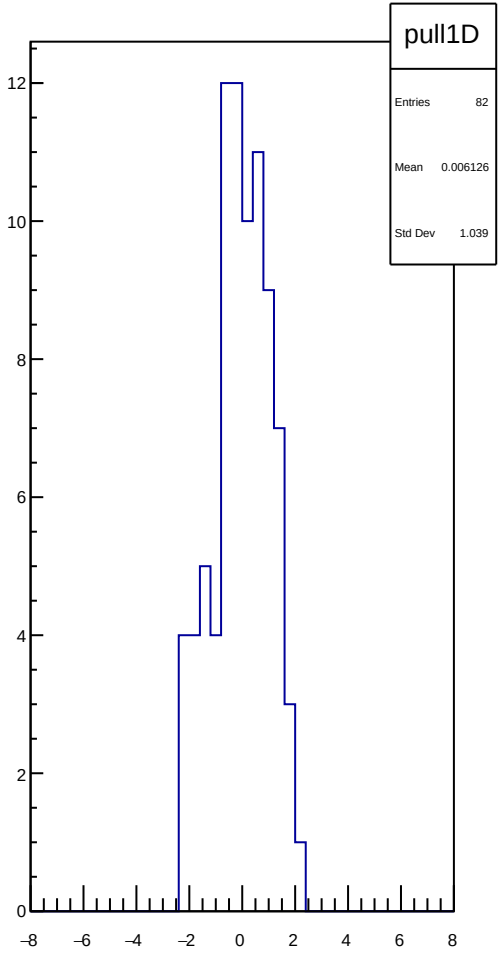

diff_bpm0r03X_rms vs run
χ² / ndf 3040 / 81
p0 5.904e+04 ± 46.81
70000
68000
66000
64000
62000
60000
58000
56000
54000
52000

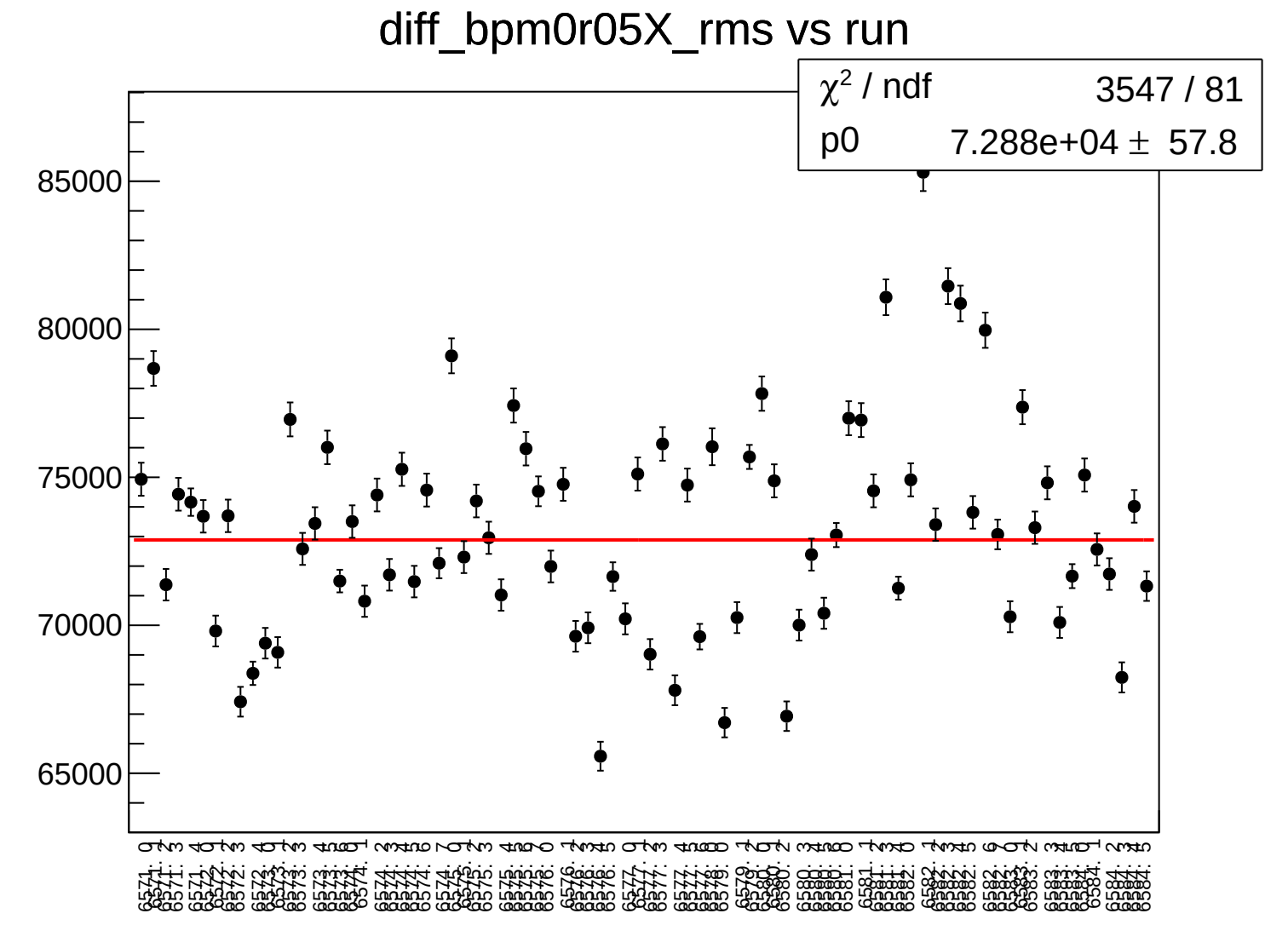

diff_bpm0r03Y_mean vs run
χ² / ndf 68.49 / 81
p0 −3.874 ± 1.301
pull
Entries 82
Mean 832.7
Std Dev 788.9

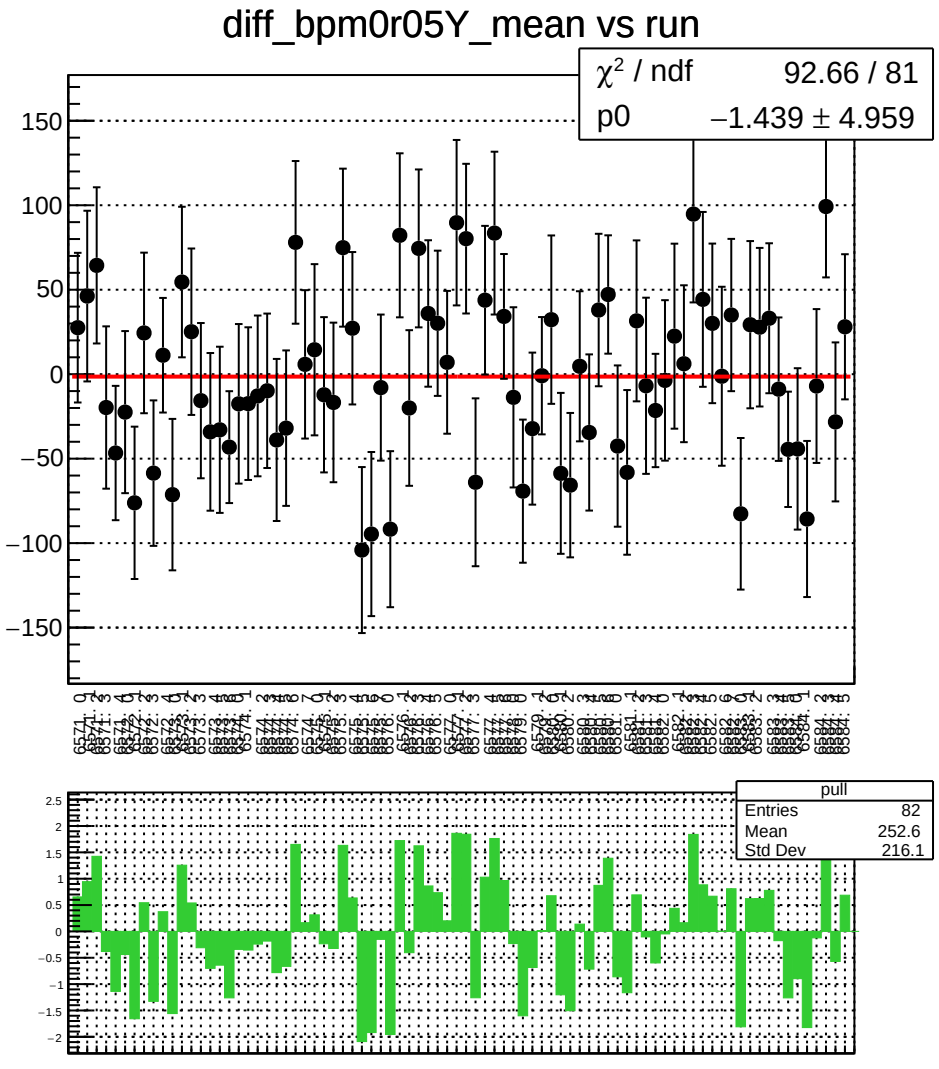

pull1D
Entries 82
Mean −0.0038
Std Dev 0.9139

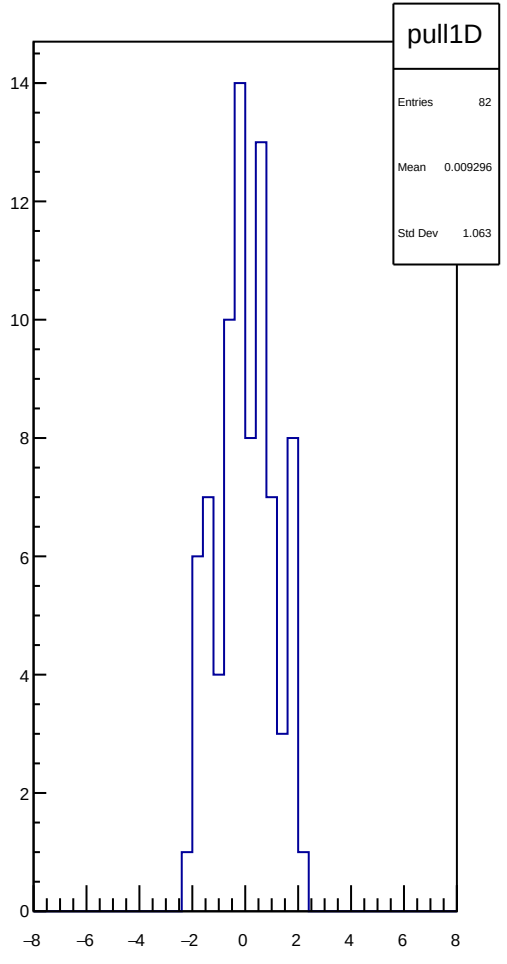

diff_bpm0r03Y_rms vs run
χ² / ndf 3136 / 81
p0 1160 ± 0.9199
1400
1350
1300
1250
1200
1150
1100
1050

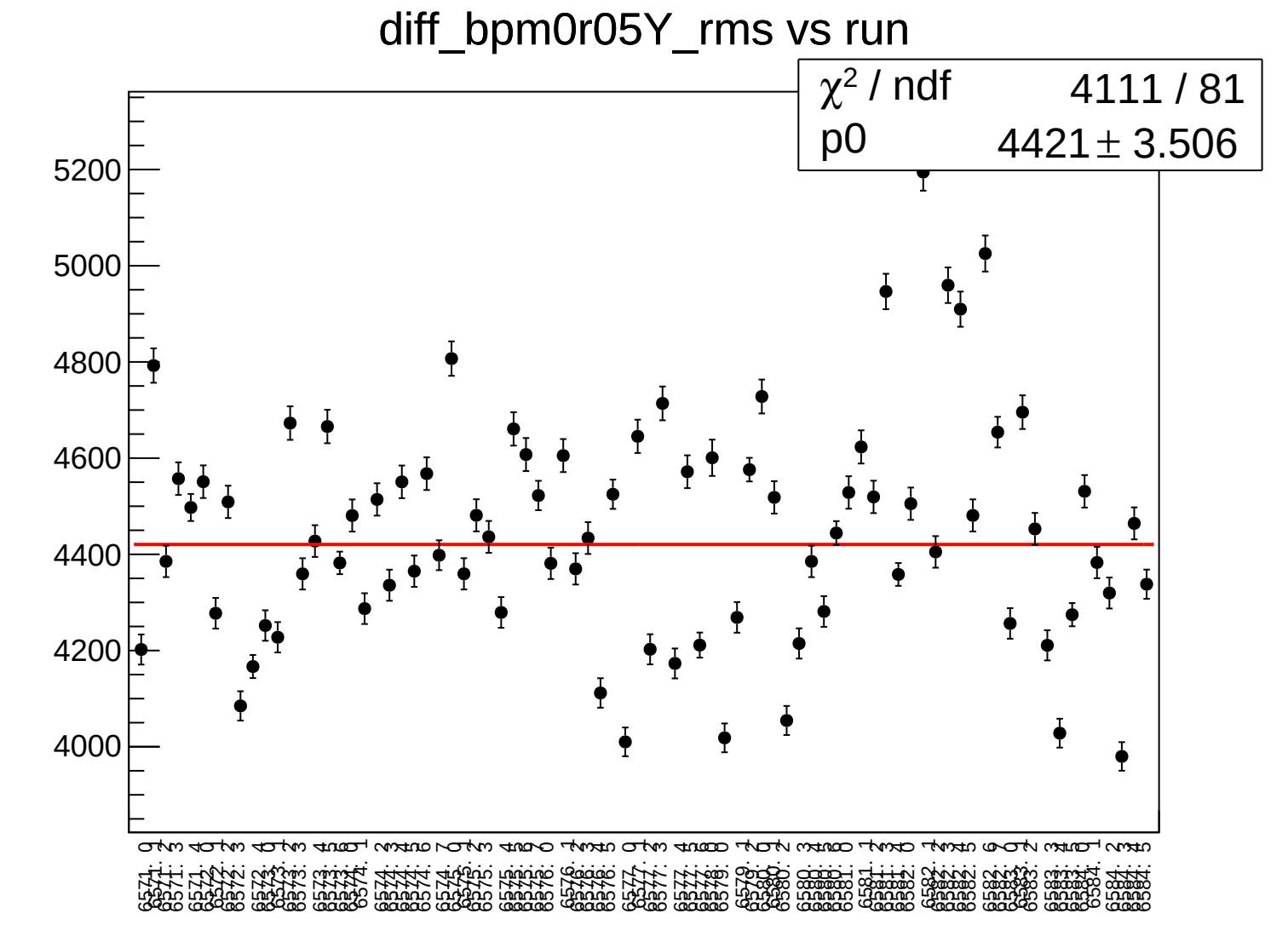

diff_bpm0r05X_mean vs run
χ² / ndf 88.55 / 81
p0 54.37 ± 81.74
2000
1000
0
−1000
−2000
pull
Entries 82
Mean 464.4
Std Dev 425.2
2
1
0
−1
−2

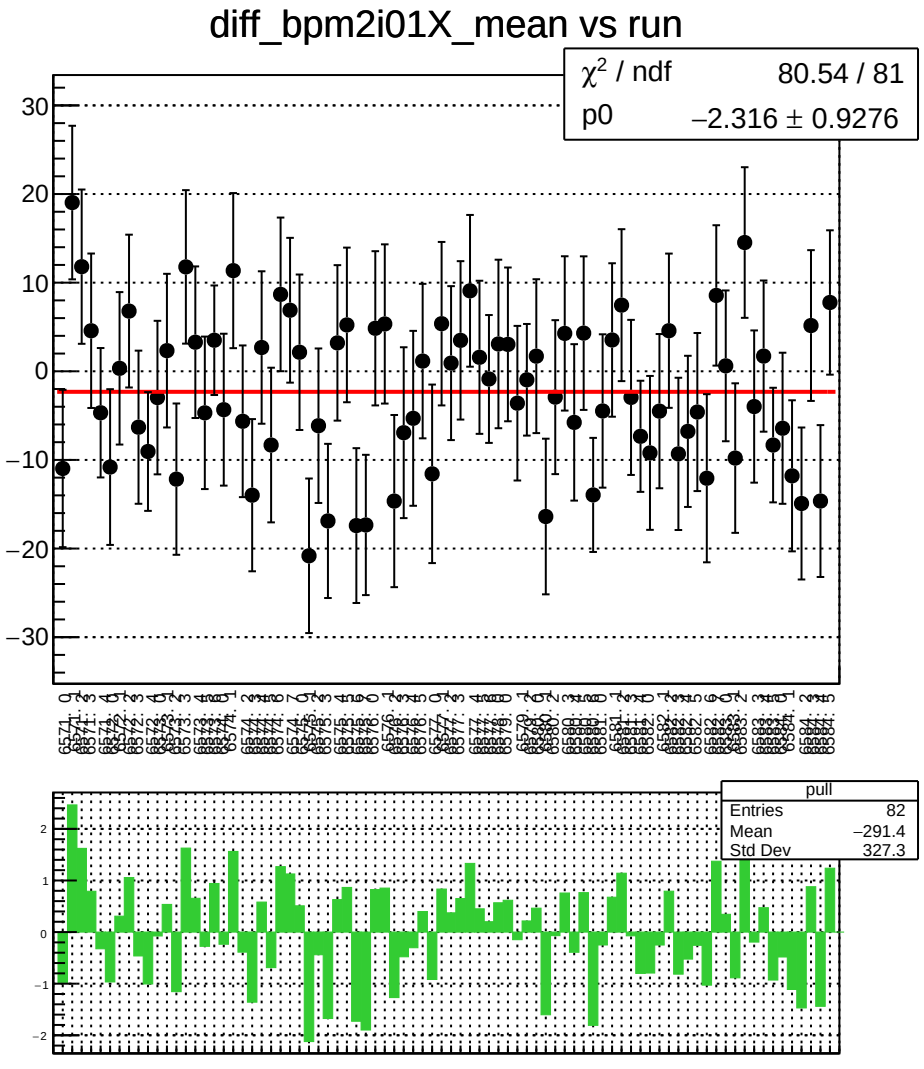

pull1D
Entries 82
Mean 0.006126
Std Dev 1.039
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

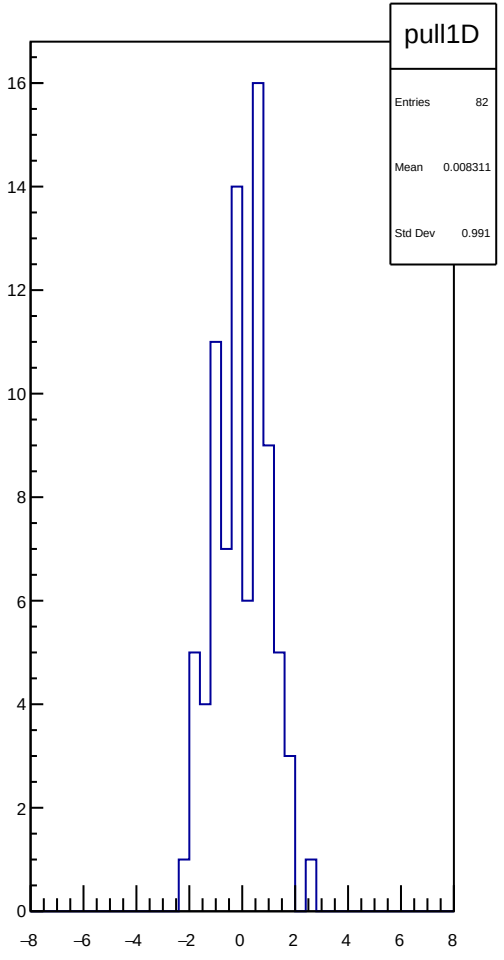

diff_bpm0r05X_rms vs run
χ² / ndf 3547 / 81
p0 7.288e+04 ± 57.8
85000
80000
75000
70000
65000

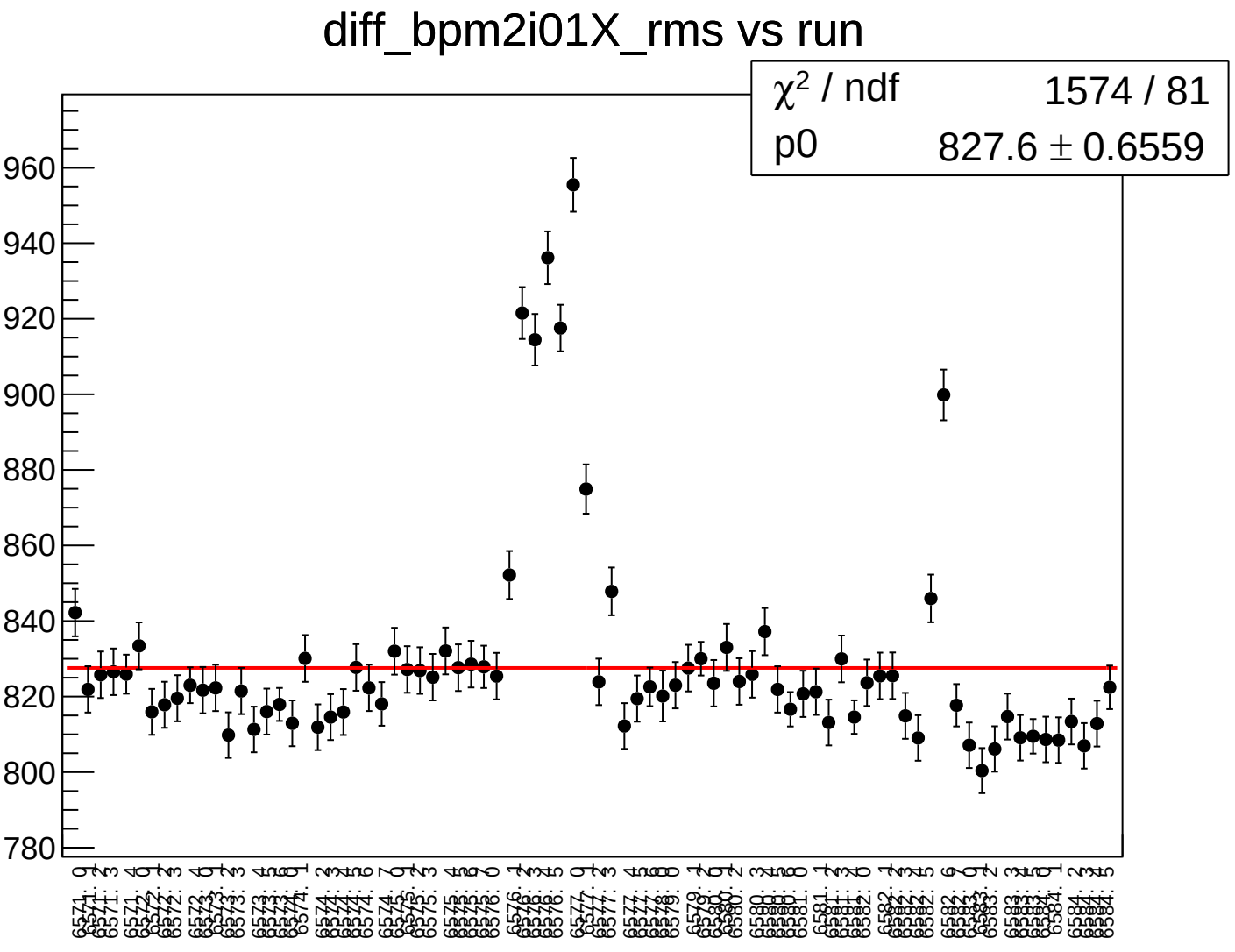

diff_bpm0r05Y_mean vs run
χ² / ndf 92.66 / 81
p0 −1.439 ± 4.959
150
100
50
0
−50
−100
−150
pull
Entries 82
Mean 252.6
Std Dev 216.1
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

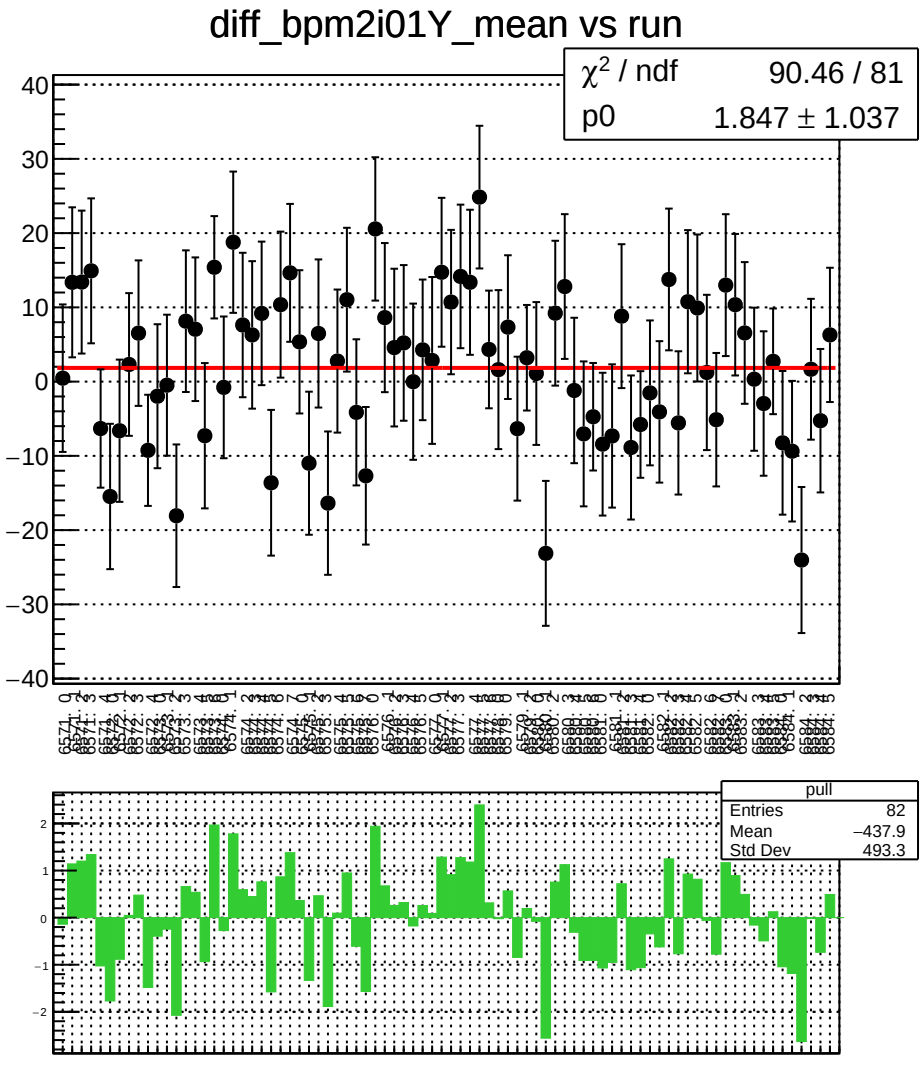

pull1D
Entries 82
Mean 0.009296
Std Dev 1.063
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

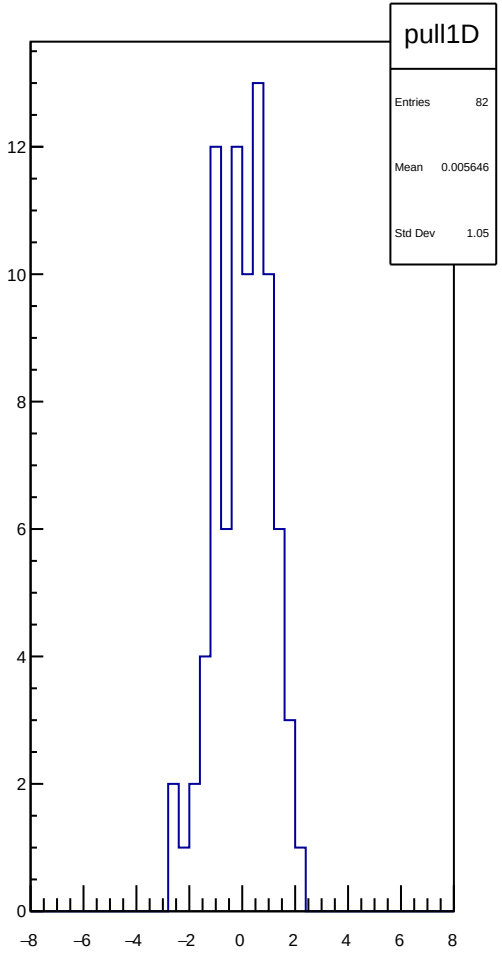

diff_bpm0r05Y_rms vs run
χ² / ndf 4111 / 81
p0 4421 ± 3.506
5200
5000
4800
4600
4400
4200
4000

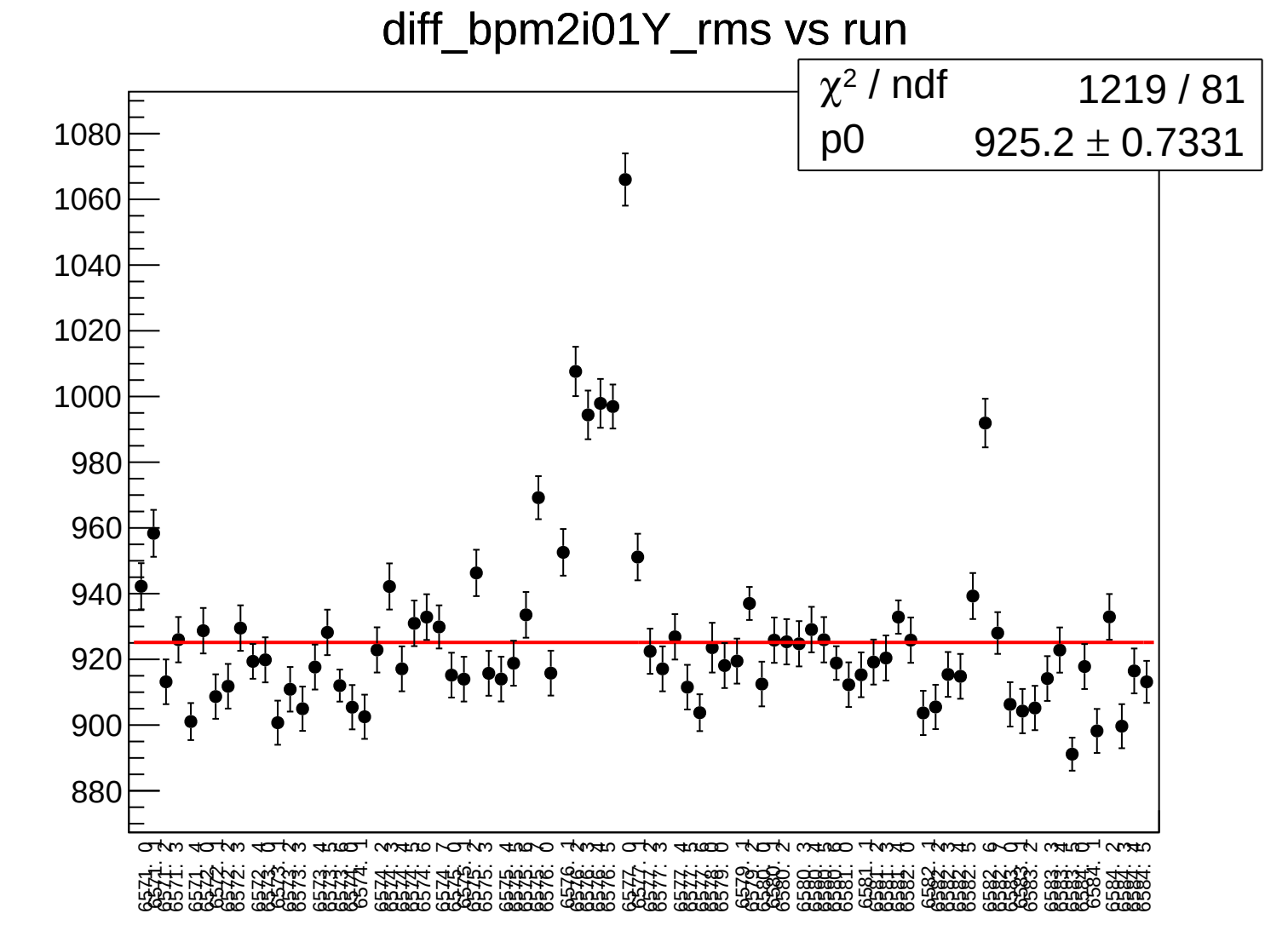

diff_bpm2i01X_mean vs run
χ² / ndf 80.54 / 81
p0 −2.316 ± 0.9276
pull
Entries 82
Mean −291.4
Std Dev 327.3

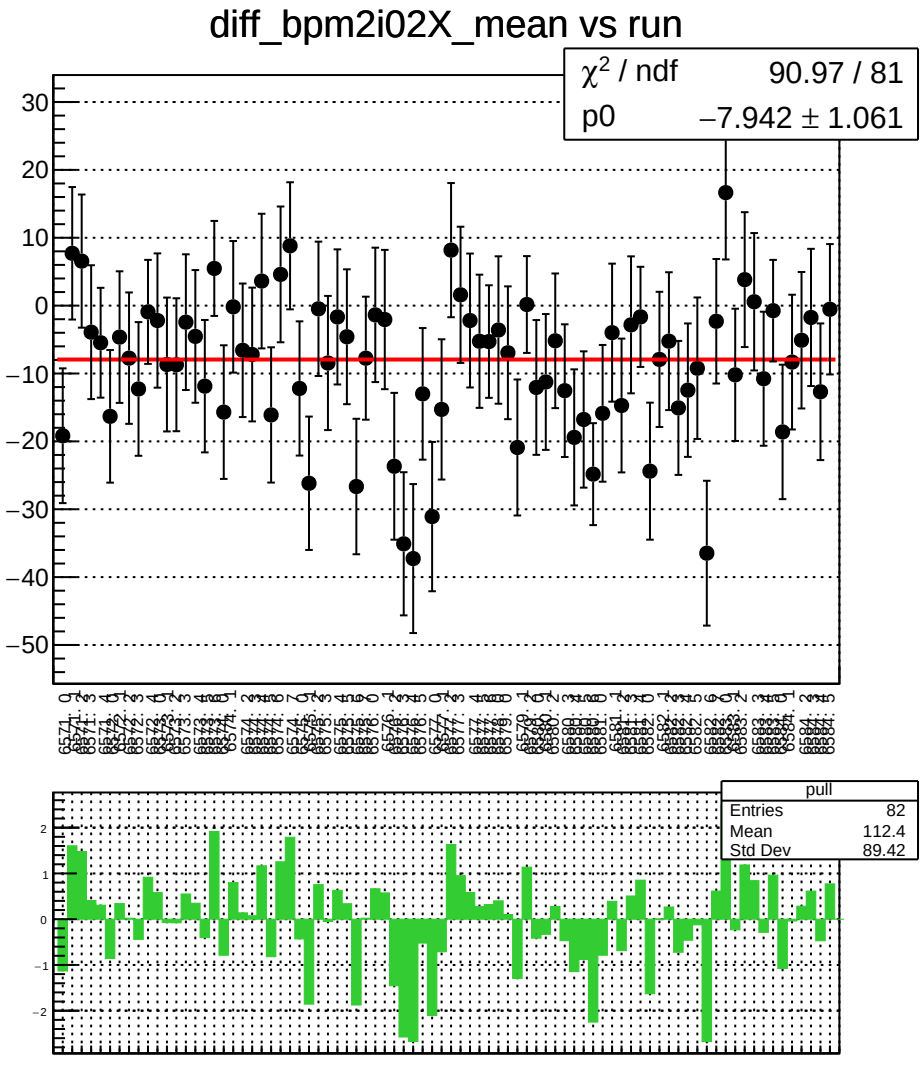

pull1D
Entries 82
Mean 0.008311
Std Dev 0.991

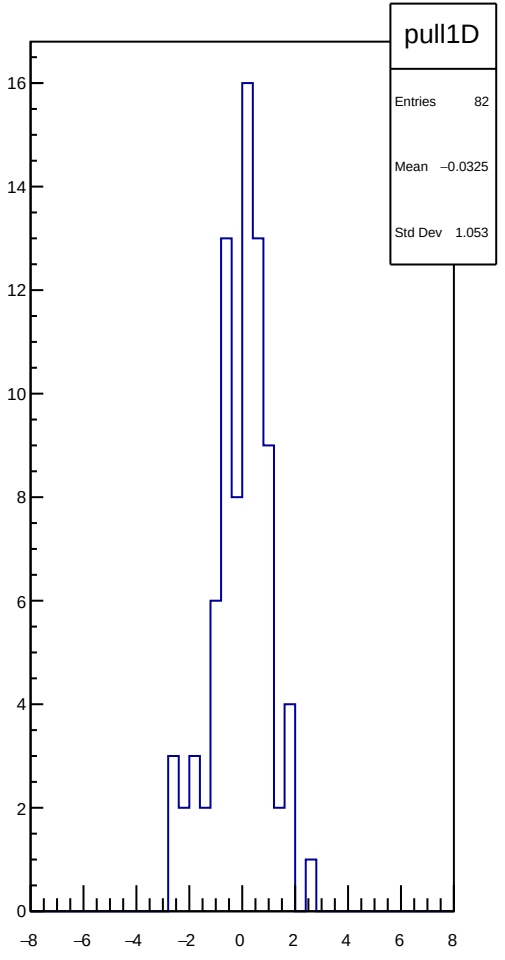

diff_bpm2i01X_rms vs run
χ² / ndf 1574 / 81
p0 827.6 ± 0.6559
960
940
920
900
880
860
840
820
800
780

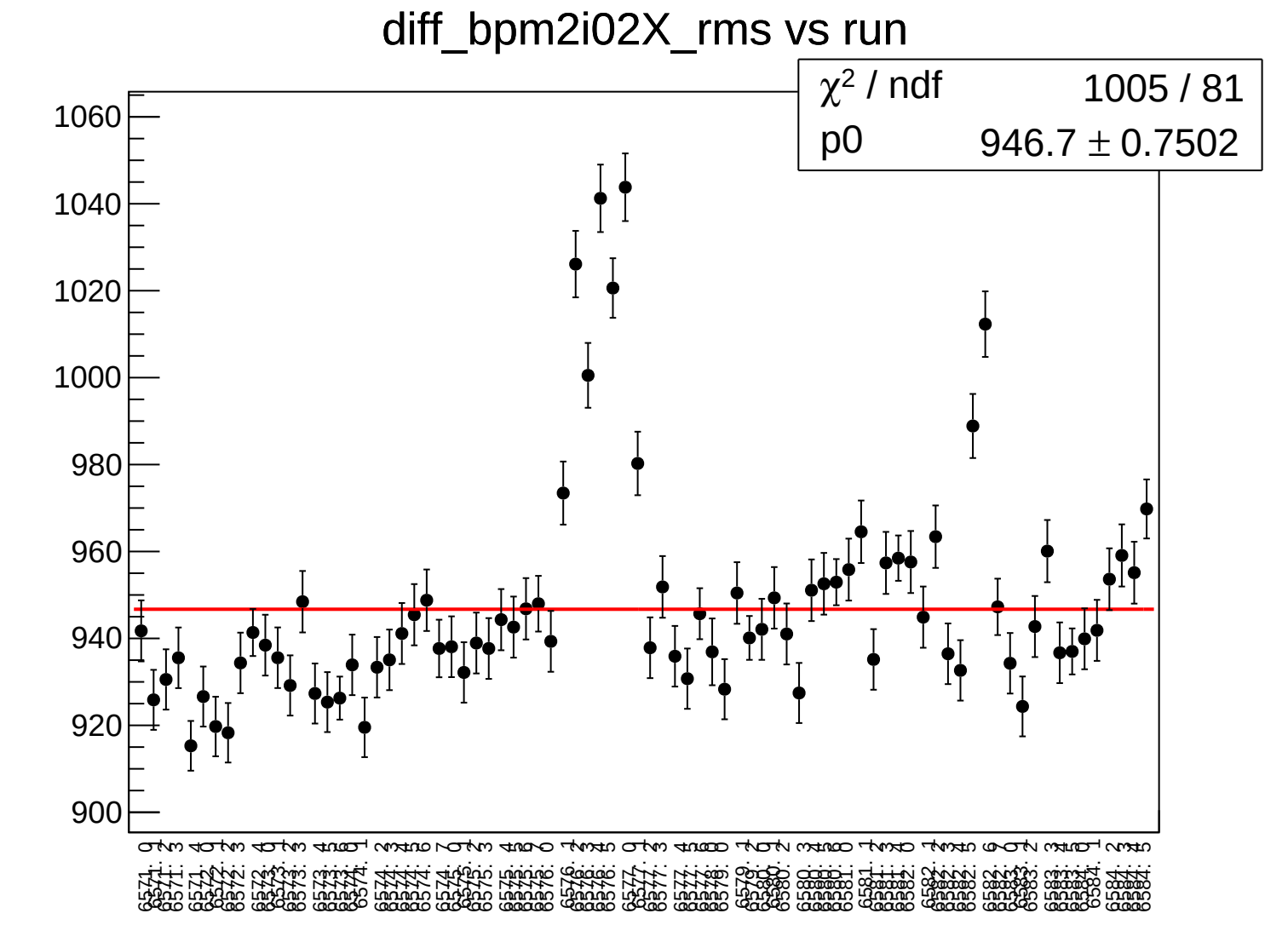

diff_bpm2i01Y_mean vs run
χ² / ndf 90.46 / 81
p0 1.847 ± 1.037
pull
Entries 82
Mean −437.9
Std Dev 493.3

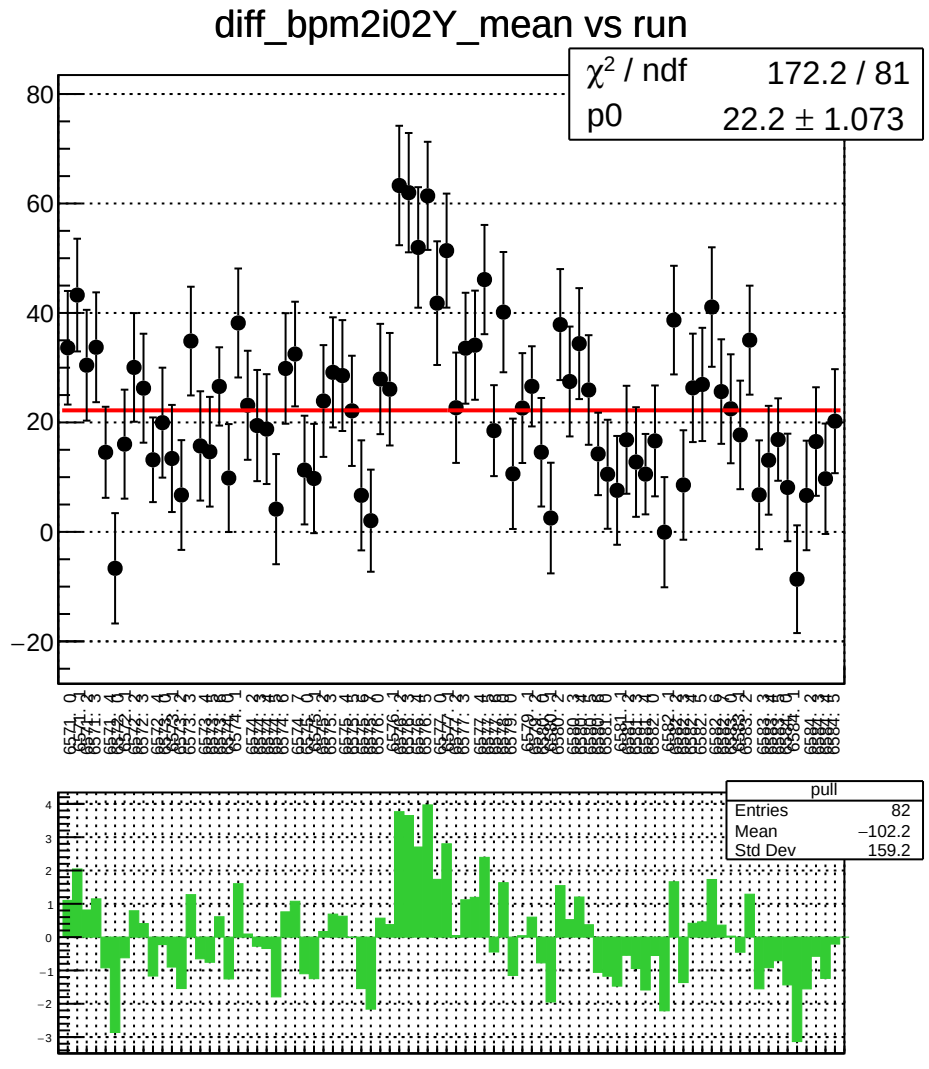

pull1D
Entries 82
Mean 0.005646
Std Dev 1.05

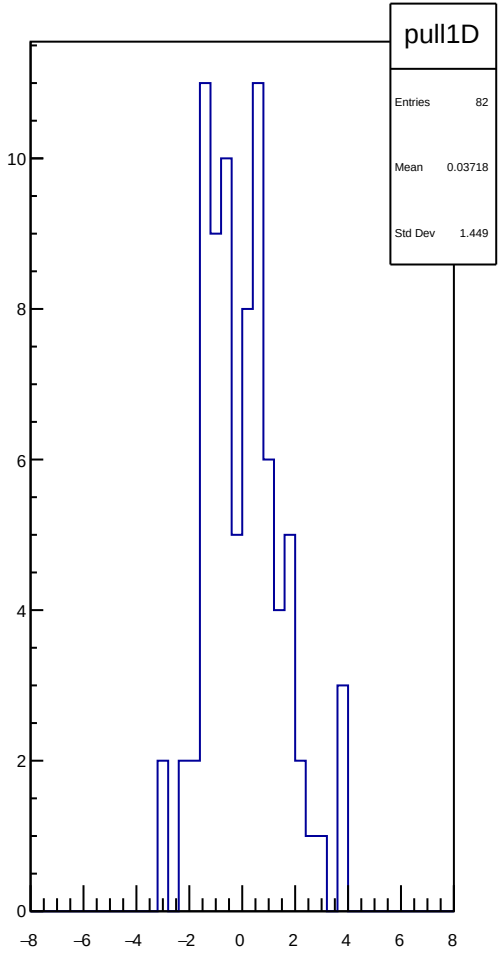

diff_bpm2i01Y_rms vs run
χ² / ndf 1219 / 81
p0 925.2 ± 0.7331
1080
1060
1040
1020
1000
980
960
940
920
900
880

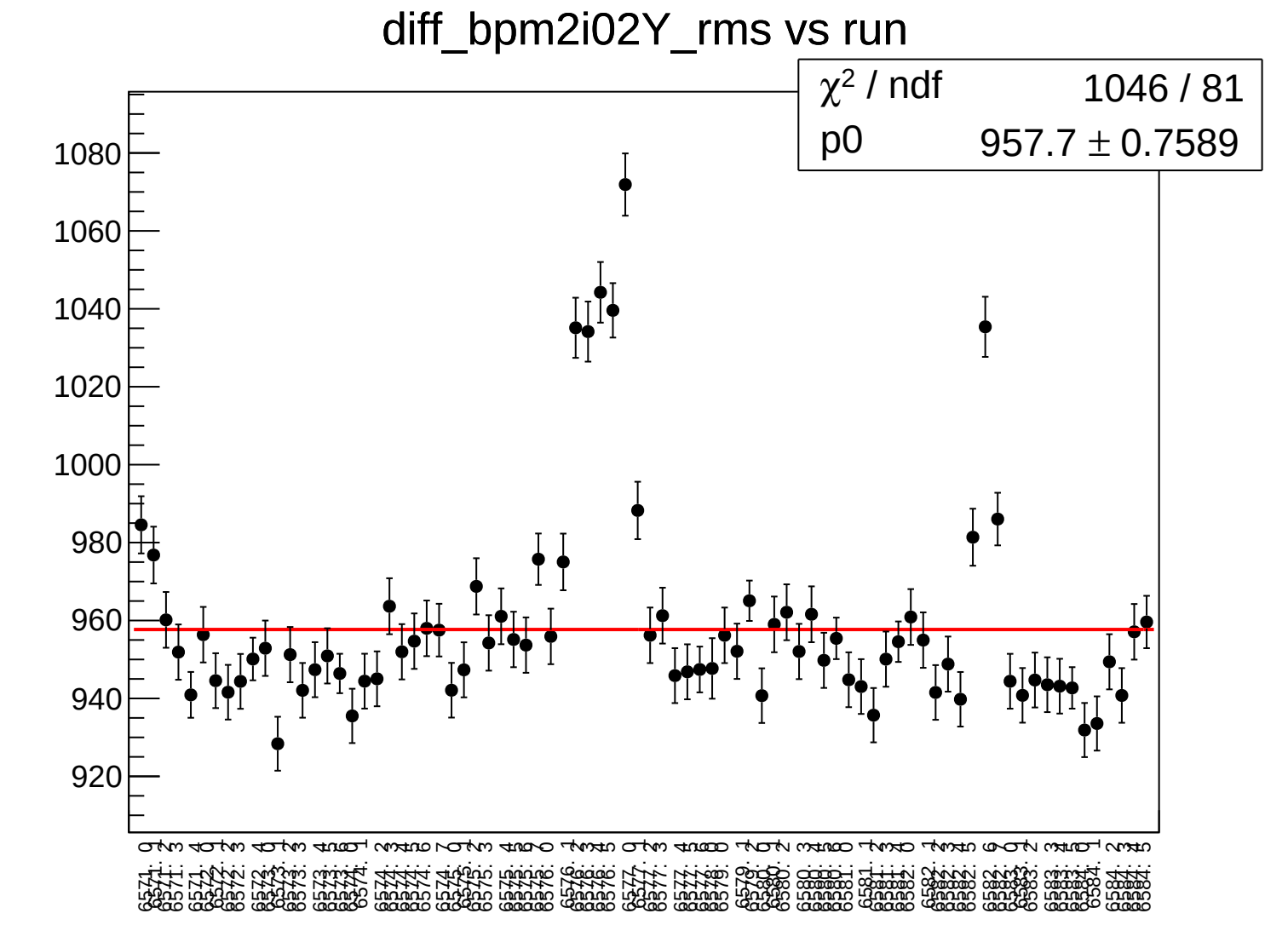

diff_bpm2i02X_mean vs run
χ² / ndf 90.97 / 81
p0 −7.942 ± 1.061
pull
Entries 82
Mean 112.4
Std Dev 89.42

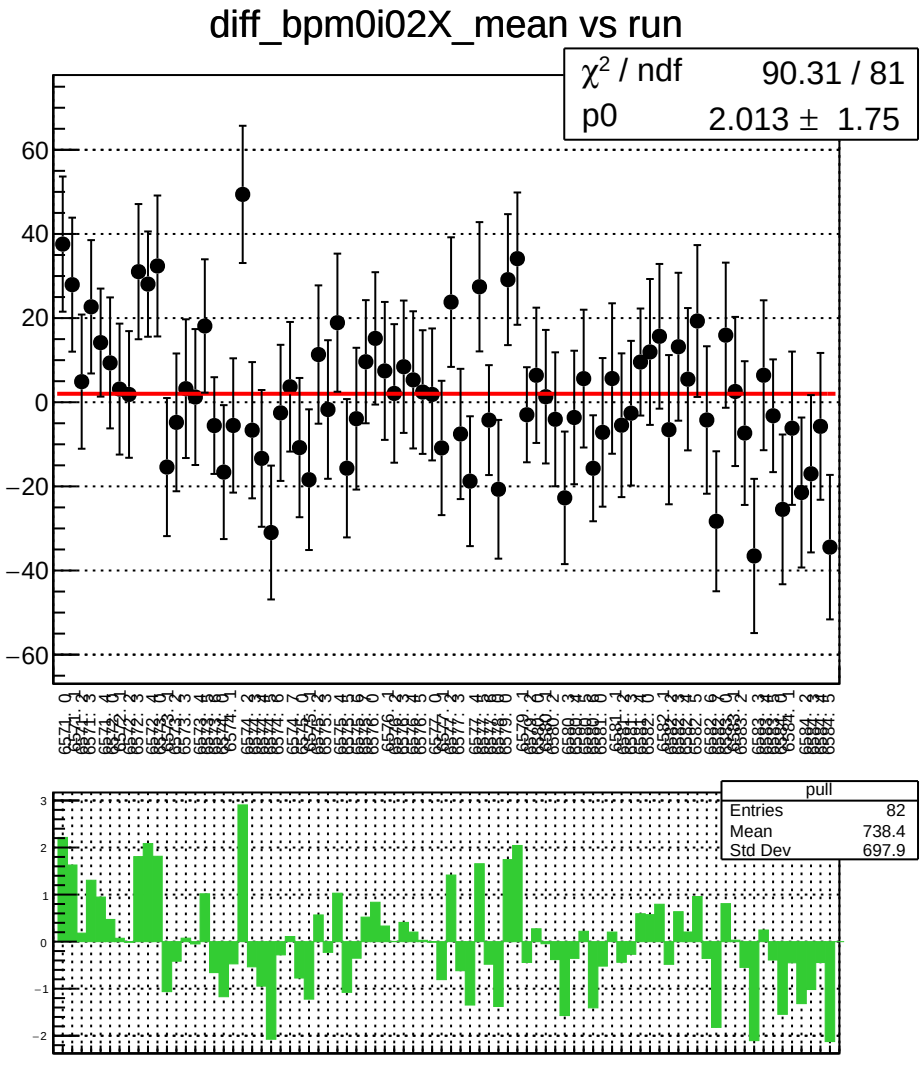

pull1D
Entries 82
Mean −0.0325
Std Dev 1.053

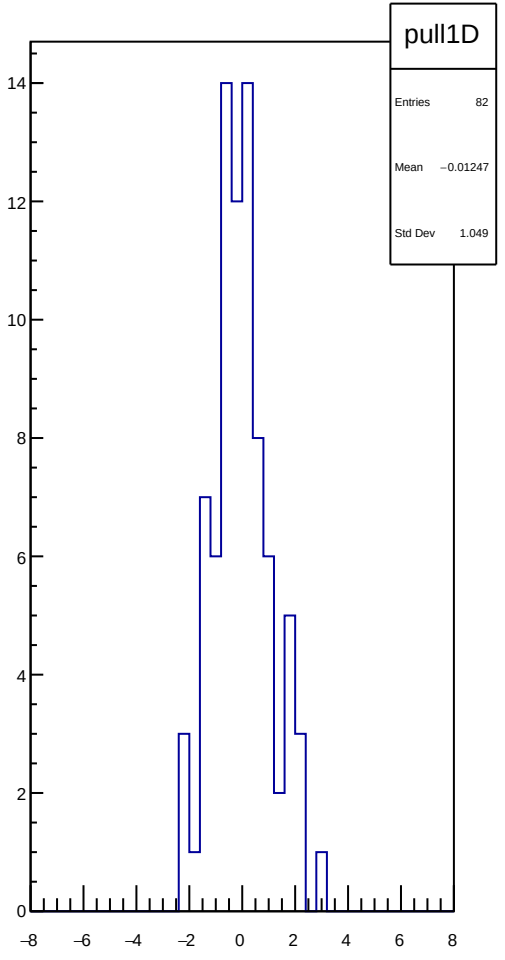

diff_bpm2i02X_rms vs run
χ² / ndf 1005 / 81
p0 946.7 ± 0.7502
1060
1040
1020
1000
980
960
940
920
900

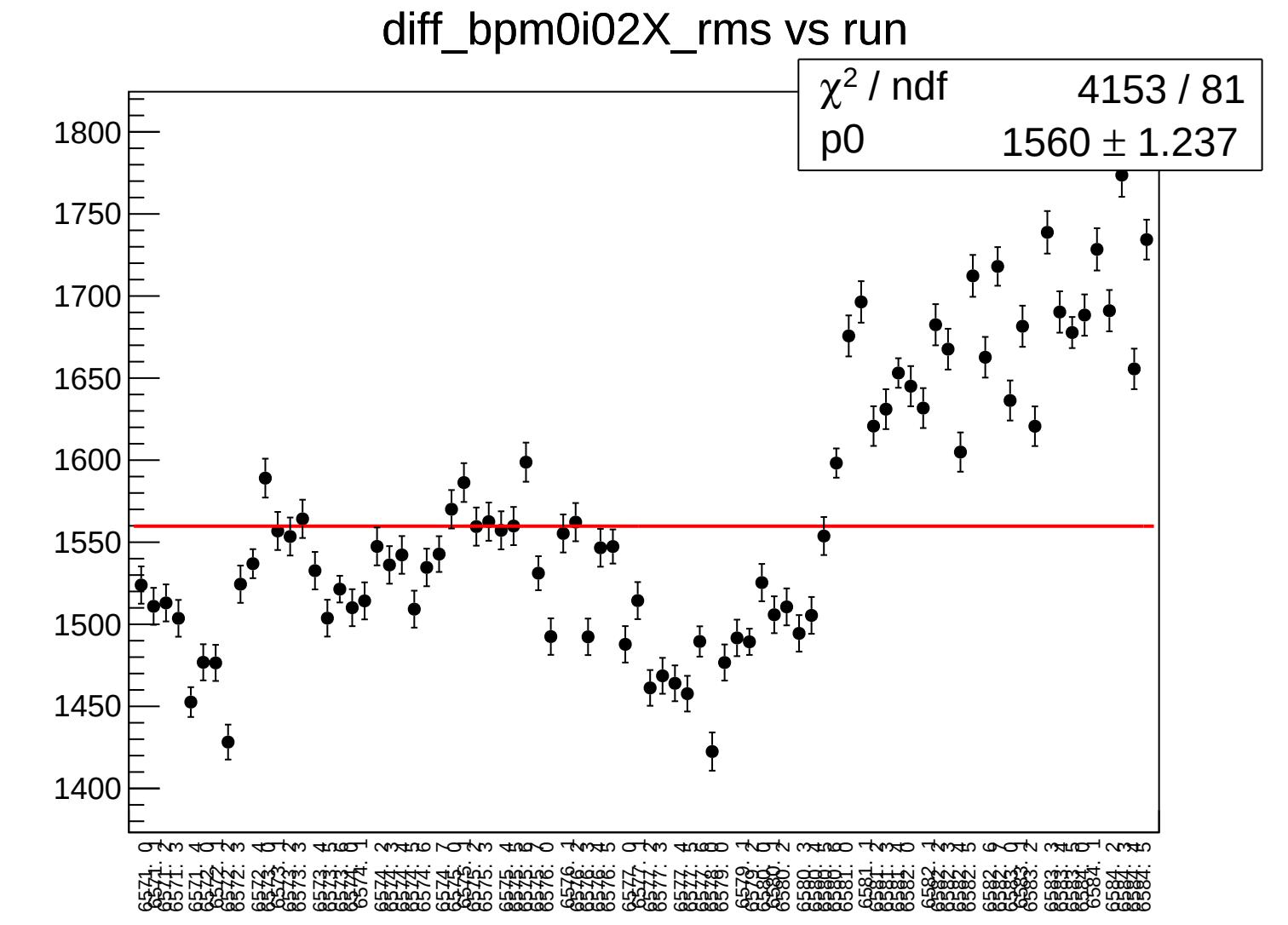

diff_bpm2i02Y_mean vs run
χ² / ndf 172.2 / 81
p0 22.2 ± 1.073
pull
Entries 82
Mean −102.2
Std Dev 159.2

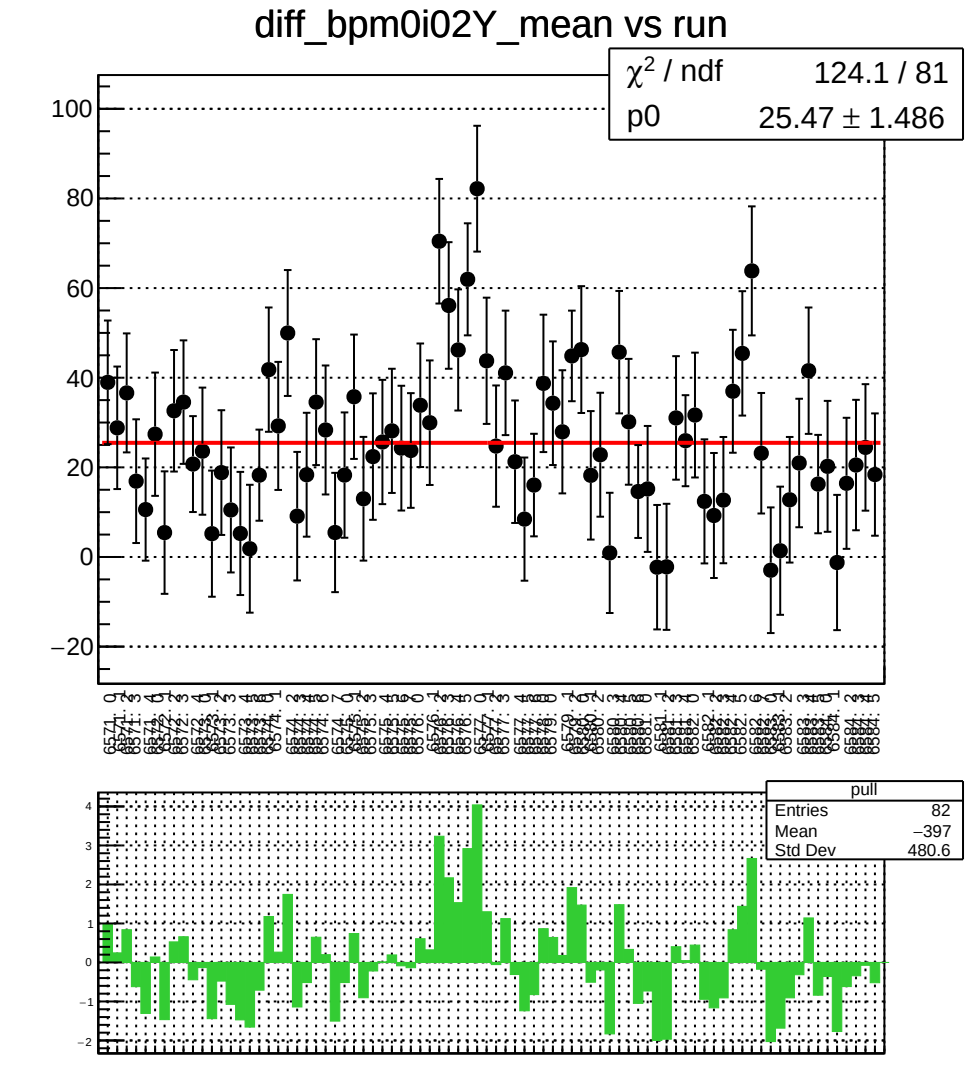

pull1D
Entries 82
Mean 0.03718
Std Dev 1.449

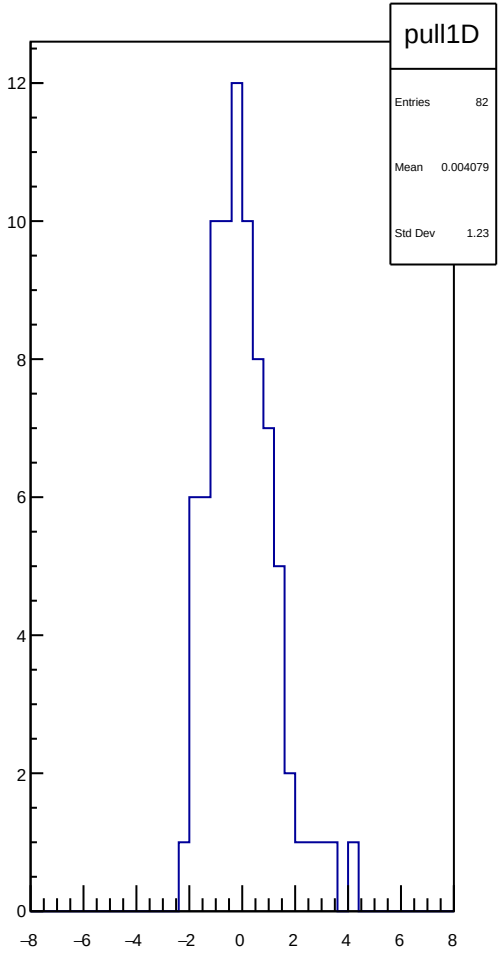

diff_bpm2i02Y_rms vs run
χ² / ndf 1046 / 81
p0 957.7 ± 0.7589
1080
1060
1040
1020
1000
980
960
940
920

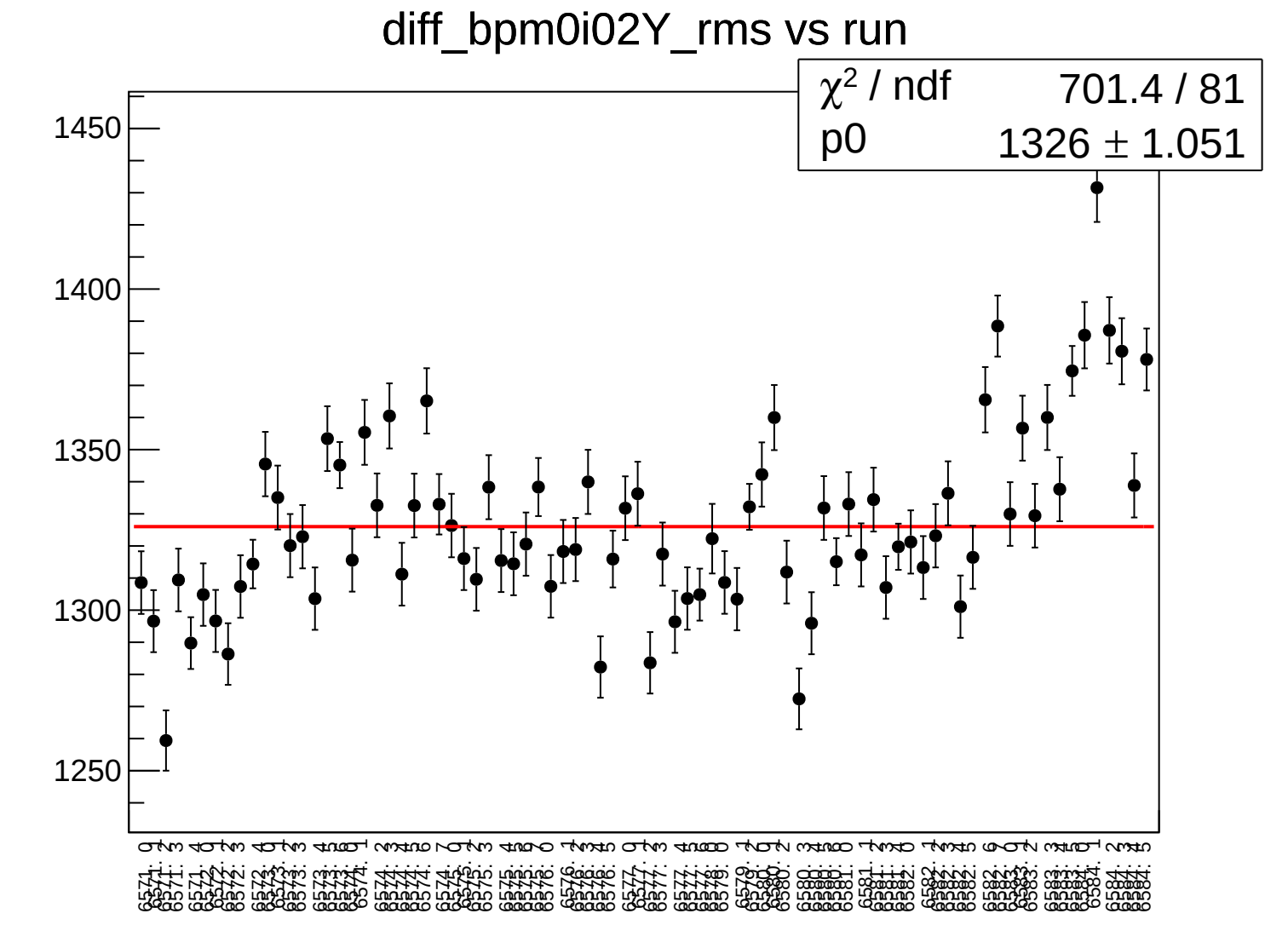

diff_bpm0i02X_mean vs run
χ² / ndf 90.31 / 81
p0 2.013 ± 1.75
pull
Entries 82
Mean 738.4
Std Dev 697.9

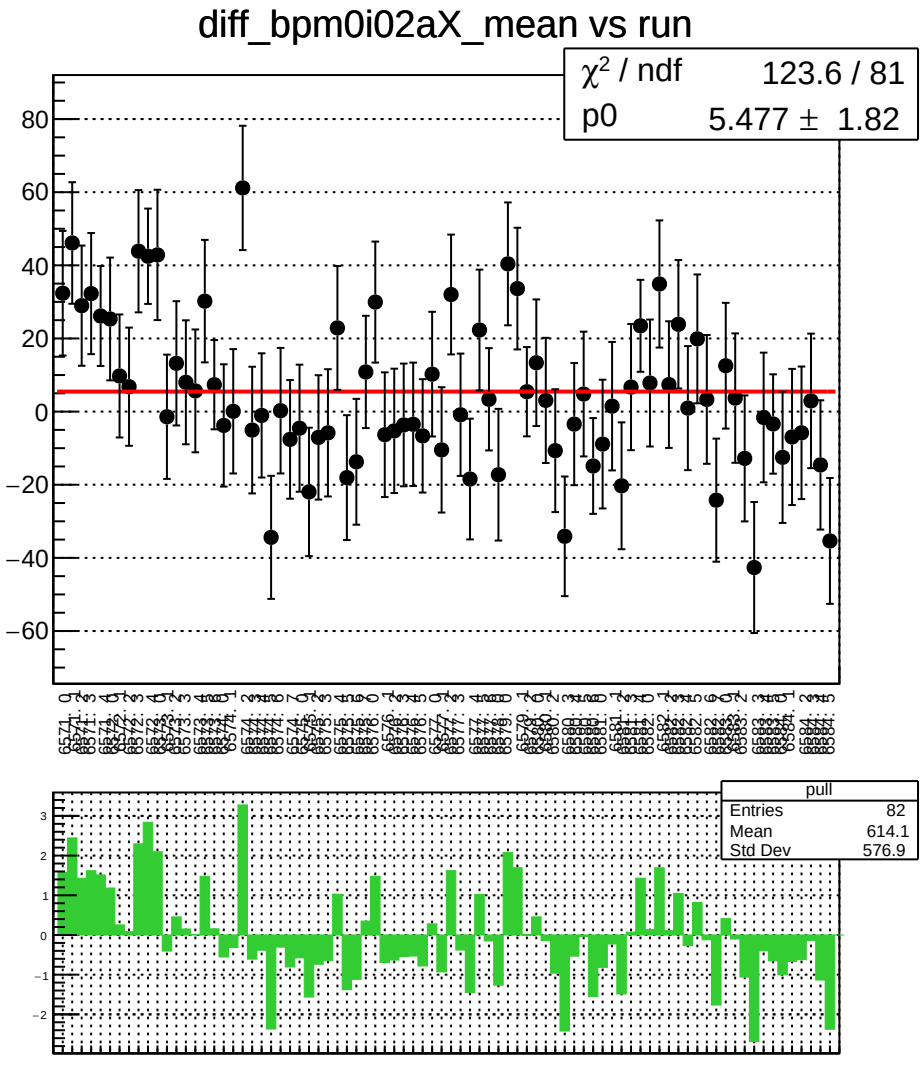

pull1D
Entries 82
Mean −0.01247
Std Dev 1.049

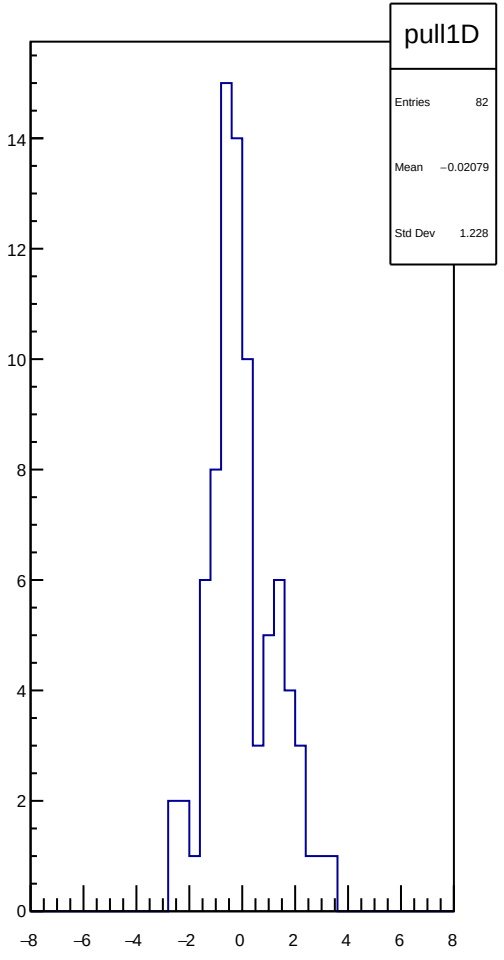

diff_bpm0i02X_rms vs run
χ² / ndf 4153 / 81
p0 1560 ± 1.237
1800
1750
1700
1650
1600
1550
1500
1450
1400

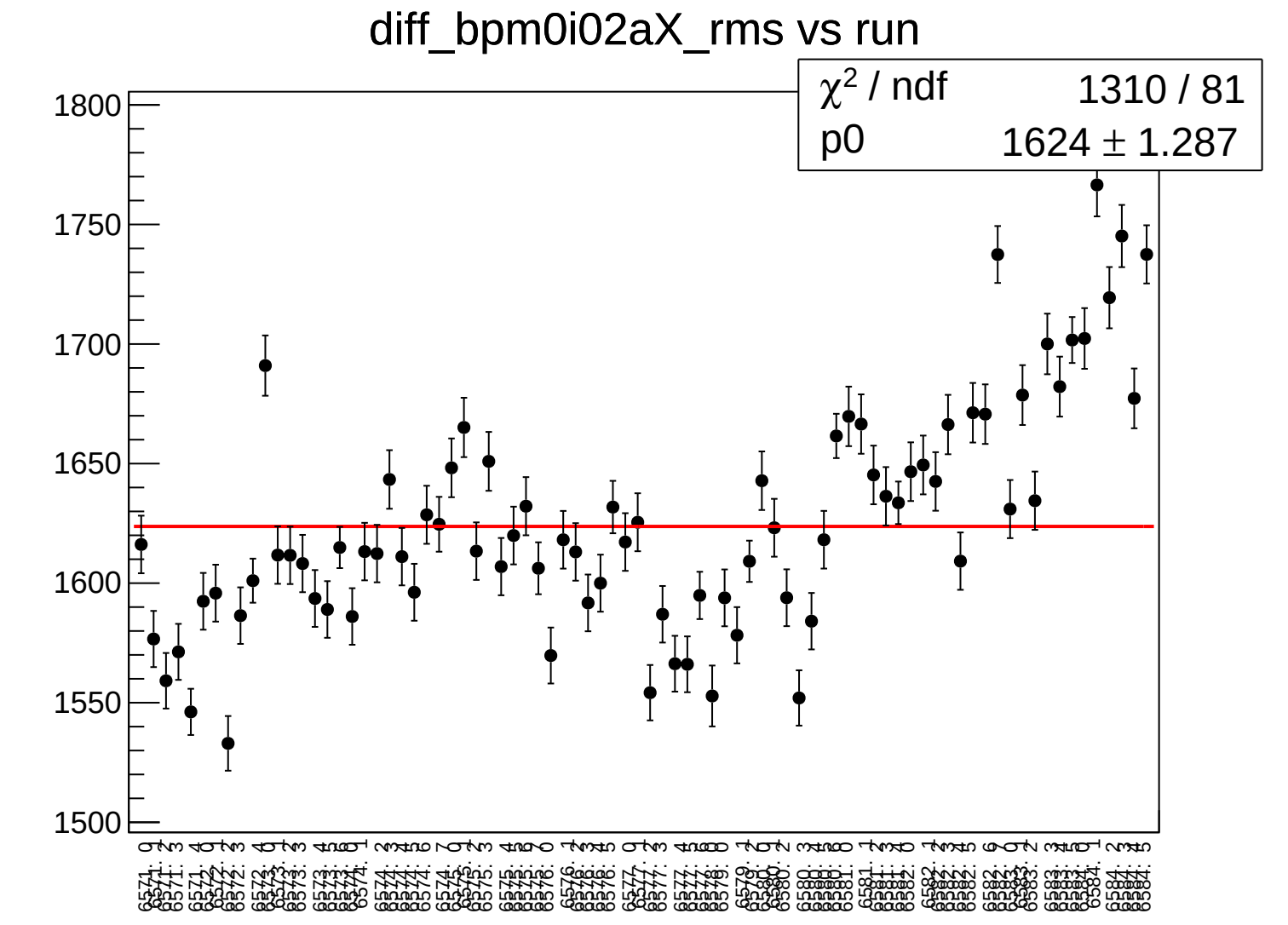

diff_bpm0i02Y_mean vs run
χ² / ndf 124.1 / 81
p0 25.47 ± 1.486
pull
Entries 82
Mean −397
Std Dev 480.6

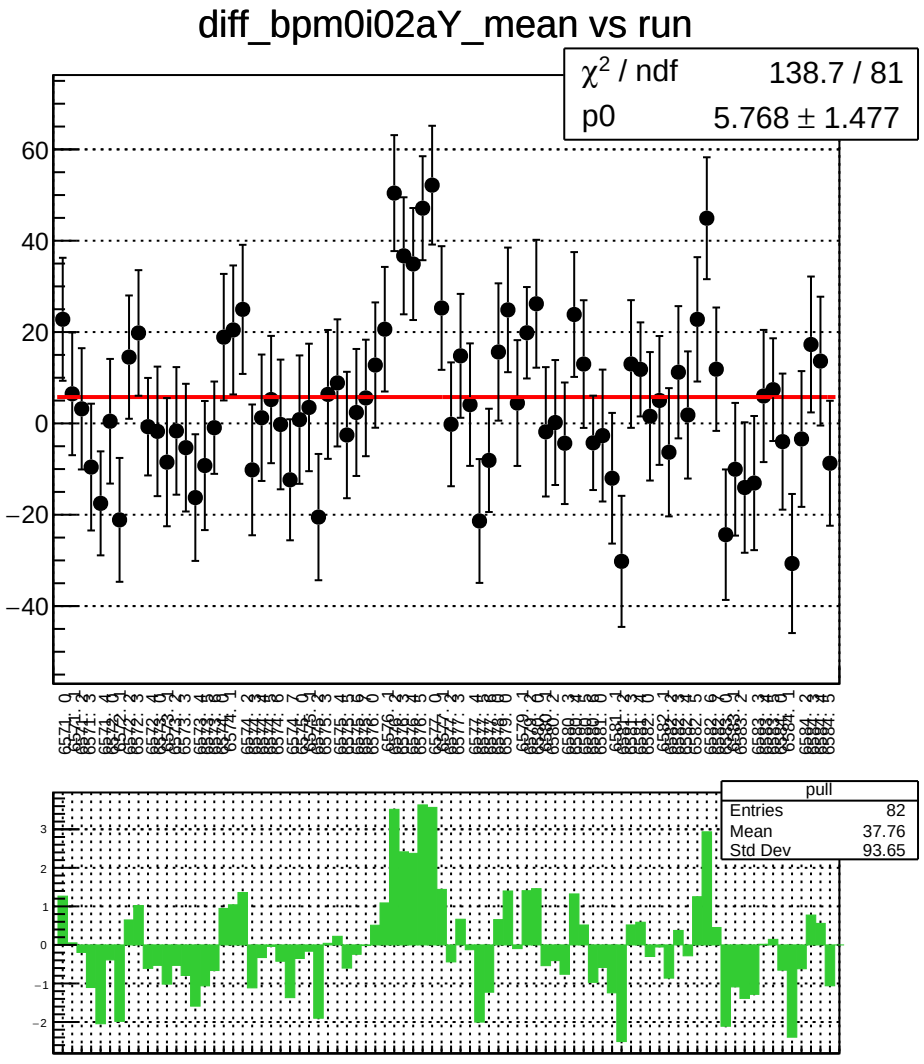

pull1D
Entries 82
Mean 0.004079
Std Dev 1.23

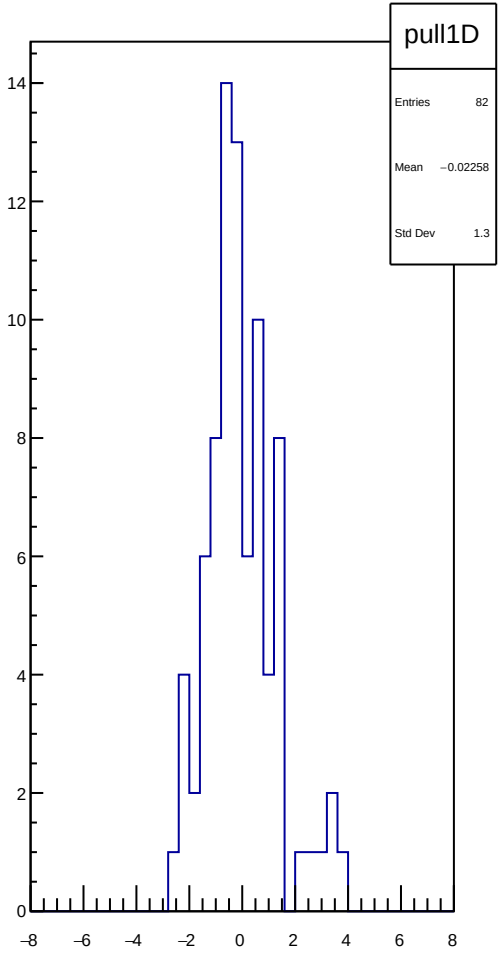

diff_bpm0i02Y_rms vs run
χ² / ndf 701.4 / 81
p0 1326 ± 1.051
1450
1400
1350
1300
1250

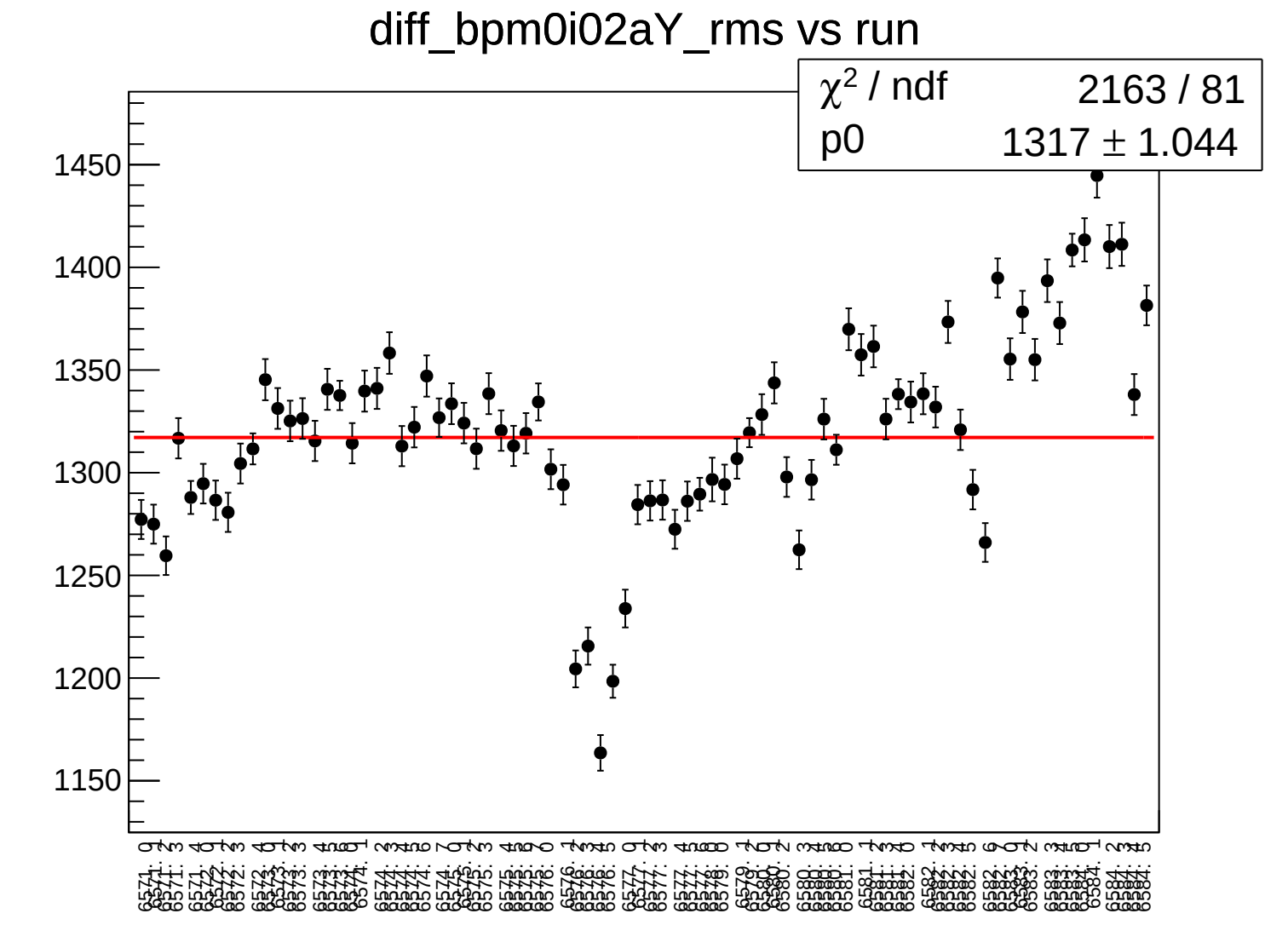

diff_bpm0i02aX_mean vs run
χ² / ndf 123.6 / 81
p0 5.477 ± 1.82
pull
Entries 82
Mean 614.1
Std Dev 576.9

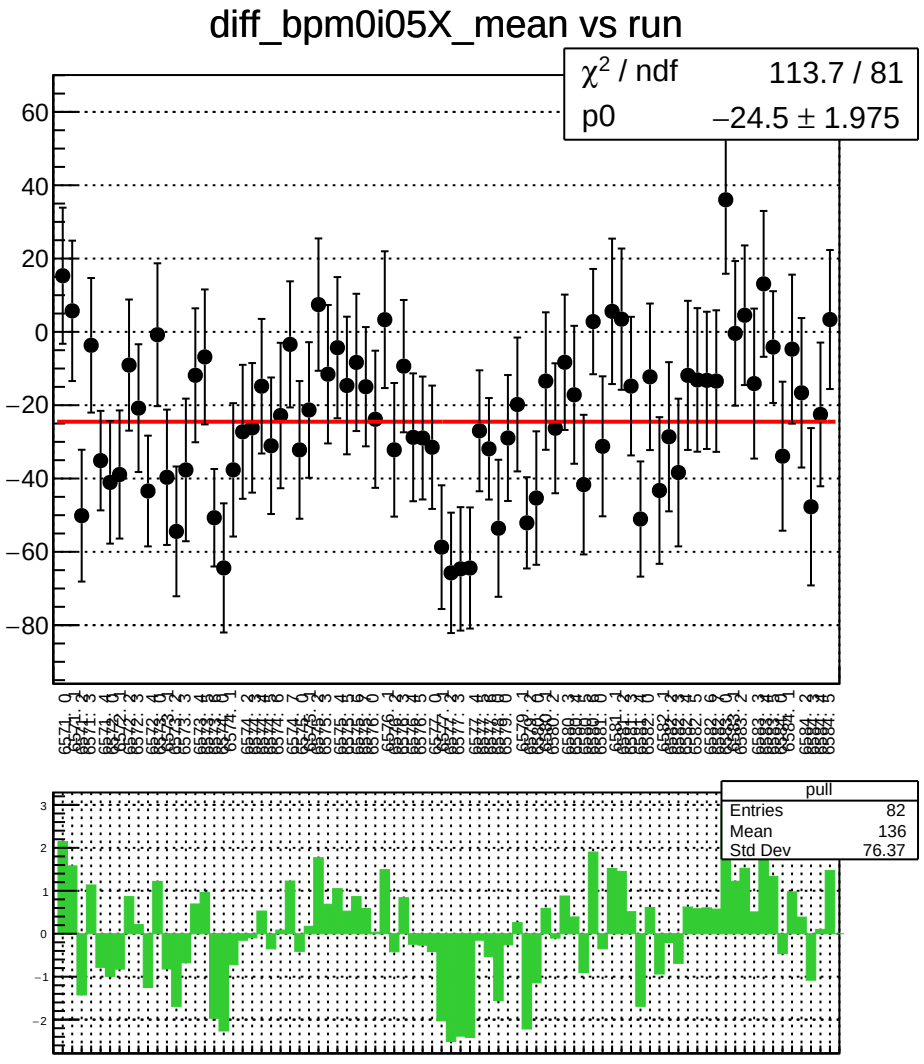

pull1D
Entries 82
Mean −0.02079
Std Dev 1.228

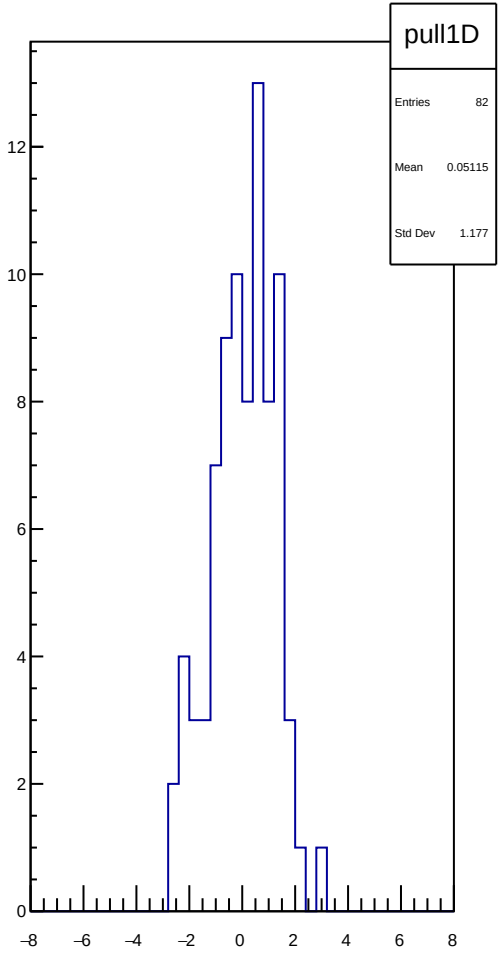

diff_bpm0i02aX_rms vs run
χ^2 / ndf 1310 / 81
p0 1624 ± 1.287
1800
1750
1700
1650
1600
1550
1500

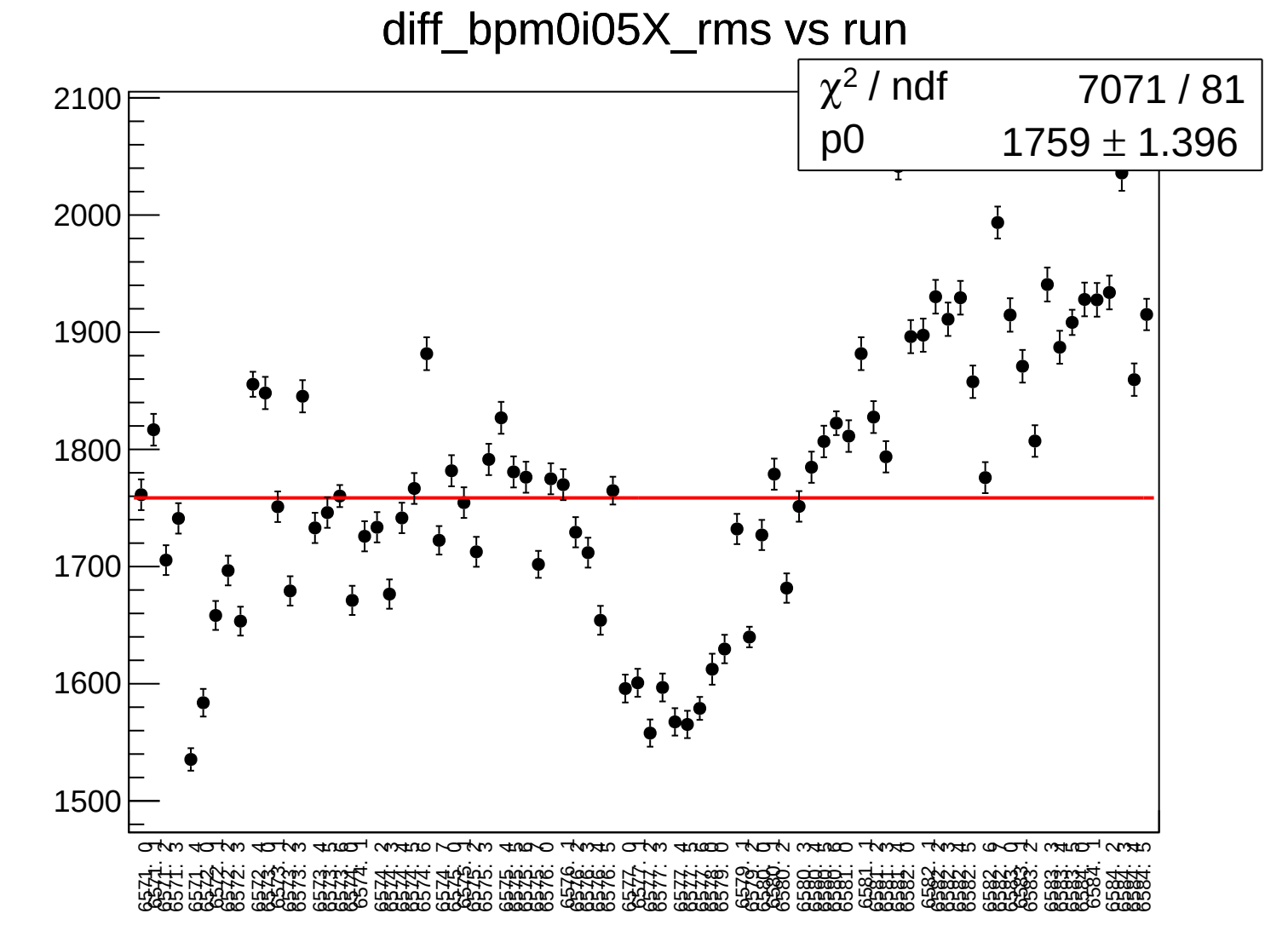

diff_bpm0i02aY_mean vs run
χ² / ndf 138.7 / 81
p0 5.768 ± 1.477
pull
Entries 82
Mean 37.76
Std Dev 93.65

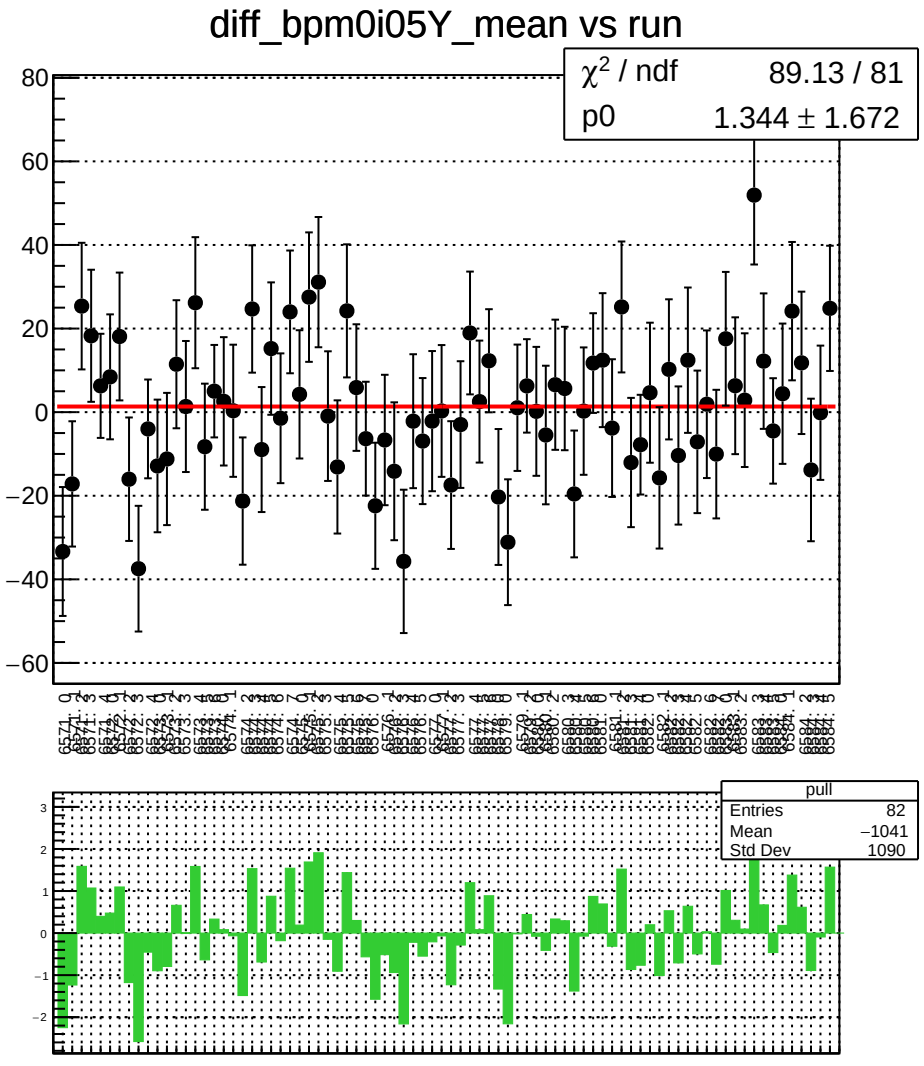

pull1D
Entries 82
Mean −0.02258
Std Dev 1.3

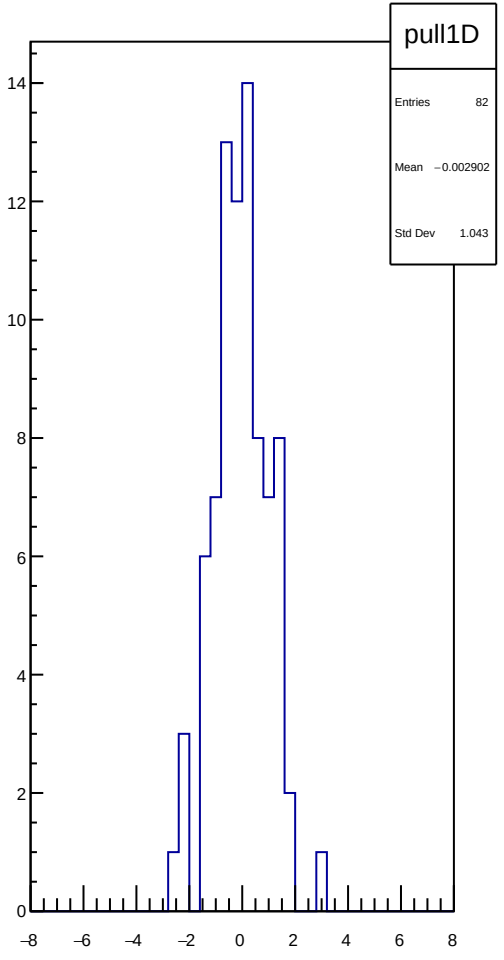

diff_bpm0i02aY_rms vs run
χ² / ndf 2163 / 81
p0 1317 ± 1.044
1450
1400
1350
1300
1250
1200
1150

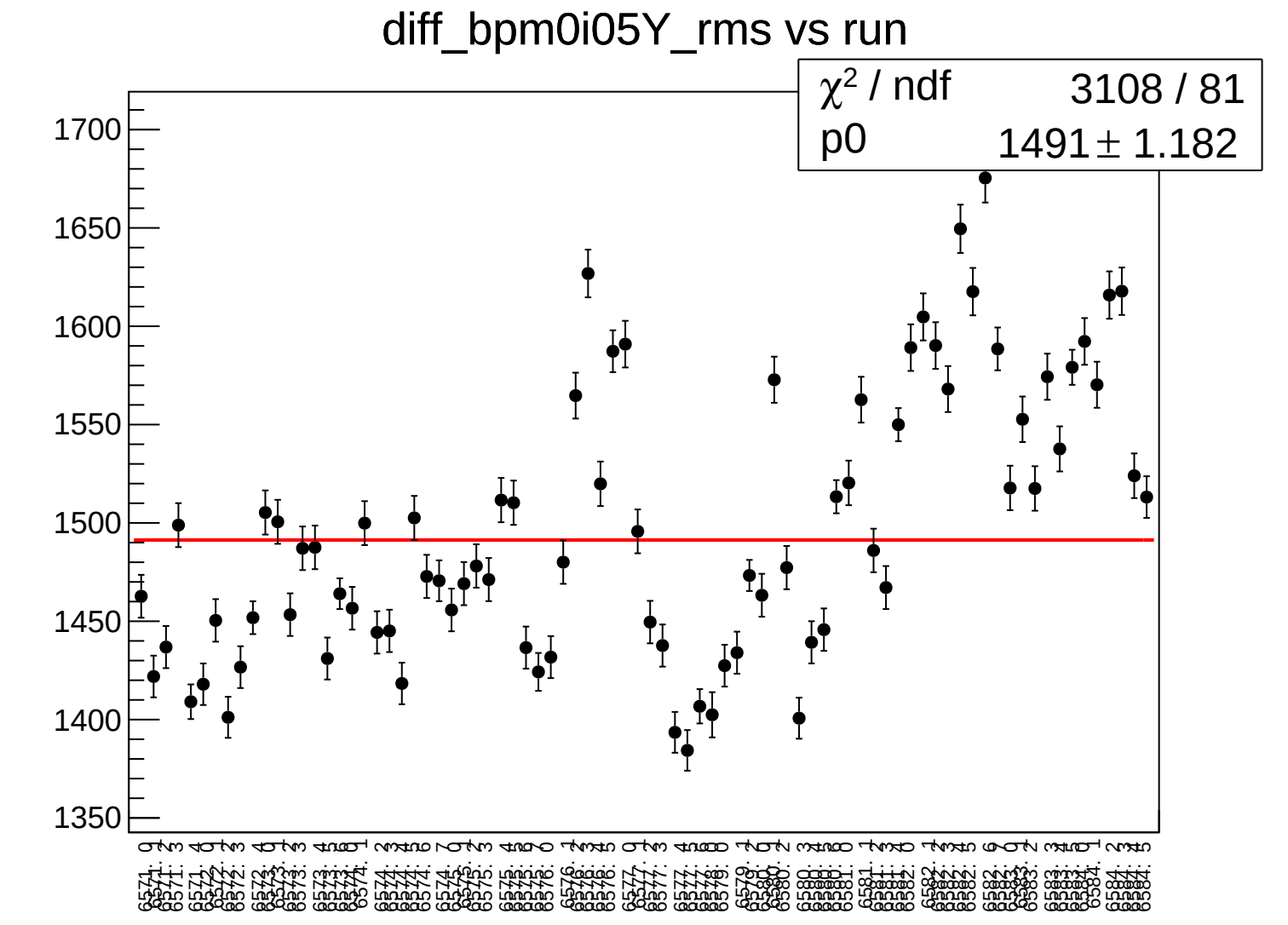

diff_bpm0i05X_mean vs run
χ² / ndf 113.7 / 81
p0 −24.5 ± 1.975
pull
Entries 82
Mean 136
Std Dev 76.37

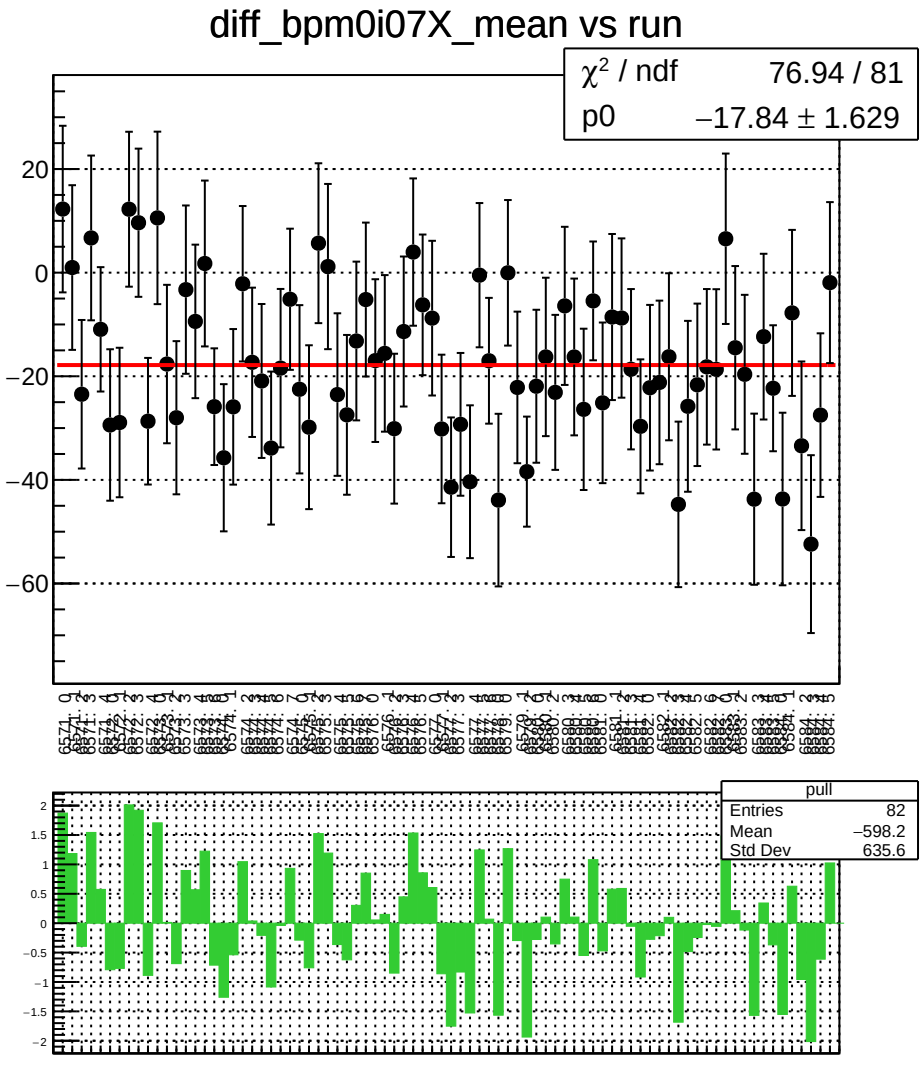

pull1D
Entries 82
Mean 0.05115
Std Dev 1.177

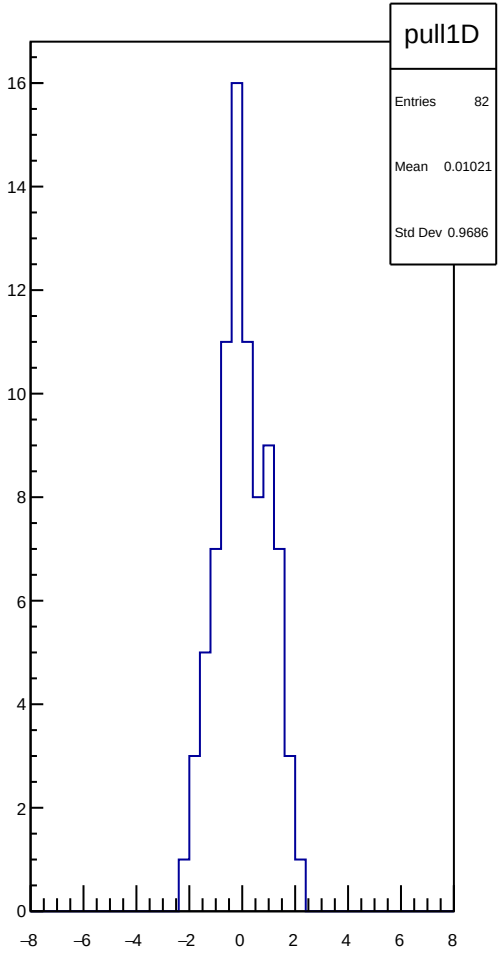

diff_bpm0i05X_rms vs run
χ² / ndf 7071 / 81
p0 1759 ± 1.396
2100
2000
1900
1800
1700
1600
1500

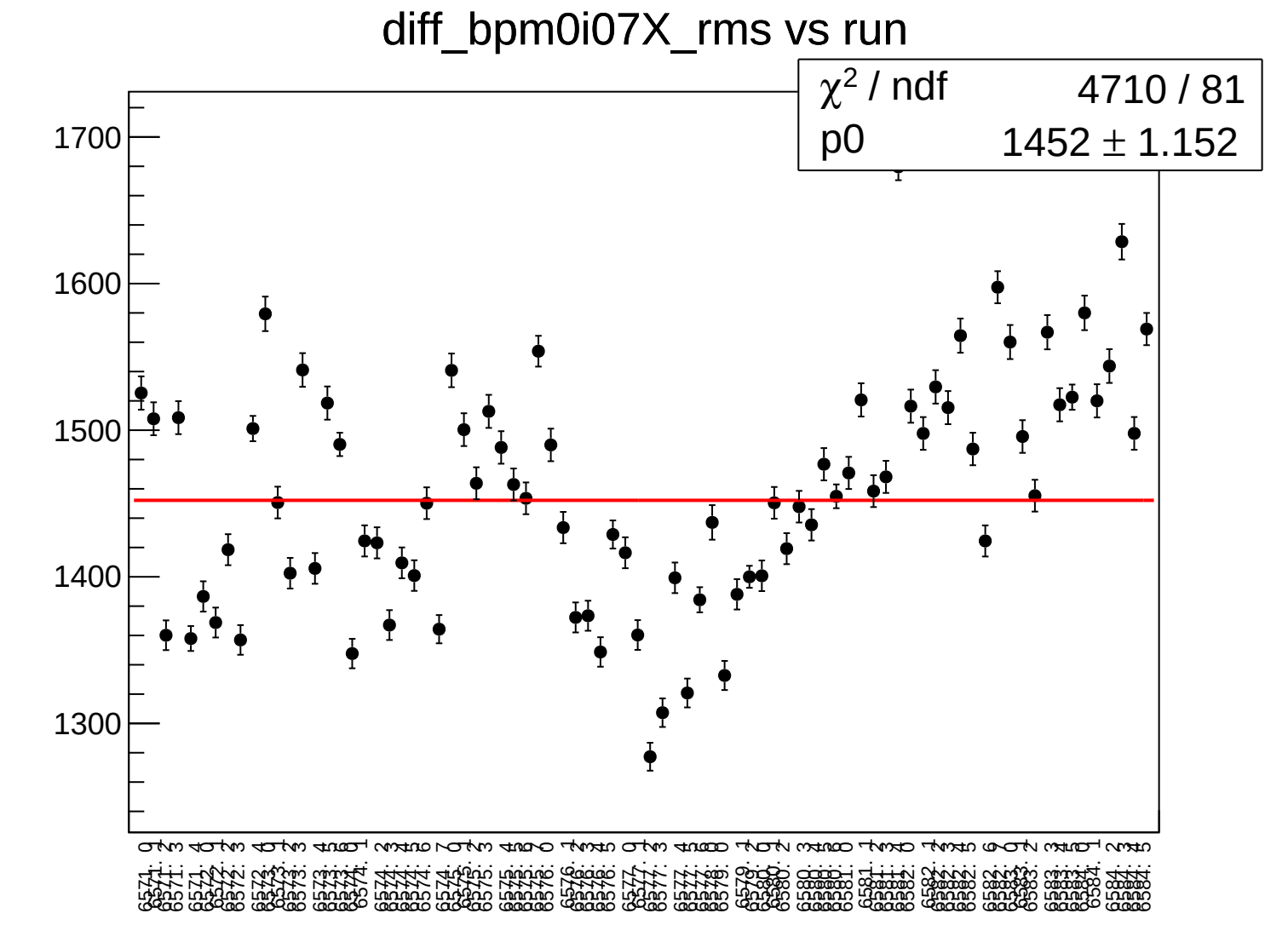

diff_bpm0i05Y_mean vs run
χ² / ndf 89.13 / 81
p0 1.344 ± 1.672
pull
Entries 82
Mean −1041
Std Dev 1090

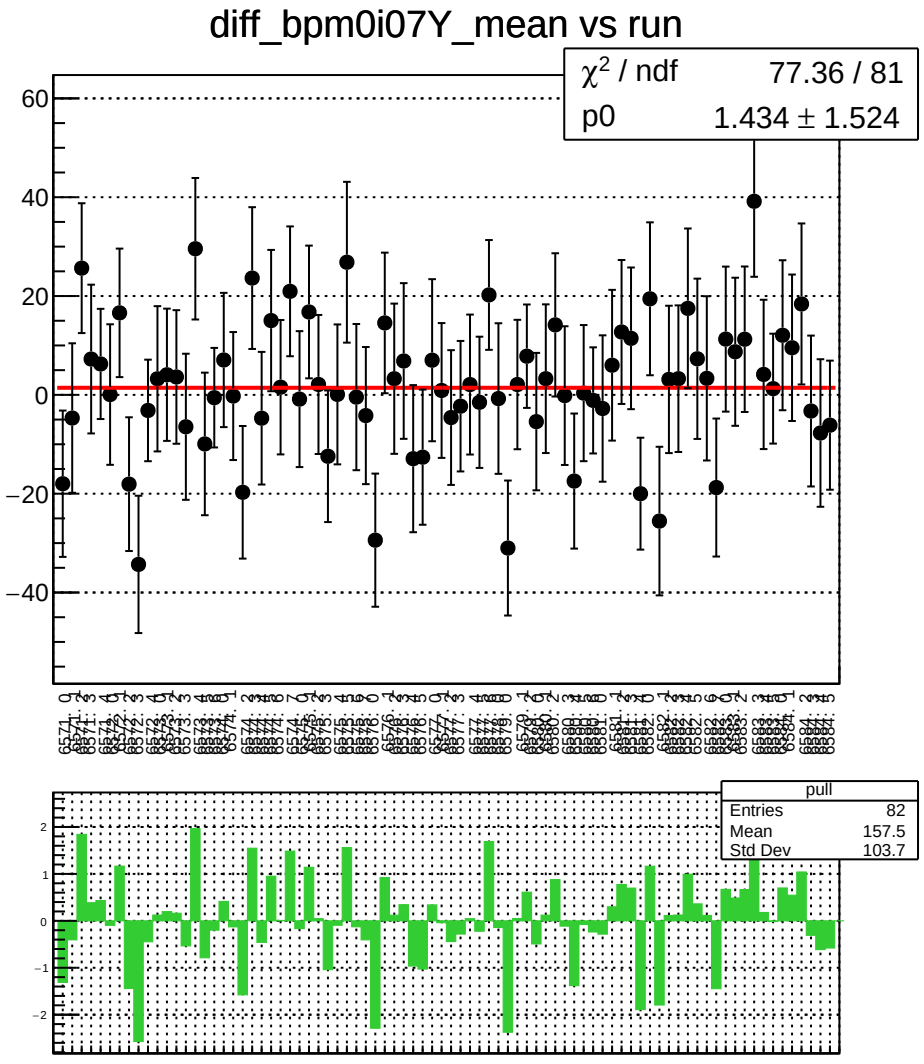

pull1D
Entries 82
Mean −0.002902
Std Dev 1.043

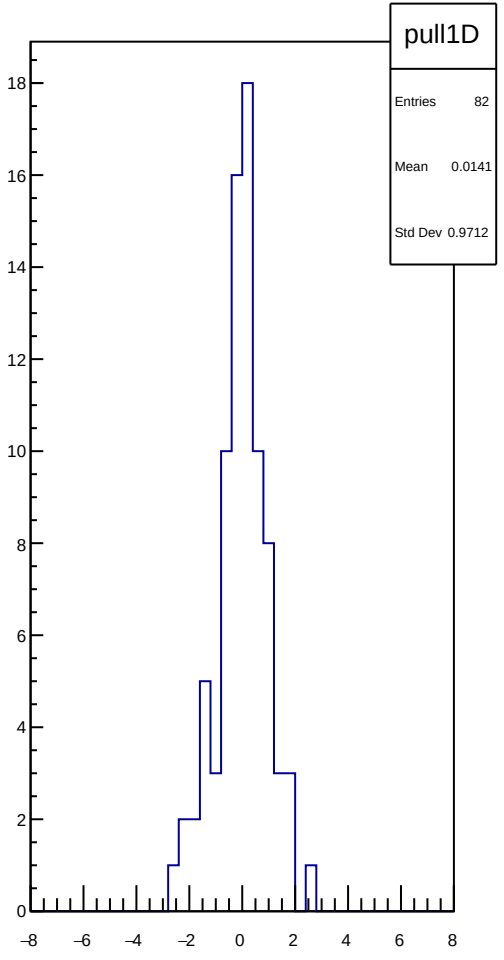

diff_bpm0i05Y_rms vs run
χ² / ndf 3108 / 81
p0 1491 ± 1.182
1700
1650
1600
1550
1500
1450
1400
1350

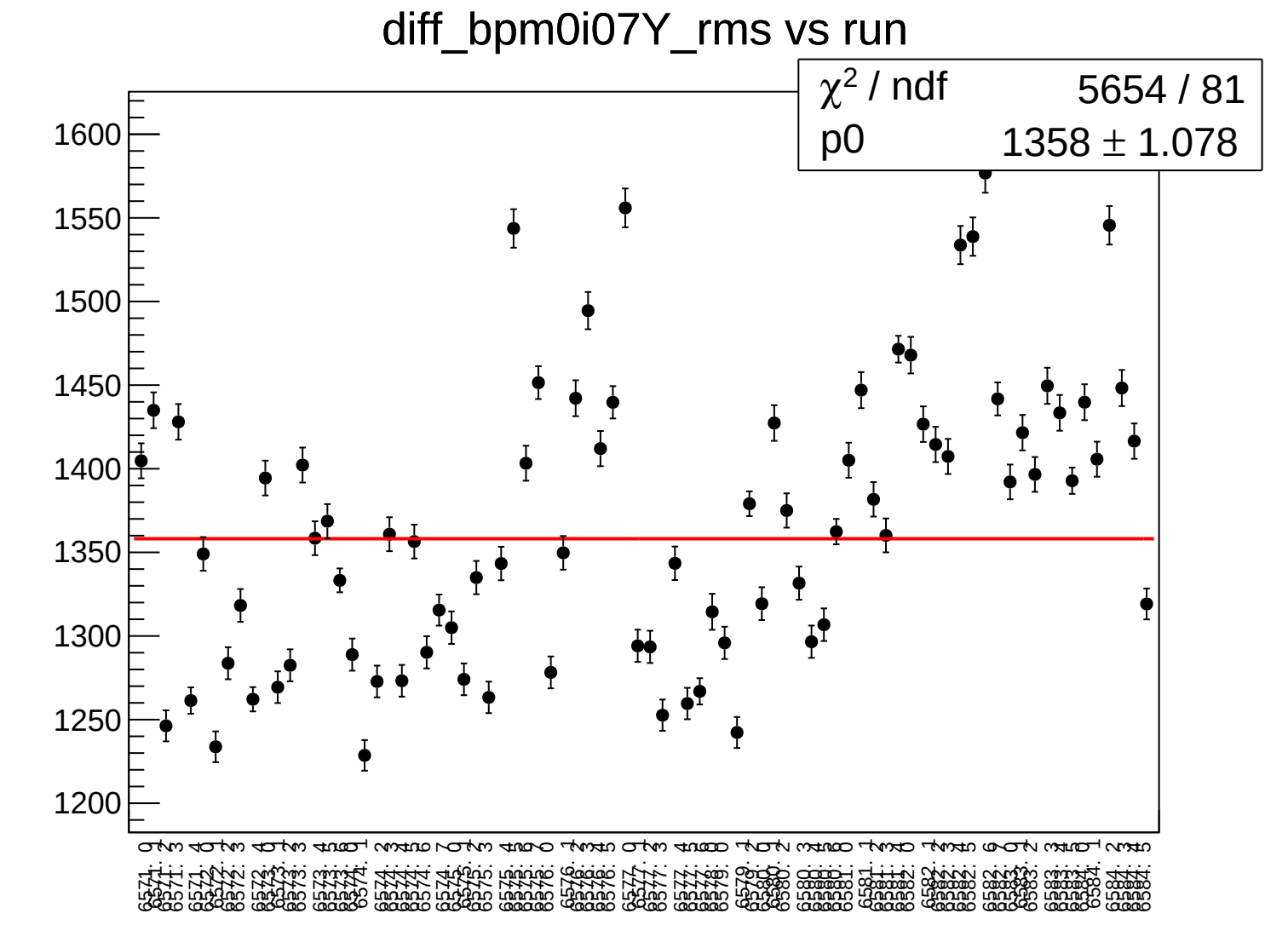

diff_bpm0i07X_mean vs run
χ² / ndf 76.94 / 81
p0 −17.84 ± 1.629
pull
Entries 82
Mean −598.2
Std Dev 635.6

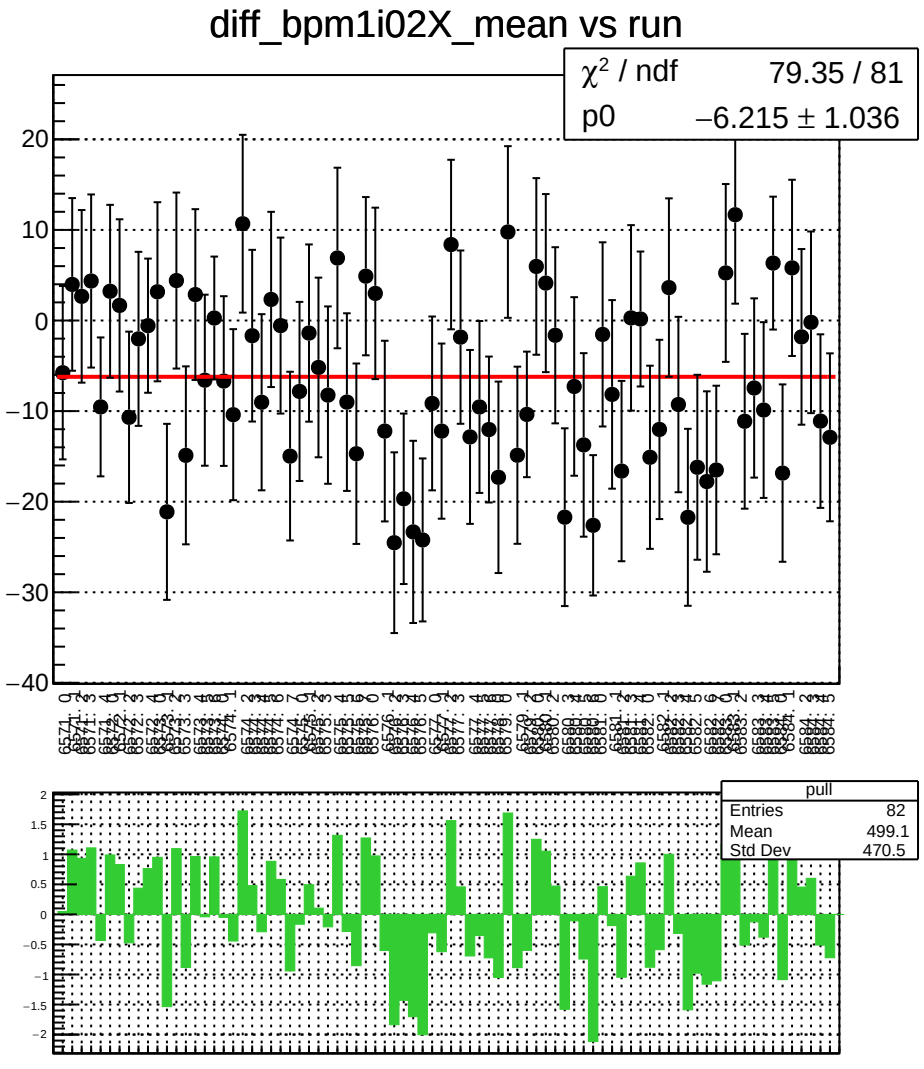

pull1D
Entries 82
Mean 0.01021
Std Dev 0.9686

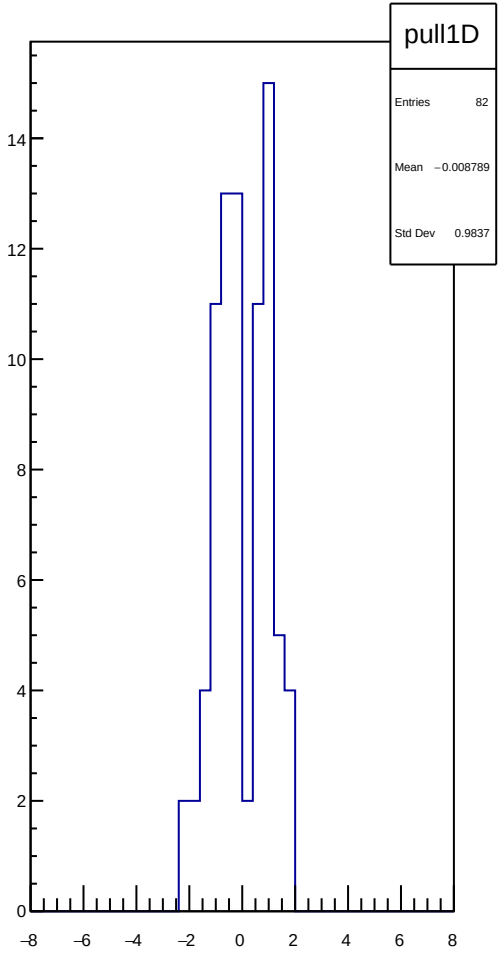

diff_bpm0i07X_rms vs run
χ² / ndf 4710 / 81
p0 1452 ± 1.152
1700
1600
1500
1400
1300

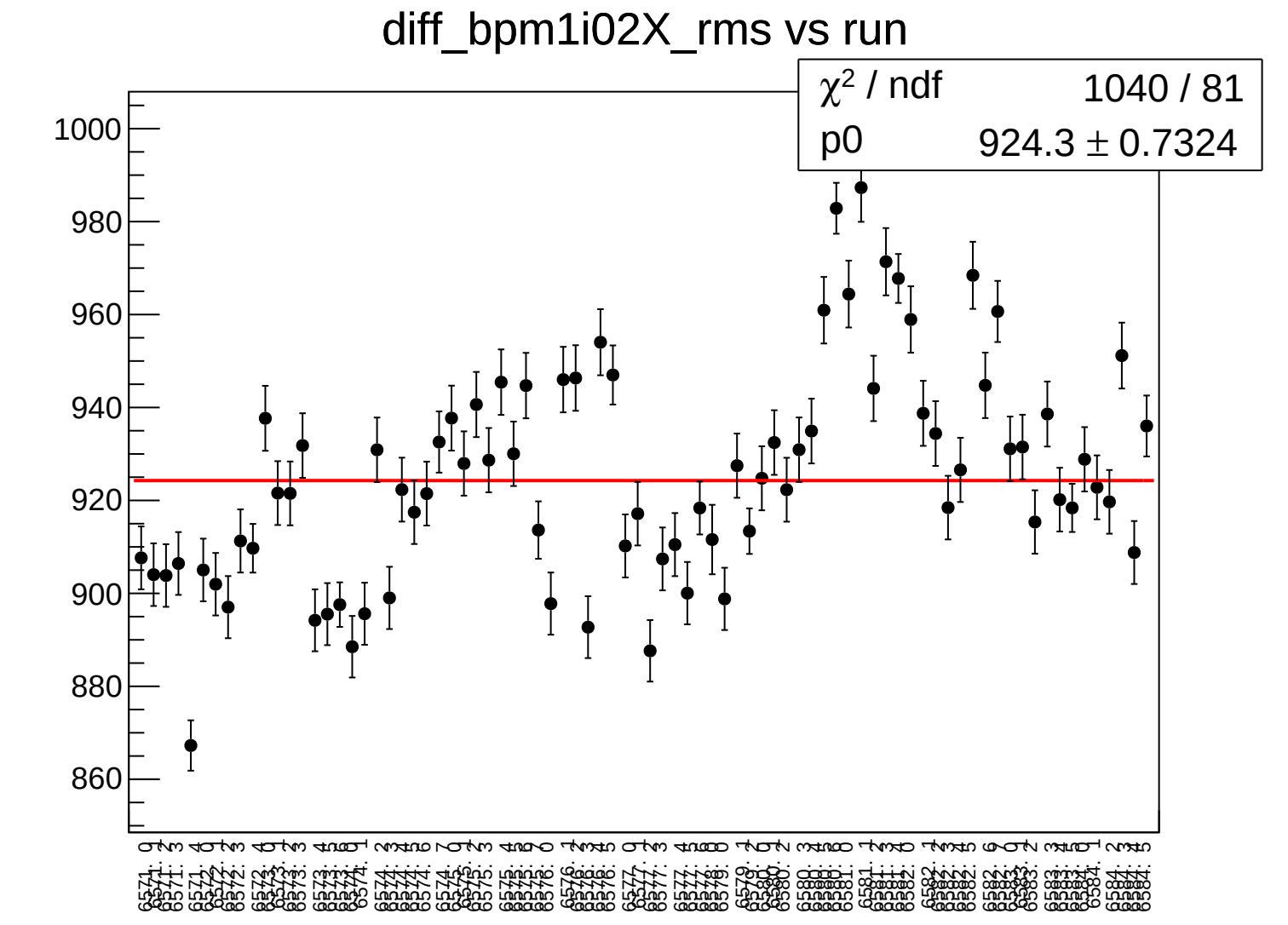

diff_bpm0i07Y_mean vs run
χ² / ndf 77.36 / 81
p0 1.434 ± 1.524
pull
Entries 82
Mean 157.5
Std Dev 103.7

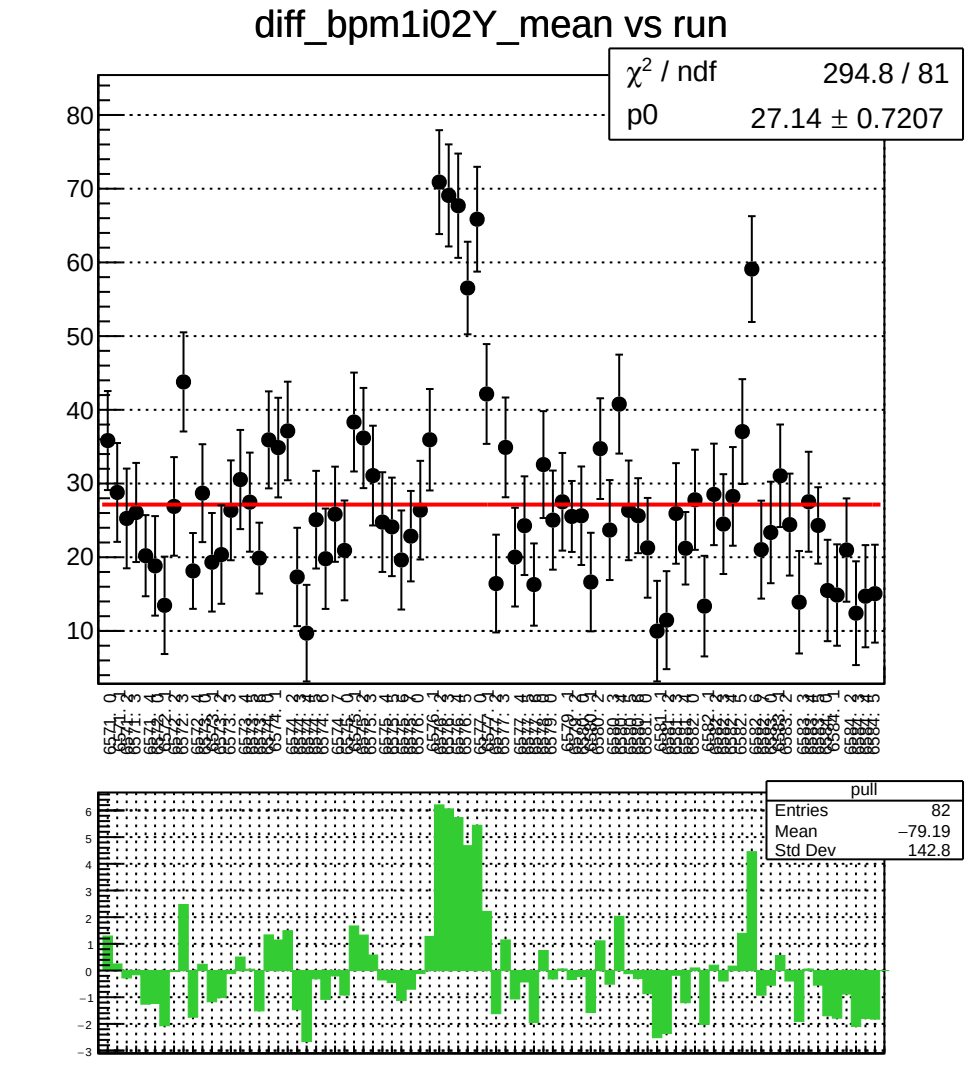

pull1D
Entries 82
Mean 0.0141
Std Dev 0.9712

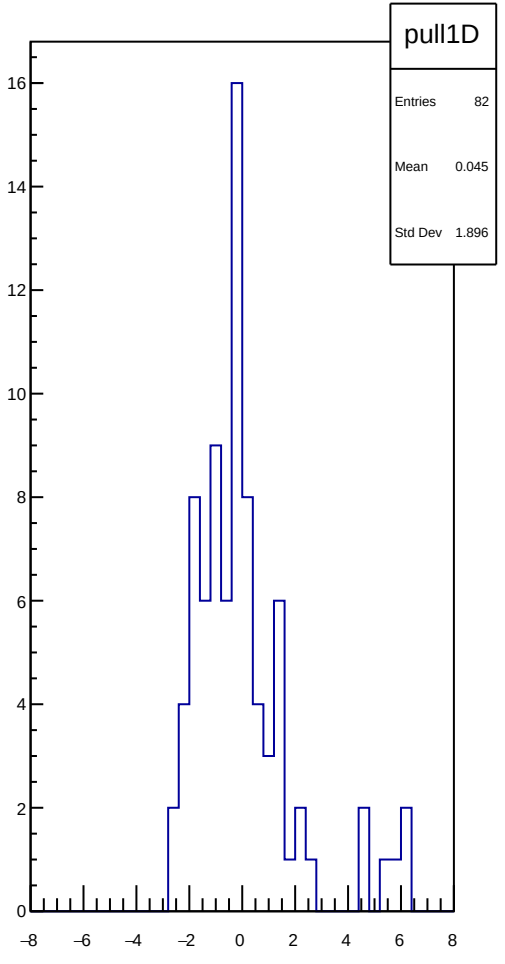

diff_bpm0i07Y_rms vs run
χ² / ndf 5654 / 81
p0 1358 ± 1.078
1600
1550
1500
1450
1400
1350
1300
1250
1200

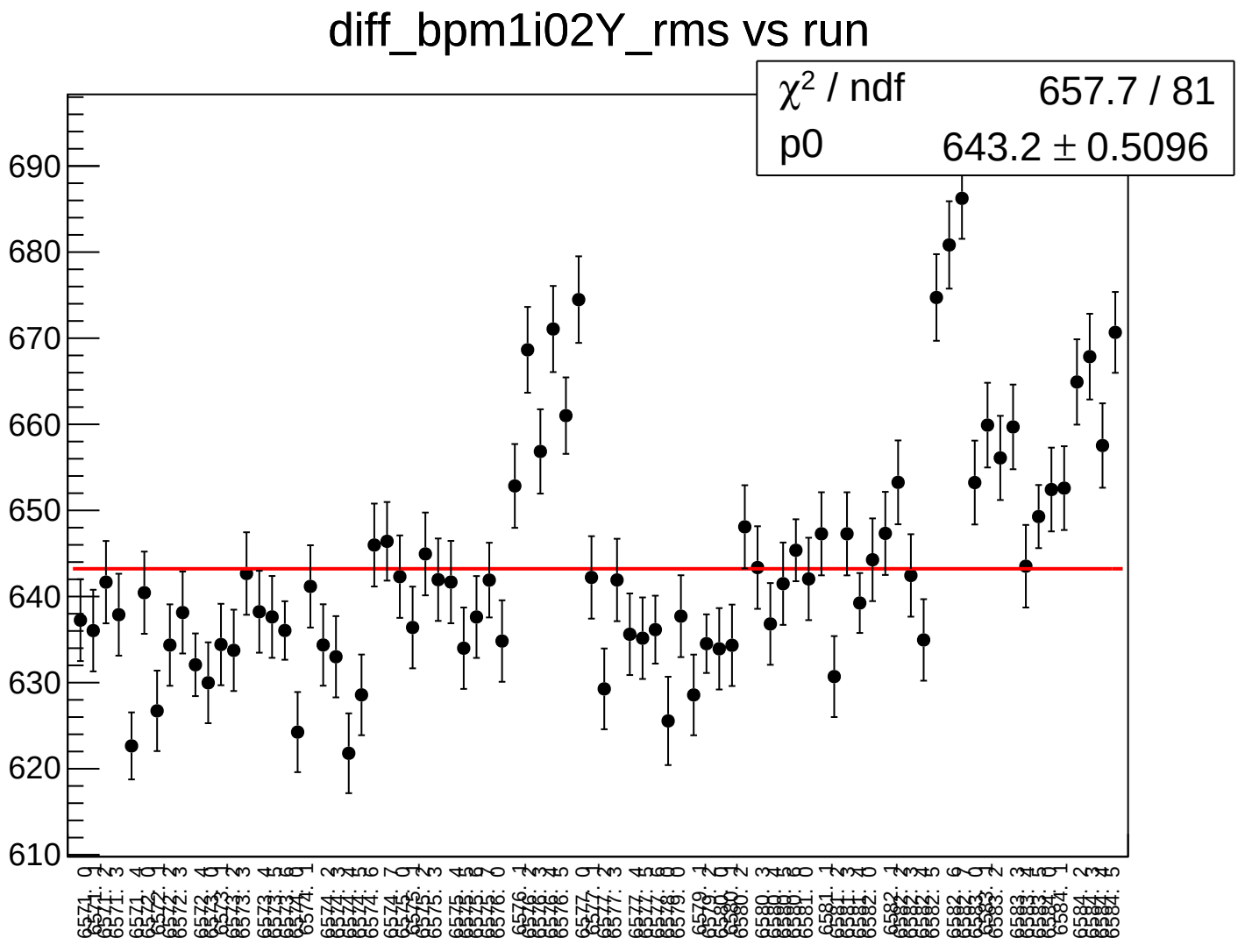

diff_bpm1i02X_mean vs run
χ² / ndf 79.35 / 81
p0 −6.215 ± 1.036
pull
Entries 82
Mean 499.1
Std Dev 470.5

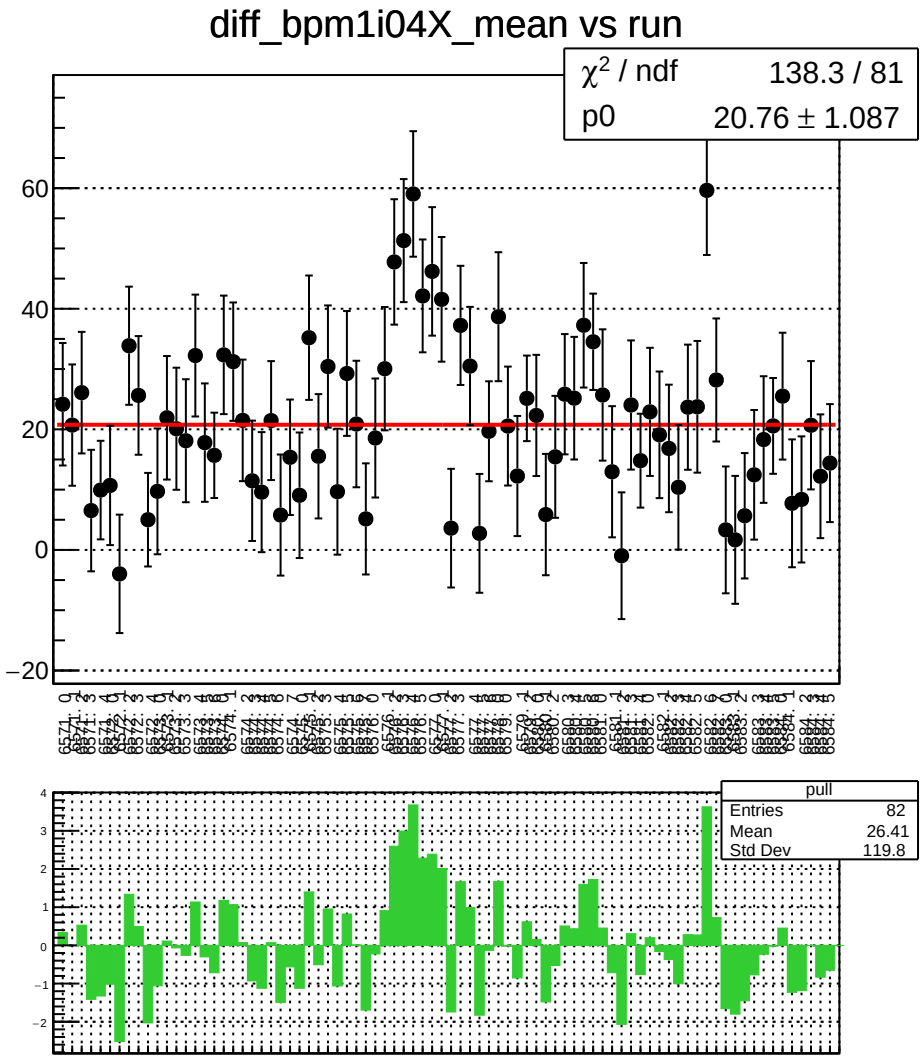

pull1D
Entries 82
Mean −0.008789
Std Dev 0.9837

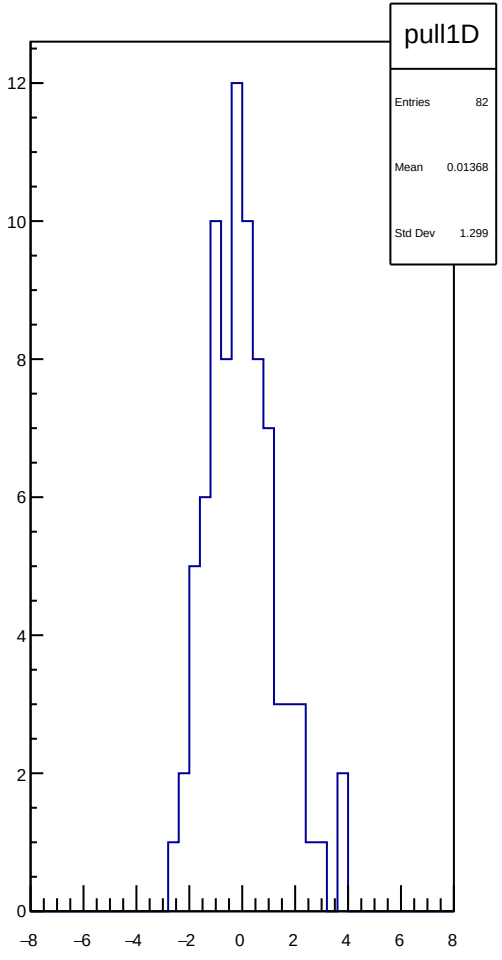

diff_bpm1i02X_rms vs run
χ² / ndf 1040 / 81
p0 924.3 ± 0.7324
1000
980
960
940
920
900
880
860

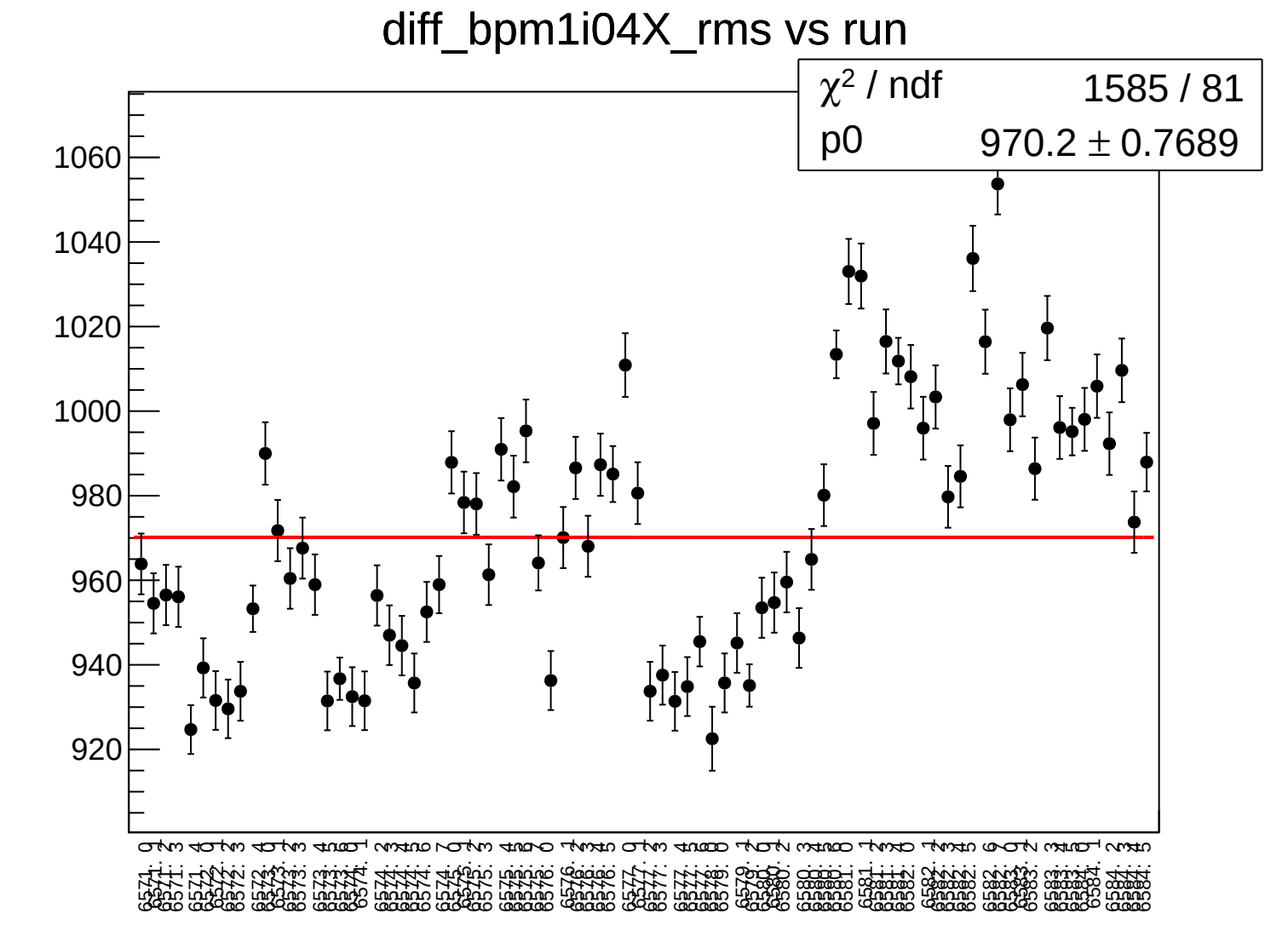

diff_bpm1i02Y_mean vs run
χ² / ndf 294.8 / 81
p0 27.14 ± 0.7207
pull
Entries 82
Mean −79.19
Std Dev 142.8

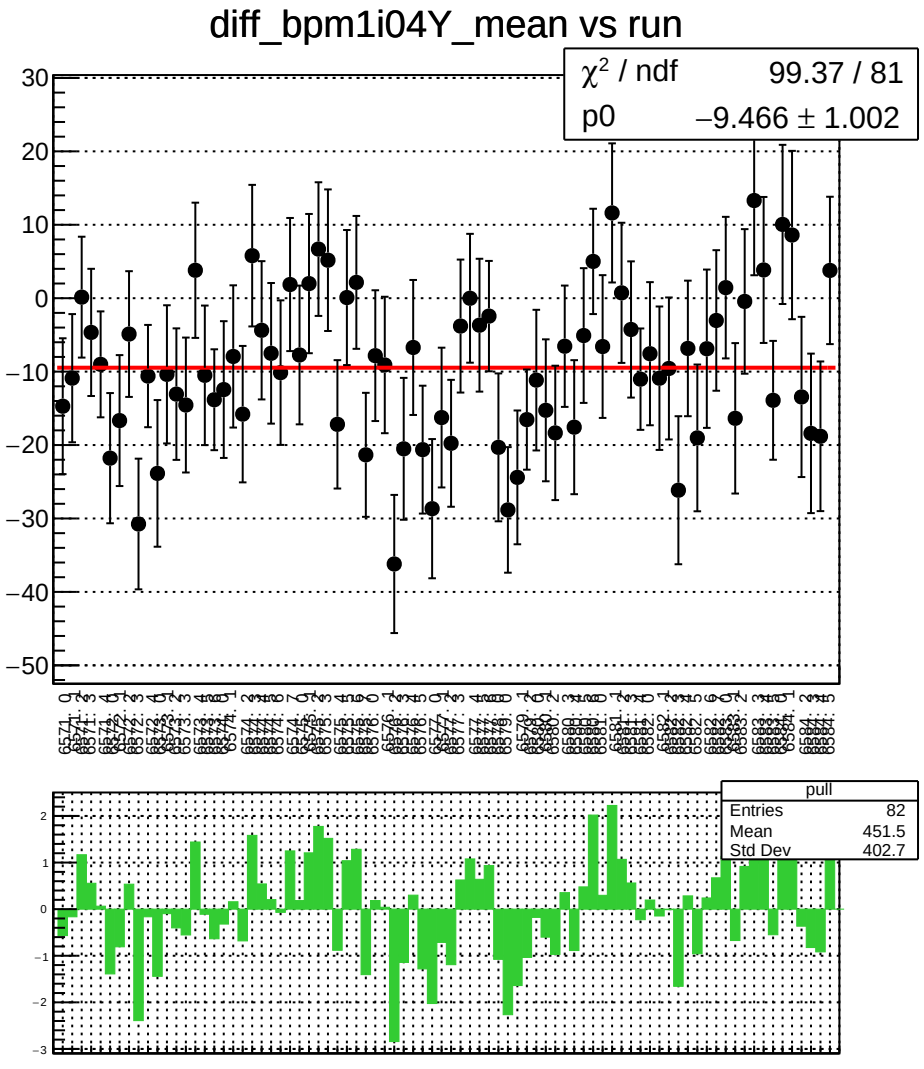

pull1D
Entries 82
Mean 0.045
Std Dev 1.896

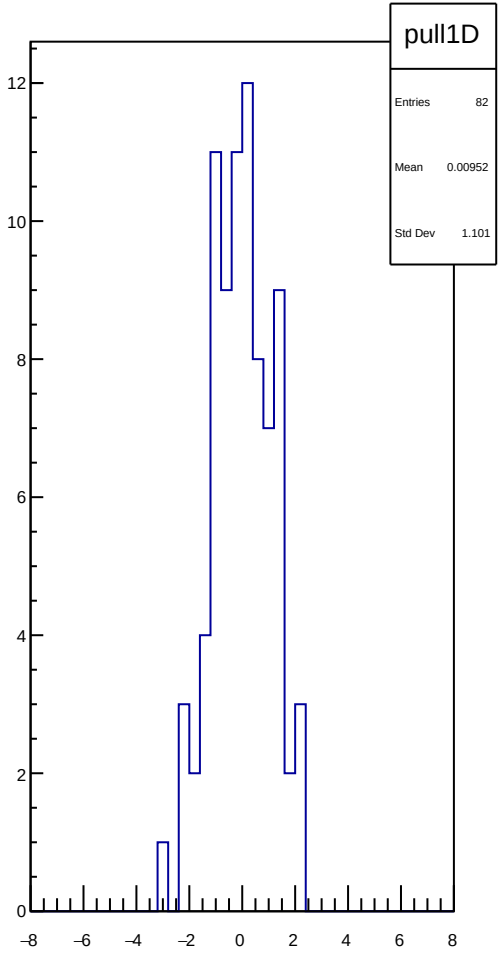

diff_bpm1i02Y_rms vs run
χ² / ndf 657.7 / 81
p0 643.2 ± 0.5096
690
680
670
660
650
640
630
620
610

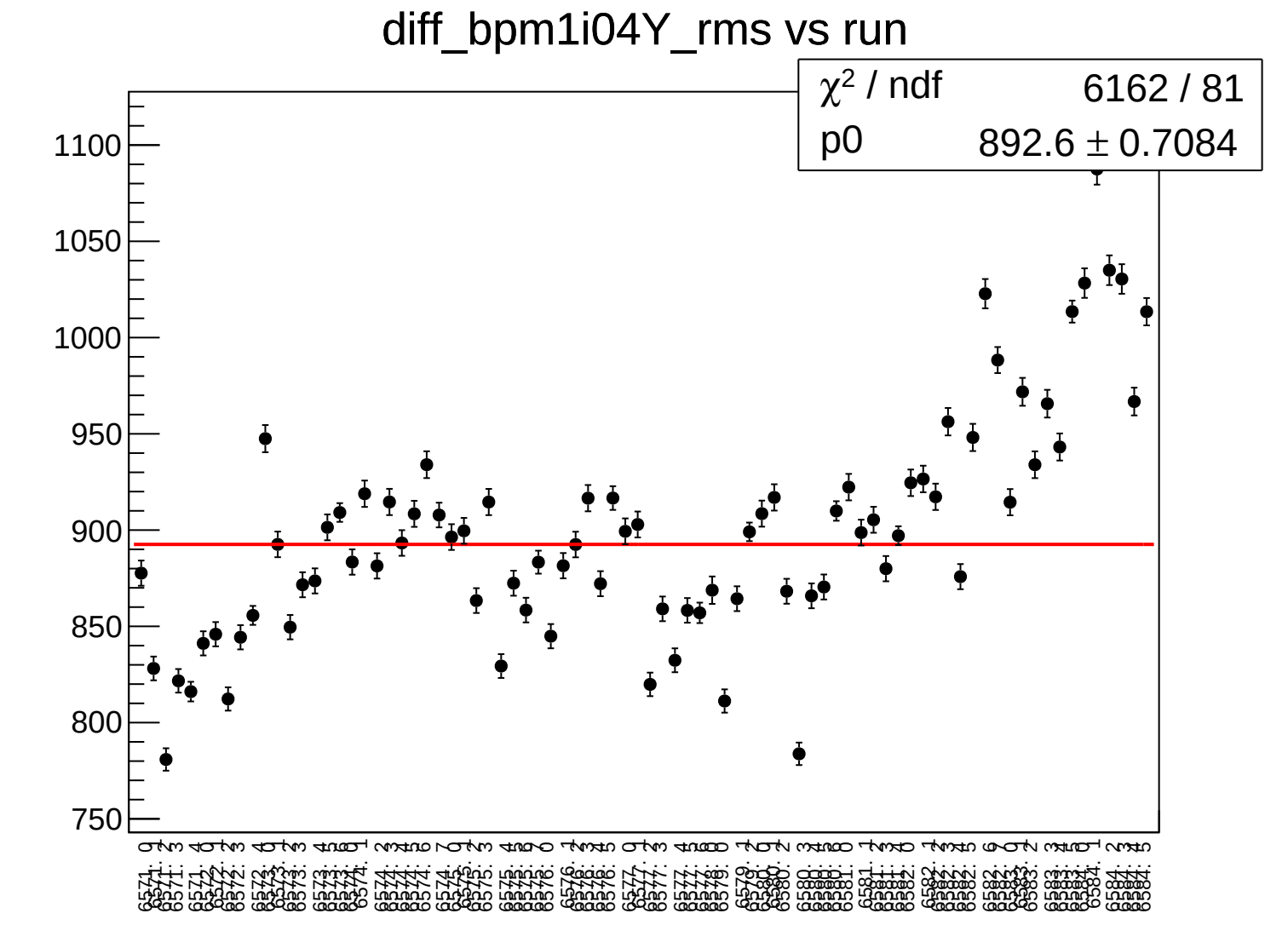

diff_bpm1i04X_mean vs run
χ² / ndf 138.3 / 81
p0 20.76 ± 1.087
pull
Entries 82
Mean 26.41
Std Dev 119.8

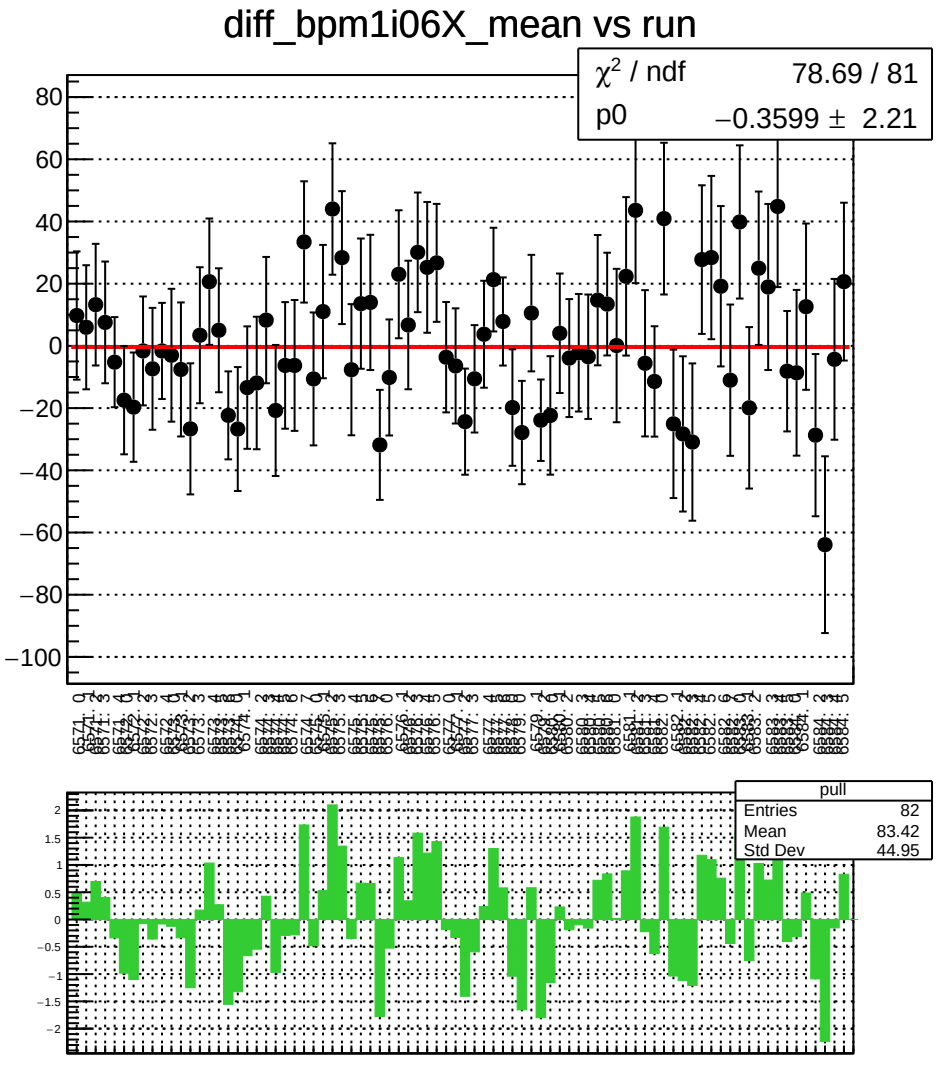

pull1D
Entries 82
Mean 0.01368
Std Dev 1.299

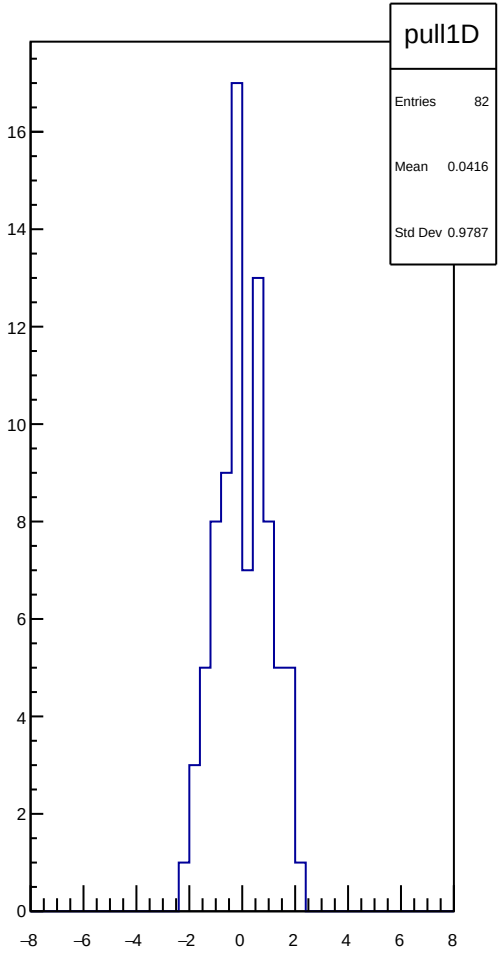

diff_bpm1i04X_rms vs run
χ² / ndf 1585 / 81
p0 970.2 ± 0.7689
1060
1040
1020
1000
980
960
940
920

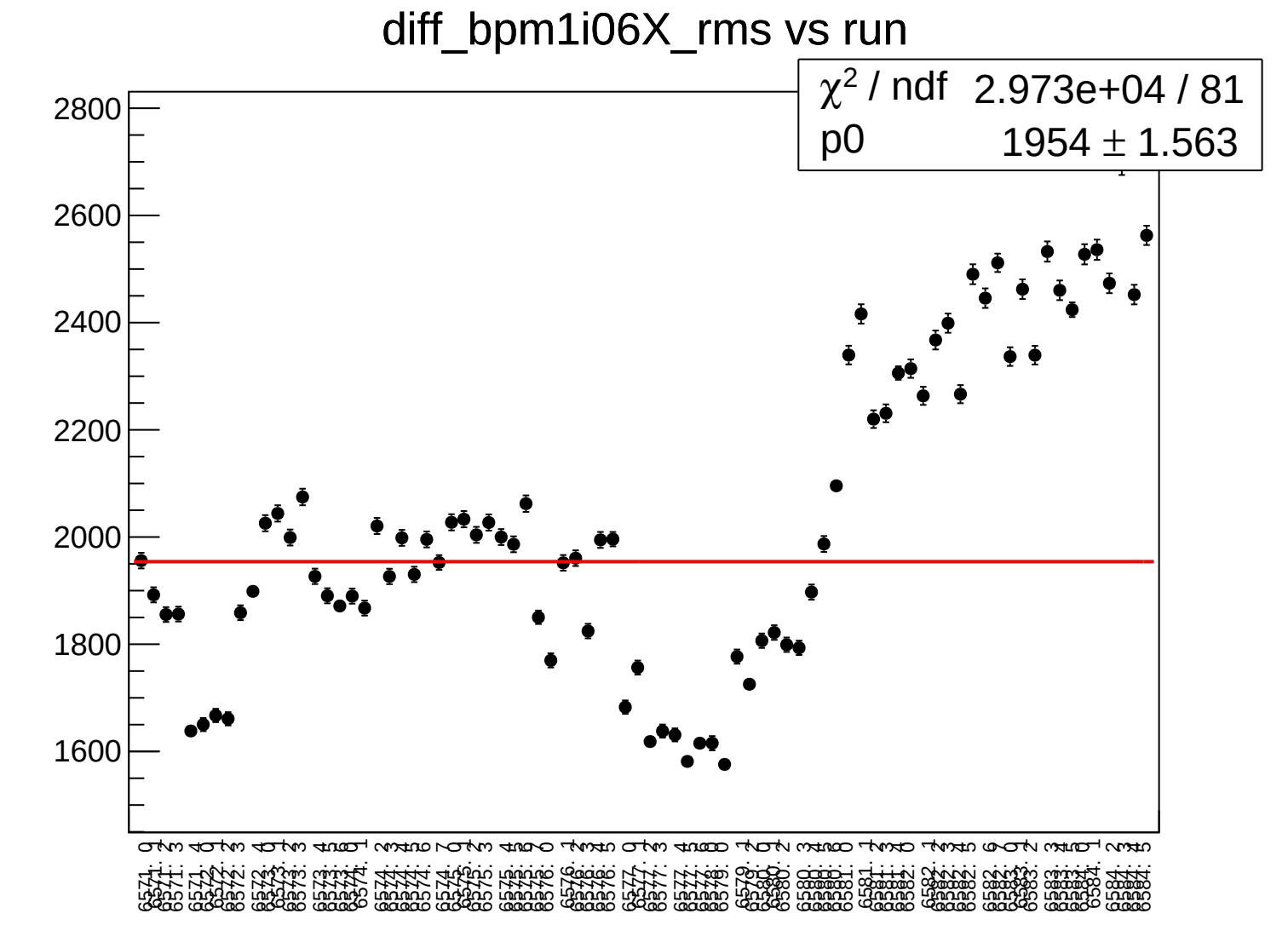

diff_bpm1i04Y_mean vs run
χ² / ndf 99.37 / 81
p0 −9.466 ± 1.002
pull
Entries 82
Mean 451.5
Std Dev 402.7

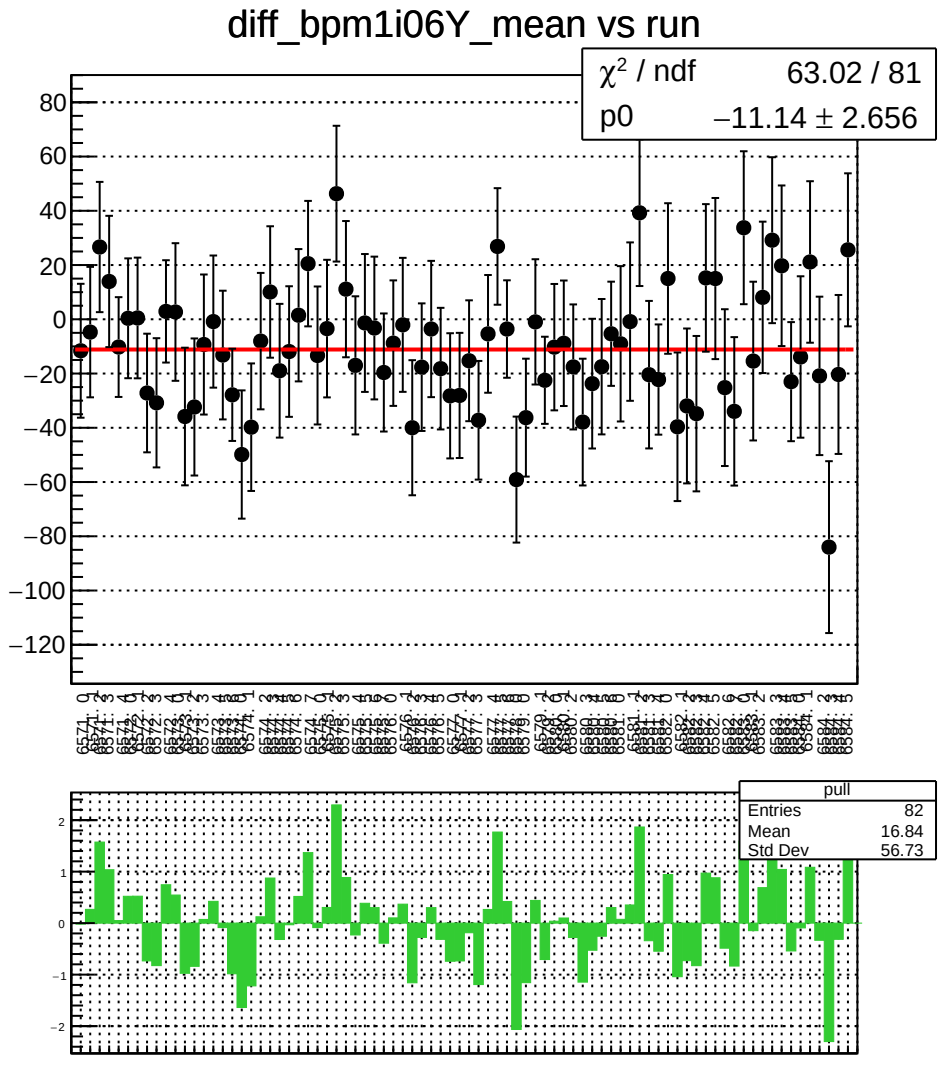

pull1D
Entries 82
Mean 0.00952
Std Dev 1.101

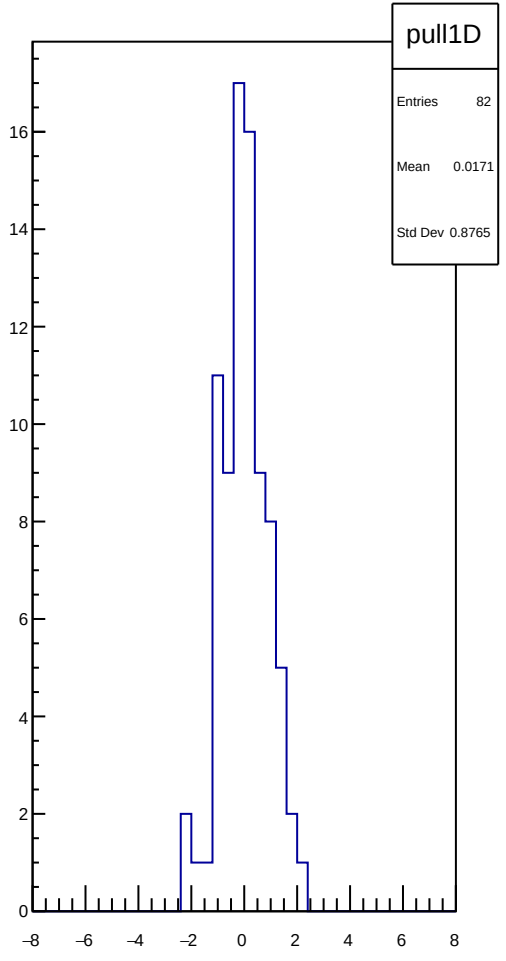

diff_bpm1i04Y_rms vs run
χ² / ndf 6162 / 81
p0 892.6 ± 0.7084
1100
1050
1000
950
900
850
800
750

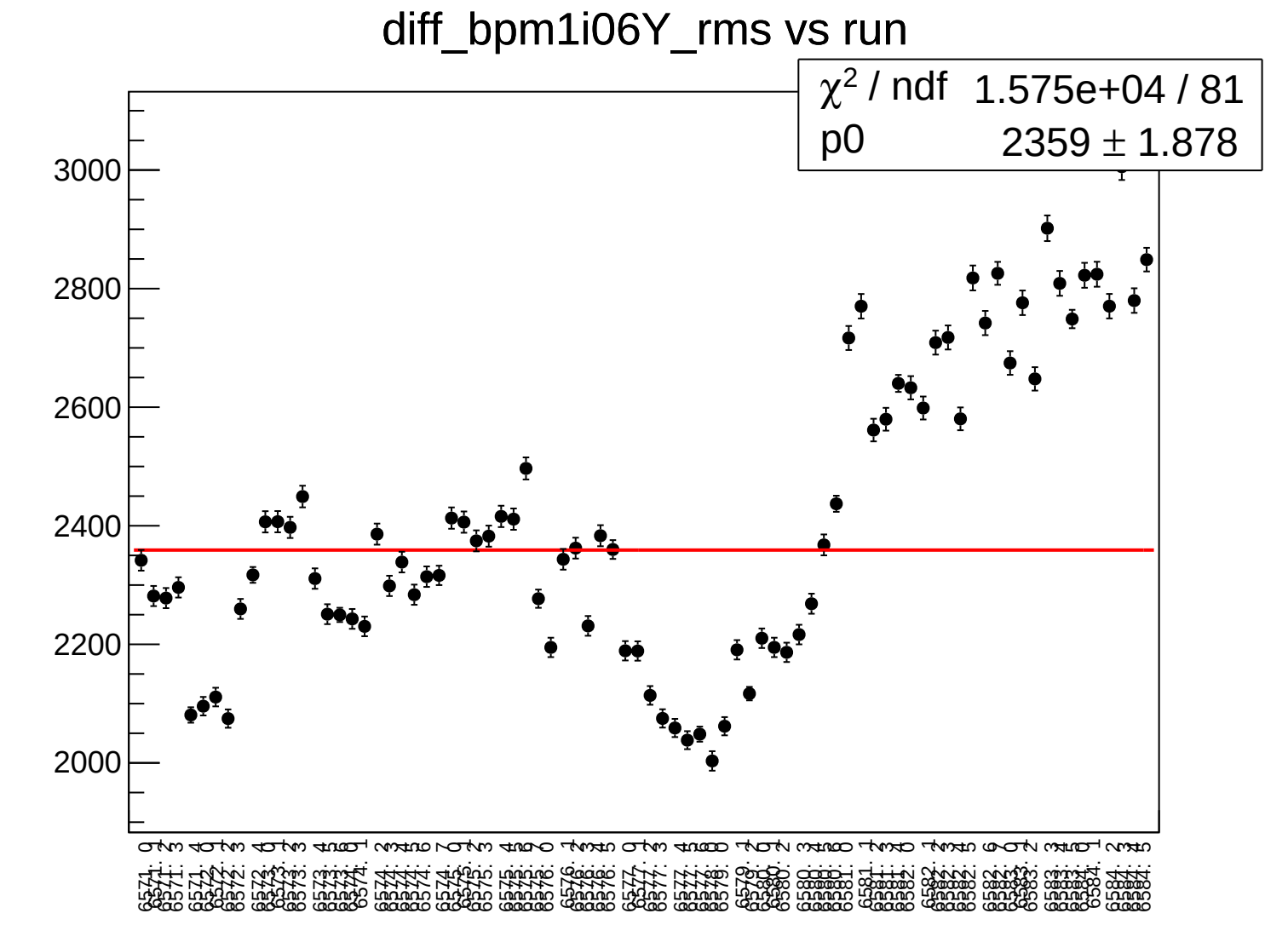

diff_bpm1i06X_mean vs run
χ² / ndf 78.69 / 81
p0 −0.3599 ± 2.21
pull
Entries 82
Mean 83.42
Std Dev 44.95

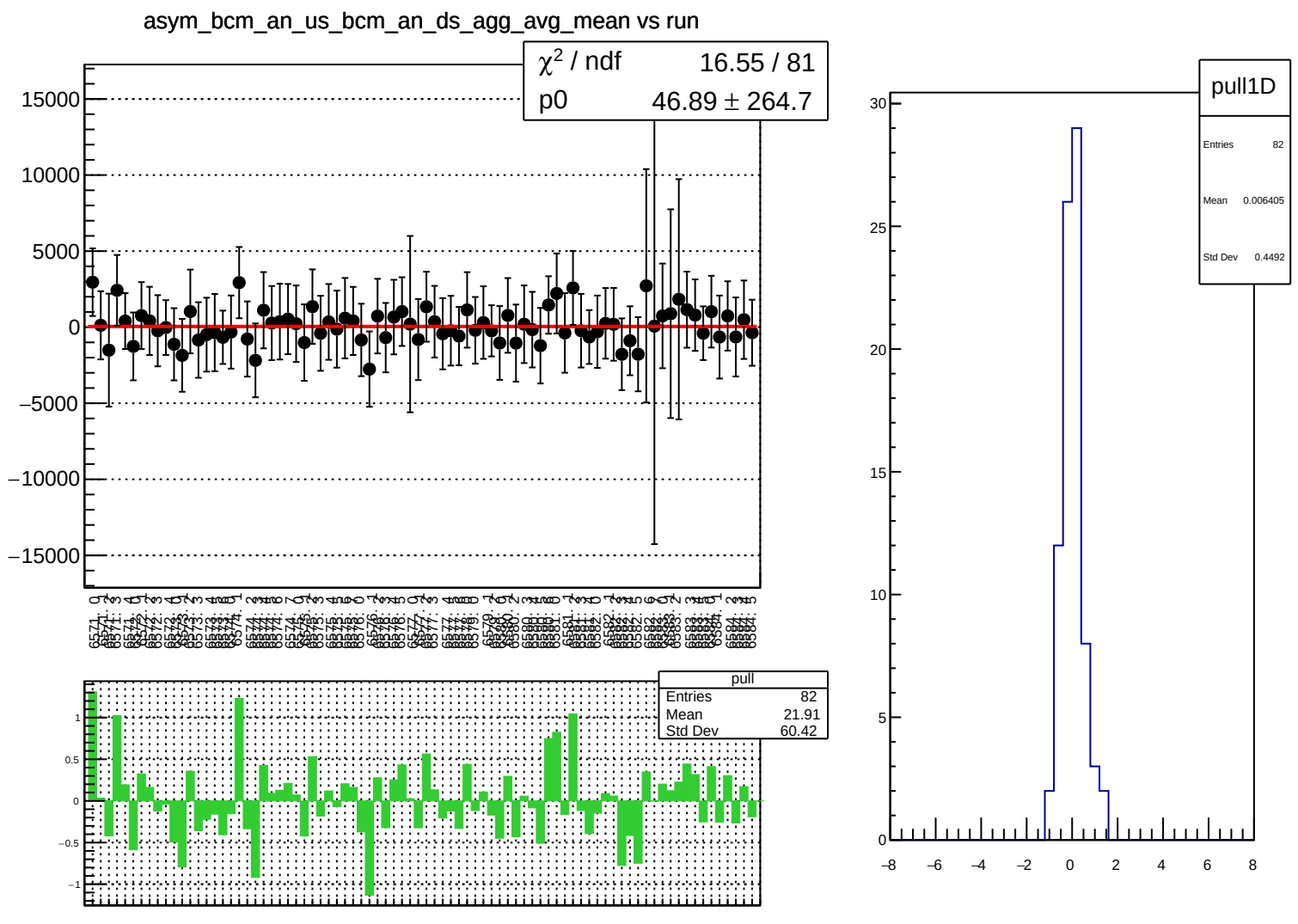

pull1D
Entries 82
Mean 0.0416
Std Dev 0.9787

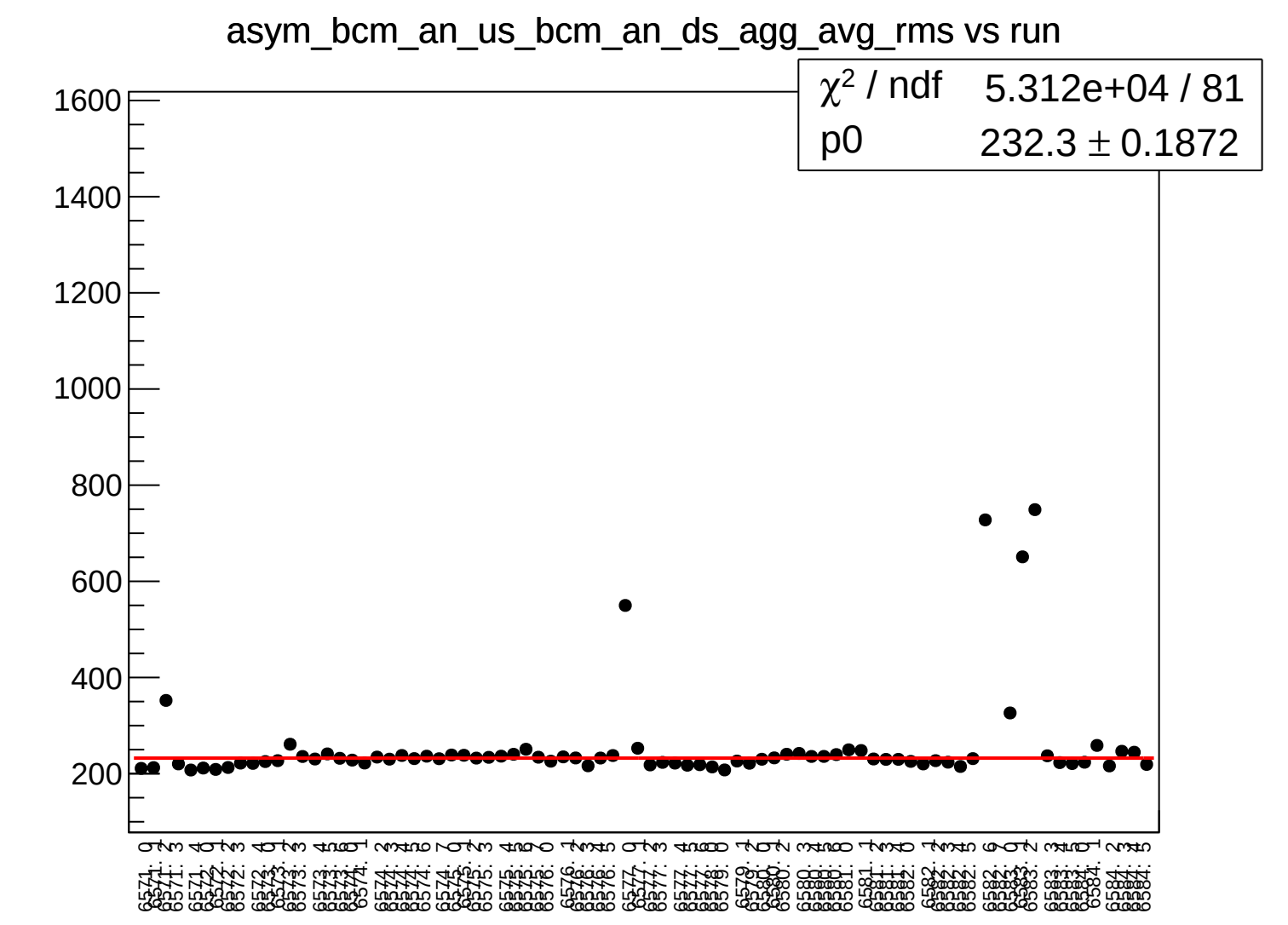

diff_bpm1i06X_rms vs run
χ² / ndf 2.973e+04 / 81
p0 1954 ± 1.563
2800
2600
2400
2200
2000
1800
1600

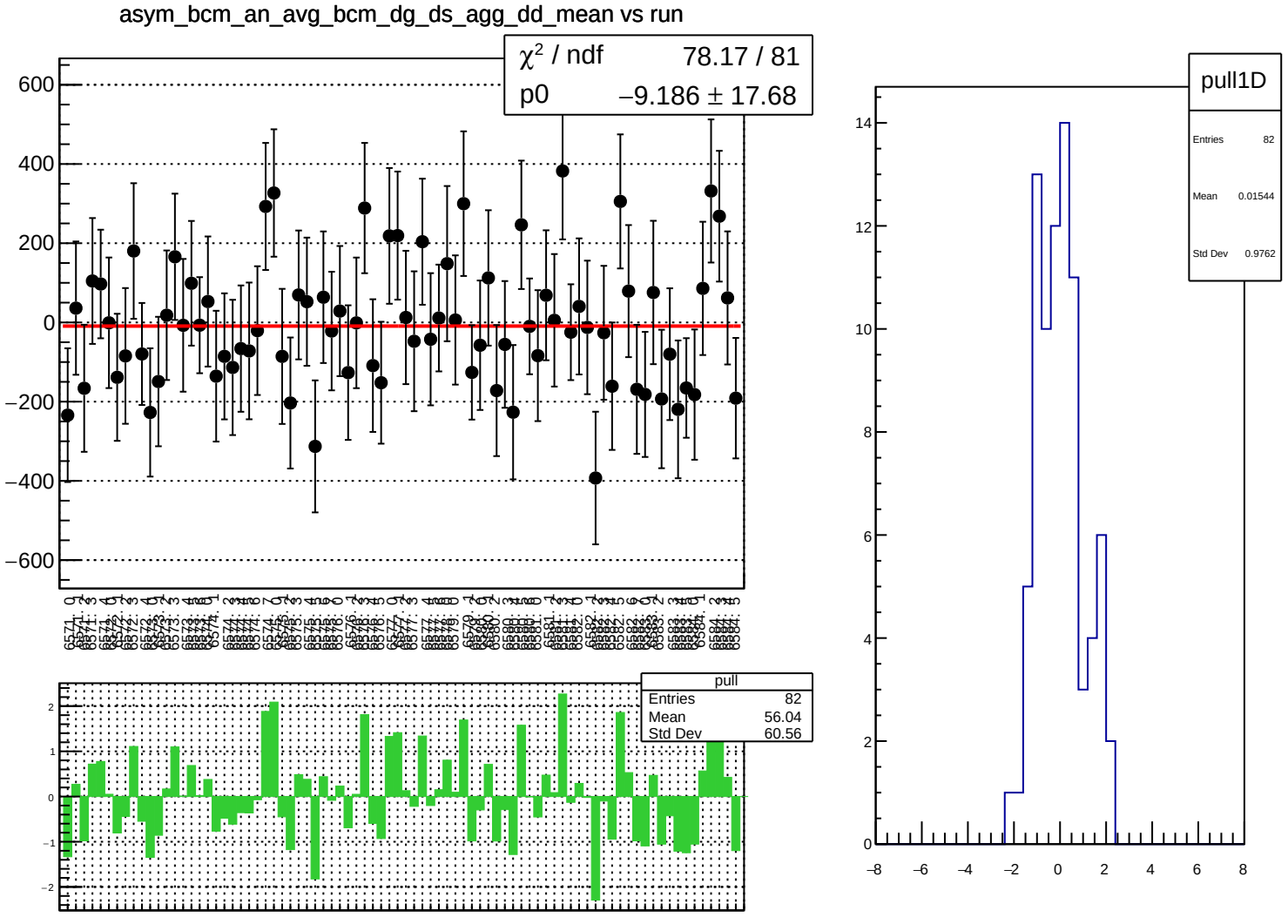

diff_bpm1i06Y_mean vs run
χ² / ndf 63.02 / 81
p0 −11.14 ± 2.656
pull
Entries 82
Mean 16.84
Std Dev 56.73

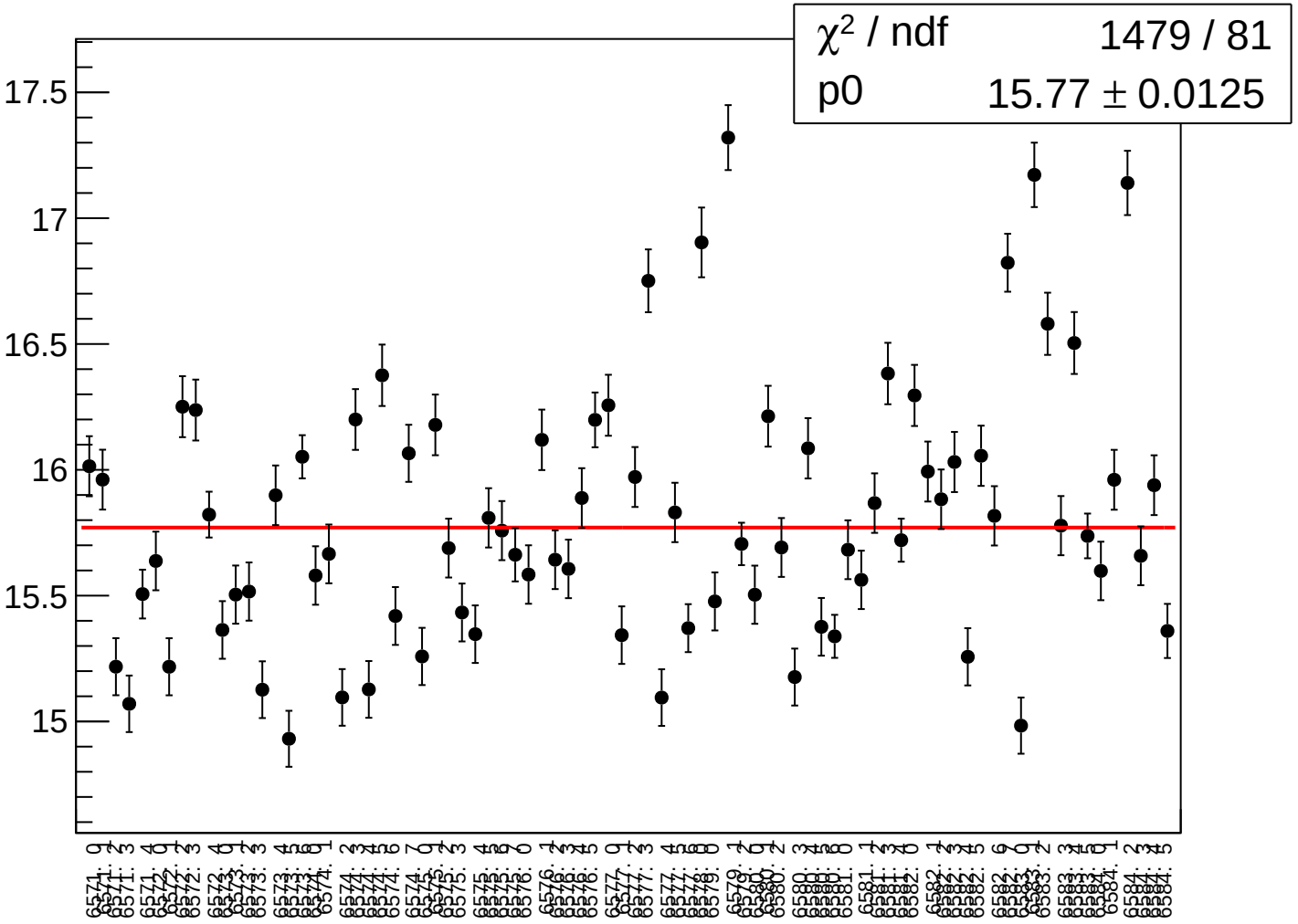

pull1D
Entries 82
Mean 0.0171
Std Dev 0.8765

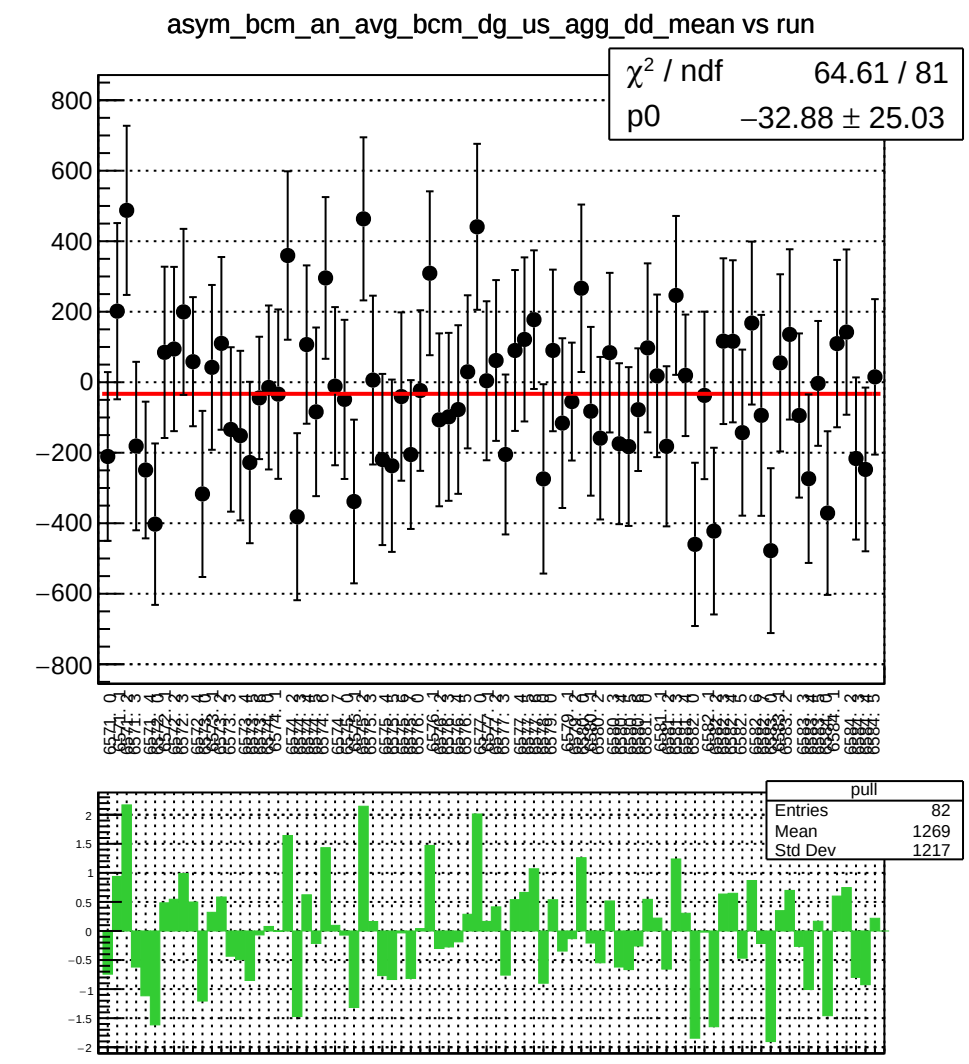

diff_bpm1i06Y_rms vs run
χ² / ndf 1.575e+04 / 81
p0 2359 ± 1.878
3000
2800
2600
2400
2200
2000

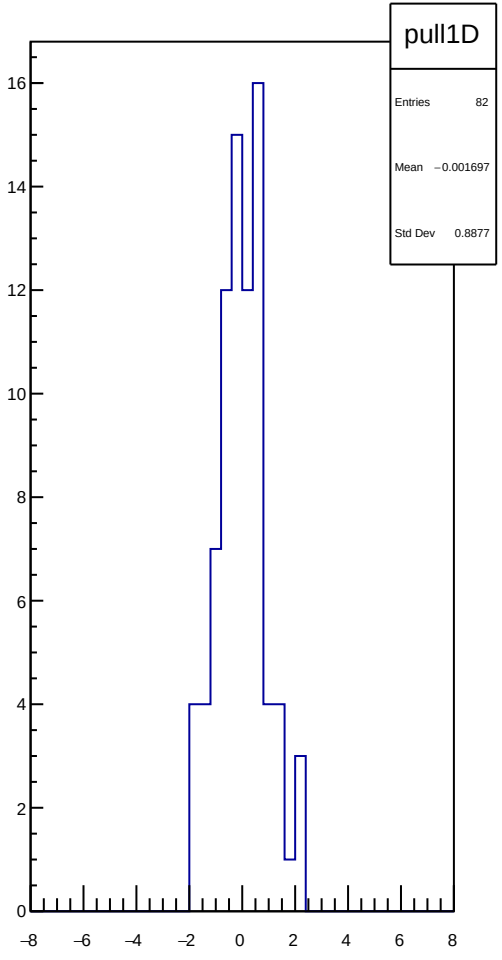

asym_bcm_an_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 16.55 / 81
p0 46.89 ± 264.7
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 21.91
Std Dev 60.42
1
0.5
0
−0.5
−1
pull1D
Entries 82
Mean 0.006405
Std Dev 0.4492
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

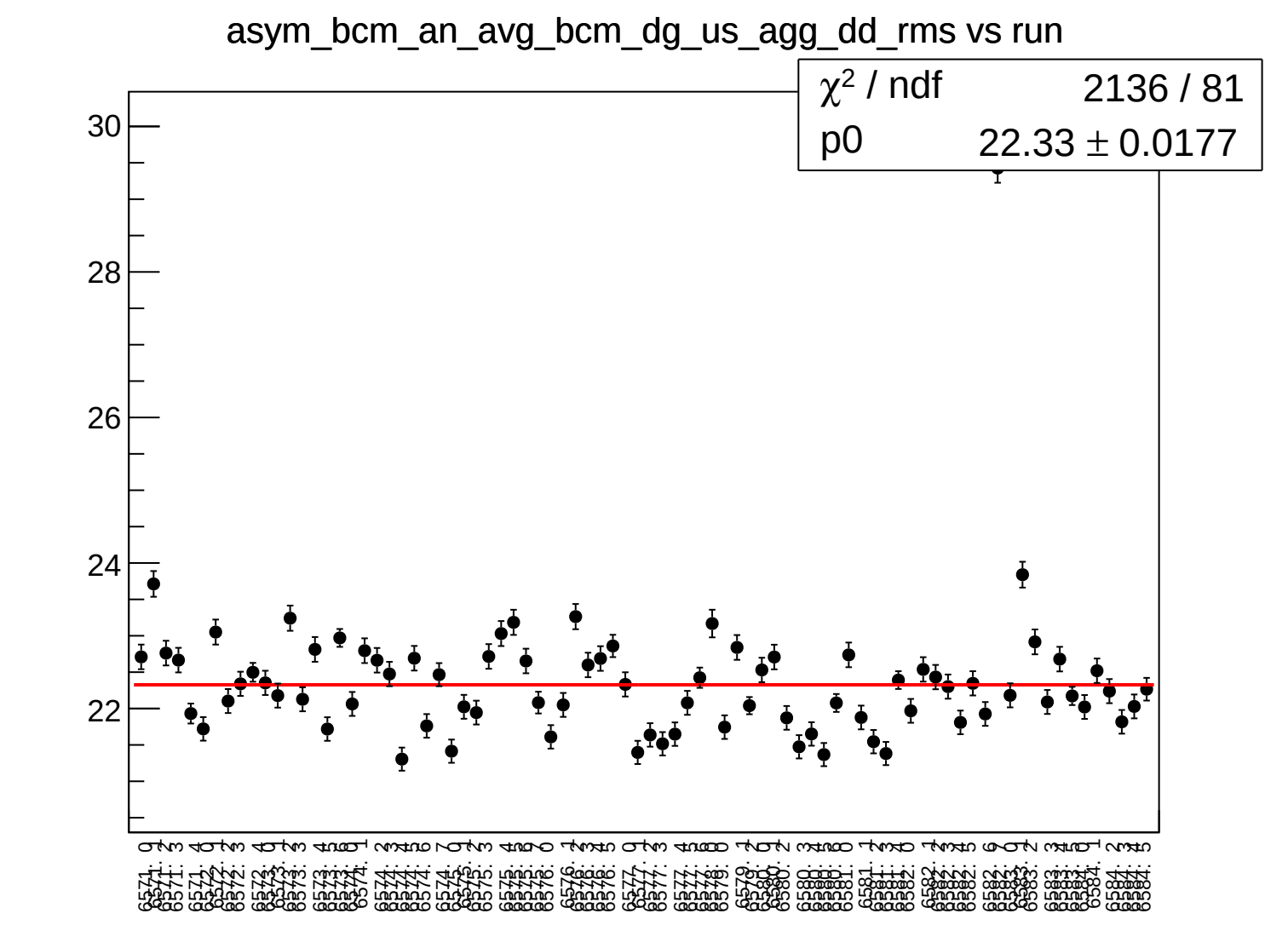

asym_bcm_an_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 5.312e+04 / 81
p0 232.3 ± 0.1872
1600
1400
1200
1000
800
600
400
200

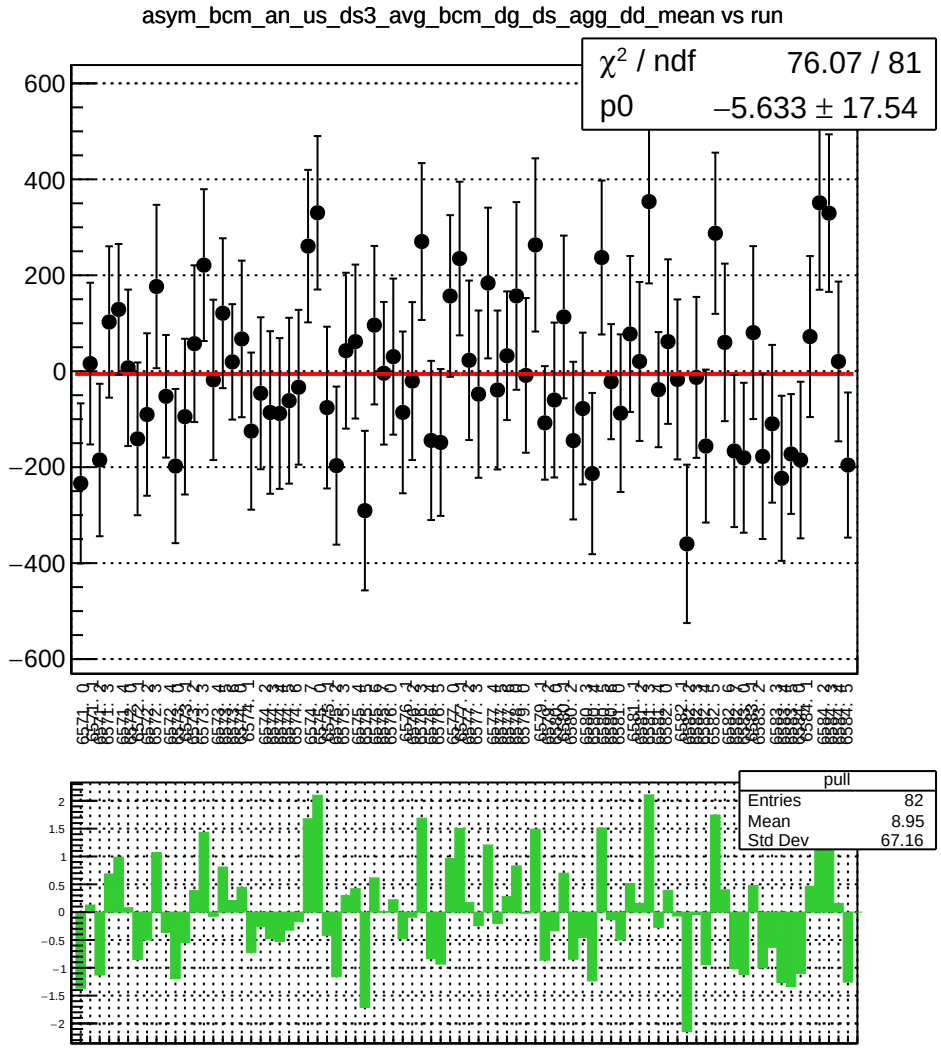

asym_bcm_an_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 78.17 / 81
p0 −9.186 ± 17.68
600
400
200
0
−200
−400
−600
pull
Entries 82
Mean 56.04
Std Dev 60.56
2
1
0
−1
−2
pull1D
Entries 82
Mean 0.01544
Std Dev 0.9762
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

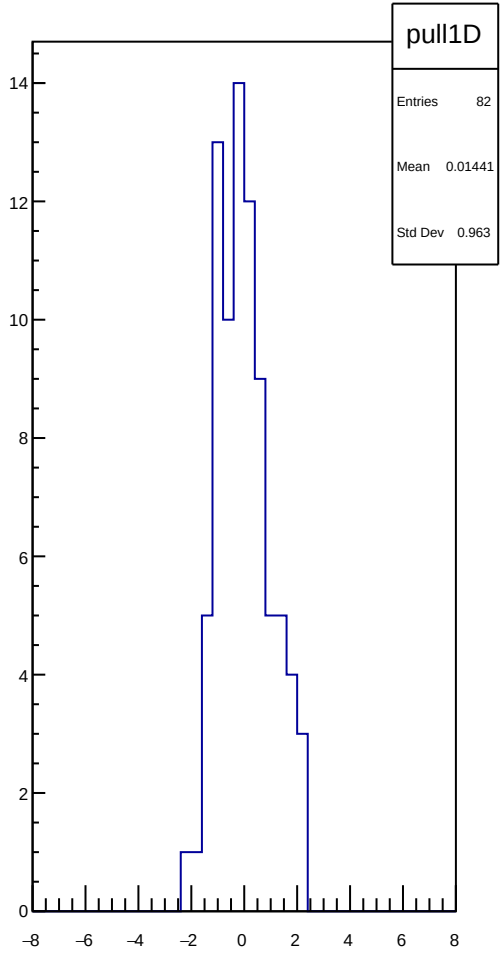

asym_bcm_an_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 1479 / 81
p0 15.77 ± 0.0125
17.5
17
16.5
16
15.5
15

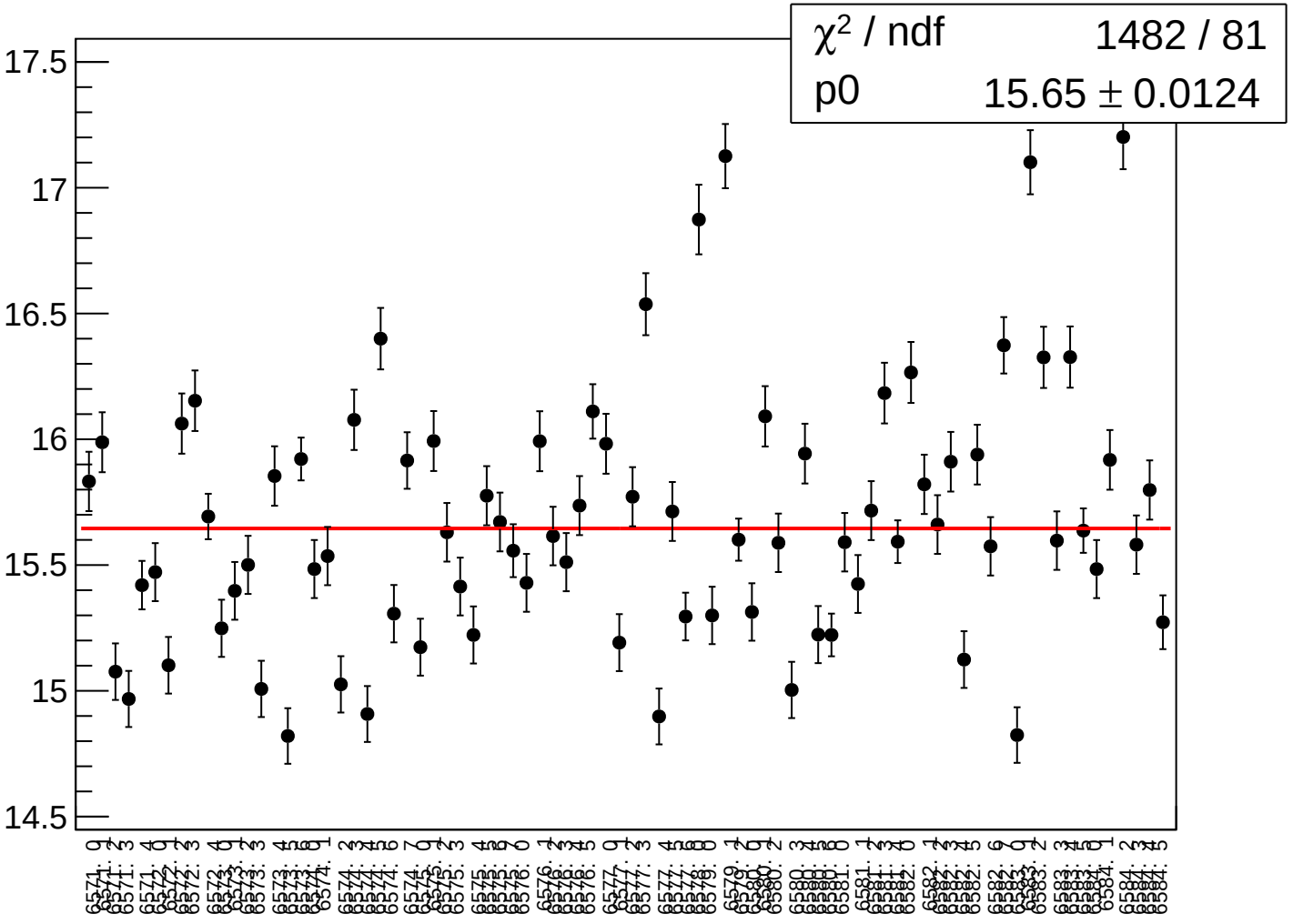

asym_bcm_an_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 64.61 / 81
p0 −32.88 ± 25.03
pull
Entries 82
Mean 1269
Std Dev 1217

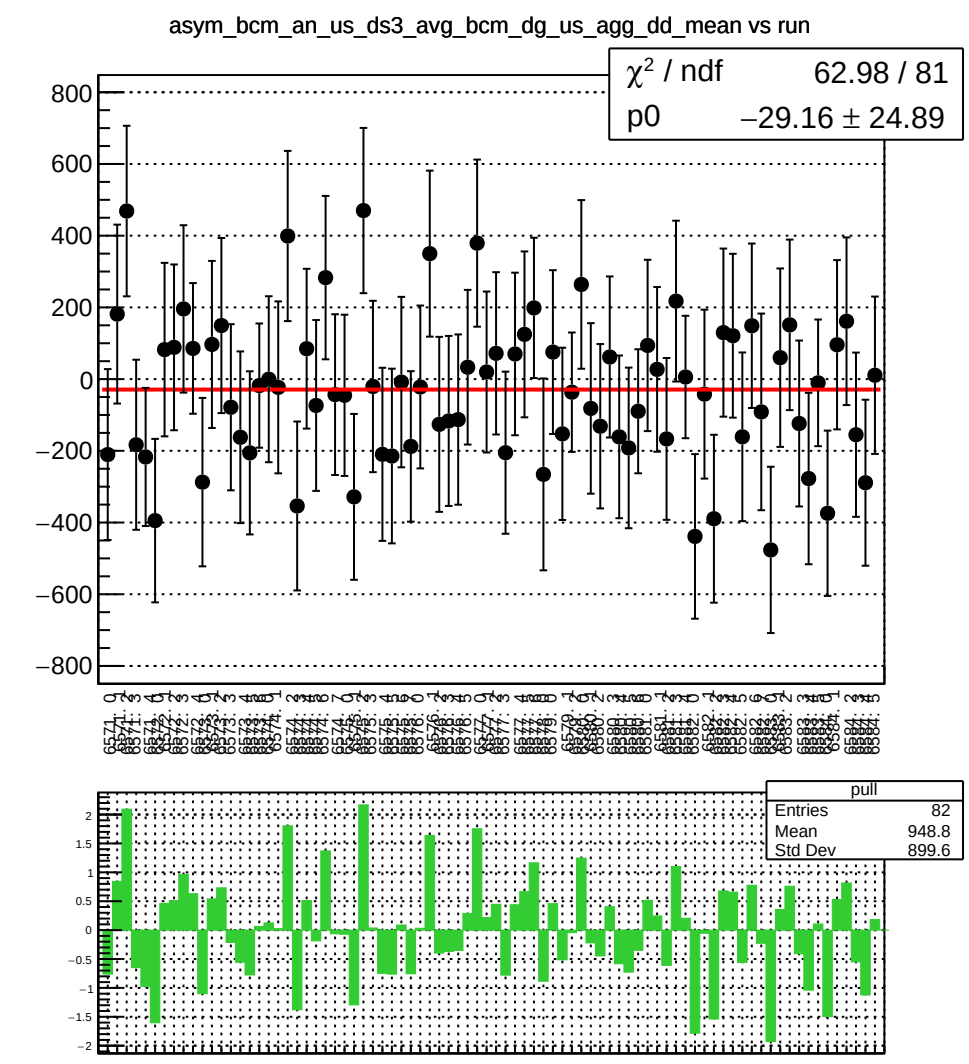

pull1D
Entries 82
Mean −0.001697
Std Dev 0.8877

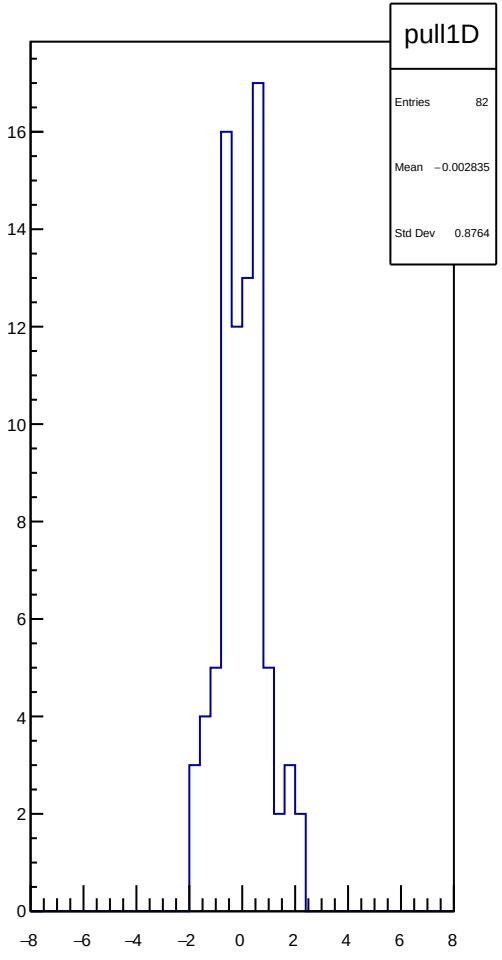

asym_bcm_an_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 2136 / 81
p0 22.33 ± 0.0177
30
28
26
24
22

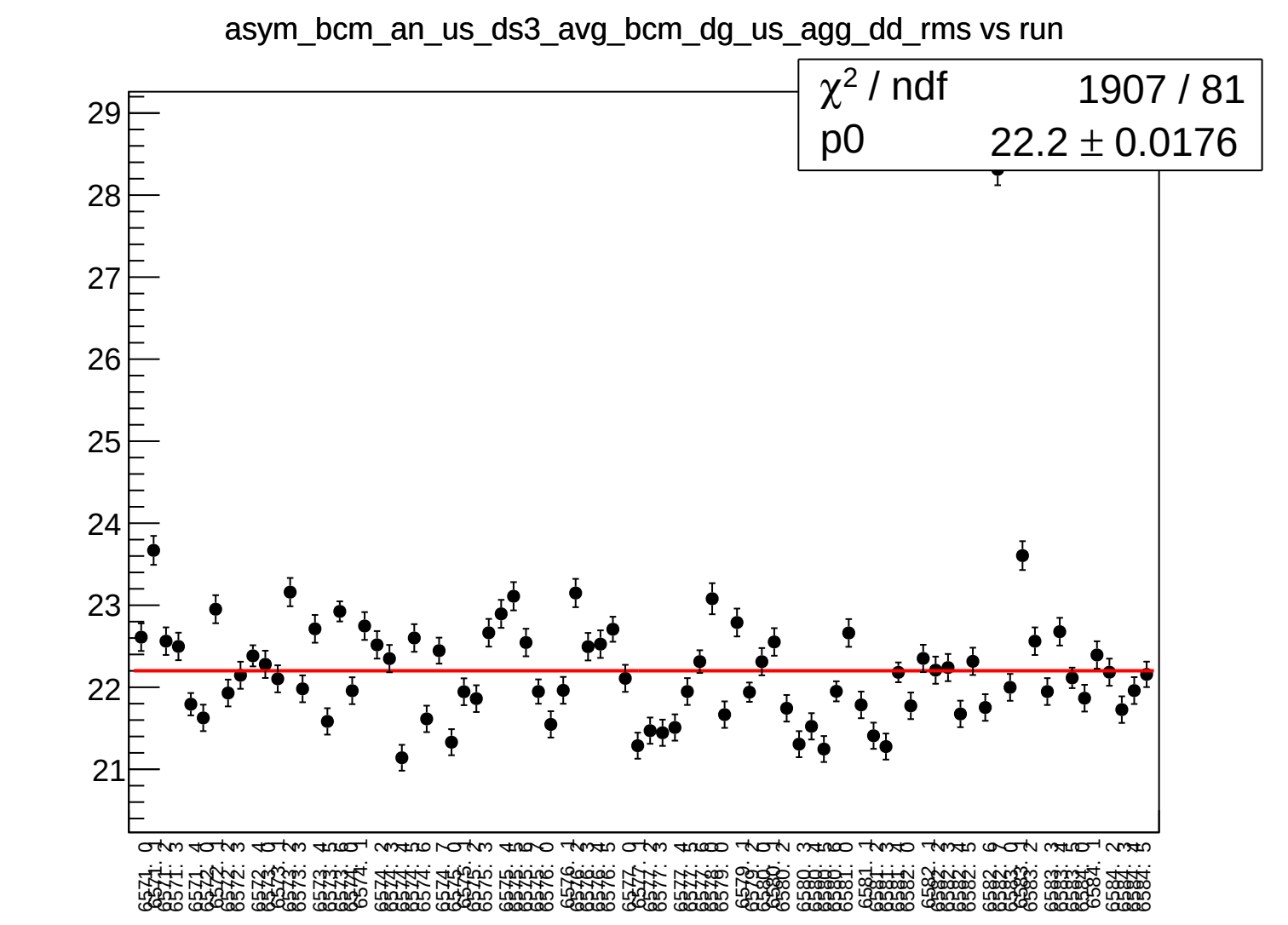

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 76.07 / 81
p0 −5.633 ± 17.54
600
400
200
0
−200
−400
−600
pull
Entries 82
Mean 8.95
Std Dev 67.16
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

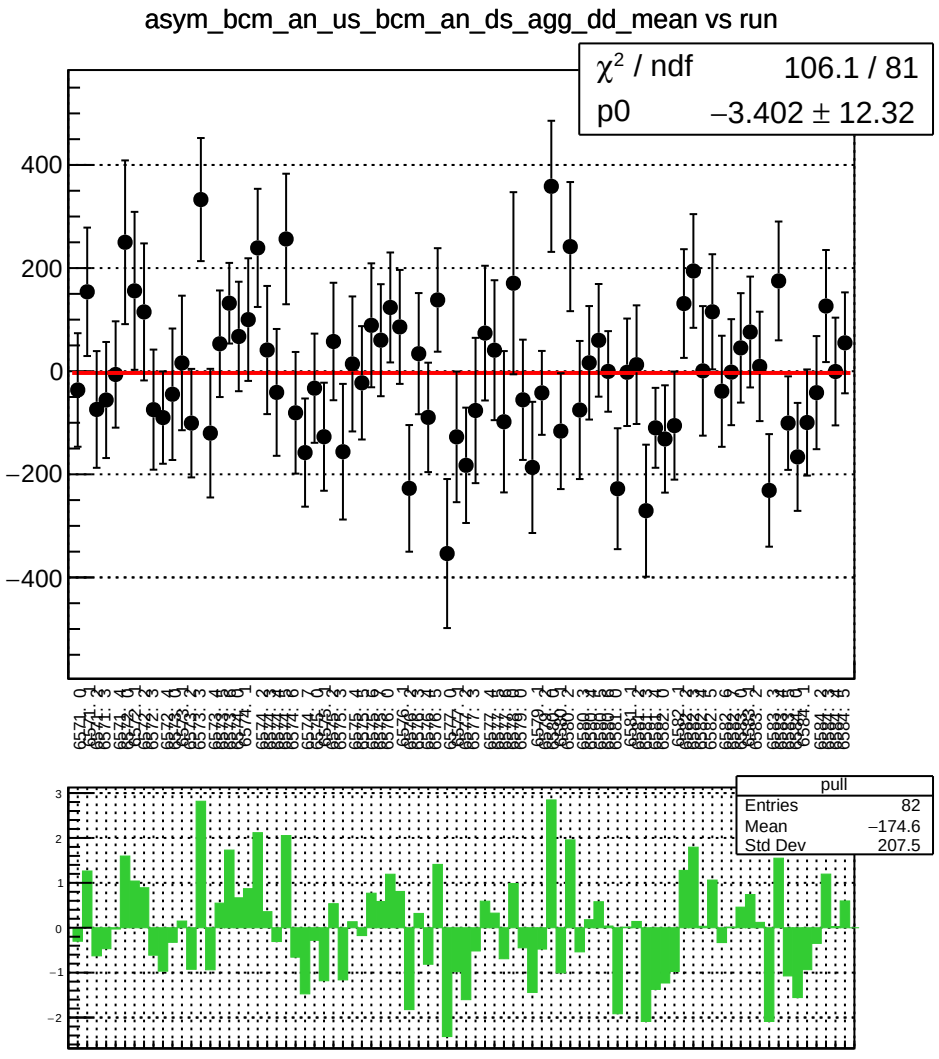

pull1D
Entries 82
Mean 0.01441
Std Dev 0.963
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

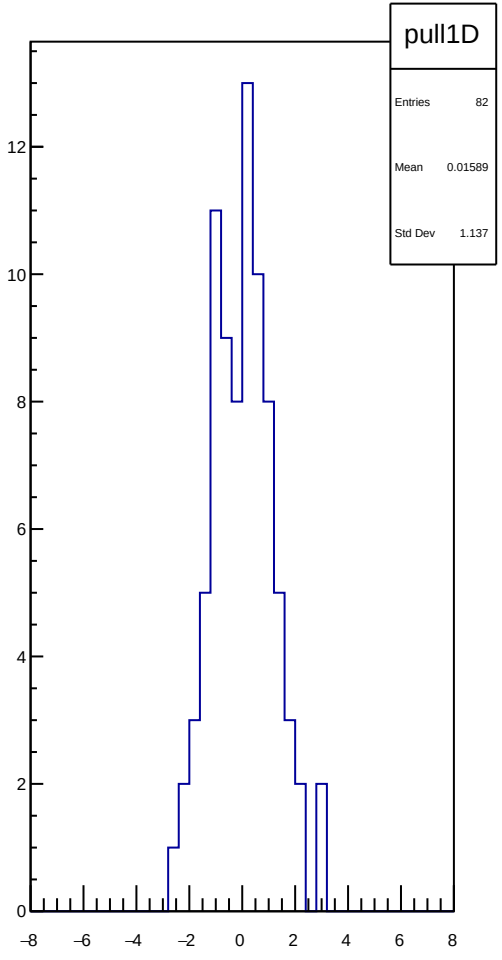

asym_bcm_an_us_ds3_avg_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 1482 / 81
p0 15.65 ± 0.0124
17.5
17
16.5
16
15.5
15
14.5

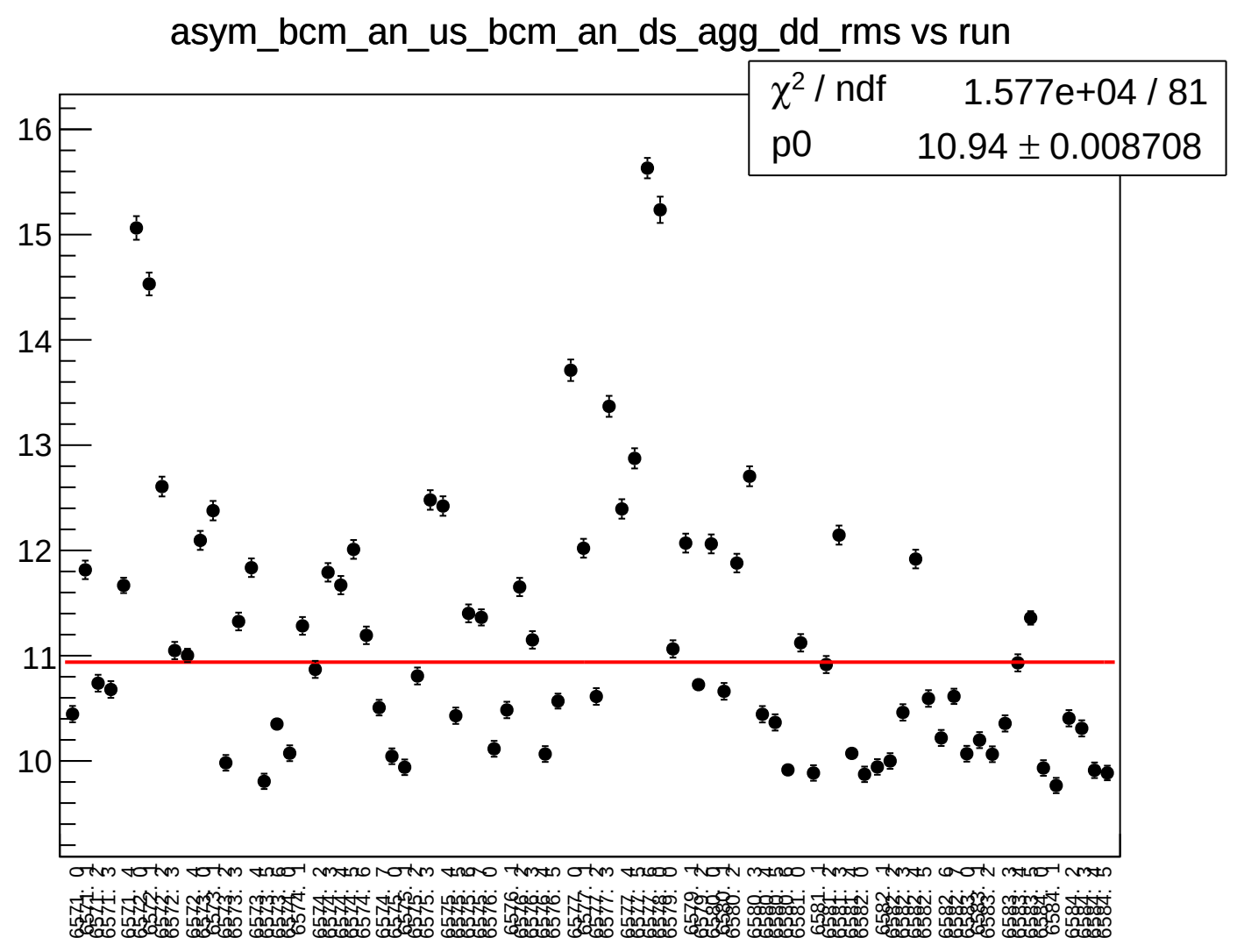

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 62.98 / 81
p0 −29.16 ± 24.89
pull
Entries 82
Mean 948.8
Std Dev 899.6

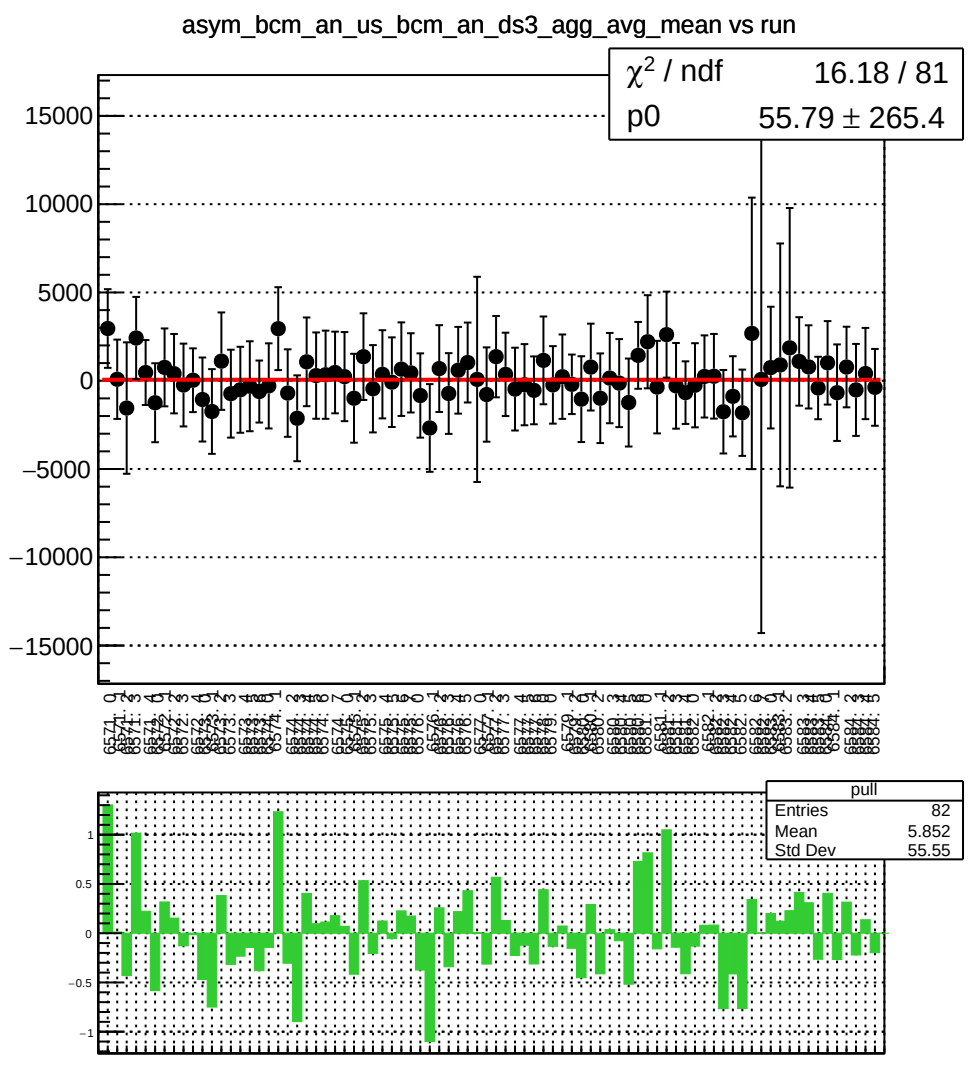

pull1D
Entries 82
Mean −0.002835
Std Dev 0.8764

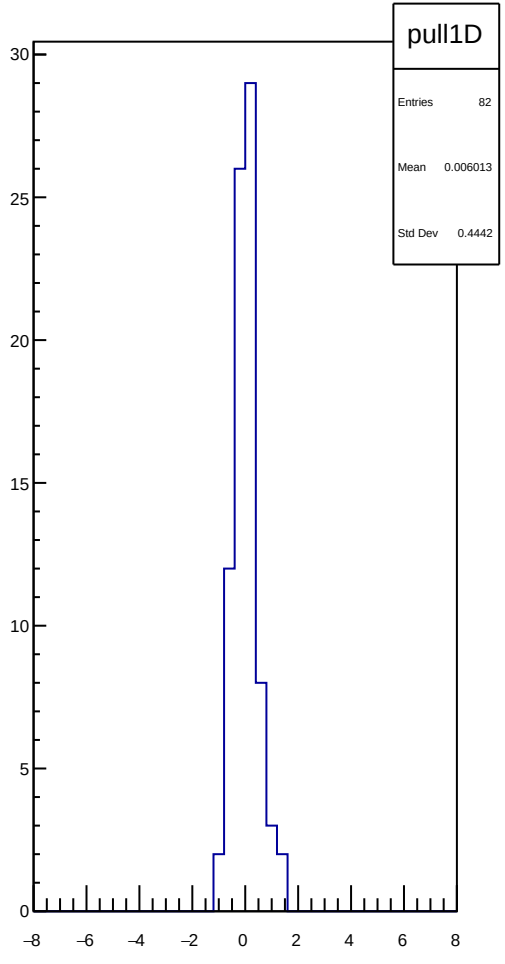

asym_bcm_an_us_ds3_avg_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 1907 / 81
p0 22.2 ± 0.0176
29
28
27
26
25
24
23
22
21

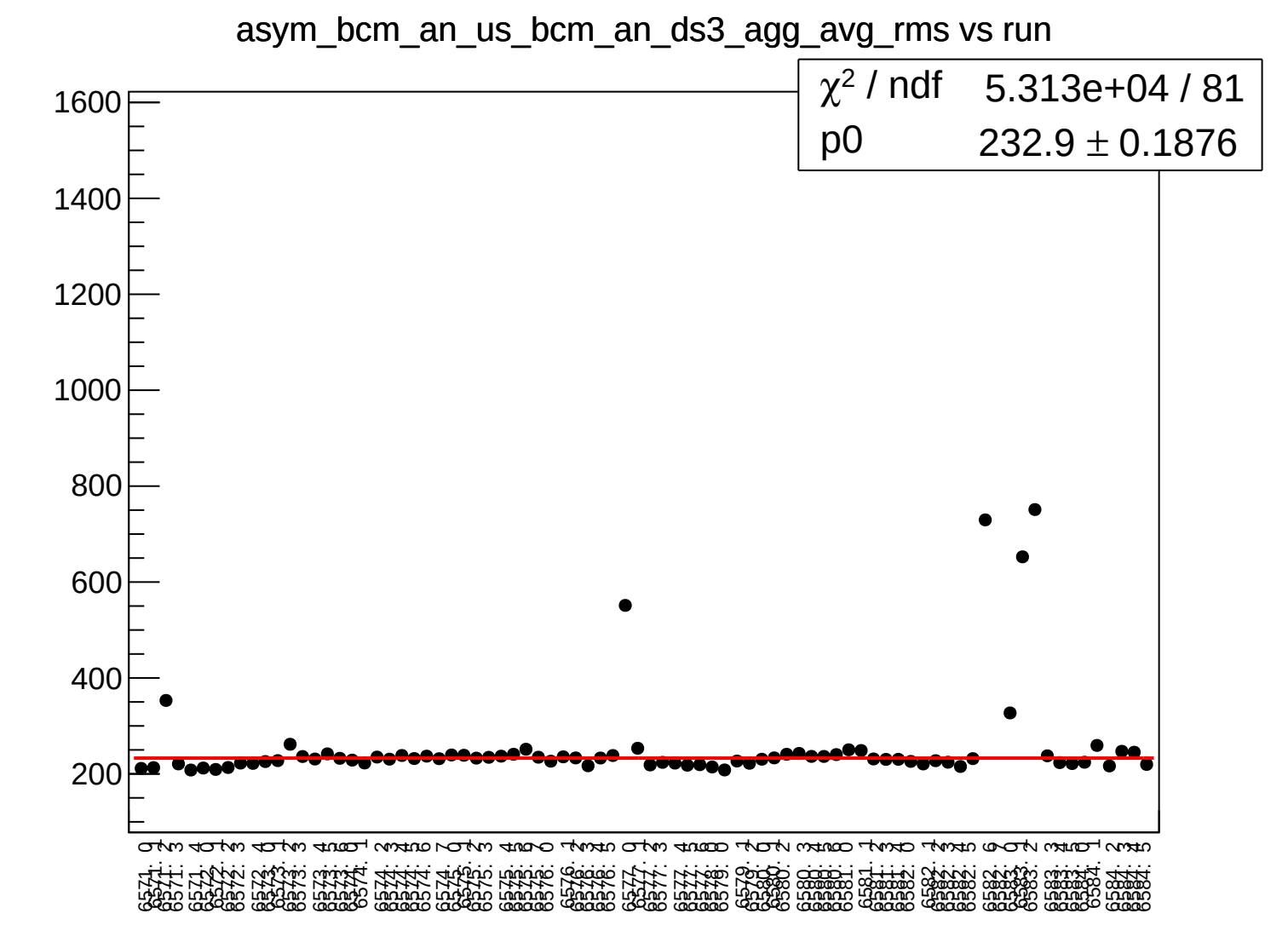

asym_bcm_an_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 106.1 / 81
p0 −3.402 ± 12.32
400
200
0
−200
−400
pull
Entries 82
Mean −174.6
Std Dev 207.5
3
2
1
0
−1
−2

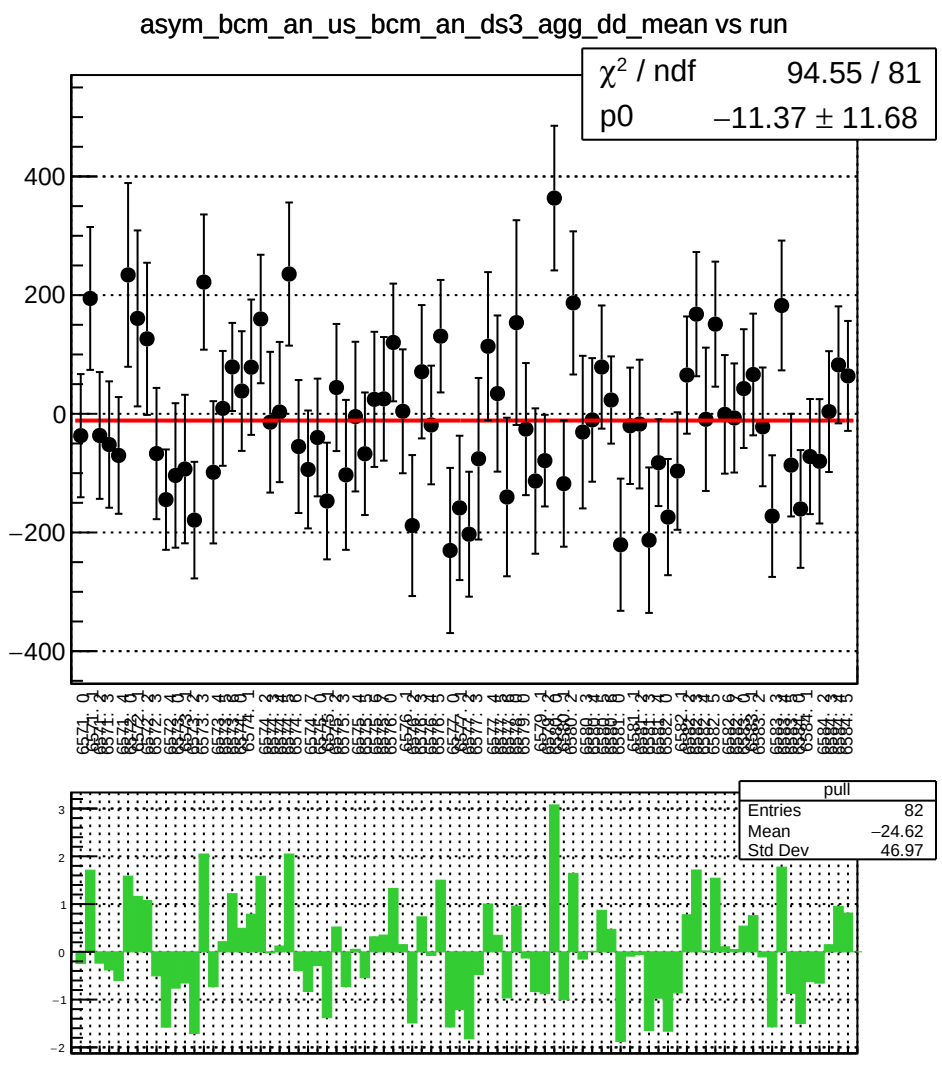

pull1D
Entries 82
Mean 0.01589
Std Dev 1.137
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

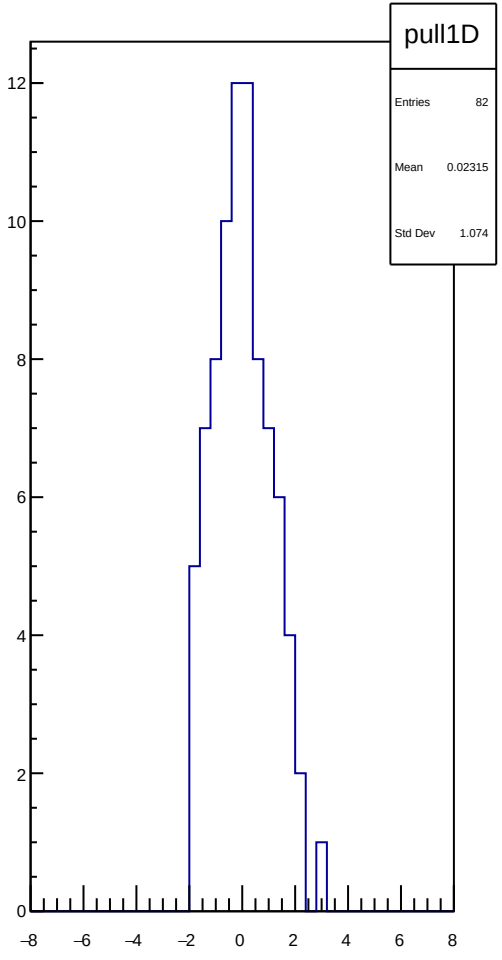

asym_bcm_an_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 1.577e+04 / 81
p0 10.94 ± 0.008708
16
15
14
13
12
11
10

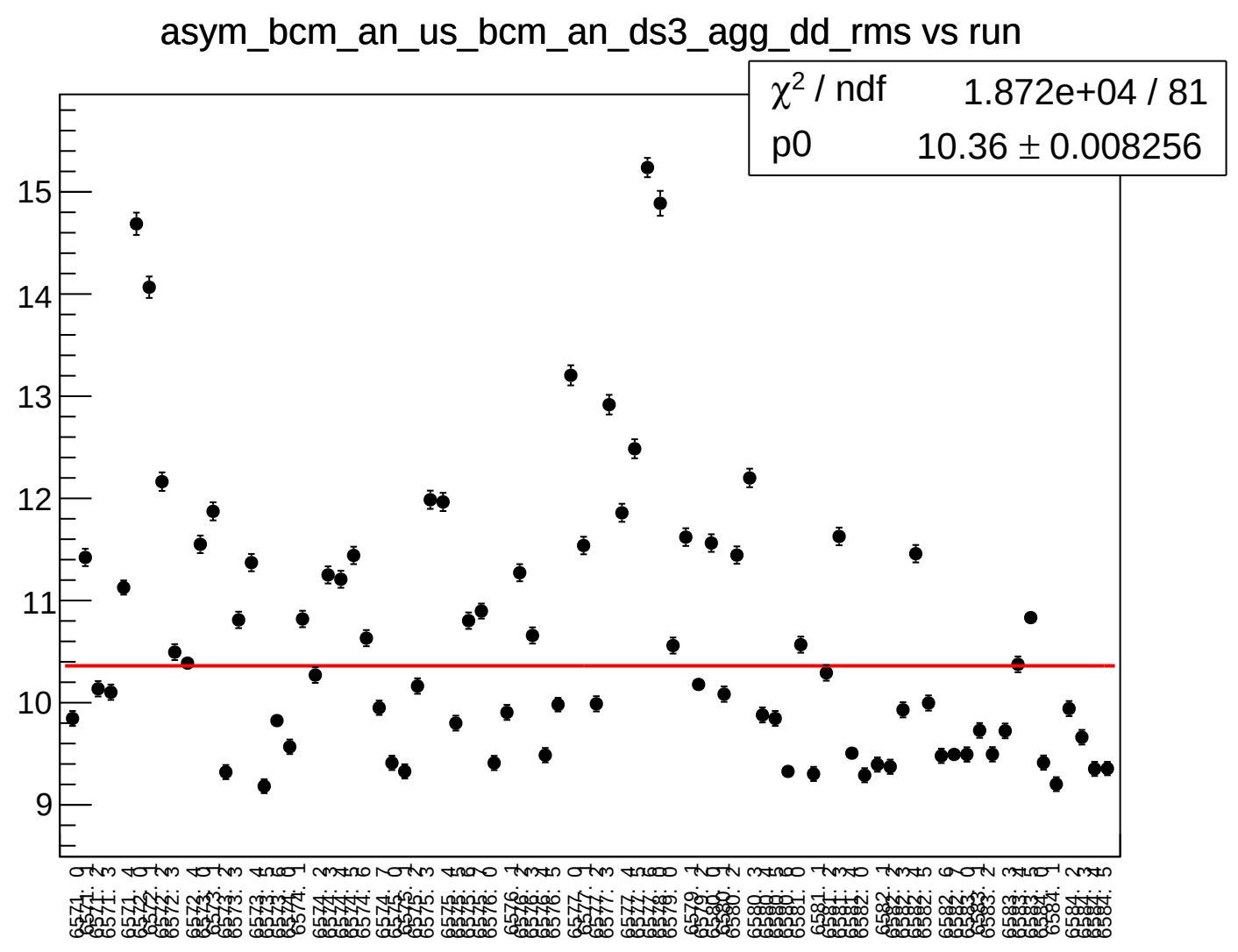

asym_bcm_an_us_bcm_an_ds3_agg_avg_mean vs run
χ² / ndf 16.18 / 81
p0 55.79 ± 265.4
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 5.852
Std Dev 55.55
1
0.5
0
−0.5
−1

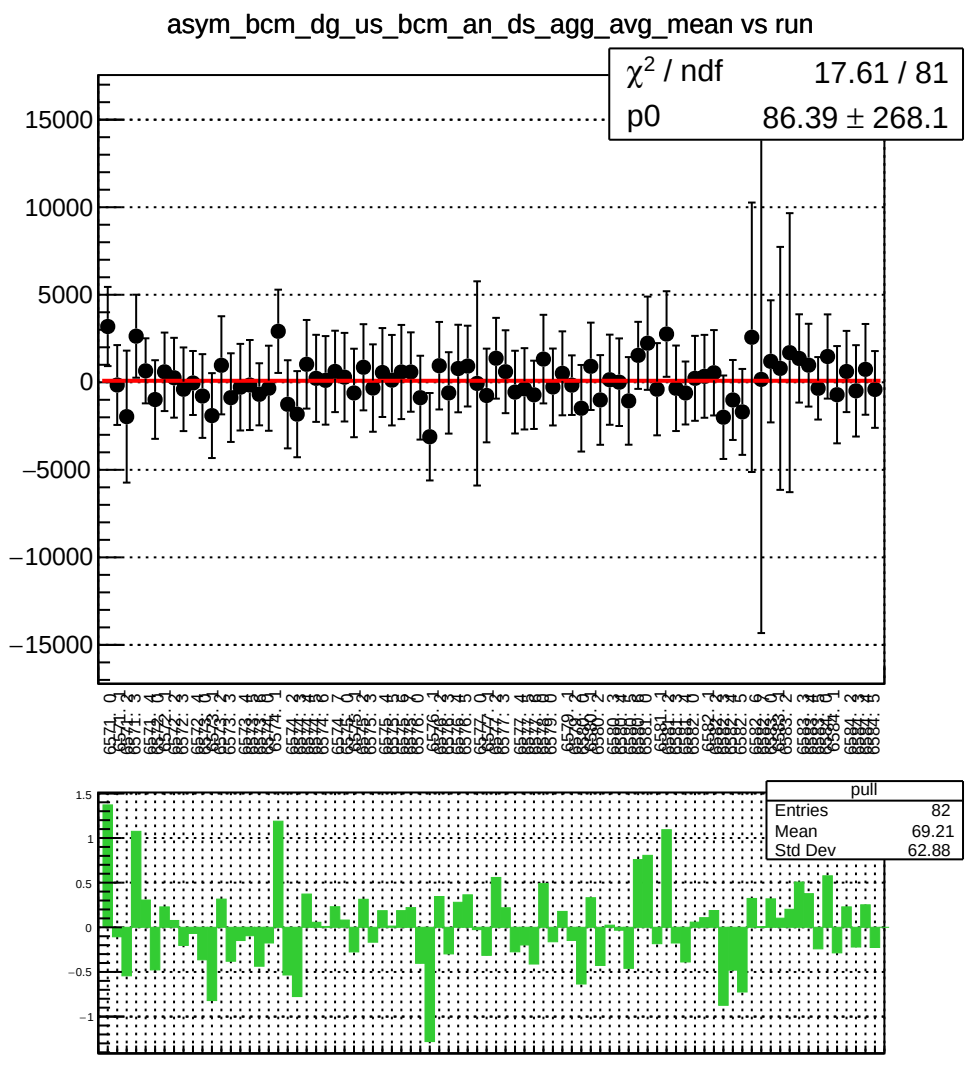

pull1D
Entries 82
Mean 0.006013
Std Dev 0.4442
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

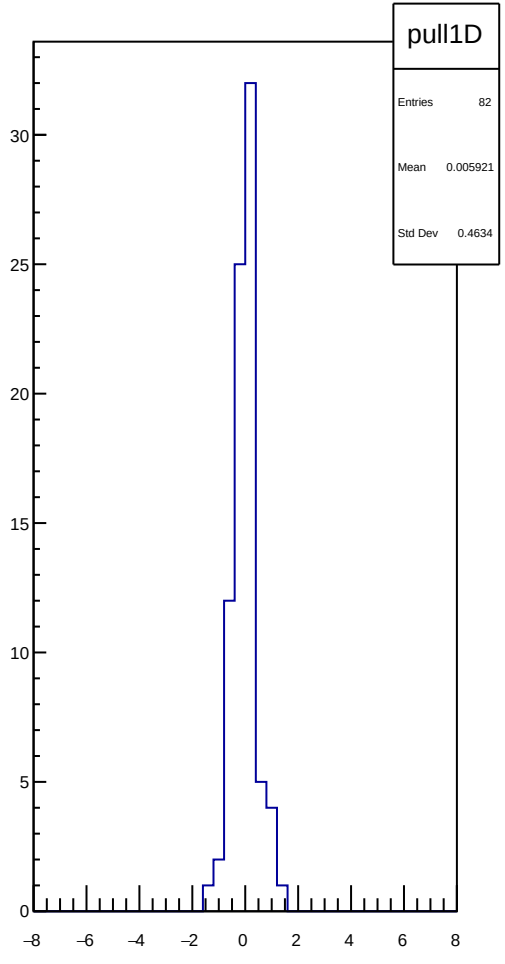

asym_bcm_an_us_bcm_an_ds3_agg_avg_rms vs run
χ² / ndf 5.313e+04 / 81
p0 232.9 ± 0.1876
1600
1400
1200
1000
800
600
400
200

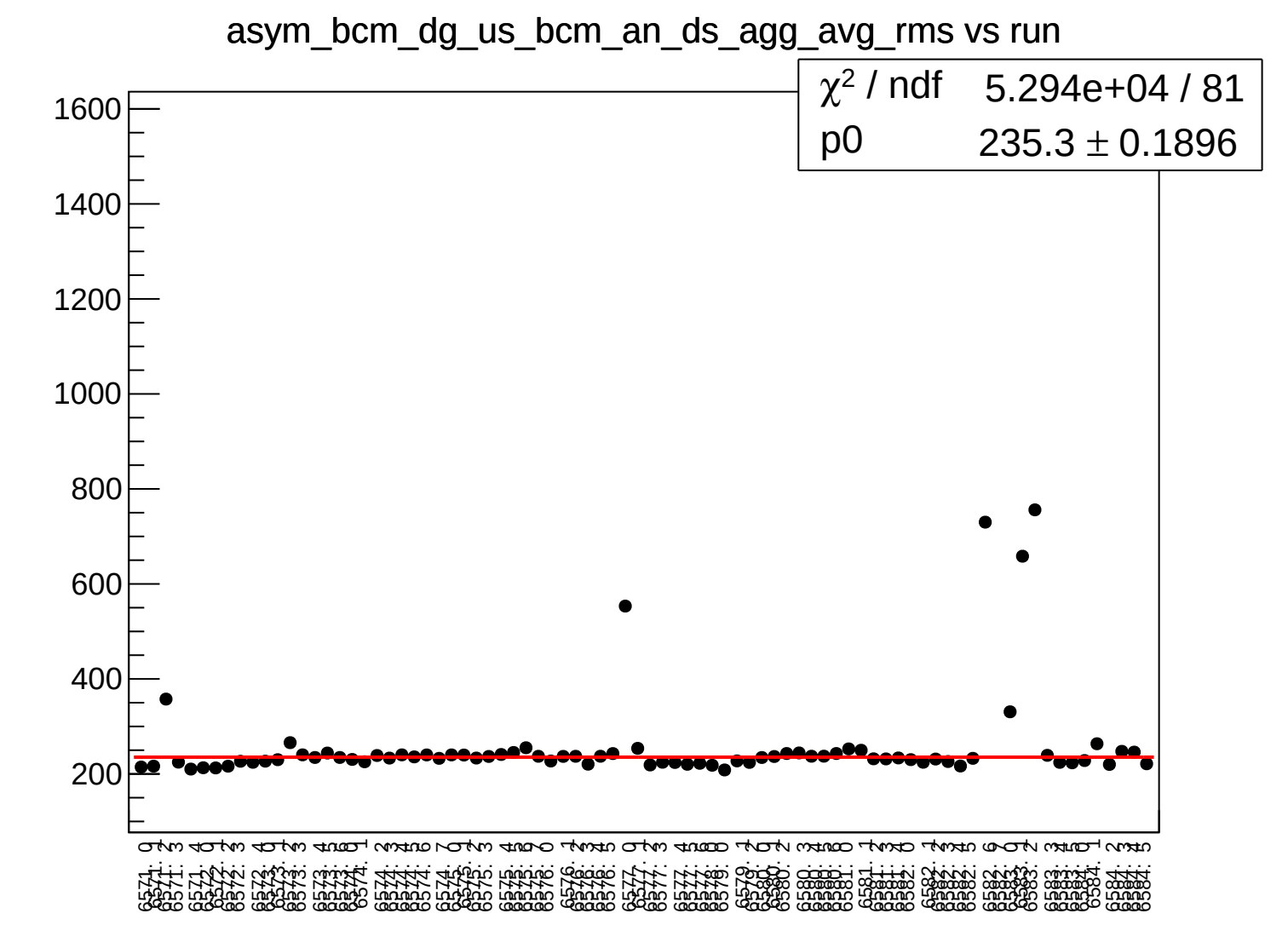

asym_bcm_an_us_bcm_an_ds3_agg_dd_mean vs run
χ² / ndf 94.55 / 81
p0 −11.37 ± 11.68
400
200
0
−200
−400
pull
Entries 82
Mean −24.62
Std Dev 46.97
3
2
1
0
−1
−2

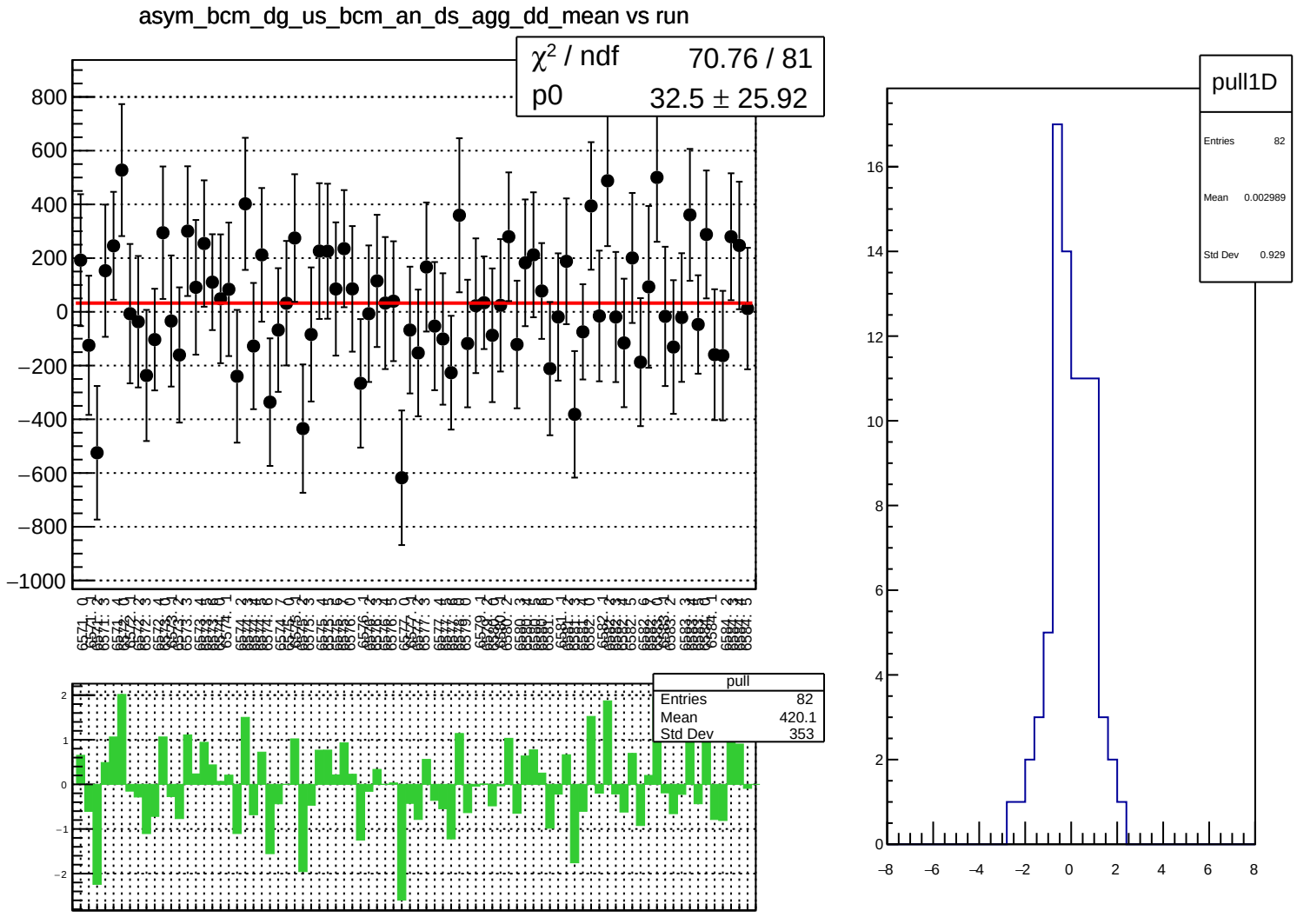

pull1D
Entries 82
Mean 0.02315
Std Dev 1.074
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

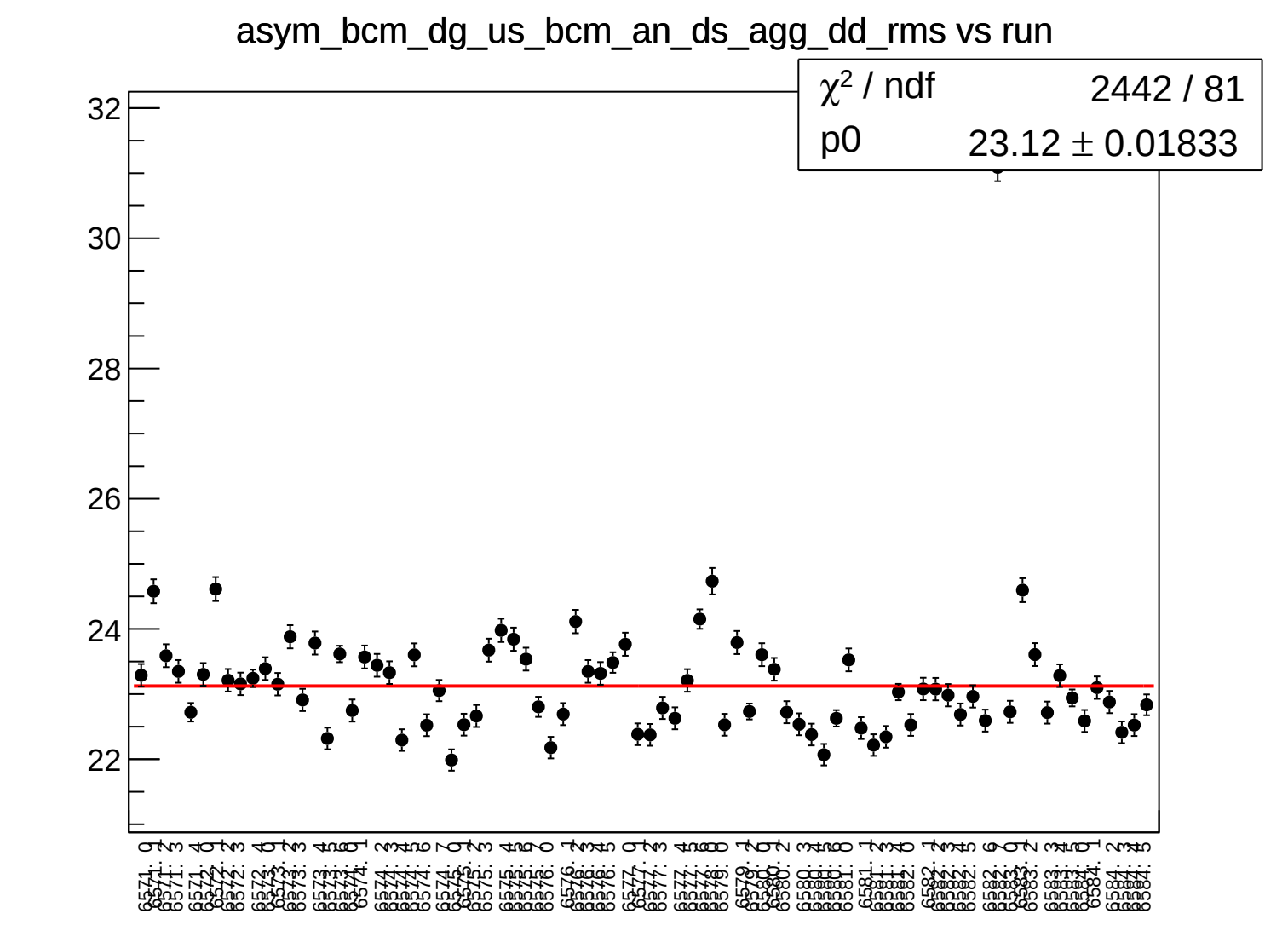

asym_bcm_an_us_bcm_an_ds3_agg_dd_rms vs run
χ² / ndf 1.872e+04 / 81
p0 10.36 ± 0.008256
15
14
13
12
11
10
9

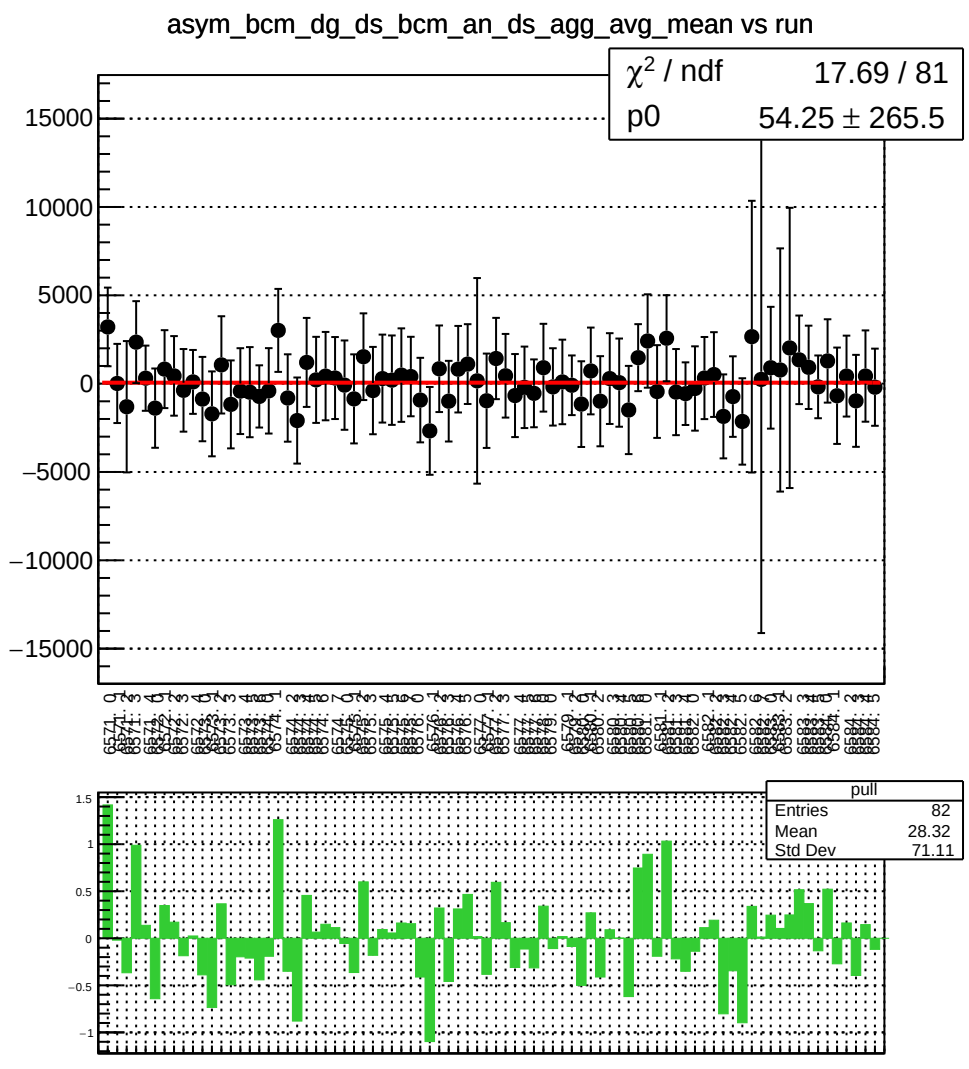

asym_bcm_dg_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 17.61 / 81
p0 86.39 ± 268.1
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 69.21
Std Dev 62.88
1.5
1
0.5
0
−0.5
−1

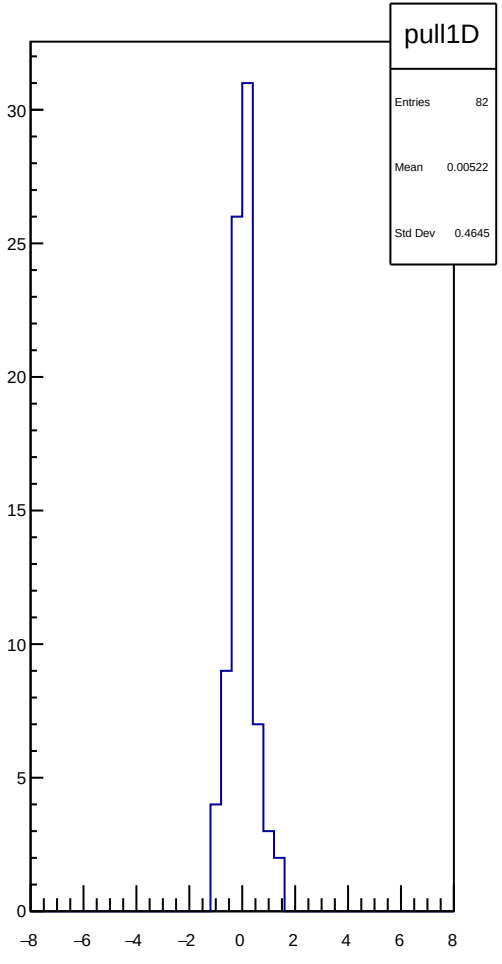

pull1D
Entries 82
Mean 0.005921
Std Dev 0.4634
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

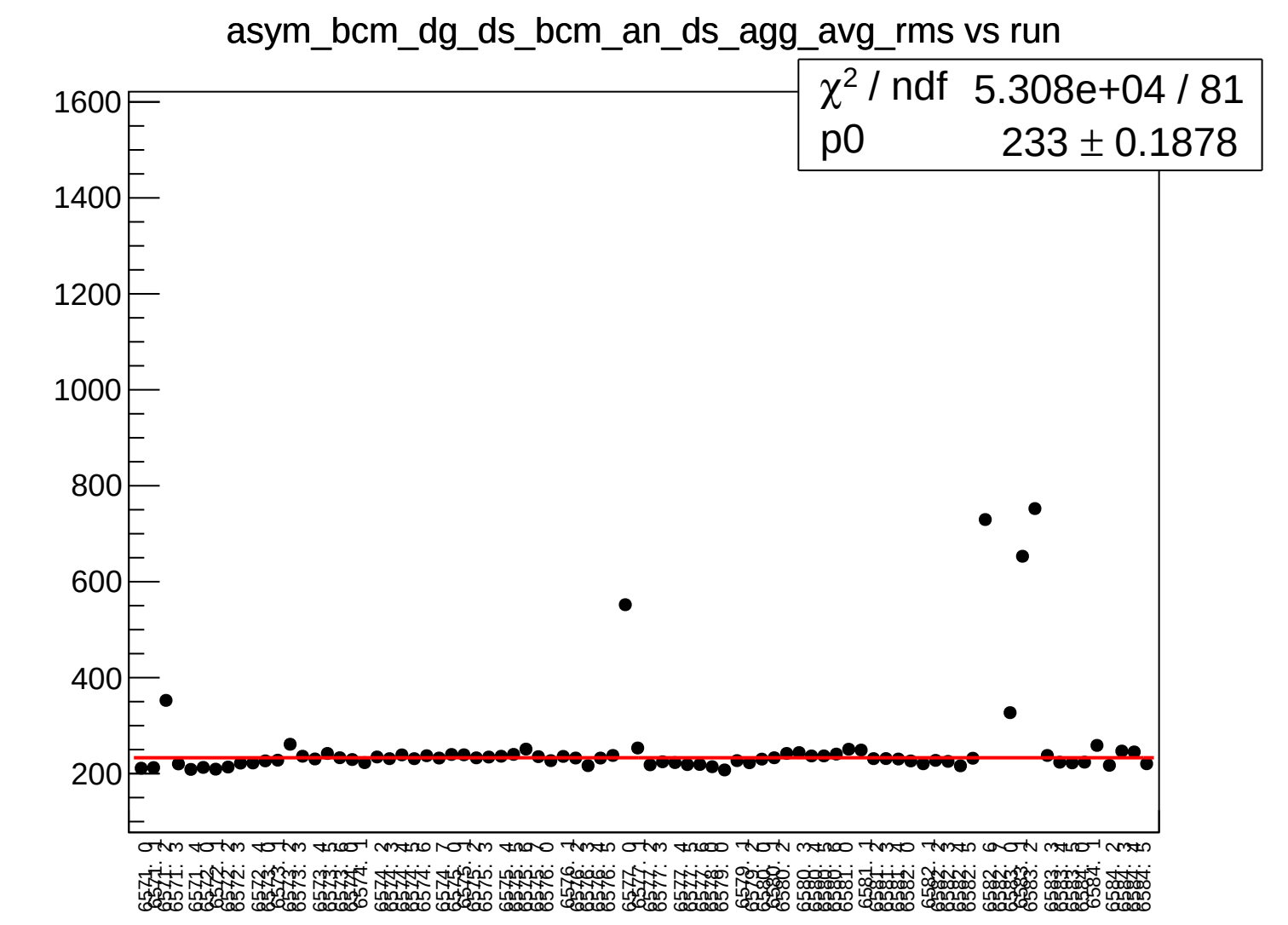

asym_bcm_dg_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 5.294e+04 / 81
p0 235.3 ± 0.1896
1600
1400
1200
1000
800
600
400
200

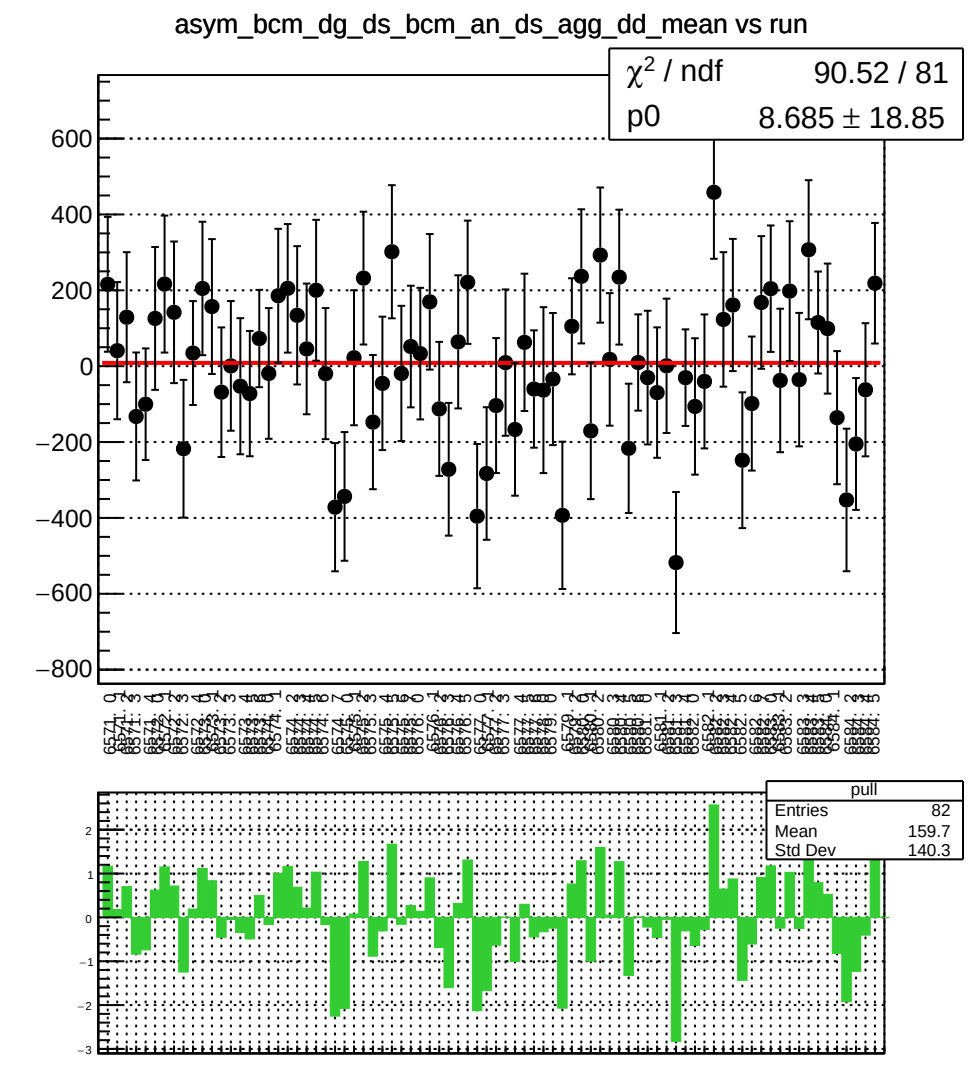

asym_bcm_dg_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 70.76 / 81
p0 32.5 ± 25.92
pull
Entries 82
Mean 420.1
Std Dev 353
pull1D
Entries 82
Mean 0.002989
Std Dev 0.929

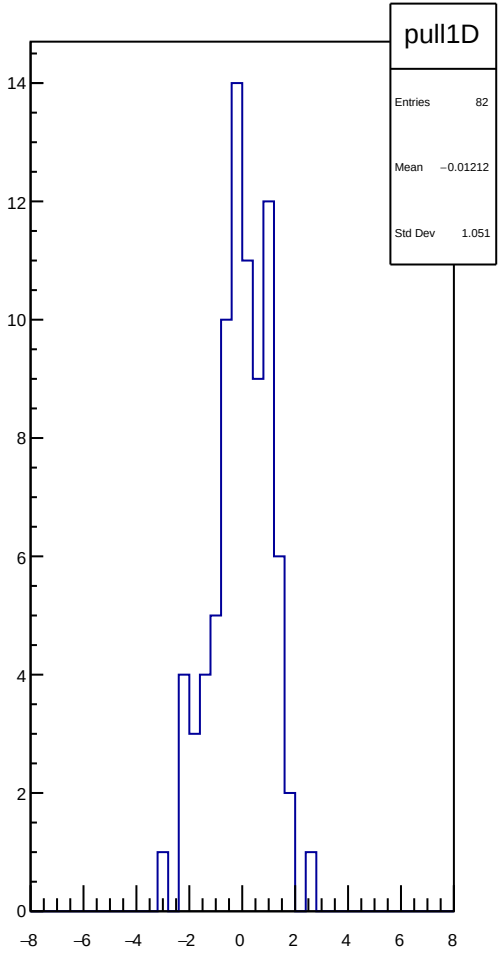

asym_bcm_dg_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 2442 / 81
p0 23.12 ± 0.01833
32
30
28
26
24
22

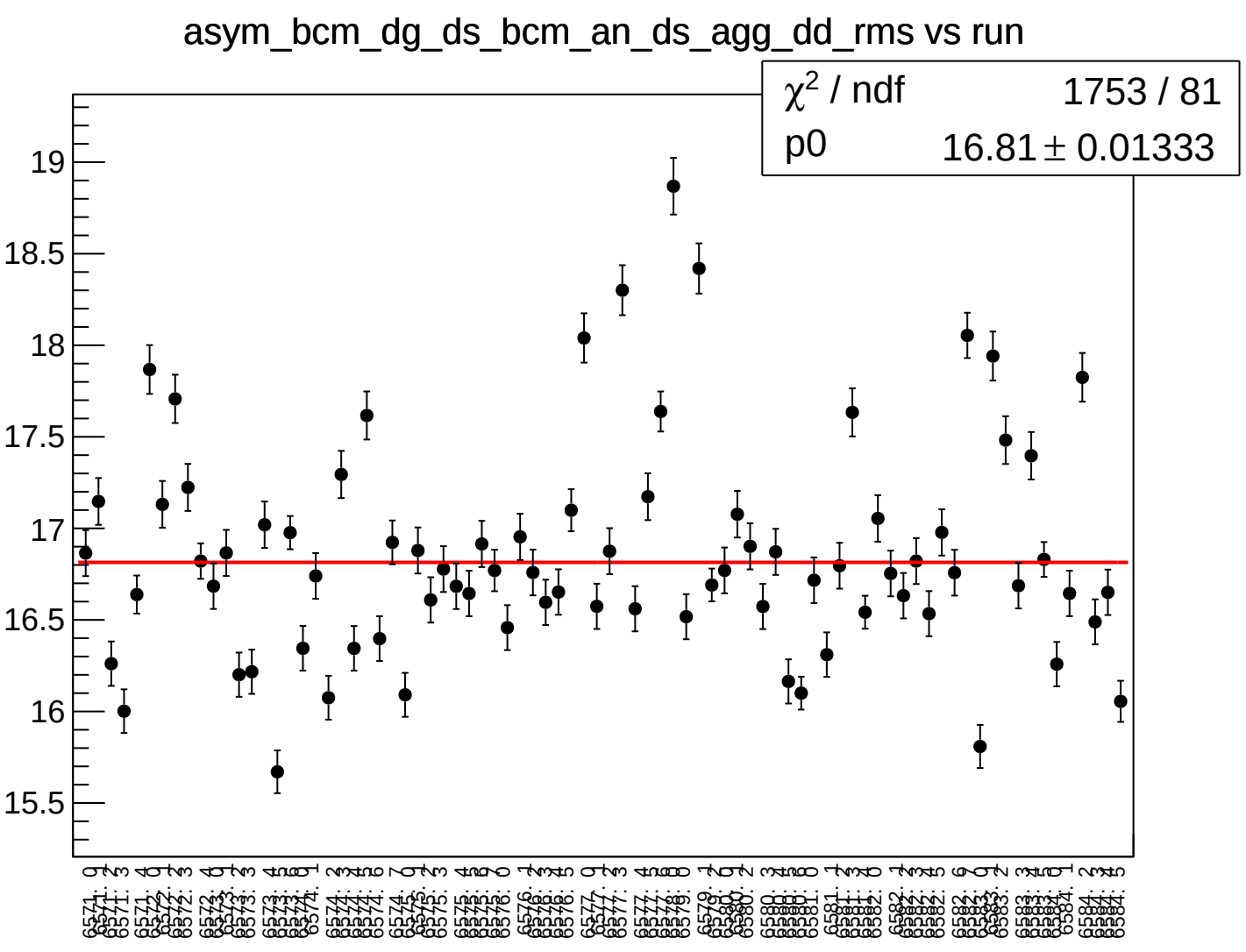

asym_bcm_dg_ds_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 17.69 / 81
p0 54.25 ± 265.5
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 28.32
Std Dev 71.11
1.5
1
0.5
0
−0.5
−1

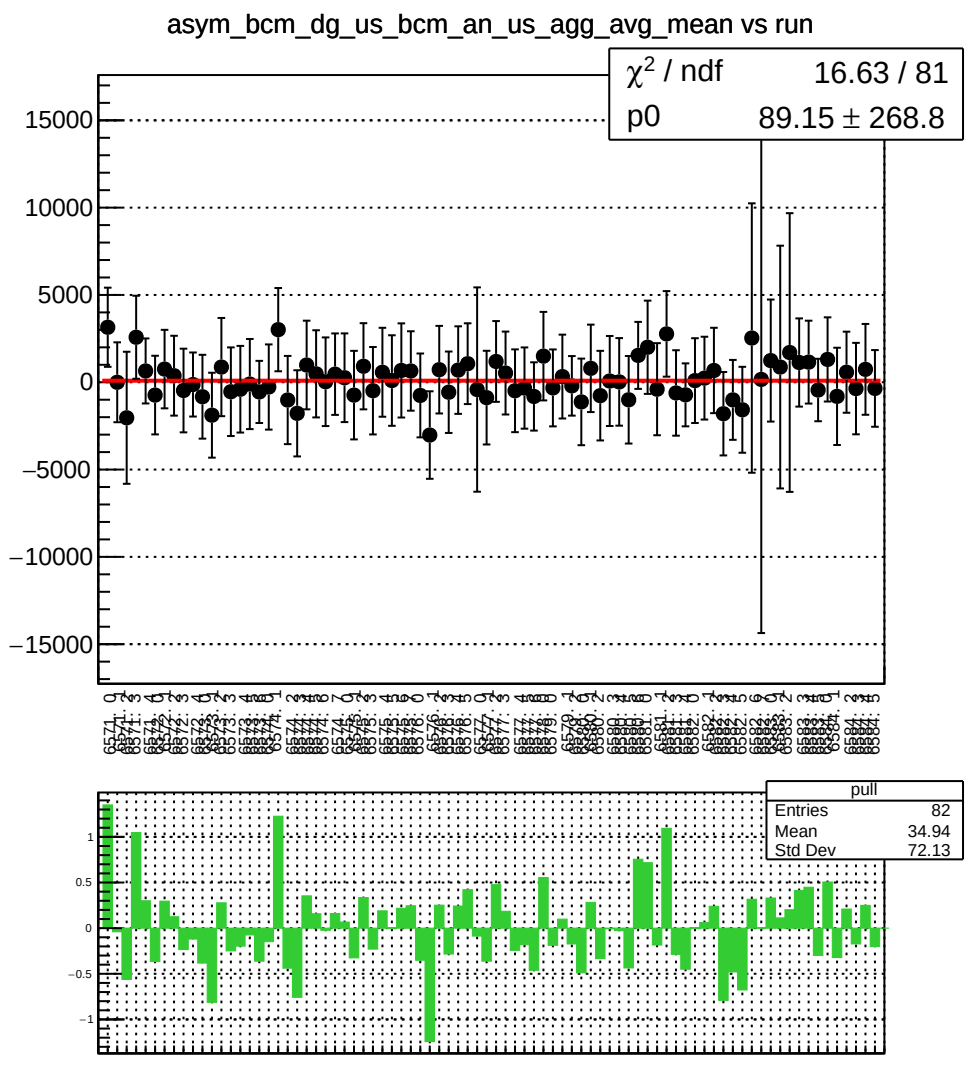

pull1D
Entries 82
Mean 0.00522
Std Dev 0.4645
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

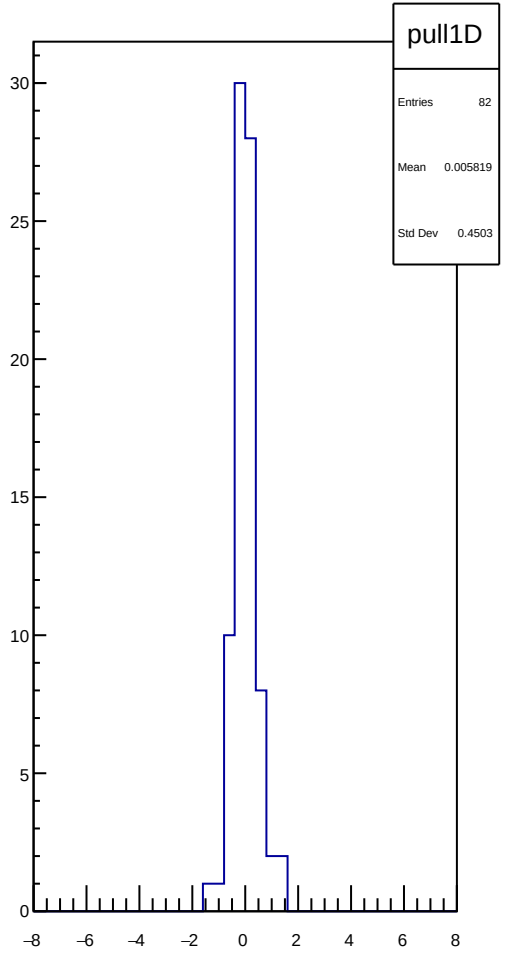

asym_bcm_dg_ds_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 5.308e+04 / 81
p0 233 ± 0.1878
1600
1400
1200
1000
800
600
400
200

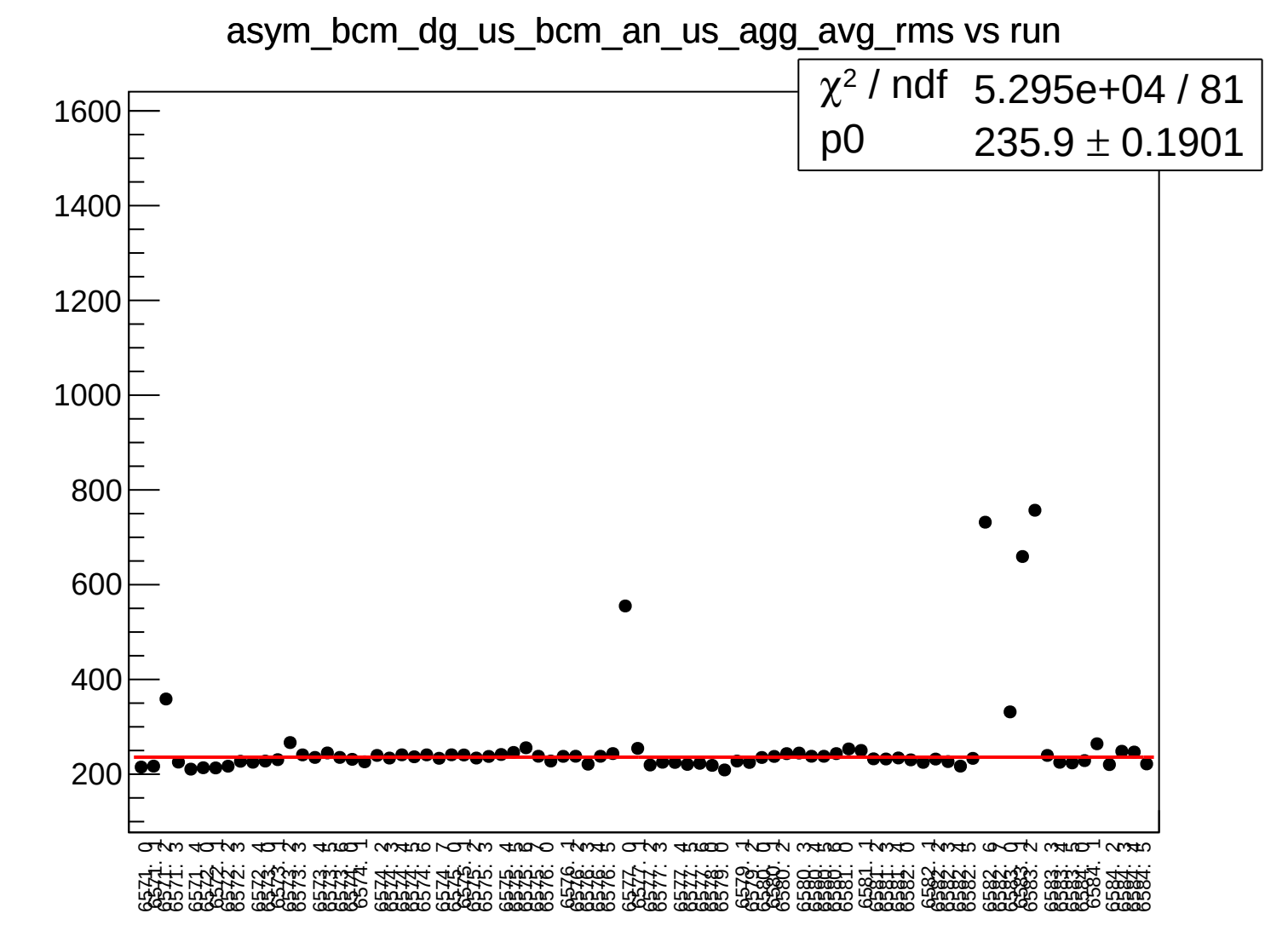

asym_bcm_dg_ds_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 90.52 / 81
p0 8.685 ± 18.85
pull
Entries 82
Mean 159.7
Std Dev 140.3

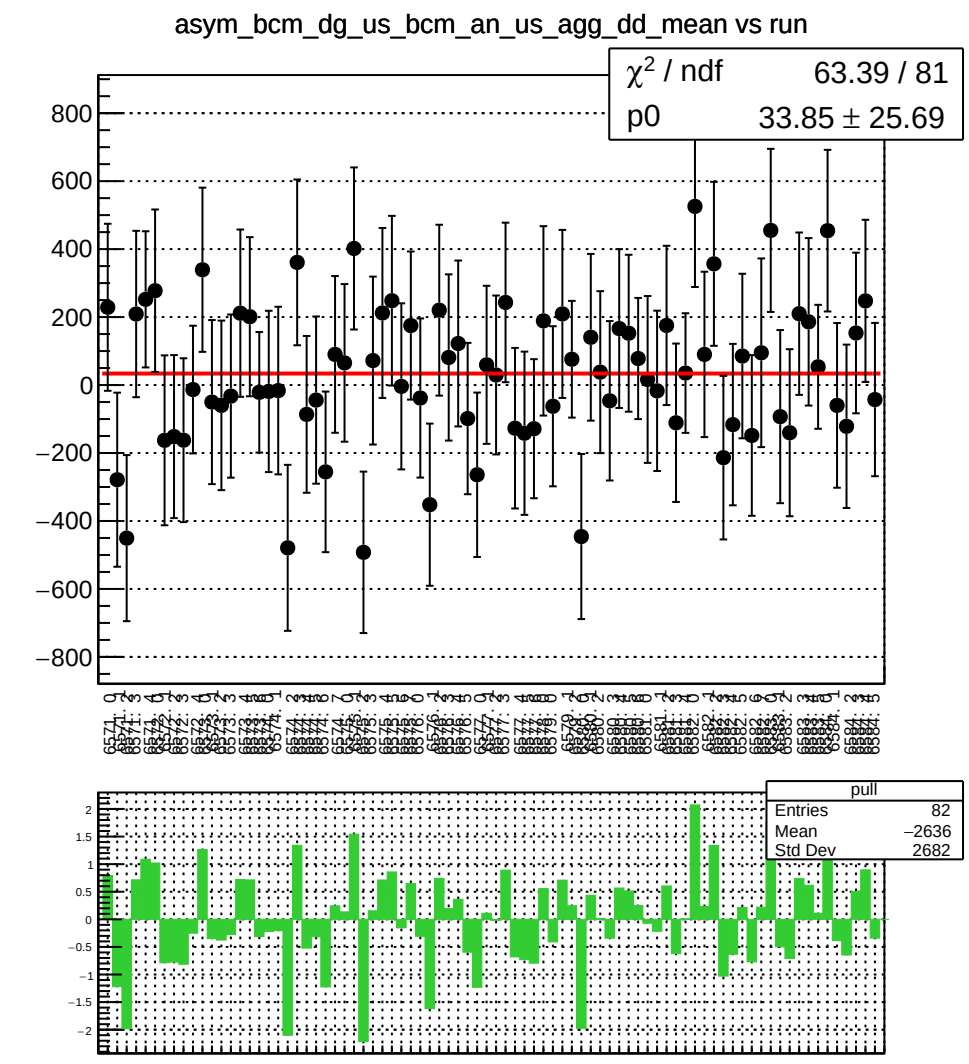

pull1D
Entries 82
Mean −0.01212
Std Dev 1.051

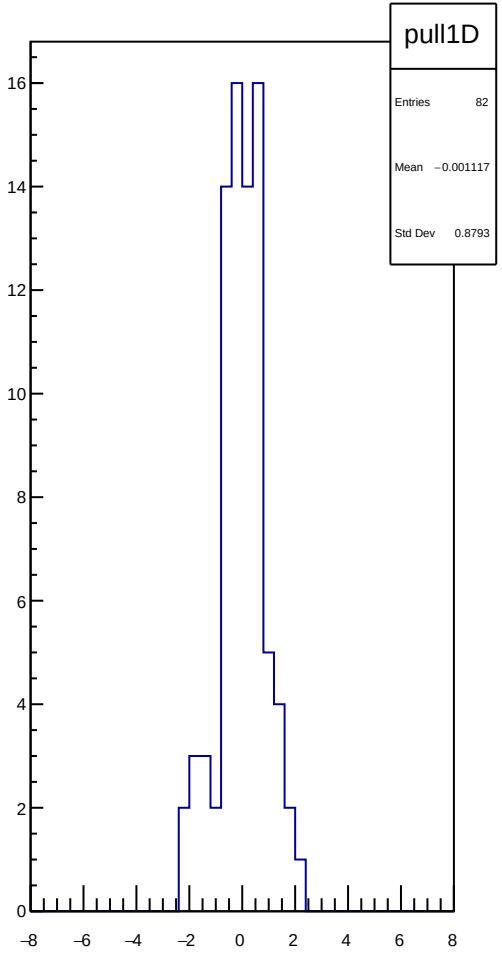

asym_bcm_dg_ds_bcm_an_ds_agg_dd_rms vs run
χ^2 / ndf 1753 / 81
p0 16.81 ± 0.01333
19
18.5
18
17.5
17
16.5
16
15.5

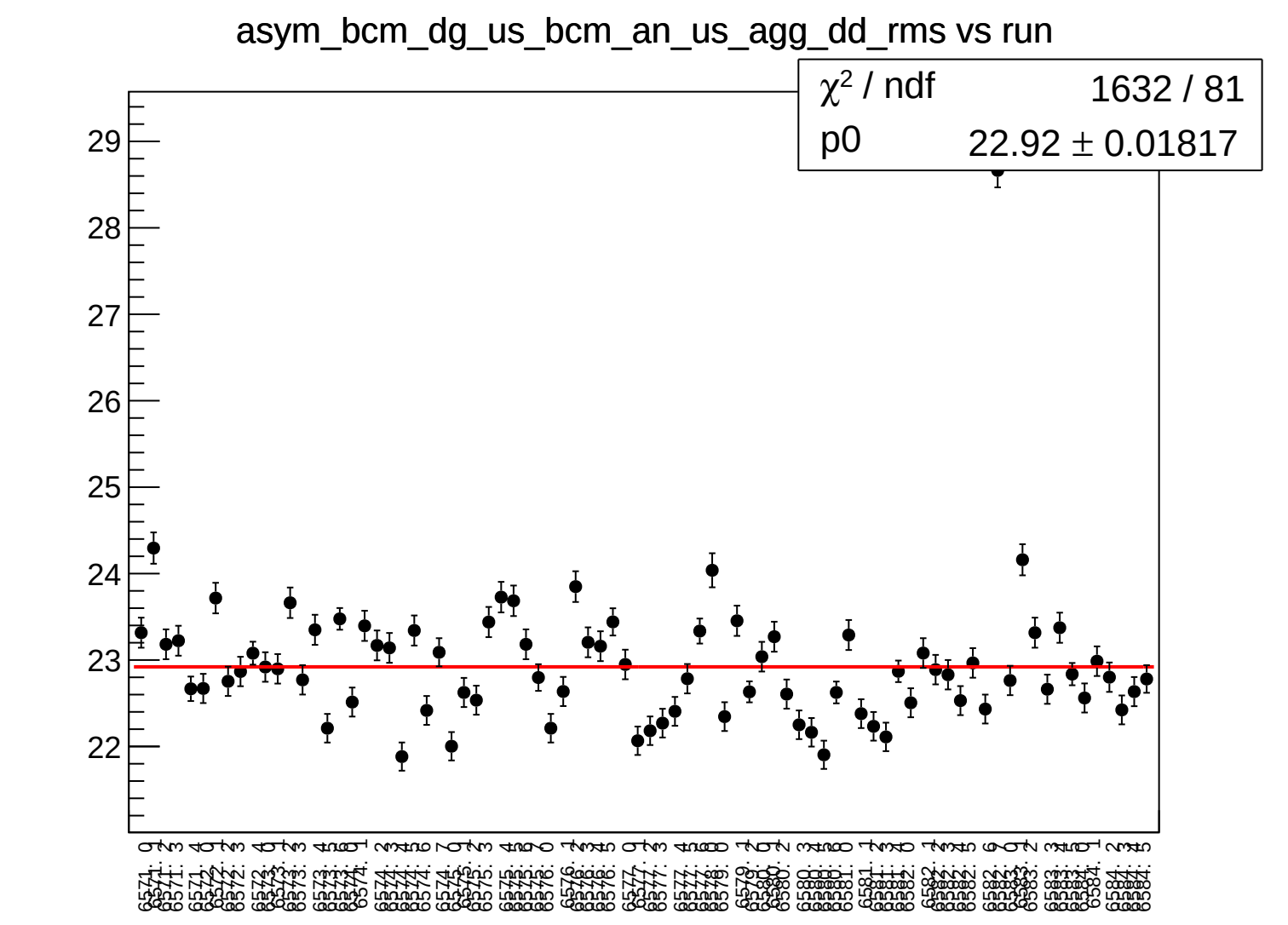

asym_bcm_dg_us_bcm_an_us_agg_avg_mean vs run
χ² / ndf 16.63 / 81
p0 89.15 ± 268.8
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 34.94
Std Dev 72.13
1
0.5
0
−0.5
−1

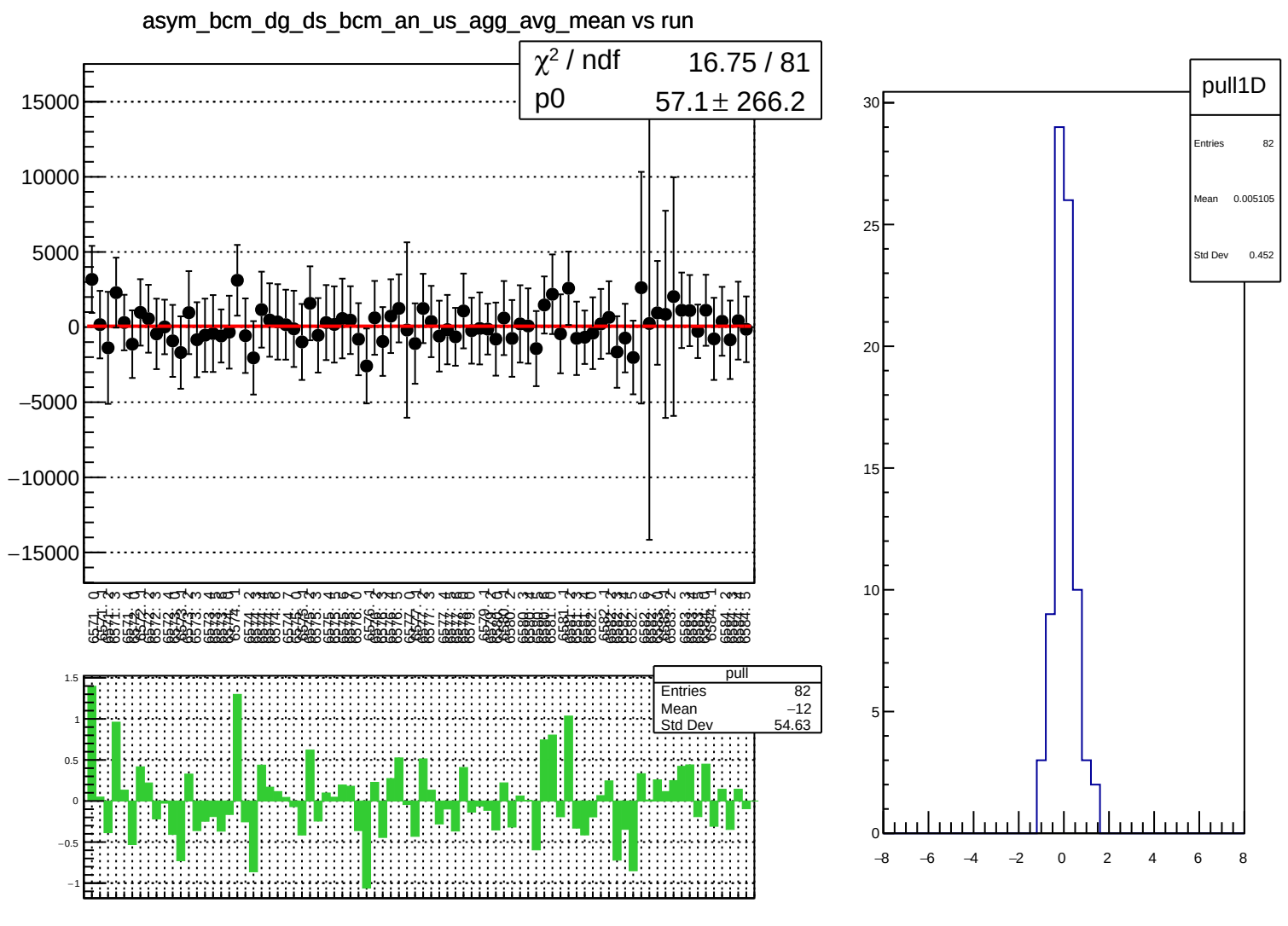

pull1D
Entries 82
Mean 0.005819
Std Dev 0.4503
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

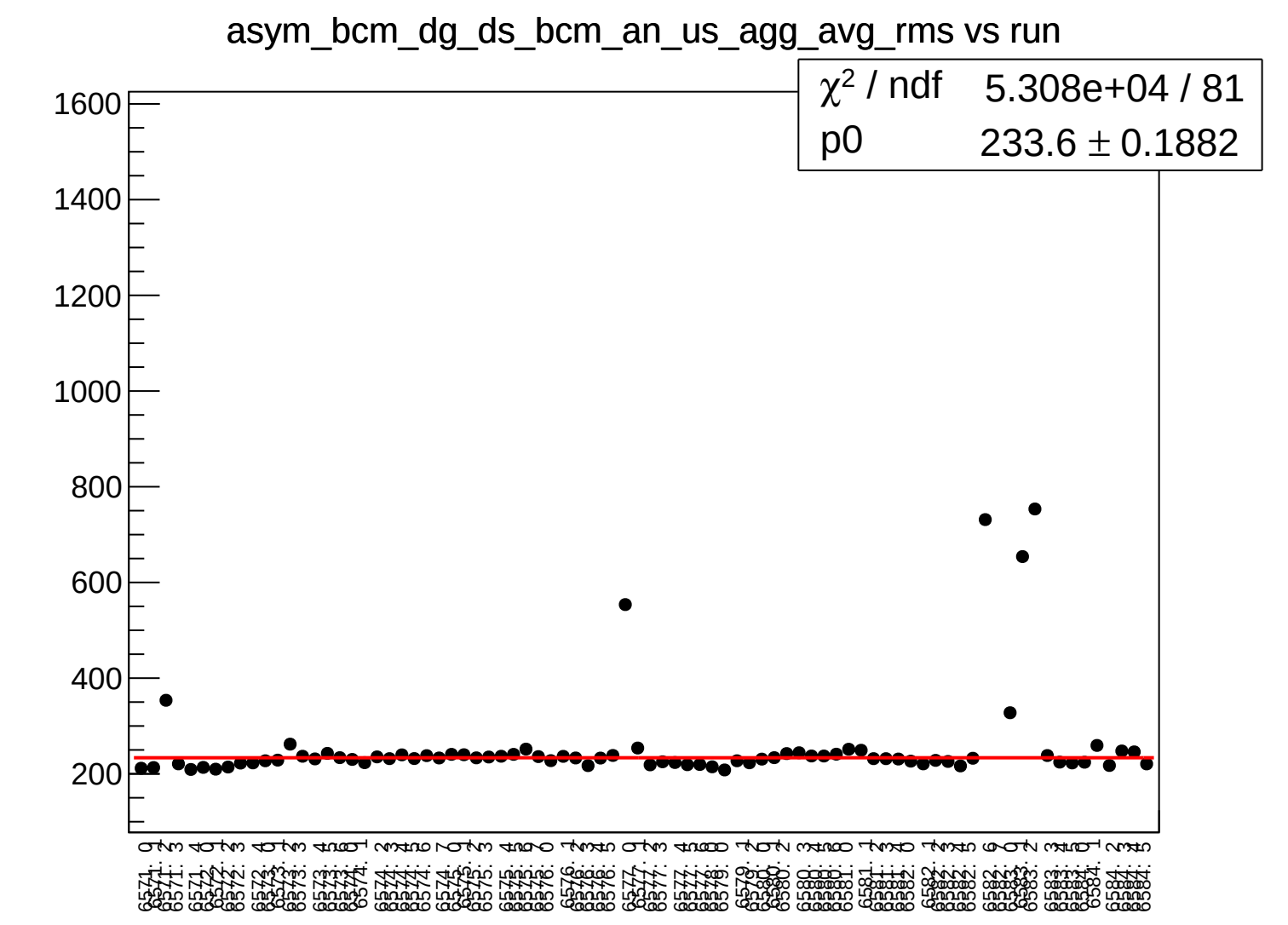

asym_bcm_dg_us_bcm_an_us_agg_avg_rms vs run
χ² / ndf 5.295e+04 / 81
p0 235.9 ± 0.1901
1600
1400
1200
1000
800
600
400
200

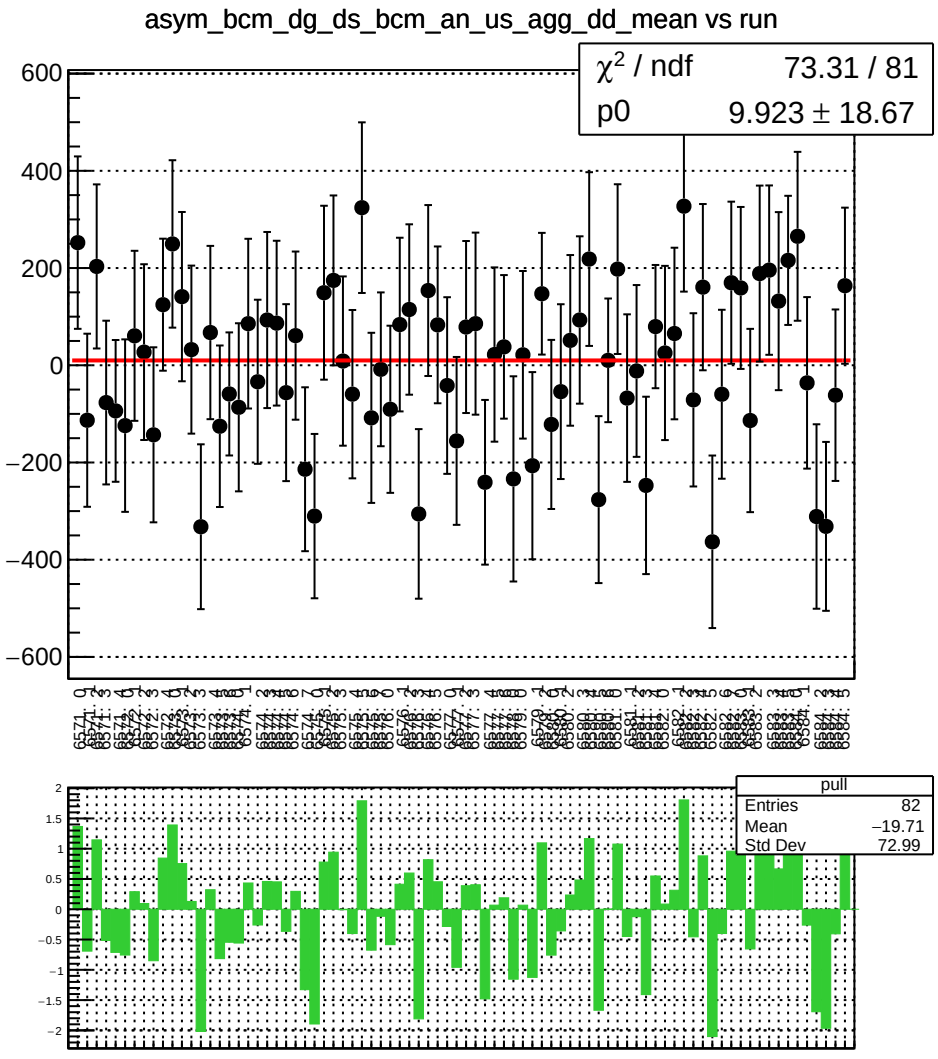

asym_bcm_dg_us_bcm_an_us_agg_dd_mean vs run
χ² / ndf 63.39 / 81
p0 33.85 ± 25.69
pull
Entries 82
Mean −2636
Std Dev 2682

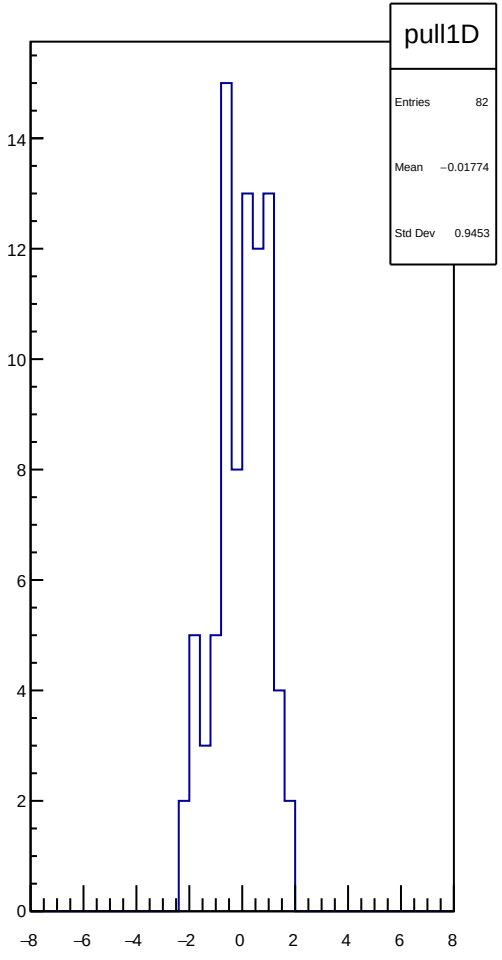

pull1D
Entries 82
Mean −0.001117
Std Dev 0.8793

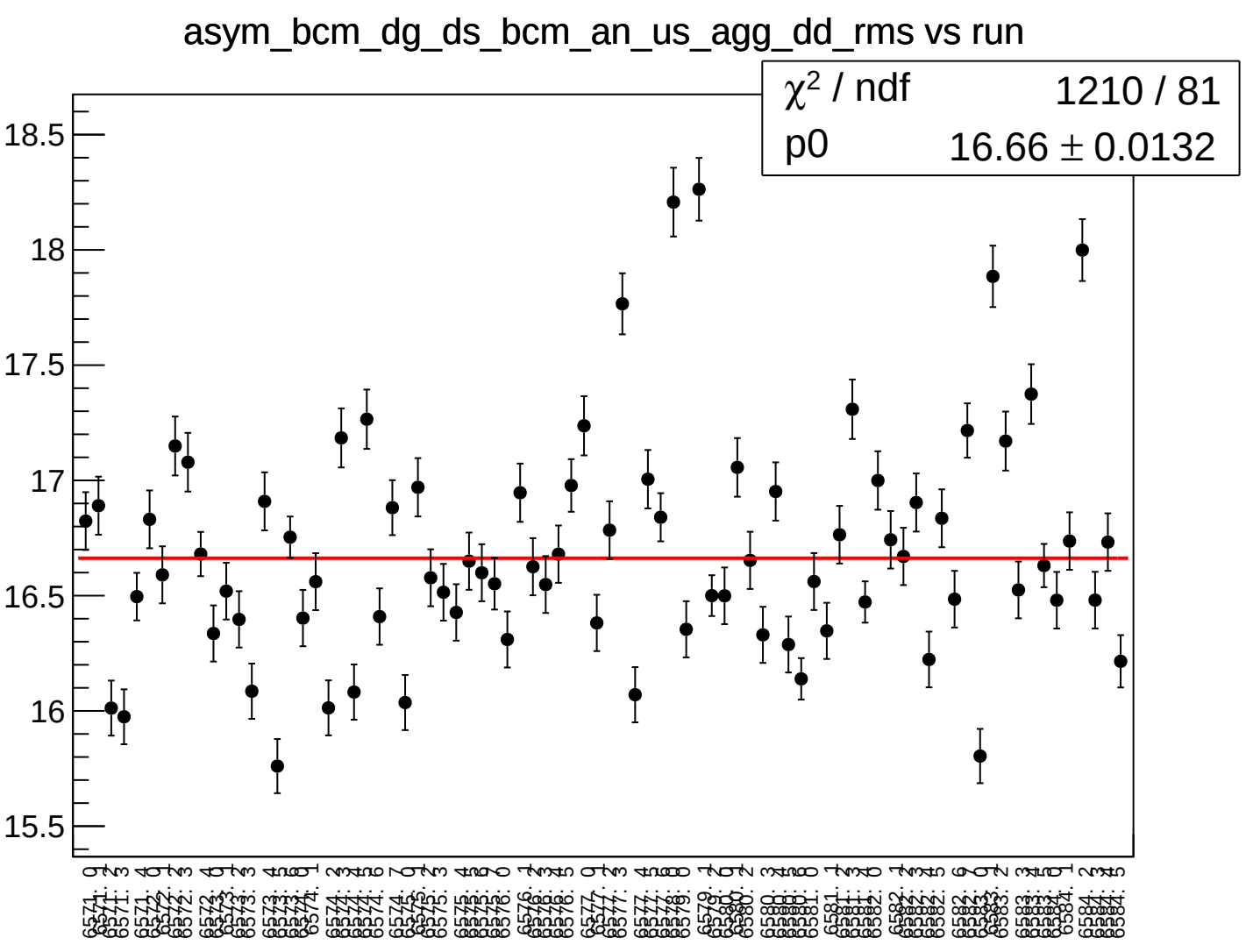

asym_bcm_dg_us_bcm_an_us_agg_dd_rms vs run
χ² / ndf 1632 / 81
p0 22.92 ± 0.01817
29
28
27
26
25
24
23
22

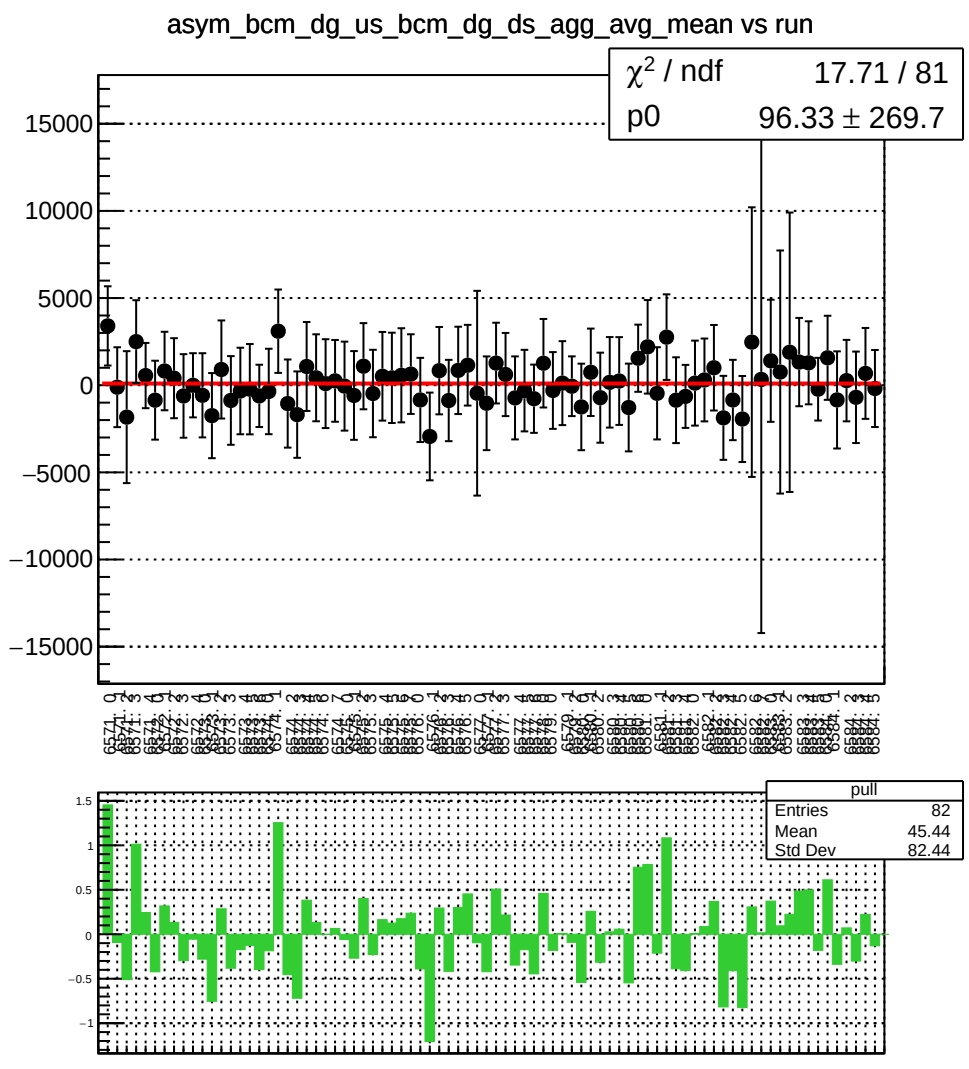

asym_bcm_dg_ds_bcm_an_us_agg_avg_mean vs run
χ² / ndf 16.75 / 81
p0 57.1 ± 266.2
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −12
Std Dev 54.63
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 82
Mean 0.005105
Std Dev 0.452
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

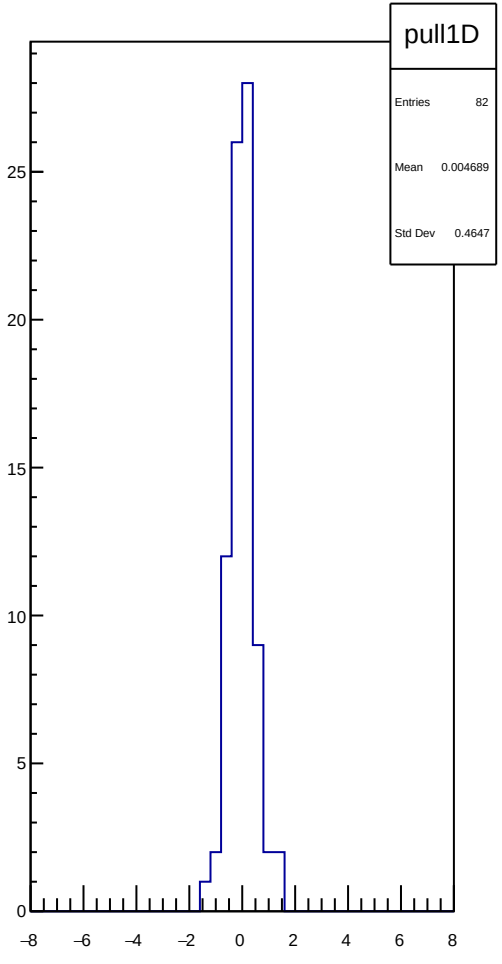

asym_bcm_dg_ds_bcm_an_us_agg_avg_rms vs run
χ² / ndf 5.308e+04 / 81
p0 233.6 ± 0.1882
1600
1400
1200
1000
800
600
400
200

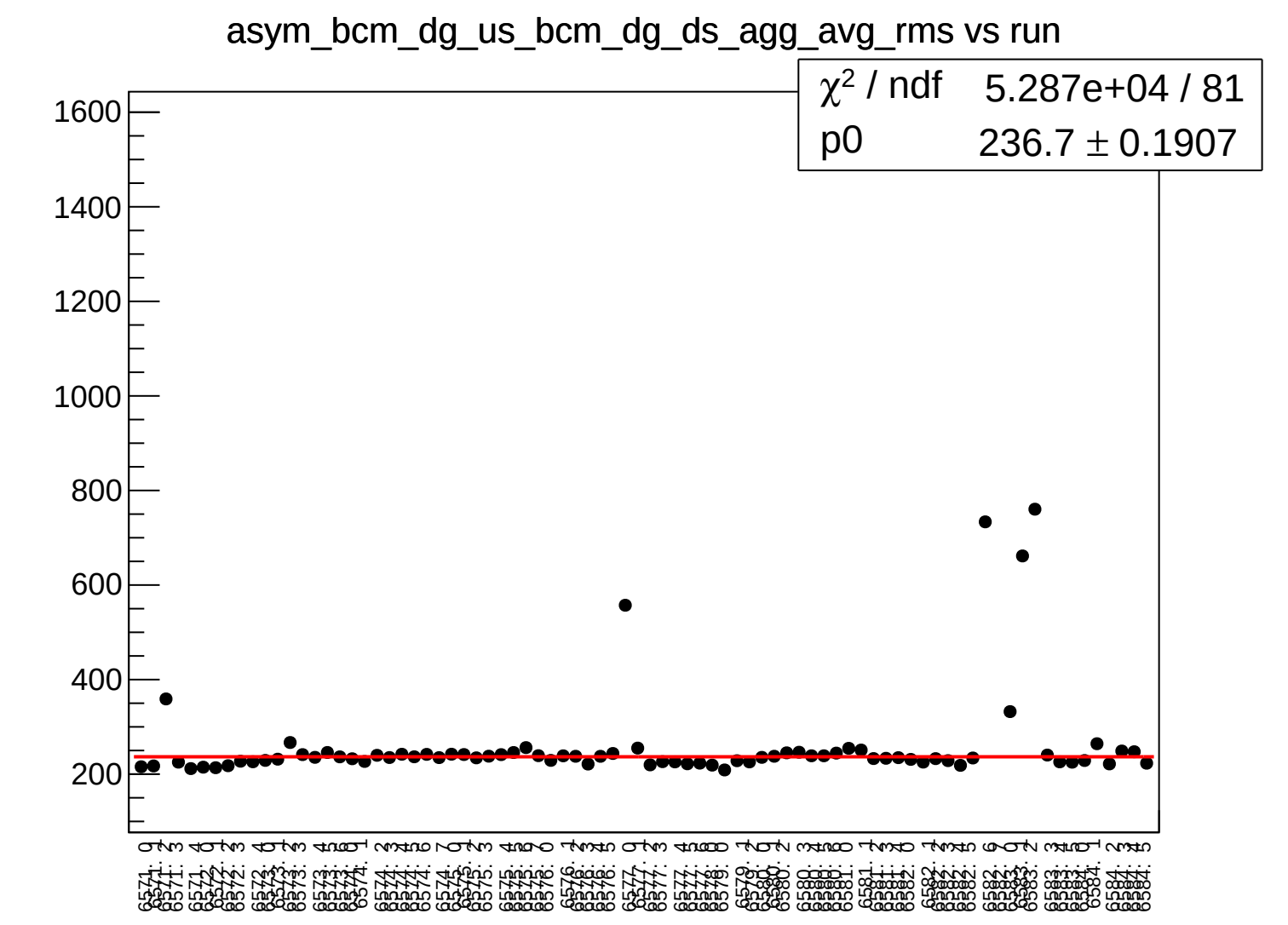

asym_bcm_dg_ds_bcm_an_us_agg_dd_mean vs run
χ² / ndf 73.31 / 81
p0 9.923 ± 18.67
pull
Entries 82
Mean −19.71
Std Dev 72.99

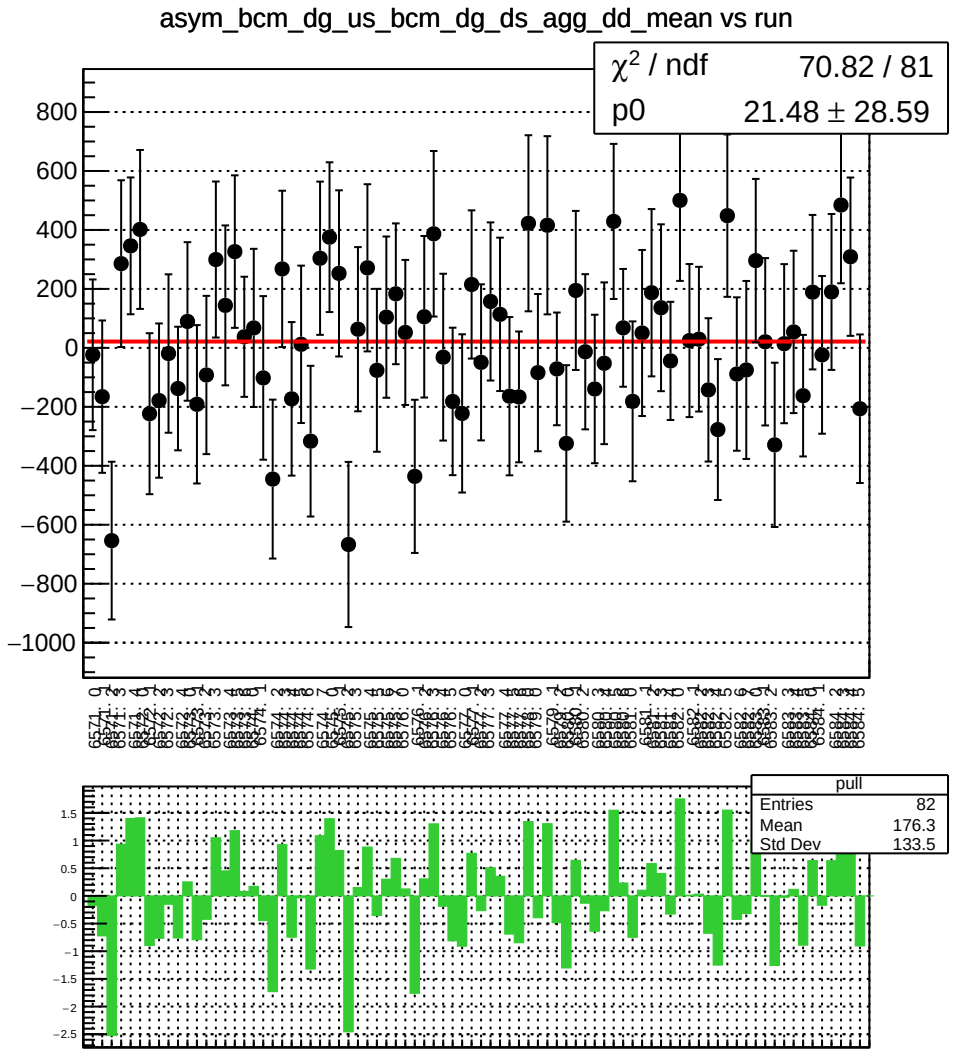

pull1D
Entries 82
Mean −0.01774
Std Dev 0.9453

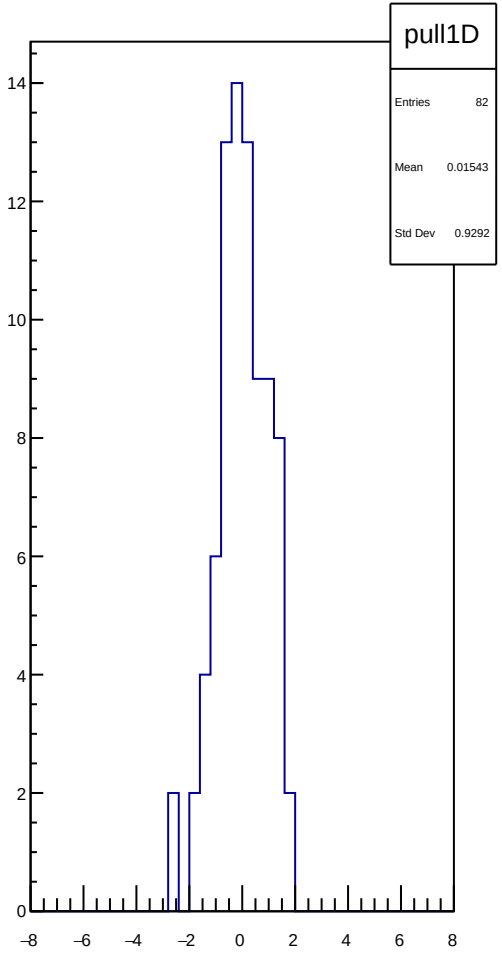

asym_bcm_dg_ds_bcm_an_us_agg_dd_rms vs run
χ² / ndf 1210 / 81
p0 16.66 ± 0.0132
18.5
18
17.5
17
16.5
16
15.5

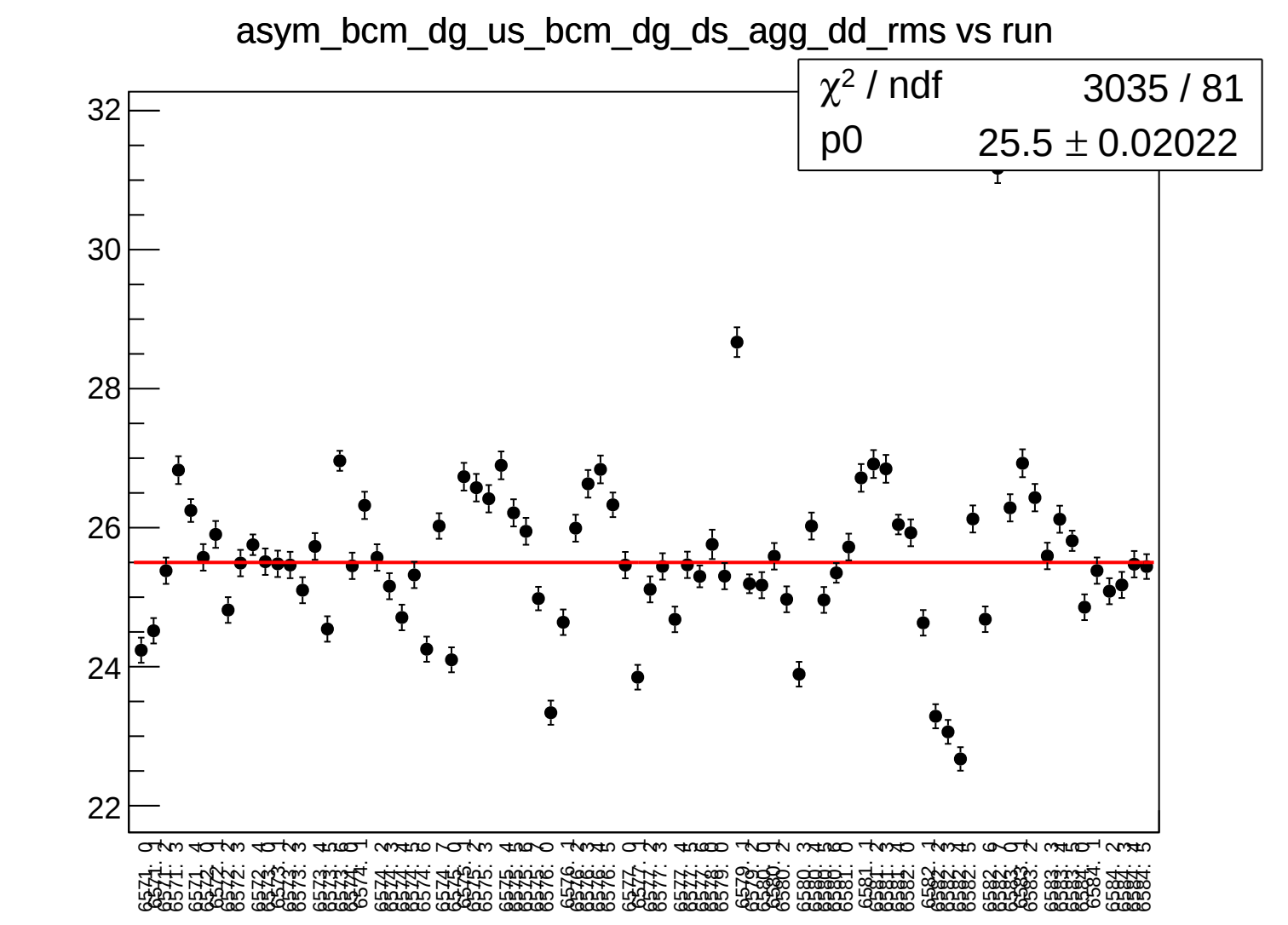

asym_bcm_dg_us_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 17.71 / 81
p0 96.33 ± 269.7
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 45.44
Std Dev 82.44
1.5
1
0.5
0
−0.5
−1

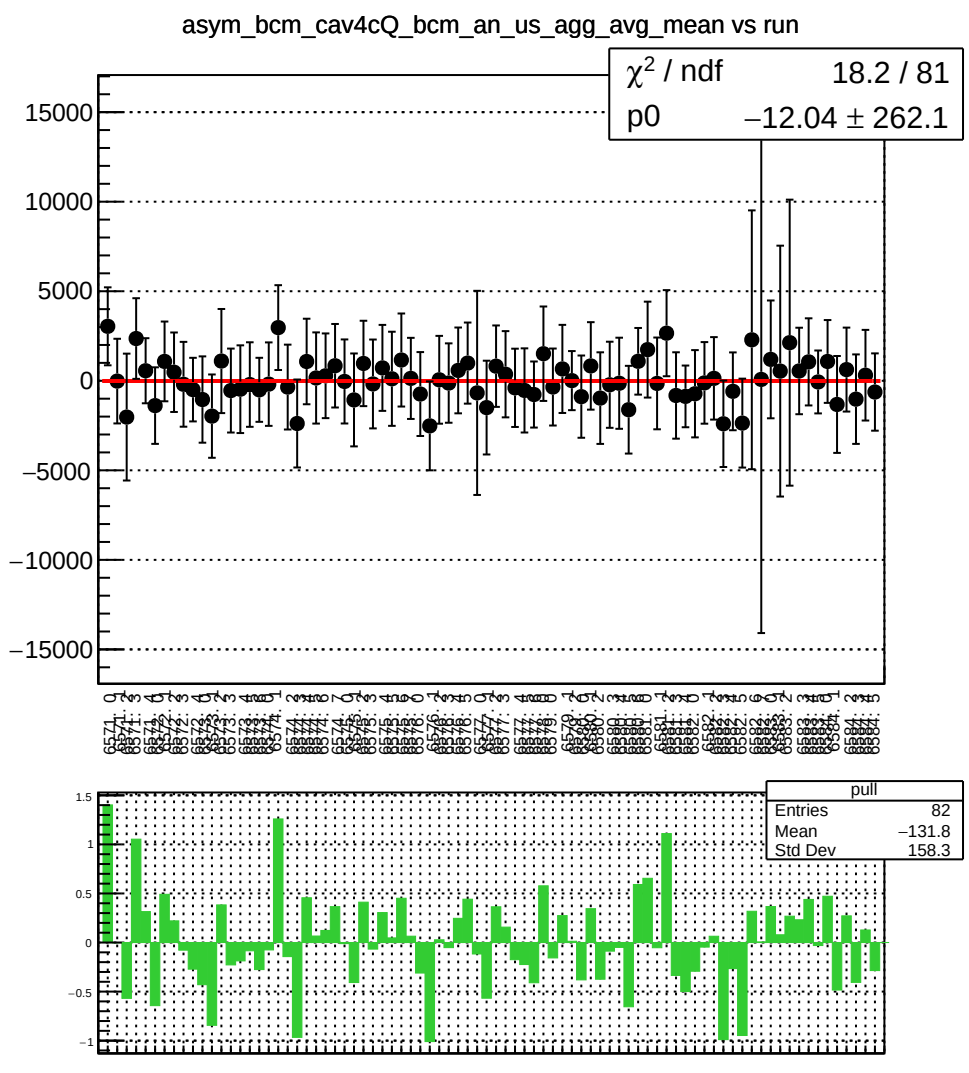

pull1D
Entries 82
Mean 0.004689
Std Dev 0.4647
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

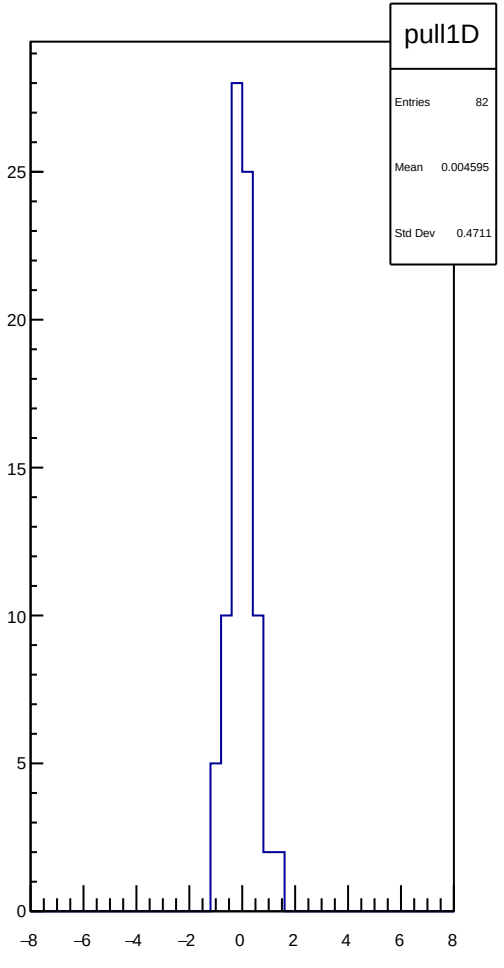

asym_bcm_dg_us_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 5.287e+04 / 81
p0 236.7 ± 0.1907
1600
1400
1200
1000
800
600
400
200

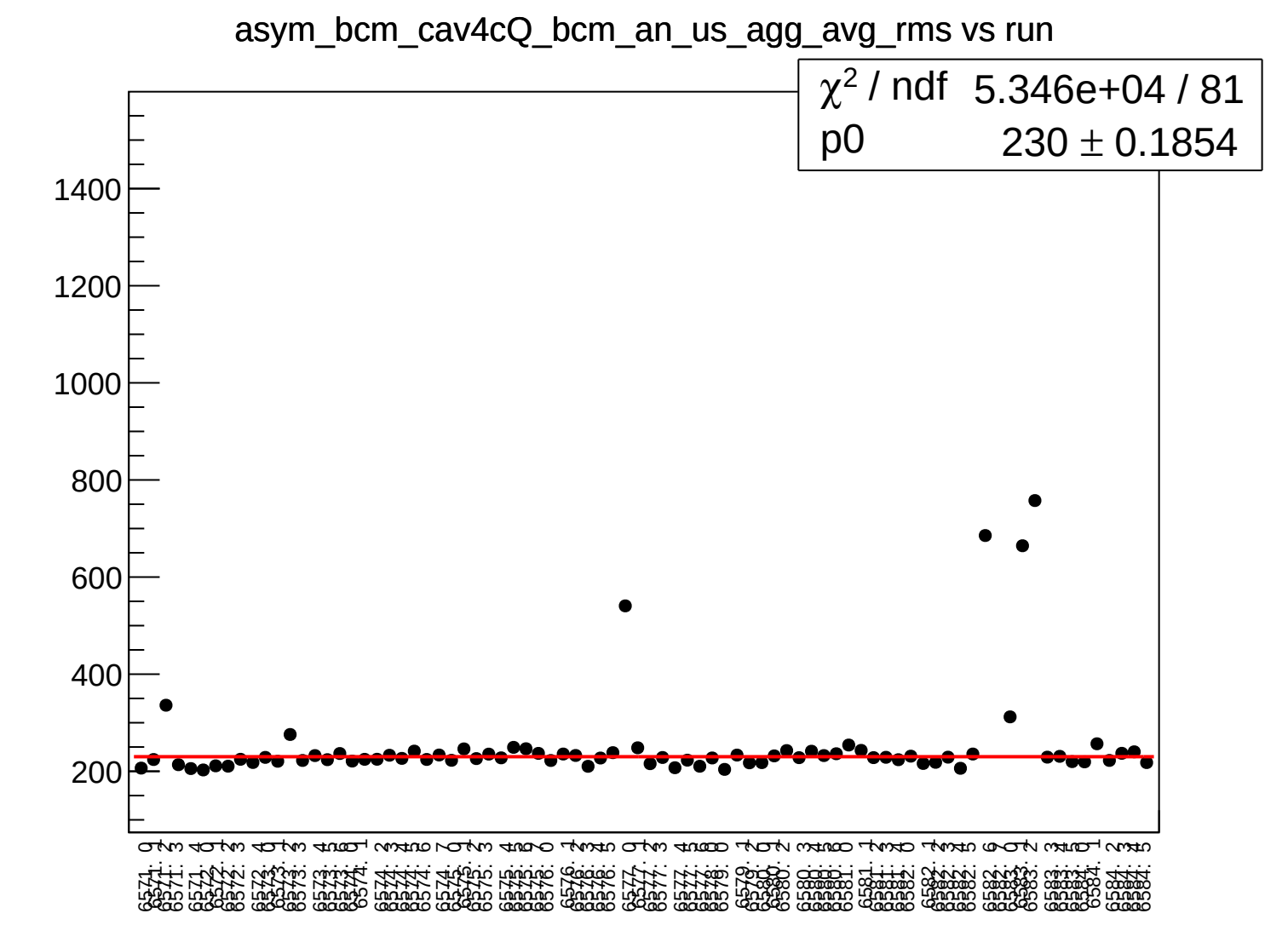

asym_bcm_dg_us_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 70.82 / 81
p0 21.48 ± 28.59
pull
Entries 82
Mean 176.3
Std Dev 133.5

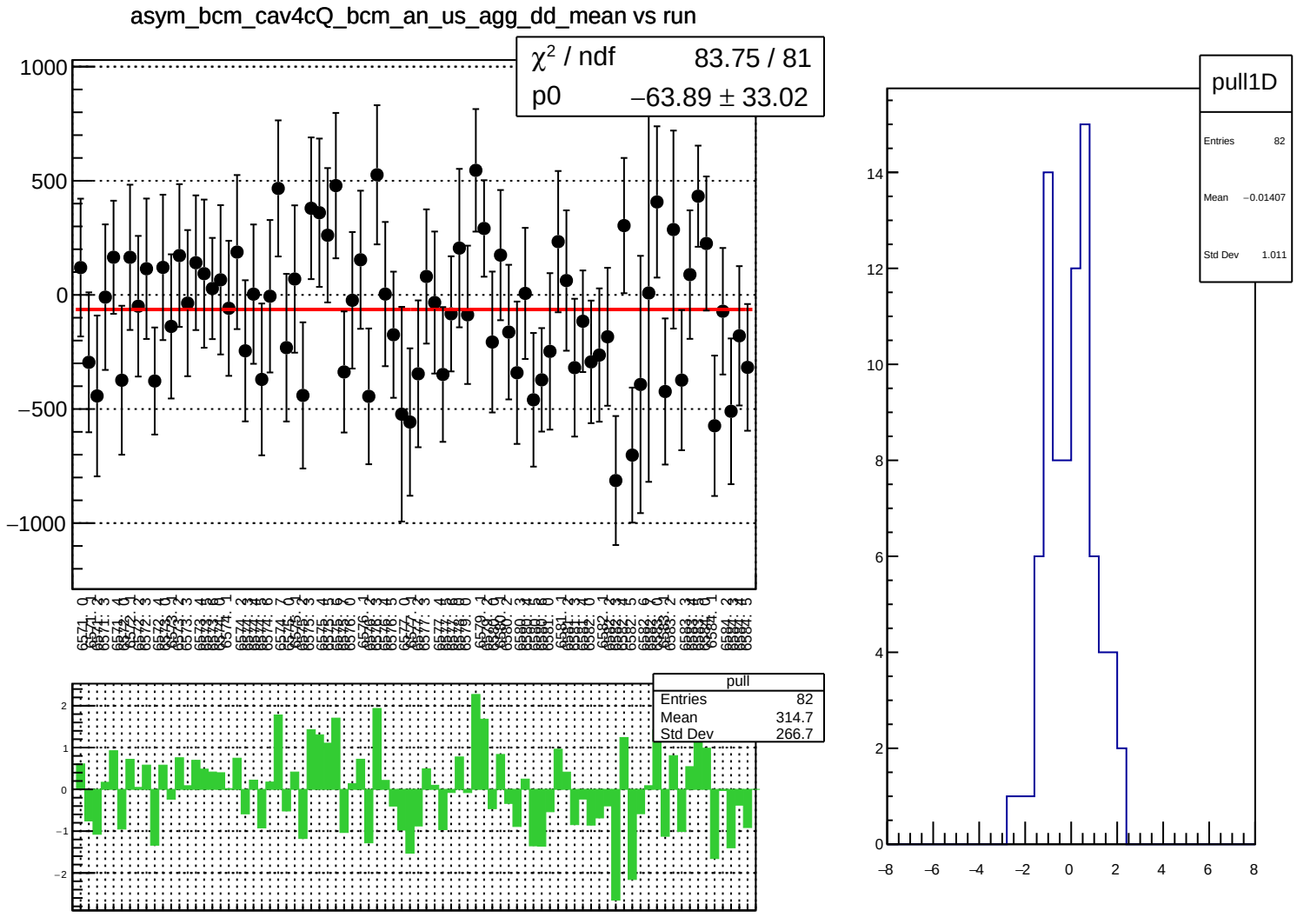

pull1D
Entries 82
Mean 0.01543
Std Dev 0.9292

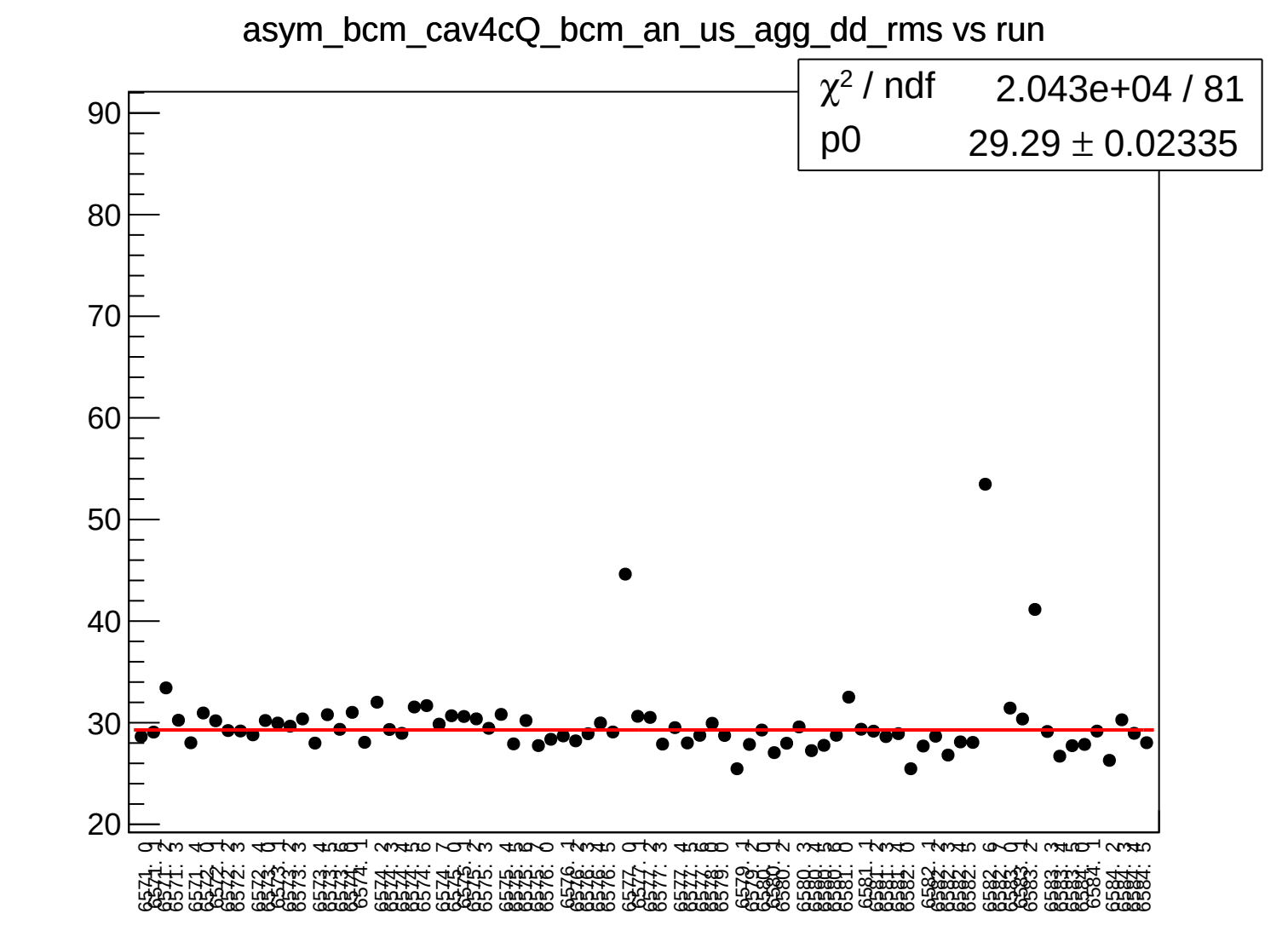

asym_bcm_dg_us_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 3035 / 81
p0 25.5 ± 0.02022
32
30
28
26
24
22

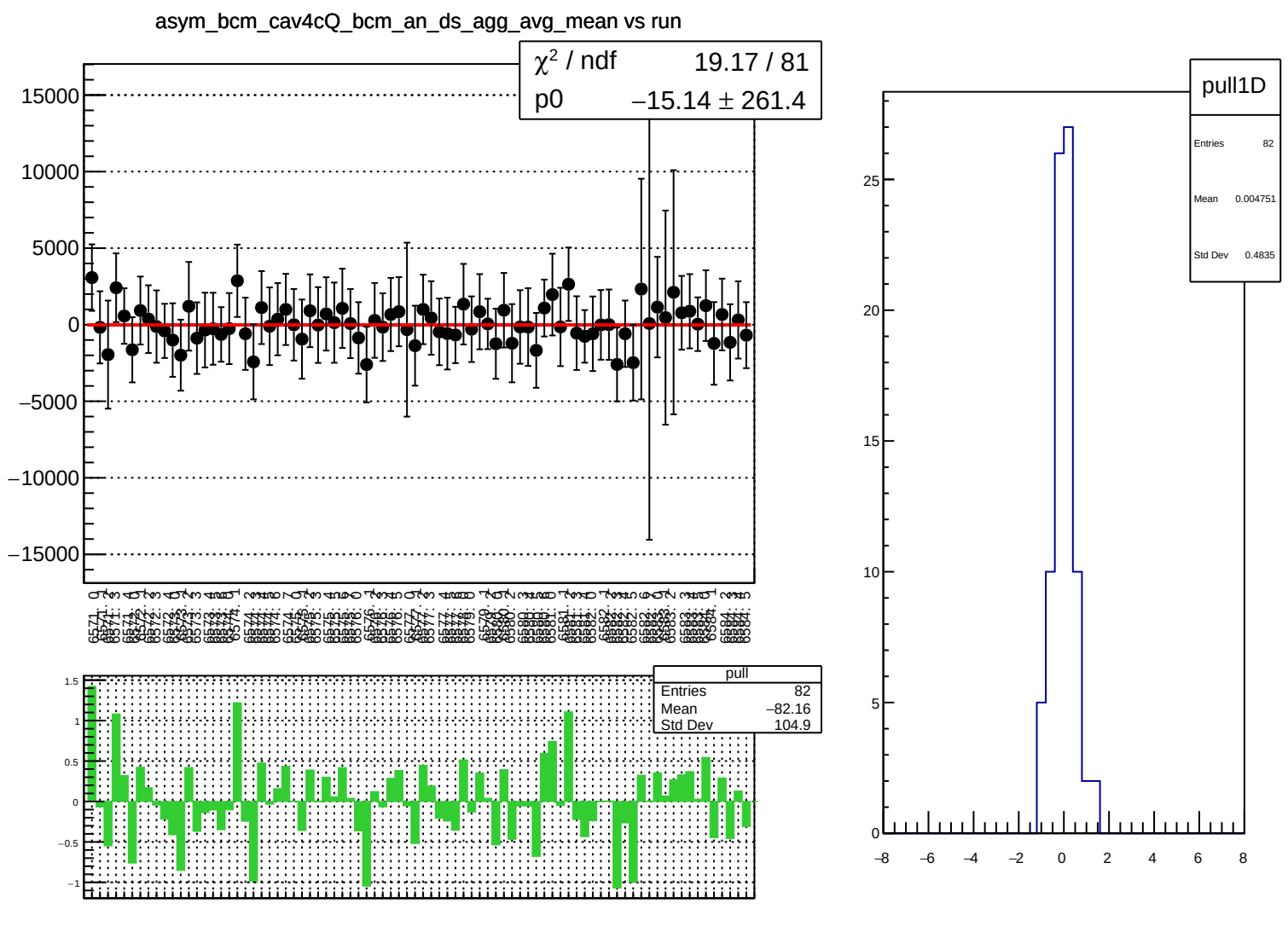

asym_bcm_cav4cQ_bcm_an_us_agg_avg_mean vs run
χ² / ndf 18.2 / 81
p0 −12.04 ± 262.1
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −131.8
Std Dev 158.3
1.5
1
0.5
0
−0.5
−1

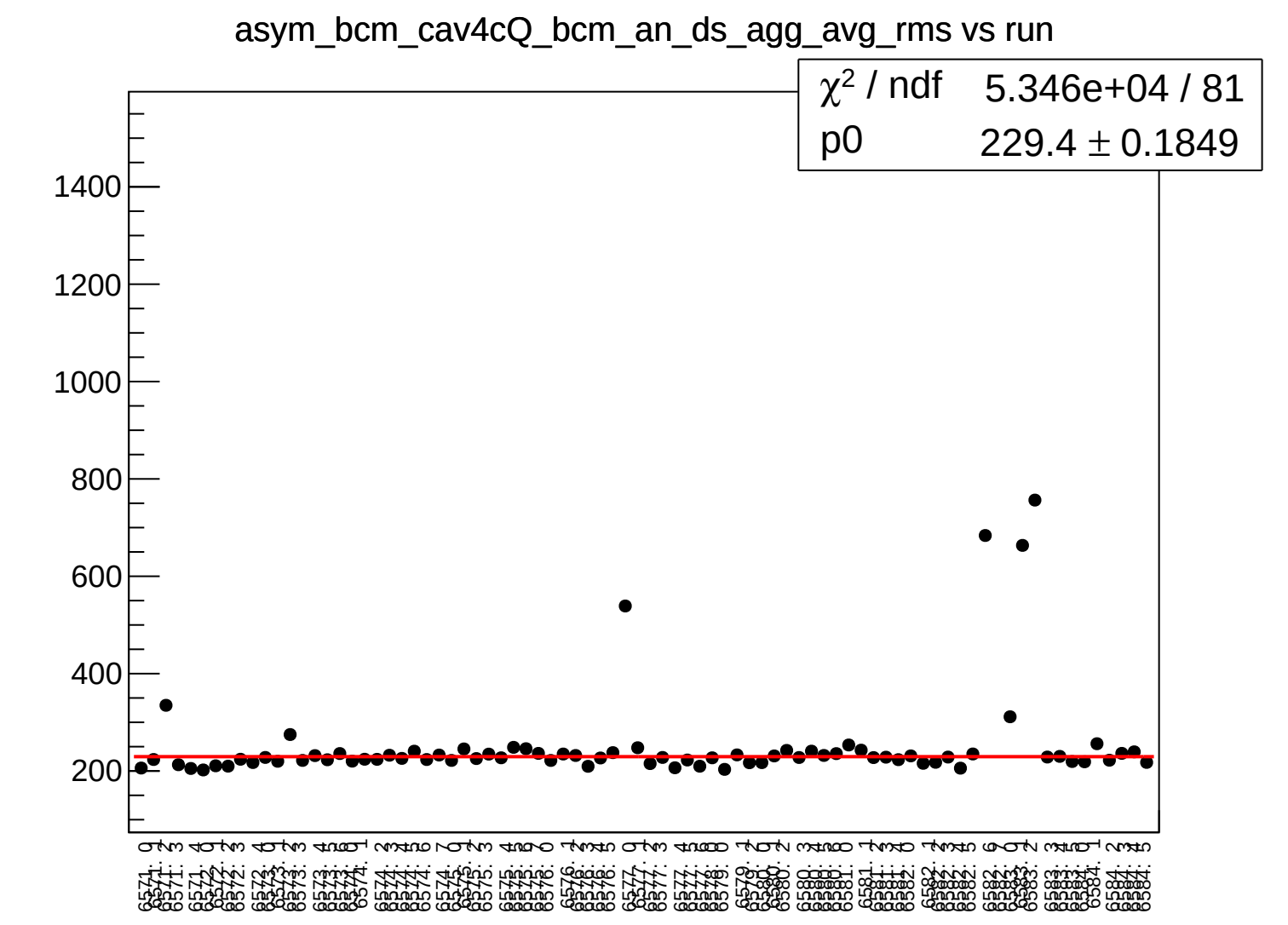

pull1D
Entries 82
Mean 0.004595
Std Dev 0.4711
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

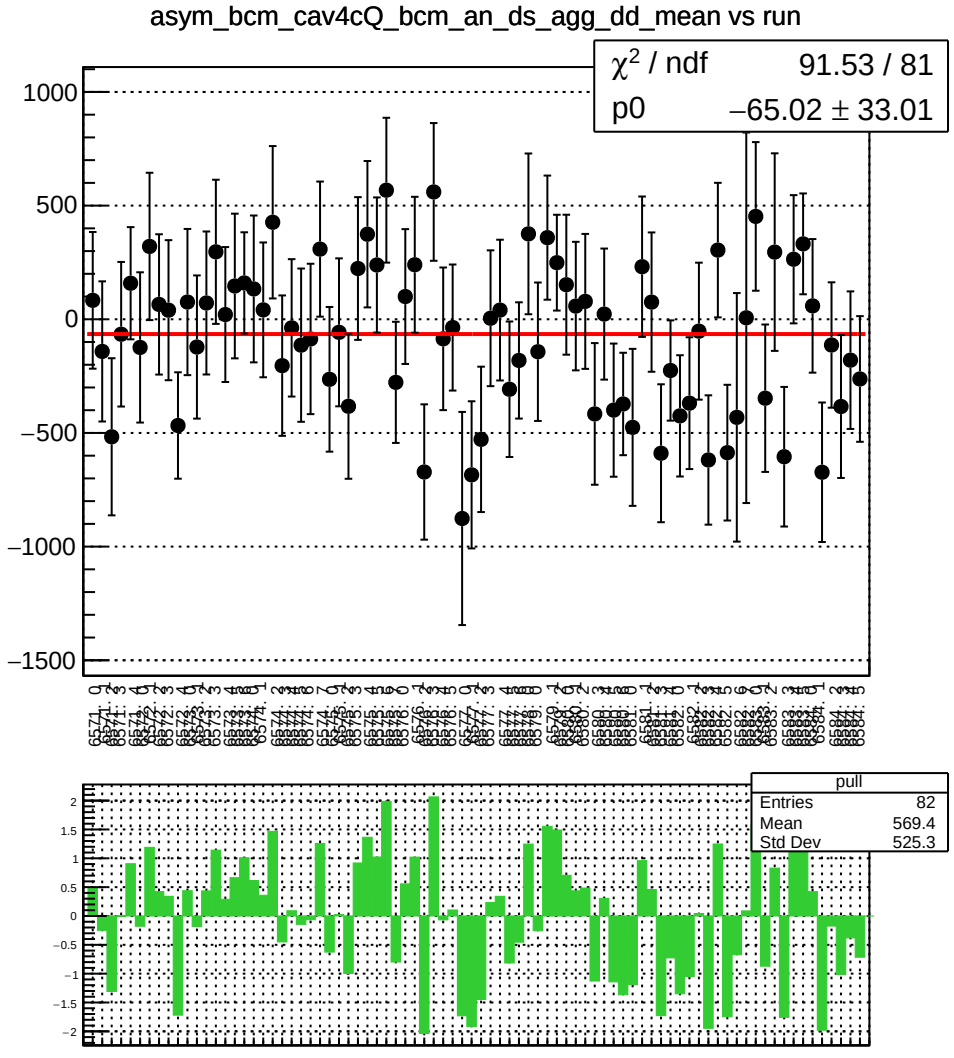

asym_bcm_cav4cQ_bcm_an_us_agg_avg_rms vs run
χ² / ndf 5.346e+04 / 81
p0 230 ± 0.1854
1400
1200
1000
800
600
400
200

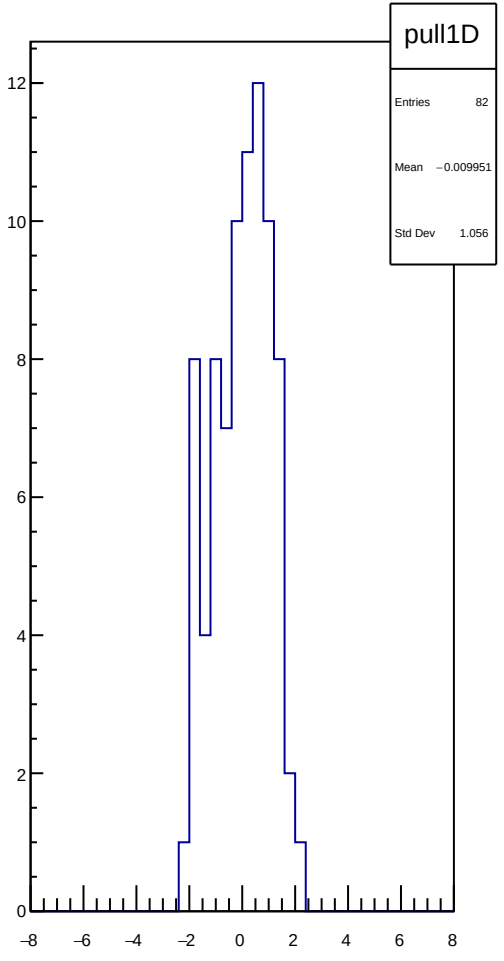

asym_bcm_cav4cQ_bcm_an_us_agg_dd_mean vs run
χ² / ndf 83.75 / 81
p0 −63.89 ± 33.02
1000
500
0
−500
−1000
pull
Entries 82
Mean 314.7
Std Dev 266.7
2
1
0
−1
−2
pull1D
Entries 82
Mean −0.01407
Std Dev 1.011
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

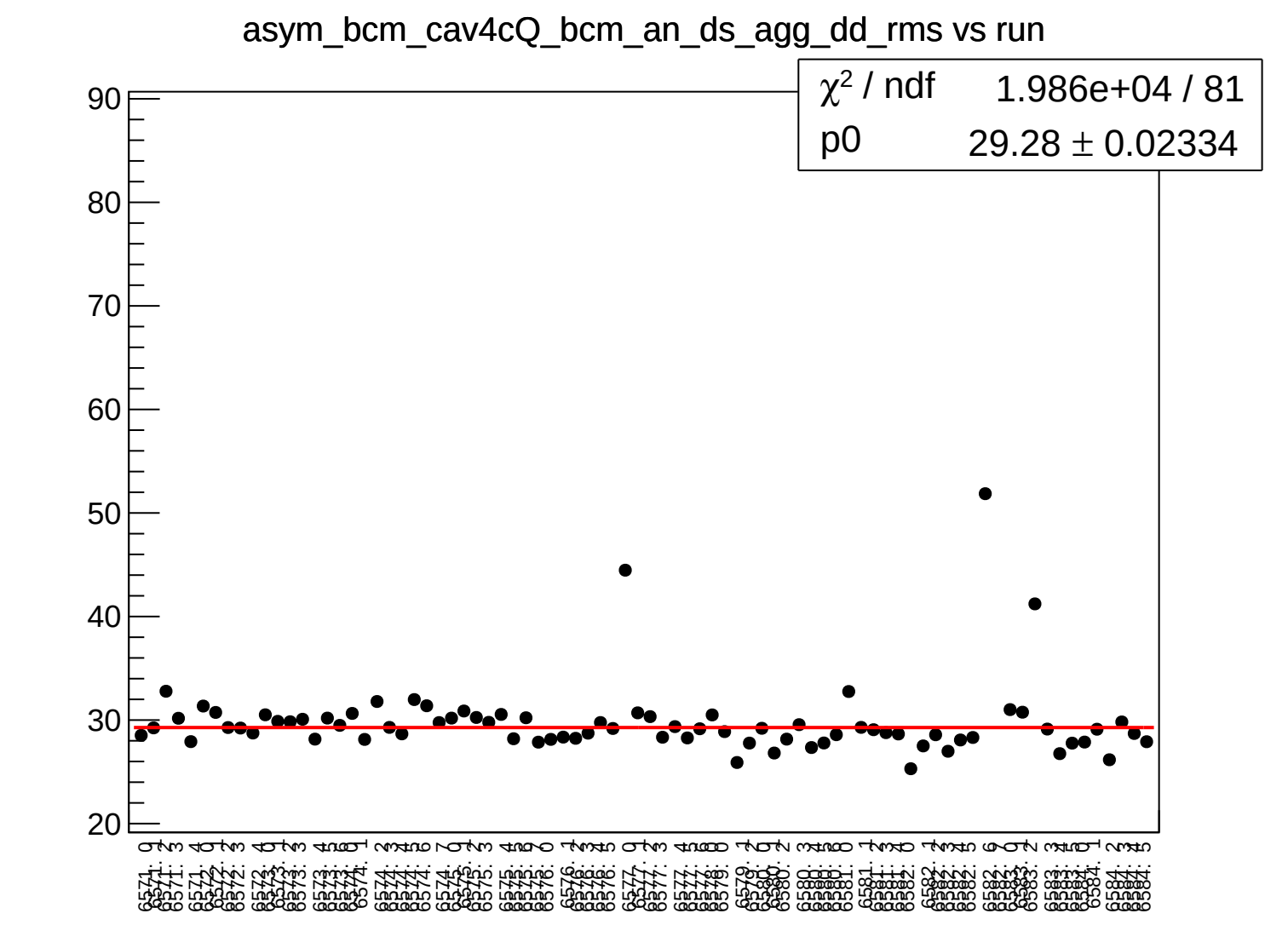

asym_bcm_cav4cQ_bcm_an_us_agg_dd_rms vs run
χ² / ndf 2.043e+04 / 81
p0 29.29 ± 0.02335
90
80
70
60
50
40
30
20

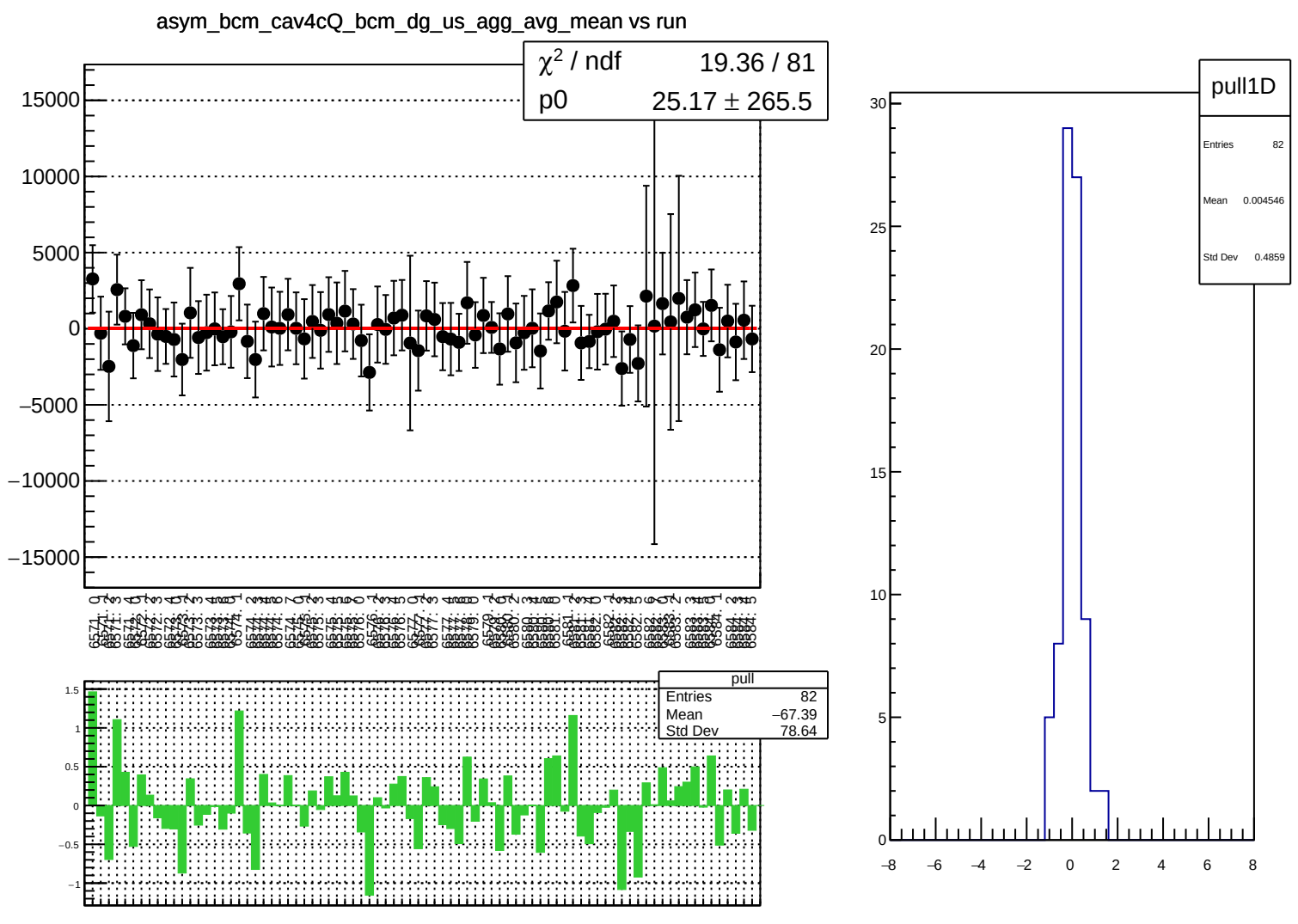

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 19.17 / 81
p0 −15.14 ± 261.4
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −82.16
Std Dev 104.9
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 82
Mean 0.004751
Std Dev 0.4835
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

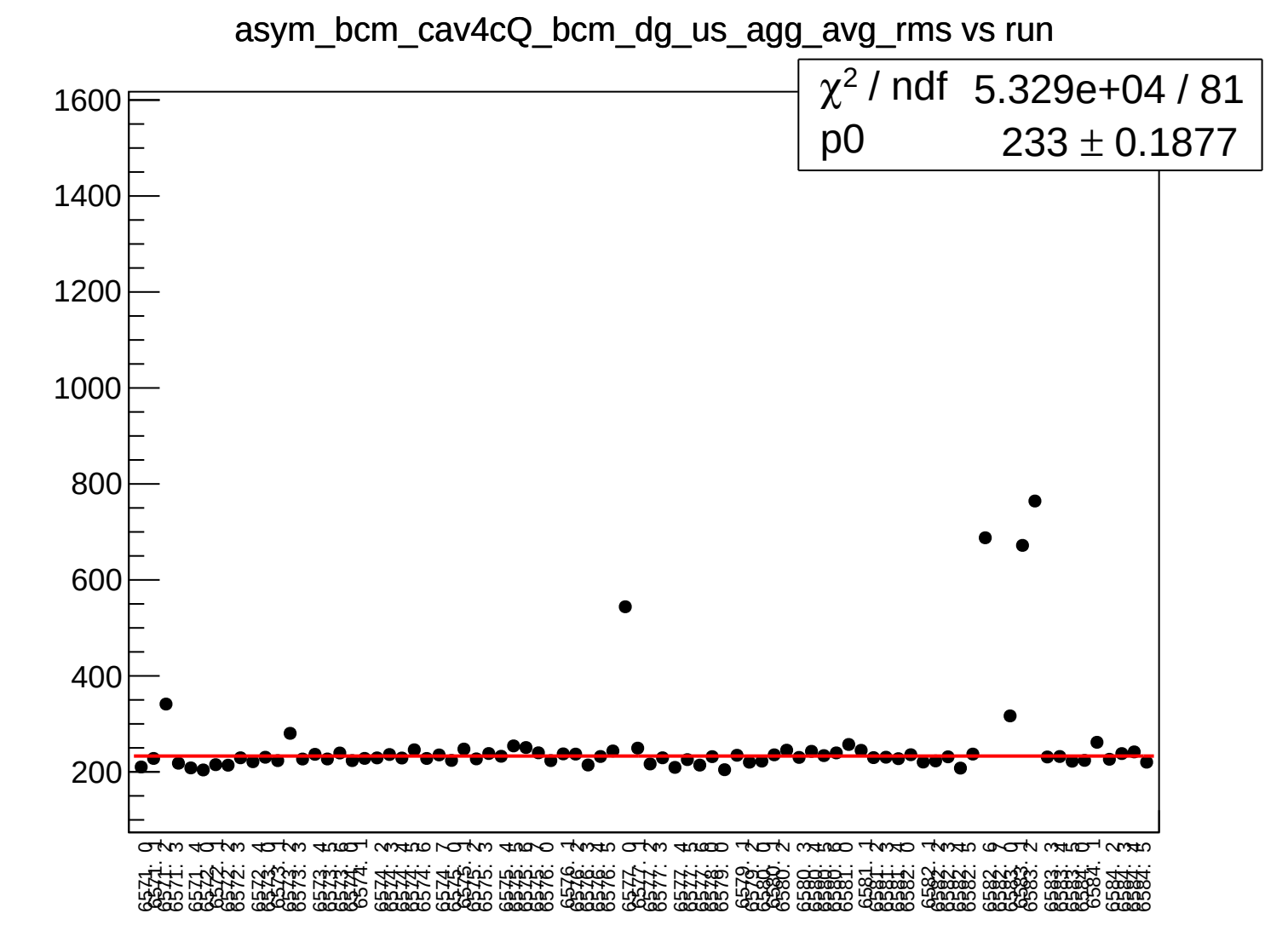

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 5.346e+04 / 81
p0 229.4 ± 0.1849
1400
1200
1000
800
600
400
200

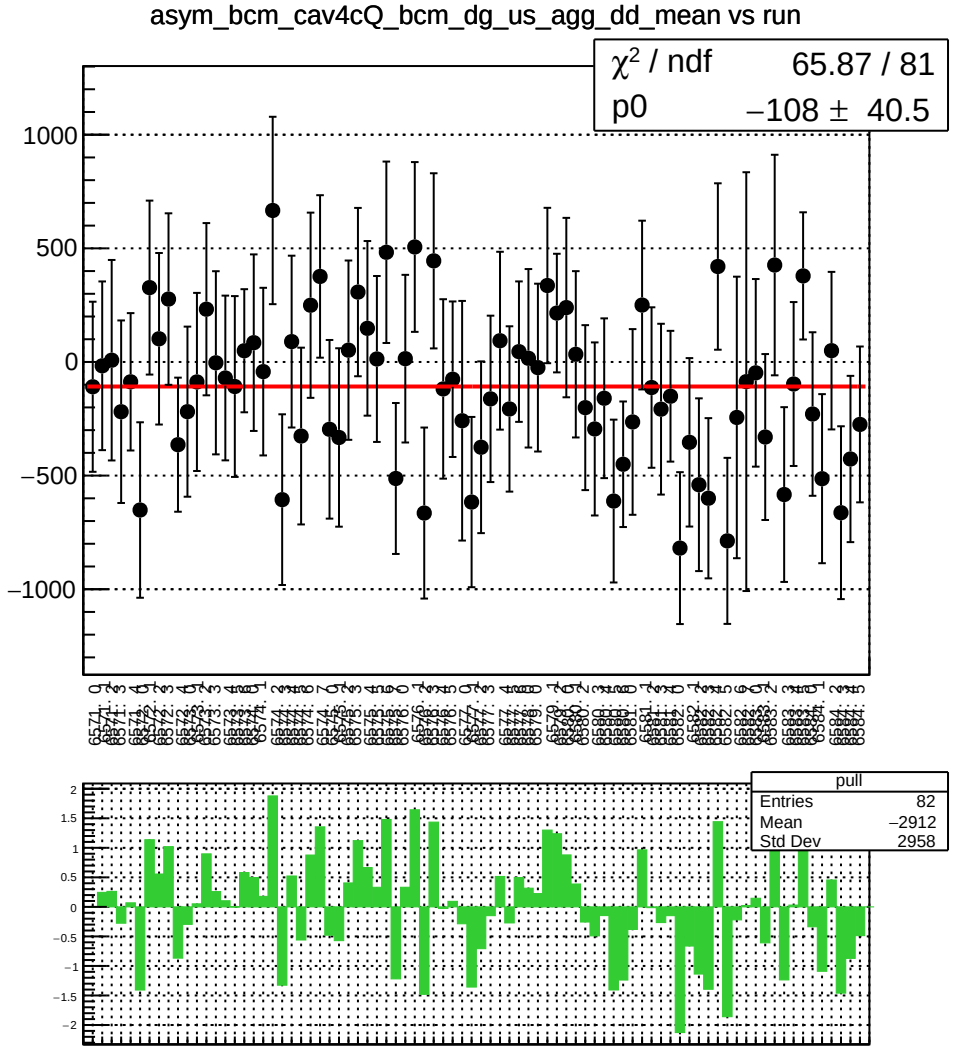

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 91.53 / 81
p0 −65.02 ± 33.01
pull
Entries 82
Mean 569.4
Std Dev 525.3

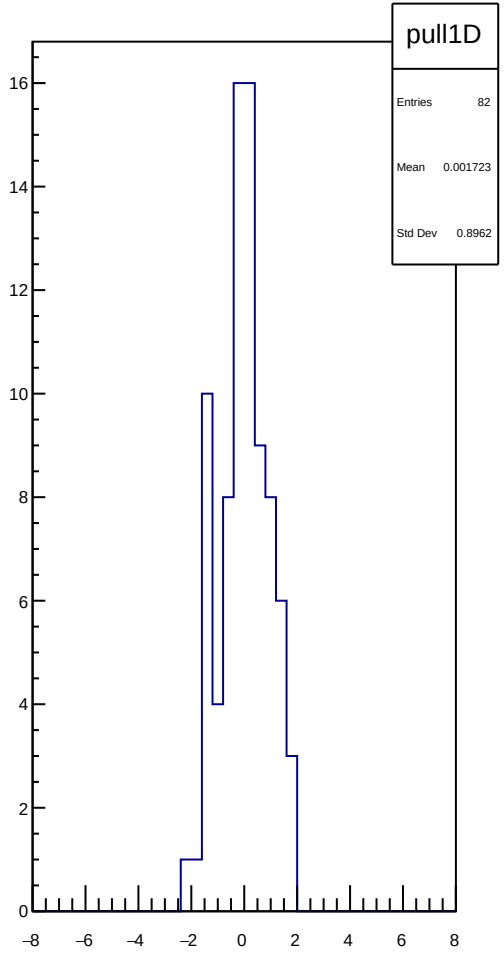

pull1D
Entries 82
Mean −0.009951
Std Dev 1.056

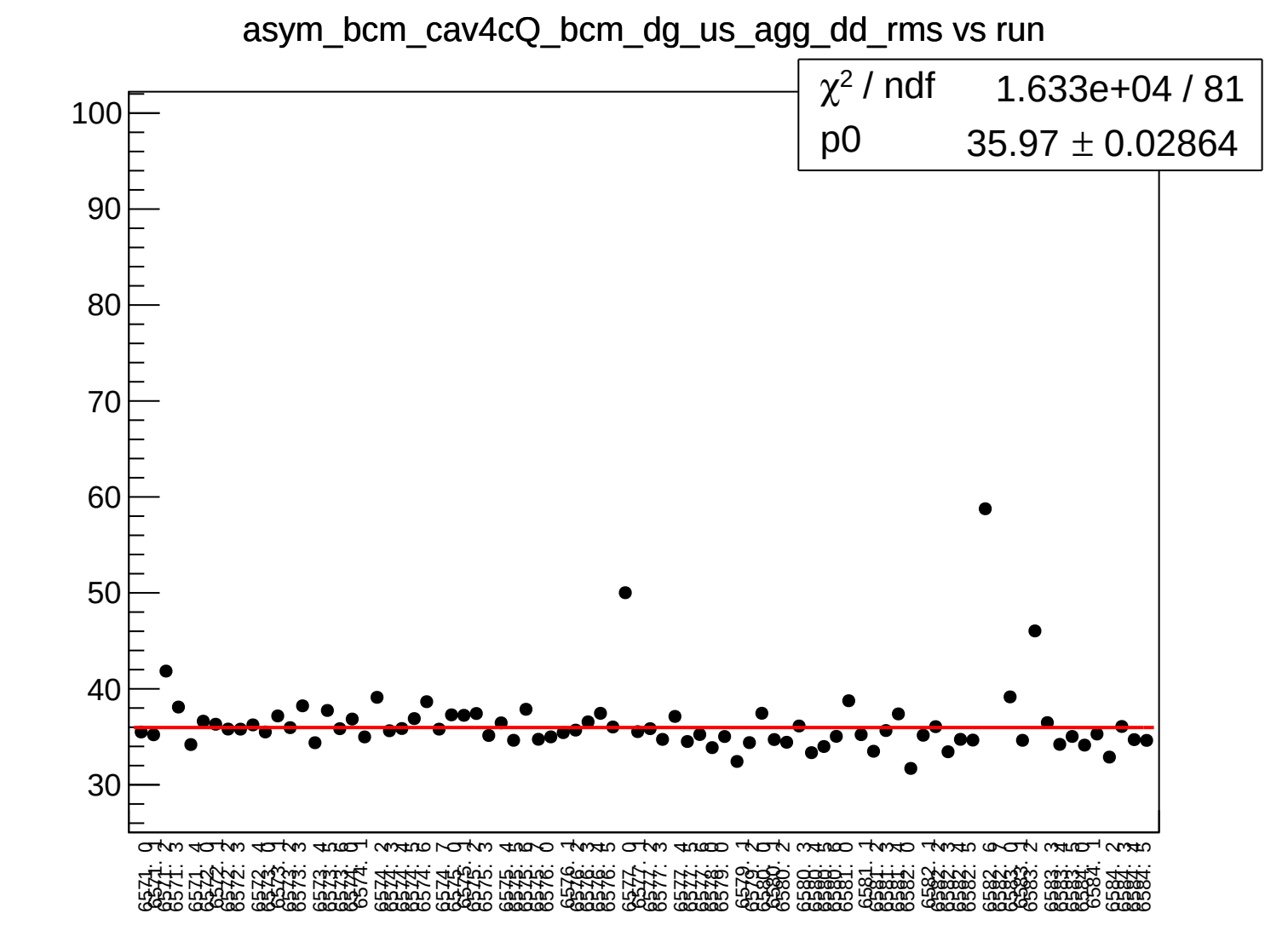

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 1.986e+04 / 81
p0 29.28 ± 0.02334
90
80
70
60
50
40
30
20

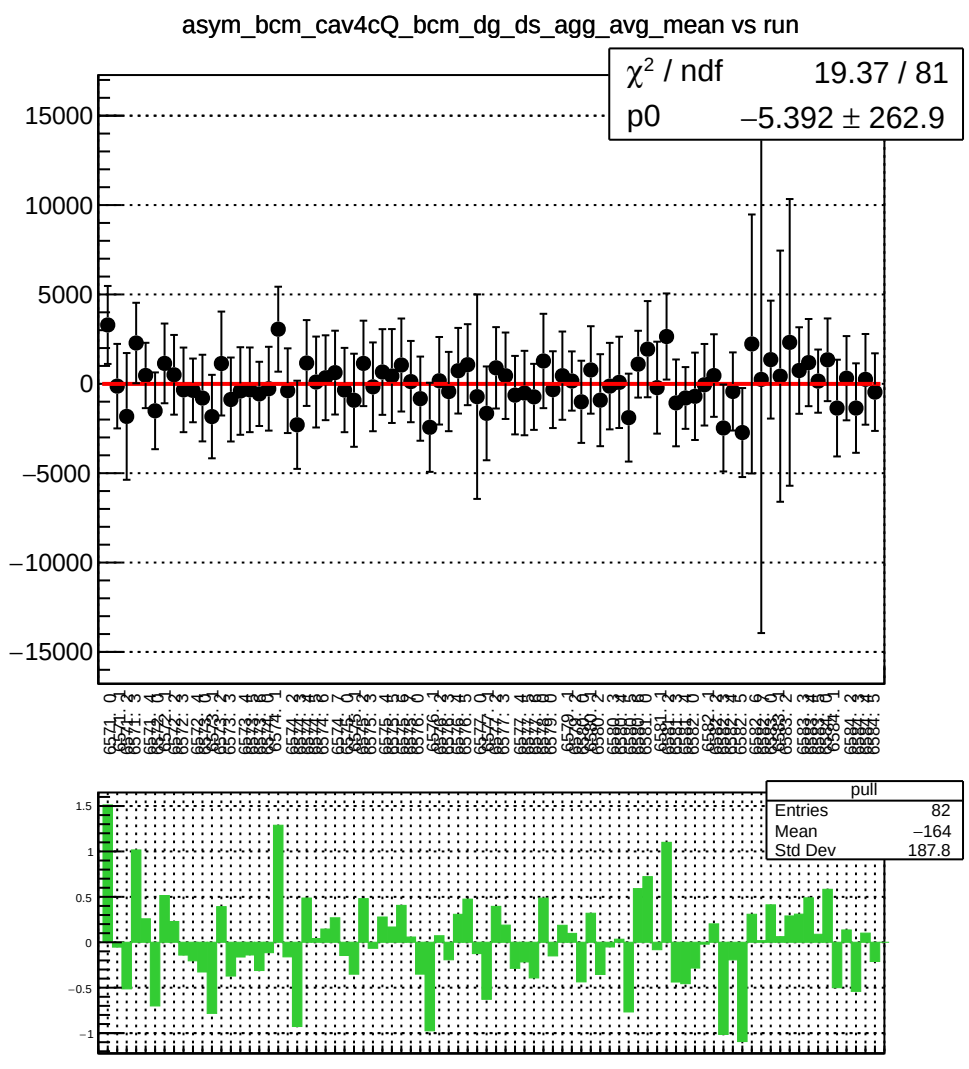

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_mean vs run
χ² / ndf 19.36 / 81
p0 25.17 ± 265.5
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −67.39
Std Dev 78.64
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 82
Mean 0.004546
Std Dev 0.4859
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

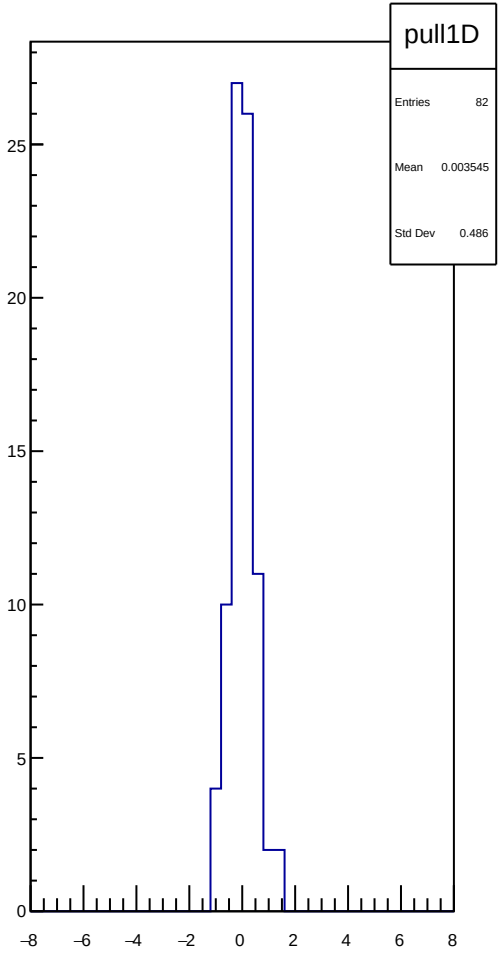

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_rms vs run
χ² / ndf 5.329e+04 / 81
p0 233 ± 0.1877
1600
1400
1200
1000
800
600
400
200

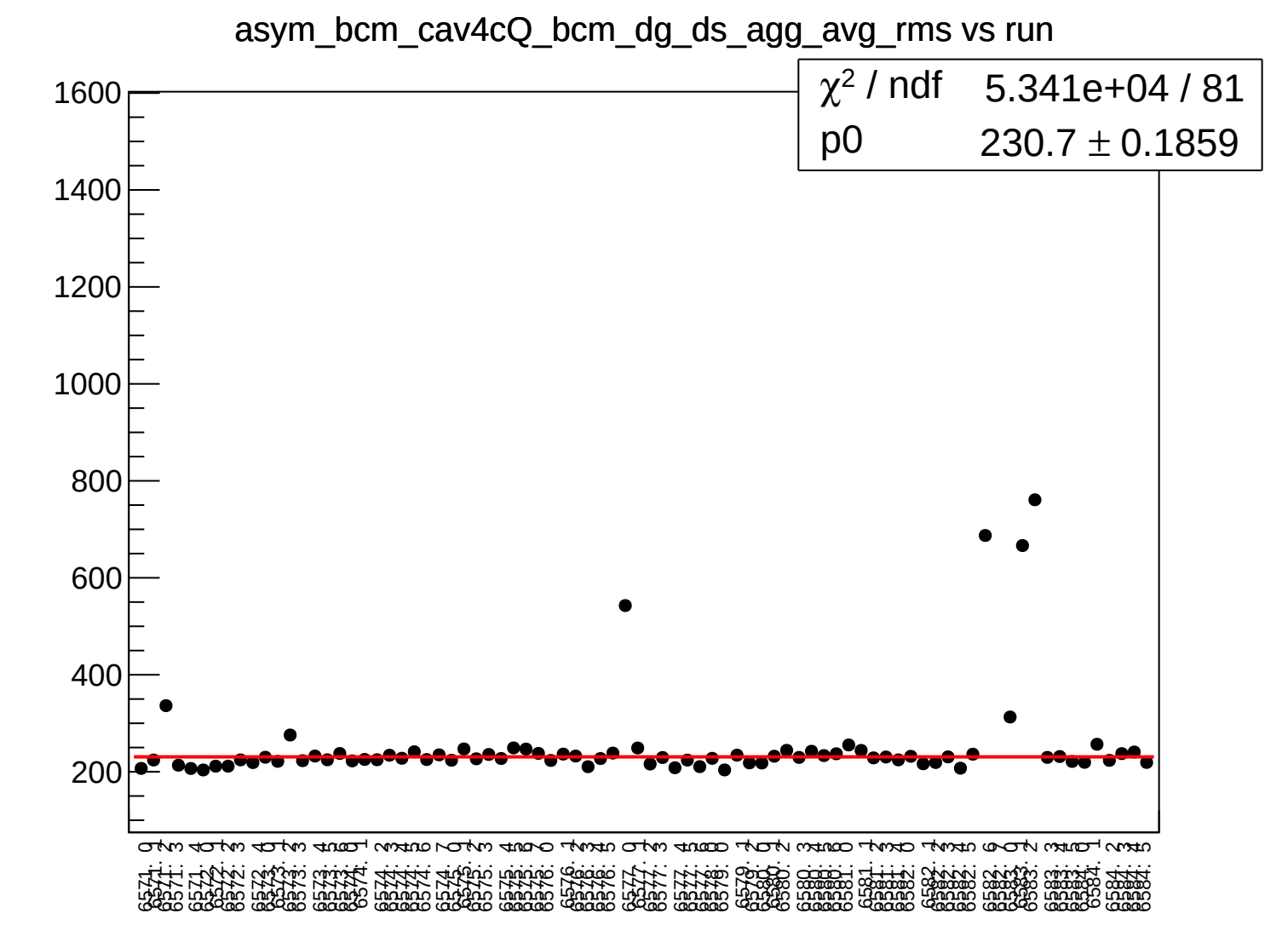

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 65.87 / 81
p0 −108 ± 40.5
1000
500
0
−500
−1000
pull
Entries 82
Mean −2912
Std Dev 2958
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

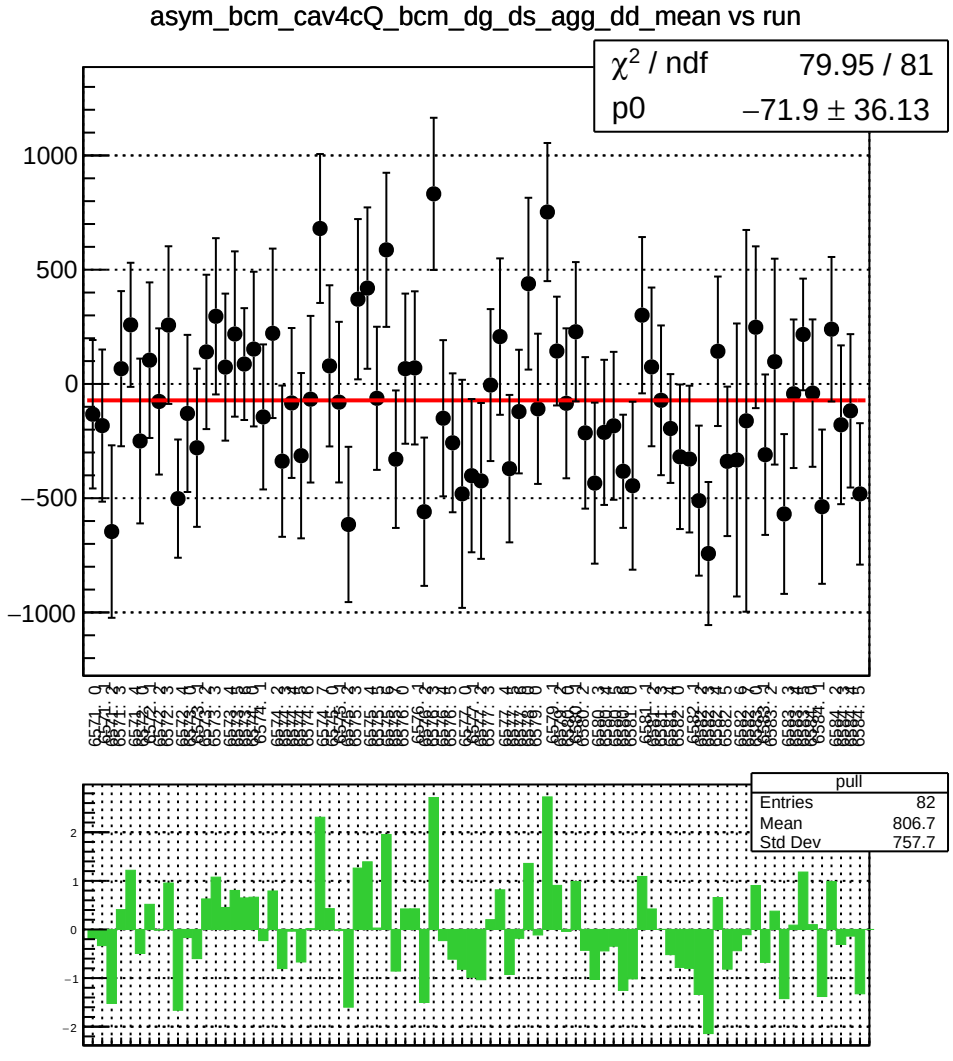

pull1D
Entries 82
Mean 0.001723
Std Dev 0.8962
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

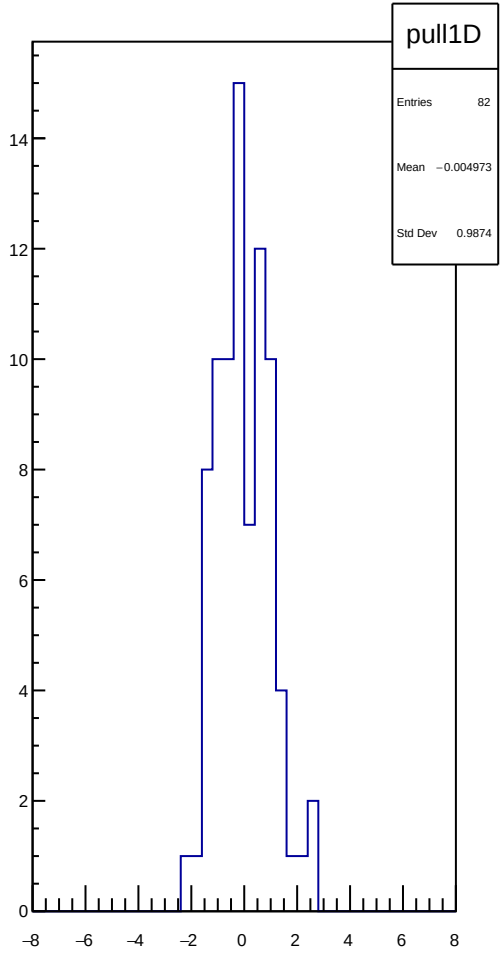

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 1.633e+04 / 81
p0 35.97 ± 0.02864
100
90
80
70
60
50
40
30

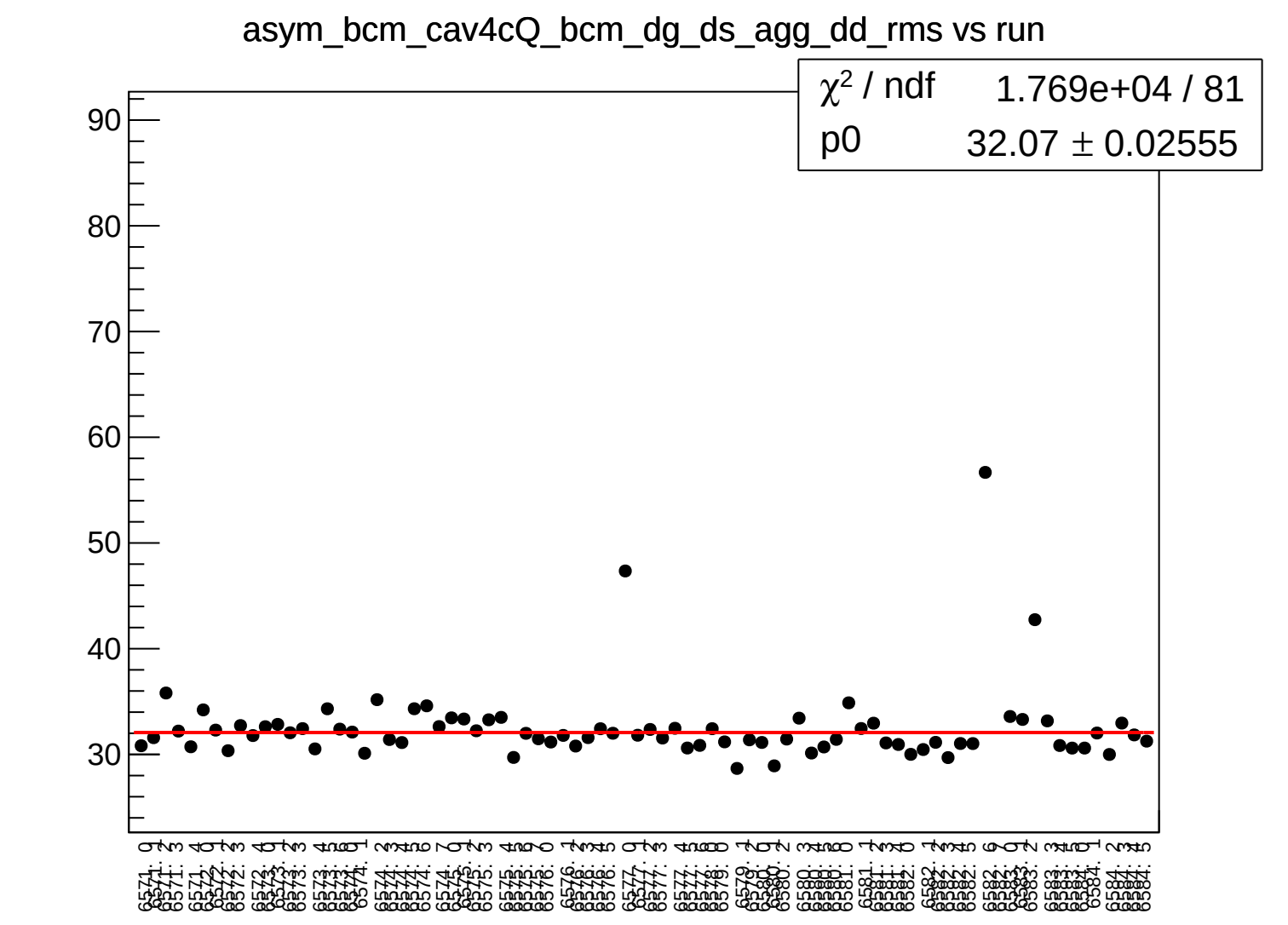

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 19.37 / 81
p0 −5.392 ± 262.9
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −164
Std Dev 187.8
1.5
1
0.5
0
−0.5
−1

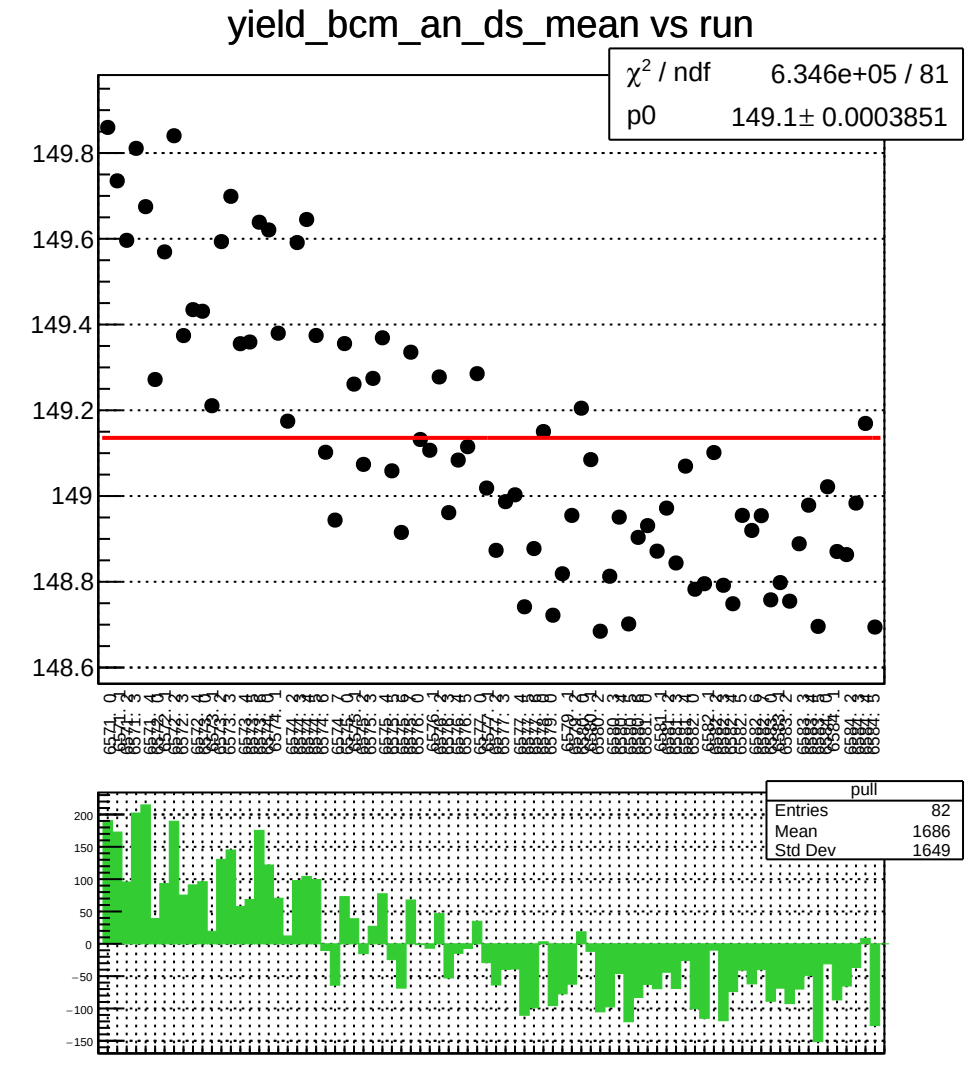

pull1D
Entries 82
Mean 0.003545
Std Dev 0.486
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

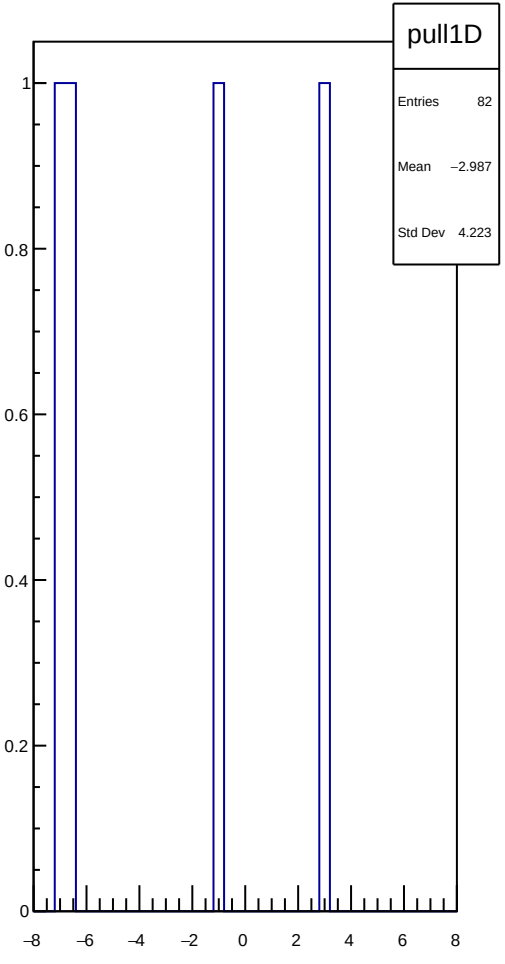

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 5.341e+04 / 81
p0 230.7 ± 0.1859
1600
1400
1200
1000
800
600
400
200

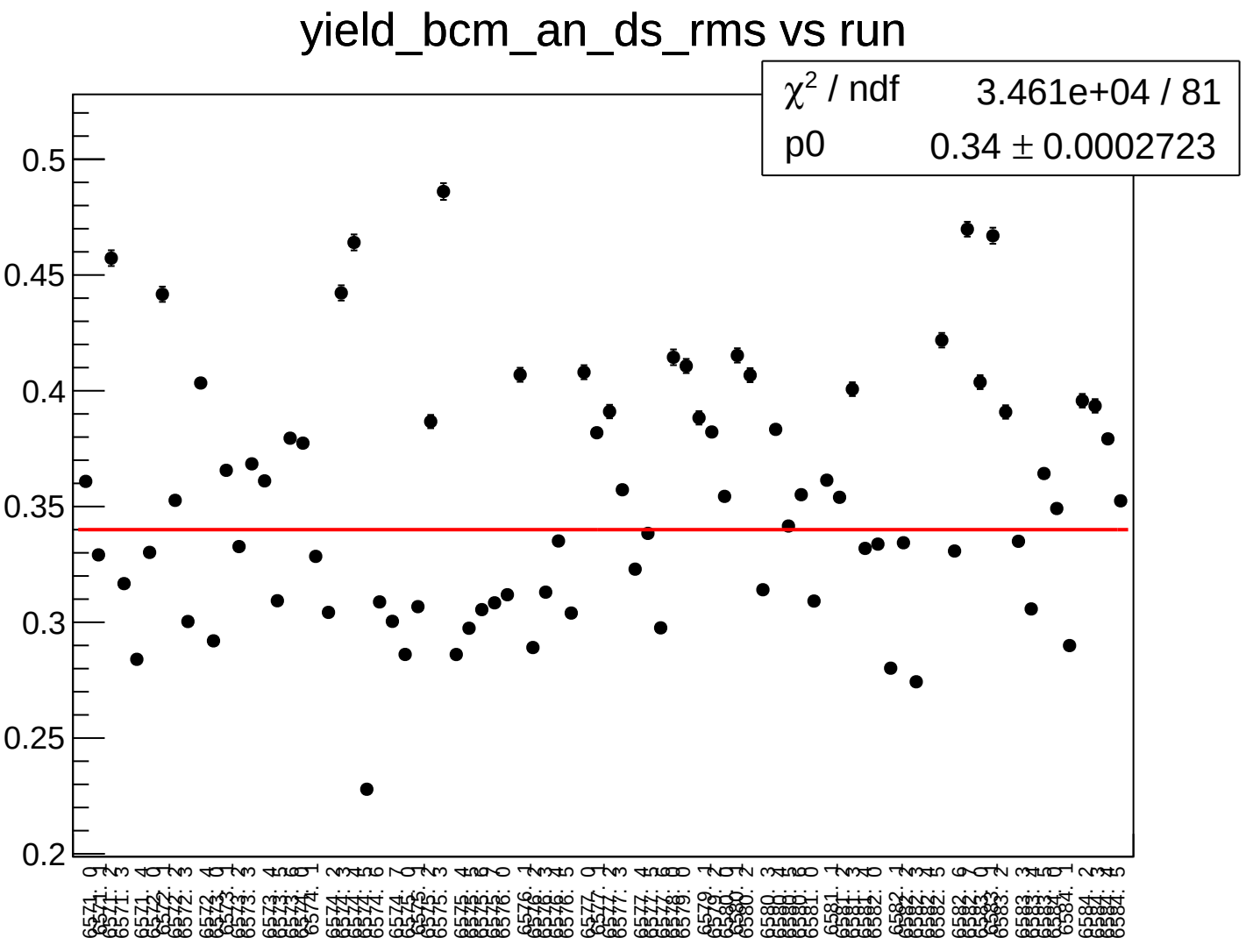

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 79.95 / 81
p0 −71.9 ± 36.13
1000
500
0
−500
−1000
pull
Entries 82
Mean 806.7
Std Dev 757.7
2
1
0
−1
−2

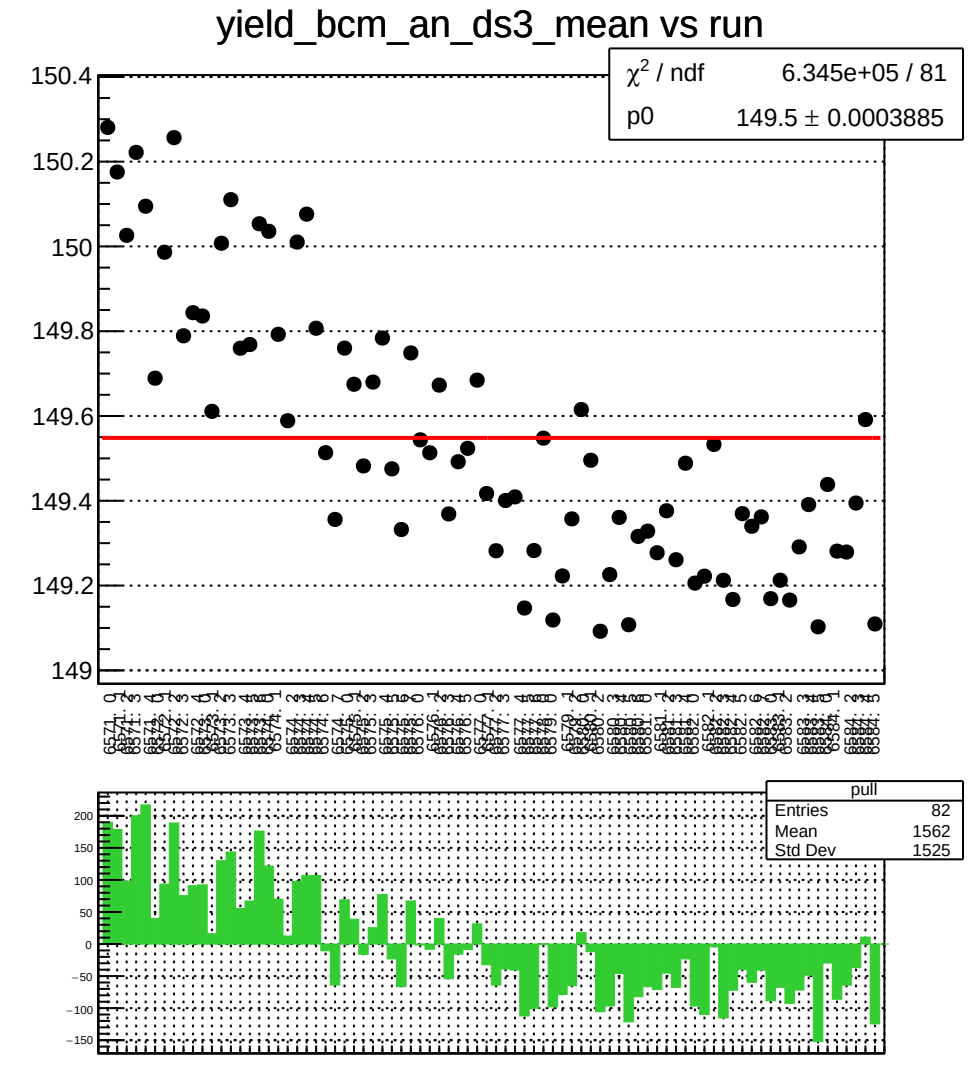

pull1D
Entries 82
Mean −0.004973
Std Dev 0.9874
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

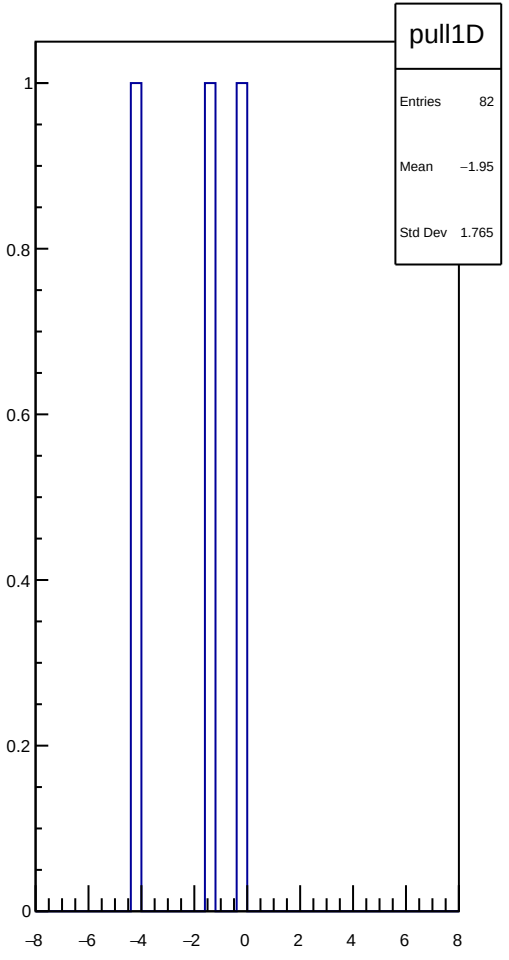

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 1.769e+04 / 81
p0 32.07 ± 0.02555
90
80
70
60
50
40
30

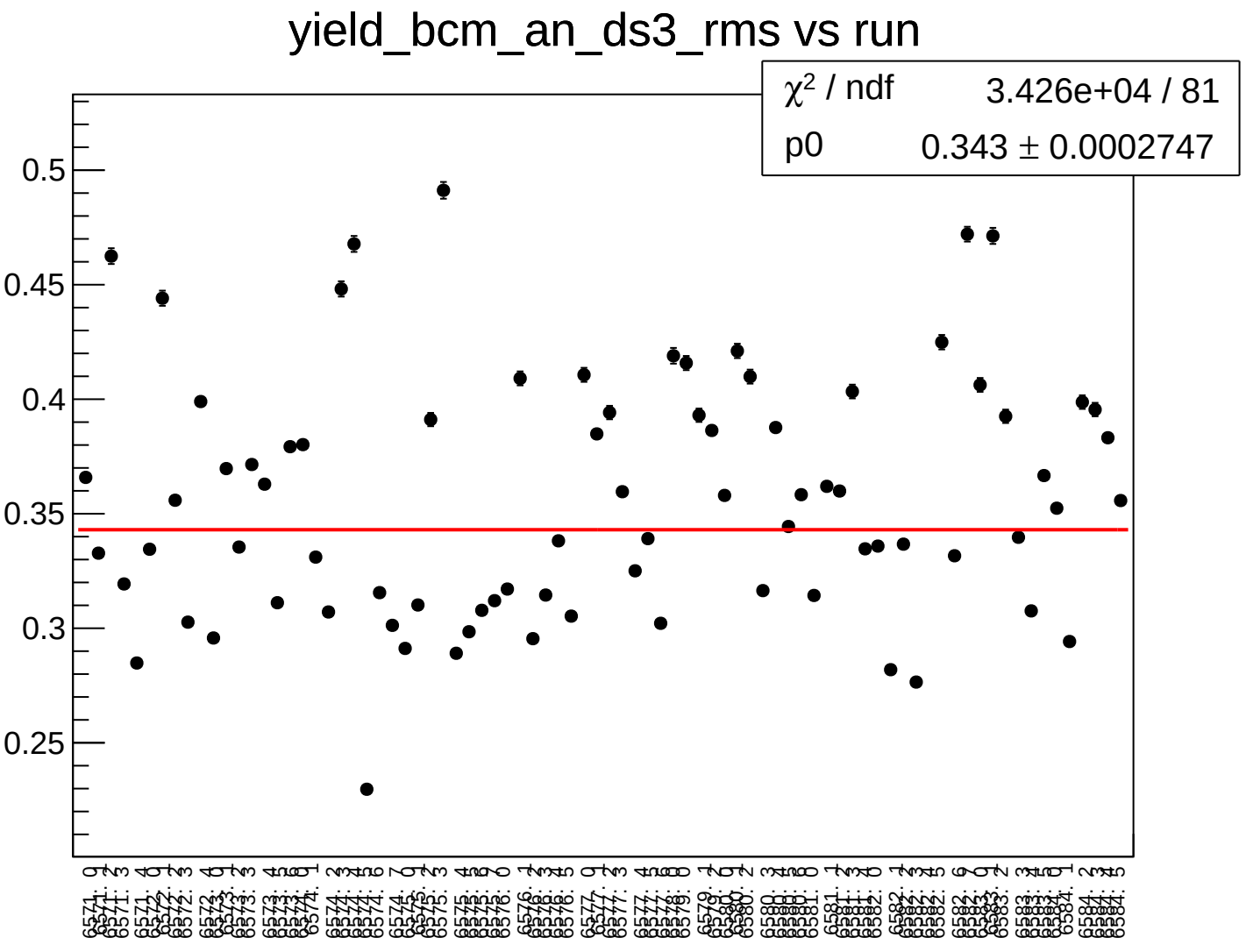

yield_bcm_an_ds_mean vs run
χ² / ndf 6.346e+05 / 81
p0 149.1± 0.0003851
149.8
149.6
149.4
149.2
149
148.8
148.6
pull
Entries 82
Mean 1686
Std Dev 1649
200
150
100
50
0
−50
−100
−150

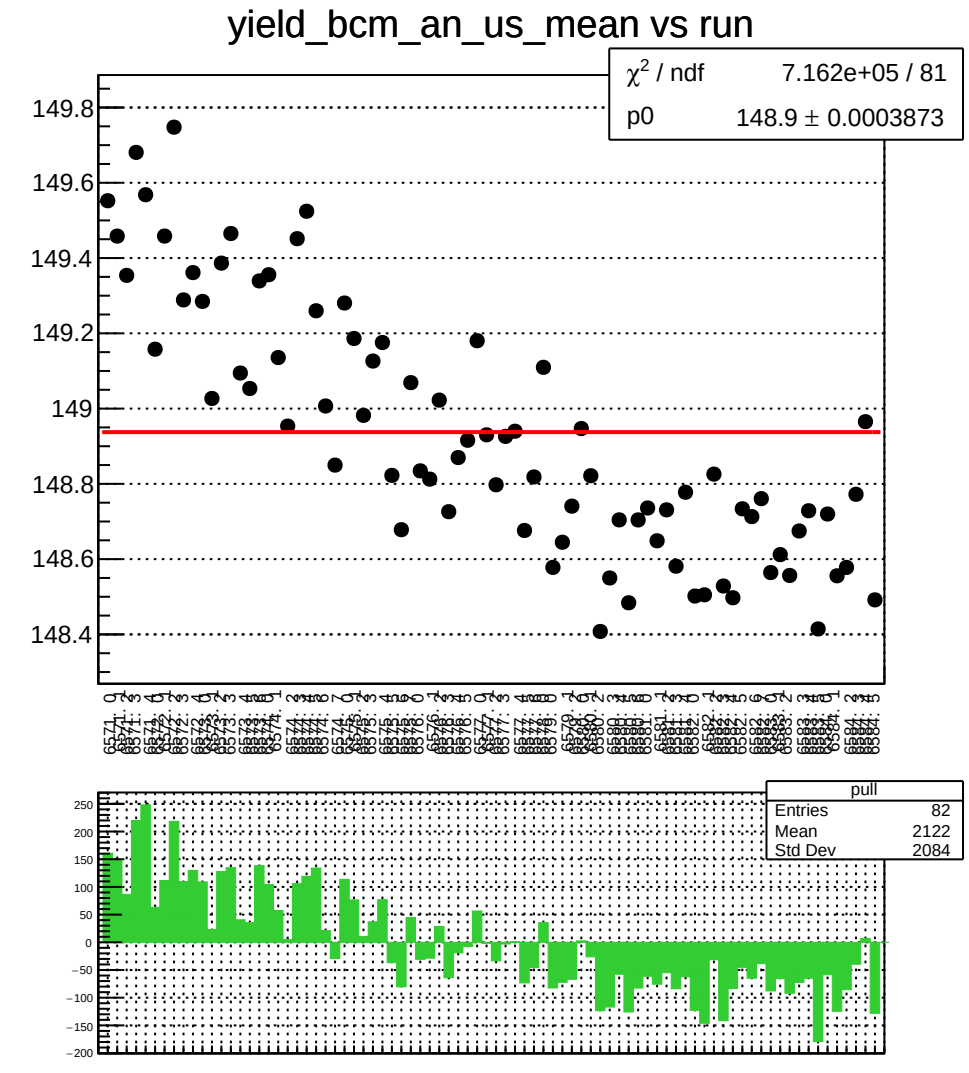

pull1D
Entries 82
Mean −2.987
Std Dev 4.223
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

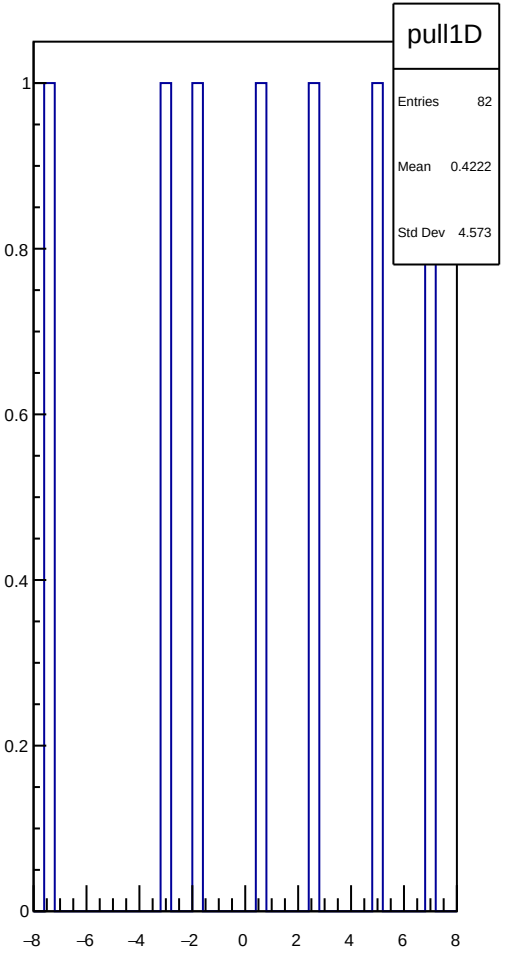

yield_bcm_an_ds_rms vs run
χ^2 / ndf 3.461e+04 / 81
p0 0.34 ± 0.0002723
0.5
0.45
0.4
0.35
0.3
0.25
0.2

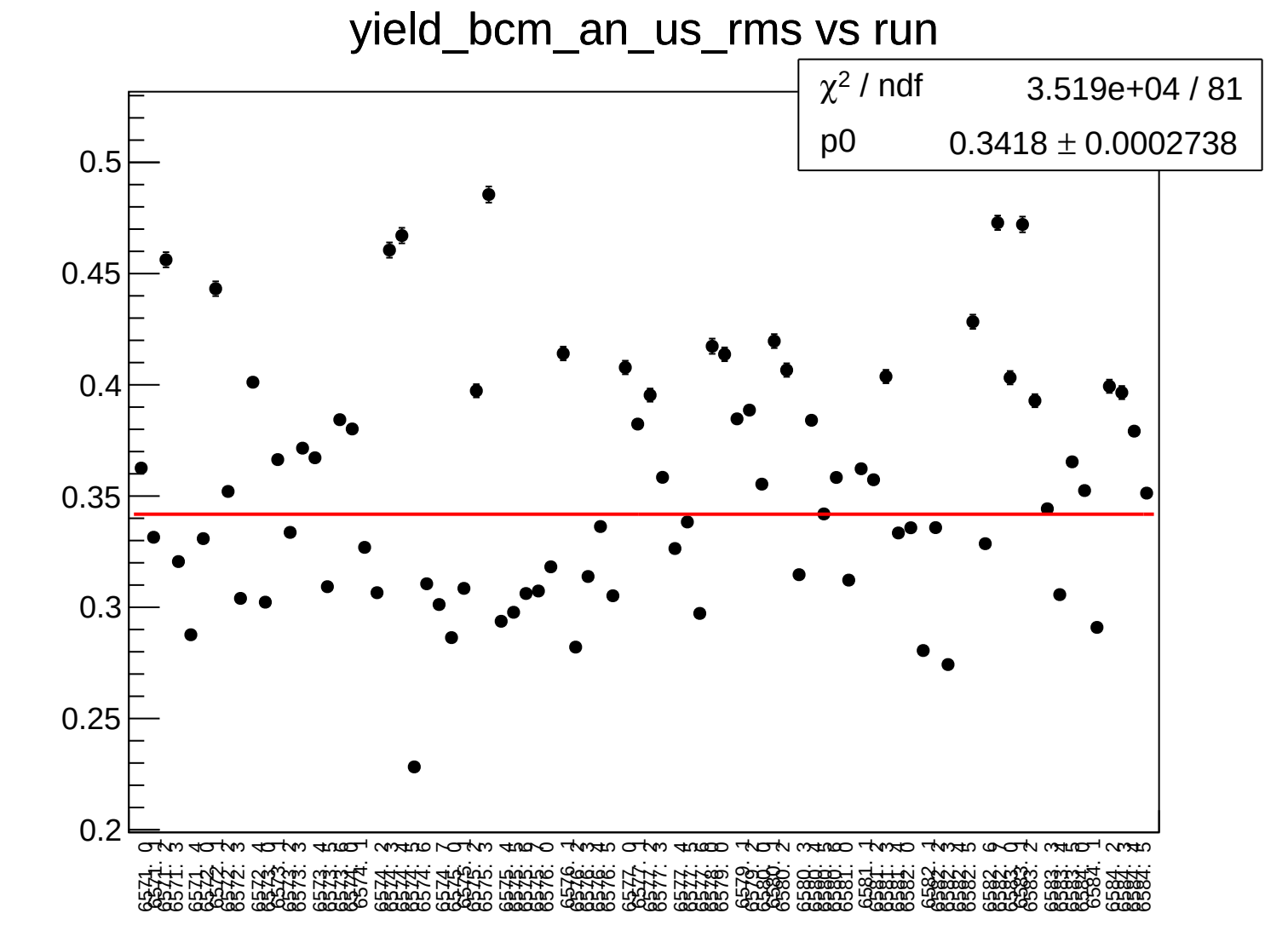

yield_bcm_an_ds3_mean vs run
χ² / ndf 6.345e+05 / 81
p0 149.5 ± 0.0003885
150.4
150.2
150
149.8
149.6
149.4
149.2
149
pull
Entries 82
Mean 1562
Std Dev 1525
200
150
100
50
0
−50
−100
−150

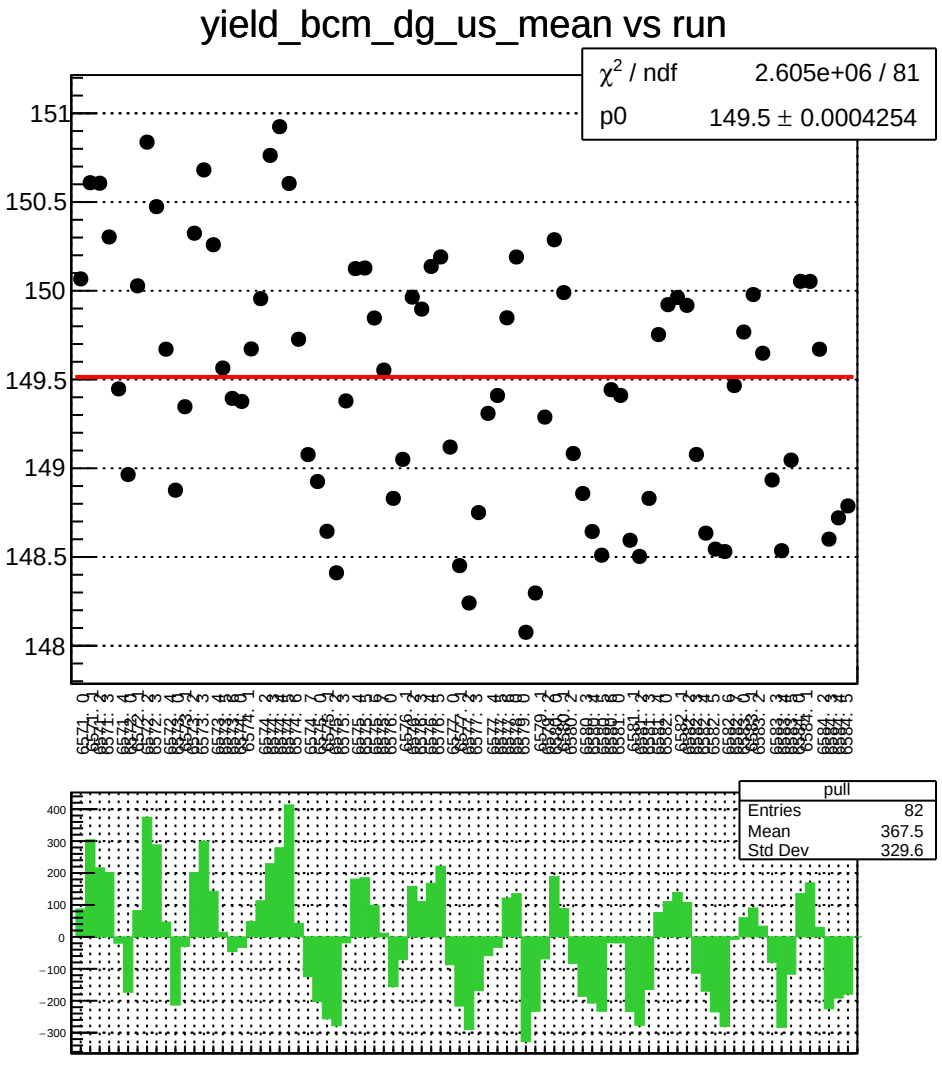

pull1D
Entries 82
Mean −1.95
Std Dev 1.765
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

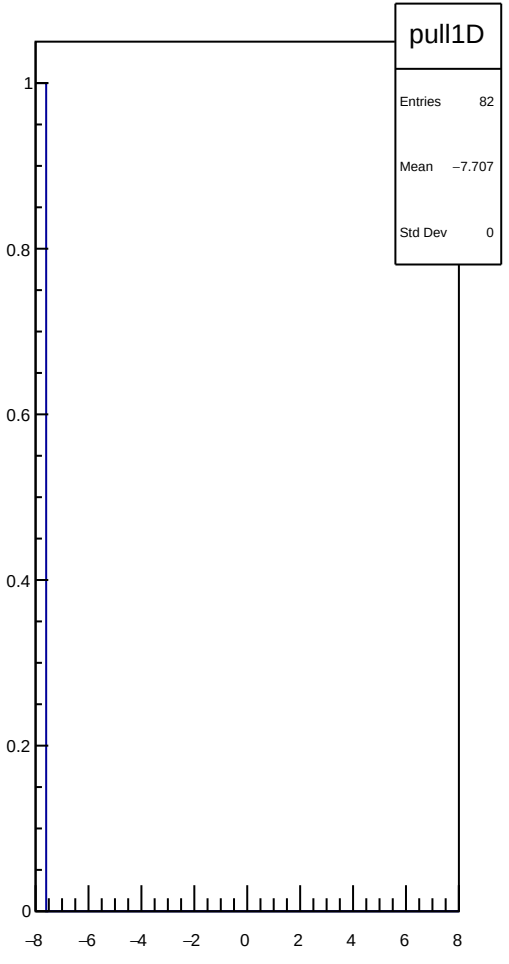

yield_bcm_an_ds3_rms vs run
χ² / ndf 3.426e+04 / 81
p0 0.343 ± 0.0002747
0.5
0.45
0.4
0.35
0.3
0.25

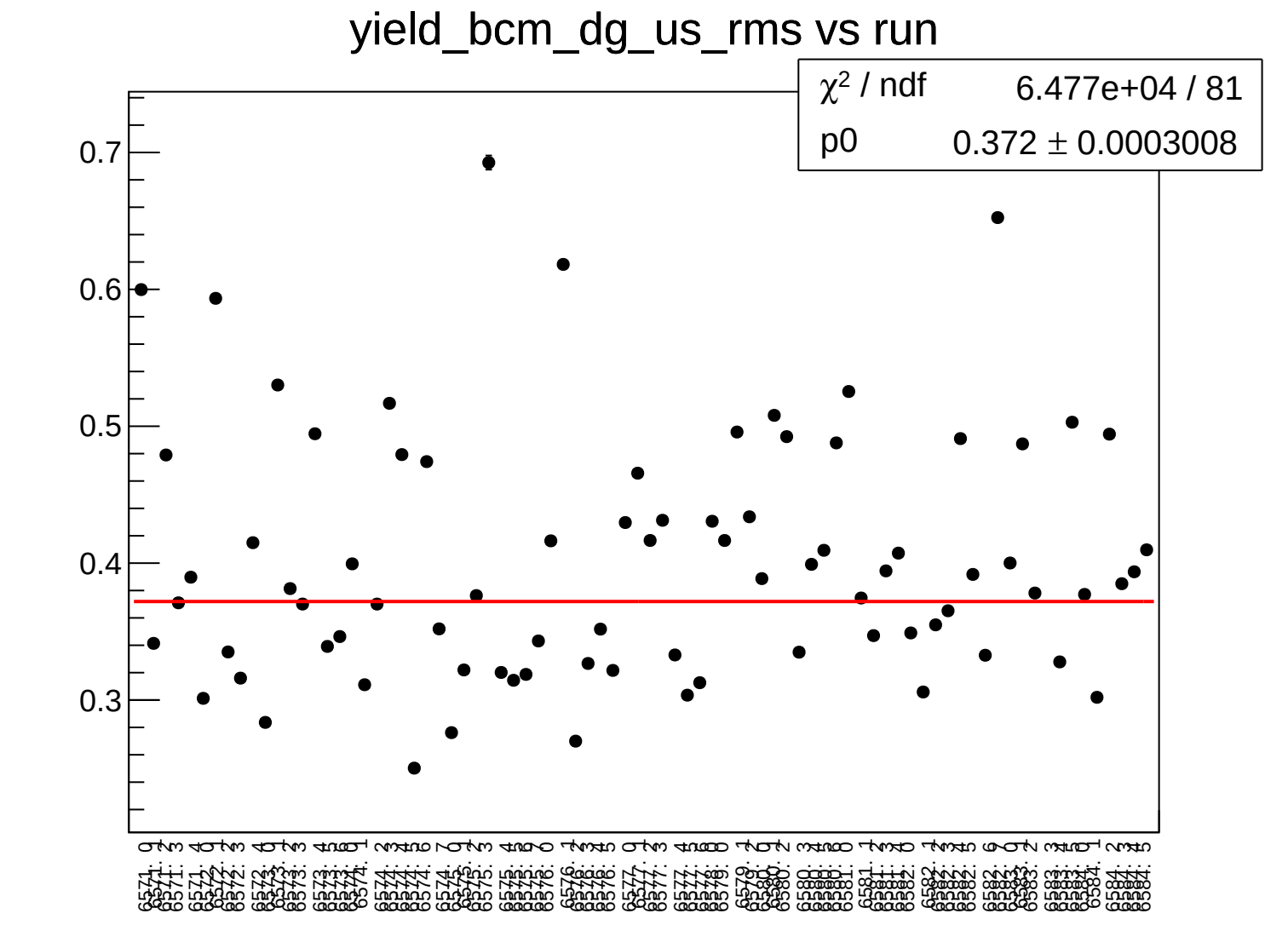

yield_bcm_an_us_mean vs run
χ² / ndf 7.162e+05 / 81
p0 148.9 ± 0.0003873
149.8
149.6
149.4
149.2
149
148.8
148.6
148.4
pull
Entries 82
Mean 2122
Std Dev 2084
250
200
150
100
50
0
−50
−100
−150
−200

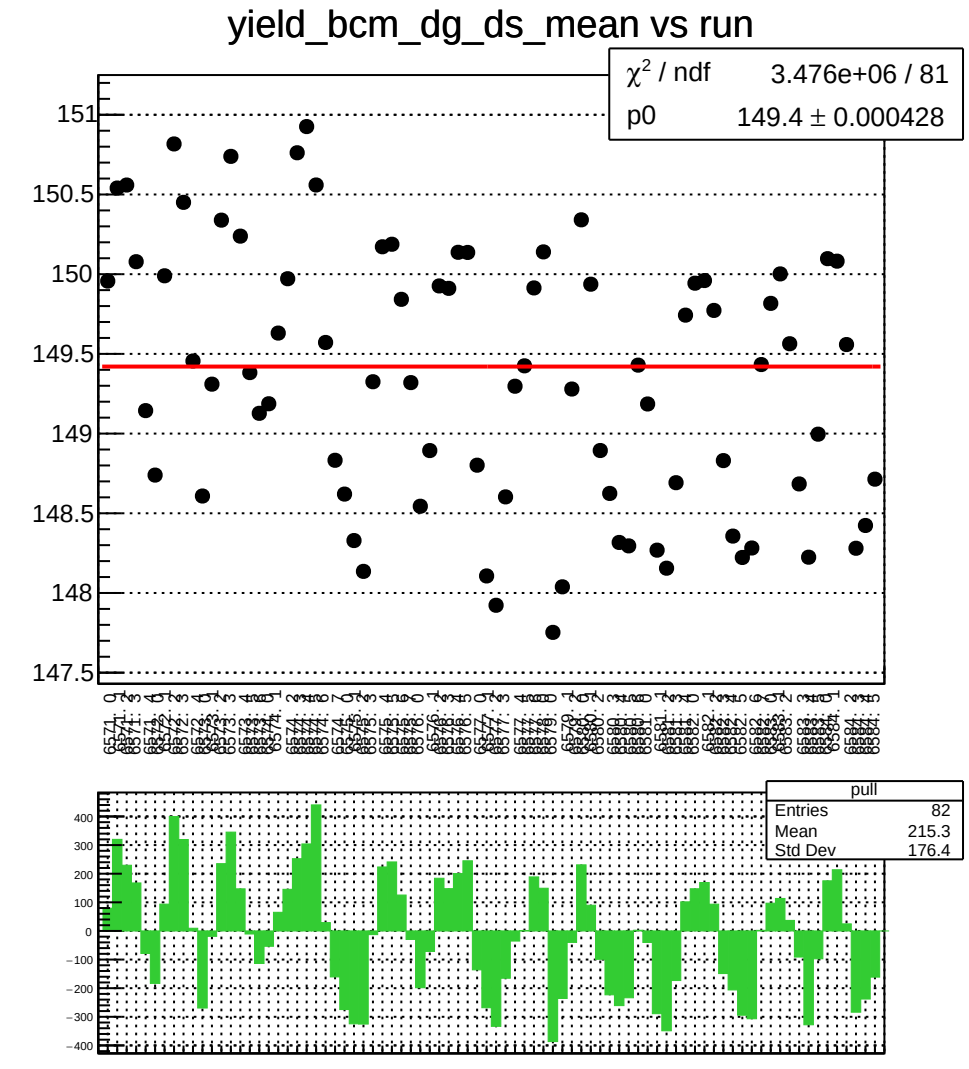

pull1D
Entries 82
Mean 0.4222
Std Dev 4.573
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

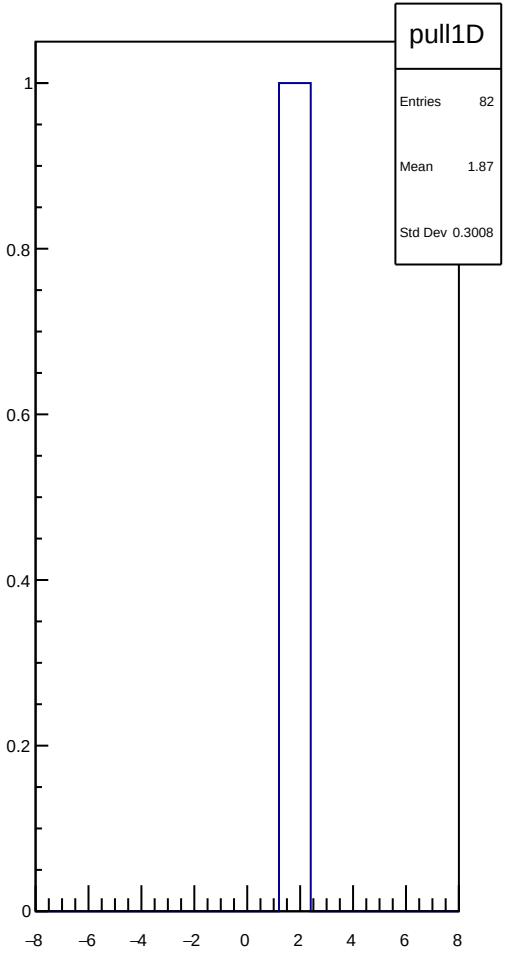

yield_bcm_an_us_rms vs run
χ² / ndf 3.519e+04 / 81
p0 0.3418 ± 0.0002738
0.5
0.45
0.4
0.35
0.3
0.25
0.2

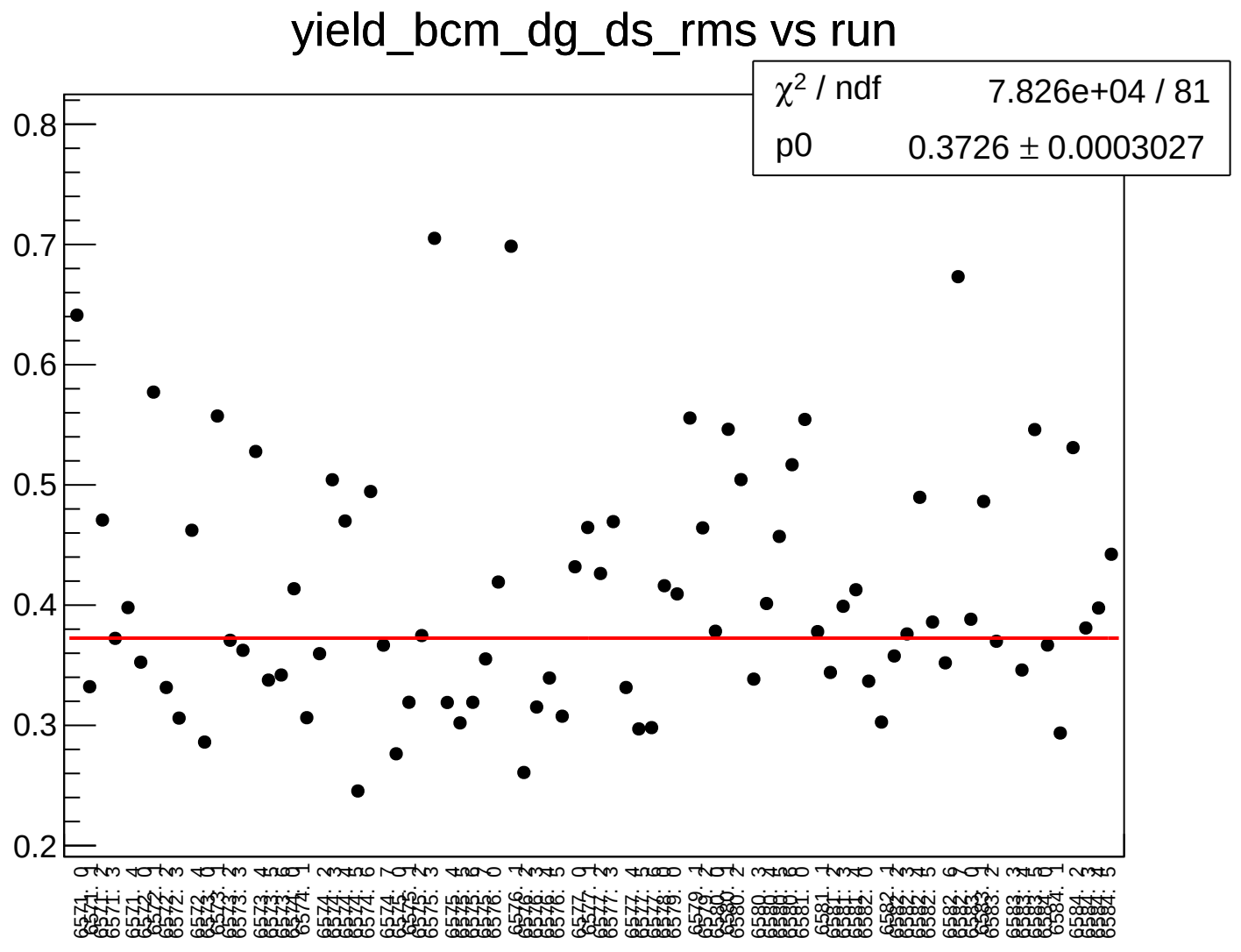

yield_bcm_dg_us_mean vs run
χ² / ndf 2.605e+06 / 81
p0 149.5 ± 0.0004254
151
150.5
150
149.5
149
148.5
148
pull
Entries 82
Mean 367.5
Std Dev 329.6
400
300
200
100
0
−100
−200
−300

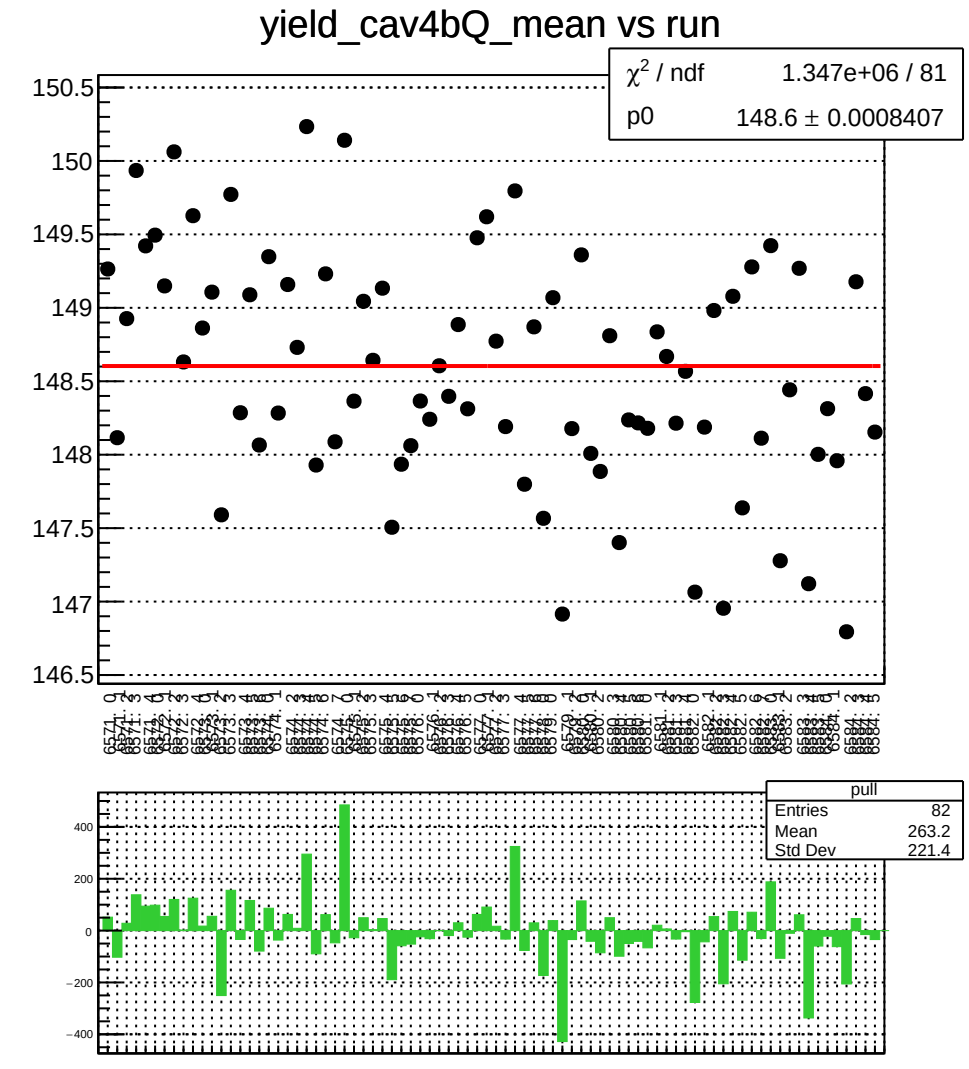

pull1D
Entries 82
Mean −7.707
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

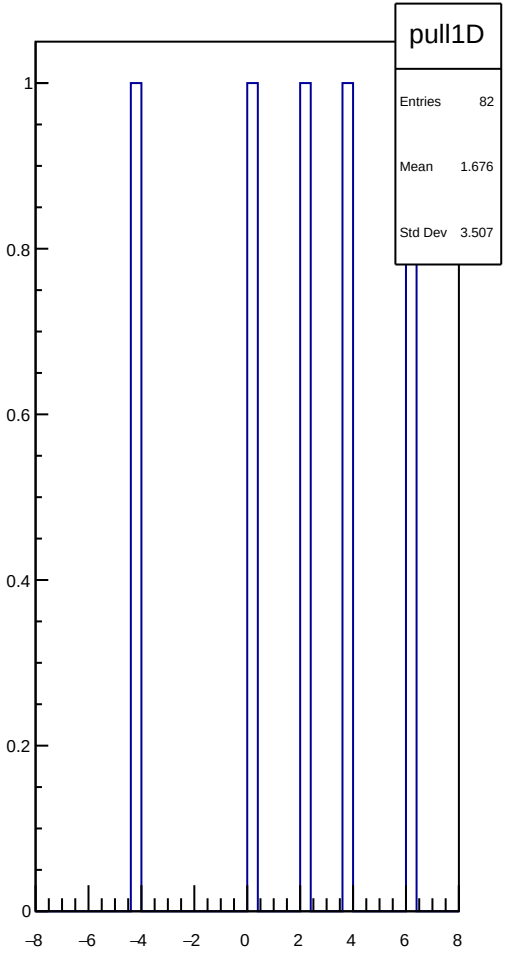

yield_bcm_dg_us_rms vs run
χ² / ndf 6.477e+04 / 81
p0 0.372 ± 0.0003008
0.7
0.6
0.5
0.4
0.3

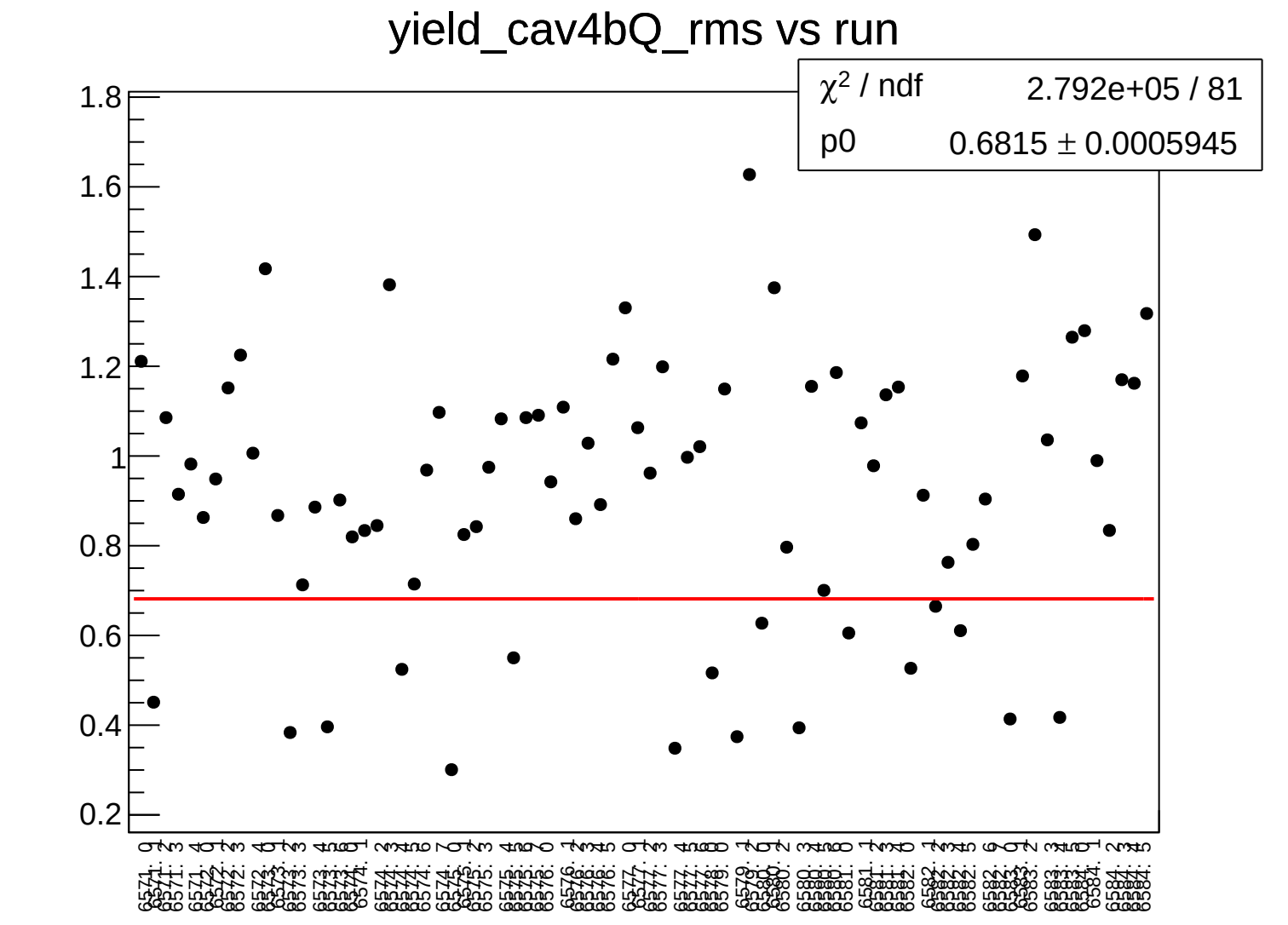

yield_bcm_dg_ds_mean vs run
χ² / ndf 3.476e+06 / 81
p0 149.4 ± 0.000428
151
150.5
150
149.5
149
148.5
148
147.5
pull
Entries 82
Mean 215.3
Std Dev 176.4
400
300
200
100
0
−100
−200
−300
−400

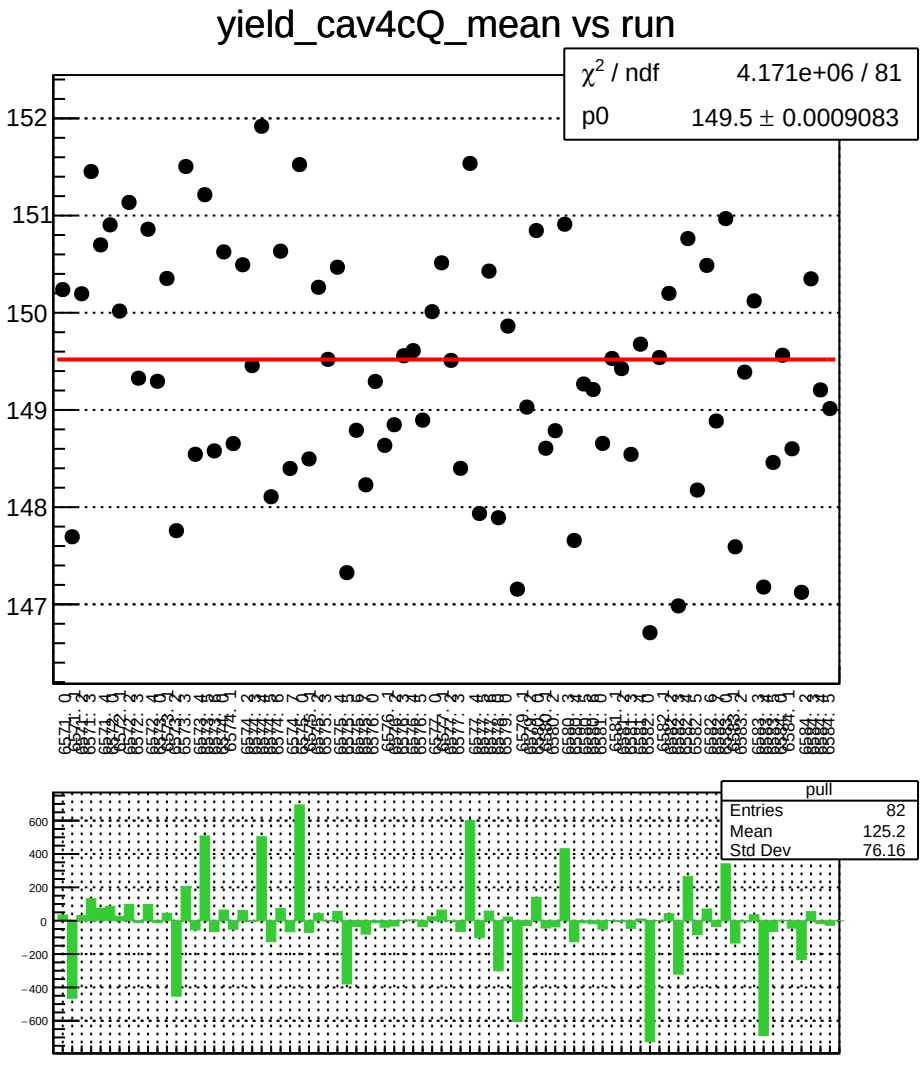

pull1D
Entries 82
Mean 1.87
Std Dev 0.3008
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

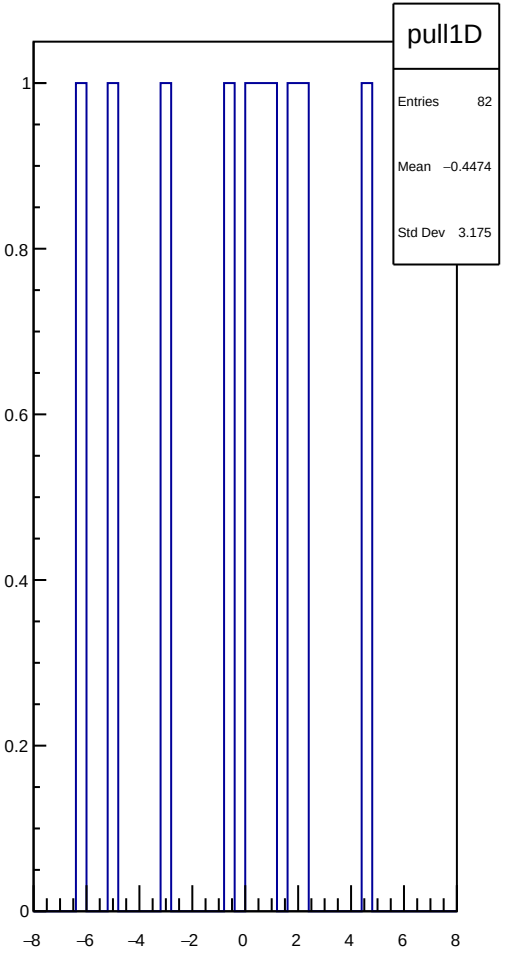

yield_bcm_dg_ds_rms vs run
χ² / ndf 7.826e+04 / 81
p0 0.3726 ± 0.0003027
0.8
0.7
0.6
0.5
0.4
0.3
0.2

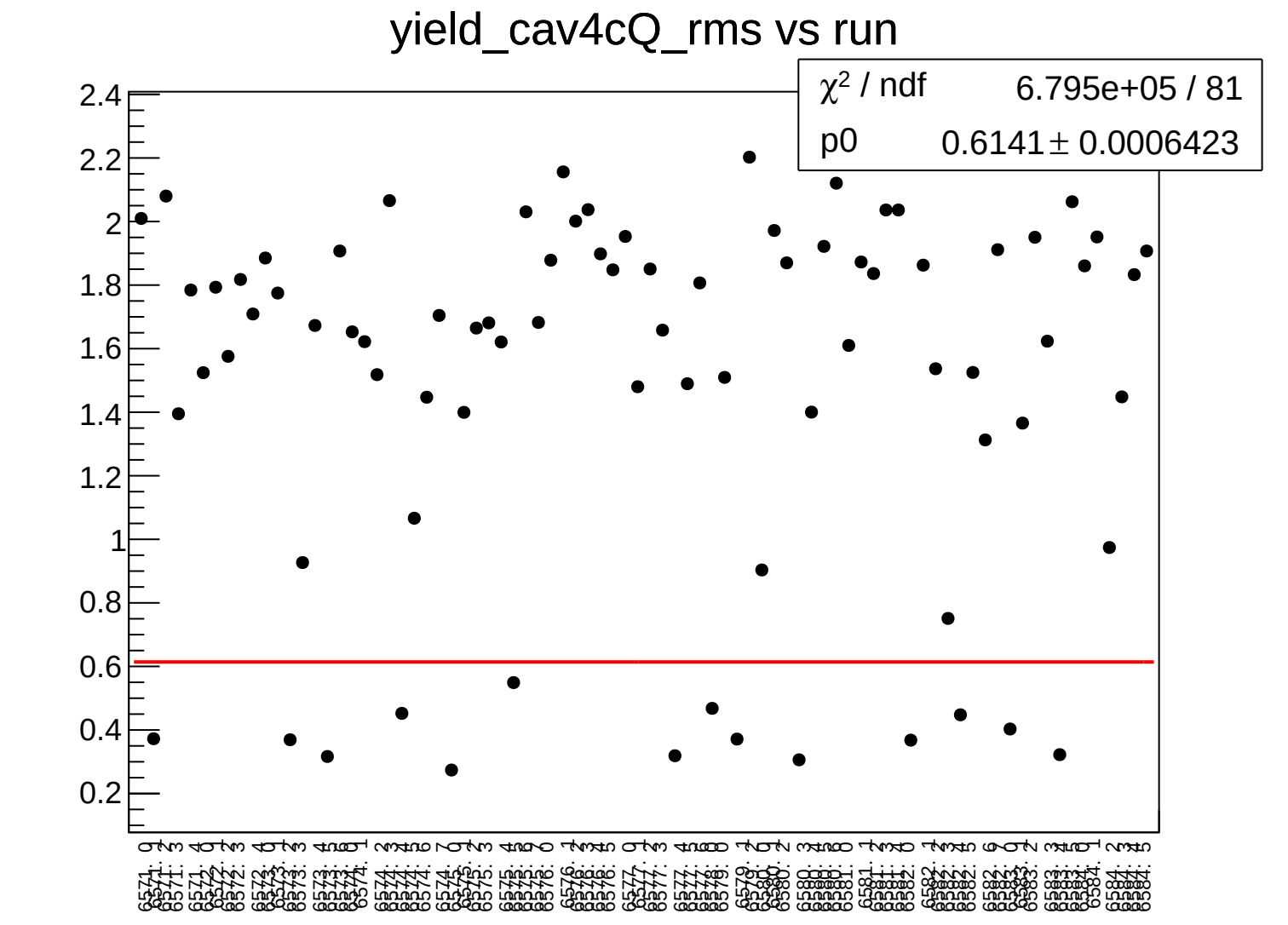

yield_cav4bQ_mean vs run
χ² / ndf 1.347e+06 / 81
p0 148.6 ± 0.0008407
150.5
150
149.5
149
148.5
148
147.5
147
146.5
pull
Entries 82
Mean 263.2
Std Dev 221.4
400
200
0
−200
−400

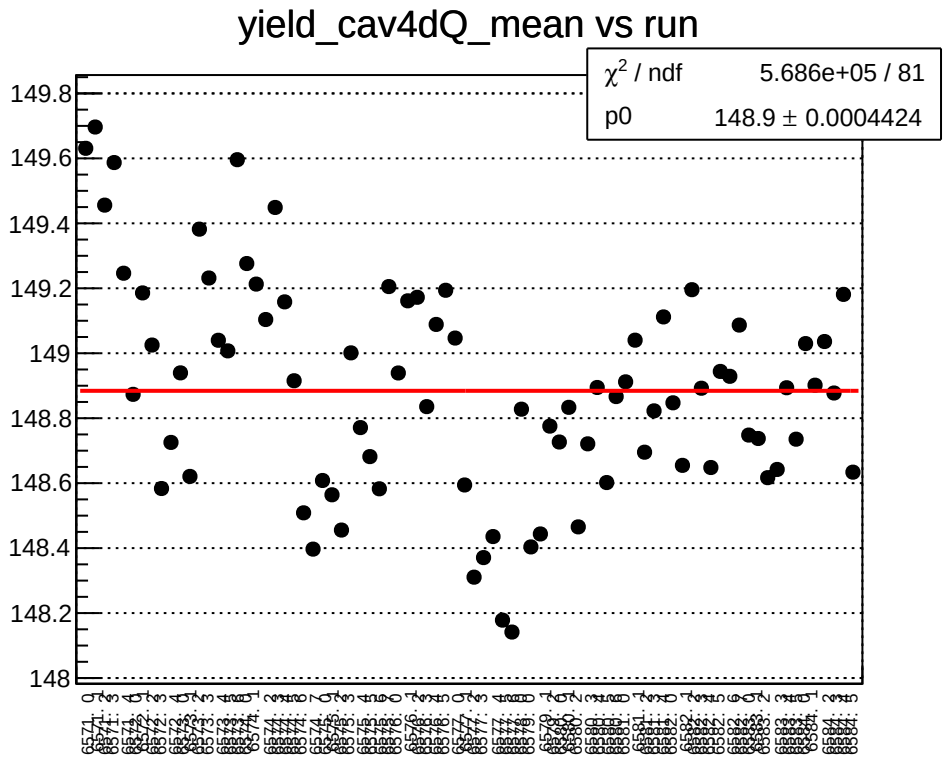

pull1D
Entries 82
Mean 1.676
Std Dev 3.507
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

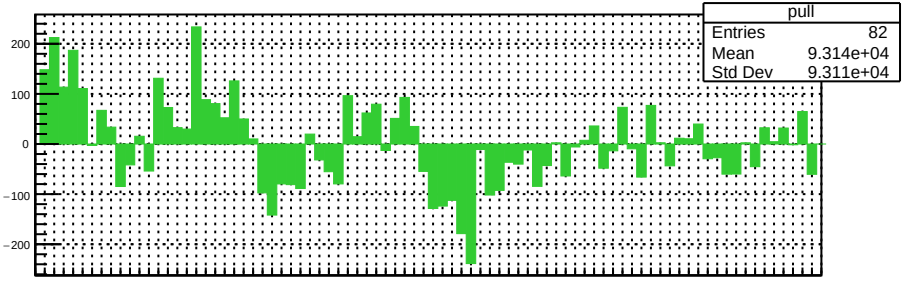

yield_cav4bQ_rms vs run
χ² / ndf 2.792e+05 / 81
p0 0.6815 ± 0.0005945
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2

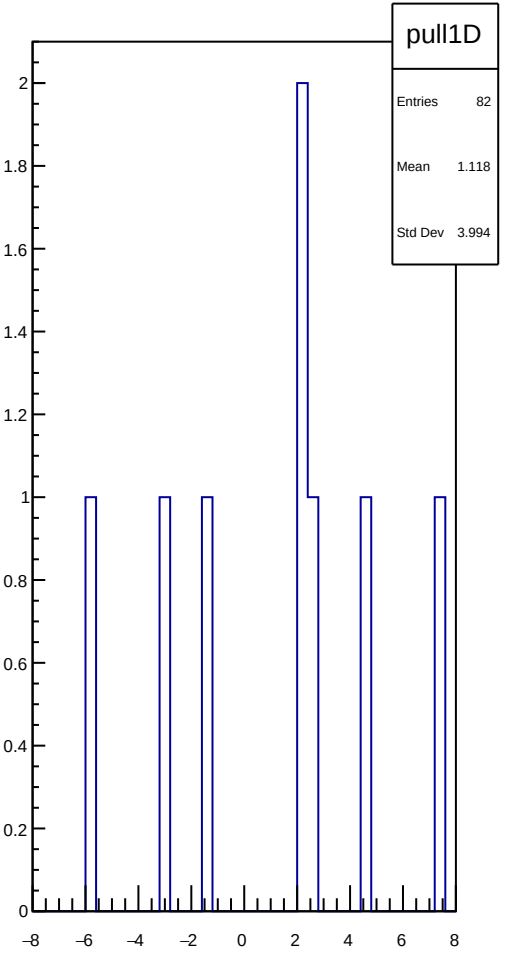

yield_cav4cQ_mean vs run
χ² / ndf 4.171e+06 / 81
p0 149.5 ± 0.0009083
152
151
150
149
148
147
pull
Entries 82
Mean 125.2
Std Dev 76.16
600
400
200
0
−200
−400
−600

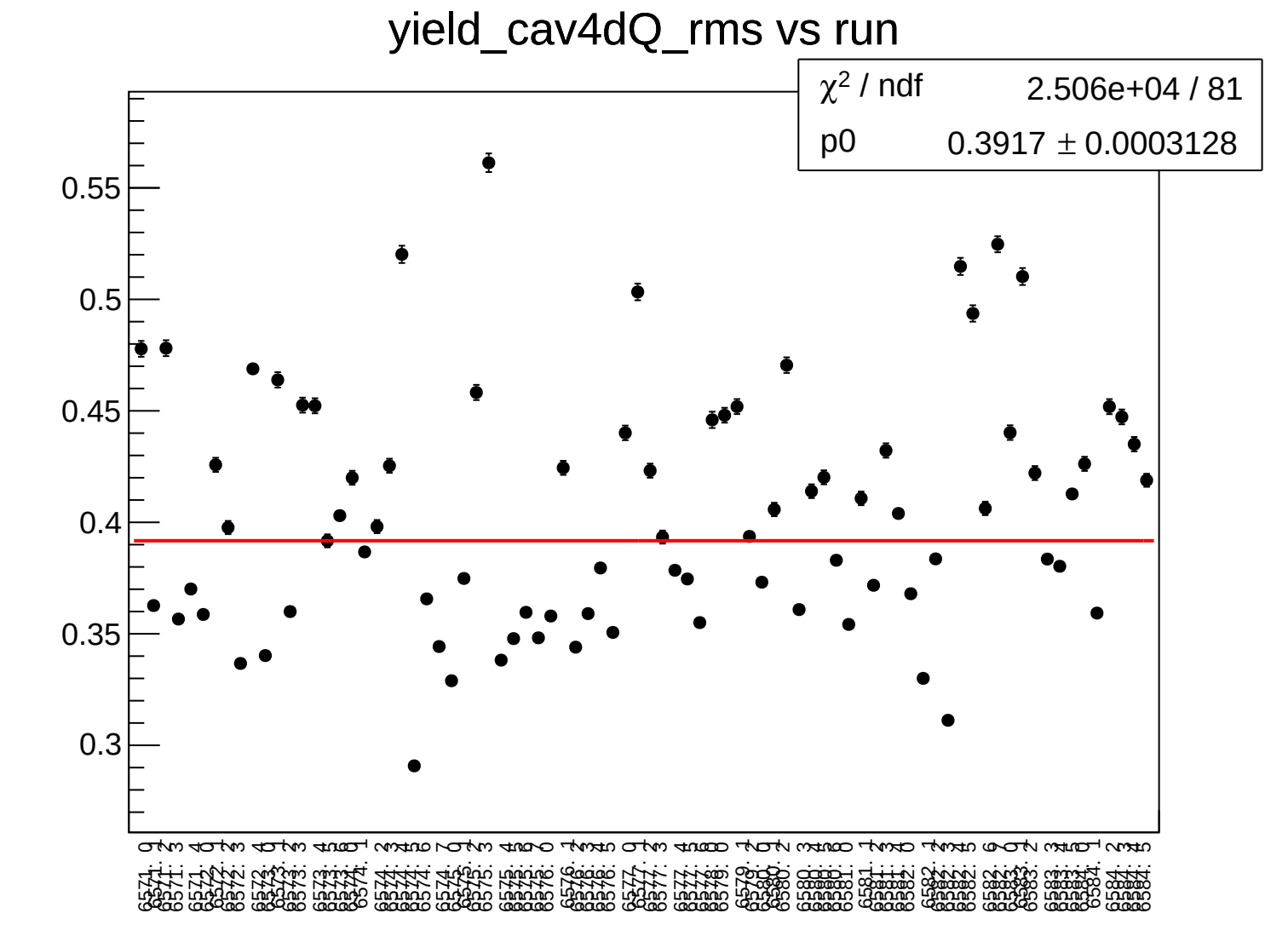

pull1D
Entries 82
Mean −0.4474
Std Dev 3.175
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

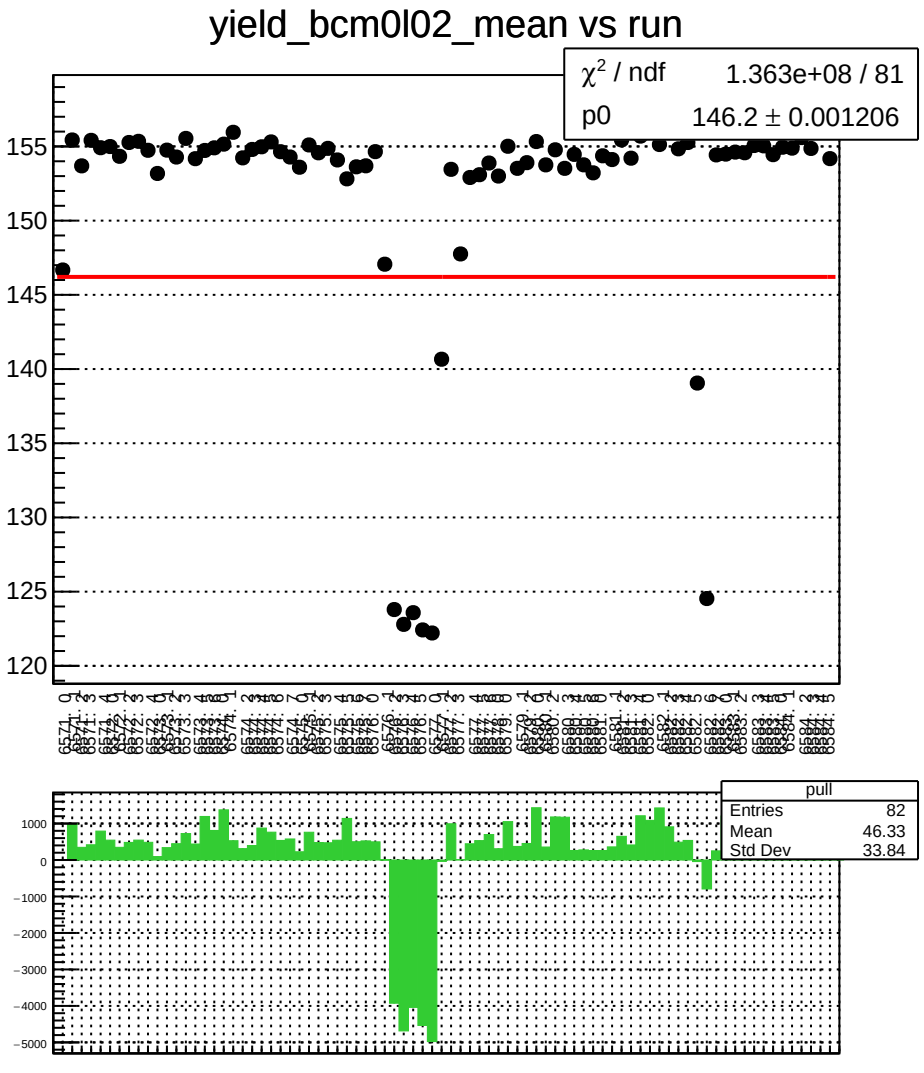

yield_cav4cQ_rms vs run
χ² / ndf 6.795e+05 / 81
p0 0.6141 ± 0.0006423
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2

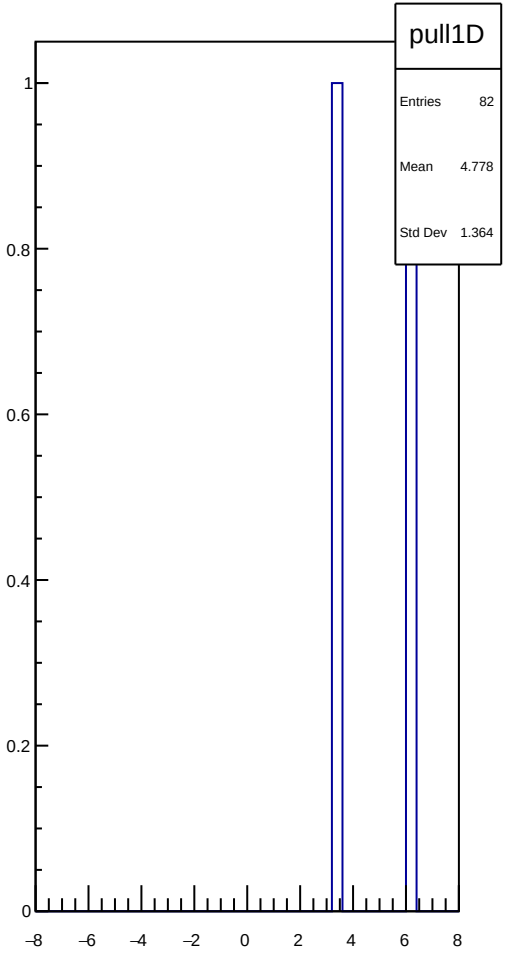

yield_cav4dQ_mean vs run
χ² / ndf 5.686e+05 / 81
p0 148.9 ± 0.0004424
149.8
149.6
149.4
149.2
149
148.8
148.6
148.4
148.2
148

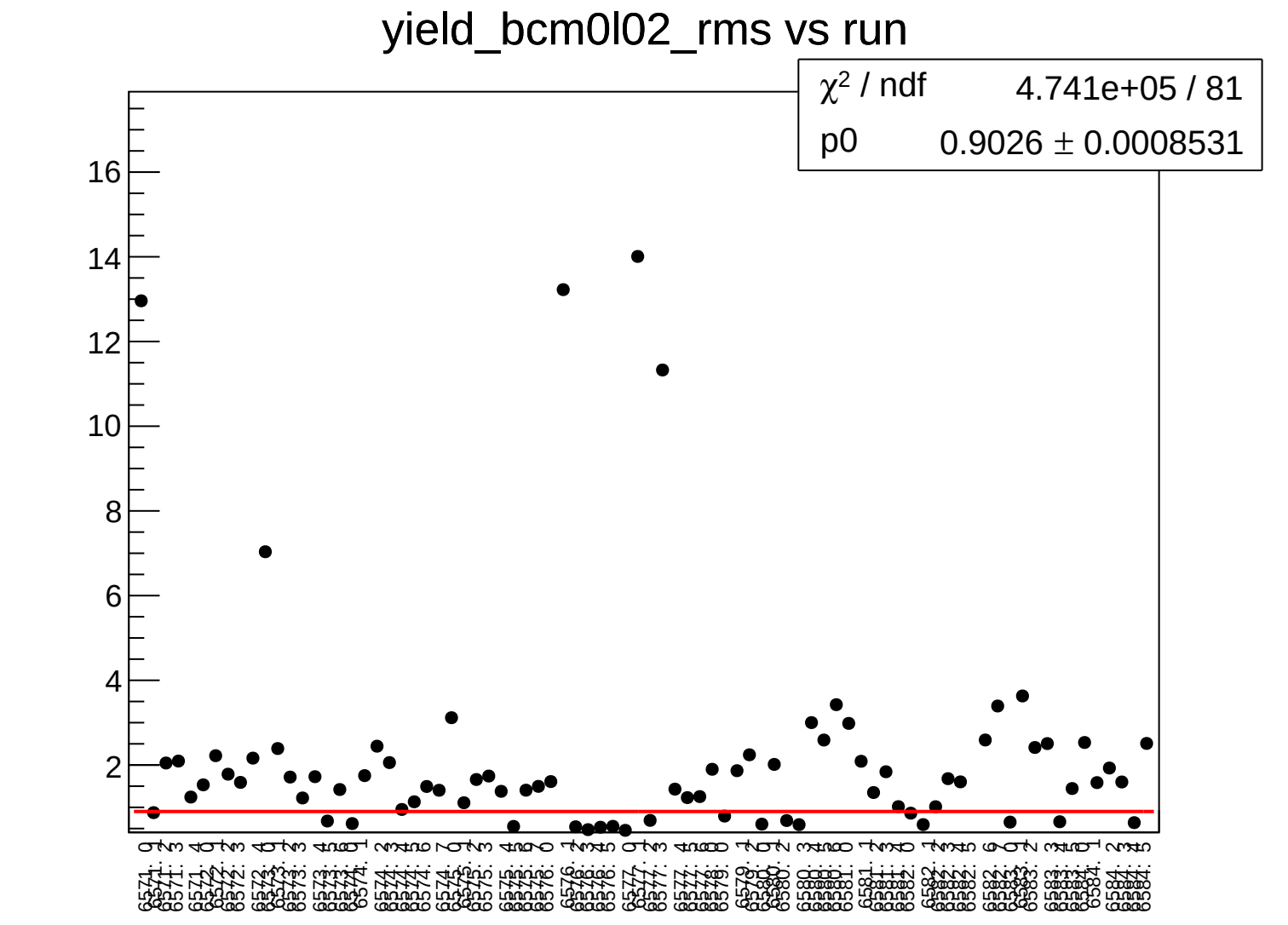

pull
Entries 82
Mean 9.314e+04
Std Dev 9.311e+04
200
100
0
−100
−200

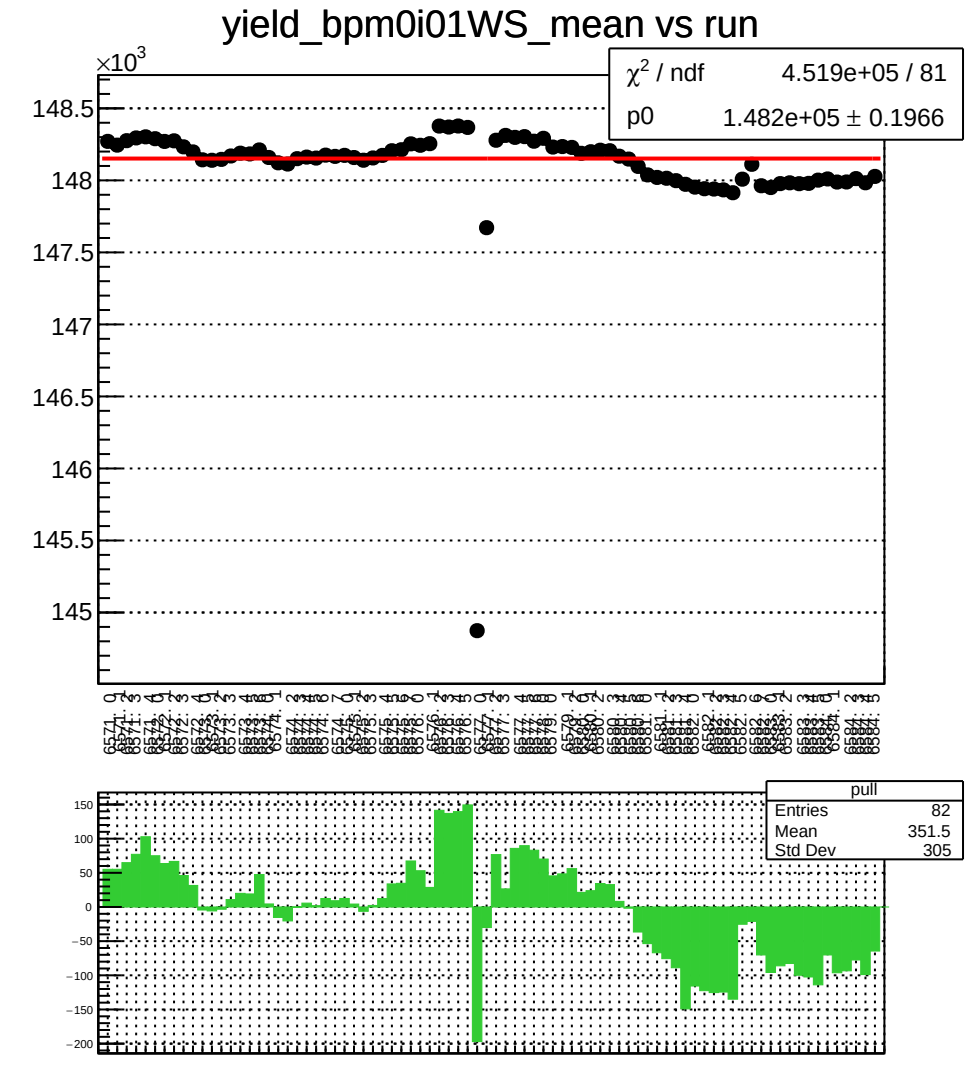

pull1D
Entries 82
Mean 1.118
Std Dev 3.994
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

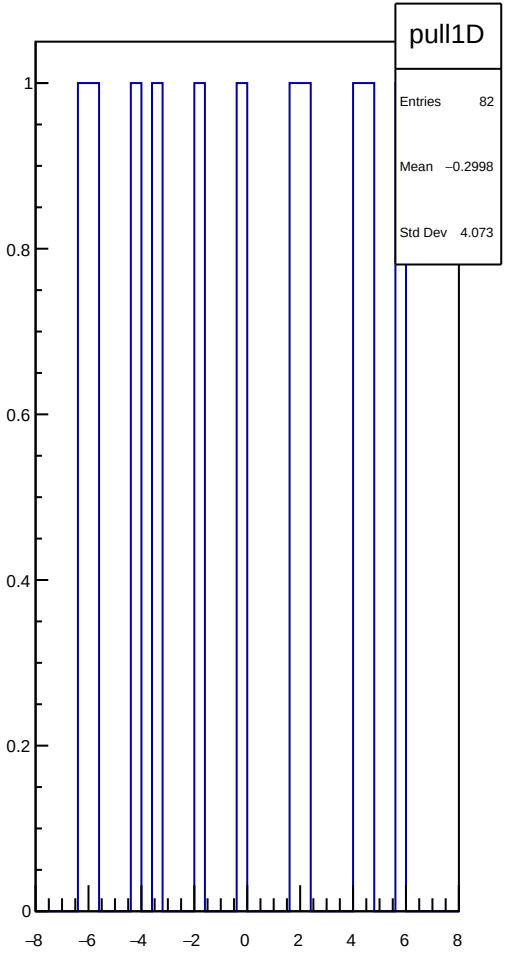

yield_cav4dQ_rms vs run
χ² / ndf 2.506e+04 / 81
p0 0.3917 ± 0.0003128
0.55
0.5
0.45
0.4
0.35
0.3

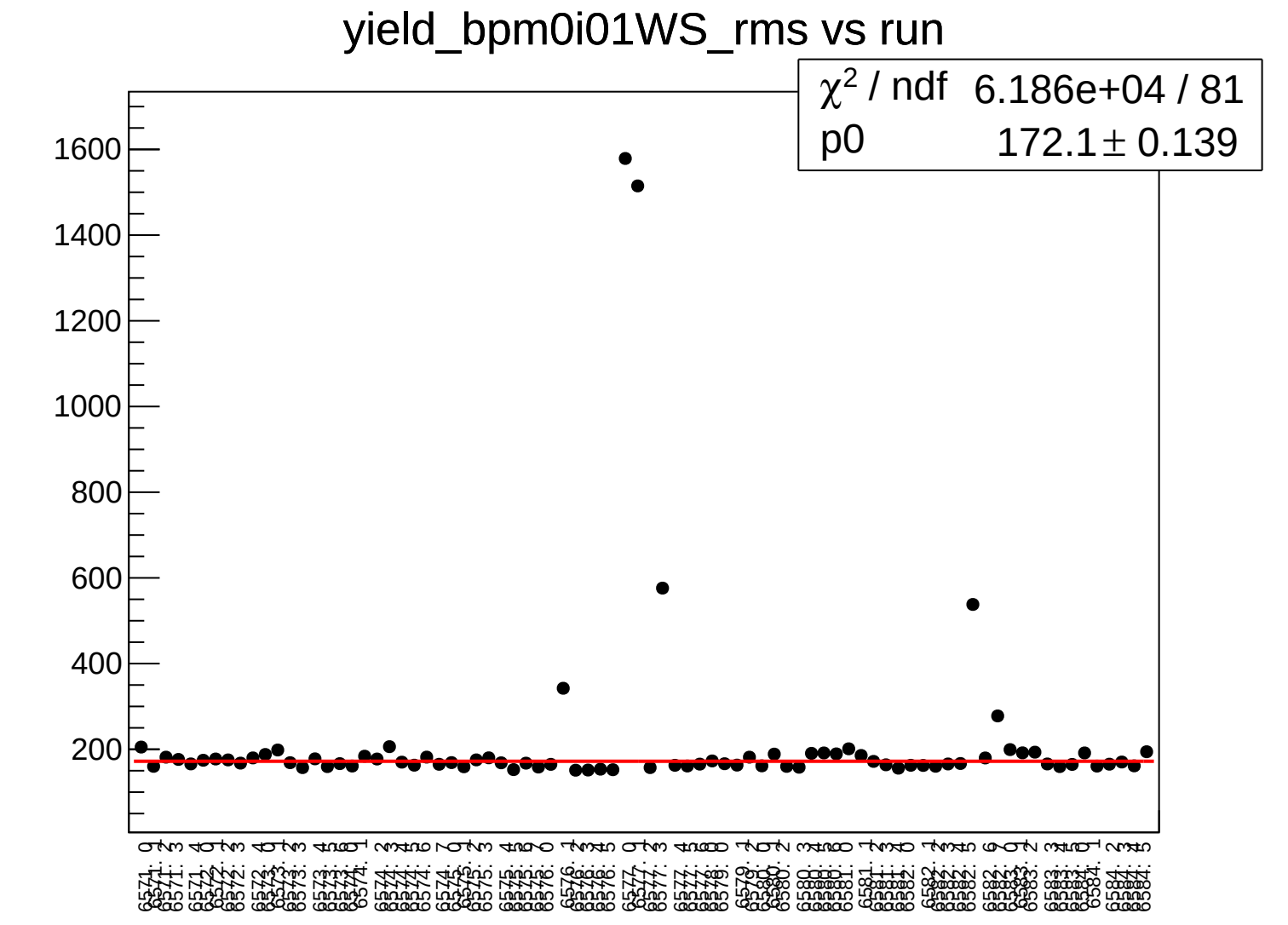

yield_bcm0l02_mean vs run
χ² / ndf 1.363e+08 / 81
p0 146.2 ± 0.001206
155
150
145
140
135
130
125
120
pull
Entries 82
Mean 46.33
Std Dev 33.84
1000
0
−1000
−2000
−3000
−4000
−5000

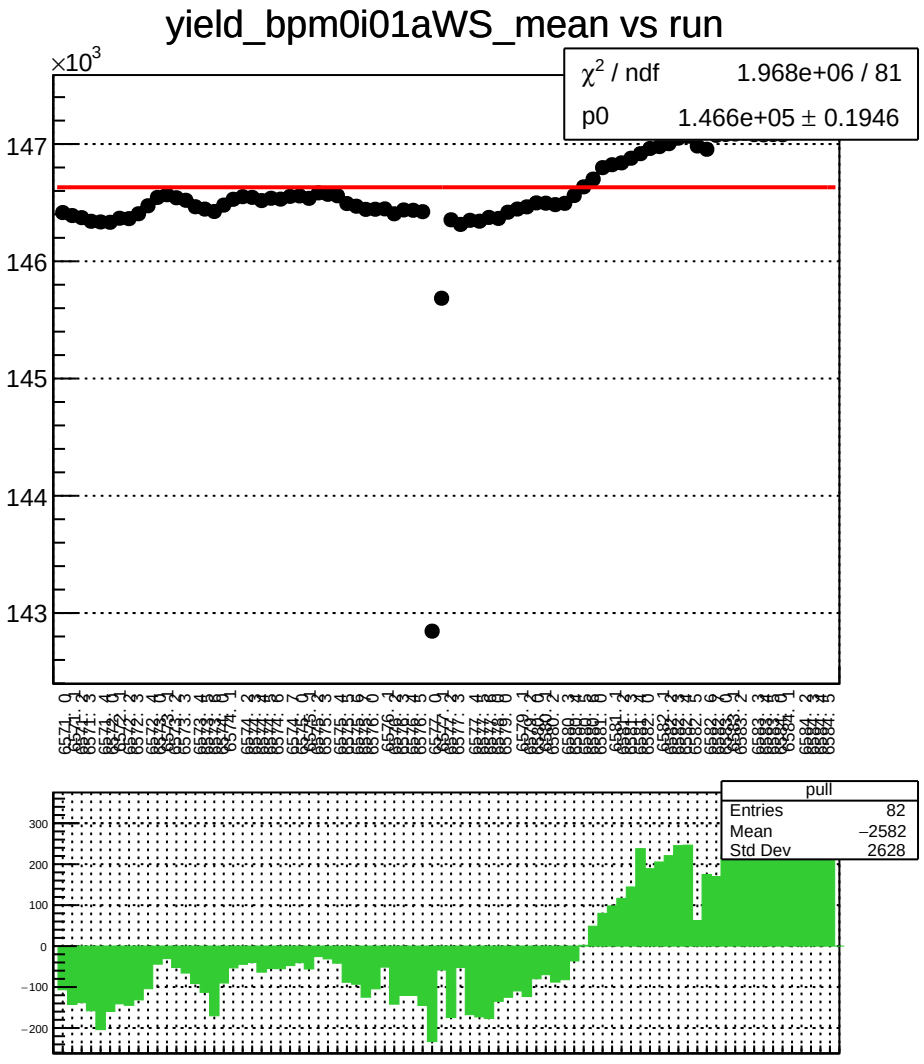

pull1D
Entries 82
Mean 4.778
Std Dev 1.364
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

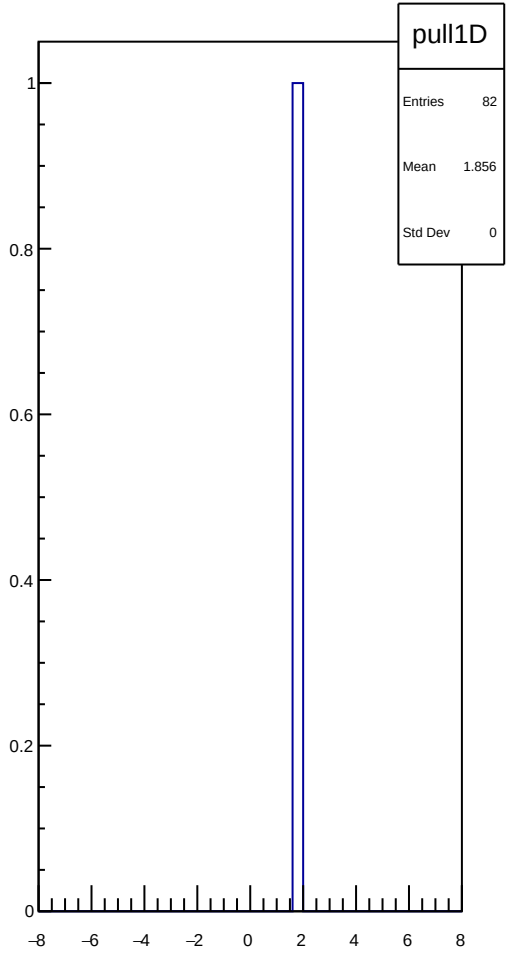

yield_bcm0l02_rms vs run
χ² / ndf 4.741e+05 / 81
p0 0.9026 ± 0.0008531
16
14
12
10
8
6
4
2

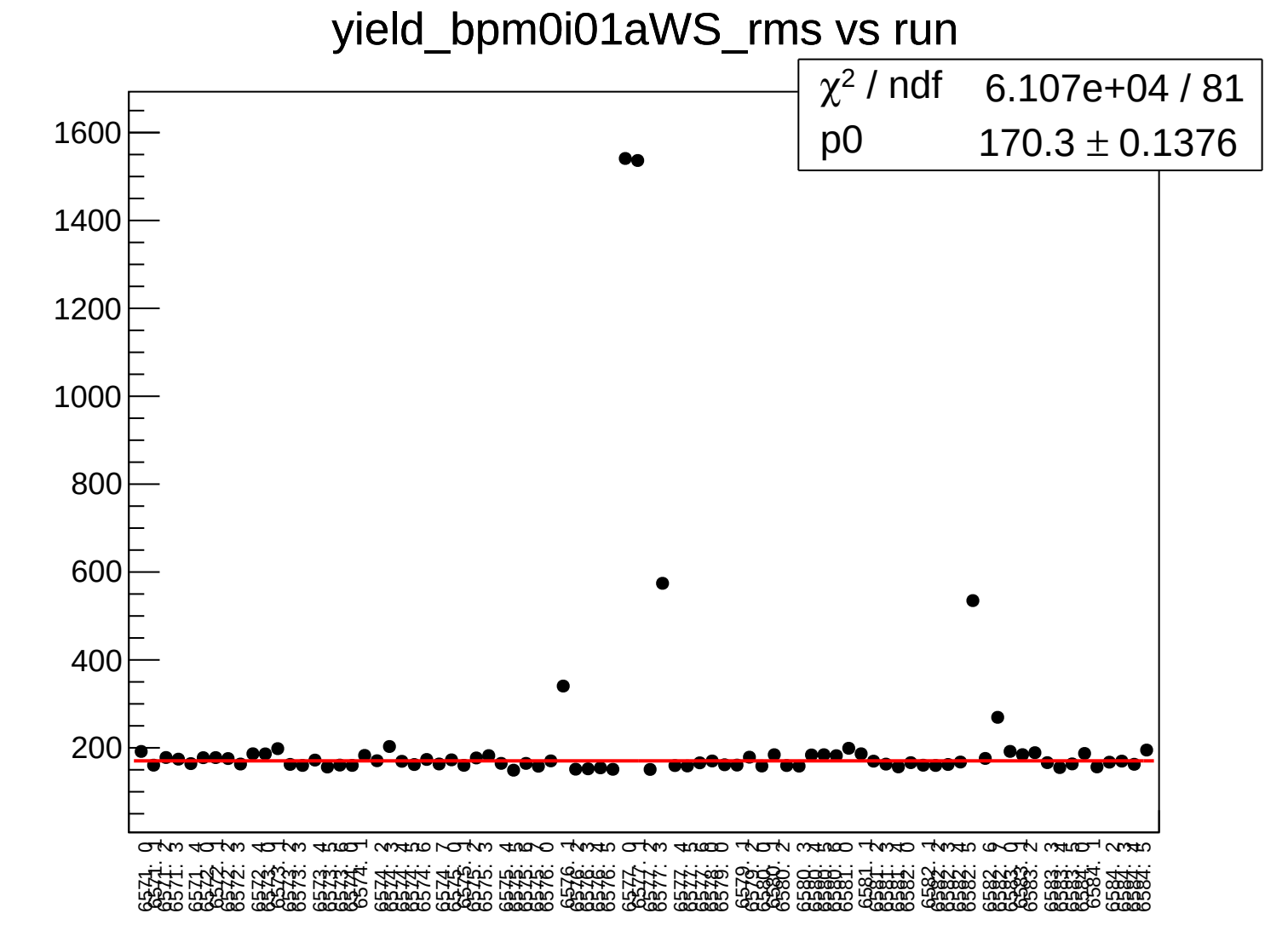

yield_bpm0i01WS_mean vs run
×10^3
χ^2 / ndf 4.519e+05 / 81
p0 1.482e+05 ± 0.1966
148.5
148
147.5
147
146.5
146
145.5
145
pull
Entries 82
Mean 351.5
Std Dev 305
150
100
50
0
−50
−100
−150
−200

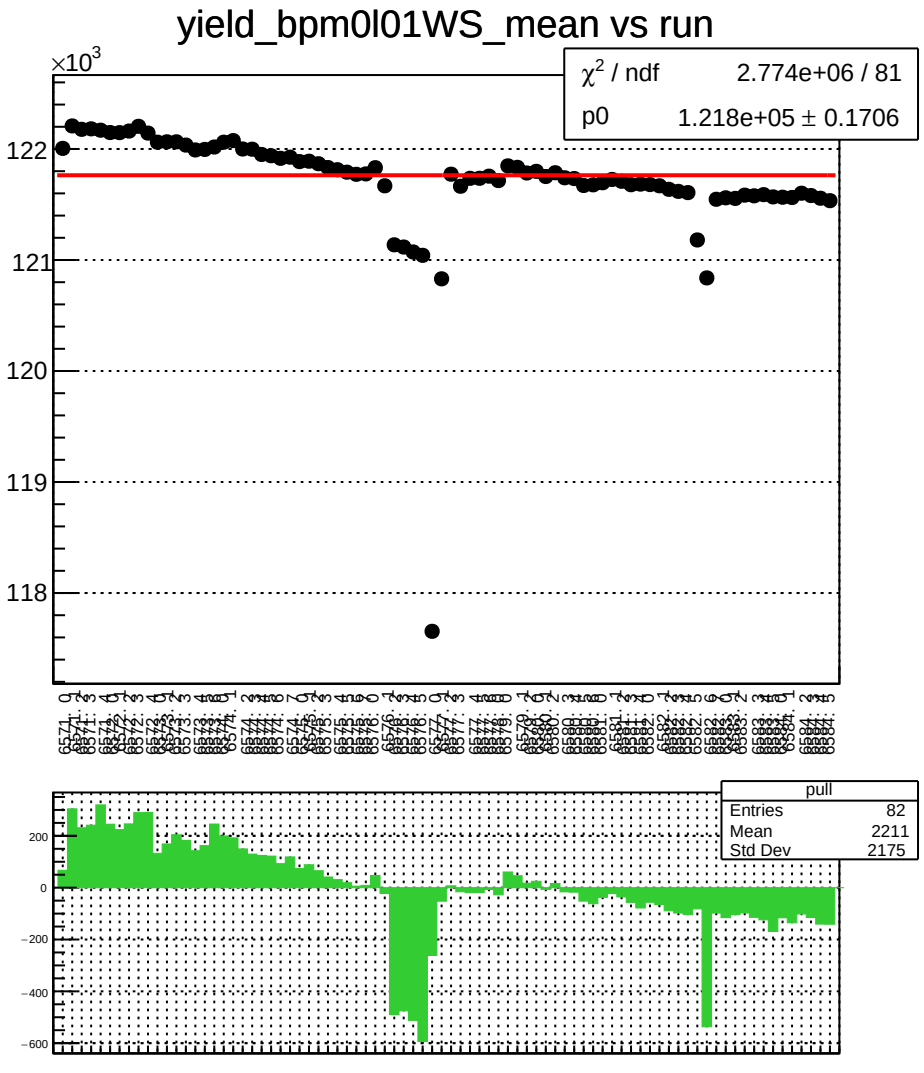

pull1D
Entries 82
Mean −0.2998
Std Dev 4.073
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

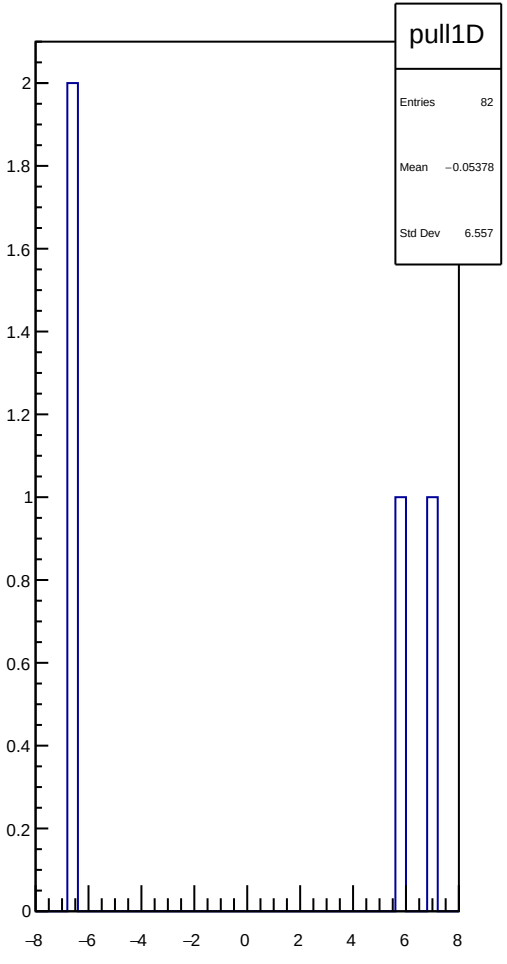

yield_bpm0i01WS_rms vs run
χ² / ndf 6.186e+04 / 81
p0 172.1 ± 0.139
1600
1400
1200
1000
800
600
400
200

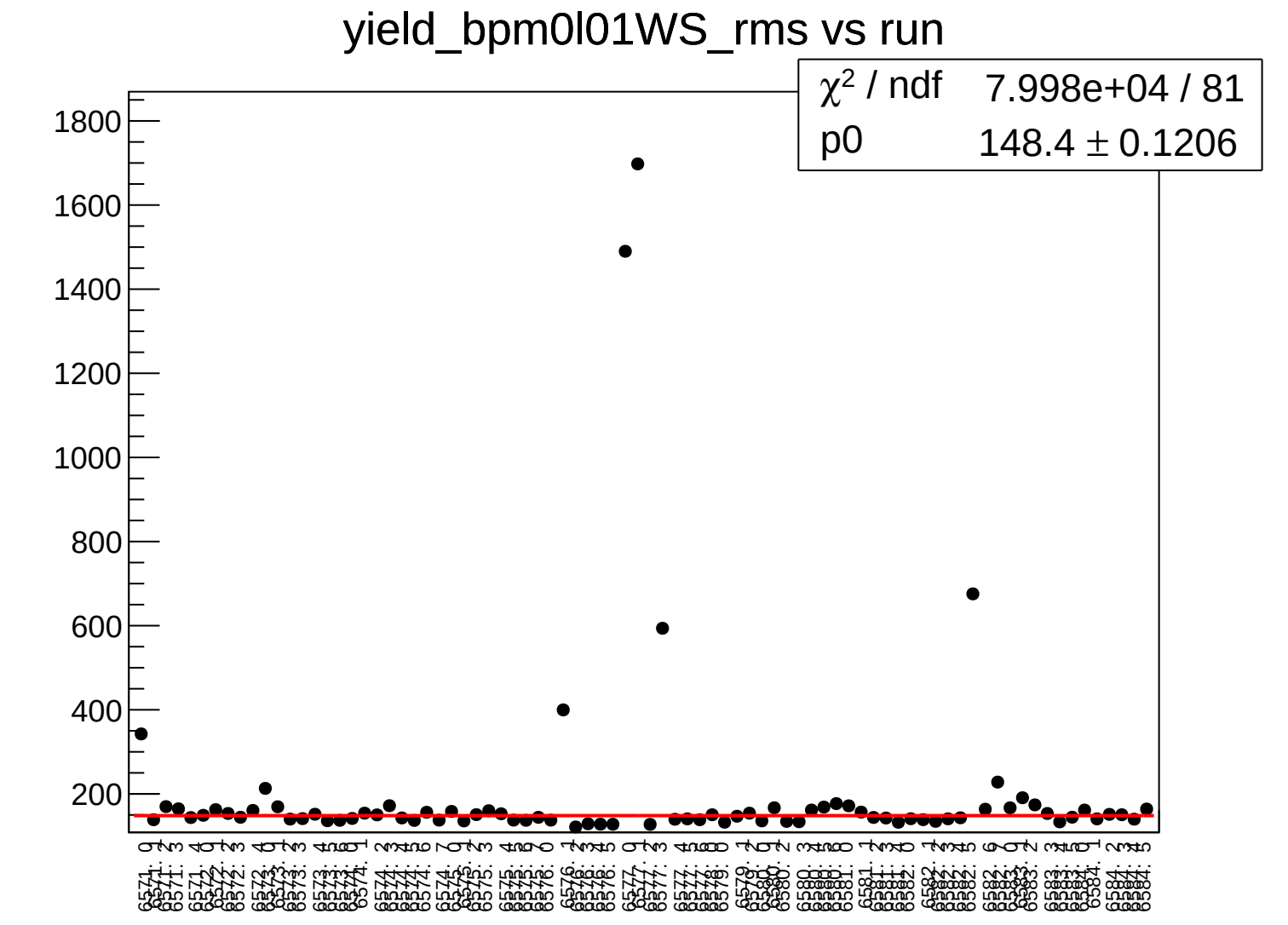

yield_bpm0i01aWS_mean vs run
×10^3
χ² / ndf 1.968e+06 / 81
p0 1.466e+05 ± 0.1946
147
146
145
144
143
pull
Entries 82
Mean −2582
Std Dev 2628
300
200
100
0
−100
−200

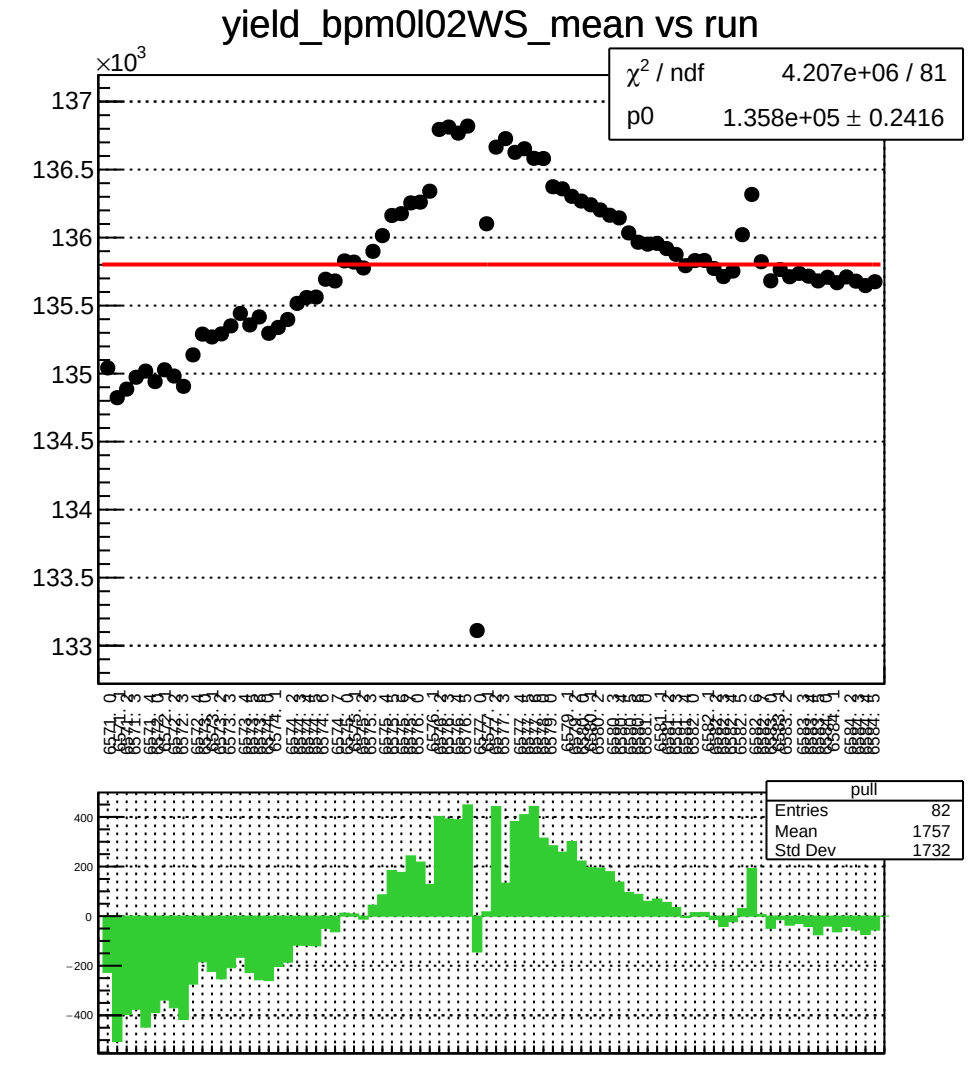

pull1D
Entries 82
Mean 1.856
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

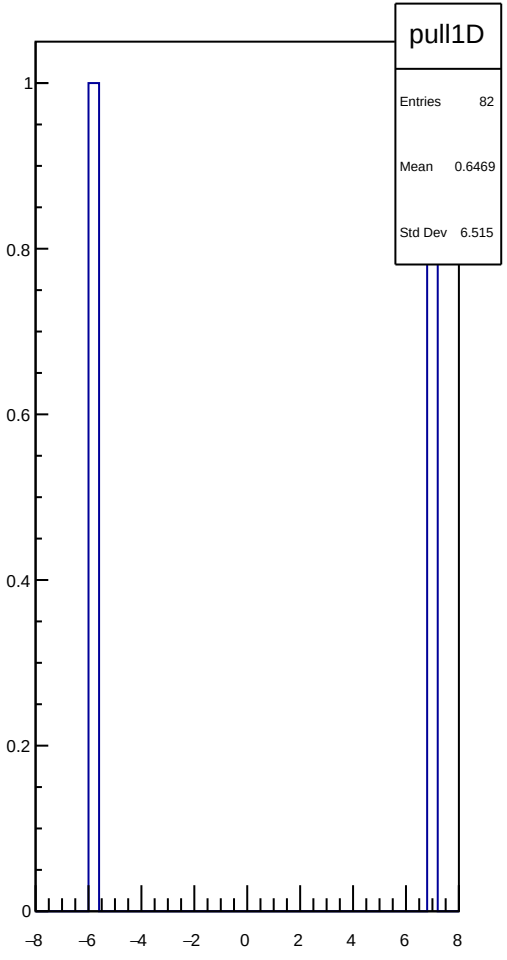

yield_bpm0i01aWS_rms vs run
χ² / ndf 6.107e+04 / 81
p0 170.3 ± 0.1376
1600
1400
1200
1000
800
600
400
200

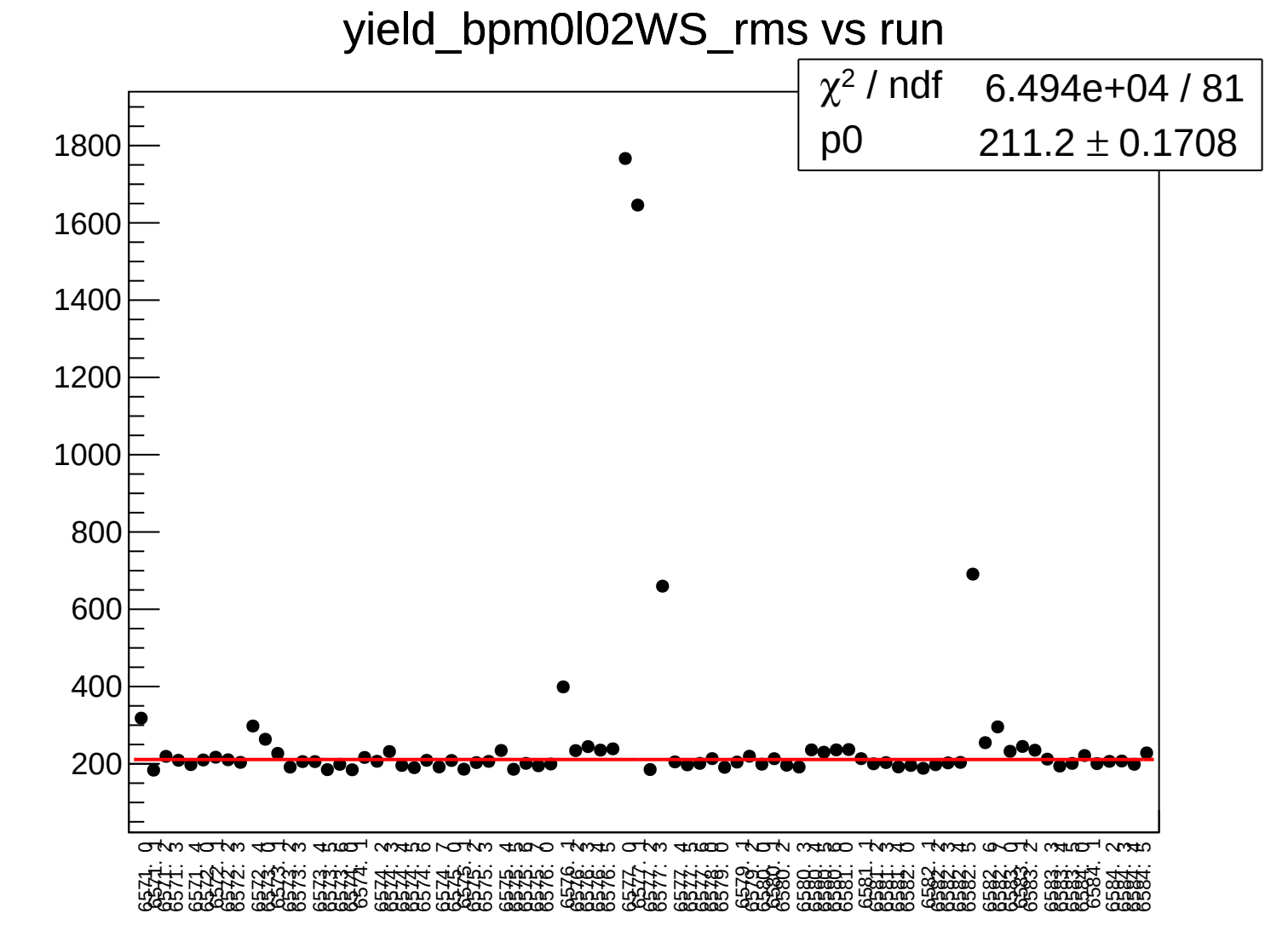

yield_bpm0l01WS_mean vs run
×10^3
χ² / ndf 2.774e+06 / 81
p0 1.218e+05 ± 0.1706
122
121
120
119
118
pull
Entries 82
Mean 2211
Std Dev 2175
200
0
−200
−400
−600

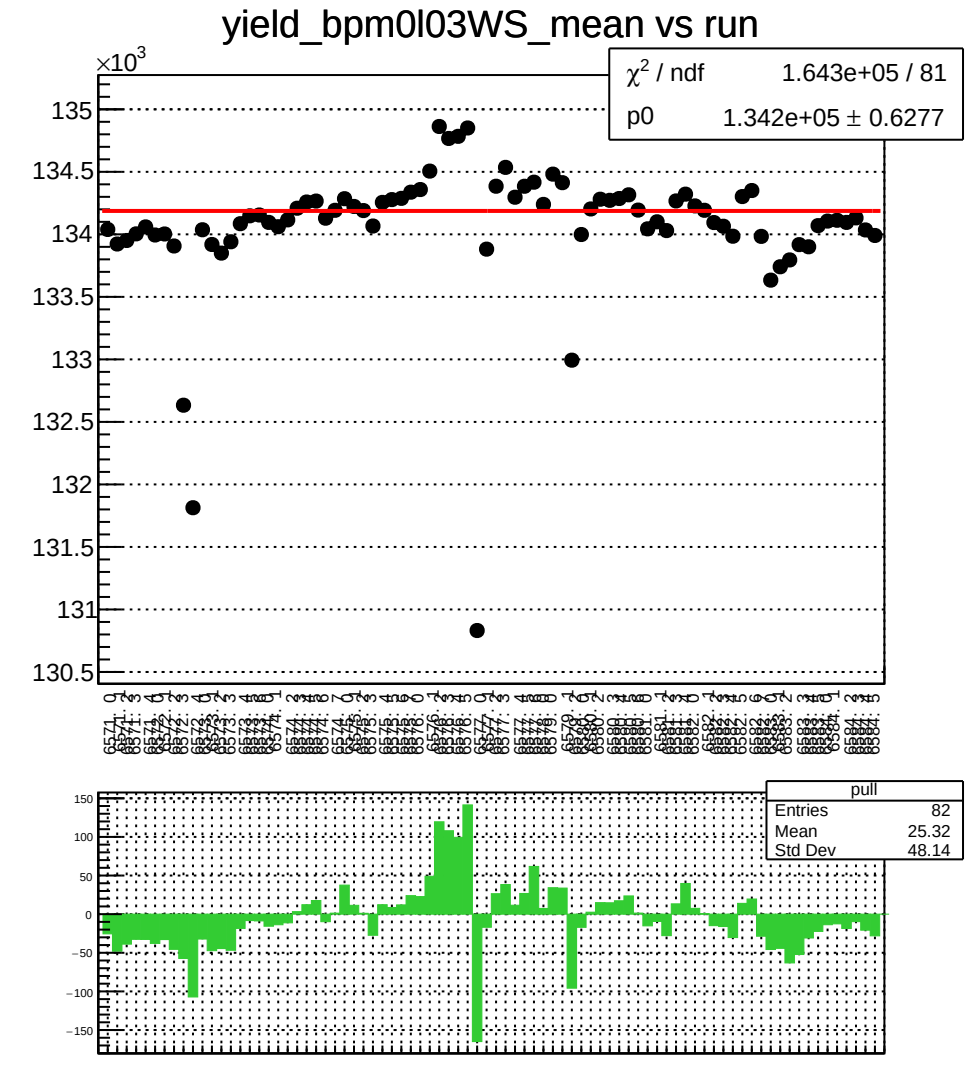

pull1D
Entries 82
Mean −0.05378
Std Dev 6.557
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

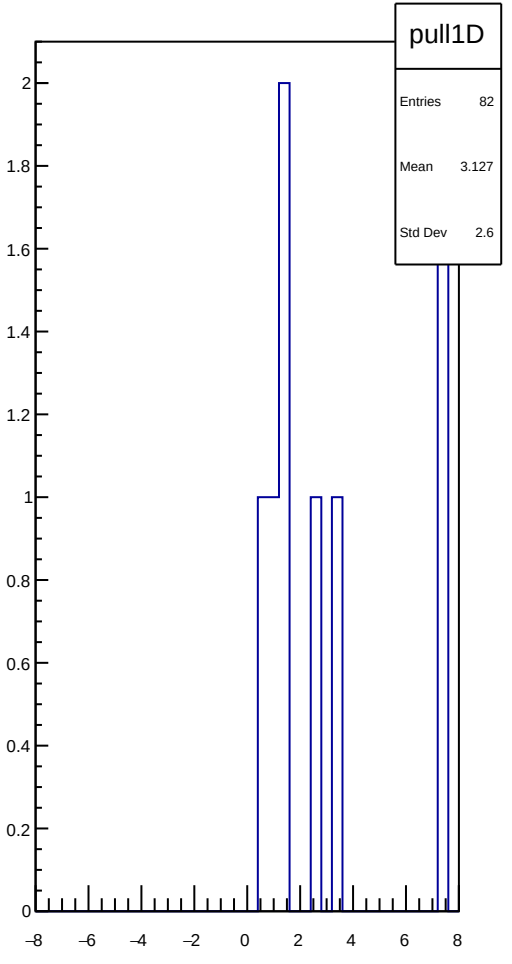

yield_bpm0l01WS_rms vs run
χ² / ndf 7.998e+04 / 81
p0 148.4 ± 0.1206
1800
1600
1400
1200
1000
800
600
400
200

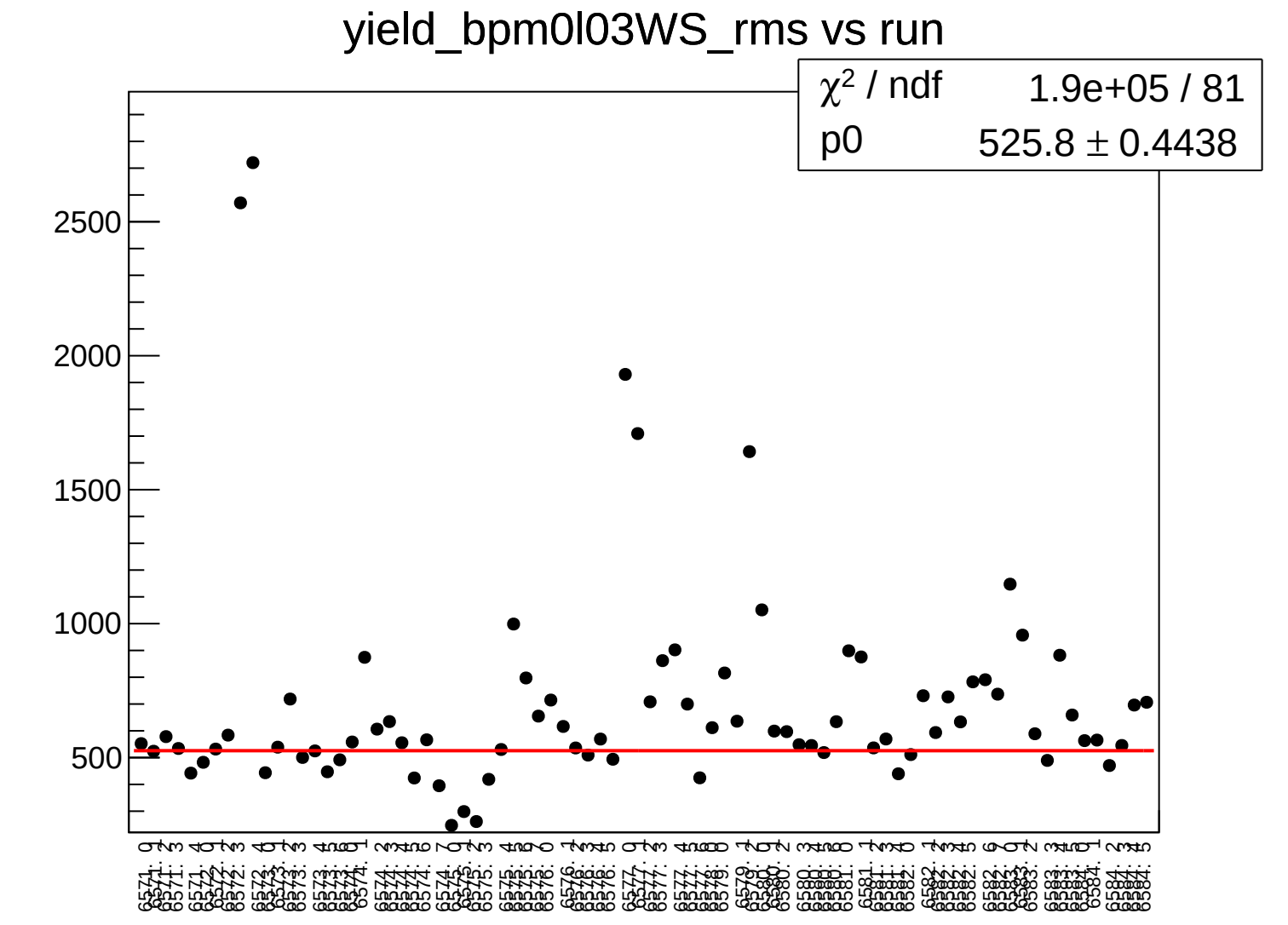

yield_bpm0l02WS_mean vs run
×10^3
χ² / ndf 4.207e+06 / 81
p0 1.358e+05 ± 0.2416
137
136.5
136
135.5
135
134.5
134
133.5
133
pull
Entries 82
Mean 1757
Std Dev 1732
400
200
0
−200
−400

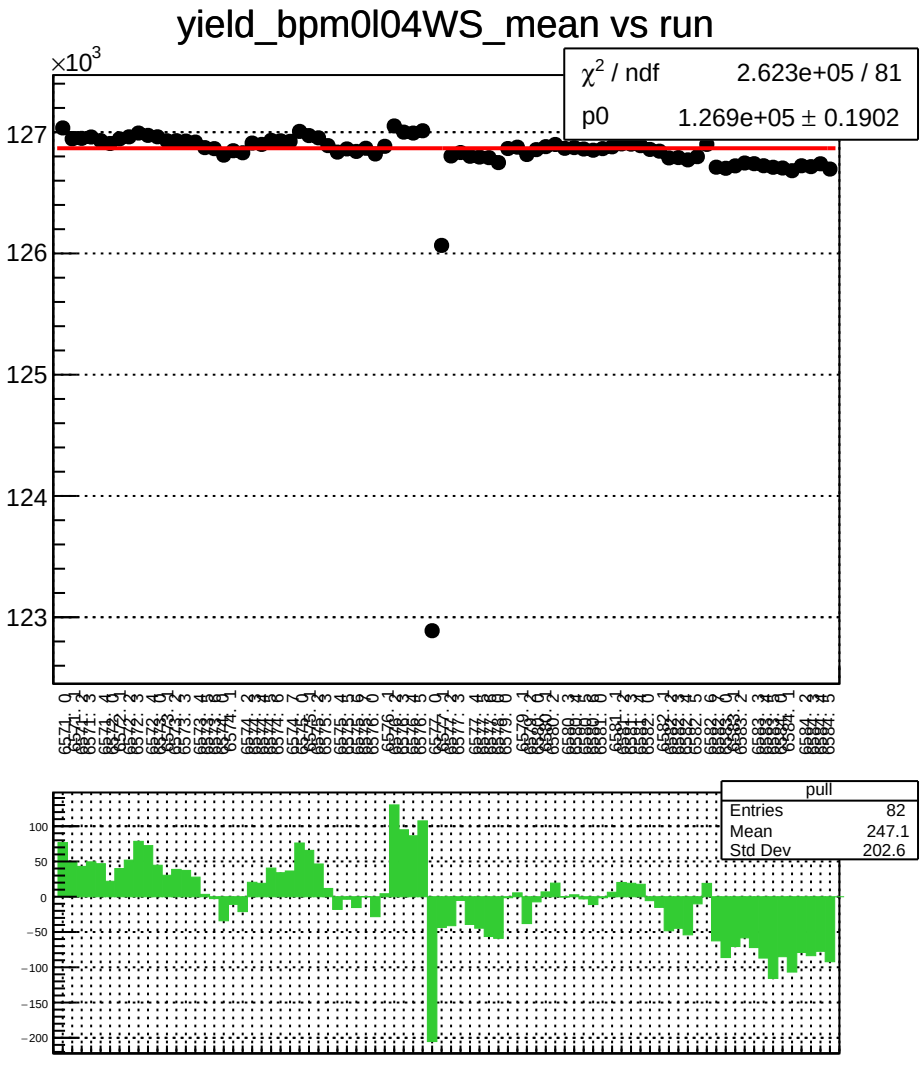

pull1D
Entries 82
Mean 0.6469
Std Dev 6.515
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

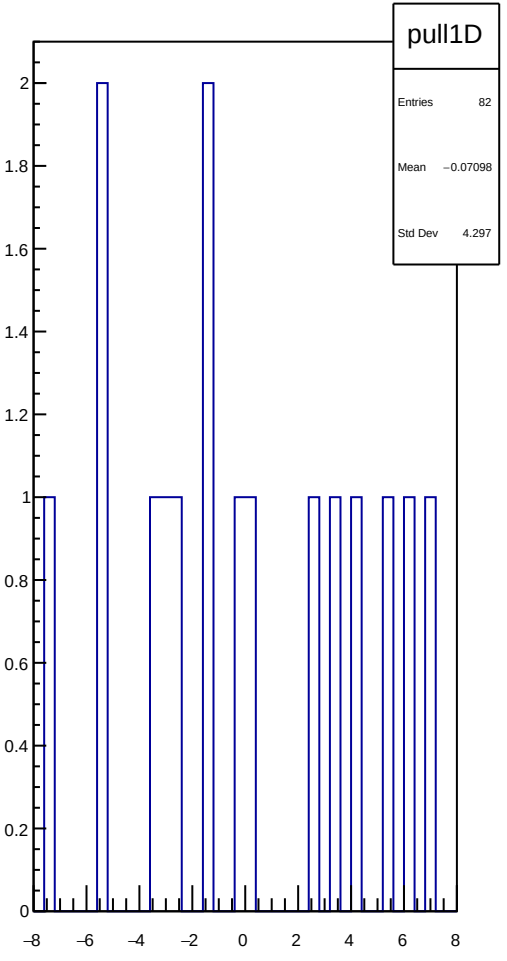

yield_bpm0l02WS_rms vs run
χ² / ndf 6.494e+04 / 81
p0 211.2 ± 0.1708
1800
1600
1400
1200
1000
800
600
400
200

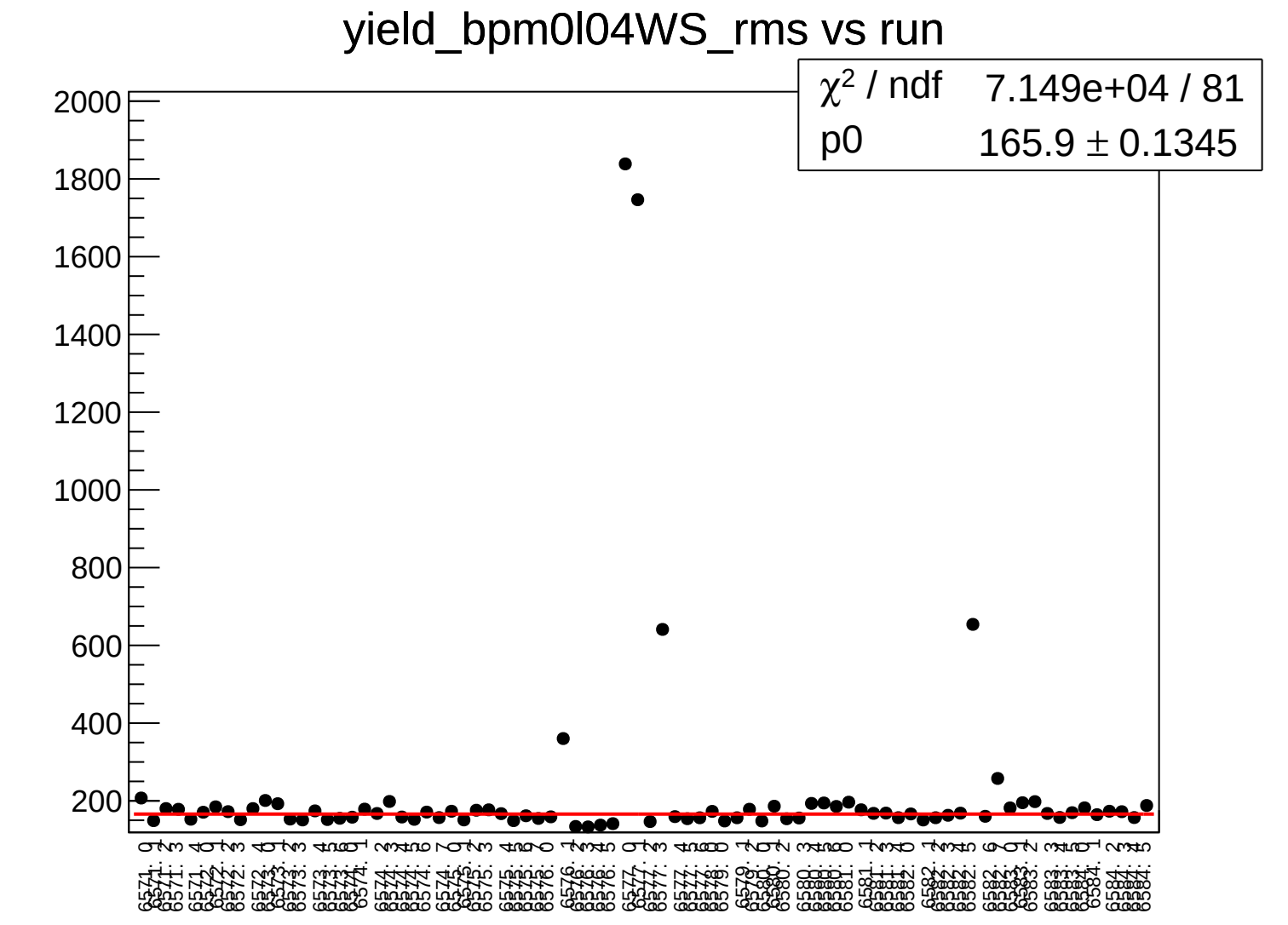

yield_bpm0l03WS_mean vs run
×10^3
χ² / ndf 1.643e+05 / 81
p0 1.342e+05 ± 0.6277
135
134.5
134
133.5
133
132.5
132
131.5
131
130.5
pull
Entries 82
Mean 25.32
Std Dev 48.14
150
100
50
0
−50
−100
−150

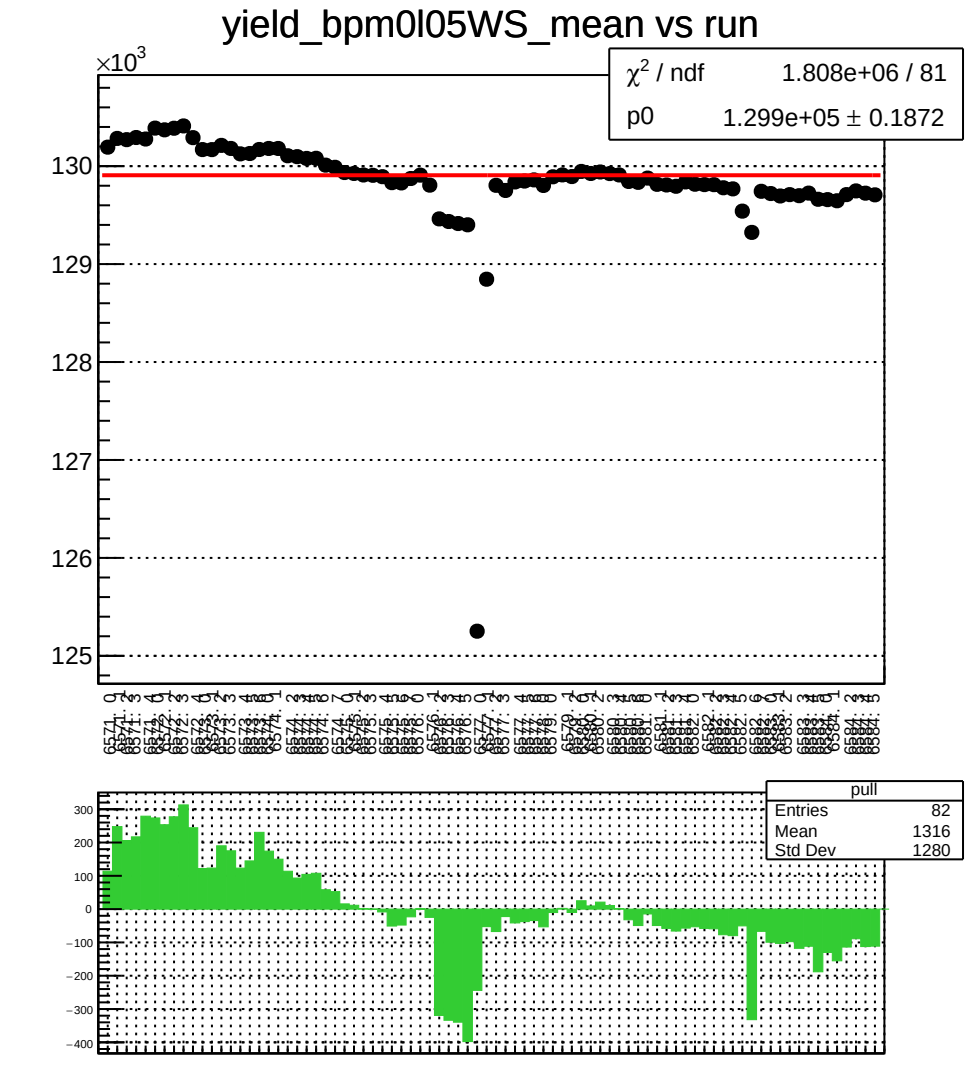

pull1D
Entries 82
Mean 3.127
Std Dev 2.6
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

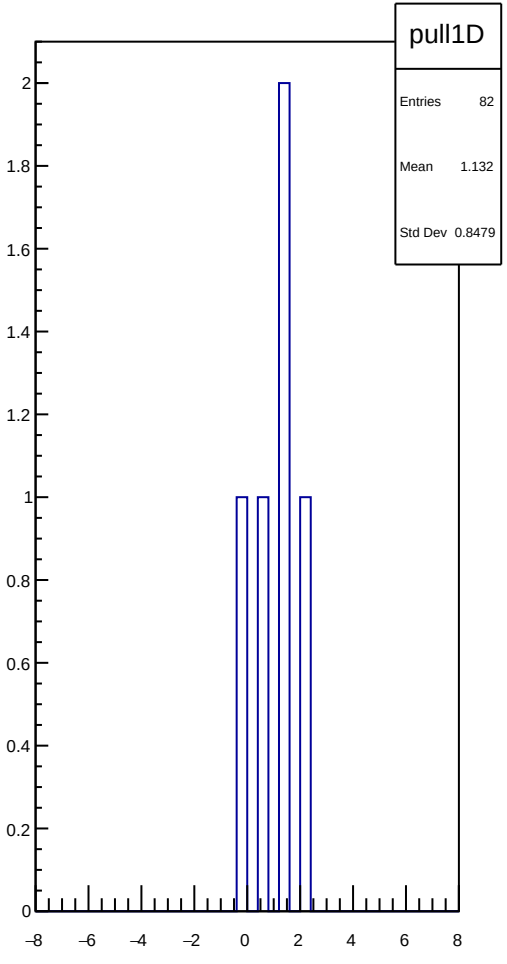

yield_bpm0l03WS_rms vs run
χ² / ndf 1.9e+05 / 81
p0 525.8 ± 0.4438
2500
2000
1500
1000
500

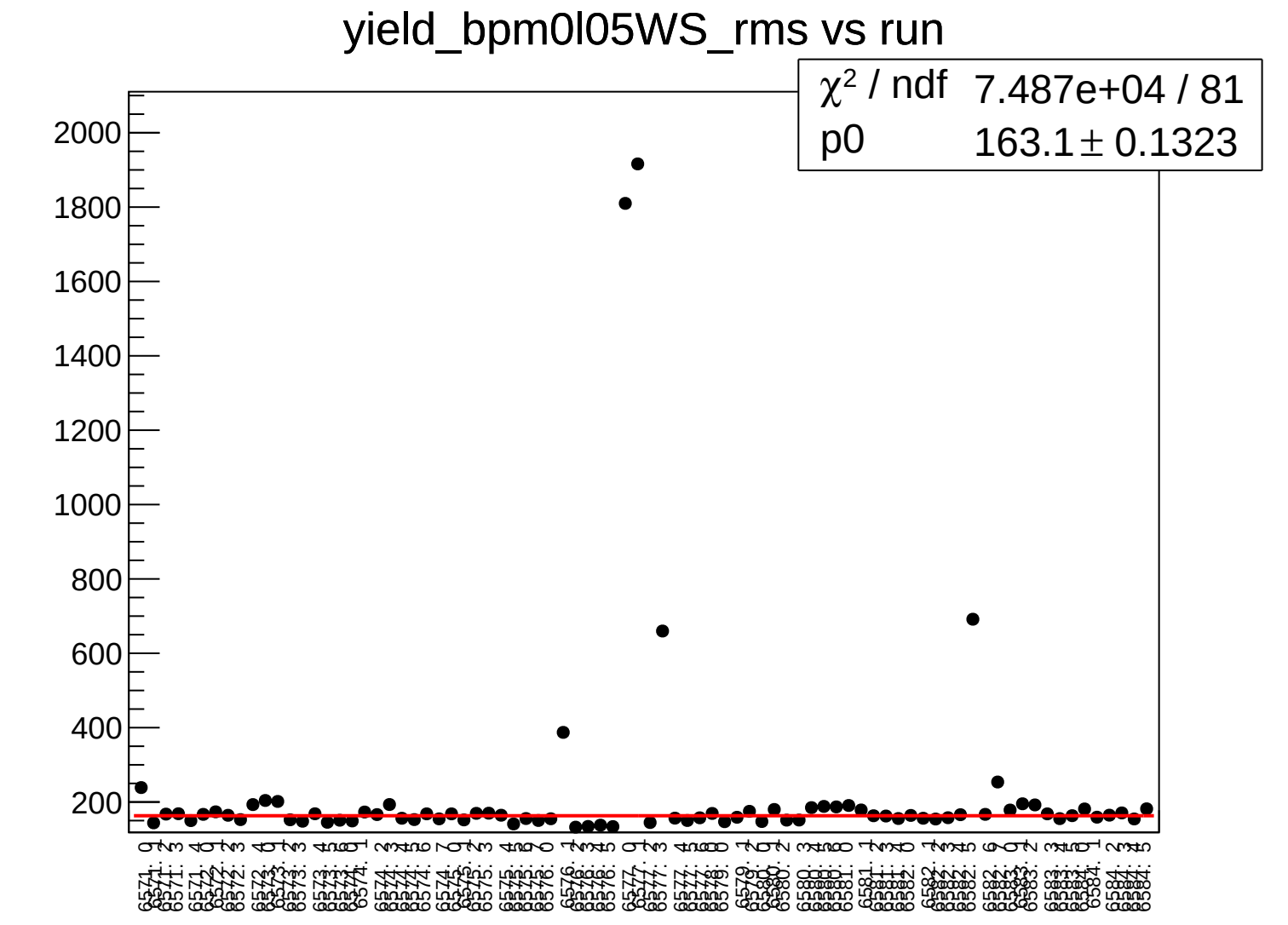

yield_bpm0l04WS_mean vs run
×10^3
χ² / ndf 2.623e+05 / 81
p0 1.269e+05 ± 0.1902
127
126
125
124
123
pull
Entries 82
Mean 247.1
Std Dev 202.6
100
50
0
−50
−100
−150
−200

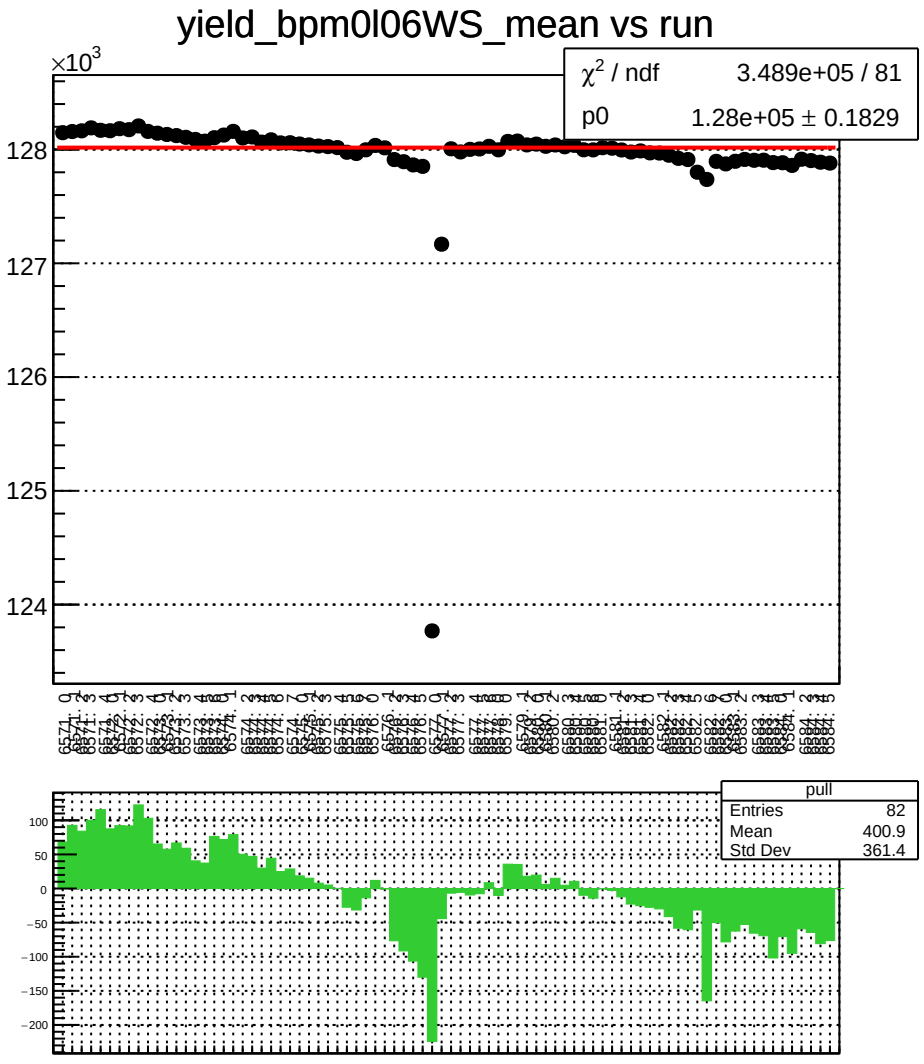

pull1D
Entries 82
Mean −0.07098
Std Dev 4.297
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

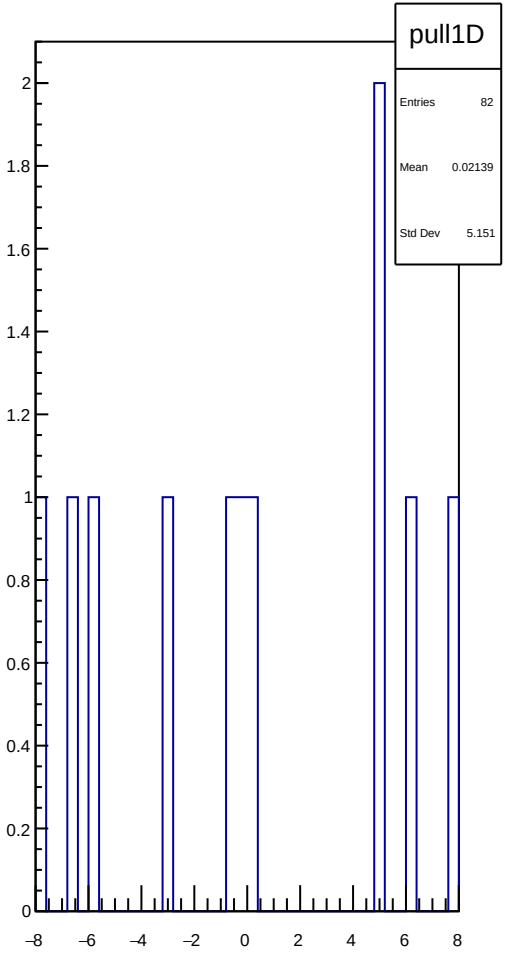

yield_bpm0l04WS_rms vs run
χ² / ndf 7.149e+04 / 81
p0 165.9 ± 0.1345
2000
1800
1600
1400
1200
1000
800
600
400
200

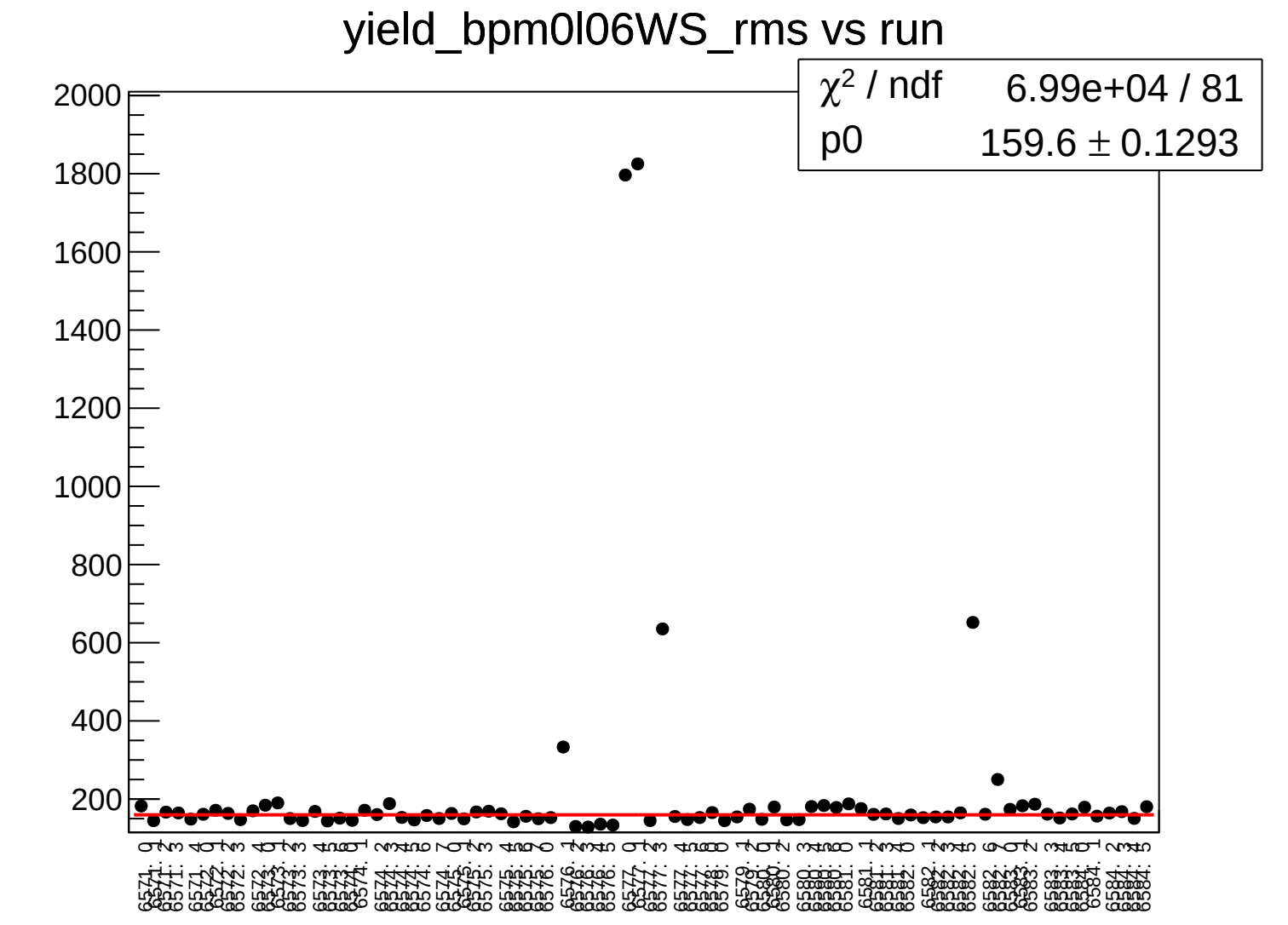

yield_bpm0l05WS_mean vs run
×10^3
χ² / ndf 1.808e+06 / 81
p0 1.299e+05 ± 0.1872
130
129
128
127
126
125
pull
Entries 82
Mean 1316
Std Dev 1280
300
200
100
0
−100
−200
−300
−400

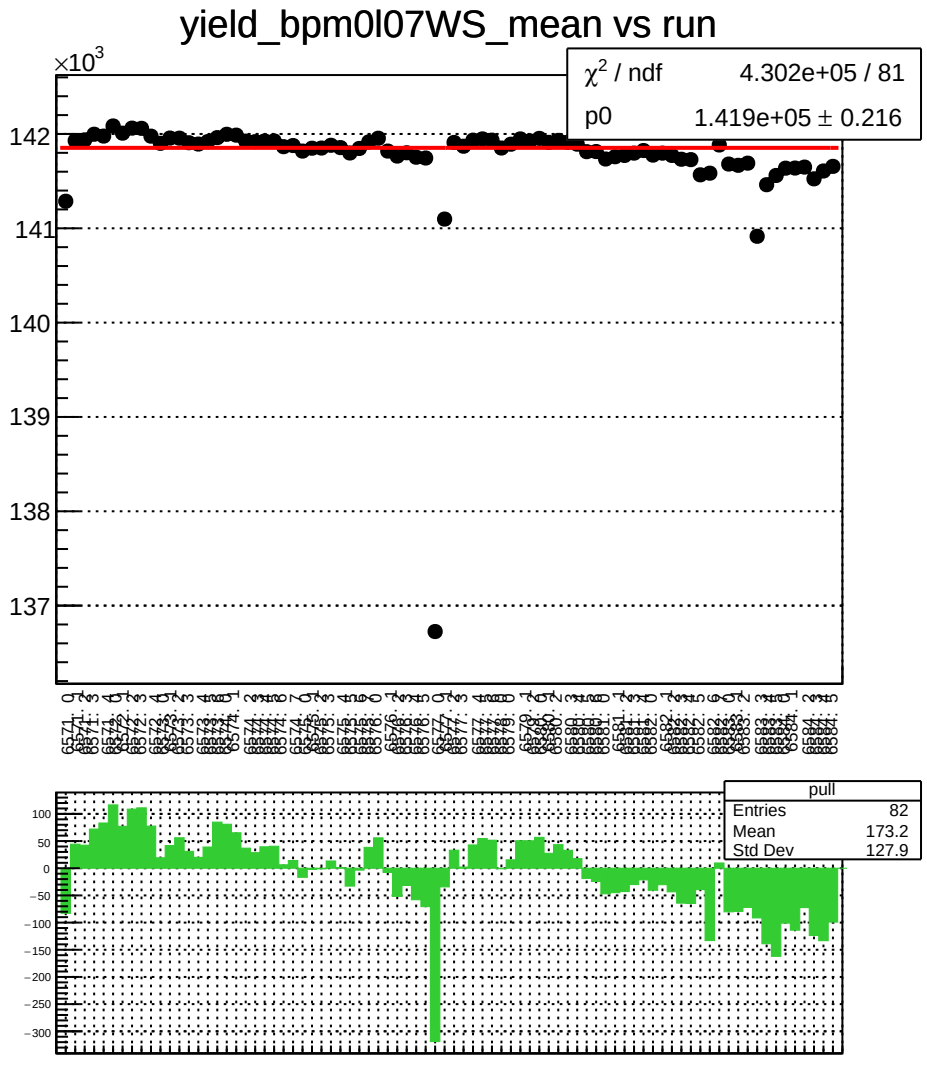

pull1D
Entries 82
Mean 1.132
Std Dev 0.8479
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

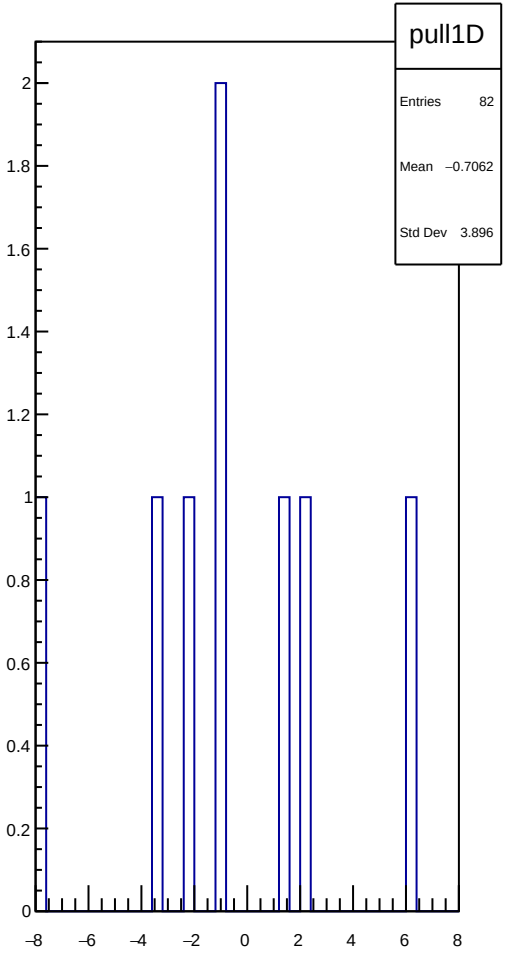

yield_bpm0l05WS_rms vs run
χ² / ndf 7.487e+04 / 81
p0 163.1 ± 0.1323
2000
1800
1600
1400
1200
1000
800
600
400
200

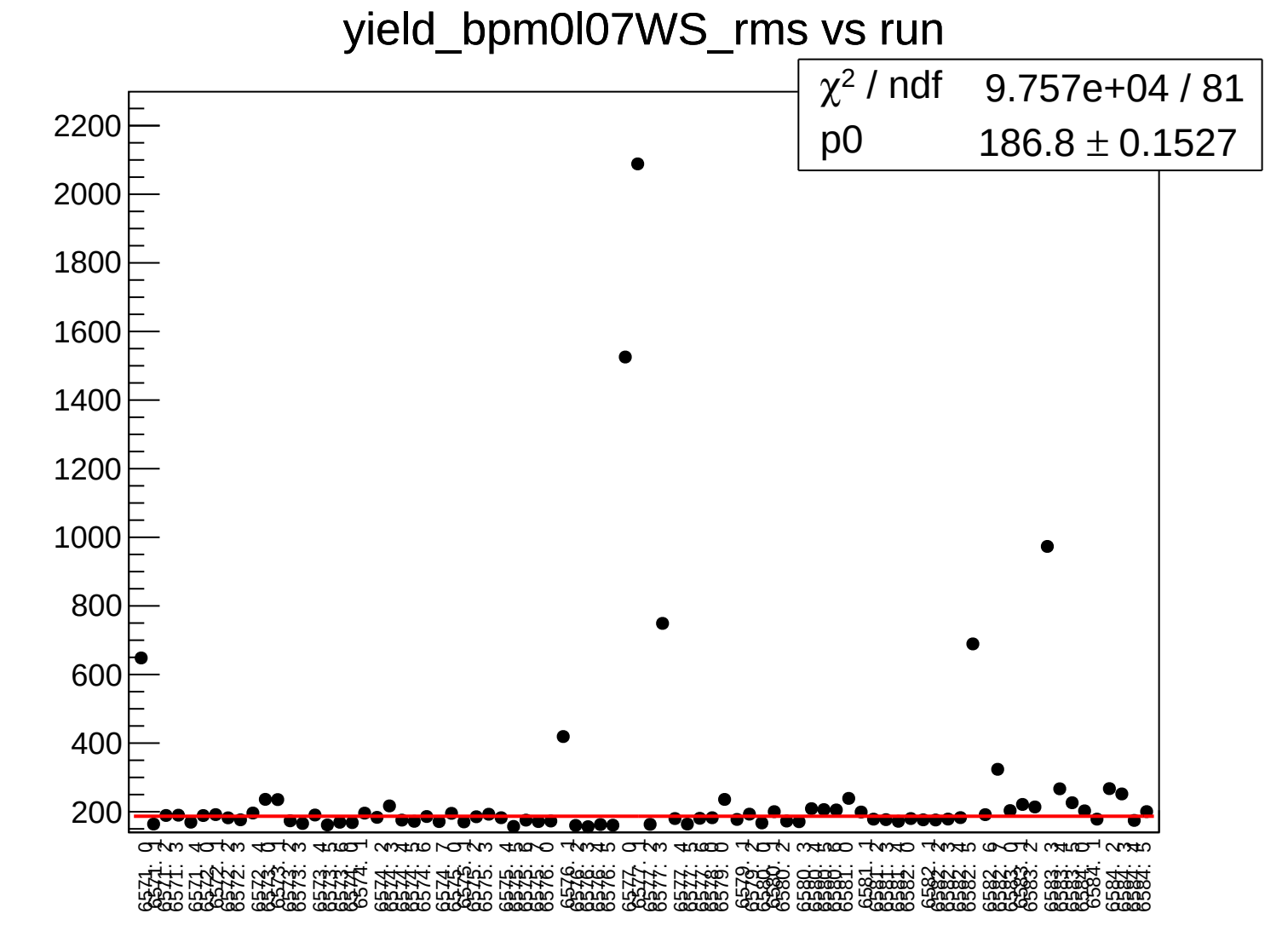

yield_bpm0l06WS_mean vs run
×10^3
χ² / ndf 3.489e+05 / 81
p0 1.28e+05 ± 0.1829
128
127
126
125
124
pull
Entries 82
Mean 400.9
Std Dev 361.4
100
50
0
−50
−100
−150
−200

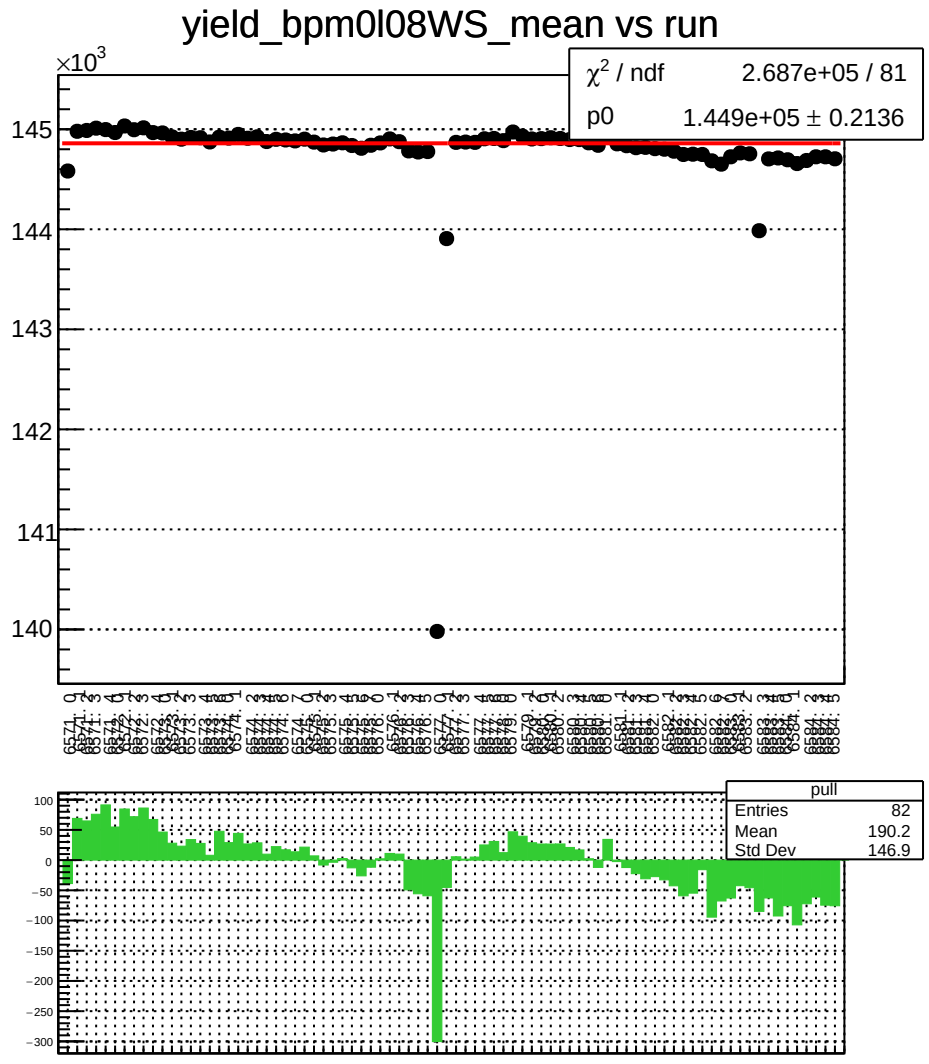

pull1D
Entries 82
Mean 0.02139
Std Dev 5.151
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

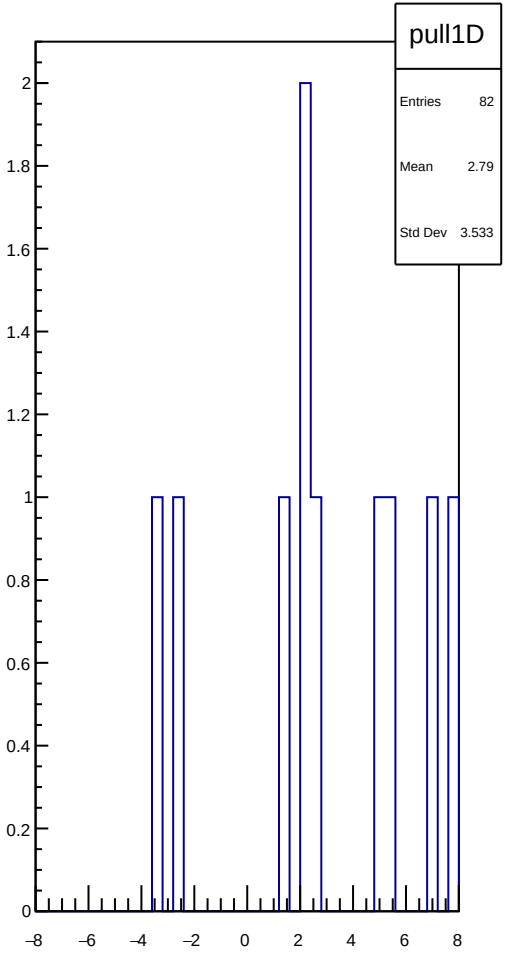

yield_bpm0l06WS_rms vs run
χ² / ndf 6.99e+04 / 81
p0 159.6 ± 0.1293
2000
1800
1600
1400
1200
1000
800
600
400
200

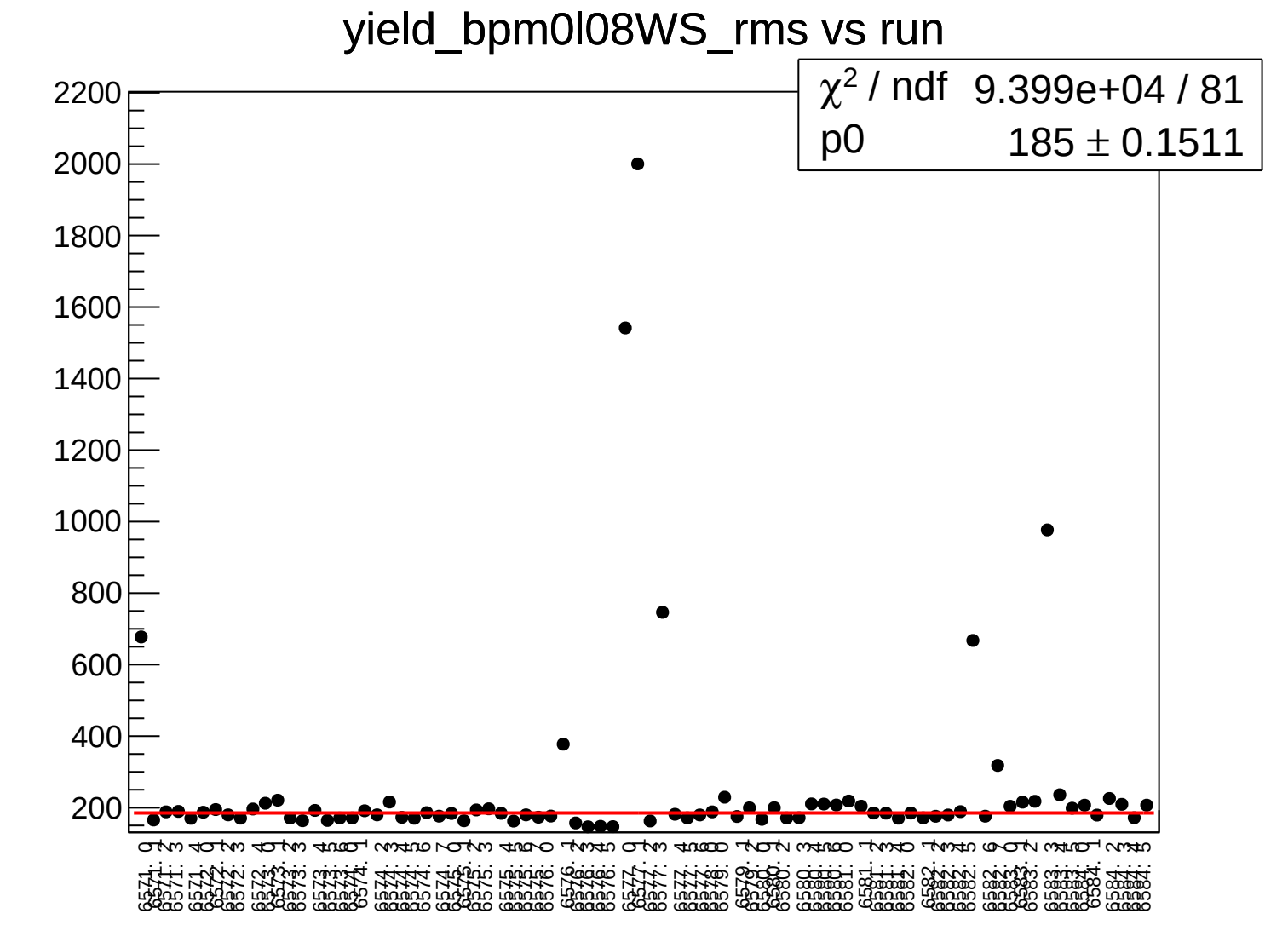

yield_bpm0l07WS_mean vs run
×10^3
χ² / ndf 4.302e+05 / 81
p0 1.419e+05 ± 0.216
142
141
140
139
138
137
pull
Entries 82
Mean 173.2
Std Dev 127.9
100
50
0
−50
−100
−150
−200
−250
−300

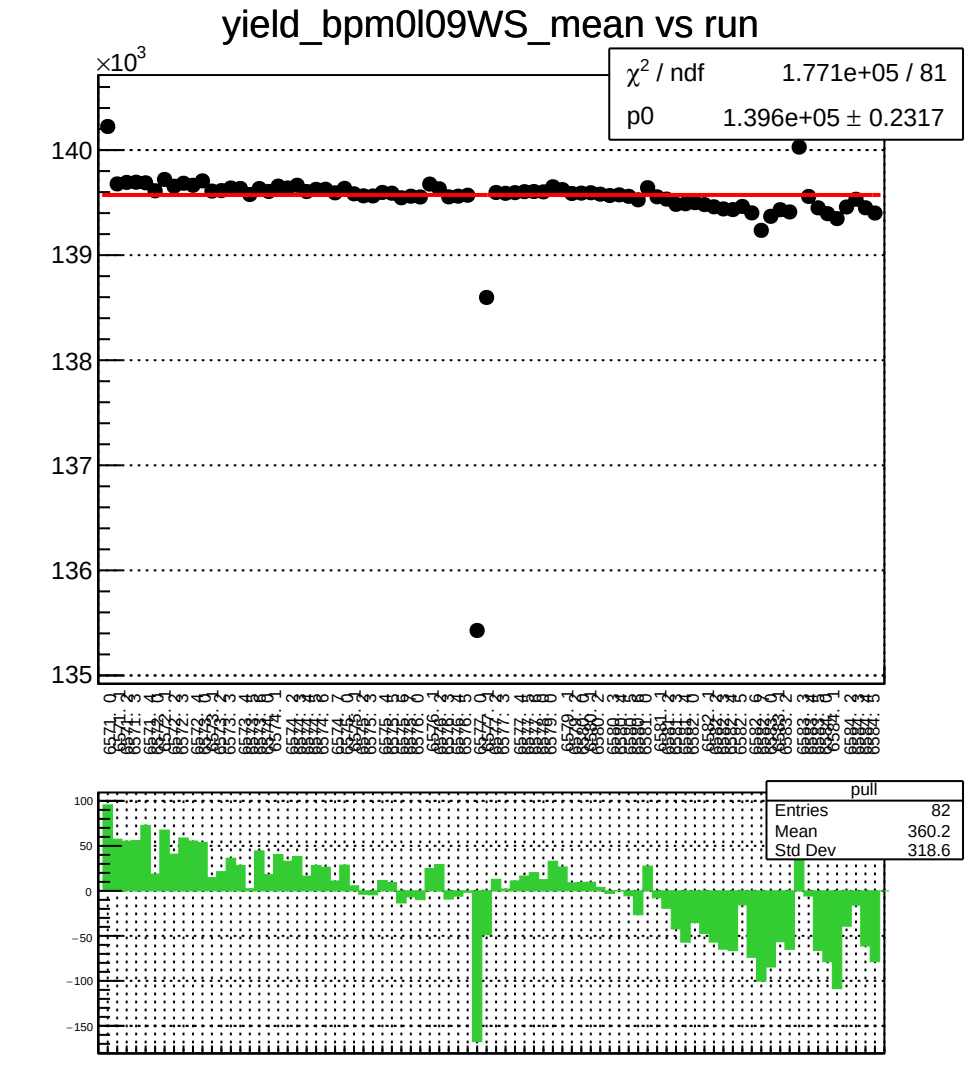

pull1D
Entries 82
Mean −0.7062
Std Dev 3.896
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

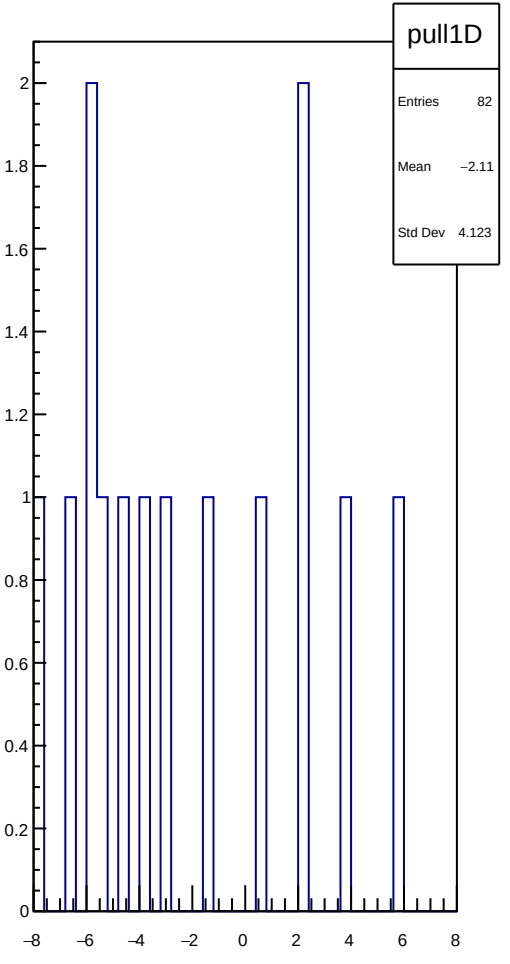

yield_bpm0l07WS_rms vs run
χ² / ndf 9.757e+04 / 81
p0 186.8 ± 0.1527
2200
2000
1800
1600
1400
1200
1000
800
600
400
200

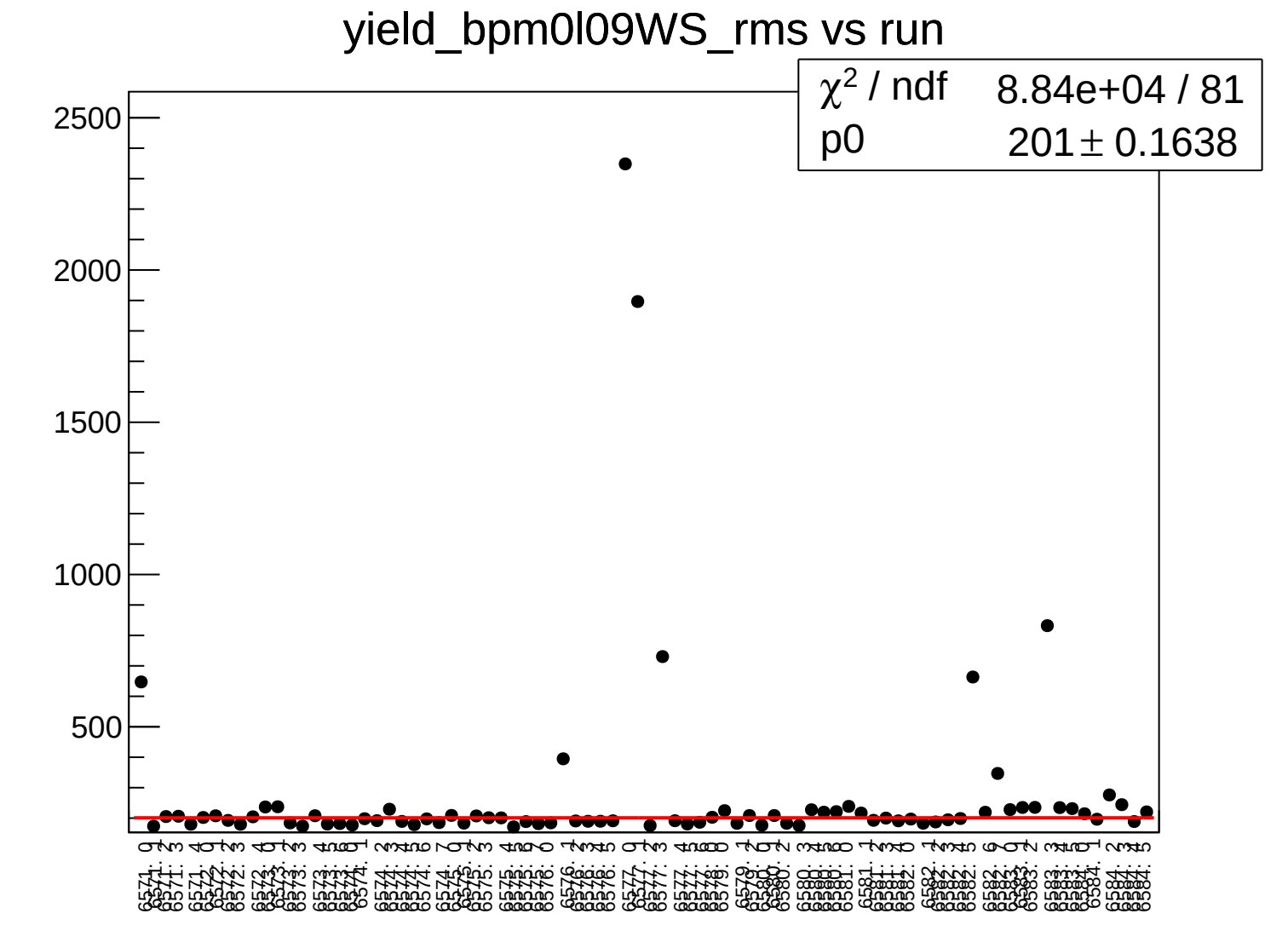

yield_bpm0l08WS_mean vs run
×10^3
χ² / ndf 2.687e+05 / 81
p0 1.449e+05 ± 0.2136
145
144
143
142
141
140
pull
Entries 82
Mean 190.2
Std Dev 146.9
100
50
0
−50
−100
−150
−200
−250
−300

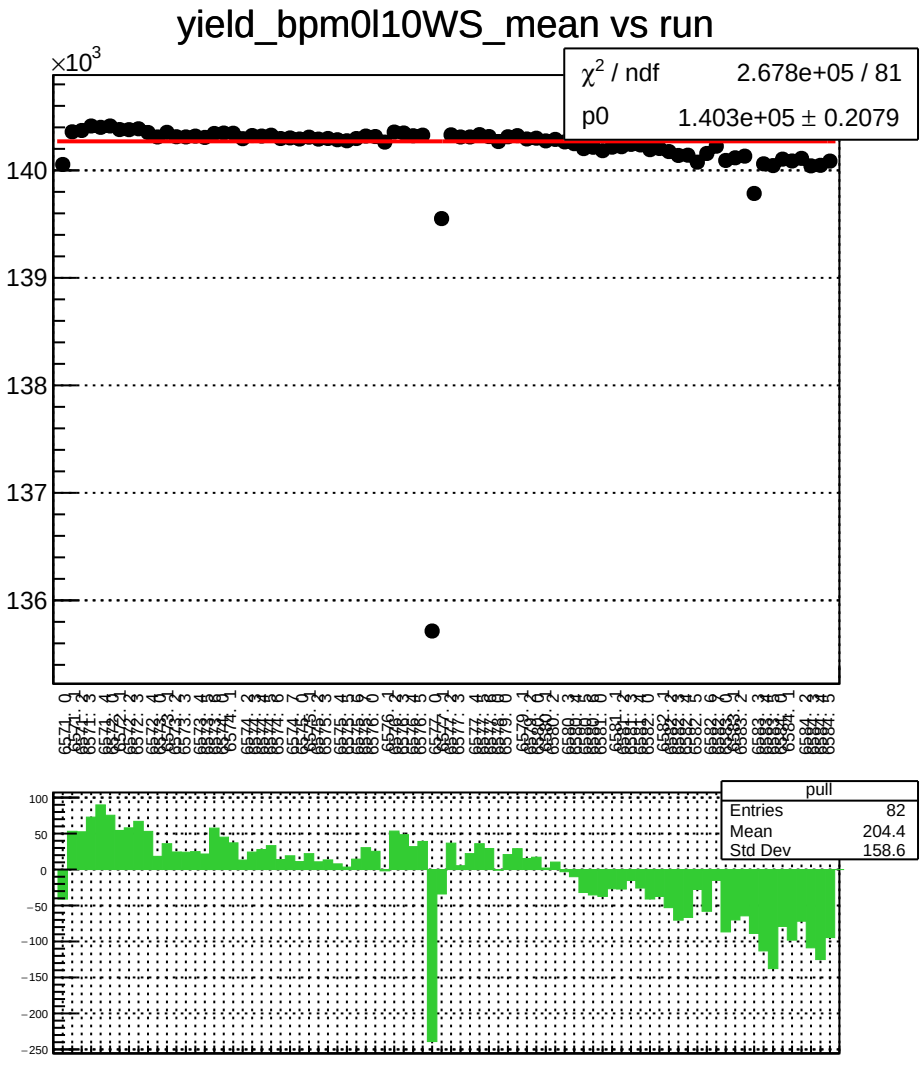

pull1D
Entries 82
Mean 2.79
Std Dev 3.533
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

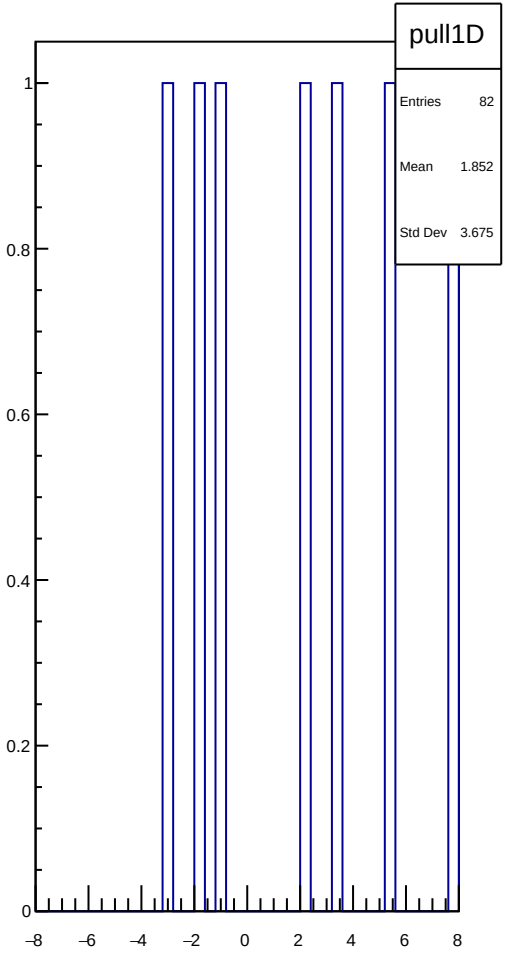

yield_bpm0l08WS_rms vs run
χ² / ndf 9.399e+04 / 81
p0 185 ± 0.1511
2200
2000
1800
1600
1400
1200
1000
800
600
400
200

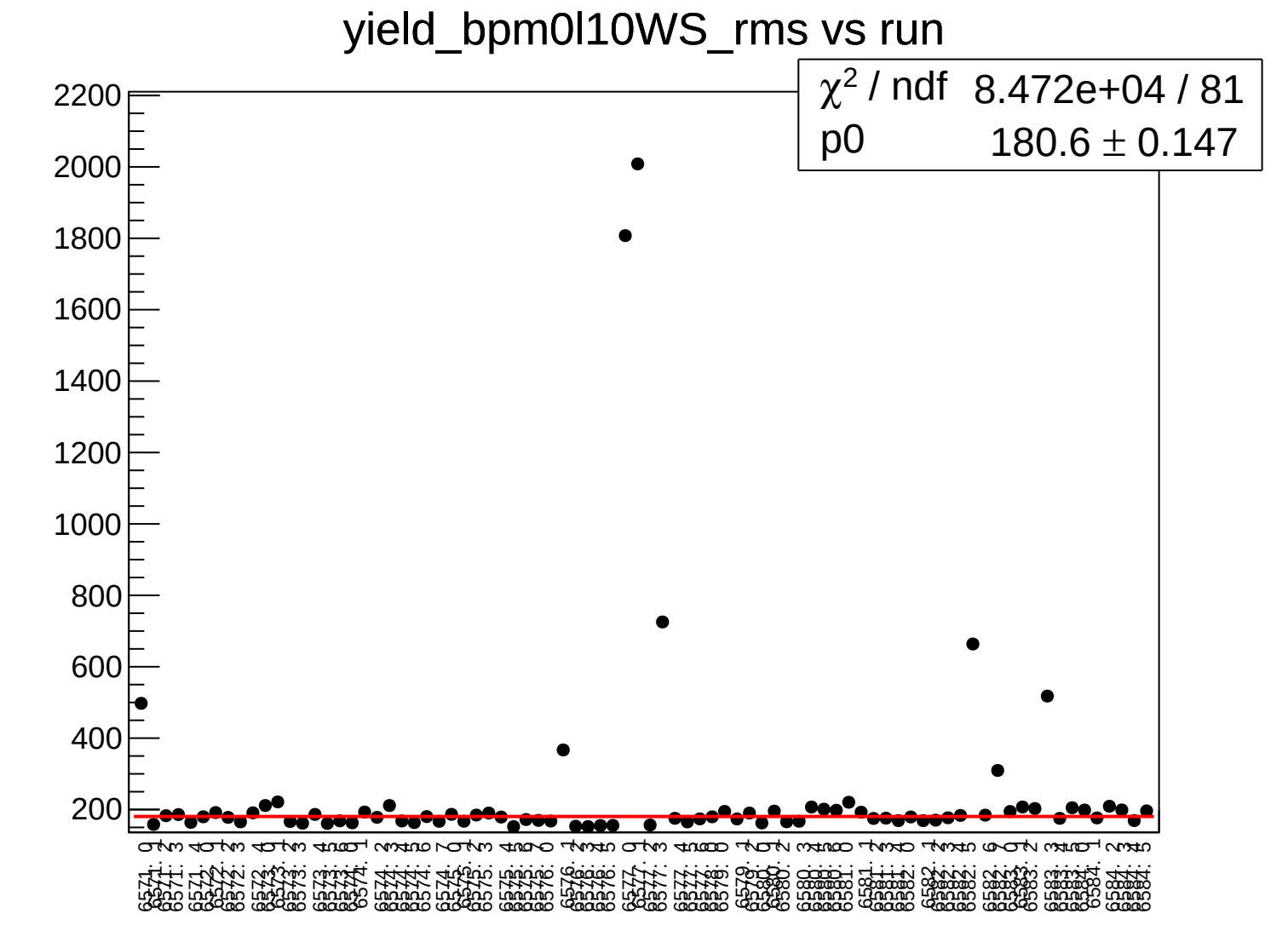

yield_bpm0l09WS_mean vs run
×10^3
χ² / ndf 1.771e+05 / 81
p0 1.396e+05 ± 0.2317
140
139
138
137
136
135
pull
Entries 82
Mean 360.2
Std Dev 318.6
100
50
0
−50
−100
−150

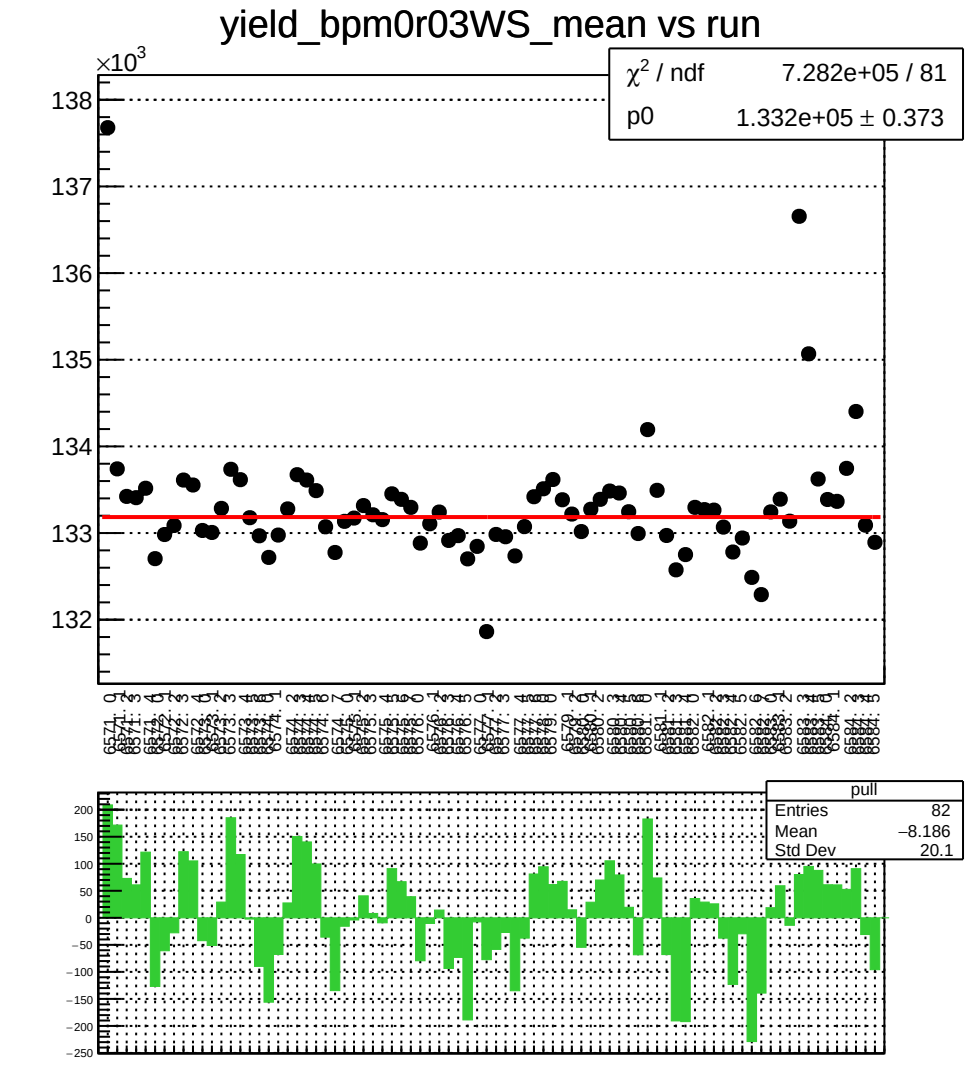

pull1D
Entries 82
Mean −2.11
Std Dev 4.123
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

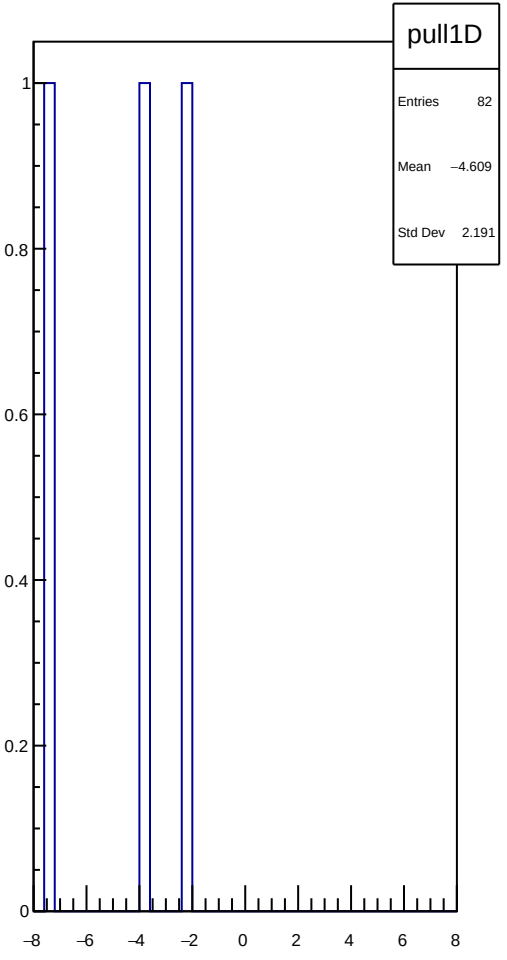

yield_bpm0l09WS_rms vs run
χ² / ndf 8.84e+04 / 81
p0 201 ± 0.1638
2500
2000
1500
1000
500

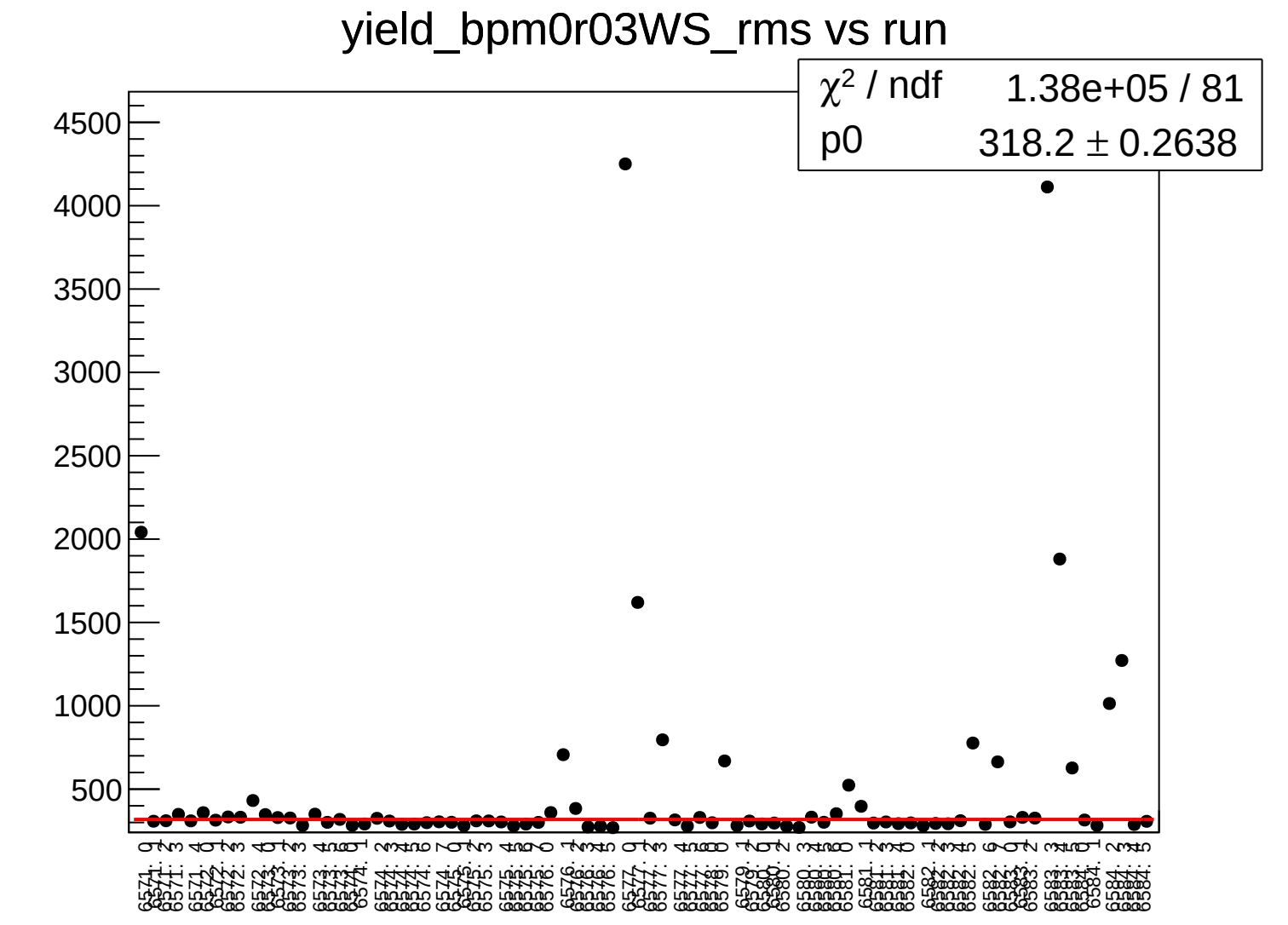

yield_bpm0l10WS_mean vs run
×10^3
χ² / ndf 2.678e+05 / 81
p0 1.403e+05 ± 0.2079
140
139
138
137
136
pull
Entries 82
Mean 204.4
Std Dev 158.6
100
50
0
−50
−100
−150
−200
−250

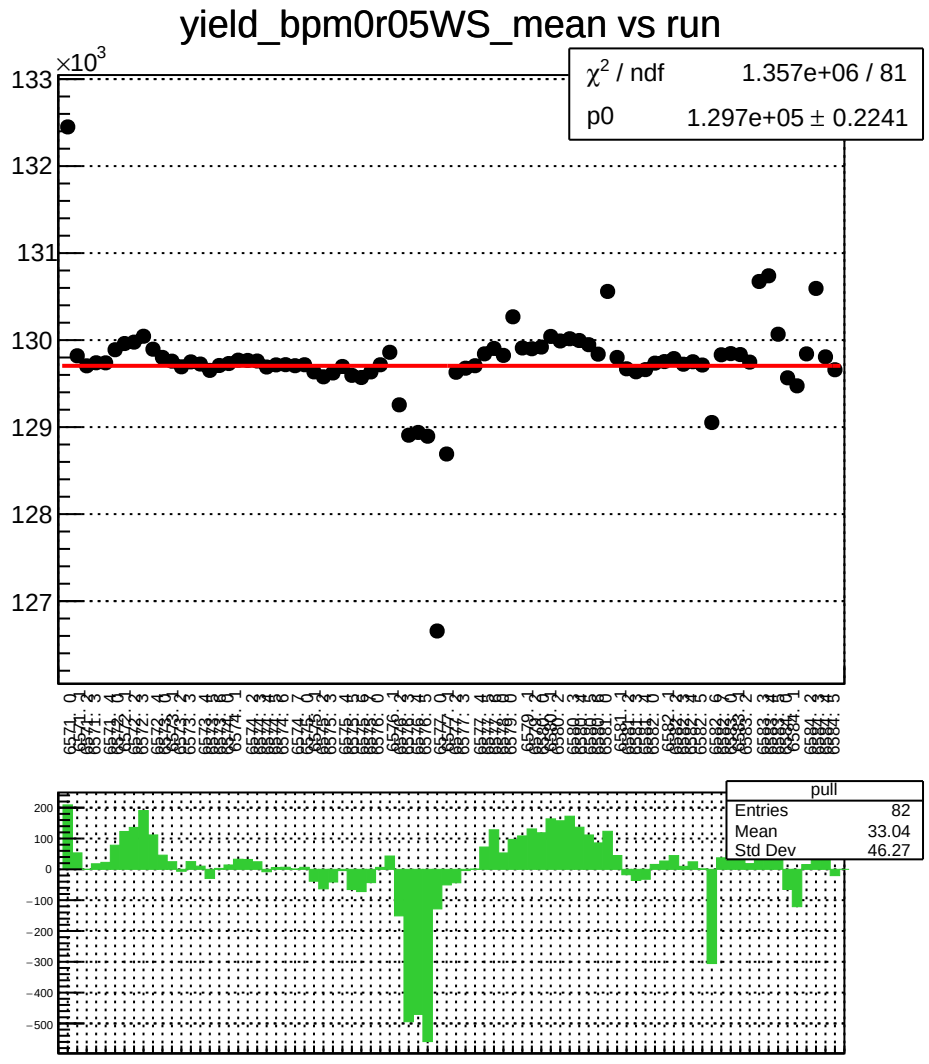

pull1D
Entries 82
Mean 1.852
Std Dev 3.675
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

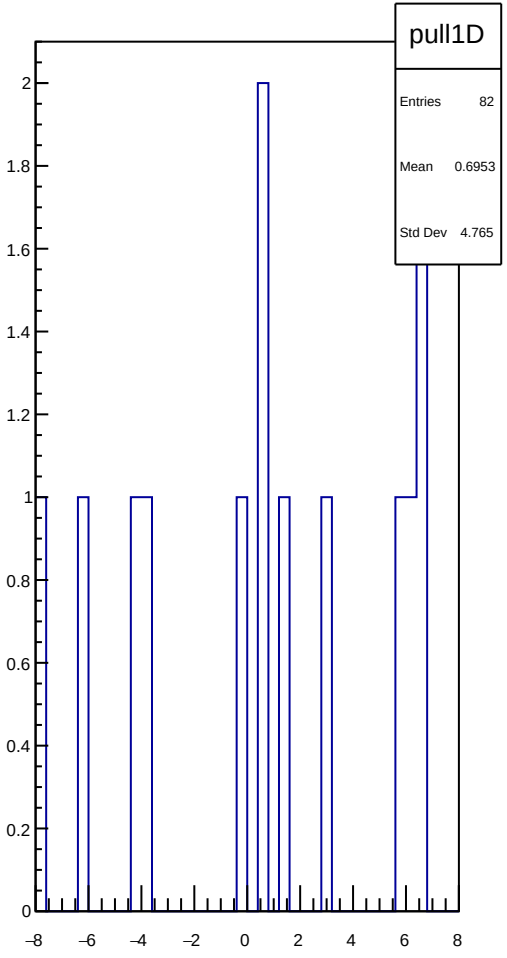

yield_bpm0l10WS_rms vs run
χ² / ndf 8.472e+04 / 81
p0 180.6 ± 0.147
2200
2000
1800
1600
1400
1200
1000
800
600
400
200

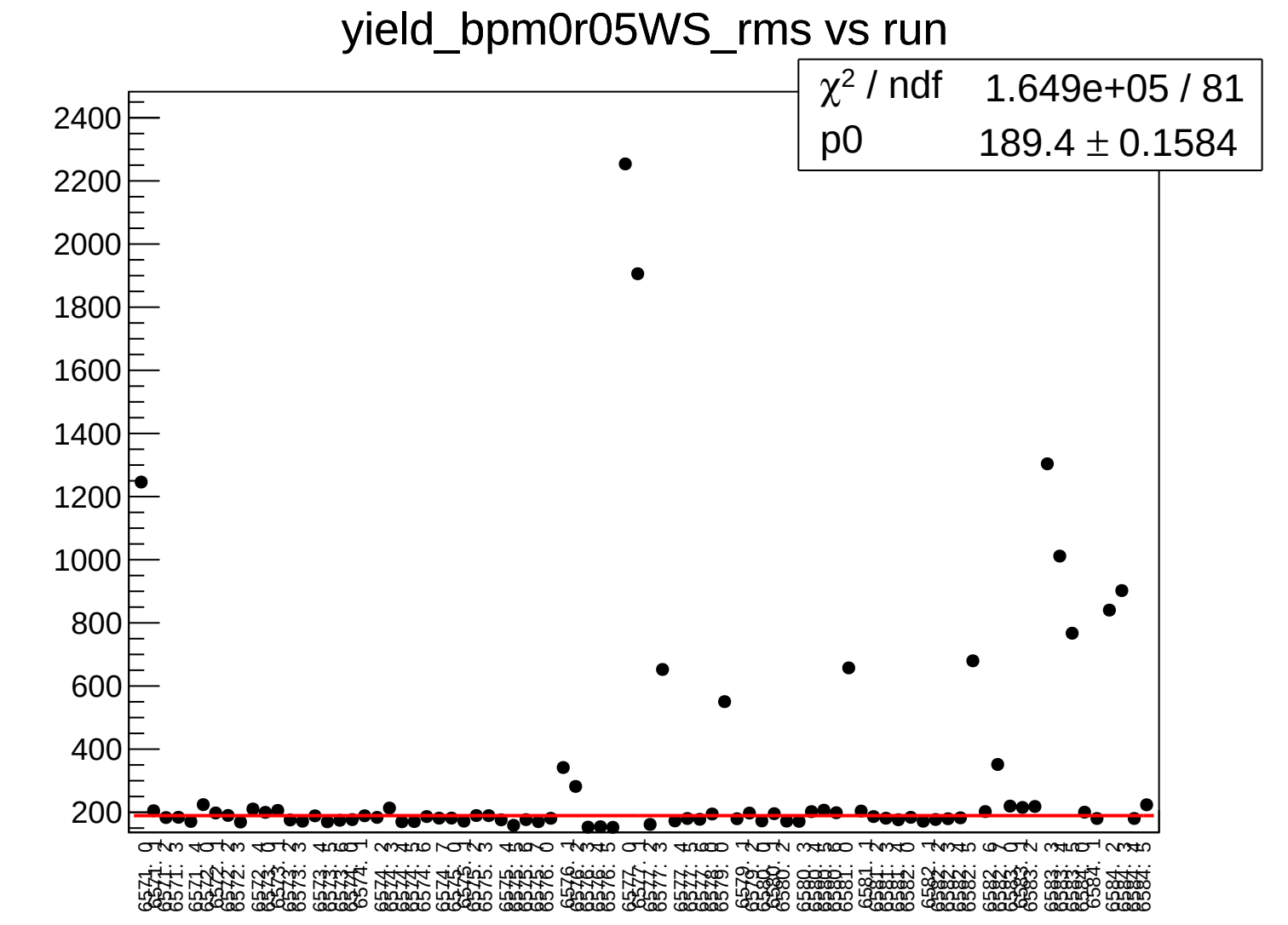

yield_bpm0r03WS_mean vs run
×10^3
χ² / ndf 7.282e+05 / 81
p0 1.332e+05 ± 0.373
138
137
136
135
134
133
132
pull
Entries 82
Mean −8.186
Std Dev 20.1
200
150
100
50
0
−50
−100
−150
−200
−250

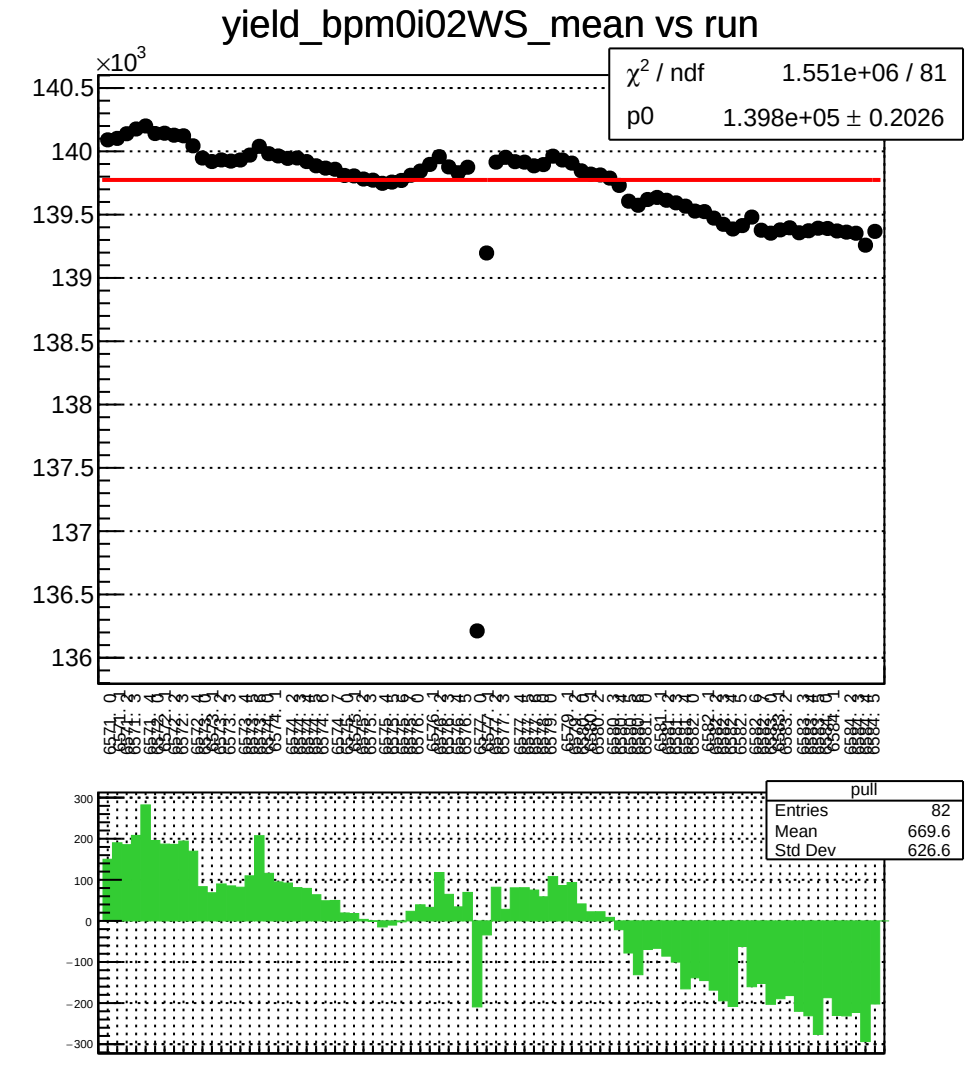

pull1D
Entries 82
Mean −4.609
Std Dev 2.191
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

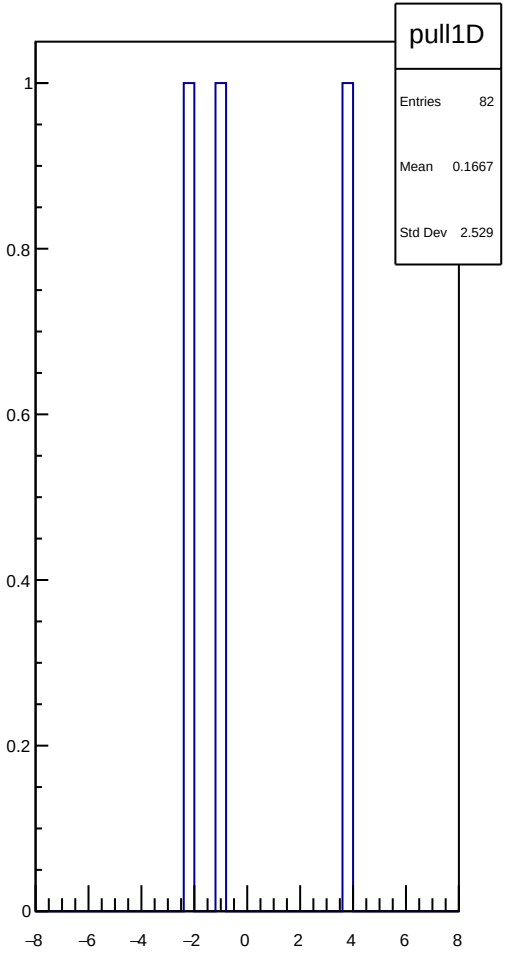

yield_bpm0r03WS_rms vs run
χ^2 / ndf 1.38e+05 / 81
p0 318.2 ± 0.2638
4500
4000
3500
3000
2500
2000
1500
1000
500

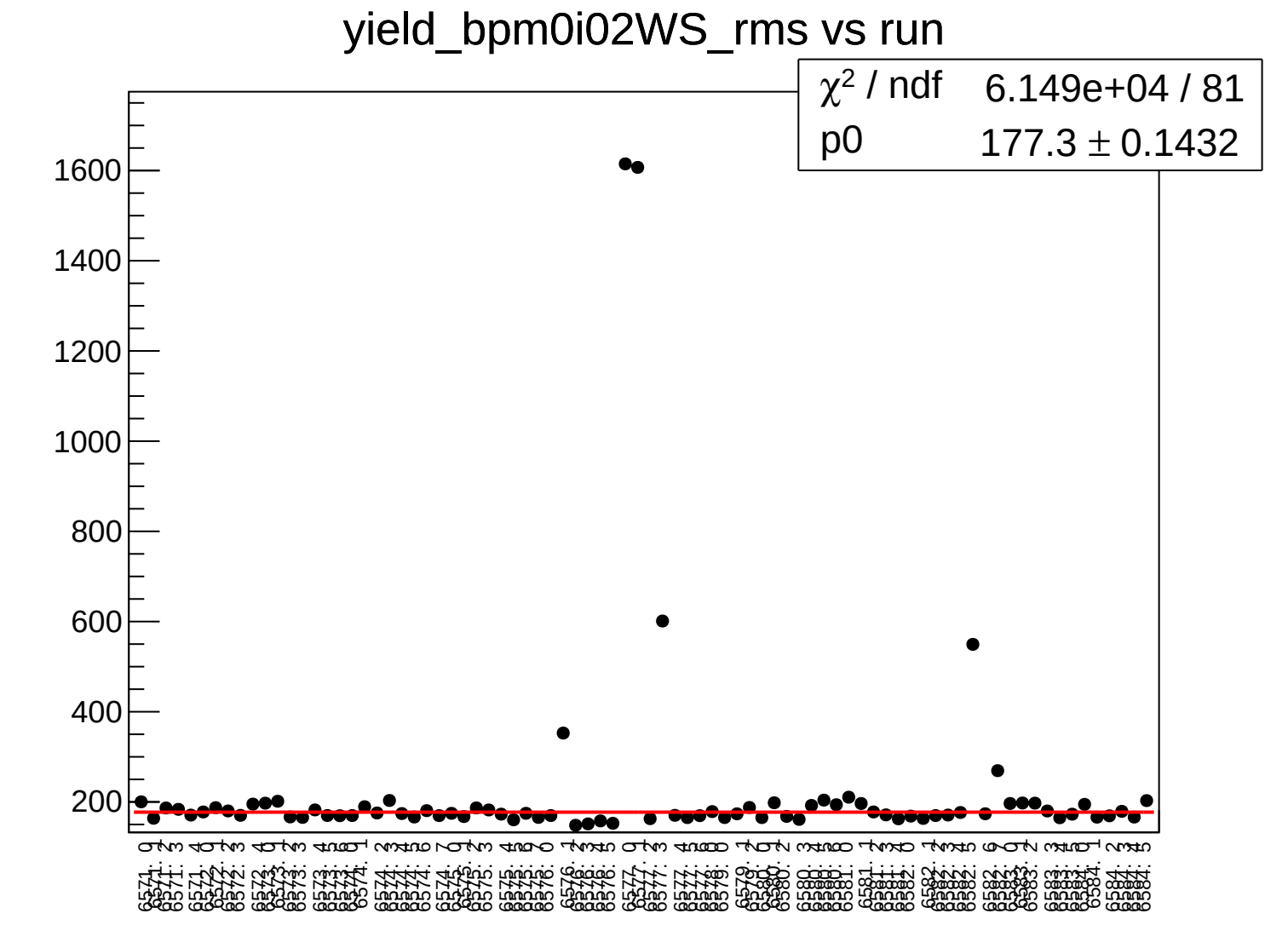

yield_bpm0r05WS_mean vs run
χ² / ndf 1.357e+06 / 81
p0 1.297e+05 ± 0.2241
pull
Entries 82
Mean 33.04
Std Dev 46.27

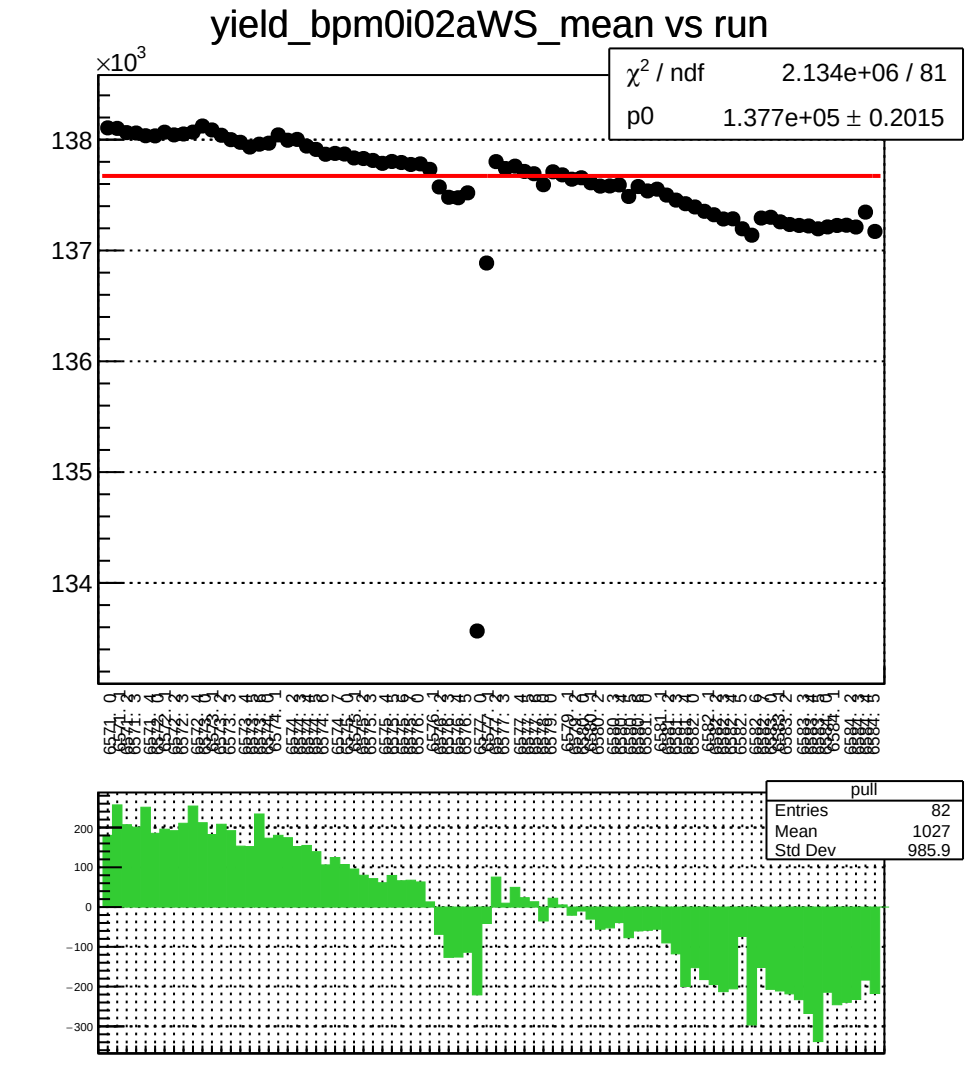

pull1D
Entries 82
Mean 0.6953
Std Dev 4.765

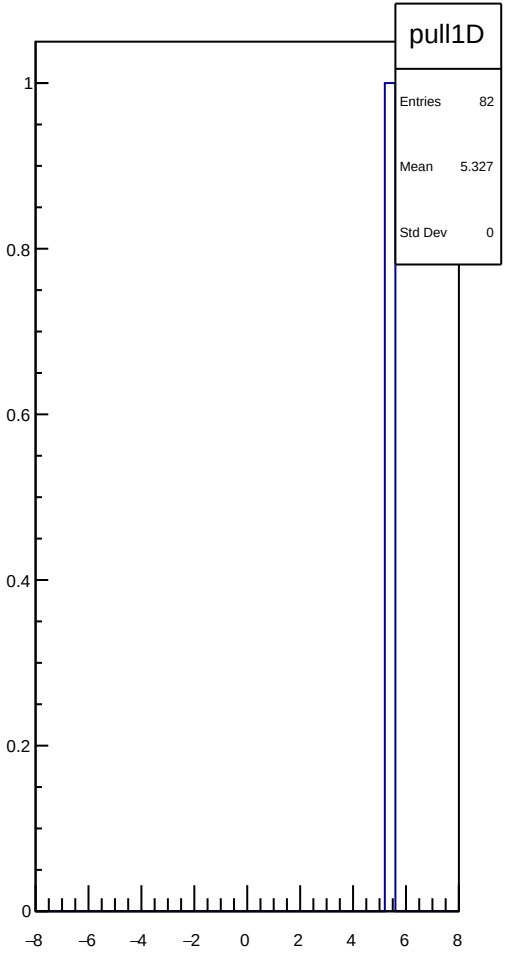

yield_bpm0r05WS_rms vs run
χ² / ndf 1.649e+05 / 81
p0 189.4 ± 0.1584
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200

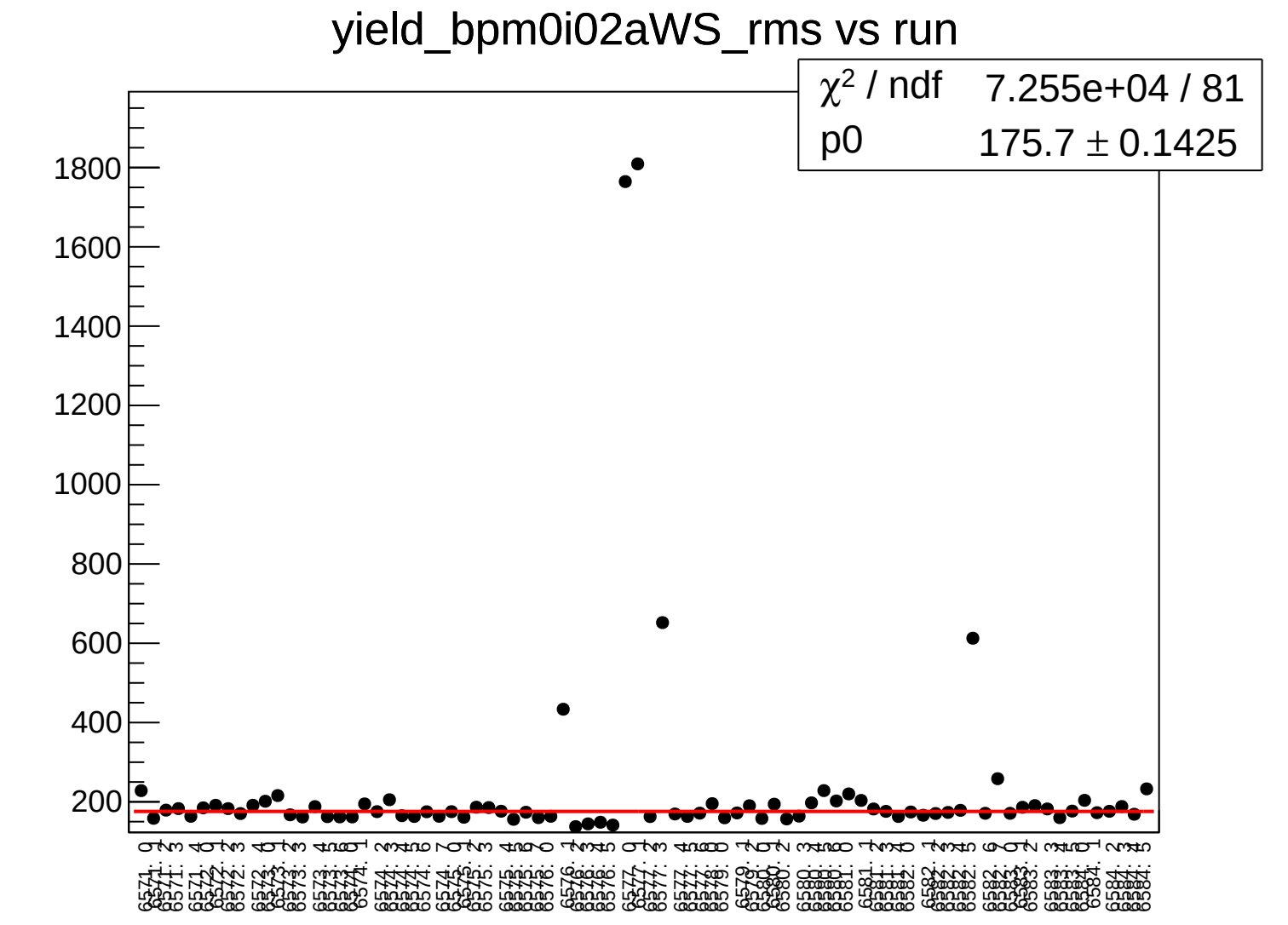

yield_bpm0i02WS_mean vs run
×10^3
χ² / ndf 1.551e+06 / 81
p0 1.398e+05 ± 0.2026
140.5
140
139.5
139
138.5
138
137.5
137
136.5
136
pull
Entries 82
Mean 669.6
Std Dev 626.6
300
200
100
0
−100
−200
−300

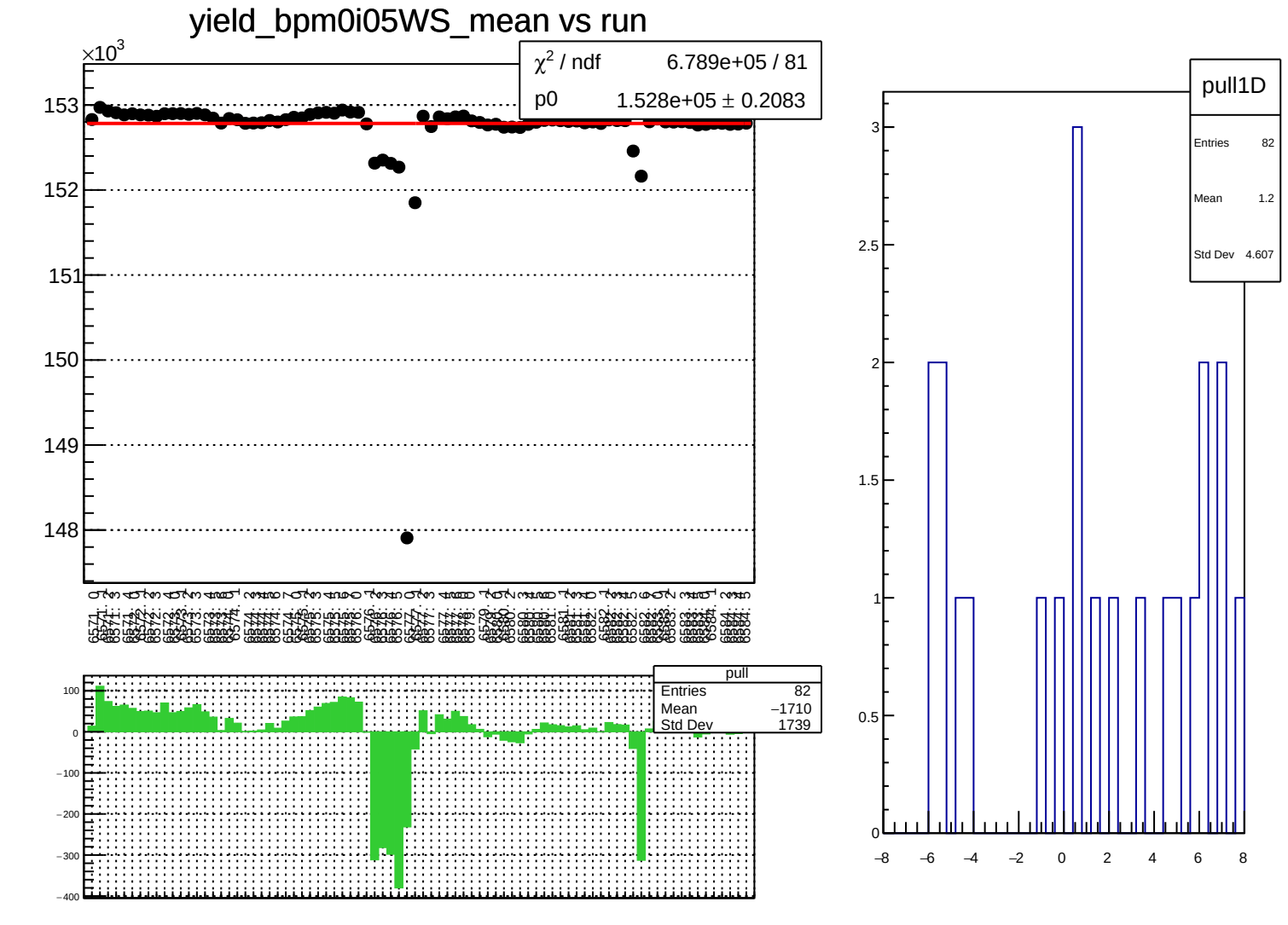

pull1D
Entries 82
Mean 0.1667
Std Dev 2.529
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

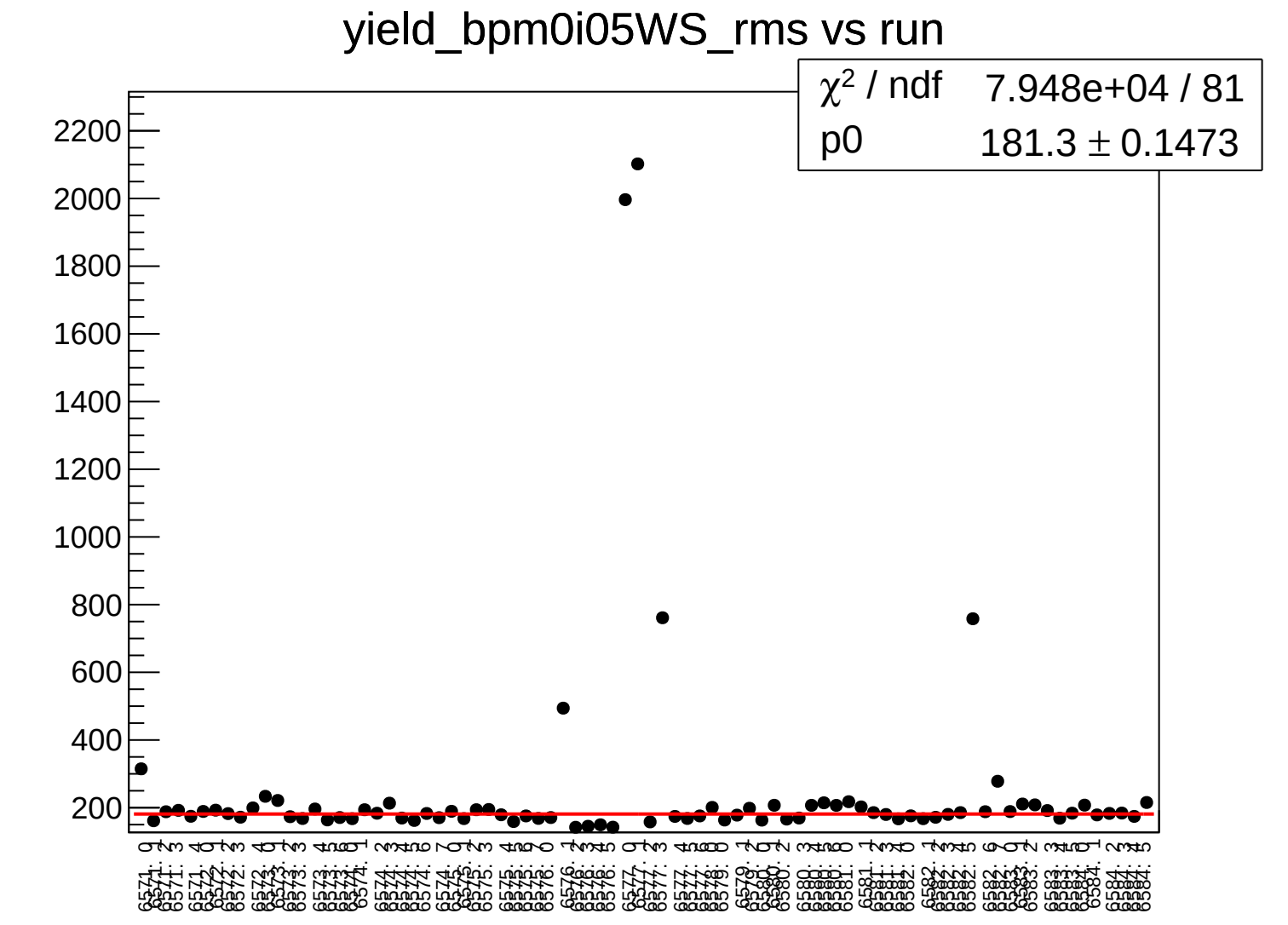

yield_bpm0i02WS_rms vs run
χ² / ndf 6.149e+04 / 81
p0 177.3 ± 0.1432
1600
1400
1200
1000
800
600
400
200

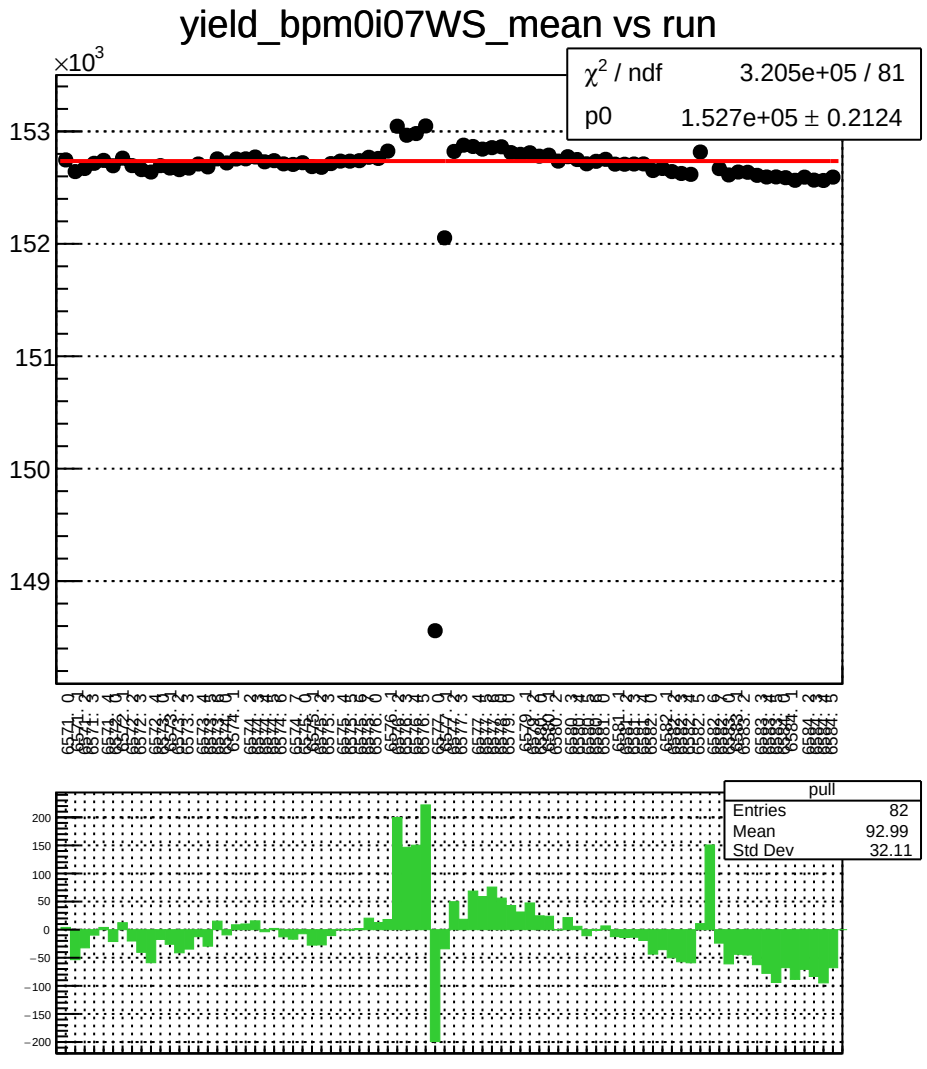

yield_bpm0i02aWS_mean vs run
×10^3
χ² / ndf 2.134e+06 / 81
p0 1.377e+05 ± 0.2015
138
137
136
135
134
pull
Entries 82
Mean 1027
Std Dev 985.9
200
100
0
−100
−200
−300

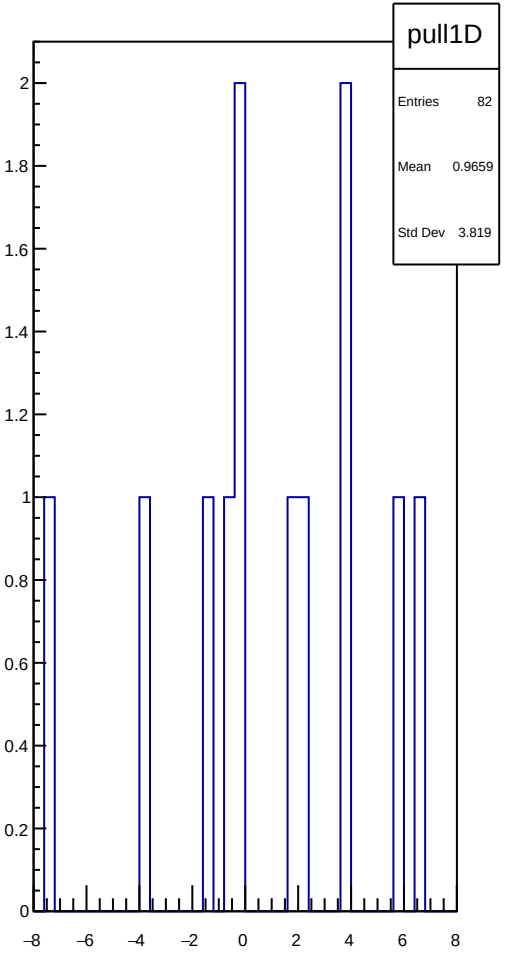

pull1D
Entries 82
Mean 5.327
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

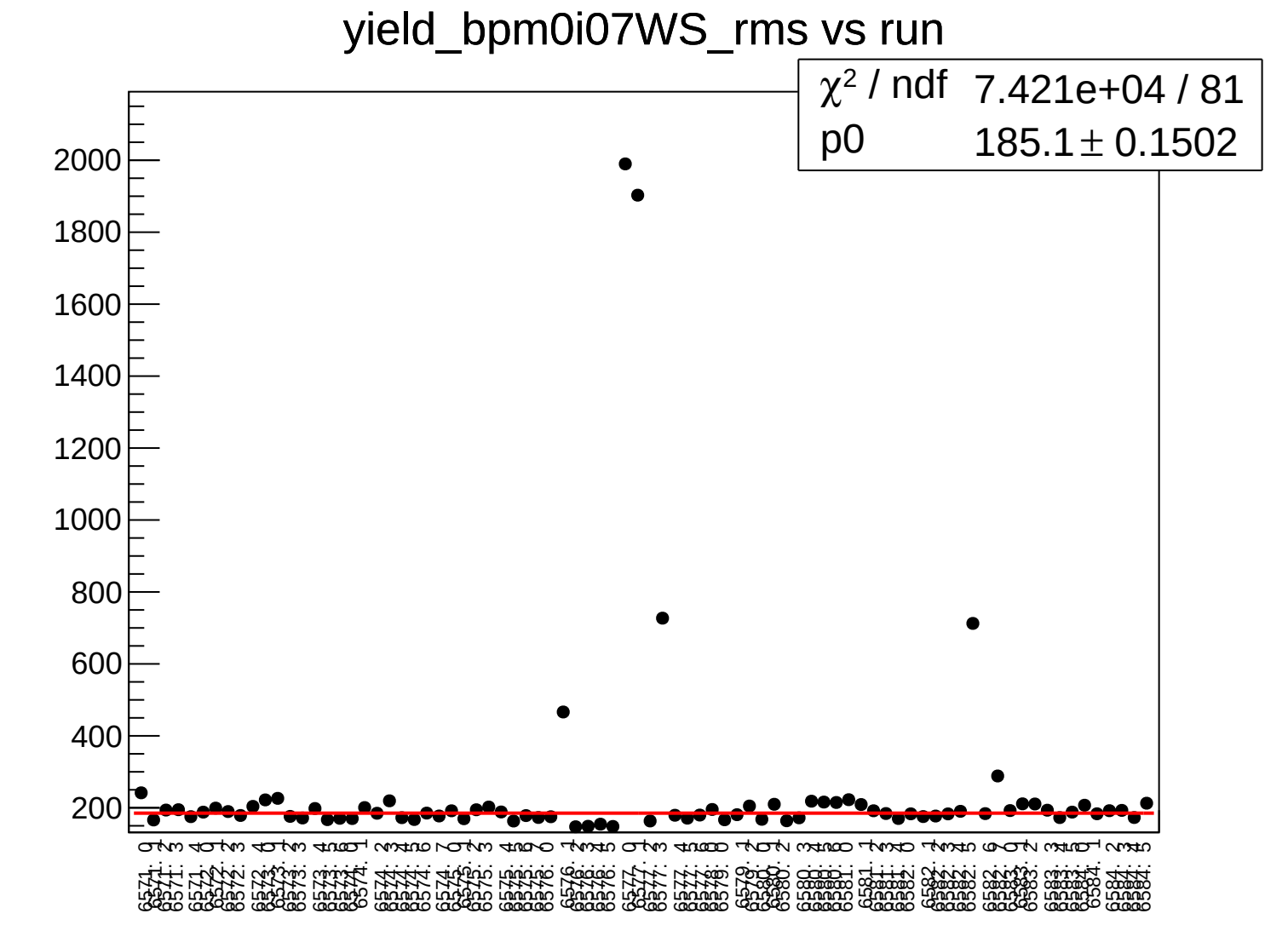

yield_bpm0i02aWS_rms vs run
χ² / ndf 7.255e+04 / 81
p0 175.7 ± 0.1425
1800
1600
1400
1200
1000
800
600
400
200

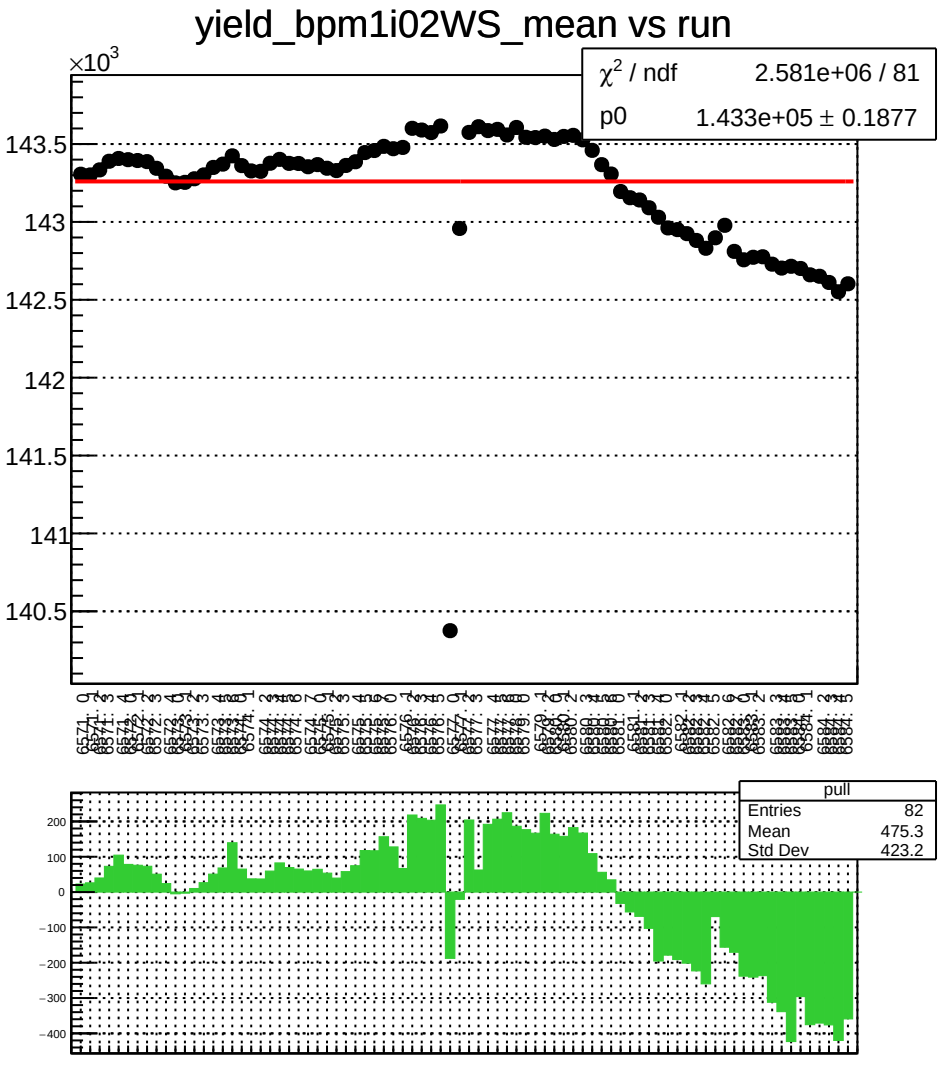

yield_bpm0i05WS_mean vs run
×10^3
χ^2 / ndf 6.789e+05 / 81
p0 1.528e+05 ± 0.2083
153
152
151
150
149
148
pull
Entries 82
Mean −1710
Std Dev 1739
100
0
−100
−200
−300
−400
pull1D
Entries 82
Mean 1.2
Std Dev 4.607
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

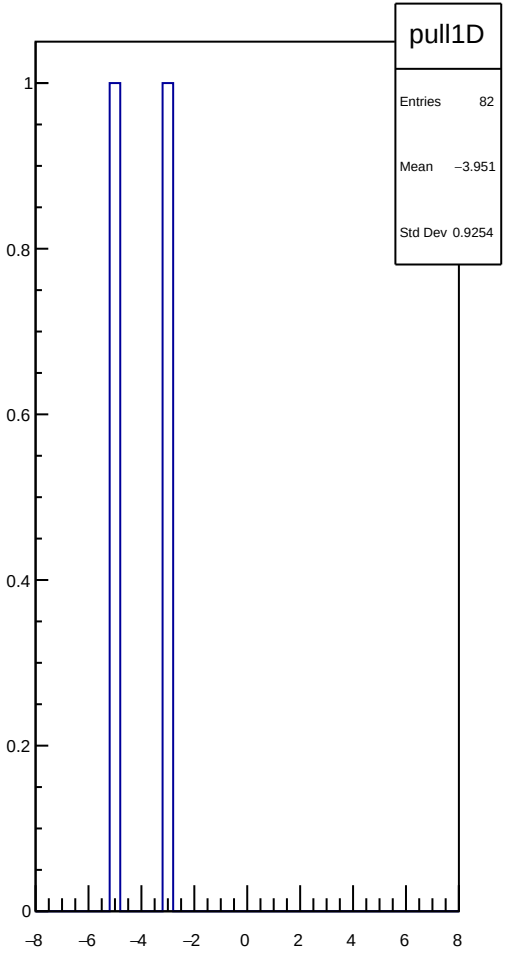

yield_bpm0i05WS_rms vs run
χ² / ndf 7.948e+04 / 81
p0 181.3 ± 0.1473
2200
2000
1800
1600
1400
1200
1000
800
600
400
200

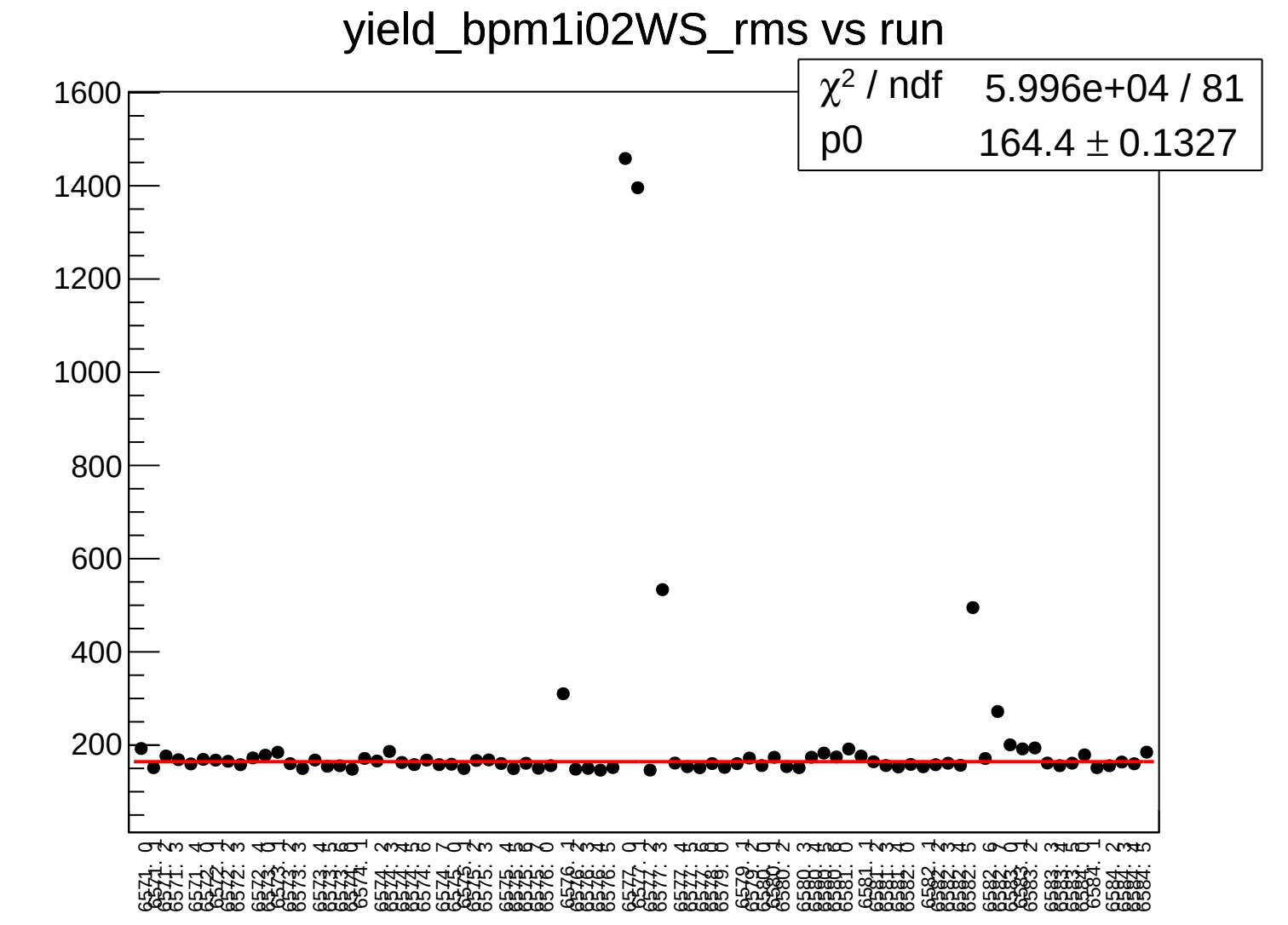

yield_bpm0i07WS_mean vs run
χ² / ndf 3.205e+05 / 81
p0 1.527e+05 ± 0.2124
×10³
153
152
151
150
149
pull
Entries 82
Mean 92.99
Std Dev 32.11
200
150
100
50
0
−50
−100
−150
−200

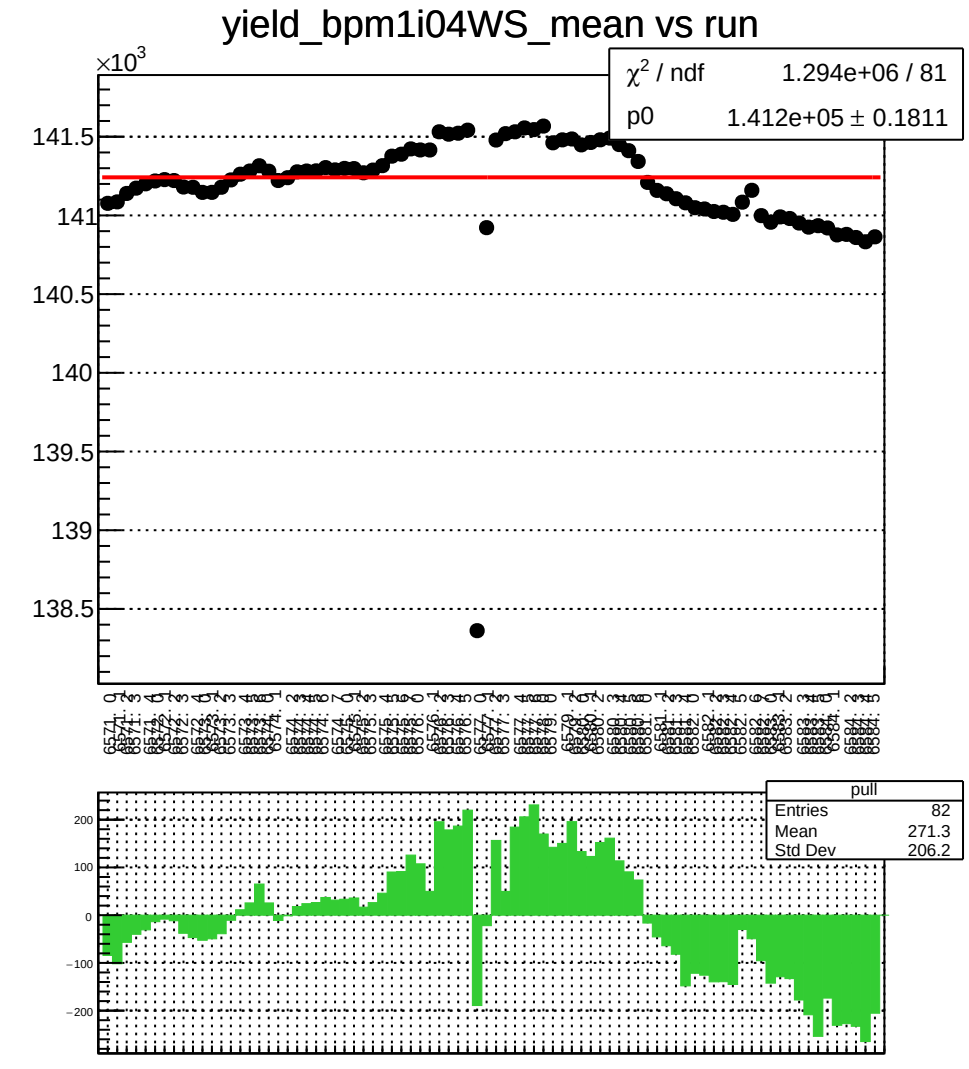

pull1D
Entries 82
Mean 0.9659
Std Dev 3.819
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

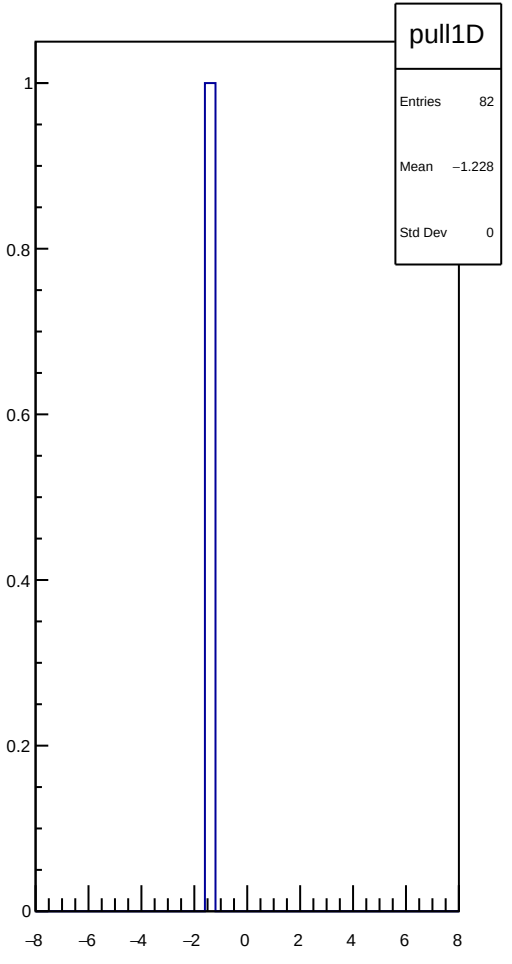

yield_bpm0i07WS_rms vs run
χ² / ndf 7.421e+04 / 81
p0 185.1 ± 0.1502
2000
1800
1600
1400
1200
1000
800
600
400
200

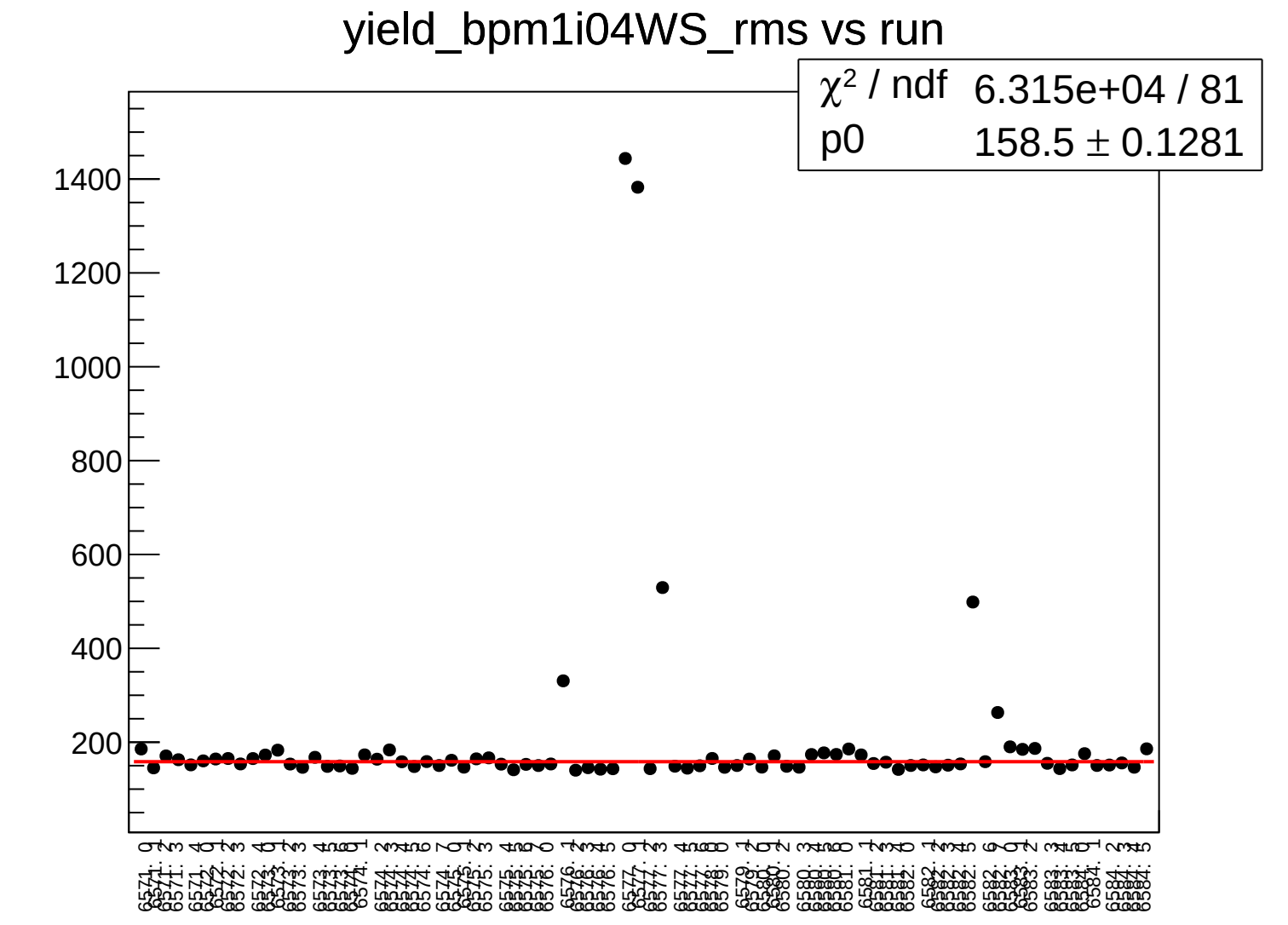

yield_bpm1i02WS_mean vs run
×10^3
χ² / ndf 2.581e+06 / 81
p0 1.433e+05 ± 0.1877
143.5
143
142.5
142
141.5
141
140.5
pull
Entries 82
Mean 475.3
Std Dev 423.2
200
100
0
−100
−200
−300
−400

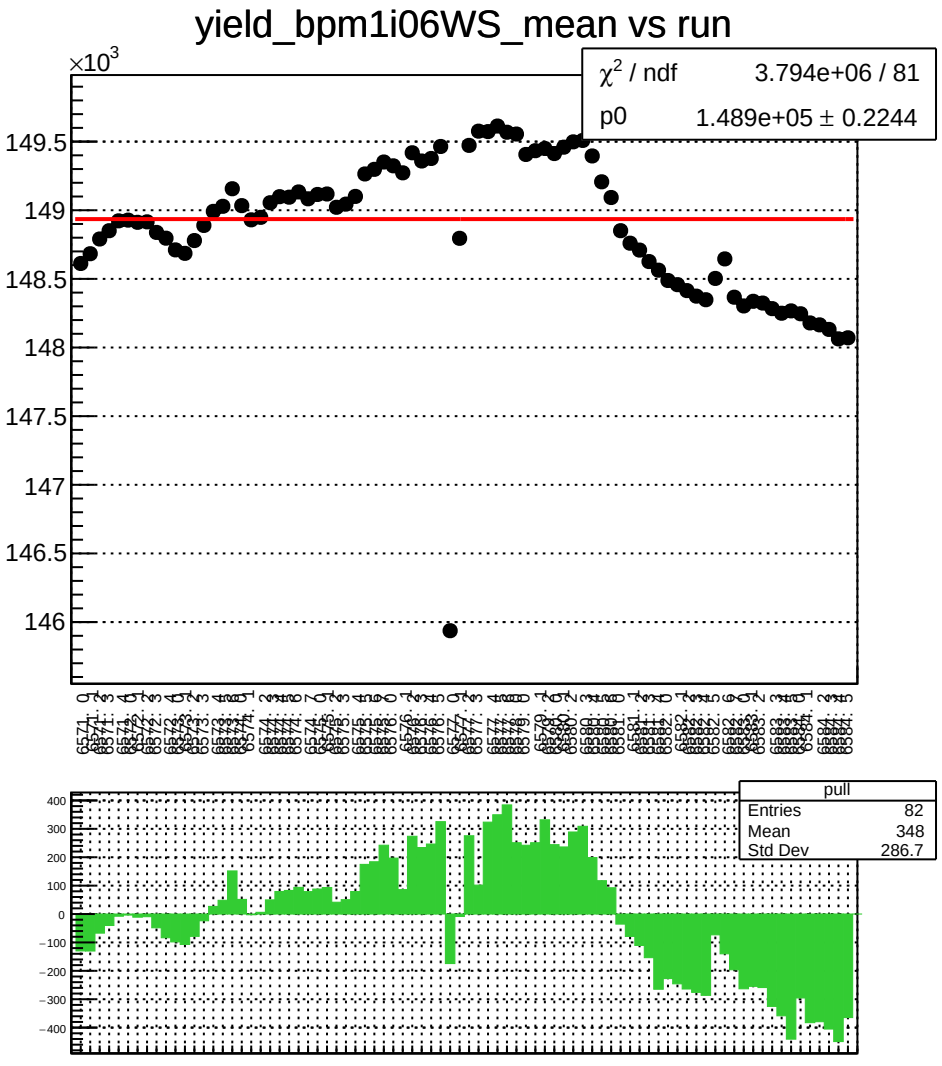

pull1D
Entries 82
Mean −3.951
Std Dev 0.9254
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

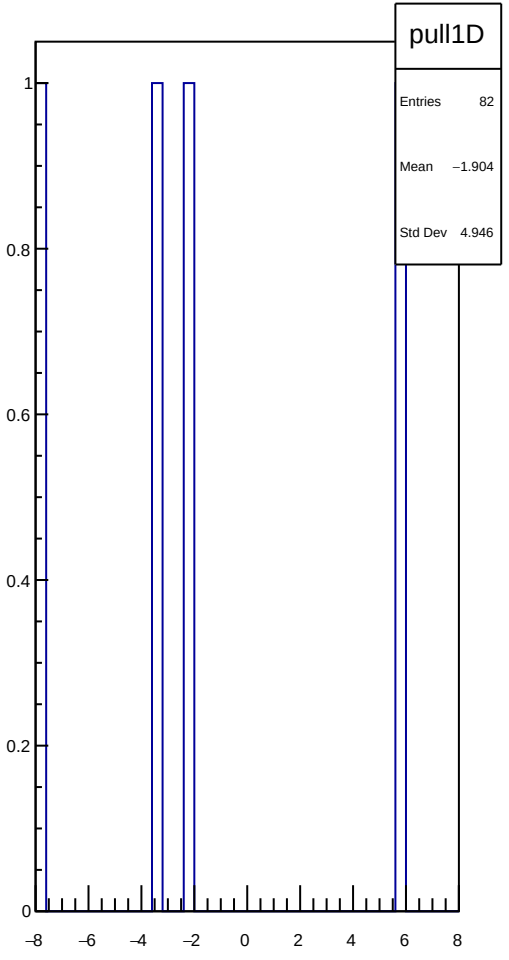

yield_bpm1i02WS_rms vs run
χ² / ndf 5.996e+04 / 81
p0 164.4 ± 0.1327
1600
1400
1200
1000
800
600
400
200

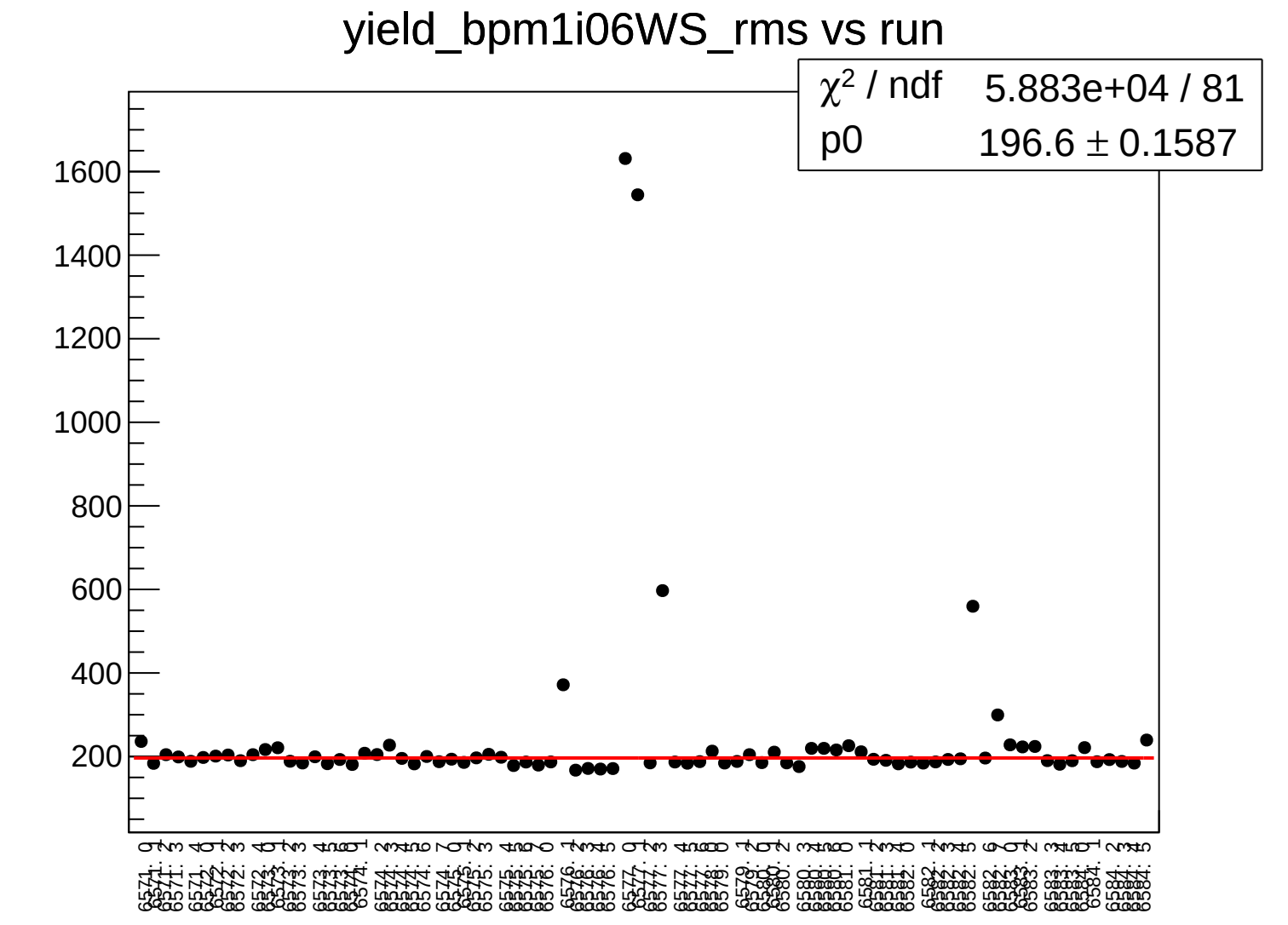

yield_bpm1i04WS_mean vs run
×10^3
χ² / ndf 1.294e+06 / 81
p0 1.412e+05 ± 0.1811
141.5
141
140.5
140
139.5
139
138.5
pull
Entries 82
Mean 271.3
Std Dev 206.2
200
100
0
−100
−200

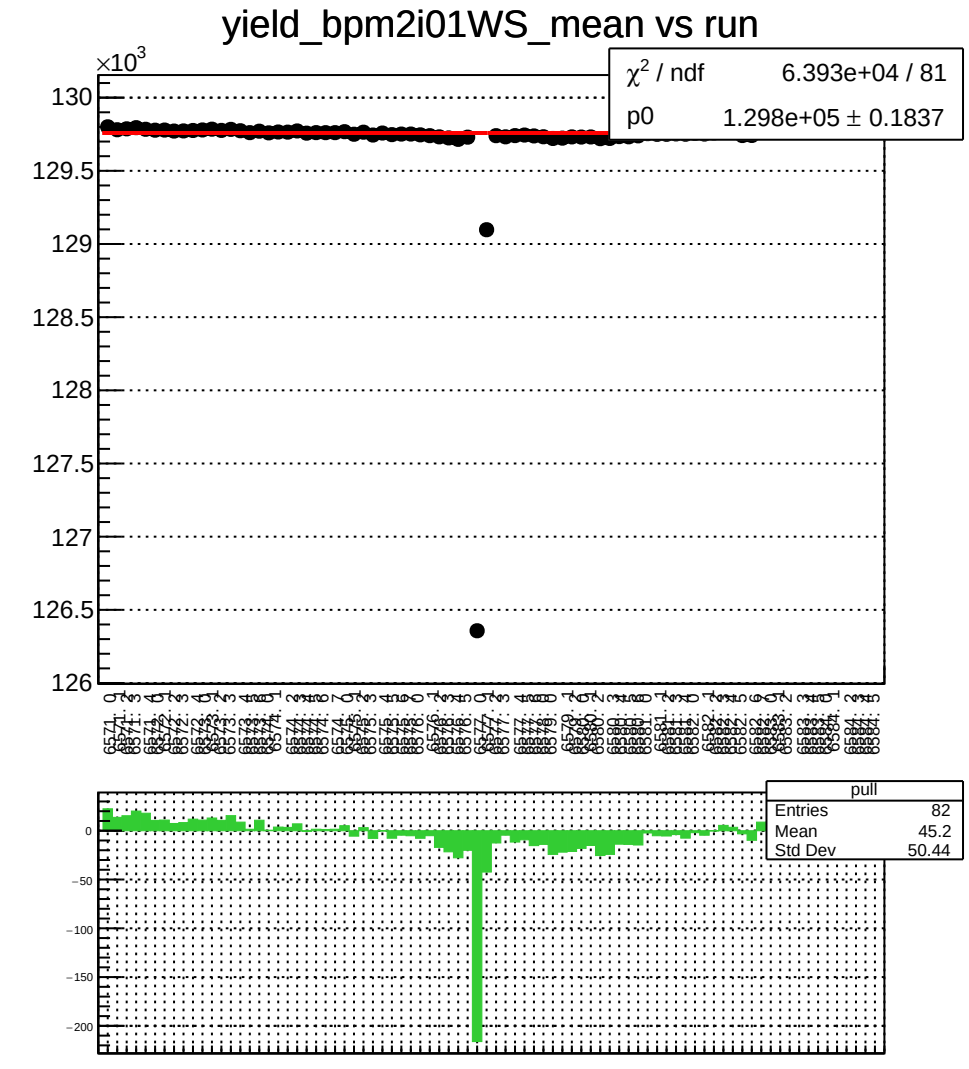

pull1D
Entries 82
Mean −1.228
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

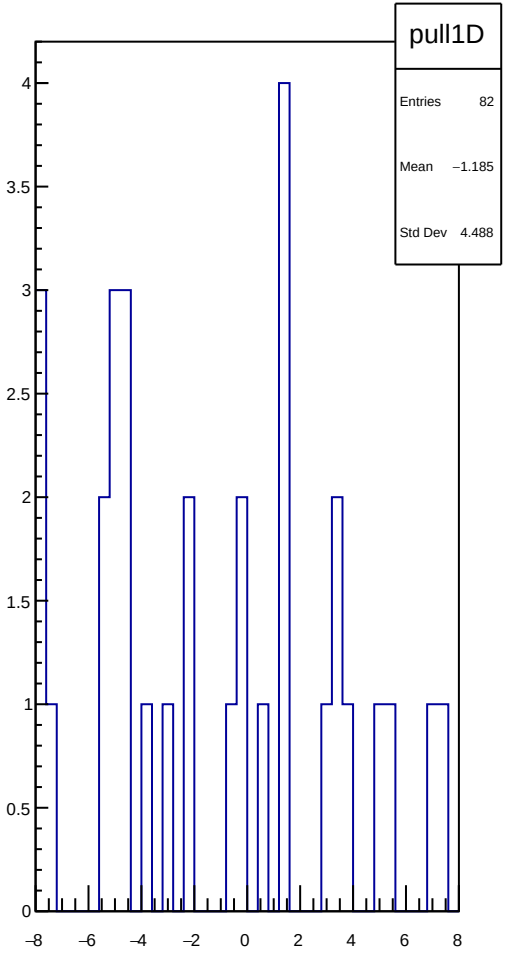

yield_bpm1i04WS_rms vs run
χ² / ndf 6.315e+04 / 81
p0 158.5 ± 0.1281
1400
1200
1000
800
600
400
200

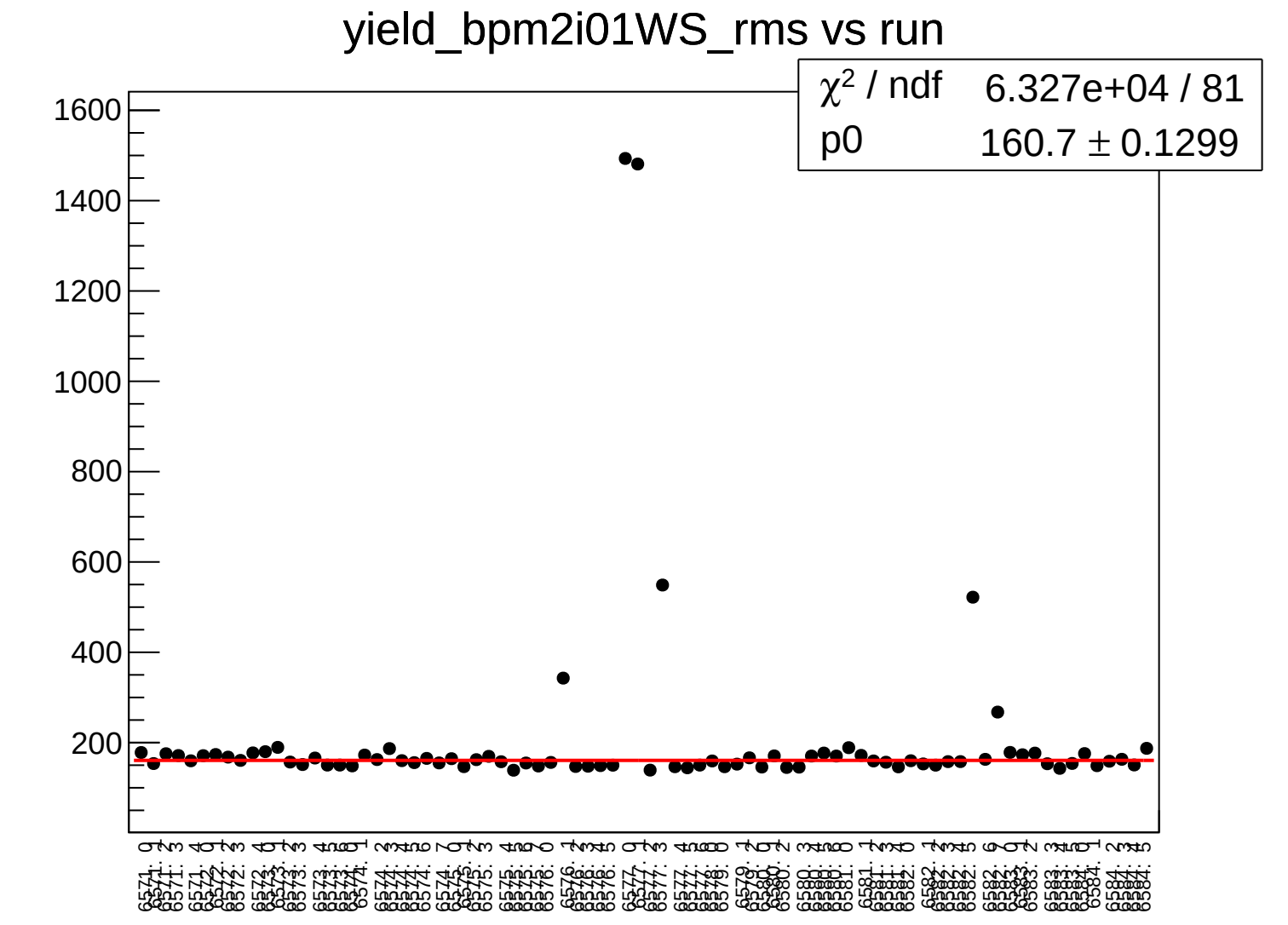

yield_bpm1i06WS_mean vs run
×10^3
χ² / ndf 3.794e+06 / 81
p0 1.489e+05 ± 0.2244
149.5
149
148.5
148
147.5
147
146.5
146
pull
Entries 82
Mean 348
Std Dev 286.7
400
300
200
100
0
−100
−200
−300
−400

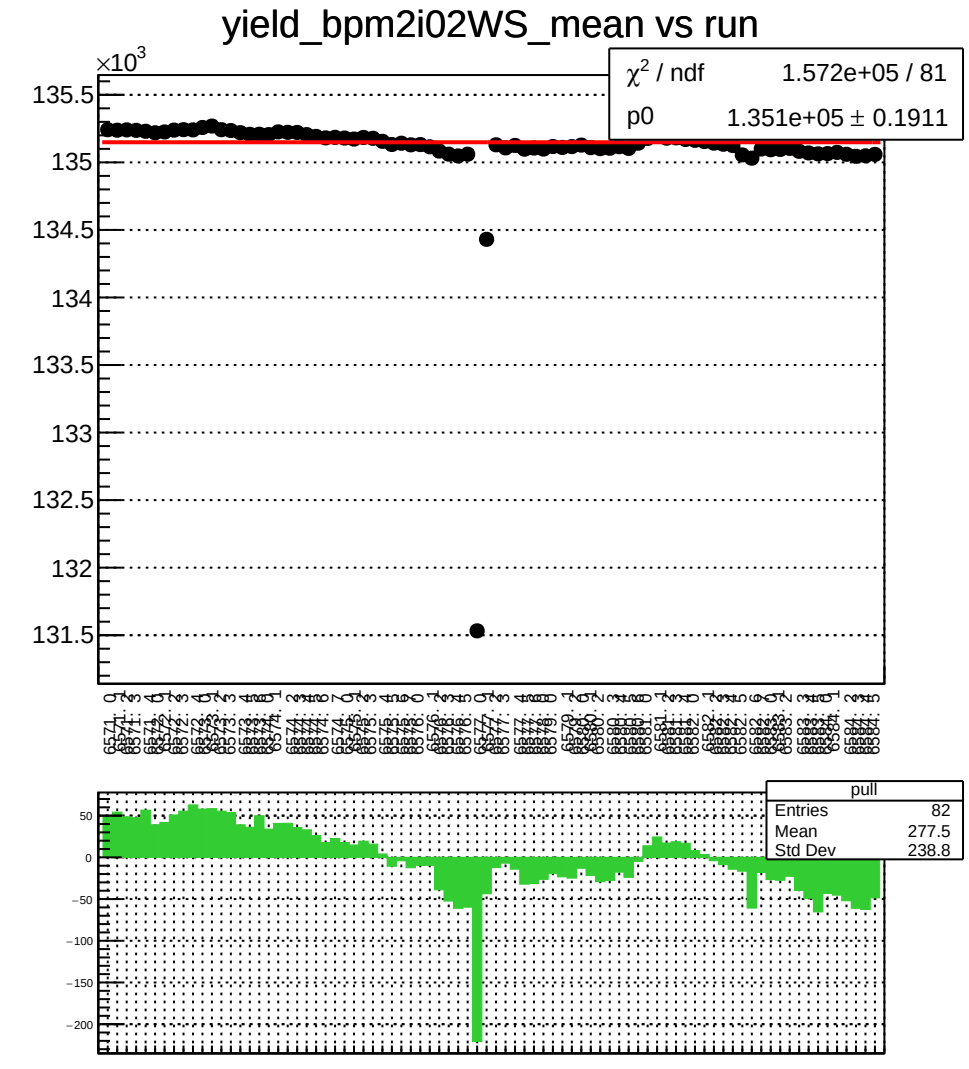

pull1D
Entries 82
Mean −1.904
Std Dev 4.946
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

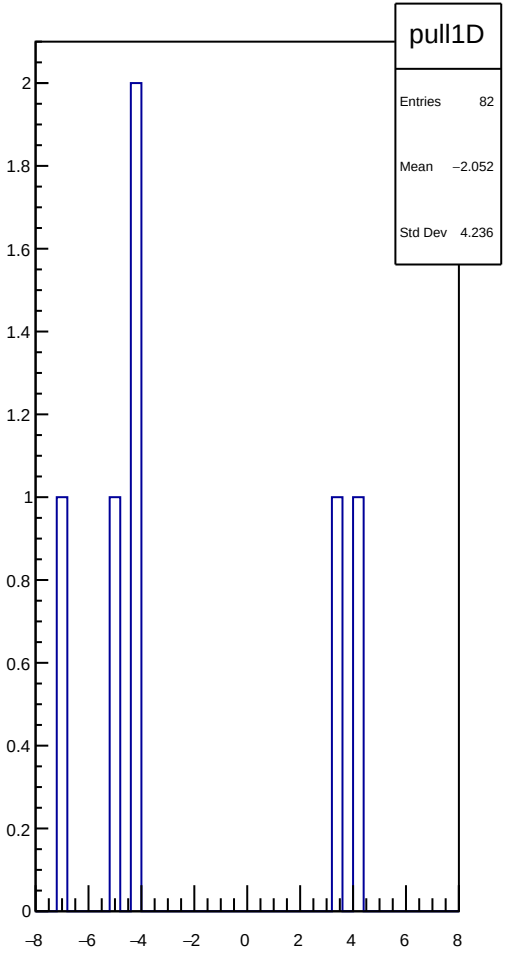

yield_bpm1i06WS_rms vs run
χ² / ndf 5.883e+04 / 81
p0 196.6 ± 0.1587
1600
1400
1200
1000
800
600
400
200

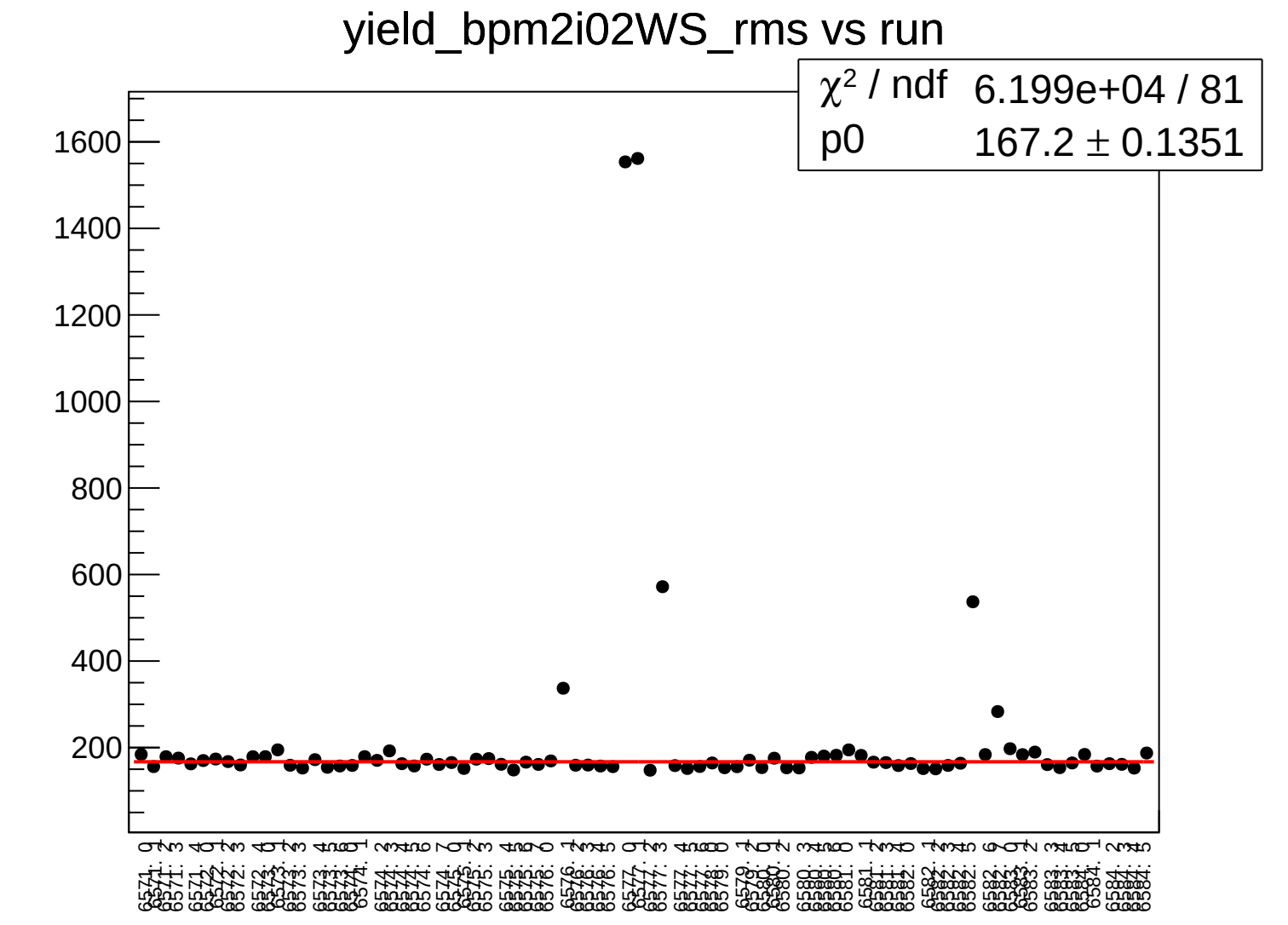

yield_bpm2i01WS_mean vs run
×10^3
130
129.5
129
128.5
128
127.5
127
126.5
126
χ² / ndf 6.393e+04 / 81
p0 1.298e+05 ± 0.1837
pull
Entries 82
Mean 45.2
Std Dev 50.44
0
−50
−100
−150
−200

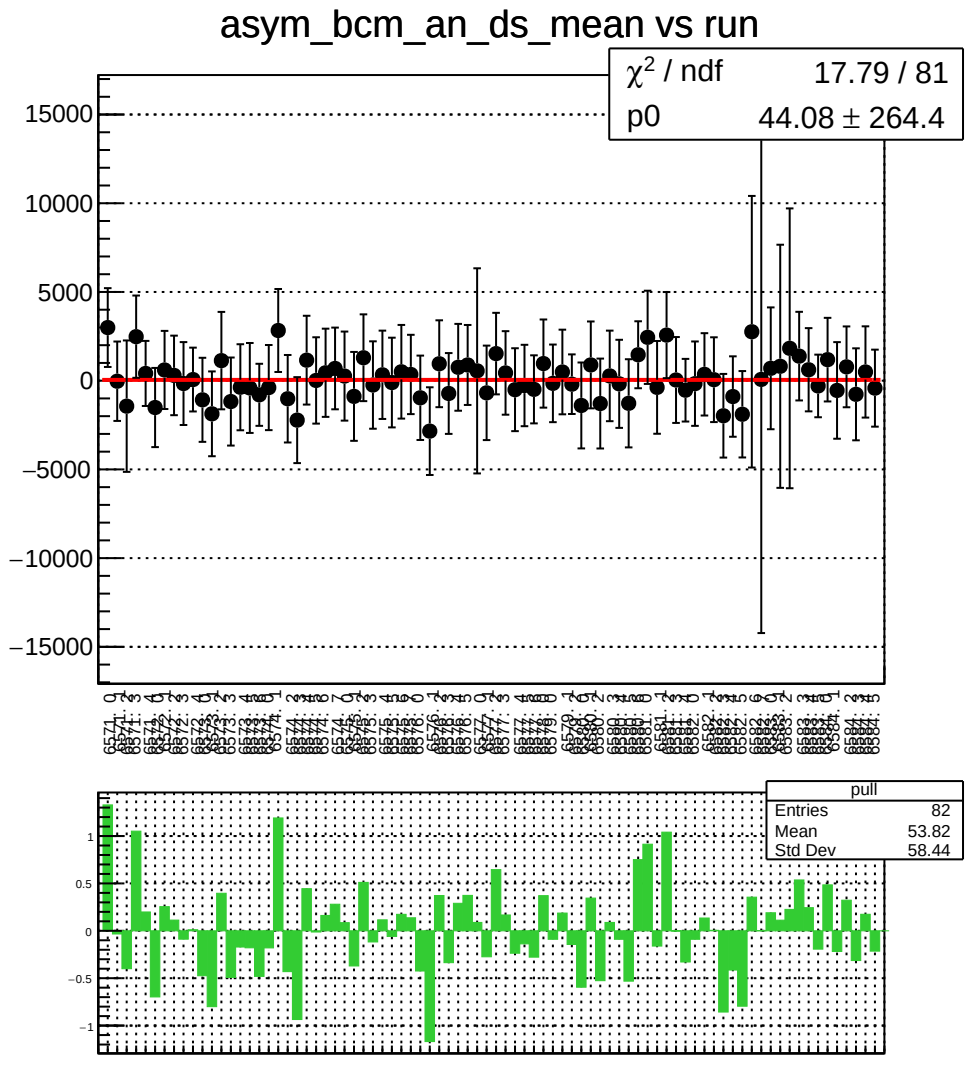

pull1D
Entries 82
Mean −1.185
Std Dev 4.488
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

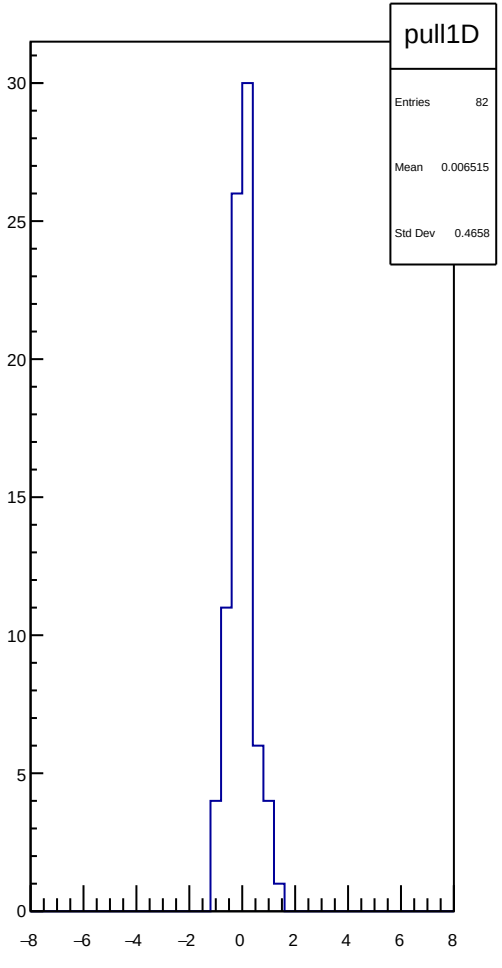

yield_bpm2i01WS_rms vs run
χ² / ndf 6.327e+04 / 81
p0 160.7 ± 0.1299
1600
1400
1200
1000
800
600
400
200

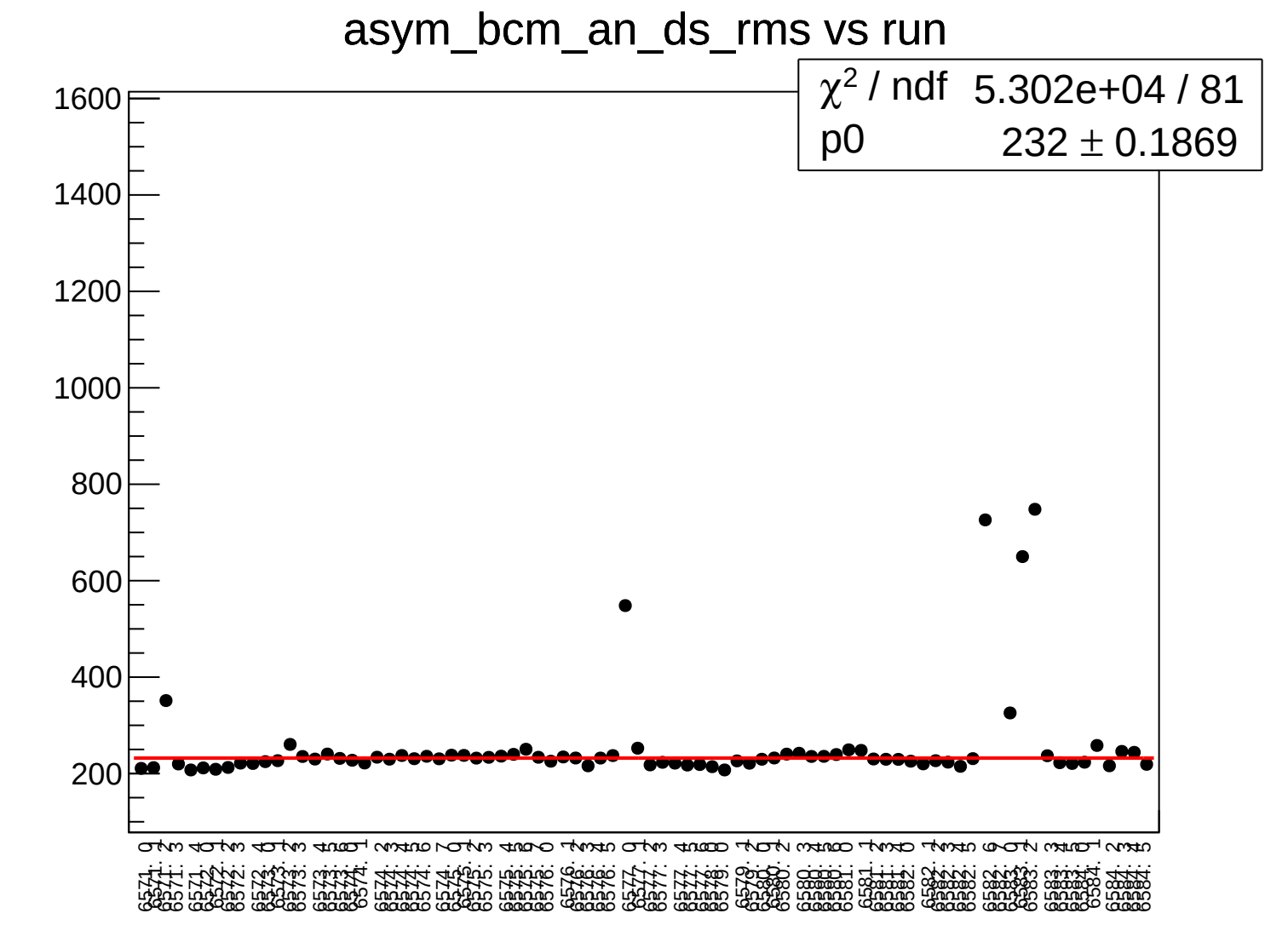

yield_bpm2i02WS_mean vs run
×10^3
χ^2 / ndf 1.572e+05 / 81
p0 1.351e+05 ± 0.1911
135.5
135
134.5
134
133.5
133
132.5
132
131.5
pull
Entries 82
Mean 277.5
Std Dev 238.8
50
0
−50
−100
−150
−200

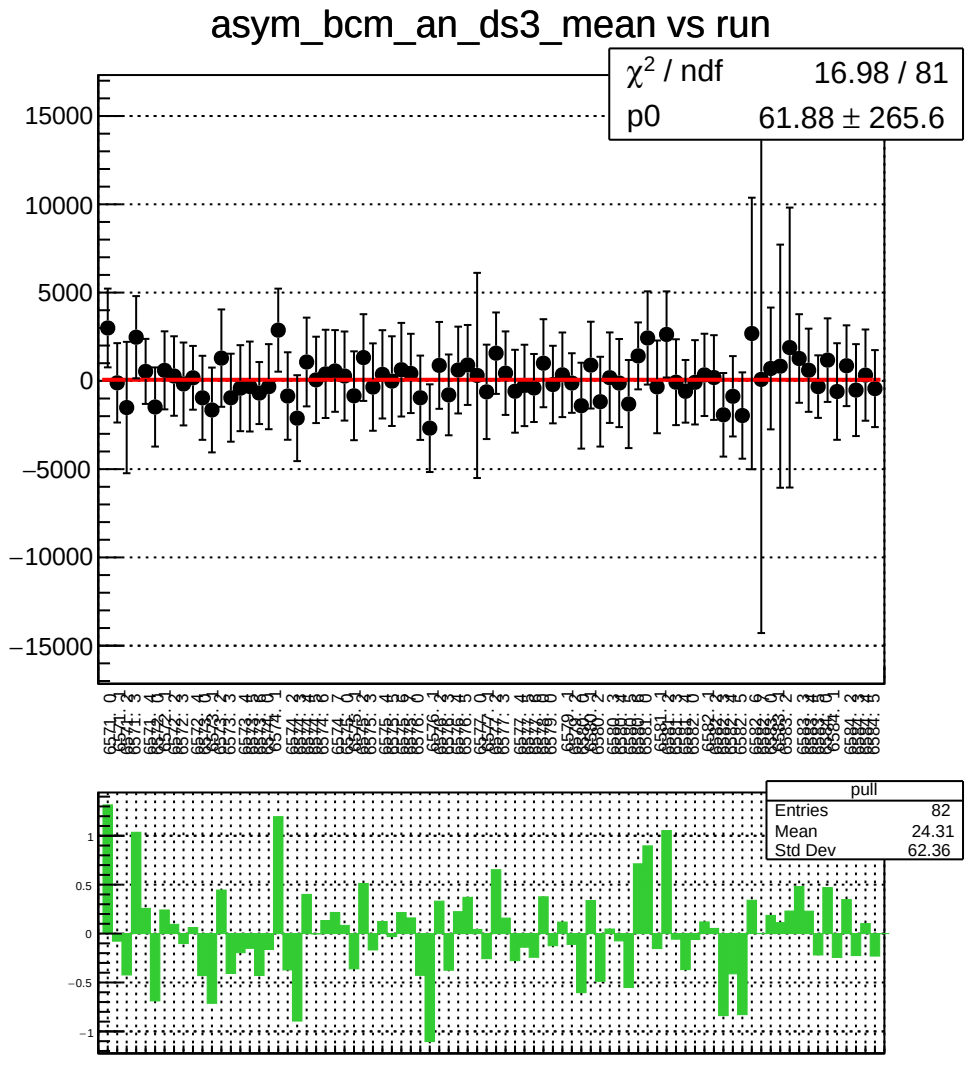

pull1D
Entries 82
Mean −2.052
Std Dev 4.236
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

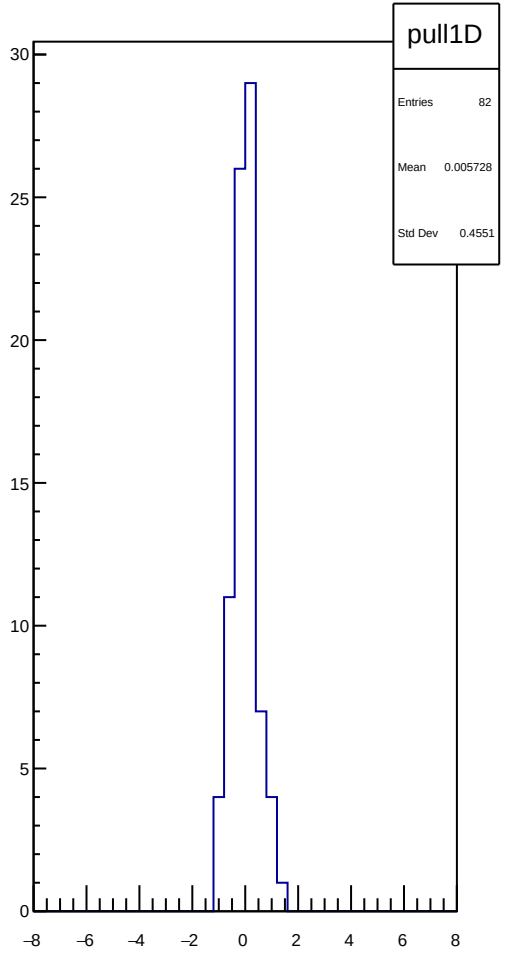

yield_bpm2i02WS_rms vs run
χ² / ndf 6.199e+04 / 81
p0 167.2 ± 0.1351
1600
1400
1200
1000
800
600
400
200

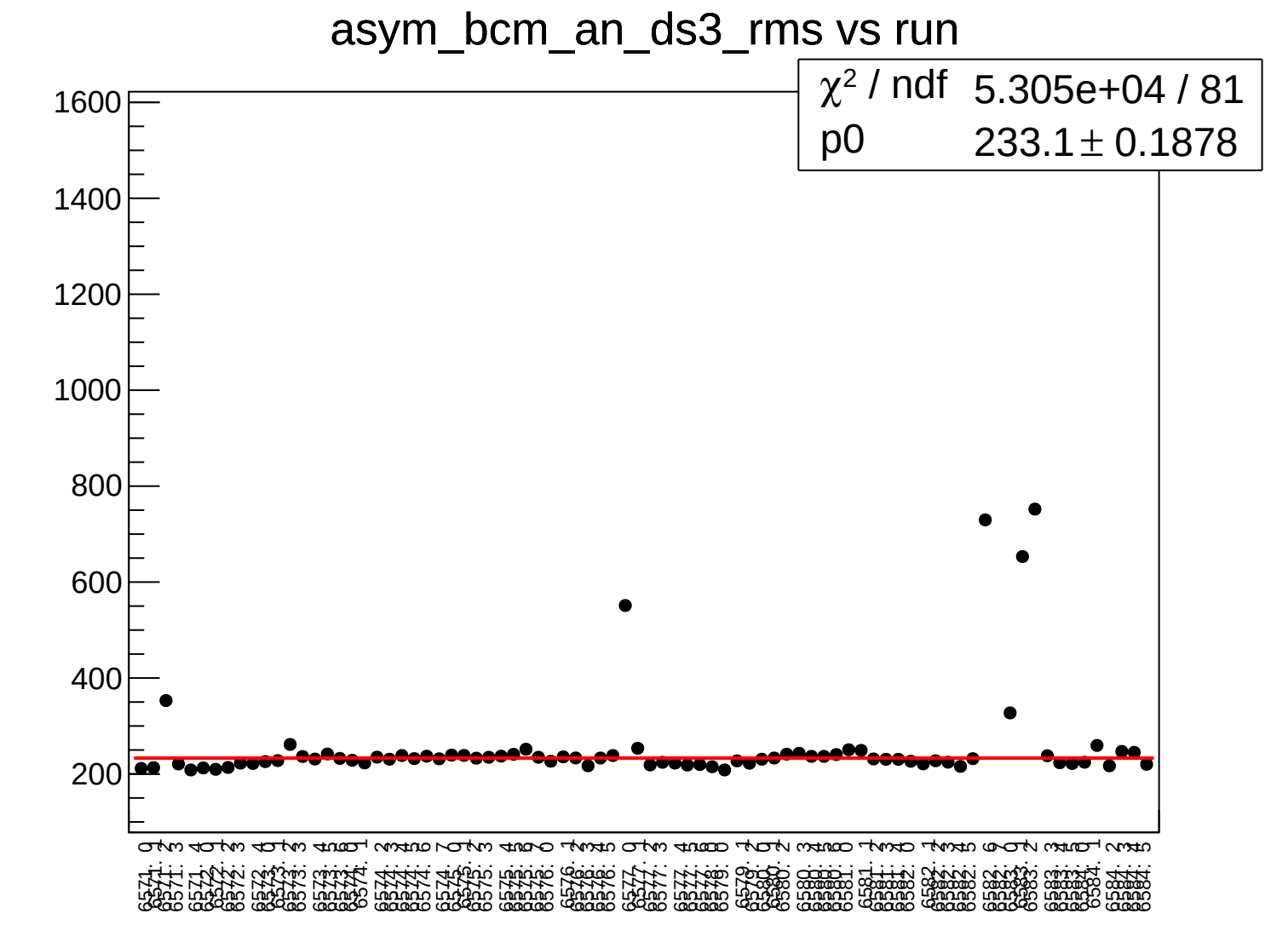

asym_bcm_an_ds_mean vs run
χ² / ndf 17.79 / 81
p0 44.08 ± 264.4
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 53.82
Std Dev 58.44
1
0.5
0
−0.5
−1

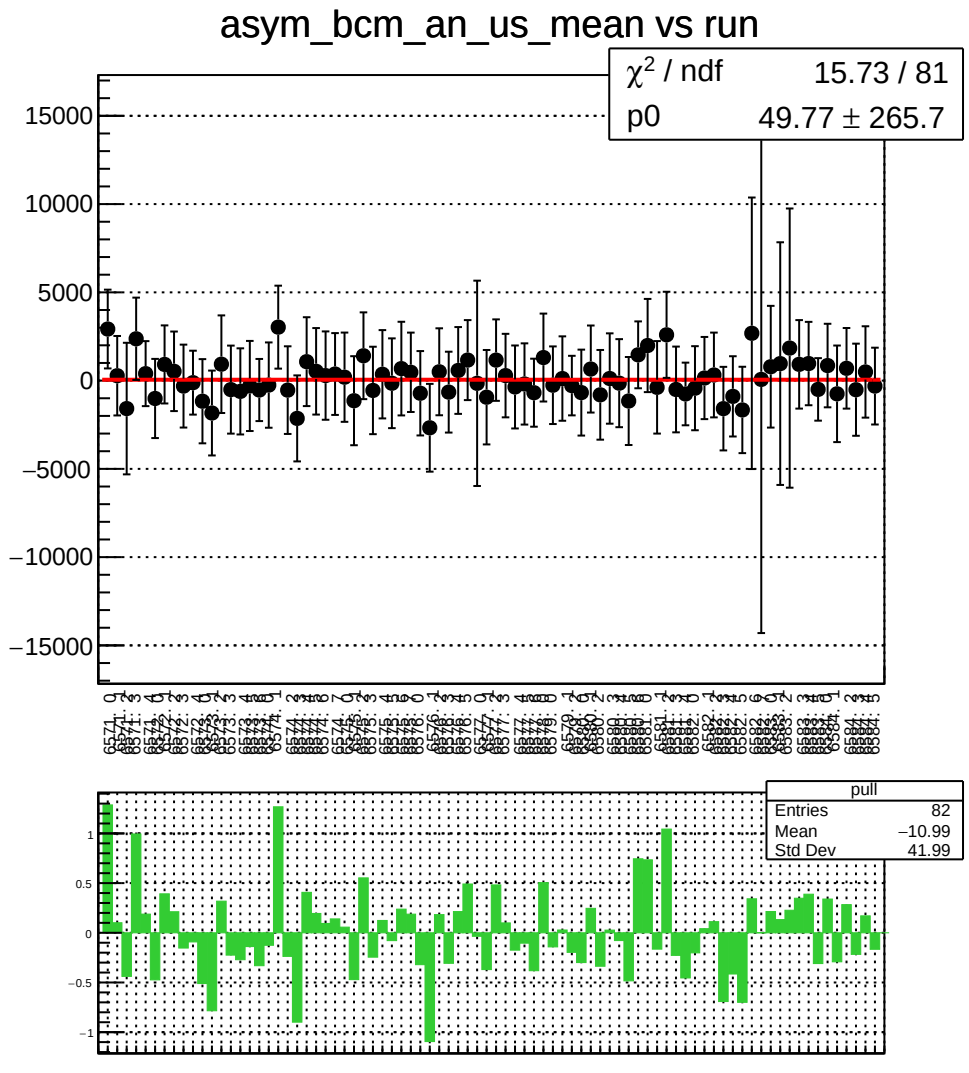

pull1D
Entries 82
Mean 0.006515
Std Dev 0.4658
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

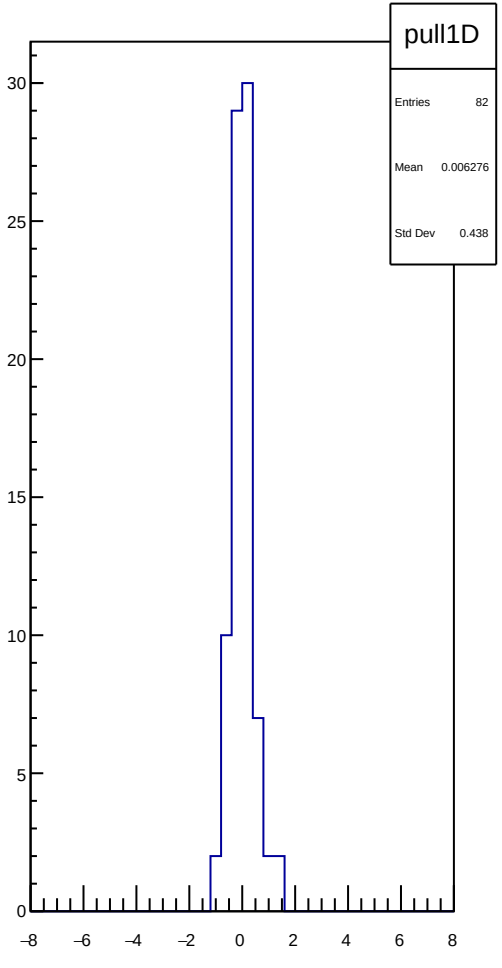

asym_bcm_an_ds_rms vs run
χ² / ndf 5.302e+04 / 81
p0 232 ± 0.1869
1600
1400
1200
1000
800
600
400
200

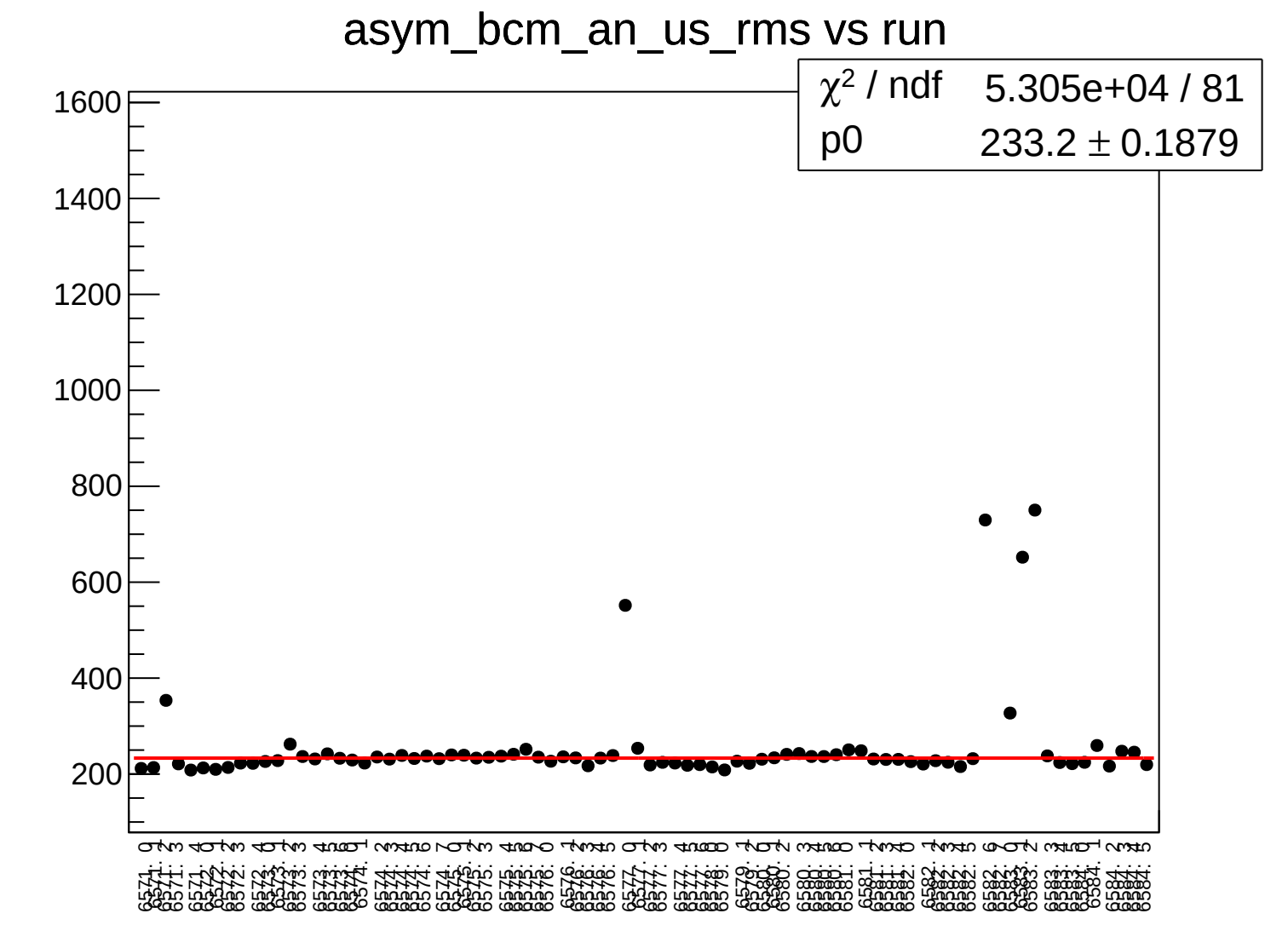

asym_bcm_an_ds3_mean vs run
χ² / ndf 16.98 / 81
p0 61.88 ± 265.6
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 24.31
Std Dev 62.36
1
0.5
0
−0.5
−1

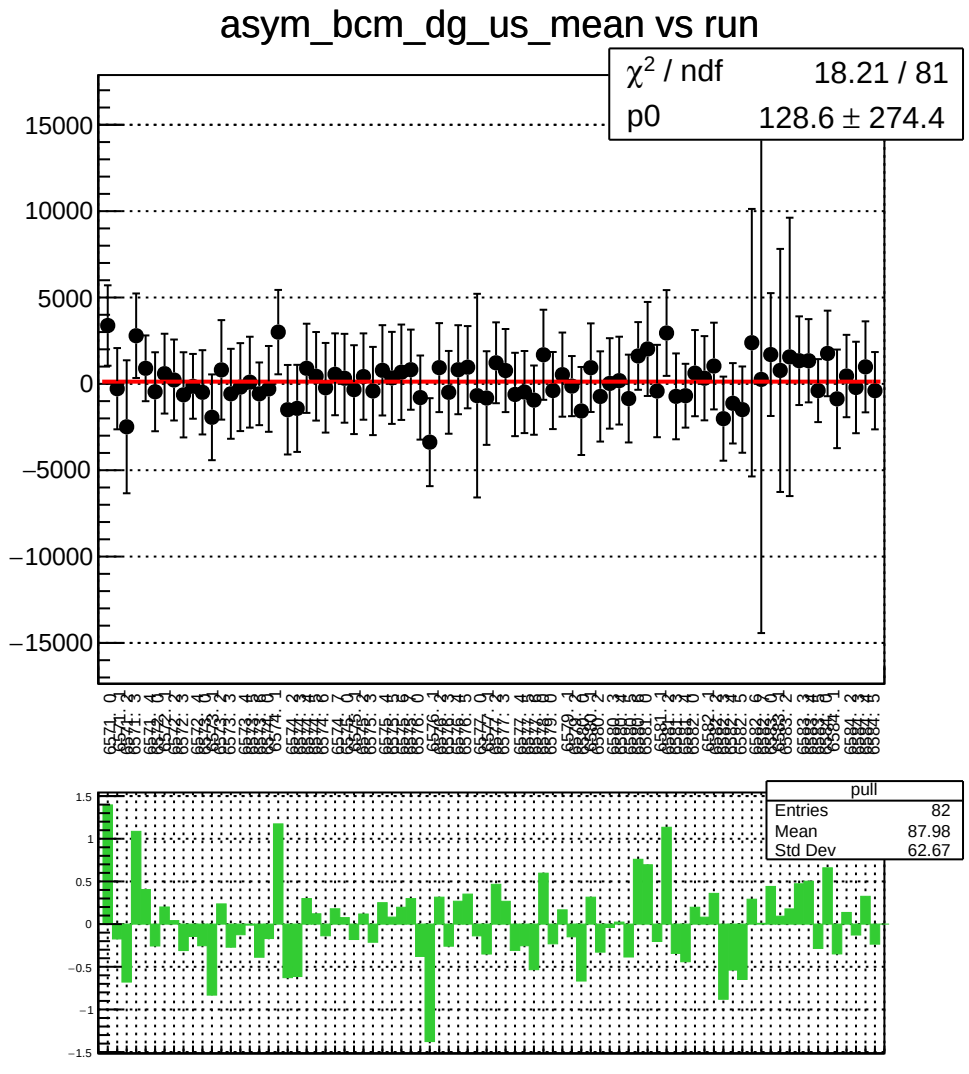

pull1D
Entries 82
Mean 0.005728
Std Dev 0.4551
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

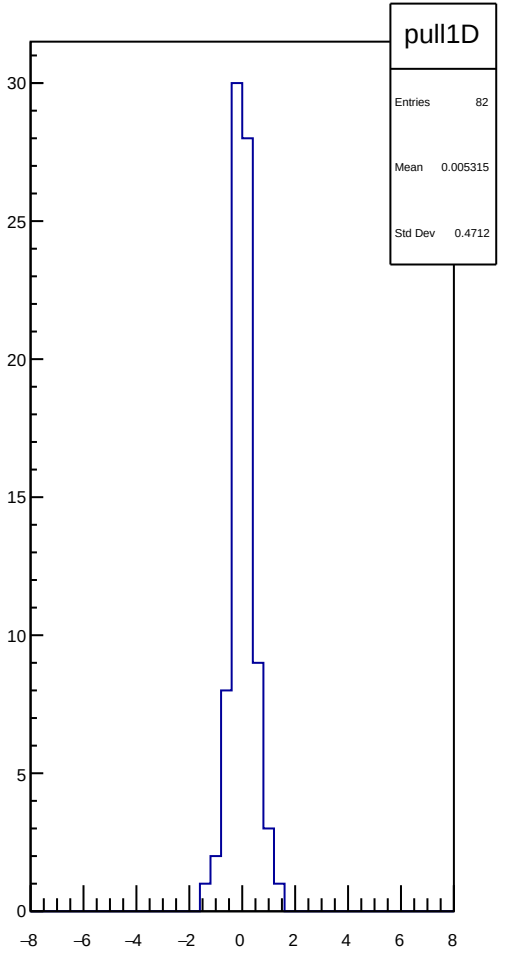

asym_bcm_an_ds3_rms vs run
χ² / ndf 5.305e+04 / 81
p0 233.1 ± 0.1878
1600
1400
1200
1000
800
600
400
200

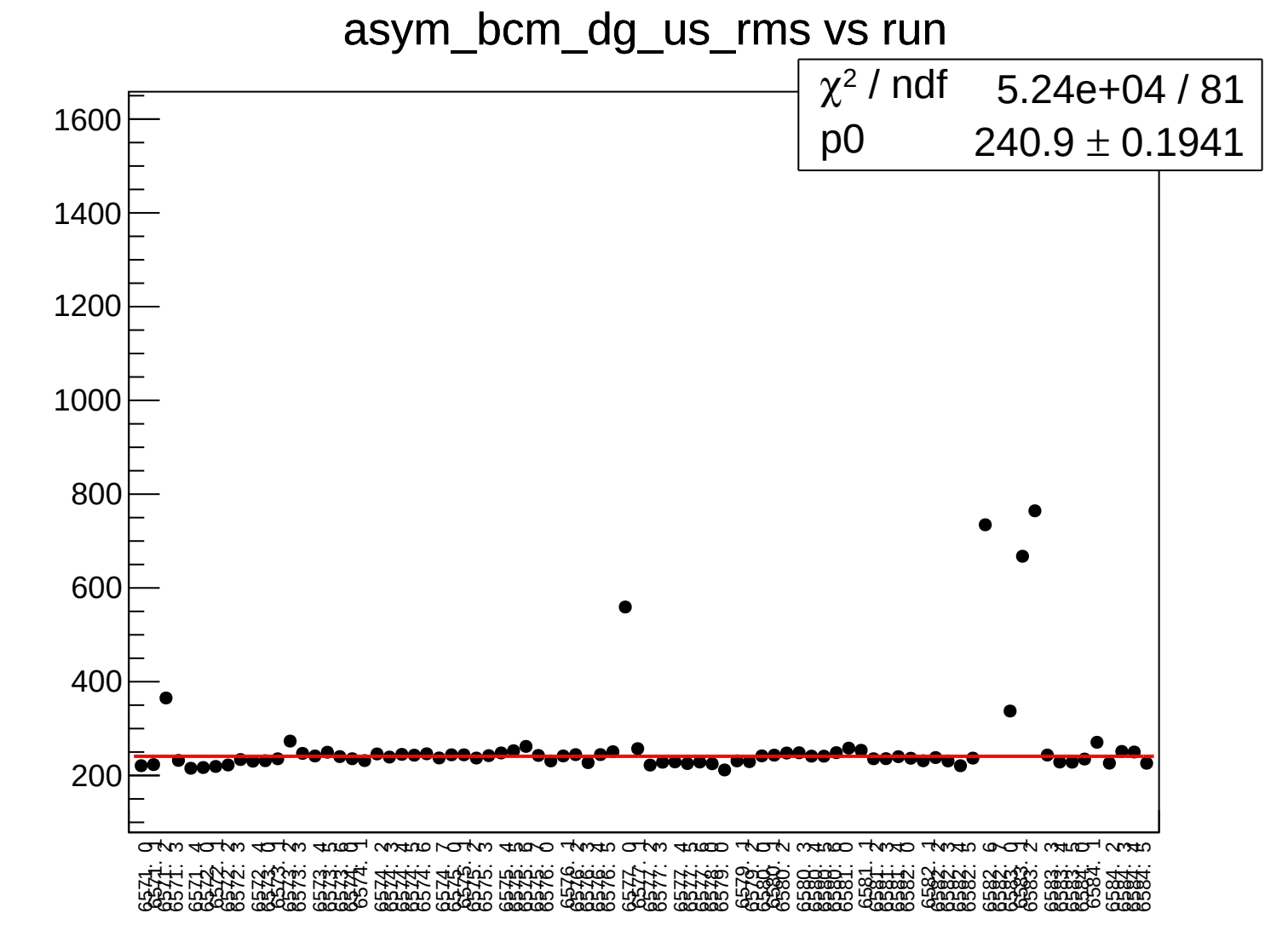

asym_bcm_an_us_mean vs run
χ² / ndf 15.73 / 81
p0 49.77 ± 265.7
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −10.99
Std Dev 41.99
1
0.5
0
−0.5
−1

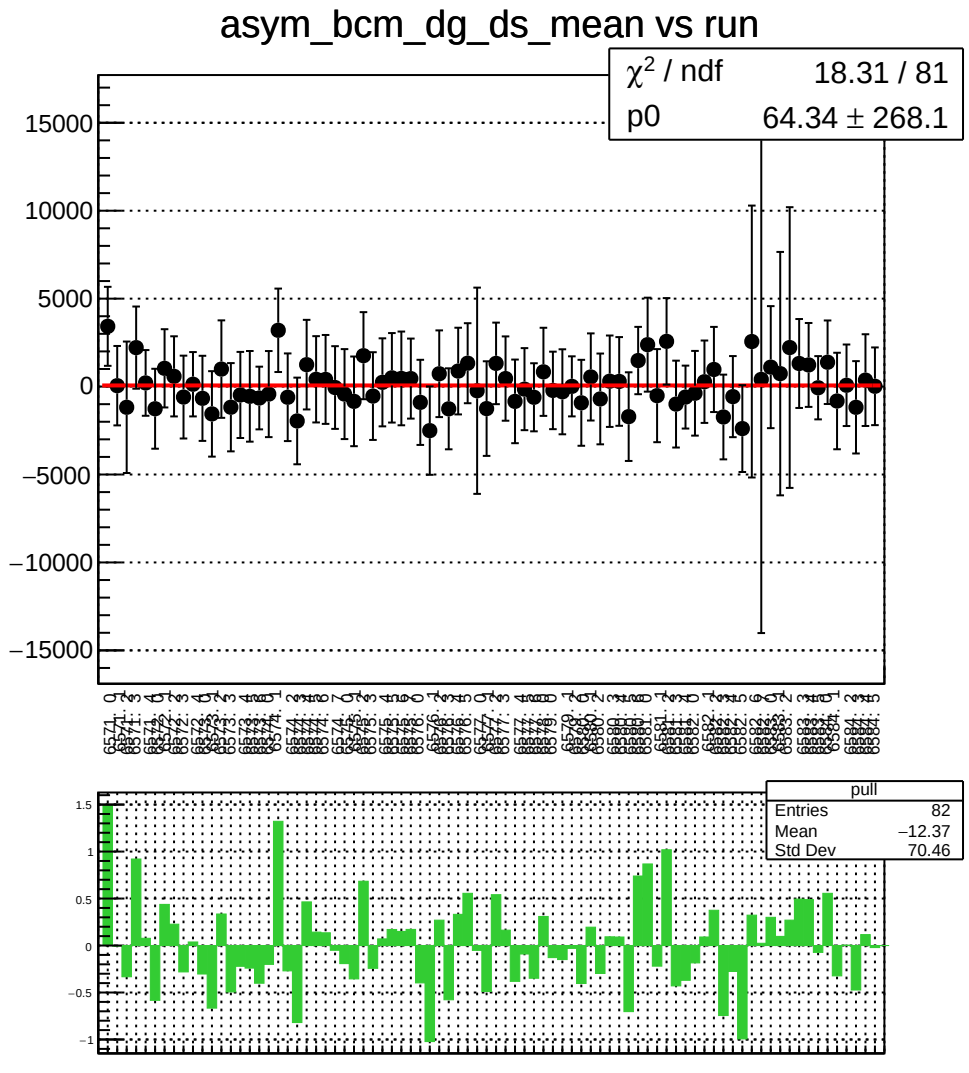

pull1D
Entries 82
Mean 0.006276
Std Dev 0.438
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

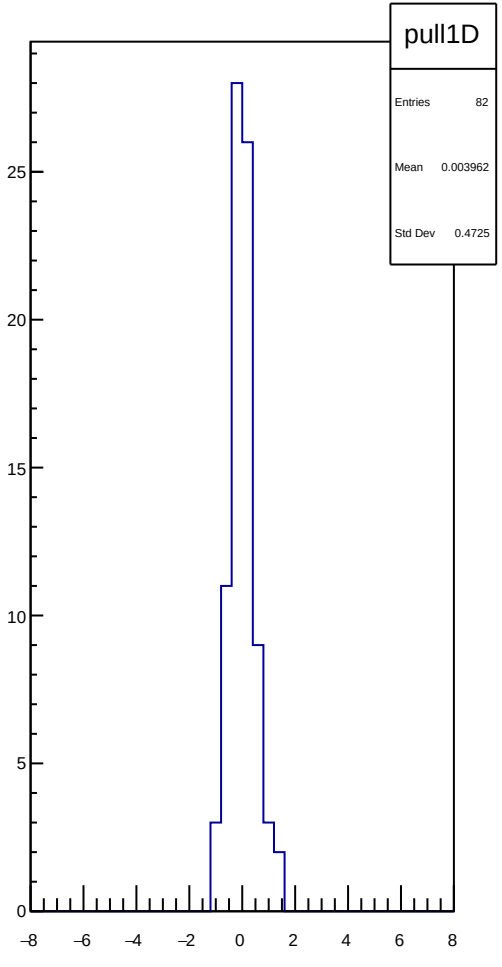

asym_bcm_an_us_rms vs run
χ² / ndf 5.305e+04 / 81
p0 233.2 ± 0.1879
1600
1400
1200
1000
800
600
400
200

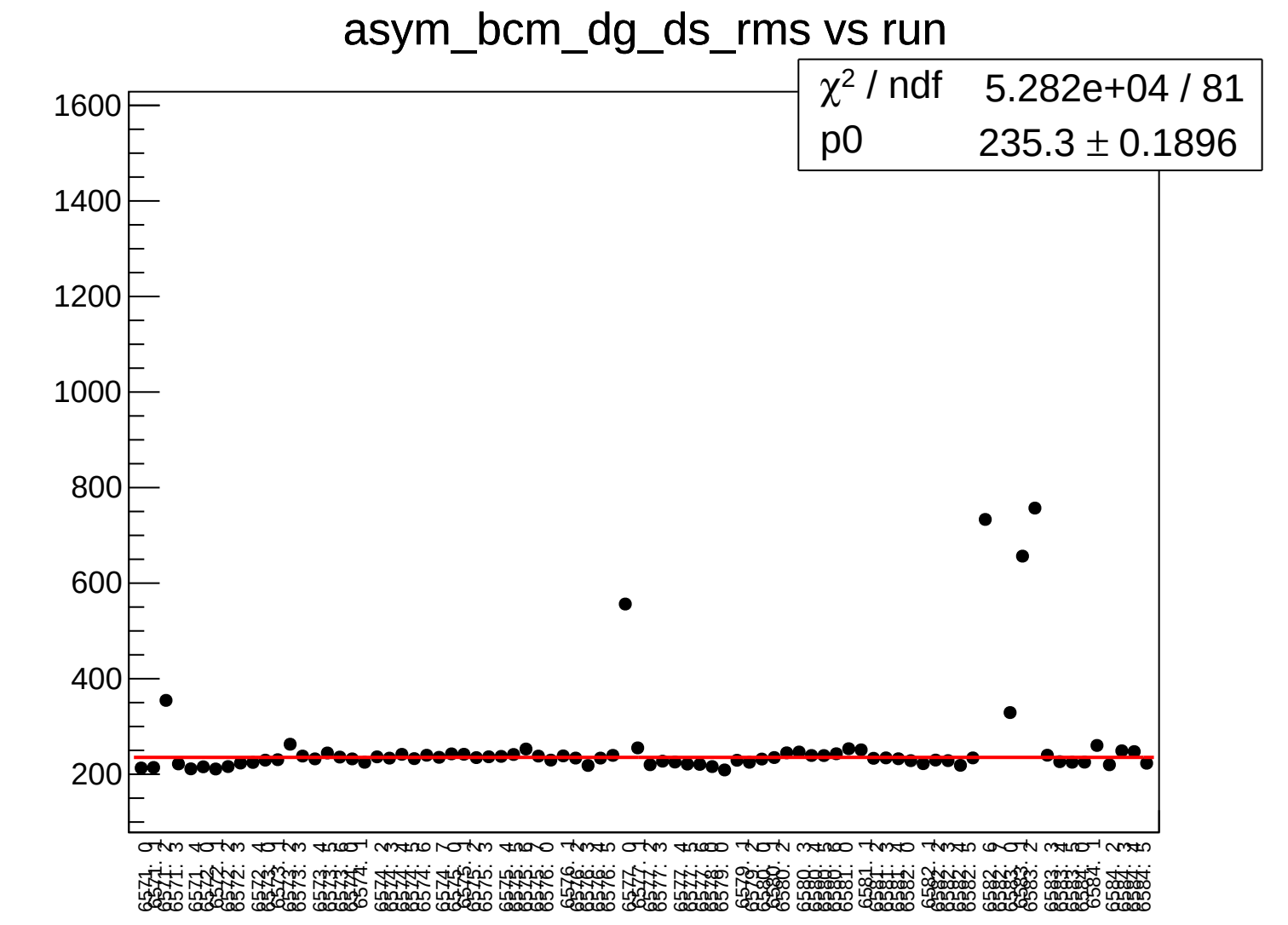

asym_bcm_dg_us_mean vs run
χ² / ndf 18.21 / 81
p0 128.6 ± 274.4
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 87.98
Std Dev 62.67
1.5
1
0.5
0
−0.5
−1
−1.5

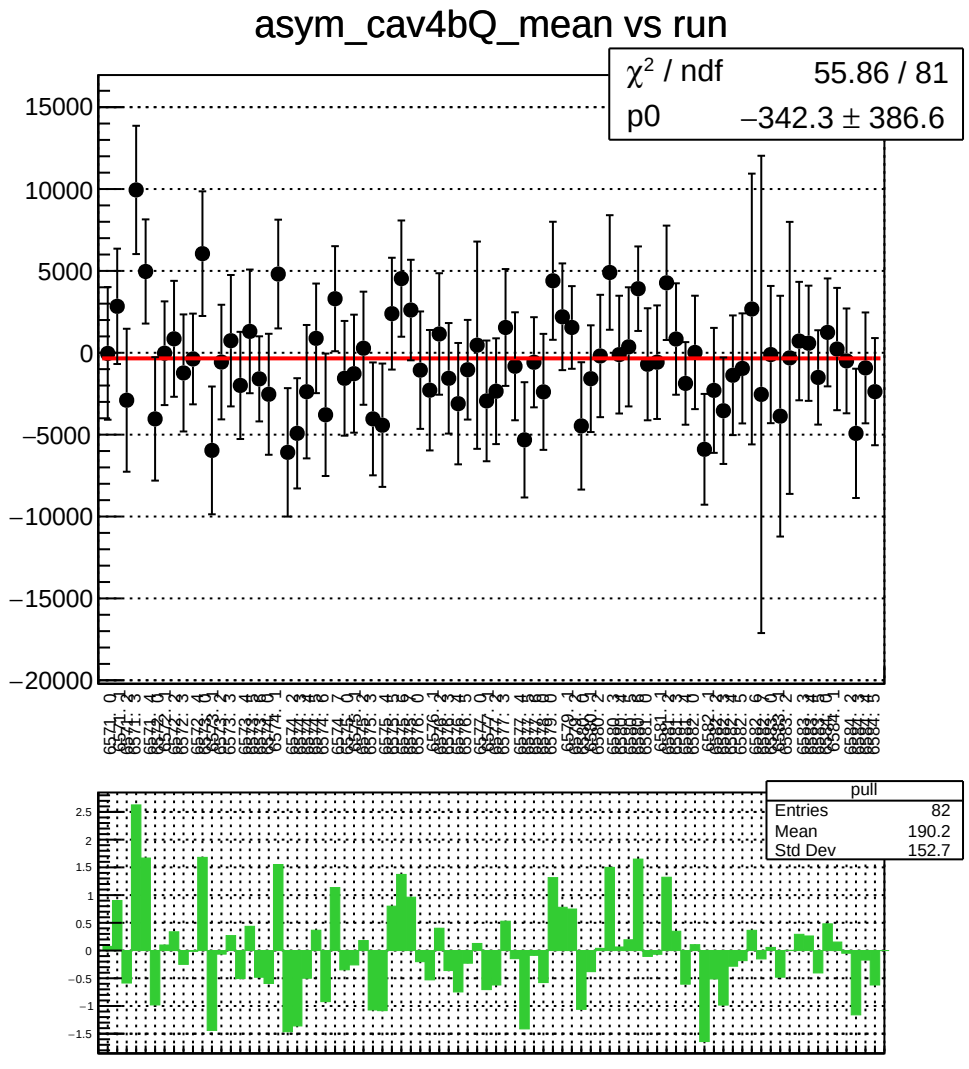

pull1D
Entries 82
Mean 0.005315
Std Dev 0.4712
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

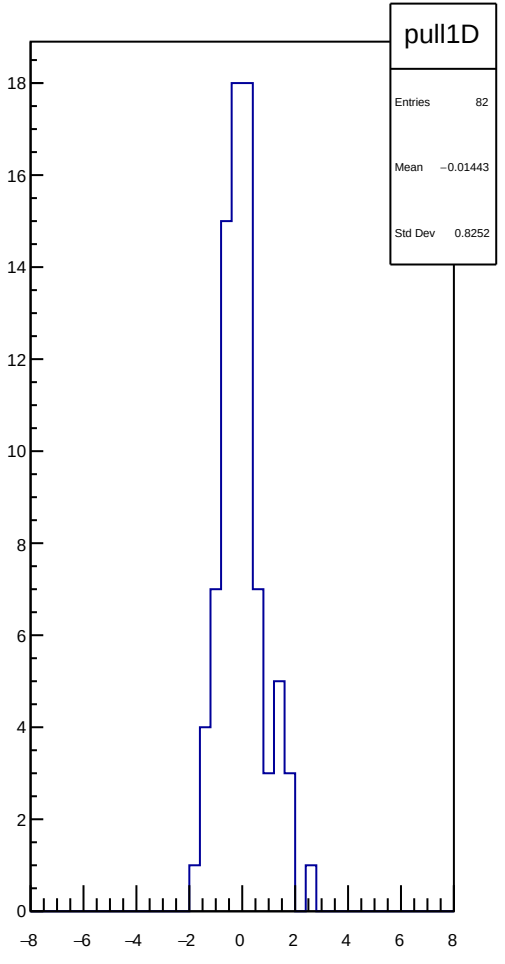

asym_bcm_dg_us_rms vs run
χ² / ndf 5.24e+04 / 81
p0 240.9 ± 0.1941
1600
1400
1200
1000
800
600
400
200

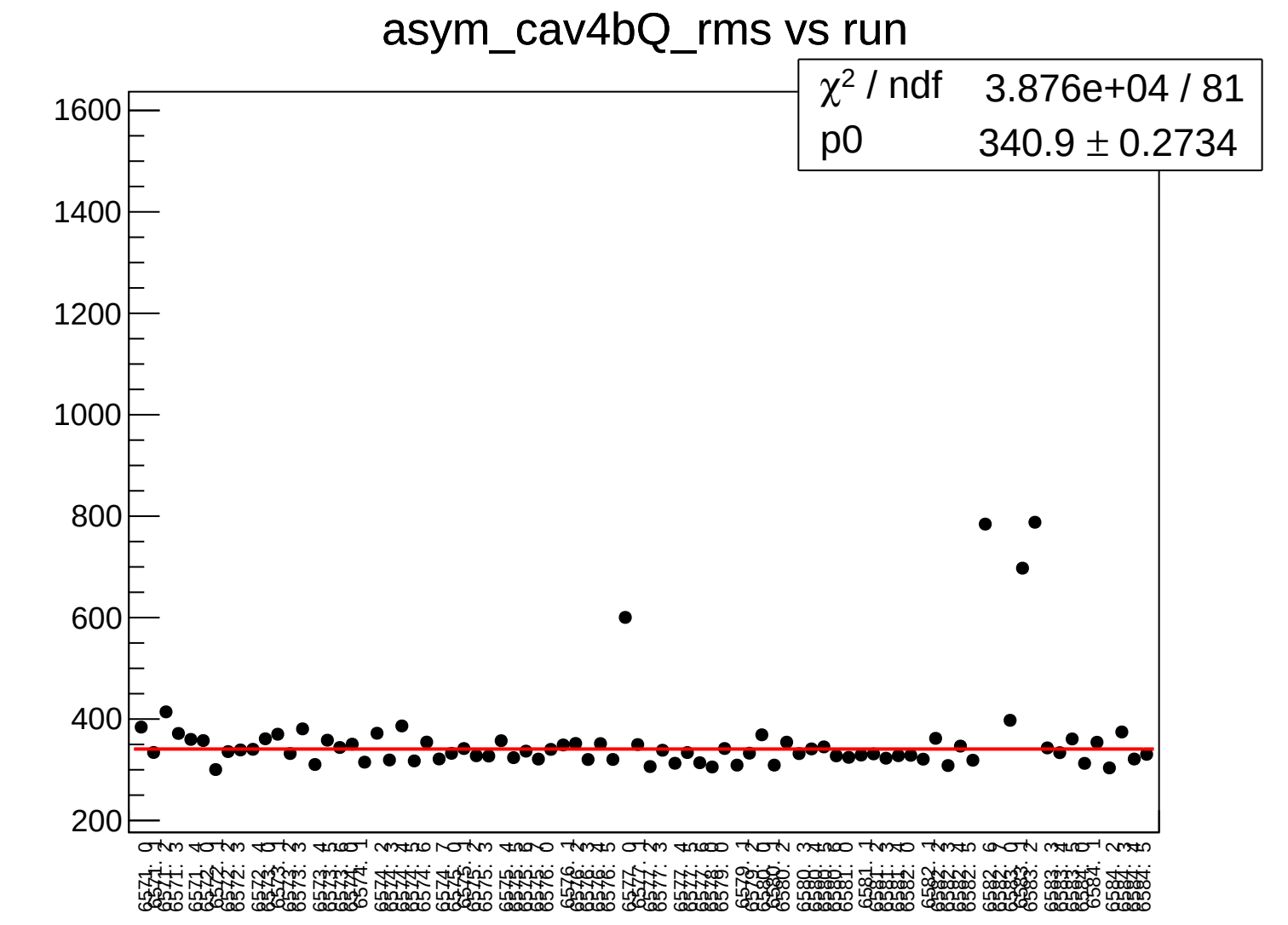

asym_bcm_dg_ds_mean vs run
χ² / ndf 18.31 / 81
p0 64.34 ± 268.1
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −12.37
Std Dev 70.46
1.5
1
0.5
0
−0.5
−1

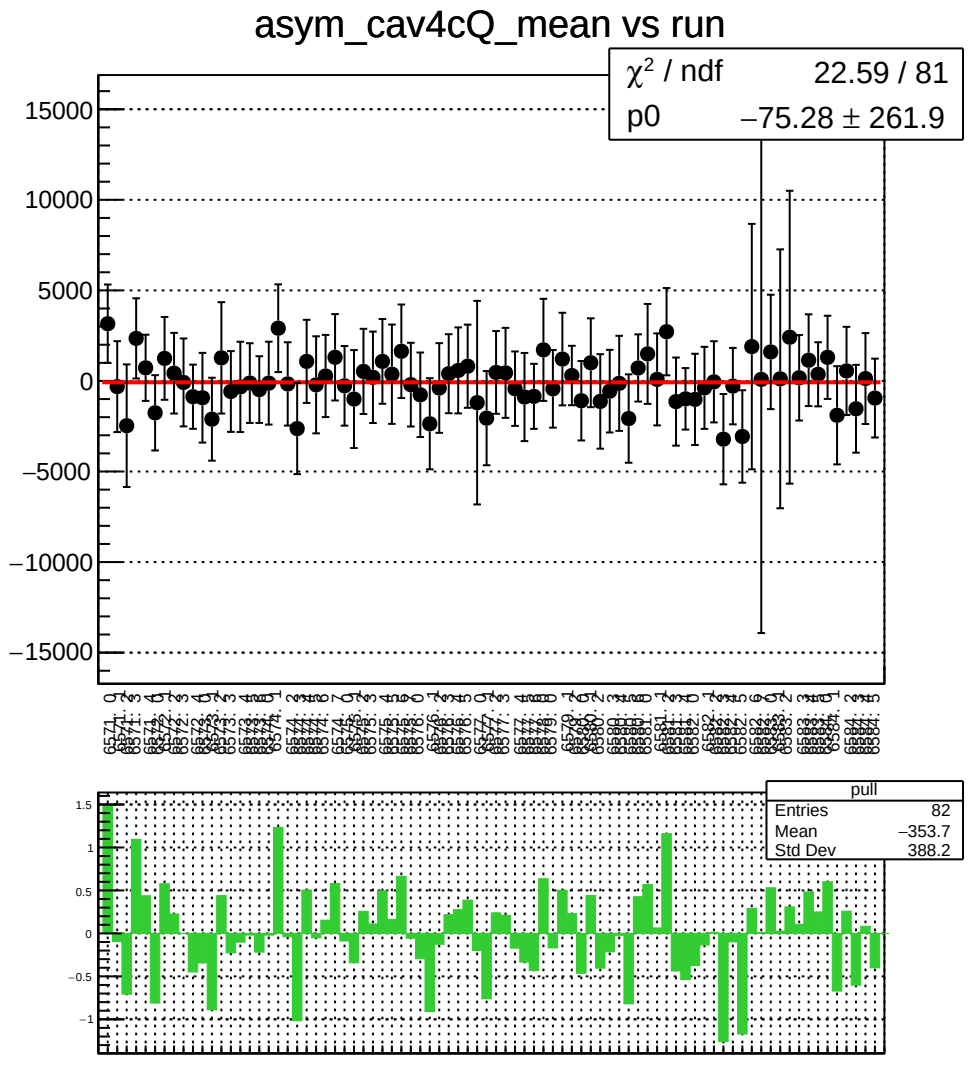

pull1D
Entries 82
Mean 0.003962
Std Dev 0.4725
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

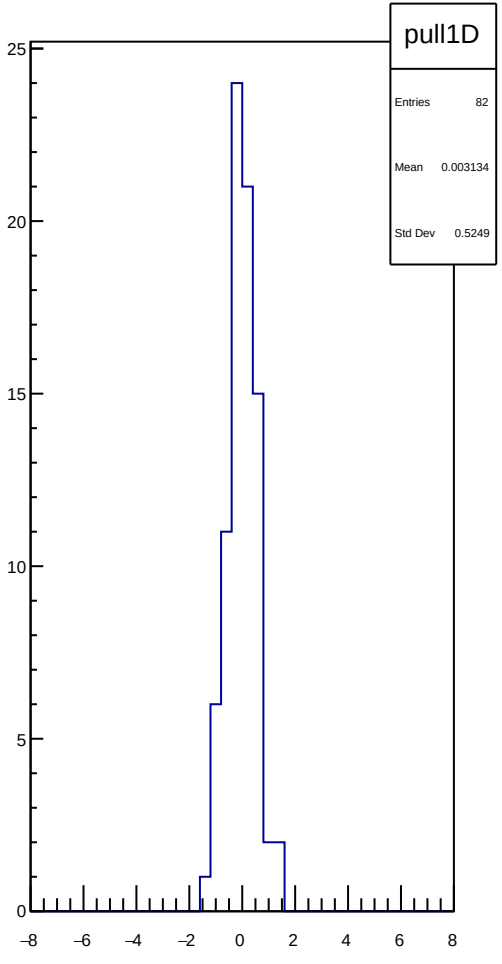

asym_bcm_dg_ds_rms vs run
χ² / ndf 5.282e+04 / 81
p0 235.3 ± 0.1896
1600
1400
1200
1000
800
600
400
200

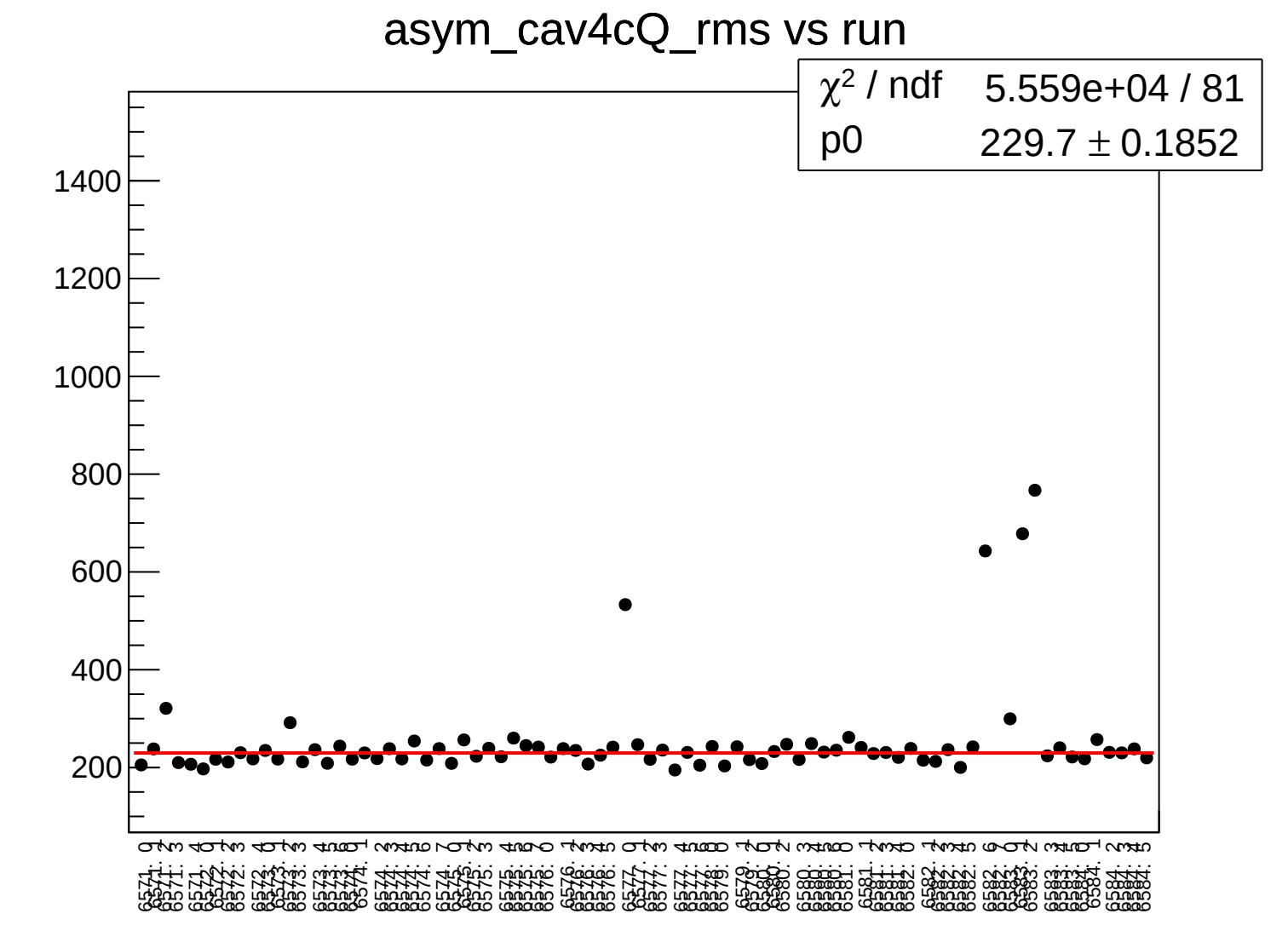

asym_cav4bQ_mean vs run
χ² / ndf 55.86 / 81
p0 −342.3 ± 386.6
pull
Entries 82
Mean 190.2
Std Dev 152.7

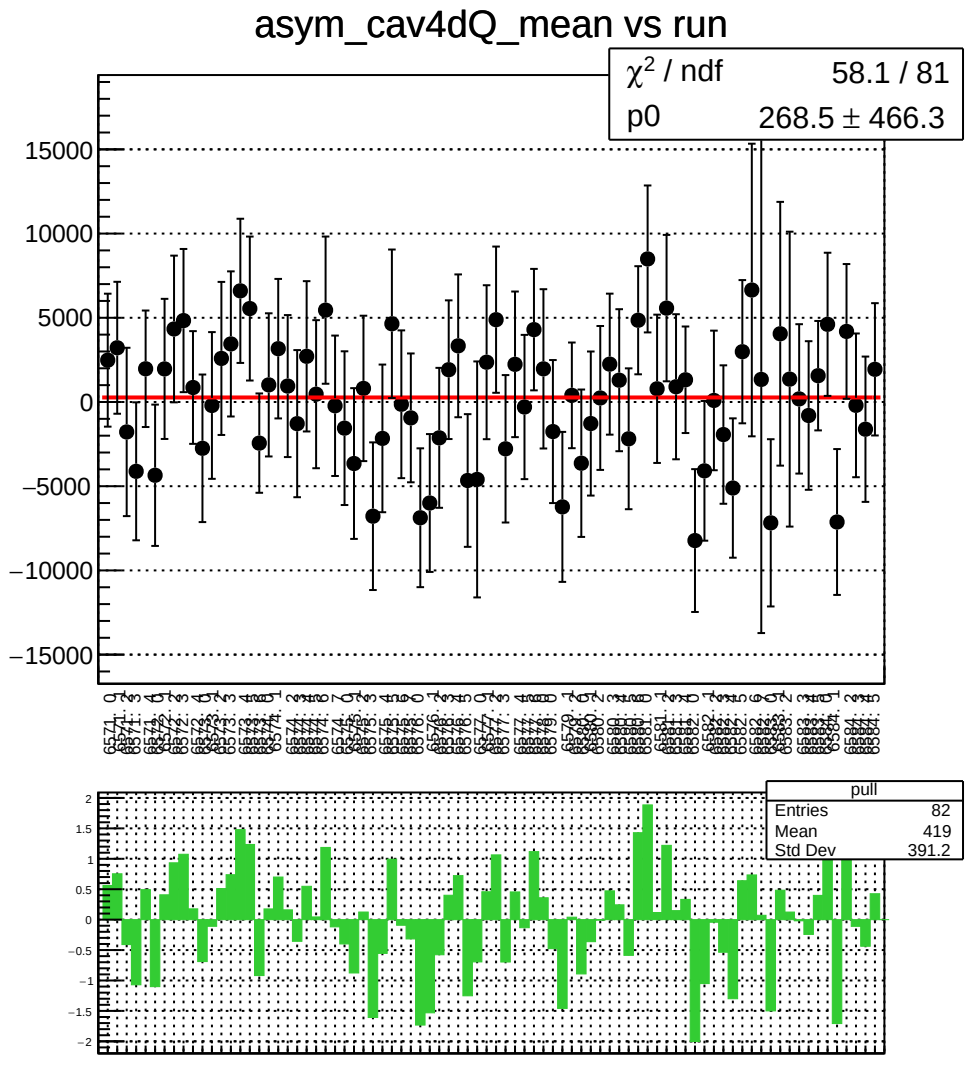

pull1D
Entries 82
Mean −0.01443
Std Dev 0.8252

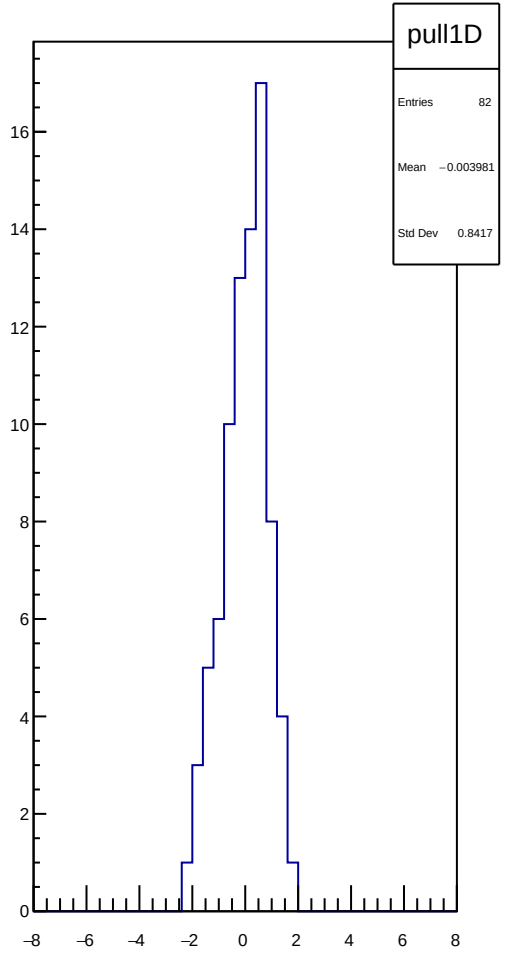

asym_cav4bQ_rms vs run
χ² / ndf 3.876e+04 / 81
p0 340.9 ± 0.2734
1600
1400
1200
1000
800
600
400
200

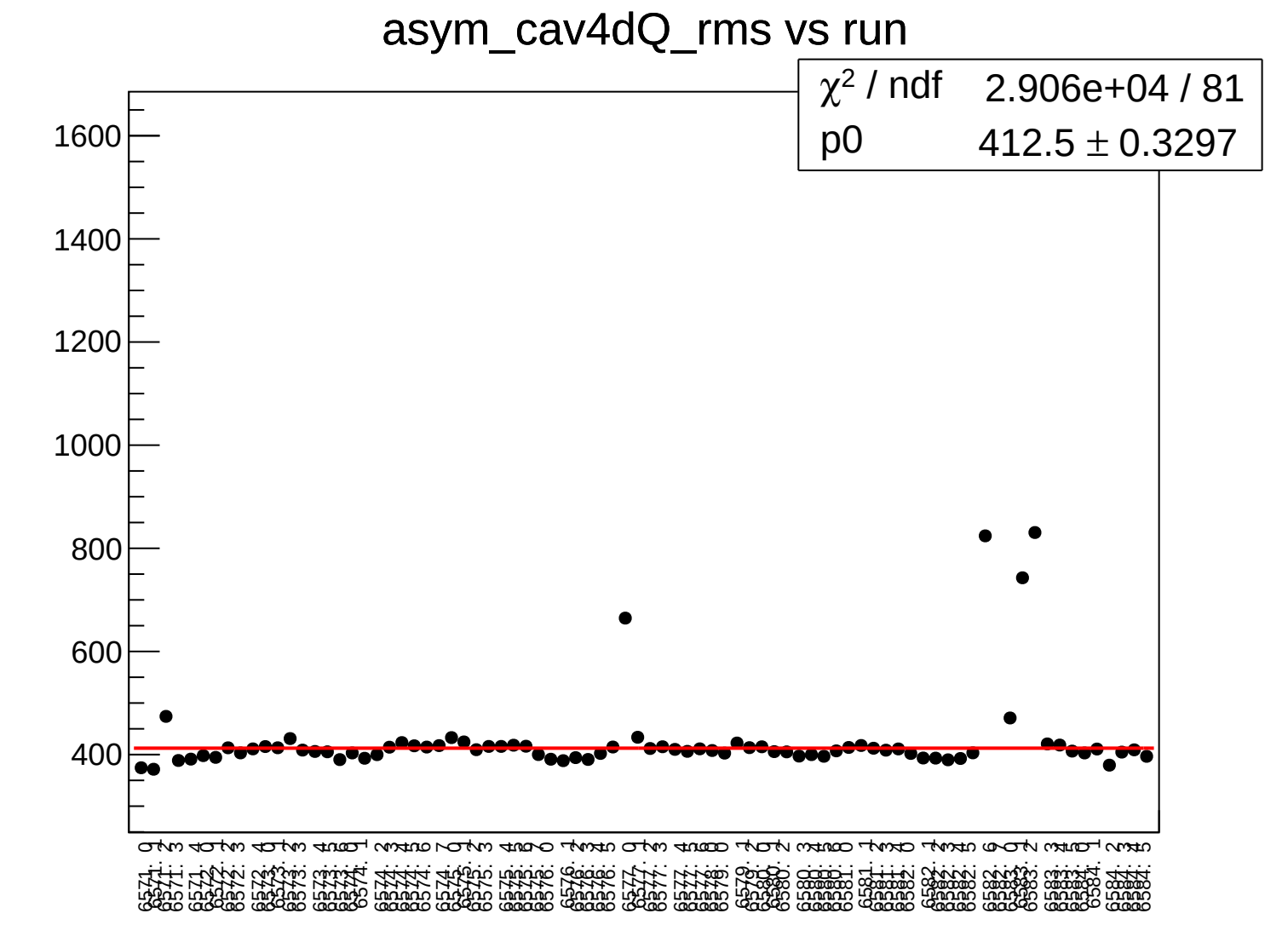

asym_cav4cQ_mean vs run
χ² / ndf 22.59 / 81
p0 −75.28 ± 261.9
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −353.7
Std Dev 388.2
1.5
1
0.5
0
−0.5
−1

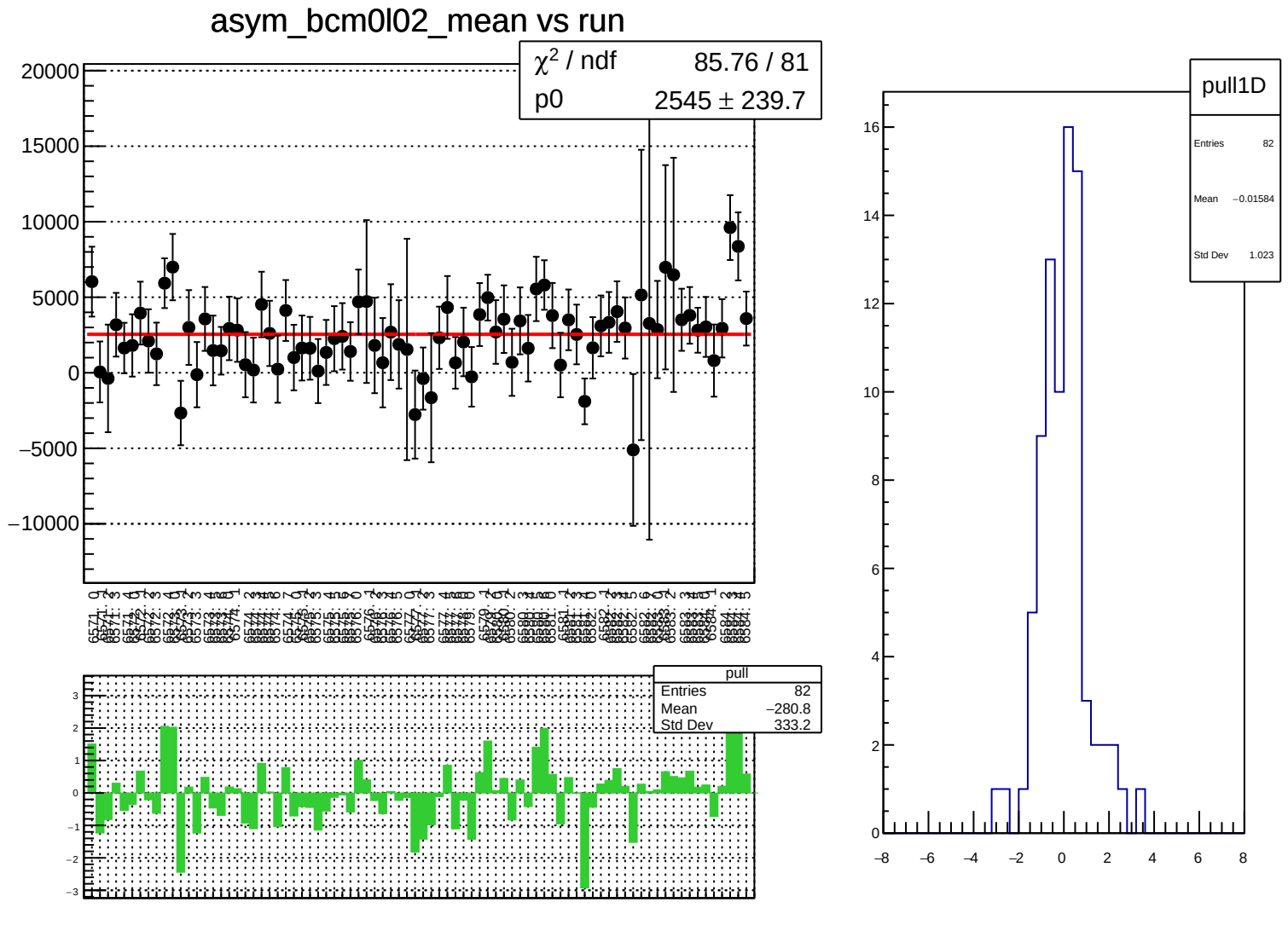

pull1D
Entries 82
Mean 0.003134
Std Dev 0.5249
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

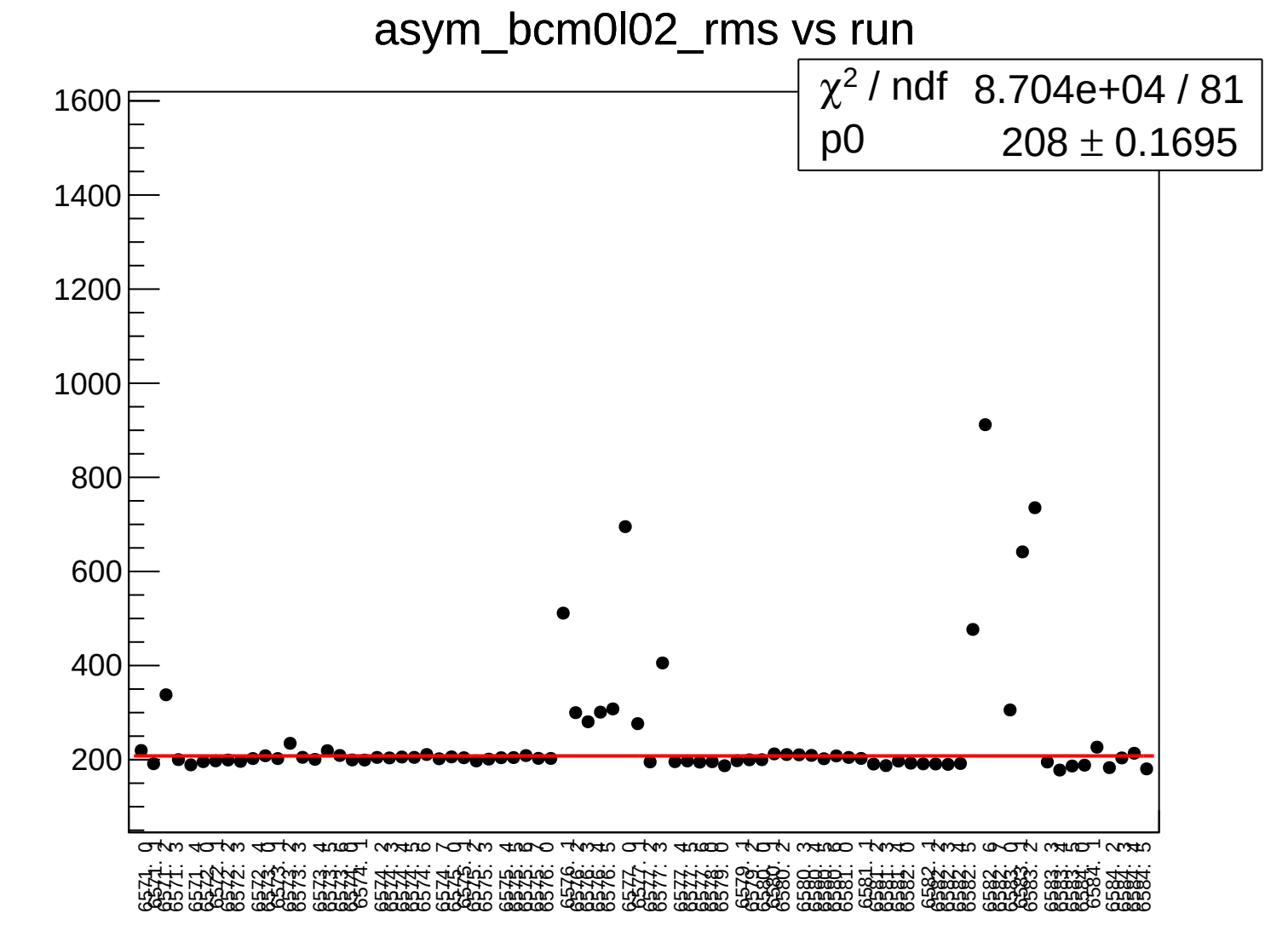

asym_cav4cQ_rms vs run
χ² / ndf 5.559e+04 / 81
p0 229.7 ± 0.1852
1400
1200
1000
800
600
400
200

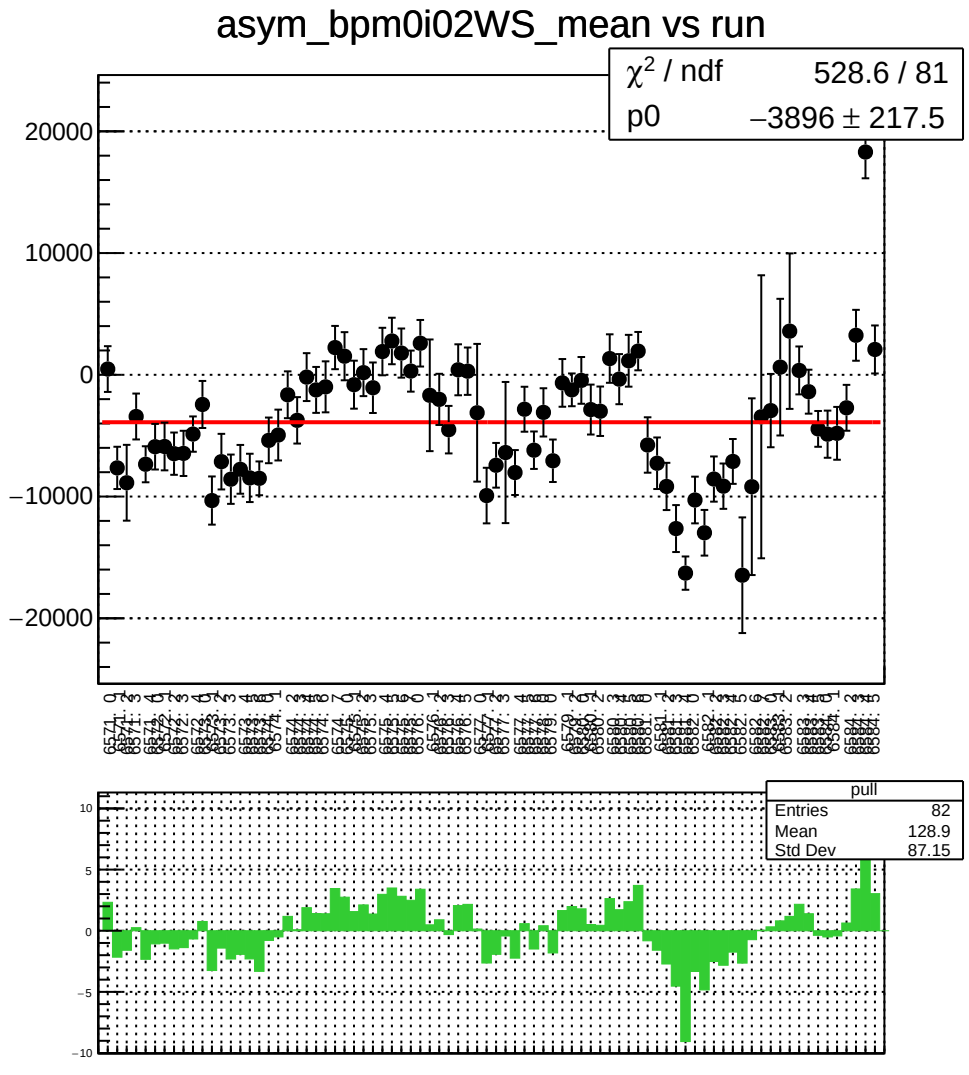

asym_cav4dQ_mean vs run
χ² / ndf 58.1 / 81
p0 268.5 ± 466.3
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 419
Std Dev 391.2
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

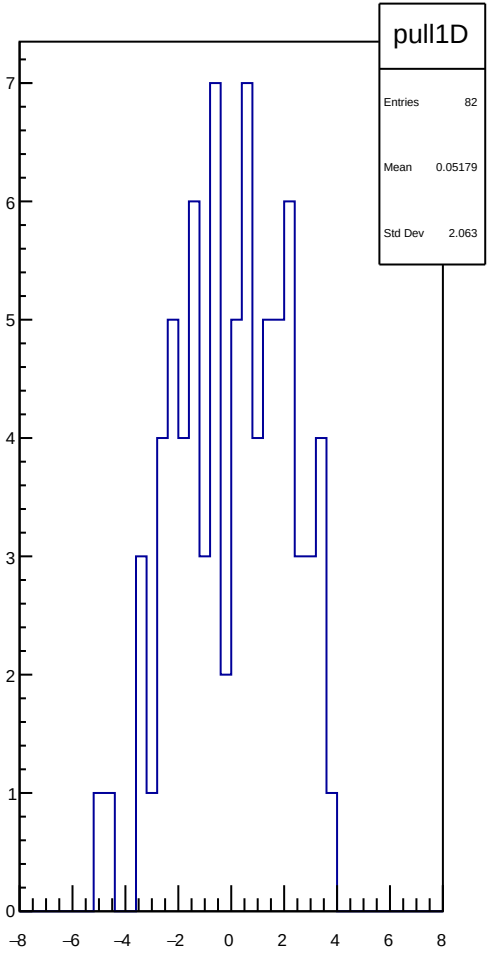

pull1D
Entries 82
Mean −0.003981
Std Dev 0.8417
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

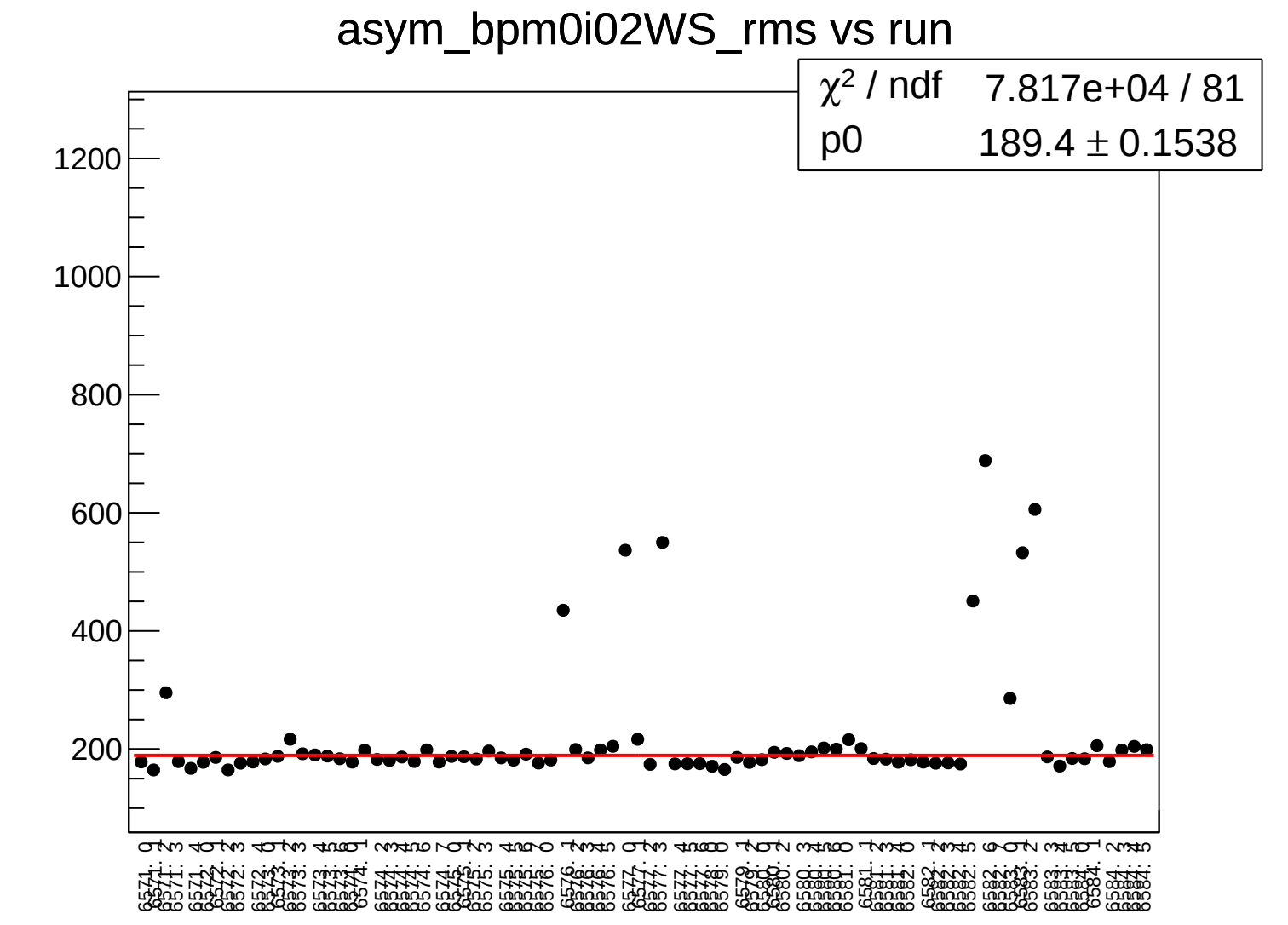

asym_cav4dQ_rms vs run
χ² / ndf 2.906e+04 / 81
p0 412.5 ± 0.3297
1600
1400
1200
1000
800
600
400

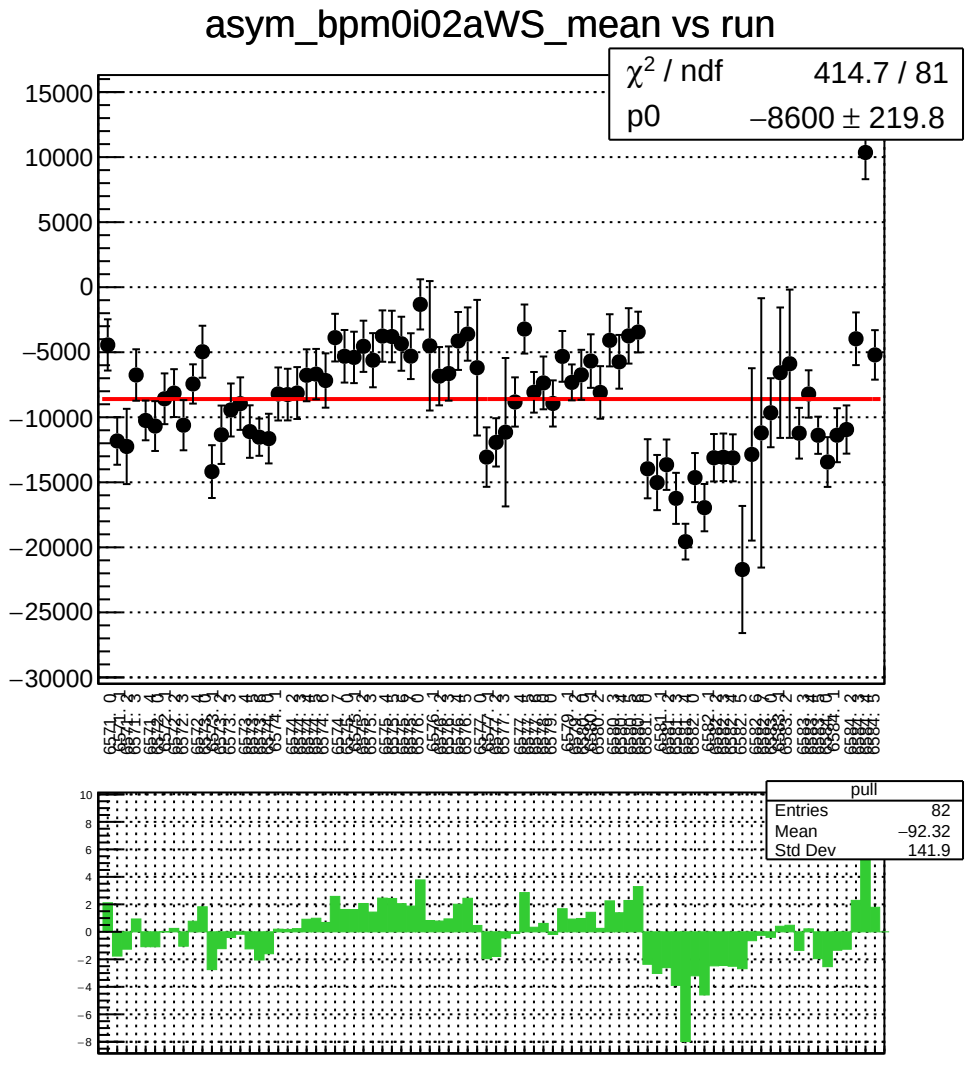

asym_bcm0l02_mean vs run
χ² / ndf 85.76 / 81
p0 2545 ± 239.7
20000
15000
10000
5000
0
−5000
−10000
pull
Entries 82
Mean −280.8
Std Dev 333.2
3
2
1
0
−1
−2
−3
pull1D
Entries 82
Mean −0.01584
Std Dev 1.023
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

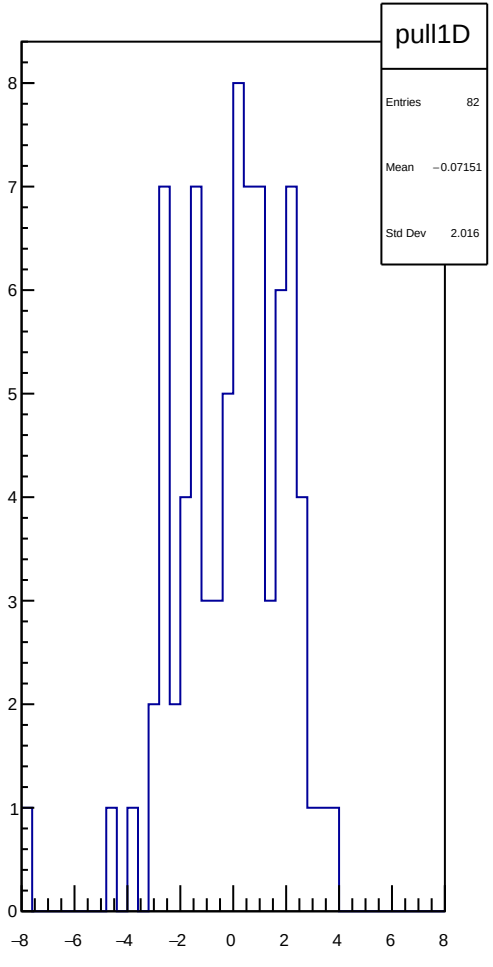

asym_bcm0l02_rms vs run
χ² / ndf 8.704e+04 / 81
p0 208 ± 0.1695
1600
1400
1200
1000
800
600
400
200

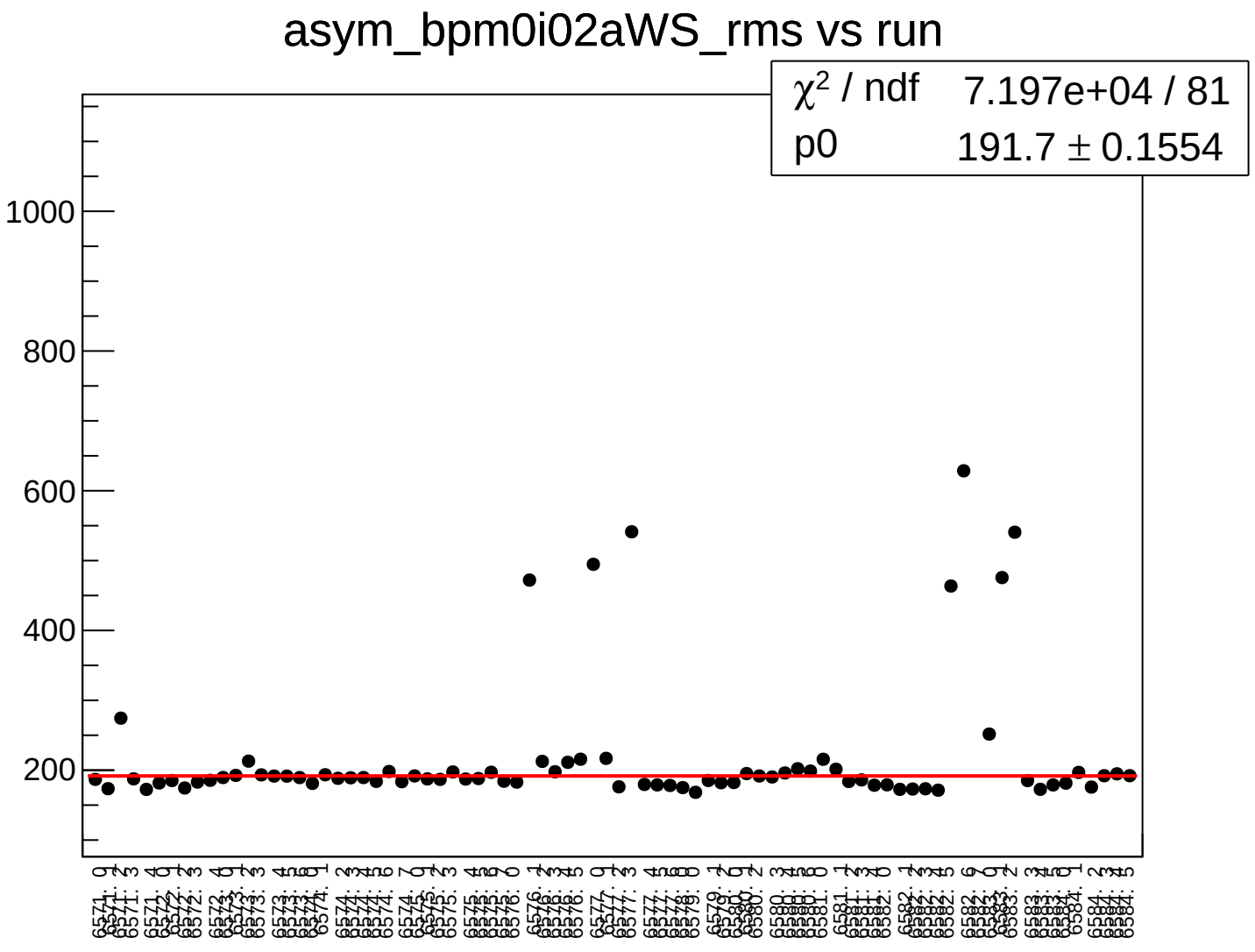

asym_bpm0i02WS_mean vs run
χ² / ndf 528.6 / 81
p0 −3896 ± 217.5
20000
10000
0
−10000
−20000
pull
Entries 82
Mean 128.9
Std Dev 87.15
10
5
0
−5
−10

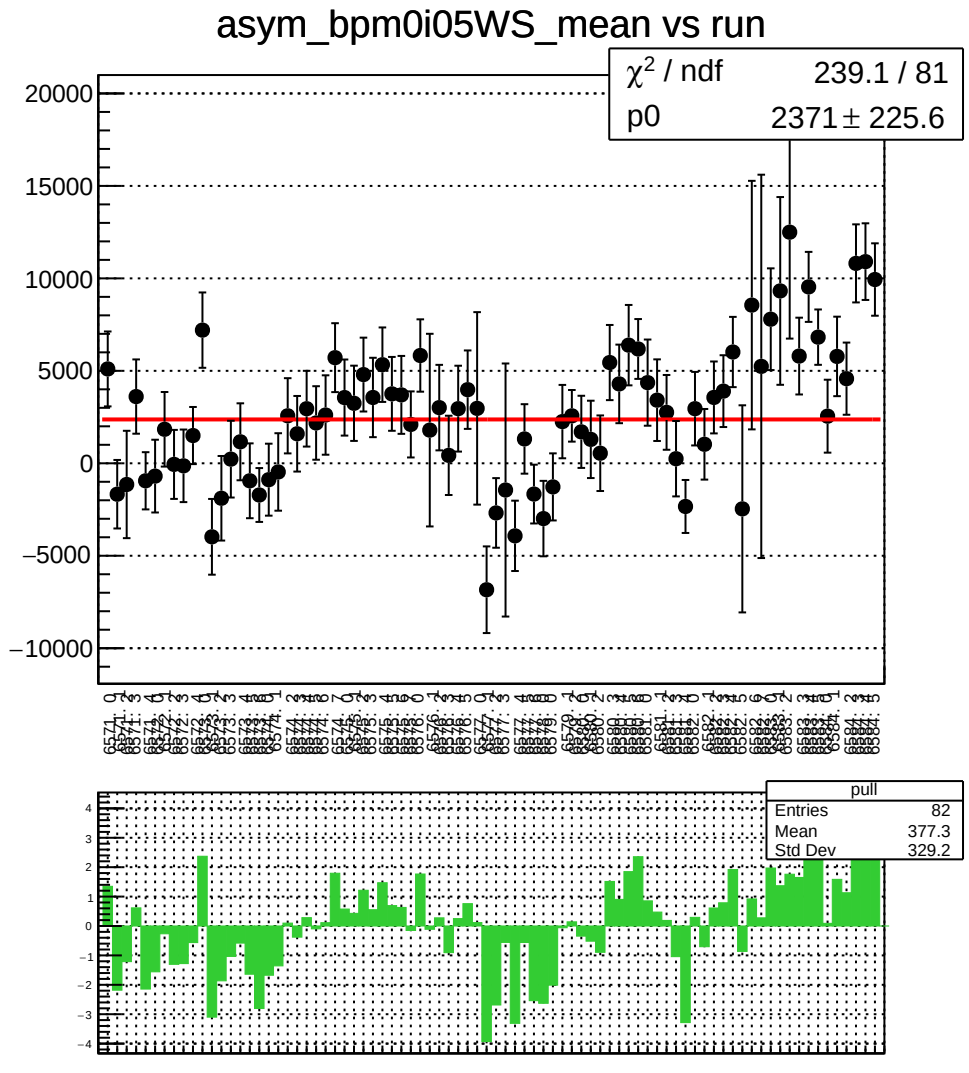

pull1D
Entries 82
Mean 0.05179
Std Dev 2.063
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

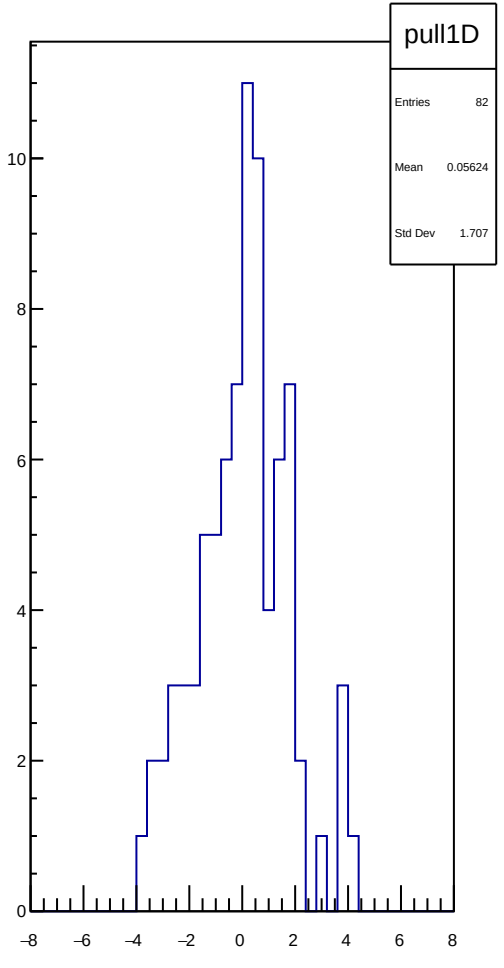

asym_bpm0i02WS_rms vs run
χ² / ndf 7.817e+04 / 81
p0 189.4 ± 0.1538
1200
1000
800
600
400
200

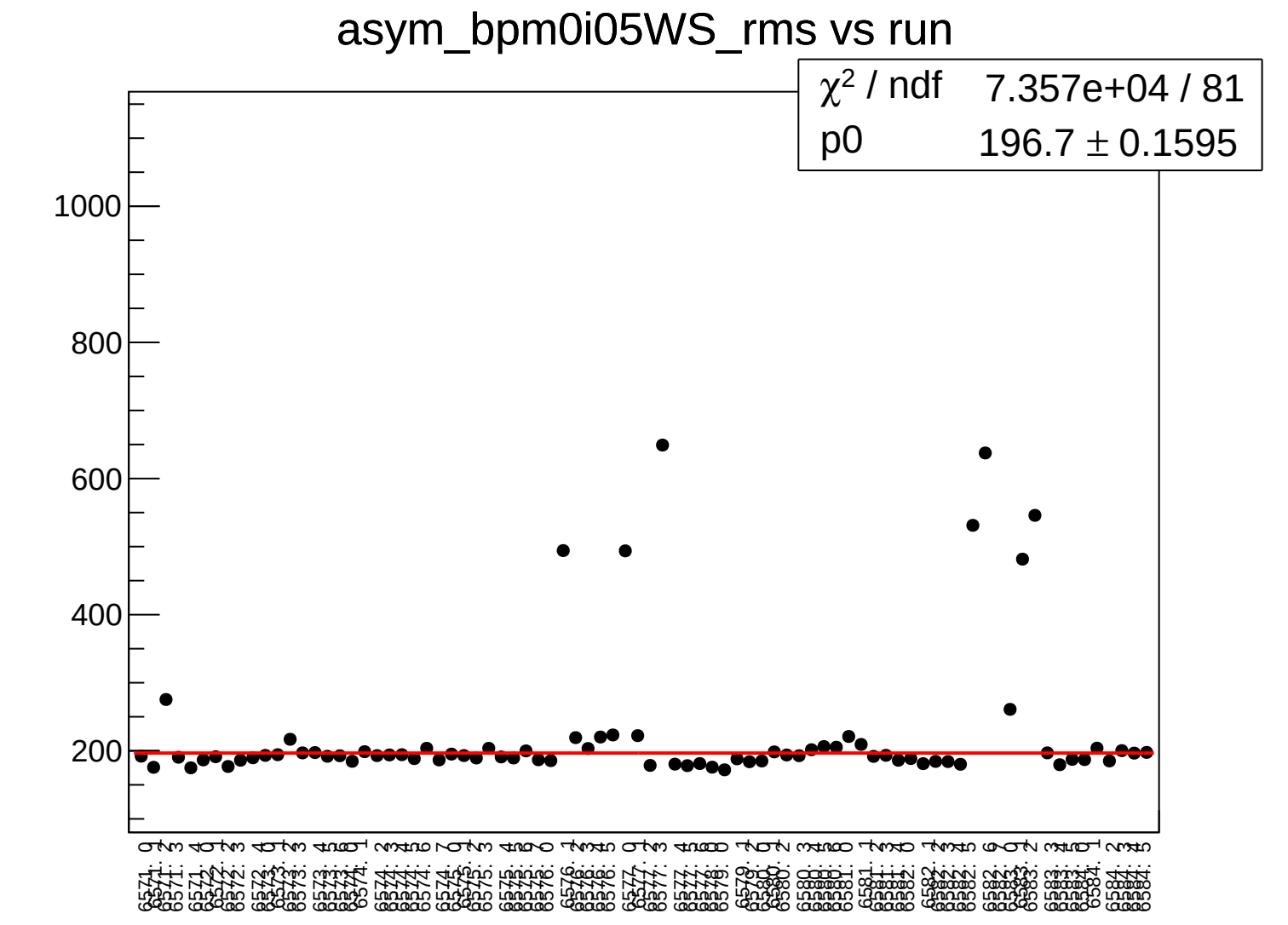

asym_bpm0i02aWS_mean vs run
χ² / ndf 414.7 / 81
p0 −8600 ± 219.8
pull
Entries 82
Mean −92.32
Std Dev 141.9

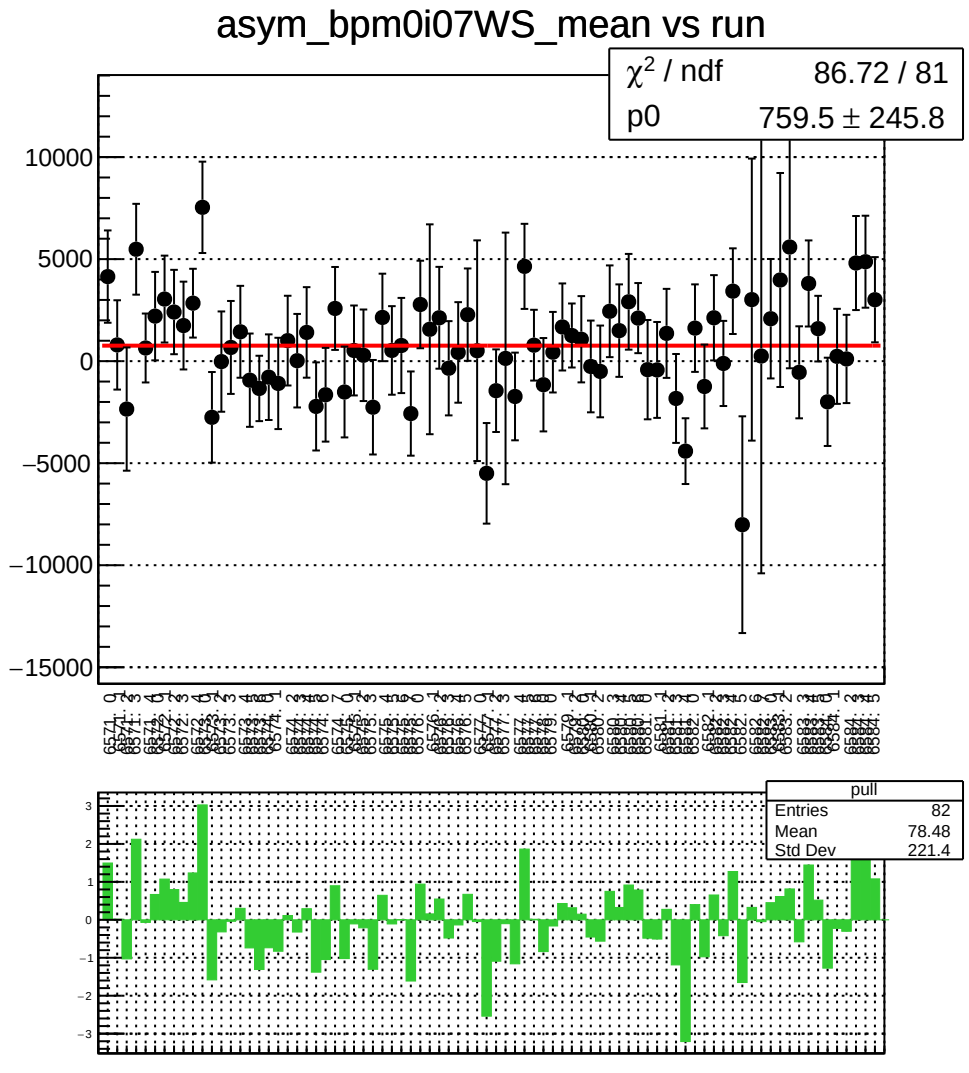

pull1D
Entries 82
Mean −0.07151
Std Dev 2.016

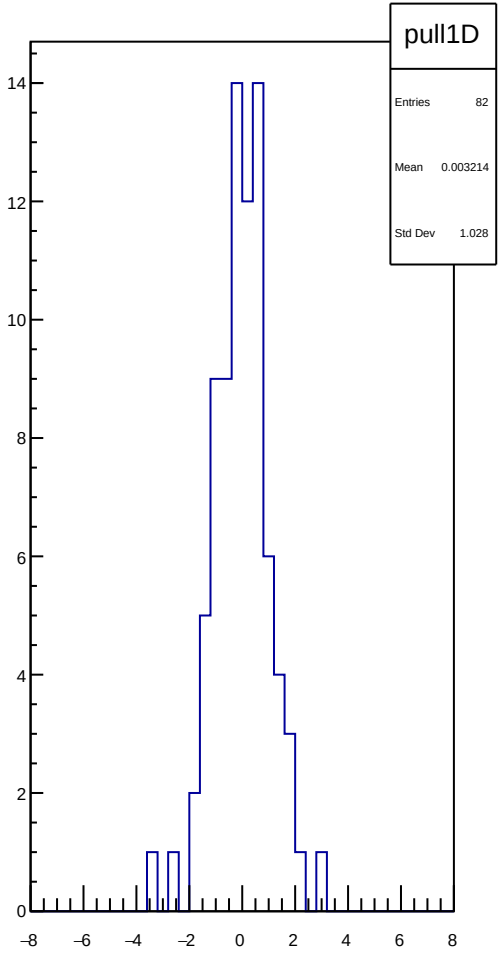

asym_bpm0i02aWS_rms vs run
χ² / ndf 7.197e+04 / 81
p0 191.7 ± 0.1554
1000
800
600
400
200

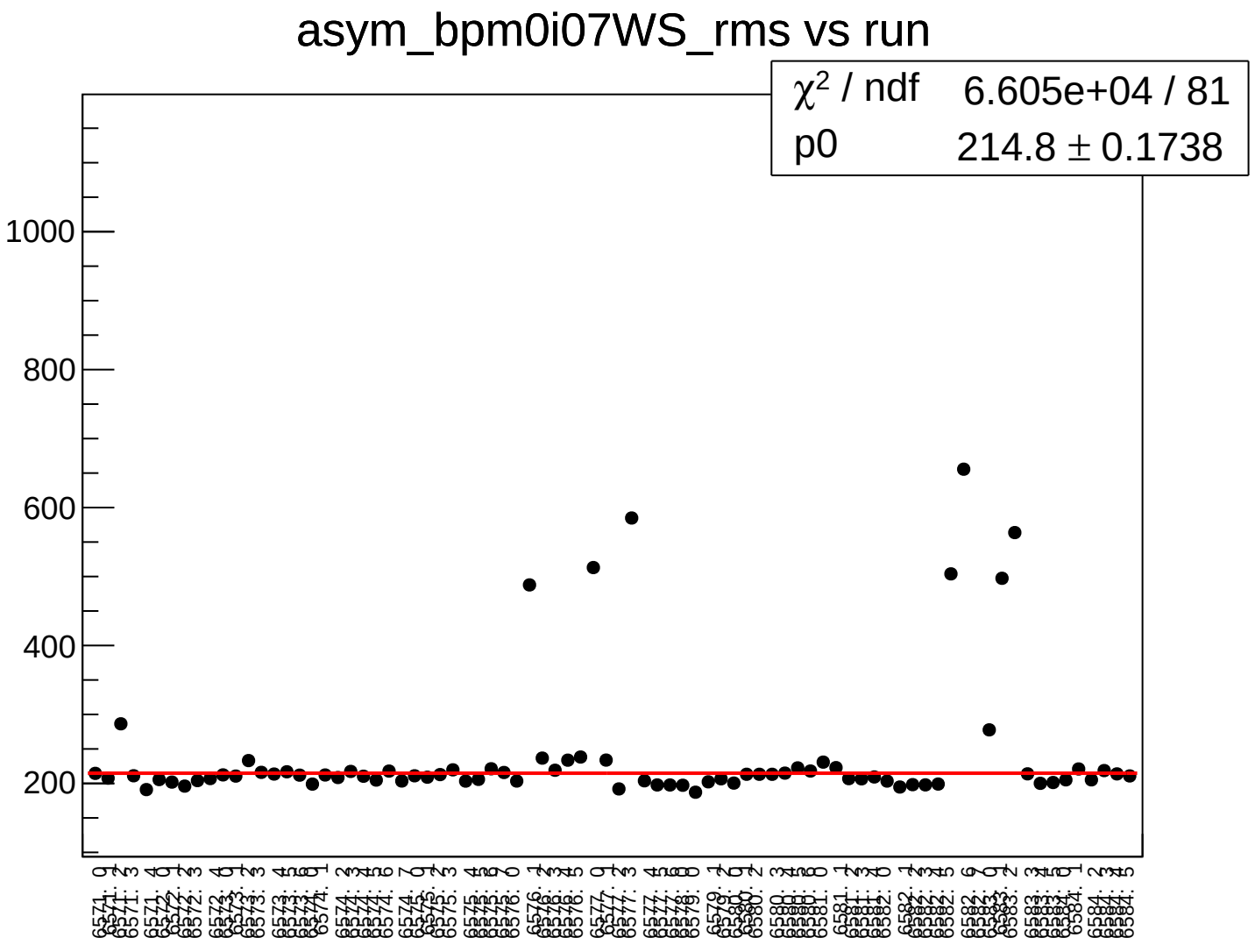

asym_bpm0i05WS_mean vs run
χ² / ndf 239.1 / 81
p0 2371 ± 225.6
pull
Entries 82
Mean 377.3
Std Dev 329.2

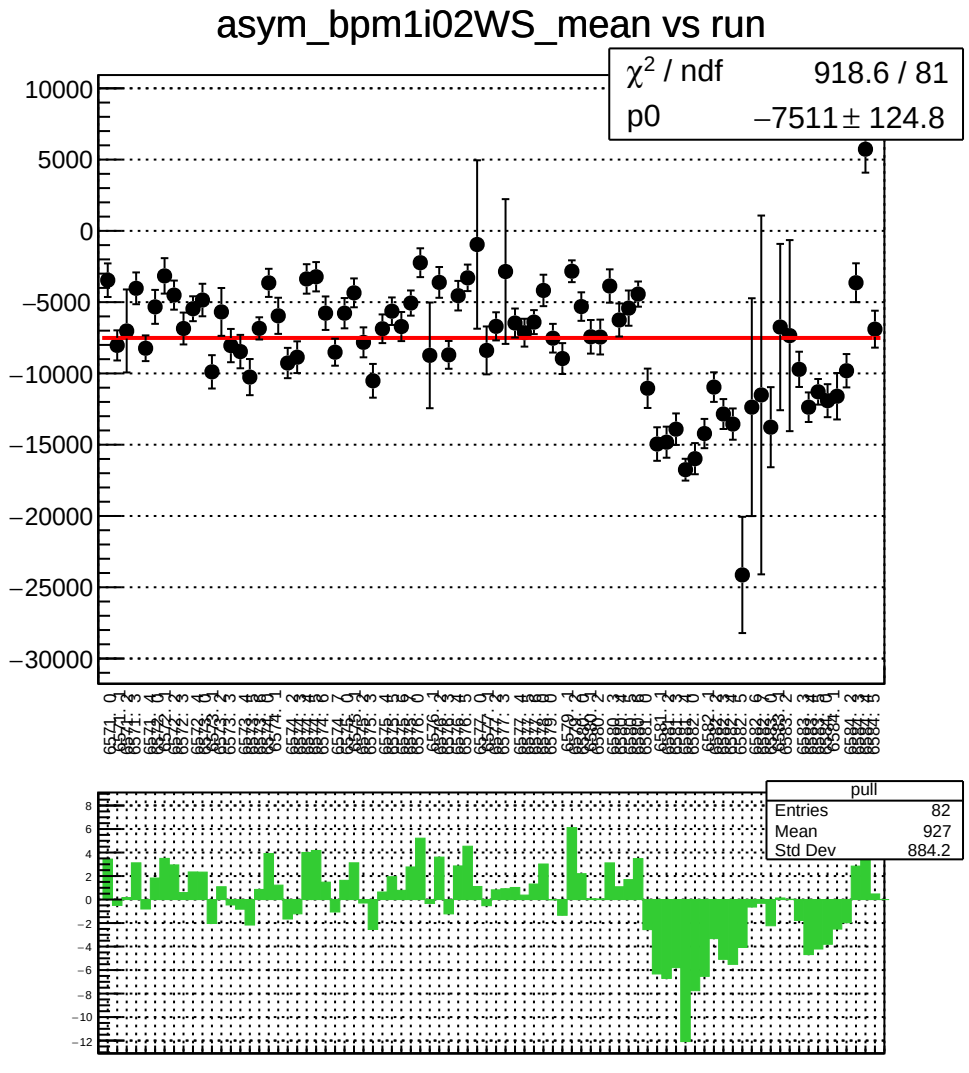

pull1D
Entries 82
Mean 0.05624
Std Dev 1.707

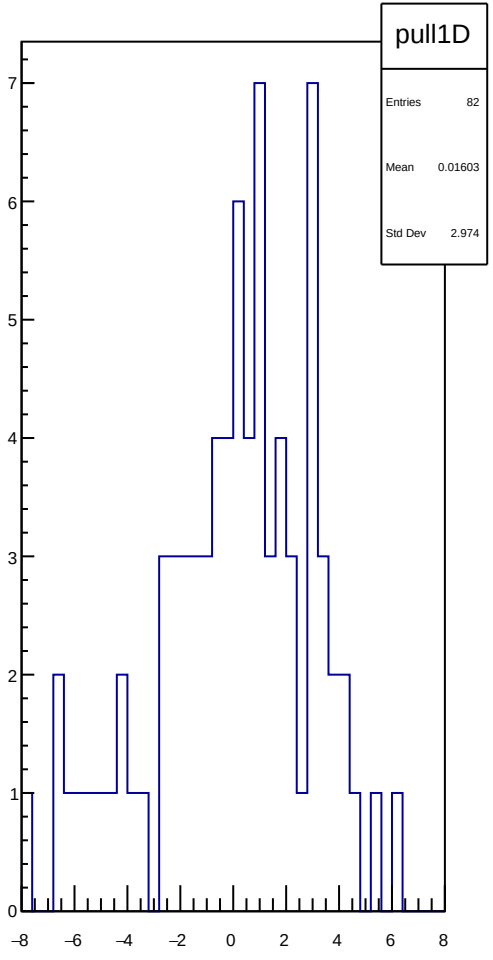

asym_bpm0i05WS_rms vs run
χ² / ndf 7.357e+04 / 81
p0 196.7 ± 0.1595
1000
800
600
400
200


asym_bpm0i07WS_mean vs run
χ^2 / ndf 86.72 / 81
p0 759.5 ± 245.8
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 78.48
Std Dev 221.4
3
2
1
0
−1
−2
−3

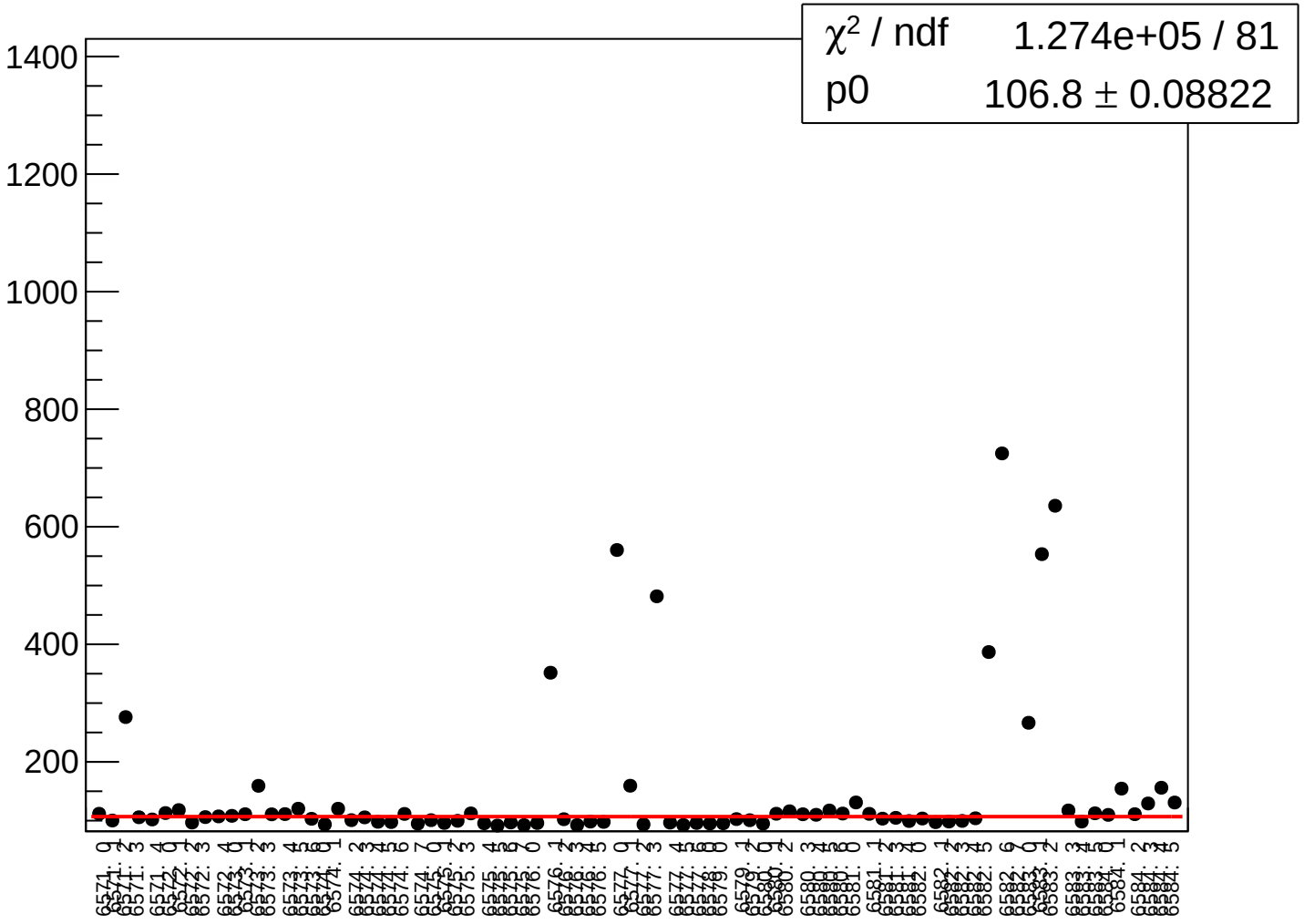

pull1D
Entries 82
Mean 0.003214
Std Dev 1.028
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

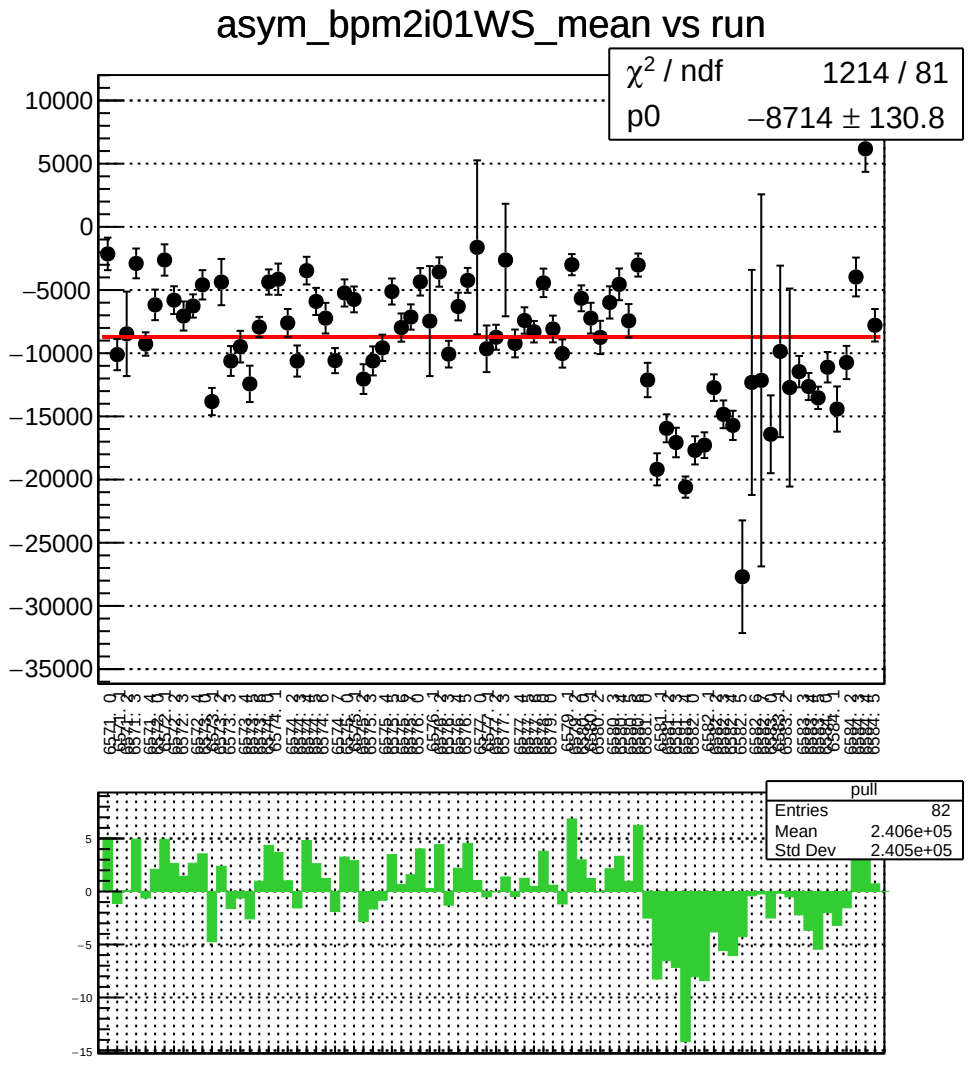

asym_bpm0i07WS_rms vs run
χ² / ndf 6.605e+04 / 81
p0 214.8 ± 0.1738
1000
800
600
400
200

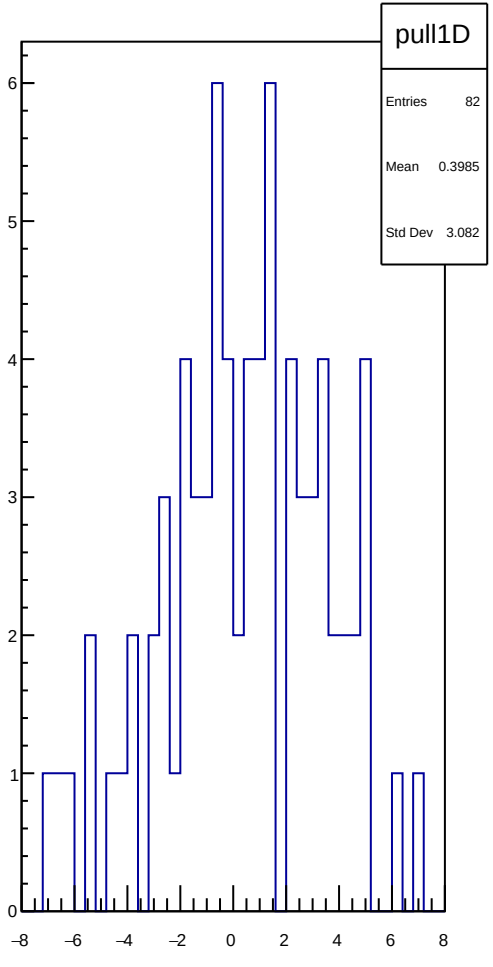

asym_bpm1i02WS_mean vs run
χ² / ndf 918.6 / 81
p0 −7511 ± 124.8
pull
Entries 82
Mean 927
Std Dev 884.2

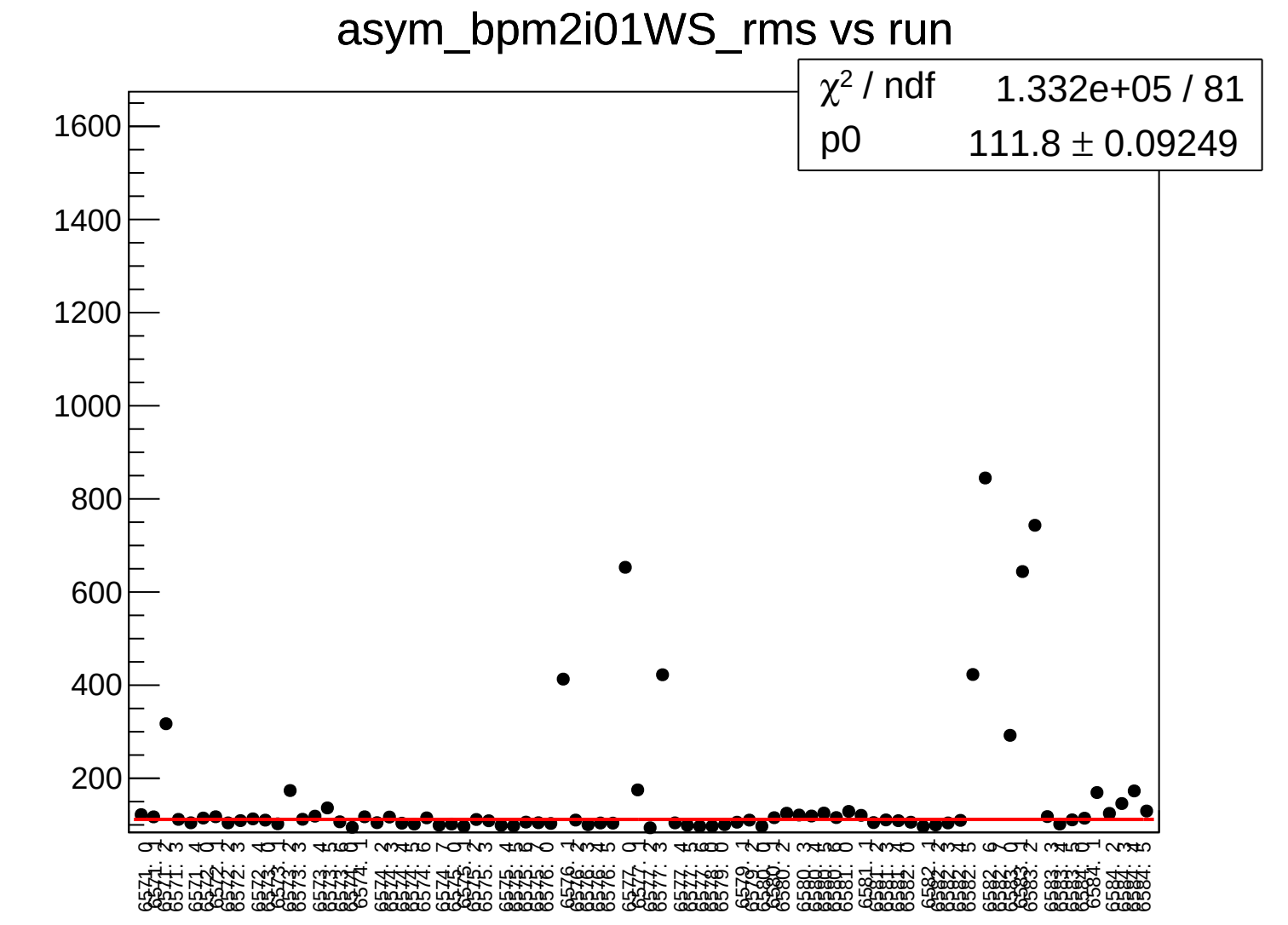

pull1D
Entries 82
Mean 0.01603
Std Dev 2.974

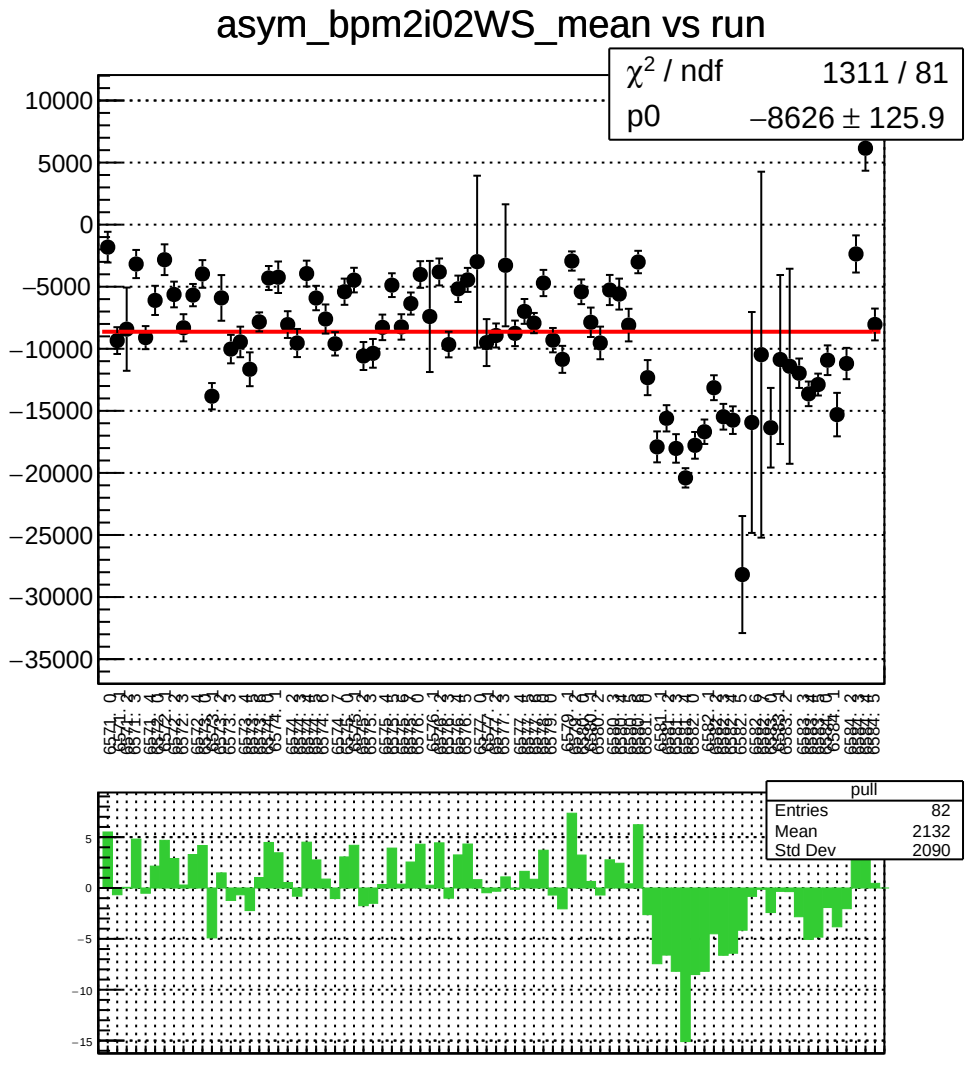
asym_bpm1i02WS_rms vs run

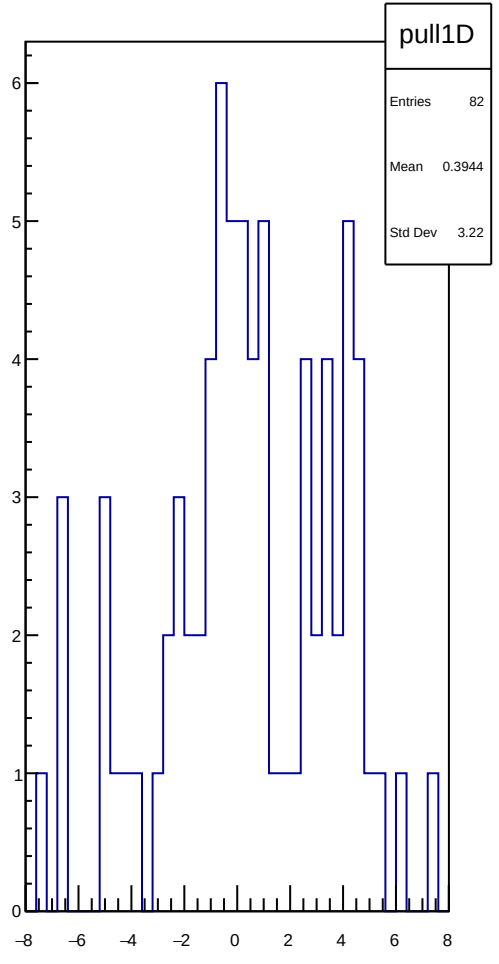


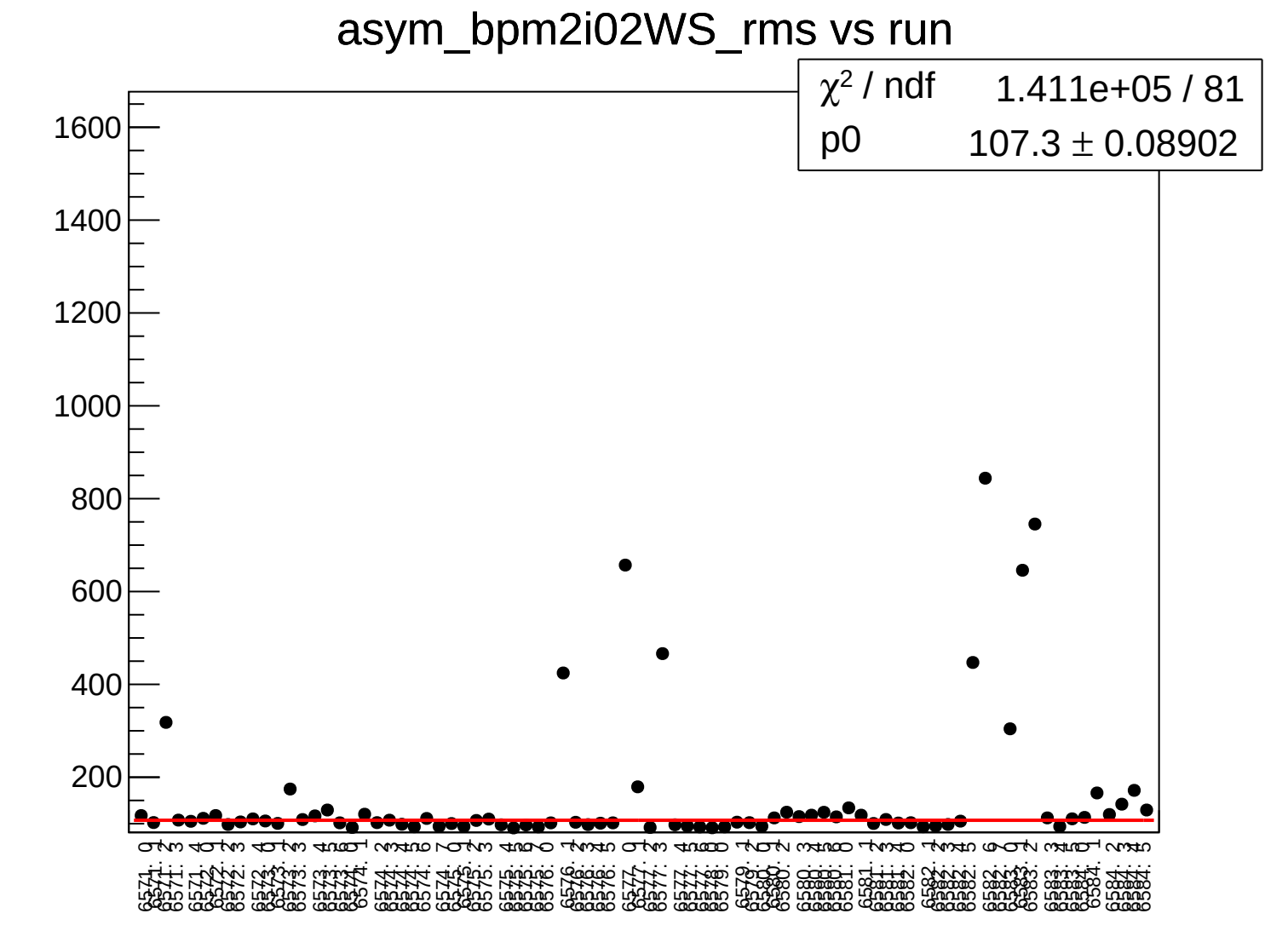

asym_bpm2i01WS_mean vs run
χ² / ndf 1214 / 81
p0 −8714 ± 130.8
pull
Entries 82
Mean 2.406e+05
Std Dev 2.405e+05

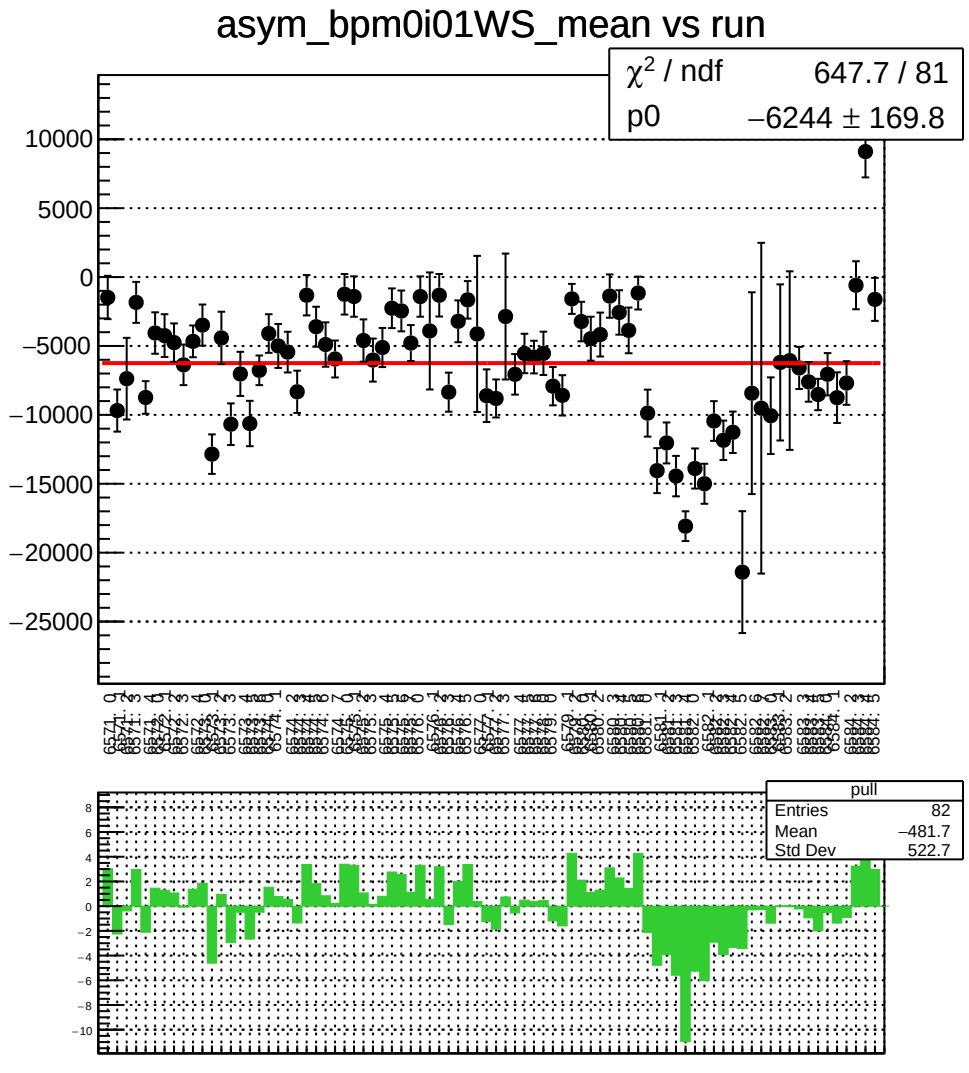

pull1D
Entries 82
Mean 0.3985
Std Dev 3.082

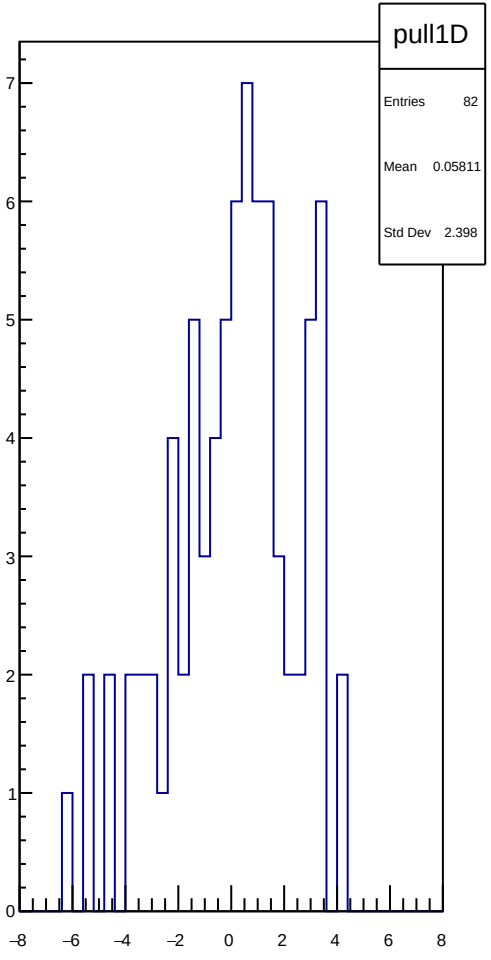

asym_bpm2i01WS_rms vs run
χ² / ndf 1.332e+05 / 81
p0 111.8 ± 0.09249
1600
1400
1200
1000
800
600
400
200

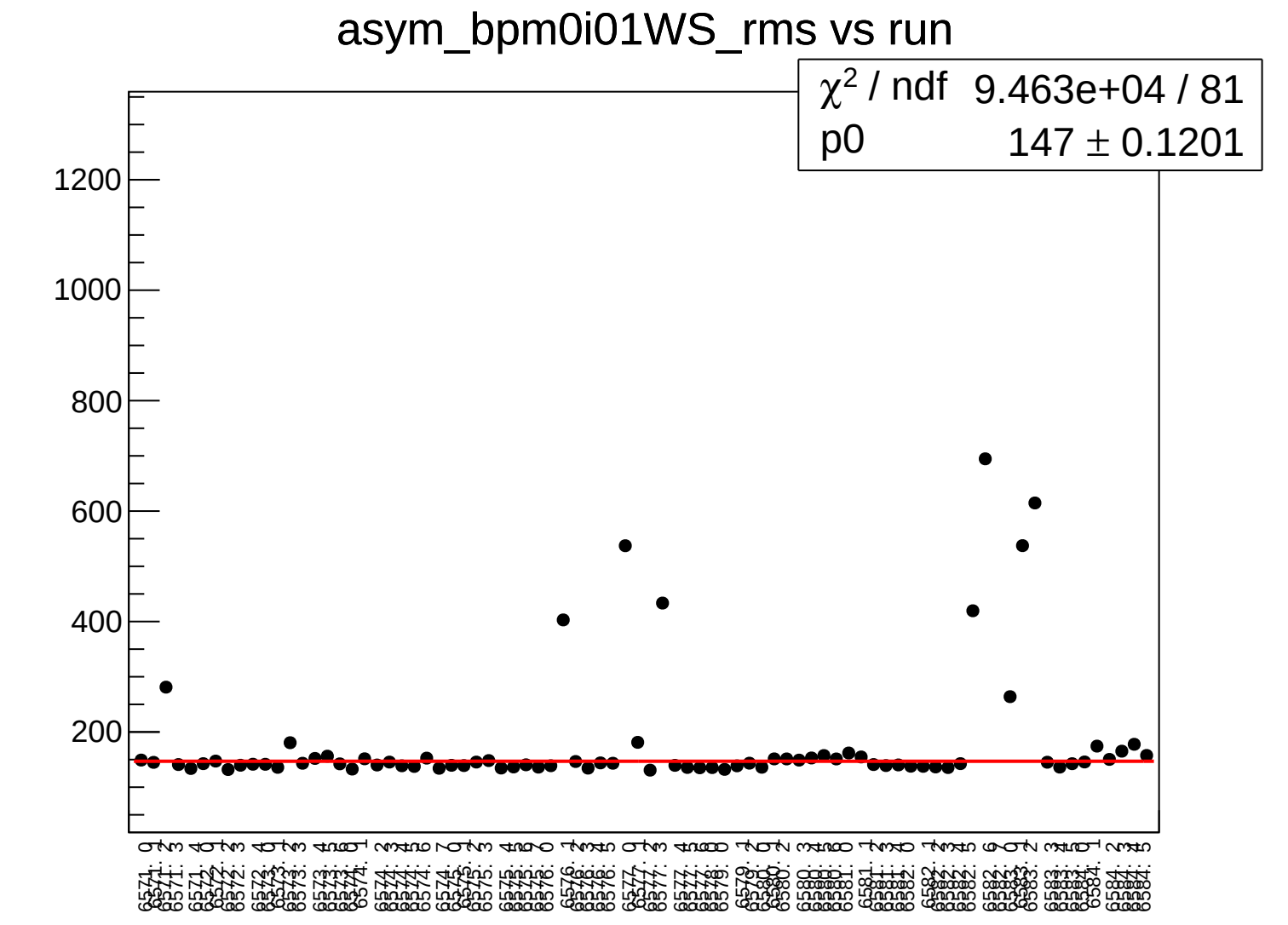

asym_bpm2i02WS_mean vs run
χ² / ndf 1311 / 81
p0 −8626 ± 125.9
pull
Entries 82
Mean 2132
Std Dev 2090

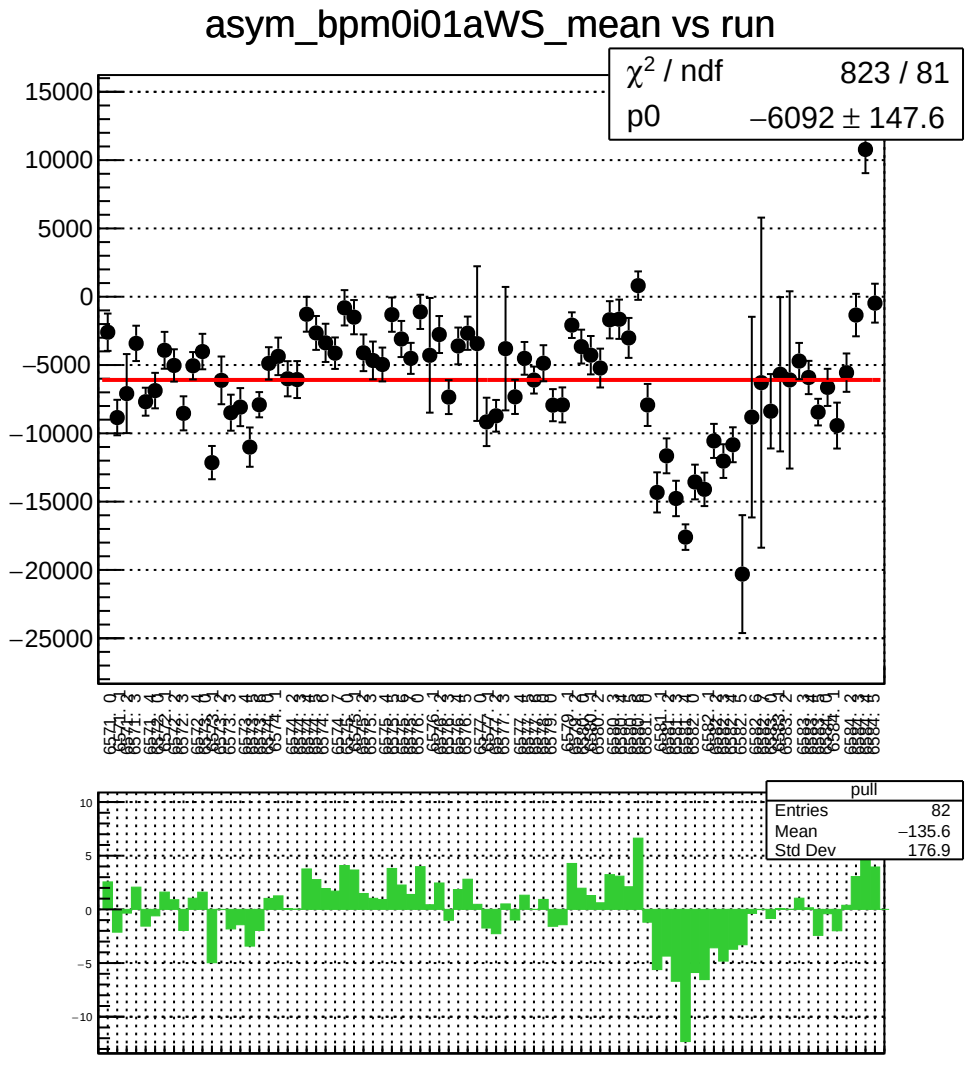

pull1D
Entries 82
Mean 0.3944
Std Dev 3.22

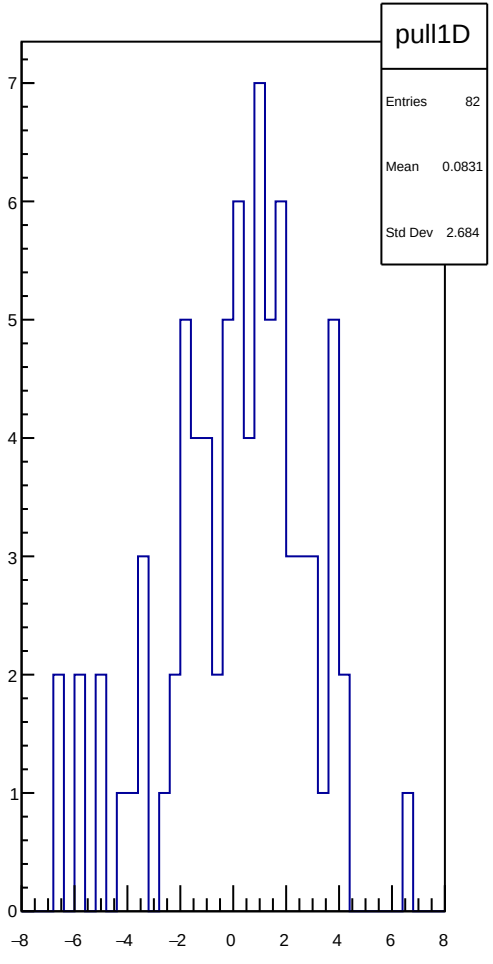

asym_bpm2i02WS_rms vs run
χ² / ndf 1.411e+05 / 81
p0 107.3 ± 0.08902
1600
1400
1200
1000
800
600
400
200


asym_bpm0i01WS_mean vs run
χ² / ndf 647.7 / 81
p0 −6244 ± 169.8
pull
Entries 82
Mean −481.7
Std Dev 522.7

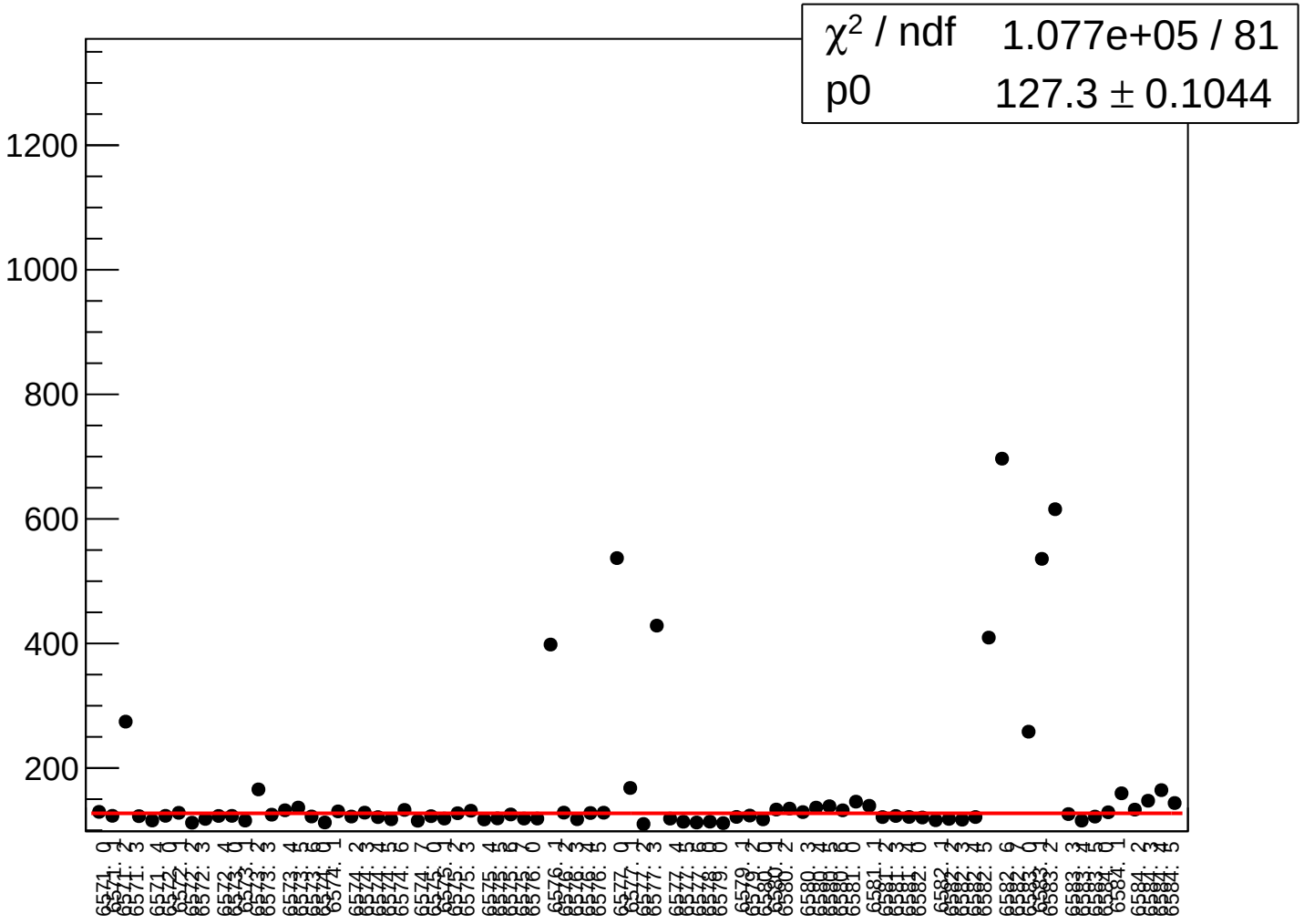

pull1D
Entries 82
Mean 0.05811
Std Dev 2.398

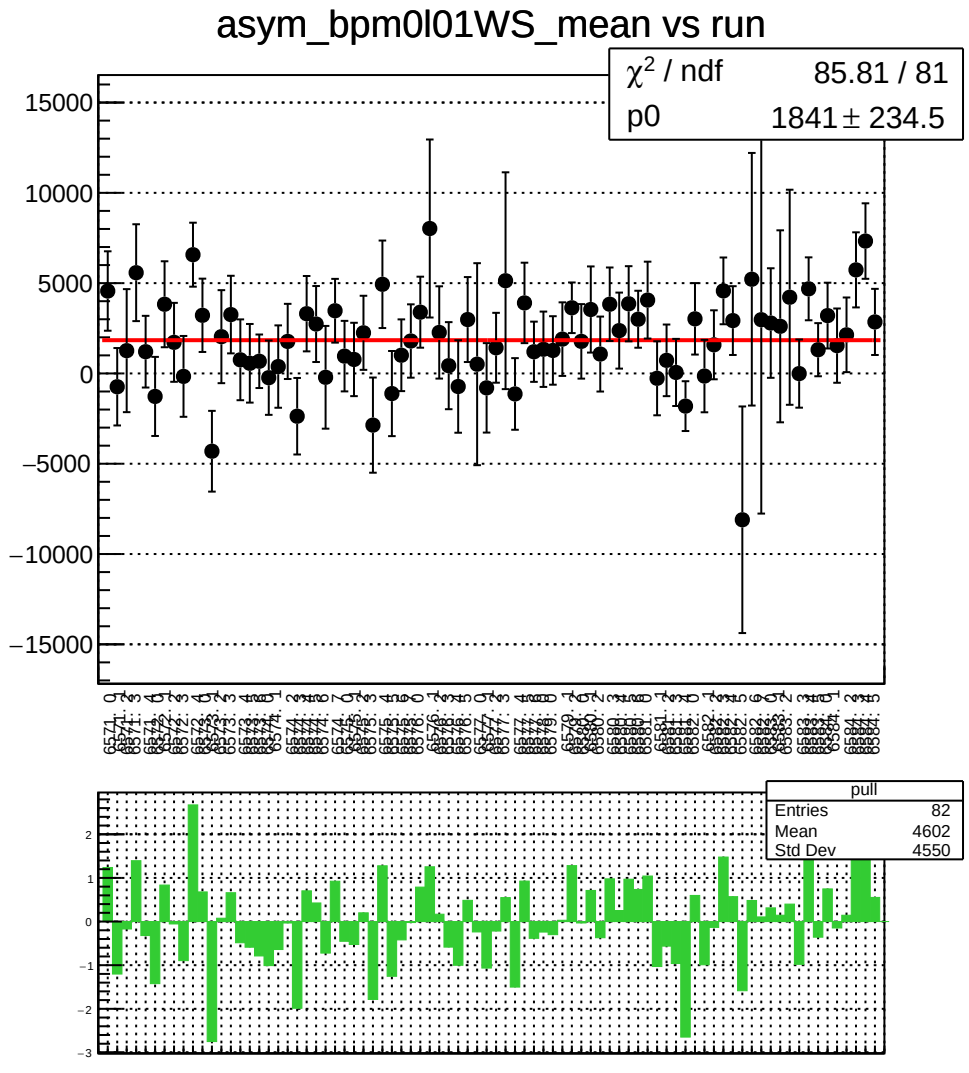

asym_bpm0i01WS_rms vs run
χ^2 / ndf 9.463e+04 / 81
p0 147 ± 0.1201
1200
1000
800
600
400
200

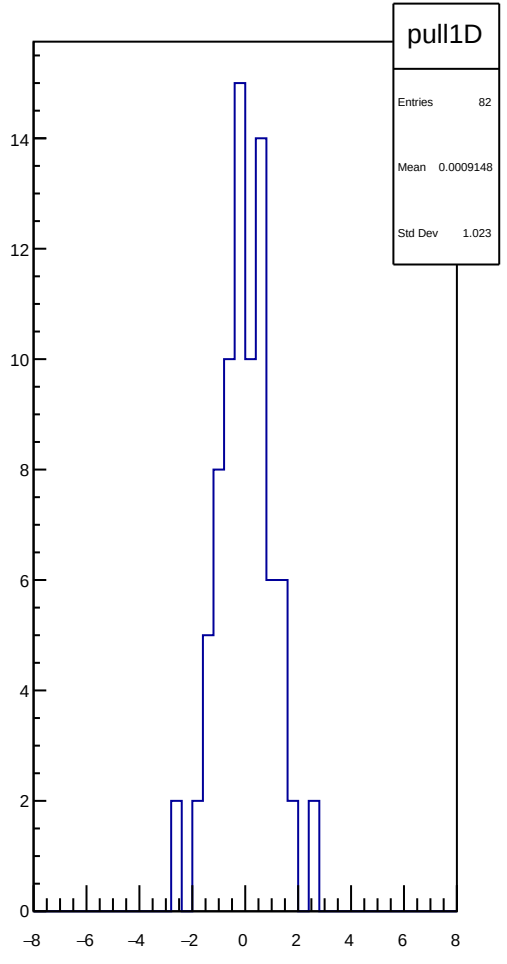

asym_bpm0i01aWS_mean vs run
χ² / ndf 823 / 81
p0 −6092 ± 147.6
pull
Entries 82
Mean −135.6
Std Dev 176.9

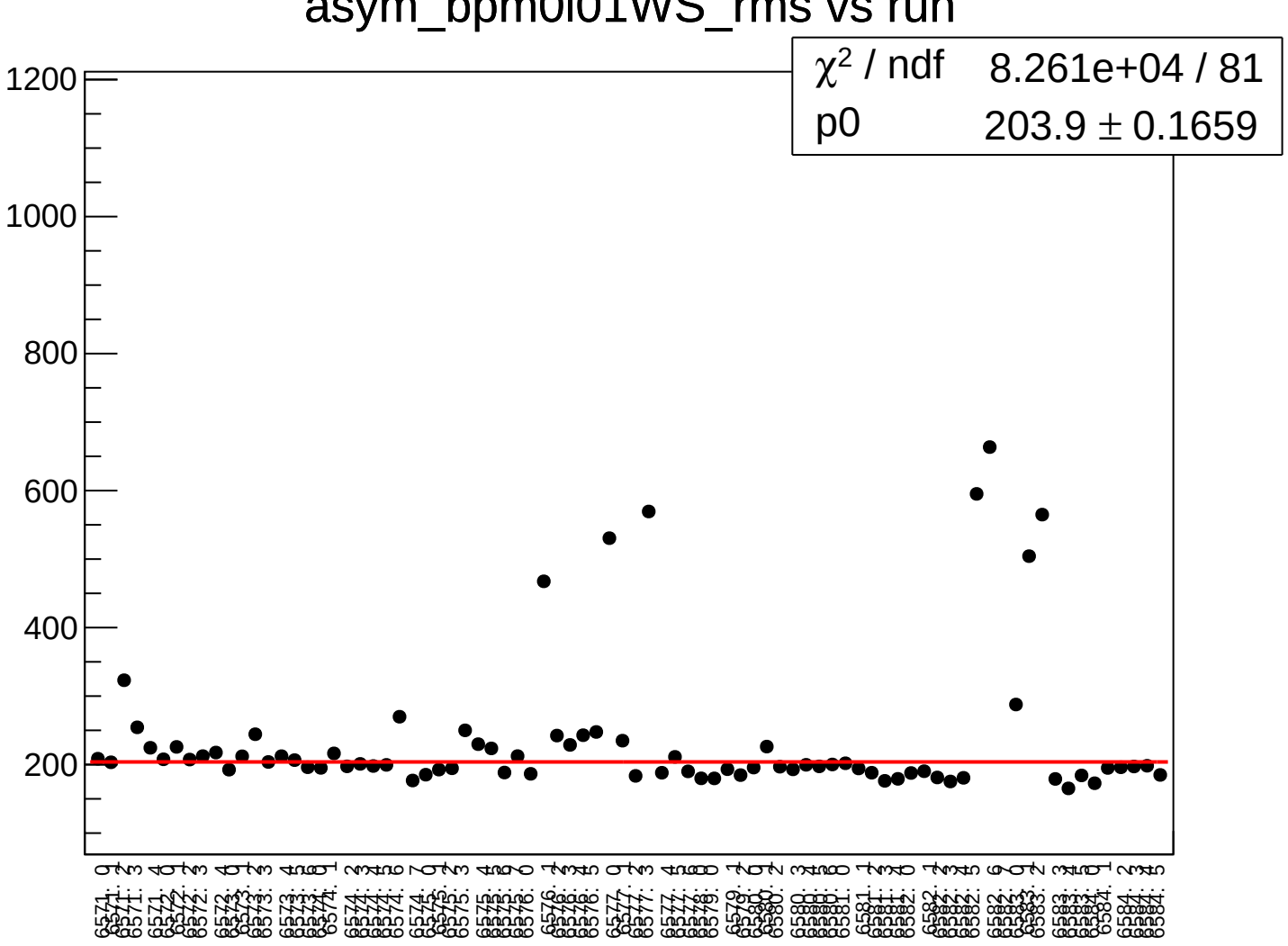

pull1D
Entries 82
Mean 0.0831
Std Dev 2.684

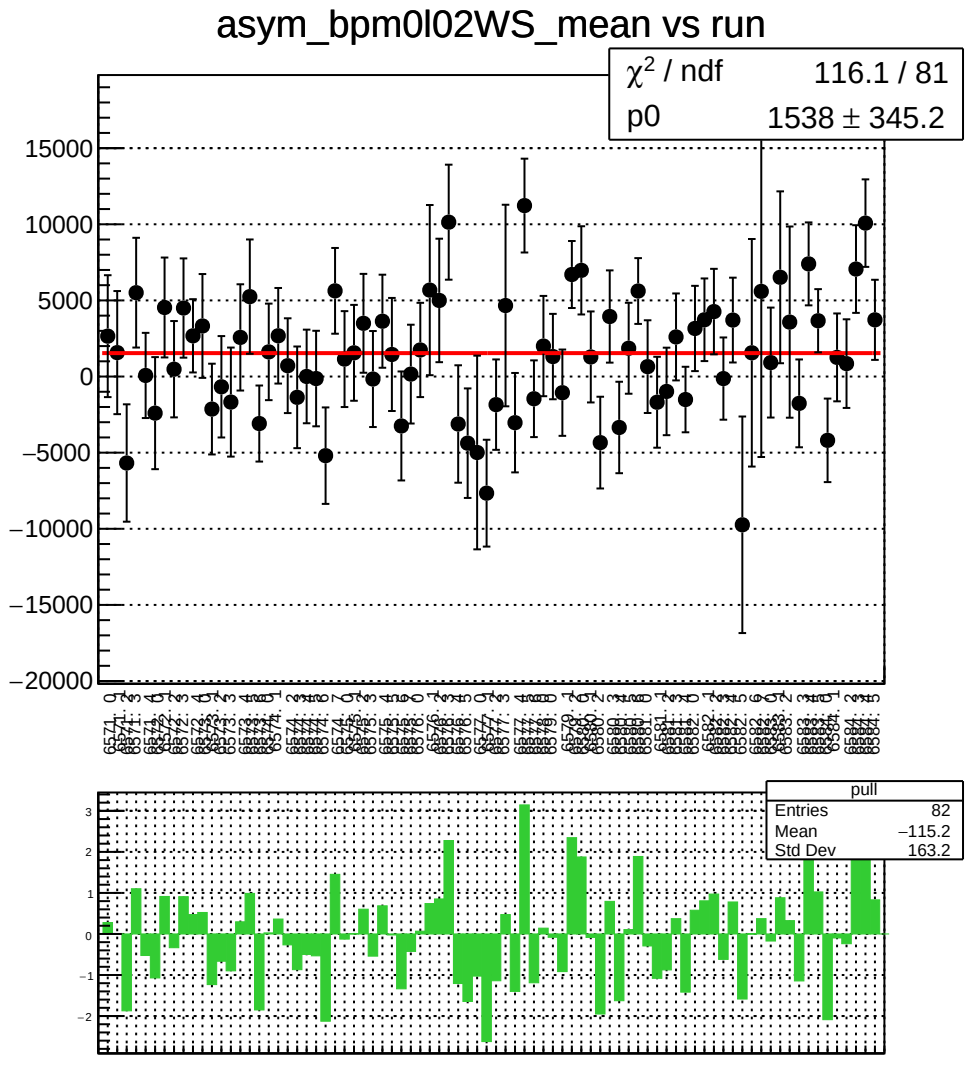
asym_bpm0i01aWS_rms vs run

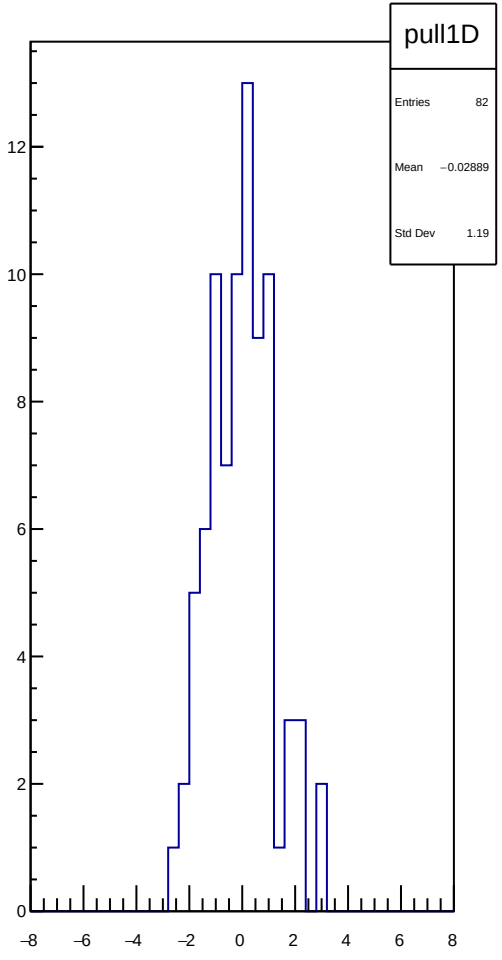



asym_bpm0l01WS_mean vs run
χ² / ndf 85.81 / 81
p0 1841 ± 234.5
pull
Entries 82
Mean 4602
Std Dev 4550

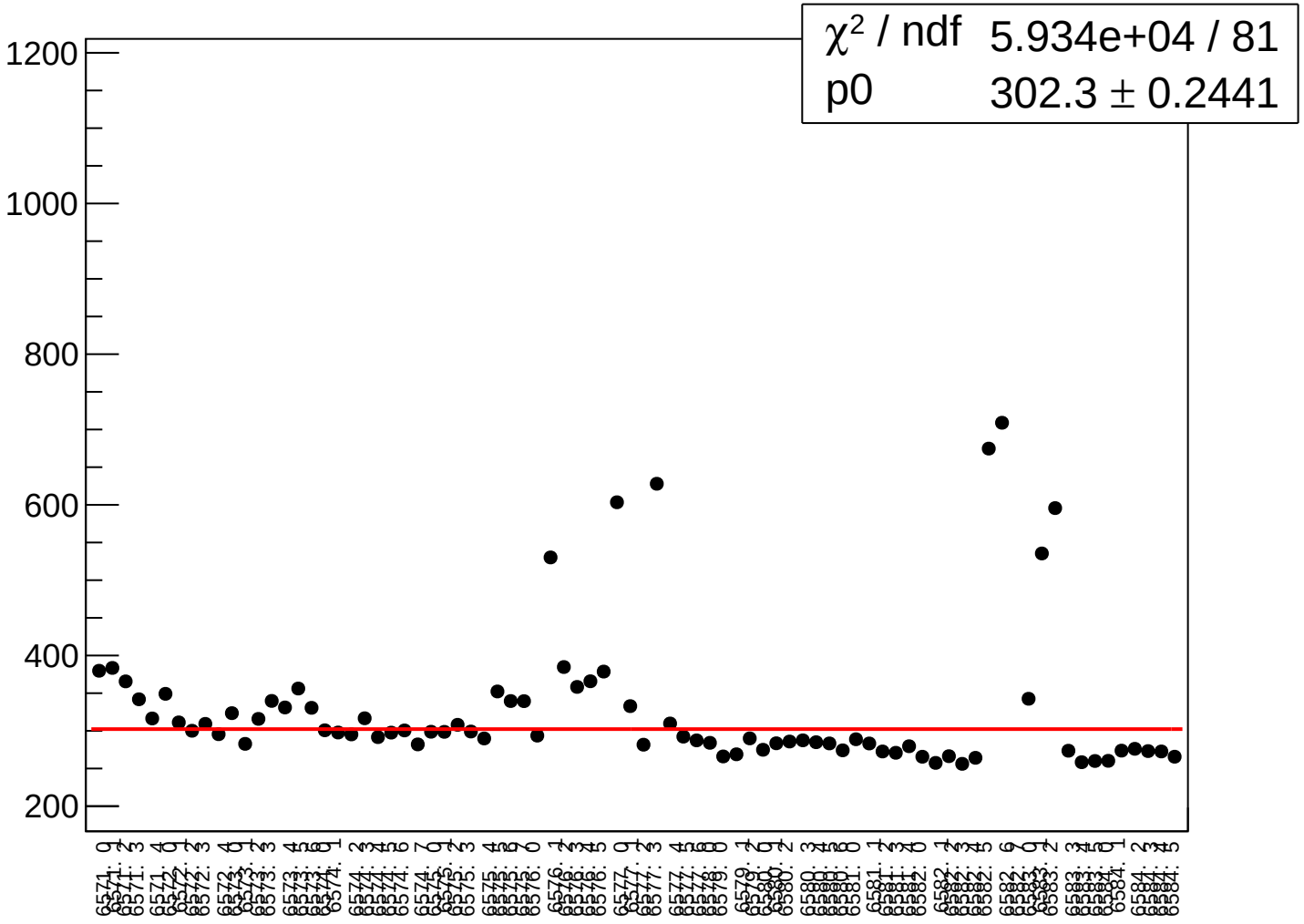

pull1D
Entries 82
Mean 0.0009148
Std Dev 1.023

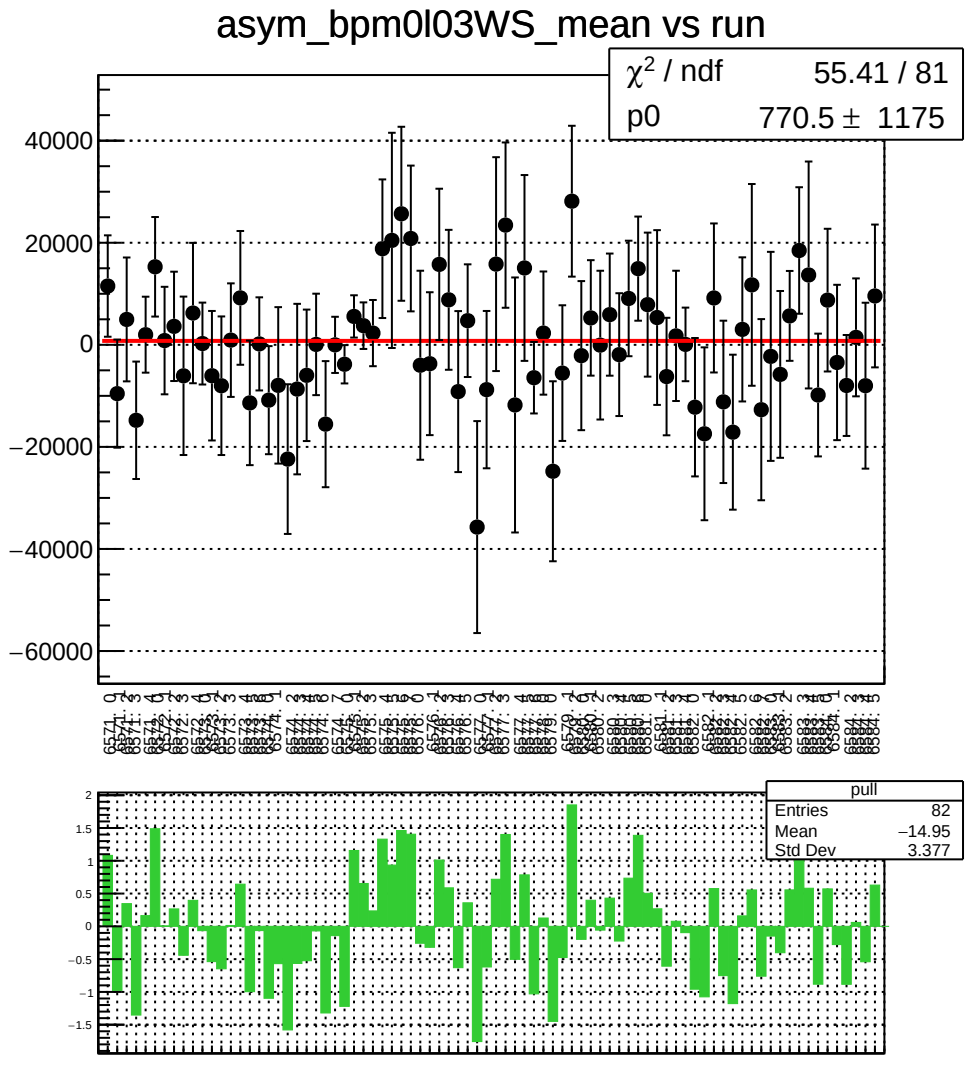

asym_bpm0l01WS_rms vs run
χ² / ndf 8.261e+04 / 81
p0 203.9 ± 0.1659
1200
1000
800
600
400
200

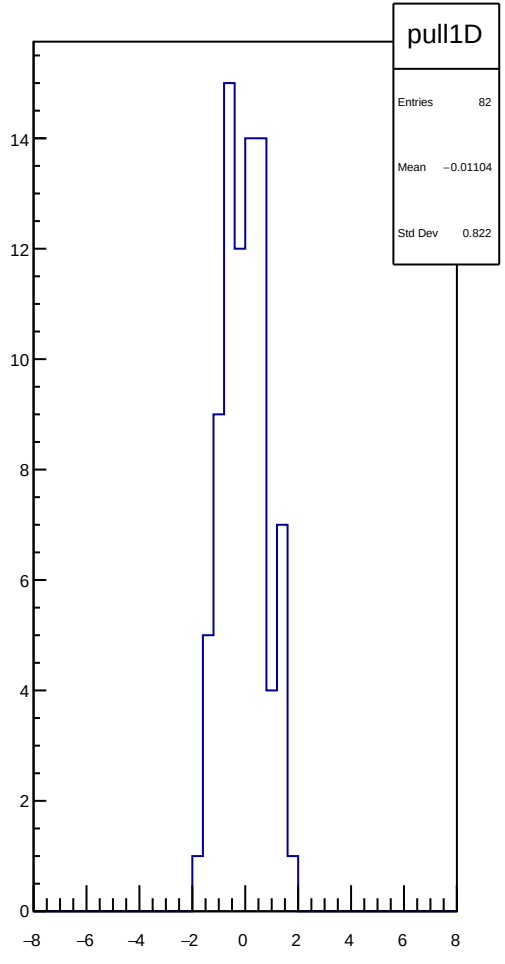

asym_bpm0l02WS_mean vs run
χ² / ndf 116.1 / 81
p0 1538 ± 345.2
pull
Entries 82
Mean −115.2
Std Dev 163.2

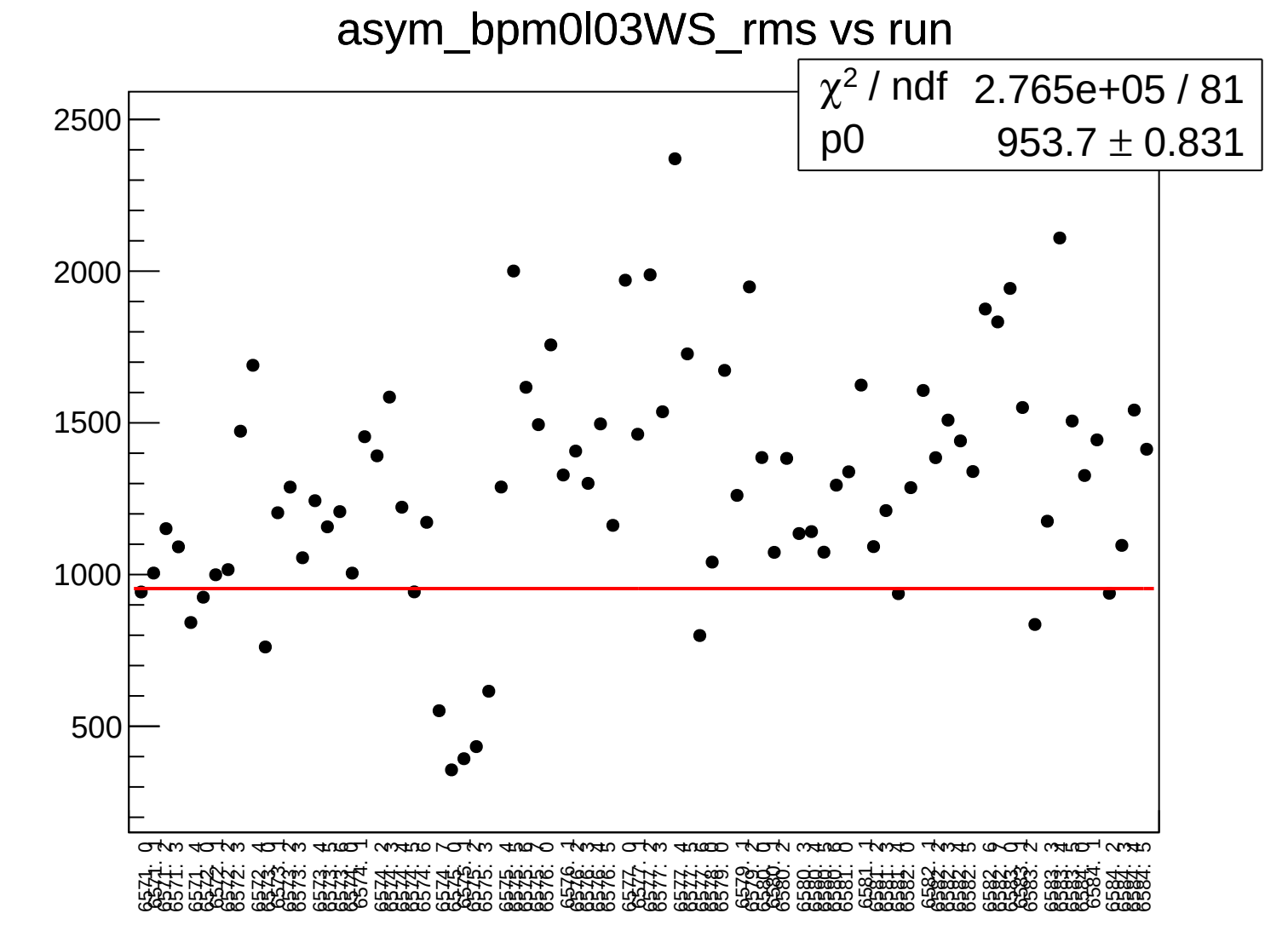

pull1D
Entries 82
Mean −0.02889
Std Dev 1.19

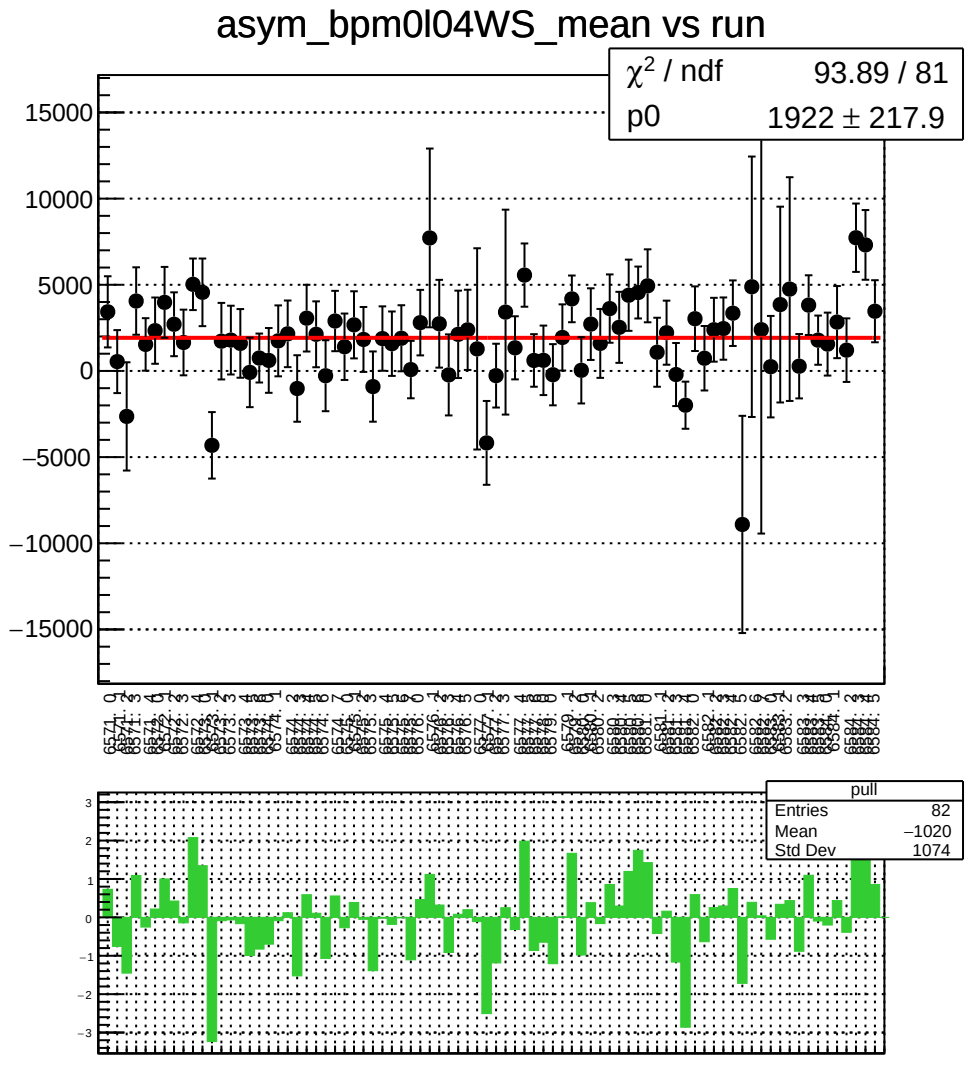
asym_bpm0l02WS_rms vs run

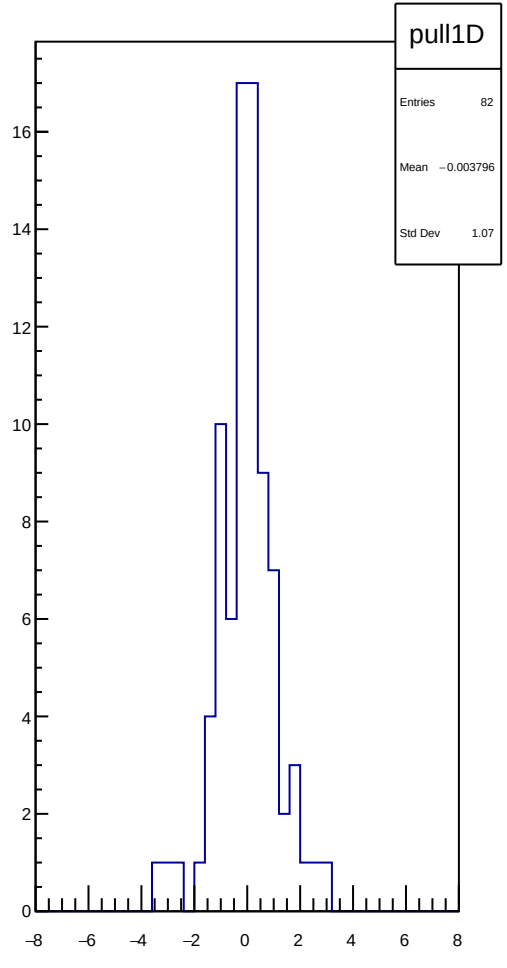


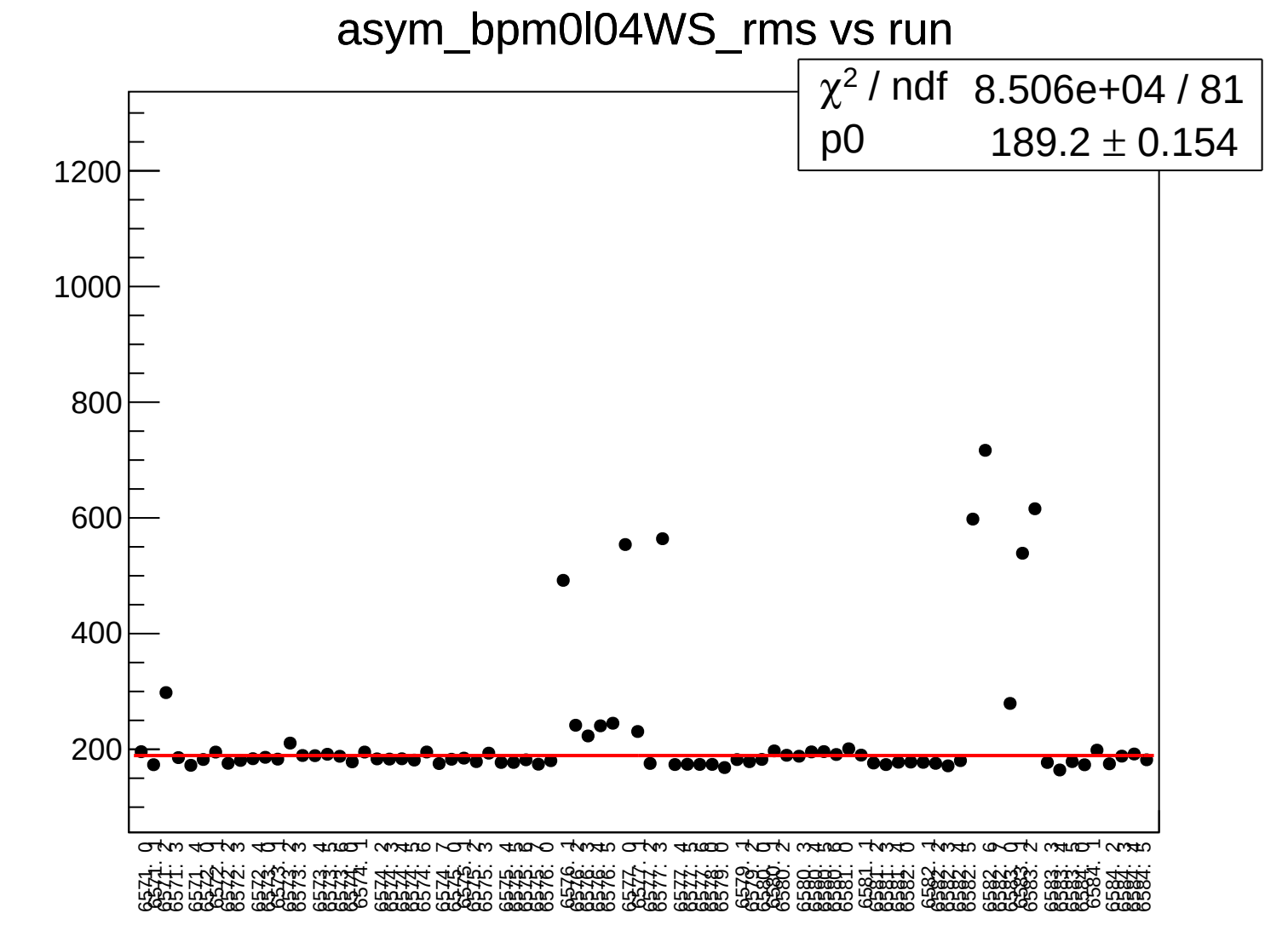

asym_bpm0l03WS_mean vs run
χ² / ndf 55.41 / 81
p0 770.5 ± 1175
40000
20000
0
−20000
−40000
−60000
pull
Entries 82
Mean −14.95
Std Dev 3.377
2
1.5
1
0.5
0
−0.5
−1
−1.5

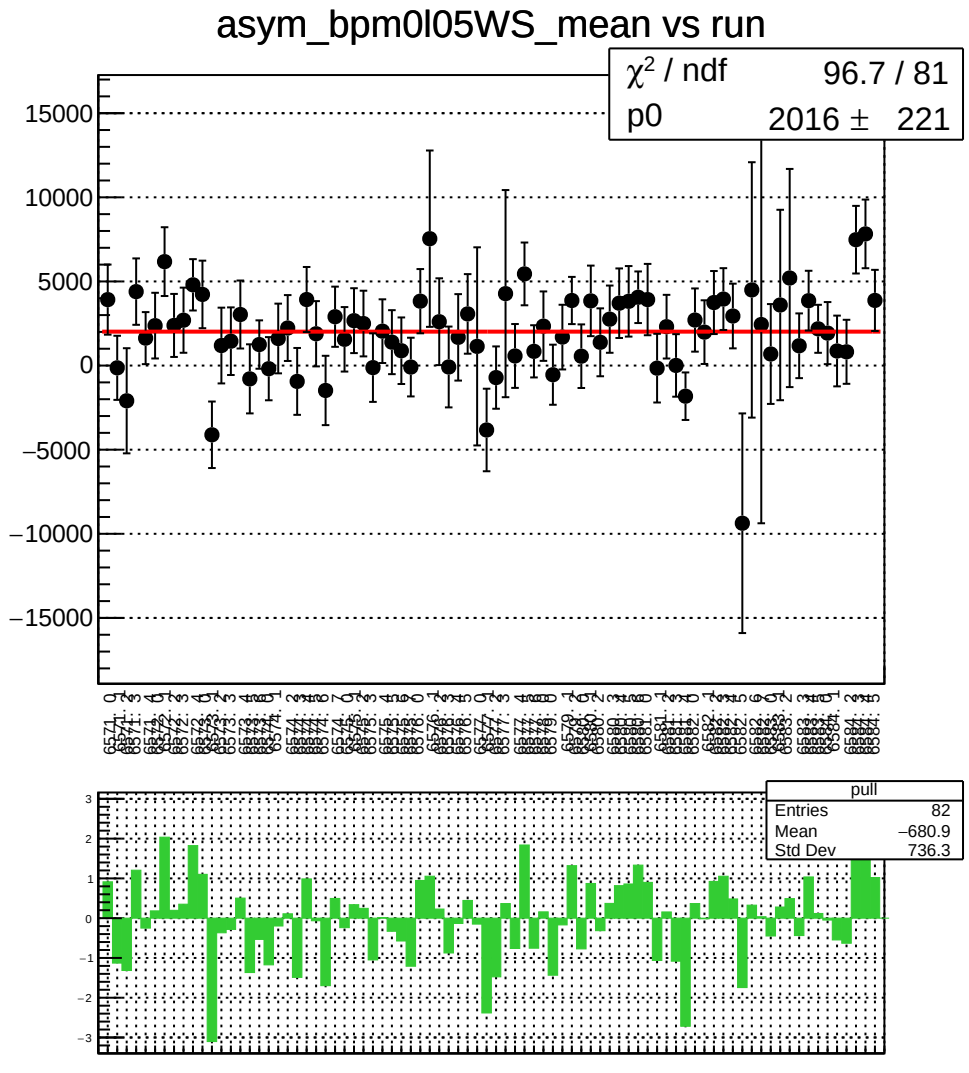

pull1D
Entries 82
Mean −0.01104
Std Dev 0.822
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

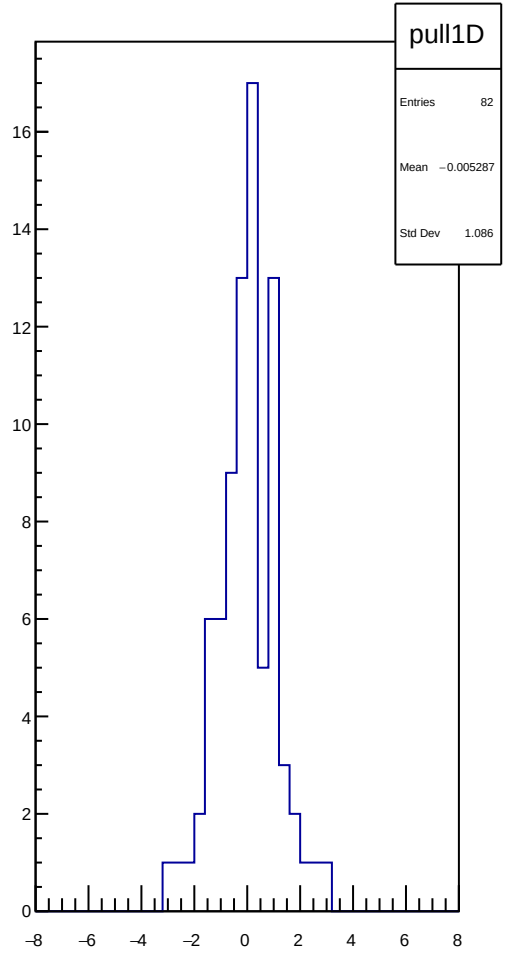

asym_bpm0l03WS_rms vs run
χ² / ndf 2.765e+05 / 81
p0 953.7 ± 0.831
2500
2000
1500
1000
500

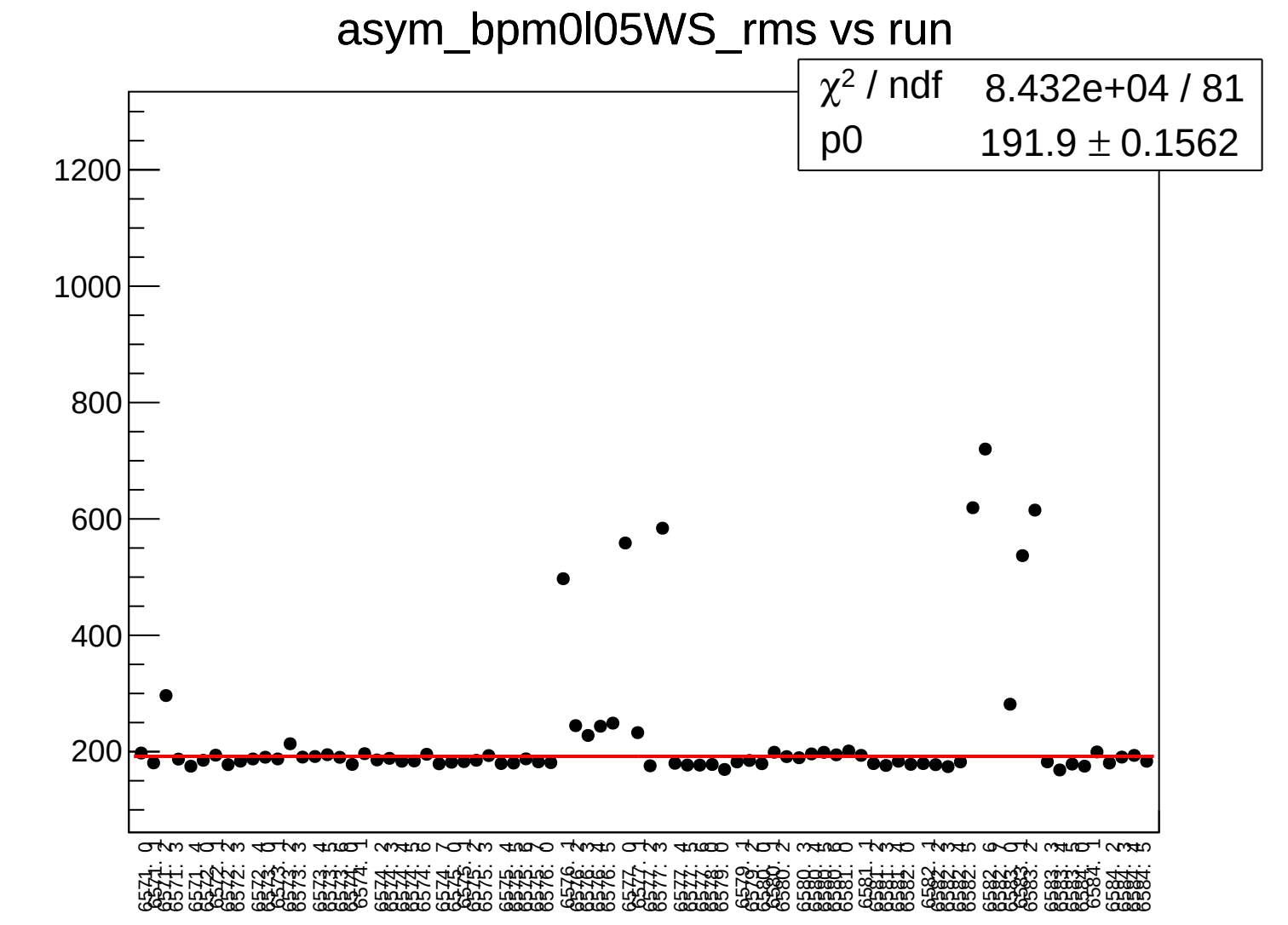

asym_bpm0l04WS_mean vs run
χ² / ndf 93.89 / 81
p0 1922 ± 217.9
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −1020
Std Dev 1074
3
2
1
0
−1
−2
−3

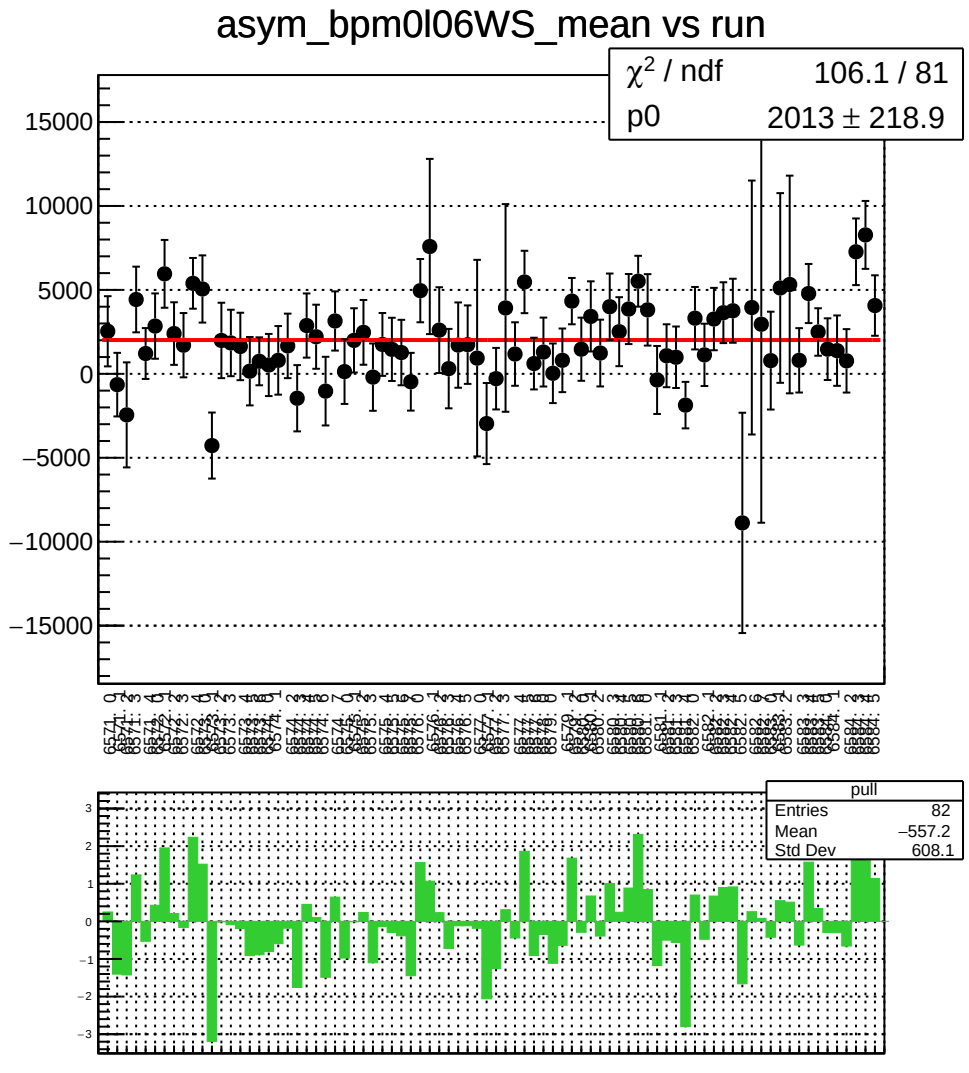

pull1D
Entries 82
Mean −0.003796
Std Dev 1.07
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

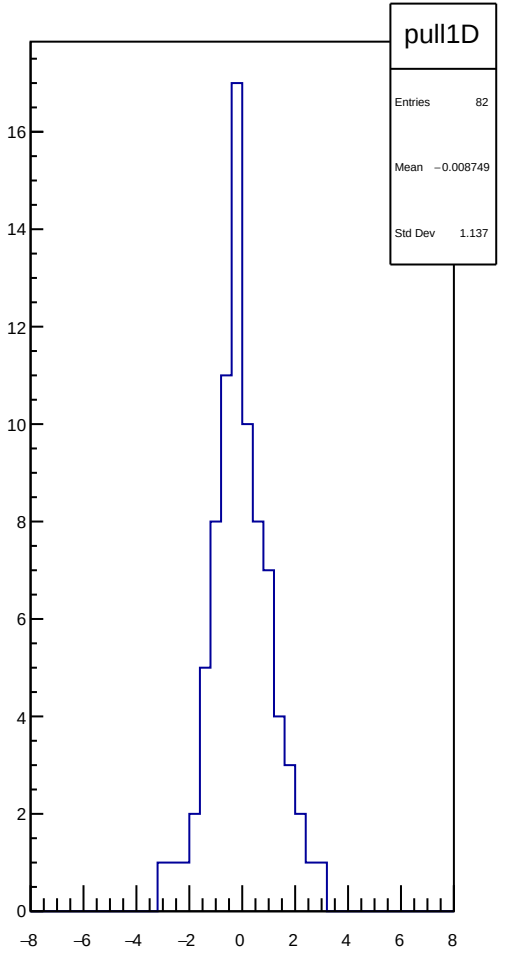

asym_bpm0l04WS_rms vs run
χ² / ndf 8.506e+04 / 81
p0 189.2 ± 0.154
1200
1000
800
600
400
200

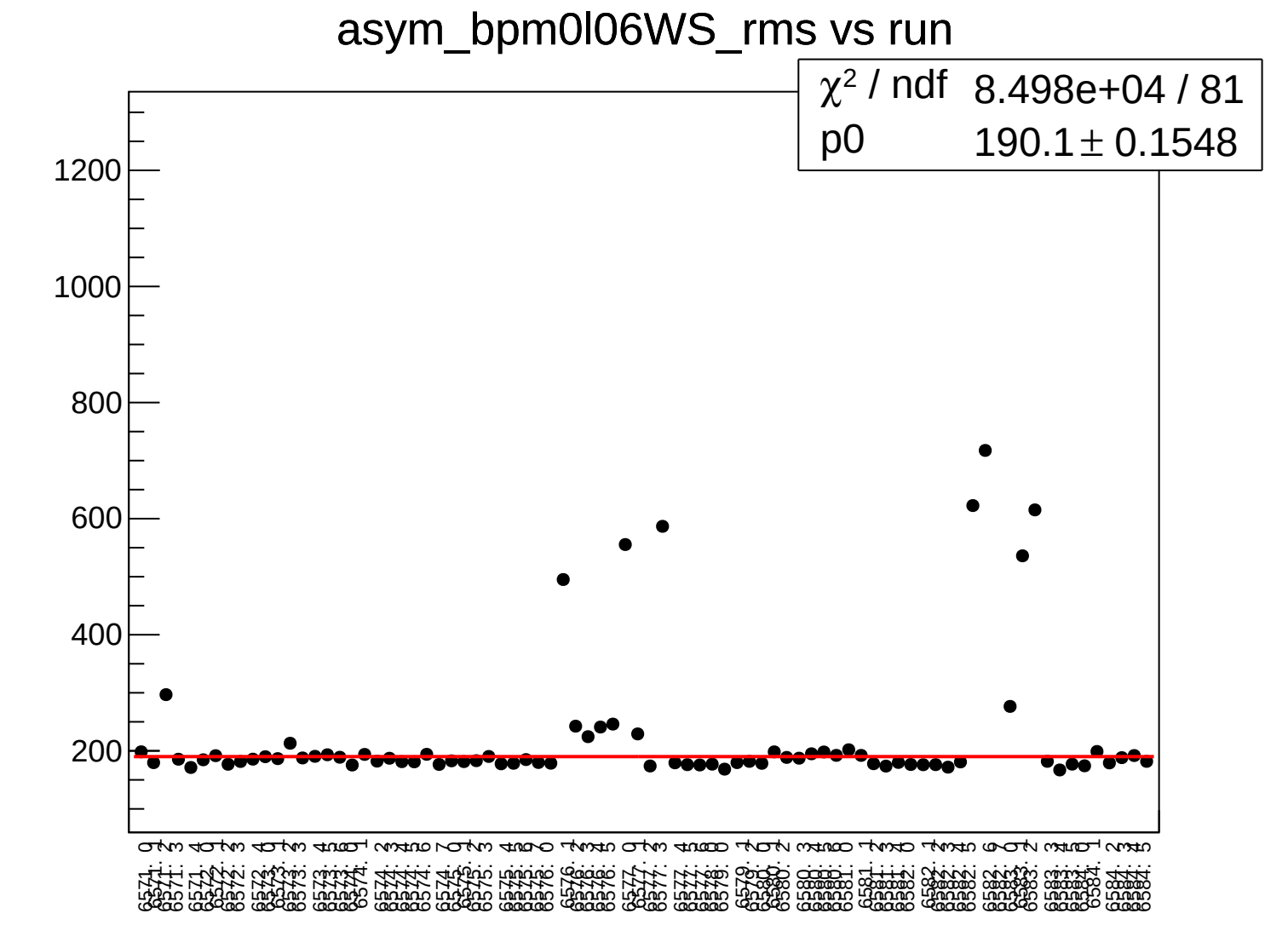

asym_bpm0l05WS_mean vs run
χ² / ndf 96.7 / 81
p0 2016 ± 221
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −680.9
Std Dev 736.3
3
2
1
0
−1
−2
−3

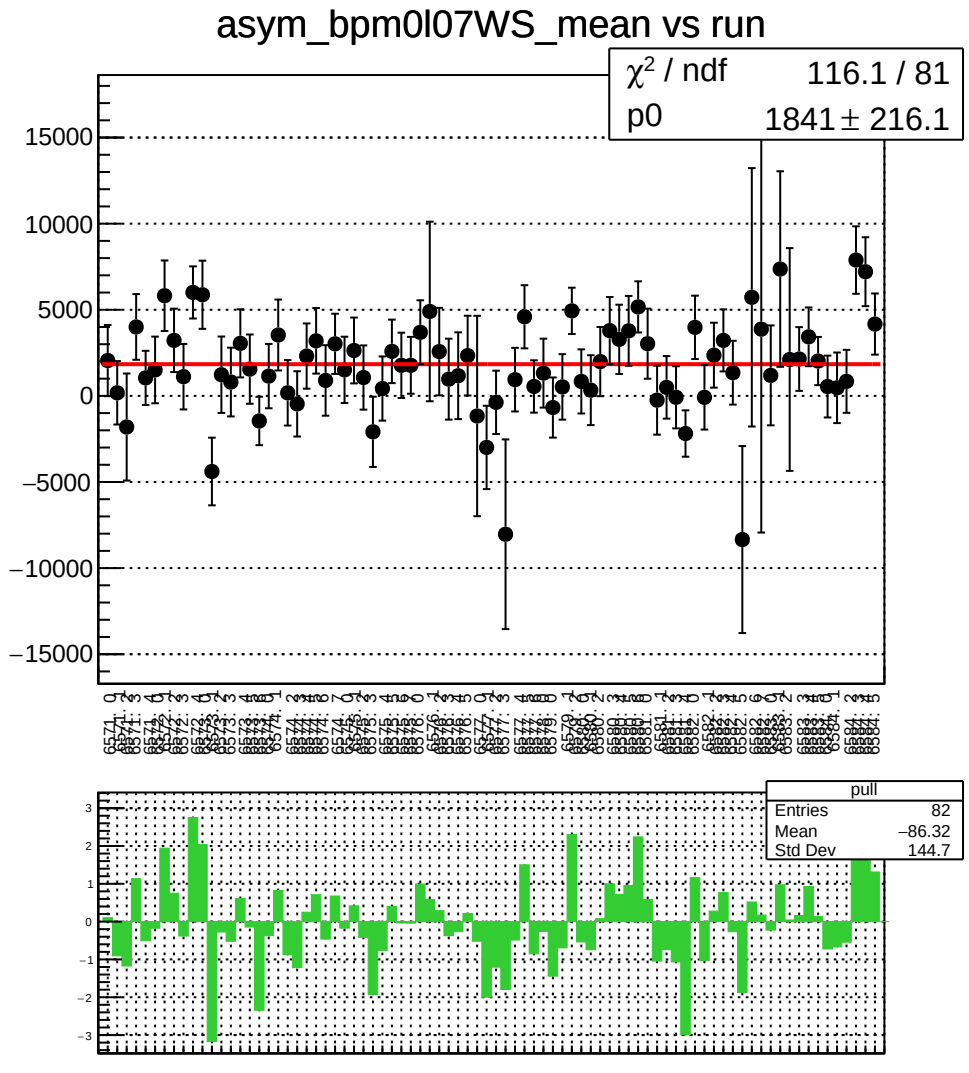

pull1D
Entries 82
Mean −0.005287
Std Dev 1.086
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

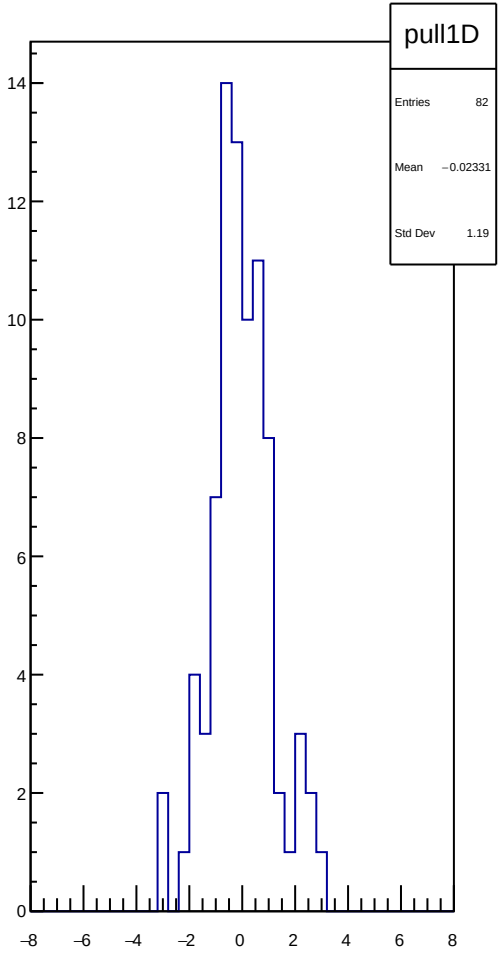

asym_bpm0l05WS_rms vs run
χ² / ndf 8.432e+04 / 81
p0 191.9 ± 0.1562
1200
1000
800
600
400
200

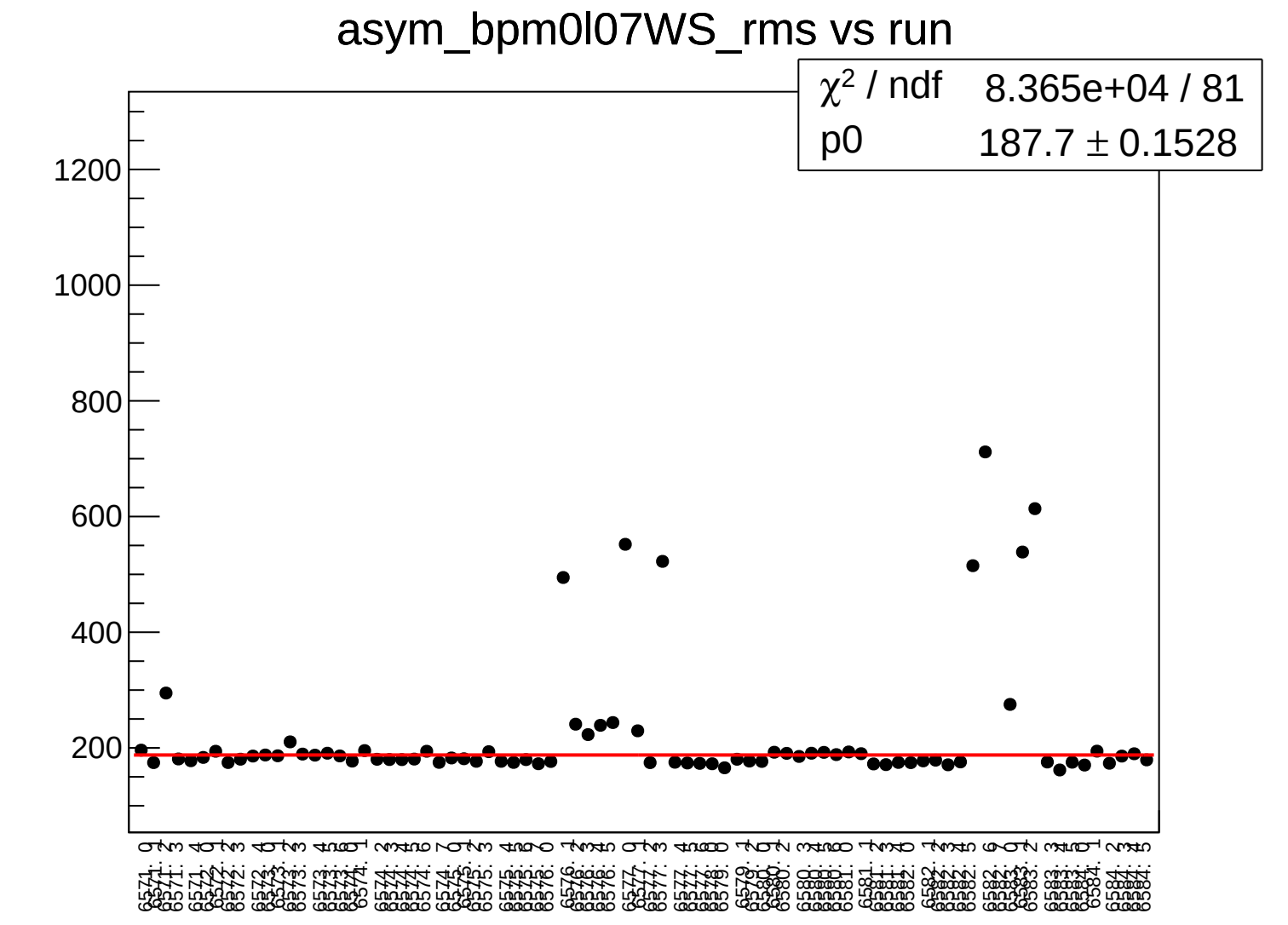

asym_bpm0l06WS_mean vs run
χ² / ndf 106.1 / 81
p0 2013 ± 218.9
pull
Entries 82
Mean −557.2
Std Dev 608.1

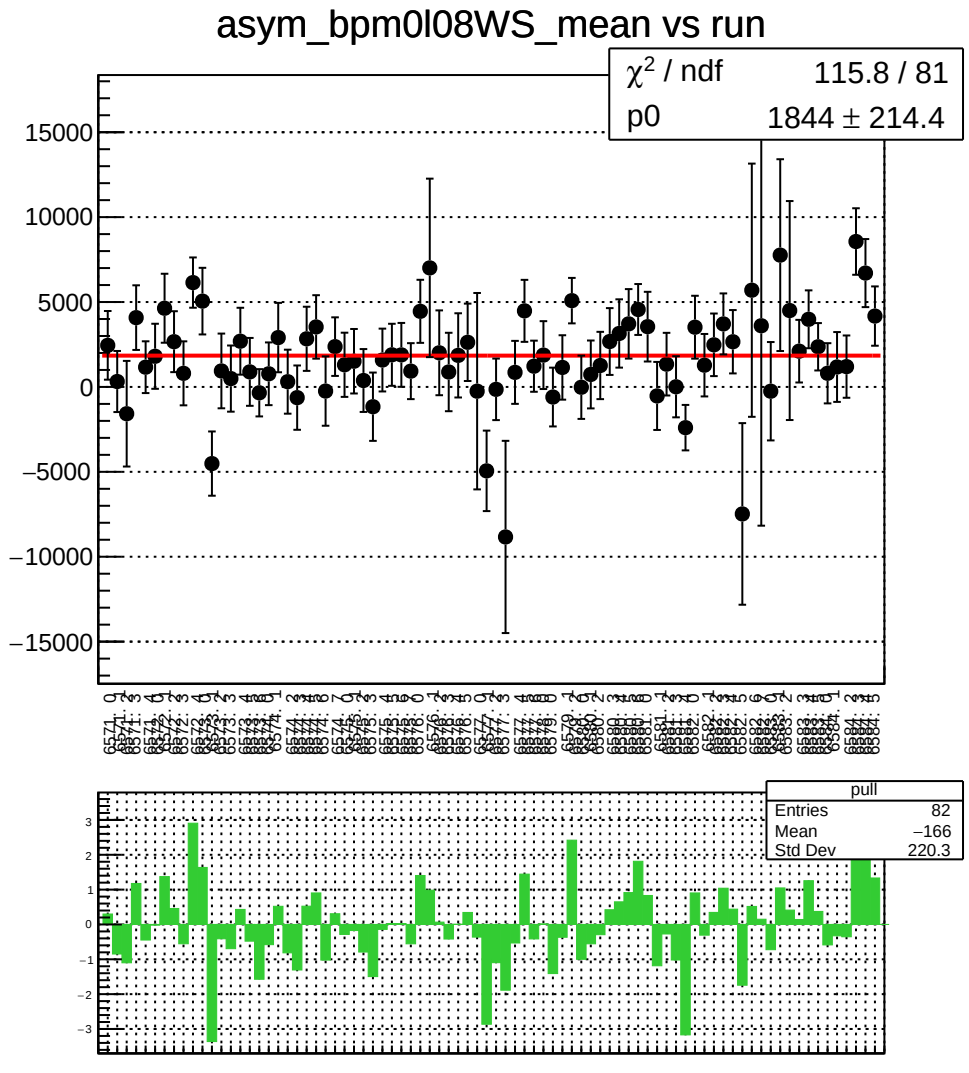

pull1D
Entries 82
Mean −0.008749
Std Dev 1.137

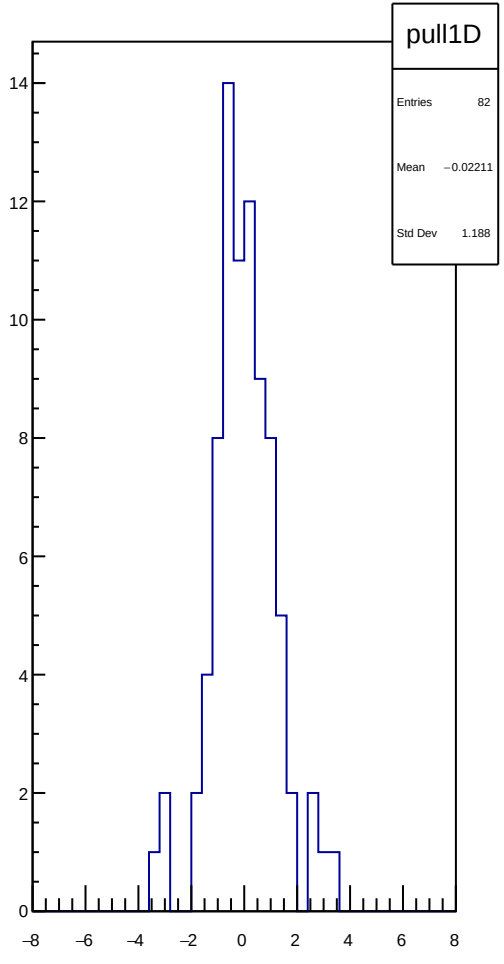

asym_bpm0l06WS_rms vs run
χ² / ndf 8.498e+04 / 81
p0 190.1 ± 0.1548
1200
1000
800
600
400
200

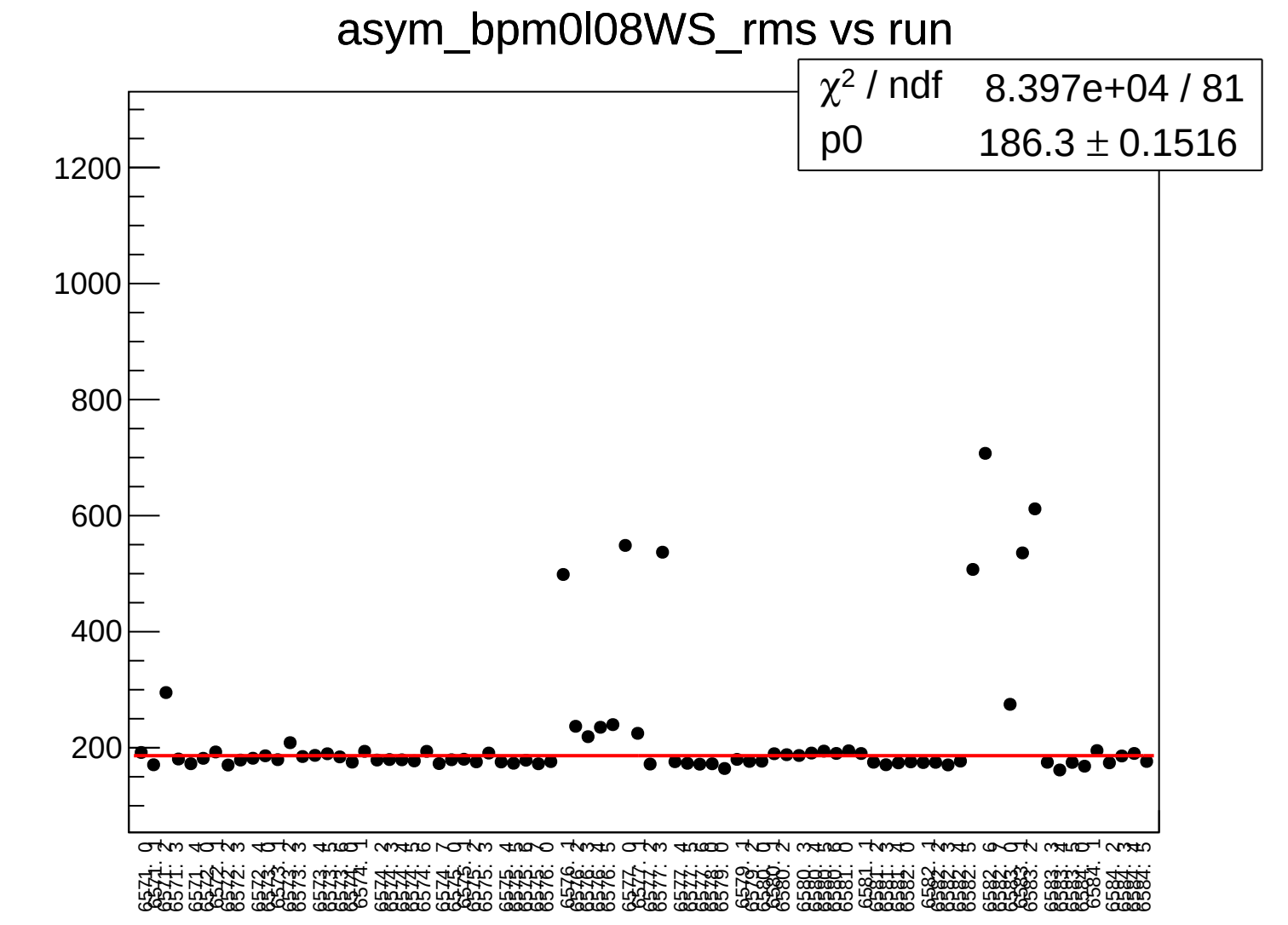

asym_bpm0l07WS_mean vs run
χ² / ndf 116.1 / 81
p0 1841 ± 216.1
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −86.32
Std Dev 144.7
3
2
1
0
−1
−2
−3

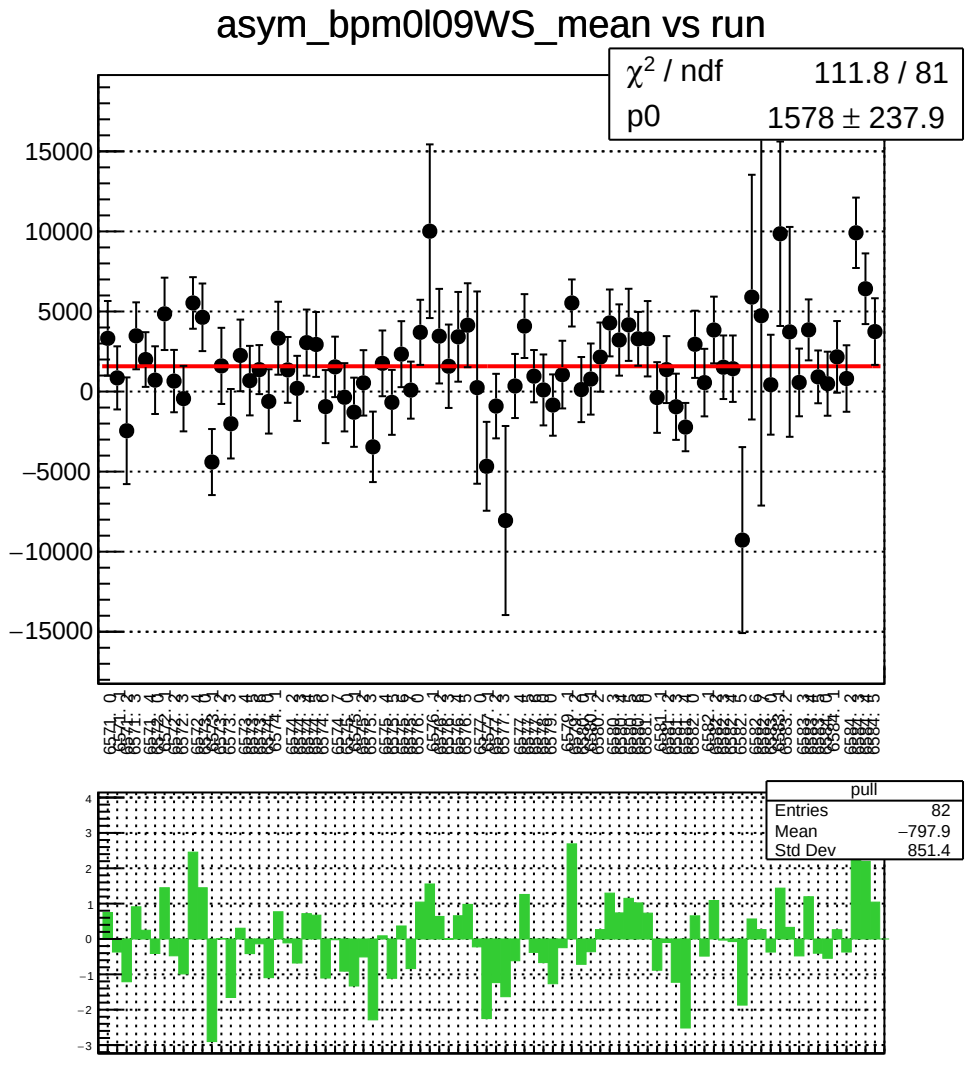

pull1D
Entries 82
Mean −0.02331
Std Dev 1.19
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

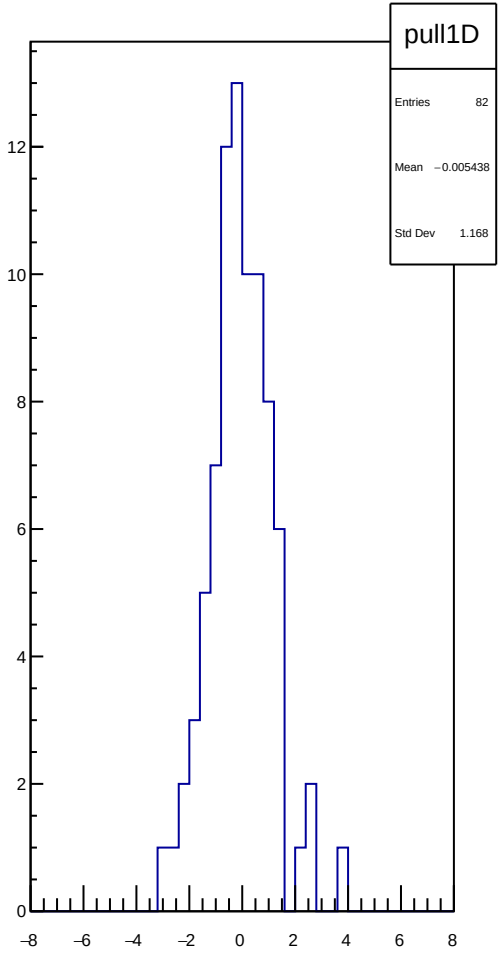

asym_bpm0l07WS_rms vs run
χ² / ndf 8.365e+04 / 81
p0 187.7 ± 0.1528
1200
1000
800
600
400
200

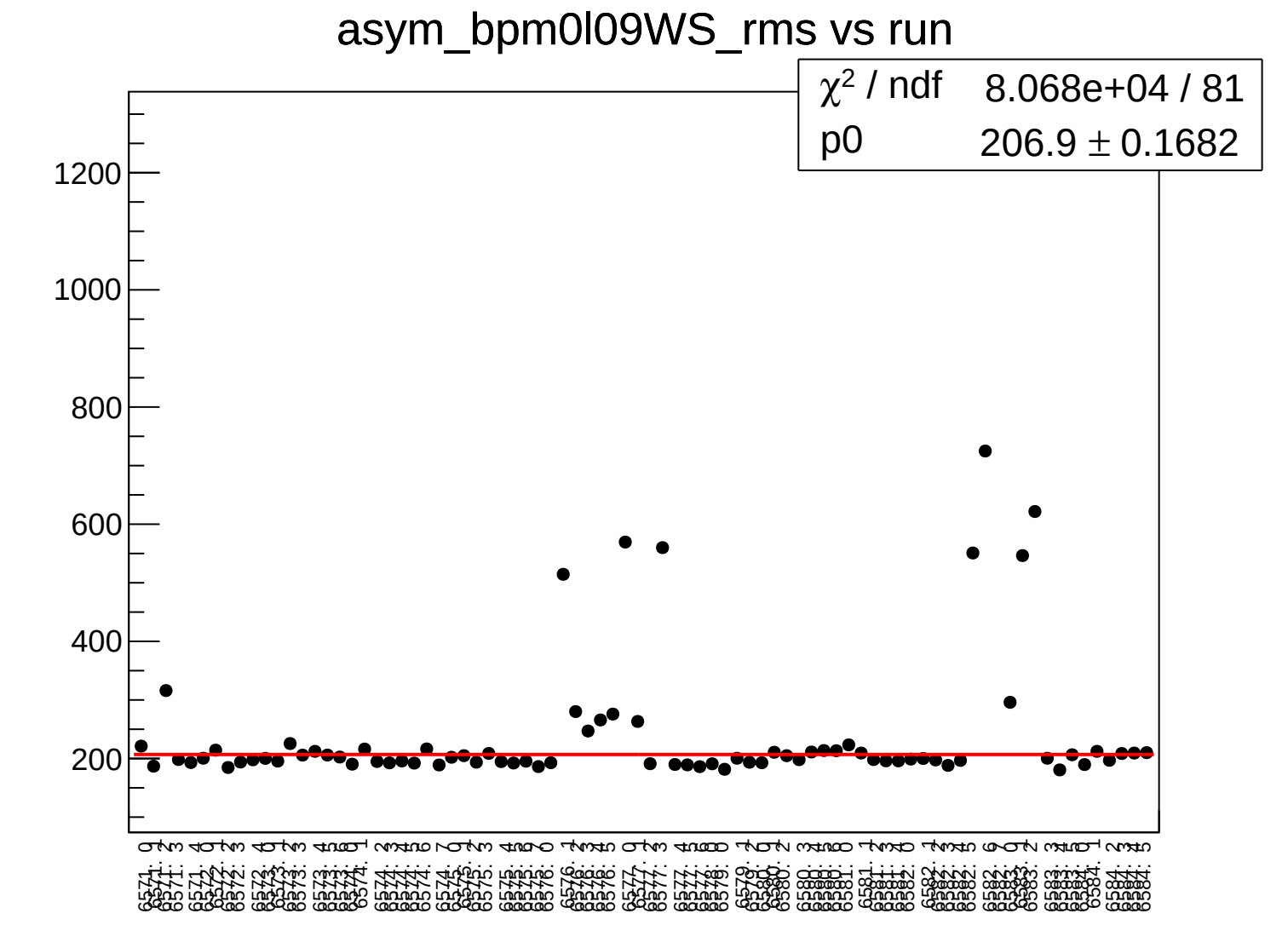

asym_bpm0l08WS_mean vs run
χ² / ndf 115.8 / 81
p0 1844 ± 214.4
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −166
Std Dev 220.3
3
2
1
0
−1
−2
−3

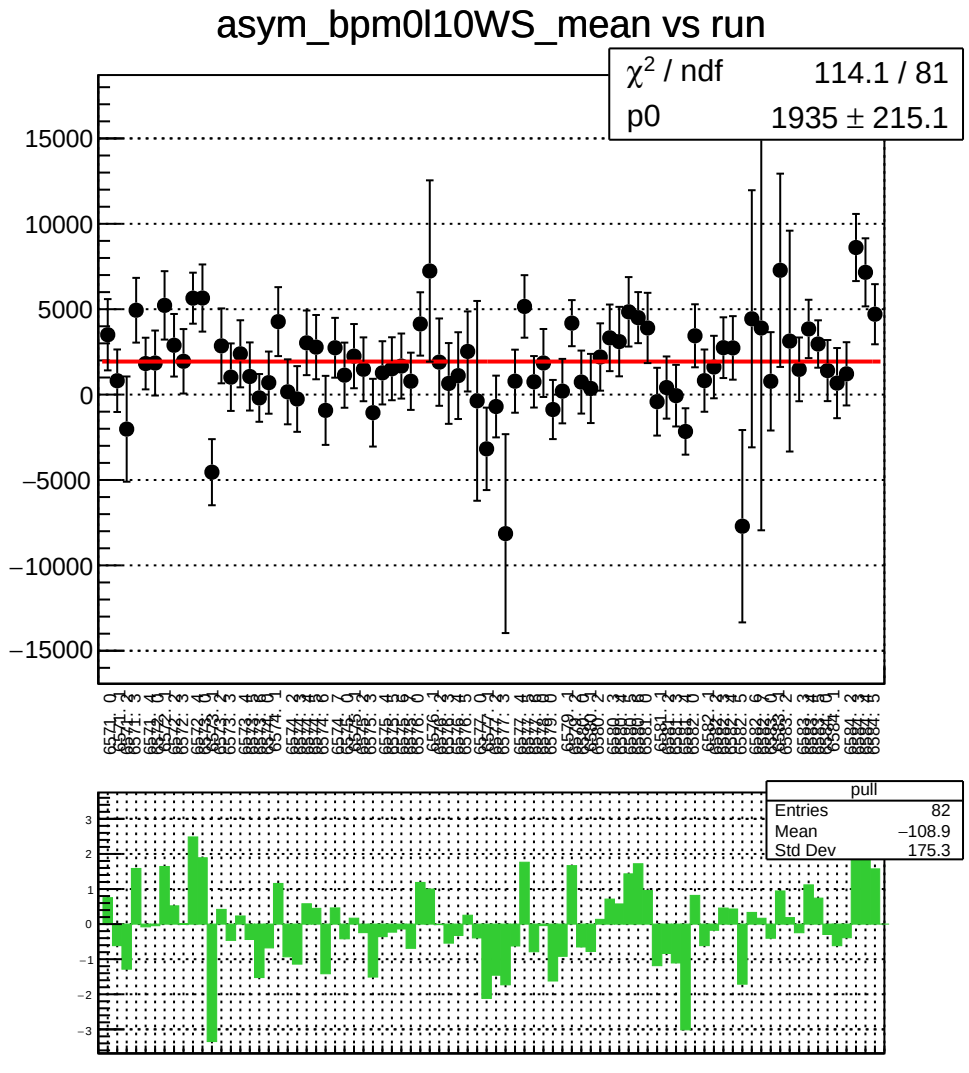

pull1D
Entries 82
Mean −0.02211
Std Dev 1.188
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

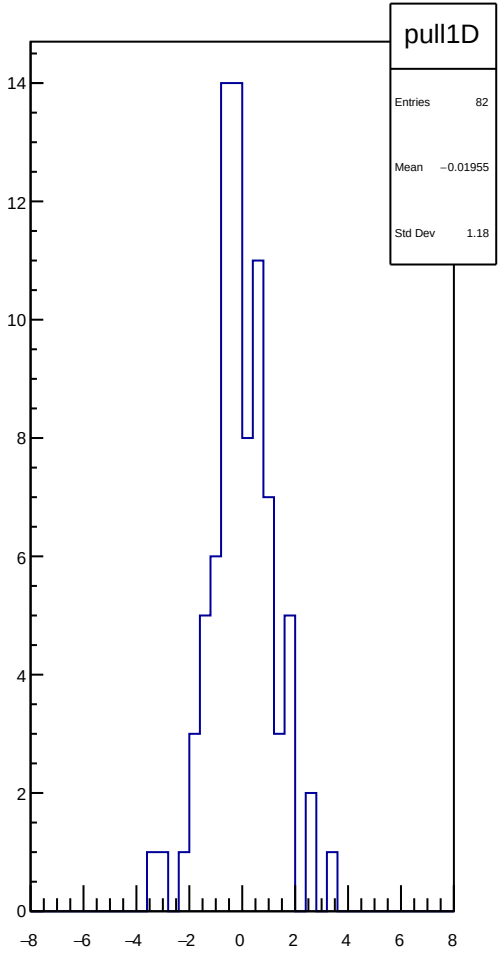

asym_bpm0l08WS_rms vs run
χ² / ndf 8.397e+04 / 81
p0 186.3 ± 0.1516
1200
1000
800
600
400
200

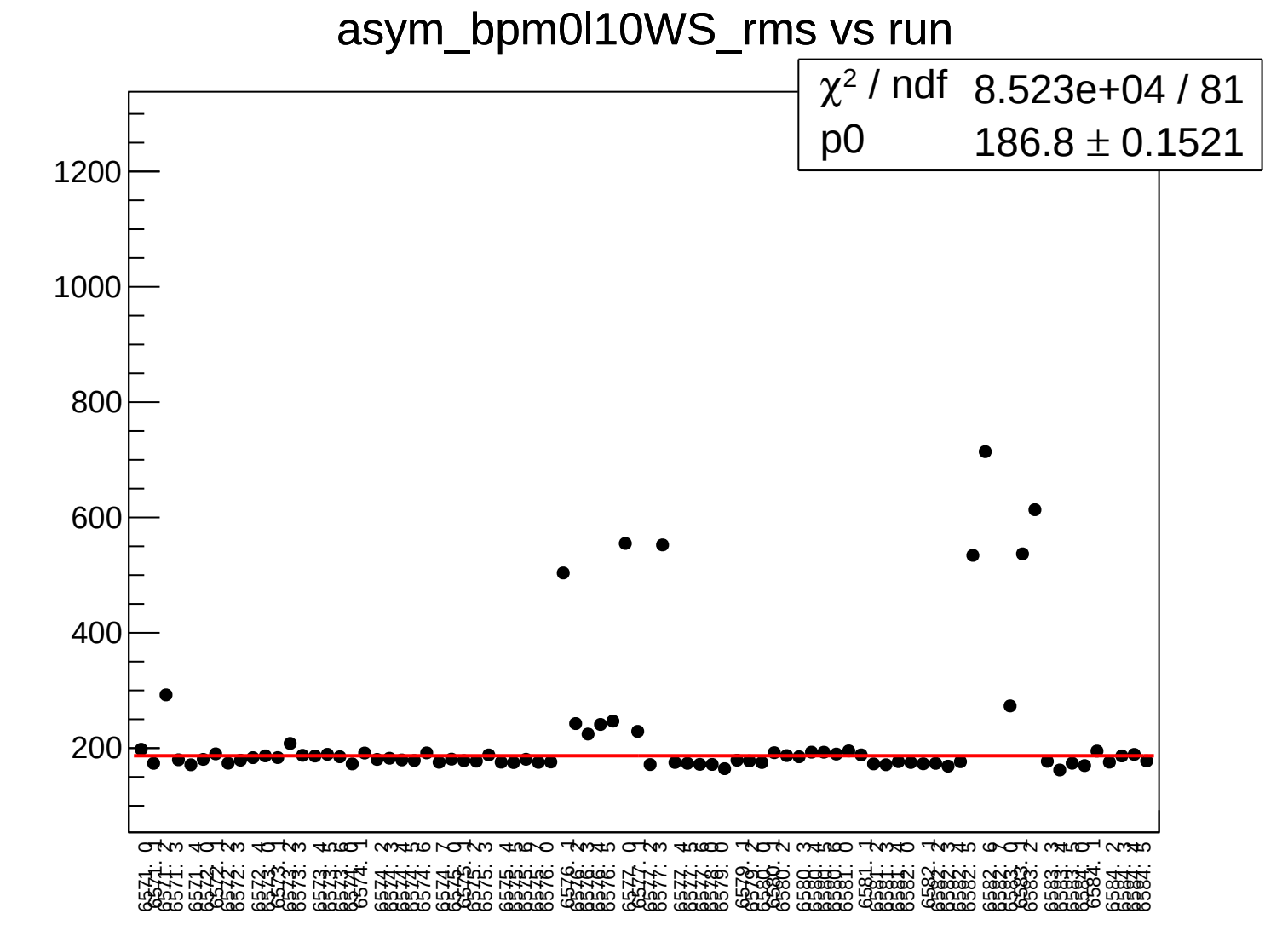

asym_bpm0l09WS_mean vs run
χ² / ndf 111.8 / 81
p0 1578 ± 237.9
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −797.9
Std Dev 851.4
4
3
2
1
0
−1
−2
−3

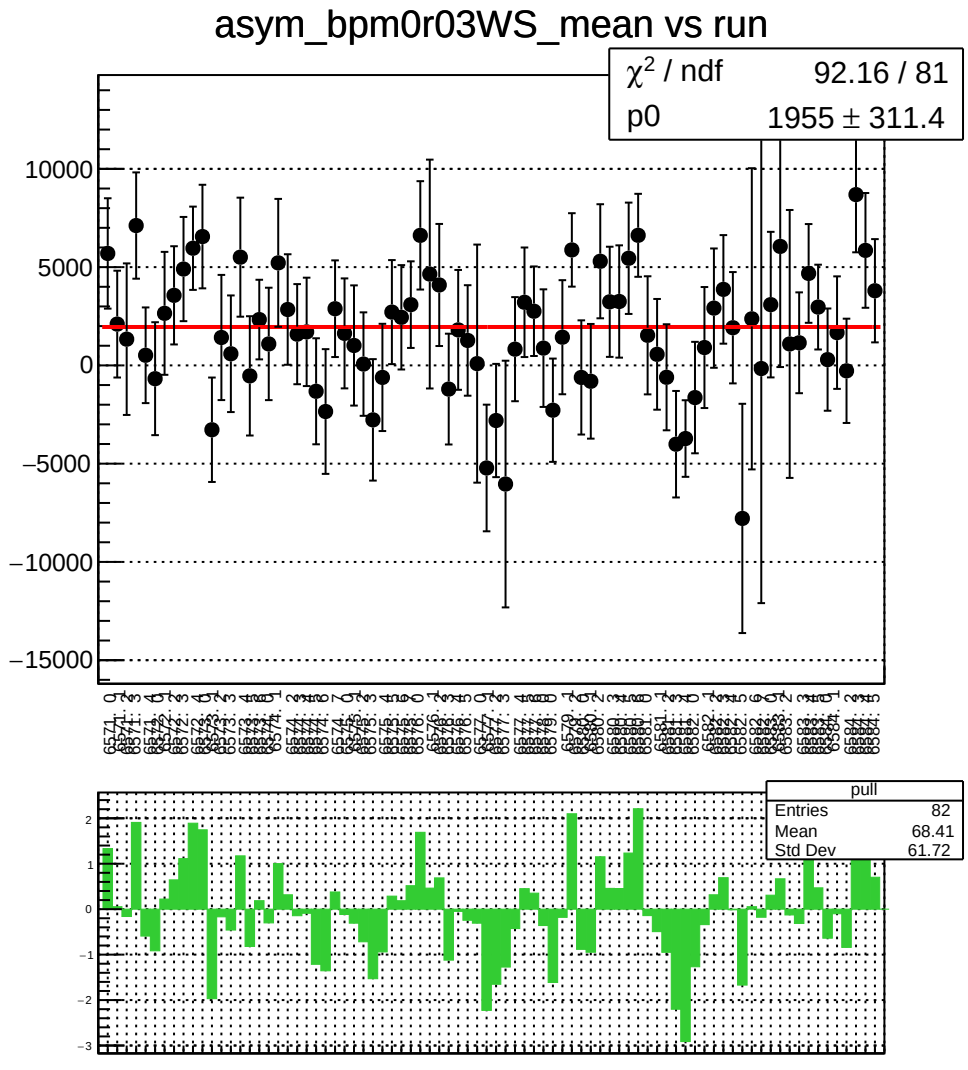

pull1D
Entries 82
Mean −0.005438
Std Dev 1.168
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

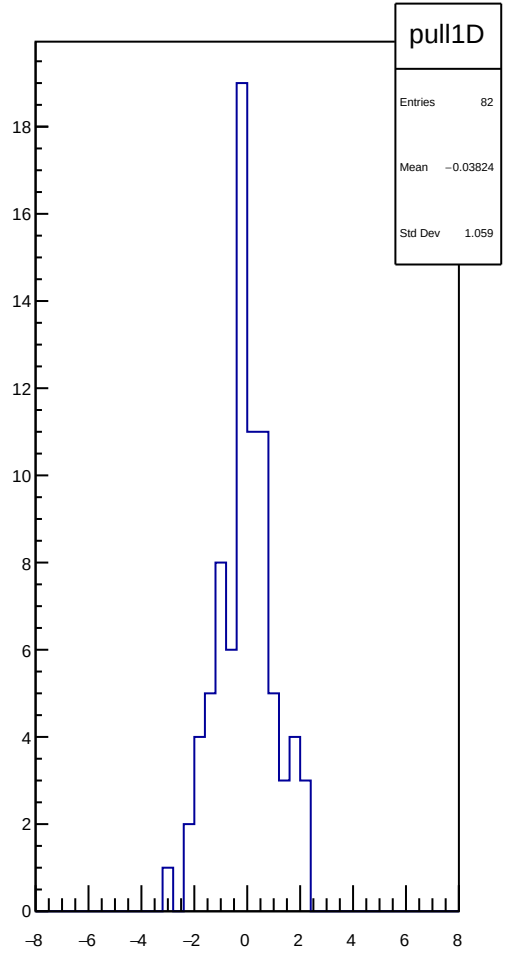

asym_bpm0l09WS_rms vs run
χ² / ndf 8.068e+04 / 81
p0 206.9 ± 0.1682
1200
1000
800
600
400
200

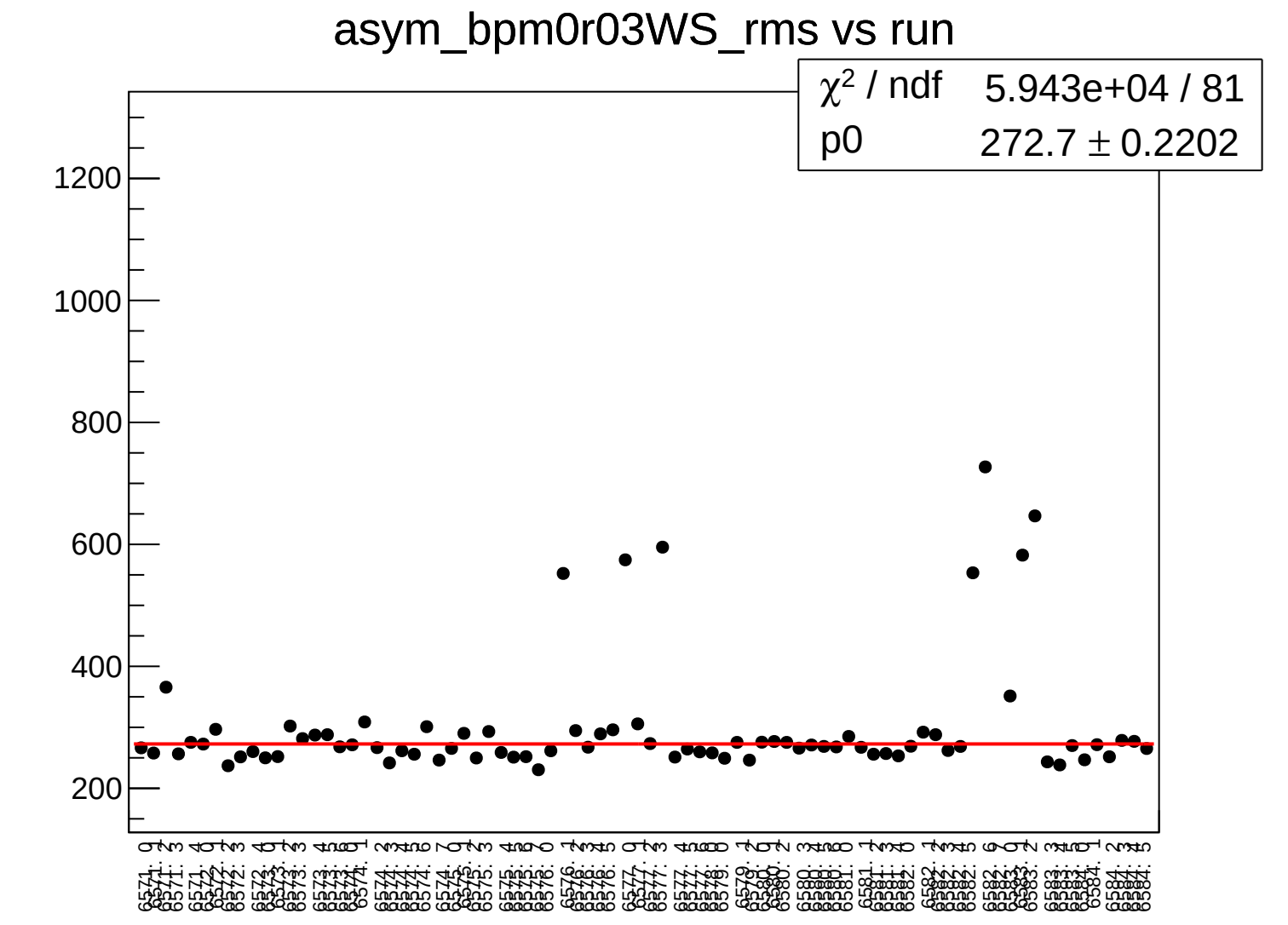

asym_bpm0l10WS_mean vs run
χ² / ndf 114.1 / 81
p0 1935 ± 215.1
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean −108.9
Std Dev 175.3
3
2
1
0
−1
−2
−3

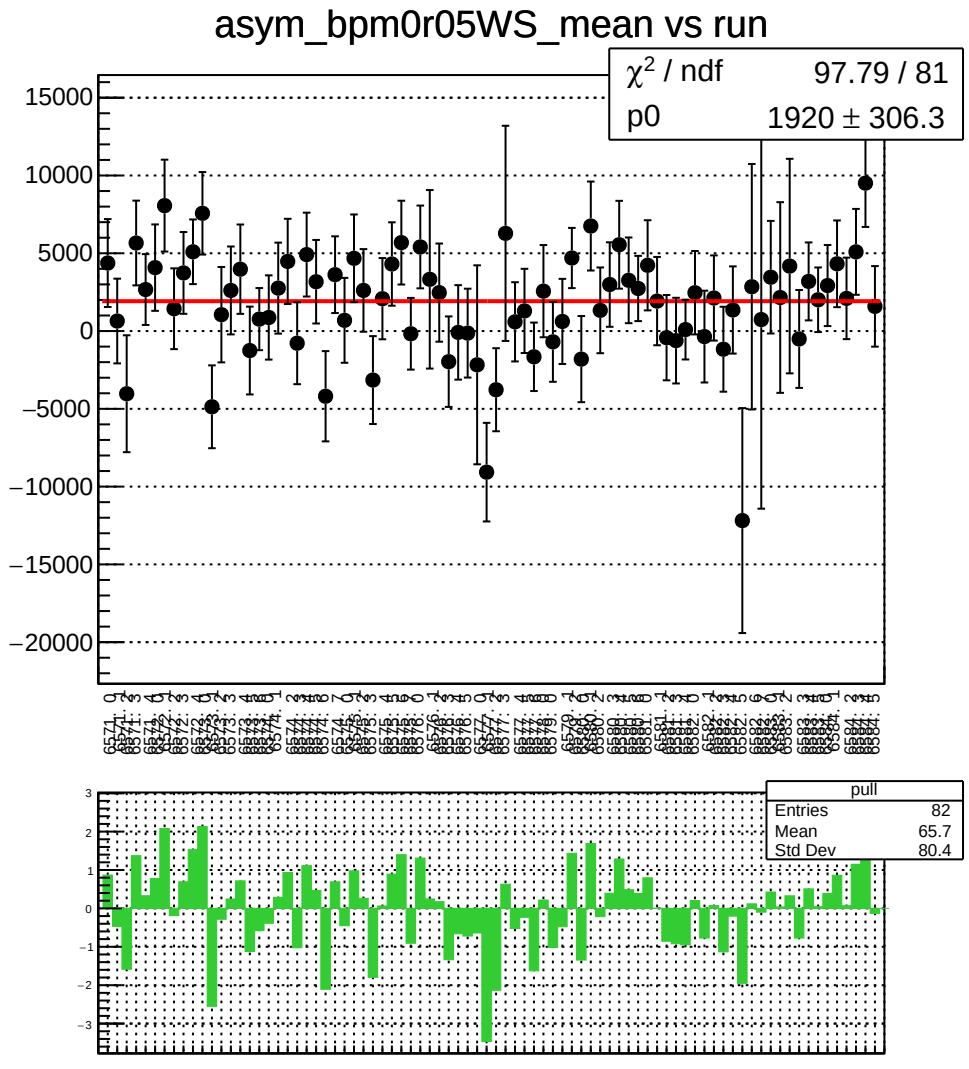

pull1D
Entries 82
Mean −0.01955
Std Dev 1.18
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

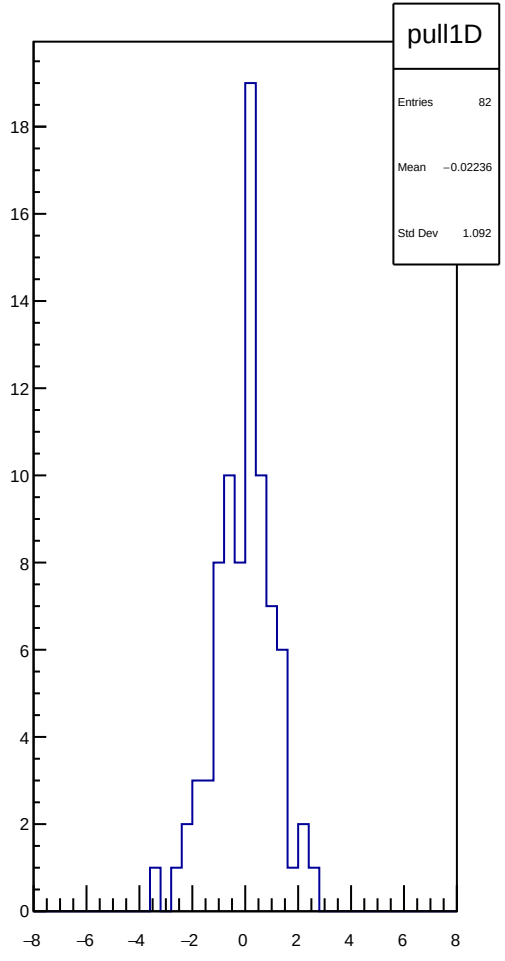

asym_bpm0l10WS_rms vs run
χ² / ndf 8.523e+04 / 81
p0 186.8 ± 0.1521
1200
1000
800
600
400
200

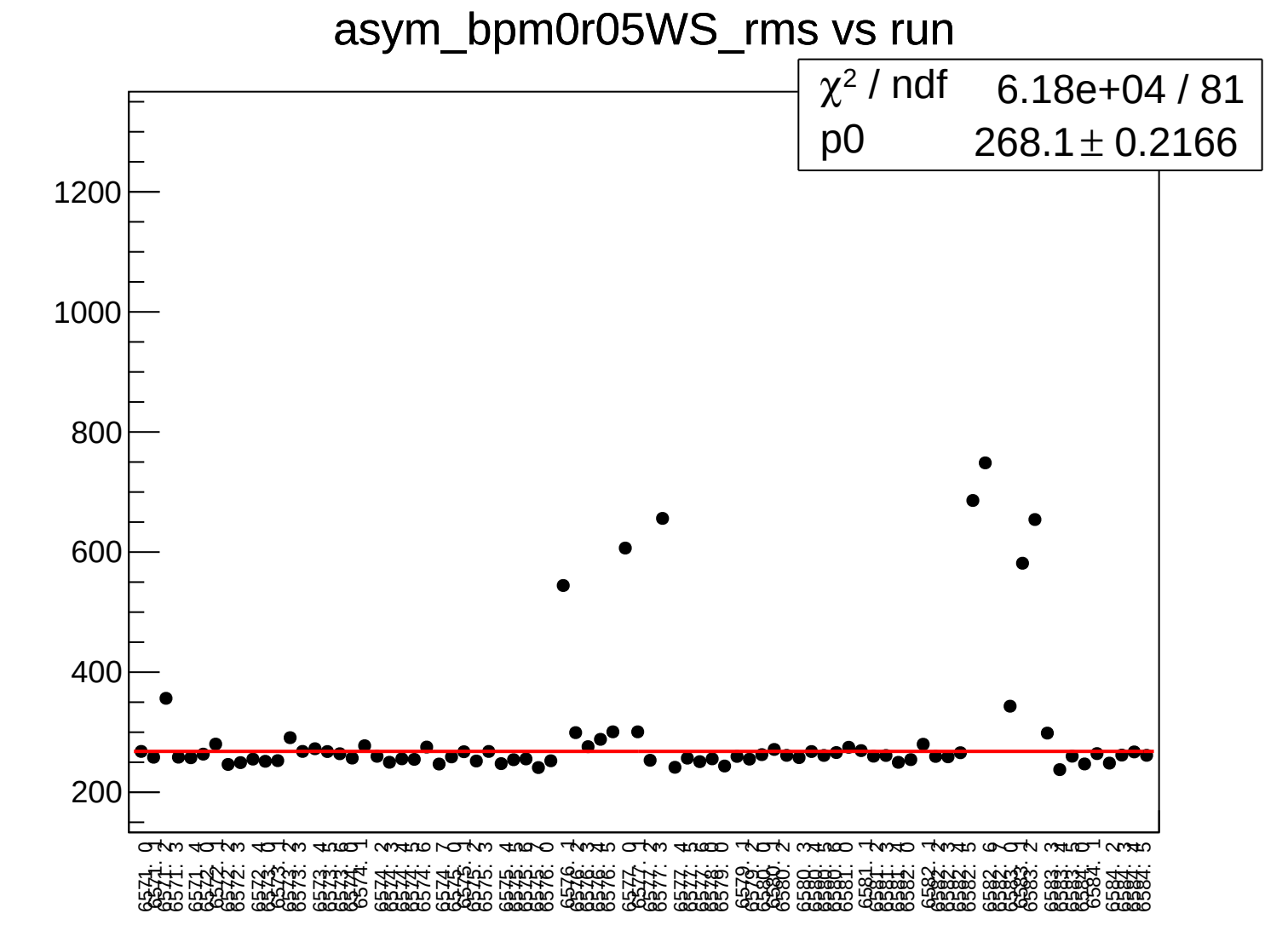

asym_bpm0r03WS_mean vs run
χ² / ndf 92.16 / 81
p0 1955 ± 311.4
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 68.41
Std Dev 61.72
2
1
0
−1
−2
−3

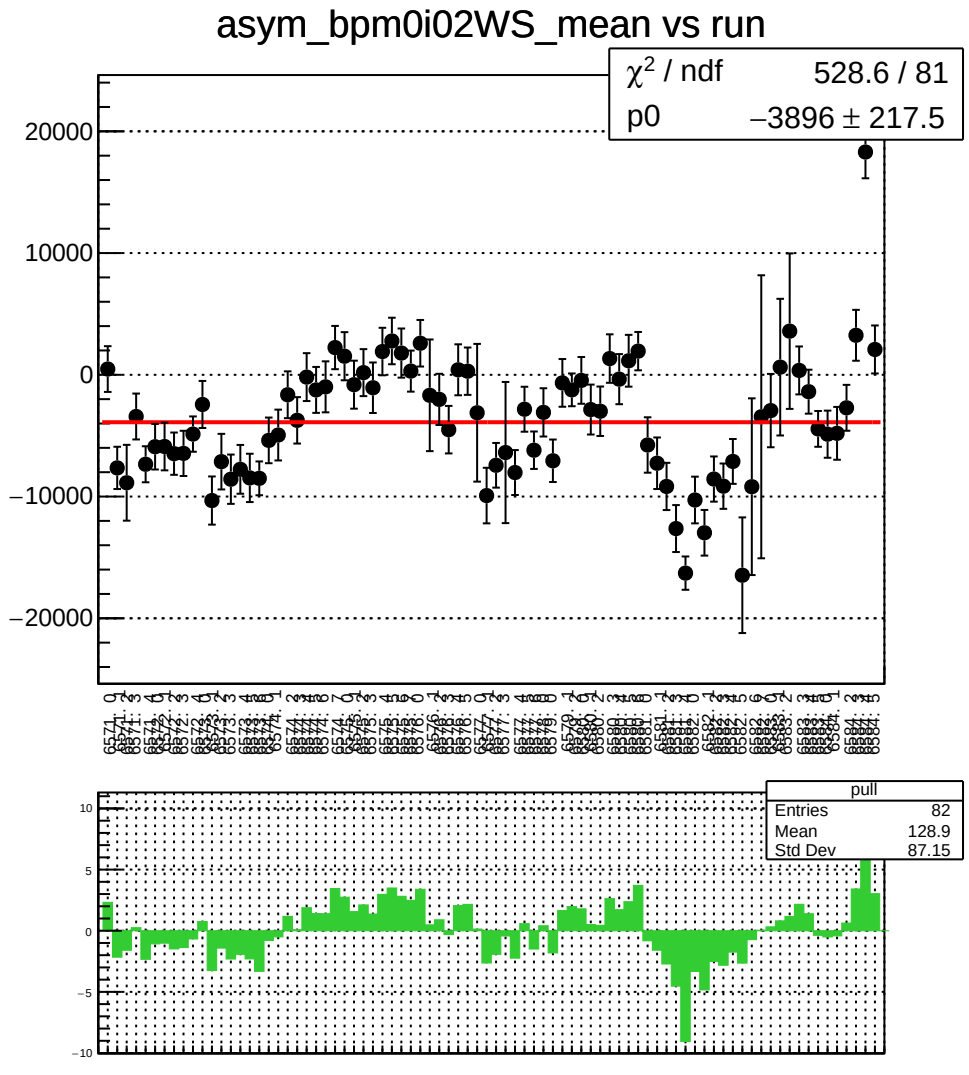

pull1D
Entries 82
Mean −0.03824
Std Dev 1.059
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

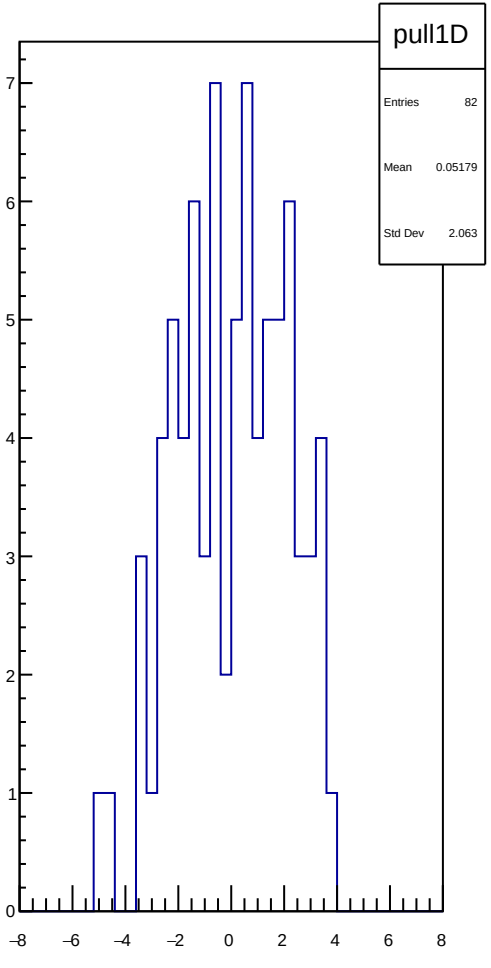

asym_bpm0r03WS_rms vs run
χ² / ndf 5.943e+04 / 81
p0 272.7 ± 0.2202
1200
1000
800
600
400
200

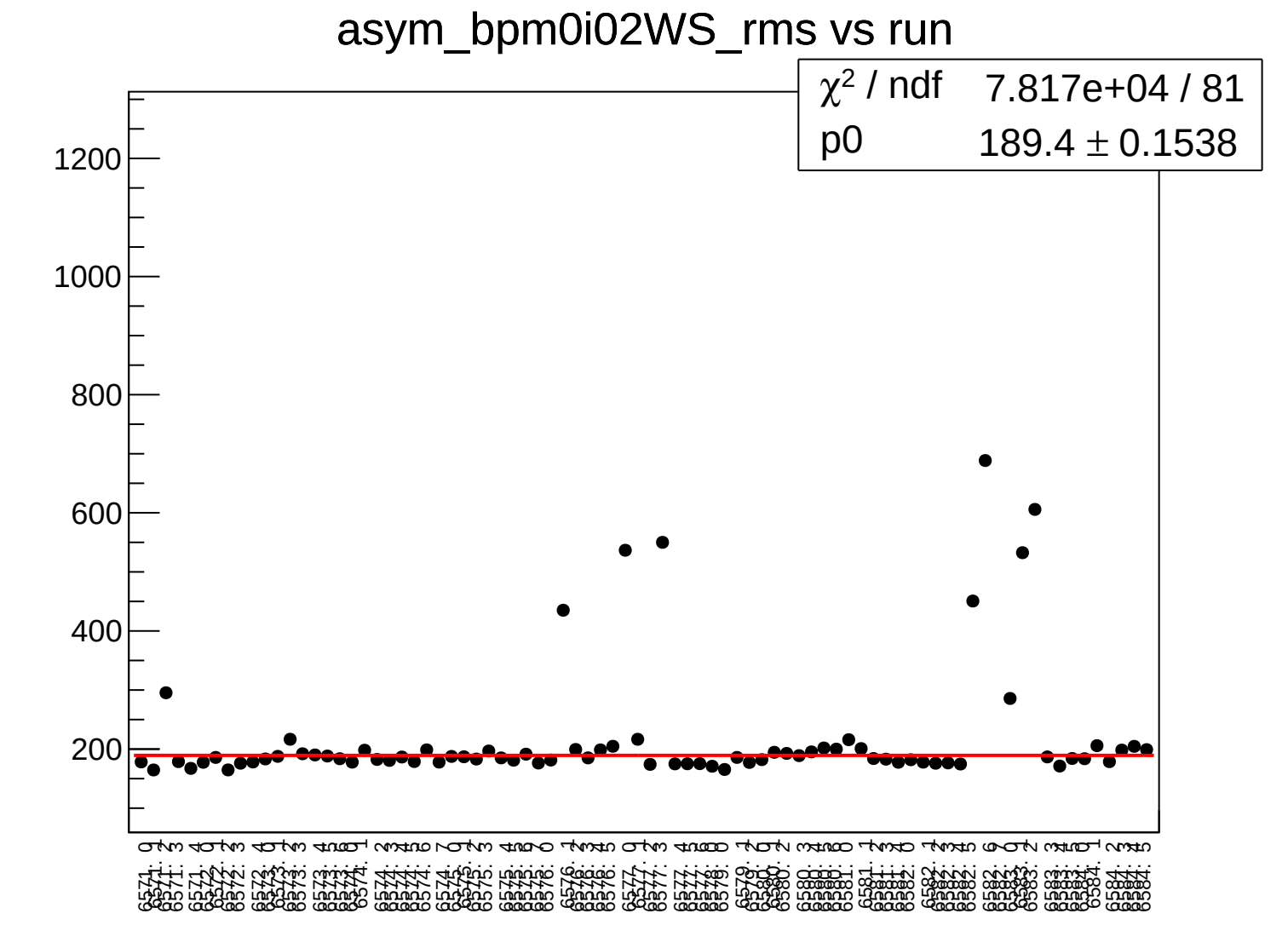

asym_bpm0r05WS_mean vs run
χ² / ndf 97.79 / 81
p0 1920 ± 306.3
15000
10000
5000
0
−5000
−10000
−15000
−20000
pull
Entries 82
Mean 65.7
Std Dev 80.4
3
2
1
0
−1
−2
−3

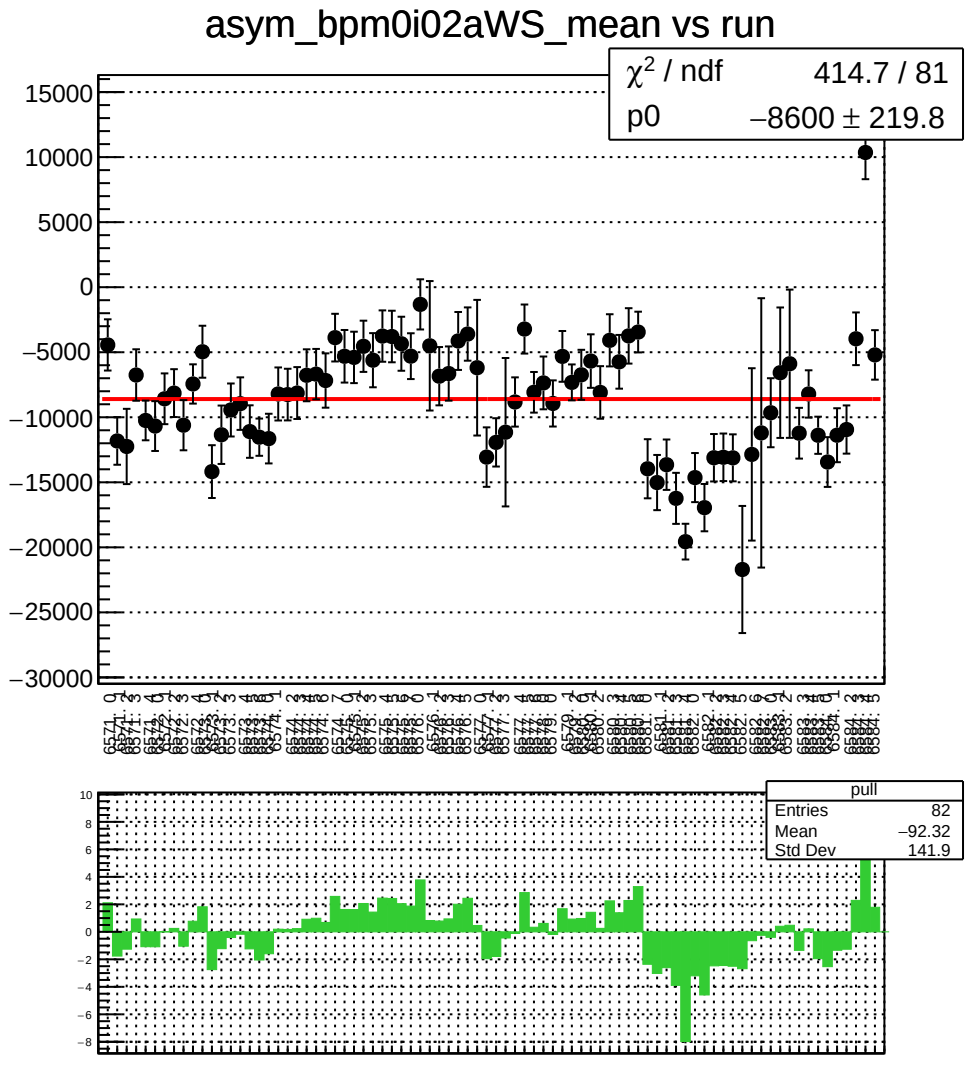

pull1D
Entries 82
Mean −0.02236
Std Dev 1.092
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

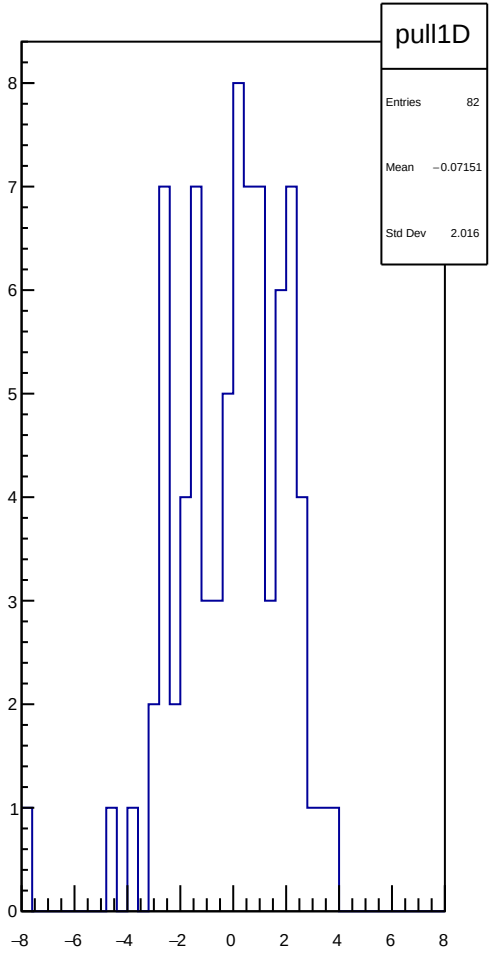

asym_bpm0r05WS_rms vs run
χ² / ndf 6.18e+04 / 81
p0 268.1 ± 0.2166
1200
1000
800
600
400
200

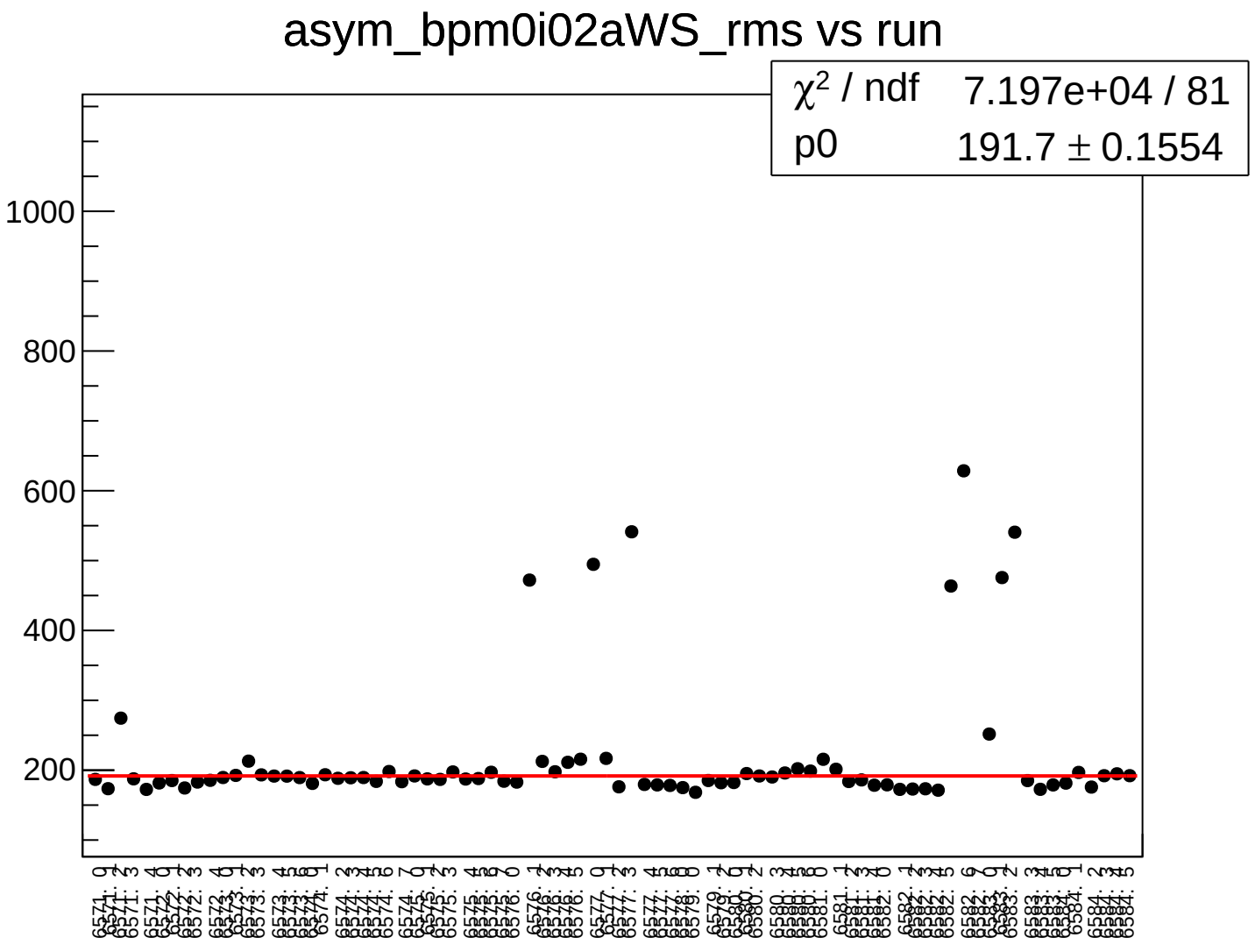

asym_bpm0i02WS_mean vs run
χ² / ndf 528.6 / 81
p0 −3896 ± 217.5
20000
10000
0
−10000
−20000
pull
Entries 82
Mean 128.9
Std Dev 87.15
10
5
0
−5
−10

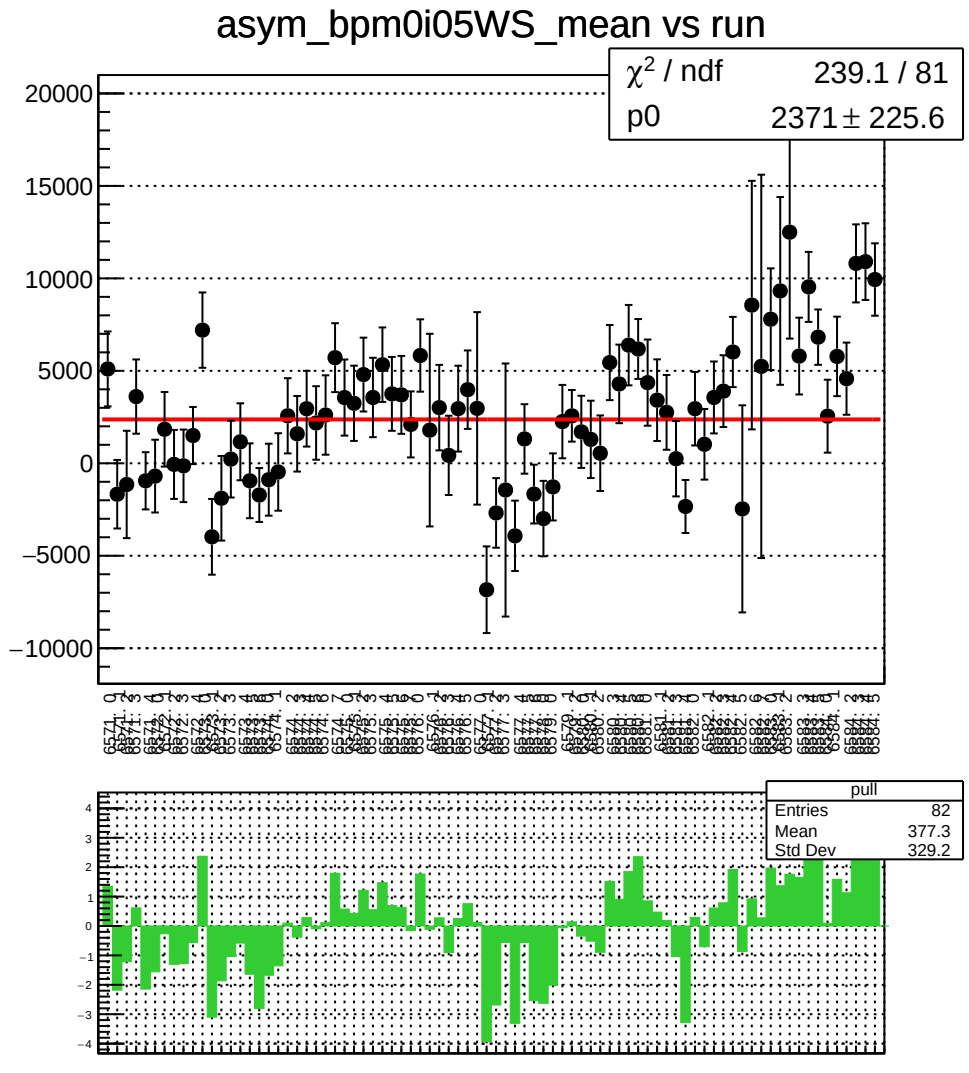

pull1D
Entries 82
Mean 0.05179
Std Dev 2.063
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

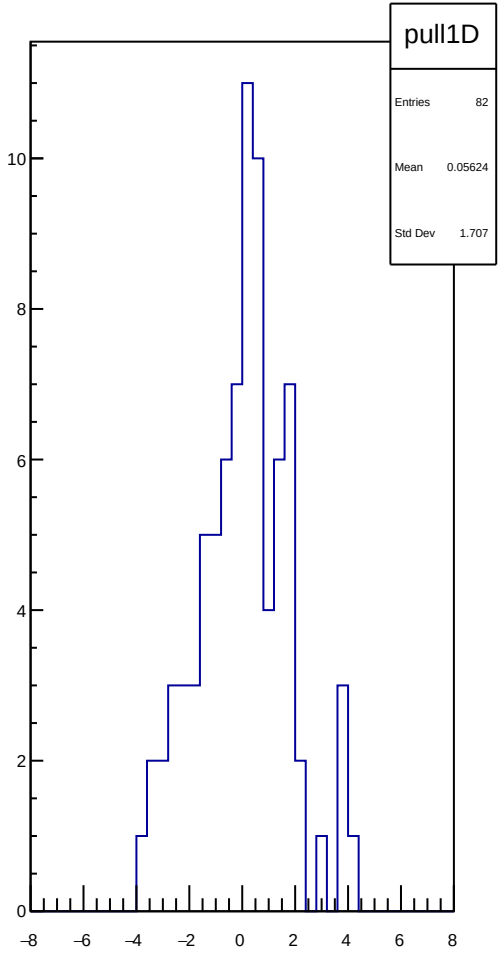

asym_bpm0i02WS_rms vs run
χ² / ndf 7.817e+04 / 81
p0 189.4 ± 0.1538
1200
1000
800
600
400
200

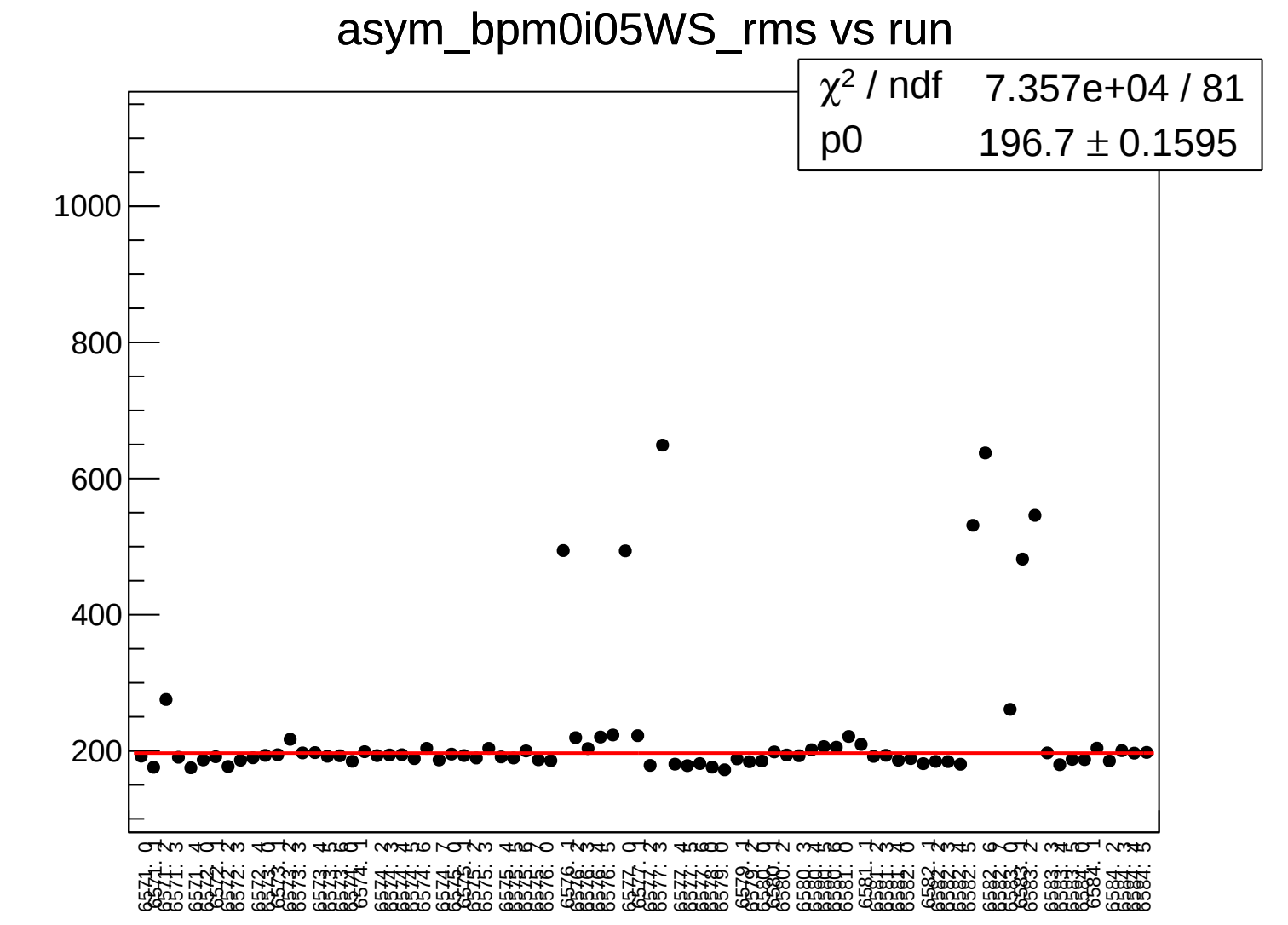

asym_bpm0i02aWS_mean vs run
χ² / ndf 414.7 / 81
p0 −8600 ± 219.8
pull
Entries 82
Mean −92.32
Std Dev 141.9

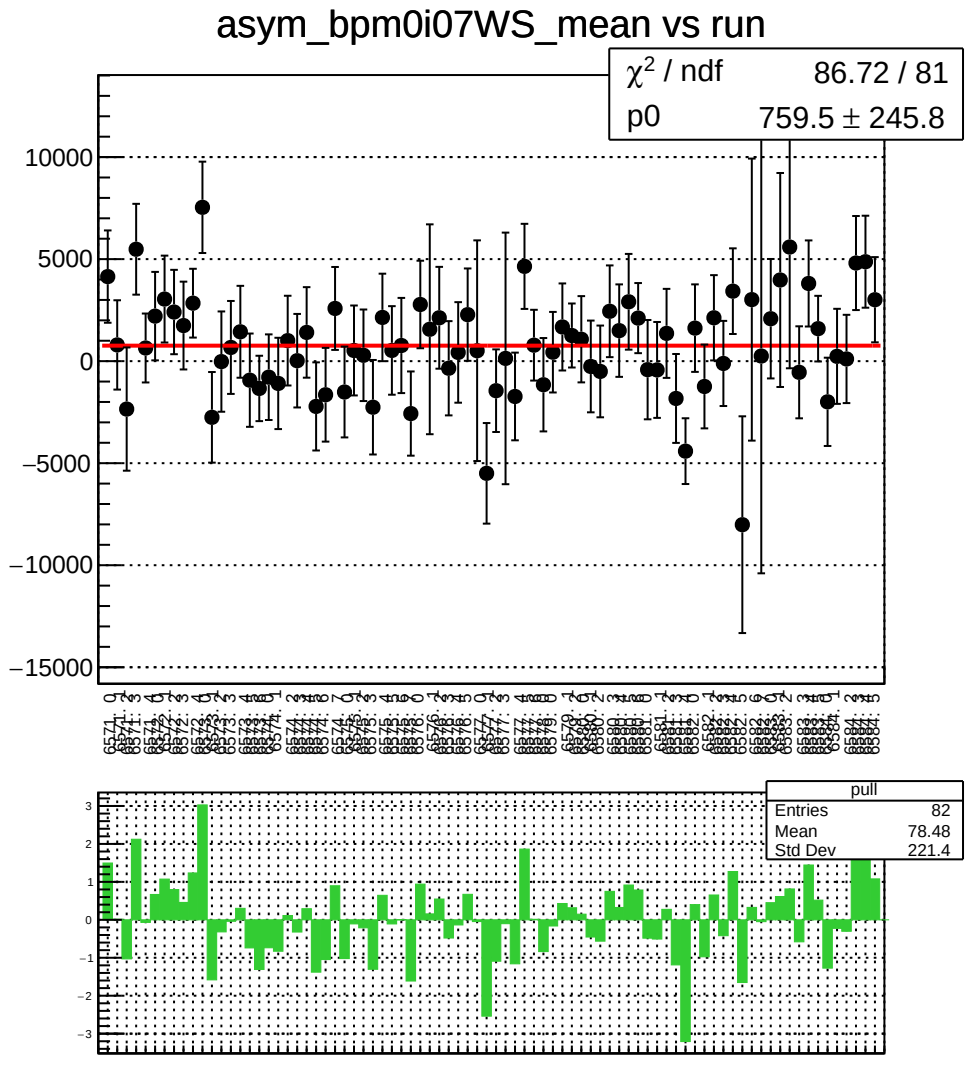

pull1D
Entries 82
Mean −0.07151
Std Dev 2.016

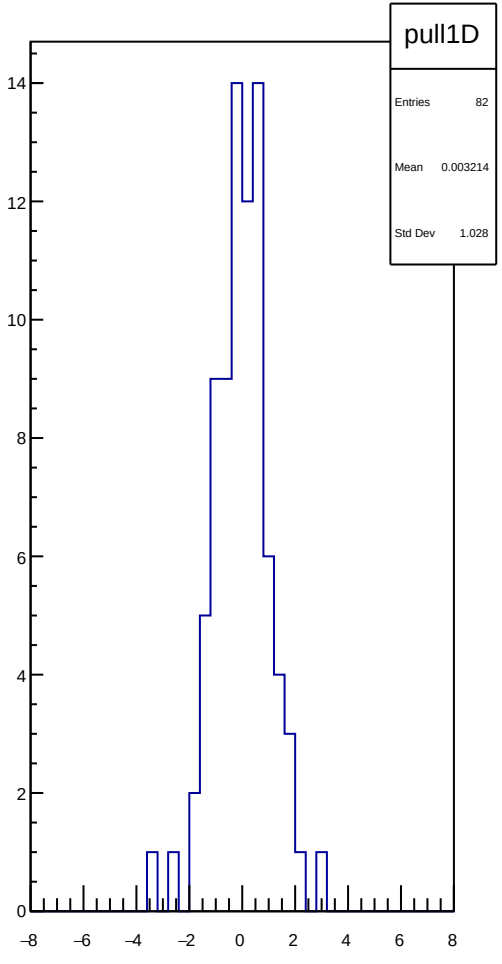

asym_bpm0i02aWS_rms vs run
χ² / ndf 7.197e+04 / 81
p0 191.7 ± 0.1554
1000
800
600
400
200

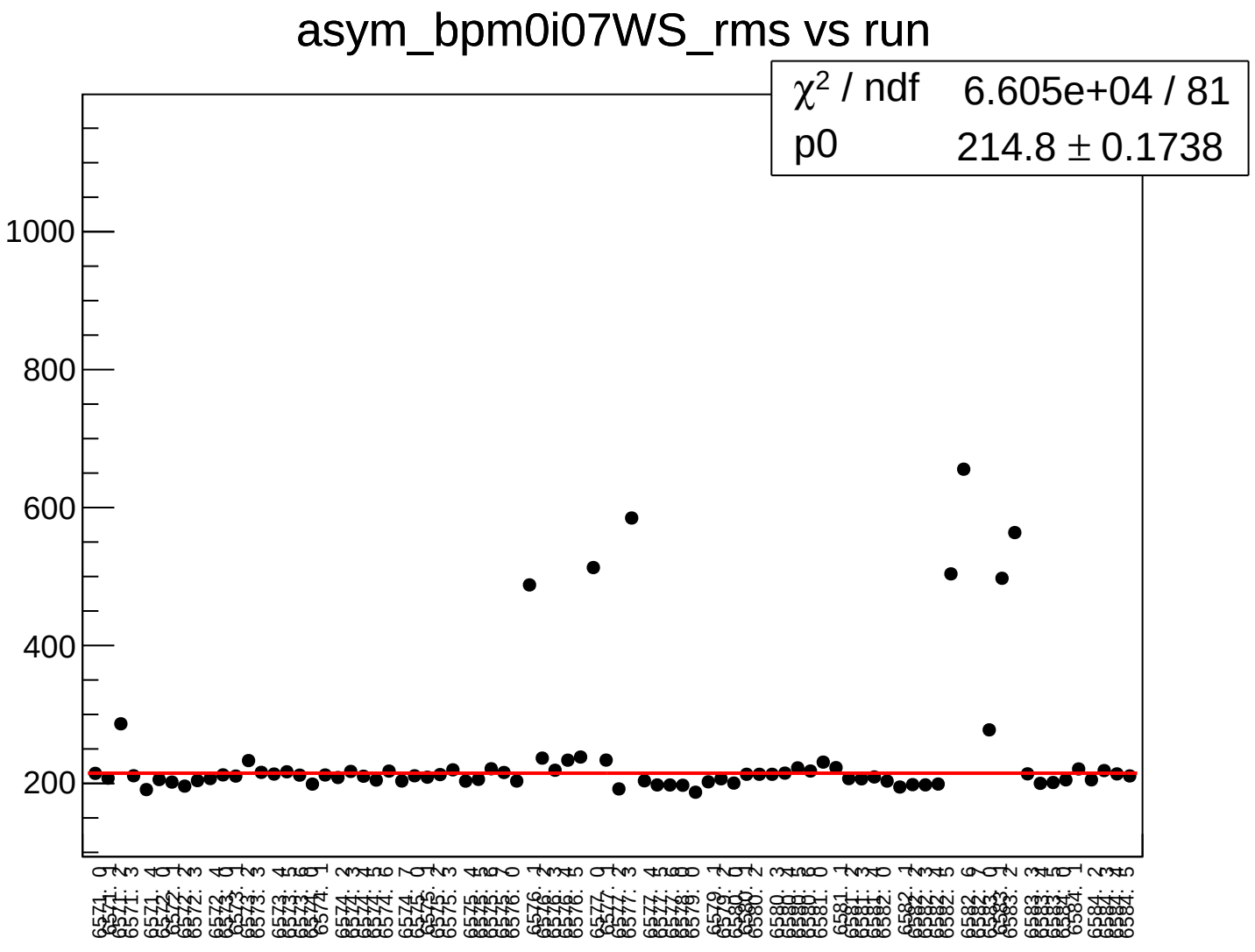

asym_bpm0i05WS_mean vs run
χ² / ndf 239.1 / 81
p0 2371 ± 225.6
pull
Entries 82
Mean 377.3
Std Dev 329.2

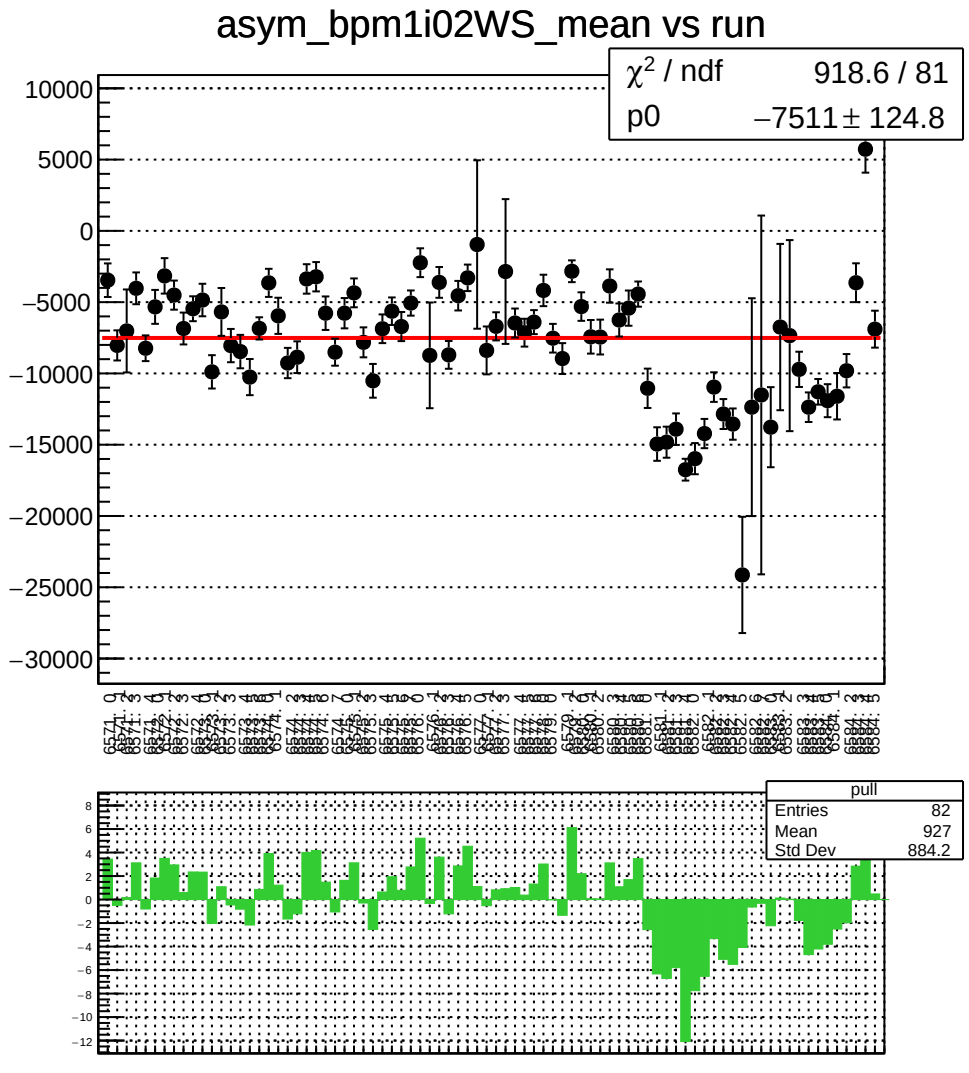

pull1D
Entries 82
Mean 0.05624
Std Dev 1.707

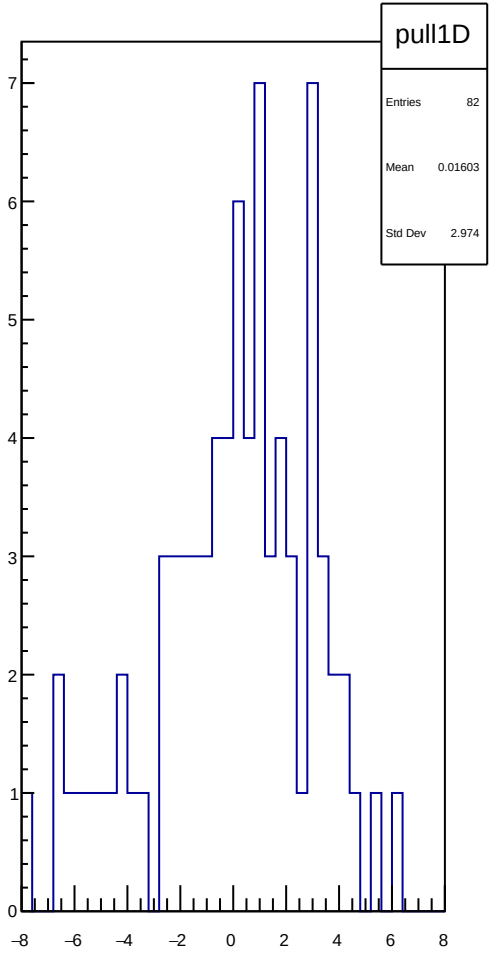

asym_bpm0i05WS_rms vs run
χ² / ndf 7.357e+04 / 81
p0 196.7 ± 0.1595
1000
800
600
400
200


asym_bpm0i07WS_mean vs run
χ^2 / ndf 86.72 / 81
p0 759.5 ± 245.8
10000
5000
0
−5000
−10000
−15000
pull
Entries 82
Mean 78.48
Std Dev 221.4
3
2
1
0
−1
−2
−3

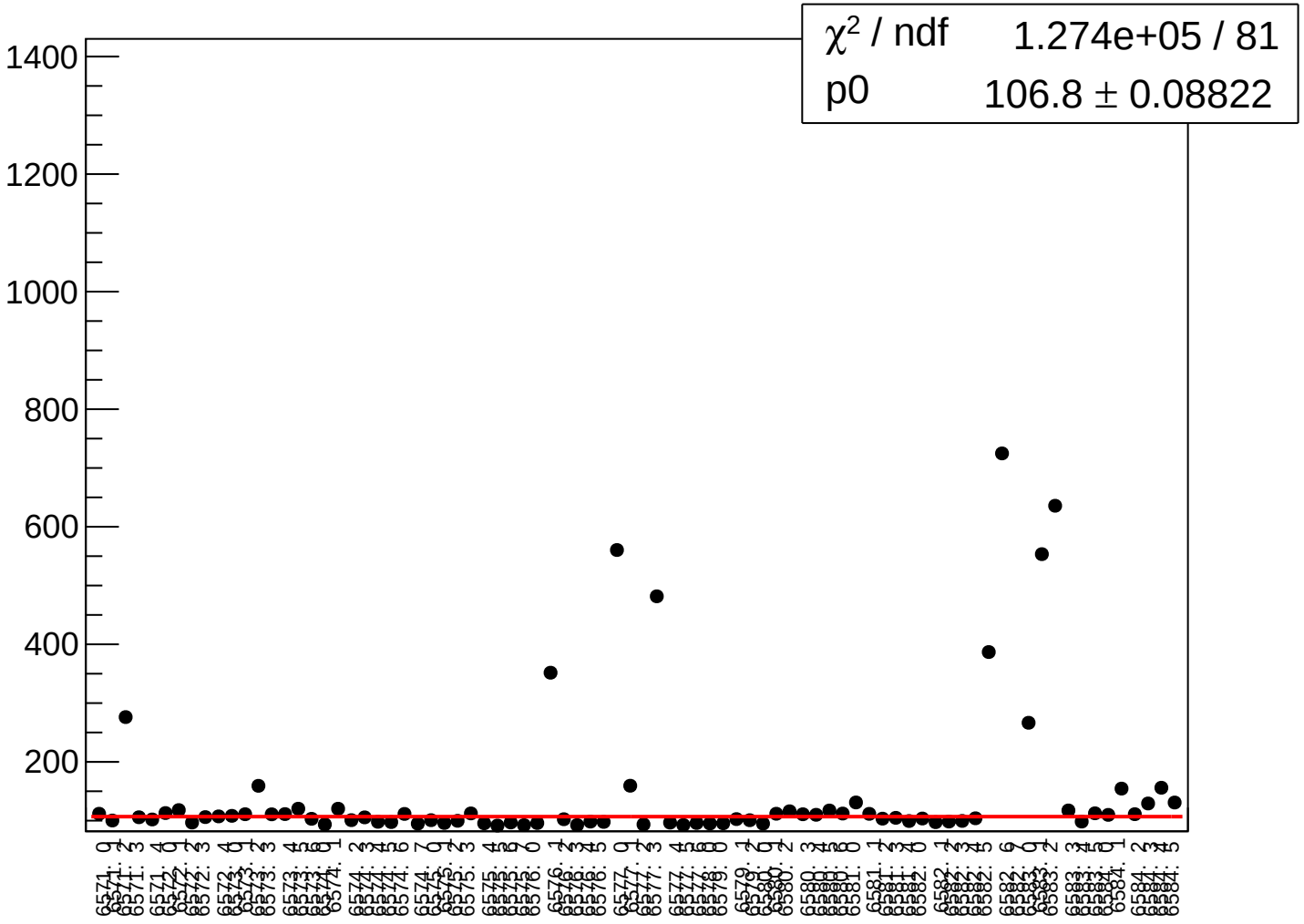

pull1D
Entries 82
Mean 0.003214
Std Dev 1.028
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

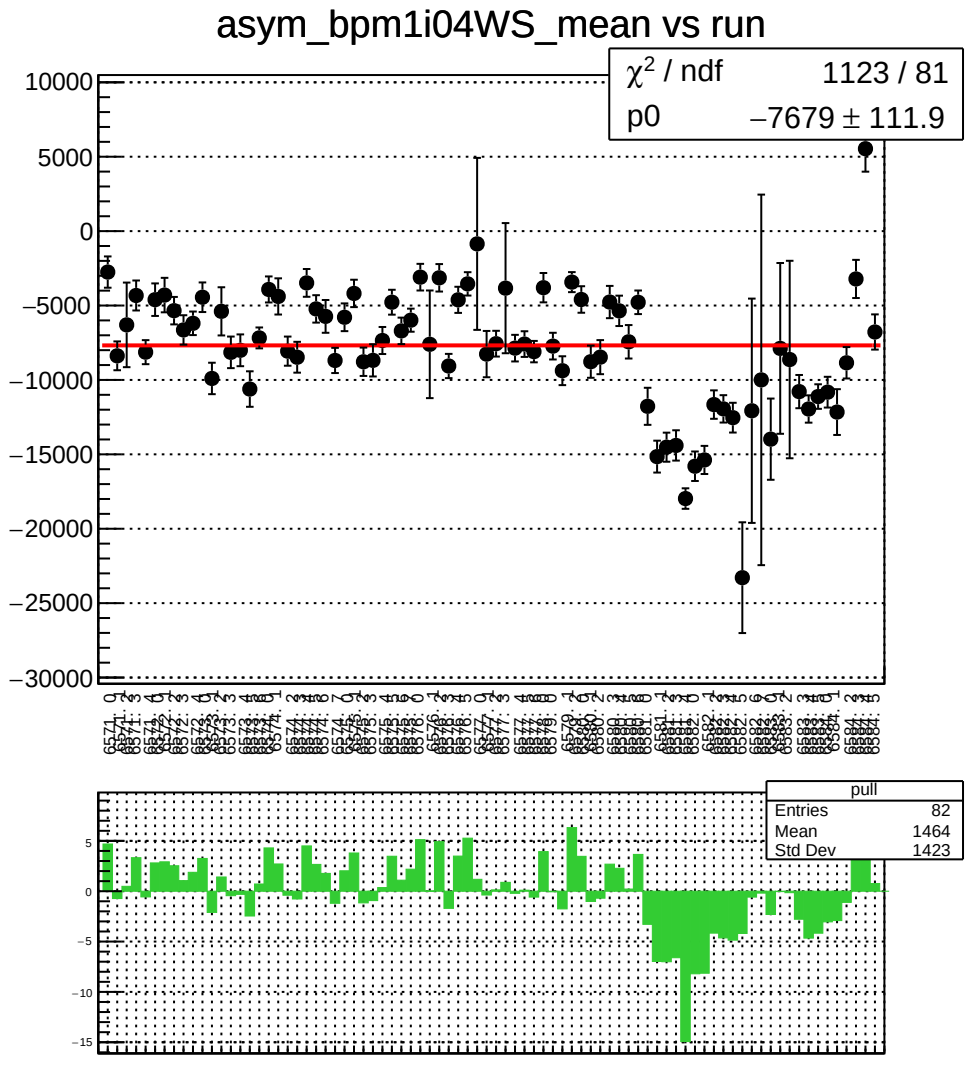

asym_bpm0i07WS_rms vs run
χ² / ndf 6.605e+04 / 81
p0 214.8 ± 0.1738
1000
800
600
400
200

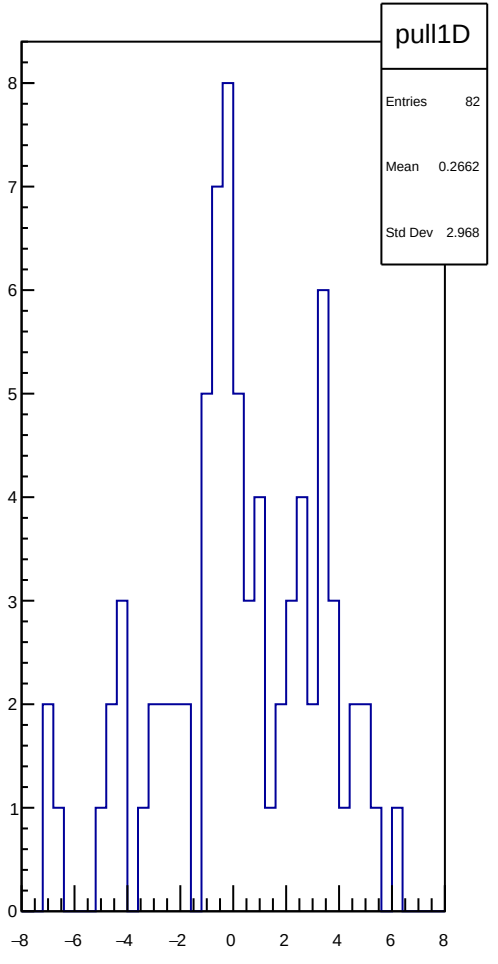

asym_bpm1i02WS_mean vs run
χ² / ndf 918.6 / 81
p0 −7511 ± 124.8
pull
Entries 82
Mean 927
Std Dev 884.2


pull1D
Entries 82
Mean 0.01603
Std Dev 2.974

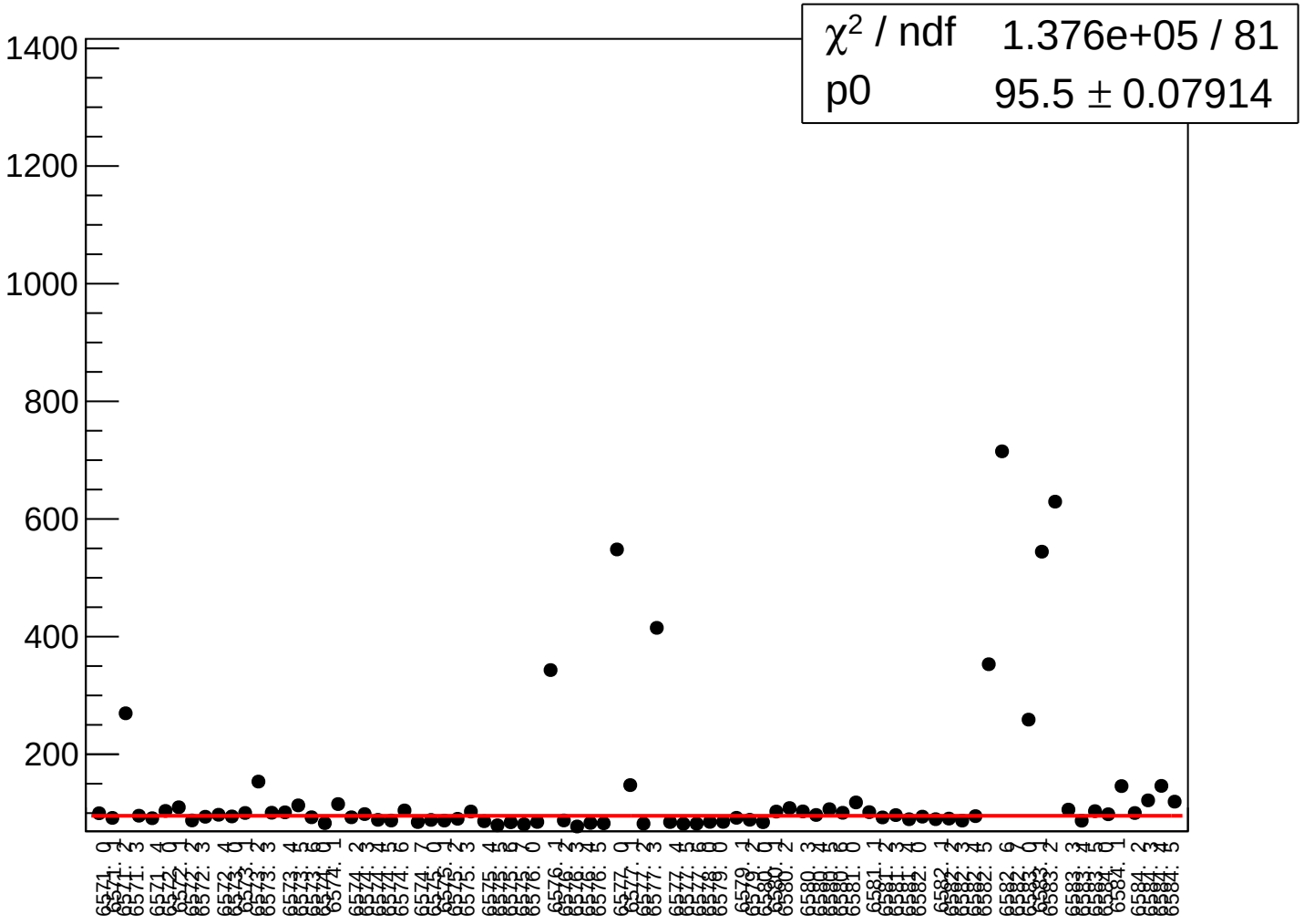
asym_bpm1i02WS_rms vs run

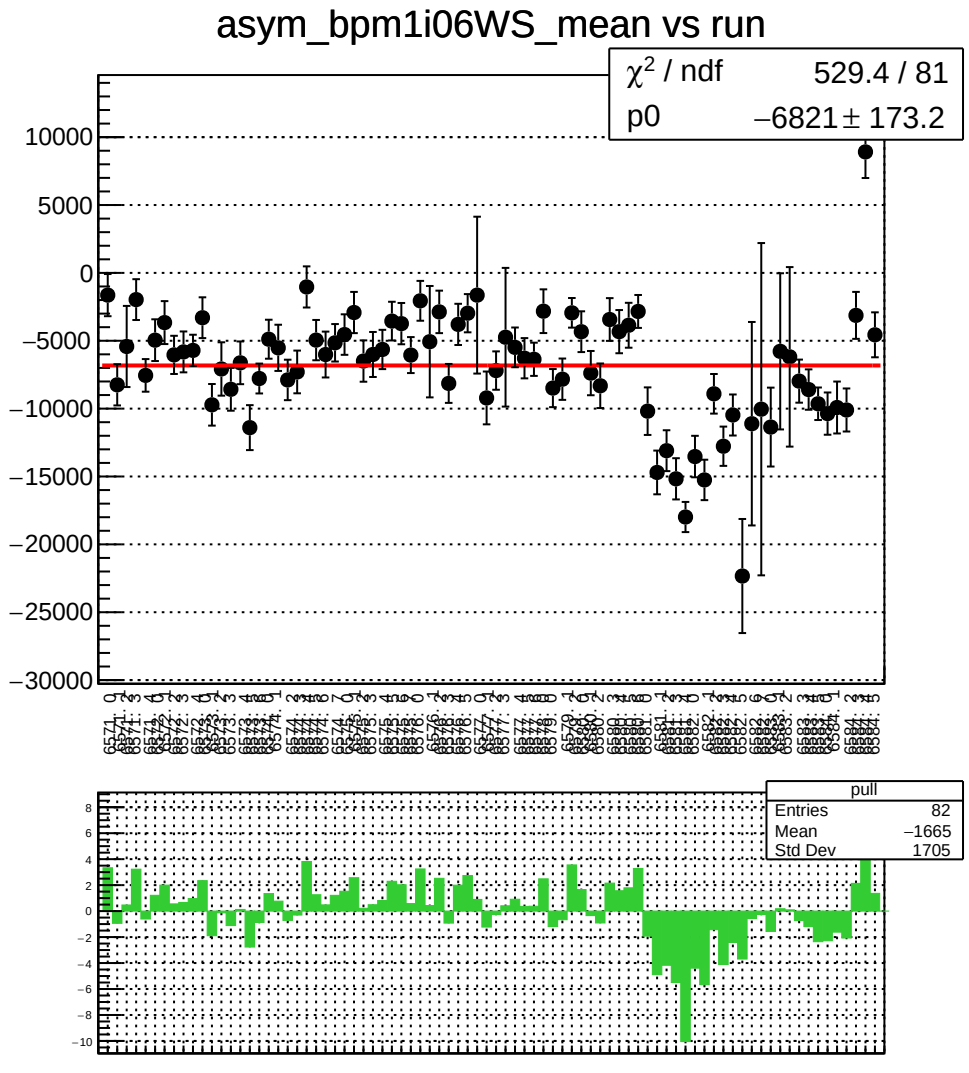


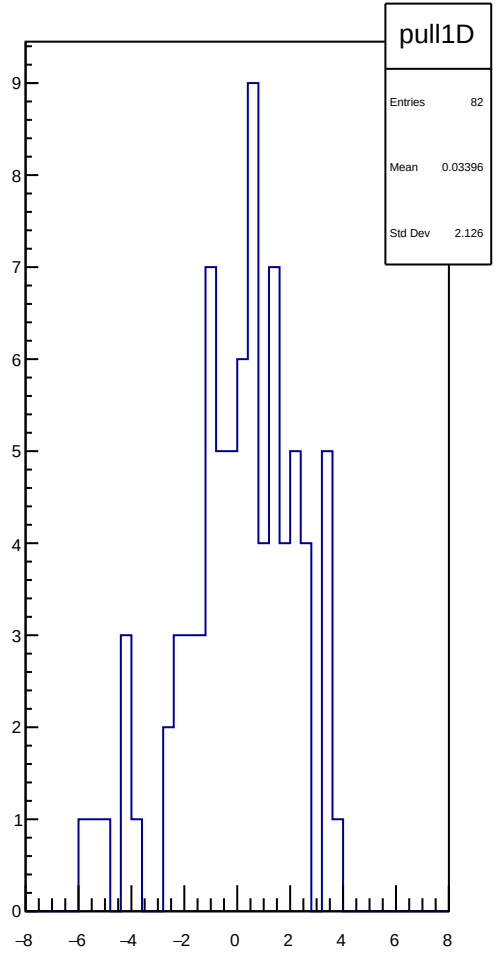

asym_bpm1i04WS_mean vs run
χ² / ndf 1123 / 81
p0 −7679 ± 111.9
pull
Entries 82
Mean 1464
Std Dev 1423

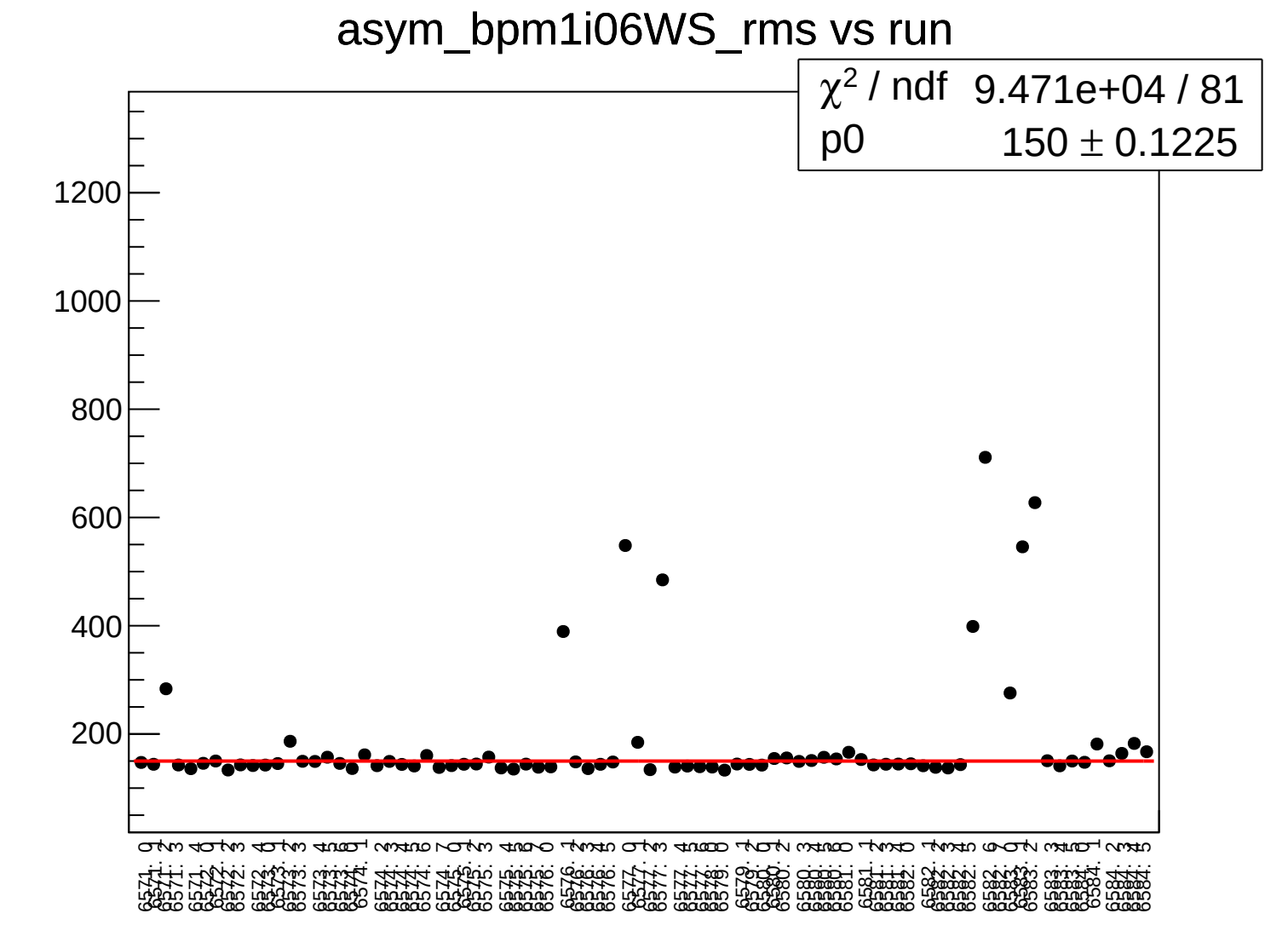

pull1D
Entries 82
Mean 0.2662
Std Dev 2.968

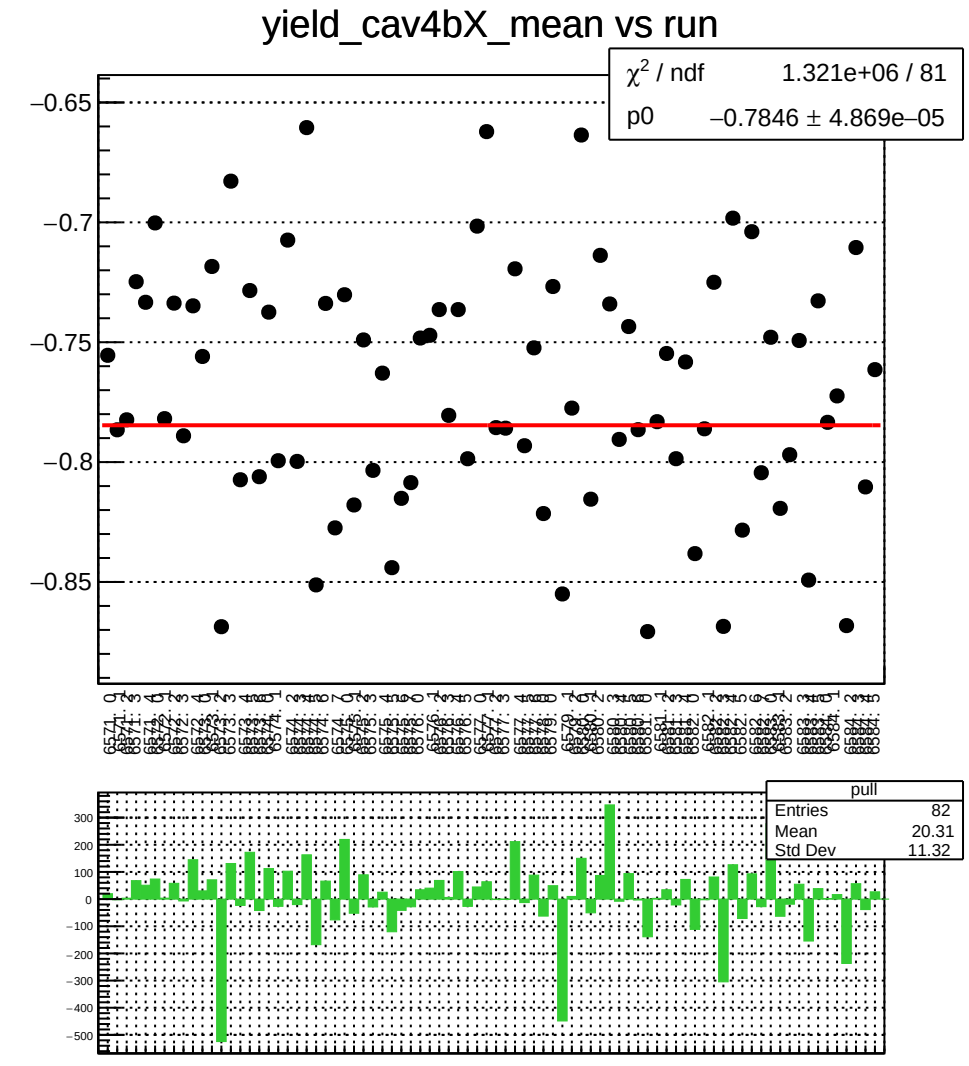
asym_bpm1i04WS_rms vs run

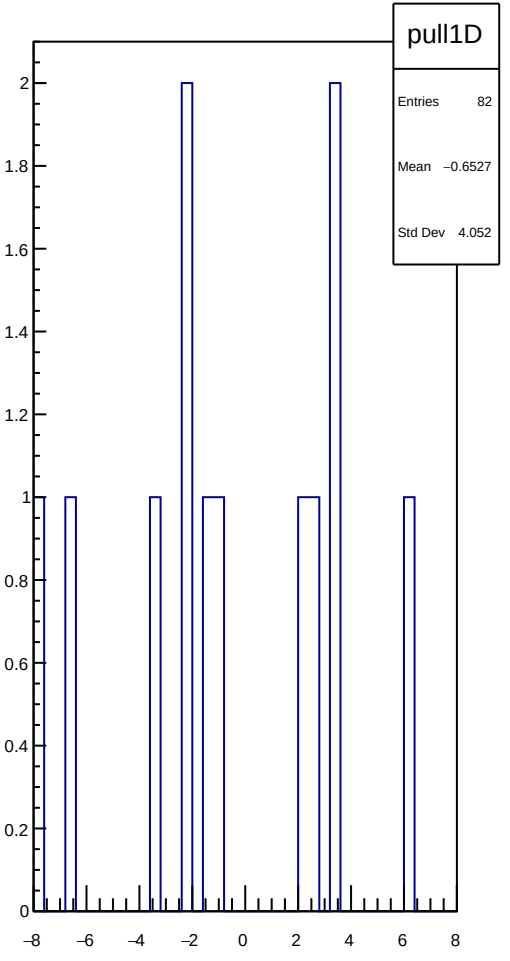


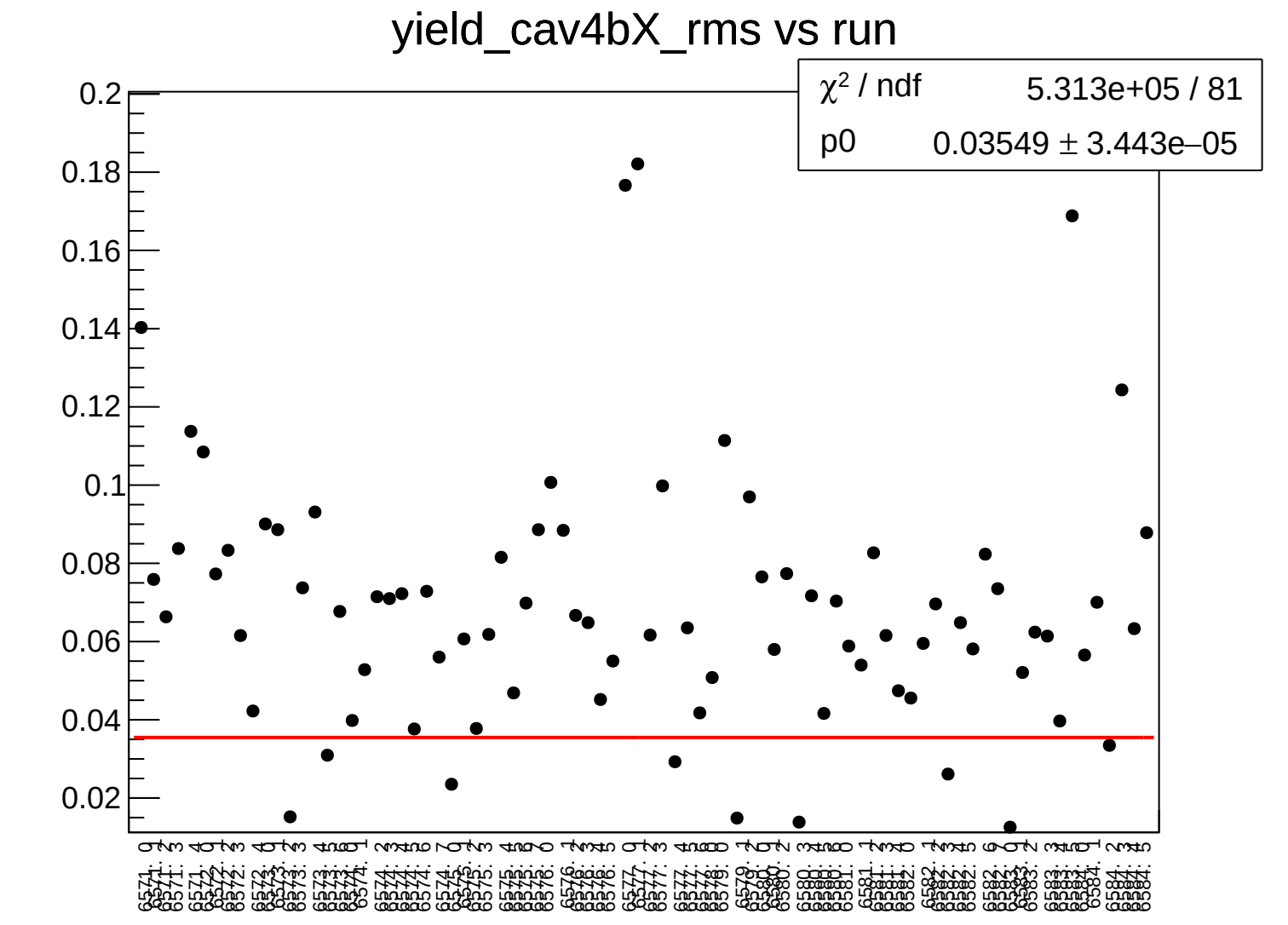

asym_bpm1i06WS_mean vs run
χ² / ndf 529.4 / 81
p0 −6821 ± 173.2
pull
Entries 82
Mean −1665
Std Dev 1705

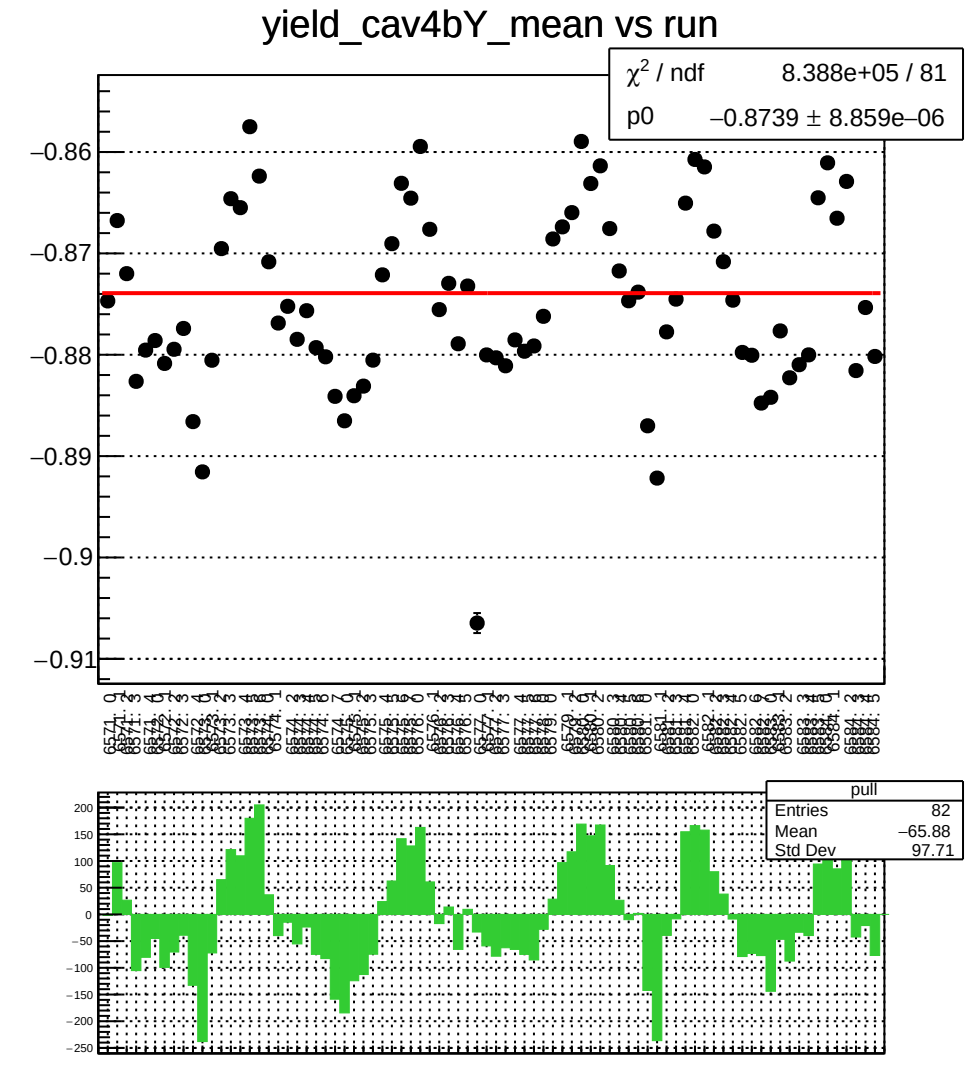

pull1D
Entries 82
Mean 0.03396
Std Dev 2.126

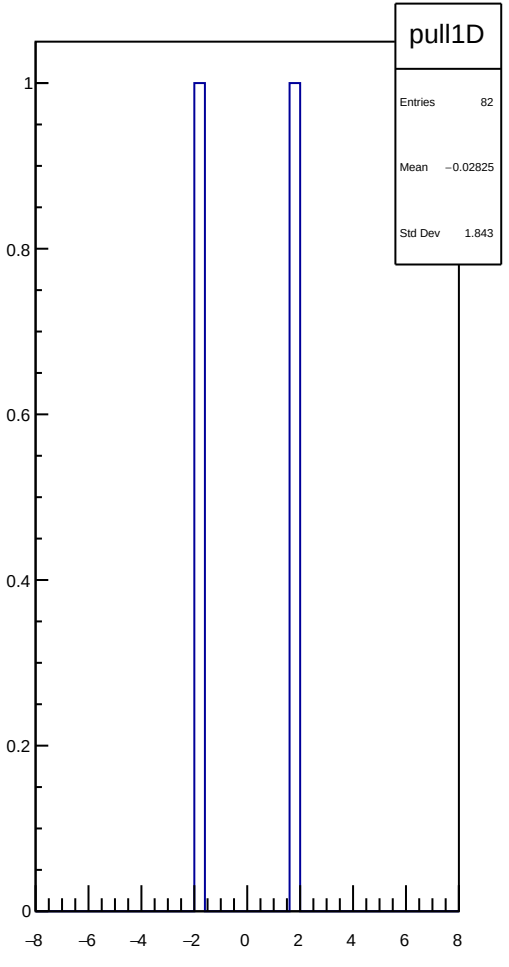

asym_bpm1i06WS_rms vs run
χ^2 / ndf 9.471e+04 / 81
p0 150 ± 0.1225
1200
1000
800
600
400
200

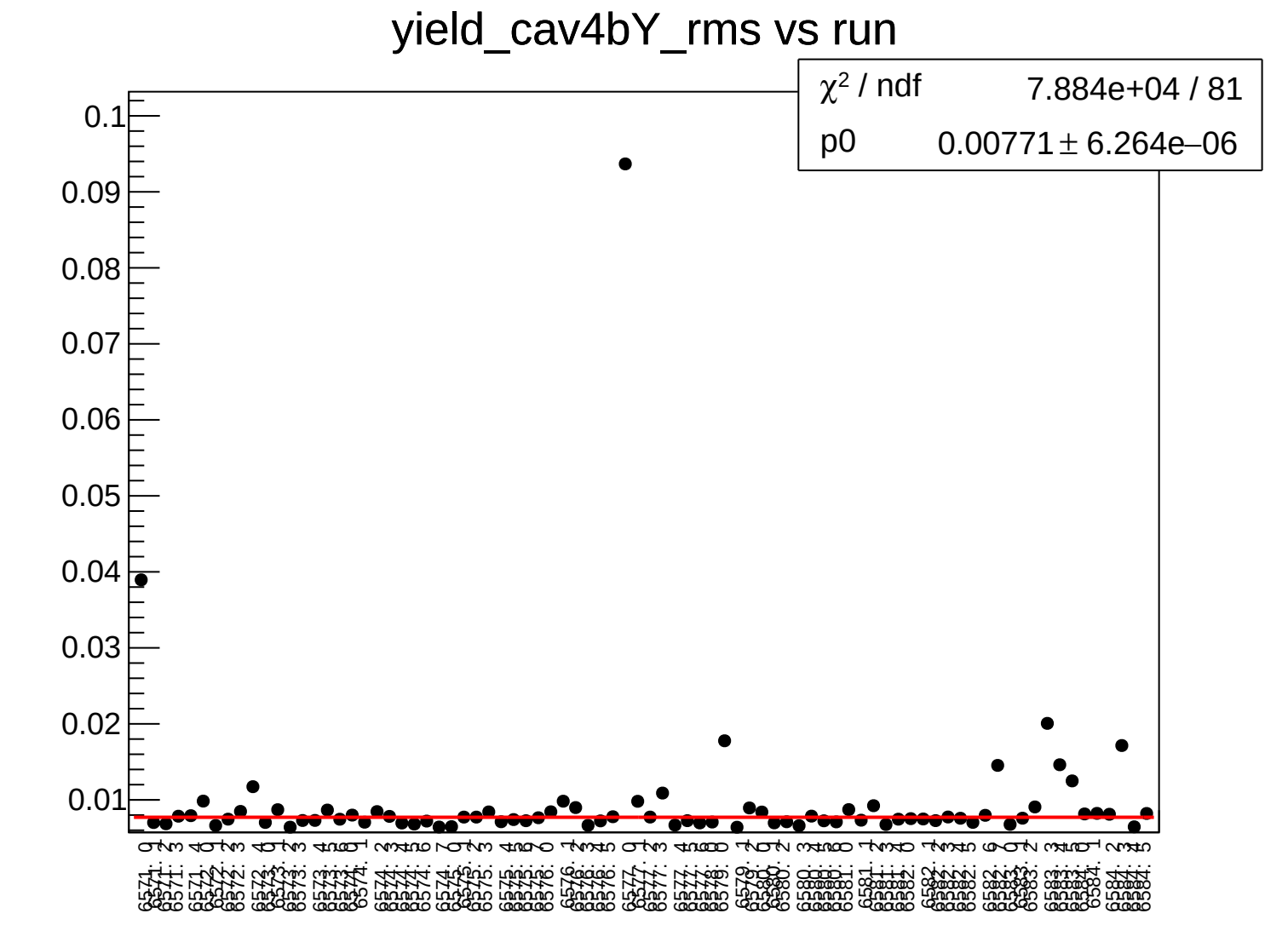

yield_cav4bX_mean vs run
χ² / ndf 1.321e+06 / 81
p0 −0.7846 ± 4.869e−05
−0.65
−0.7
−0.75
−0.8
−0.85
pull
Entries 82
Mean 20.31
Std Dev 11.32
300
200
100
0
−100
−200
−300
−400
−500

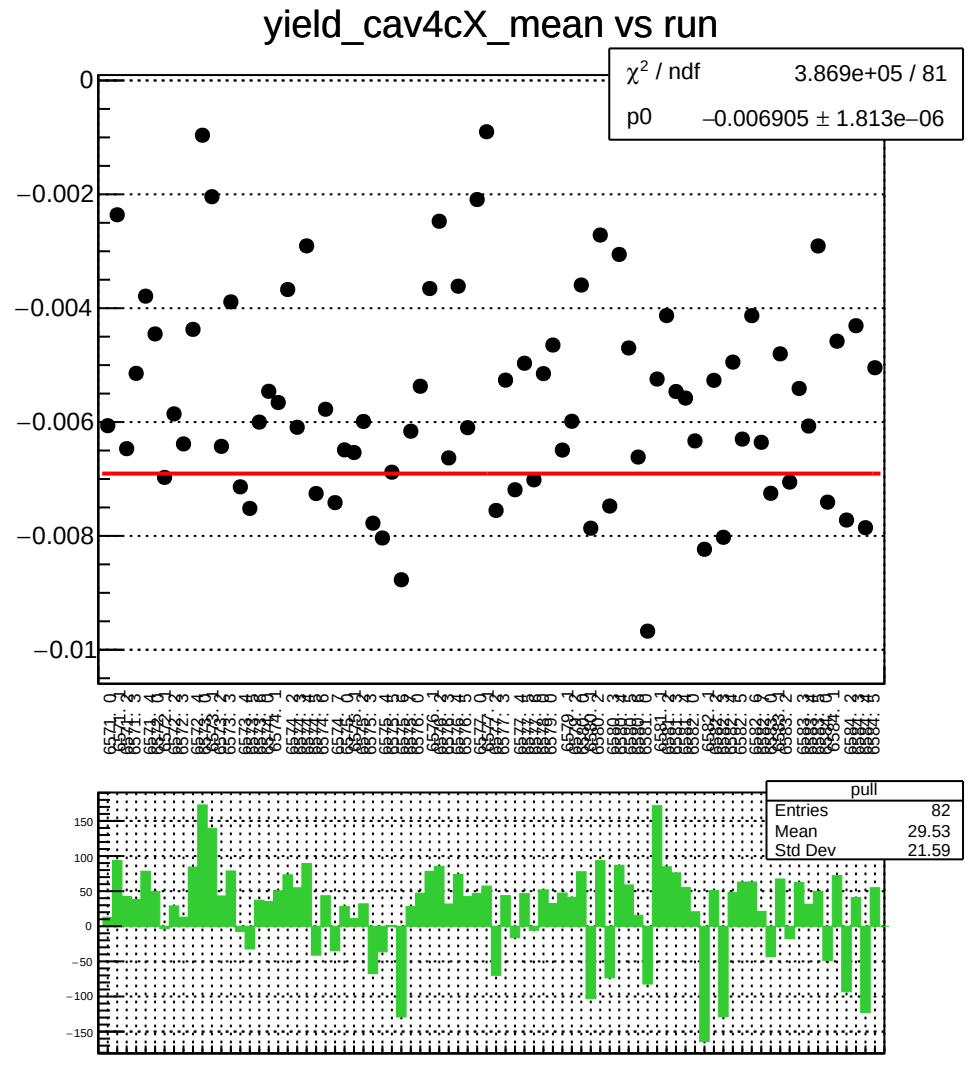

pull1D
Entries 82
Mean −0.6527
Std Dev 4.052
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

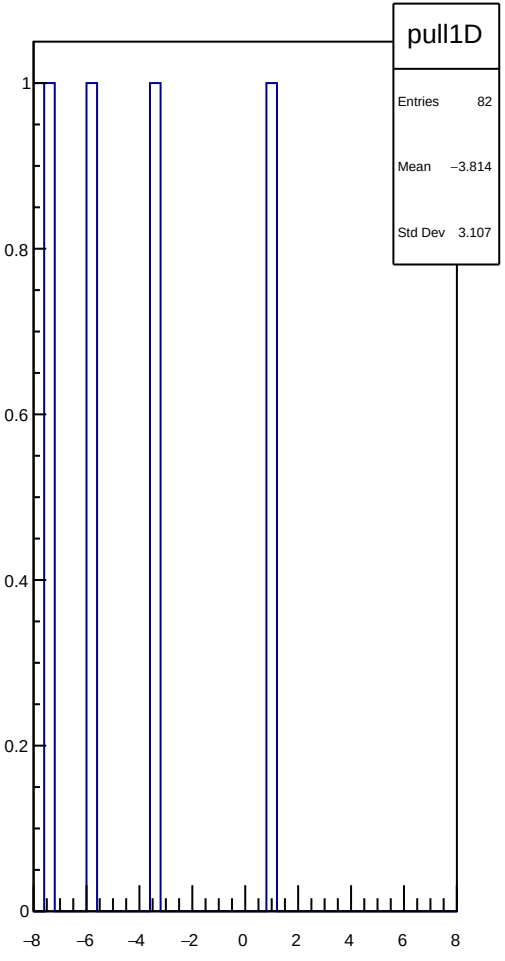

yield_cav4bX_rms vs run
χ² / ndf 5.313e+05 / 81
p0 0.03549 ± 3.443e−05
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

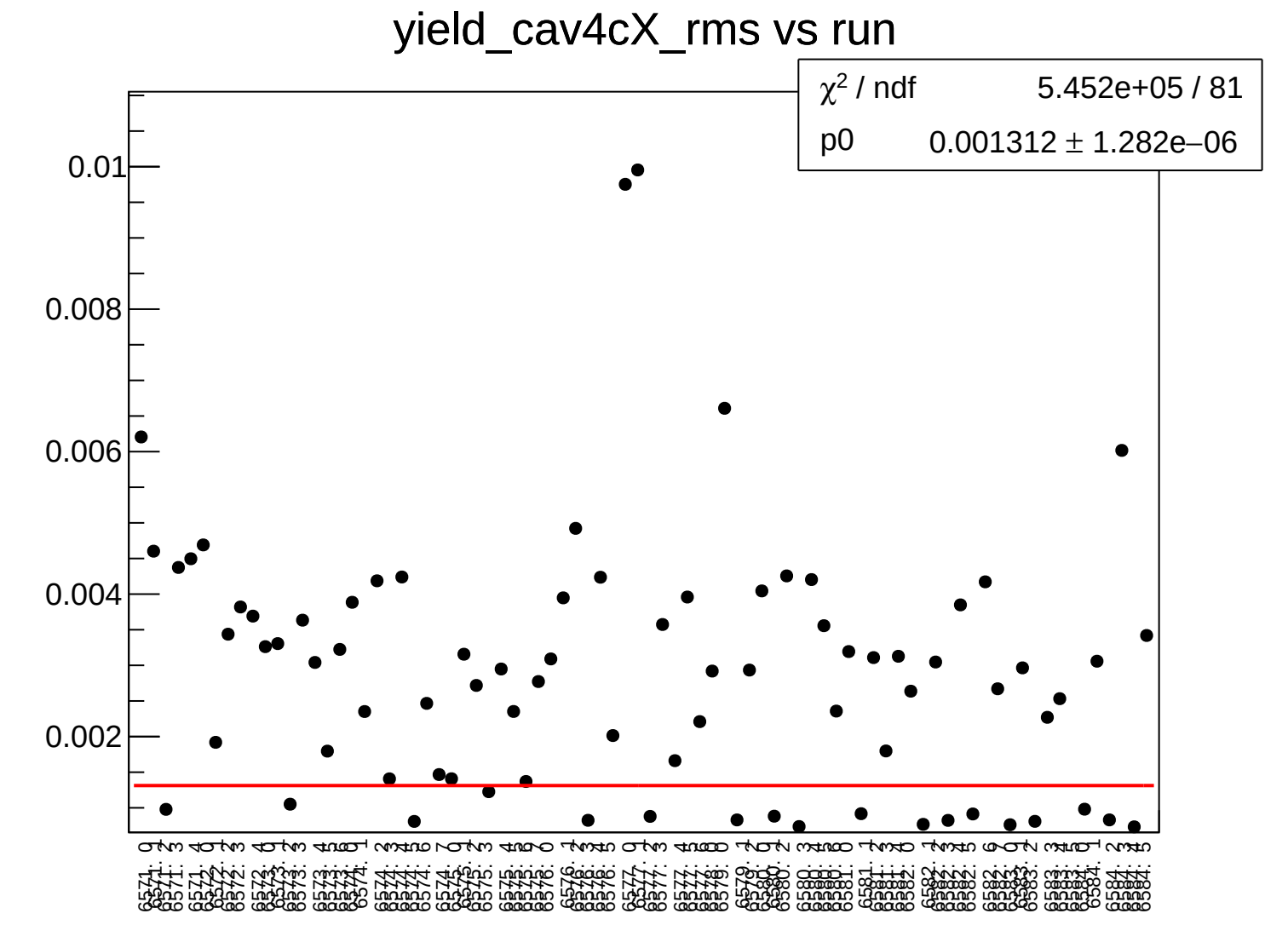

yield_cav4bY_mean vs run
χ² / ndf 8.388e+05 / 81
p0 −0.8739 ± 8.859e−06
−0.86
−0.87
−0.88
−0.89
−0.9
−0.91
pull
Entries 82
Mean −65.88
Std Dev 97.71
200
150
100
50
0
−50
−100
−150
−200
−250

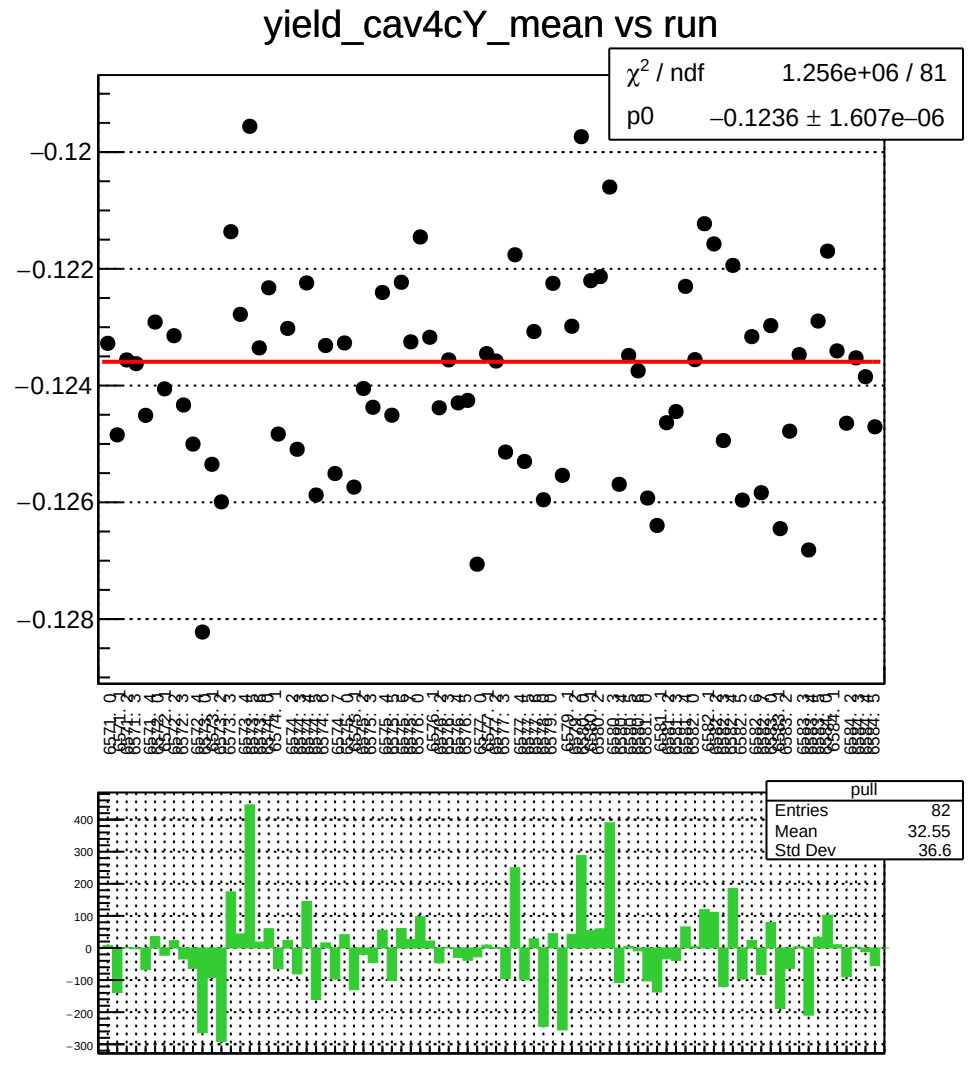

pull1D
Entries 82
Mean −0.02825
Std Dev 1.843
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

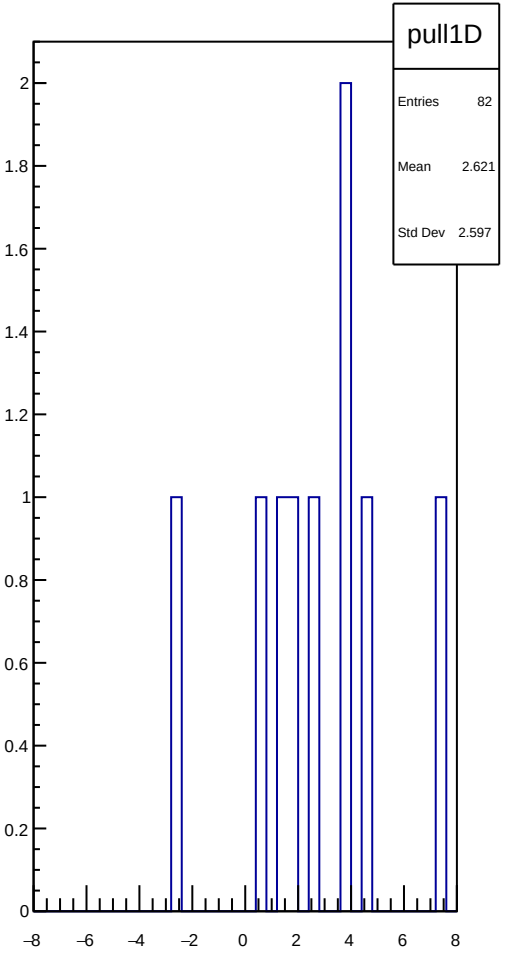

yield_cav4bY_rms vs run
χ² / ndf 7.884e+04 / 81
p0 0.00771 ± 6.264e−06
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

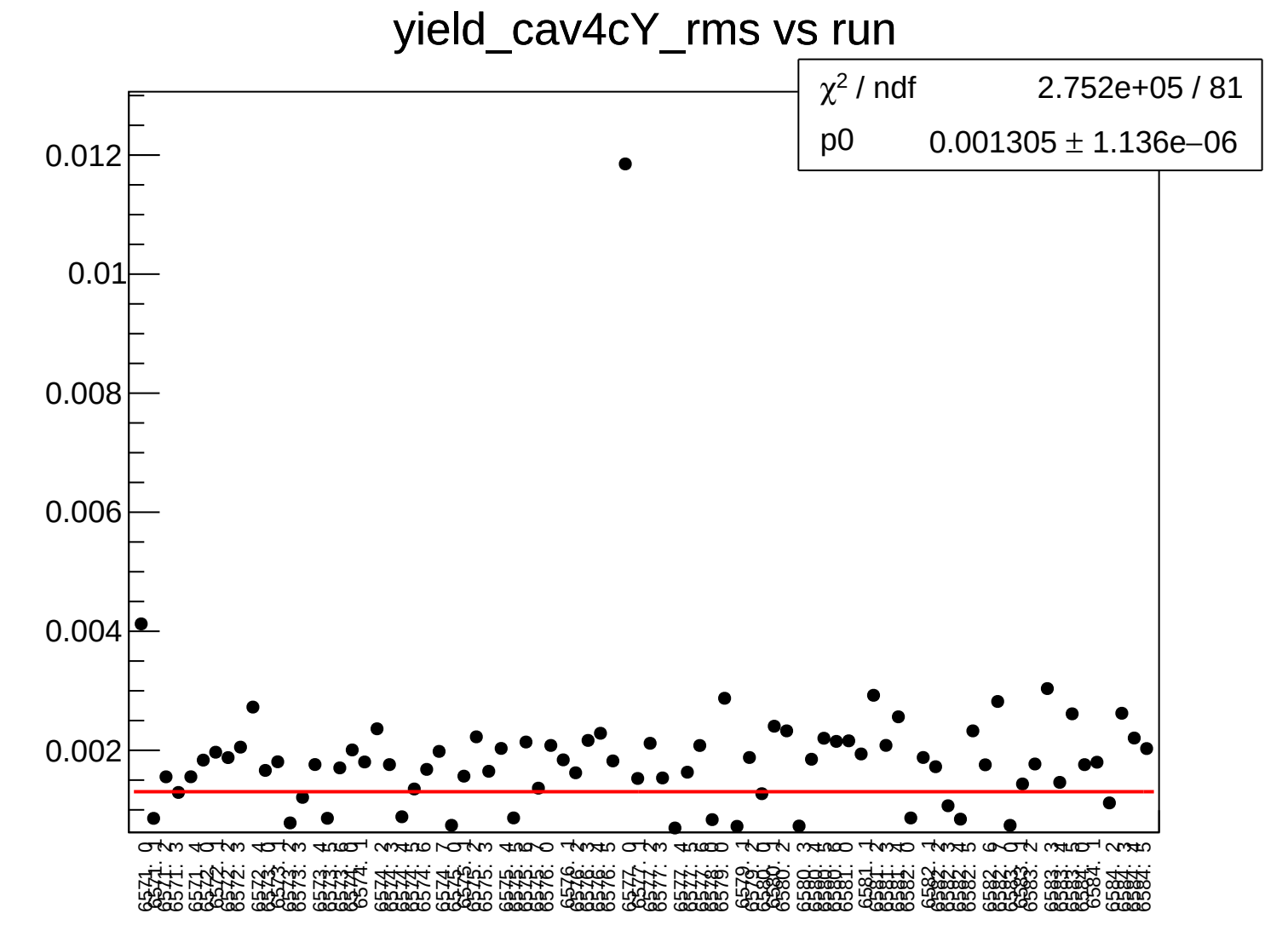

yield_cav4cX_mean vs run
χ² / ndf 3.869e+05 / 81
p0 −0.006905 ± 1.813e−06
0
−0.002
−0.004
−0.006
−0.008
−0.01
pull
Entries 82
Mean 29.53
Std Dev 21.59
150
100
50
0
−50
−100
−150

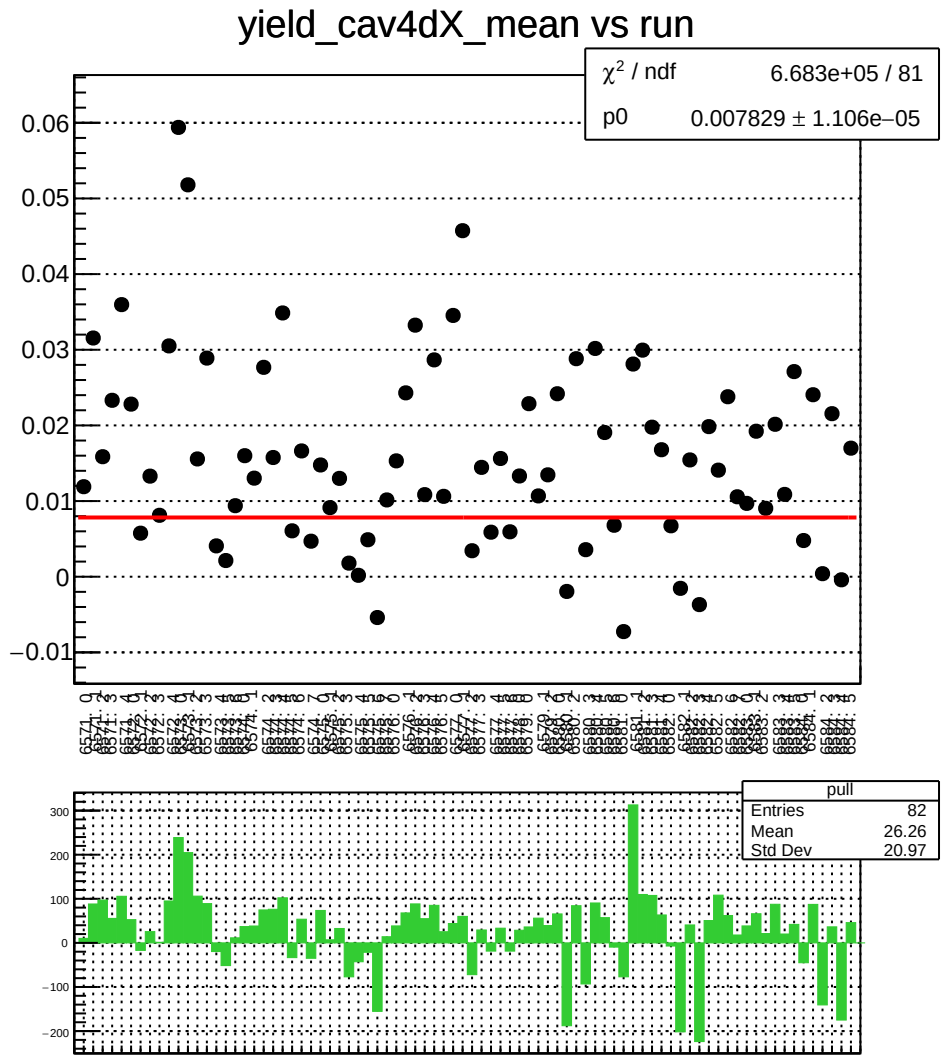

pull1D
Entries 82
Mean −3.814
Std Dev 3.107
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

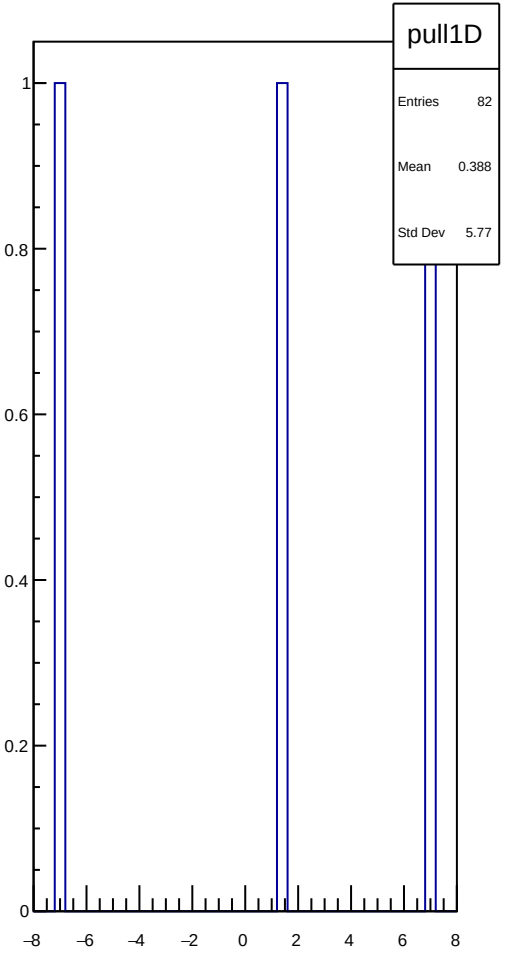

yield_cav4cX_rms vs run
χ^2 / ndf 5.452e+05 / 81
p0 0.001312 ± 1.282e−06
0.01
0.008
0.006
0.004
0.002

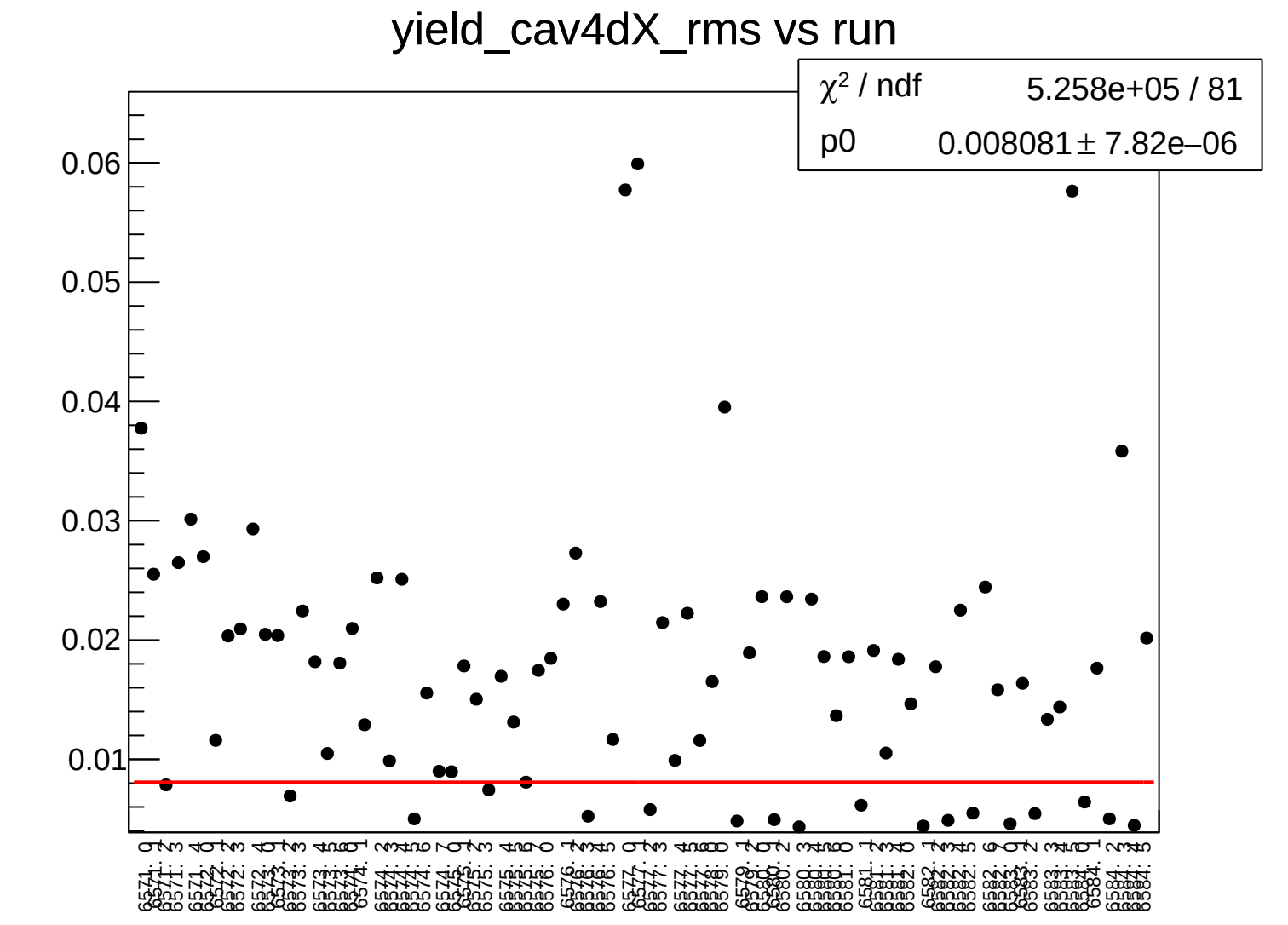

yield_cav4cY_mean vs run
χ² / ndf 1.256e+06 / 81
p0 −0.1236 ± 1.607e−06
−0.12
−0.122
−0.124
−0.126
−0.128
pull
Entries 82
Mean 32.55
Std Dev 36.6
400
300
200
100
0
−100
−200
−300

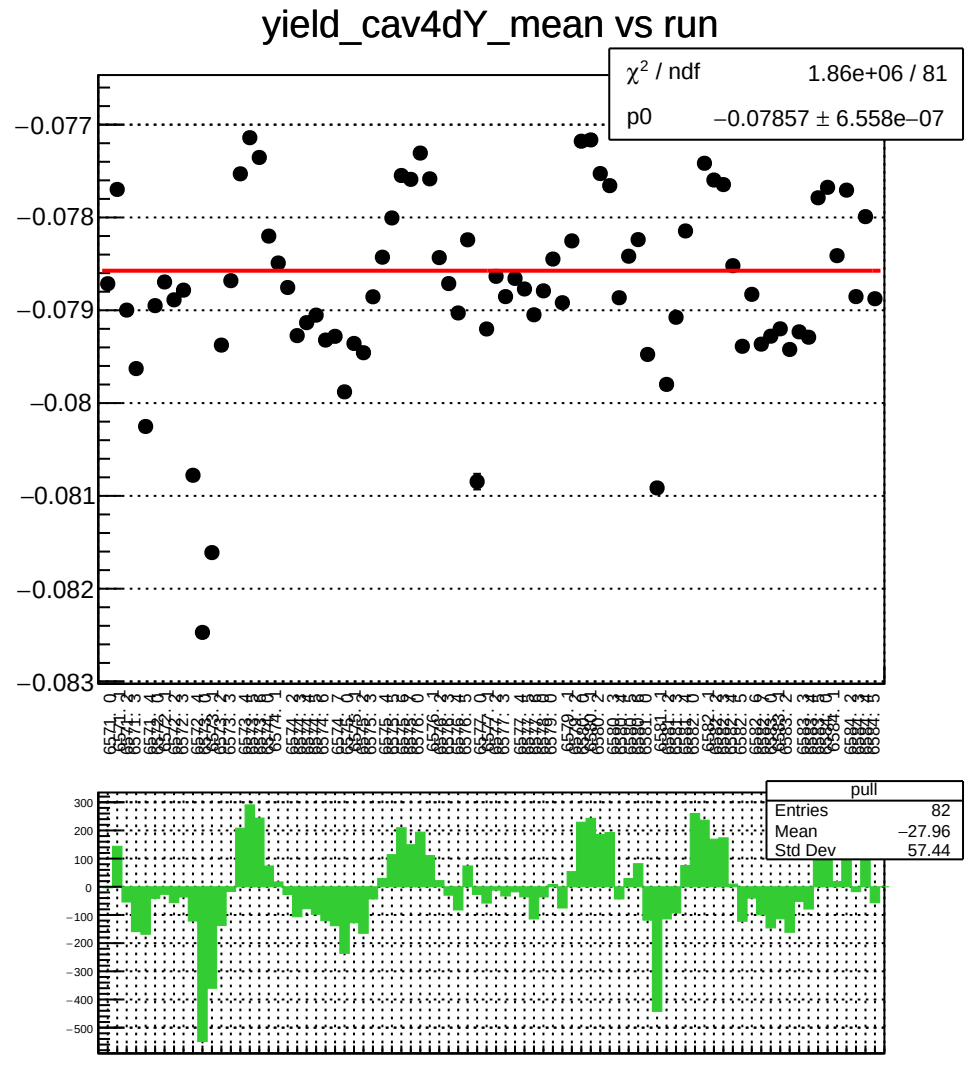

pull1D
Entries 82
Mean 2.621
Std Dev 2.597
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

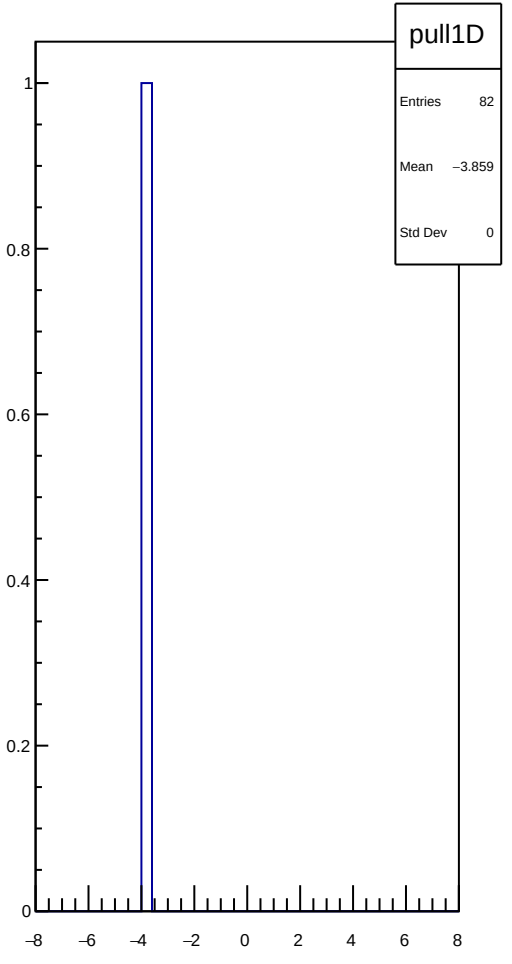

yield_cav4cY_rms vs run
χ² / ndf 2.752e+05 / 81
p0 0.001305 ± 1.136e−06
0.012
0.01
0.008
0.006
0.004
0.002

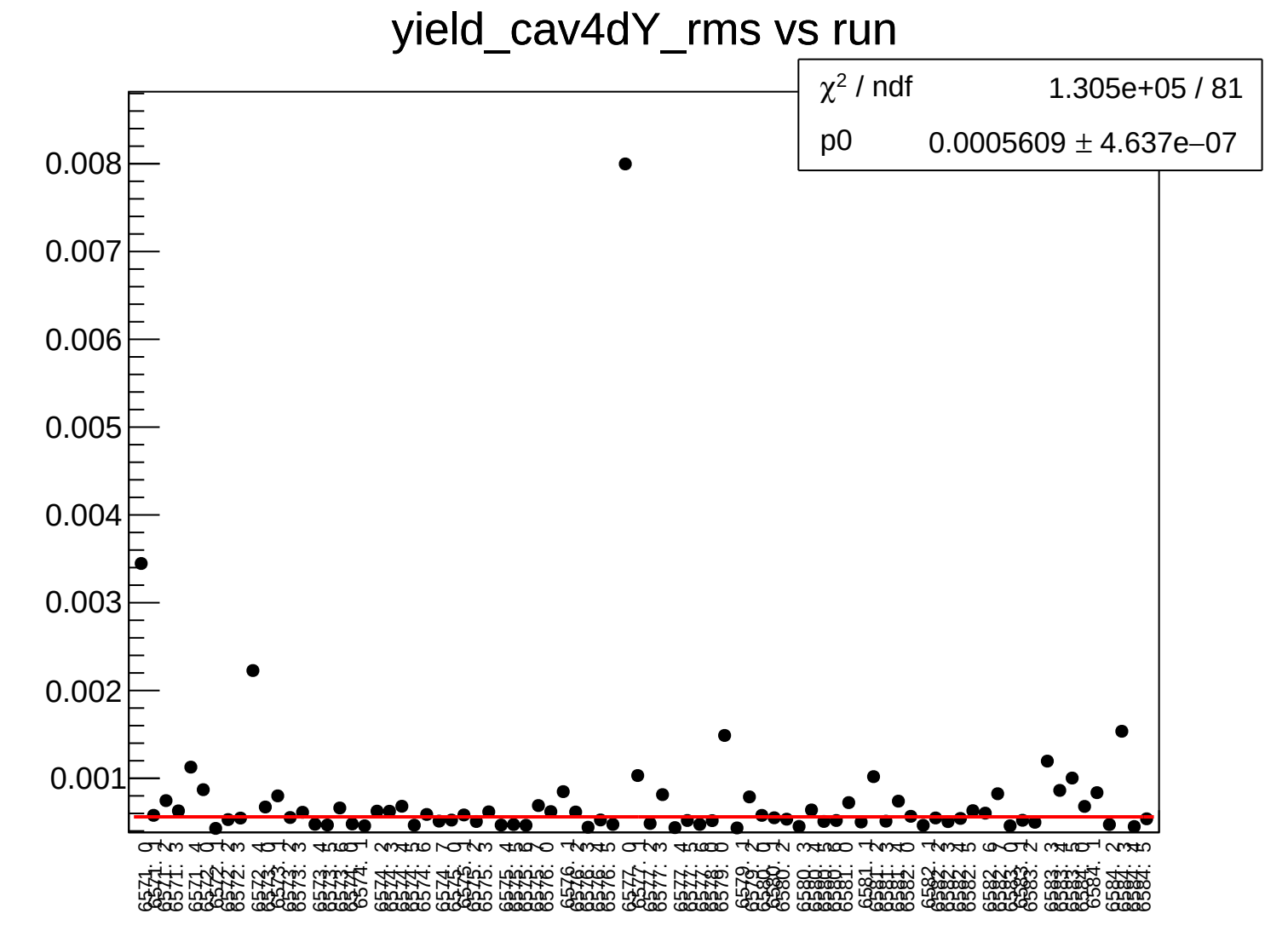

yield_cav4dX_mean vs run
χ² / ndf 6.683e+05 / 81
p0 0.007829 ± 1.106e−05
pull
Entries 82
Mean 26.26
Std Dev 20.97

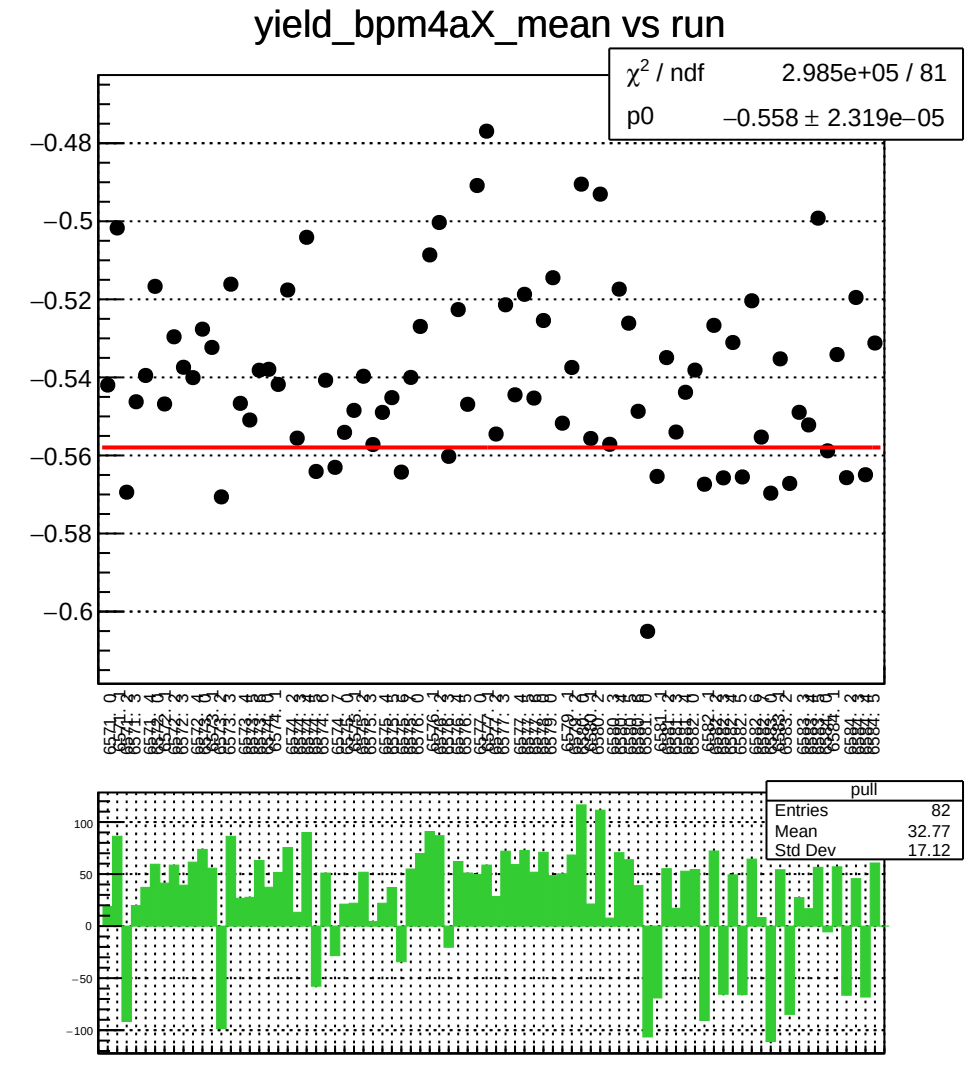

pull1D
Entries 82
Mean 0.388
Std Dev 5.77

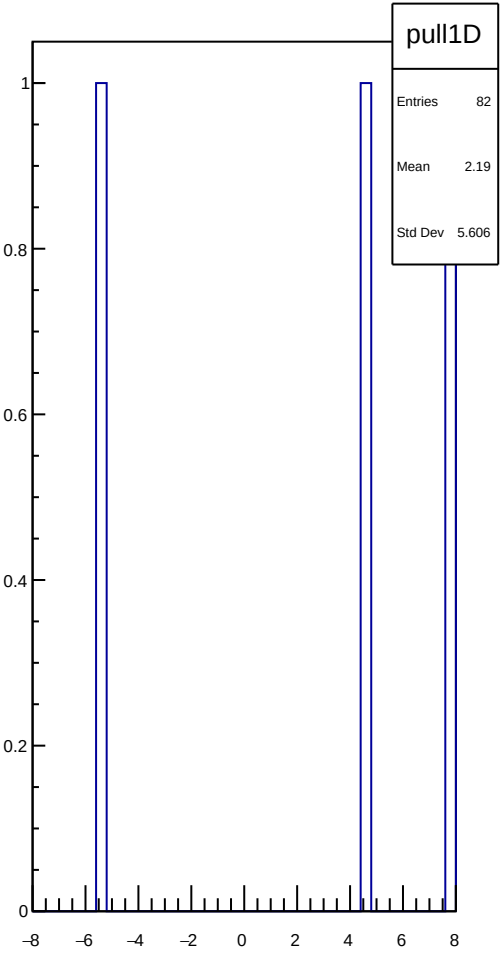

yield_cav4dX_rms vs run
χ² / ndf 5.258e+05 / 81
p0 0.008081 ± 7.82e−06
0.06
0.05
0.04
0.03
0.02
0.01

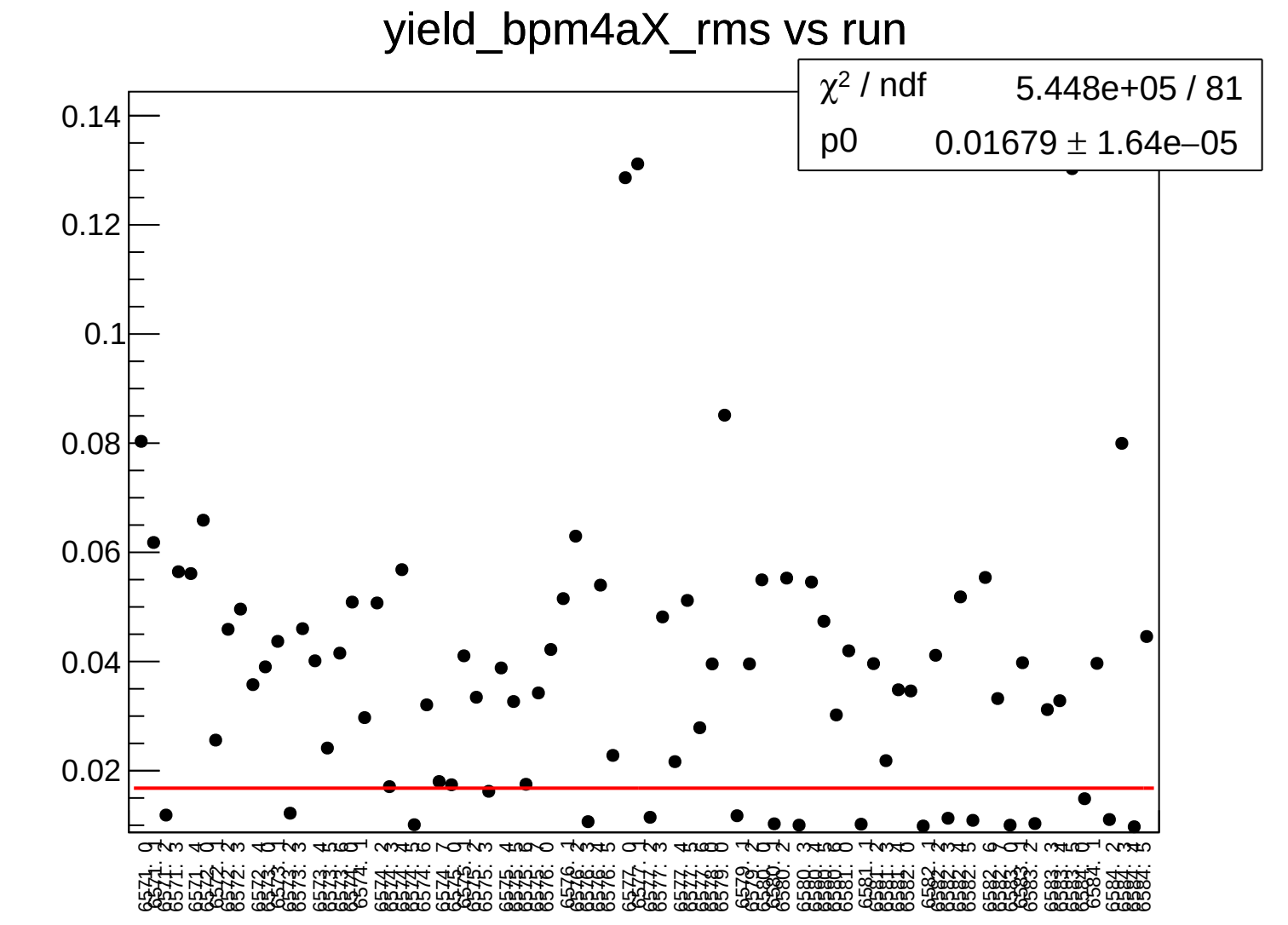

yield_cav4dY_mean vs run
χ² / ndf 1.86e+06 / 81
p0 −0.07857 ± 6.558e−07
−0.077
−0.078
−0.079
−0.08
−0.081
−0.082
−0.083
pull
Entries 82
Mean −27.96
Std Dev 57.44
300
200
100
0
−100
−200
−300
−400
−500

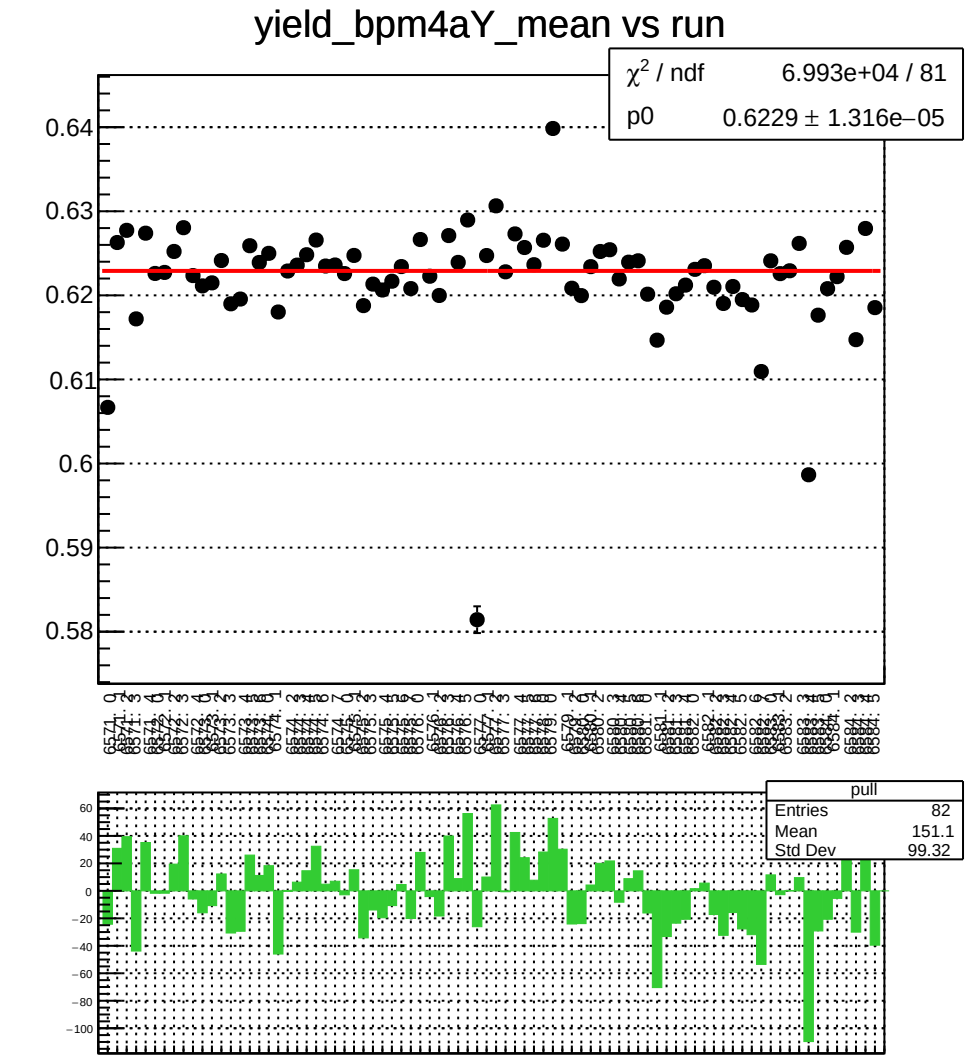

pull1D
Entries 82
Mean −3.859
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

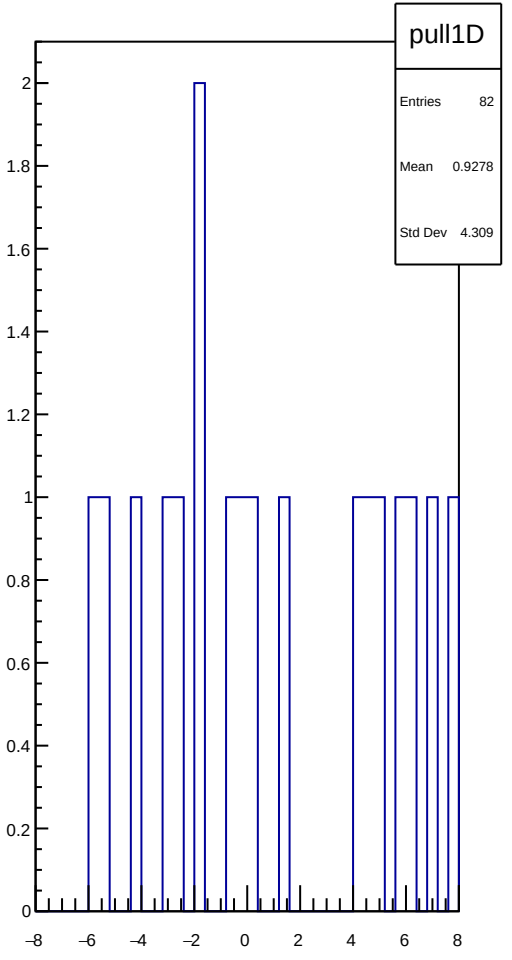

yield_cav4dY_rms vs run
χ² / ndf 1.305e+05 / 81
p0 0.0005609 ± 4.637e−07
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001

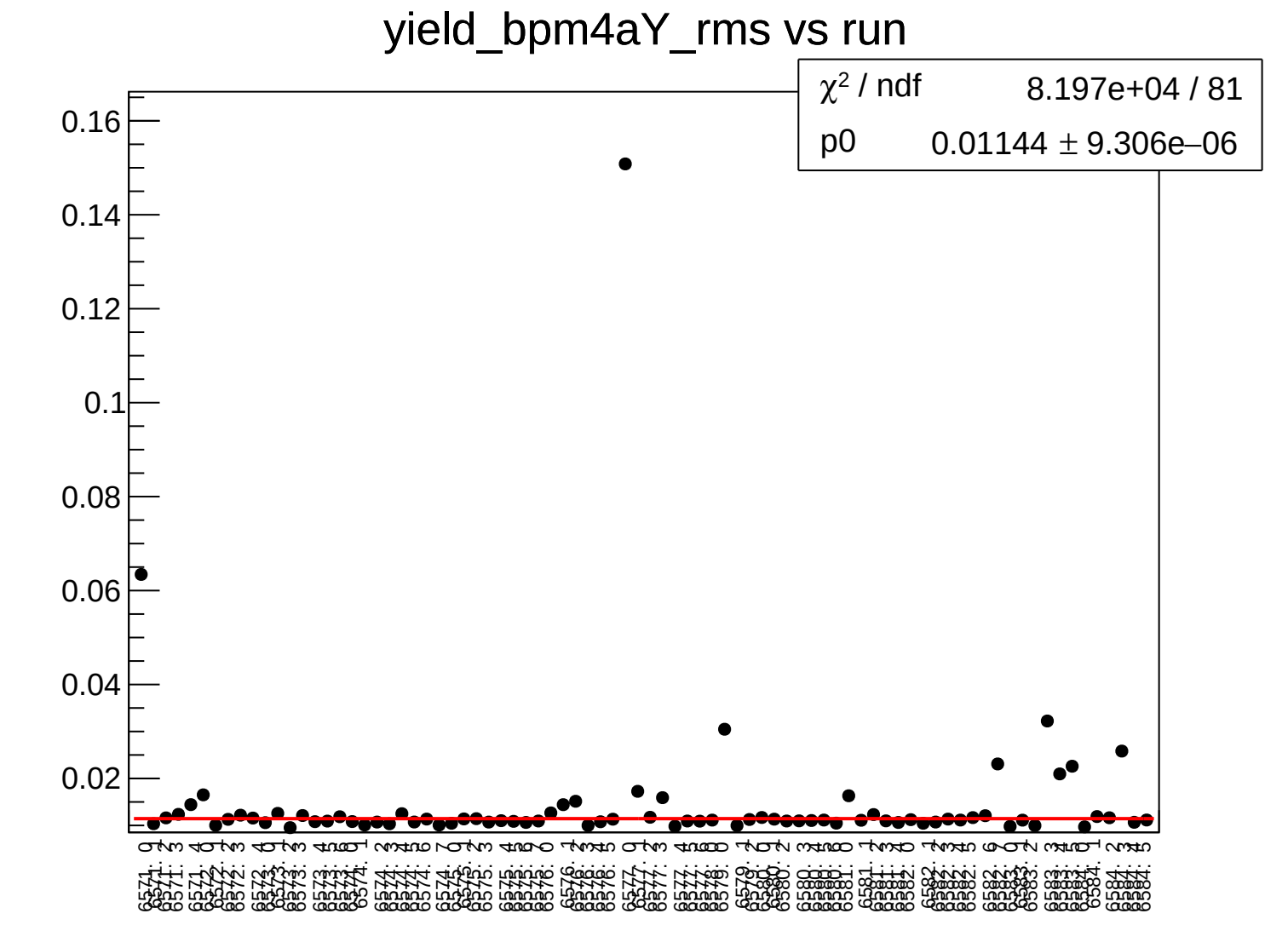

yield_bpm4aX_mean vs run
χ² / ndf 2.985e+05 / 81
p0 −0.558 ± 2.319e−05
−0.48
−0.5
−0.52
−0.54
−0.56
−0.58
−0.6
pull
Entries 82
Mean 32.77
Std Dev 17.12
100
50
0
−50
−100

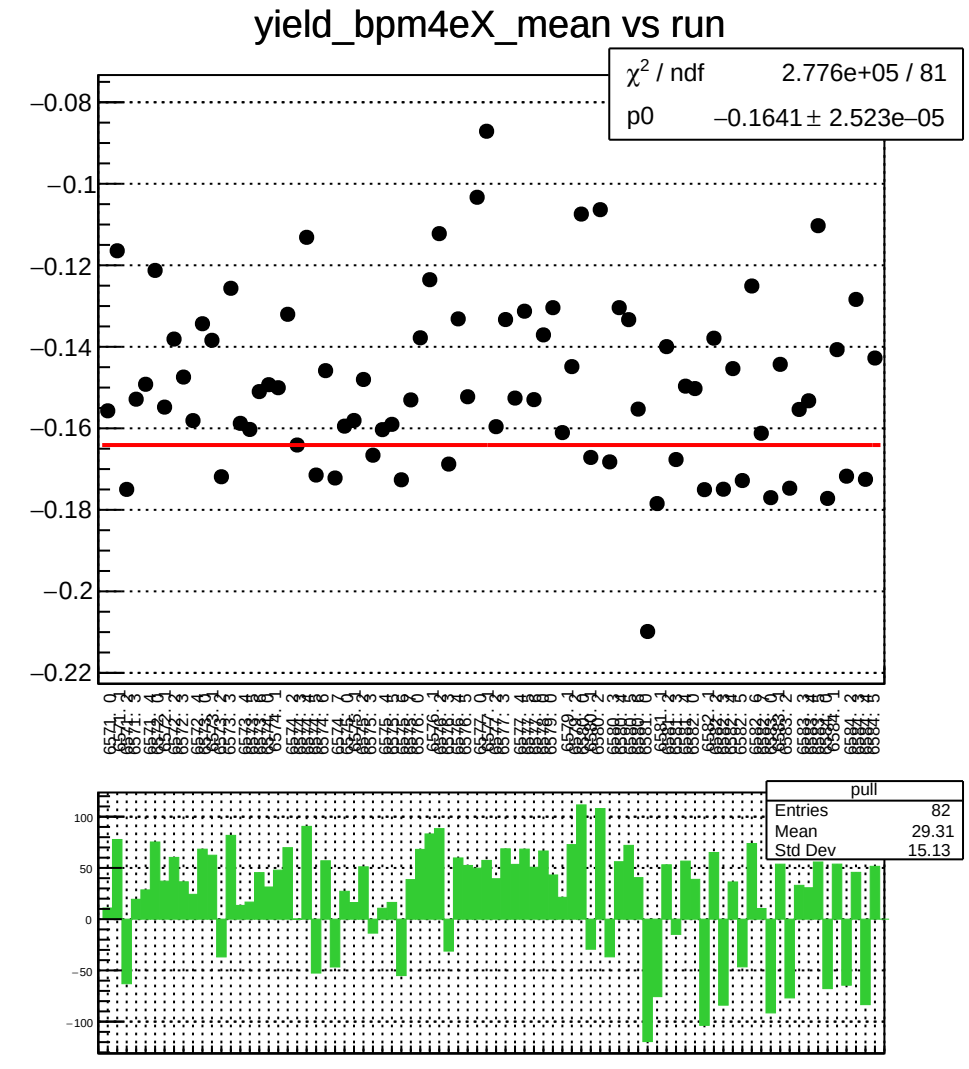

pull1D
Entries 82
Mean 2.19
Std Dev 5.606
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

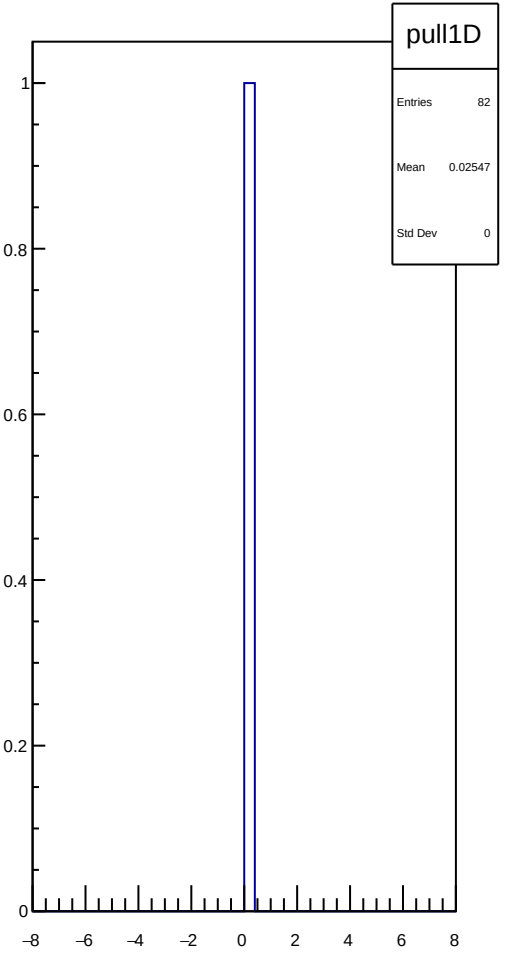

yield_bpm4aX_rms vs run
χ² / ndf 5.448e+05 / 81
p0 0.01679 ± 1.64e−05
0.14
0.12
0.1
0.08
0.06
0.04
0.02

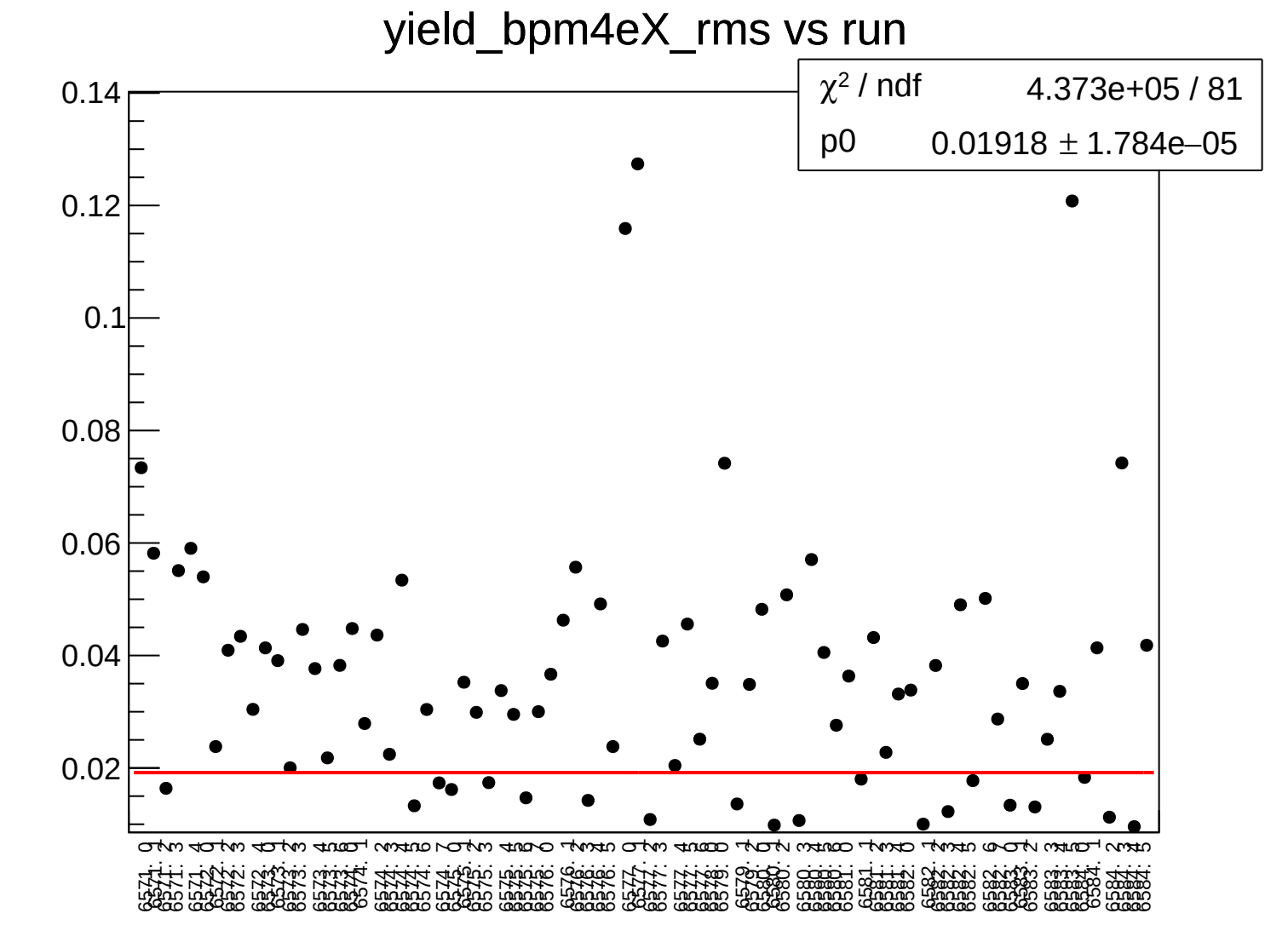

yield_bpm4aY_mean vs run
χ² / ndf 6.993e+04 / 81
p0 0.6229 ± 1.316e−05
0.64
0.63
0.62
0.61
0.6
0.59
0.58
pull
Entries 82
Mean 151.1
Std Dev 99.32
60
40
20
0
−20
−40
−60
−80
−100

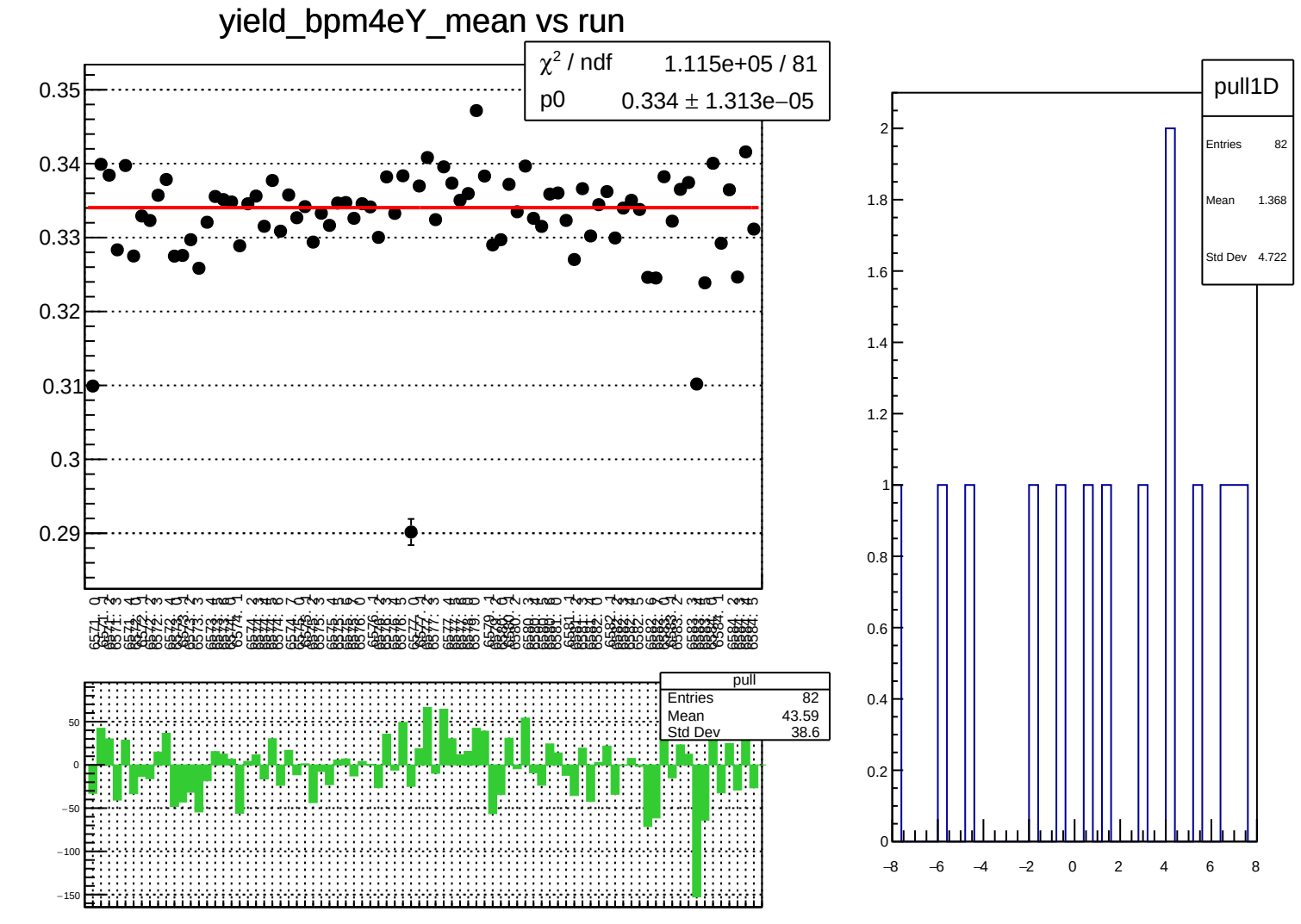

pull1D
Entries 82
Mean 0.9278
Std Dev 4.309
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

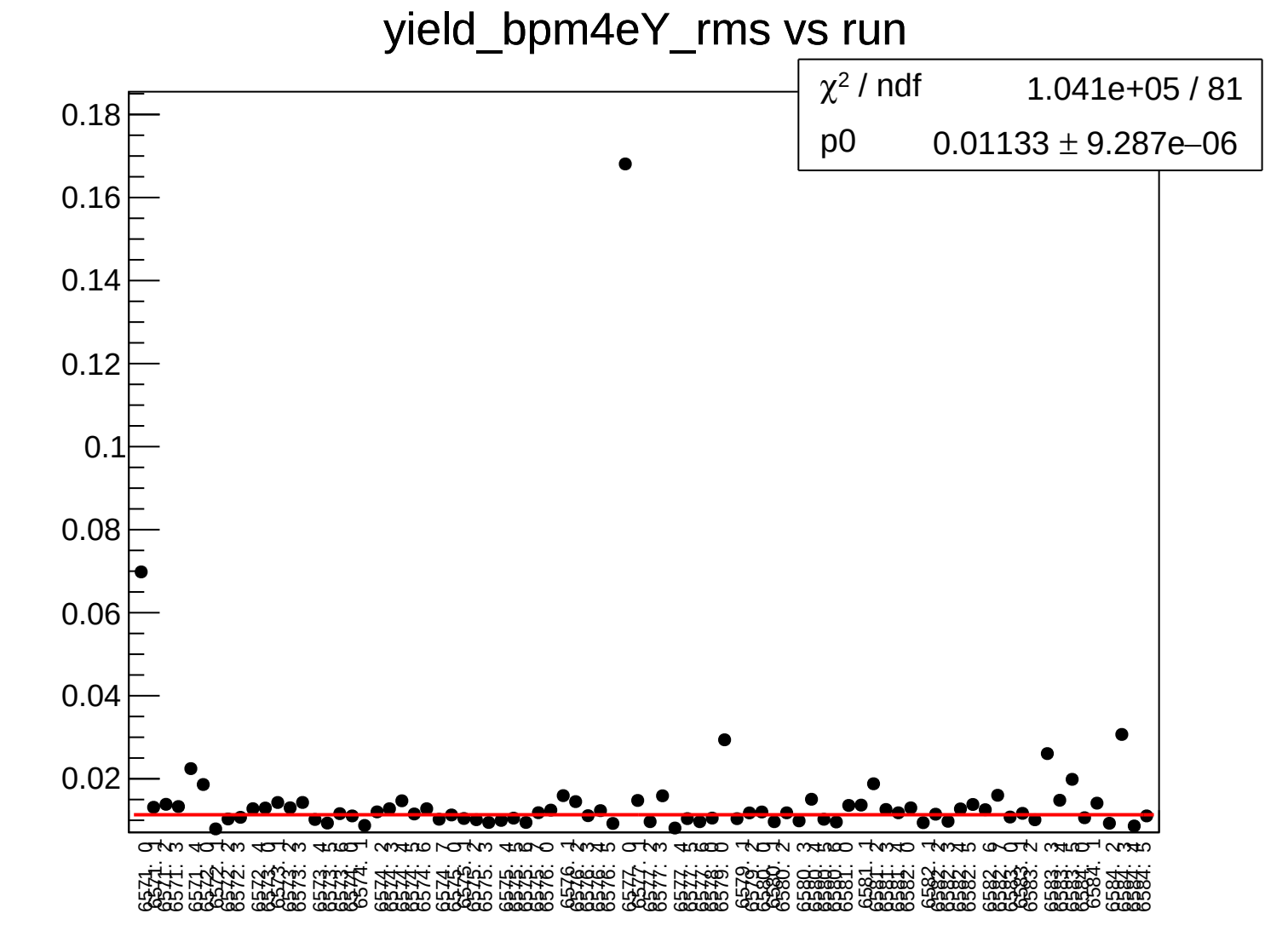

yield_bpm4aY_rms vs run
χ² / ndf 8.197e+04 / 81
p0 0.01144 ± 9.306e–06
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

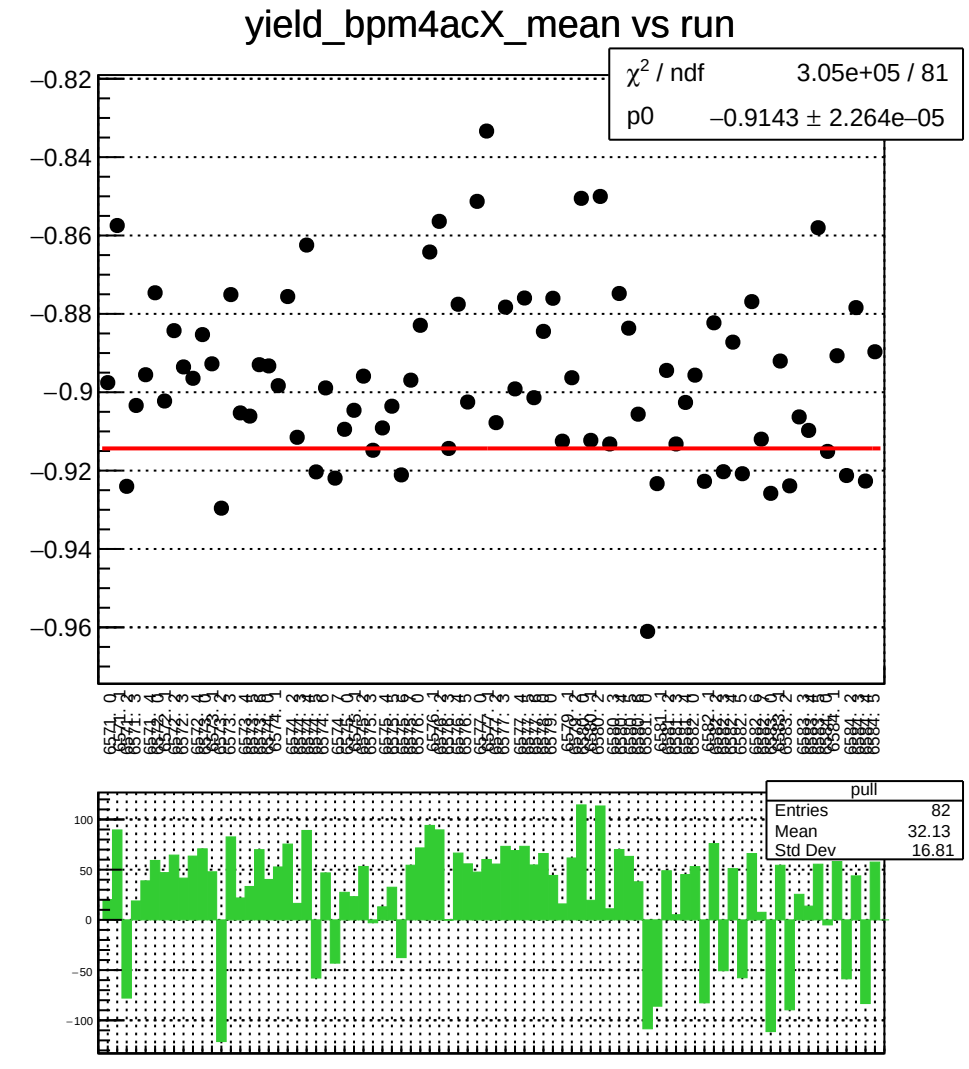

yield_bpm4eX_mean vs run
χ² / ndf 2.776e+05 / 81
p0 −0.1641 ± 2.523e−05
−0.08
−0.1
−0.12
−0.14
−0.16
−0.18
−0.2
−0.22
pull
Entries 82
Mean 29.31
Std Dev 15.13
100
50
0
−50
−100

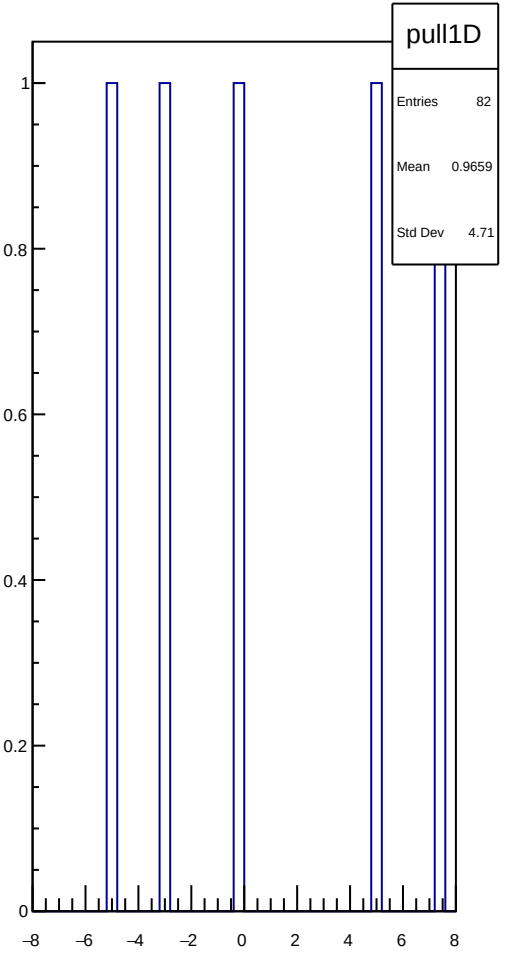

pull1D
Entries 82
Mean 0.02547
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

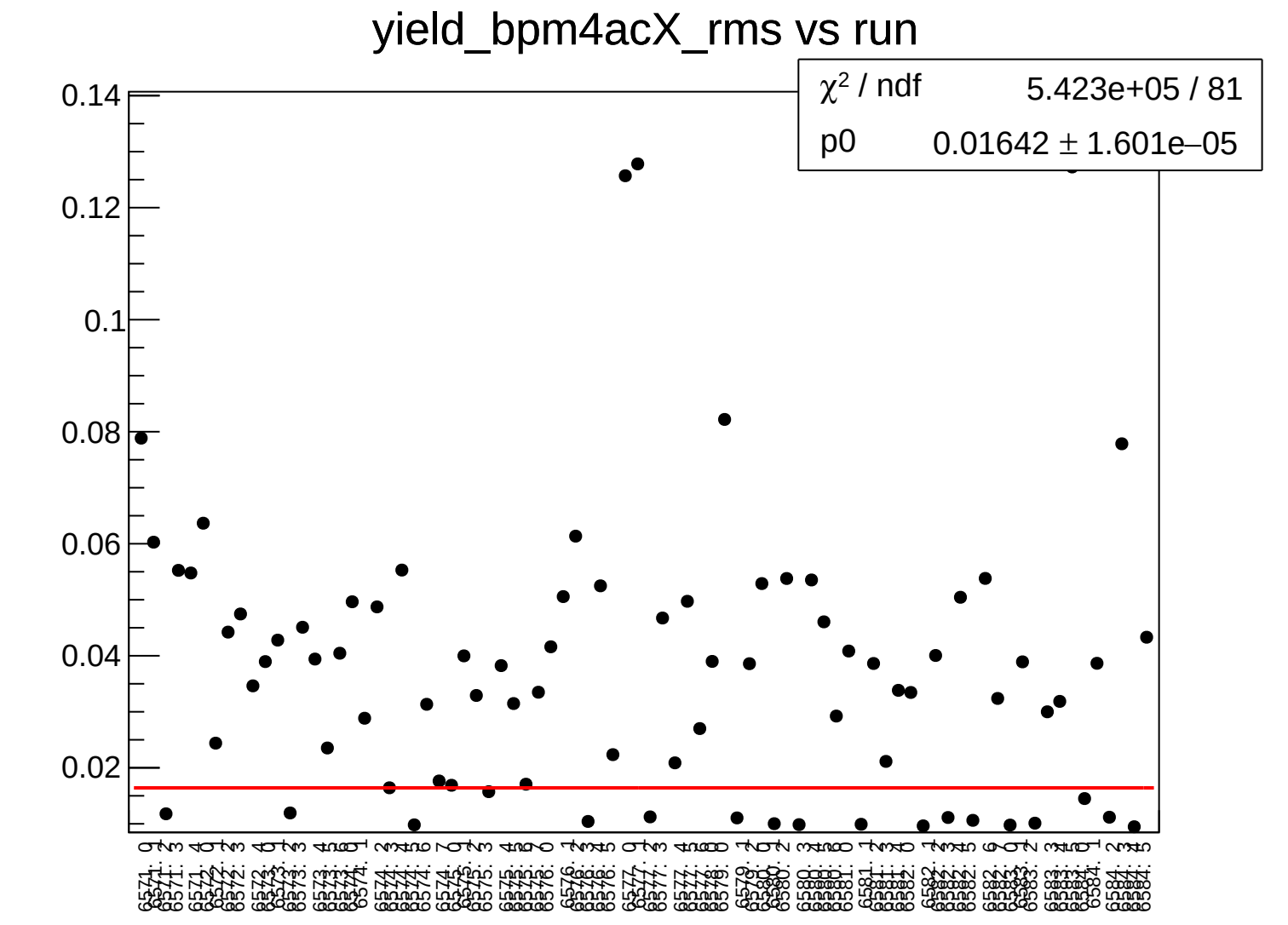

yield_bpm4eX_rms vs run
χ² / ndf 4.373e+05 / 81
p0 0.01918 ± 1.784e−05
0.14
0.12
0.1
0.08
0.06
0.04
0.02

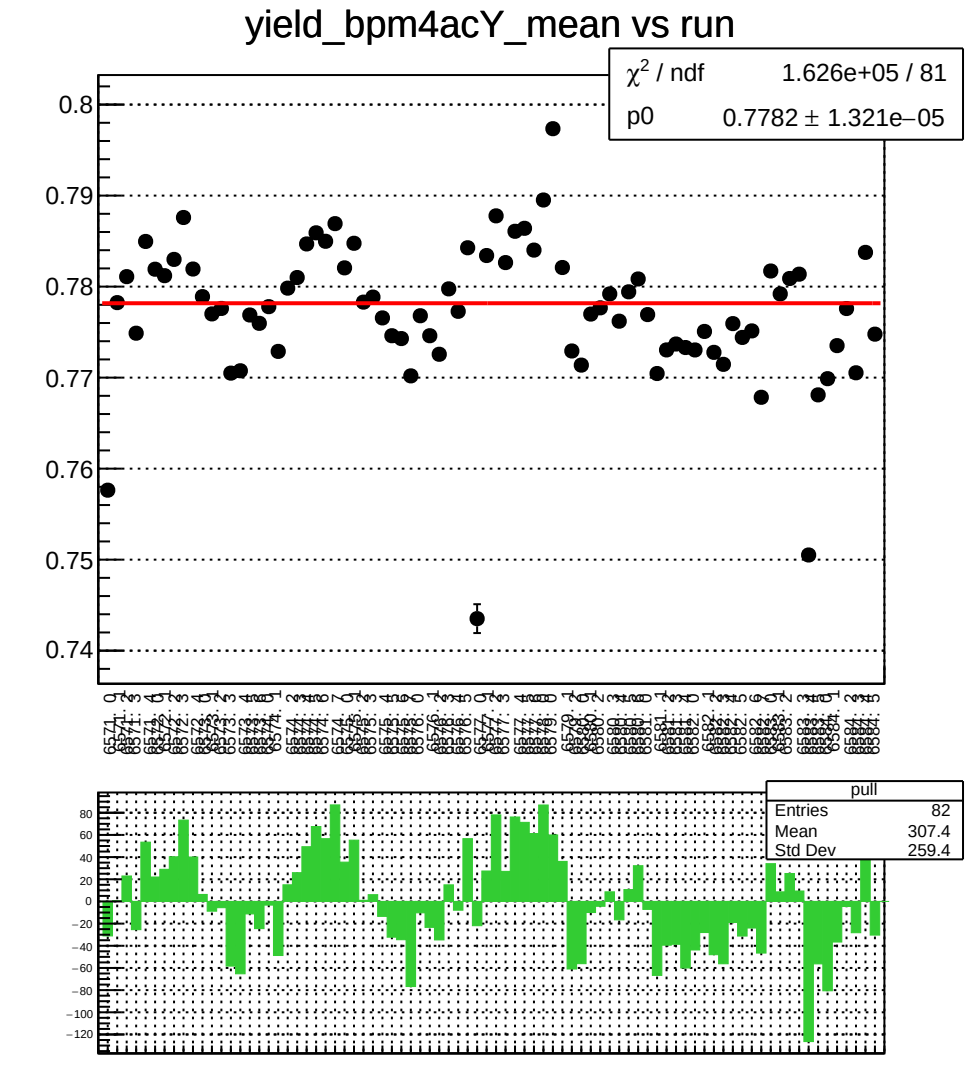

yield_bpm4eY_mean vs run
χ² / ndf 1.115e+05 / 81
p0 0.334 ± 1.313e−05
0.35
0.34
0.33
0.32
0.31
0.3
0.29
pull
Entries 82
Mean 43.59
Std Dev 38.6
50
0
−50
−100
−150
pull1D
Entries 82
Mean 1.368
Std Dev 4.722
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

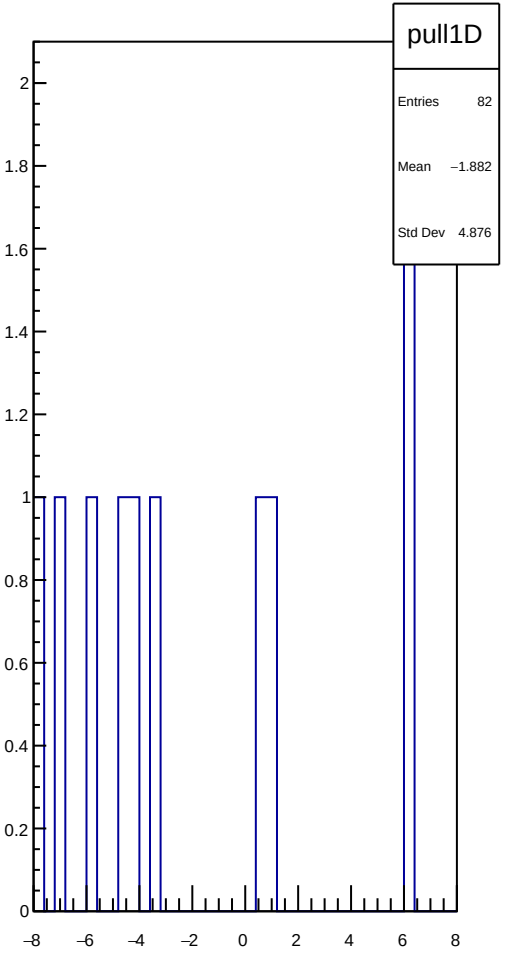

yield_bpm4eY_rms vs run
χ² / ndf 1.041e+05 / 81
p0 0.01133 ± 9.287e–06
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

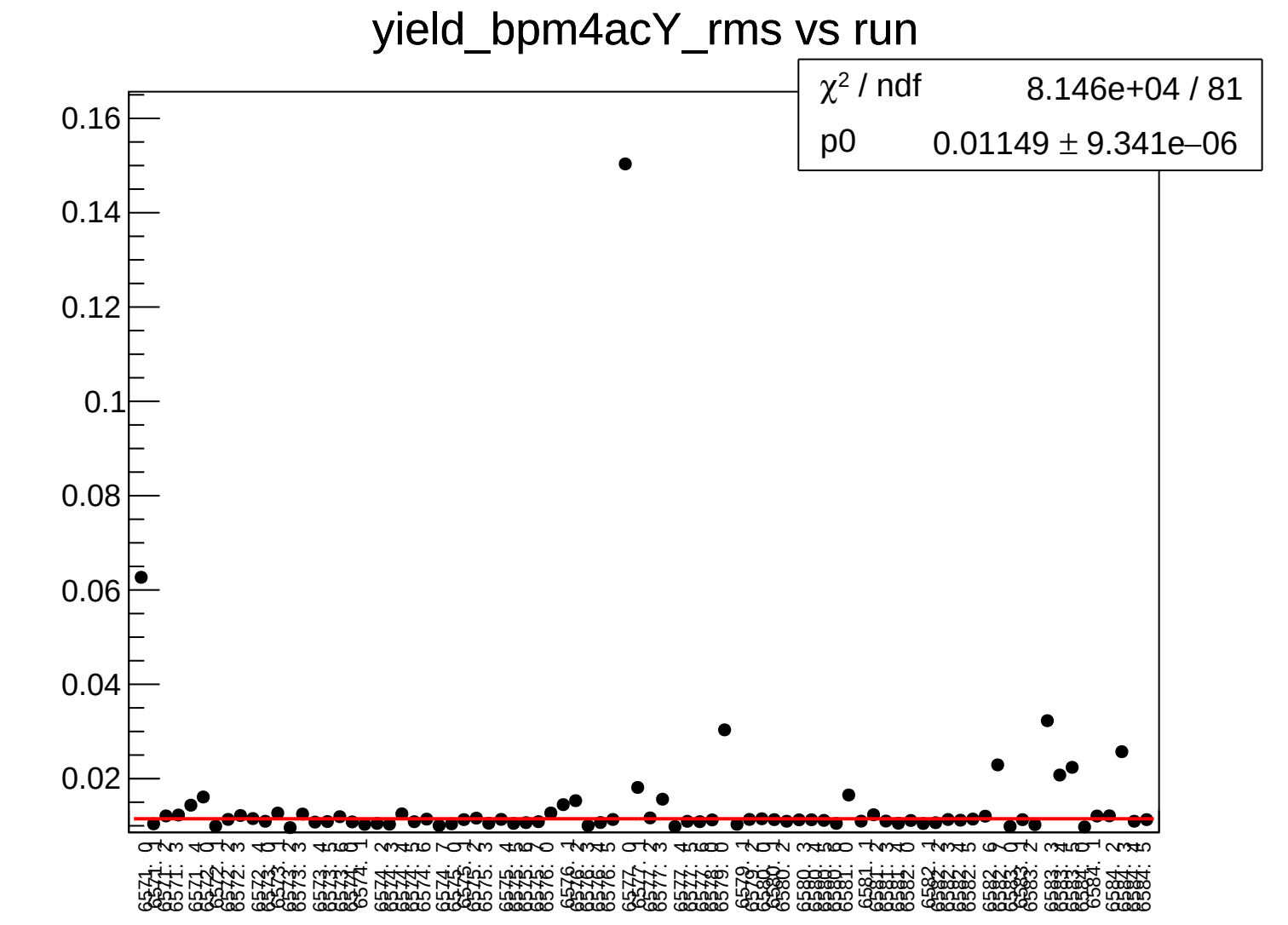

yield_bpm4acX_mean vs run
χ² / ndf 3.05e+05 / 81
p0 −0.9143 ± 2.264e−05
−0.82
−0.84
−0.86
−0.88
−0.9
−0.92
−0.94
−0.96
pull
Entries 82
Mean 32.13
Std Dev 16.81
100
50
0
−50
−100

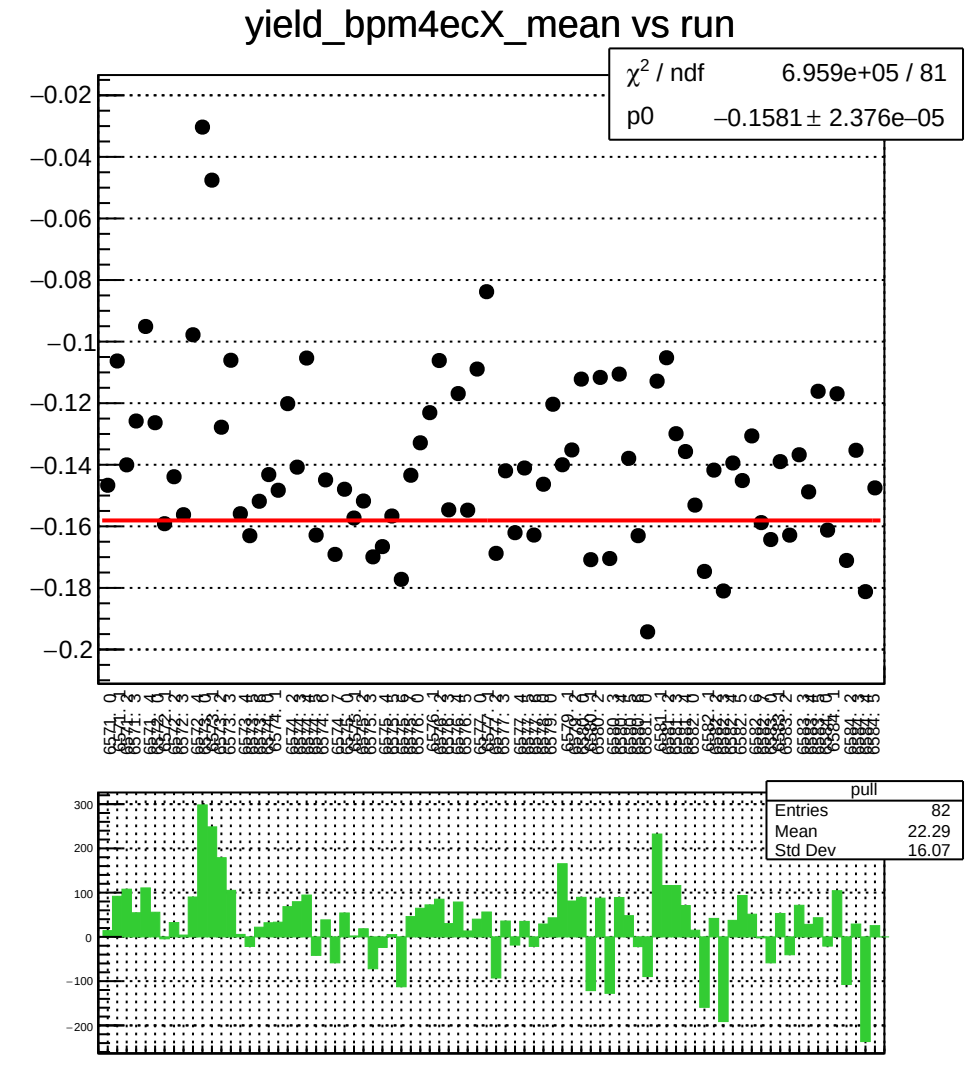

pull1D
Entries 82
Mean 0.9659
Std Dev 4.71
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

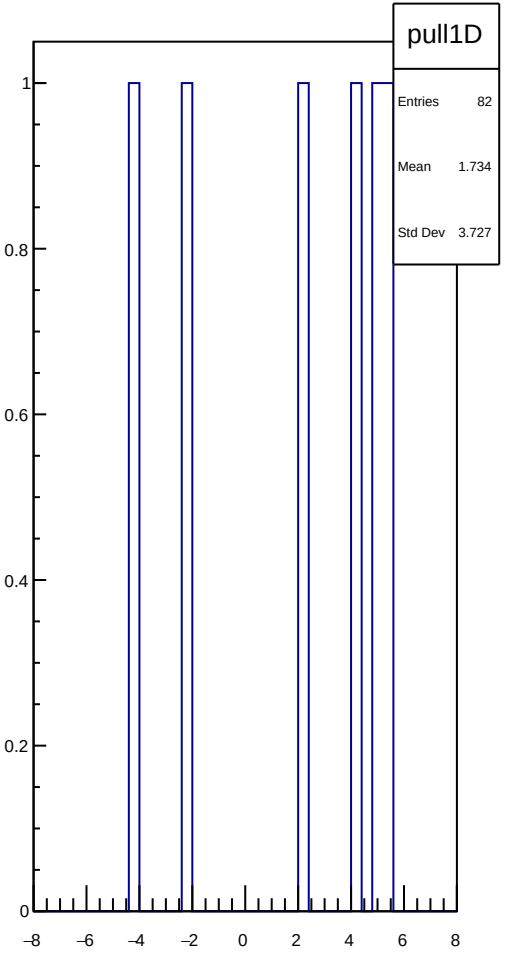

yield_bpm4acX_rms vs run
χ² / ndf 5.423e+05 / 81
p0 0.01642 ± 1.601e−05
0.14
0.12
0.1
0.08
0.06
0.04
0.02

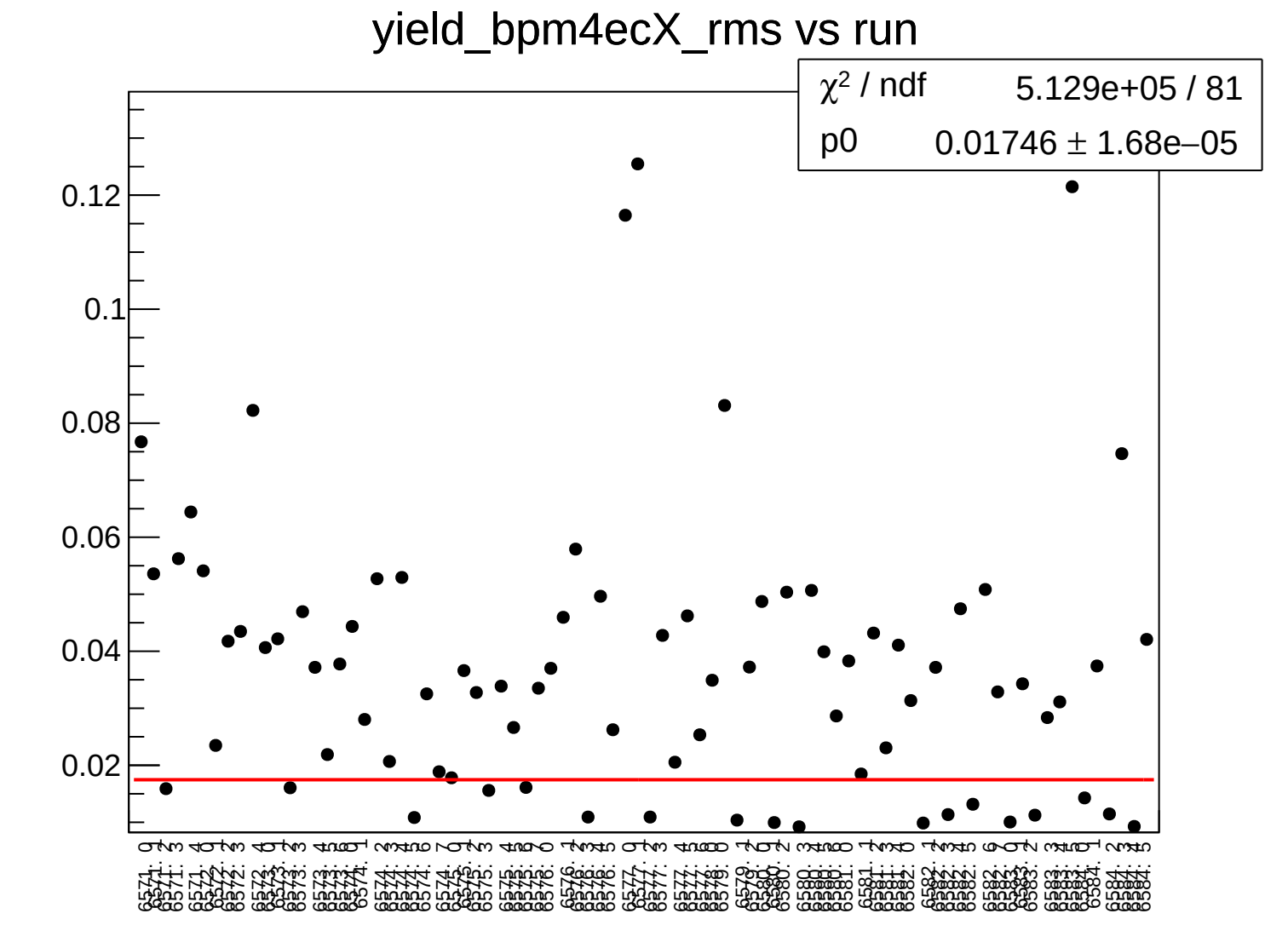

yield_bpm4acY_mean vs run
χ² / ndf 1.626e+05 / 81
p0 0.7782 ± 1.321e−05
pull
Entries 82
Mean 307.4
Std Dev 259.4

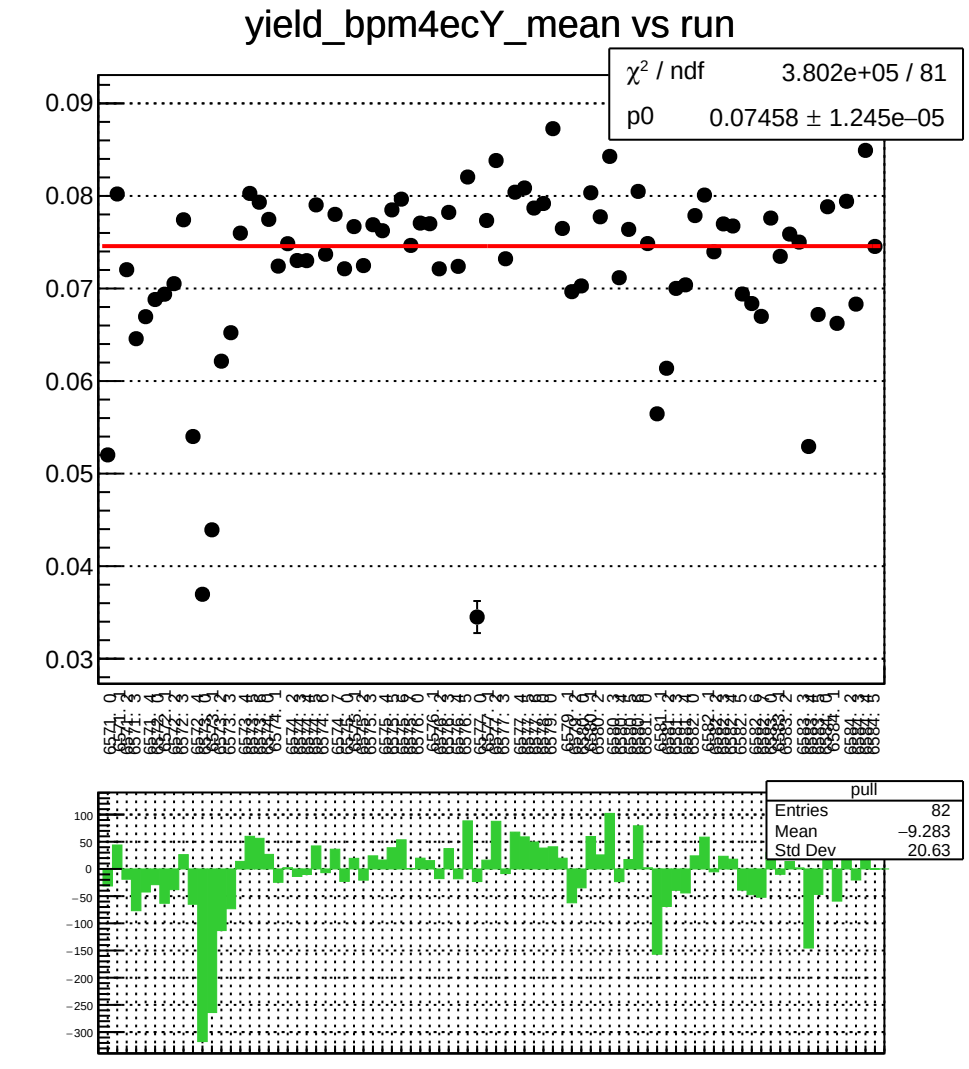

pull1D
Entries 82
Mean −1.882
Std Dev 4.876

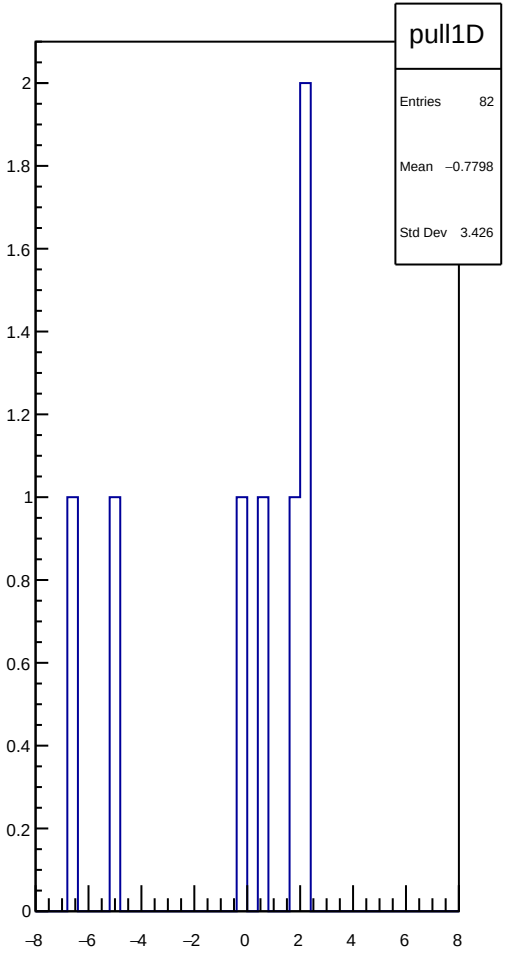

yield_bpm4acY_rms vs run
χ² / ndf 8.146e+04 / 81
p0 0.01149 ± 9.341e–06
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

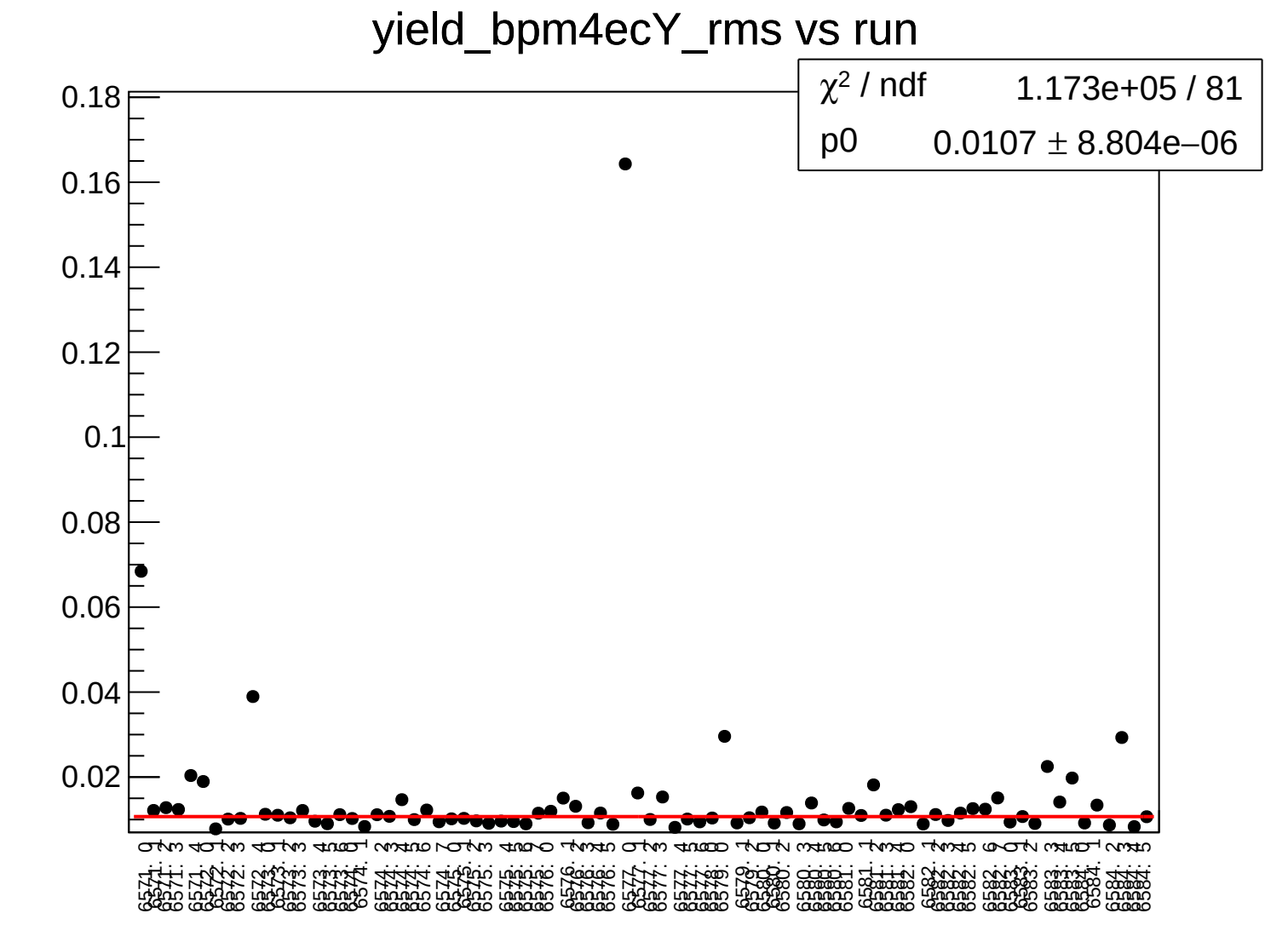

yield_bpm4ecX_mean vs run
χ² / ndf 6.959e+05 / 81
p0 −0.1581 ± 2.376e−05
pull
Entries 82
Mean 22.29
Std Dev 16.07

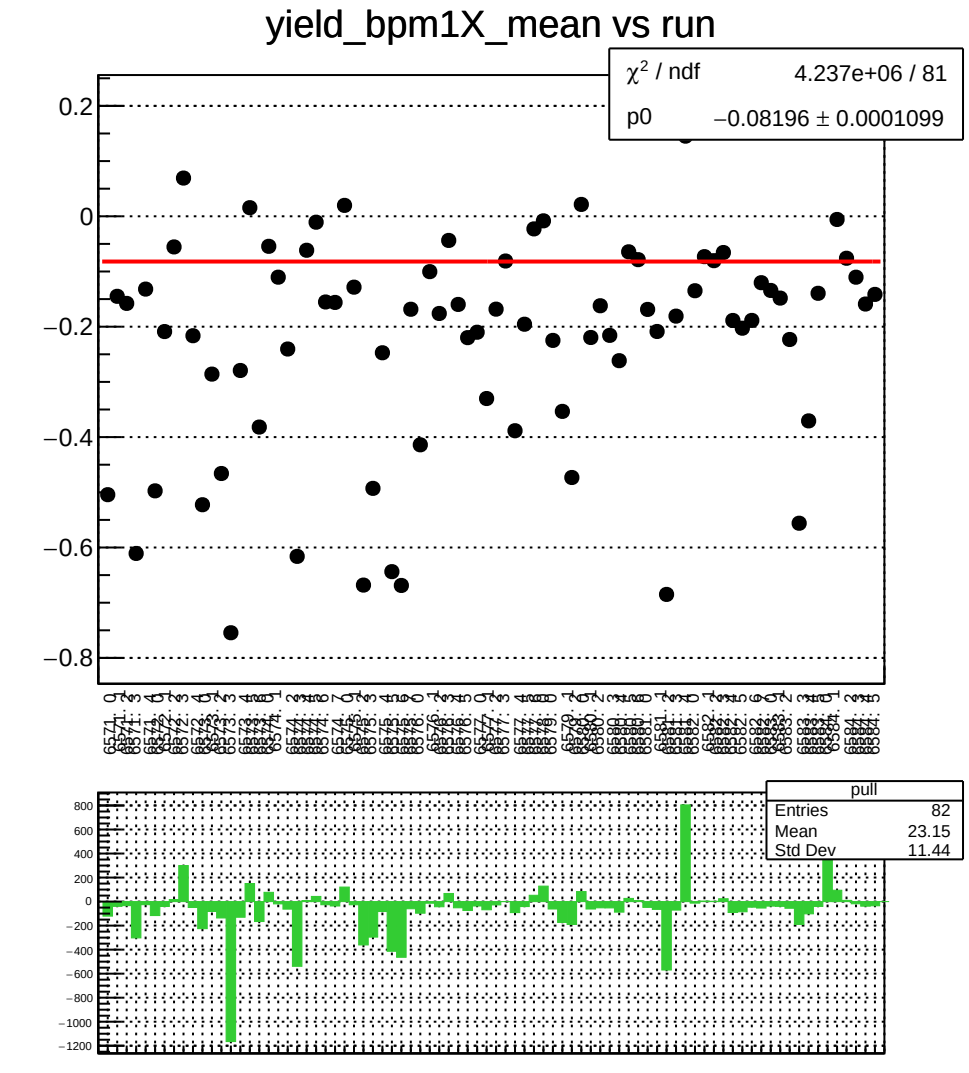

pull1D
Entries 82
Mean 1.734
Std Dev 3.727

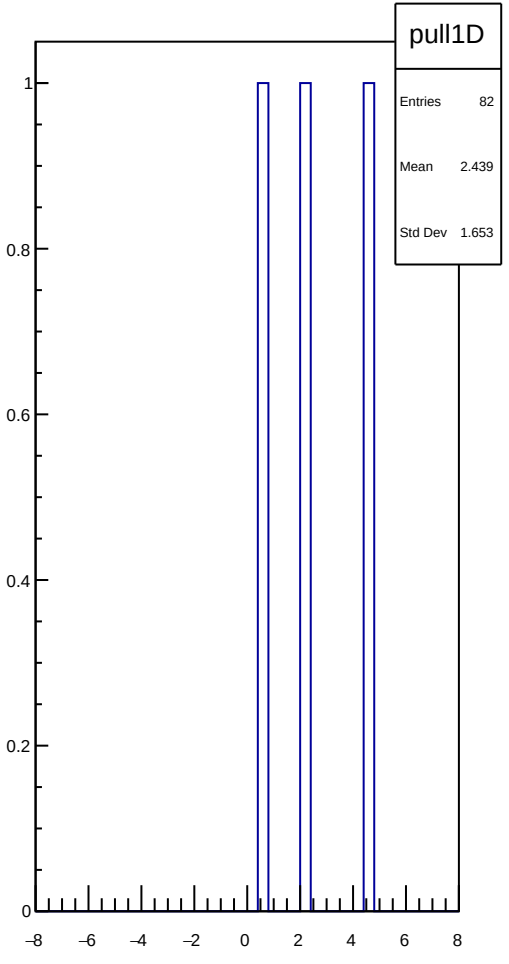

yield_bpm4ecX_rms vs run
χ² / ndf 5.129e+05 / 81
p0 0.01746 ± 1.68e−05
0.12
0.1
0.08
0.06
0.04
0.02

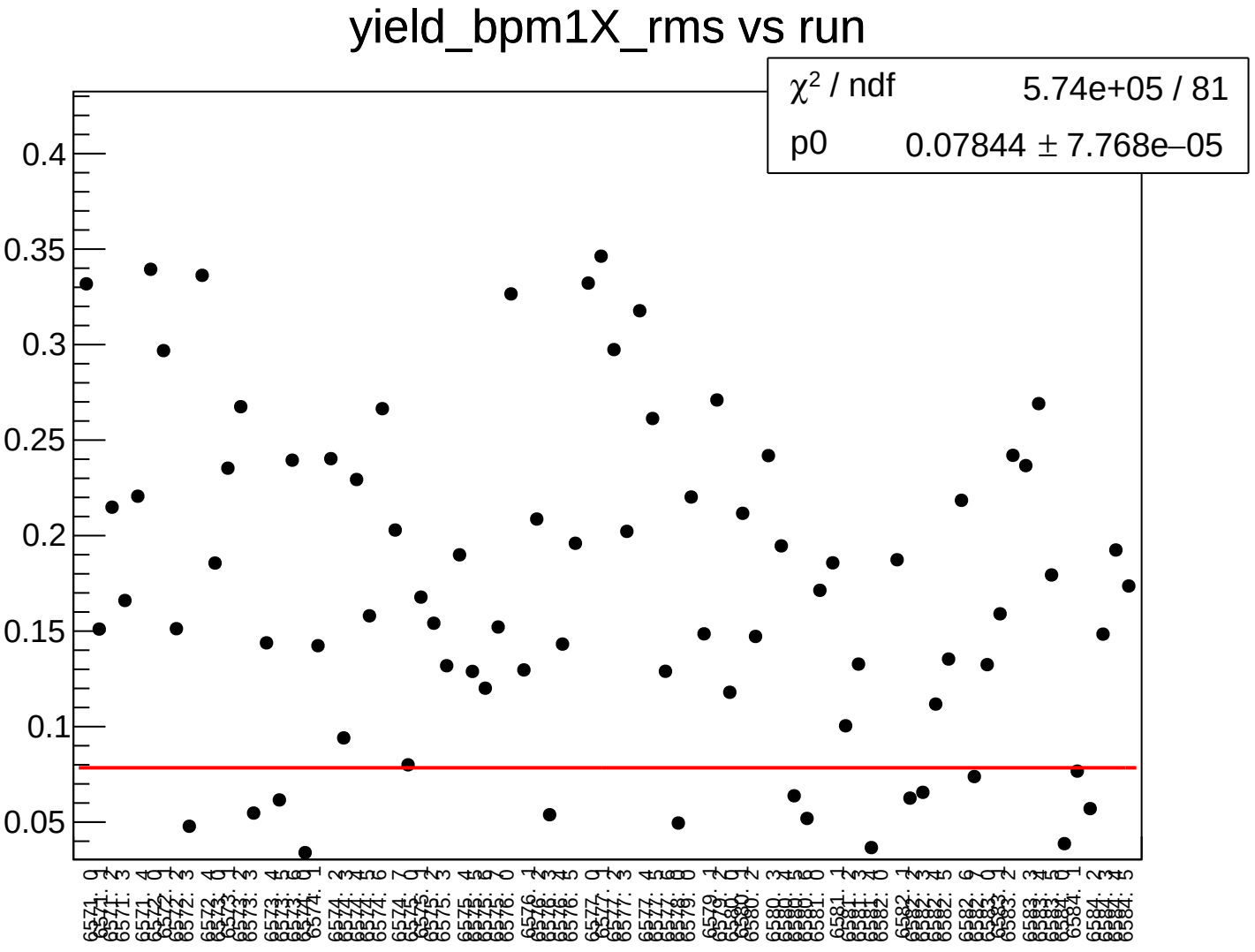

yield_bpm4ecY_mean vs run
χ² / ndf 3.802e+05 / 81
p0 0.07458 ± 1.245e−05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
pull
Entries 82
Mean −9.283
Std Dev 20.63
100
50
0
−50
−100
−150
−200
−250
−300

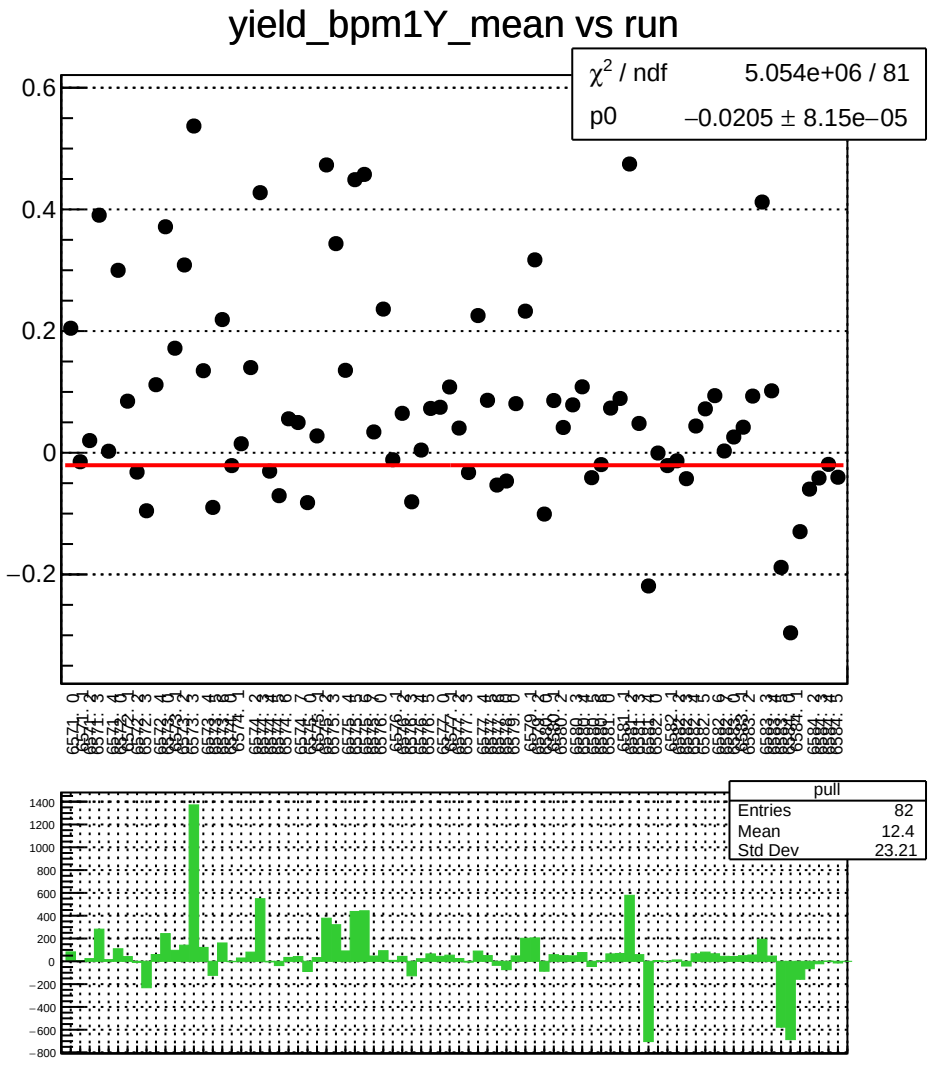

pull1D
Entries 82
Mean −0.7798
Std Dev 3.426
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

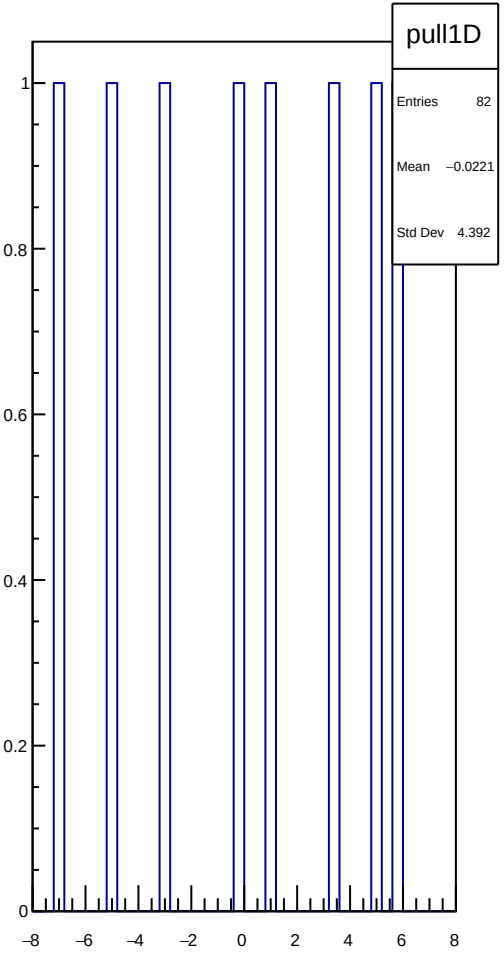

yield_bpm4ecY_rms vs run
χ² / ndf 1.173e+05 / 81
p0 0.0107 ± 8.804e−06
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

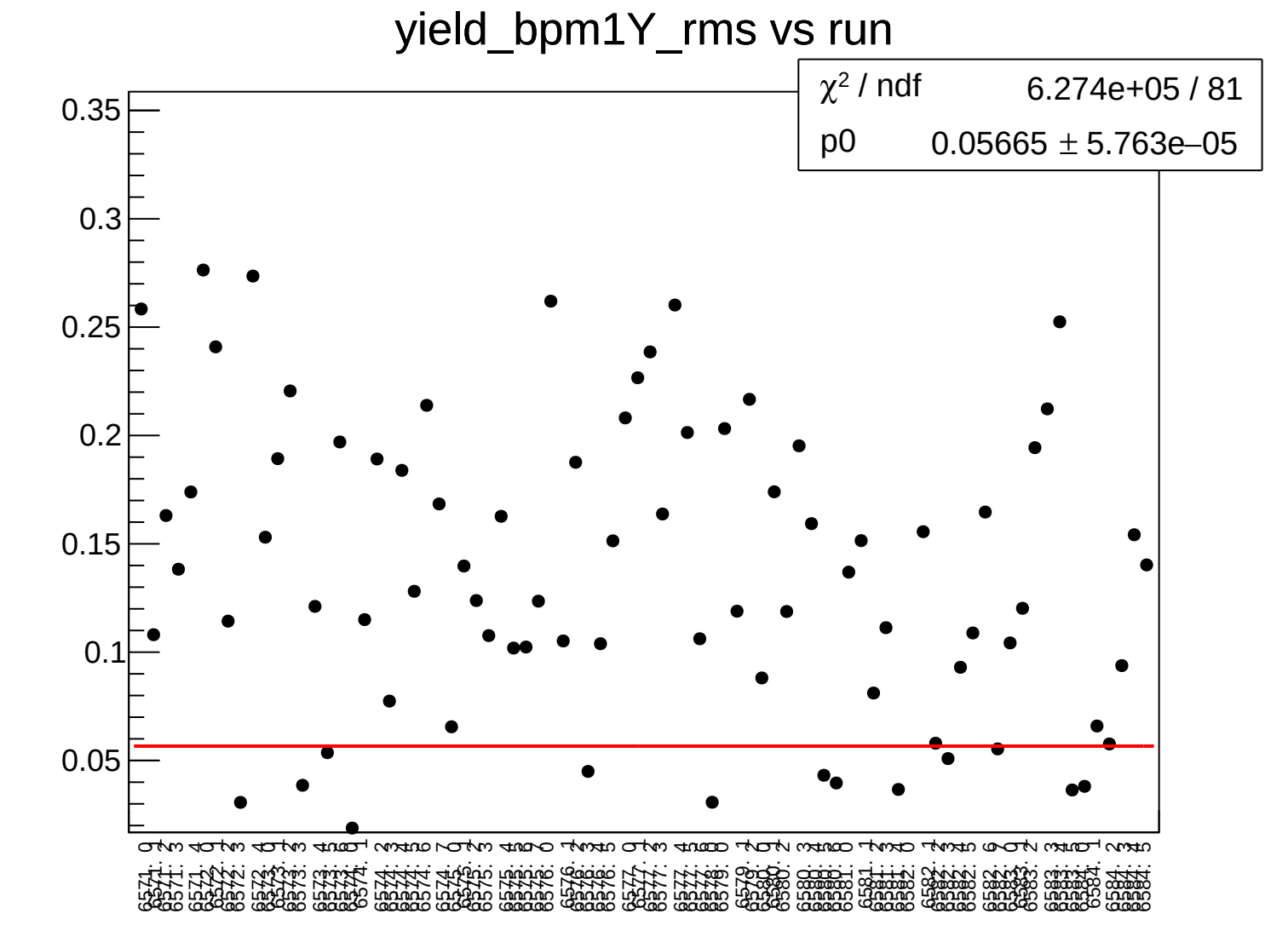

yield_bpm1X_mean vs run
χ² / ndf 4.237e+06 / 81
p0 −0.08196 ± 0.0001099
pull
Entries 82
Mean 23.15
Std Dev 11.44

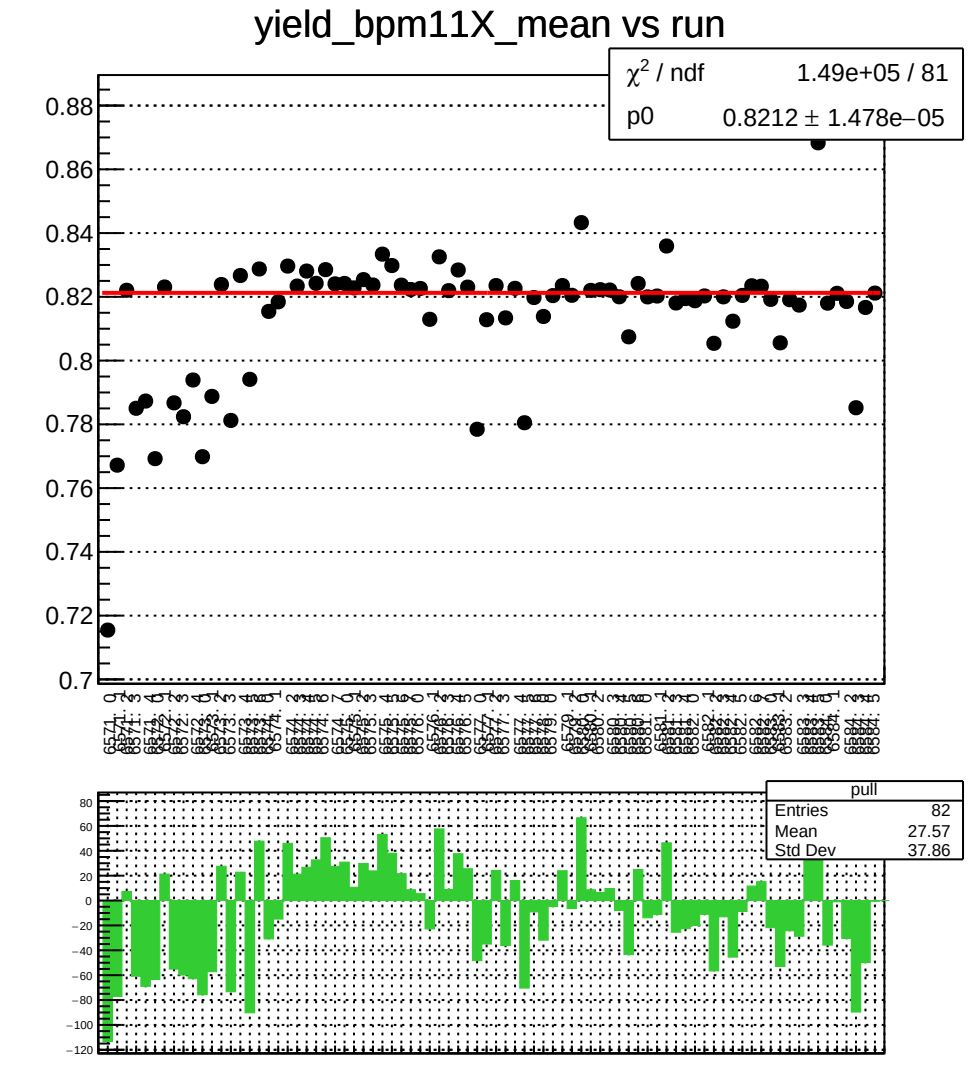

pull1D
Entries 82
Mean 2.439
Std Dev 1.653

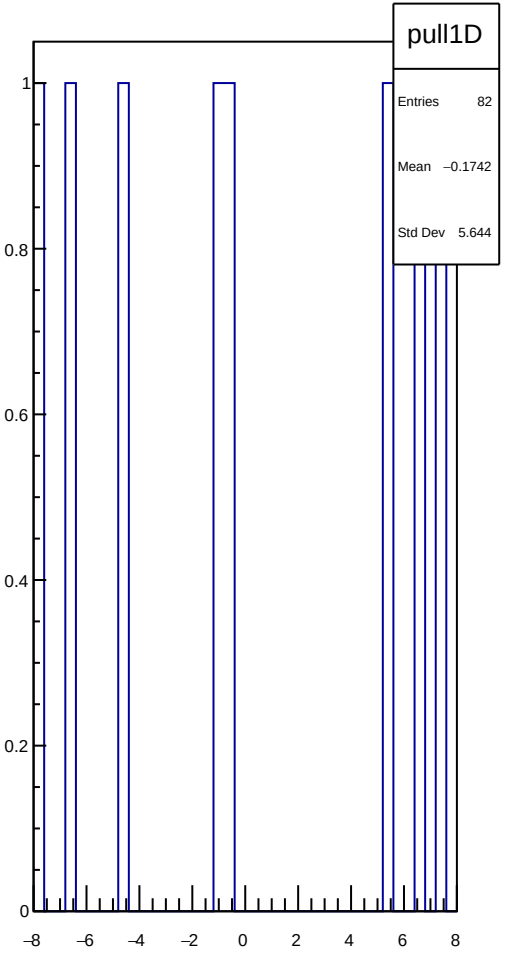

yield_bpm1X_rms vs run
χ² / ndf 5.74e+05 / 81
p0 0.07844 ± 7.768e−05
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

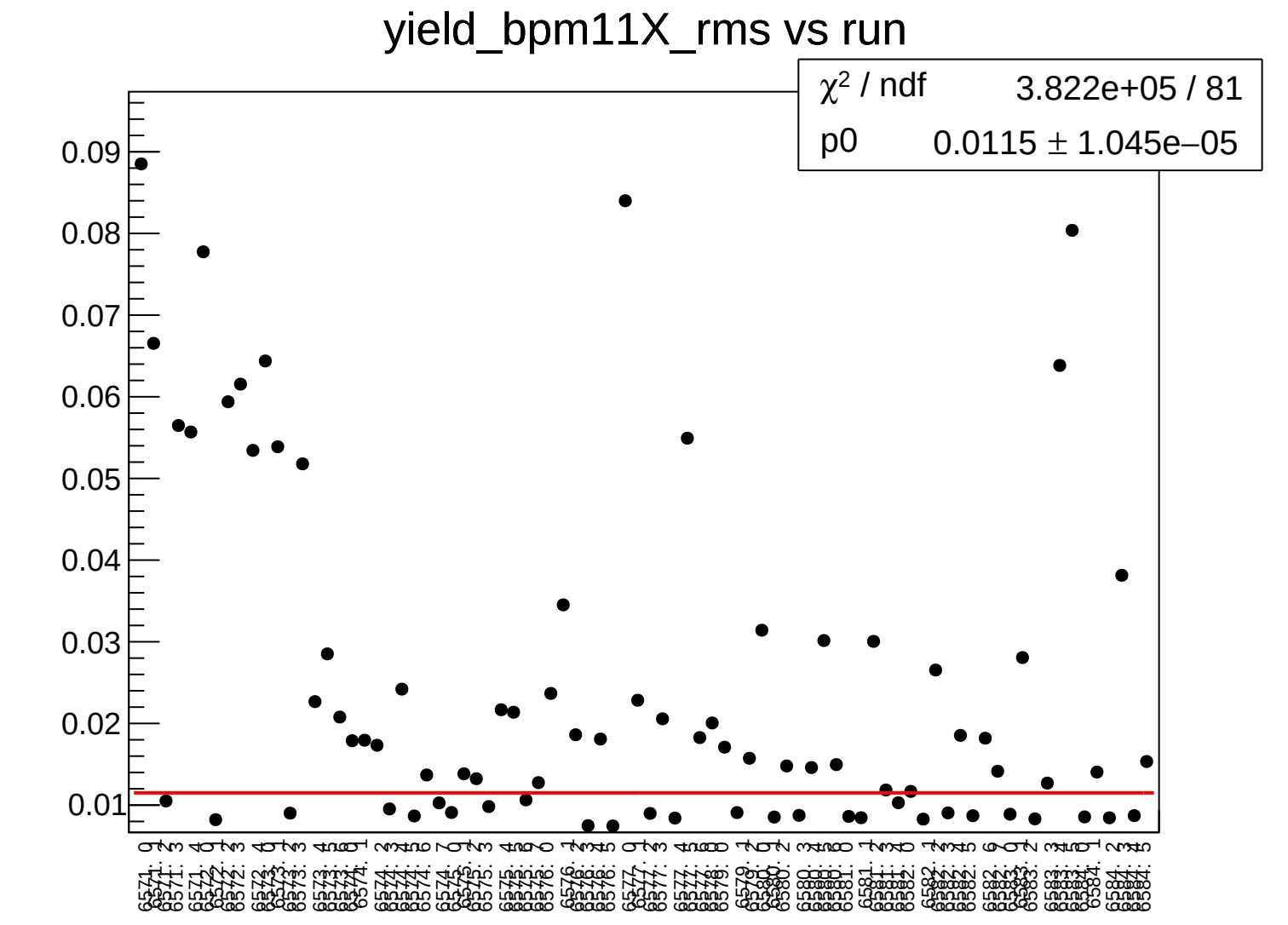

yield_bpm1Y_mean vs run
χ² / ndf 5.054e+06 / 81
p0 −0.0205 ± 8.15e−05
pull
Entries 82
Mean 12.4
Std Dev 23.21

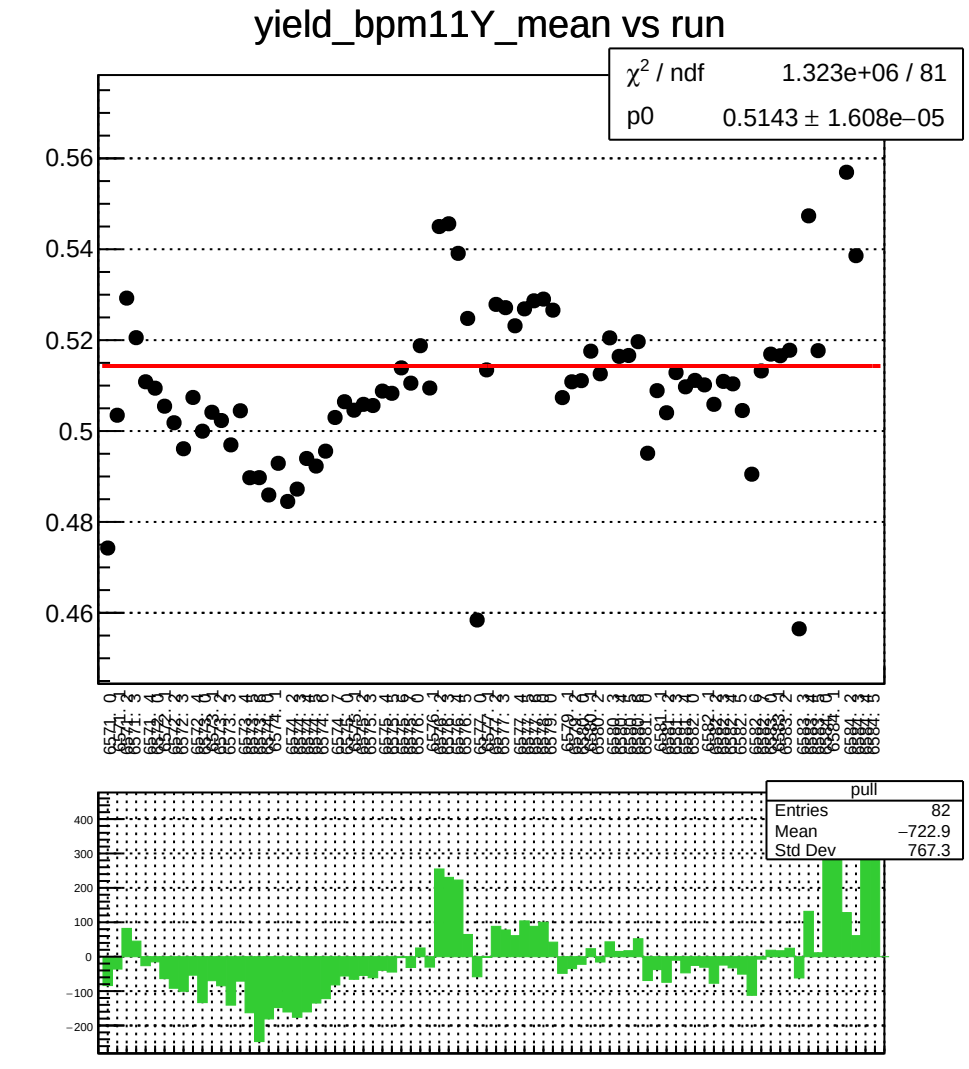

pull1D
Entries 82
Mean −0.0221
Std Dev 4.392

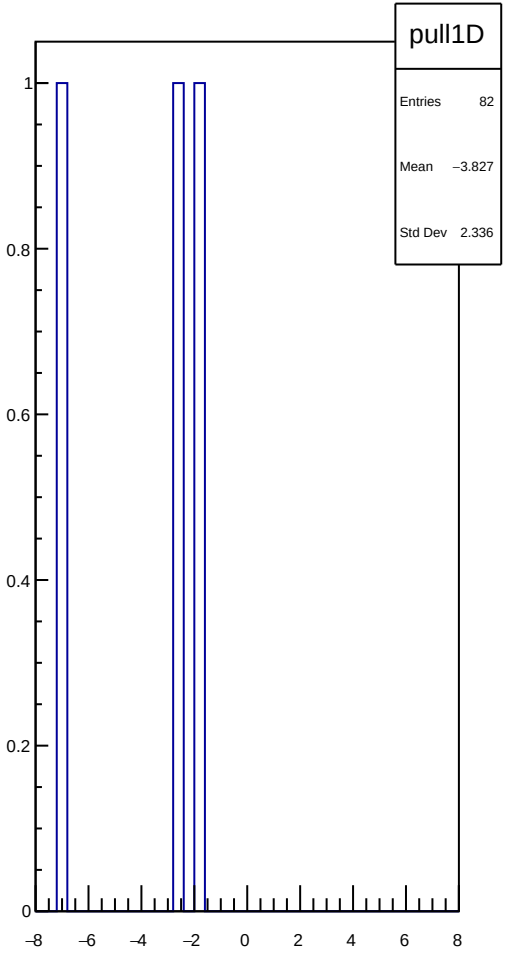

yield_bpm1Y_rms vs run
χ² / ndf 6.274e+05 / 81
p0 0.05665 ± 5.763e–05
0.35
0.3
0.25
0.2
0.15
0.1
0.05

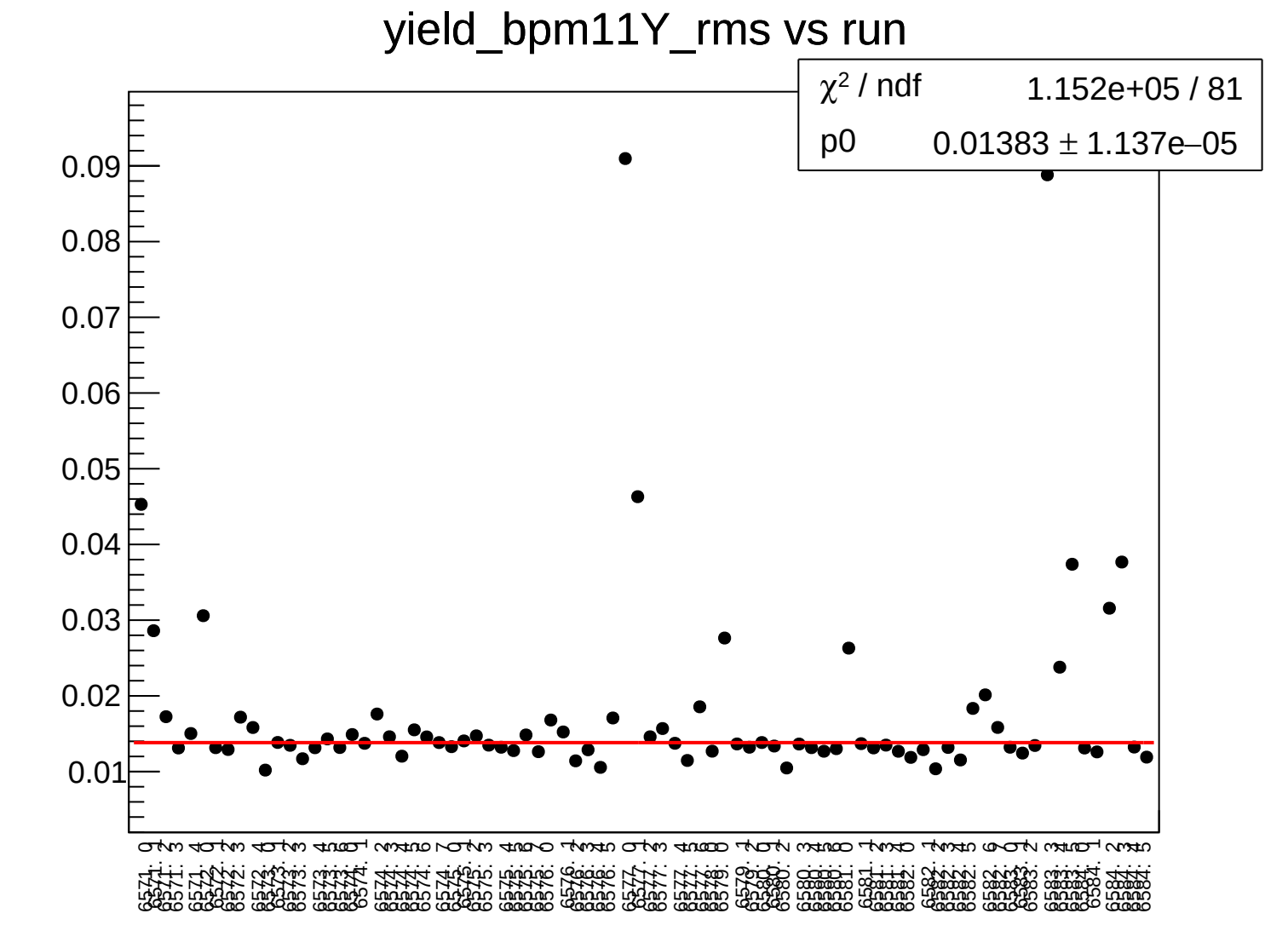

yield_bpm11X_mean vs run
χ² / ndf 1.49e+05 / 81
p0 0.8212 ± 1.478e−05
pull
Entries 82
Mean 27.57
Std Dev 37.86

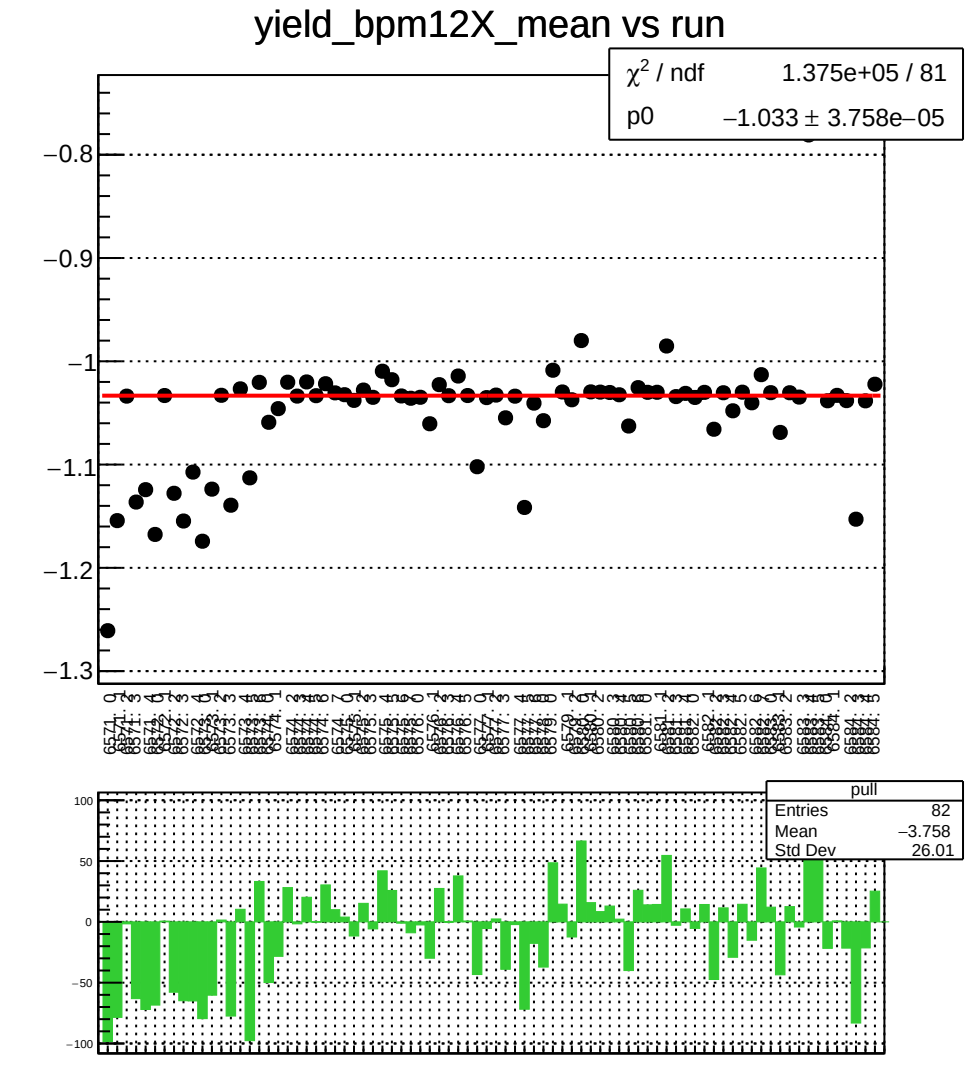

pull1D
Entries 82
Mean −0.1742
Std Dev 5.644

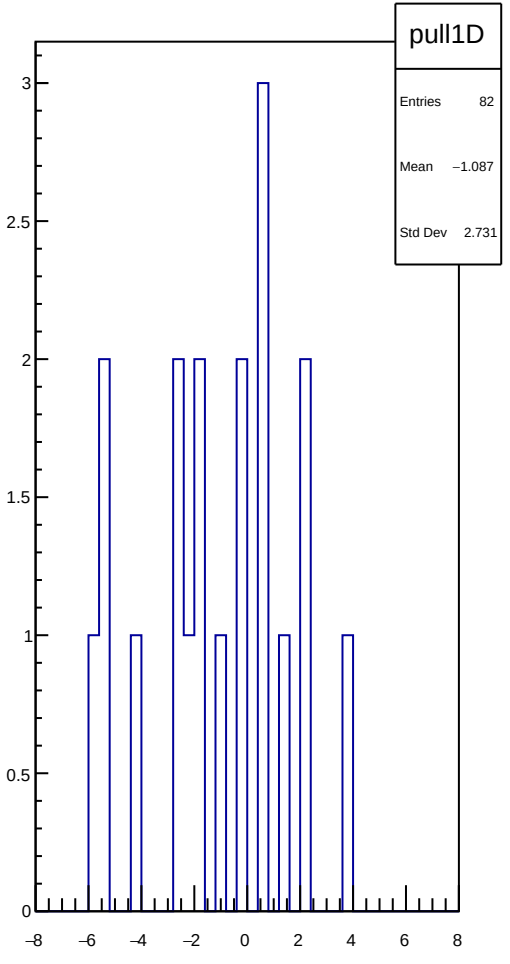

yield_bpm11X_rms vs run
χ² / ndf 3.822e+05 / 81
p0 0.0115 ± 1.045e−05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

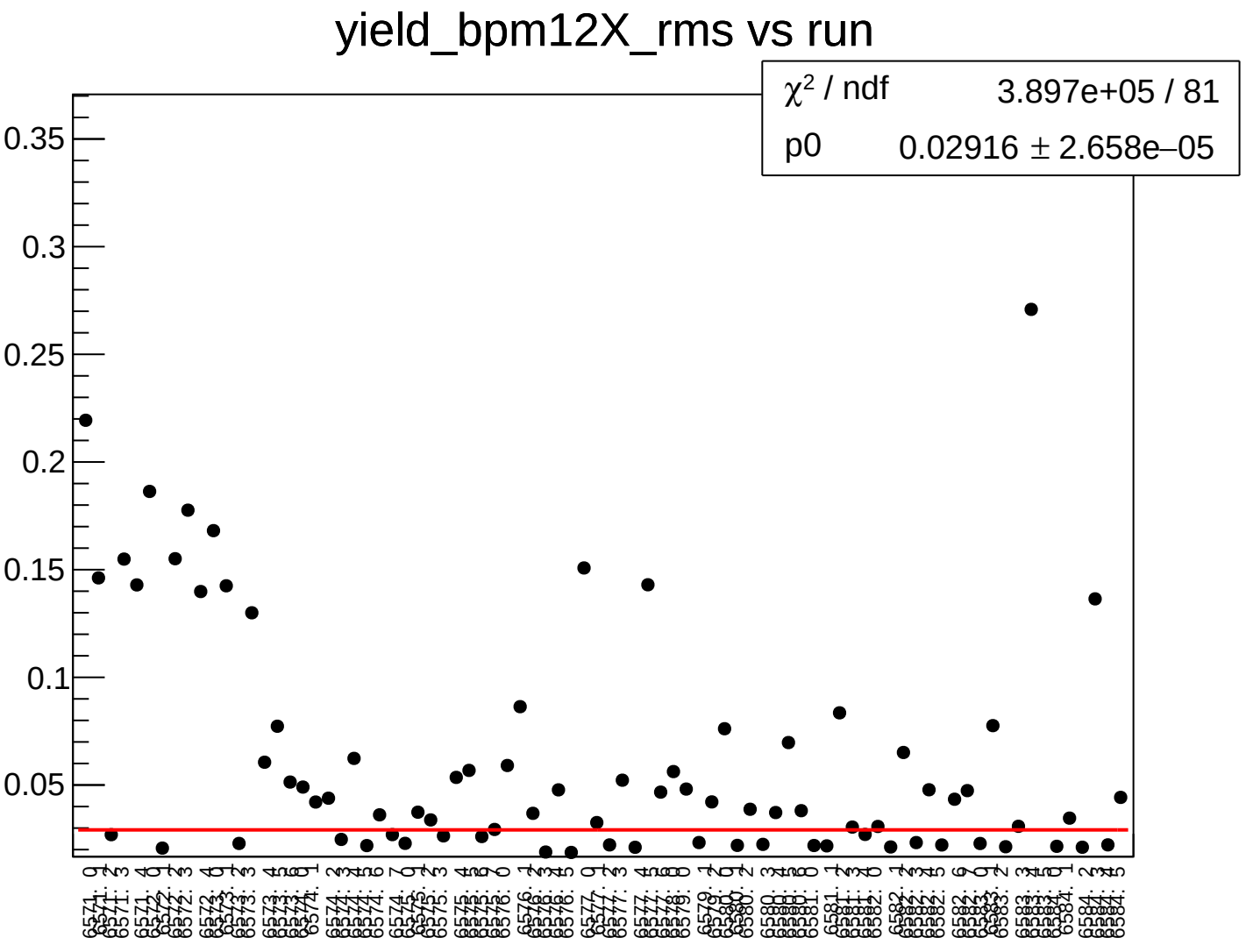

yield_bpm11Y_mean vs run
χ² / ndf 1.323e+06 / 81
p0 0.5143 ± 1.608e−05
0.56
0.54
0.52
0.5
0.48
0.46
pull
Entries 82
Mean −722.9
Std Dev 767.3
400
300
200
100
0
−100
−200

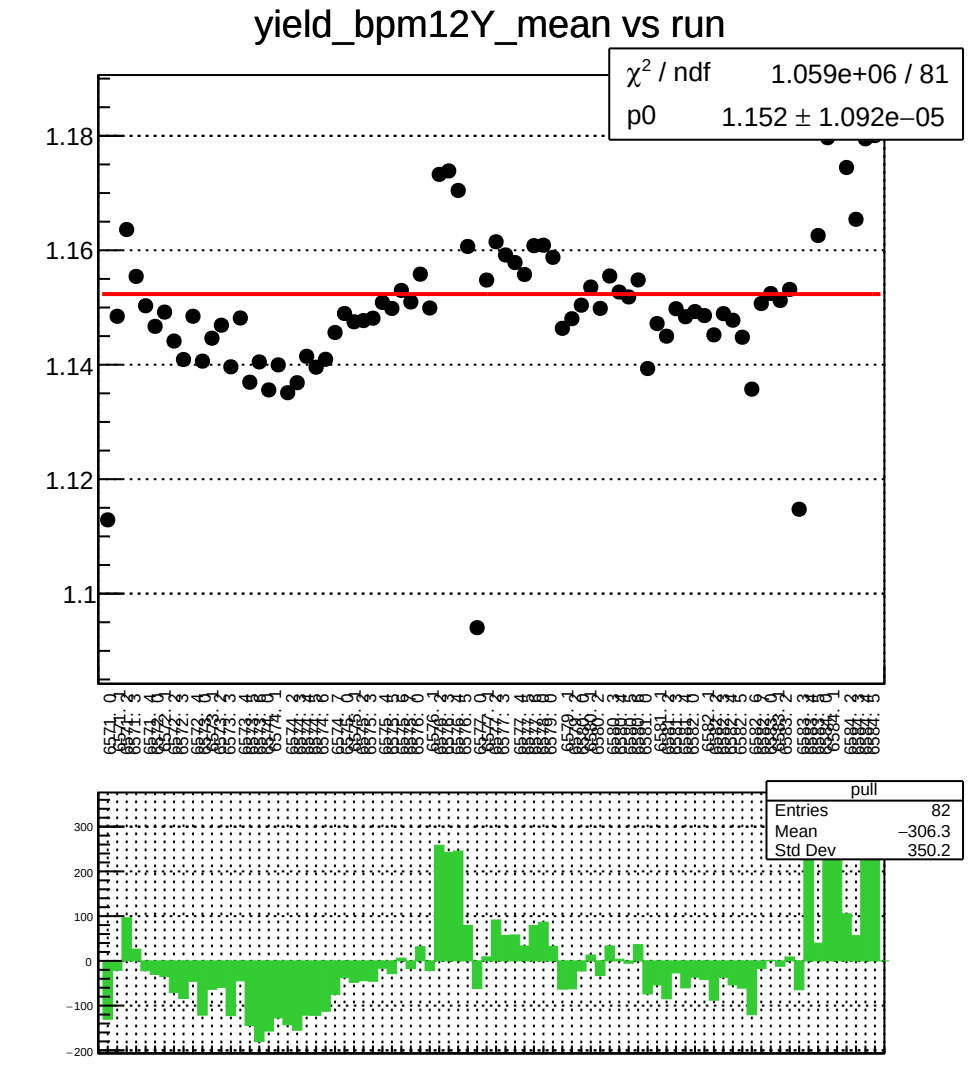

pull1D
Entries 82
Mean −3.827
Std Dev 2.336
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

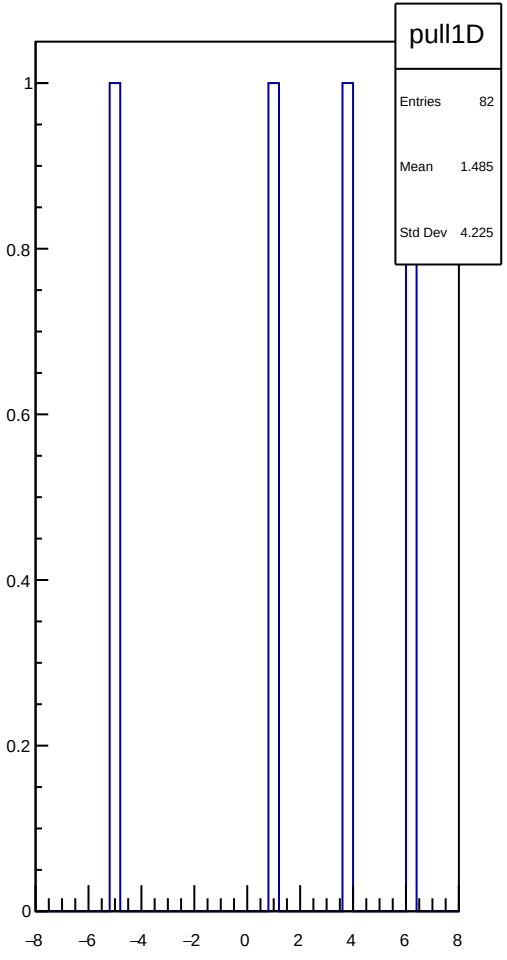

yield_bpm11Y_rms vs run
χ² / ndf 1.152e+05 / 81
p0 0.01383 ± 1.137e–05
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

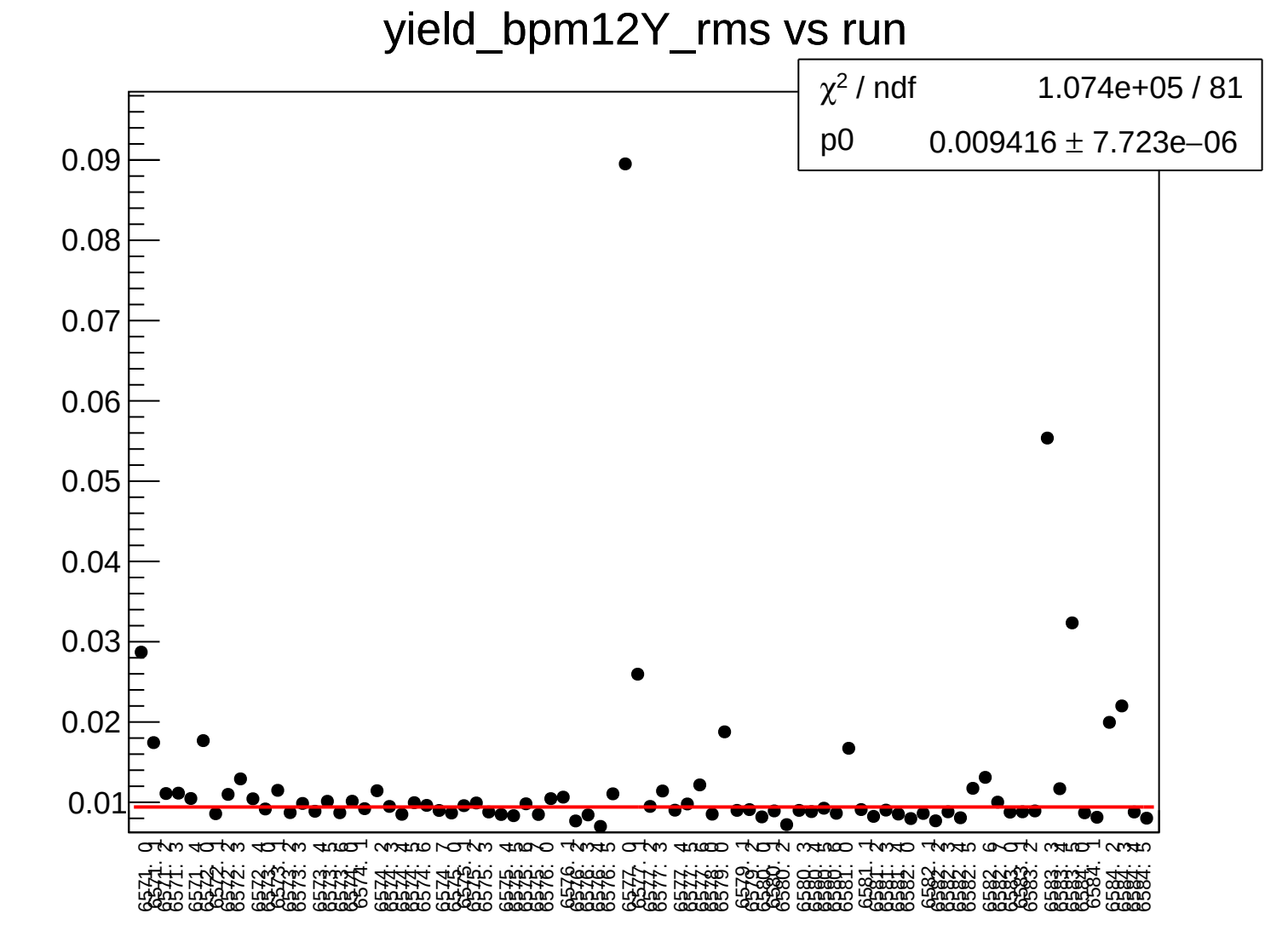

yield_bpm12X_mean vs run
χ² / ndf 1.375e+05 / 81
p0 −1.033 ± 3.758e−05
pull
Entries 82
Mean −3.758
Std Dev 26.01

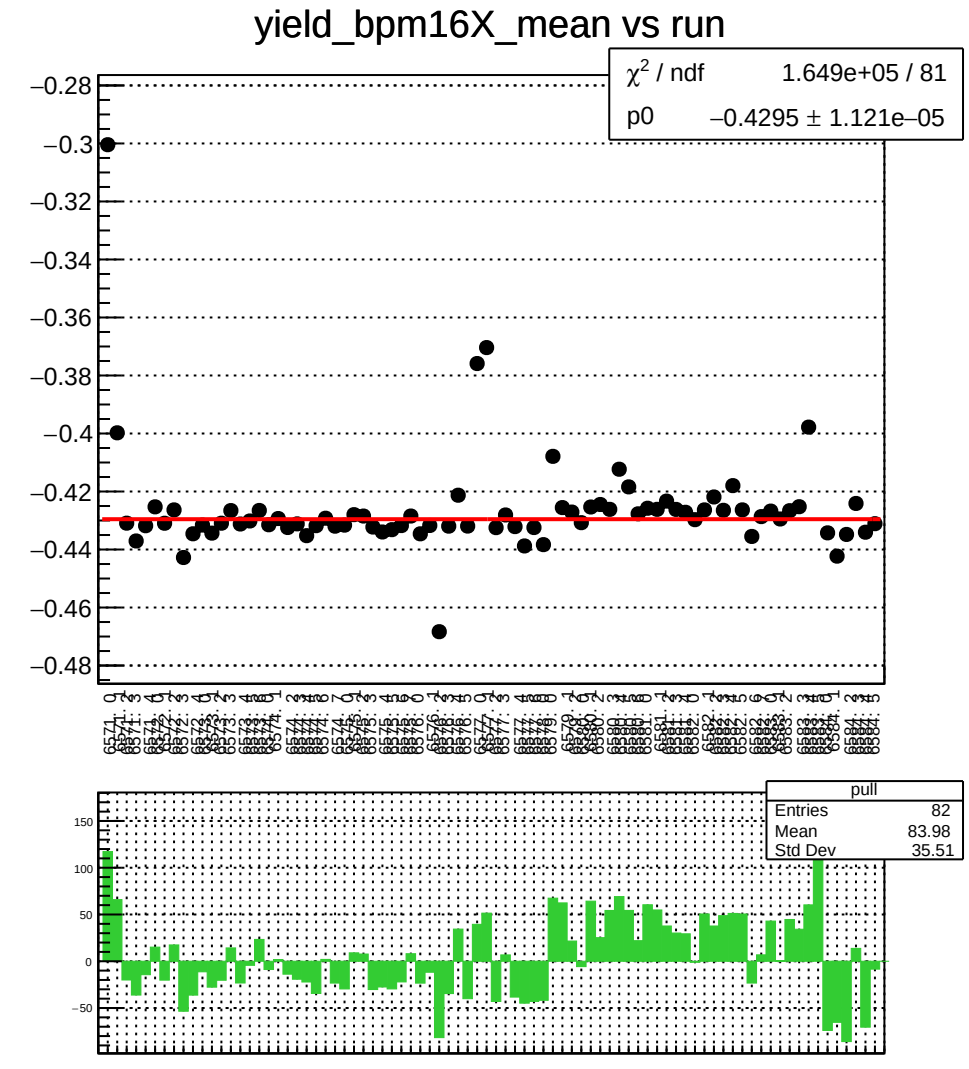

pull1D
Entries 82
Mean −1.087
Std Dev 2.731

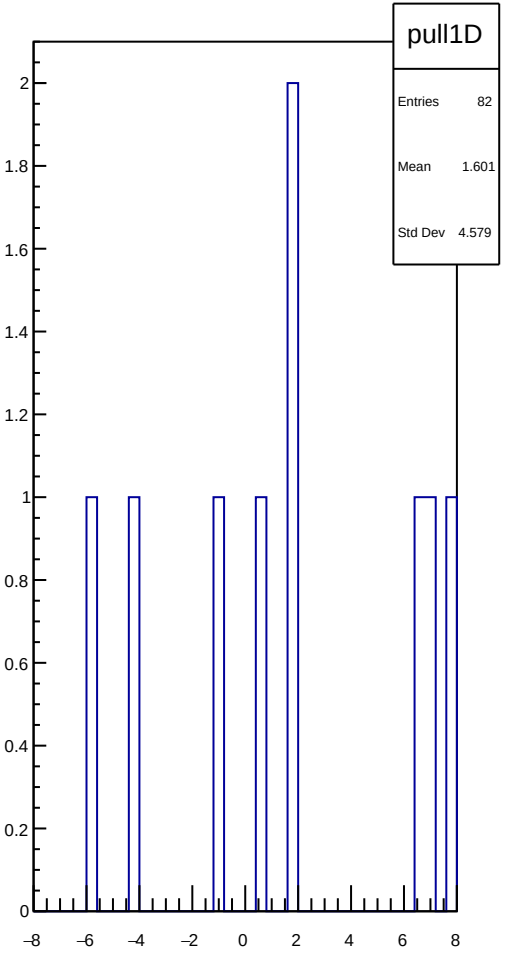

yield_bpm12X_rms vs run
χ² / ndf 3.897e+05 / 81
p0 0.02916 ± 2.658e–05
0.35
0.3
0.25
0.2
0.15
0.1
0.05

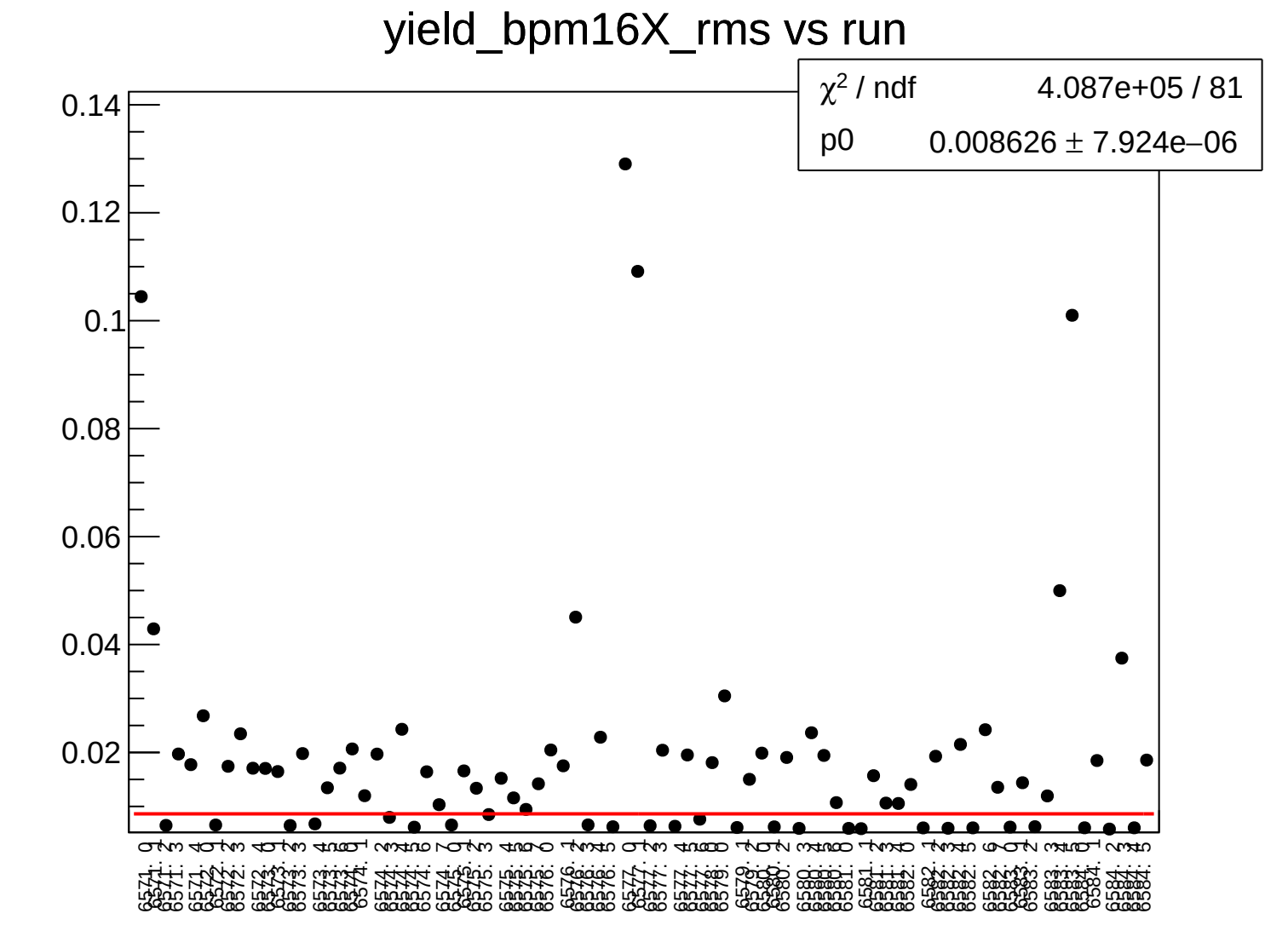

yield_bpm12Y_mean vs run
χ² / ndf 1.059e+06 / 81
p0 1.152 ± 1.092e−05
1.18
1.16
1.14
1.12
1.1
pull
Entries 82
Mean −306.3
Std Dev 350.2
300
200
100
0
−100
−200

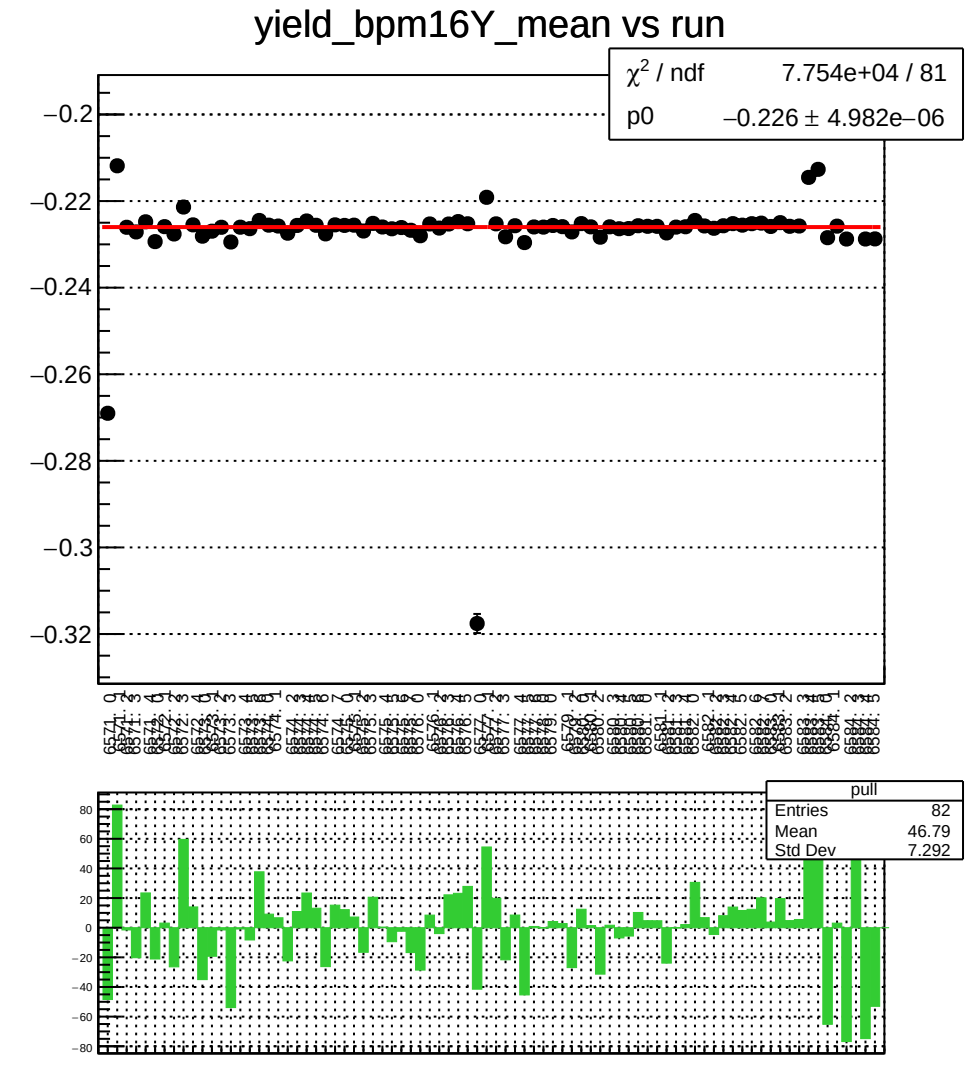

pull1D
Entries 82
Mean 1.485
Std Dev 4.225
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

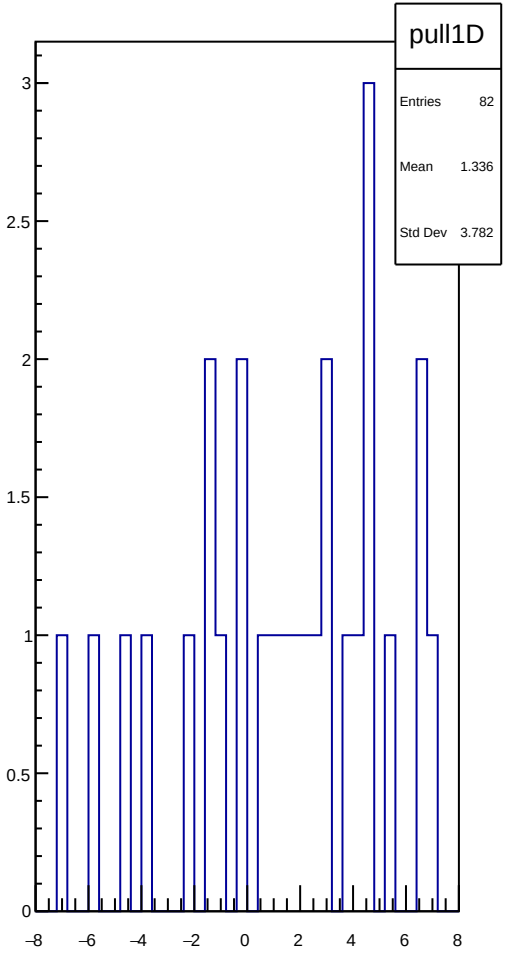

yield_bpm12Y_rms vs run
χ² / ndf 1.074e+05 / 81
p0 0.009416 ± 7.723e−06
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

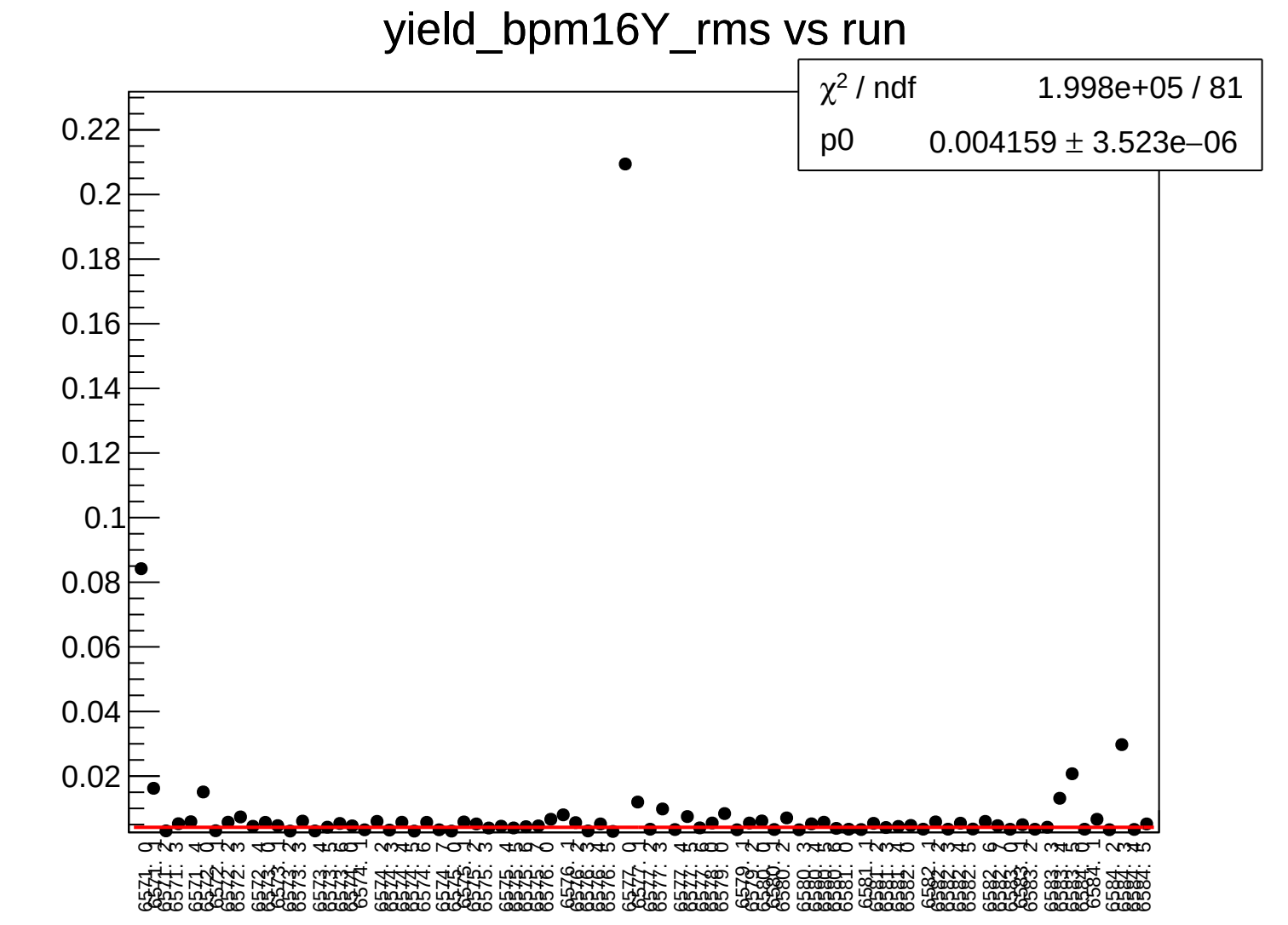

yield_bpm16X_mean vs run
χ² / ndf 1.649e+05 / 81
p0 −0.4295 ± 1.121e−05
pull
Entries 82
Mean 83.98
Std Dev 35.51

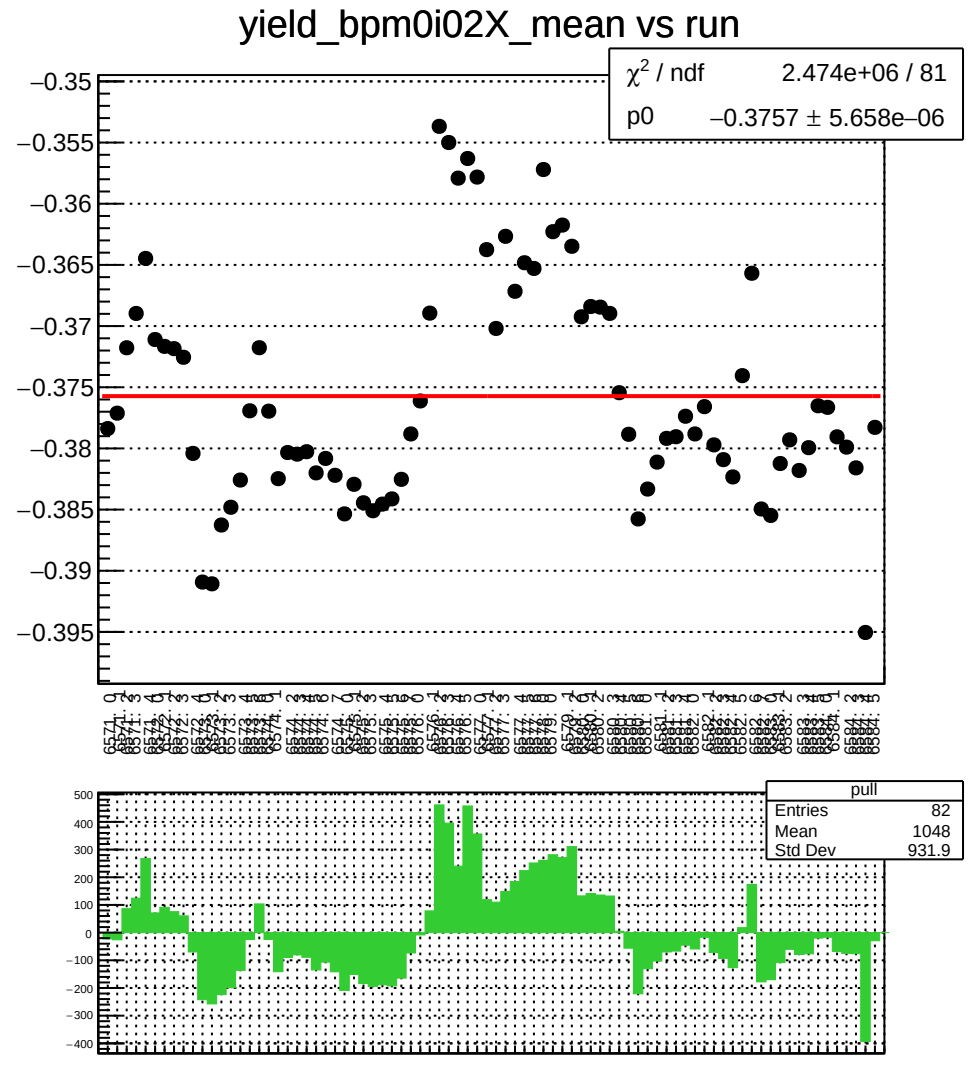

pull1D
Entries 82
Mean 1.601
Std Dev 4.579

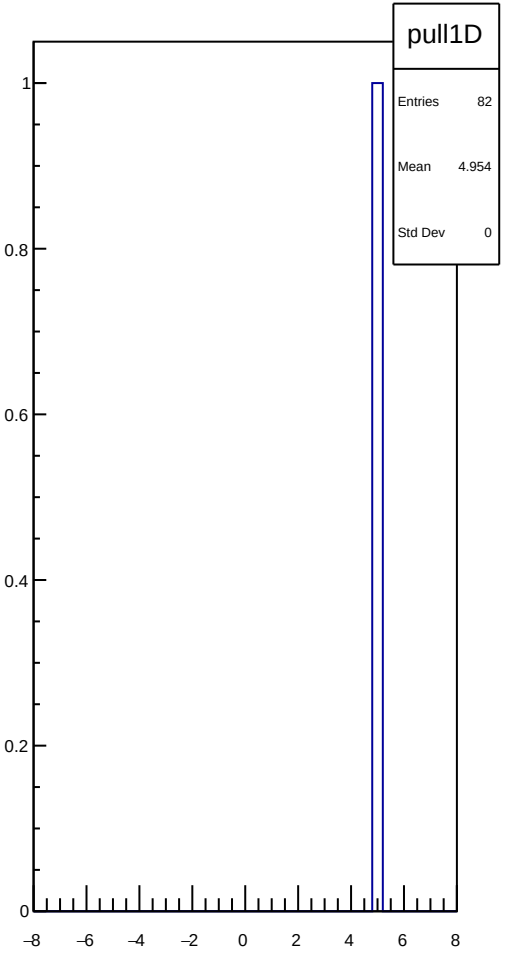

yield_bpm16X_rms vs run
χ² / ndf 4.087e+05 / 81
p0 0.008626 ± 7.924e−06
0.14
0.12
0.1
0.08
0.06
0.04
0.02

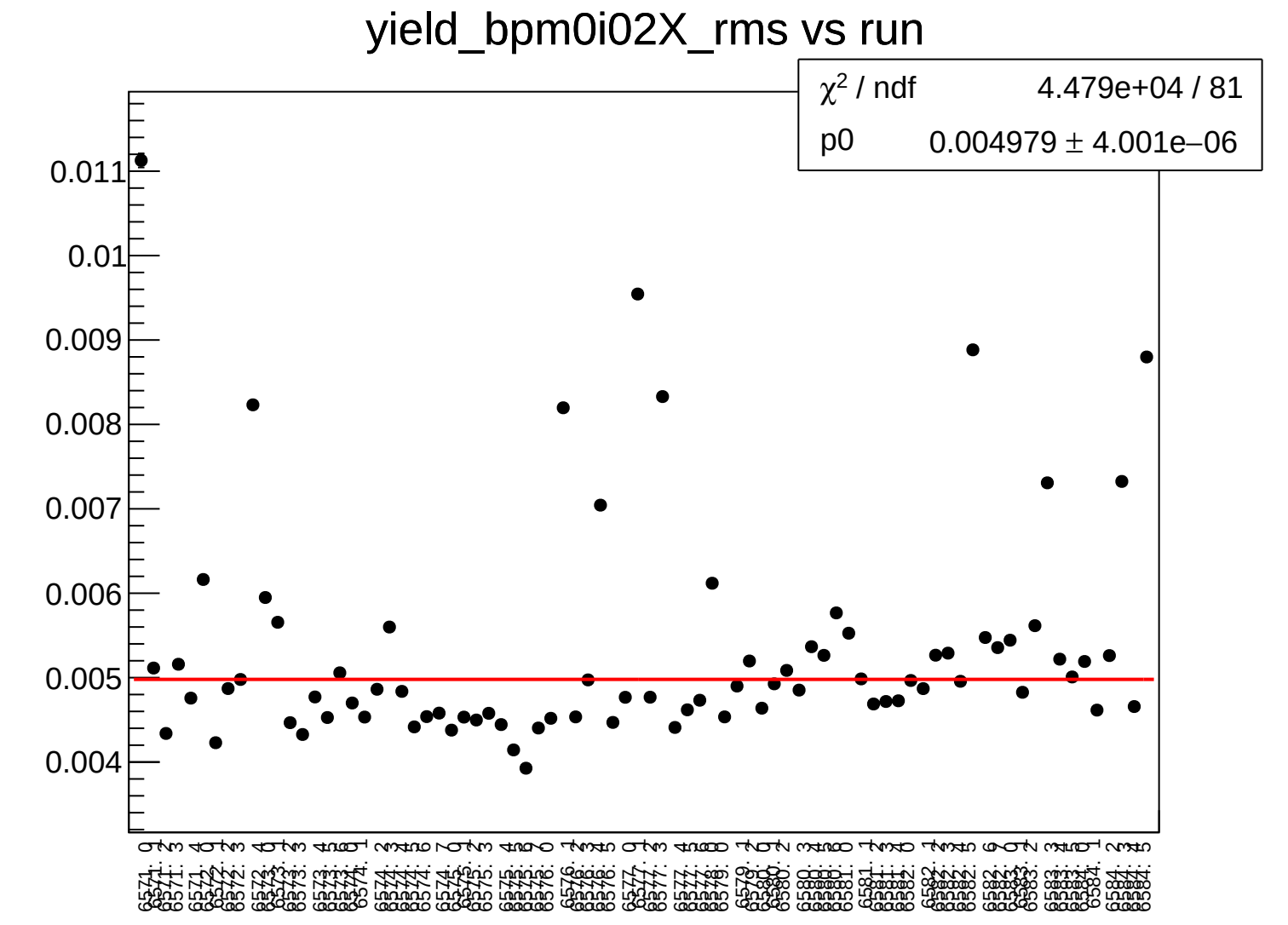

yield_bpm16Y_mean vs run
χ² / ndf 7.754e+04 / 81
p0 −0.226 ± 4.982e−06
−0.2
−0.22
−0.24
−0.26
−0.28
−0.3
−0.32
pull
Entries 82
Mean 46.79
Std Dev 7.292
80
60
40
20
0
−20
−40
−60
−80

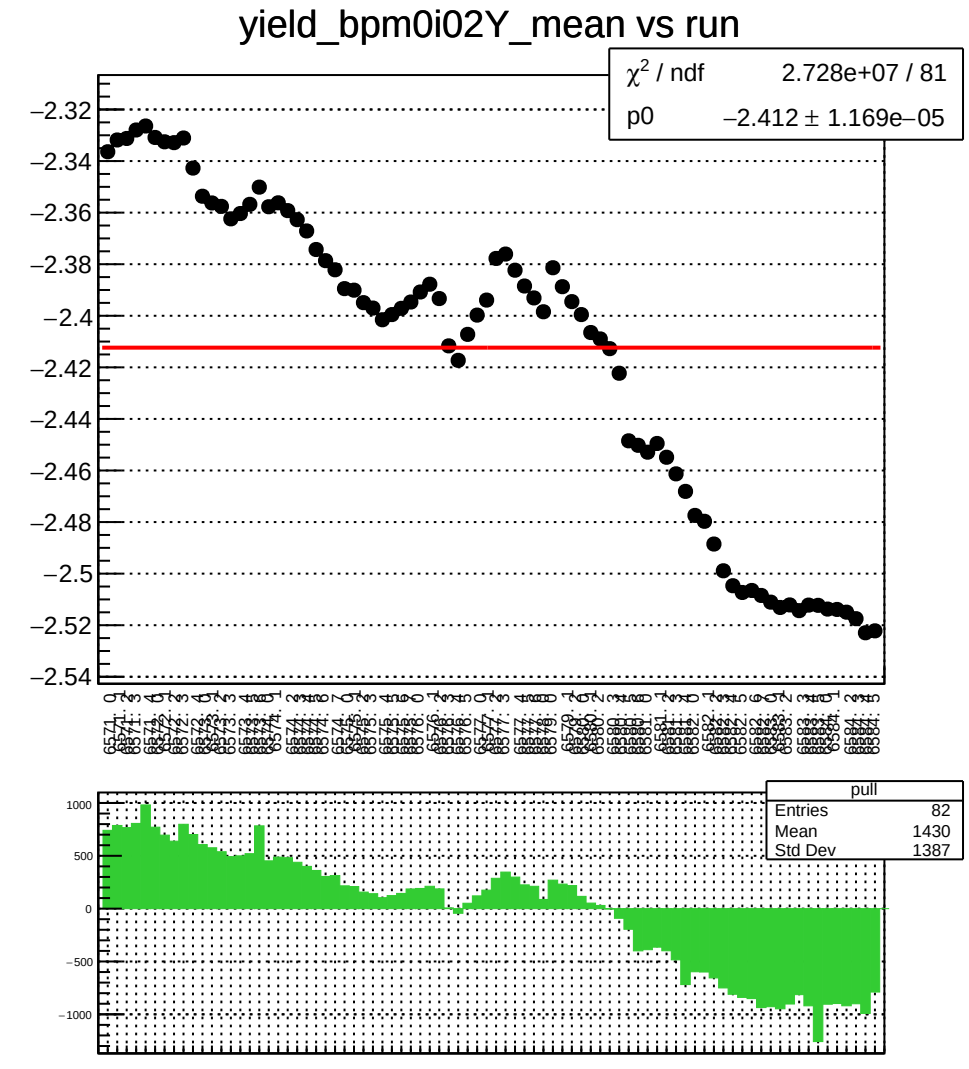

pull1D
Entries 82
Mean 1.336
Std Dev 3.782
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

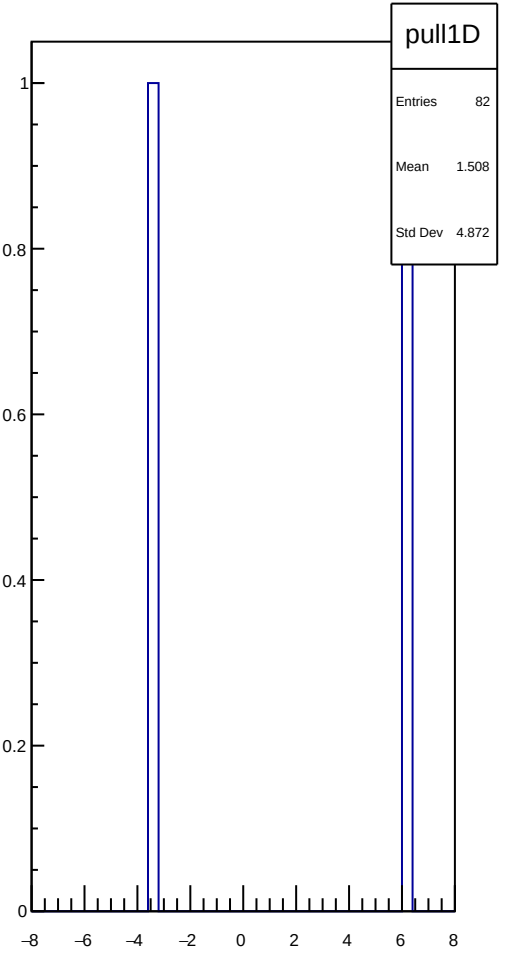

yield_bpm16Y_rms vs run
χ² / ndf 1.998e+05 / 81
p0 0.004159 ± 3.523e−06
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

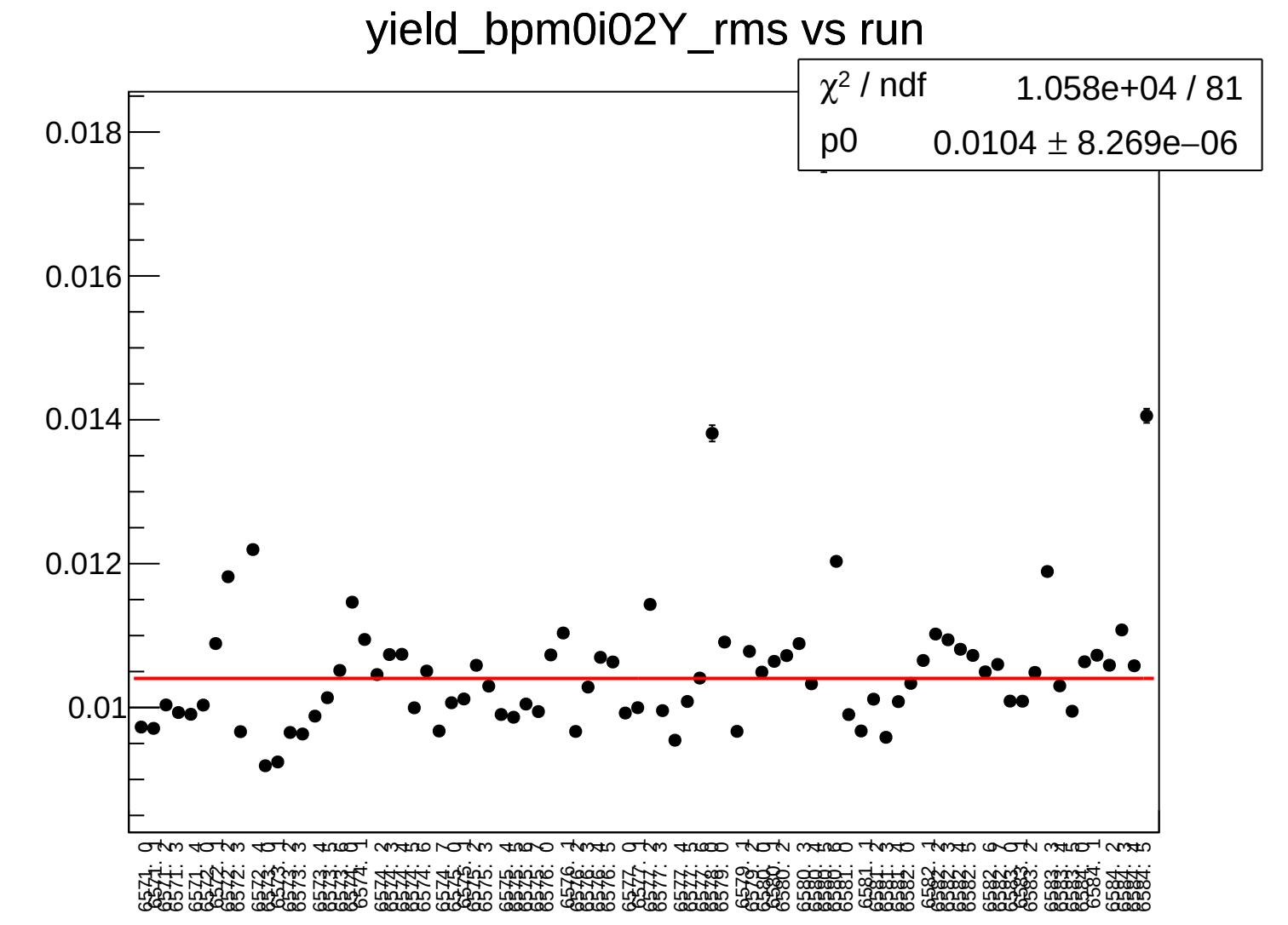

yield_bpm0i02X_mean vs run
χ² / ndf 2.474e+06 / 81
p0 −0.3757 ± 5.658e−06
pull
Entries 82
Mean 1048
Std Dev 931.9

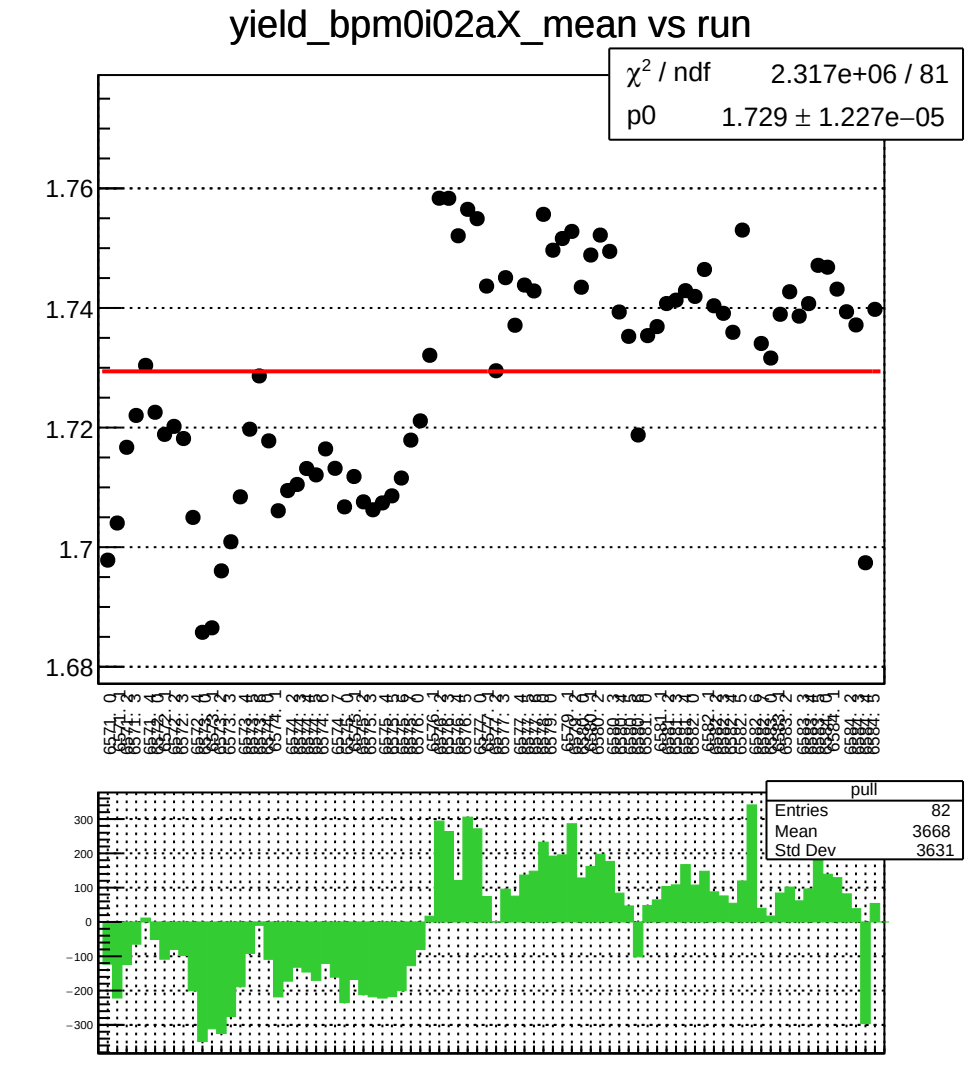

pull1D
Entries 82
Mean 4.954
Std Dev 0

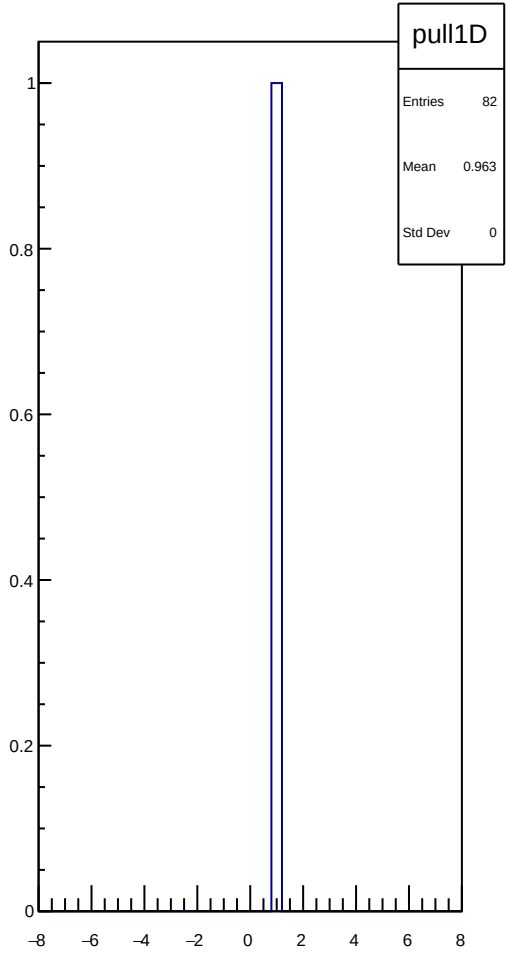

yield_bpm0i02X_rms vs run
χ² / ndf 4.479e+04 / 81
p0 0.004979 ± 4.001e−06
0.011
0.01
0.009
0.008
0.007
0.006
0.005
0.004

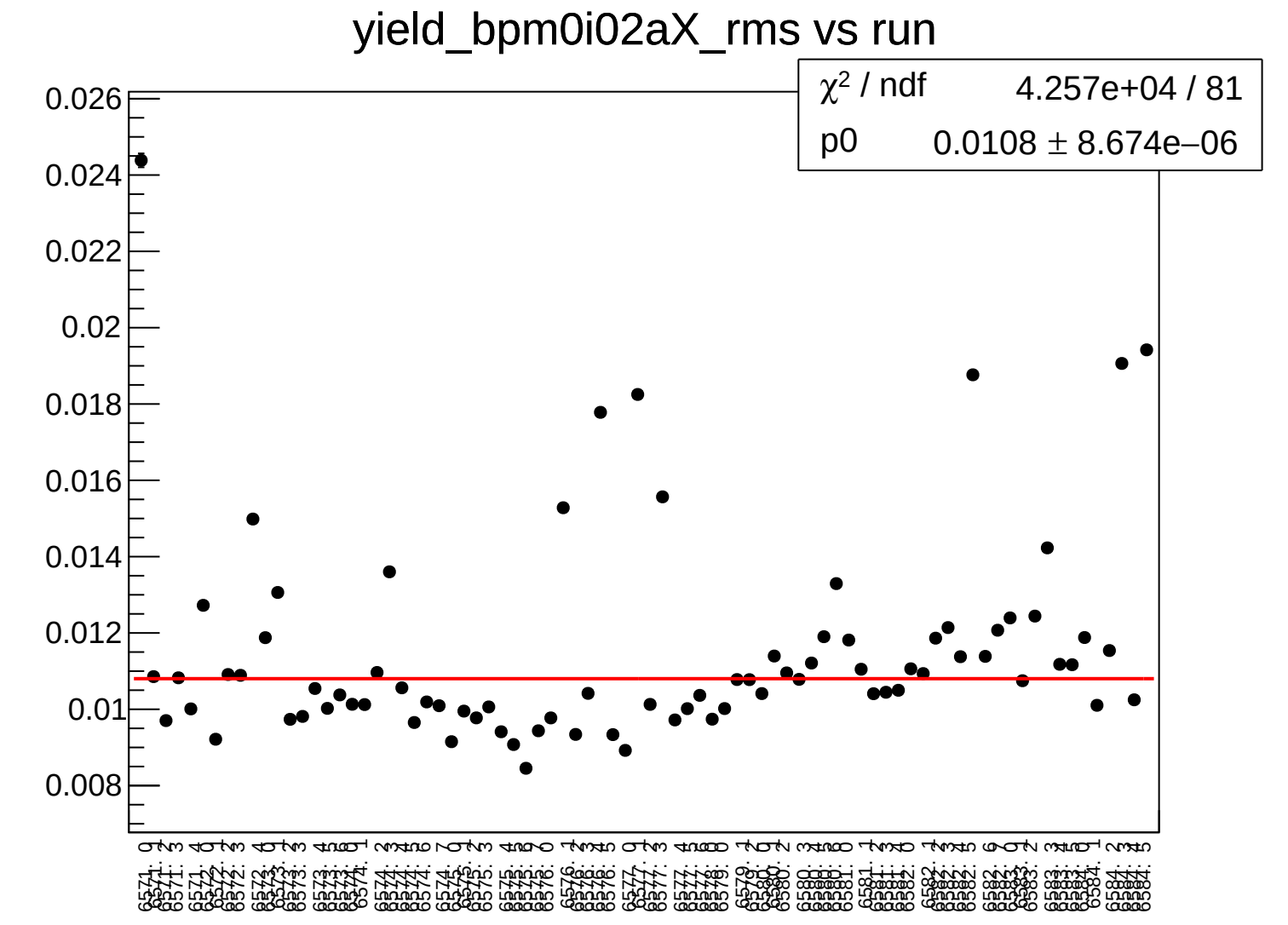

yield_bpm0i02Y_mean vs run
χ² / ndf 2.728e+07 / 81
p0 −2.412 ± 1.169e−05
−2.32
−2.34
−2.36
−2.38
−2.4
−2.42
−2.44
−2.46
−2.48
−2.5
−2.52
−2.54
pull
Entries 82
Mean 1430
Std Dev 1387
1000
500
0
−500
−1000

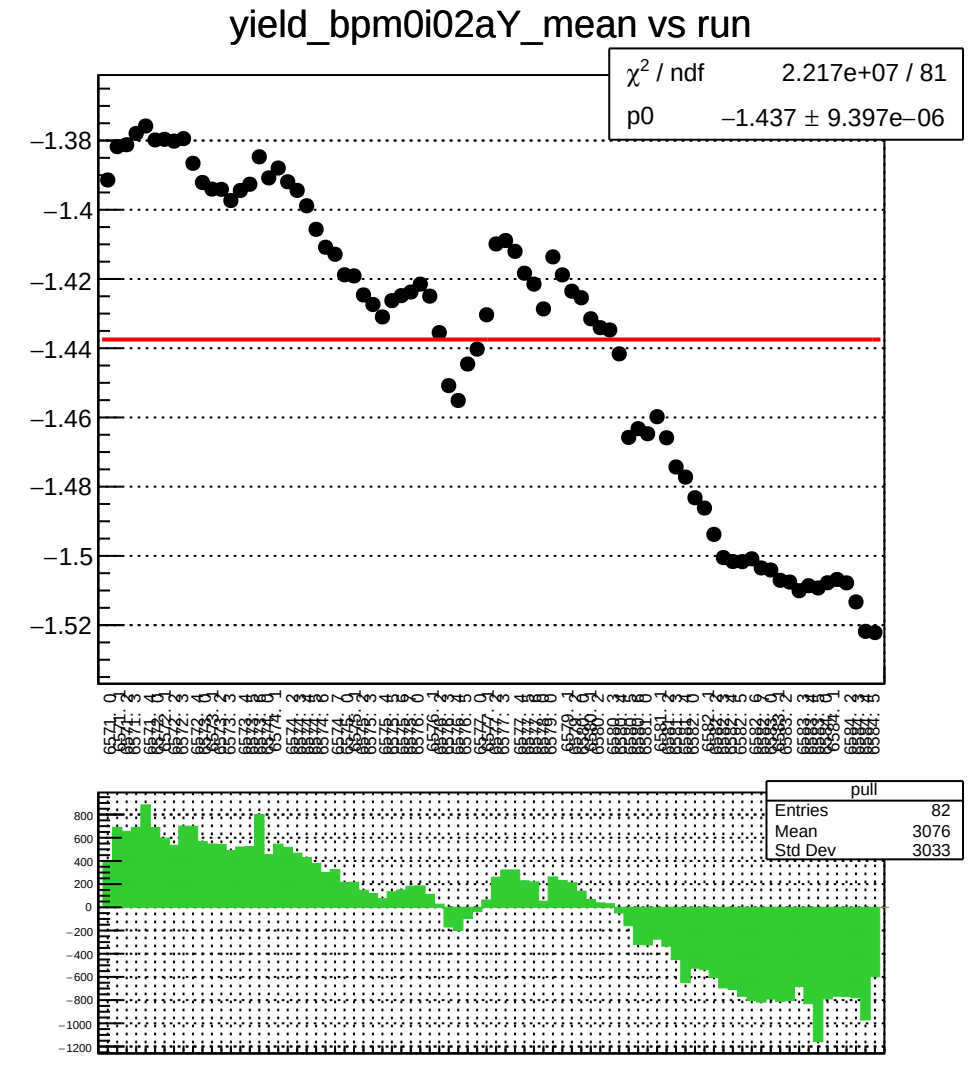

pull1D
Entries 82
Mean 1.508
Std Dev 4.872
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

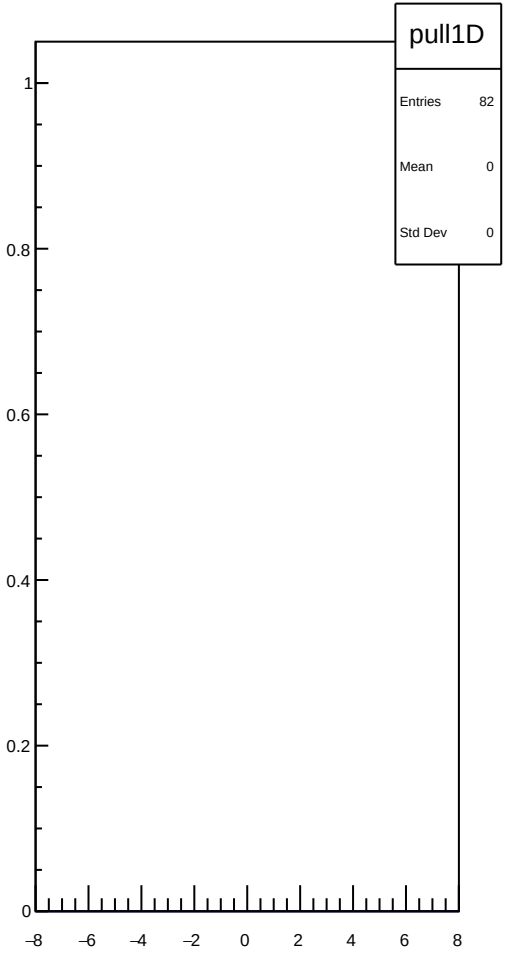

yield_bpm0i02Y_rms vs run
χ² / ndf 1.058e+04 / 81
p0 0.0104 ± 8.269e−06
0.018
0.016
0.014
0.012
0.01

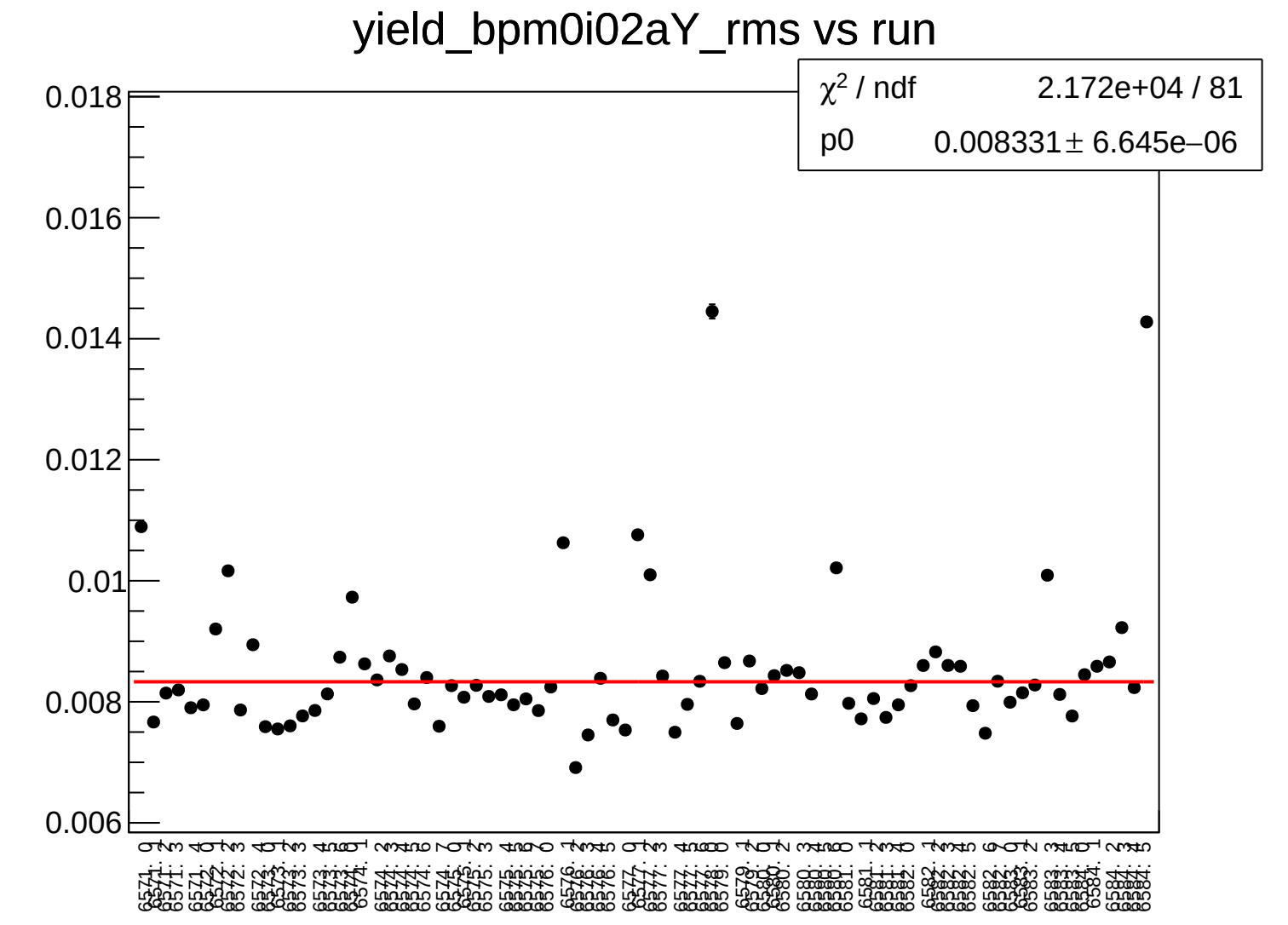

yield_bpm0i02aX_mean vs run
χ² / ndf 2.317e+06 / 81
p0 1.729 ± 1.227e−05
1.76
1.74
1.72
1.7
1.68
pull
Entries 82
Mean 3668
Std Dev 3631
300
200
100
0
−100
−200
−300

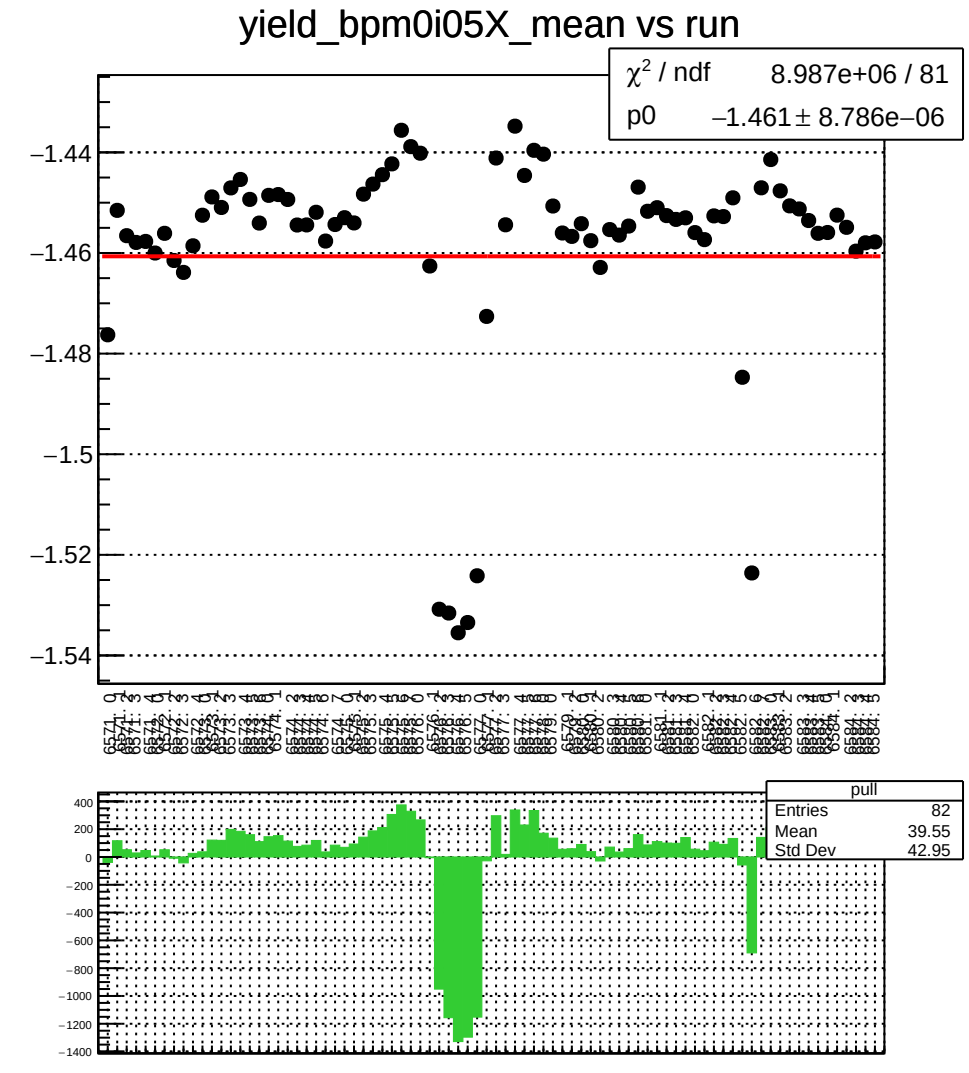

pull1D
Entries 82
Mean 0.963
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

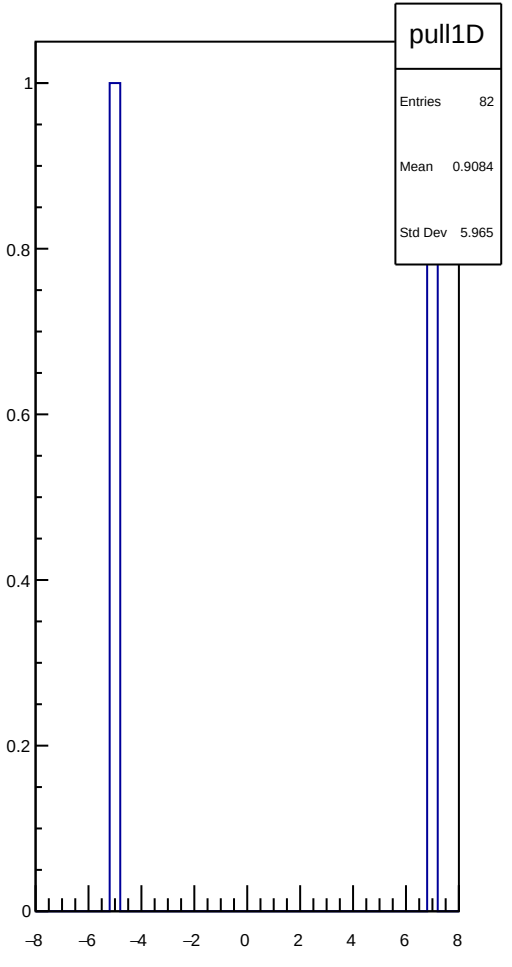

yield_bpm0i02aX_rms vs run
χ² / ndf 4.257e+04 / 81
p0 0.0108 ± 8.674e−06
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008

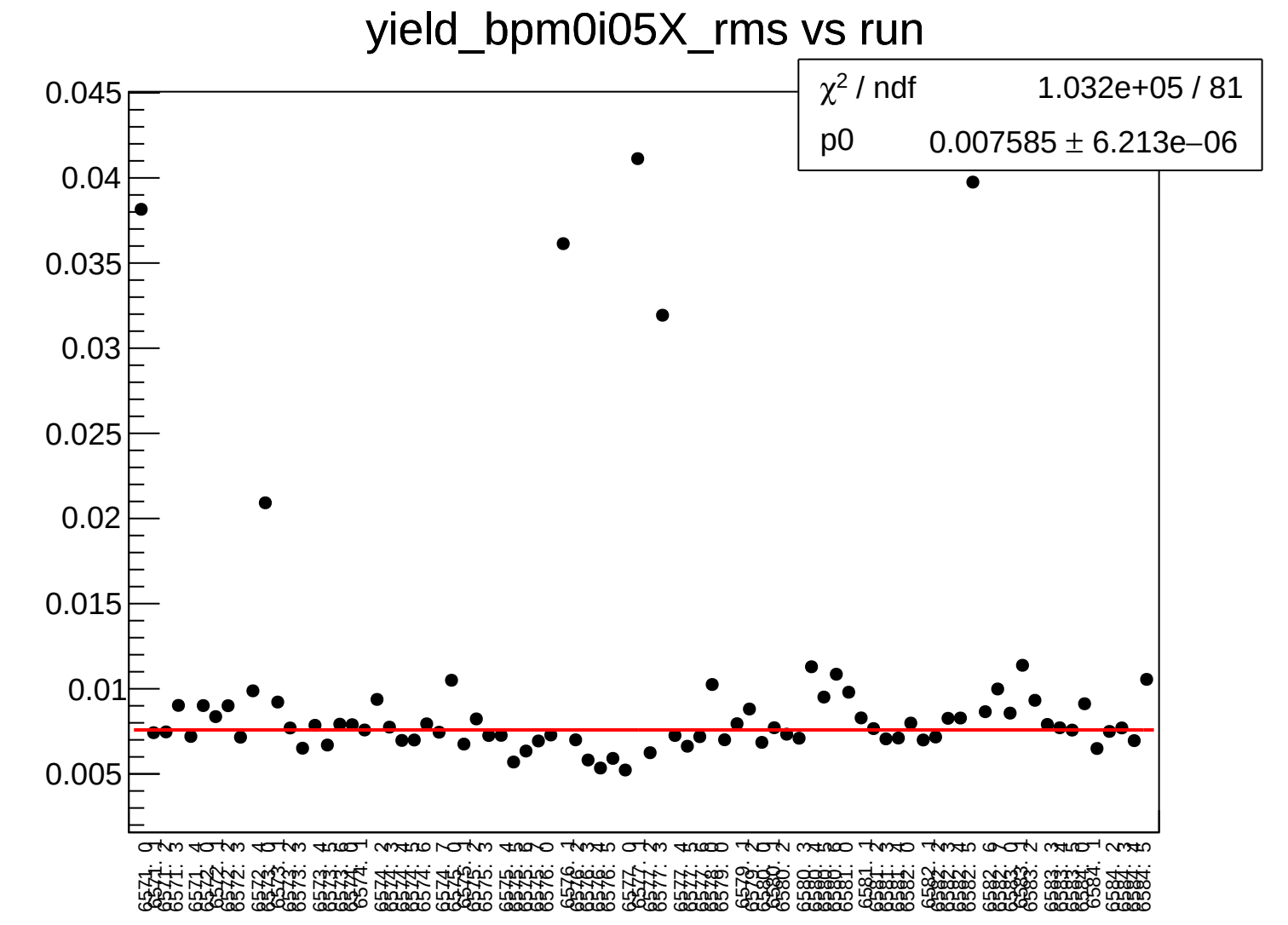

yield_bpm0i02aY_mean vs run
χ² / ndf 2.217e+07 / 81
p0 −1.437 ± 9.397e−06
−1.38
−1.4
−1.42
−1.44
−1.46
−1.48
−1.5
−1.52
pull
Entries 82
Mean 3076
Std Dev 3033
800
600
400
200
0
−200
−400
−600
−800
−1000
−1200

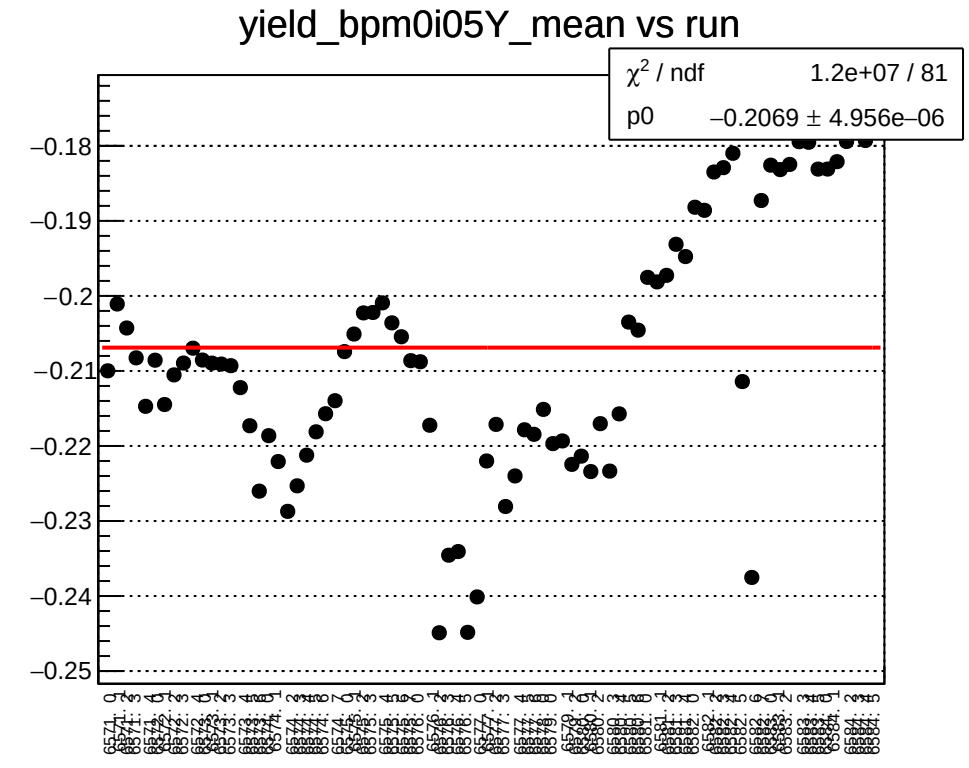

pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

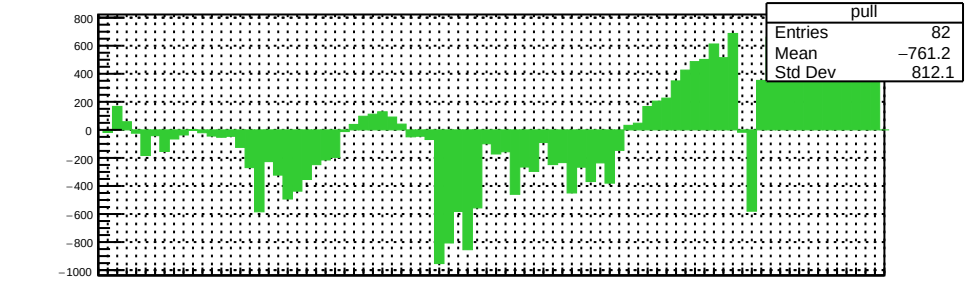

yield_bpm0i02aY_rms vs run
χ² / ndf 2.172e+04 / 81
p0 0.008331 ± 6.645e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006

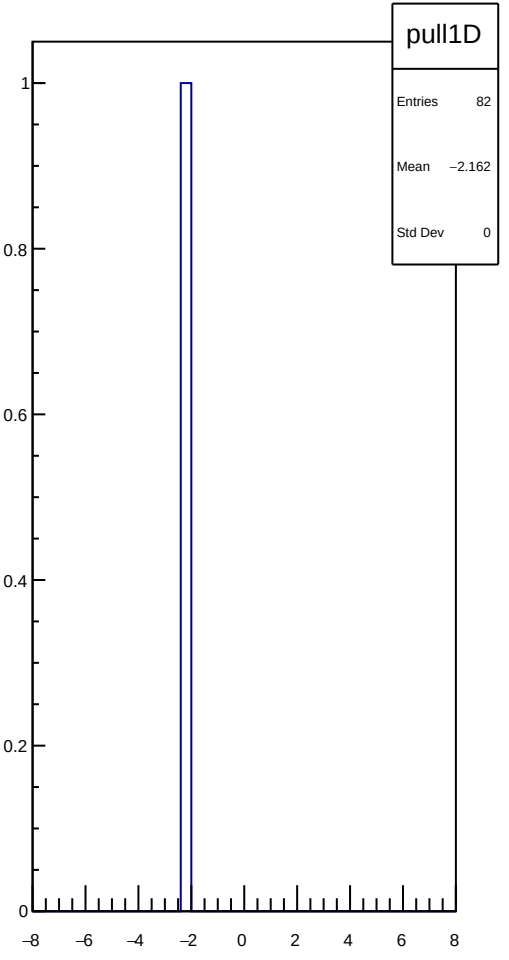

yield_bpm0i05X_mean vs run
χ² / ndf 8.987e+06 / 81
p0 −1.461 ± 8.786e−06
−1.44
−1.46
−1.48
−1.5
−1.52
−1.54
pull
Entries 82
Mean 39.55
Std Dev 42.95
400
200
0
−200
−400
−600
−800
−1000
−1200
−1400

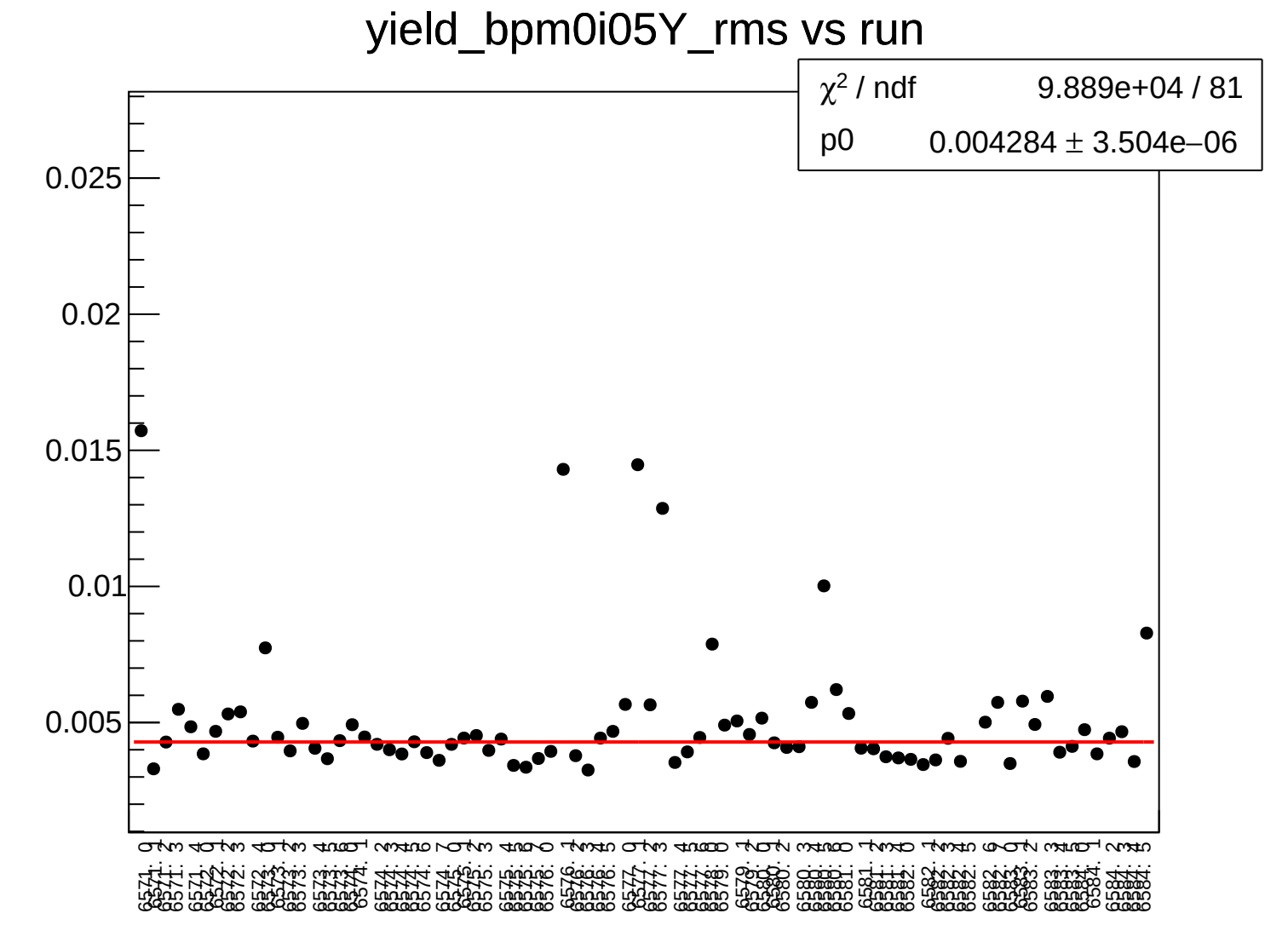

pull1D
Entries 82
Mean 0.9084
Std Dev 5.965
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

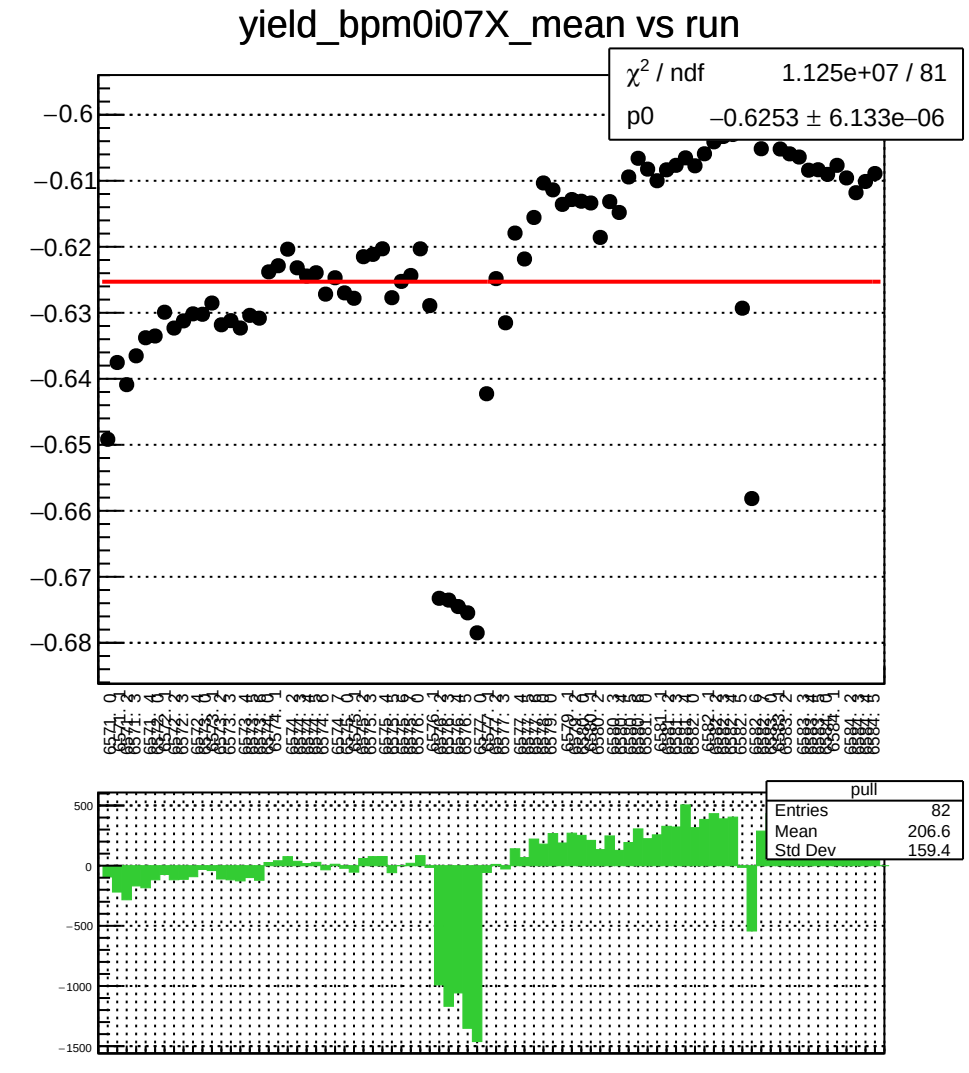

yield_bpm0i05X_rms vs run
χ² / ndf 1.032e+05 / 81
p0 0.007585 ± 6.213e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

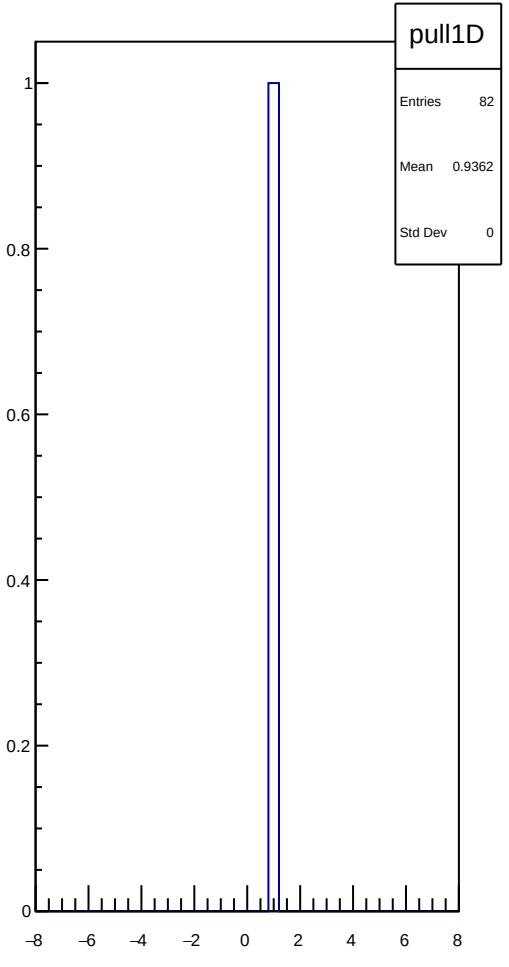

yield_bpm0i05Y_mean vs run
χ² / ndf 1.2e+07 / 81
p0 −0.2069 ± 4.956e−06
−0.18
−0.19
−0.2
−0.21
−0.22
−0.23
−0.24
−0.25

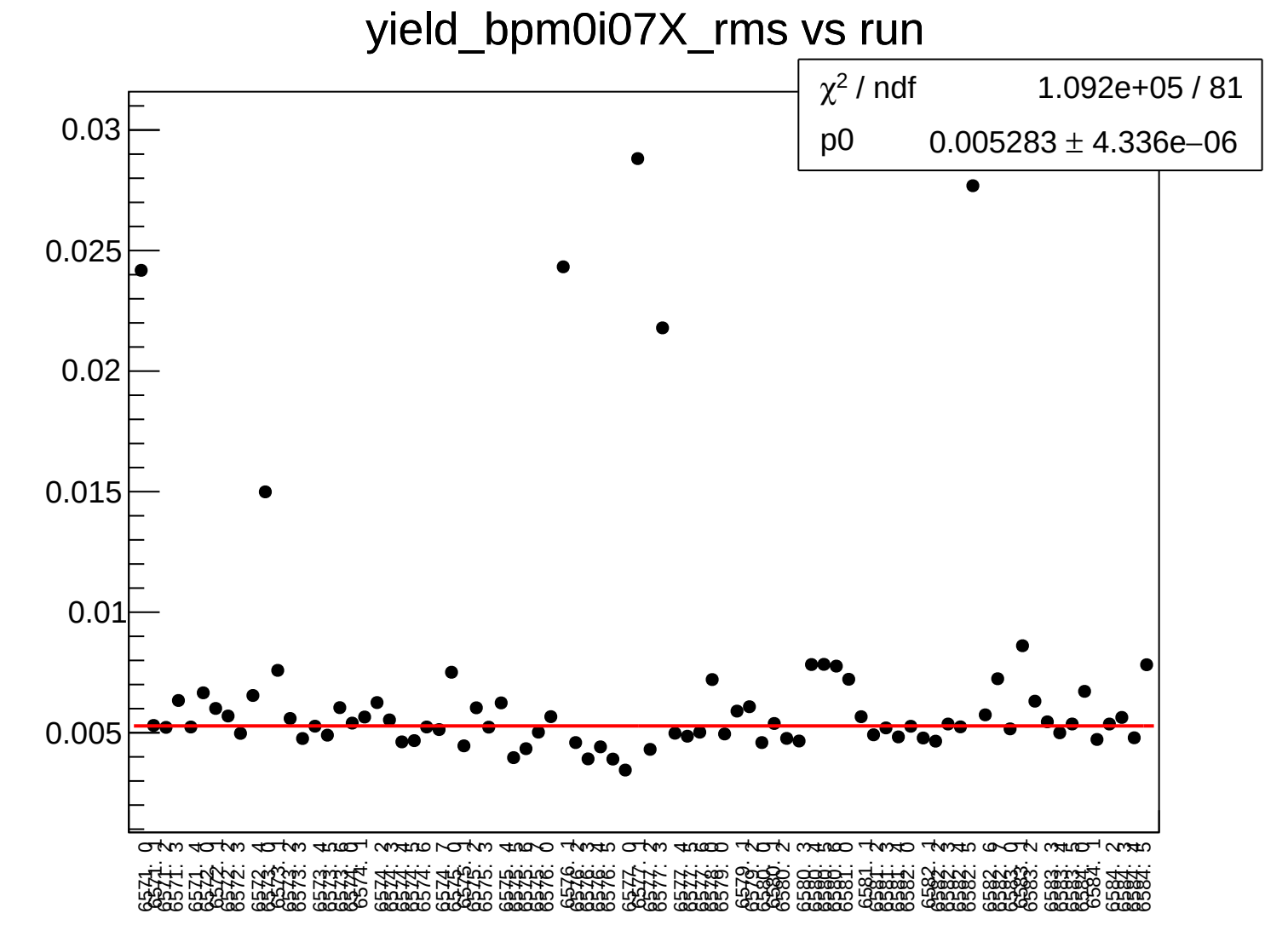

pull
Entries 82
Mean −761.2
Std Dev 812.1
800
600
400
200
0
−200
−400
−600
−800
−1000

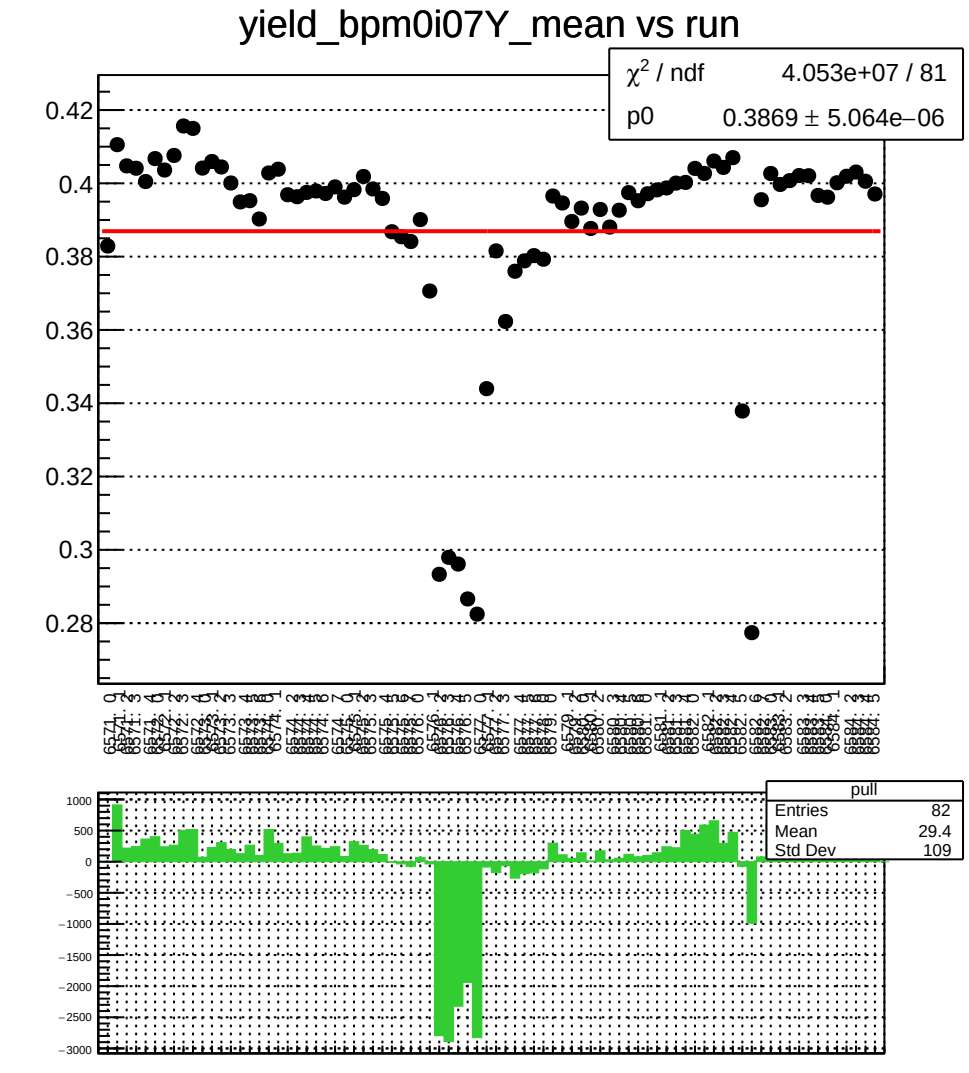

pull1D
Entries 82
Mean −2.162
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

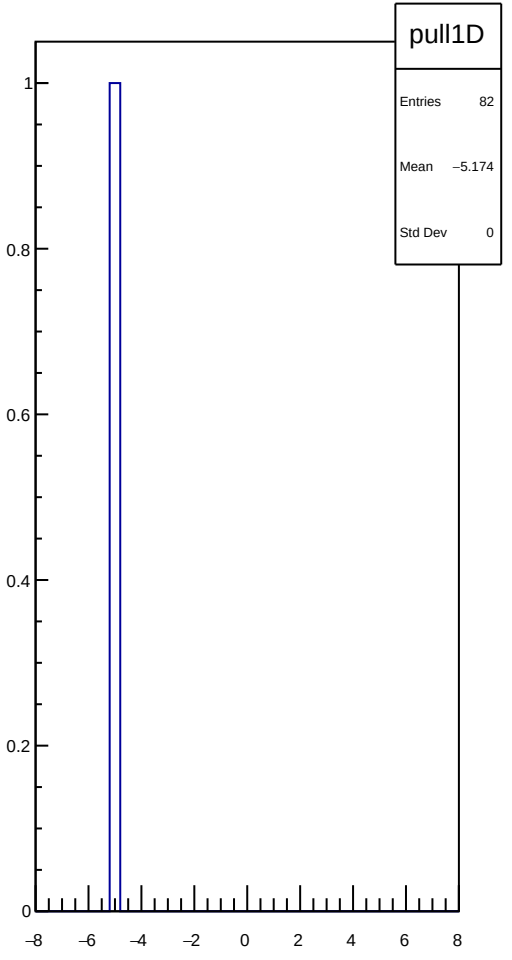

yield_bpm0i05Y_rms vs run
χ² / ndf 9.889e+04 / 81
p0 0.004284 ± 3.504e−06
0.025
0.02
0.015
0.01
0.005

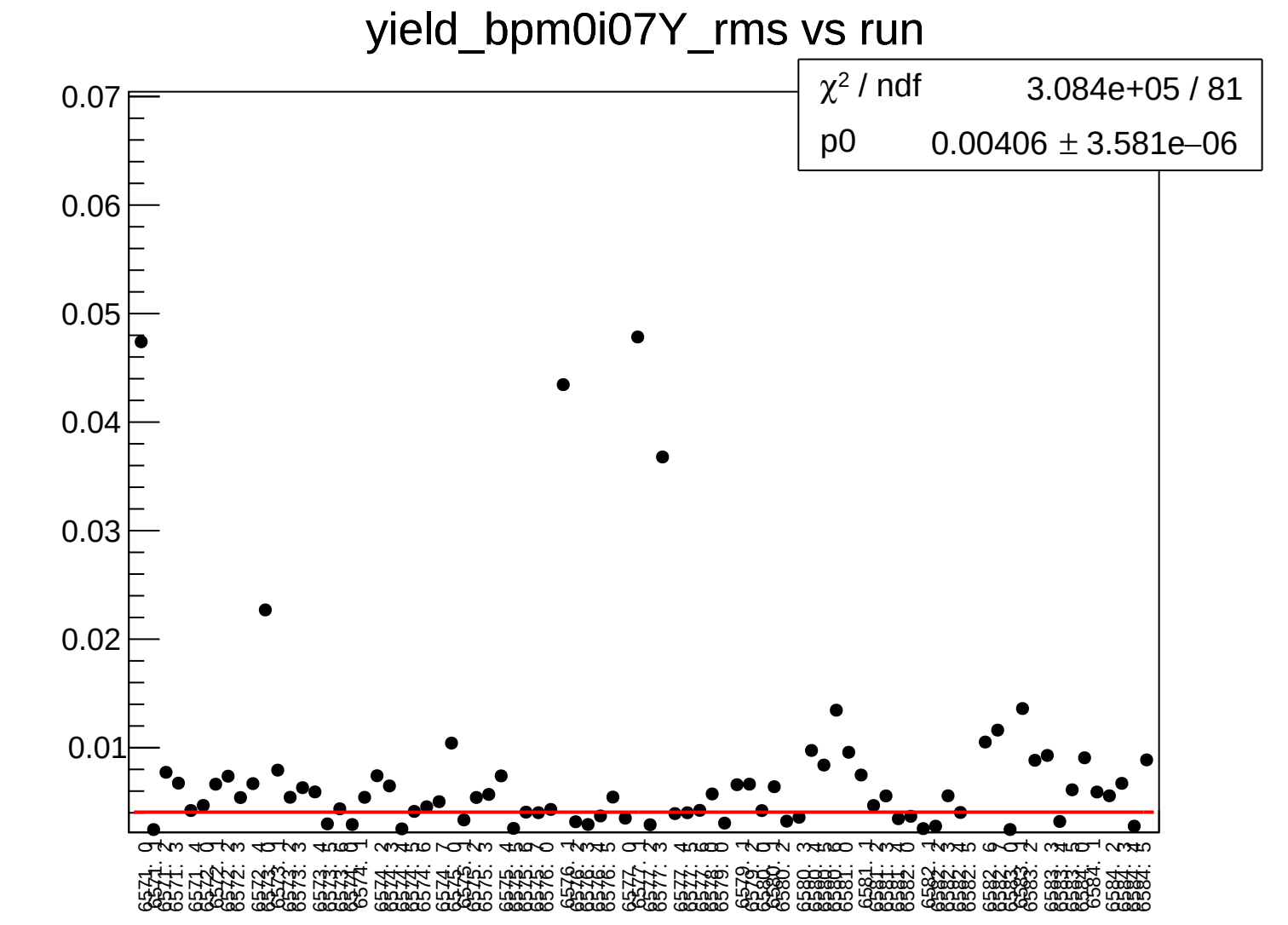

yield_bpm0i07X_mean vs run
χ² / ndf 1.125e+07 / 81
p0 −0.6253 ± 6.133e−06
−0.6
−0.61
−0.62
−0.63
−0.64
−0.65
−0.66
−0.67
−0.68
pull
Entries 82
Mean 206.6
Std Dev 159.4
500
0
−500
−1000
−1500

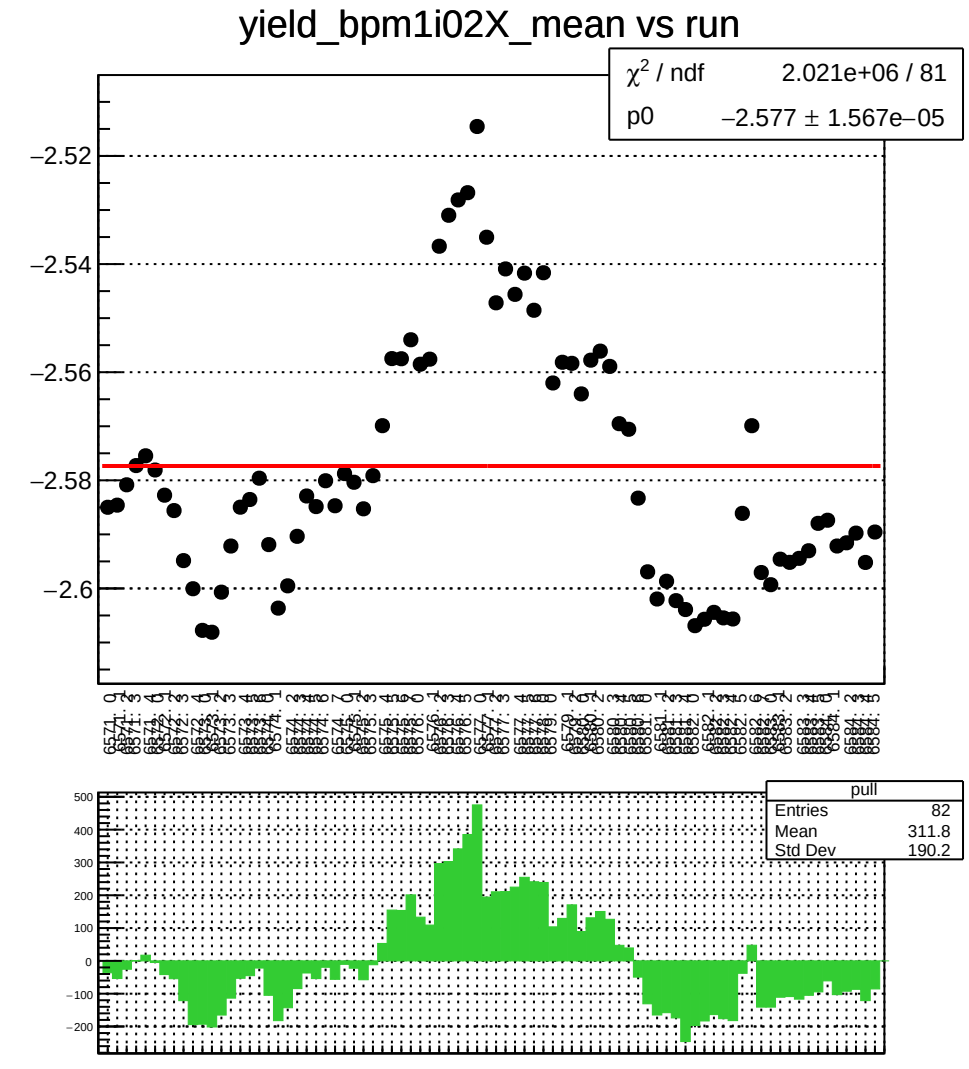

pull1D
Entries 82
Mean 0.9362
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

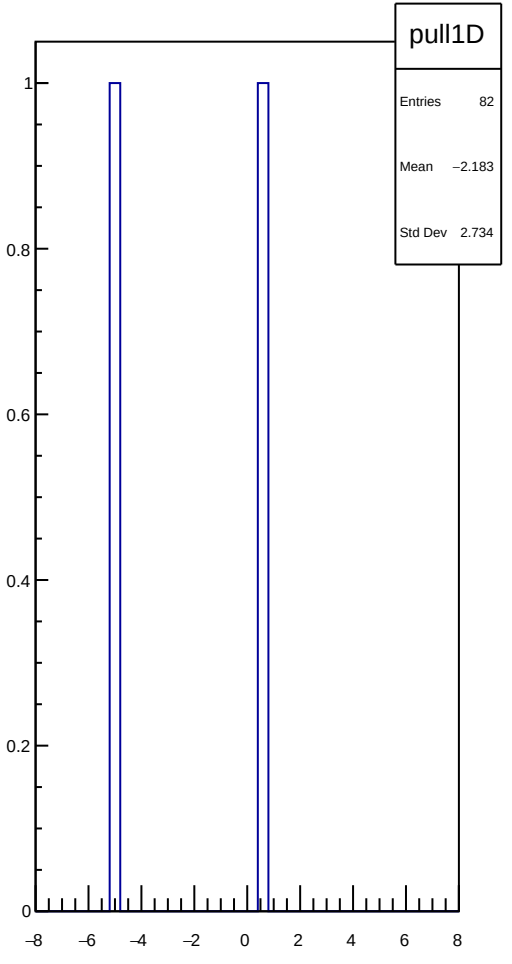

yield_bpm0i07X_rms vs run
χ^2 / ndf 1.092e+05 / 81
p0 0.005283 ± 4.336e−06
0.03
0.025
0.02
0.015
0.01
0.005

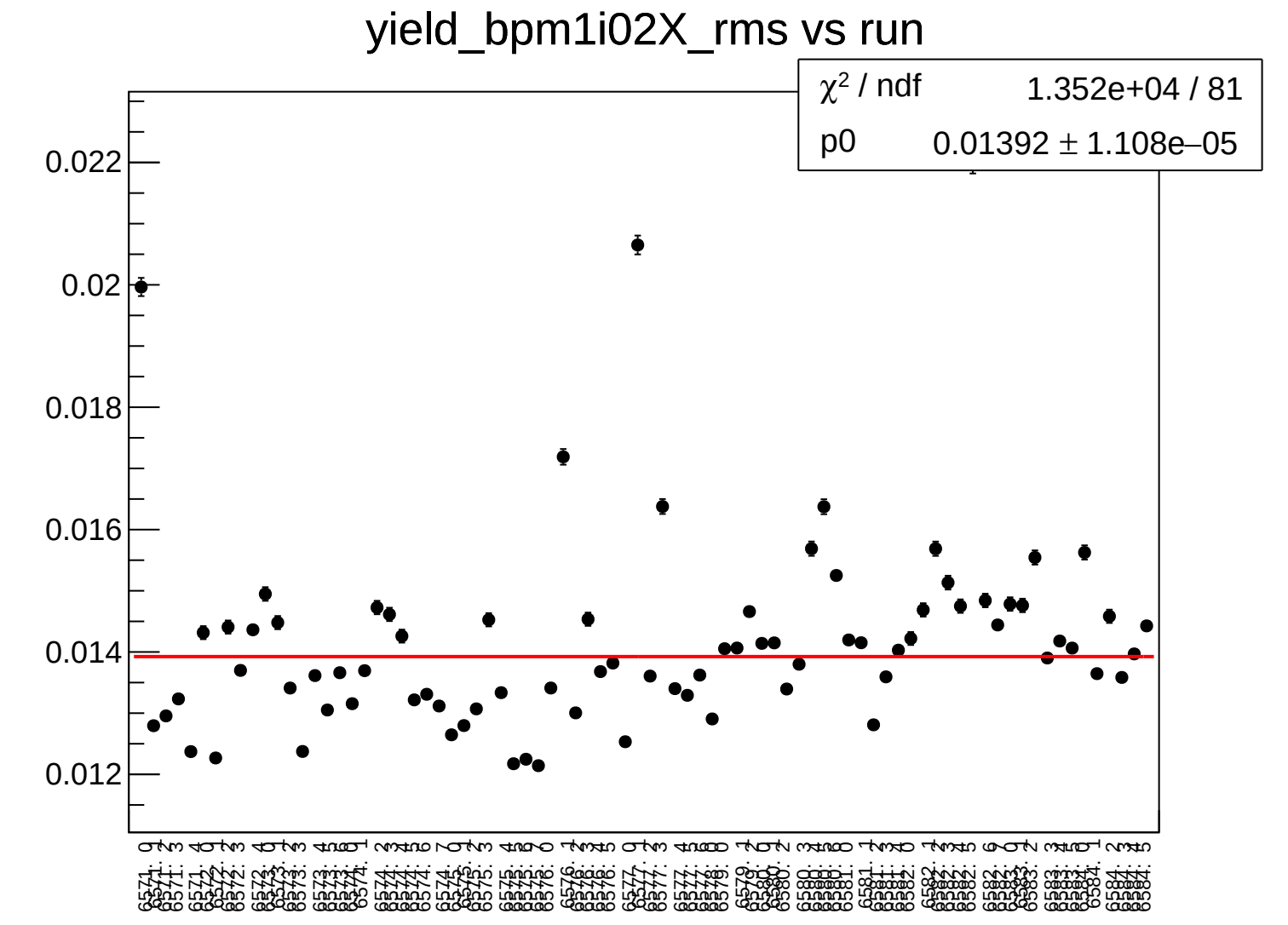

yield_bpm0i07Y_mean vs run
χ² / ndf 4.053e+07 / 81
p0 0.3869 ± 5.064e−06
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
pull
Entries 82
Mean 29.4
Std Dev 109
1000
500
0
−500
−1000
−1500
−2000
−2500
−3000

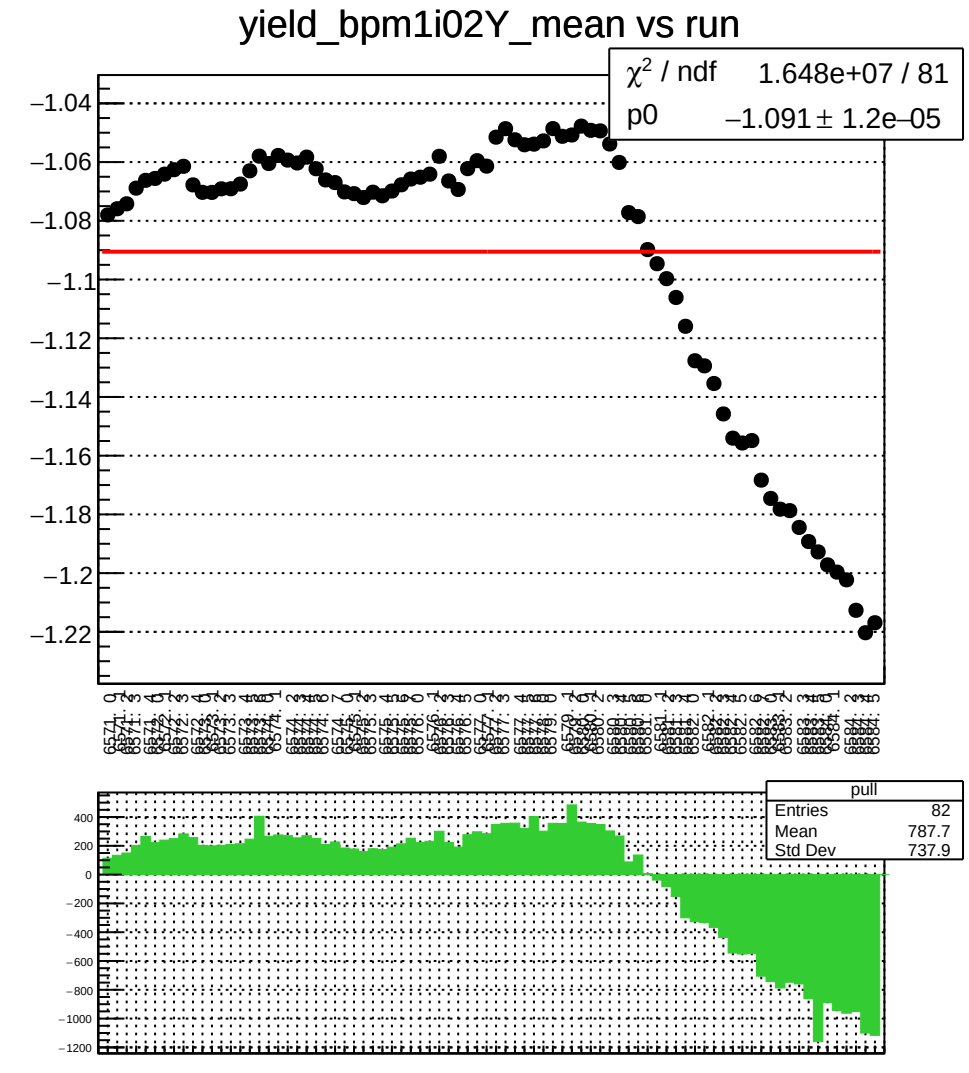

pull1D
Entries 82
Mean −5.174
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

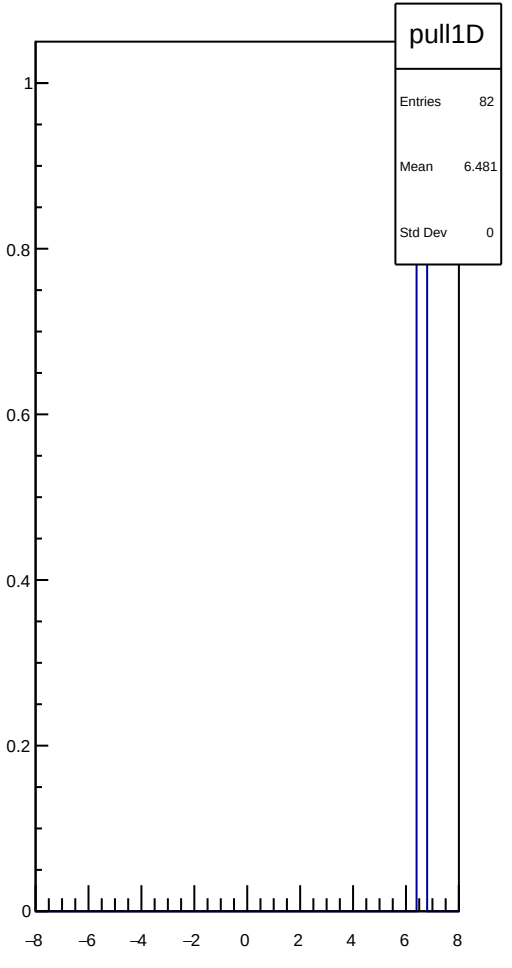

yield_bpm0i07Y_rms vs run
χ² / ndf 3.084e+05 / 81
p0 0.00406 ± 3.581e–06
0.07
0.06
0.05
0.04
0.03
0.02
0.01

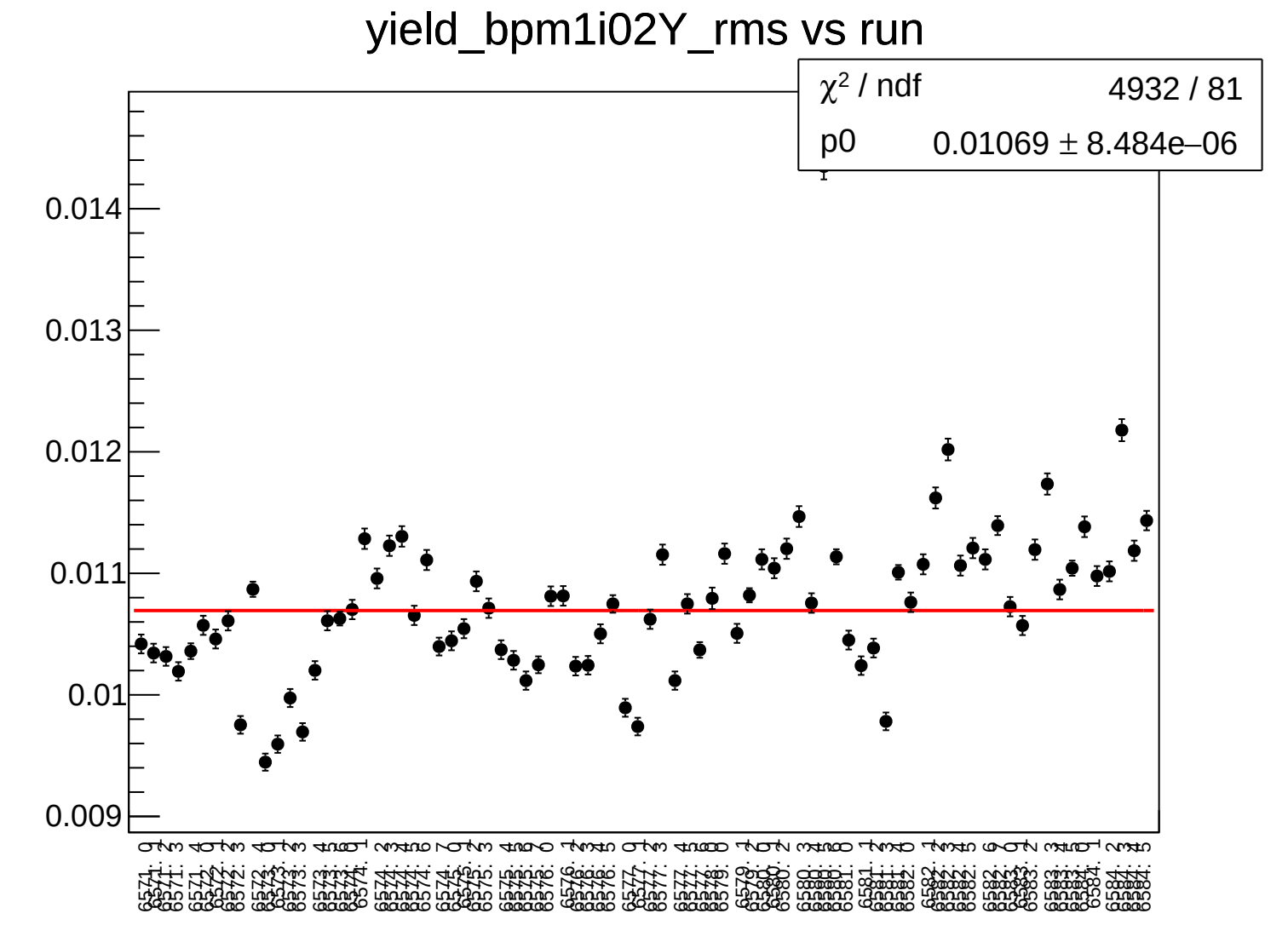

yield_bpm1i02X_mean vs run
χ² / ndf 2.021e+06 / 81
p0 −2.577 ± 1.567e−05
−2.52
−2.54
−2.56
−2.58
−2.6
pull
Entries 82
Mean 311.8
Std Dev 190.2
500
400
300
200
100
0
−100
−200

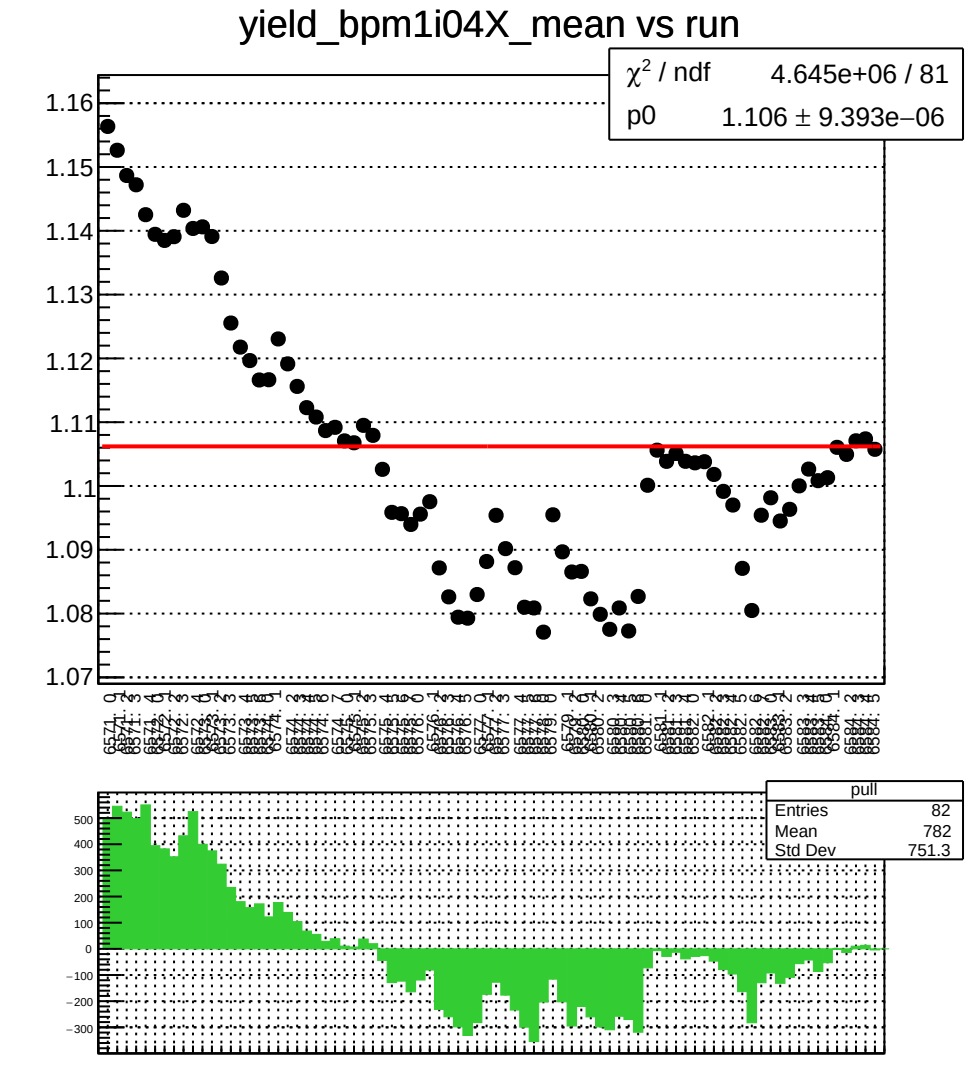

pull1D
Entries 82
Mean −2.183
Std Dev 2.734
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

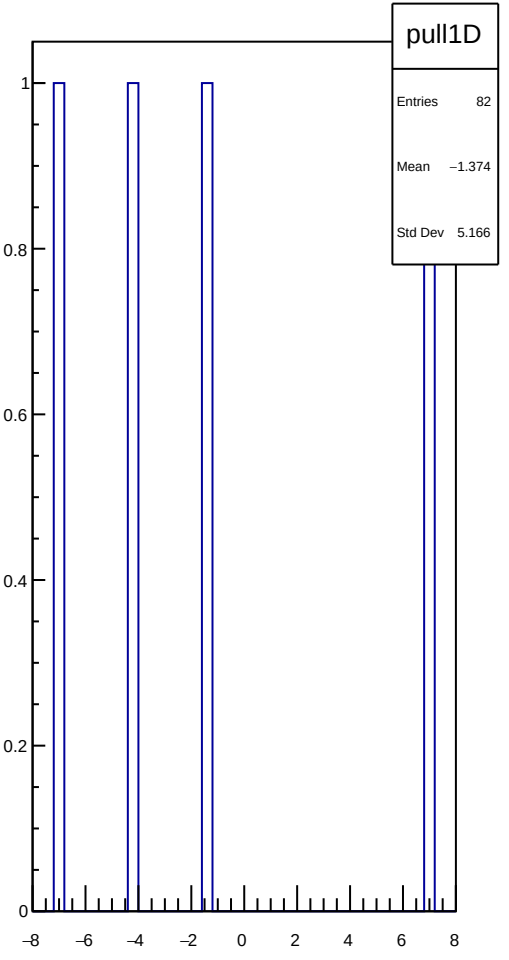

yield_bpm1i02X_rms vs run
χ² / ndf 1.352e+04 / 81
p0 0.01392 ± 1.108e–05
0.022
0.02
0.018
0.016
0.014
0.012

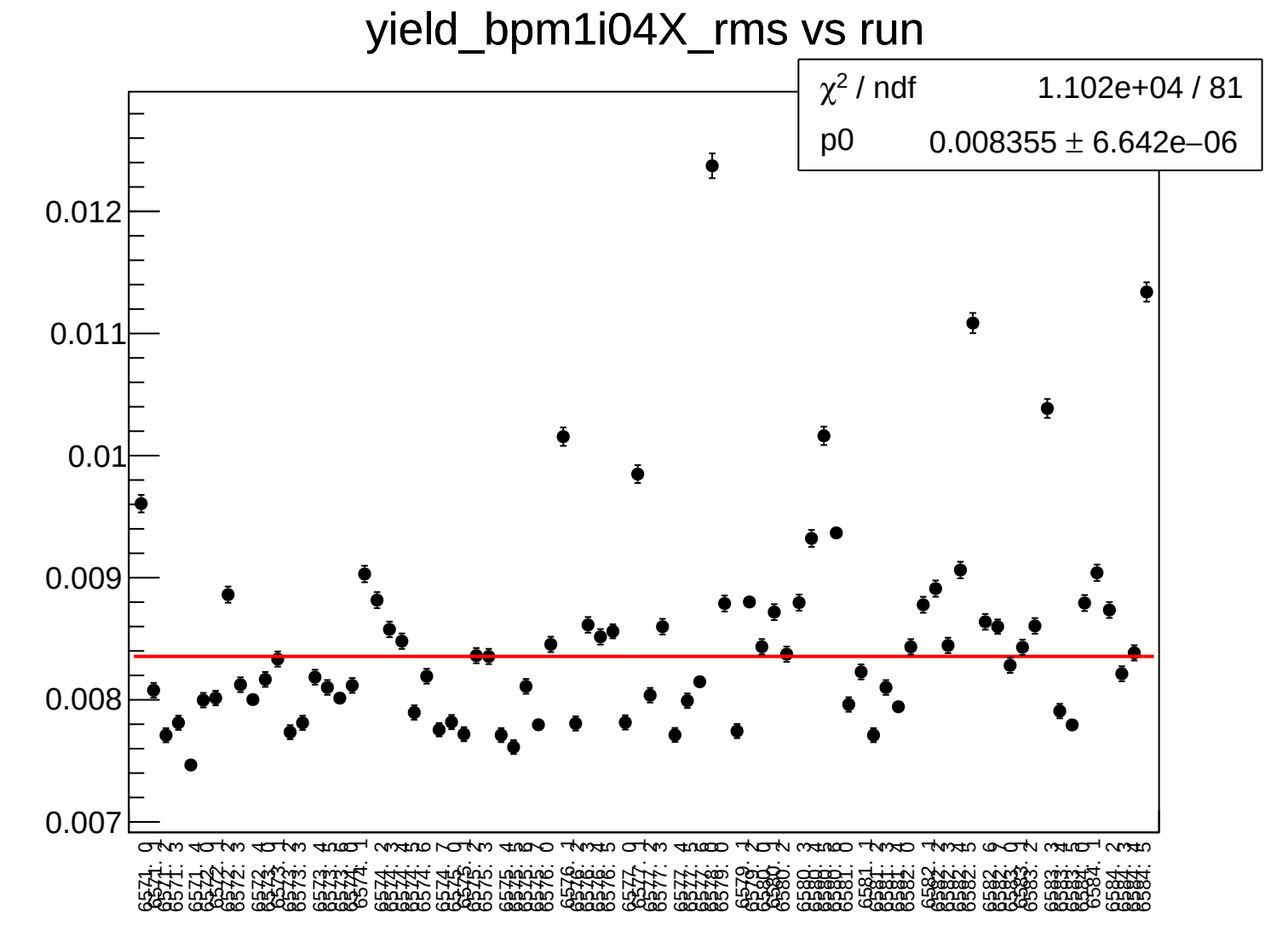

yield_bpm1i02Y_mean vs run
χ² / ndf 1.648e+07 / 81
p0 −1.091 ± 1.2e−05
−1.04
−1.06
−1.08
−1.1
−1.12
−1.14
−1.16
−1.18
−1.2
−1.22
pull
Entries 82
Mean 787.7
Std Dev 737.9
400
200
0
−200
−400
−600
−800
−1000
−1200

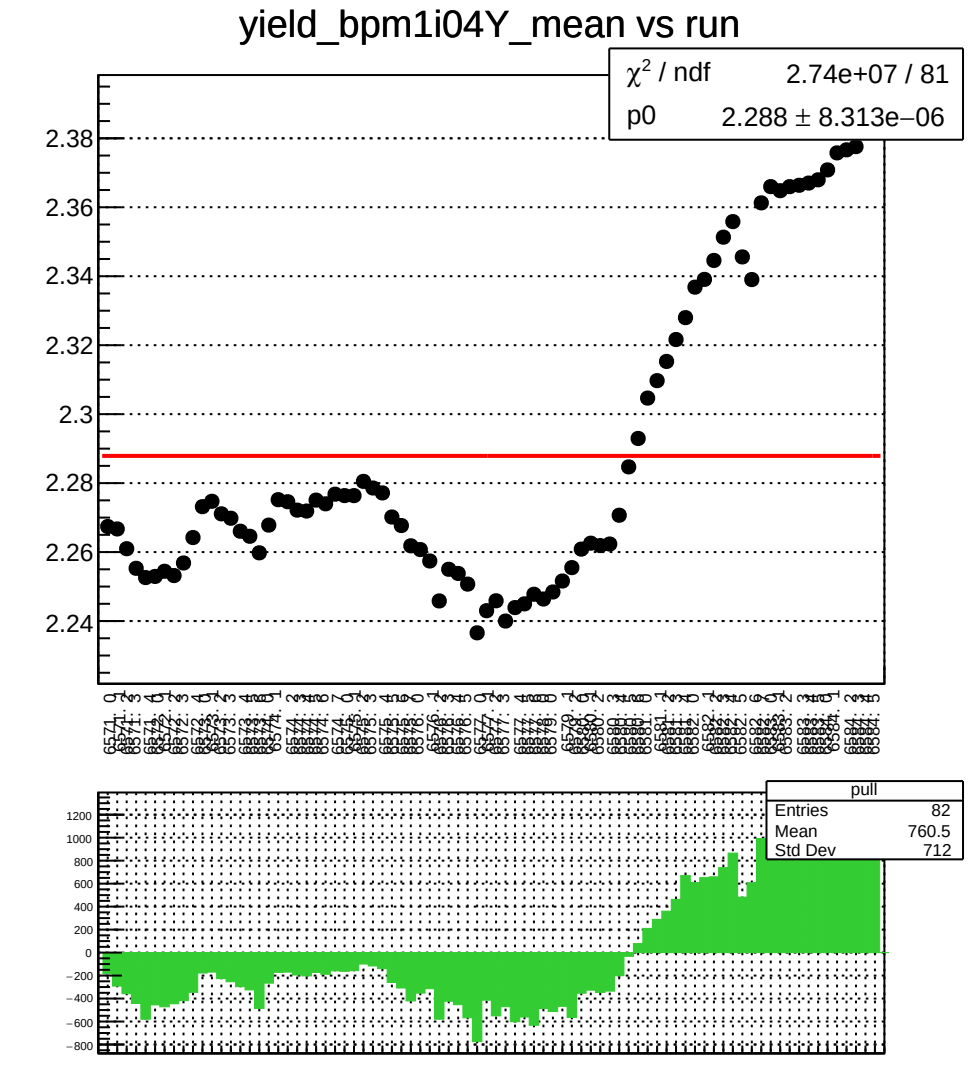

pull1D
Entries 82
Mean 6.481
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

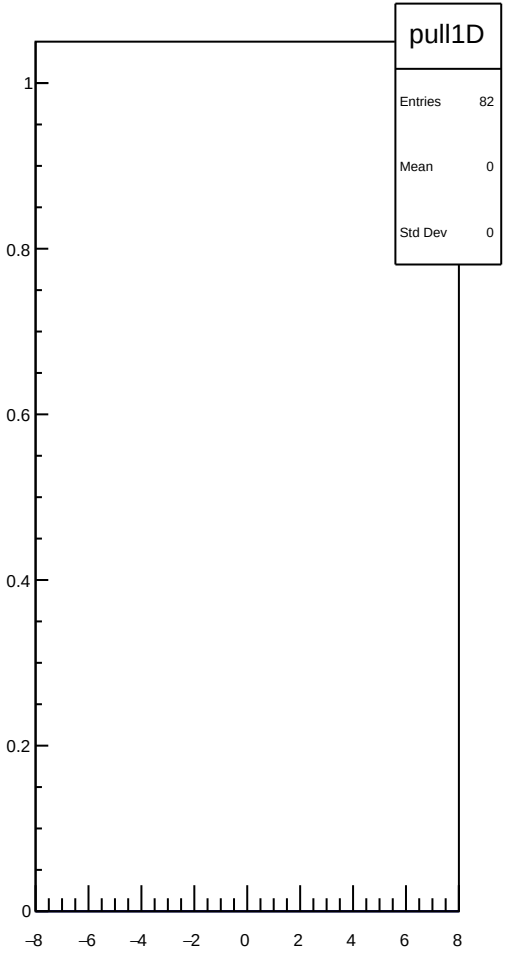

yield_bpm1i02Y_rms vs run
χ² / ndf 4932 / 81
p0 0.01069 ± 8.484e–06
0.014
0.013
0.012
0.011
0.01
0.009

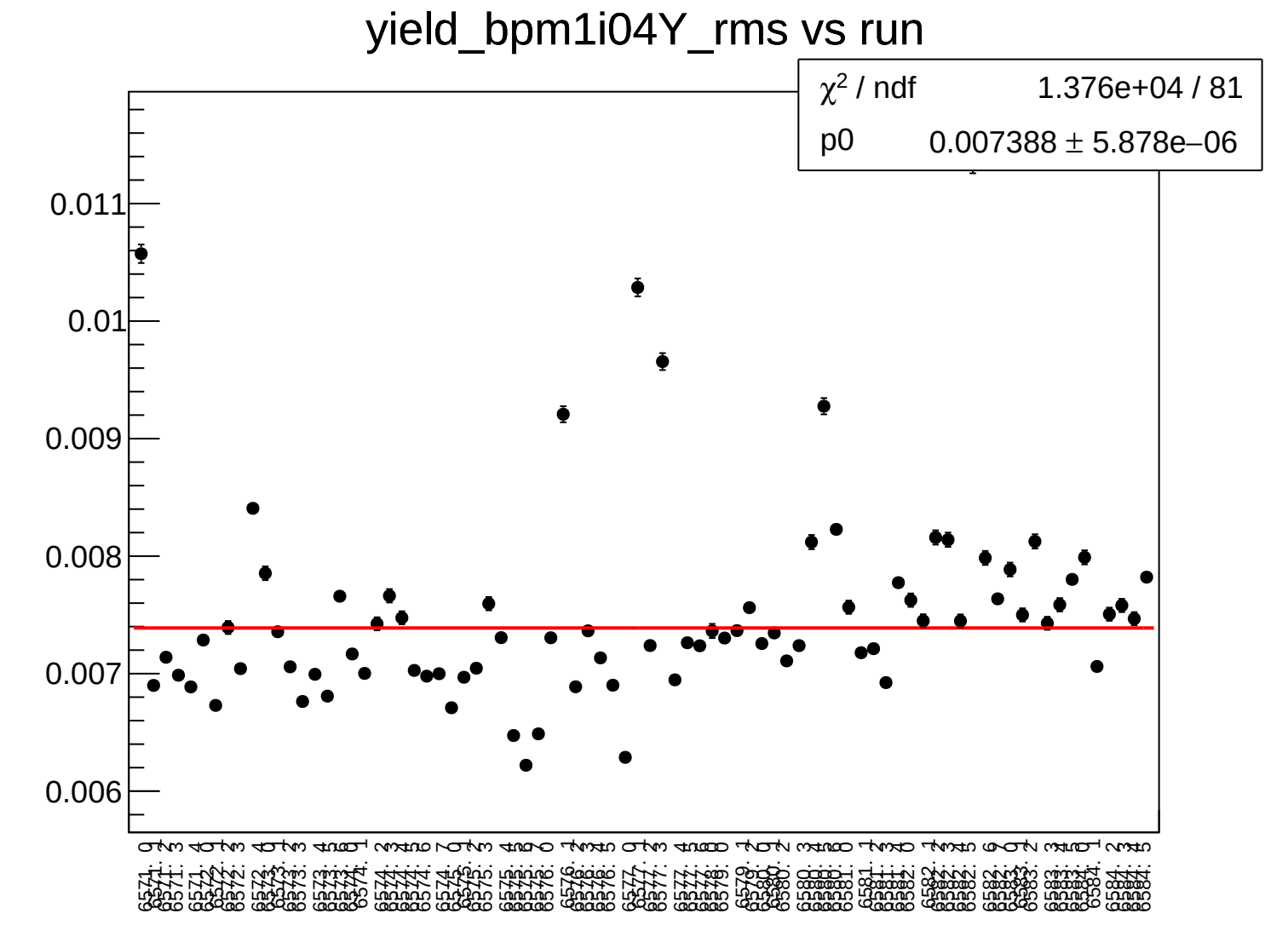

yield_bpm1i04X_mean vs run
χ² / ndf 4.645e+06 / 81
p0 1.106 ± 9.393e−06
1.16
1.15
1.14
1.13
1.12
1.11
1.1
1.09
1.08
1.07
pull
Entries 82
Mean 782
Std Dev 751.3
500
400
300
200
100
0
−100
−200
−300

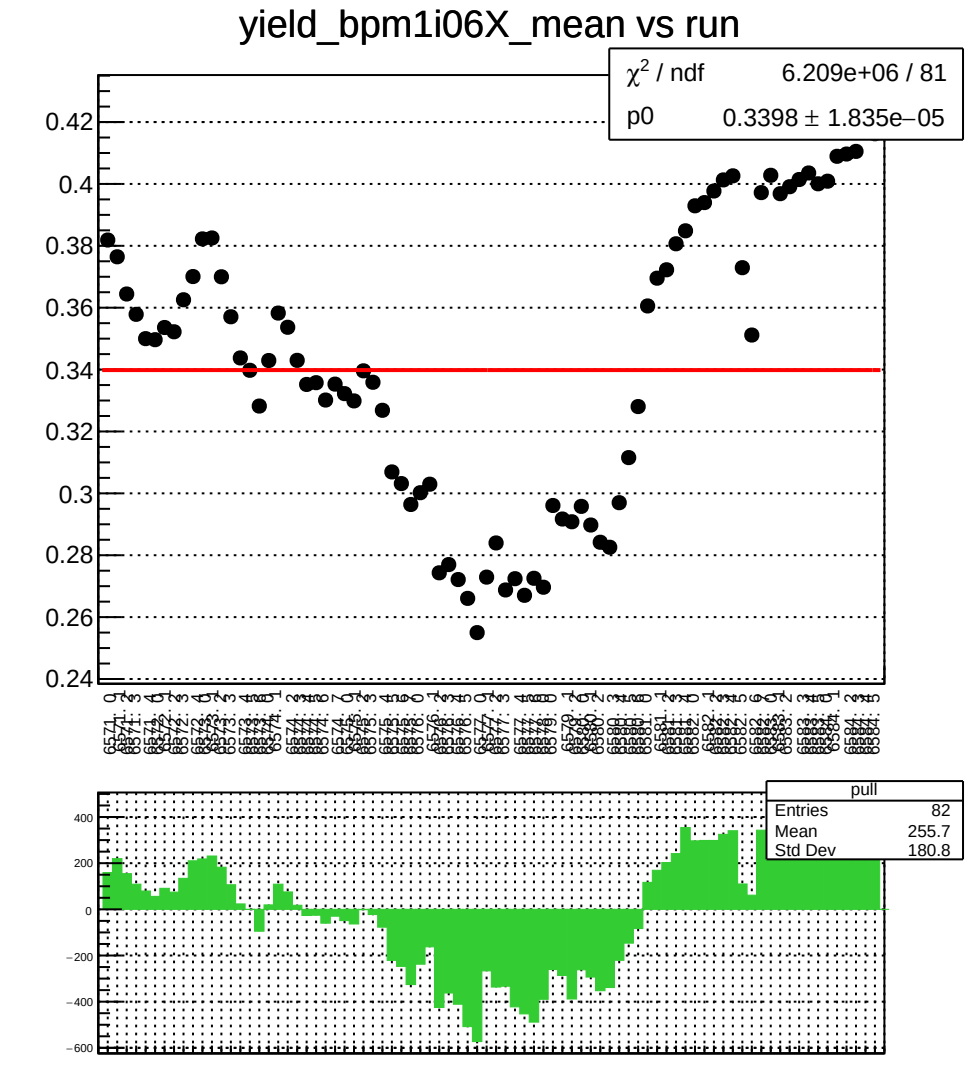

pull1D
Entries 82
Mean −1.374
Std Dev 5.166
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

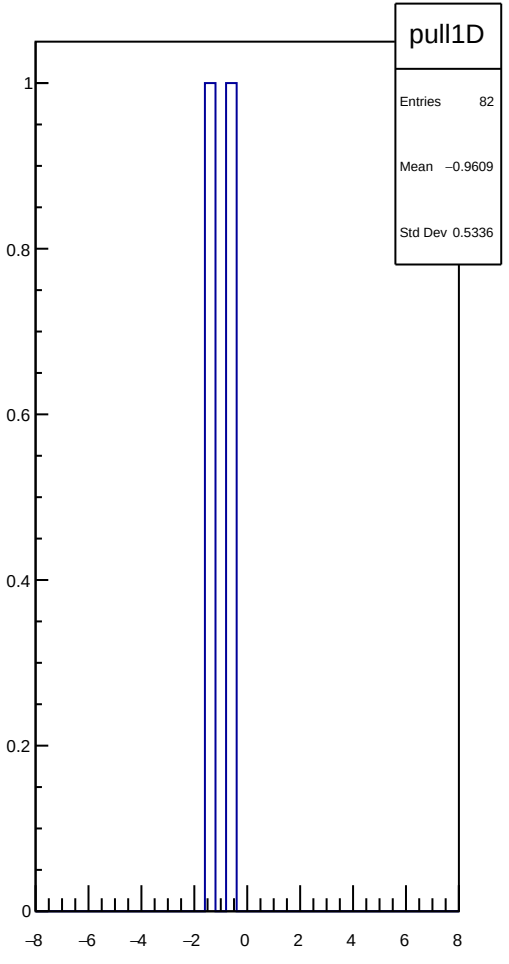

yield_bpm1i04X_rms vs run
χ² / ndf 1.102e+04 / 81
p0 0.008355 ± 6.642e−06
0.012
0.011
0.01
0.009
0.008
0.007

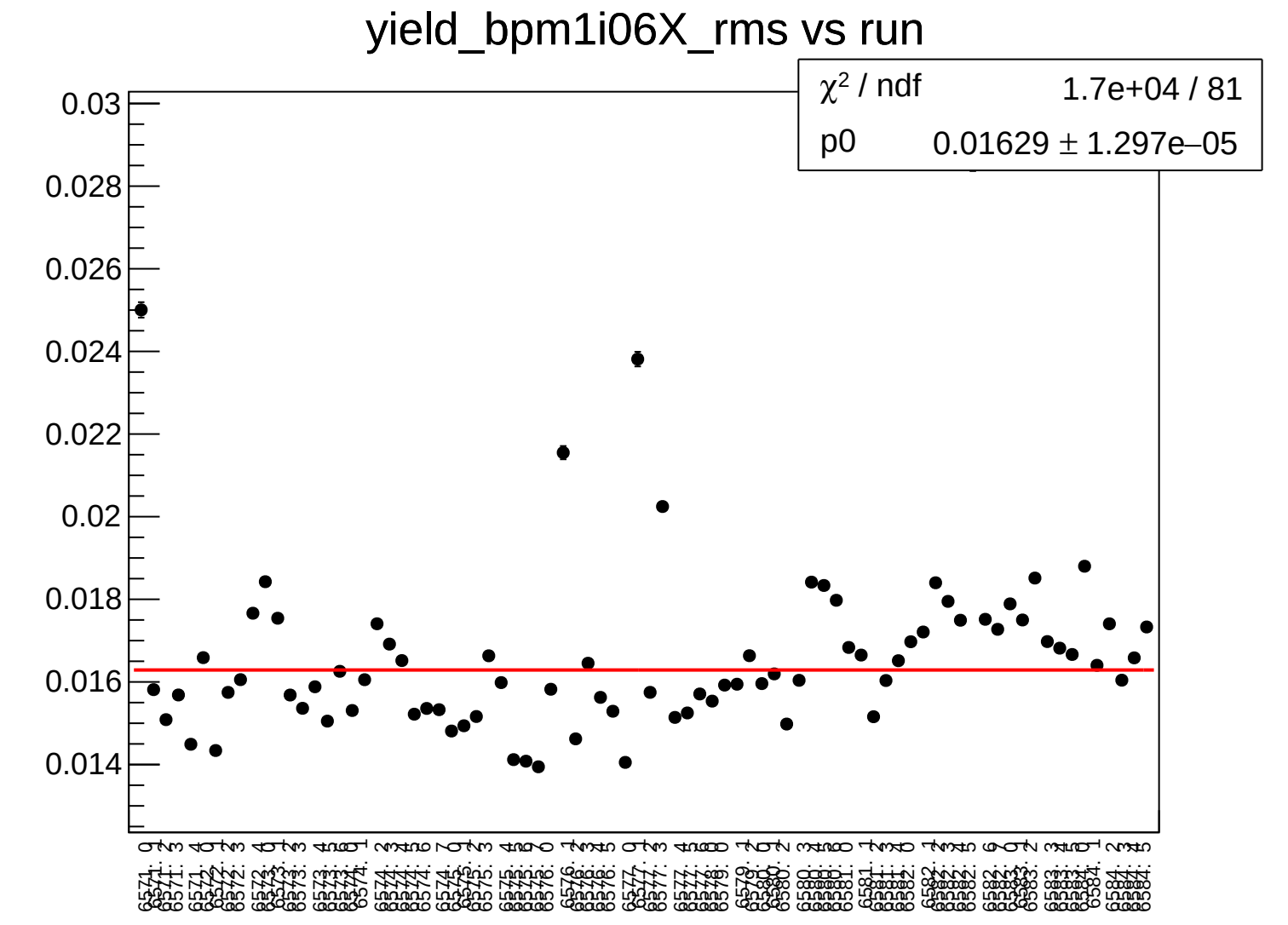

yield_bpm1i04Y_mean vs run
χ² / ndf 2.74e+07 / 81
p0 2.288 ± 8.313e−06
2.38
2.36
2.34
2.32
2.3
2.28
2.26
2.24
pull
Entries 82
Mean 760.5
Std Dev 712
1200
1000
800
600
400
200
0
−200
−400
−600
−800

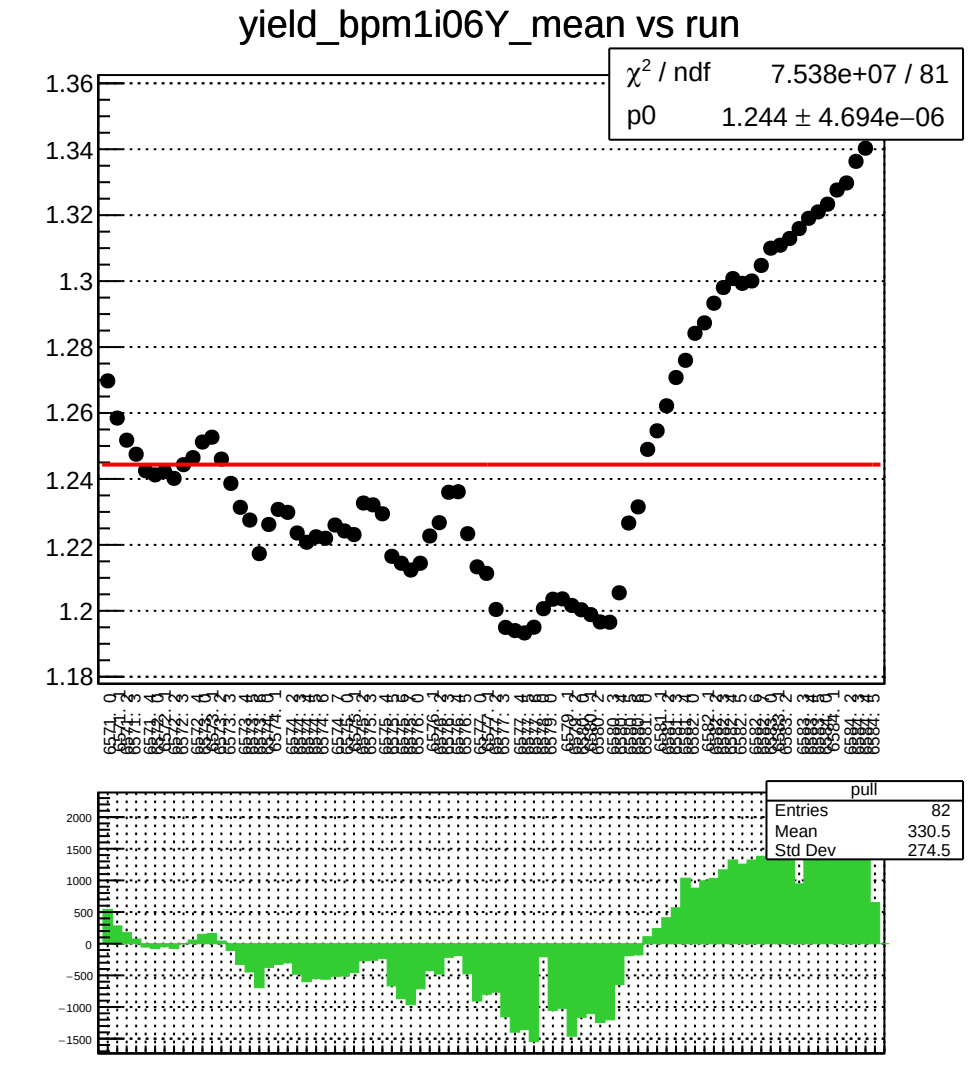

pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

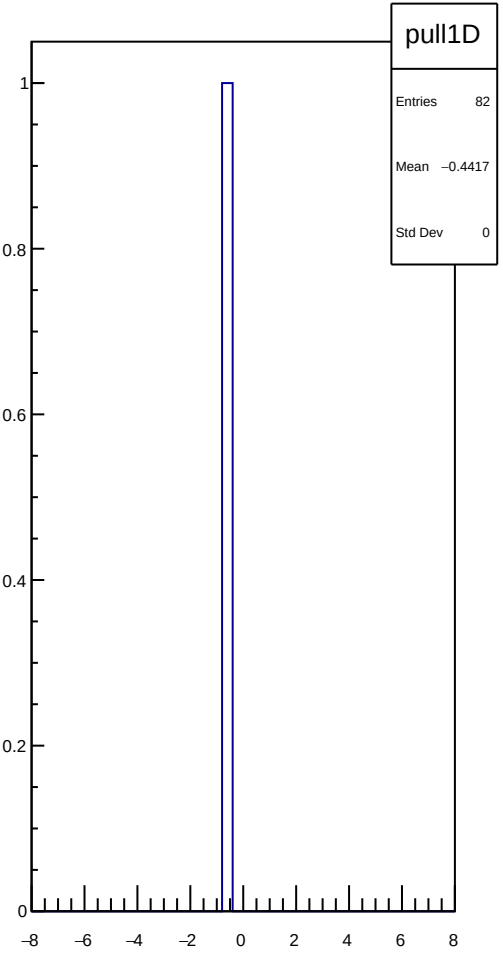

yield_bpm1i04Y_rms vs run
χ² / ndf 1.376e+04 / 81
p0 0.007388 ± 5.878e−06
0.011
0.01
0.009
0.008
0.007
0.006


yield_bpm1i06X_mean vs run
χ² / ndf 6.209e+06 / 81
p0 0.3398 ± 1.835e−05
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
pull
Entries 82
Mean 255.7
Std Dev 180.8
400
200
0
−200
−400
−600

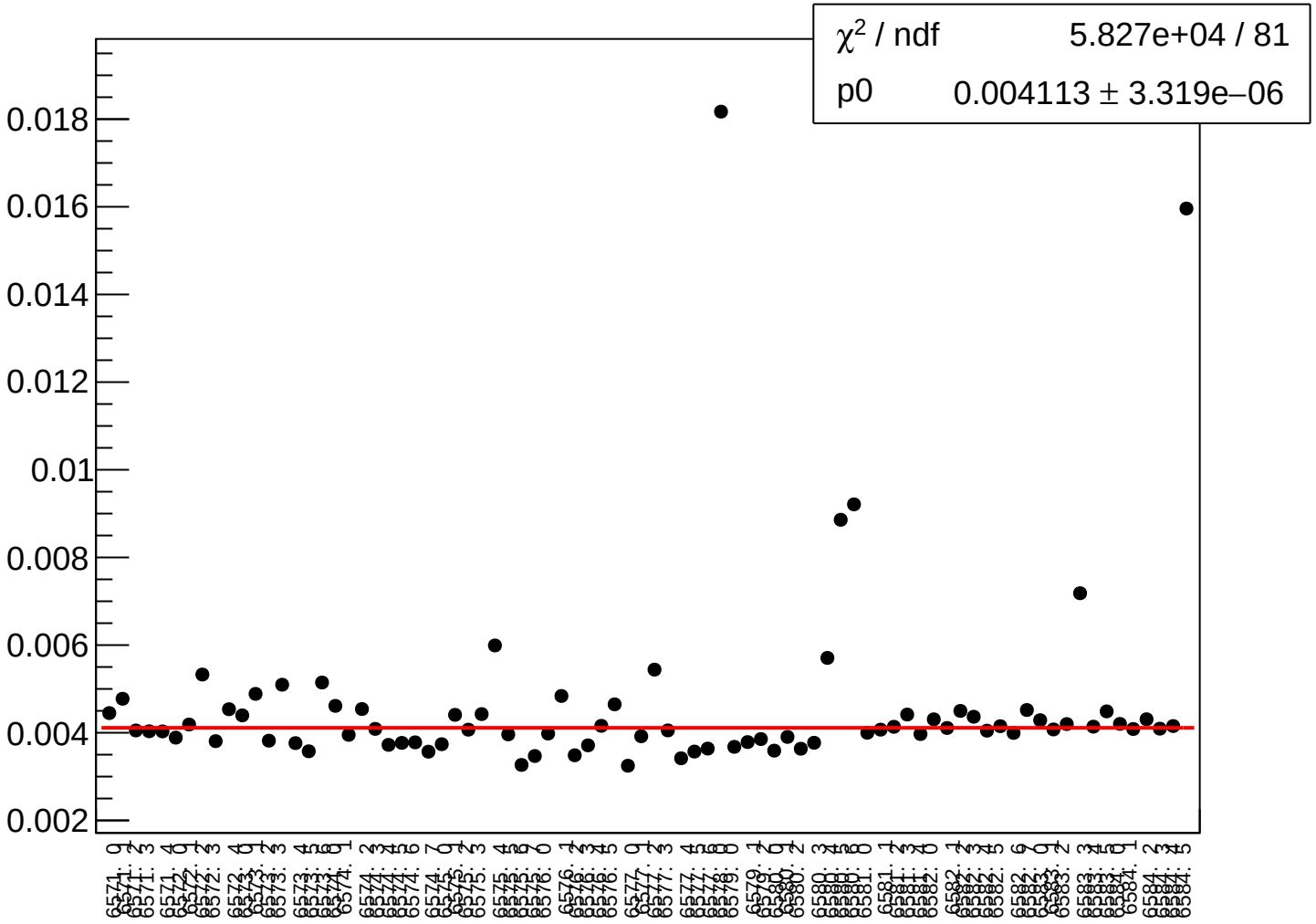

pull1D
Entries 82
Mean −0.9609
Std Dev 0.5336
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

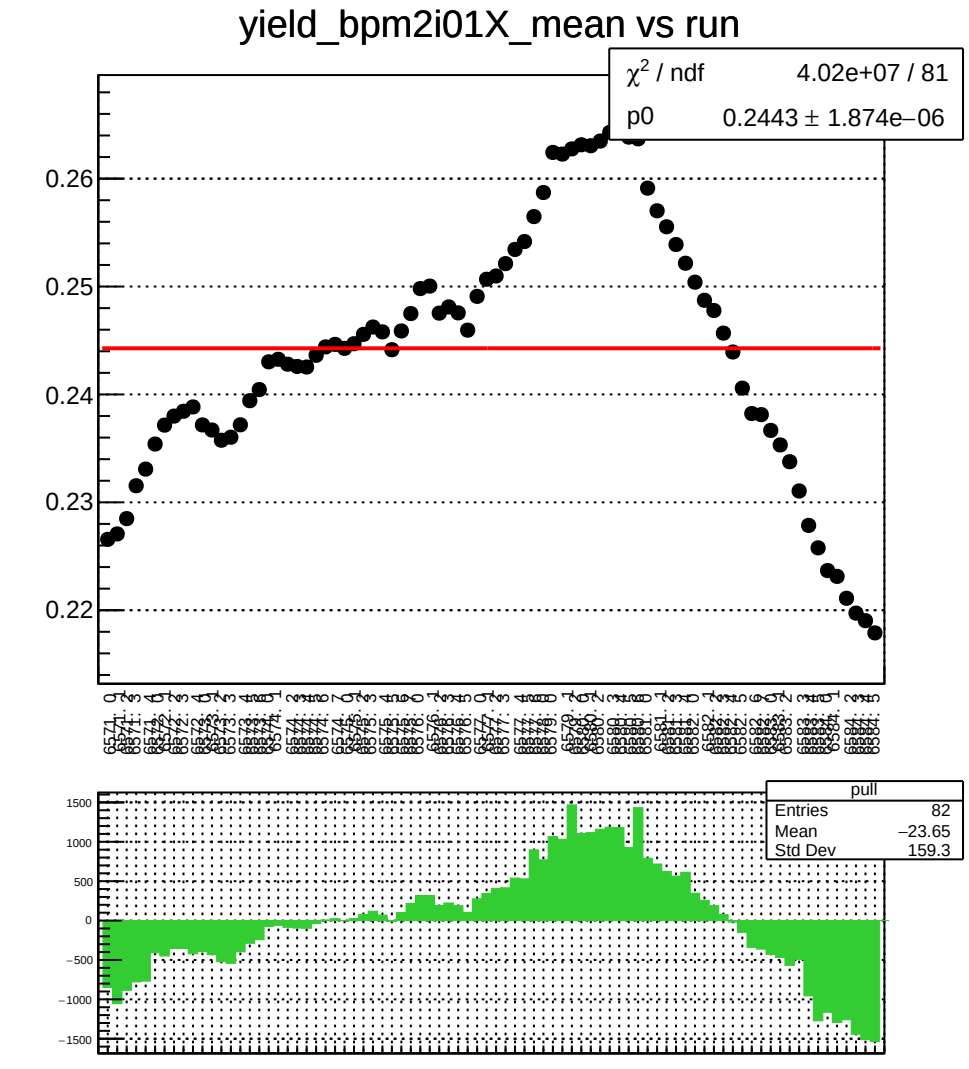

yield_bpm1i06X_rms vs run
χ² / ndf 1.7e+04 / 81
p0 0.01629 ± 1.297e–05
0.03
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014

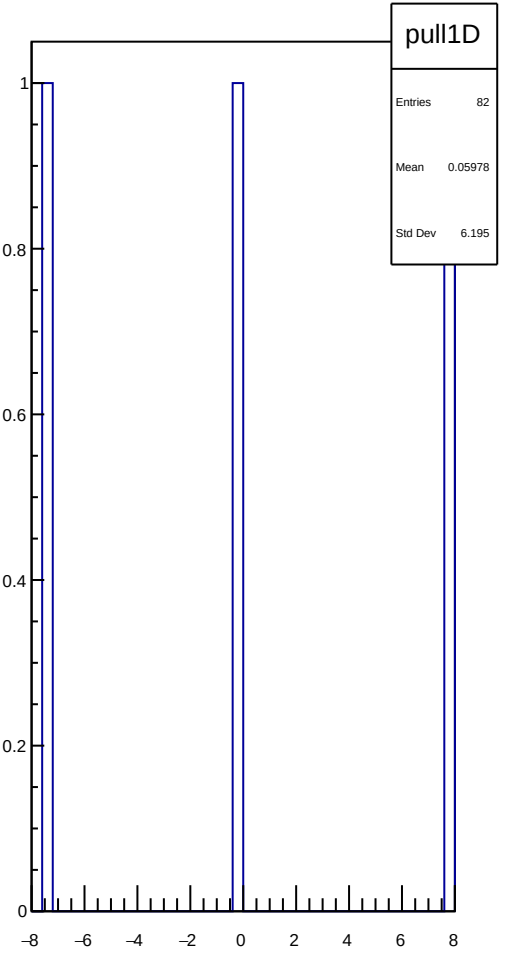

yield_bpm1i06Y_mean vs run
χ² / ndf 7.538e+07 / 81
p0 1.244 ± 4.694e−06
pull
Entries 82
Mean 330.5
Std Dev 274.5

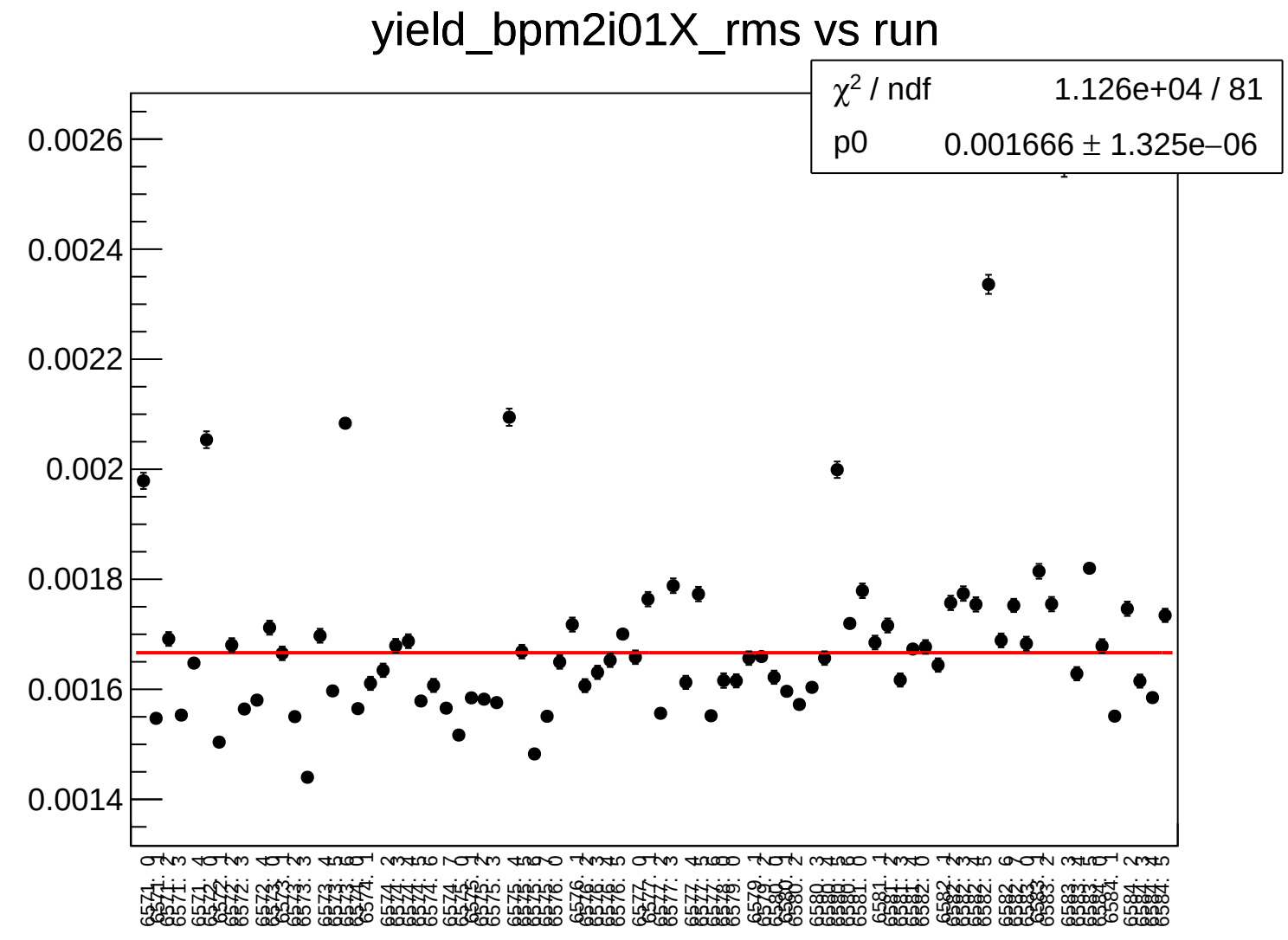

pull1D
Entries 82
Mean −0.4417
Std Dev 0

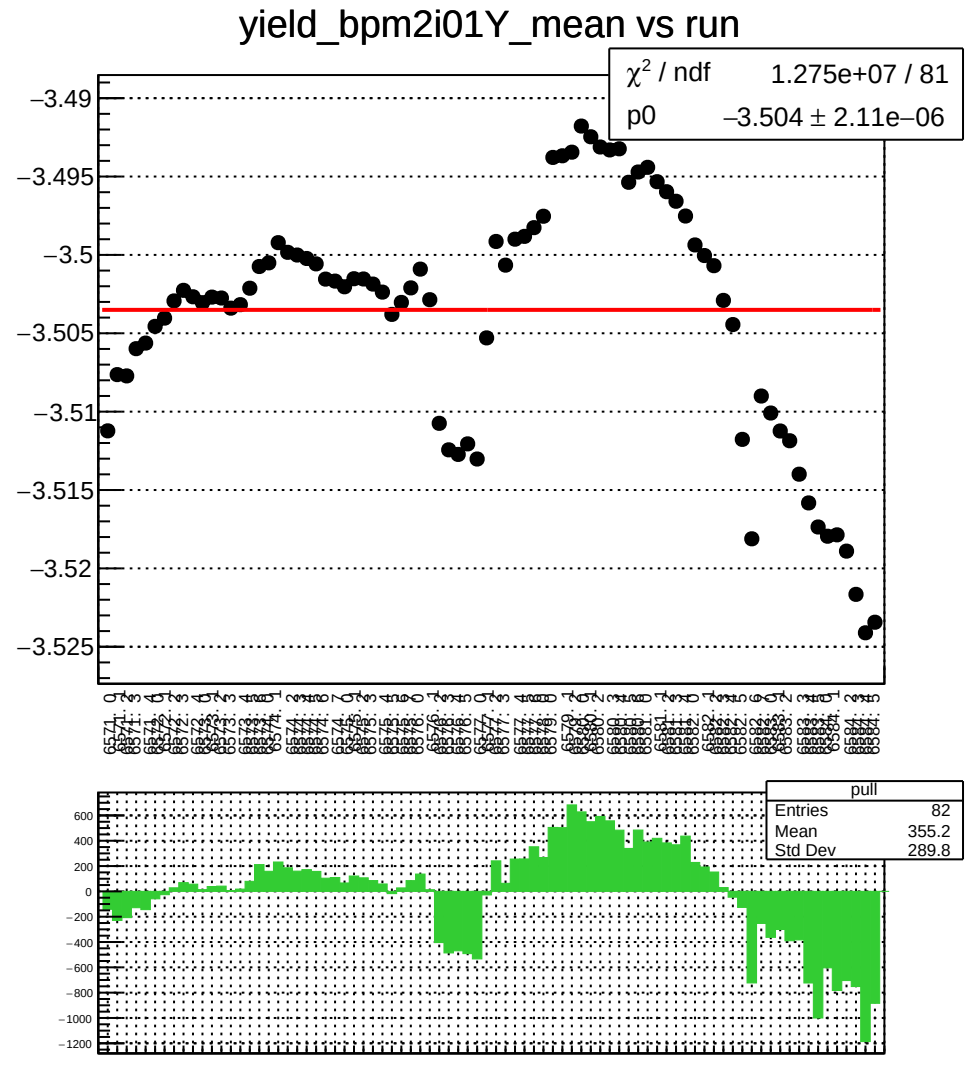
yield_bpm1i06Y_rms vs run

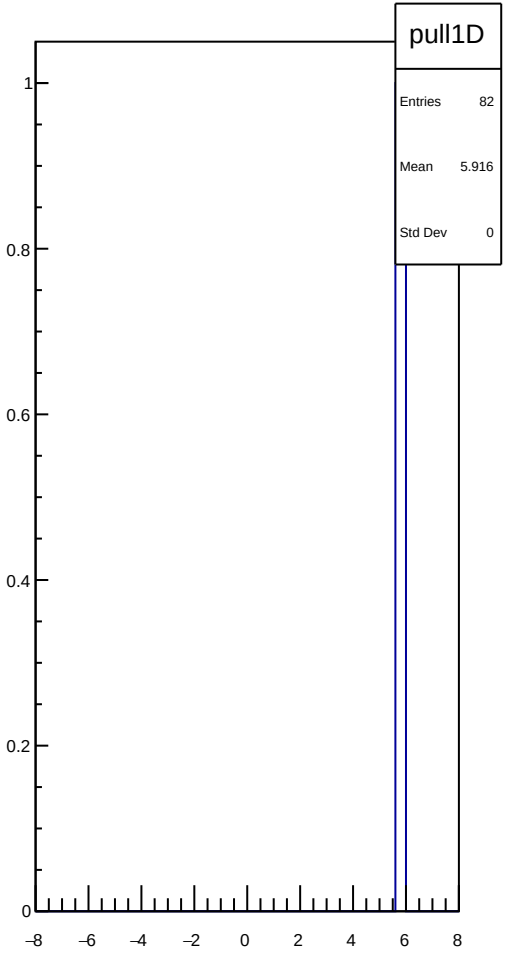


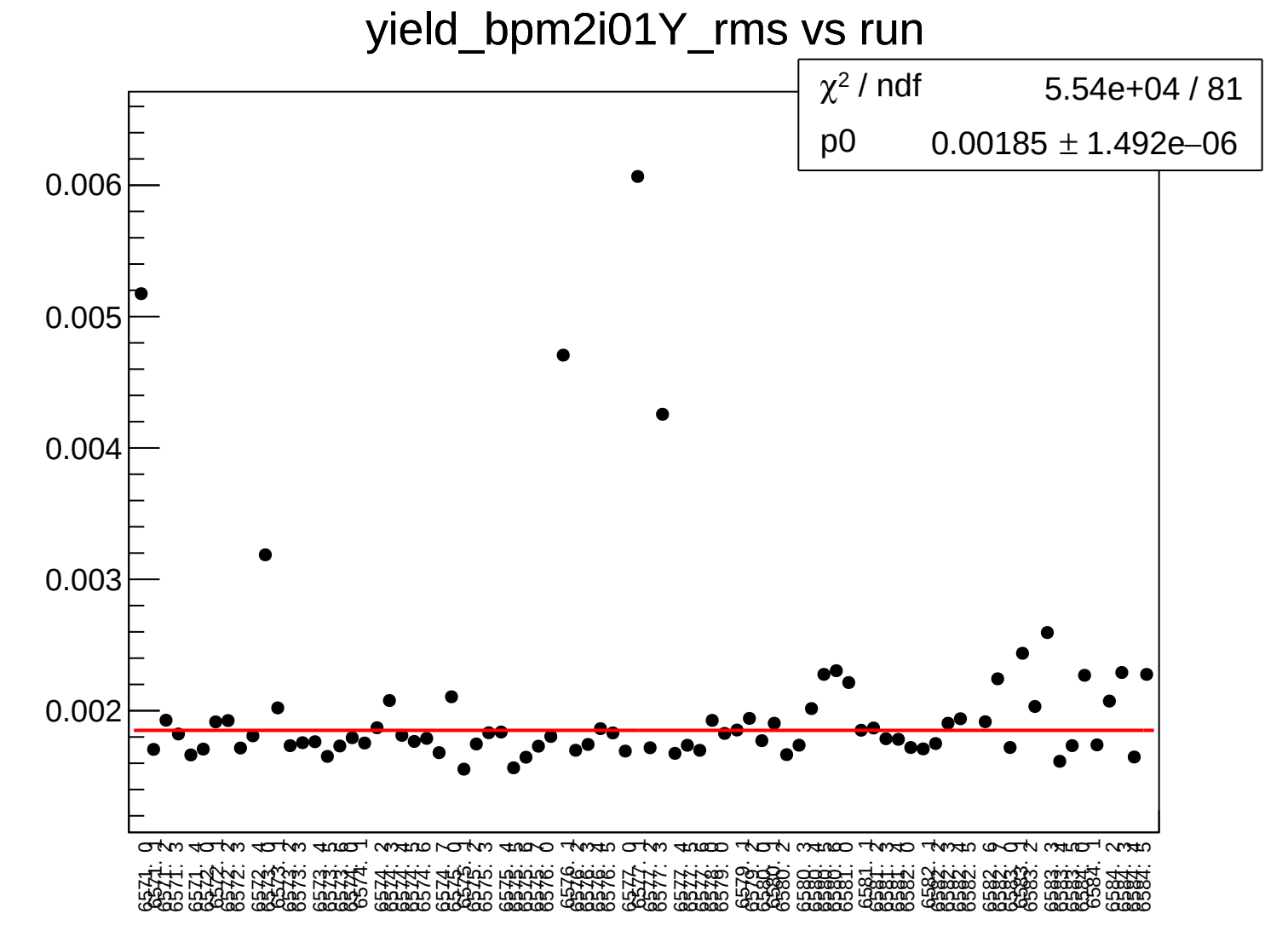

yield_bpm2i01X_mean vs run
χ² / ndf 4.02e+07 / 81
p0 0.2443 ± 1.874e−06
0.26
0.25
0.24
0.23
0.22
pull
Entries 82
Mean −23.65
Std Dev 159.3
1500
1000
500
0
−500
−1000
−1500

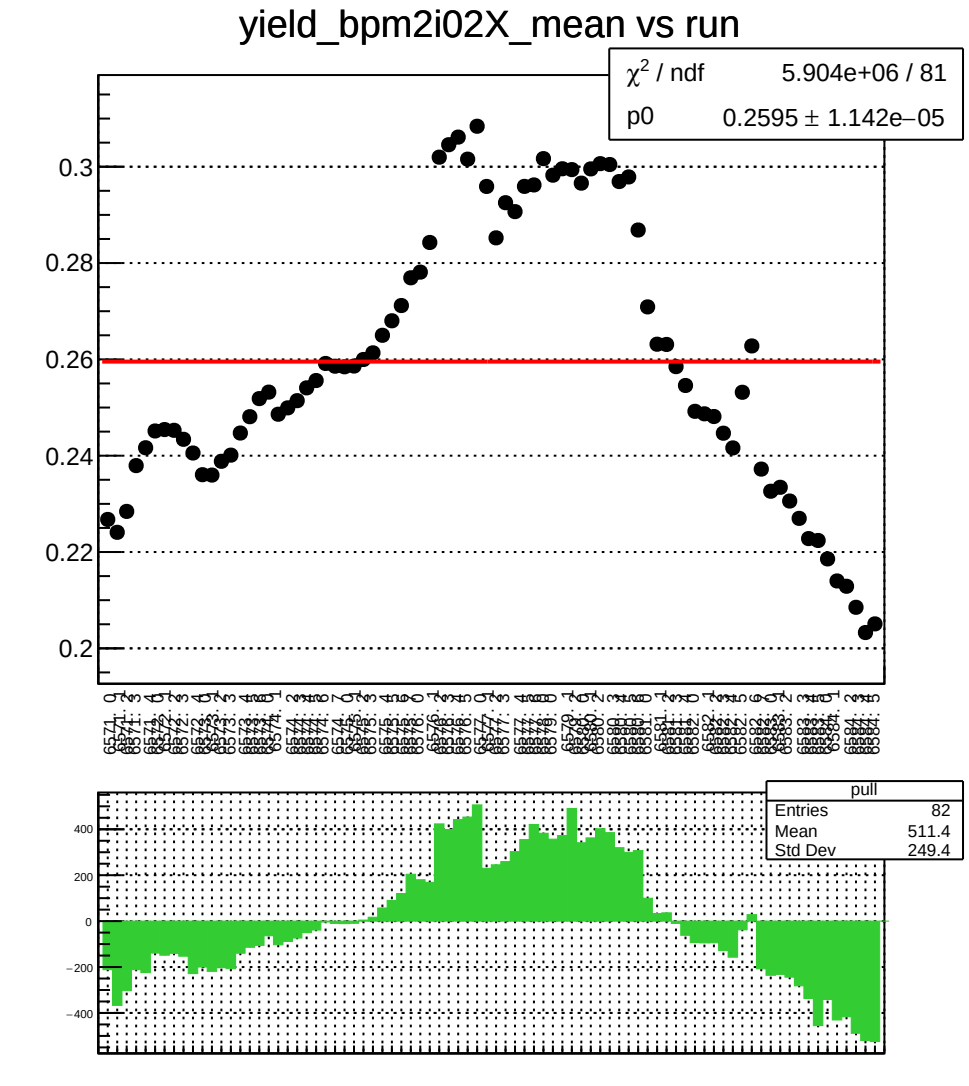

pull1D
Entries 82
Mean 0.05978
Std Dev 6.195
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

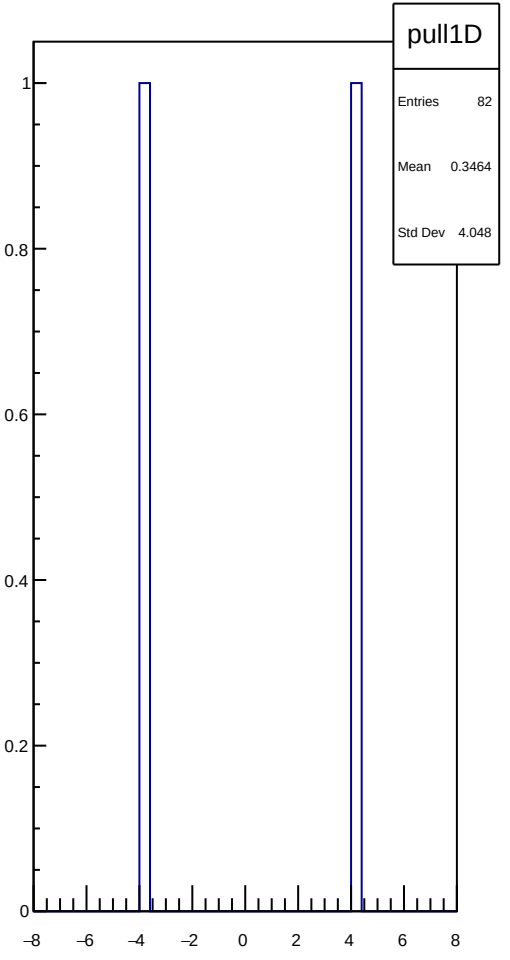

yield_bpm2i01X_rms vs run
χ² / ndf 1.126e+04 / 81
p0 0.001666 ± 1.325e−06
0.0026
0.0024
0.0022
0.002
0.0018
0.0016
0.0014

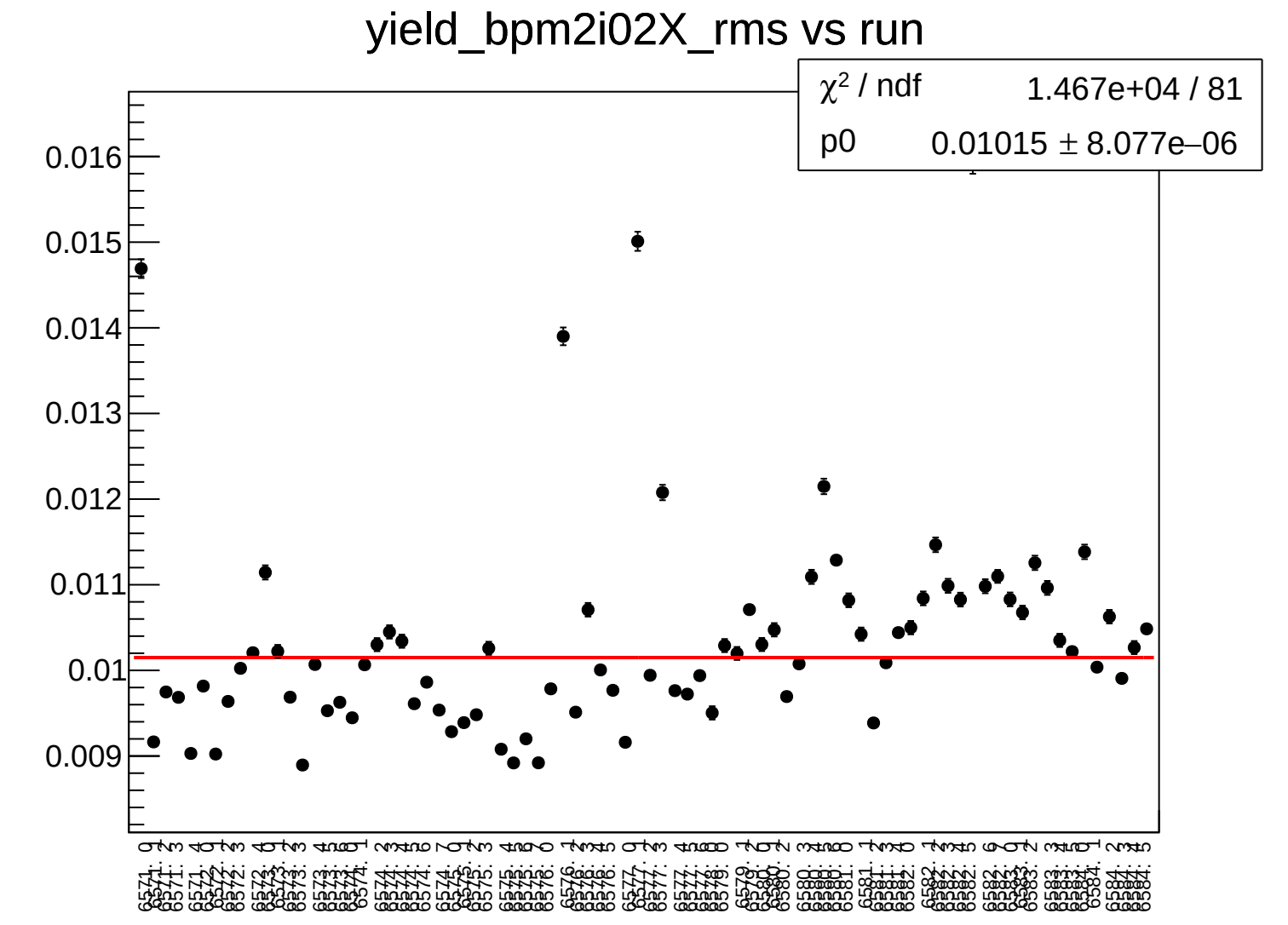

yield_bpm2i01Y_mean vs run
χ² / ndf 1.275e+07 / 81
p0 −3.504 ± 2.11e−06
−3.49
−3.495
−3.5
−3.505
−3.51
−3.515
−3.52
−3.525
pull
Entries 82
Mean 355.2
Std Dev 289.8
600
400
200
0
−200
−400
−600
−800
−1000
−1200

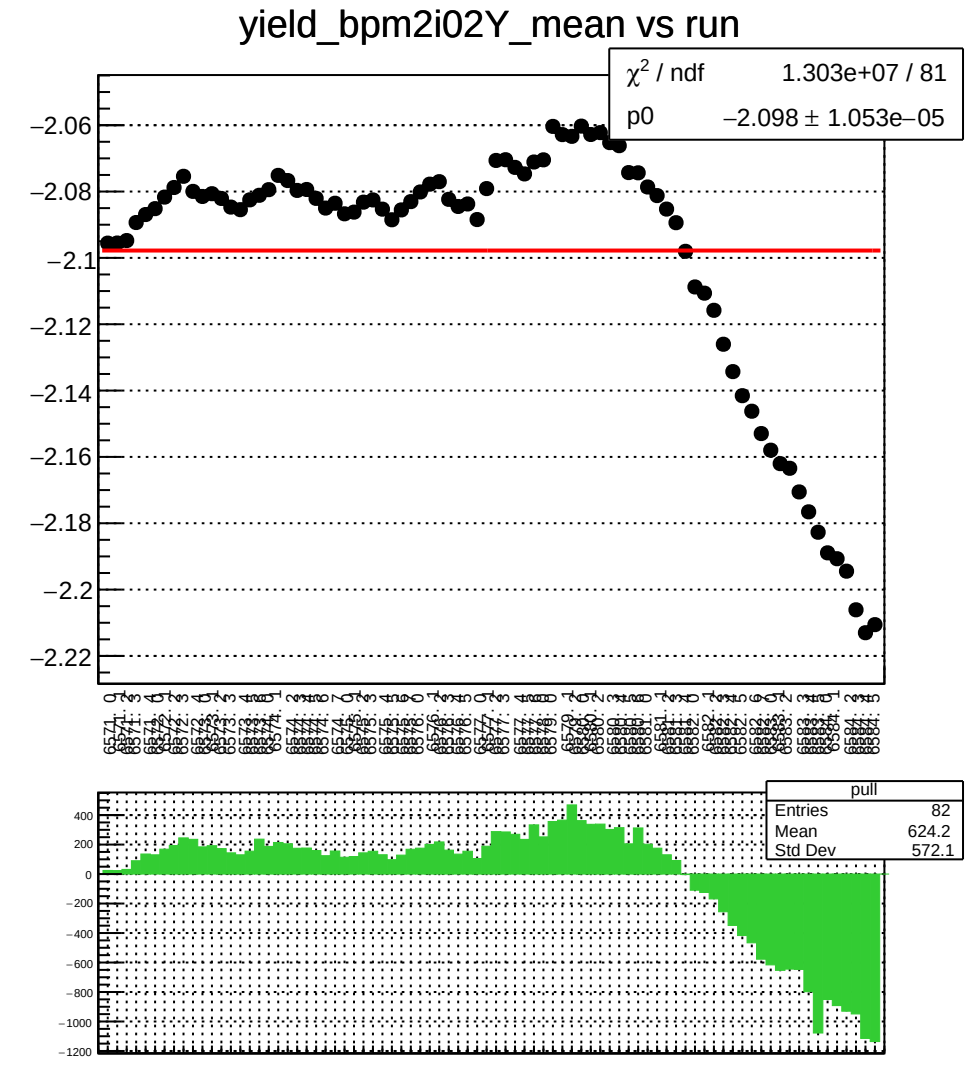

pull1D
Entries 82
Mean 5.916
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

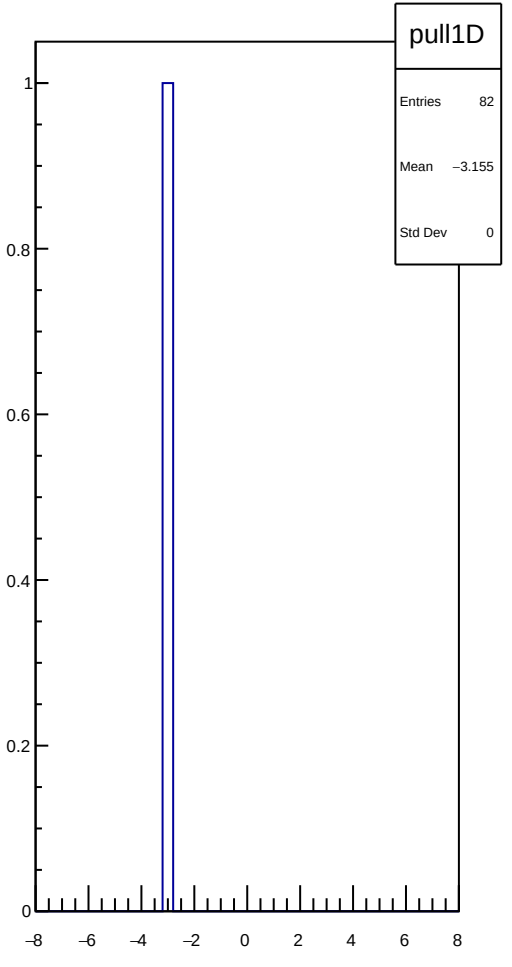

yield_bpm2i01Y_rms vs run
χ² / ndf 5.54e+04 / 81
p0 0.00185 ± 1.492e−06
0.006
0.005
0.004
0.003
0.002


yield_bpm2i02X_mean vs run
χ² / ndf 5.904e+06 / 81
p0 0.2595 ± 1.142e−05
0.3
0.28
0.26
0.24
0.22
0.2
pull
Entries 82
Mean 511.4
Std Dev 249.4
400
200
0
−200
−400

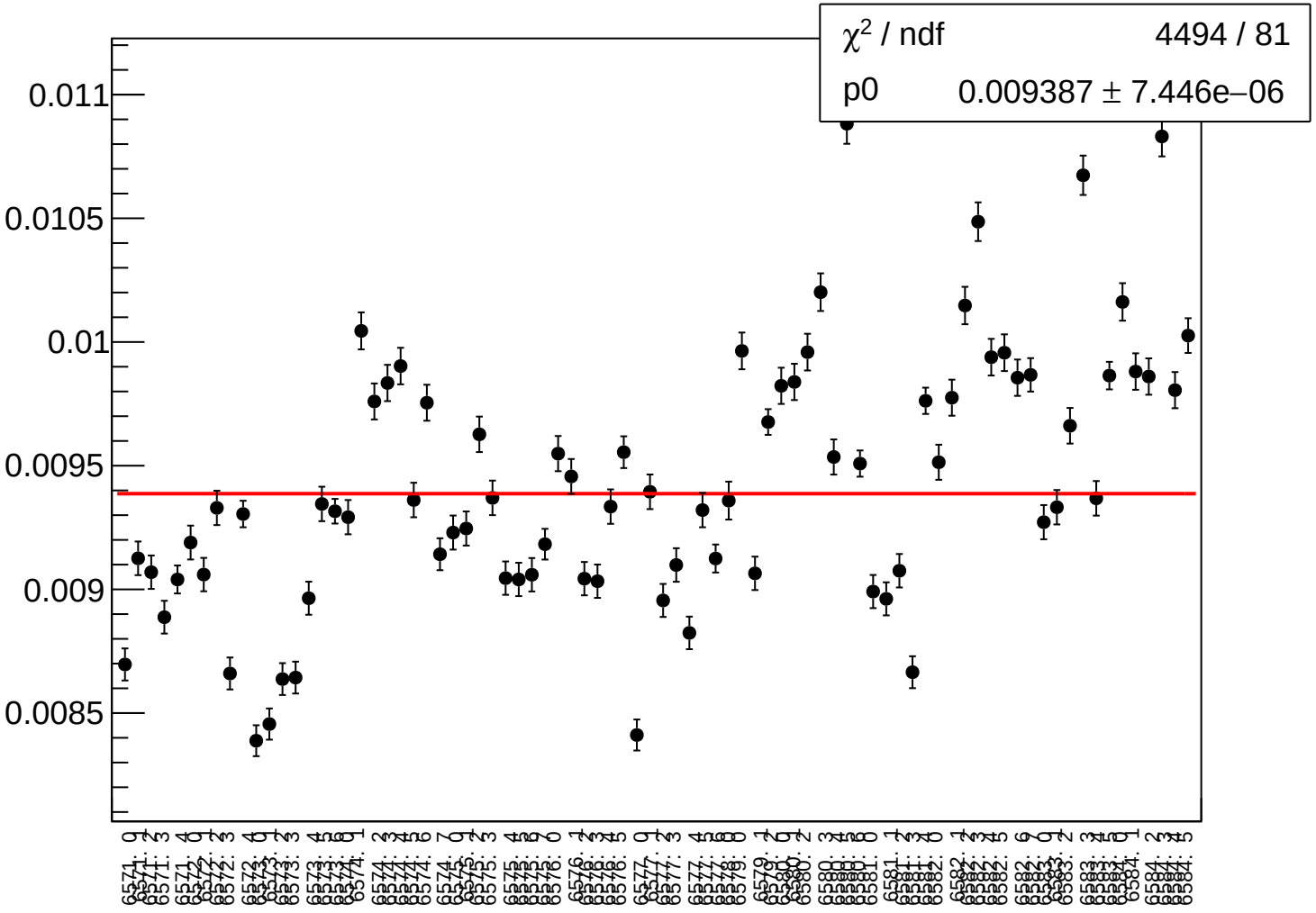

pull1D
Entries 82
Mean 0.3464
Std Dev 4.048
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

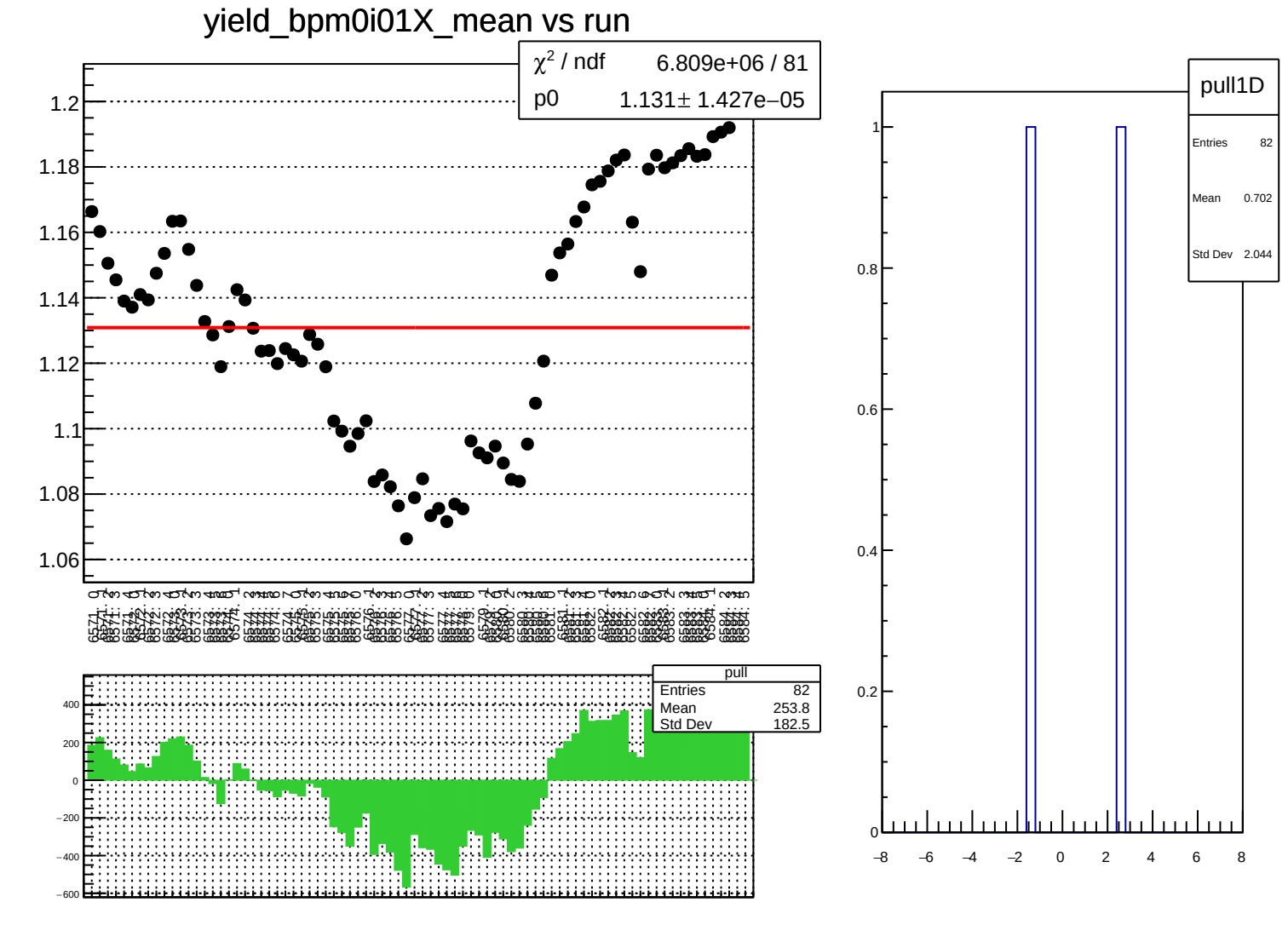

yield_bpm2i02X_rms vs run
χ² / ndf 1.467e+04 / 81
p0 0.01015 ± 8.077e–06
0.016
0.015
0.014
0.013
0.012
0.011
0.01
0.009

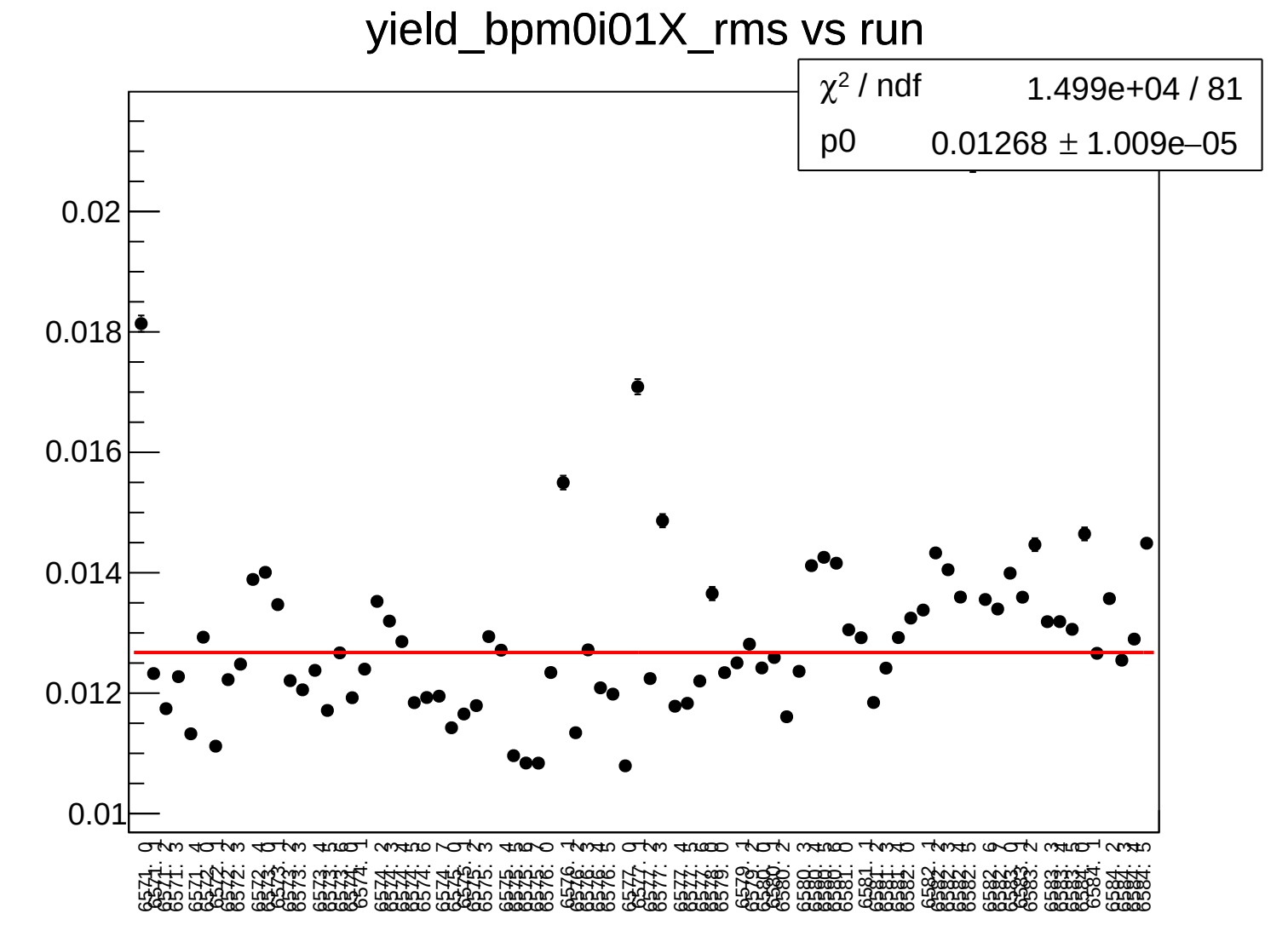

yield_bpm2i02Y_mean vs run
χ² / ndf 1.303e+07 / 81
p0 −2.098 ± 1.053e−05
−2.06
−2.08
−2.1
−2.12
−2.14
−2.16
−2.18
−2.2
−2.22
pull
Entries 82
Mean 624.2
Std Dev 572.1
400
200
0
−200
−400
−600
−800
−1000
−1200

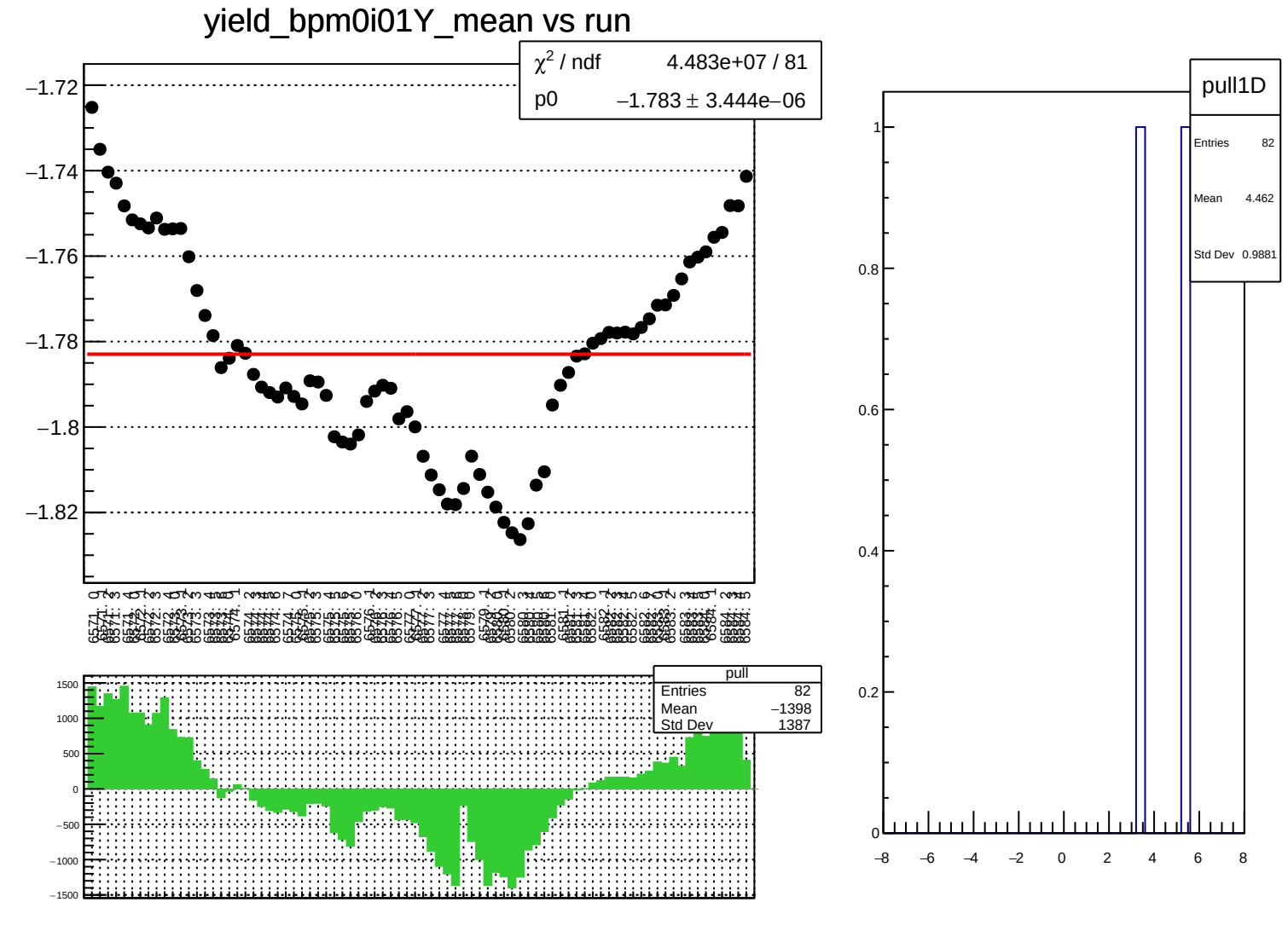

pull1D
Entries 82
Mean −3.155
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

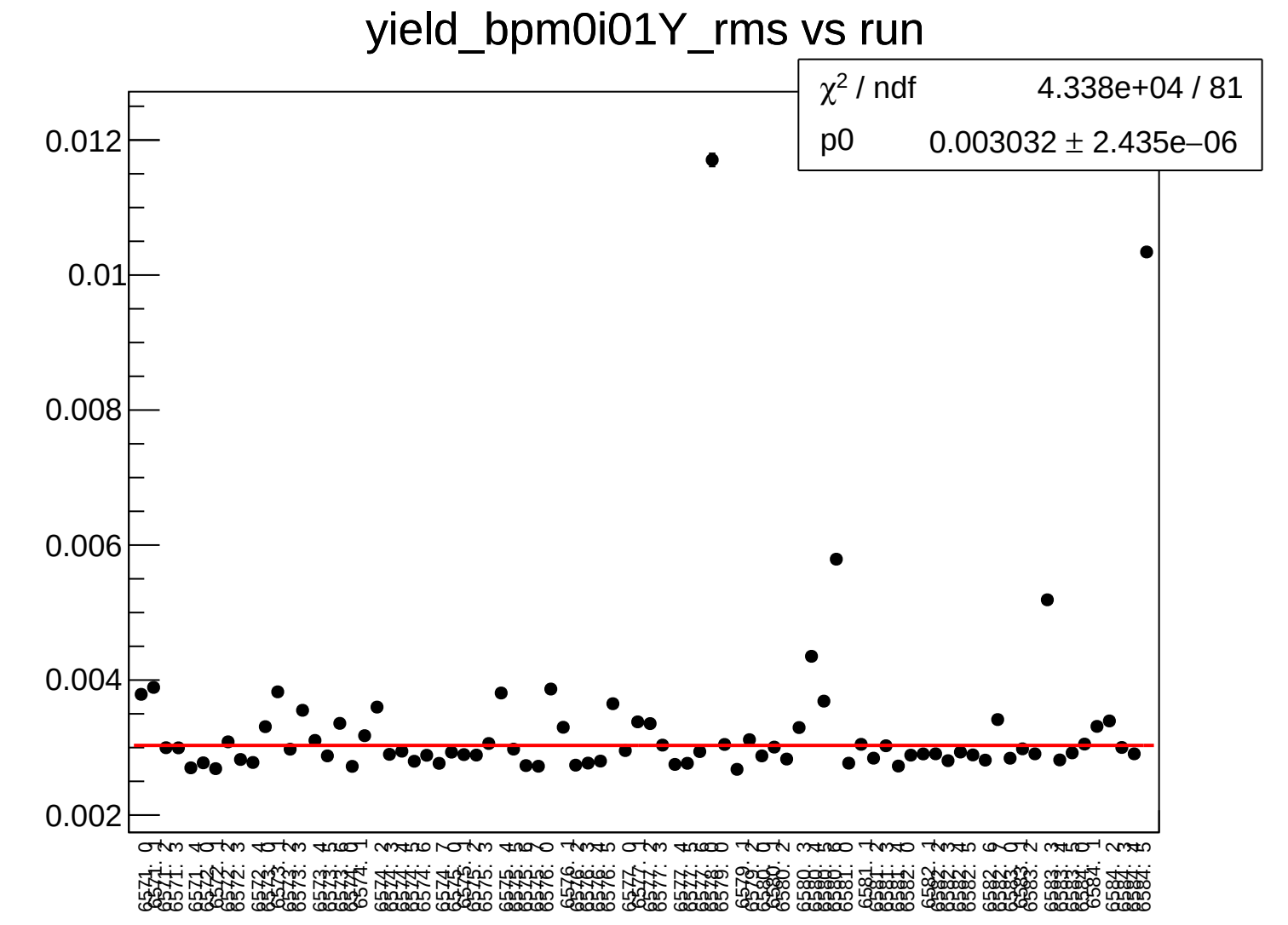
yield_bpm2i02Y_rms vs run

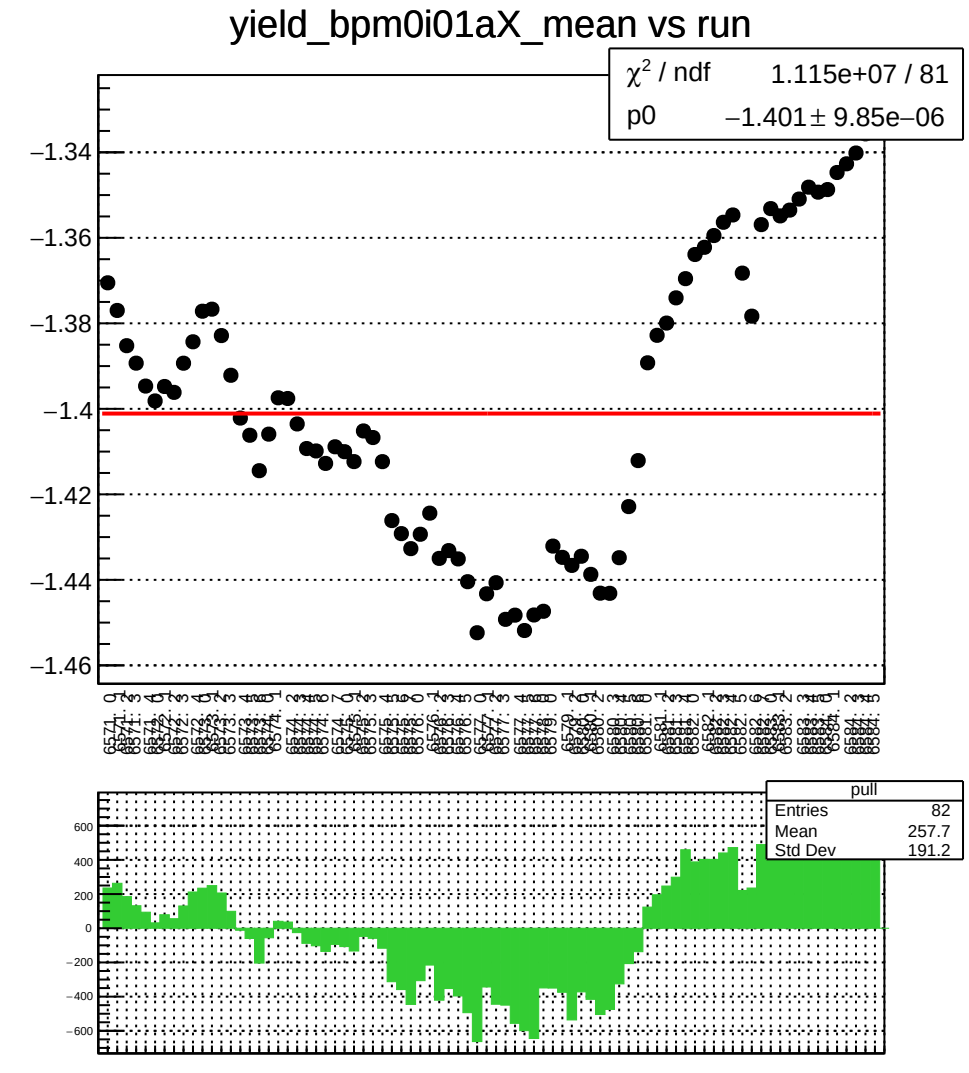


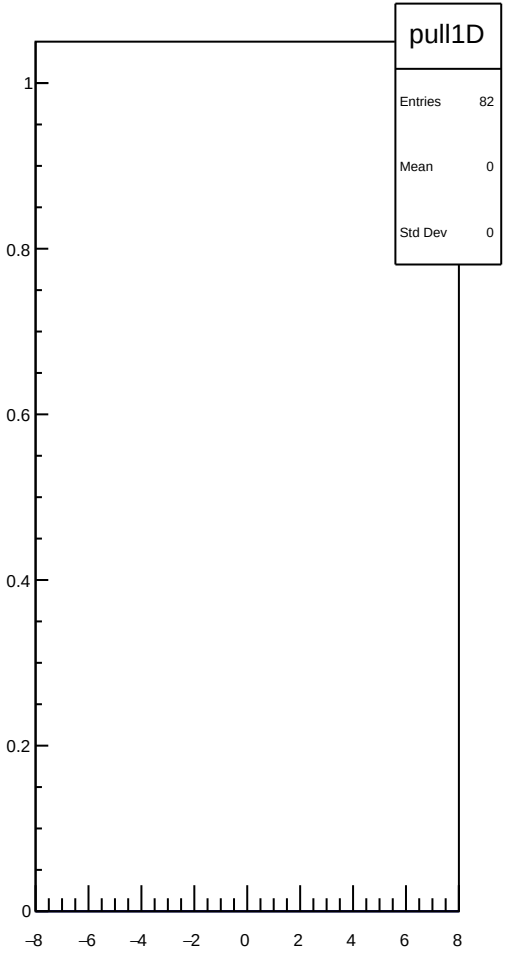

yield_bpm0i01X_mean vs run
χ² / ndf 6.809e+06 / 81
p0 1.131± 1.427e−05
1.2
1.18
1.16
1.14
1.12
1.1
1.08
1.06
pull
Entries 82
Mean 253.8
Std Dev 182.5
400
200
0
−200
−400
−600
pull1D
Entries 82
Mean 0.702
Std Dev 2.044
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

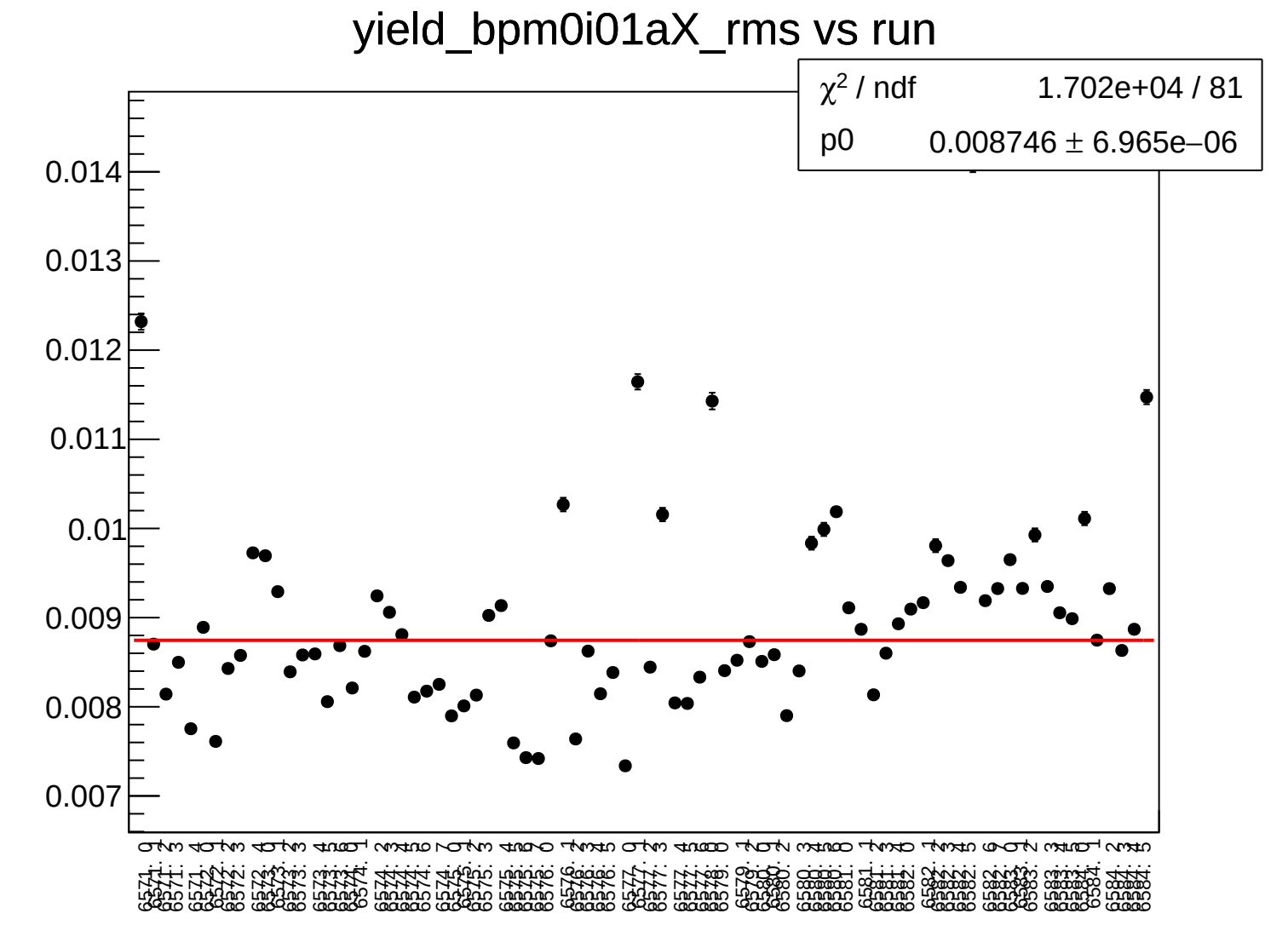

yield_bpm0i01X_rms vs run
χ² / ndf 1.499e+04 / 81
p0 0.01268 ± 1.009e−05
0.02
0.018
0.016
0.014
0.012
0.01

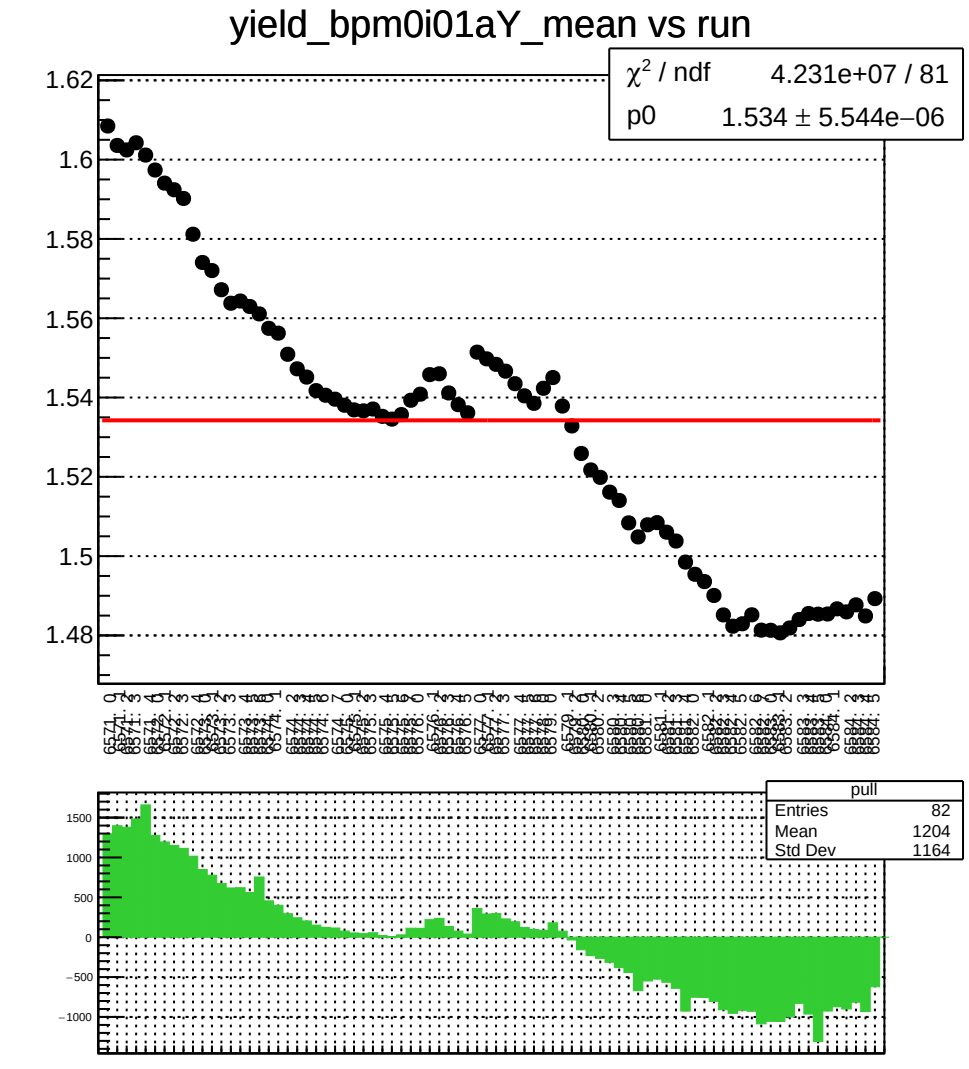

yield_bpm0i01Y_mean vs run
χ² / ndf 4.483e+07 / 81
p0 −1.783 ± 3.444e−06
−1.72
−1.74
−1.76
−1.78
−1.8
−1.82
pull
Entries 82
Mean −1398
Std Dev 1387
1500
1000
500
0
−500
−1000
−1500
pull1D
Entries 82
Mean 4.462
Std Dev 0.9881
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

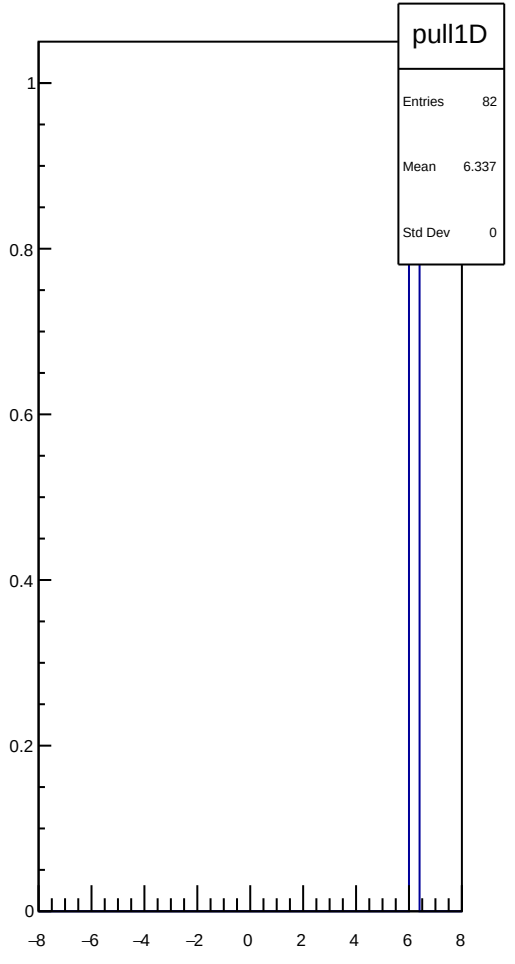

yield_bpm0i01Y_rms vs run
χ² / ndf 4.338e+04 / 81
p0 0.003032 ± 2.435e−06
0.012
0.01
0.008
0.006
0.004
0.002

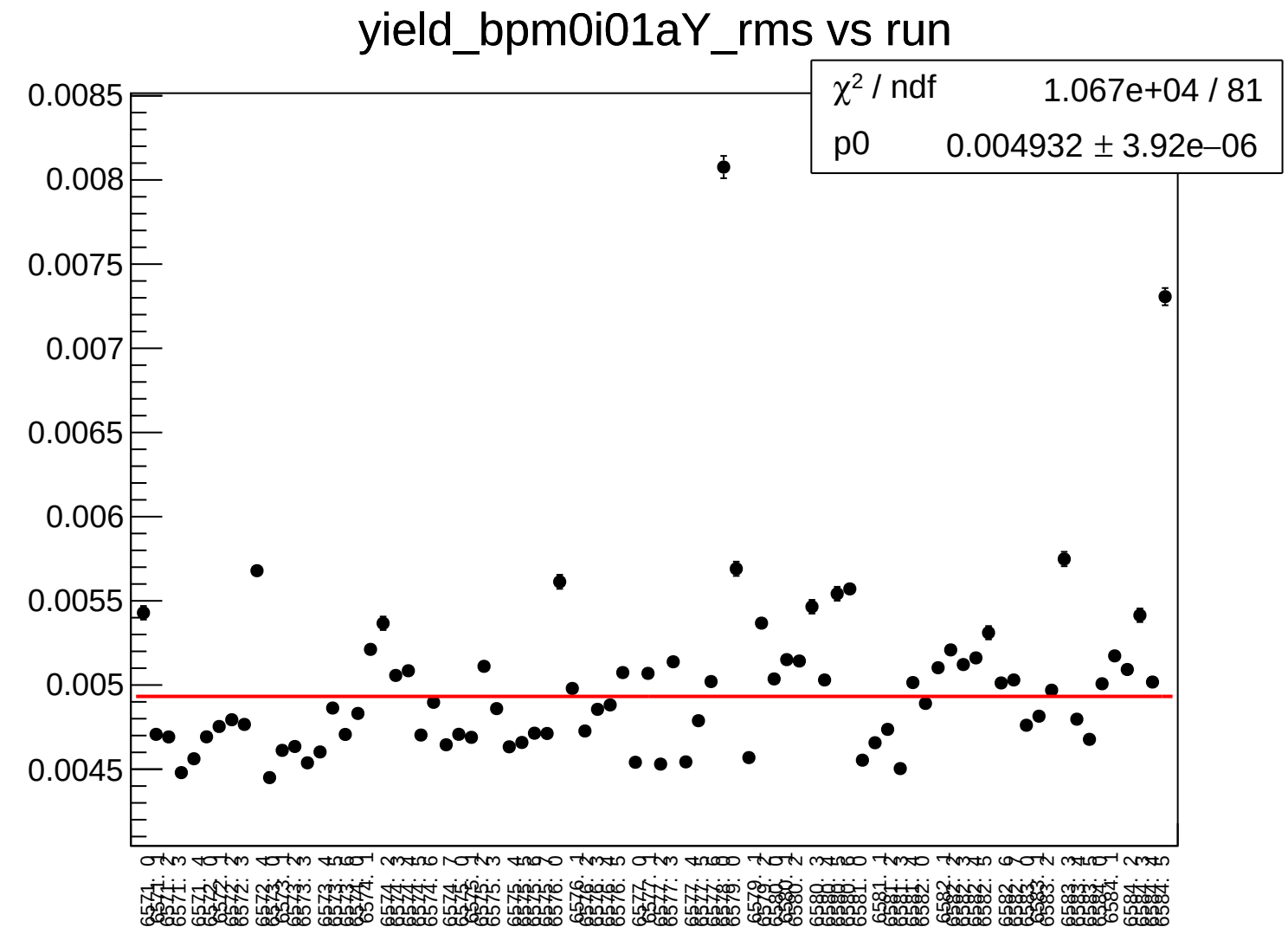

yield_bpm0i01aX_mean vs run
χ² / ndf 1.115e+07 / 81
p0 −1.401 ± 9.85e−06
−1.34
−1.36
−1.38
−1.4
−1.42
−1.44
−1.46
pull
Entries 82
Mean 257.7
Std Dev 191.2
600
400
200
0
−200
−400
−600

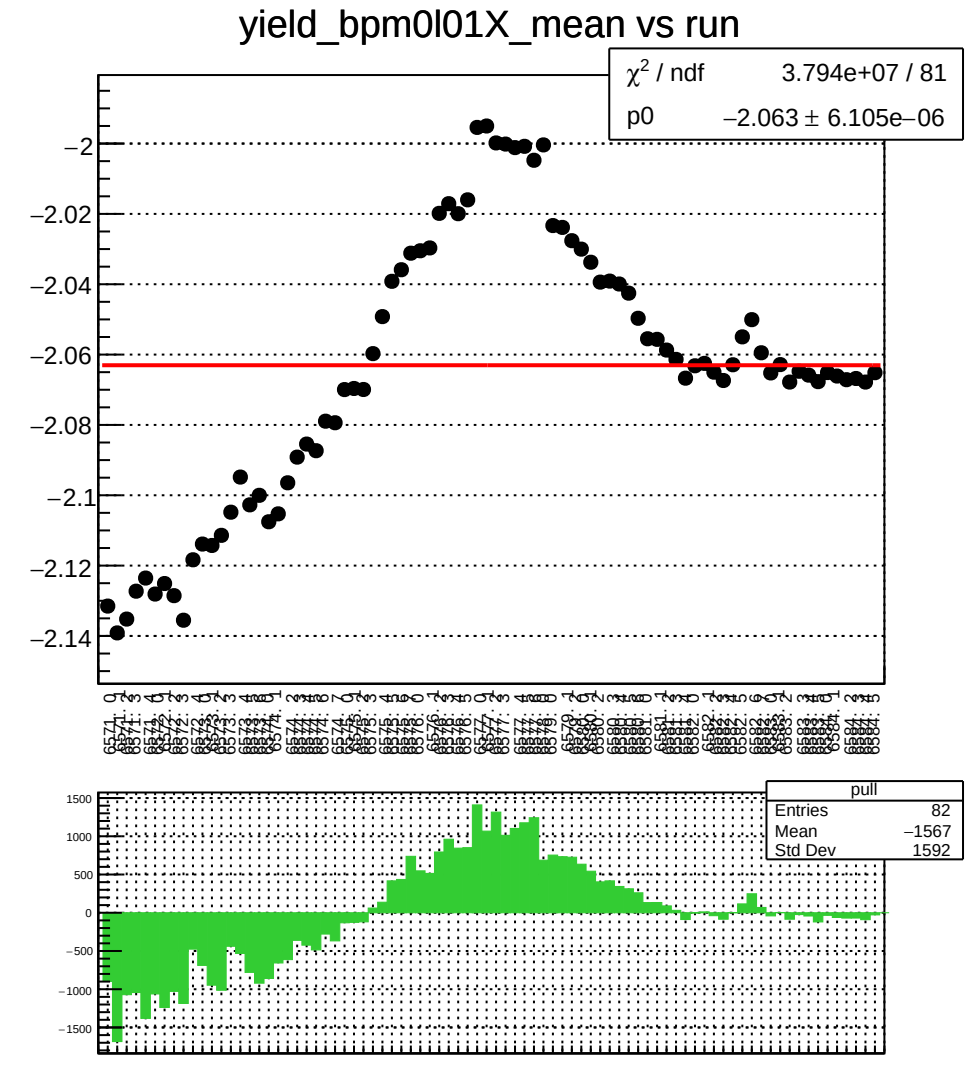

pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

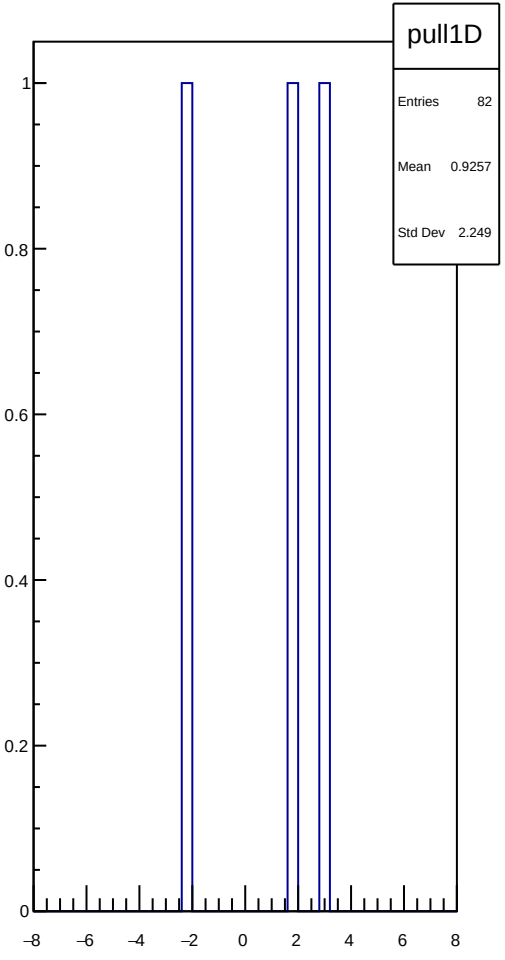

yield_bpm0i01aX_rms vs run
χ² / ndf 1.702e+04 / 81
p0 0.008746 ± 6.965e−06
0.014
0.013
0.012
0.011
0.01
0.009
0.008
0.007

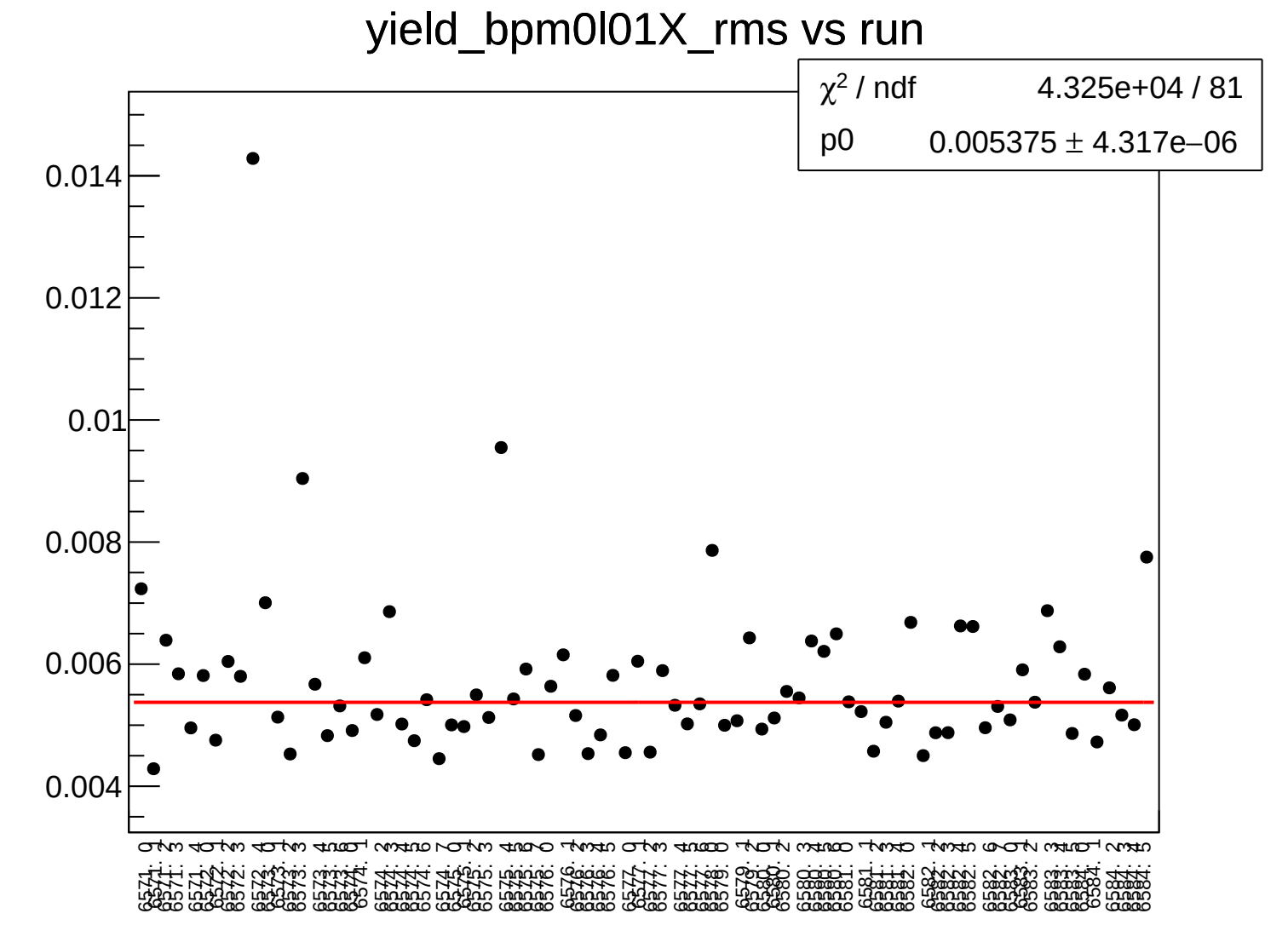

yield_bpm0i01aY_mean vs run
χ² / ndf 4.231e+07 / 81
p0 1.534 ± 5.544e−06
1.62
1.6
1.58
1.56
1.54
1.52
1.5
1.48
pull
Entries 82
Mean 1204
Std Dev 1164
1500
1000
500
0
−500
−1000

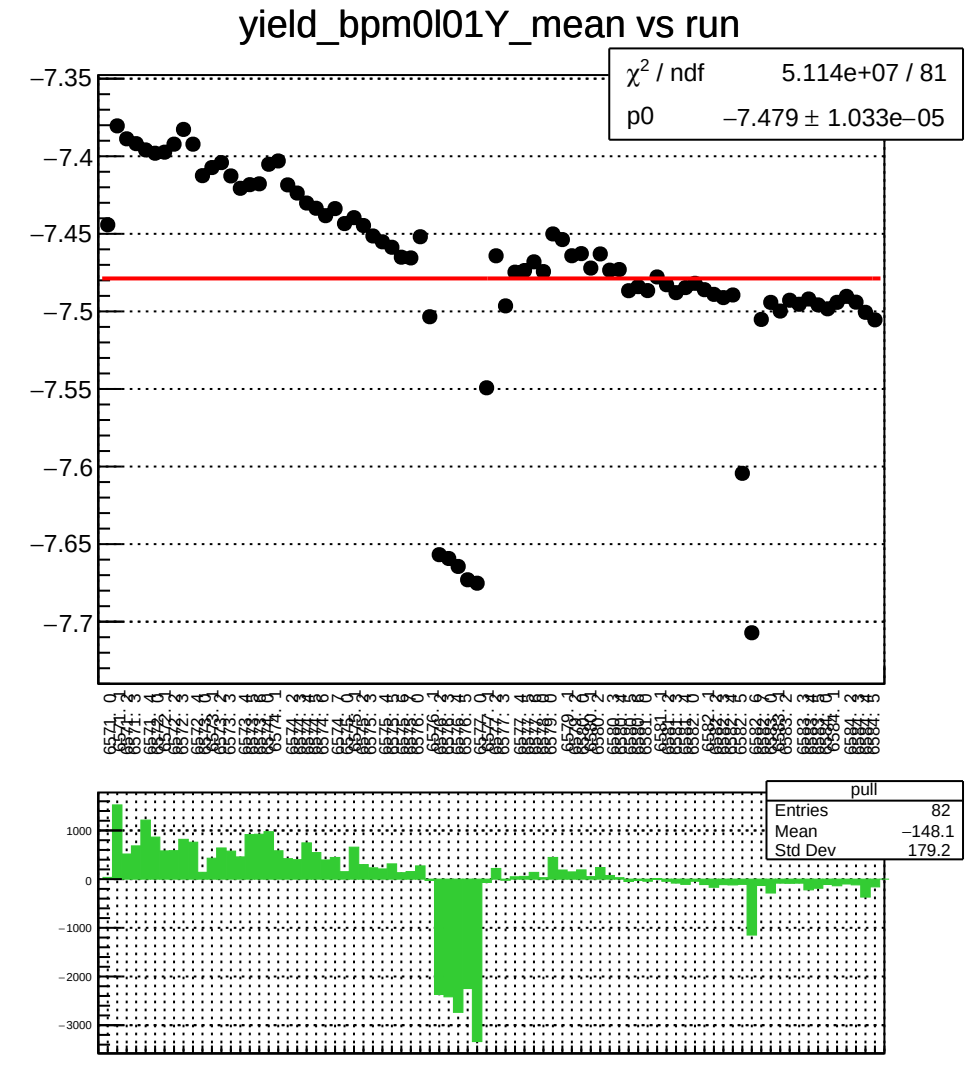

pull1D
Entries 82
Mean 6.337
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

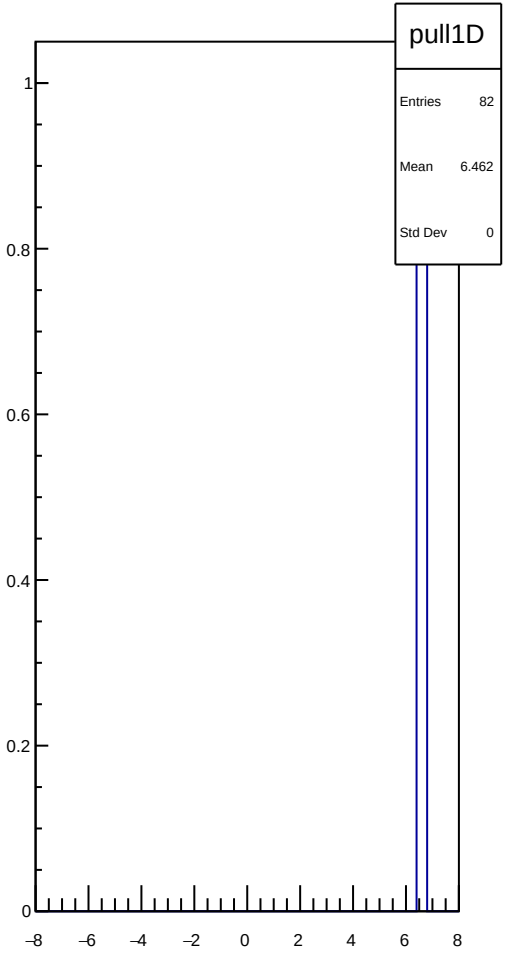

yield_bpm0i01aY_rms vs run
χ² / ndf 1.067e+04 / 81
p0 0.004932 ± 3.92e−06
0.0085
0.008
0.0075
0.007
0.0065
0.006
0.0055
0.005
0.0045

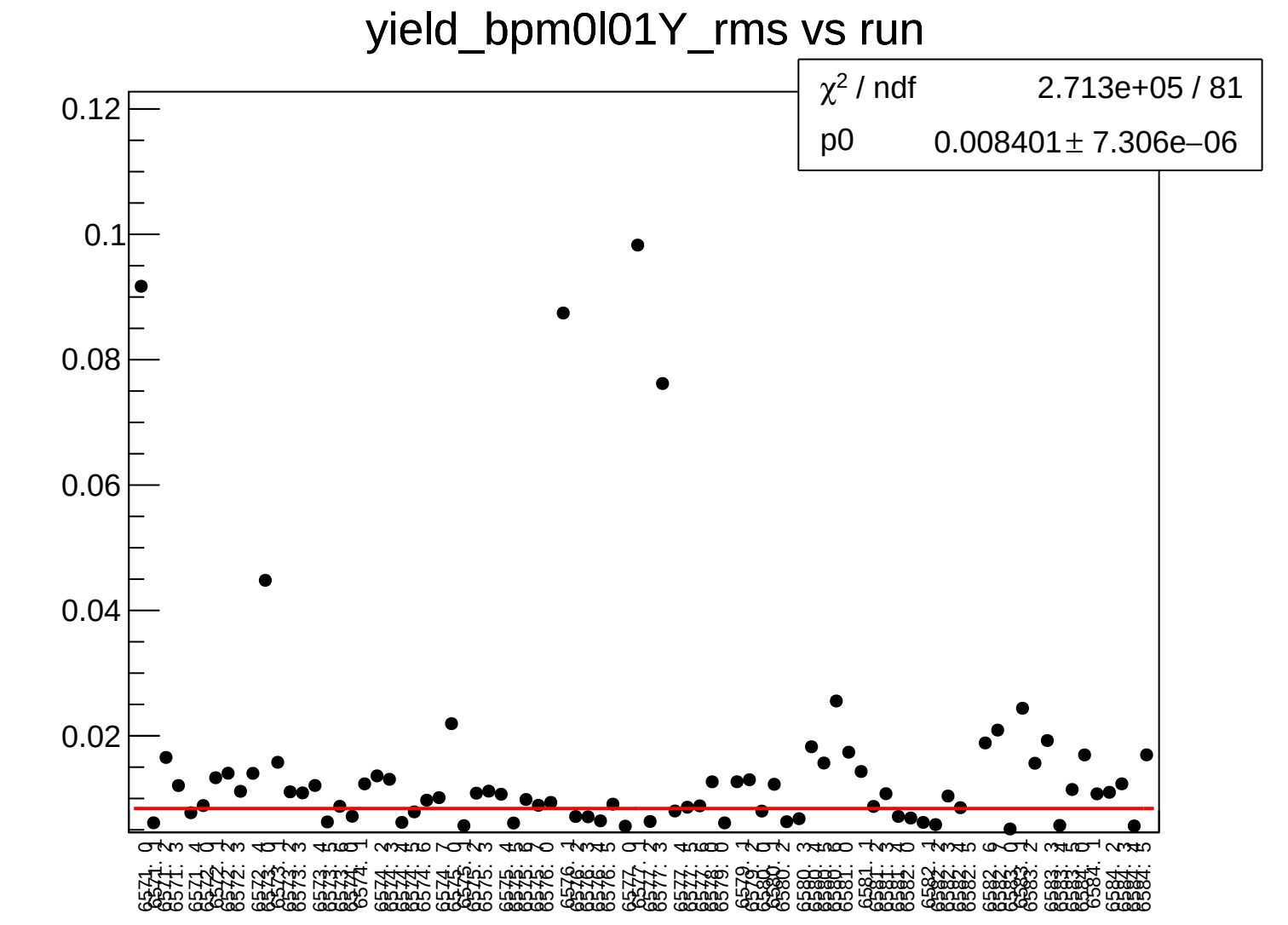

yield_bpm0l01X_mean vs run
χ² / ndf 3.794e+07 / 81
p0 −2.063 ± 6.105e−06
pull
Entries 82
Mean −1567
Std Dev 1592

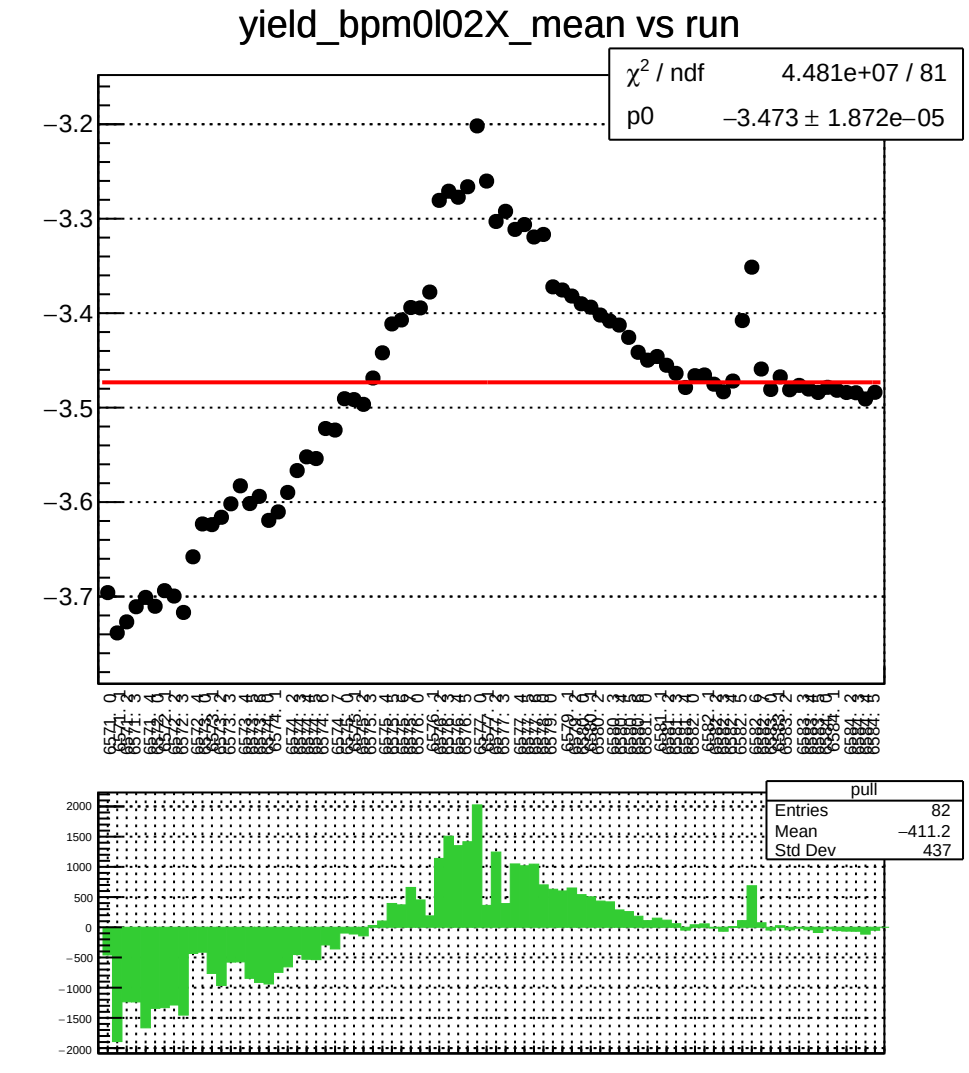

pull1D
Entries 82
Mean 0.9257
Std Dev 2.249

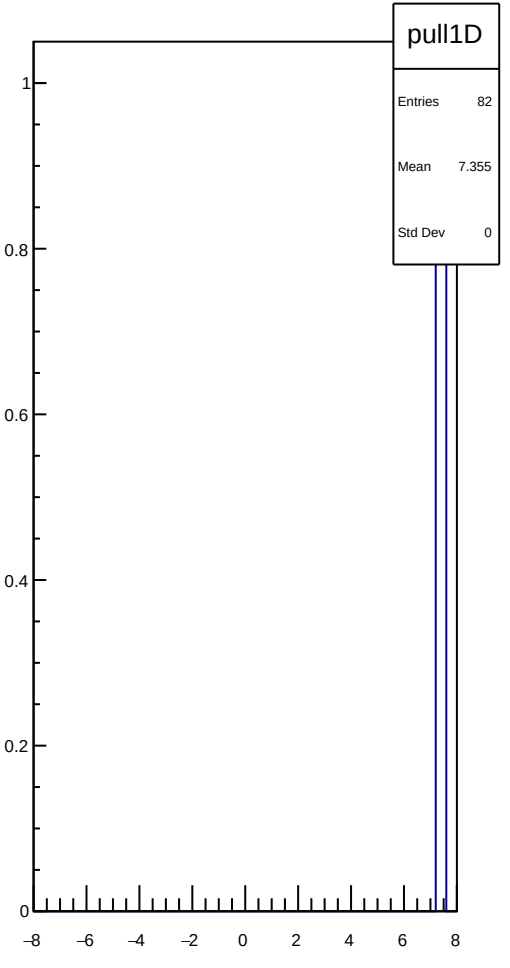

yield_bpm0l01X_rms vs run
χ² / ndf 4.325e+04 / 81
p0 0.005375 ± 4.317e−06
0.014
0.012
0.01
0.008
0.006
0.004

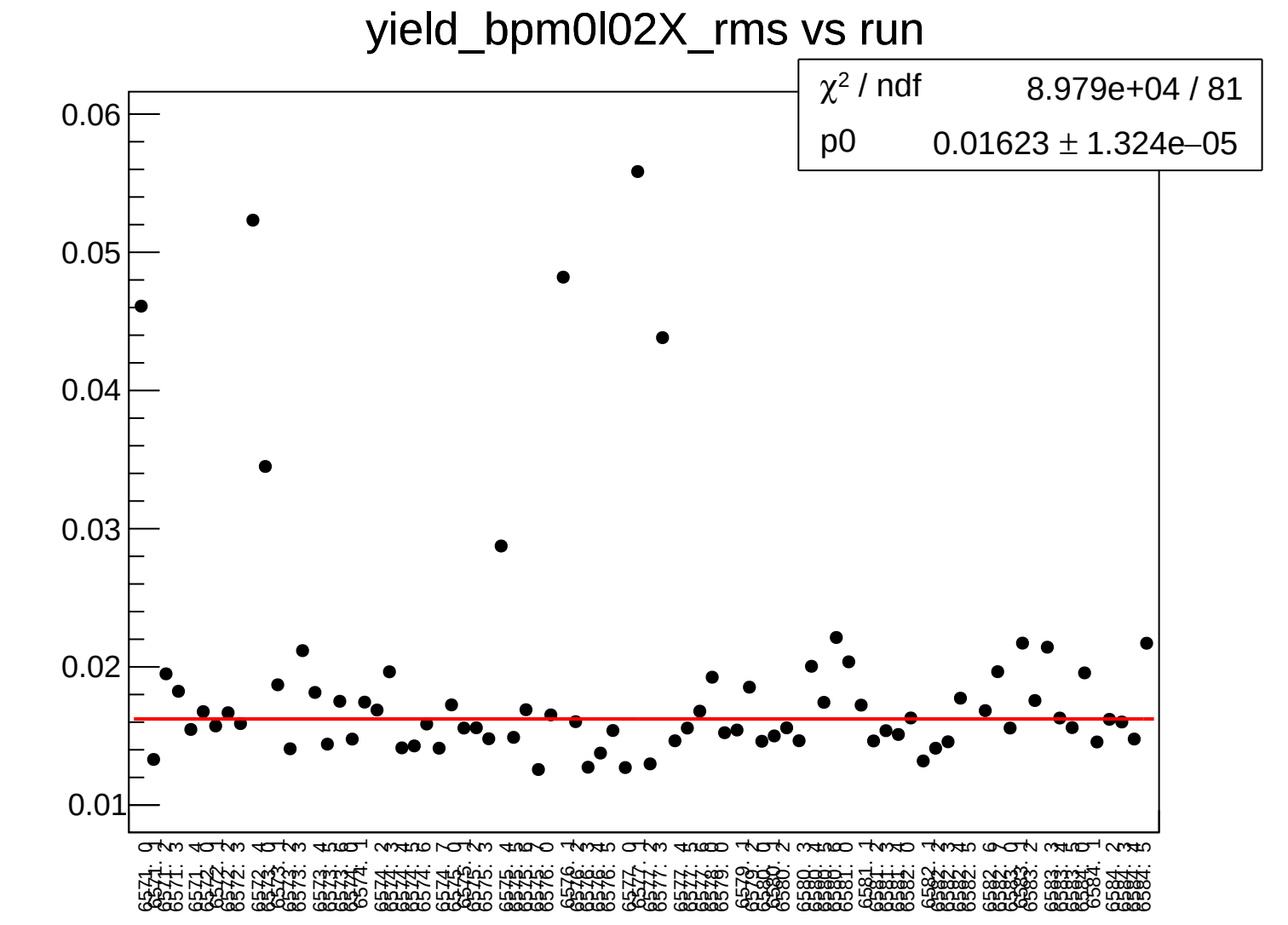

yield_bpm0l01Y_mean vs run
χ² / ndf 5.114e+07 / 81
p0 −7.479 ± 1.033e−05
−7.35
−7.4
−7.45
−7.5
−7.55
−7.6
−7.65
−7.7
pull
Entries 82
Mean −148.1
Std Dev 179.2
1000
0
−1000
−2000
−3000

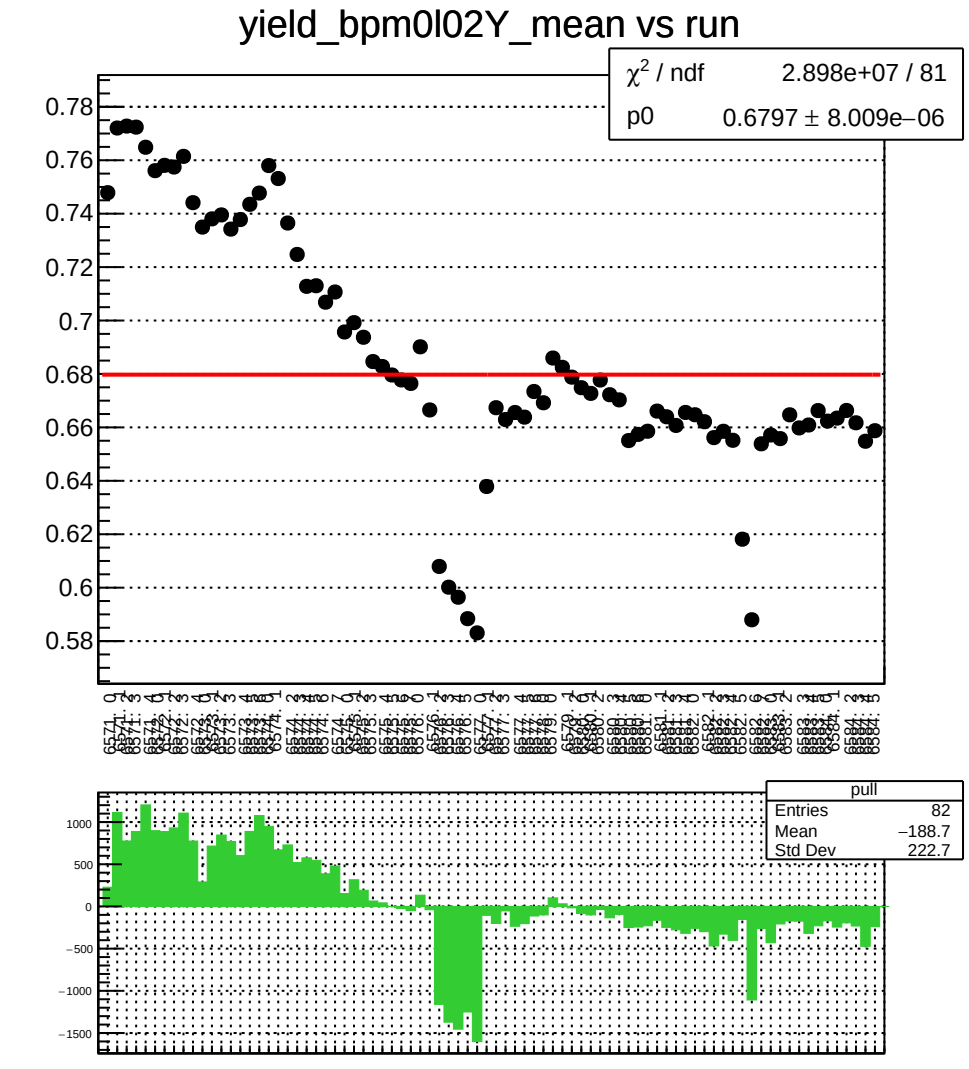

pull1D
Entries 82
Mean 6.462
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

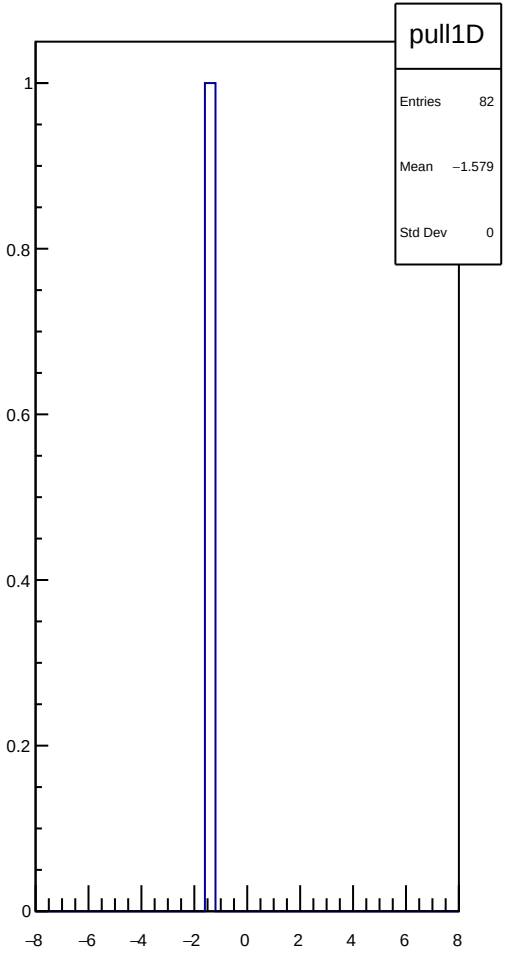

yield_bpm0l01Y_rms vs run
χ² / ndf 2.713e+05 / 81
p0 0.008401 ± 7.306e−06
0.12
0.1
0.08
0.06
0.04
0.02

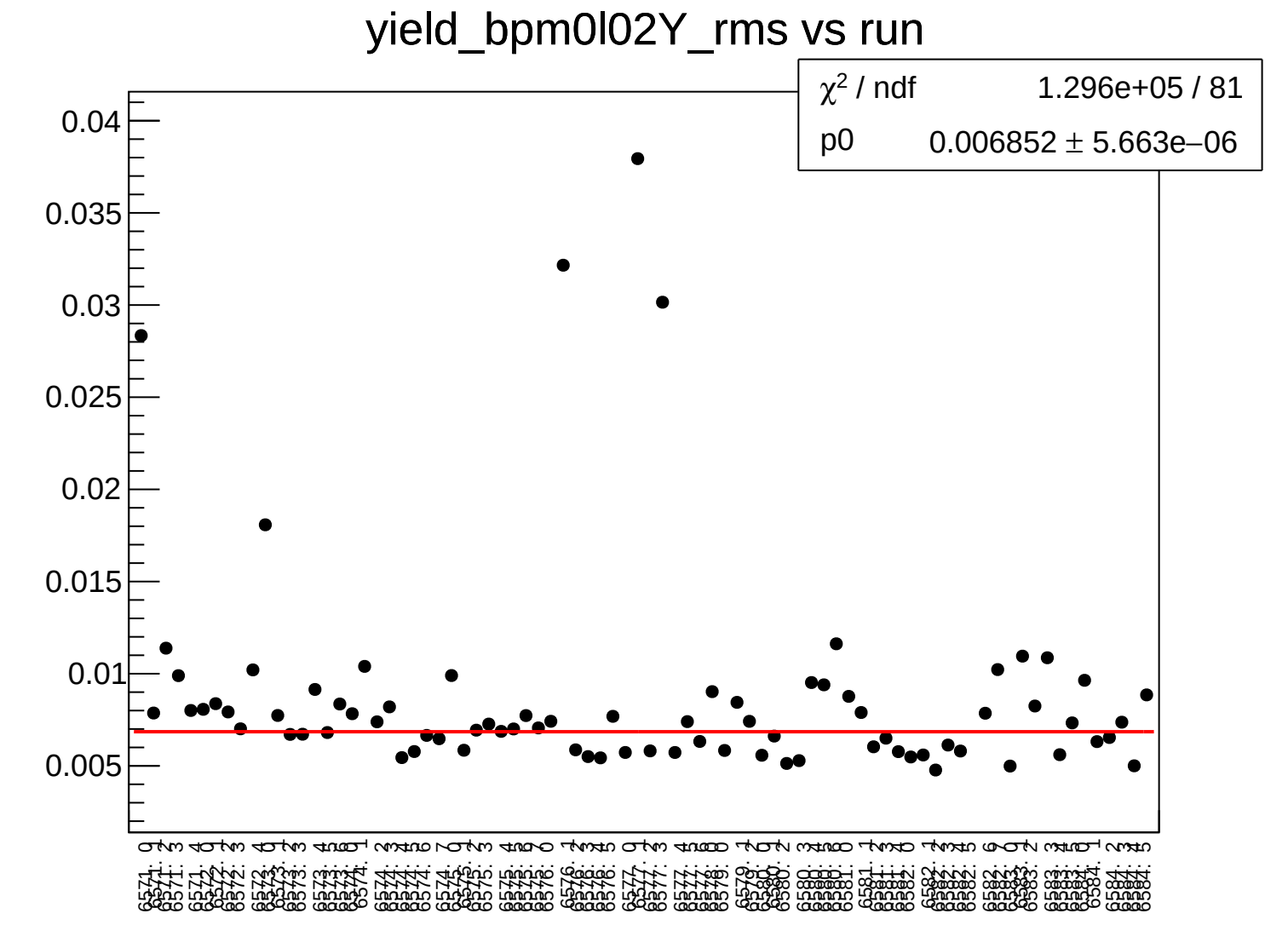

yield_bpm0l02X_mean vs run
χ² / ndf 4.481e+07 / 81
p0 −3.473 ± 1.872e−05
−3.2
−3.3
−3.4
−3.5
−3.6
−3.7
pull
Entries 82
Mean −411.2
Std Dev 437
2000
1500
1000
500
0
−500
−1000
−1500
−2000

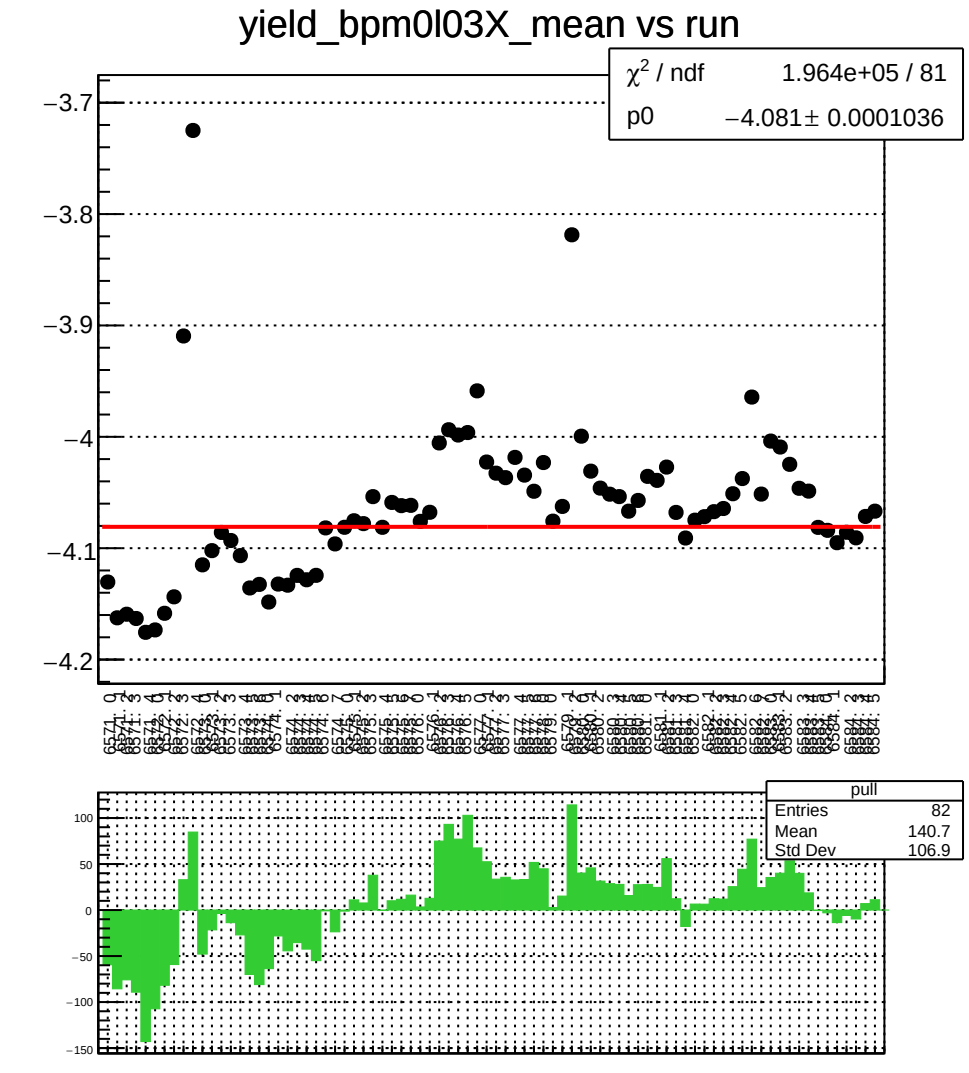

pull1D
Entries 82
Mean 7.355
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

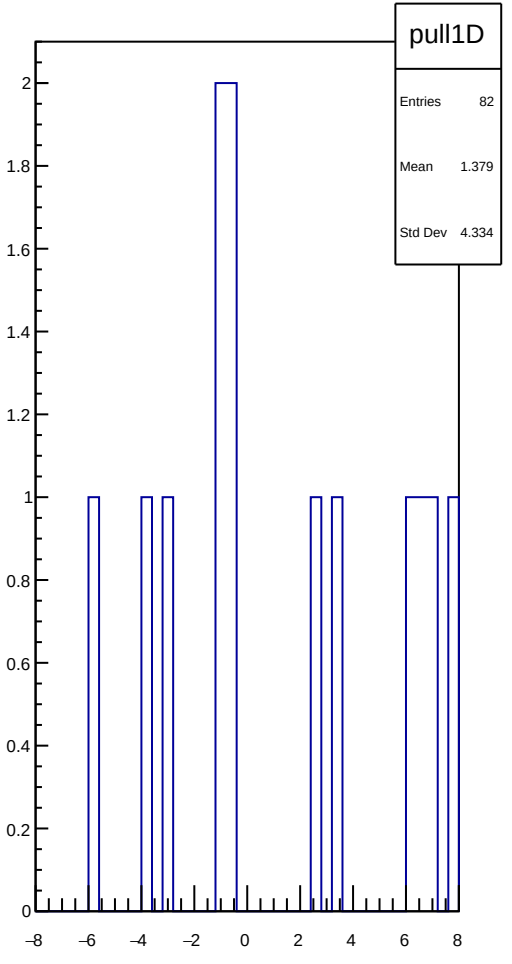

yield_bpm0l02X_rms vs run
χ² / ndf 8.979e+04 / 81
p0 0.01623 ± 1.324e−05
0.06
0.05
0.04
0.03
0.02
0.01

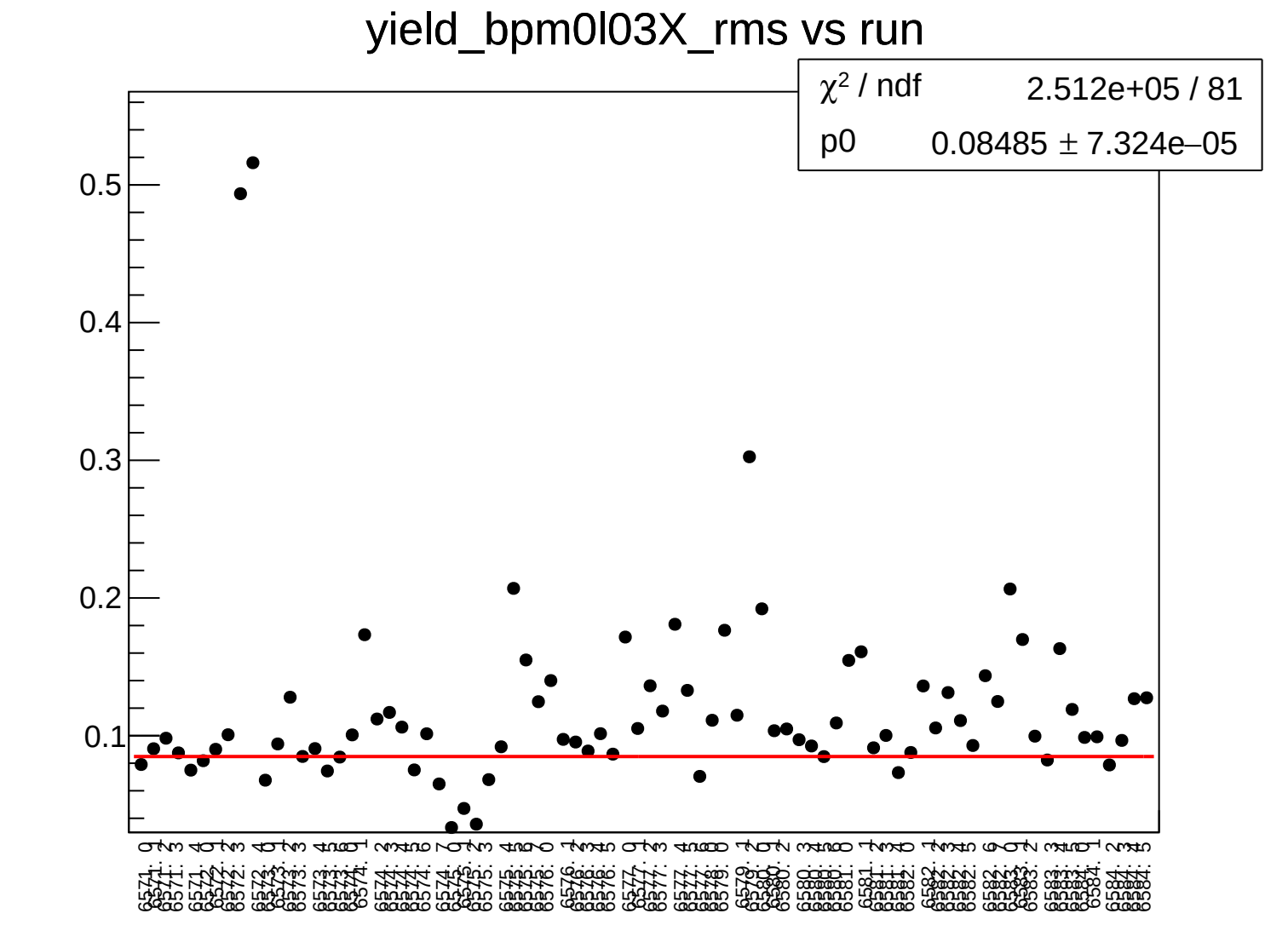

yield_bpm0l02Y_mean vs run
χ² / ndf 2.898e+07 / 81
p0 0.6797 ± 8.009e−06
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
0.62
0.6
0.58
pull
Entries 82
Mean −188.7
Std Dev 222.7
1000
500
0
−500
−1000
−1500

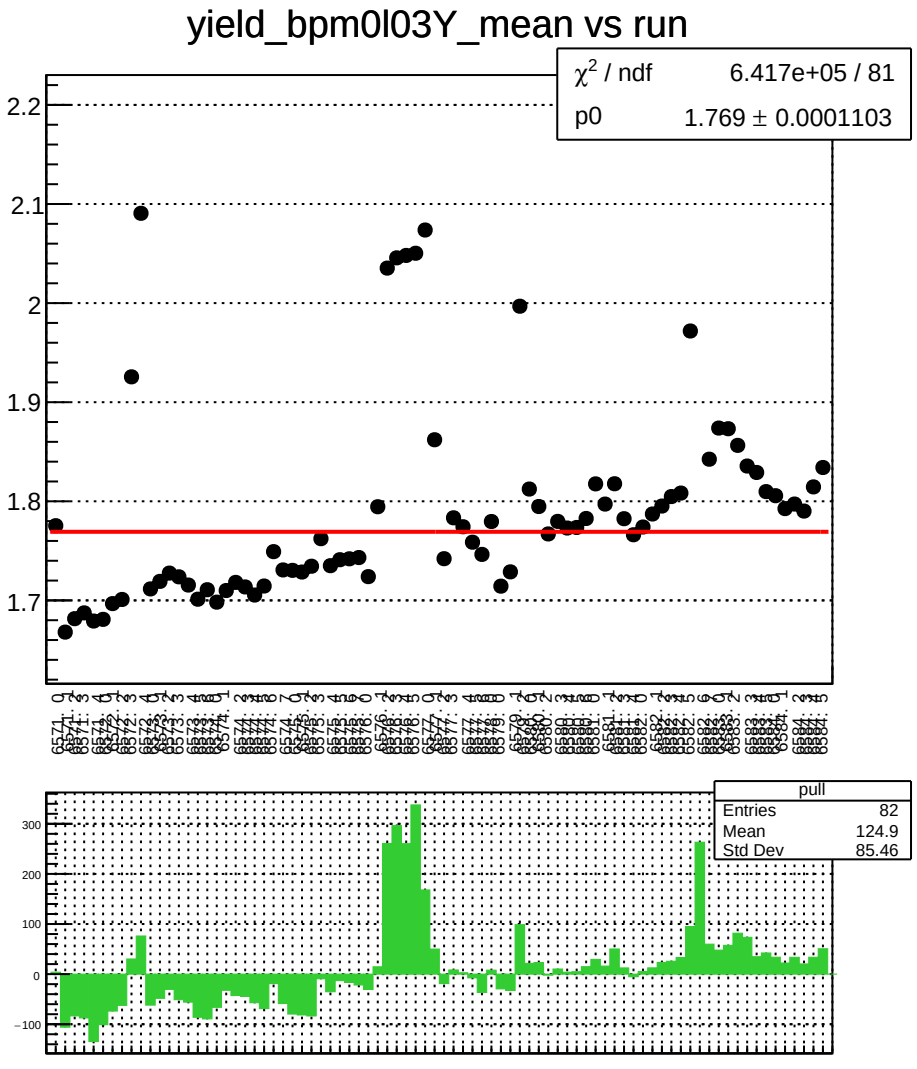

pull1D
Entries 82
Mean −1.579
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

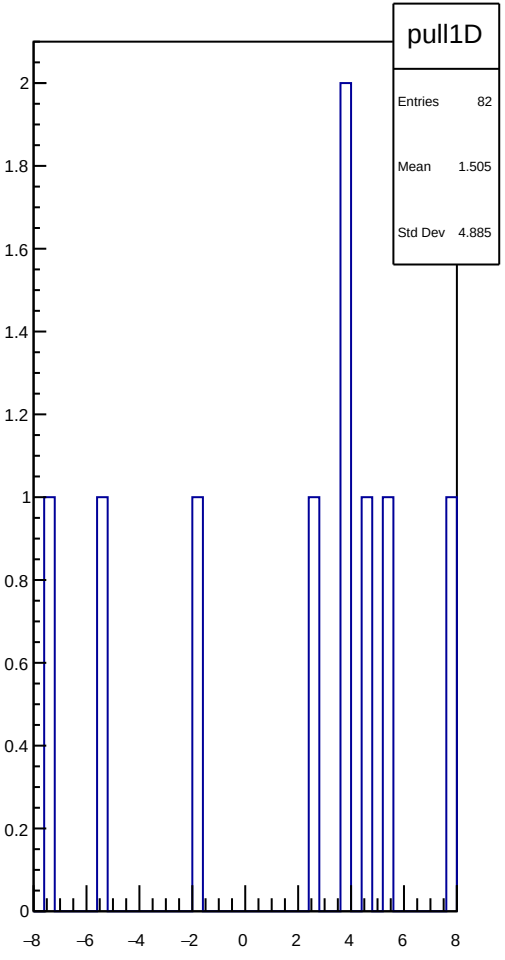

yield_bpm0l02Y_rms vs run
χ² / ndf 1.296e+05 / 81
p0 0.006852 ± 5.663e−06
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

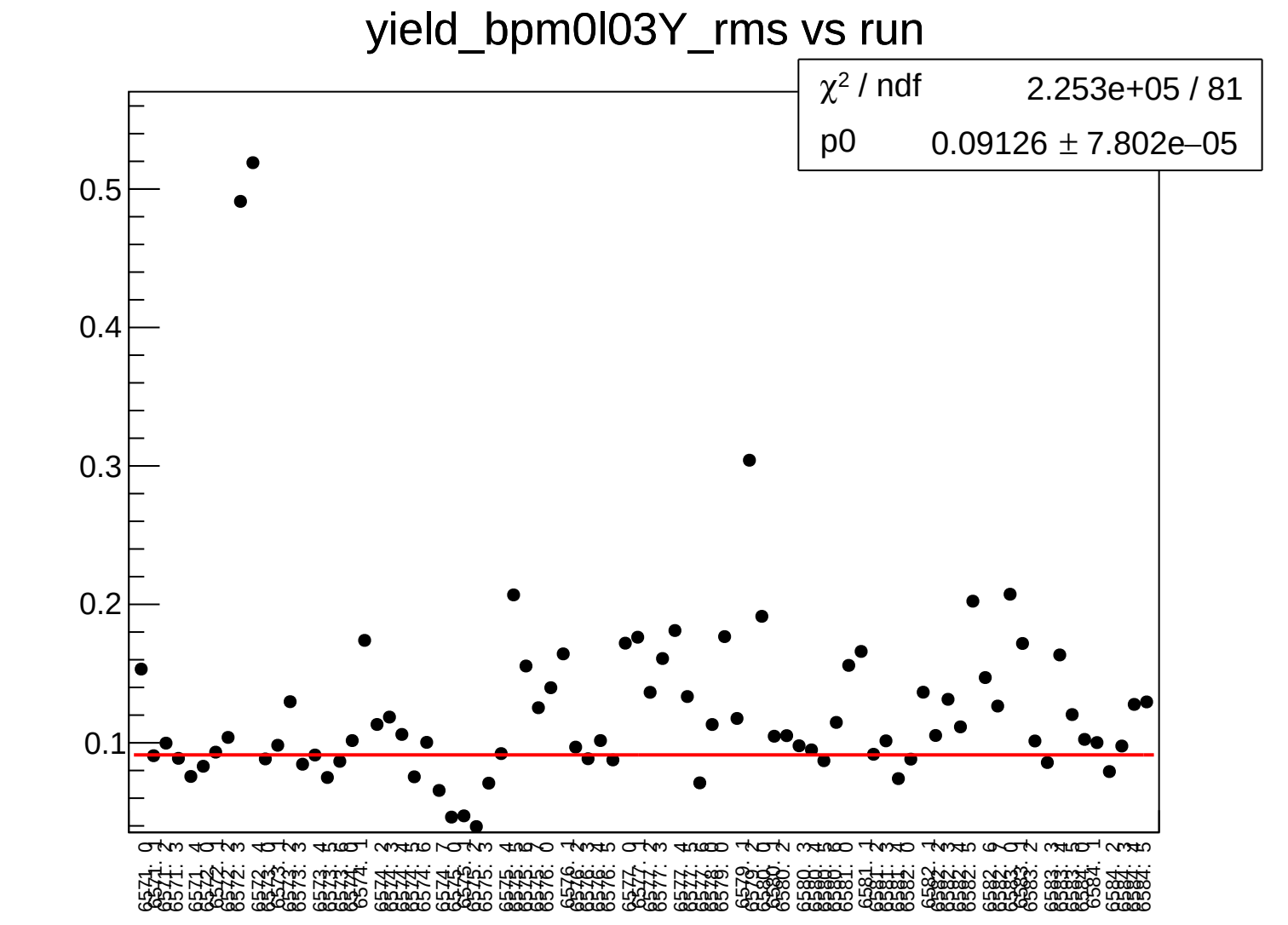

yield_bpm0l03X_mean vs run
χ² / ndf 1.964e+05 / 81
p0 −4.081 ± 0.0001036
−3.7
−3.8
−3.9
−4
−4.1
−4.2
pull
Entries 82
Mean 140.7
Std Dev 106.9
100
50
0
−50
−100
−150

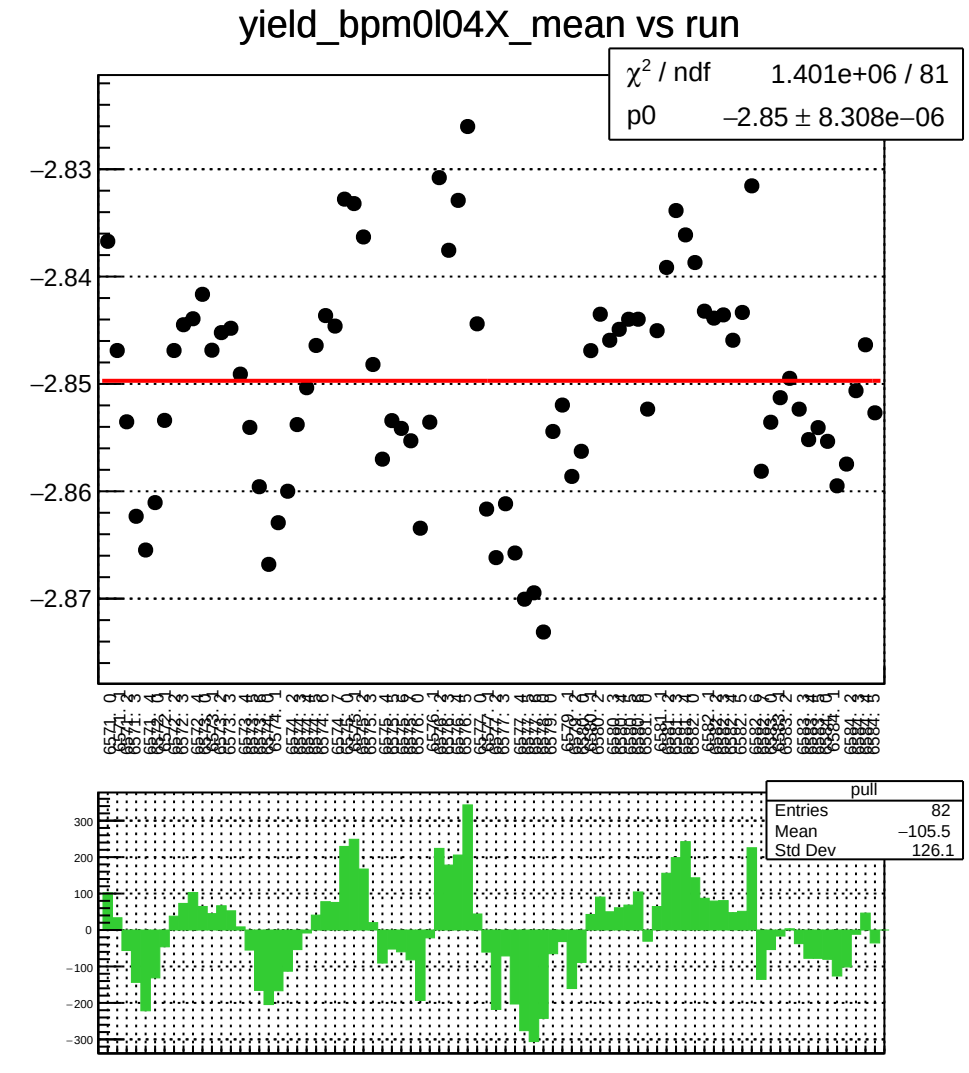

pull1D
Entries 82
Mean 1.379
Std Dev 4.334
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

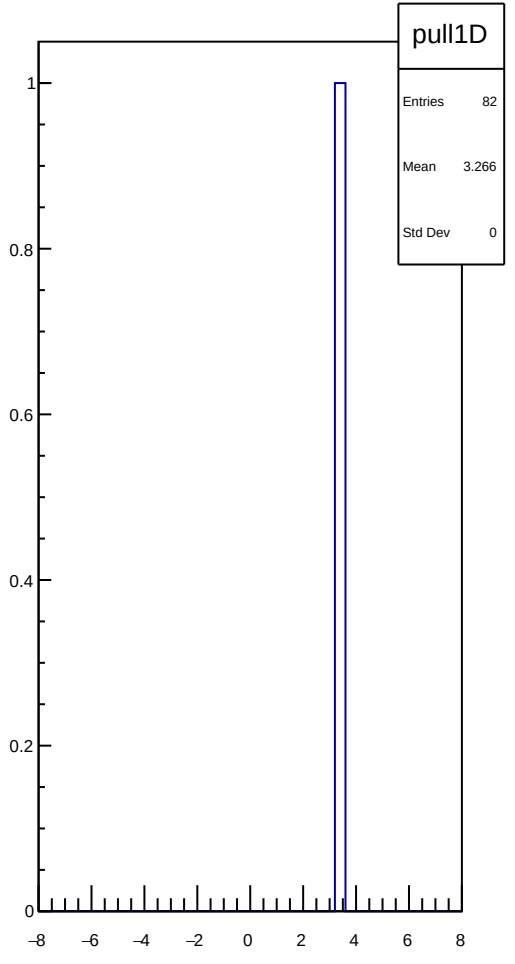

yield_bpm0l03X_rms vs run
χ² / ndf 2.512e+05 / 81
p0 0.08485 ± 7.324e−05
0.5
0.4
0.3
0.2
0.1

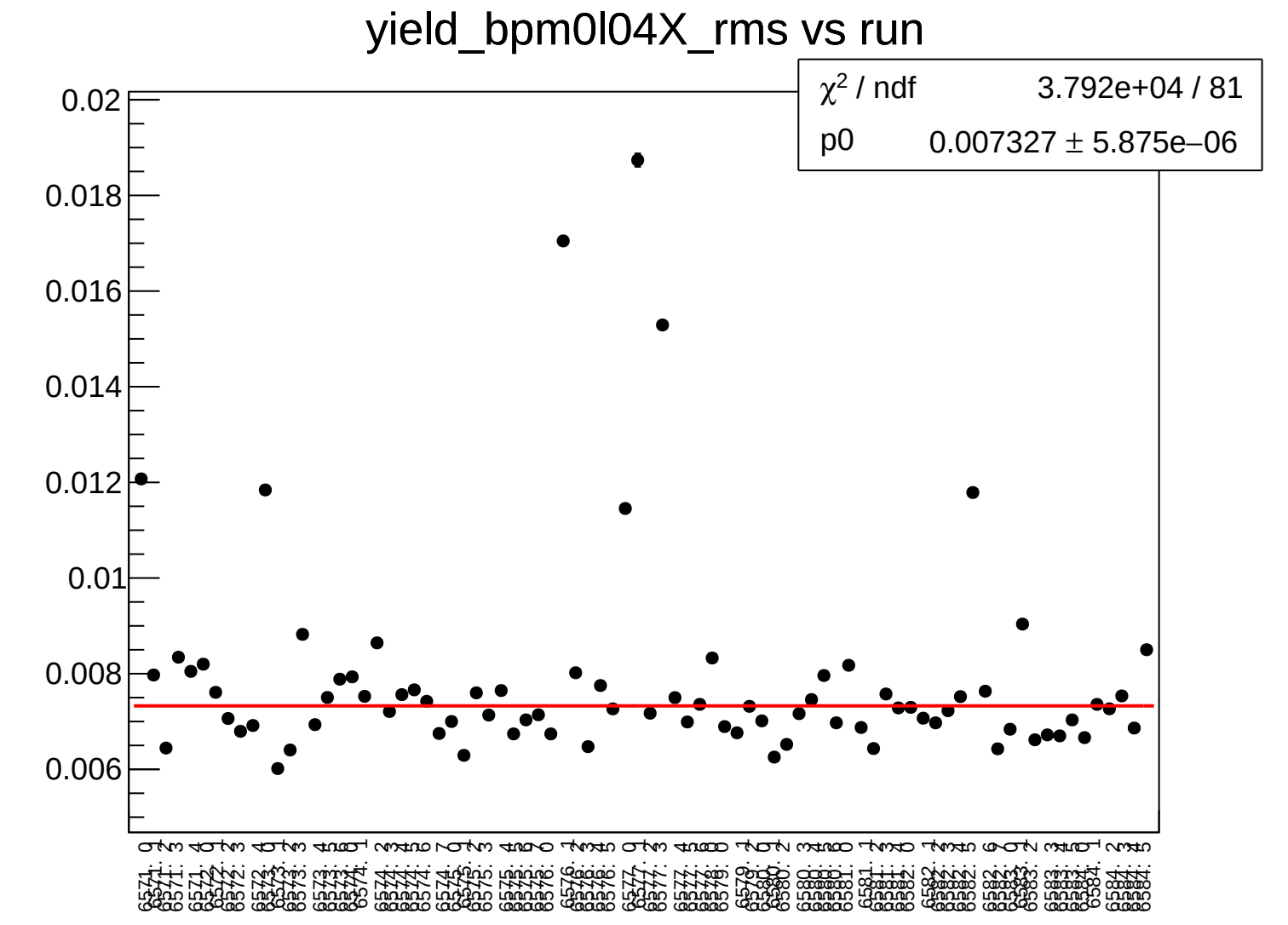

yield_bpm0l03Y_mean vs run
χ² / ndf 6.417e+05 / 81
p0 1.769 ± 0.0001103
pull
Entries 82
Mean 124.9
Std Dev 85.46

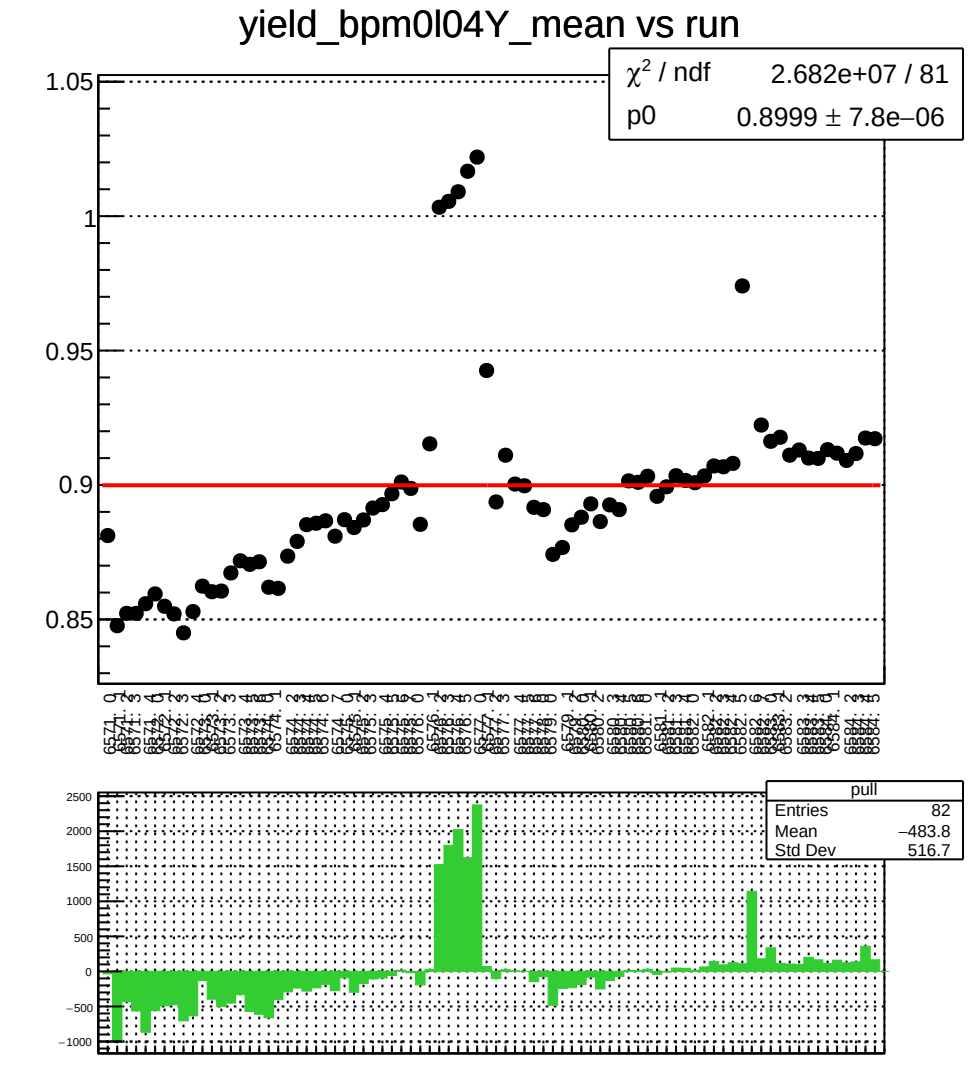

pull1D
Entries 82
Mean 1.505
Std Dev 4.885

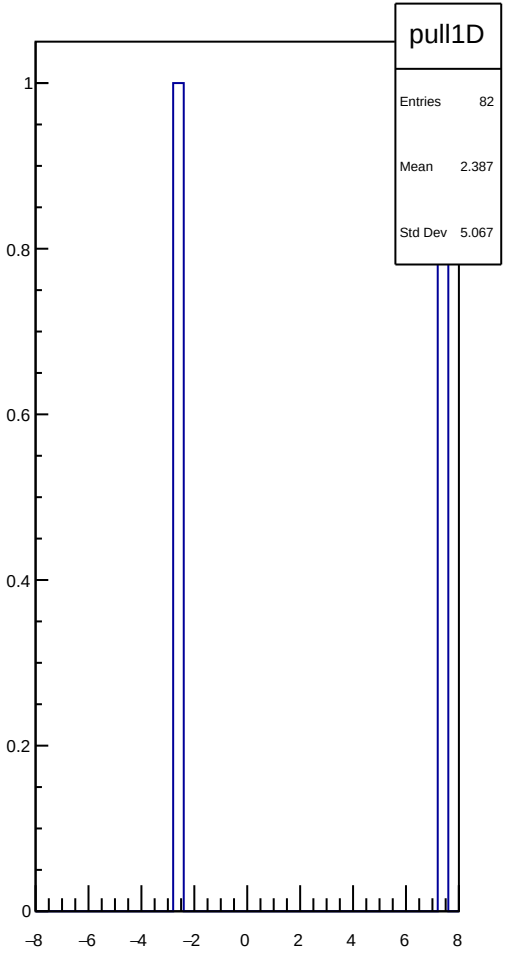

yield_bpm0l03Y_rms vs run
χ² / ndf 2.253e+05 / 81
p0 0.09126 ± 7.802e−05
0.5
0.4
0.3
0.2
0.1

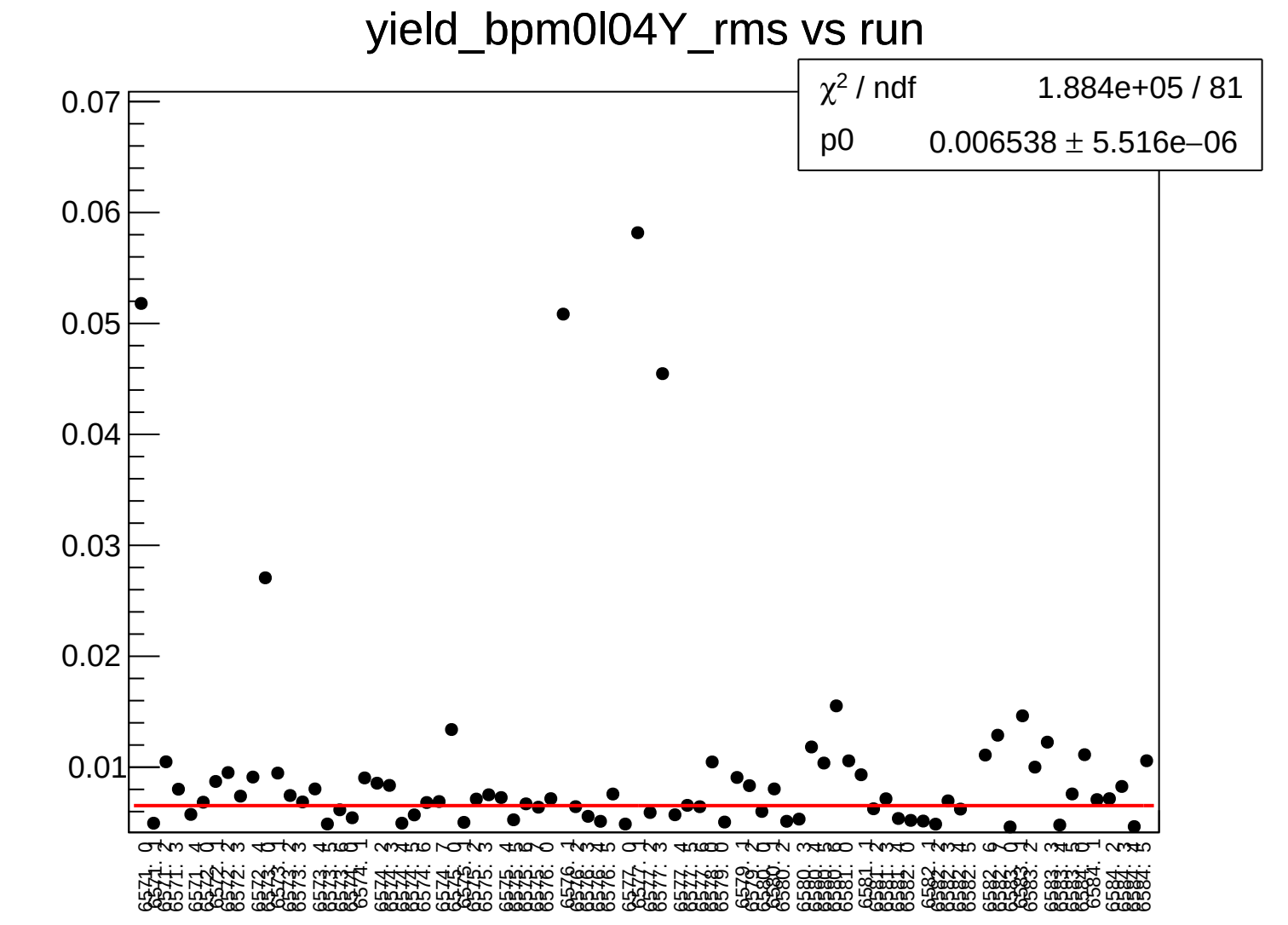

yield_bpm0l04X_mean vs run
χ² / ndf 1.401e+06 / 81
p0 −2.85 ± 8.308e−06
−2.83
−2.84
−2.85
−2.86
−2.87
pull
Entries 82
Mean −105.5
Std Dev 126.1
300
200
100
0
−100
−200
−300

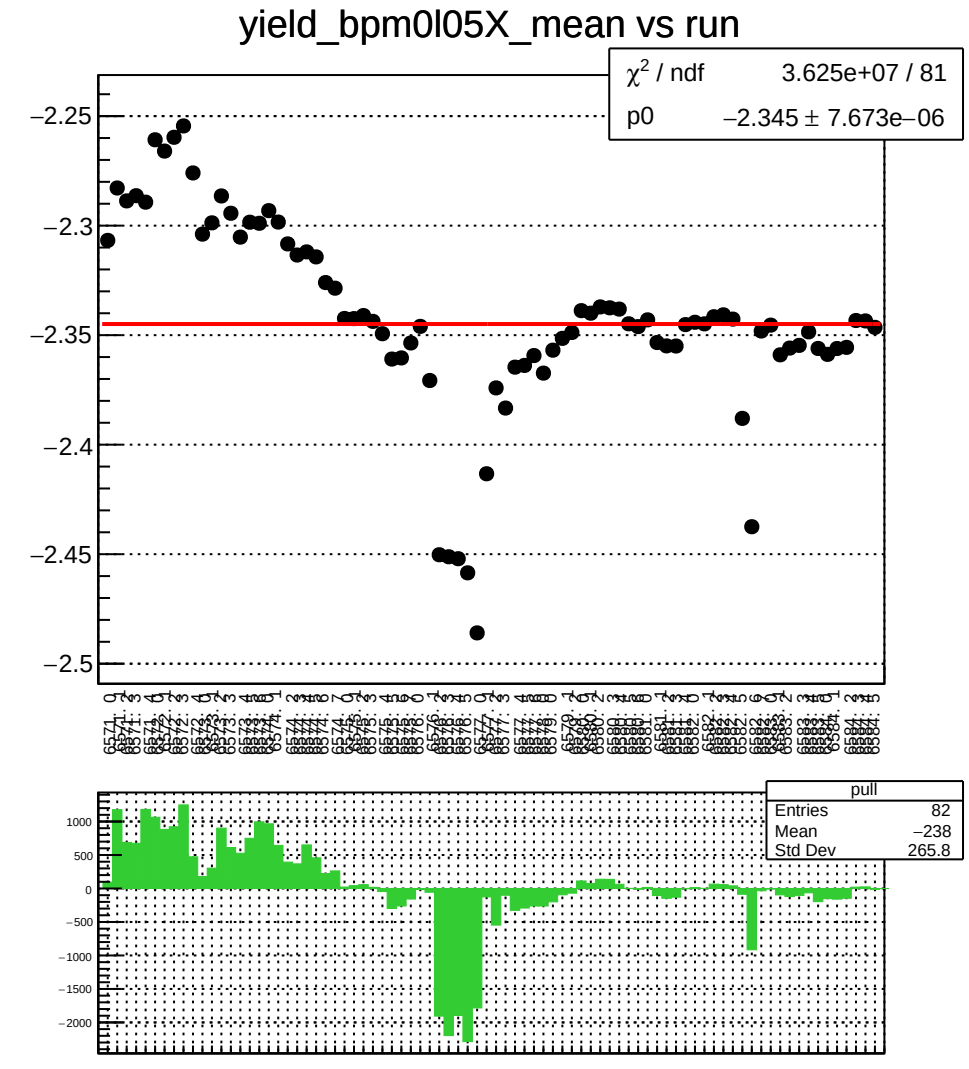

pull1D
Entries 82
Mean 3.266
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

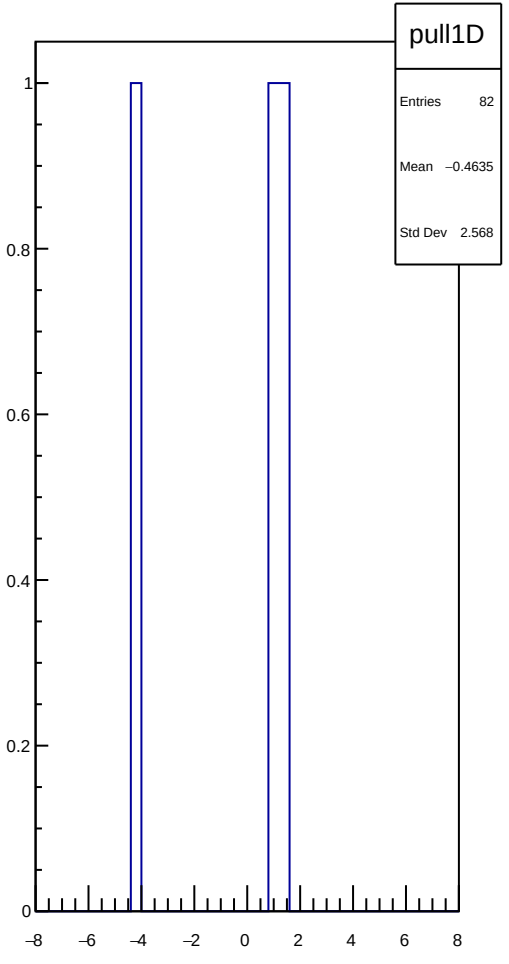

yield_bpm0l04X_rms vs run
χ² / ndf 3.792e+04 / 81
p0 0.007327 ± 5.875e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006

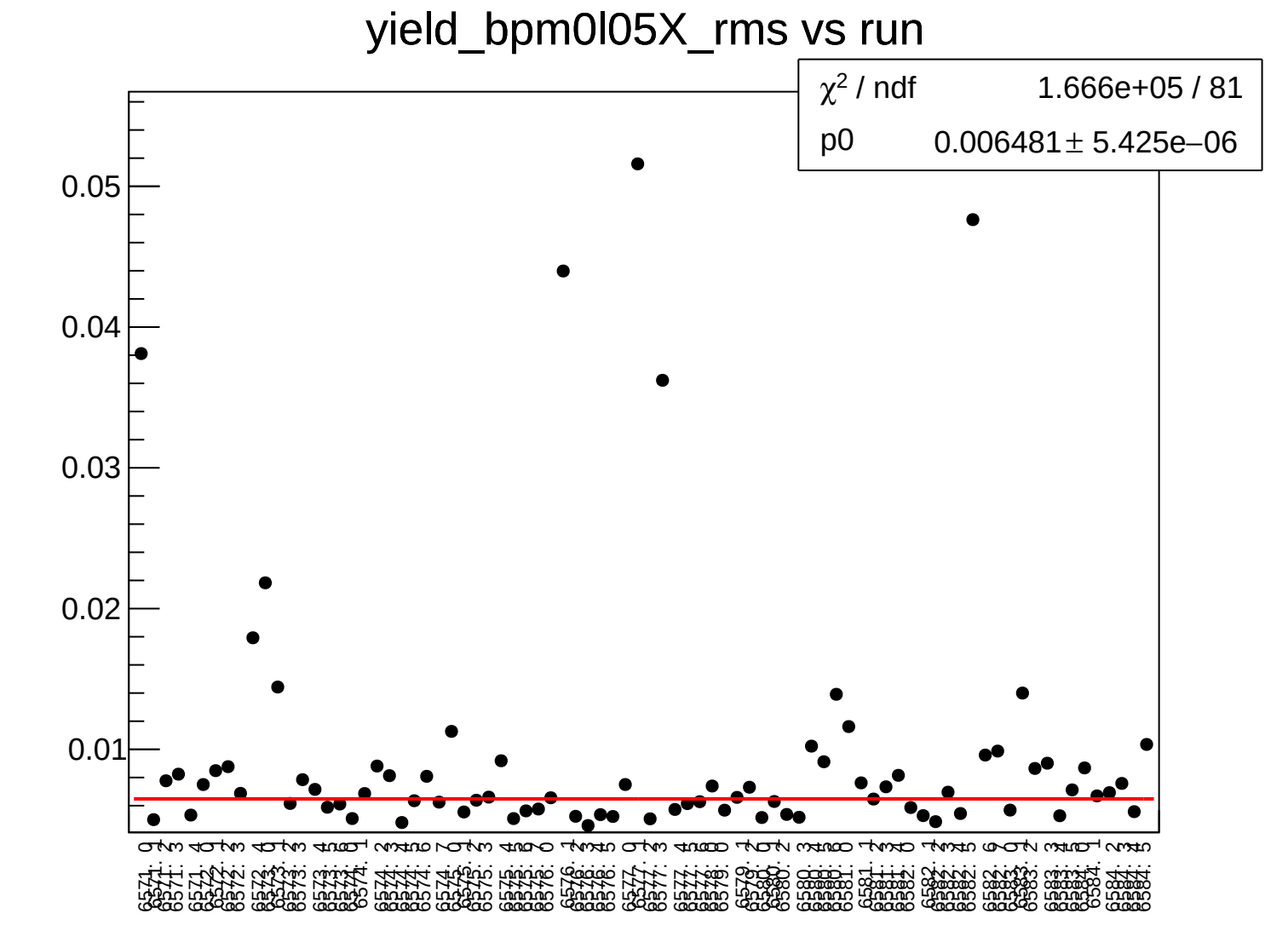

yield_bpm0l04Y_mean vs run
χ² / ndf 2.682e+07 / 81
p0 0.8999 ± 7.8e−06
1.05
1
0.95
0.9
0.85
pull
Entries 82
Mean −483.8
Std Dev 516.7
2500
2000
1500
1000
500
0
−500
−1000

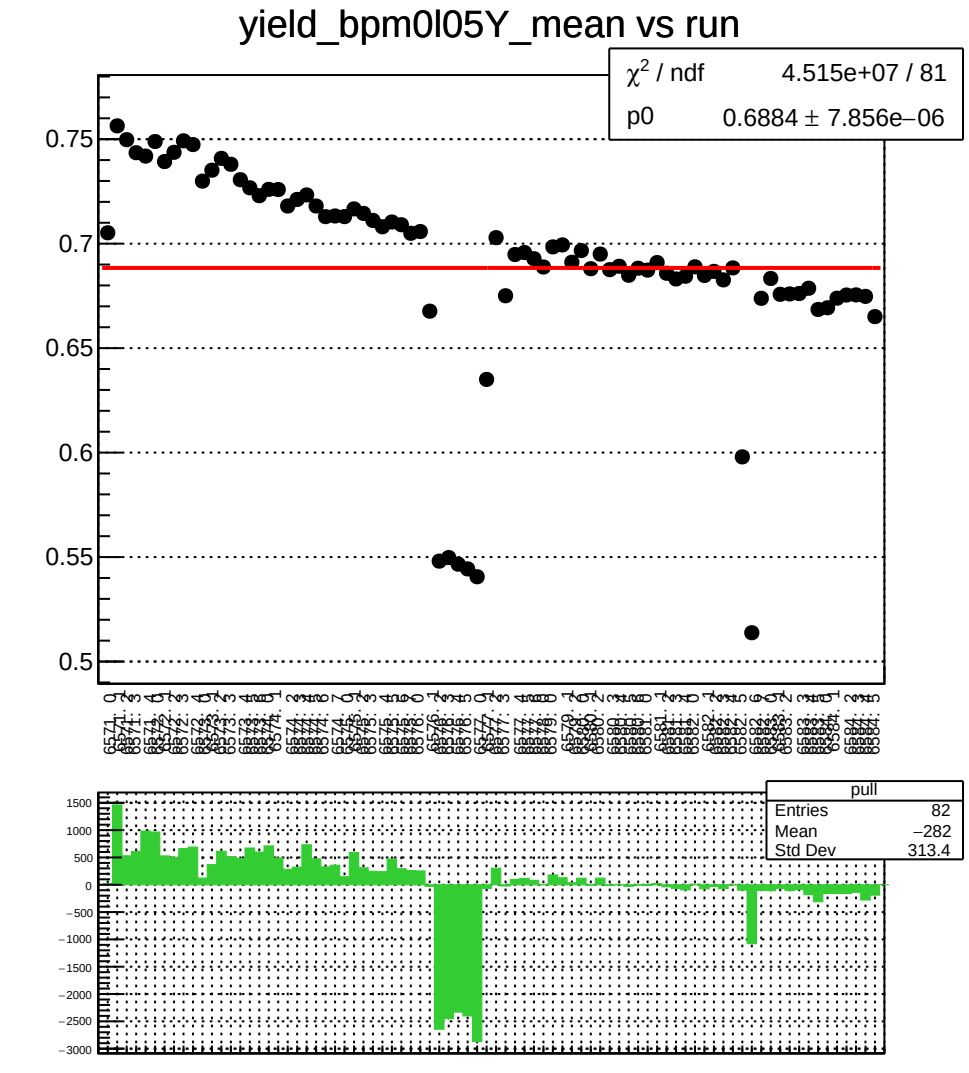

pull1D
Entries 82
Mean 2.387
Std Dev 5.067
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

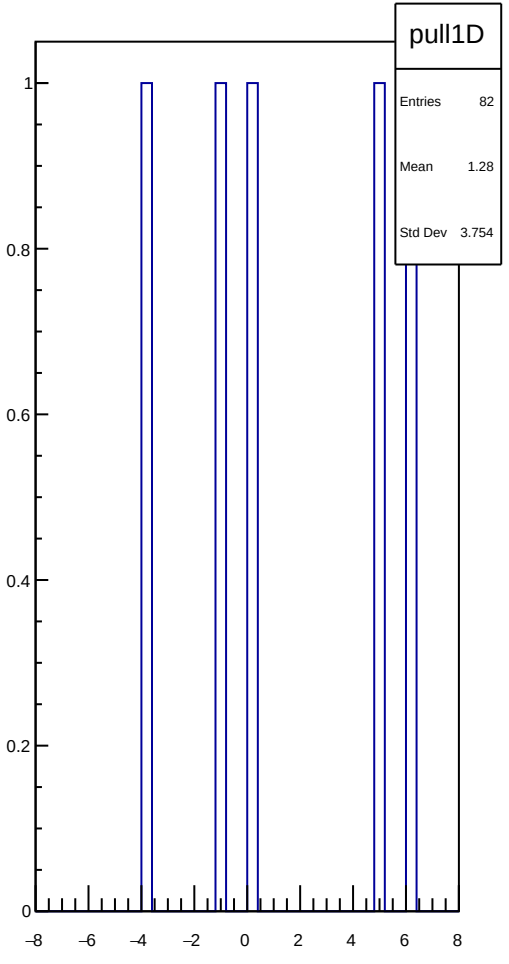

yield_bpm0l04Y_rms vs run
χ² / ndf 1.884e+05 / 81
p0 0.006538 ± 5.516e−06
0.07
0.06
0.05
0.04
0.03
0.02
0.01

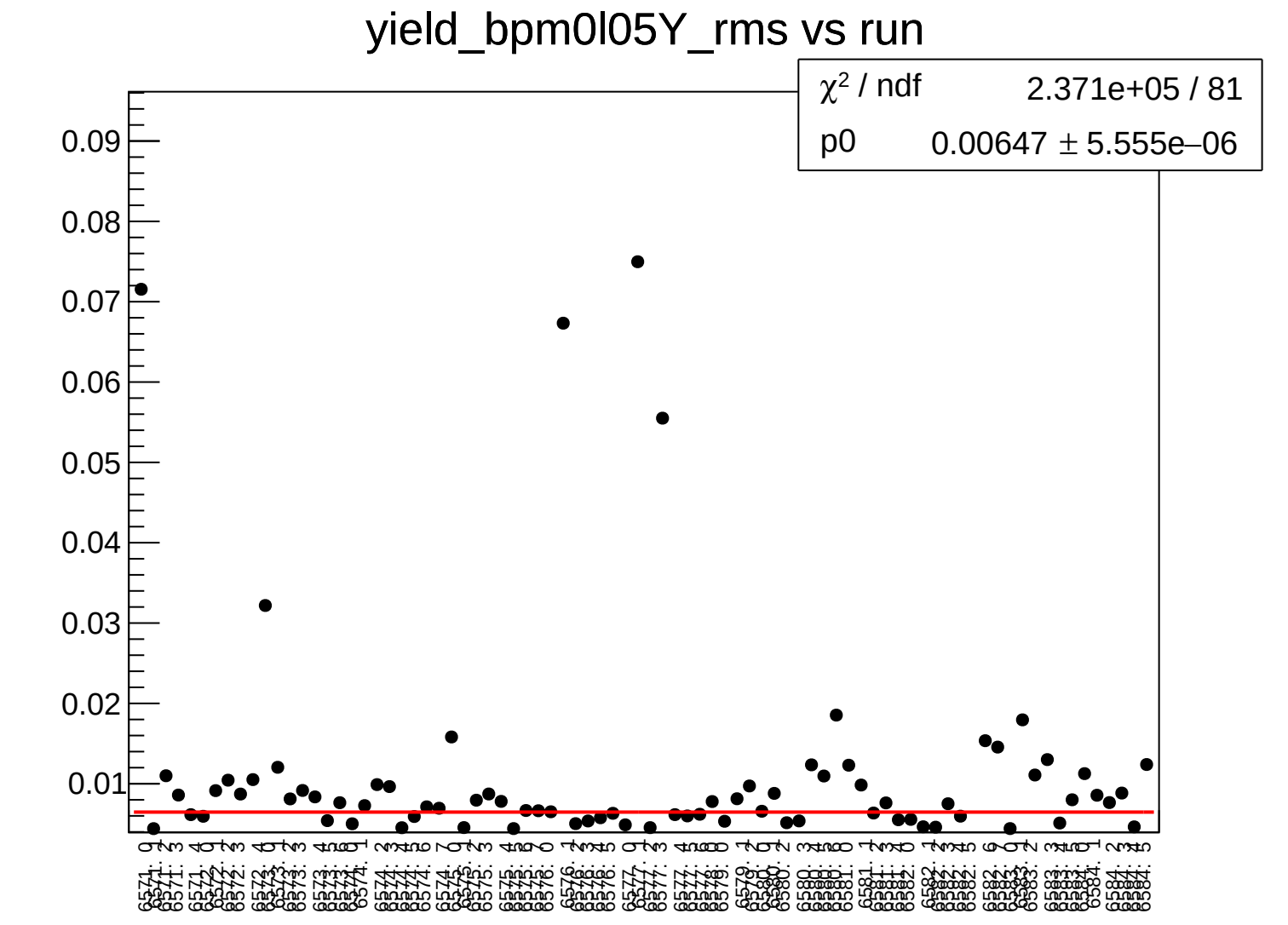

yield_bpm0l05X_mean vs run
χ² / ndf 3.625e+07 / 81
p0 −2.345 ± 7.673e−06
−2.25
−2.3
−2.35
−2.4
−2.45
−2.5
pull
Entries 82
Mean −238
Std Dev 265.8
1000
500
0
−500
−1000
−1500
−2000

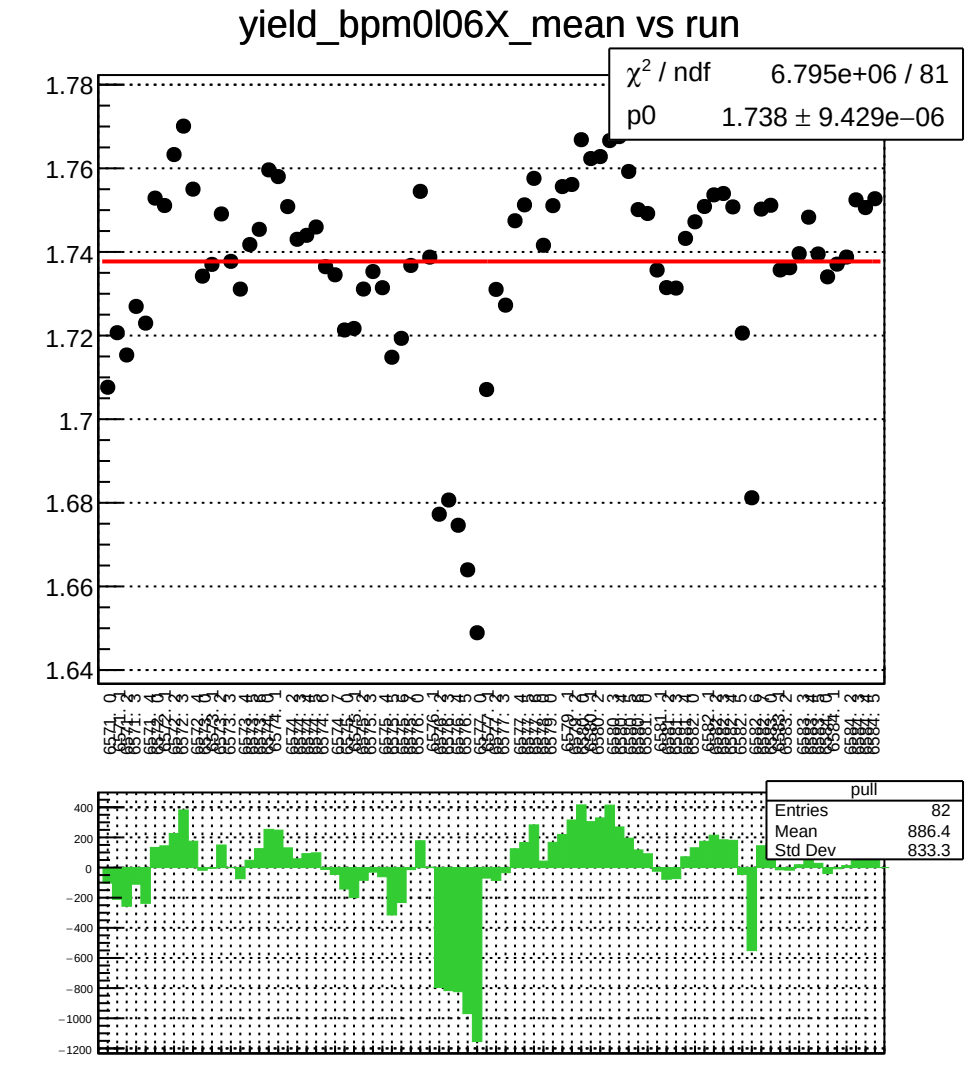

pull1D
Entries 82
Mean −0.4635
Std Dev 2.568
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

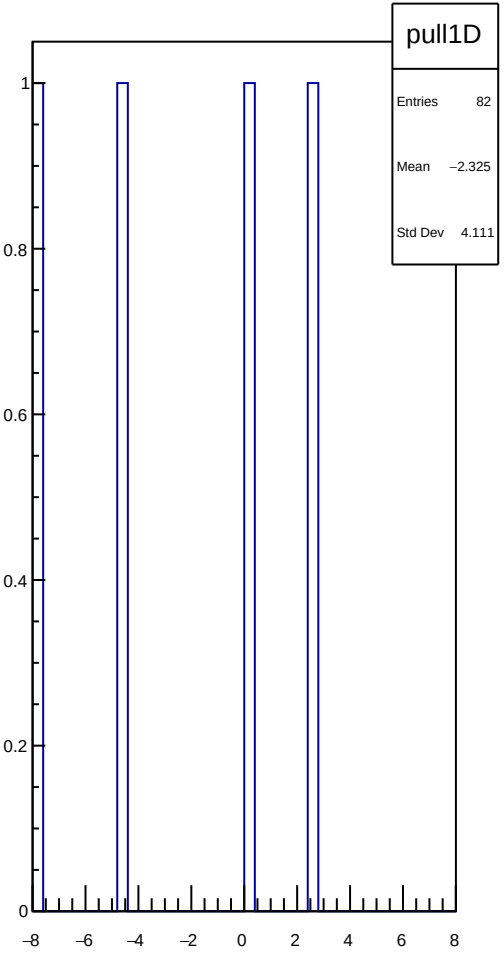

yield_bpm0l05X_rms vs run
χ^2 / ndf 1.666e+05 / 81
p0 0.006481 ± 5.425e−06
0.05
0.04
0.03
0.02
0.01

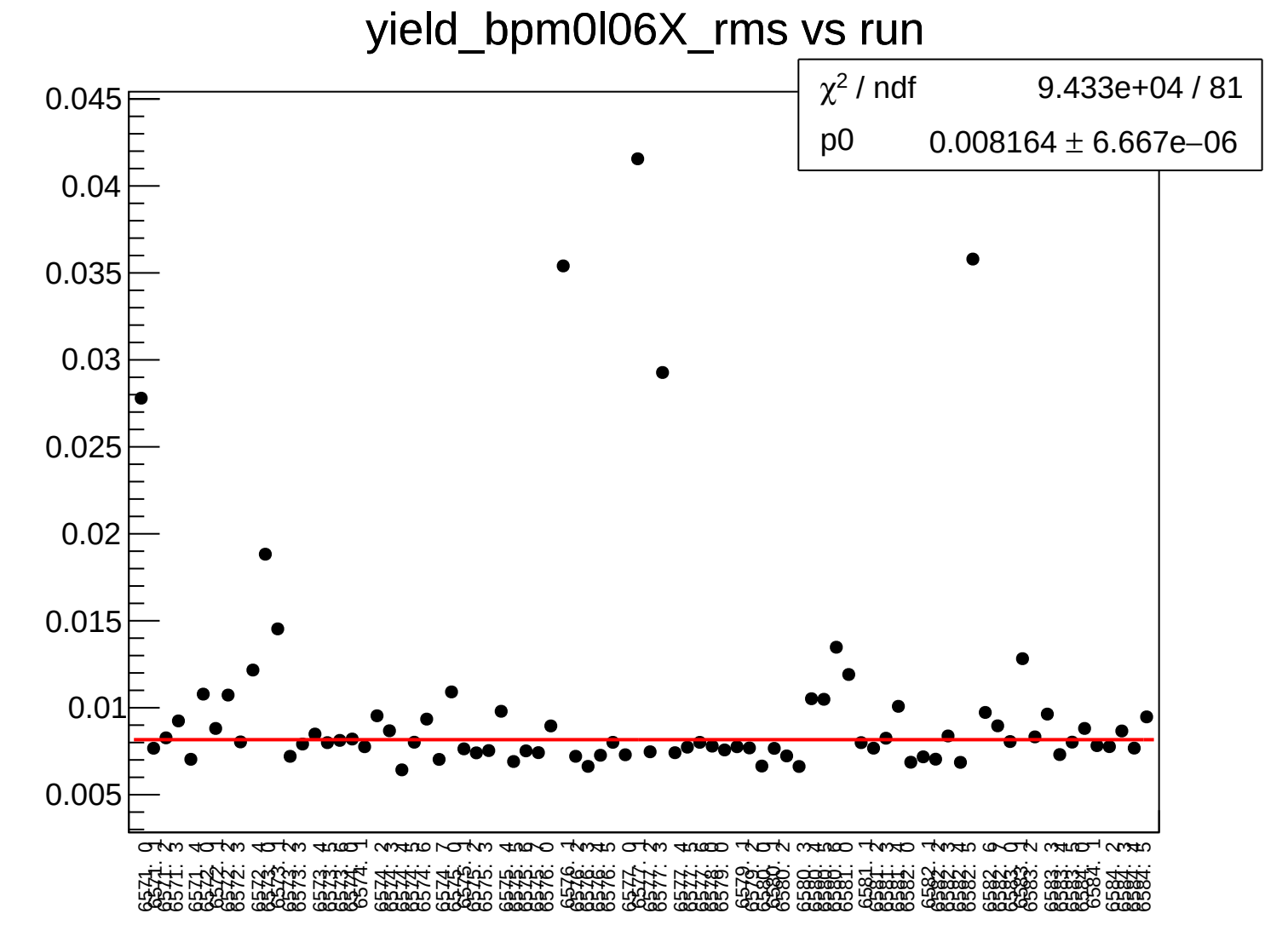

yield_bpm0l05Y_mean vs run
χ² / ndf 4.515e+07 / 81
p0 0.6884 ± 7.856e−06
0.75
0.7
0.65
0.6
0.55
0.5
pull
Entries 82
Mean −282
Std Dev 313.4
1500
1000
500
0
−500
−1000
−1500
−2000
−2500
−3000

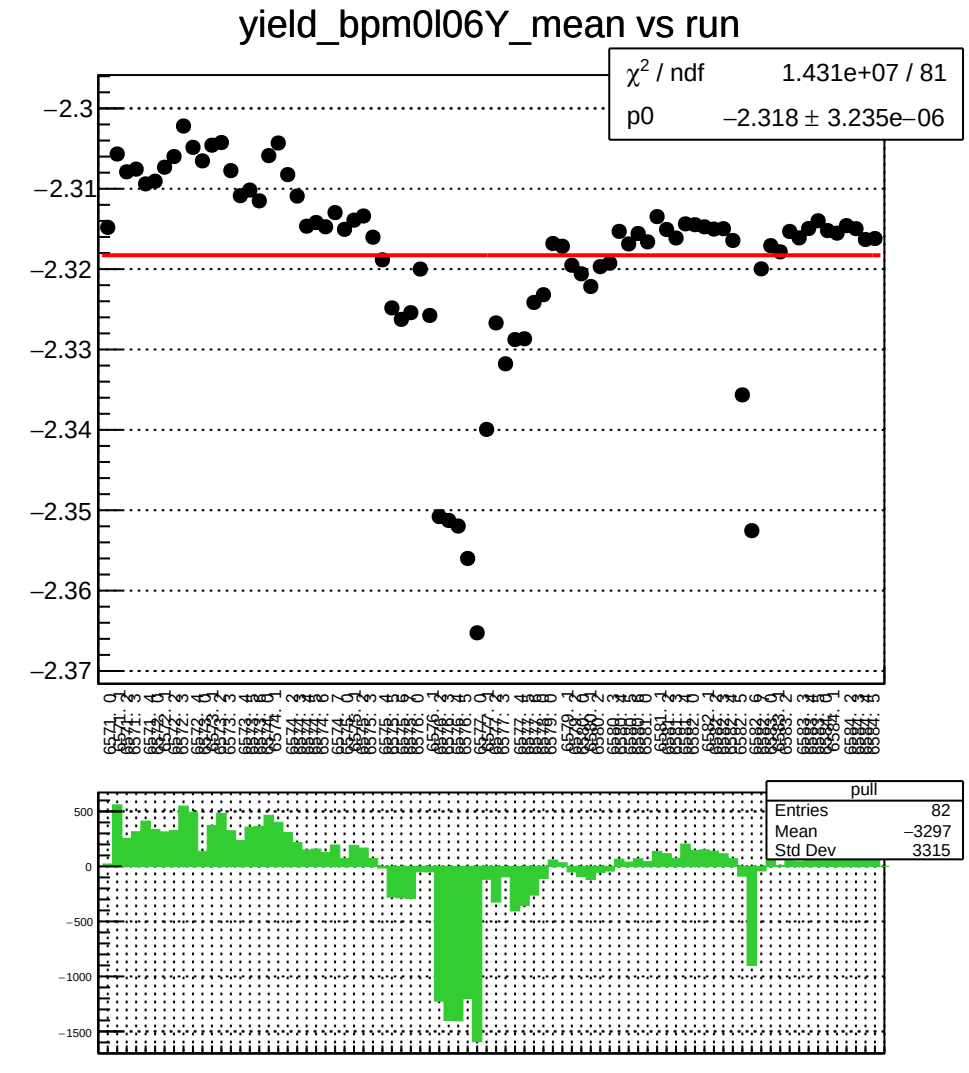

pull1D
Entries 82
Mean 1.28
Std Dev 3.754
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

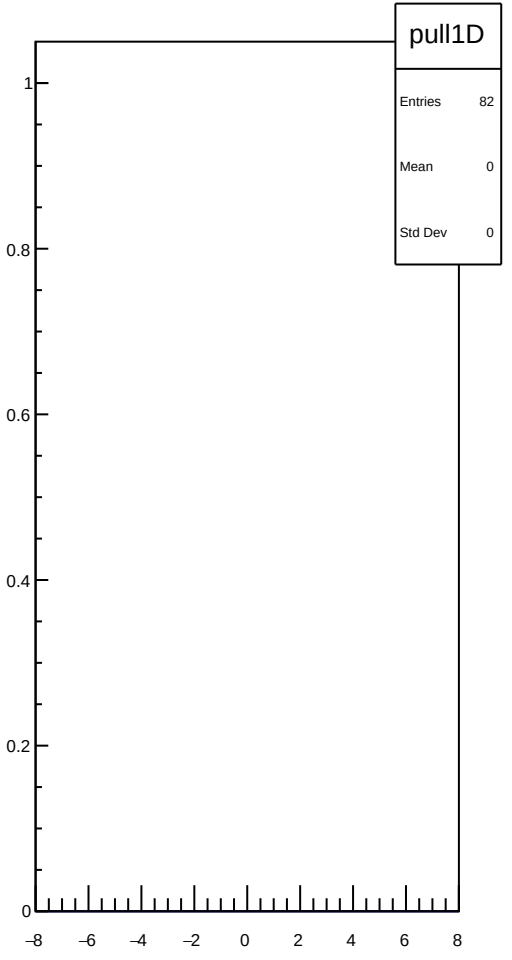

yield_bpm0l05Y_rms vs run
χ² / ndf 2.371e+05 / 81
p0 0.00647 ± 5.555e−06
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

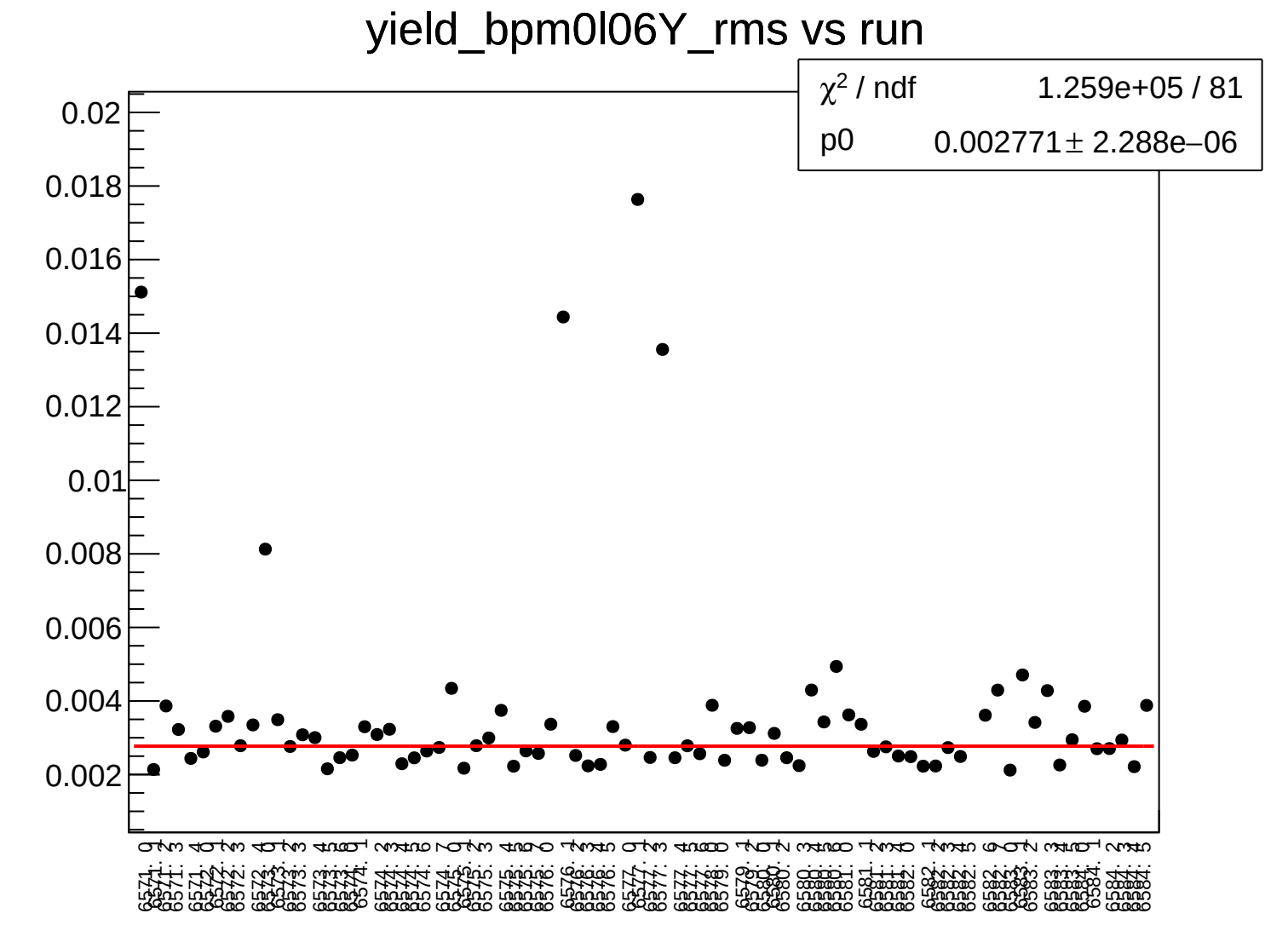

yield_bpm0l06X_mean vs run
χ² / ndf 6.795e+06 / 81
p0 1.738 ± 9.429e−06
pull
Entries 82
Mean 886.4
Std Dev 833.3

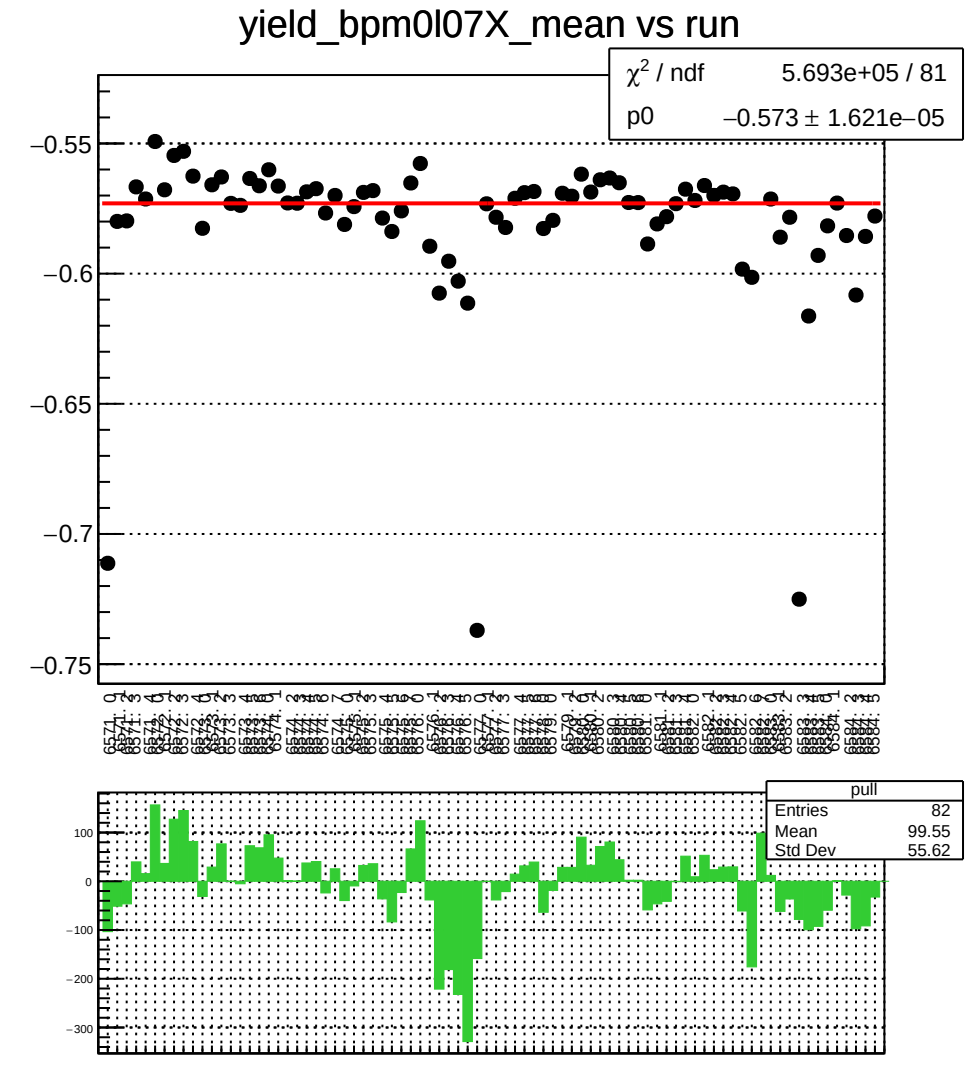

pull1D
Entries 82
Mean −2.325
Std Dev 4.111

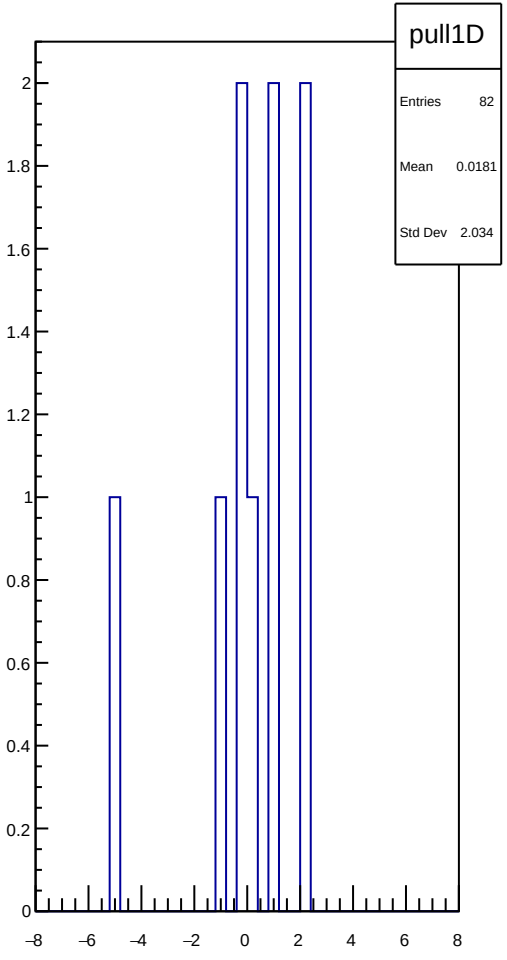

yield_bpm0l06X_rms vs run
χ² / ndf 9.433e+04 / 81
p0 0.008164 ± 6.667e−06
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005

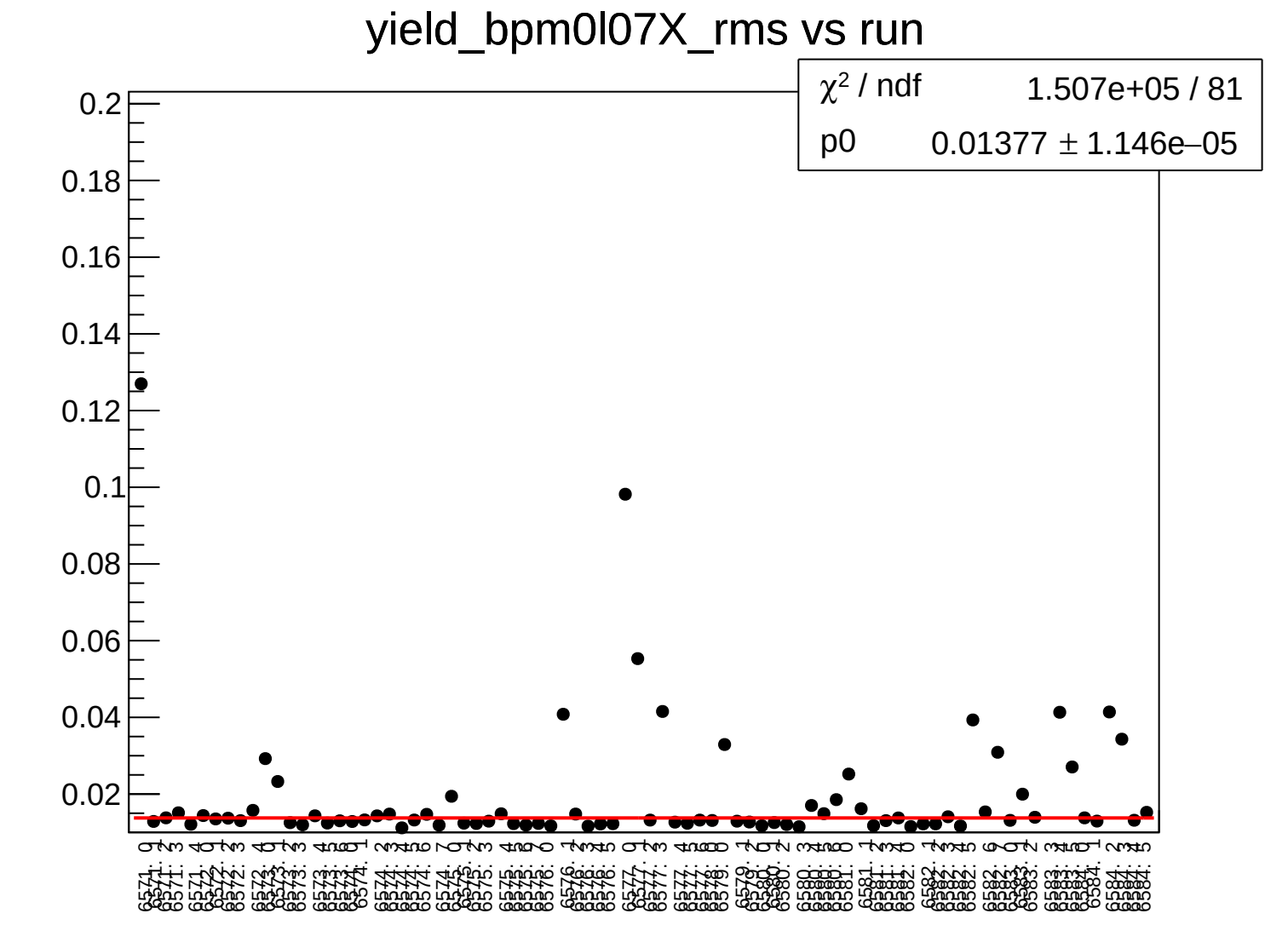

yield_bpm0l06Y_mean vs run
χ² / ndf 1.431e+07 / 81
p0 −2.318 ± 3.235e−06
−2.3
−2.31
−2.32
−2.33
−2.34
−2.35
−2.36
−2.37
pull
Entries 82
Mean −3297
Std Dev 3315
500
0
−500
−1000
−1500

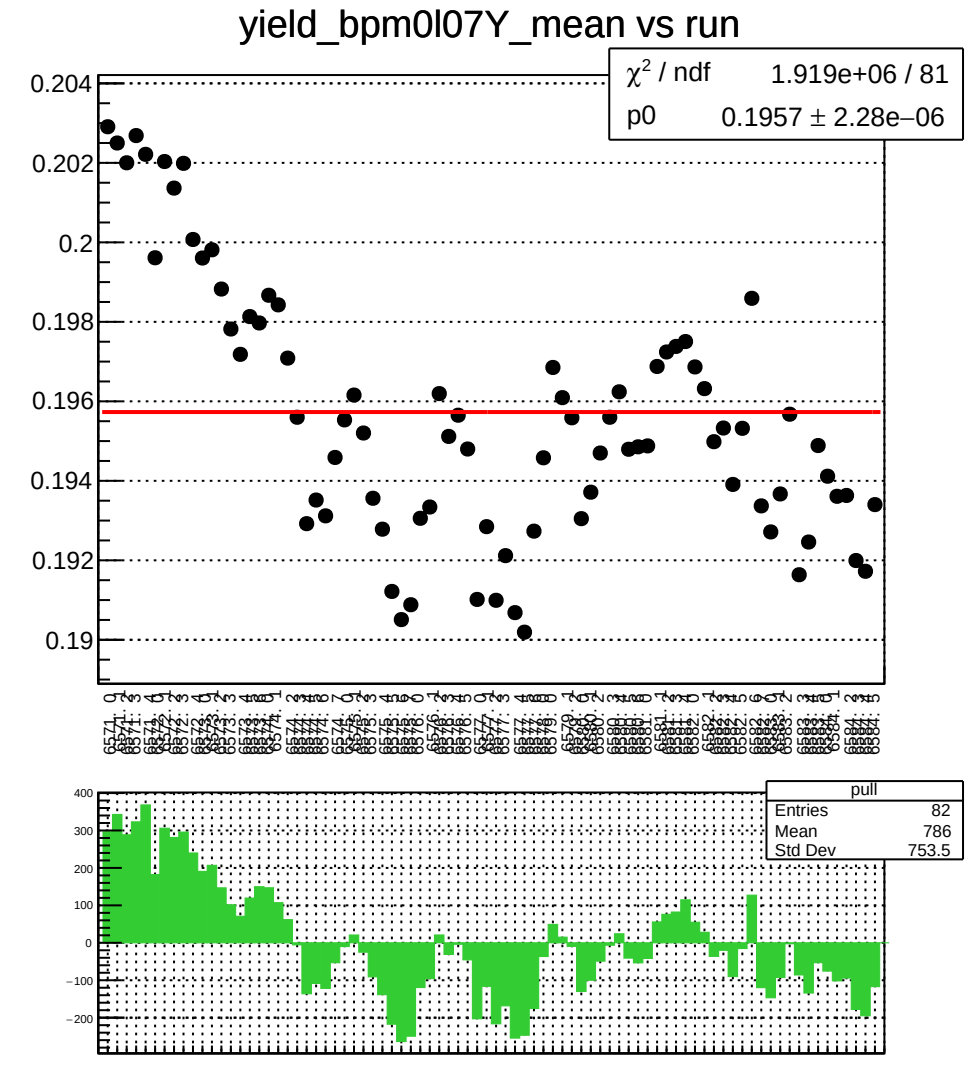

pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

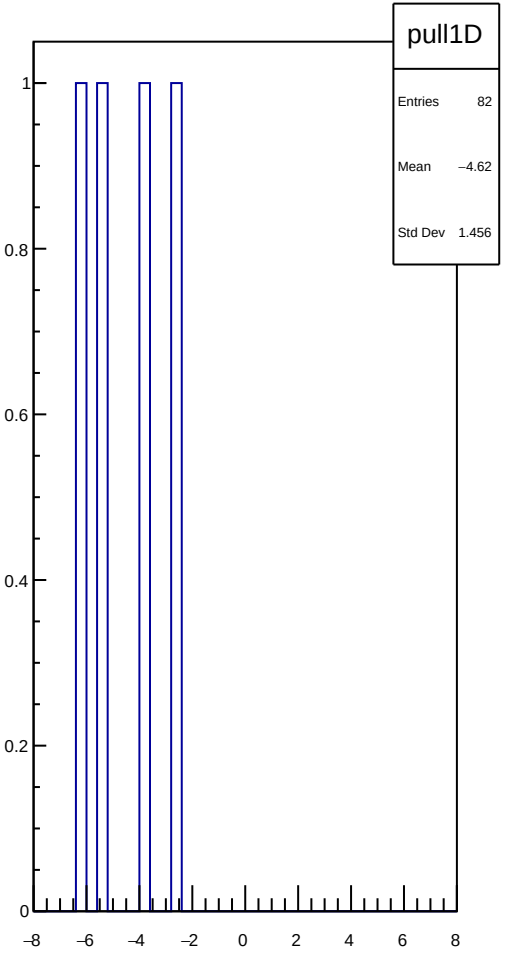

yield_bpm0l06Y_rms vs run
χ² / ndf 1.259e+05 / 81
p0 0.002771 ± 2.288e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002

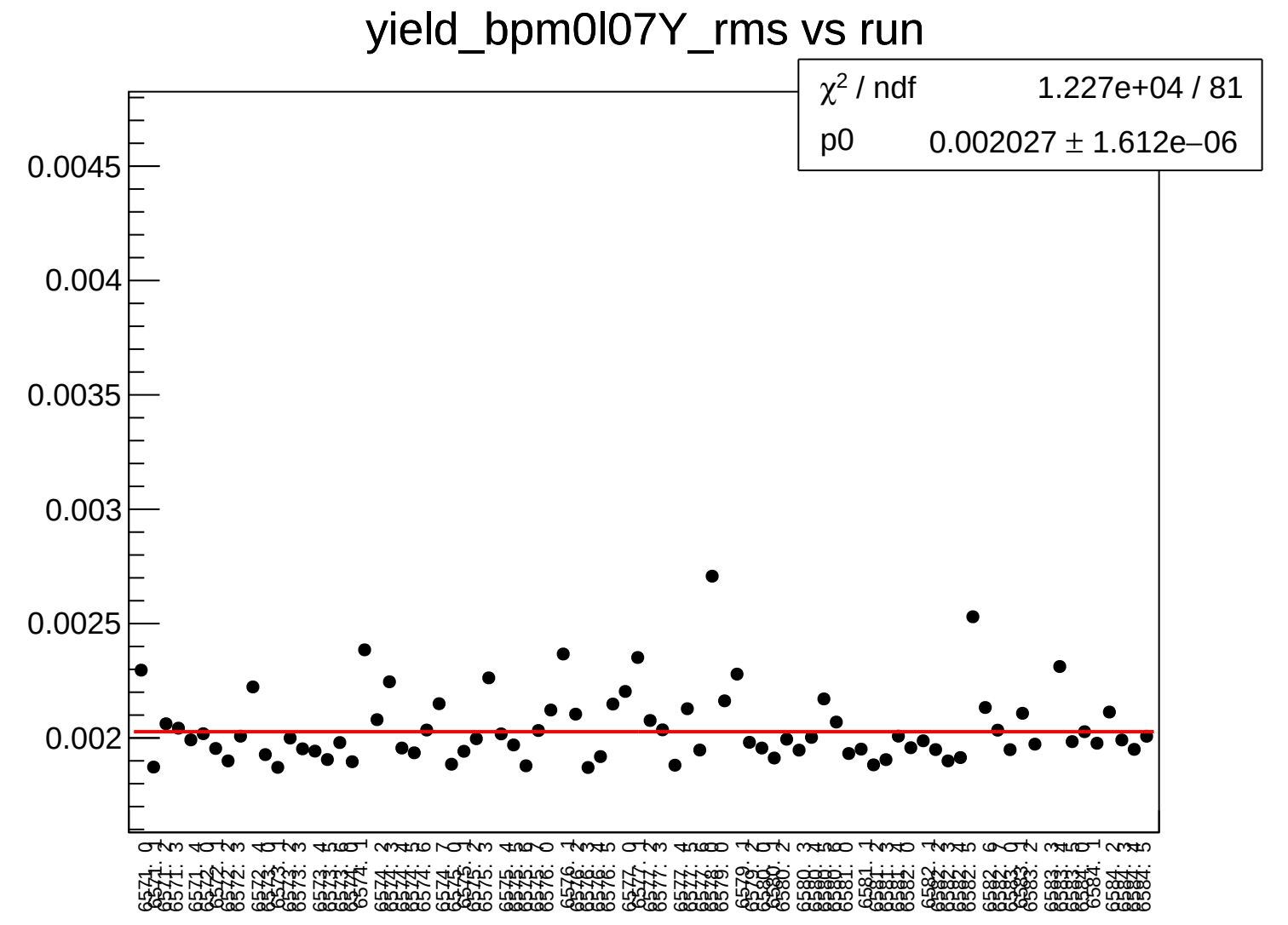

yield_bpm0l07X_mean vs run
χ² / ndf 5.693e+05 / 81
p0 −0.573 ± 1.621e−05
−0.55
−0.6
−0.65
−0.7
−0.75
pull
Entries 82
Mean 99.55
Std Dev 55.62
100
0
−100
−200
−300

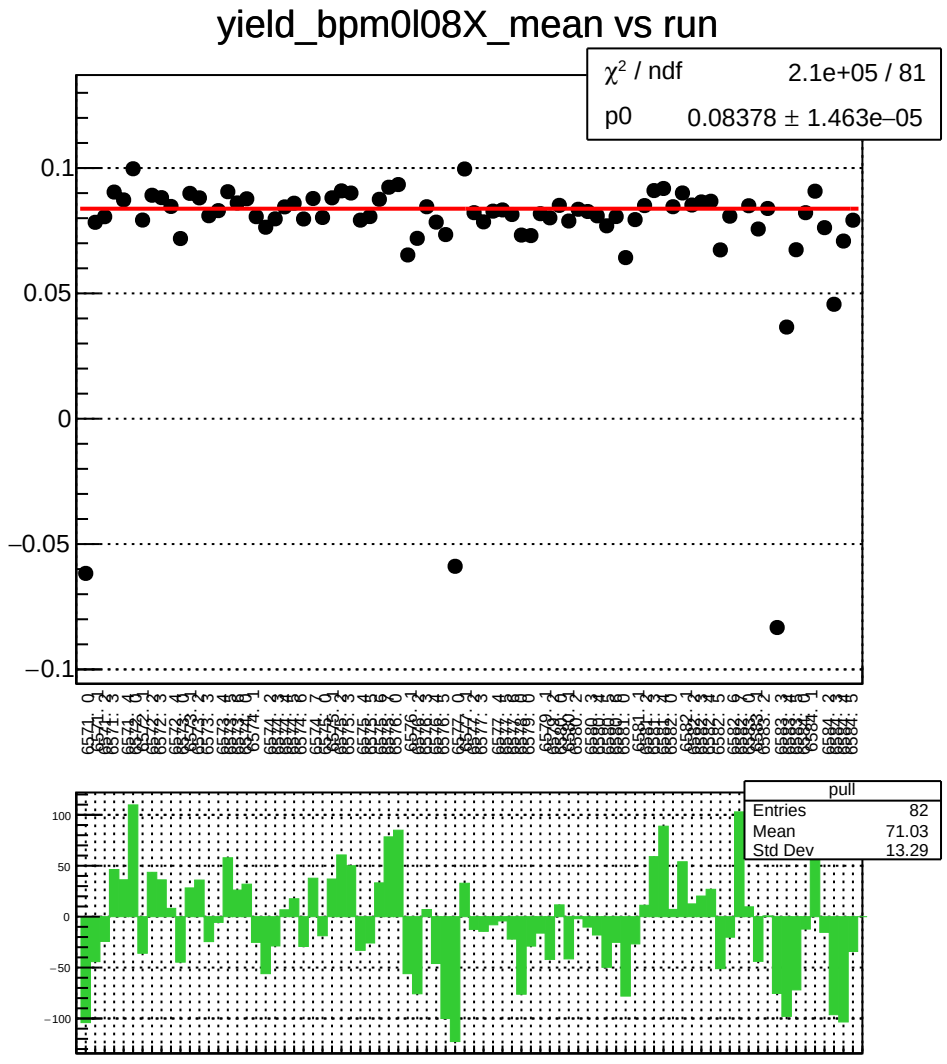

pull1D
Entries 82
Mean 0.0181
Std Dev 2.034
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

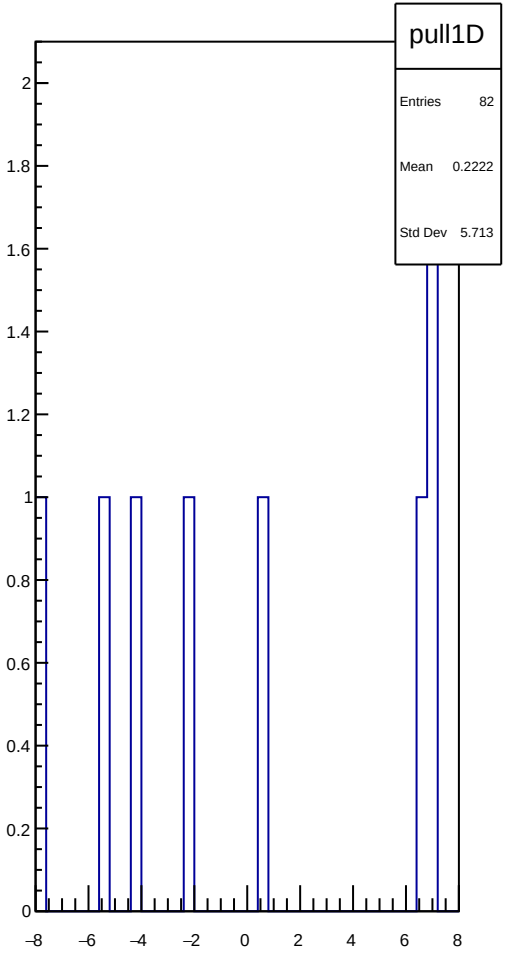

yield_bpm0l07X_rms vs run
χ² / ndf 1.507e+05 / 81
p0 0.01377 ± 1.146e–05
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

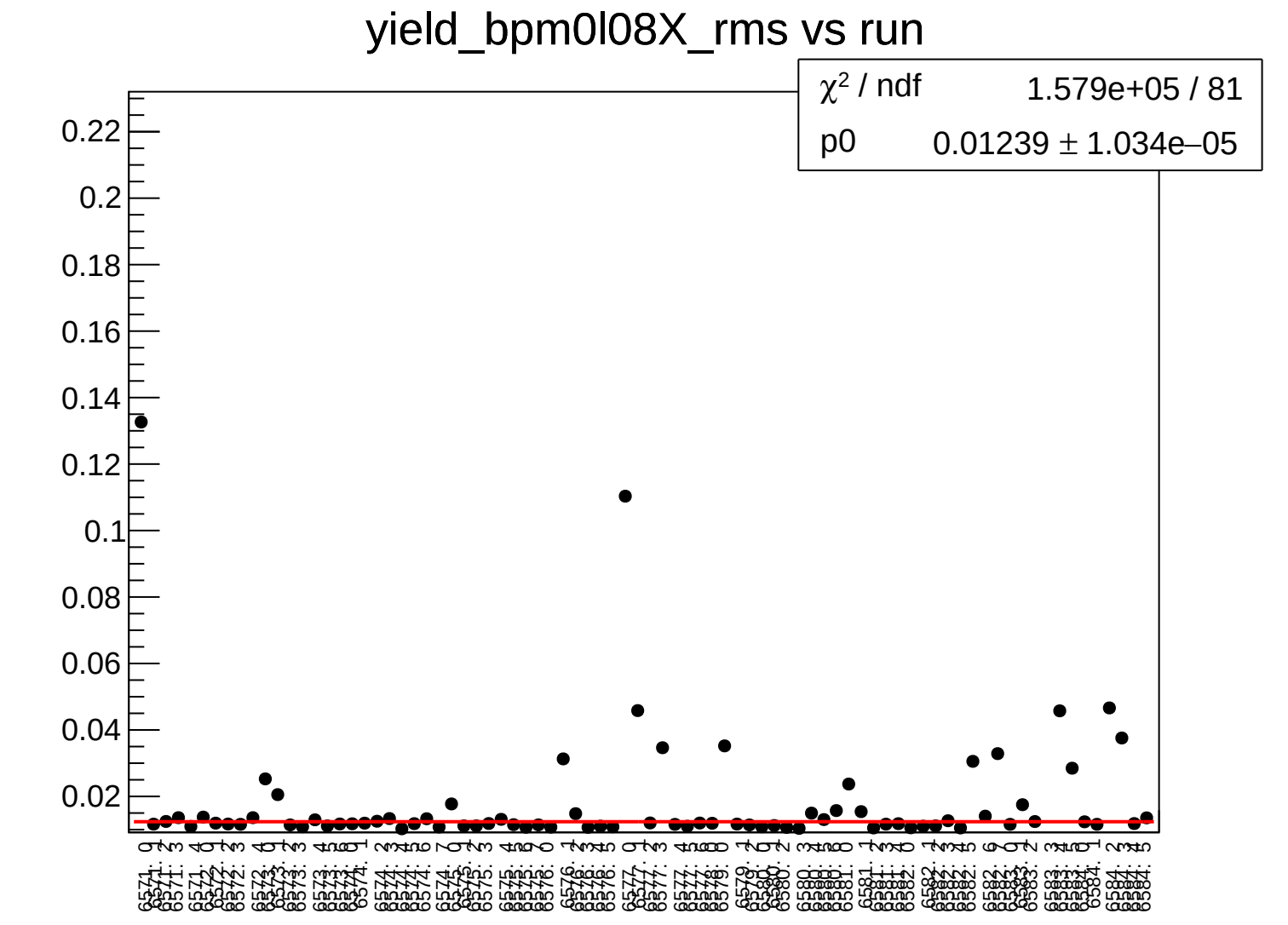

yield_bpm0l07Y_mean vs run
χ² / ndf 1.919e+06 / 81
p0 0.1957 ± 2.28e−06
0.204
0.202
0.2
0.198
0.196
0.194
0.192
0.19
pull
Entries 82
Mean 786
Std Dev 753.5
400
300
200
100
0
−100
−200

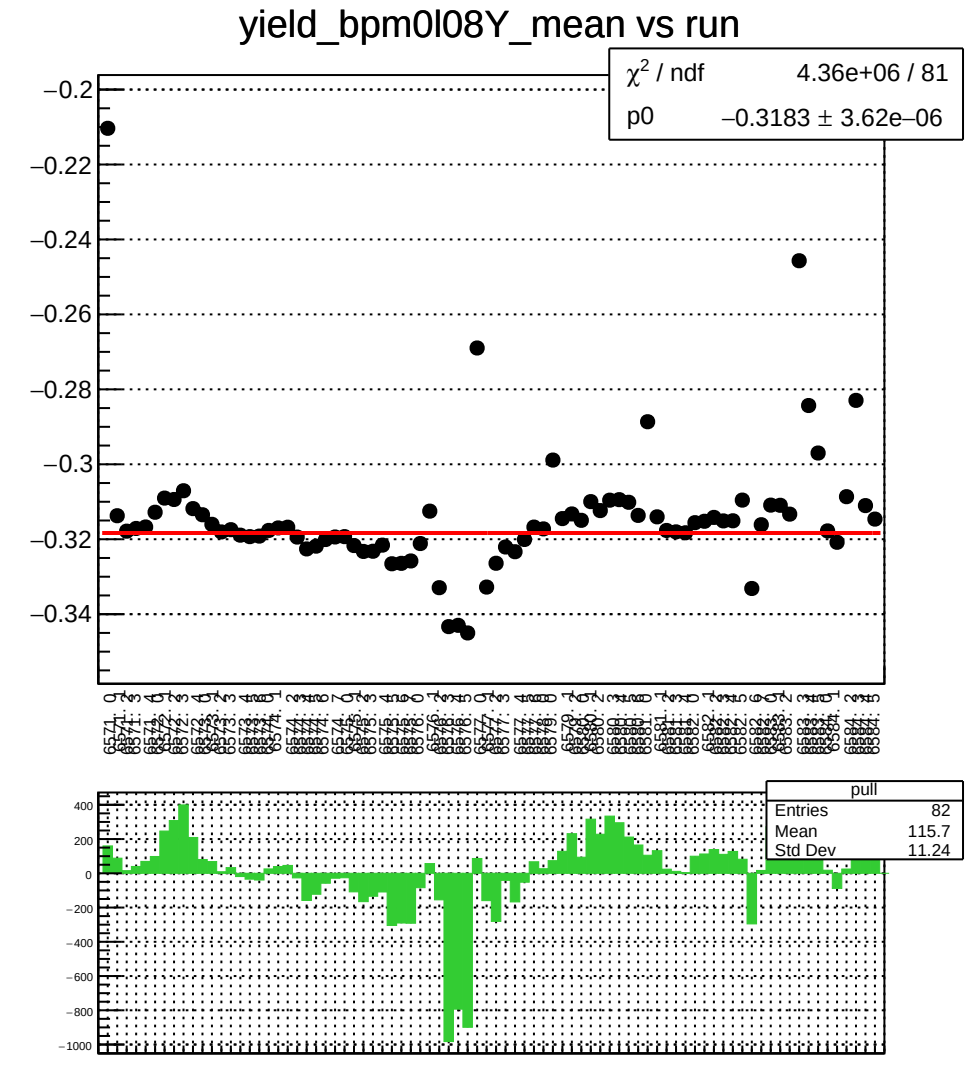

pull1D
Entries 82
Mean −4.62
Std Dev 1.456
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

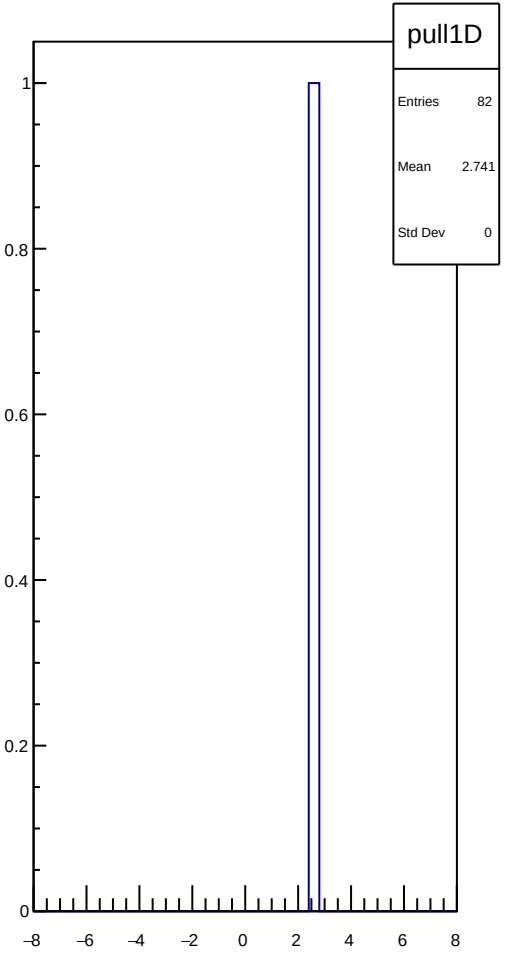

yield_bpm0l07Y_rms vs run
χ² / ndf 1.227e+04 / 81
p0 0.002027 ± 1.612e−06
0.0045
0.004
0.0035
0.003
0.0025
0.002

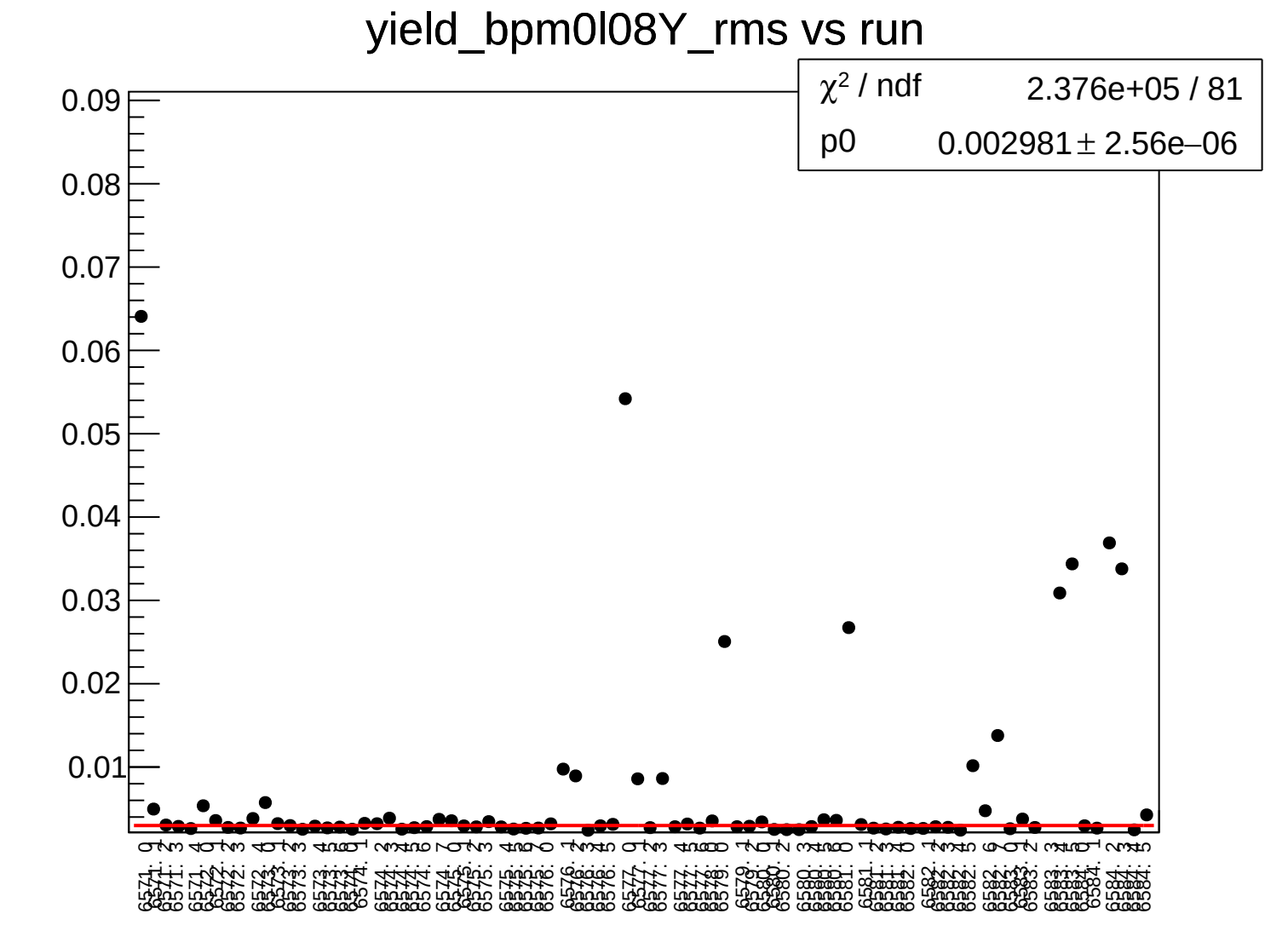

yield_bpm0l08X_mean vs run
χ² / ndf 2.1e+05 / 81
p0 0.08378 ± 1.463e−05
0.1
0.05
0
−0.05
−0.1
pull
Entries 82
Mean 71.03
Std Dev 13.29
100
50
0
−50
−100

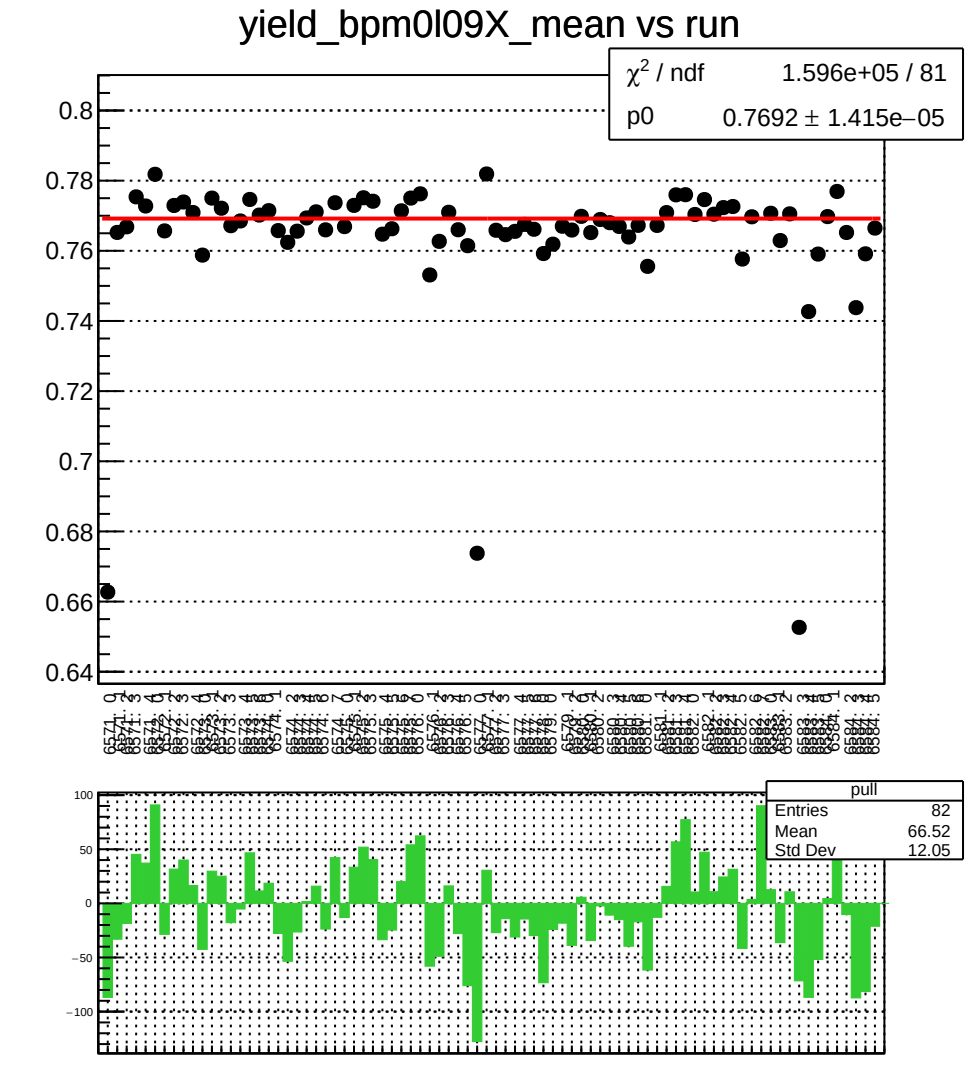

pull1D
Entries 82
Mean 0.2222
Std Dev 5.713
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

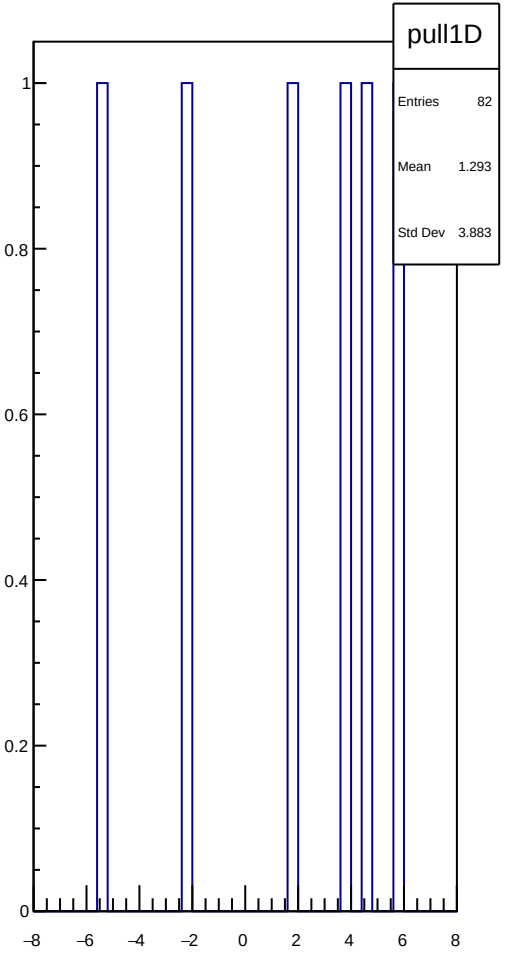

yield_bpm0l08X_rms vs run
χ² / ndf 1.579e+05 / 81
p0 0.01239 ± 1.034e–05
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

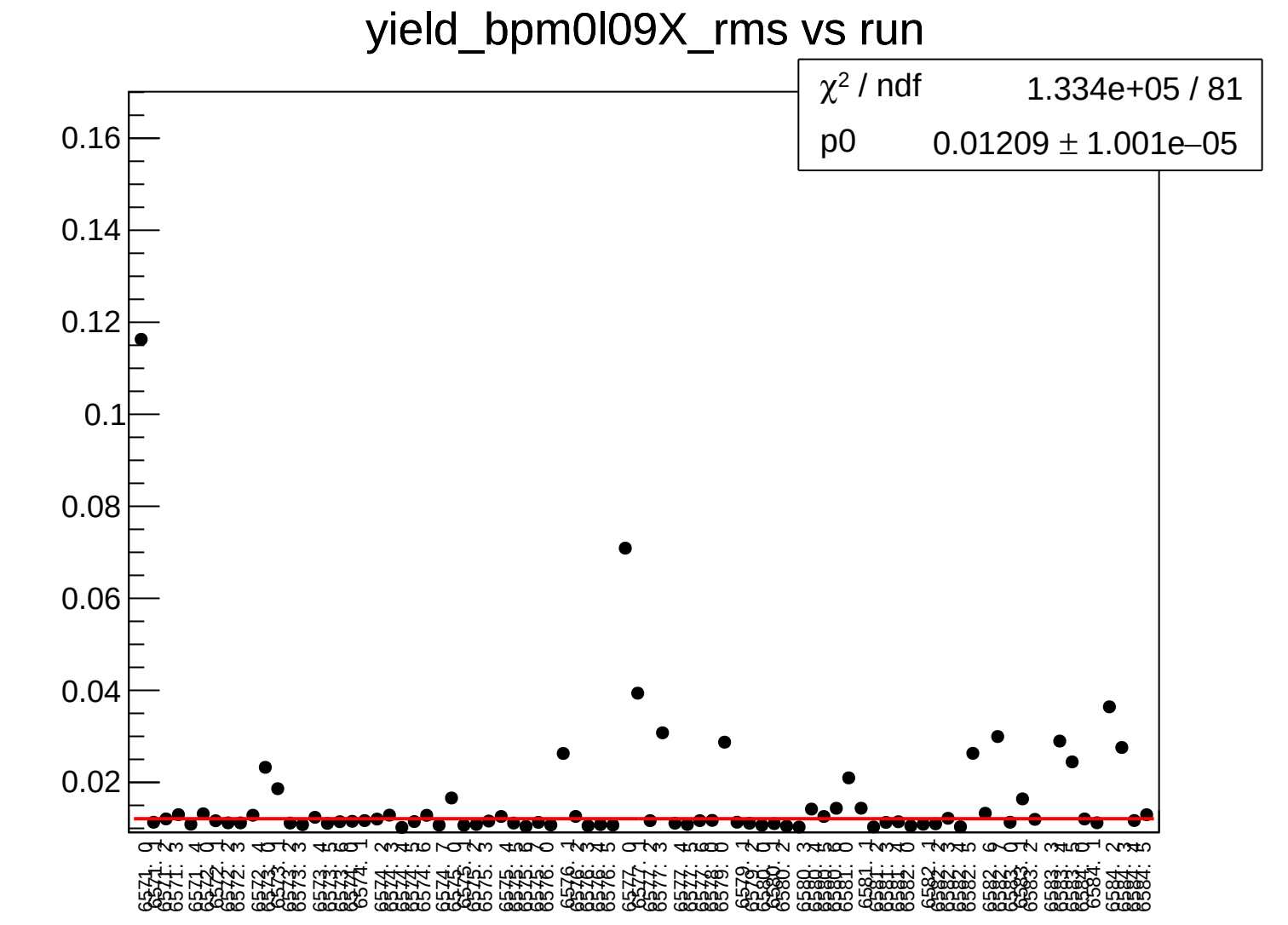

yield_bpm0l08Y_mean vs run
χ² / ndf 4.36e+06 / 81
p0 −0.3183 ± 3.62e−06
pull
Entries 82
Mean 115.7
Std Dev 11.24

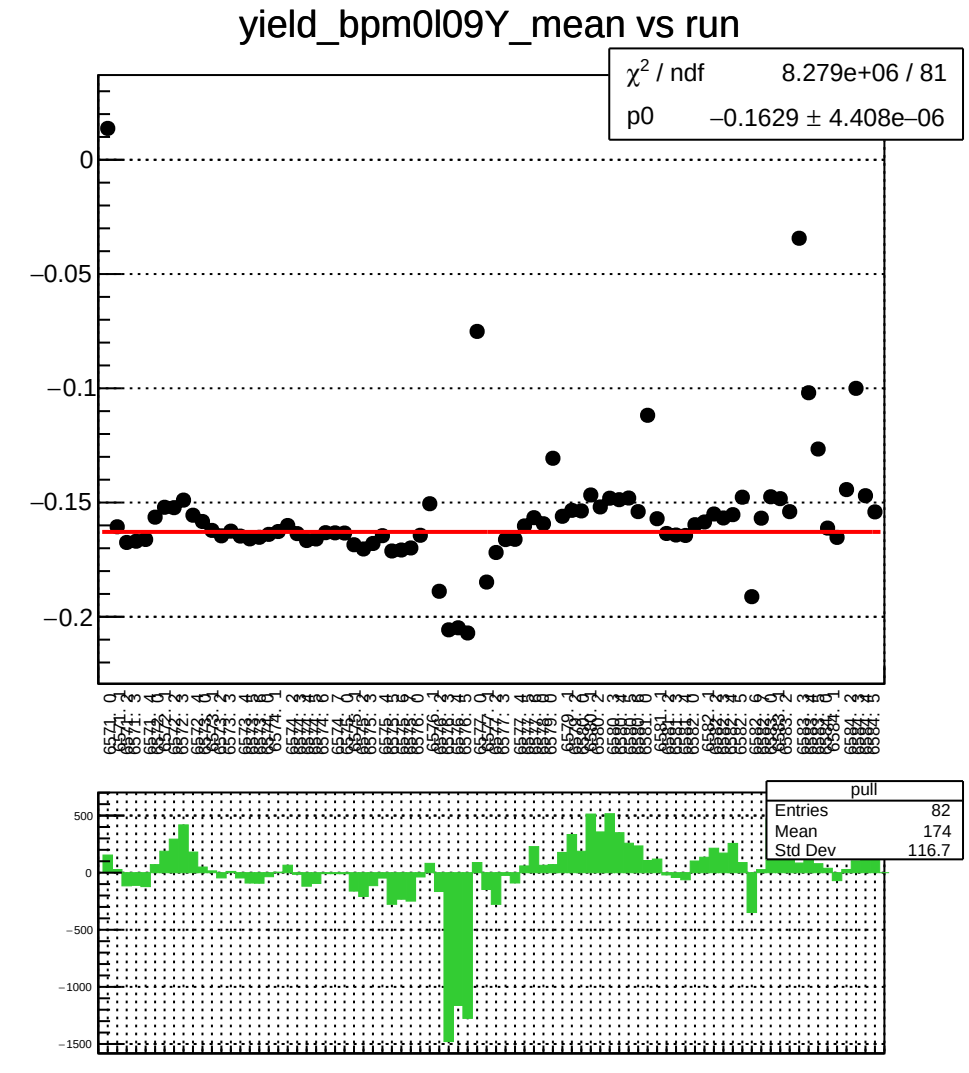

pull1D
Entries 82
Mean 2.741
Std Dev 0

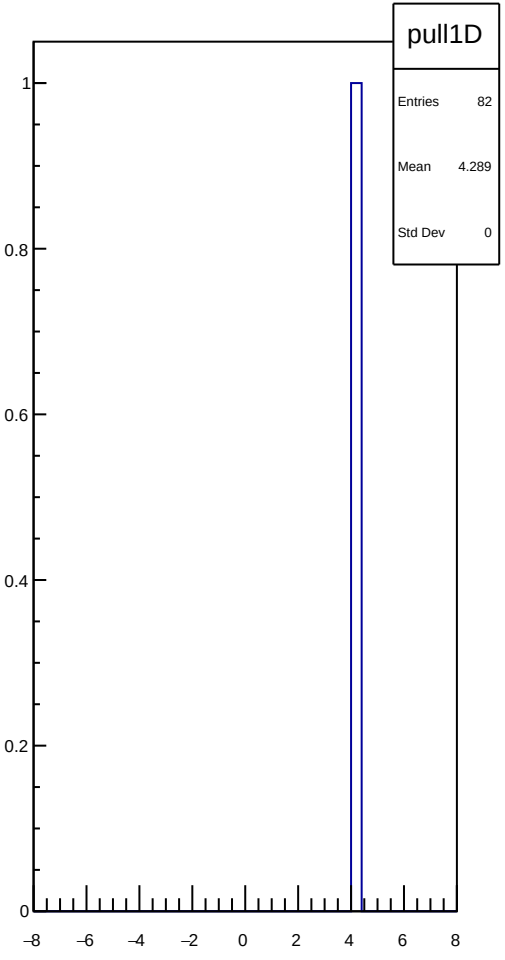

yield_bpm0l08Y_rms vs run
χ² / ndf 2.376e+05 / 81
p0 0.002981 ± 2.56e−06
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01


yield_bpm0l09X_mean vs run
χ² / ndf 1.596e+05 / 81
p0 0.7692 ± 1.415e−05
0.8
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
pull
Entries 82
Mean 66.52
Std Dev 12.05
100
50
0
−50
−100

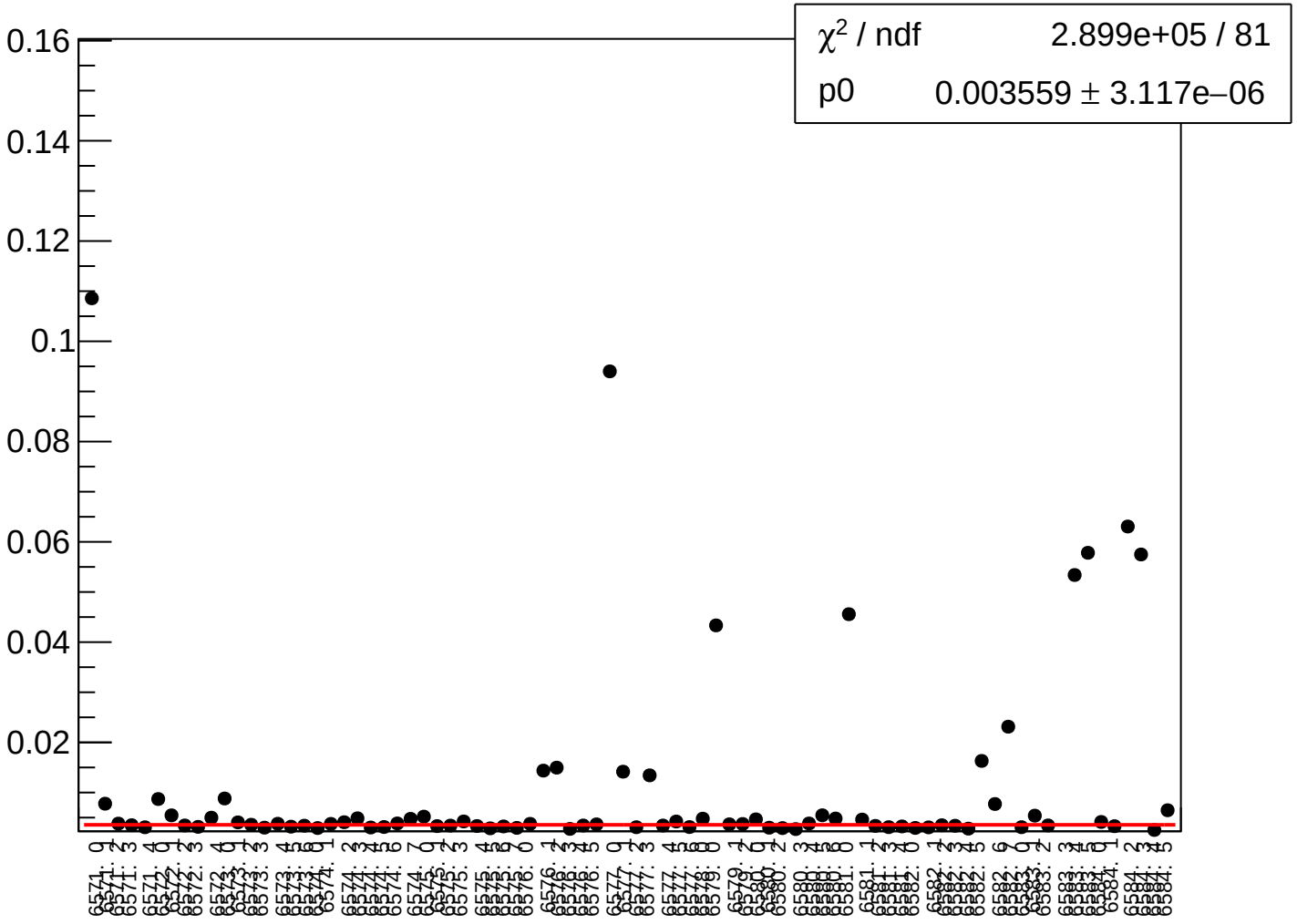

pull1D
Entries 82
Mean 1.293
Std Dev 3.883
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

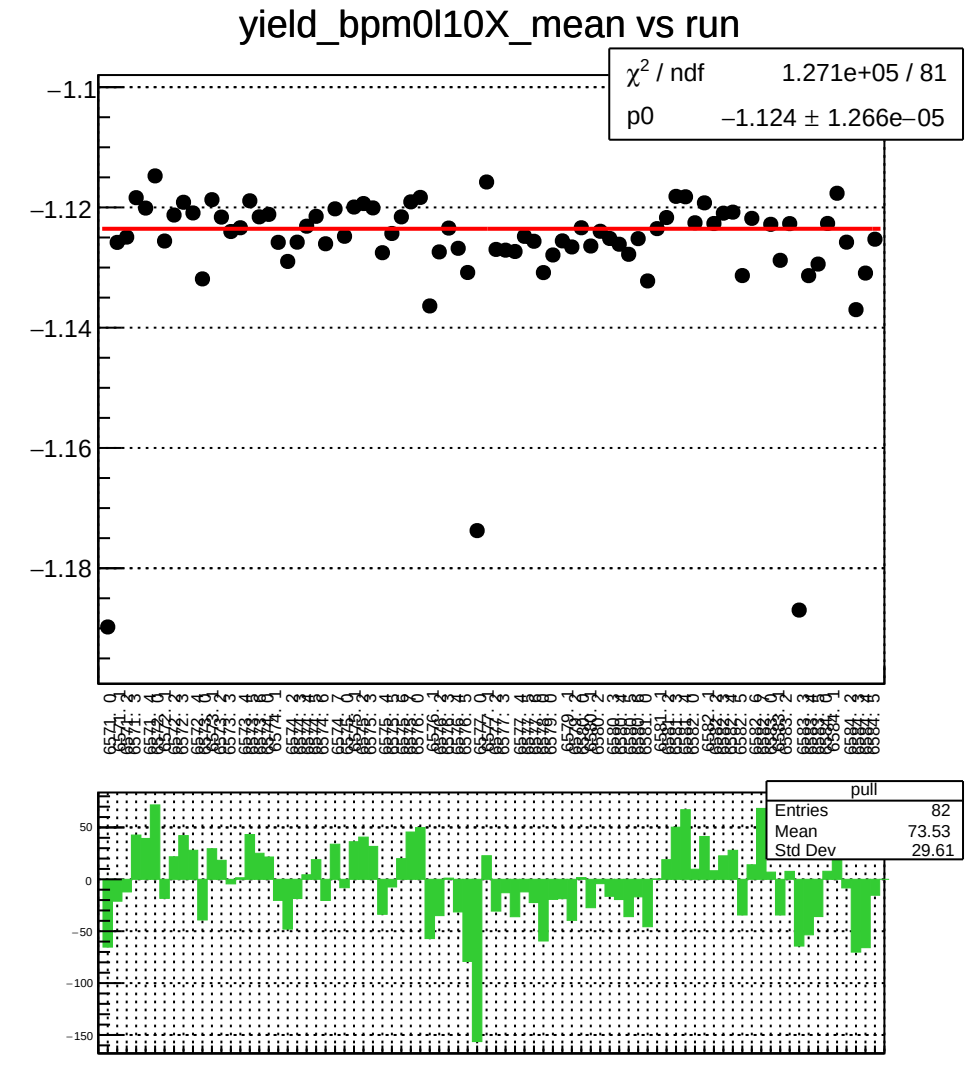

yield_bpm0l09X_rms vs run
χ² / ndf 1.334e+05 / 81
p0 0.01209 ± 1.001e−05
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

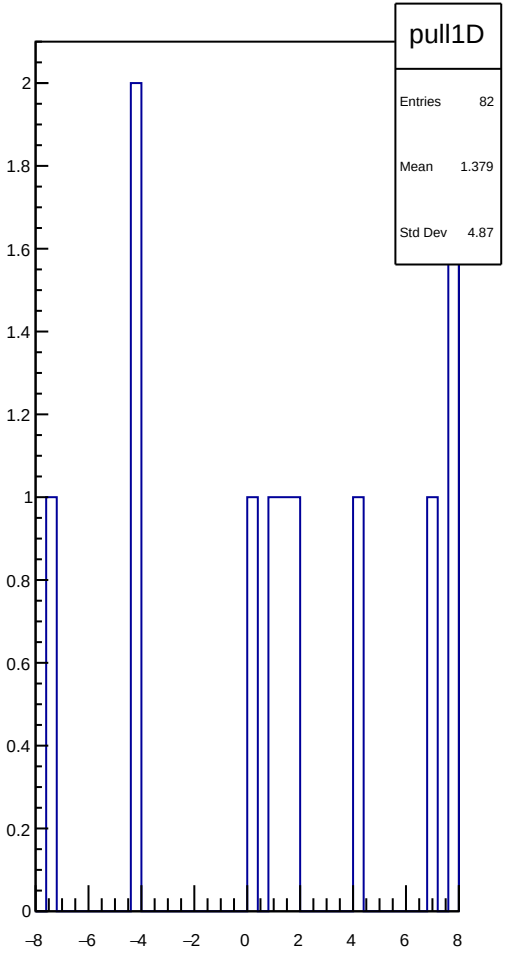

yield_bpm0l09Y_mean vs run
χ² / ndf 8.279e+06 / 81
p0 −0.1629 ± 4.408e−06
0
−0.05
−0.1
−0.15
−0.2
pull
Entries 82
Mean 174
Std Dev 116.7
500
0
−500
−1000
−1500

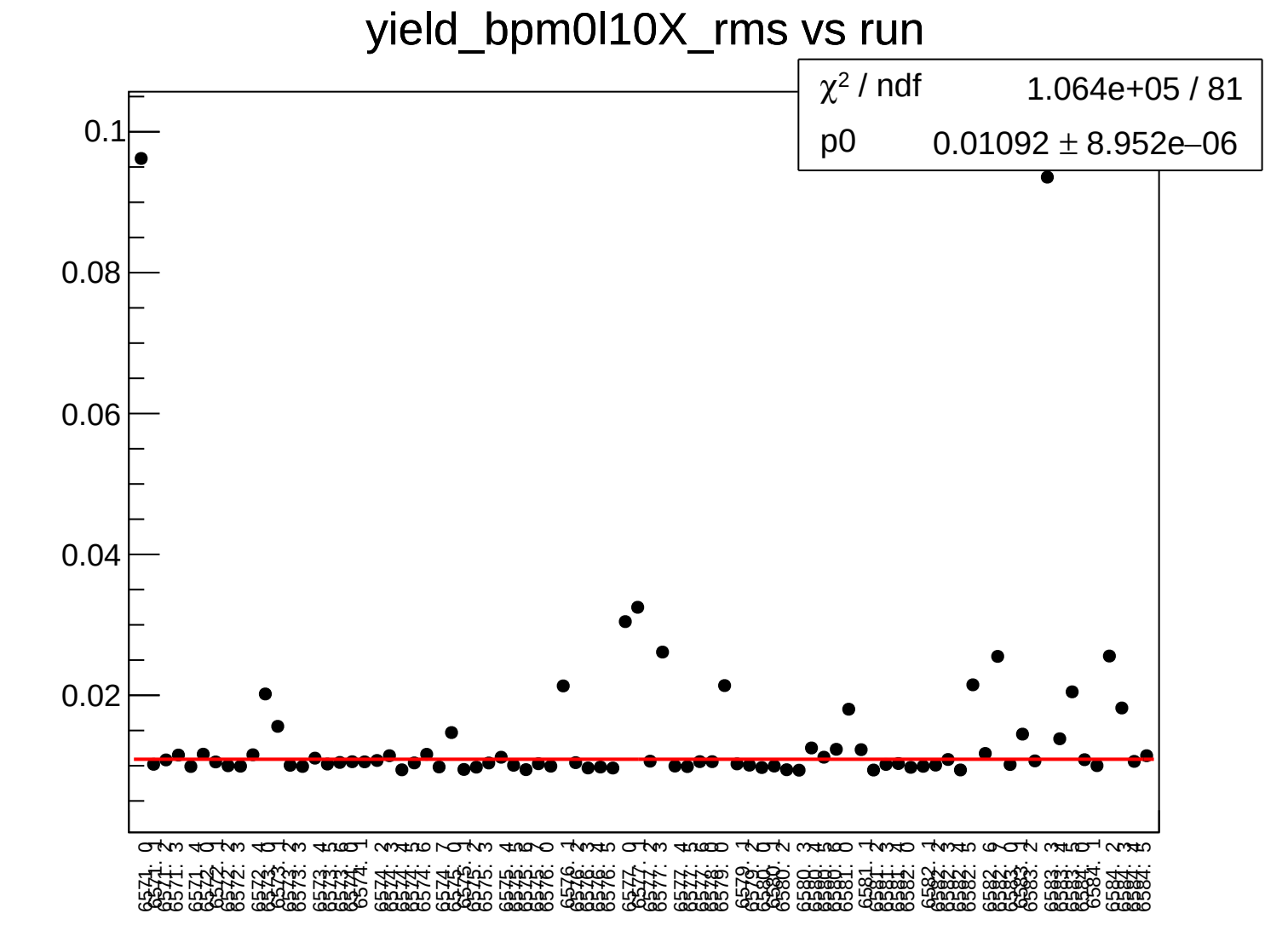

pull1D
Entries 82
Mean 4.289
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

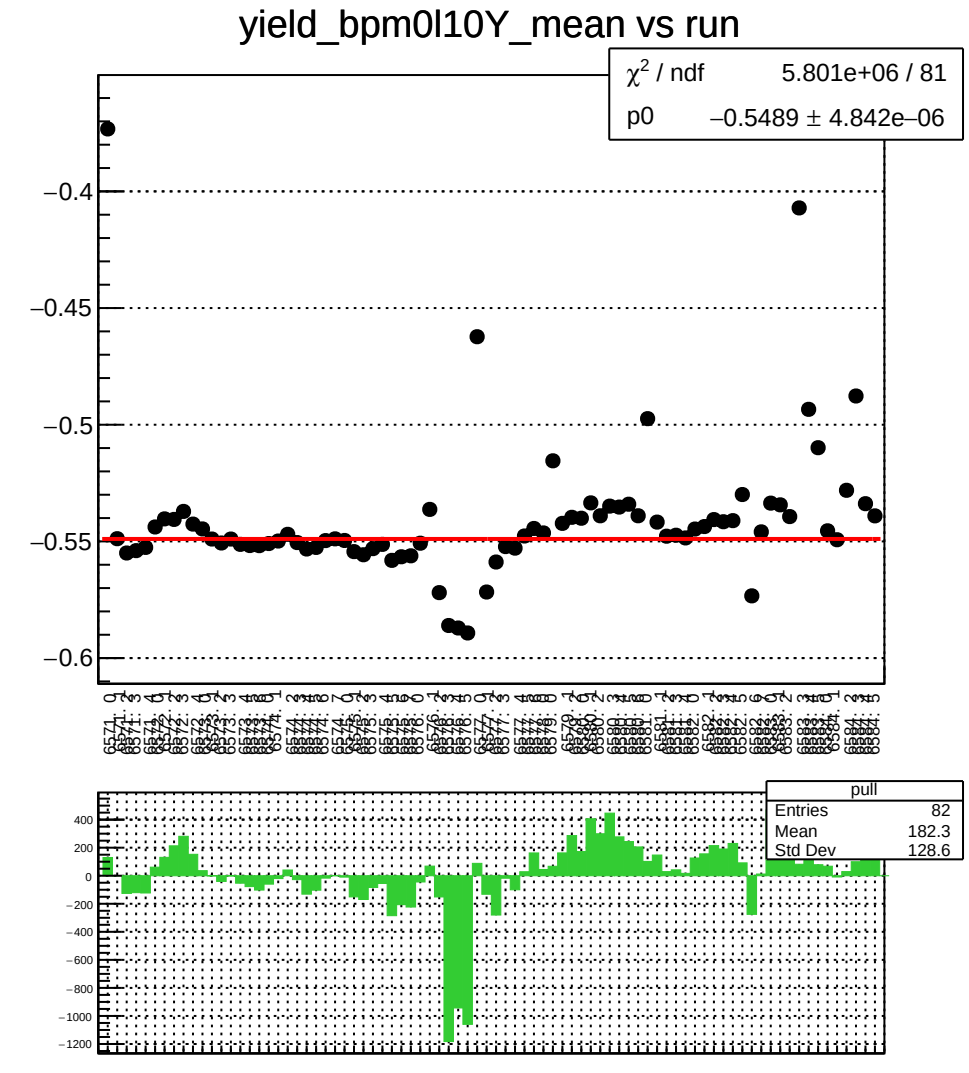
yield_bpm0l09Y_rms vs run

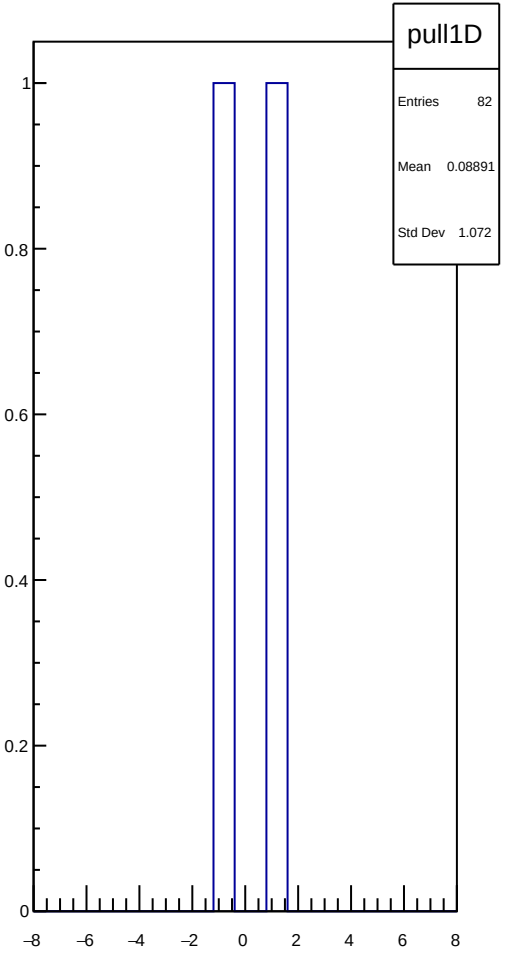


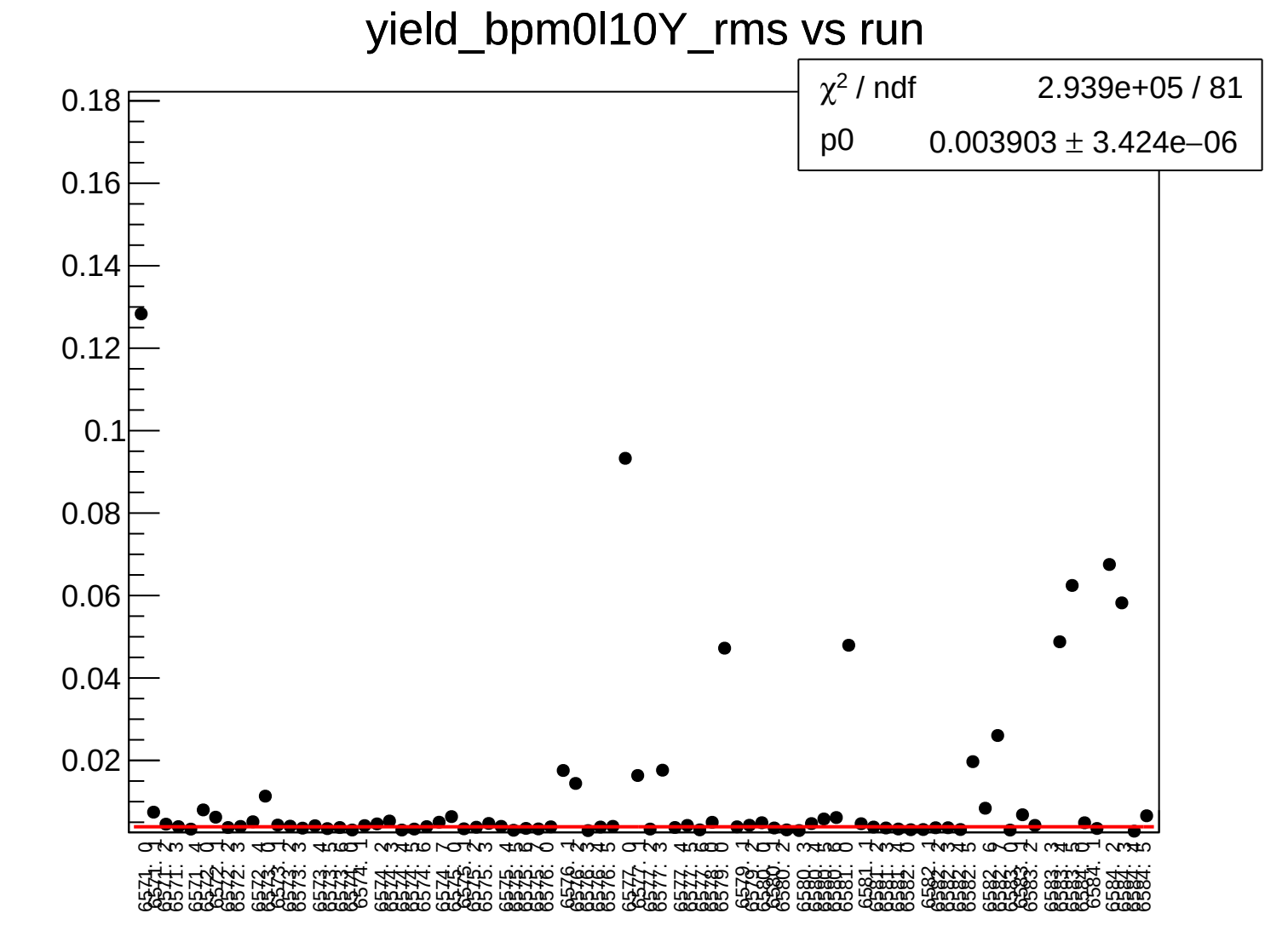

yield_bpm0l10X_mean vs run
χ² / ndf 1.271e+05 / 81
p0 −1.124 ± 1.266e−05
−1.1
−1.12
−1.14
−1.16
−1.18
pull
Entries 82
Mean 73.53
Std Dev 29.61
50
0
−50
−100
−150

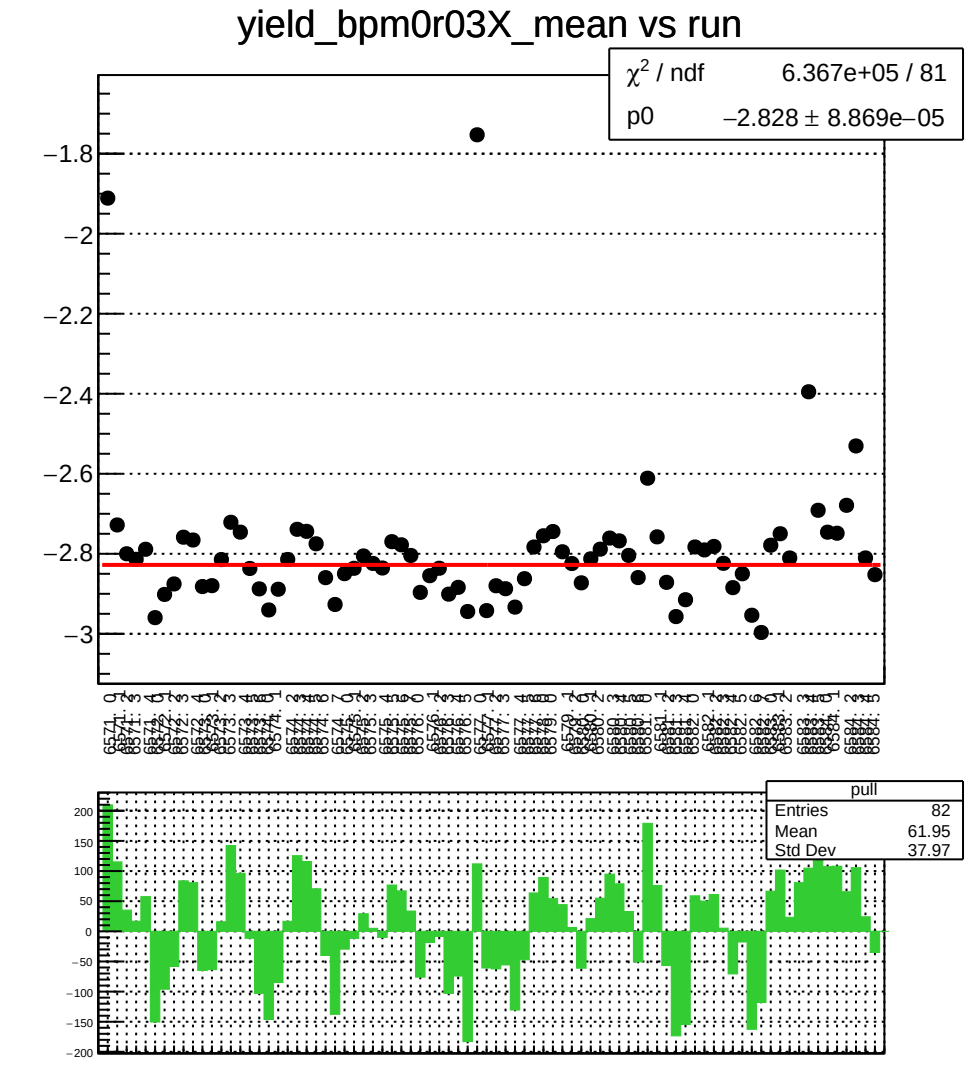

pull1D
Entries 82
Mean 1.379
Std Dev 4.87
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

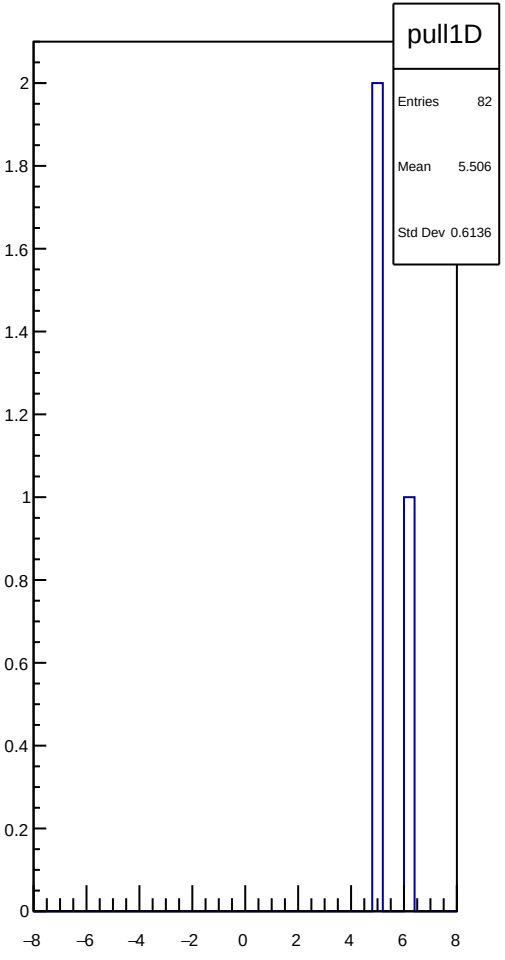

yield_bpm0l10X_rms vs run
χ² / ndf 1.064e+05 / 81
p0 0.01092 ± 8.952e–06
0.1
0.08
0.06
0.04
0.02

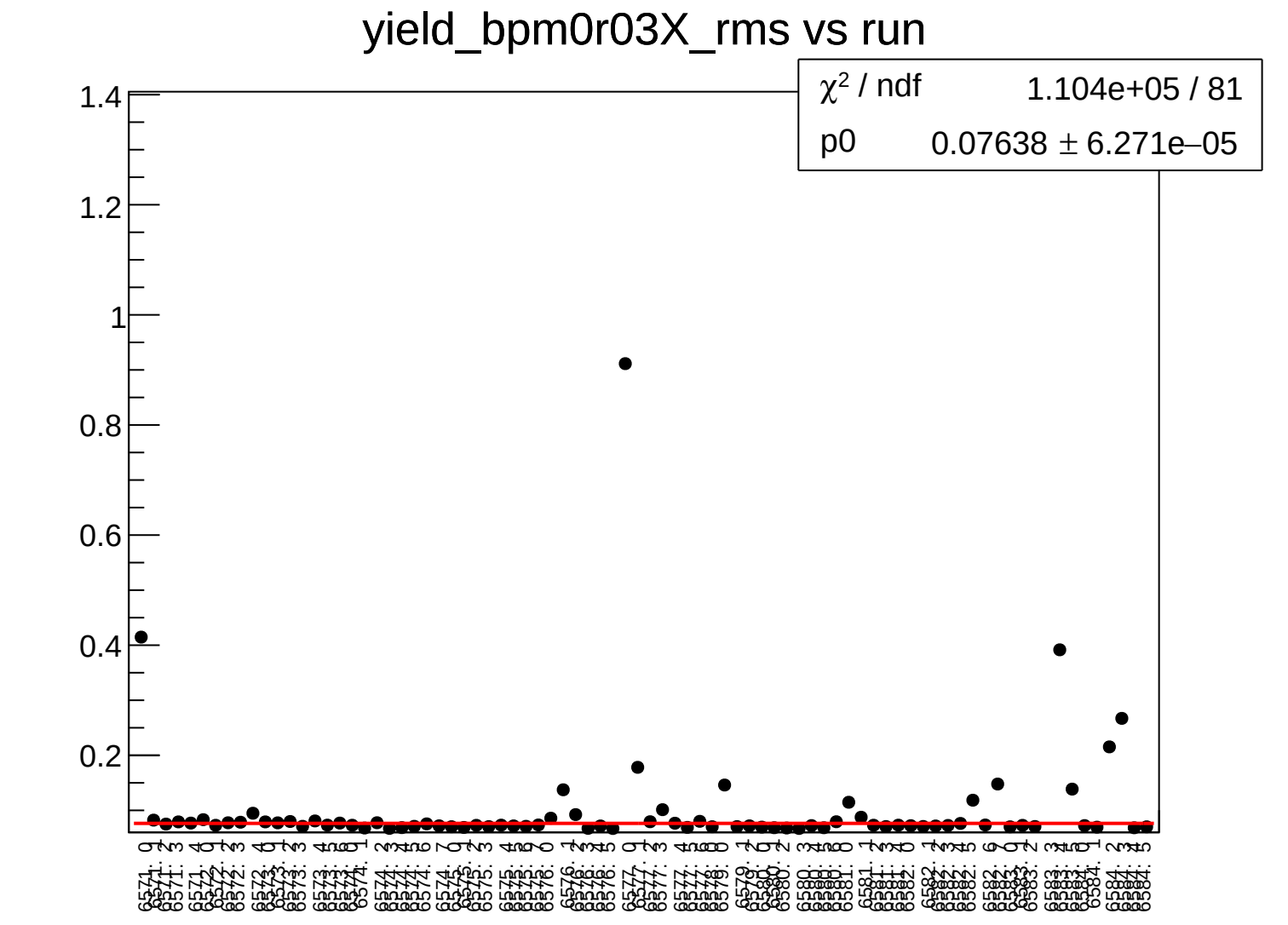

yield_bpm0l10Y_mean vs run
χ² / ndf 5.801e+06 / 81
p0 −0.5489 ± 4.842e−06
−0.4
−0.45
−0.5
−0.55
−0.6
pull
Entries 82
Mean 182.3
Std Dev 128.6
400
200
0
−200
−400
−600
−800
−1000
−1200

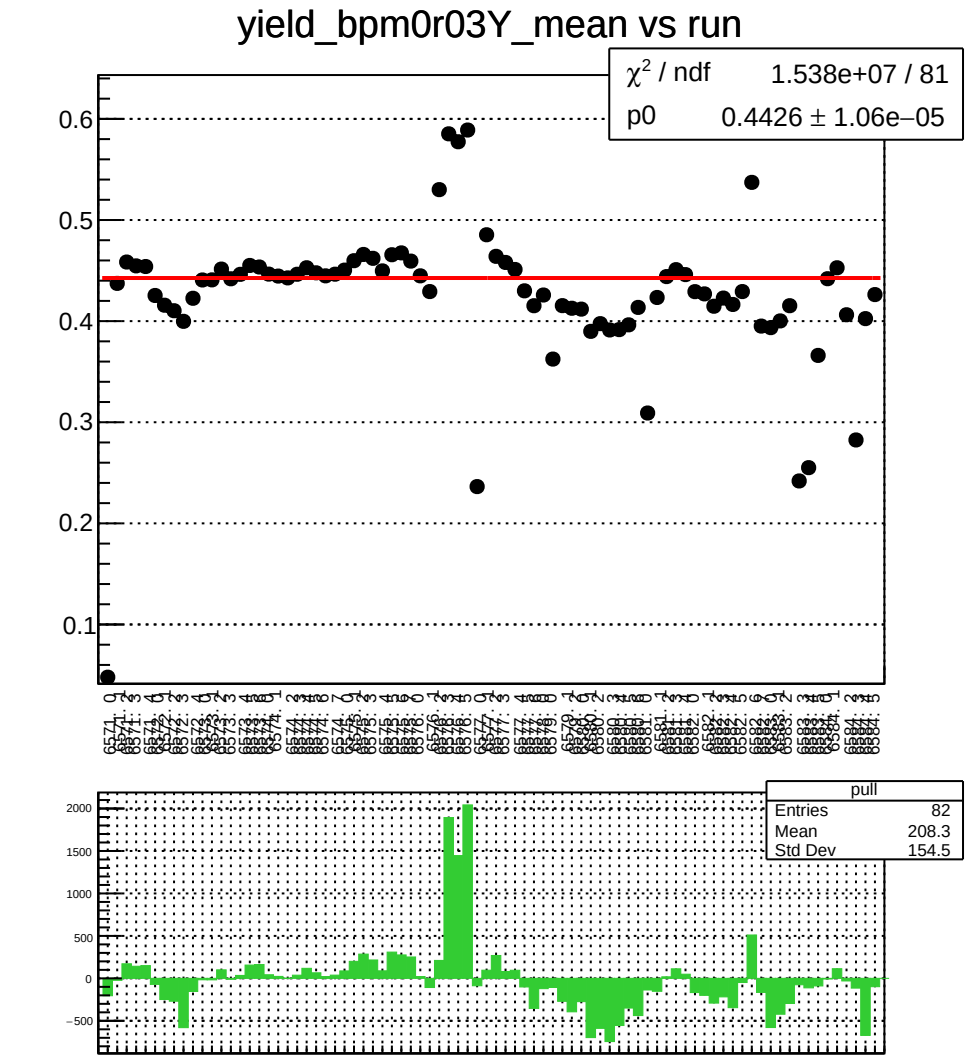

pull1D
Entries 82
Mean 0.08891
Std Dev 1.072
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

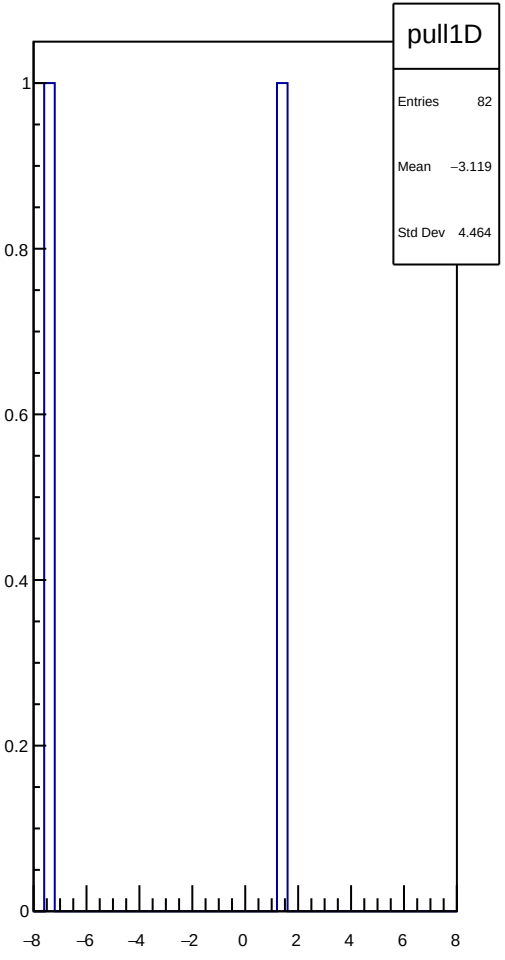

yield_bpm0l10Y_rms vs run
χ² / ndf 2.939e+05 / 81
p0 0.003903 ± 3.424e−06
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02

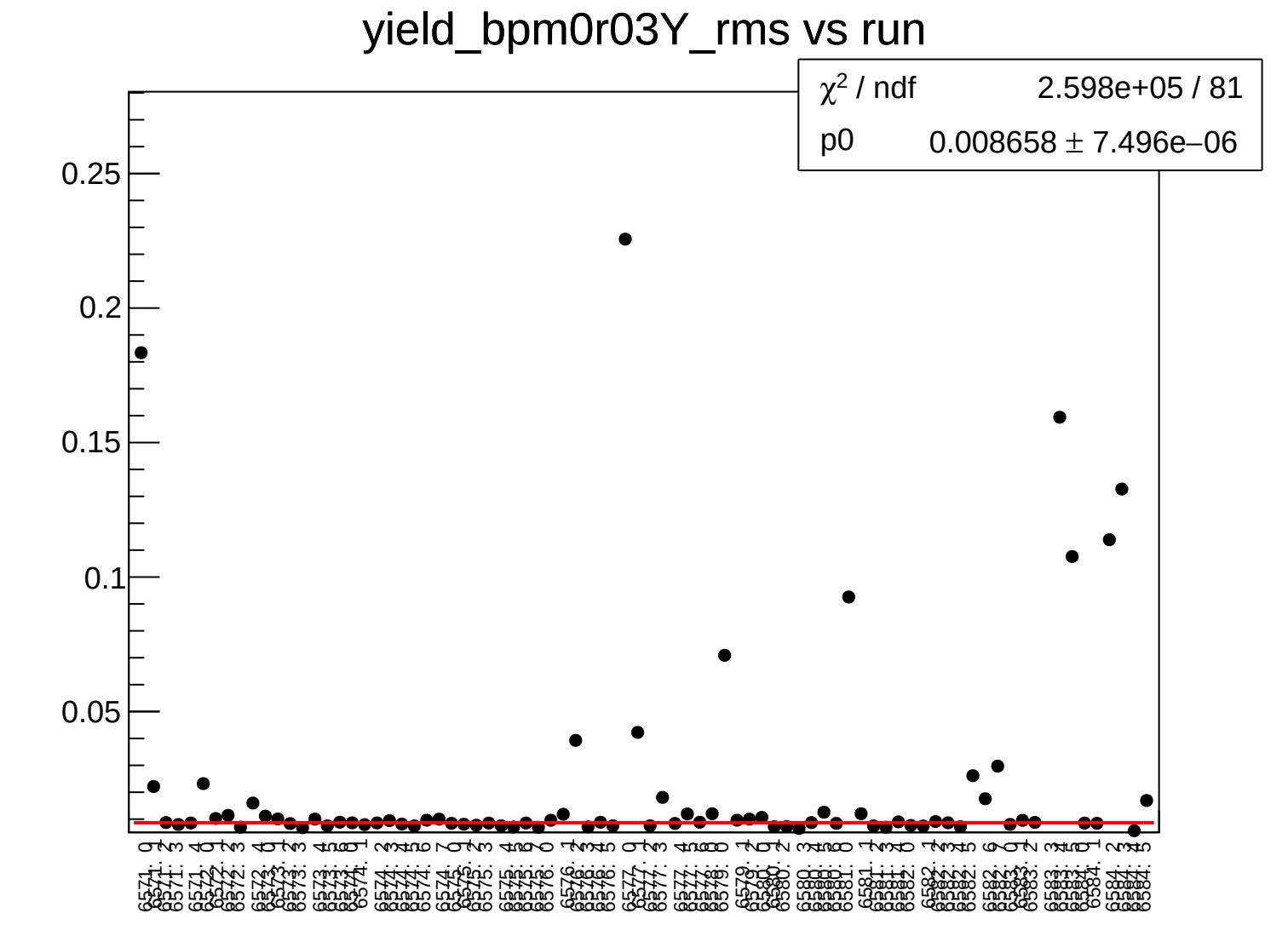

yield_bpm0r03X_mean vs run
χ² / ndf 6.367e+05 / 81
p0 −2.828 ± 8.869e−05
pull
Entries 82
Mean 61.95
Std Dev 37.97

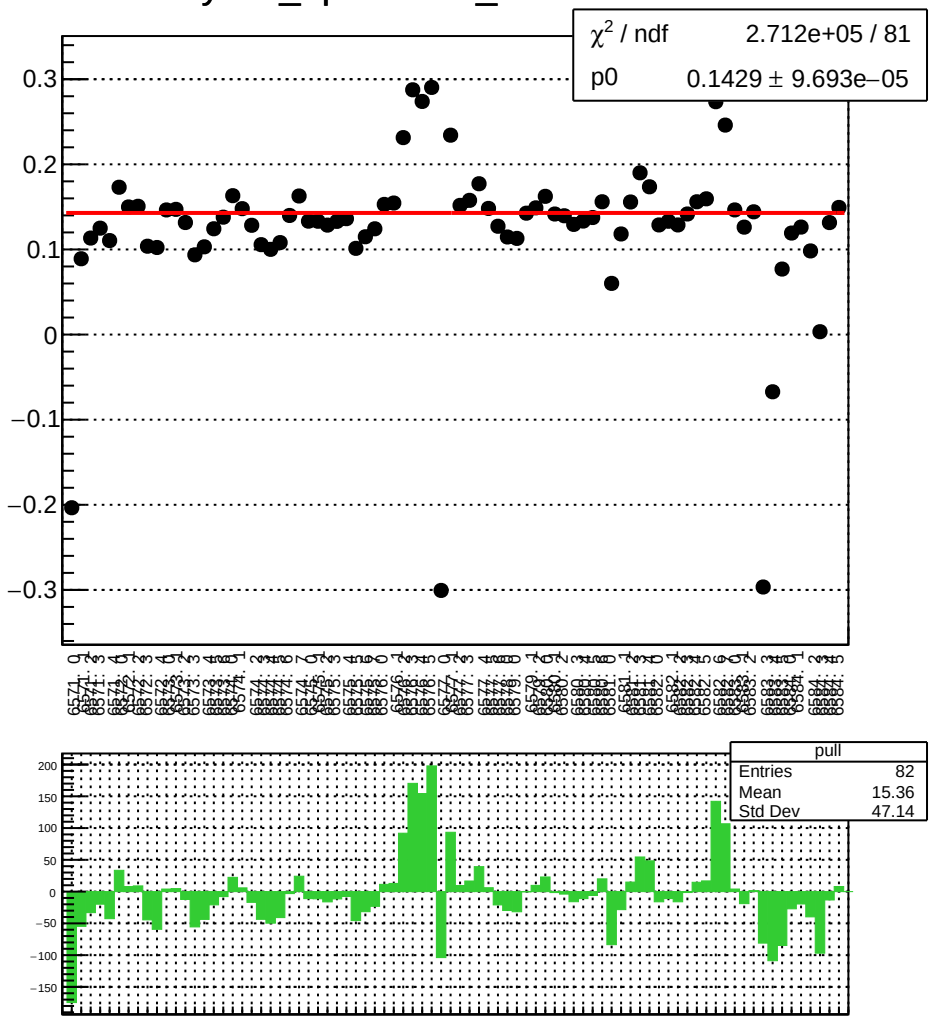

pull1D
Entries 82
Mean 5.506
Std Dev 0.6136

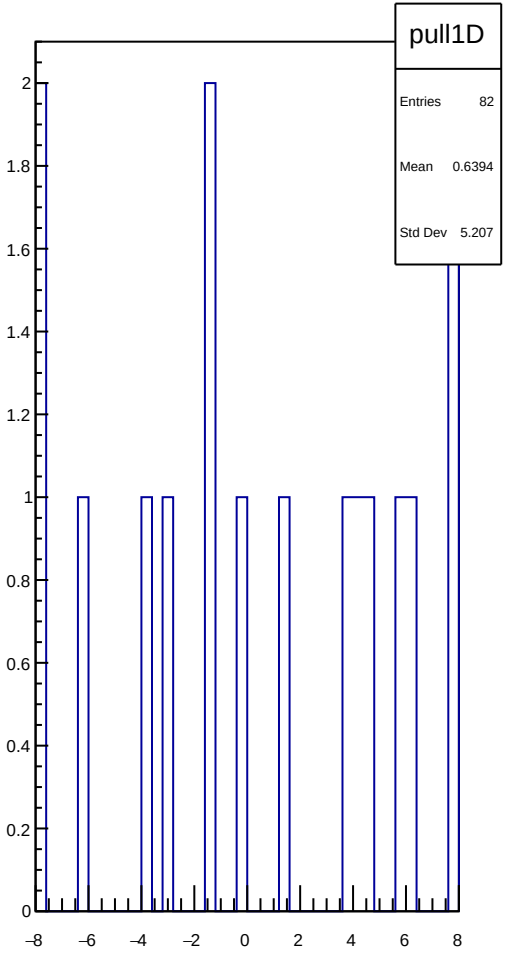

yield_bpm0r03X_rms vs run
χ² / ndf 1.104e+05 / 81
p0 0.07638 ± 6.271e–05
1.4
1.2
1
0.8
0.6
0.4
0.2

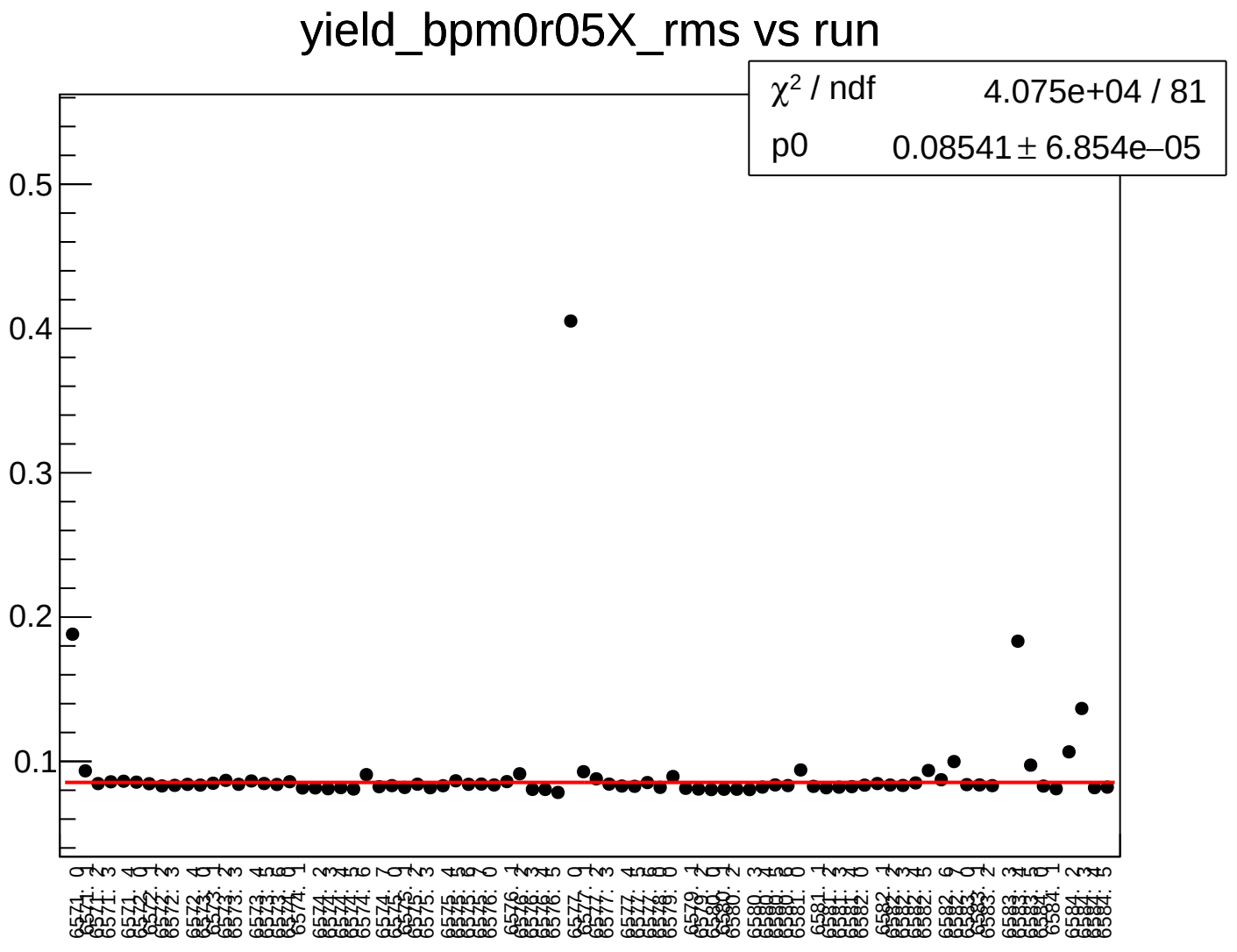

yield_bpm0r03Y_mean vs run
χ² / ndf 1.538e+07 / 81
p0 0.4426 ± 1.06e−05
pull
Entries 82
Mean 208.3
Std Dev 154.5

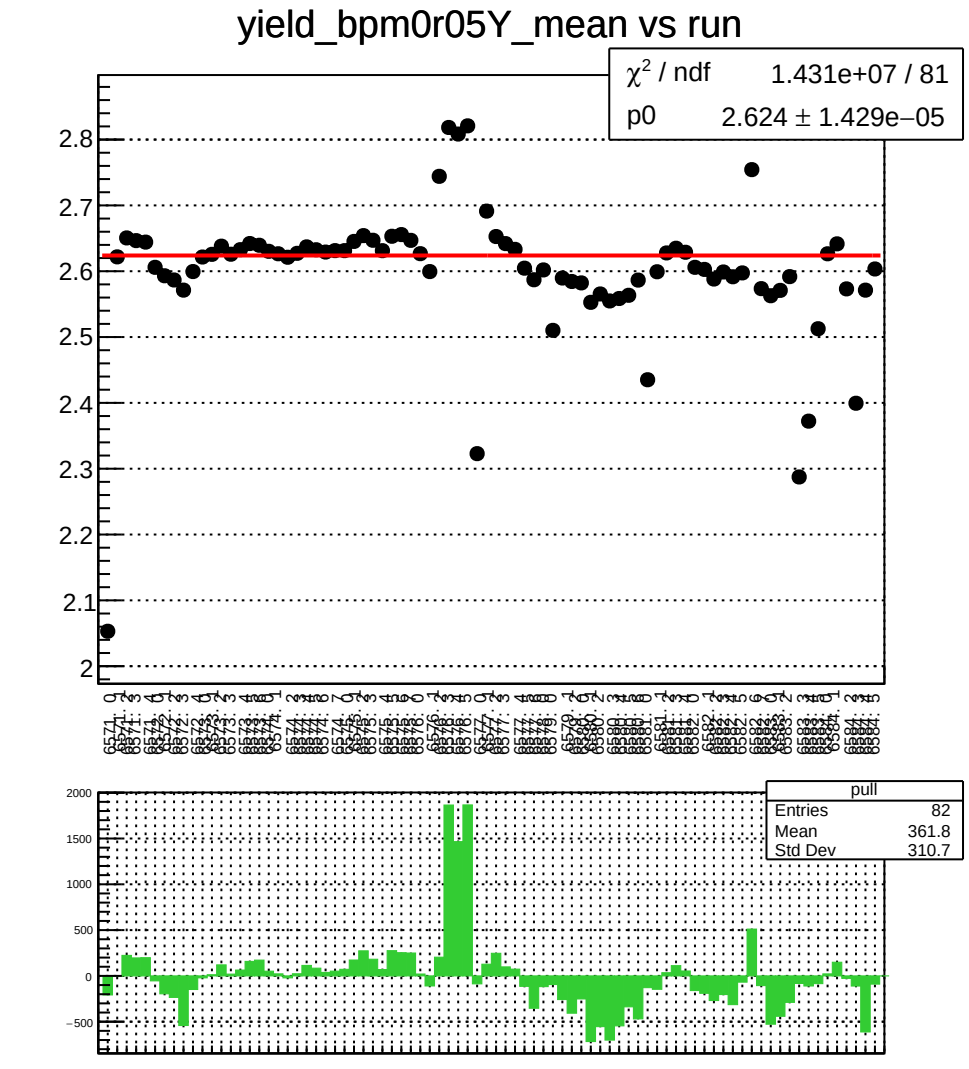

pull1D
Entries 82
Mean −3.119
Std Dev 4.464

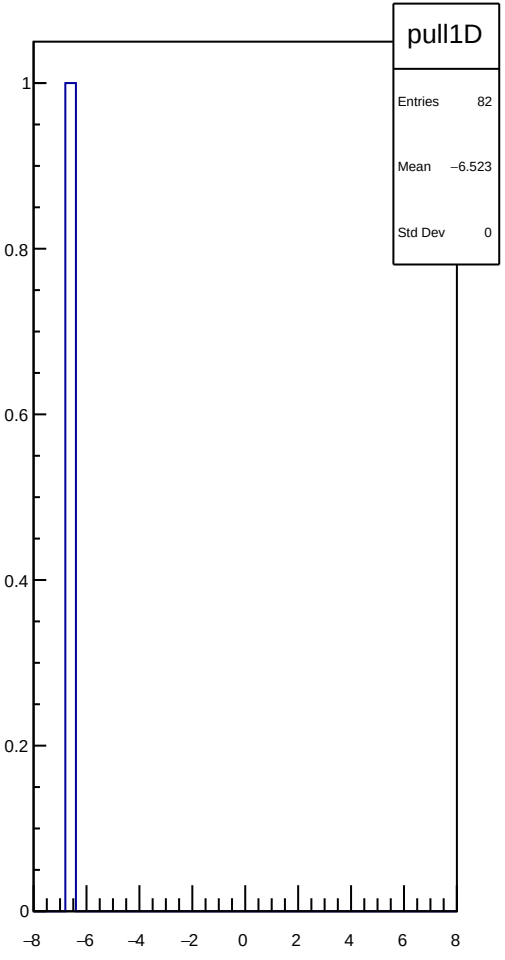

yield_bpm0r03Y_rms vs run
χ² / ndf 2.598e+05 / 81
p0 0.008658 ± 7.496e−06
0.25
0.2
0.15
0.1
0.05

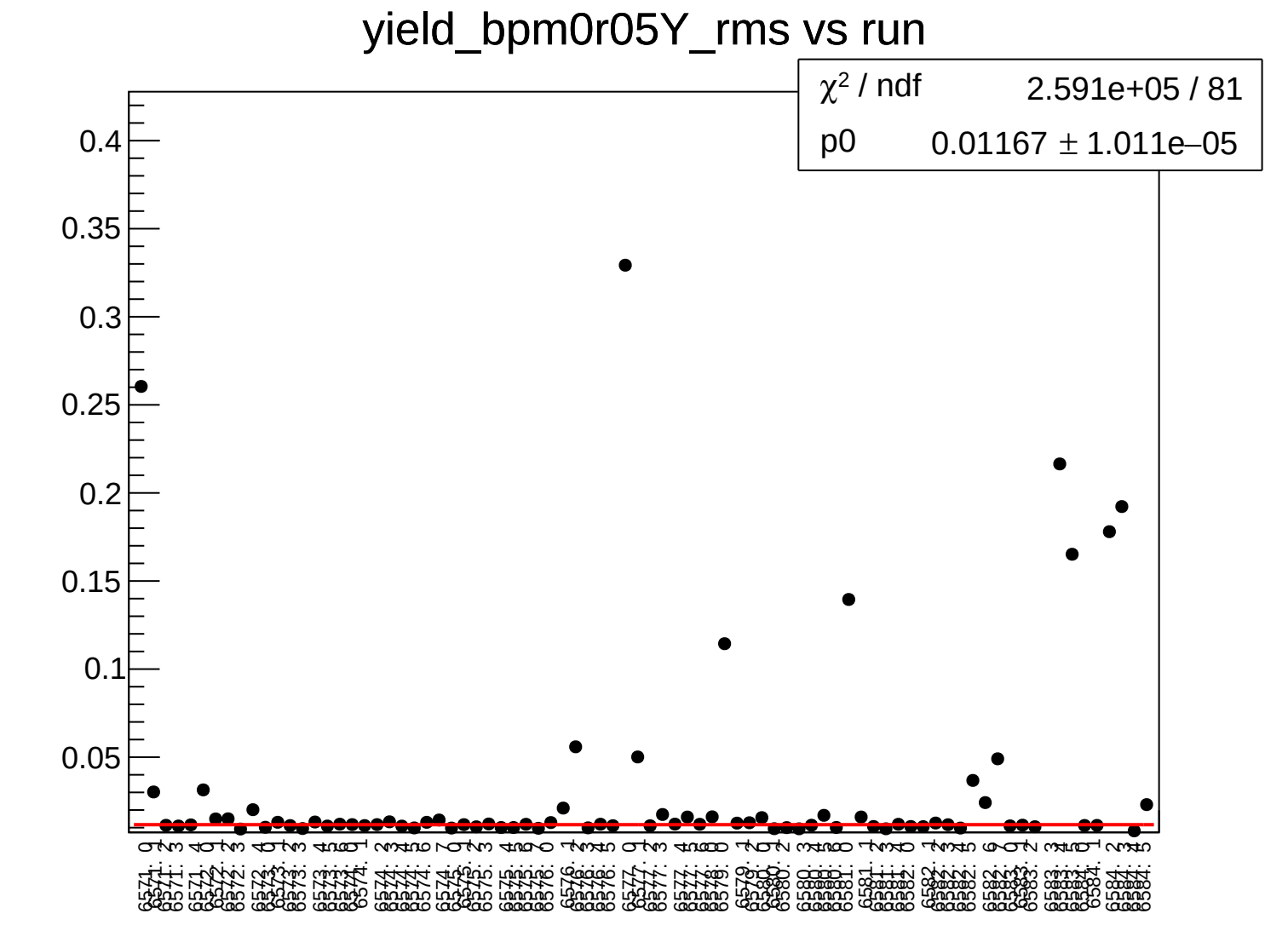

yield_bpm0r05X_mean vs run
χ² / ndf 2.712e+05 / 81
p0 0.1429 ± 9.693e−05
pull
Entries 82
Mean 15.36
Std Dev 47.14

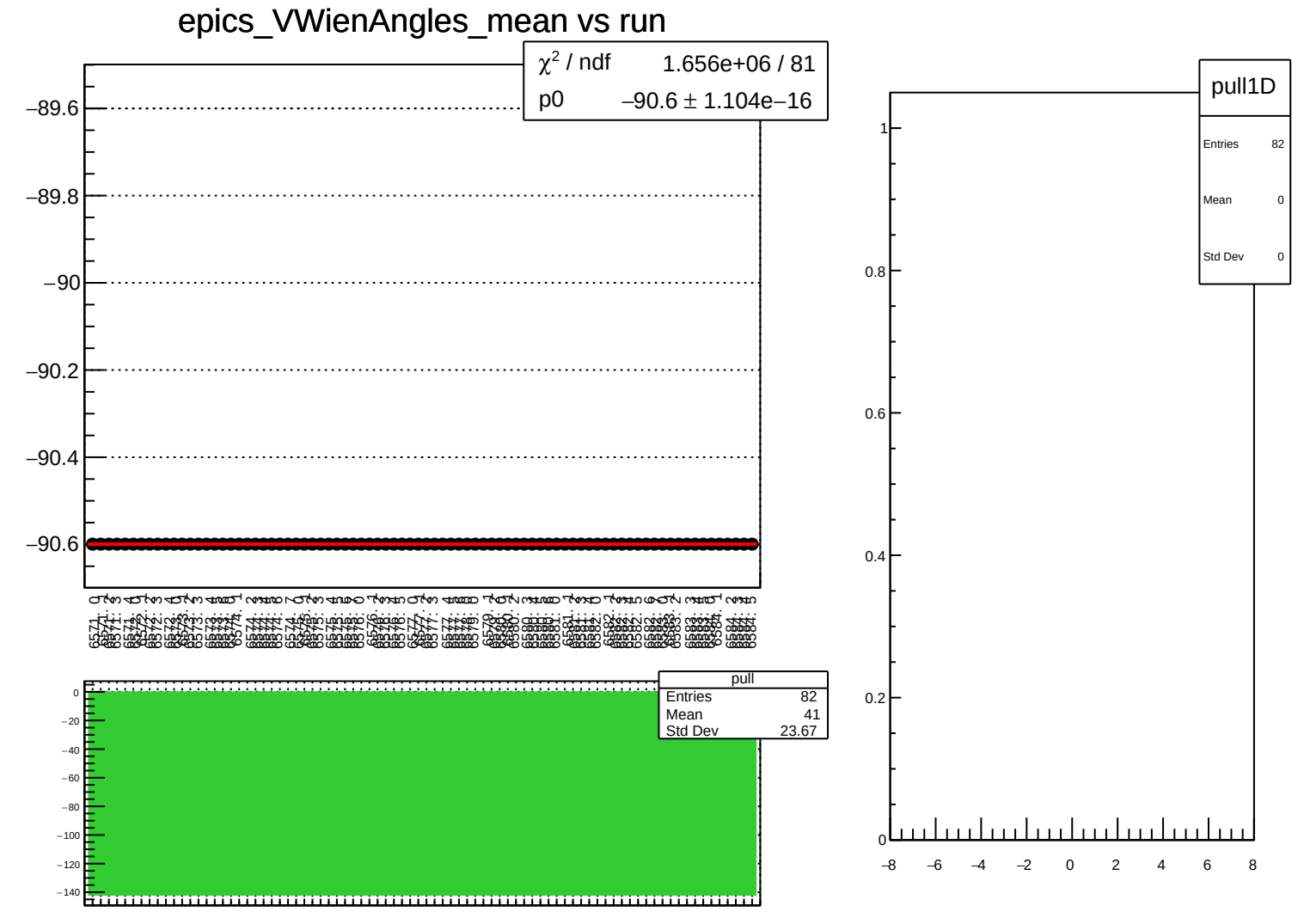

pull1D
Entries 82
Mean 0.6394
Std Dev 5.207

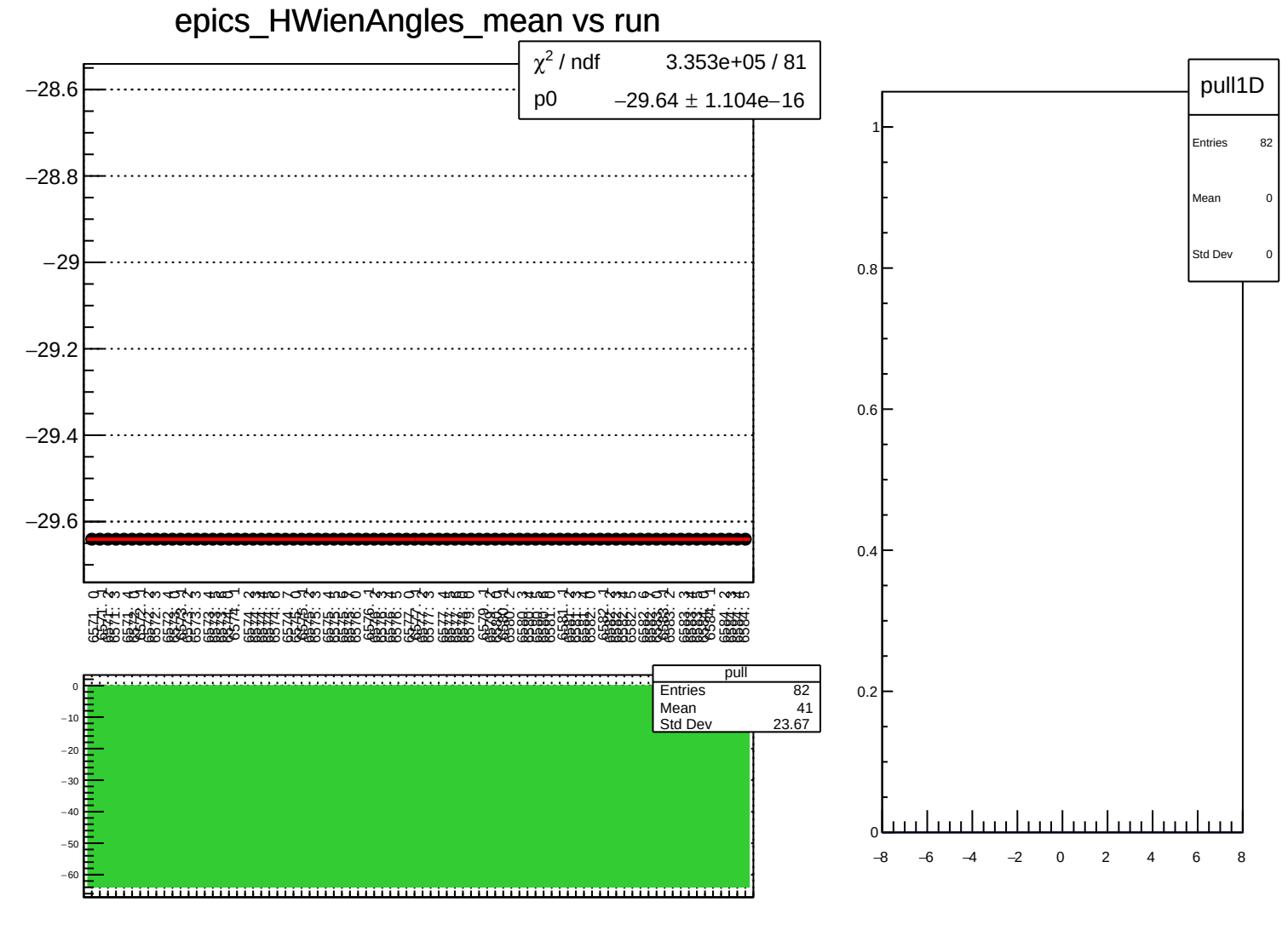

yield_bpm0r05X_rms vs run
χ² / ndf 4.075e+04 / 81
p0 0.08541 ± 6.854e–05
0.5
0.4
0.3
0.2
0.1

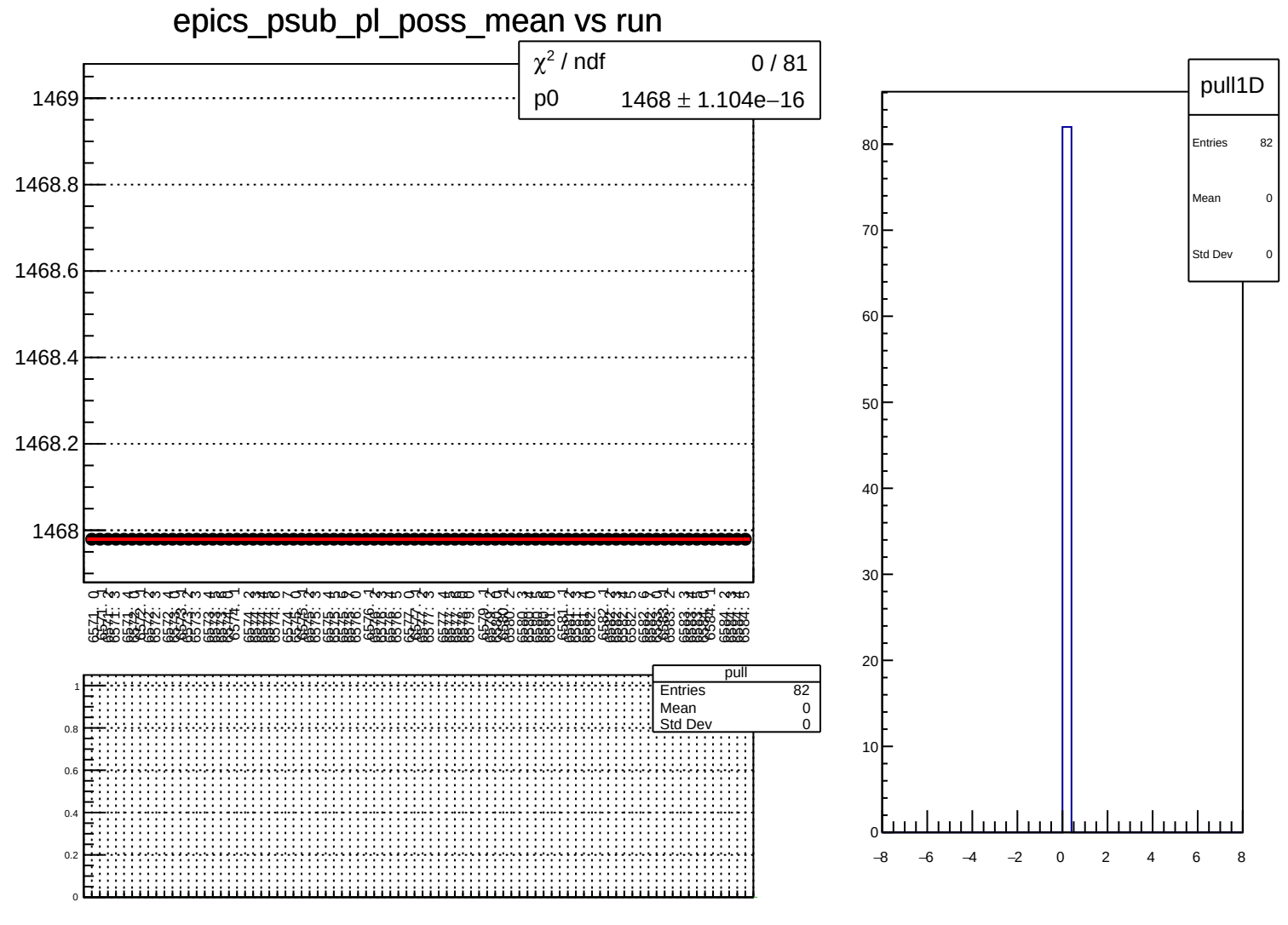

yield_bpm0r05Y_mean vs run
χ² / ndf 1.431e+07 / 81
p0 2.624 ± 1.429e−05
pull
Entries 82
Mean 361.8
Std Dev 310.7

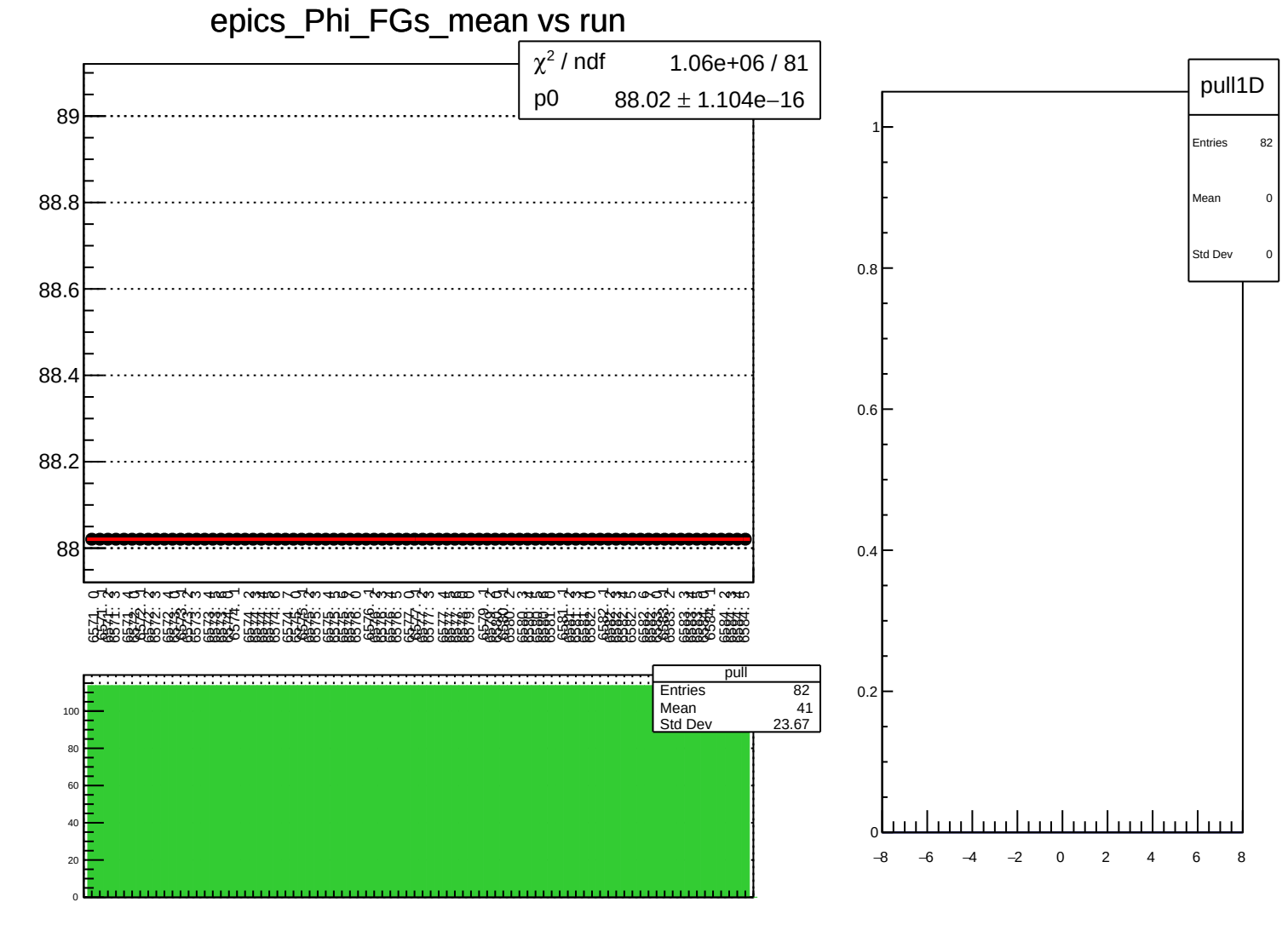

pull1D
Entries 82
Mean −6.523
Std Dev 0

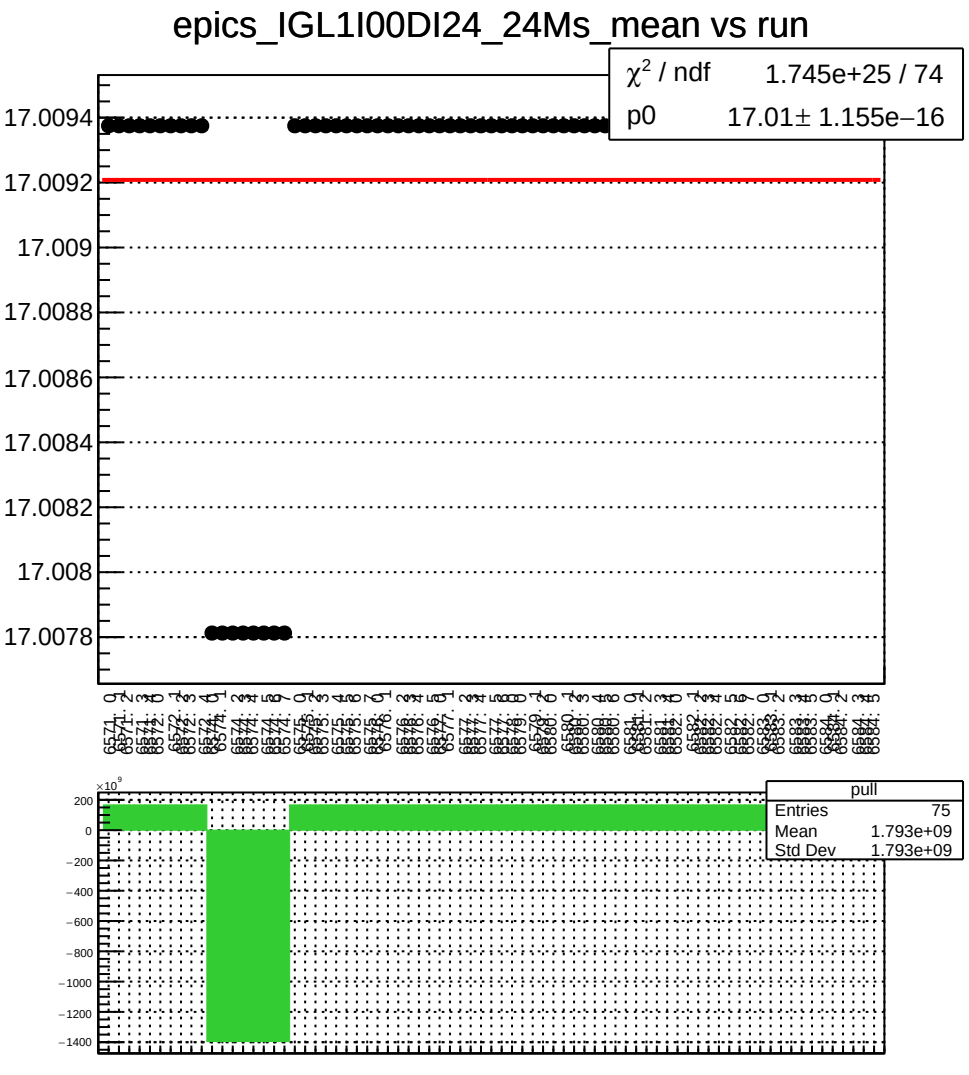

yield_bpm0r05Y_rms vs run
χ² / ndf 2.591e+05 / 81
p0 0.01167 ± 1.011e−05
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

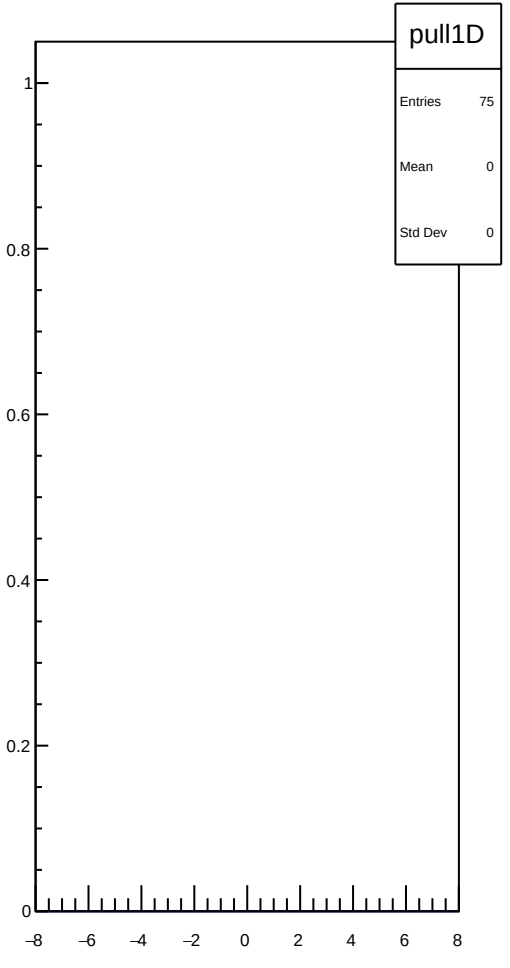

epics_VWienAngles_mean vs run
χ² / ndf 1.656e+06 / 81
p0 −90.6 ± 1.104e−16
−89.6
−89.8
−90
−90.2
−90.4
−90.6
pull
Entries 82
Mean 41
Std Dev 23.67
0
−20
−40
−60
−80
−100
−120
−140
pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

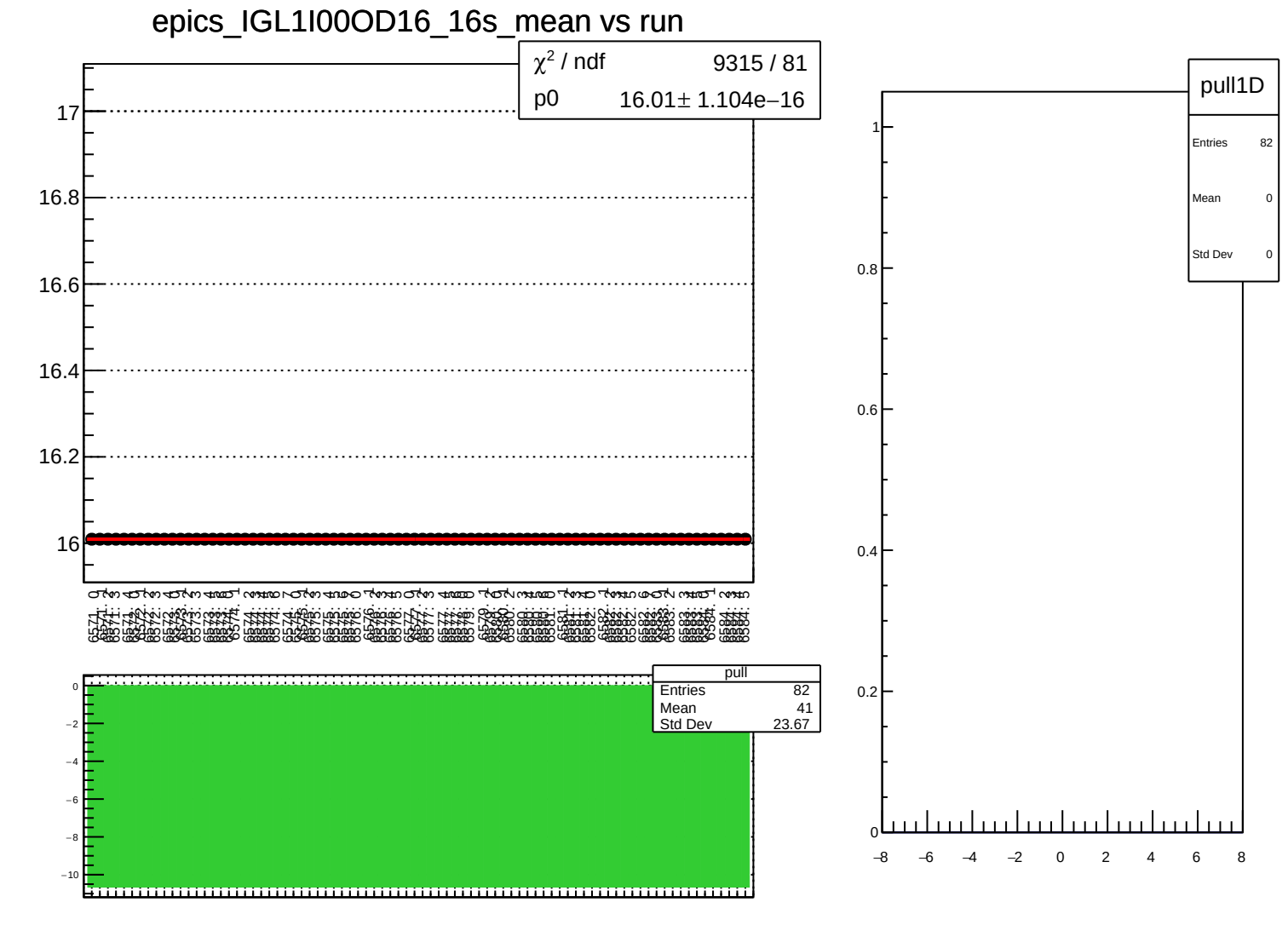

epics_HWienAngles_mean vs run
χ² / ndf 3.353e+05 / 81
p0 −29.64 ± 1.104e−16
−28.6
−28.8
−29
−29.2
−29.4
−29.6
pull
Entries 82
Mean 41
Std Dev 23.67
0
−10
−20
−30
−40
−50
−60
pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

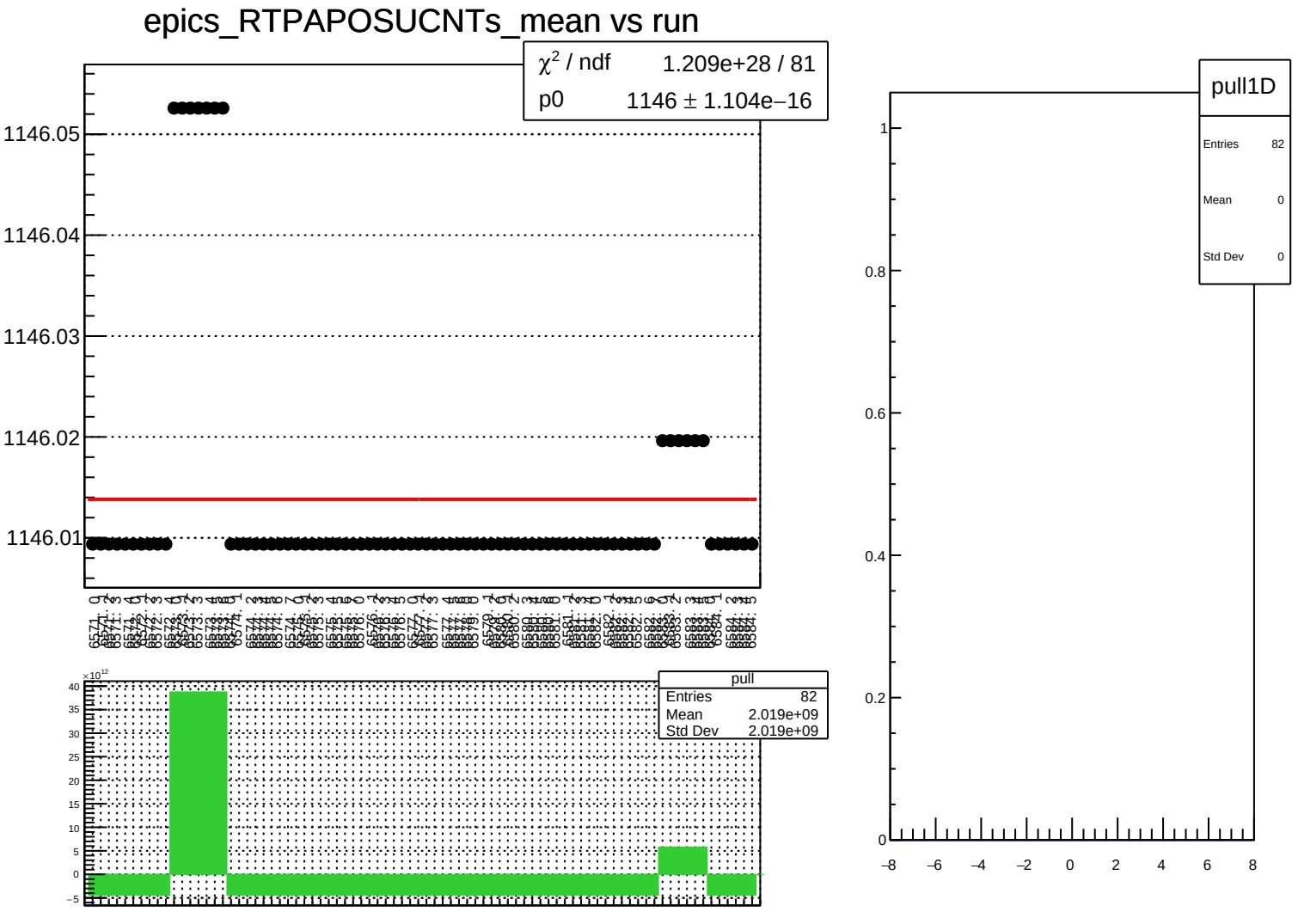

epics_psub_pl_poss_mean vs run
χ² / ndf 0 / 81
p0 1468 ± 1.104e−16
1469
1468.8
1468.6
1468.4
1468.2
1468
pull
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
pull1D
Entries 82
Mean 0
Std Dev 0
80
70
60
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

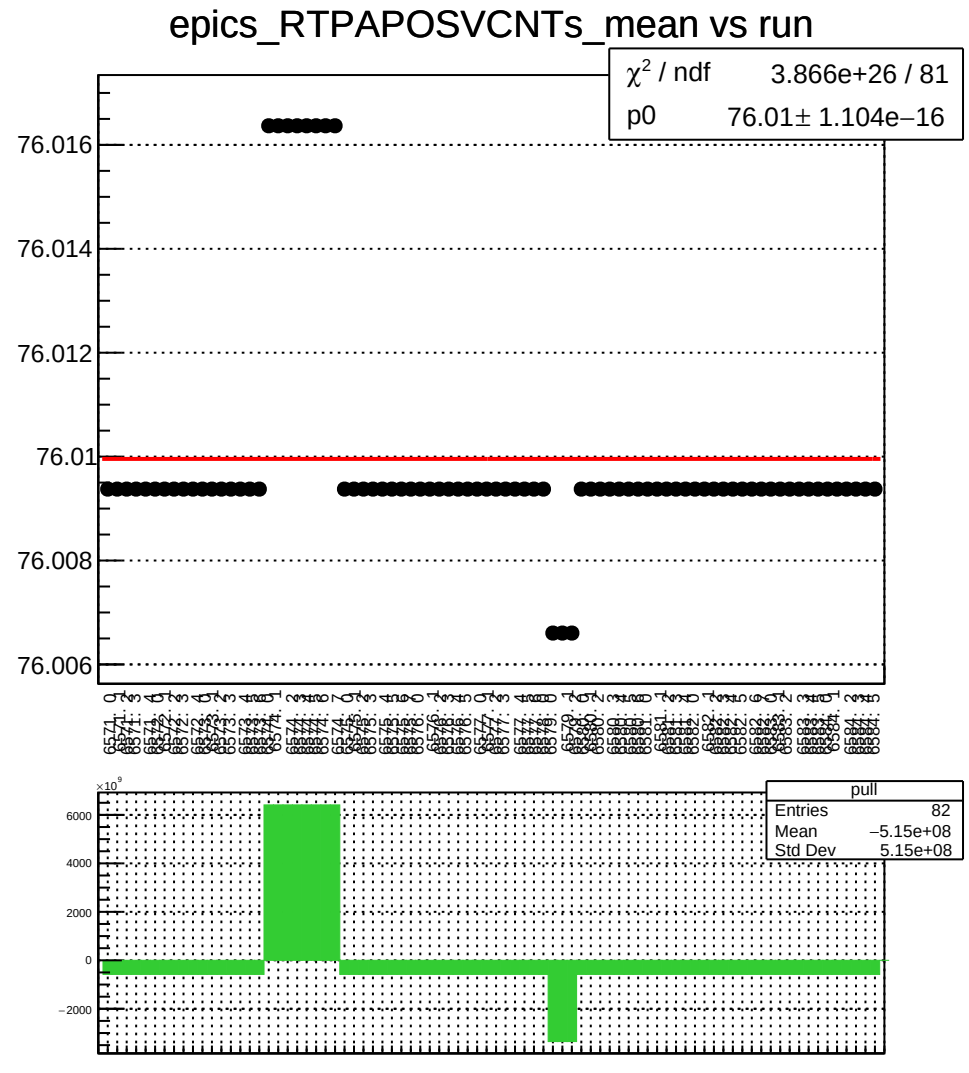

epics_Phi_FGs_mean vs run
χ² / ndf 1.06e+06 / 81
p0 88.02 ± 1.104e−16
89
88.8
88.6
88.4
88.2
88
pull
Entries 82
Mean 41
Std Dev 23.67
100
80
60
40
20
0
pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

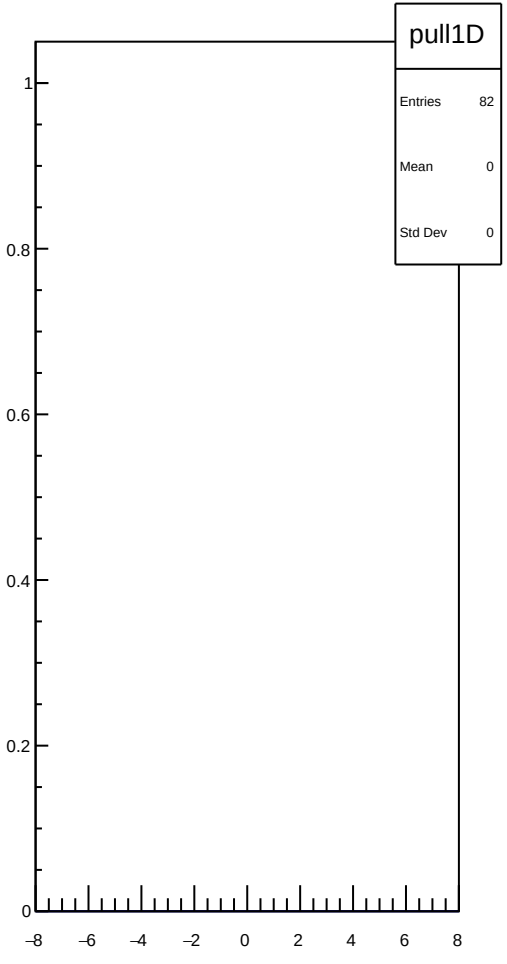

epics_IGL1I00DI24_24Ms_mean vs run
χ² / ndf 1.745e+25 / 74
p0 17.01± 1.155e−16
17.0094
17.0092
17.009
17.0088
17.0086
17.0084
17.0082
17.008
17.0078
pull
Entries 75
Mean 1.793e+09
Std Dev 1.793e+09
×10⁹
200
0
−200
−400
−600
−800
−1000
−1200
−1400


pull1D
Entries 75
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_IGL1I00OD16_16s_mean vs run
χ² / ndf 9315 / 81
p0 16.01± 1.104e−16
17
16.8
16.6
16.4
16.2
16
pull
Entries 82
Mean 41
Std Dev 23.67
0
−2
−4
−6
−8
−10
pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


epics_RTPAPOSUCNTs_mean vs run
χ² / ndf 1.209e+28 / 81
p0 1146 ± 1.104e−16
1146.05
1146.04
1146.03
1146.02
1146.01
pull
Entries 82
Mean 2.019e+09
Std Dev 2.019e+09
pull1D
Entries 82
Mean 0
Std Dev 0


epics_RTPAPOSVCNTs_mean vs run
χ² / ndf 3.866e+26 / 81
p0 76.01± 1.104e−16
76.016
76.014
76.012
76.01
76.008
76.006
pull
Entries 82
Mean −5.15e+08
Std Dev 5.15e+08
×10⁹
6000
4000
2000
0
−2000


pull1D
Entries 82
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8