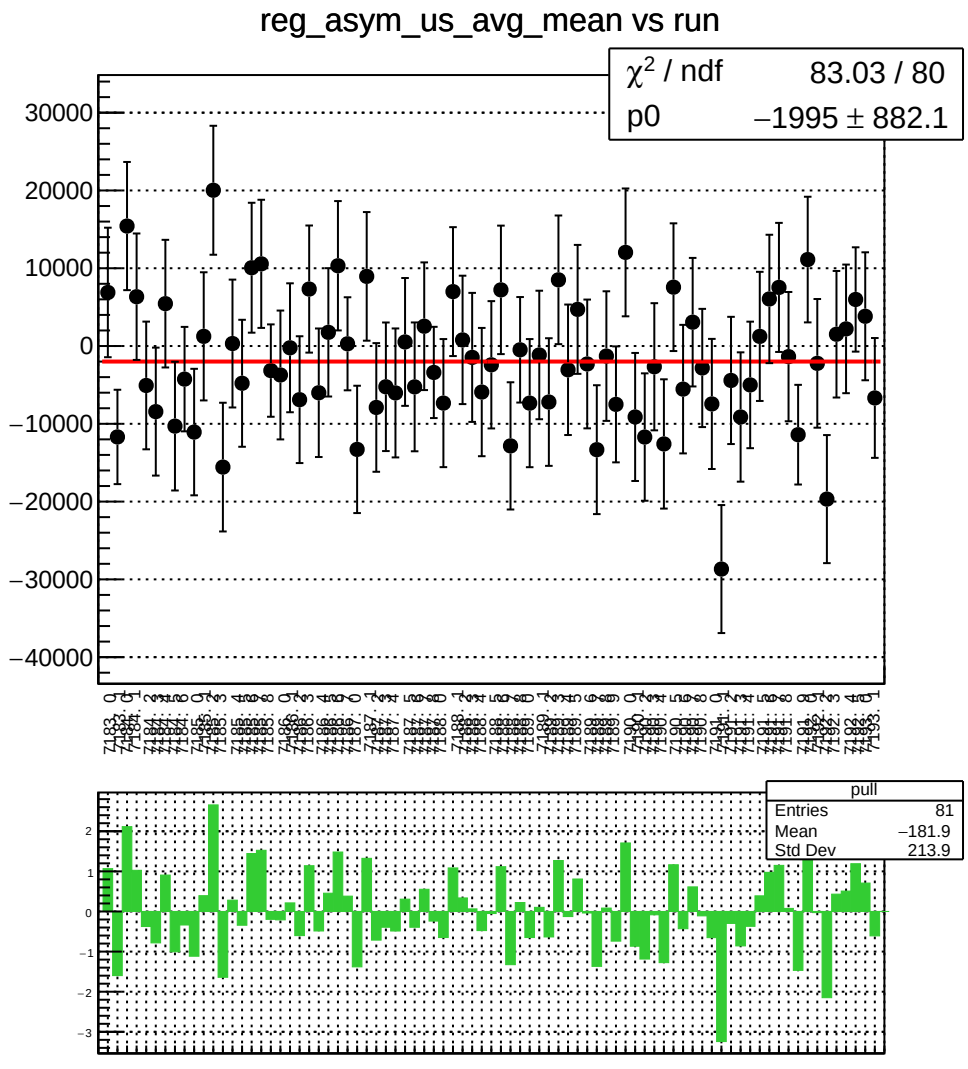
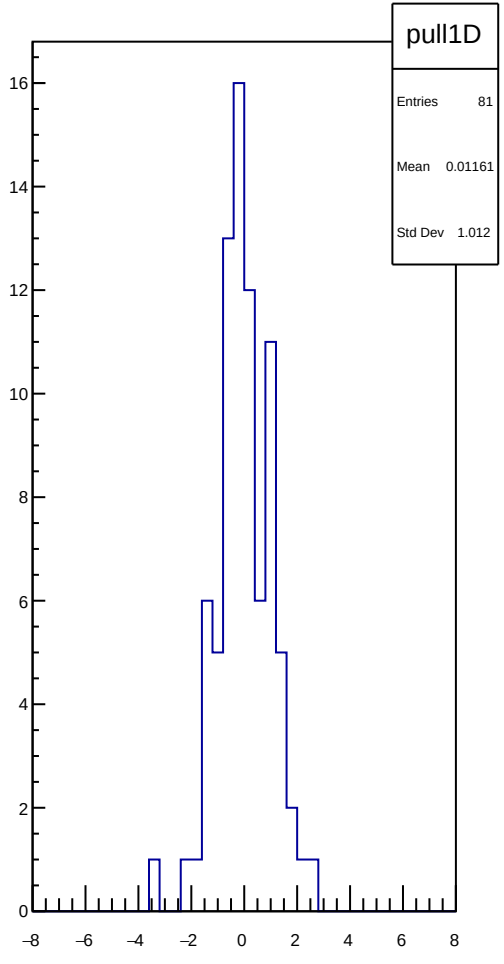
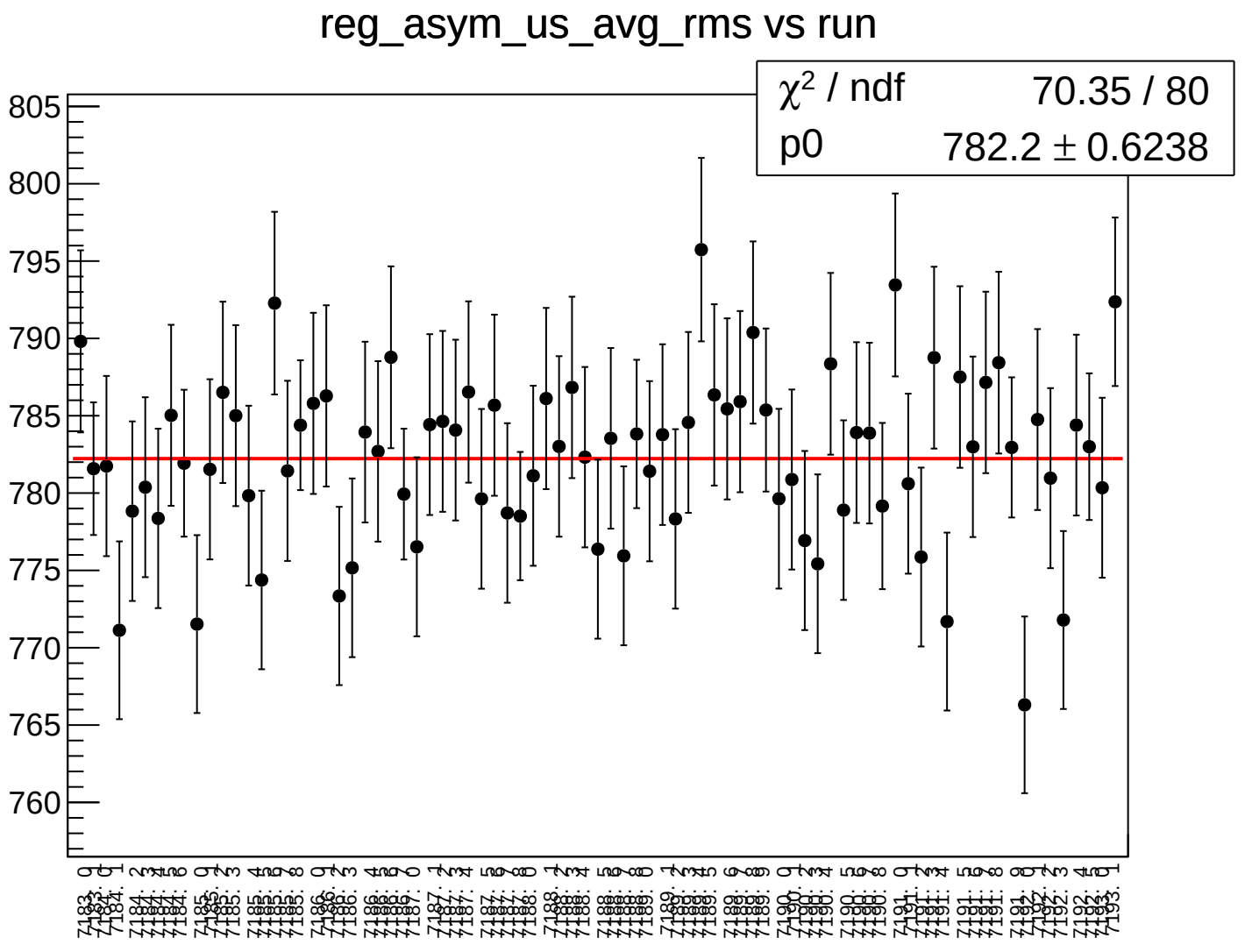
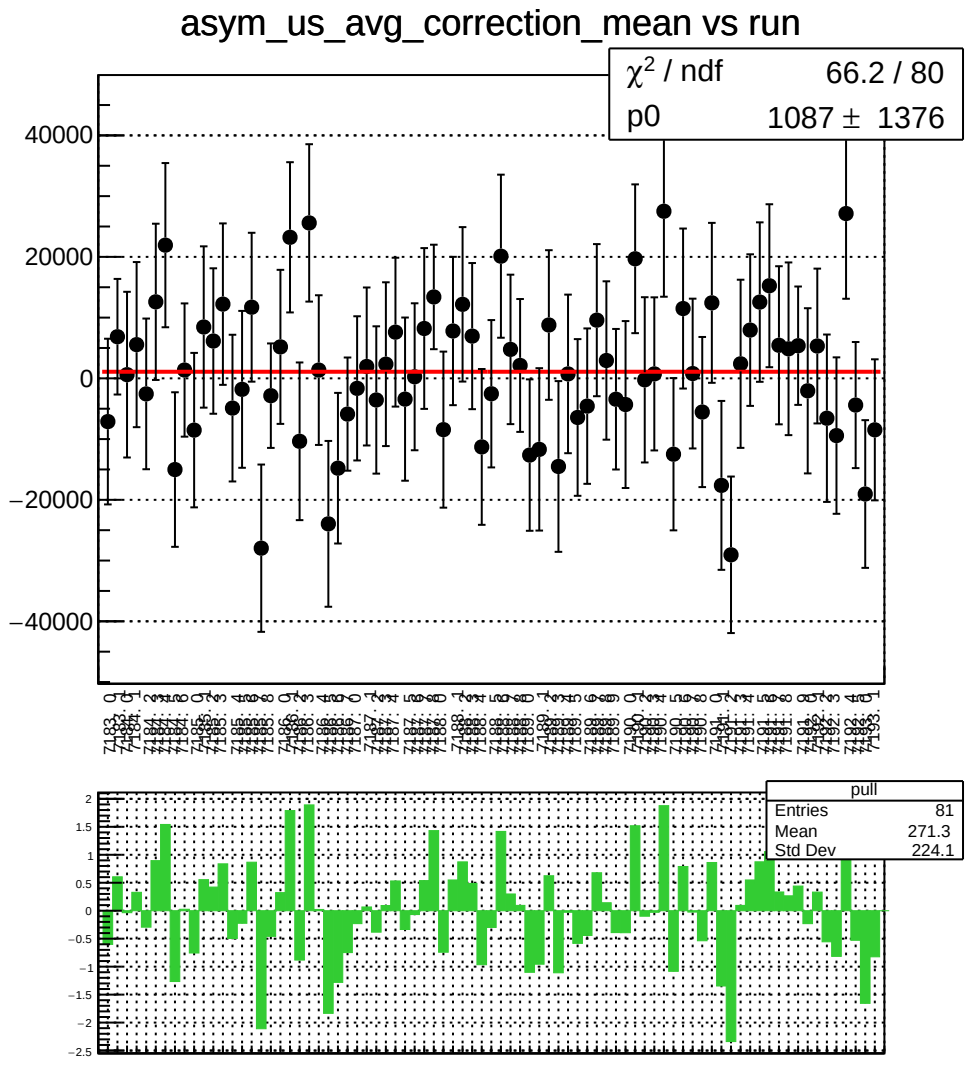
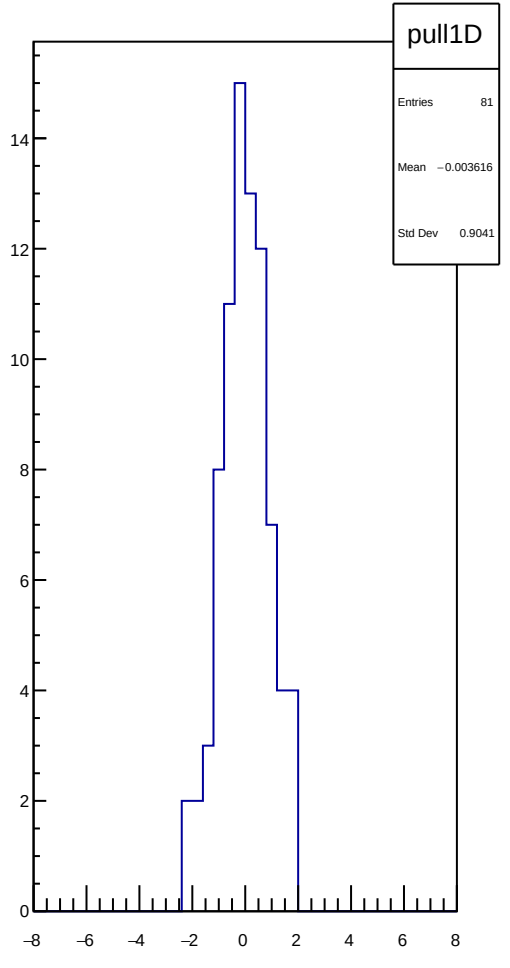
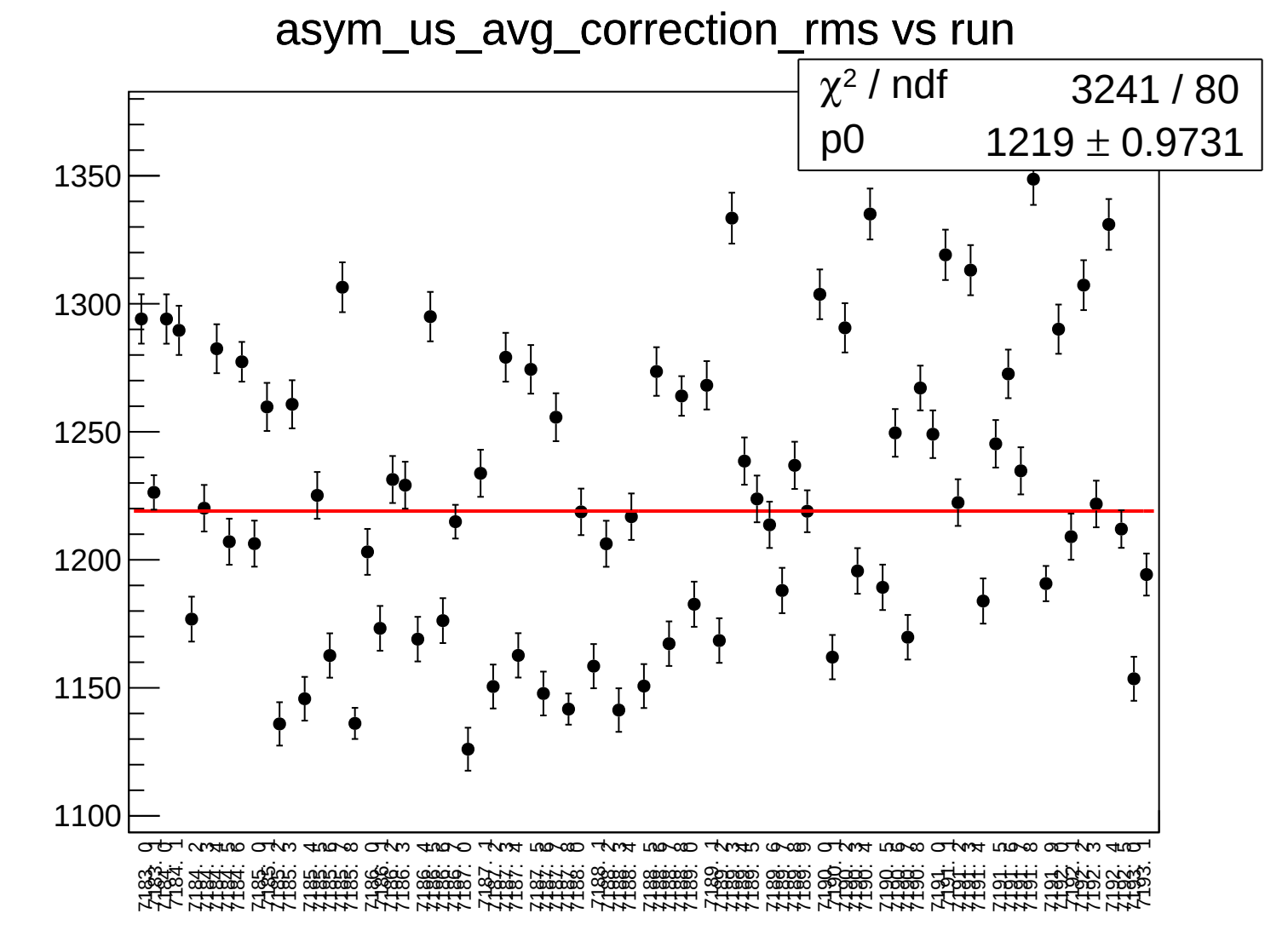

reg_asym_us_avg_mean vs run
χ² / ndf 83.03 / 80
p0 −1995 ± 882.1
30000
20000
10000
0
−10000
−20000
−30000
−40000
pull
Entries 81
Mean −181.9
Std Dev 213.9
2
1
0
−1
−2
−3

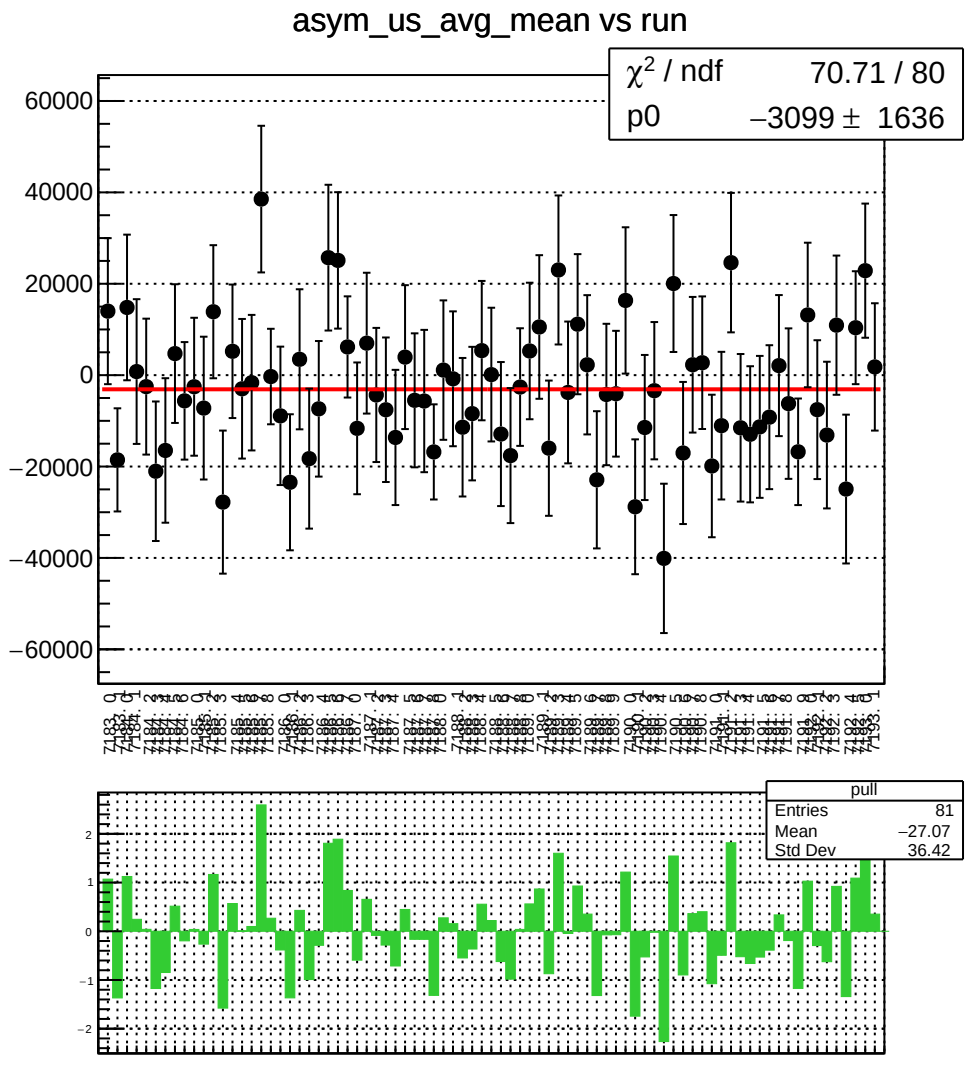

pull1D
Entries 81
Mean 0.01161
Std Dev 1.012
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

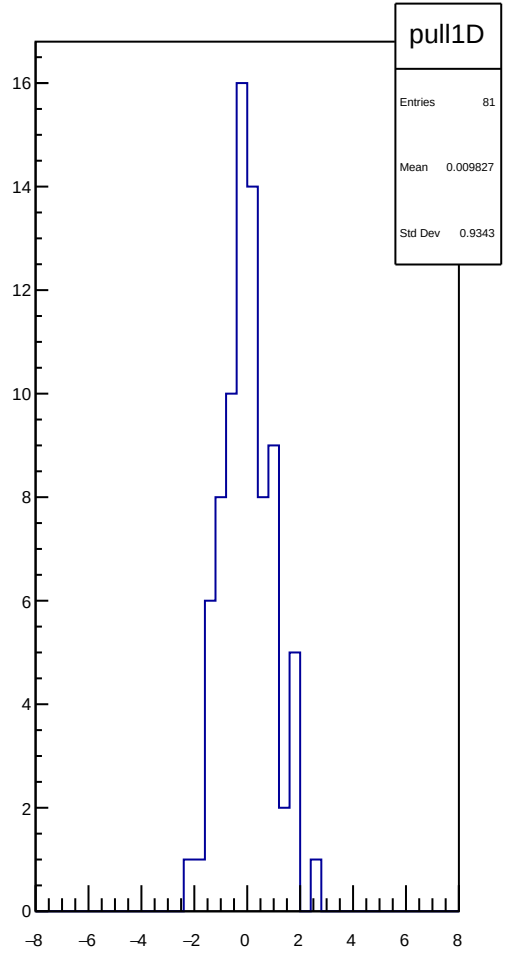

reg_asym_us_avg_rms vs run
χ^2 / ndf 70.35 / 80
p0 782.2 ± 0.6238
805
800
795
790
785
780
775
770
765
760

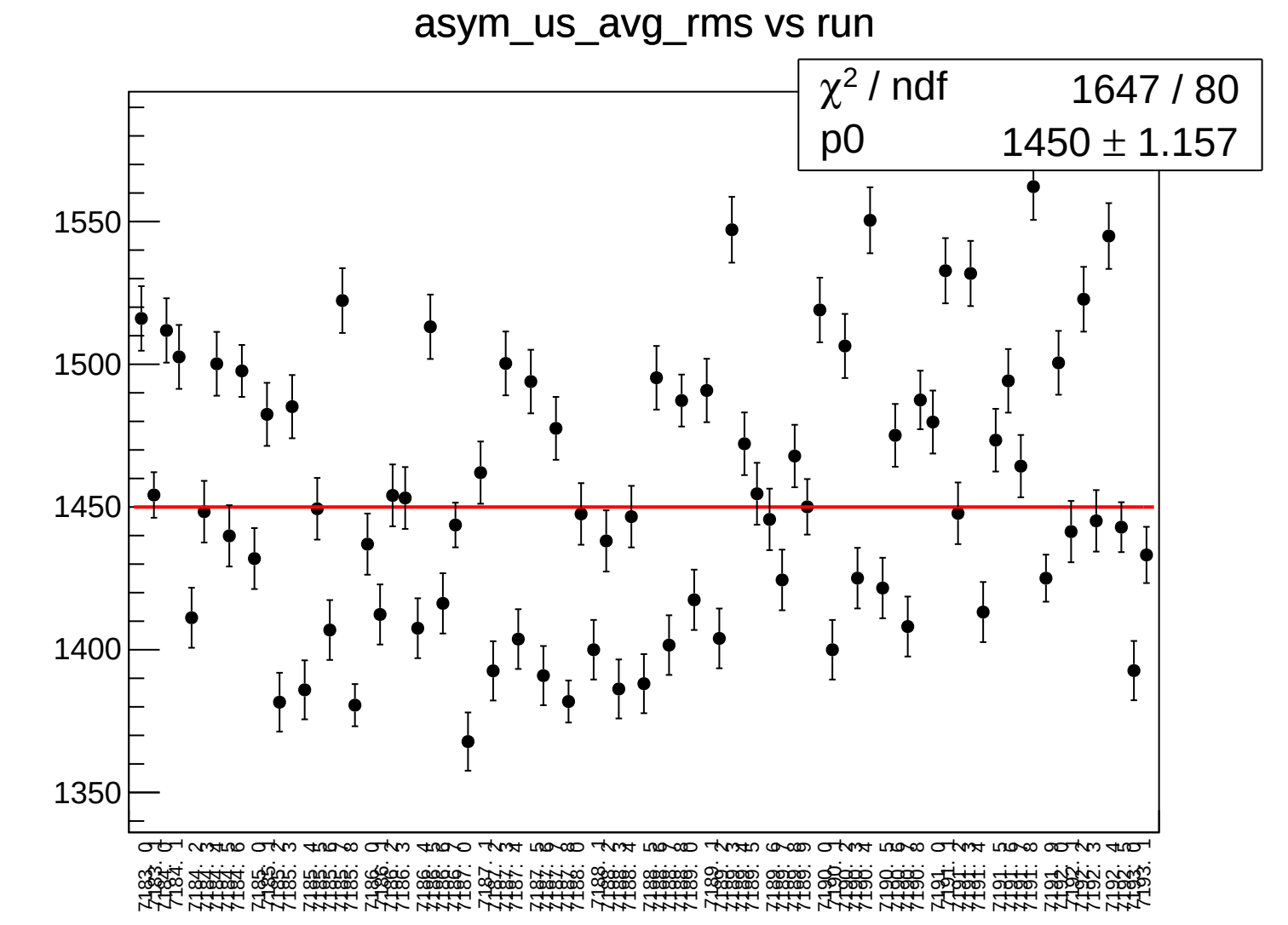

asym_us_avg_correction_mean vs run
χ² / ndf 66.2 / 80
p0 1087 ± 1376
40000
20000
0
−20000
−40000
pull
Entries 81
Mean 271.3
Std Dev 224.1
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

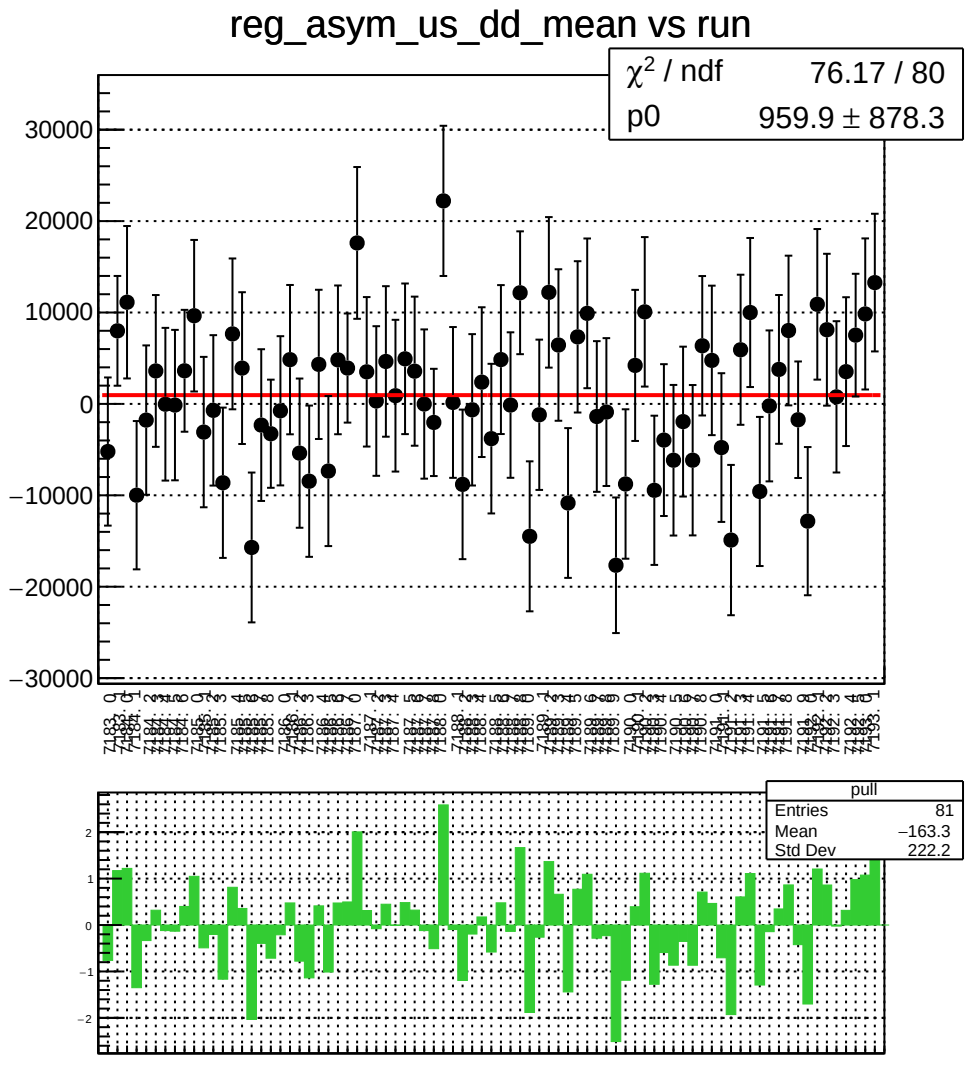

pull1D
Entries 81
Mean −0.003616
Std Dev 0.9041
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

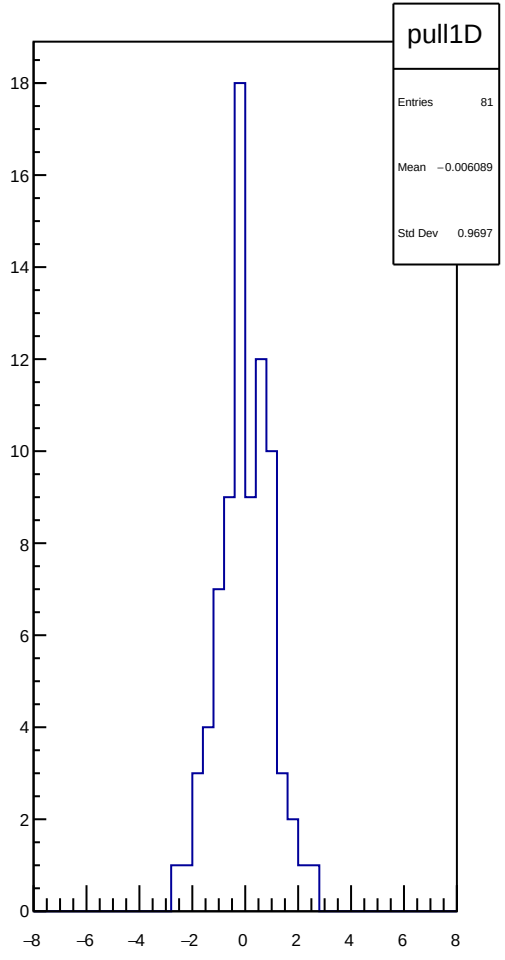

asym_us_avg_correction_rms vs run
χ² / ndf 3241 / 80
p0 1219 ± 0.9731
1350
1300
1250
1200
1150
1100

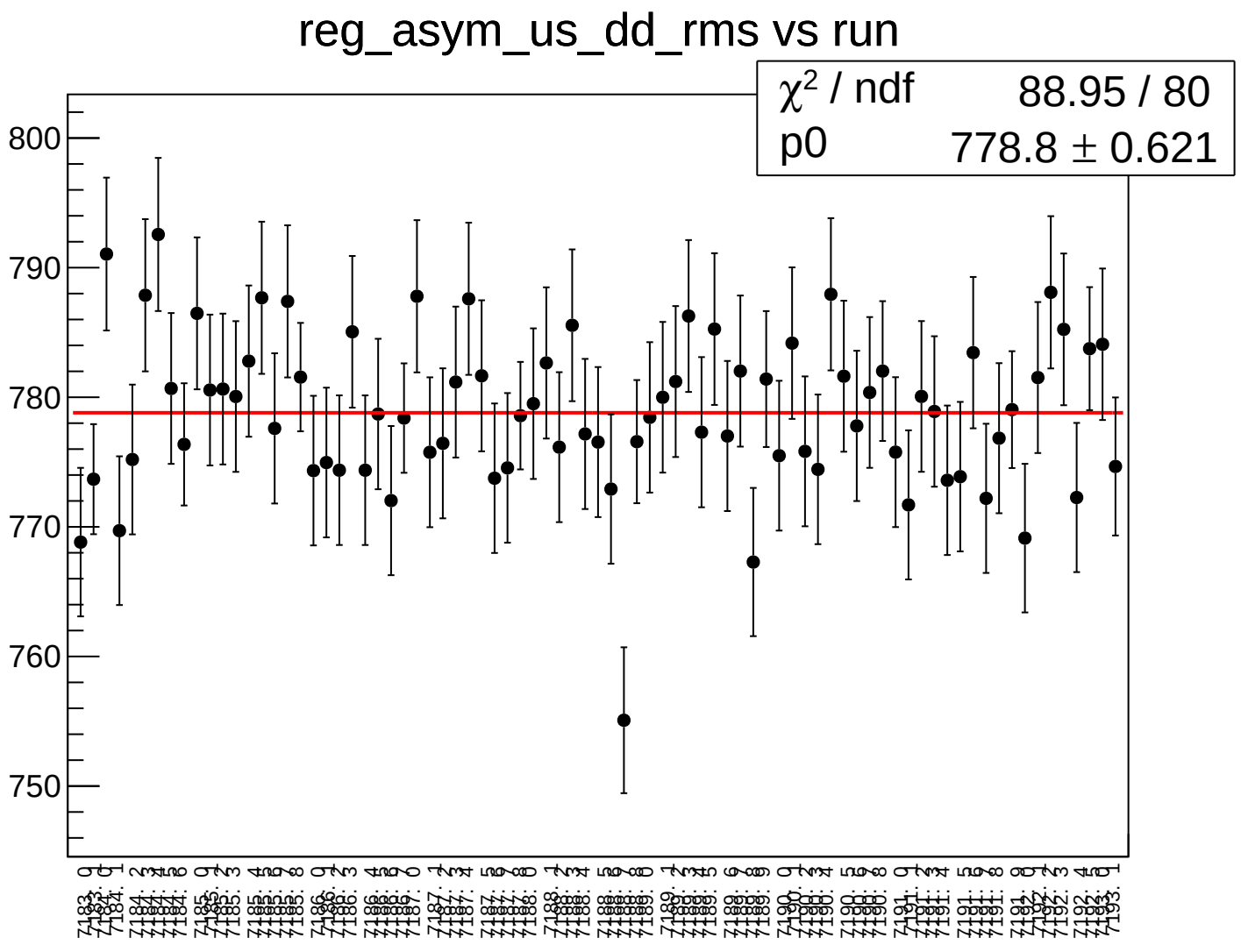

asym_us_avg_mean vs run
χ² / ndf 70.71 / 80
p0 −3099 ± 1636
60000
40000
20000
0
−20000
−40000
−60000
pull
Entries 81
Mean −27.07
Std Dev 36.42
2
1
0
−1
−2

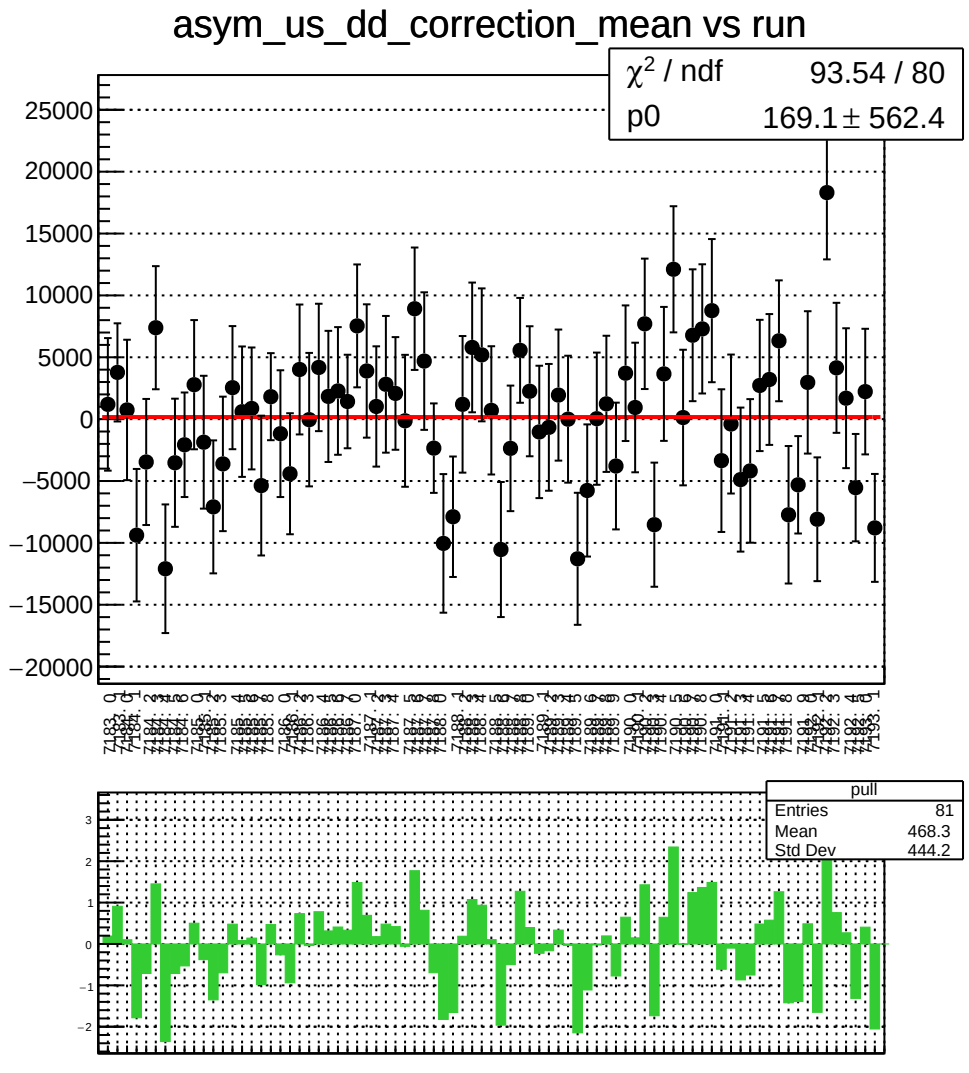

pull1D
Entries 81
Mean 0.009827
Std Dev 0.9343
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

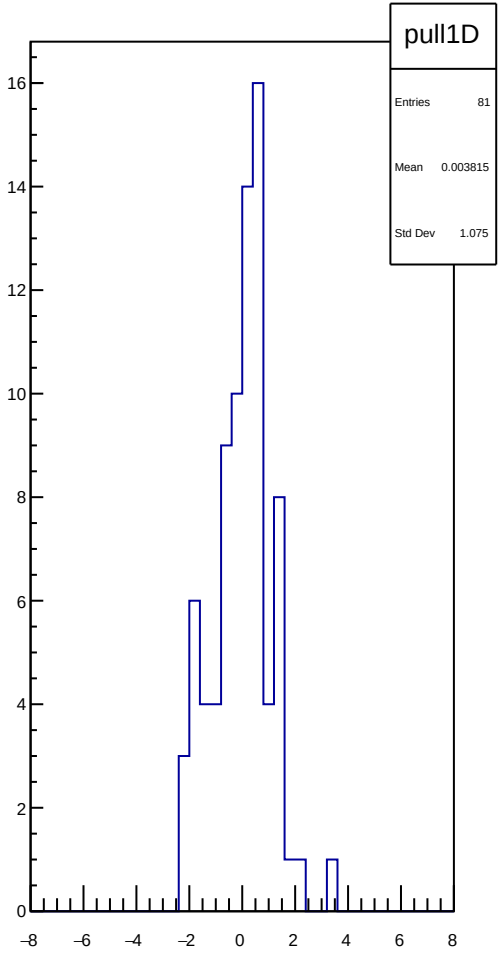

asym_us_avg_rms vs run
χ^2 / ndf 1647 / 80
p0 1450 ± 1.157
1550
1500
1450
1400
1350

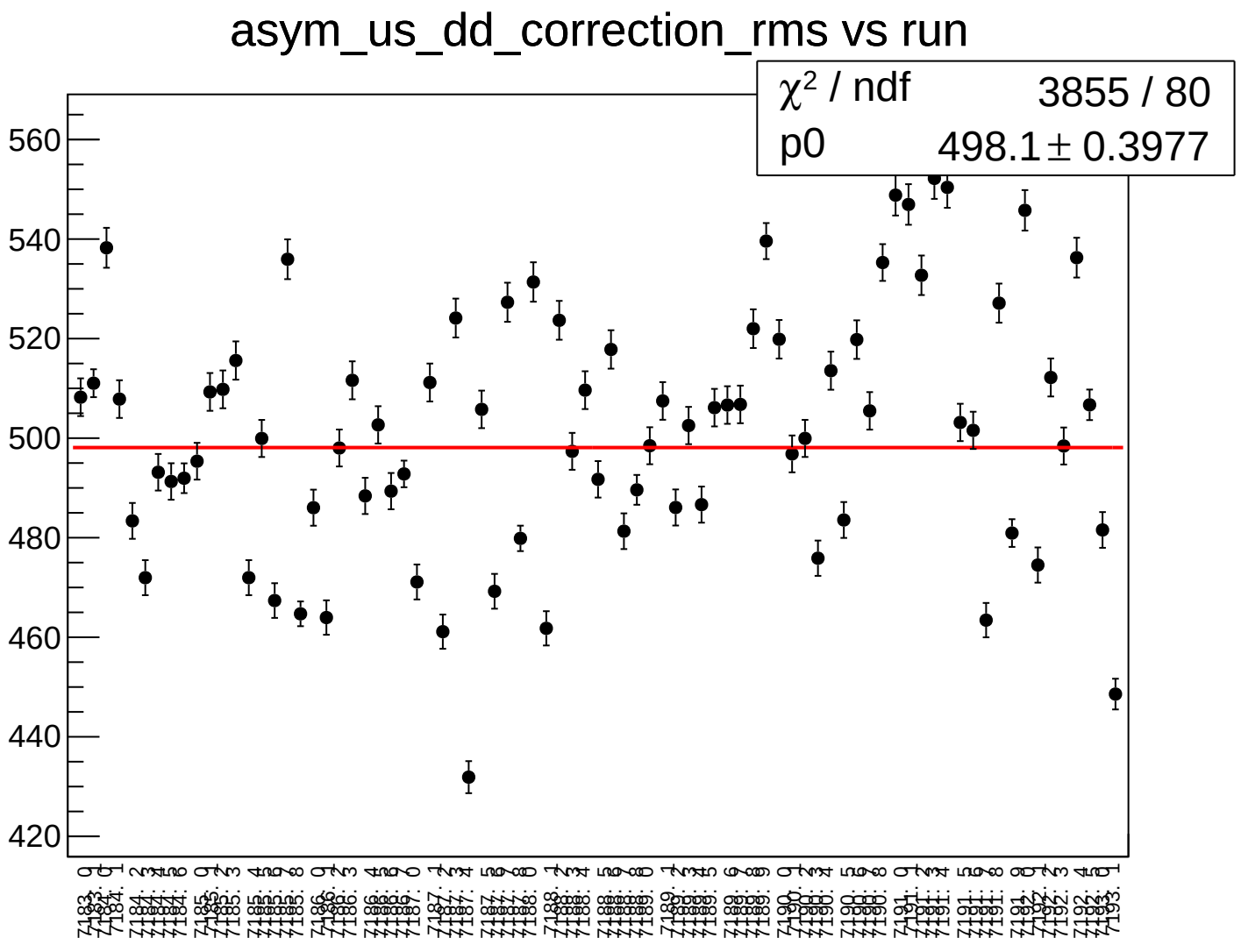

reg_asym_us_dd_mean vs run
χ^2 / ndf 76.17 / 80
p0 959.9 ± 878.3
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −163.3
Std Dev 222.2
2
1
0
−1
−2

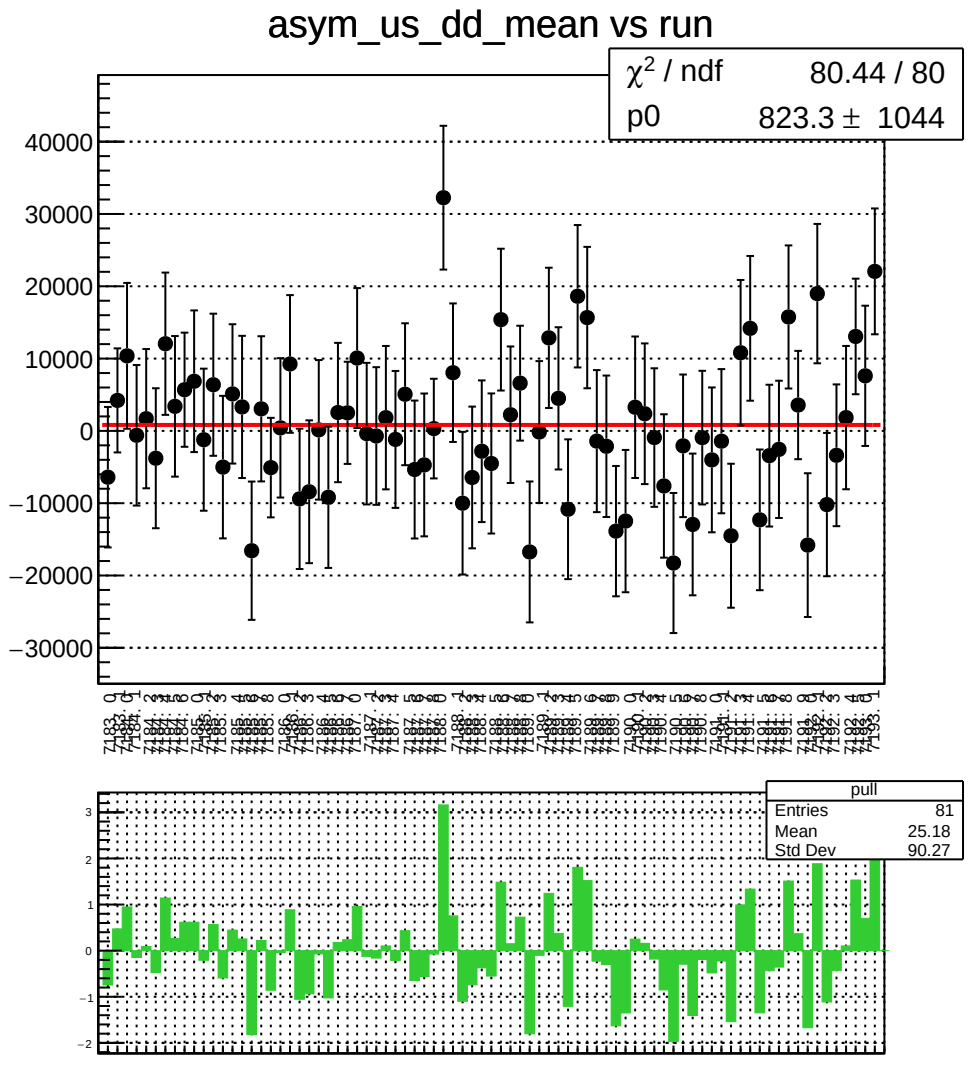

pull1D
Entries 81
Mean −0.006089
Std Dev 0.9697
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

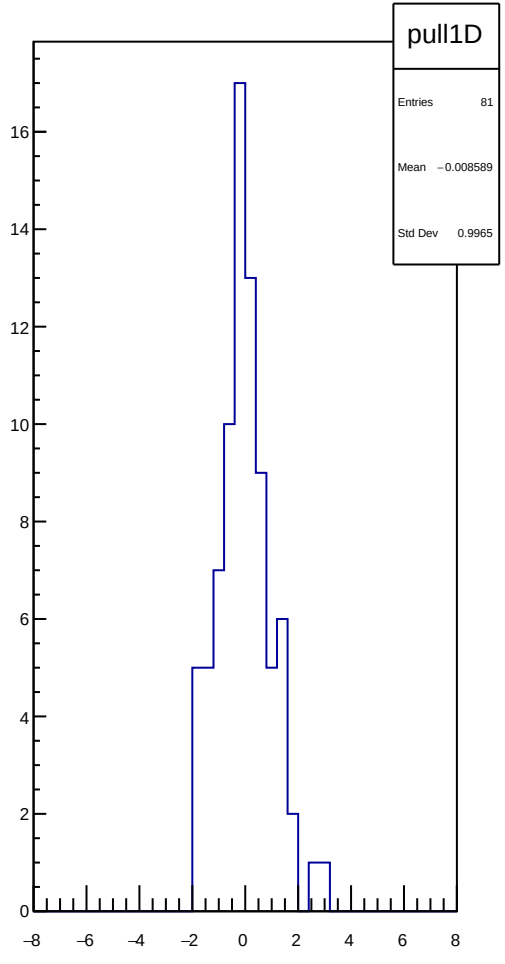

reg_asym_us_dd_rms vs run
χ² / ndf 88.95 / 80
p0 778.8 ± 0.621
800
790
780
770
760
750

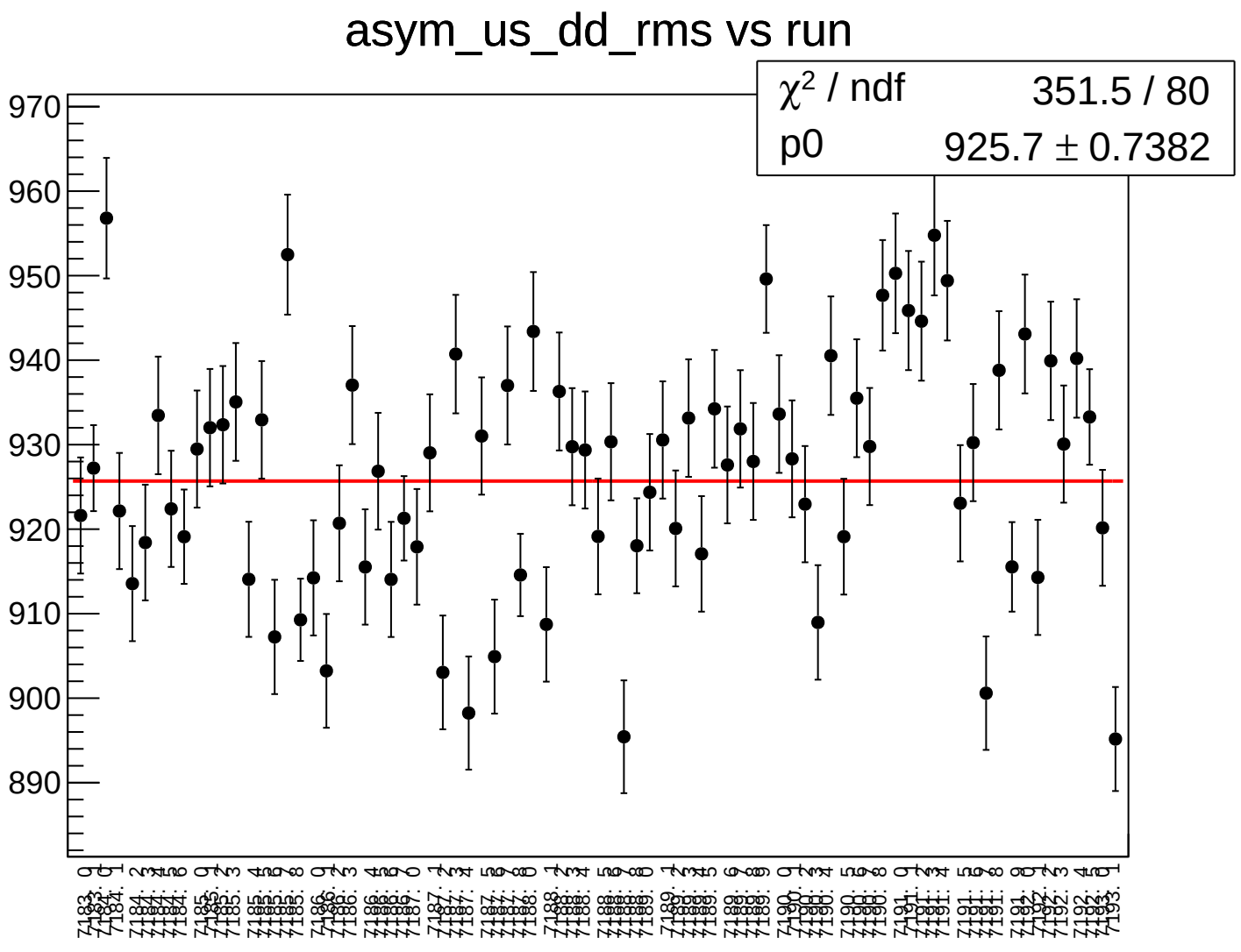

asym_us_dd_correction_mean vs run
χ² / ndf 93.54 / 80
p0 169.1 ± 562.4
pull
Entries 81
Mean 468.3
Std Dev 444.2

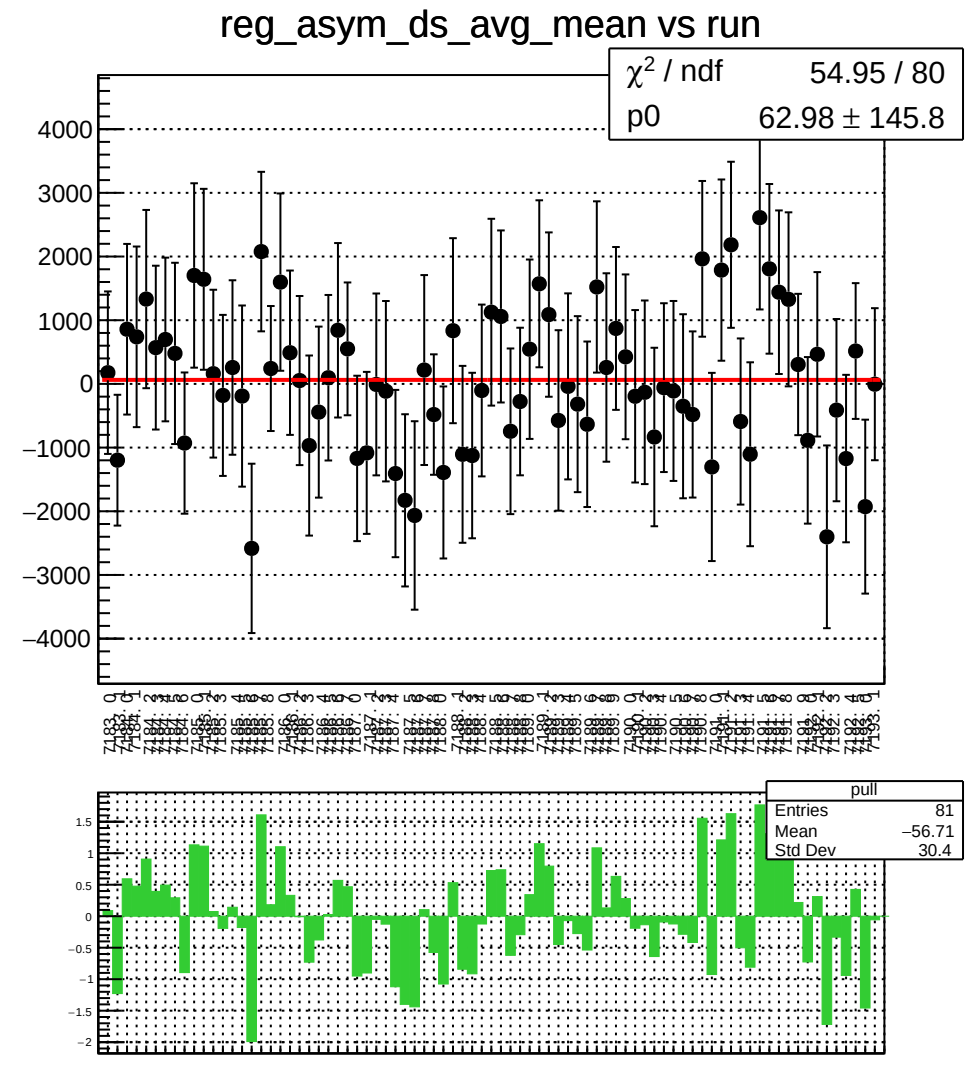

pull1D
Entries 81
Mean 0.003815
Std Dev 1.075

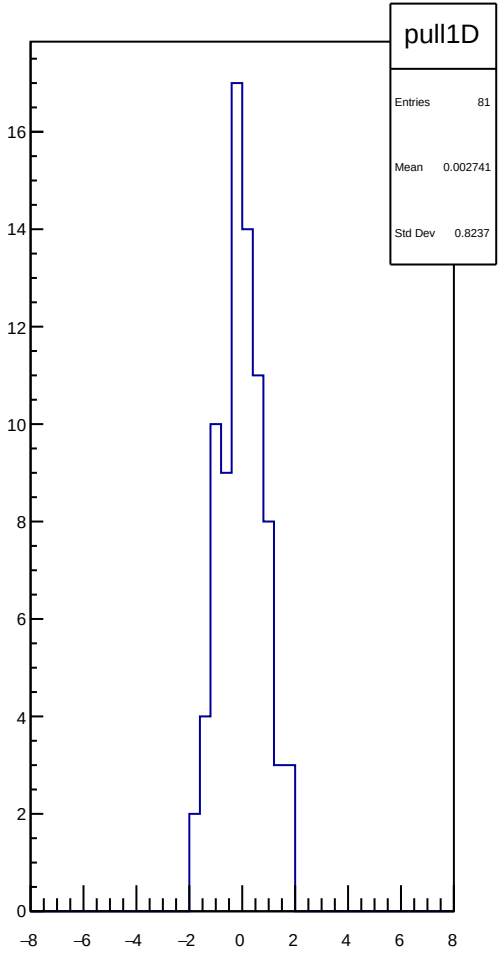

asym_us_dd_correction_rms vs run
χ² / ndf 3855 / 80
p0 498.1 ± 0.3977
560
540
520
500
480
460
440
420

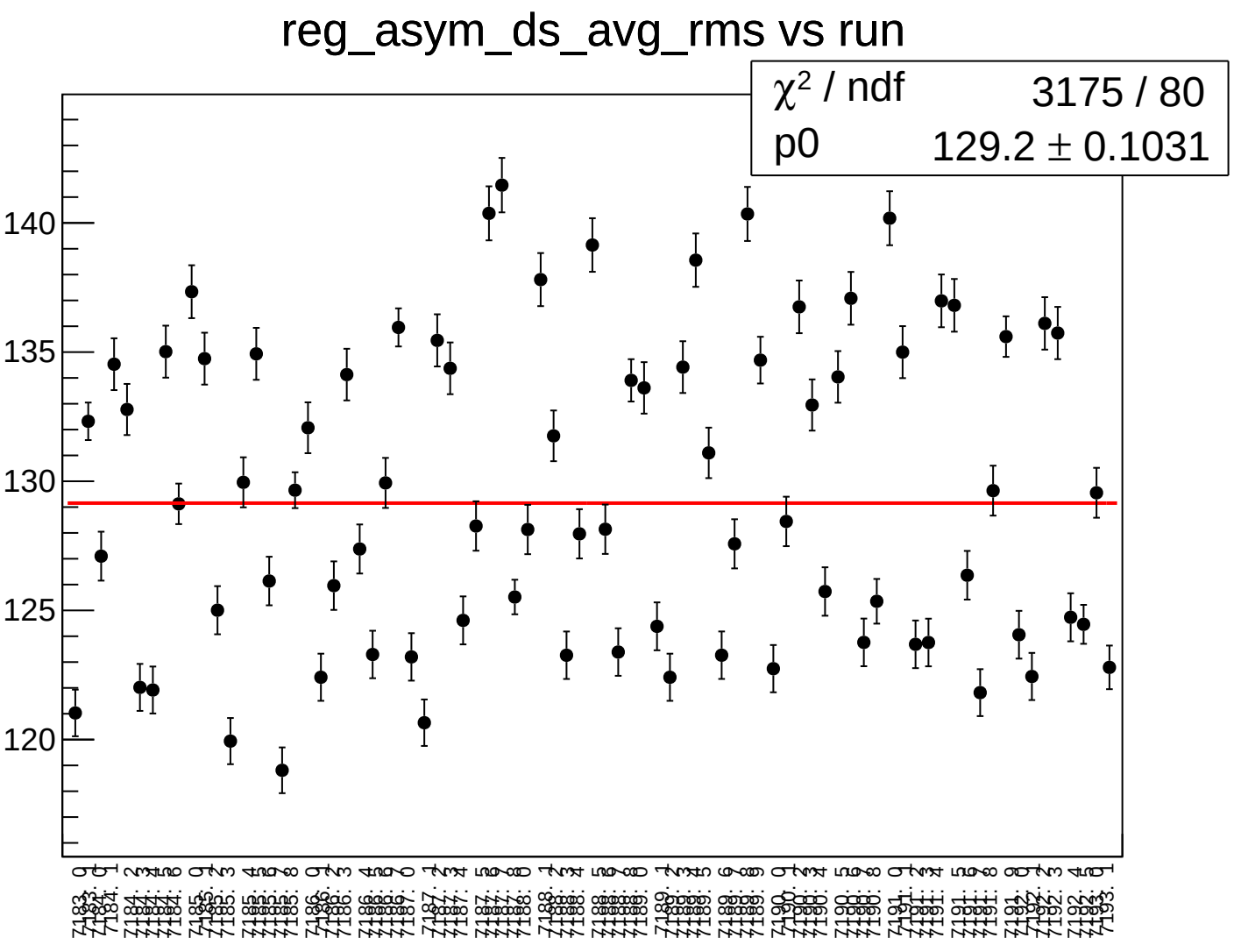

asym_us_dd_mean vs run
χ² / ndf 80.44 / 80
p0 823.3 ± 1044
pull
Entries 81
Mean 25.18
Std Dev 90.27

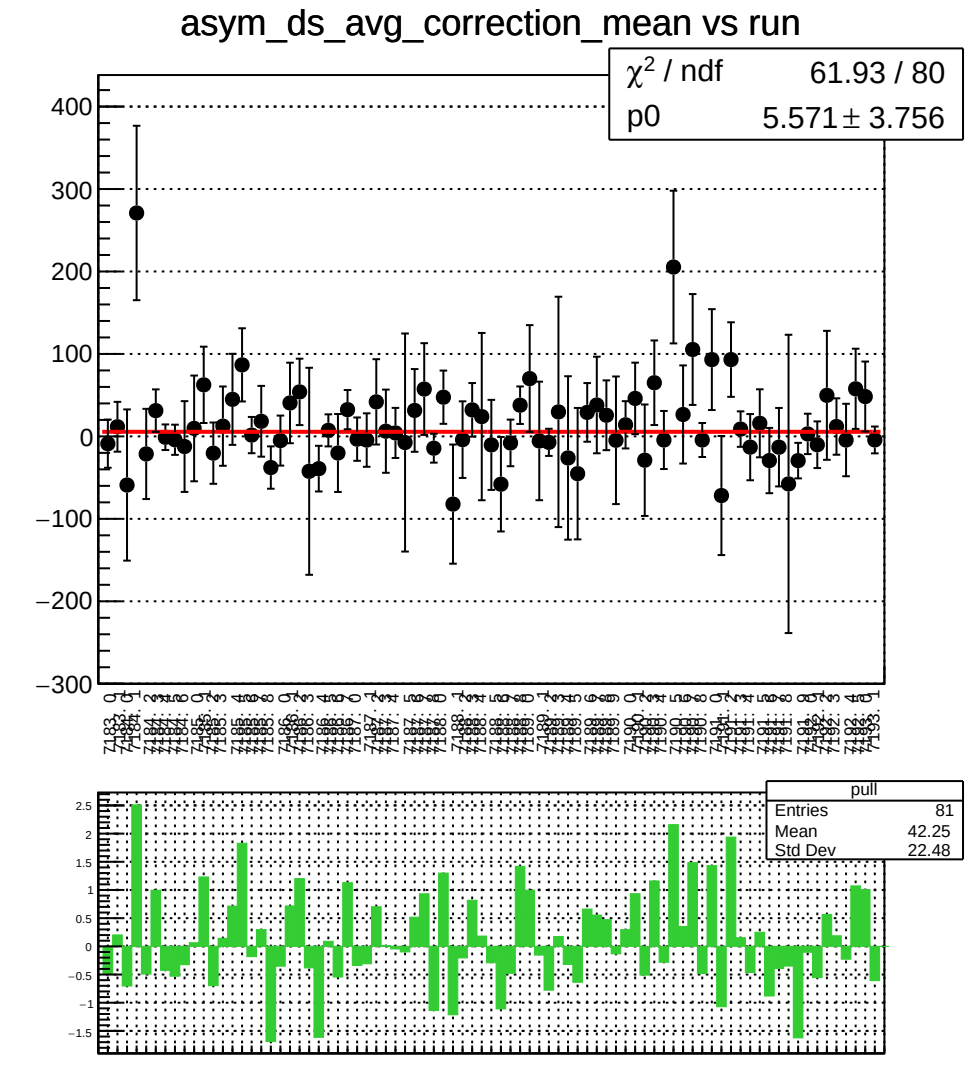

pull1D
Entries 81
Mean −0.008589
Std Dev 0.9965

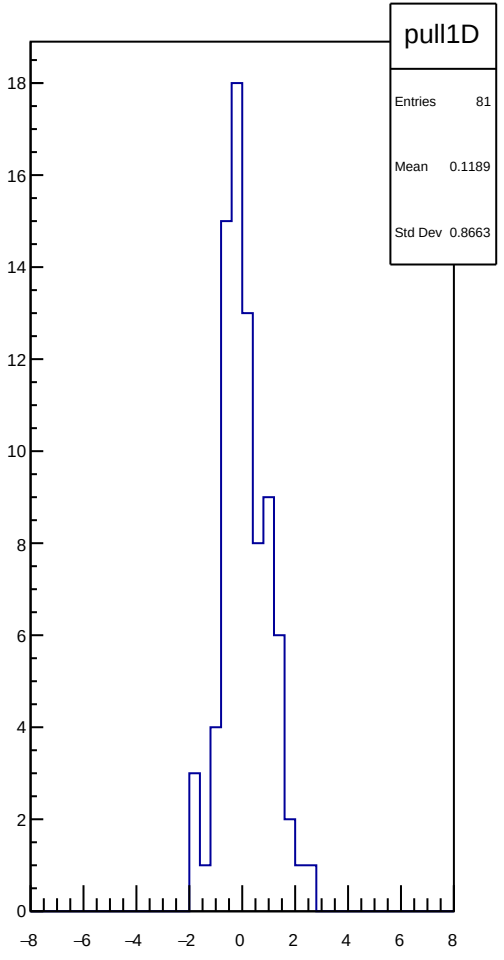

asym_us_dd_rms vs run
χ^2 / ndf 351.5 / 80
p0 925.7 ± 0.7382
970
960
950
940
930
920
910
900
890


reg_asym_ds_avg_mean vs run
χ² / ndf 54.95 / 80
p0 62.98 ± 145.8
pull
Entries 81
Mean −56.71
Std Dev 30.4

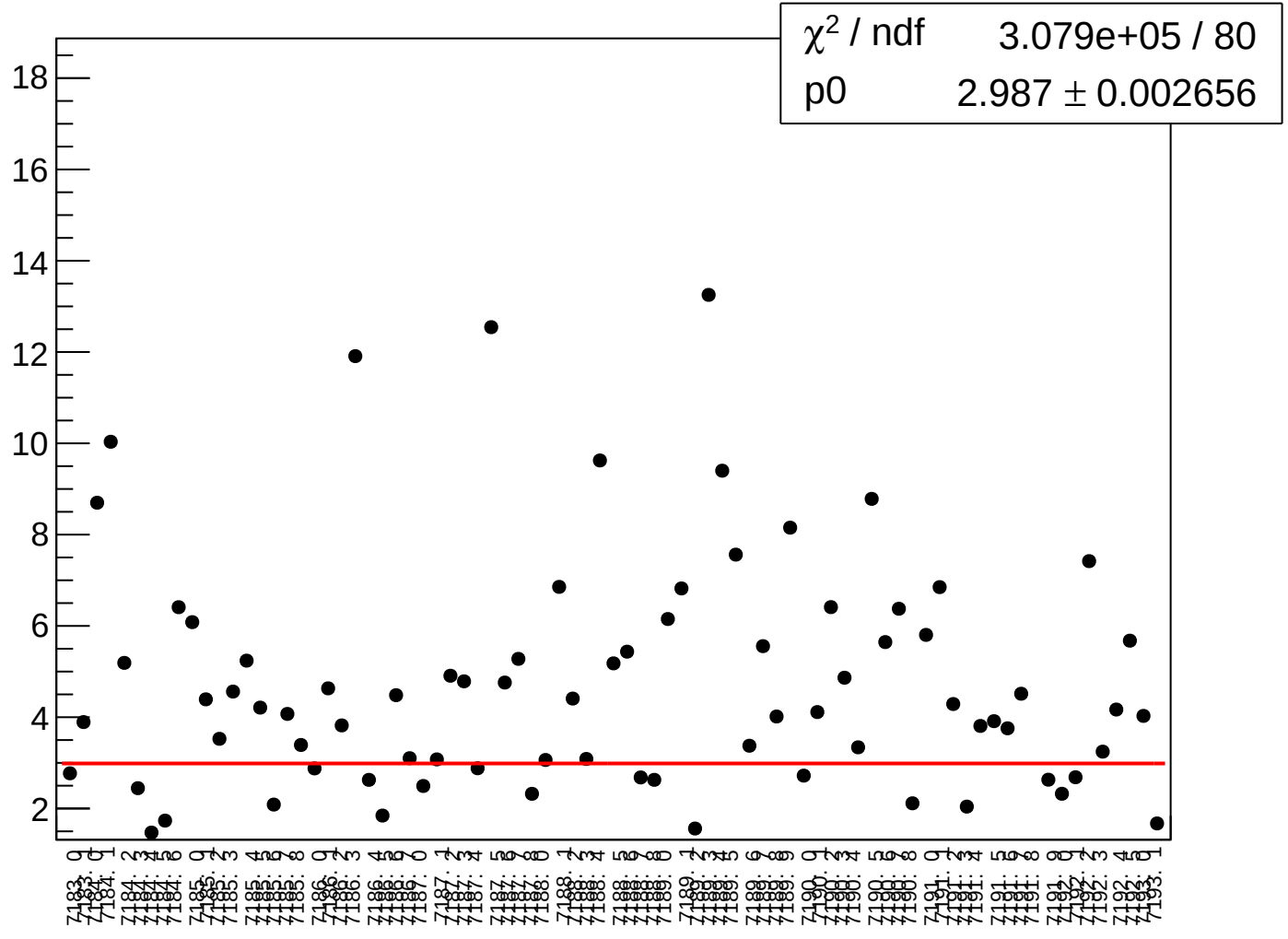

pull1D
Entries 81
Mean 0.002741
Std Dev 0.8237

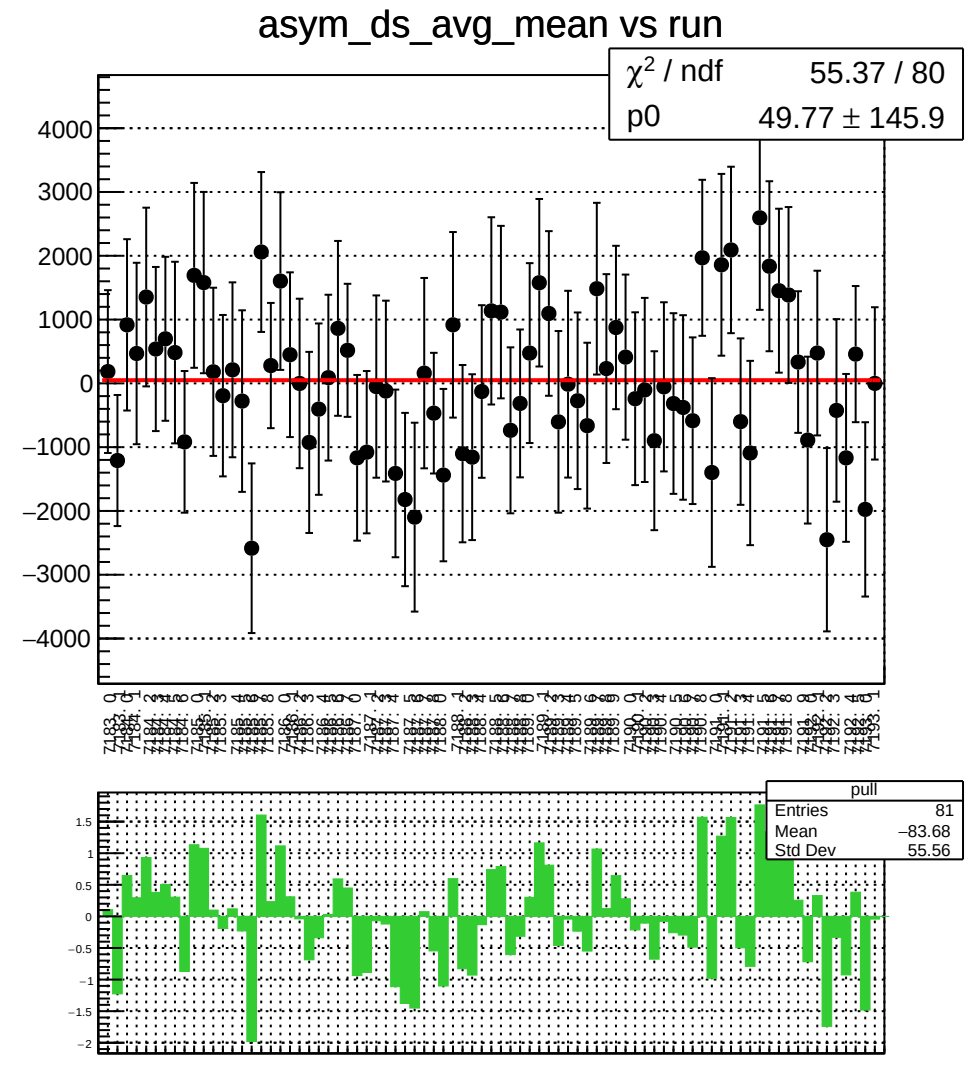

reg_asym_ds_avg_rms vs run
χ² / ndf 3175 / 80
p0 129.2 ± 0.1031
140
135
130
125
120

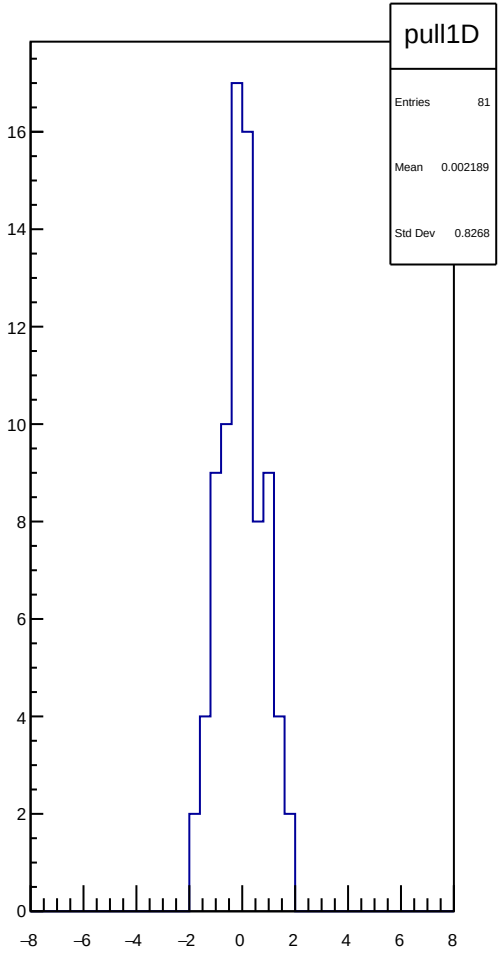

asym_ds_avg_correction_mean vs run
χ² / ndf 61.93 / 80
p0 5.571 ± 3.756
pull
Entries 81
Mean 42.25
Std Dev 22.48

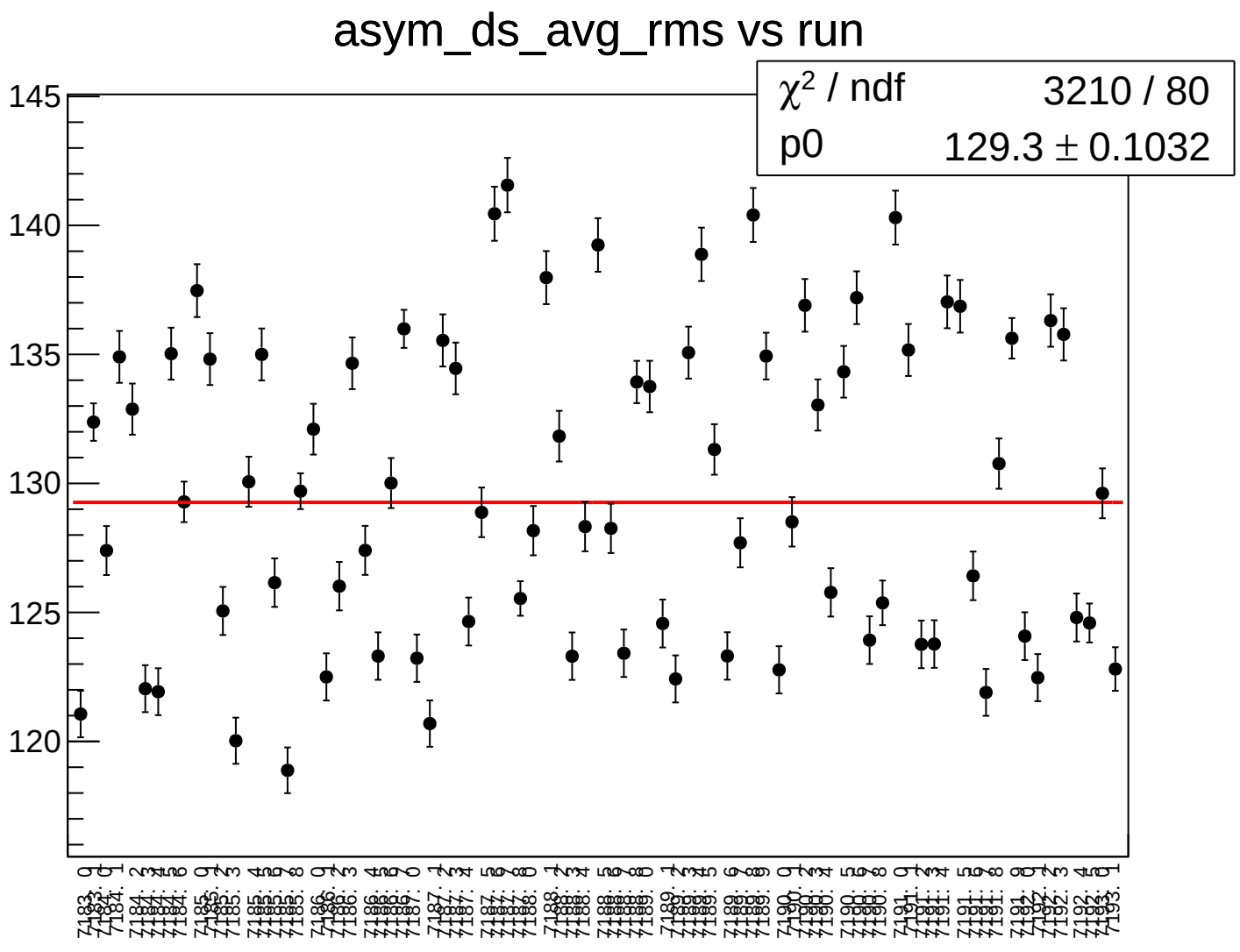

pull1D
Entries 81
Mean 0.1189
Std Dev 0.8663

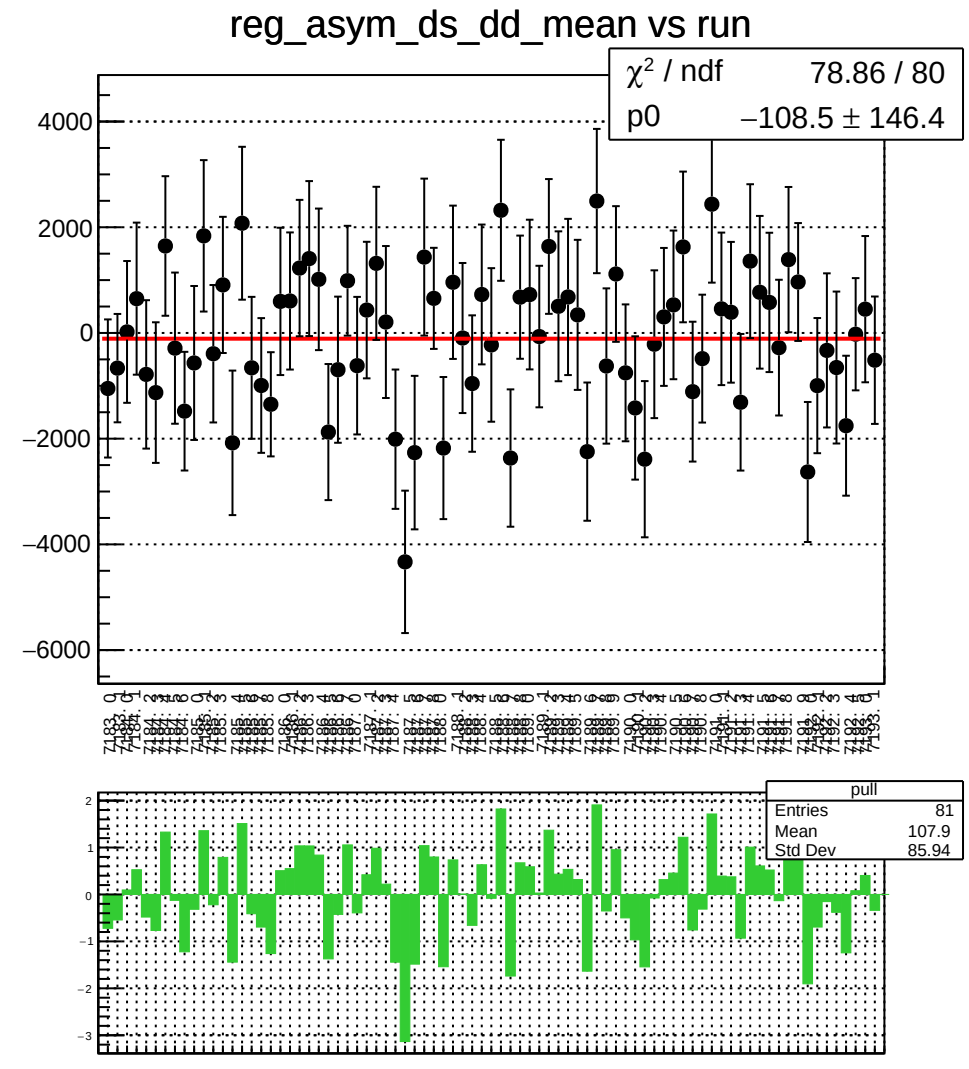
asym_ds_avg_correction_rms vs run

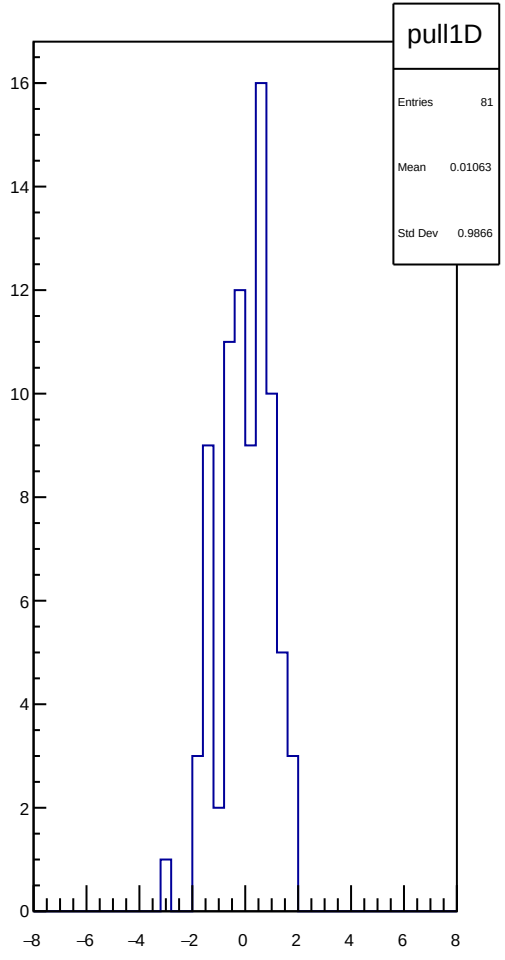


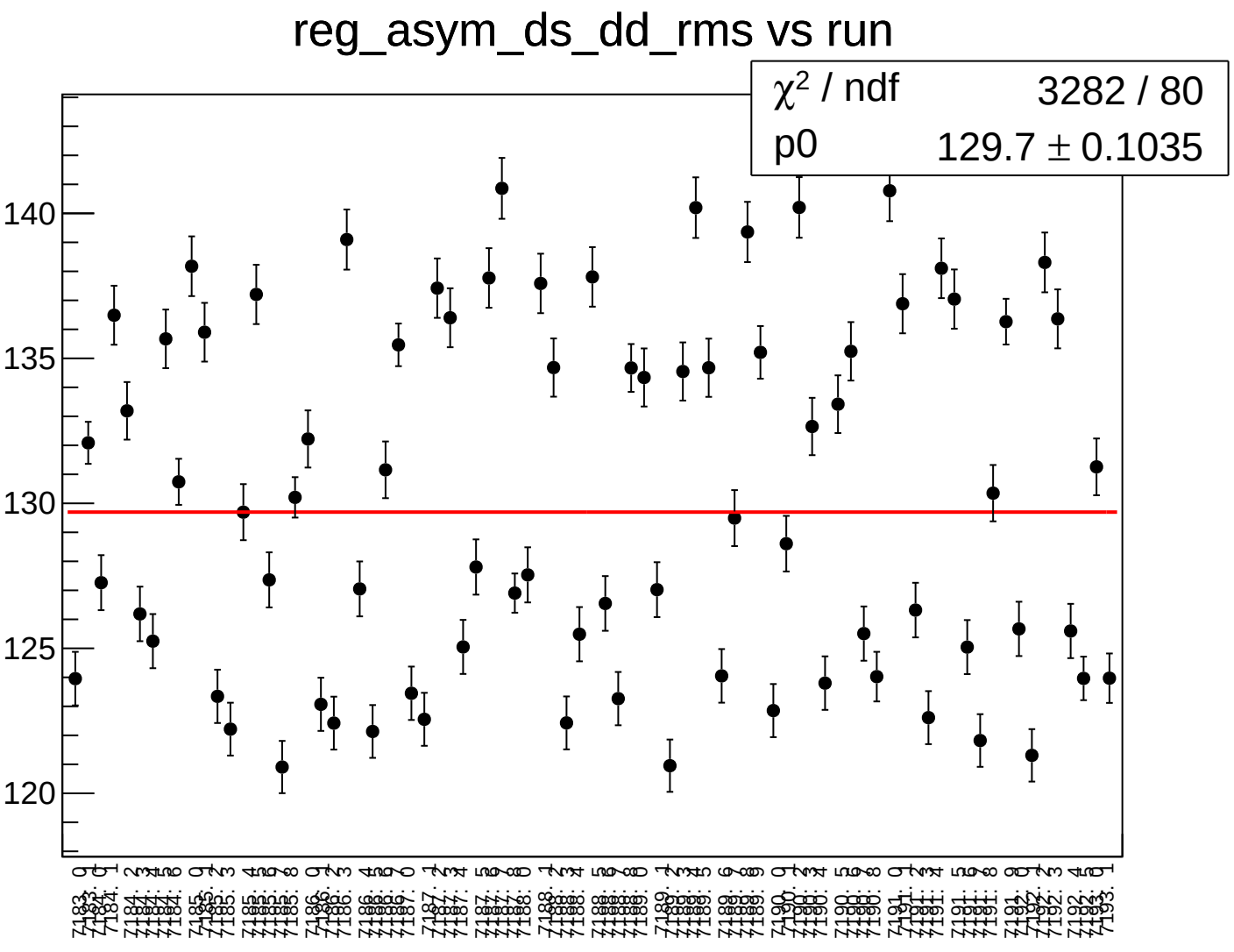

asym_ds_avg_mean vs run
χ^2 / ndf 55.37 / 80
p0 49.77 ± 145.9
pull
Entries 81
Mean −83.68
Std Dev 55.56

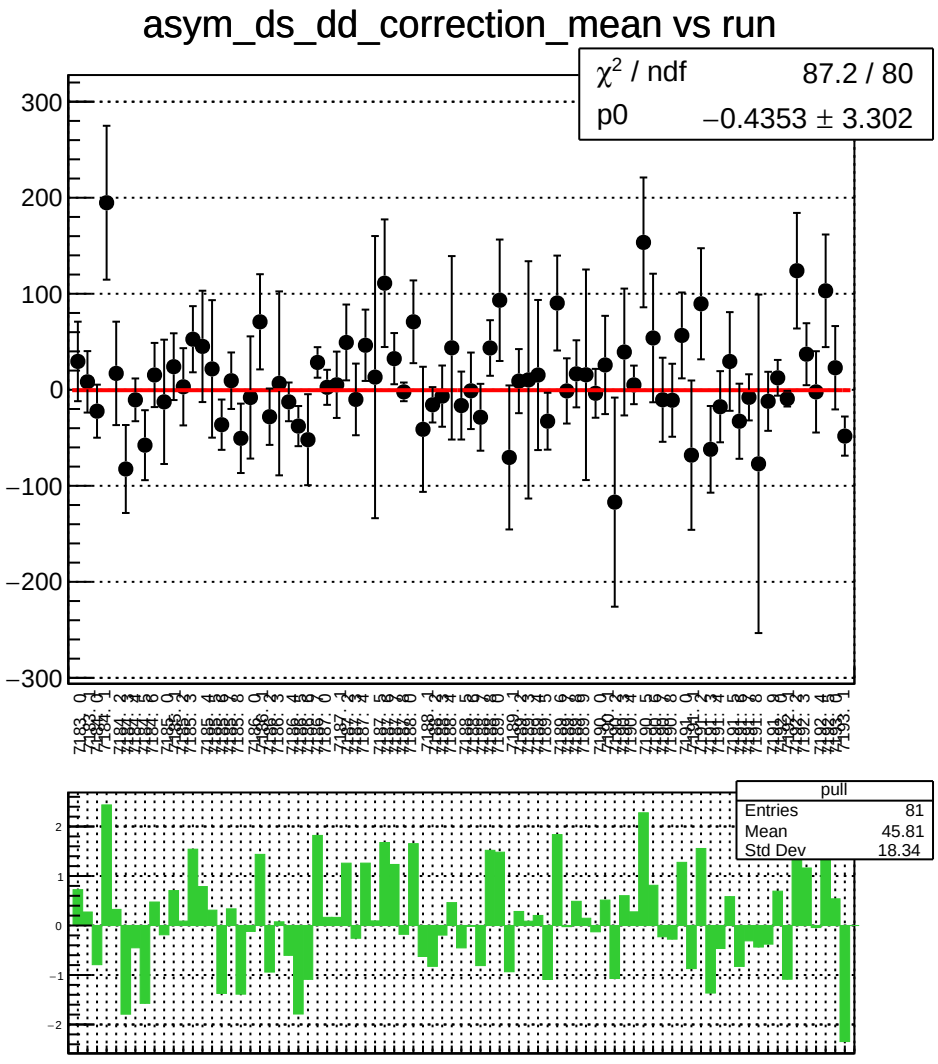

pull1D
Entries 81
Mean 0.002189
Std Dev 0.8268

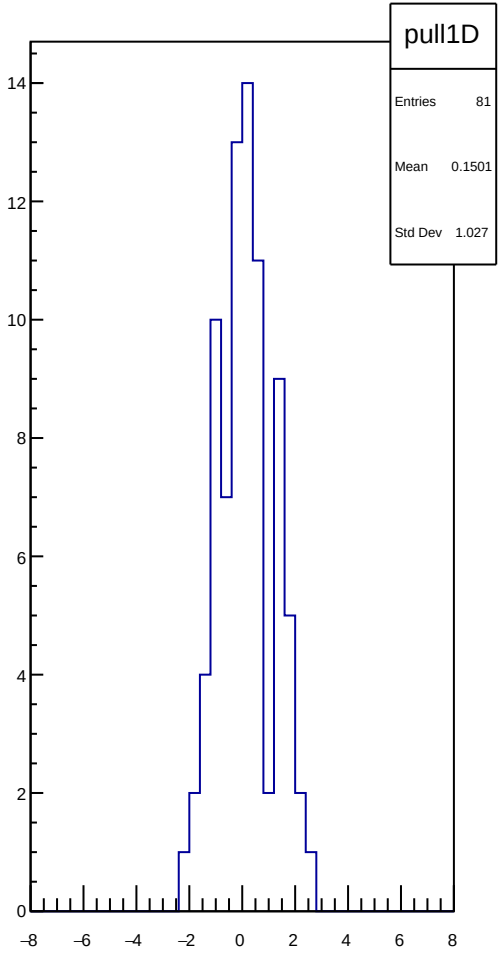

asym_ds_avg_rms vs run
χ^2 / ndf 3210 / 80
p0 129.3 ± 0.1032
145
140
135
130
125
120

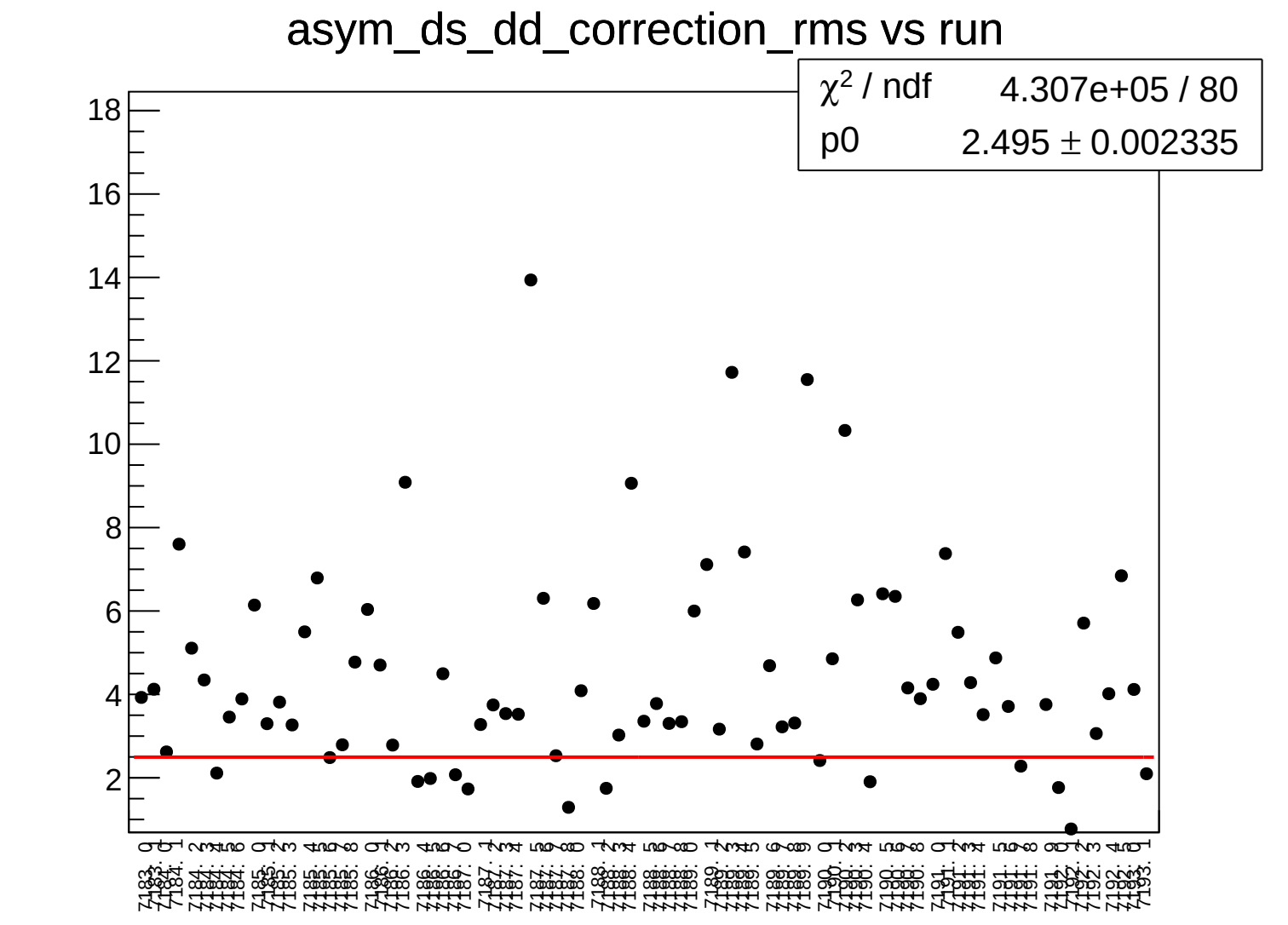

reg_asym_ds_dd_mean vs run
χ² / ndf 78.86 / 80
p0 −108.5 ± 146.4
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean 107.9
Std Dev 85.94
2
1
0
−1
−2
−3

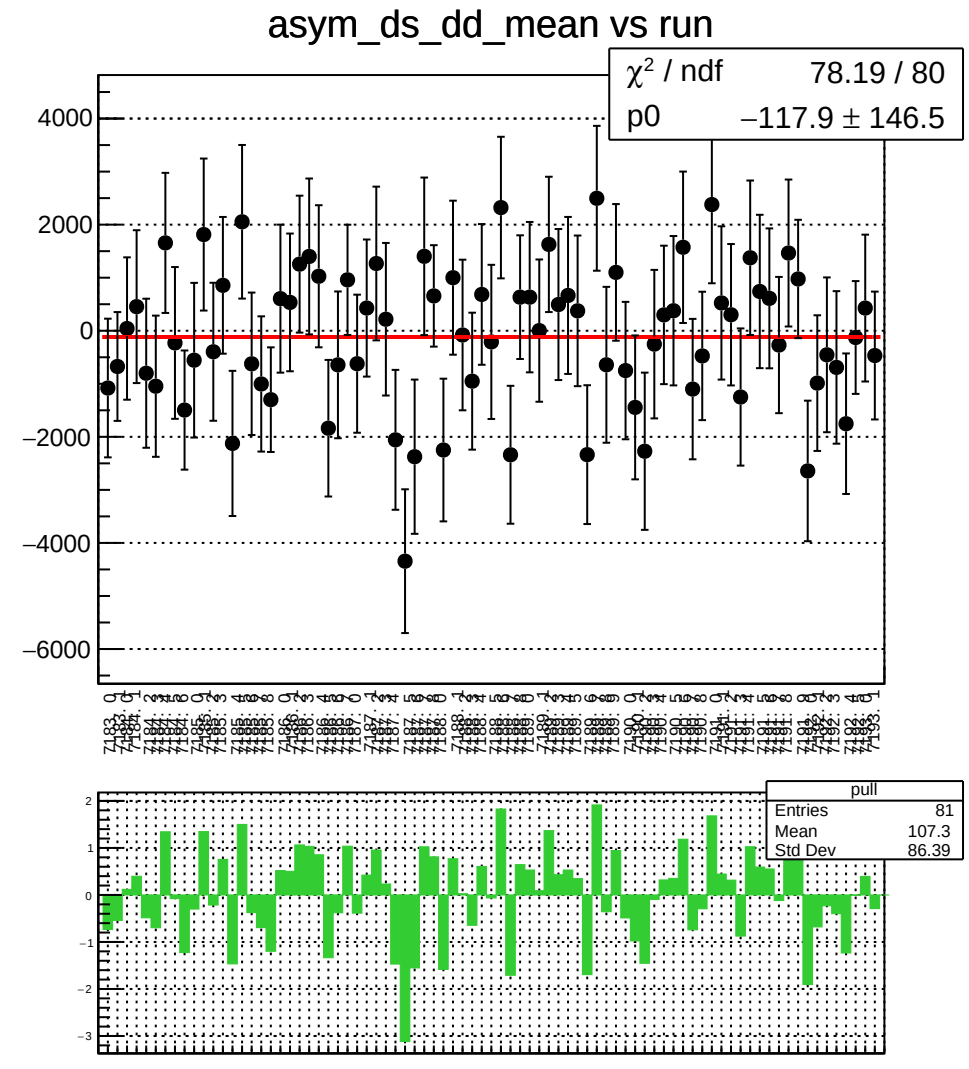

pull1D
Entries 81
Mean 0.01063
Std Dev 0.9866
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

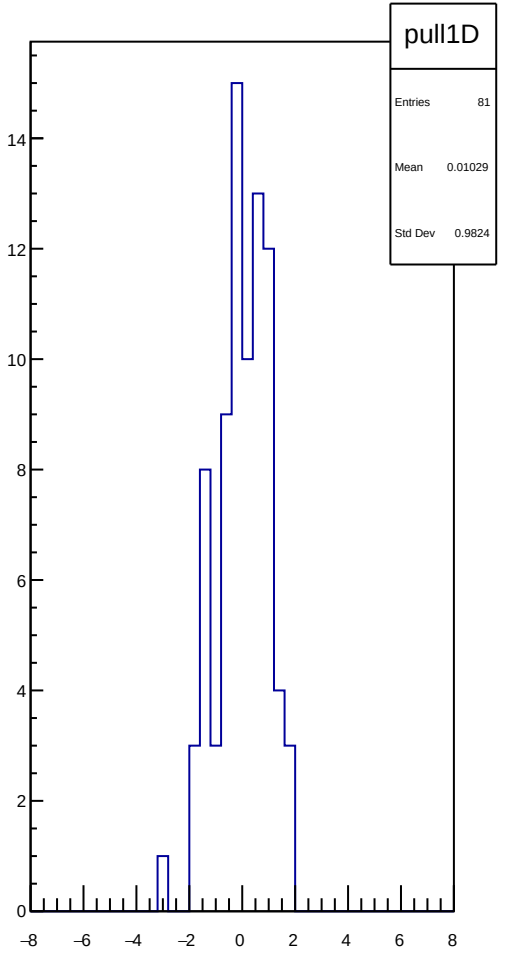

reg_asym_ds_dd_rms vs run
χ² / ndf 3282 / 80
p0 129.7 ± 0.1035
140
135
130
125
120

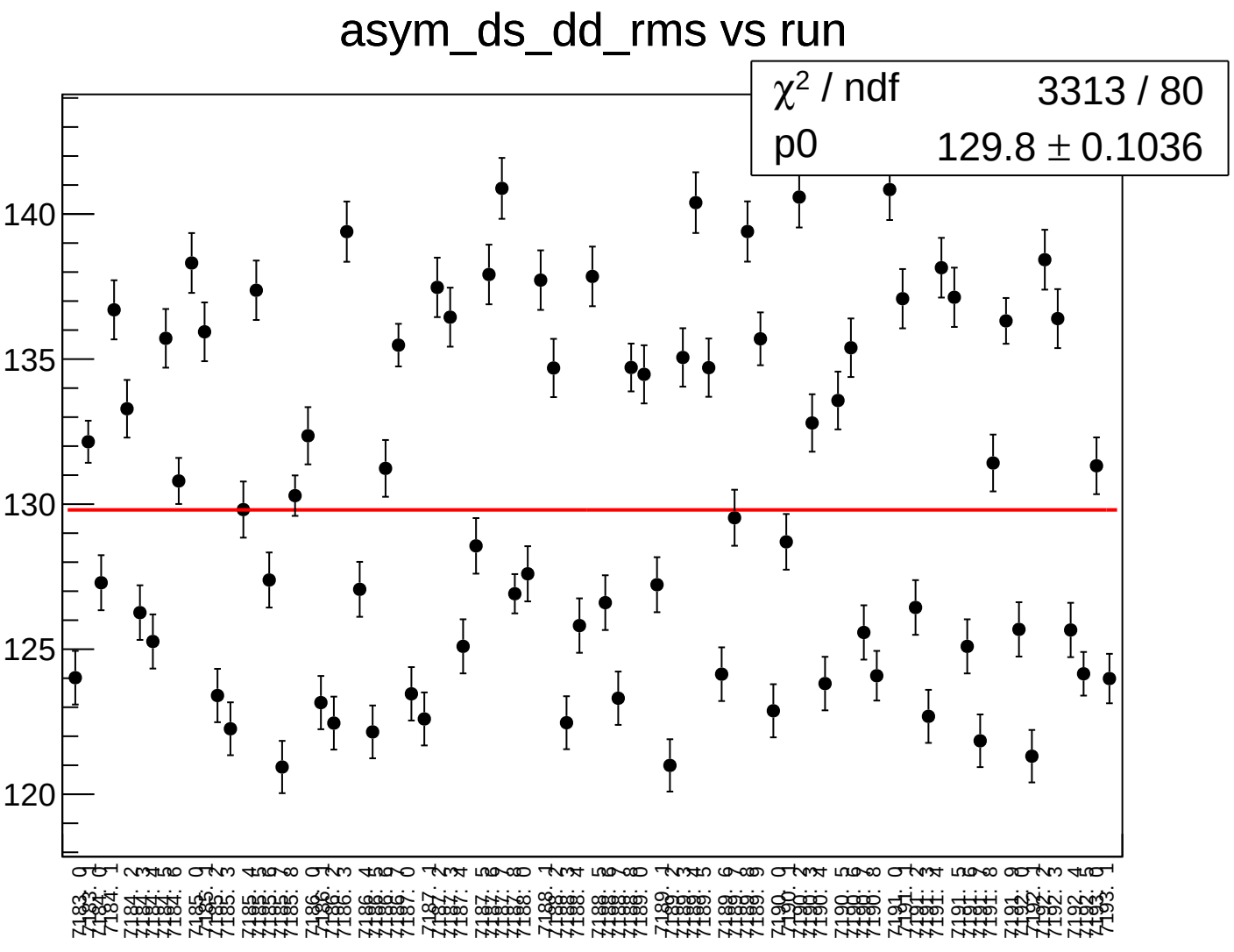

asym_ds_dd_correction_mean vs run
χ² / ndf 87.2 / 80
p0 −0.4353 ± 3.302
pull
Entries 81
Mean 45.81
Std Dev 18.34

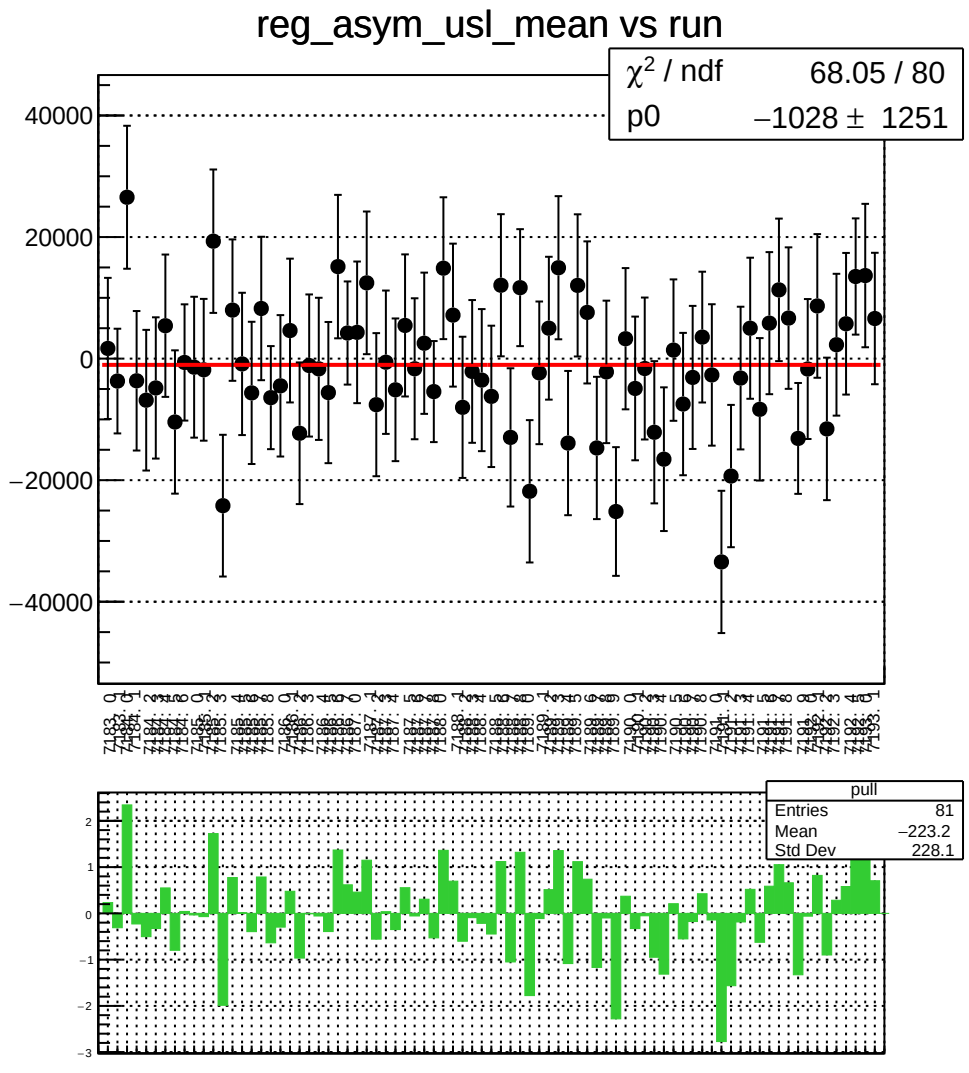

pull1D
Entries 81
Mean 0.1501
Std Dev 1.027

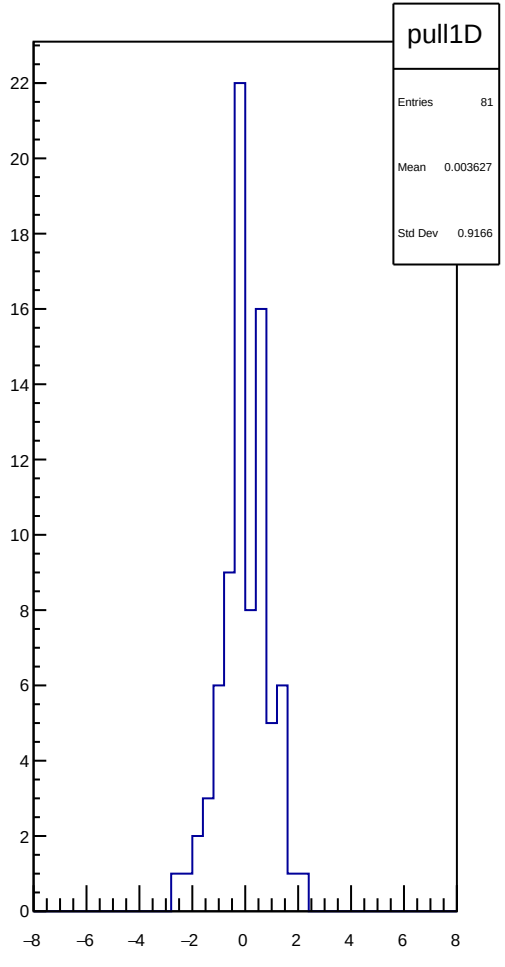

asym_ds_dd_correction_rms vs run
χ² / ndf 4.307e+05 / 80
p0 2.495 ± 0.002335
18
16
14
12
10
8
6
4
2

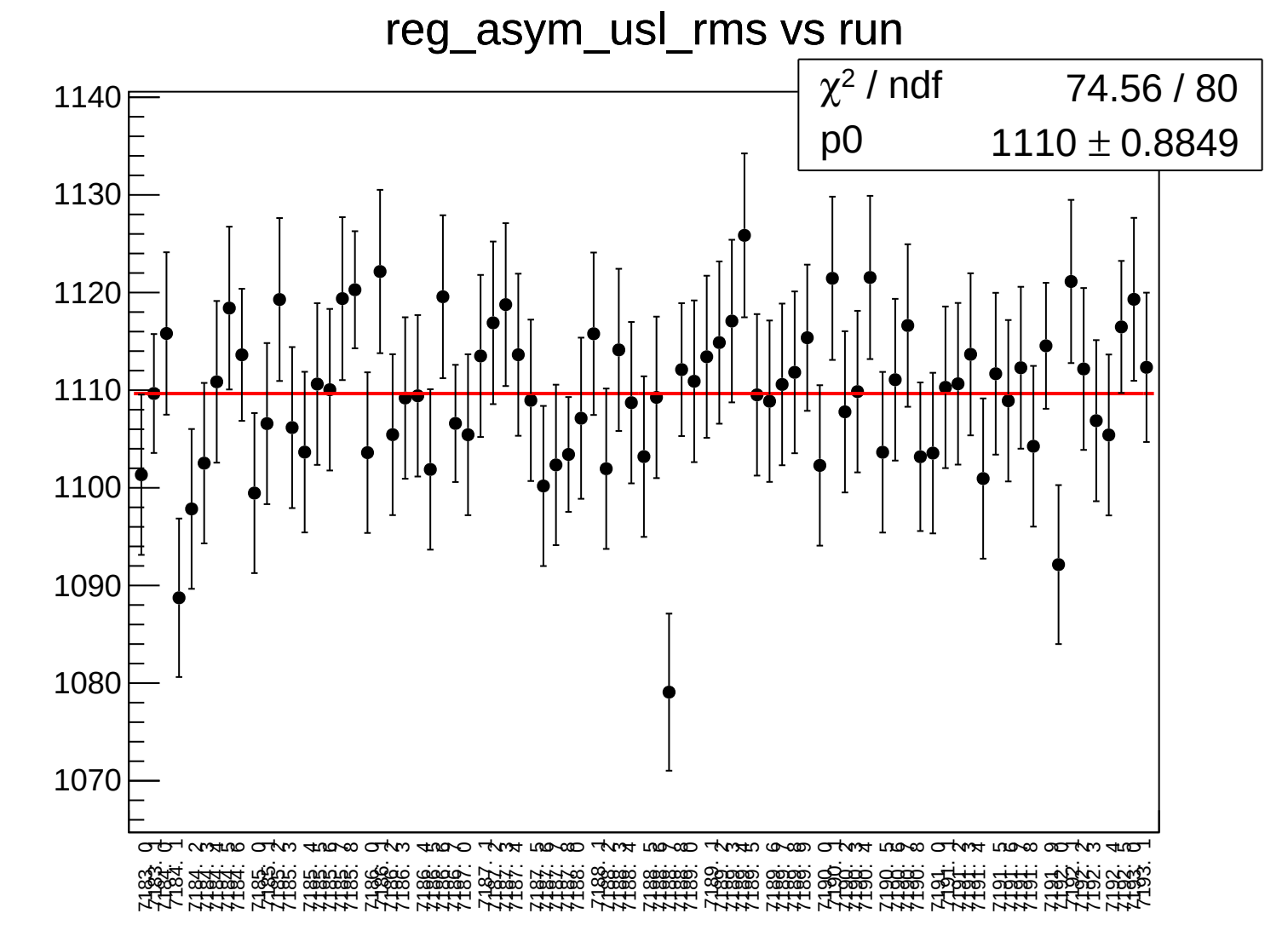

asym_ds_dd_mean vs run
χ² / ndf 78.19 / 80
p0 −117.9 ± 146.5
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean 107.3
Std Dev 86.39
2
1
0
−1
−2
−3

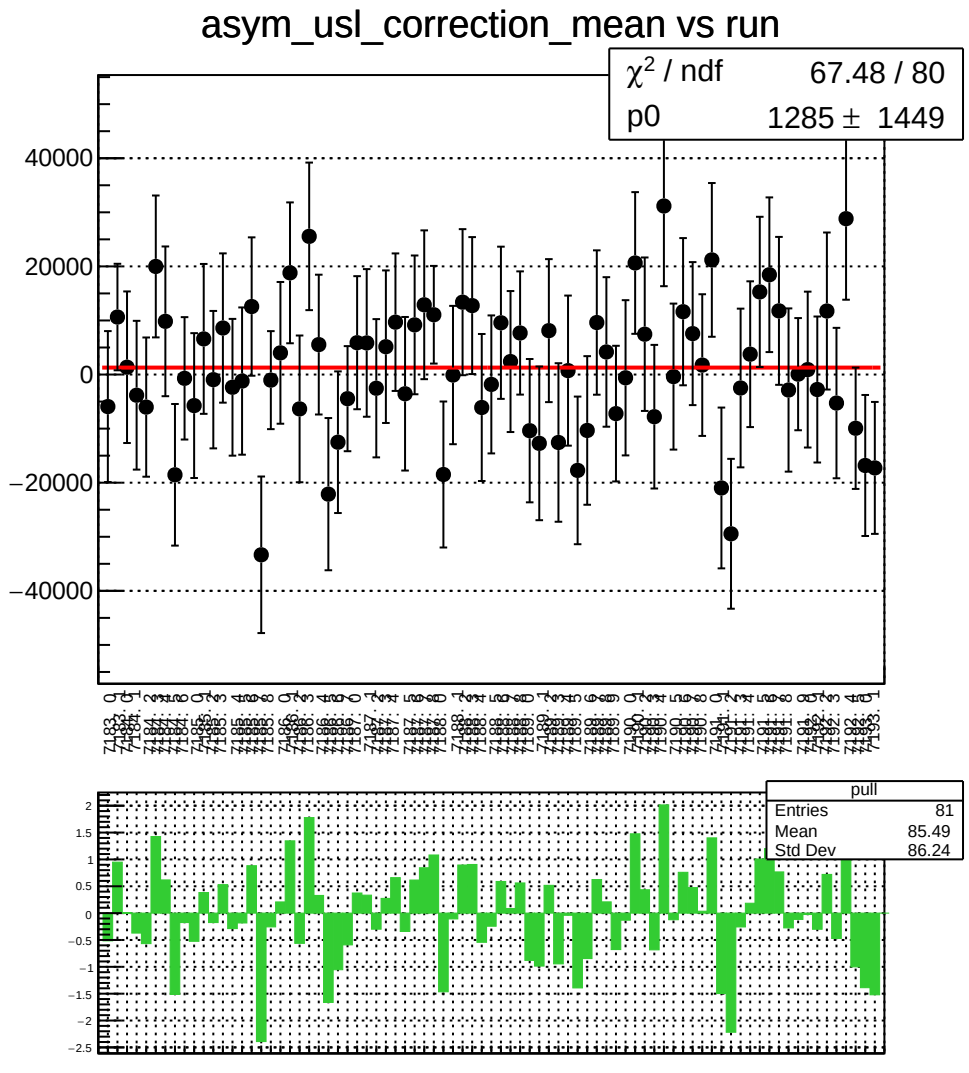

pull1D
Entries 81
Mean 0.01029
Std Dev 0.9824
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

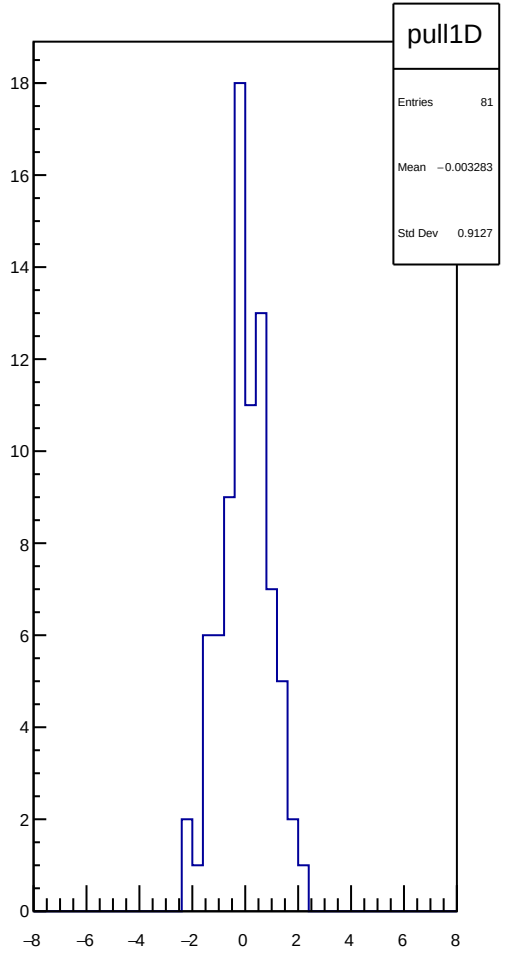

asym_ds_dd_rms vs run
χ² / ndf 3313 / 80
p0 129.8 ± 0.1036
140
135
130
125
120

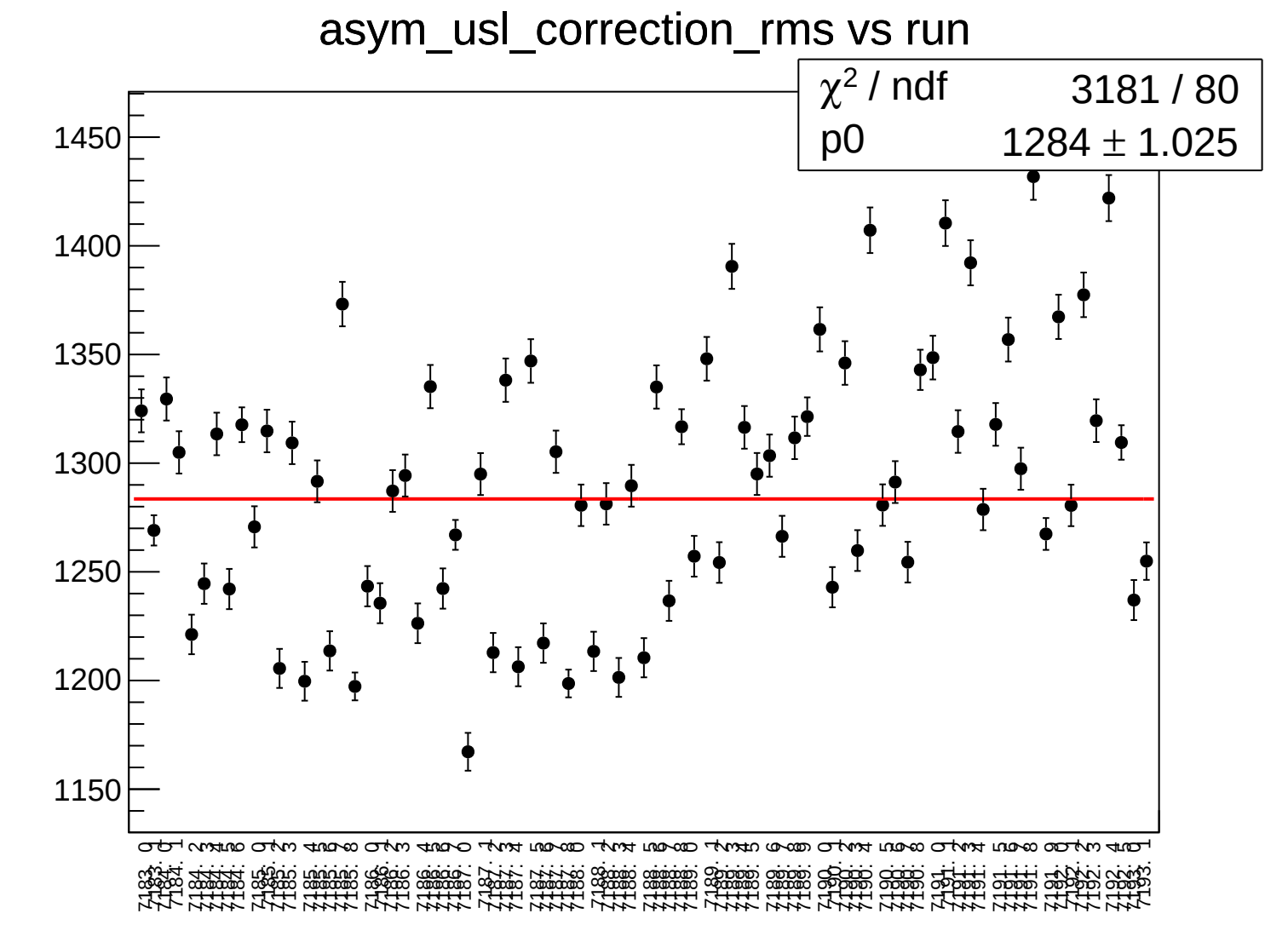

reg_asym_usl_mean vs run
χ² / ndf 68.05 / 80
p0 −1028 ± 1251
40000
20000
0
−20000
−40000
pull
Entries 81
Mean −223.2
Std Dev 228.1
2
1
0
−1
−2
−3

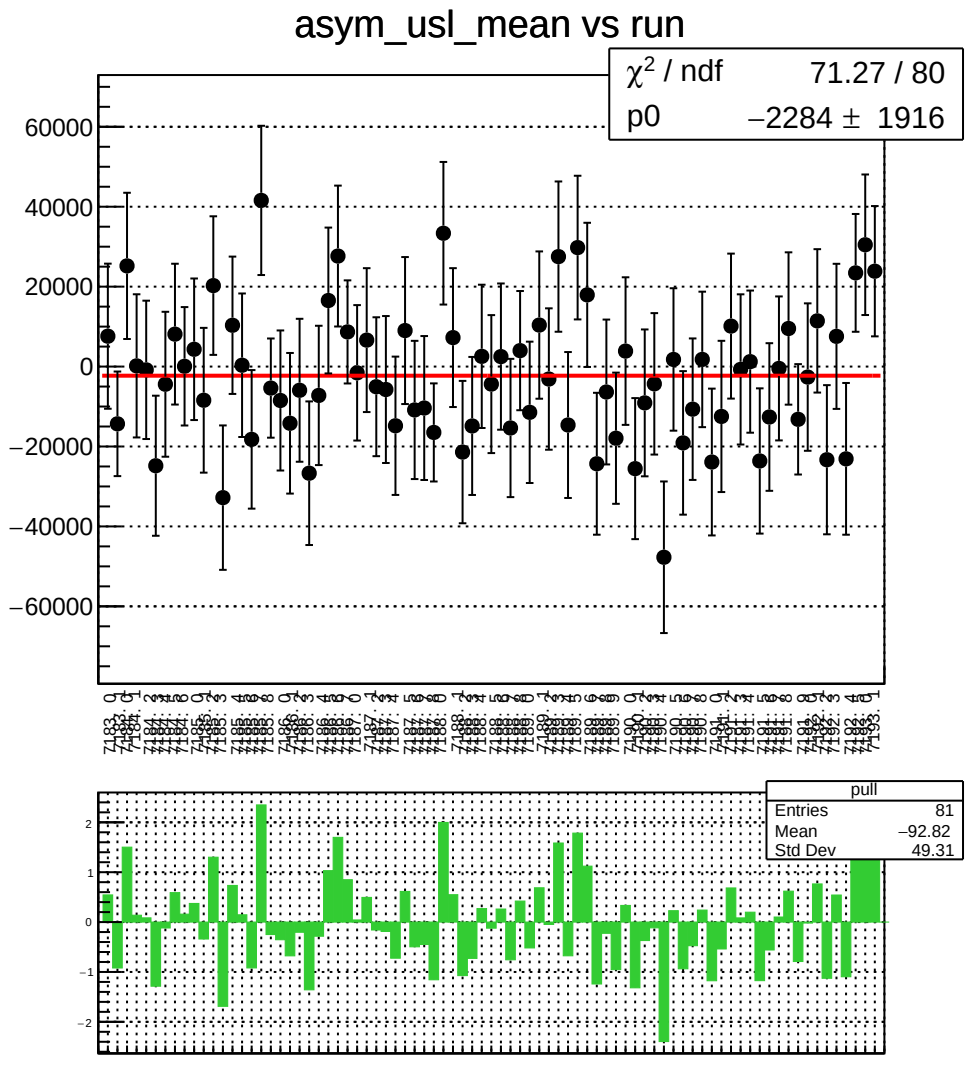

pull1D
Entries 81
Mean 0.003627
Std Dev 0.9166
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

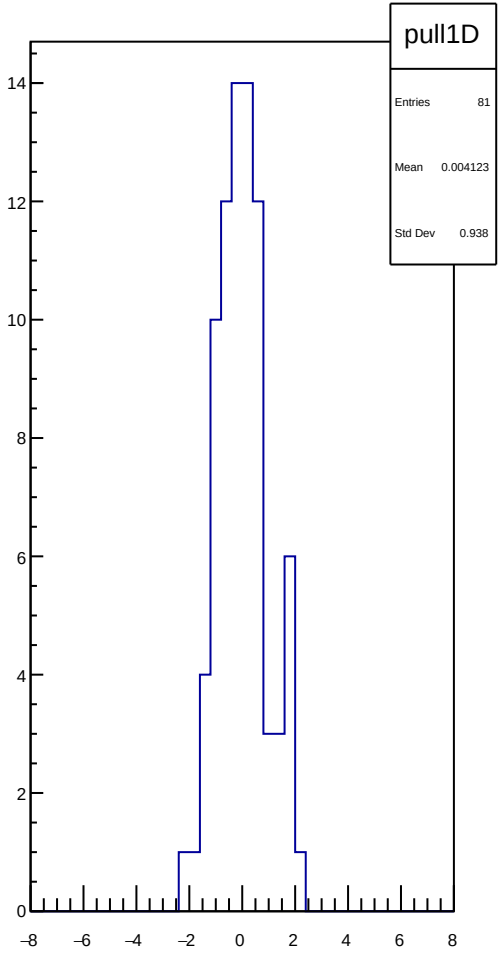

reg_asym_usl_rms vs run
χ² / ndf 74.56 / 80
p0 1110 ± 0.8849
1140
1130
1120
1110
1100
1090
1080
1070

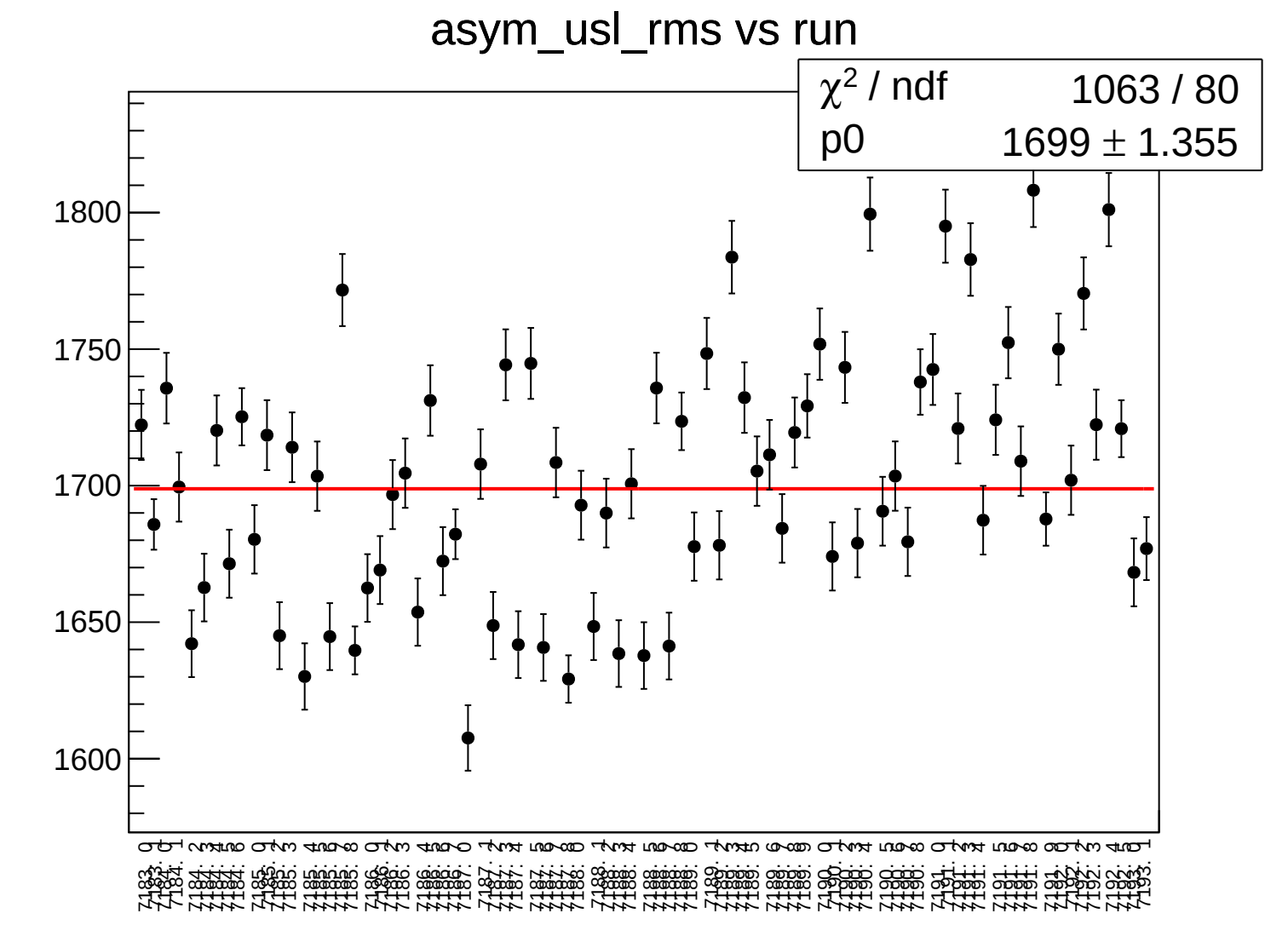

asym_usl_correction_mean vs run
χ² / ndf 67.48 / 80
p0 1285 ± 1449
40000
20000
0
−20000
−40000
pull
Entries 81
Mean 85.49
Std Dev 86.24
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

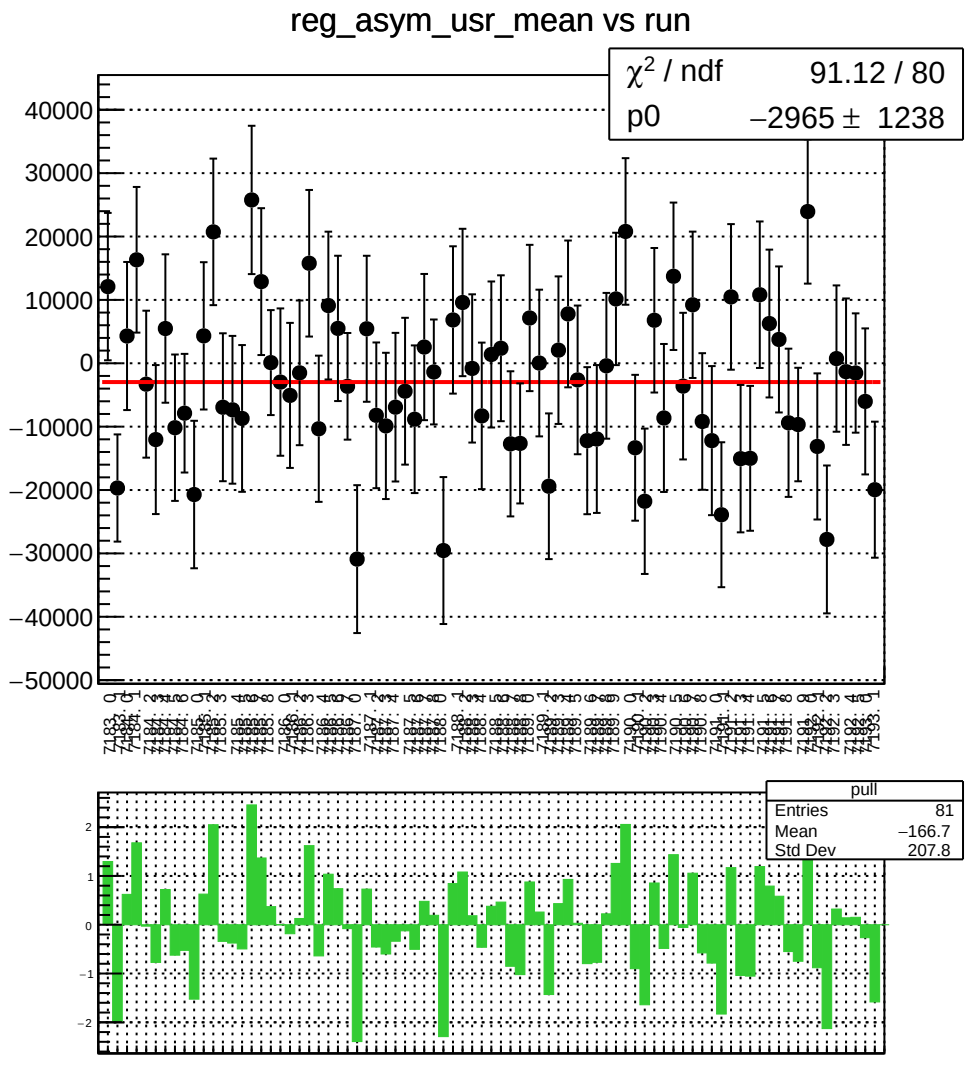

pull1D
Entries 81
Mean −0.003283
Std Dev 0.9127
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

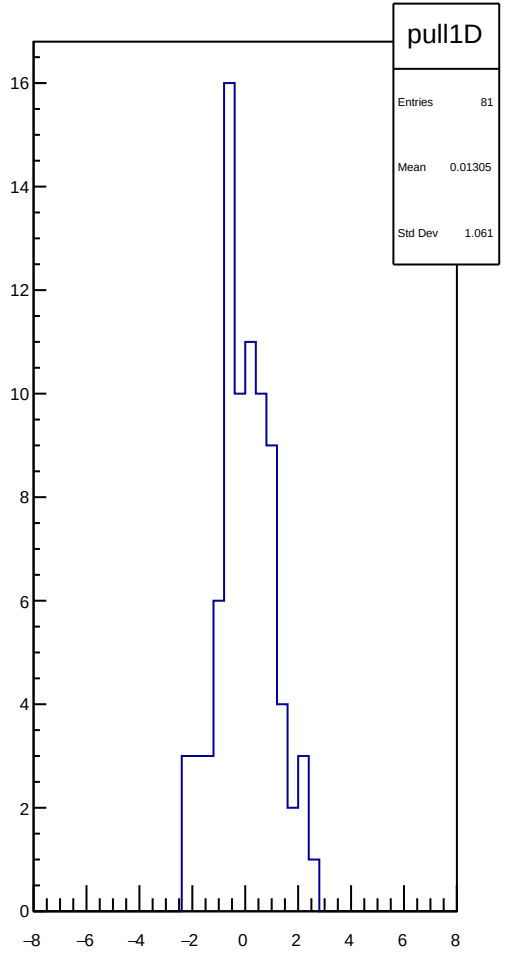

asym_usl_correction_rms vs run
χ² / ndf 3181 / 80
p0 1284 ± 1.025
1450
1400
1350
1300
1250
1200
1150

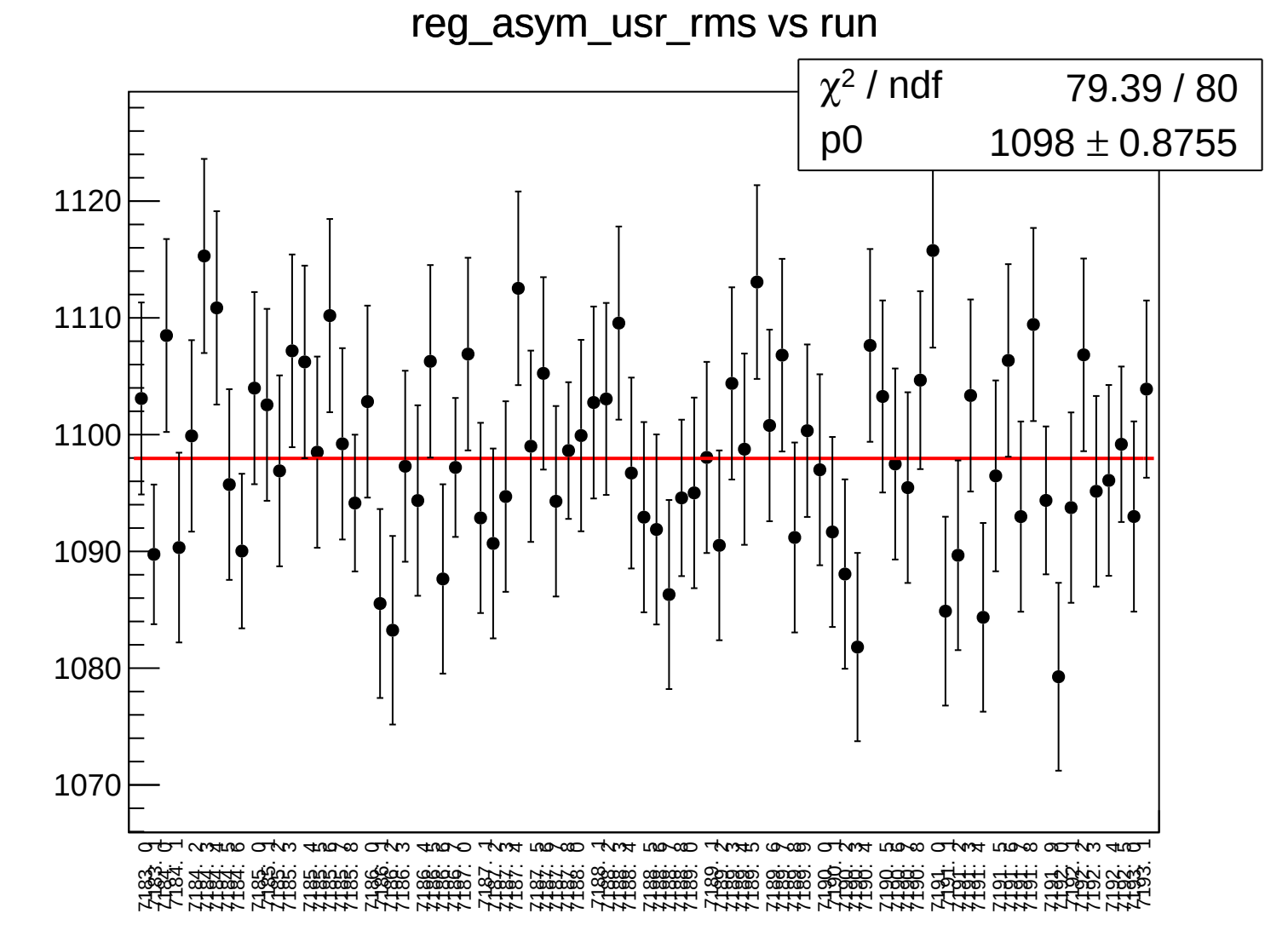

asym_usl_mean vs run
χ² / ndf 71.27 / 80
p0 −2284 ± 1916
60000
40000
20000
0
−20000
−40000
−60000
pull
Entries 81
Mean −92.82
Std Dev 49.31
2
1
0
−1
−2

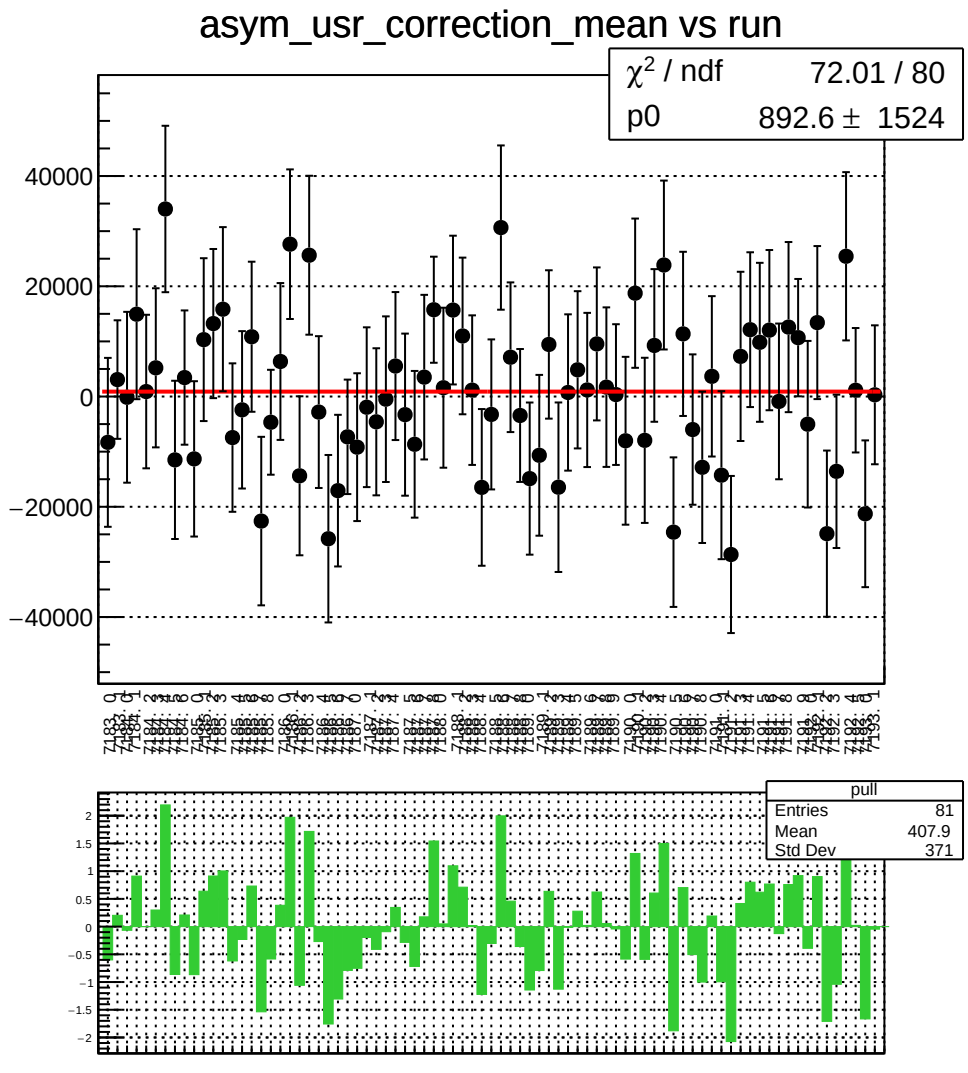

pull1D
Entries 81
Mean 0.004123
Std Dev 0.938
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

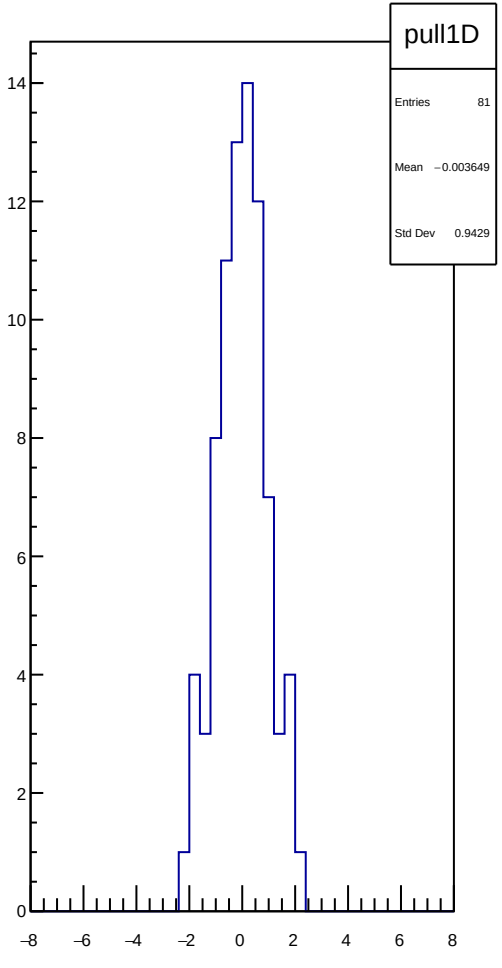

asym_usl_rms vs run
χ² / ndf 1063 / 80
p0 1699 ± 1.355
1800
1750
1700
1650
1600


reg_asym_usr_mean vs run
χ² / ndf 91.12 / 80
p0 −2965 ± 1238
pull
Entries 81
Mean −166.7
Std Dev 207.8

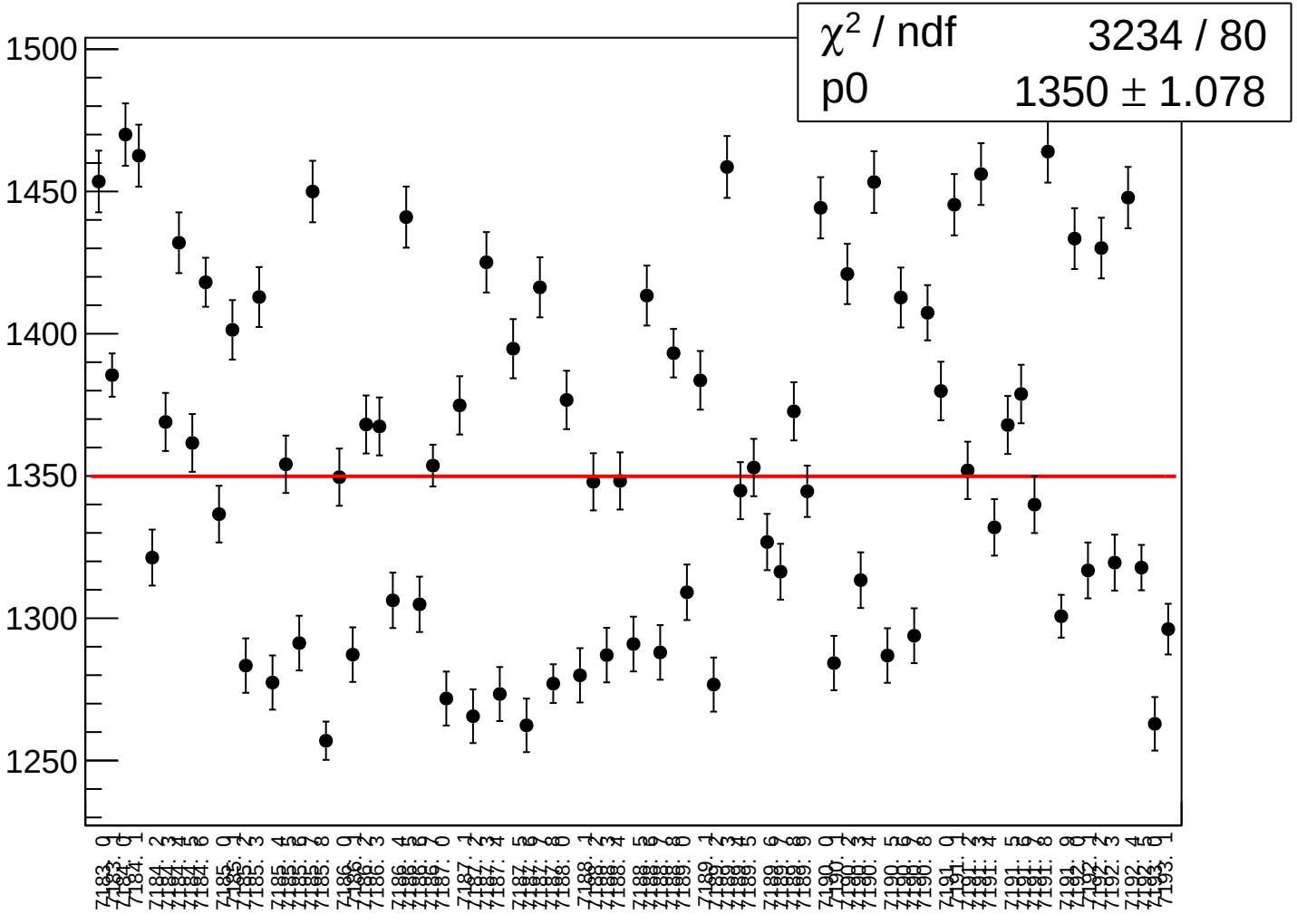

pull1D
Entries 81
Mean 0.01305
Std Dev 1.061

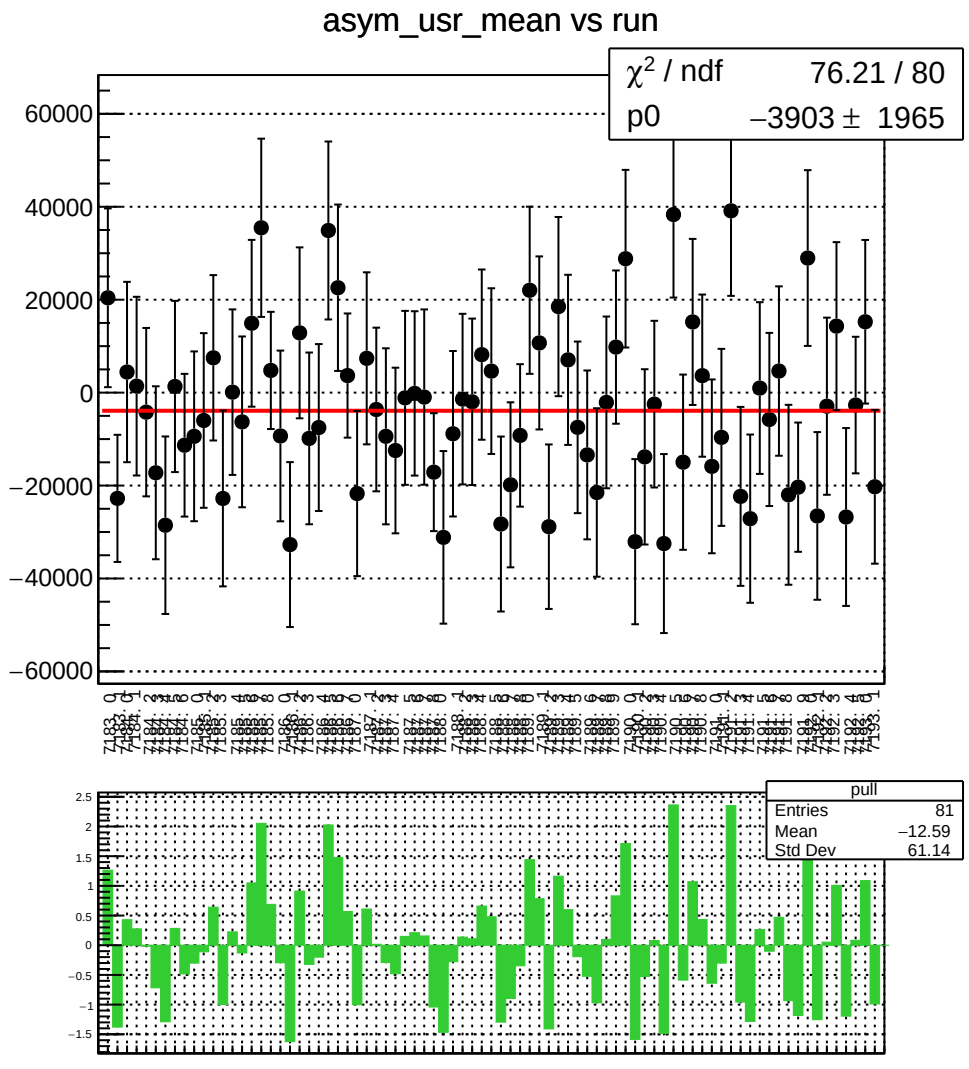

reg_asym_usr_rms vs run
χ^2 / ndf 79.39 / 80
p0 1098 ± 0.8755
1120
1110
1100
1090
1080
1070

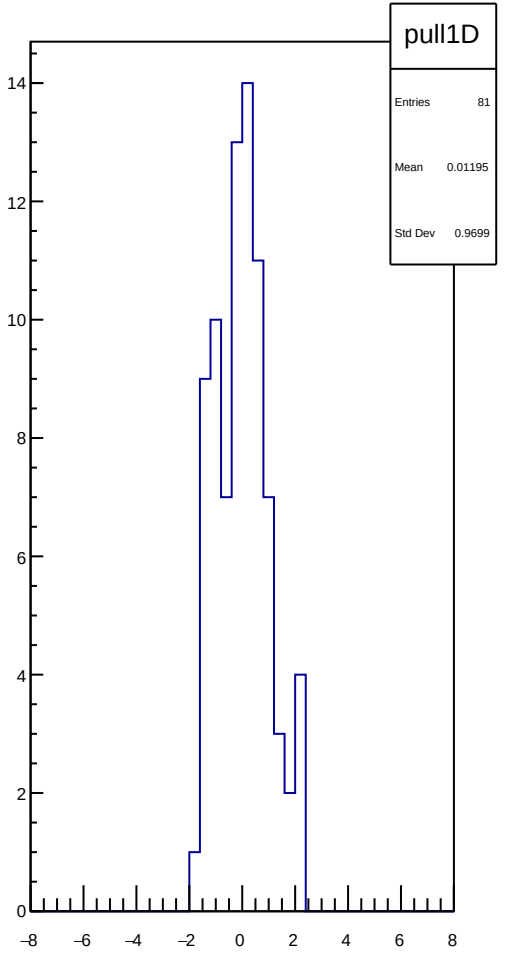

asym_usr_correction_mean vs run
χ² / ndf 72.01 / 80
p0 892.6 ± 1524
40000
20000
0
−20000
−40000
pull
Entries 81
Mean 407.9
Std Dev 371
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

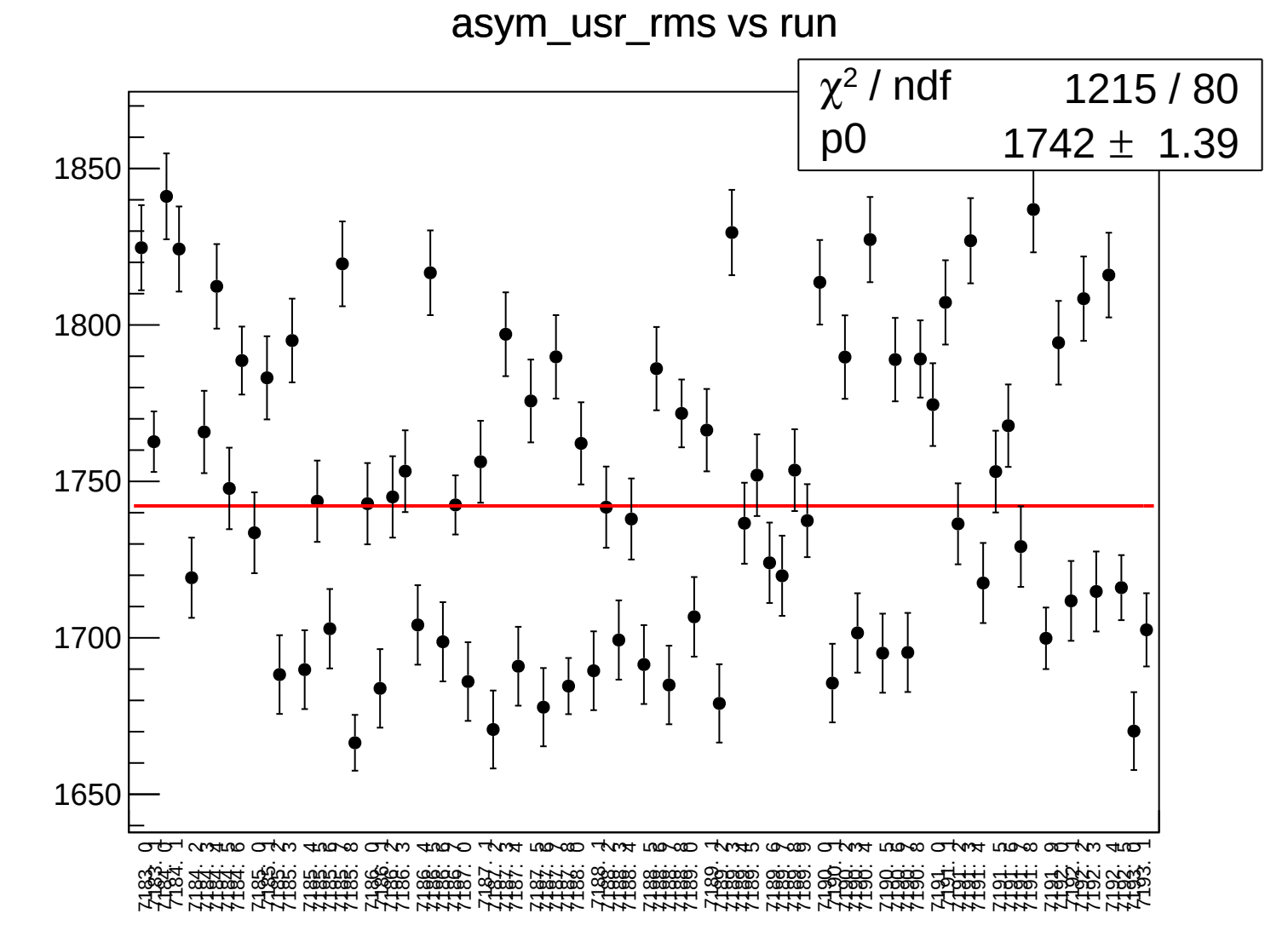

pull1D
Entries 81
Mean −0.003649
Std Dev 0.9429
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

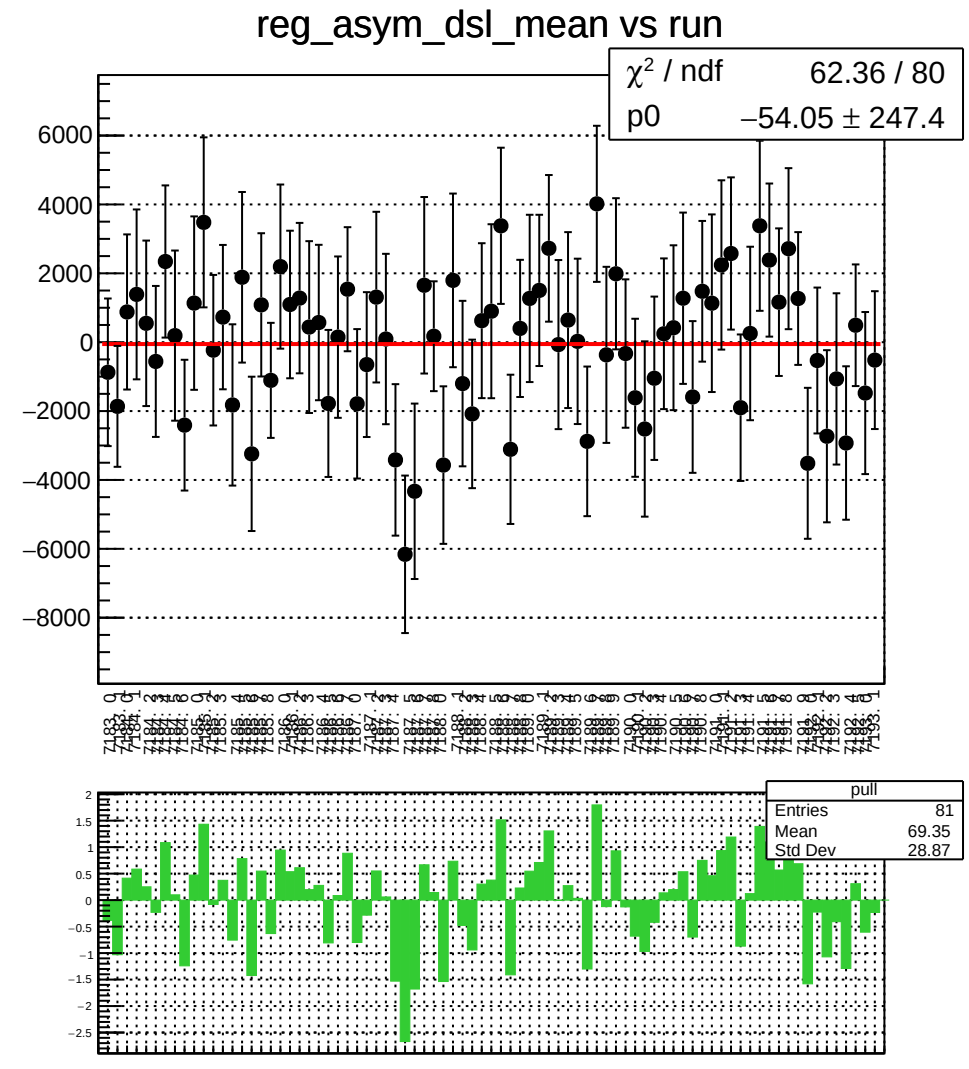
asym_usr_correction_rms vs run

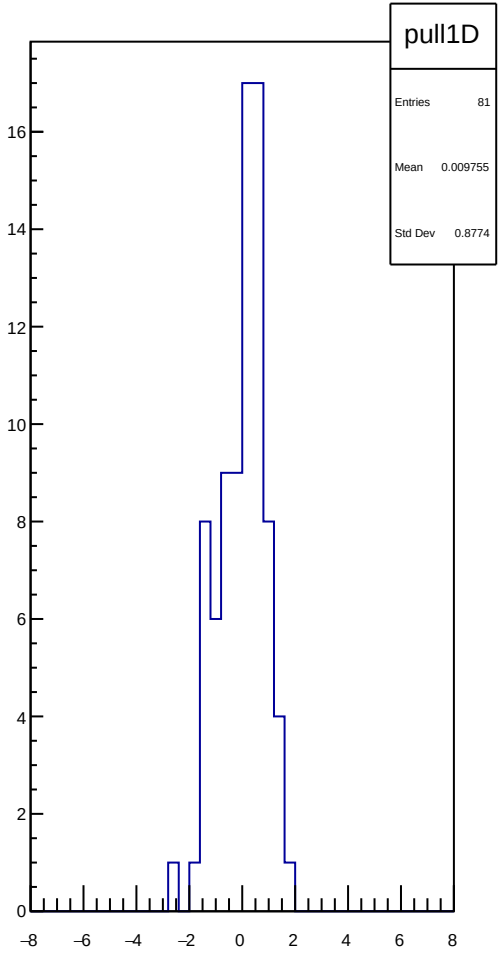


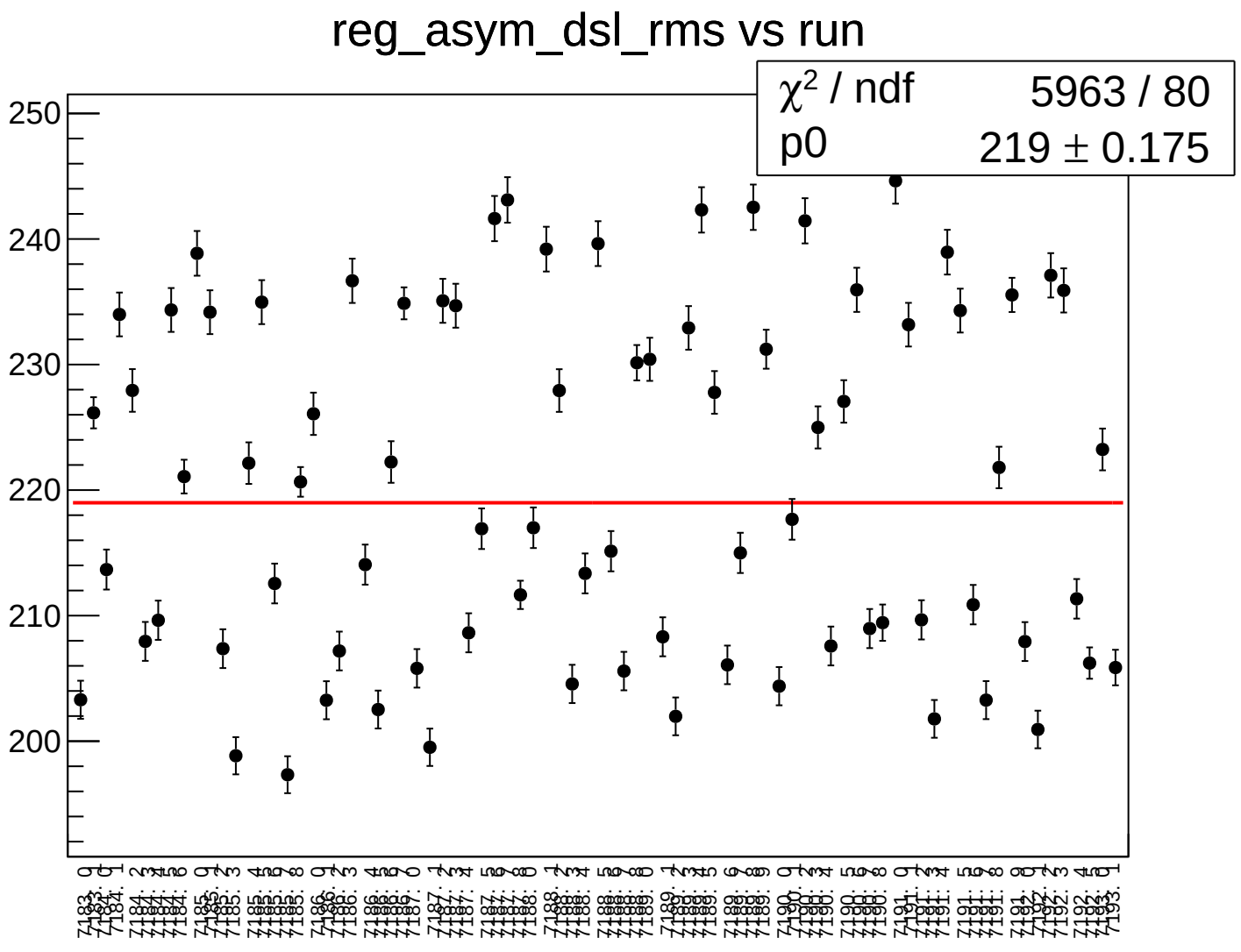

asym_usr_mean vs run
χ² / ndf 76.21 / 80
p0 −3903 ± 1965
60000
40000
20000
0
−20000
−40000
−60000
pull
Entries 81
Mean −12.59
Std Dev 61.14
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5

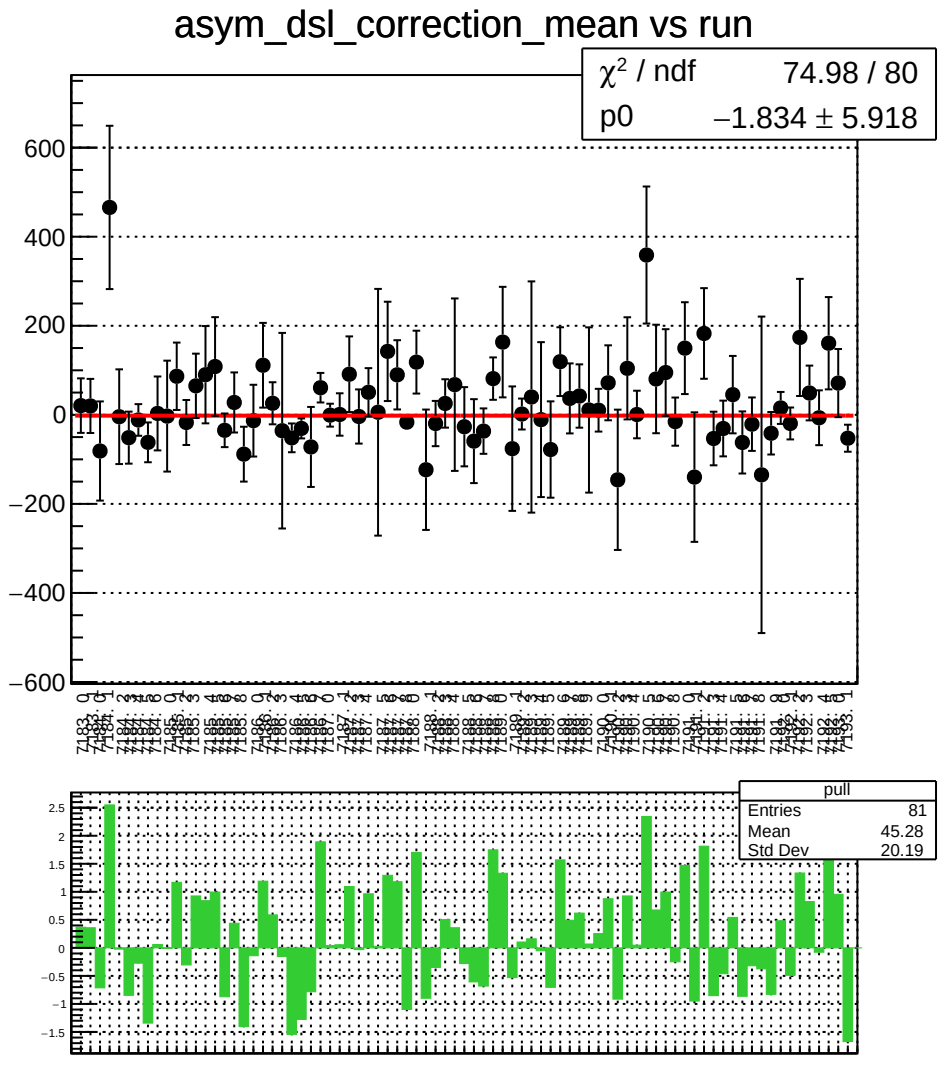

pull1D
Entries 81
Mean 0.01195
Std Dev 0.9699
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

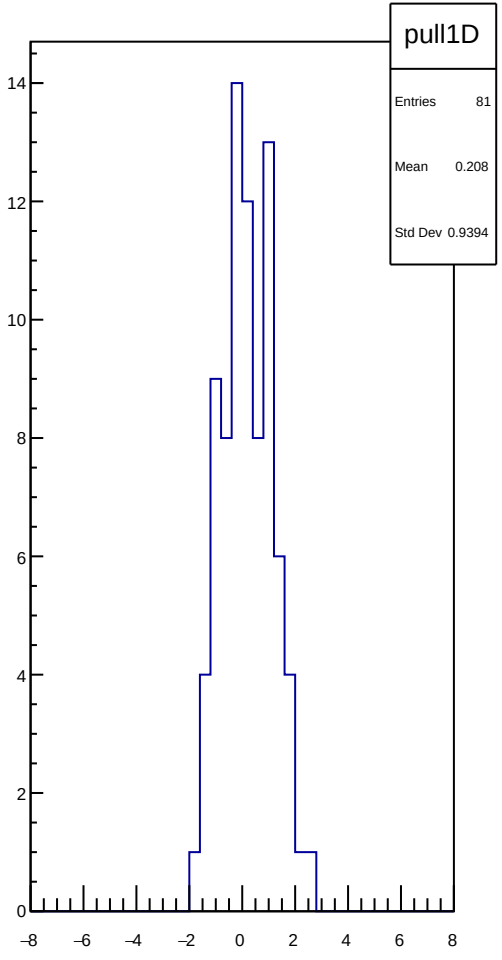

asym_usr_rms vs run
χ² / ndf 1215 / 80
p0 1742 ± 1.39
1850
1800
1750
1700
1650

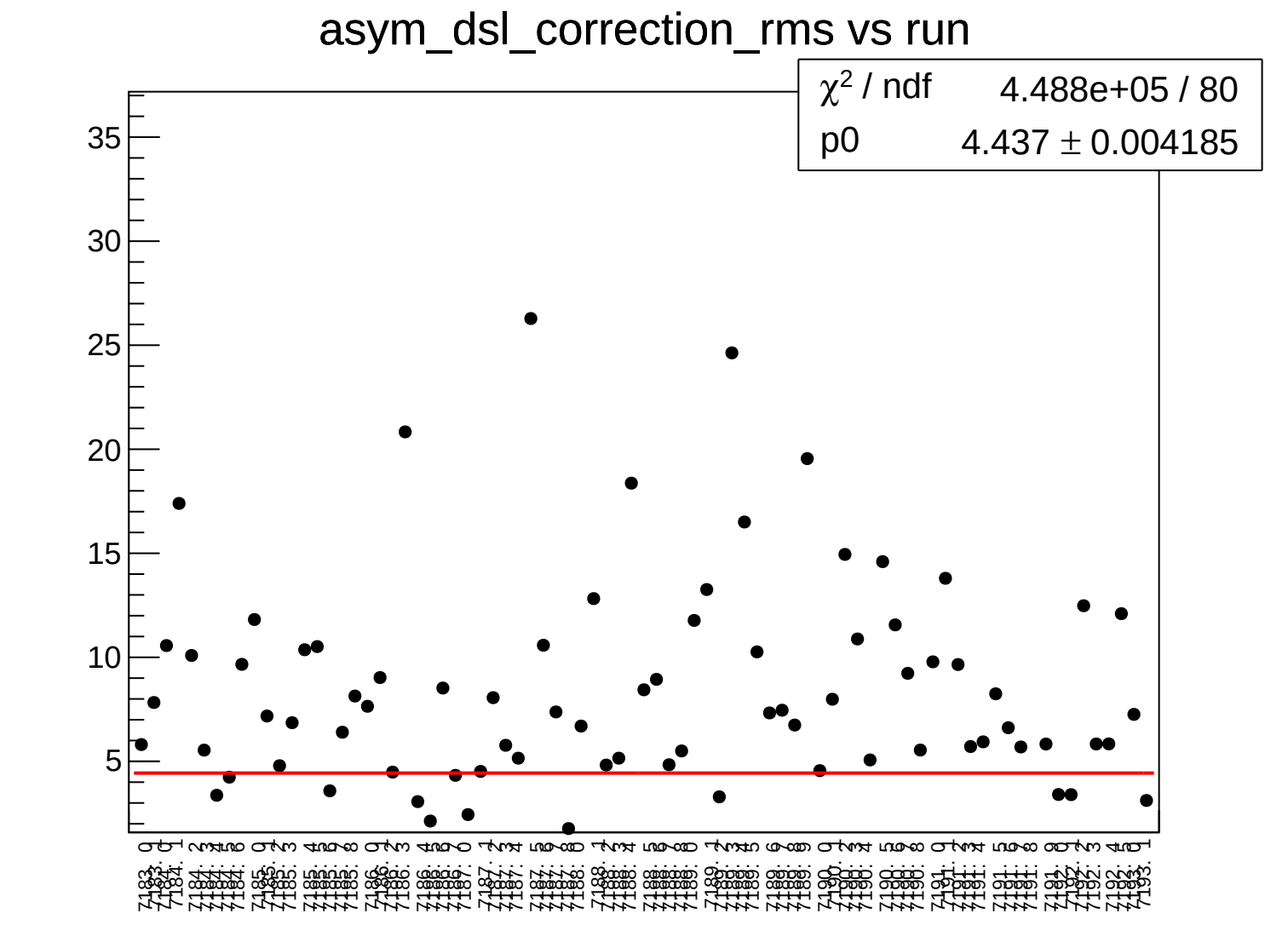

reg_asym_dsl_mean vs run
χ² / ndf 62.36 / 80
p0 −54.05 ± 247.4
pull
Entries 81
Mean 69.35
Std Dev 28.87

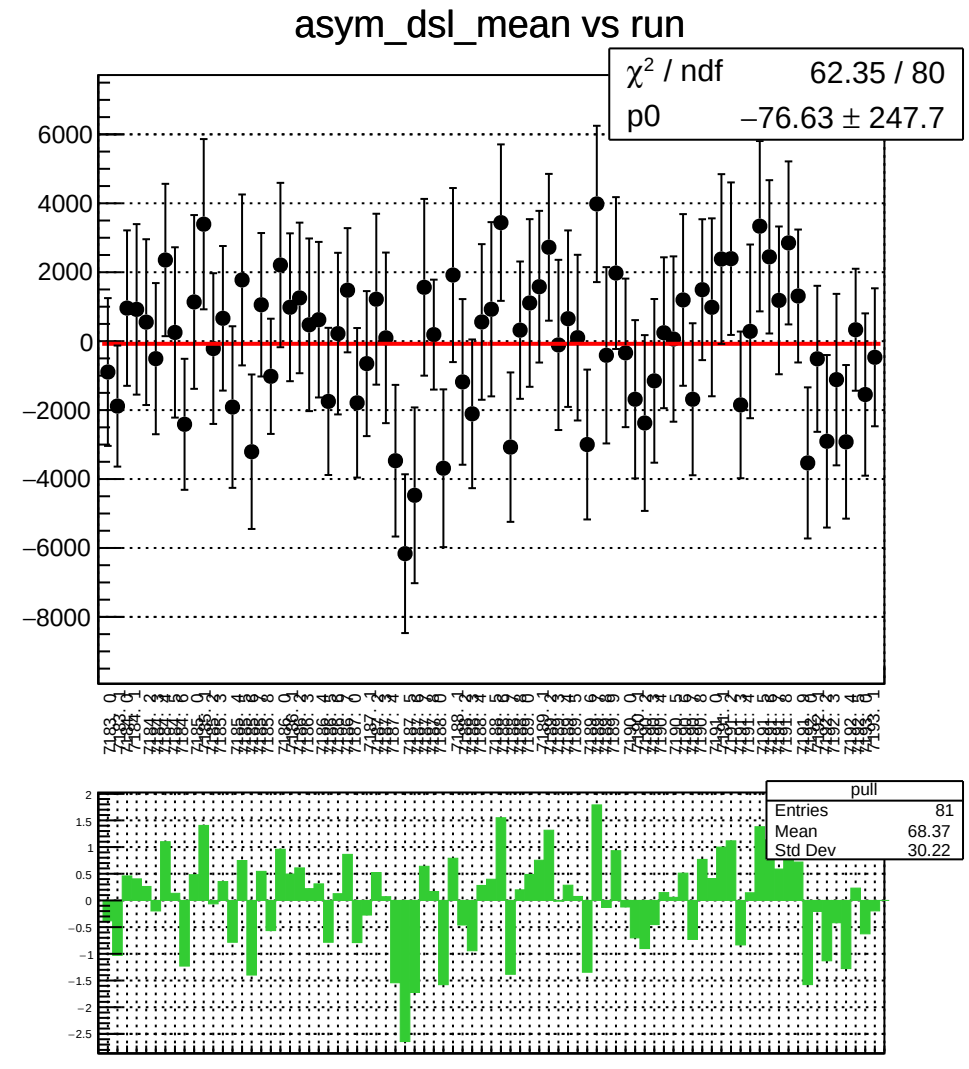

pull1D
Entries 81
Mean 0.009755
Std Dev 0.8774

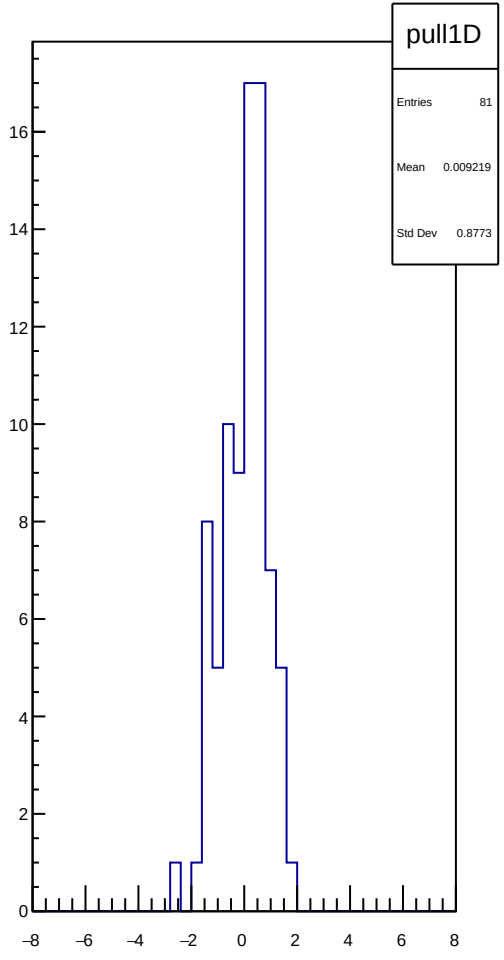

reg_asym_dsl_rms vs run
χ² / ndf 5963 / 80
p0 219 ± 0.175
250
240
230
220
210
200

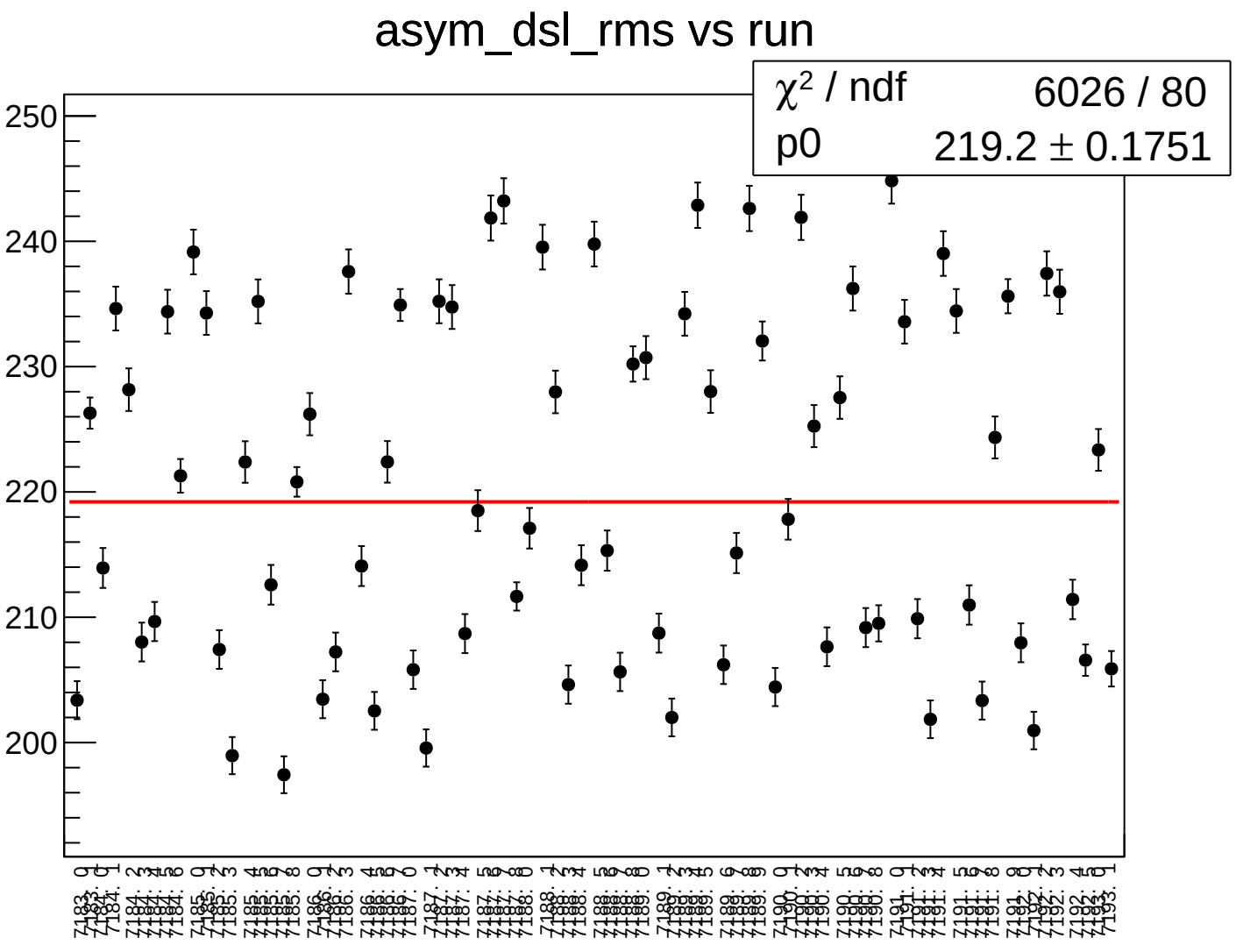

asym_dsl_correction_mean vs run
χ² / ndf 74.98 / 80
p0 −1.834 ± 5.918
pull
Entries 81
Mean 45.28
Std Dev 20.19

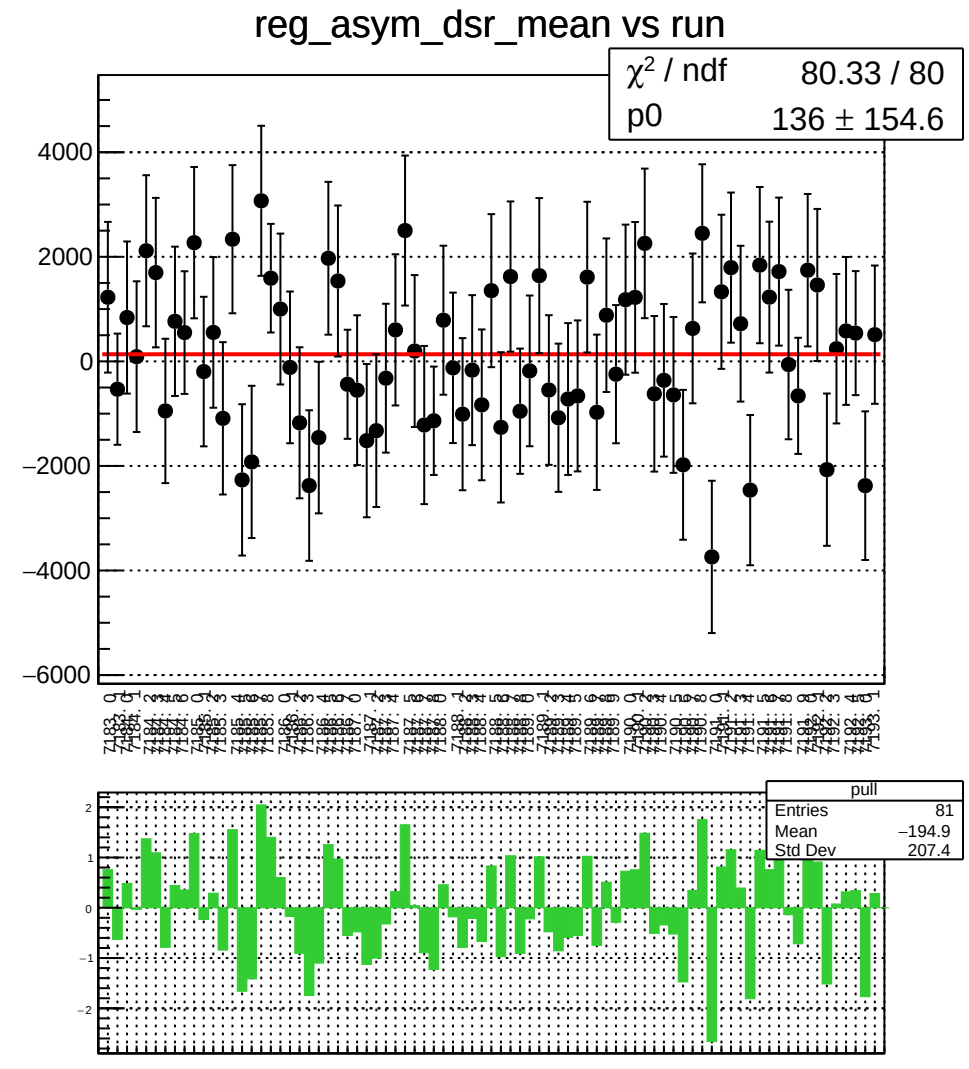

pull1D
Entries 81
Mean 0.208
Std Dev 0.9394

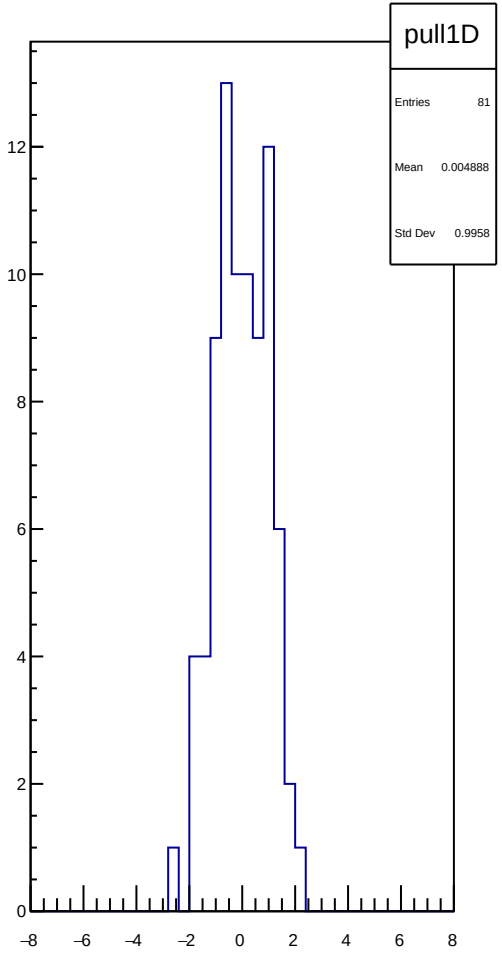

asym_dsl_correction_rms vs run
χ^2 / ndf 4.488e+05 / 80
p0 4.437 ± 0.004185
35
30
25
20
15
10
5

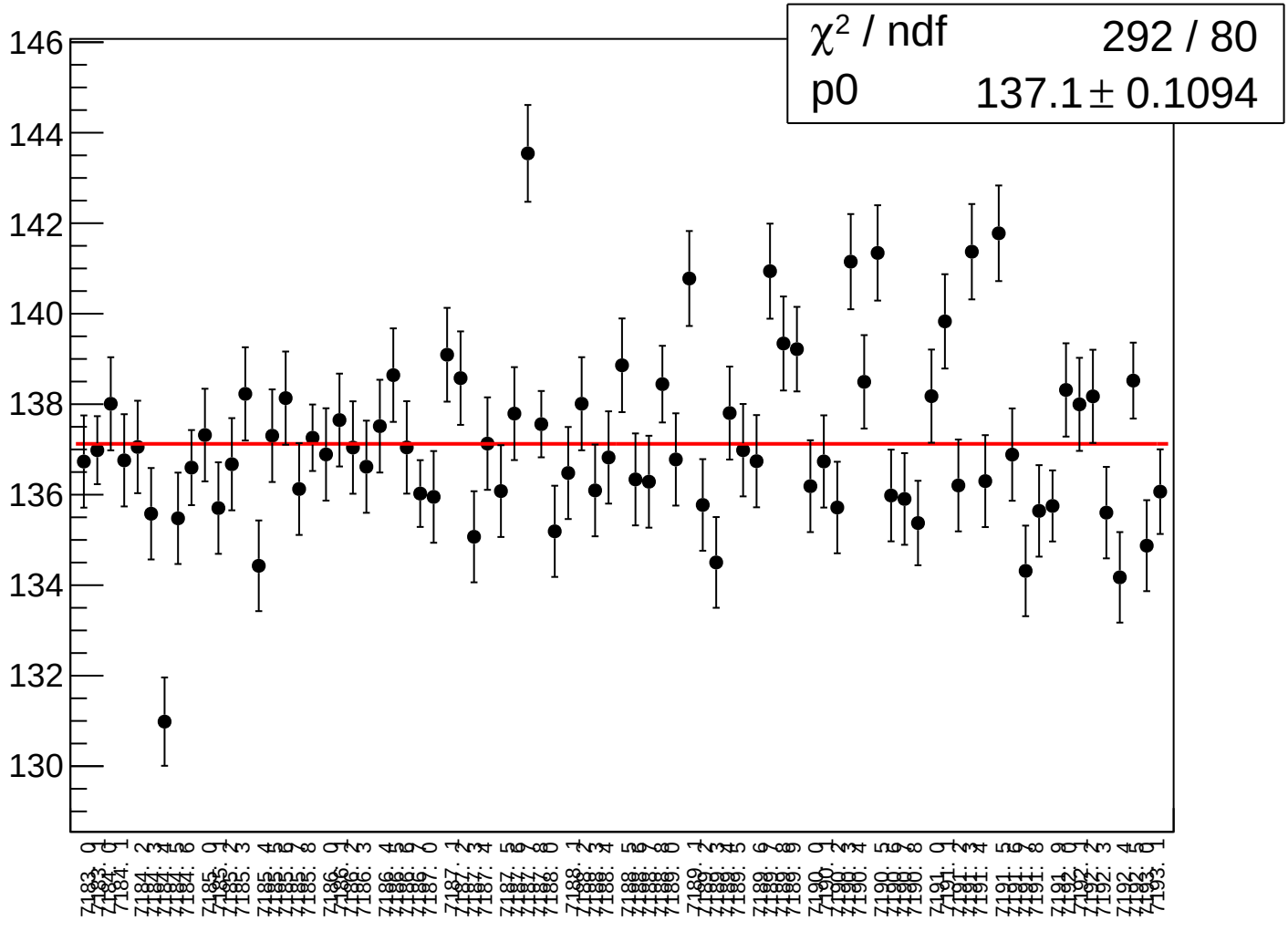

asym_dsl_mean vs run
χ² / ndf 62.35 / 80
p0 −76.63 ± 247.7
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean 68.37
Std Dev 30.22
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

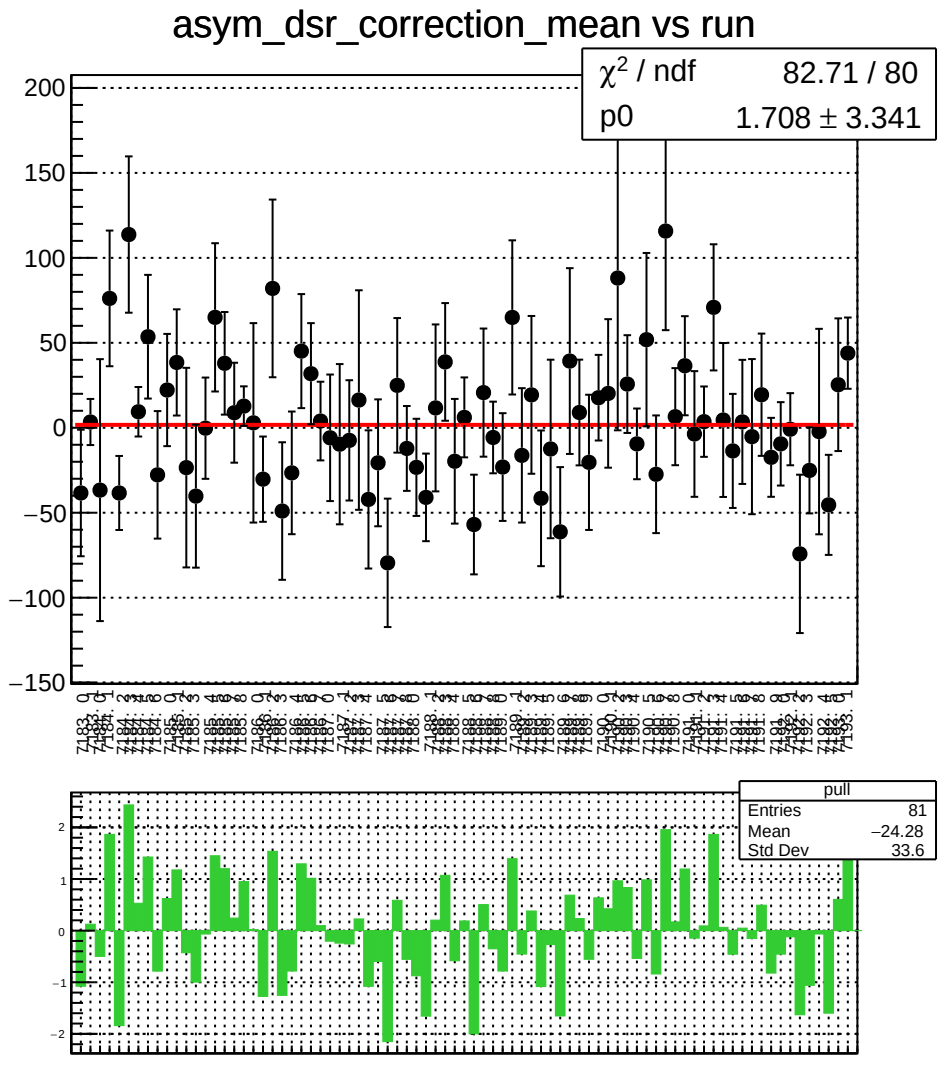

pull1D
Entries 81
Mean 0.009219
Std Dev 0.8773
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

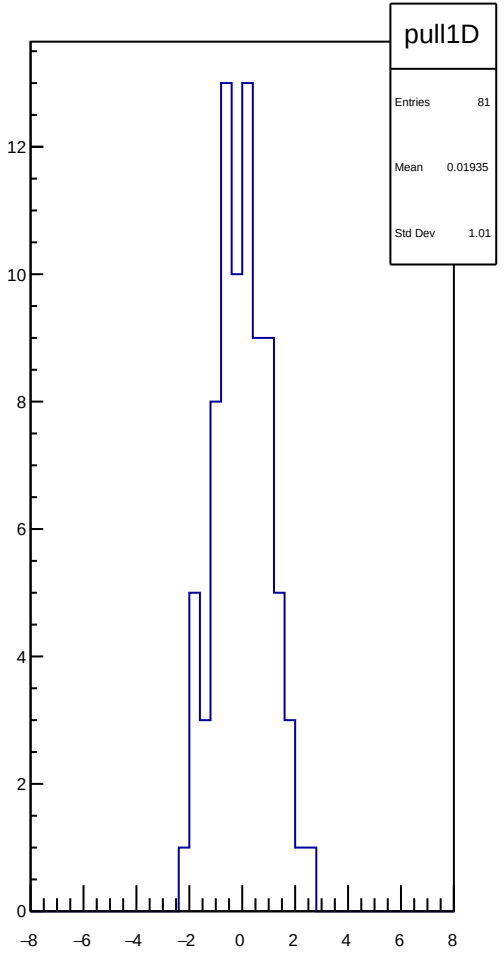

asym_dsl_rms vs run
χ² / ndf 6026 / 80
p0 219.2 ± 0.1751
250
240
230
220
210
200


reg_asym_dsr_mean vs run
χ^2 / ndf 80.33 / 80
p0 136 ± 154.6
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean −194.9
Std Dev 207.4
2
1
0
−1
−2

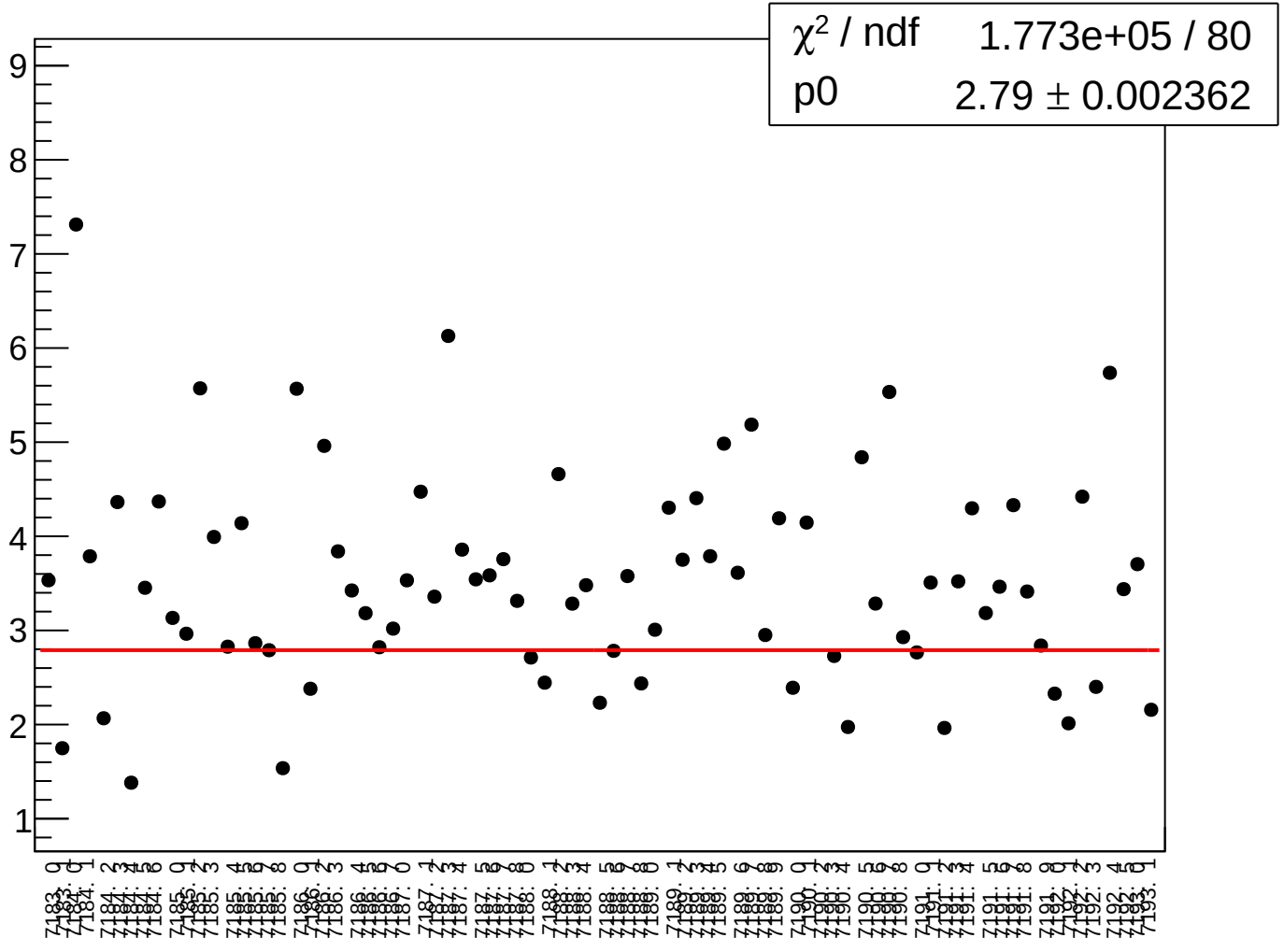

pull1D
Entries 81
Mean 0.004888
Std Dev 0.9958
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

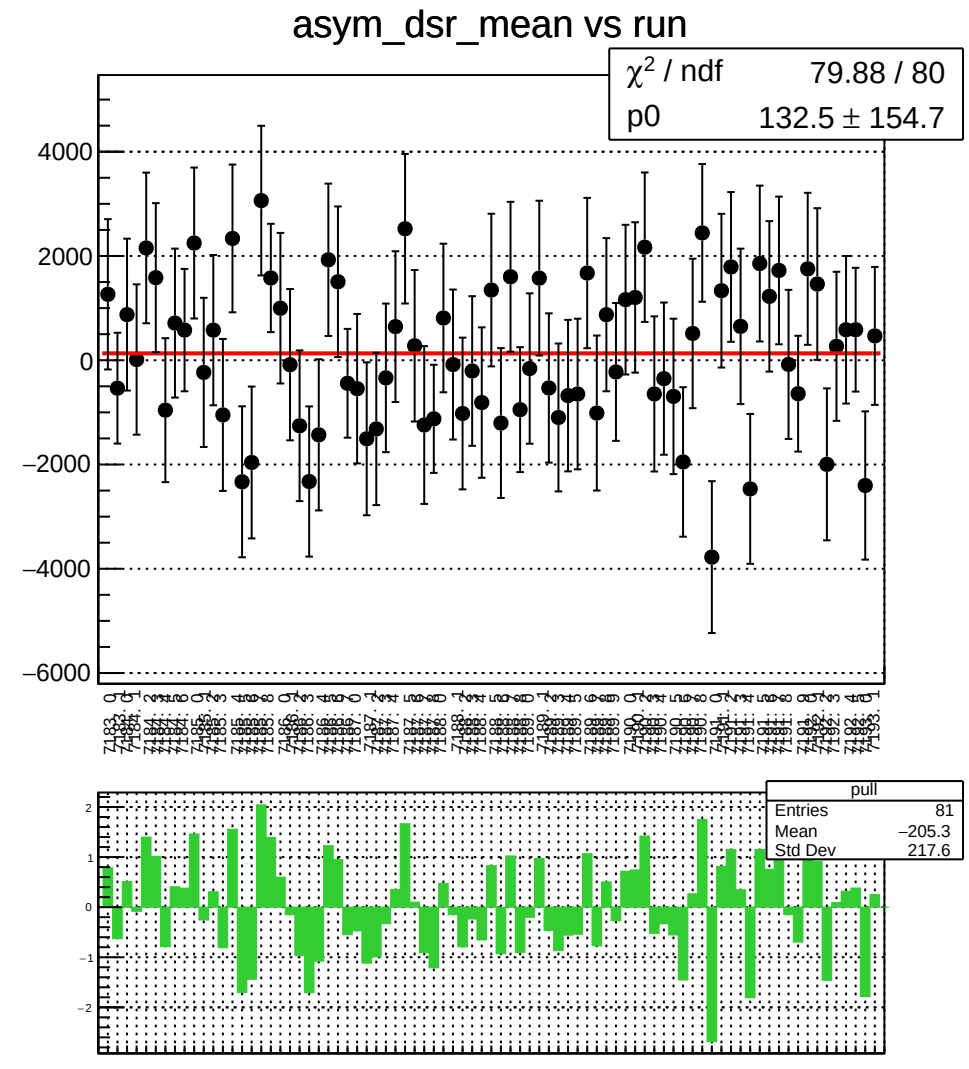

reg_asym_dsr_rms vs run
χ² / ndf 292 / 80
p0 137.1 ± 0.1094
146
144
142
140
138
136
134
132
130

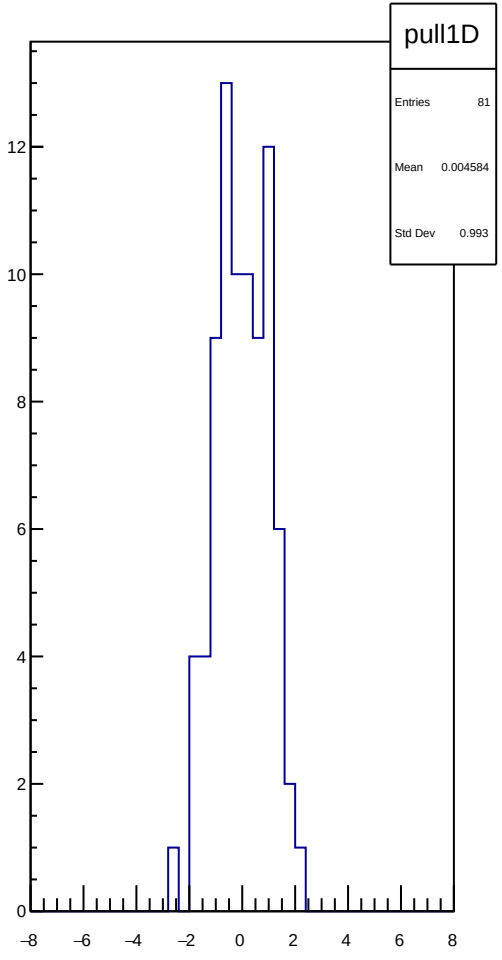

asym_dsr_correction_mean vs run
χ² / ndf 82.71 / 80
p0 1.708 ± 3.341
pull
Entries 81
Mean −24.28
Std Dev 33.6

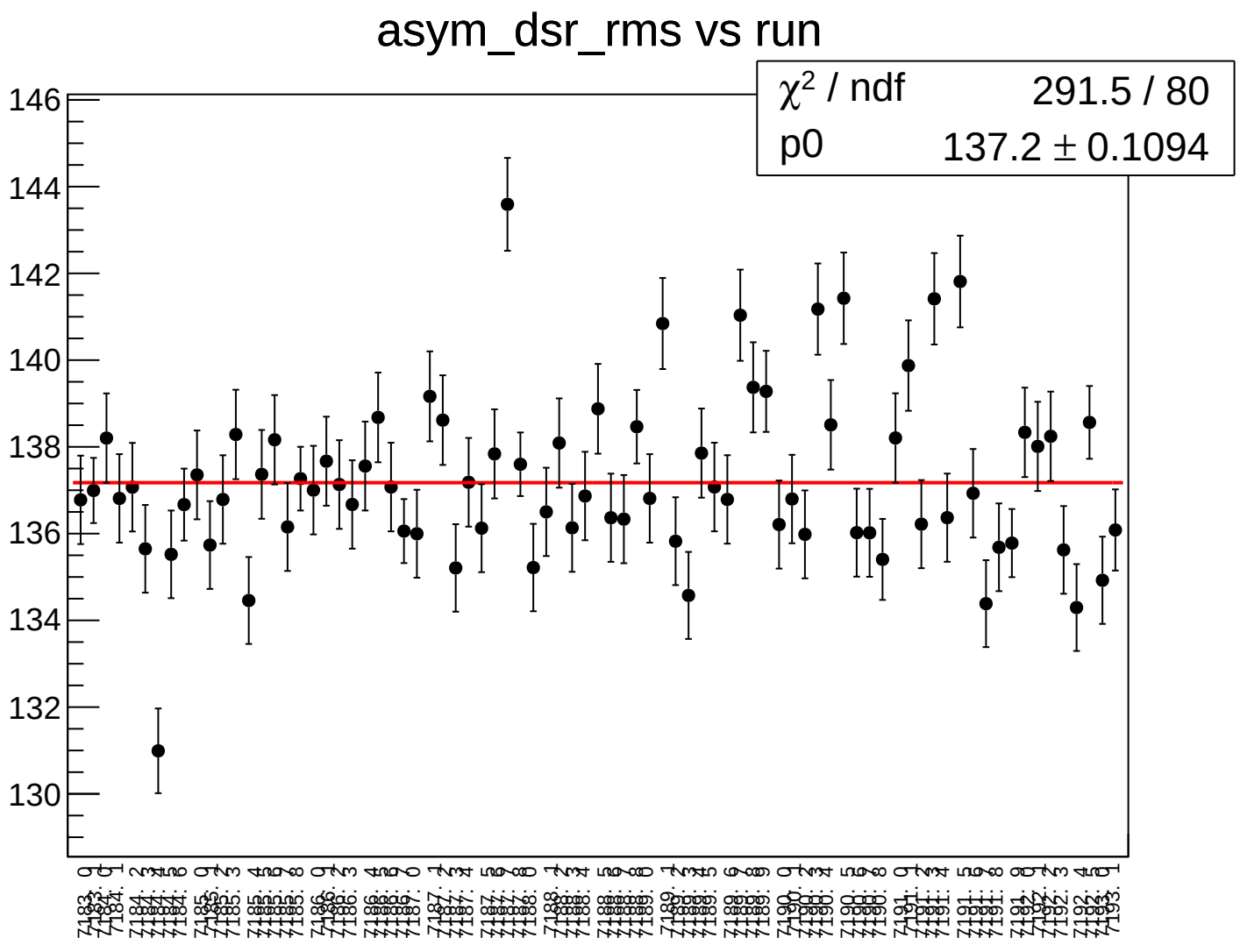

pull1D
Entries 81
Mean 0.01935
Std Dev 1.01

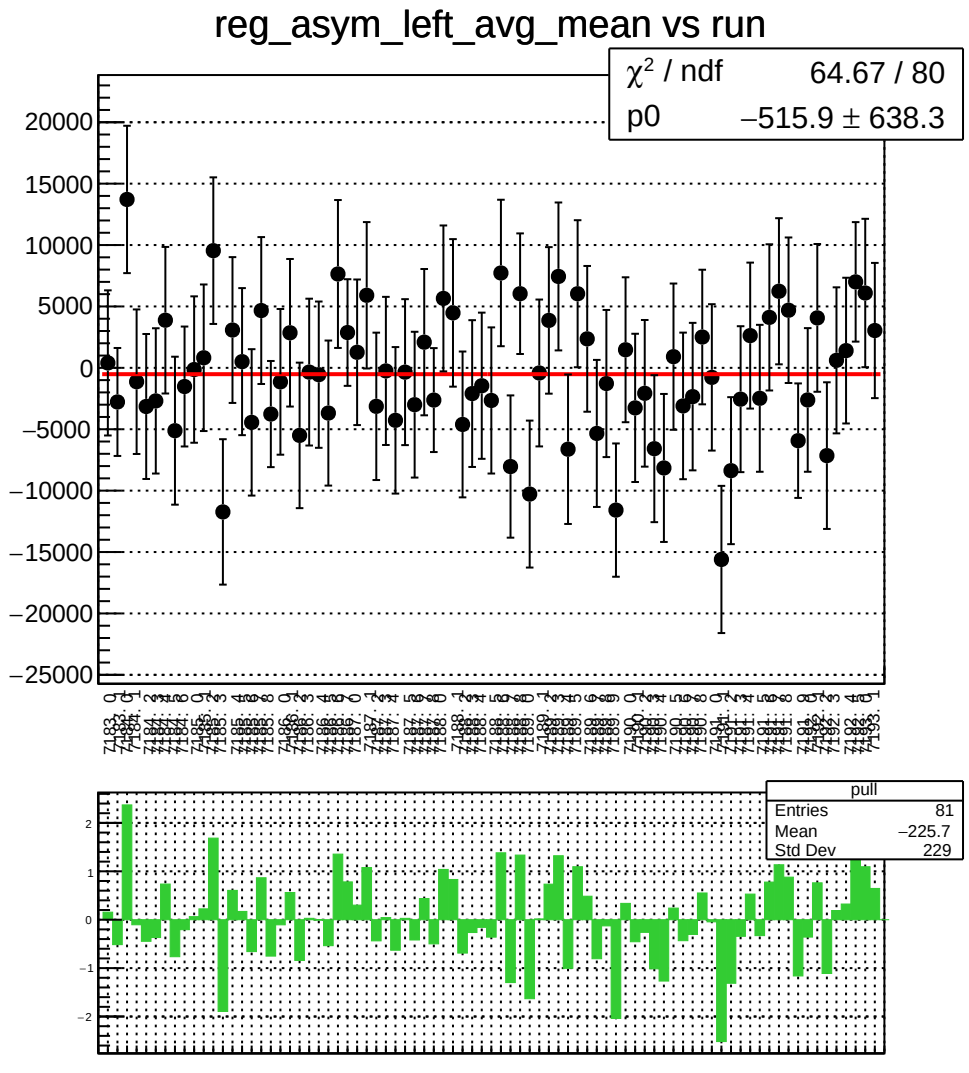
asym_dsr_correction_rms vs run

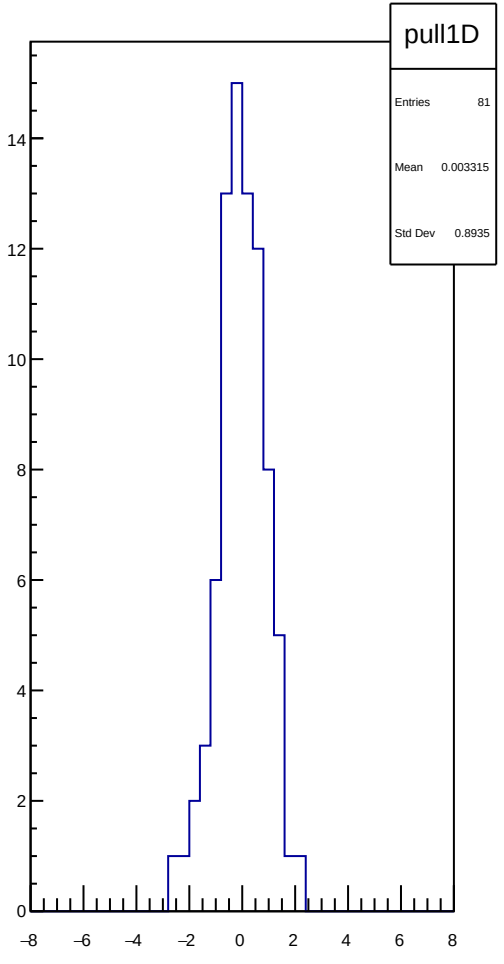


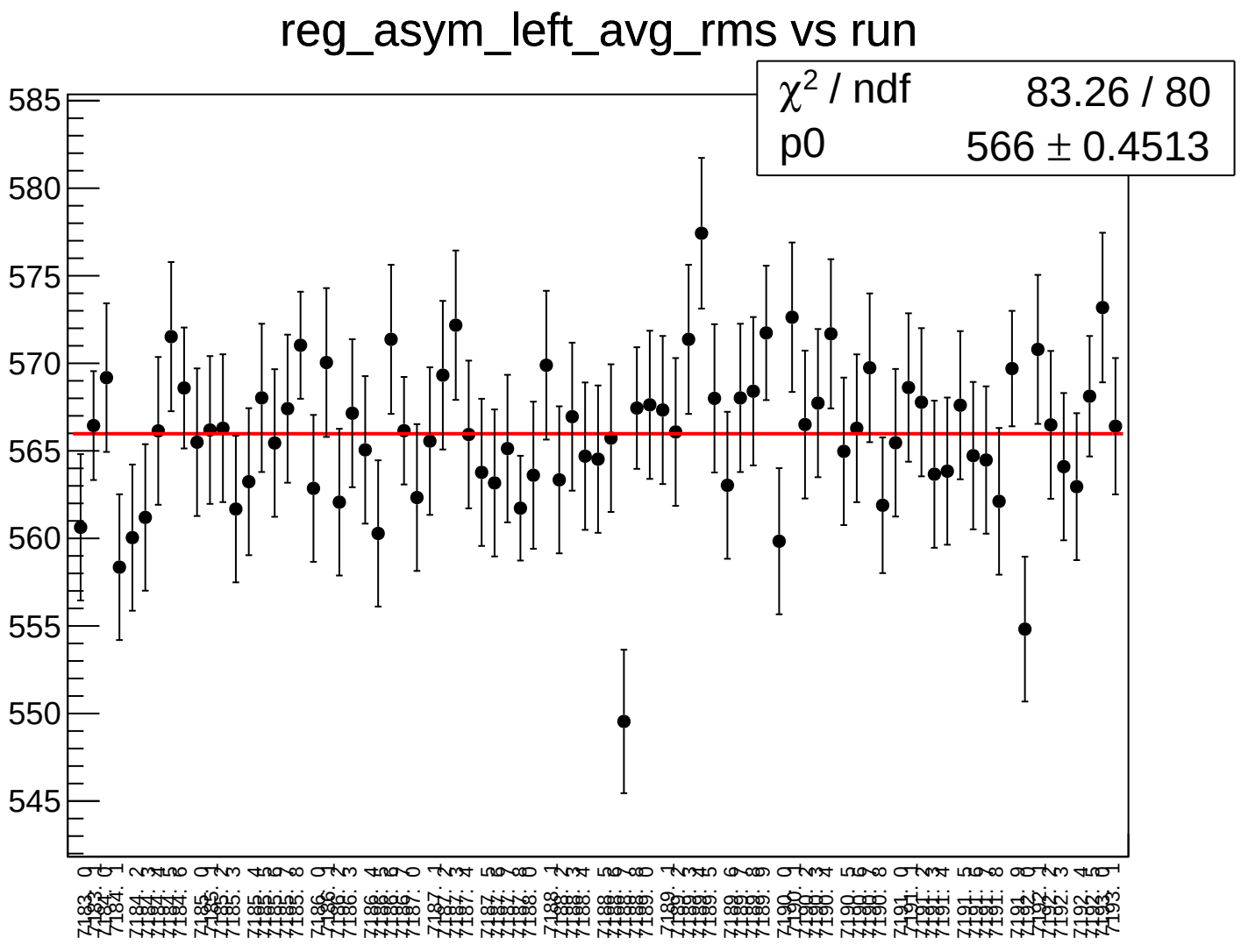

asym_dsr_mean vs run
χ^2 / ndf 79.88 / 80
p0 132.5 ± 154.7
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean −205.3
Std Dev 217.6
2
1
0
−1
−2

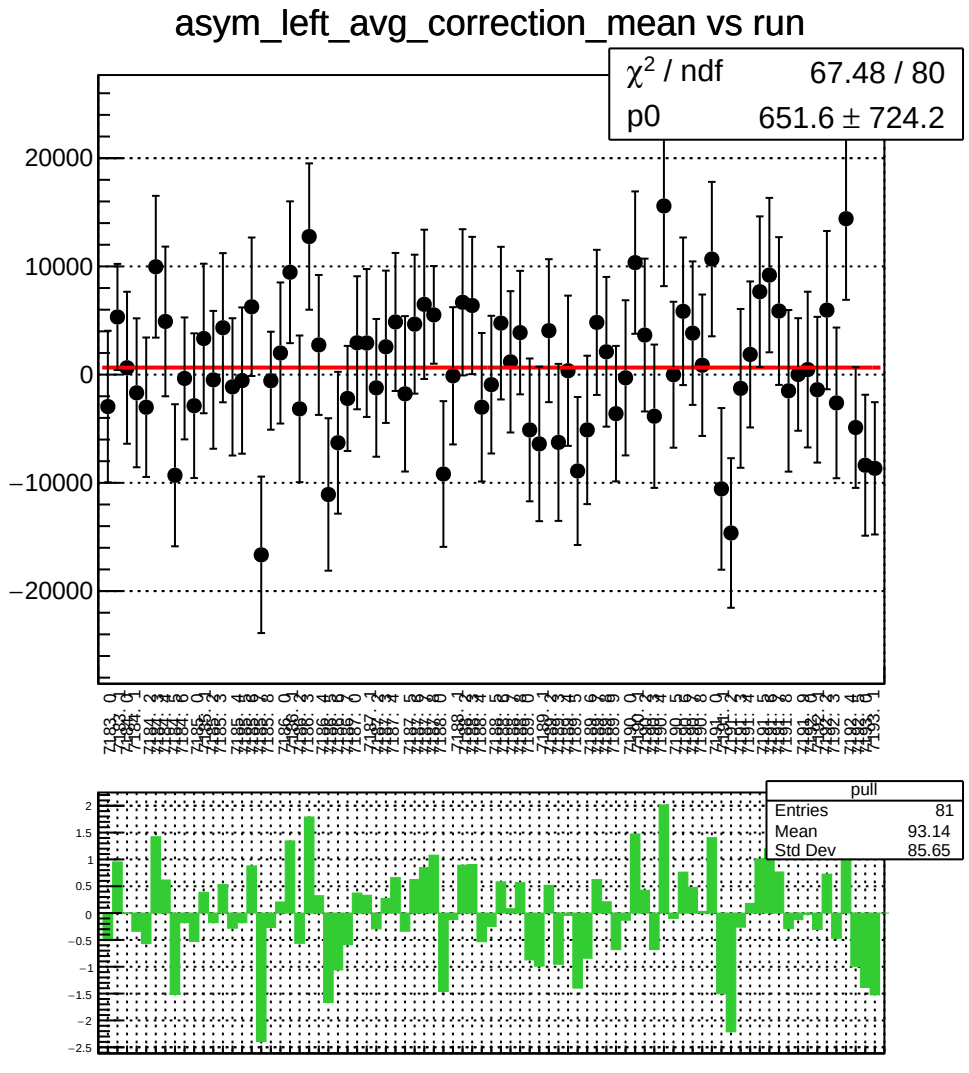

pull1D
Entries 81
Mean 0.004584
Std Dev 0.993
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

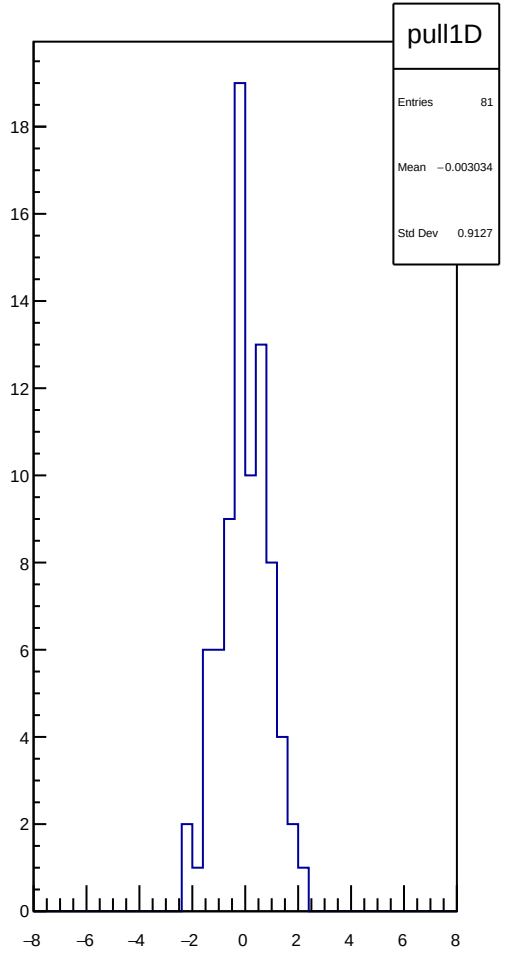

asym_dsr_rms vs run
χ^2 / ndf 291.5 / 80
p0 137.2 ± 0.1094
146
144
142
140
138
136
134
132
130

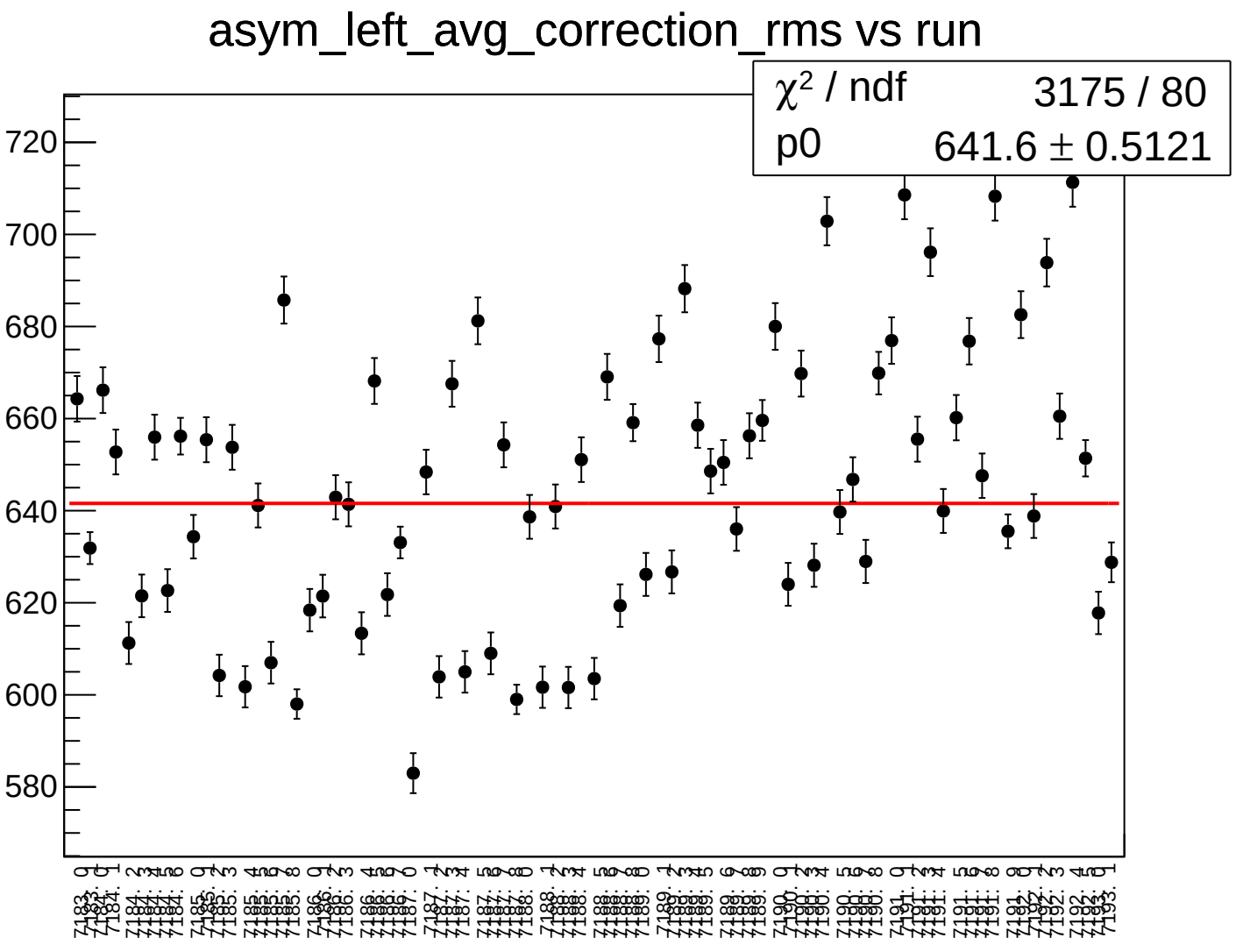

reg_asym_left_avg_mean vs run
χ² / ndf 64.67 / 80
p0 −515.9 ± 638.3
pull
Entries 81
Mean −225.7
Std Dev 229

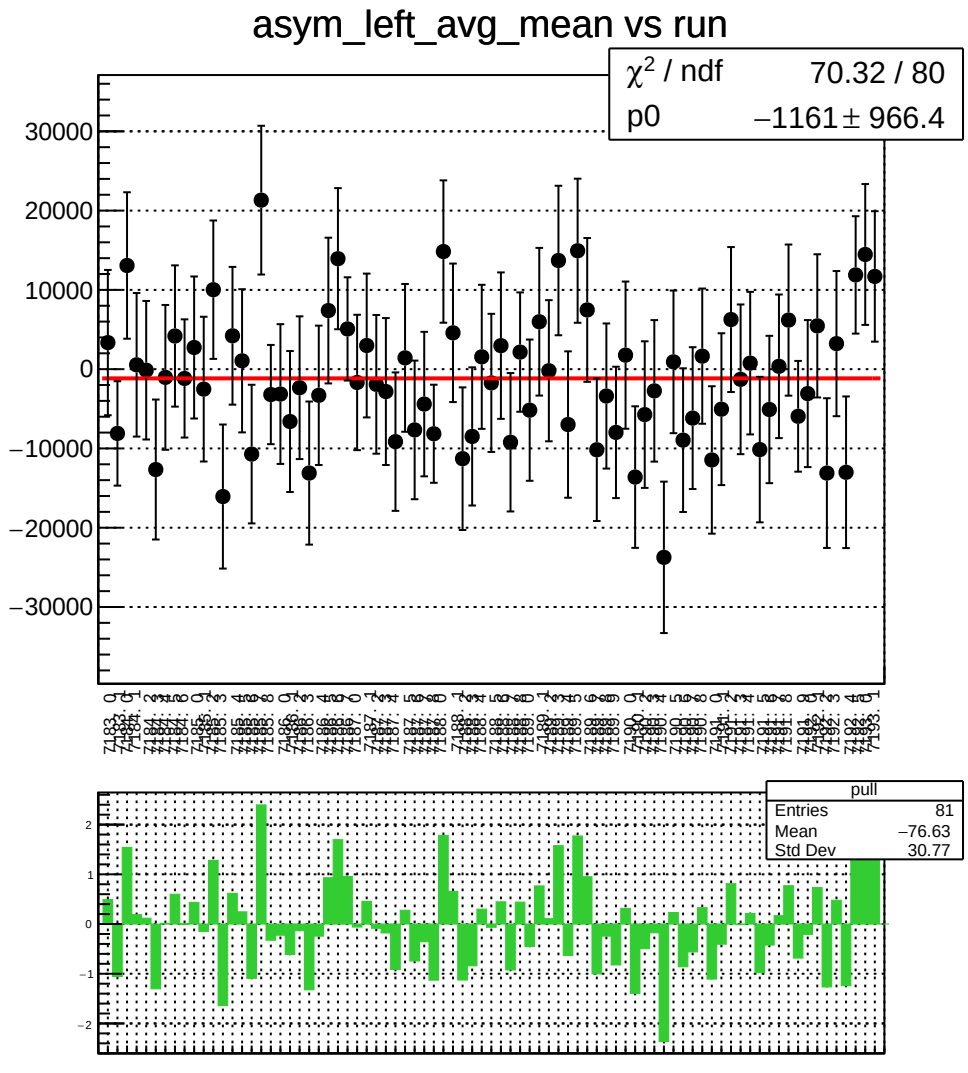

pull1D
Entries 81
Mean 0.003315
Std Dev 0.8935

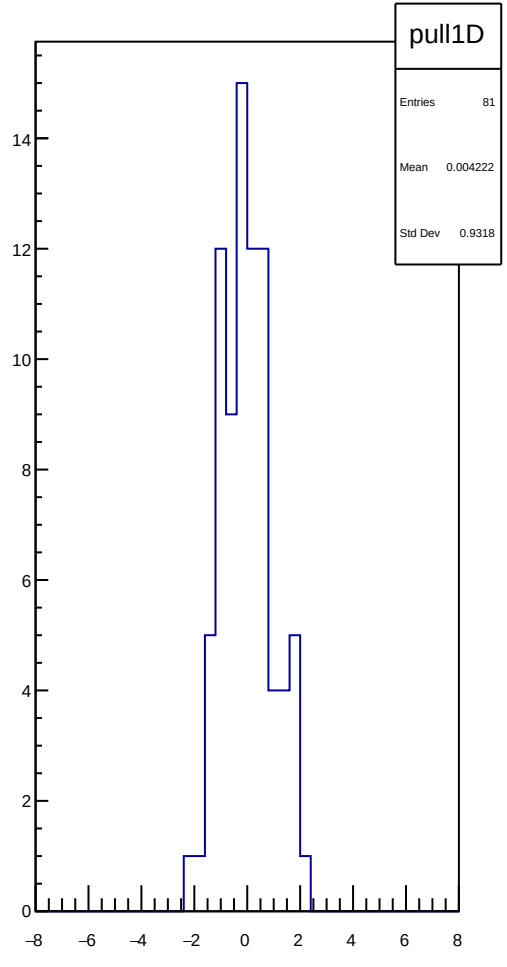

reg_asym_left_avg_rms vs run
χ^2 / ndf 83.26 / 80
p0 566 ± 0.4513
585
580
575
570
565
560
555
550
545

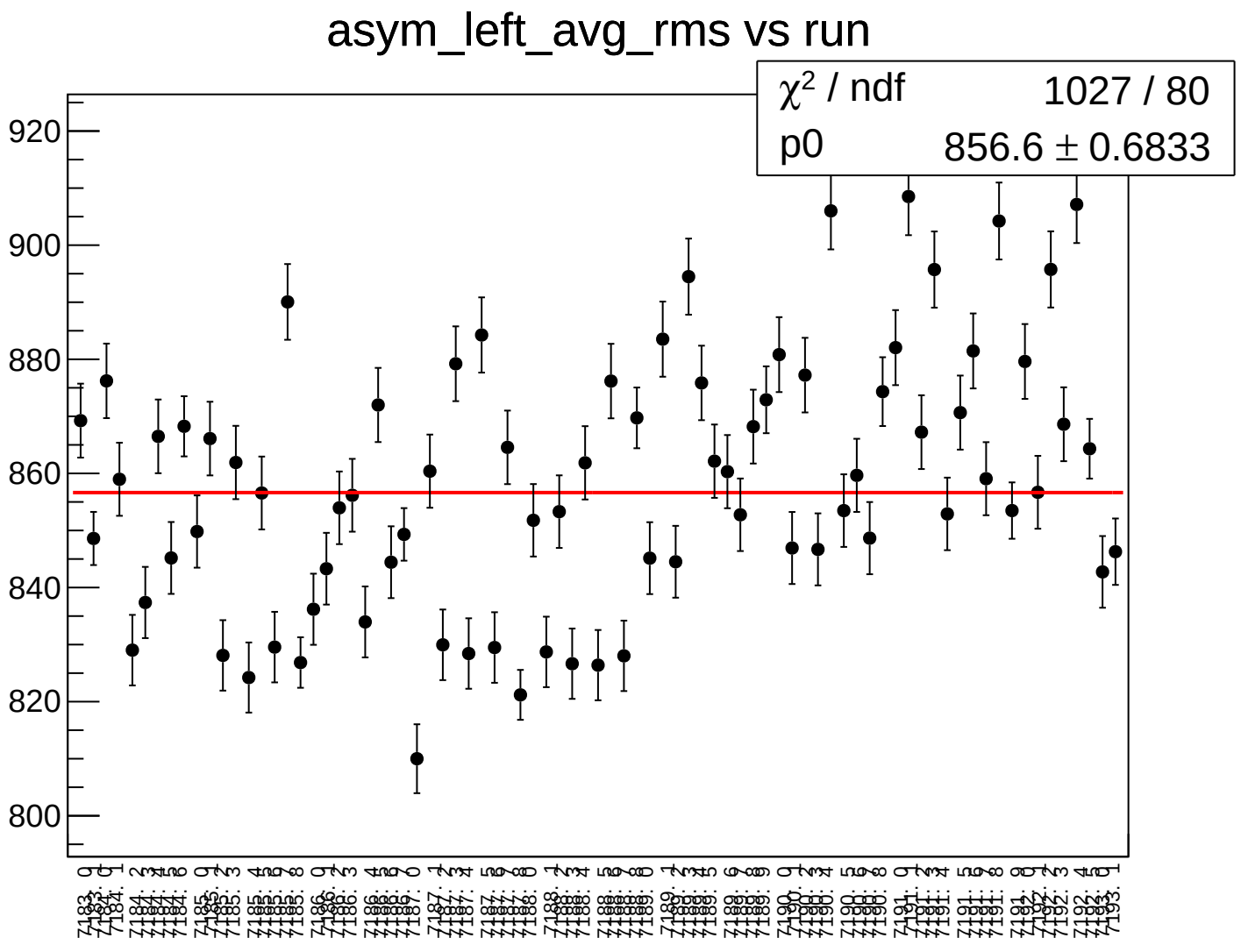

asym_left_avg_correction_mean vs run
χ² / ndf 67.48 / 80
p0 651.6 ± 724.2
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 93.14
Std Dev 85.65
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

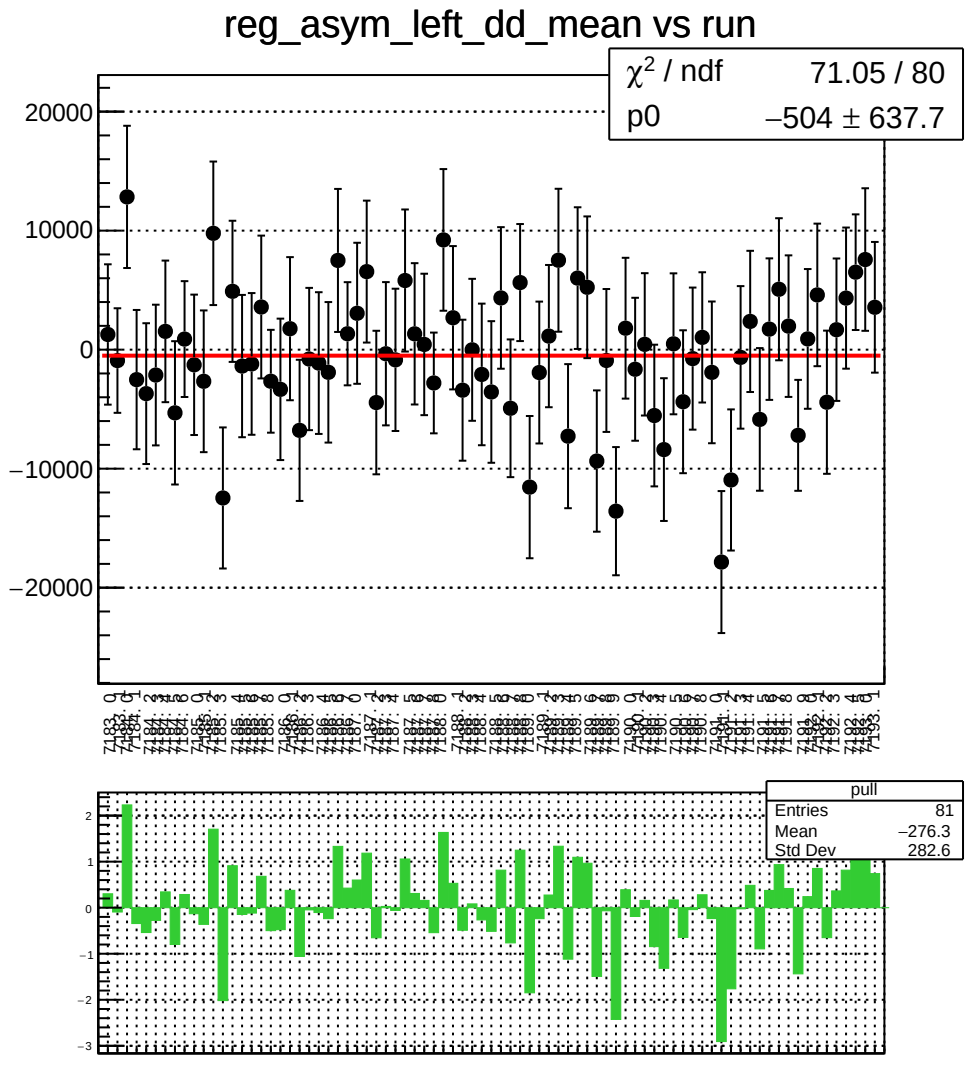

pull1D
Entries 81
Mean −0.003034
Std Dev 0.9127
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

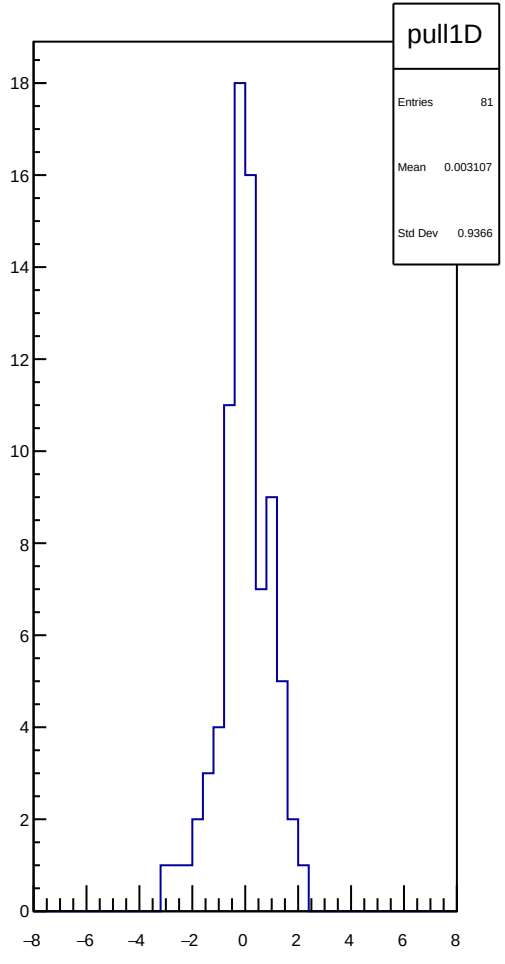

asym_left_avg_correction_rms vs run
χ² / ndf 3175 / 80
p0 641.6 ± 0.5121
720
700
680
660
640
620
600
580

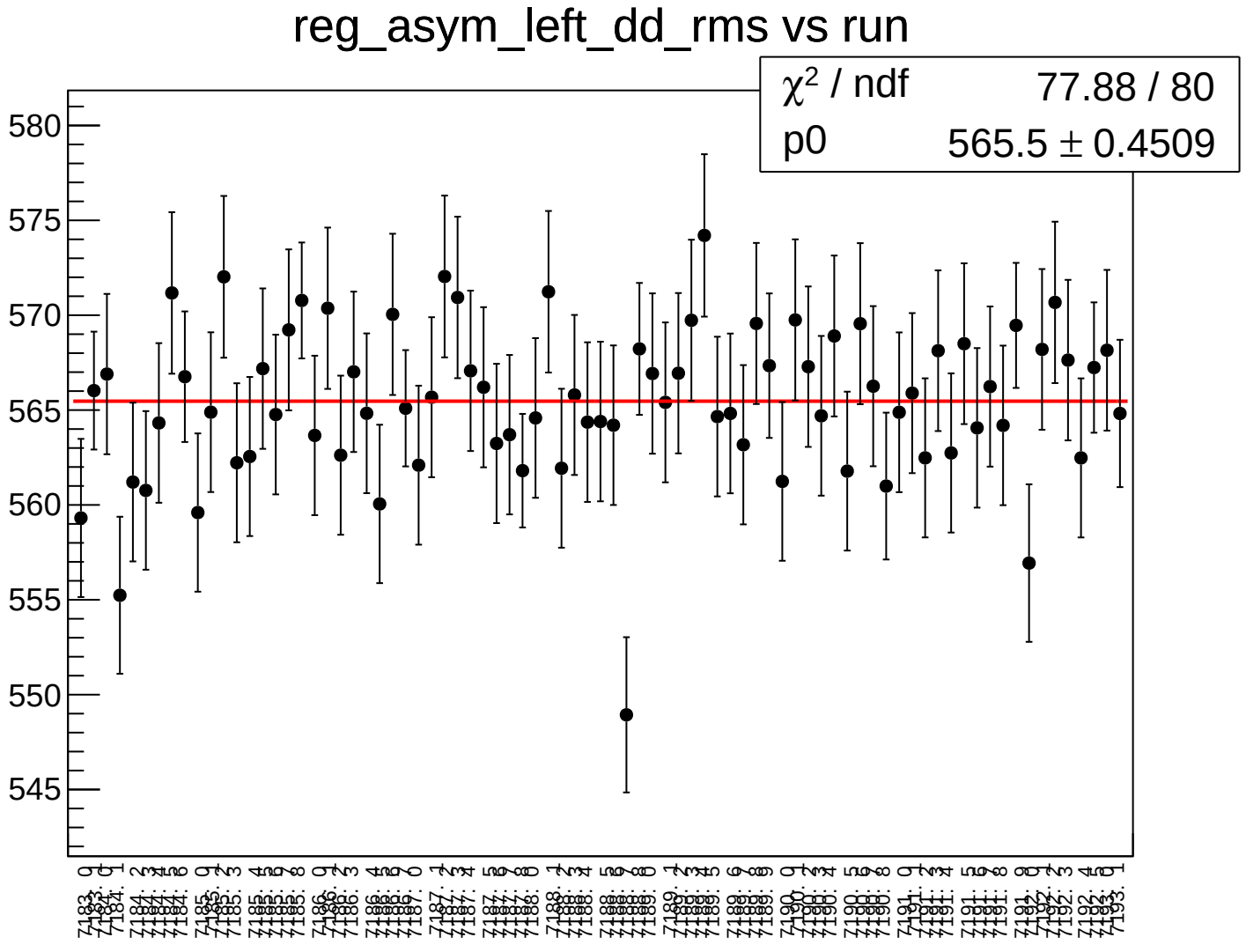

asym_left_avg_mean vs run
χ² / ndf 70.32 / 80
p0 −1161 ± 966.4
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −76.63
Std Dev 30.77
2
1
0
−1
−2

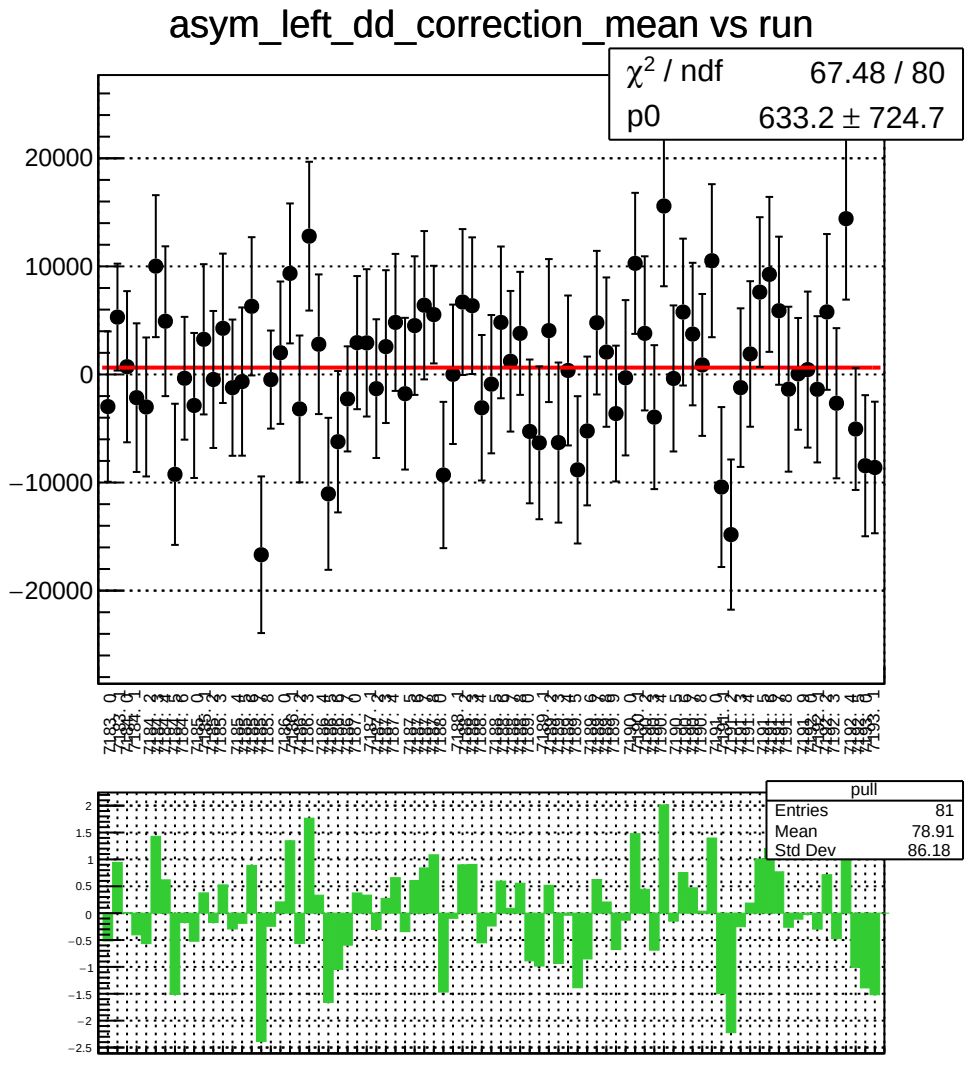

pull1D
Entries 81
Mean 0.004222
Std Dev 0.9318
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

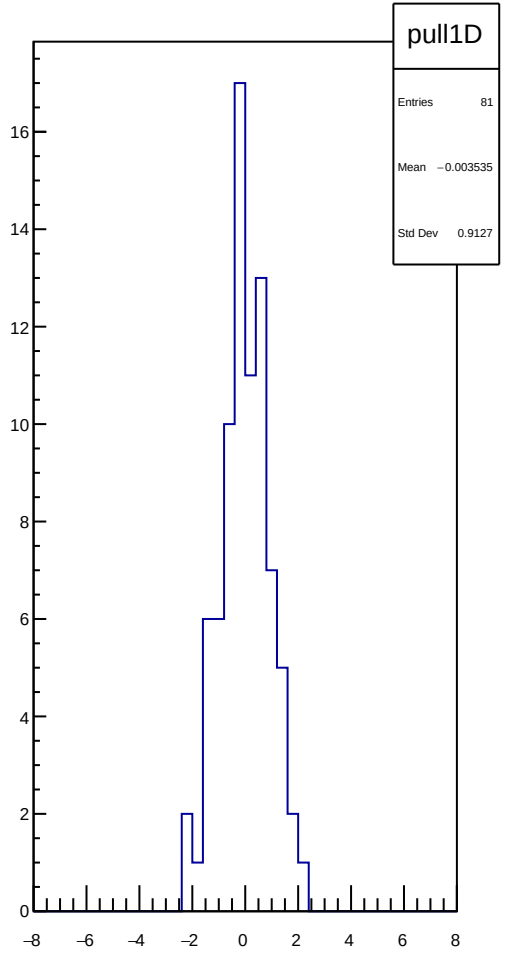

asym_left_avg_rms vs run
χ^2 / ndf 1027 / 80
p0 856.6 ± 0.6833
920
900
880
860
840
820
800

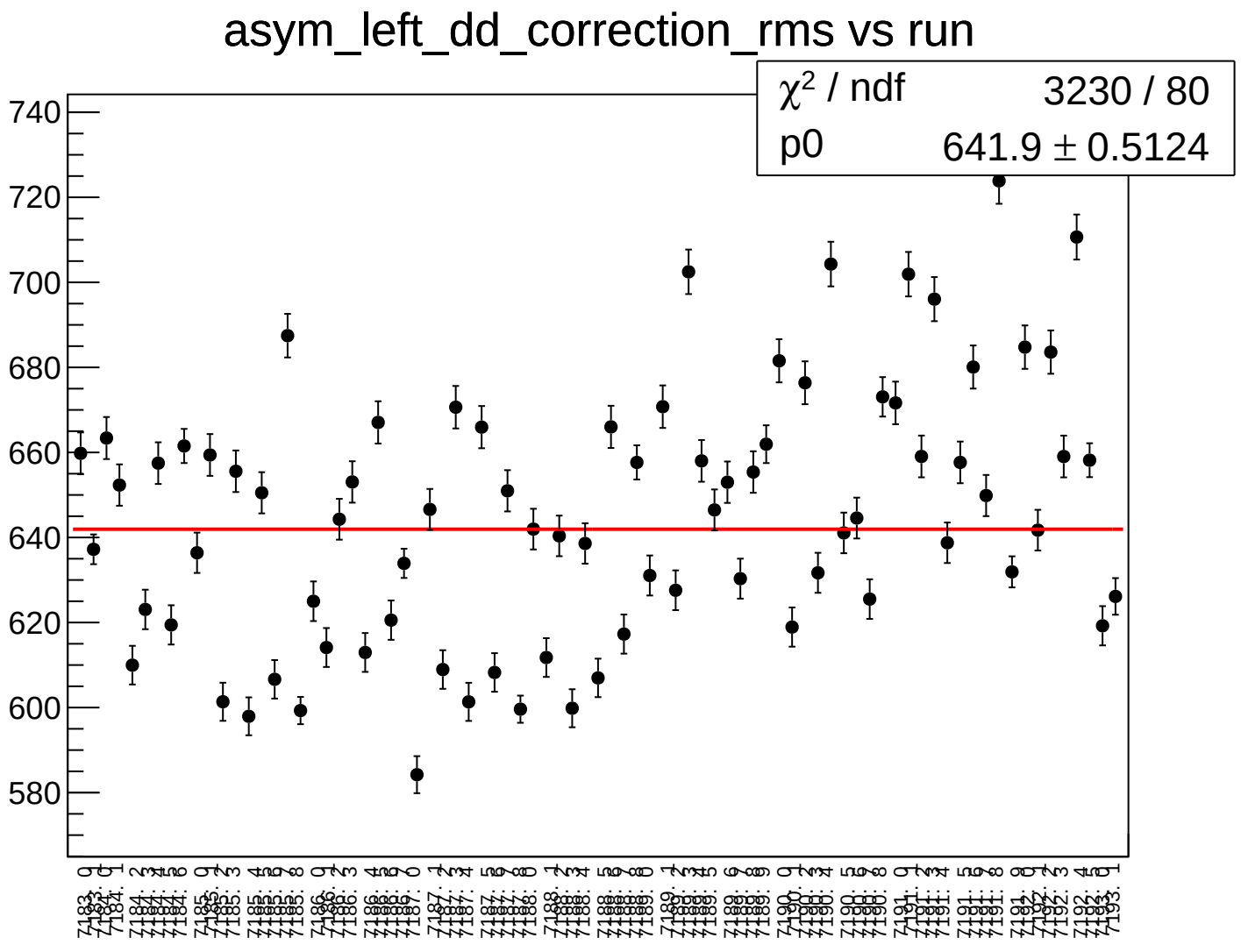

reg_asym_left_dd_mean vs run
χ² / ndf 71.05 / 80
p0 −504 ± 637.7
20000
10000
0
−10000
−20000
pull
Entries 81
Mean −276.3
Std Dev 282.6
2
1
0
−1
−2
−3

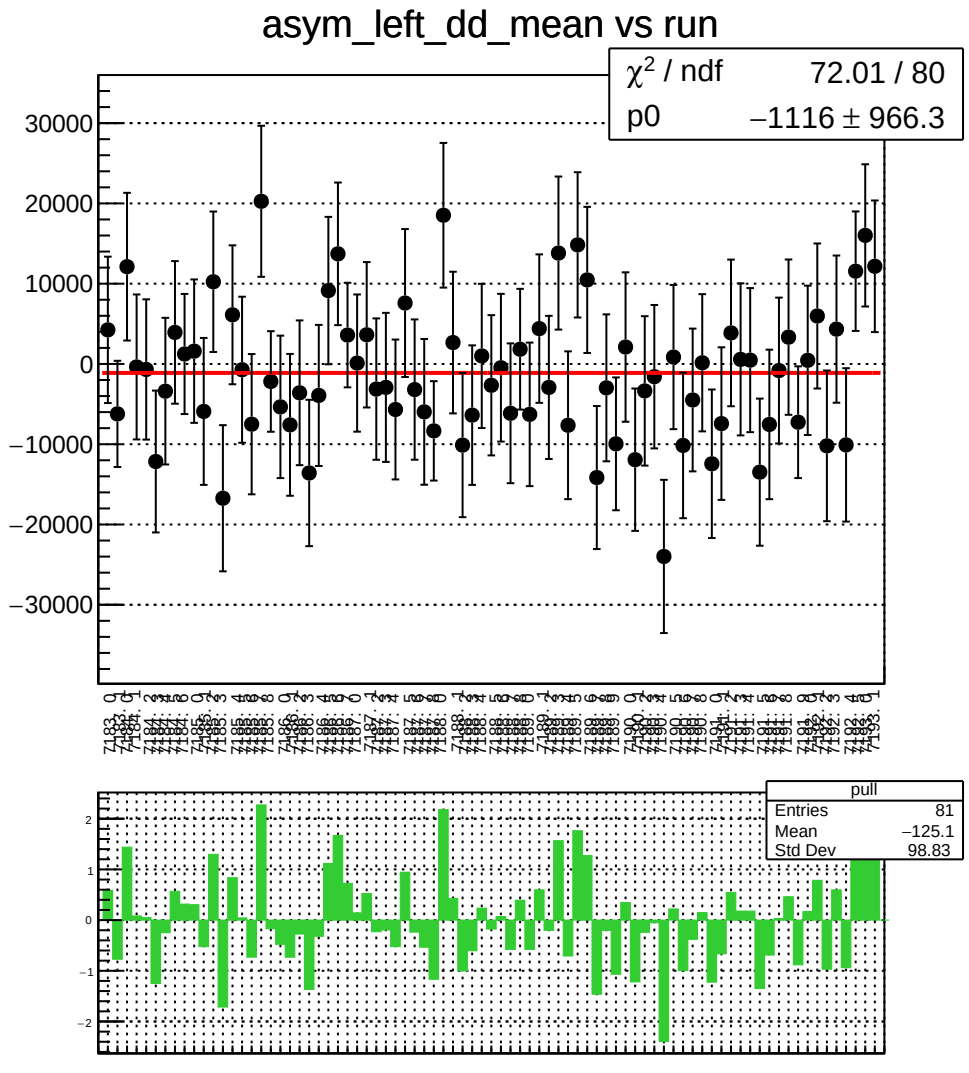

pull1D
Entries 81
Mean 0.003107
Std Dev 0.9366
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

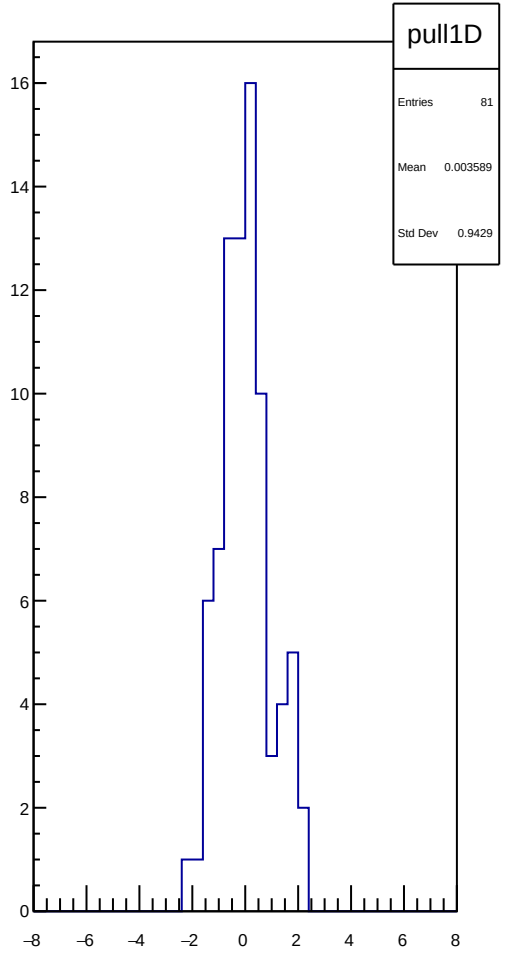

reg_asym_left_dd_rms vs run
χ² / ndf 77.88 / 80
p0 565.5 ± 0.4509
580
575
570
565
560
555
550
545

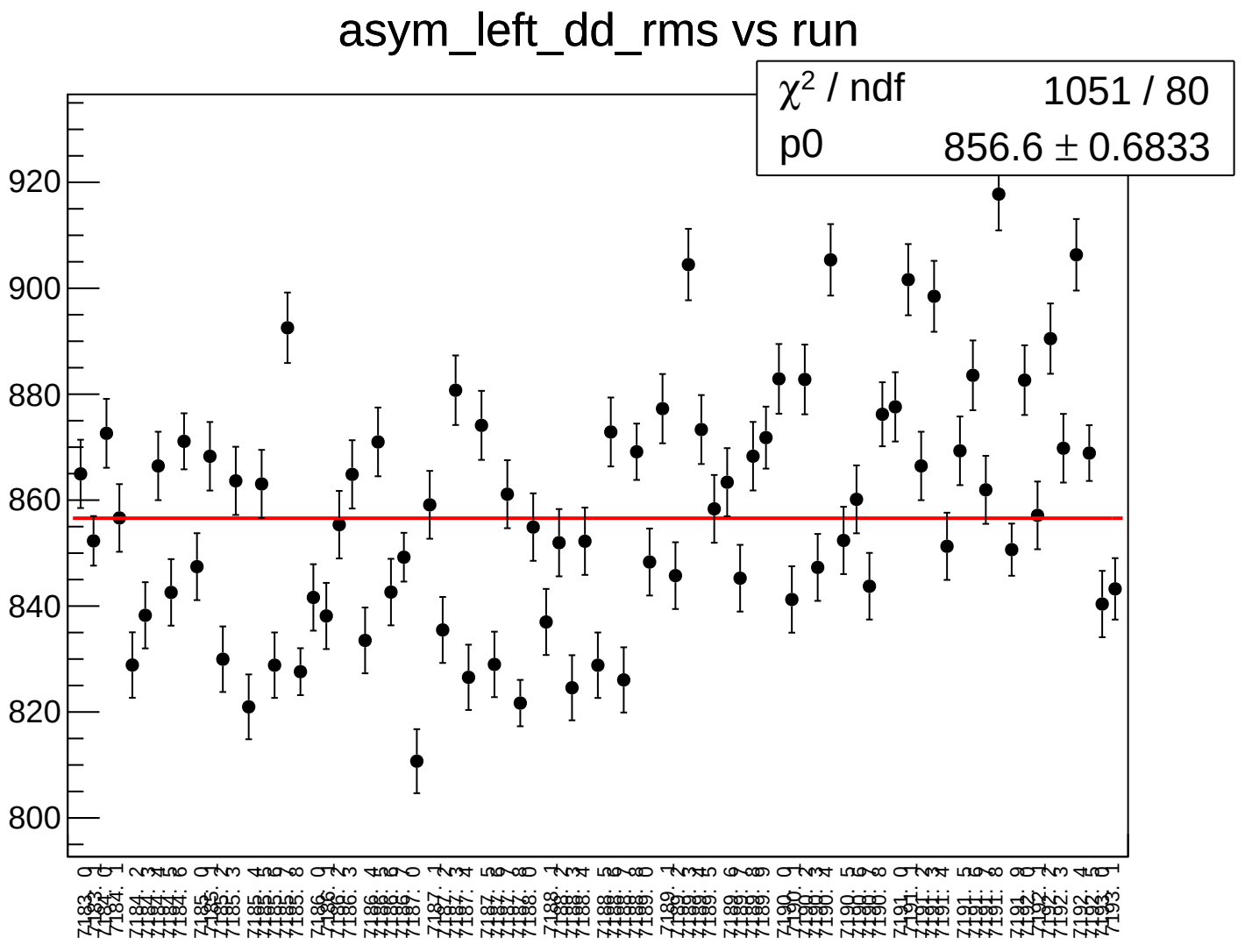

asym_left_dd_correction_mean vs run
χ² / ndf 67.48 / 80
p0 633.2 ± 724.7
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 78.91
Std Dev 86.18
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

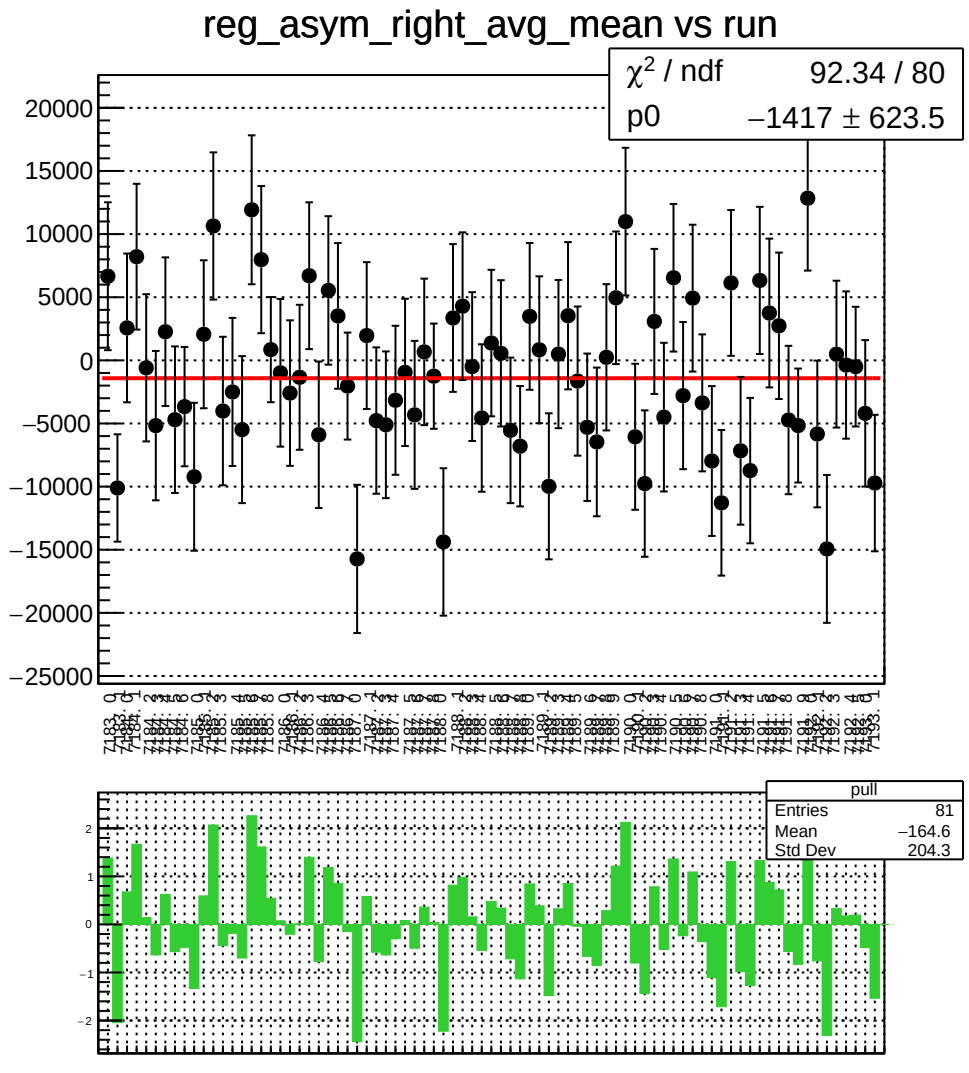

pull1D
Entries 81
Mean −0.003535
Std Dev 0.9127
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

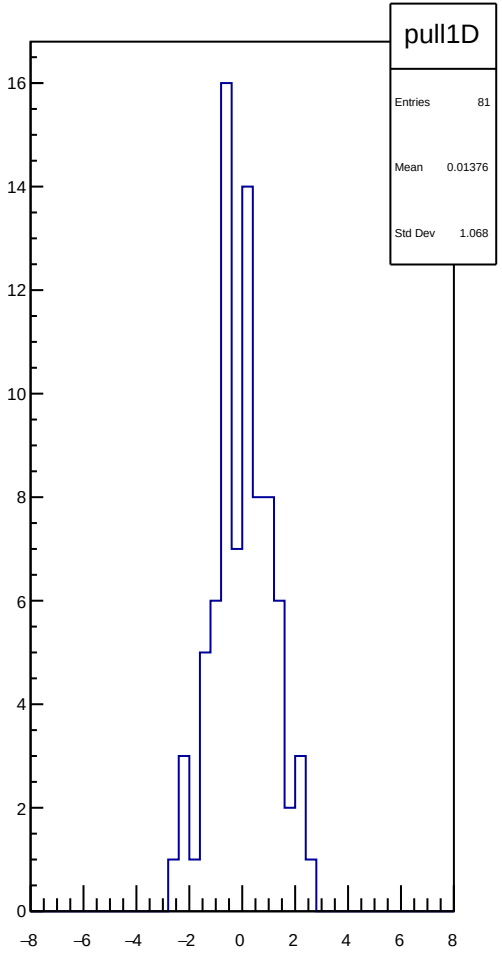

asym_left_dd_correction_rms vs run
χ² / ndf 3230 / 80
p0 641.9 ± 0.5124
740
720
700
680
660
640
620
600
580

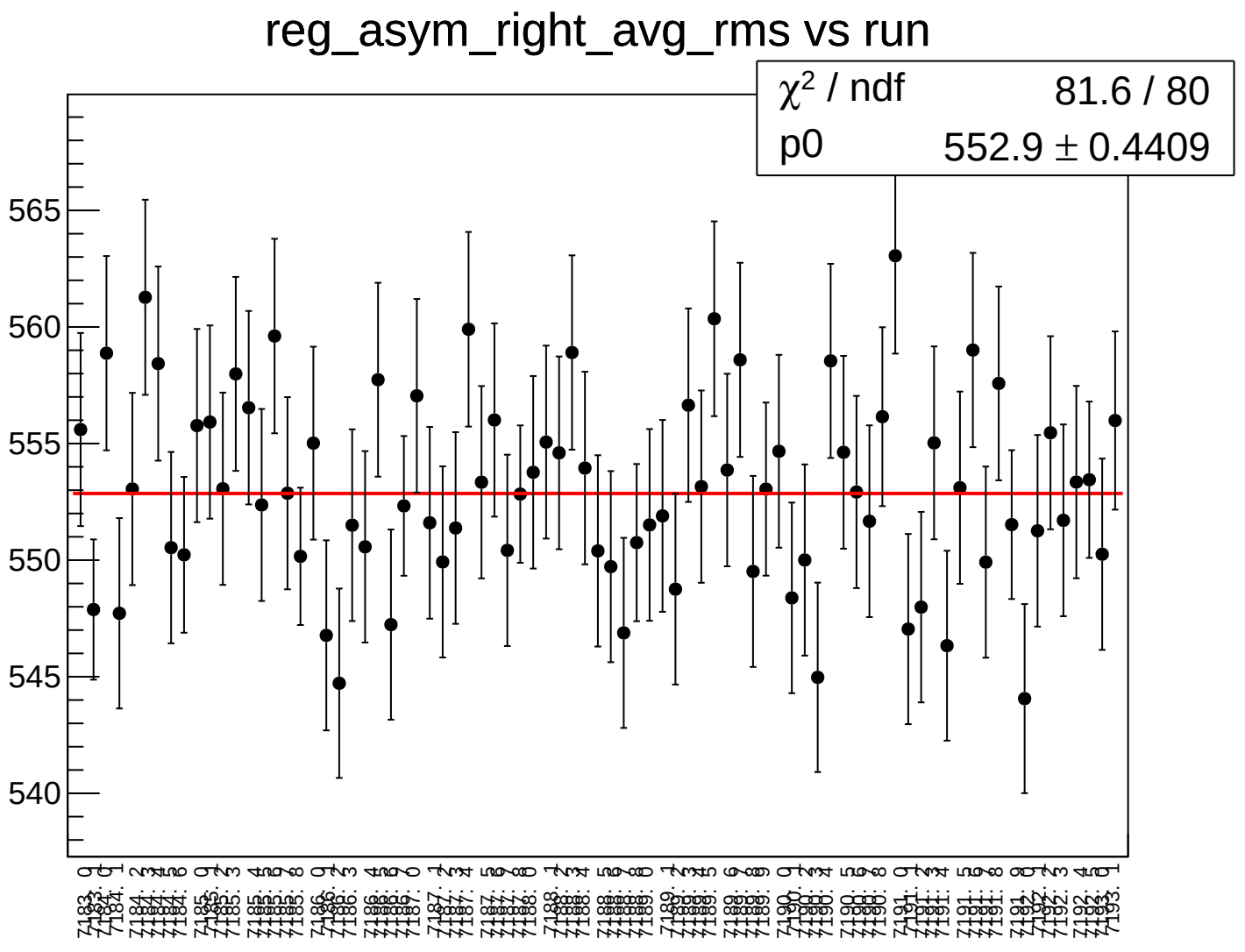

asym_left_dd_mean vs run
χ² / ndf 72.01 / 80
p0 −1116 ± 966.3
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −125.1
Std Dev 98.83
2
1
0
−1
−2

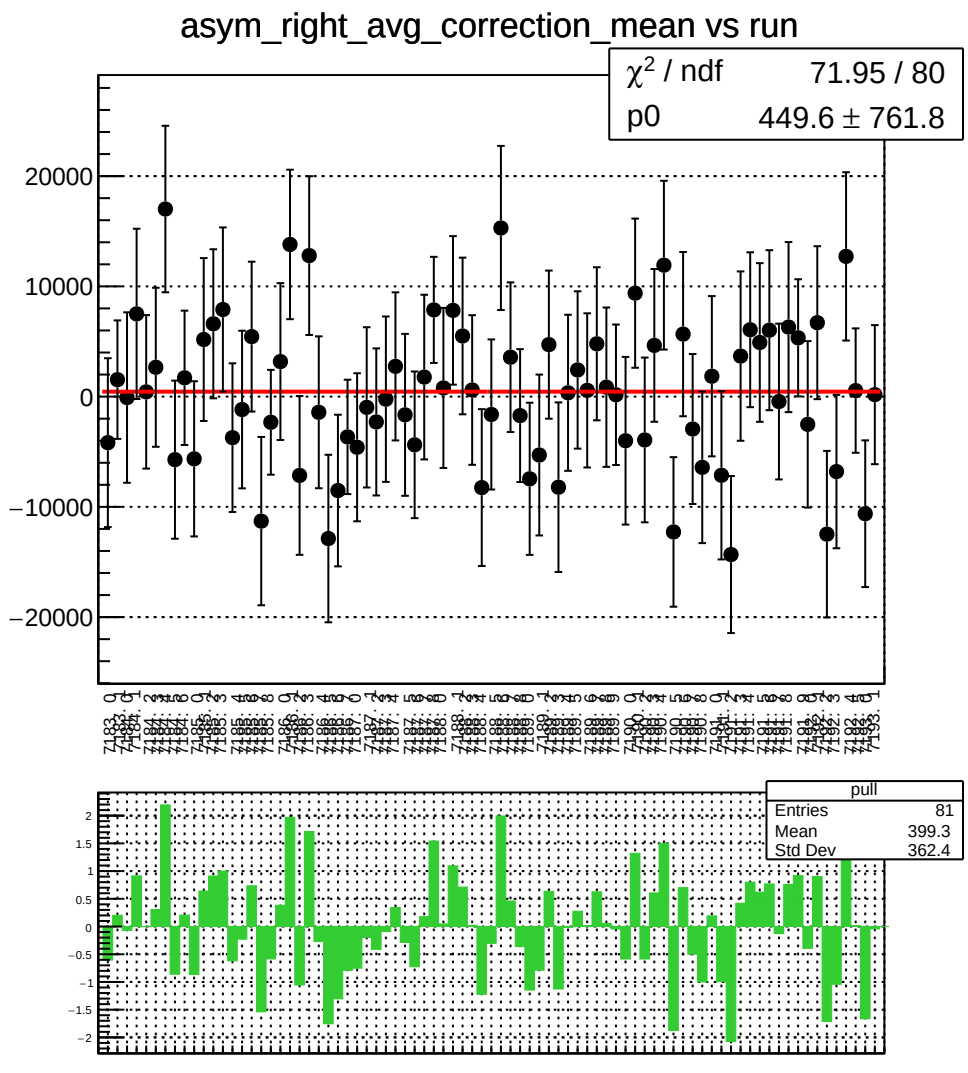

pull1D
Entries 81
Mean 0.003589
Std Dev 0.9429
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

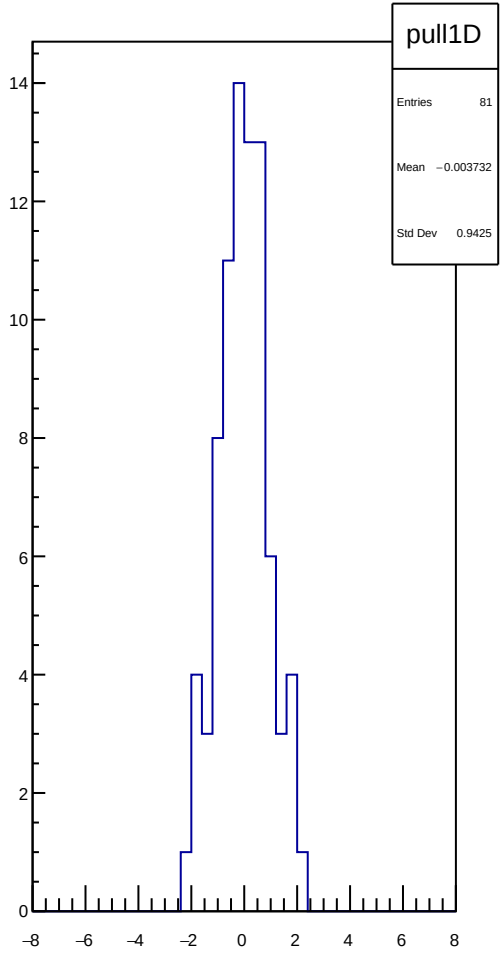

asym_left_dd_rms vs run
χ^2 / ndf 1051 / 80
p0 856.6 ± 0.6833
920
900
880
860
840
820
800

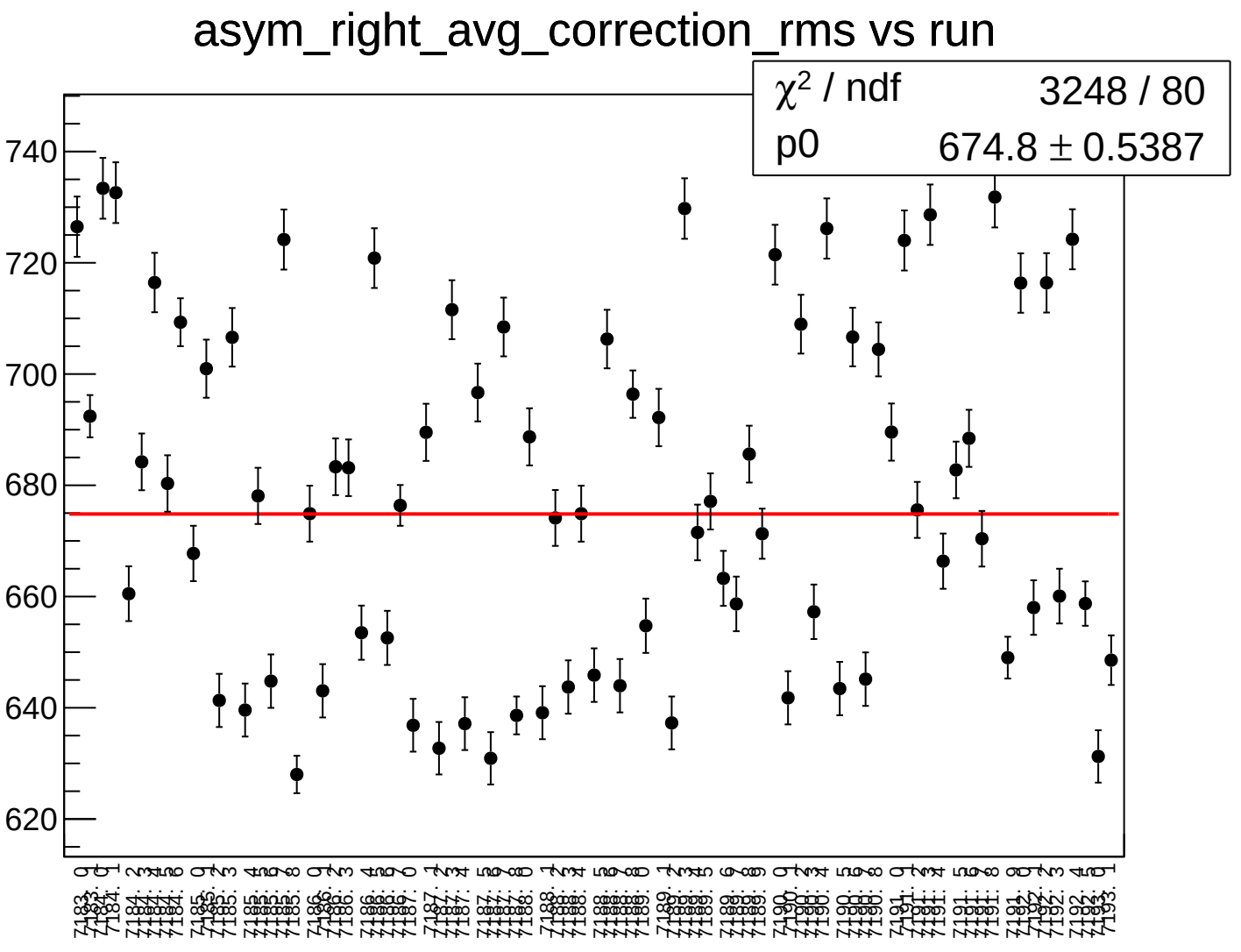

reg_asym_right_avg_mean vs run
χ² / ndf 92.34 / 80
p0 −1417 ± 623.5
pull
Entries 81
Mean −164.6
Std Dev 204.3

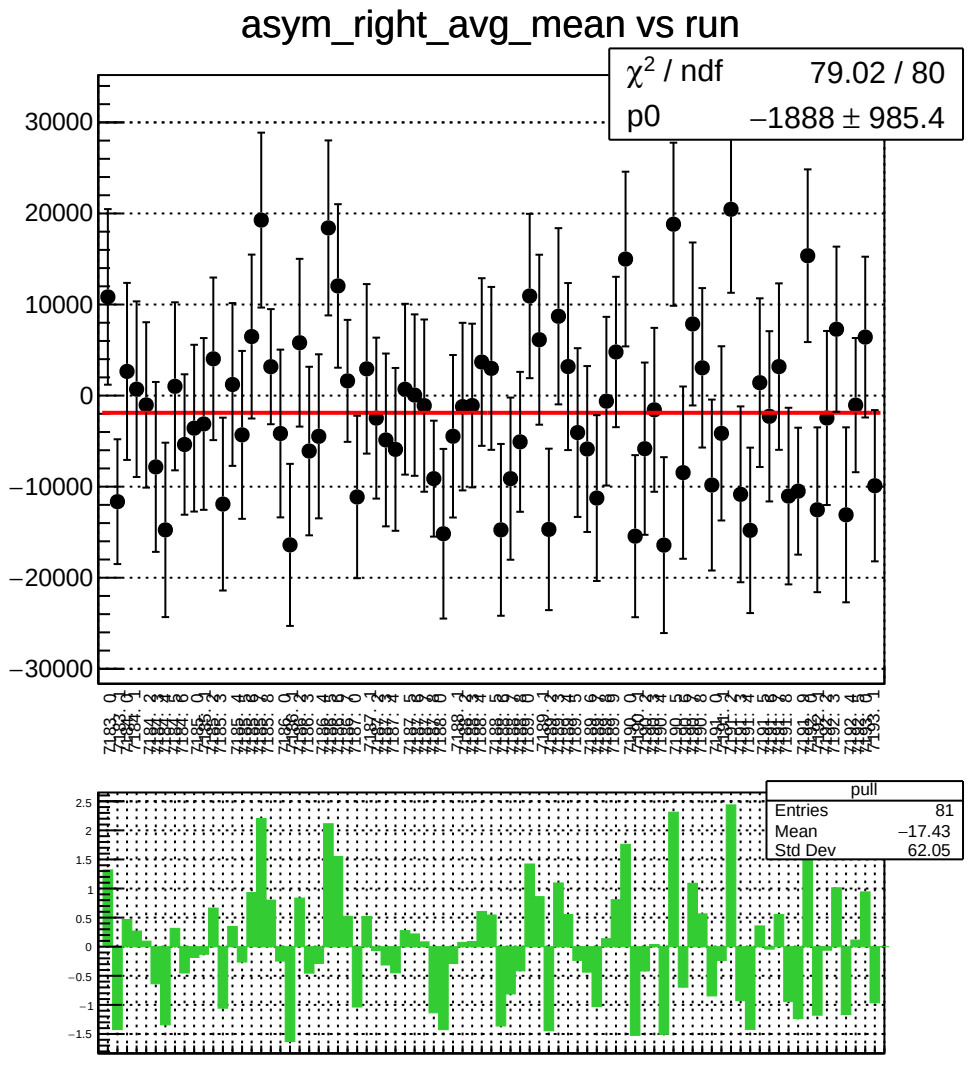

pull1D
Entries 81
Mean 0.01376
Std Dev 1.068

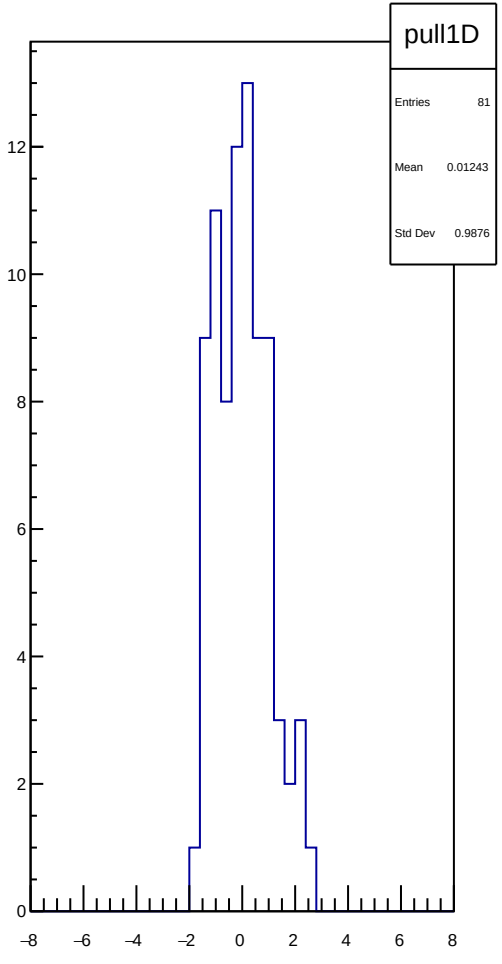

reg_asym_right_avg_rms vs run
χ² / ndf 81.6 / 80
p0 552.9 ± 0.4409
565
560
555
550
545
540

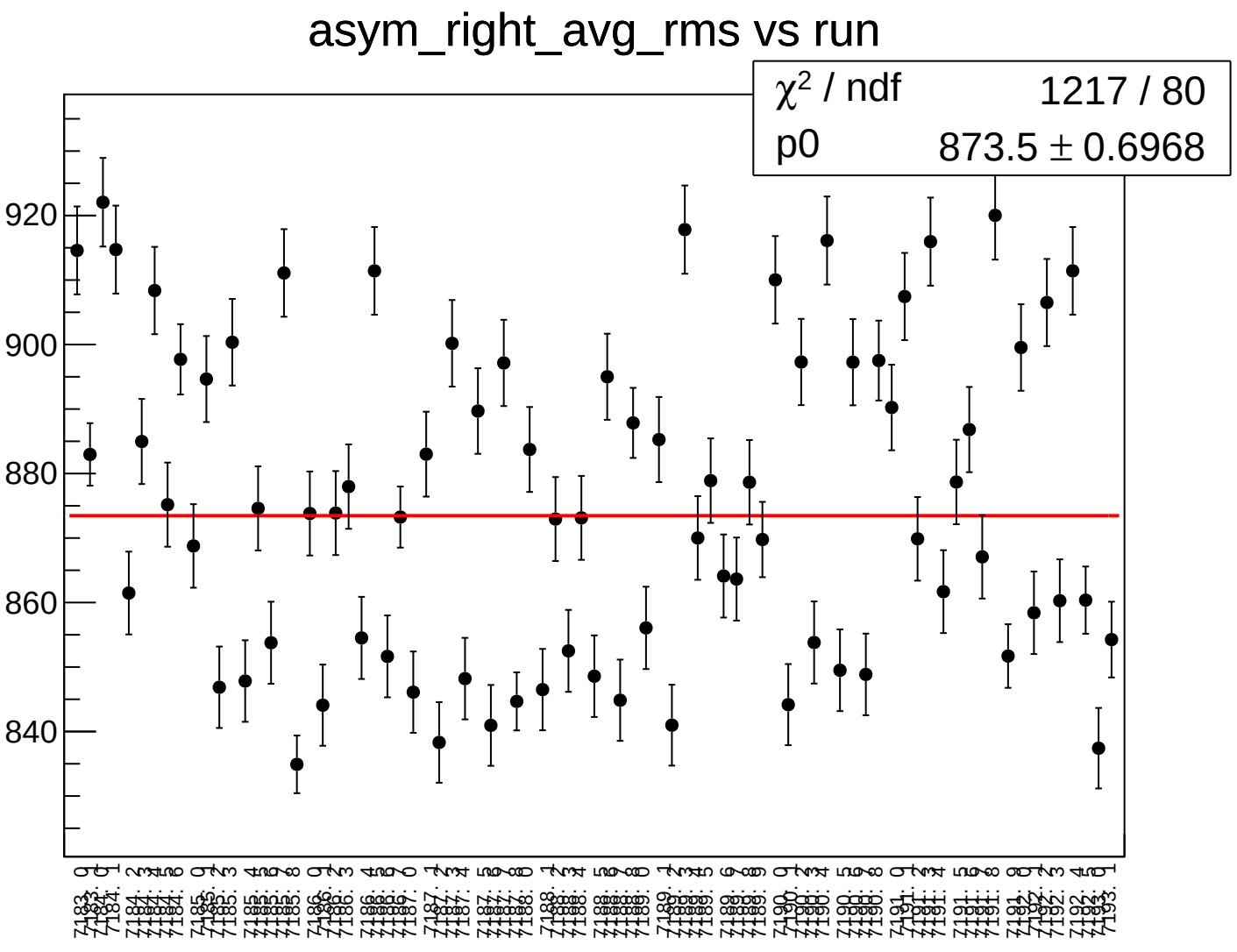

asym_right_avg_correction_mean vs run
χ² / ndf 71.95 / 80
p0 449.6 ± 761.8
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 399.3
Std Dev 362.4
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

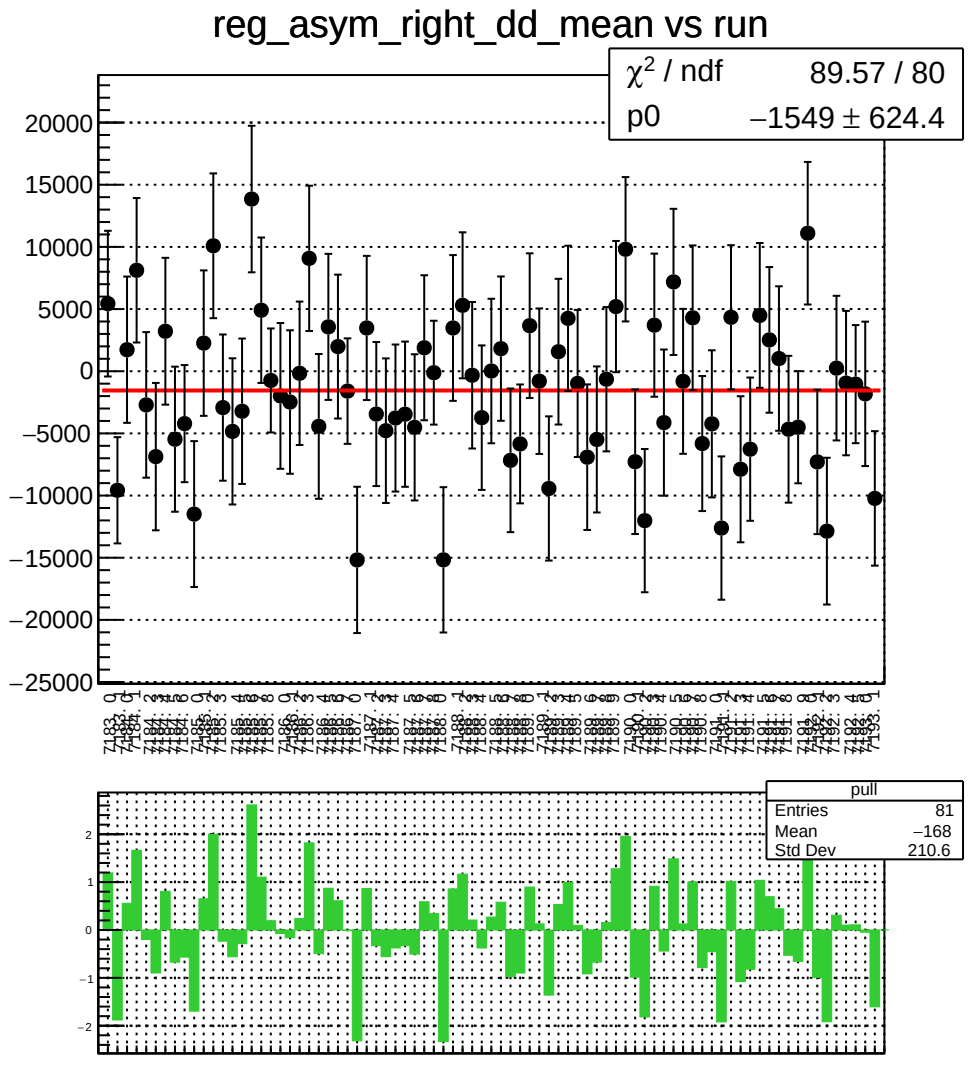

pull1D
Entries 81
Mean −0.003732
Std Dev 0.9425
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

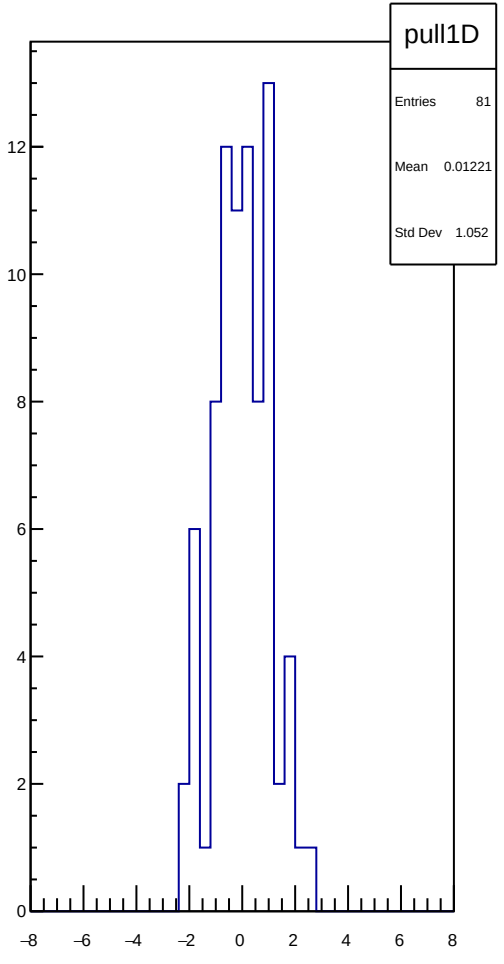

asym_right_avg_correction_rms vs run
χ² / ndf 3248 / 80
p0 674.8 ± 0.5387
740
720
700
680
660
640
620

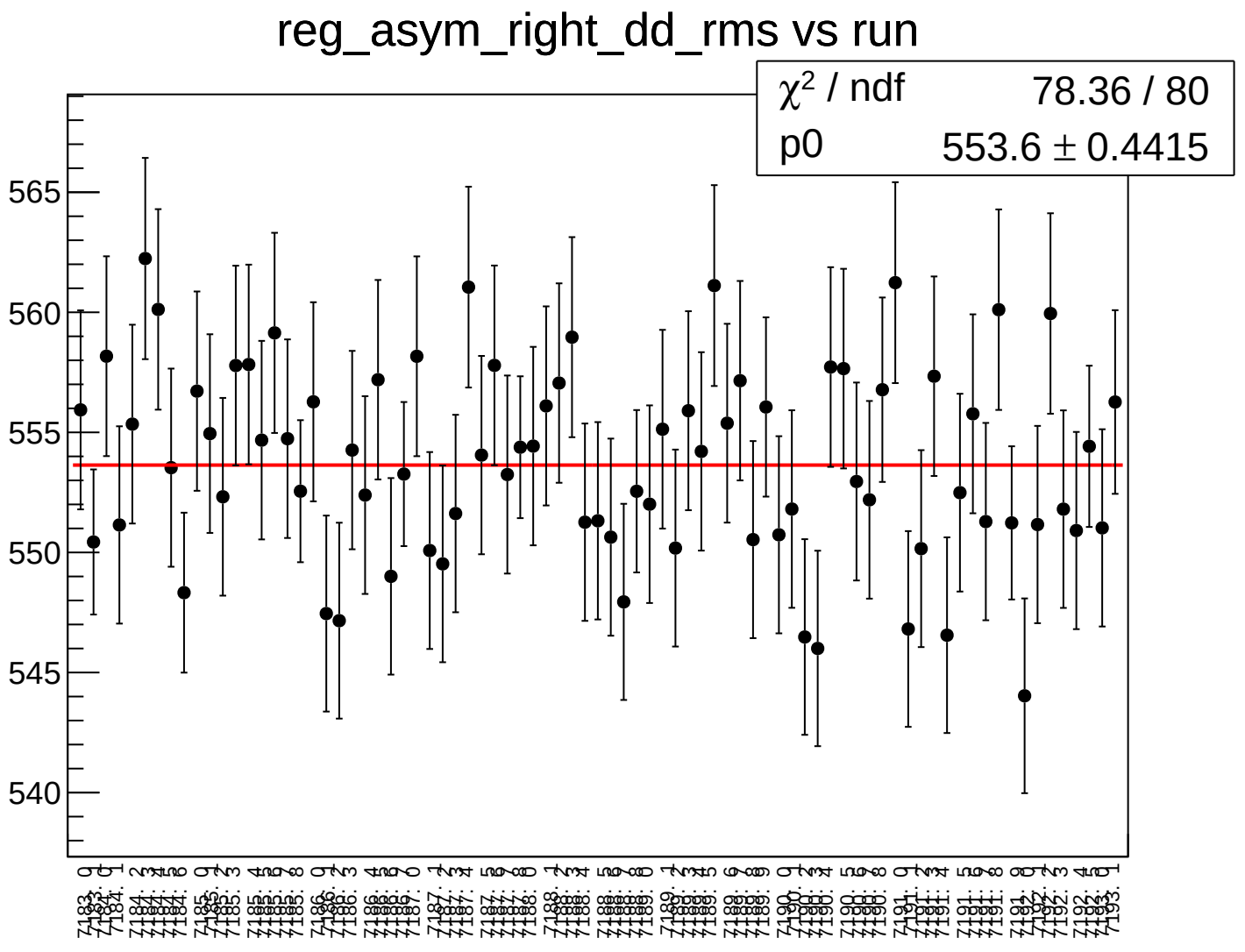

asym_right_avg_mean vs run
χ² / ndf 79.02 / 80
p0 −1888 ± 985.4
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −17.43
Std Dev 62.05
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5

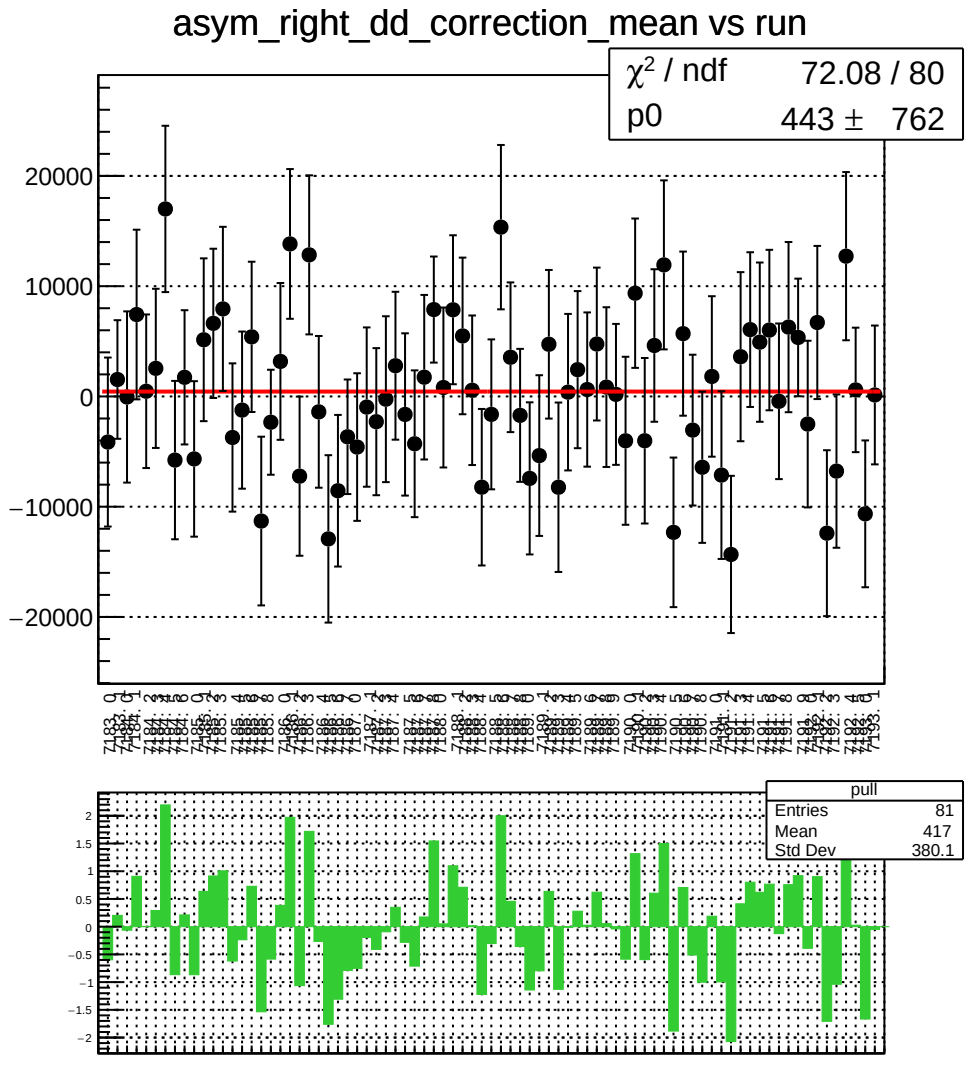

pull1D
Entries 81
Mean 0.01243
Std Dev 0.9876
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

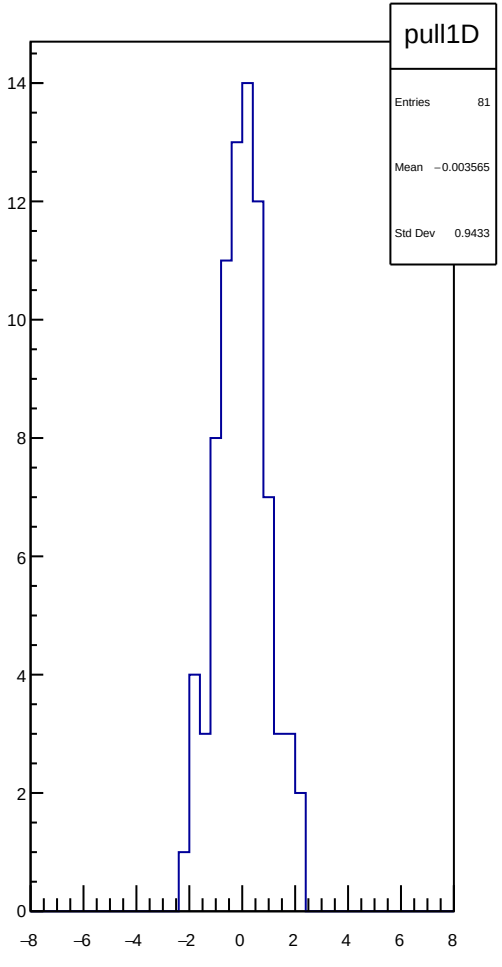

asym_right_avg_rms vs run
χ^2 / ndf 1217 / 80
p0 873.5 ± 0.6968
920
900
880
860
840

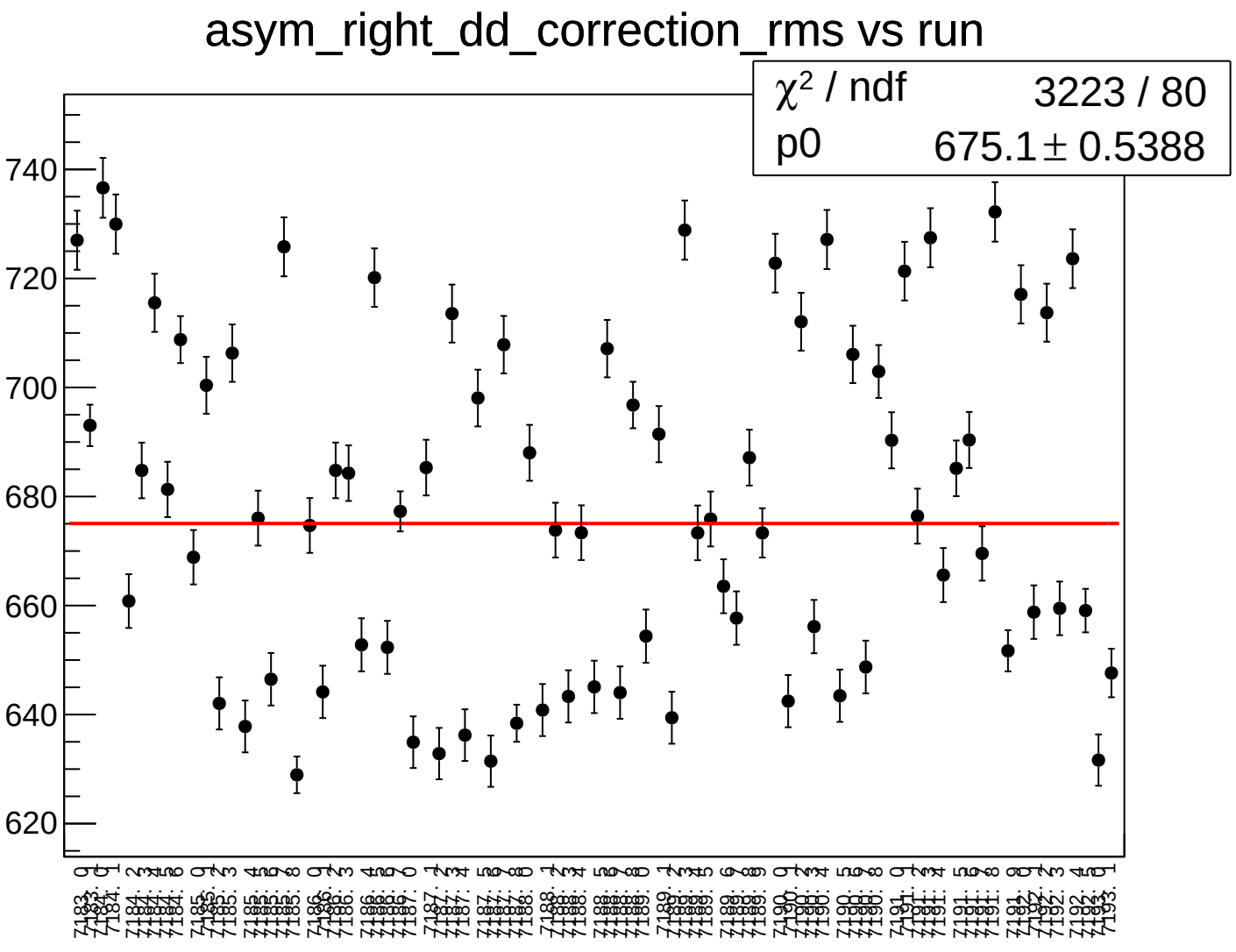

reg_asym_right_dd_mean vs run
χ² / ndf 89.57 / 80
p0 −1549 ± 624.4
20000
15000
10000
5000
0
−5000
−10000
−15000
−20000
−25000
pull
Entries 81
Mean −168
Std Dev 210.6
2
1
0
−1
−2

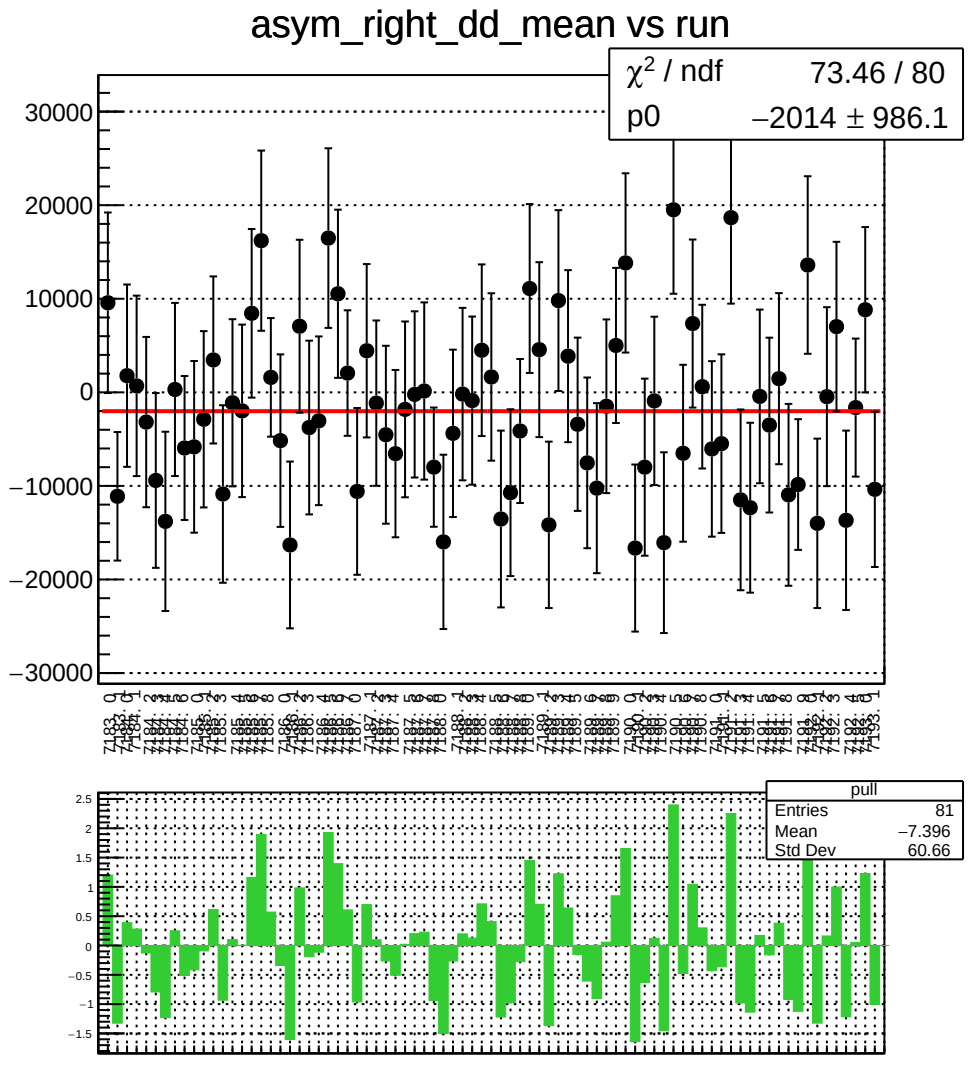

pull1D
Entries 81
Mean 0.01221
Std Dev 1.052
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

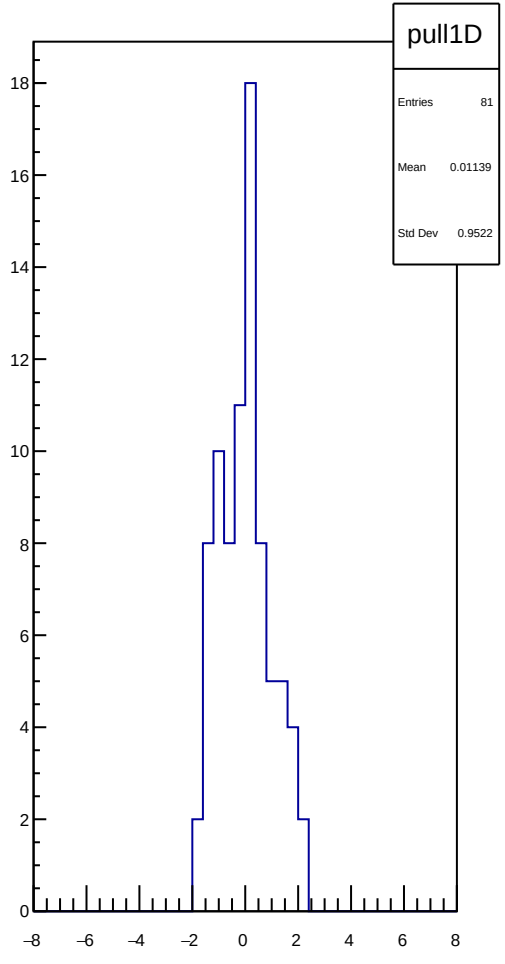

reg_asym_right_dd_rms vs run
χ² / ndf 78.36 / 80
p0 553.6 ± 0.4415
565
560
555
550
545
540

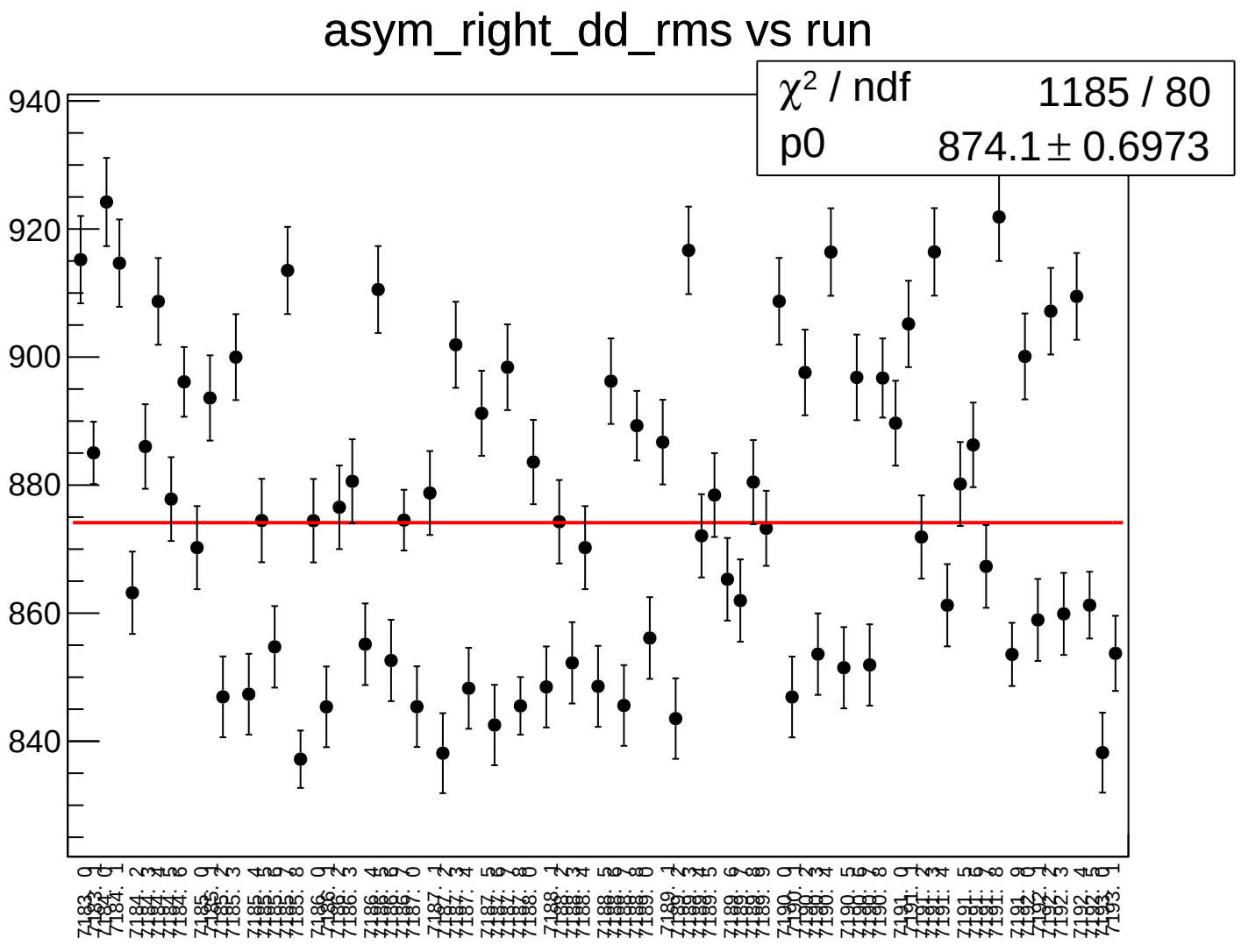

asym_right_dd_correction_mean vs run
χ² / ndf 72.08 / 80
p0 443 ± 762
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 417
Std Dev 380.1
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

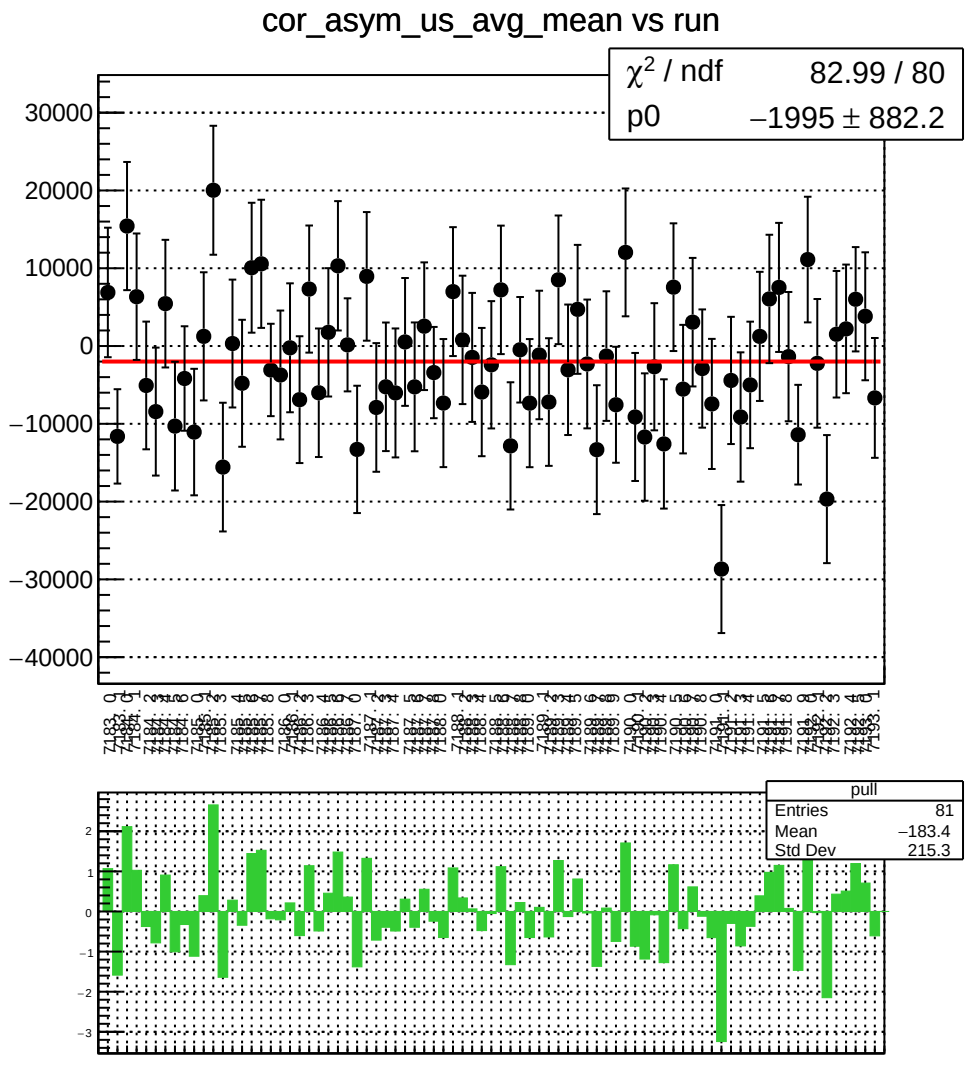

pull1D
Entries 81
Mean −0.003565
Std Dev 0.9433
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

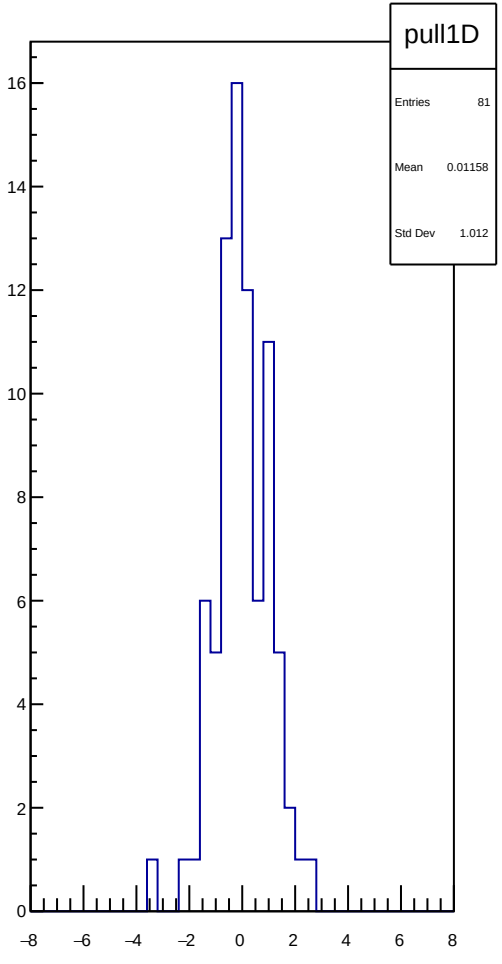

asym_right_dd_correction_rms vs run
χ² / ndf 3223 / 80
p0 675.1 ± 0.5388
740
720
700
680
660
640
620

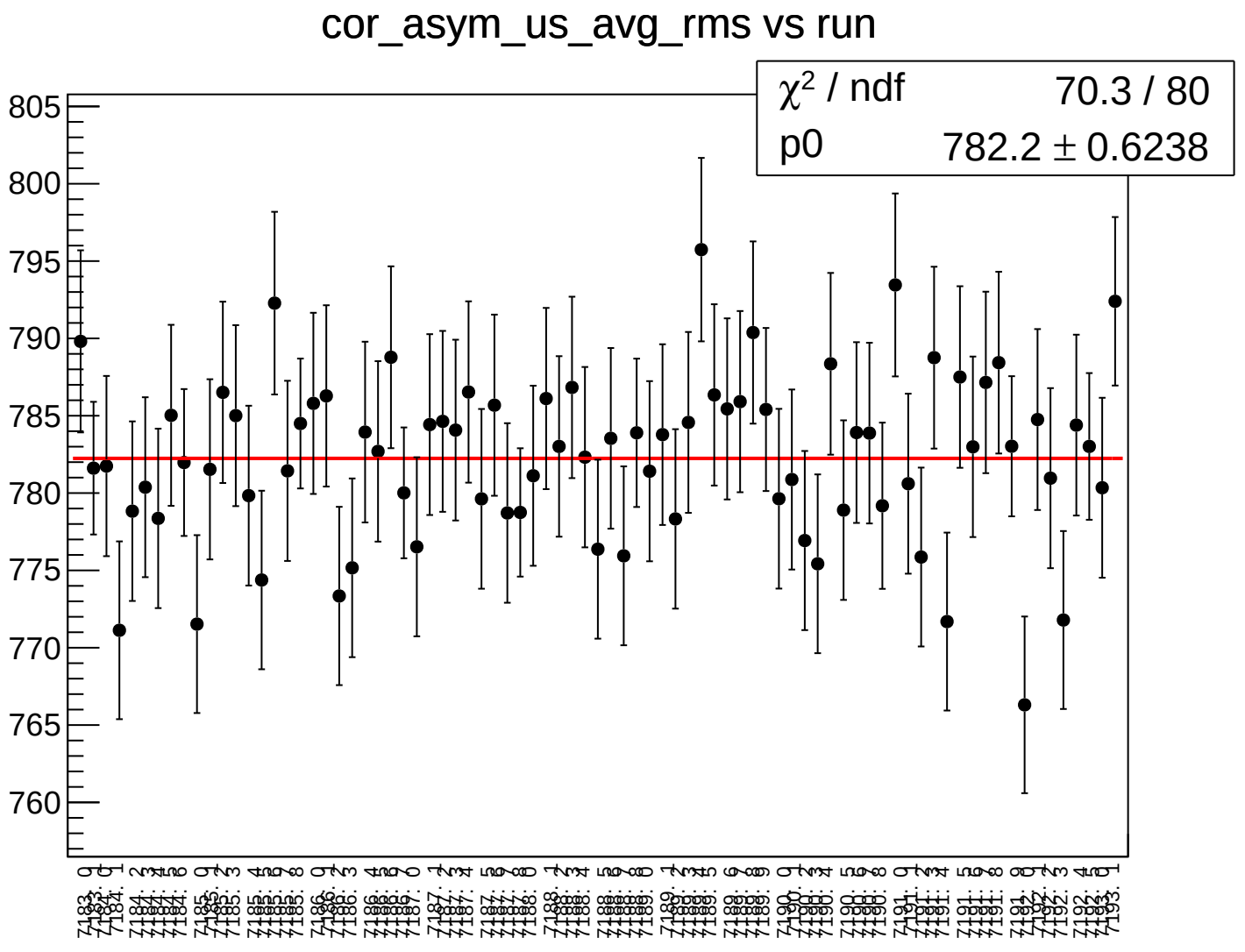

asym_right_dd_mean vs run
χ² / ndf 73.46 / 80
p0 −2014 ± 986.1
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −7.396
Std Dev 60.66
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5

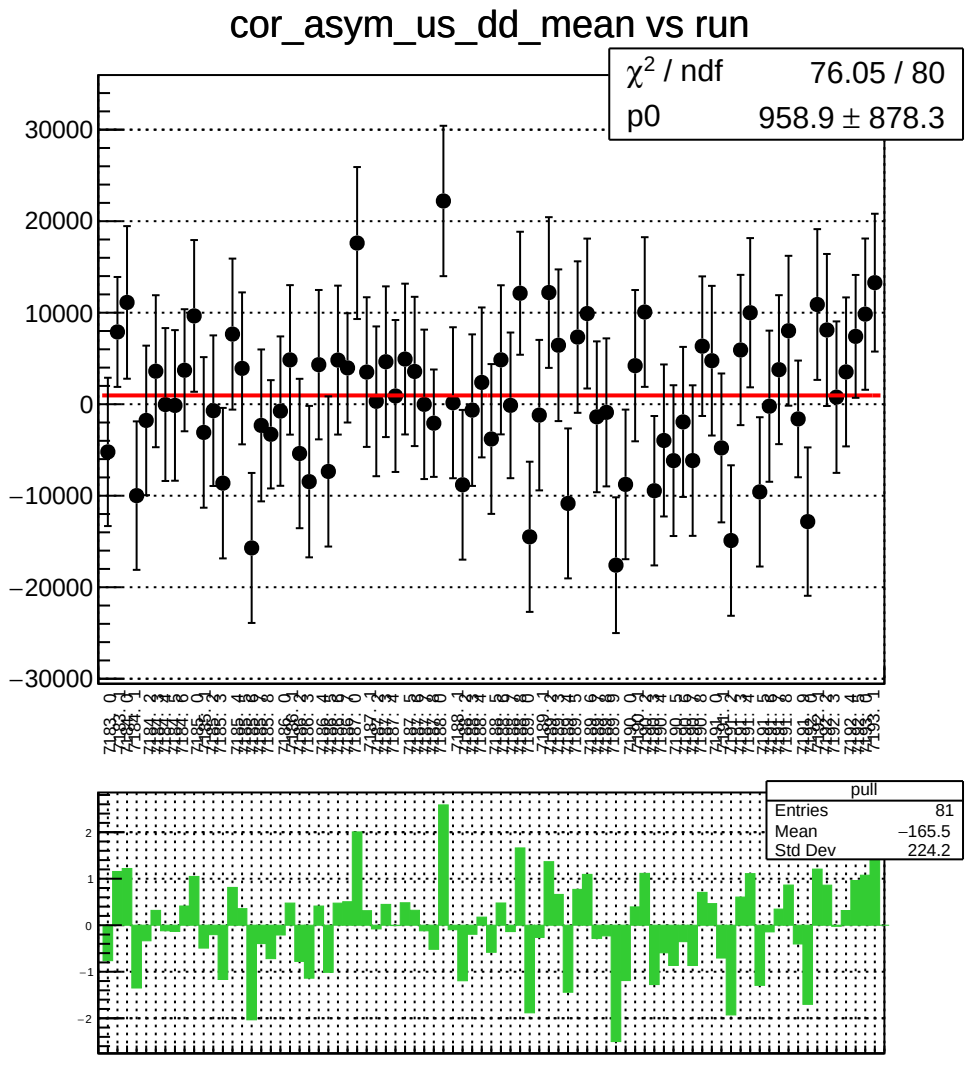

pull1D
Entries 81
Mean 0.01139
Std Dev 0.9522
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

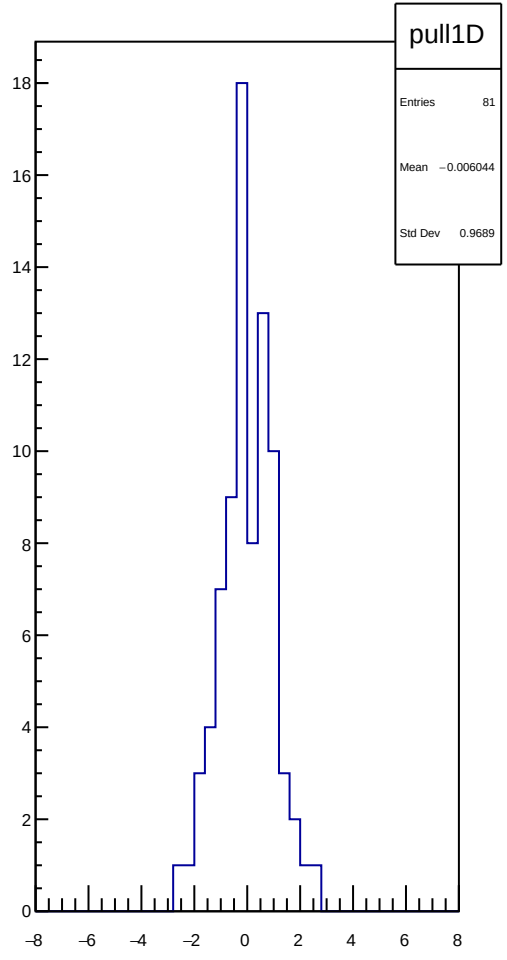

asym_right_dd_rms vs run
χ^2 / ndf 1185 / 80
p0 874.1 ± 0.6973
940
920
900
880
860
840

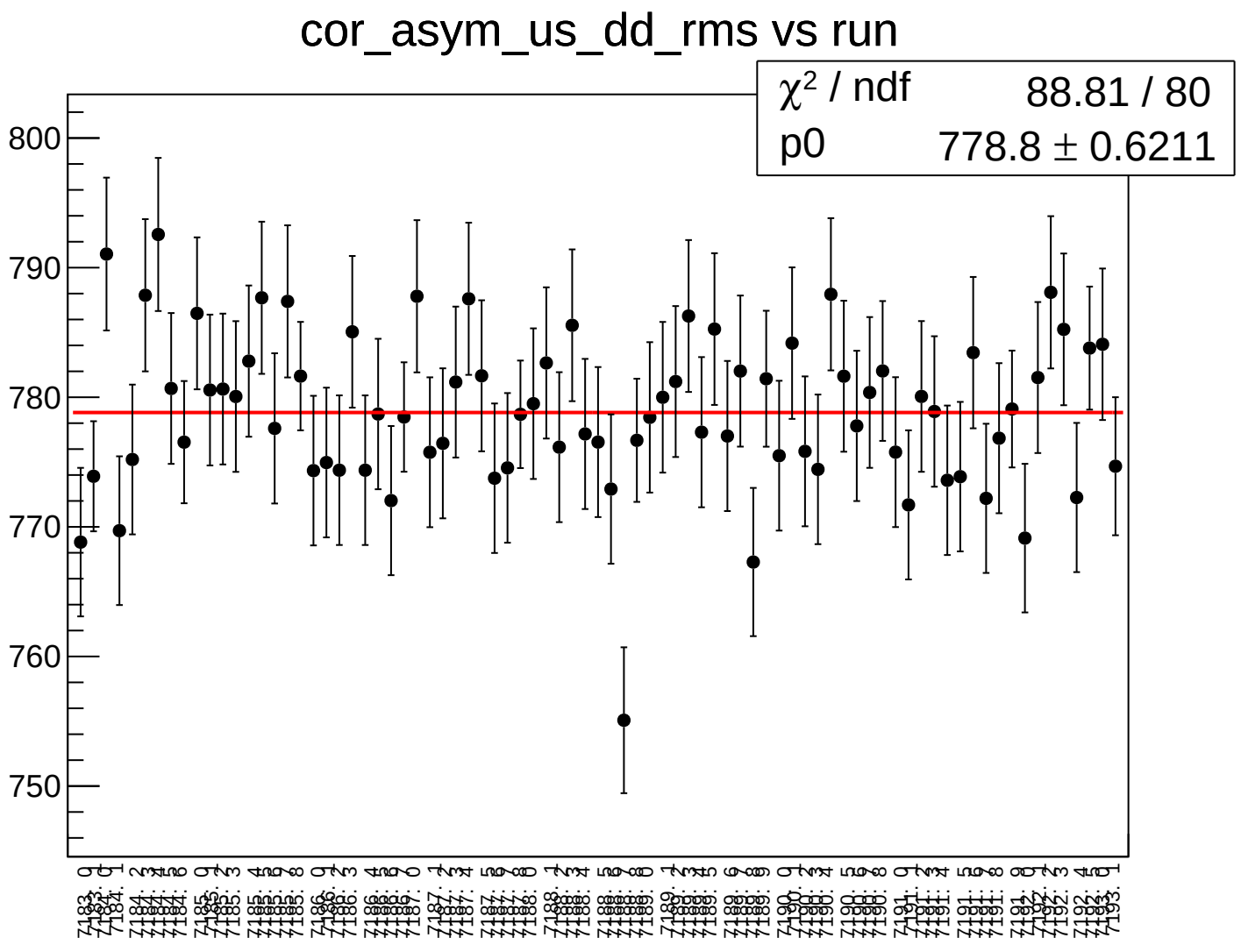

cor_asym_us_avg_mean vs run
χ² / ndf 82.99 / 80
p0 −1995 ± 882.2
30000
20000
10000
0
−10000
−20000
−30000
−40000
pull
Entries 81
Mean −183.4
Std Dev 215.3
2
1
0
−1
−2
−3

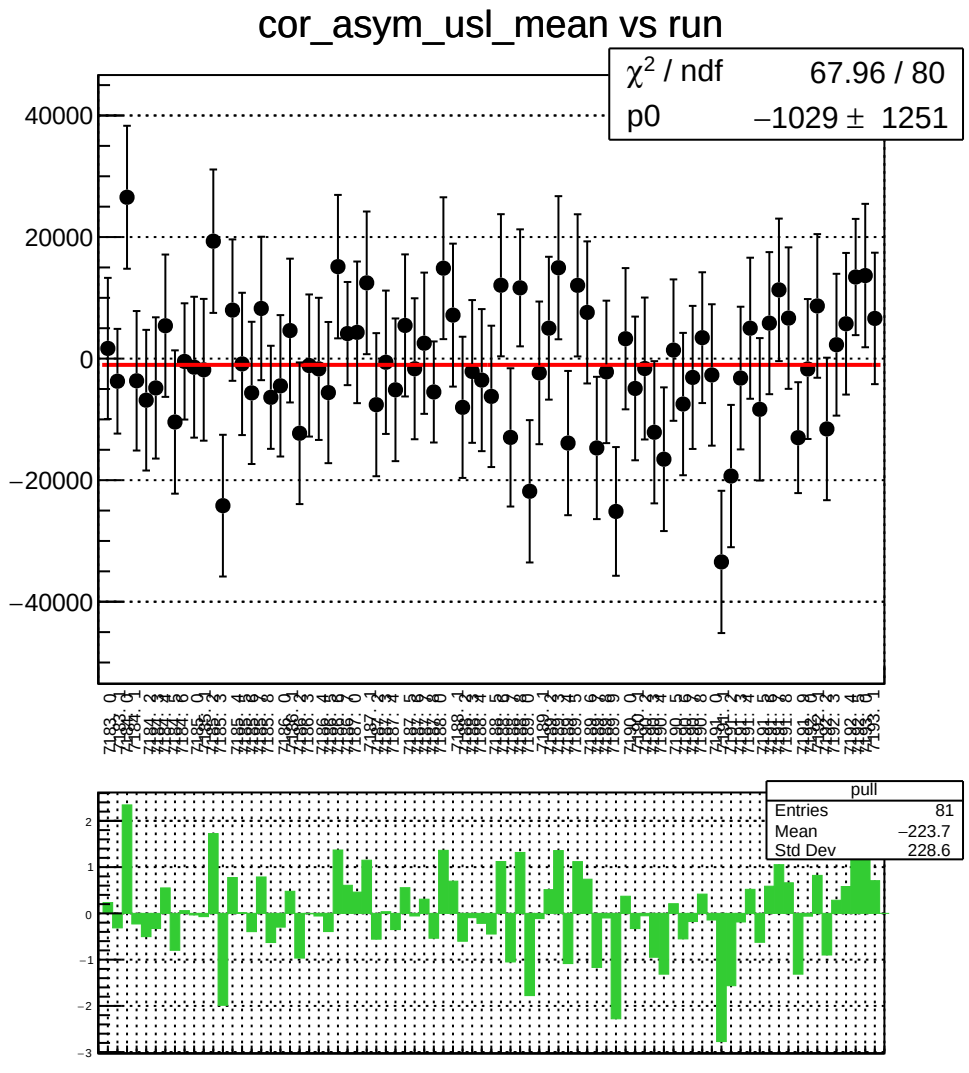

pull1D
Entries 81
Mean 0.01158
Std Dev 1.012
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

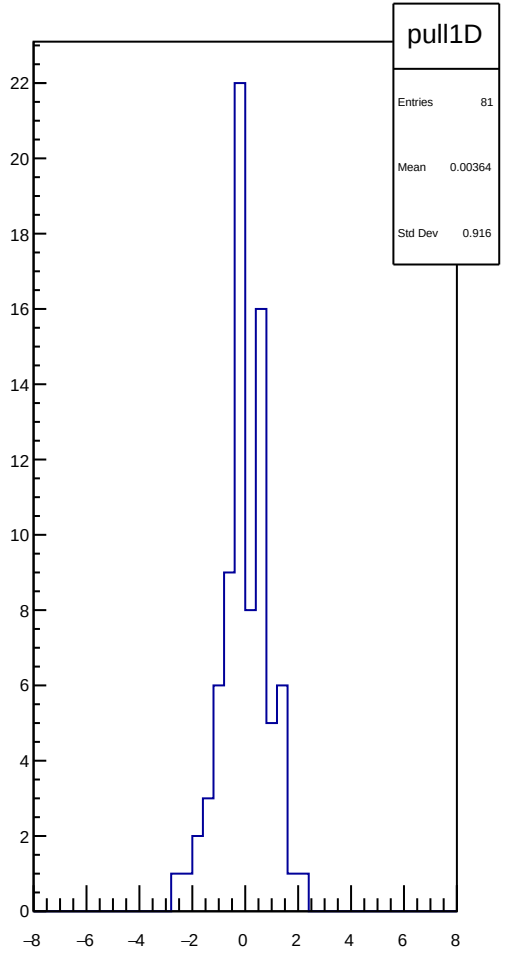

cor_asym_us_avg_rms vs run
χ² / ndf 70.3 / 80
p0 782.2 ± 0.6238
805
800
795
790
785
780
775
770
765
760

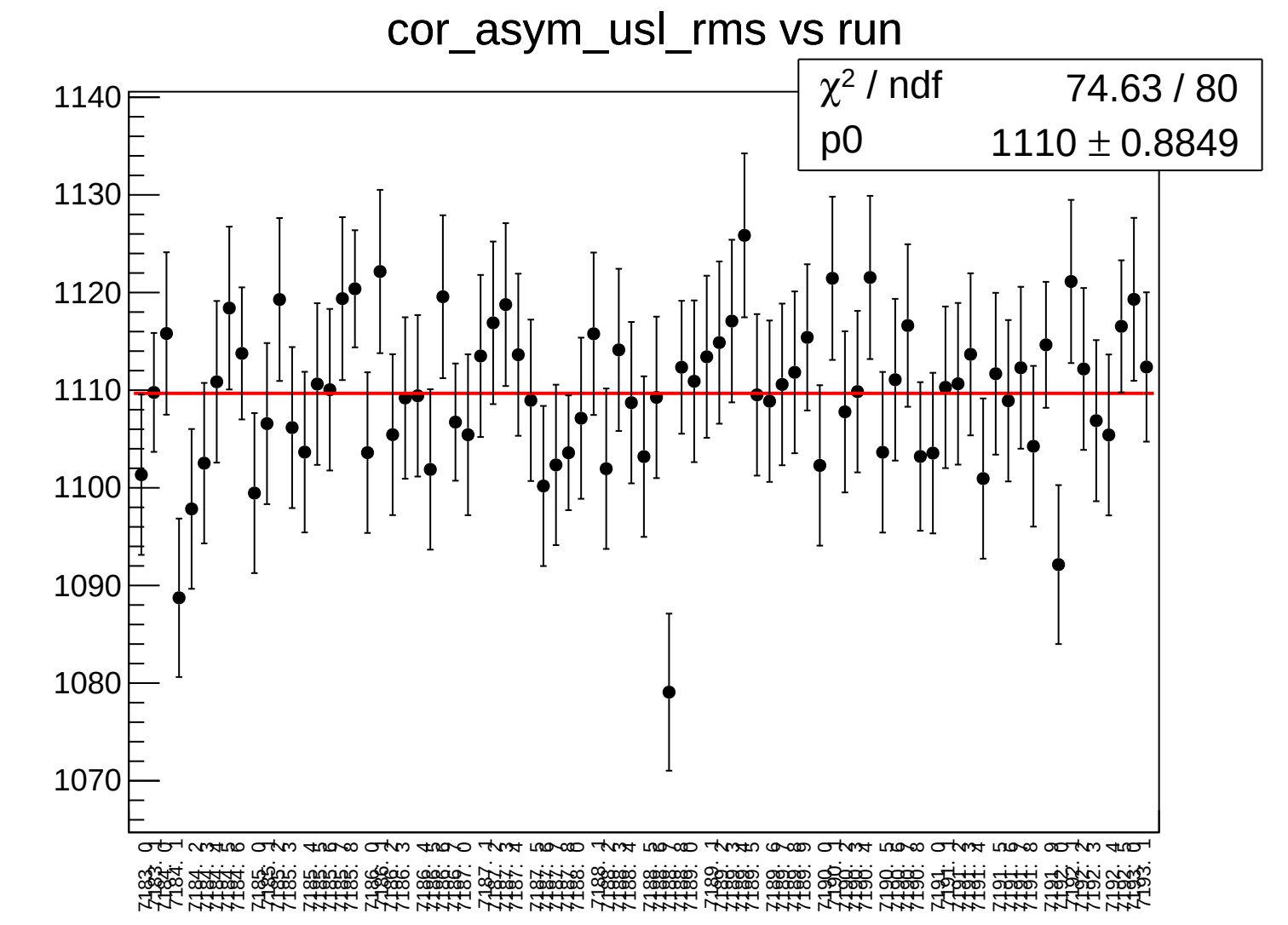

cor_asym_us_dd_mean vs run
χ² / ndf 76.05 / 80
p0 958.9 ± 878.3
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −165.5
Std Dev 224.2
2
1
0
−1
−2

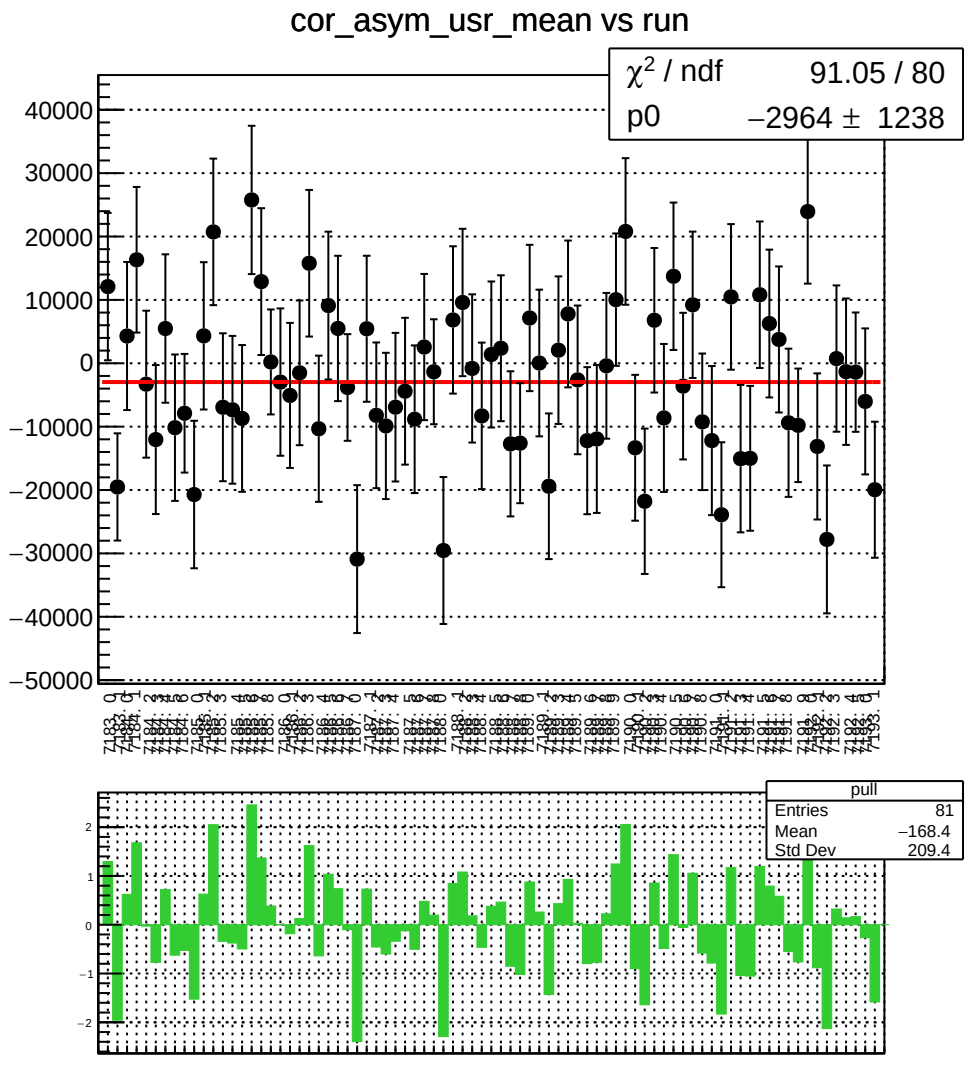

pull1D
Entries 81
Mean −0.006044
Std Dev 0.9689
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

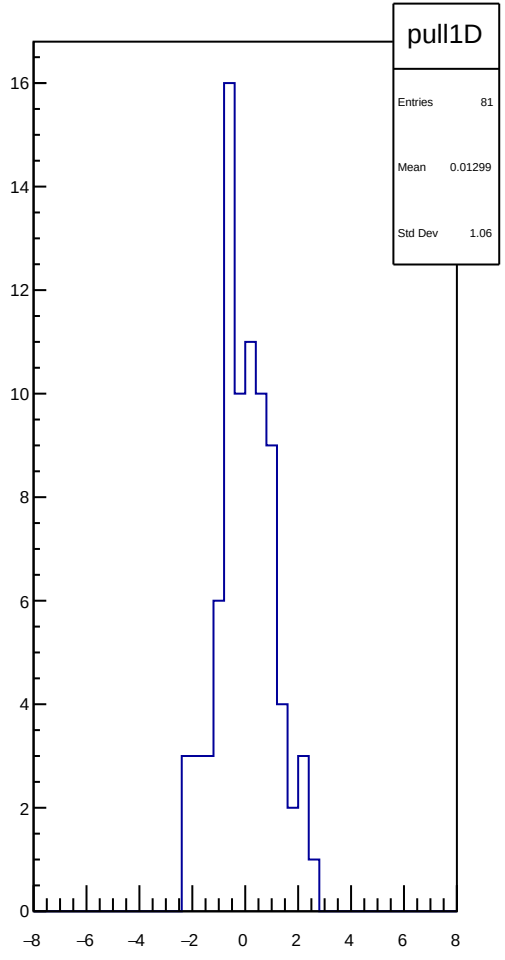

cor_asym_us_dd_rms vs run
χ² / ndf 88.81 / 80
p0 778.8 ± 0.6211
800
790
780
770
760
750

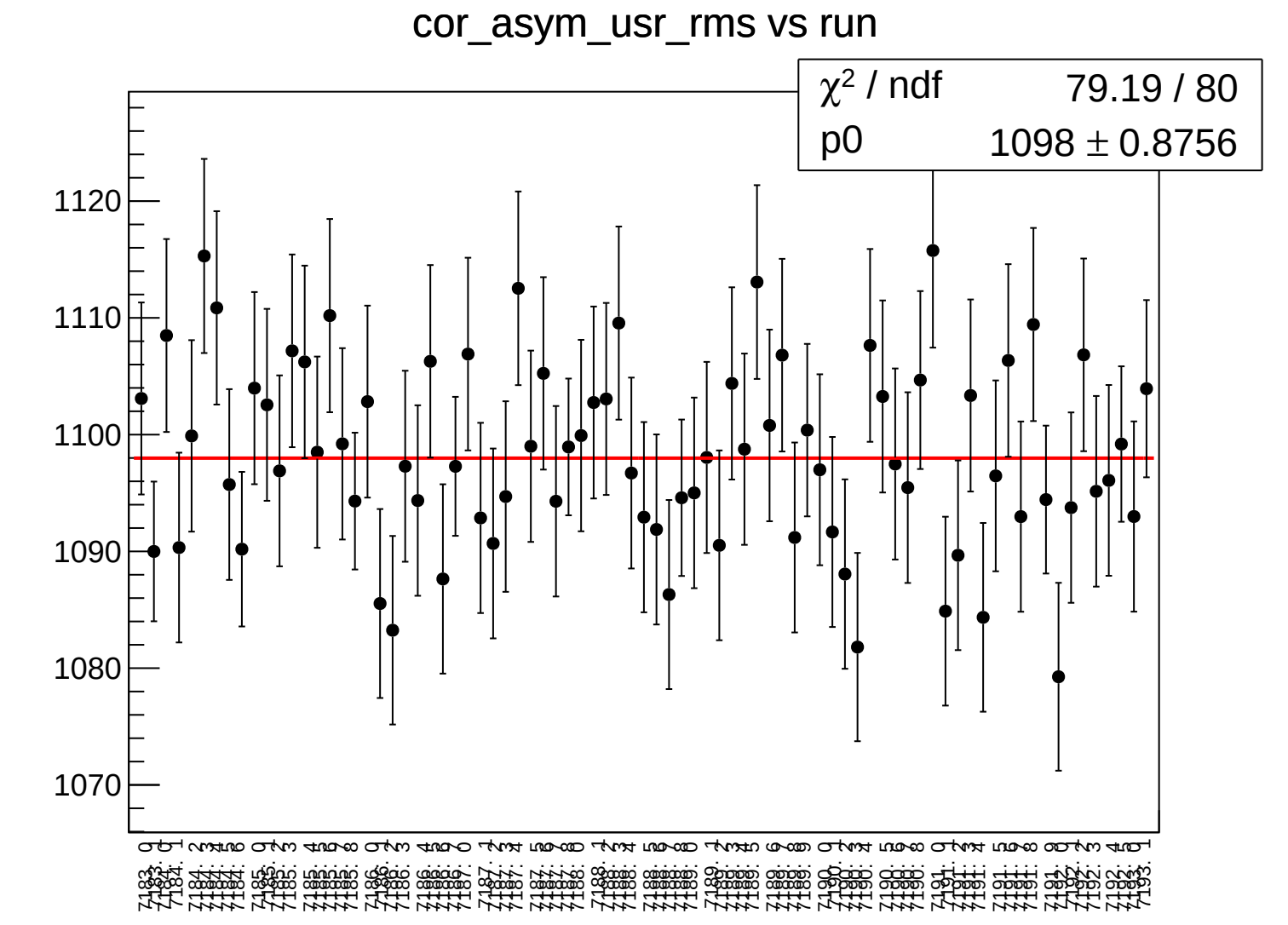

cor_asym_usl_mean vs run
χ² / ndf 67.96 / 80
p0 −1029 ± 1251
40000
20000
0
−20000
−40000
pull
Entries 81
Mean −223.7
Std Dev 228.6
2
1
0
−1
−2
−3

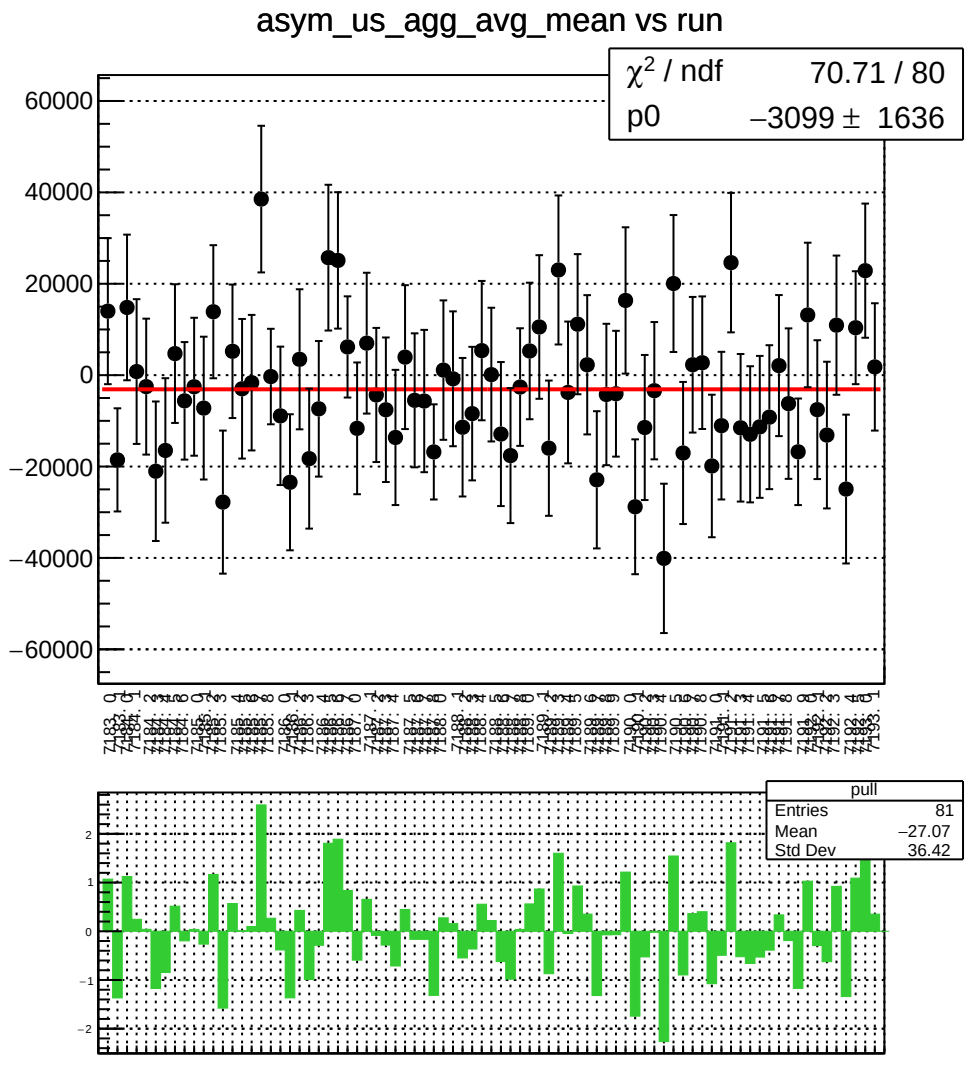

pull1D
Entries 81
Mean 0.00364
Std Dev 0.916
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

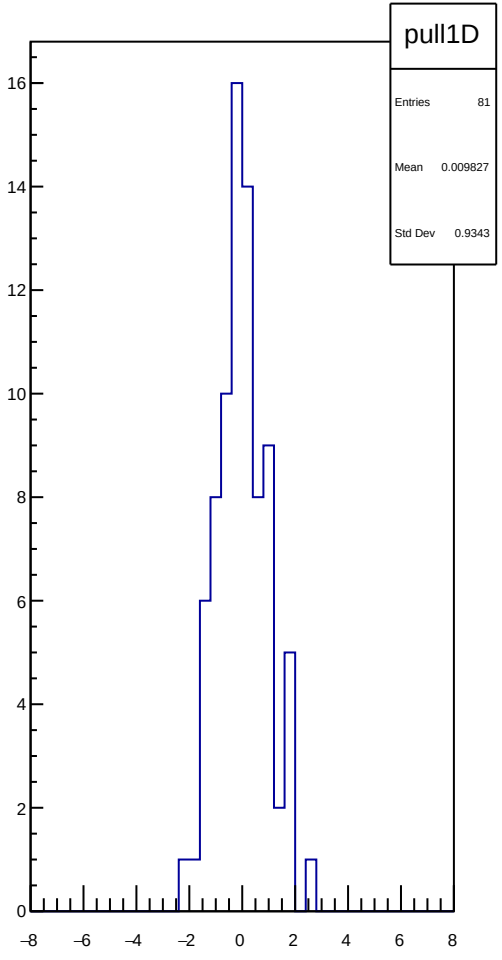

cor_asym_usl_rms vs run
χ² / ndf 74.63 / 80
p0 1110 ± 0.8849
1140
1130
1120
1110
1100
1090
1080
1070

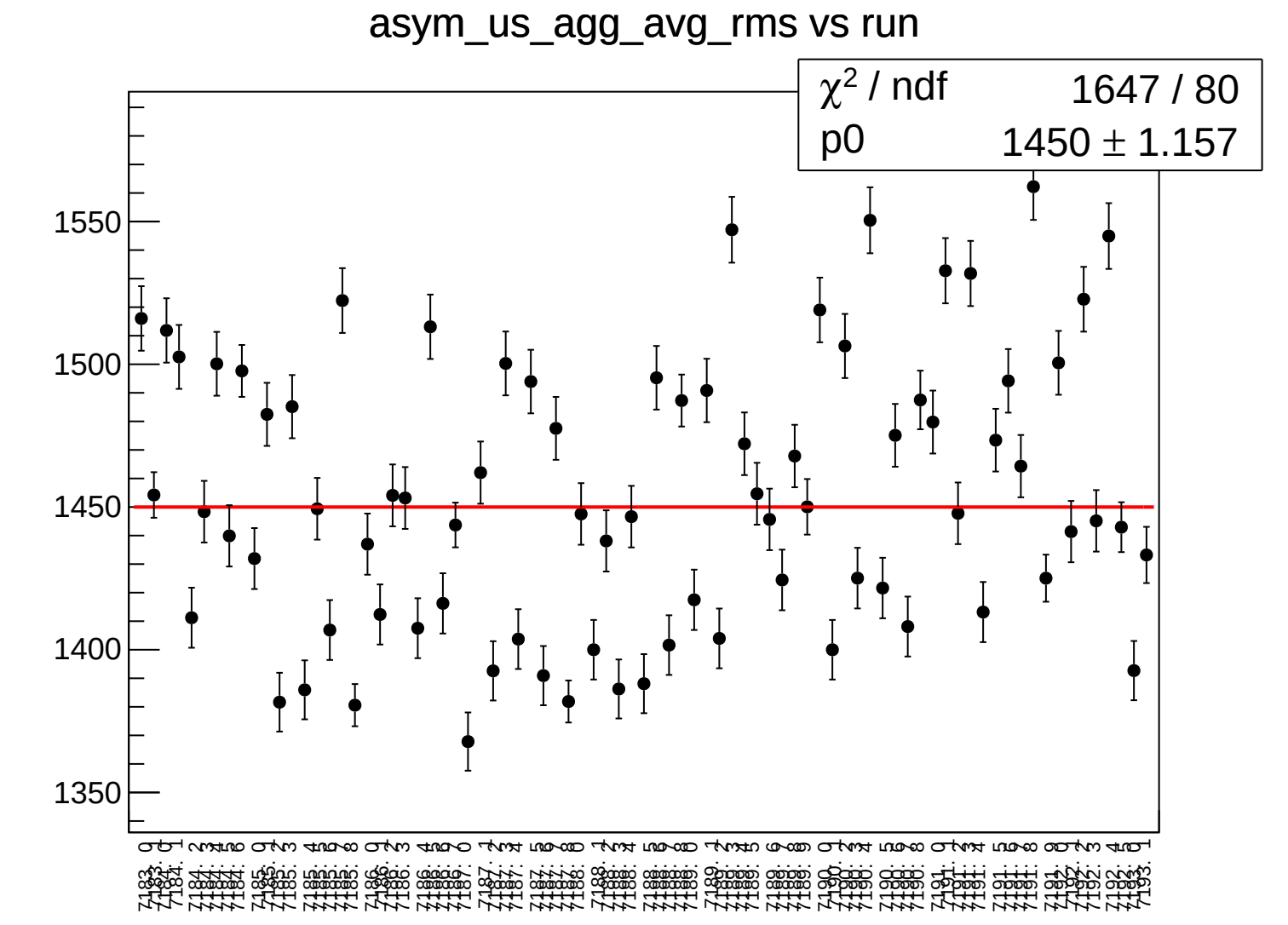

cor_asym_usr_mean vs run
χ² / ndf 91.05 / 80
p0 −2964 ± 1238
40000
30000
20000
10000
0
−10000
−20000
−30000
−40000
−50000
pull
Entries 81
Mean −168.4
Std Dev 209.4
2
1
0
−1
−2

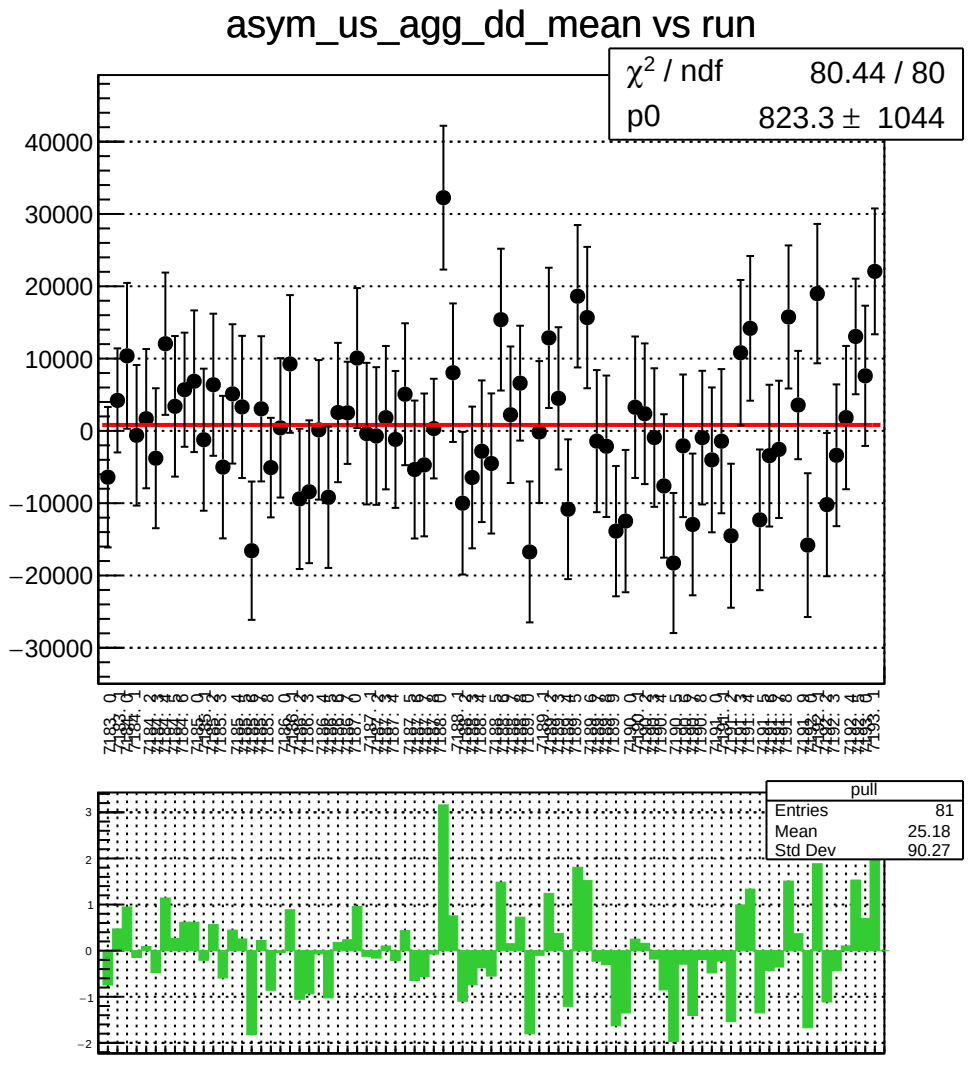

pull1D
Entries 81
Mean 0.01299
Std Dev 1.06
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

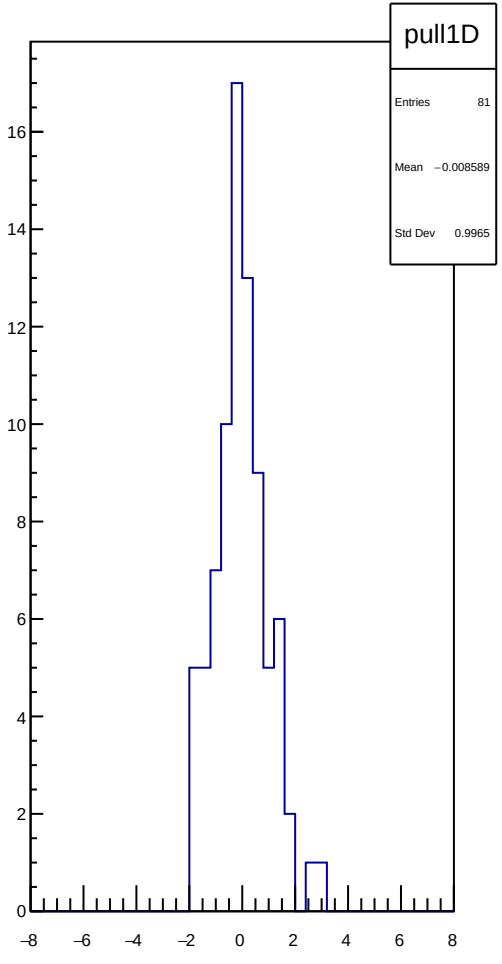

cor_asym_usr_rms vs run
χ^2 / ndf 79.19 / 80
p0 1098 ± 0.8756
1120
1110
1100
1090
1080
1070

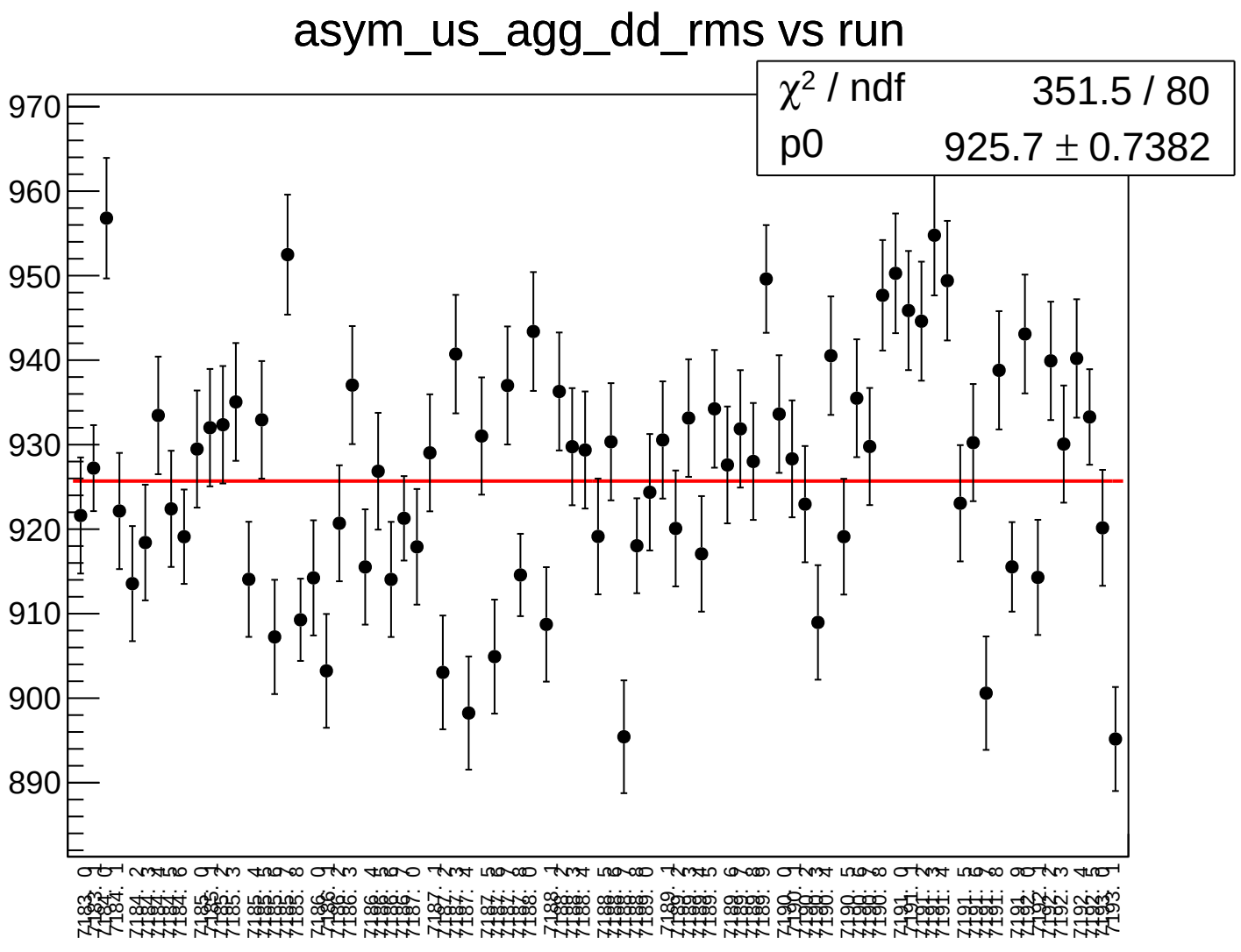

asym_us_agg_avg_mean vs run
χ² / ndf 70.71 / 80
p0 −3099 ± 1636
pull
Entries 81
Mean −27.07
Std Dev 36.42

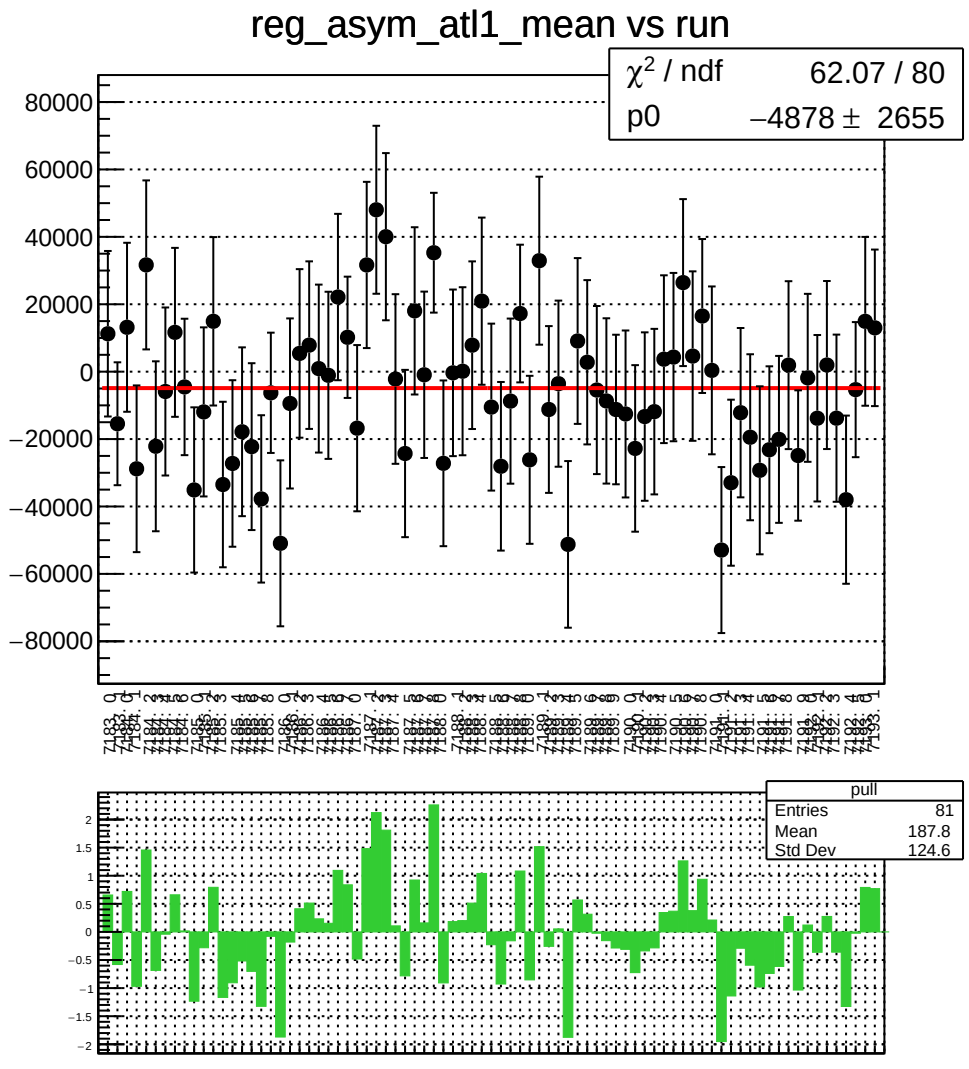

pull1D
Entries 81
Mean 0.009827
Std Dev 0.9343

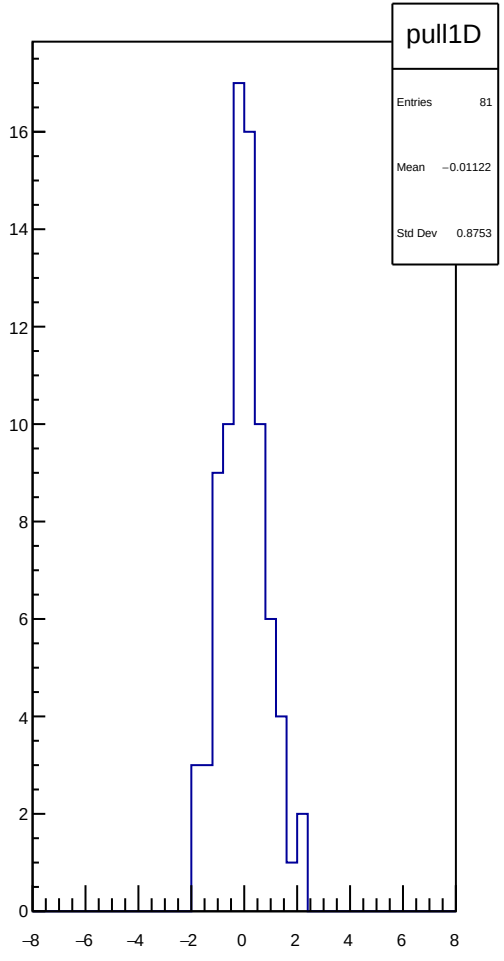

asym_us_agg_avg_rms vs run
χ^2 / ndf 1647 / 80
p0 1450 ± 1.157
1550
1500
1450
1400
1350

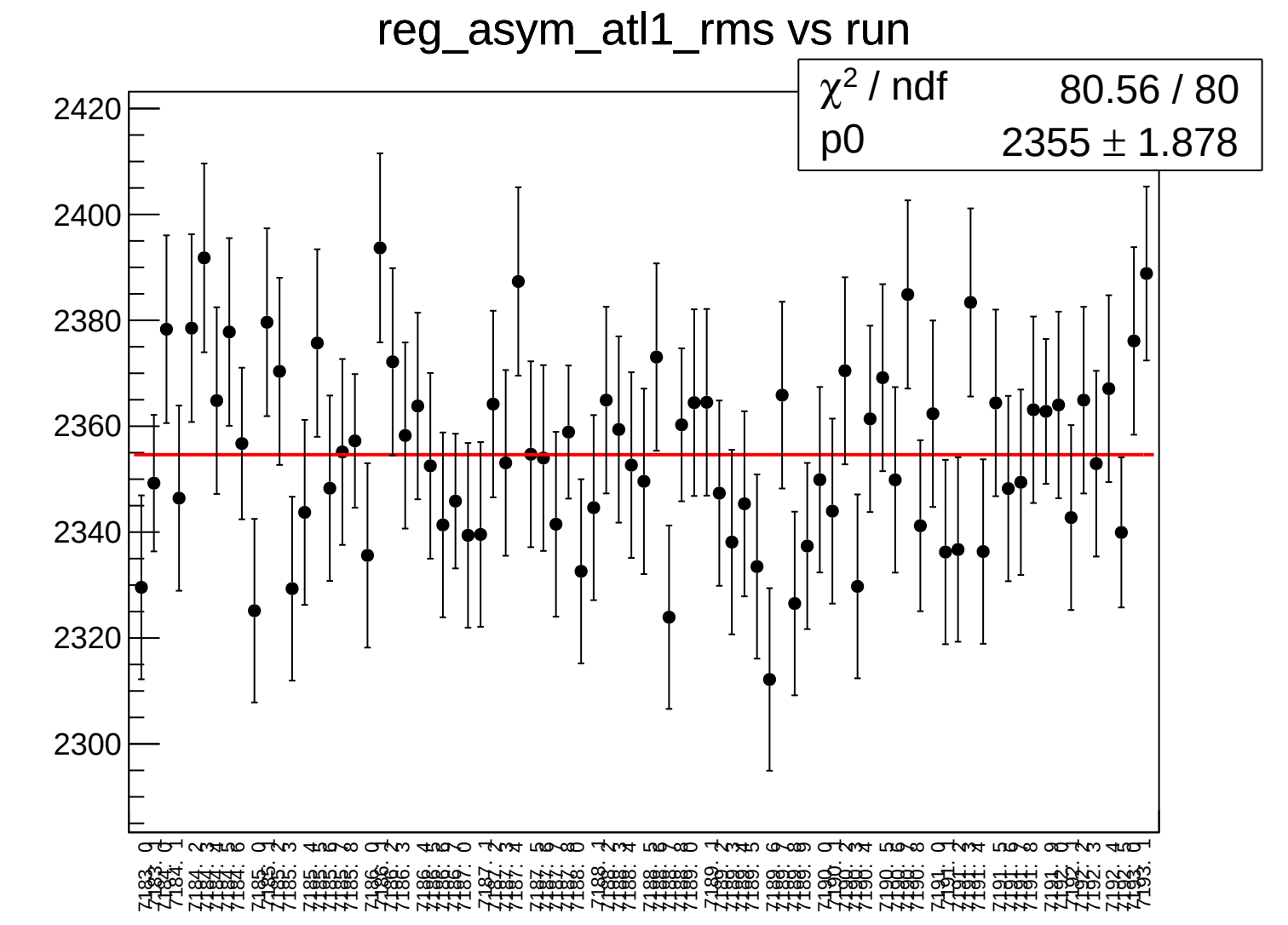

asym_us_agg_dd_mean vs run
χ² / ndf 80.44 / 80
p0 823.3 ± 1044
pull
Entries 81
Mean 25.18
Std Dev 90.27

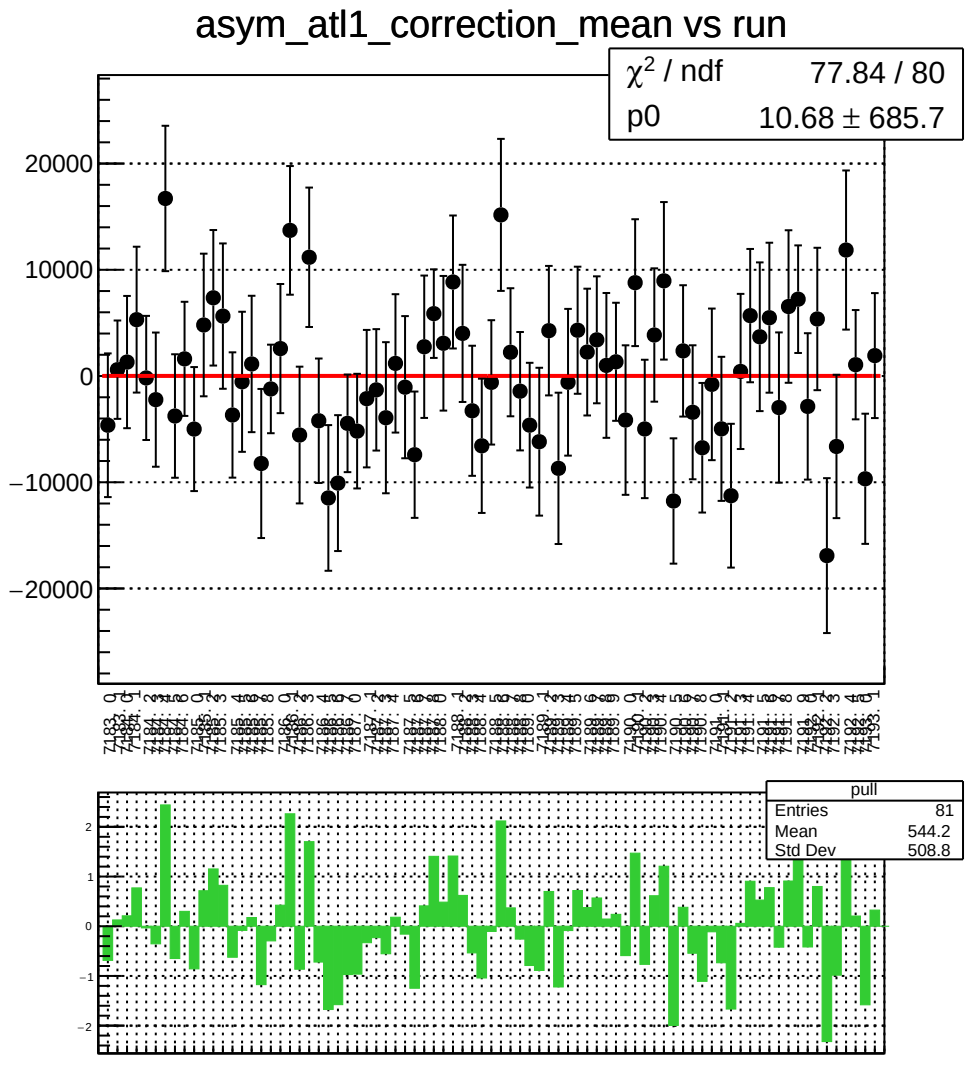

pull1D
Entries 81
Mean −0.008589
Std Dev 0.9965

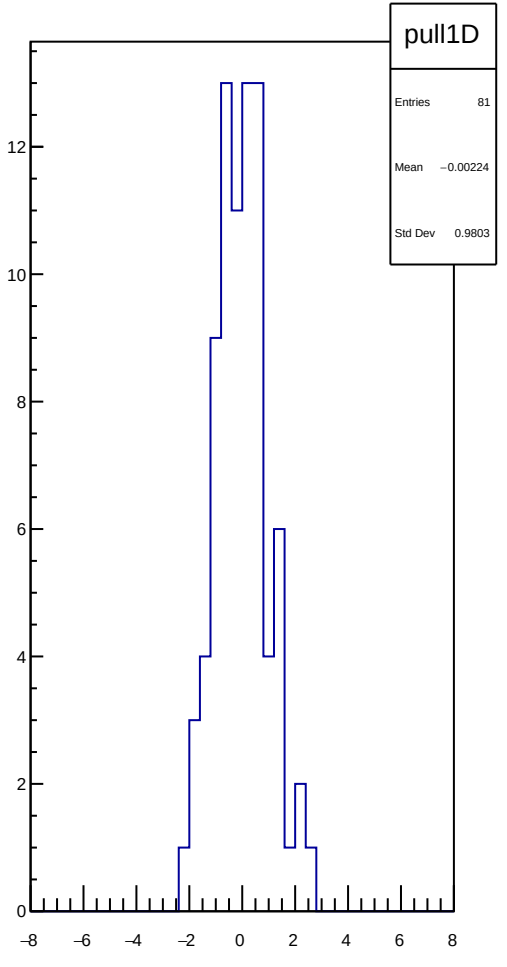

asym_us_agg_dd_rms vs run
χ^2 / ndf 351.5 / 80
p0 925.7 ± 0.7382
970
960
950
940
930
920
910
900
890

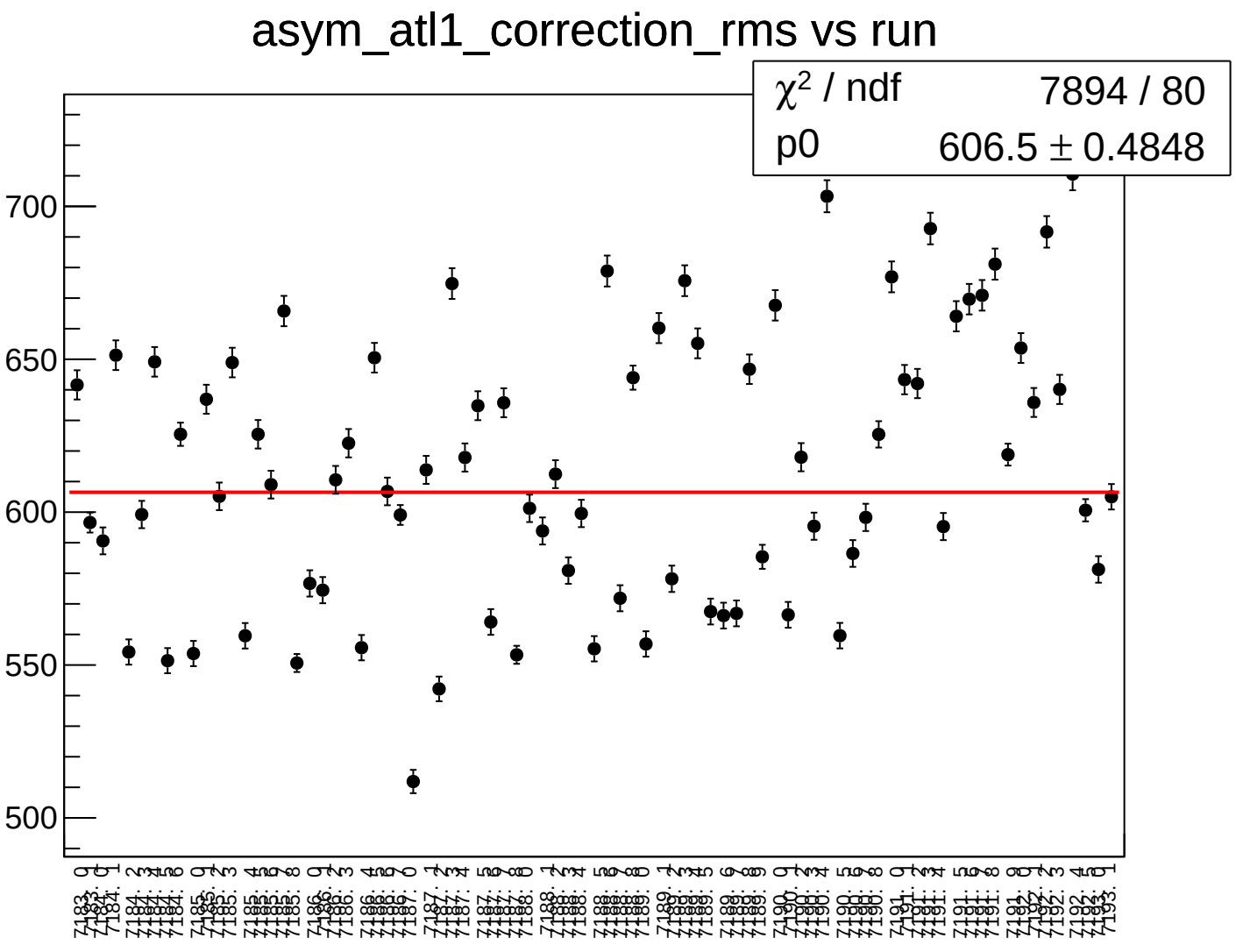

reg_asym_atl1_mean vs run
χ² / ndf 62.07 / 80
p0 −4878 ± 2655
pull
Entries 81
Mean 187.8
Std Dev 124.6

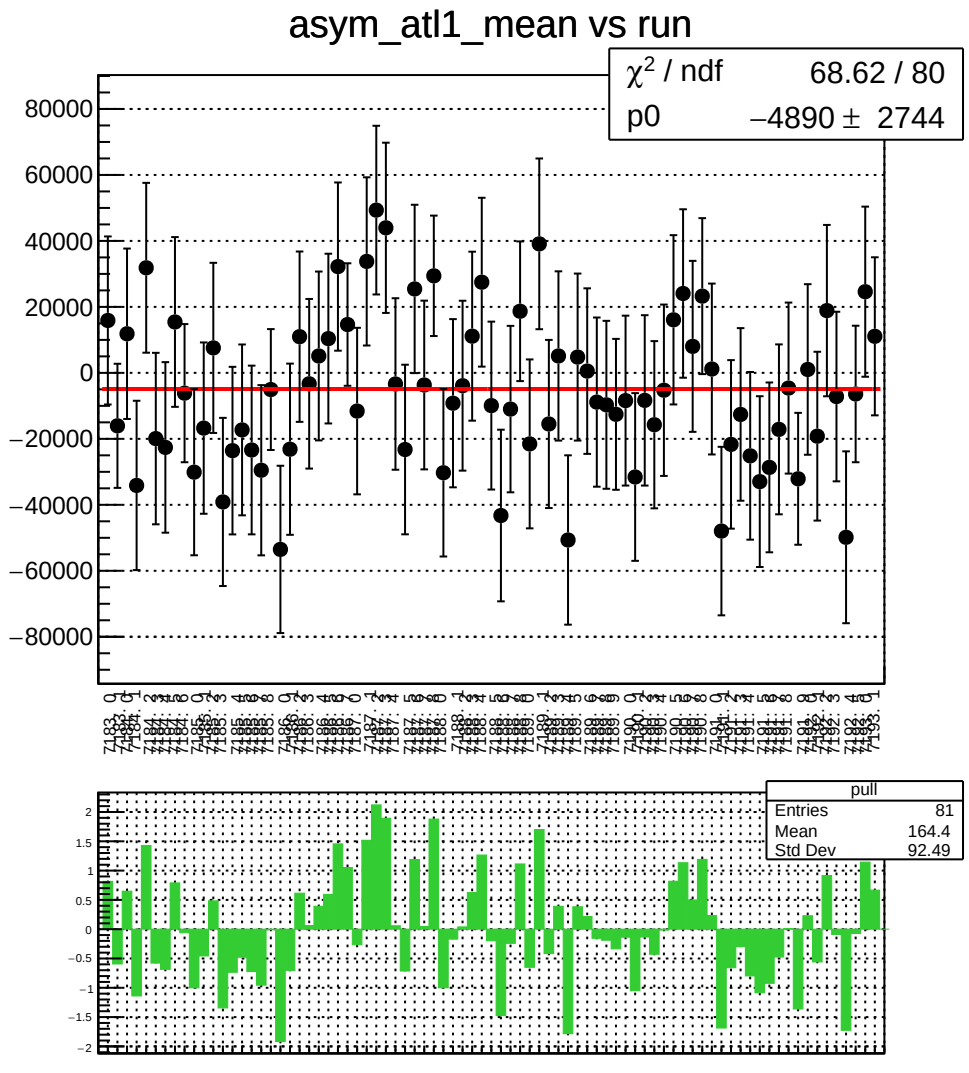

pull1D
Entries 81
Mean −0.01122
Std Dev 0.8753

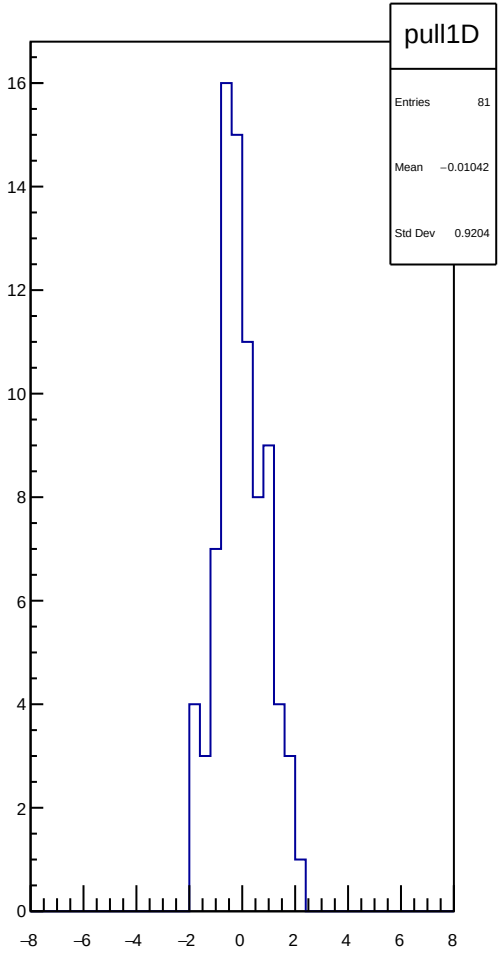

reg_asym_atl1_rms vs run
χ² / ndf 80.56 / 80
p0 2355 ± 1.878
2420
2400
2380
2360
2340
2320
2300

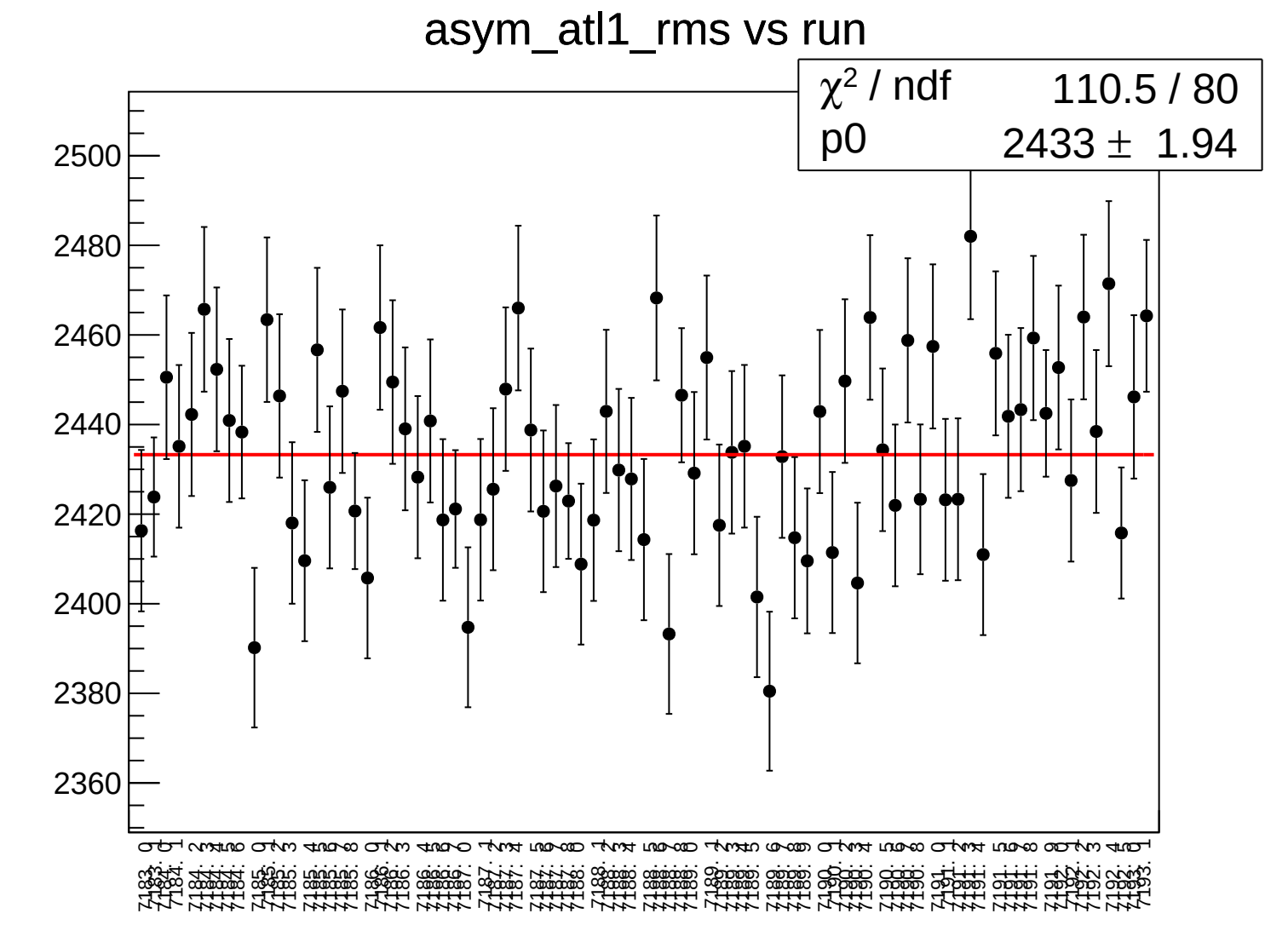

asym_atl1_correction_mean vs run
χ² / ndf 77.84 / 80
p0 10.68 ± 685.7
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 544.2
Std Dev 508.8
2
1
0
−1
−2

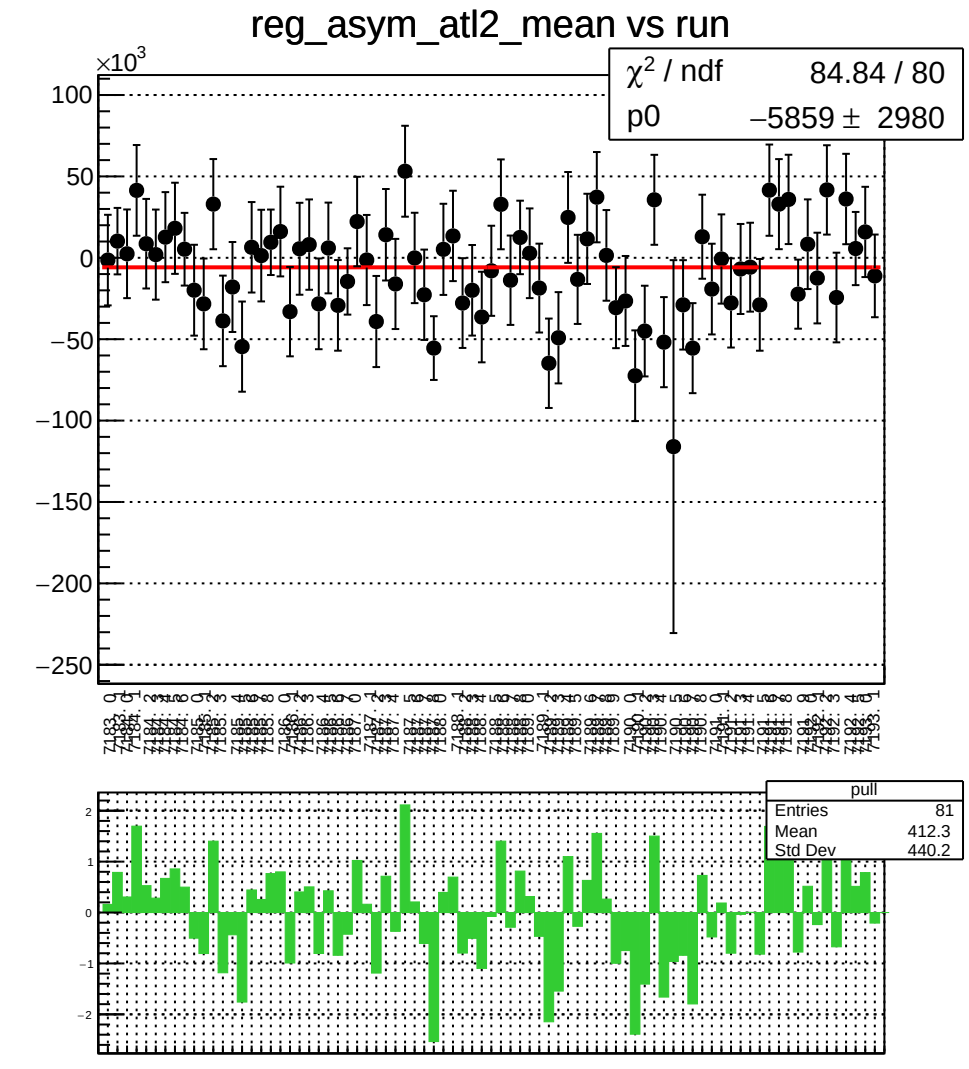

pull1D
Entries 81
Mean −0.00224
Std Dev 0.9803
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

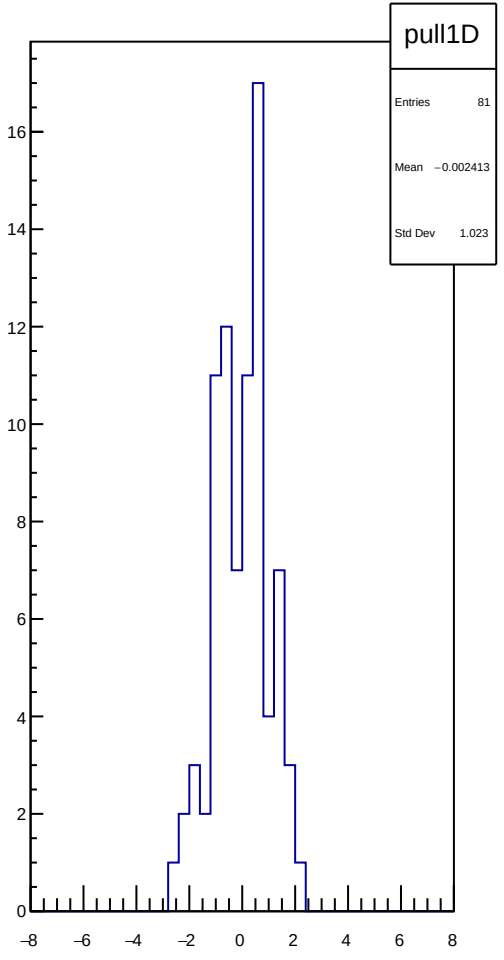

asym_atl1_correction_rms vs run
χ² / ndf 7894 / 80
p0 606.5 ± 0.4848
700
650
600
550
500

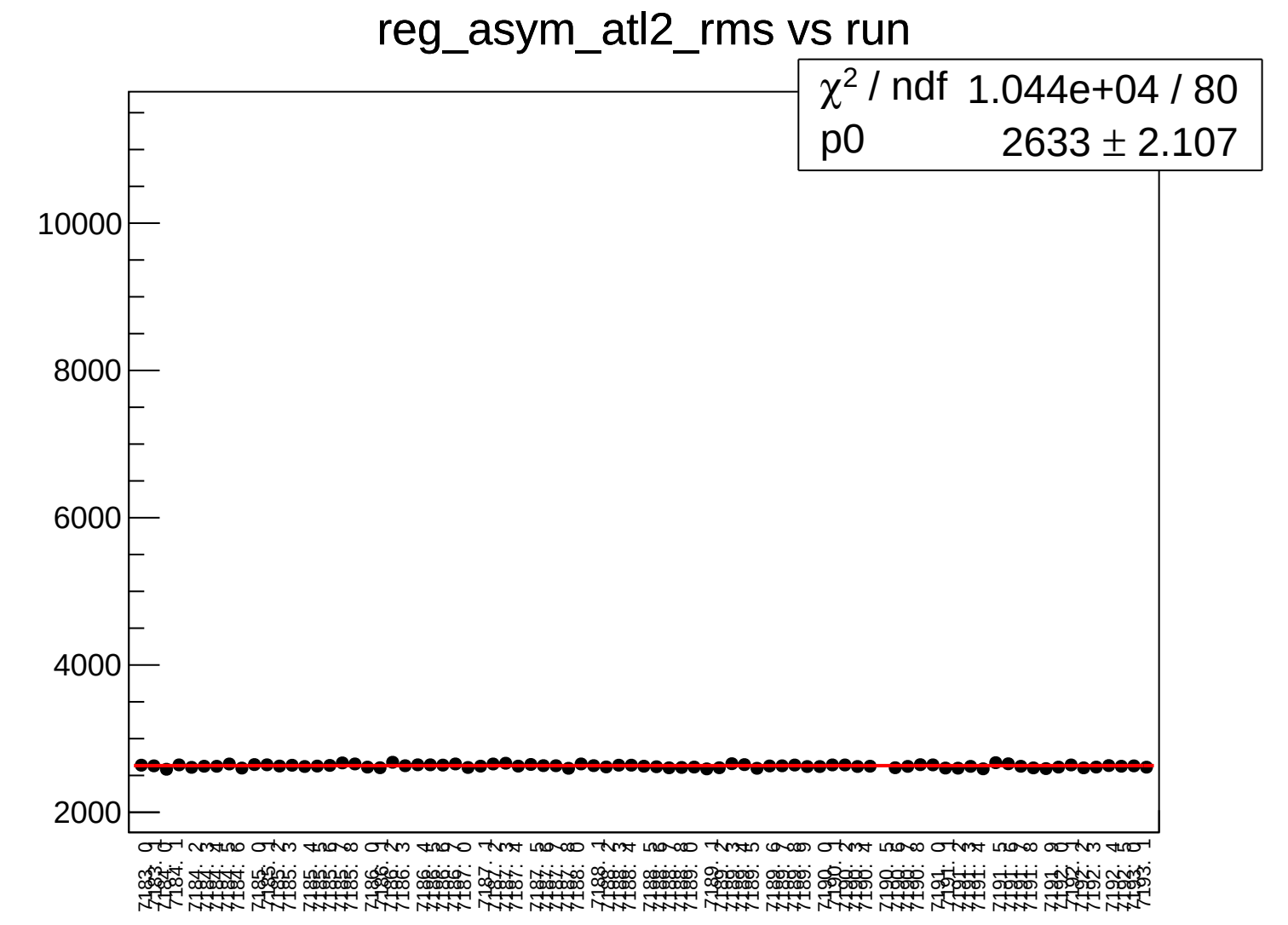

asym_atl1_mean vs run
χ² / ndf 68.62 / 80
p0 −4890 ± 2744
pull
Entries 81
Mean 164.4
Std Dev 92.49

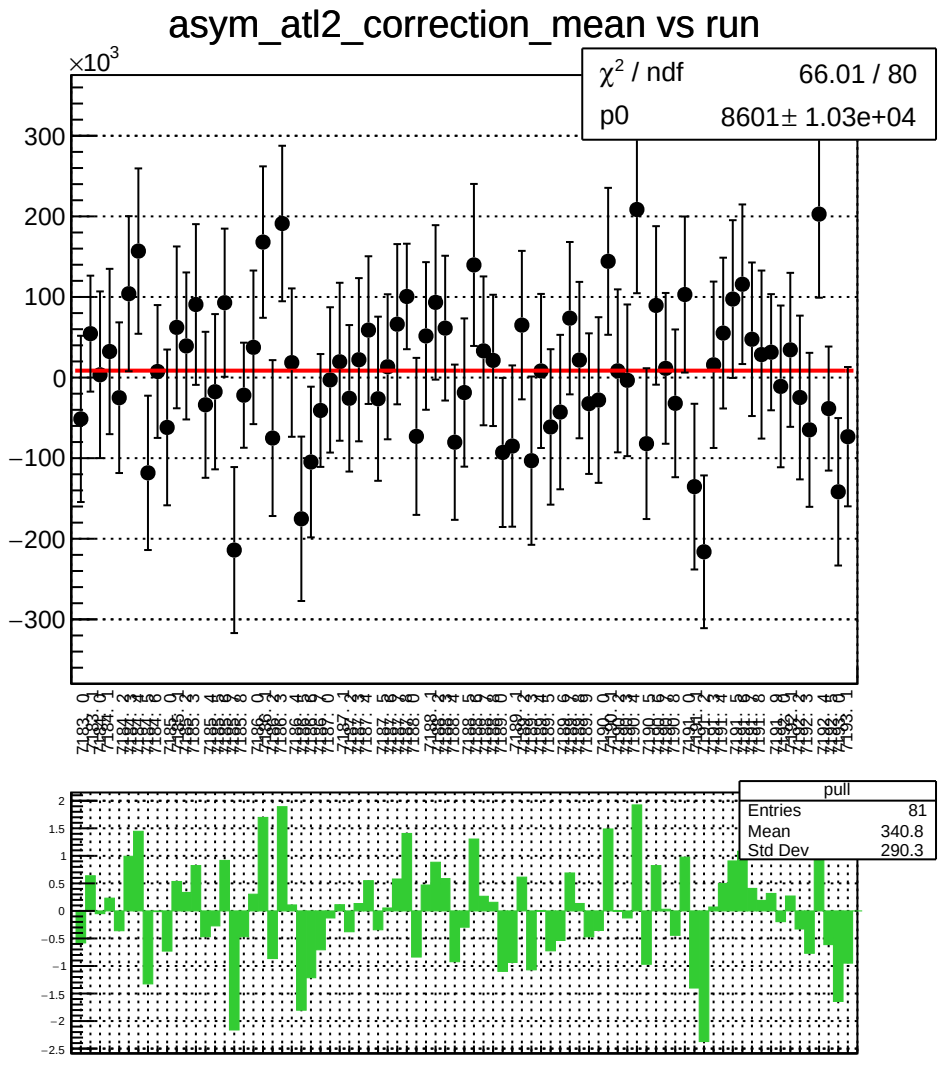

pull1D
Entries 81
Mean −0.01042
Std Dev 0.9204

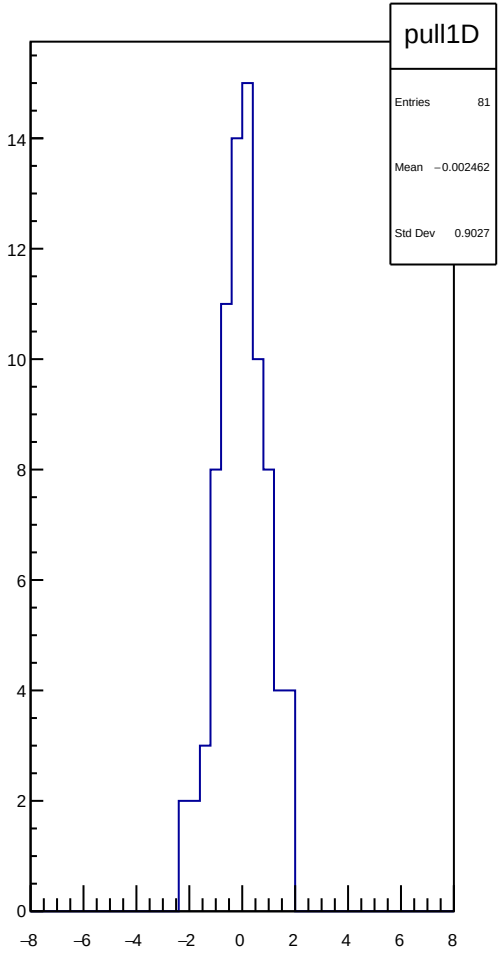

asym_atl1_rms vs run
χ^2 / ndf 110.5 / 80
p0 2433 ± 1.94
2500
2480
2460
2440
2420
2400
2380
2360

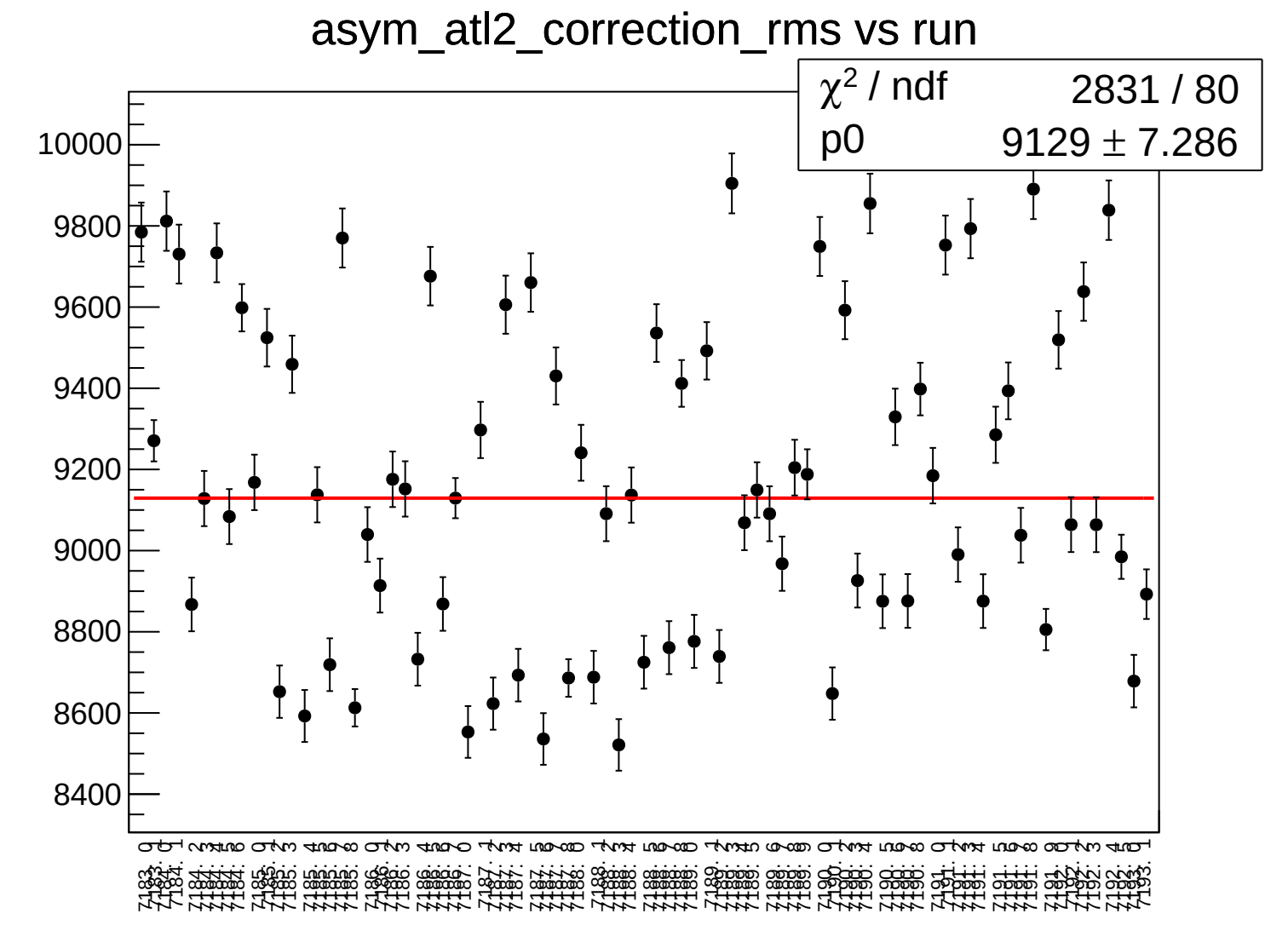

reg_asym_atl2_mean vs run
×10^3
χ^2 / ndf 84.84 / 80
p0 −5859 ± 2980
pull
Entries 81
Mean 412.3
Std Dev 440.2

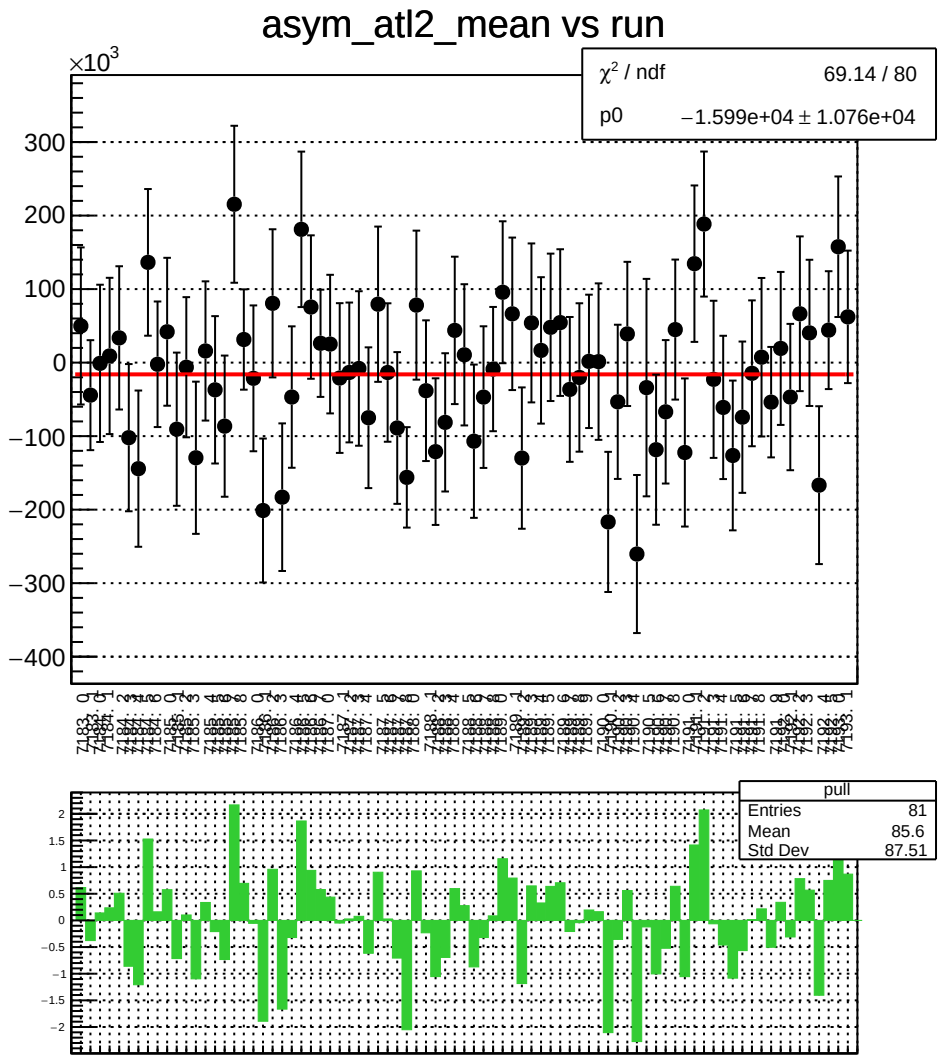

pull1D
Entries 81
Mean −0.002413
Std Dev 1.023

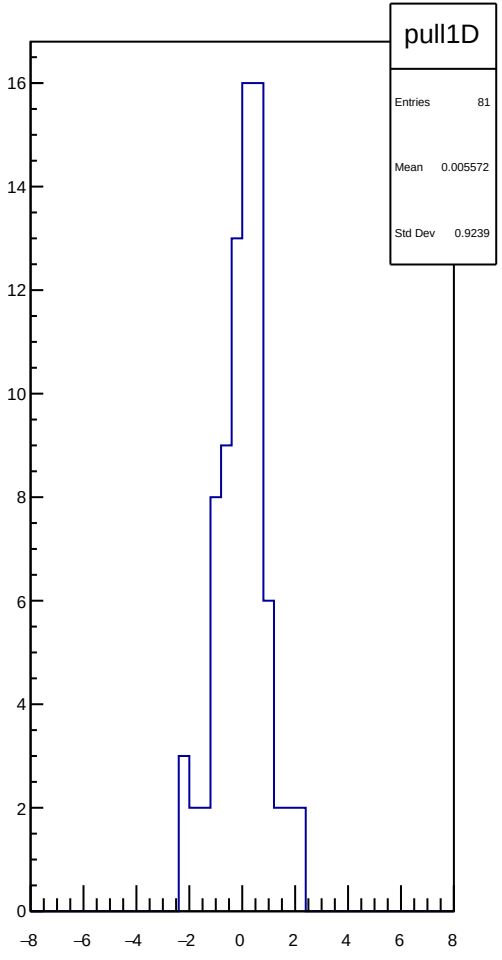

reg_asym_atl2_rms vs run
χ² / ndf 1.044e+04 / 80
p0 2633 ± 2.107
10000
8000
6000
4000
2000

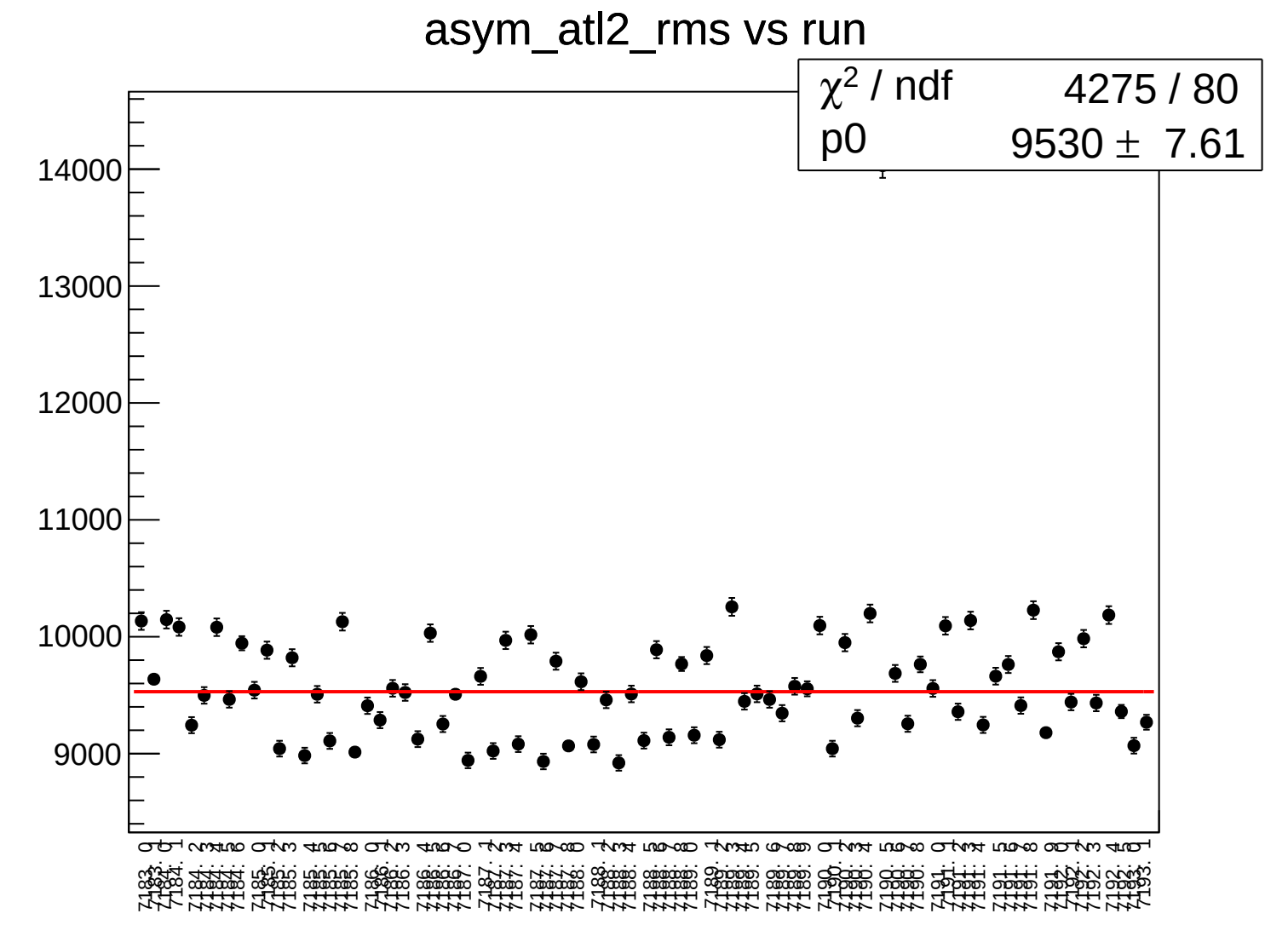

asym_atl2_correction_mean vs run
×10^3
χ² / ndf 66.01 / 80
p0 8601± 1.03e+04
300
200
100
0
−100
−200
−300
pull
Entries 81
Mean 340.8
Std Dev 290.3
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

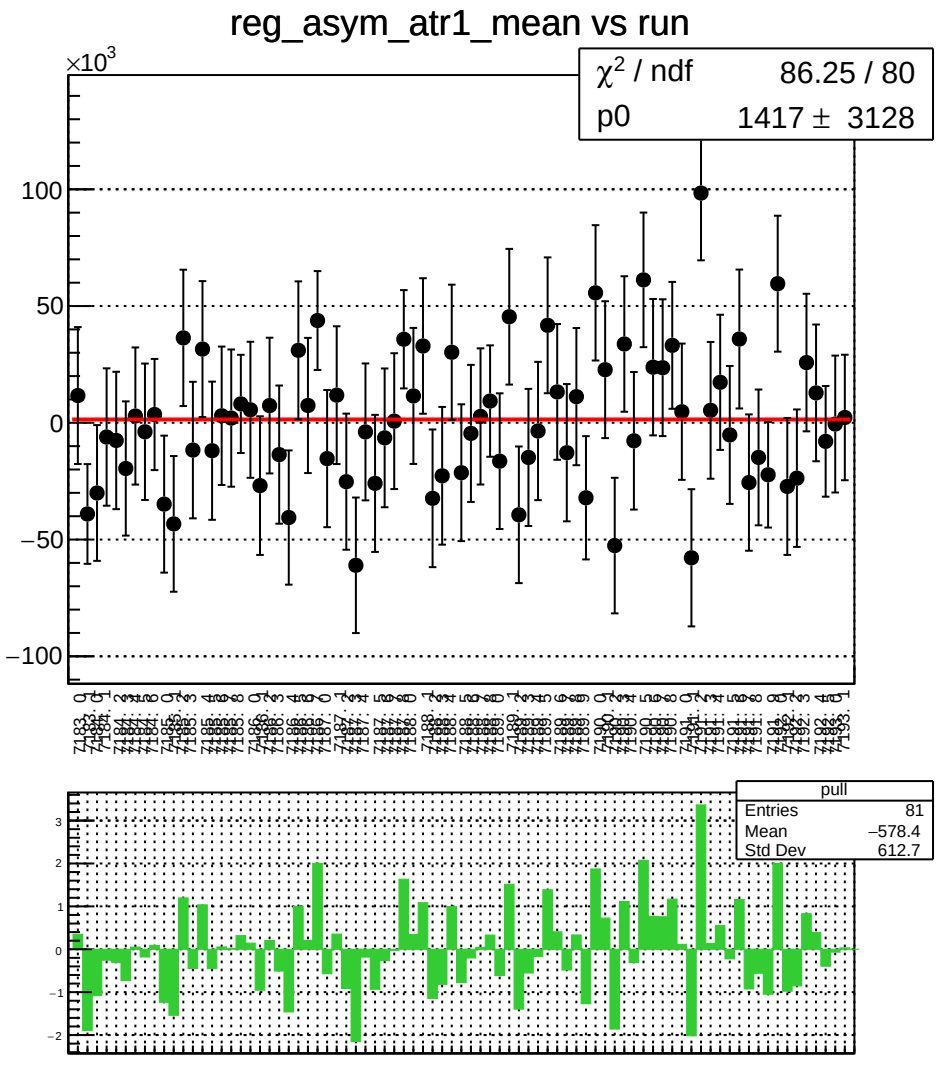

pull1D
Entries 81
Mean −0.002462
Std Dev 0.9027
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

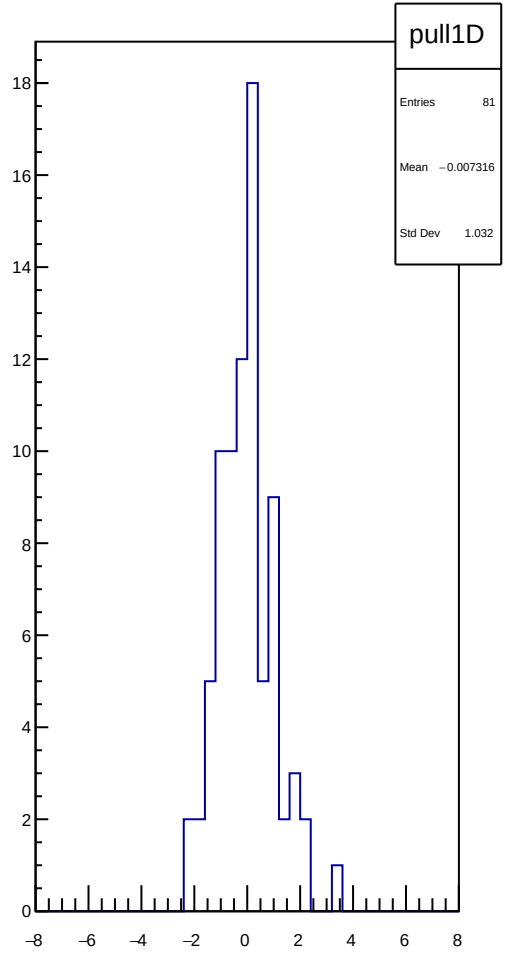

asym_atl2_correction_rms vs run
χ² / ndf 2831 / 80
p0 9129 ± 7.286
10000
9800
9600
9400
9200
9000
8800
8600
8400

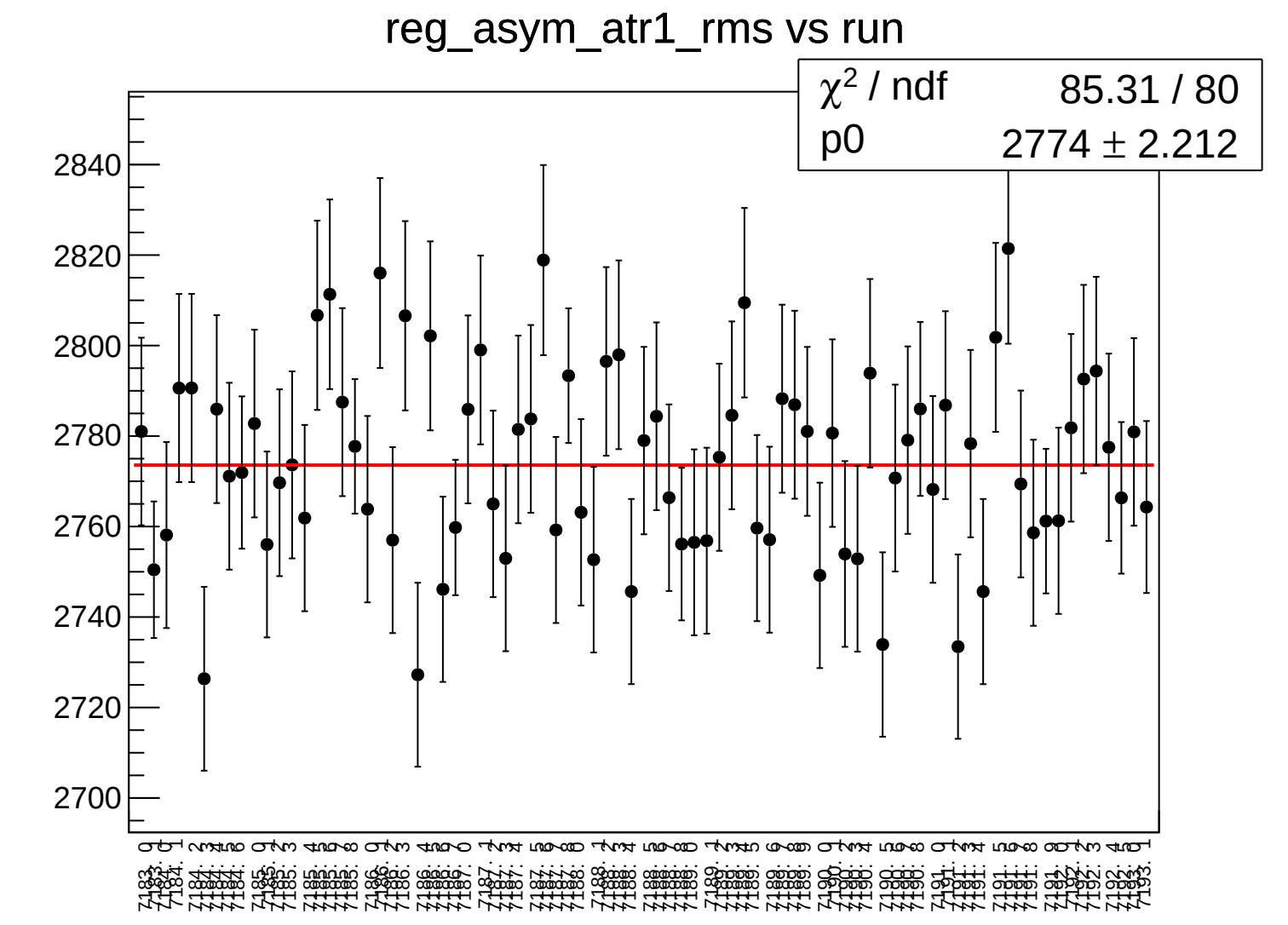

asym_atl2_mean vs run
×10^3
χ² / ndf 69.14 / 80
p0 −1.599e+04 ± 1.076e+04
pull
Entries 81
Mean 85.6
Std Dev 87.51

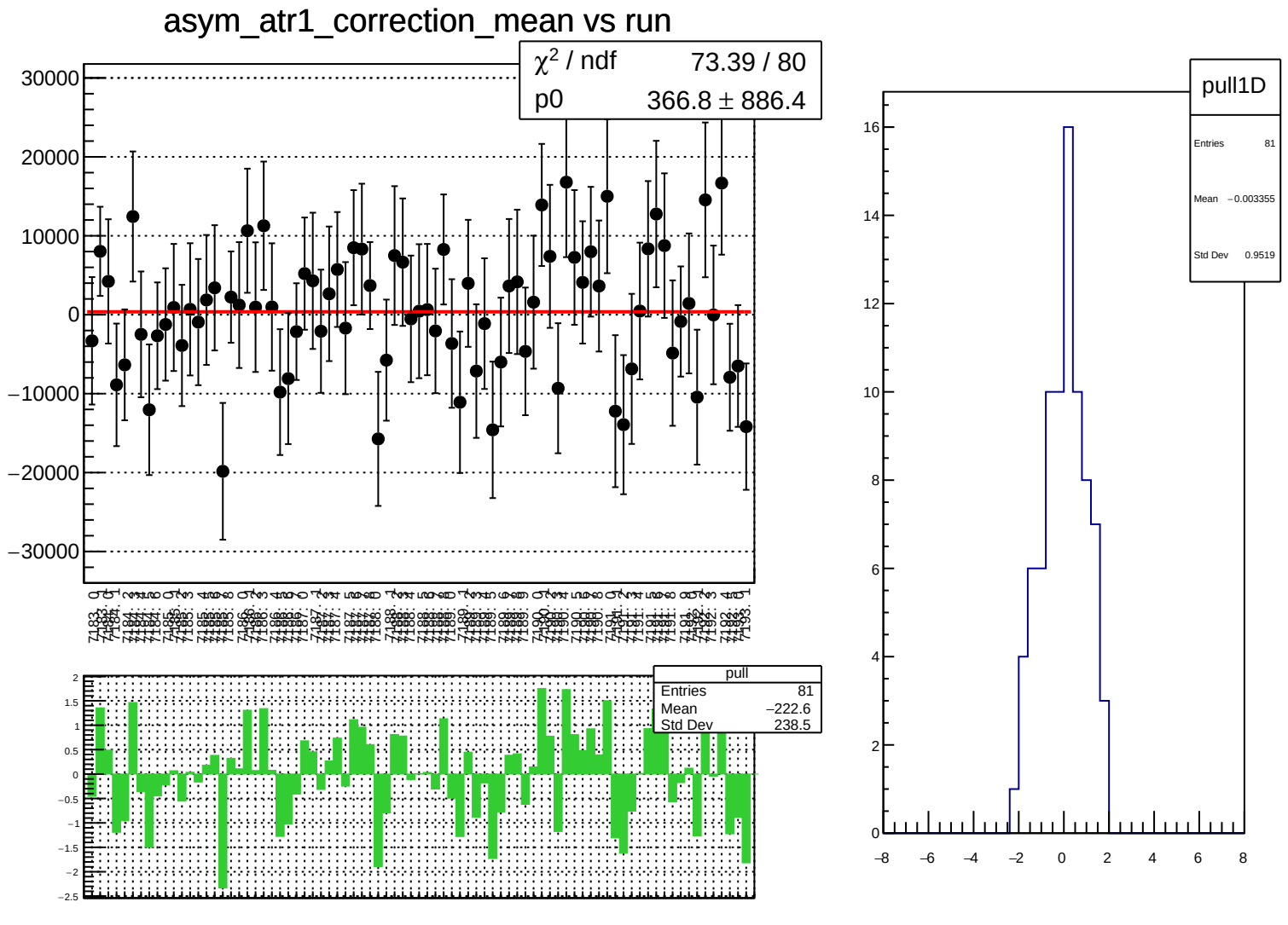

pull1D
Entries 81
Mean 0.005572
Std Dev 0.9239

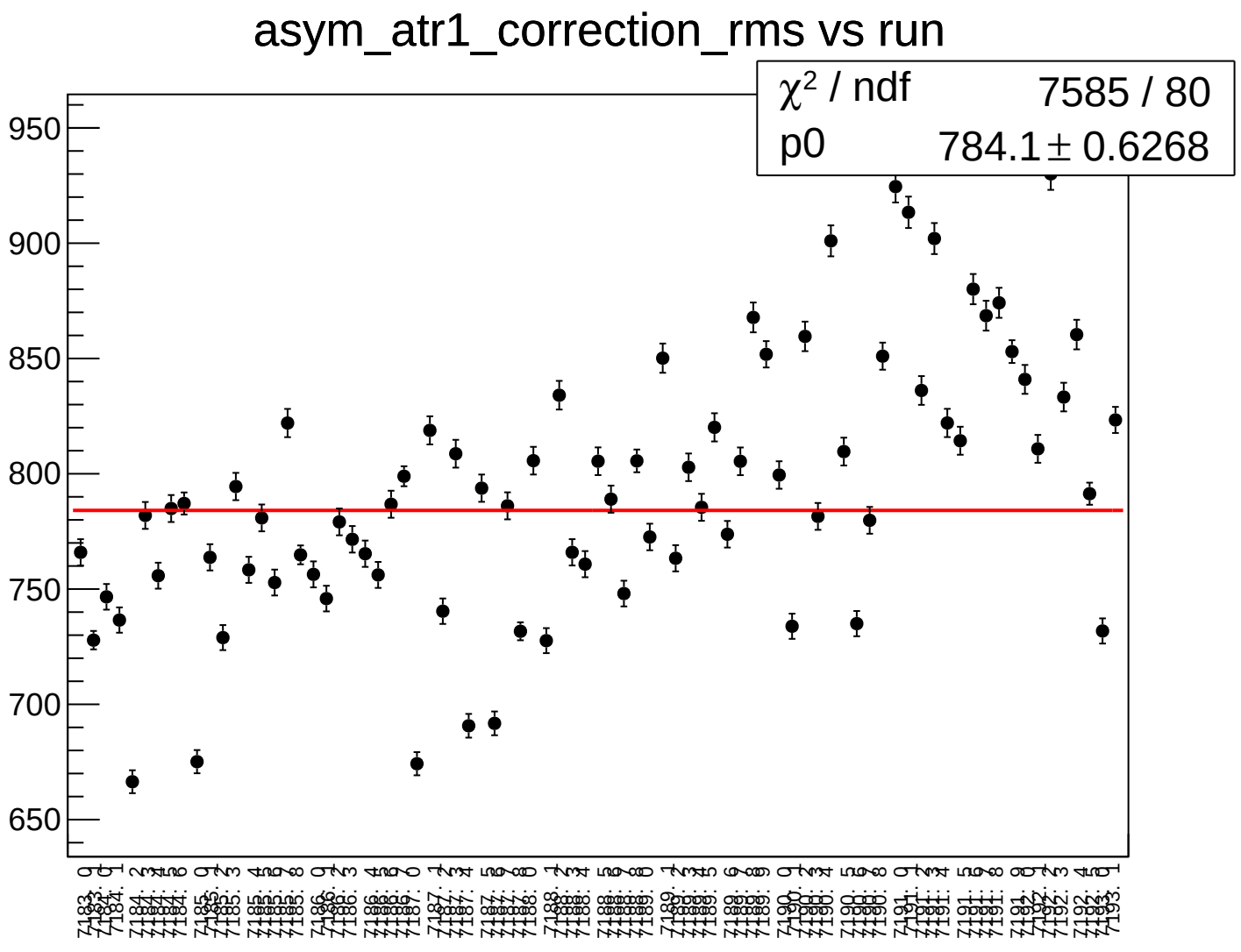

asym_atl2_rms vs run
χ² / ndf 4275 / 80
p0 9530 ± 7.61
14000
13000
12000
11000
10000
9000

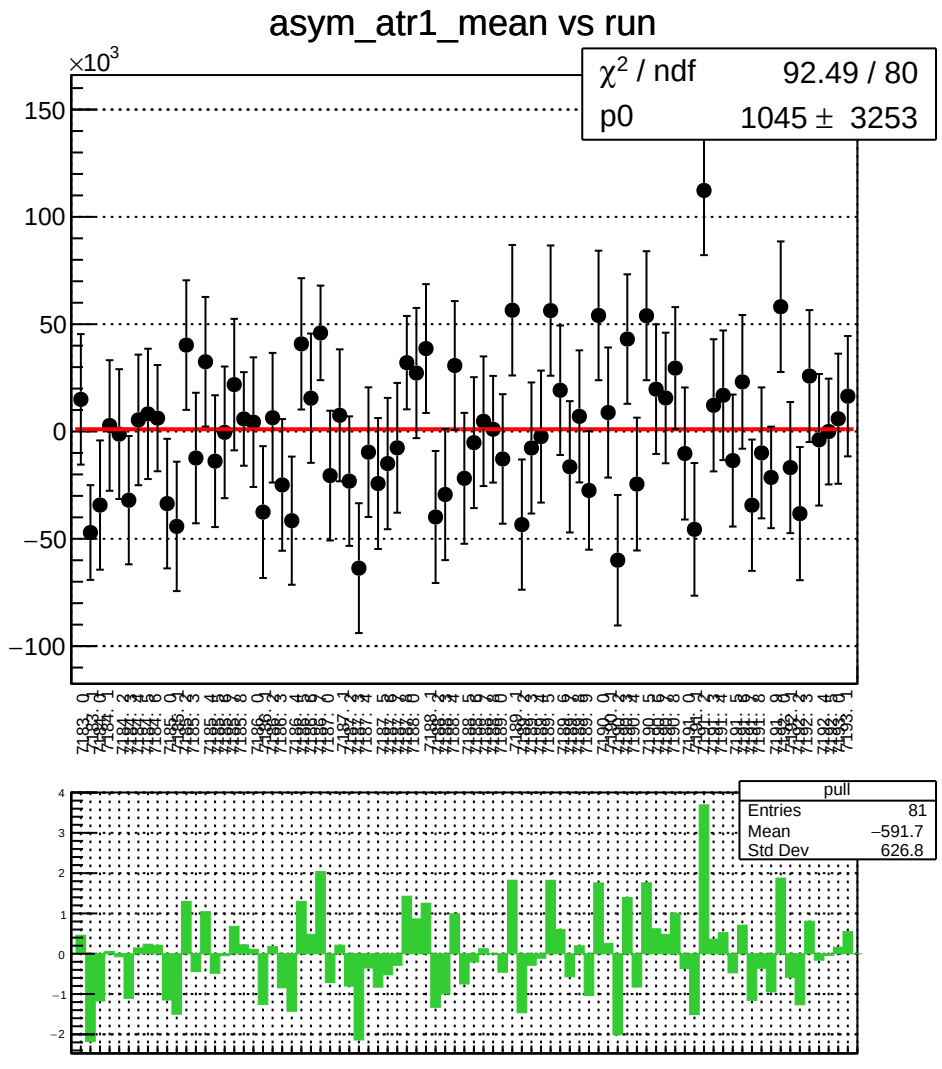

reg_asym_atr1_mean vs run
×10^3
χ^2 / ndf 86.25 / 80
p0 1417 ± 3128
100
50
0
−50
−100
pull
Entries 81
Mean −578.4
Std Dev 612.7
3
2
1
0
−1
−2

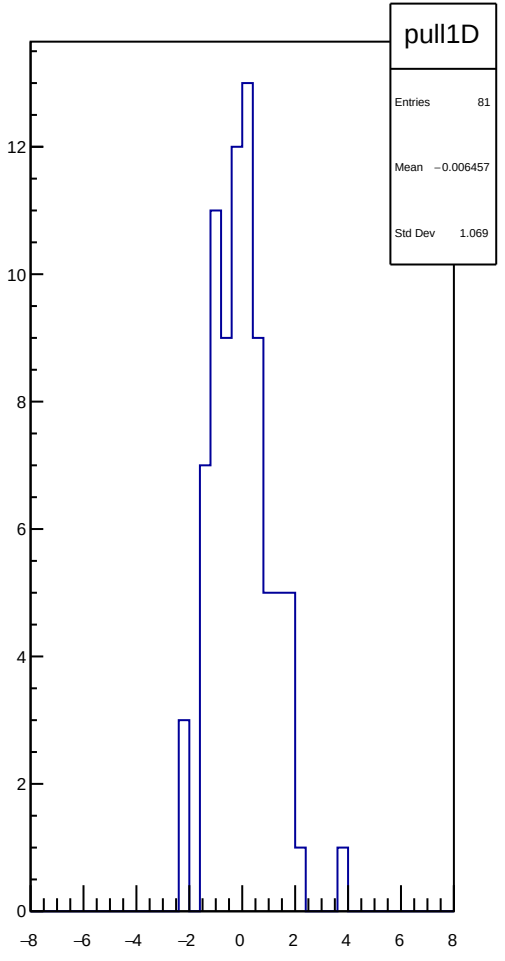

pull1D
Entries 81
Mean −0.007316
Std Dev 1.032
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

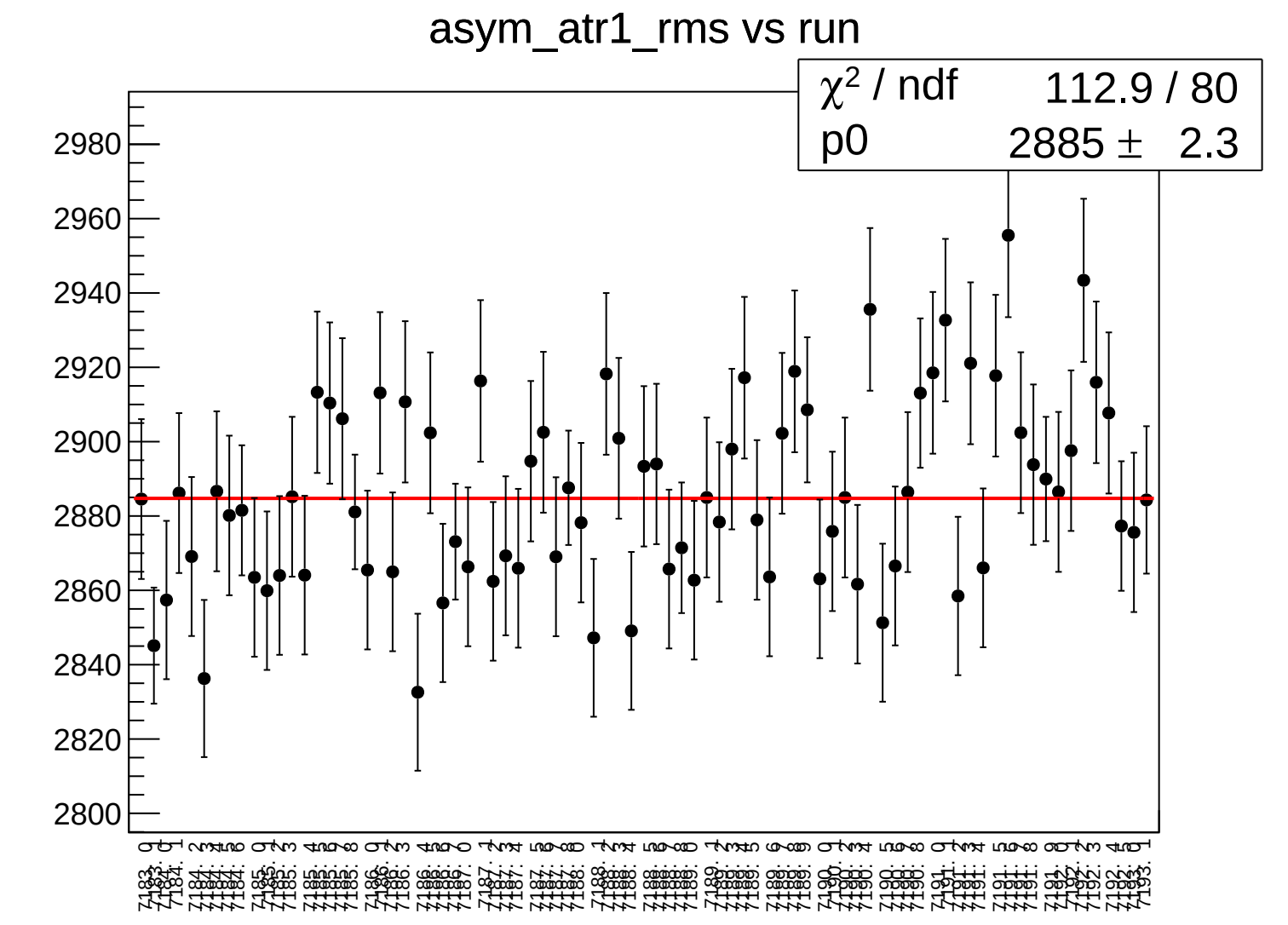

reg_asym_atr1_rms vs run
χ^2 / ndf 85.31 / 80
p0 2774 ± 2.212
2840
2820
2800
2780
2760
2740
2720
2700

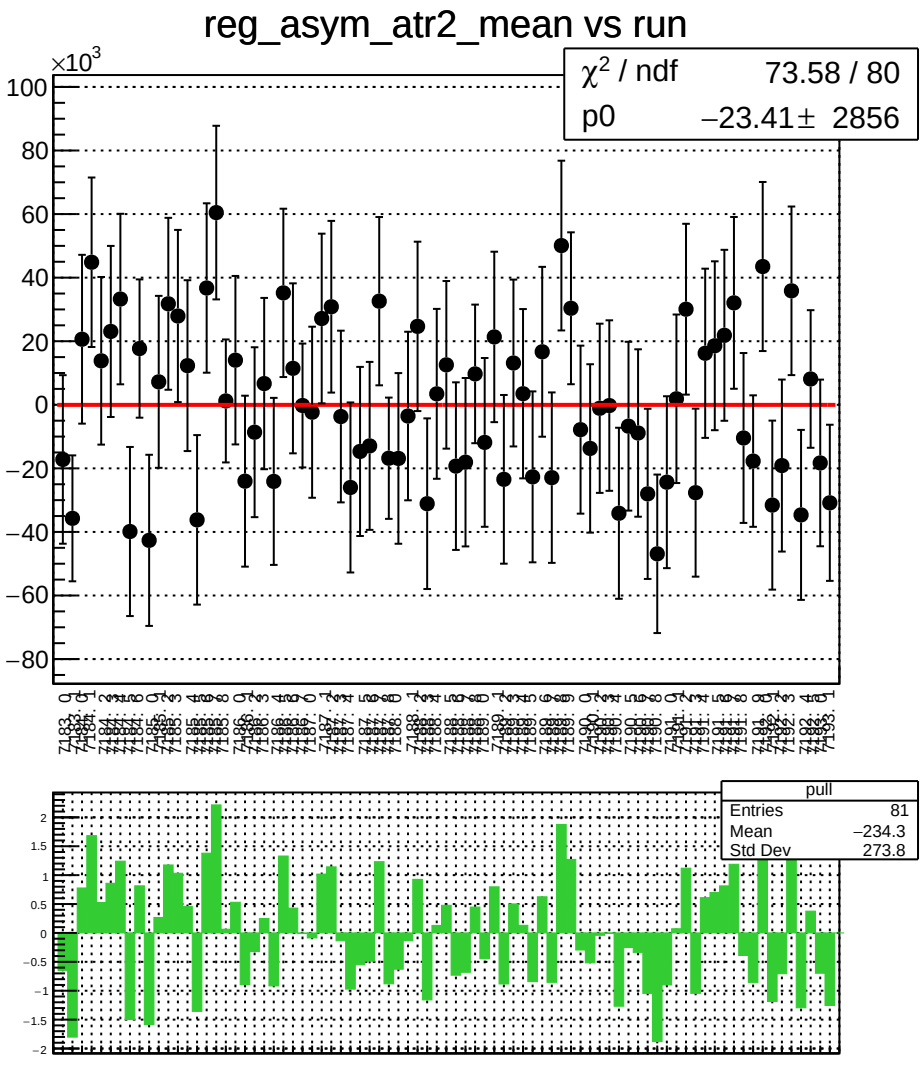

asym_atr1_correction_mean vs run
χ² / ndf 73.39 / 80
p0 366.8 ± 886.4
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −222.6
Std Dev 238.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
pull1D
Entries 81
Mean −0.003355
Std Dev 0.9519
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

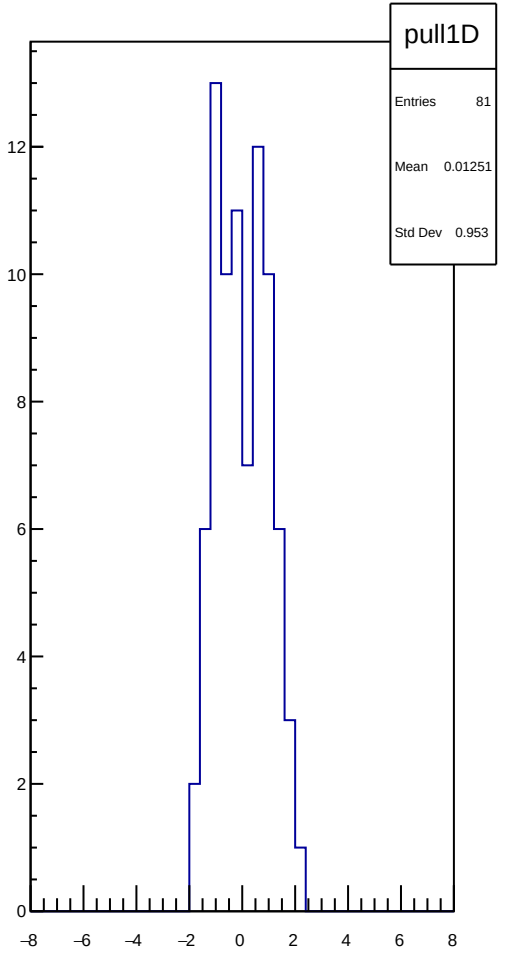

asym_atr1_correction_rms vs run
χ² / ndf 7585 / 80
p0 784.1 ± 0.6268
950
900
850
800
750
700
650

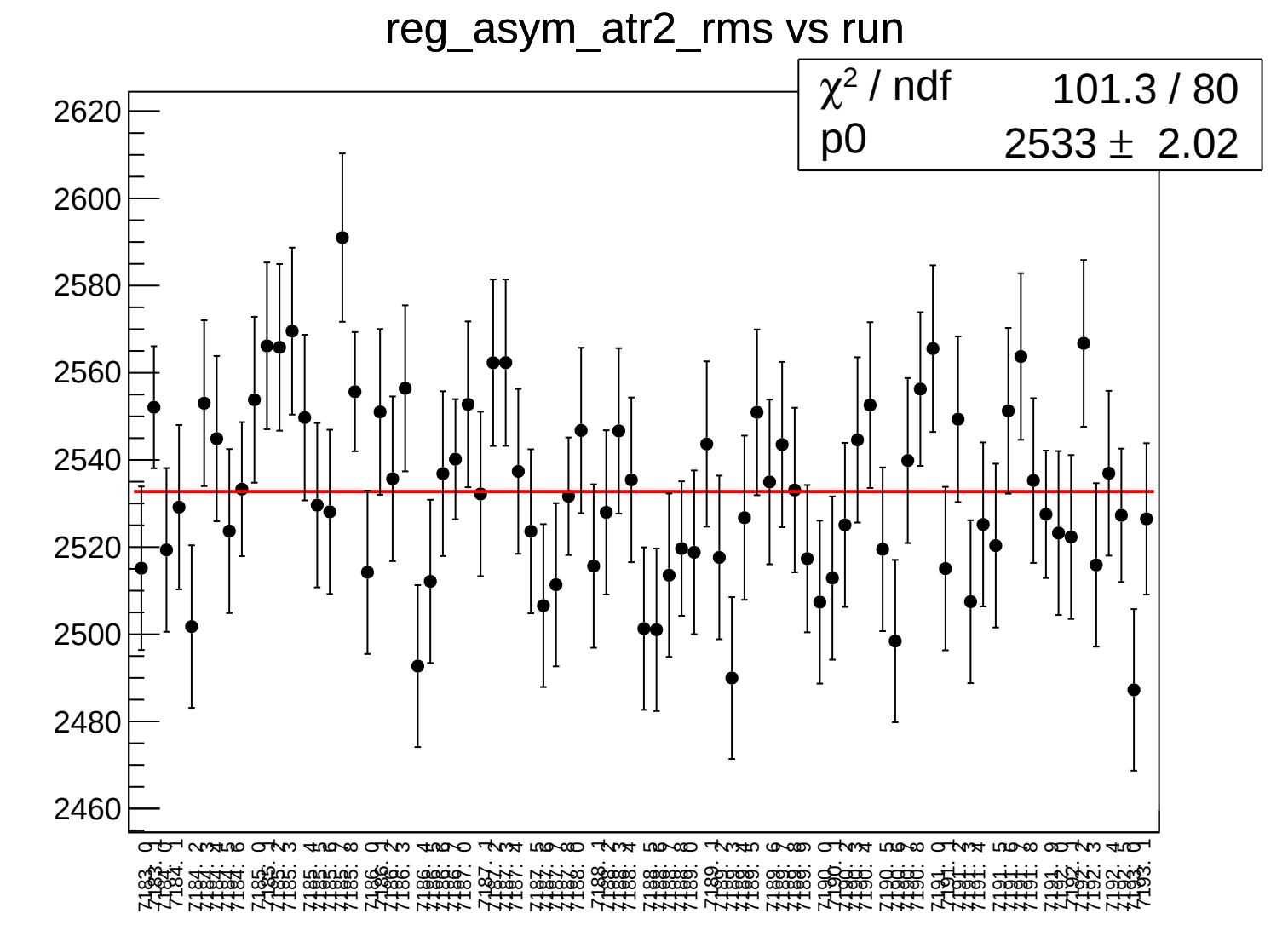

asym_atr1_mean vs run
×10^3
χ² / ndf 92.49 / 80
p0 1045 ± 3253
150
100
50
0
−50
−100
pull
Entries 81
Mean −591.7
Std Dev 626.8
4
3
2
1
0
−1
−2

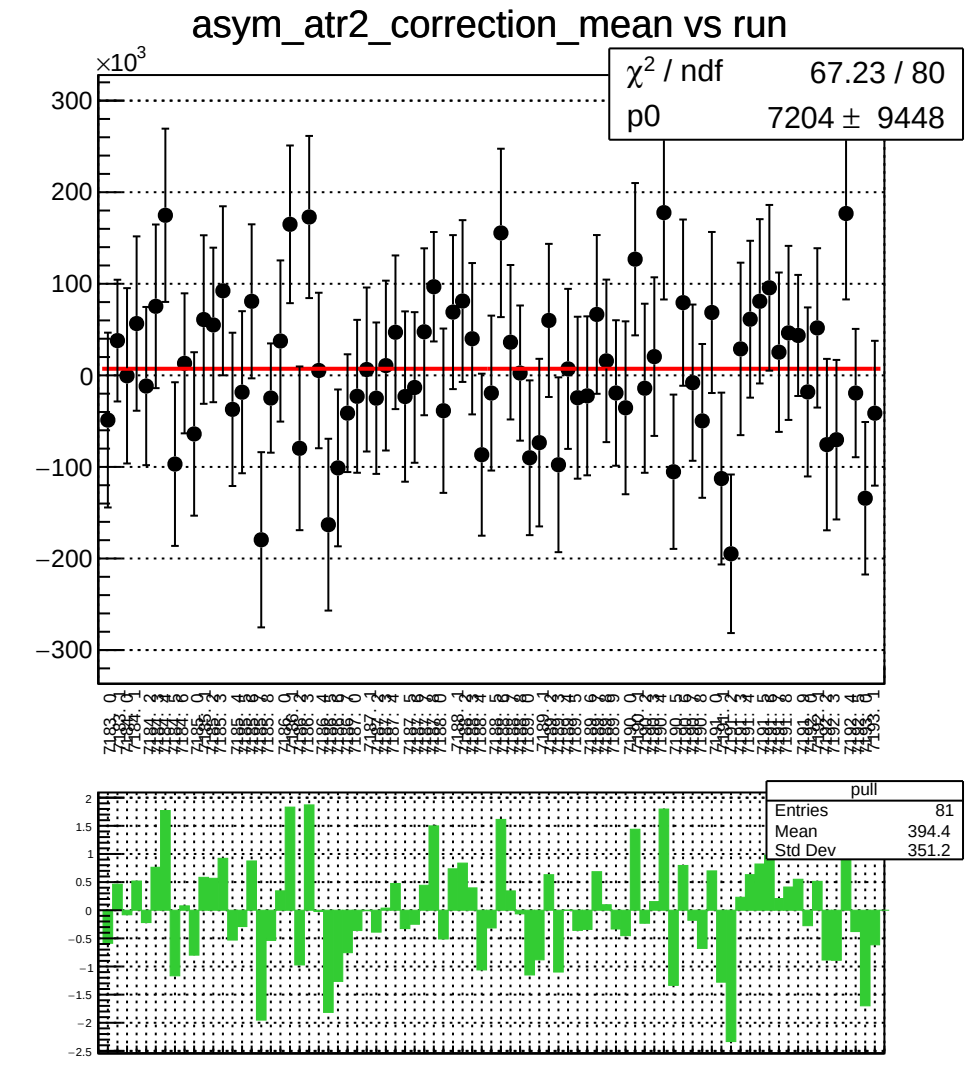

pull1D
Entries 81
Mean −0.006457
Std Dev 1.069
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

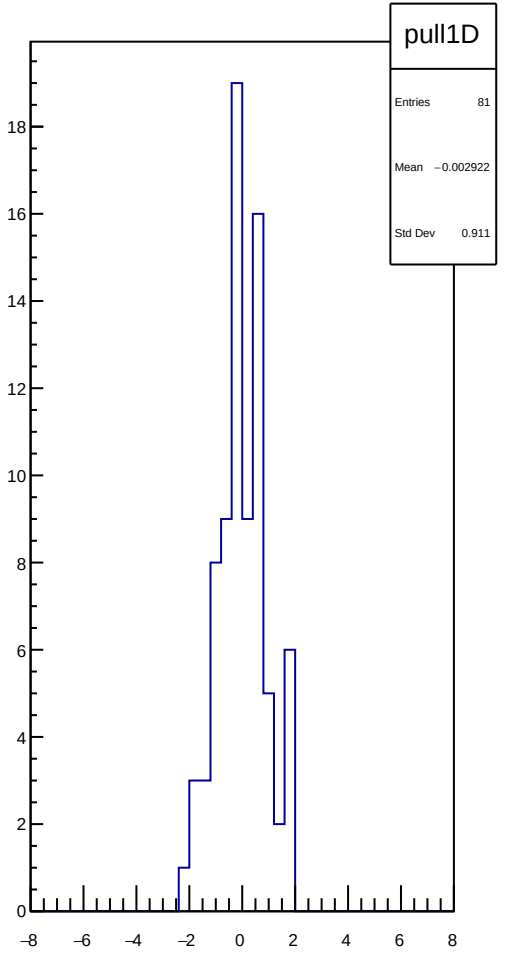

asym_atr1_rms vs run
χ² / ndf 112.9 / 80
p0 2885 ± 2.3
2980
2960
2940
2920
2900
2880
2860
2840
2820
2800

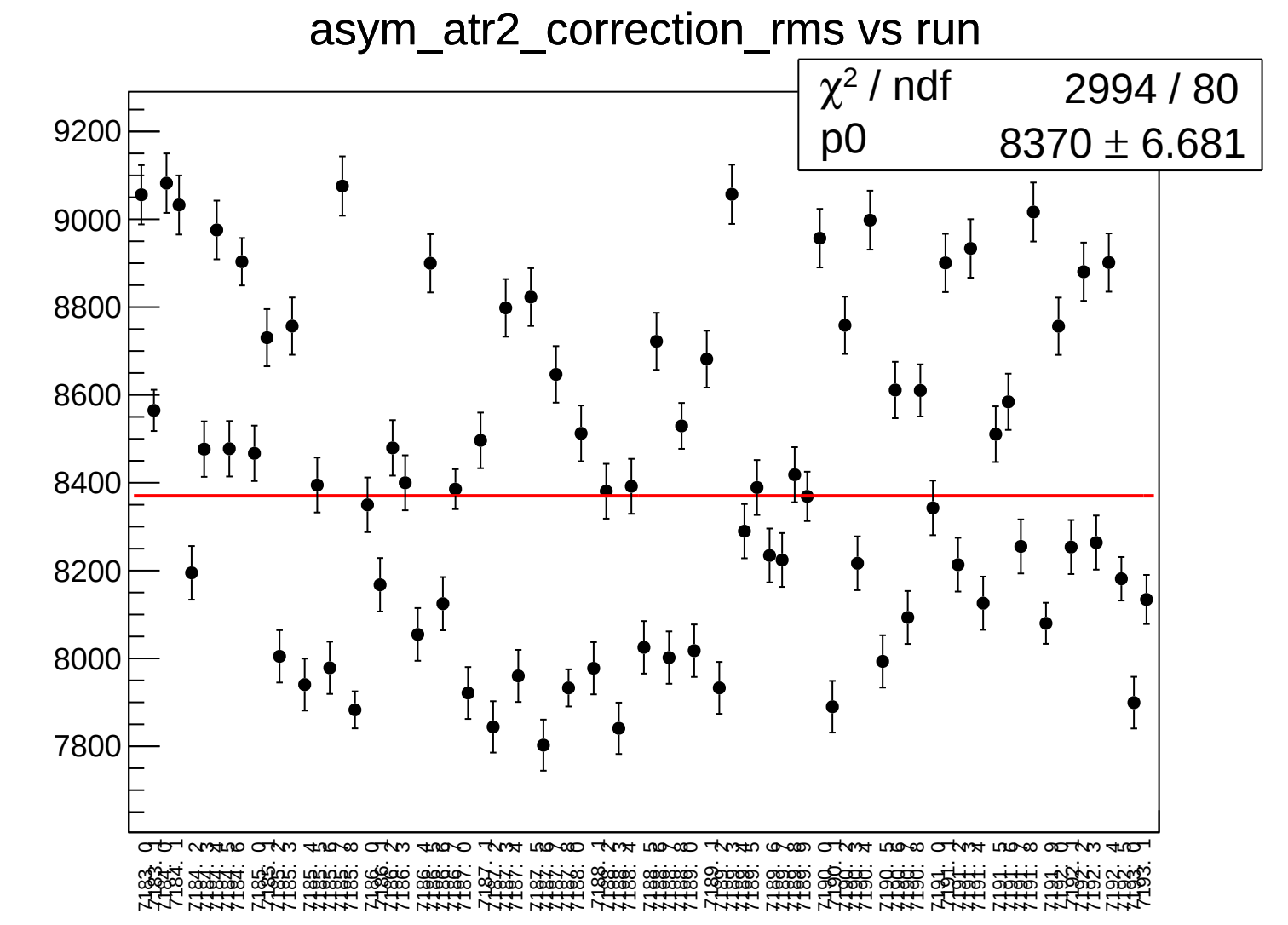

reg_asym_atr2_mean vs run
×10^3
χ² / ndf 73.58 / 80
p0 −23.41± 2856
pull
Entries 81
Mean −234.3
Std Dev 273.8

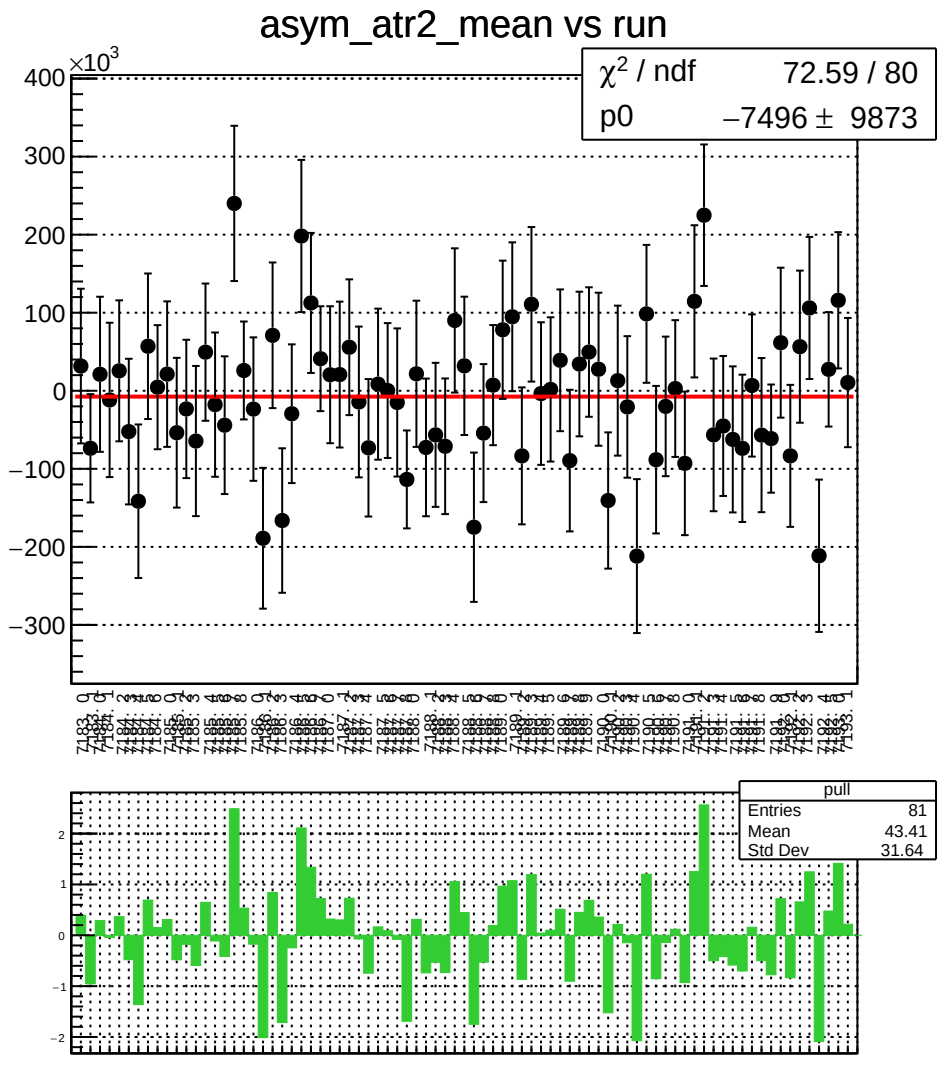

pull1D
Entries 81
Mean 0.01251
Std Dev 0.953

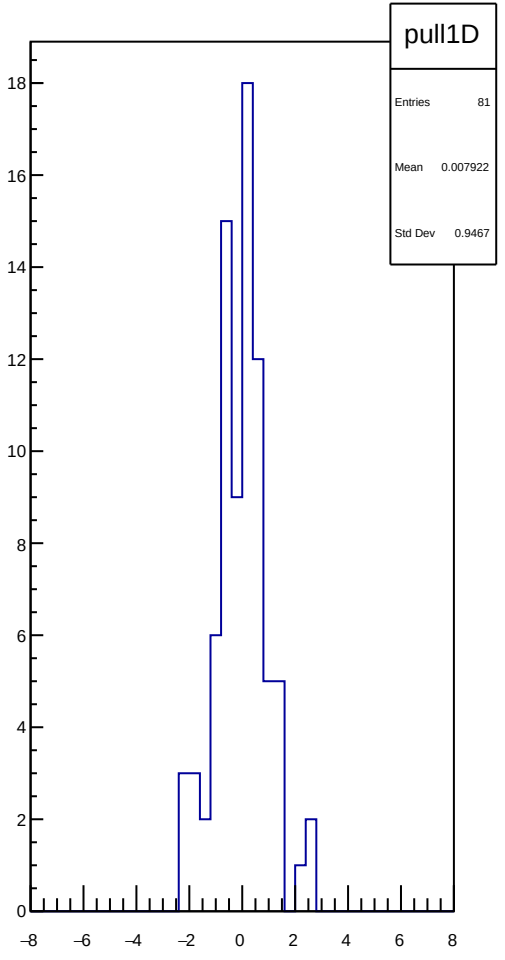

reg_asym_atr2_rms vs run
χ² / ndf 101.3 / 80
p0 2533 ± 2.02
2620
2600
2580
2560
2540
2520
2500
2480
2460

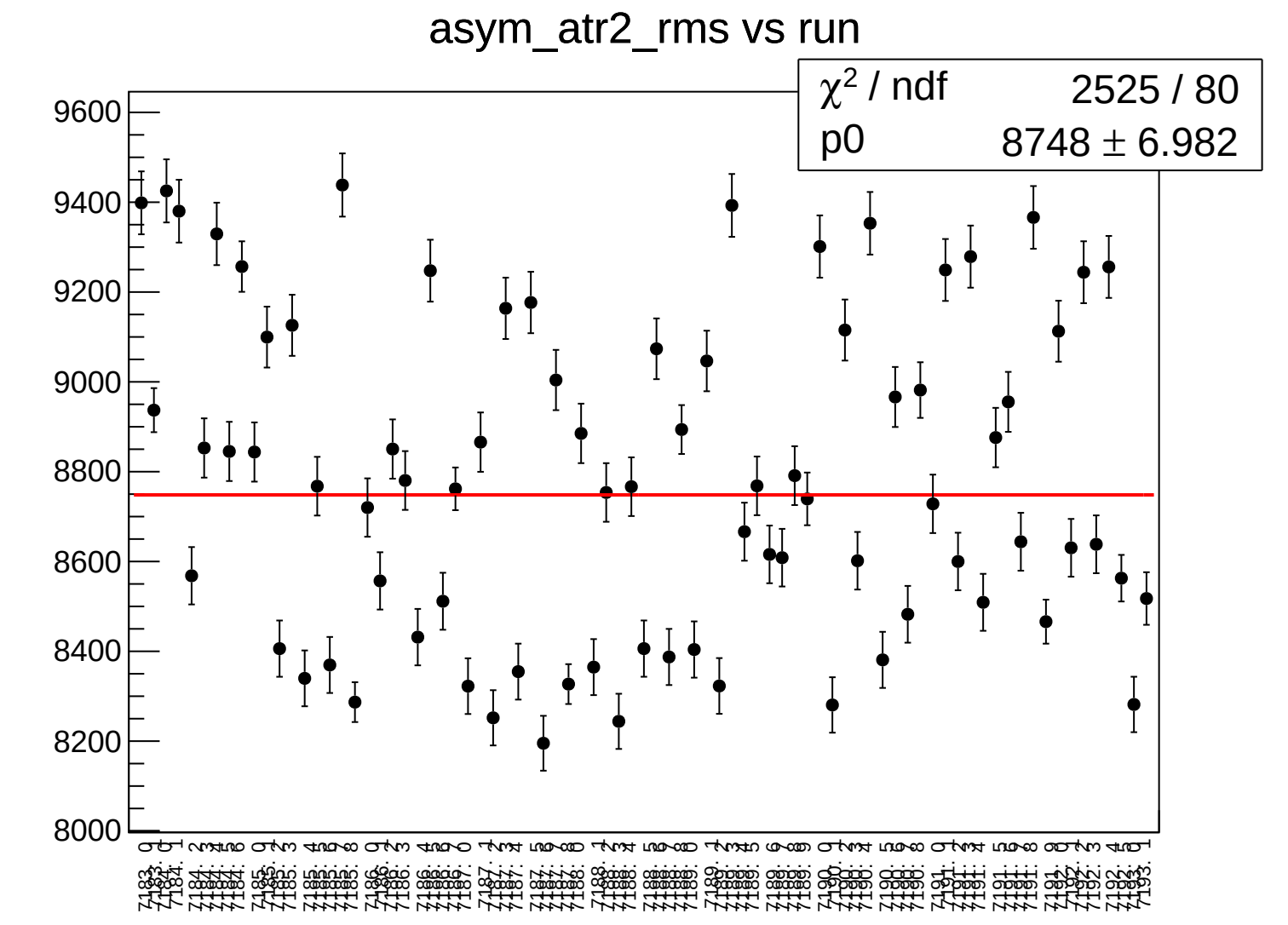

asym_atr2_correction_mean vs run
×10^3
χ^2 / ndf 67.23 / 80
p0 7204 ± 9448
300
200
100
0
−100
−200
−300
pull
Entries 81
Mean 394.4
Std Dev 351.2
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

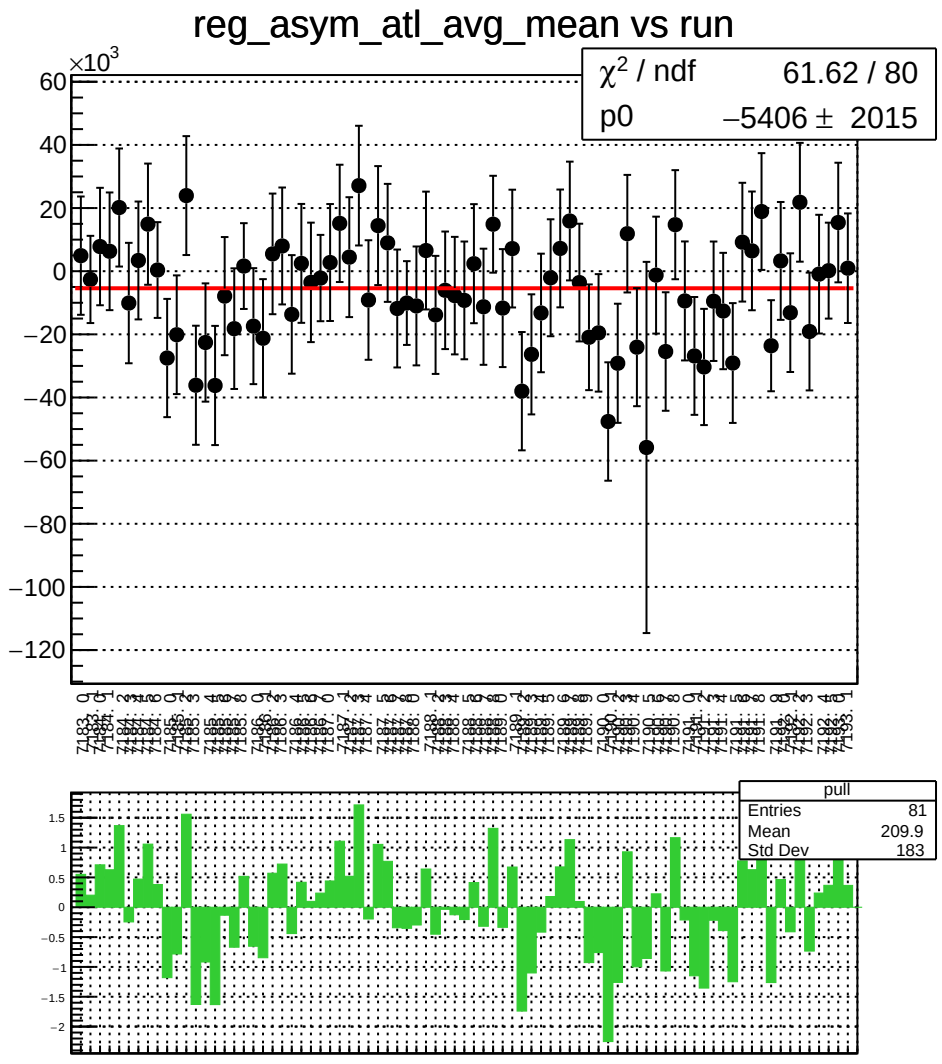

pull1D
Entries 81
Mean −0.002922
Std Dev 0.911
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

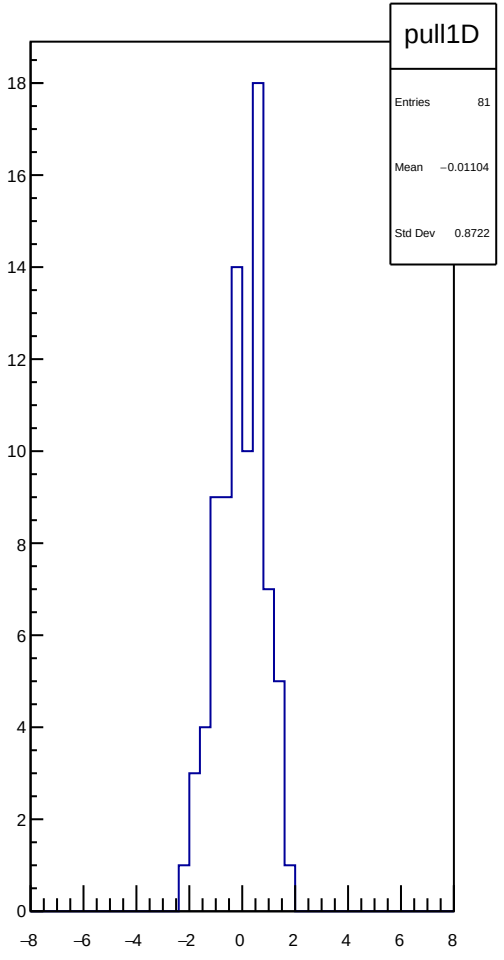

asym_atr2_correction_rms vs run
χ² / ndf 2994 / 80
p0 8370 ± 6.681
9200
9000
8800
8600
8400
8200
8000
7800

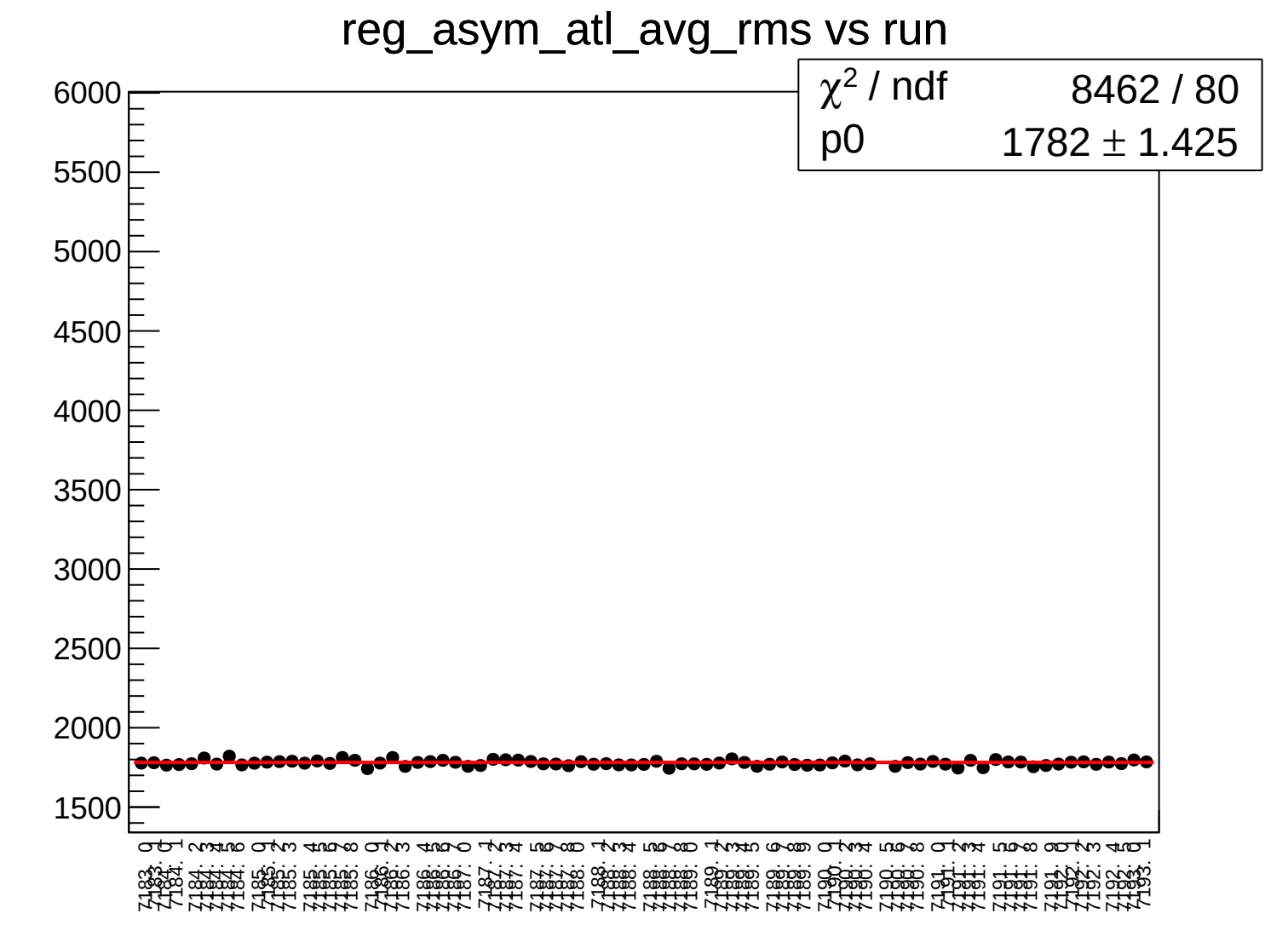

asym_atr2_mean vs run
χ^2 / ndf 72.59 / 80
p0 −7496 ± 9873
×10^3
pull
Entries 81
Mean 43.41
Std Dev 31.64

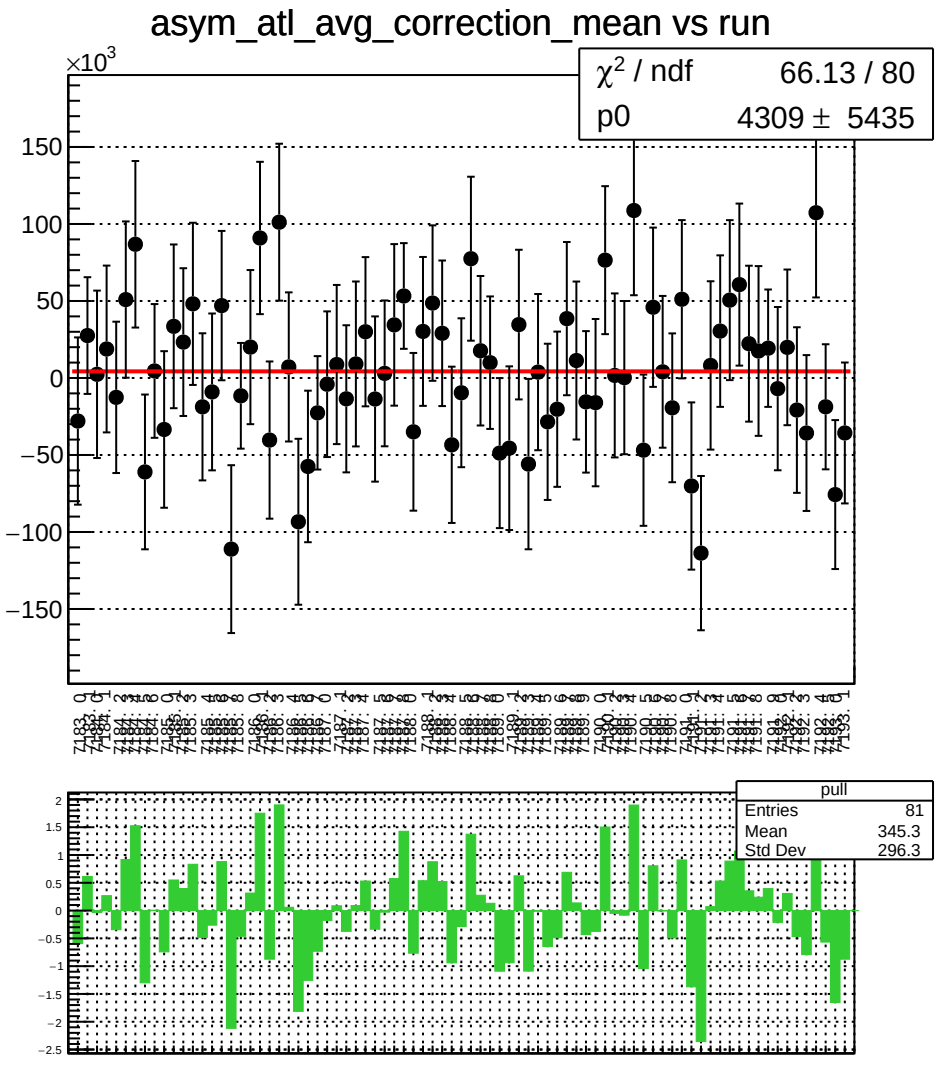

pull1D
Entries 81
Mean 0.007922
Std Dev 0.9467

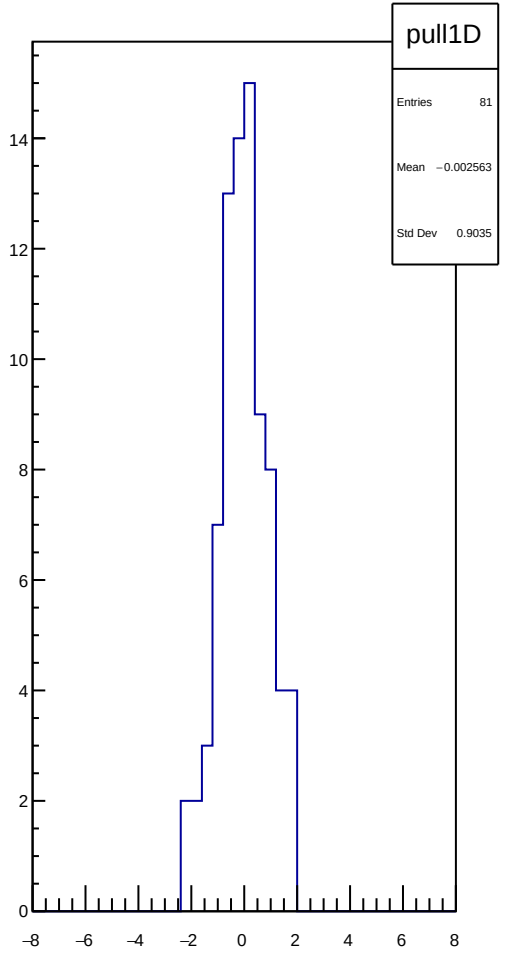

asym_atr2_rms vs run
χ² / ndf 2525 / 80
p0 8748 ± 6.982
9600
9400
9200
9000
8800
8600
8400
8200
8000

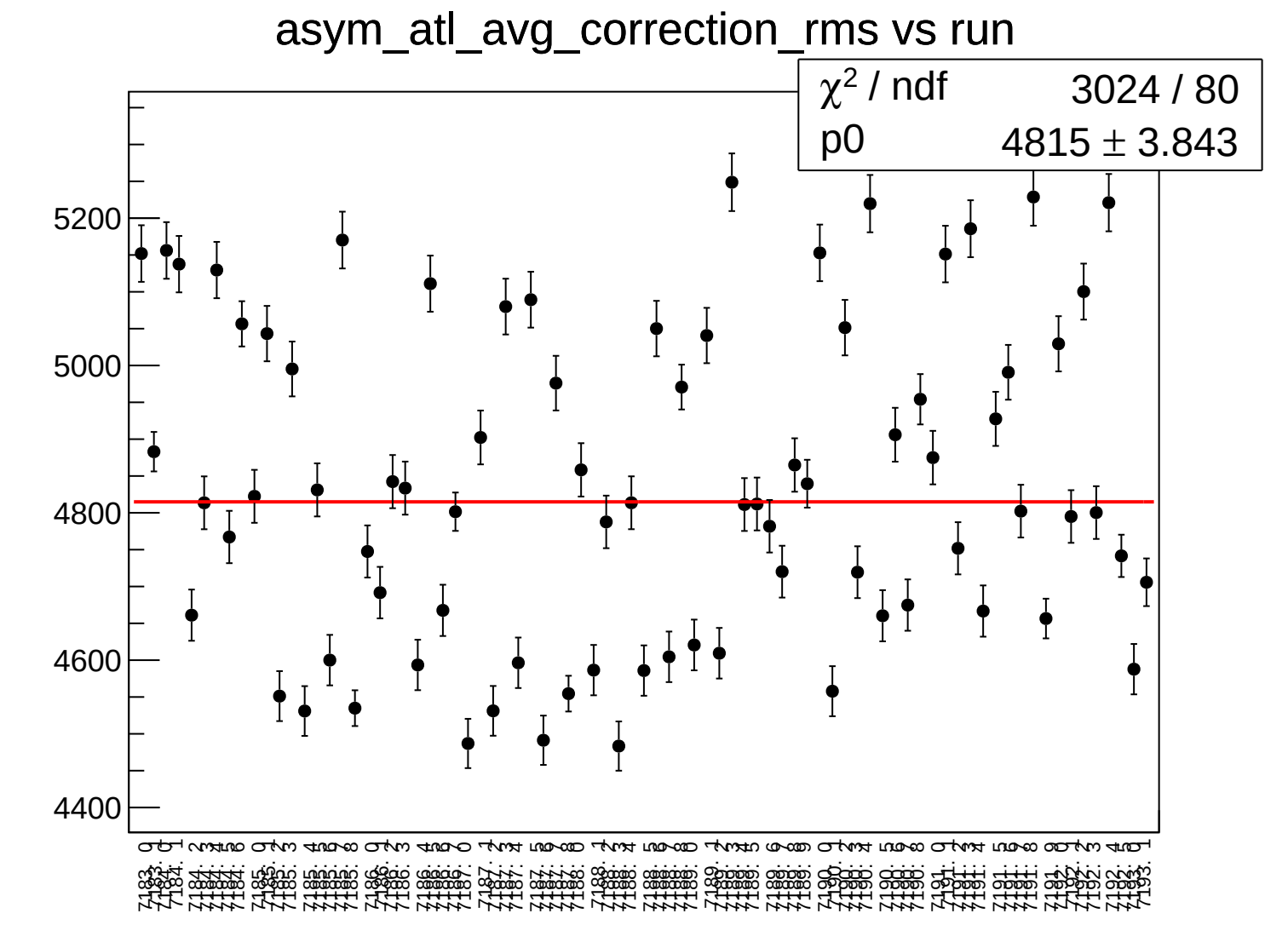

reg_asym_atl_avg_mean vs run
×10^3
χ^2 / ndf 61.62 / 80
p0 −5406 ± 2015
pull
Entries 81
Mean 209.9
Std Dev 183

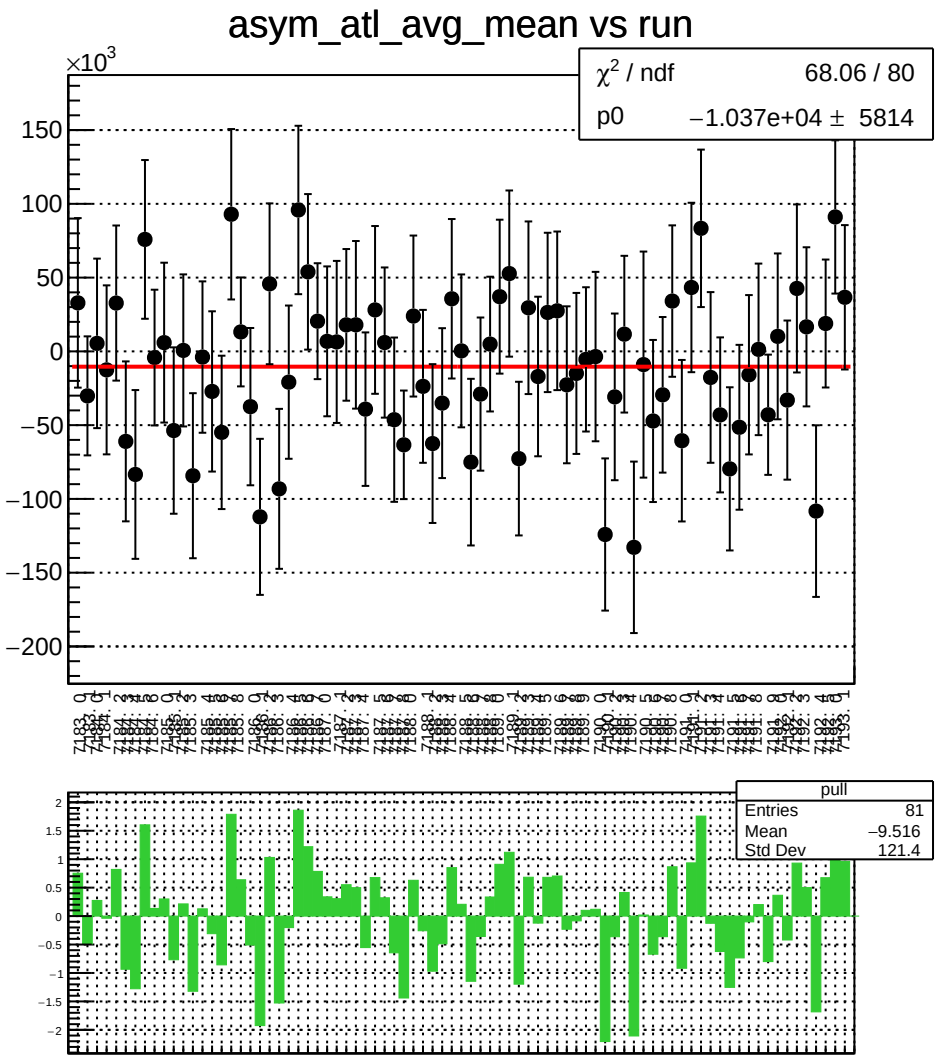

pull1D
Entries 81
Mean −0.01104
Std Dev 0.8722

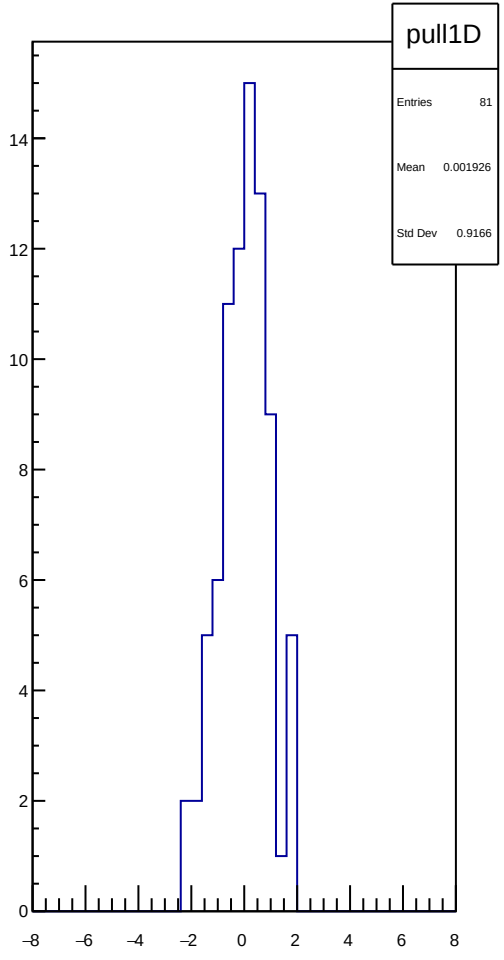

reg_asym_atl_avg_rms vs run
χ^2 / ndf 8462 / 80
p0 1782 ± 1.425
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500

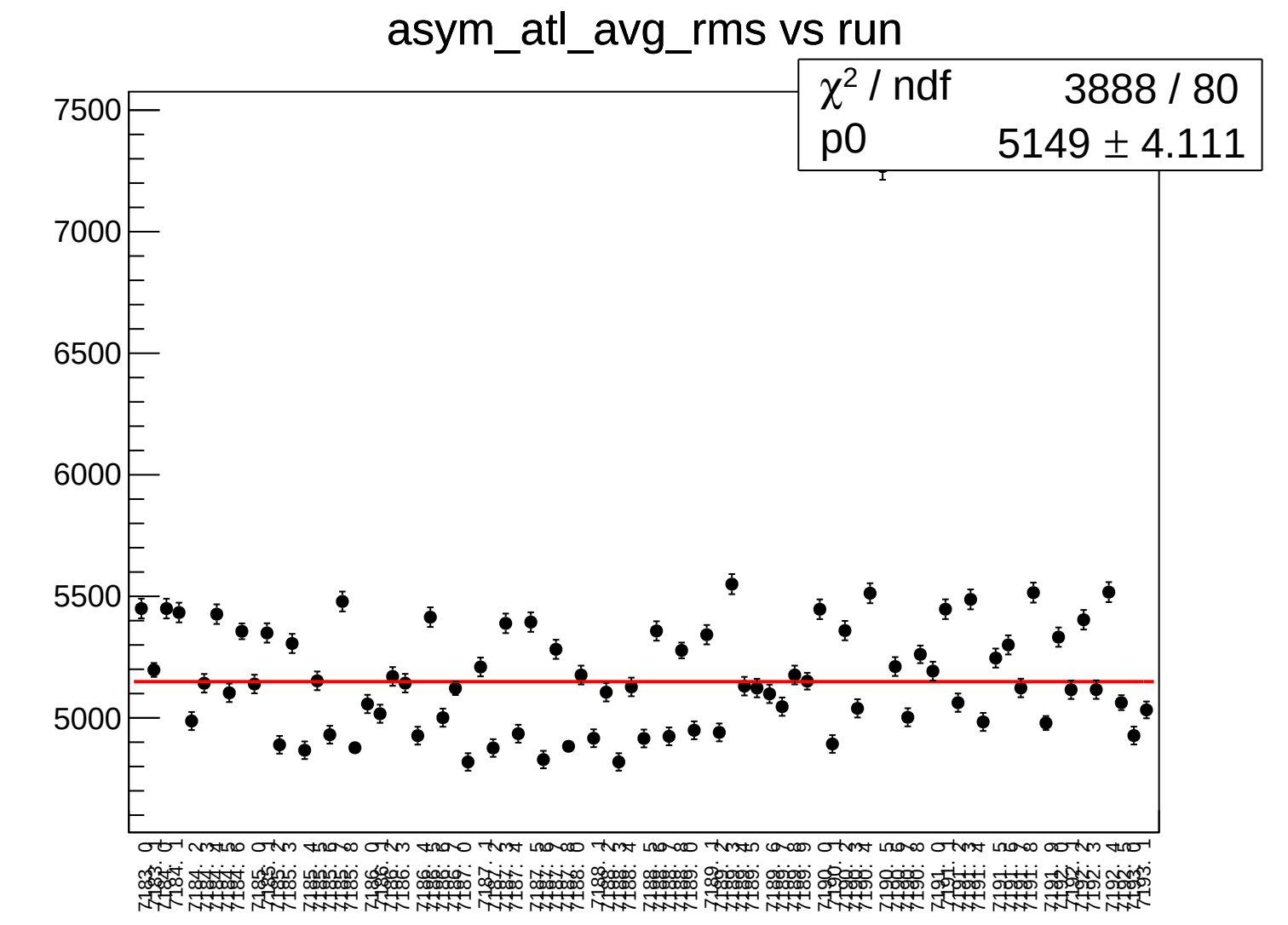

asym_atl_avg_correction_mean vs run
×10^3
χ^2 / ndf 66.13 / 80
p0 4309 ± 5435
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 345.3
Std Dev 296.3
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

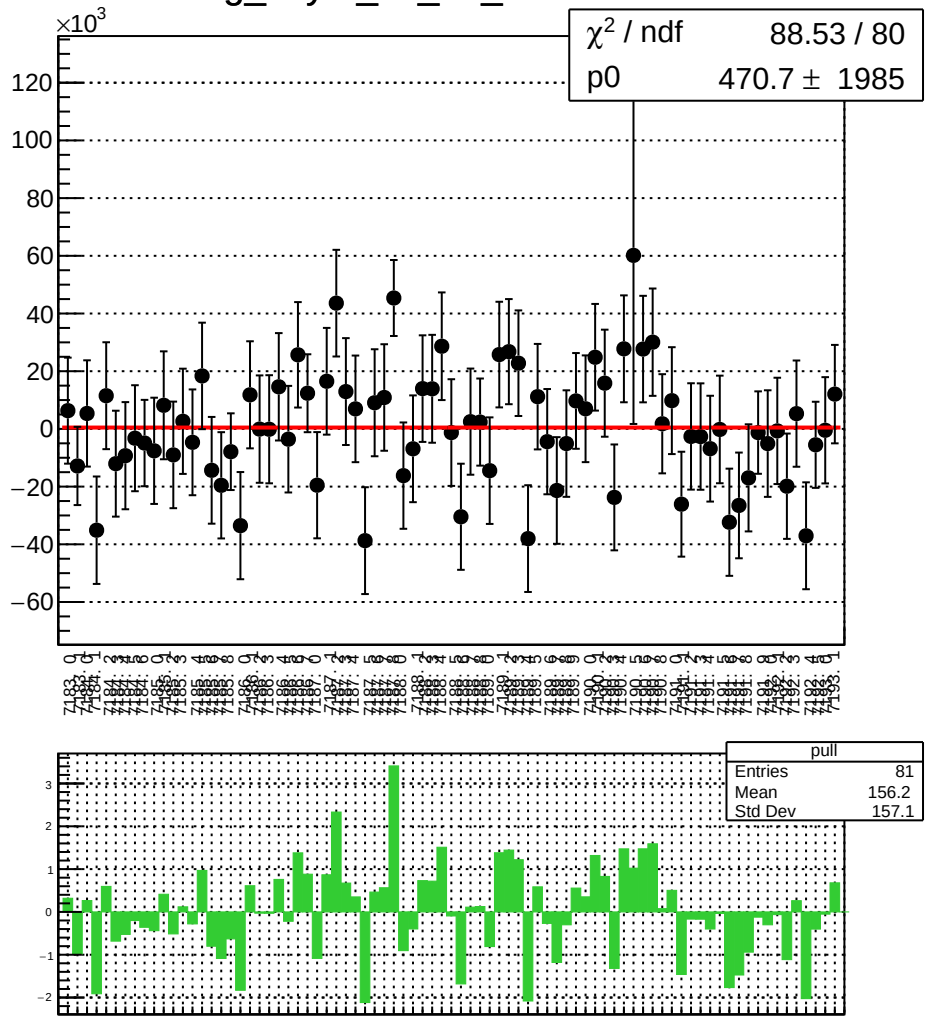

pull1D
Entries 81
Mean −0.002563
Std Dev 0.9035
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

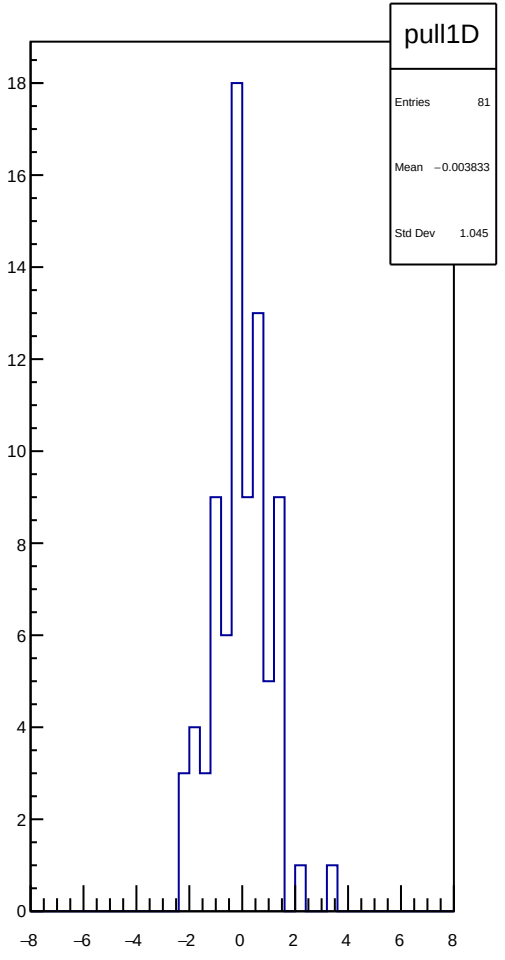

asym_atl_avg_correction_rms vs run
χ² / ndf 3024 / 80
p0 4815 ± 3.843
5200
5000
4800
4600
4400

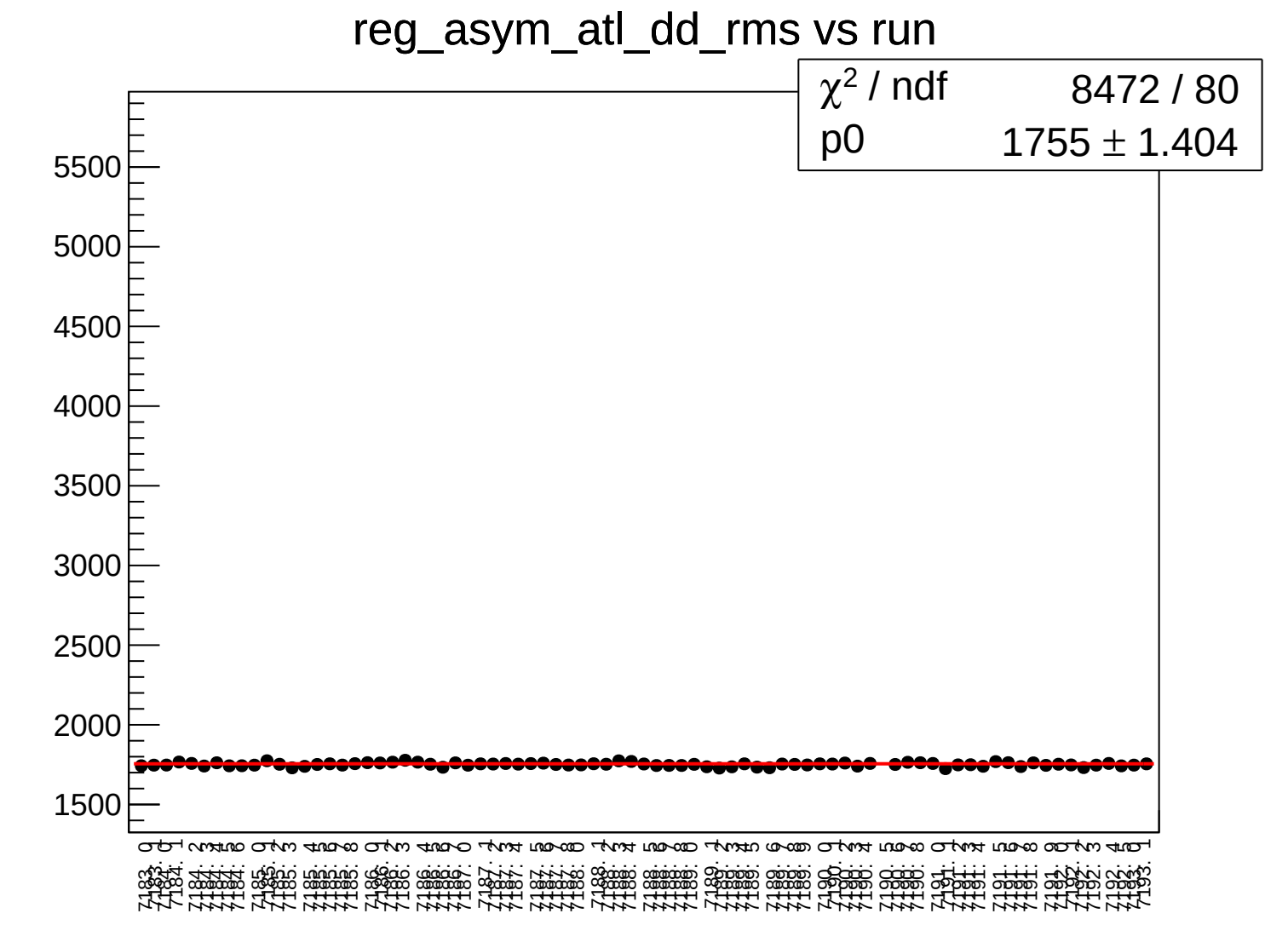

asym_atl_avg_mean vs run
×10^3
χ² / ndf 68.06 / 80
p0 −1.037e+04 ± 5814
150
100
50
0
−50
−100
−150
−200
pull
Entries 81
Mean −9.516
Std Dev 121.4
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

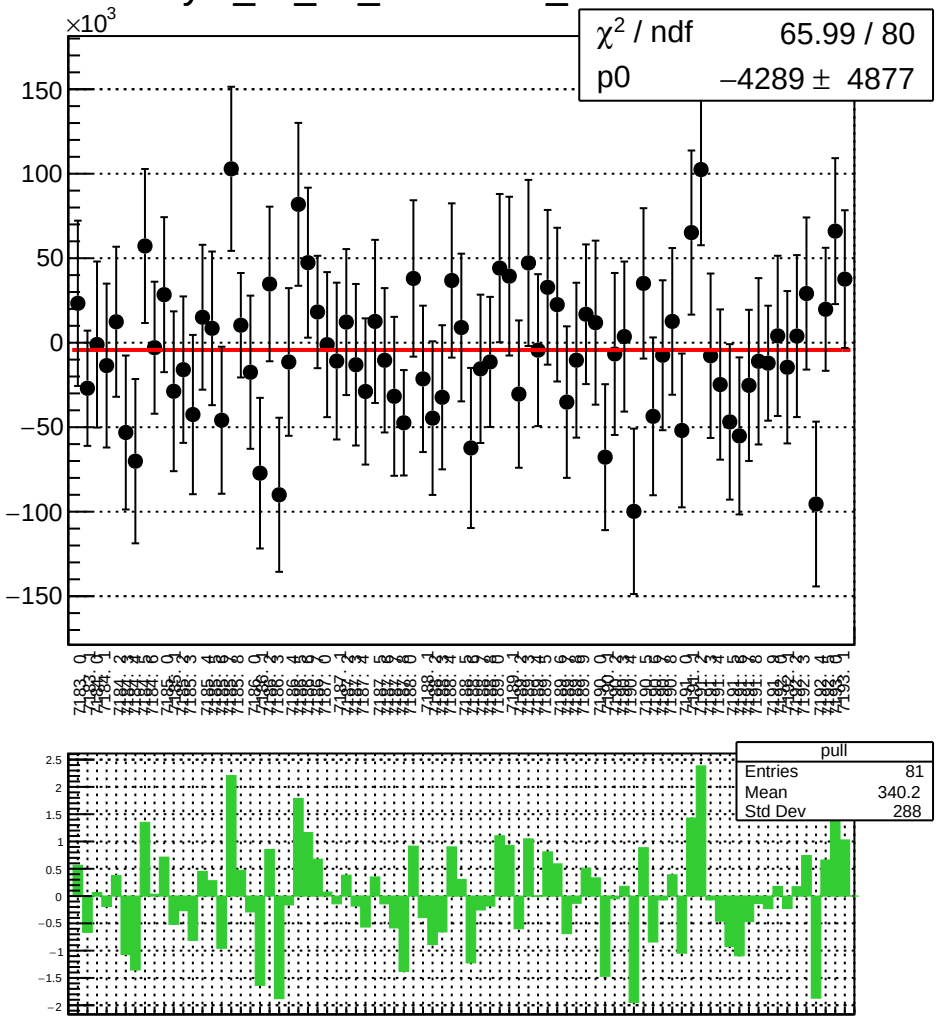

pull1D
Entries 81
Mean 0.001926
Std Dev 0.9166
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

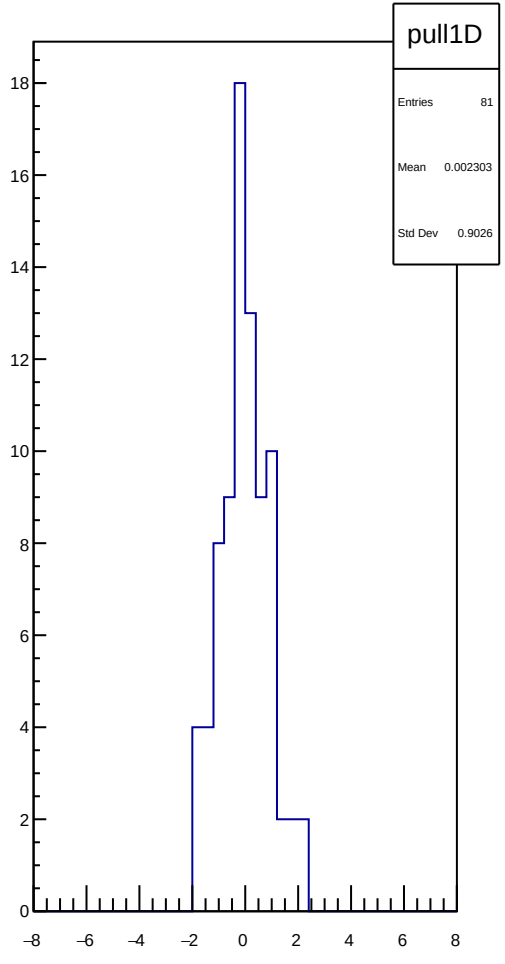

asym_atl_avg_rms vs run
χ^2 / ndf 3888 / 80
p0 5149 ± 4.111
7500
7000
6500
6000
5500
5000

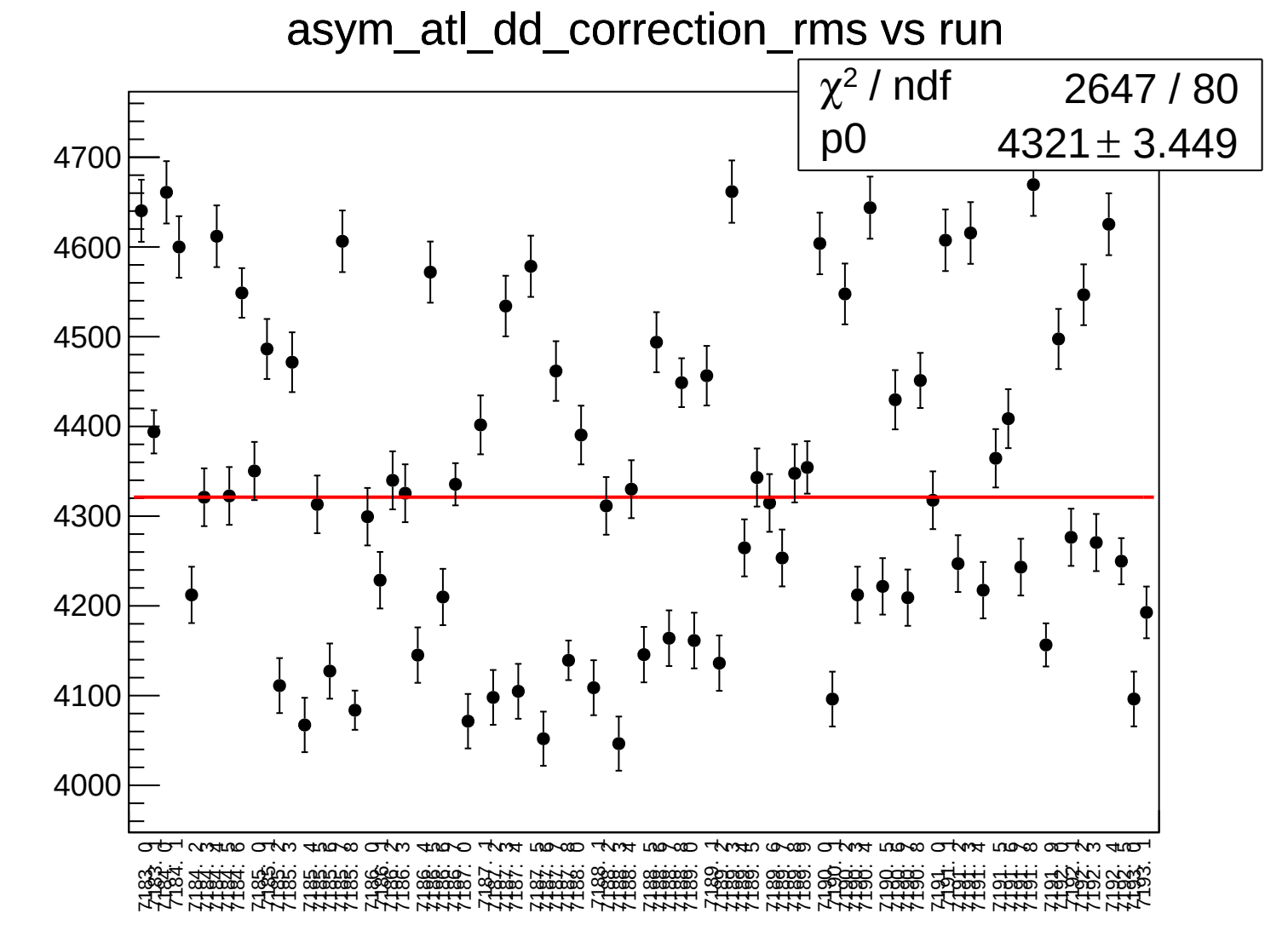

reg_asym_atl_dd_mean vs run
χ^2 / ndf 88.53 / 80
p0 470.7 ± 1985
pull
Entries 81
Mean 156.2
Std Dev 157.1

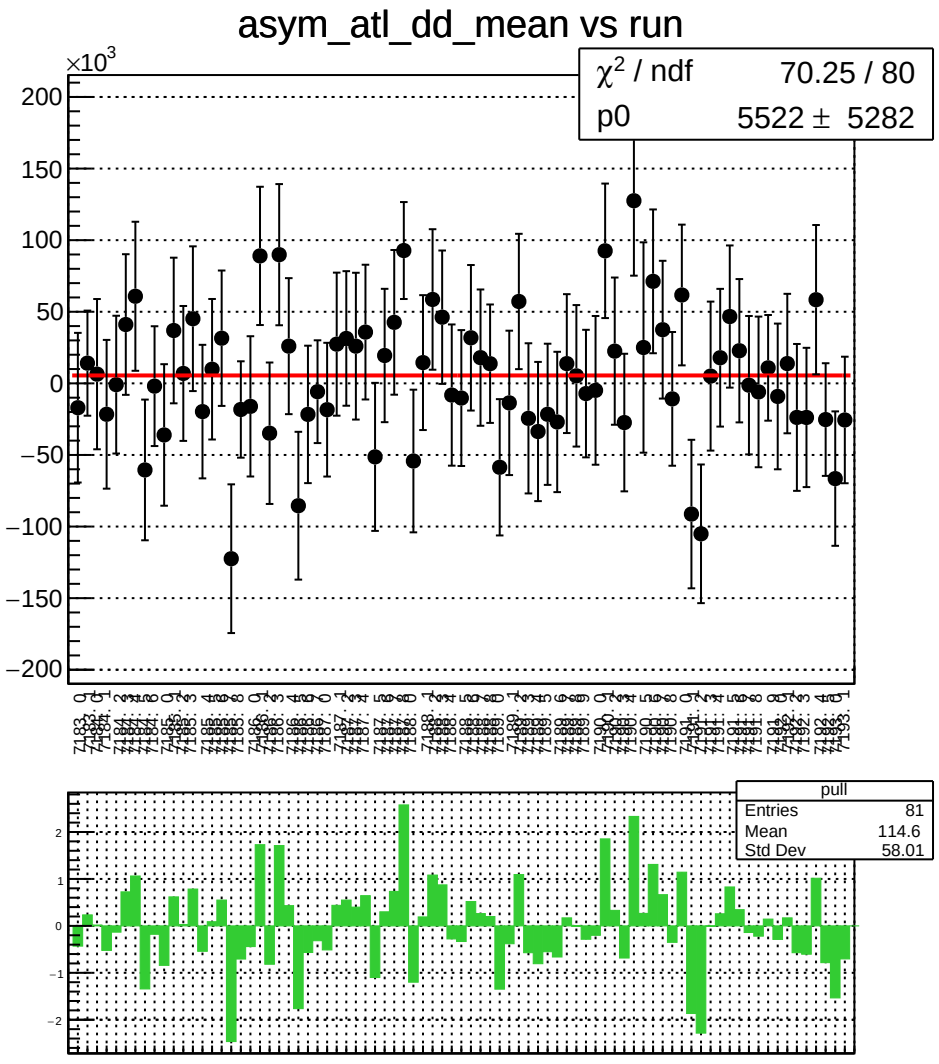

pull1D
Entries 81
Mean −0.003833
Std Dev 1.045

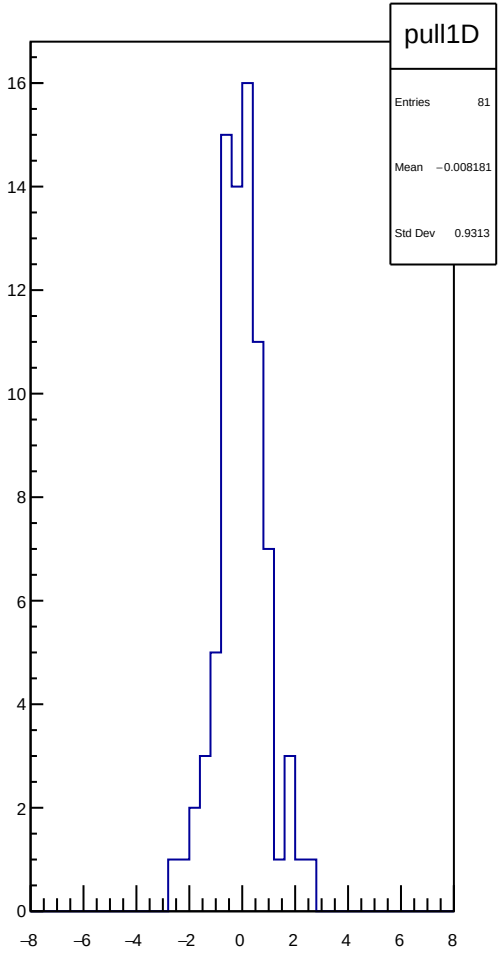

reg_asym_atl_dd_rms vs run
χ^2 / ndf 8472 / 80
p0 1755 ± 1.404
5500
5000
4500
4000
3500
3000
2500
2000
1500

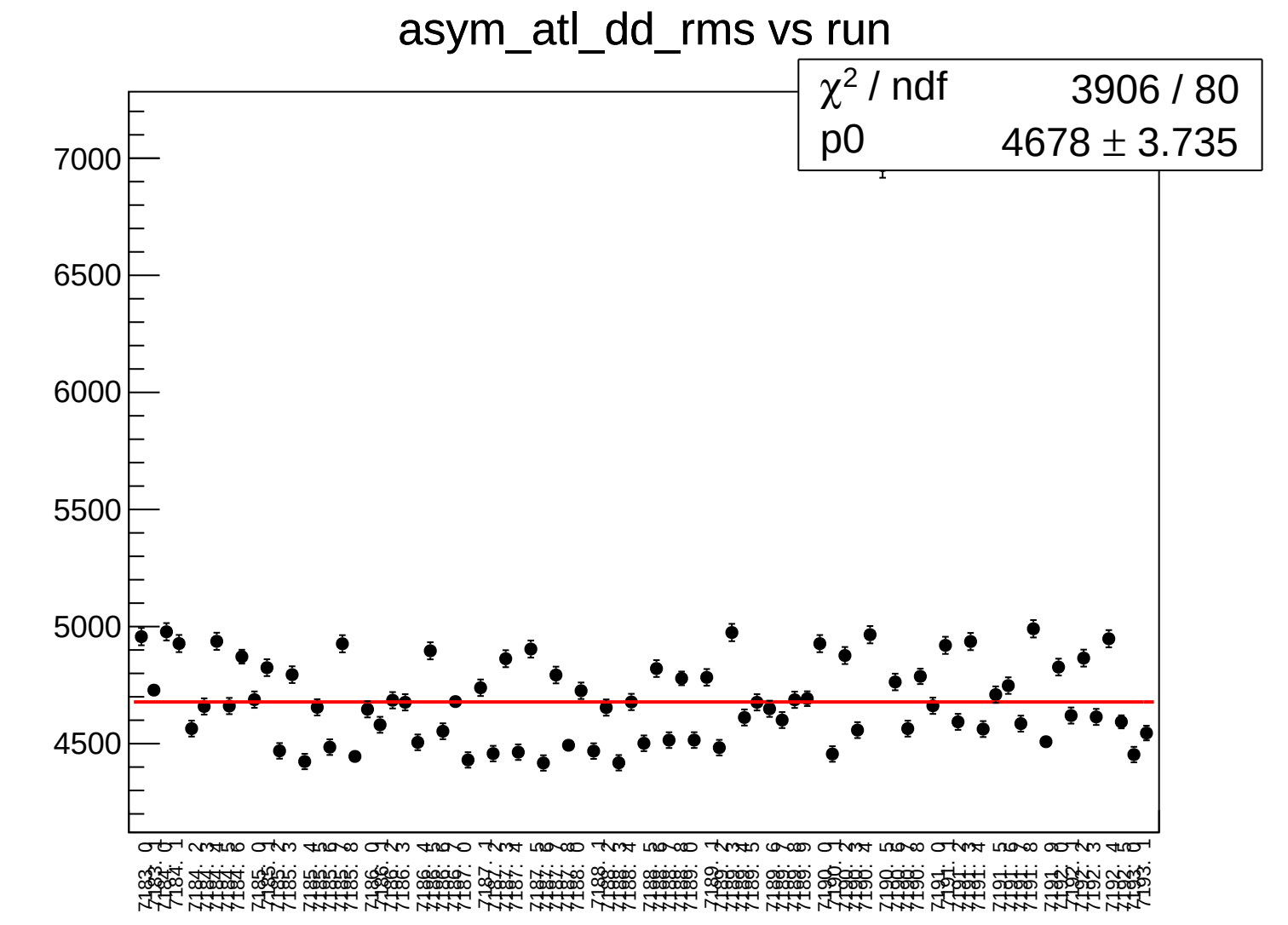

asym_atl_dd_correction_mean vs run
×10^3
χ² / ndf 65.99 / 80
p0 −4289 ± 4877
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 340.2
Std Dev 288
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

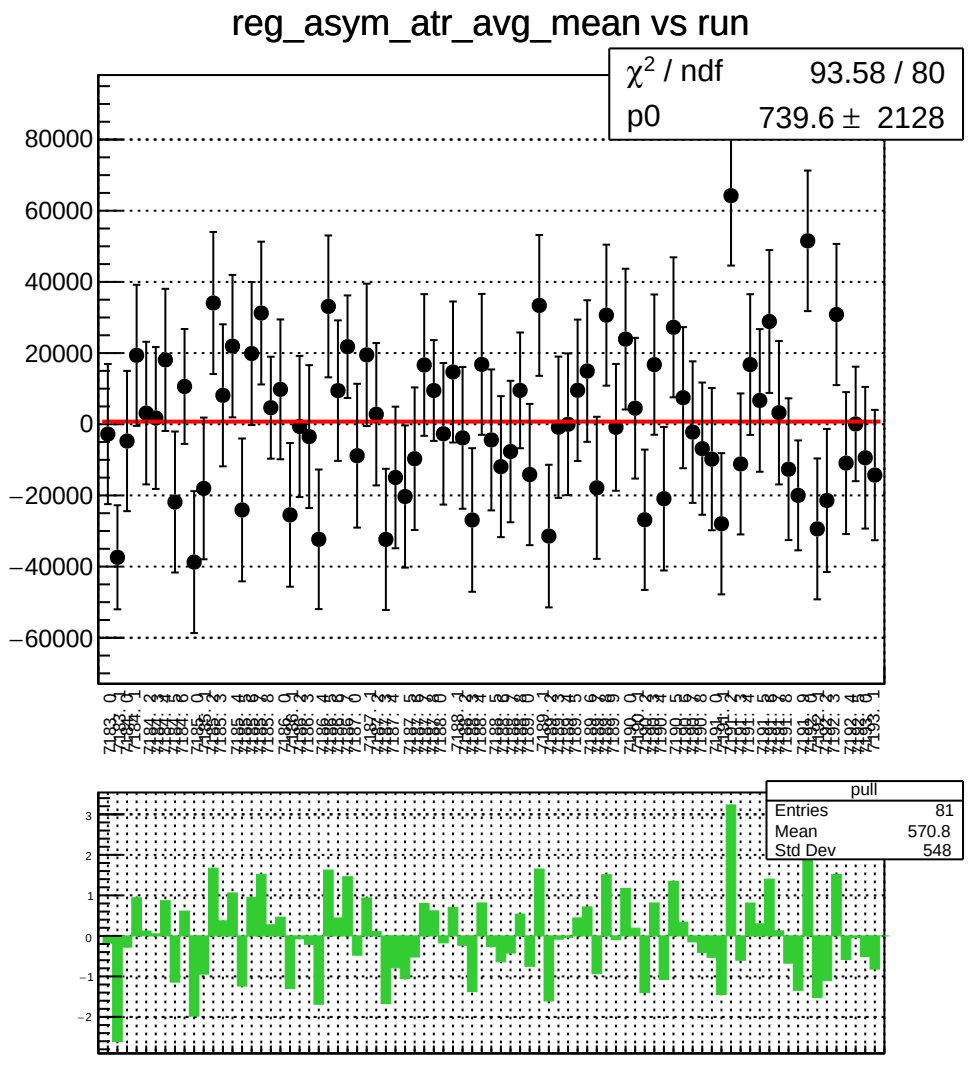

pull1D
Entries 81
Mean 0.002303
Std Dev 0.9026
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

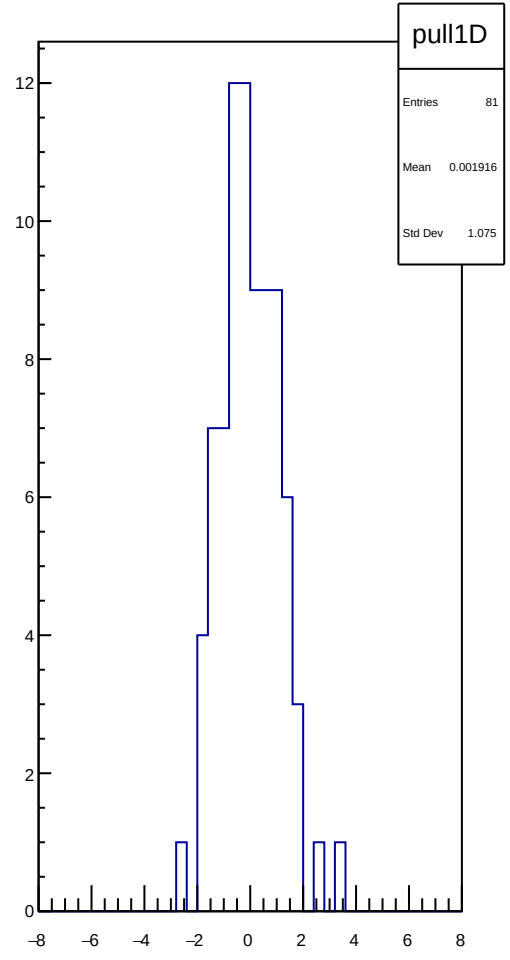

asym_atl_dd_correction_rms vs run
χ² / ndf 2647 / 80
p0 4321 ± 3.449
4700
4600
4500
4400
4300
4200
4100
4000

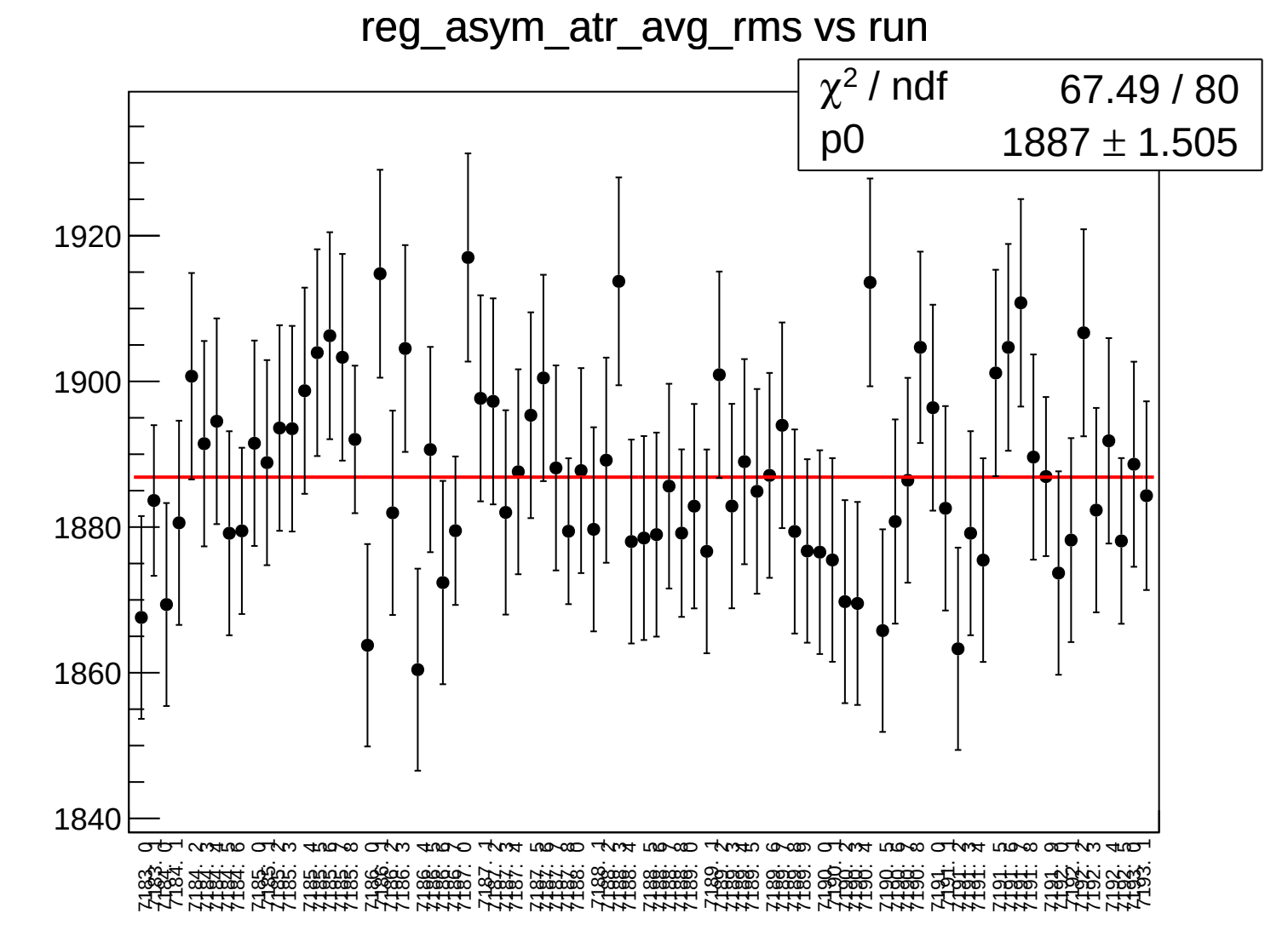

asym_atl_dd_mean vs run
×10^3
χ² / ndf 70.25 / 80
p0 5522 ± 5282
pull
Entries 81
Mean 114.6
Std Dev 58.01

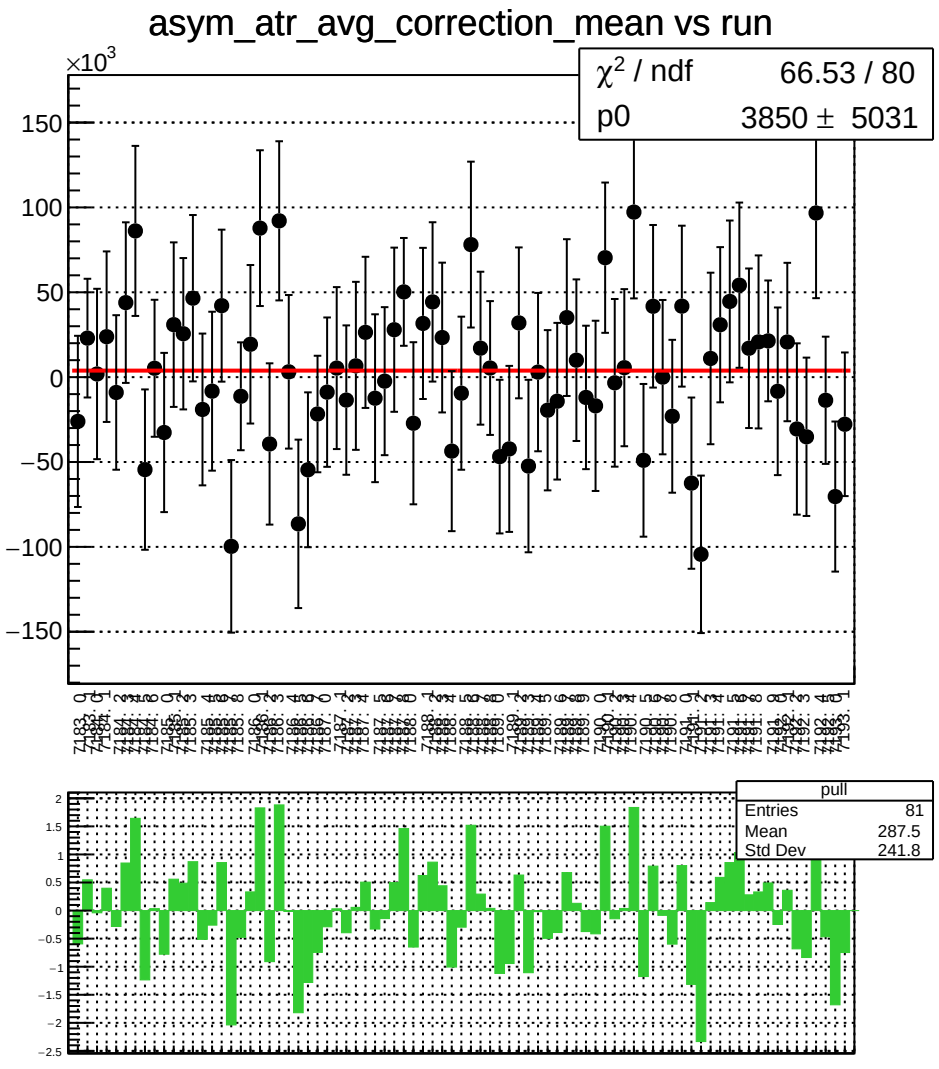

pull1D
Entries 81
Mean −0.008181
Std Dev 0.9313

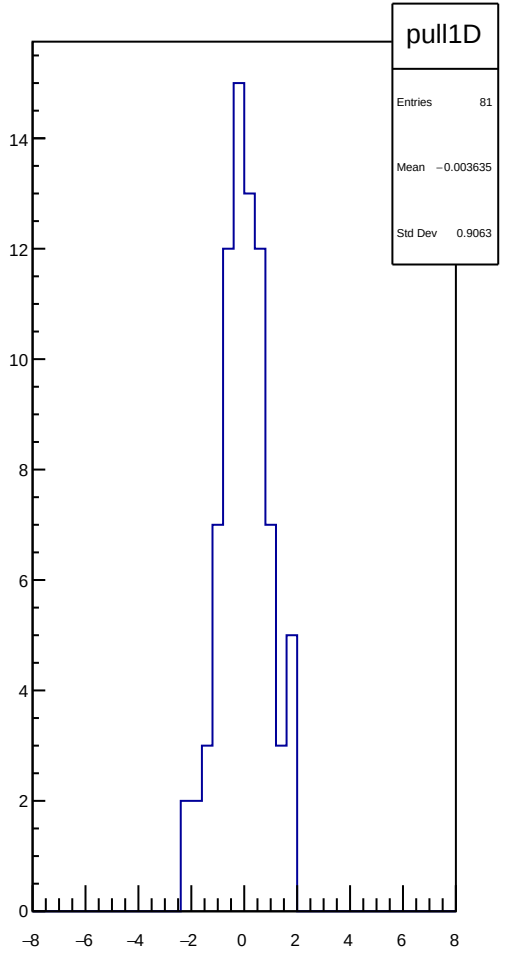

asym_atl_dd_rms vs run
χ² / ndf 3906 / 80
p0 4678 ± 3.735
7000
6500
6000
5500
5000
4500

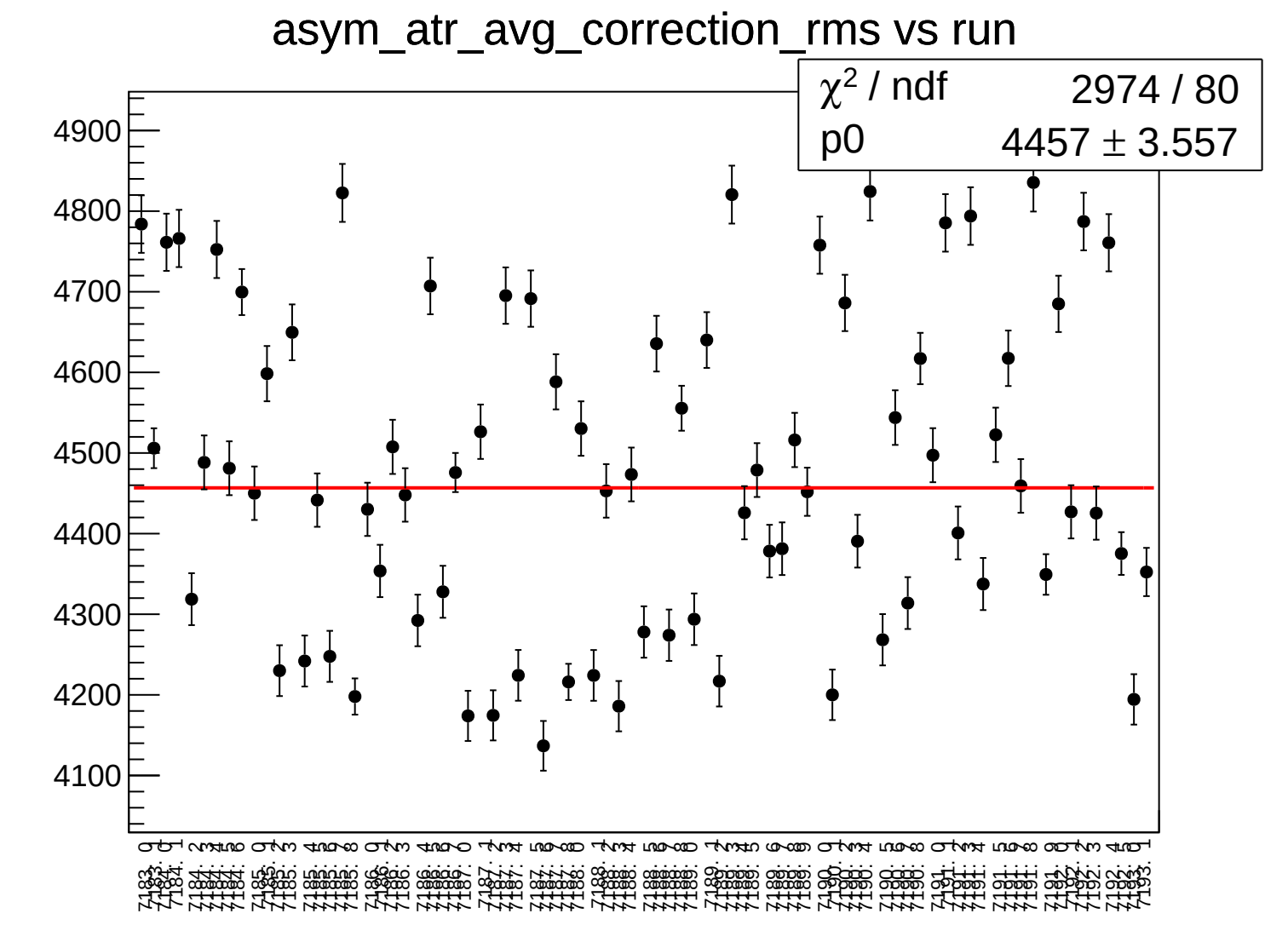

reg_asym_atr_avg_mean vs run
χ² / ndf 93.58 / 80
p0 739.6 ± 2128
pull
Entries 81
Mean 570.8
Std Dev 548

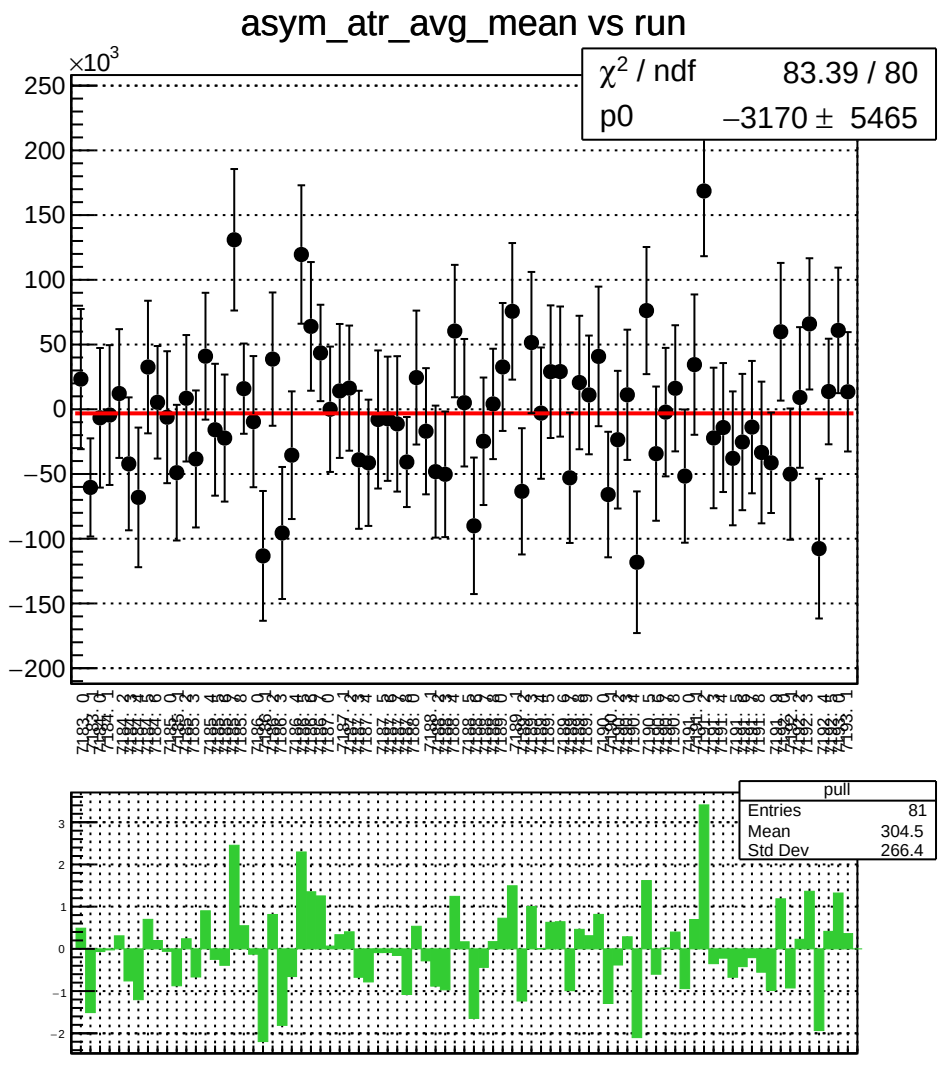

pull1D
Entries 81
Mean 0.001916
Std Dev 1.075

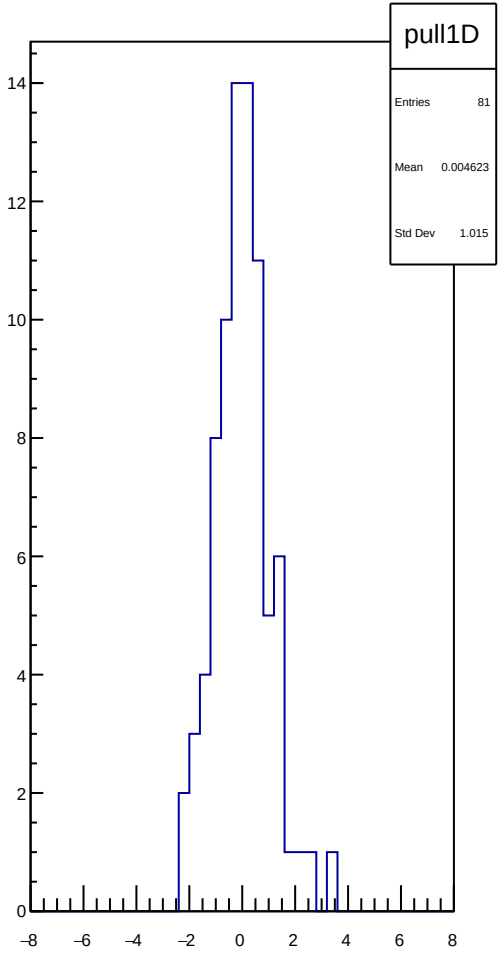

reg_asym_atr_avg_rms vs run
χ^2 / ndf 67.49 / 80
p0 1887 ± 1.505
1920
1900
1880
1860
1840

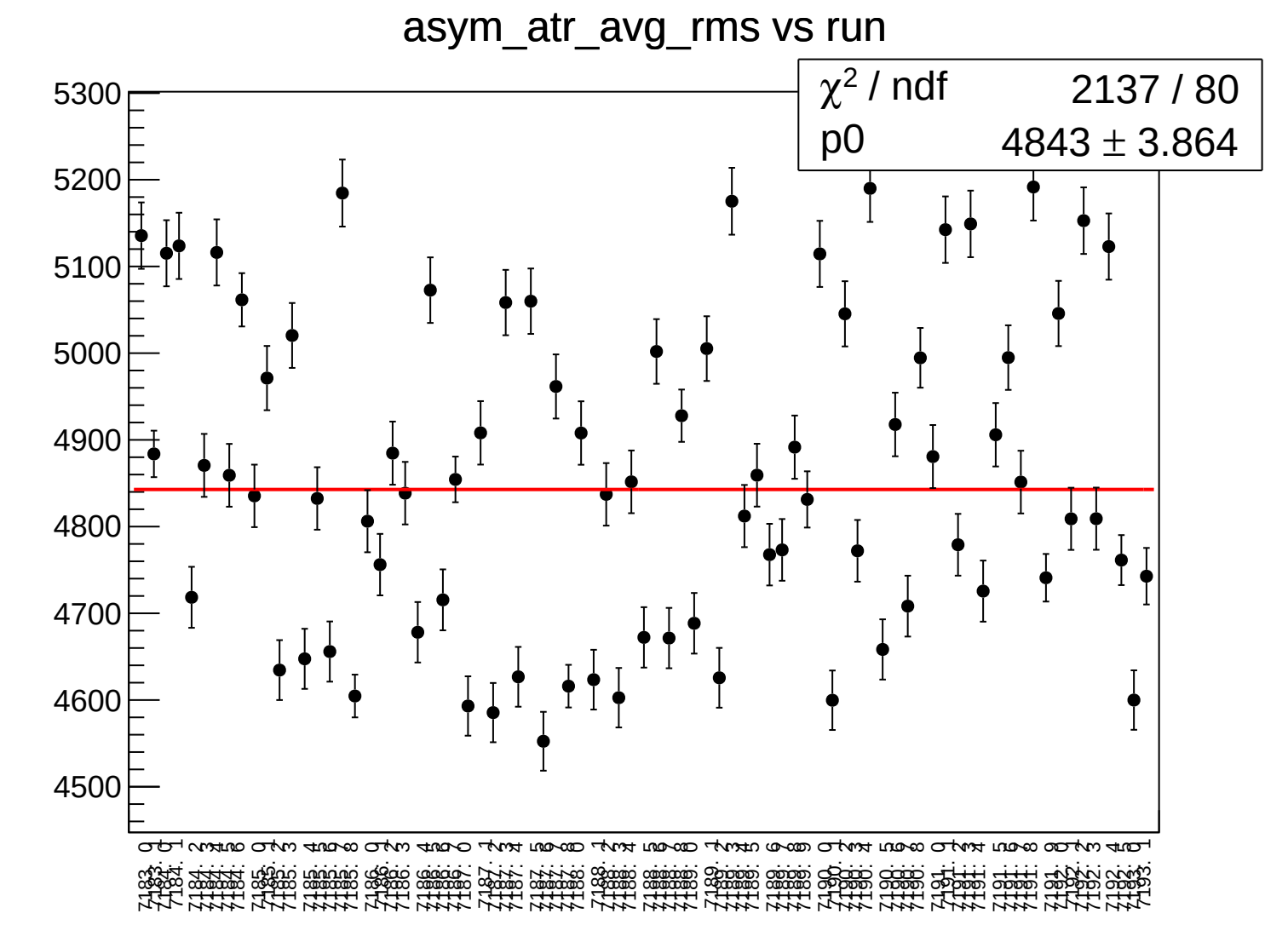

asym_atr_avg_correction_mean vs run
×10^3
χ² / ndf 66.53 / 80
p0 3850 ± 5031
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 287.5
Std Dev 241.8
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

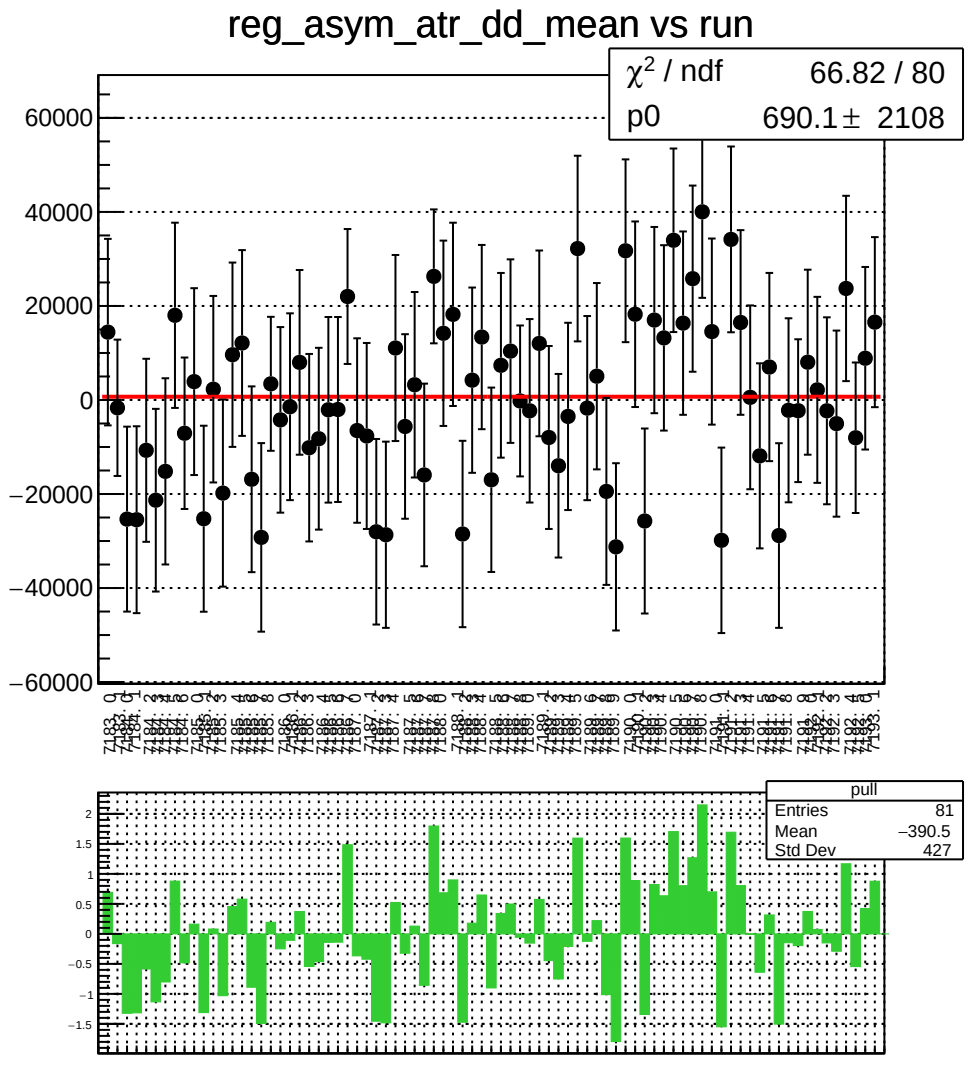

pull1D
Entries 81
Mean −0.003635
Std Dev 0.9063
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

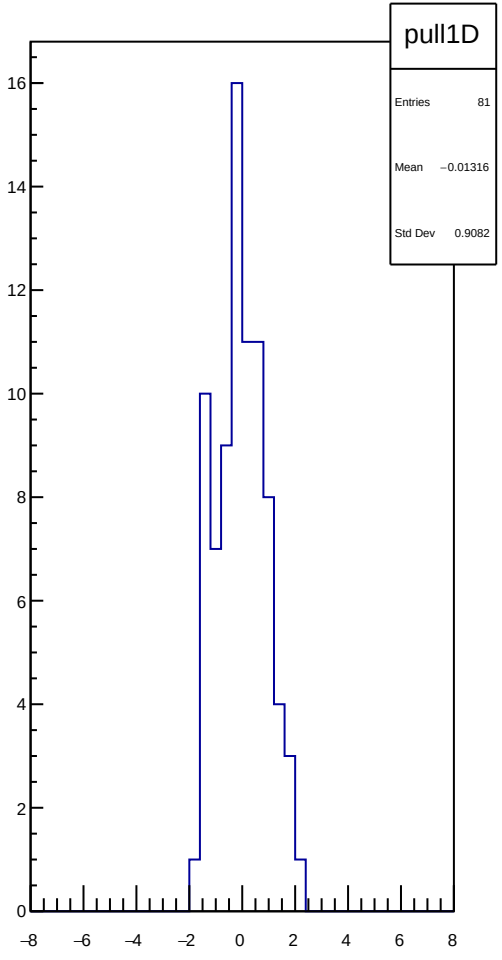

asym_atr_avg_correction_rms vs run
χ² / ndf 2974 / 80
p0 4457 ± 3.557
4900
4800
4700
4600
4500
4400
4300
4200
4100

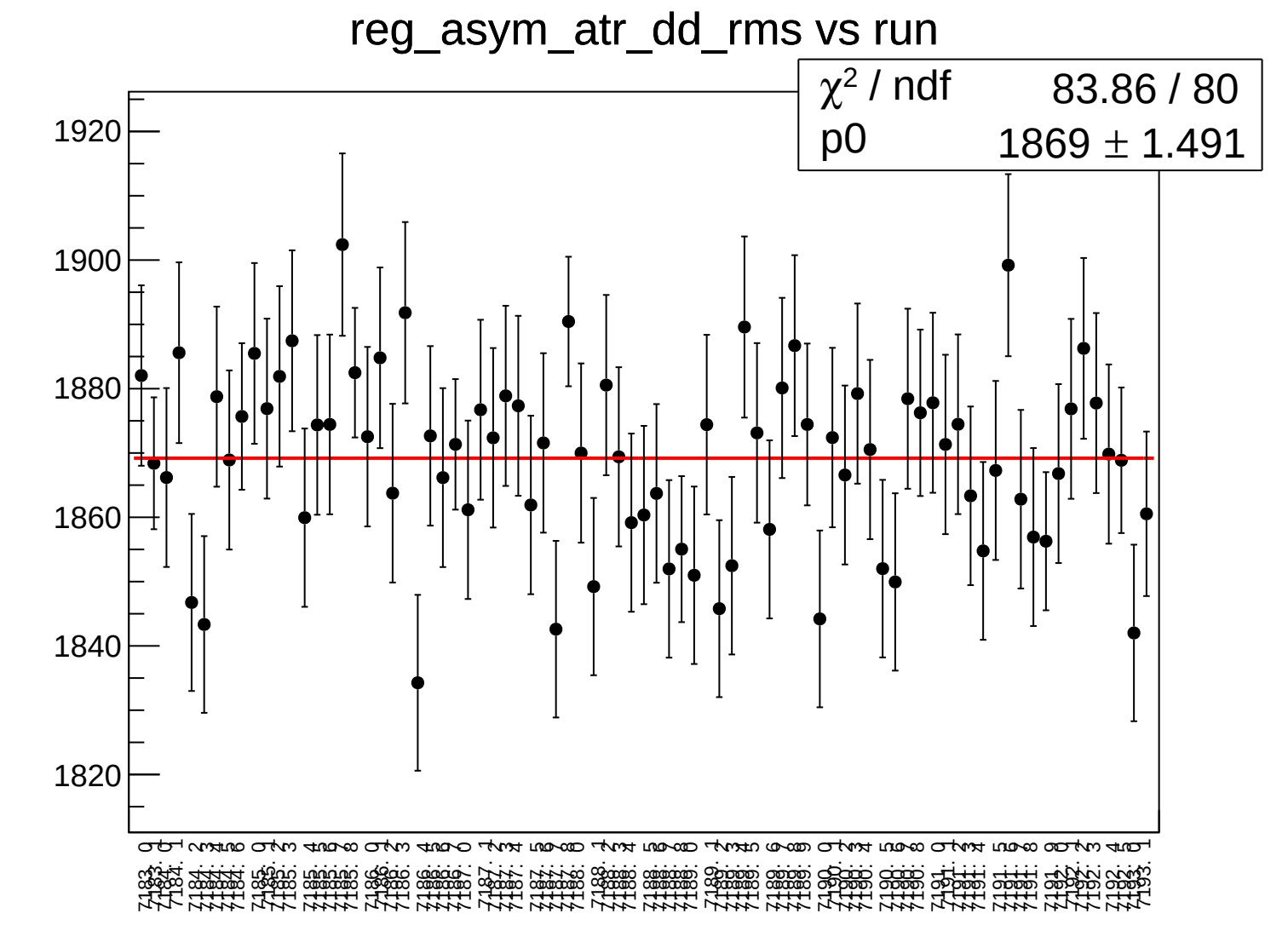

asym_atr_avg_mean vs run
×10^3
χ² / ndf 83.39 / 80
p0 −3170 ± 5465
pull
Entries 81
Mean 304.5
Std Dev 266.4

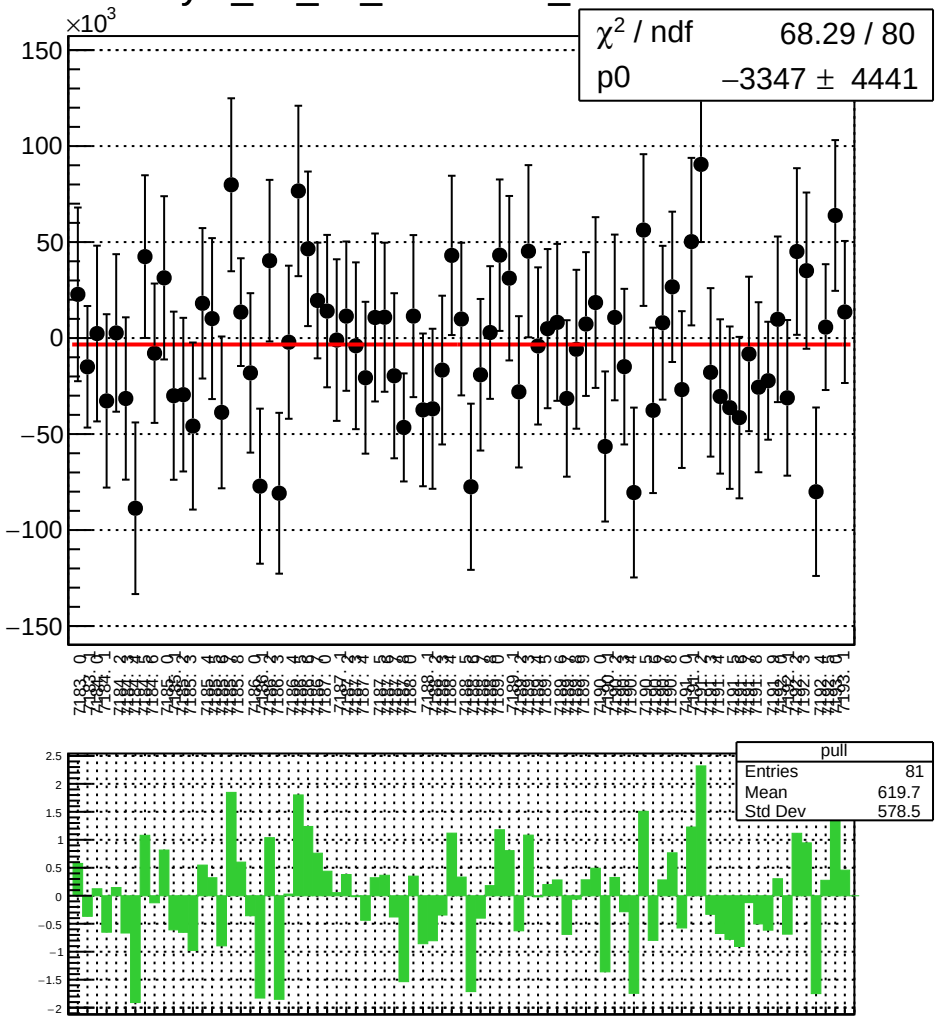

pull1D
Entries 81
Mean 0.004623
Std Dev 1.015

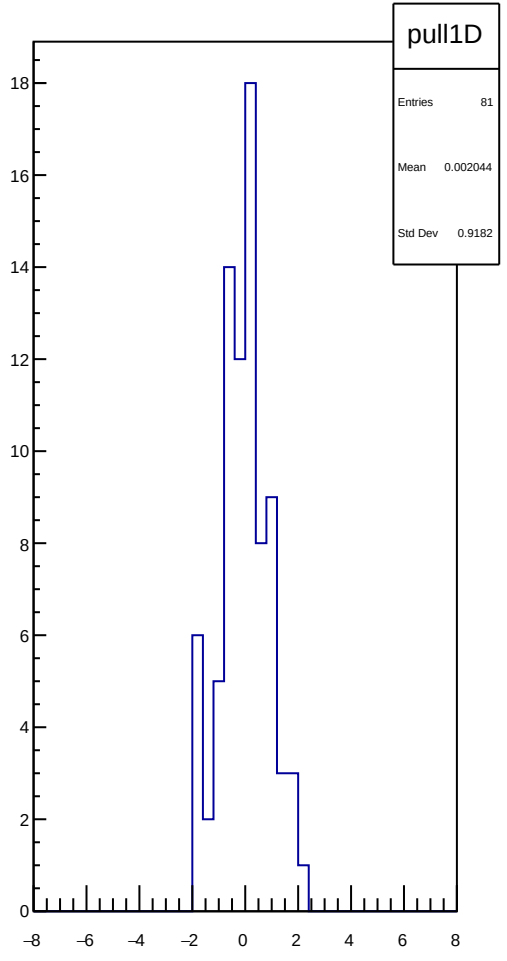

asym_atr_avg_rms vs run
χ^2 / ndf 2137 / 80
p0 4843 ± 3.864
5300
5200
5100
5000
4900
4800
4700
4600
4500

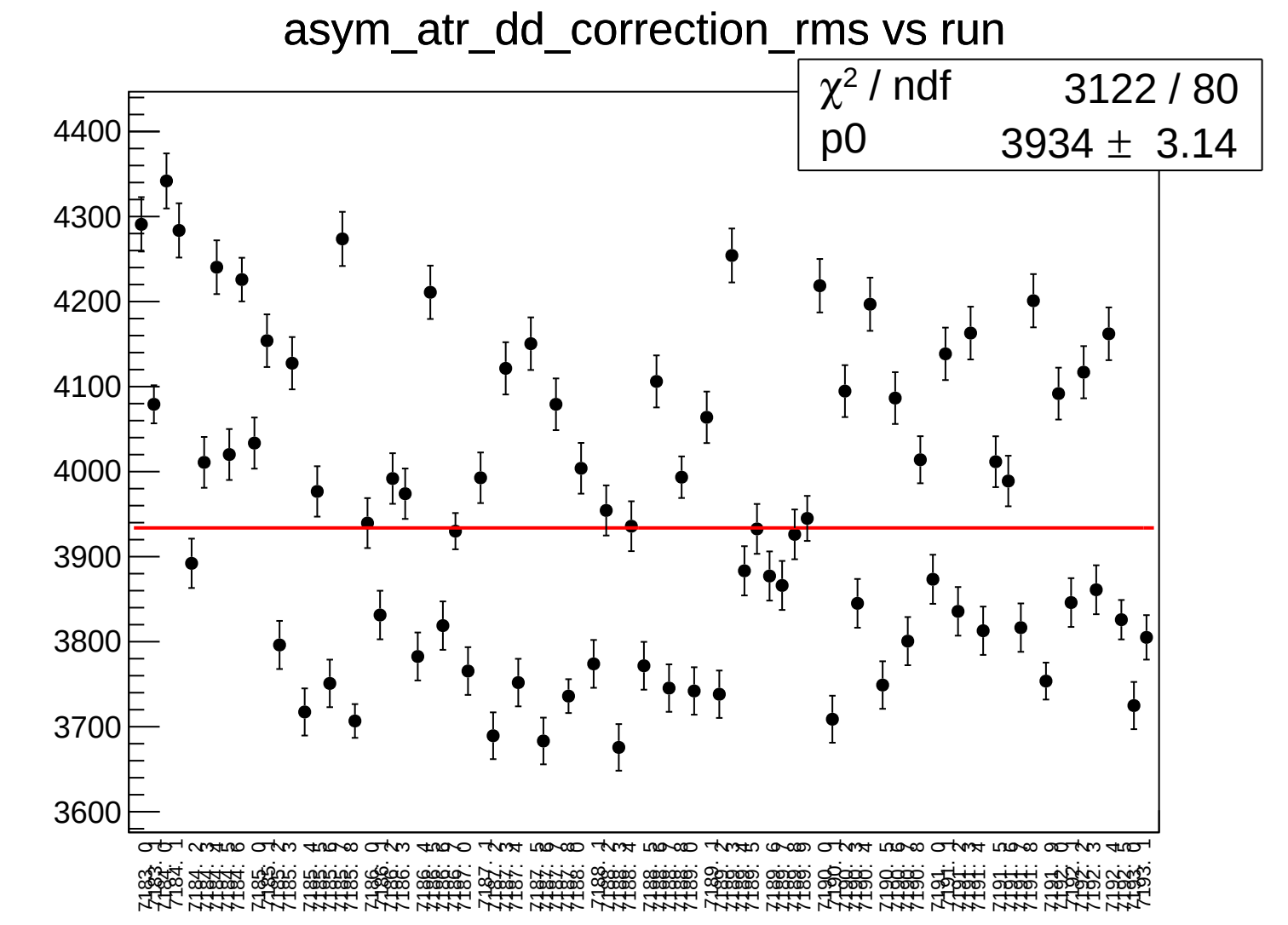

reg_asym_atr_dd_mean vs run
χ² / ndf 66.82 / 80
p0 690.1 ± 2108
pull
Entries 81
Mean −390.5
Std Dev 427

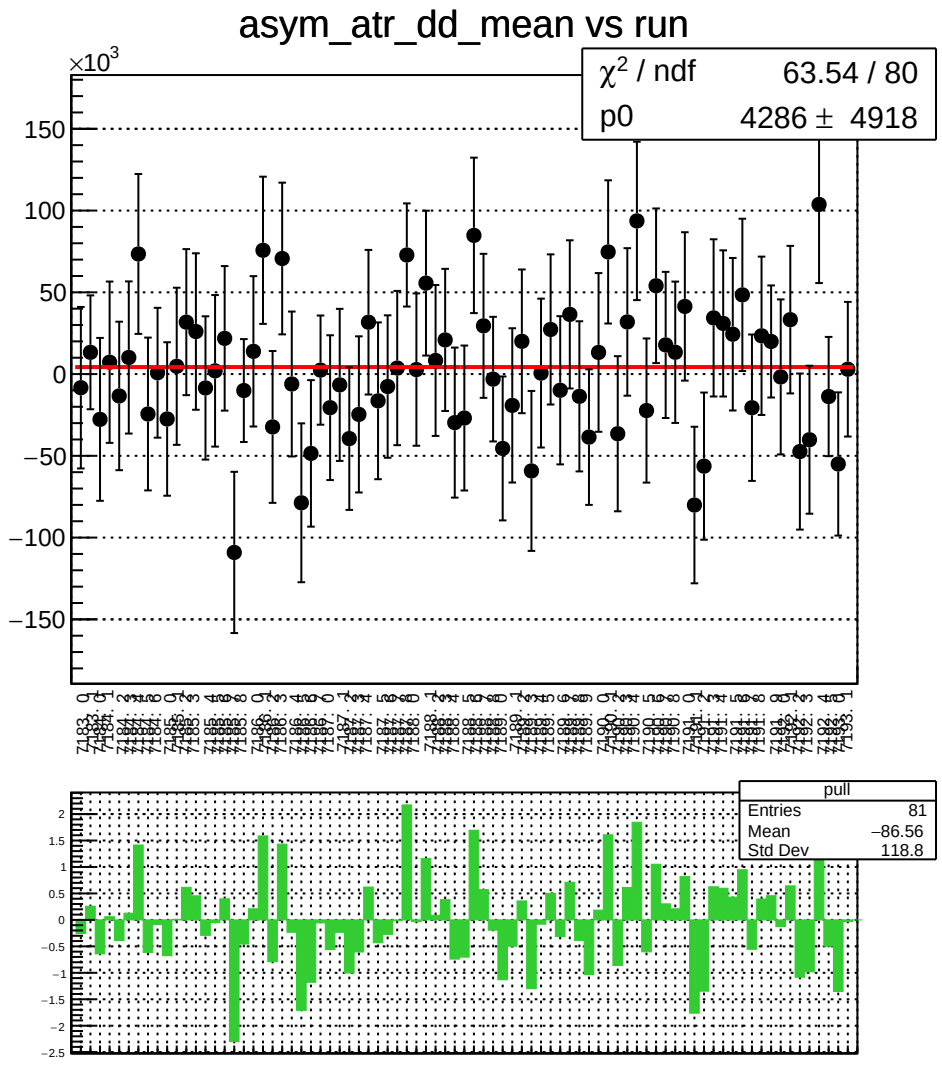

pull1D
Entries 81
Mean −0.01316
Std Dev 0.9082

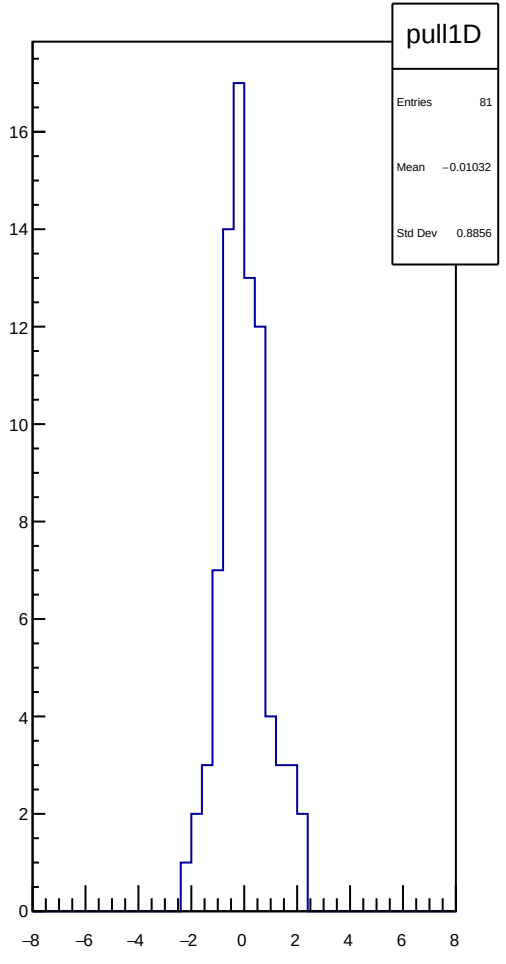

reg_asym_atr_dd_rms vs run
χ^2 / ndf 83.86 / 80
p0 1869 ± 1.491
1920
1900
1880
1860
1840
1820

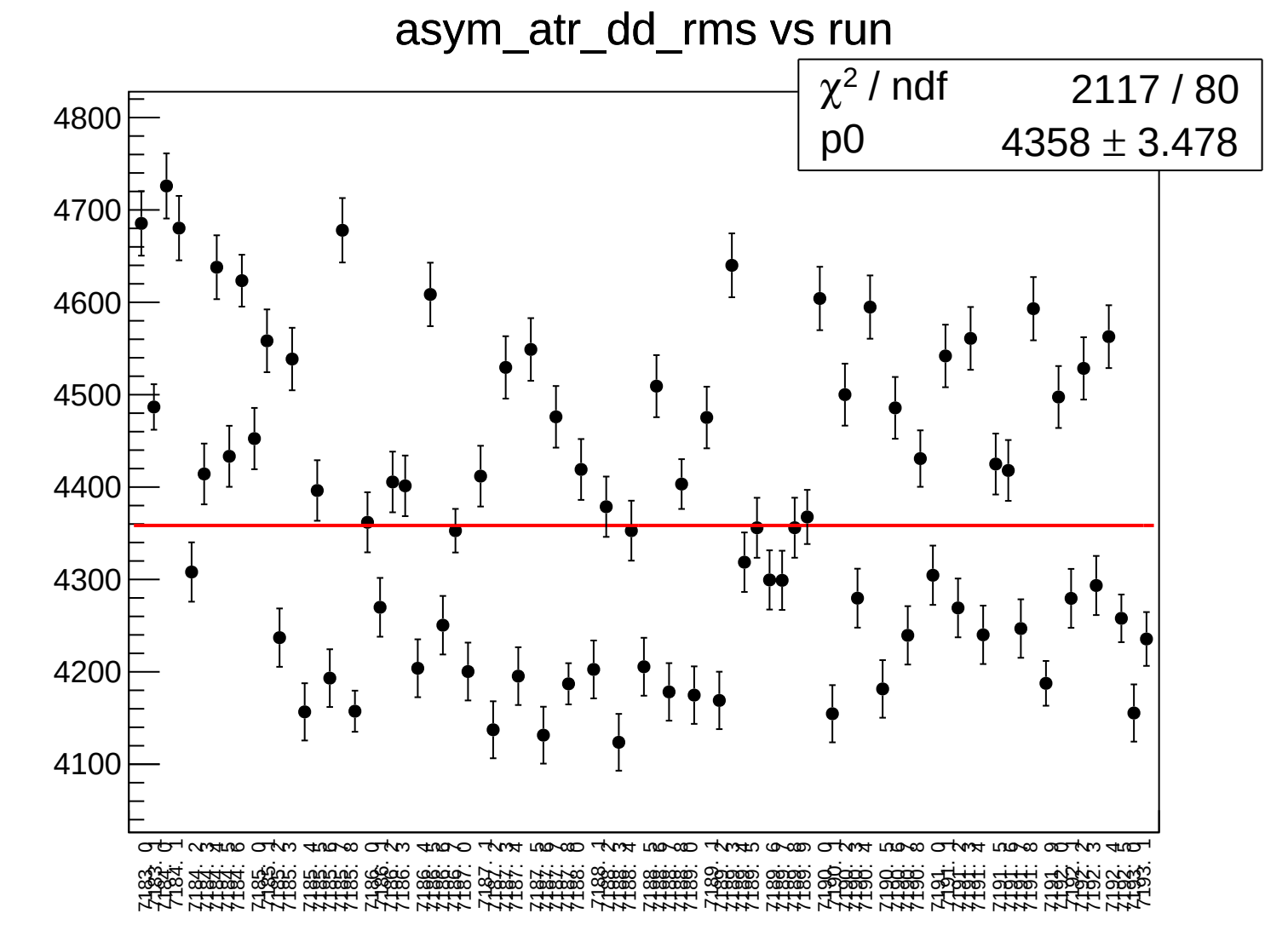

asym_atr_dd_correction_mean vs run
×10^3
χ² / ndf 68.29 / 80
p0 −3347 ± 4441
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 619.7
Std Dev 578.5
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

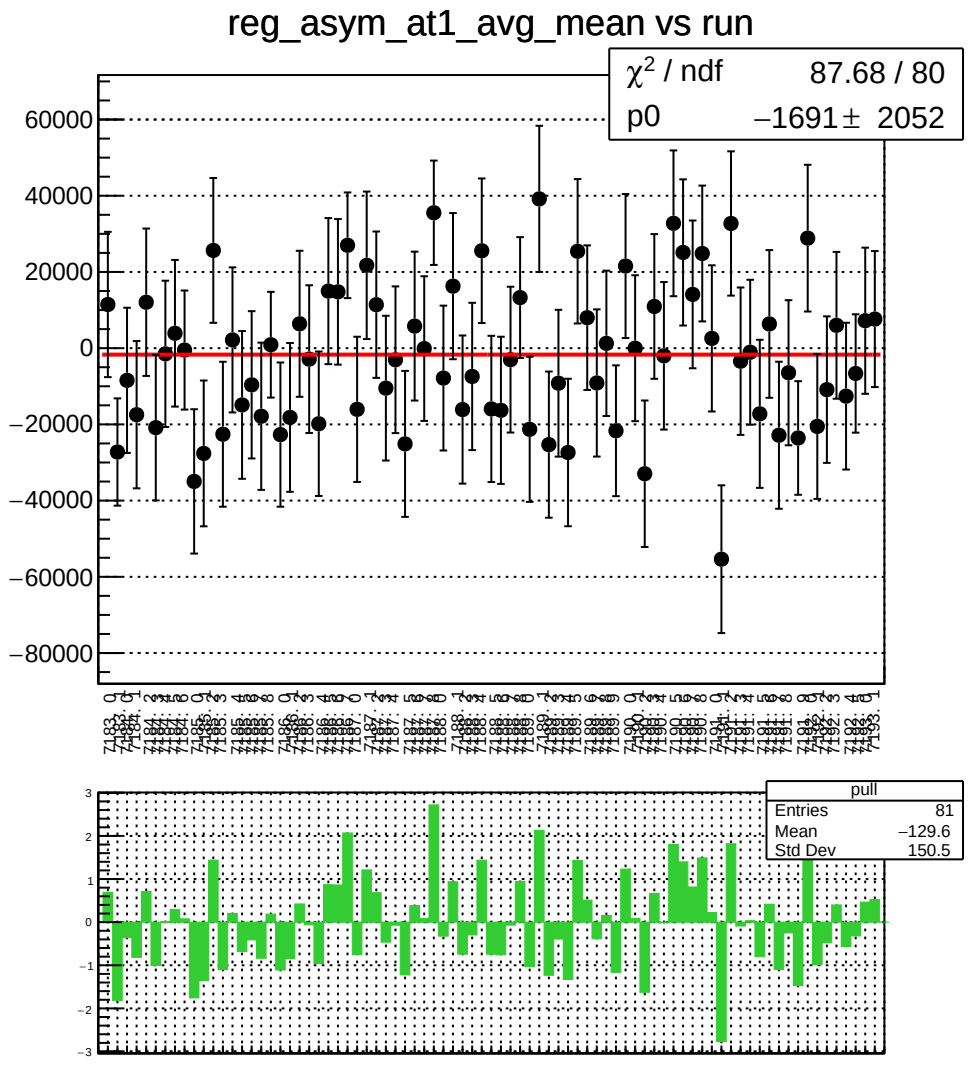

pull1D
Entries 81
Mean 0.002044
Std Dev 0.9182
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

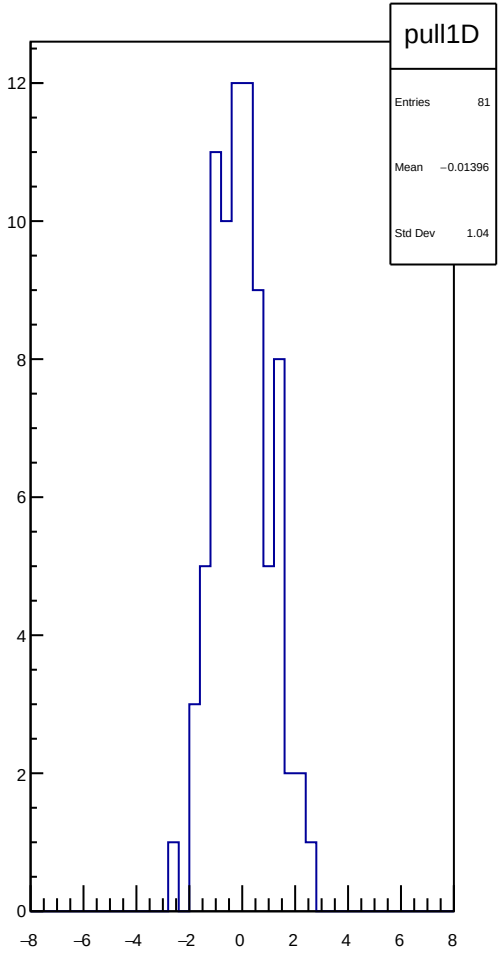

asym_atr_dd_correction_rms vs run
χ² / ndf 3122 / 80
p0 3934 ± 3.14
4400
4300
4200
4100
4000
3900
3800
3700
3600

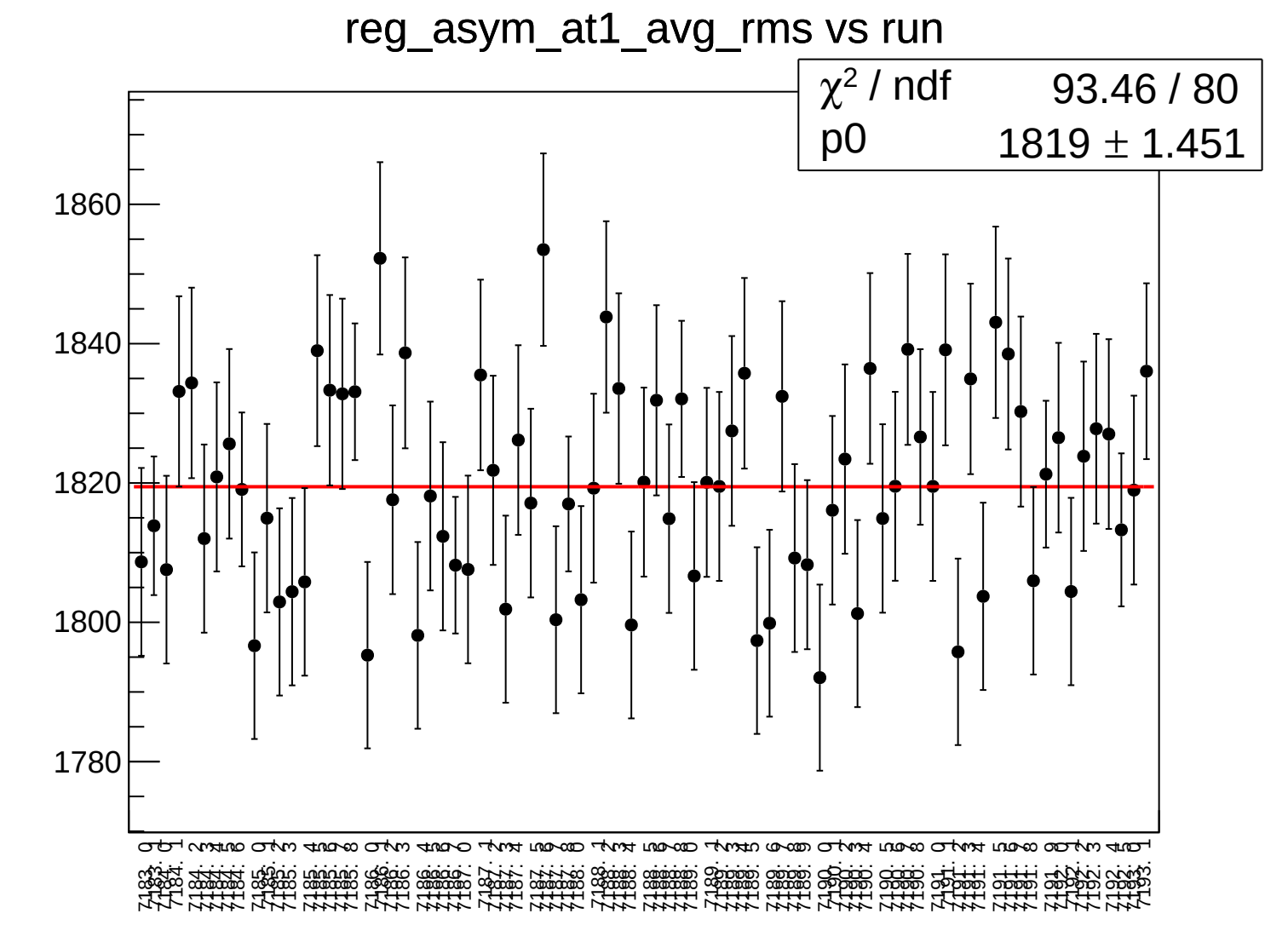

asym_atr_dd_mean vs run
×10^3
χ^2 / ndf 63.54 / 80
p0 4286 ± 4918
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean −86.56
Std Dev 118.8
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

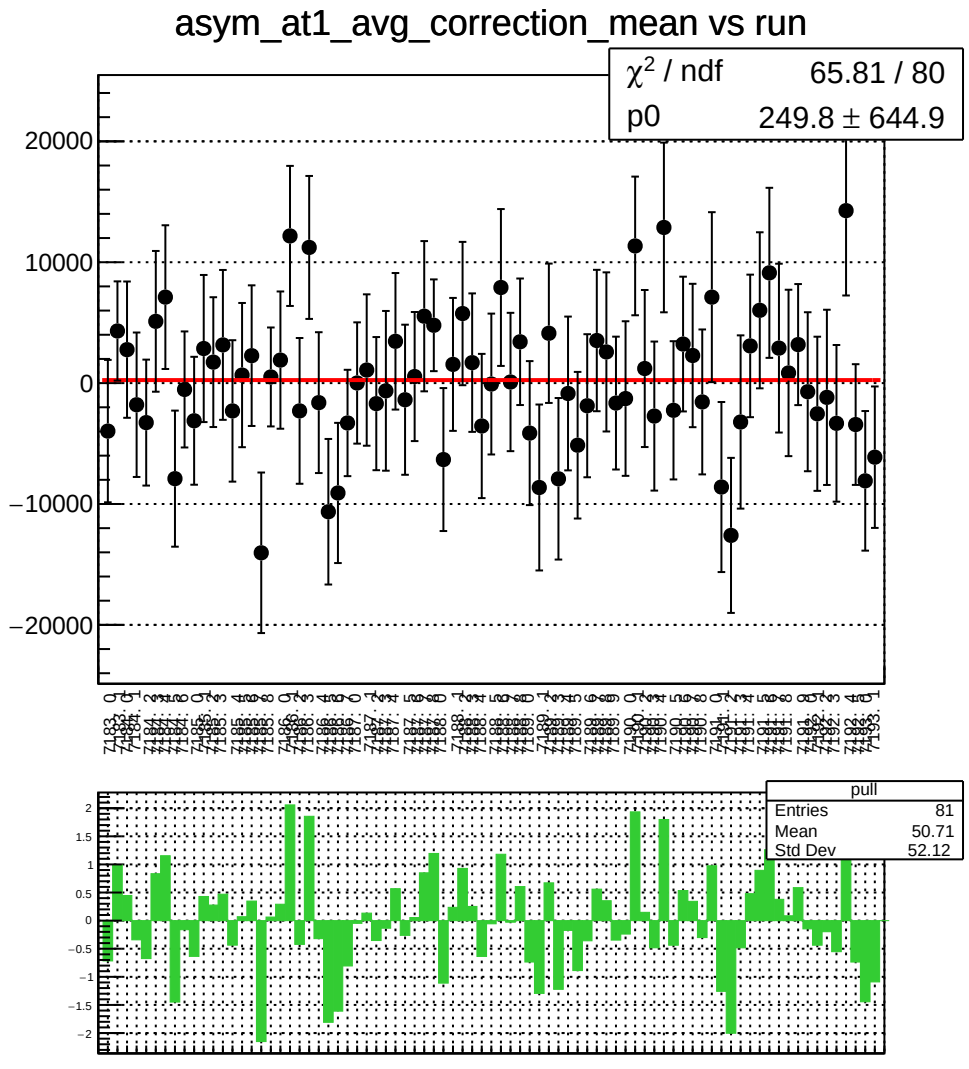

pull1D
Entries 81
Mean −0.01032
Std Dev 0.8856
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

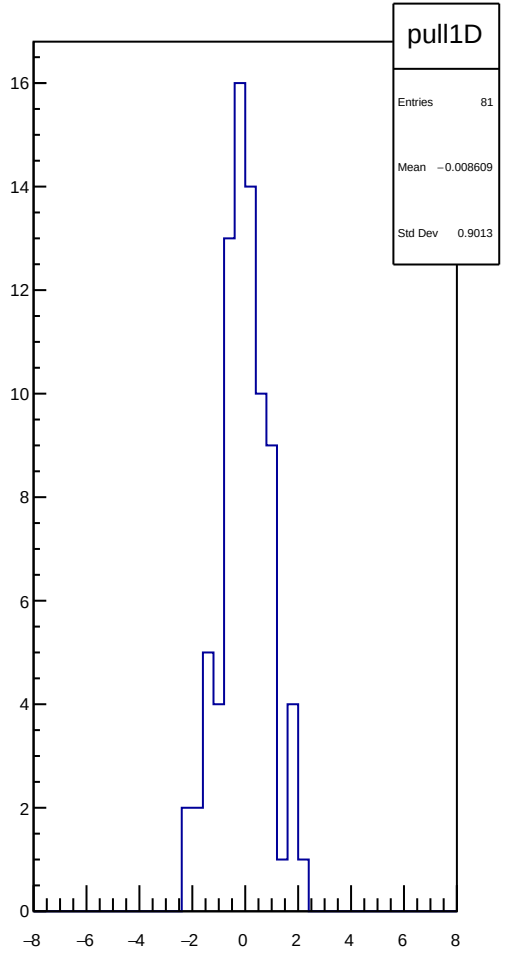

asym_atr_dd_rms vs run
χ^2 / ndf 2117 / 80
p0 4358 ± 3.478
4800
4700
4600
4500
4400
4300
4200
4100

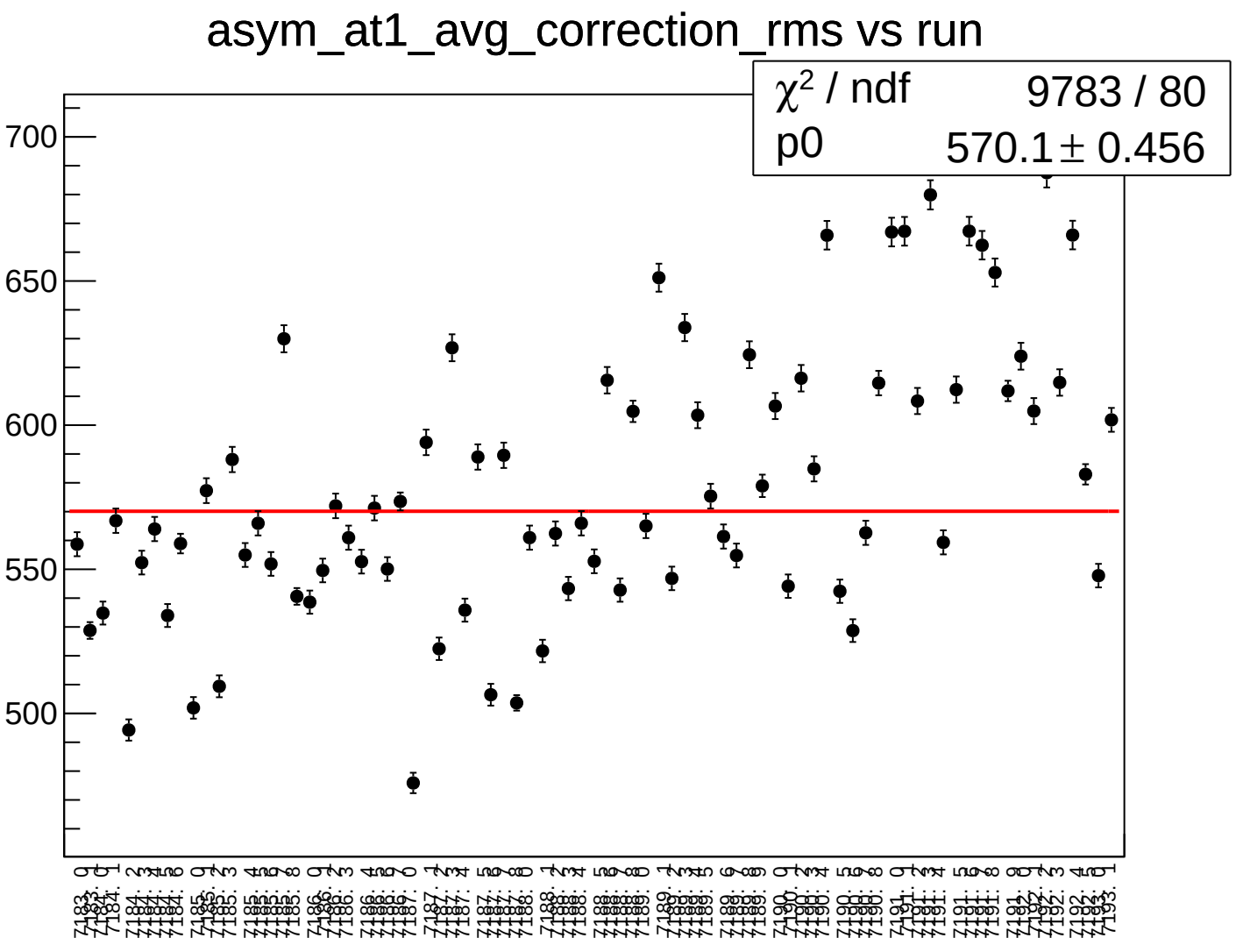

reg_asym_at1_avg_mean vs run
χ² / ndf 87.68 / 80
p0 −1691 ± 2052
pull
Entries 81
Mean −129.6
Std Dev 150.5

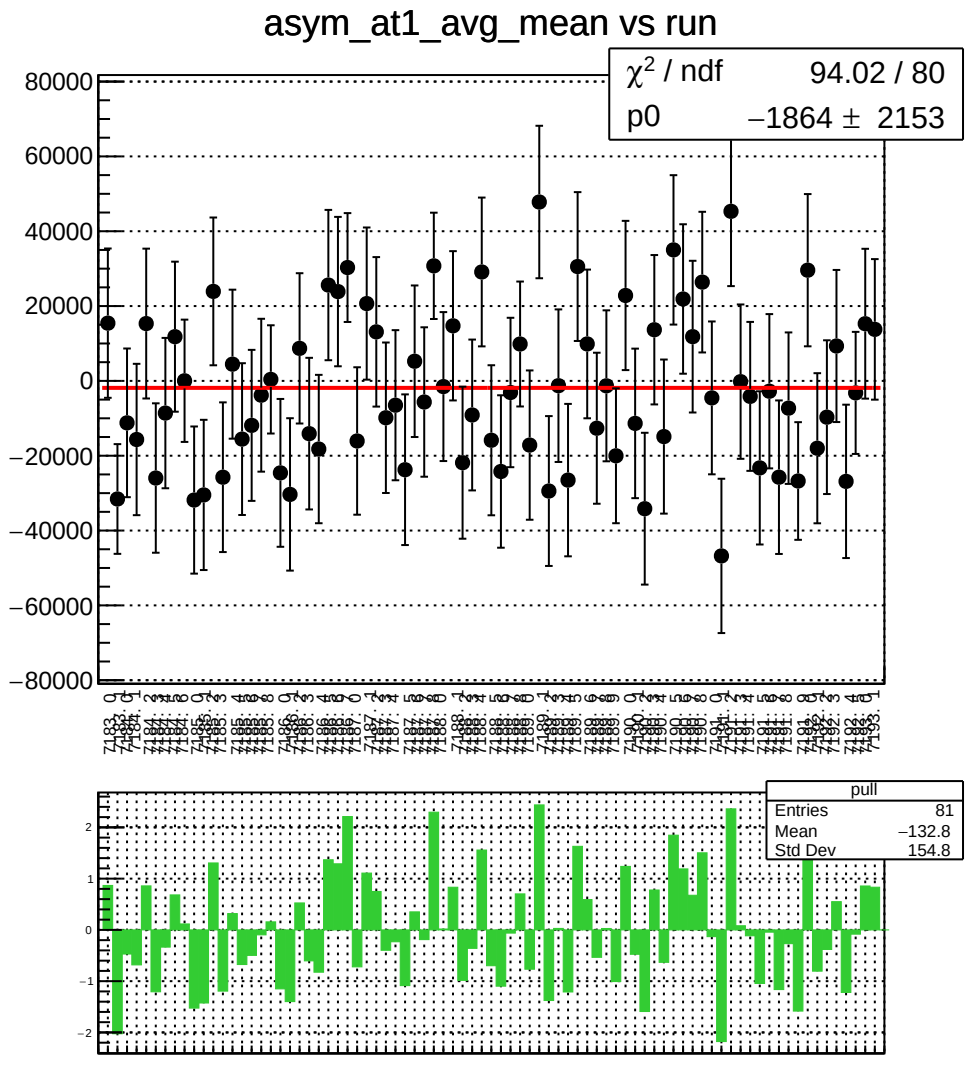

pull1D
Entries 81
Mean −0.01396
Std Dev 1.04

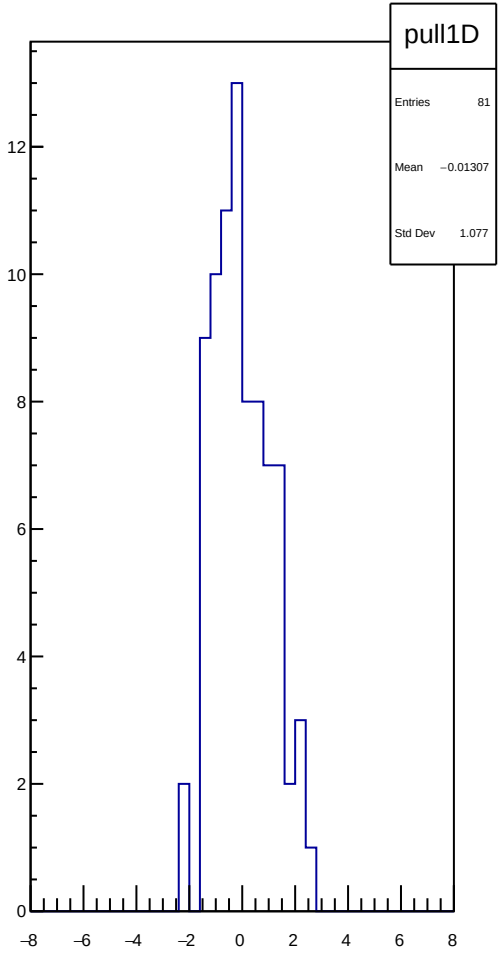

reg_asym_at1_avg_rms vs run
χ^2 / ndf 93.46 / 80
p0 1819 ± 1.451
1860
1840
1820
1800
1780

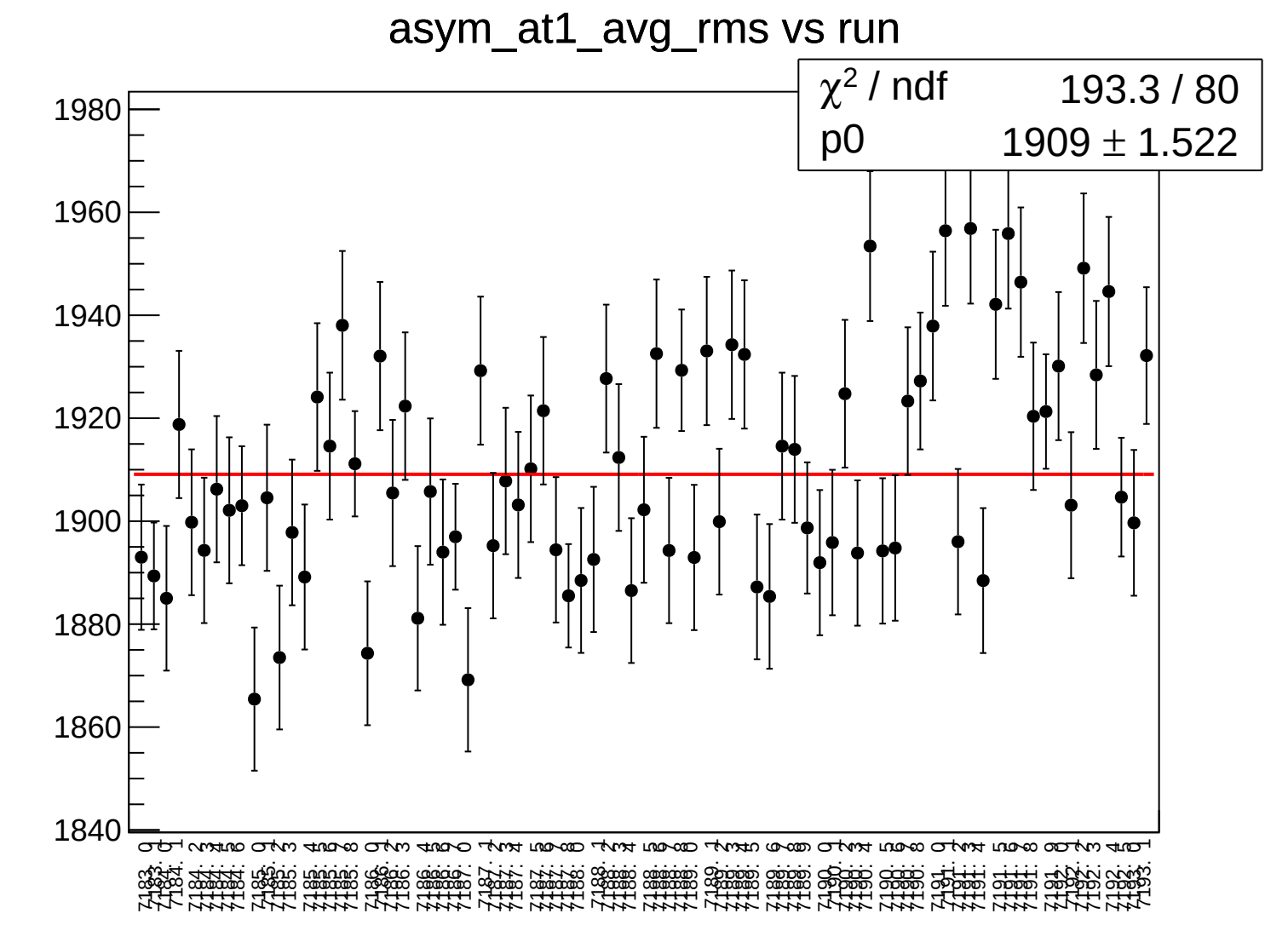

asym_at1_avg_correction_mean vs run
χ² / ndf 65.81 / 80
p0 249.8 ± 644.9
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 50.71
Std Dev 52.12
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

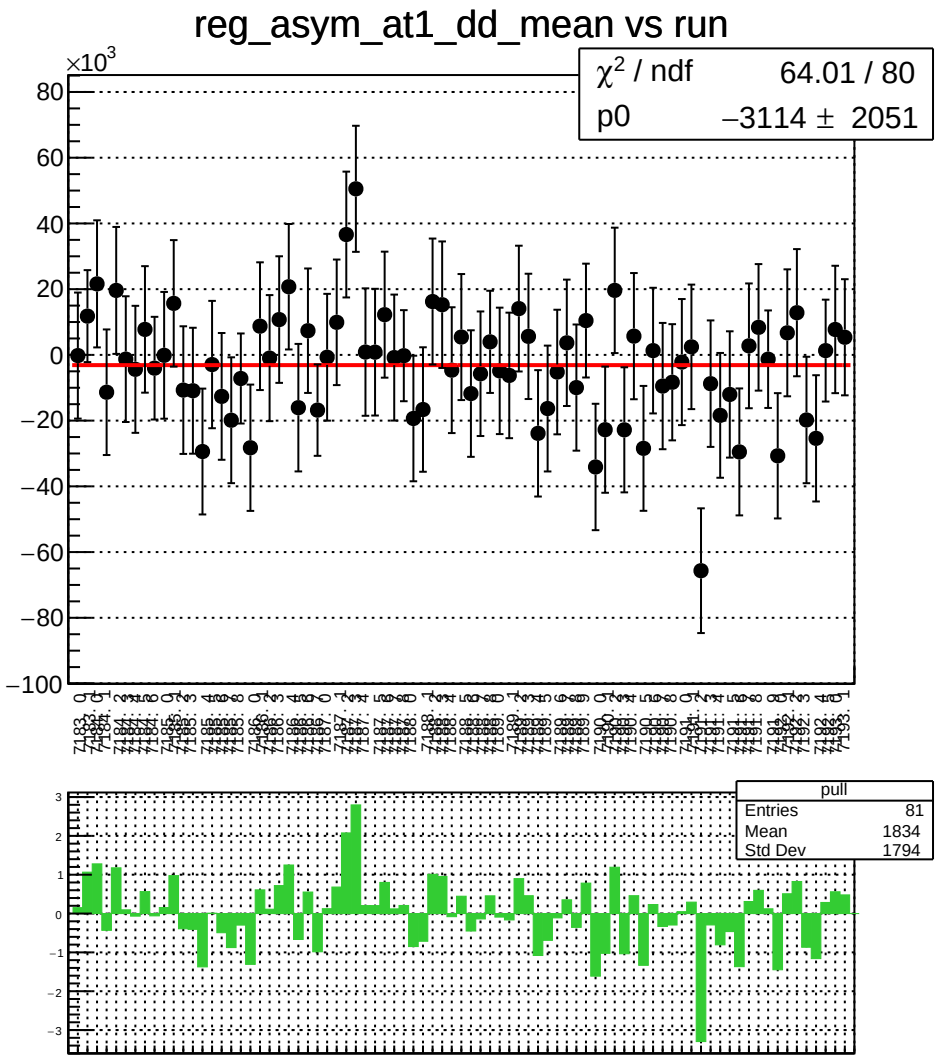

pull1D
Entries 81
Mean −0.008609
Std Dev 0.9013
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

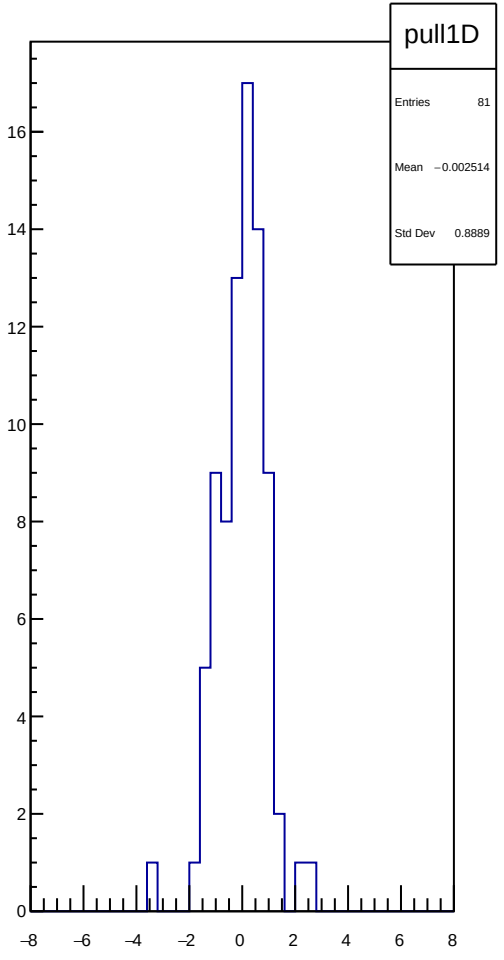

asym_at1_avg_correction_rms vs run
χ² / ndf 9783 / 80
p0 570.1 ± 0.456
700
650
600
550
500

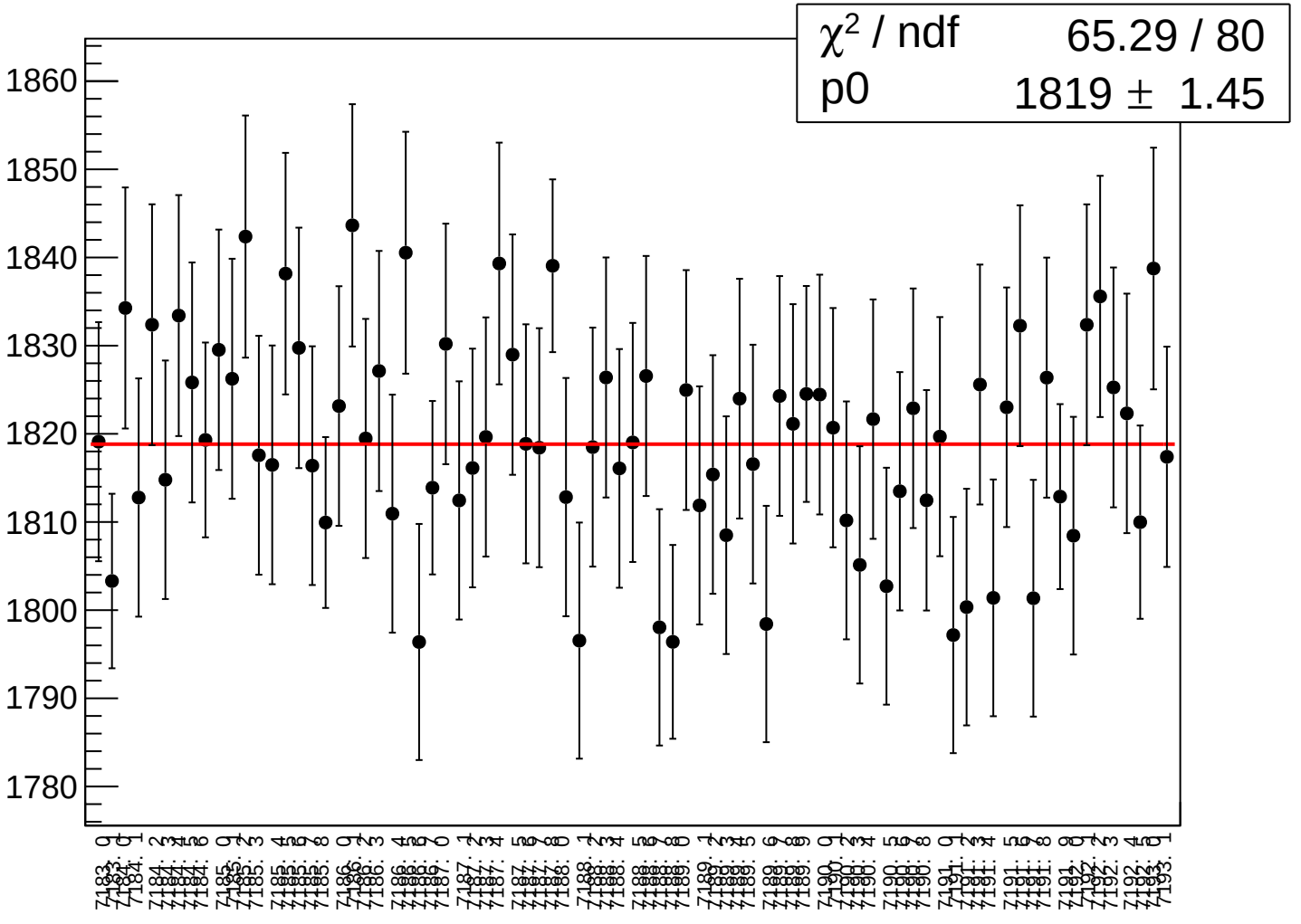

asym_at1_avg_mean vs run
χ² / ndf 94.02 / 80
p0 −1864 ± 2153
pull
Entries 81
Mean −132.8
Std Dev 154.8

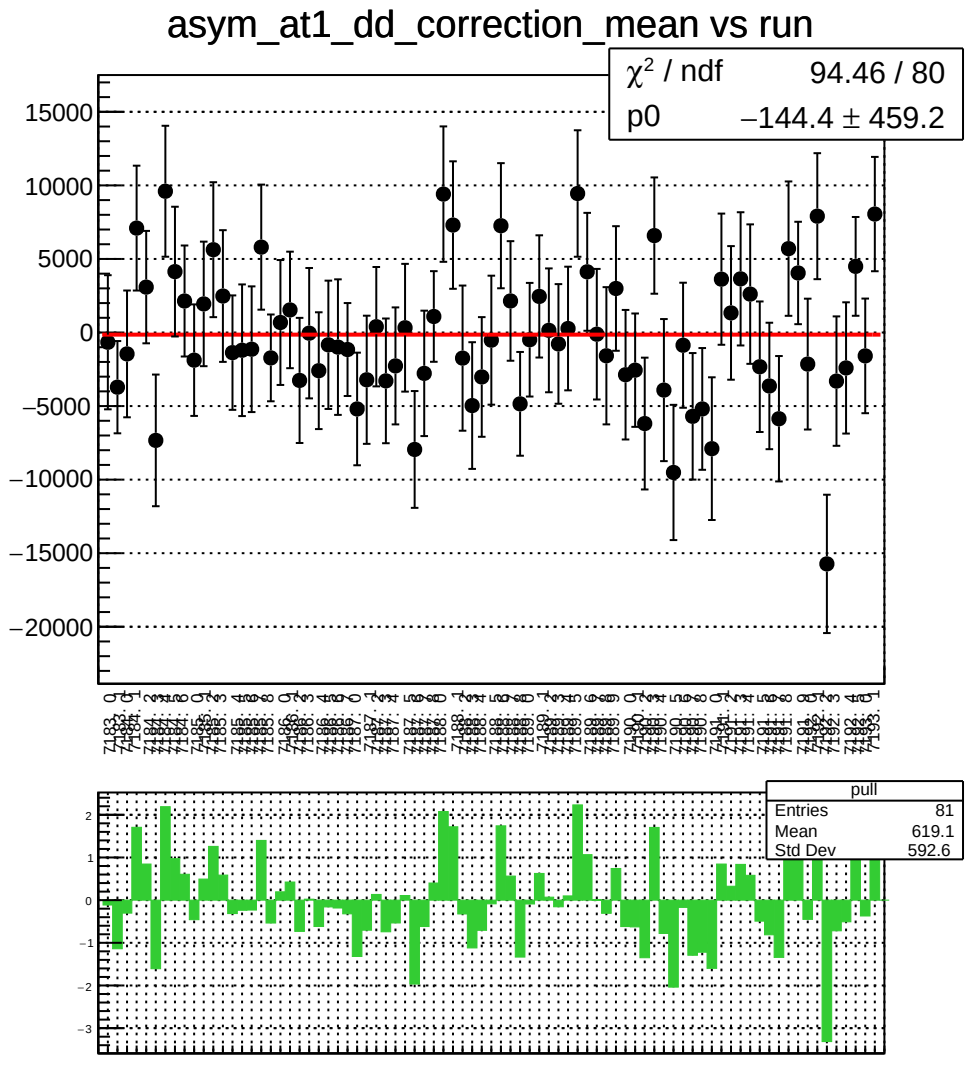

pull1D
Entries 81
Mean −0.01307
Std Dev 1.077

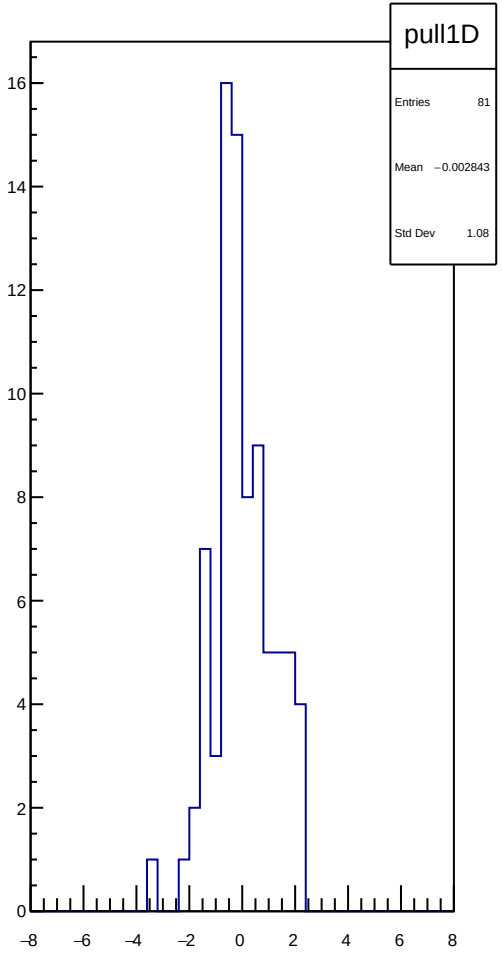

asym_at1_avg_rms vs run
χ² / ndf 193.3 / 80
p0 1909 ± 1.522
1980
1960
1940
1920
1900
1880
1860
1840

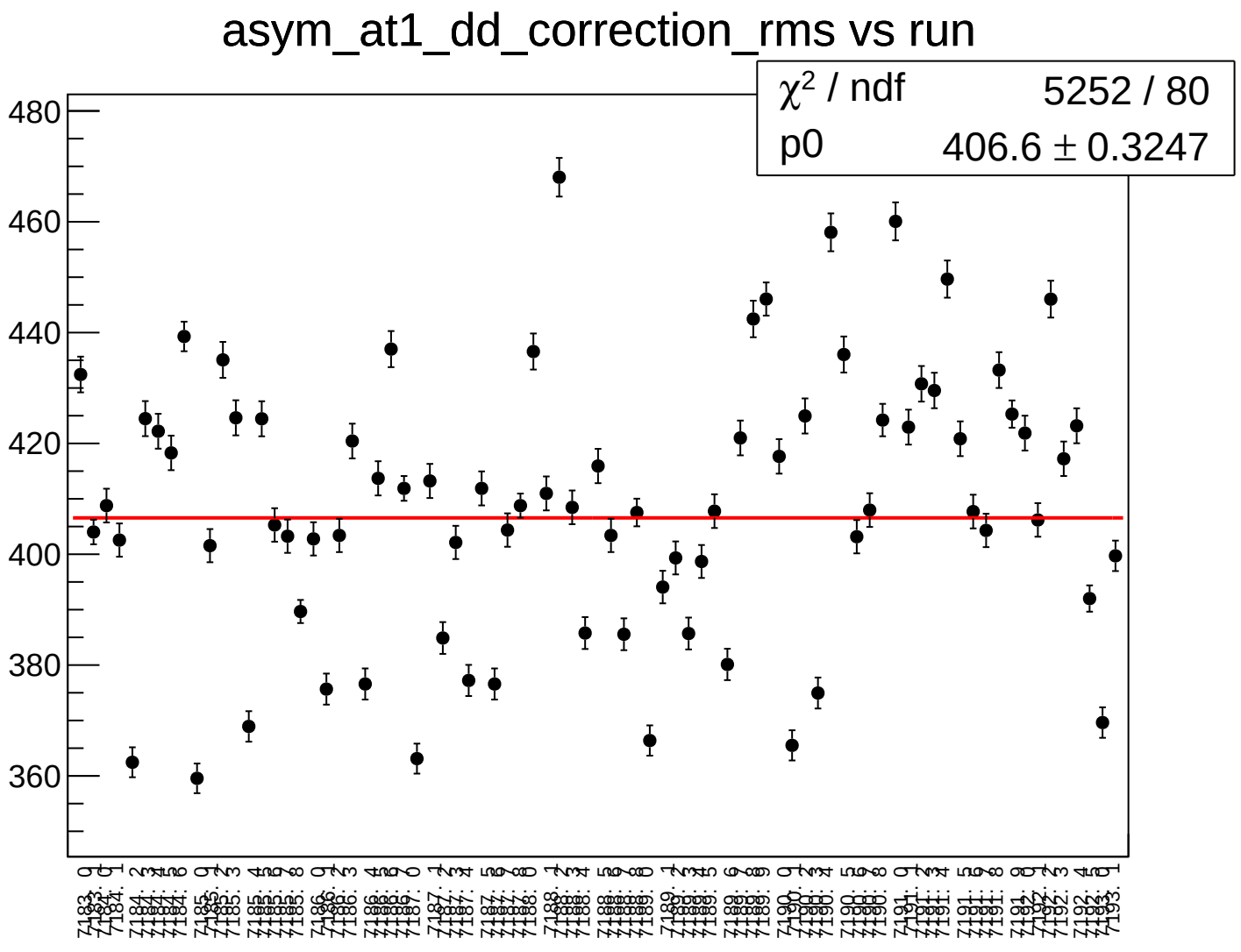

reg_asym_at1_dd_mean vs run
×10^3
χ^2 / ndf 64.01 / 80
p0 −3114 ± 2051
pull
Entries 81
Mean 1834
Std Dev 1794

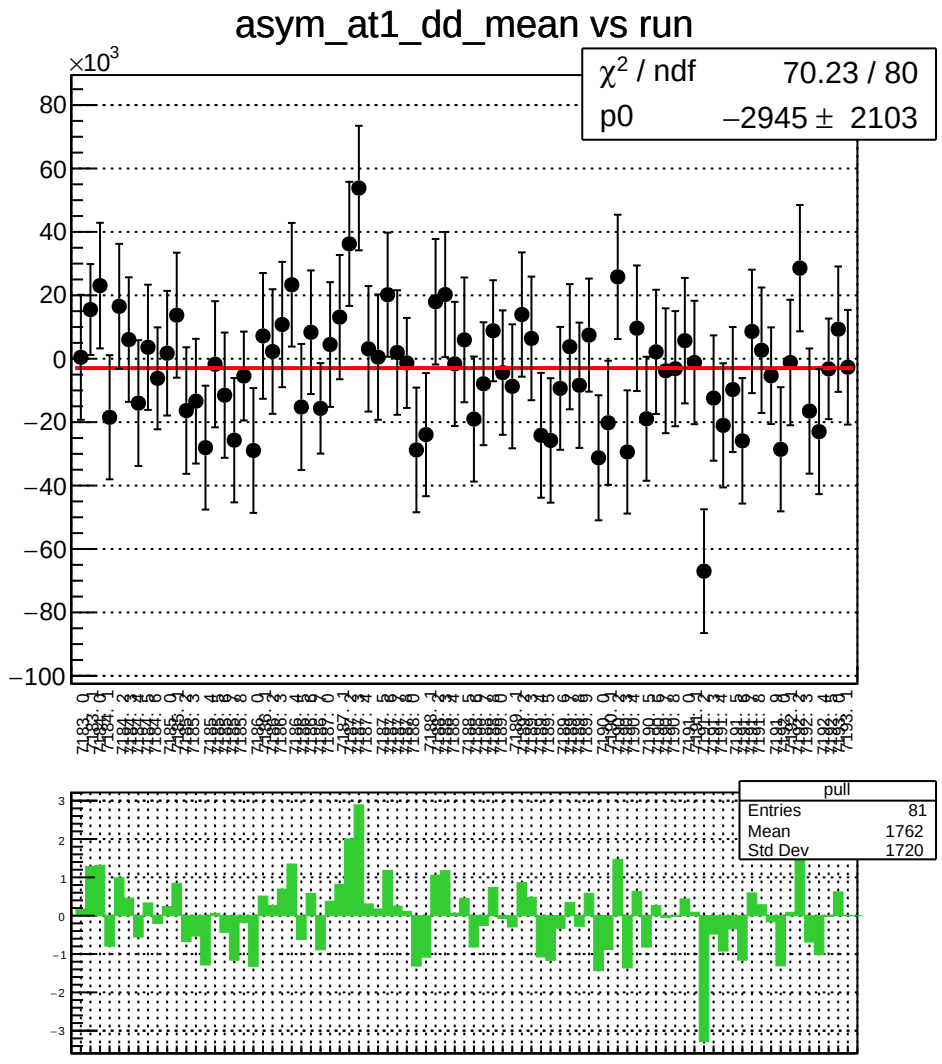

pull1D
Entries 81
Mean −0.002514
Std Dev 0.8889

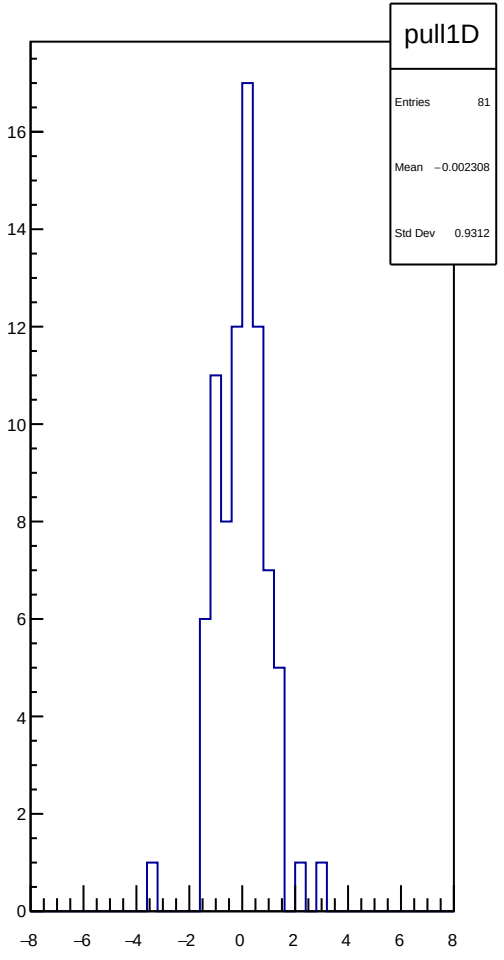

reg_asym_at1_dd_rms vs run
χ² / ndf 65.29 / 80
p0 1819 ± 1.45
1860
1850
1840
1830
1820
1810
1800
1790
1780

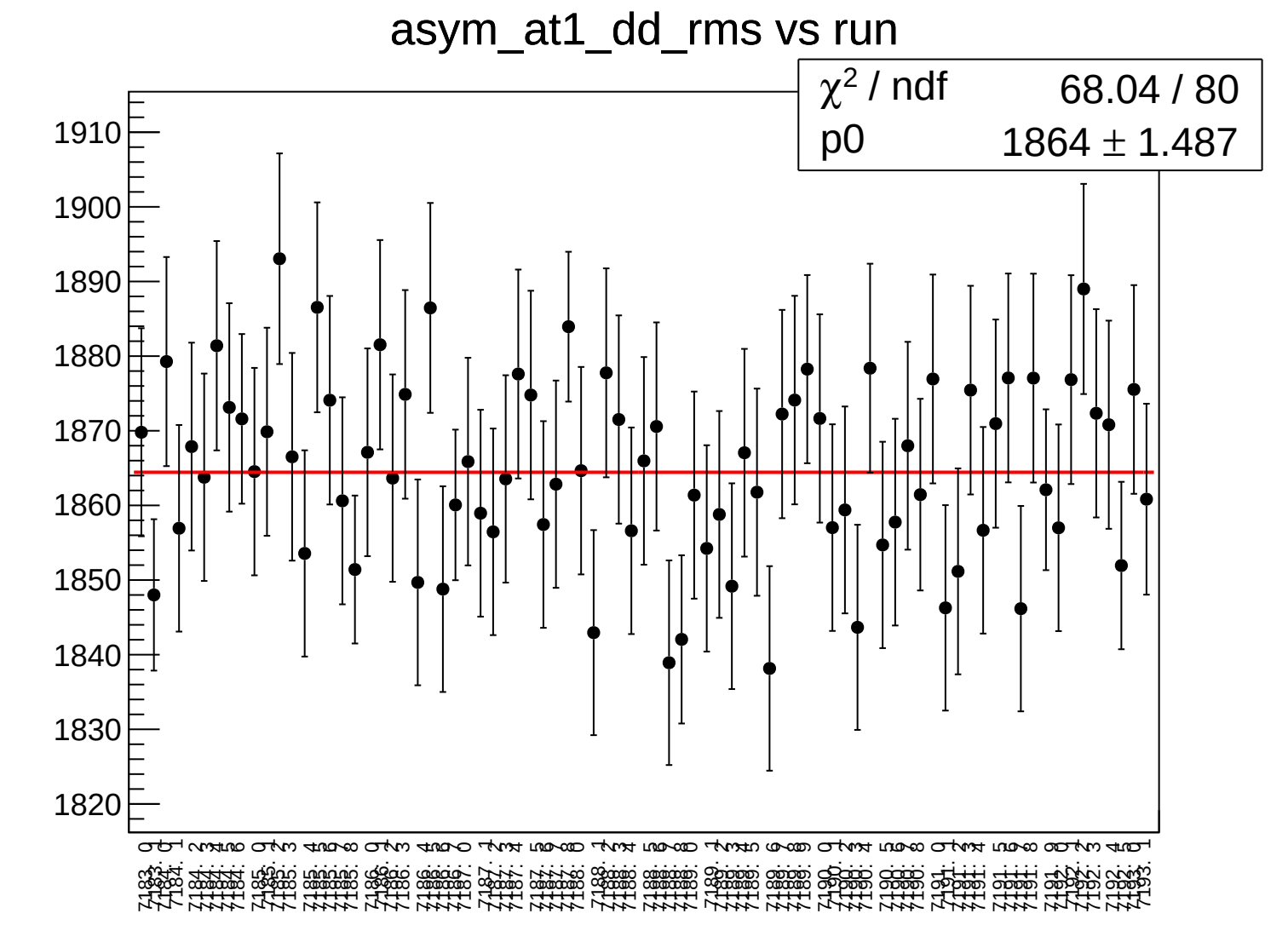

asym_at1_dd_correction_mean vs run
χ² / ndf 94.46 / 80
p0 −144.4 ± 459.2
pull
Entries 81
Mean 619.1
Std Dev 592.6

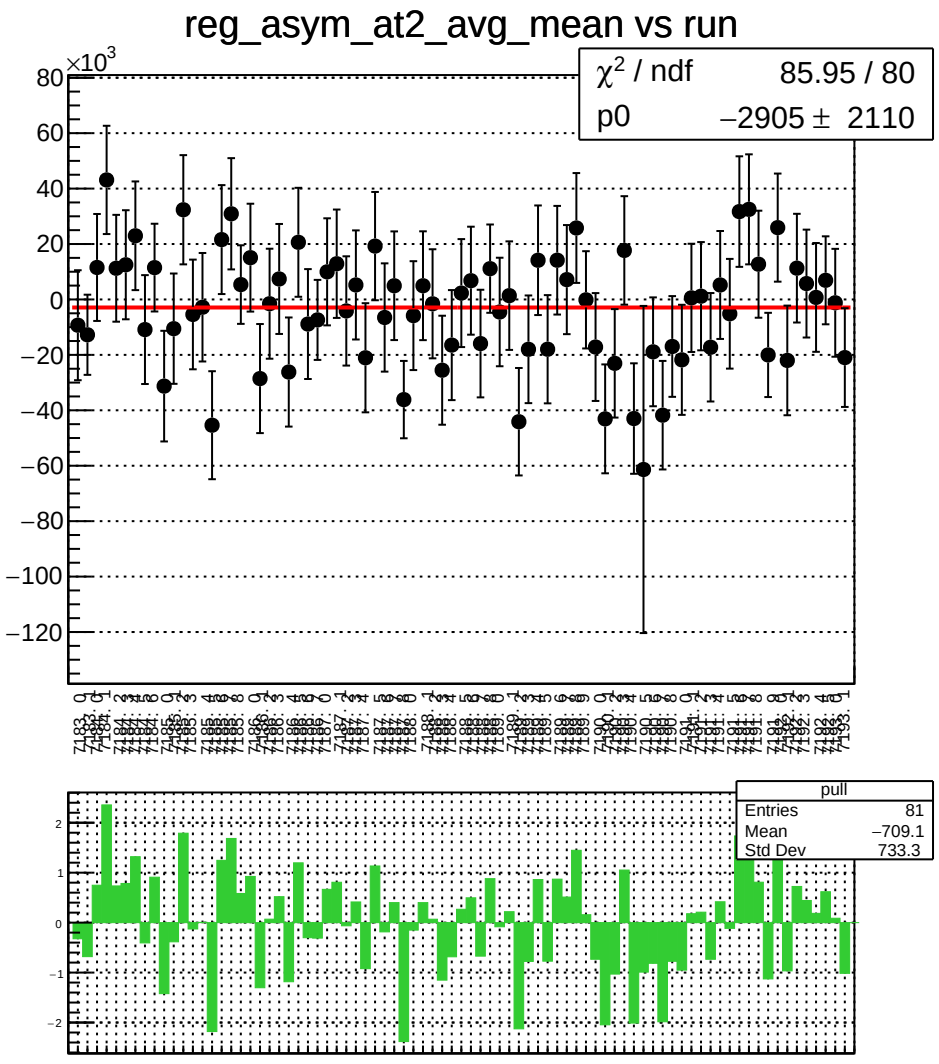

pull1D
Entries 81
Mean −0.002843
Std Dev 1.08

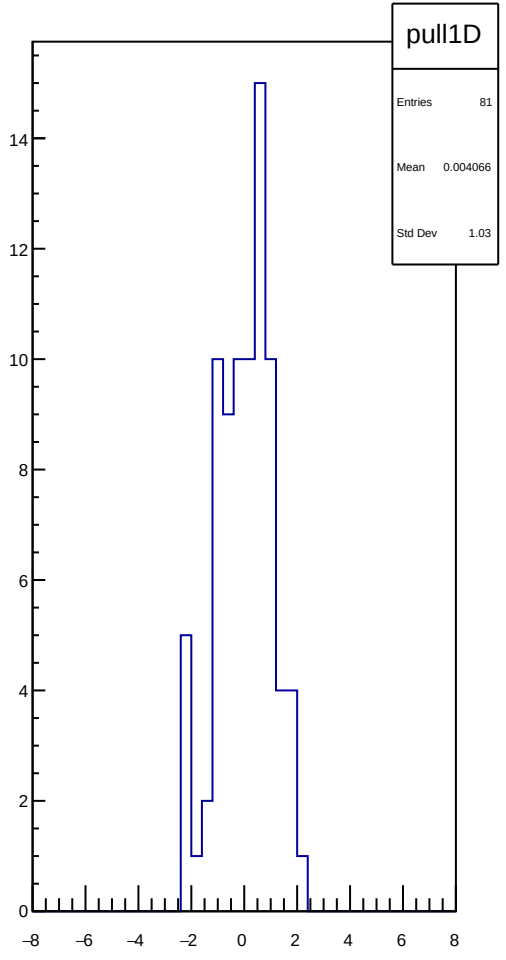

asym_at1_dd_correction_rms vs run
χ² / ndf 5252 / 80
p0 406.6 ± 0.3247
480
460
440
420
400
380
360

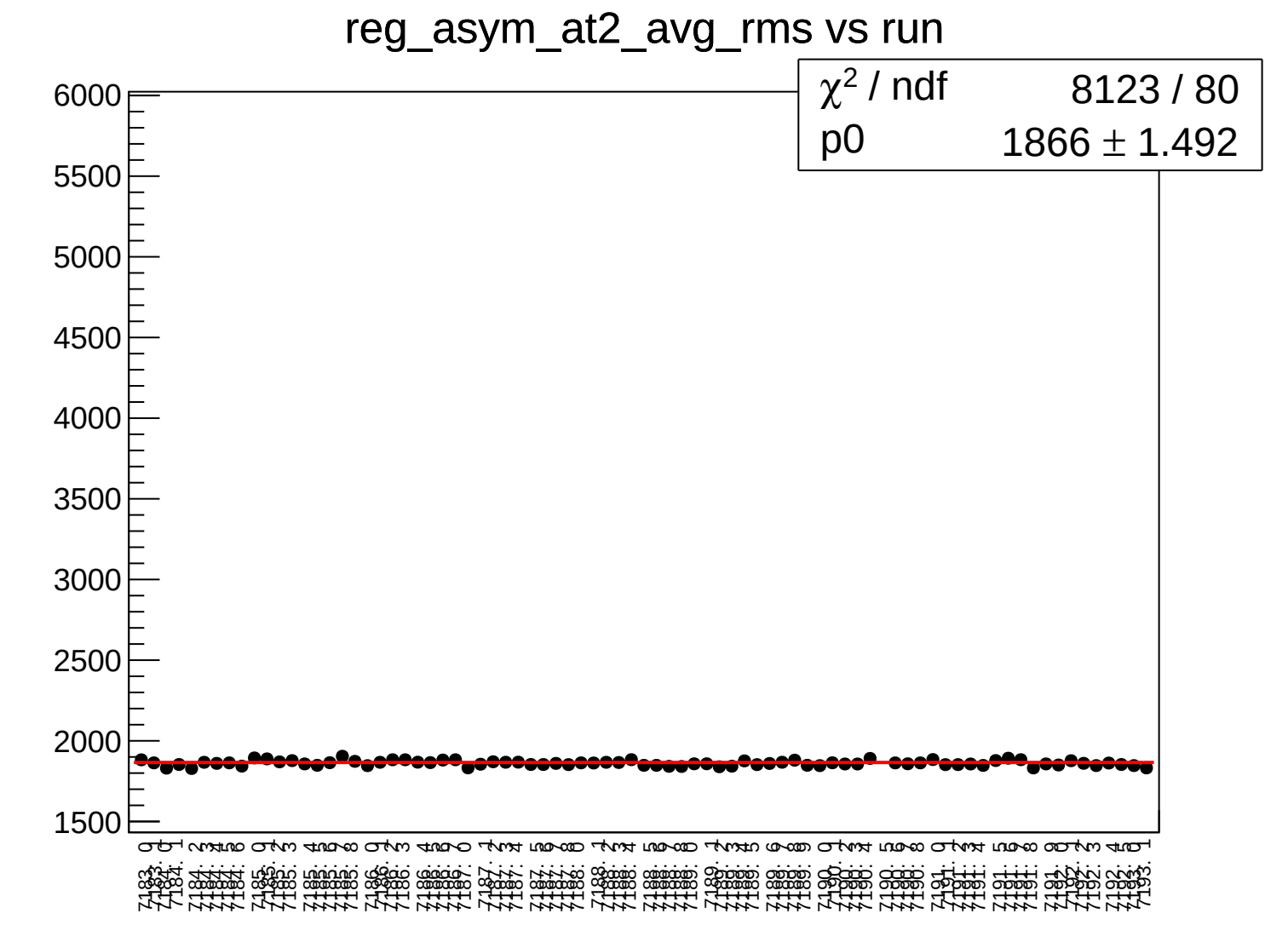

asym_at1_dd_mean vs run
×10^3
χ² / ndf 70.23 / 80
p0 −2945 ± 2103
pull
Entries 81
Mean 1762
Std Dev 1720

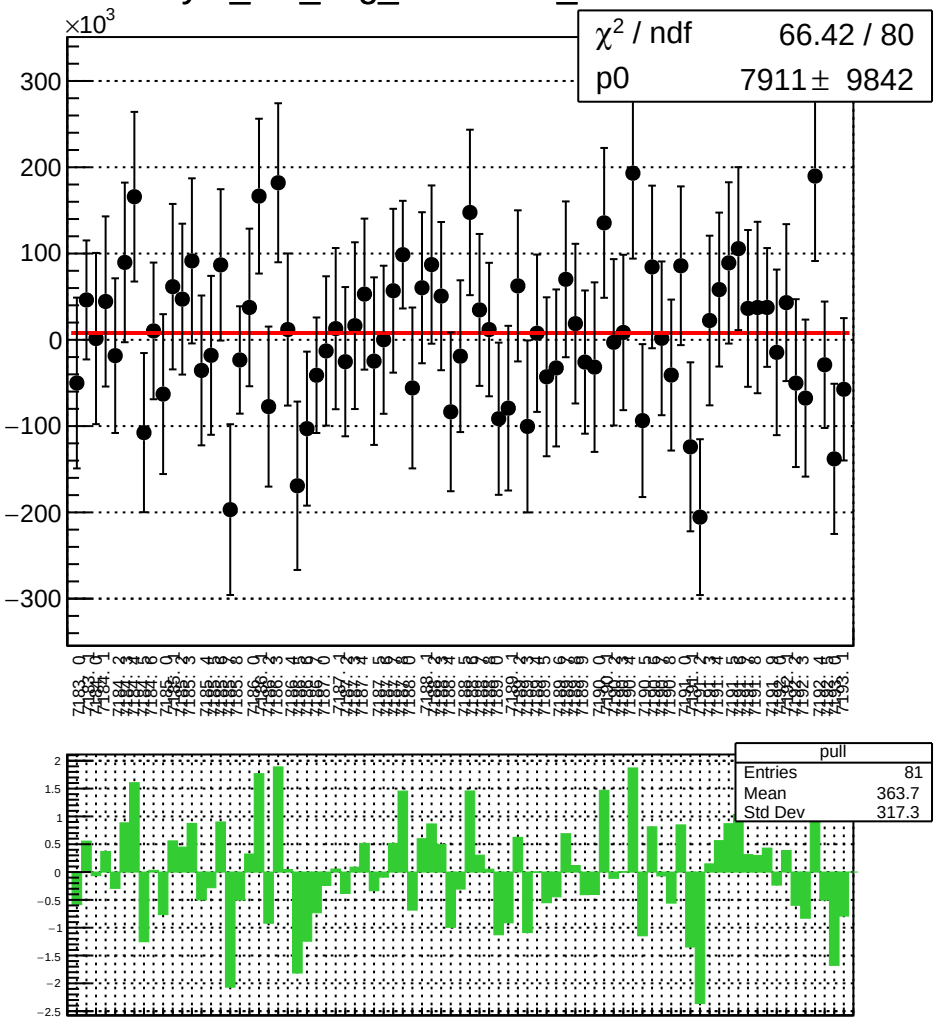

pull1D
Entries 81
Mean −0.002308
Std Dev 0.9312

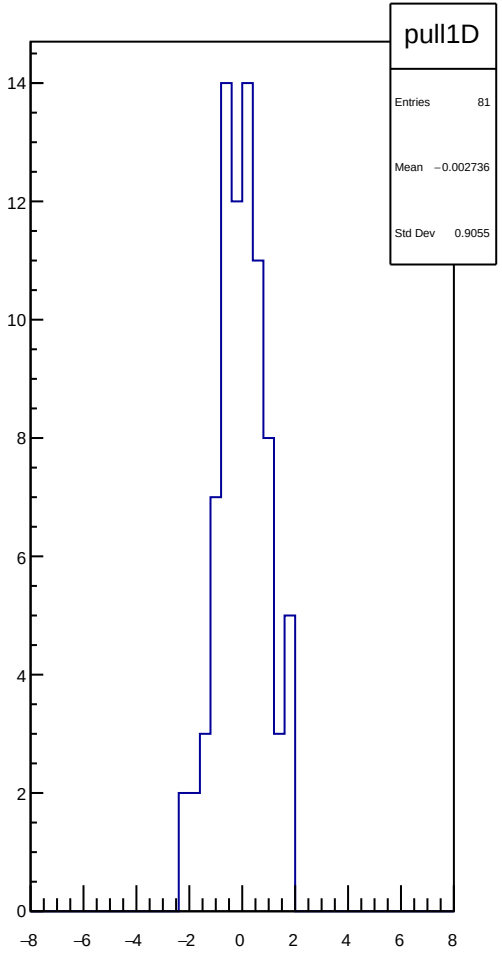

asym_at1_dd_rms vs run
χ^2 / ndf 68.04 / 80
p0 1864 ± 1.487
1910
1900
1890
1880
1870
1860
1850
1840
1830
1820

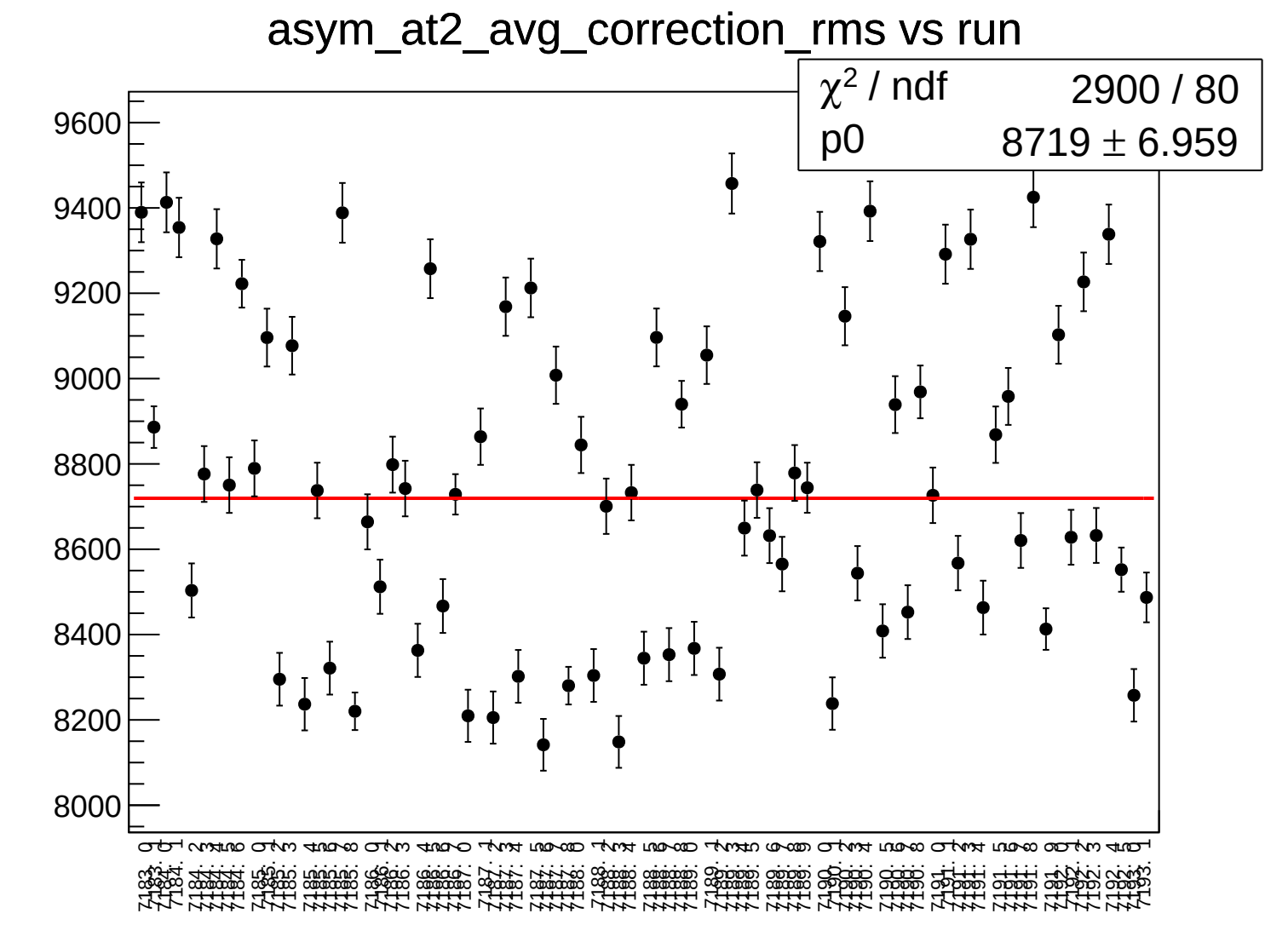

reg_asym_at2_avg_mean vs run
χ^2 / ndf 85.95 / 80
p0 −2905 ± 2110
×10^3
pull
Entries 81
Mean −709.1
Std Dev 733.3

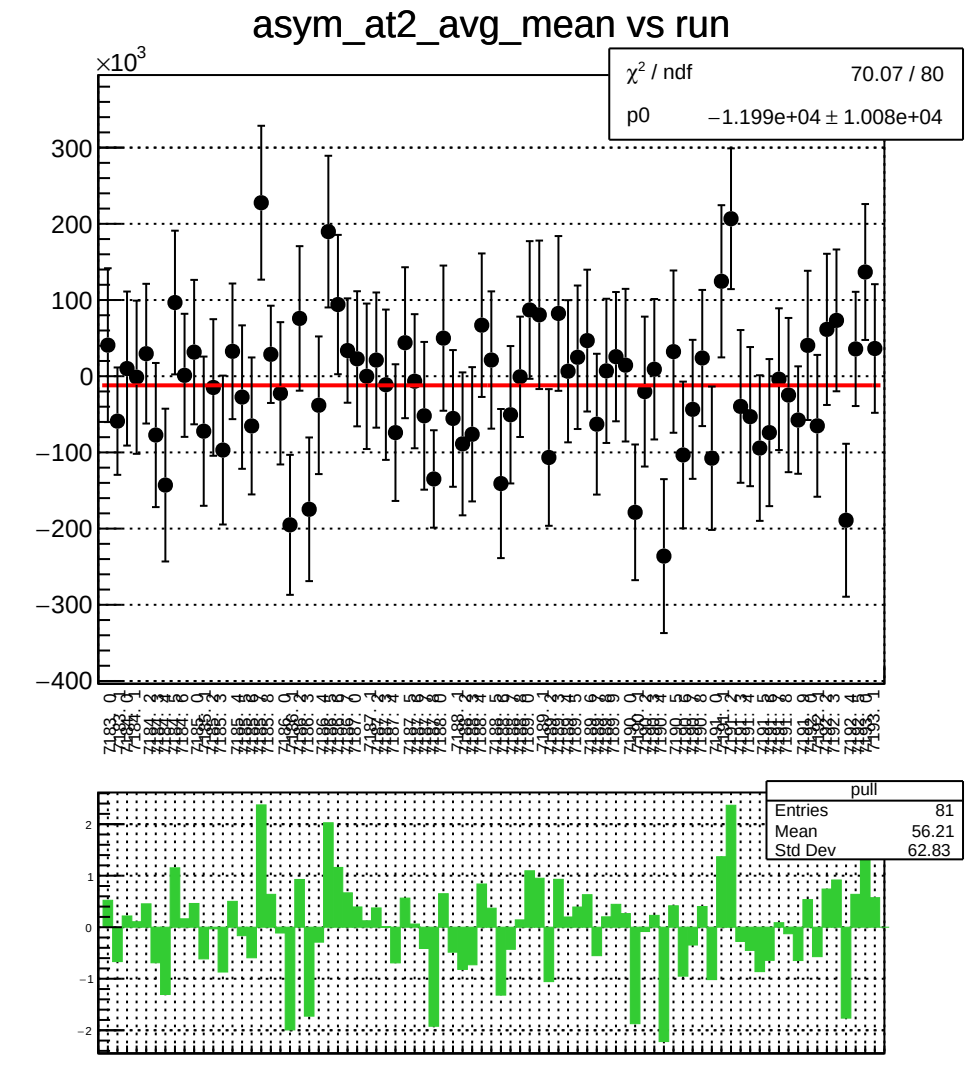

pull1D
Entries 81
Mean 0.004066
Std Dev 1.03

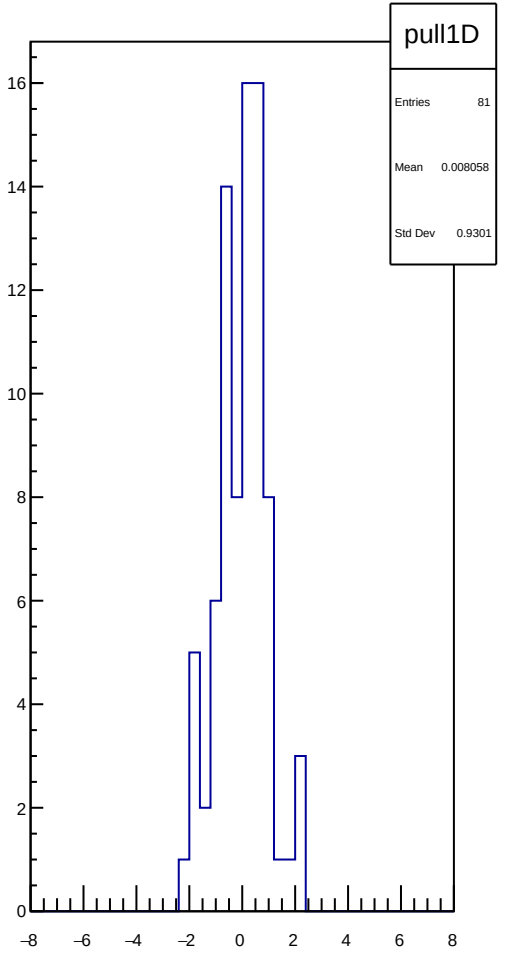

reg_asym_at2_avg_rms vs run
χ^2 / ndf 8123 / 80
p0 1866 ± 1.492
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500

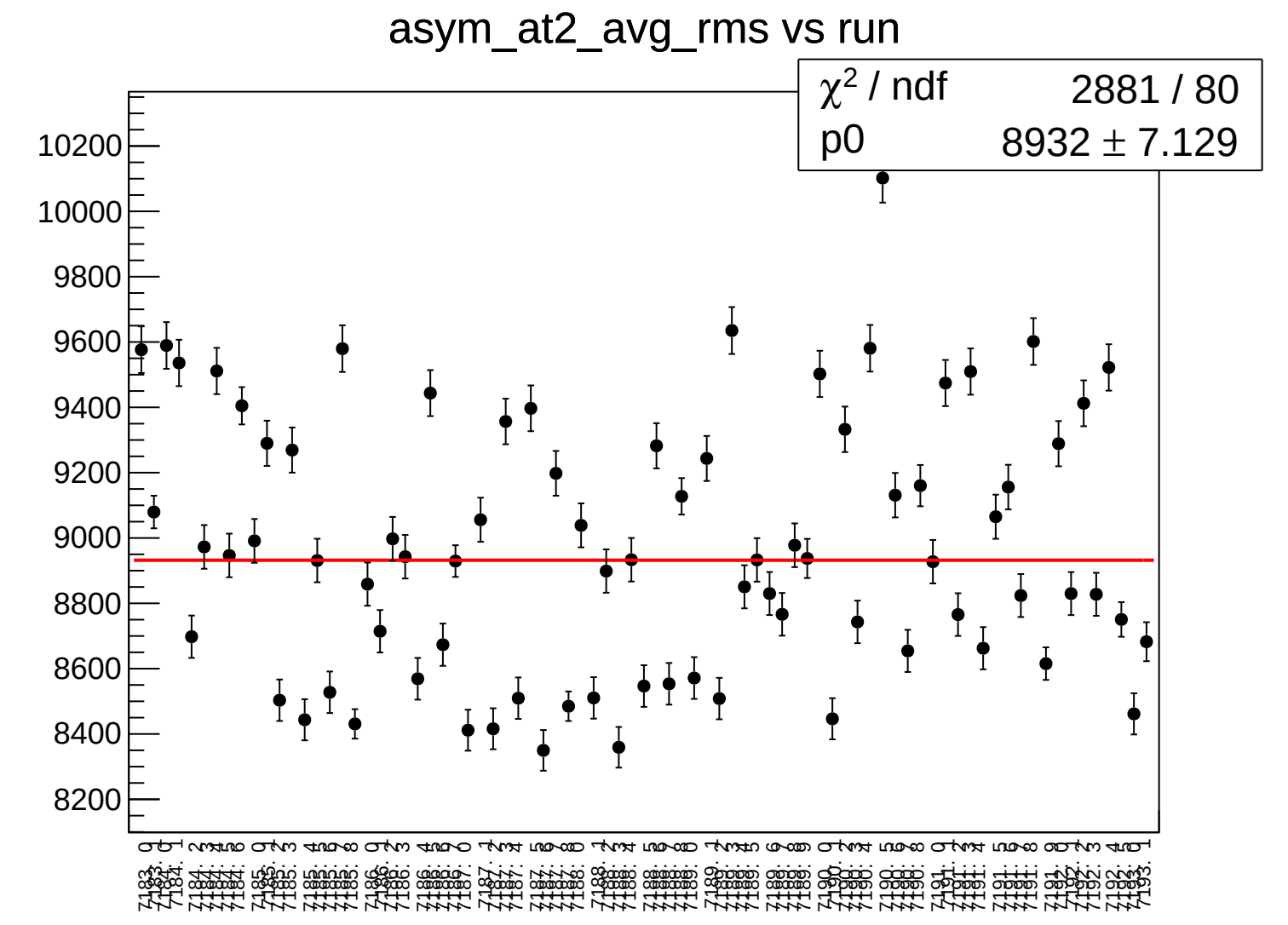

asym_at2_avg_correction_mean vs run
χ² / ndf 66.42 / 80
p0 7911 ± 9842
×10³
pull
Entries 81
Mean 363.7
Std Dev 317.3

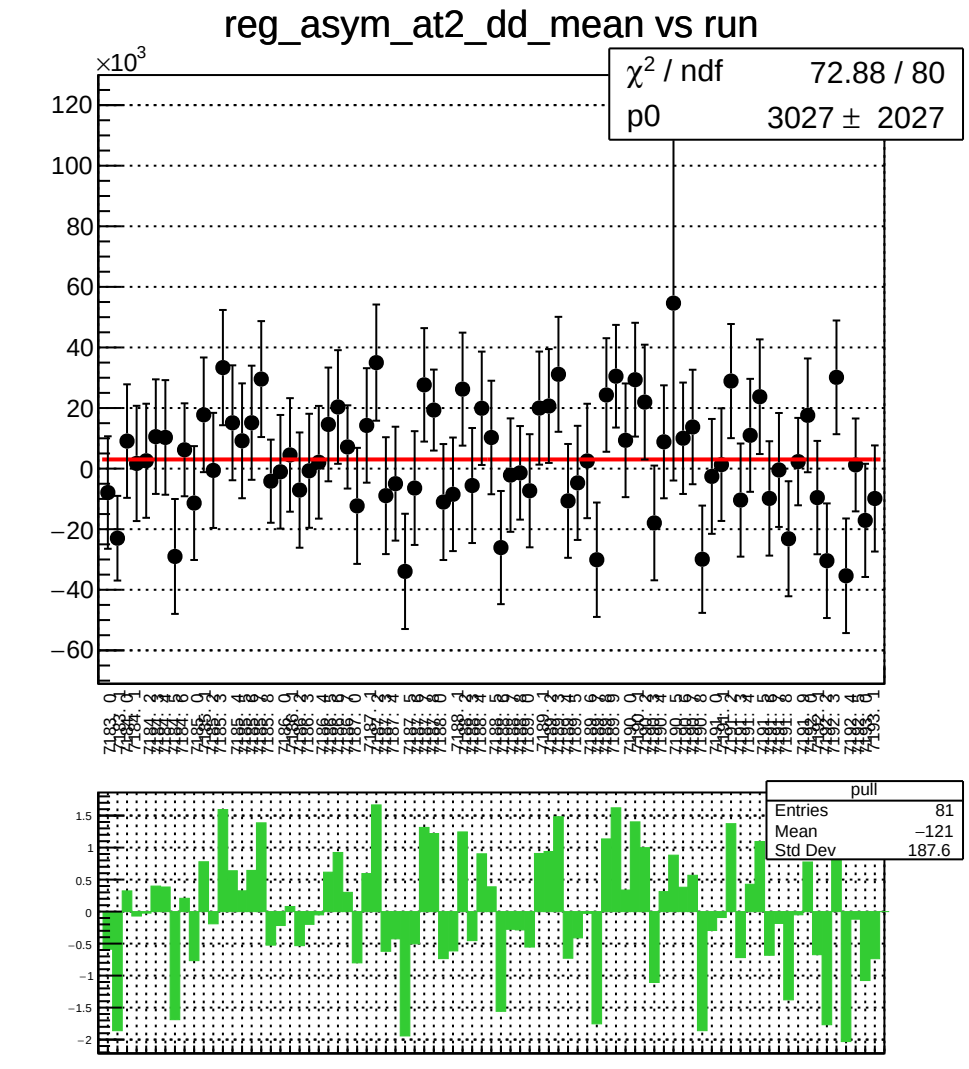

pull1D
Entries 81
Mean −0.002736
Std Dev 0.9055

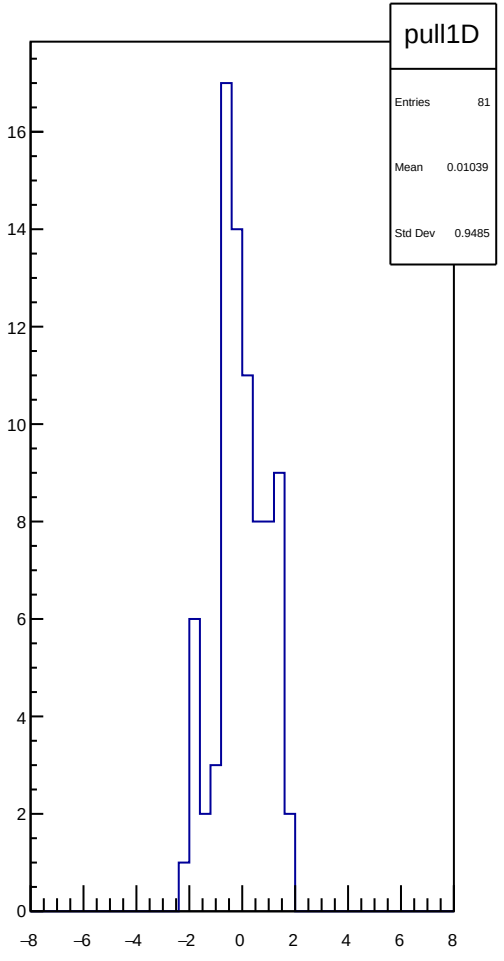

asym_at2_avg_correction_rms vs run
χ² / ndf 2900 / 80
p0 8719 ± 6.959
9600
9400
9200
9000
8800
8600
8400
8200
8000

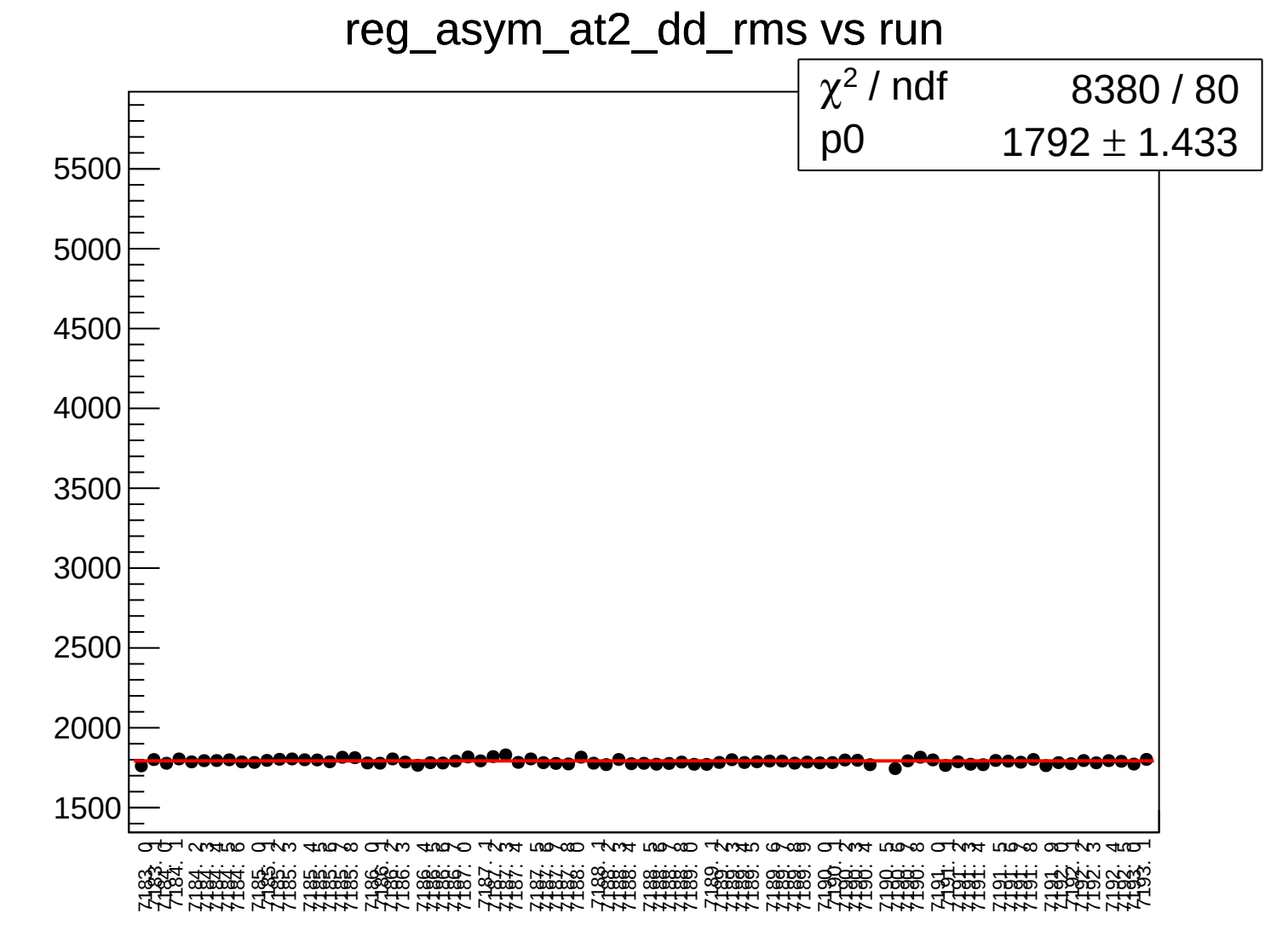

asym_at2_avg_mean vs run
×10^3
χ² / ndf 70.07 / 80
p0 −1.199e+04 ± 1.008e+04
pull
Entries 81
Mean 56.21
Std Dev 62.83

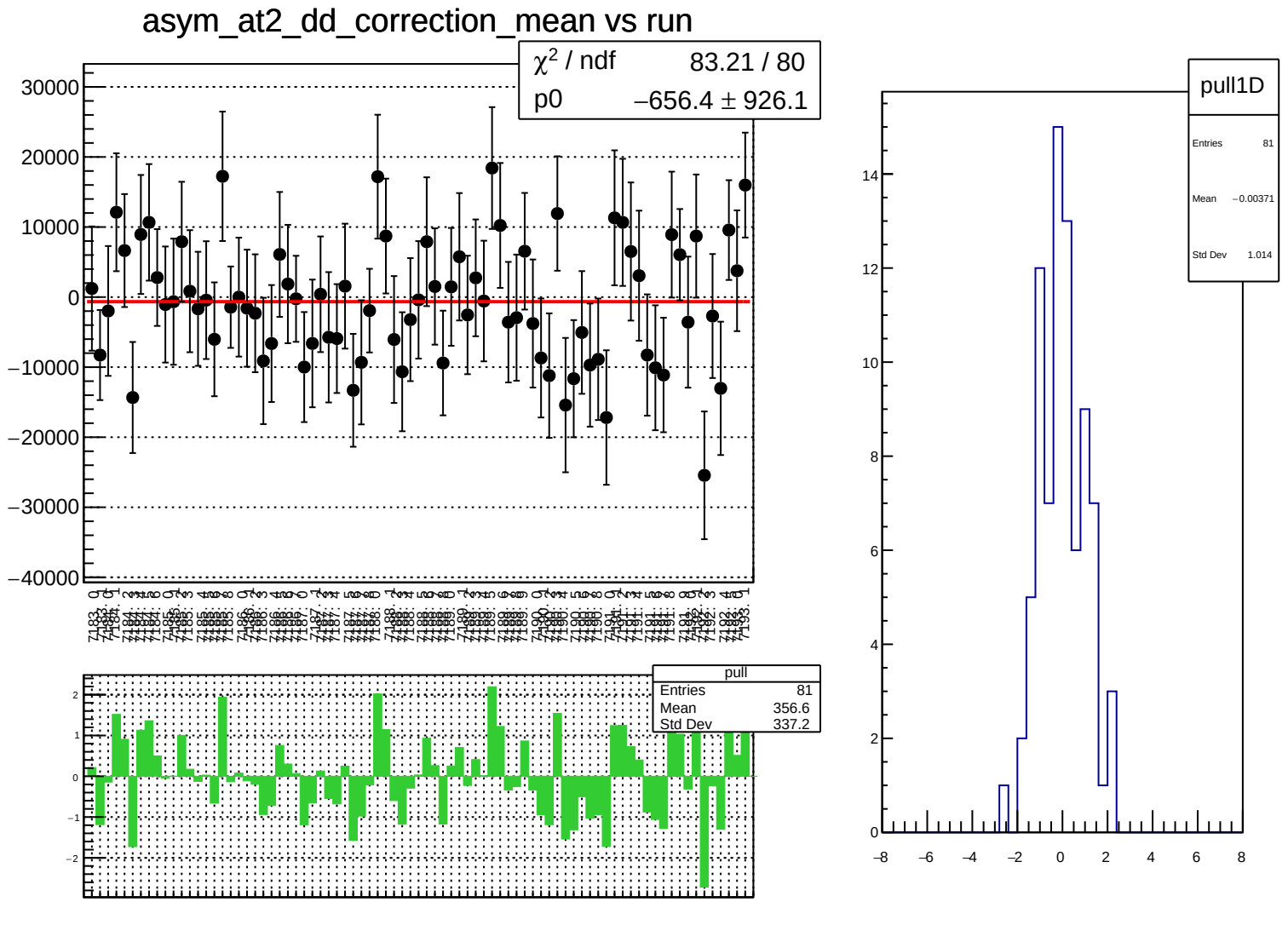

pull1D
Entries 81
Mean 0.008058
Std Dev 0.9301

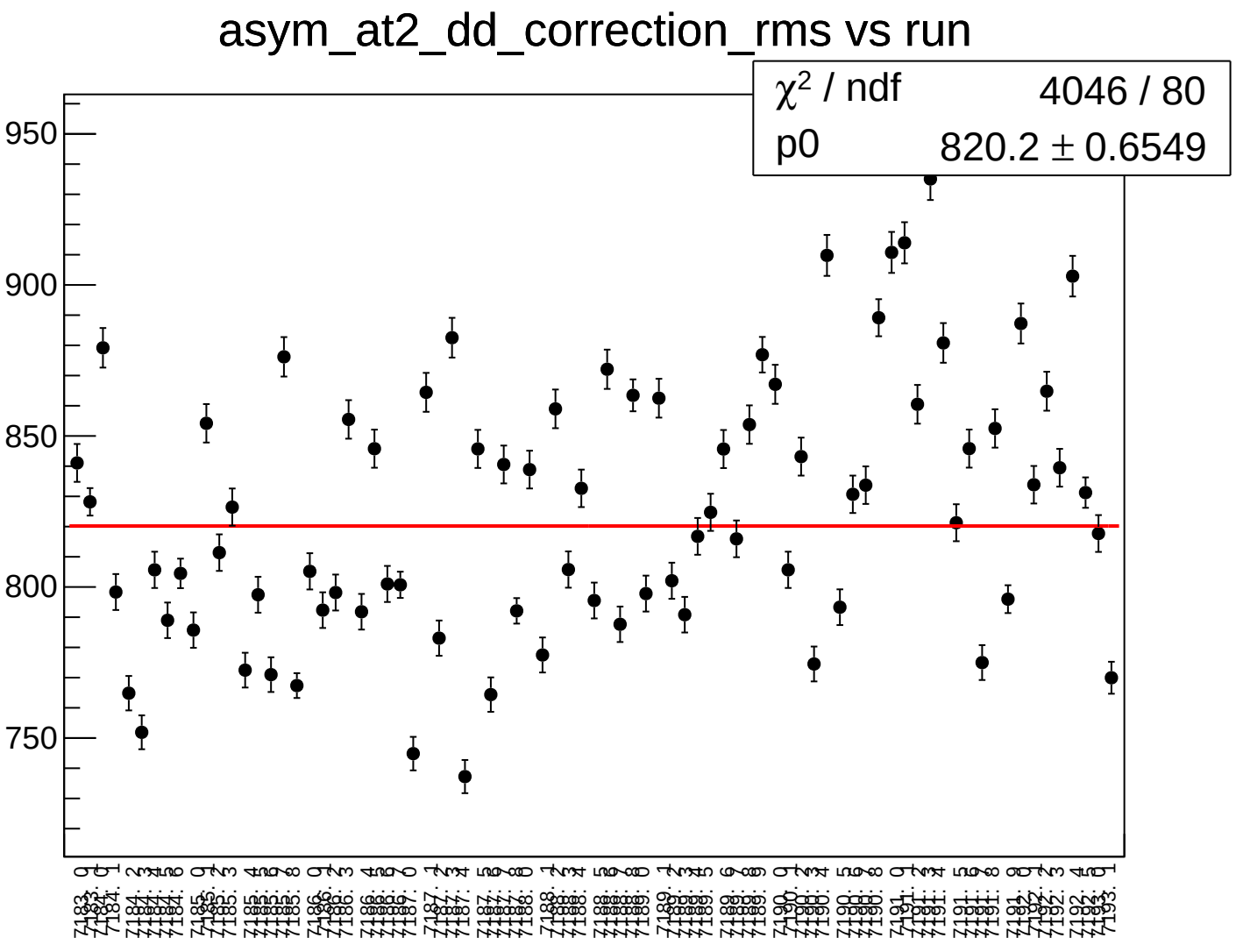

asym_at2_avg_rms vs run
χ^2 / ndf 2881 / 80
p0 8932 ± 7.129
10200
10000
9800
9600
9400
9200
9000
8800
8600
8400
8200

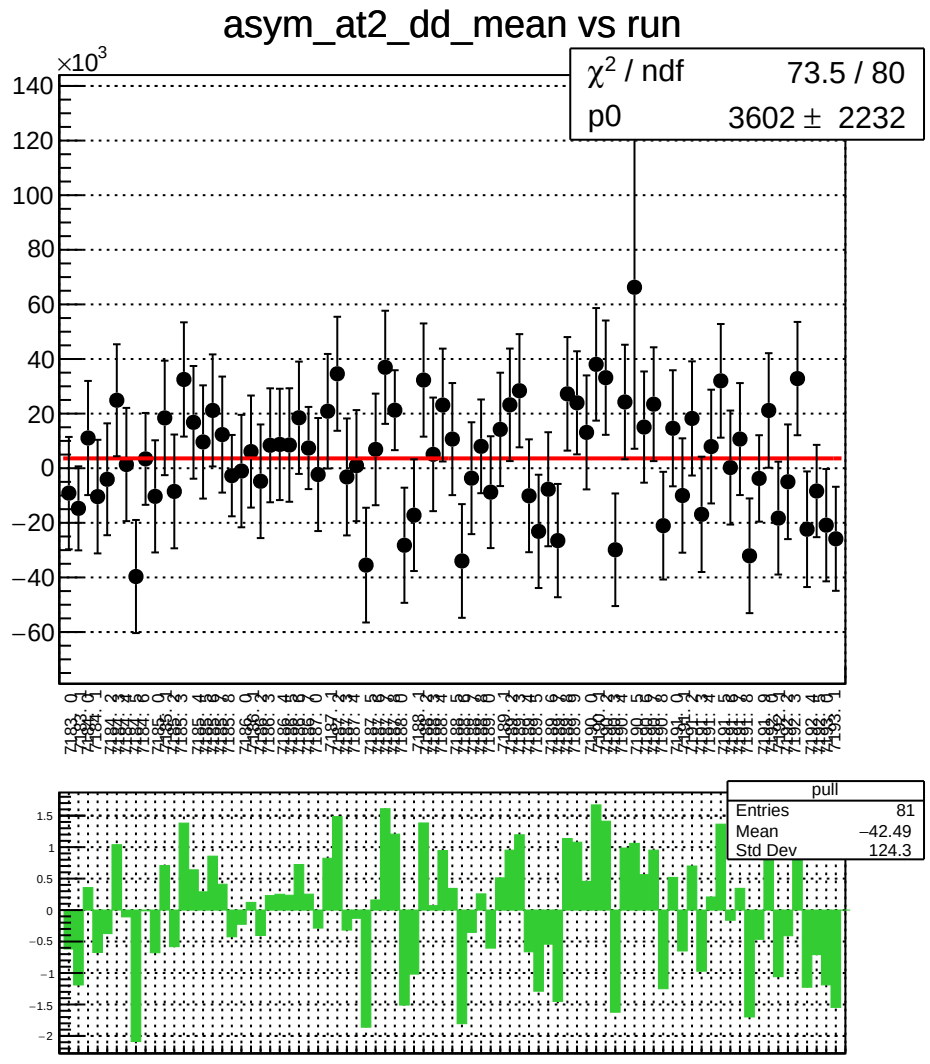

reg_asym_at2_dd_mean vs run
×10^3
χ^2 / ndf 72.88 / 80
p0 3027 ± 2027
pull
Entries 81
Mean −121
Std Dev 187.6

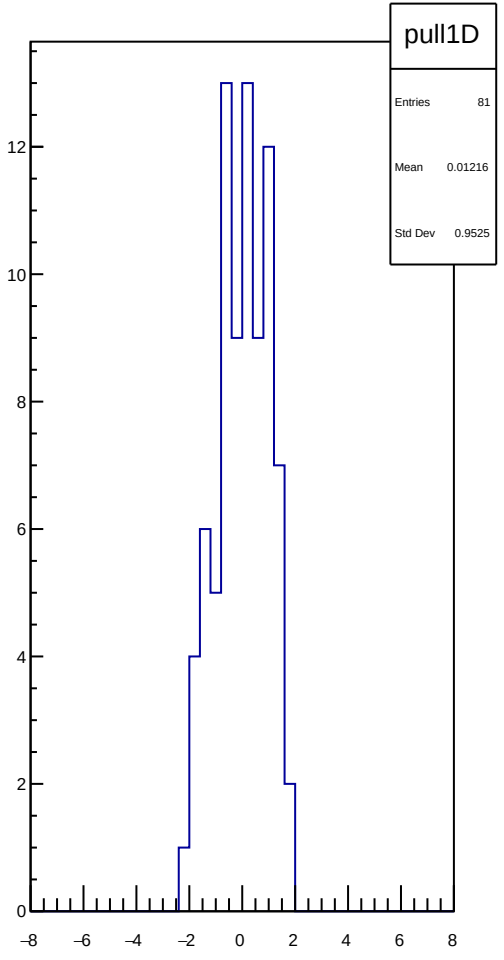

pull1D
Entries 81
Mean 0.01039
Std Dev 0.9485

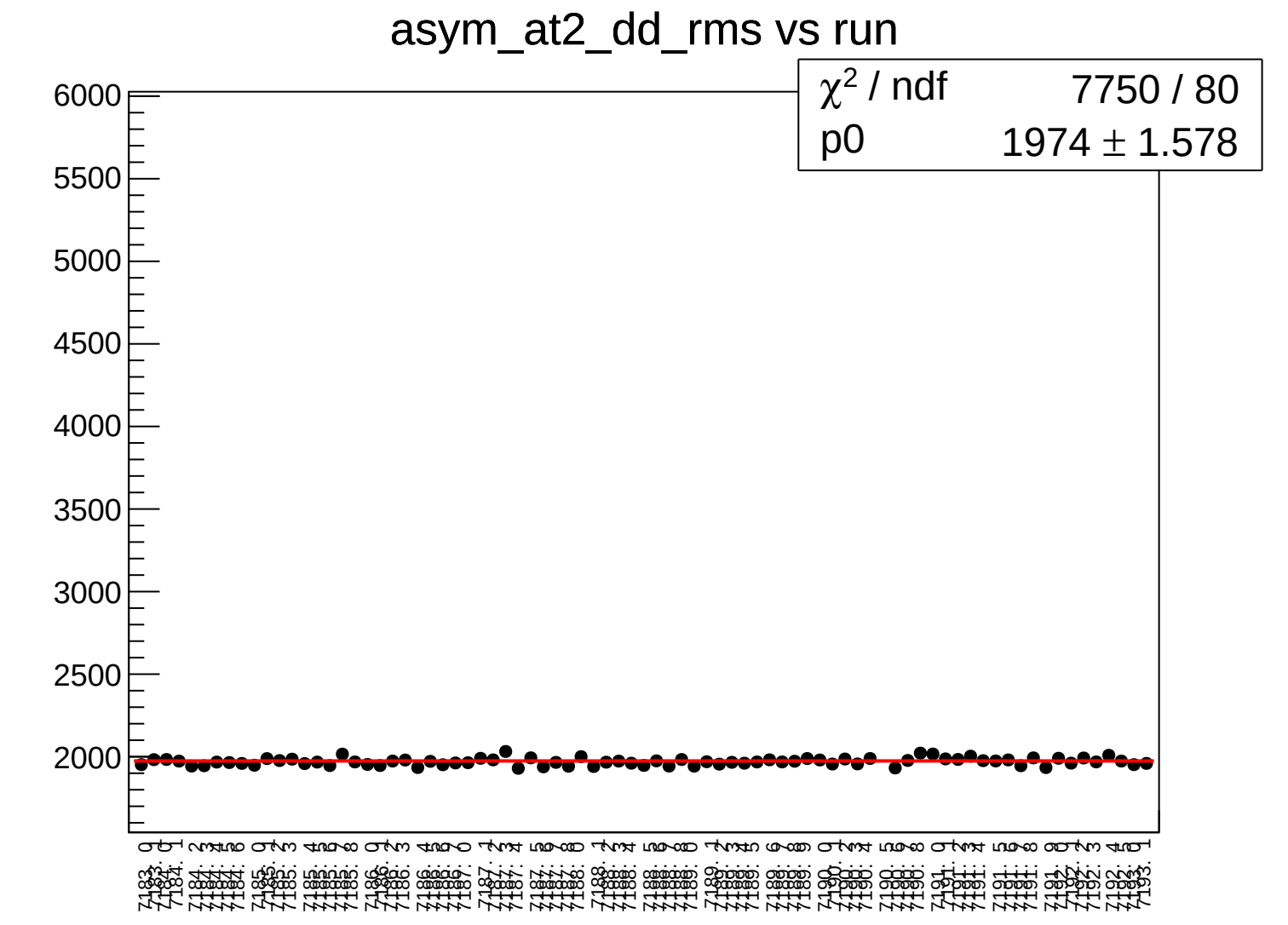

reg_asym_at2_dd_rms vs run
χ^2 / ndf 8380 / 80
p0 1792 ± 1.433
5500
5000
4500
4000
3500
3000
2500
2000
1500

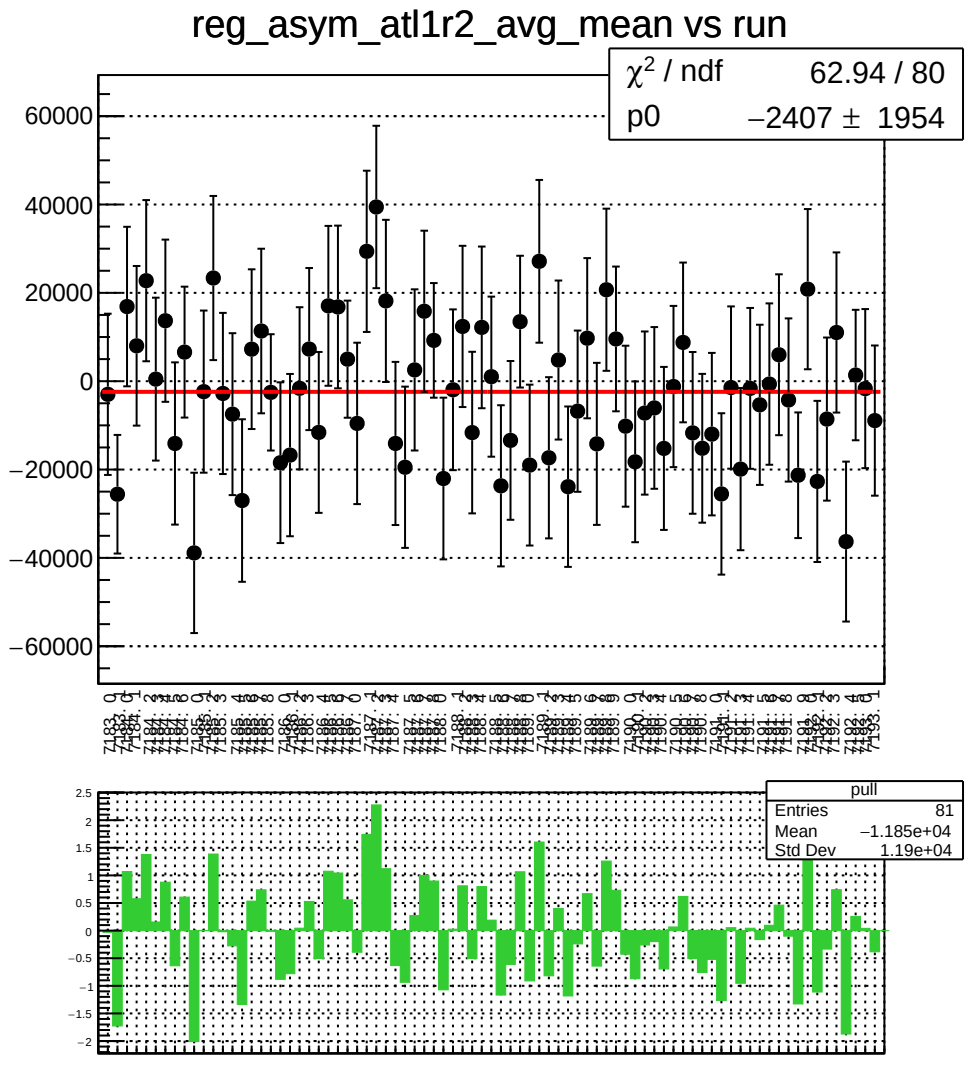

asym_at2_dd_correction_mean vs run
χ² / ndf 83.21 / 80
p0 −656.4 ± 926.1
pull
Entries 81
Mean 356.6
Std Dev 337.2
pull1D
Entries 81
Mean −0.00371
Std Dev 1.014

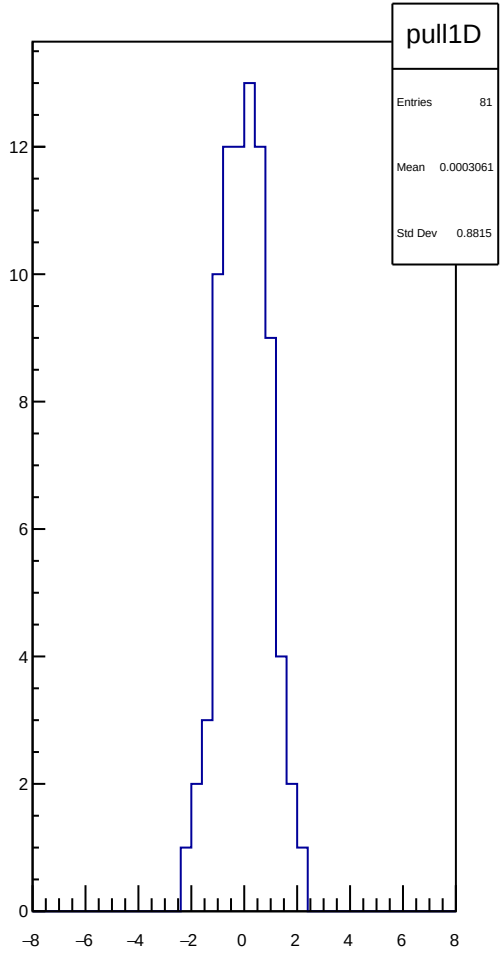

asym_at2_dd_correction_rms vs run
χ² / ndf 4046 / 80
p0 820.2 ± 0.6549
950
900
850
800
750

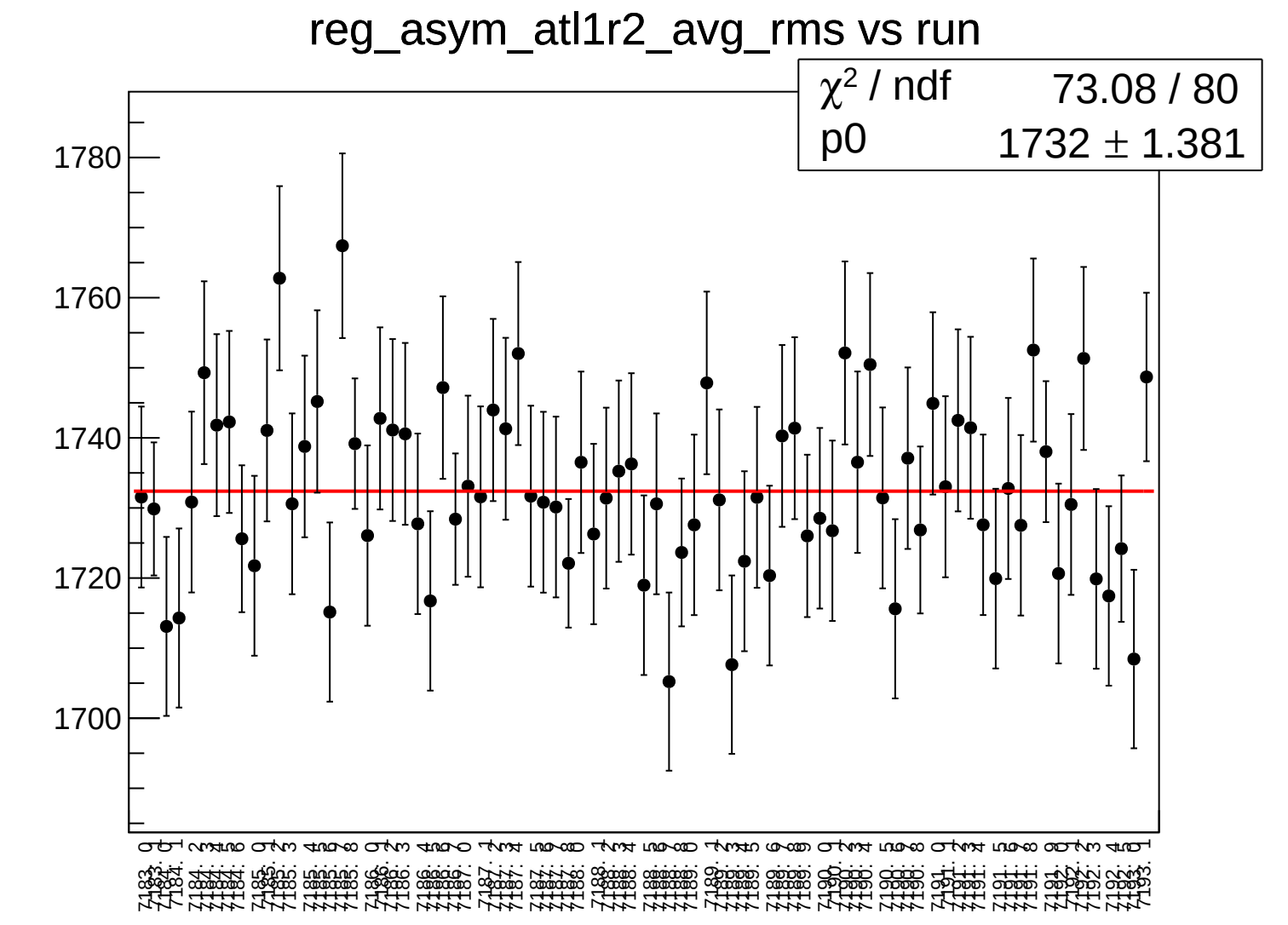

asym_at2_dd_mean vs run
×10^3
χ² / ndf 73.5 / 80
p0 3602 ± 2232
pull
Entries 81
Mean −42.49
Std Dev 124.3

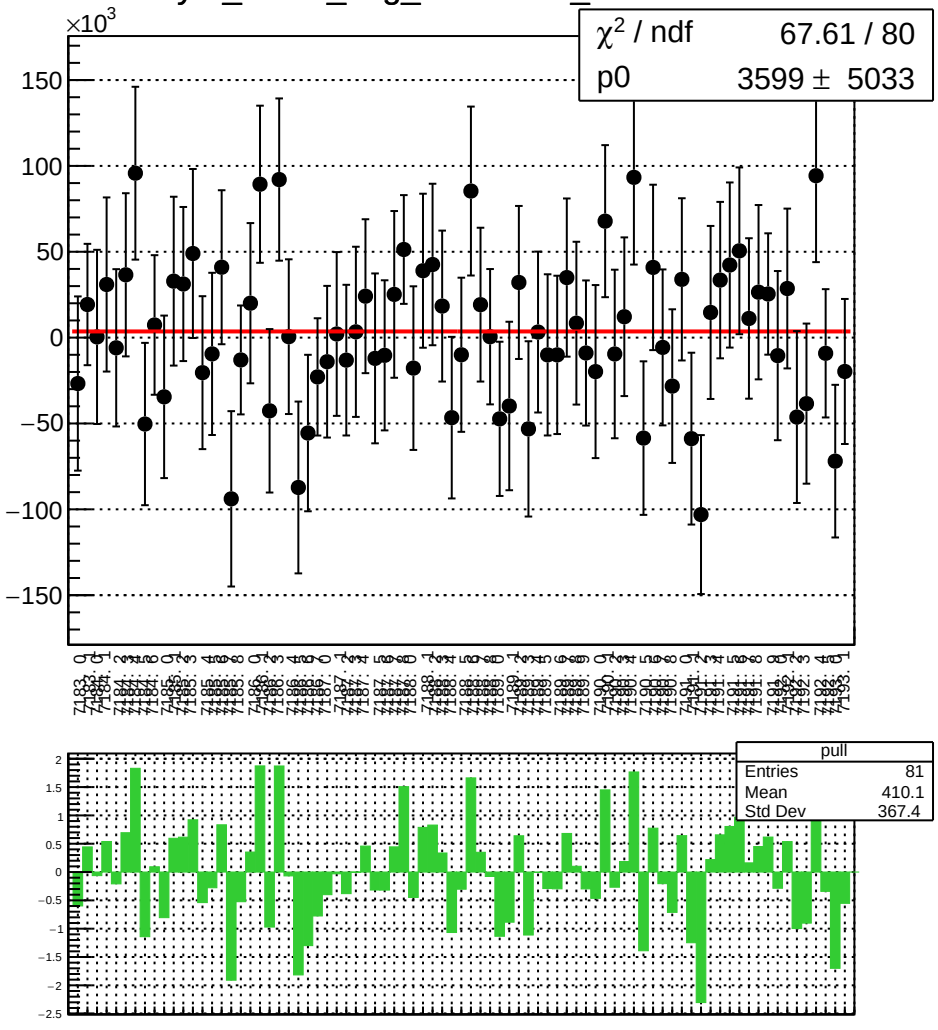

pull1D
Entries 81
Mean 0.01216
Std Dev 0.9525

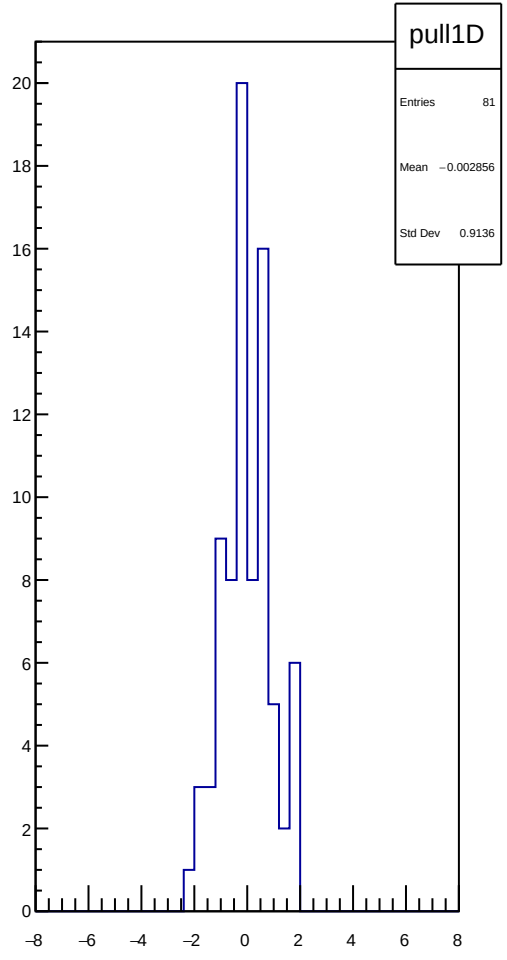

asym_at2_dd_rms vs run
χ^2 / ndf 7750 / 80
p0 1974 ± 1.578
6000
5500
5000
4500
4000
3500
3000
2500
2000

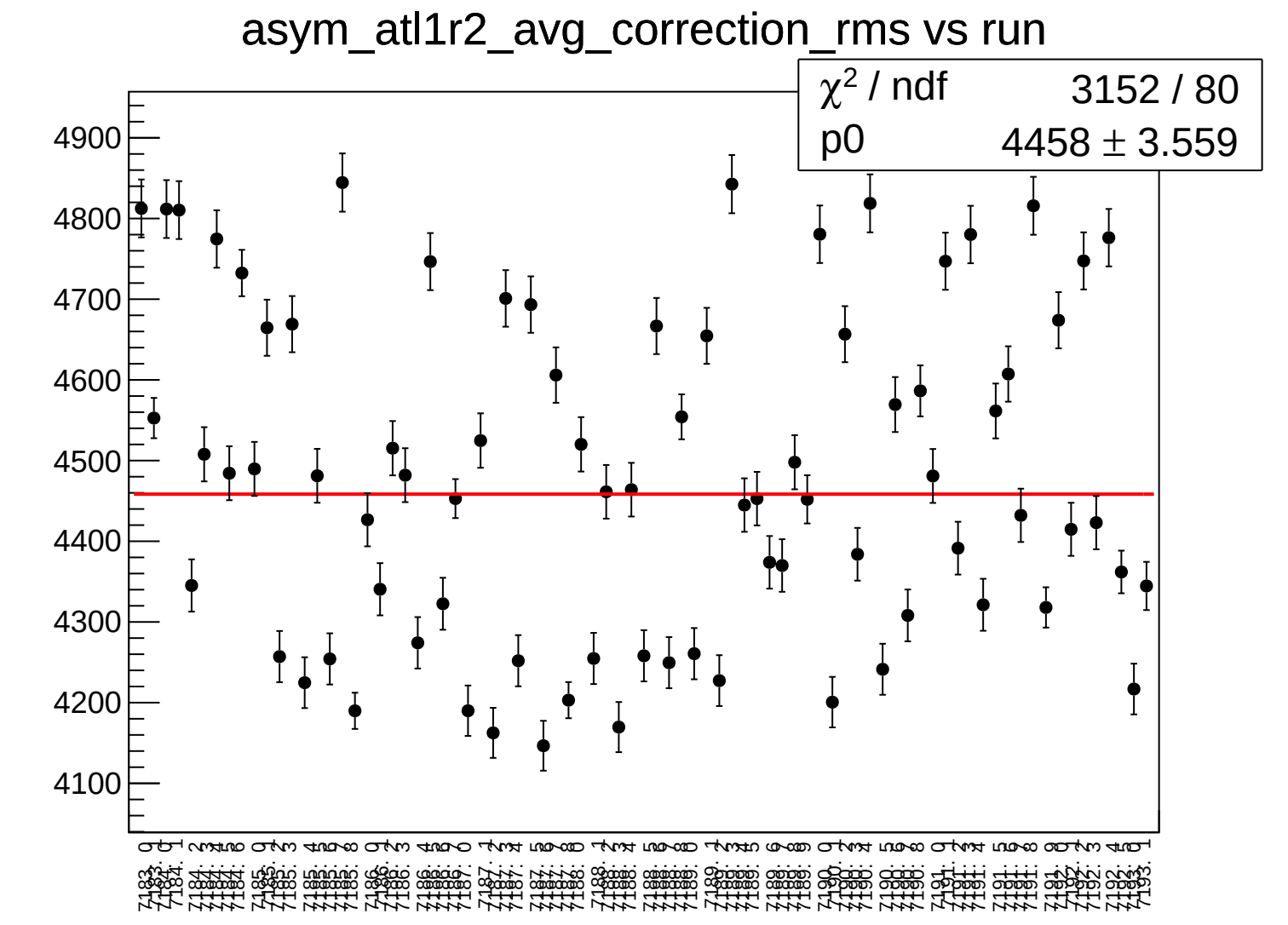

reg_asym_atl1r2_avg_mean vs run
χ² / ndf 62.94 / 80
p0 −2407 ± 1954
60000
40000
20000
0
−20000
−40000
−60000
pull
Entries 81
Mean −1.185e+04
Std Dev 1.19e+04
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

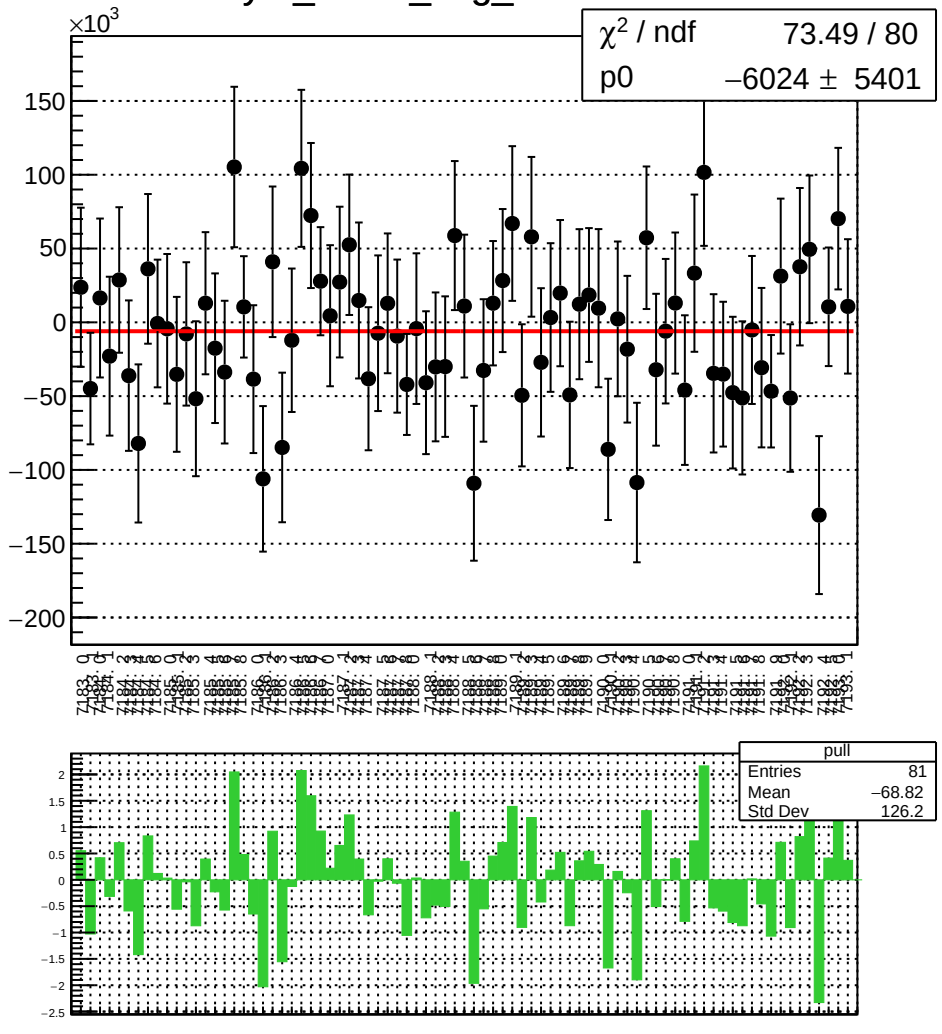

pull1D
Entries 81
Mean 0.0003061
Std Dev 0.8815
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

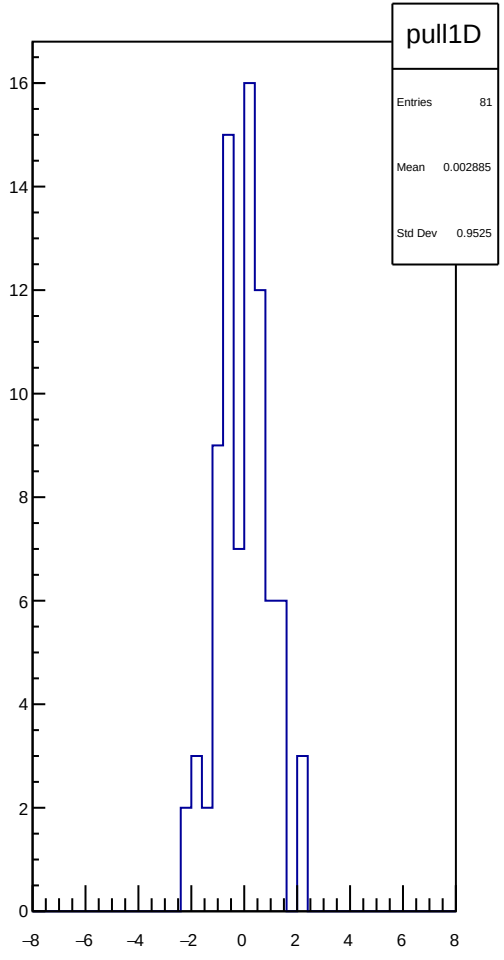

reg_asym_atl1r2_avg_rms vs run
χ² / ndf 73.08 / 80
p0 1732 ± 1.381
1780
1760
1740
1720
1700

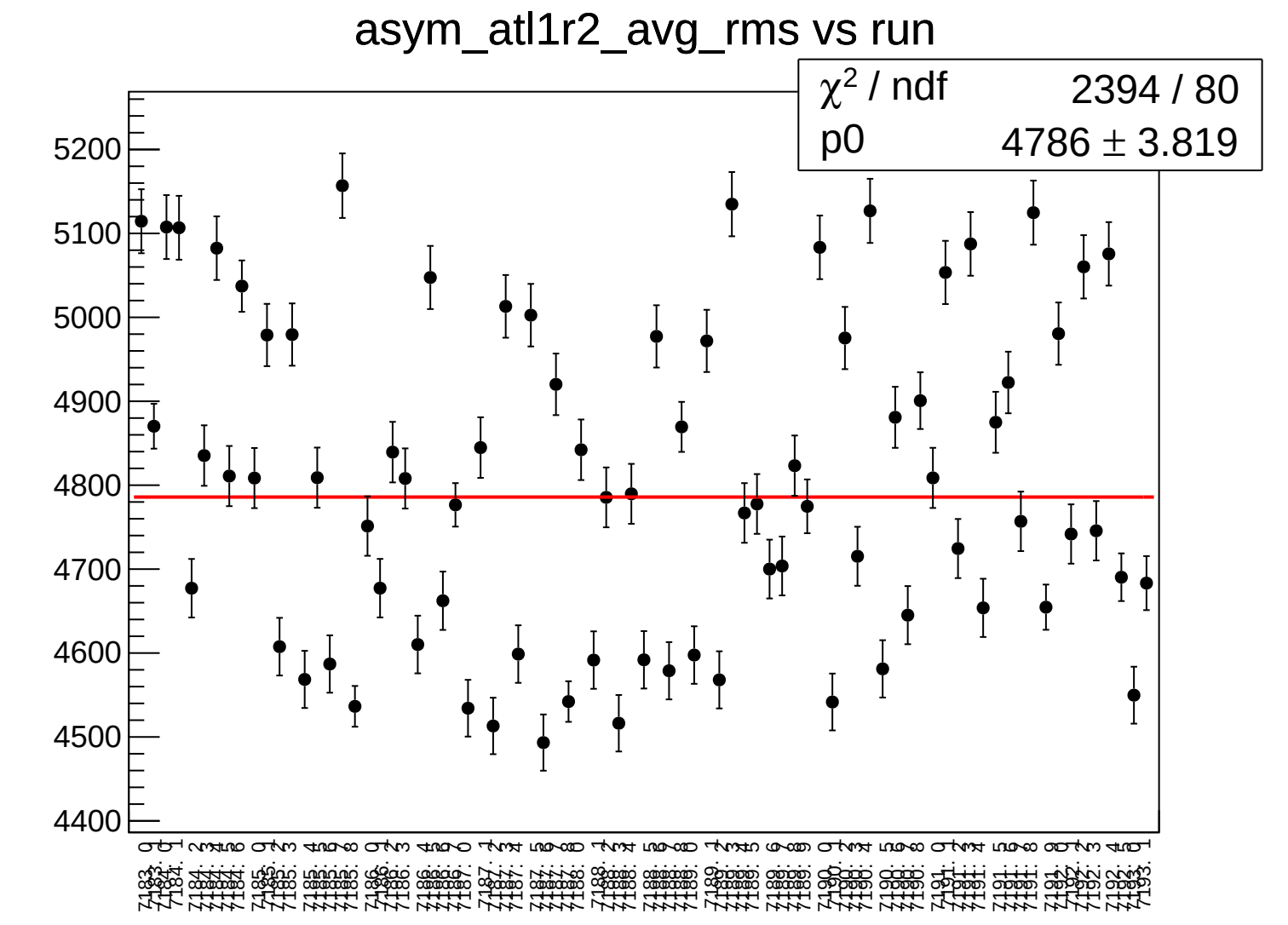

asym_atl1r2_avg_correction_mean vs run
χ^2 / ndf 67.61 / 80
p0 3599 ± 5033
×10^3
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 410.1
Std Dev 367.4
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

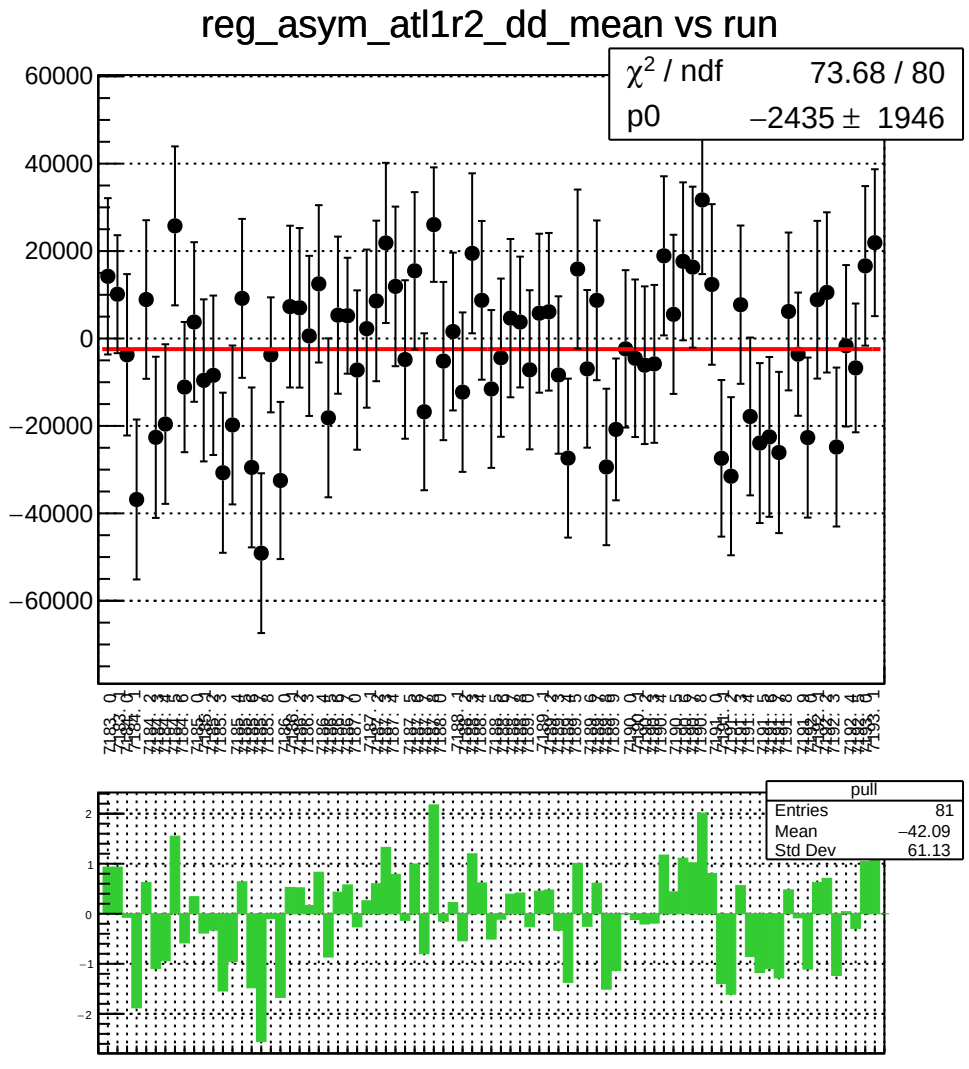

pull1D
Entries 81
Mean −0.002856
Std Dev 0.9136
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

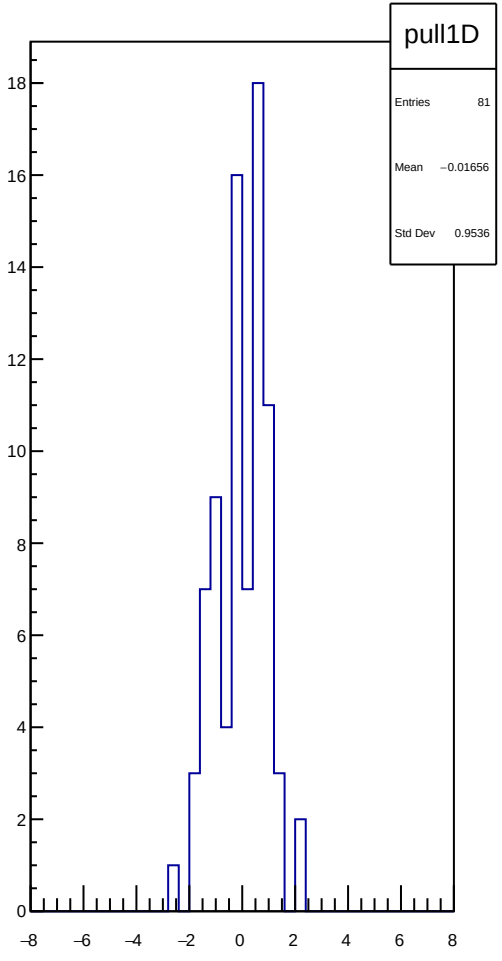

asym_atl1r2_avg_correction_rms vs run
χ² / ndf 3152 / 80
p0 4458 ± 3.559
4900
4800
4700
4600
4500
4400
4300
4200
4100

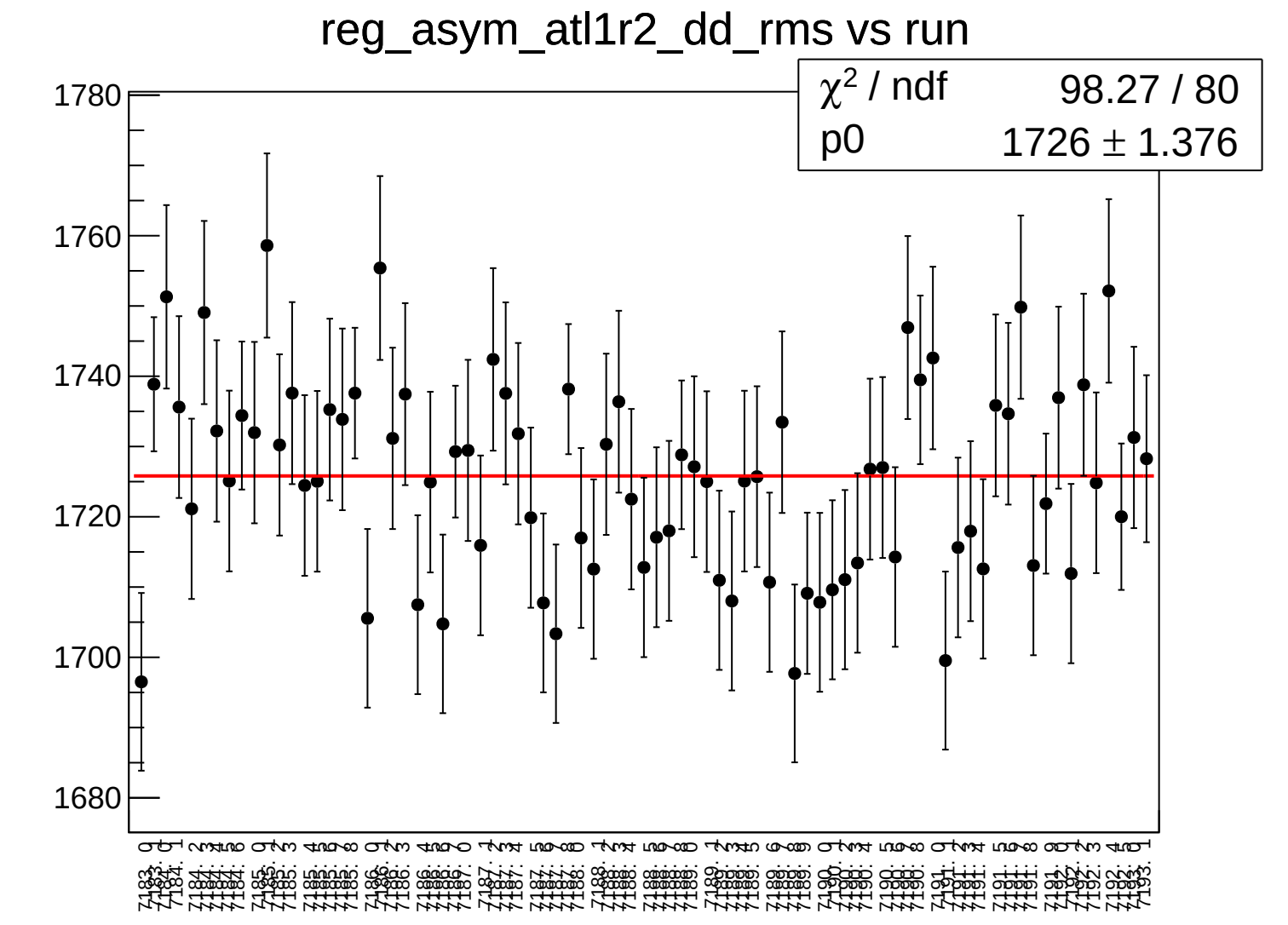

asym_atl1r2_avg_mean vs run
×10^3
χ^2 / ndf 73.49 / 80
p0 −6024 ± 5401
150
100
50
0
−50
−100
−150
−200
pull
Entries 81
Mean −68.82
Std Dev 126.2
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5

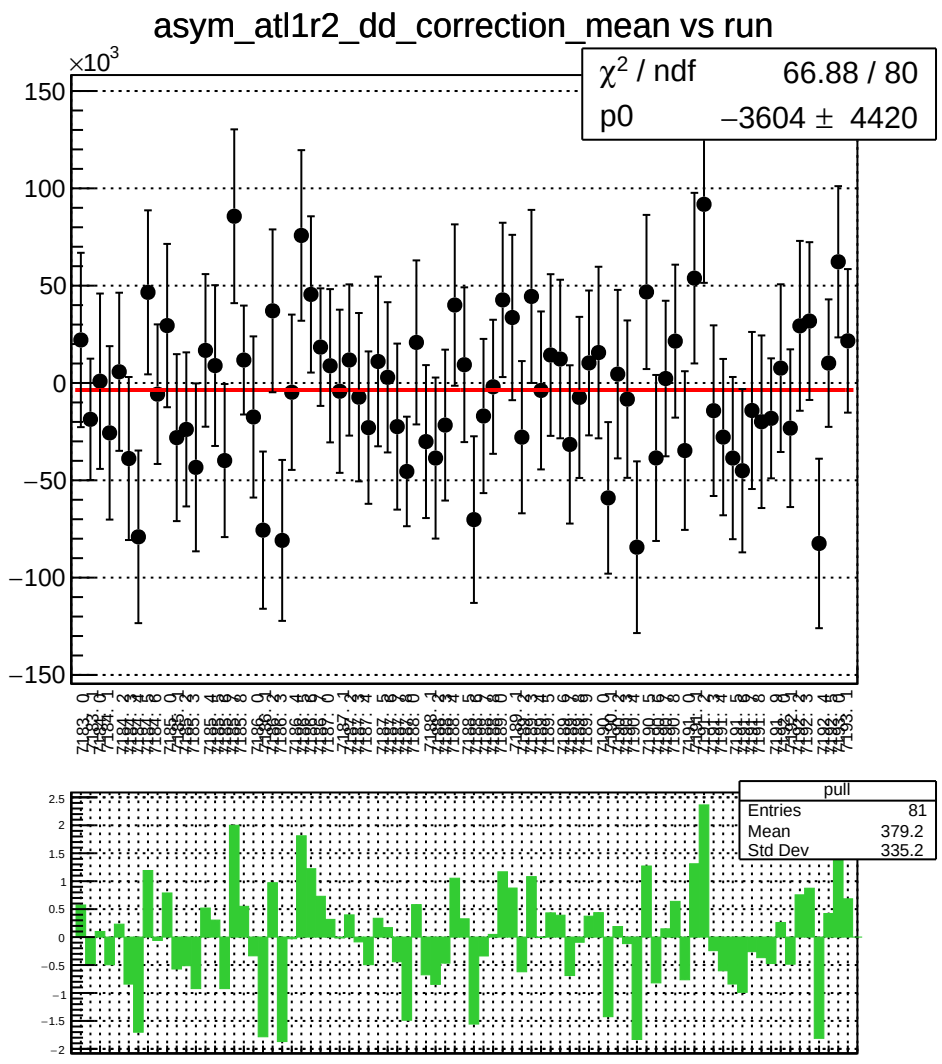

pull1D
Entries 81
Mean 0.002885
Std Dev 0.9525
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

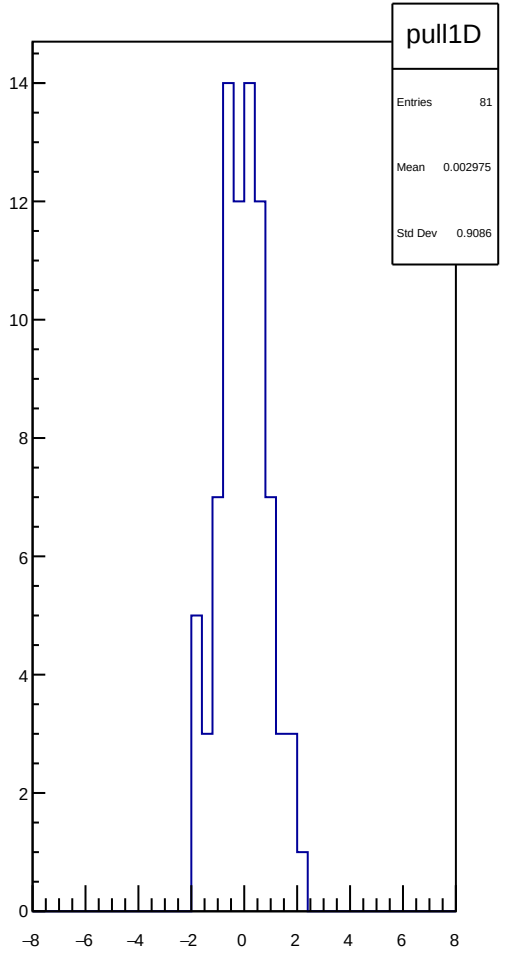

asym_atl1r2_avg_rms vs run
χ^2 / ndf 2394 / 80
p0 4786 ± 3.819
5200
5100
5000
4900
4800
4700
4600
4500
4400

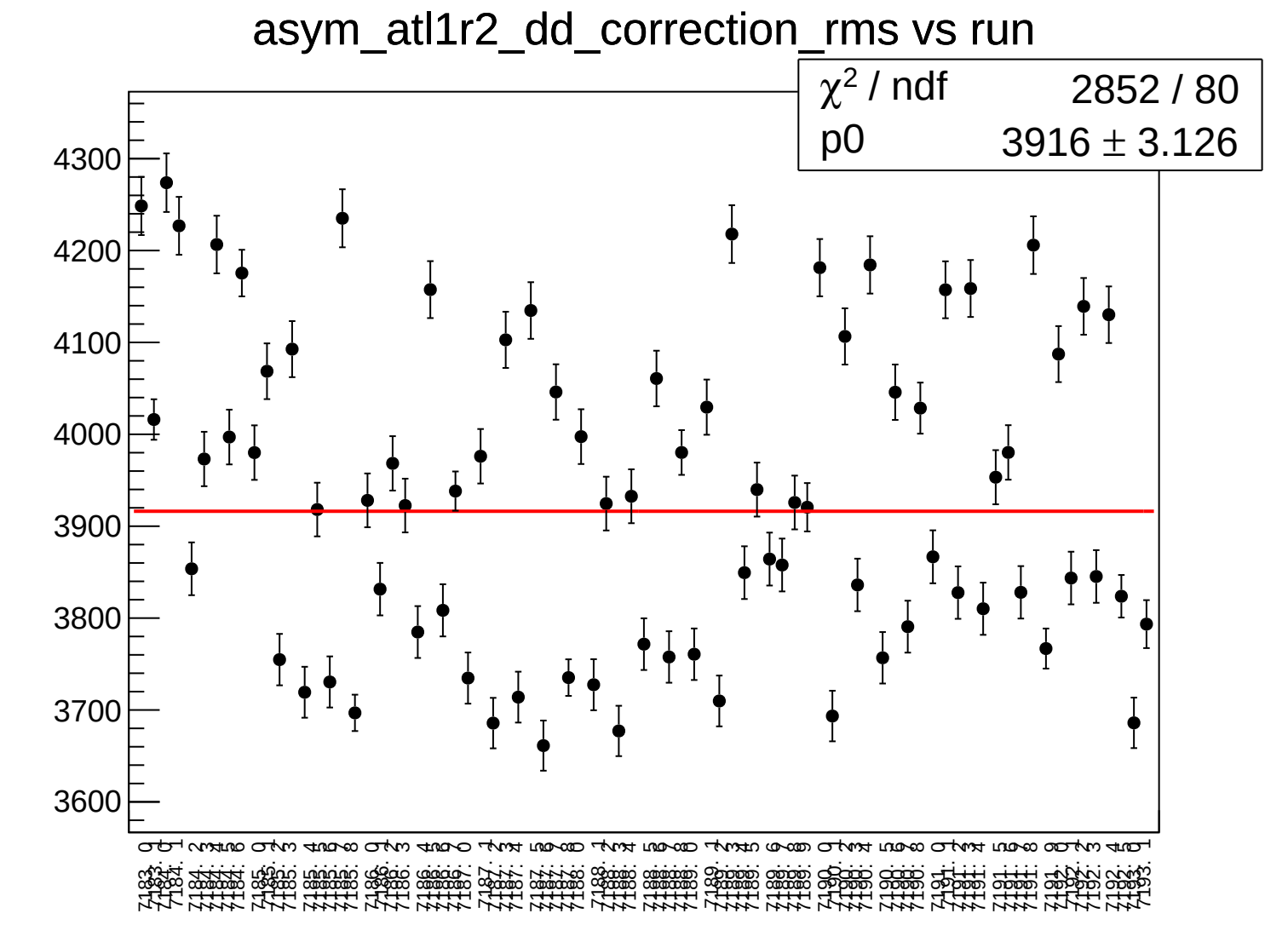

reg_asym_atl1r2_dd_mean vs run
χ² / ndf 73.68 / 80
p0 −2435 ± 1946
pull
Entries 81
Mean −42.09
Std Dev 61.13

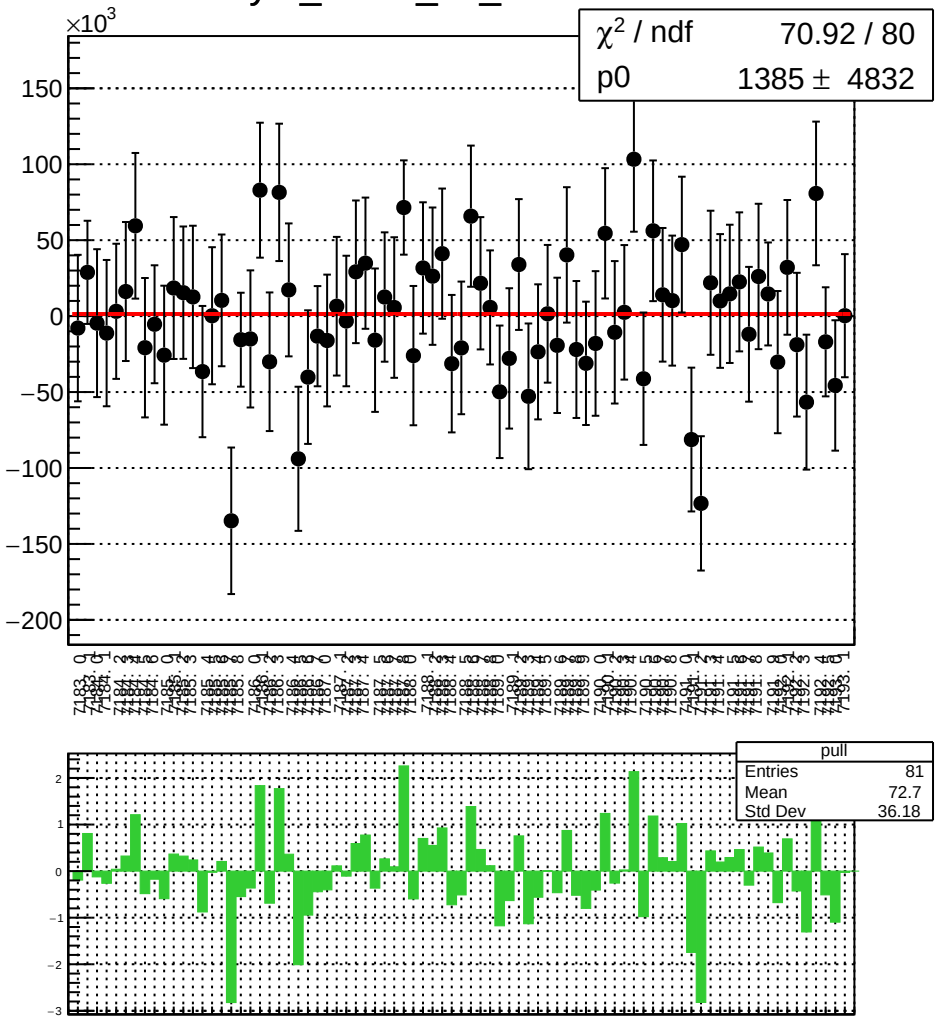

pull1D
Entries 81
Mean −0.01656
Std Dev 0.9536

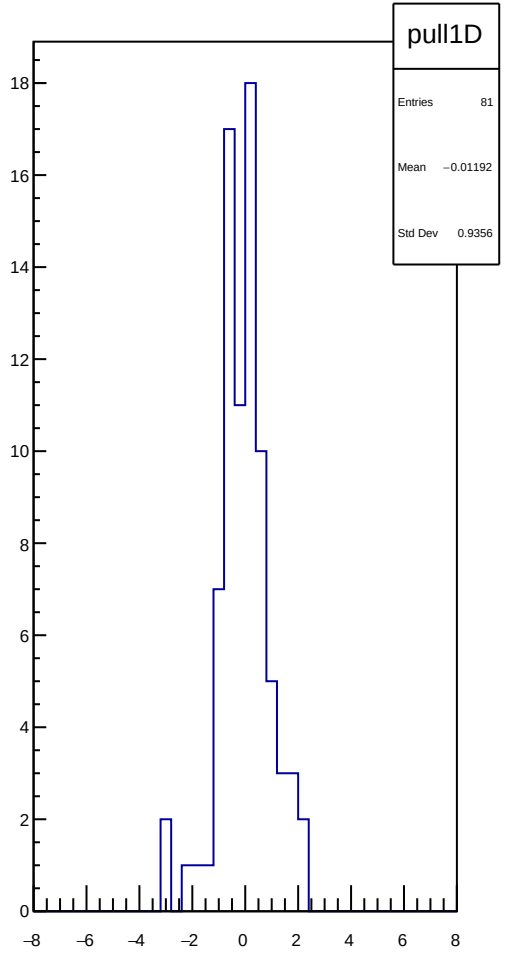

reg_asym_atl1r2_dd_rms vs run
χ² / ndf 98.27 / 80
p0 1726 ± 1.376
1780
1760
1740
1720
1700
1680

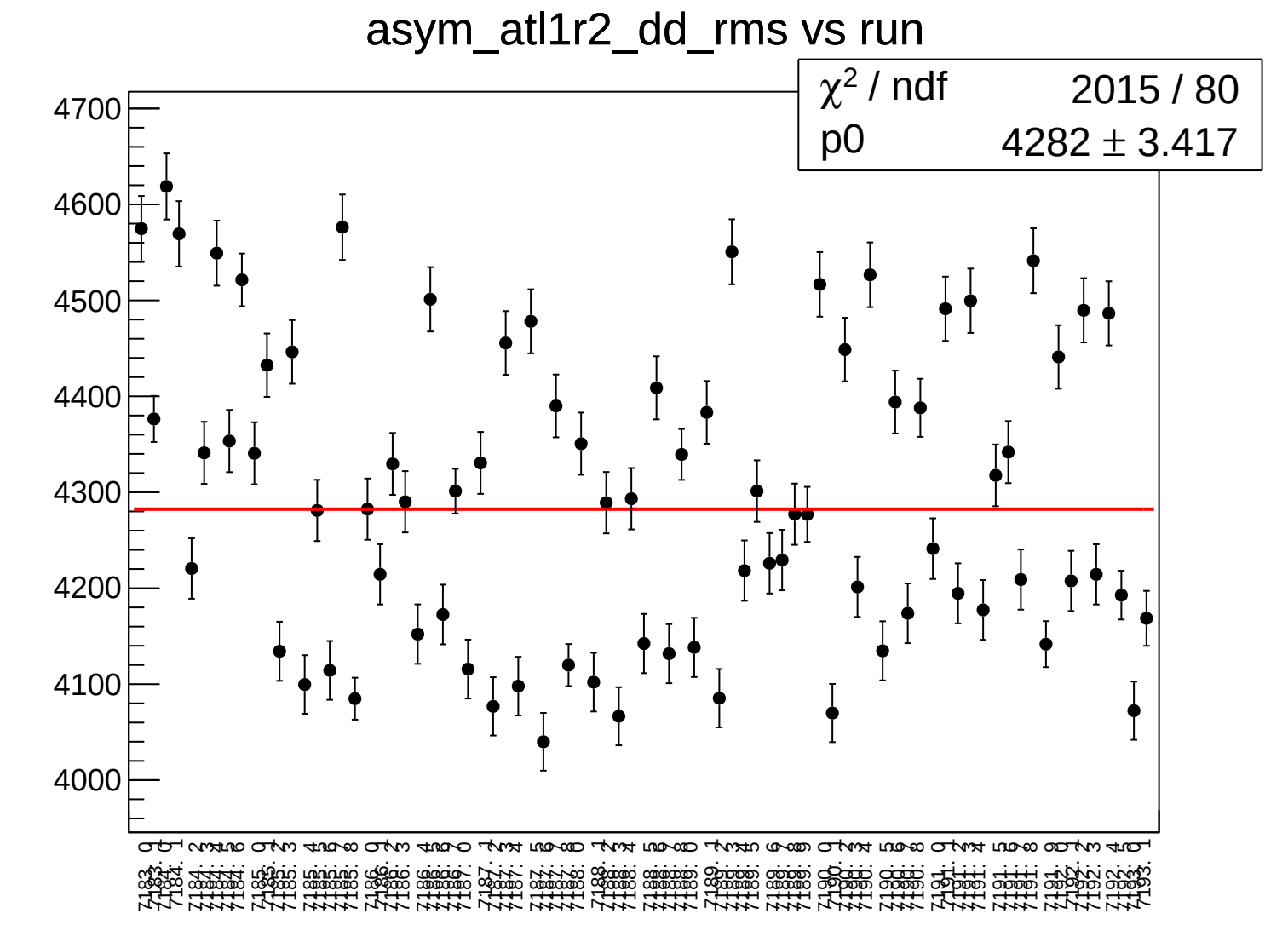

asym_atl1r2_dd_correction_mean vs run
×10^3
χ² / ndf 66.88 / 80
p0 −3604 ± 4420
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 379.2
Std Dev 335.2
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

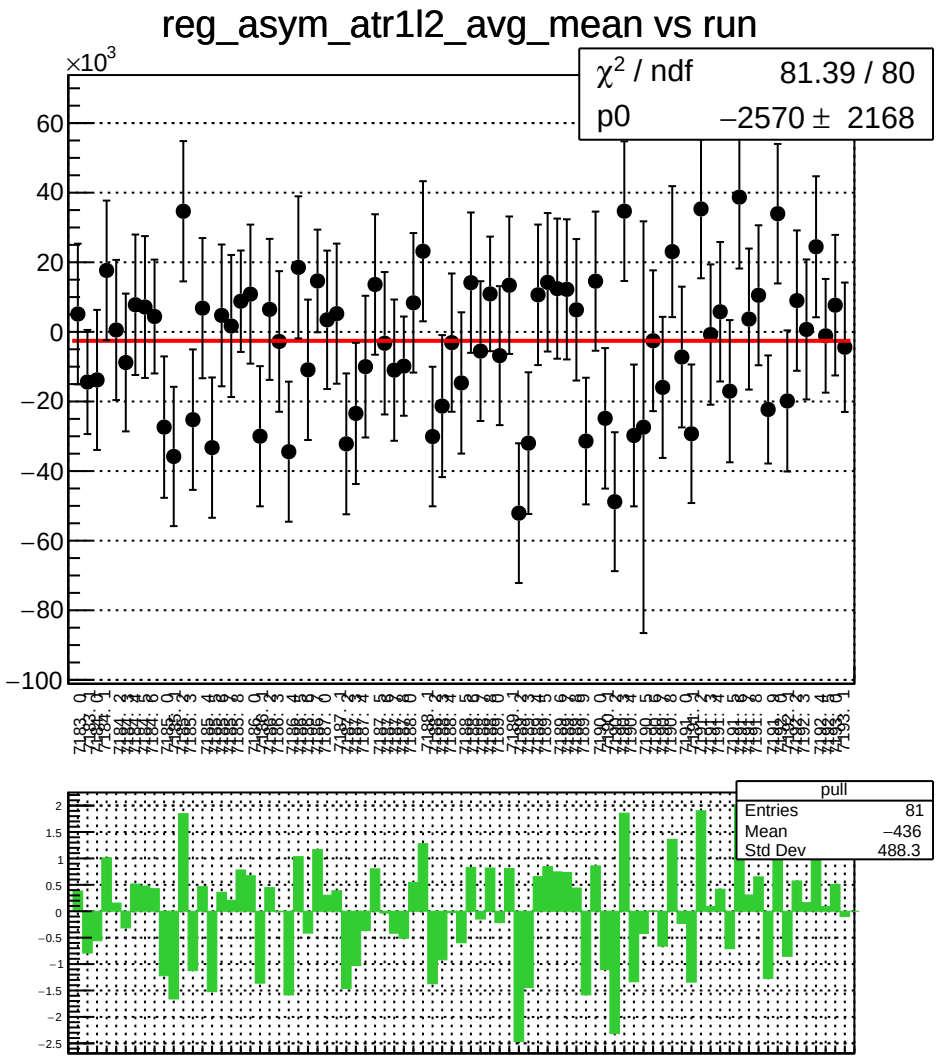

pull1D
Entries 81
Mean 0.002975
Std Dev 0.9086
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

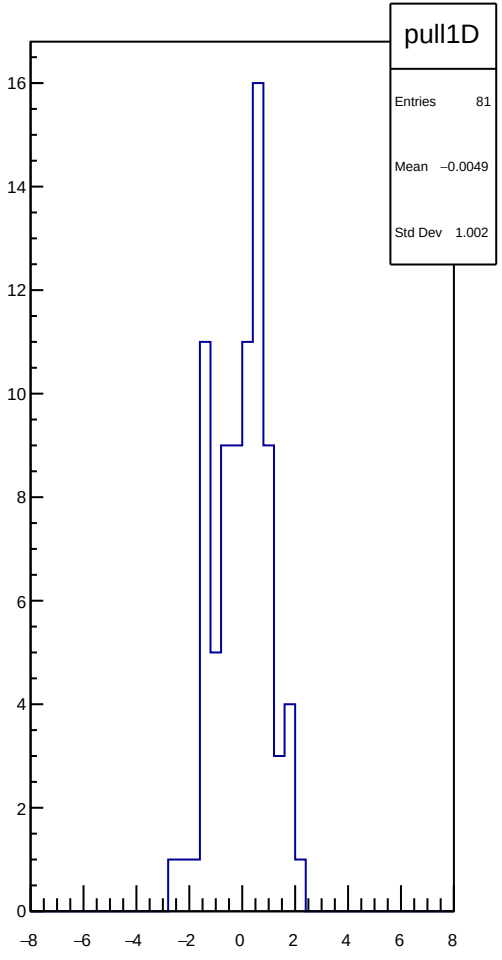

asym_atl1r2_dd_correction_rms vs run
χ² / ndf 2852 / 80
p0 3916 ± 3.126
4300
4200
4100
4000
3900
3800
3700
3600

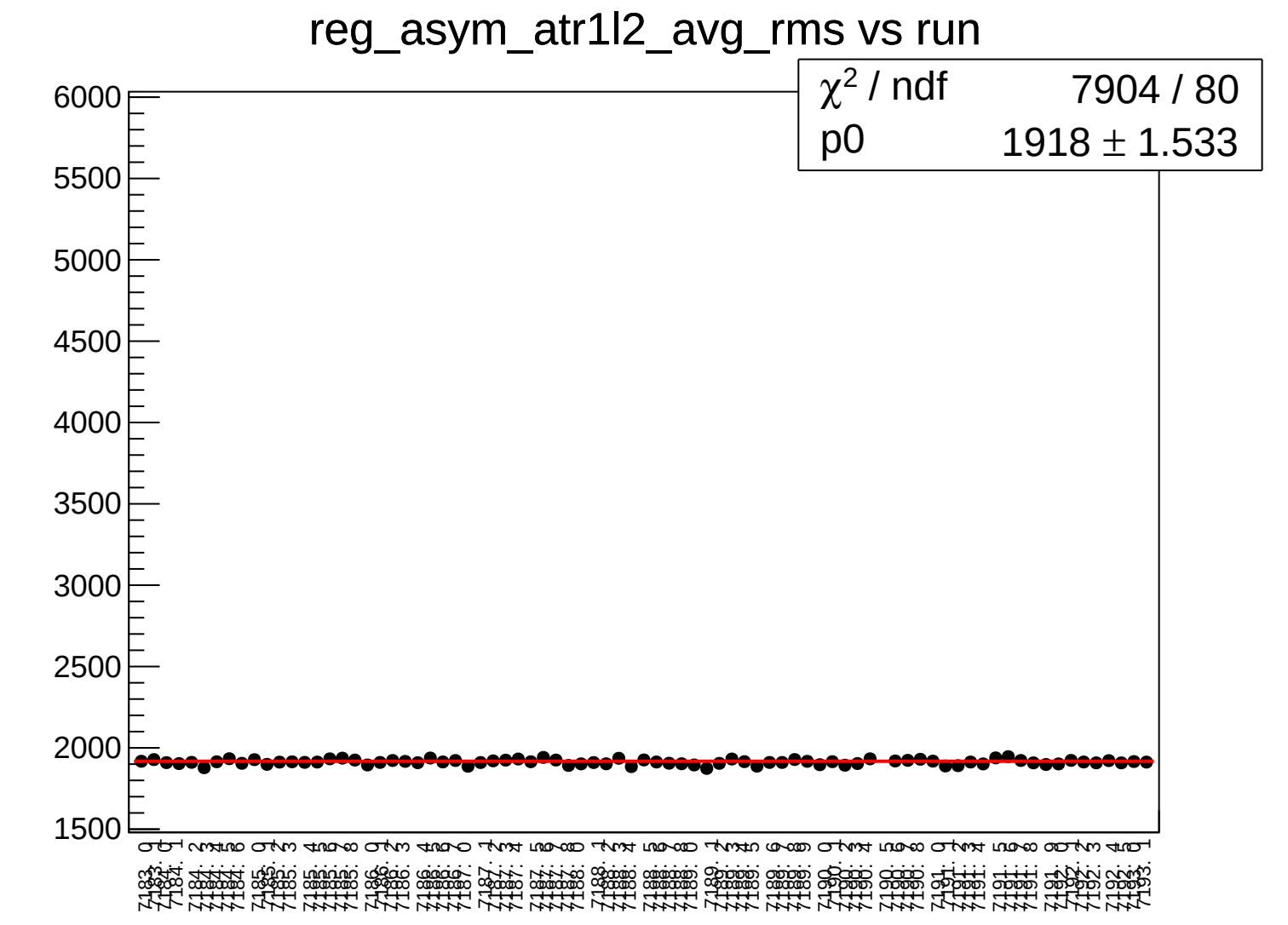

asym_atl1r2_dd_mean vs run
×10^3
χ^2 / ndf 70.92 / 80
p0 1385 ± 4832
150
100
50
0
−50
−100
−150
−200
pull
Entries 81
Mean 72.7
Std Dev 36.18
2
1
0
−1
−2
−3

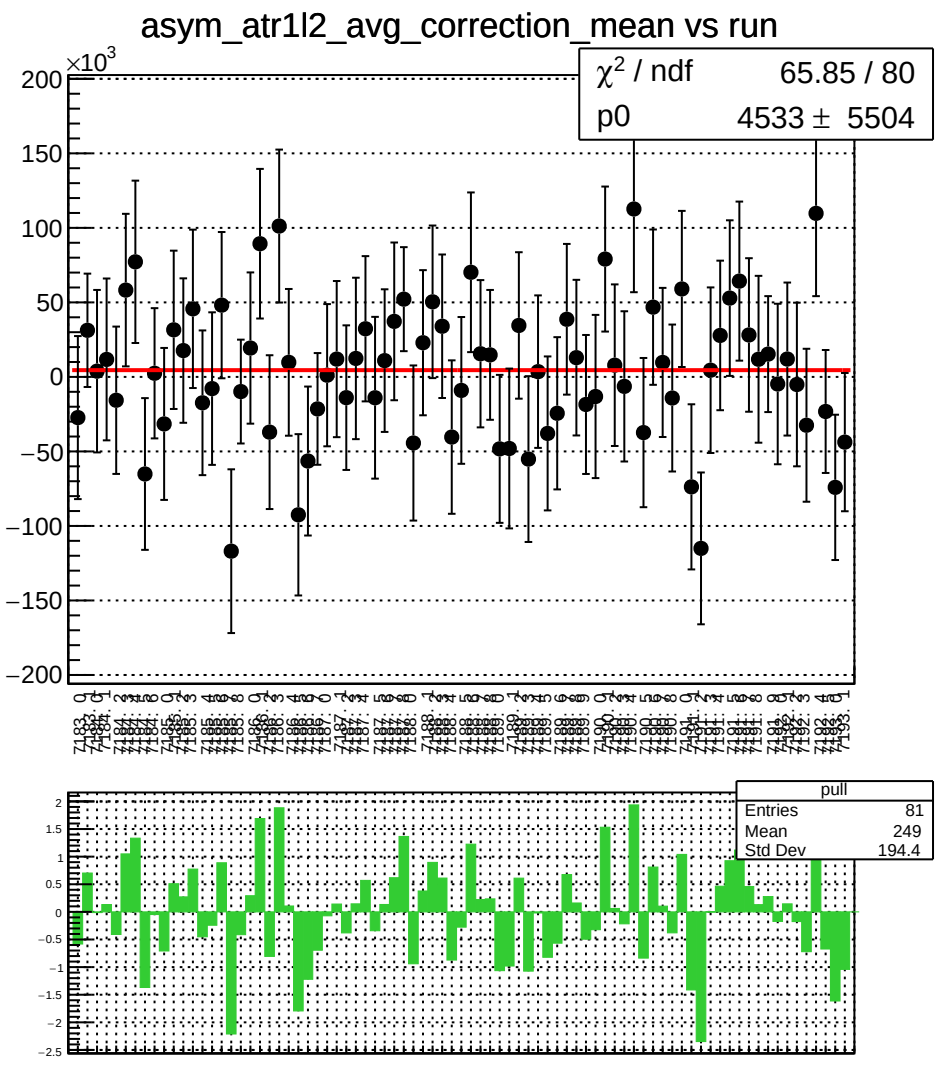

pull1D
Entries 81
Mean −0.01192
Std Dev 0.9356
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

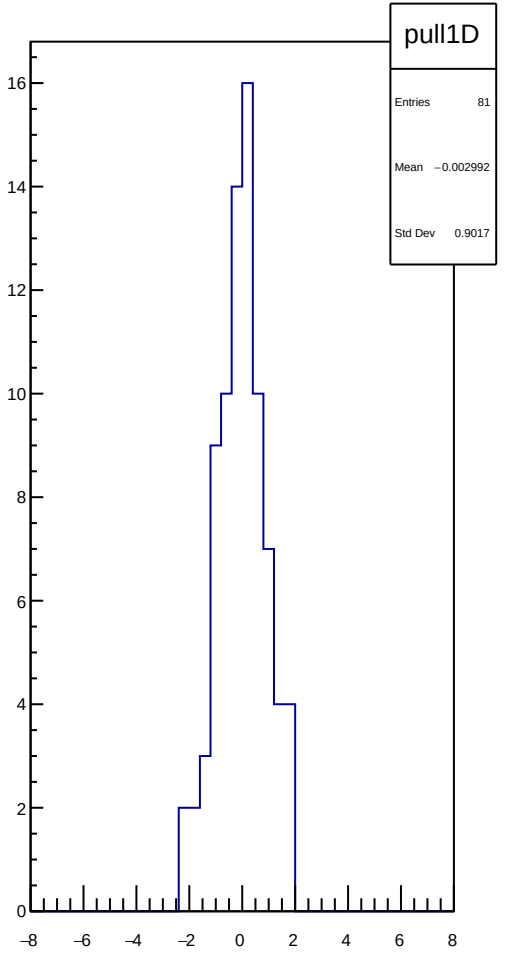

asym_atl1r2_dd_rms vs run
χ² / ndf 2015 / 80
p0 4282 ± 3.417
4700
4600
4500
4400
4300
4200
4100
4000

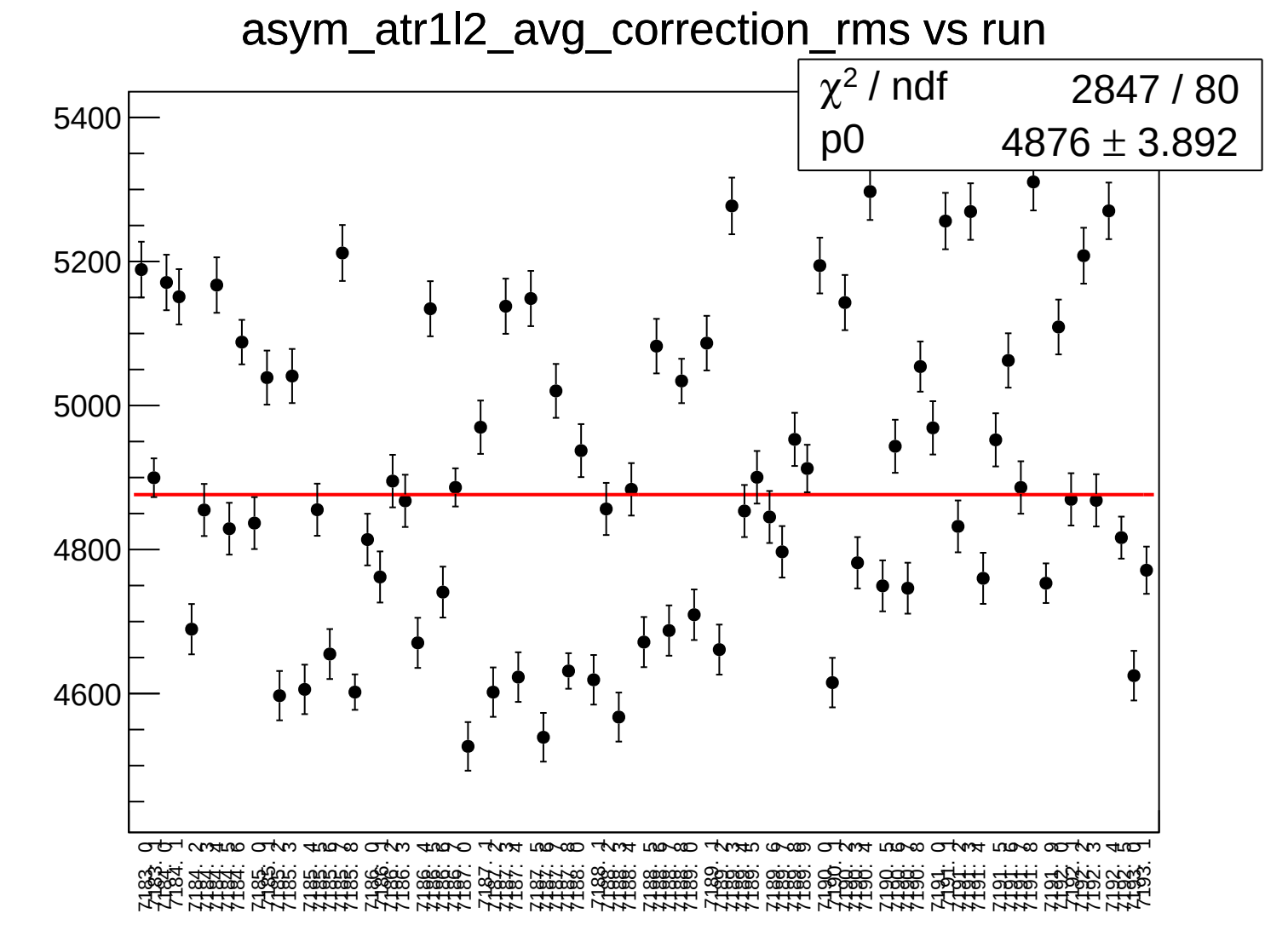

reg_asym_atr1l2_avg_mean vs run
×10^3
χ^2 / ndf 81.39 / 80
p0 −2570 ± 2168
pull
Entries 81
Mean −436
Std Dev 488.3

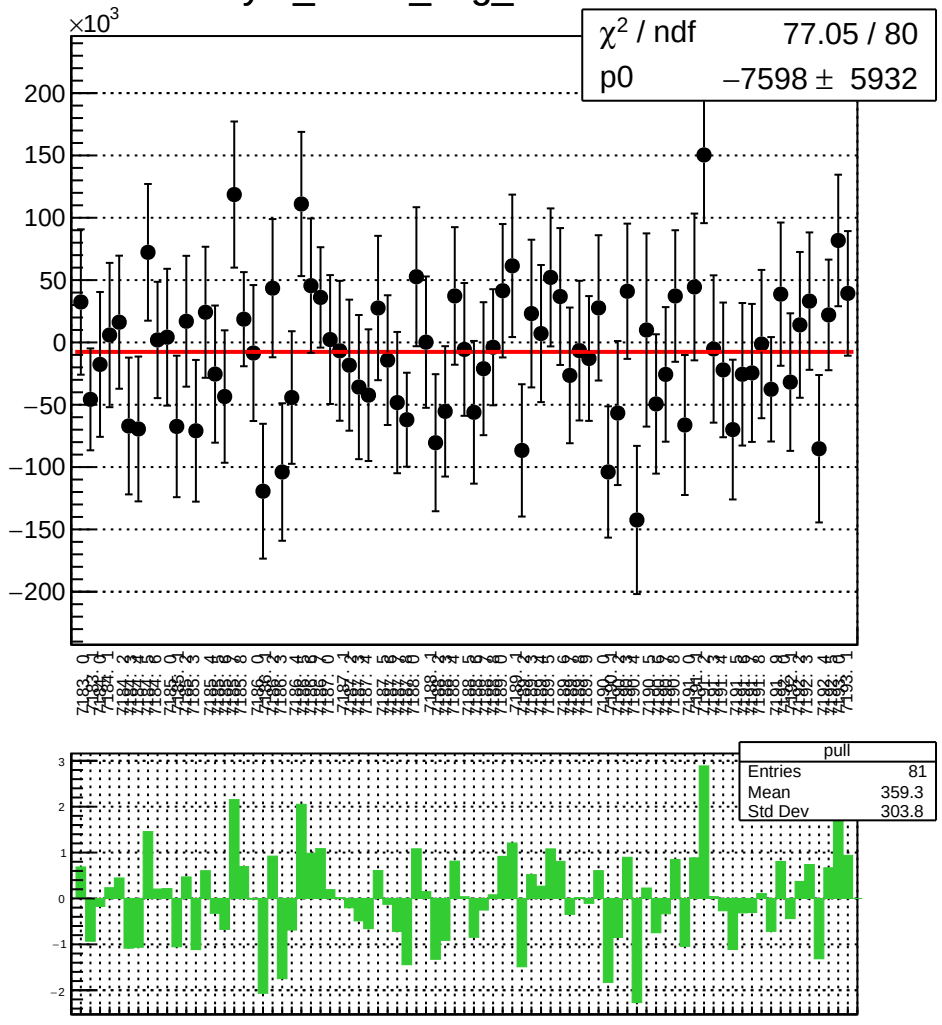

pull1D
Entries 81
Mean −0.0049
Std Dev 1.002

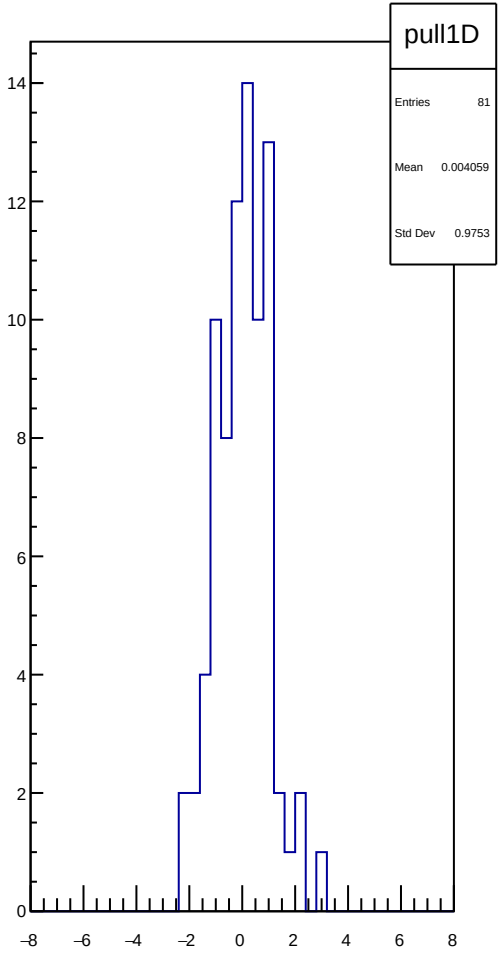

reg_asym_atr1l2_avg_rms vs run
χ^2 / ndf 7904 / 80
p0 1918 ± 1.533
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500

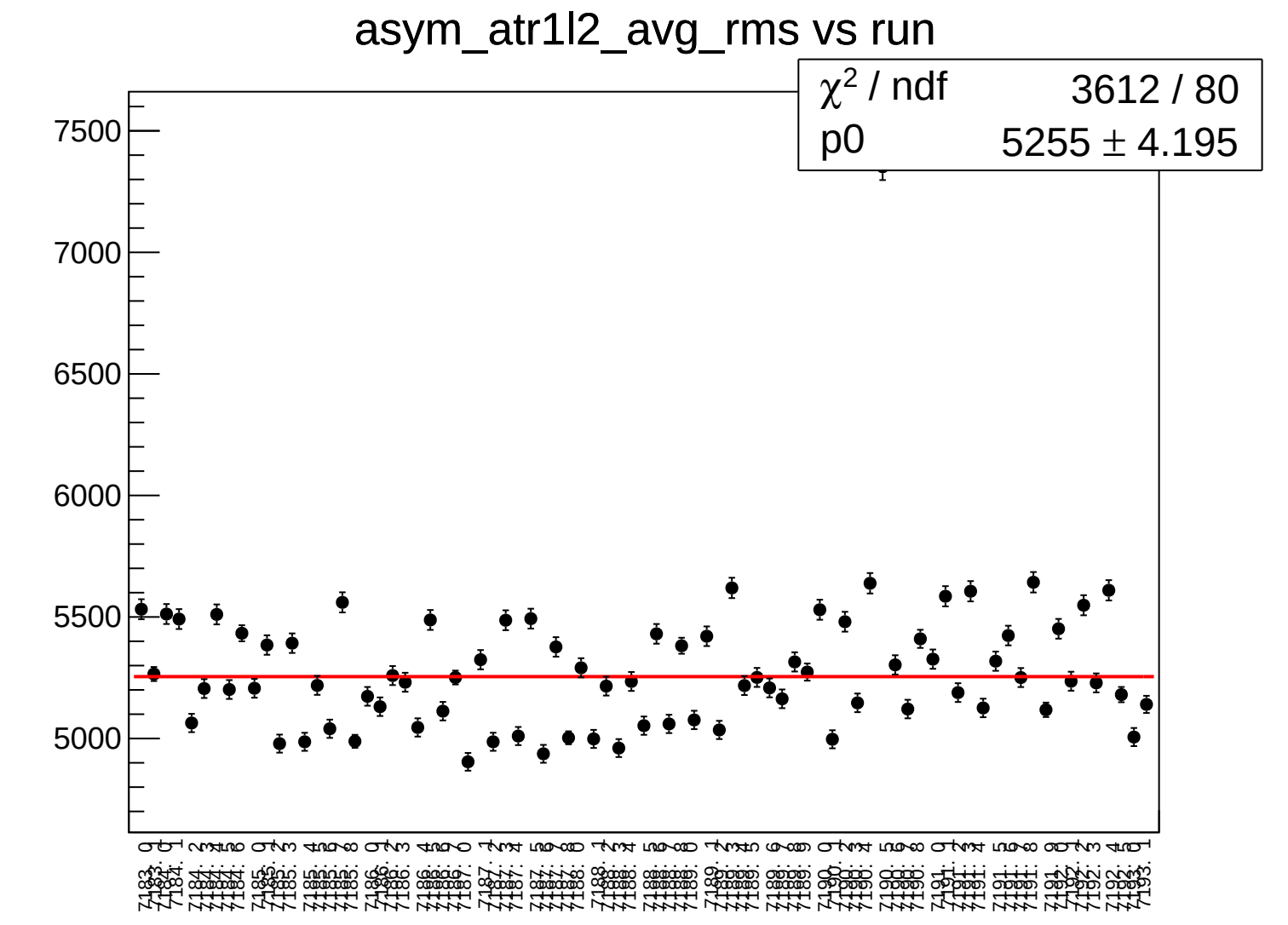

asym_atr1l2_avg_correction_mean vs run
×10^3
χ² / ndf 65.85 / 80
p0 4533 ± 5504
pull
Entries 81
Mean 249
Std Dev 194.4

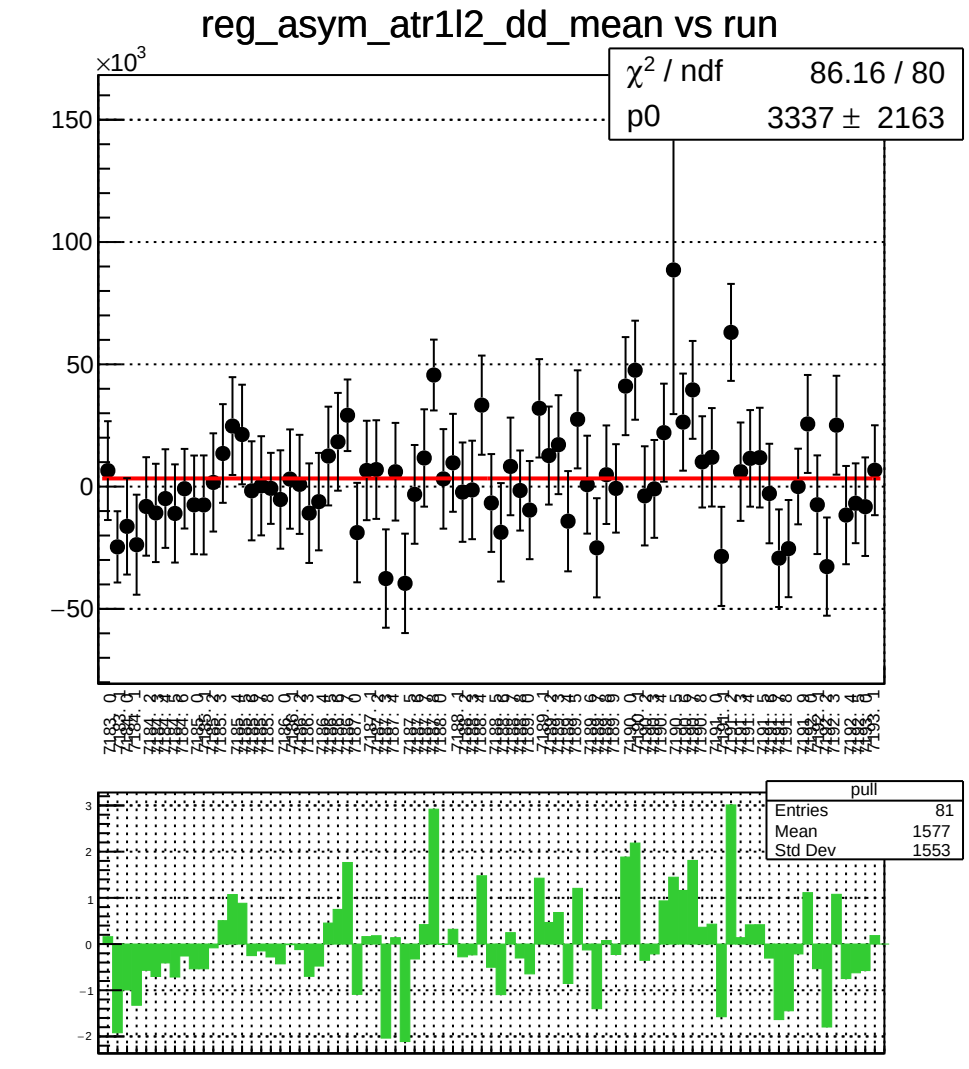

pull1D
Entries 81
Mean −0.002992
Std Dev 0.9017

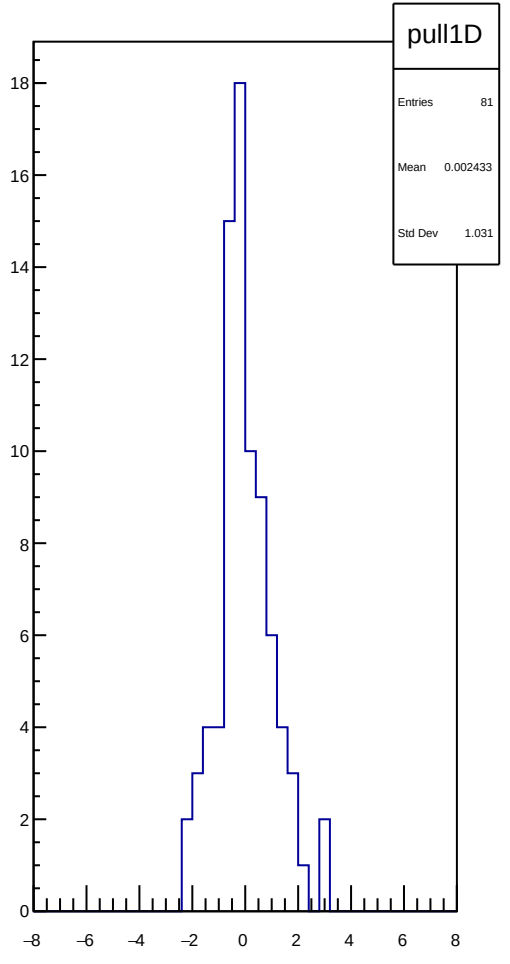

asym_atr1l2_avg_correction_rms vs run
χ² / ndf 2847 / 80
p0 4876 ± 3.892
5400
5200
5000
4800
4600

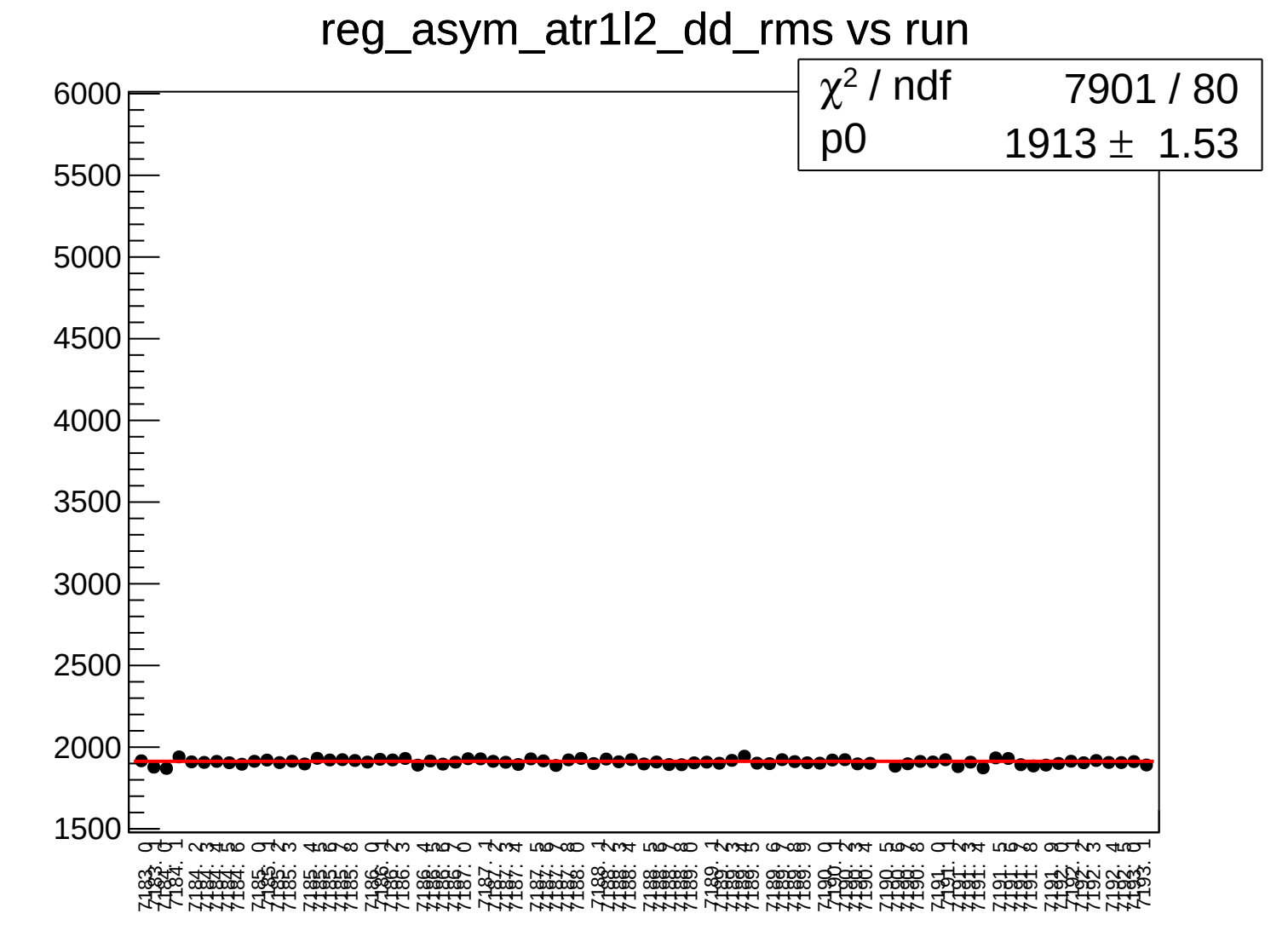

asym_atr1l2_avg_mean vs run
×10^3
χ² / ndf 77.05 / 80
p0 −7598 ± 5932
200
150
100
50
0
−50
−100
−150
−200
pull
Entries 81
Mean 359.3
Std Dev 303.8
3
2
1
0
−1
−2

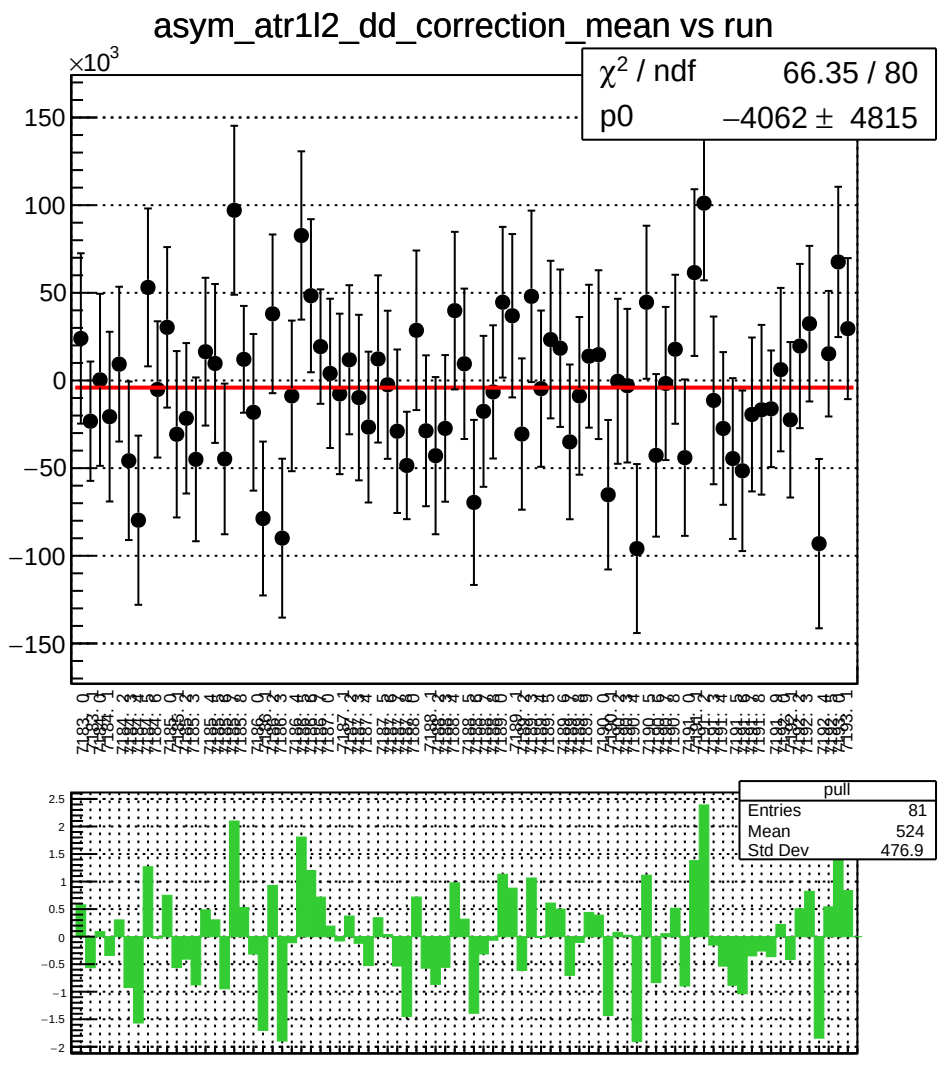

pull1D
Entries 81
Mean 0.004059
Std Dev 0.9753
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

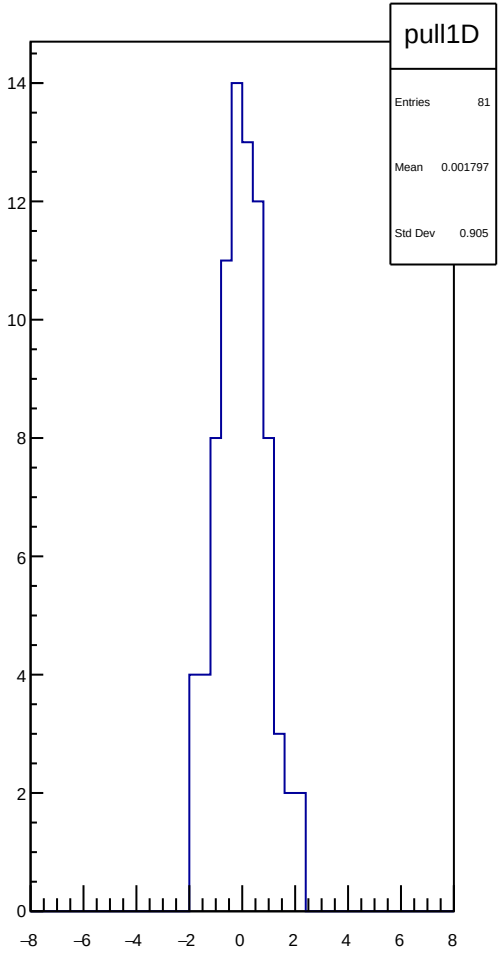

asym_atr1l2_avg_rms vs run
χ^2 / ndf 3612 / 80
p0 5255 ± 4.195
7500
7000
6500
6000
5500
5000

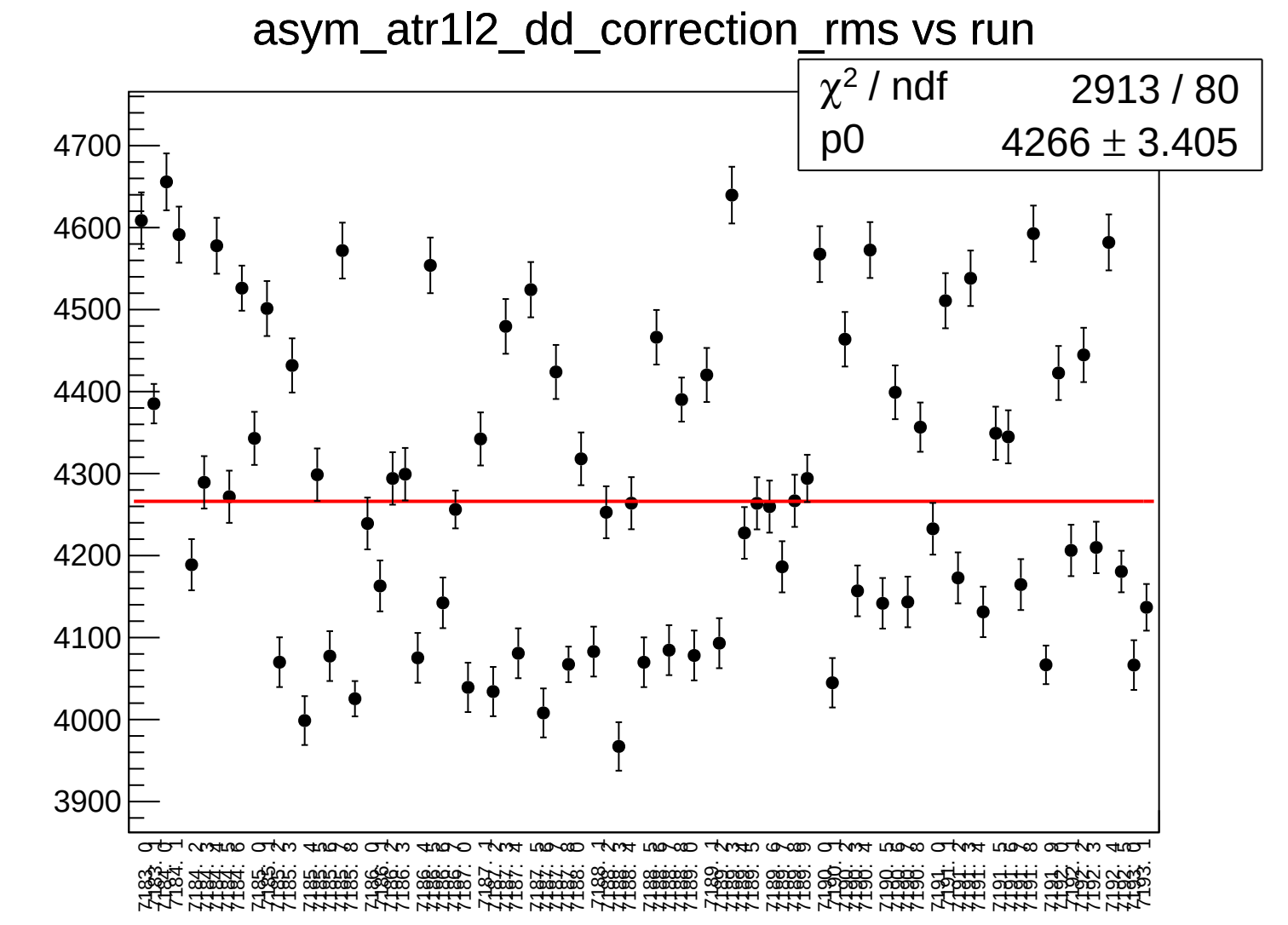

reg_asym_atr1l2_dd_mean vs run
×10^3
χ² / ndf 86.16 / 80
p0 3337 ± 2163
150
100
50
0
−50
pull
Entries 81
Mean 1577
Std Dev 1553
3
2
1
0
−1
−2

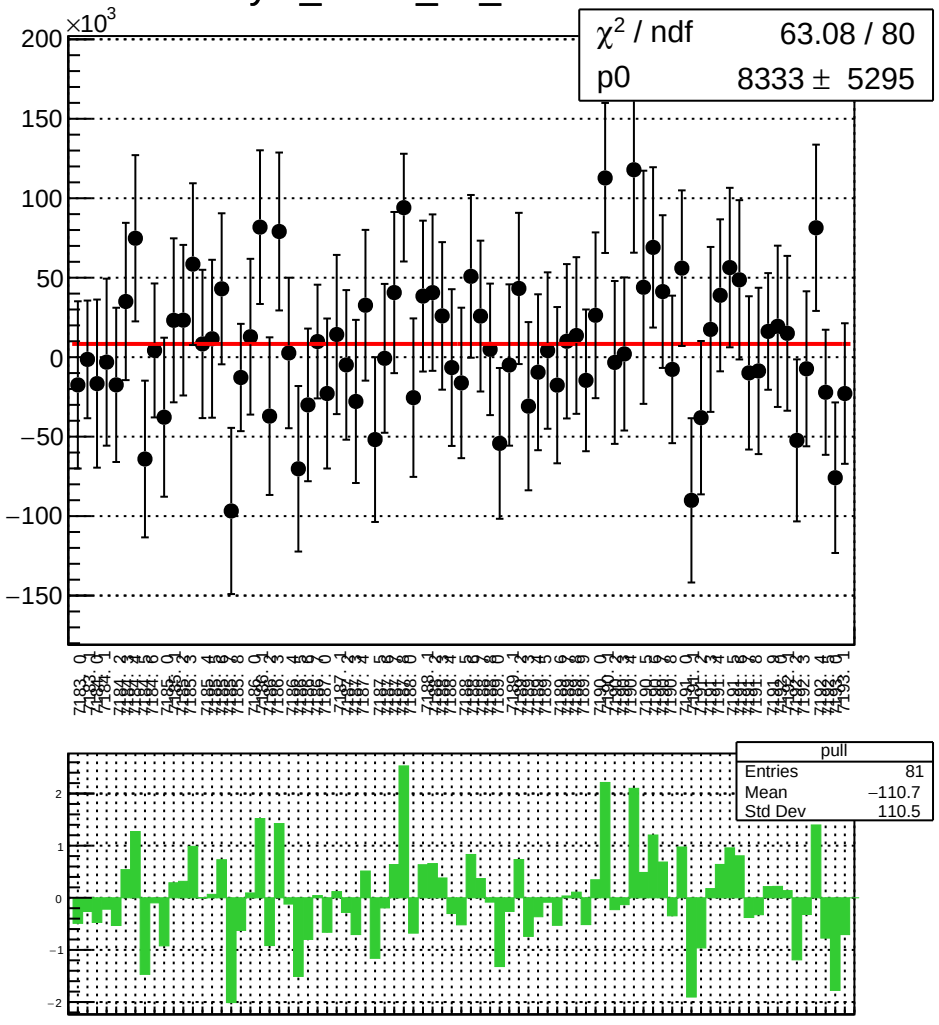

pull1D
Entries 81
Mean 0.002433
Std Dev 1.031
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

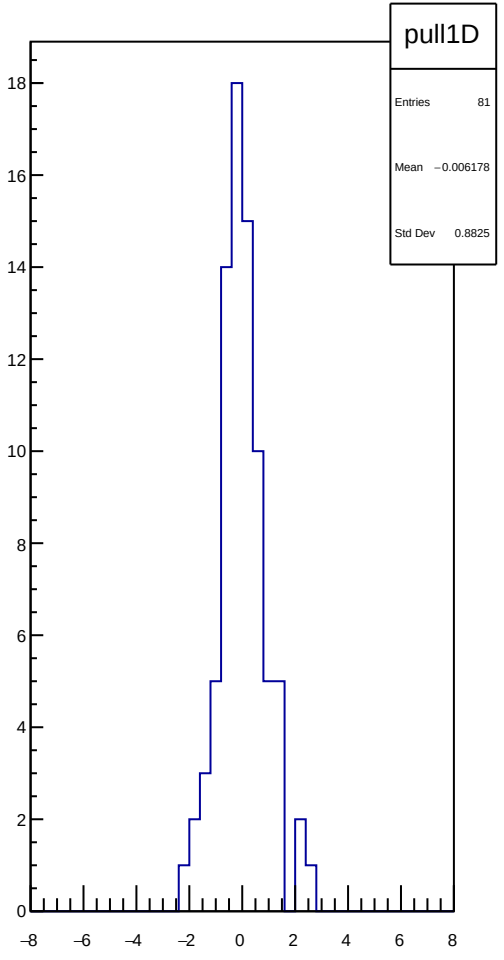

reg_asym_atr1l2_dd_rms vs run
χ² / ndf 7901 / 80
p0 1913 ± 1.53
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500

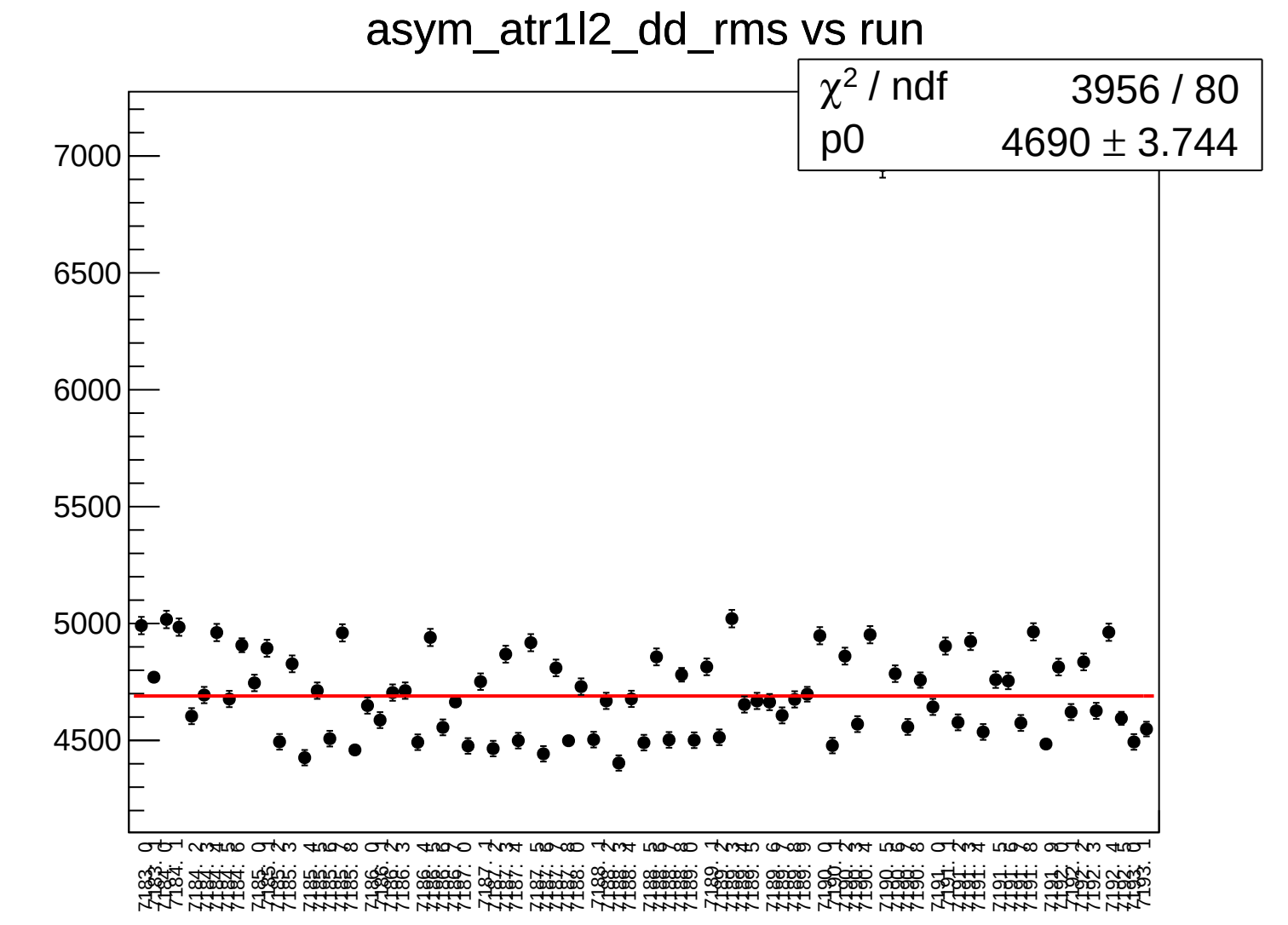

asym_atr1l2_dd_correction_mean vs run
×10^3
χ² / ndf 66.35 / 80
p0 −4062 ± 4815
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 524
Std Dev 476.9
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

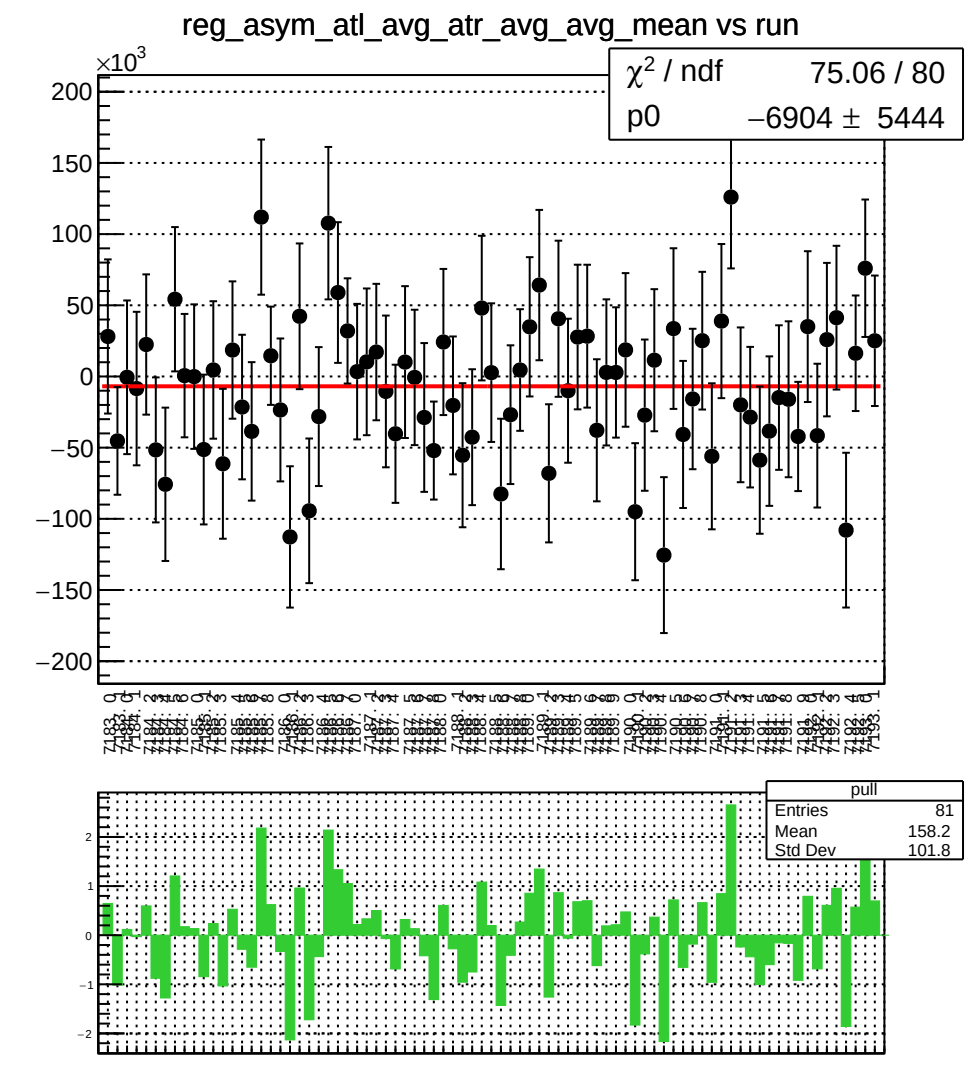

pull1D
Entries 81
Mean 0.001797
Std Dev 0.905
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

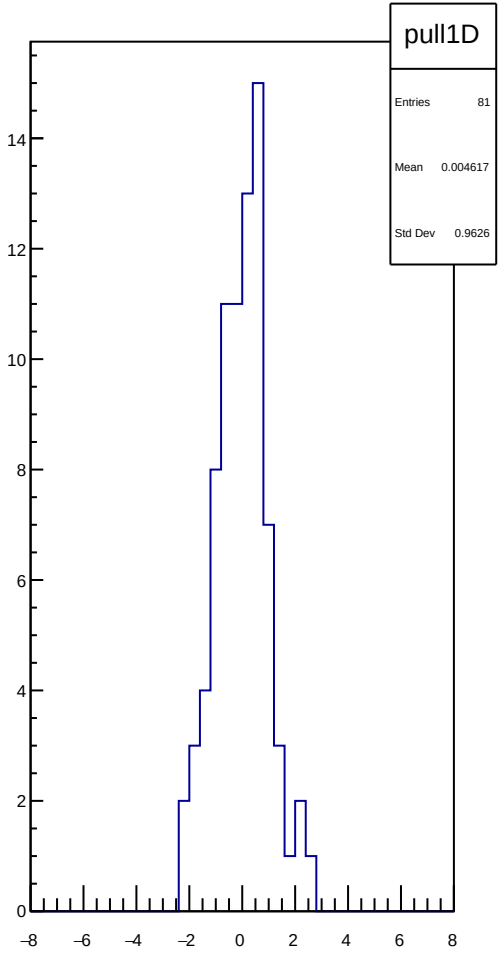

asym_atr1l2_dd_correction_rms vs run
χ² / ndf 2913 / 80
p0 4266 ± 3.405
4700
4600
4500
4400
4300
4200
4100
4000
3900

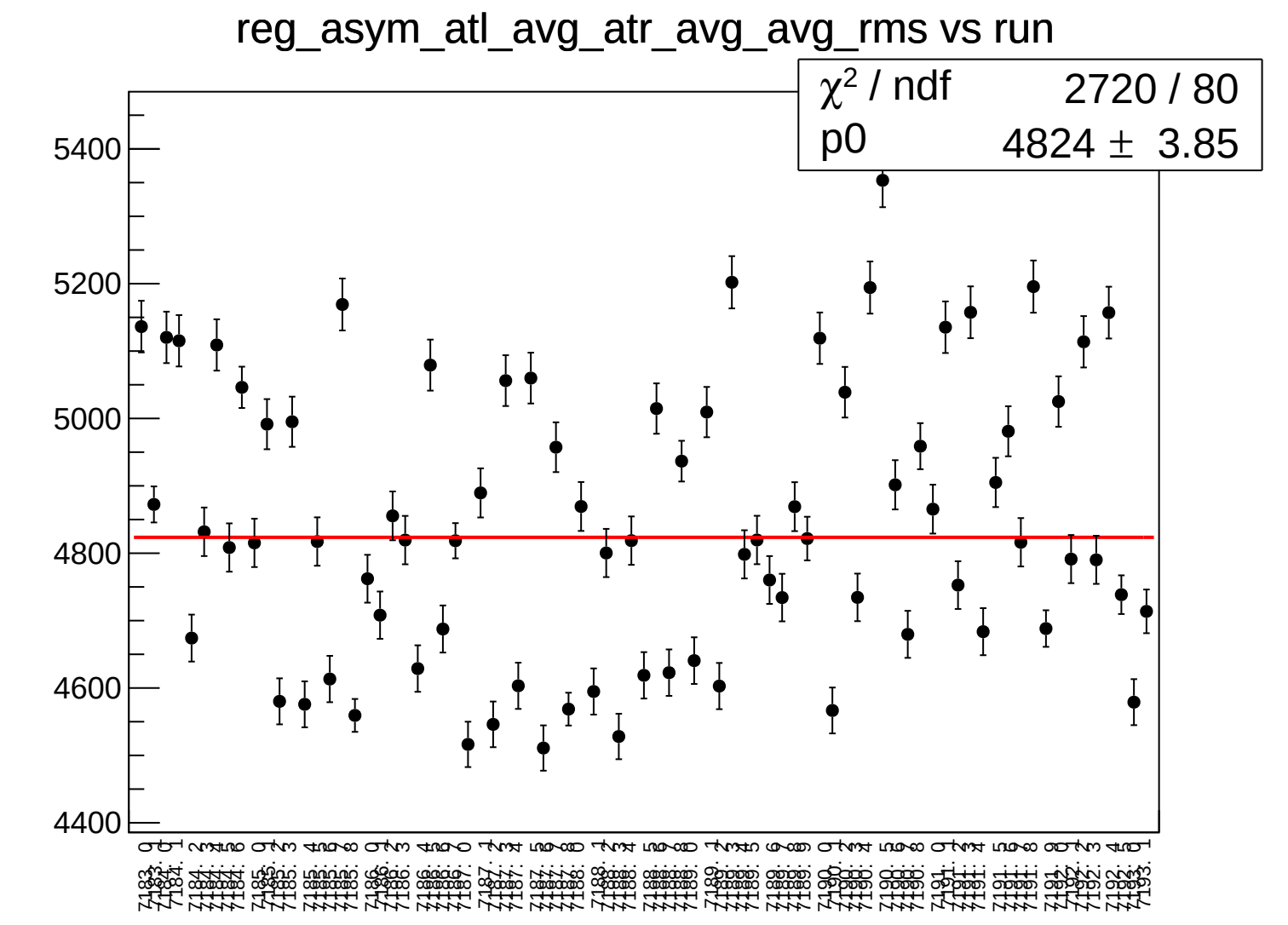

asym_atr1l2_dd_mean vs run
×10^3
χ² / ndf 63.08 / 80
p0 8333 ± 5295
pull
Entries 81
Mean −110.7
Std Dev 110.5

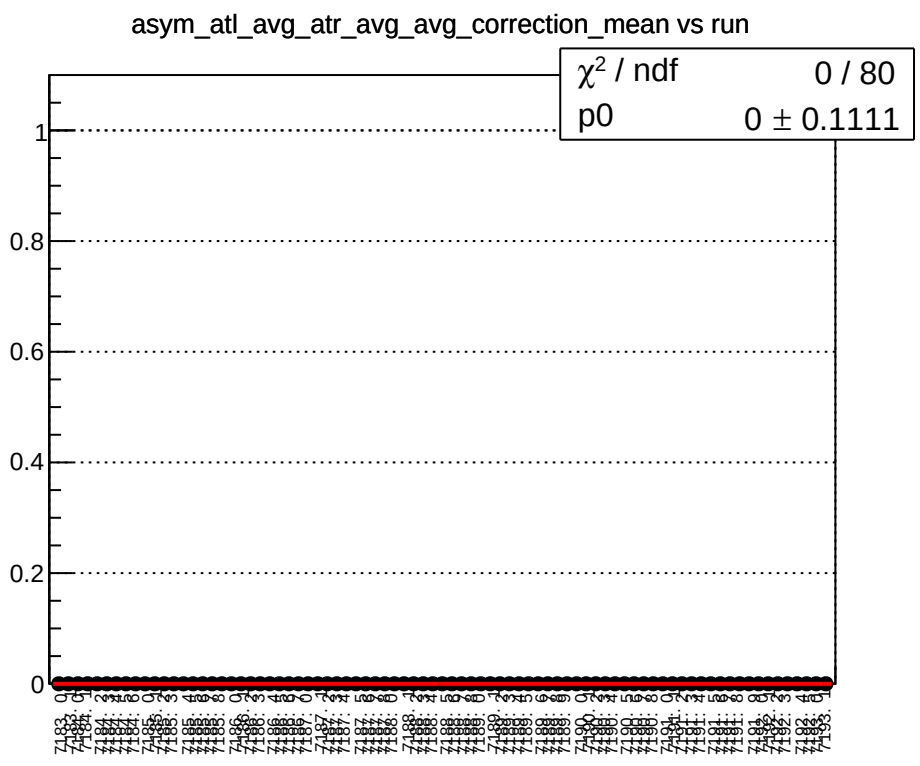

pull1D
Entries 81
Mean −0.006178
Std Dev 0.8825

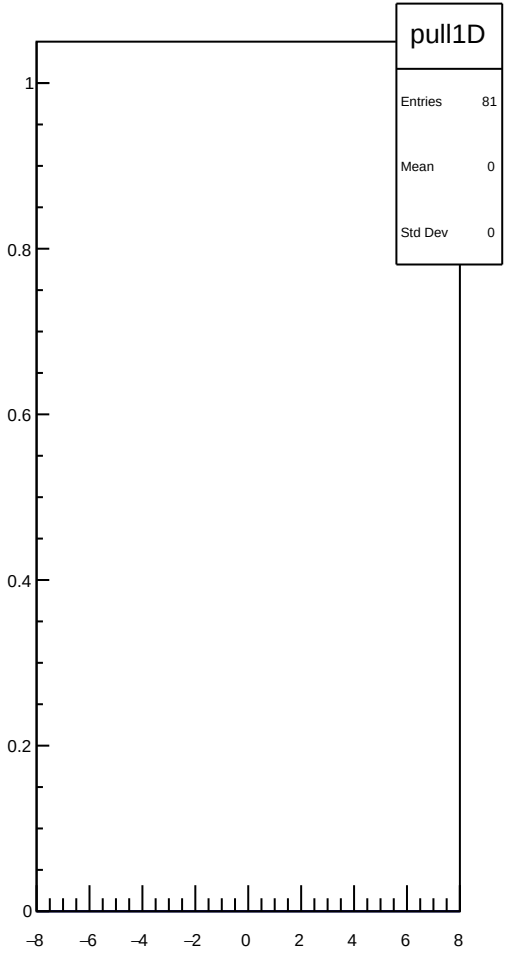

asym_atr1l2_dd_rms vs run
χ^2 / ndf 3956 / 80
p0 4690 ± 3.744
7000
6500
6000
5500
5000
4500

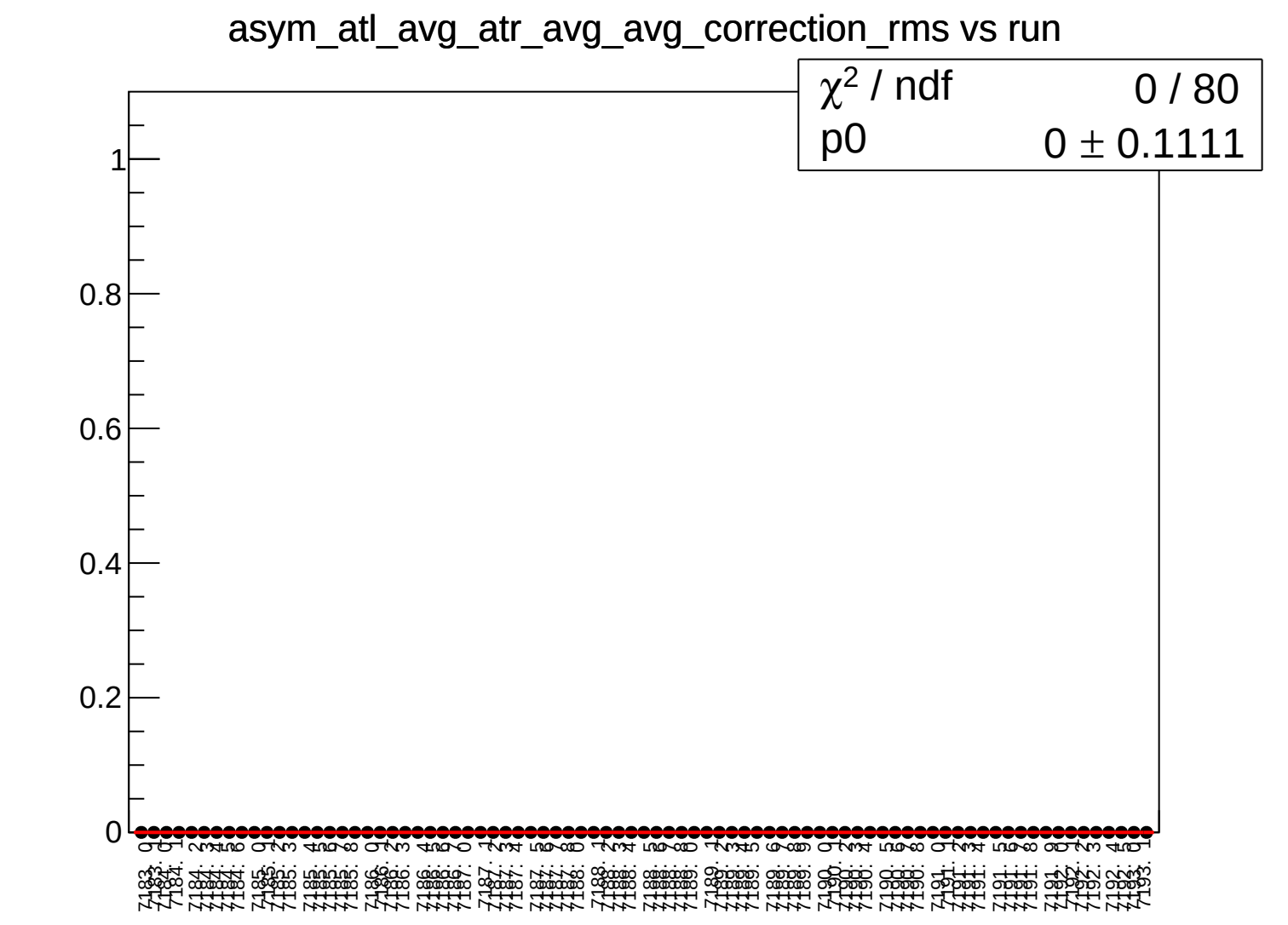

reg_asym_atl_avg_atr_avg_avg_mean vs run
×10^3
χ² / ndf 75.06 / 80
p0 −6904 ± 5444
pull
Entries 81
Mean 158.2
Std Dev 101.8

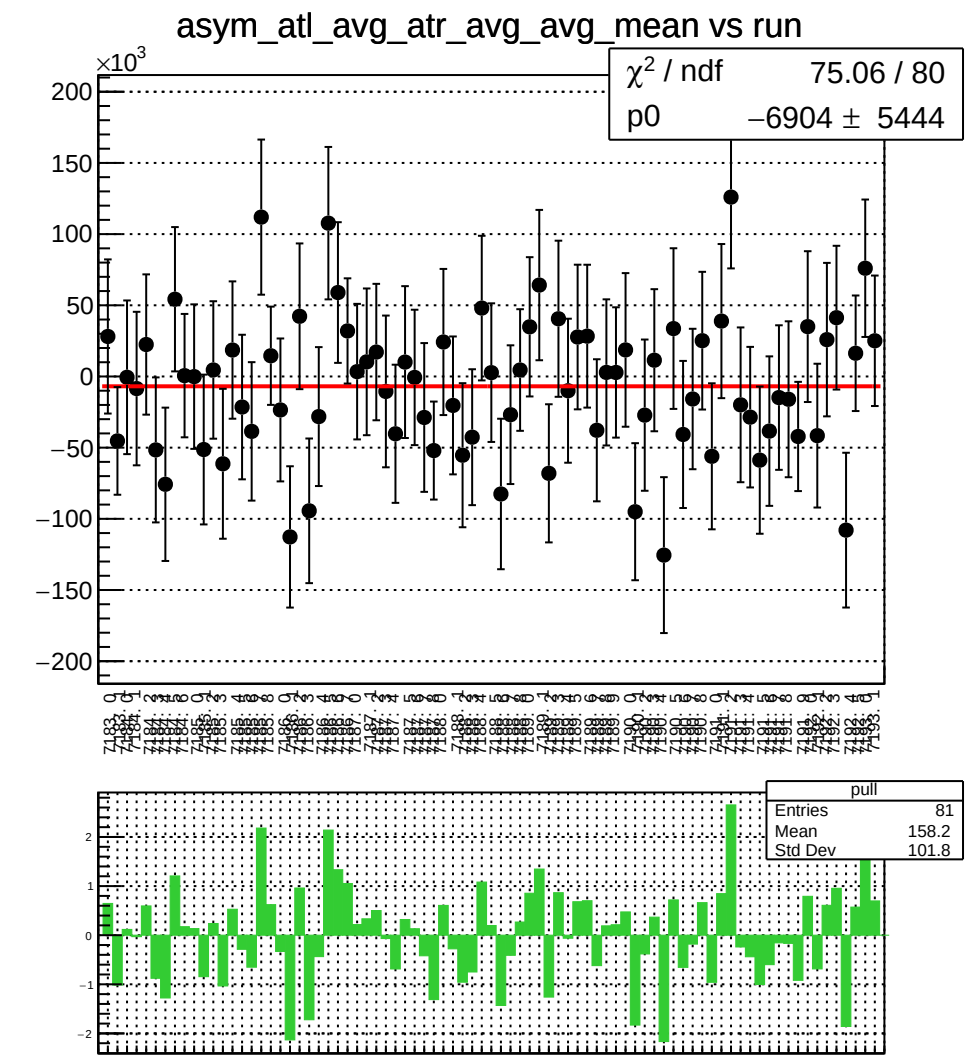

pull1D
Entries 81
Mean 0.004617
Std Dev 0.9626

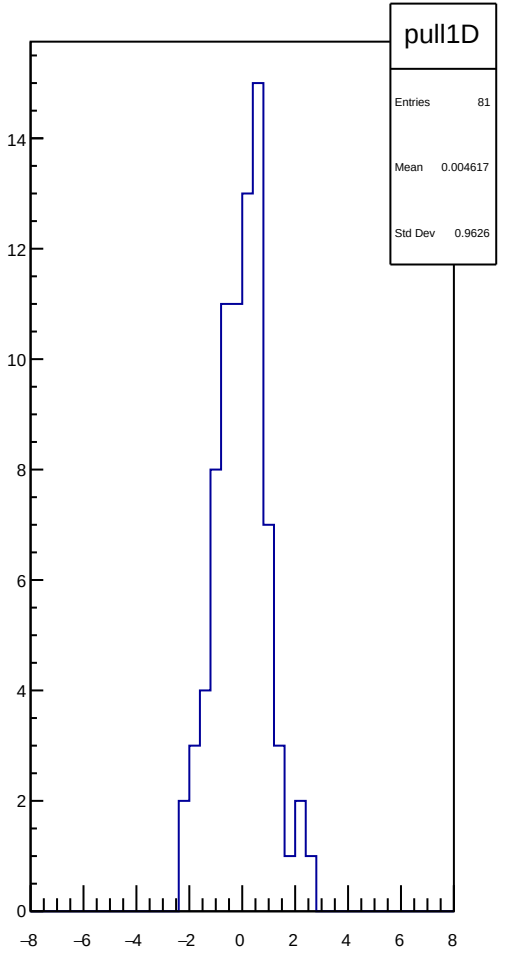

reg_asym_atl_avg_atr_avg_avg_rms vs run
χ² / ndf 2720 / 80
p0 4824 ± 3.85
5400
5200
5000
4800
4600
4400

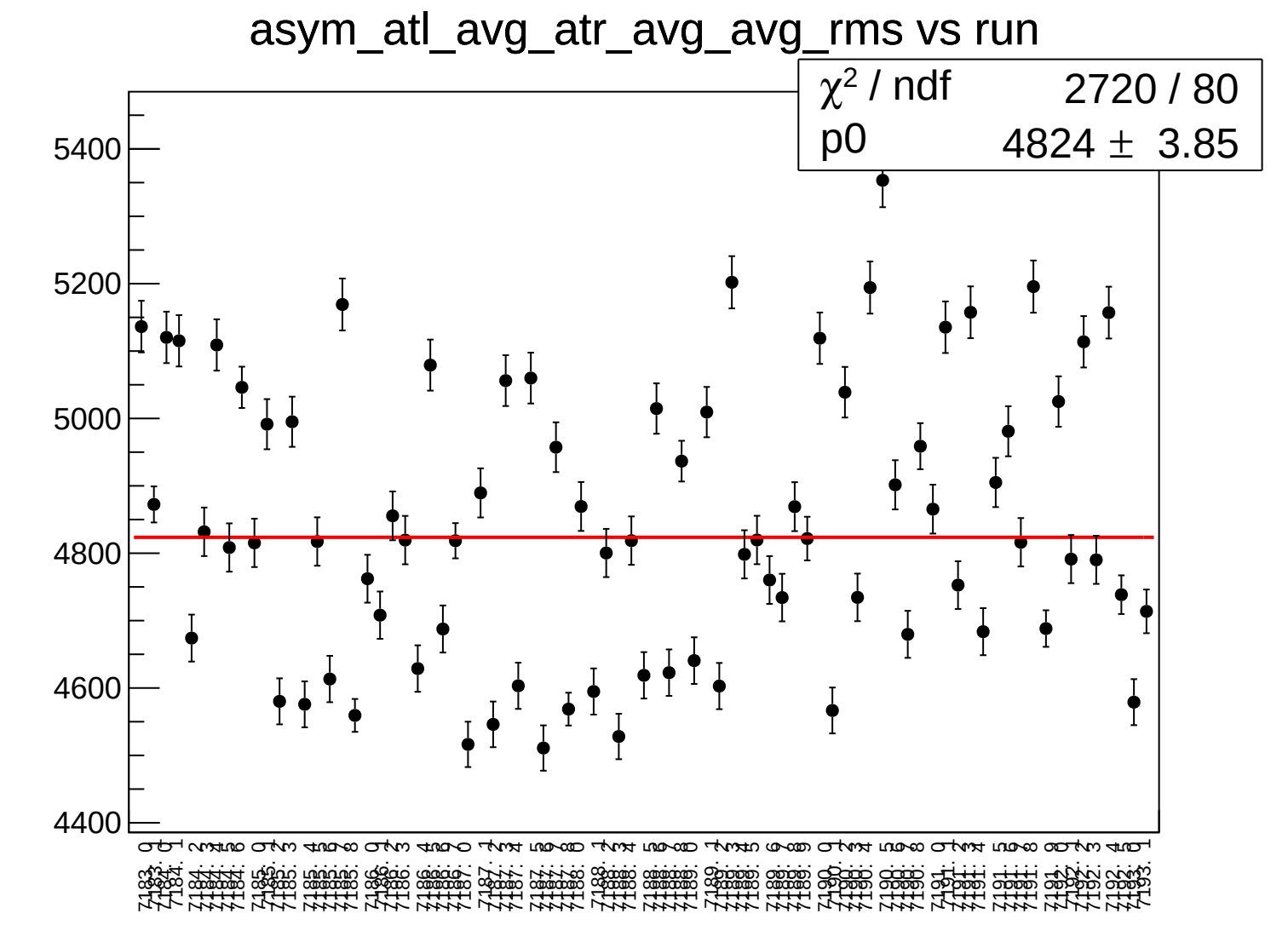

asym_atl_avg_atr_avg_avg_correction_mean vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

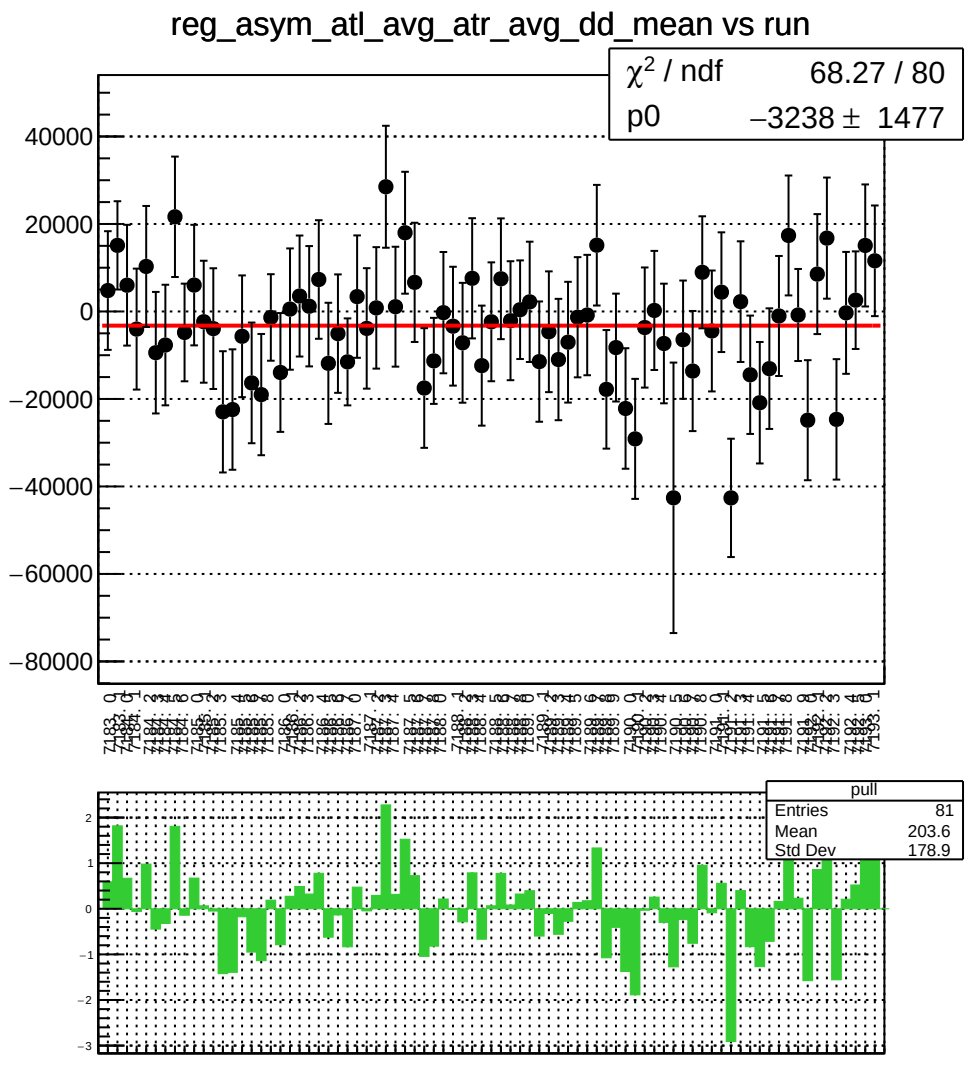

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

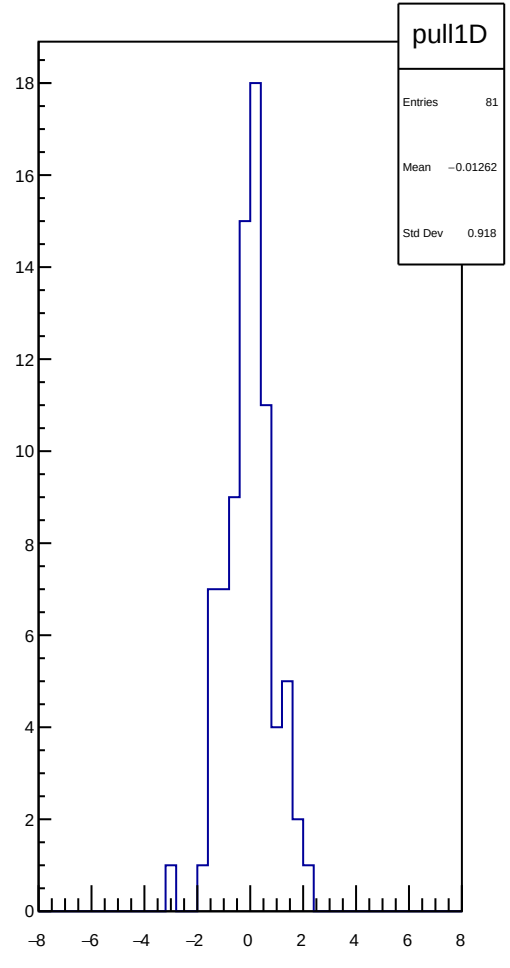

asym_atl_avg_atr_avg_avg_correction_rms vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

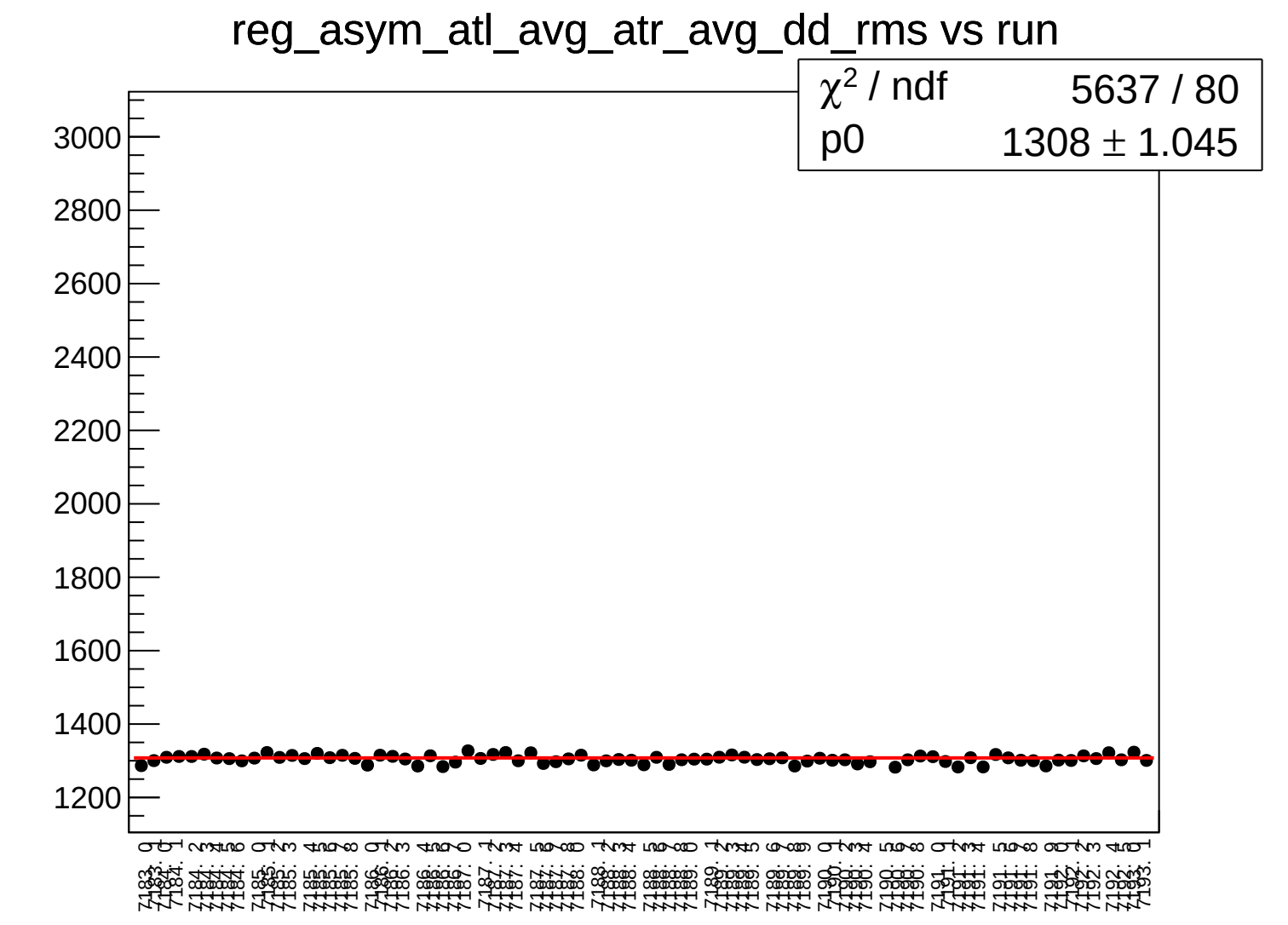

asym_atl_avg_atr_avg_avg_mean vs run
×10^3
χ² / ndf 75.06 / 80
p0 −6904 ± 5444
pull
Entries 81
Mean 158.2
Std Dev 101.8

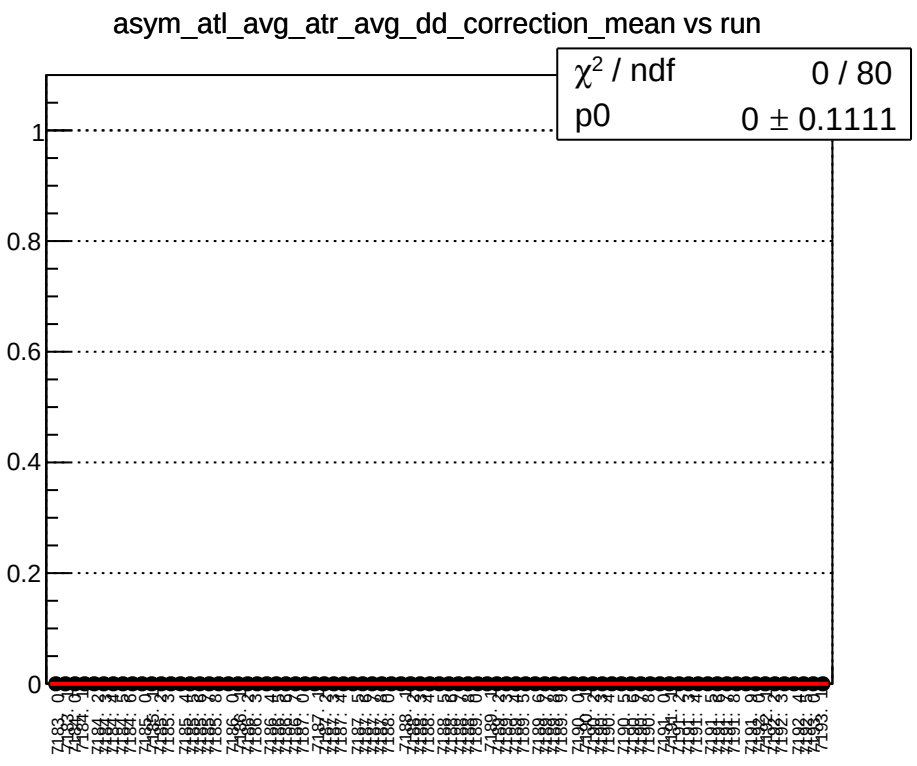

pull1D
Entries 81
Mean 0.004617
Std Dev 0.9626

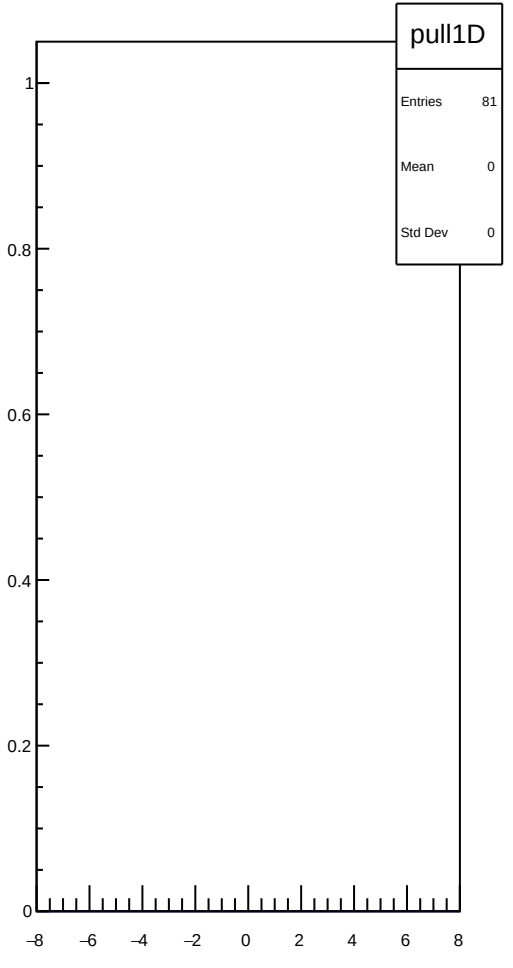

asym_atl_avg_atr_avg_avg_rms vs run
χ² / ndf 2720 / 80
p0 4824 ± 3.85
5400
5200
5000
4800
4600
4400

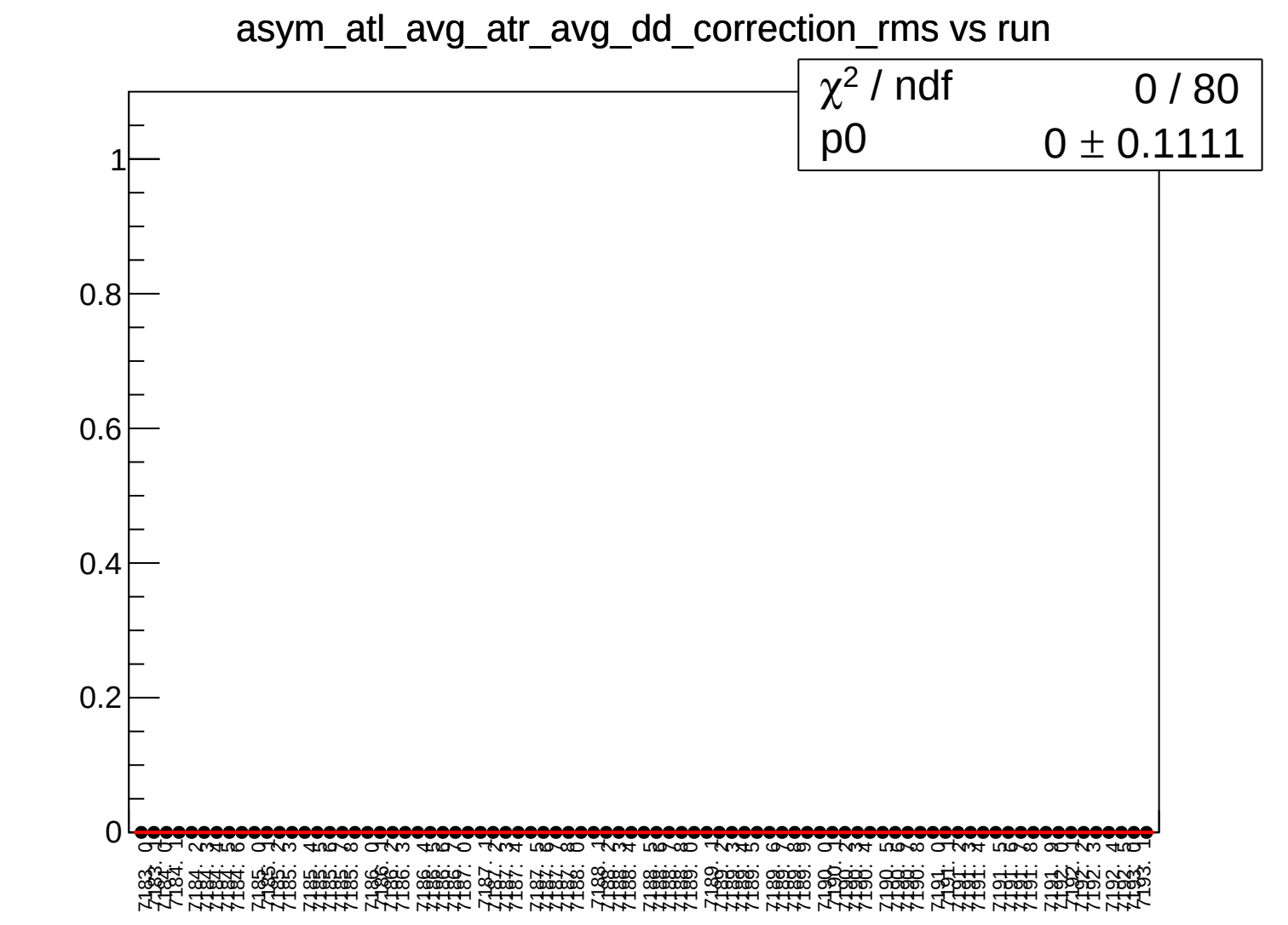

reg_asym_atl_avg_atr_avg_dd_mean vs run
χ² / ndf 68.27 / 80
p0 −3238 ± 1477
pull
Entries 81
Mean 203.6
Std Dev 178.9

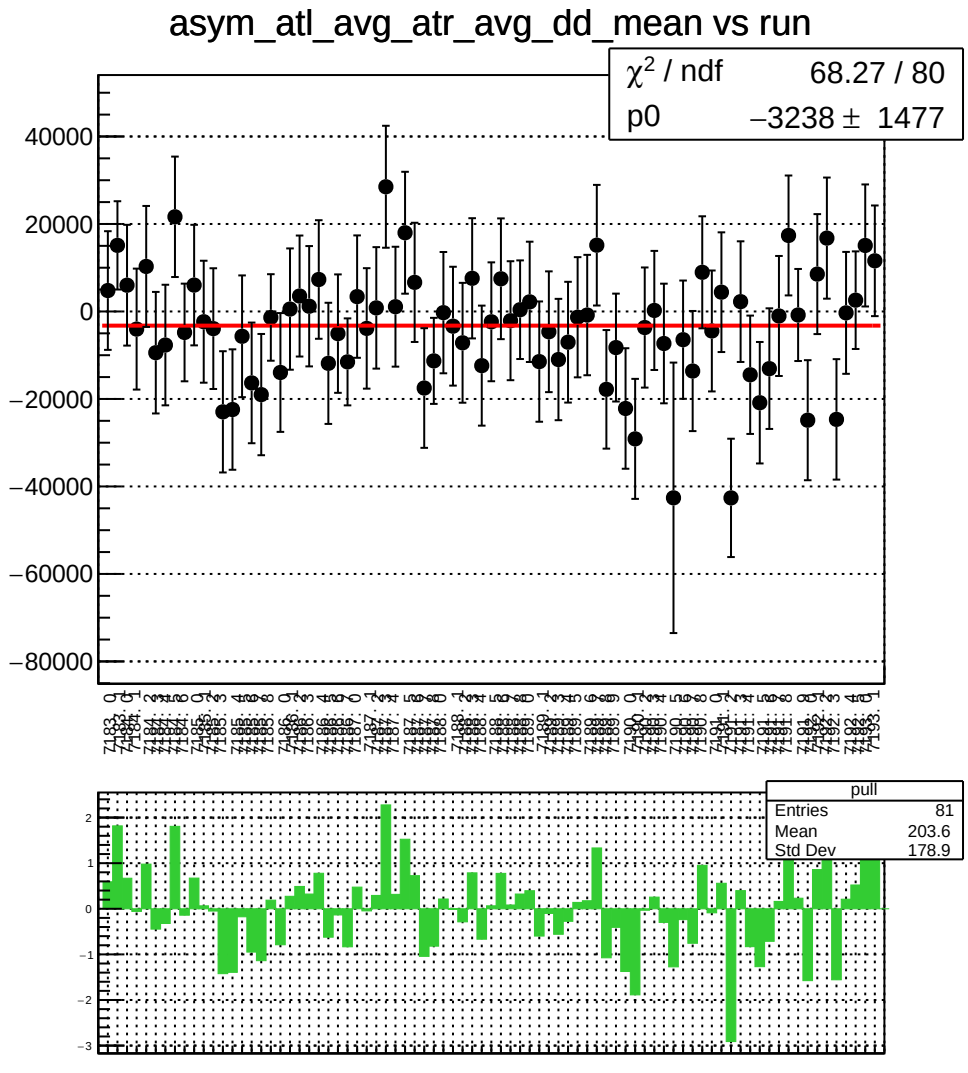

pull1D
Entries 81
Mean −0.01262
Std Dev 0.918

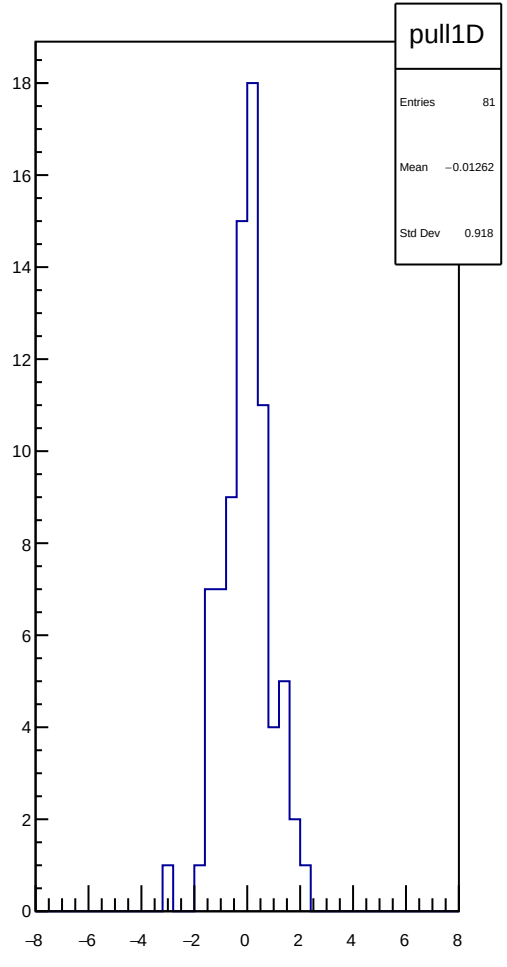

reg_asym_atl_avg_atr_avg_dd_rms vs run
χ² / ndf 5637 / 80
p0 1308 ± 1.045
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200

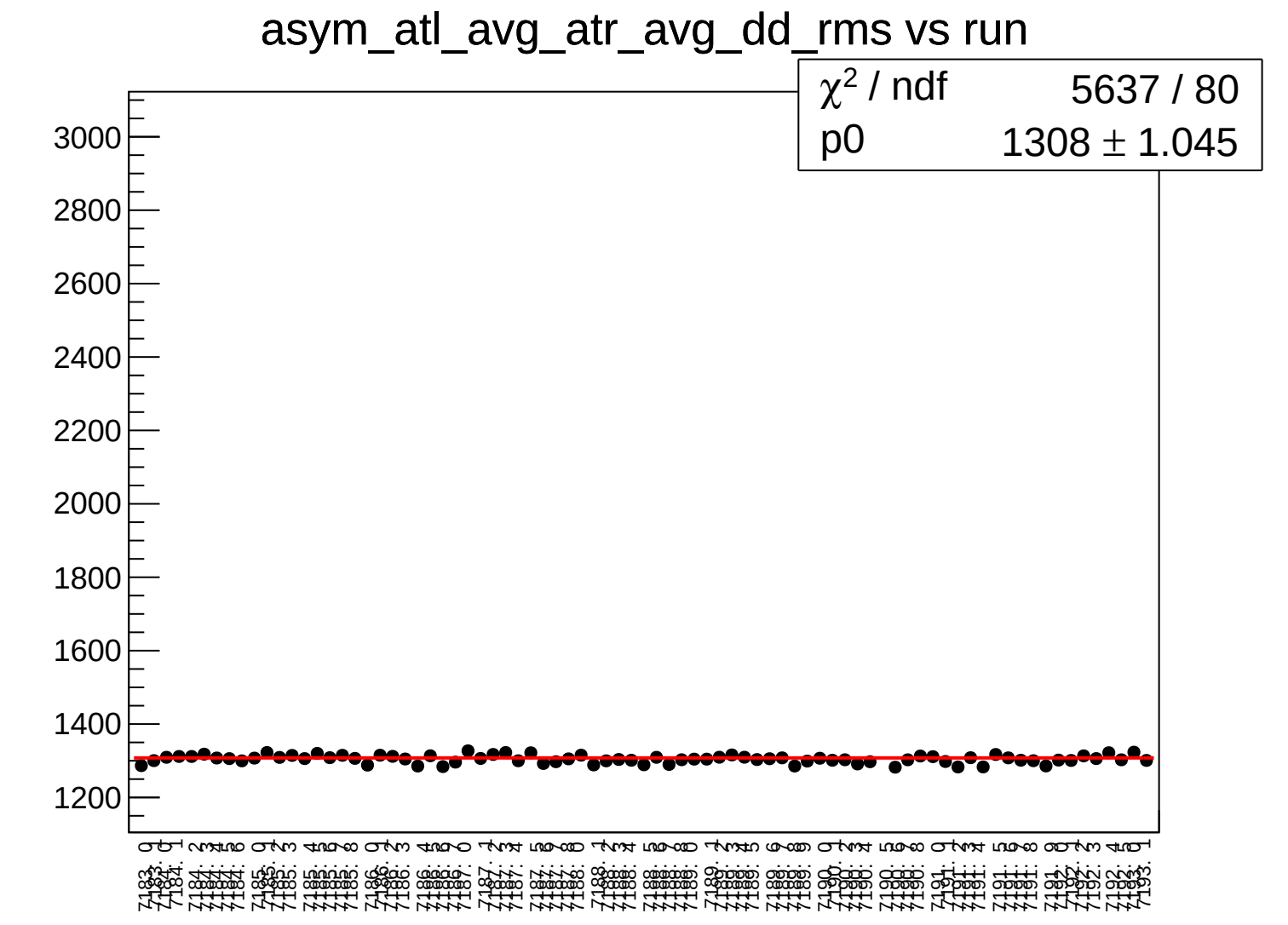

asym_atl_avg_atr_avg_dd_correction_mean vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

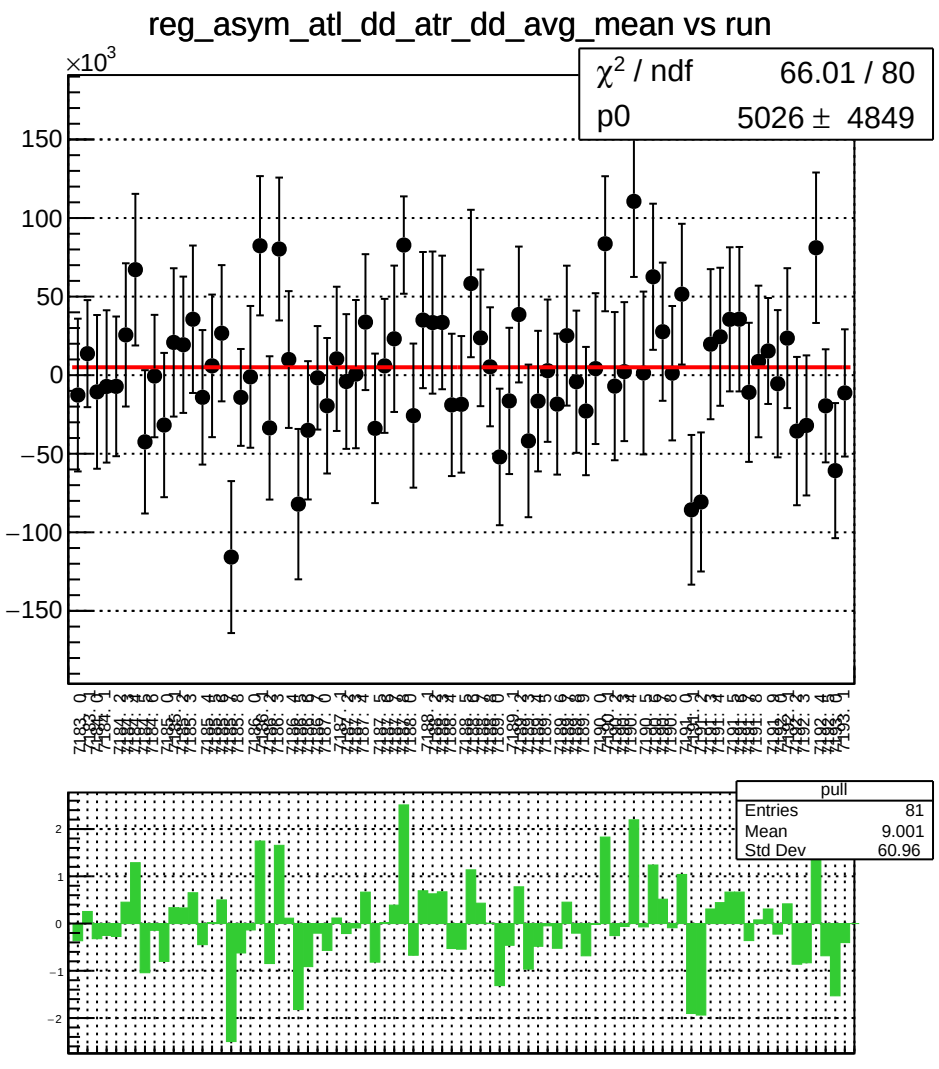

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

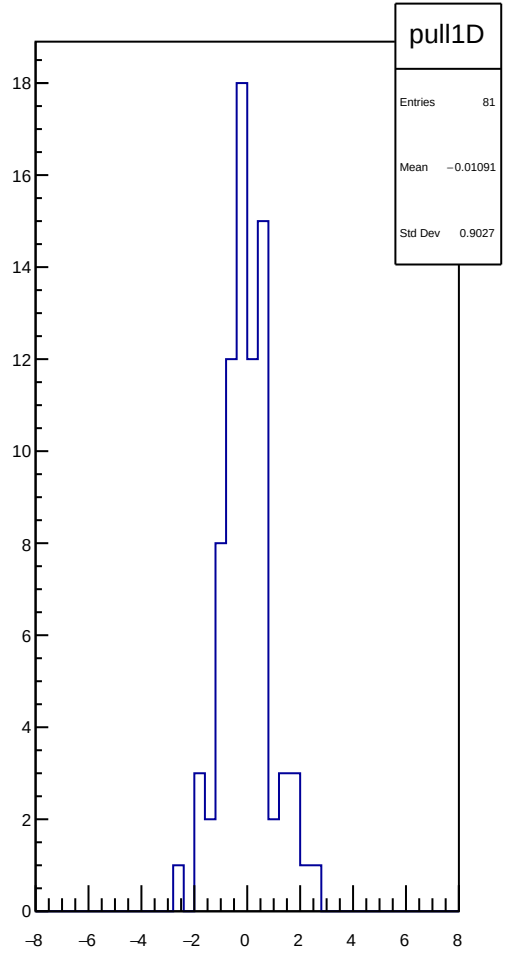

asym_atl_avg_atr_avg_dd_correction_rms vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

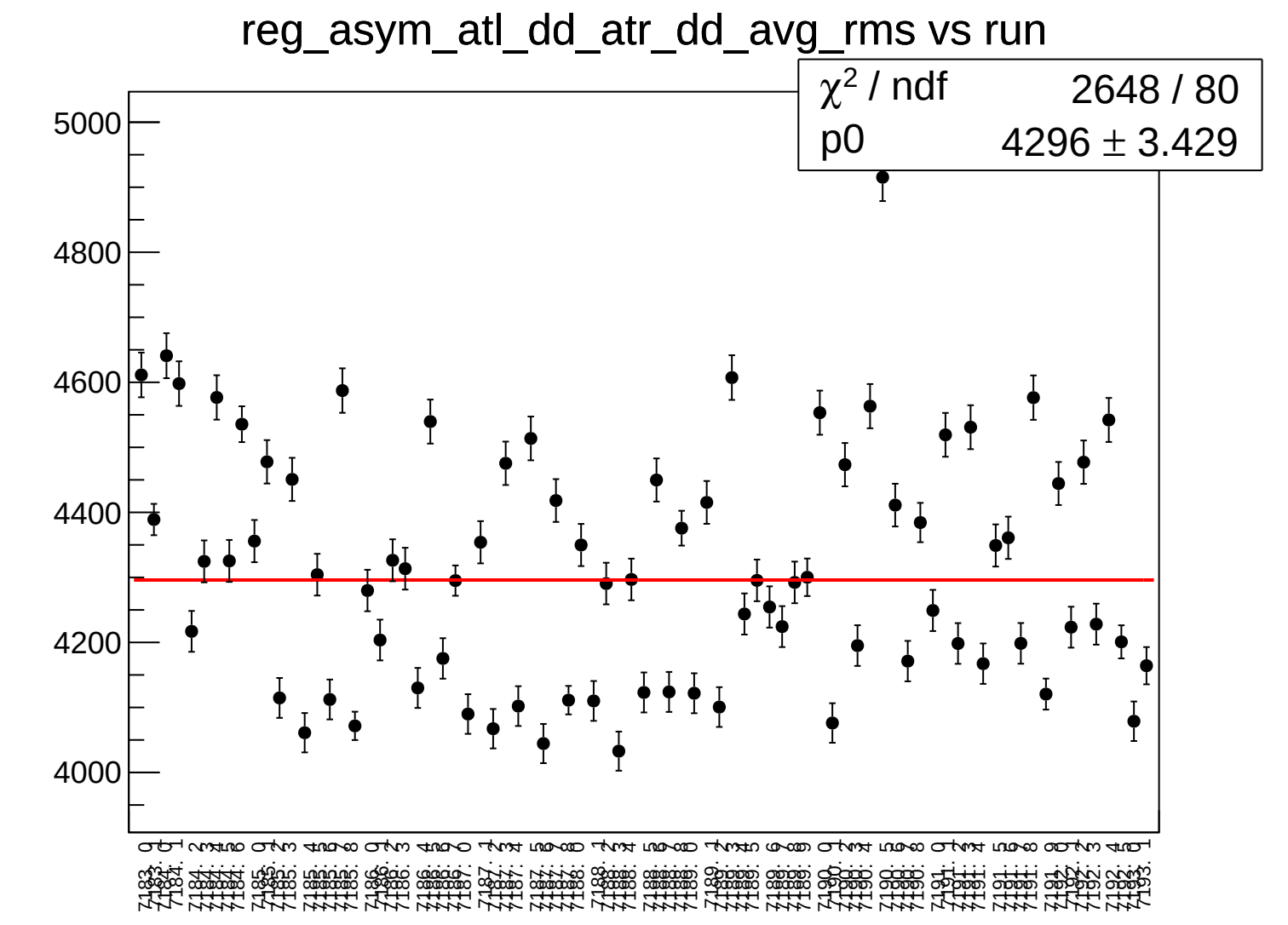

asym_atl_avg_atr_avg_dd_mean vs run
χ² / ndf 68.27 / 80
p0 −3238 ± 1477
40000
20000
0
−20000
−40000
−60000
−80000
pull
Entries 81
Mean 203.6
Std Dev 178.9
2
1
0
−1
−2
−3

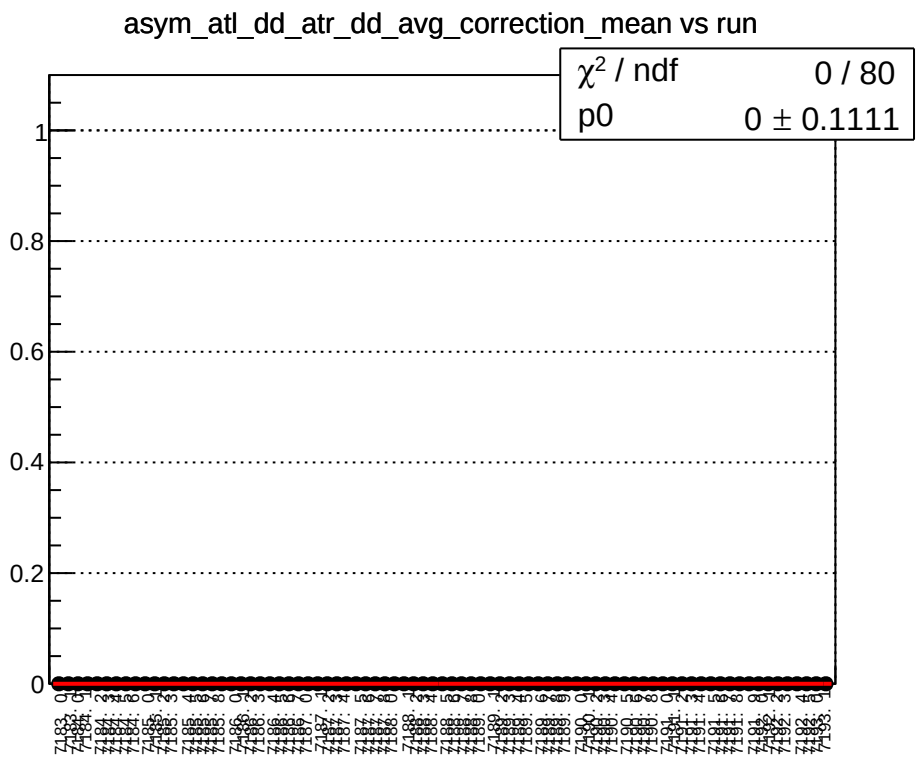

pull1D
Entries 81
Mean −0.01262
Std Dev 0.918
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

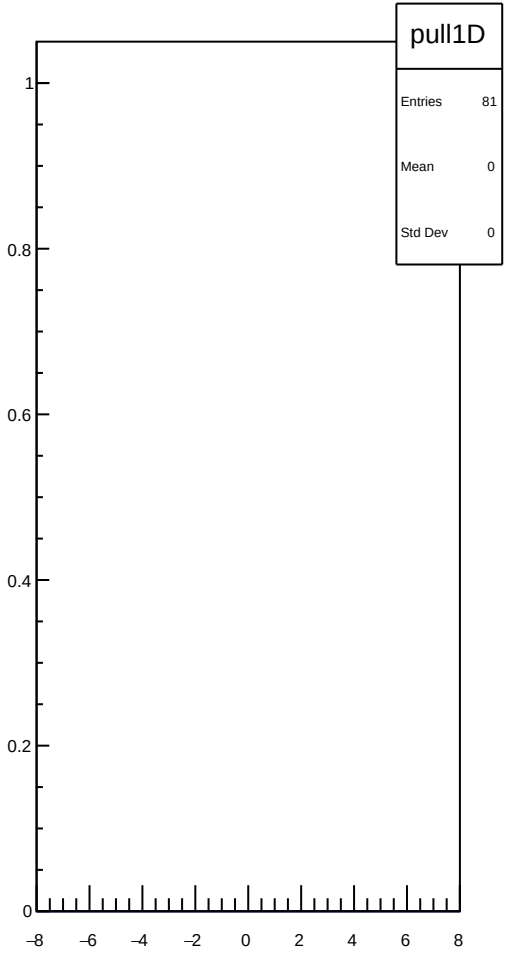

asym_atl_avg_atr_avg_dd_rms vs run
χ² / ndf 5637 / 80
p0 1308 ± 1.045
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200

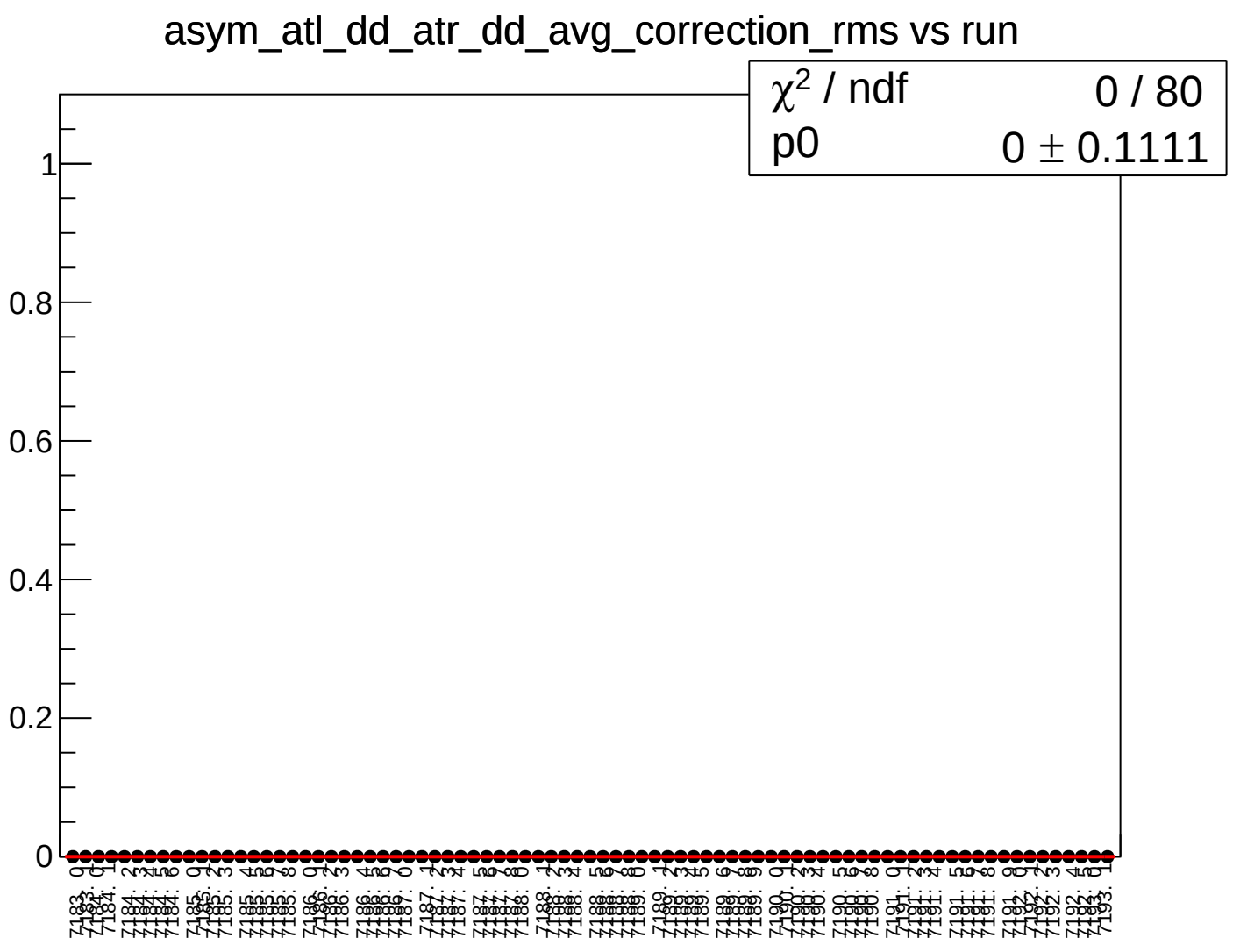

reg_asym_atl_dd_atr_dd_avg_mean vs run
×10^3
χ² / ndf 66.01 / 80
p0 5026 ± 4849
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 9.001
Std Dev 60.96
2
1
0
−1
−2

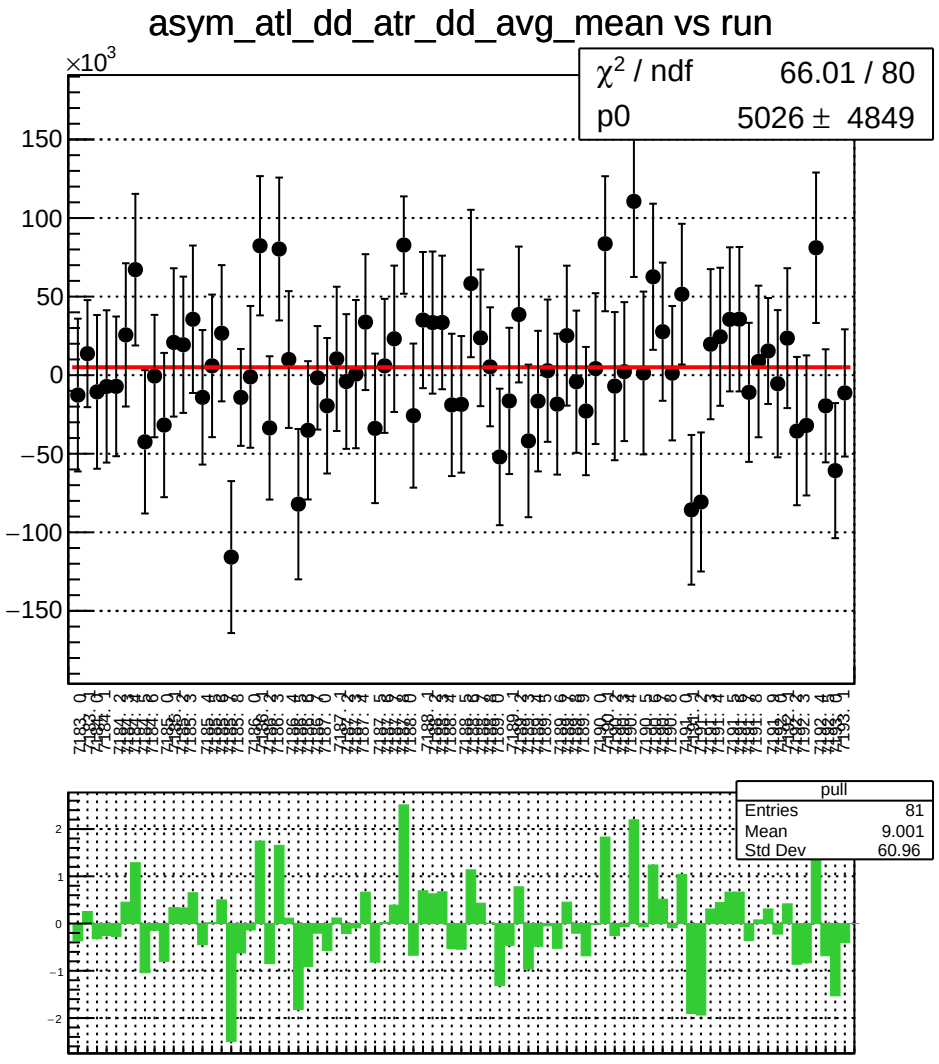

pull1D
Entries 81
Mean −0.01091
Std Dev 0.9027
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

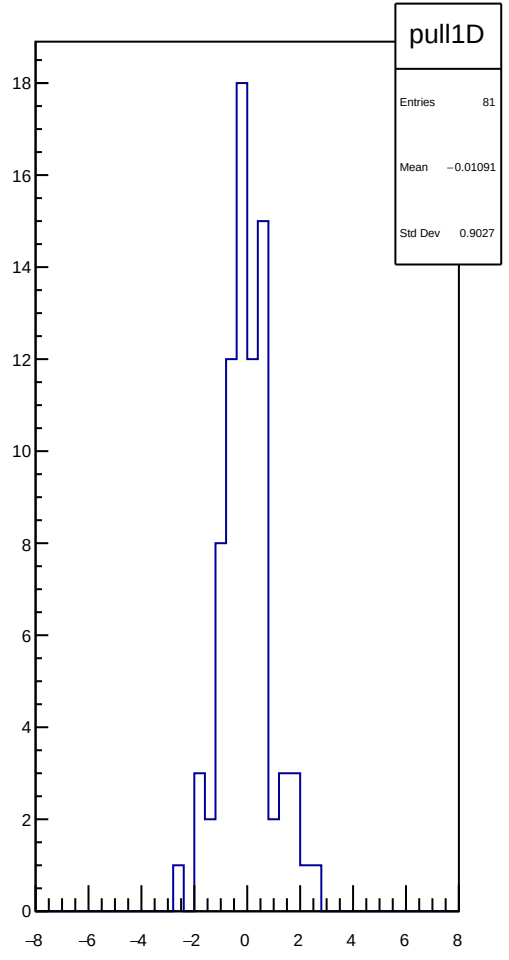

reg_asym_atl_dd_atr_dd_avg_rms vs run
χ² / ndf 2648 / 80
p0 4296 ± 3.429
5000
4800
4600
4400
4200
4000

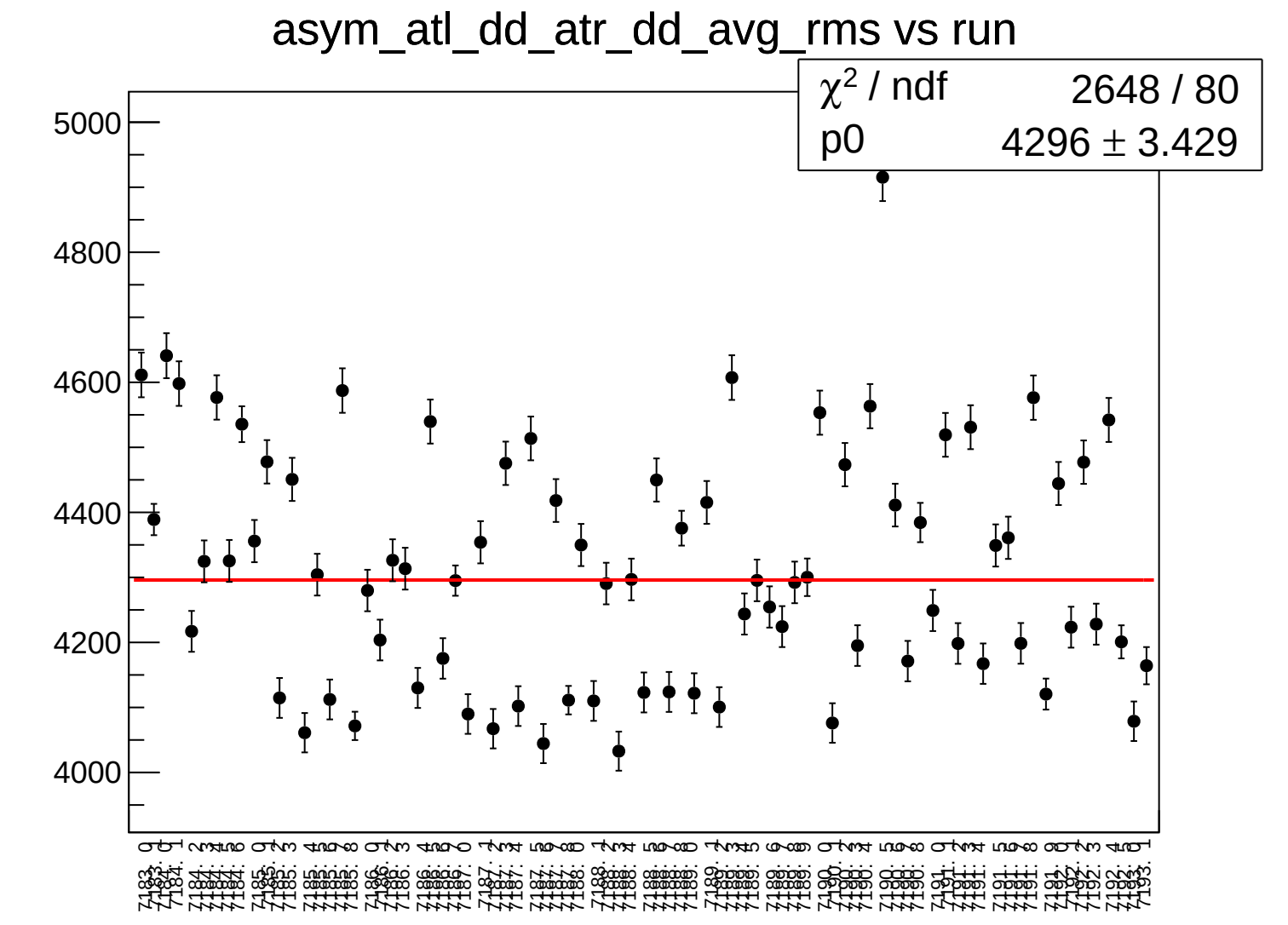

asym_atl_dd_atr_dd_avg_correction_mean vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

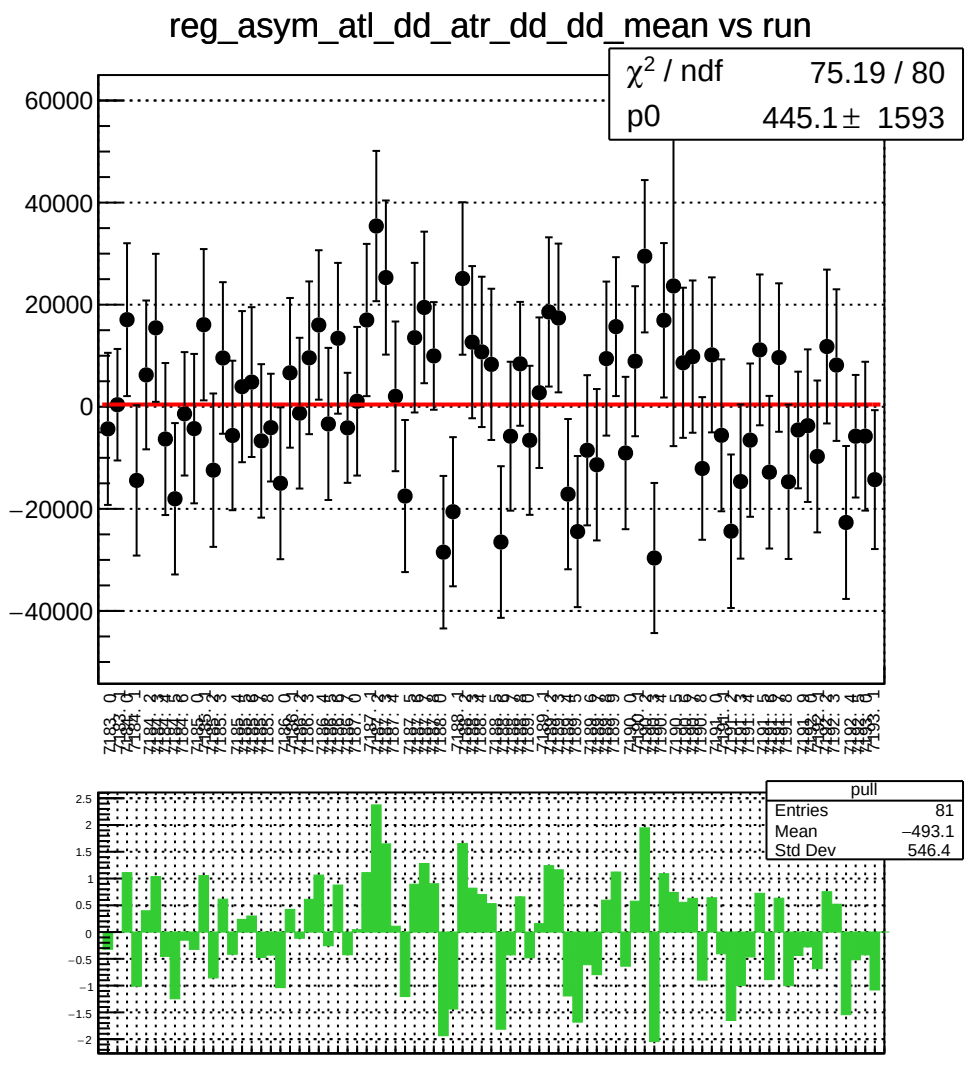

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

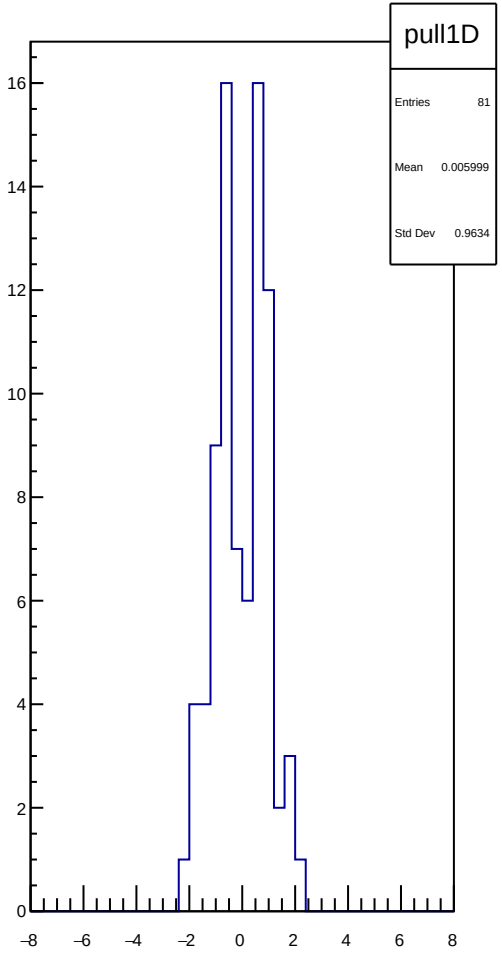

asym_atl_dd_atr_dd_avg_correction_rms vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

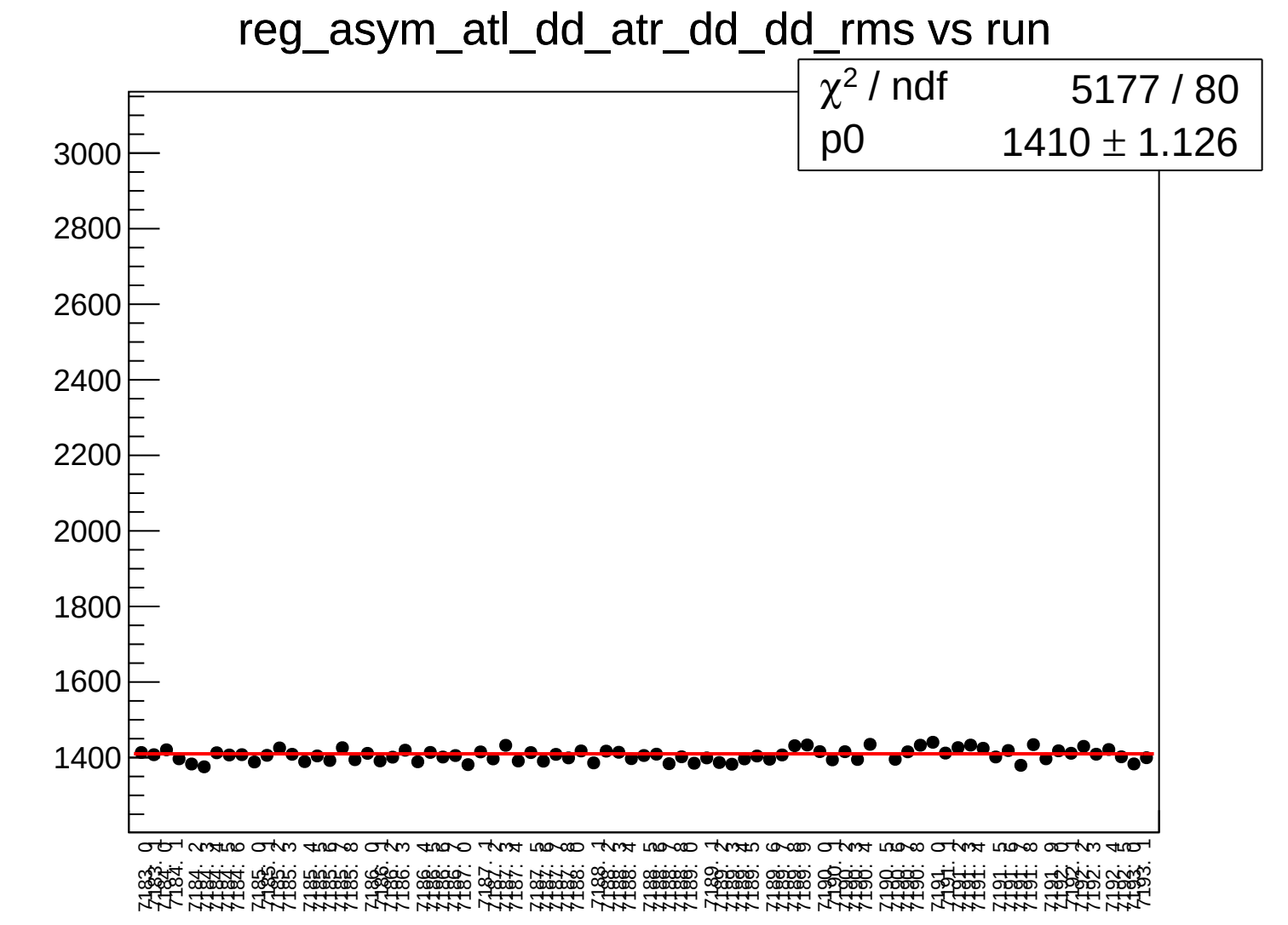

asym_atl_dd_atr_dd_avg_mean vs run
×10^3
χ² / ndf 66.01 / 80
p0 5026 ± 4849
150
100
50
0
−50
−100
−150
pull
Entries 81
Mean 9.001
Std Dev 60.96
2
1
0
−1
−2

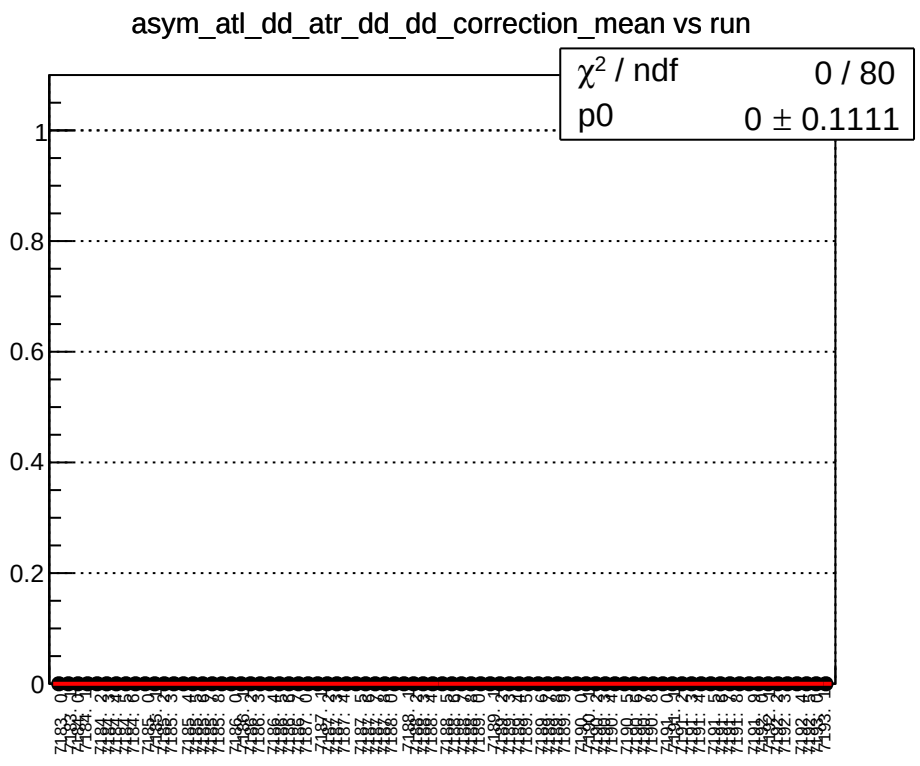

pull1D
Entries 81
Mean −0.01091
Std Dev 0.9027
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

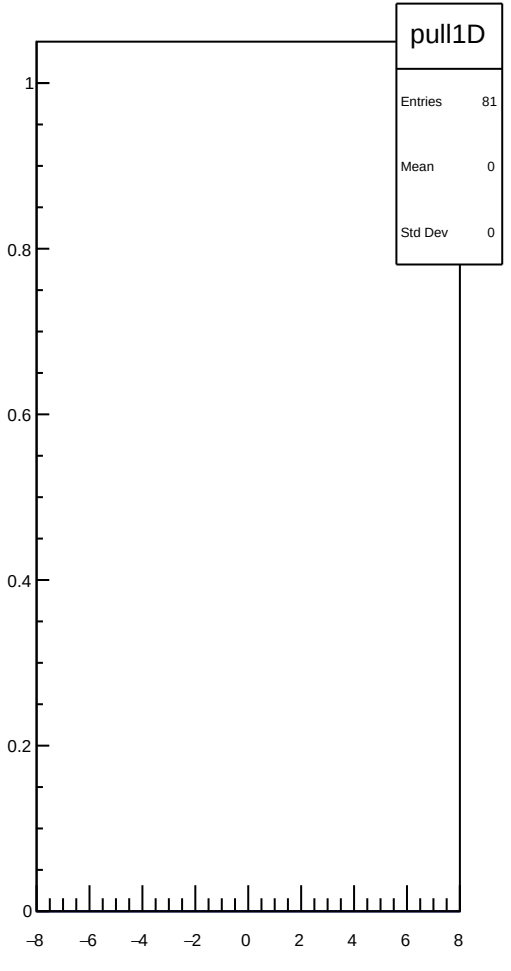

asym_atl_dd_atr_dd_avg_rms vs run
χ² / ndf 2648 / 80
p0 4296 ± 3.429
5000
4800
4600
4400
4200
4000

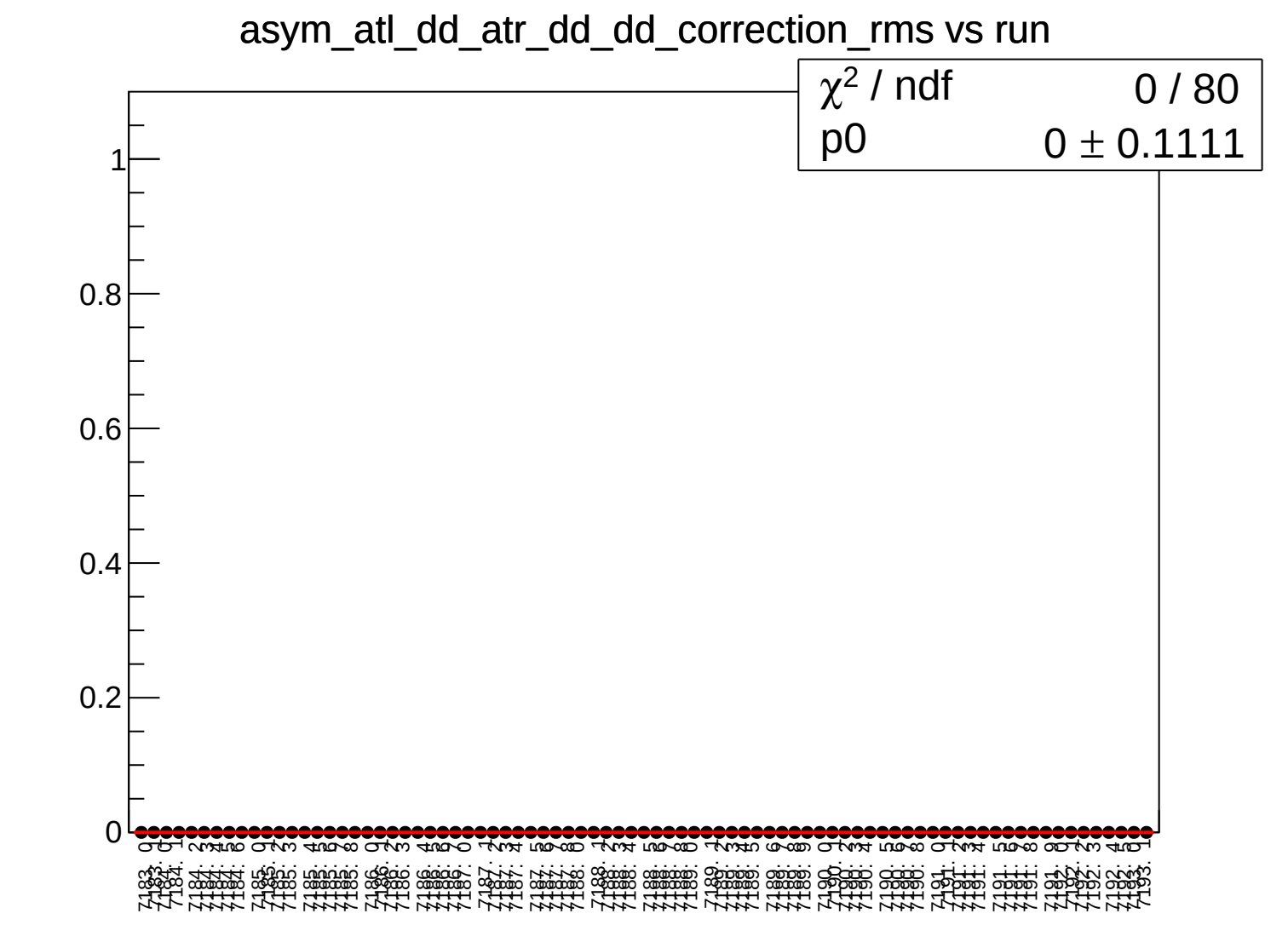

reg_asym_atl_dd_atr_dd_dd_mean vs run
χ² / ndf 75.19 / 80
p0 445.1 ± 1593
60000
40000
20000
0
−20000
−40000
pull
Entries 81
Mean −493.1
Std Dev 546.4
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

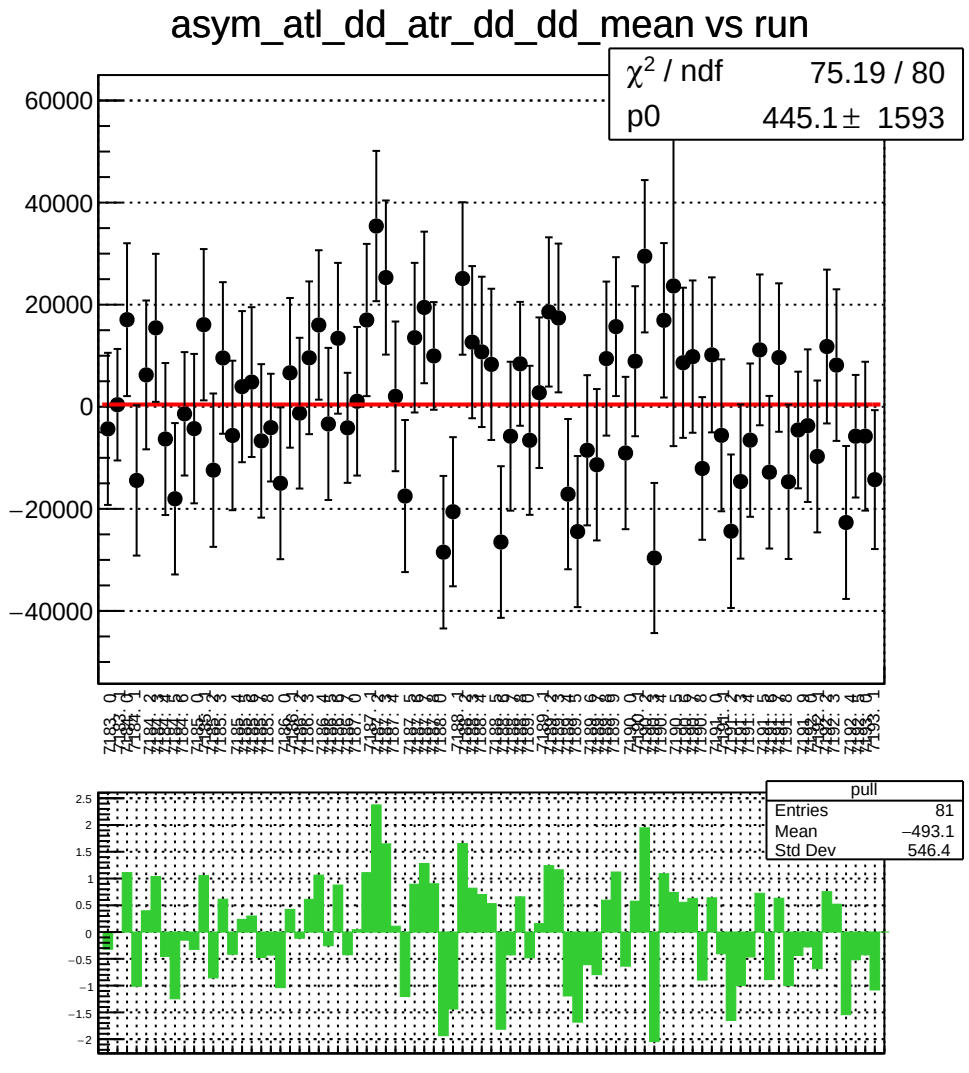

pull1D
Entries 81
Mean 0.005999
Std Dev 0.9634
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

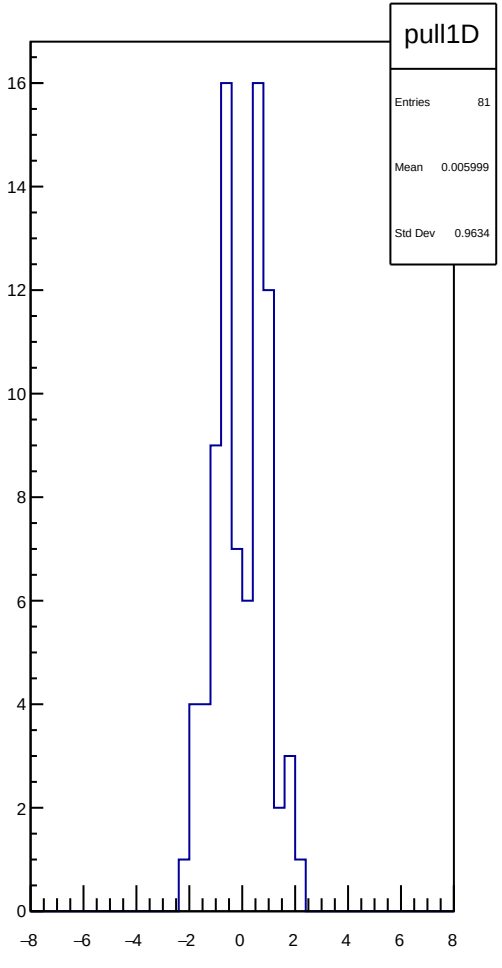

reg_asym_atl_dd_atr_dd_dd_rms vs run
χ² / ndf 5177 / 80
p0 1410 ± 1.126
3000
2800
2600
2400
2200
2000
1800
1600
1400

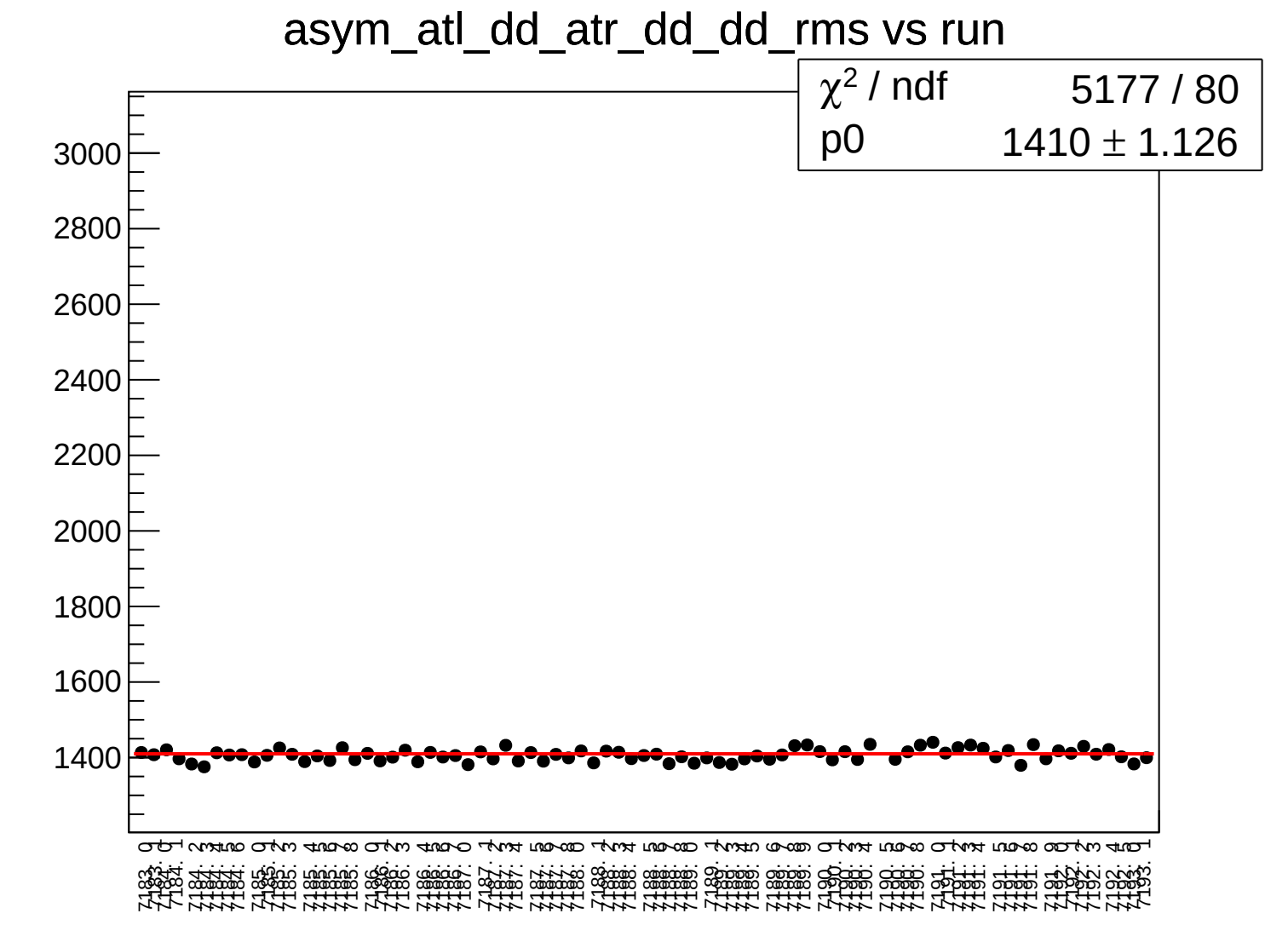

asym_atl_dd_atr_dd_dd_correction_mean vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

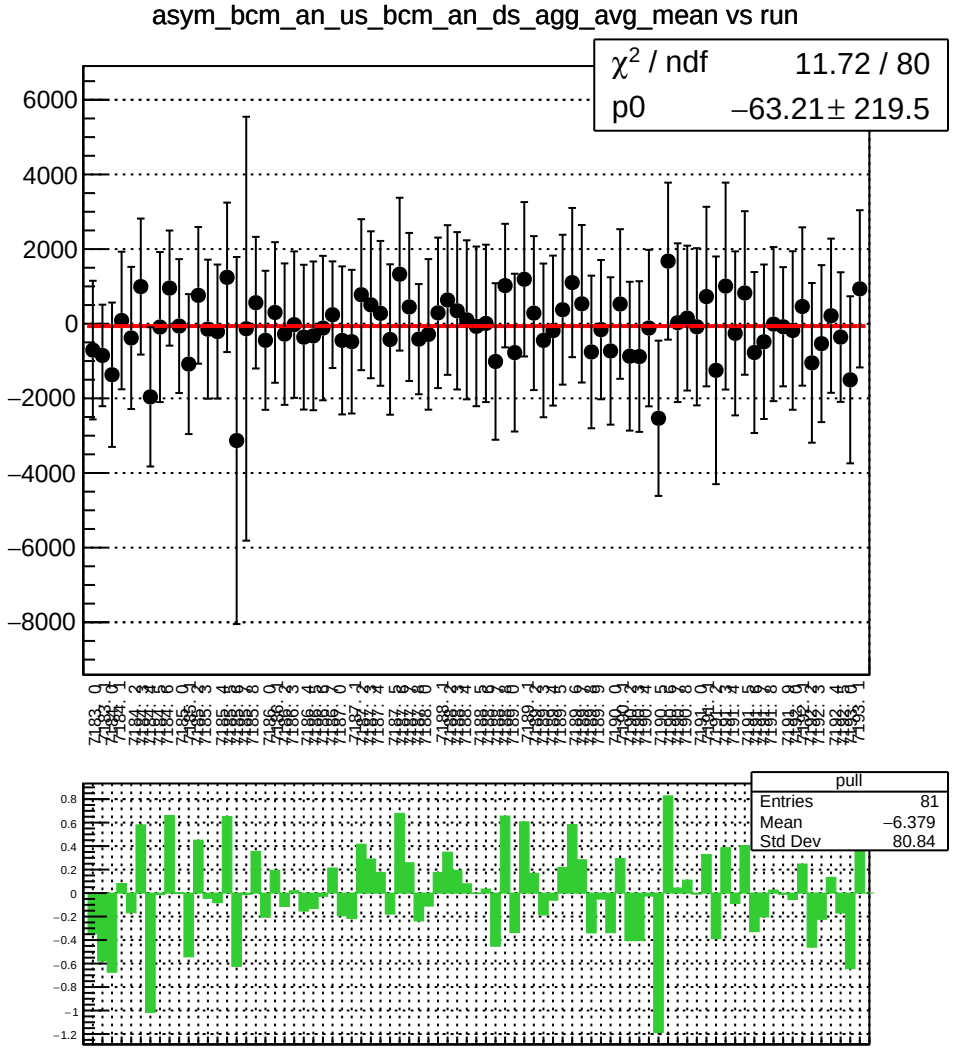

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

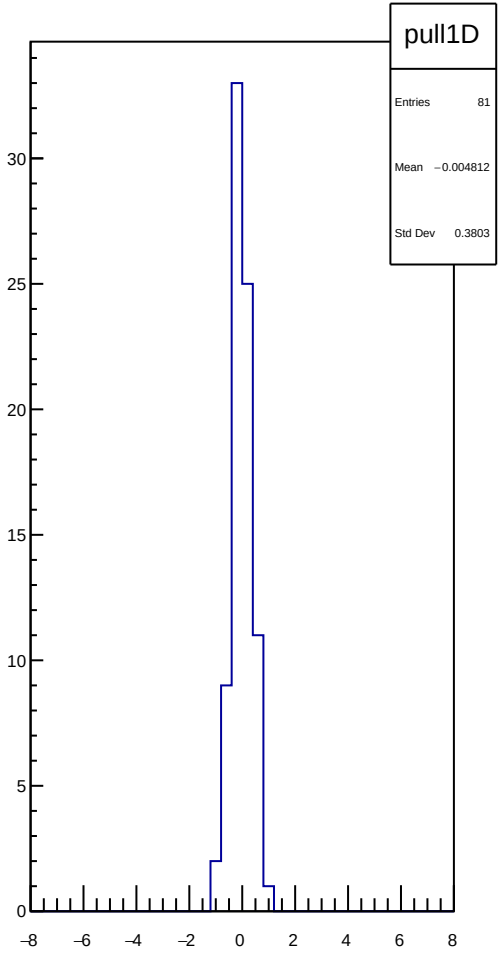

asym_atl_dd_atr_dd_dd_correction_rms vs run
χ² / ndf 0 / 80
p0 0 ± 0.1111
1
0.8
0.6
0.4
0.2
0

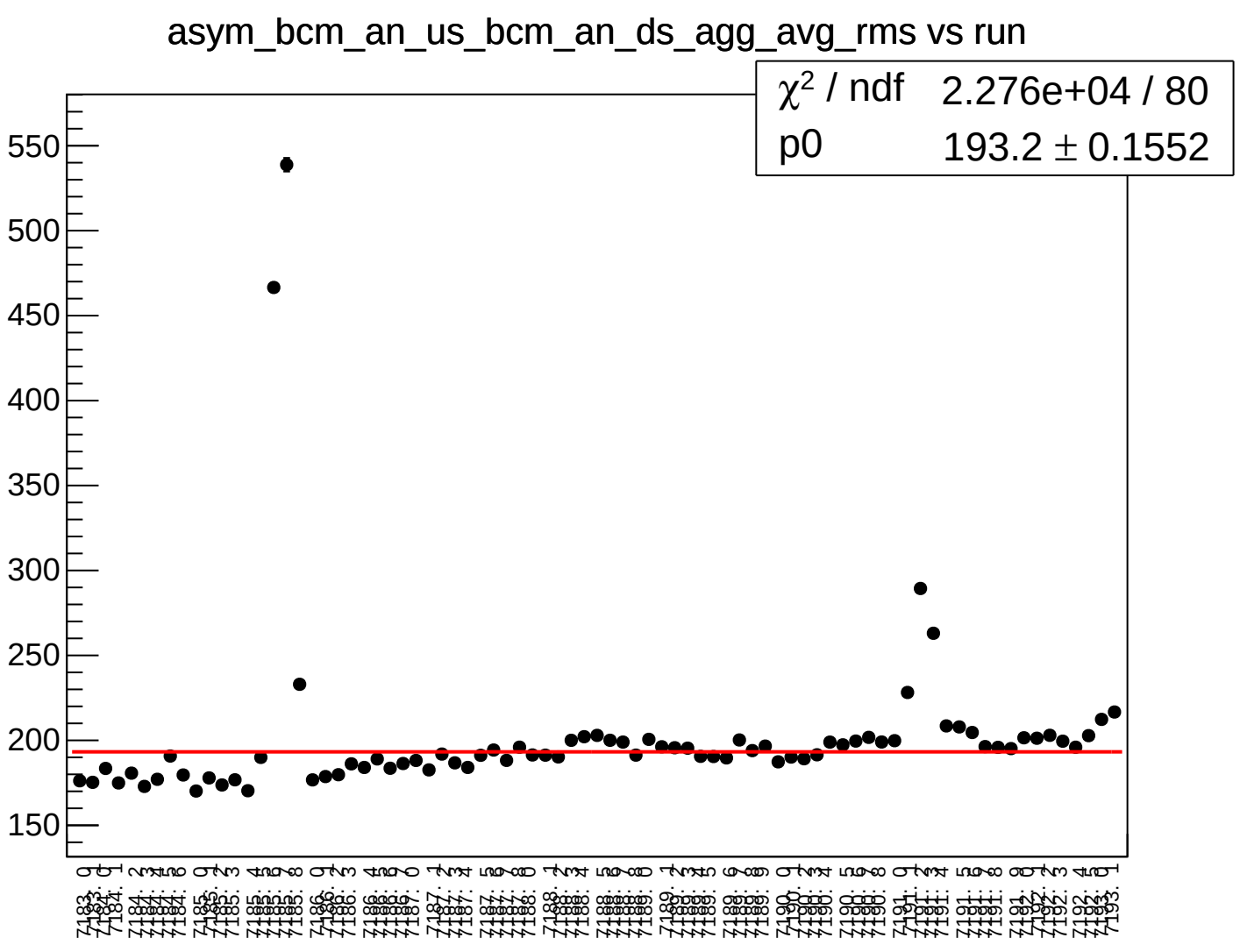

asym_atl_dd_atr_dd_dd_mean vs run
χ² / ndf 75.19 / 80
p0 445.1 ± 1593
pull
Entries 81
Mean −493.1
Std Dev 546.4

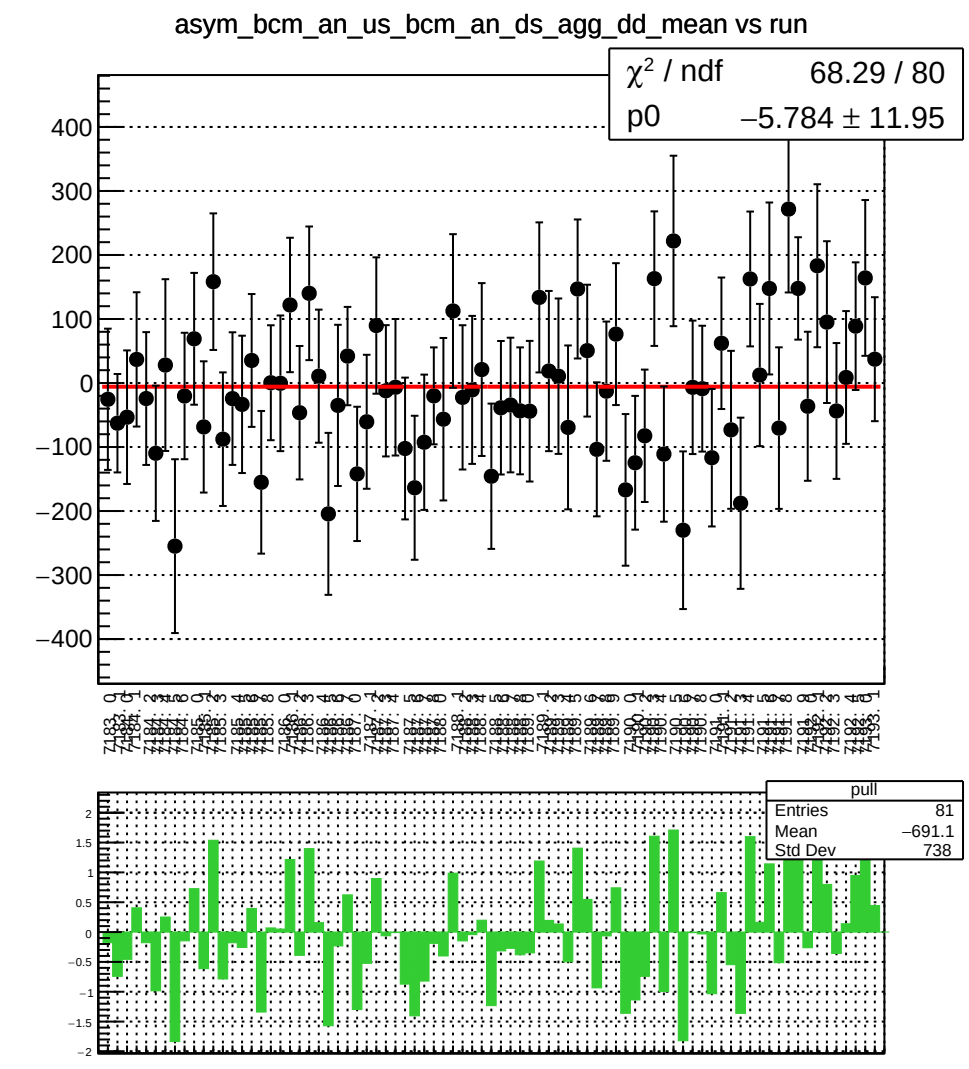

pull1D
Entries 81
Mean 0.005999
Std Dev 0.9634

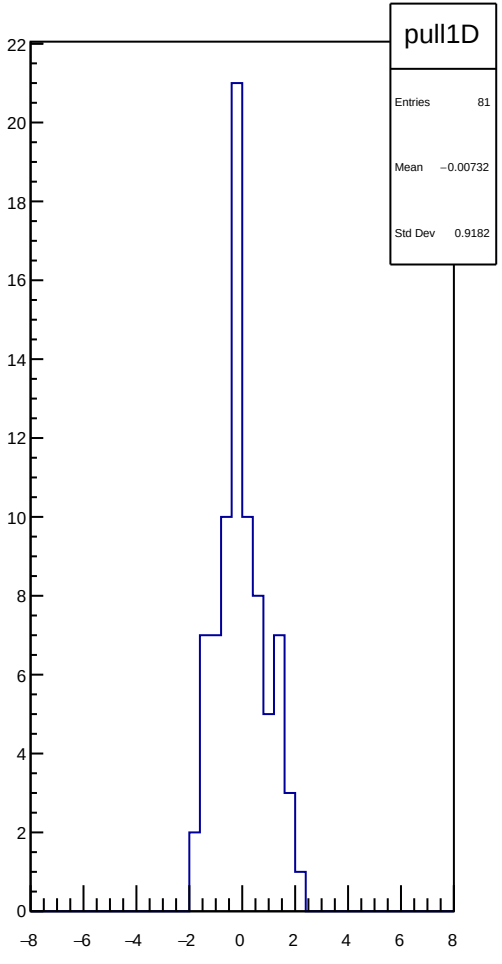

asym_atl_dd_atr_dd_dd_rms vs run
χ² / ndf 5177 / 80
p0 1410 ± 1.126
3000
2800
2600
2400
2200
2000
1800
1600
1400

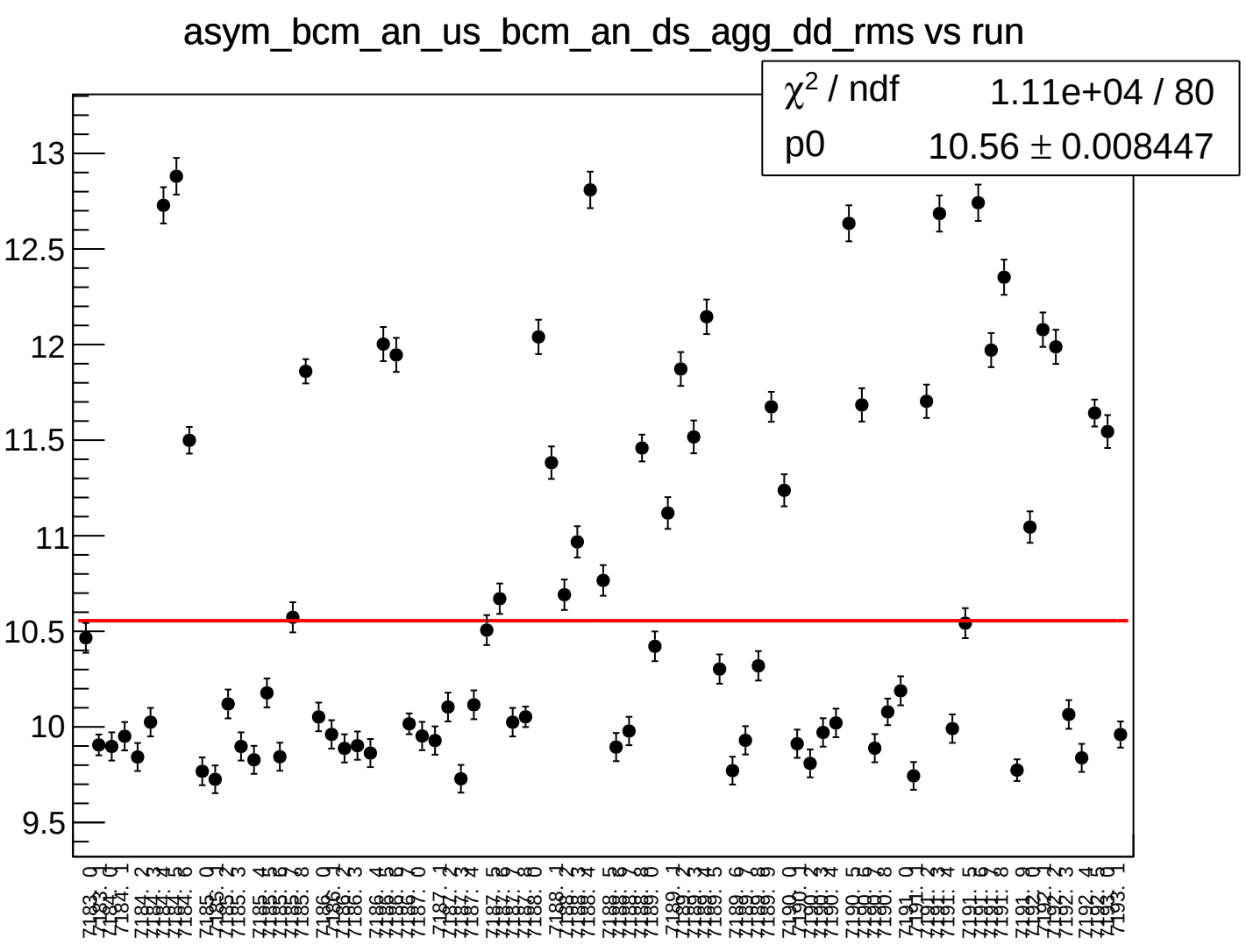

asym_bcm_an_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 11.72 / 80
p0 −63.21 ± 219.5
pull
Entries 81
Mean −6.379
Std Dev 80.84

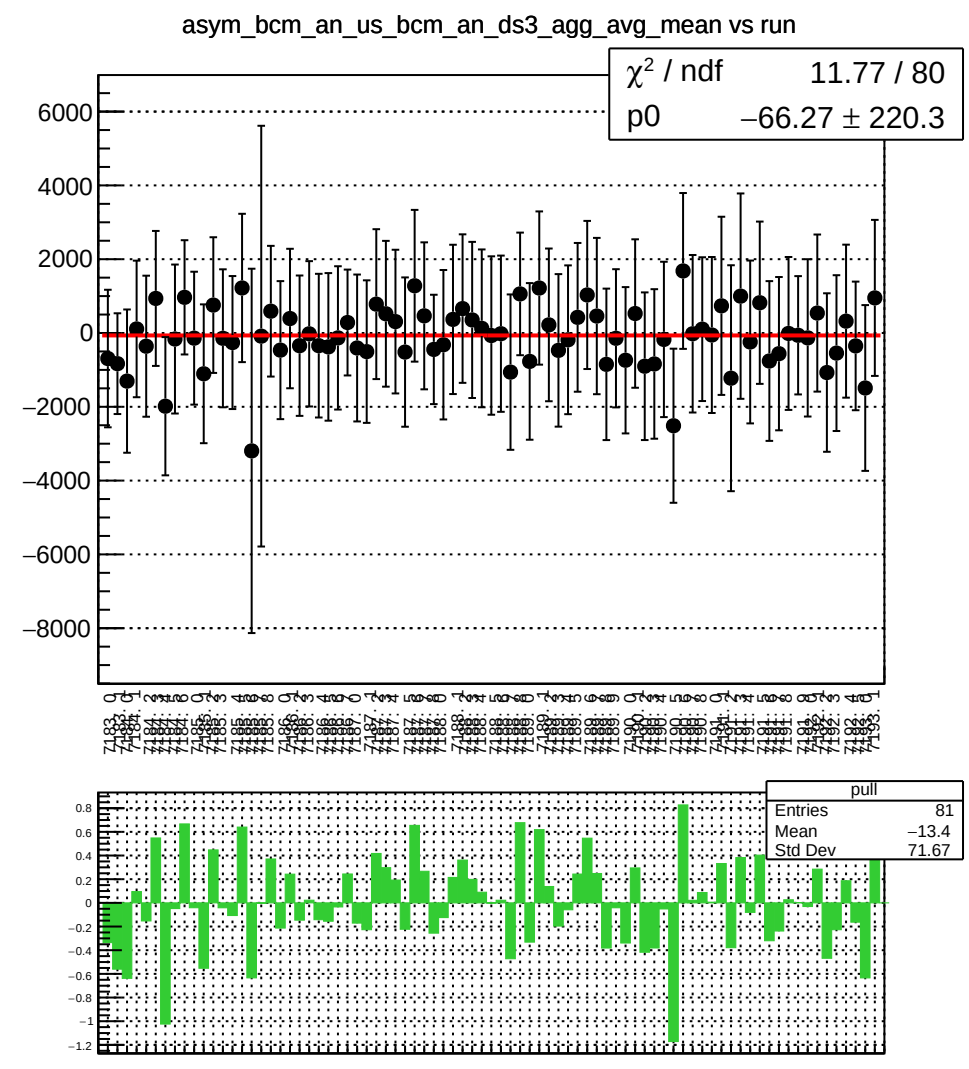

pull1D
Entries 81
Mean −0.004812
Std Dev 0.3803

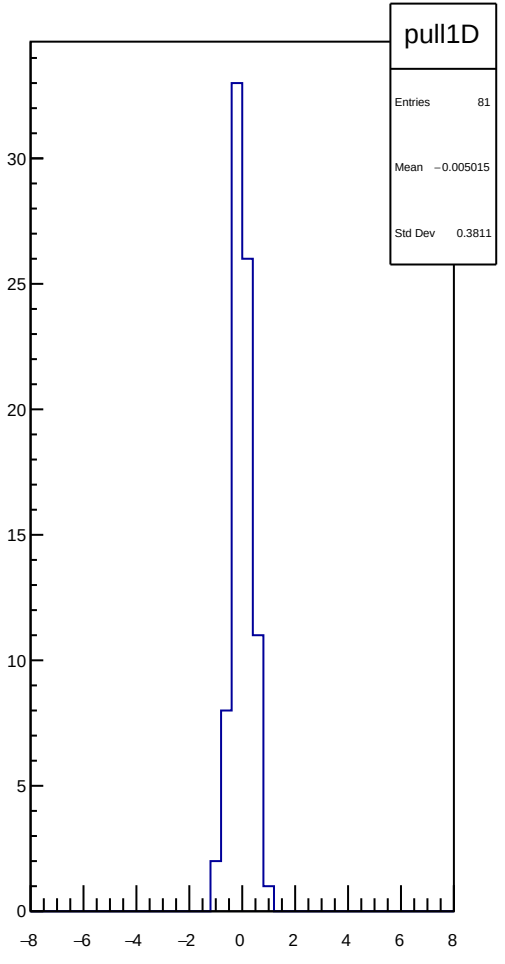

asym_bcm_an_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 2.276e+04 / 80
p0 193.2 ± 0.1552
550
500
450
400
350
300
250
200
150

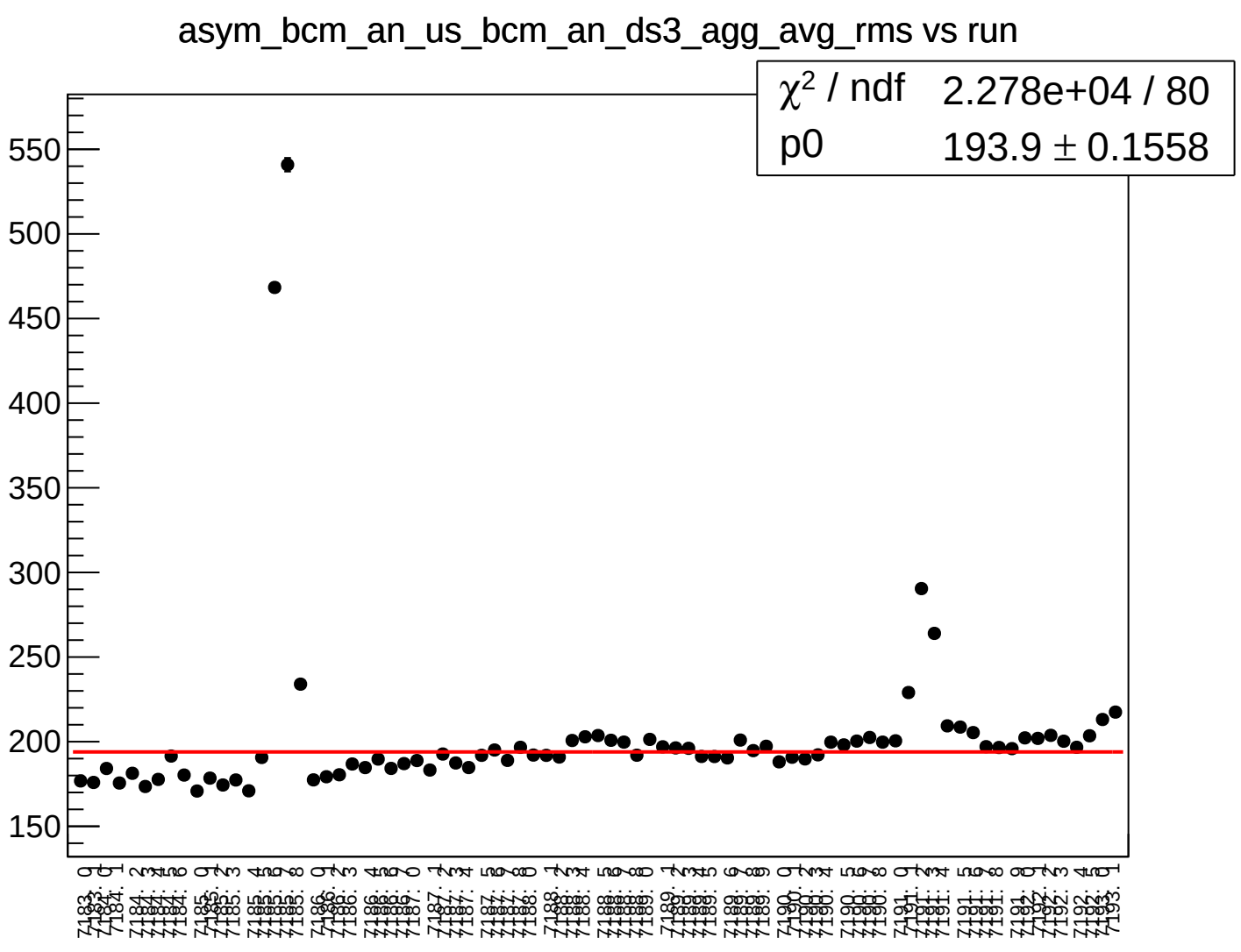

asym_bcm_an_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 68.29 / 80
p0 −5.784 ± 11.95
pull
Entries 81
Mean −691.1
Std Dev 738

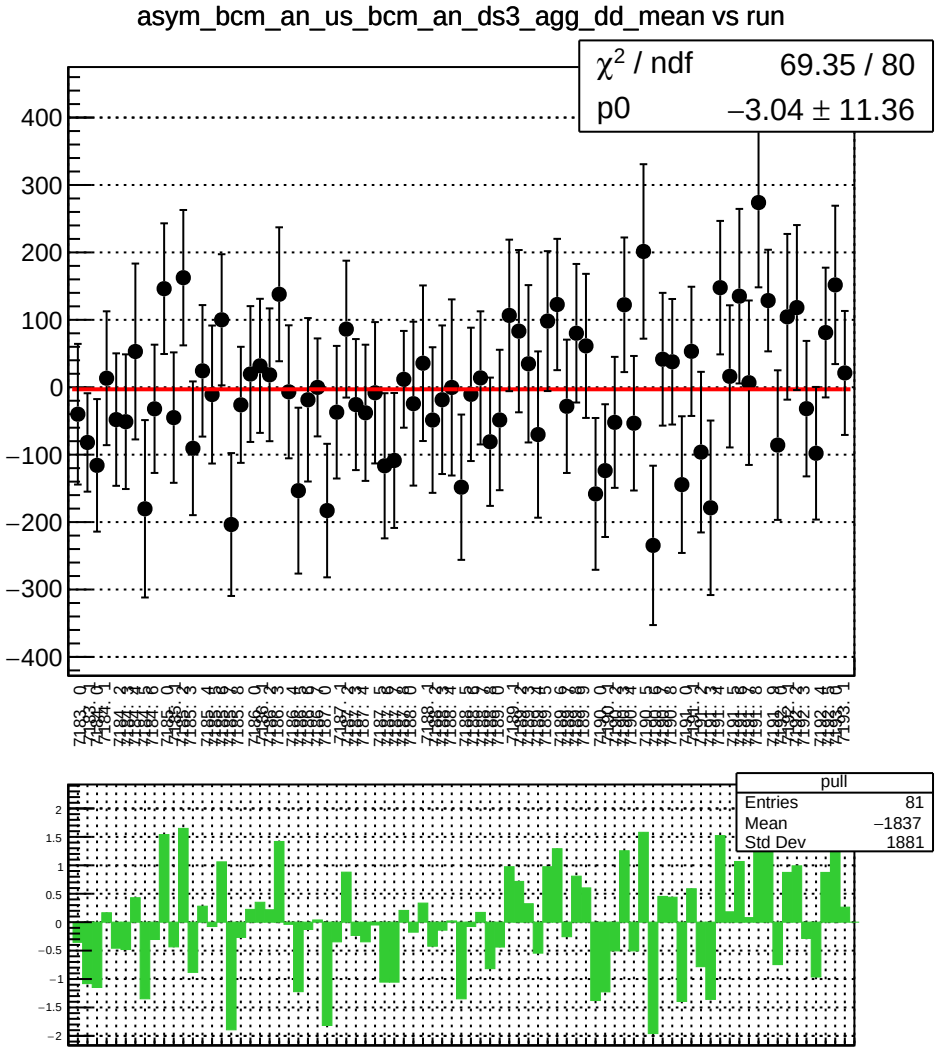

pull1D
Entries 81
Mean −0.00732
Std Dev 0.9182

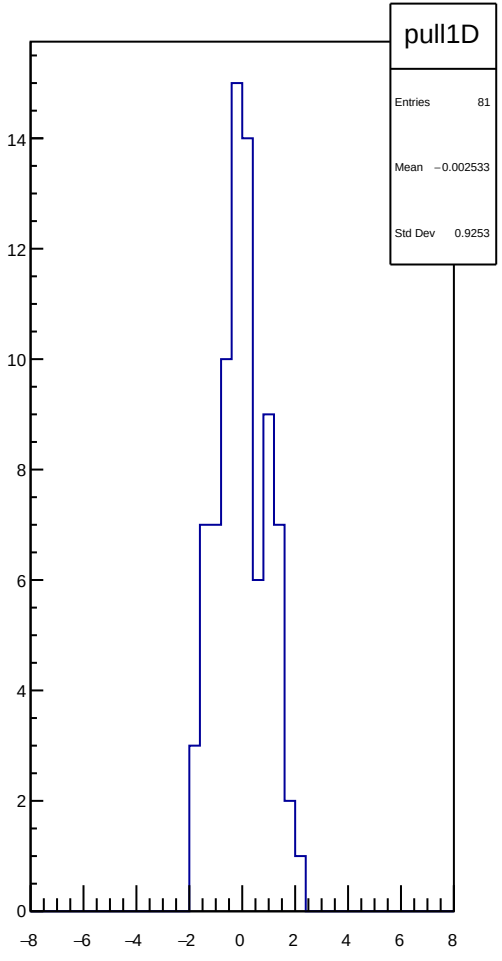

asym_bcm_an_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 1.11e+04 / 80
p0 10.56 ± 0.008447
13
12.5
12
11.5
11
10.5
10
9.5

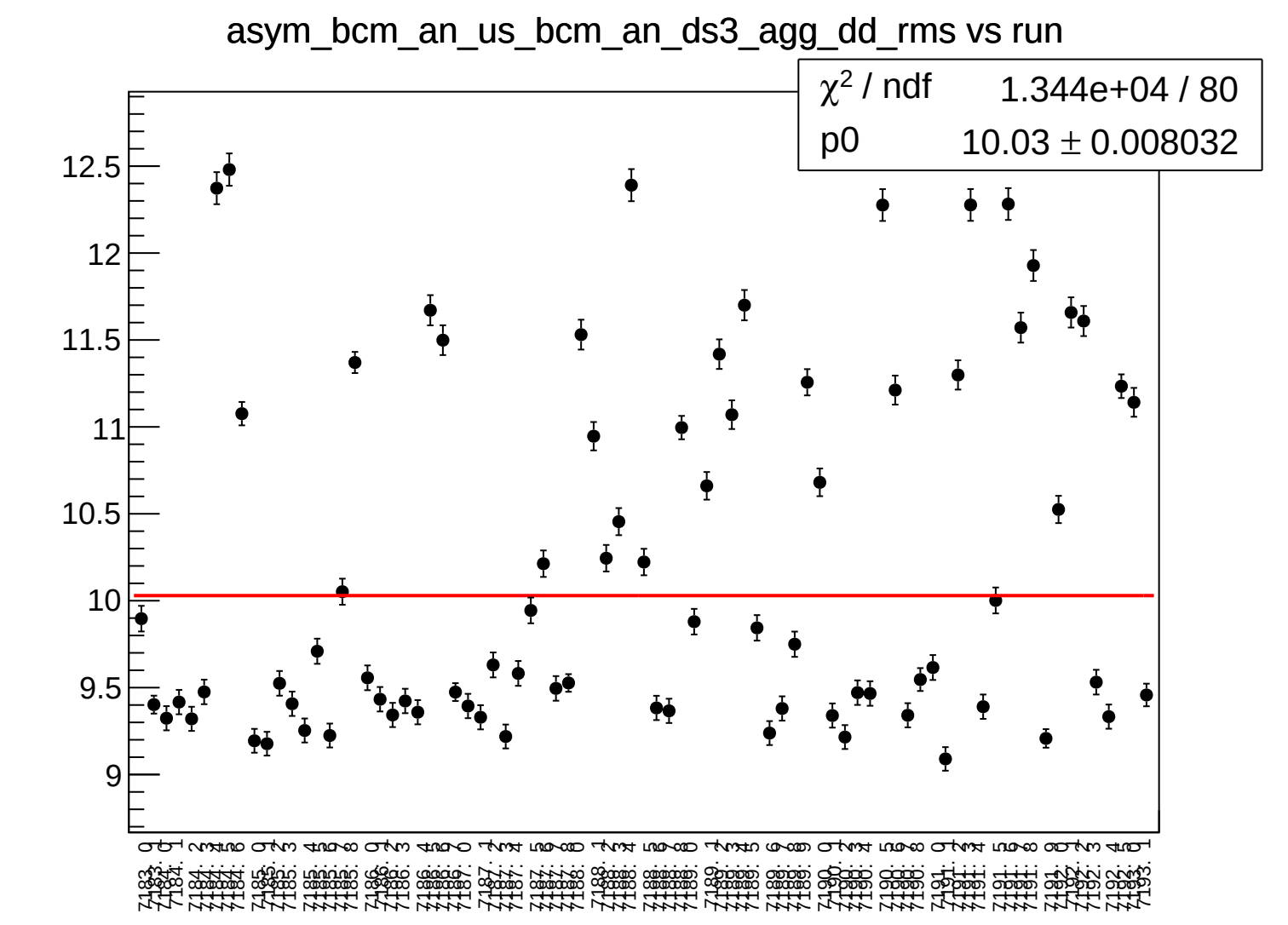

asym_bcm_an_us_bcm_an_ds3_agg_avg_mean vs run
χ² / ndf 11.77 / 80
p0 −66.27 ± 220.3
pull
Entries 81
Mean −13.4
Std Dev 71.67

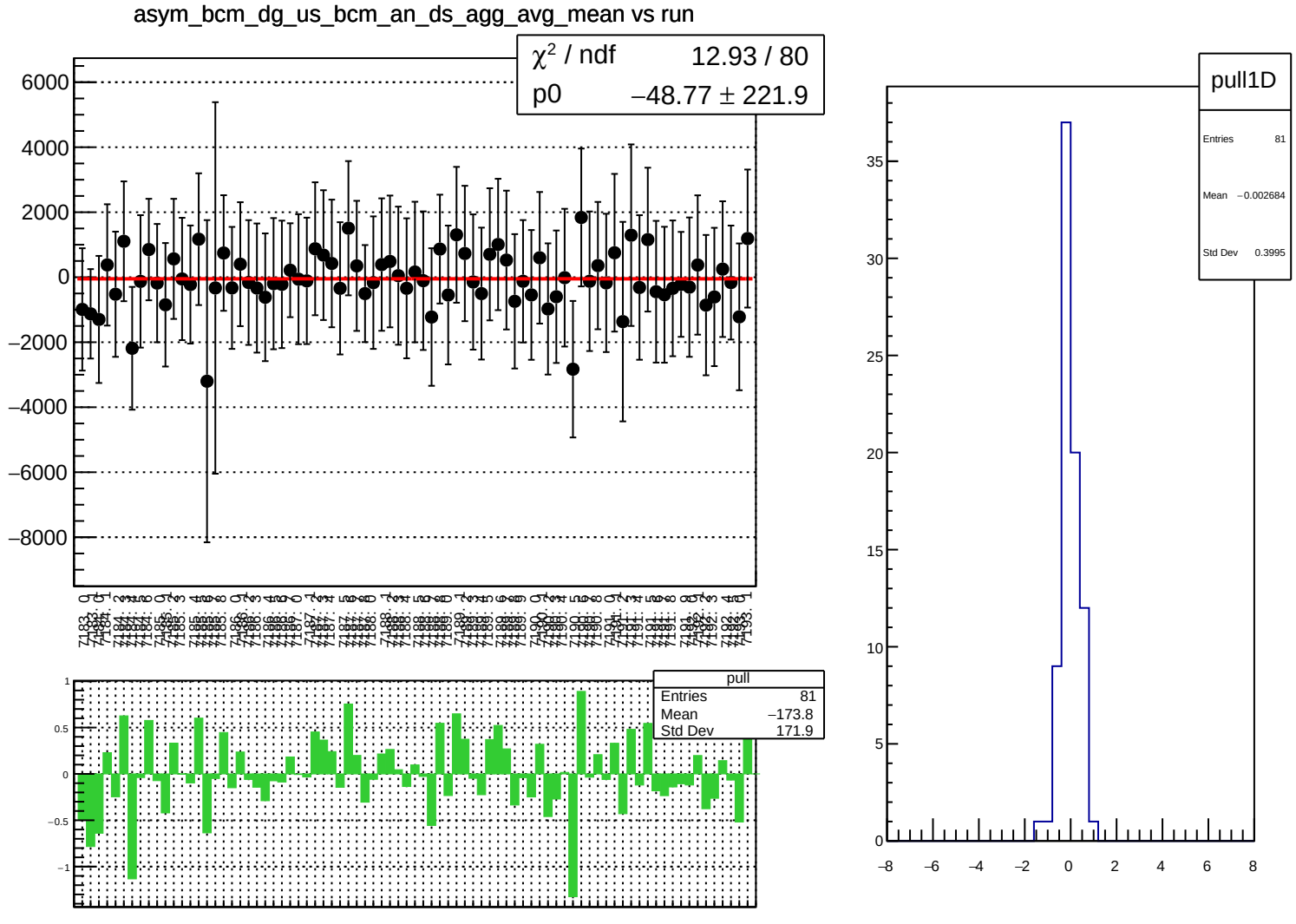

pull1D
Entries 81
Mean −0.005015
Std Dev 0.3811

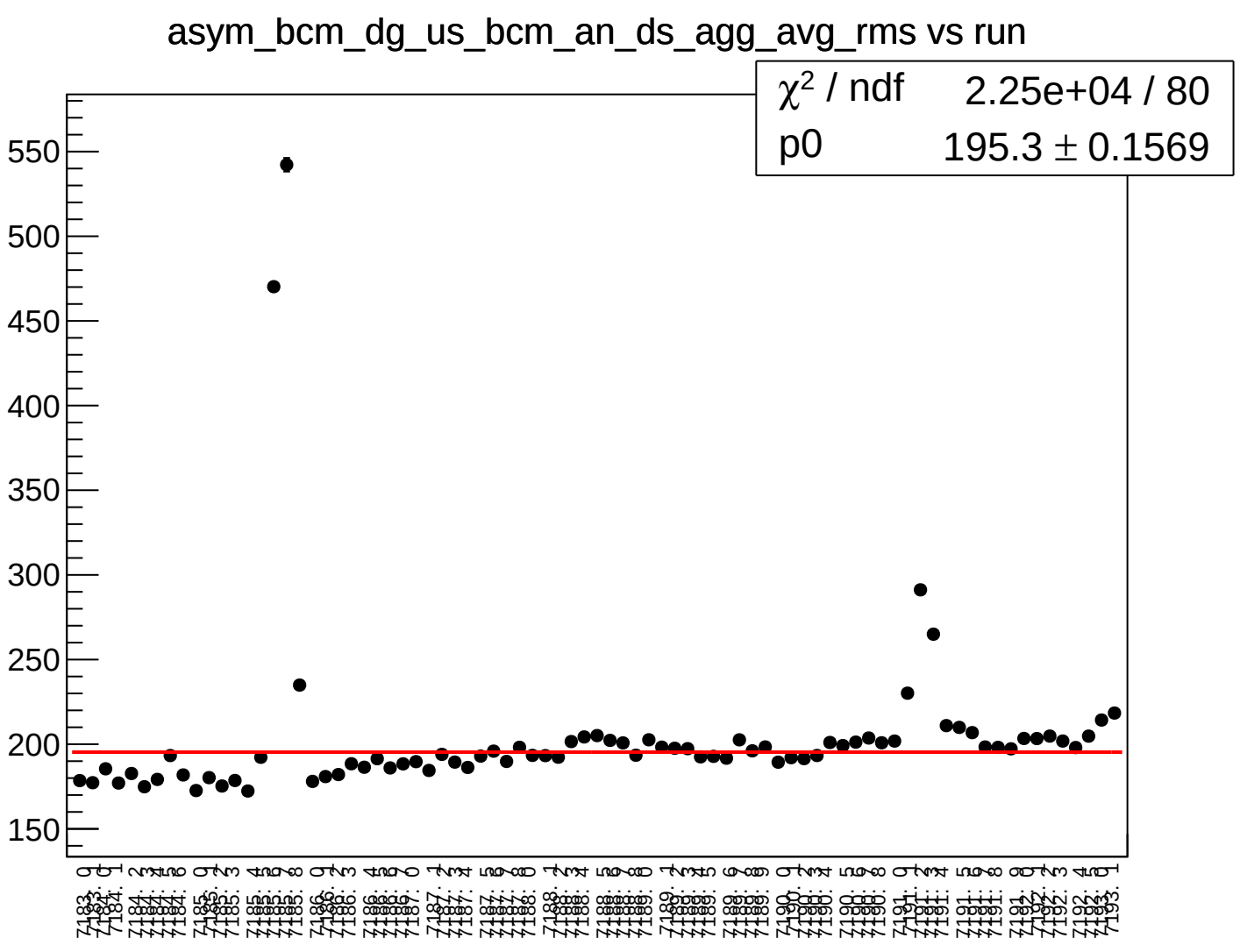

asym_bcm_an_us_bcm_an_ds3_agg_avg_rms vs run
χ² / ndf 2.278e+04 / 80
p0 193.9 ± 0.1558
550
500
450
400
350
300
250
200
150

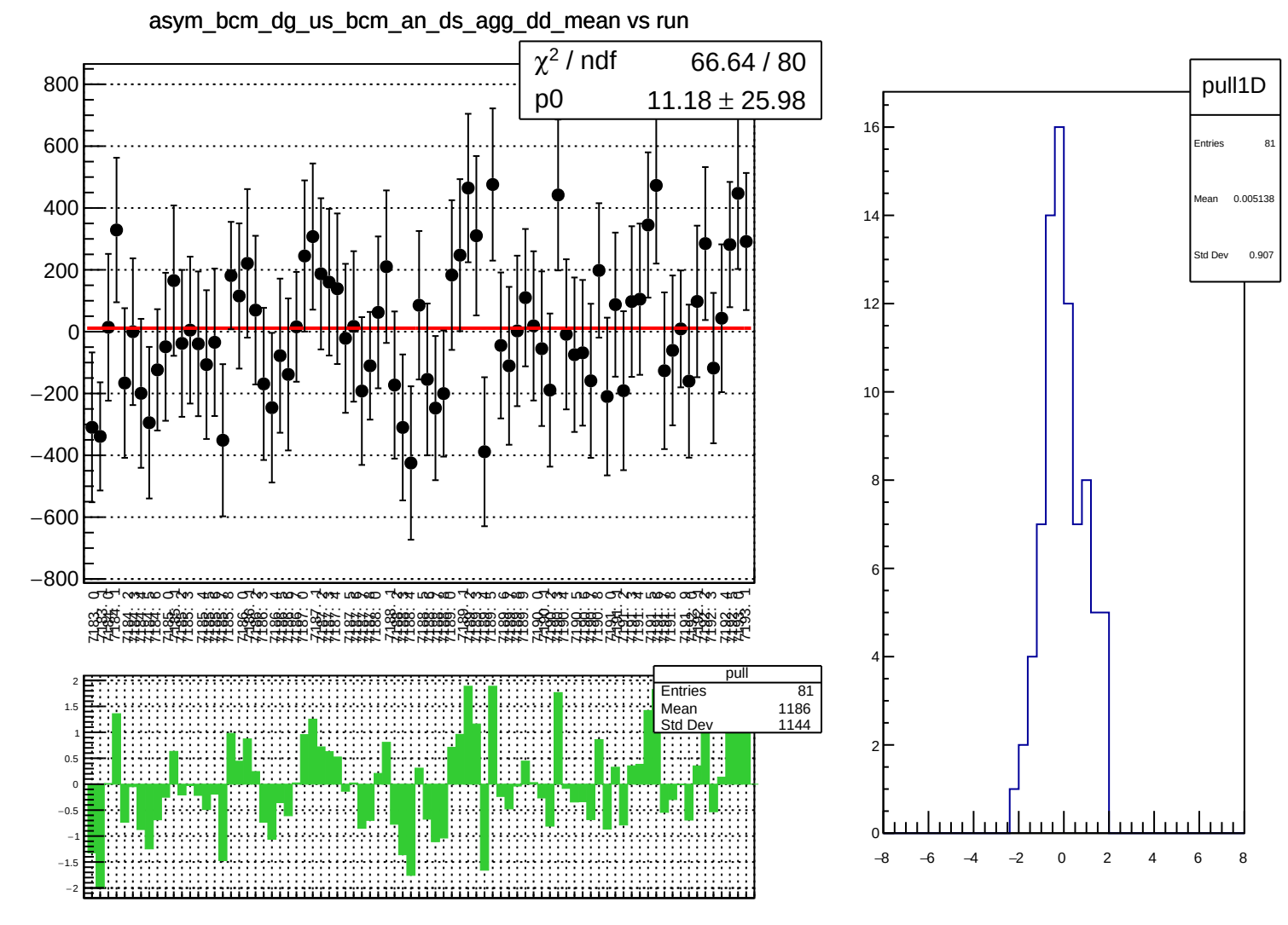

asym_bcm_an_us_bcm_an_ds3_agg_dd_mean vs run
χ² / ndf 69.35 / 80
p0 −3.04 ± 11.36
pull
Entries 81
Mean −1837
Std Dev 1881

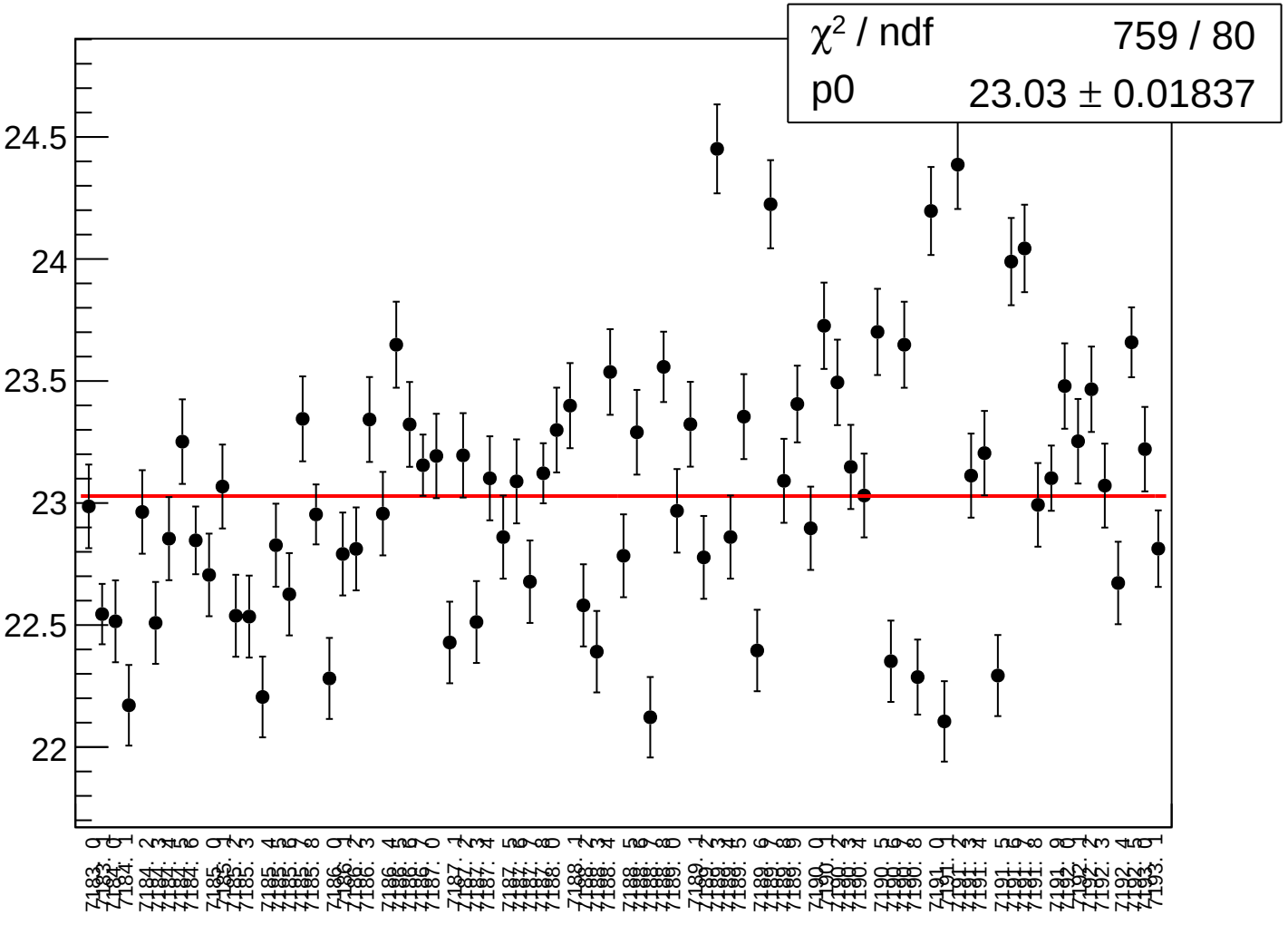

pull1D
Entries 81
Mean −0.002533
Std Dev 0.9253

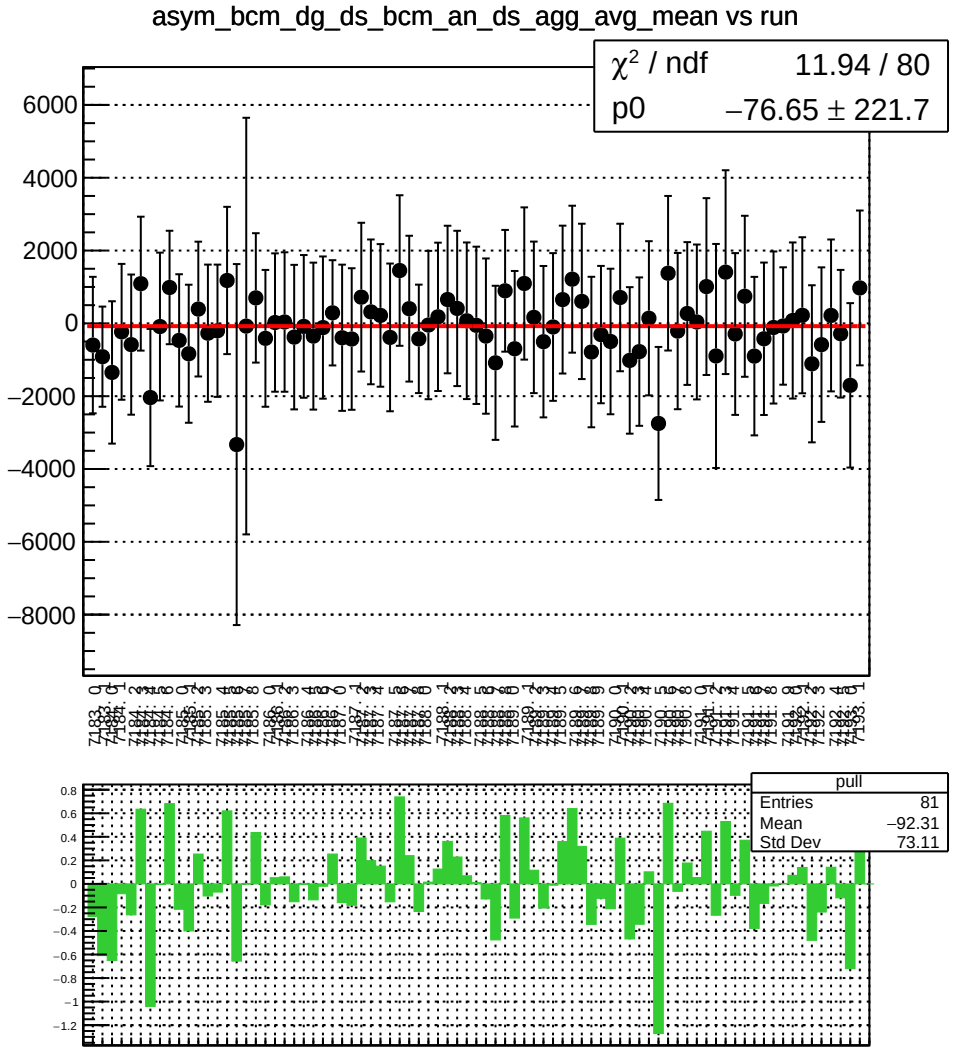

asym_bcm_an_us_bcm_an_ds3_agg_dd_rms vs run
χ² / ndf 1.344e+04 / 80
p0 10.03 ± 0.008032
12.5
12
11.5
11
10.5
10
9.5
9

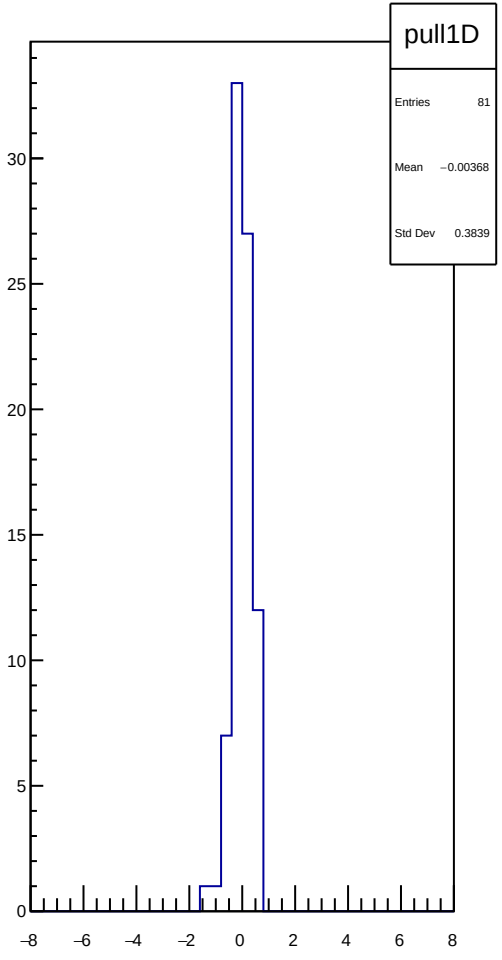

asym_bcm_dg_us_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 12.93 / 80
p0 −48.77 ± 221.9
pull
Entries 81
Mean −173.8
Std Dev 171.9
pull1D
Entries 81
Mean −0.002684
Std Dev 0.3995

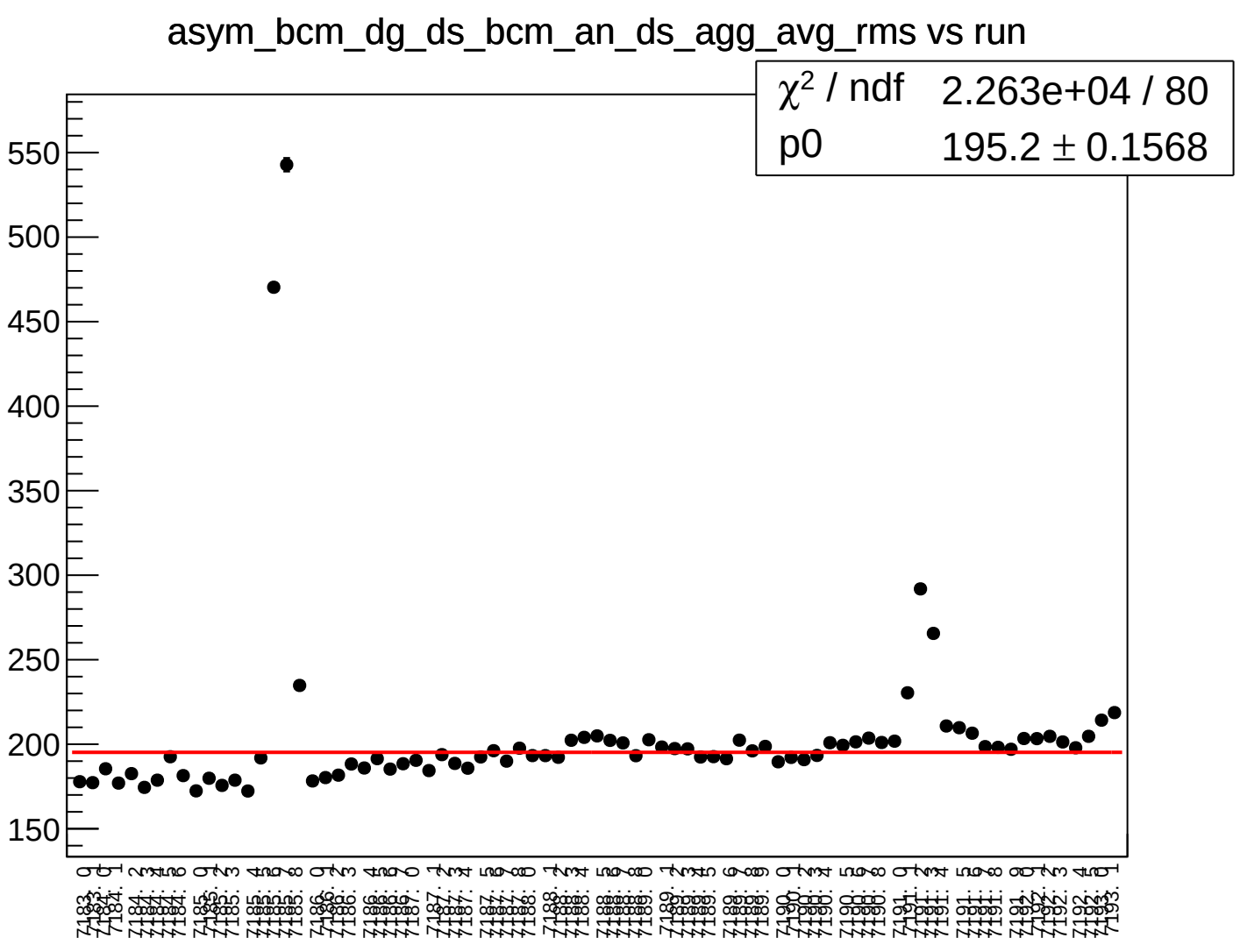

asym_bcm_dg_us_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 2.25e+04 / 80
p0 195.3 ± 0.1569
550
500
450
400
350
300
250
200
150

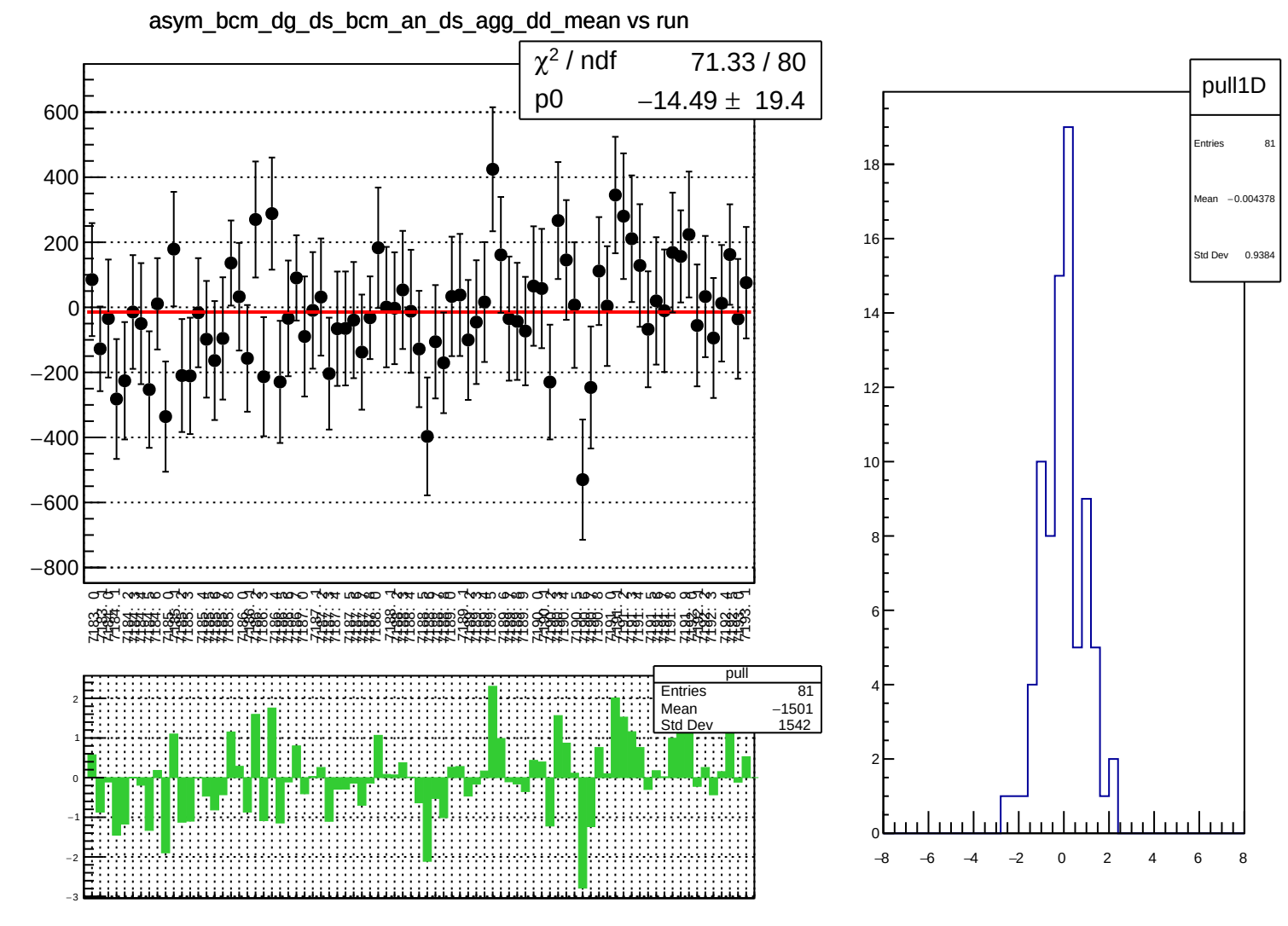

asym_bcm_dg_us_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 66.64 / 80
p0 11.18 ± 25.98
pull
Entries 81
Mean 1186
Std Dev 1144
pull1D
Entries 81
Mean 0.005138
Std Dev 0.907

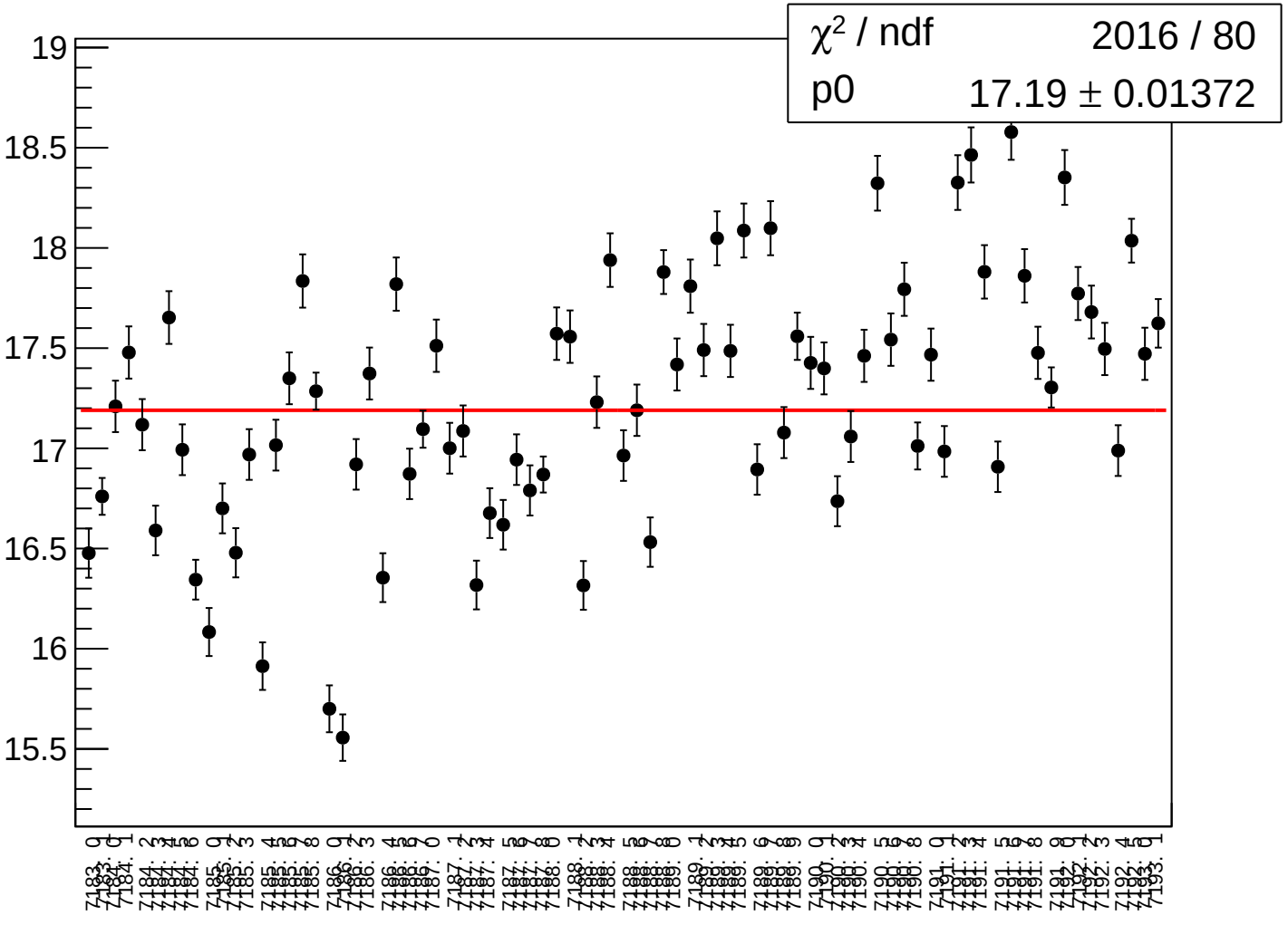

asym_bcm_dg_us_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 759 / 80
p0 23.03 ± 0.01837
24.5
24
23.5
23
22.5
22

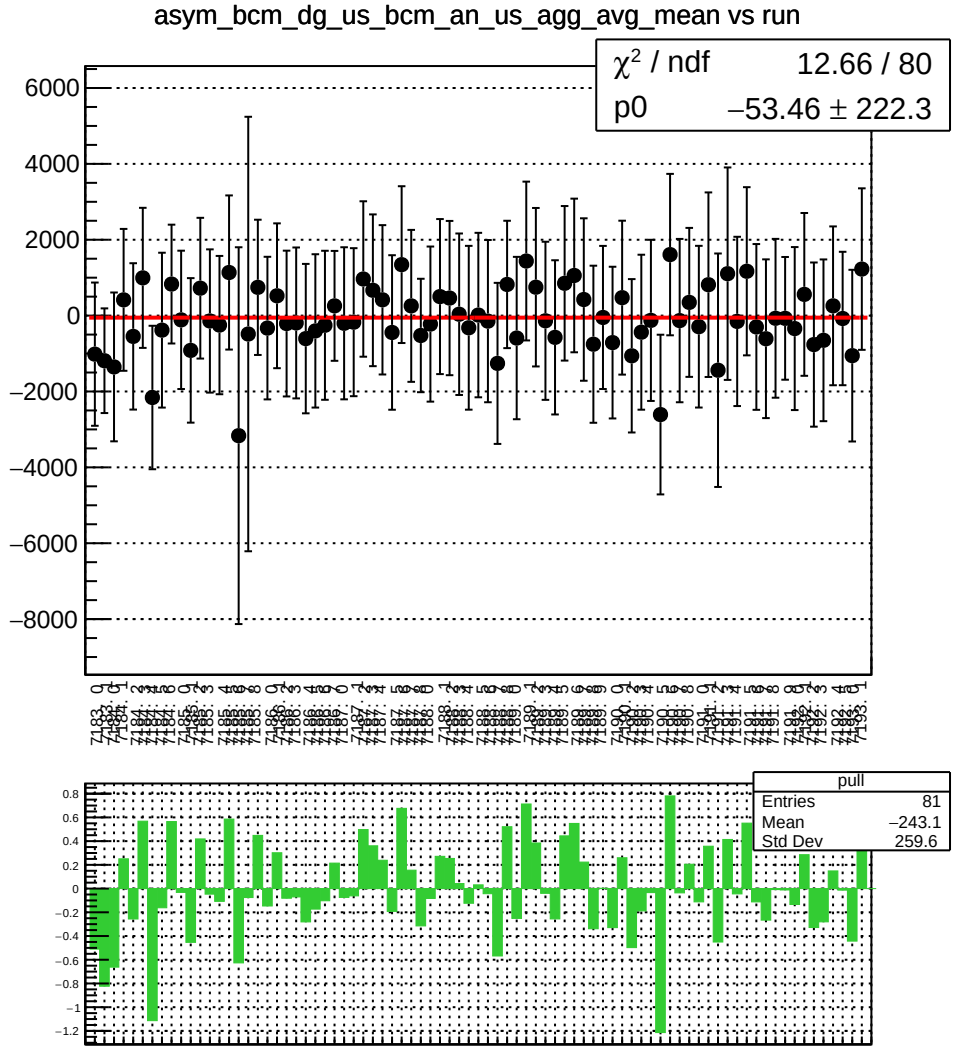

asym_bcm_dg_ds_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 11.94 / 80
p0 −76.65 ± 221.7
pull
Entries 81
Mean −92.31
Std Dev 73.11

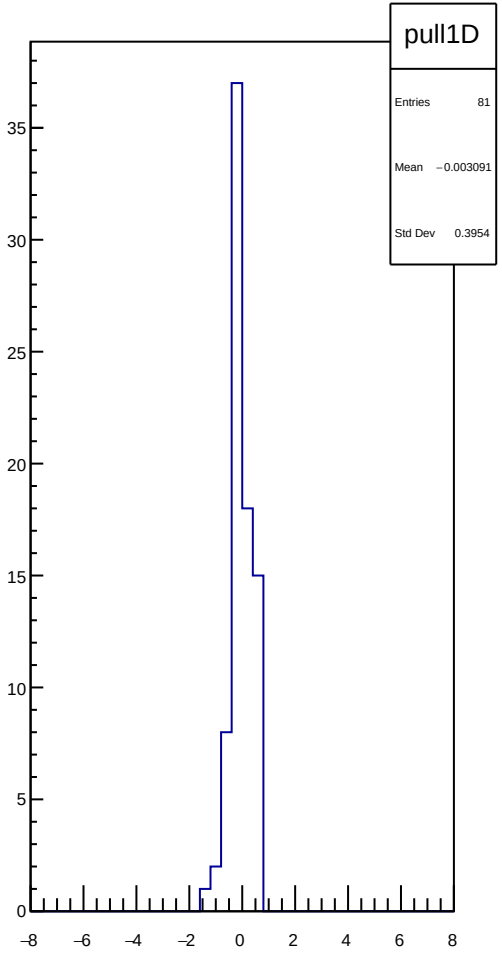

pull1D
Entries 81
Mean −0.00368
Std Dev 0.3839

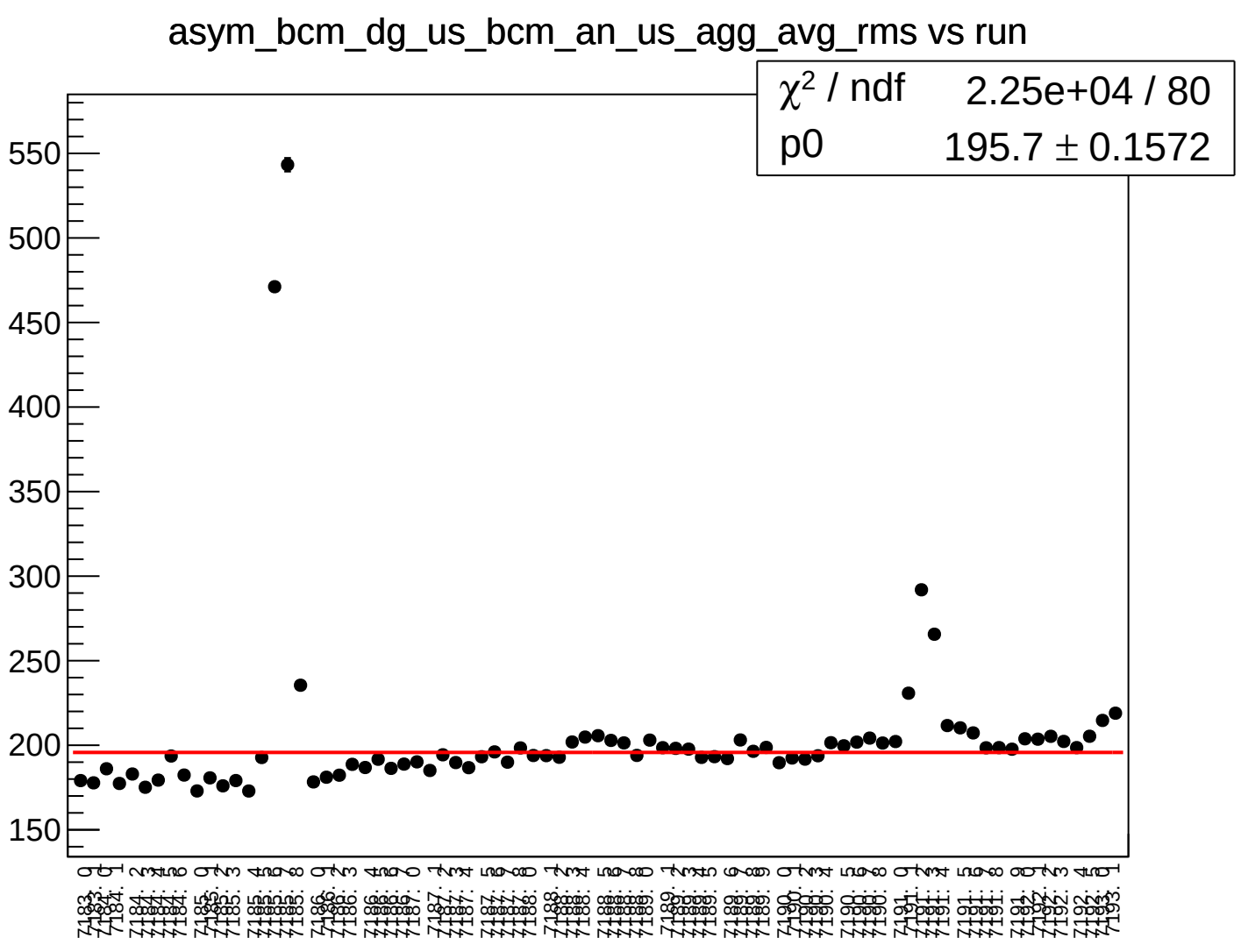

asym_bcm_dg_ds_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 2.263e+04 / 80
p0 195.2 ± 0.1568
550
500
450
400
350
300
250
200
150

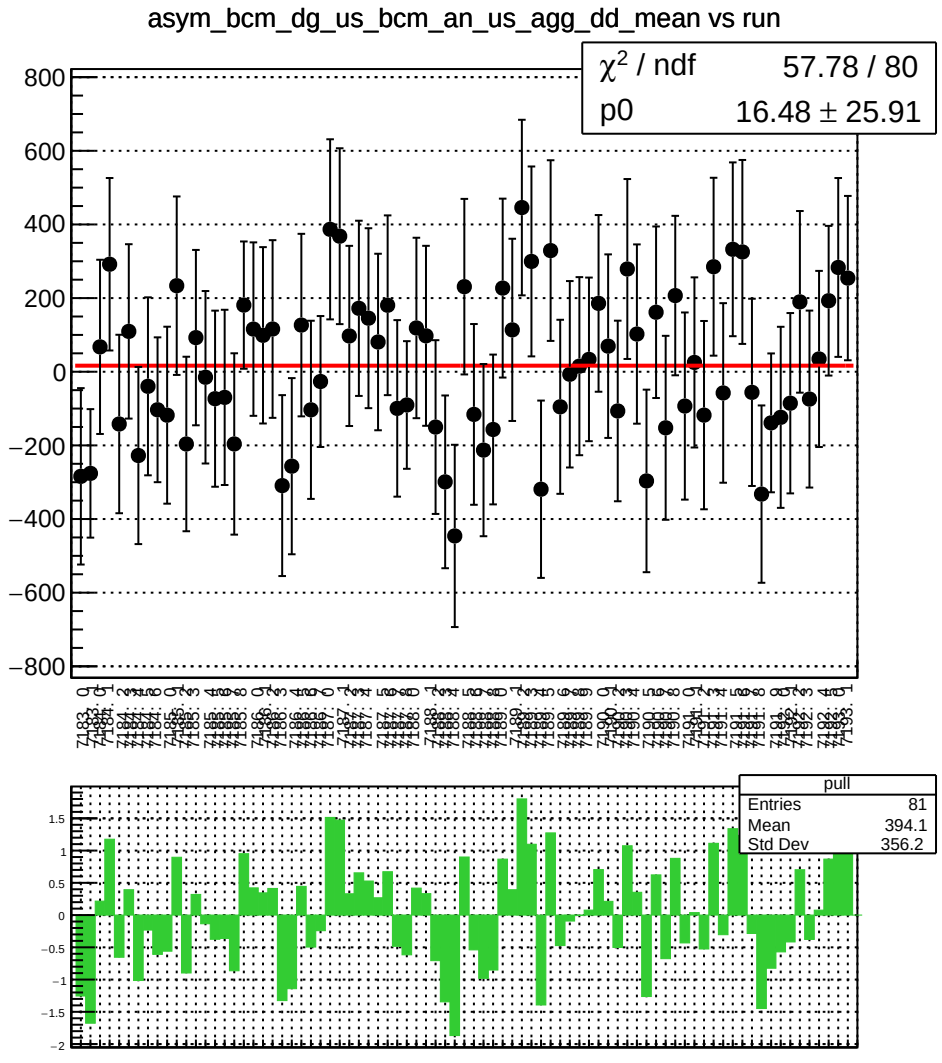

asym_bcm_dg_ds_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 71.33 / 80
p0 −14.49 ± 19.4
pull
Entries 81
Mean −1501
Std Dev 1542
pull1D
Entries 81
Mean −0.004378
Std Dev 0.9384

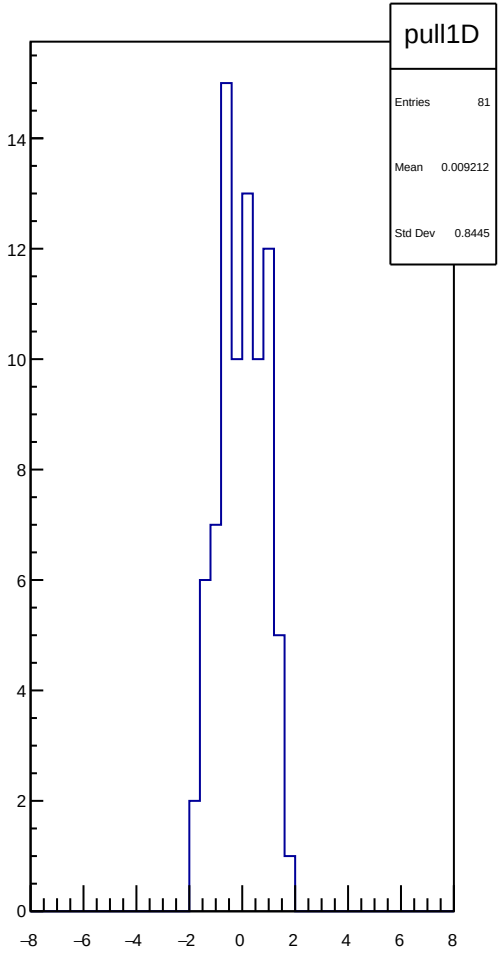

asym_bcm_dg_ds_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 2016 / 80
p0 17.19 ± 0.01372
19
18.5
18
17.5
17
16.5
16
15.5

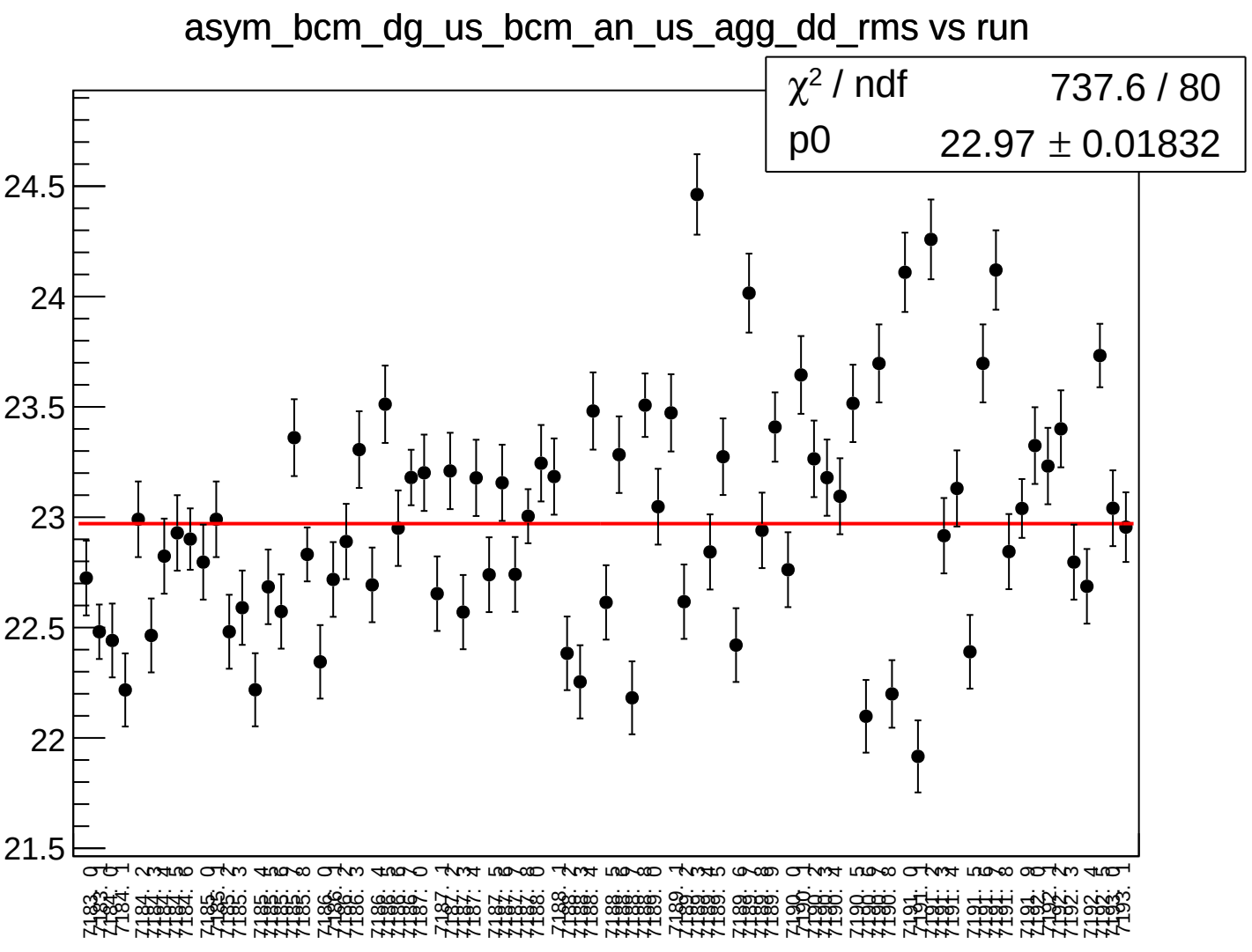

asym_bcm_dg_us_bcm_an_us_agg_avg_mean vs run
χ² / ndf 12.66 / 80
p0 −53.46 ± 222.3
pull
Entries 81
Mean −243.1
Std Dev 259.6

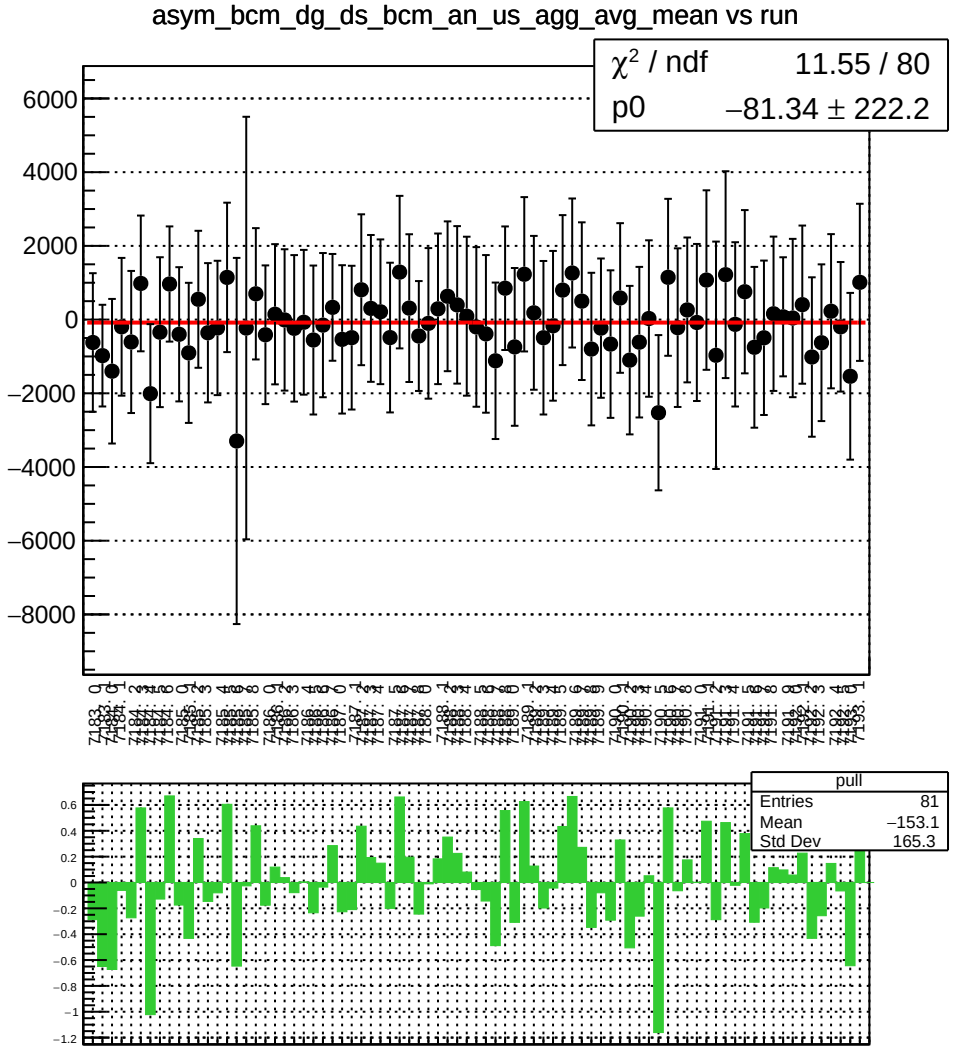

pull1D
Entries 81
Mean −0.003091
Std Dev 0.3954

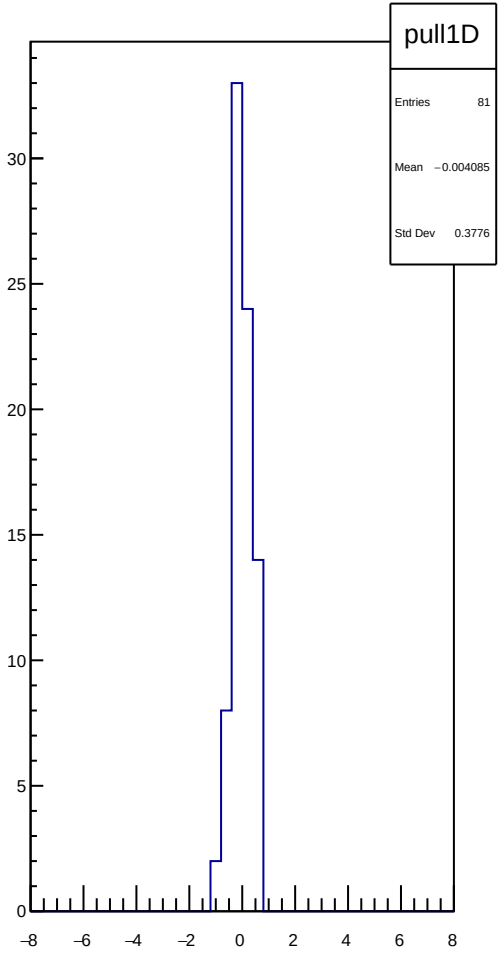

asym_bcm_dg_us_bcm_an_us_agg_avg_rms vs run
χ² / ndf 2.25e+04 / 80
p0 195.7 ± 0.1572
550
500
450
400
350
300
250
200
150

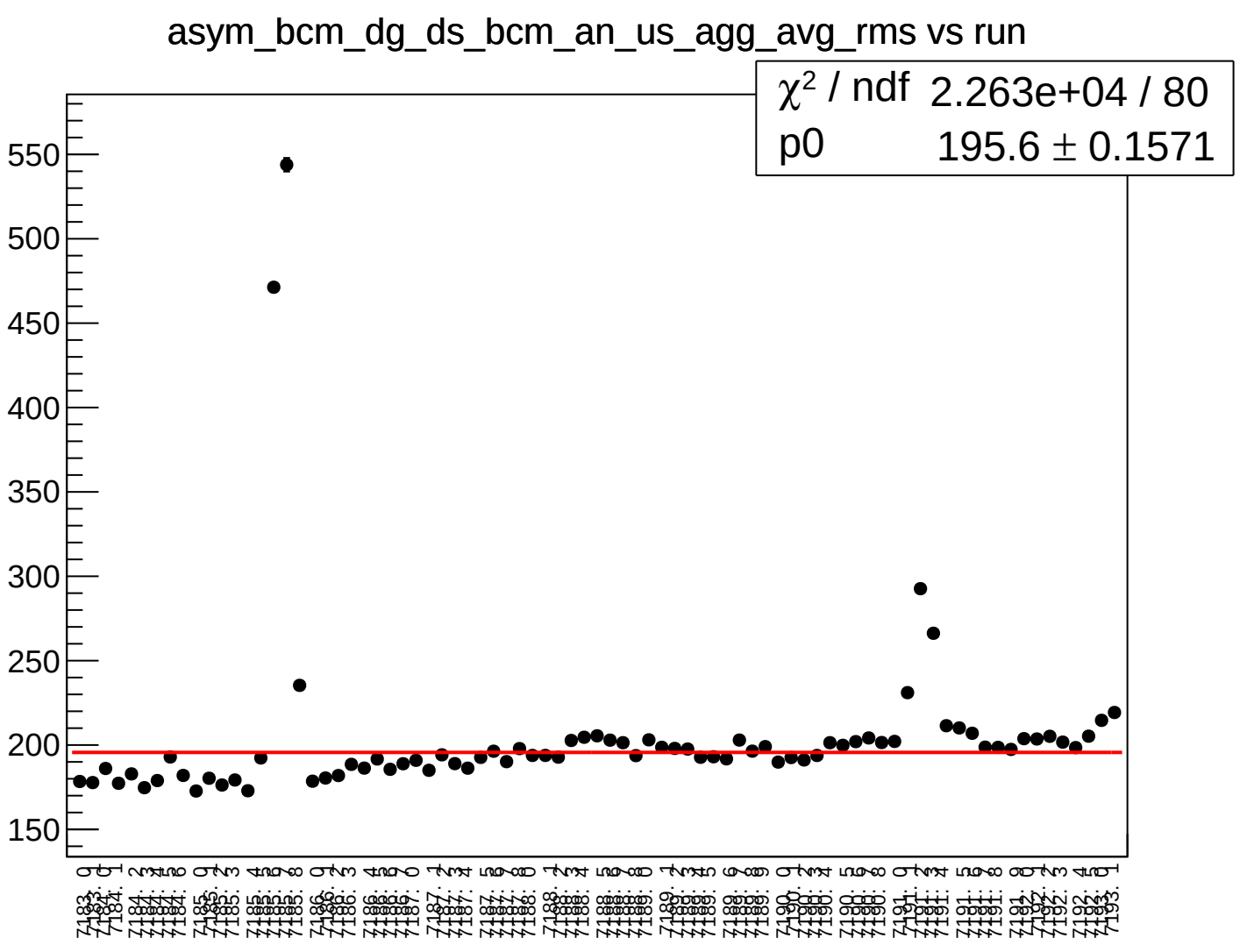

asym_bcm_dg_us_bcm_an_us_agg_dd_mean vs run
χ² / ndf 57.78 / 80
p0 16.48 ± 25.91
pull
Entries 81
Mean 394.1
Std Dev 356.2

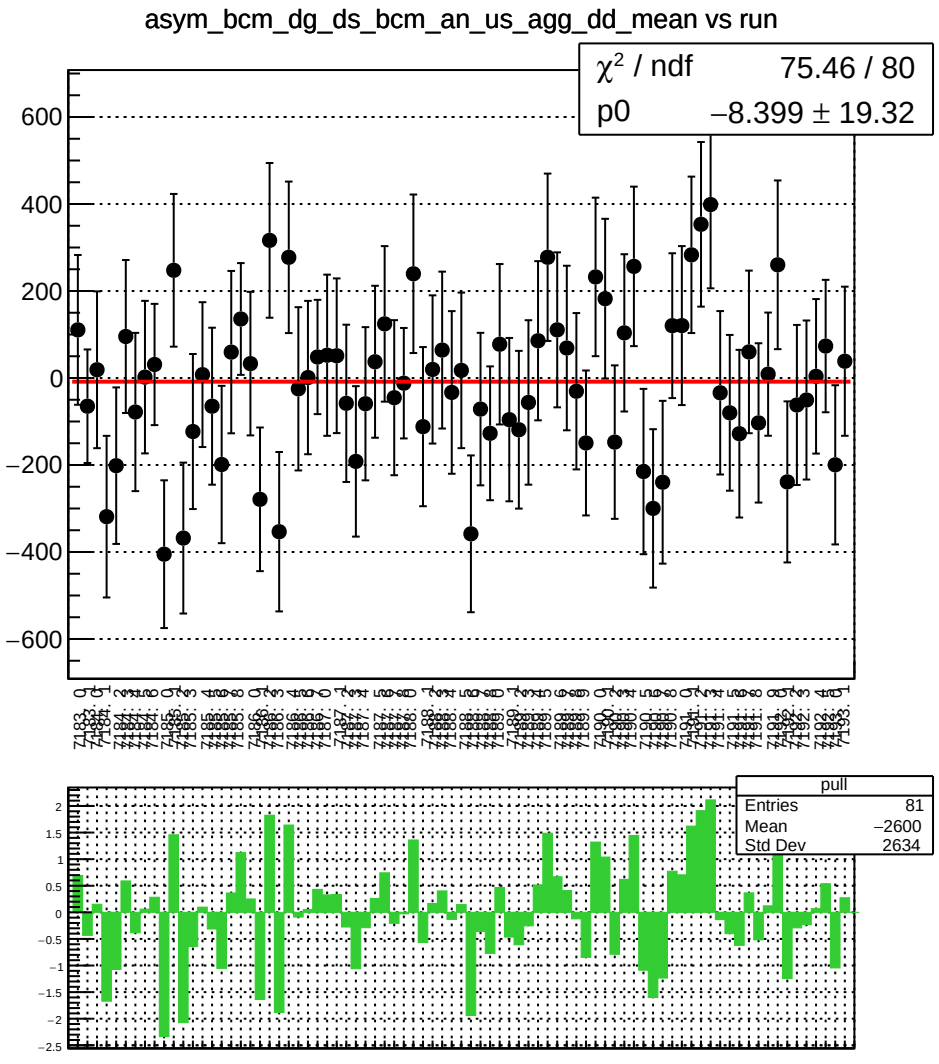

pull1D
Entries 81
Mean 0.009212
Std Dev 0.8445

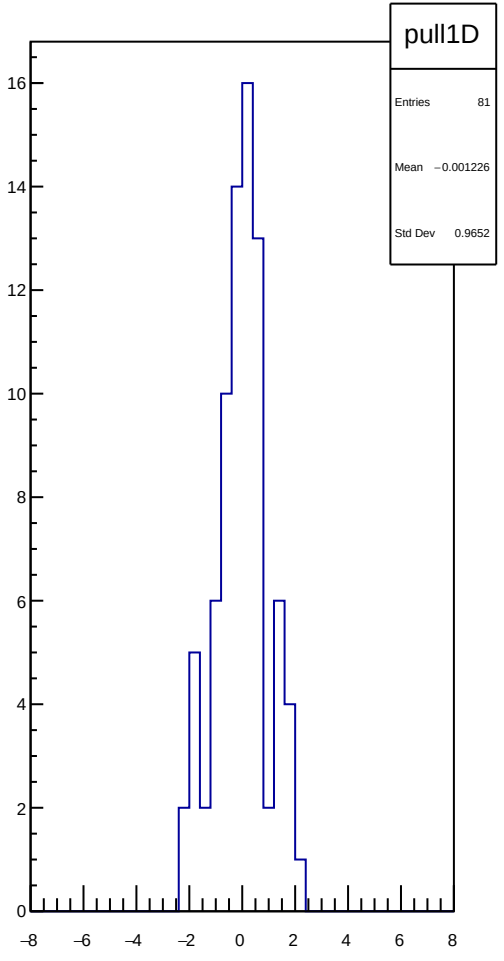

asym_bcm_dg_us_bcm_an_us_agg_dd_rms vs run
χ² / ndf 737.6 / 80
p0 22.97 ± 0.01832
24.5
24
23.5
23
22.5
22
21.5

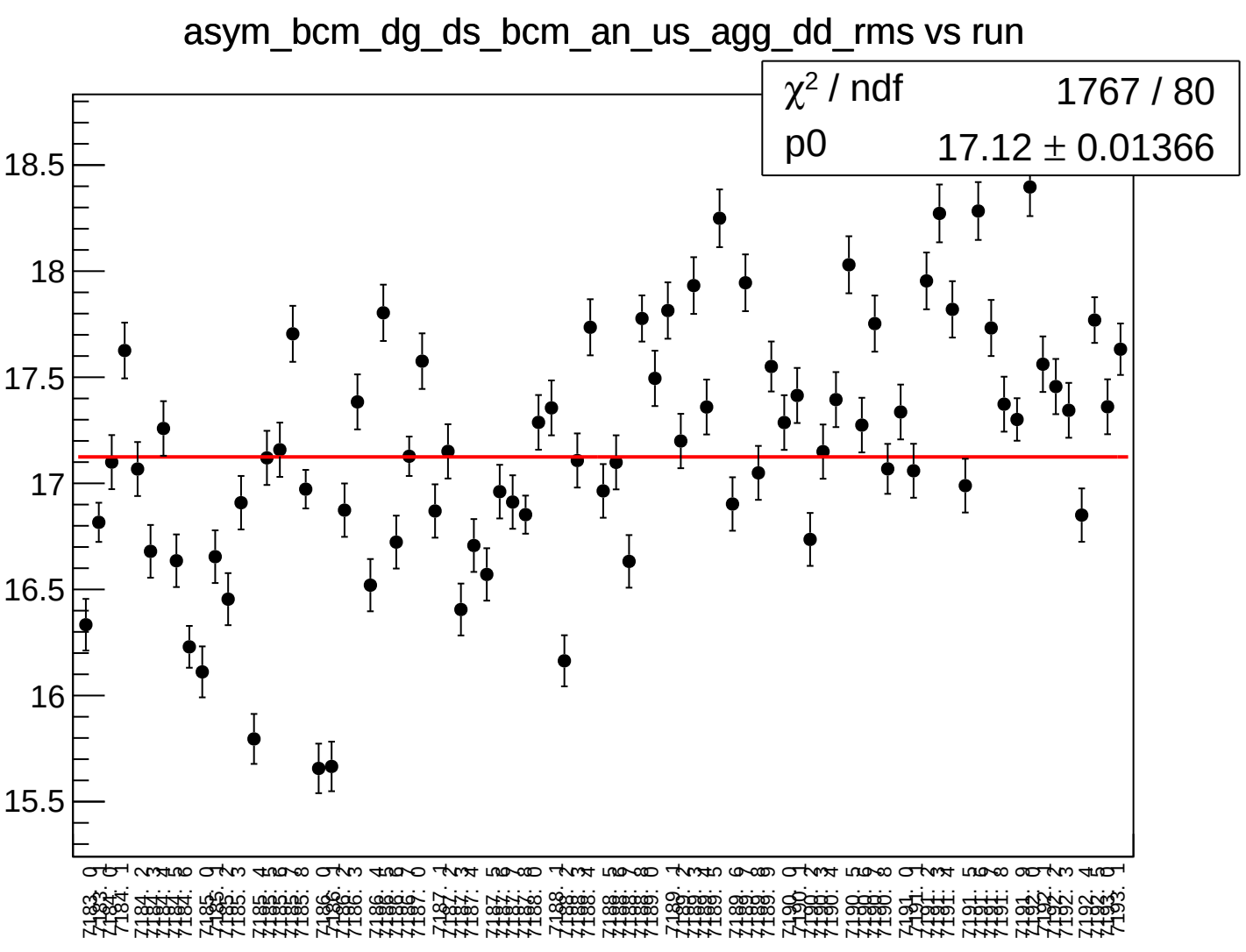

asym_bcm_dg_ds_bcm_an_us_agg_avg_mean vs run
χ² / ndf 11.55 / 80
p0 −81.34 ± 222.2
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean −153.1
Std Dev 165.3
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
−1.2

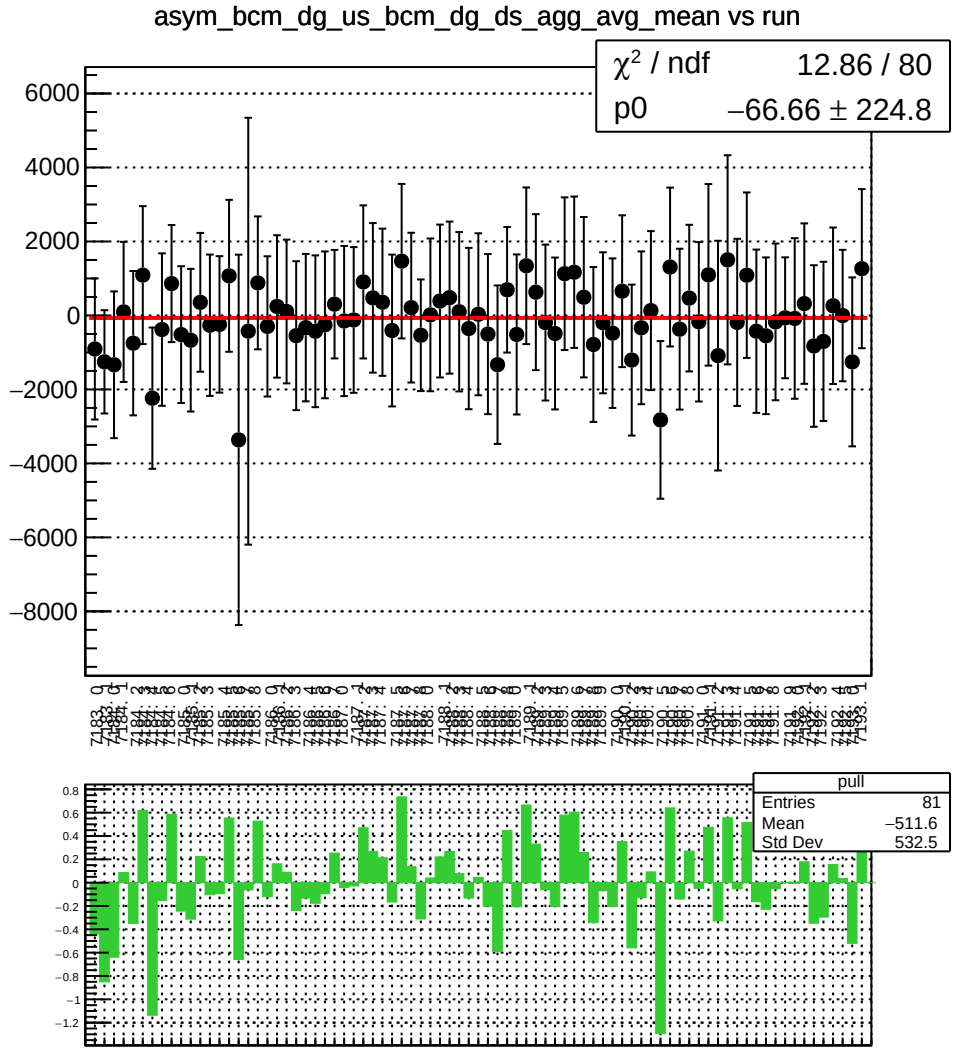

pull1D
Entries 81
Mean −0.004085
Std Dev 0.3776
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

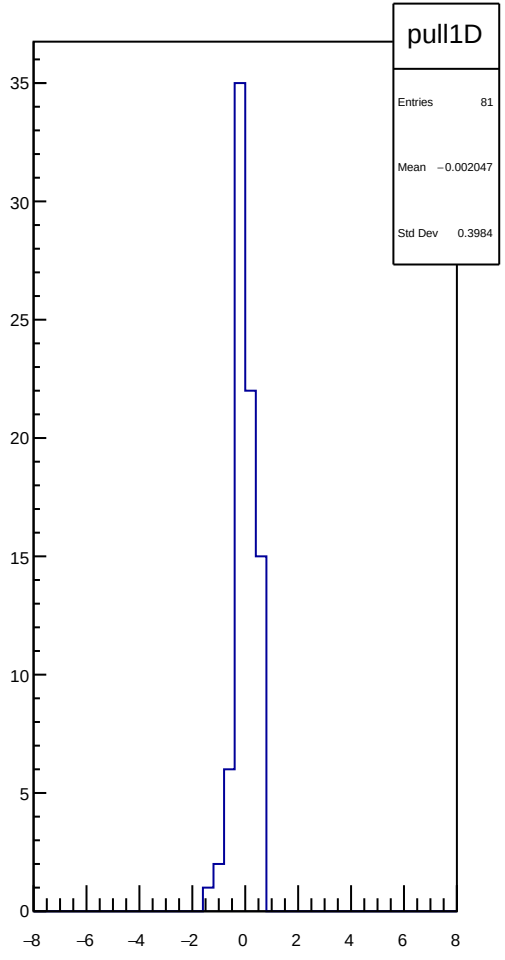

asym_bcm_dg_ds_bcm_an_us_agg_avg_rms vs run
χ² / ndf 2.263e+04 / 80
p0 195.6 ± 0.1571
550
500
450
400
350
300
250
200
150

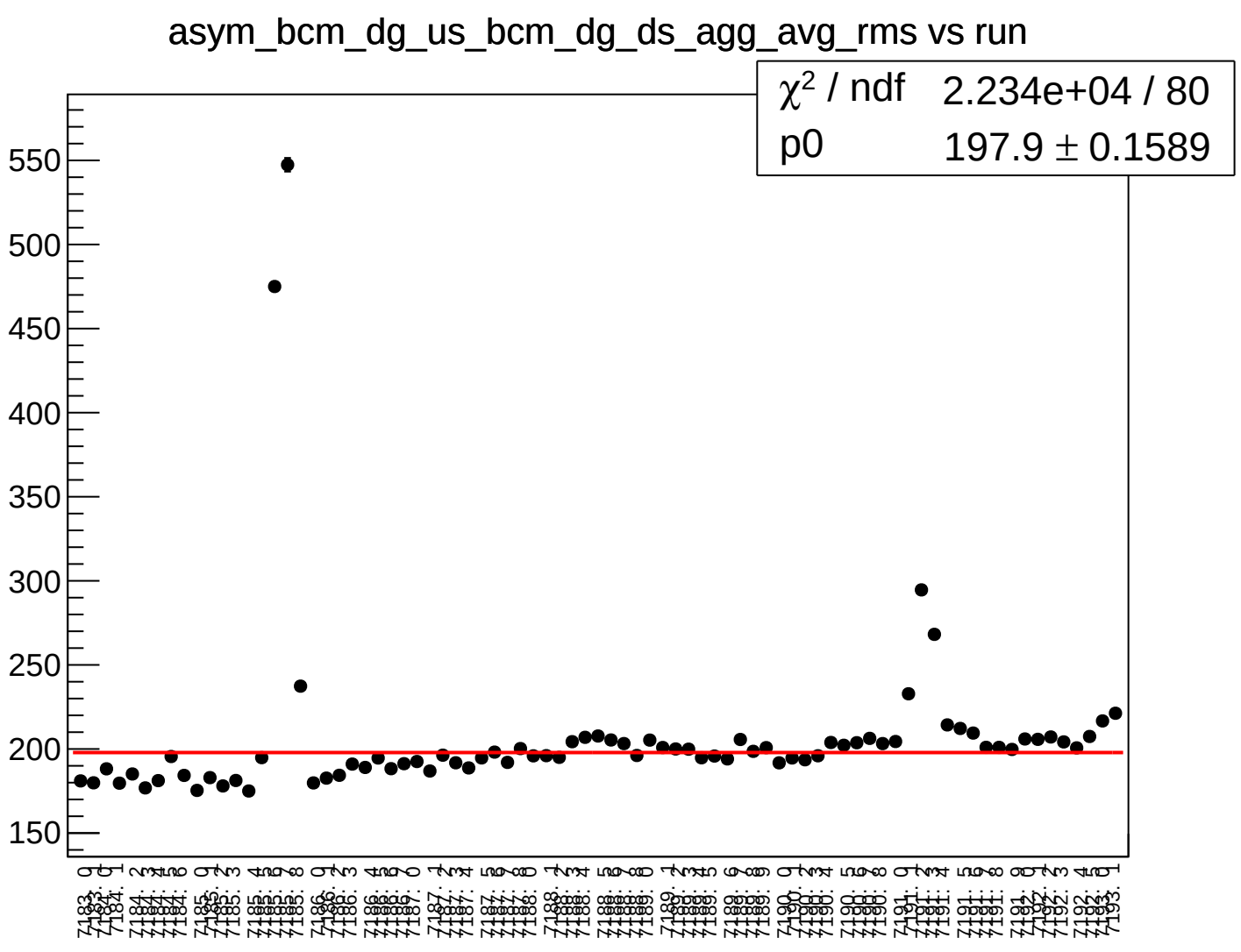

asym_bcm_dg_ds_bcm_an_us_agg_dd_mean vs run
χ² / ndf 75.46 / 80
p0 −8.399 ± 19.32
pull
Entries 81
Mean −2600
Std Dev 2634

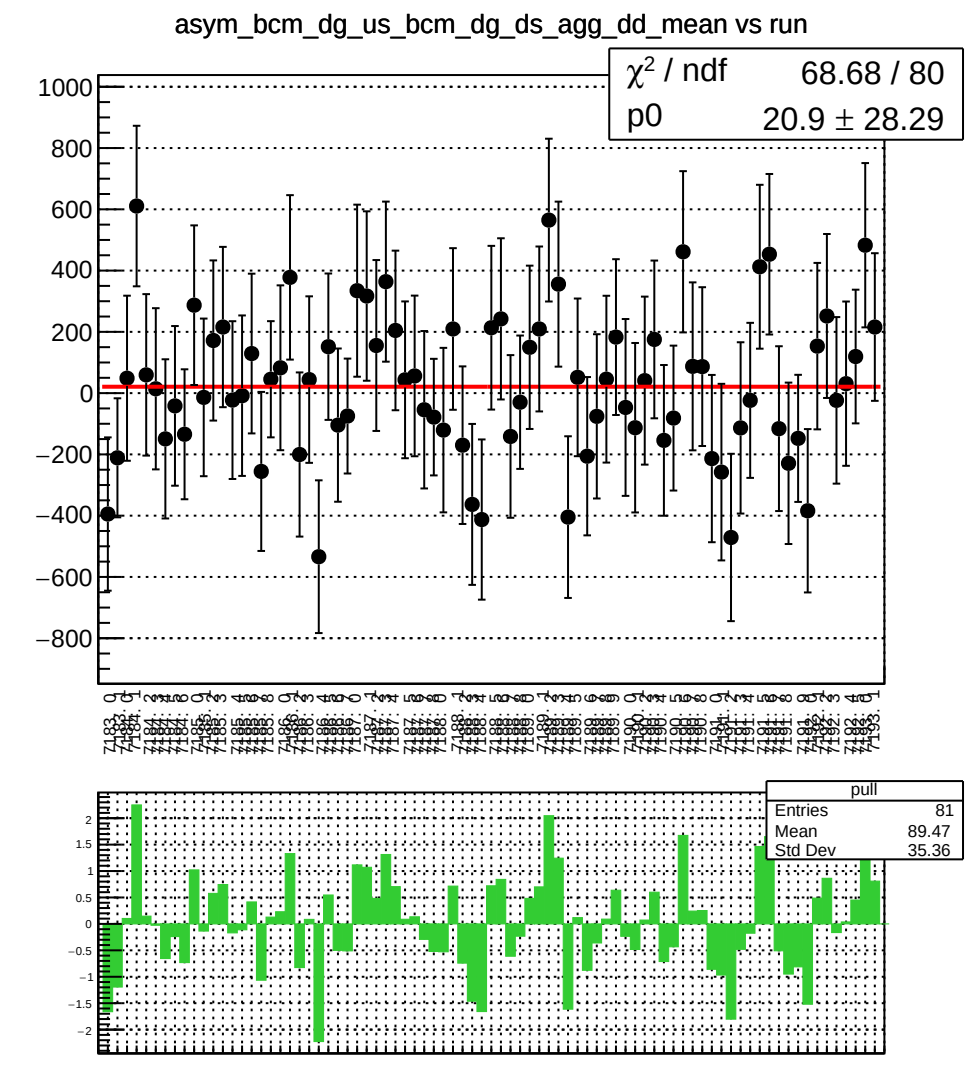

pull1D
Entries 81
Mean −0.001226
Std Dev 0.9652

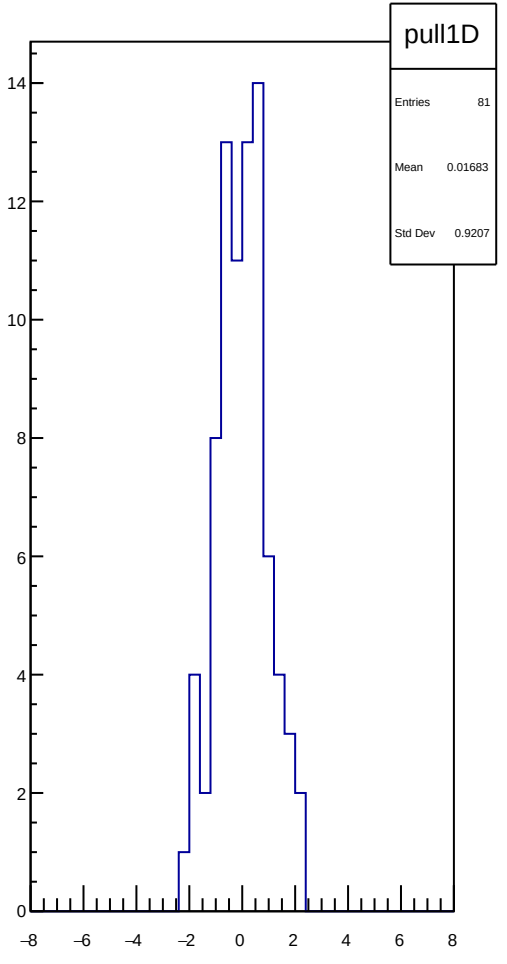

asym_bcm_dg_ds_bcm_an_us_agg_dd_rms vs run
χ² / ndf 1767 / 80
p0 17.12 ± 0.01366
18.5
18
17.5
17
16.5
16
15.5

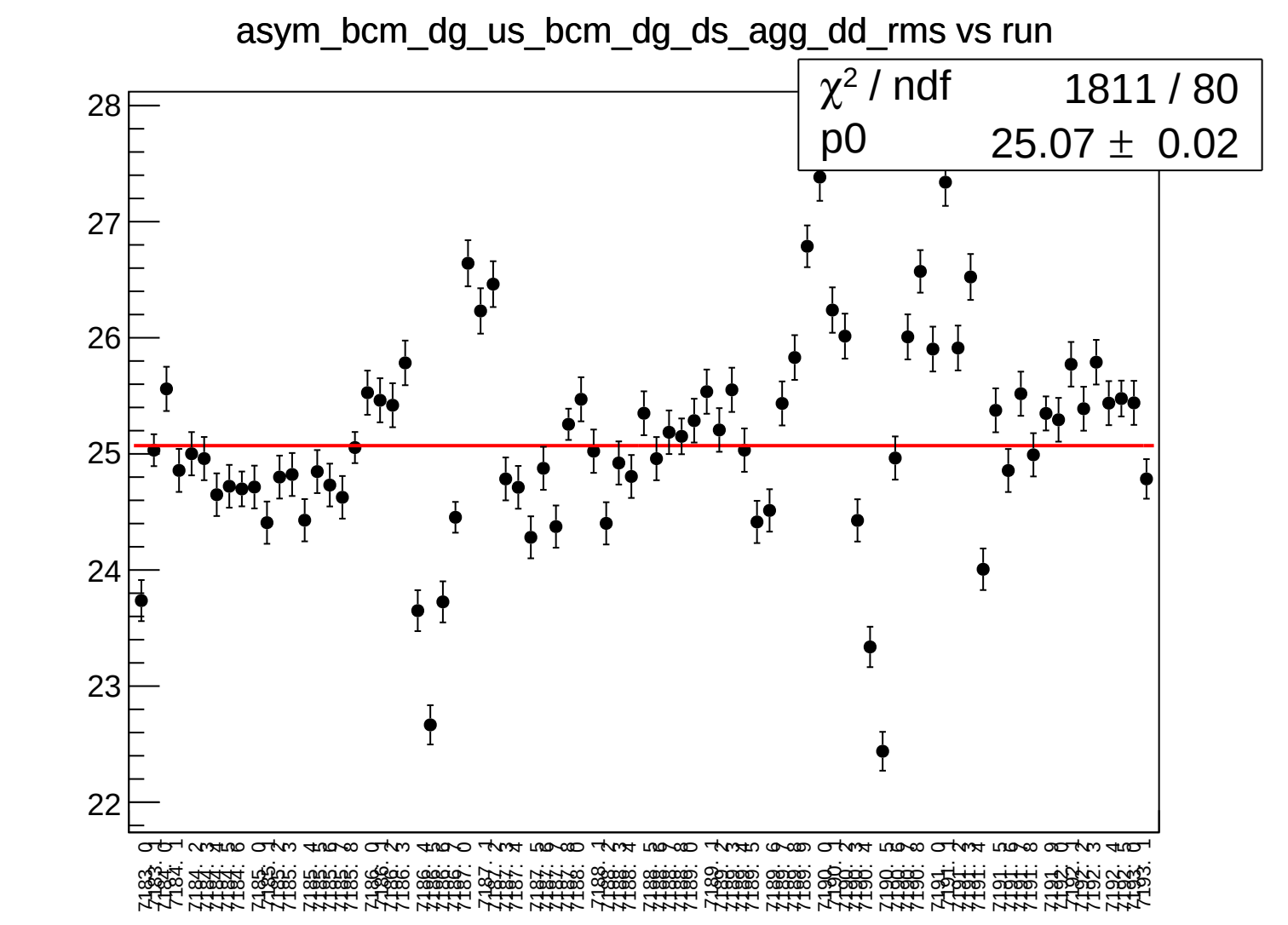

asym_bcm_dg_us_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 12.86 / 80
p0 −66.66 ± 224.8
pull
Entries 81
Mean −511.6
Std Dev 532.5

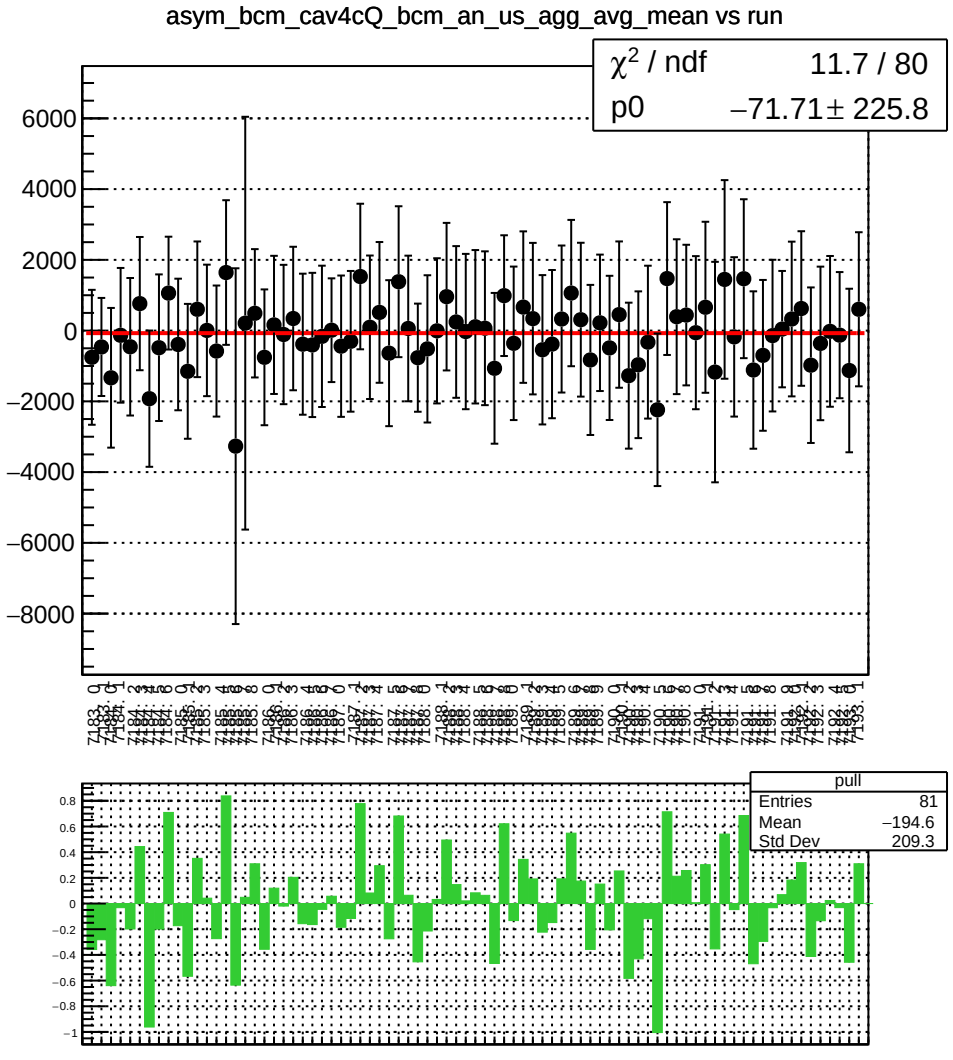

pull1D
Entries 81
Mean −0.002047
Std Dev 0.3984

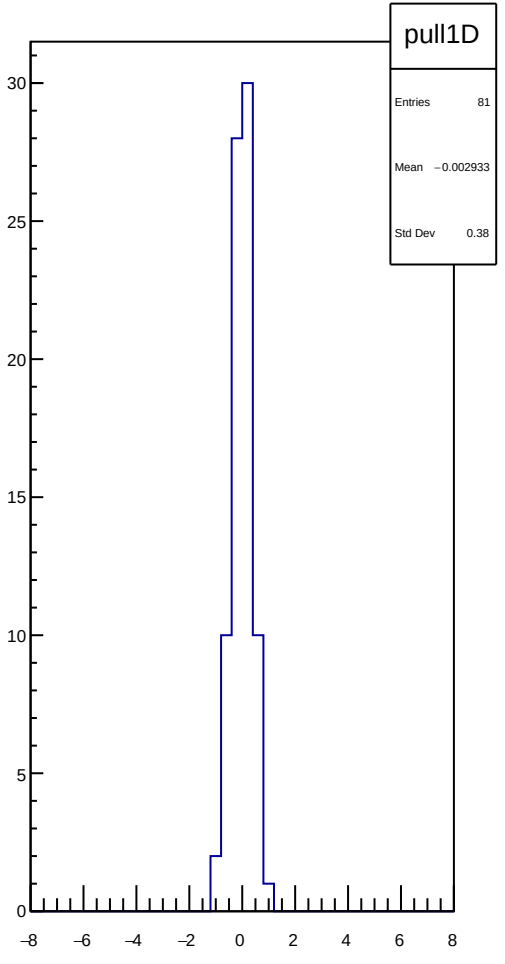

asym_bcm_dg_us_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 2.234e+04 / 80
p0 197.9 ± 0.1589
550
500
450
400
350
300
250
200
150

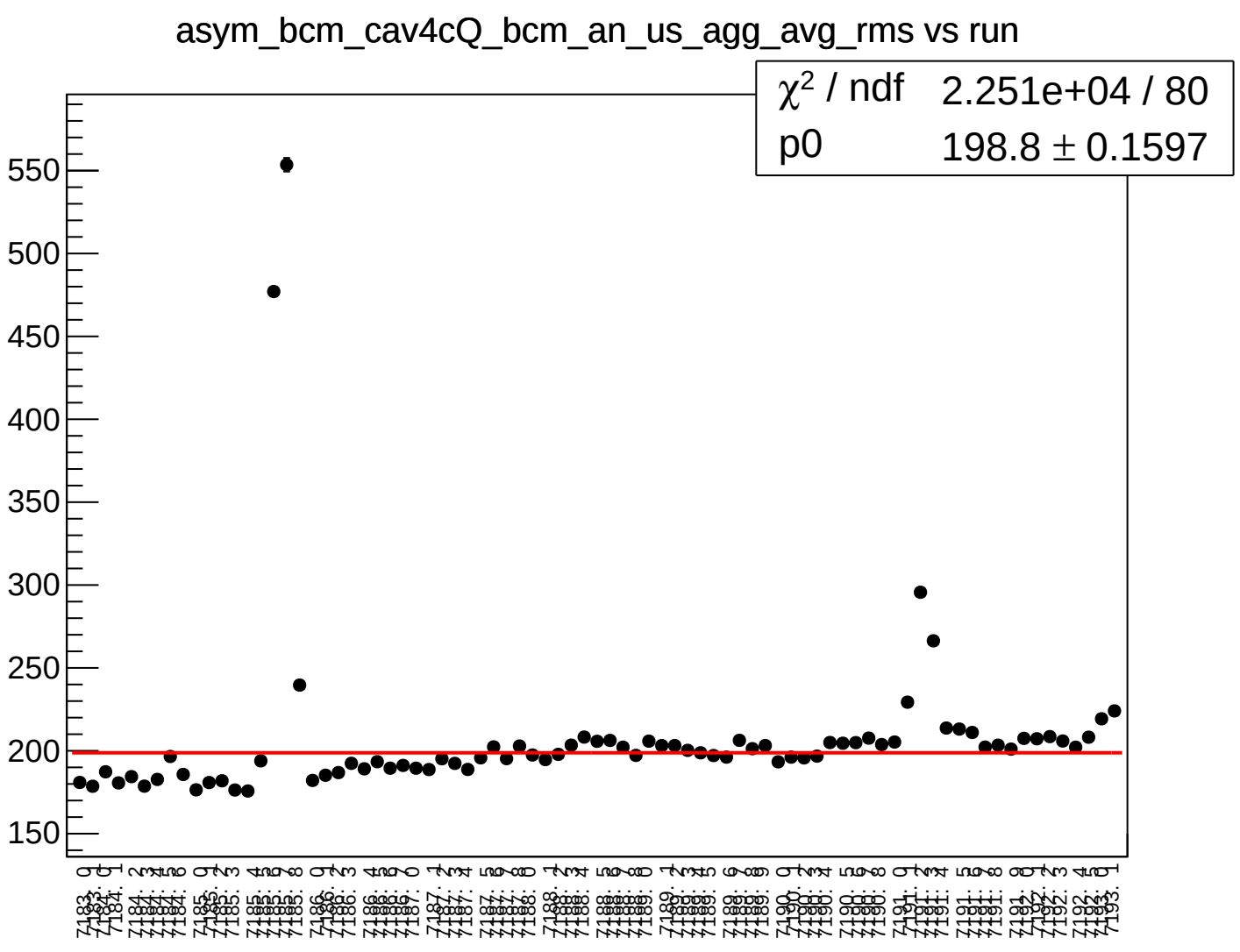

asym_bcm_dg_us_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 68.68 / 80
p0 20.9 ± 28.29
pull
Entries 81
Mean 89.47
Std Dev 35.36

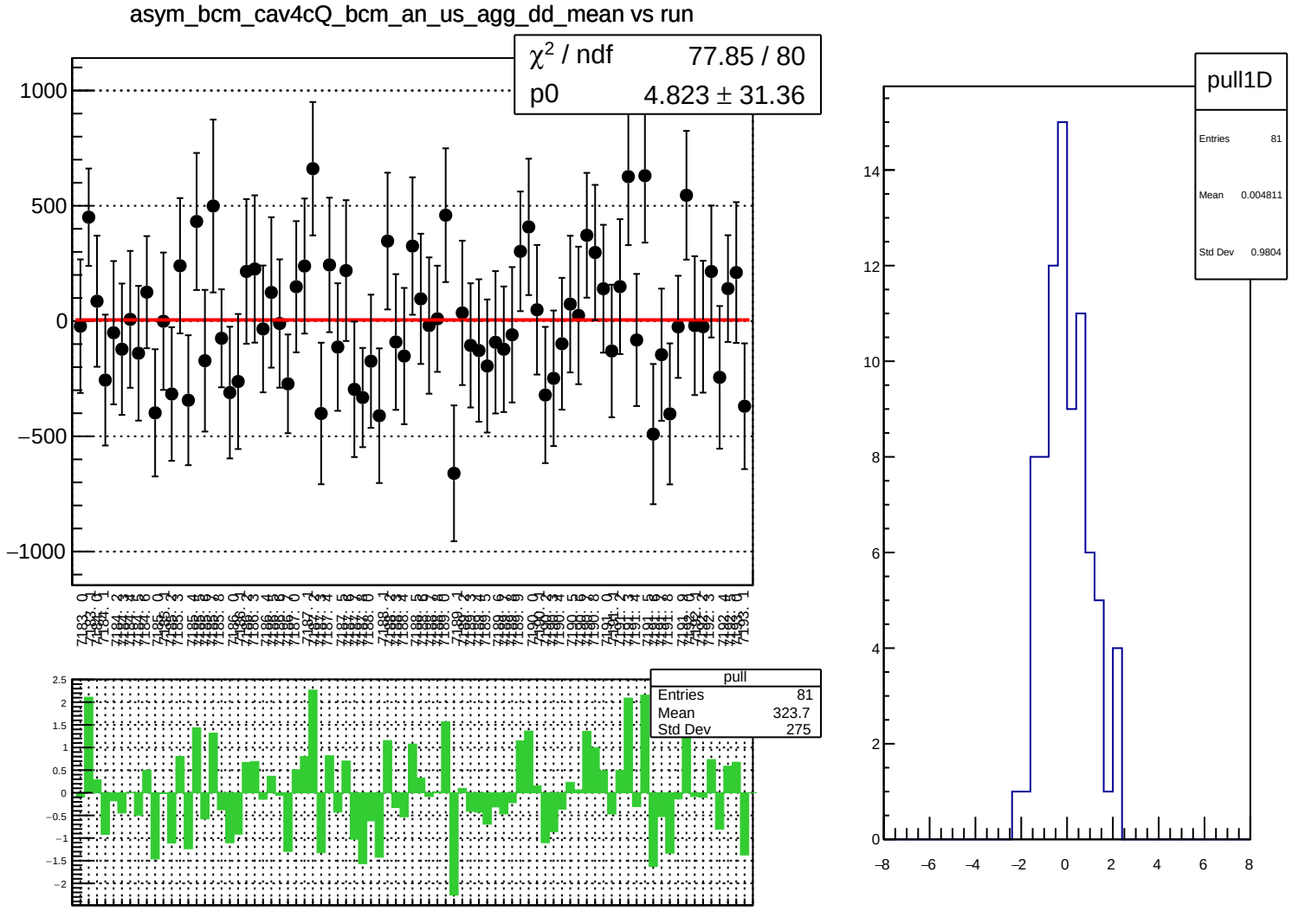

pull1D
Entries 81
Mean 0.01683
Std Dev 0.9207

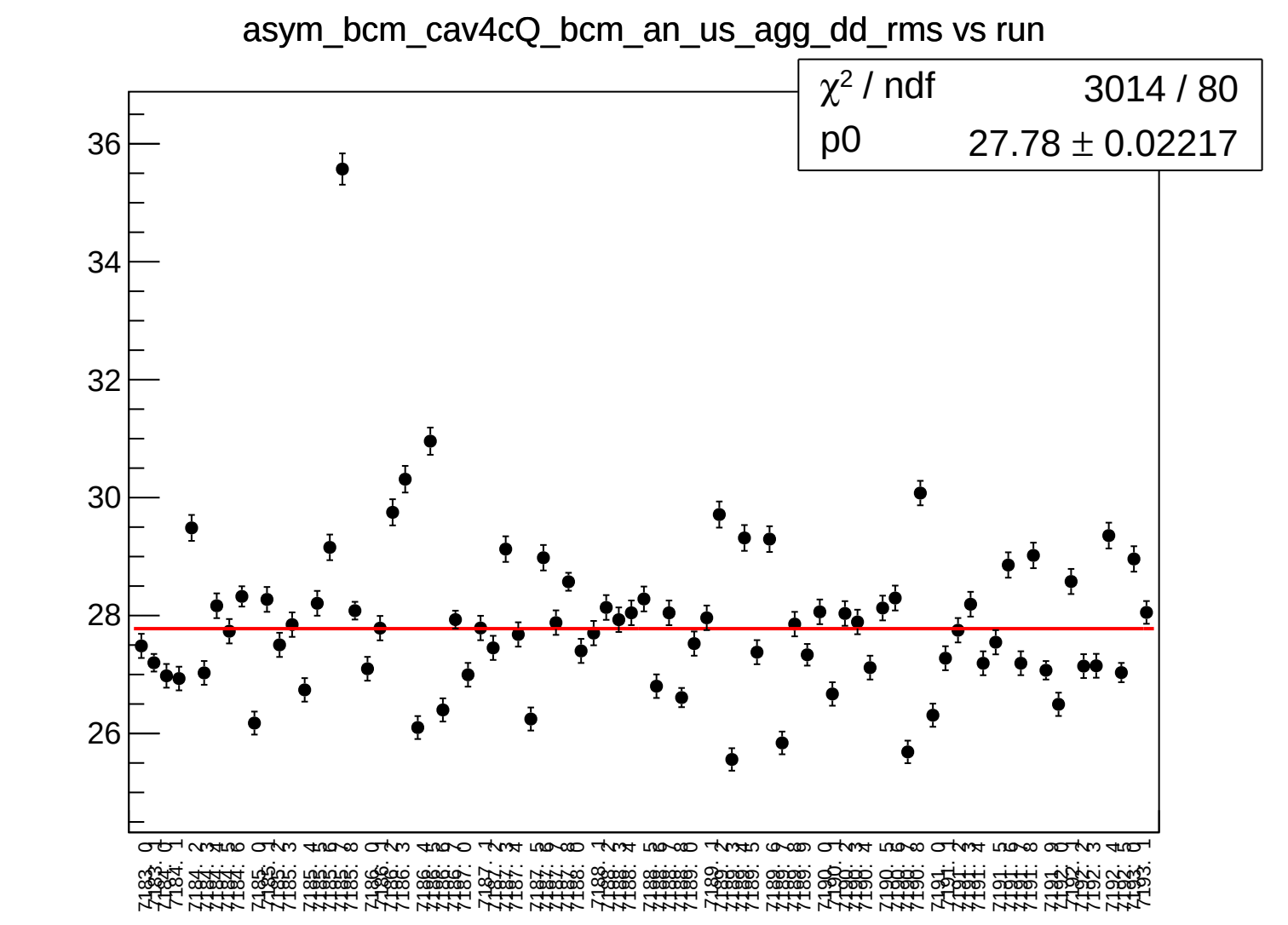

asym_bcm_dg_us_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 1811 / 80
p0 25.07 ± 0.02
28
27
26
25
24
23
22

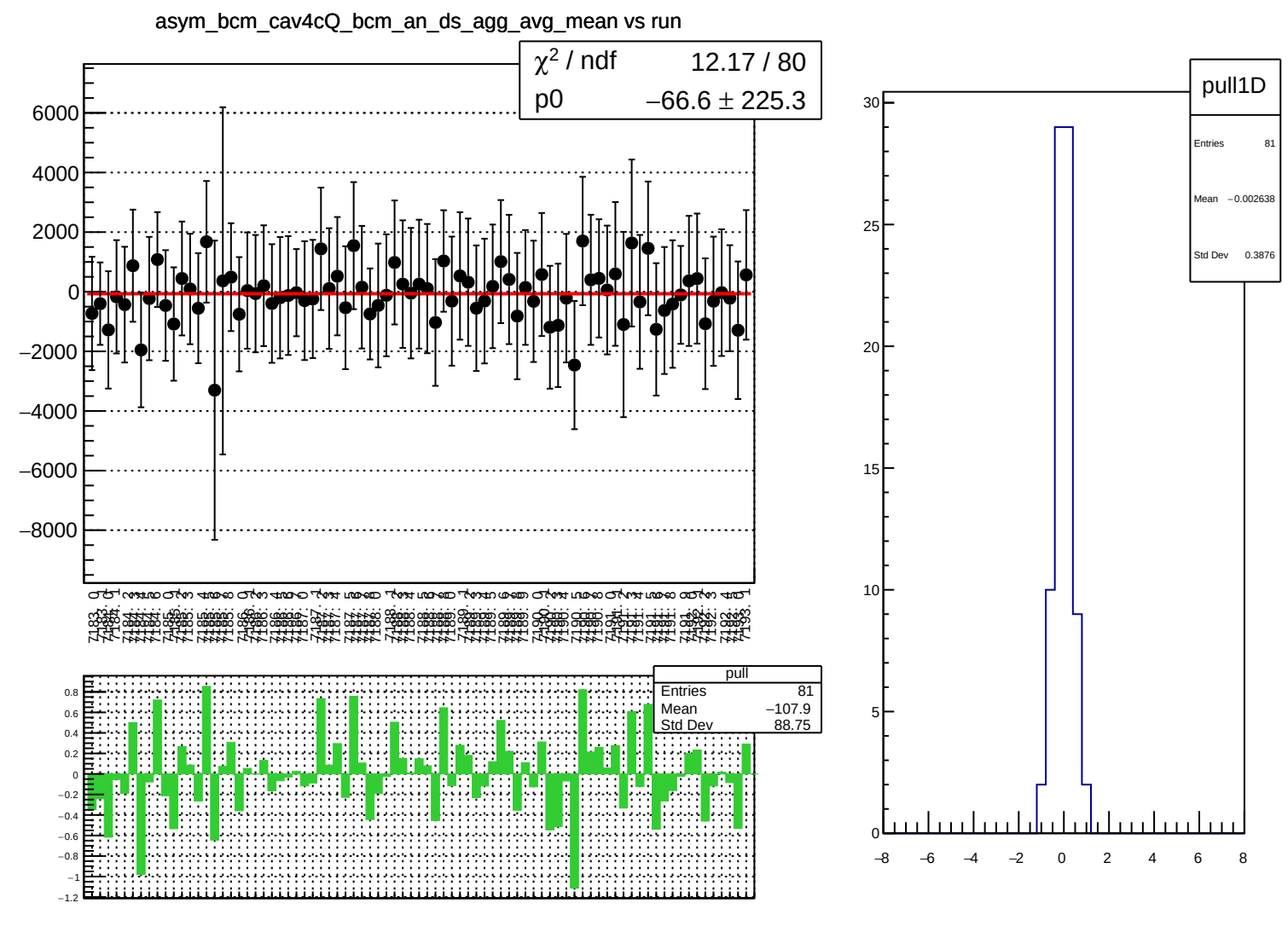

asym_bcm_cav4cQ_bcm_an_us_agg_avg_mean vs run
χ² / ndf 11.7 / 80
p0 −71.71± 225.8
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean −194.6
Std Dev 209.3
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1

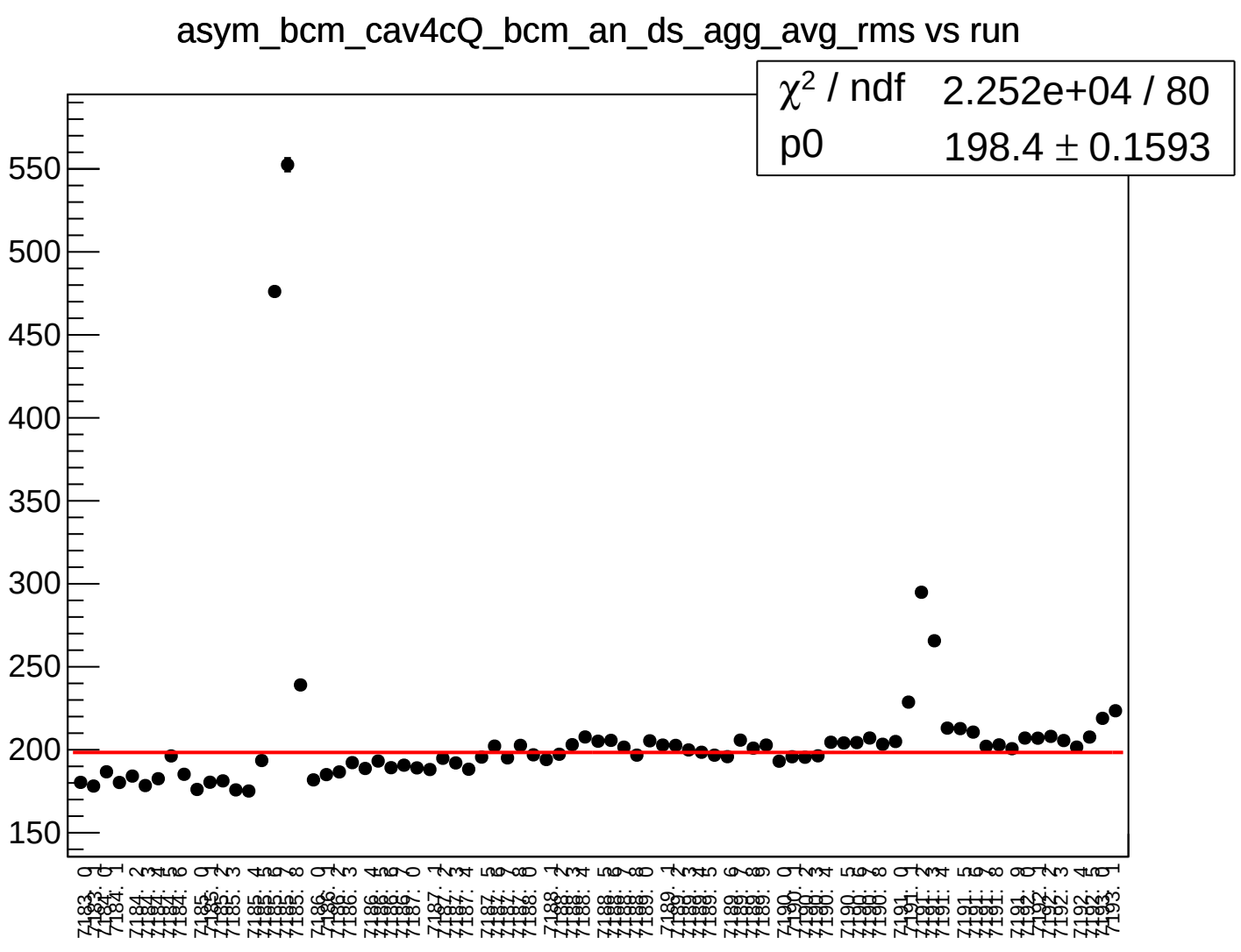

pull1D
Entries 81
Mean −0.002933
Std Dev 0.38
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

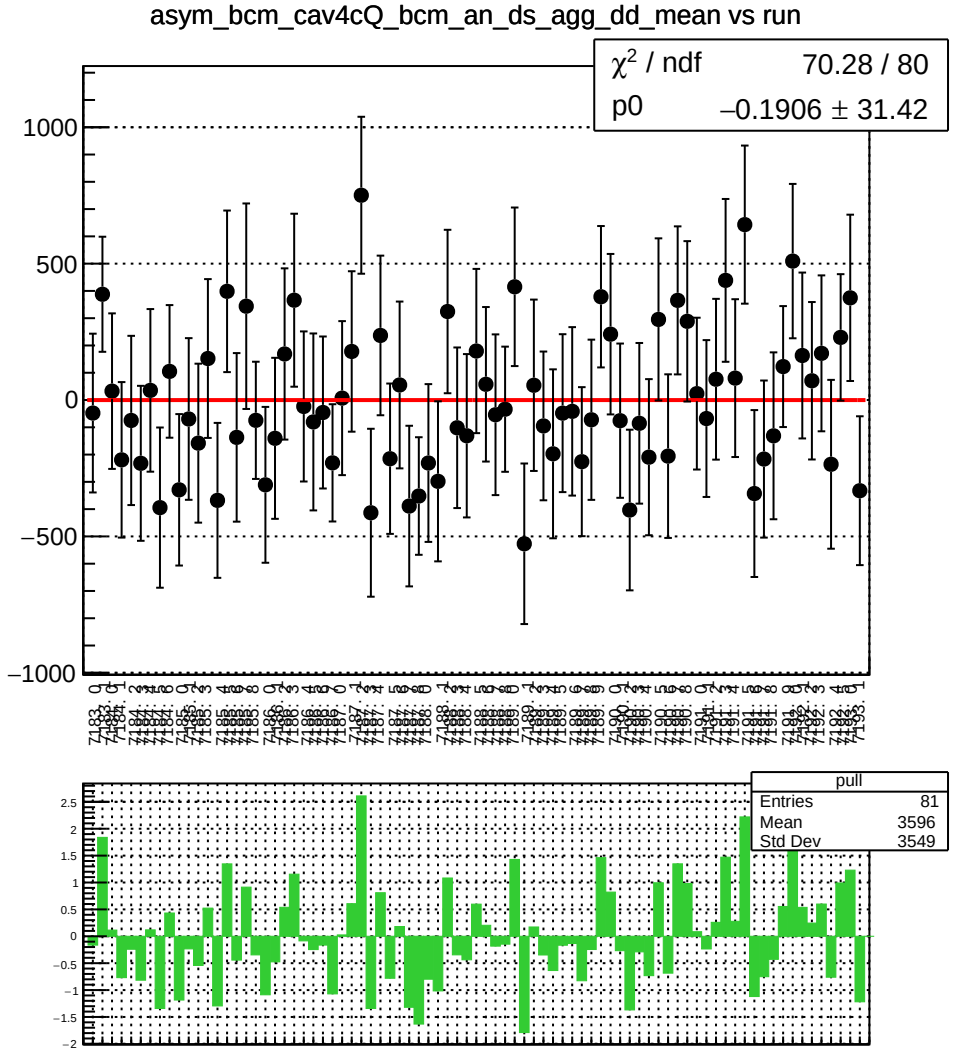

asym_bcm_cav4cQ_bcm_an_us_agg_avg_rms vs run
χ² / ndf 2.251e+04 / 80
p0 198.8 ± 0.1597
550
500
450
400
350
300
250
200
150

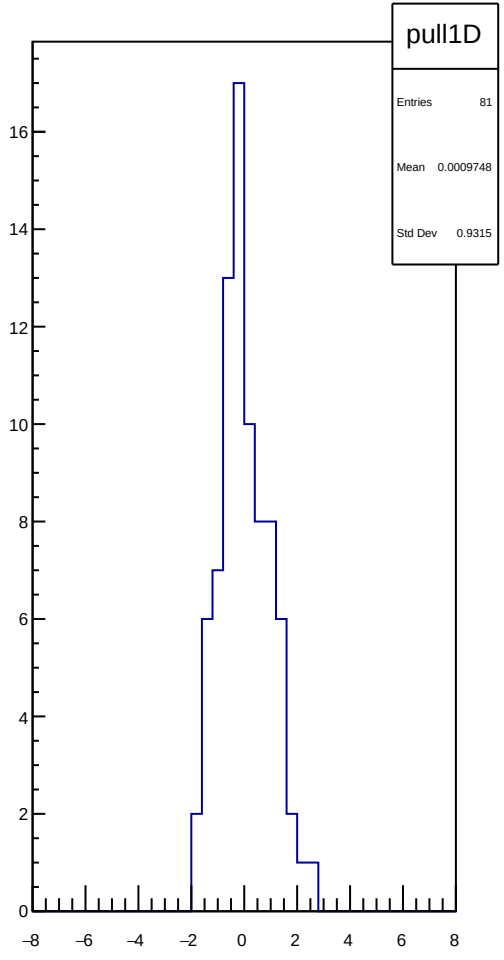

asym_bcm_cav4cQ_bcm_an_us_agg_dd_mean vs run
χ² / ndf 77.85 / 80
p0 4.823 ± 31.36
1000
500
0
−500
−1000
pull
Entries 81
Mean 323.7
Std Dev 275
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
pull1D
Entries 81
Mean 0.004811
Std Dev 0.9804
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

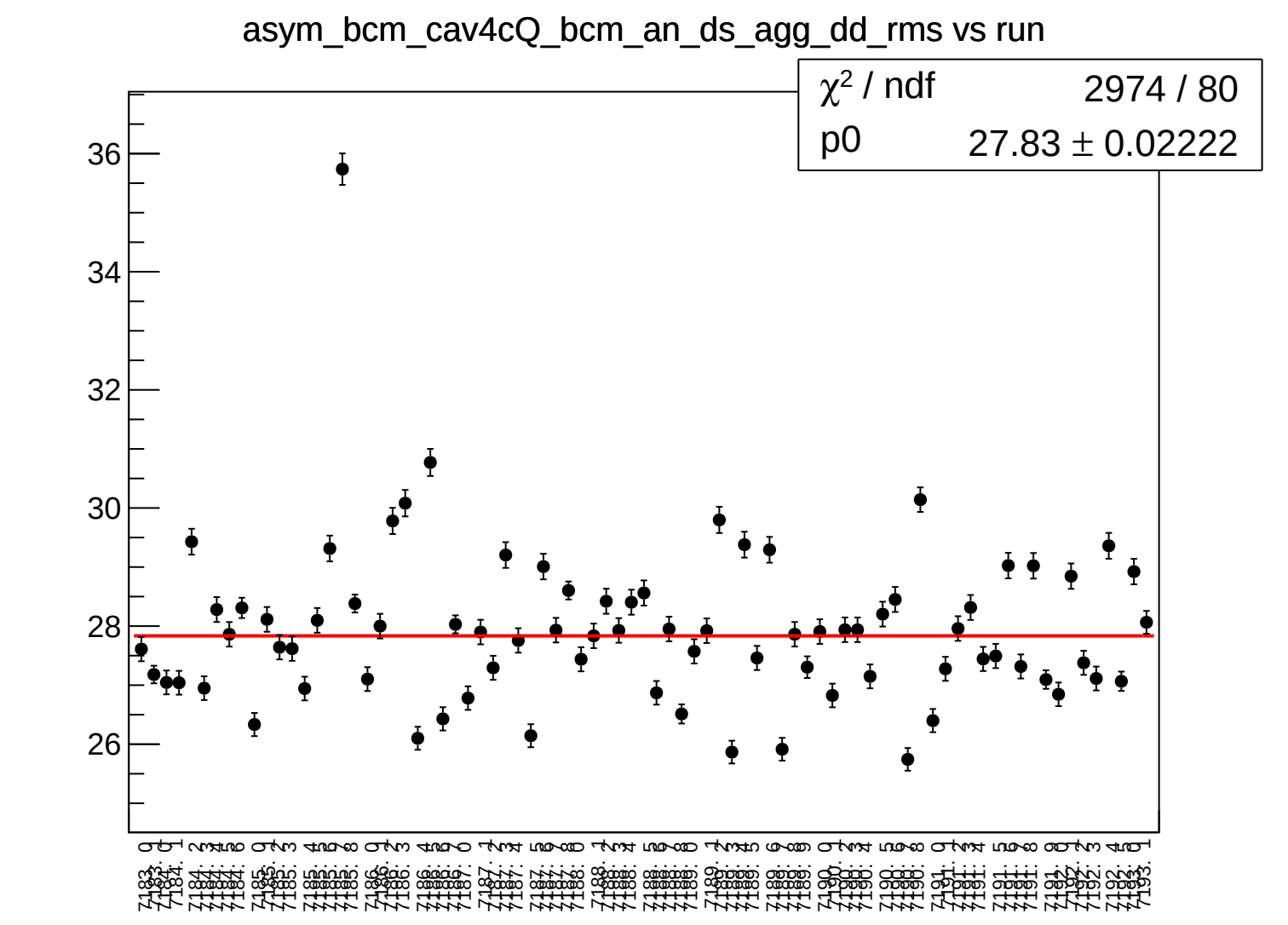

asym_bcm_cav4cQ_bcm_an_us_agg_dd_rms vs run
χ² / ndf 3014 / 80
p0 27.78 ± 0.02217
36
34
32
30
28
26

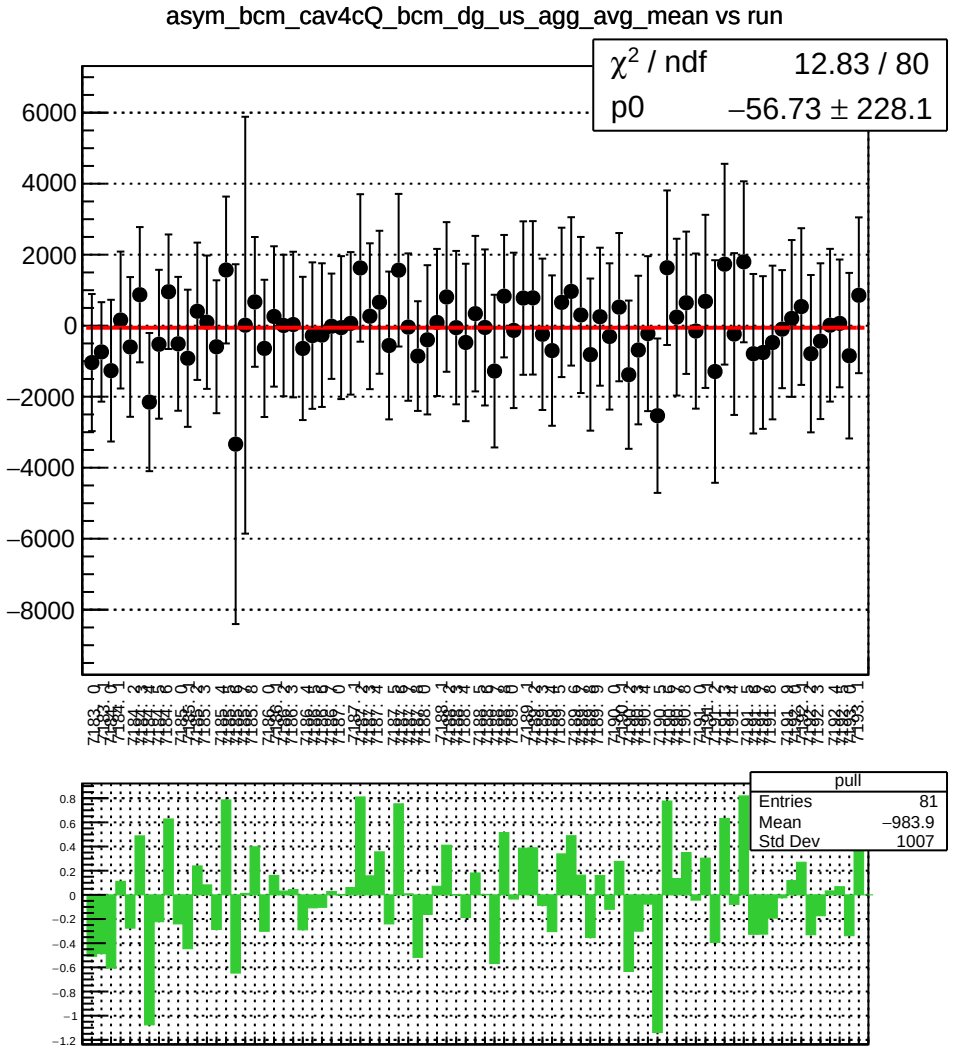

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_mean vs run
χ² / ndf 12.17 / 80
p0 −66.6 ± 225.3
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean −107.9
Std Dev 88.75
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
−1.2
pull1D
Entries 81
Mean −0.002638
Std Dev 0.3876
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

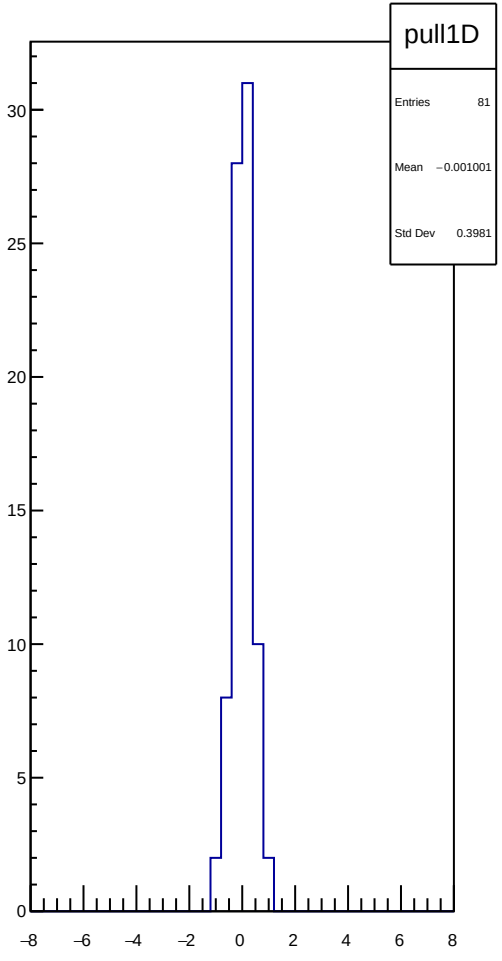

asym_bcm_cav4cQ_bcm_an_ds_agg_avg_rms vs run
χ² / ndf 2.252e+04 / 80
p0 198.4 ± 0.1593
550
500
450
400
350
300
250
200
150

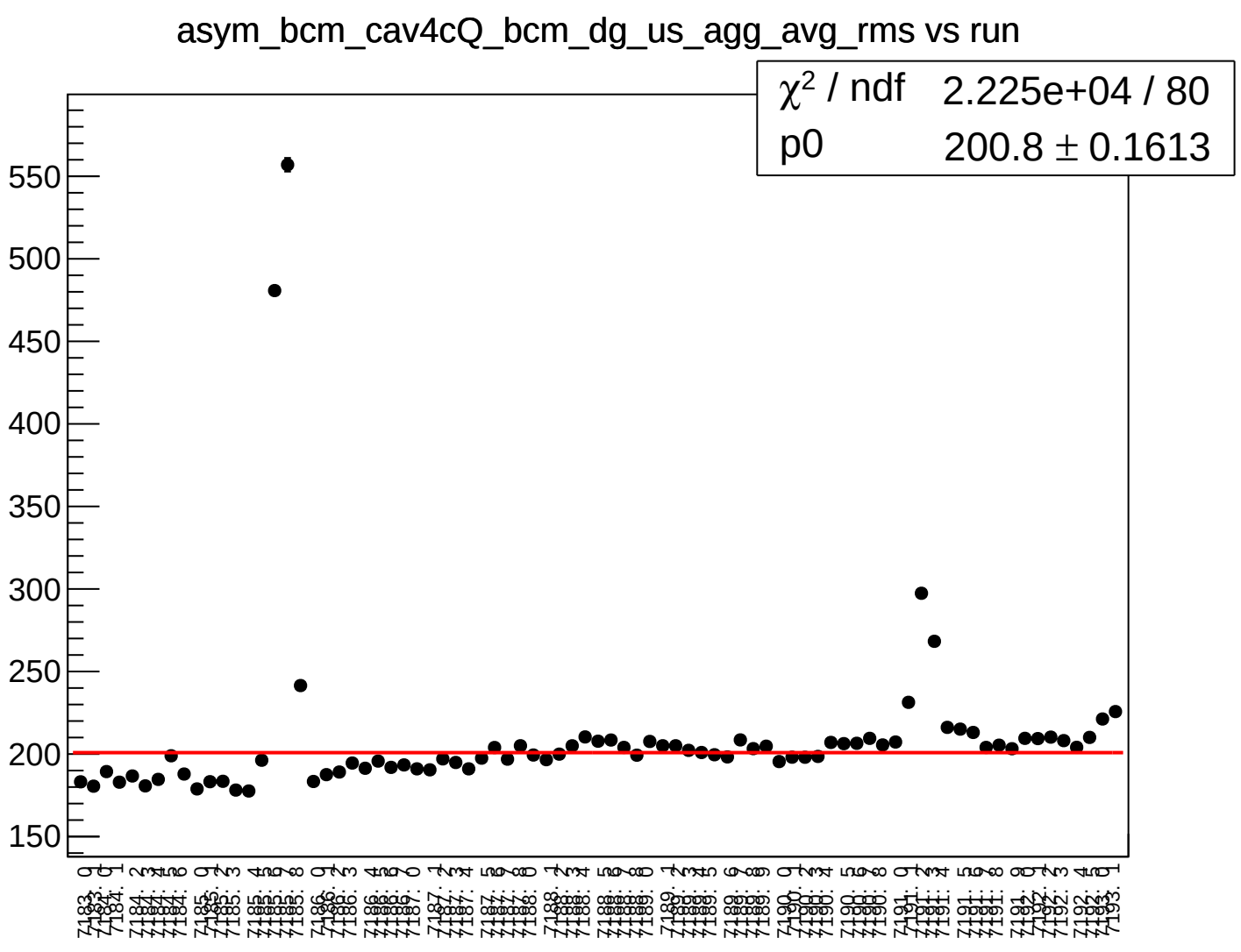

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_mean vs run
χ² / ndf 70.28 / 80
p0 −0.1906 ± 31.42
pull
Entries 81
Mean 3596
Std Dev 3549

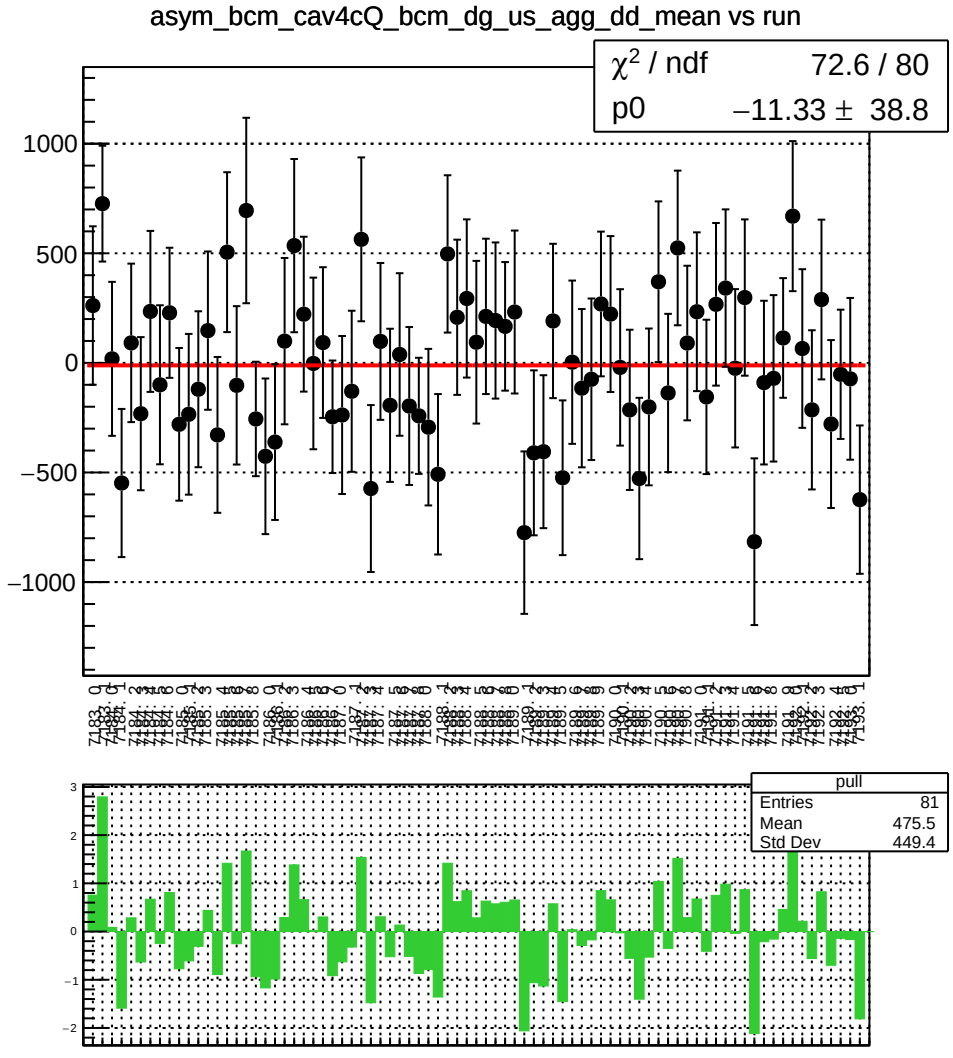

pull1D
Entries 81
Mean 0.0009748
Std Dev 0.9315

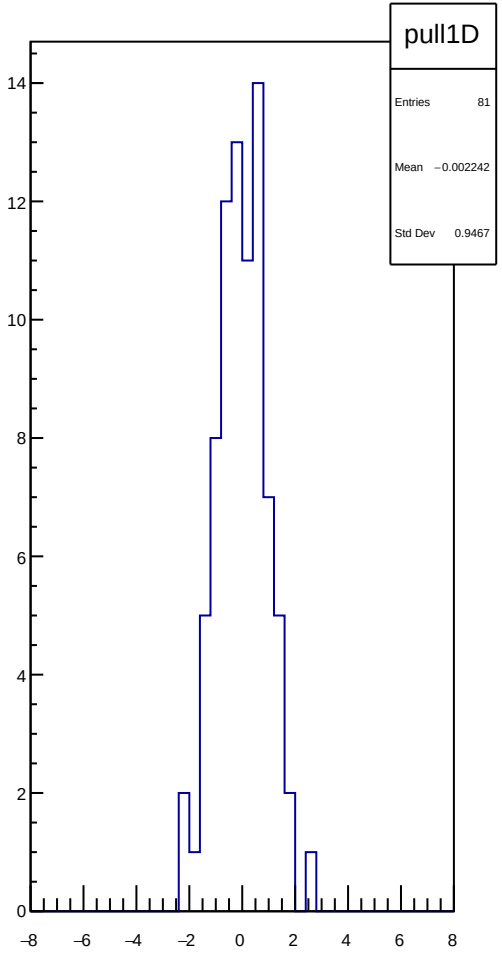

asym_bcm_cav4cQ_bcm_an_ds_agg_dd_rms vs run
χ² / ndf 2974 / 80
p0 27.83 ± 0.02222
36
34
32
30
28
26

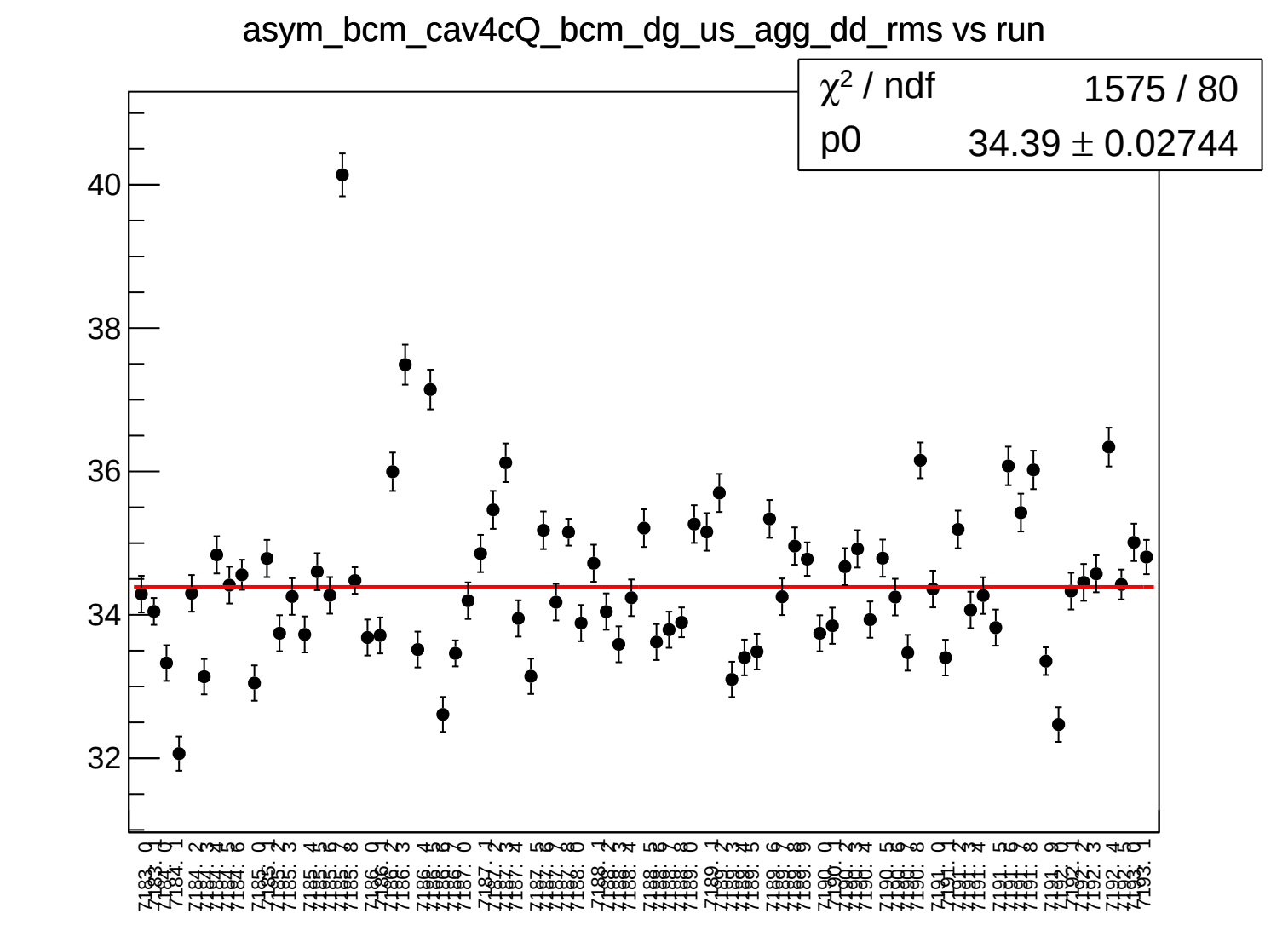

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_mean vs run
χ² / ndf 12.83 / 80
p0 −56.73 ± 228.1
pull
Entries 81
Mean −983.9
Std Dev 1007

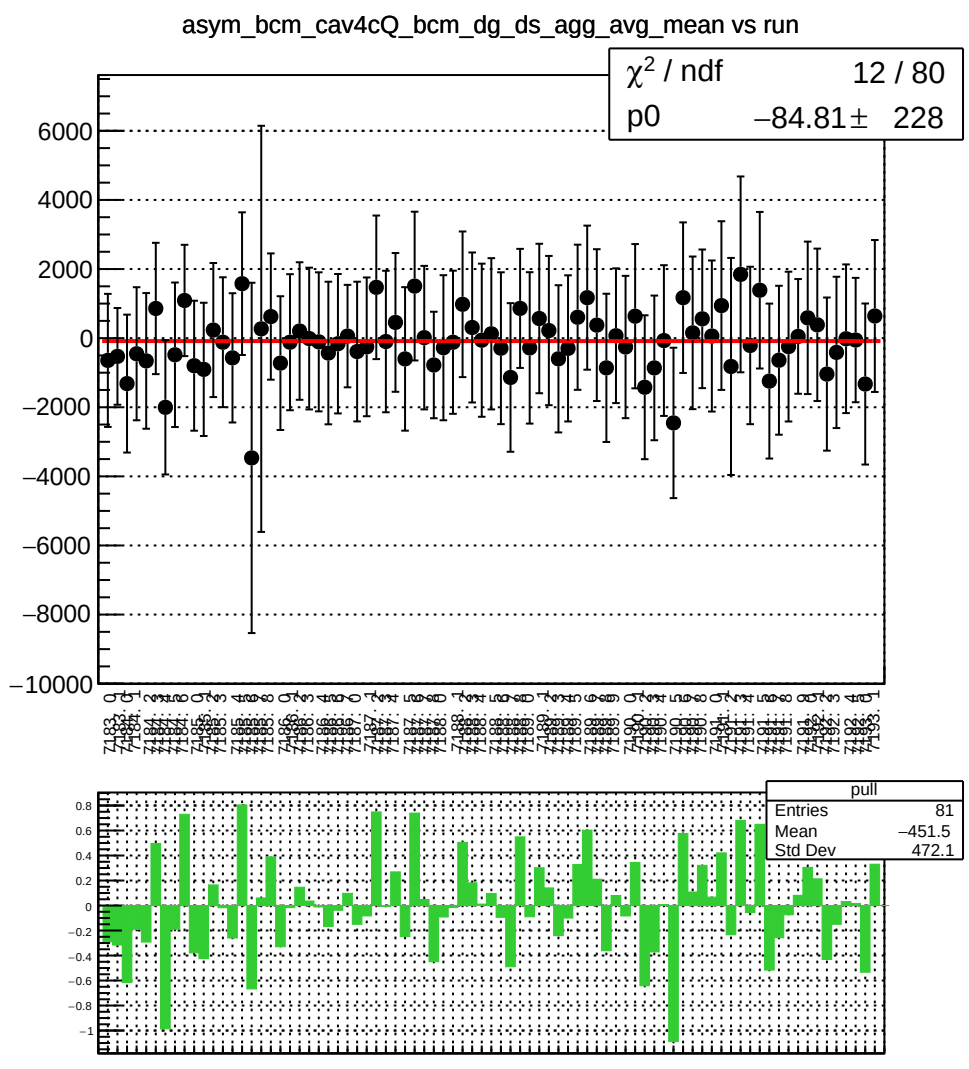

pull1D
Entries 81
Mean −0.001001
Std Dev 0.3981

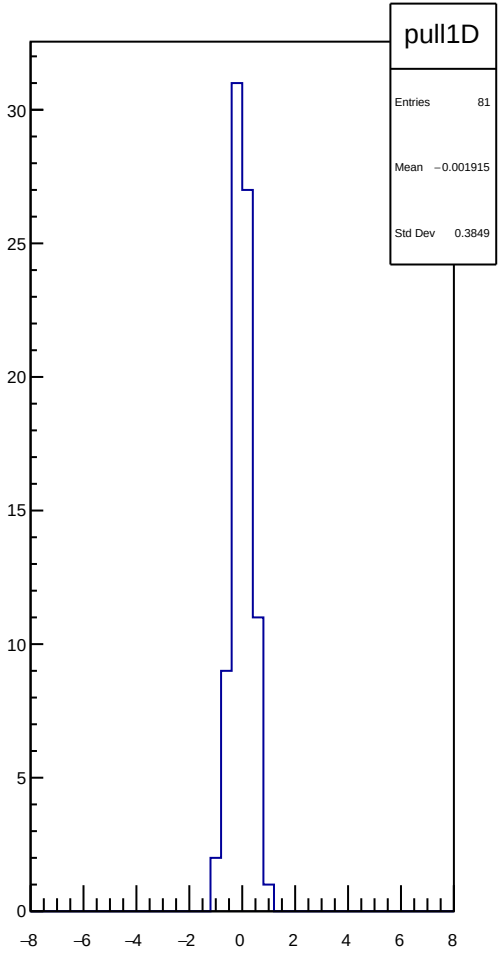

asym_bcm_cav4cQ_bcm_dg_us_agg_avg_rms vs run
χ² / ndf 2.225e+04 / 80
p0 200.8 ± 0.1613
550
500
450
400
350
300
250
200
150

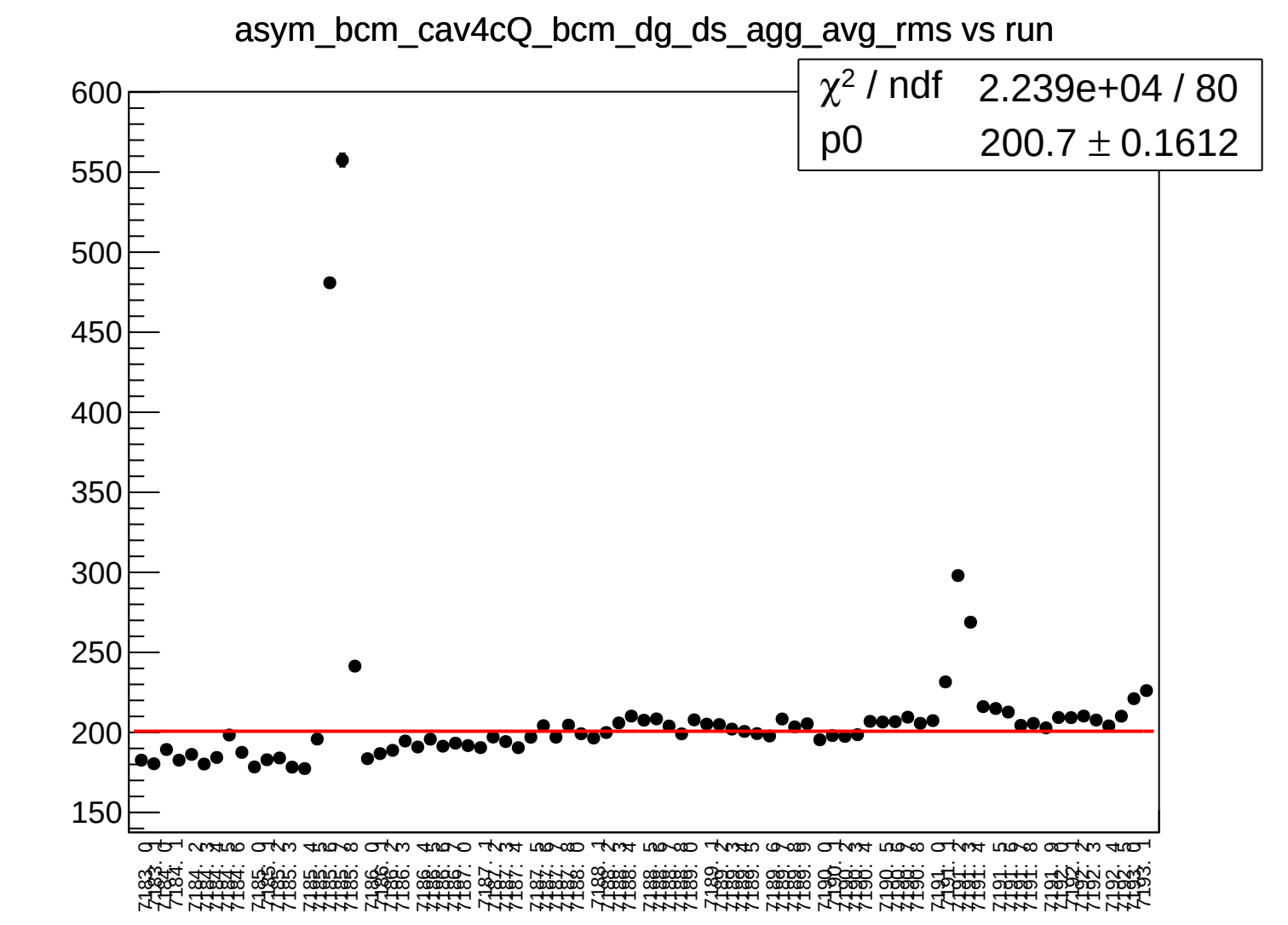

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_mean vs run
χ² / ndf 72.6 / 80
p0 −11.33 ± 38.8
1000
500
0
−500
−1000
pull
Entries 81
Mean 475.5
Std Dev 449.4
3
2
1
0
−1
−2

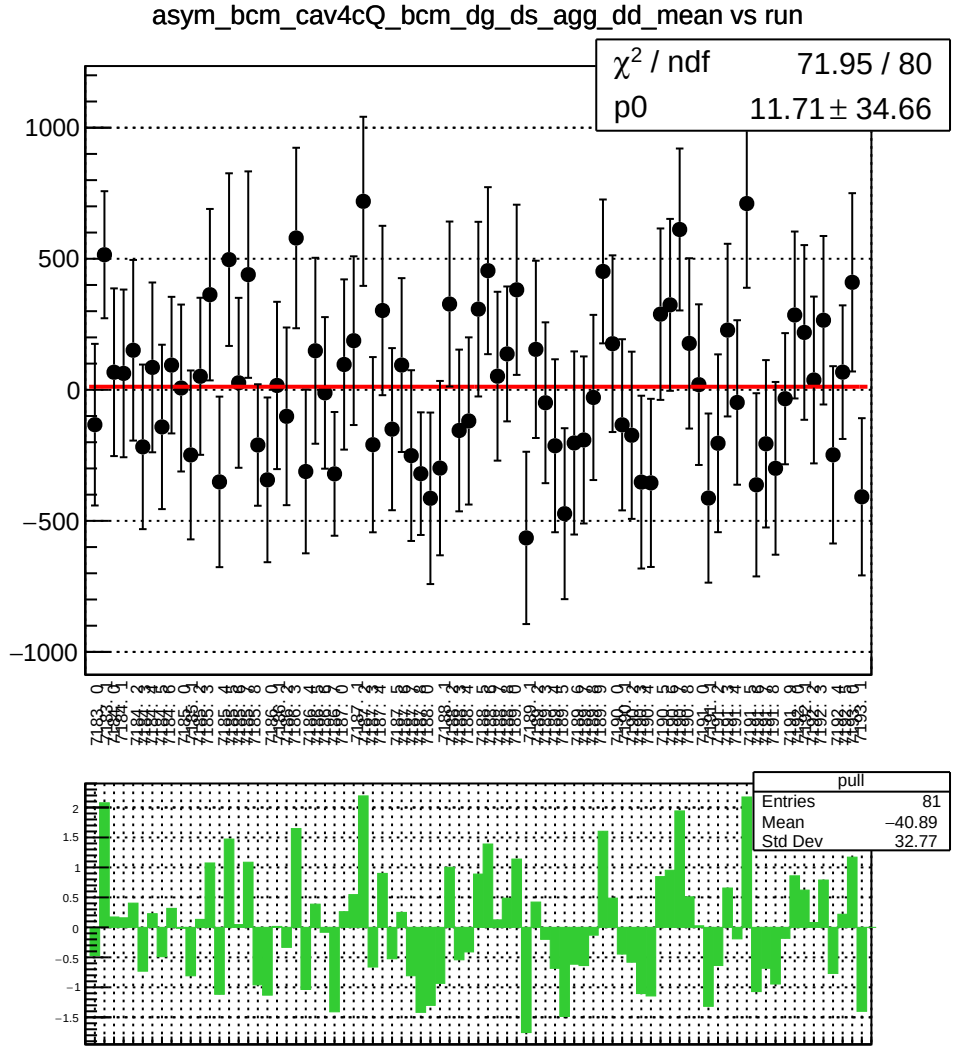

pull1D
Entries 81
Mean −0.002242
Std Dev 0.9467
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

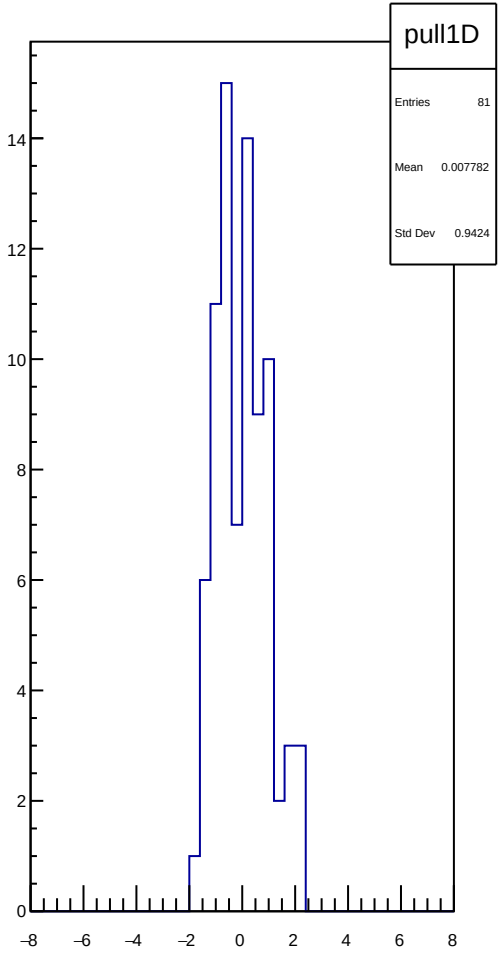

asym_bcm_cav4cQ_bcm_dg_us_agg_dd_rms vs run
χ² / ndf 1575 / 80
p0 34.39 ± 0.02744
40
38
36
34
32

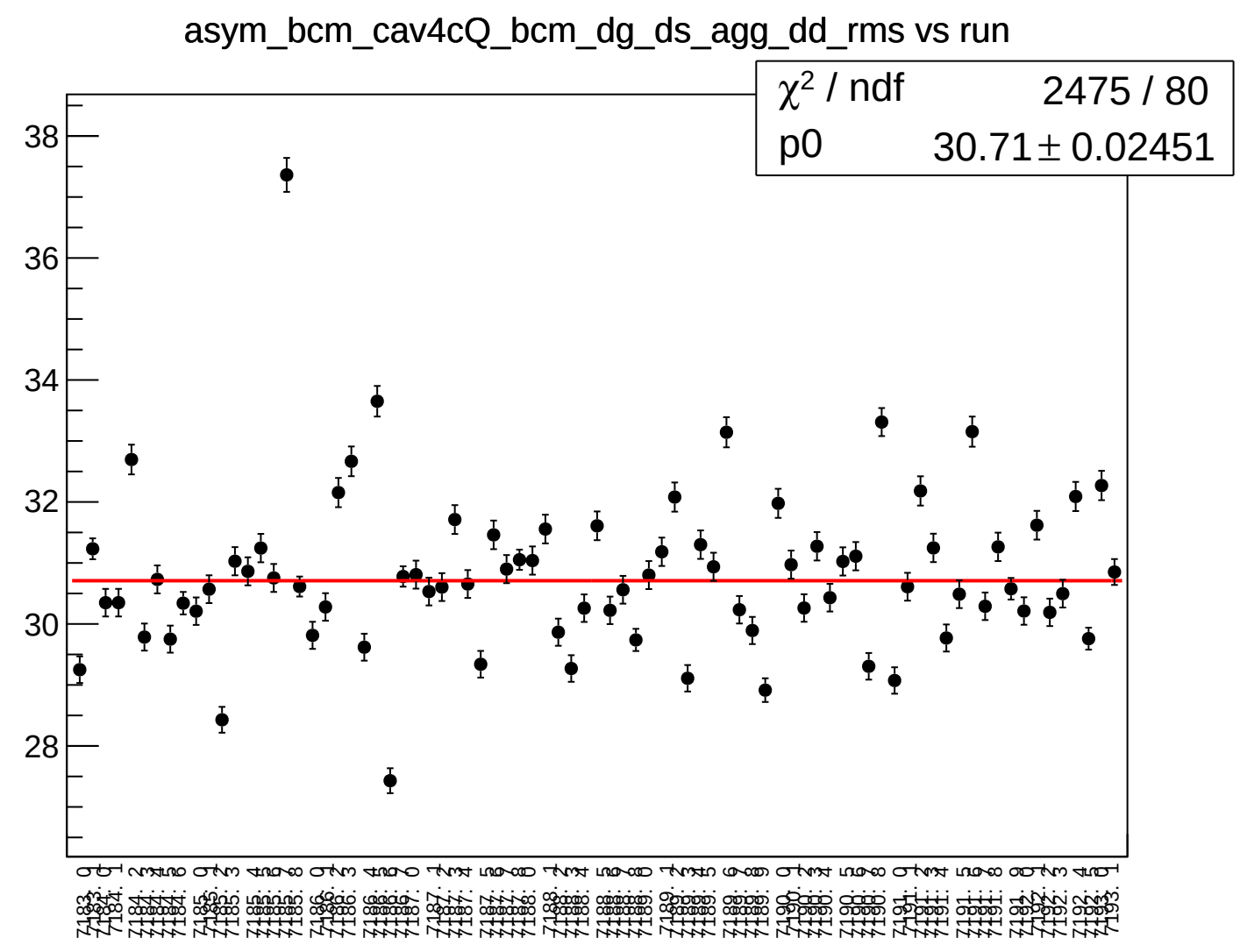

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_mean vs run
χ² / ndf 12 / 80
p0 −84.81 ± 228
6000
4000
2000
0
−2000
−4000
−6000
−8000
−10000
pull
Entries 81
Mean −451.5
Std Dev 472.1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1

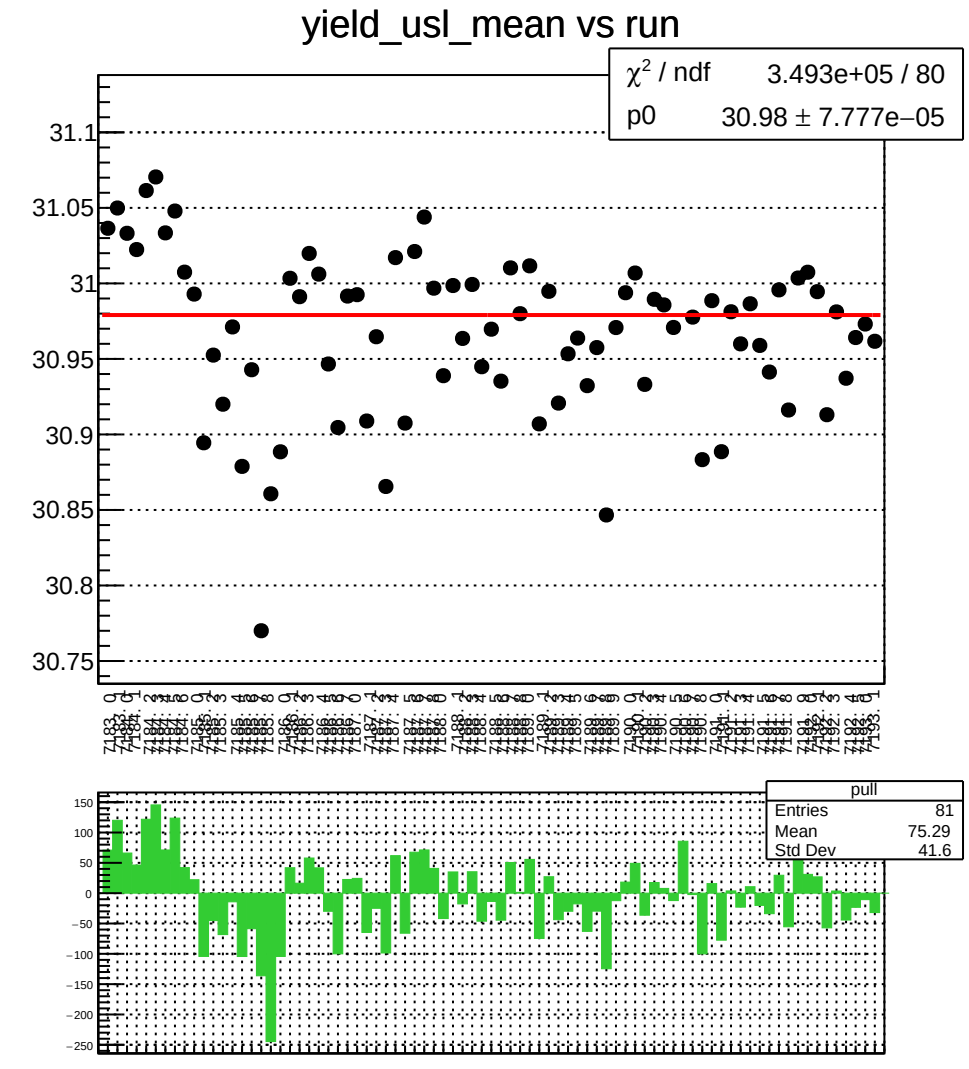

pull1D
Entries 81
Mean −0.001915
Std Dev 0.3849
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

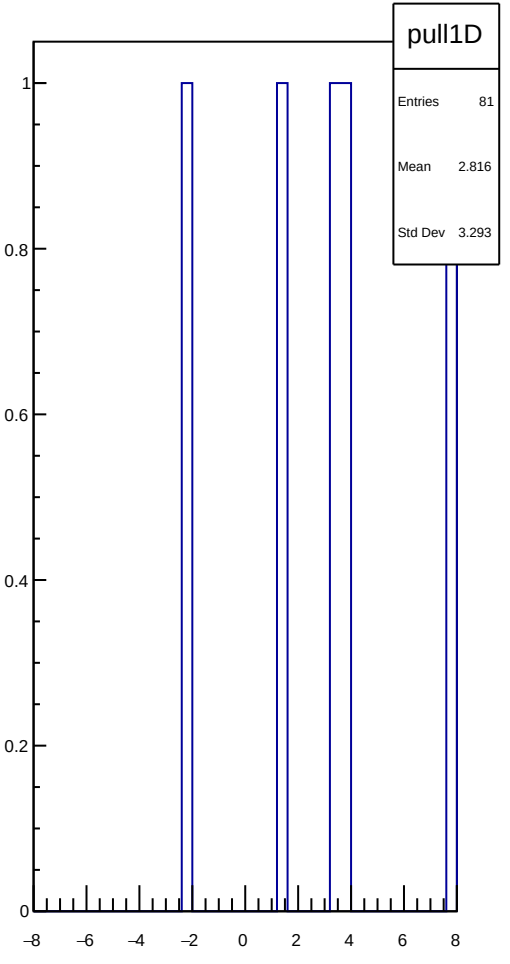

asym_bcm_cav4cQ_bcm_dg_ds_agg_avg_rms vs run
χ² / ndf 2.239e+04 / 80
p0 200.7 ± 0.1612
600
550
500
450
400
350
300
250
200
150

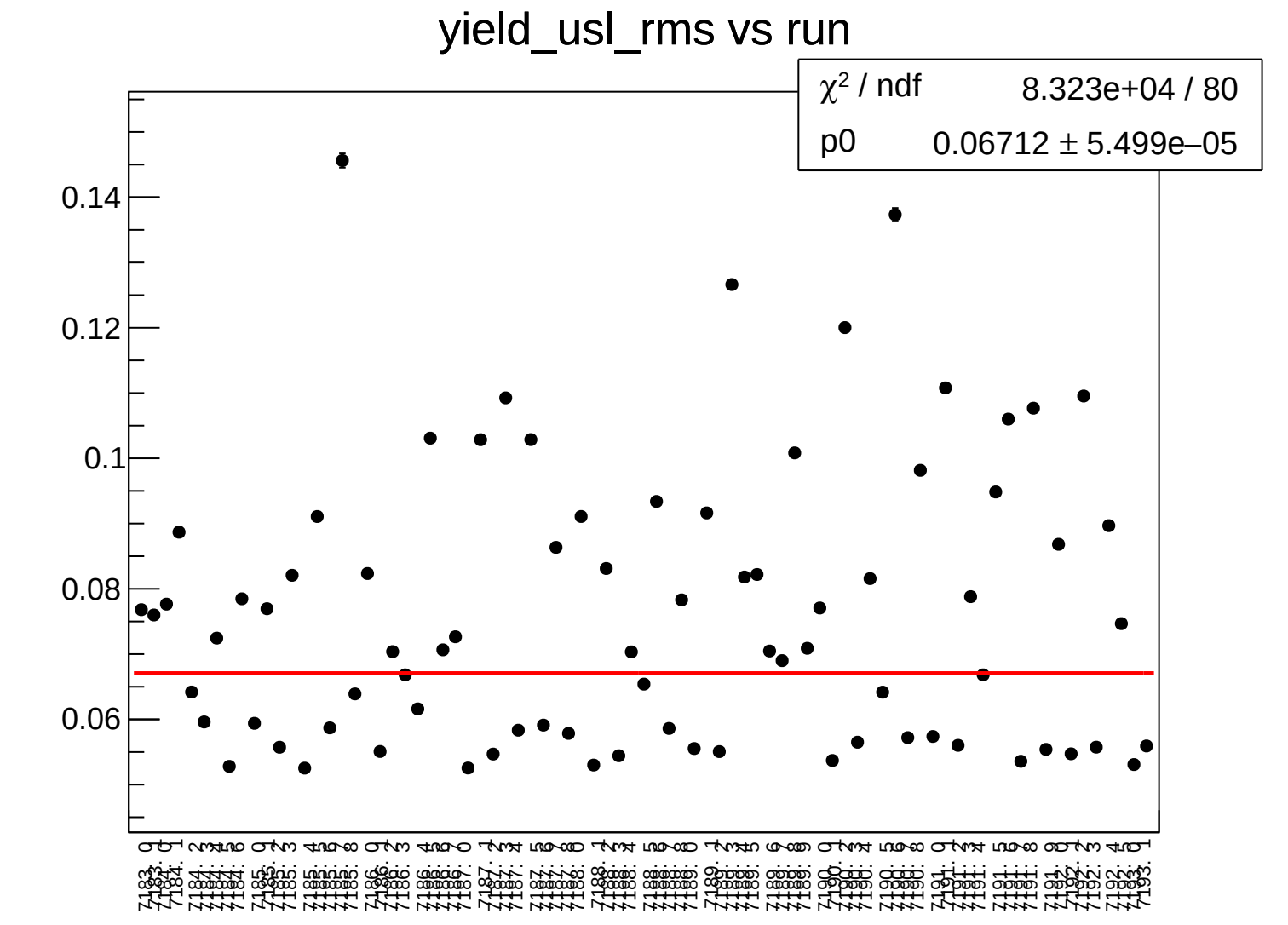

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_mean vs run
χ² / ndf 71.95 / 80
p0 11.71 ± 34.66
1000
500
0
−500
−1000
pull
Entries 81
Mean −40.89
Std Dev 32.77
2
1.5
1
0.5
0
−0.5
−1
−1.5

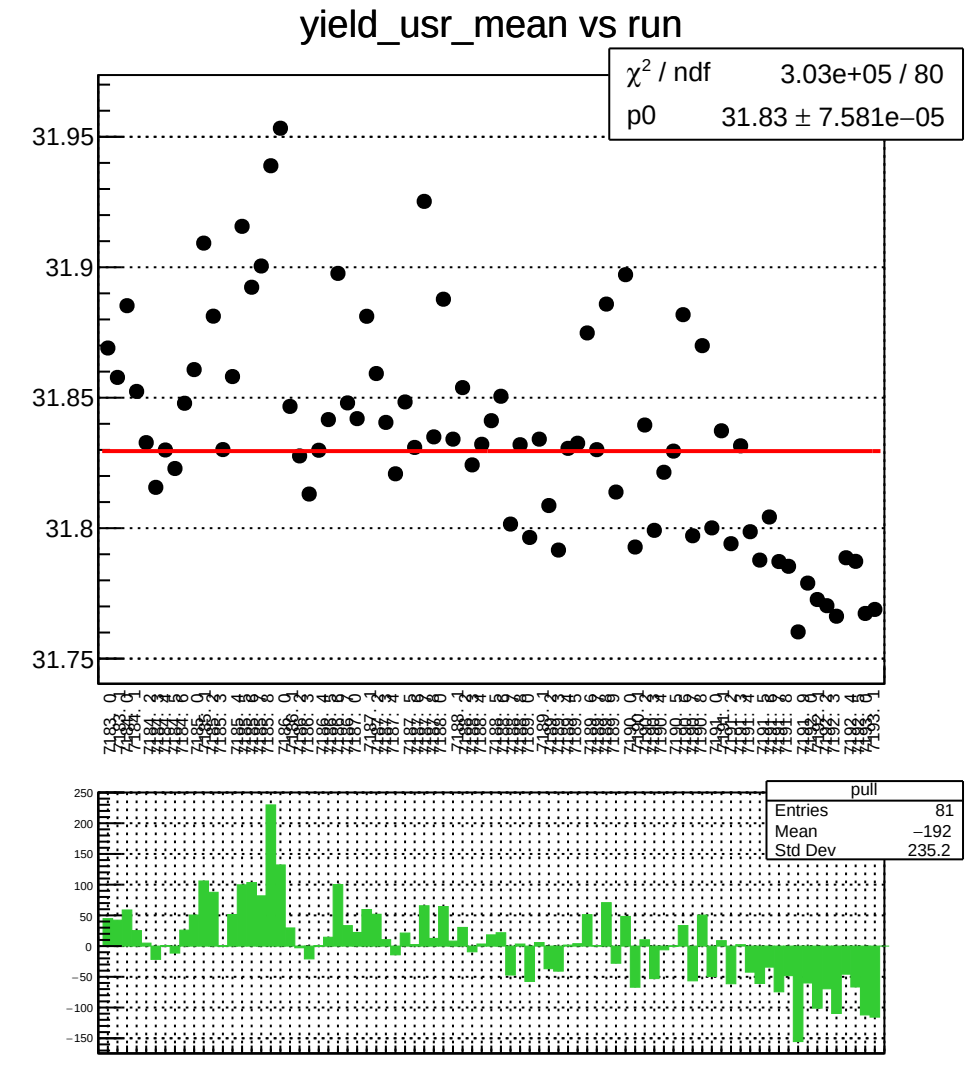

pull1D
Entries 81
Mean 0.007782
Std Dev 0.9424
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

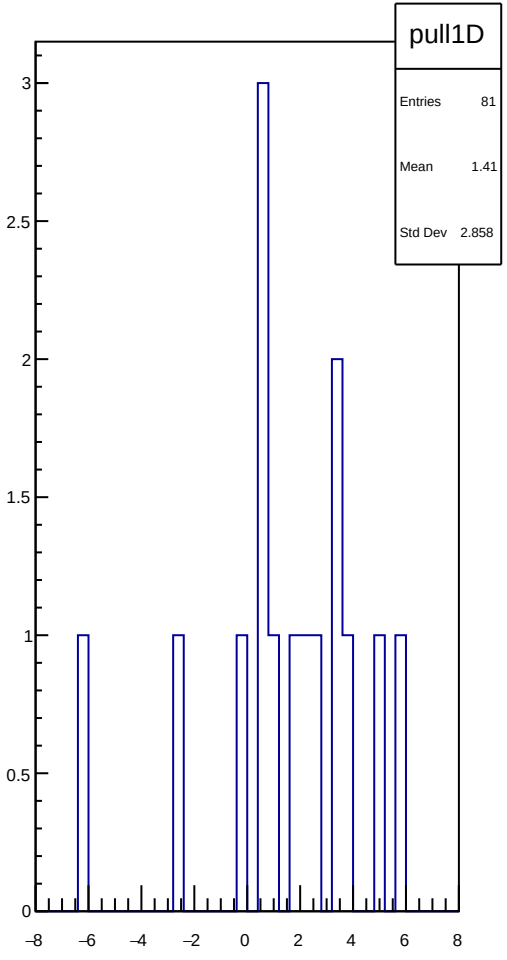

asym_bcm_cav4cQ_bcm_dg_ds_agg_dd_rms vs run
χ² / ndf 2475 / 80
p0 30.71 ± 0.02451
38
36
34
32
30
28

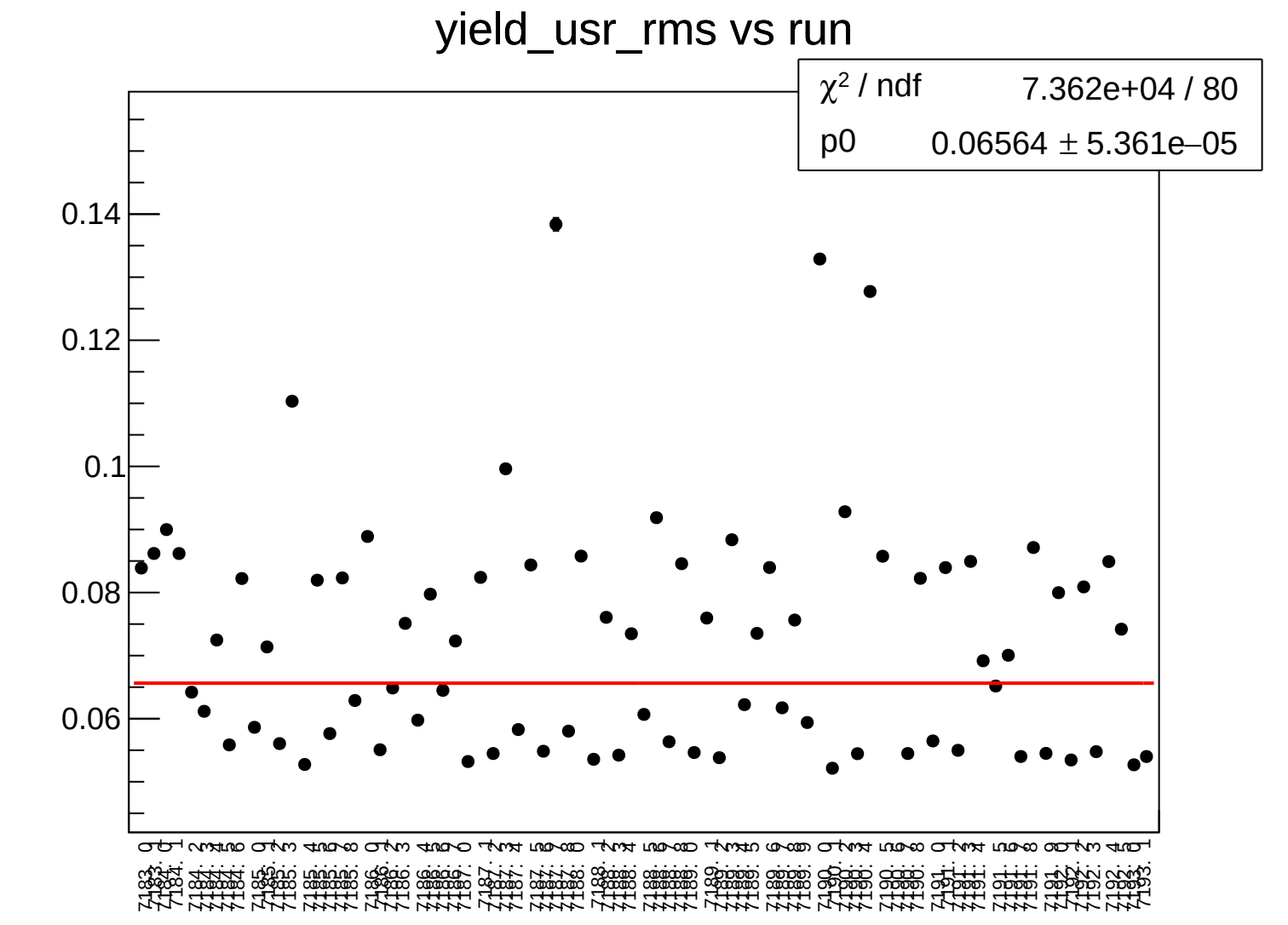

yield_usl_mean vs run
χ² / ndf 3.493e+05 / 80
p0 30.98 ± 7.777e−05
31.1
31.05
31
30.95
30.9
30.85
30.8
30.75
pull
Entries 81
Mean 75.29
Std Dev 41.6
150
100
50
0
−50
−100
−150
−200
−250

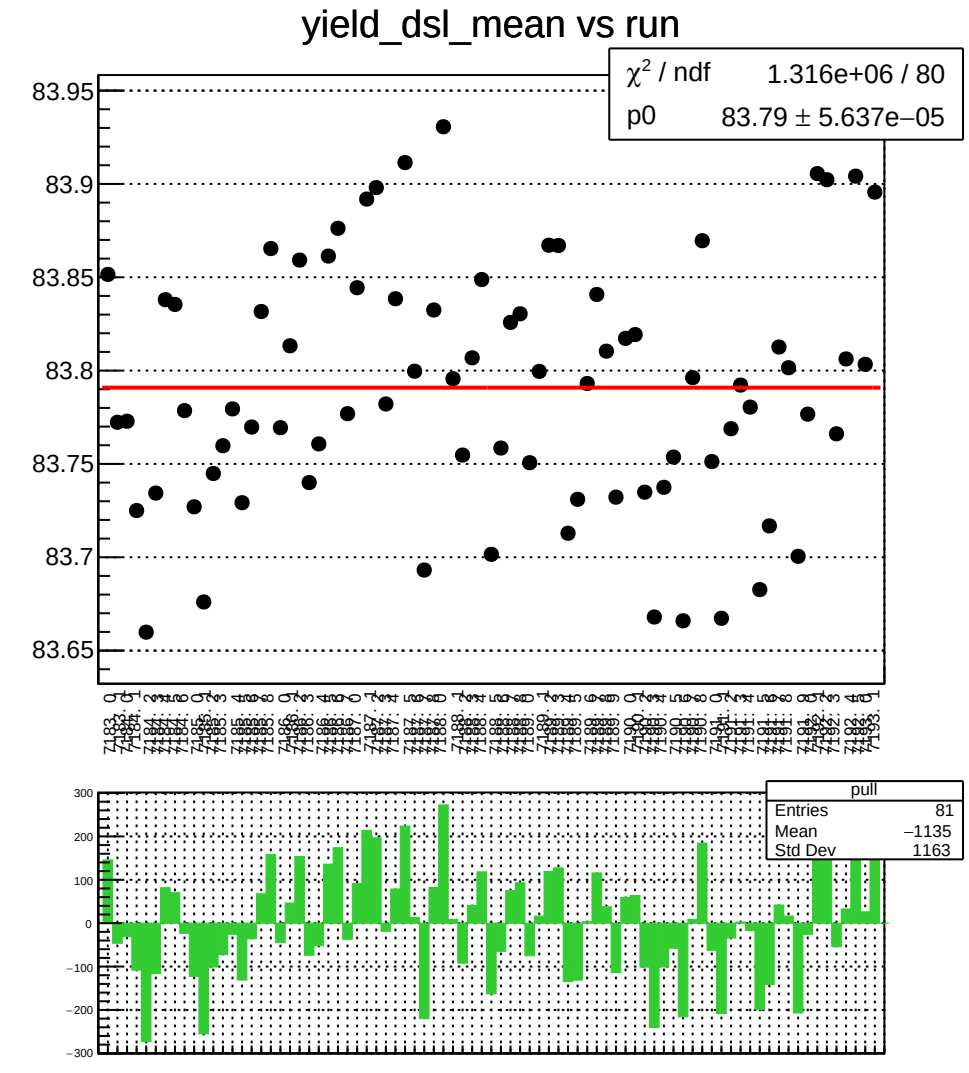

pull1D
Entries 81
Mean 2.816
Std Dev 3.293
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

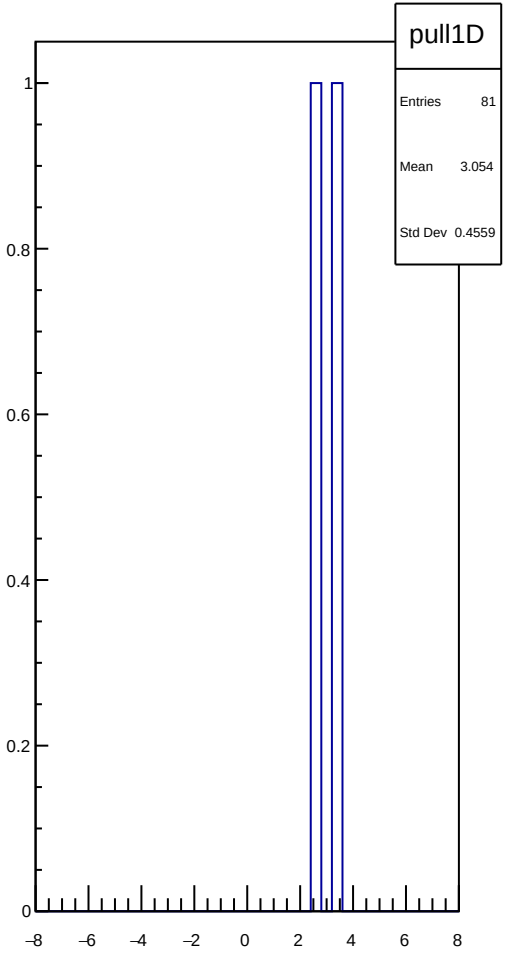

yield_usl_rms vs run
χ² / ndf 8.323e+04 / 80
p0 0.06712 ± 5.499e–05
0.14
0.12
0.1
0.08
0.06

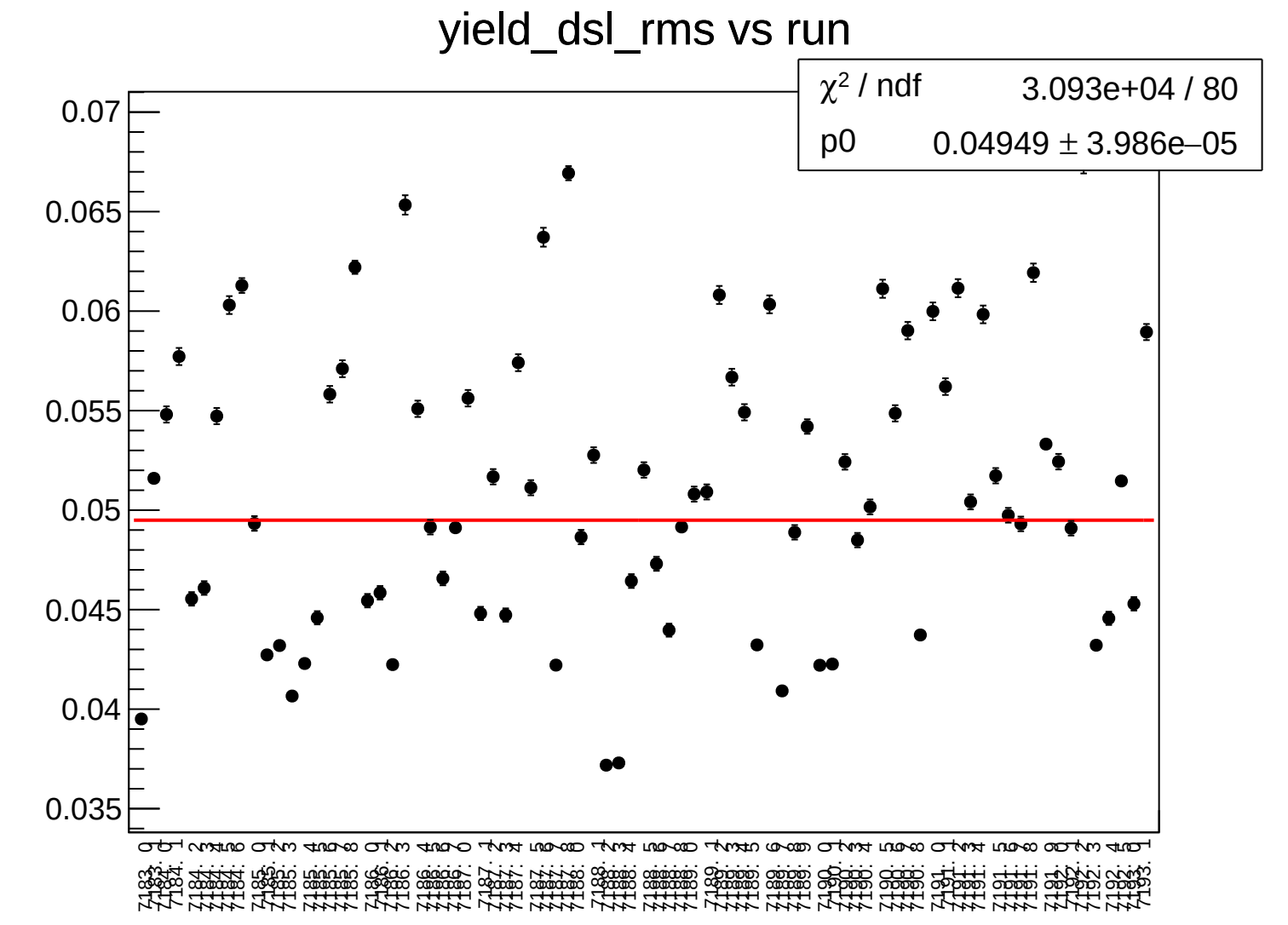

yield_usr_mean vs run
χ² / ndf 3.03e+05 / 80
p0 31.83 ± 7.581e−05
31.95
31.9
31.85
31.8
31.75
pull
Entries 81
Mean −192
Std Dev 235.2
250
200
150
100
50
0
−50
−100
−150

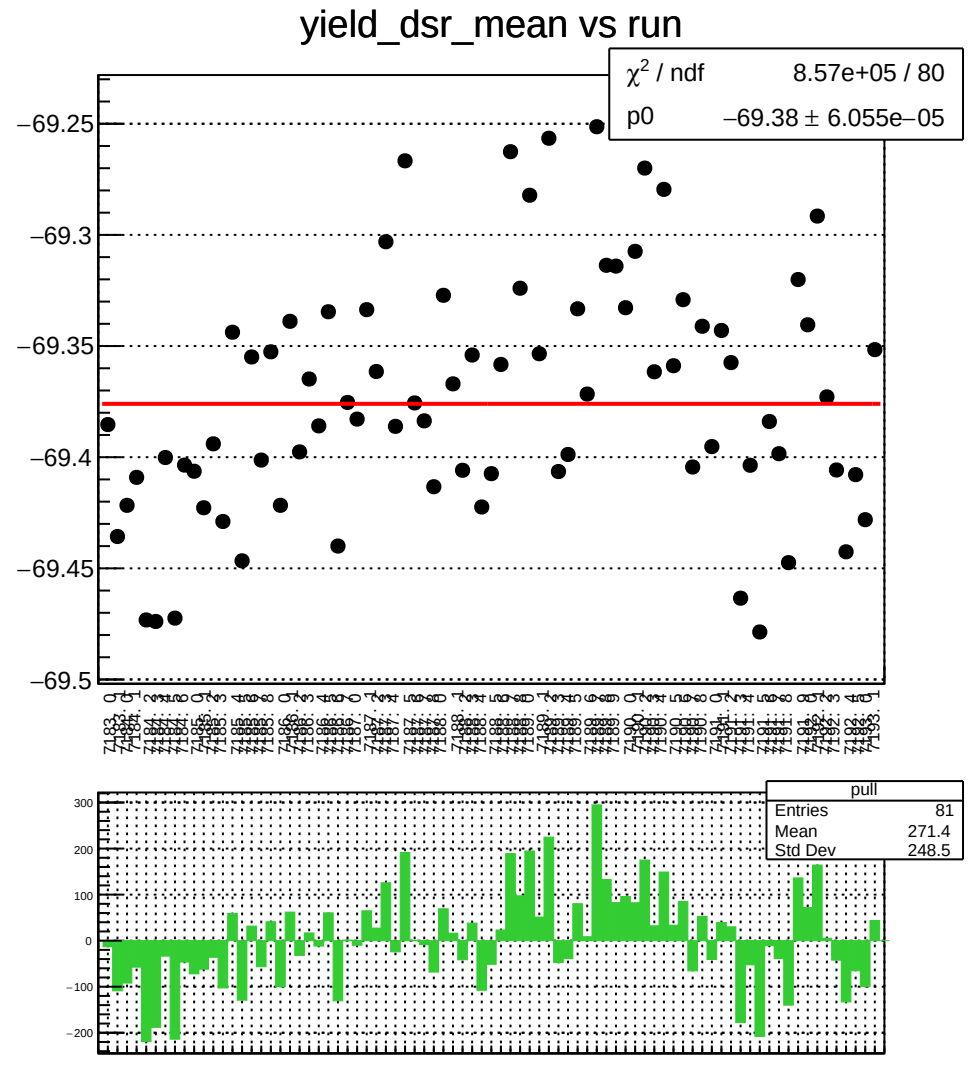

pull1D
Entries 81
Mean 1.41
Std Dev 2.858
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

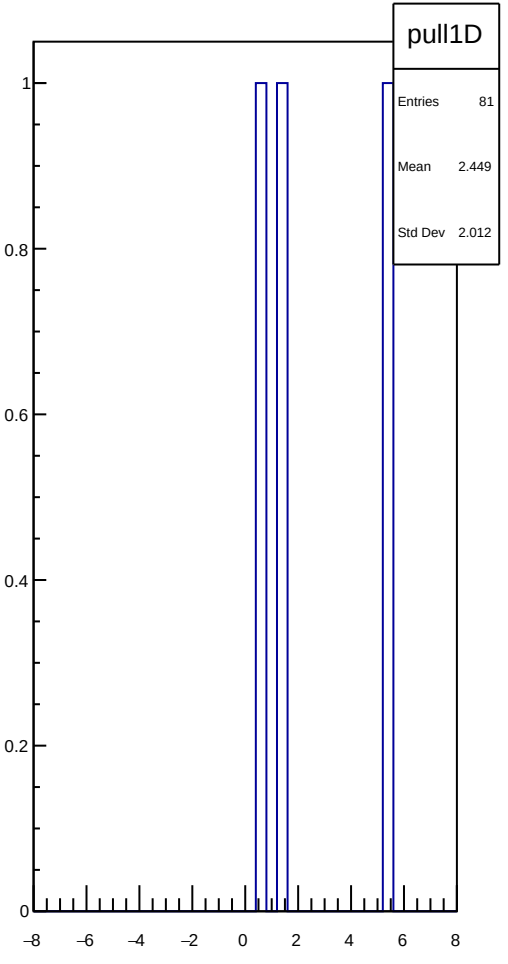

yield_usr_rms vs run
χ² / ndf 7.362e+04 / 80
p0 0.06564 ± 5.361e−05
0.14
0.12
0.1
0.08
0.06

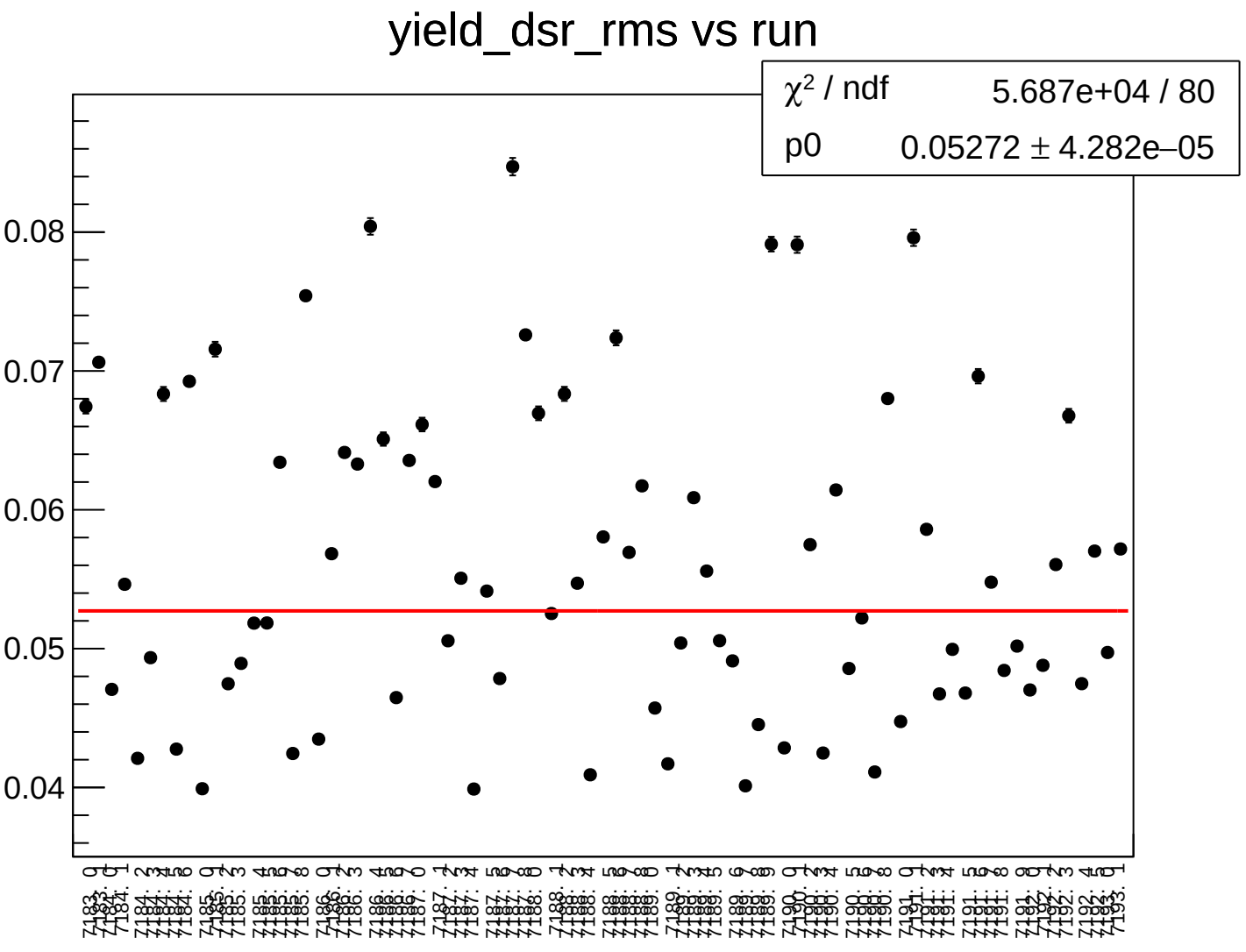

yield_dsl_mean vs run
χ² / ndf 1.316e+06 / 80
p0 83.79 ± 5.637e−05
83.95
83.9
83.85
83.8
83.75
83.7
83.65
pull
Entries 81
Mean −1135
Std Dev 1163
300
200
100
0
−100
−200
−300

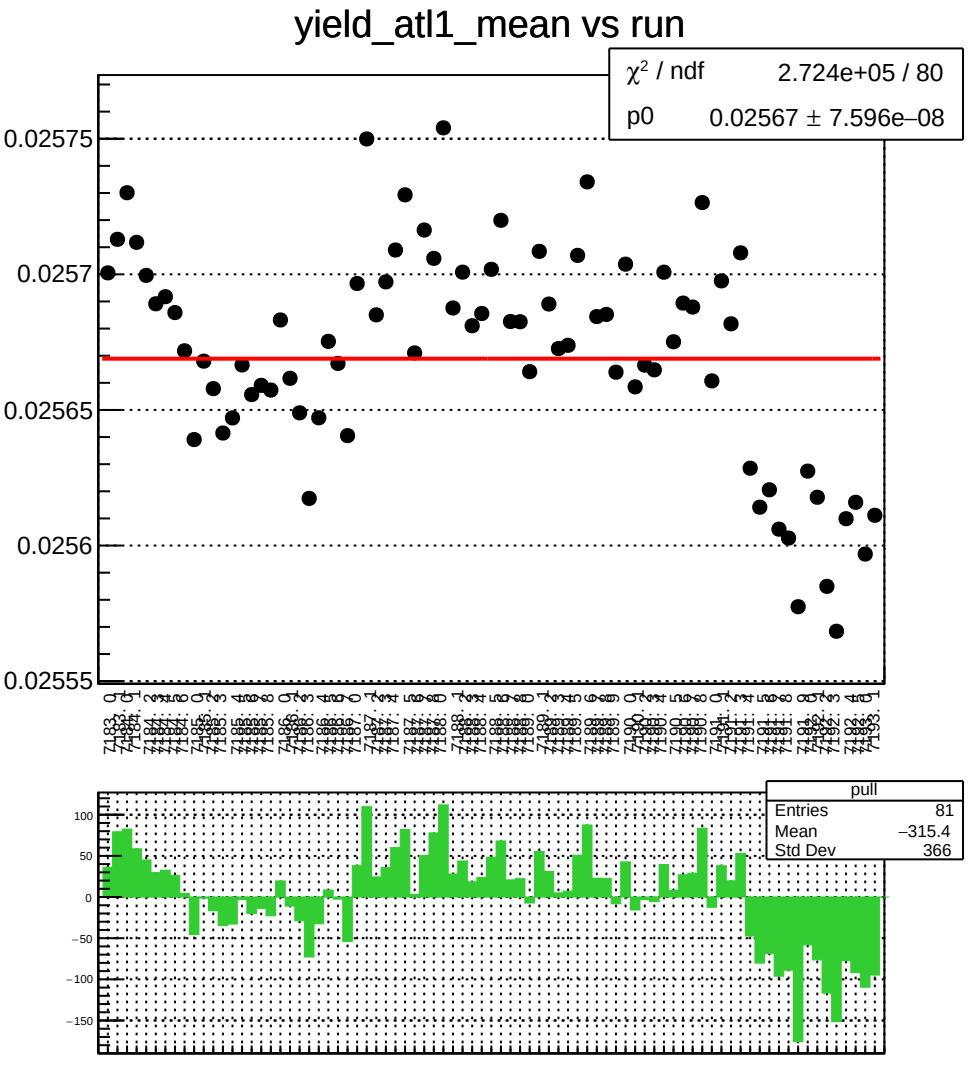

pull1D
Entries 81
Mean 3.054
Std Dev 0.4559
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

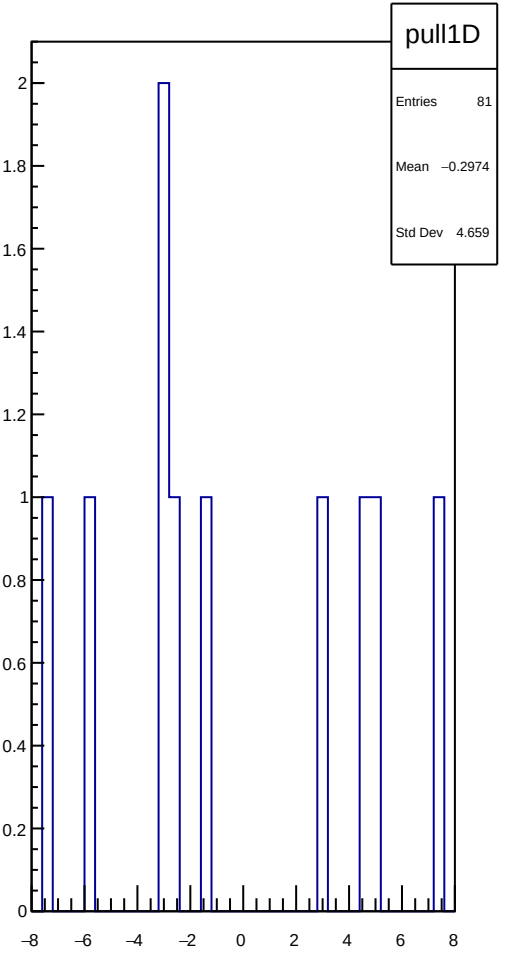

yield_dsl_rms vs run
χ² / ndf 3.093e+04 / 80
p0 0.04949 ± 3.986e−05
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035

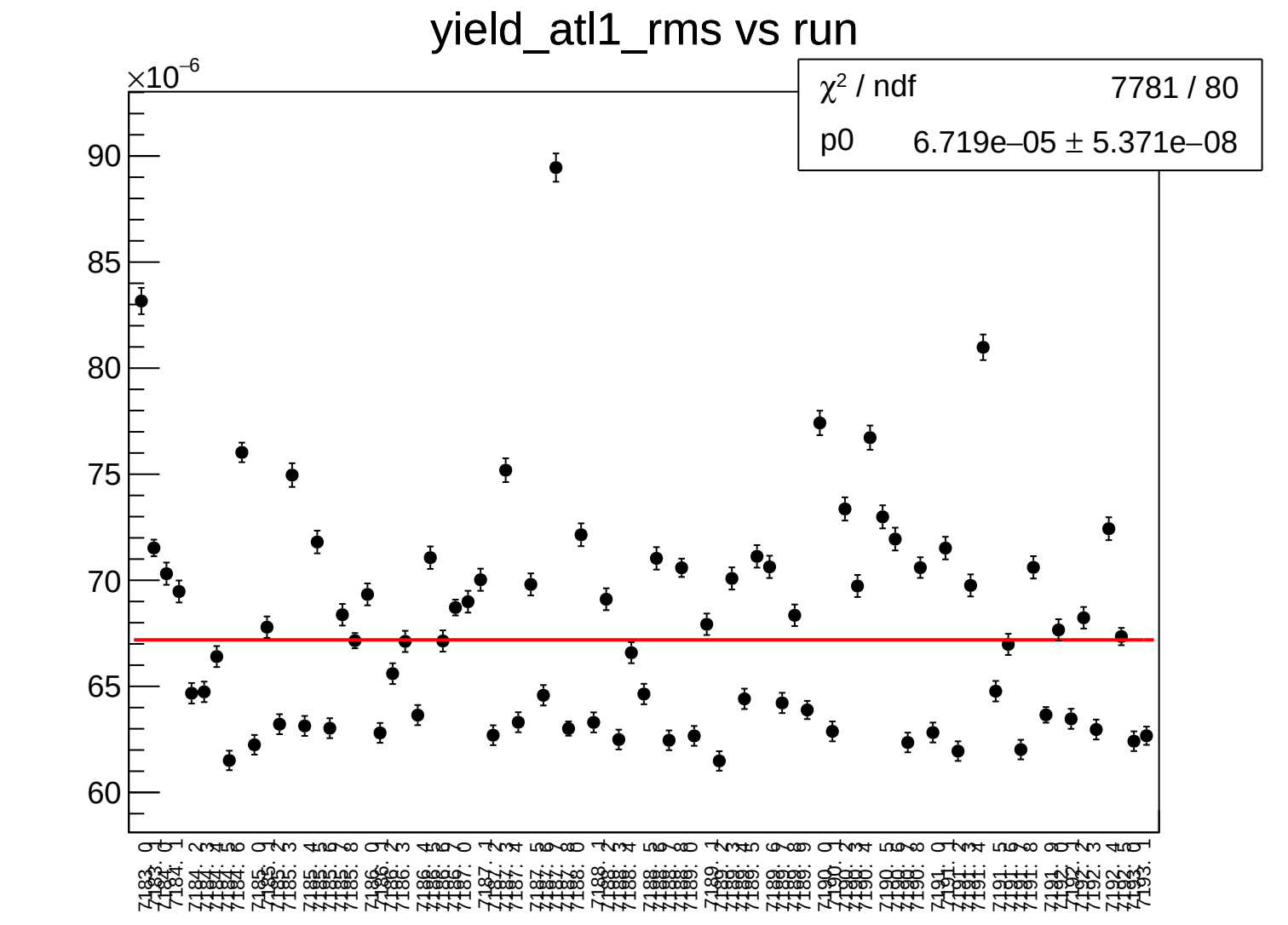

yield_dsr_mean vs run
χ² / ndf 8.57e+05 / 80
p0 −69.38 ± 6.055e−05
−69.25
−69.3
−69.35
−69.4
−69.45
−69.5
pull
Entries 81
Mean 271.4
Std Dev 248.5
300
200
100
0
−100
−200

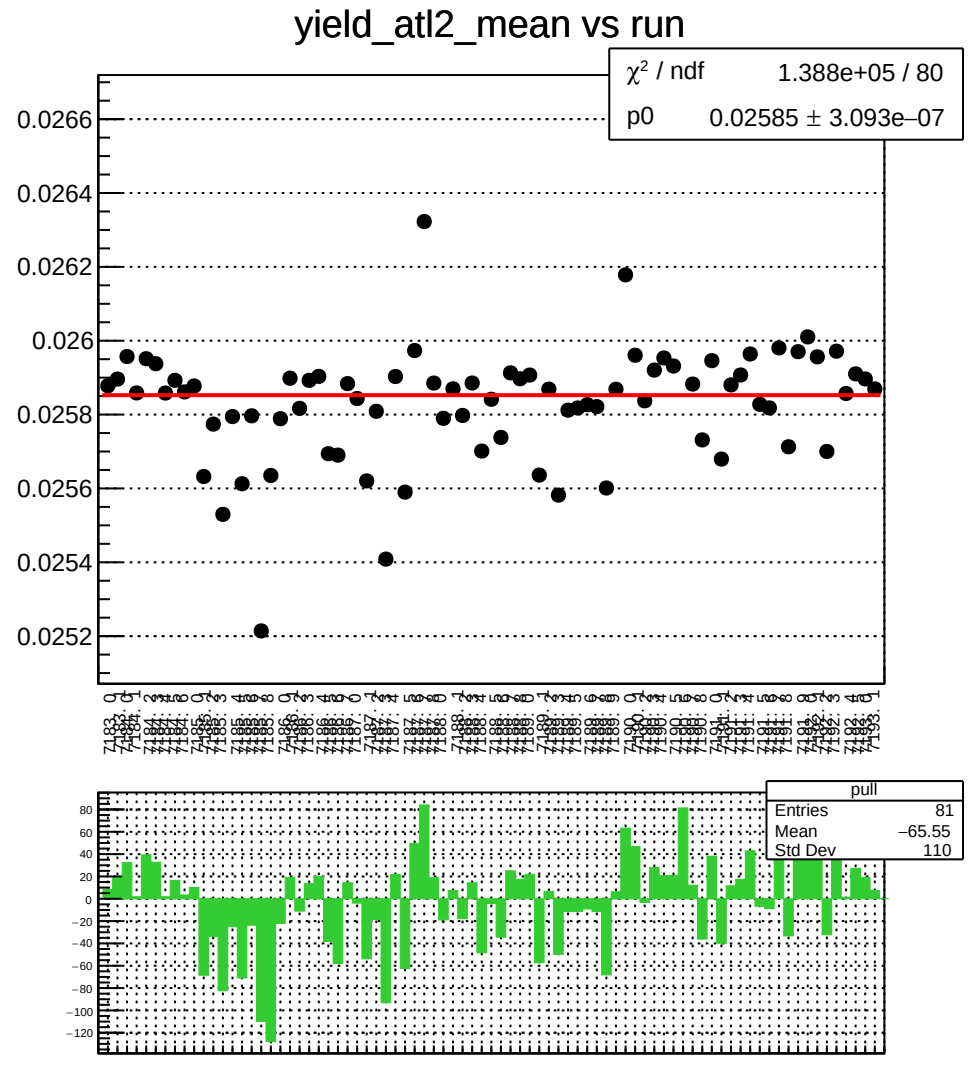

pull1D
Entries 81
Mean 2.449
Std Dev 2.012
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

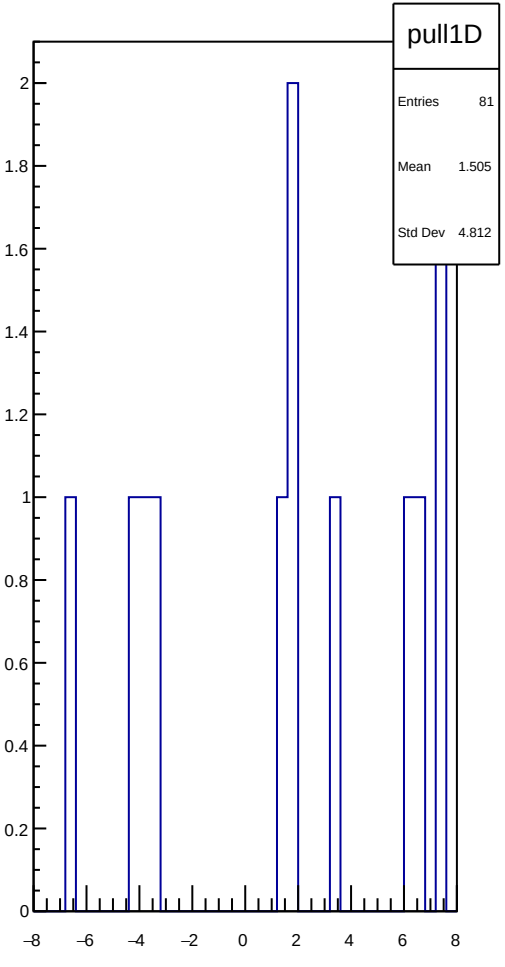

yield_dsr_rms vs run
χ² / ndf 5.687e+04 / 80
p0 0.05272 ± 4.282e−05
0.08
0.07
0.06
0.05
0.04

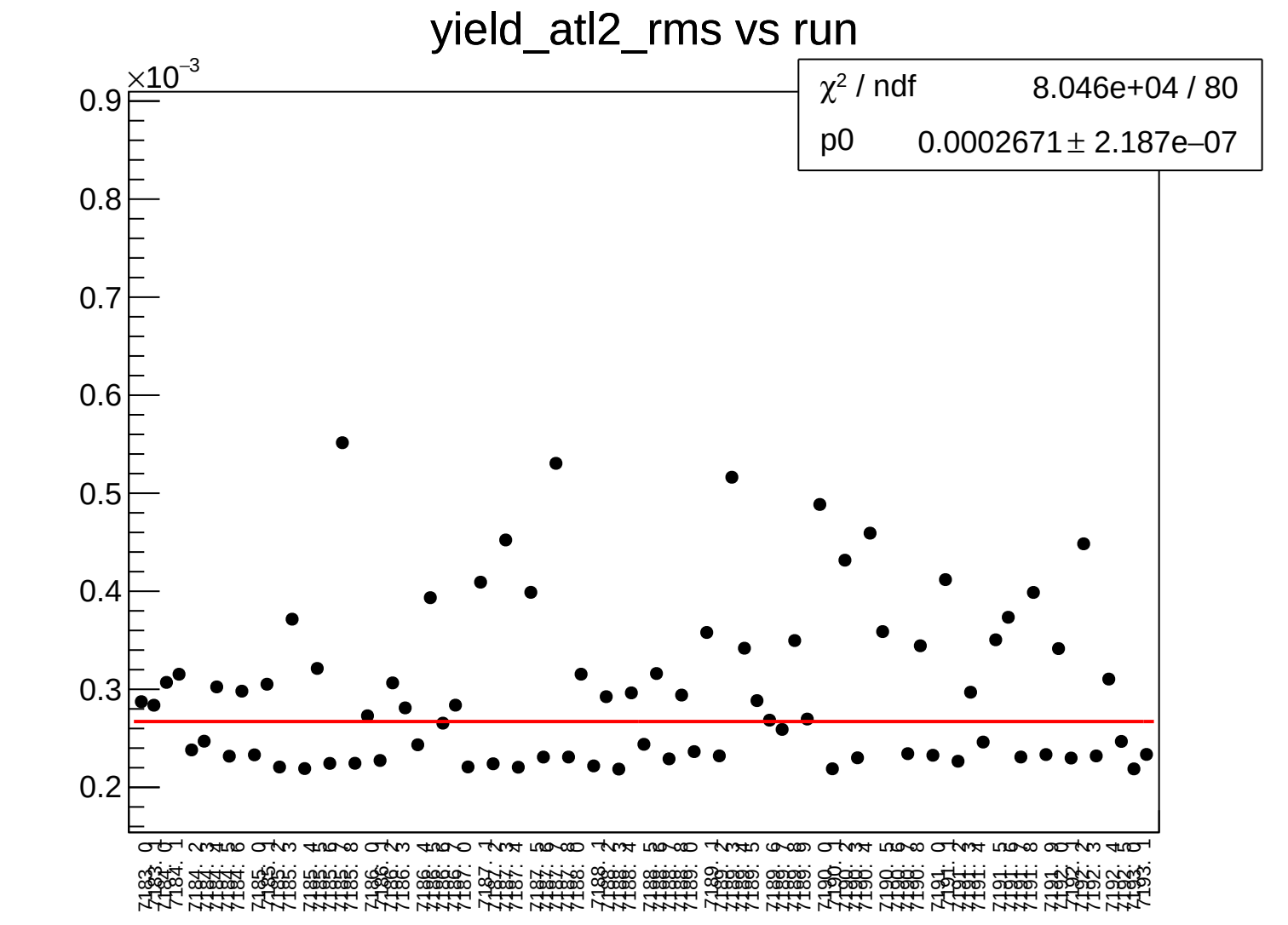

yield_atl1_mean vs run
χ² / ndf 2.724e+05 / 80
p0 0.02567 ± 7.596e−08
0.02575
0.0257
0.02565
0.0256
0.02555
pull
Entries 81
Mean −315.4
Std Dev 366
100
50
0
−50
−100
−150

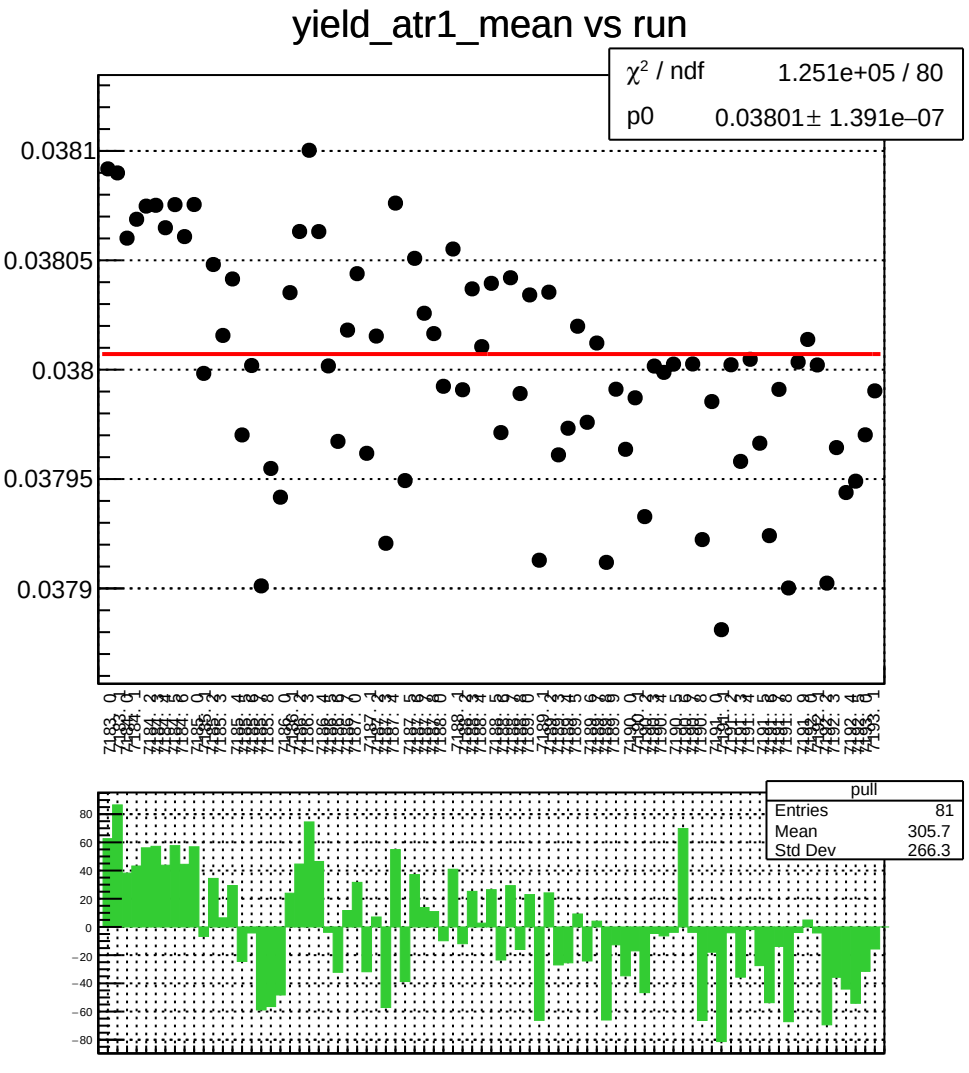

pull1D
Entries 81
Mean −0.2974
Std Dev 4.659
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

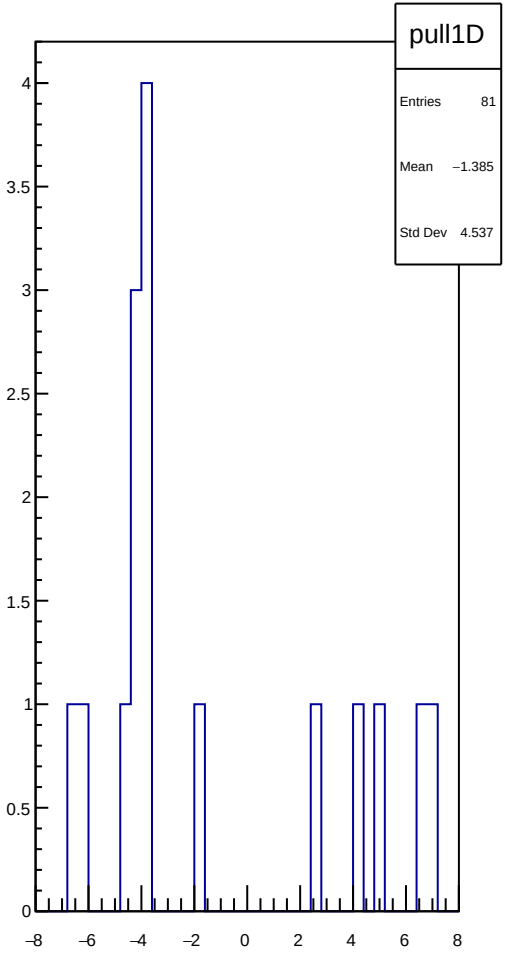

yield_atl1_rms vs run
×10⁻⁶
χ² / ndf 7781 / 80
p0 6.719e−05 ± 5.371e−08
90
85
80
75
70
65
60

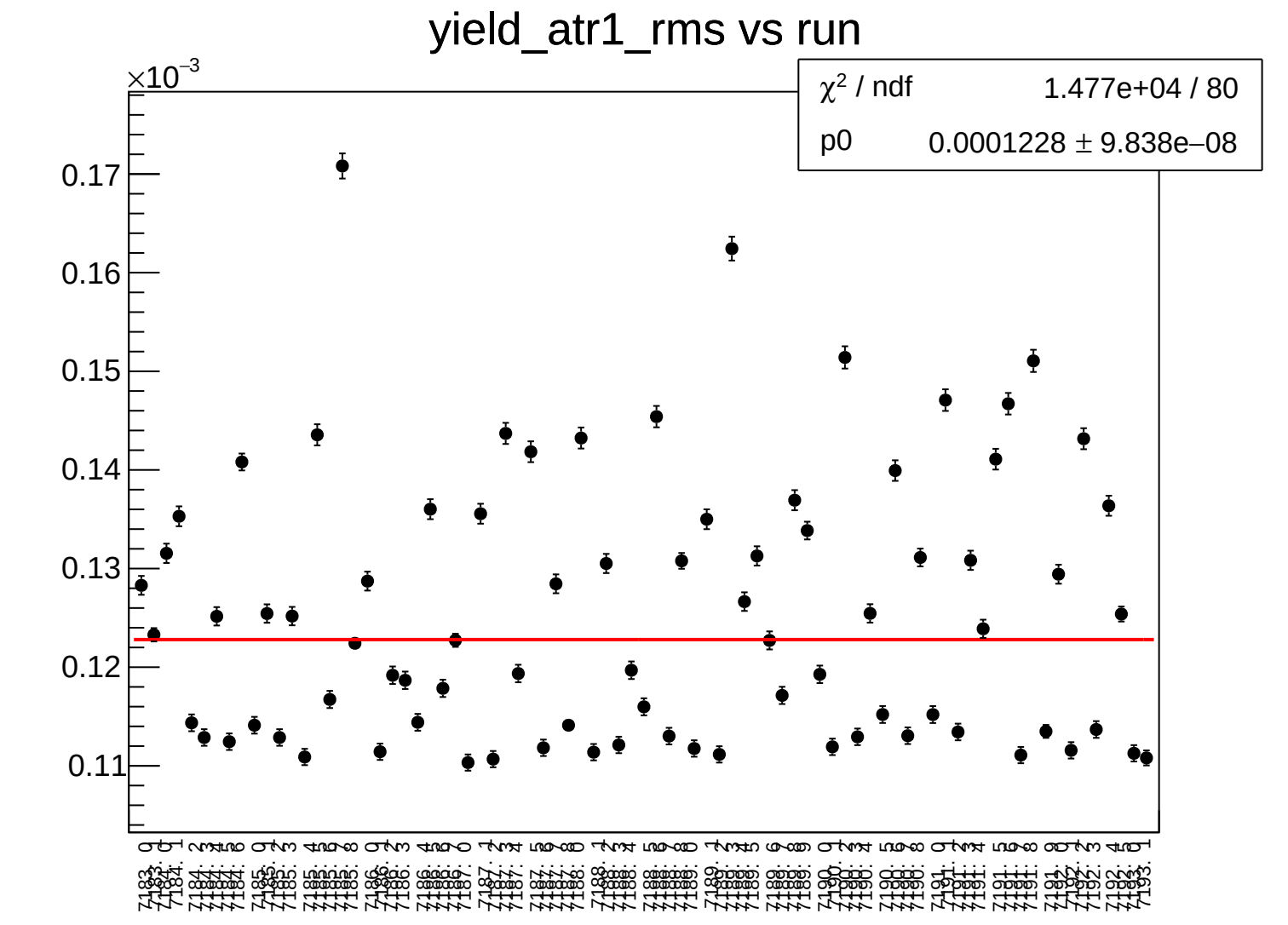

yield_atl2_mean vs run
χ² / ndf 1.388e+05 / 80
p0 0.02585 ± 3.093e−07
0.0266
0.0264
0.0262
0.026
0.0258
0.0256
0.0254
0.0252
pull
Entries 81
Mean −65.55
Std Dev 110
80
60
40
20
0
−20
−40
−60
−80
−100
−120

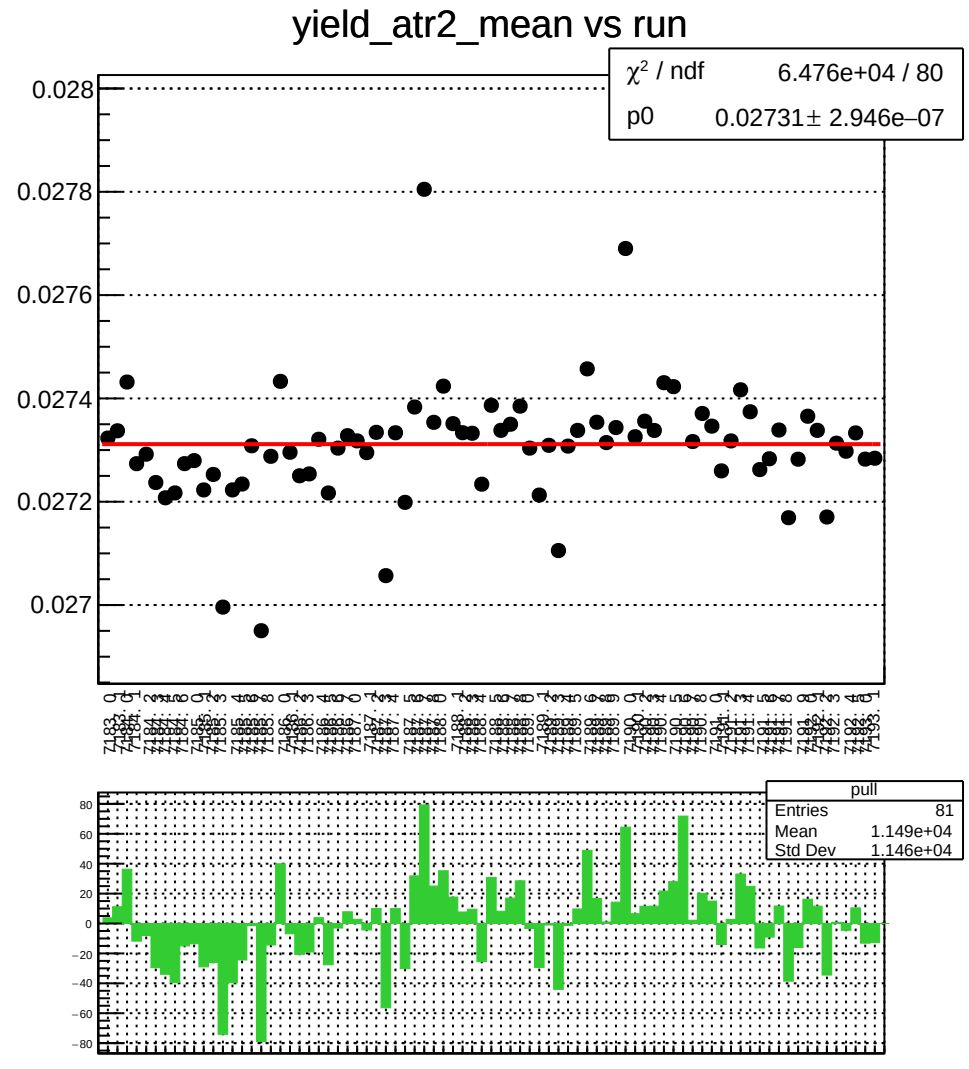

pull1D
Entries 81
Mean 1.505
Std Dev 4.812
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

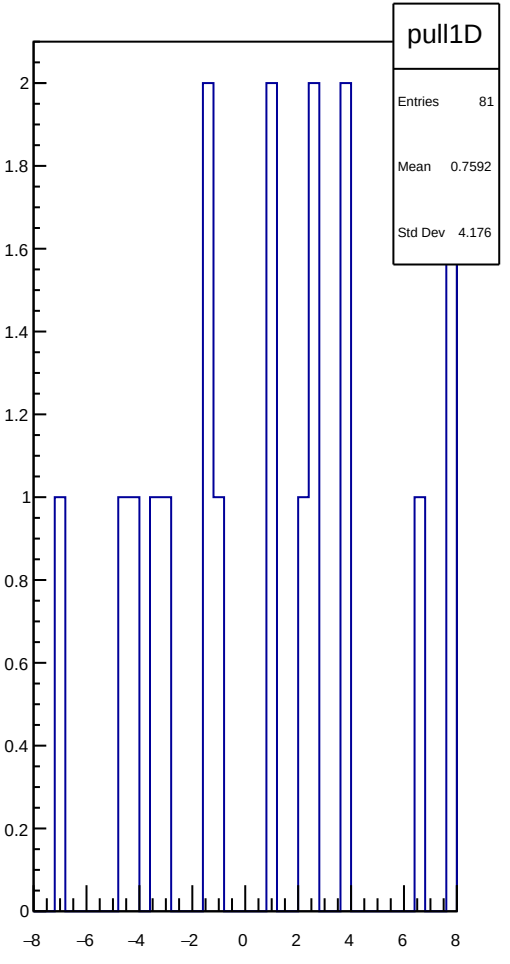

yield_atl2_rms vs run
×10⁻³
χ² / ndf 8.046e+04 / 80
p0 0.0002671 ± 2.187e−07
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2

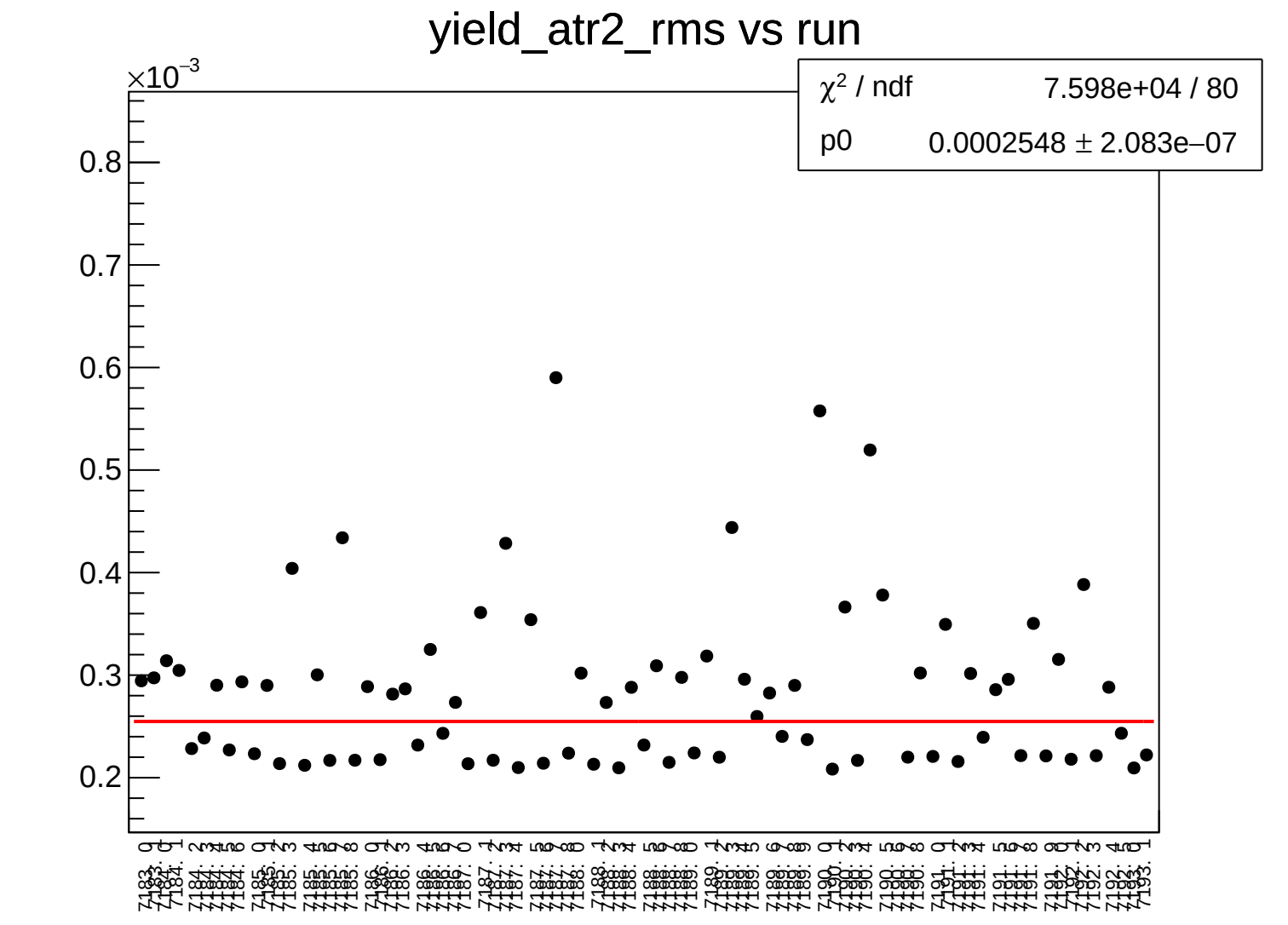

yield_atr1_mean vs run
χ² / ndf 1.251e+05 / 80
p0 0.03801± 1.391e–07
0.0381
0.03805
0.038
0.03795
0.0379
pull
Entries 81
Mean 305.7
Std Dev 266.3
80
60
40
20
0
–20
–40
–60
–80

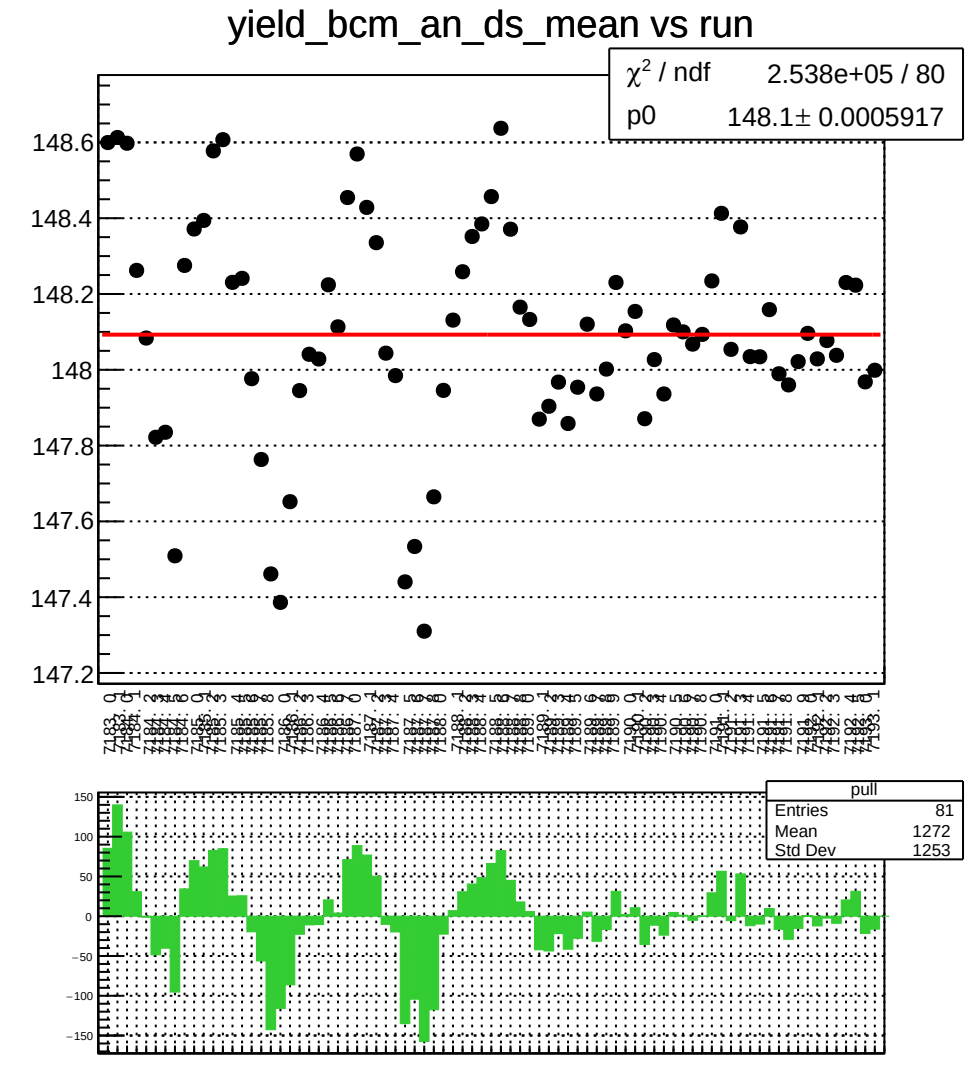

pull1D
Entries 81
Mean –1.385
Std Dev 4.537
4
3.5
3
2.5
2
1.5
1
0.5
0
–8
–6
–4
–2
0
2
4
6
8

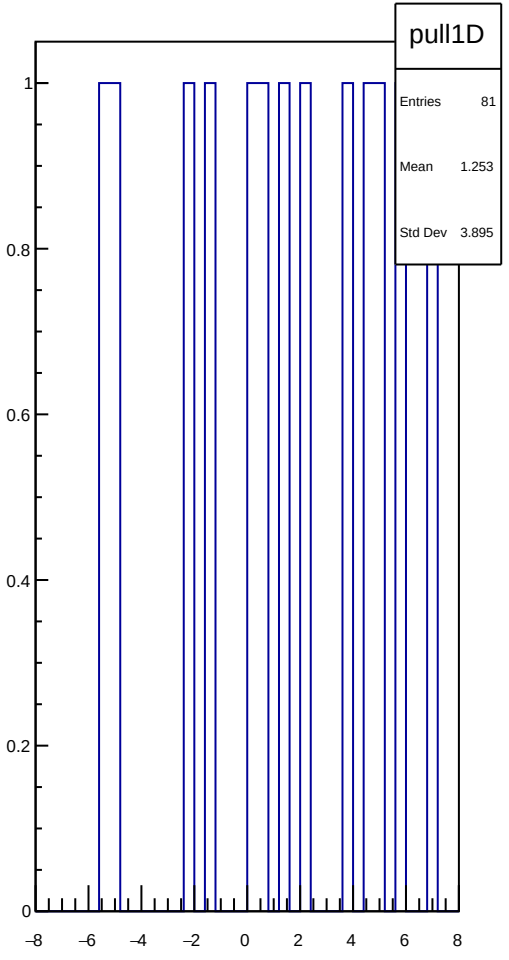

yield_atr1_rms vs run
×10⁻³
χ² / ndf 1.477e+04 / 80
p0 0.0001228 ± 9.838e−08
0.17
0.16
0.15
0.14
0.13
0.12
0.11

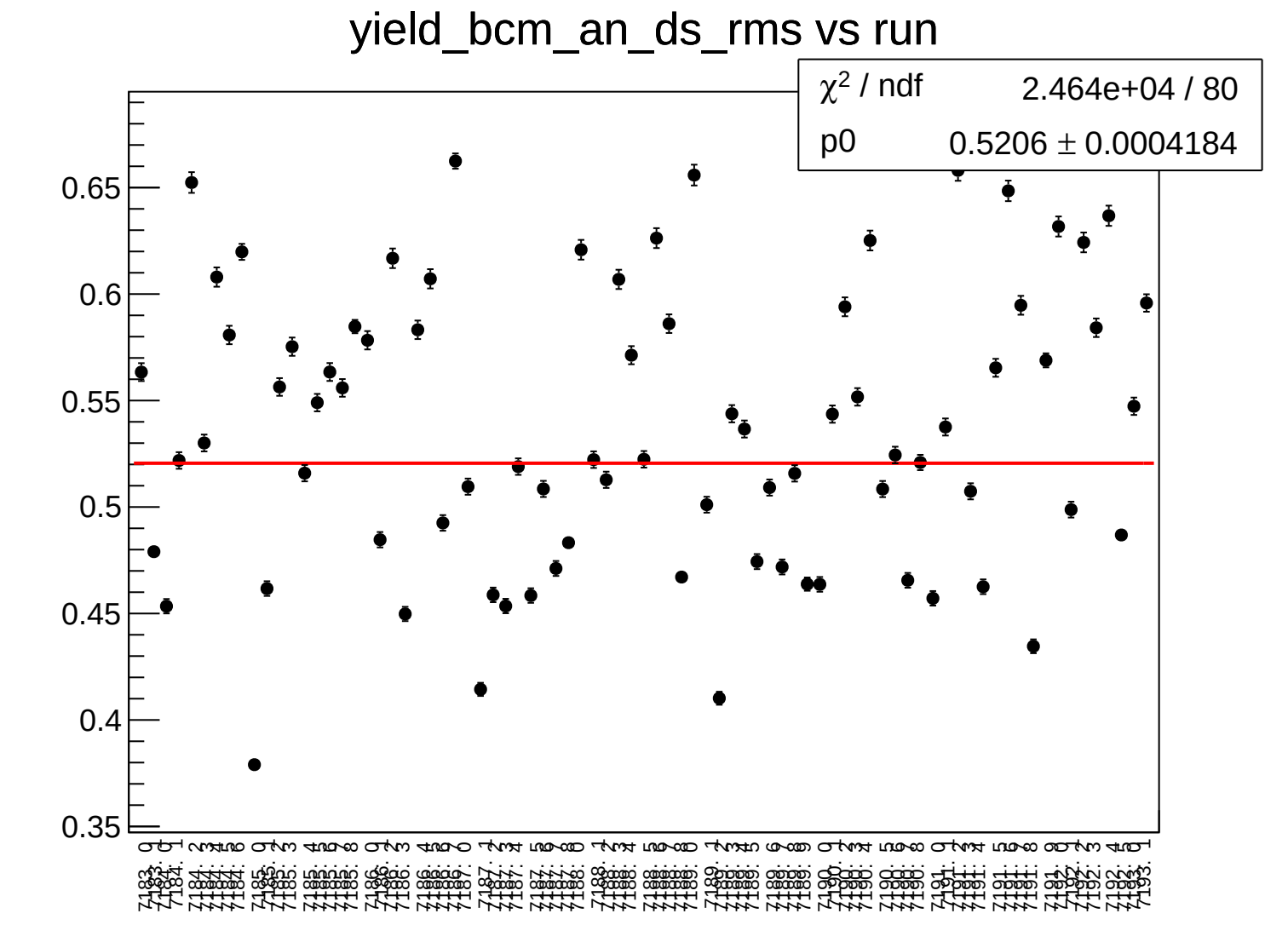

yield_atr2_mean vs run
χ² / ndf 6.476e+04 / 80
p0 0.02731± 2.946e−07
0.028
0.0278
0.0276
0.0274
0.0272
0.027
pull
Entries 81
Mean 1.149e+04
Std Dev 1.146e+04
80
60
40
20
0
−20
−40
−60
−80

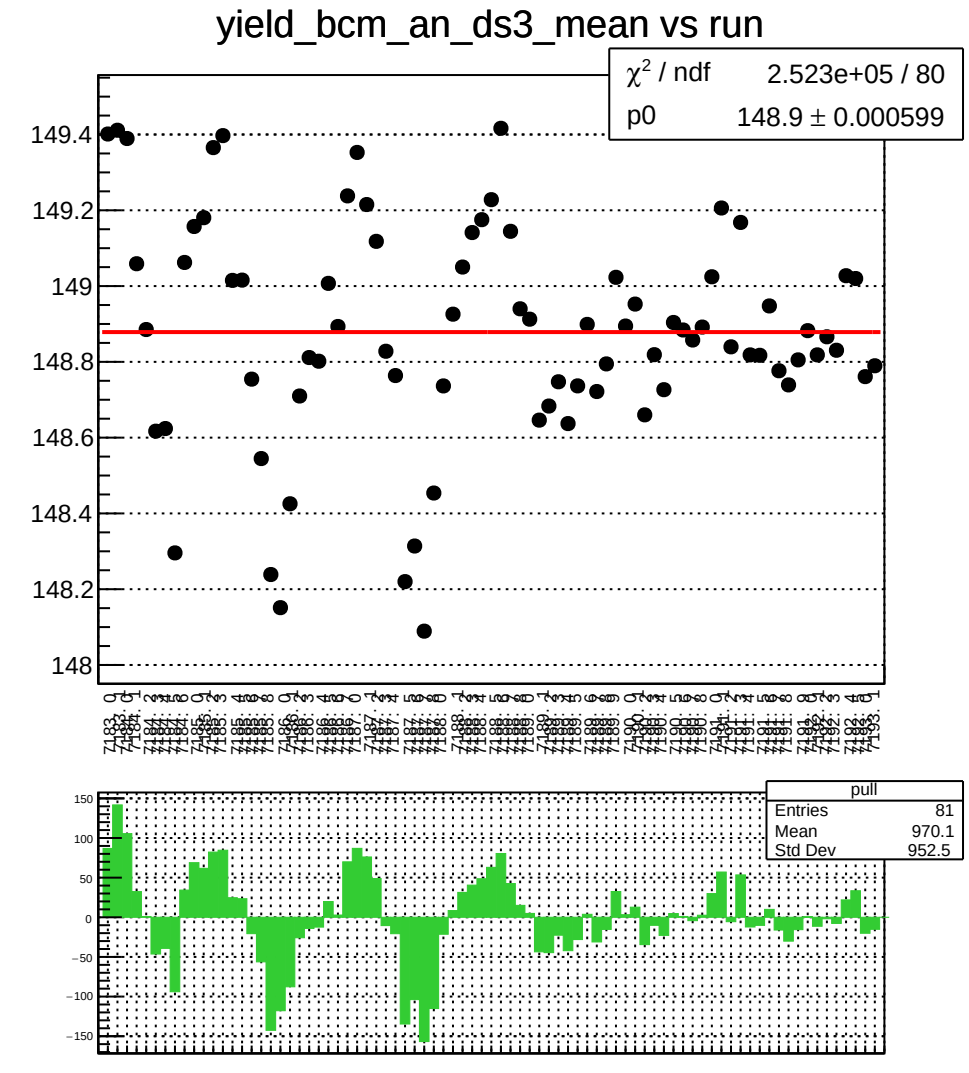

pull1D
Entries 81
Mean 0.7592
Std Dev 4.176
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

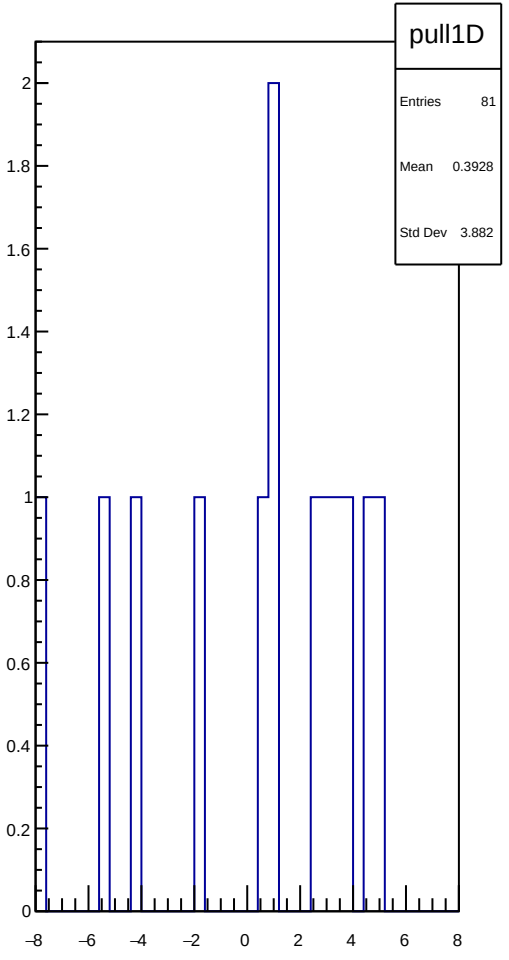

yield_atr2_rms vs run
×10⁻³
χ² / ndf 7.598e+04 / 80
p0 0.0002548 ± 2.083e−07
0.8
0.7
0.6
0.5
0.4
0.3
0.2

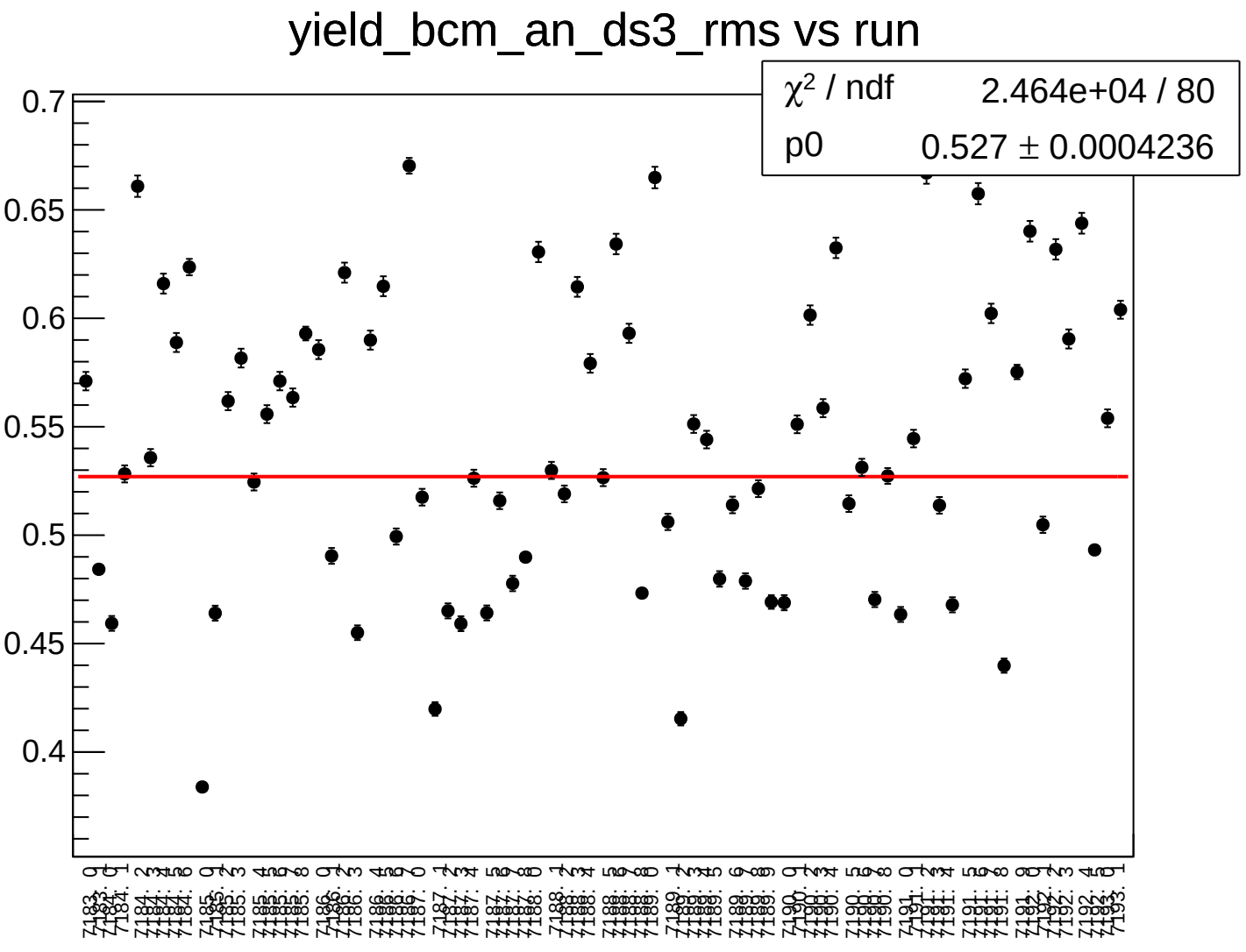

yield_bcm_an_ds_mean vs run
χ² / ndf 2.538e+05 / 80
p0 148.1± 0.0005917
148.6
148.4
148.2
148
147.8
147.6
147.4
147.2
pull
Entries 81
Mean 1272
Std Dev 1253
150
100
50
0
−50
−100
−150

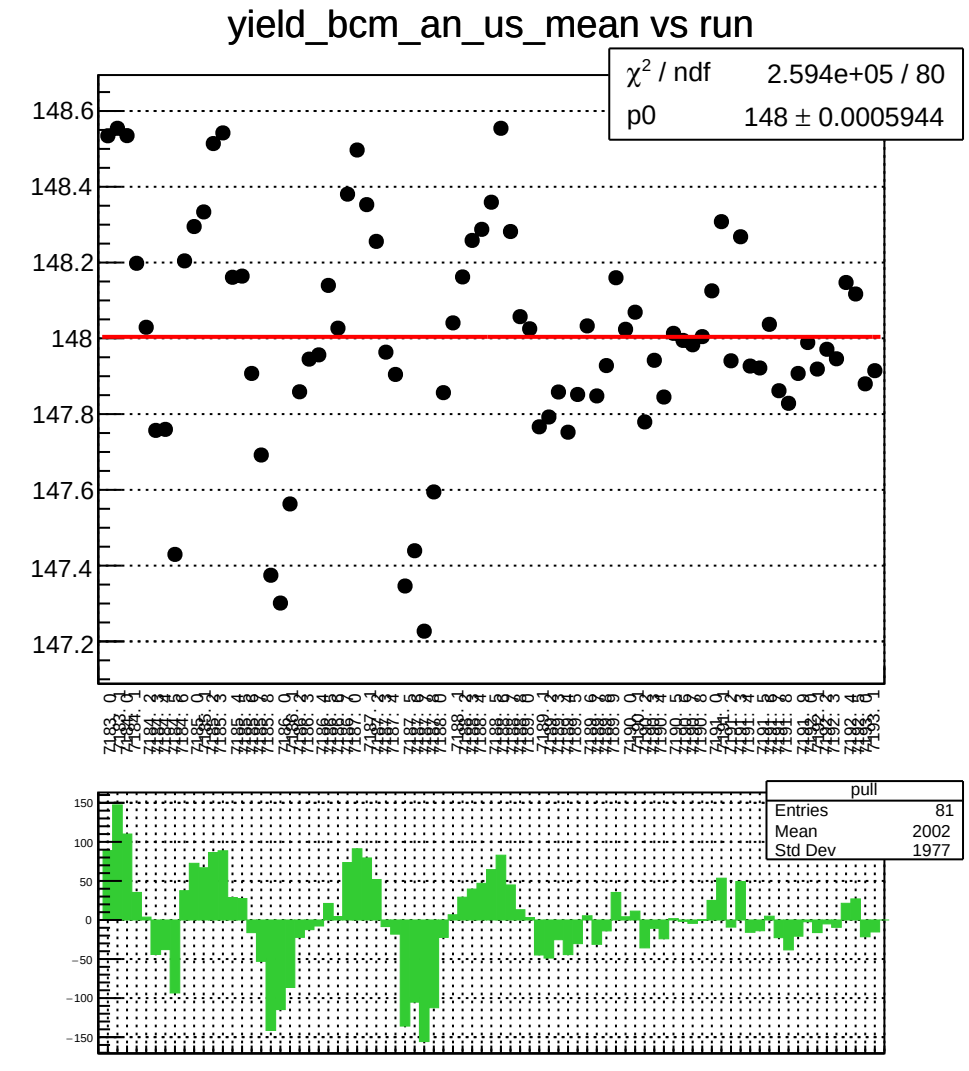

pull1D
Entries 81
Mean 1.253
Std Dev 3.895
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

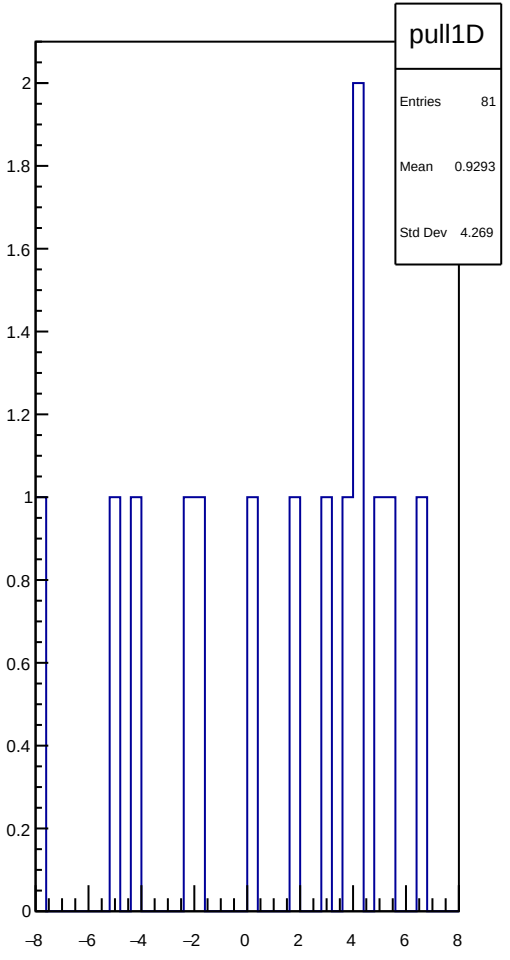

yield_bcm_an_ds_rms vs run
χ² / ndf 2.464e+04 / 80
p0 0.5206 ± 0.0004184
0.65
0.6
0.55
0.5
0.45
0.4
0.35

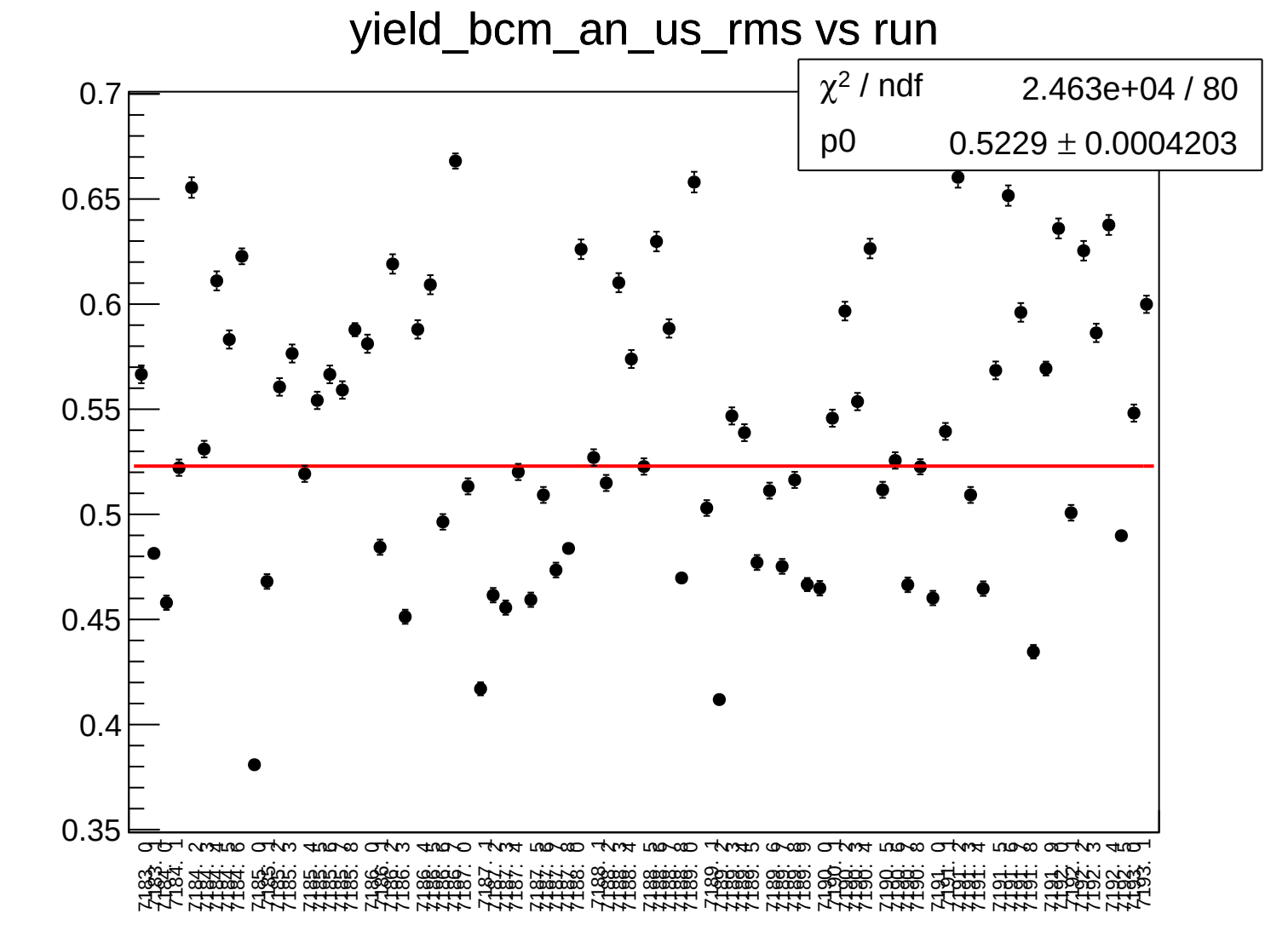

yield_bcm_an_ds3_mean vs run
χ² / ndf 2.523e+05 / 80
p0 148.9 ± 0.000599
149.4
149.2
149
148.8
148.6
148.4
148.2
148
pull
Entries 81
Mean 970.1
Std Dev 952.5
150
100
50
0
−50
−100
−150

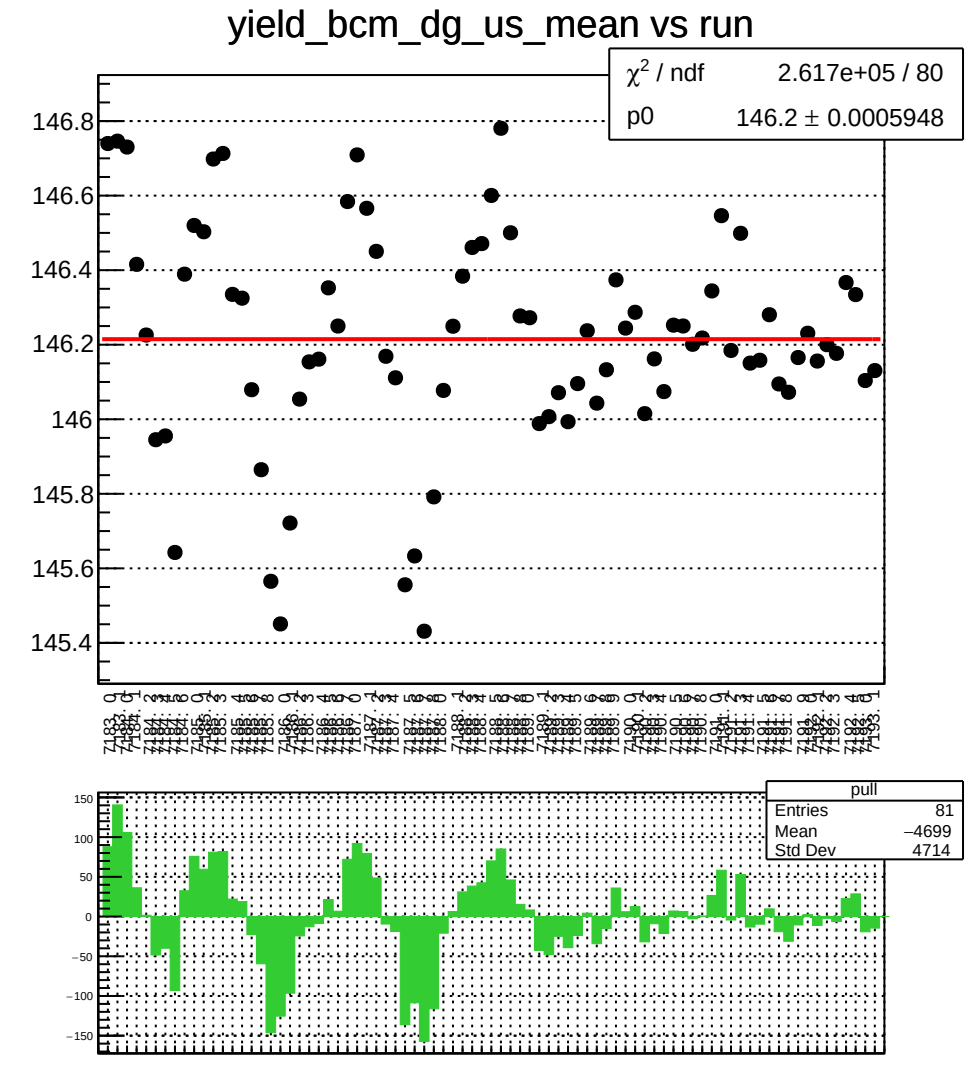

pull1D
Entries 81
Mean 0.3928
Std Dev 3.882
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

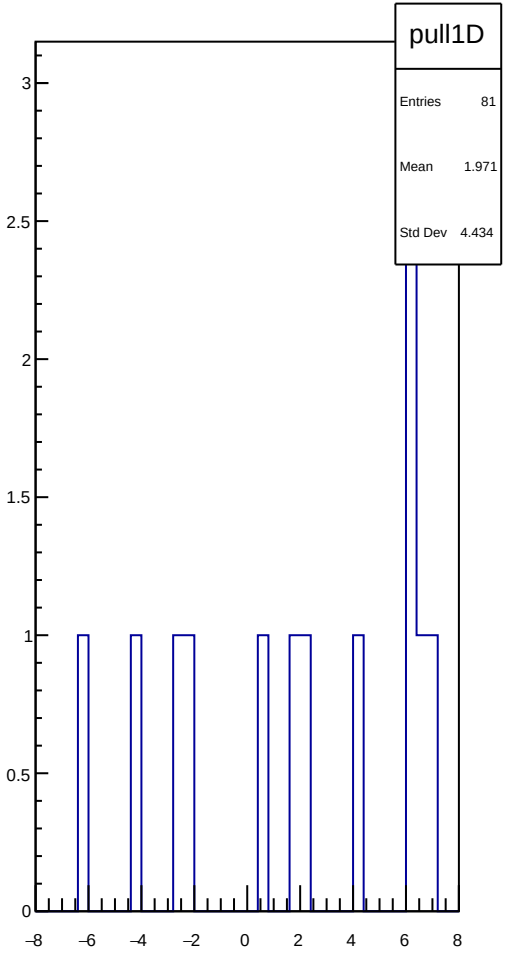

yield_bcm_an_ds3_rms vs run
χ² / ndf 2.464e+04 / 80
p0 0.527 ± 0.0004236
0.7
0.65
0.6
0.55
0.5
0.45
0.4

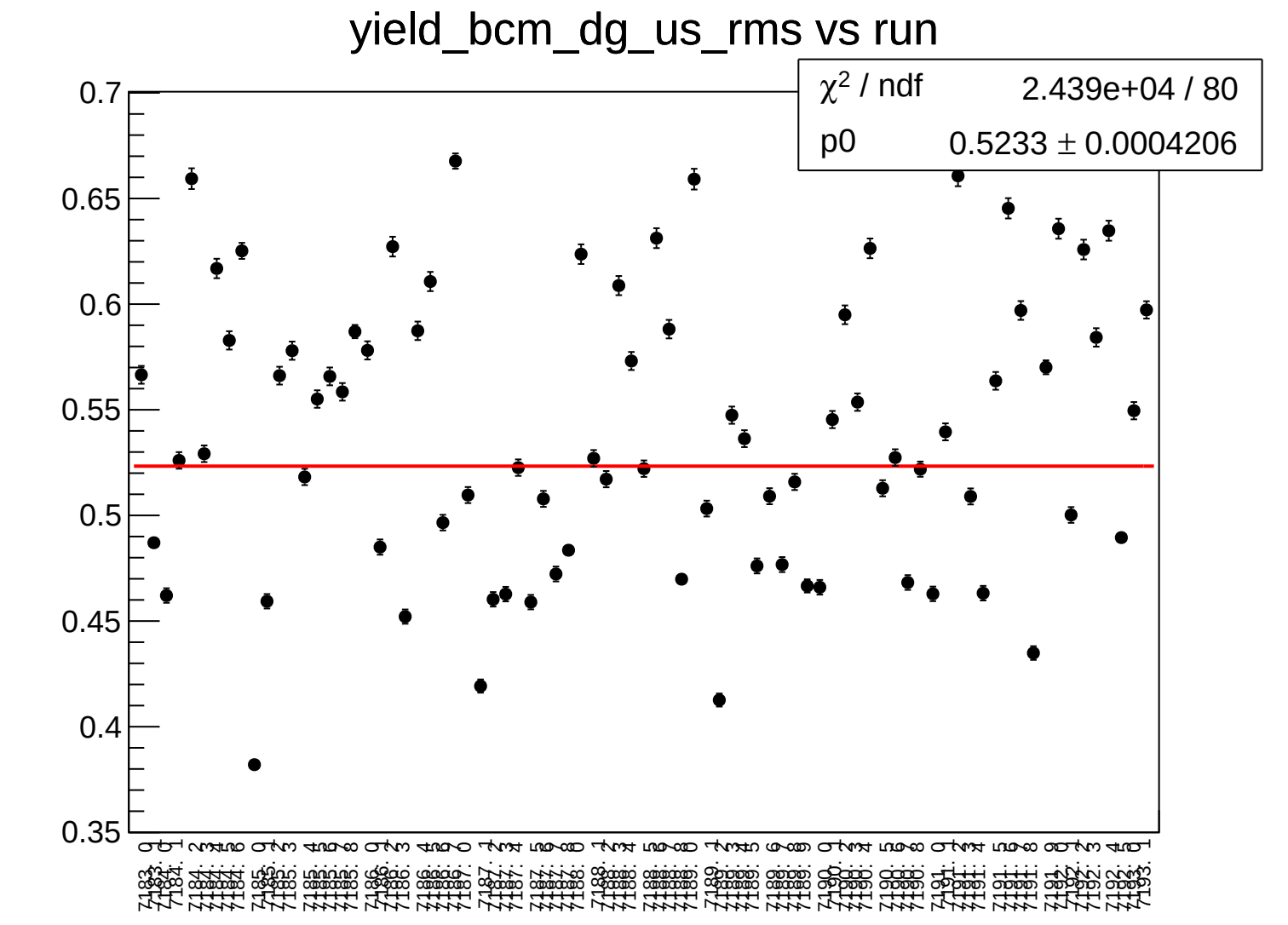

yield_bcm_an_us_mean vs run
χ² / ndf 2.594e+05 / 80
p0 148 ± 0.0005944
148.6
148.4
148.2
148
147.8
147.6
147.4
147.2
pull
Entries 81
Mean 2002
Std Dev 1977
150
100
50
0
−50
−100
−150

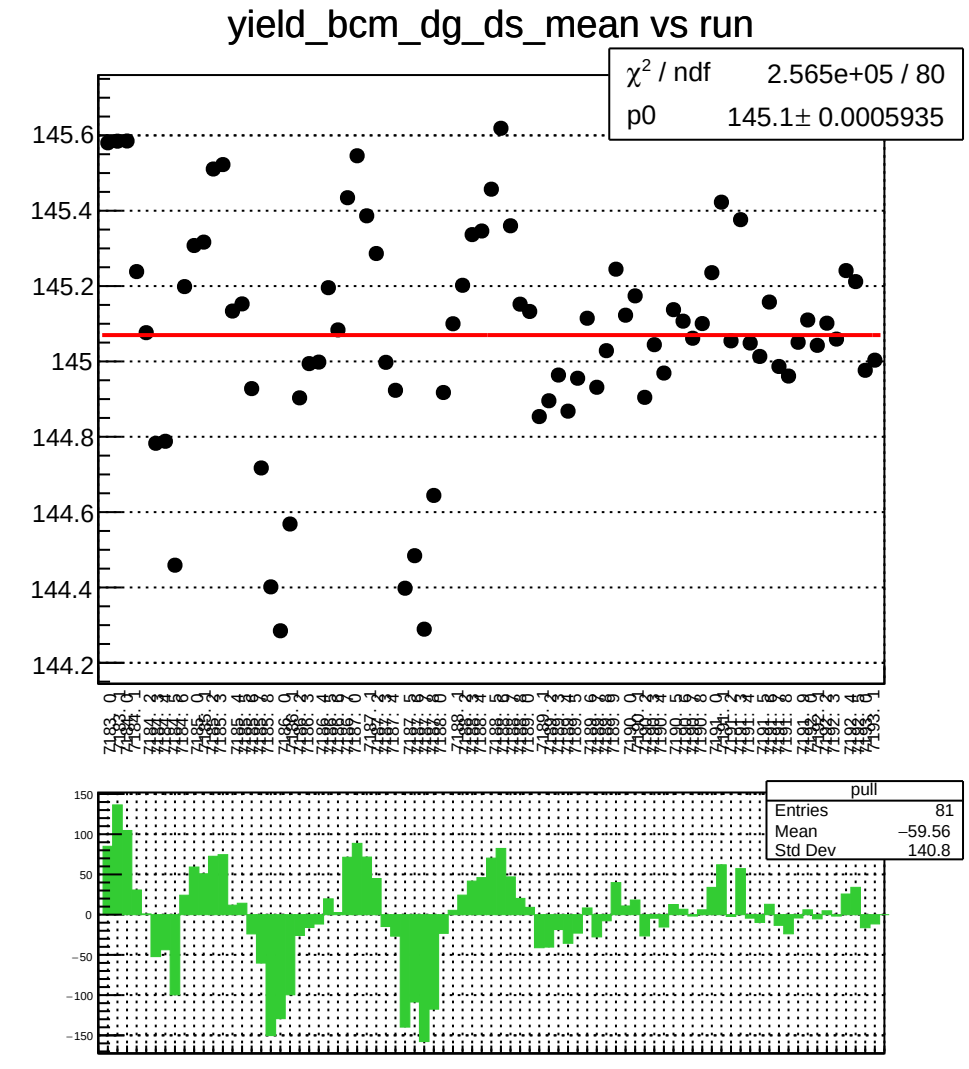

pull1D
Entries 81
Mean 0.9293
Std Dev 4.269
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

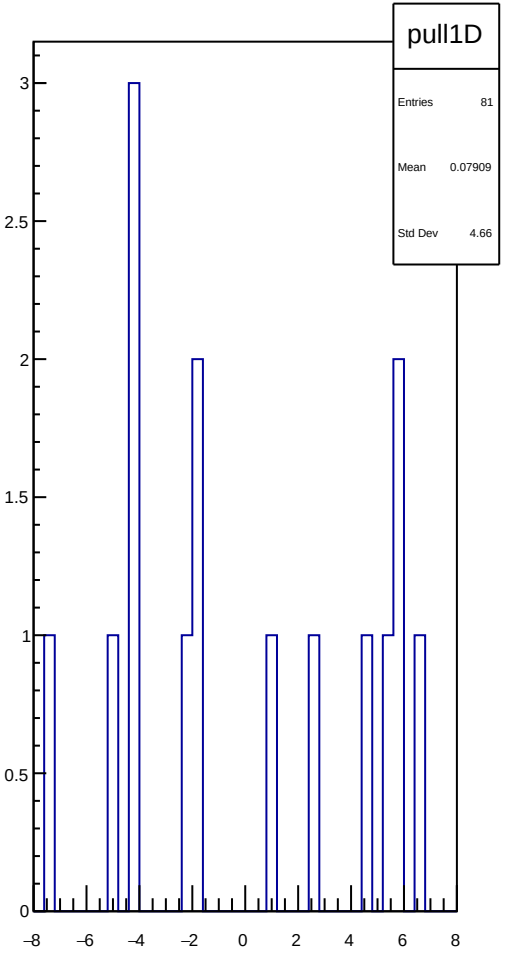

yield_bcm_an_us_rms vs run
χ² / ndf 2.463e+04 / 80
p0 0.5229 ± 0.0004203
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35

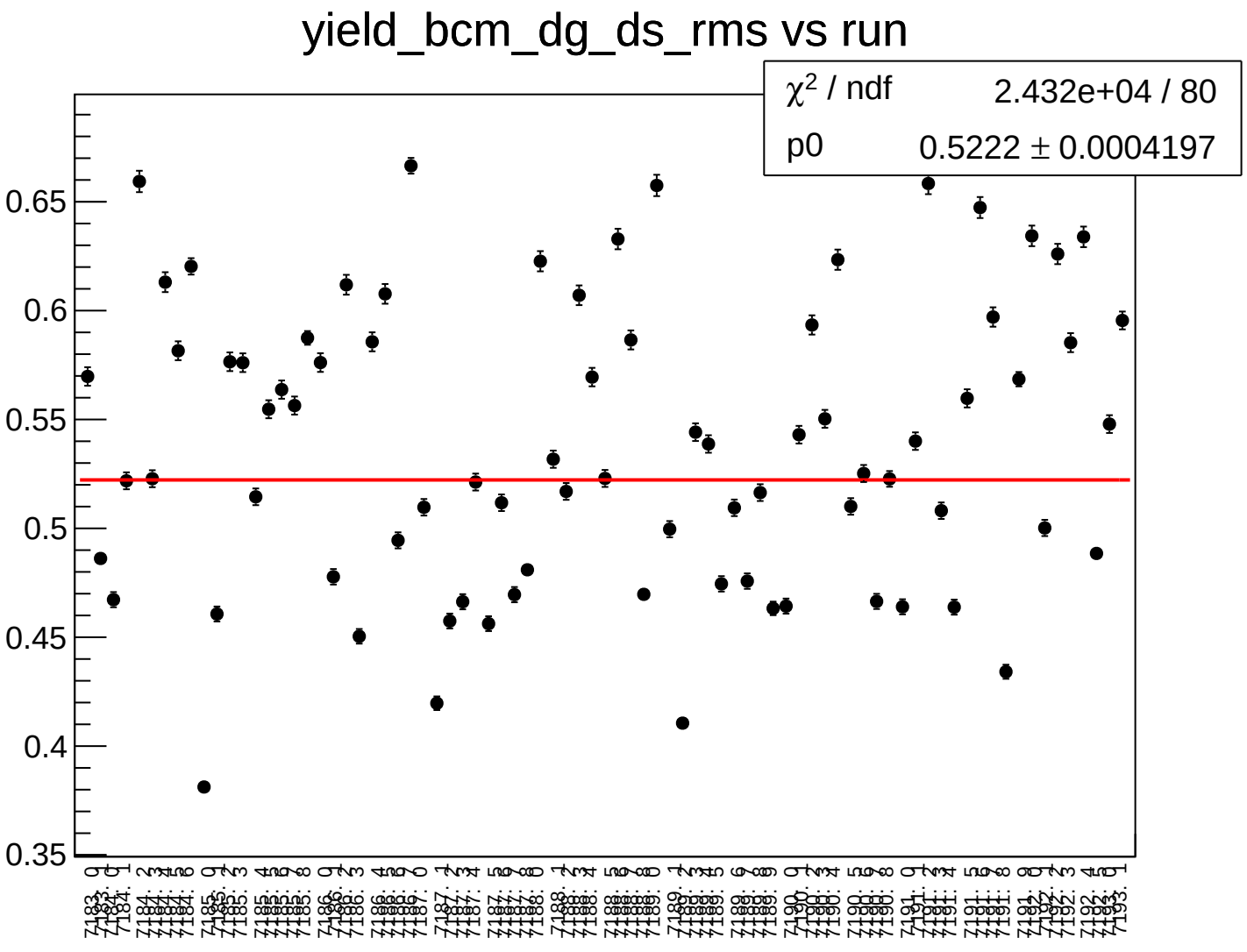

yield_bcm_dg_us_mean vs run
χ² / ndf 2.617e+05 / 80
p0 146.2 ± 0.0005948
146.8
146.6
146.4
146.2
146
145.8
145.6
145.4
pull
Entries 81
Mean −4699
Std Dev 4714
150
100
50
0
−50
−100
−150

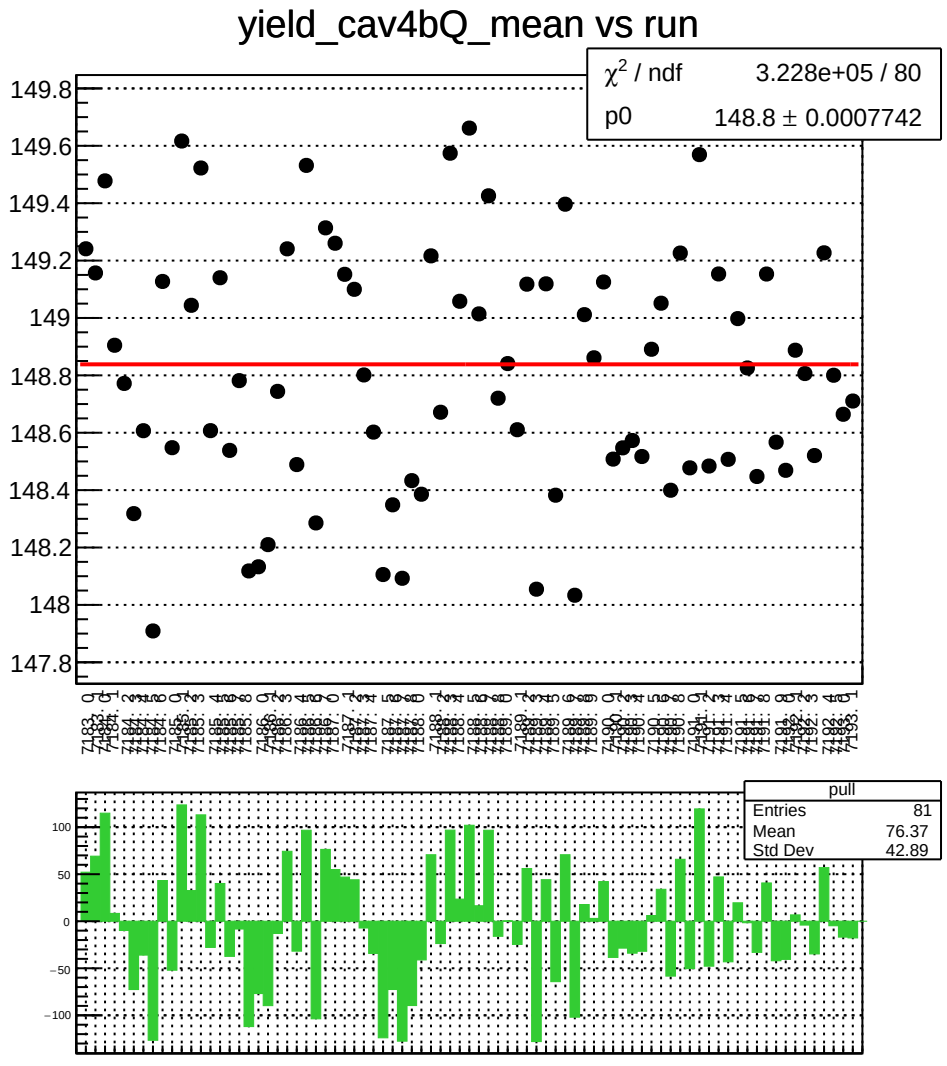

pull1D
Entries 81
Mean 1.971
Std Dev 4.434
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

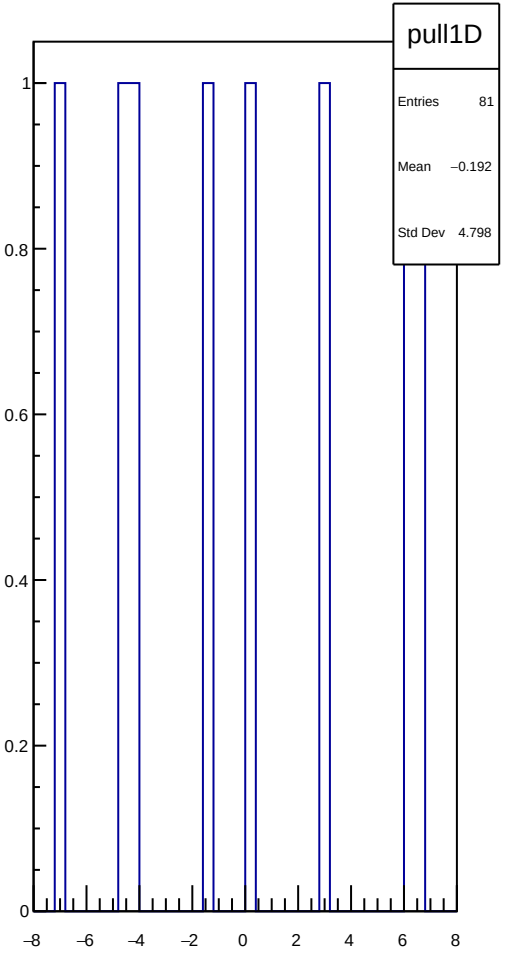

yield_bcm_dg_us_rms vs run
χ² / ndf 2.439e+04 / 80
p0 0.5233 ± 0.0004206
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35

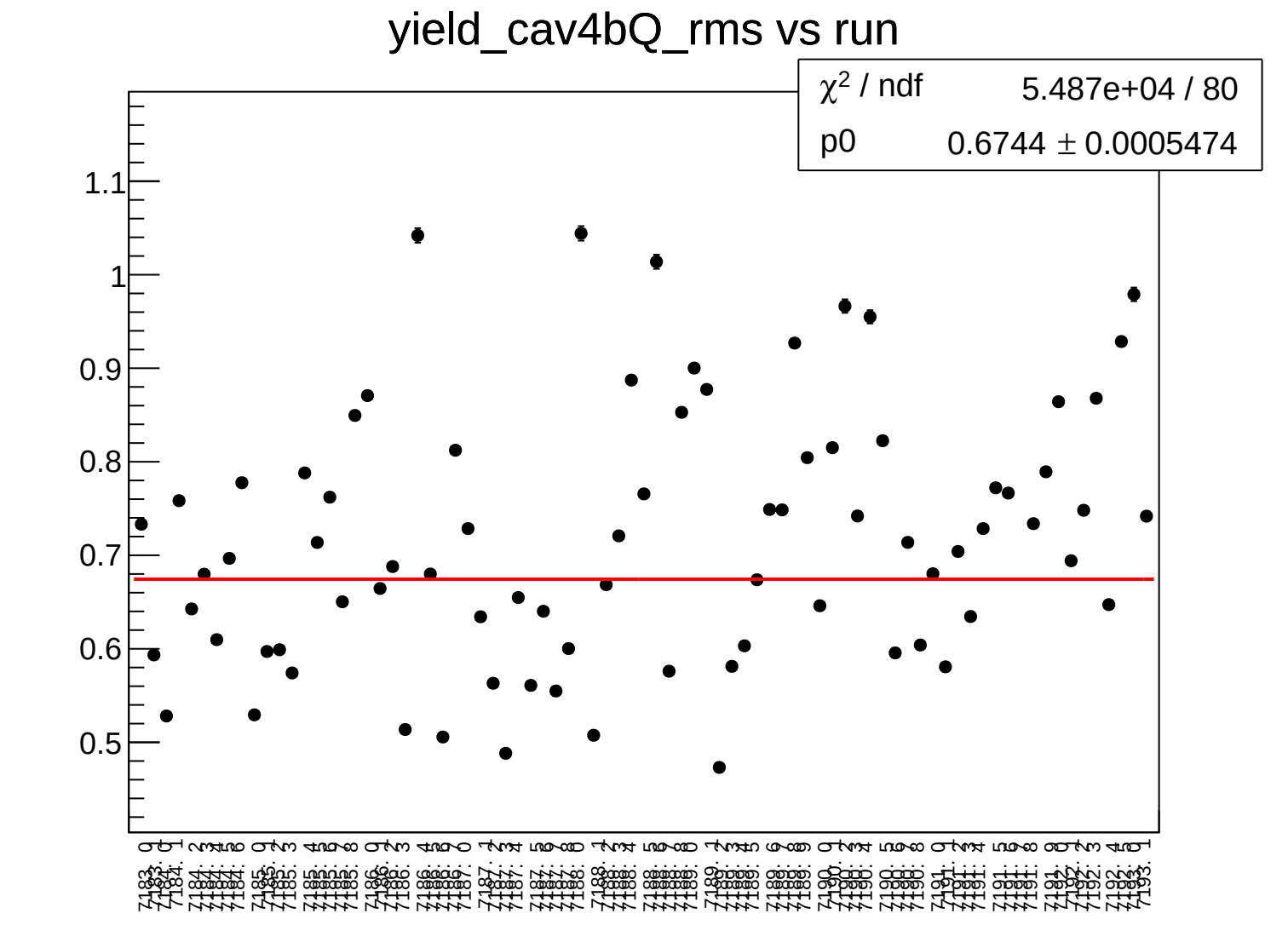

yield_bcm_dg_ds_mean vs run
χ² / ndf 2.565e+05 / 80
p0 145.1± 0.0005935
145.6
145.4
145.2
145
144.8
144.6
144.4
144.2
pull
Entries 81
Mean −59.56
Std Dev 140.8
150
100
50
0
−50
−100
−150

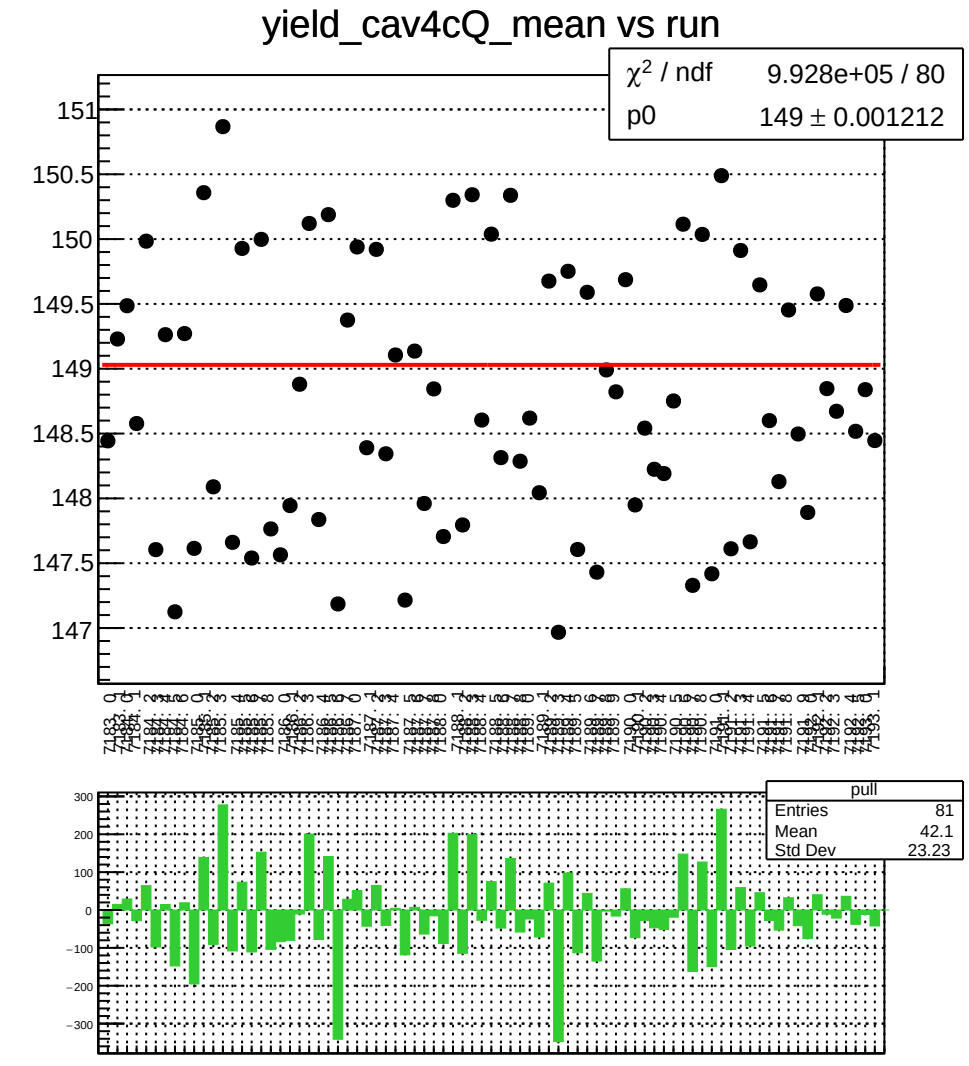

pull1D
Entries 81
Mean 0.07909
Std Dev 4.66
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

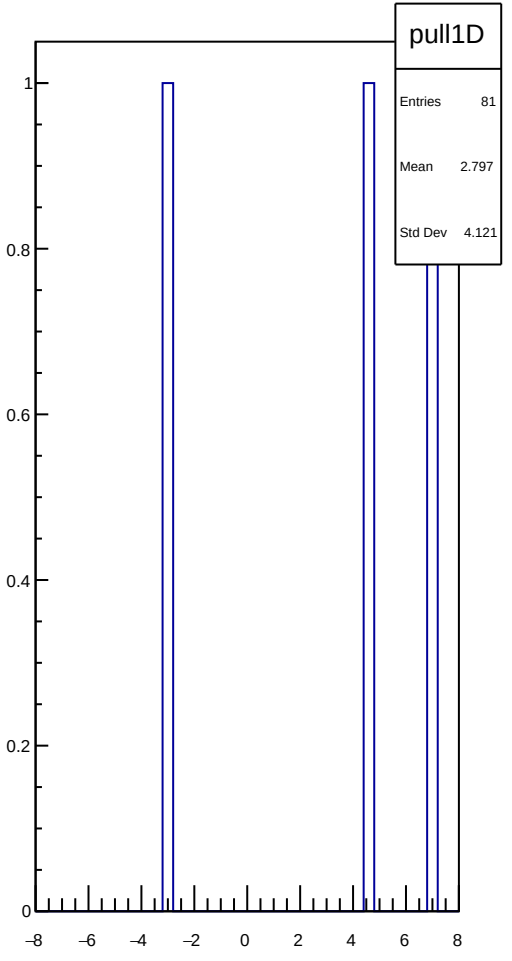

yield_bcm_dg_ds_rms vs run
χ² / ndf 2.432e+04 / 80
p0 0.5222 ± 0.0004197
0.65
0.6
0.55
0.5
0.45
0.4
0.35

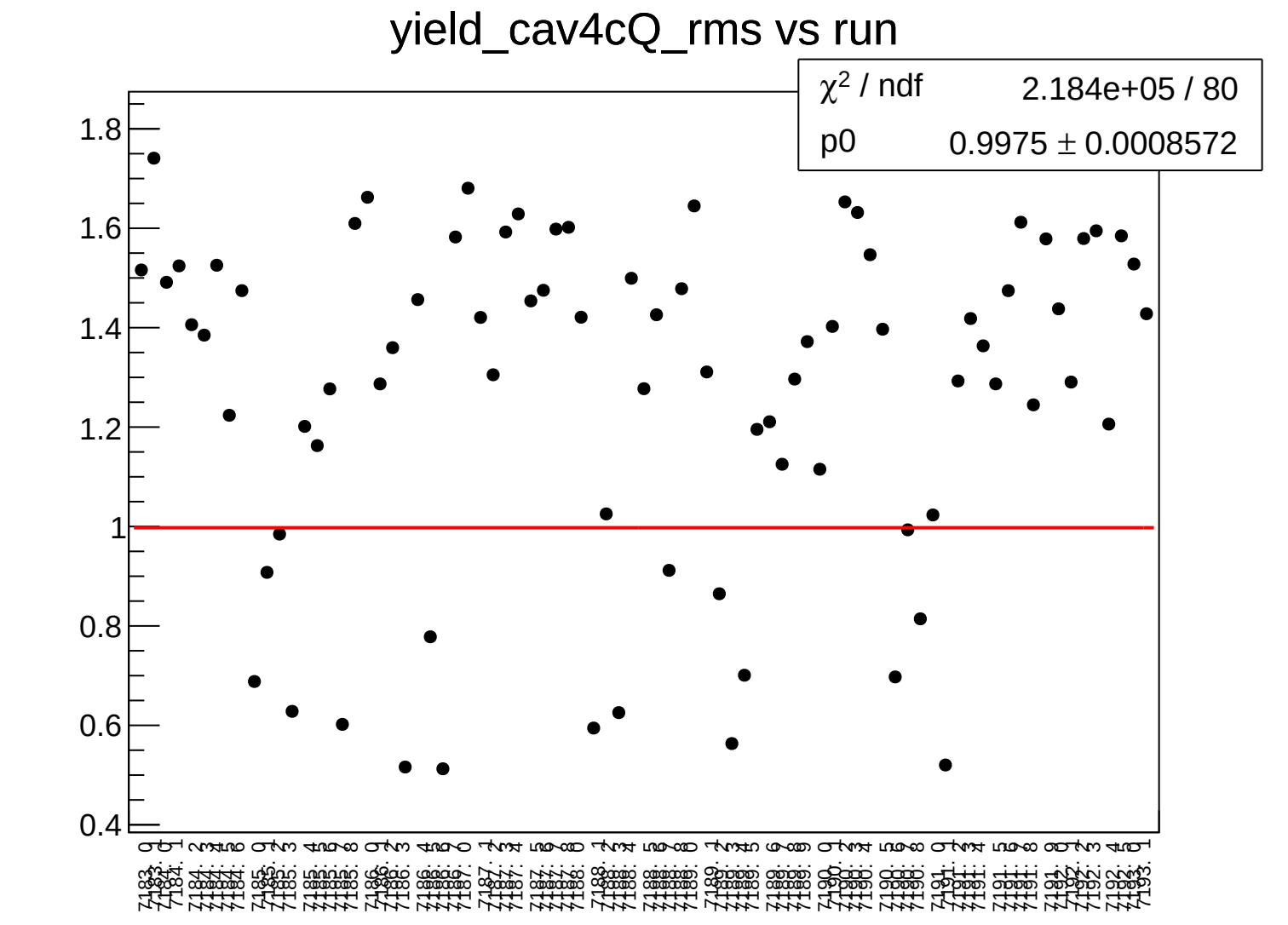

yield_cav4bQ_mean vs run
χ² / ndf 3.228e+05 / 80
p0 148.8 ± 0.0007742
149.8
149.6
149.4
149.2
149
148.8
148.6
148.4
148.2
148
147.8
pull
Entries 81
Mean 76.37
Std Dev 42.89
100
50
0
−50
−100

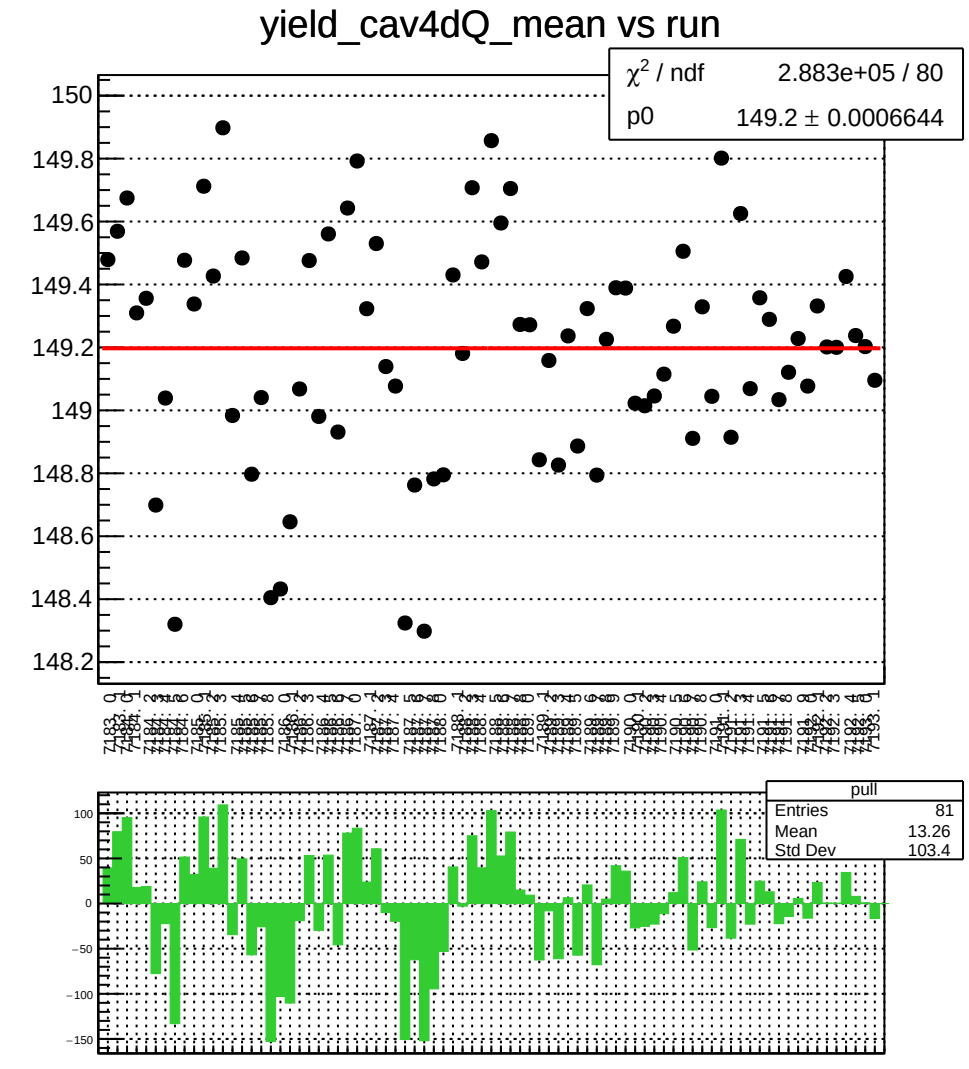

pull1D
Entries 81
Mean −0.192
Std Dev 4.798
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

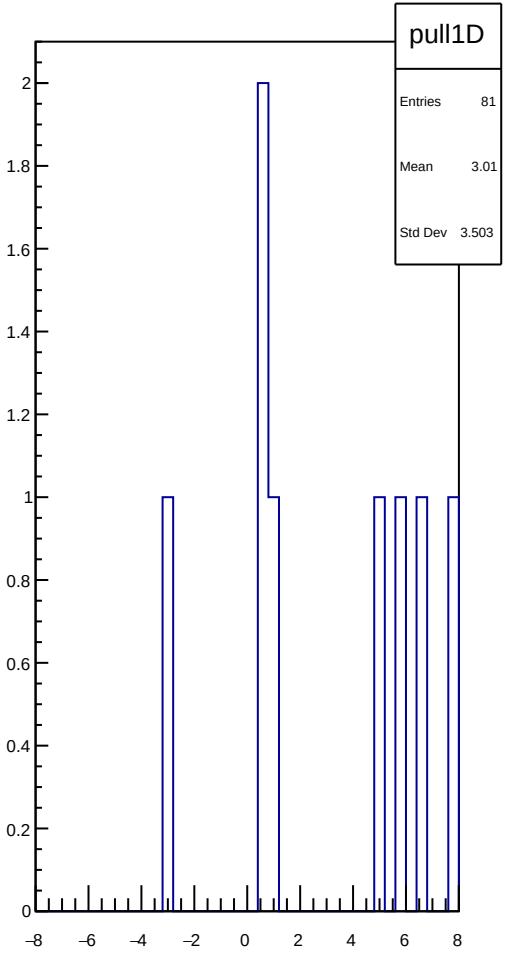

yield_cav4bQ_rms vs run
χ² / ndf 5.487e+04 / 80
p0 0.6744 ± 0.0005474
1.1
1
0.9
0.8
0.7
0.6
0.5

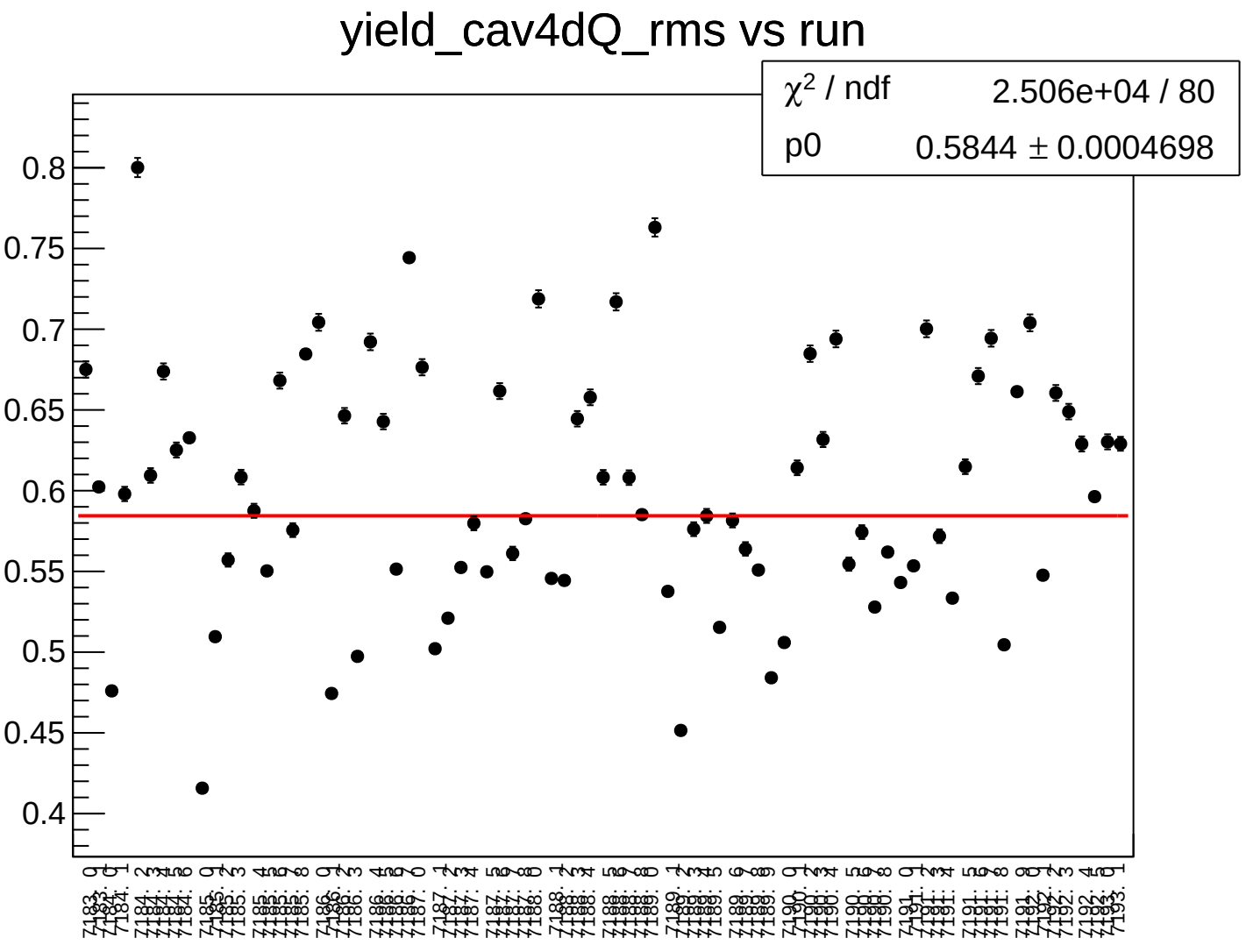

yield_cav4cQ_mean vs run
χ² / ndf 9.928e+05 / 80
p0 149 ± 0.001212
151
150.5
150
149.5
149
148.5
148
147.5
147
pull
Entries 81
Mean 42.1
Std Dev 23.23
300
200
100
0
−100
−200
−300

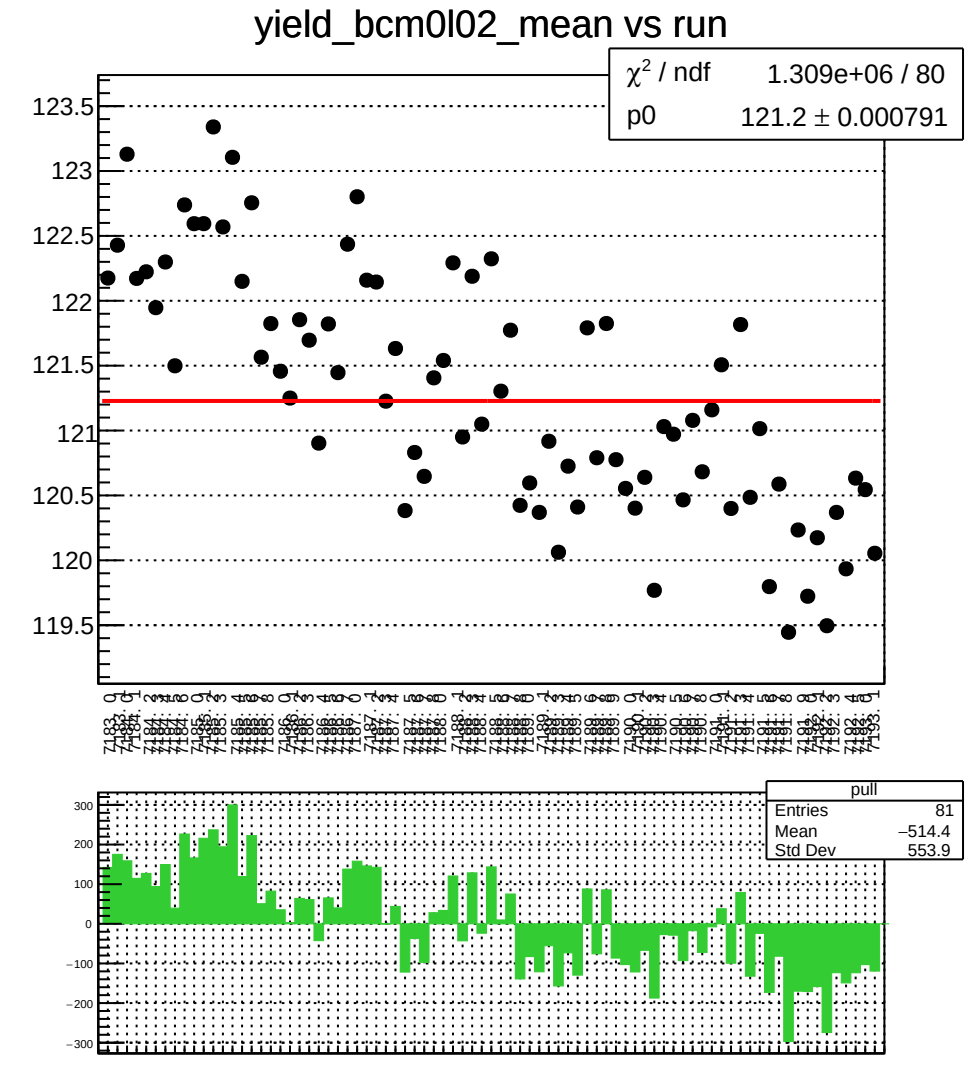

pull1D
Entries 81
Mean 2.797
Std Dev 4.121
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

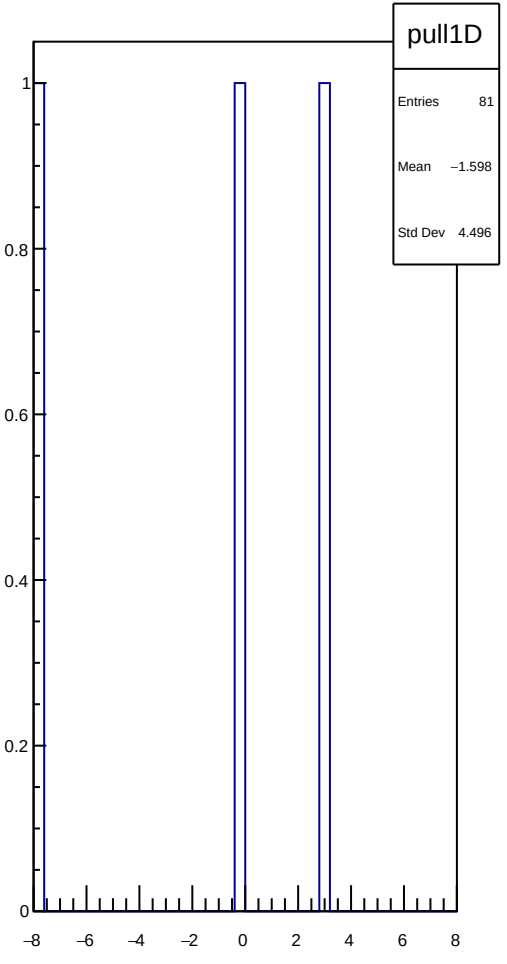

yield_cav4cQ_rms vs run
χ² / ndf 2.184e+05 / 80
p0 0.9975 ± 0.0008572
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4

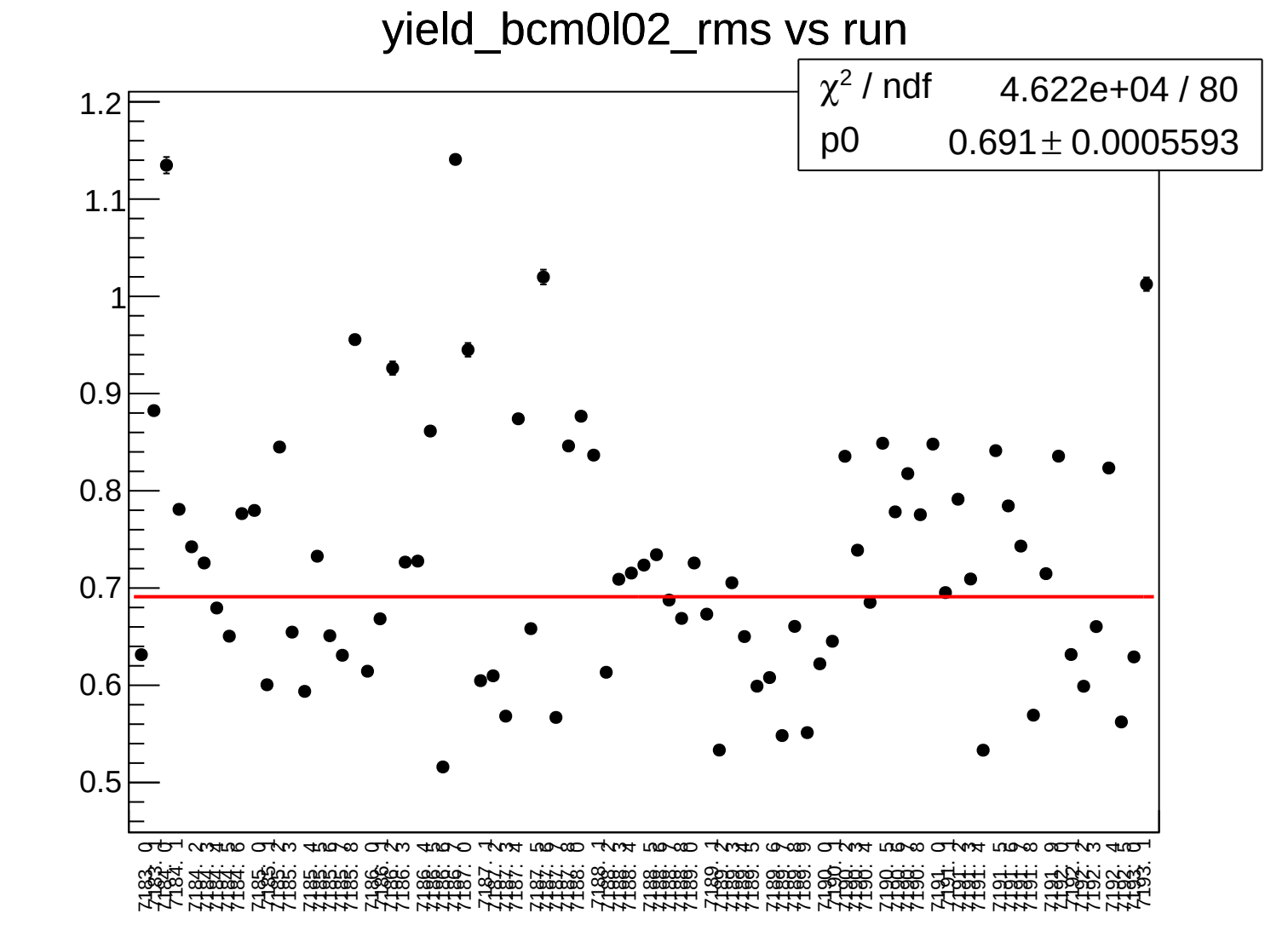

yield_cav4dQ_mean vs run
χ² / ndf 2.883e+05 / 80
p0 149.2 ± 0.0006644
150
149.8
149.6
149.4
149.2
149
148.8
148.6
148.4
148.2
pull
Entries 81
Mean 13.26
Std Dev 103.4
100
50
0
−50
−100
−150

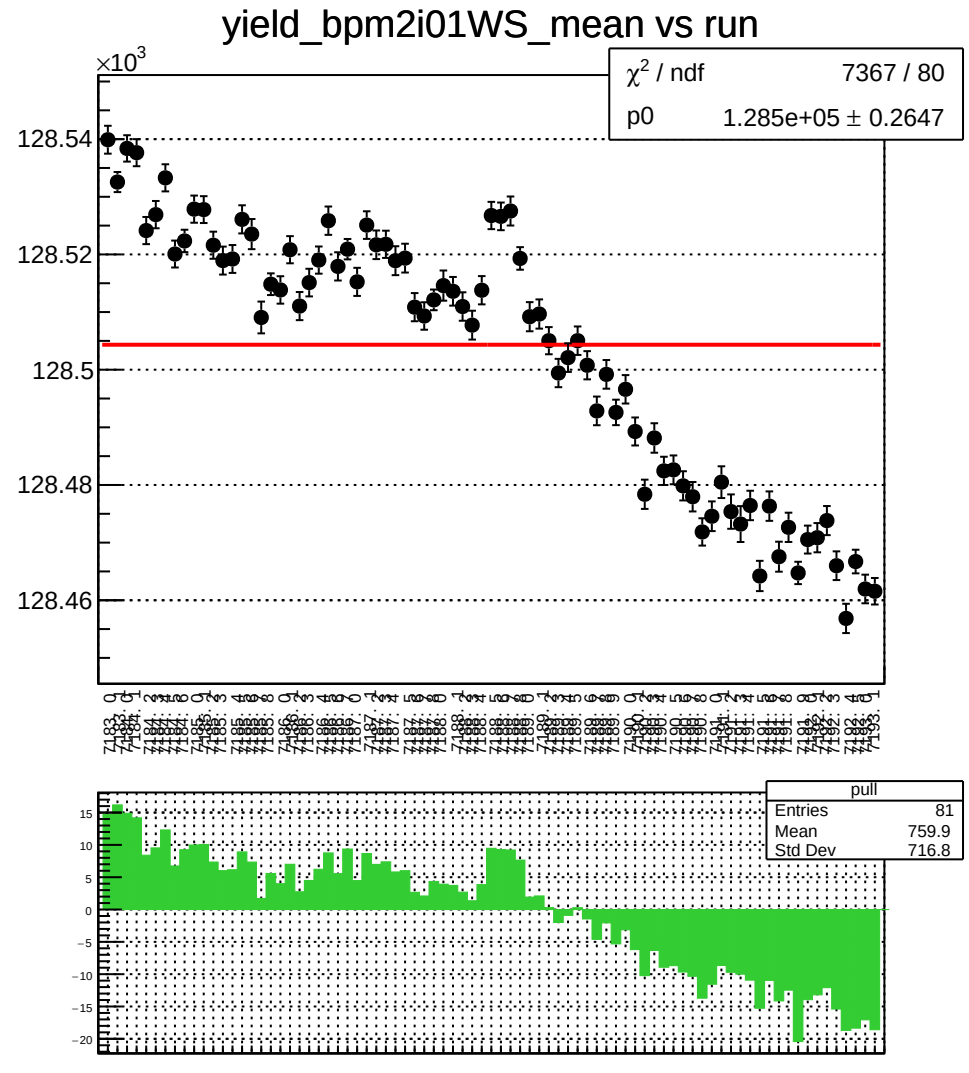

pull1D
Entries 81
Mean 3.01
Std Dev 3.503
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

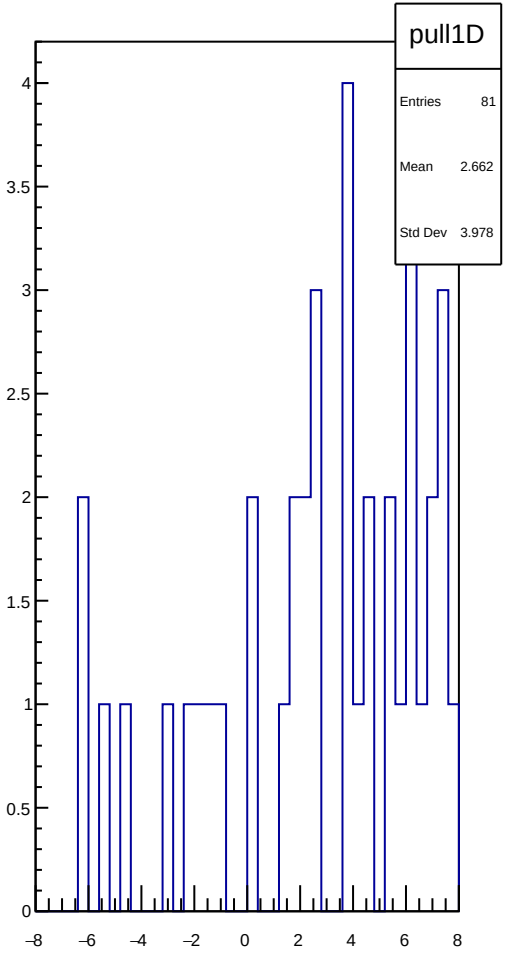

yield_cav4dQ_rms vs run
χ² / ndf 2.506e+04 / 80
p0 0.5844 ± 0.0004698
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4

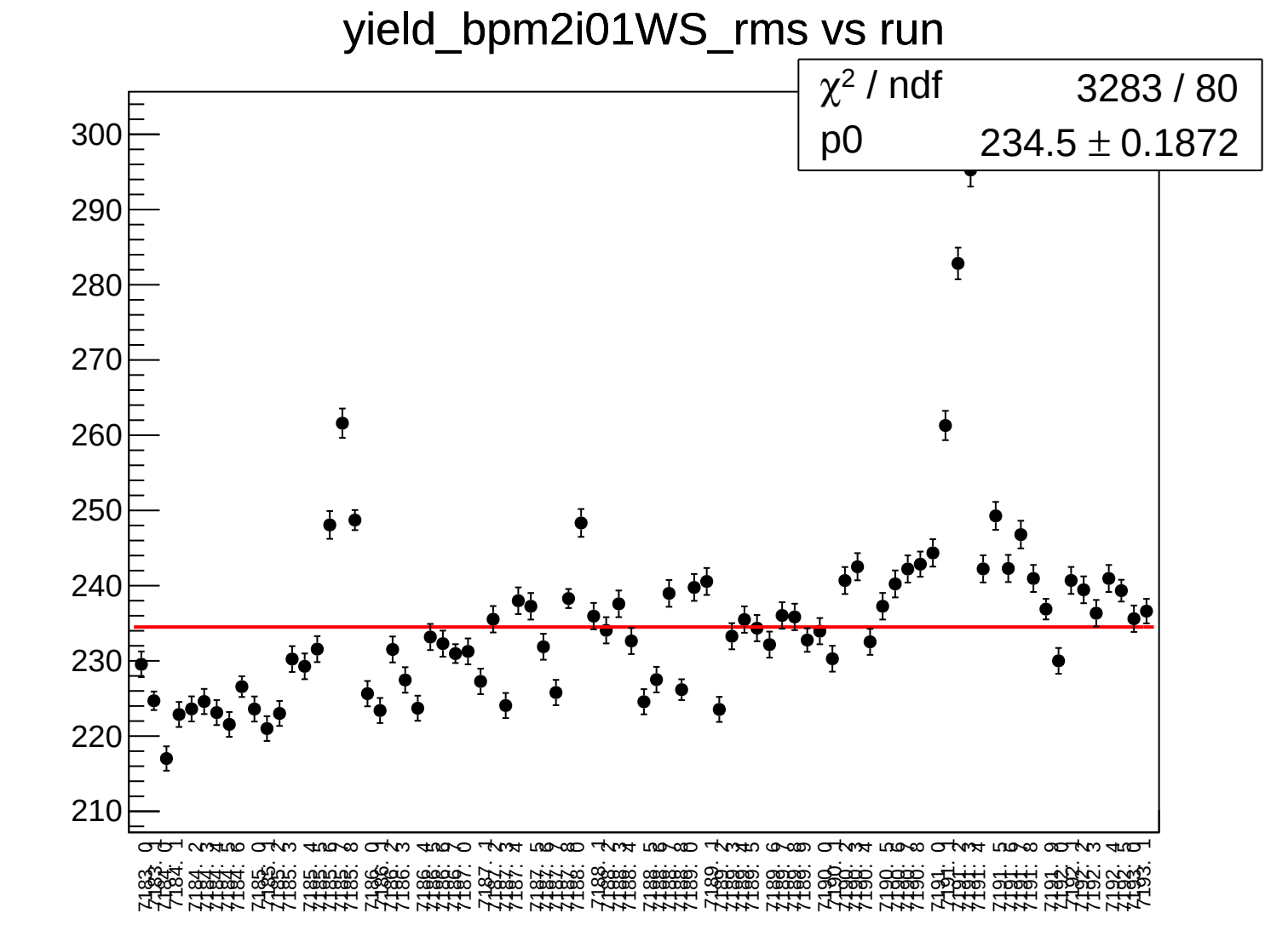

yield_bcm0l02_mean vs run
χ² / ndf 1.309e+06 / 80
p0 121.2 ± 0.000791
123.5
123
122.5
122
121.5
121
120.5
120
119.5
pull
Entries 81
Mean −514.4
Std Dev 553.9
300
200
100
0
−100
−200
−300

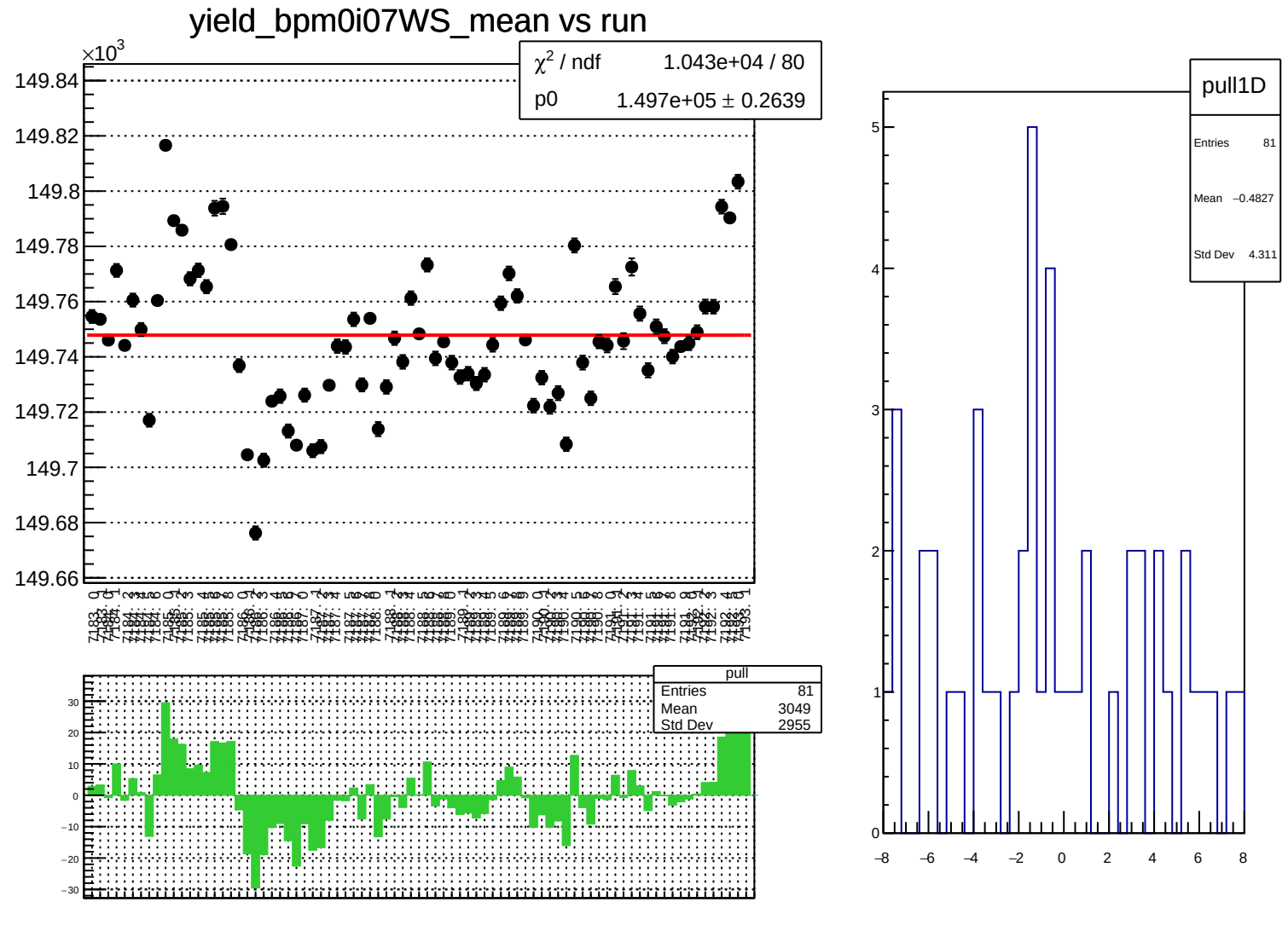

pull1D
Entries 81
Mean −1.598
Std Dev 4.496
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

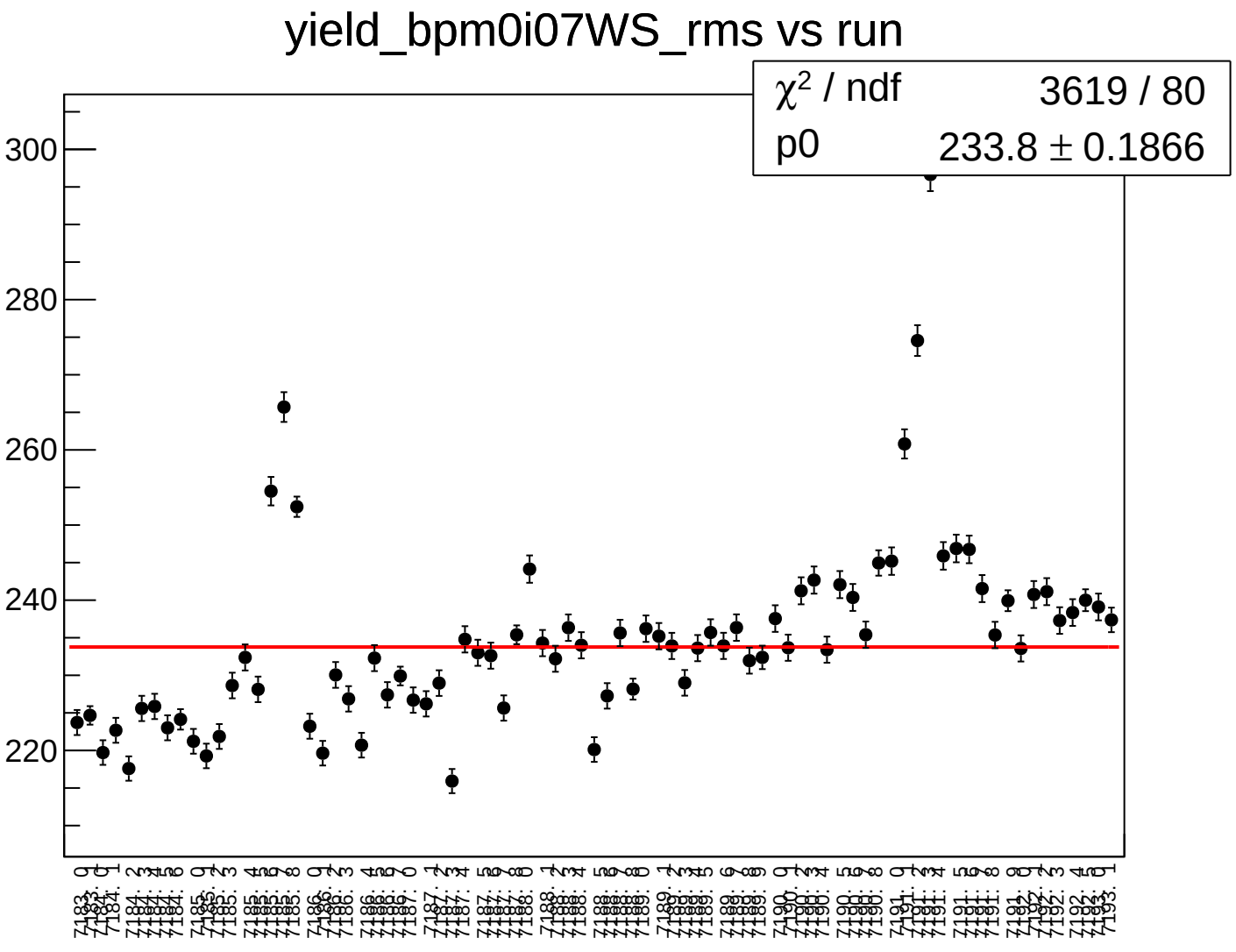

yield_bcm0l02_rms vs run
χ² / ndf 4.622e+04 / 80
p0 0.691 ± 0.0005593
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5

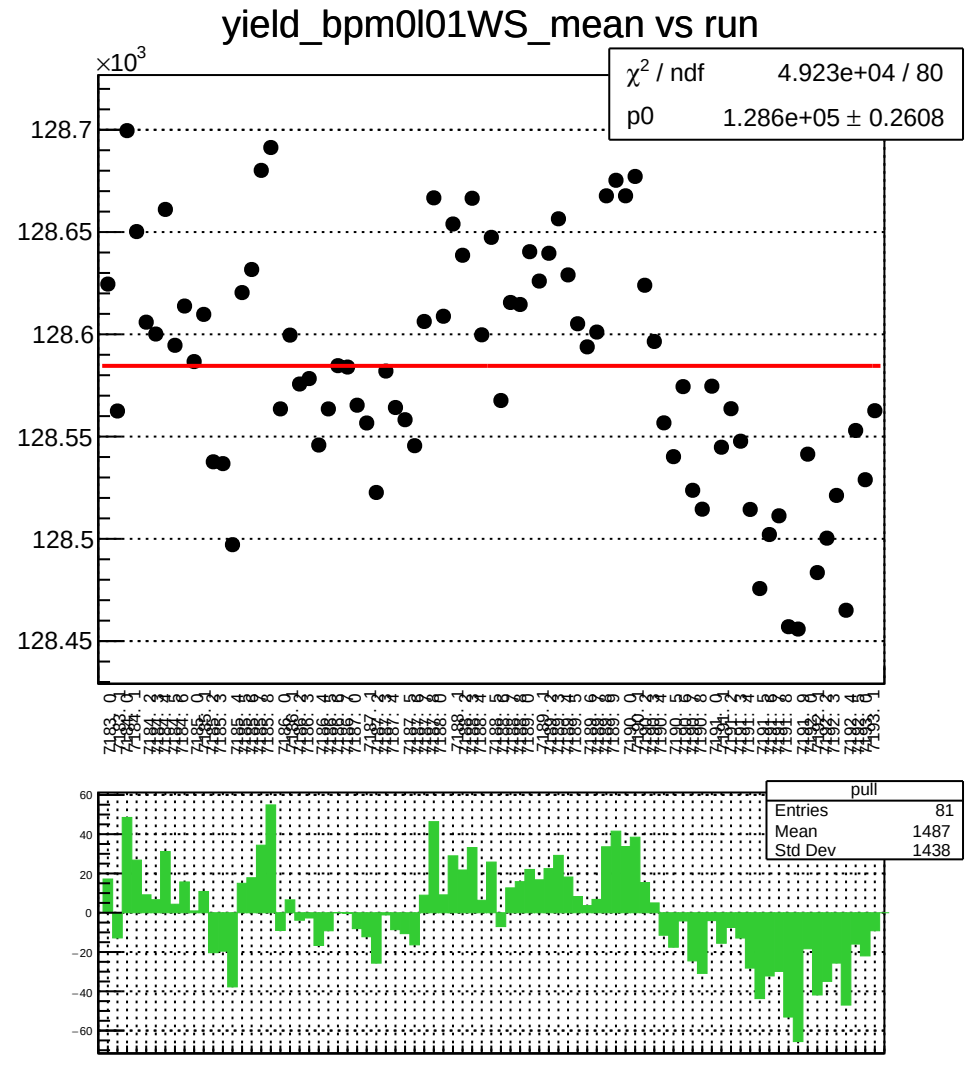

yield_bpm2i01WS_mean vs run
×10^3
χ² / ndf 7367 / 80
p0 1.285e+05 ± 0.2647
128.54
128.52
128.5
128.48
128.46
pull
Entries 81
Mean 759.9
Std Dev 716.8
15
10
5
0
−5
−10
−15
−20

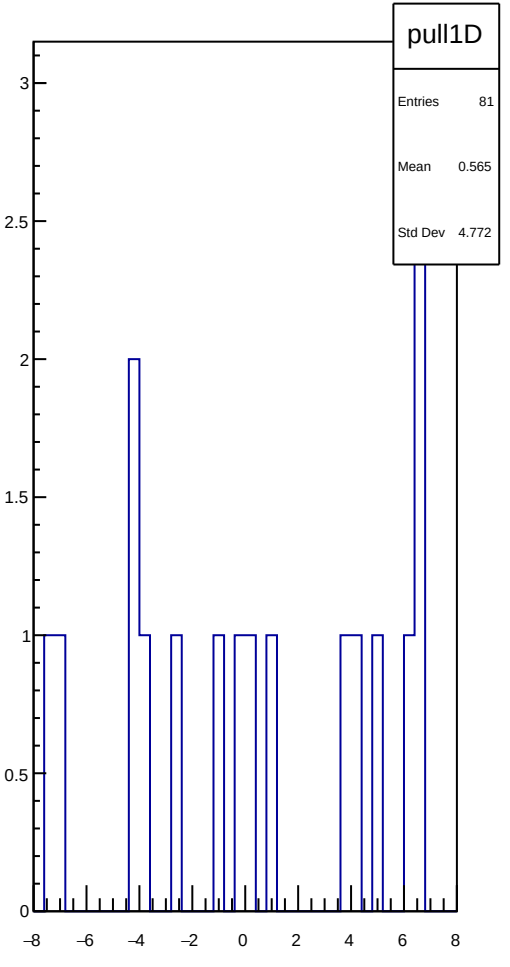

pull1D
Entries 81
Mean 2.662
Std Dev 3.978
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

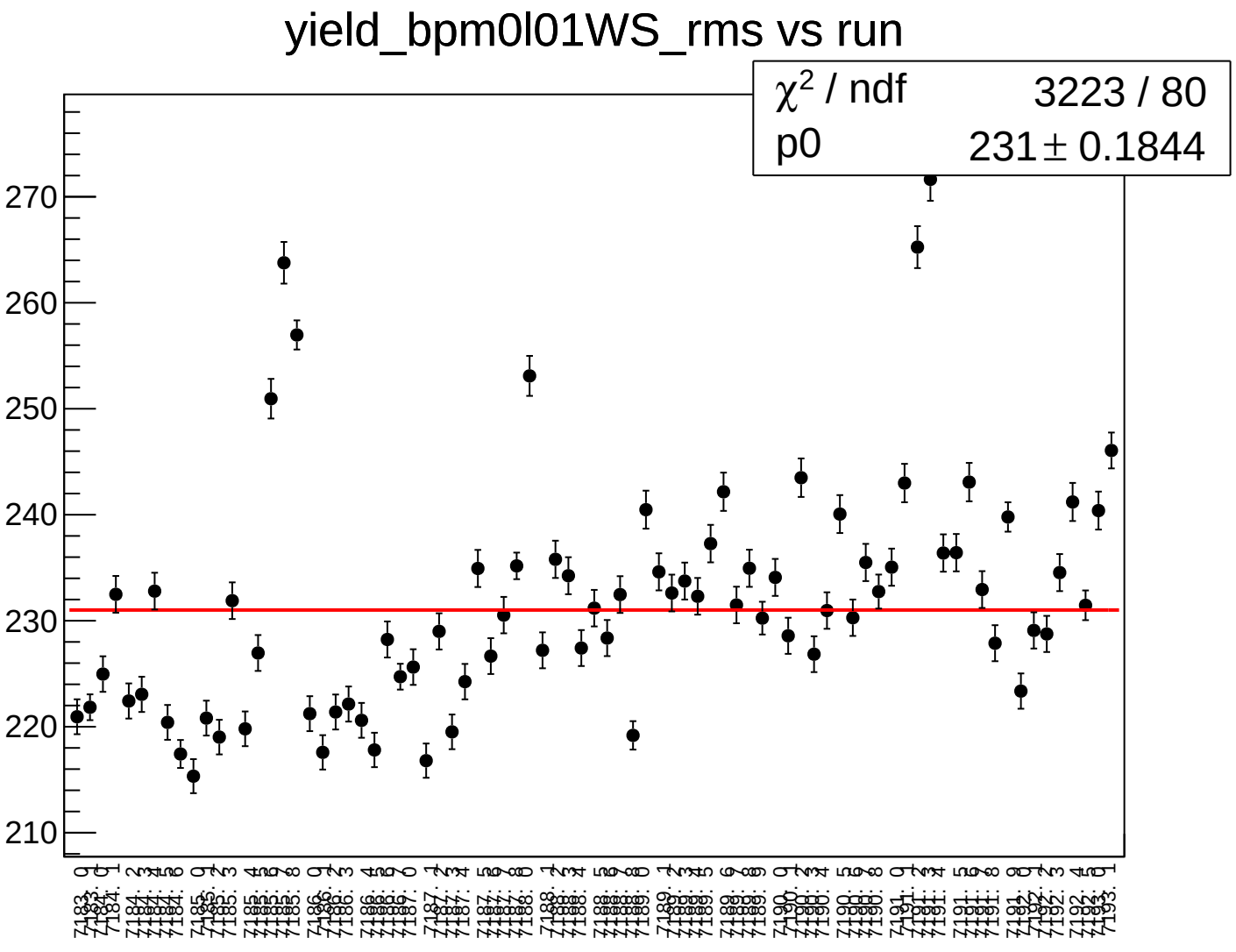

yield_bpm2i01WS_rms vs run
χ² / ndf 3283 / 80
p0 234.5 ± 0.1872
300
290
280
270
260
250
240
230
220
210

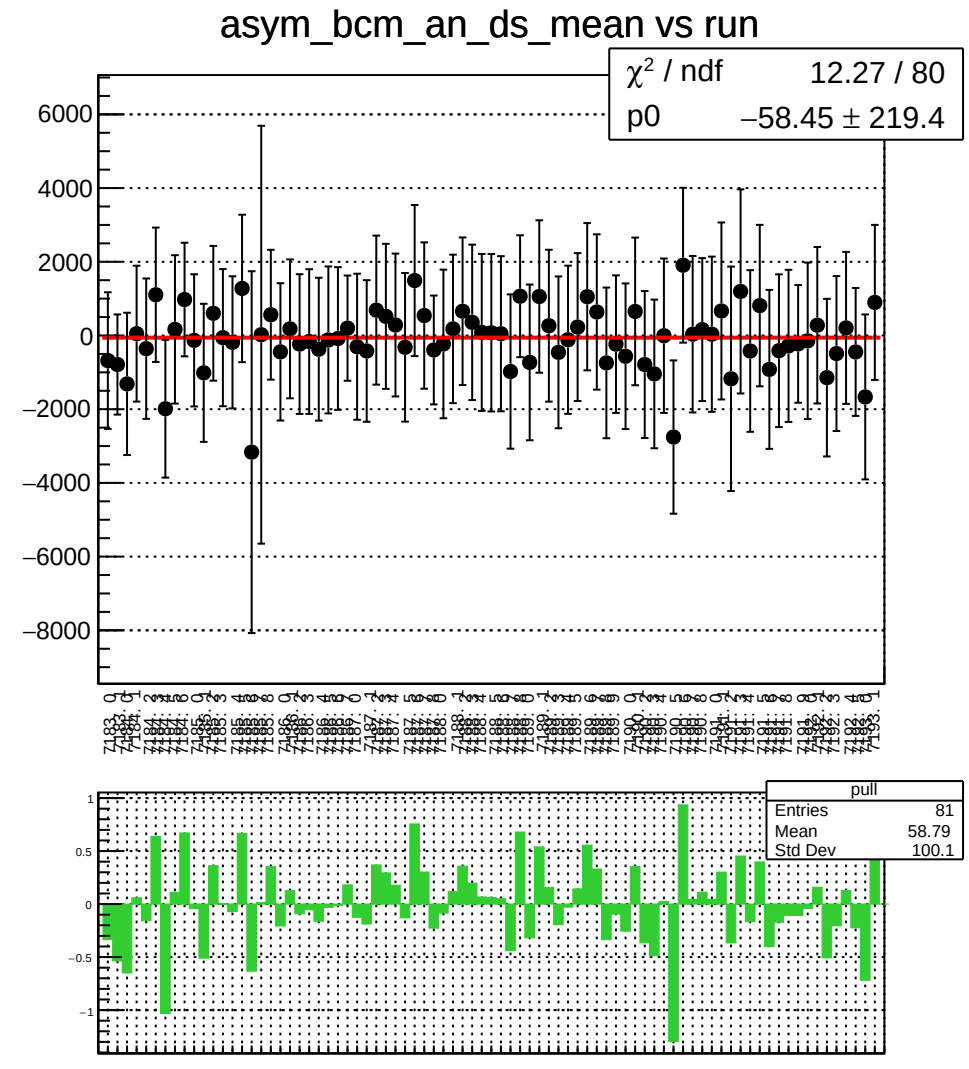

yield_bpm0i07WS_mean vs run
×10^3
χ^2 / ndf 1.043e+04 / 80
p0 1.497e+05 ± 0.2639
149.84
149.82
149.8
149.78
149.76
149.74
149.72
149.7
149.68
149.66
pull
Entries 81
Mean 3049
Std Dev 2955
30
20
10
0
−10
−20
−30
pull1D
Entries 81
Mean −0.4827
Std Dev 4.311
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

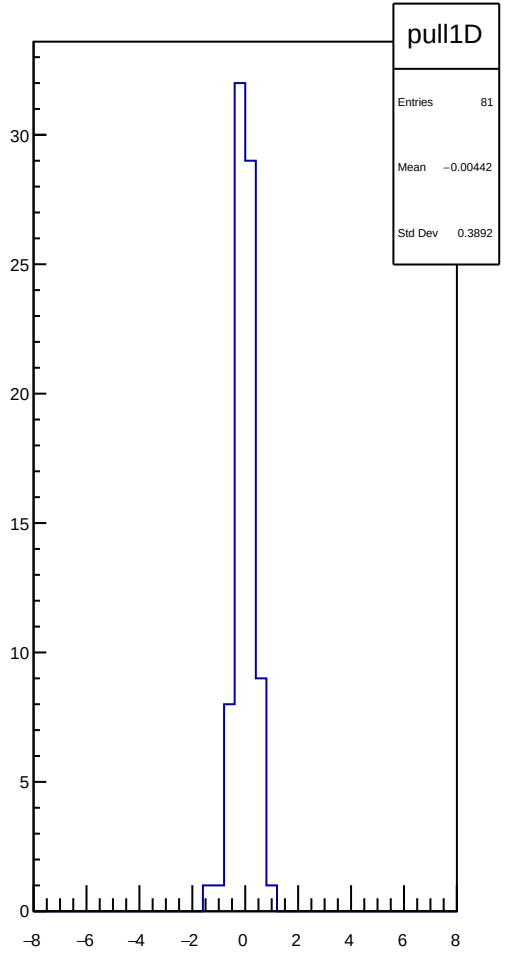

yield_bpm0i07WS_rms vs run
χ² / ndf 3619 / 80
p0 233.8 ± 0.1866
300
280
260
240
220

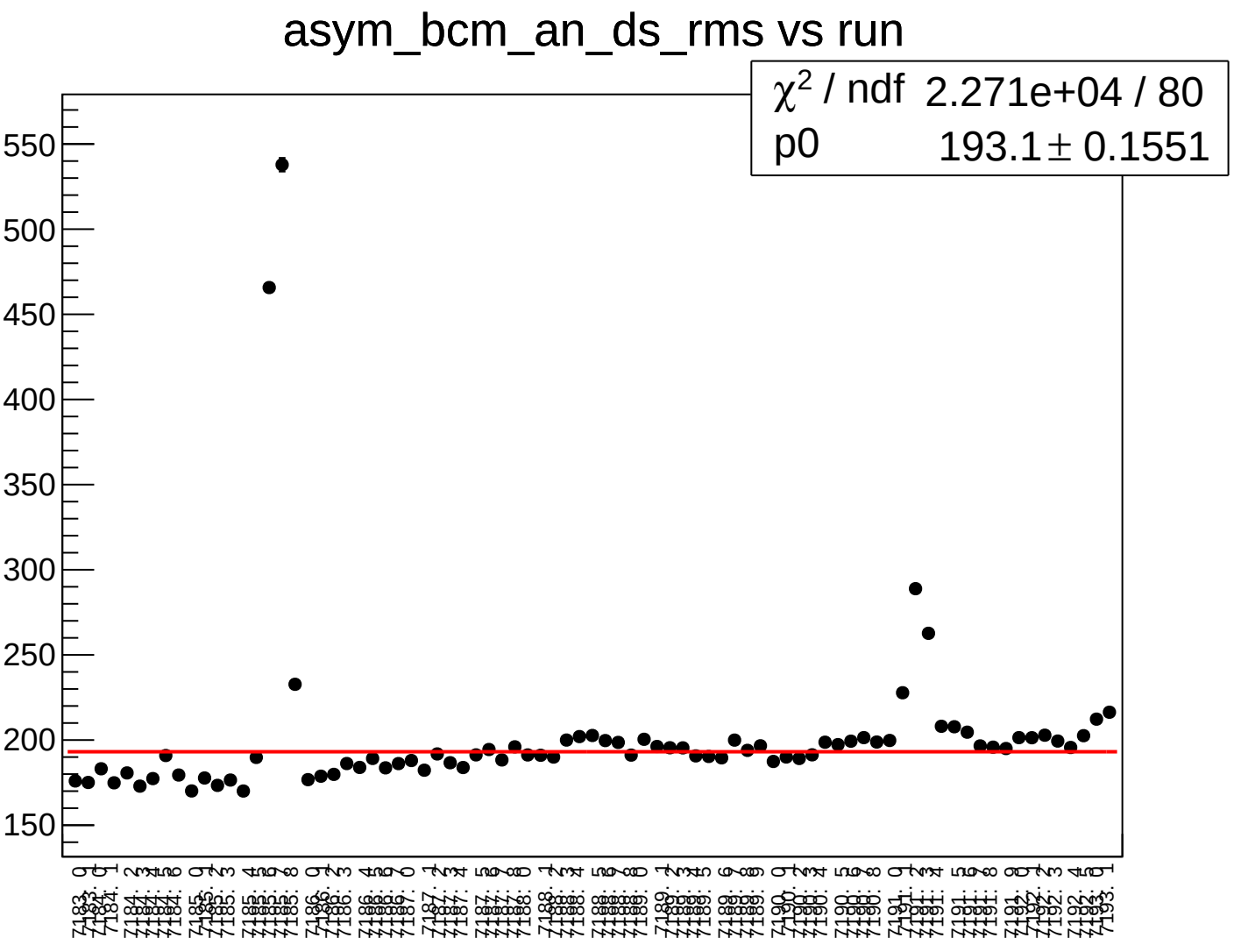

yield_bpm0l01WS_mean vs run
×10^3
χ² / ndf 4.923e+04 / 80
p0 1.286e+05 ± 0.2608
128.7
128.65
128.6
128.55
128.5
128.45
pull
Entries 81
Mean 1487
Std Dev 1438
60
40
20
0
−20
−40
−60

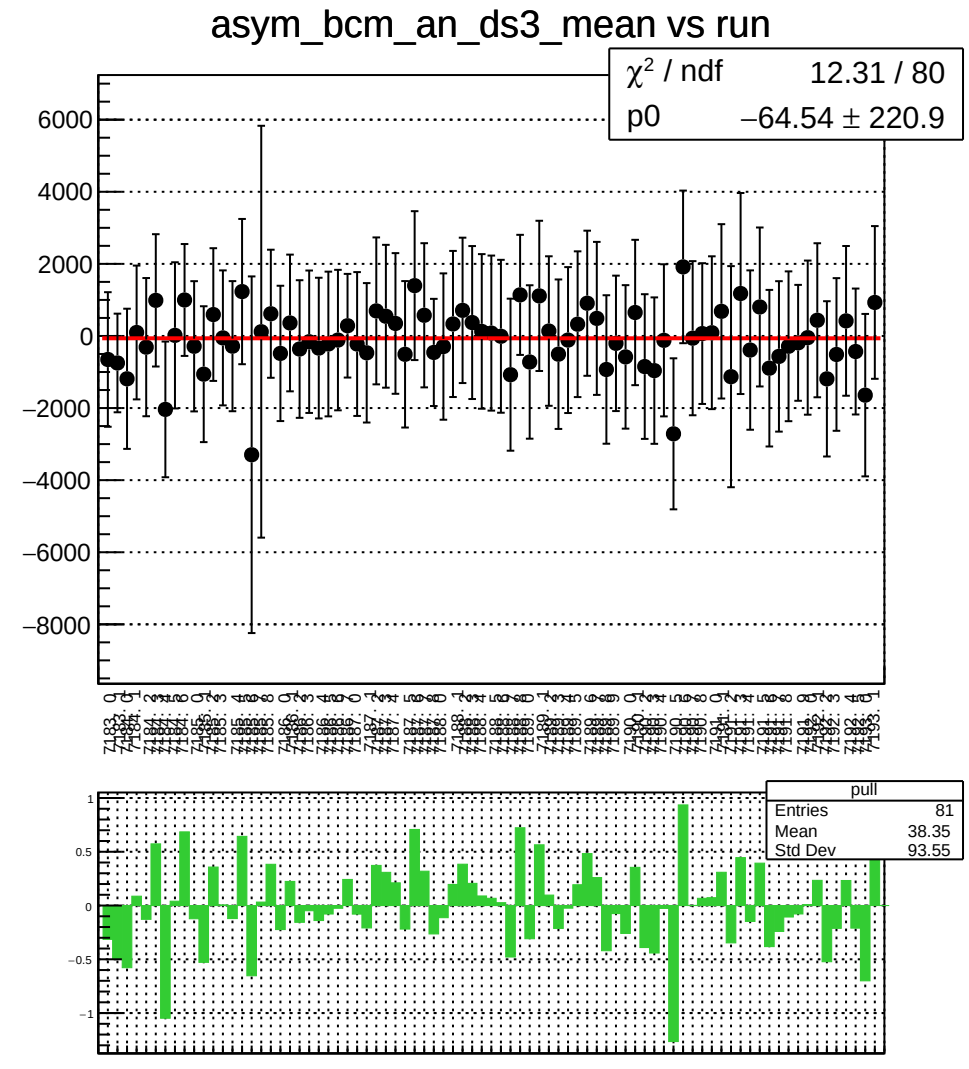

pull1D
Entries 81
Mean 0.565
Std Dev 4.772
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

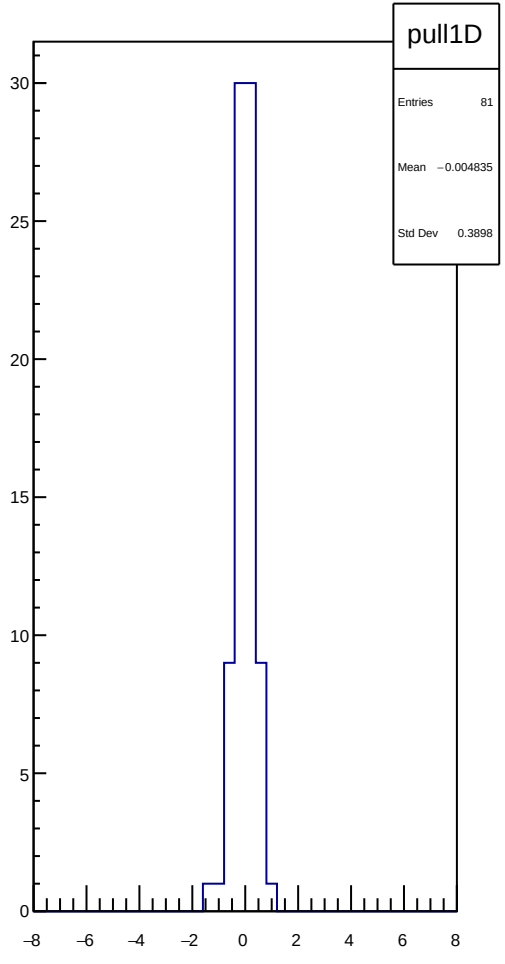

yield_bpm0l01WS_rms vs run
χ² / ndf 3223 / 80
p0 231 ± 0.1844
270
260
250
240
230
220
210

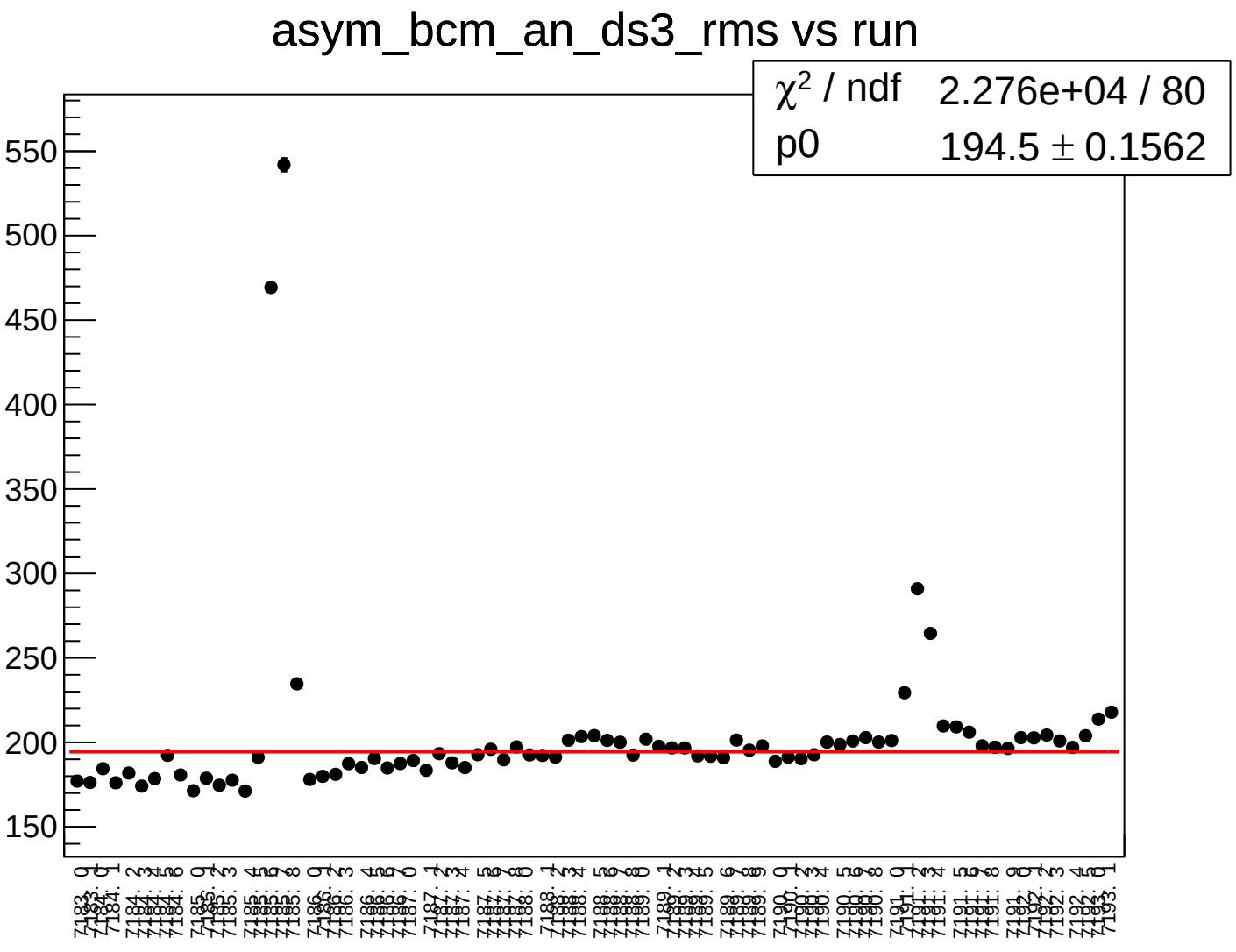

asym_bcm_an_ds_mean vs run
χ² / ndf 12.27 / 80
p0 −58.45 ± 219.4
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean 58.79
Std Dev 100.1
1
0.5
0
−0.5
−1

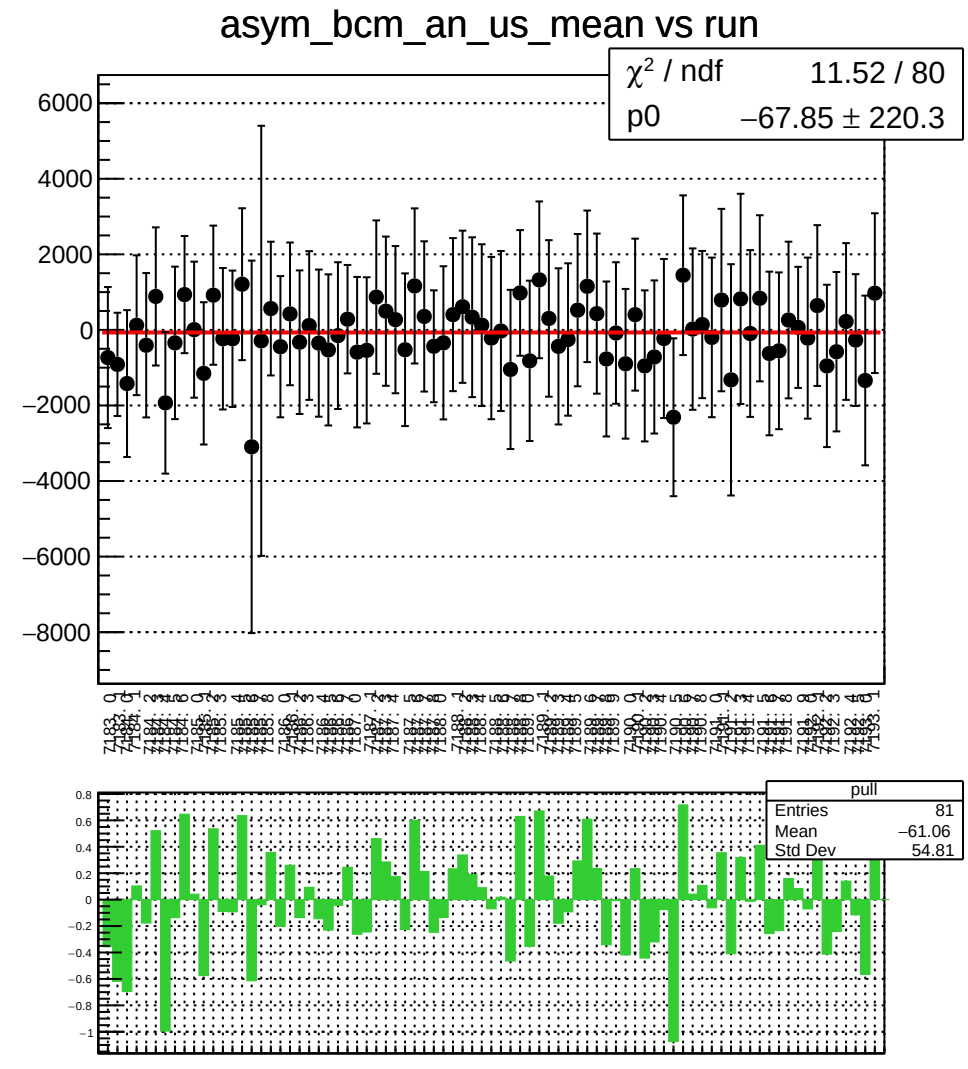

pull1D
Entries 81
Mean −0.00442
Std Dev 0.3892
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

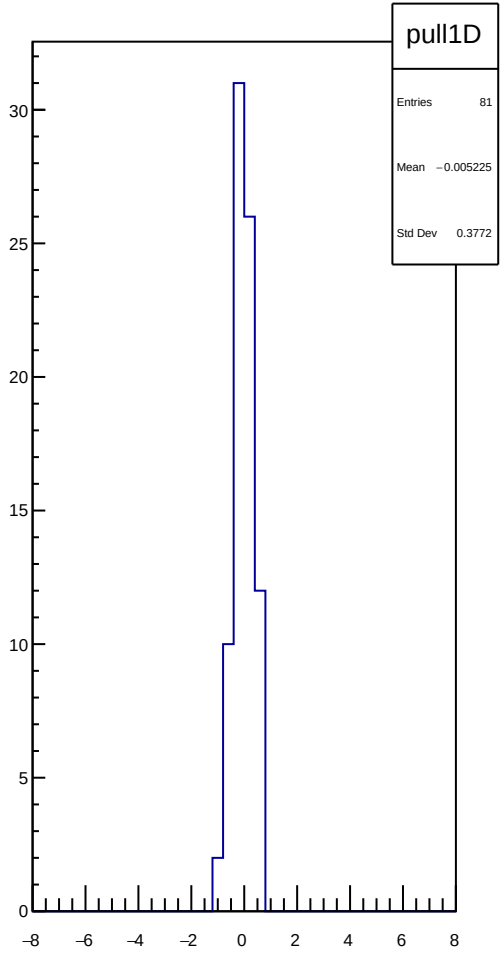

asym_bcm_an_ds_rms vs run
χ^2 / ndf 2.271e+04 / 80
p0 193.1 ± 0.1551
550
500
450
400
350
300
250
200
150

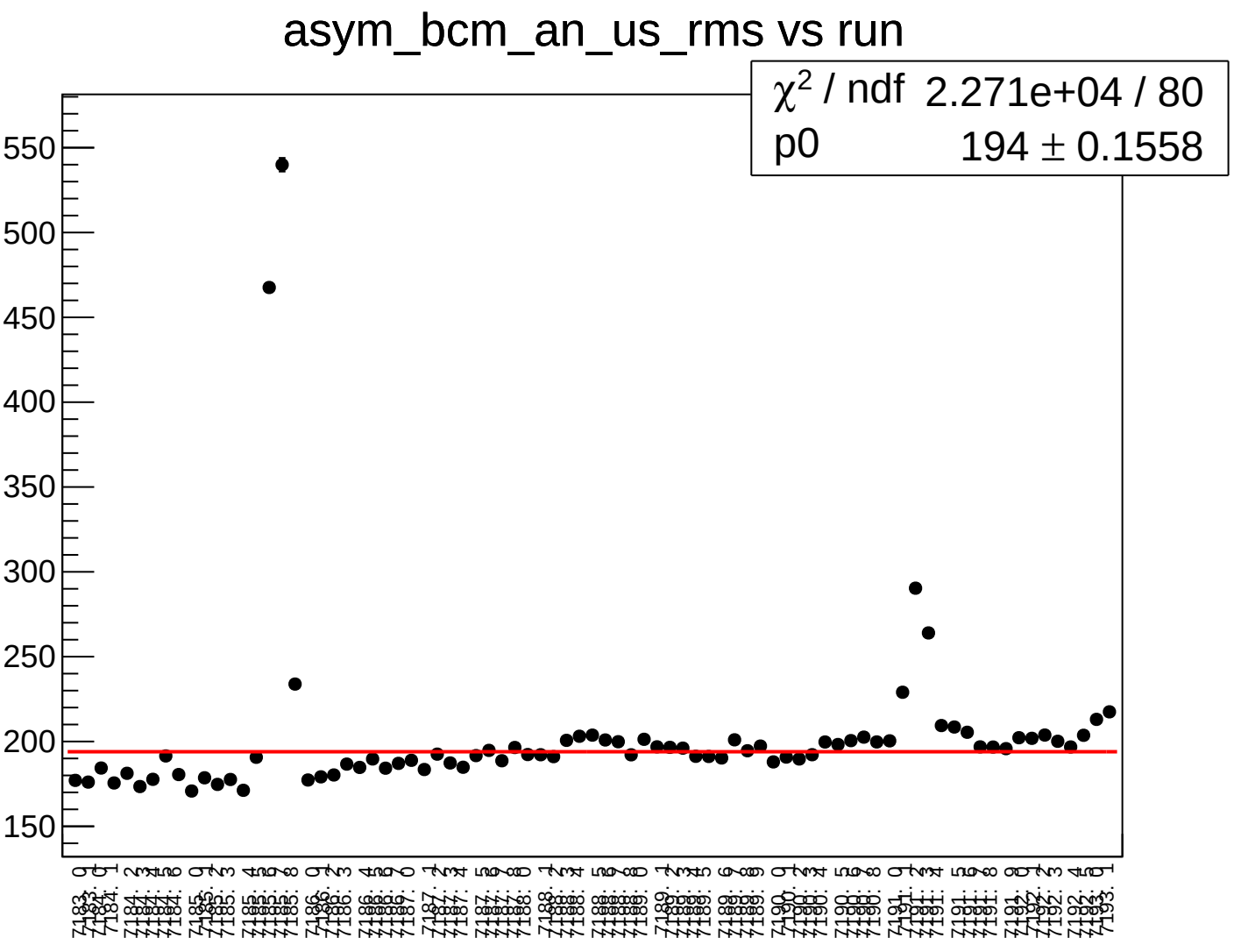

asym_bcm_an_ds3_mean vs run
χ² / ndf 12.31 / 80
p0 −64.54 ± 220.9
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean 38.35
Std Dev 93.55
1
0.5
0
−0.5
−1

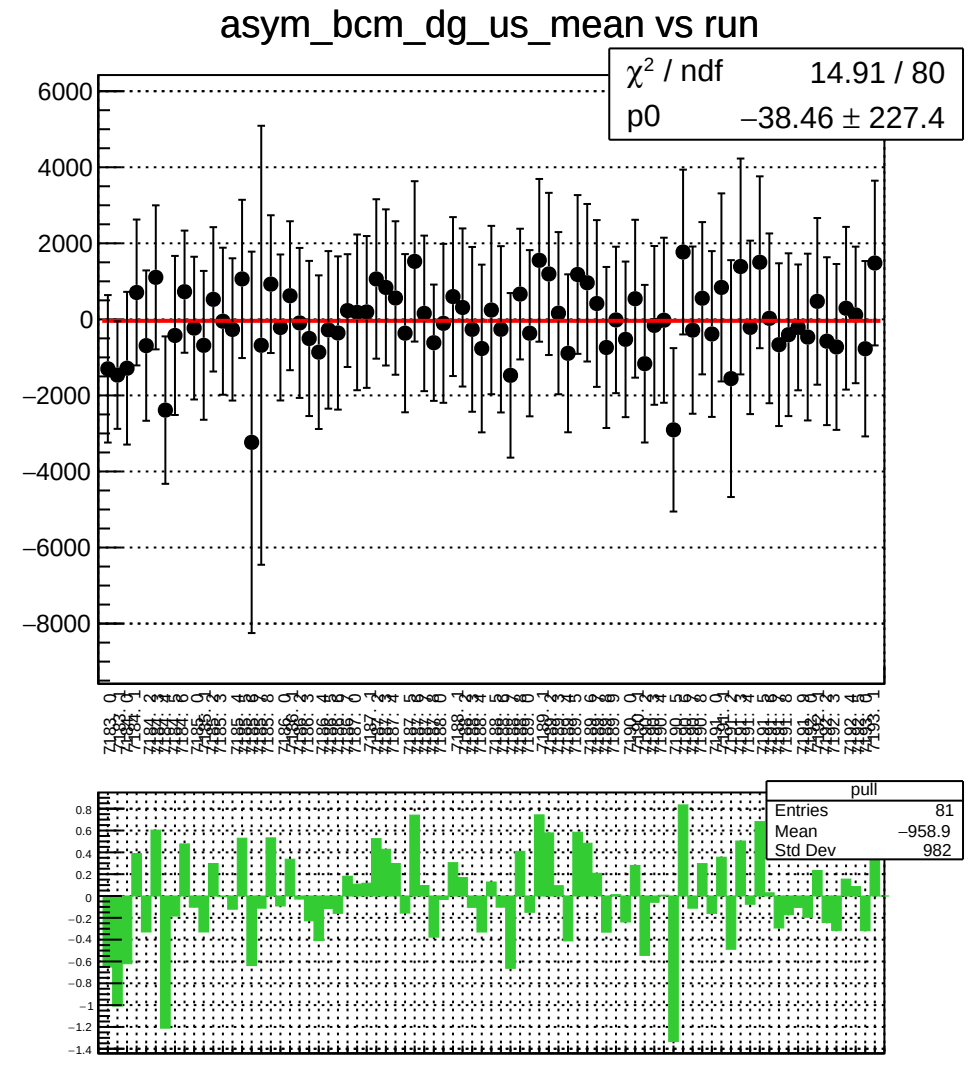

pull1D
Entries 81
Mean −0.004835
Std Dev 0.3898
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

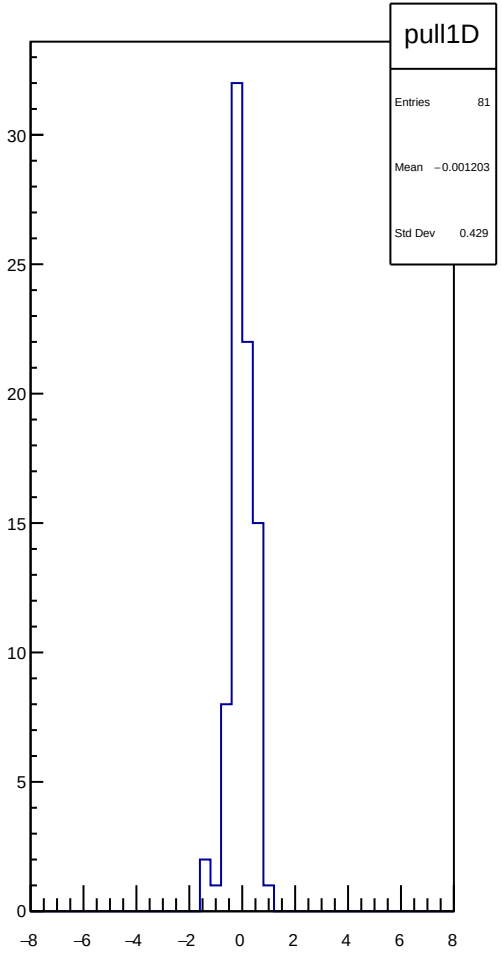

asym_bcm_an_ds3_rms vs run
χ^2 / ndf 2.276e+04 / 80
p0 194.5 ± 0.1562
550
500
450
400
350
300
250
200
150

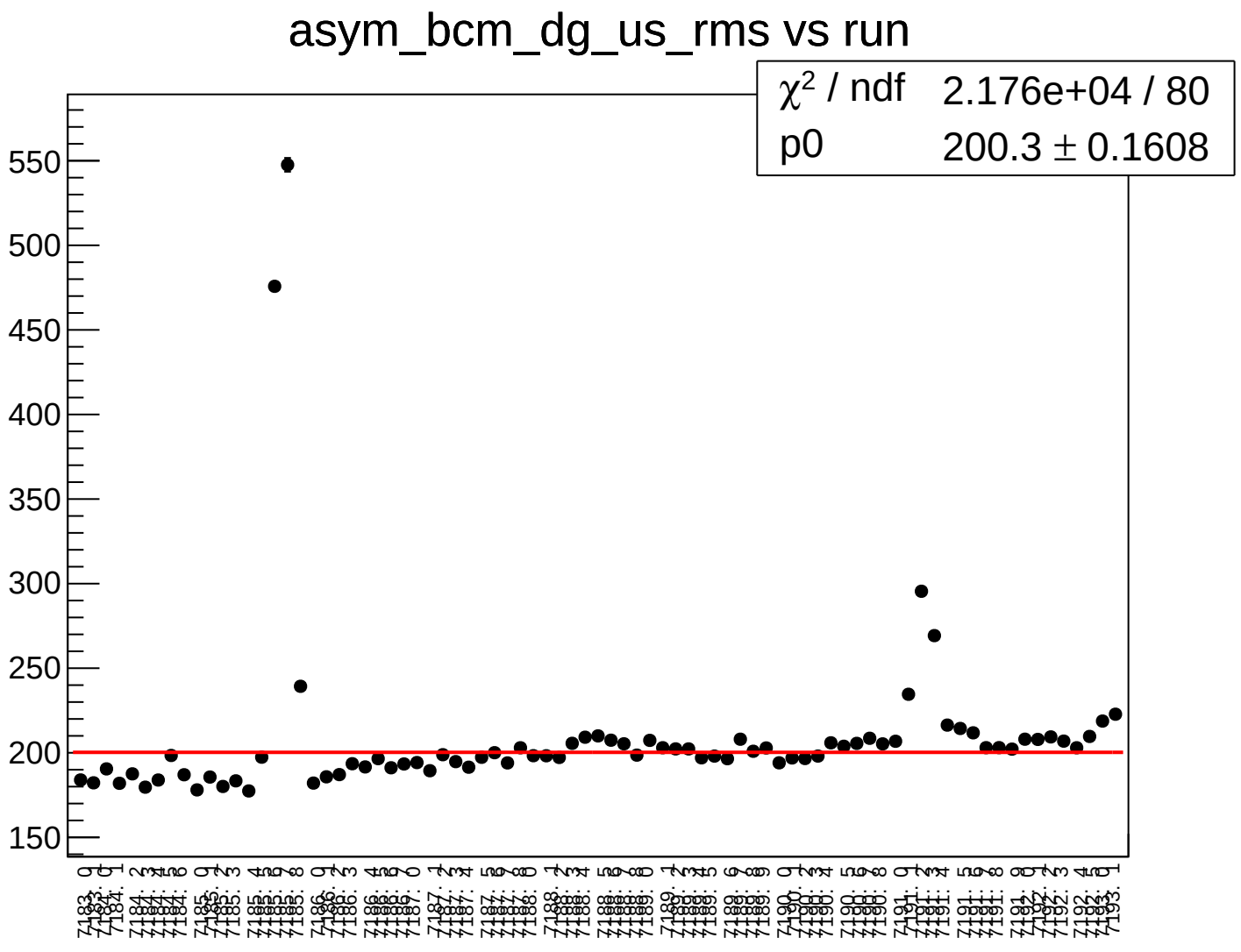

asym_bcm_an_us_mean vs run
χ² / ndf 11.52 / 80
p0 −67.85 ± 220.3
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean −61.06
Std Dev 54.81
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1

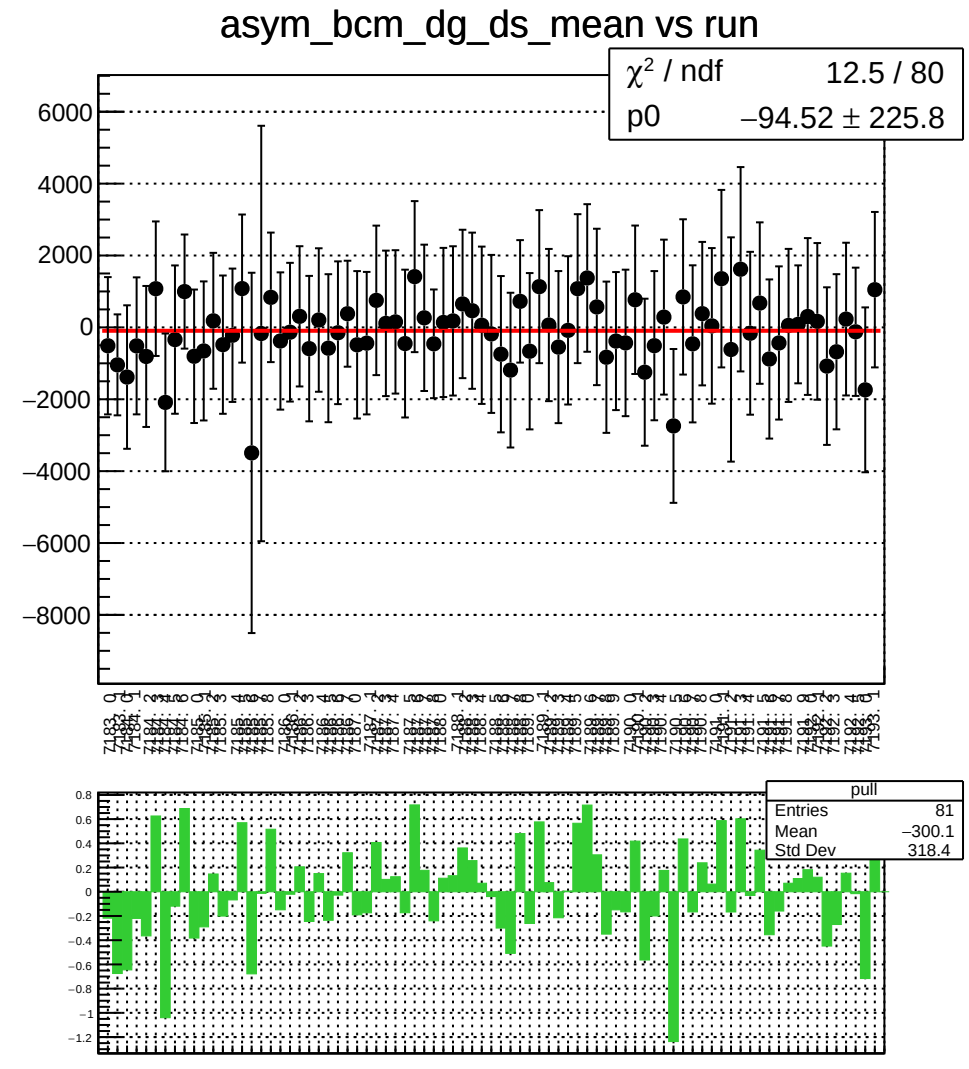

pull1D
Entries 81
Mean −0.005225
Std Dev 0.3772
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

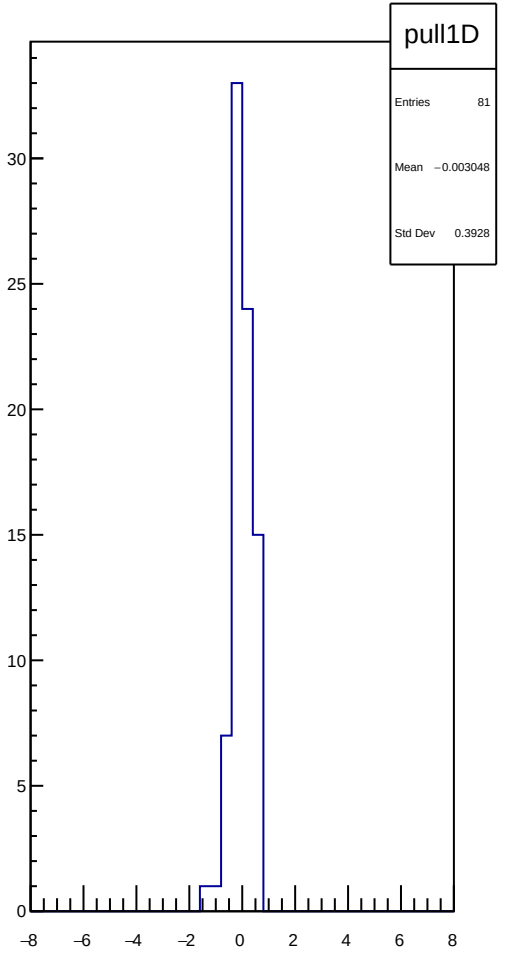

asym_bcm_an_us_rms vs run
χ^2 / ndf 2.271e+04 / 80
p0 194 ± 0.1558
550
500
450
400
350
300
250
200
150

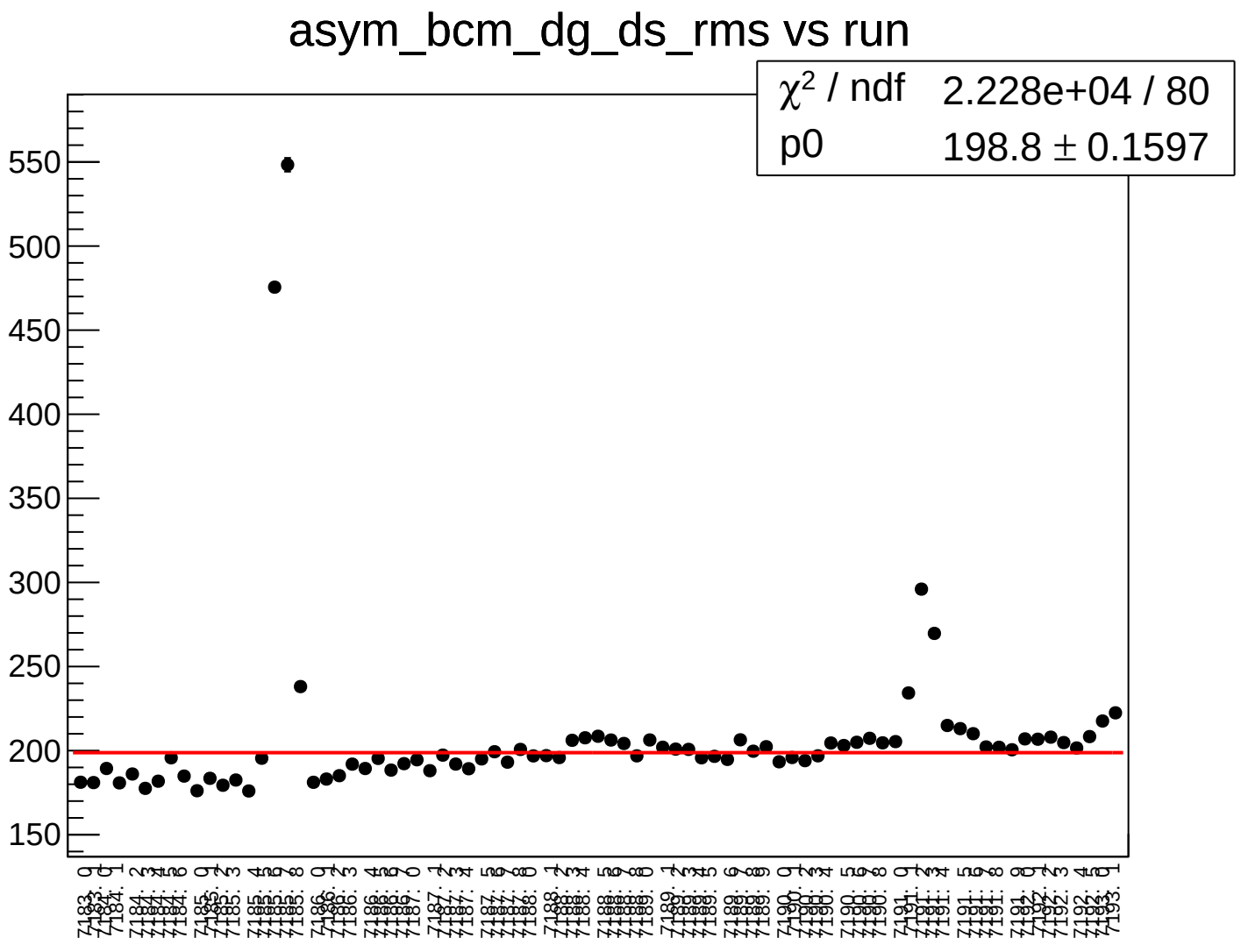

asym_bcm_dg_us_mean vs run
χ² / ndf 14.91 / 80
p0 −38.46 ± 227.4
pull
Entries 81
Mean −958.9
Std Dev 982

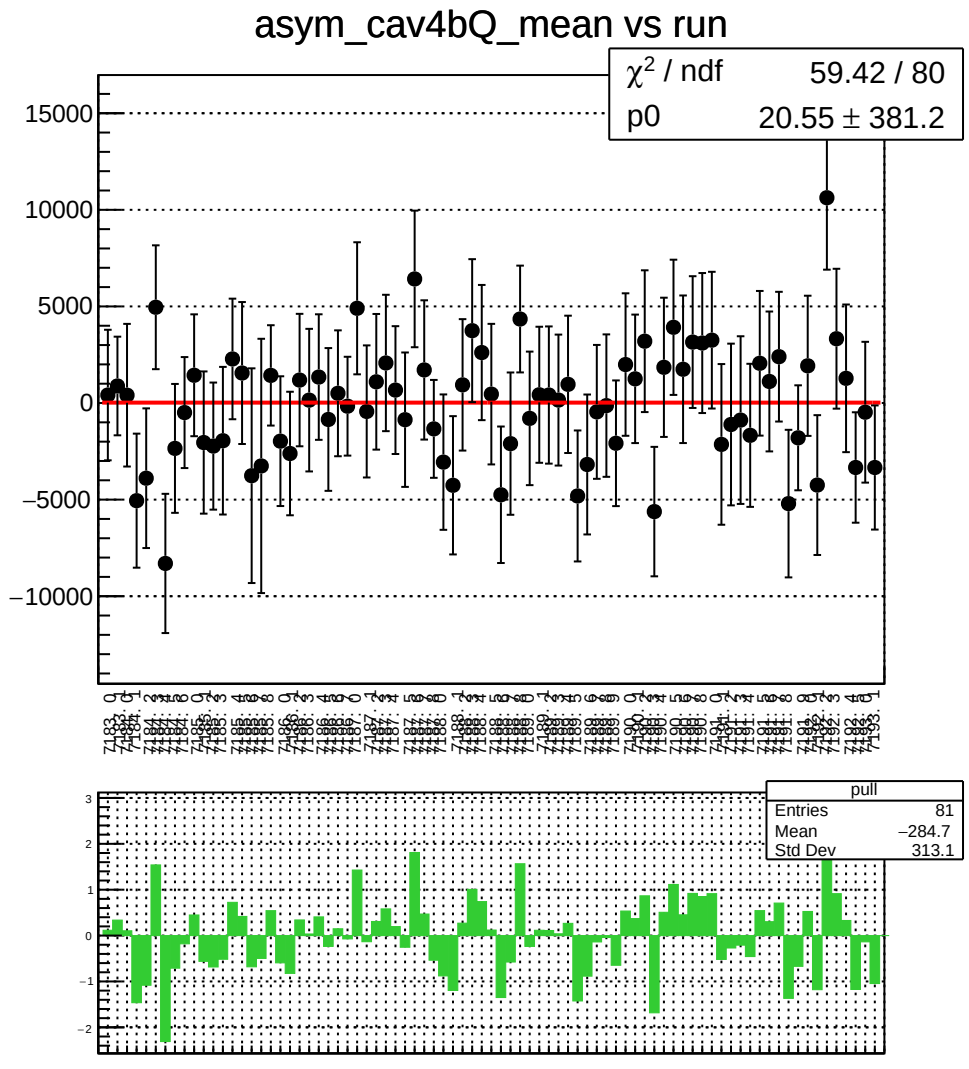

pull1D
Entries 81
Mean −0.001203
Std Dev 0.429

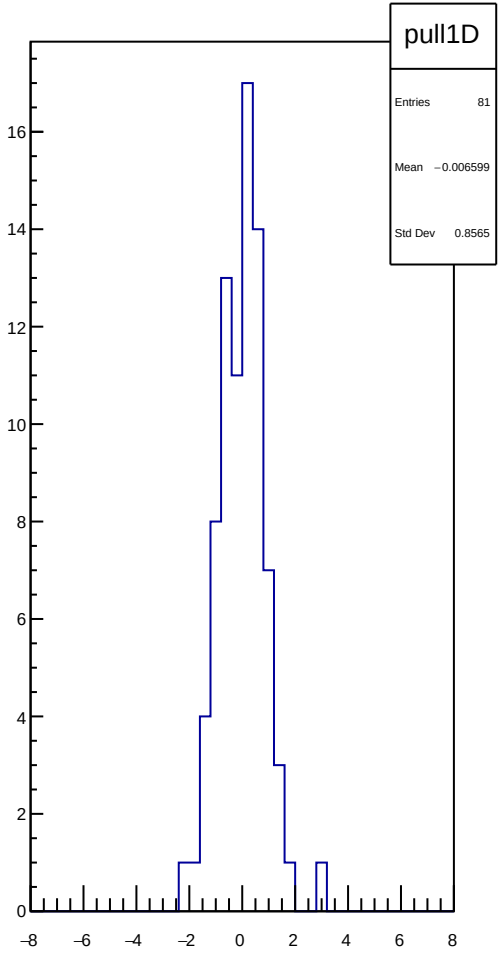

asym_bcm_dg_us_rms vs run
χ^2 / ndf 2.176e+04 / 80
p0 200.3 ± 0.1608
550
500
450
400
350
300
250
200
150

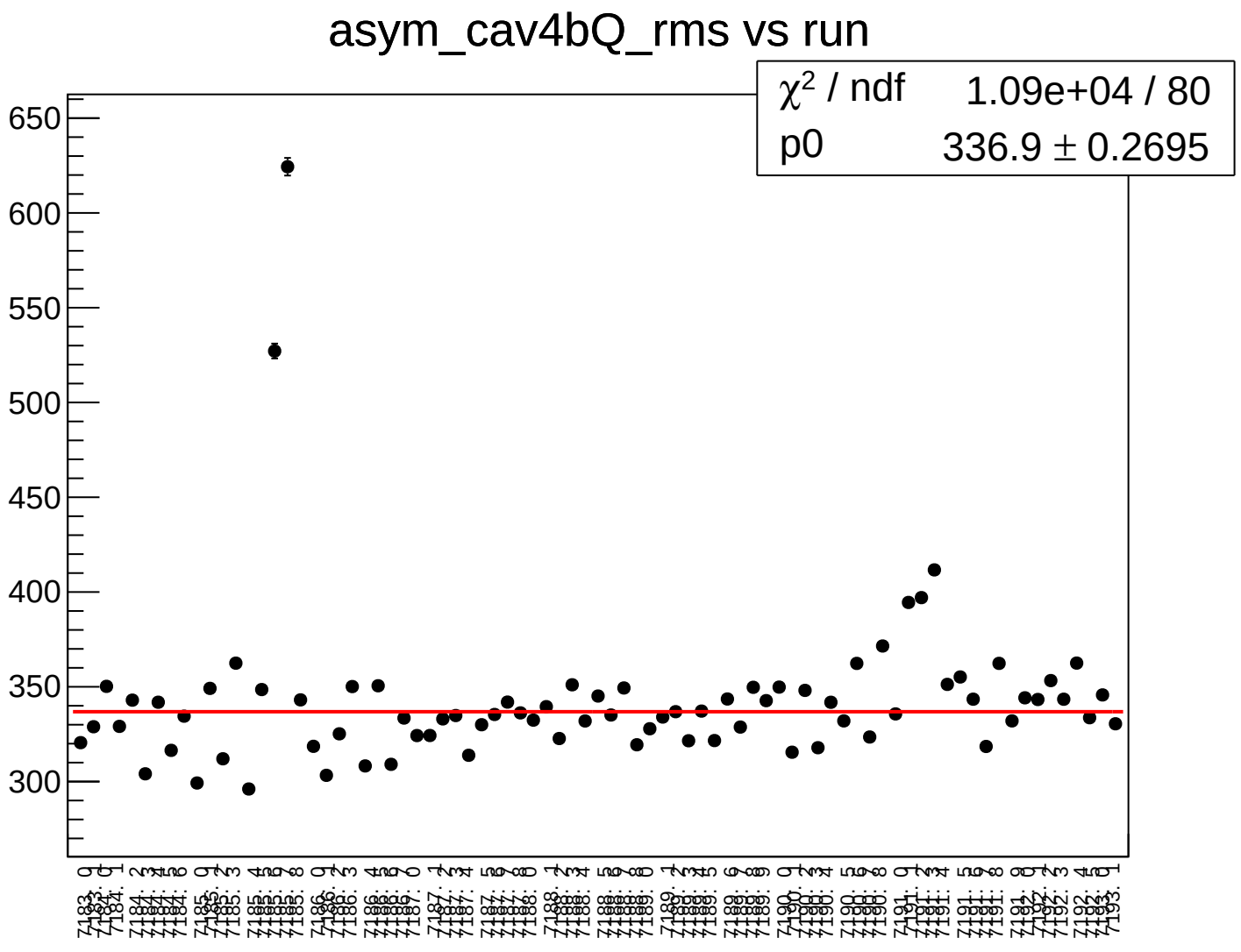

asym_bcm_dg_ds_mean vs run
χ² / ndf 12.5 / 80
p0 −94.52 ± 225.8
6000
4000
2000
0
−2000
−4000
−6000
−8000
pull
Entries 81
Mean −300.1
Std Dev 318.4
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
−1.2

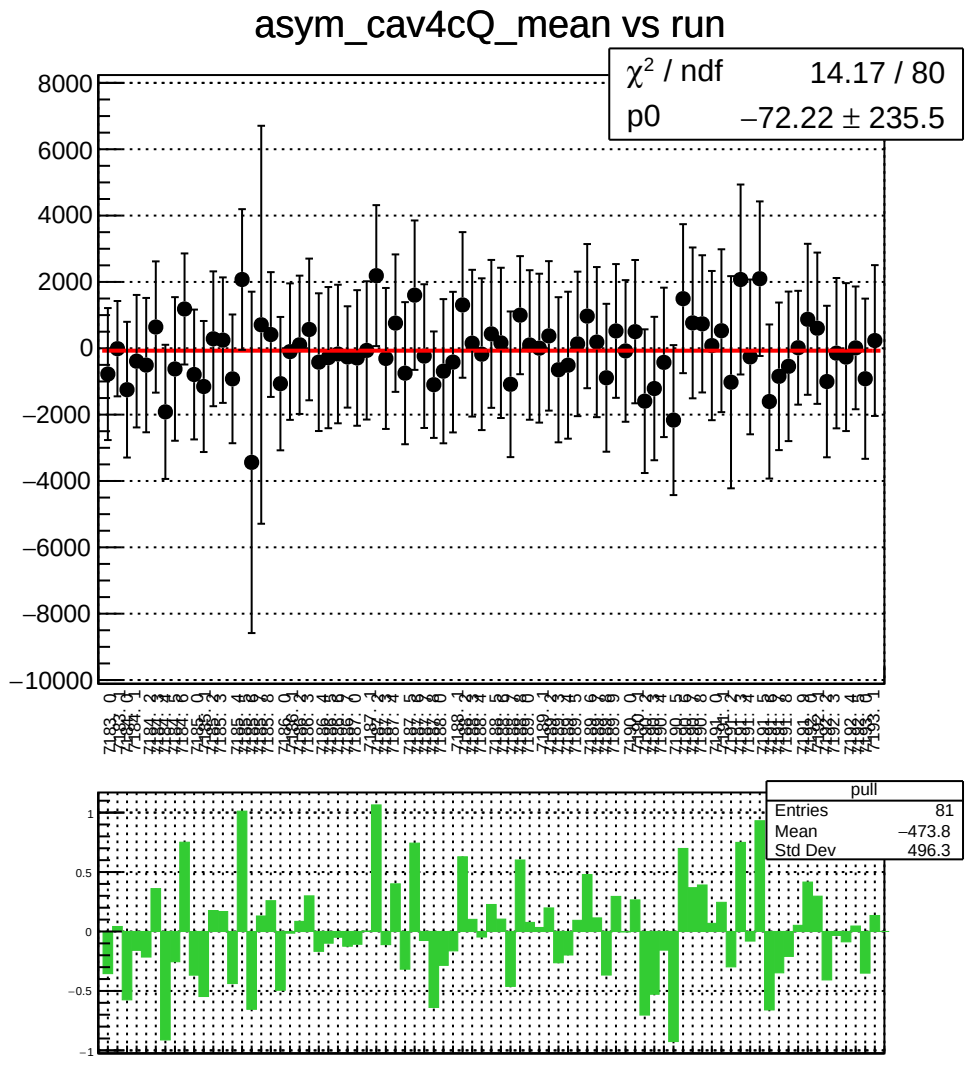

pull1D
Entries 81
Mean −0.003048
Std Dev 0.3928
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

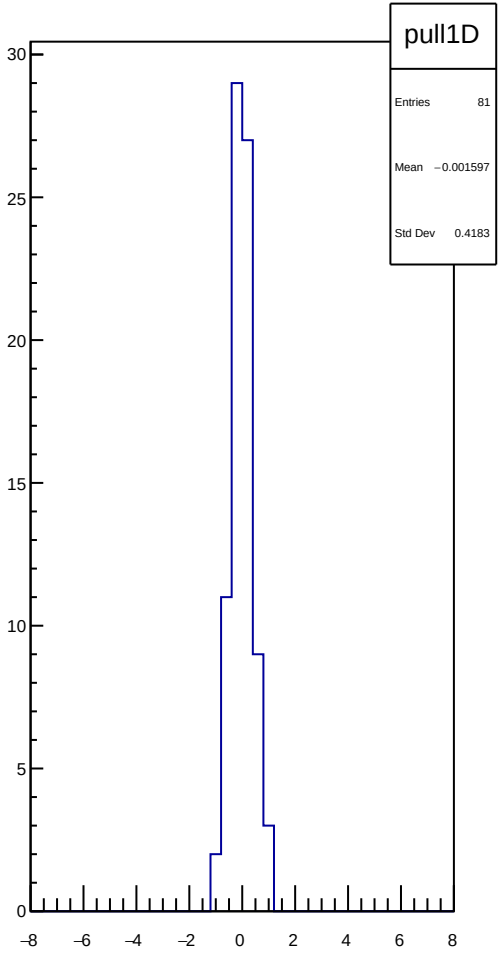

asym_bcm_dg_ds_rms vs run
χ^2 / ndf 2.228e+04 / 80
p0 198.8 ± 0.1597
550
500
450
400
350
300
250
200
150

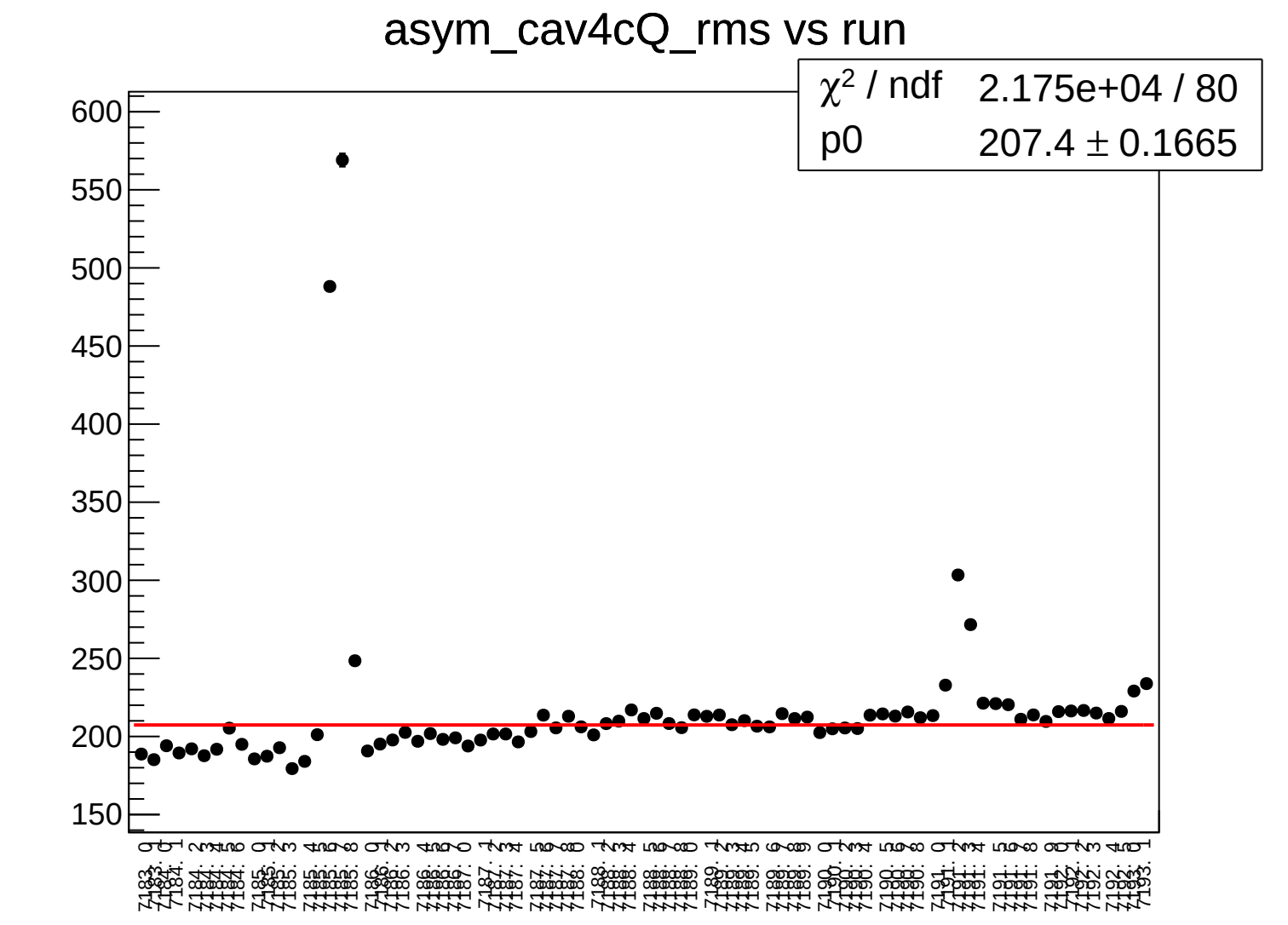

asym_cav4bQ_mean vs run
χ² / ndf 59.42 / 80
p0 20.55 ± 381.2
15000
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −284.7
Std Dev 313.1
3
2
1
0
−1
−2

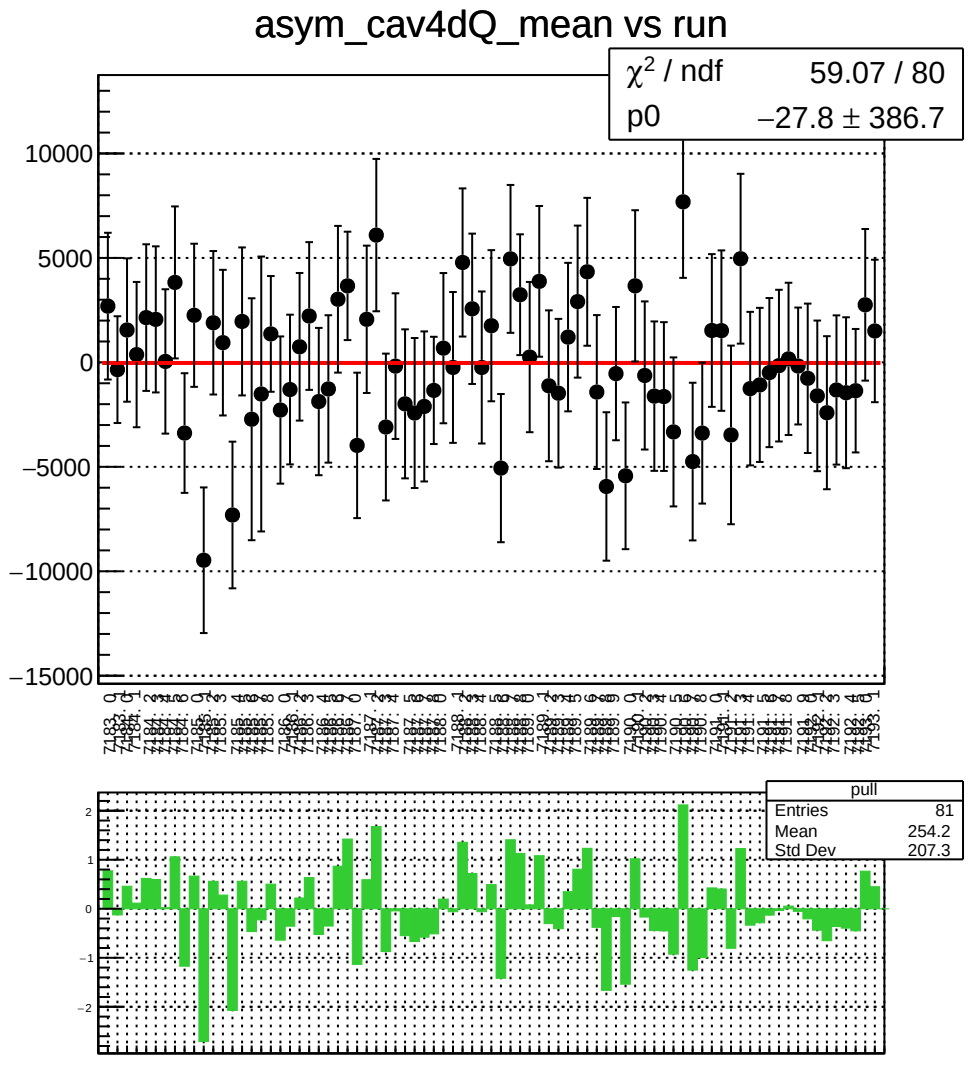

pull1D
Entries 81
Mean −0.006599
Std Dev 0.8565
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

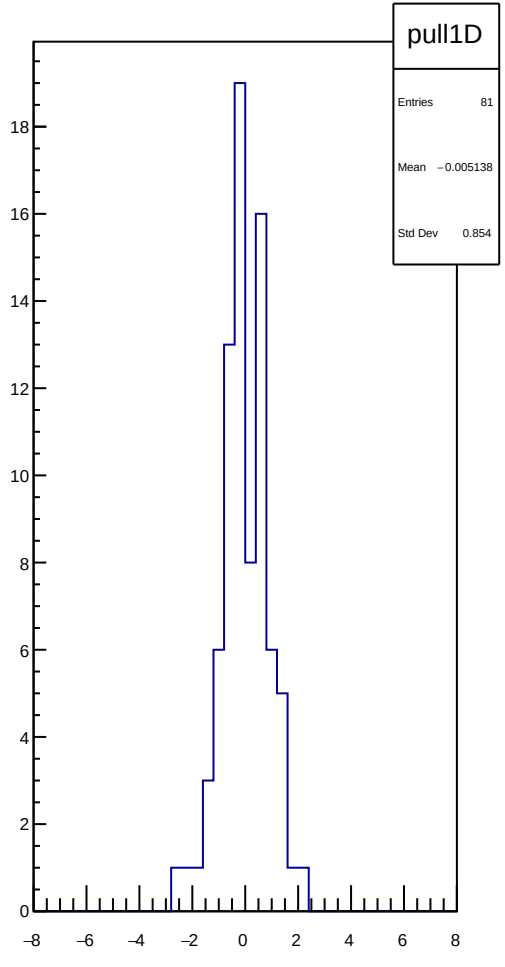

asym_cav4bQ_rms vs run
χ² / ndf 1.09e+04 / 80
p0 336.9 ± 0.2695
650
600
550
500
450
400
350
300

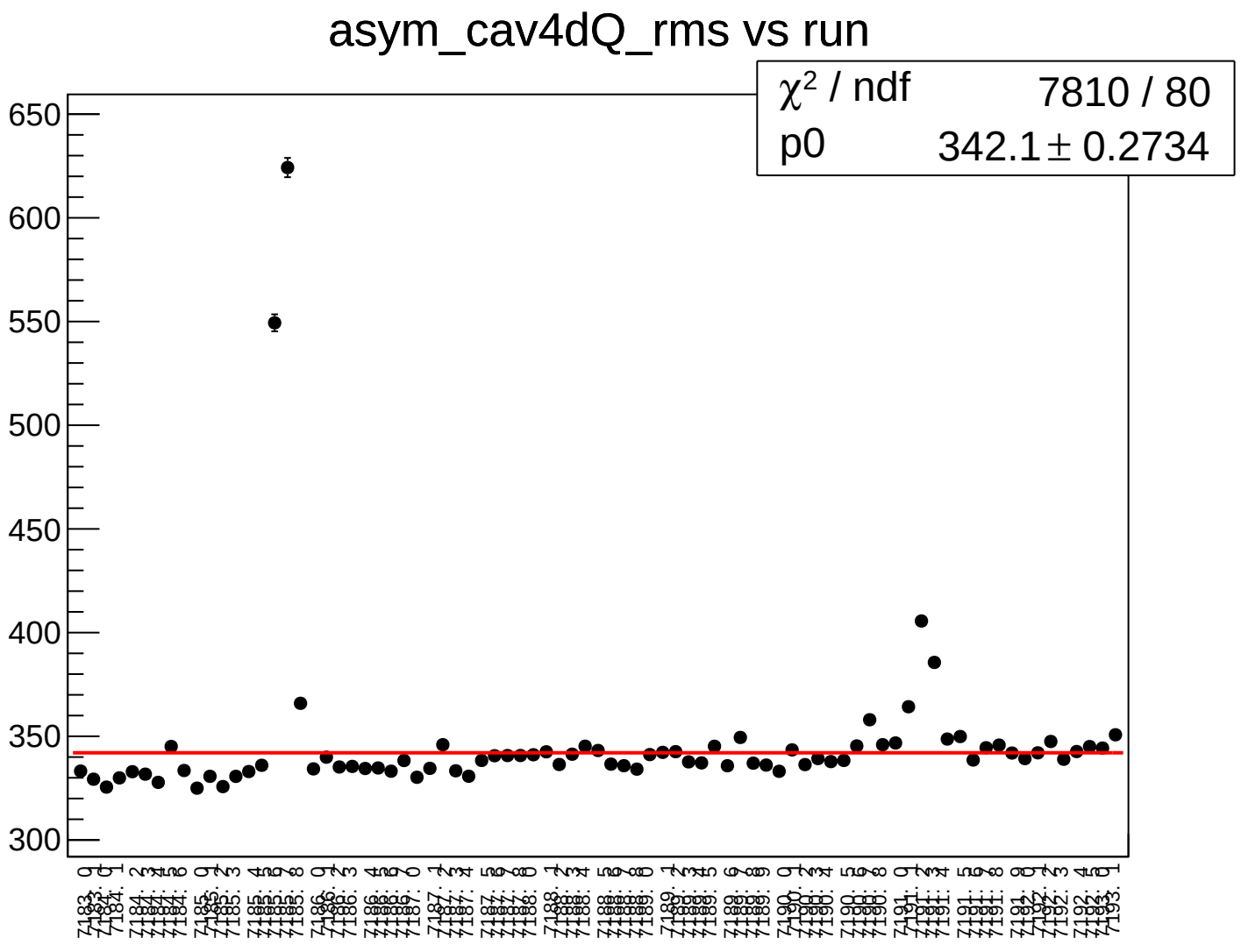

asym_cav4cQ_mean vs run
χ² / ndf 14.17 / 80
p0 −72.22 ± 235.5
pull
Entries 81
Mean −473.8
Std Dev 496.3

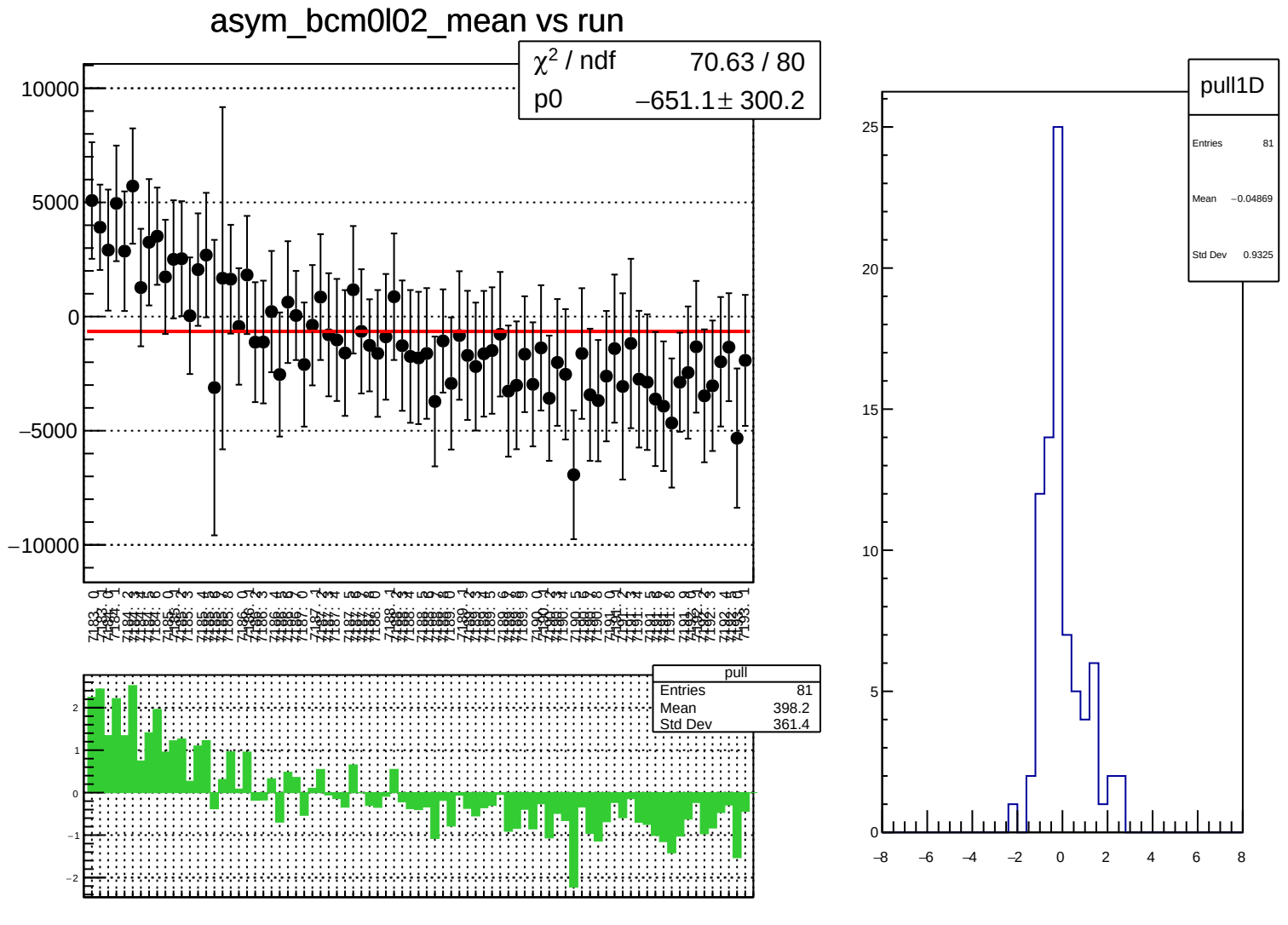

pull1D
Entries 81
Mean −0.001597
Std Dev 0.4183

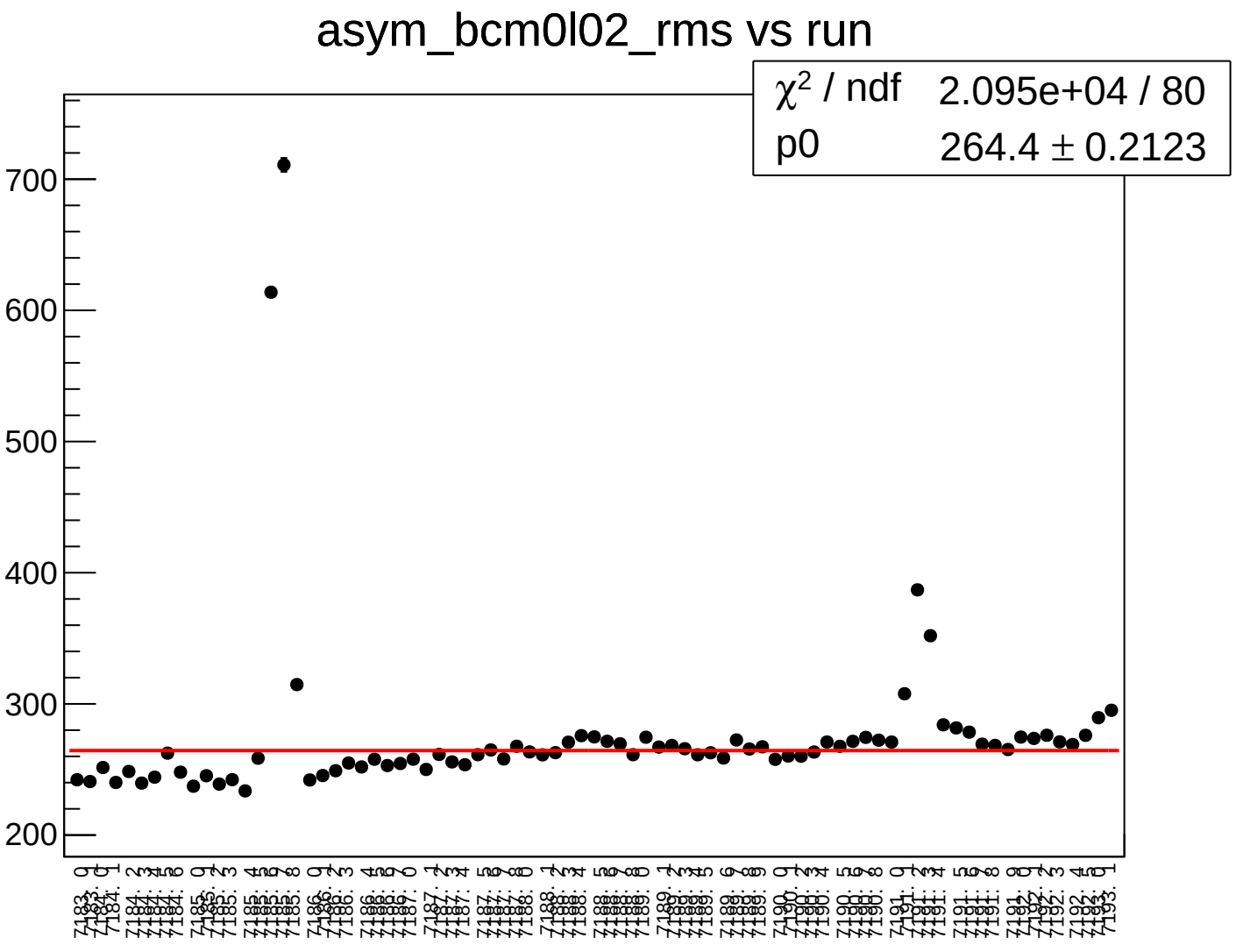

asym_cav4cQ_rms vs run
χ² / ndf 2.175e+04 / 80
p0 207.4 ± 0.1665
600
550
500
450
400
350
300
250
200
150

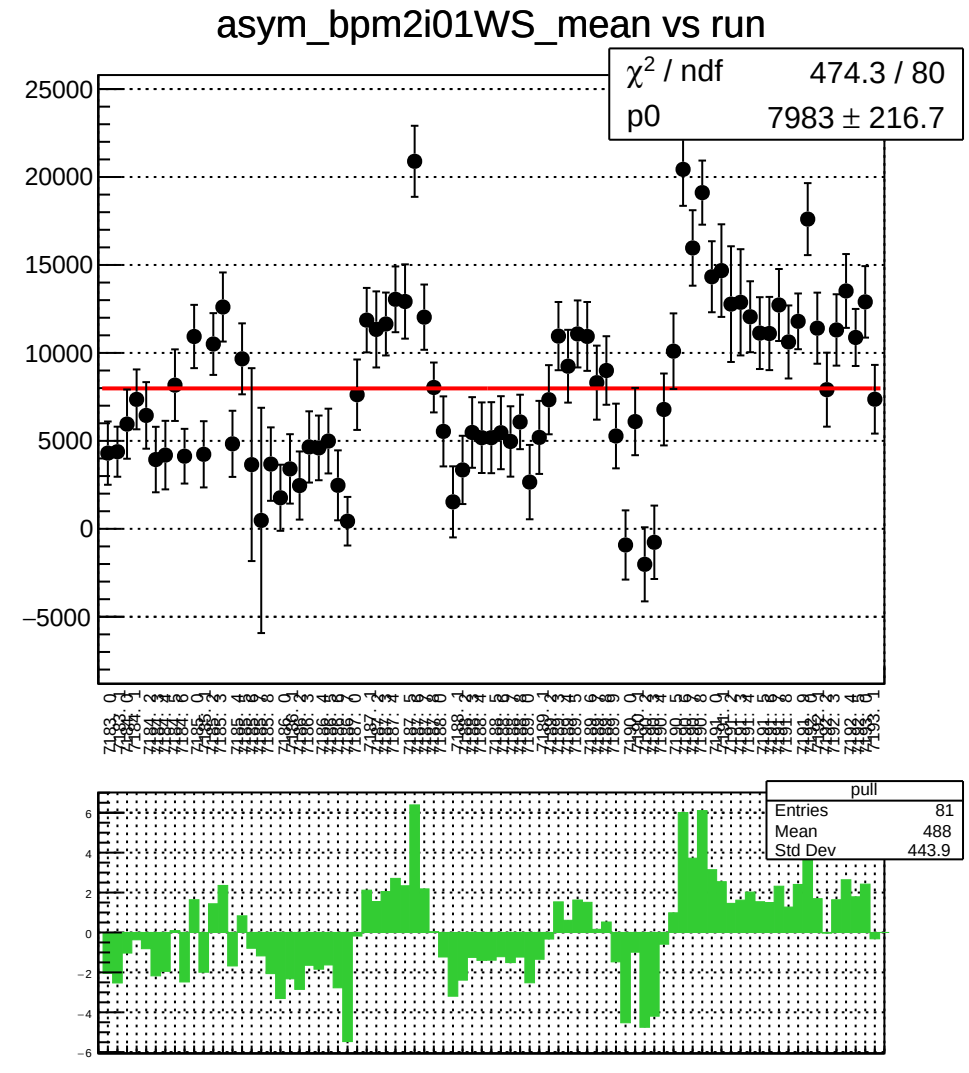

asym_cav4dQ_mean vs run
χ² / ndf 59.07 / 80
p0 −27.8 ± 386.7
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean 254.2
Std Dev 207.3
2
1
0
−1
−2

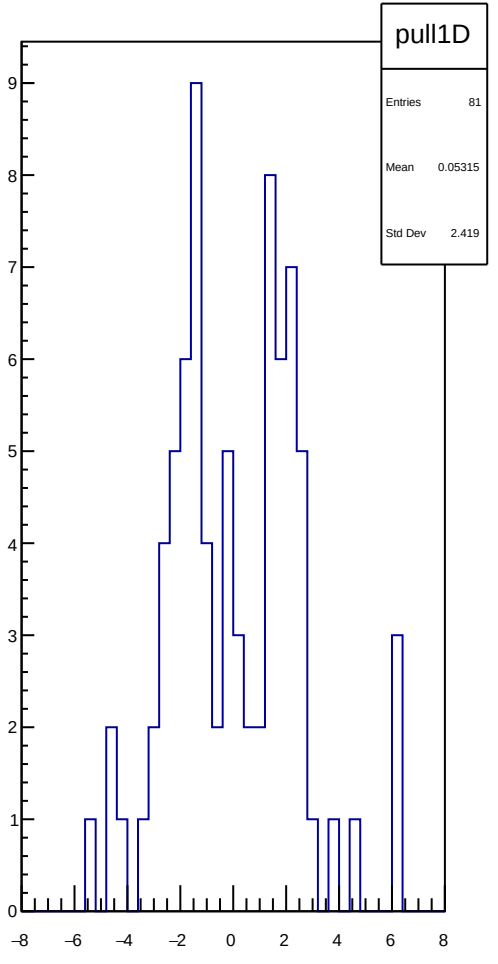

pull1D
Entries 81
Mean −0.005138
Std Dev 0.854
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

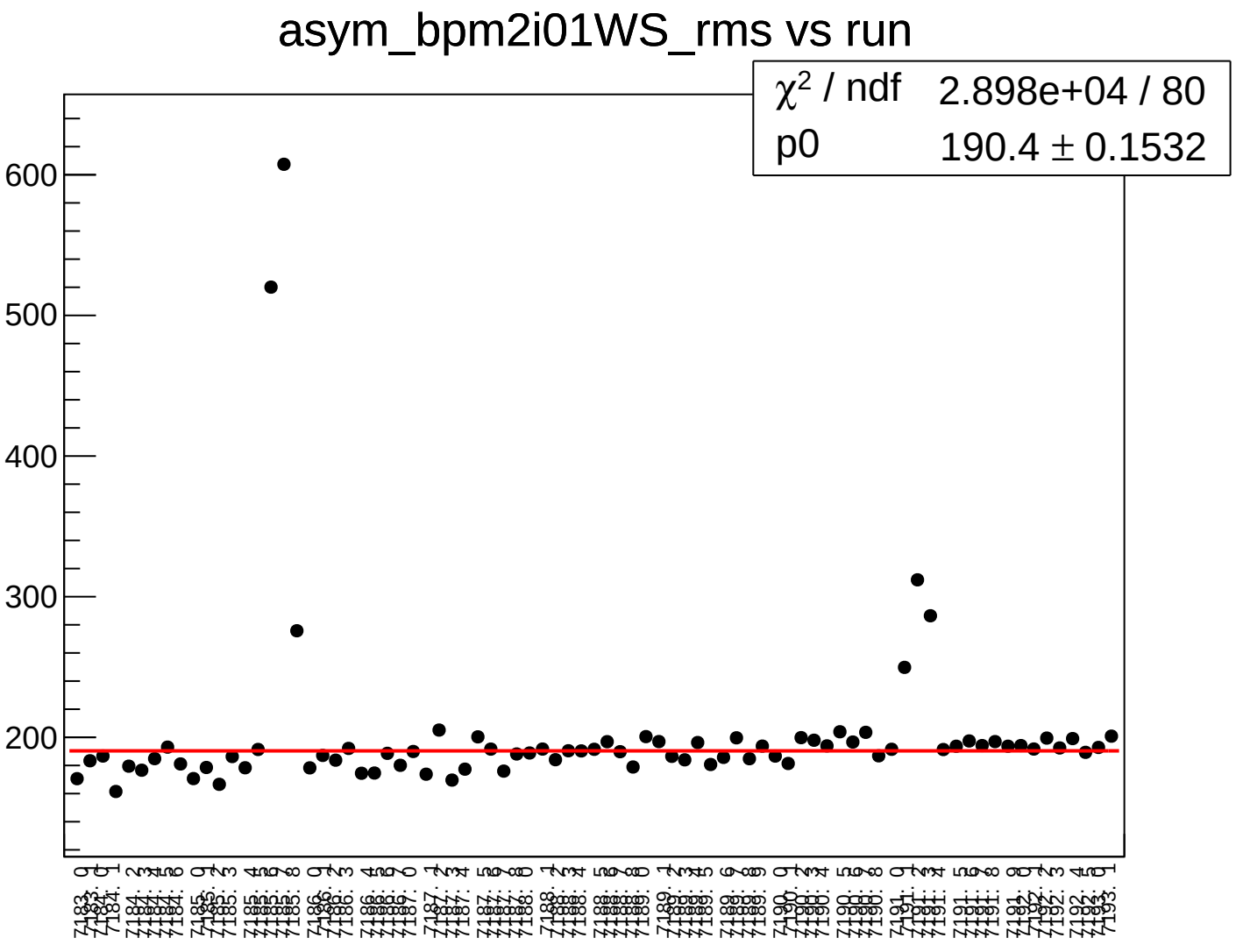

asym_cav4dQ_rms vs run
χ² / ndf 7810 / 80
p0 342.1 ± 0.2734
650
600
550
500
450
400
350
300

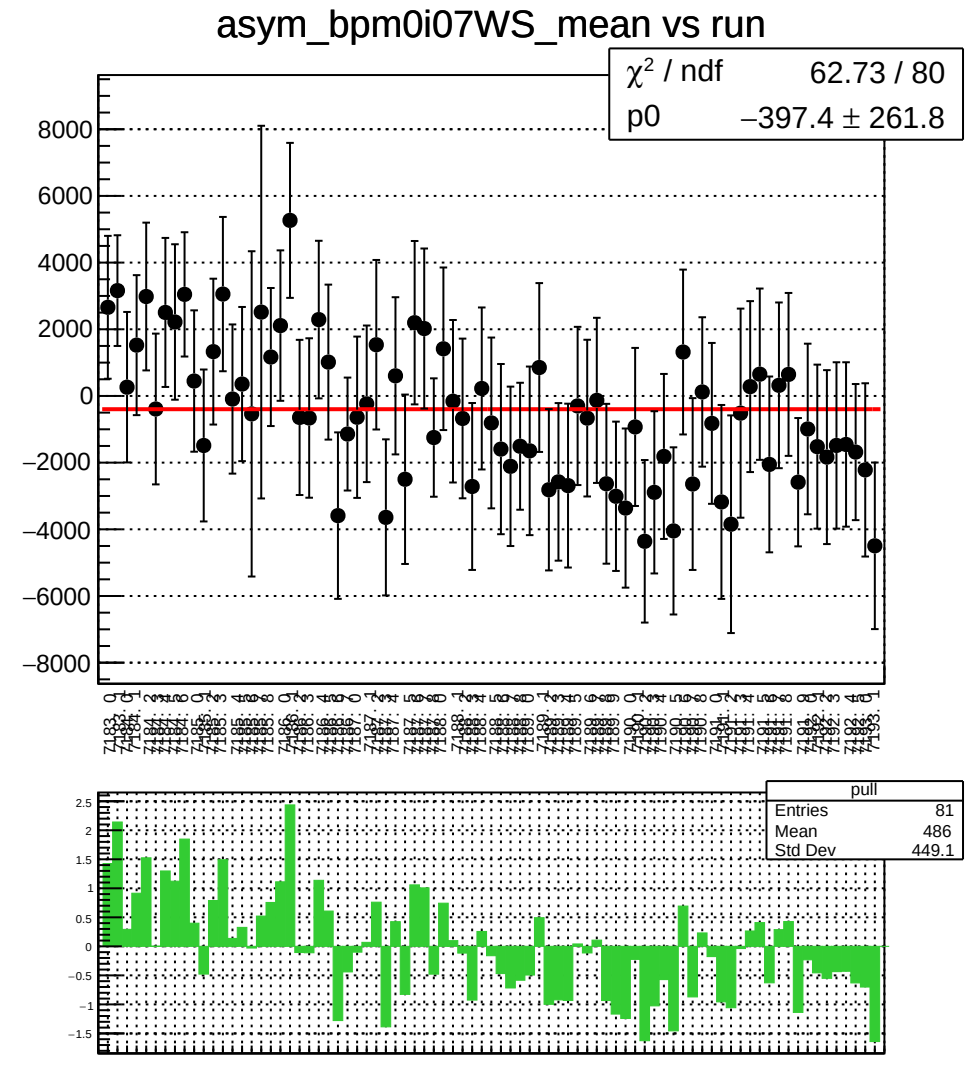

asym_bcm0l02_mean vs run
χ² / ndf 70.63 / 80
p0 −651.1 ± 300.2
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 398.2
Std Dev 361.4
2
1
0
−1
−2
pull1D
Entries 81
Mean −0.04869
Std Dev 0.9325
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

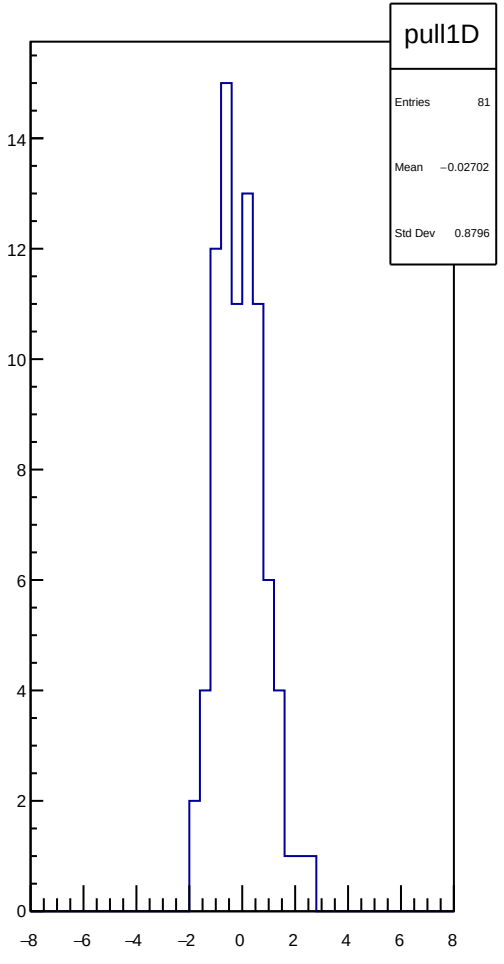

asym_bcm0l02_rms vs run
χ² / ndf 2.095e+04 / 80
p0 264.4 ± 0.2123
700
600
500
400
300
200

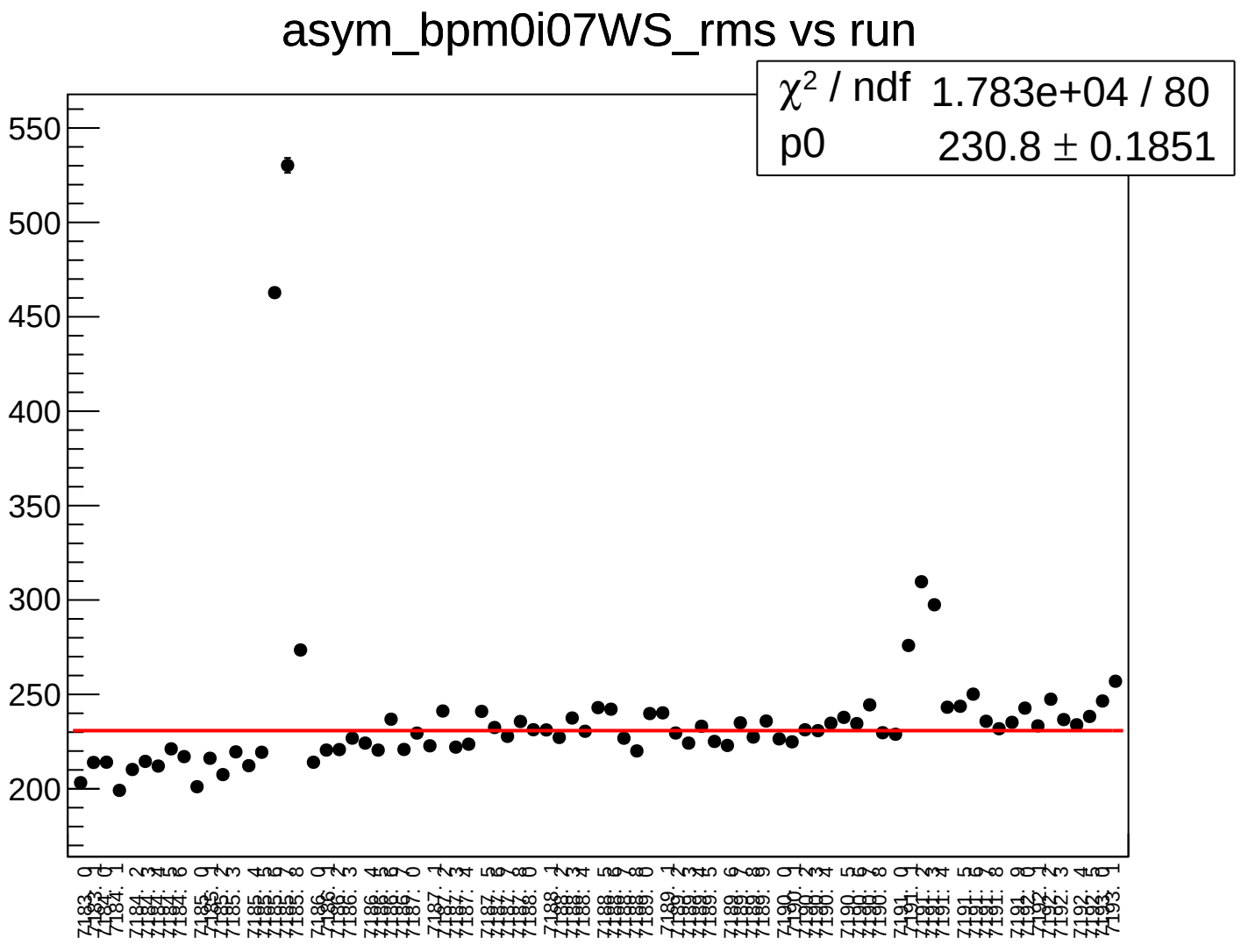

asym_bpm2i01WS_mean vs run
χ² / ndf 474.3 / 80
p0 7983 ± 216.7
25000
20000
15000
10000
5000
0
−5000
pull
Entries 81
Mean 488
Std Dev 443.9
6
4
2
0
−2
−4
−6

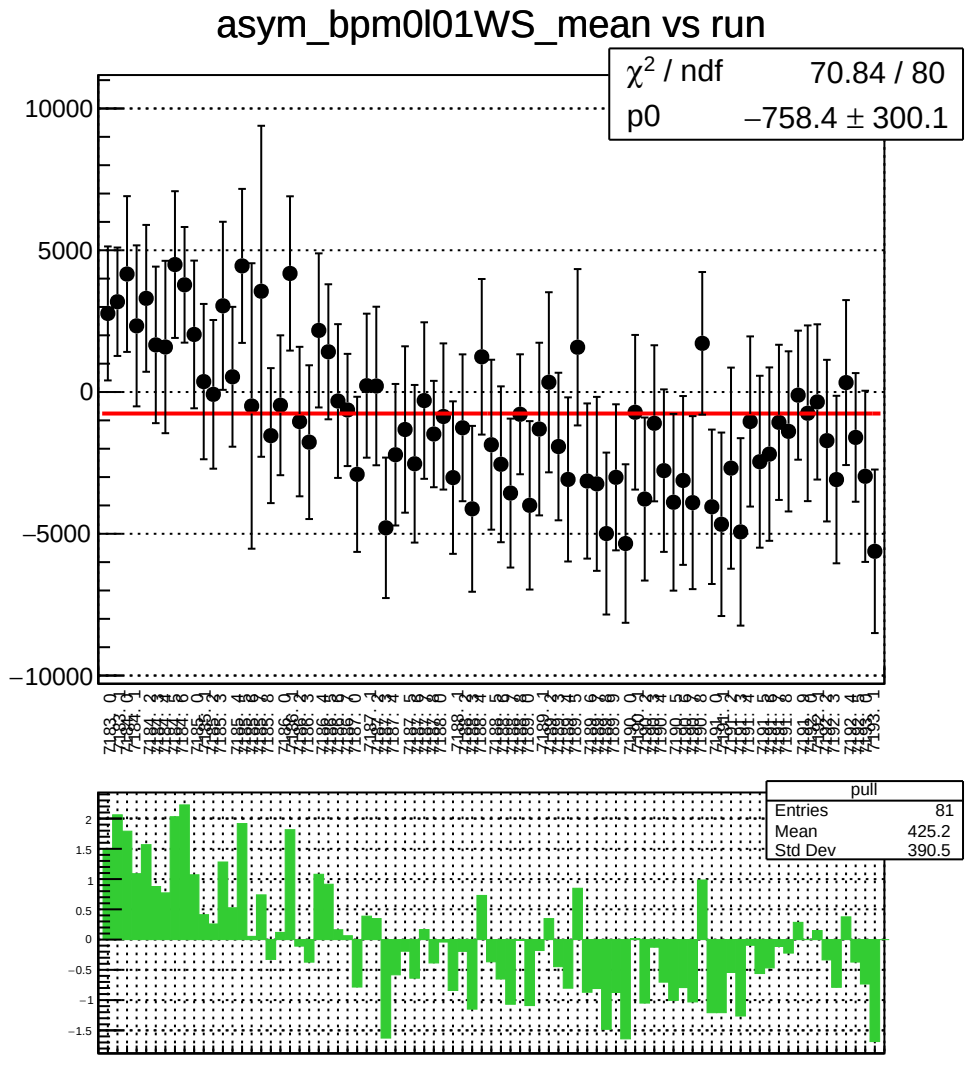

pull1D
Entries 81
Mean 0.05315
Std Dev 2.419
9
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

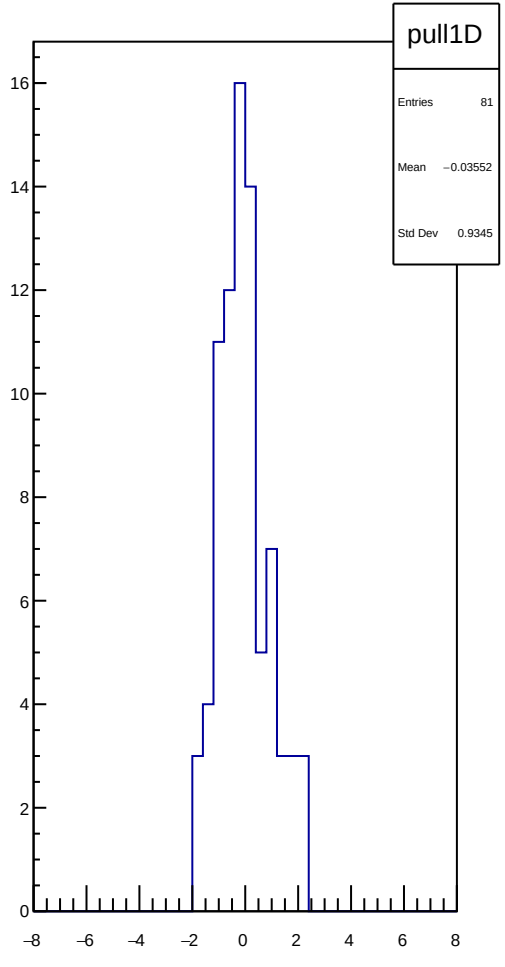

asym_bpm2i01WS_rms vs run
χ^2 / ndf 2.898e+04 / 80
p0 190.4 ± 0.1532
600
500
400
300
200

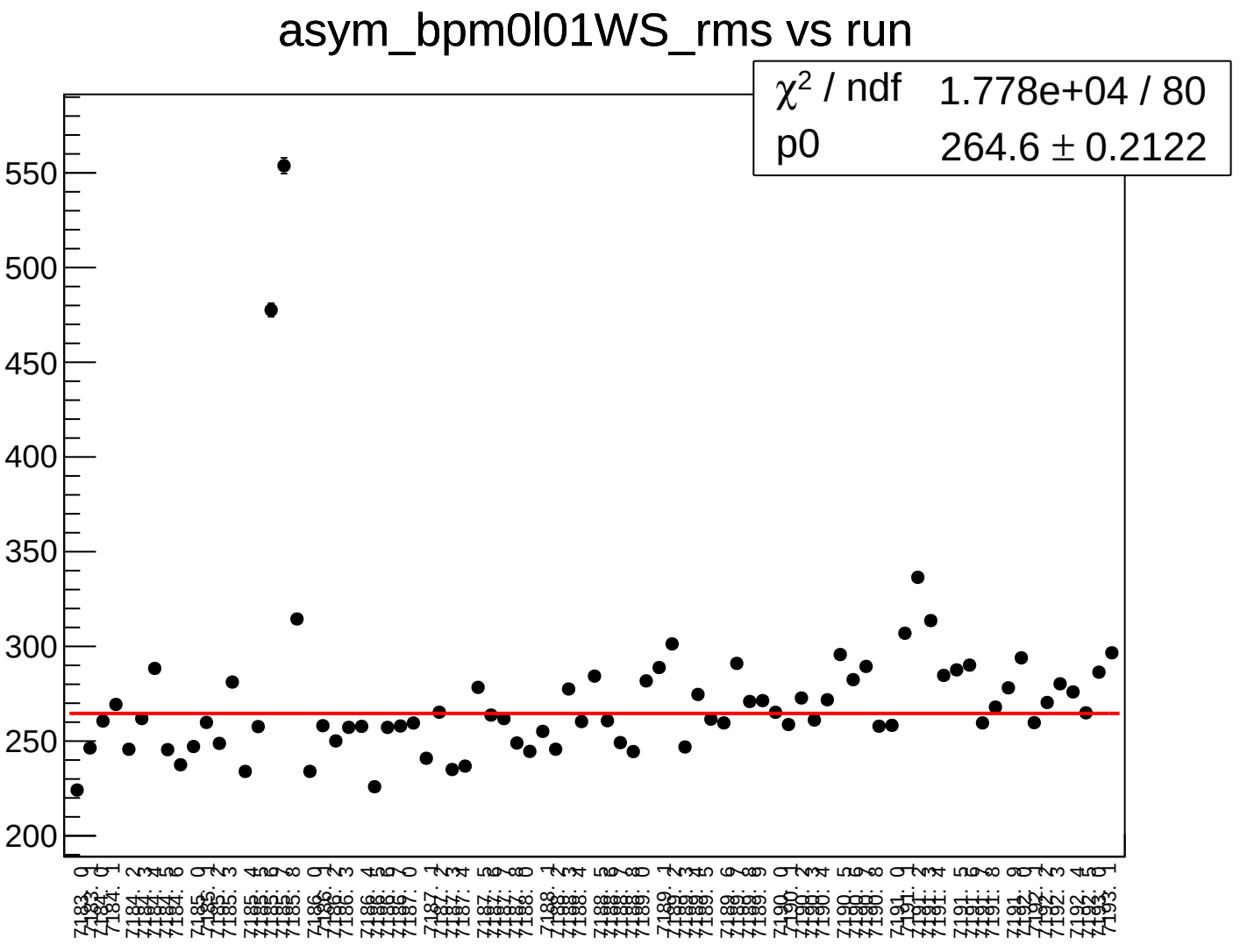

asym_bpm0i07WS_mean vs run
χ² / ndf 62.73 / 80
p0 −397.4 ± 261.8
pull
Entries 81
Mean 486
Std Dev 449.1

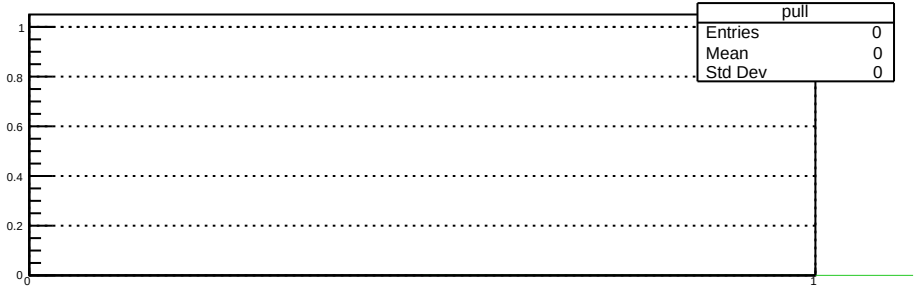

pull1D
Entries 81
Mean −0.02702
Std Dev 0.8796

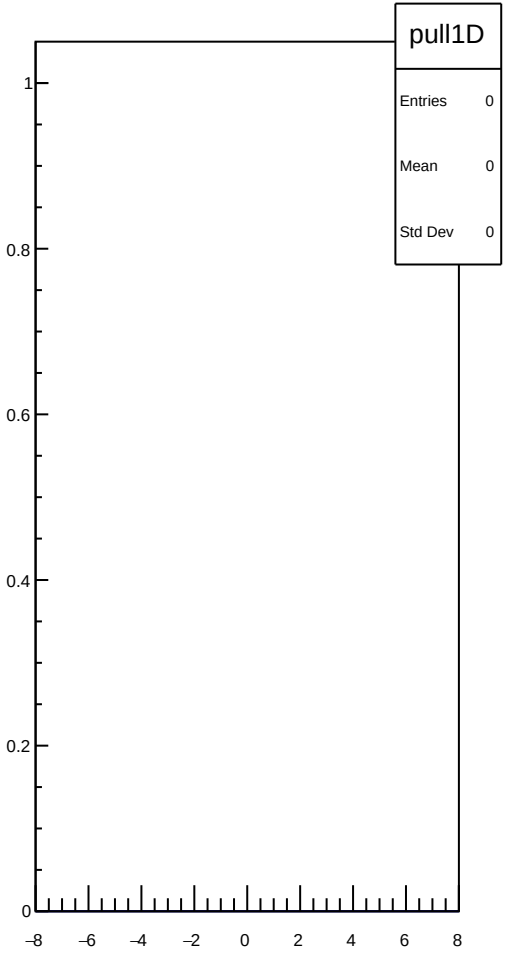

asym_bpm0i07WS_rms vs run
χ² / ndf 1.783e+04 / 80
p0 230.8 ± 0.1851
550
500
450
400
350
300
250
200

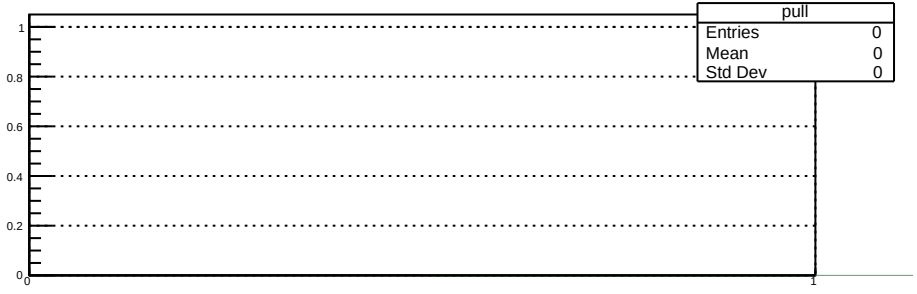

asym_bpm0l01WS_mean vs run
χ² / ndf 70.84 / 80
p0 −758.4 ± 300.1
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 425.2
Std Dev 390.5
2
1.5
1
0.5
0
−0.5
−1
−1.5

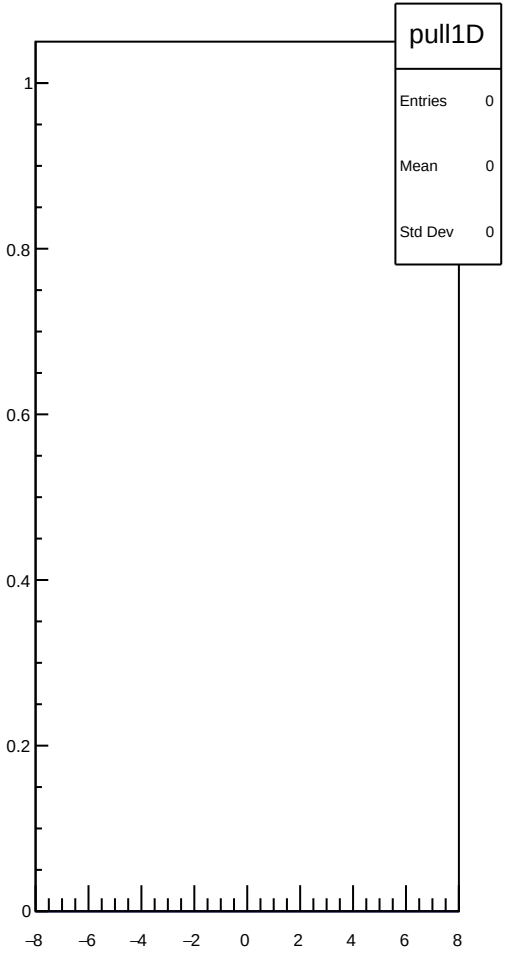

pull1D
Entries 81
Mean −0.03552
Std Dev 0.9345
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

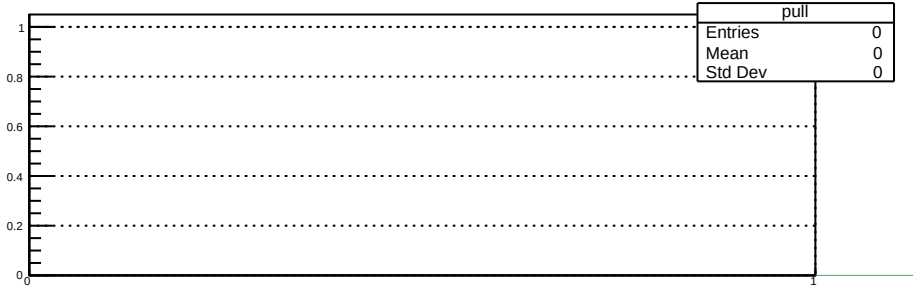

asym_bpm0l01WS_rms vs run
χ² / ndf 1.778e+04 / 80
p0 264.6 ± 0.2122
550
500
450
400
350
300
250
200

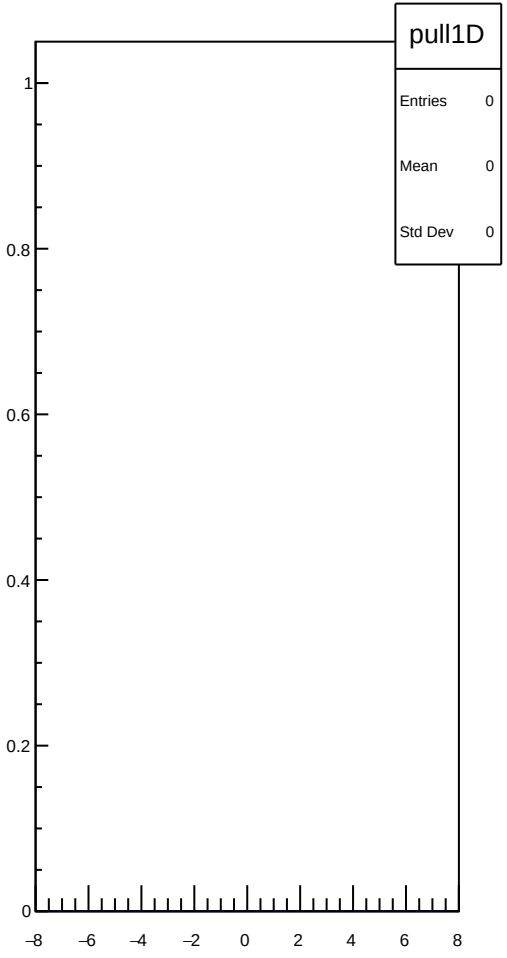

pull
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
0
1

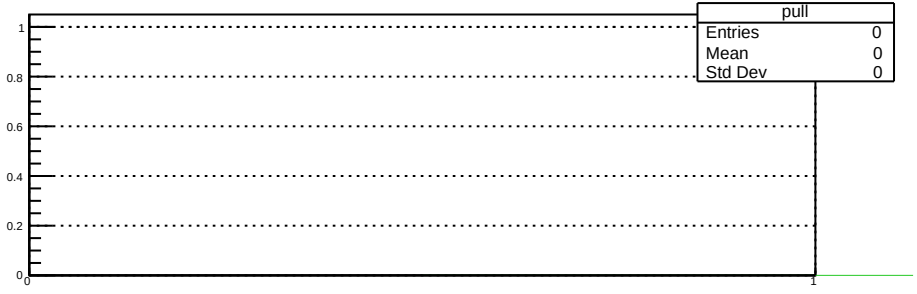

pull1D
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

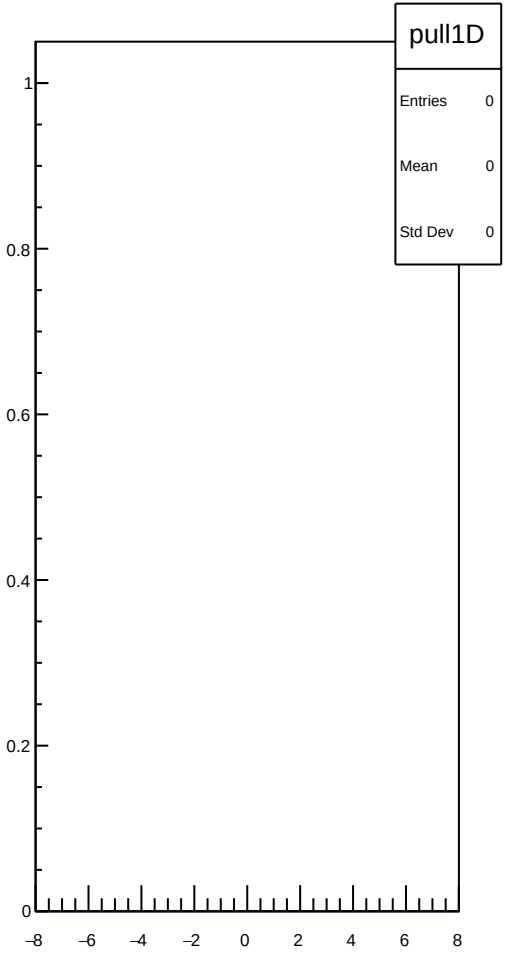

pull
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
0
1

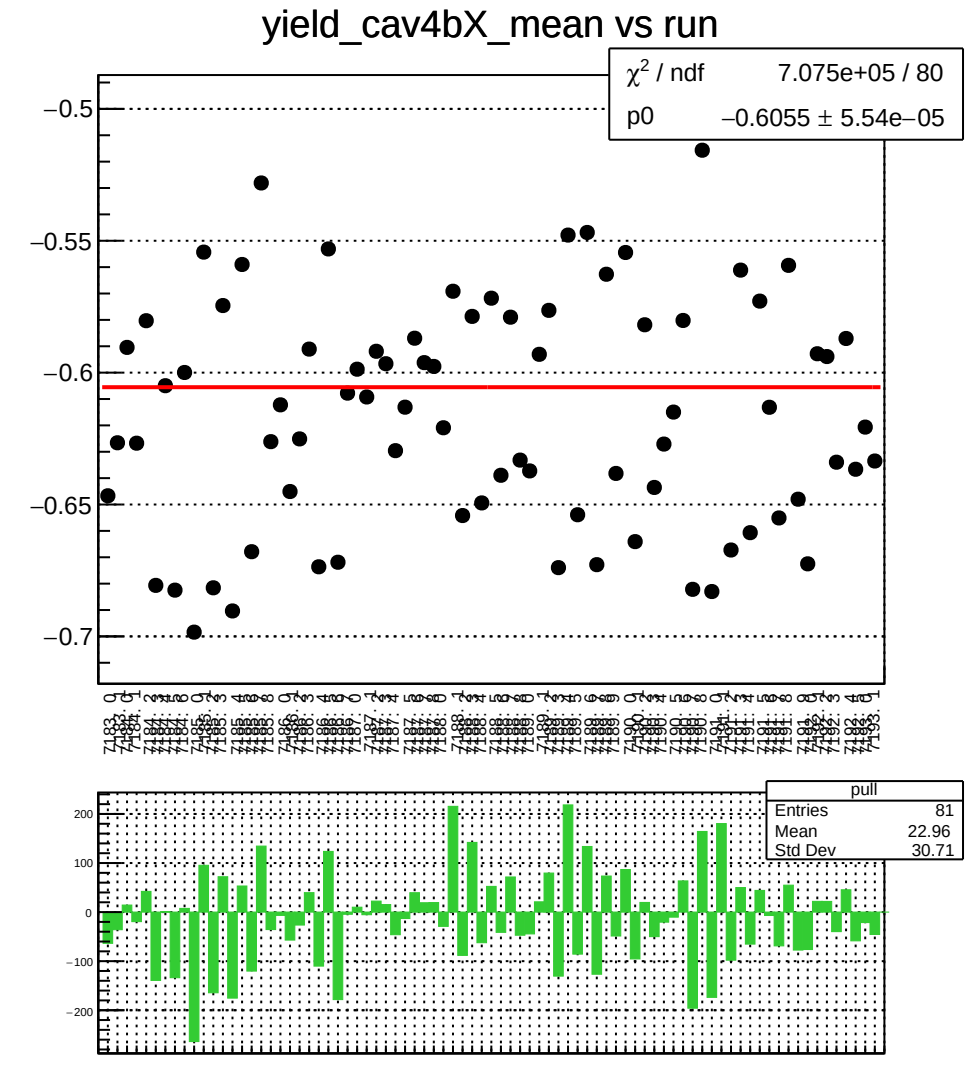

pull1D
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

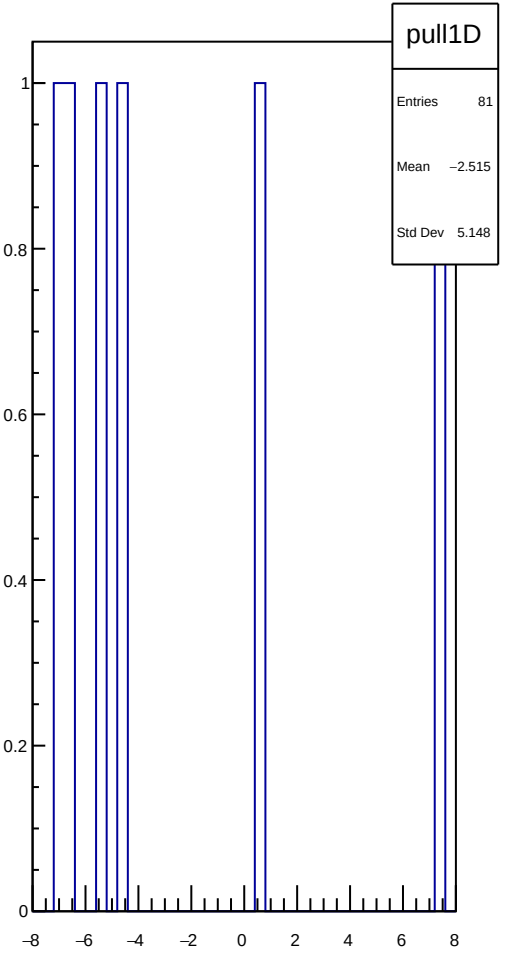

pull
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
0
1

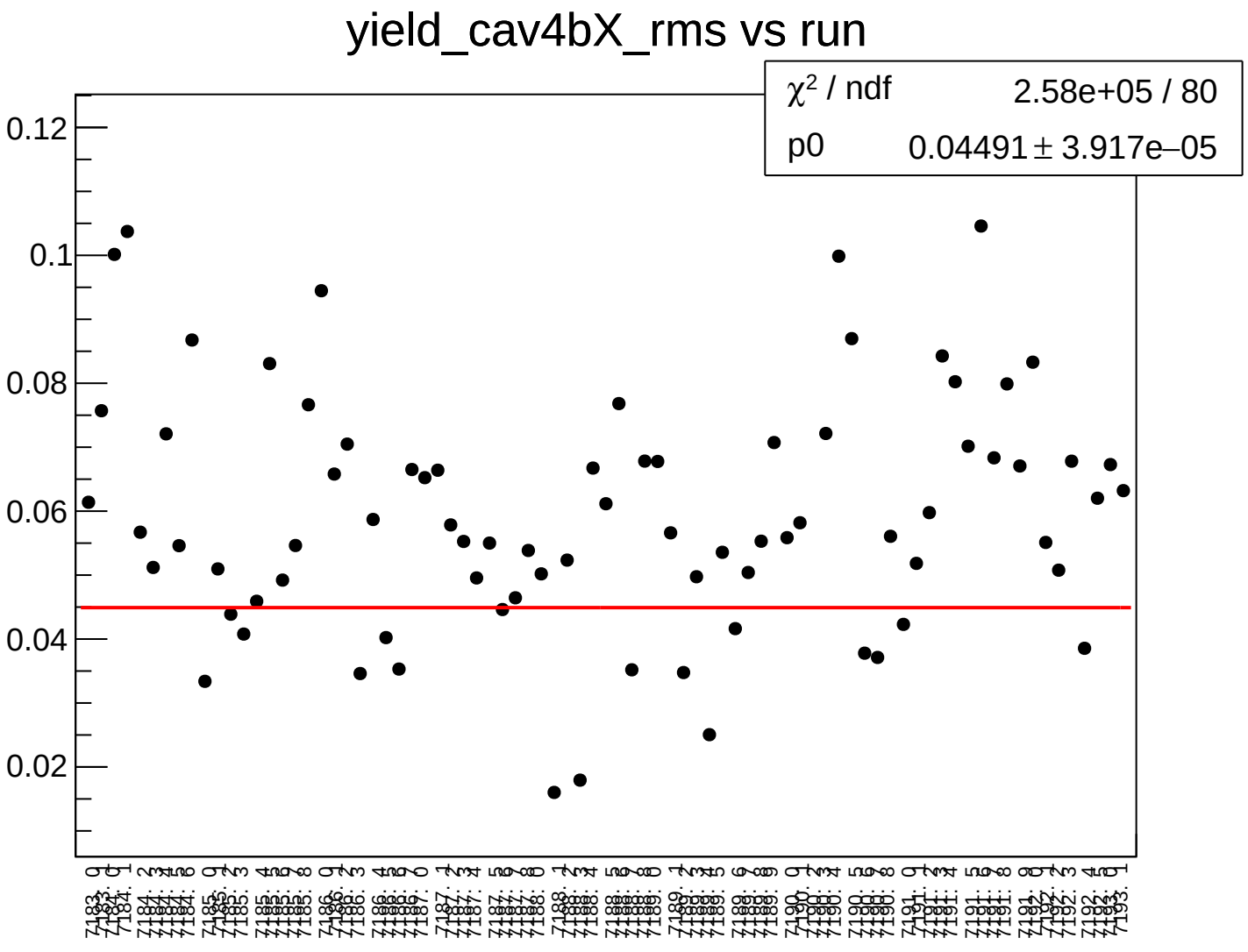

pull1D
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

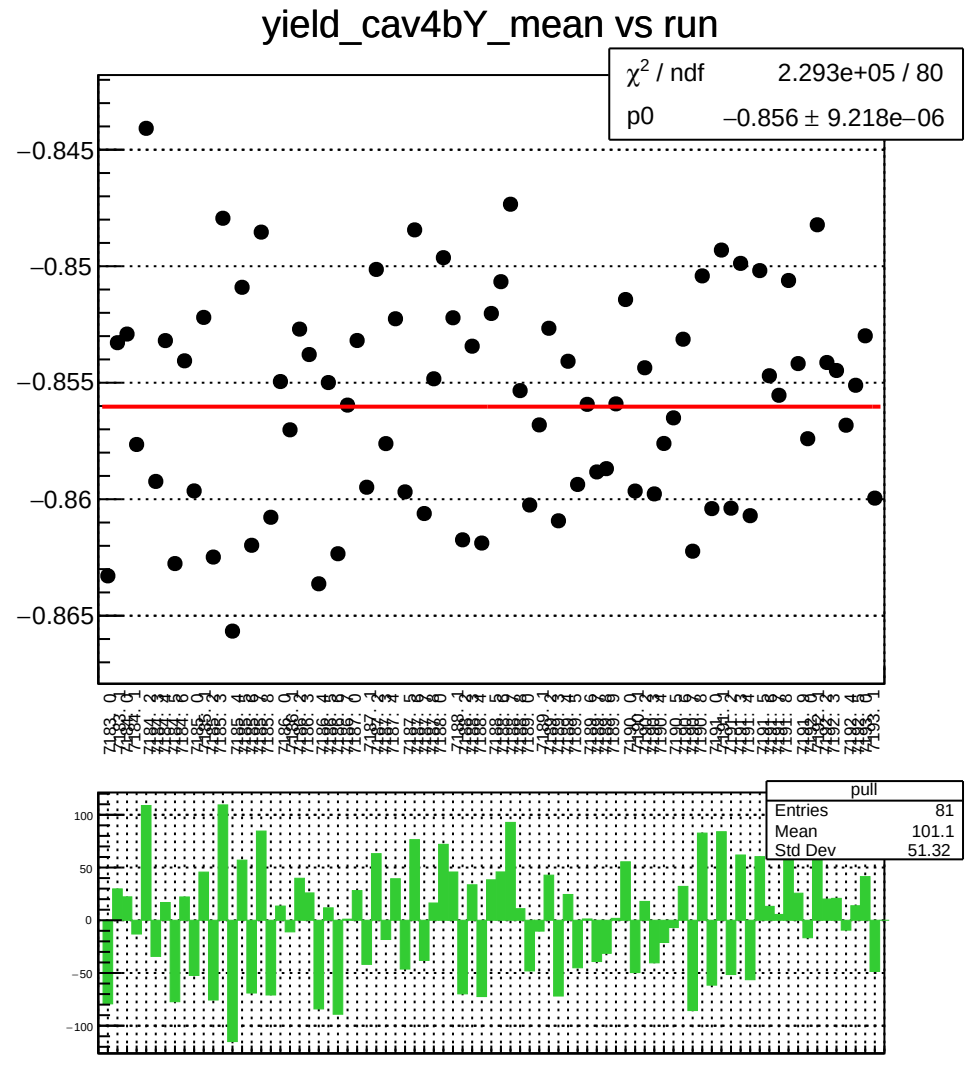

pull
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
0
1

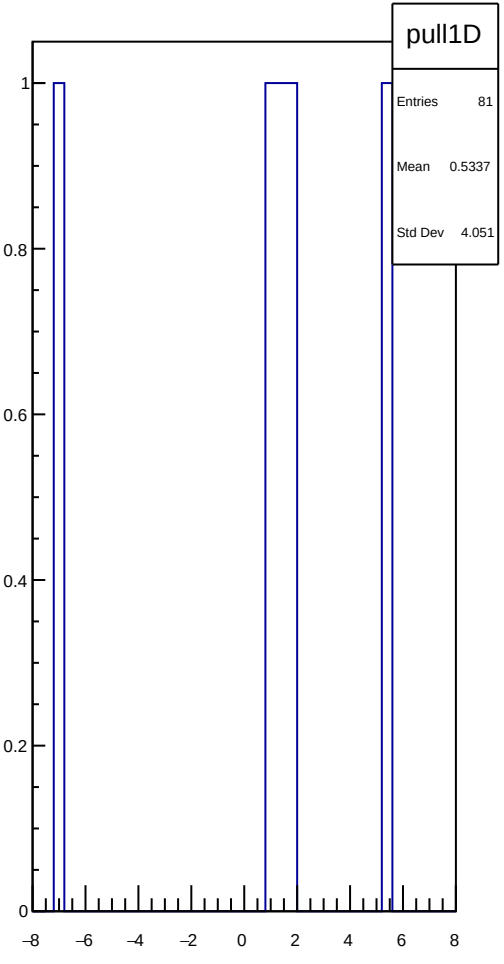

pull1D
Entries 0
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

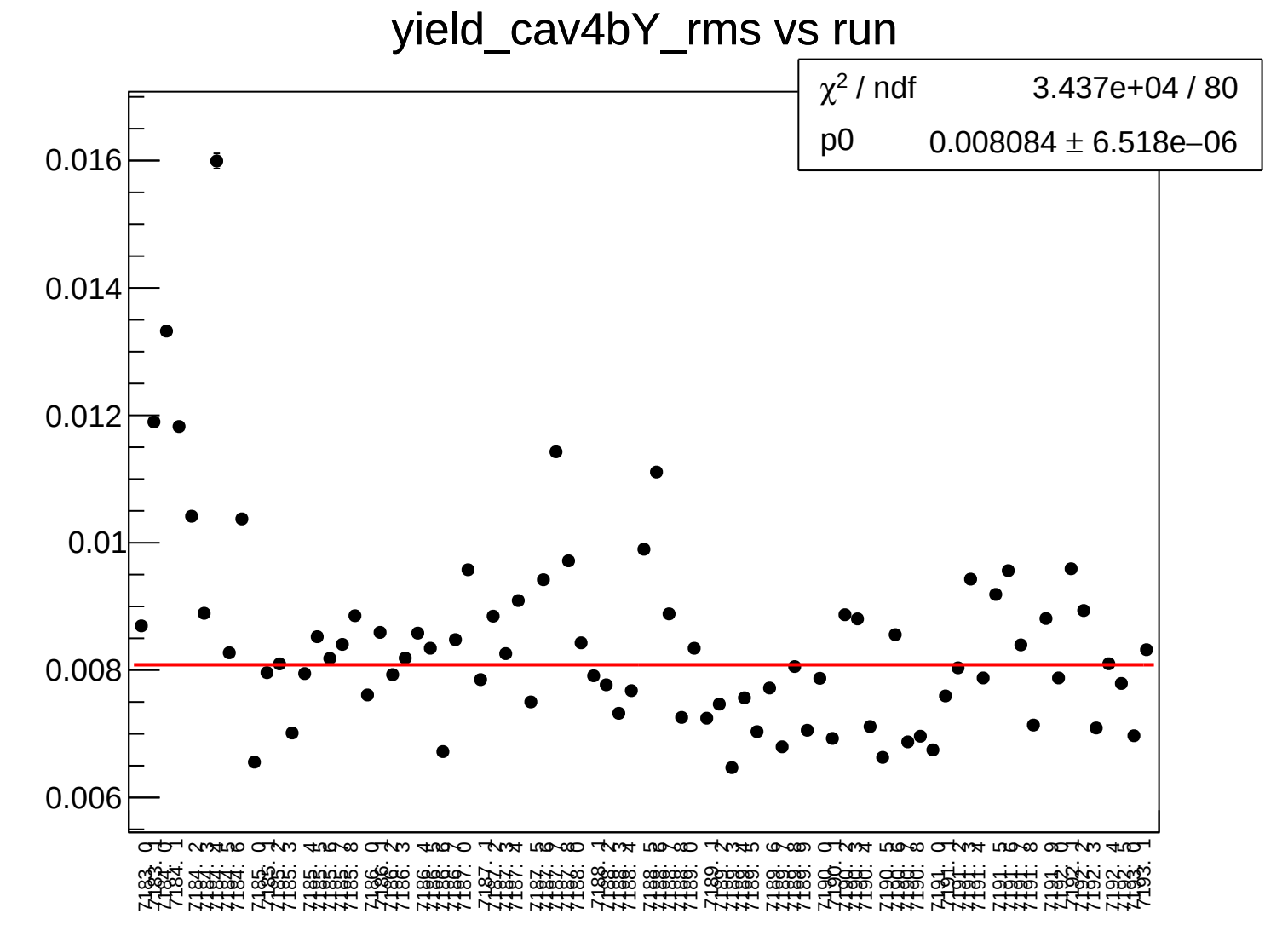

yield_cav4bX_mean vs run
χ² / ndf 7.075e+05 / 80
p0 −0.6055 ± 5.54e−05
−0.5
−0.55
−0.6
−0.65
−0.7
pull
Entries 81
Mean 22.96
Std Dev 30.71
200
100
0
−100
−200

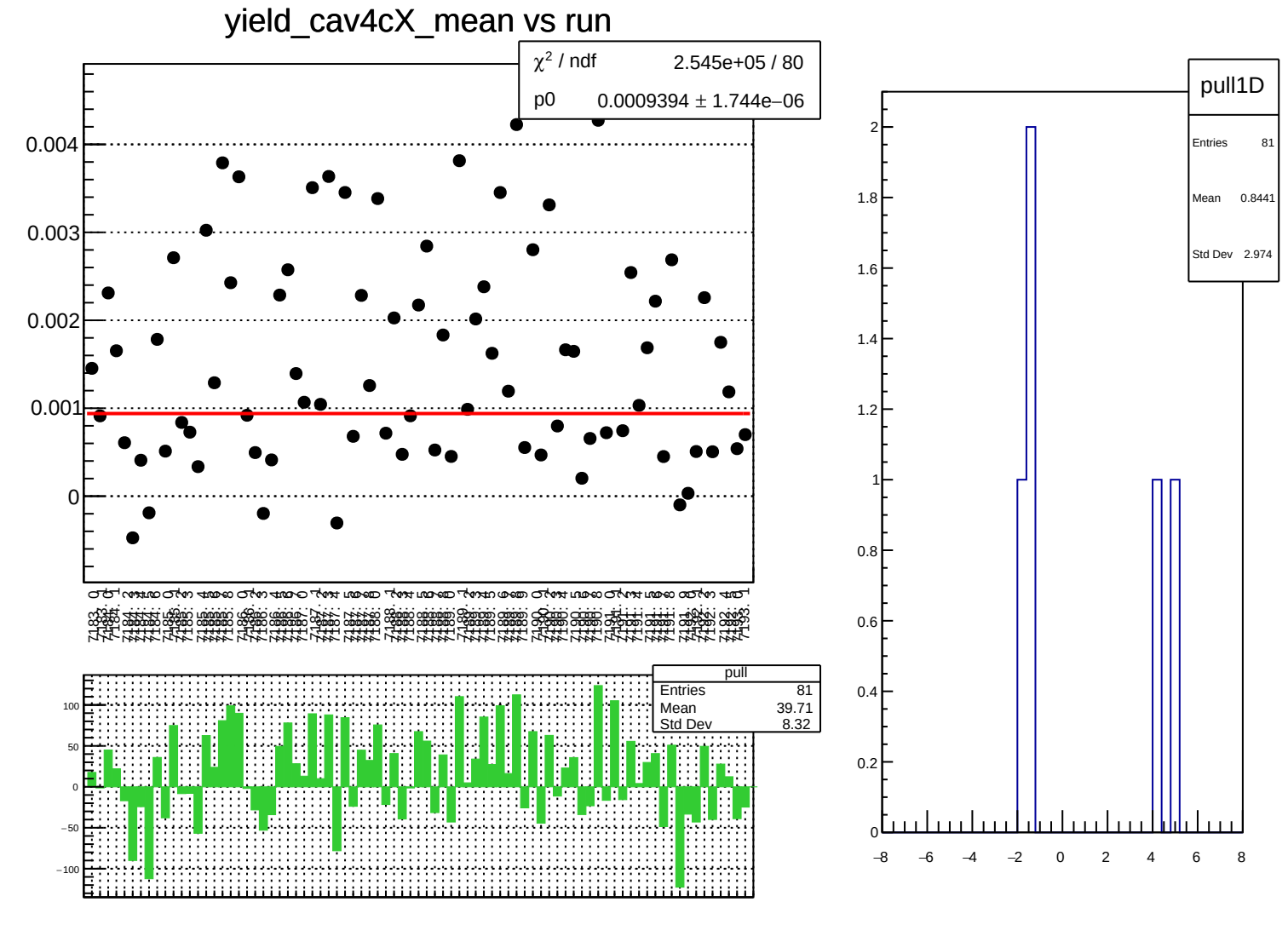

pull1D
Entries 81
Mean −2.515
Std Dev 5.148
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

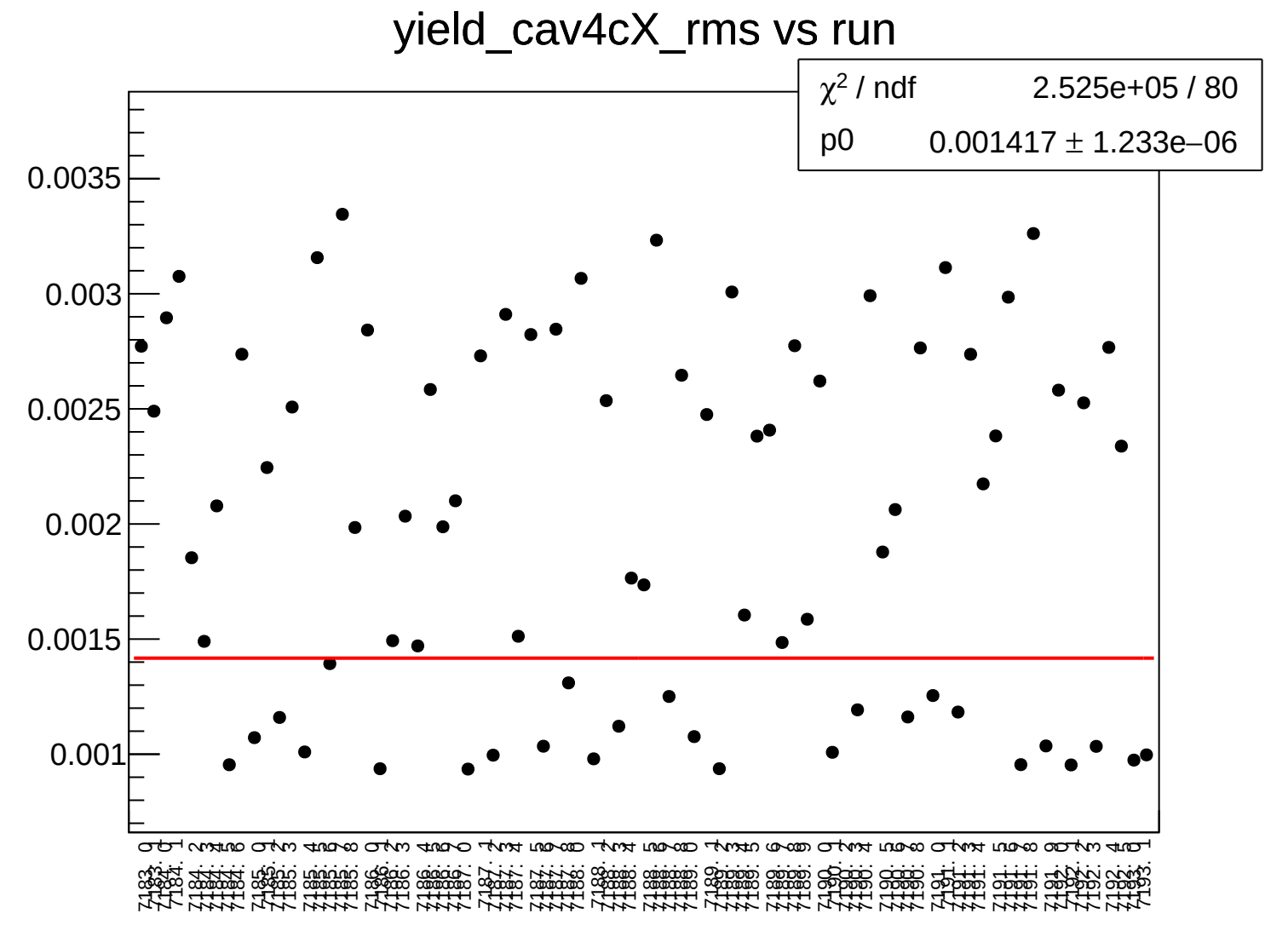

yield_cav4bX_rms vs run
χ² / ndf 2.58e+05 / 80
p0 0.04491 ± 3.917e−05
0.12
0.1
0.08
0.06
0.04
0.02

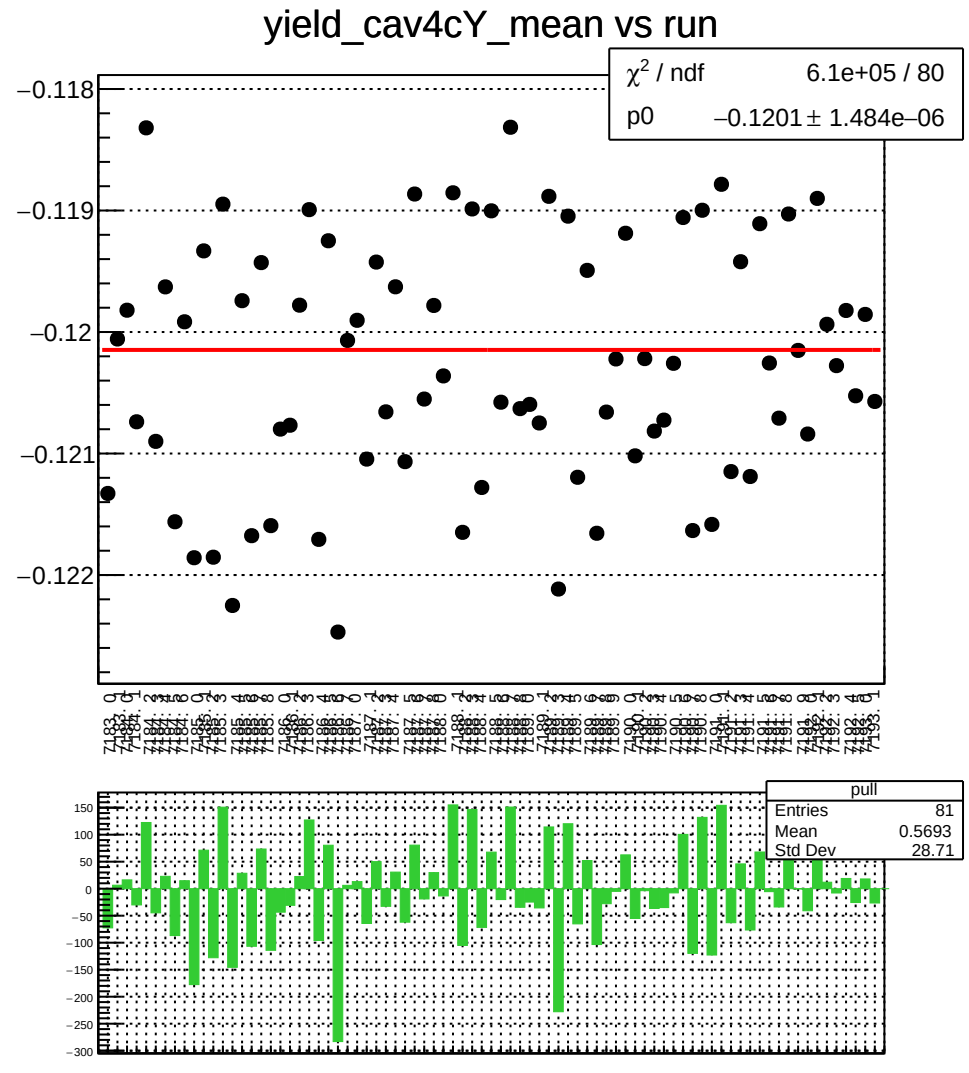

yield_cav4bY_mean vs run
χ² / ndf 2.293e+05 / 80
p0 −0.856 ± 9.218e−06
−0.845
−0.85
−0.855
−0.86
−0.865
pull
Entries 81
Mean 101.1
Std Dev 51.32
100
50
0
−50
−100

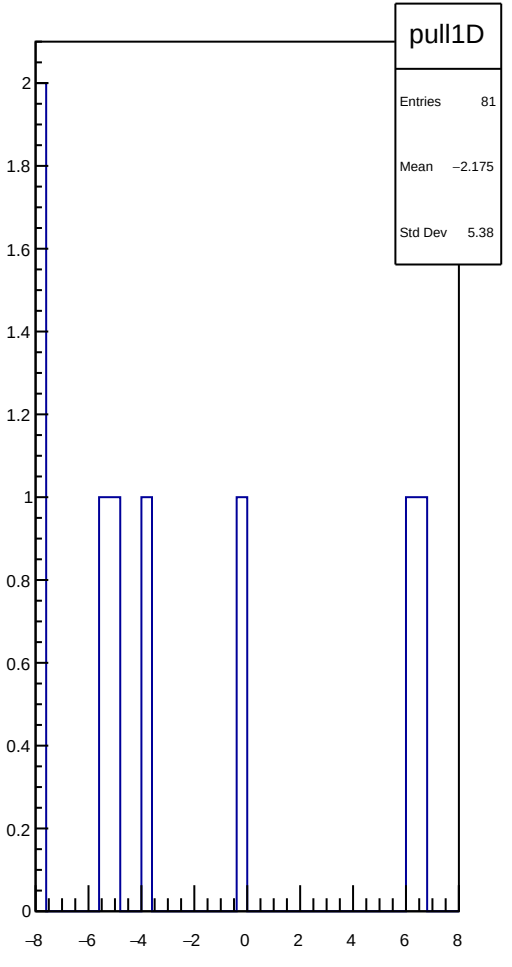

pull1D
Entries 81
Mean 0.5337
Std Dev 4.051
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

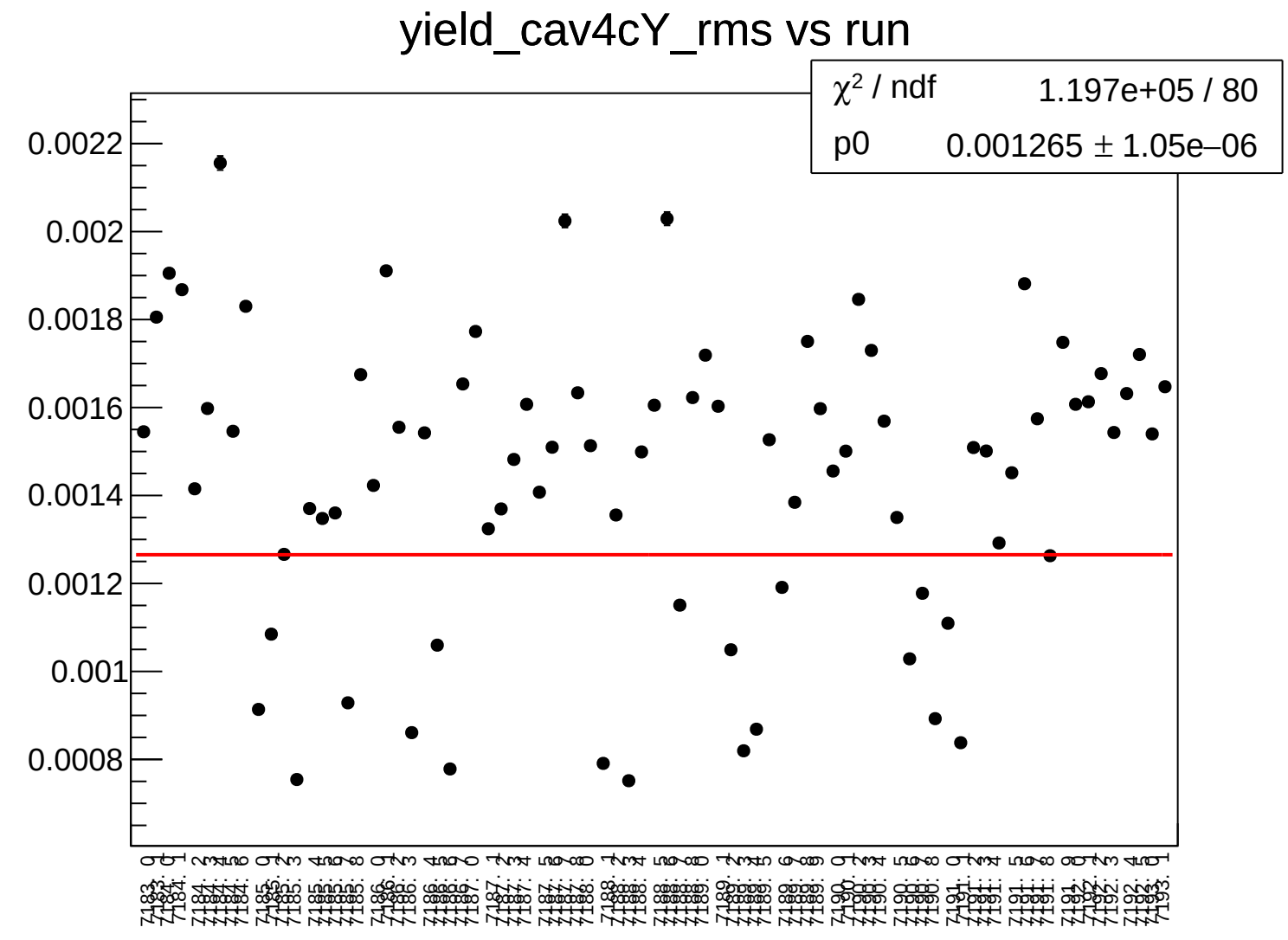

yield_cav4bY_rms vs run
χ^2 / ndf 3.437e+04 / 80
p0 0.008084 ± 6.518e−06
0.016
0.014
0.012
0.01
0.008
0.006

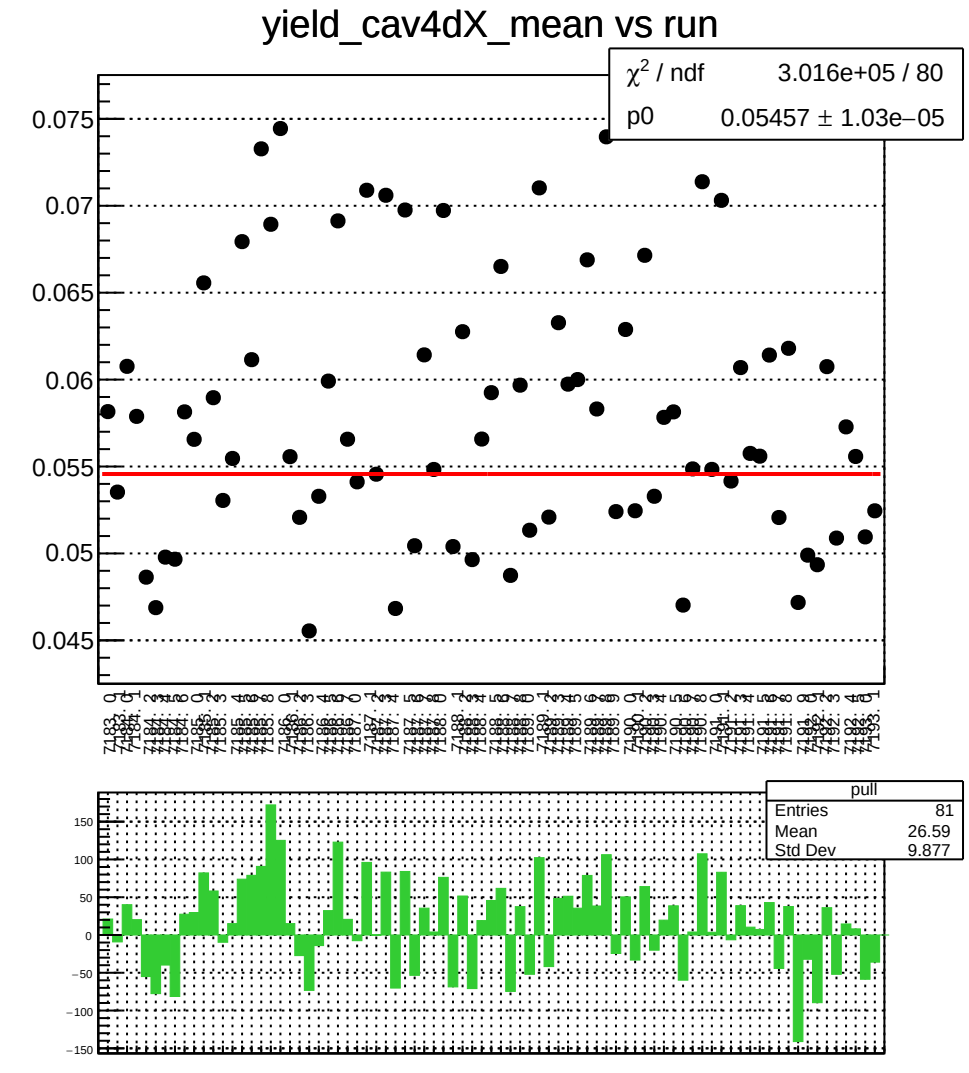

yield_cav4cX_mean vs run
χ² / ndf 2.545e+05 / 80
p0 0.0009394 ± 1.744e−06
0.004
0.003
0.002
0.001
0
pull
Entries 81
Mean 39.71
Std Dev 8.32
100
50
0
−50
−100
pull1D
Entries 81
Mean 0.8441
Std Dev 2.974
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

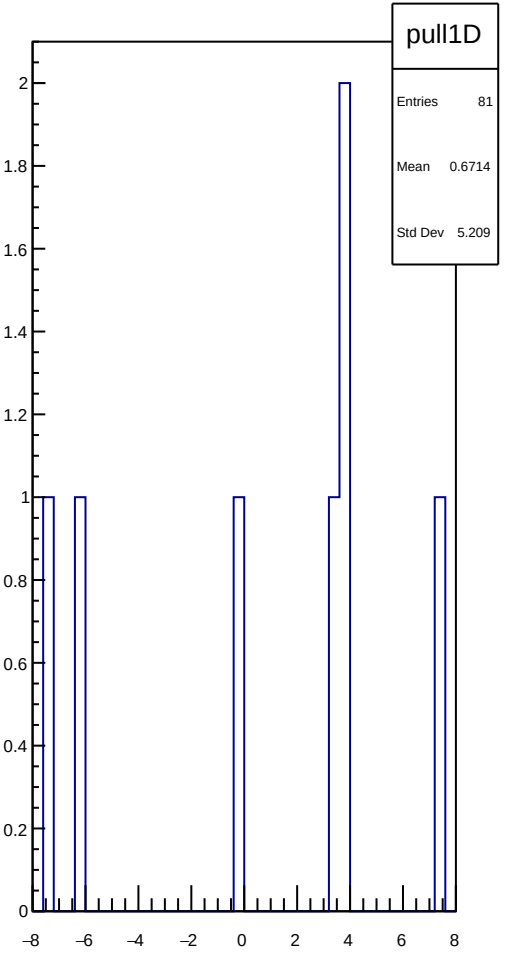

yield_cav4cX_rms vs run
χ² / ndf 2.525e+05 / 80
p0 0.001417 ± 1.233e−06
0.0035
0.003
0.0025
0.002
0.0015
0.001

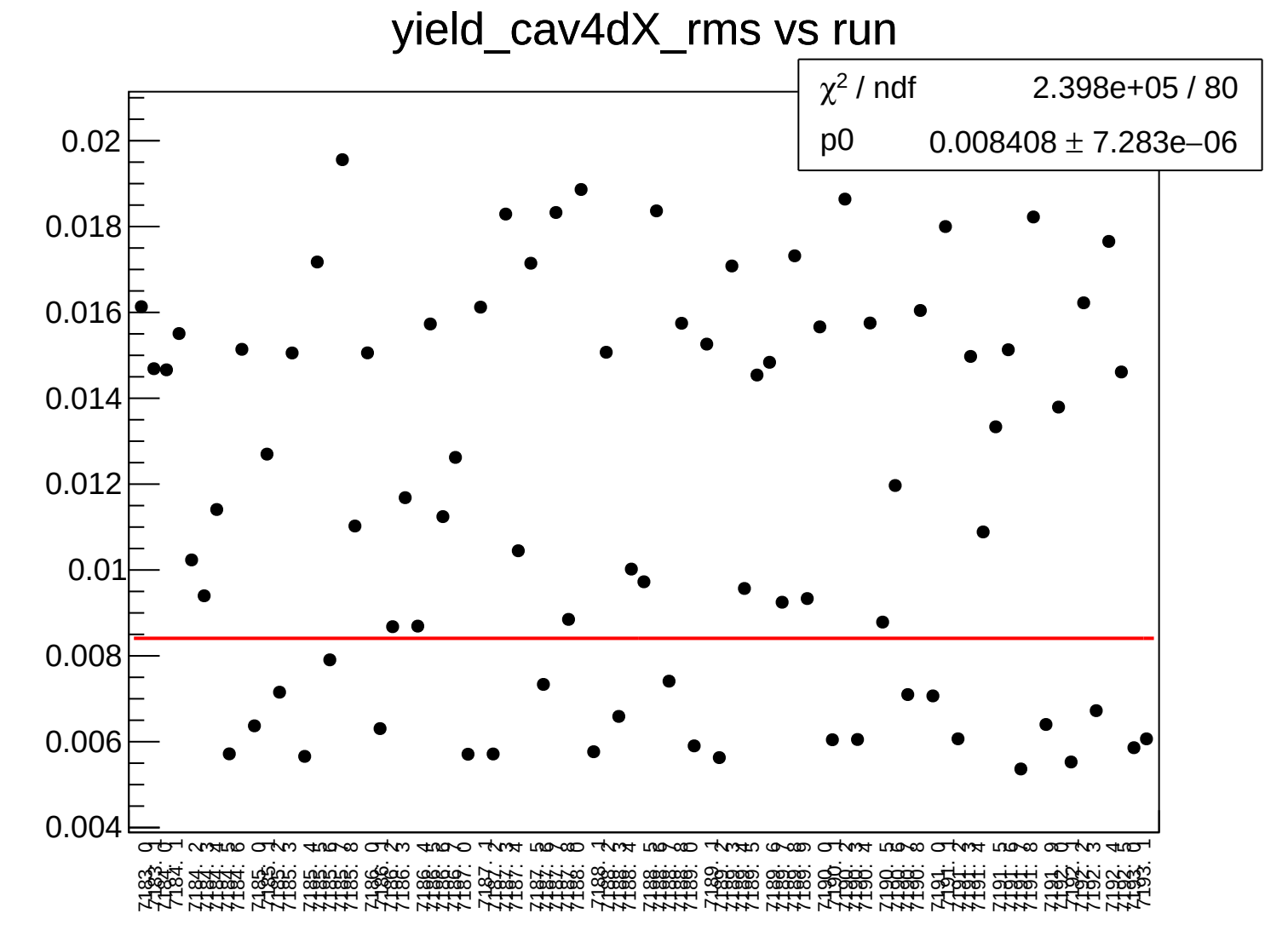

yield_cav4cY_mean vs run
χ² / ndf 6.1e+05 / 80
p0 −0.1201 ± 1.484e−06
−0.118
−0.119
−0.12
−0.121
−0.122
pull
Entries 81
Mean 0.5693
Std Dev 28.71
150
100
50
0
−50
−100
−150
−200
−250
−300

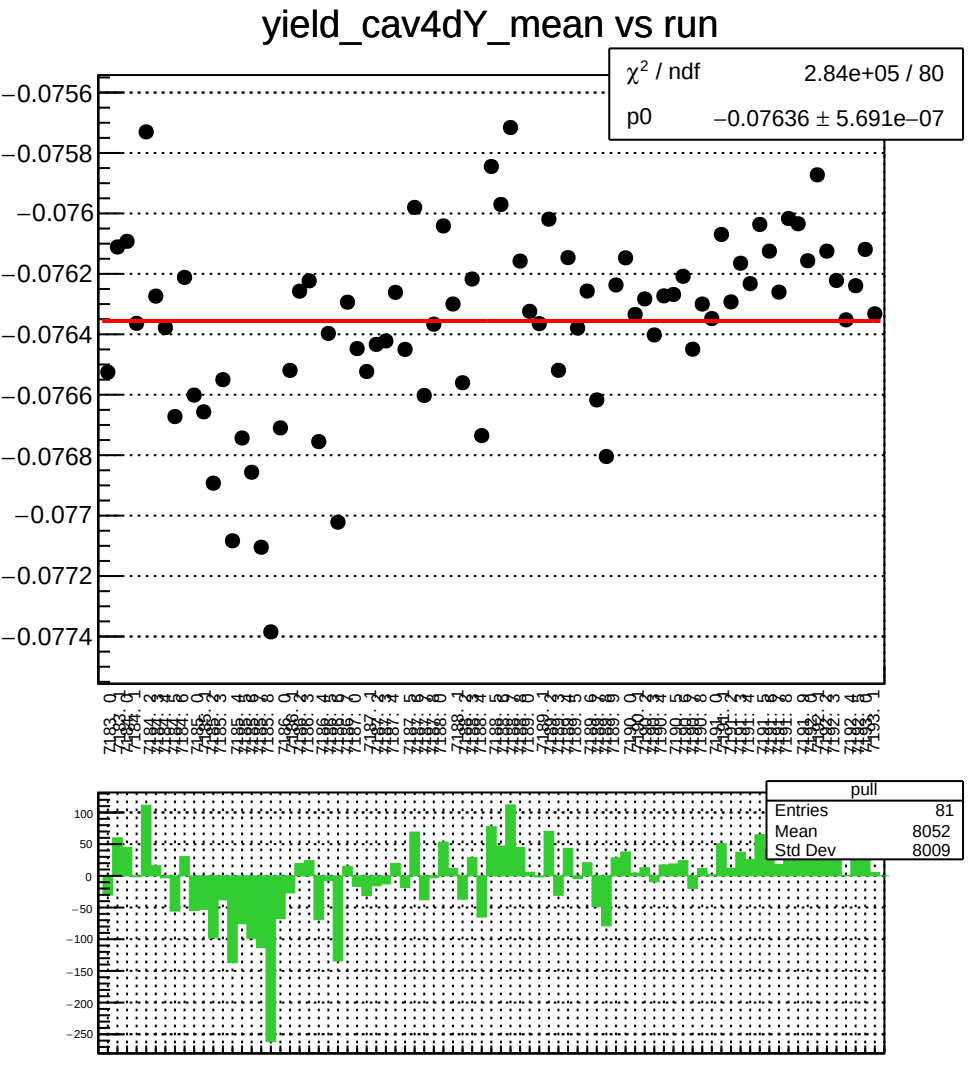

pull1D
Entries 81
Mean −2.175
Std Dev 5.38
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

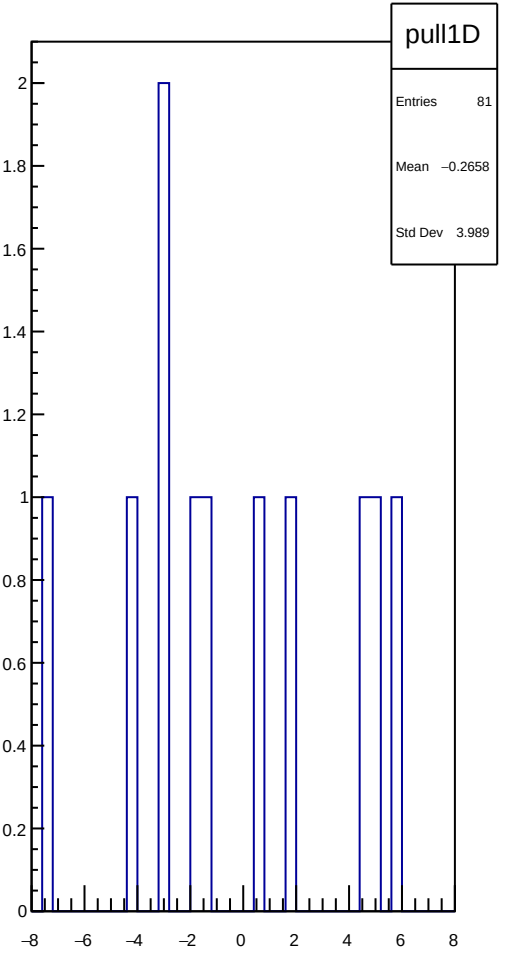

yield_cav4cY_rms vs run
χ² / ndf 1.197e+05 / 80
p0 0.001265 ± 1.05e−06
0.0022
0.002
0.0018
0.0016
0.0014
0.0012
0.001
0.0008

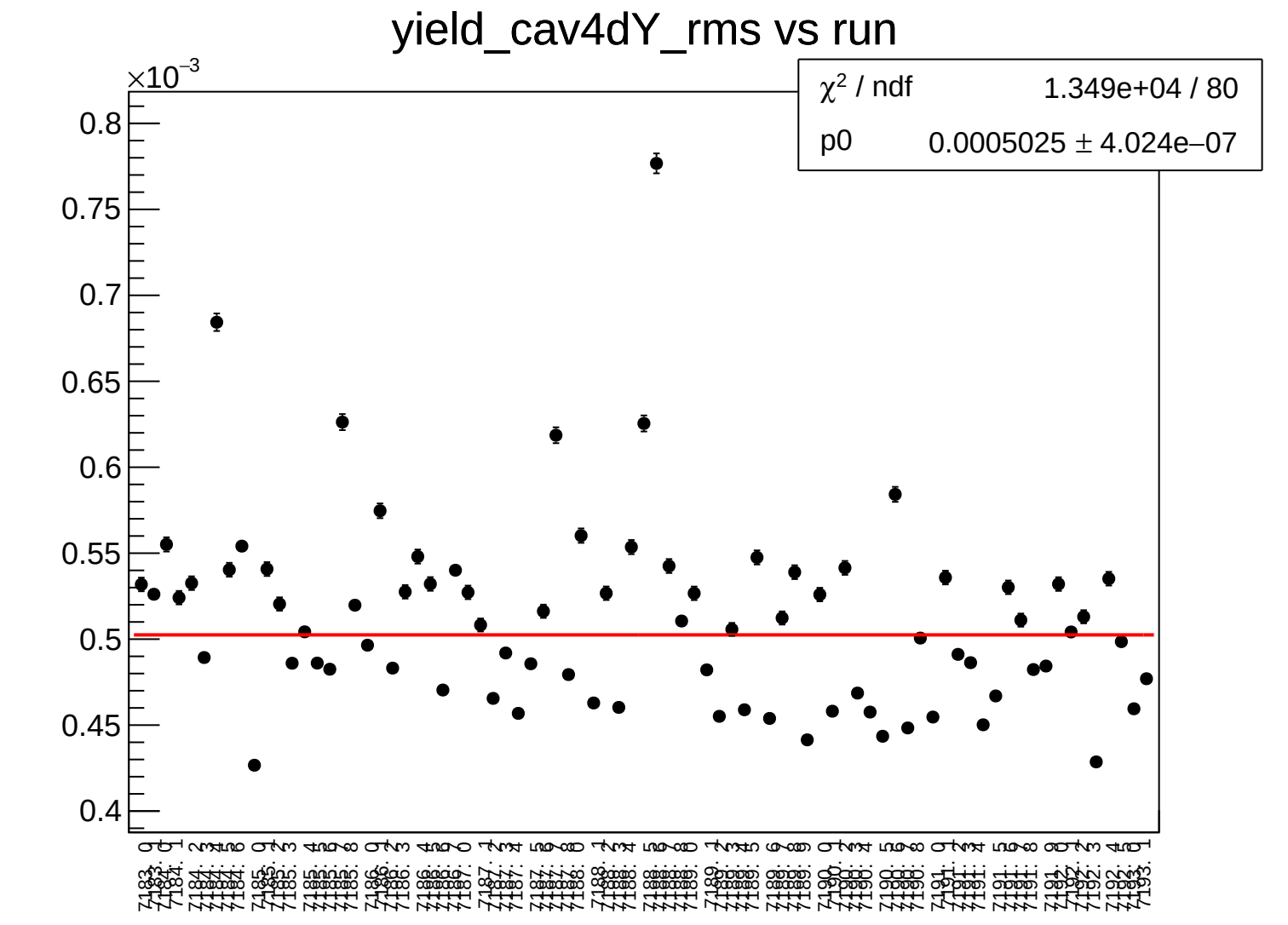

yield_cav4dX_mean vs run
χ² / ndf 3.016e+05 / 80
p0 0.05457 ± 1.03e−05
0.075
0.07
0.065
0.06
0.055
0.05
0.045
pull
Entries 81
Mean 26.59
Std Dev 9.877
150
100
50
0
−50
−100
−150

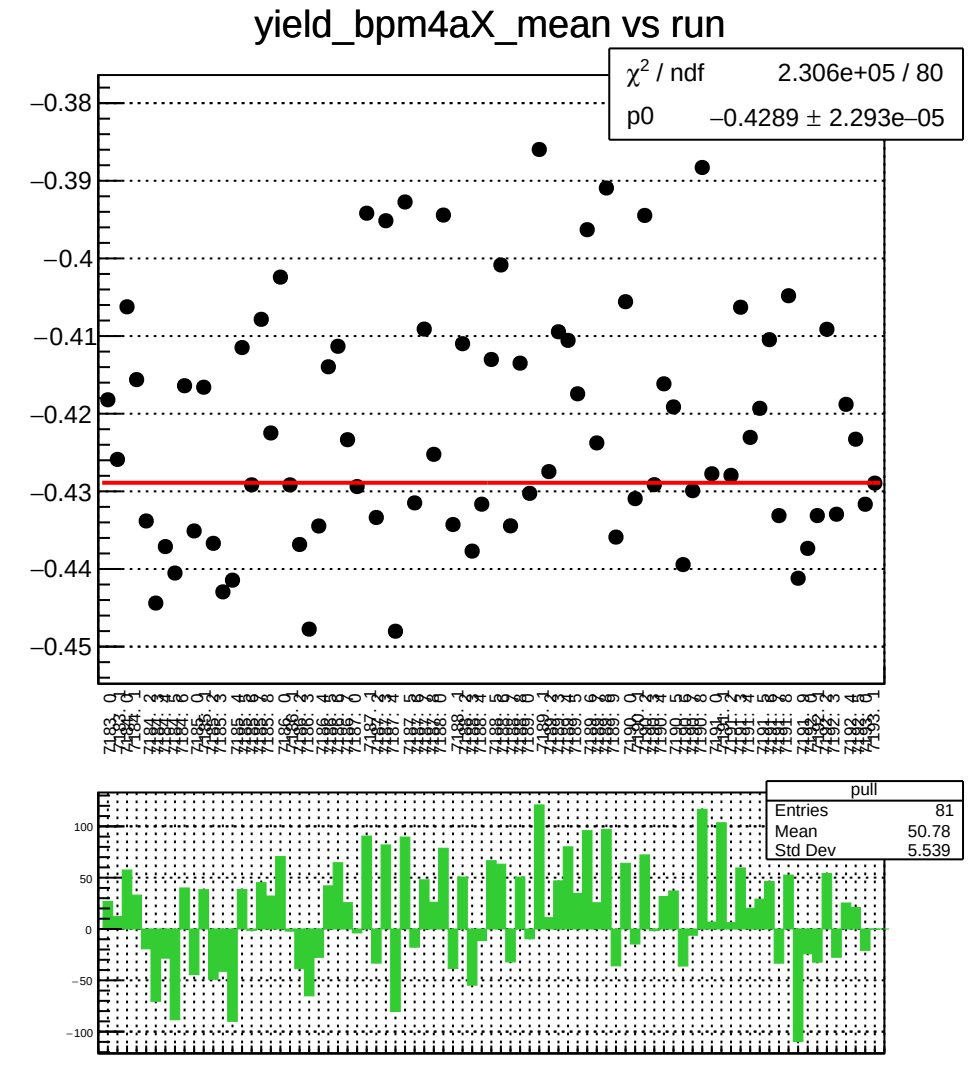

pull1D
Entries 81
Mean 0.6714
Std Dev 5.209
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

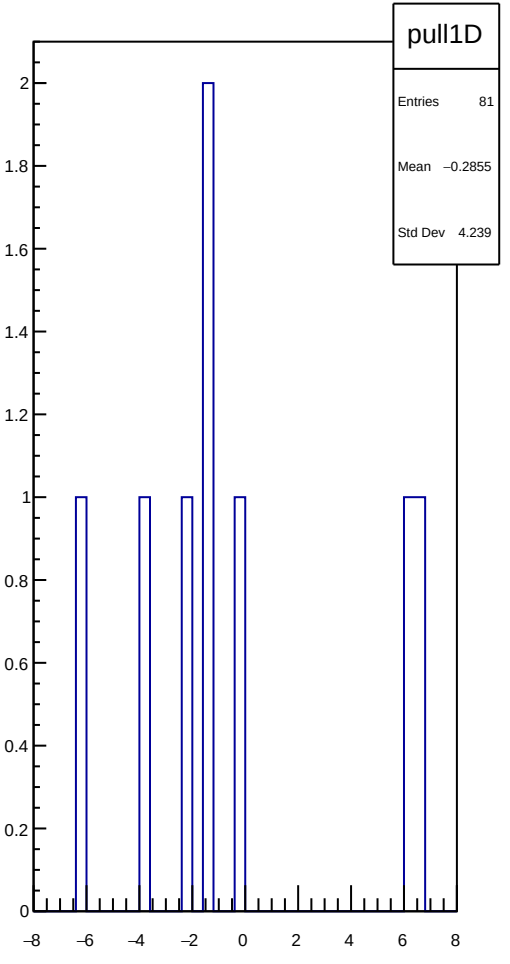

yield_cav4dX_rms vs run
χ² / ndf 2.398e+05 / 80
p0 0.008408 ± 7.283e−06
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004

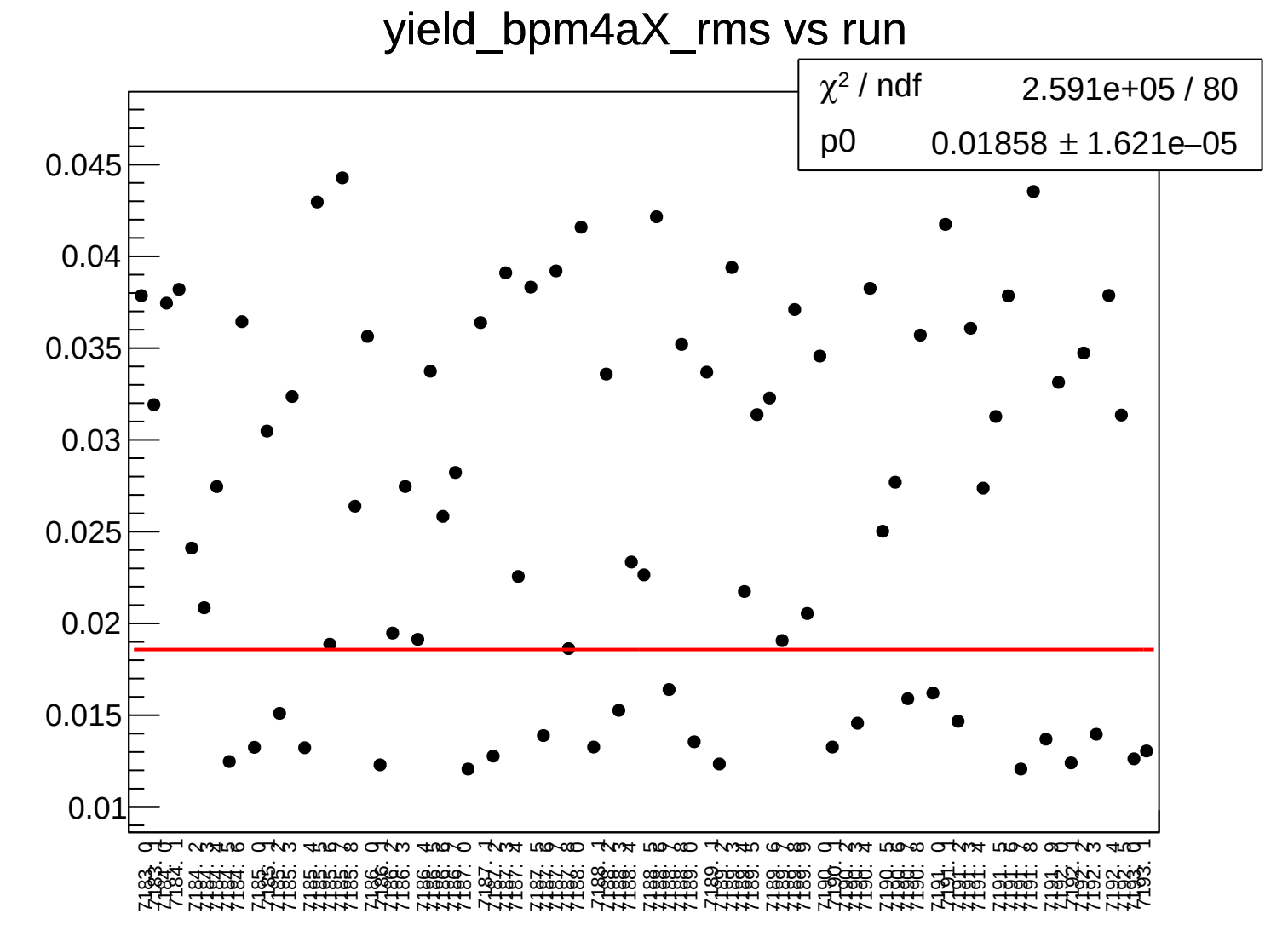

yield_cav4dY_mean vs run
χ² / ndf 2.84e+05 / 80
p0 −0.07636 ± 5.691e−07
−0.0756
−0.0758
−0.076
−0.0762
−0.0764
−0.0766
−0.0768
−0.077
−0.0772
−0.0774
pull
Entries 81
Mean 8052
Std Dev 8009
100
50
0
−50
−100
−150
−200
−250

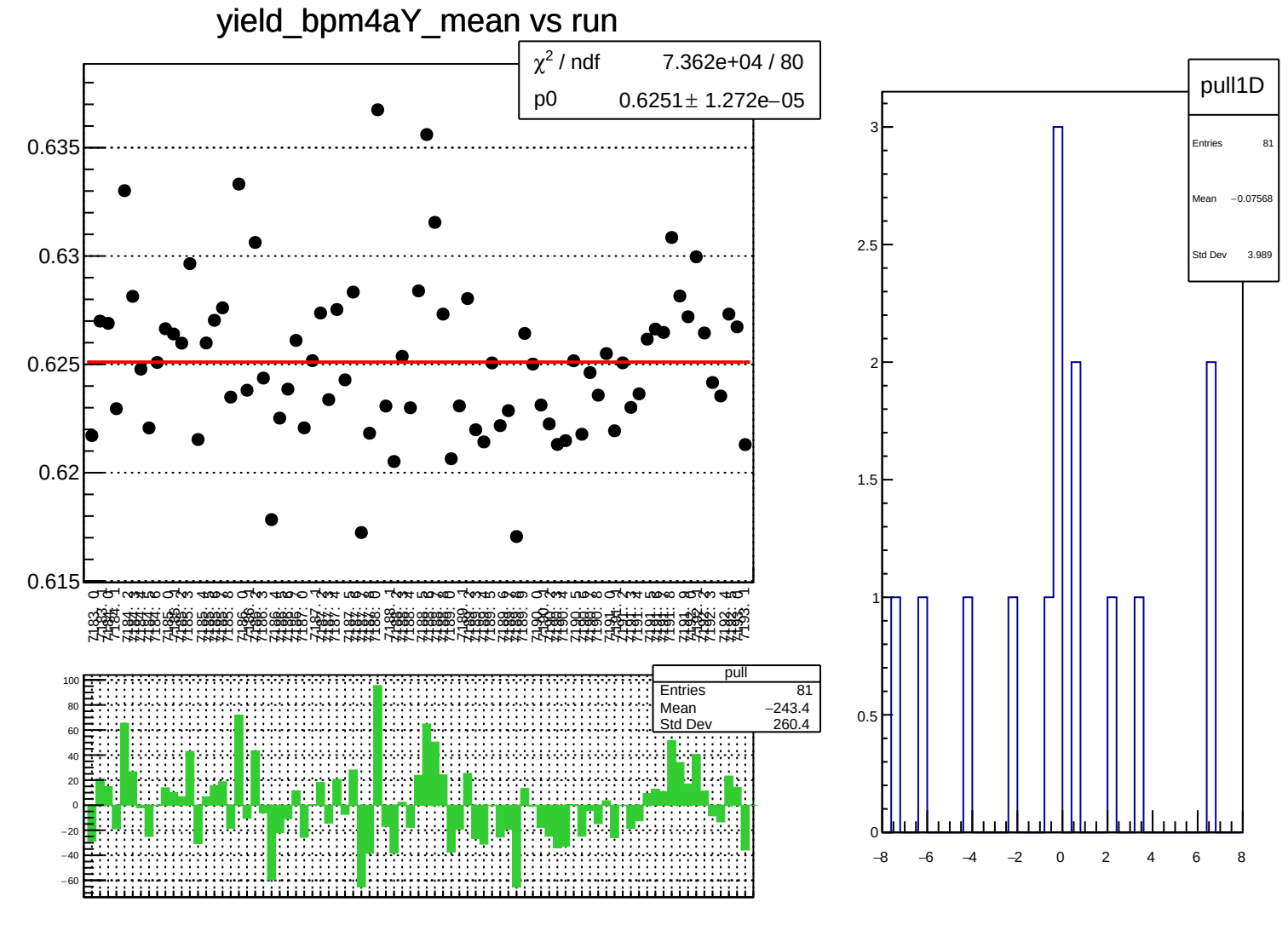

pull1D
Entries 81
Mean −0.2658
Std Dev 3.989
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

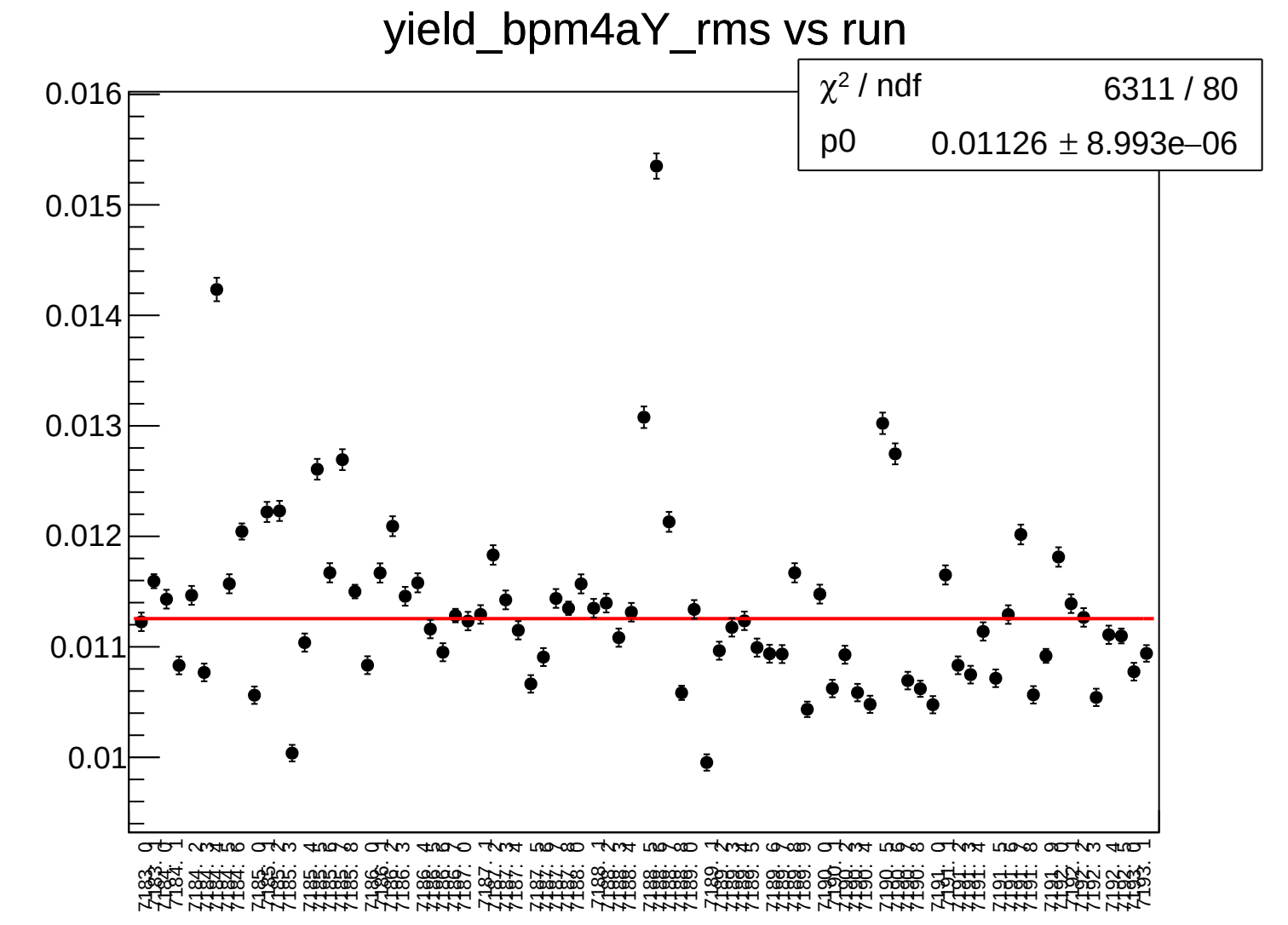

yield_cav4dY_rms vs run
×10⁻³
χ² / ndf 1.349e+04 / 80
p0 0.0005025 ± 4.024e−07
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4

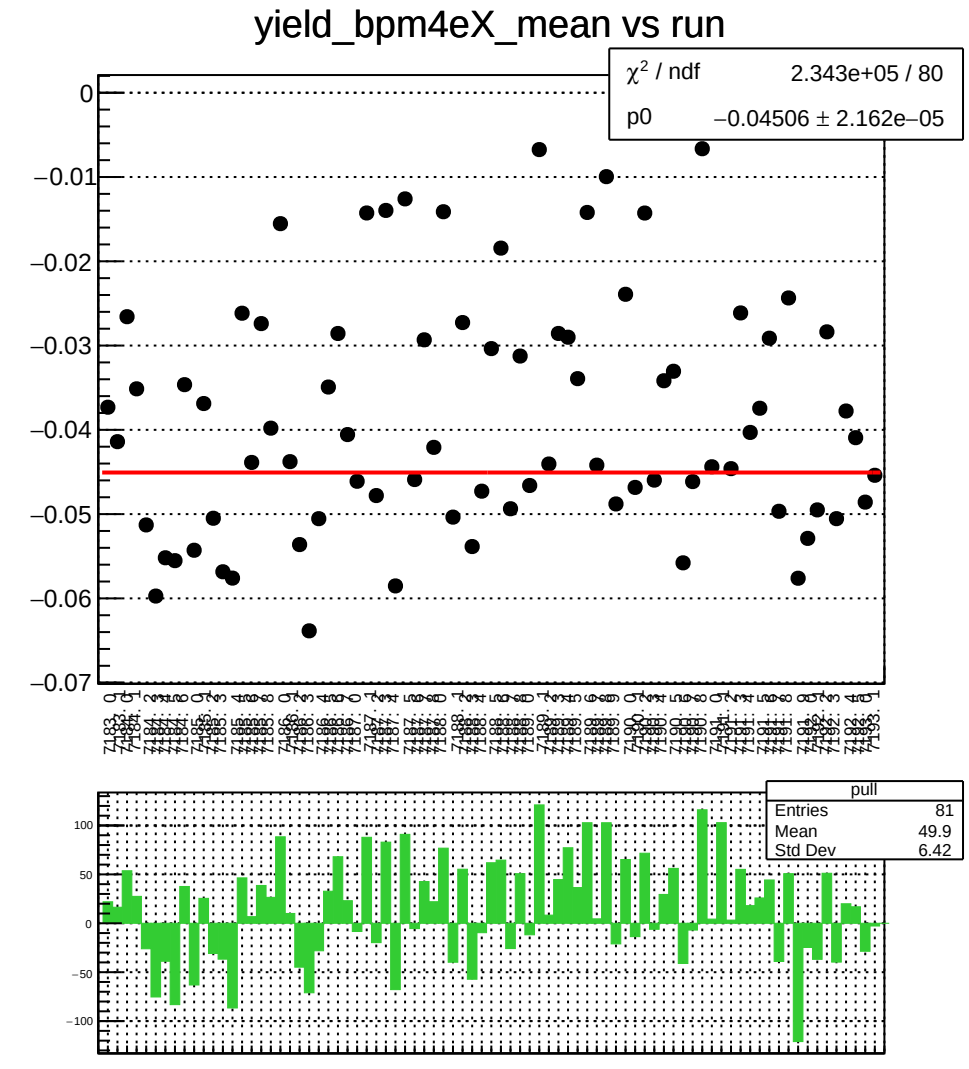

yield_bpm4aX_mean vs run
χ² / ndf 2.306e+05 / 80
p0 −0.4289 ± 2.293e−05
−0.38
−0.39
−0.4
−0.41
−0.42
−0.43
−0.44
−0.45
pull
Entries 81
Mean 50.78
Std Dev 5.539
100
50
0
−50
−100

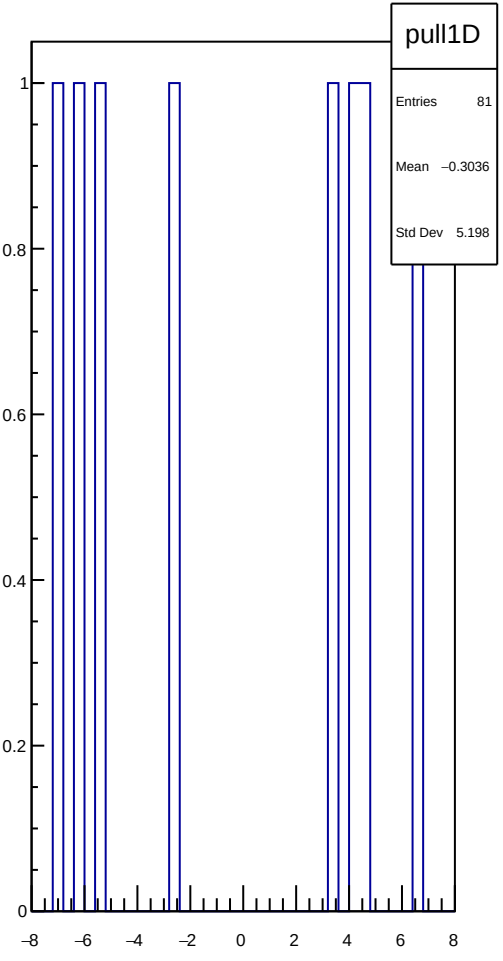

pull1D
Entries 81
Mean −0.2855
Std Dev 4.239
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

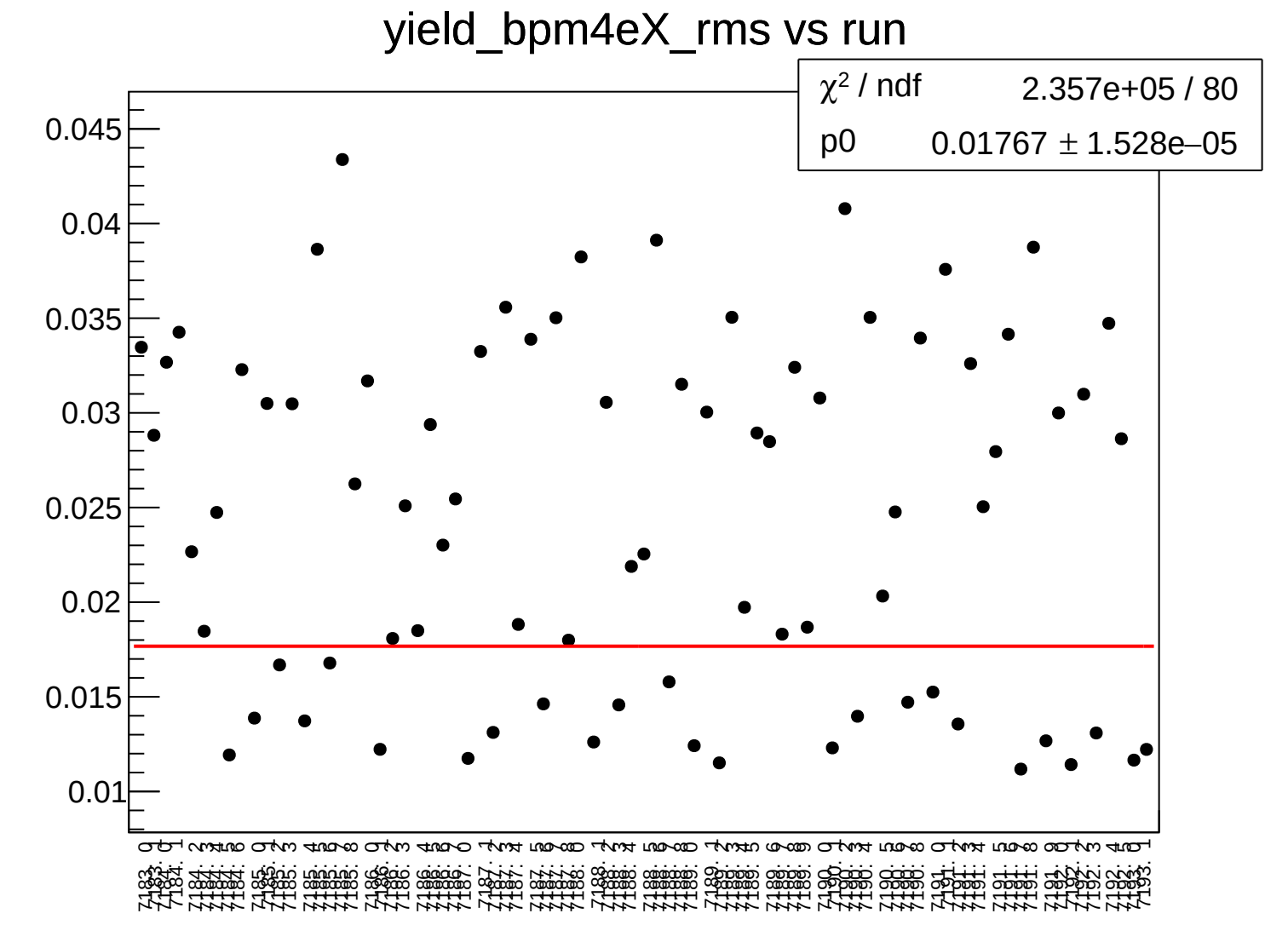

yield_bpm4aX_rms vs run
χ² / ndf 2.591e+05 / 80
p0 0.01858 ± 1.621e−05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

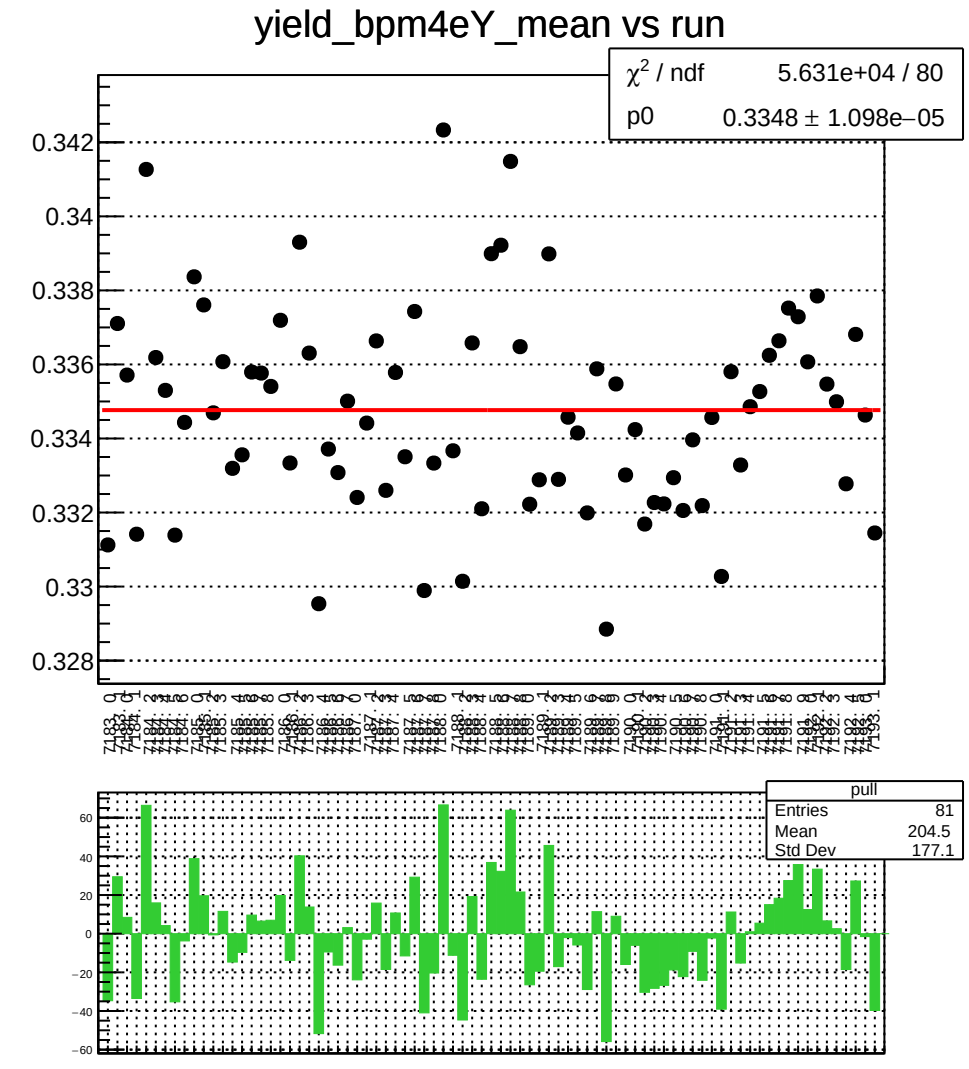

yield_bpm4aY_mean vs run
χ² / ndf 7.362e+04 / 80
p0 0.6251 ± 1.272e−05
0.635
0.63
0.625
0.62
0.615
pull
Entries 81
Mean −243.4
Std Dev 260.4
100
80
60
40
20
0
−20
−40
−60
pull1D
Entries 81
Mean −0.07568
Std Dev 3.989
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

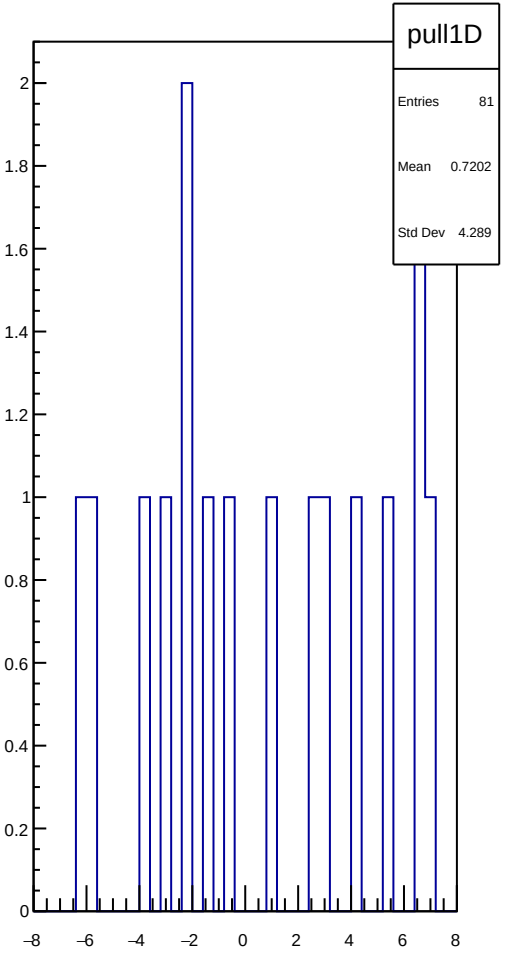

yield_bpm4aY_rms vs run
χ² / ndf 6311 / 80
p0 0.01126 ± 8.993e–06
0.016
0.015
0.014
0.013
0.012
0.011
0.01

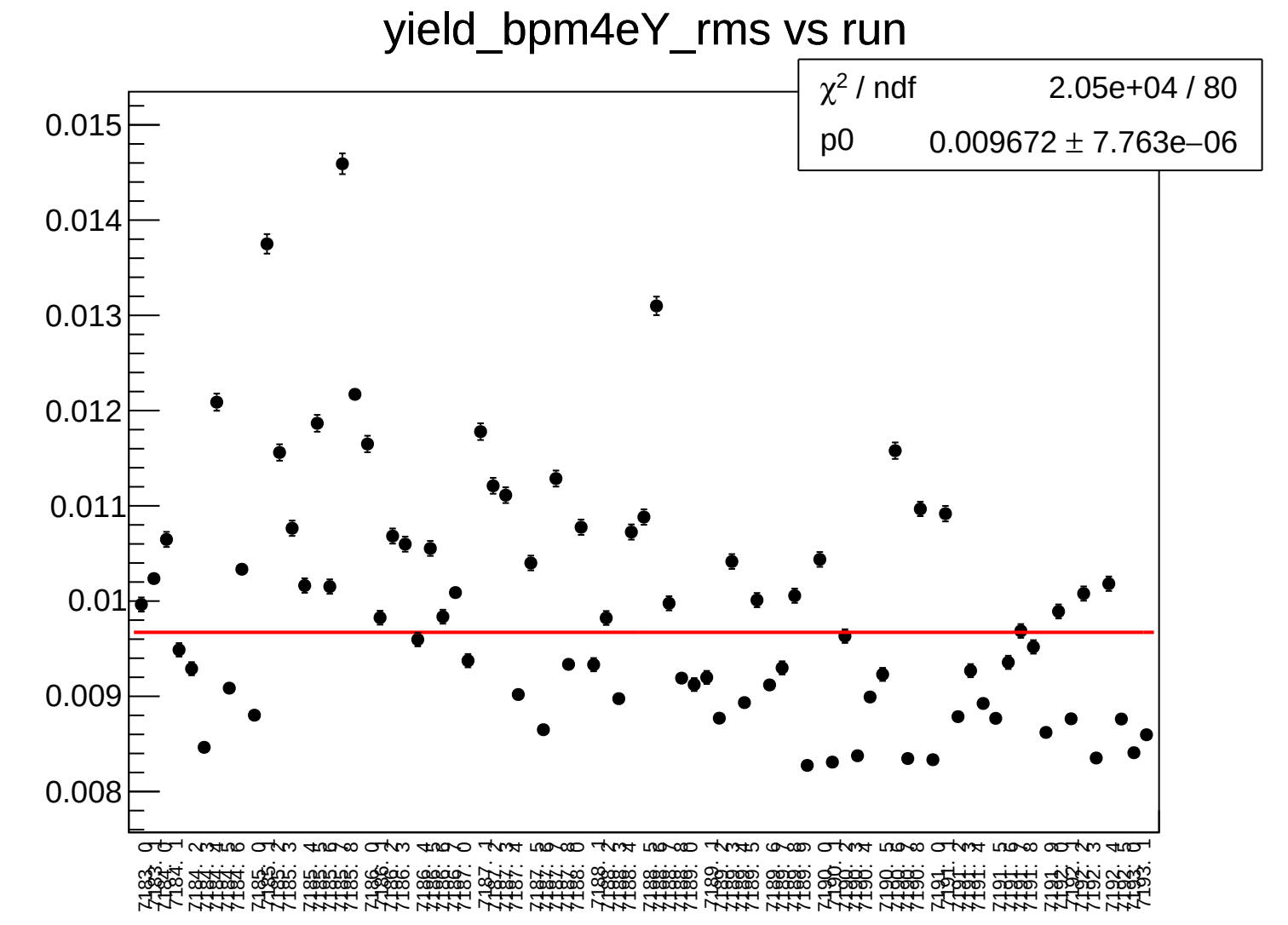

yield_bpm4eX_mean vs run
χ² / ndf 2.343e+05 / 80
p0 −0.04506 ± 2.162e−05
pull
Entries 81
Mean 49.9
Std Dev 6.42

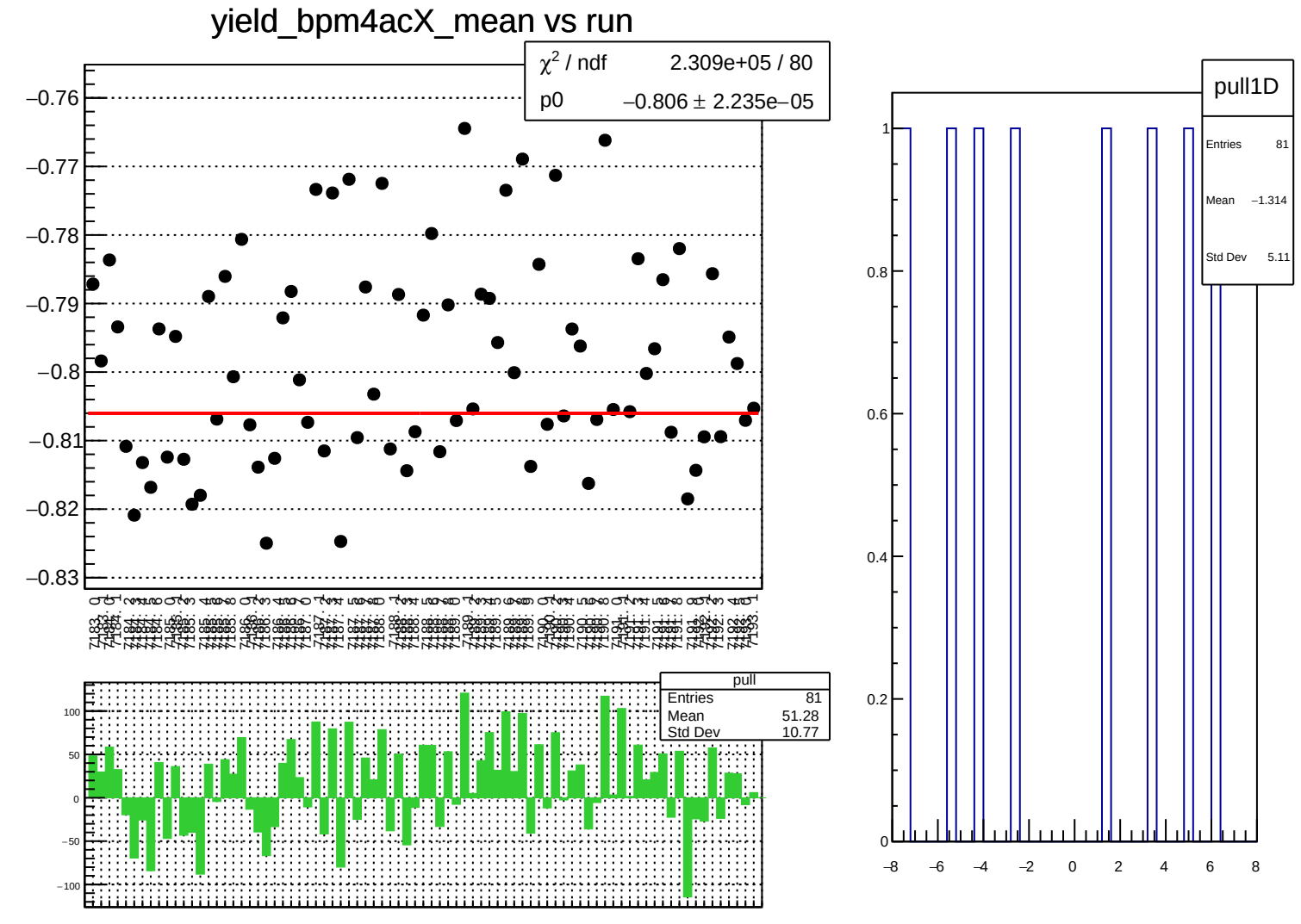

pull1D
Entries 81
Mean −0.3036
Std Dev 5.198

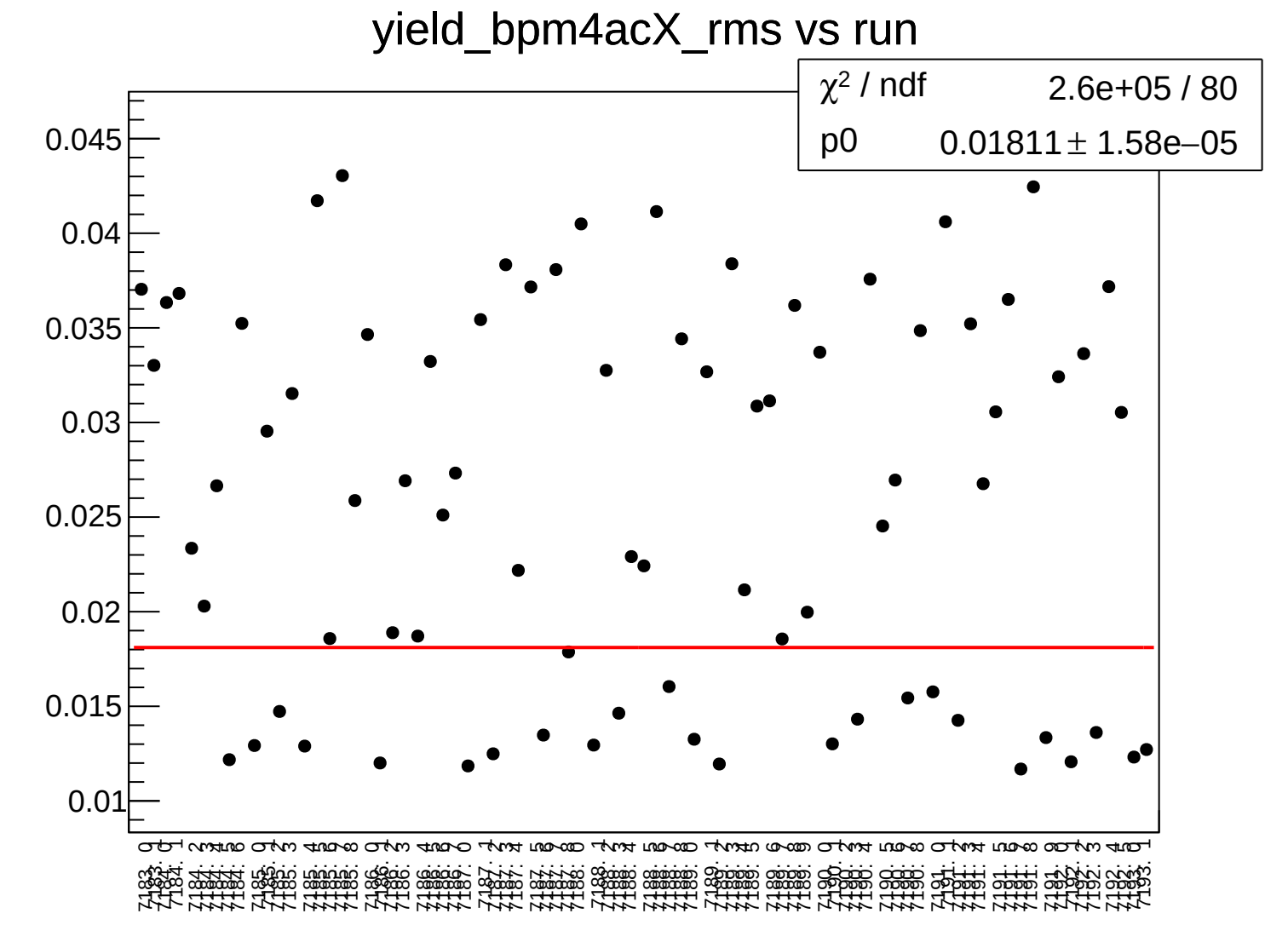

yield_bpm4eX_rms vs run
χ² / ndf 2.357e+05 / 80
p0 0.01767 ± 1.528e–05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

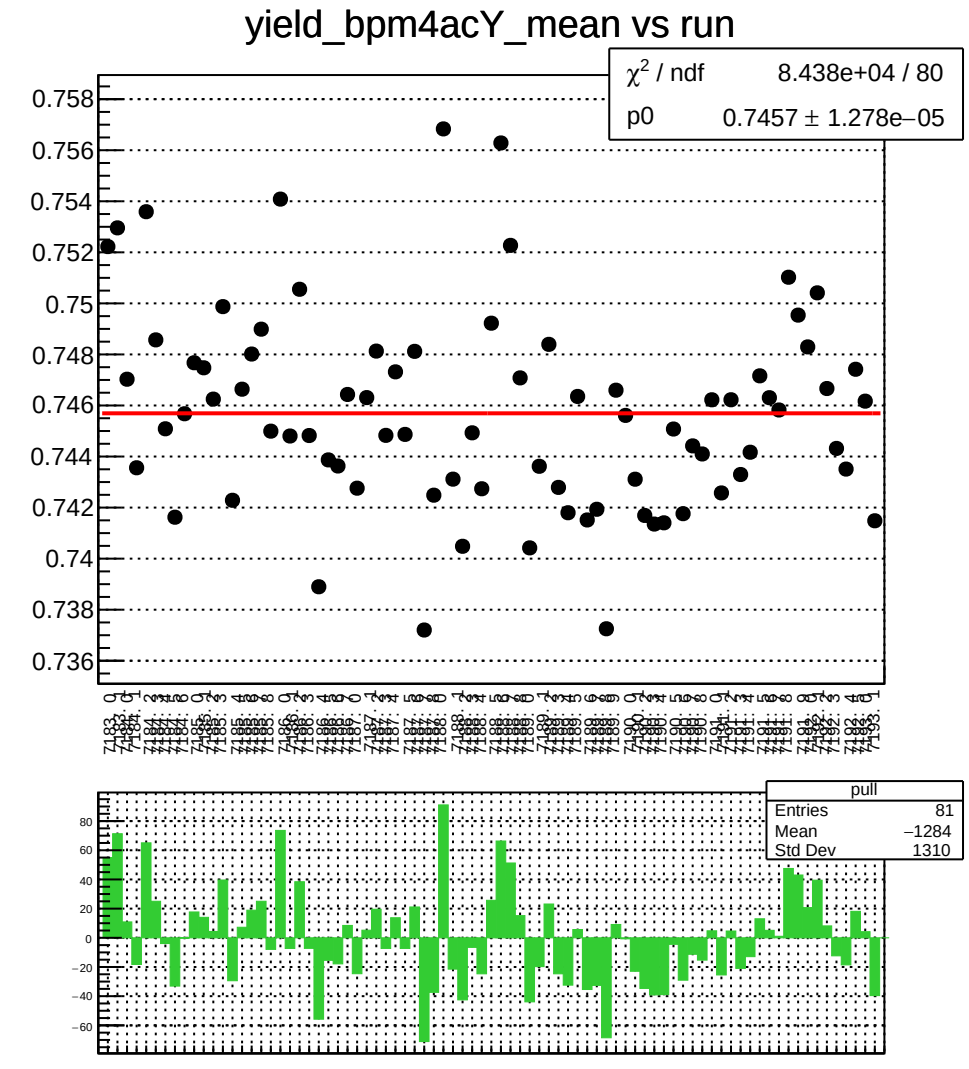

yield_bpm4eY_mean vs run
χ² / ndf 5.631e+04 / 80
p0 0.3348 ± 1.098e−05
0.342
0.34
0.338
0.336
0.334
0.332
0.33
0.328
pull
Entries 81
Mean 204.5
Std Dev 177.1
60
40
20
0
−20
−40
−60

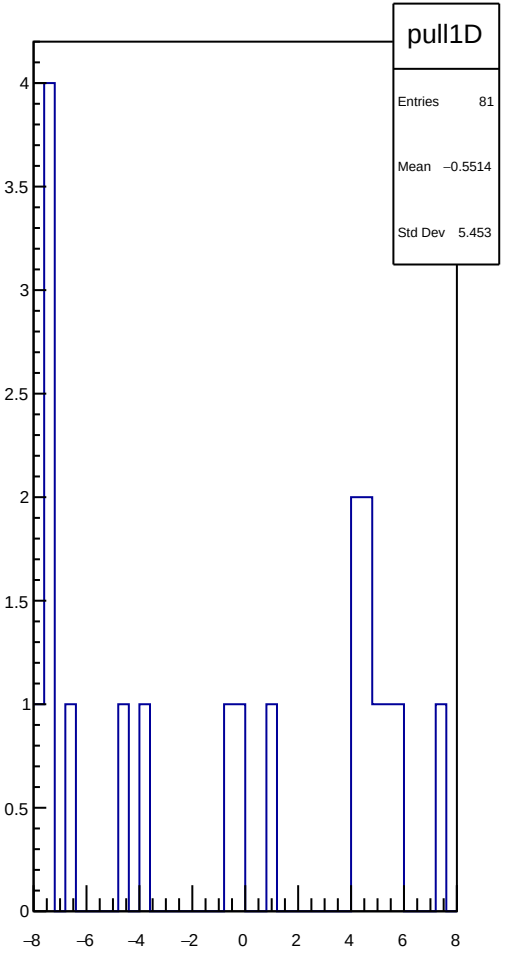

pull1D
Entries 81
Mean 0.7202
Std Dev 4.289
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

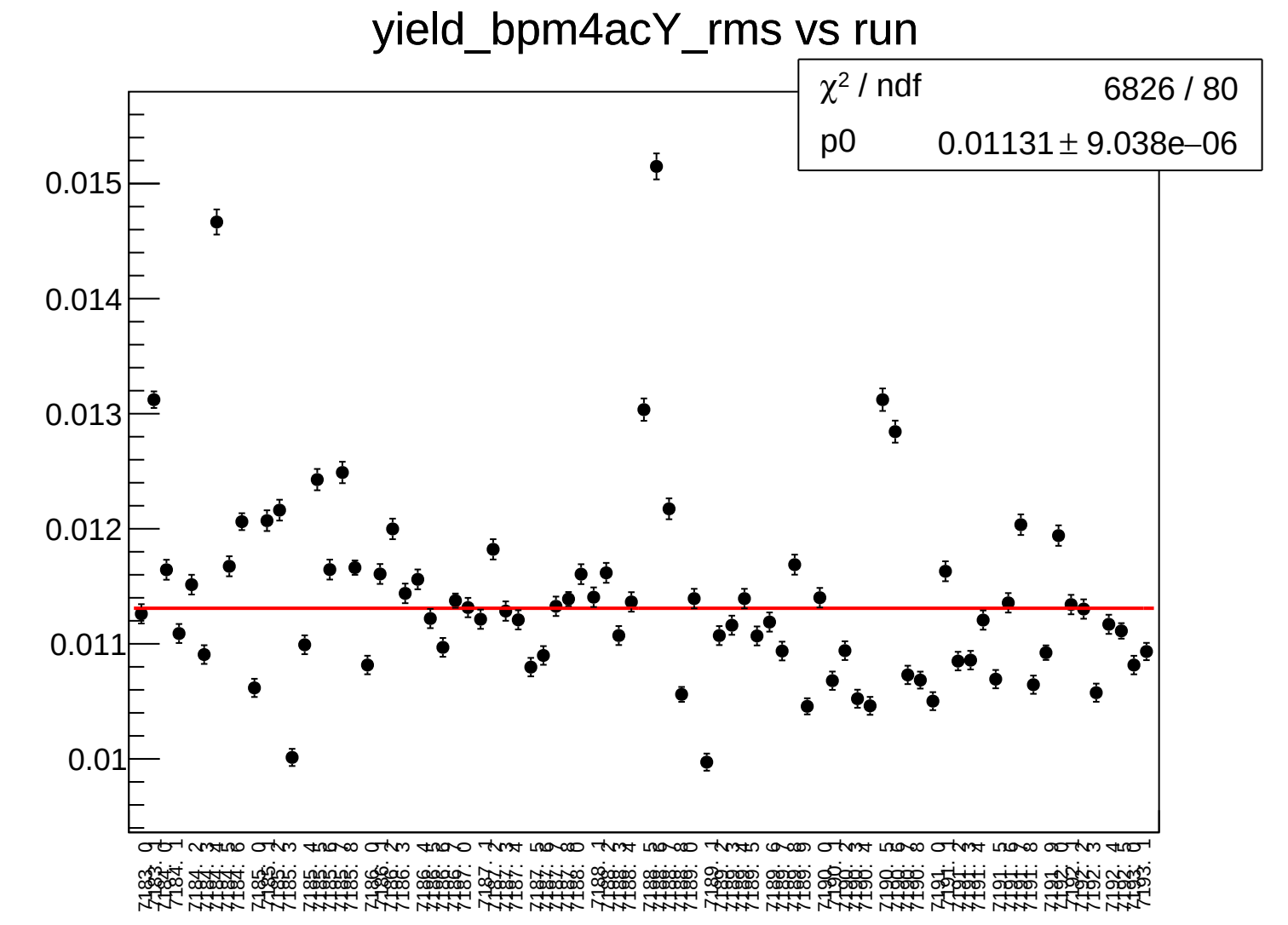

yield_bpm4eY_rms vs run
χ² / ndf 2.05e+04 / 80
p0 0.009672 ± 7.763e−06
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008

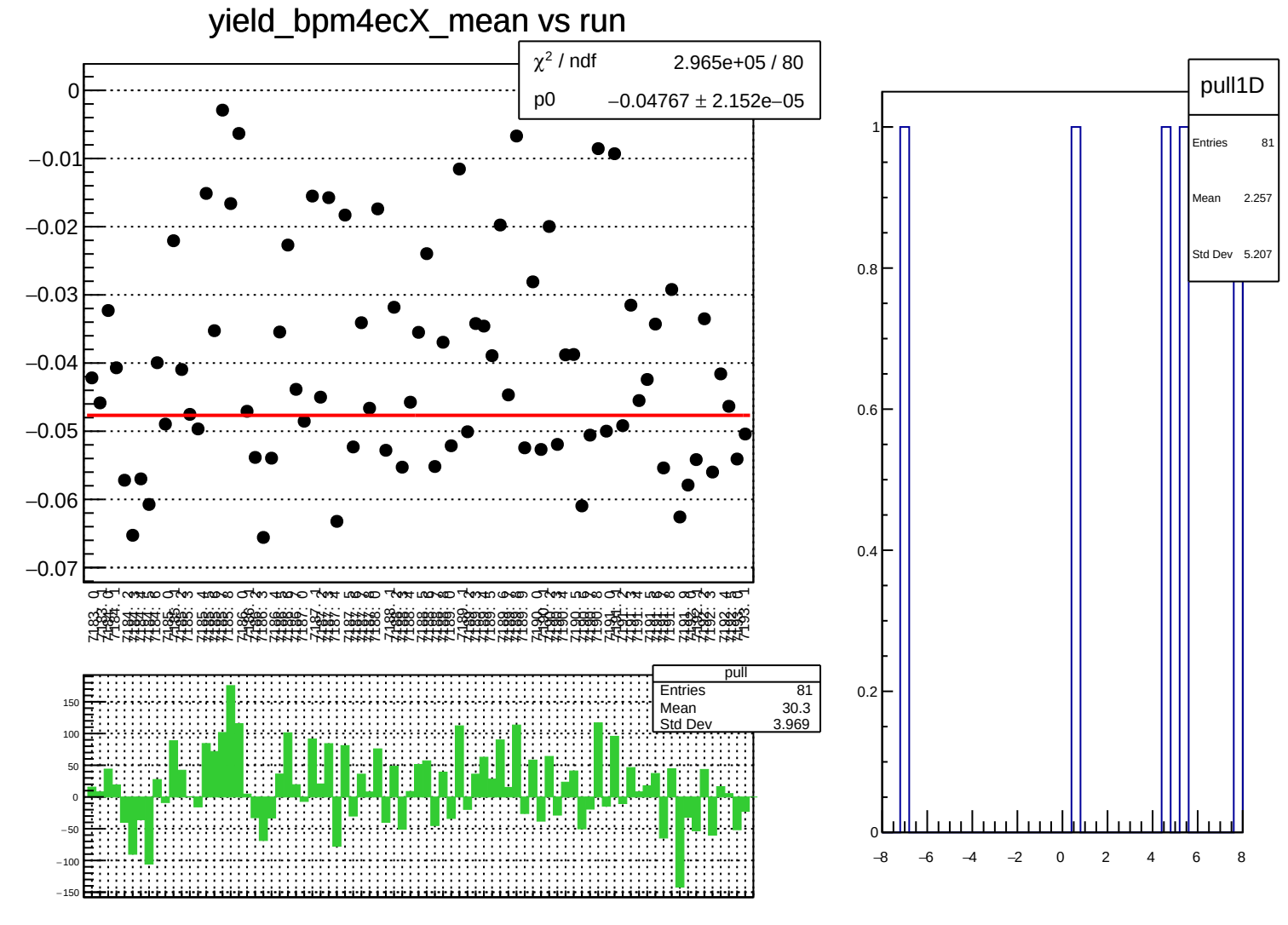

yield_bpm4acX_mean vs run
χ² / ndf 2.309e+05 / 80
p0 −0.806 ± 2.235e−05
−0.76
−0.77
−0.78
−0.79
−0.8
−0.81
−0.82
−0.83
pull
Entries 81
Mean 51.28
Std Dev 10.77
100
50
0
−50
−100
pull1D
Entries 81
Mean −1.314
Std Dev 5.11
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

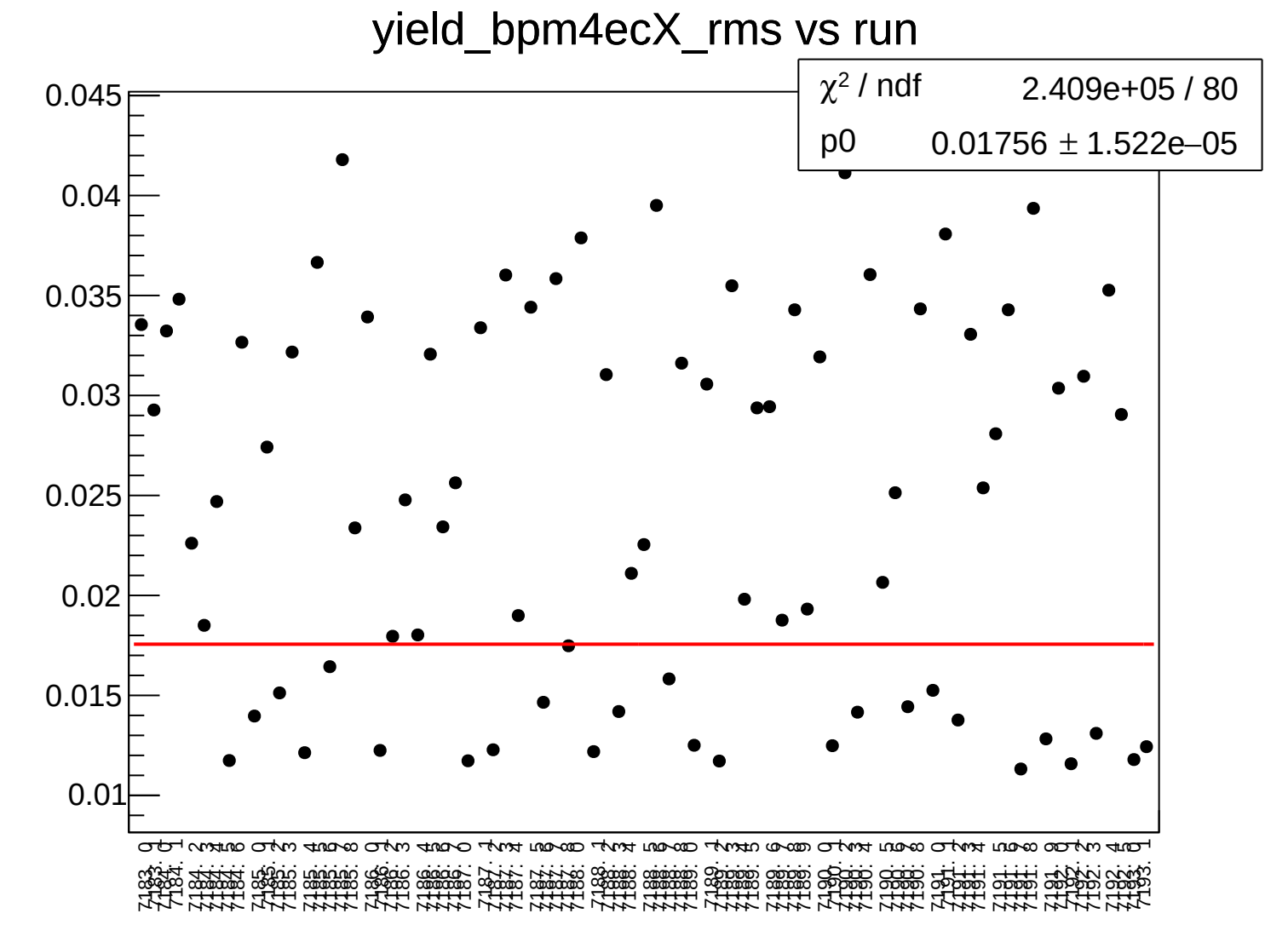

yield_bpm4acX_rms vs run
χ² / ndf 2.6e+05 / 80
p0 0.01811 ± 1.58e−05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

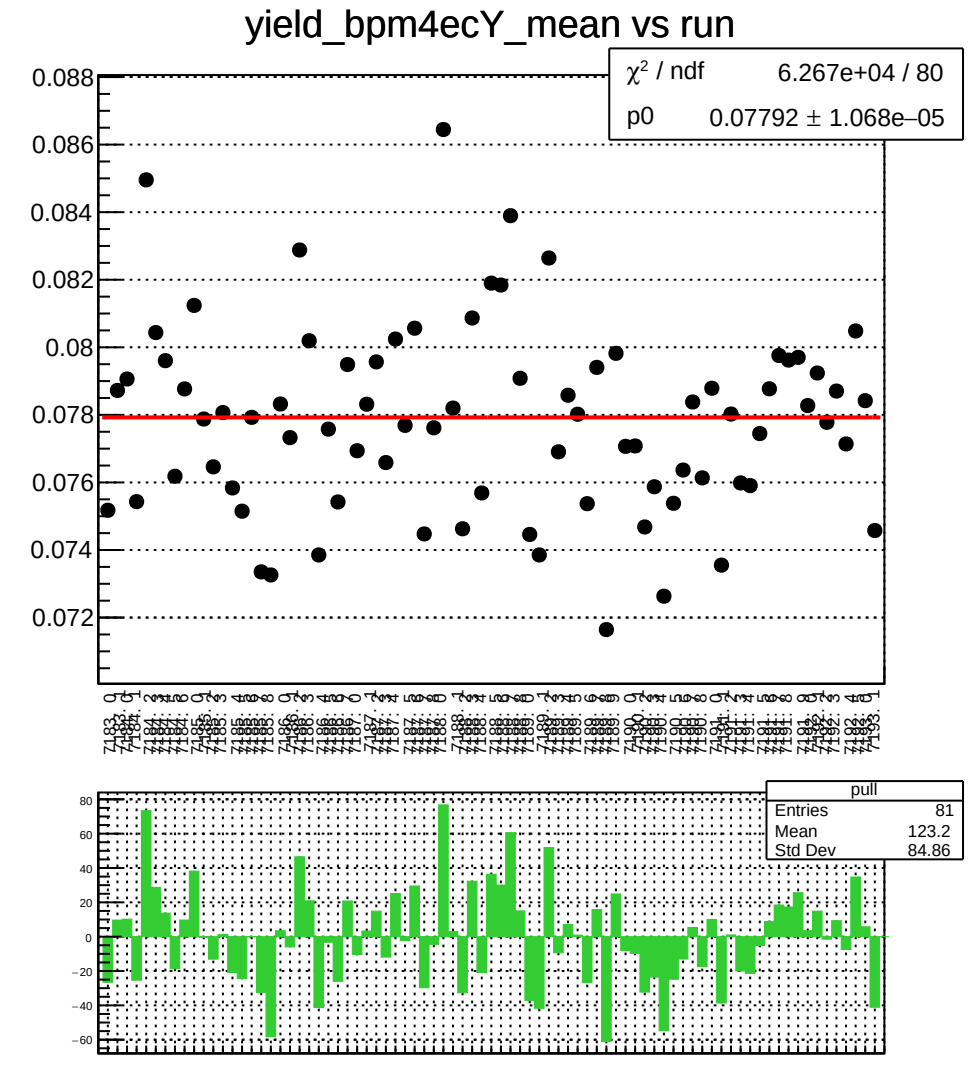

yield_bpm4acY_mean vs run
χ² / ndf 8.438e+04 / 80
p0 0.7457 ± 1.278e−05
0.758
0.756
0.754
0.752
0.75
0.748
0.746
0.744
0.742
0.74
0.738
0.736
pull
Entries 81
Mean −1284
Std Dev 1310
80
60
40
20
0
−20
−40
−60

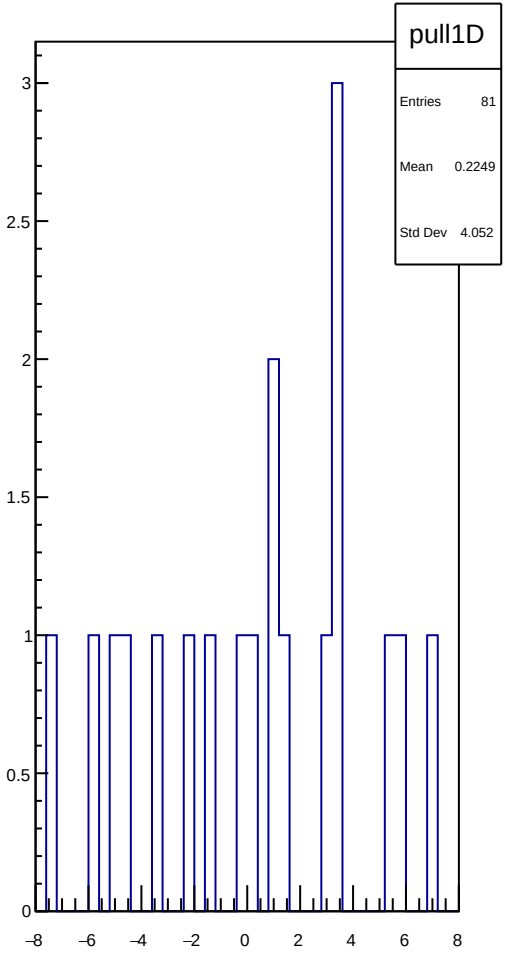

pull1D
Entries 81
Mean −0.5514
Std Dev 5.453
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

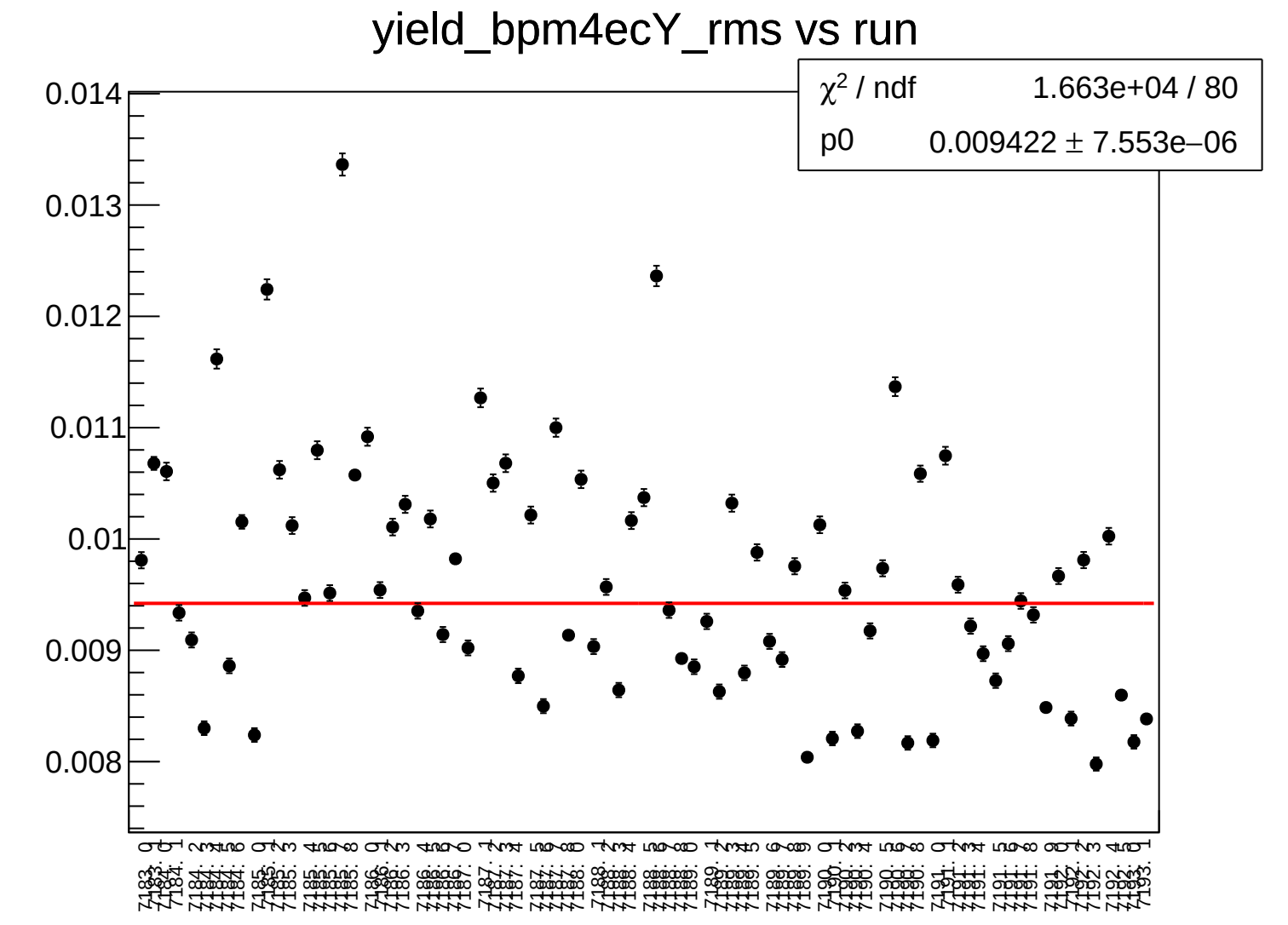

yield_bpm4acY_rms vs run
χ² / ndf 6826 / 80
p0 0.01131 ± 9.038e–06
0.015
0.014
0.013
0.012
0.011
0.01

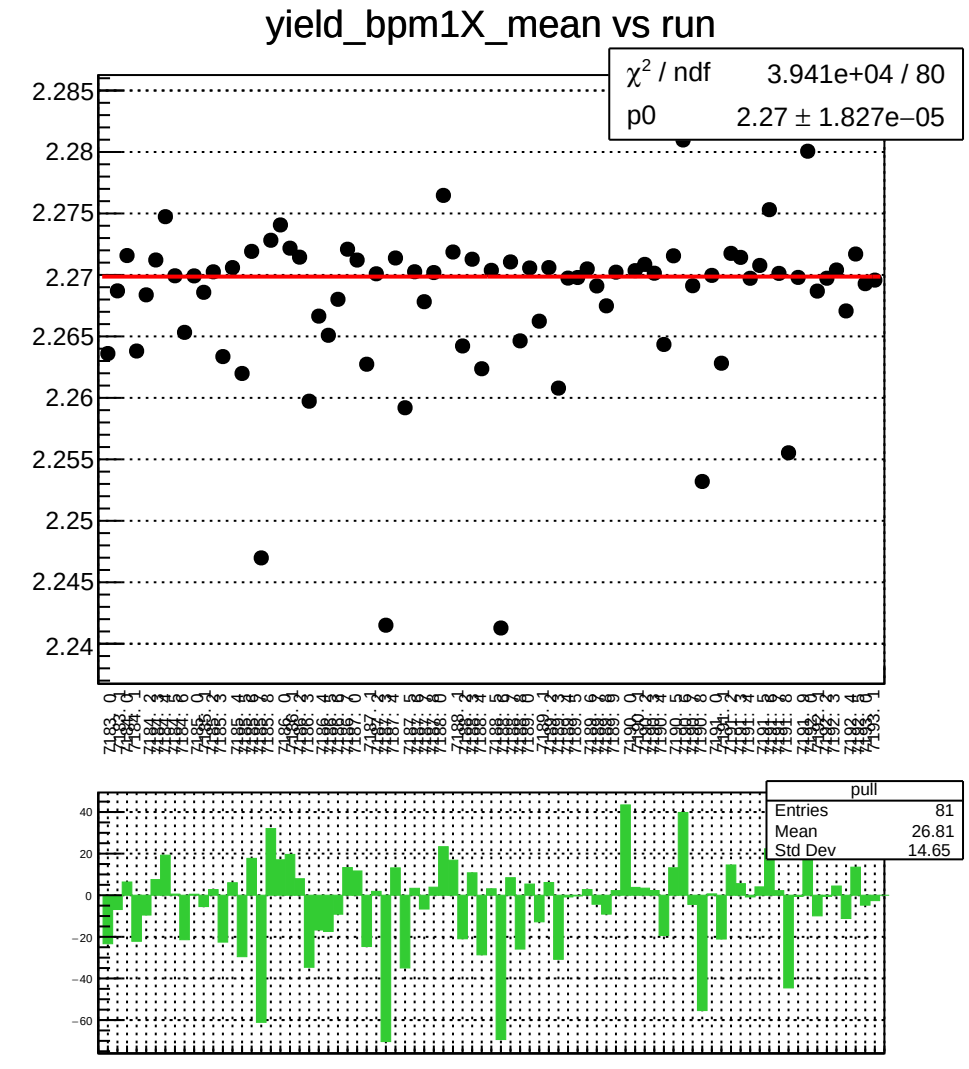

yield_bpm4ecX_mean vs run
χ² / ndf 2.965e+05 / 80
p0 −0.04767 ± 2.152e−05
0
−0.01
−0.02
−0.03
−0.04
−0.05
−0.06
−0.07
pull
Entries 81
Mean 30.3
Std Dev 3.969
150
100
50
0
−50
−100
−150
pull1D
Entries 81
Mean 2.257
Std Dev 5.207
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

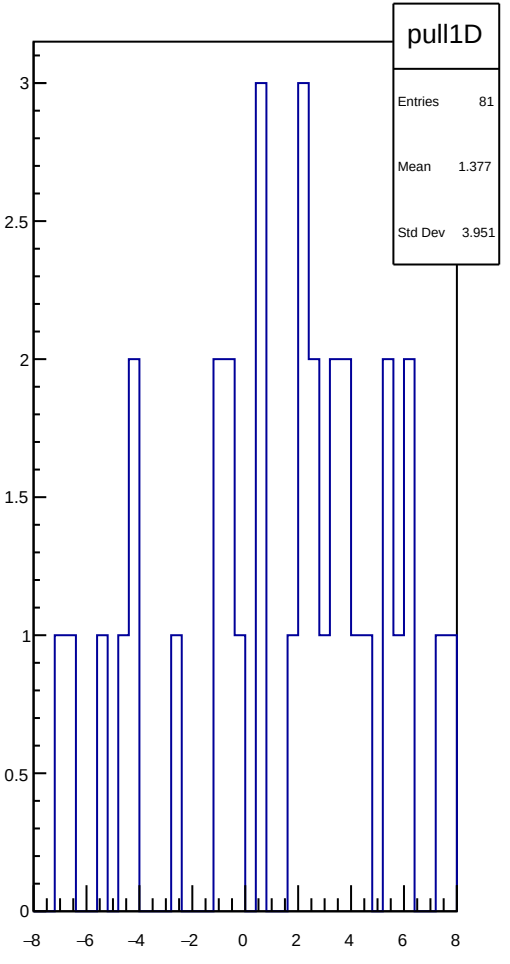

yield_bpm4ecX_rms vs run
χ² / ndf 2.409e+05 / 80
p0 0.01756 ± 1.522e−05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01

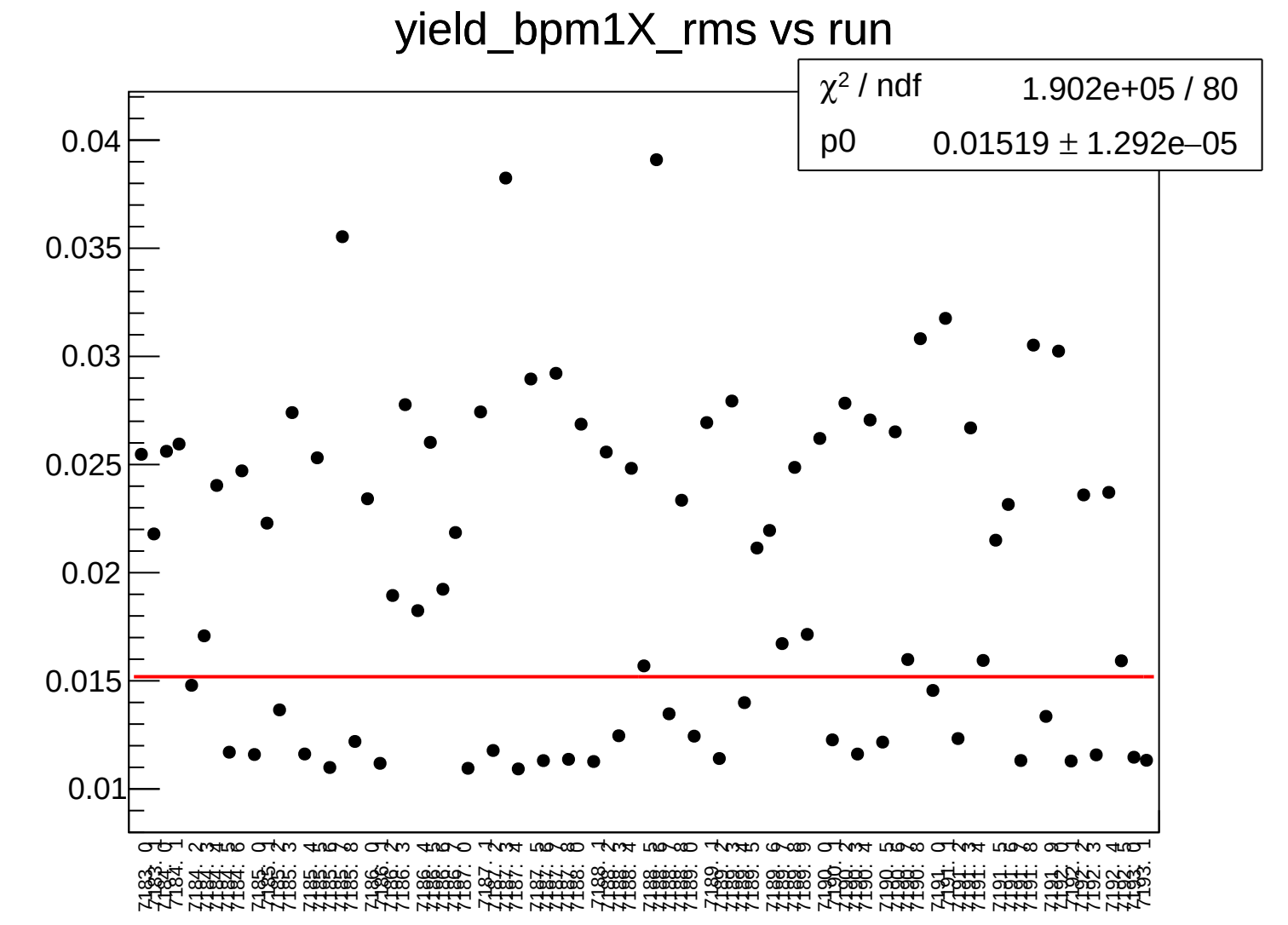

yield_bpm4ecY_mean vs run
χ² / ndf 6.267e+04 / 80
p0 0.07792 ± 1.068e−05
0.088
0.086
0.084
0.082
0.08
0.078
0.076
0.074
0.072
pull
Entries 81
Mean 123.2
Std Dev 84.86
80
60
40
20
0
−20
−40
−60

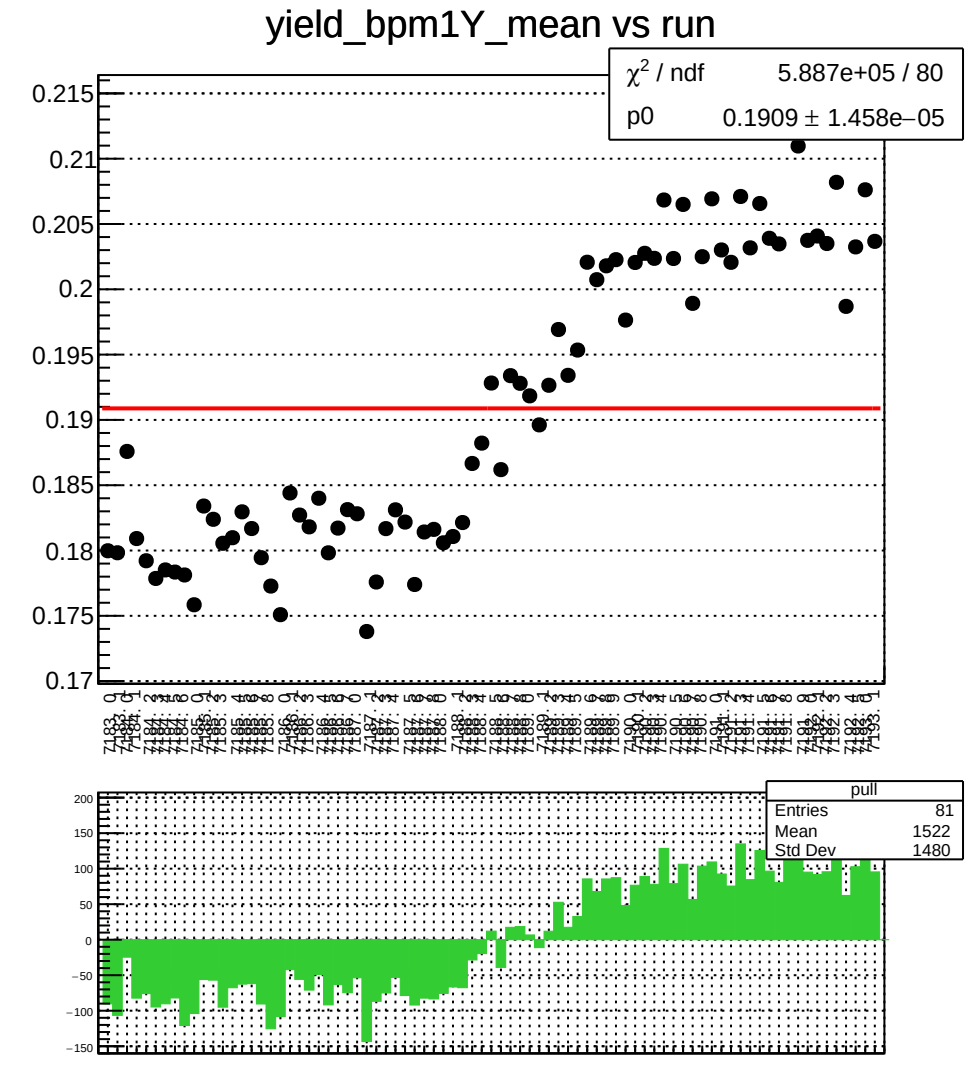

pull1D
Entries 81
Mean 0.2249
Std Dev 4.052
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

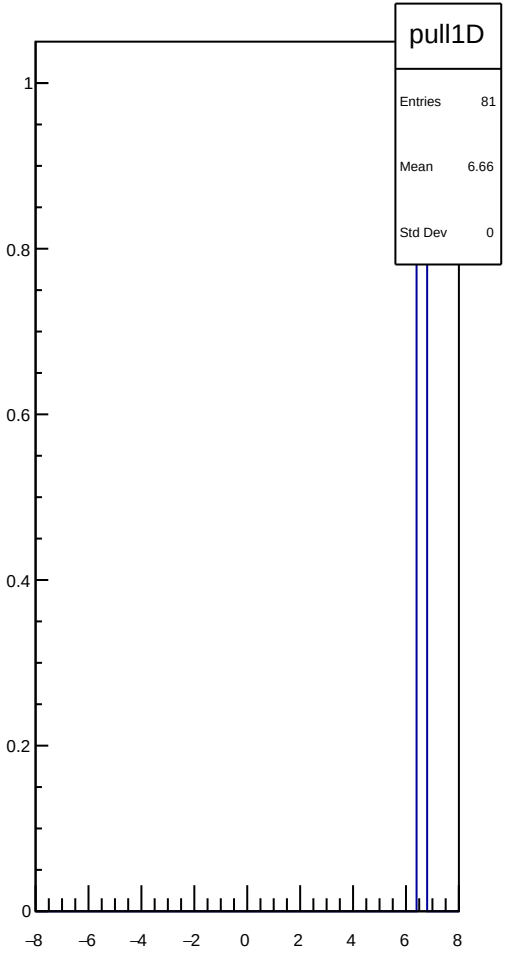

yield_bpm4ecY_rms vs run
χ² / ndf 1.663e+04 / 80
p0 0.009422 ± 7.553e−06
0.014
0.013
0.012
0.011
0.01
0.009
0.008

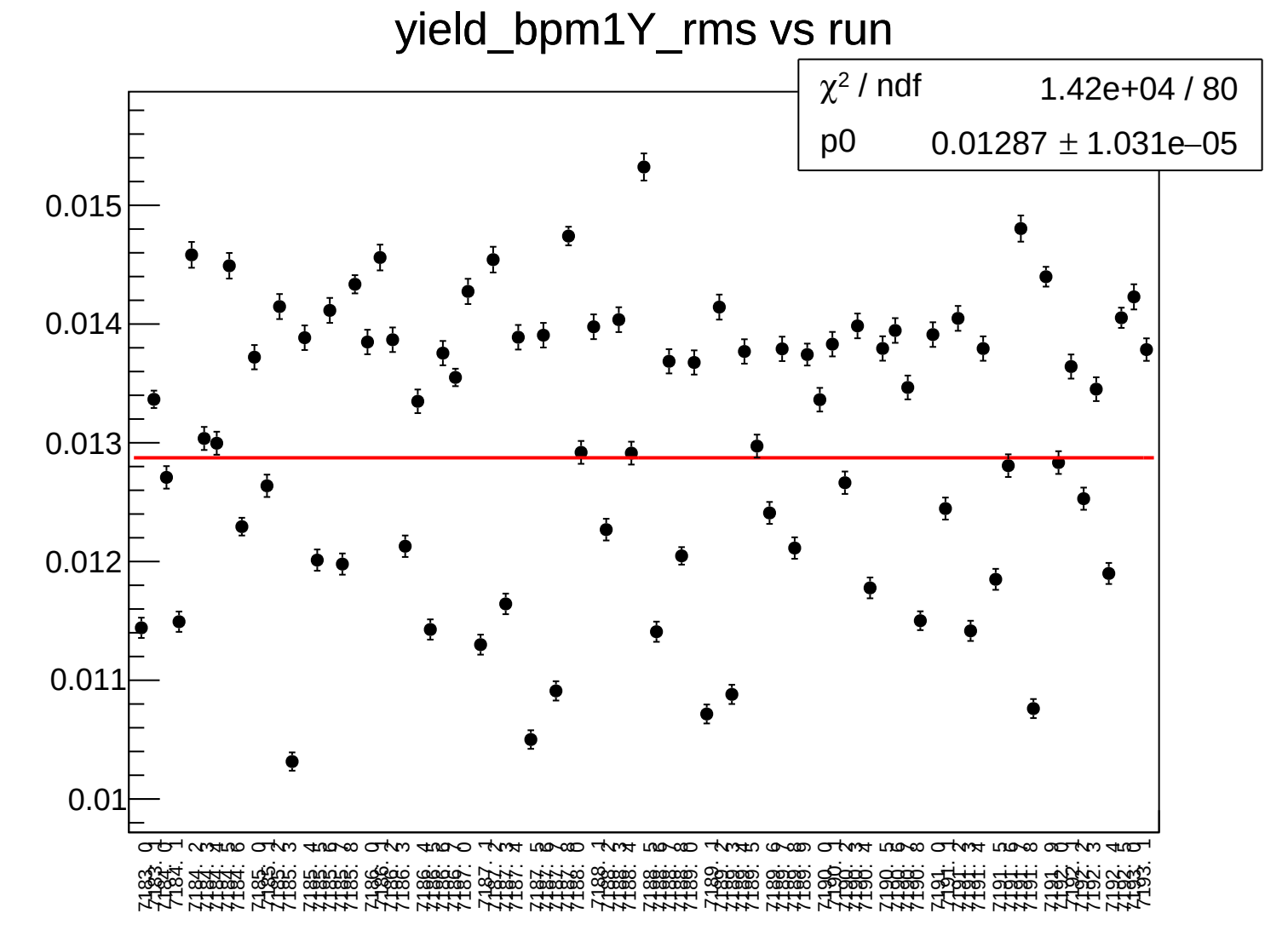

yield_bpm1X_mean vs run
χ² / ndf 3.941e+04 / 80
p0 2.27 ± 1.827e−05
2.285
2.28
2.275
2.27
2.265
2.26
2.255
2.25
2.245
2.24
pull
Entries 81
Mean 26.81
Std Dev 14.65
40
20
0
−20
−40
−60

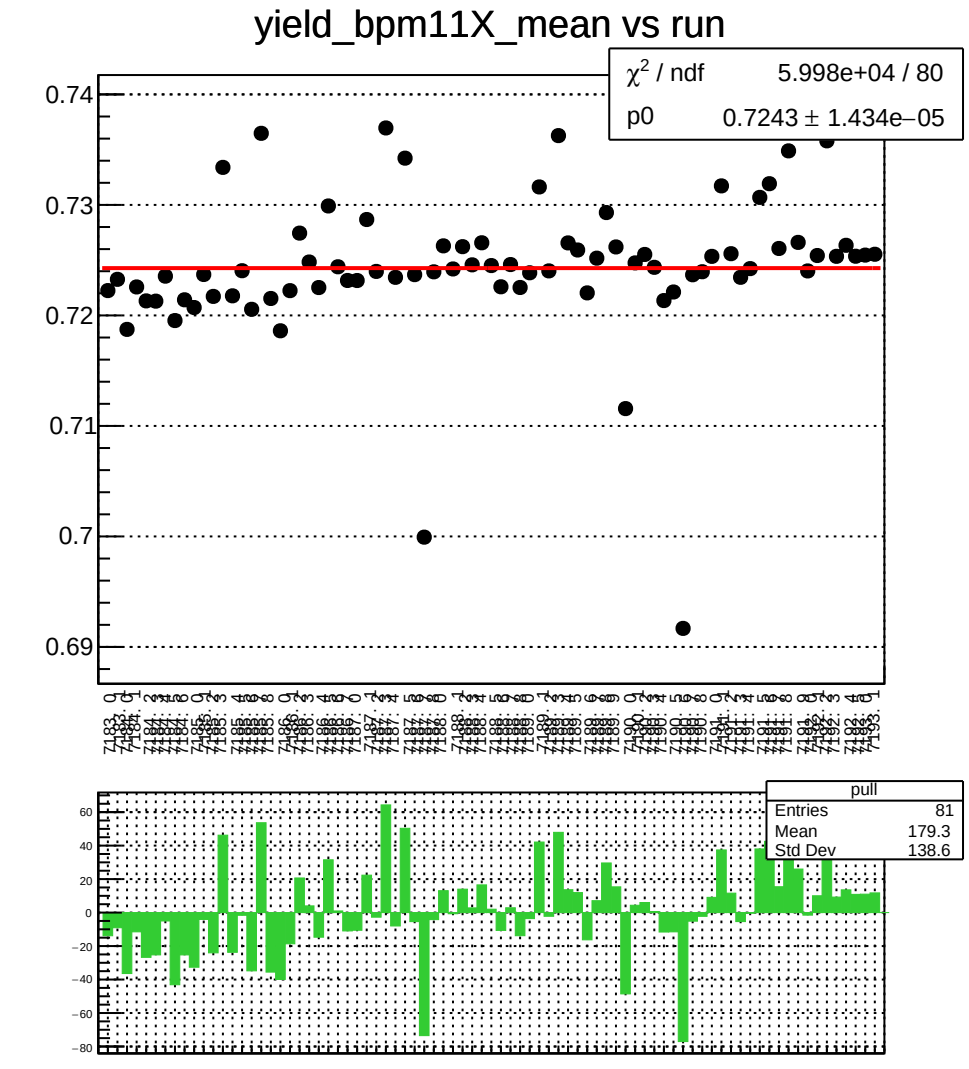

pull1D
Entries 81
Mean 1.377
Std Dev 3.951
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

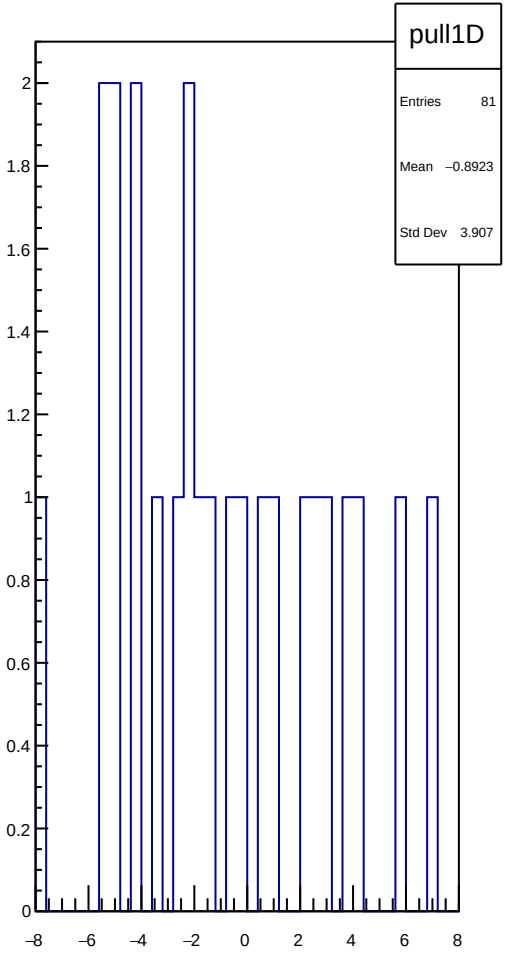

yield_bpm1X_rms vs run
χ² / ndf 1.902e+05 / 80
p0 0.01519 ± 1.292e−05
0.04
0.035
0.03
0.025
0.02
0.015
0.01

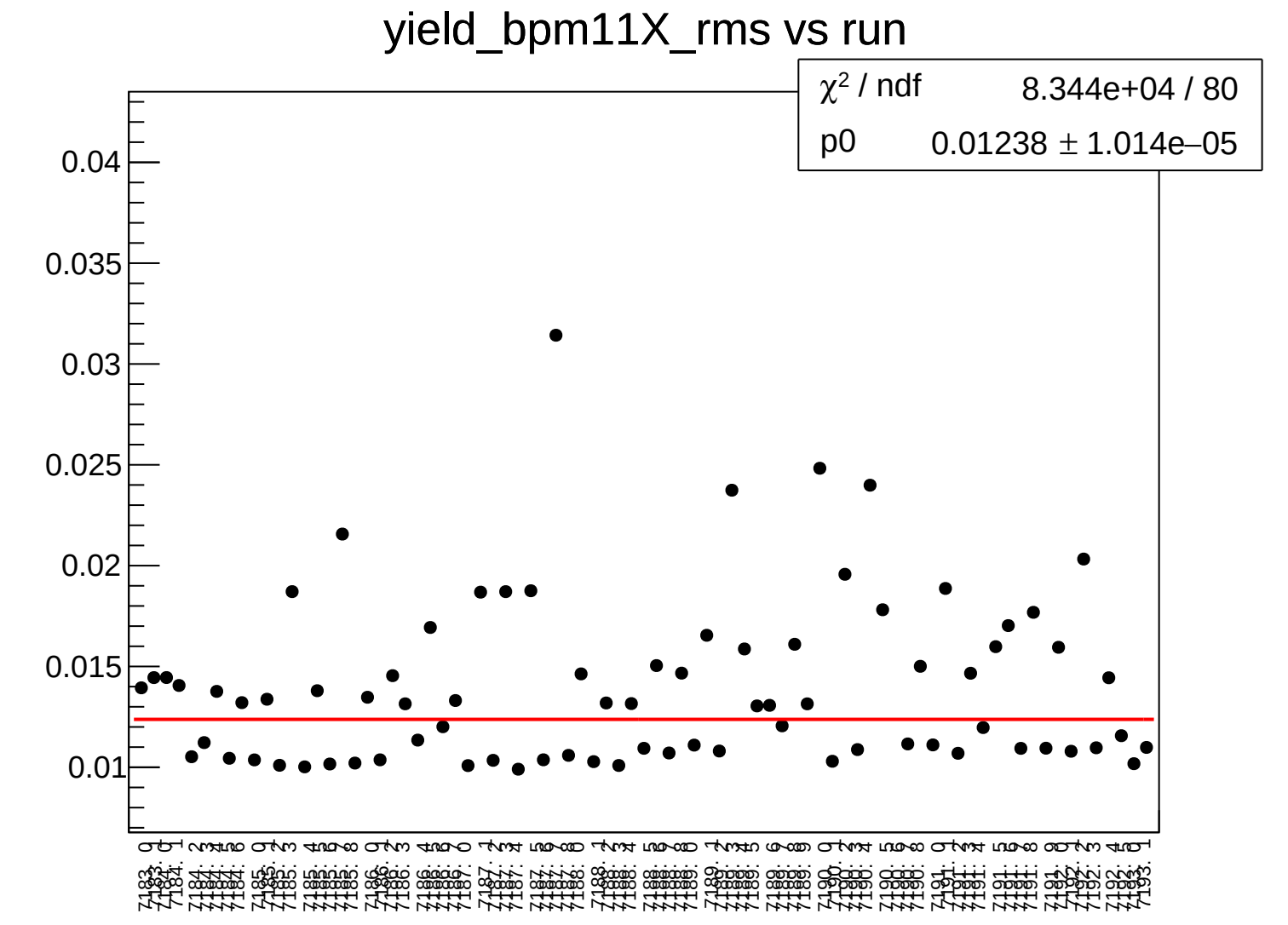

yield_bpm1Y_mean vs run
χ² / ndf 5.887e+05 / 80
p0 0.1909 ± 1.458e−05
0.215
0.21
0.205
0.2
0.195
0.19
0.185
0.18
0.175
0.17
pull
Entries 81
Mean 1522
Std Dev 1480
200
150
100
50
0
−50
−100
−150

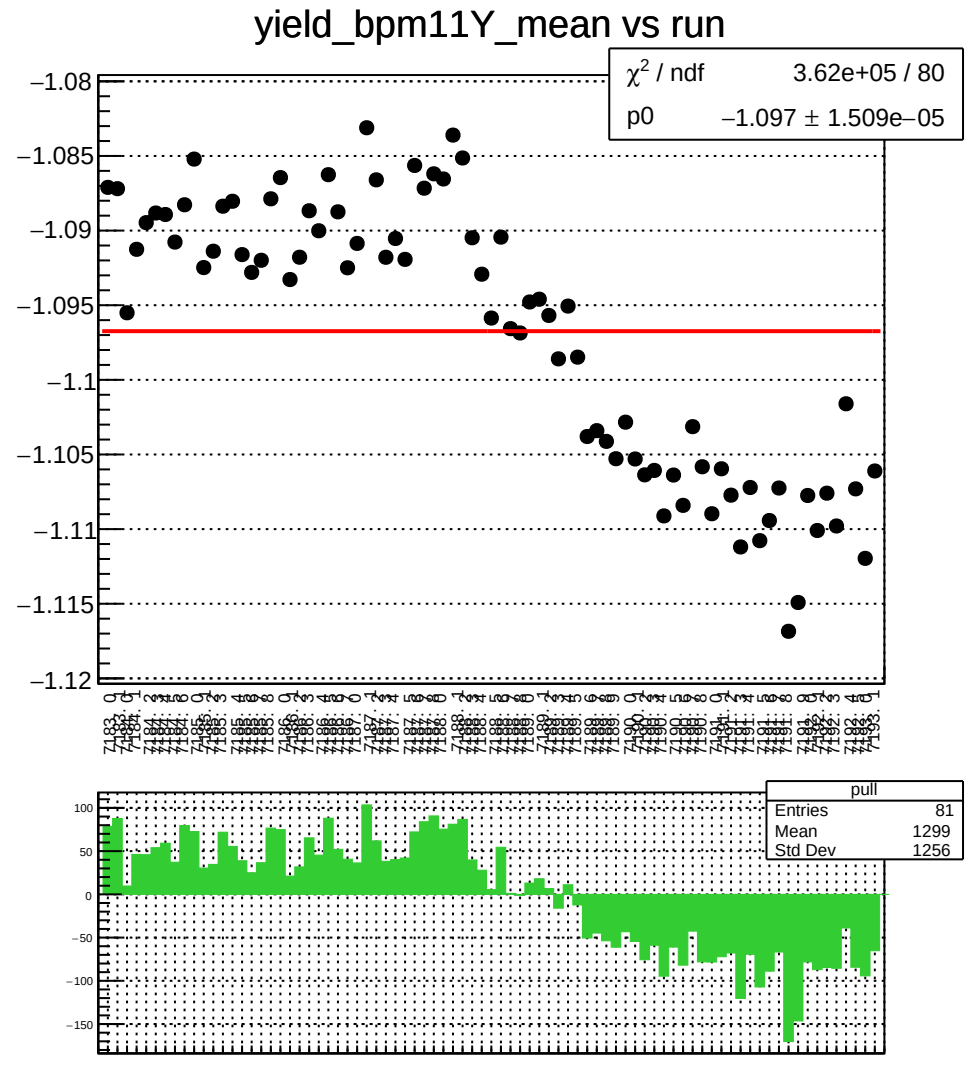

pull1D
Entries 81
Mean 6.66
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

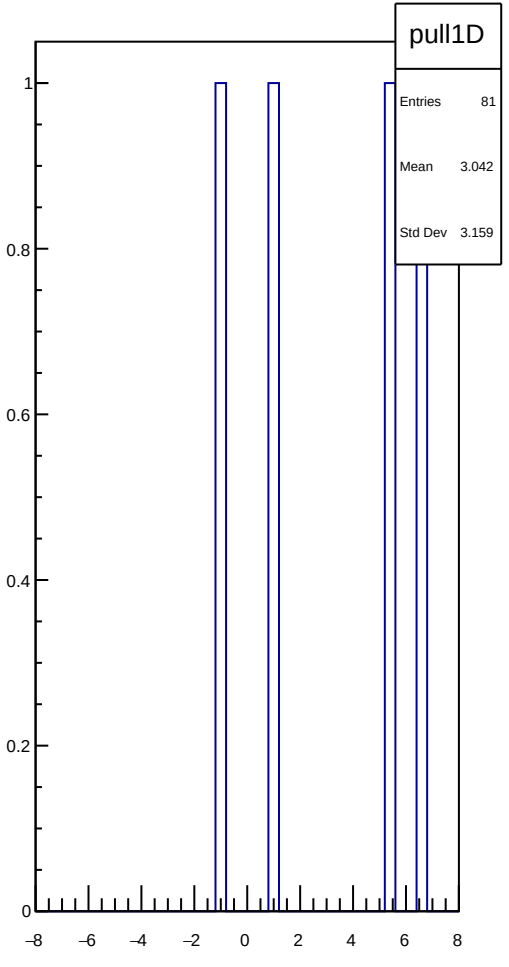

yield_bpm1Y_rms vs run
χ² / ndf 1.42e+04 / 80
p0 0.01287 ± 1.031e−05
0.015
0.014
0.013
0.012
0.011
0.01

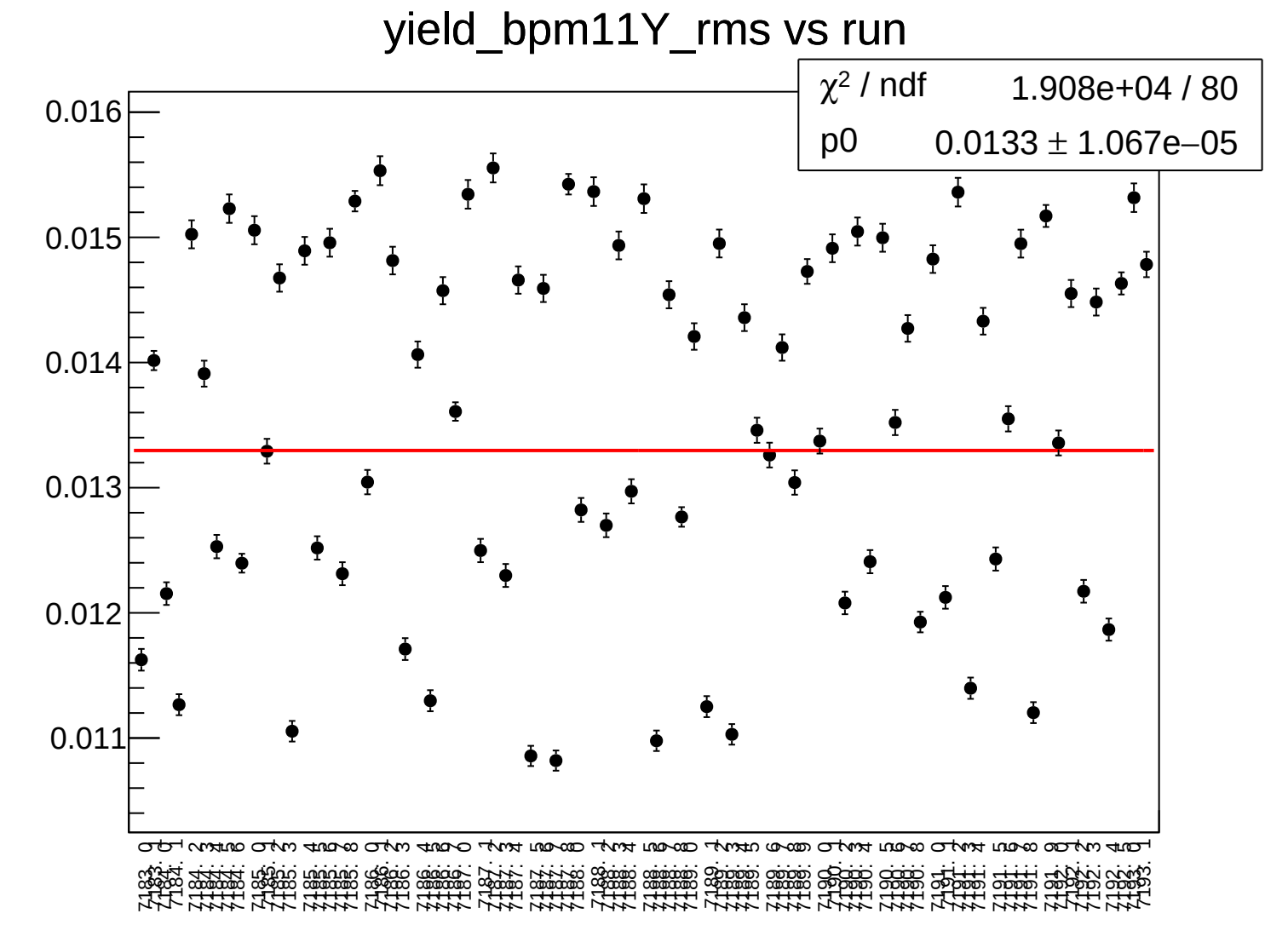

yield_bpm11X_mean vs run
χ² / ndf 5.998e+04 / 80
p0 0.7243 ± 1.434e−05
0.74
0.73
0.72
0.71
0.7
0.69
pull
Entries 81
Mean 179.3
Std Dev 138.6
60
40
20
0
−20
−40
−60
−80

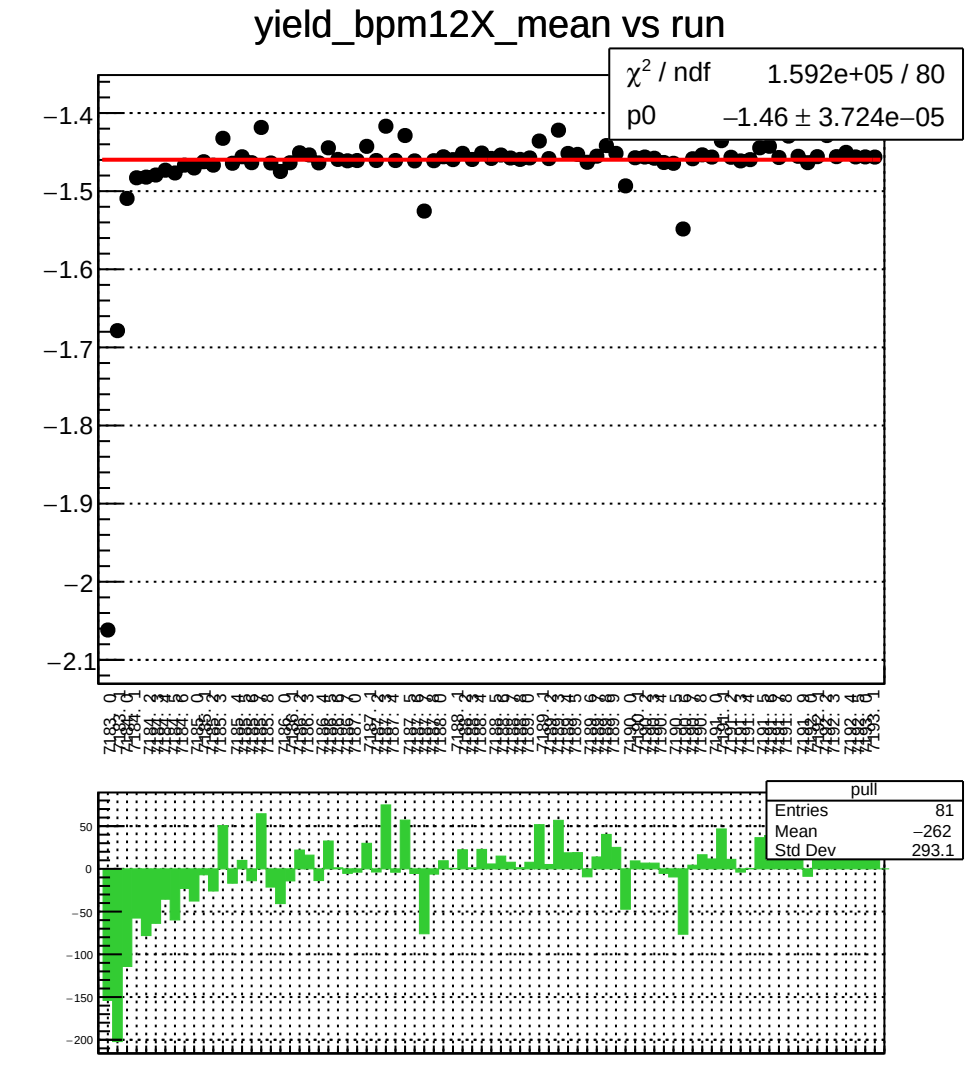

pull1D
Entries 81
Mean −0.8923
Std Dev 3.907
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

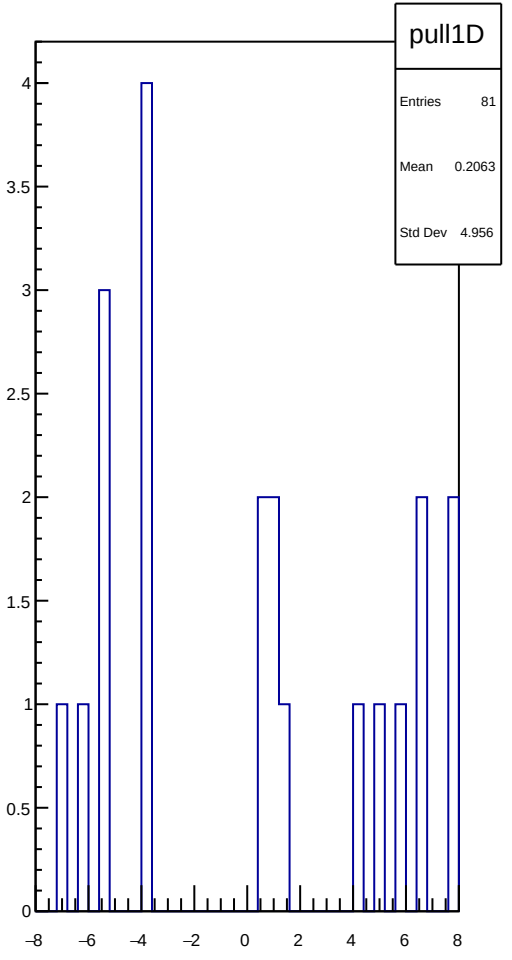

yield_bpm11X_rms vs run
χ² / ndf 8.344e+04 / 80
p0 0.01238 ± 1.014e−05
0.04
0.035
0.03
0.025
0.02
0.015
0.01

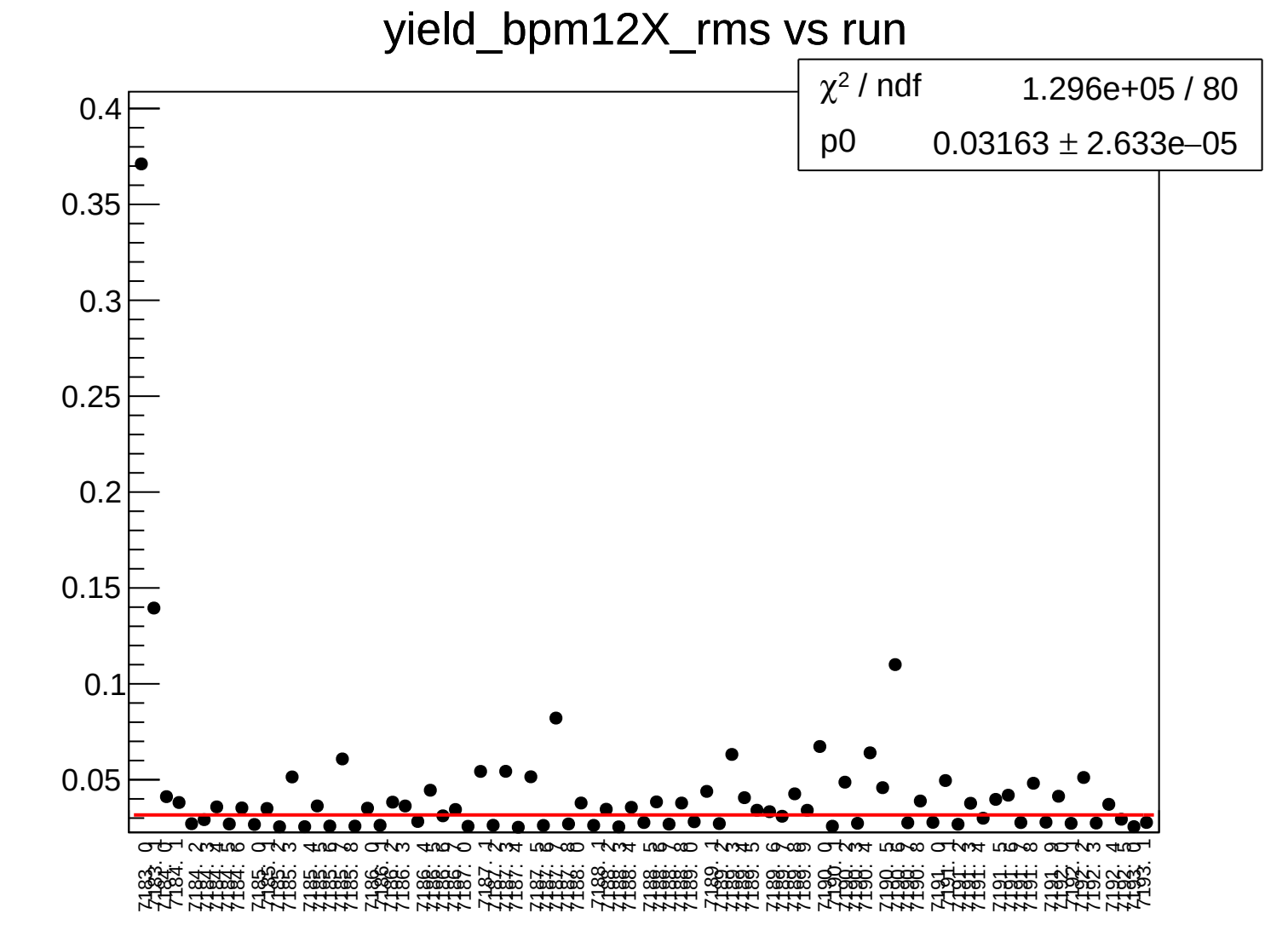

yield_bpm11Y_mean vs run
χ² / ndf 3.62e+05 / 80
p0 −1.097 ± 1.509e−05
−1.08
−1.085
−1.09
−1.095
−1.1
−1.105
−1.11
−1.115
−1.12
pull
Entries 81
Mean 1299
Std Dev 1256
100
50
0
−50
−100
−150

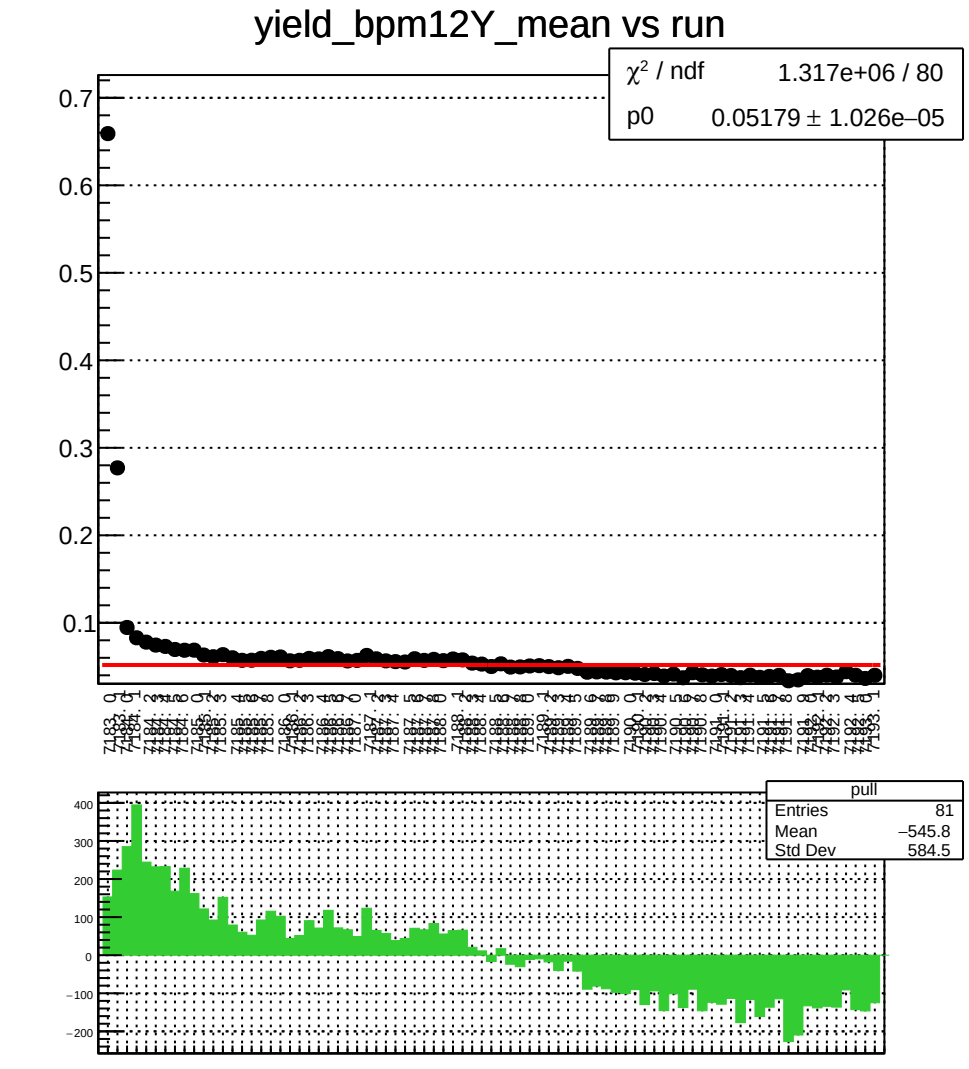

pull1D
Entries 81
Mean 3.042
Std Dev 3.159
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

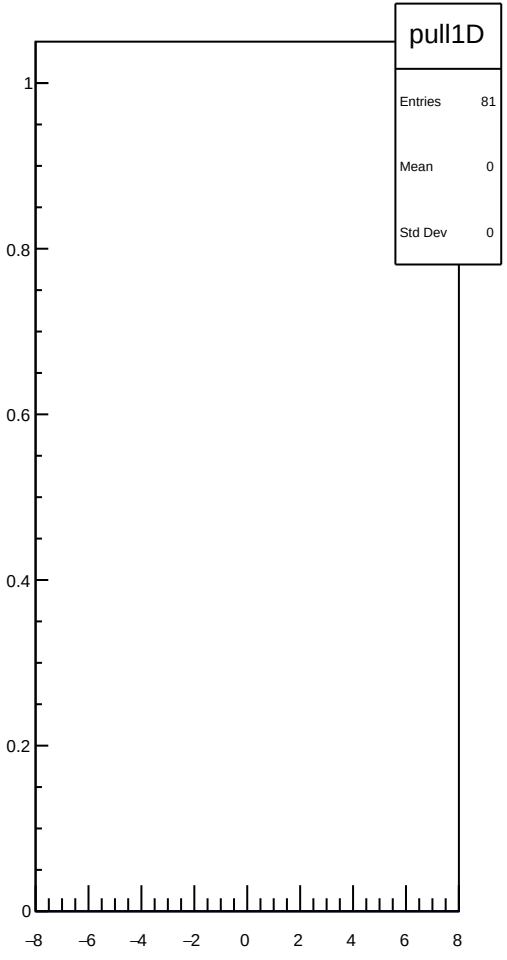

yield_bpm11Y_rms vs run
χ² / ndf 1.908e+04 / 80
p0 0.0133 ± 1.067e−05
0.016
0.015
0.014
0.013
0.012
0.011

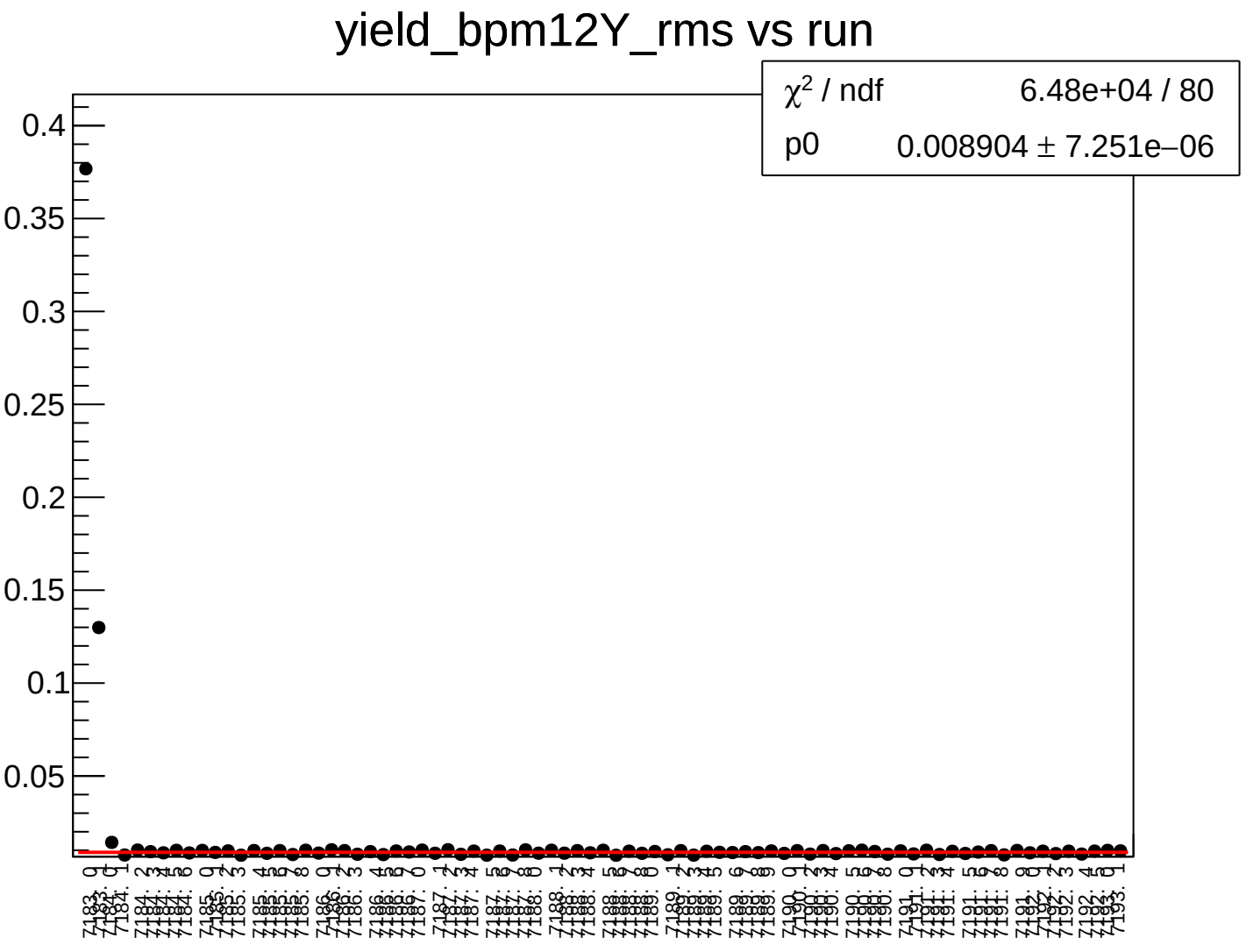

yield_bpm12X_mean vs run
χ² / ndf 1.592e+05 / 80
p0 −1.46 ± 3.724e−05
−1.4
−1.5
−1.6
−1.7
−1.8
−1.9
−2
−2.1
pull
Entries 81
Mean −262
Std Dev 293.1
50
0
−50
−100
−150
−200

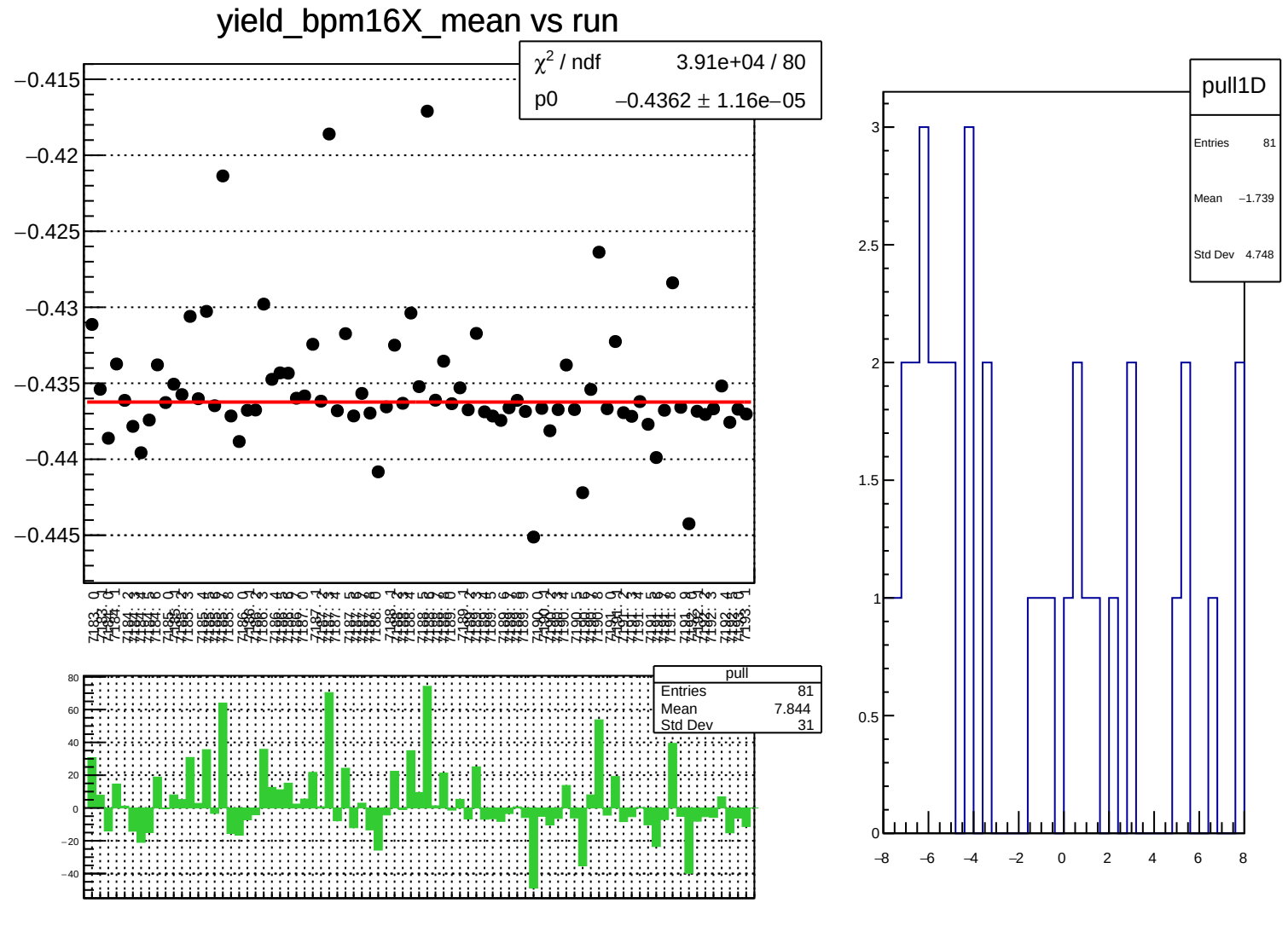

pull1D
Entries 81
Mean 0.2063
Std Dev 4.956
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

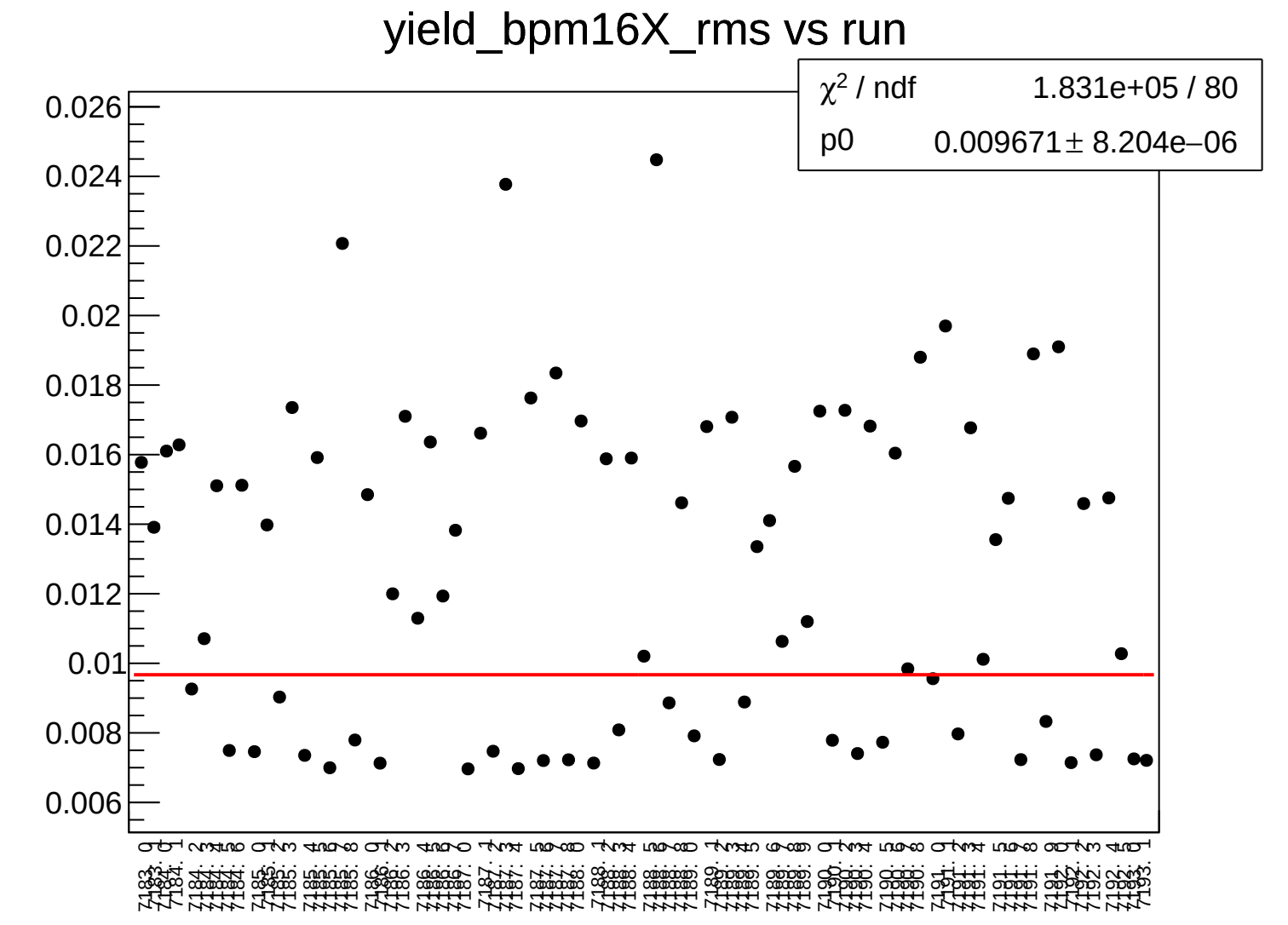

yield_bpm12X_rms vs run
χ² / ndf 1.296e+05 / 80
p0 0.03163 ± 2.633e–05
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

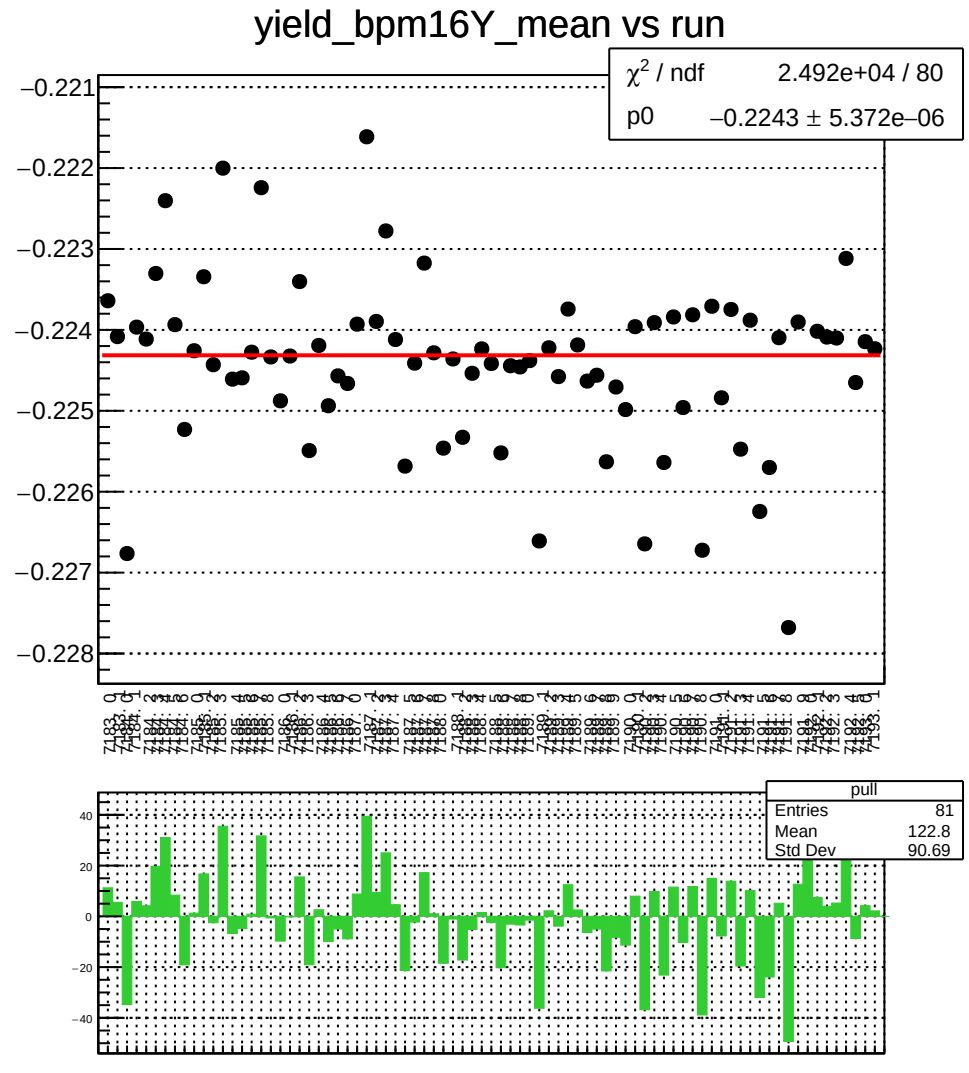

yield_bpm12Y_mean vs run
χ² / ndf 1.317e+06 / 80
p0 0.05179 ± 1.026e–05
0.7
0.6
0.5
0.4
0.3
0.2
0.1
pull
Entries 81
Mean –545.8
Std Dev 584.5
400
300
200
100
0
–100
–200

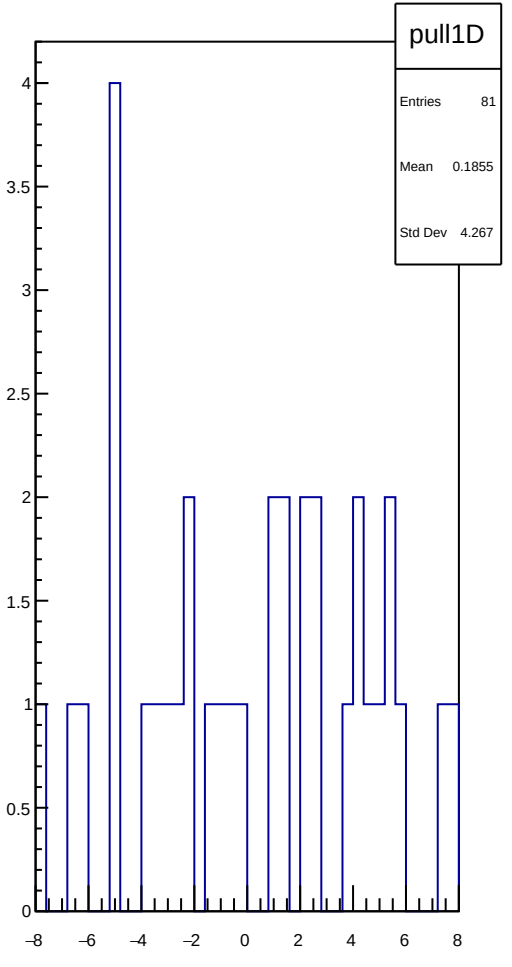

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
–8
–6
–4
–2
0
2
4
6
8

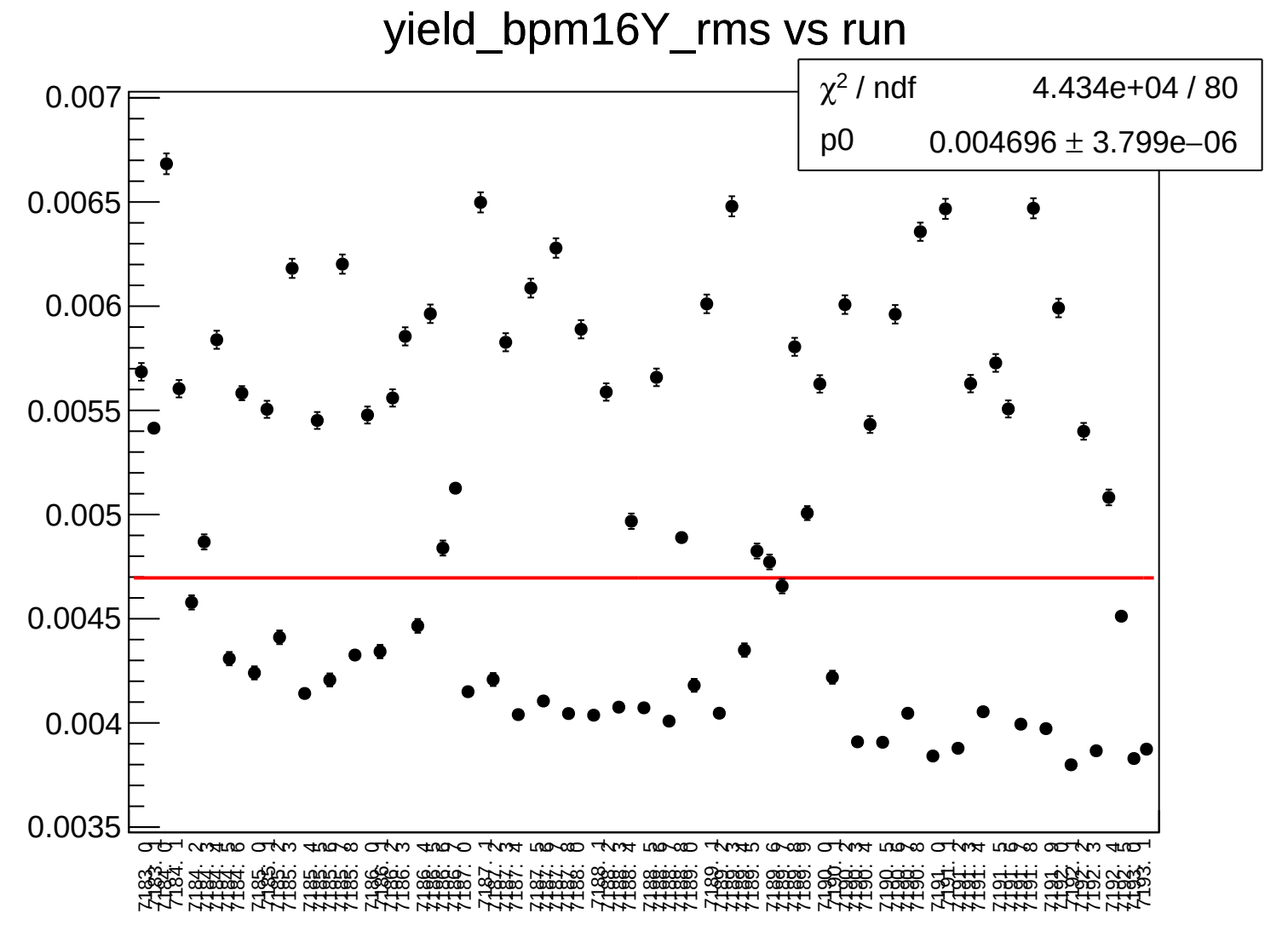

yield_bpm12Y_rms vs run
χ² / ndf 6.48e+04 / 80
p0 0.008904 ± 7.251e−06
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05

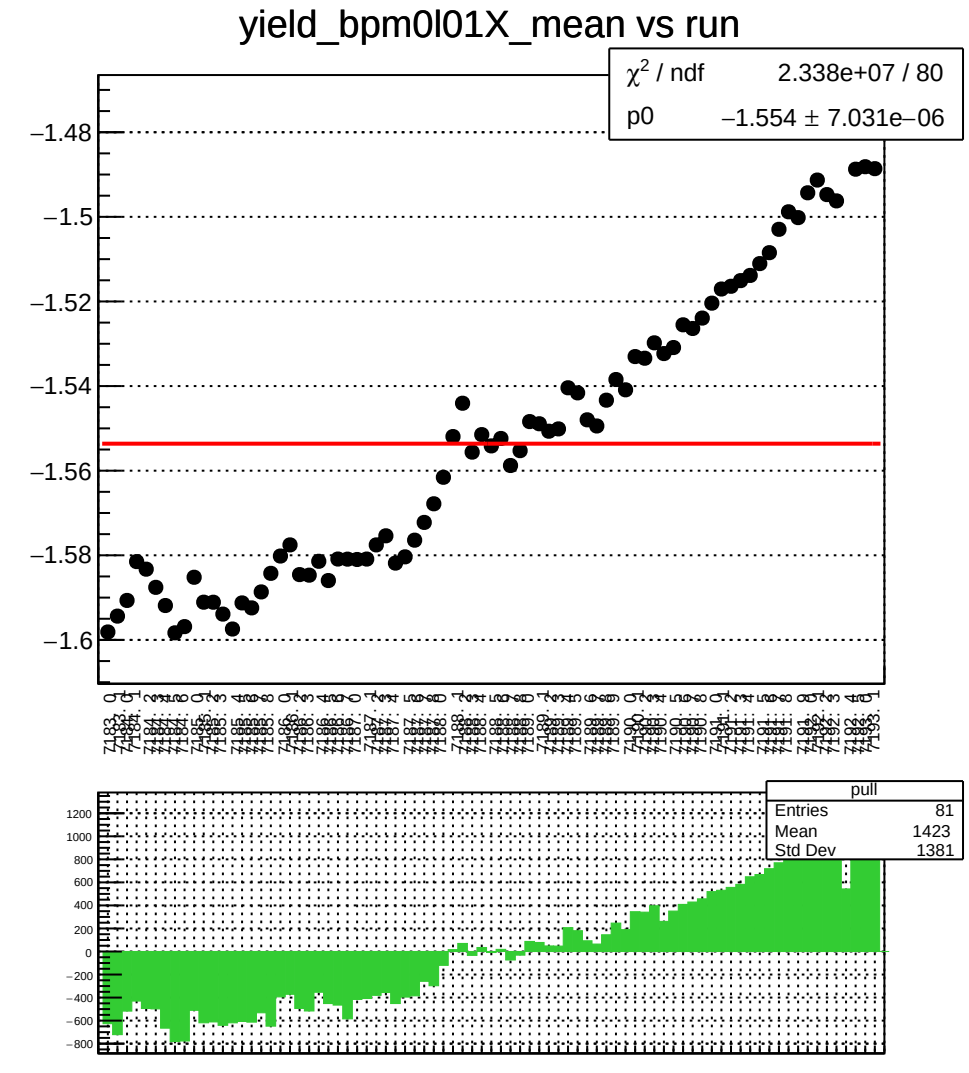

yield_bpm16X_mean vs run
χ² / ndf 3.91e+04 / 80
p0 −0.4362 ± 1.16e−05
−0.415
−0.42
−0.425
−0.43
−0.435
−0.44
−0.445
pull
Entries 81
Mean 7.844
Std Dev 31
80
60
40
20
0
−20
−40
pull1D
Entries 81
Mean −1.739
Std Dev 4.748
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

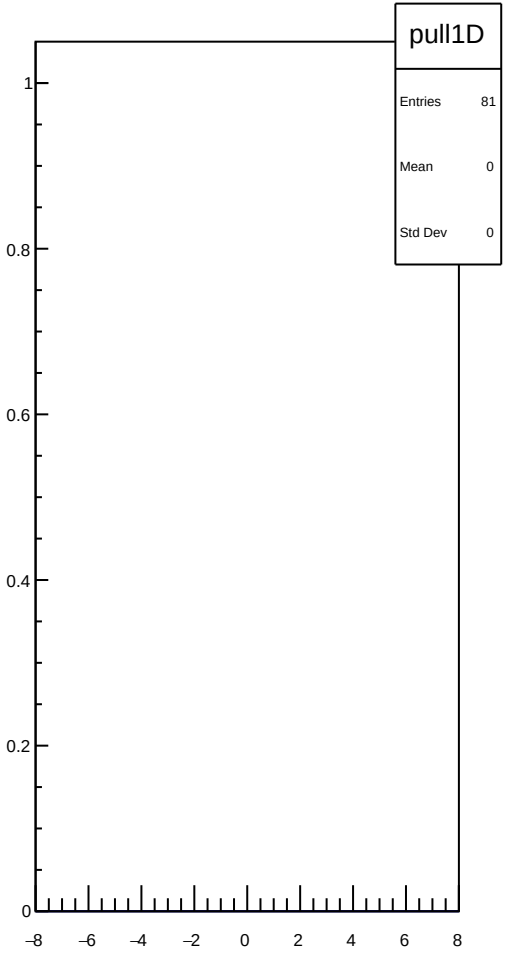

yield_bpm16X_rms vs run
χ^2 / ndf 1.831e+05 / 80
p0 0.009671 ± 8.204e−06
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006

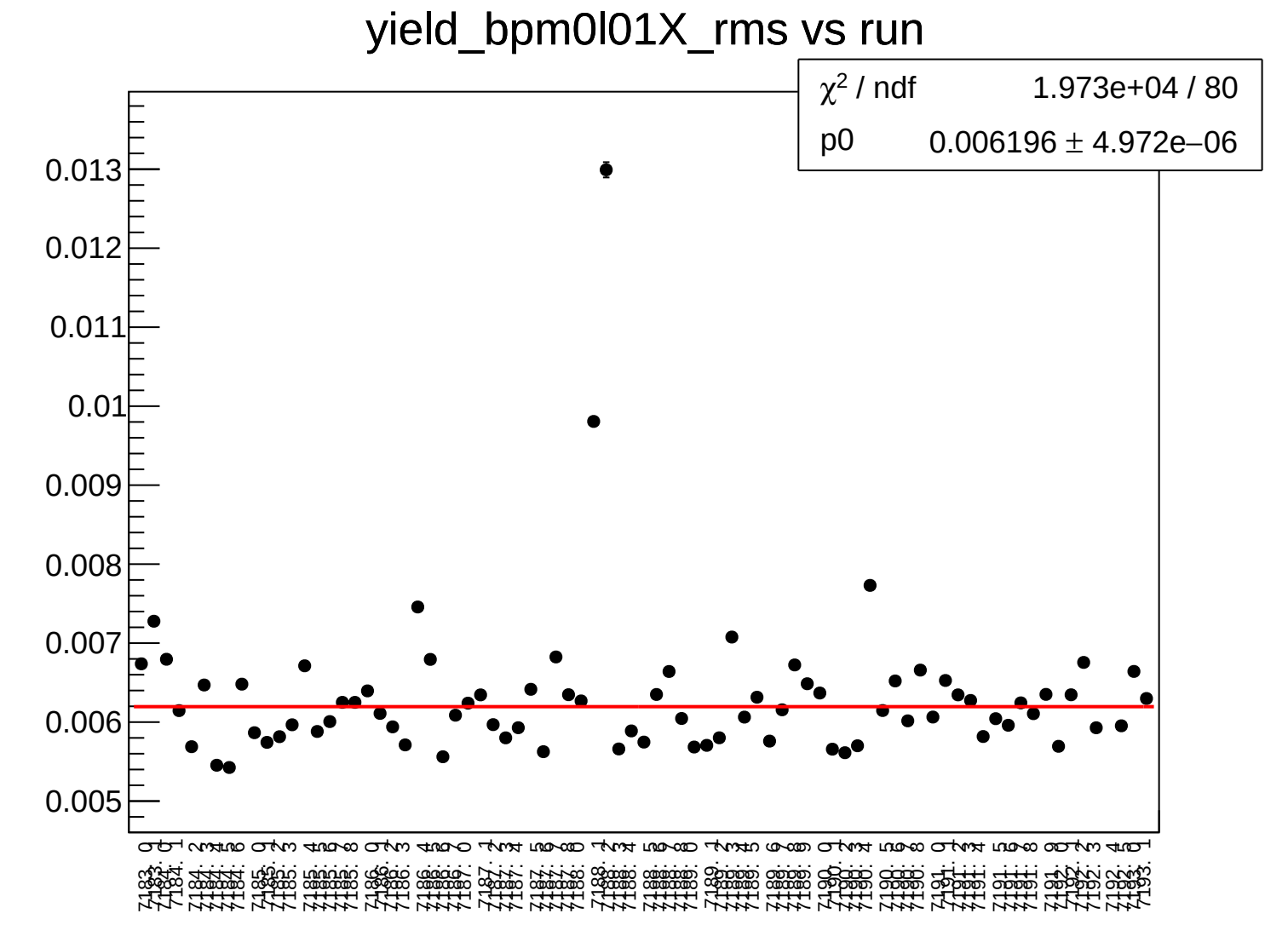

yield_bpm16Y_mean vs run
χ² / ndf 2.492e+04 / 80
p0 −0.2243 ± 5.372e−06
−0.221
−0.222
−0.223
−0.224
−0.225
−0.226
−0.227
−0.228
pull
Entries 81
Mean 122.8
Std Dev 90.69
40
20
0
−20
−40

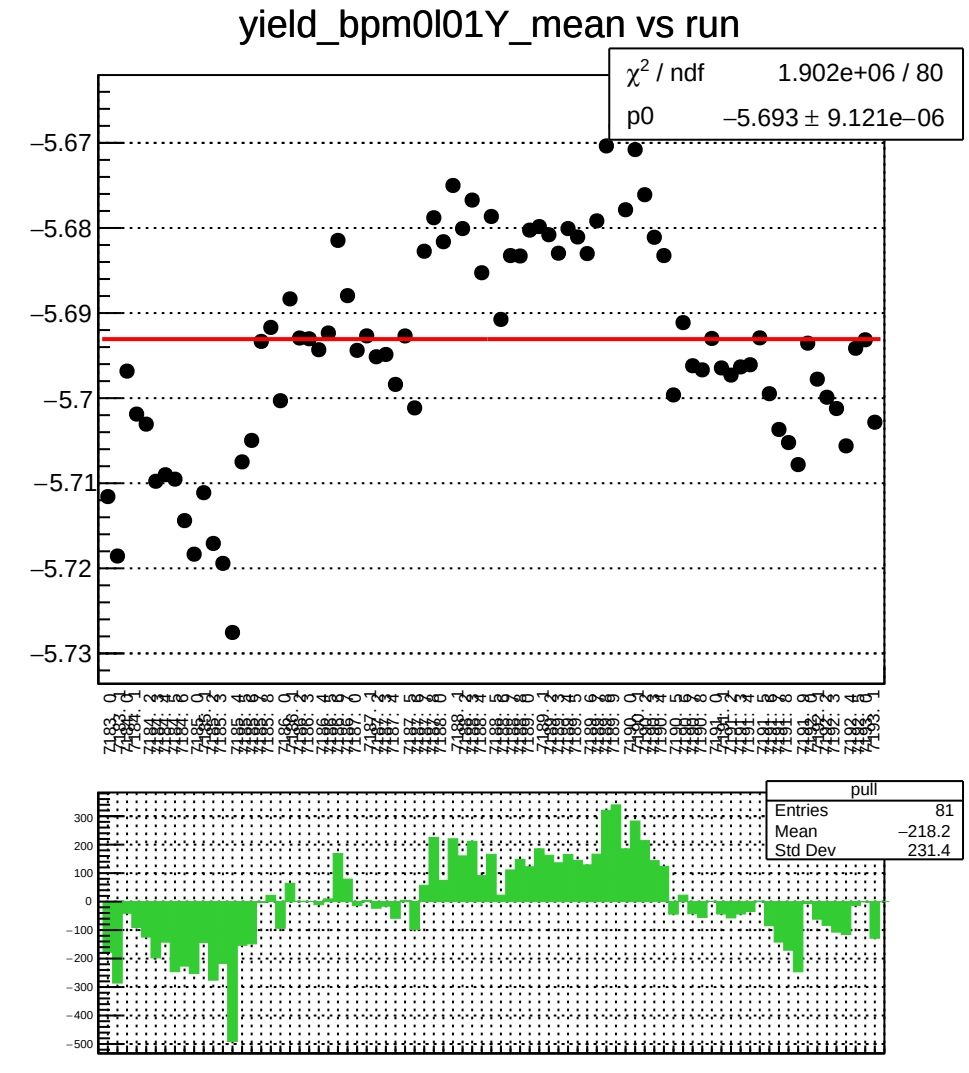

pull1D
Entries 81
Mean 0.1855
Std Dev 4.267
4
3.5
3
2.5
2
1.5
1
0.5
0
−8
−6
−4
−2
0
2
4
6
8

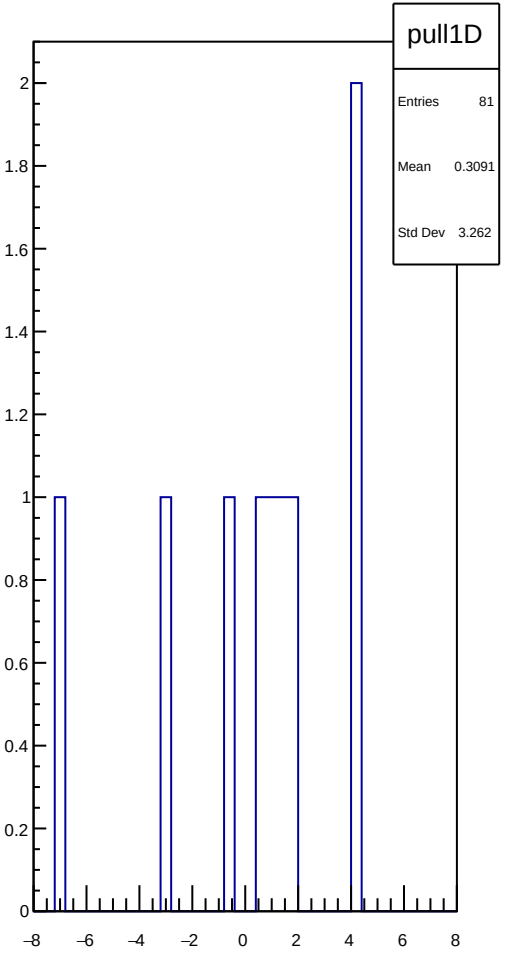

yield_bpm16Y_rms vs run
χ² / ndf 4.434e+04 / 80
p0 0.004696 ± 3.799e−06
0.007
0.0065
0.006
0.0055
0.005
0.0045
0.004
0.0035

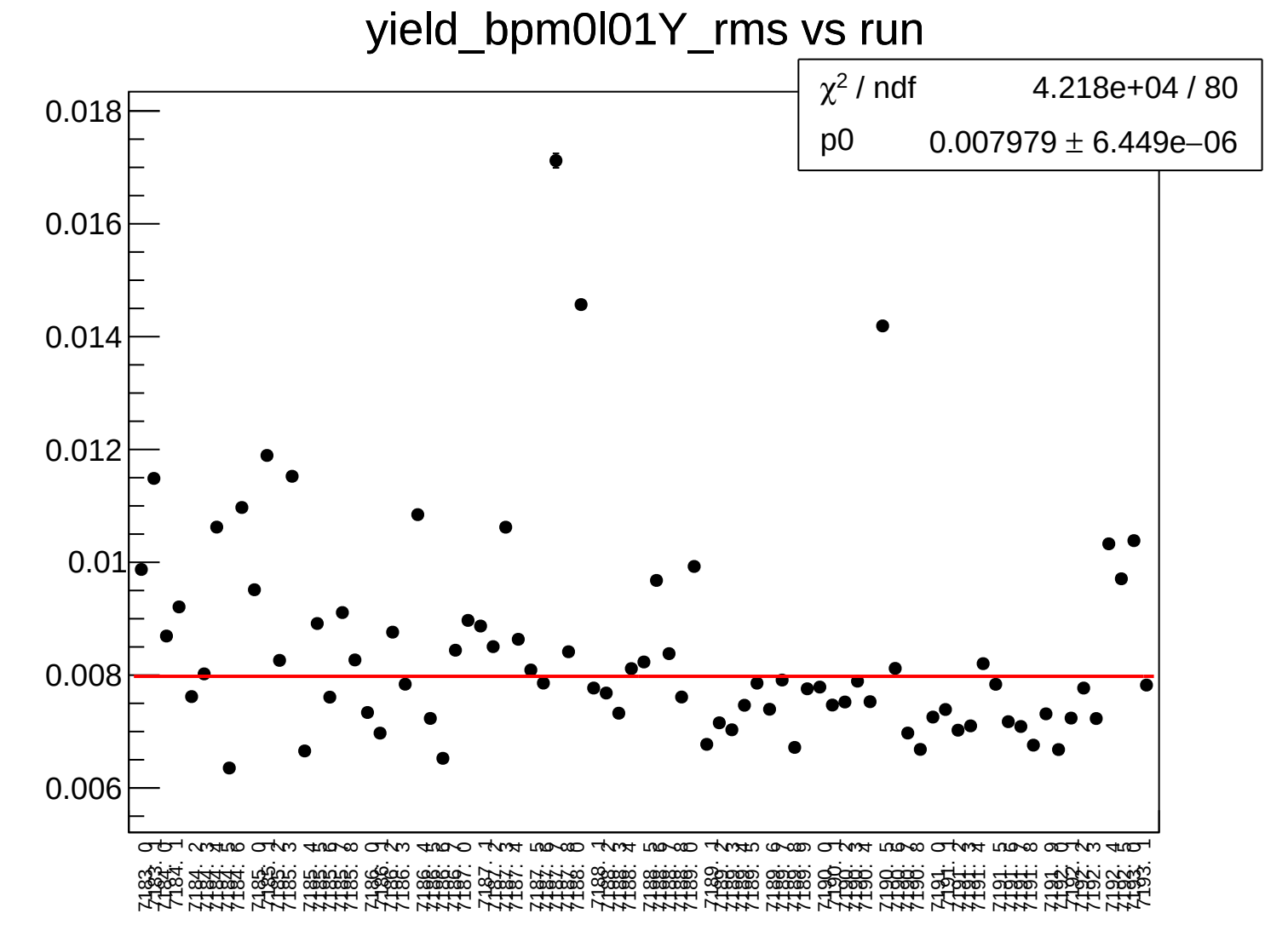

yield_bpm0l01X_mean vs run
χ² / ndf 2.338e+07 / 80
p0 −1.554 ± 7.031e−06
−1.48
−1.5
−1.52
−1.54
−1.56
−1.58
−1.6
pull
Entries 81
Mean 1423
Std Dev 1381
1200
1000
800
600
400
200
0
−200
−400
−600
−800

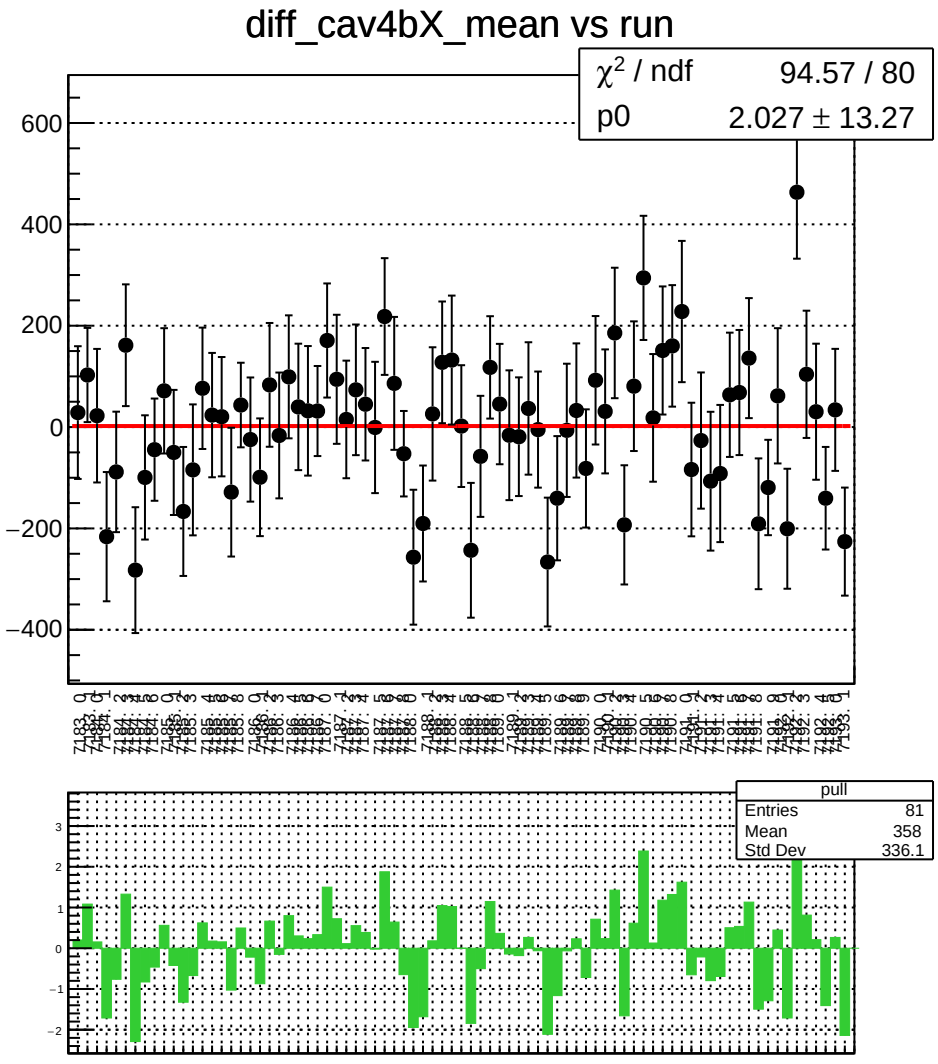

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

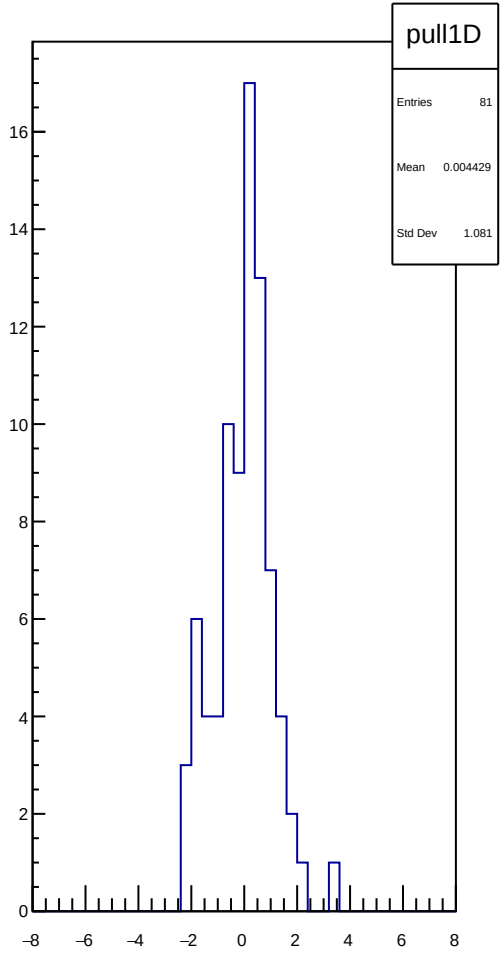

yield_bpm0l01X_rms vs run
χ² / ndf 1.973e+04 / 80
p0 0.006196 ± 4.972e−06
0.013
0.012
0.011
0.01
0.009
0.008
0.007
0.006
0.005

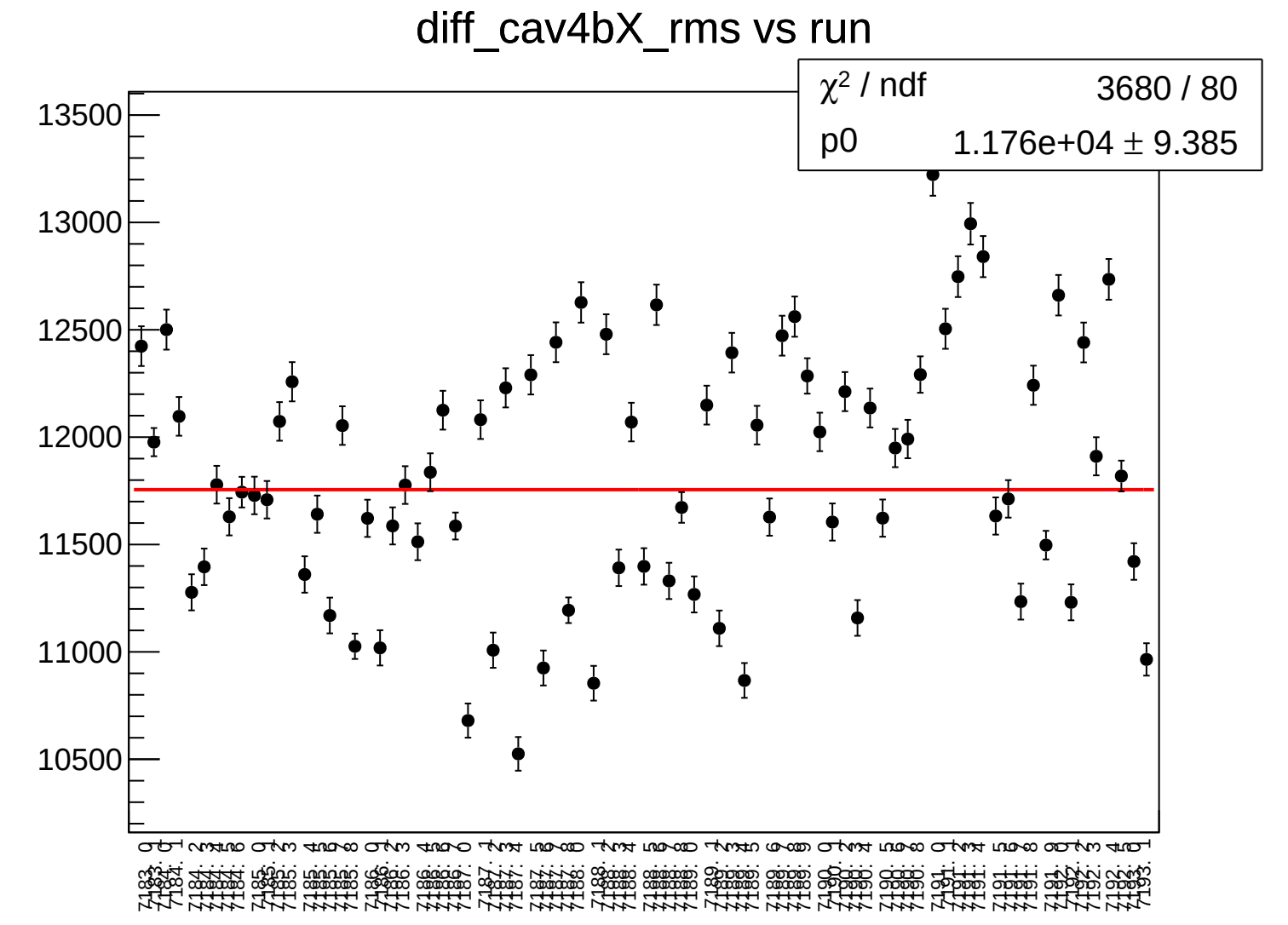

yield_bpm0l01Y_mean vs run
χ² / ndf 1.902e+06 / 80
p0 −5.693 ± 9.121e−06
−5.67
−5.68
−5.69
−5.7
−5.71
−5.72
−5.73
pull
Entries 81
Mean −218.2
Std Dev 231.4
300
200
100
0
−100
−200
−300
−400
−500

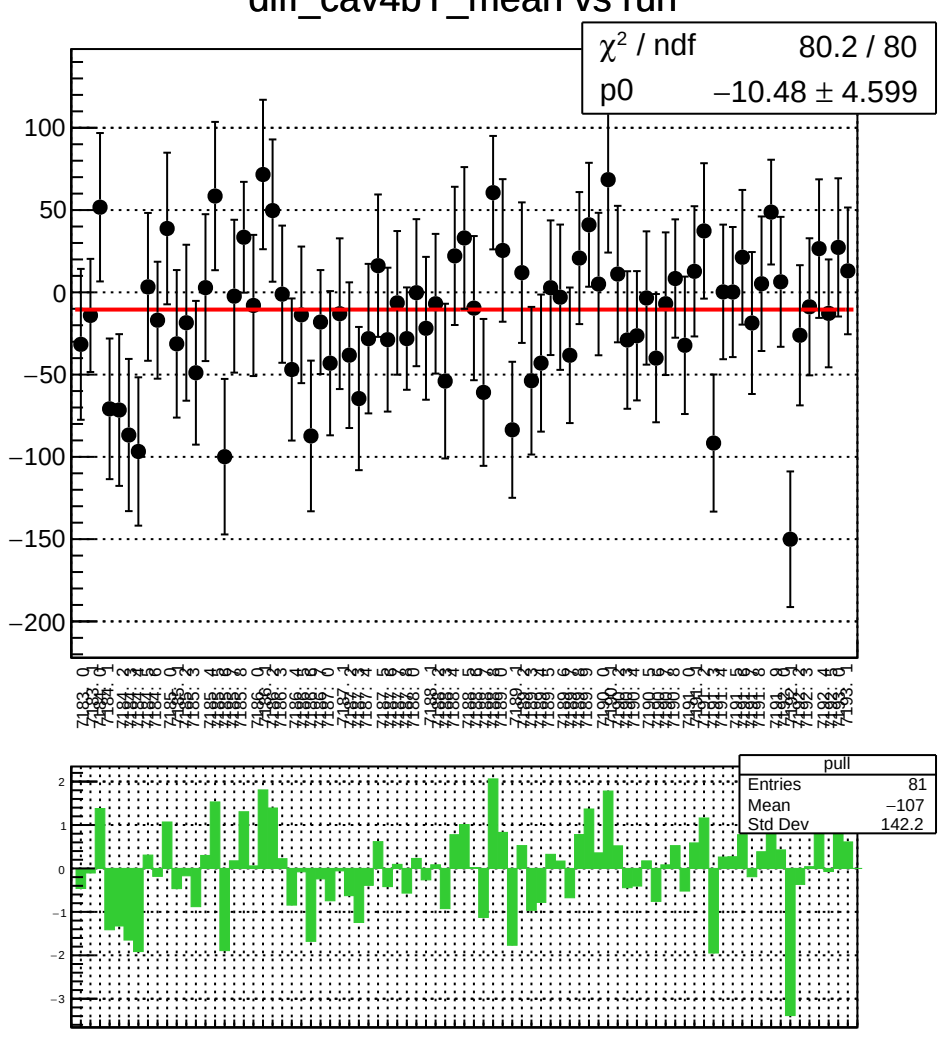

pull1D
Entries 81
Mean 0.3091
Std Dev 3.262
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

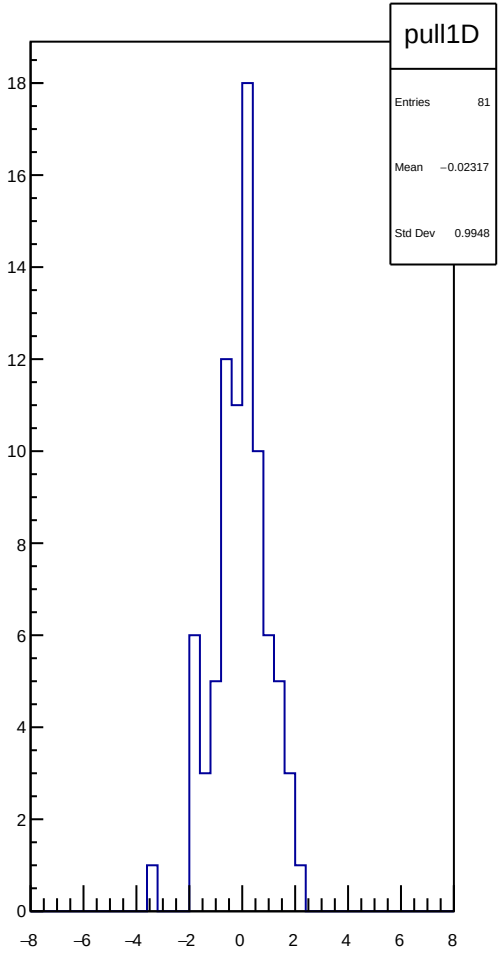

yield_bpm0l01Y_rms vs run
χ² / ndf 4.218e+04 / 80
p0 0.007979 ± 6.449e−06
0.018
0.016
0.014
0.012
0.01
0.008
0.006

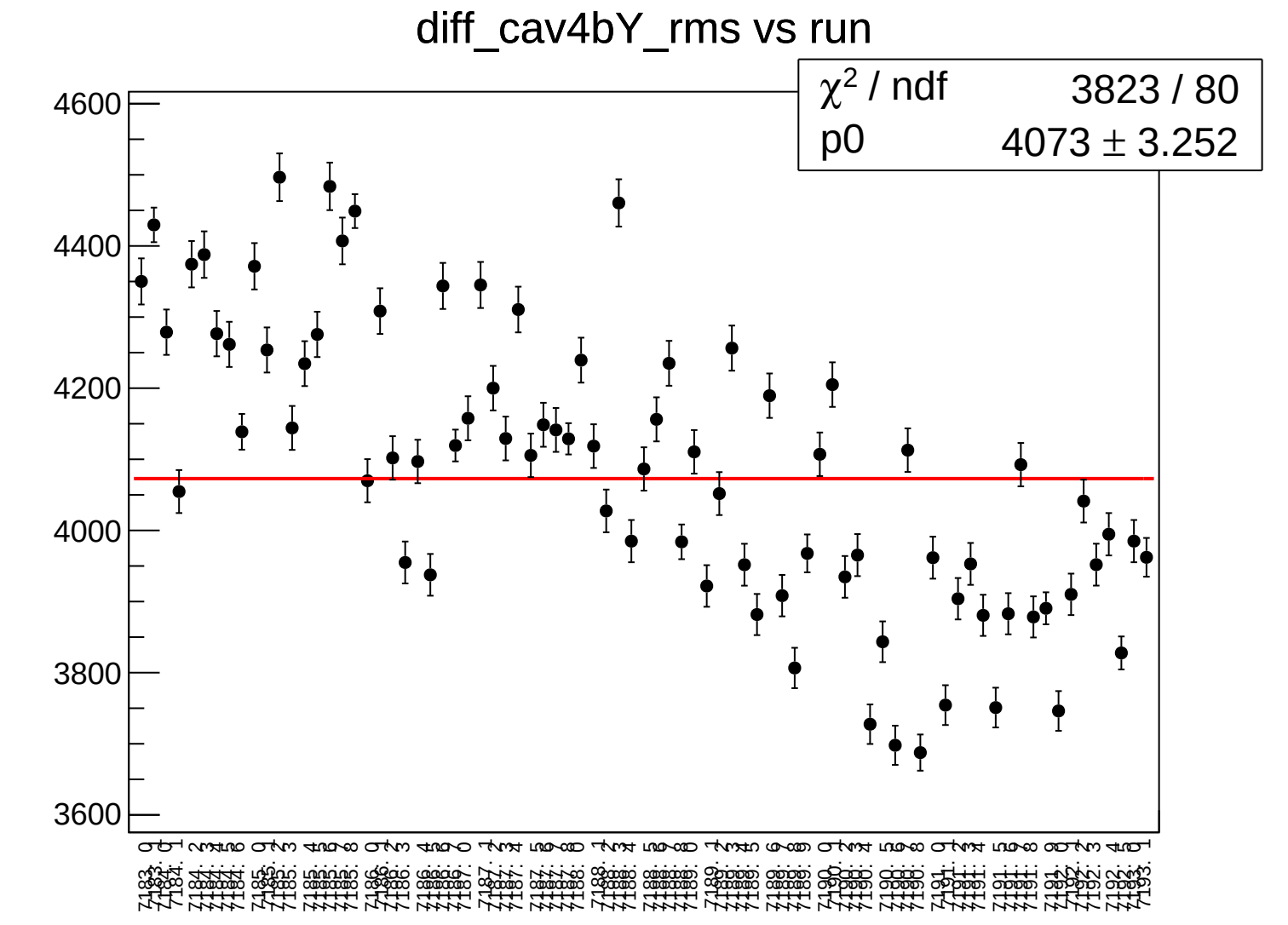

diff_cav4bX_mean vs run
χ^2 / ndf 94.57 / 80
p0 2.027 ± 13.27
600
400
200
0
−200
−400
pull
Entries 81
Mean 358
Std Dev 336.1
3
2
1
0
−1
−2

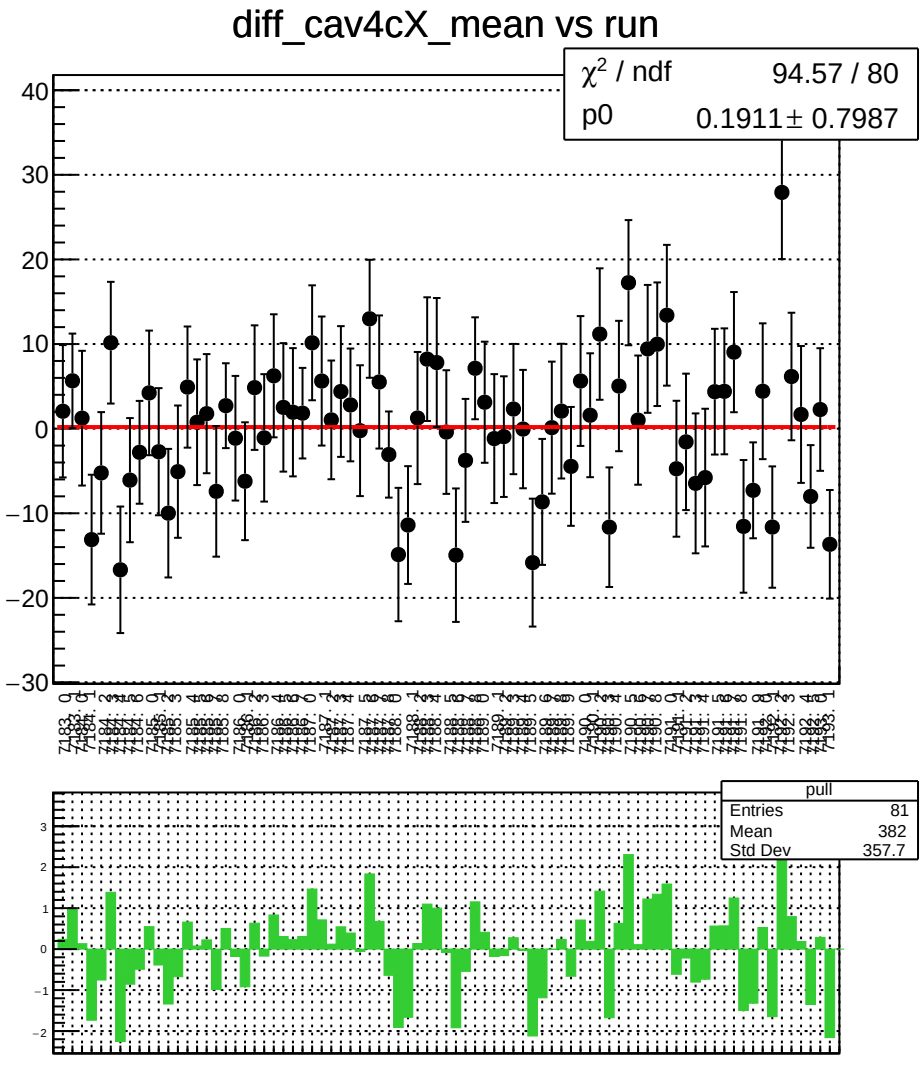

pull1D
Entries 81
Mean 0.004429
Std Dev 1.081
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

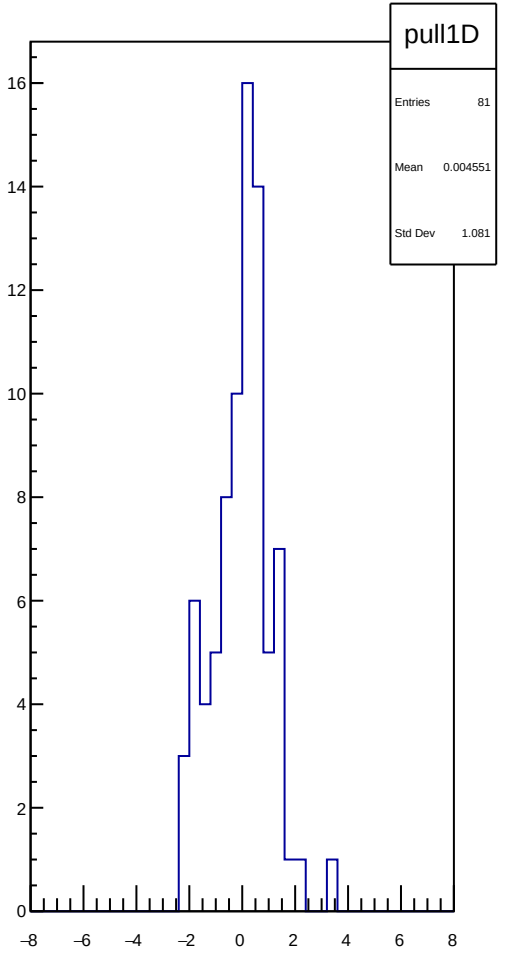

diff_cav4bX_rms vs run
χ² / ndf 3680 / 80
p0 1.176e+04 ± 9.385
13500
13000
12500
12000
11500
11000
10500

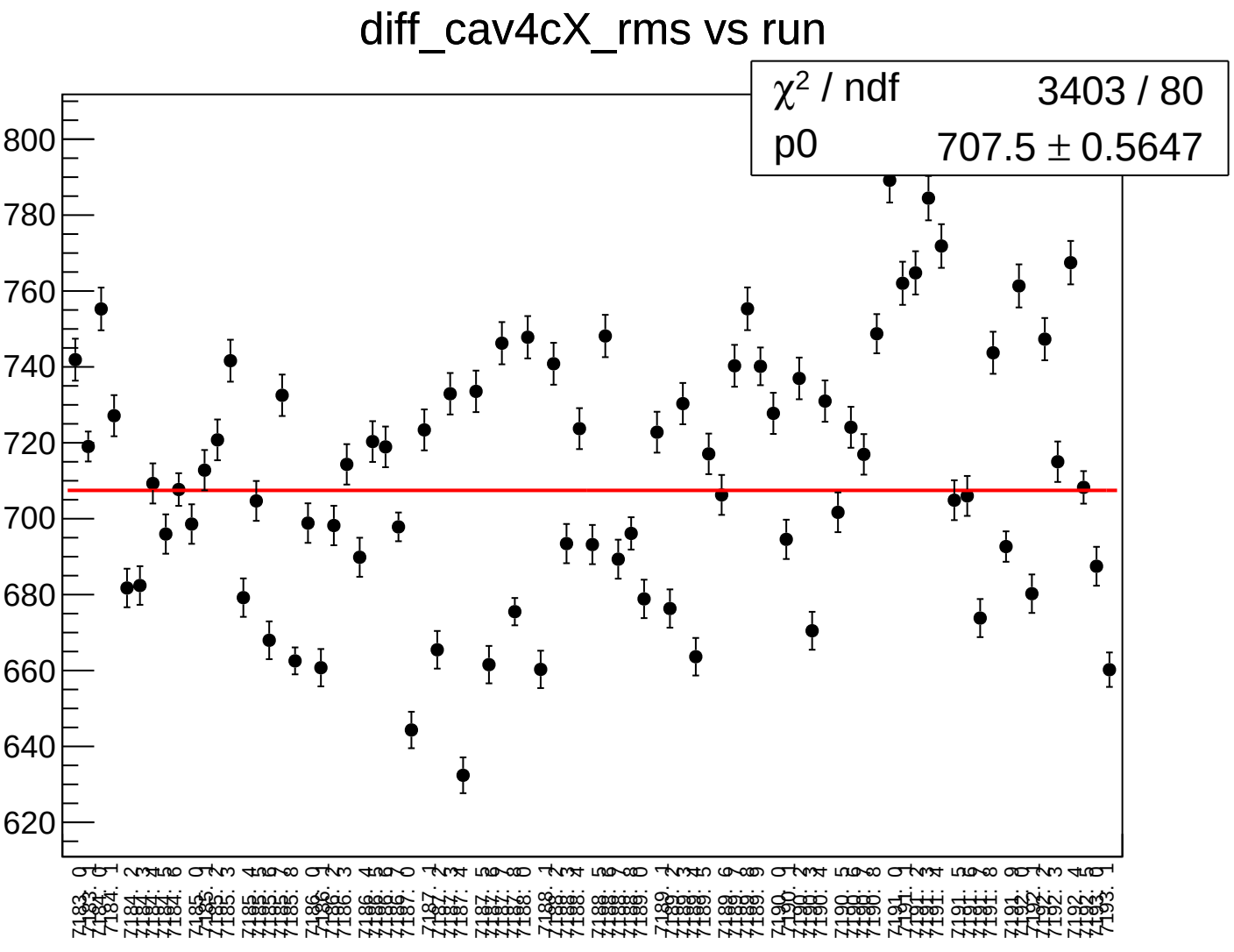

diff_cav4bY_mean vs run
χ² / ndf 80.2 / 80
p0 −10.48 ± 4.599
pull
Entries 81
Mean −107
Std Dev 142.2

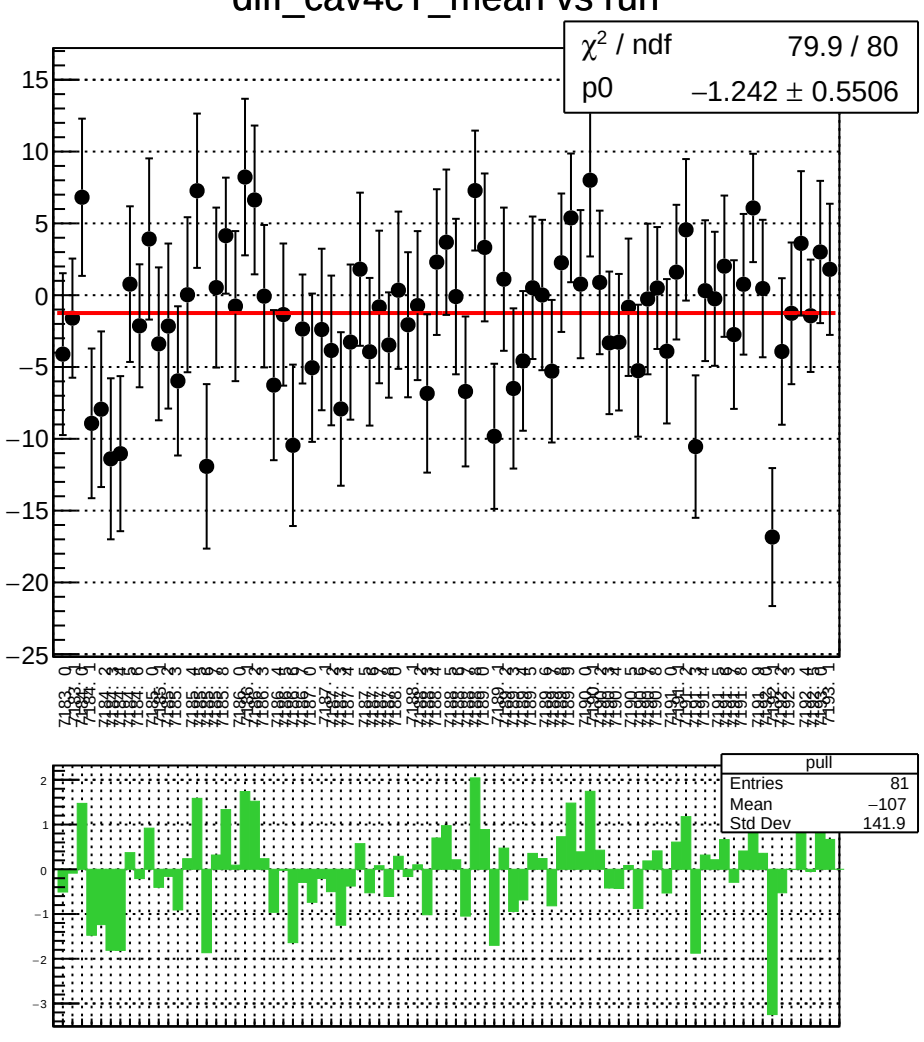

pull1D
Entries 81
Mean −0.02317
Std Dev 0.9948

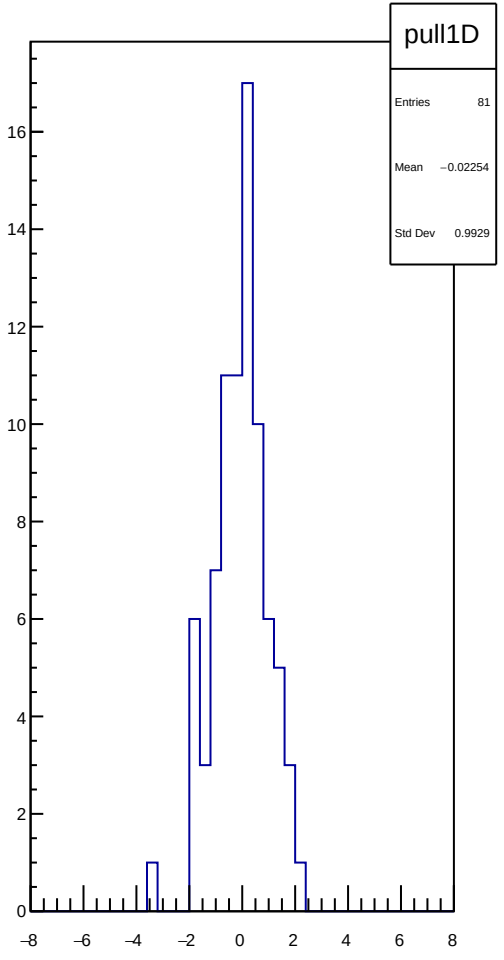

diff_cav4bY_rms vs run
χ² / ndf 3823 / 80
p0 4073 ± 3.252
4600
4400
4200
4000
3800
3600

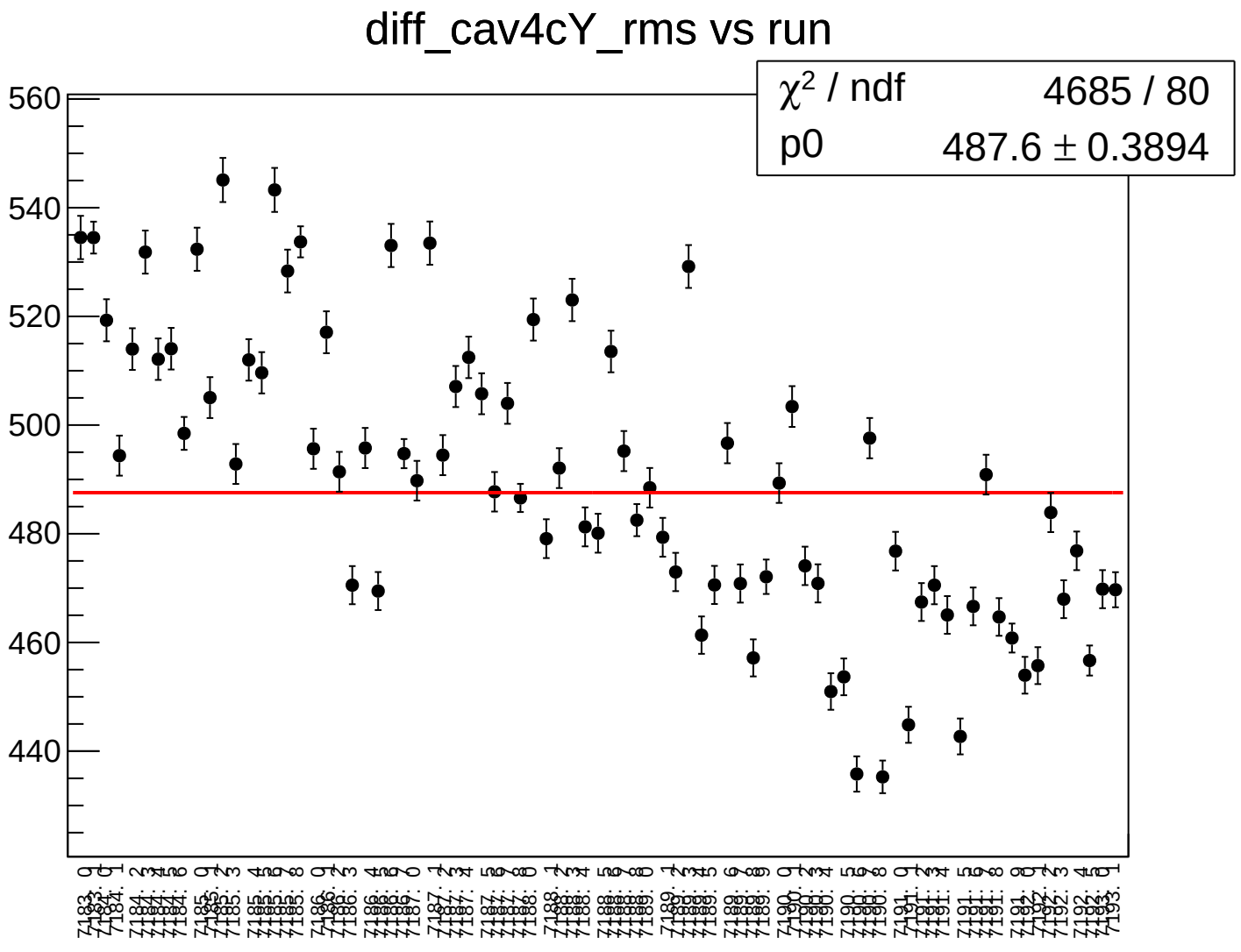

diff_cav4cX_mean vs run
χ² / ndf 94.57 / 80
p0 0.1911 ± 0.7987
pull
Entries 81
Mean 382
Std Dev 357.7

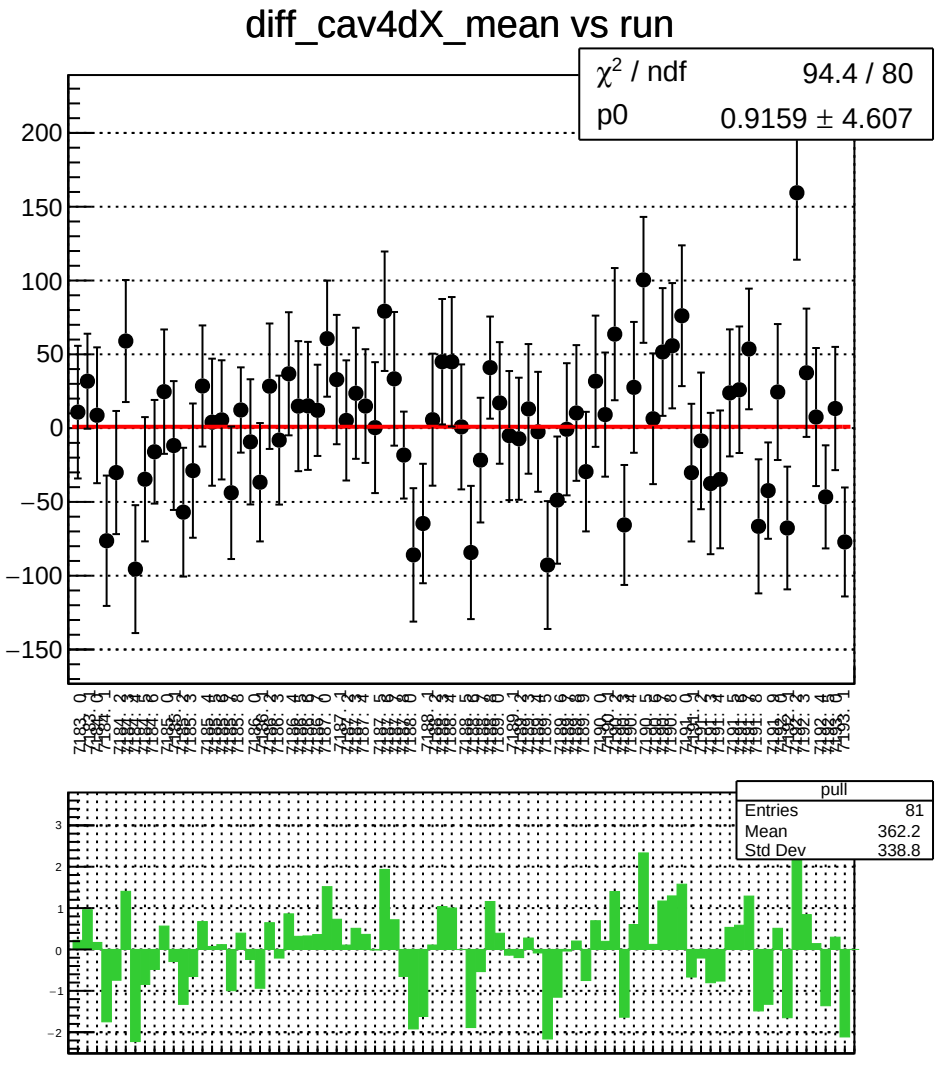

pull1D
Entries 81
Mean 0.004551
Std Dev 1.081

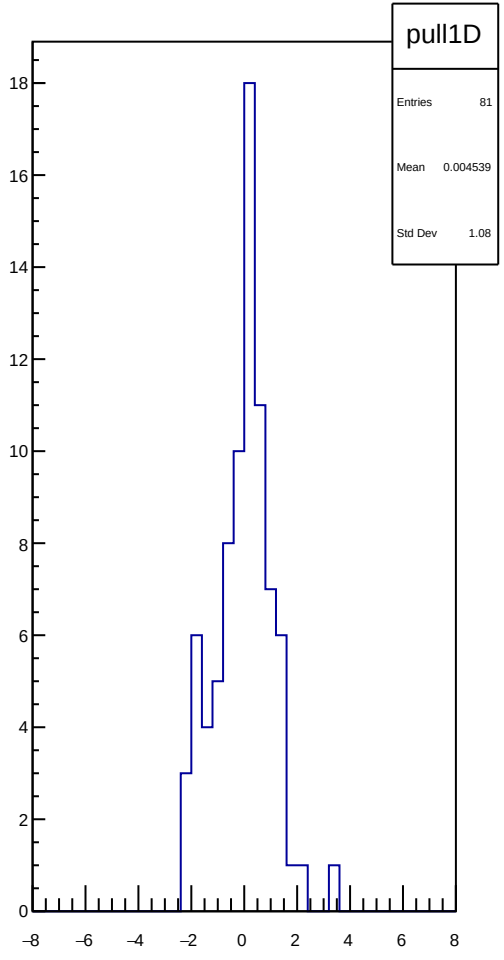

diff_cav4cX_rms vs run
χ² / ndf 3403 / 80
p0 707.5 ± 0.5647
800
780
760
740
720
700
680
660
640
620

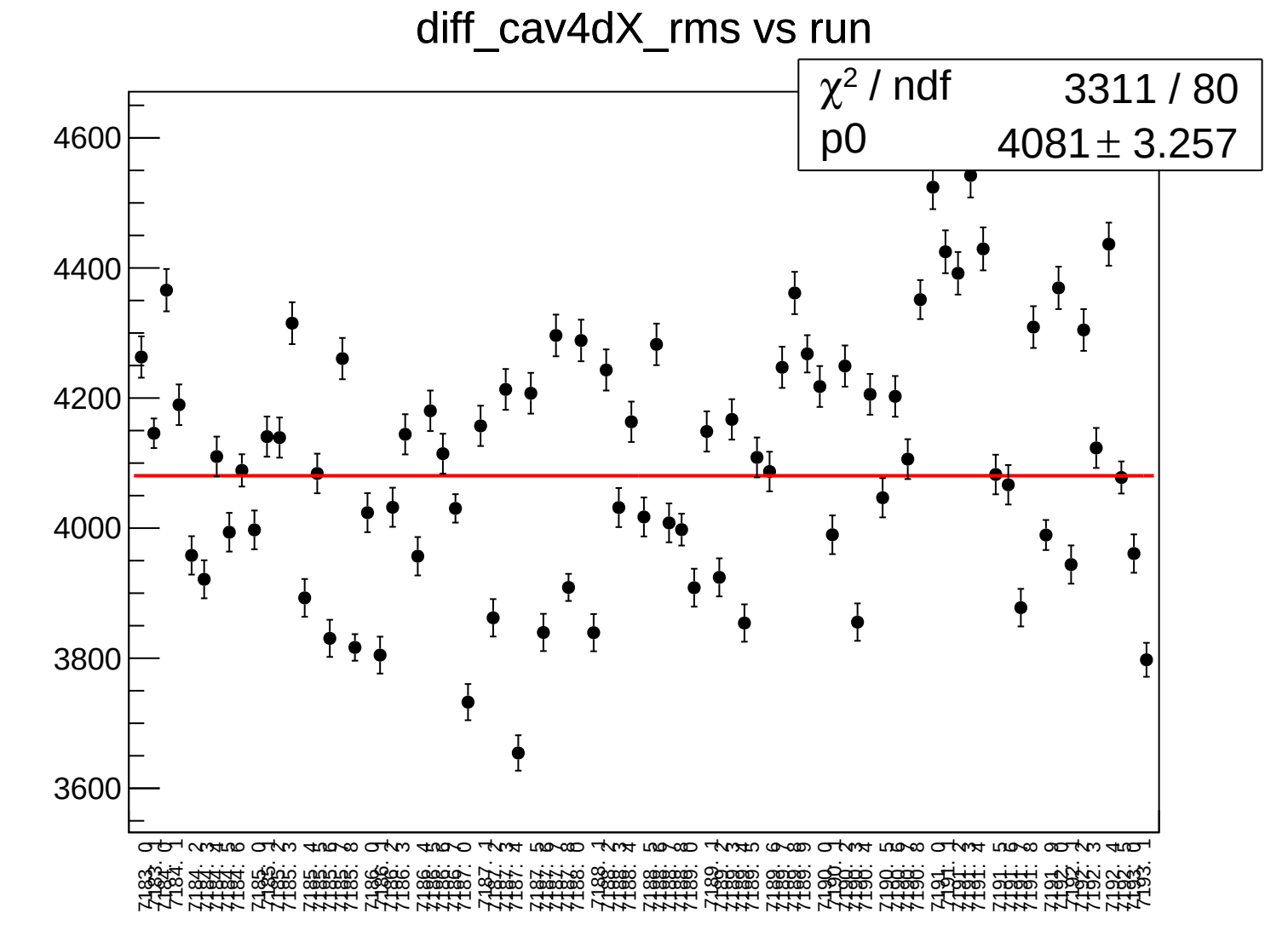

diff_cav4cY_mean vs run
χ² / ndf 79.9 / 80
p0 −1.242 ± 0.5506
pull
Entries 81
Mean −107
Std Dev 141.9

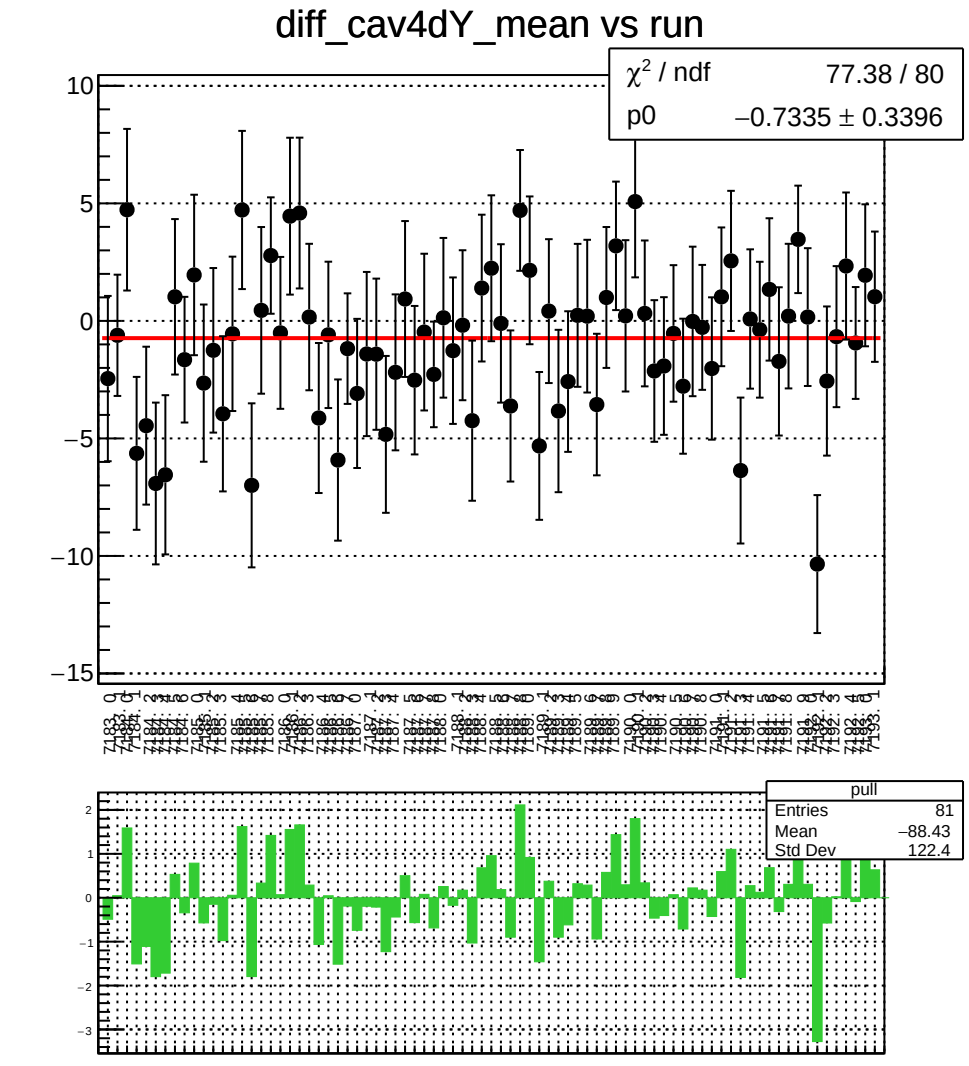

pull1D
Entries 81
Mean −0.02254
Std Dev 0.9929

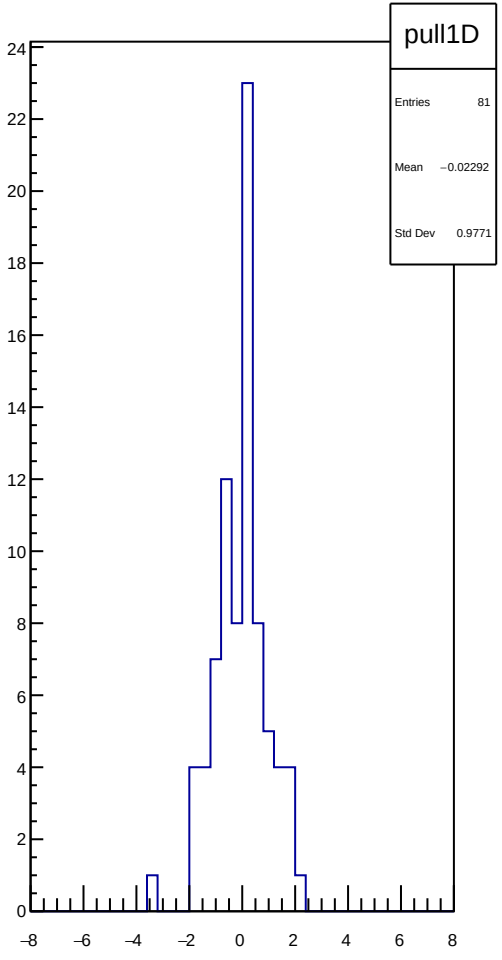

diff_cav4cY_rms vs run
χ² / ndf 4685 / 80
p0 487.6 ± 0.3894
560
540
520
500
480
460
440

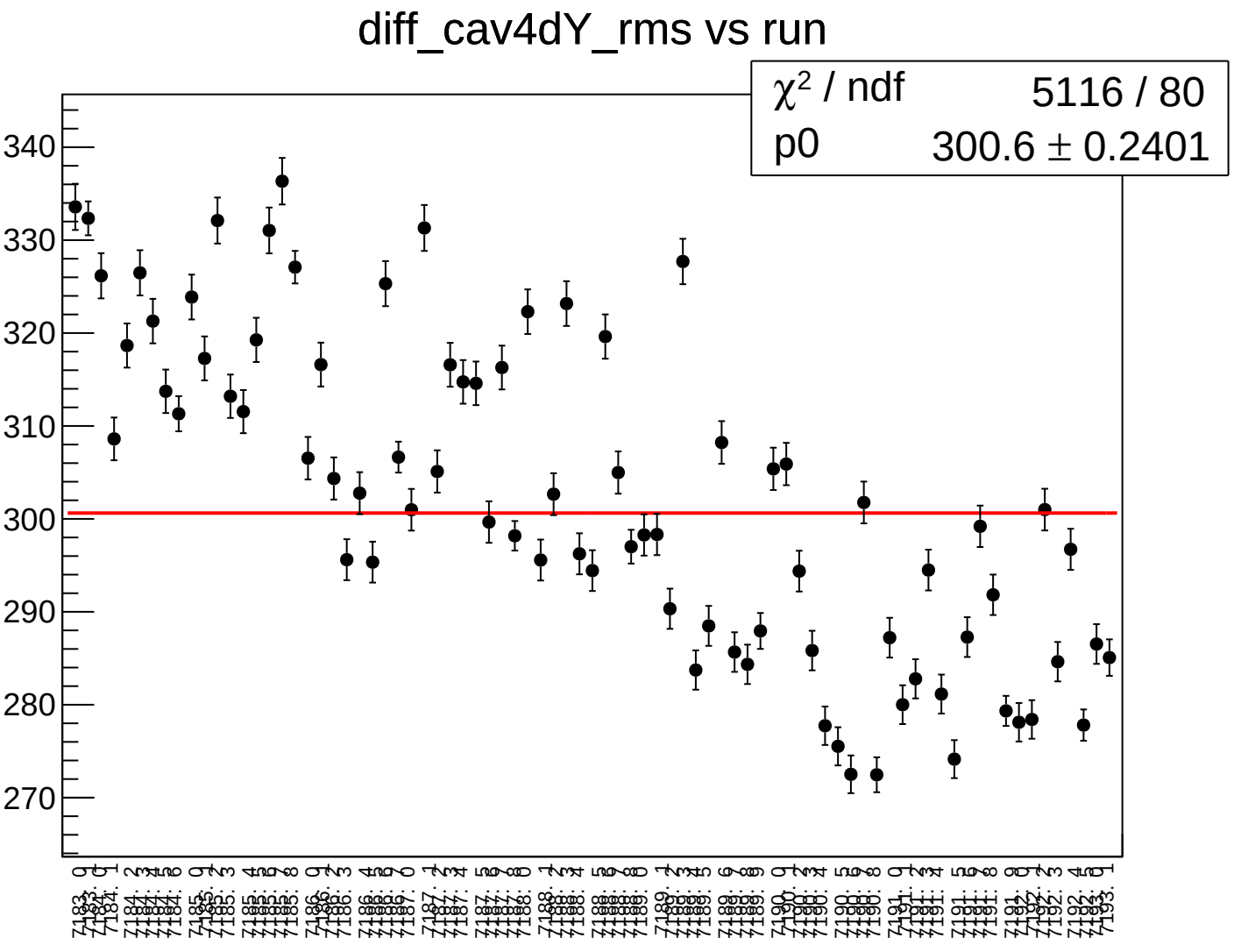

diff_cav4dX_mean vs run
χ² / ndf 94.4 / 80
p0 0.9159 ± 4.607
pull
Entries 81
Mean 362.2
Std Dev 338.8

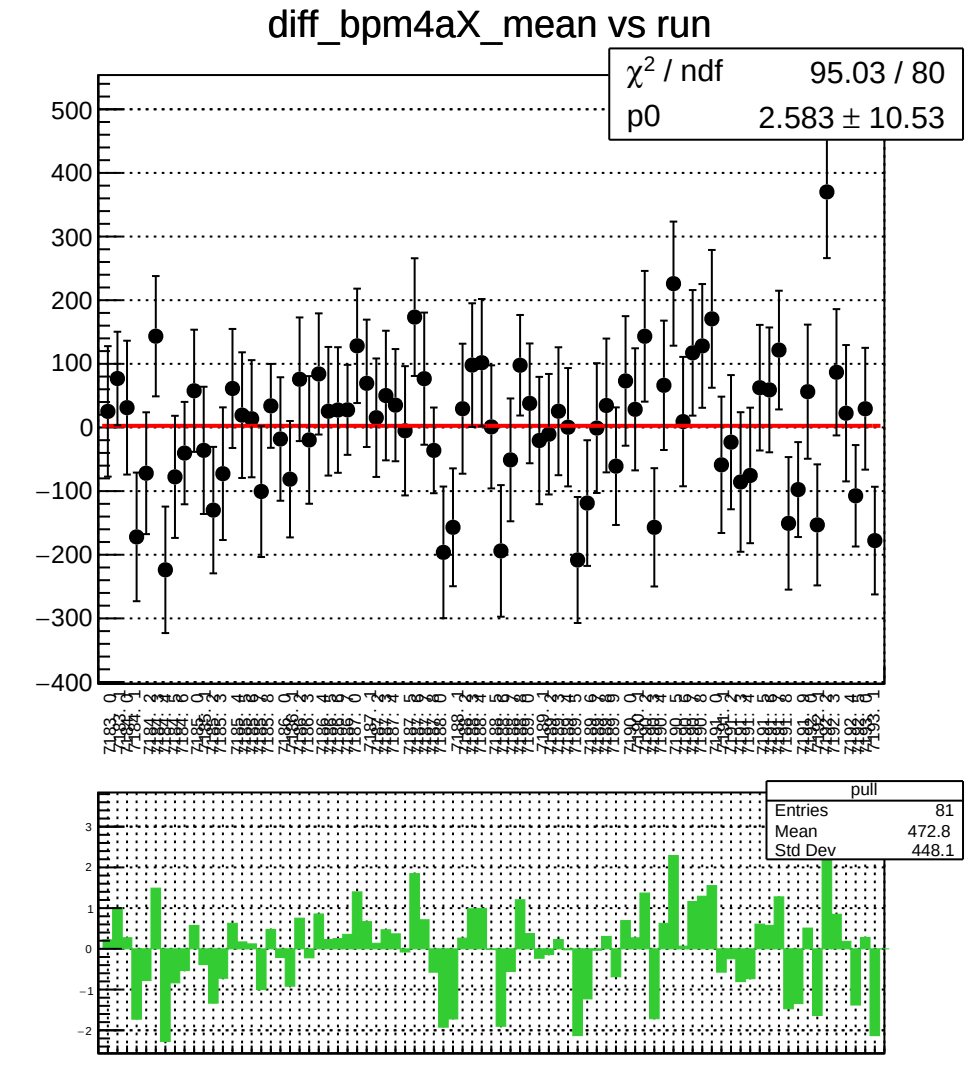

pull1D
Entries 81
Mean 0.004539
Std Dev 1.08

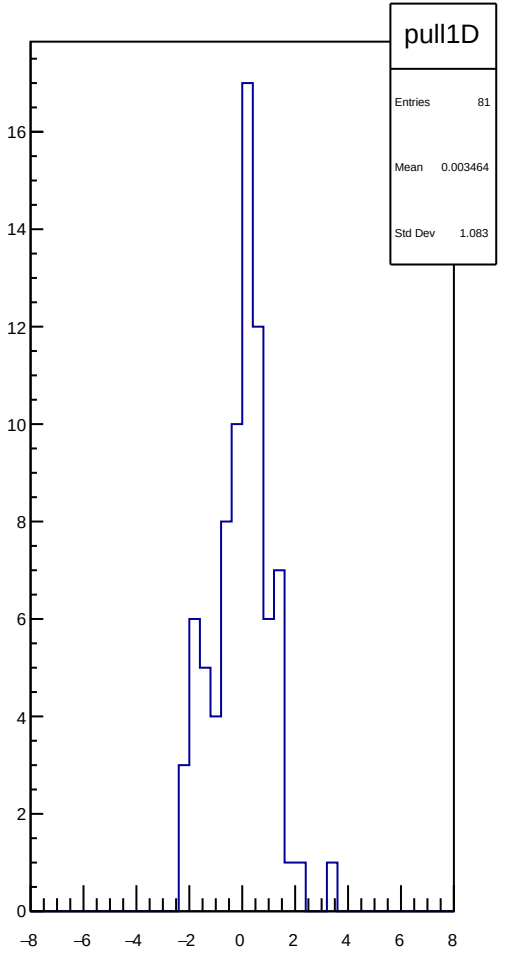

diff_cav4dX_rms vs run
χ² / ndf 3311 / 80
p0 4081 ± 3.257
4600
4400
4200
4000
3800
3600

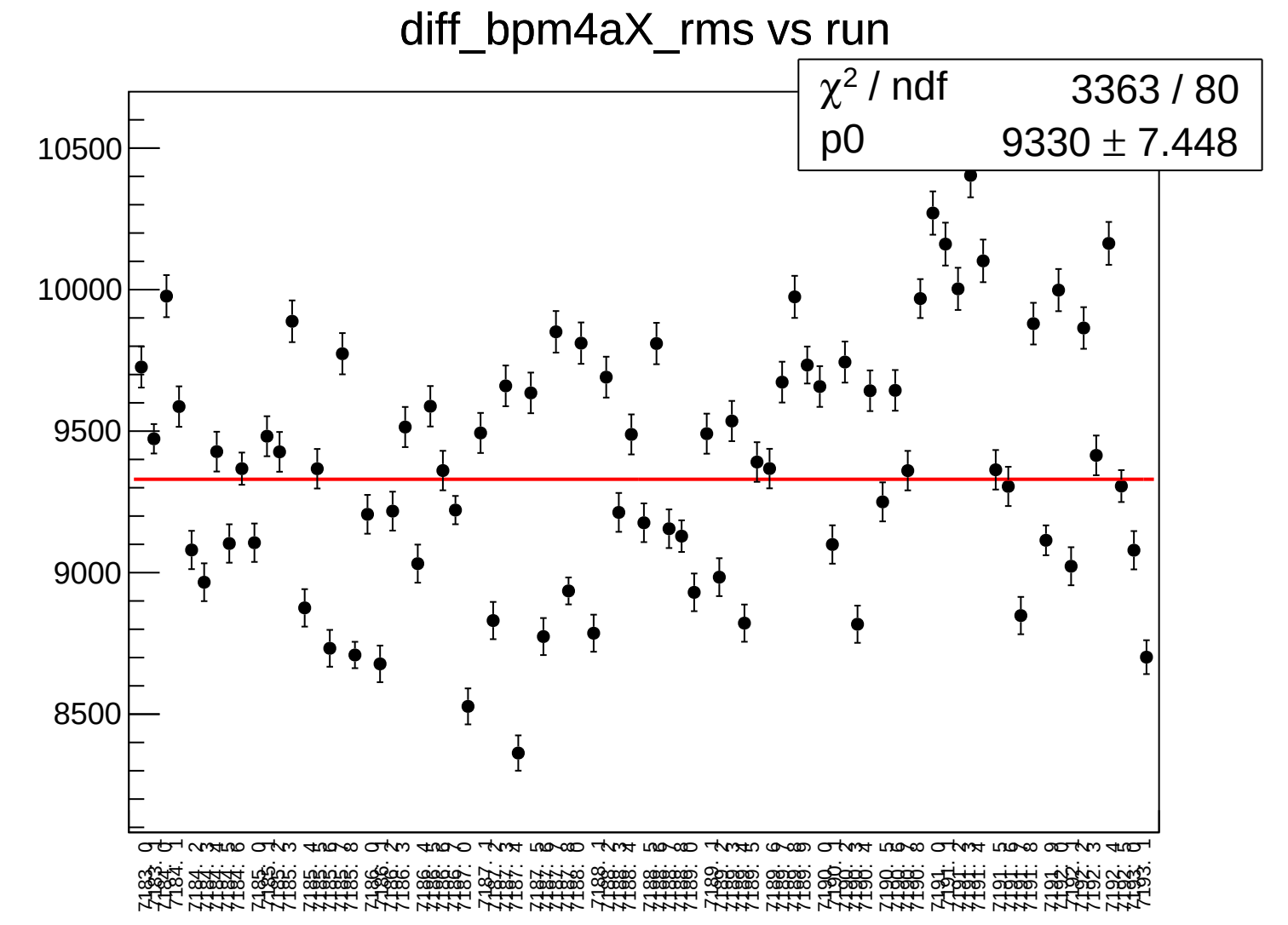

diff_cav4dY_mean vs run
χ² / ndf 77.38 / 80
p0 −0.7335 ± 0.3396
pull
Entries 81
Mean −88.43
Std Dev 122.4

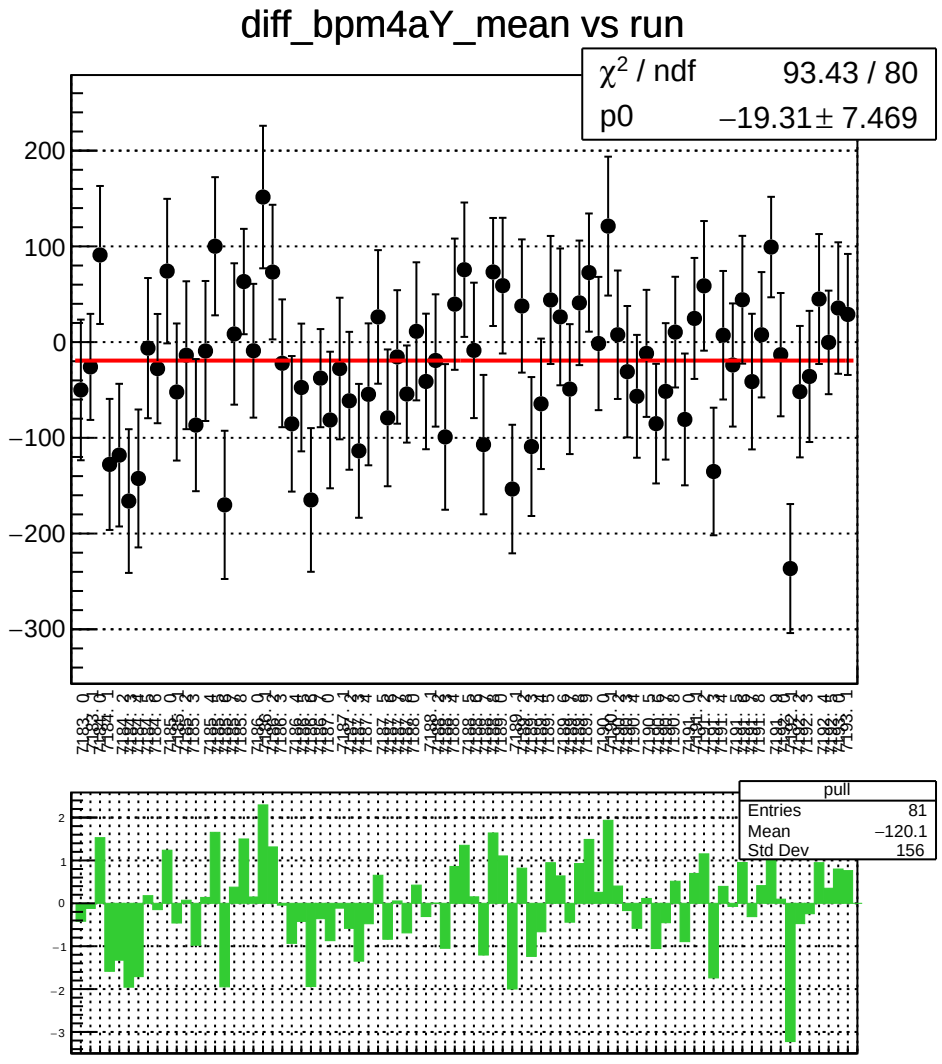

pull1D
Entries 81
Mean −0.02292
Std Dev 0.9771

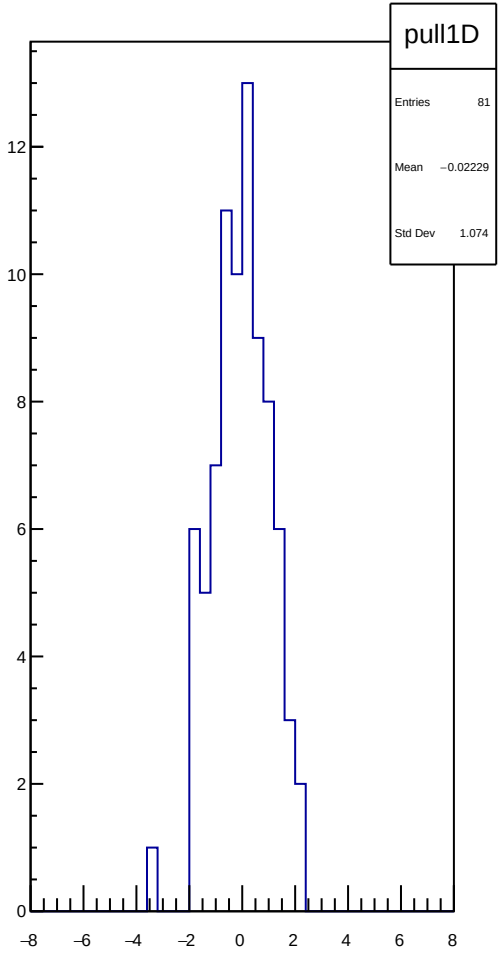

diff_cav4dY_rms vs run
χ² / ndf 5116 / 80
p0 300.6 ± 0.2401
340
330
320
310
300
290
280
270

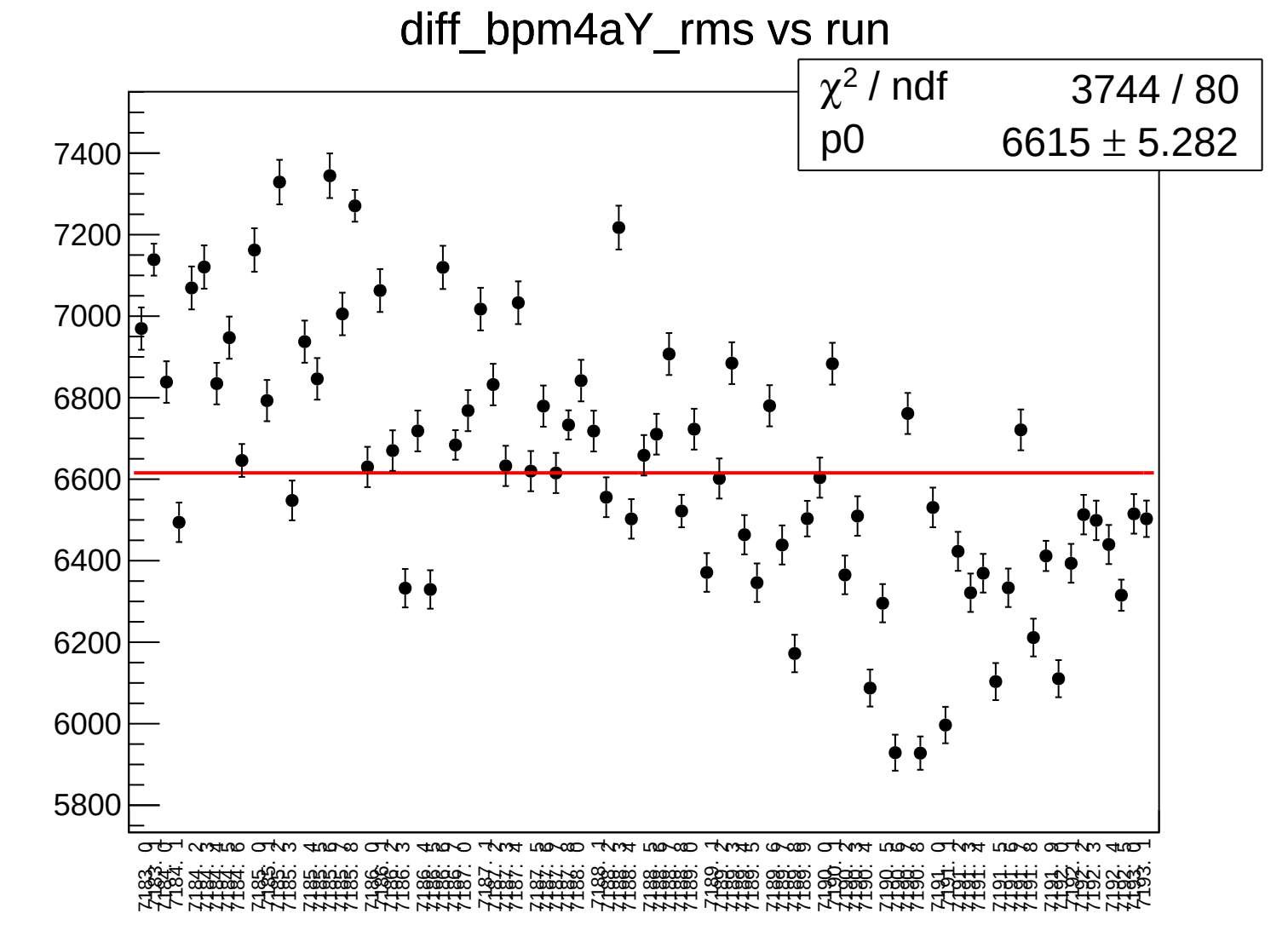

diff_bpm4aX_mean vs run
χ² / ndf 95.03 / 80
p0 2.583 ± 10.53
pull
Entries 81
Mean 472.8
Std Dev 448.1

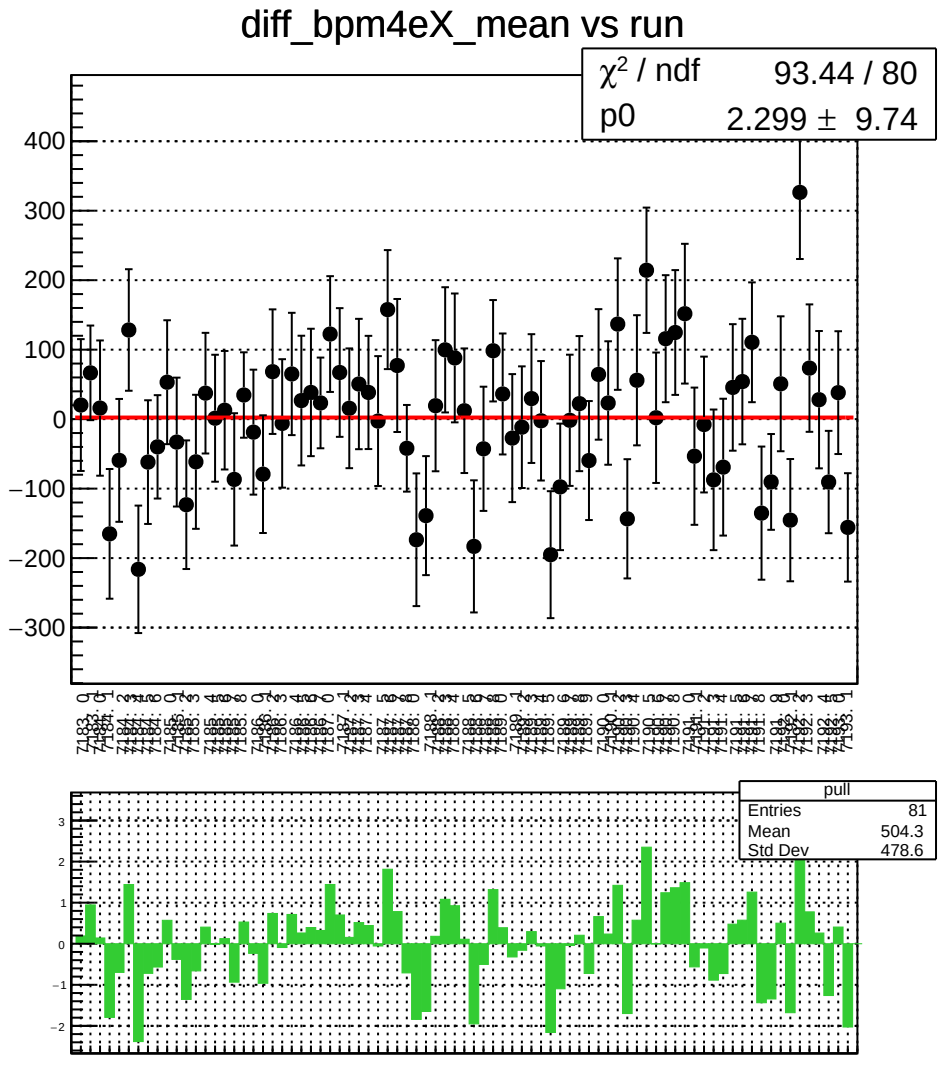

pull1D
Entries 81
Mean 0.003464
Std Dev 1.083

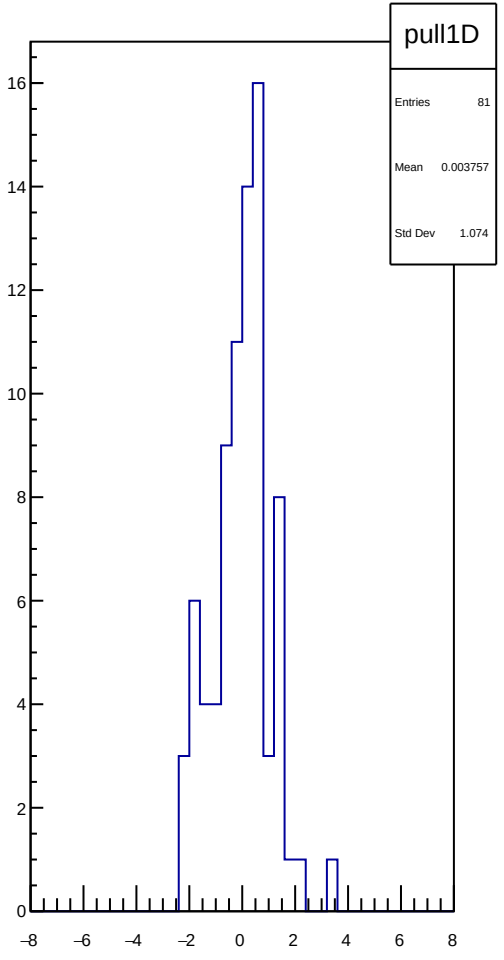

diff_bpm4aX_rms vs run
χ^2 / ndf 3363 / 80
p0 9330 ± 7.448
10500
10000
9500
9000
8500

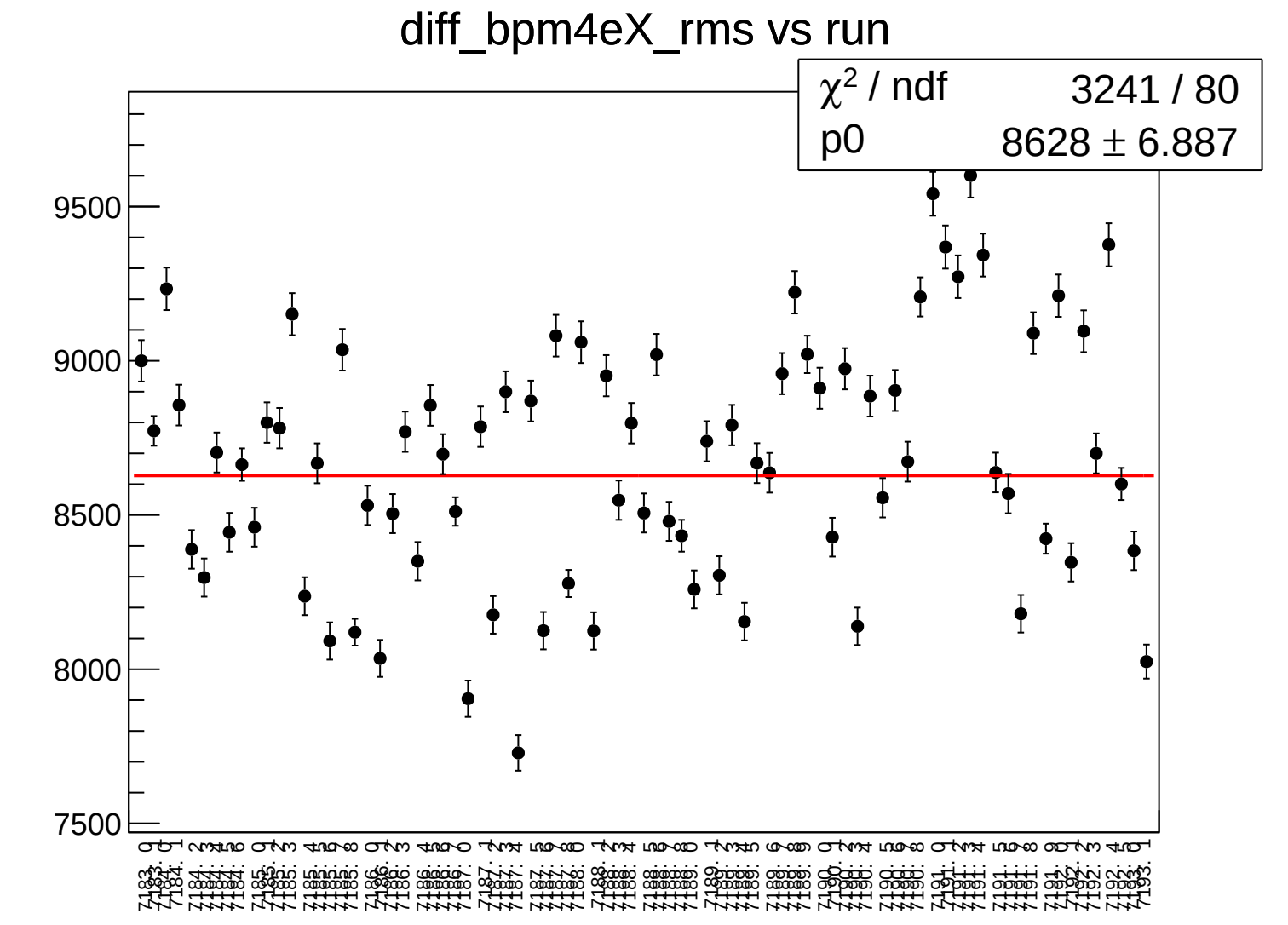

diff_bpm4aY_mean vs run
χ² / ndf 93.43 / 80
p0 −19.31± 7.469
200
100
0
−100
−200
−300
pull
Entries 81
Mean −120.1
Std Dev 156
2
1
0
−1
−2
−3

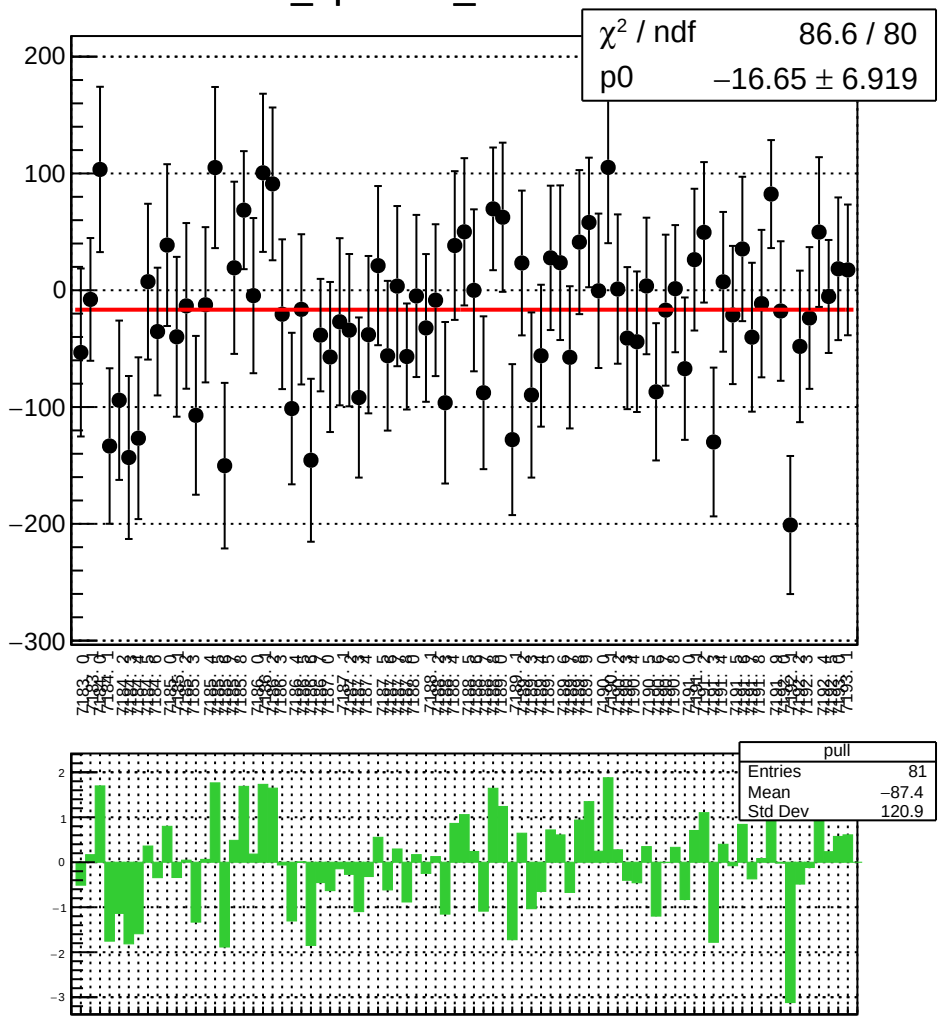

pull1D
Entries 81
Mean −0.02229
Std Dev 1.074
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

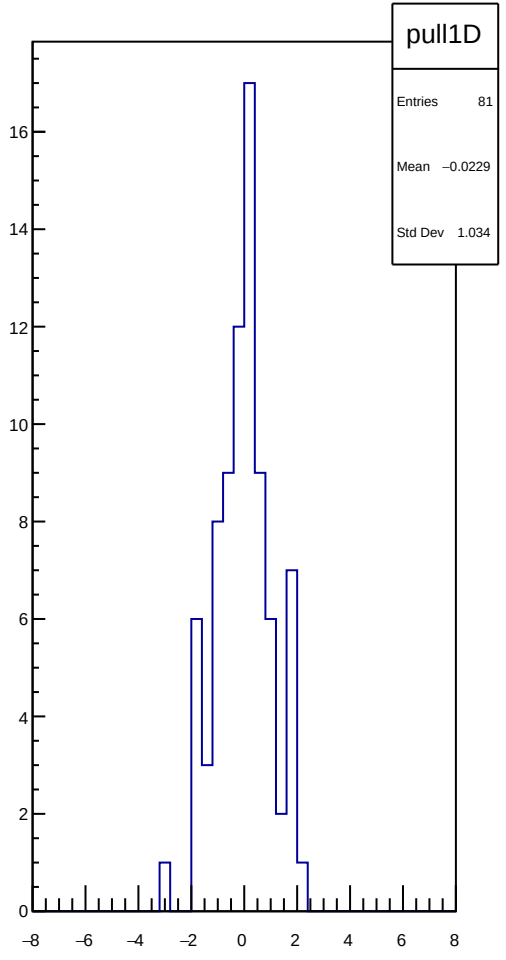

diff_bpm4aY_rms vs run
χ^2 / ndf 3744 / 80
p0 6615 ± 5.282
7400
7200
7000
6800
6600
6400
6200
6000
5800

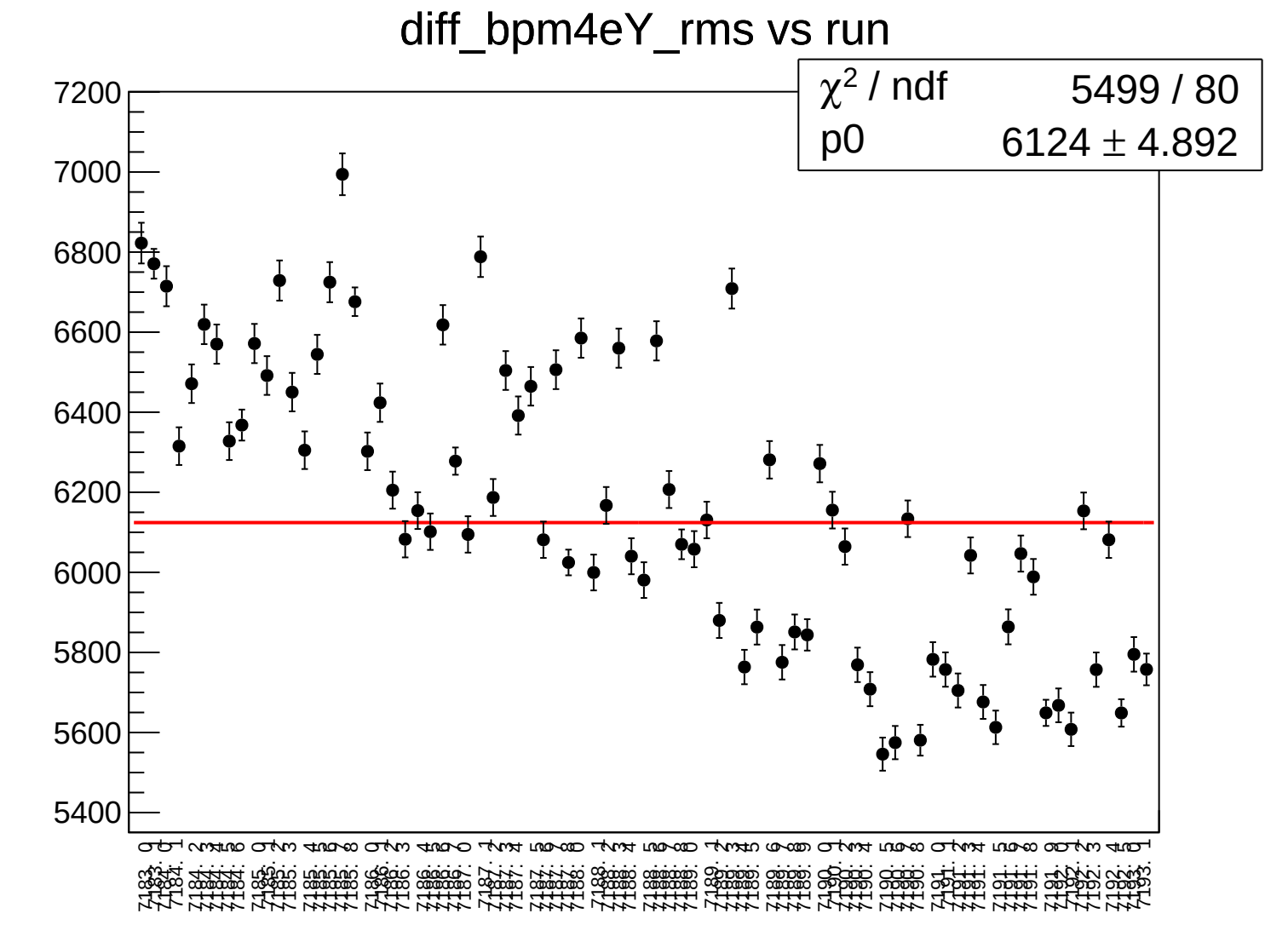

diff_bpm4eX_mean vs run
χ² / ndf 93.44 / 80
p0 2.299 ± 9.74
pull
Entries 81
Mean 504.3
Std Dev 478.6

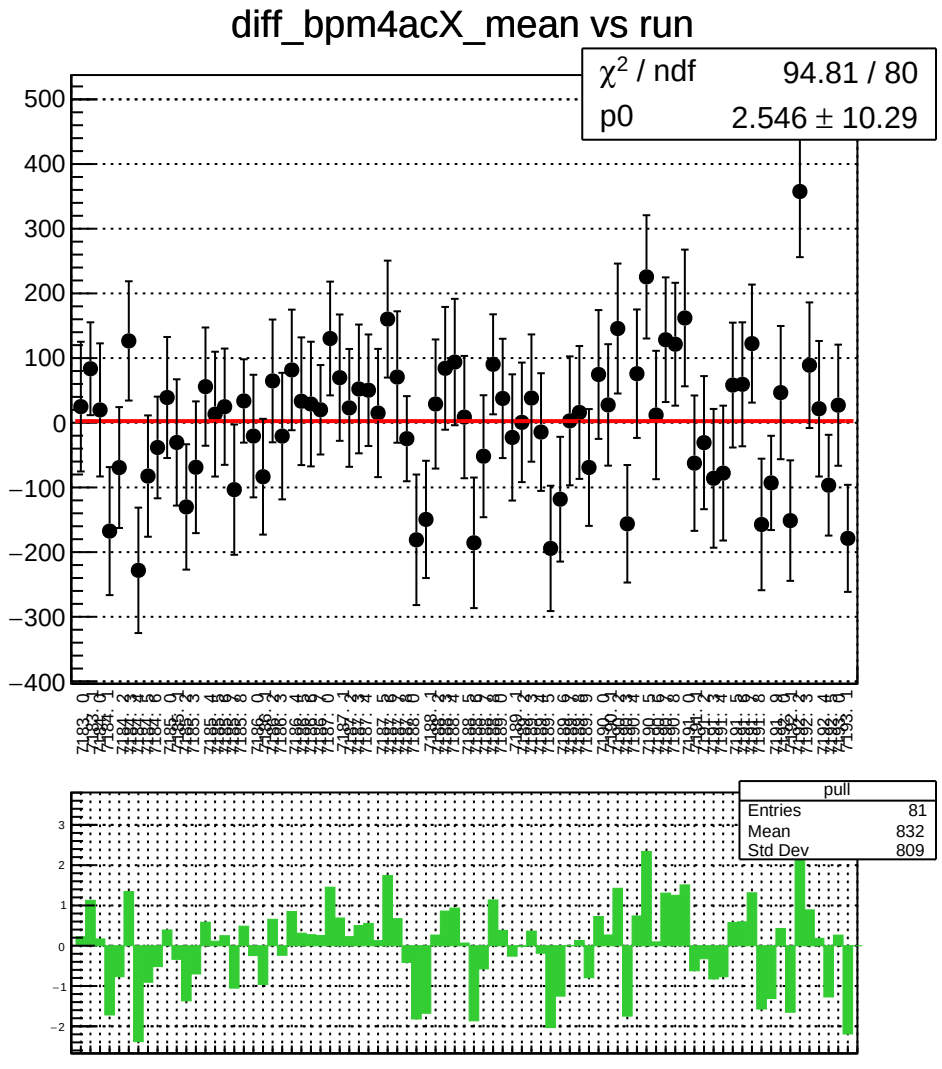

pull1D
Entries 81
Mean 0.003757
Std Dev 1.074

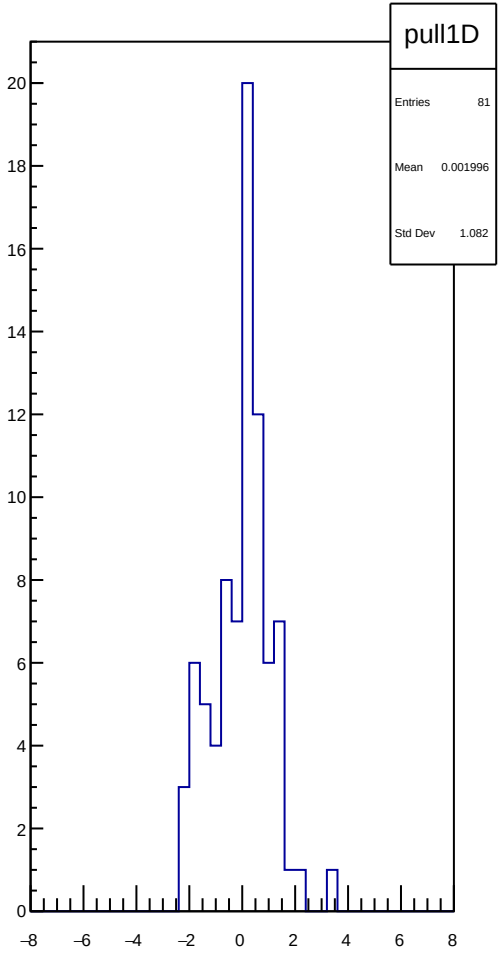

diff_bpm4eX_rms vs run
χ² / ndf 3241 / 80
p0 8628 ± 6.887
9500
9000
8500
8000
7500

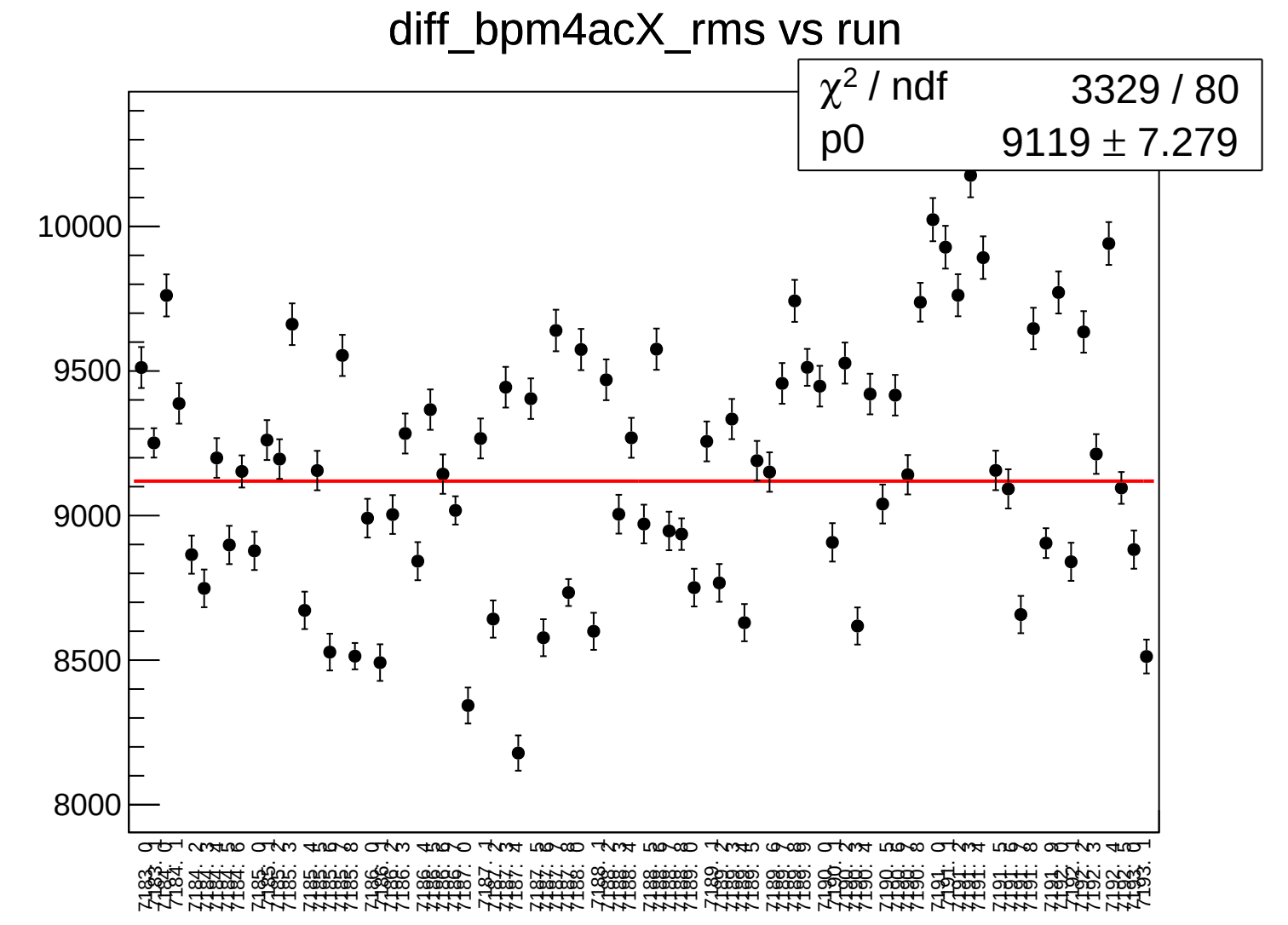

diff_bpm4eY_mean vs run
χ² / ndf 86.6 / 80
p0 −16.65 ± 6.919
pull
Entries 81
Mean −87.4
Std Dev 120.9

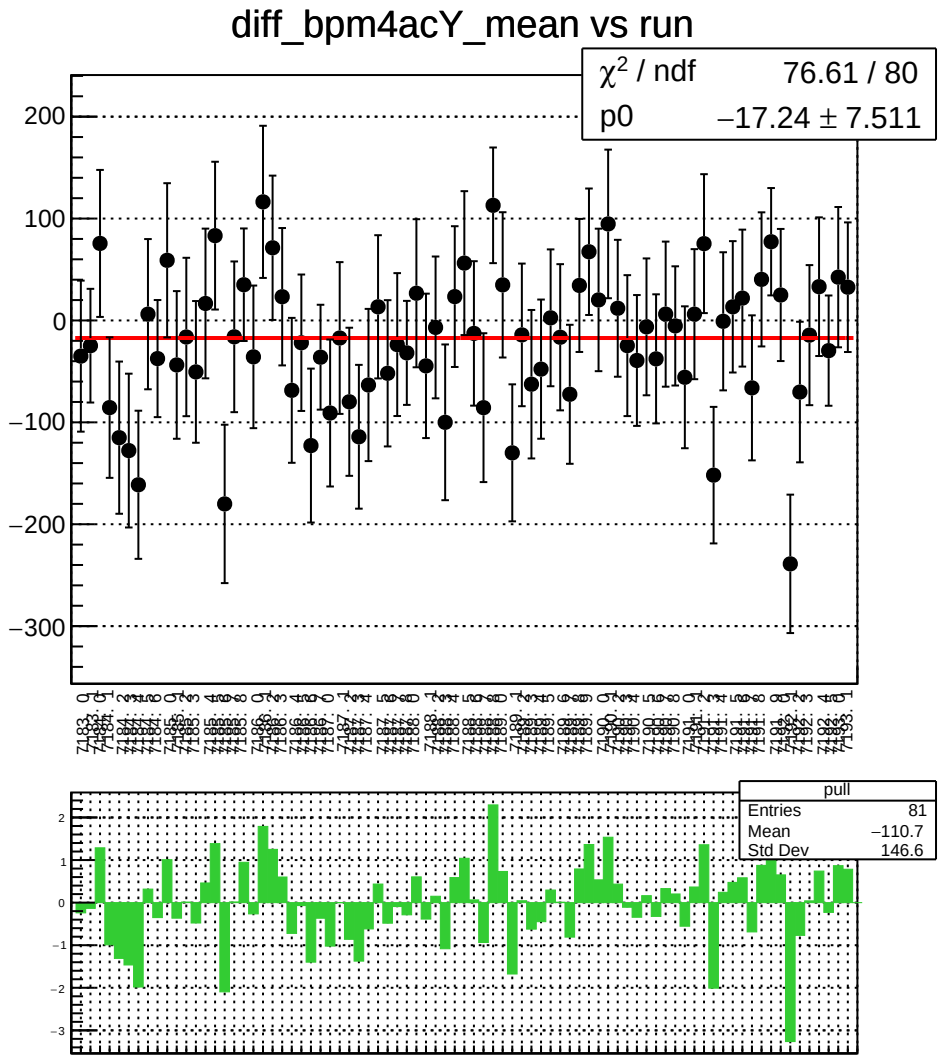

pull1D
Entries 81
Mean −0.0229
Std Dev 1.034

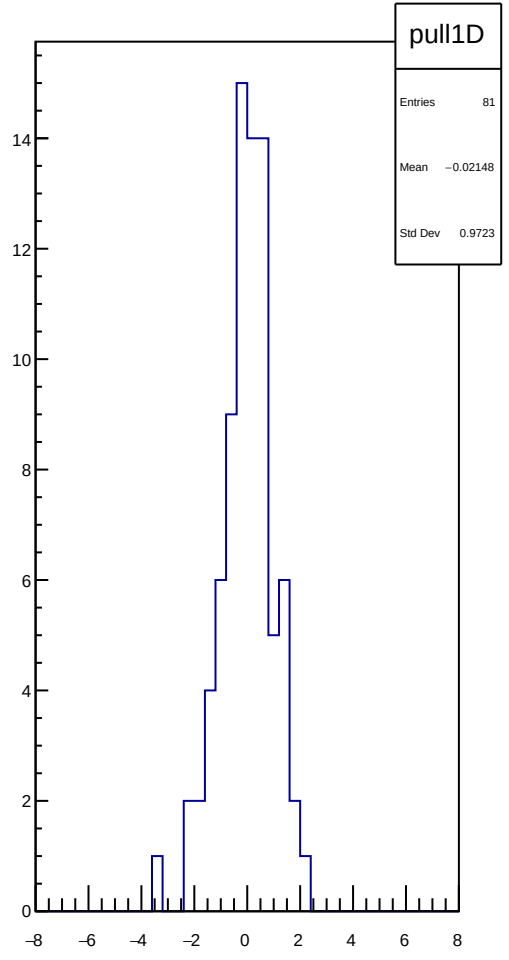

diff_bpm4eY_rms vs run
χ^2 / ndf 5499 / 80
p0 6124 ± 4.892
7200
7000
6800
6600
6400
6200
6000
5800
5600
5400

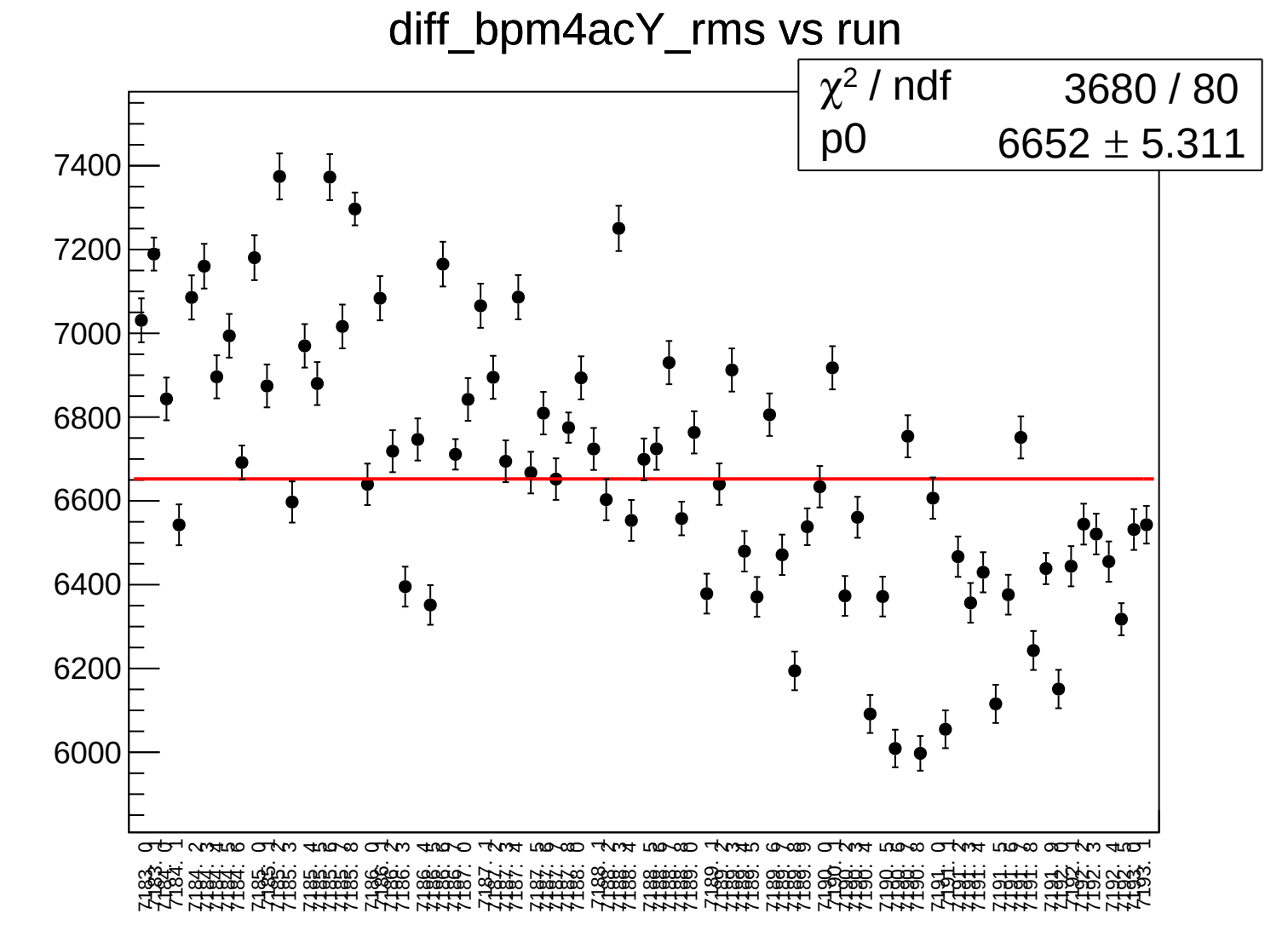

diff_bpm4acX_mean vs run
χ² / ndf 94.81 / 80
p0 2.546 ± 10.29
pull
Entries 81
Mean 832
Std Dev 809

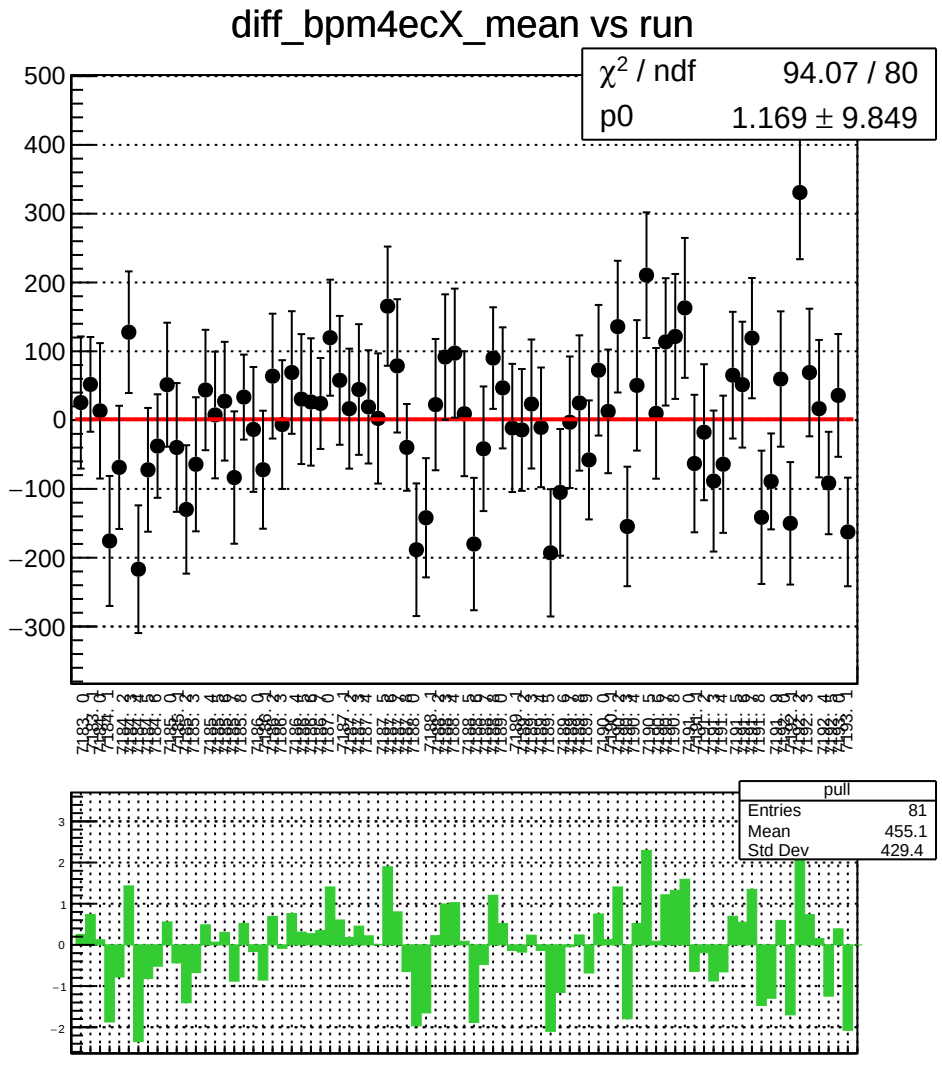

pull1D
Entries 81
Mean 0.001996
Std Dev 1.082

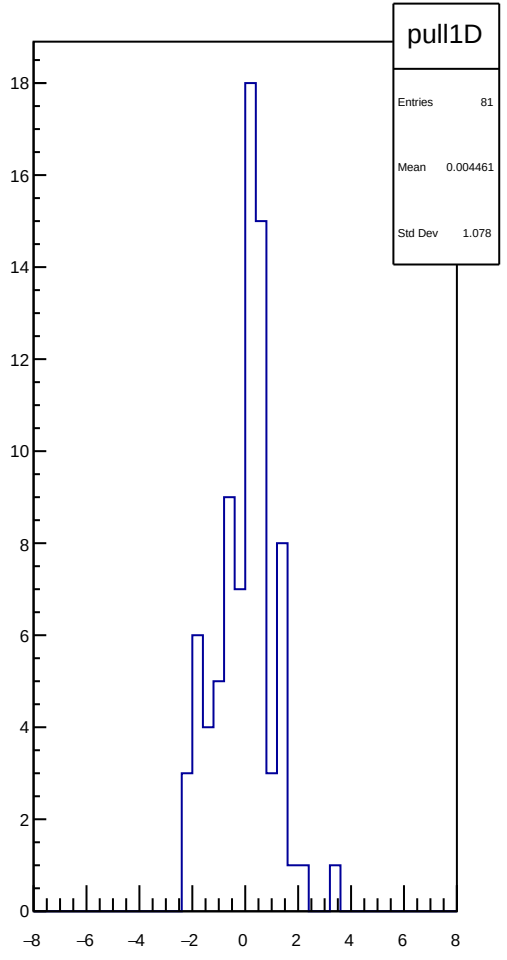

diff_bpm4acX_rms vs run
χ² / ndf 3329 / 80
p0 9119 ± 7.279
10000
9500
9000
8500
8000

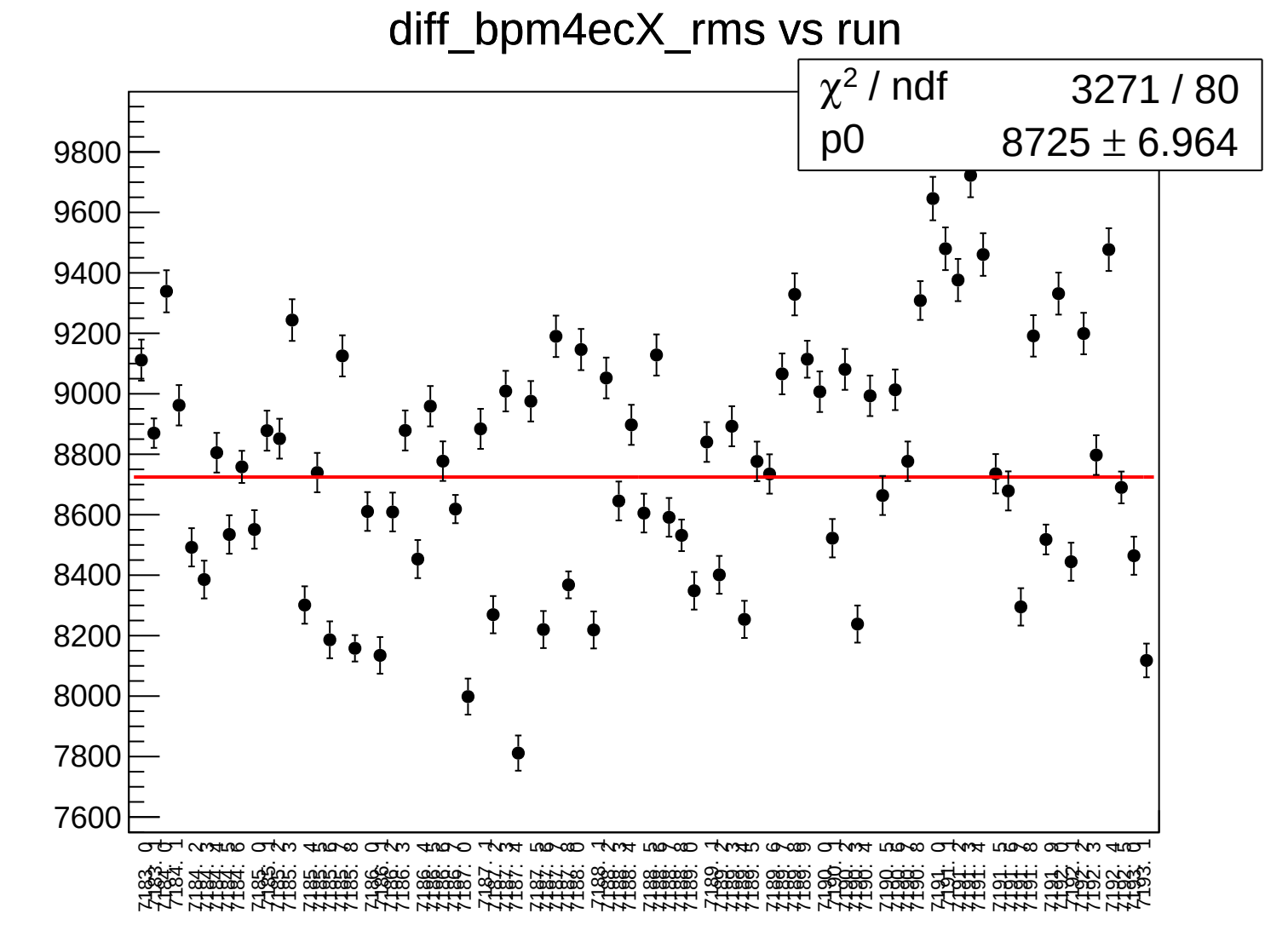

diff_bpm4acY_mean vs run
χ² / ndf 76.61 / 80
p0 −17.24 ± 7.511
200
100
0
−100
−200
−300
pull
Entries 81
Mean −110.7
Std Dev 146.6
2
1
0
−1
−2
−3

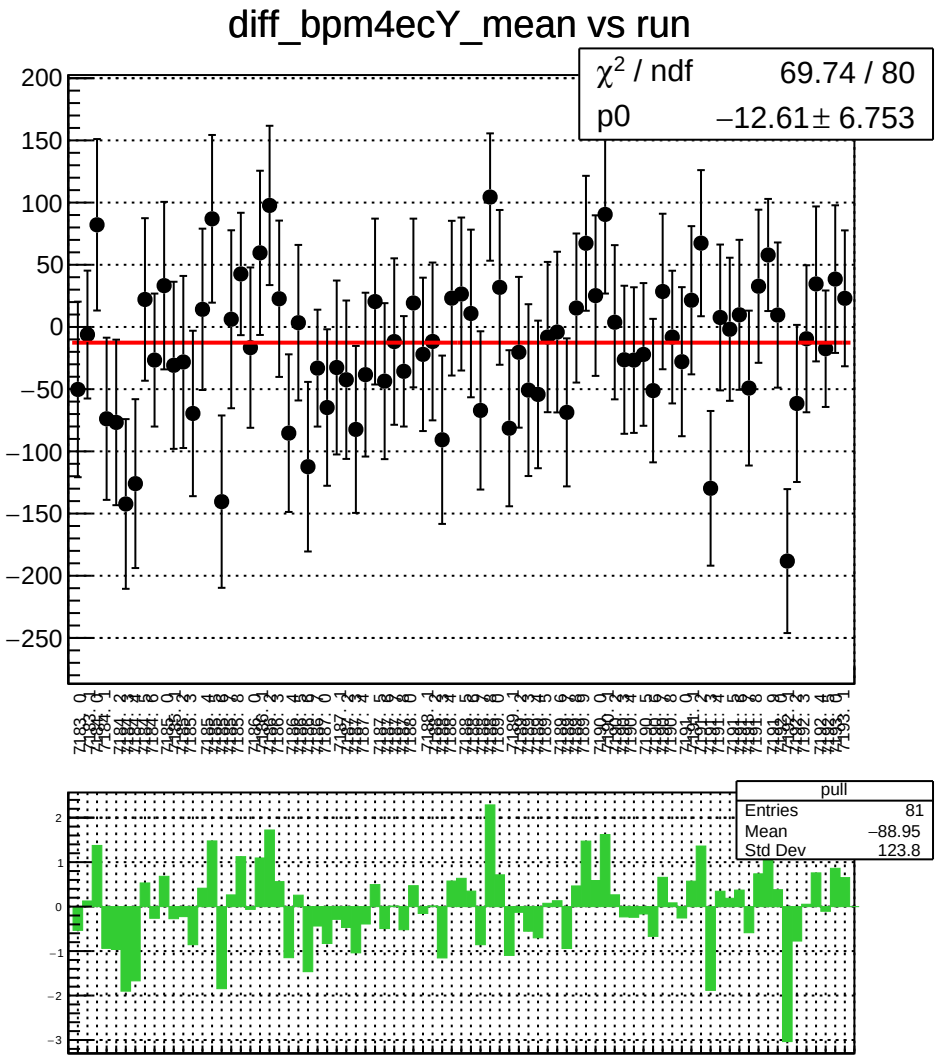

pull1D
Entries 81
Mean −0.02148
Std Dev 0.9723
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

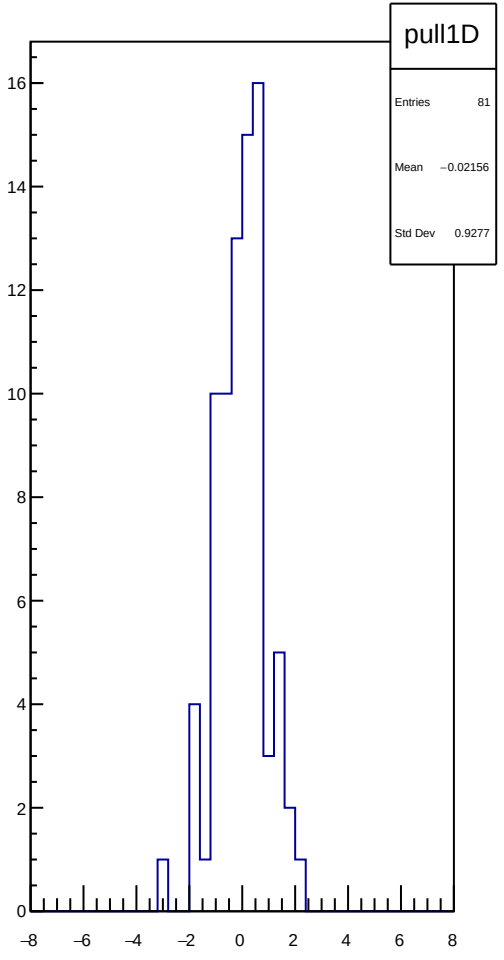

diff_bpm4acY_rms vs run
χ² / ndf 3680 / 80
p0 6652 ± 5.311
7400
7200
7000
6800
6600
6400
6200
6000

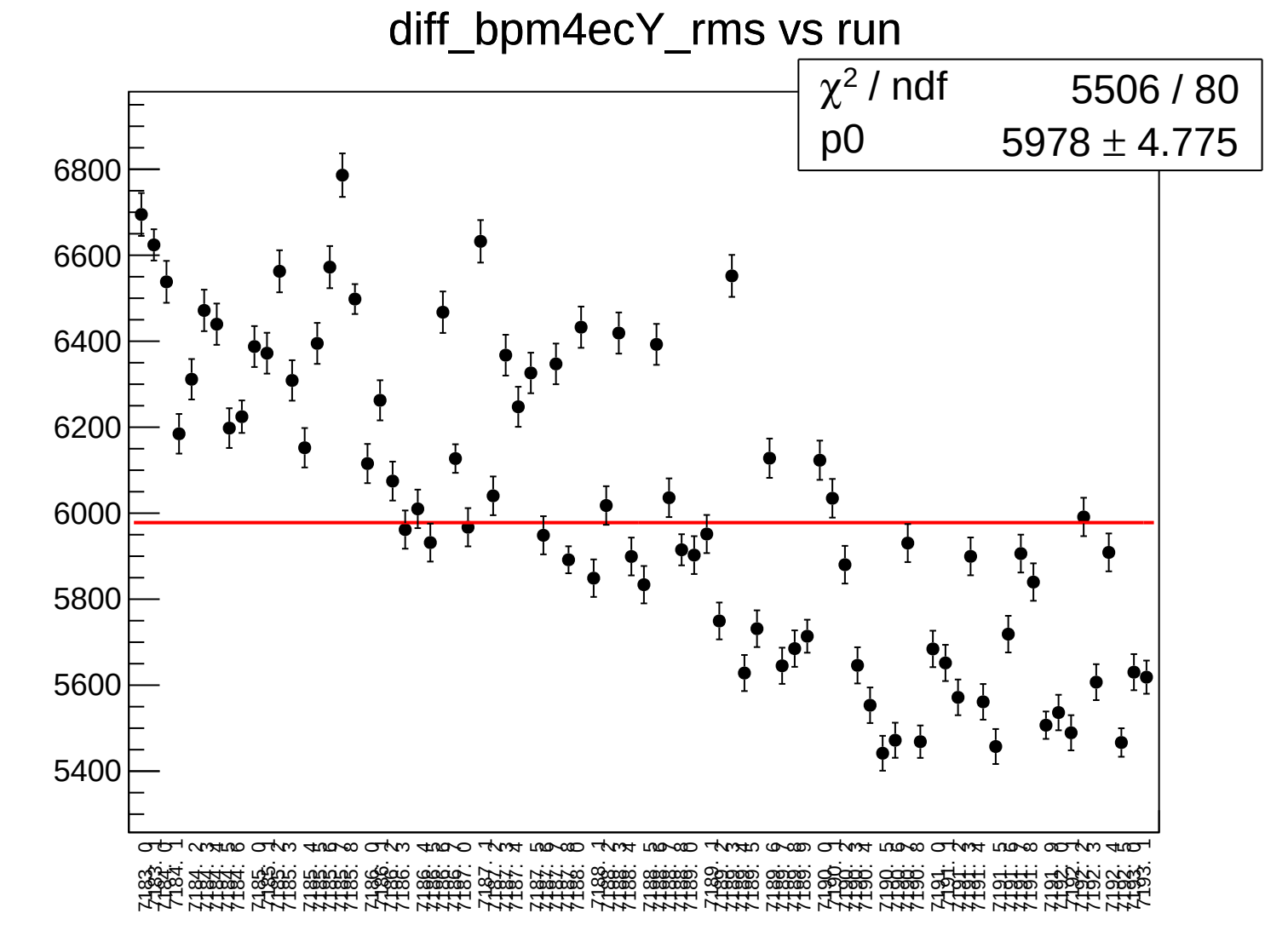

diff_bpm4ecX_mean vs run
χ² / ndf 94.07 / 80
p0 1.169 ± 9.849
pull
Entries 81
Mean 455.1
Std Dev 429.4

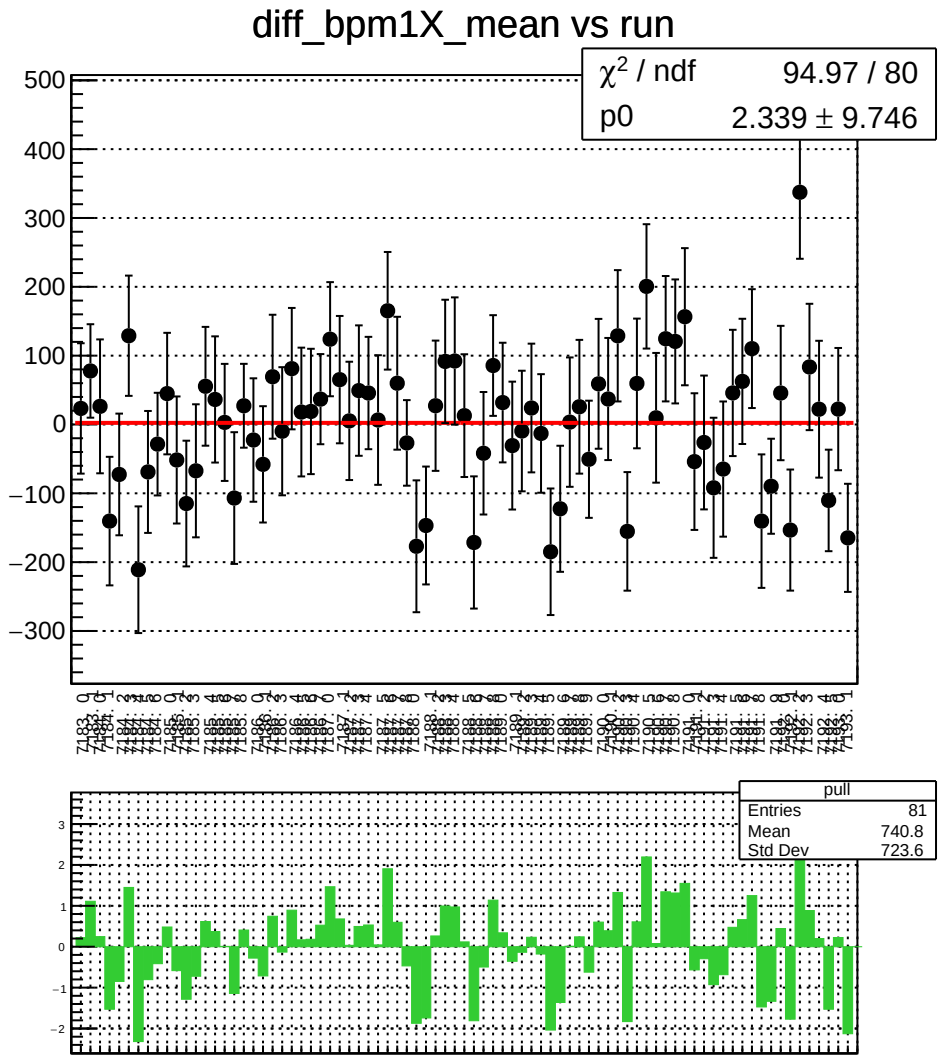

pull1D
Entries 81
Mean 0.004461
Std Dev 1.078

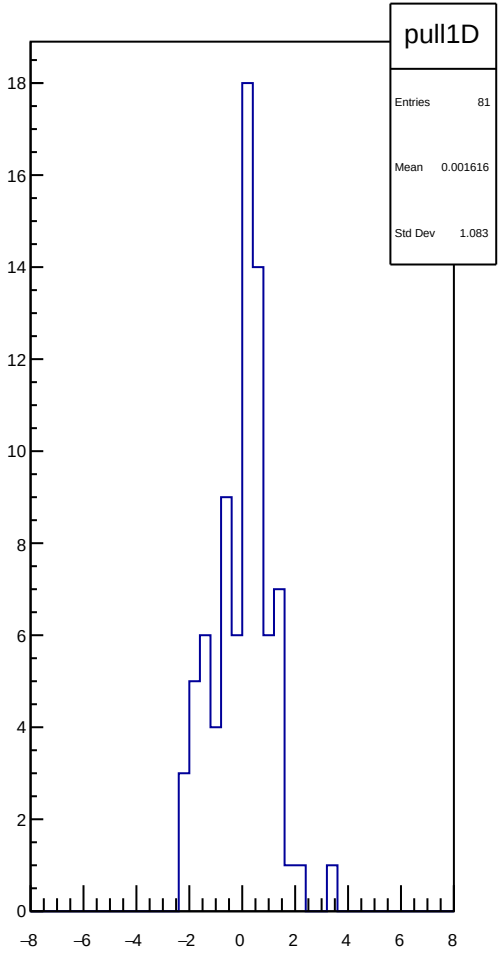

diff_bpm4ecX_rms vs run
χ^2 / ndf 3271 / 80
p0 8725 ± 6.964
9800
9600
9400
9200
9000
8800
8600
8400
8200
8000
7800
7600

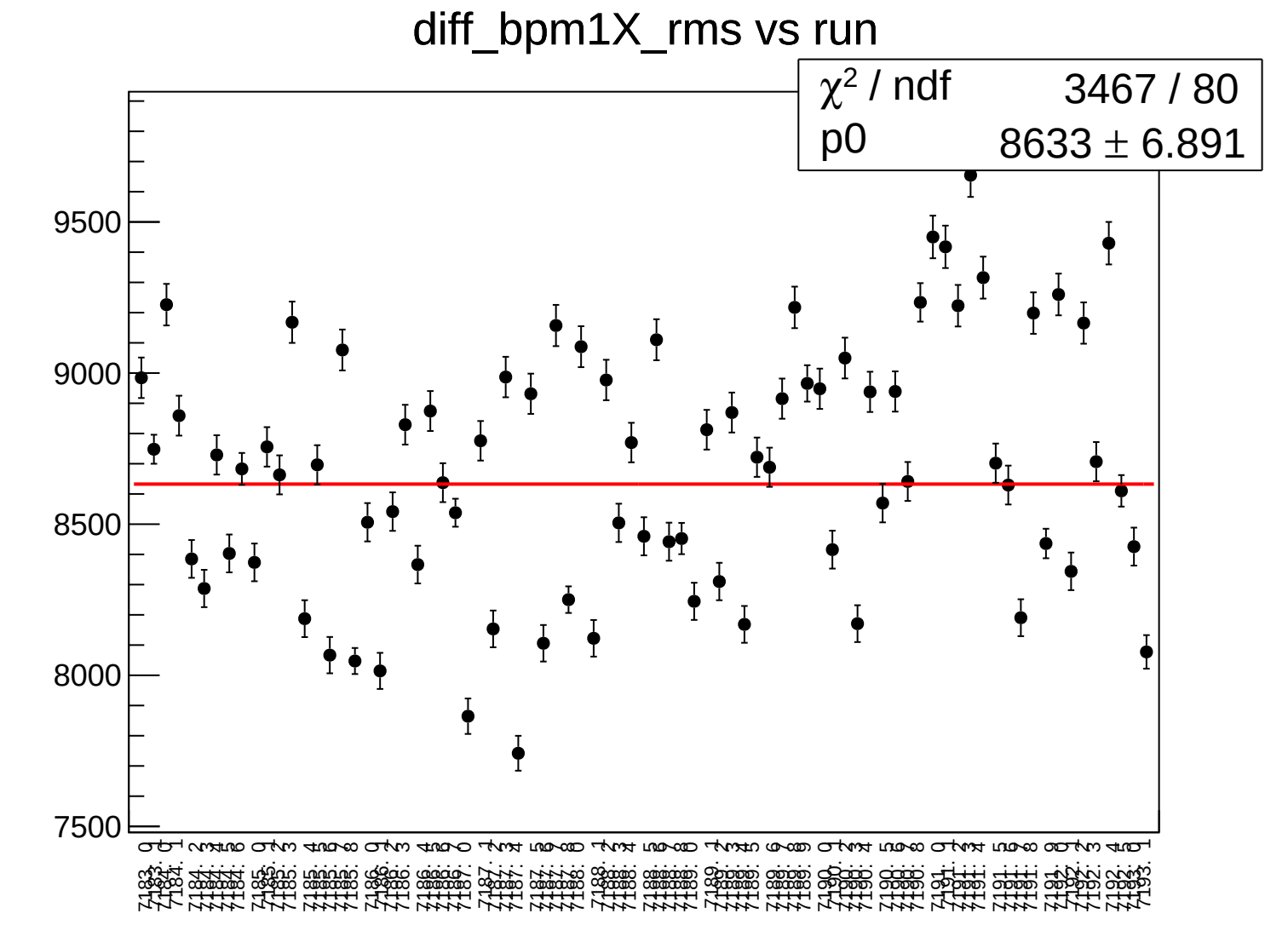

diff_bpm4ecY_mean vs run
χ^2 / ndf 69.74 / 80
p0 −12.61± 6.753
pull
Entries 81
Mean −88.95
Std Dev 123.8

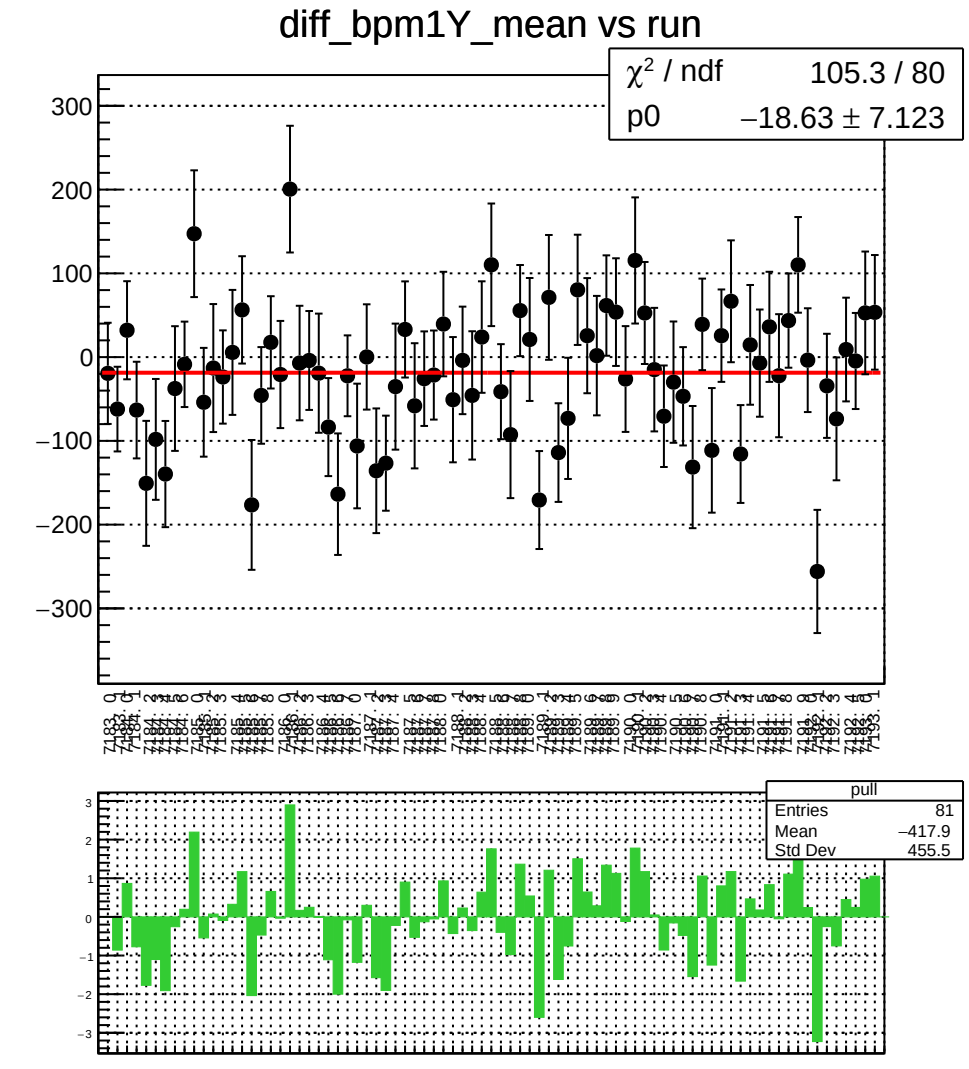

pull1D
Entries 81
Mean −0.02156
Std Dev 0.9277

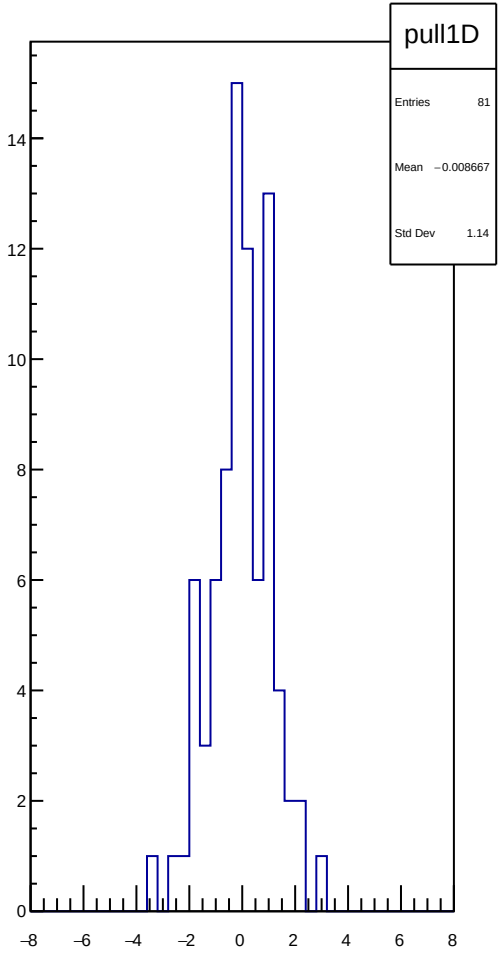

diff_bpm4ecY_rms vs run
χ² / ndf 5506 / 80
p0 5978 ± 4.775
6800
6600
6400
6200
6000
5800
5600
5400

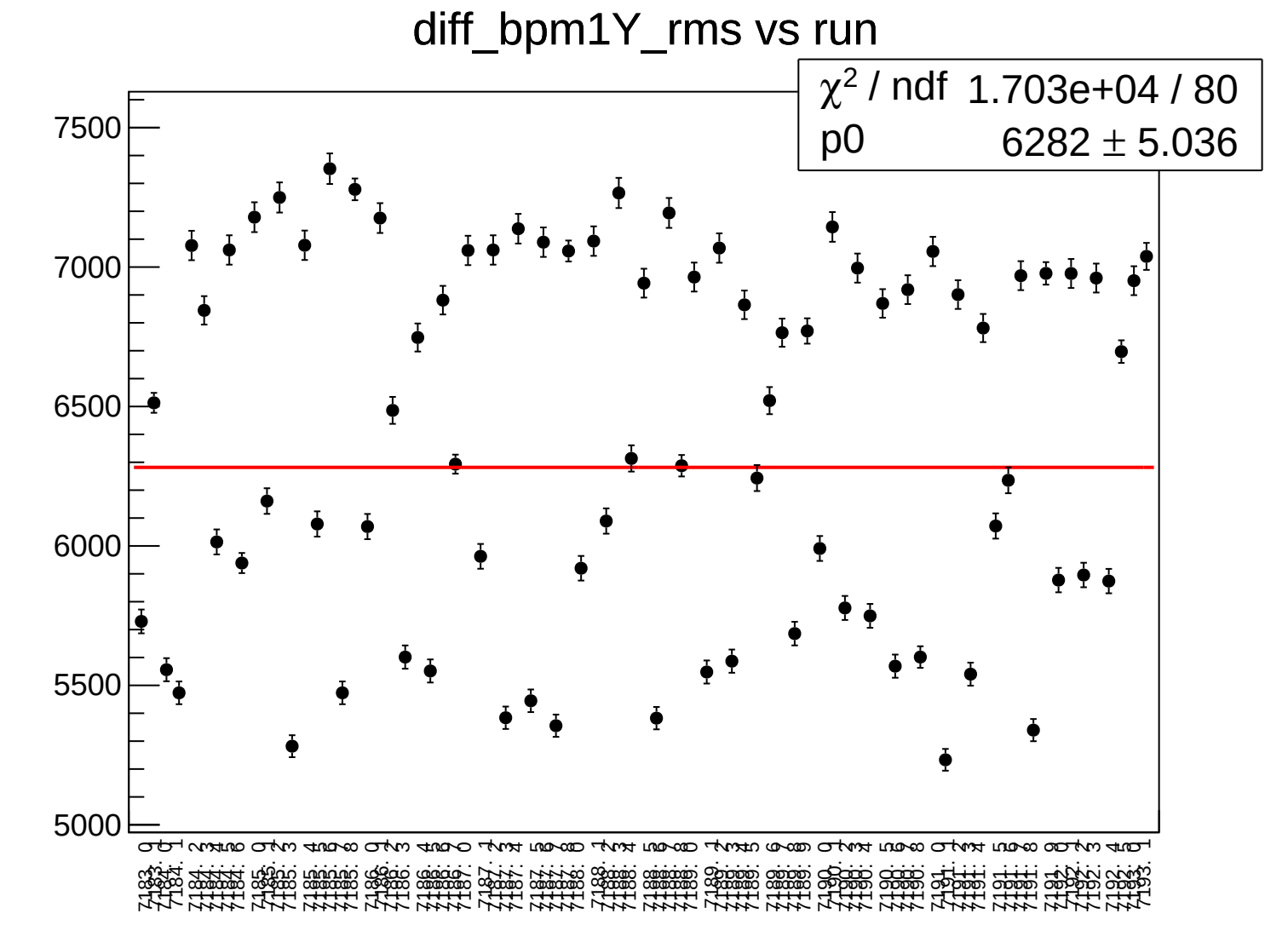

diff_bpm1X_mean vs run
χ^2 / ndf 94.97 / 80
p0 2.339 ± 9.746
pull
Entries 81
Mean 740.8
Std Dev 723.6

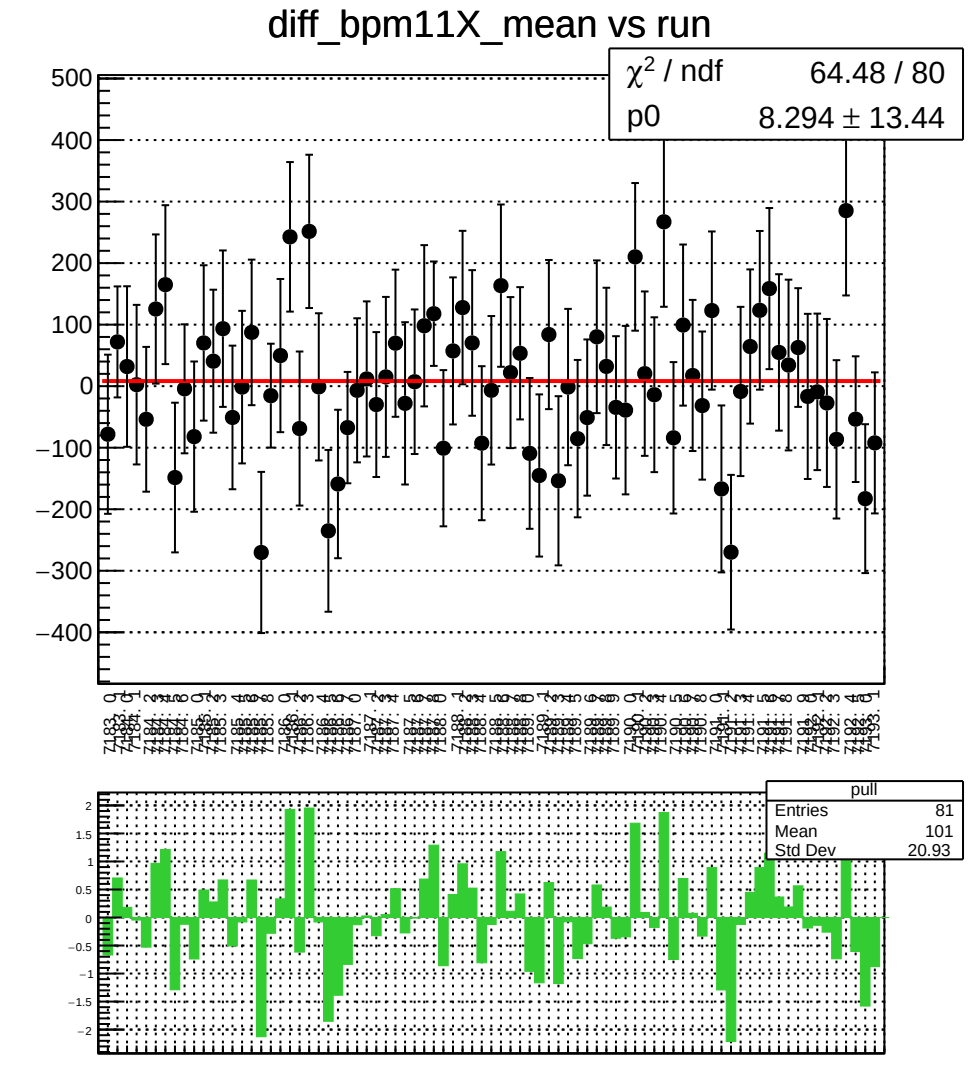

pull1D
Entries 81
Mean 0.001616
Std Dev 1.083

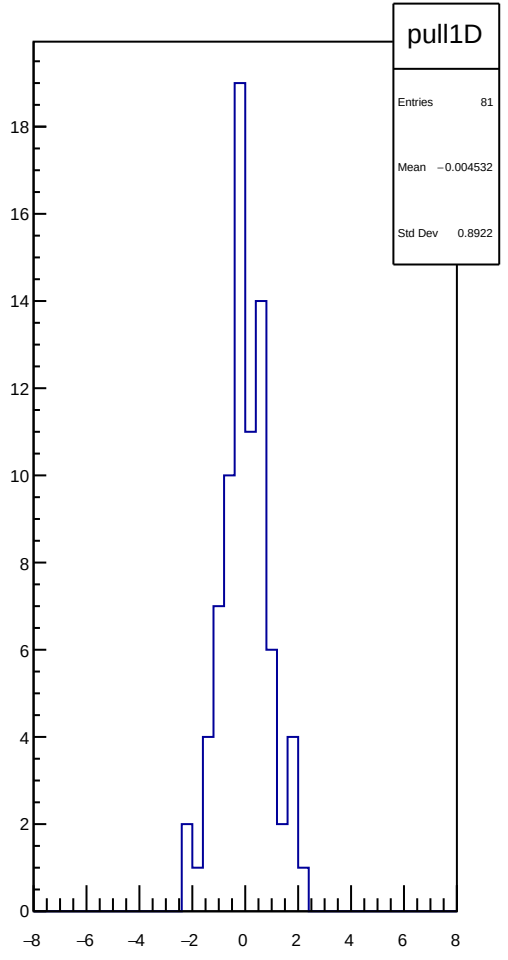

diff_bpm1X_rms vs run
χ^2 / ndf 3467 / 80
p0 8633 ± 6.891
9500
9000
8500
8000
7500

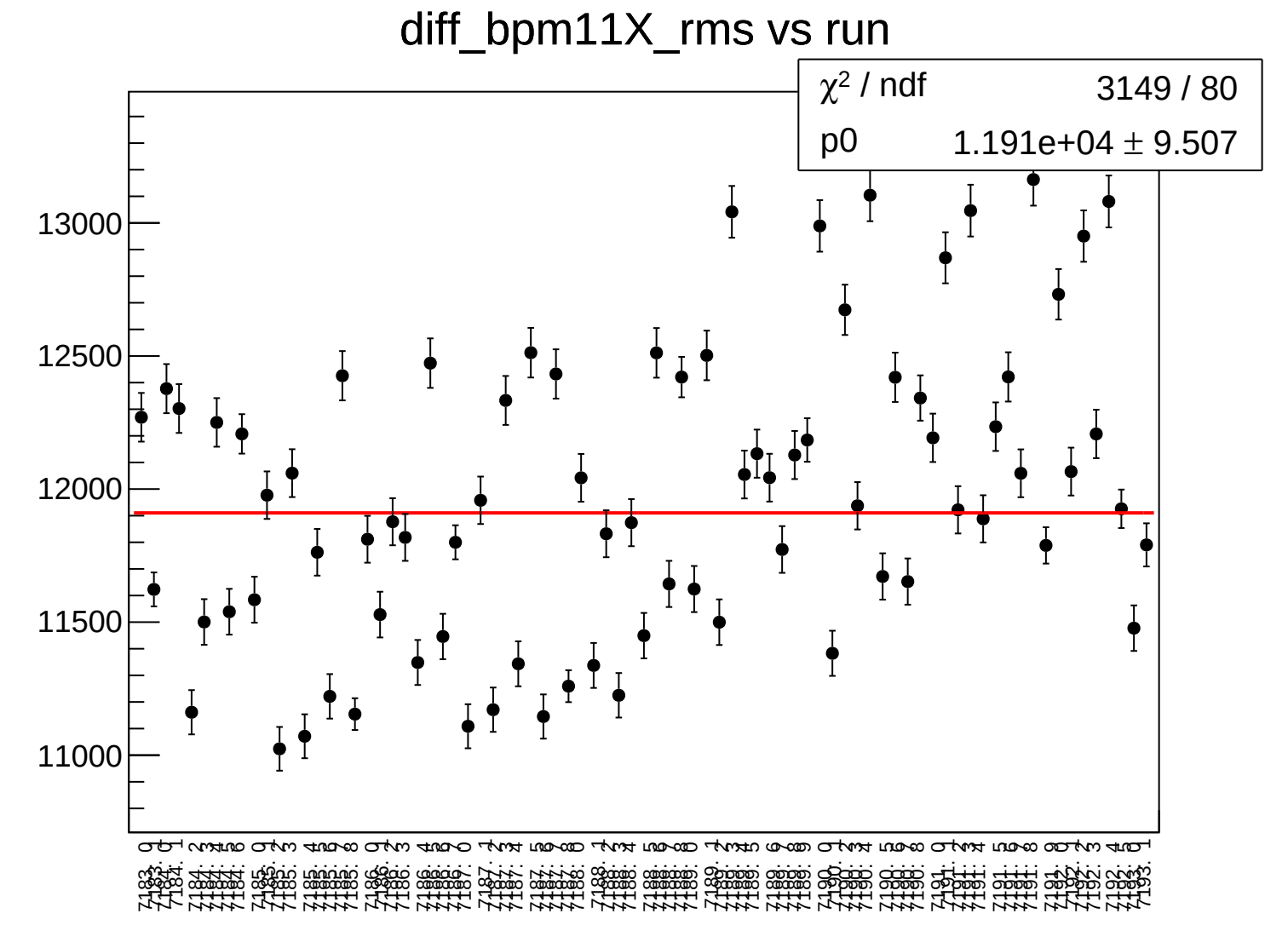

diff_bpm1Y_mean vs run
χ² / ndf 105.3 / 80
p0 −18.63 ± 7.123
pull
Entries 81
Mean −417.9
Std Dev 455.5

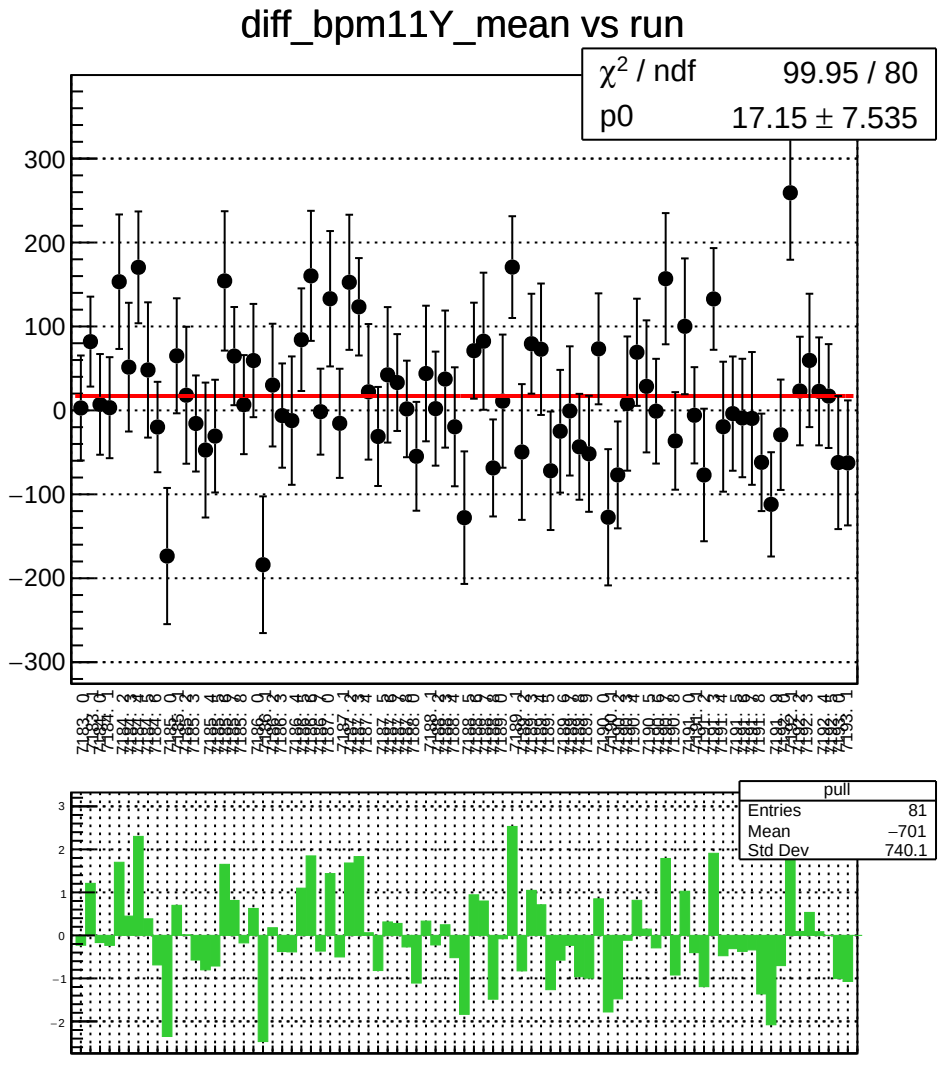

pull1D
Entries 81
Mean −0.008667
Std Dev 1.14

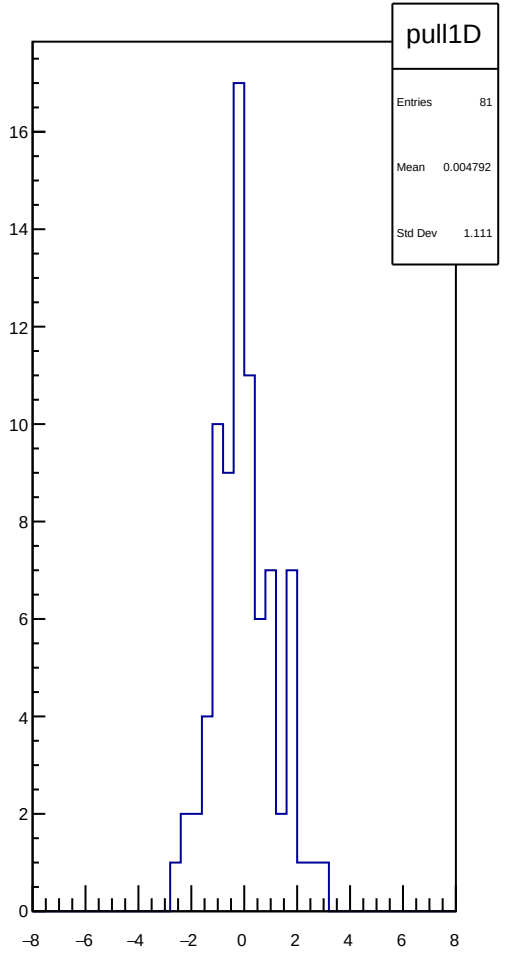

diff_bpm1Y_rms vs run
χ^2 / ndf 1.703e+04 / 80
p0 6282 ± 5.036
7500
7000
6500
6000
5500
5000

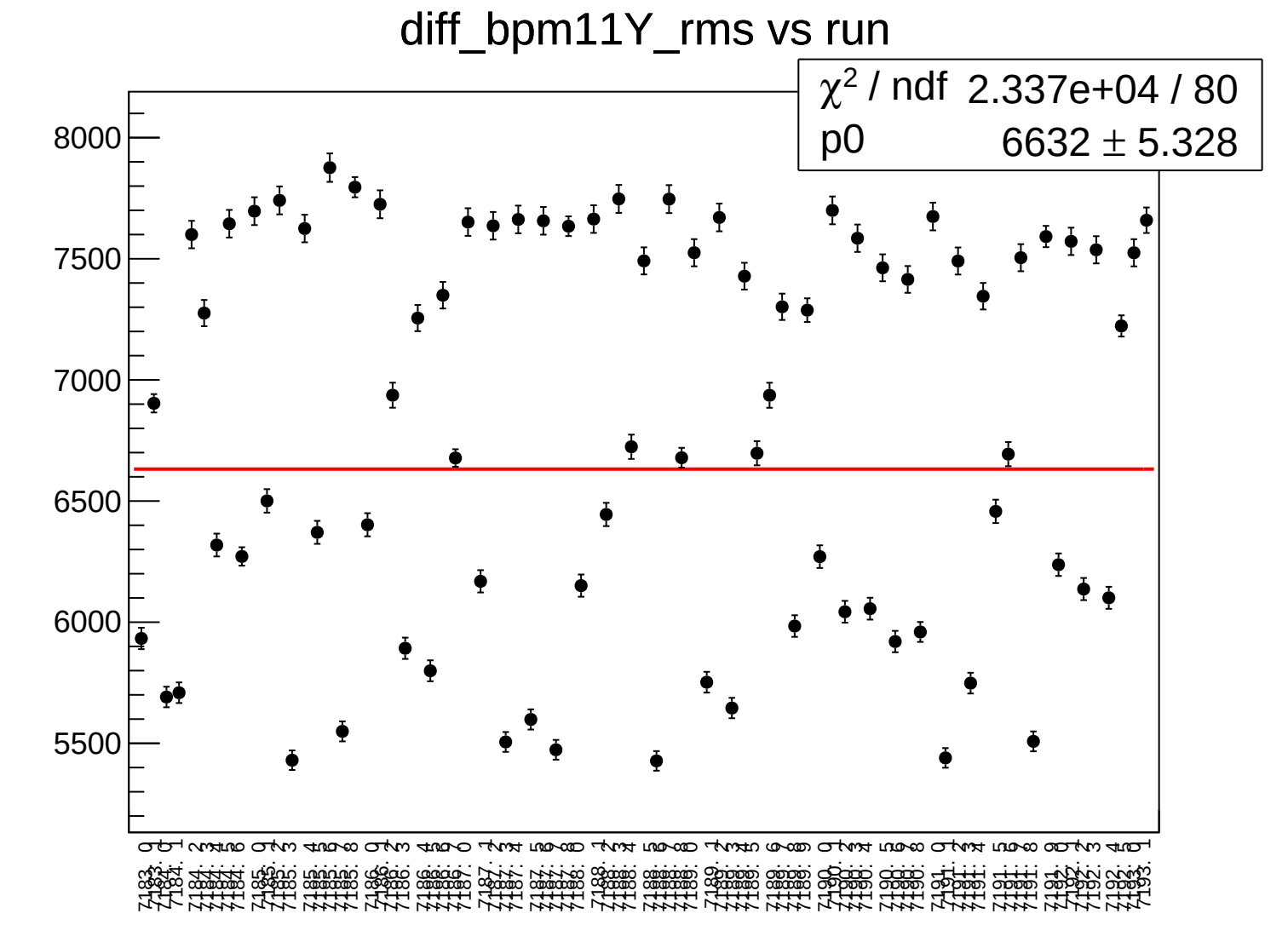

diff_bpm11X_mean vs run
χ² / ndf 64.48 / 80
p0 8.294 ± 13.44
pull
Entries 81
Mean 101
Std Dev 20.93

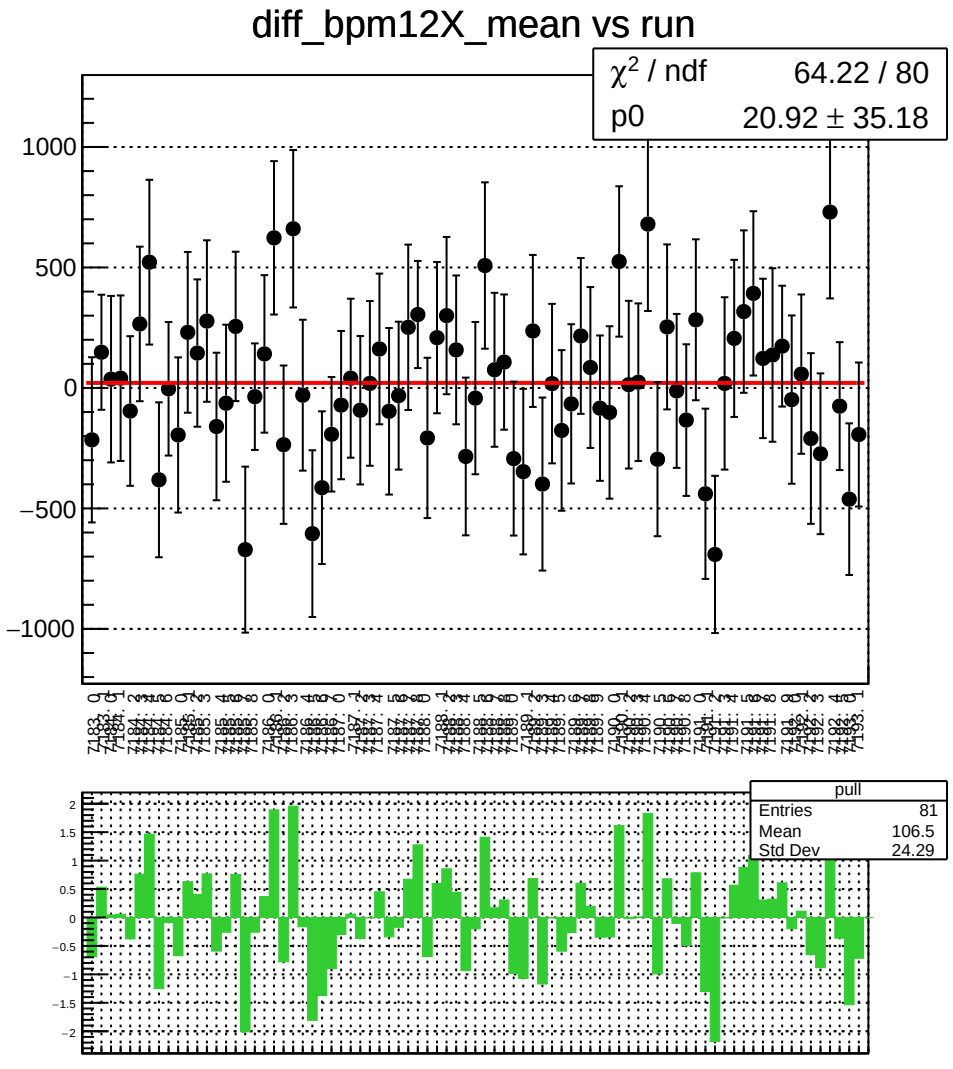

pull1D
Entries 81
Mean −0.004532
Std Dev 0.8922

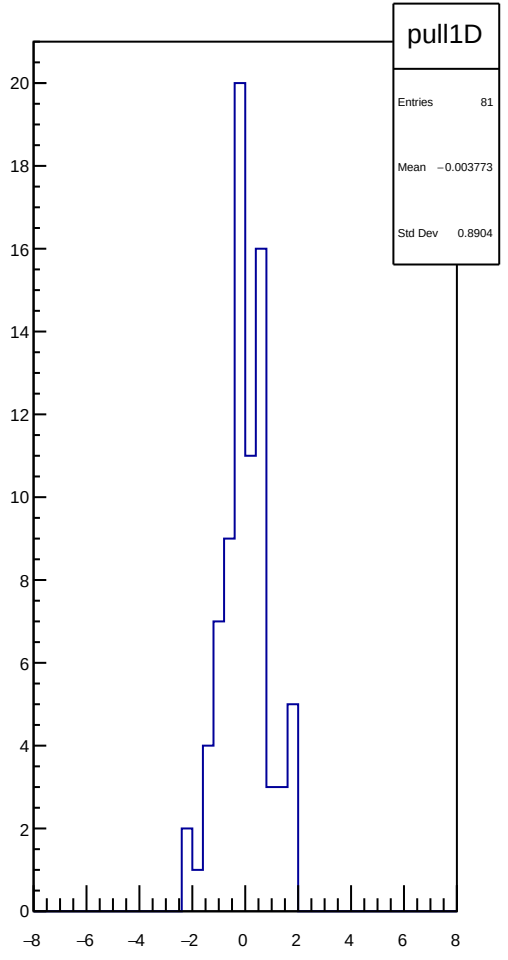

diff_bpm11X_rms vs run
χ² / ndf 3149 / 80
p0 1.191e+04 ± 9.507
13000
12500
12000
11500
11000

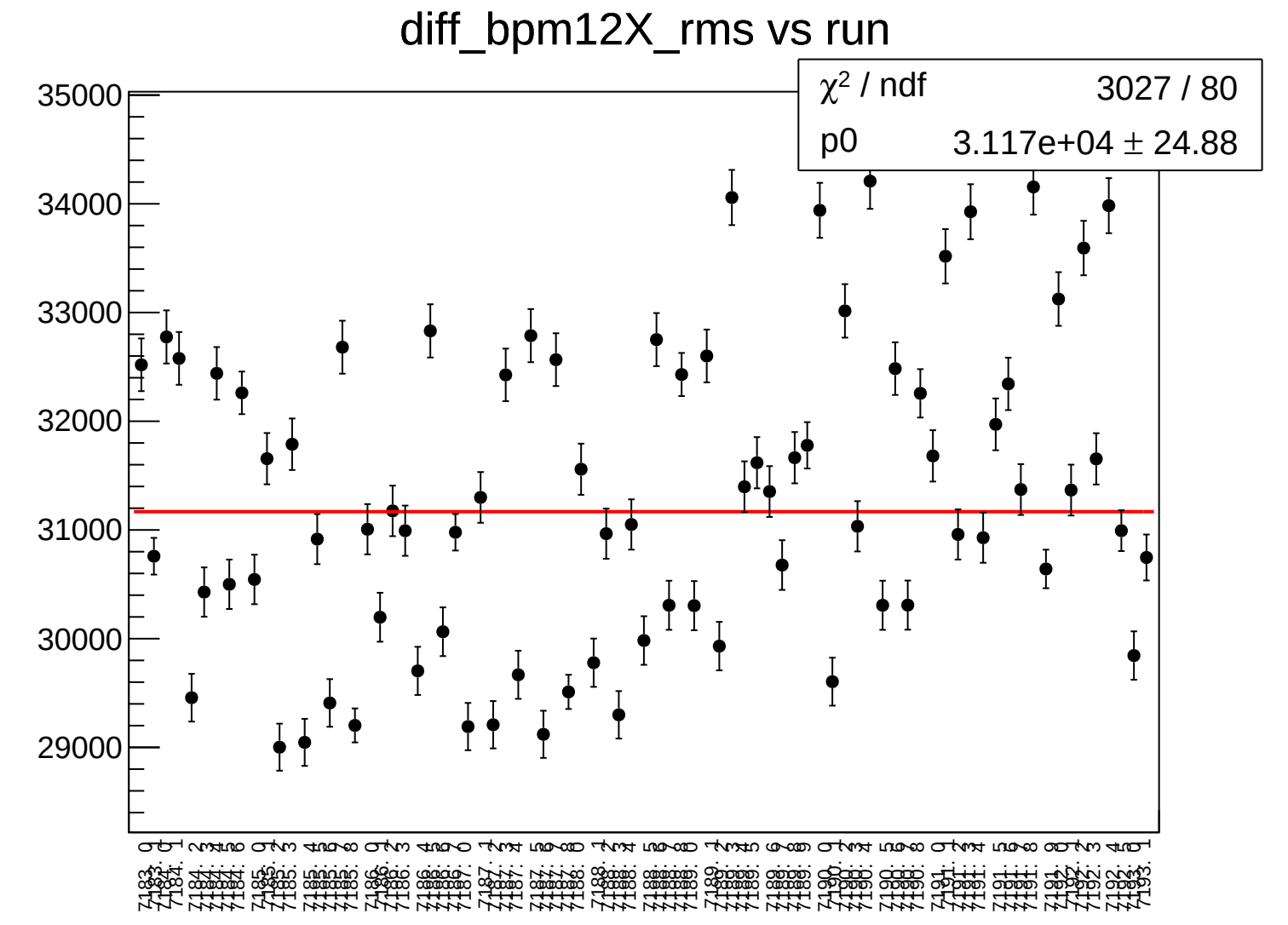

diff_bpm11Y_mean vs run
χ² / ndf 99.95 / 80
p0 17.15 ± 7.535
300
200
100
0
−100
−200
−300
pull
Entries 81
Mean −701
Std Dev 740.1
3
2
1
0
−1
−2

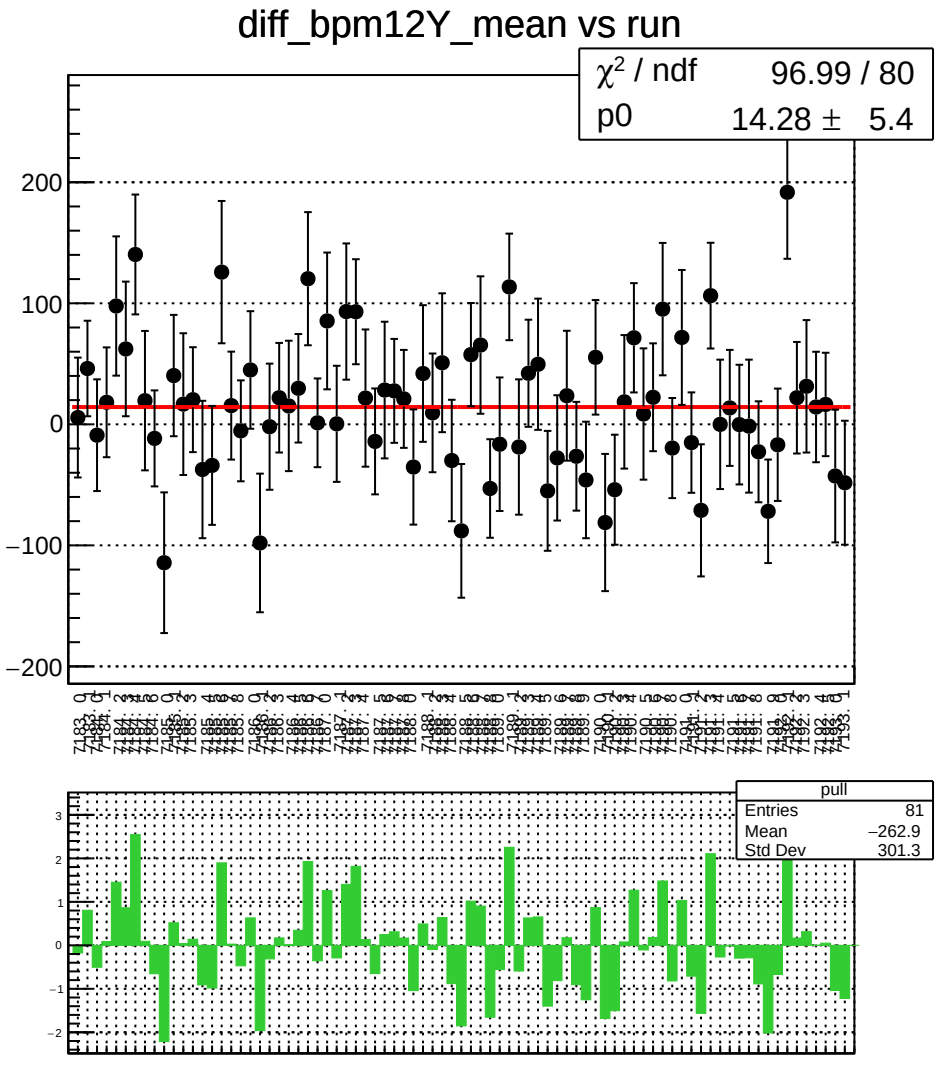

pull1D
Entries 81
Mean 0.004792
Std Dev 1.111
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

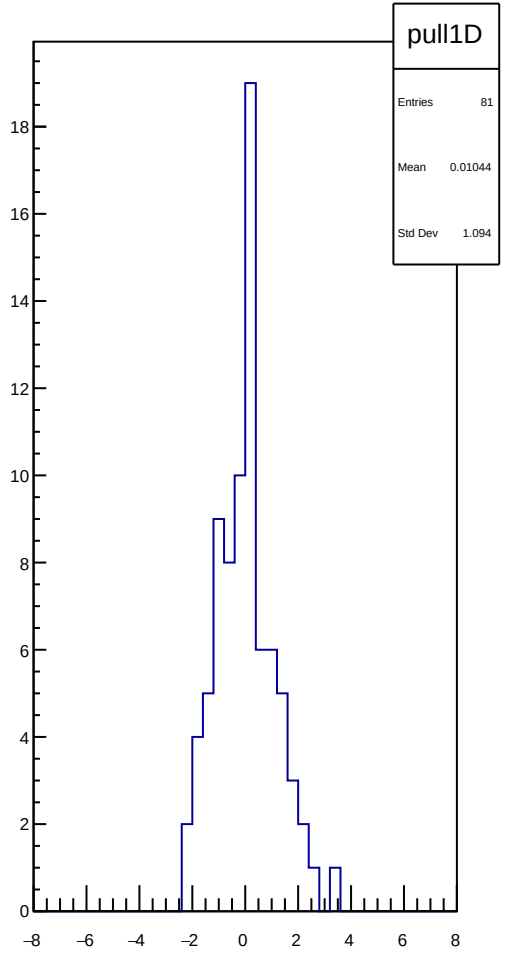

diff_bpm11Y_rms vs run
χ² / ndf 2.337e+04 / 80
p0 6632 ± 5.328
8000
7500
7000
6500
6000
5500


diff_bpm12X_mean vs run
χ² / ndf 64.22 / 80
p0 20.92 ± 35.18
1000
500
0
−500
−1000
pull
Entries 81
Mean 106.5
Std Dev 24.29
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

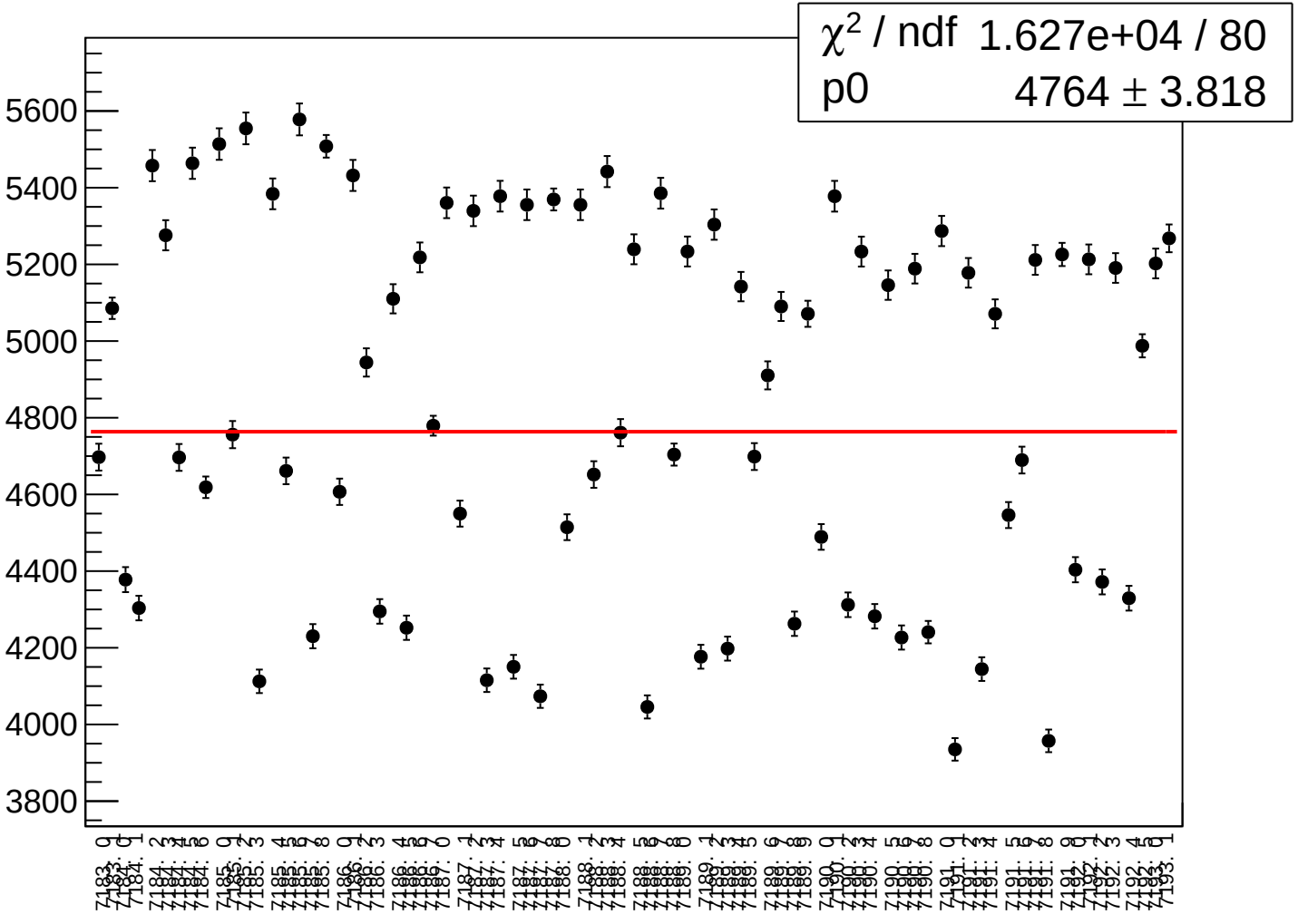

pull1D
Entries 81
Mean −0.003773
Std Dev 0.8904
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

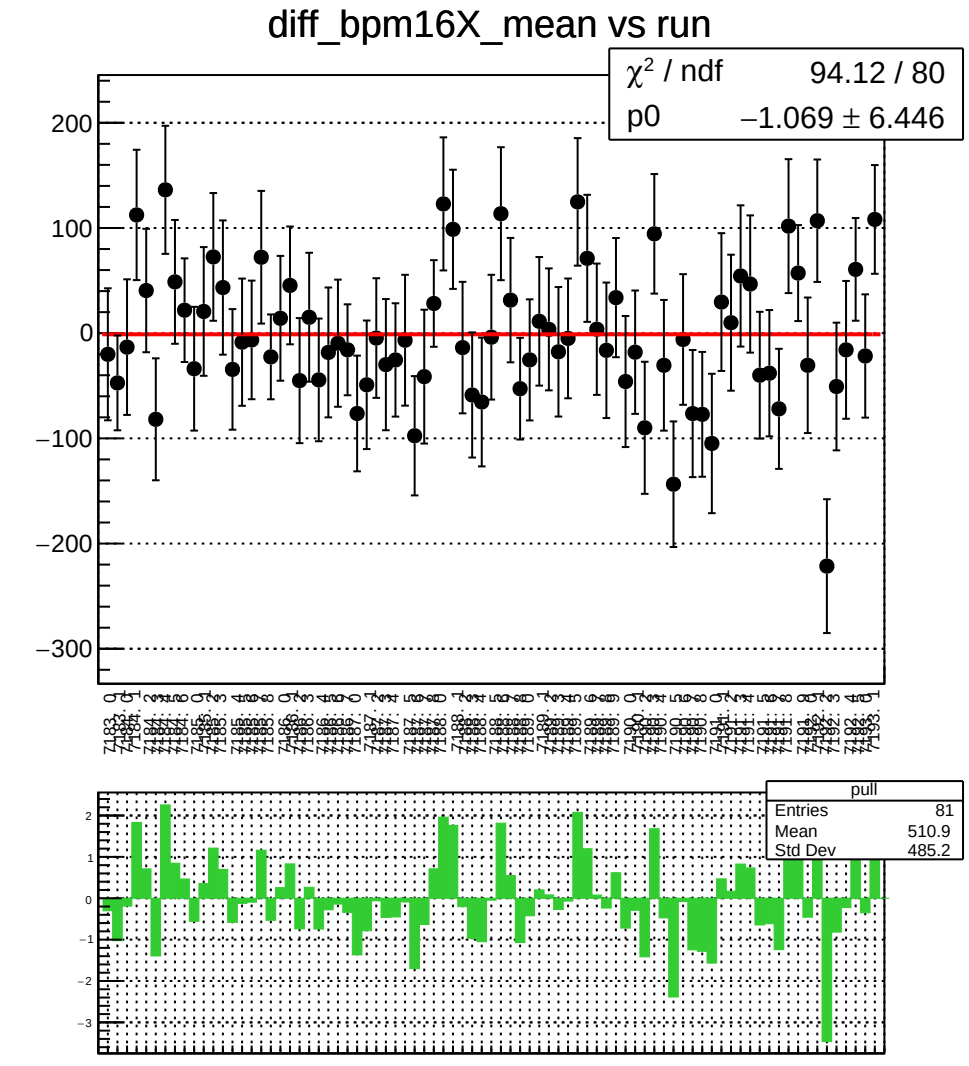

diff_bpm12X_rms vs run
χ² / ndf 3027 / 80
p0 3.117e+04 ± 24.88
35000
34000
33000
32000
31000
30000
29000

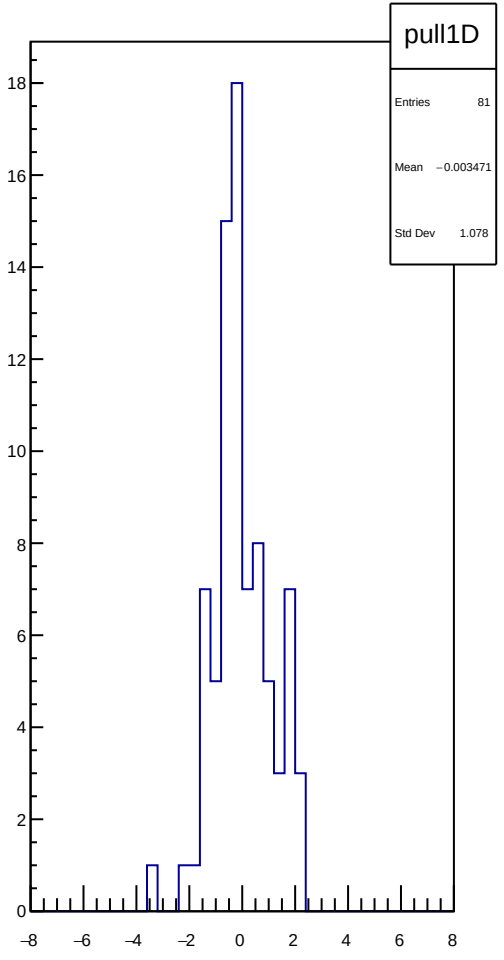

diff_bpm12Y_mean vs run
χ² / ndf 96.99 / 80
p0 14.28 ± 5.4
200
100
0
−100
−200
pull
Entries 81
Mean −262.9
Std Dev 301.3
3
2
1
0
−1
−2

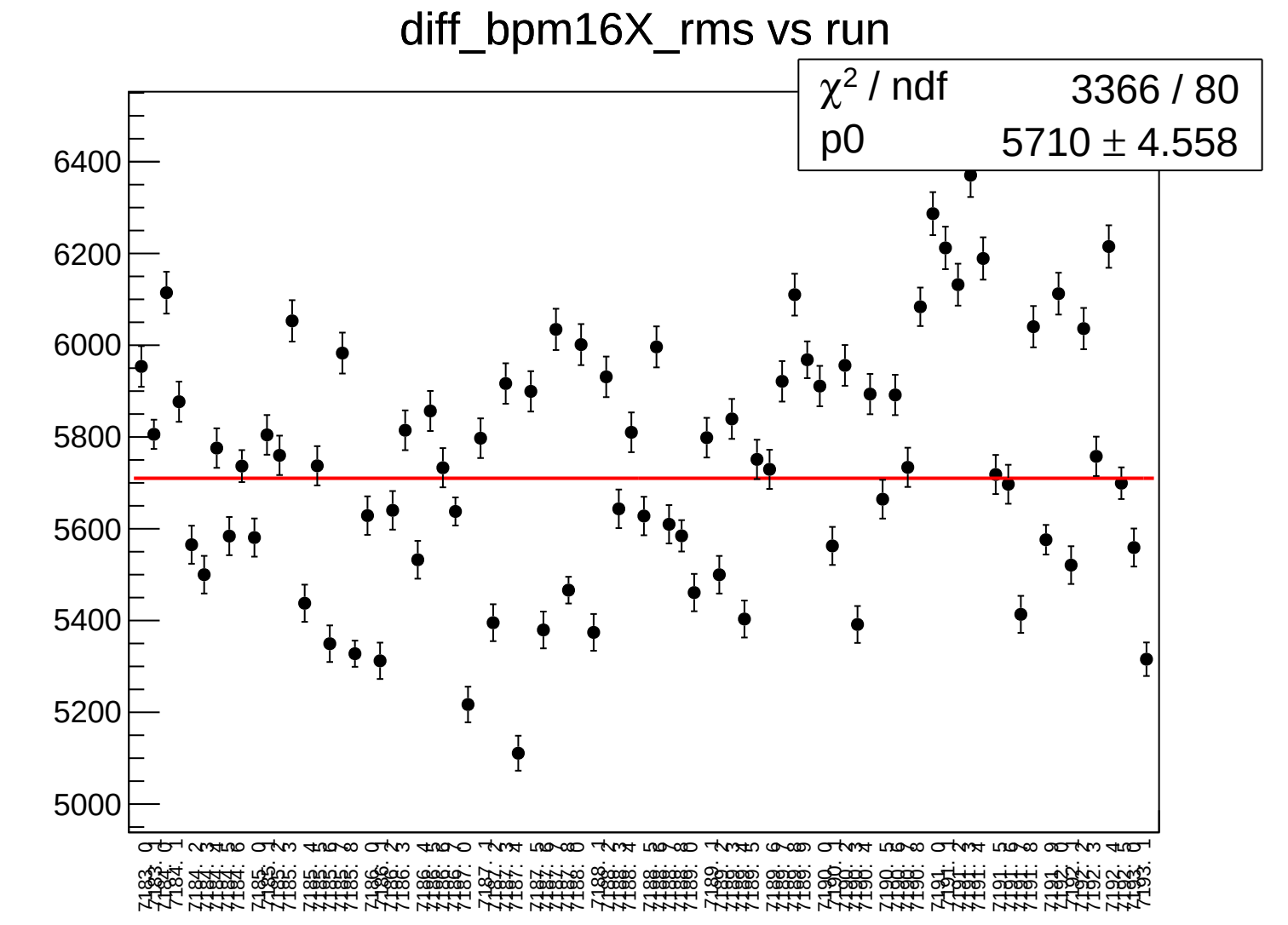

pull1D
Entries 81
Mean 0.01044
Std Dev 1.094
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

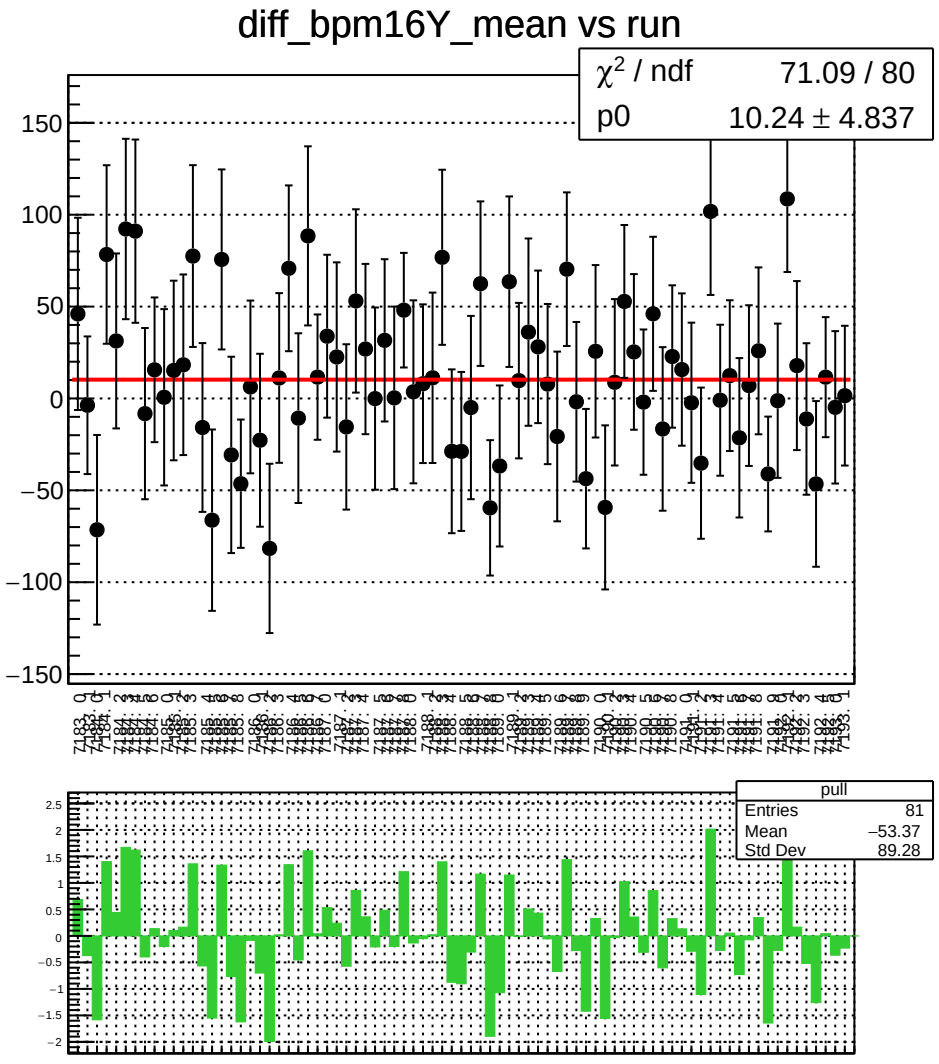
diff_bpm12Y_rms vs run

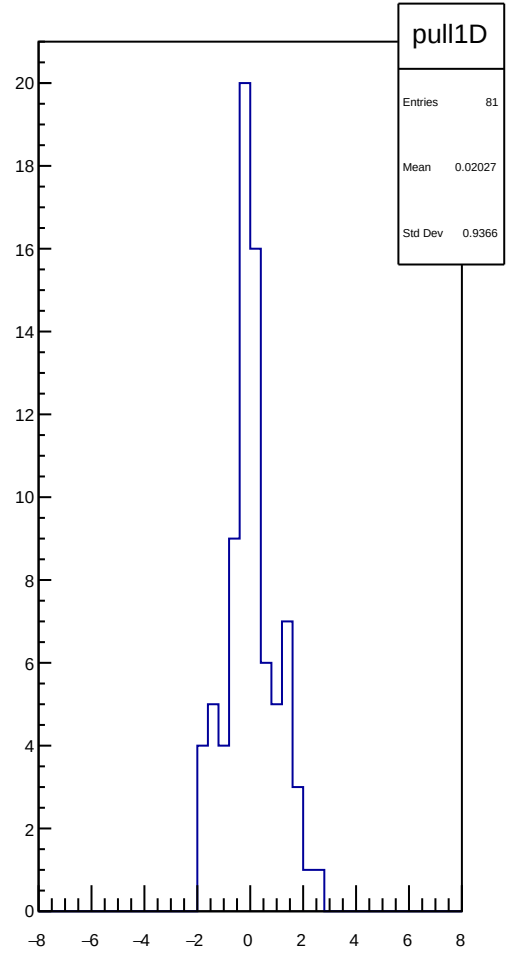


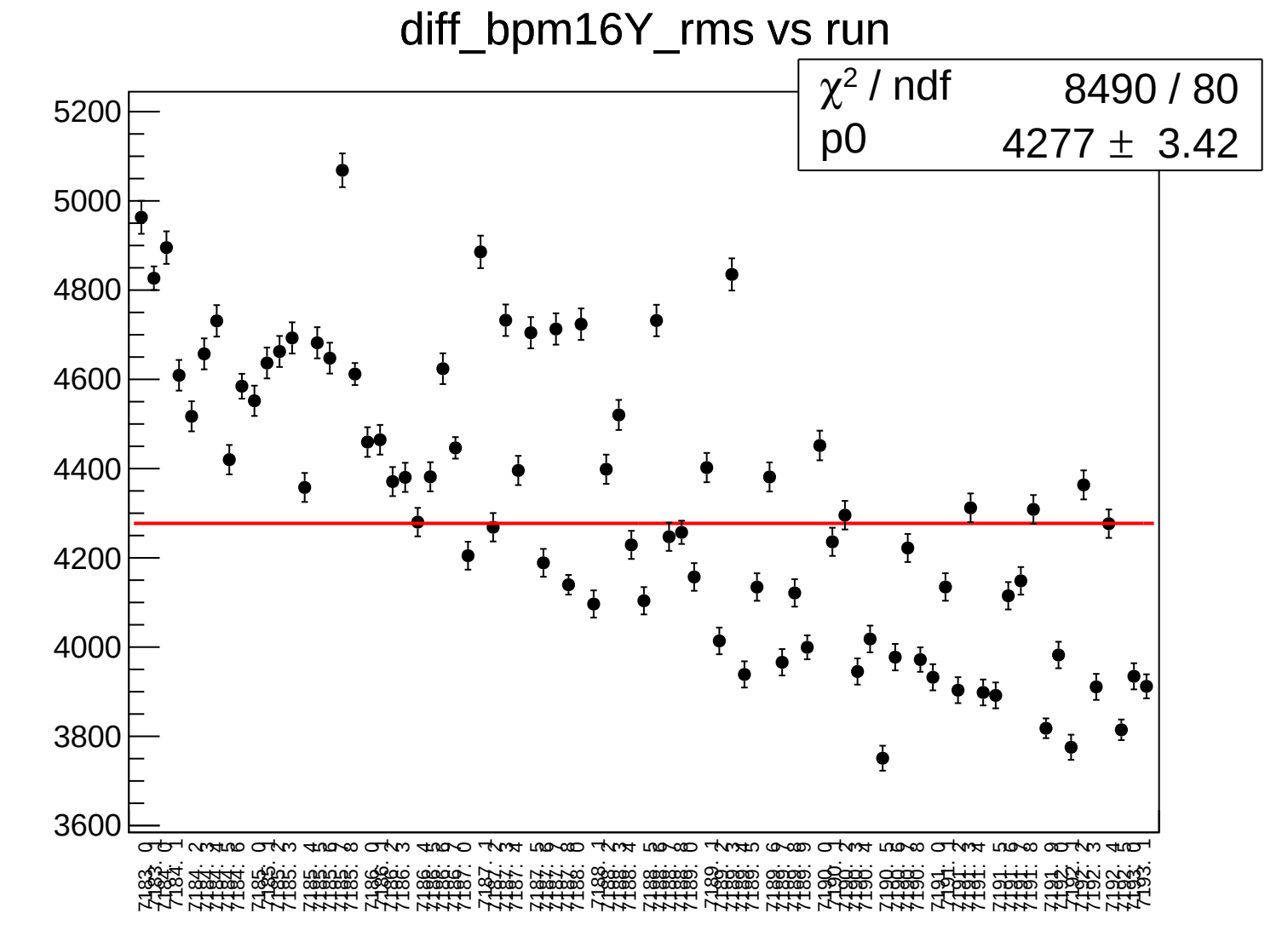

diff_bpm16X_mean vs run
χ² / ndf 94.12 / 80
p0 −1.069 ± 6.446
200
100
0
−100
−200
−300
pull
Entries 81
Mean 510.9
Std Dev 485.2
2
1
0
−1
−2
−3

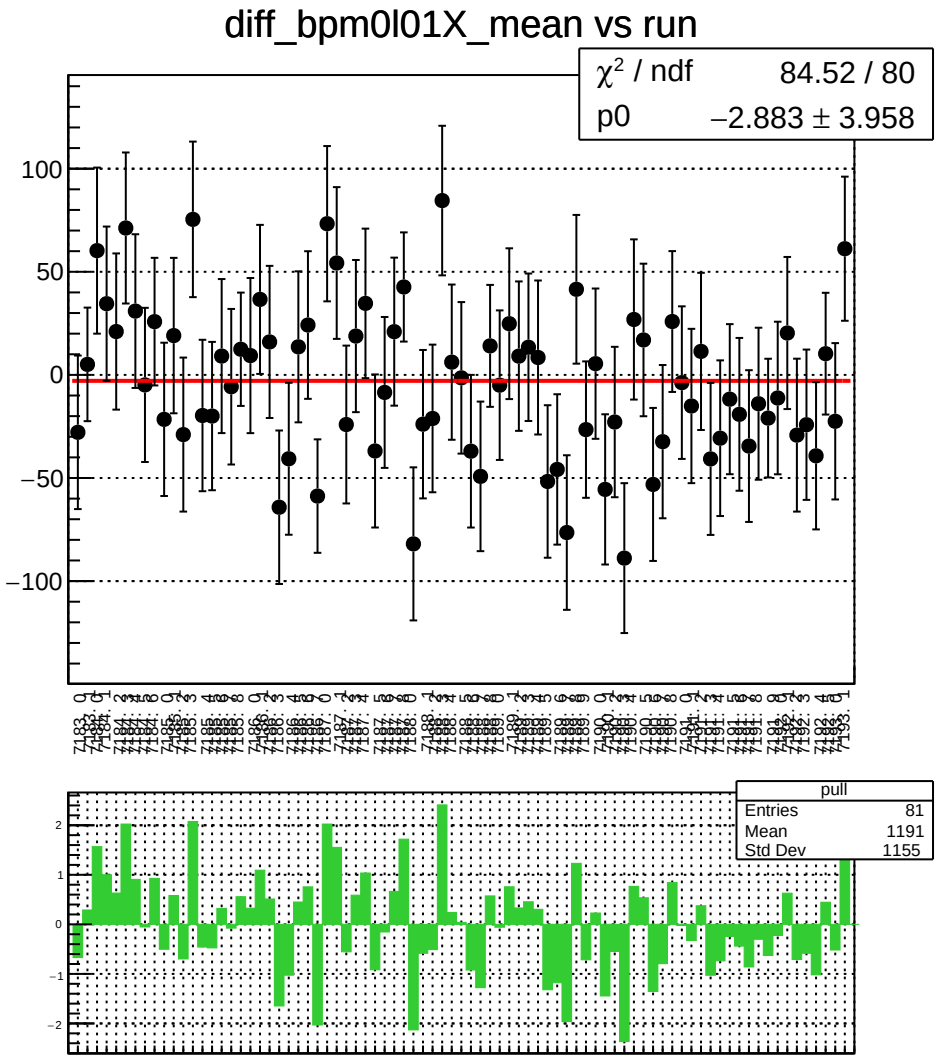

pull1D
Entries 81
Mean −0.003471
Std Dev 1.078
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

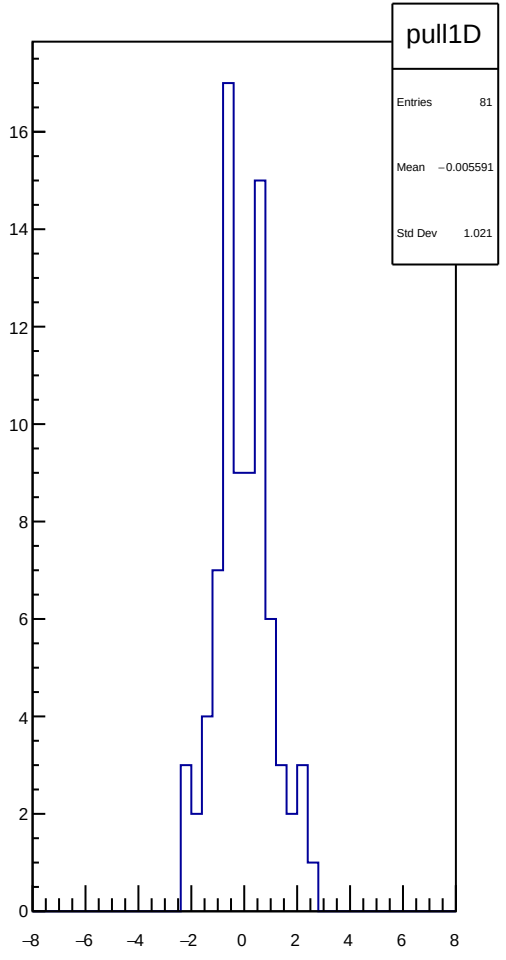

diff_bpm16X_rms vs run
χ^2 / ndf 3366 / 80
p0 5710 ± 4.558
6400
6200
6000
5800
5600
5400
5200
5000

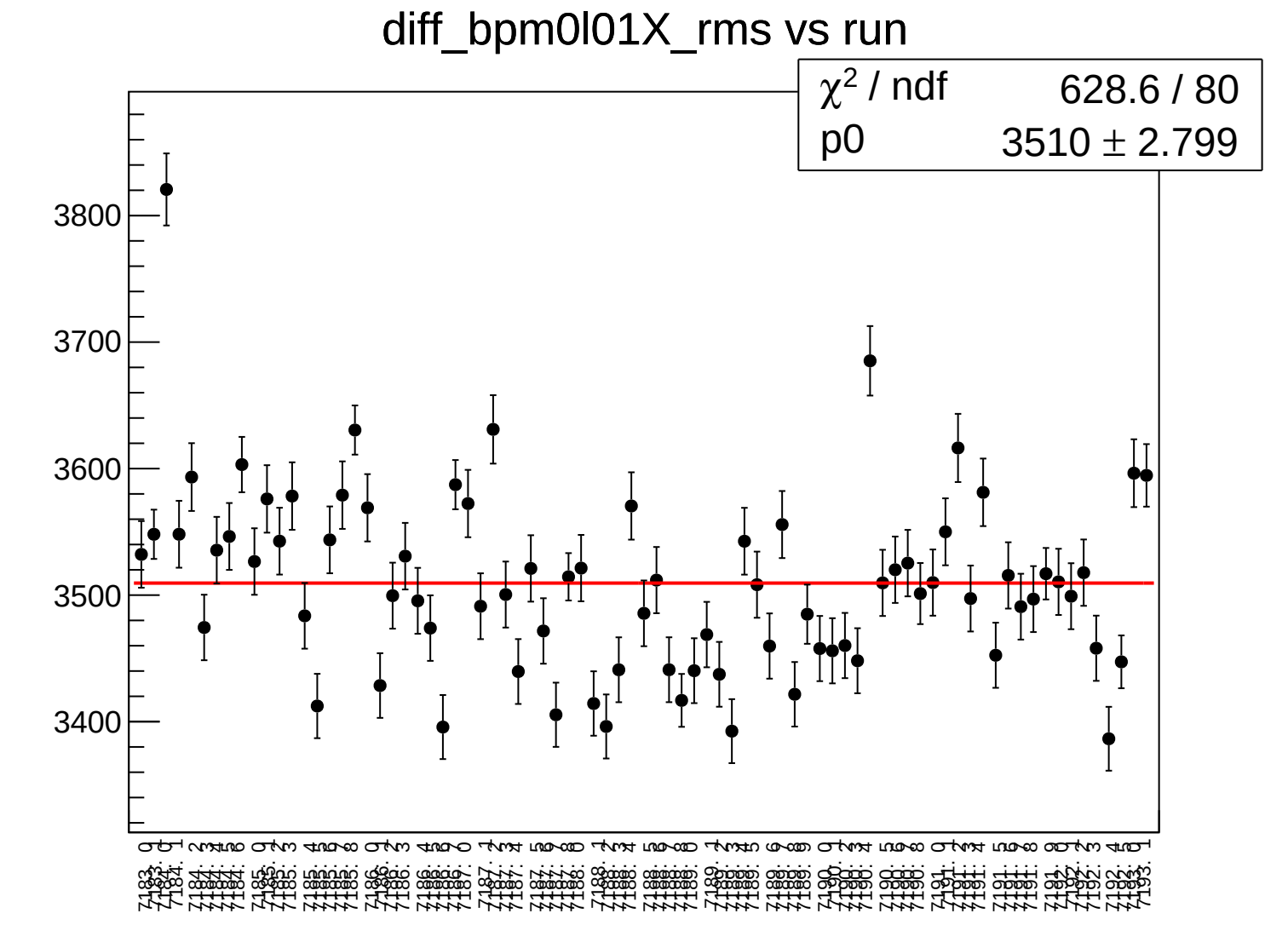

diff_bpm16Y_mean vs run
χ^2 / ndf 71.09 / 80
p0 10.24 ± 4.837
pull
Entries 81
Mean −53.37
Std Dev 89.28

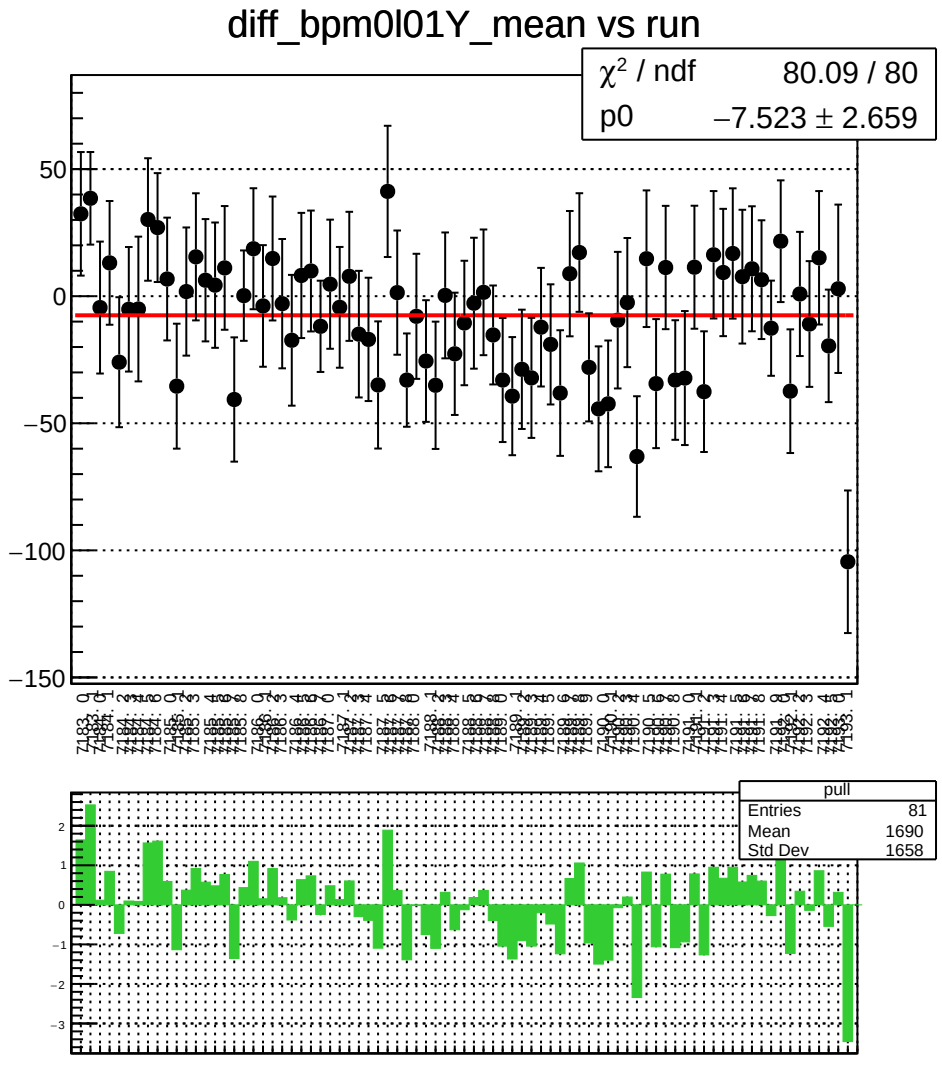

pull1D
Entries 81
Mean 0.02027
Std Dev 0.9366

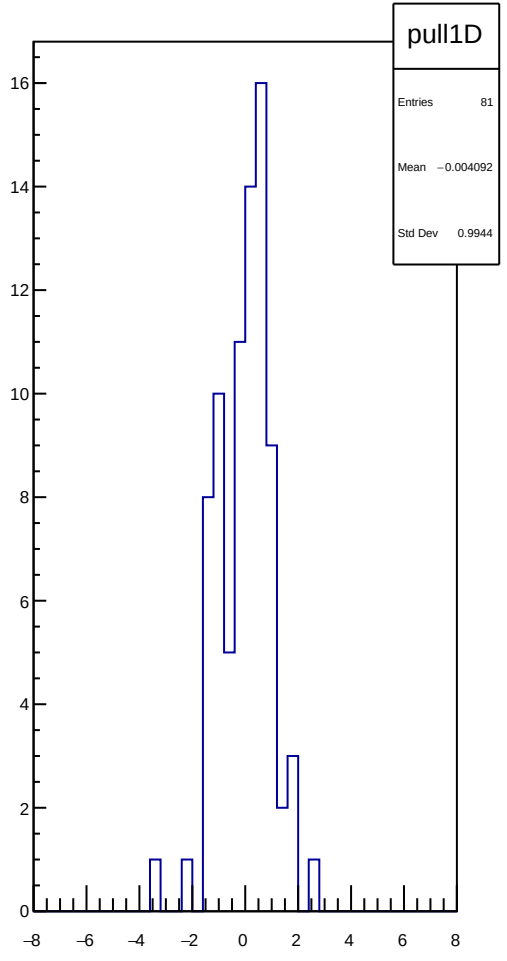

diff_bpm16Y_rms vs run
χ² / ndf 8490 / 80
p0 4277 ± 3.42
5200
5000
4800
4600
4400
4200
4000
3800
3600

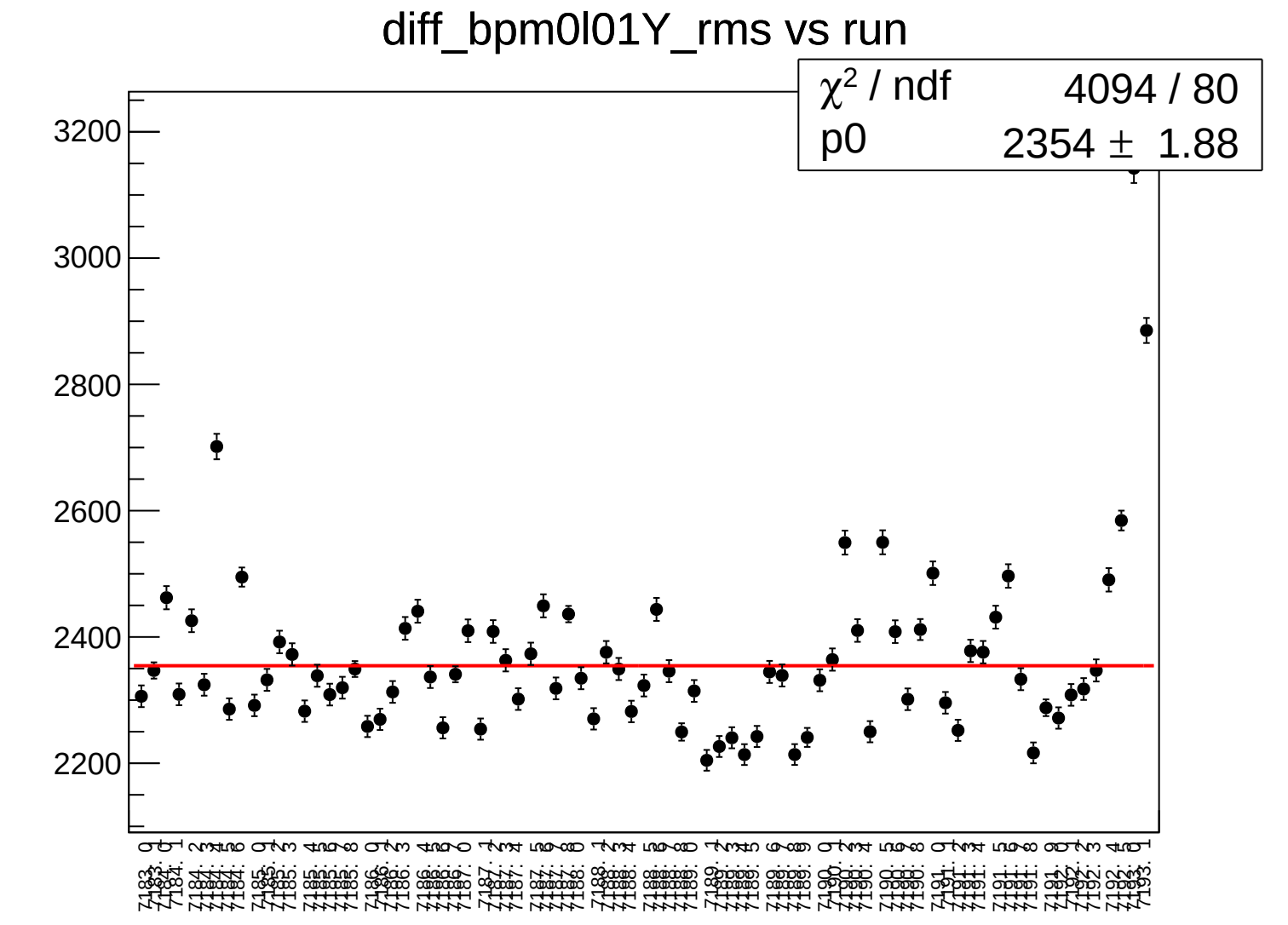

diff_bpm0l01X_mean vs run
χ² / ndf 84.52 / 80
p0 −2.883 ± 3.958
100
50
0
−50
−100
pull
Entries 81
Mean 1191
Std Dev 1155
2
1
0
−1
−2

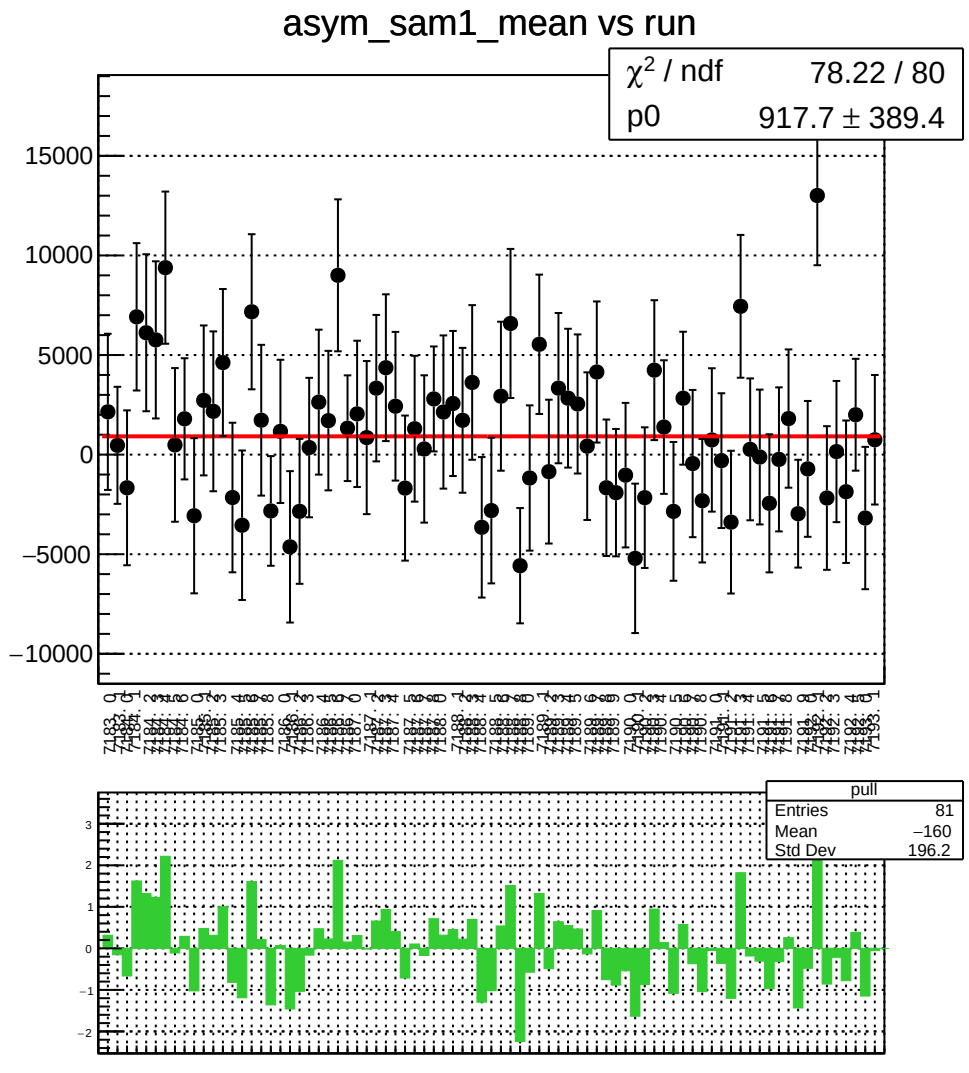

pull1D
Entries 81
Mean −0.005591
Std Dev 1.021
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

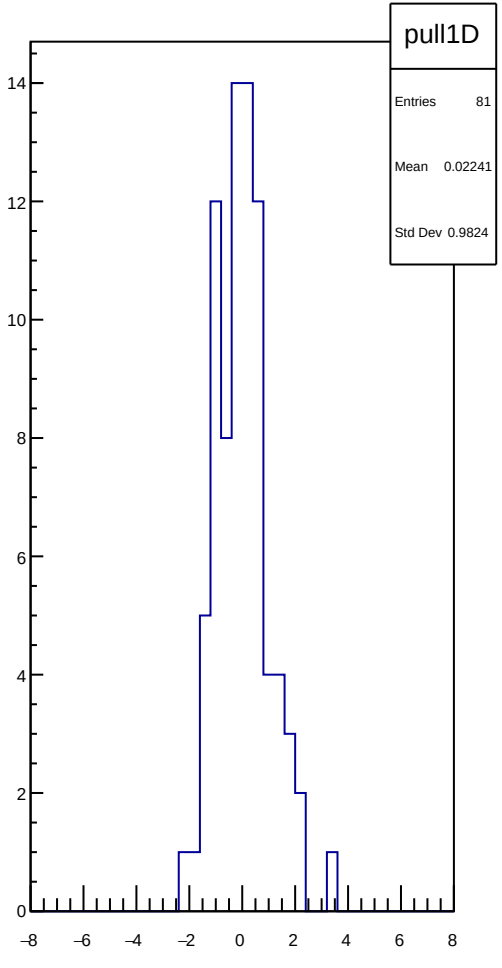

diff_bpm0l01X_rms vs run
χ² / ndf 628.6 / 80
p0 3510 ± 2.799
3800
3700
3600
3500
3400

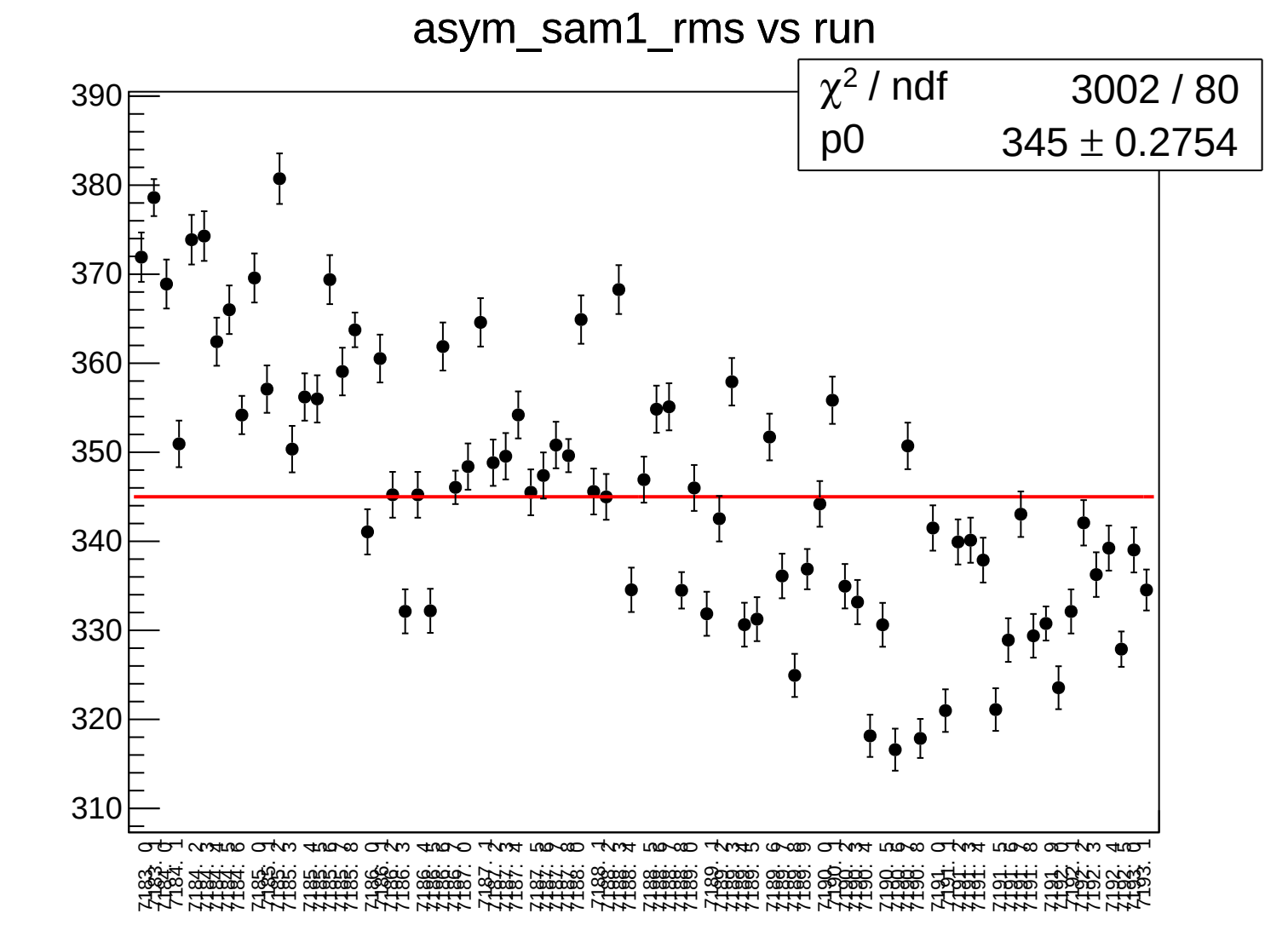

diff_bpm0l01Y_mean vs run
χ² / ndf 80.09 / 80
p0 −7.523 ± 2.659
50
0
−50
−100
−150
pull
Entries 81
Mean 1690
Std Dev 1658
2
1
0
−1
−2
−3

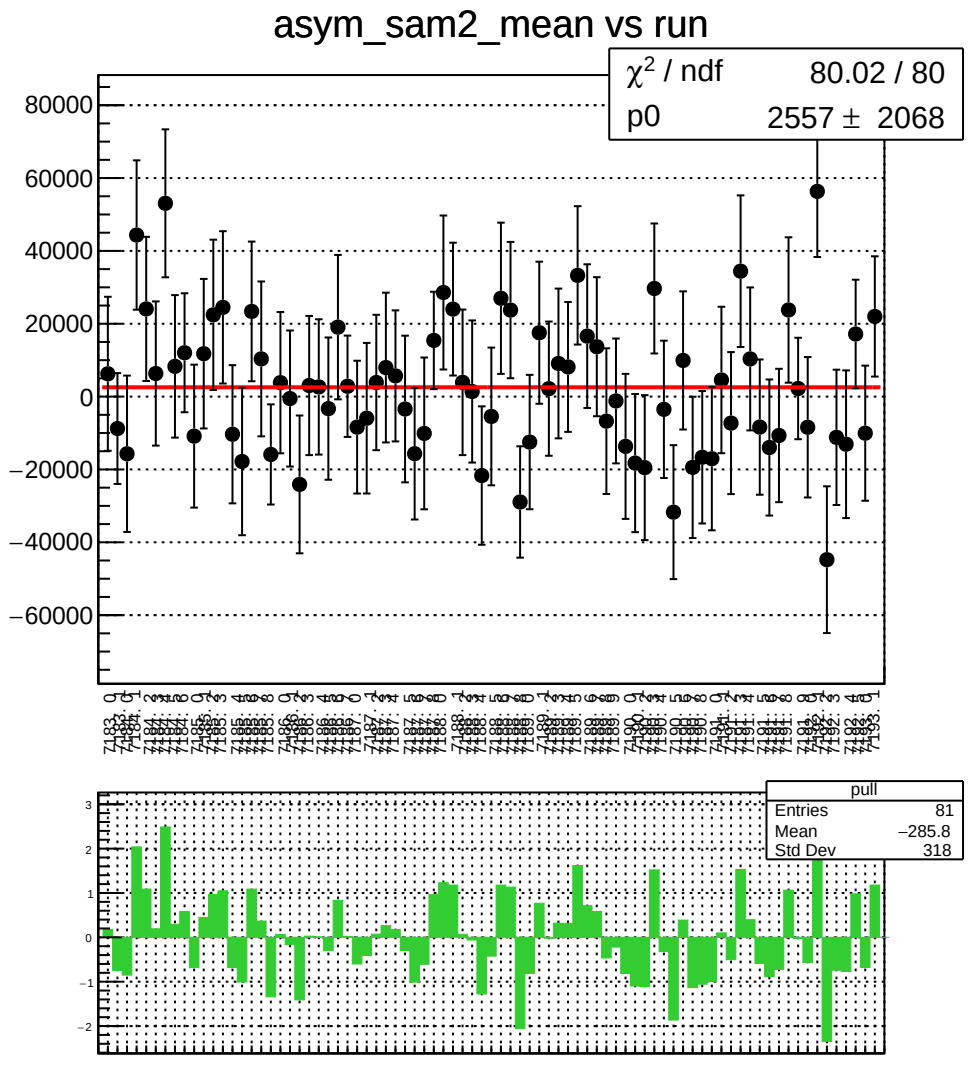

pull1D
Entries 81
Mean −0.004092
Std Dev 0.9944
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

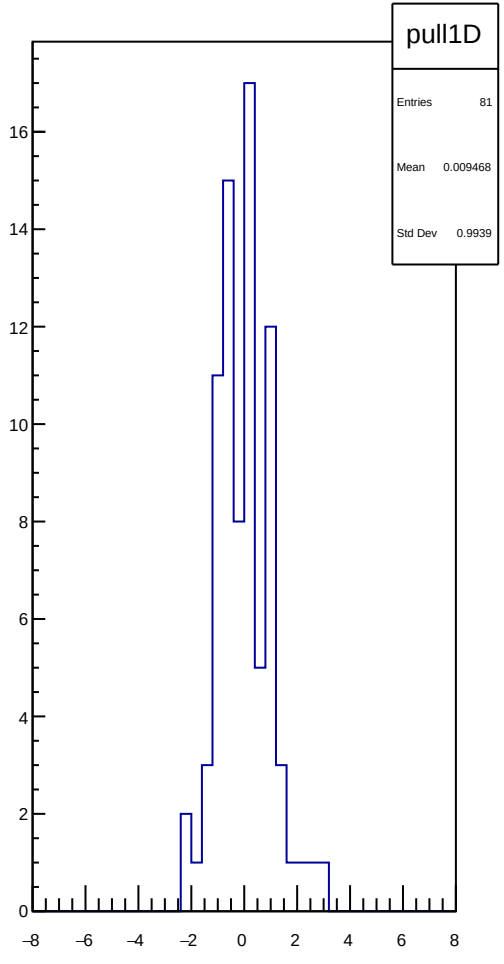

diff_bpm0l01Y_rms vs run
χ² / ndf 4094 / 80
p0 2354 ± 1.88
3200
3000
2800
2600
2400
2200

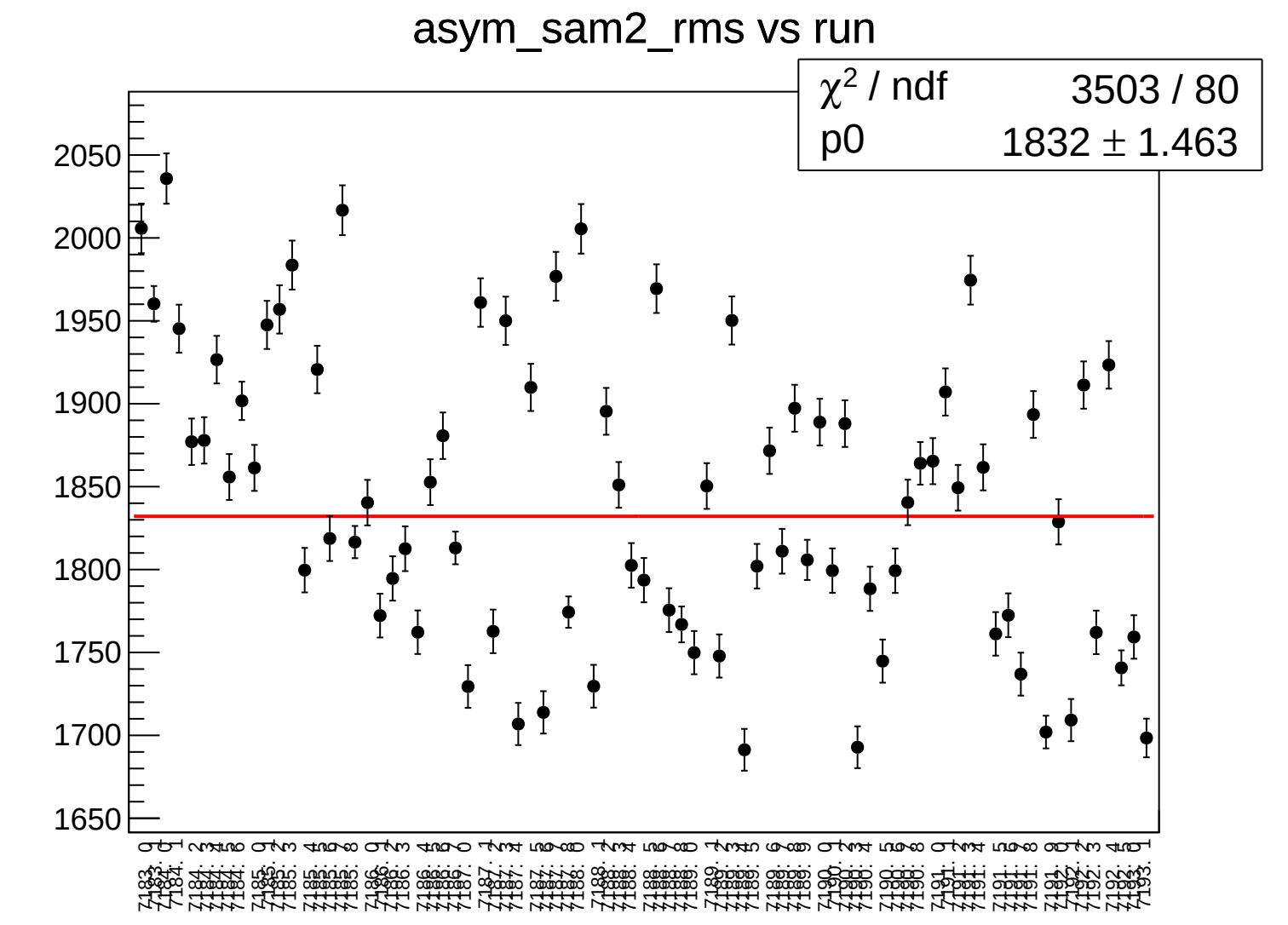

asym_sam1_mean vs run
χ² / ndf 78.22 / 80
p0 917.7 ± 389.4
15000
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −160
Std Dev 196.2
3
2
1
0
−1
−2

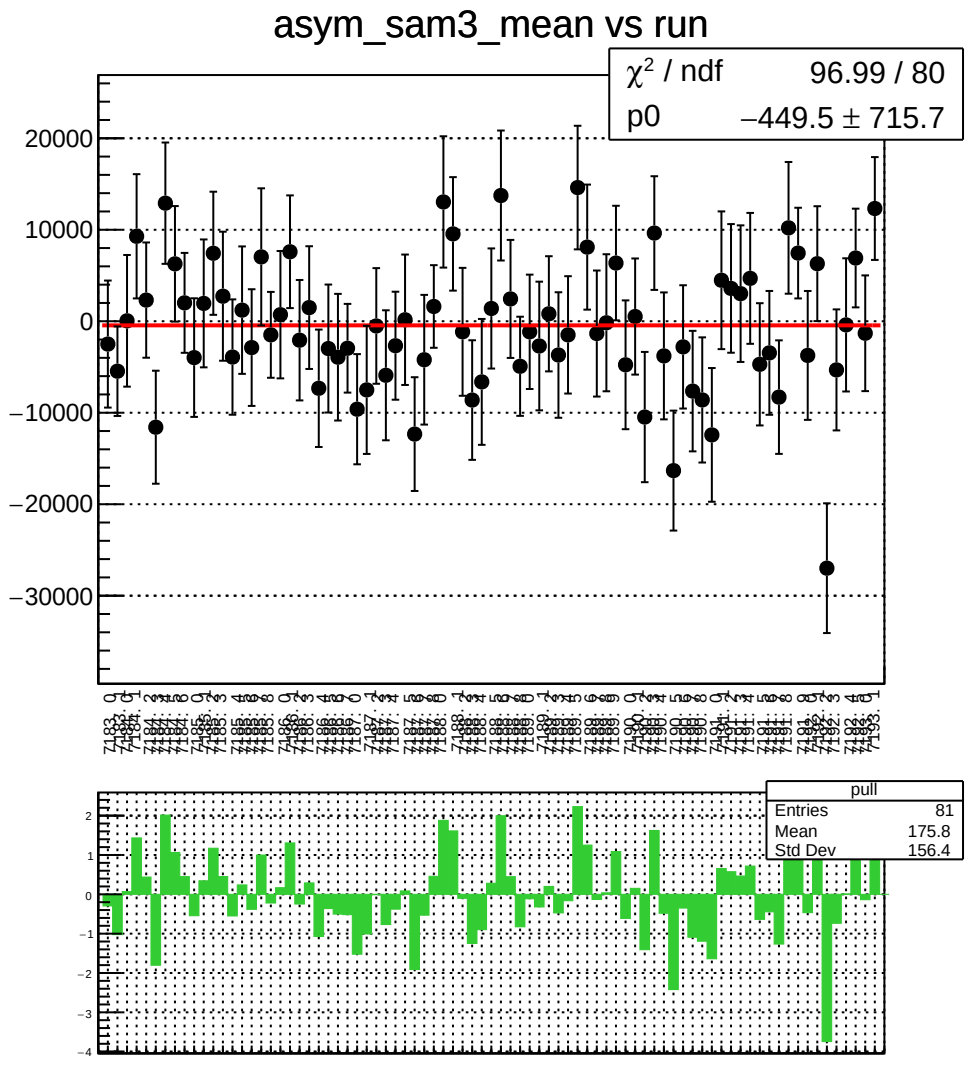

pull1D
Entries 81
Mean 0.02241
Std Dev 0.9824
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

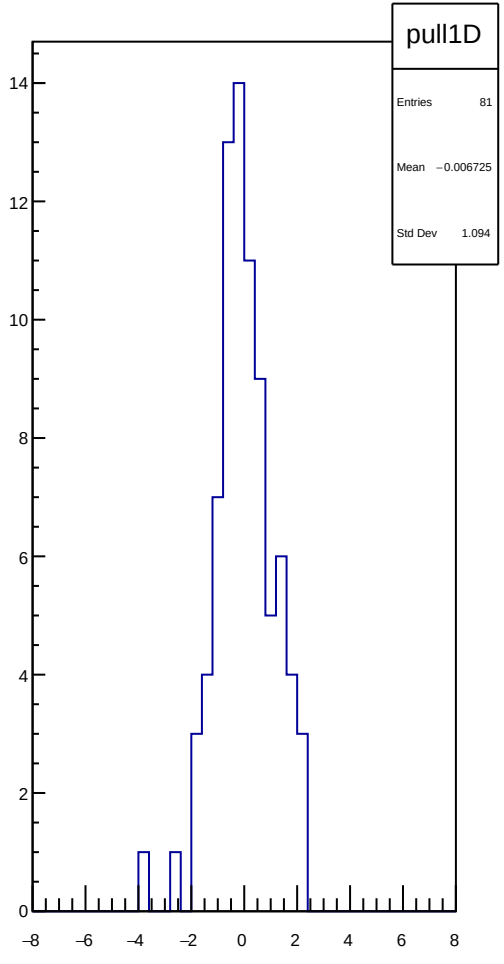

asym_sam1_rms vs run
χ^2 / ndf 3002 / 80
p0 345 ± 0.2754
390
380
370
360
350
340
330
320
310

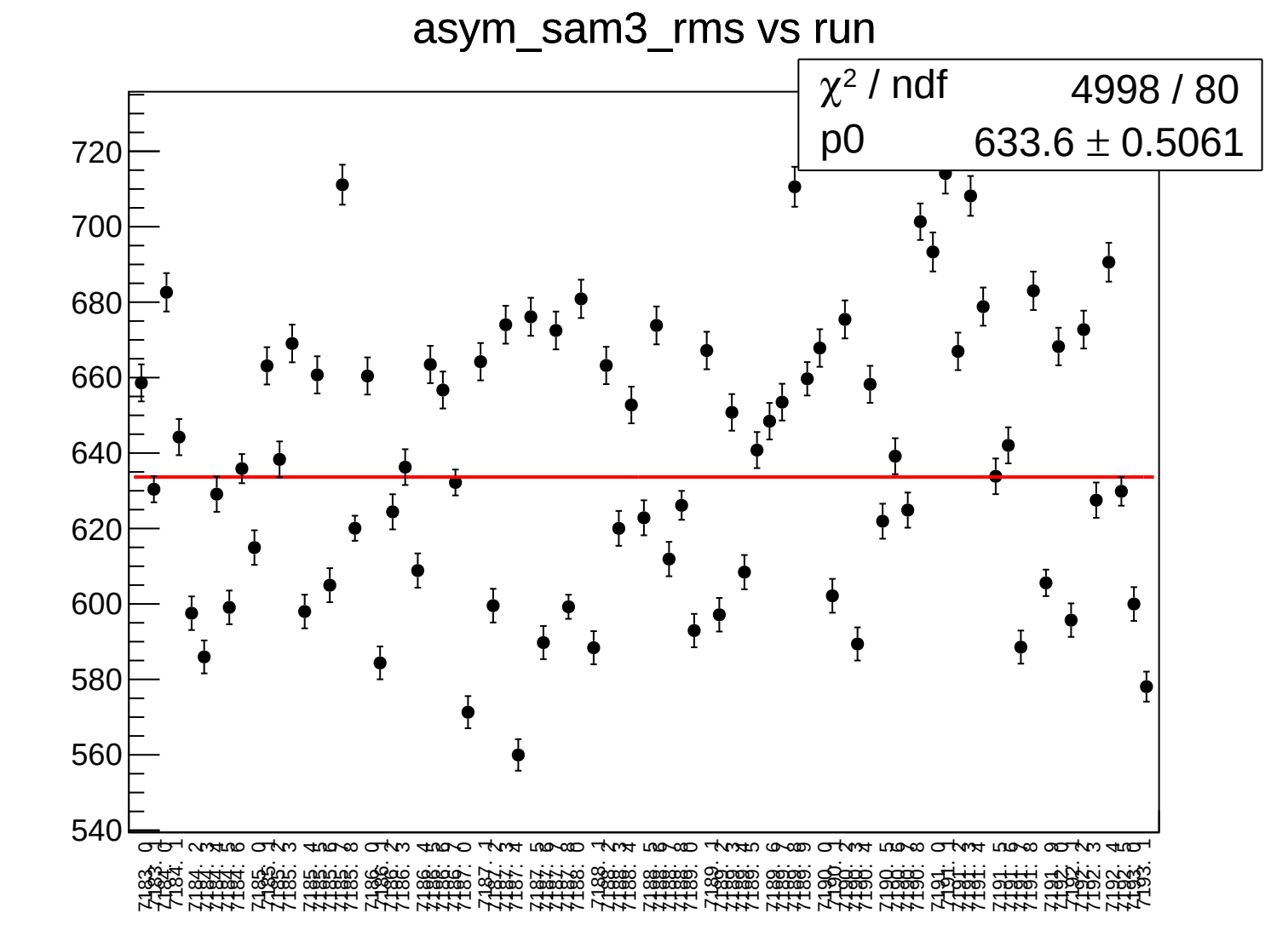

asym_sam2_mean vs run
χ² / ndf 80.02 / 80
p0 2557 ± 2068
80000
60000
40000
20000
0
−20000
−40000
−60000
pull
Entries 81
Mean −285.8
Std Dev 318
3
2
1
0
−1
−2

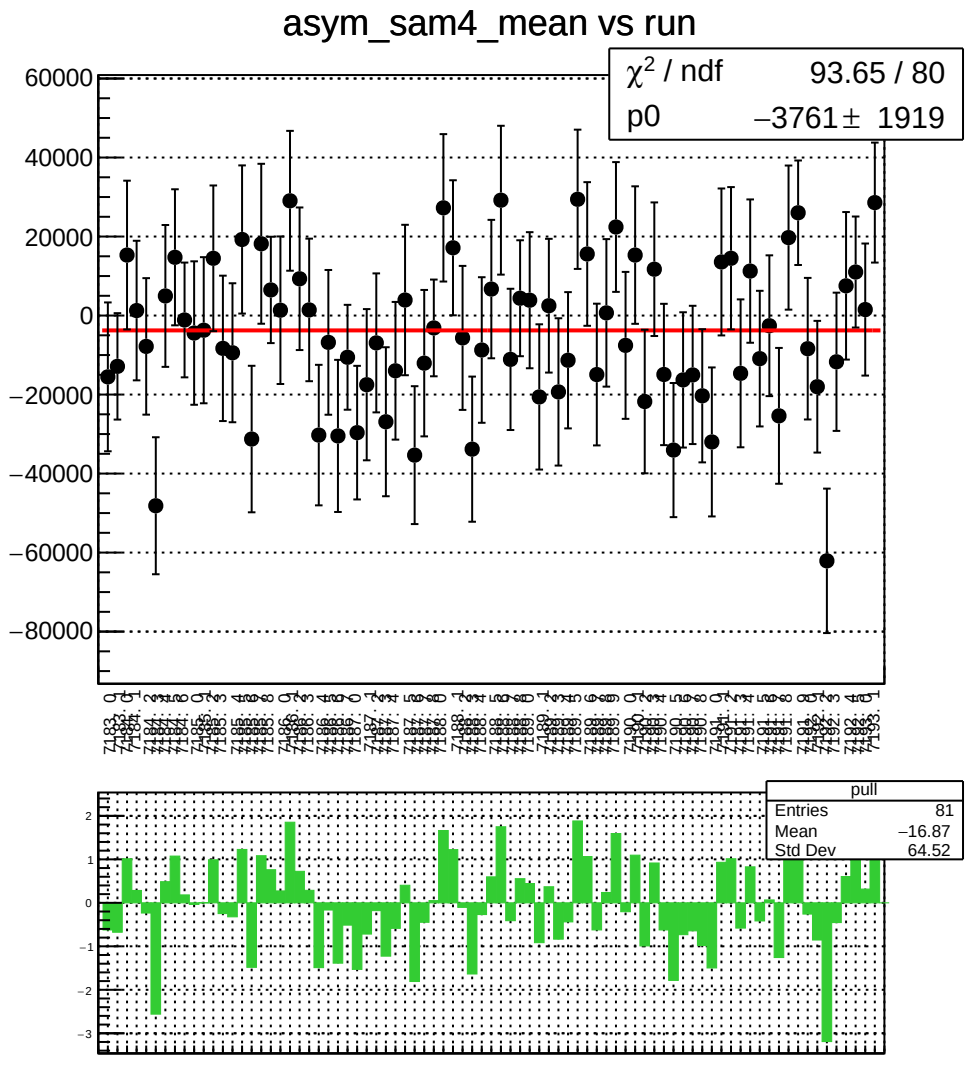

pull1D
Entries 81
Mean 0.009468
Std Dev 0.9939
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

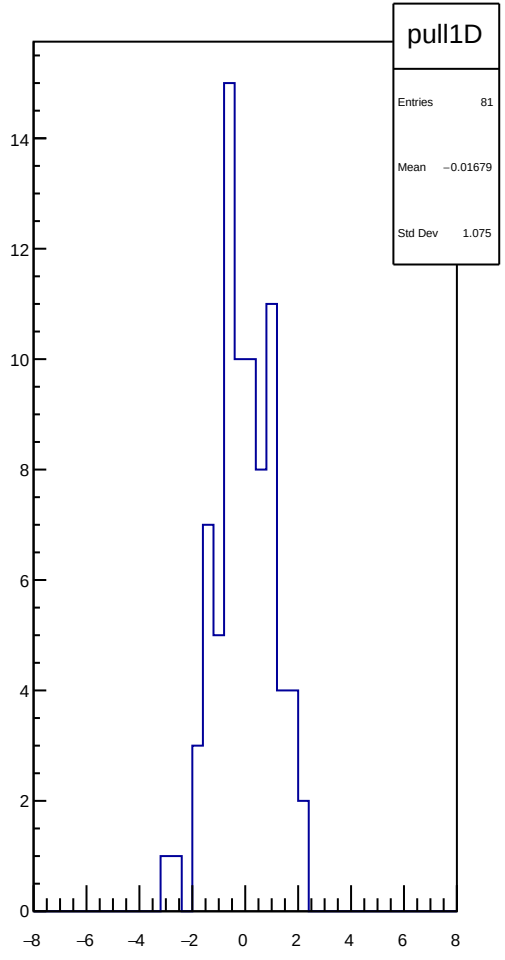

asym_sam2_rms vs run
χ² / ndf 3503 / 80
p0 1832 ± 1.463
2050
2000
1950
1900
1850
1800
1750
1700
1650

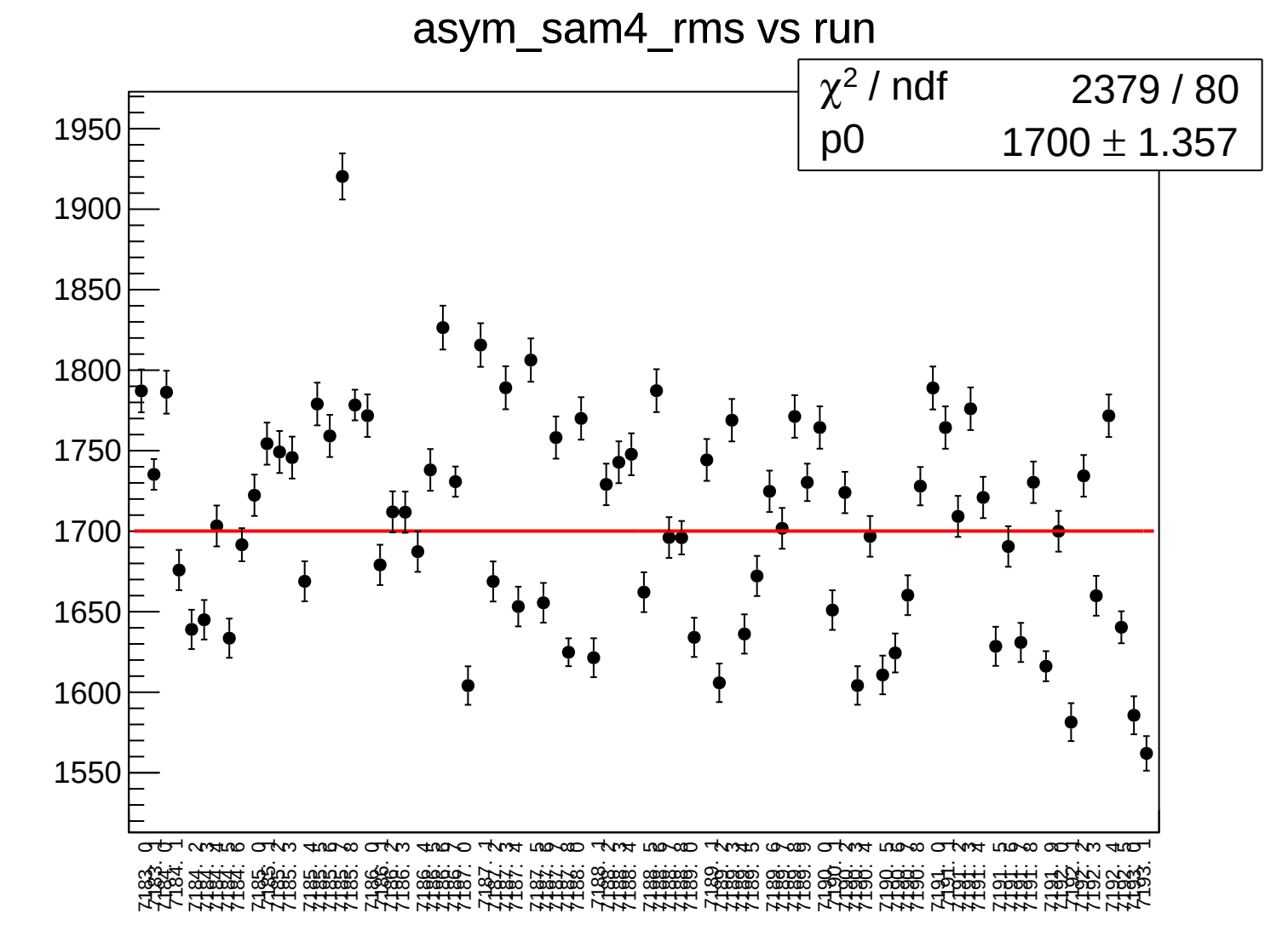

asym_sam3_mean vs run
χ² / ndf 96.99 / 80
p0 −449.5 ± 715.7
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean 175.8
Std Dev 156.4
2
1
0
−1
−2
−3
−4

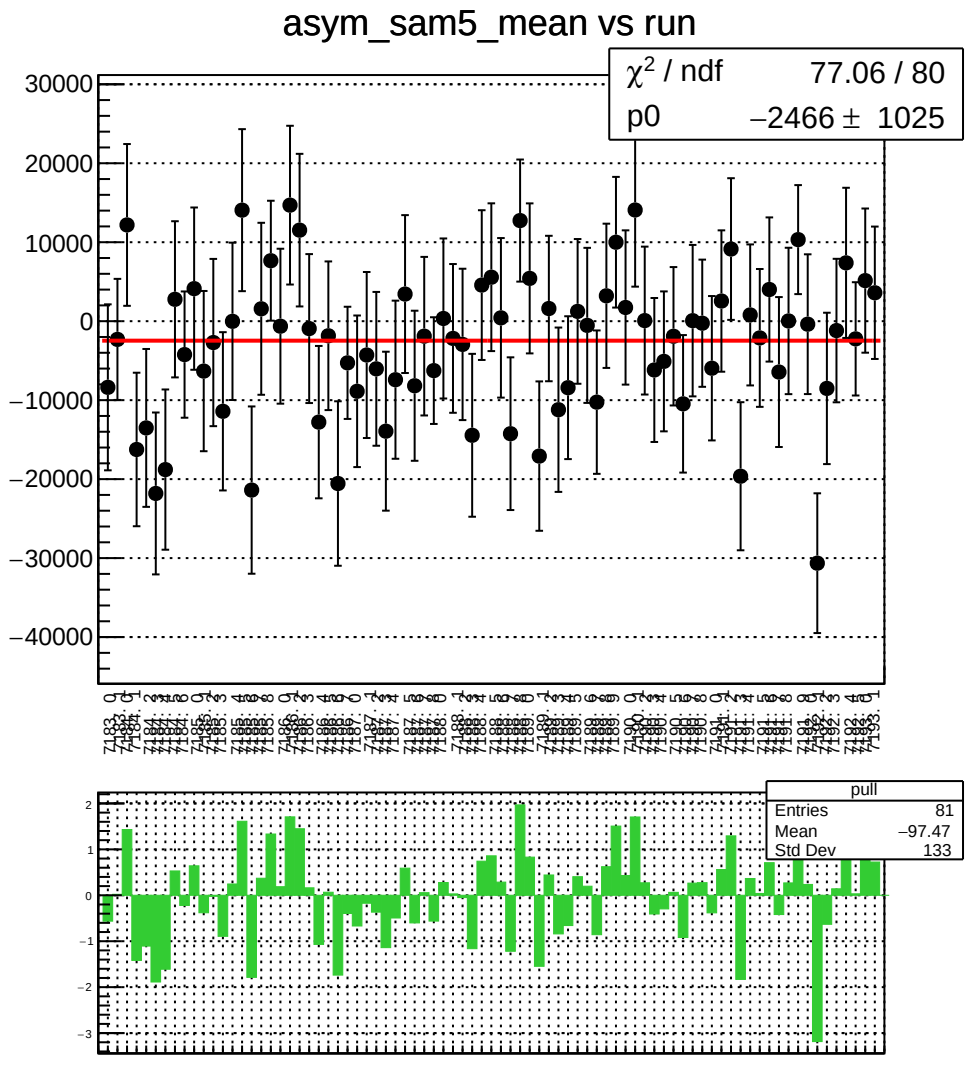

pull1D
Entries 81
Mean −0.006725
Std Dev 1.094
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

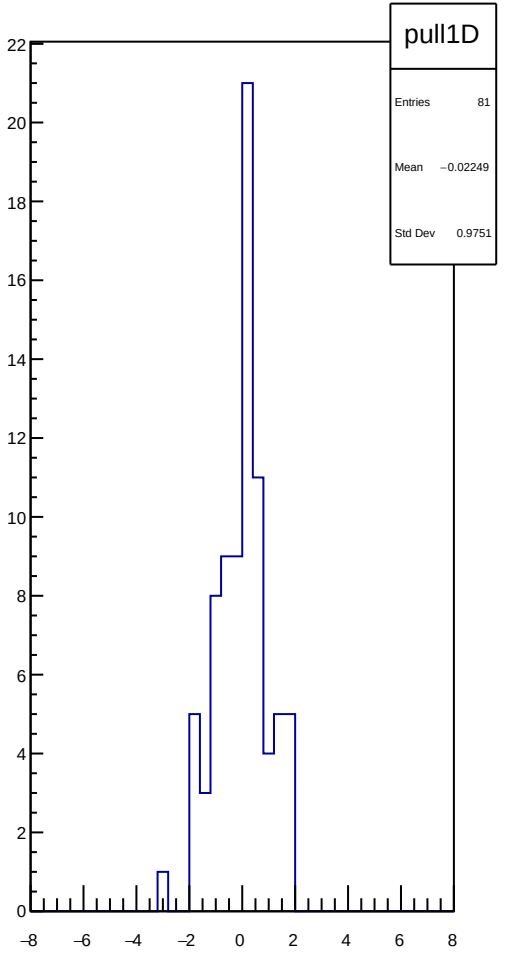

asym_sam3_rms vs run
χ² / ndf 4998 / 80
p0 633.6 ± 0.5061
720
700
680
660
640
620
600
580
560
540

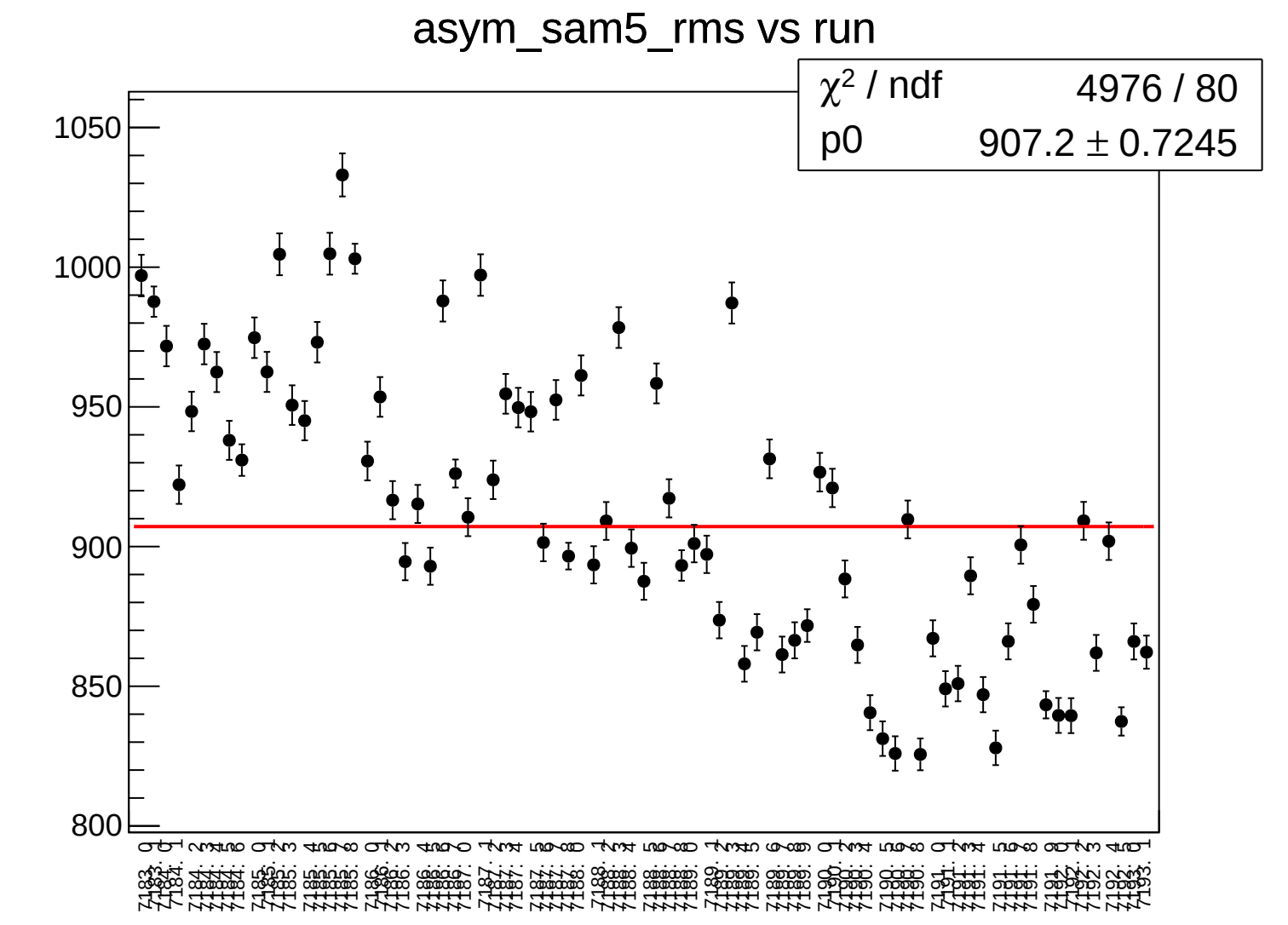

asym_sam4_mean vs run
χ² / ndf 93.65 / 80
p0 −3761 ± 1919
pull
Entries 81
Mean −16.87
Std Dev 64.52

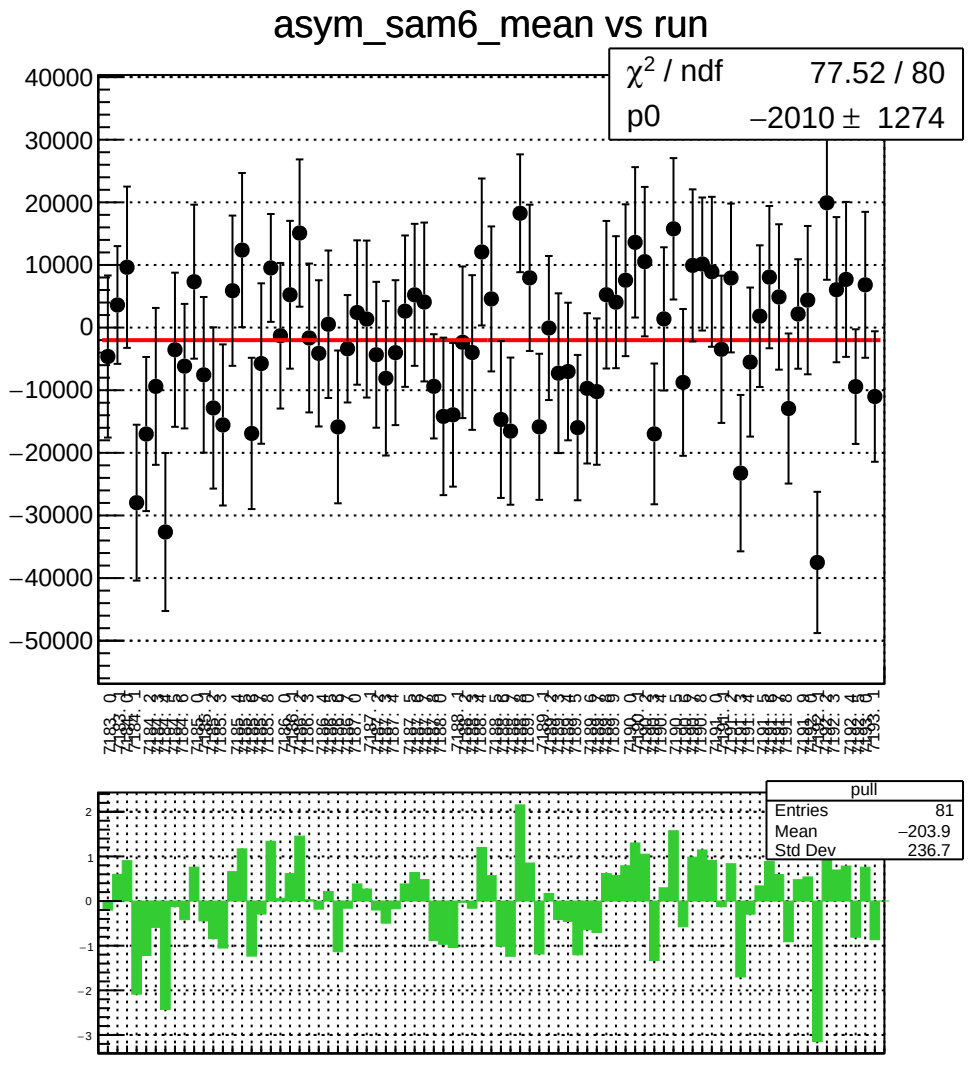

pull1D
Entries 81
Mean −0.01679
Std Dev 1.075

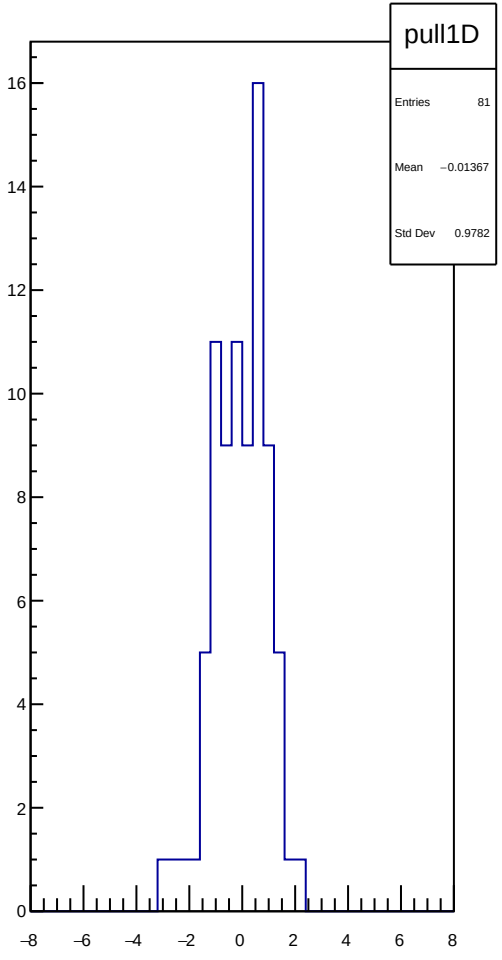

asym_sam4_rms vs run
χ² / ndf 2379 / 80
p0 1700 ± 1.357
1950
1900
1850
1800
1750
1700
1650
1600
1550

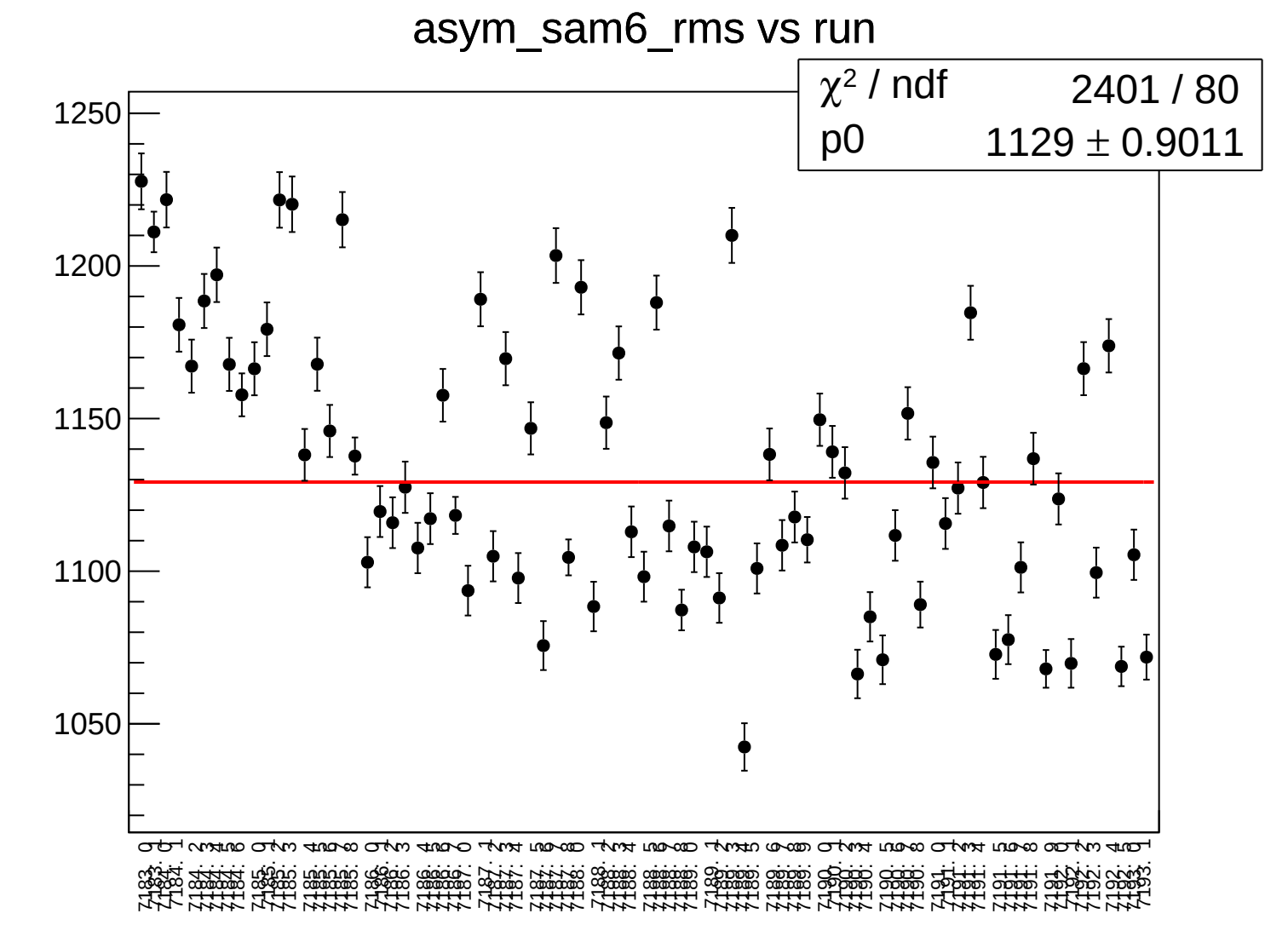

asym_sam5_mean vs run
χ² / ndf 77.06 / 80
p0 −2466 ± 1025
pull
Entries 81
Mean −97.47
Std Dev 133

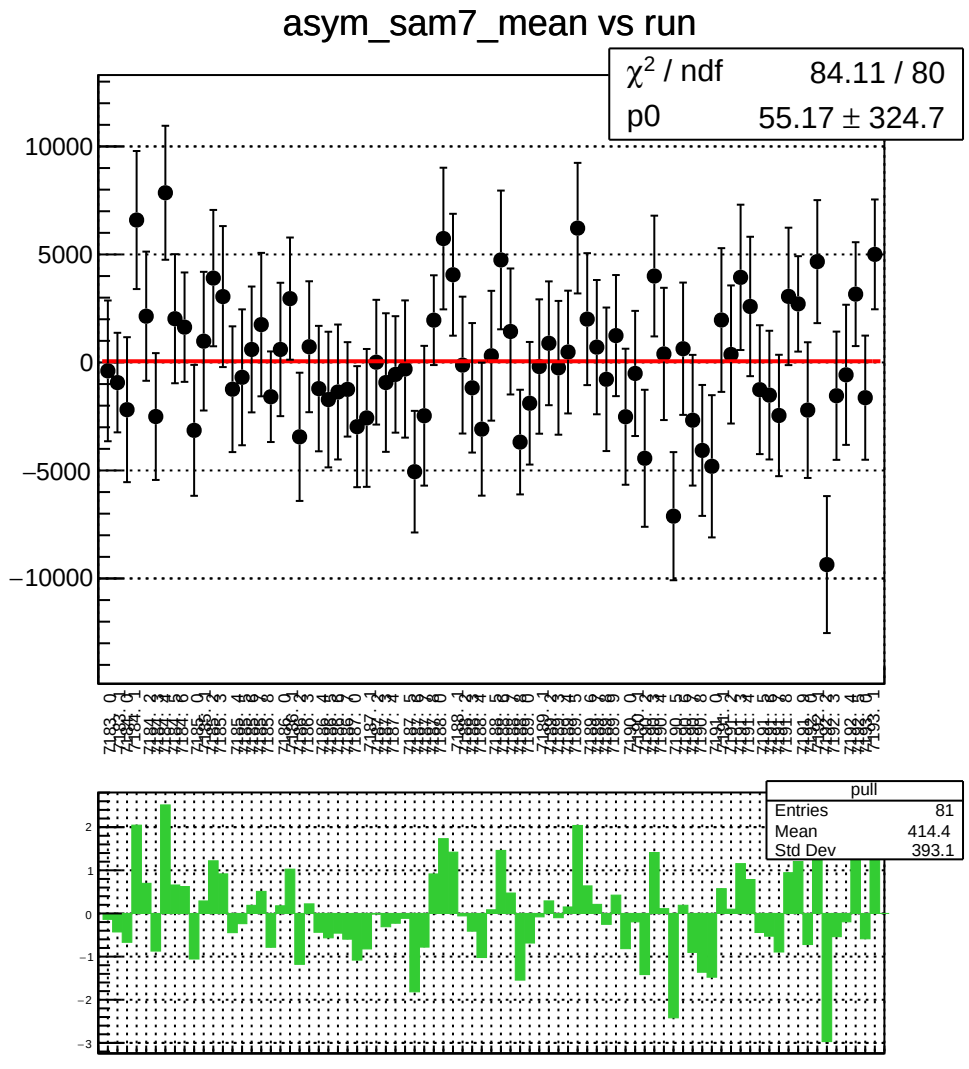

pull1D
Entries 81
Mean −0.02249
Std Dev 0.9751

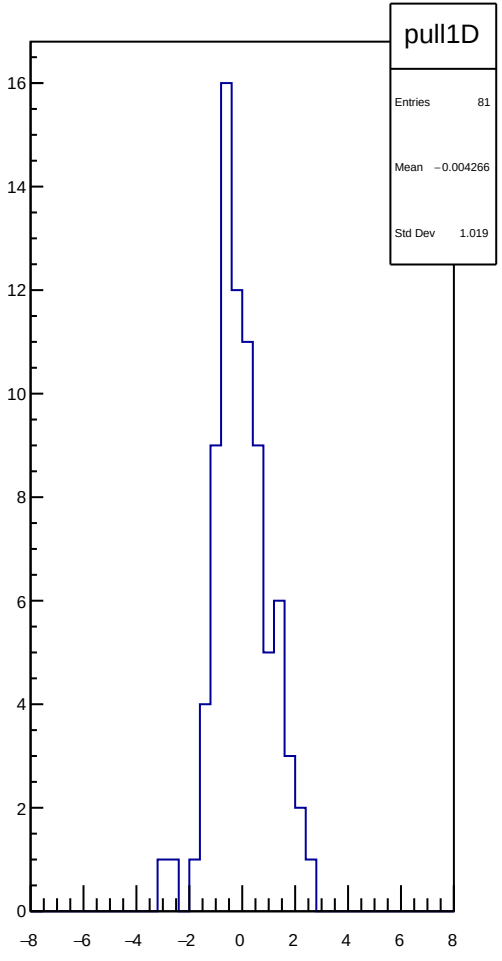

asym_sam5_rms vs run
χ² / ndf 4976 / 80
p0 907.2 ± 0.7245
1050
1000
950
900
850
800

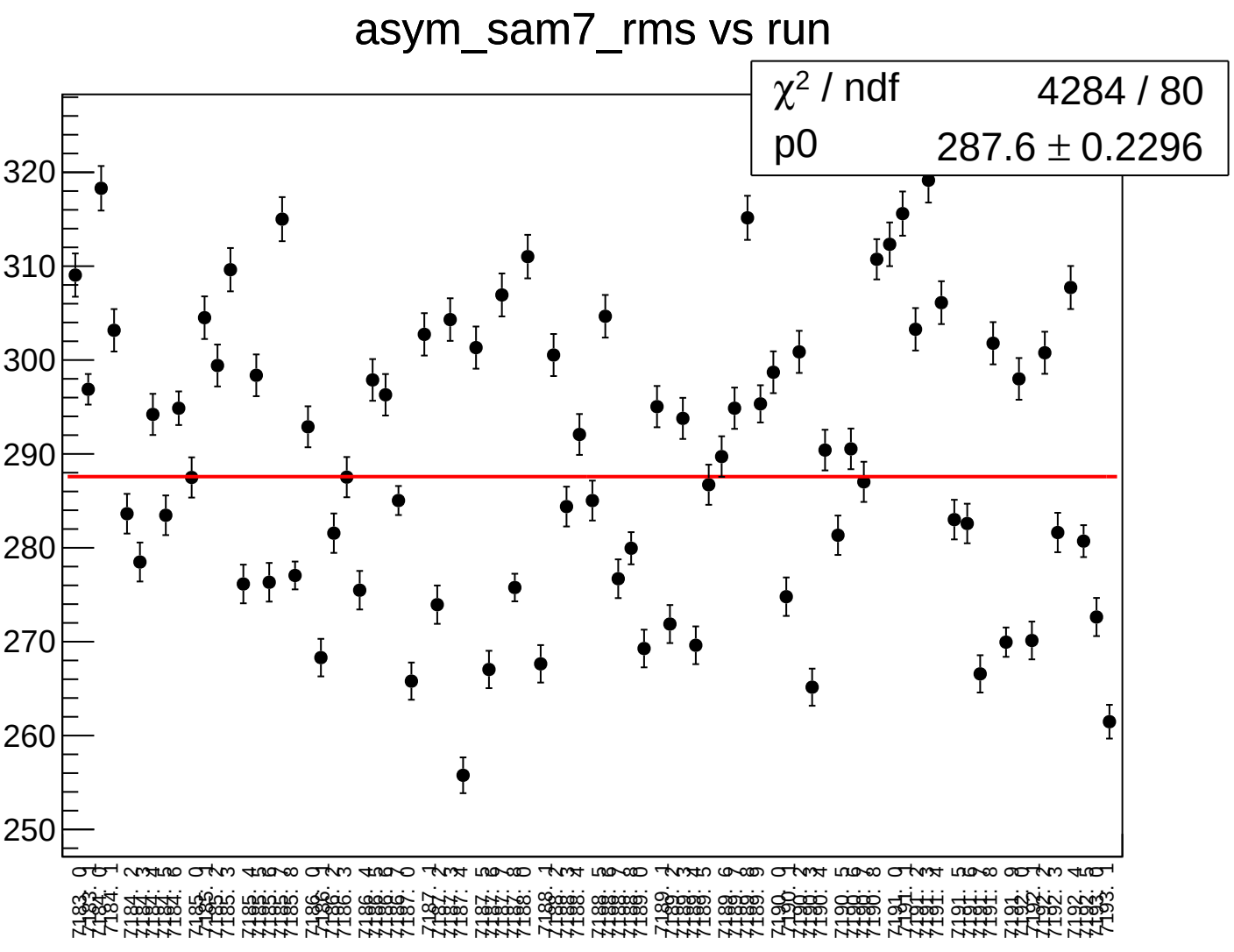

asym_sam6_mean vs run
χ² / ndf 77.52 / 80
p0 −2010 ± 1274
pull
Entries 81
Mean −203.9
Std Dev 236.7

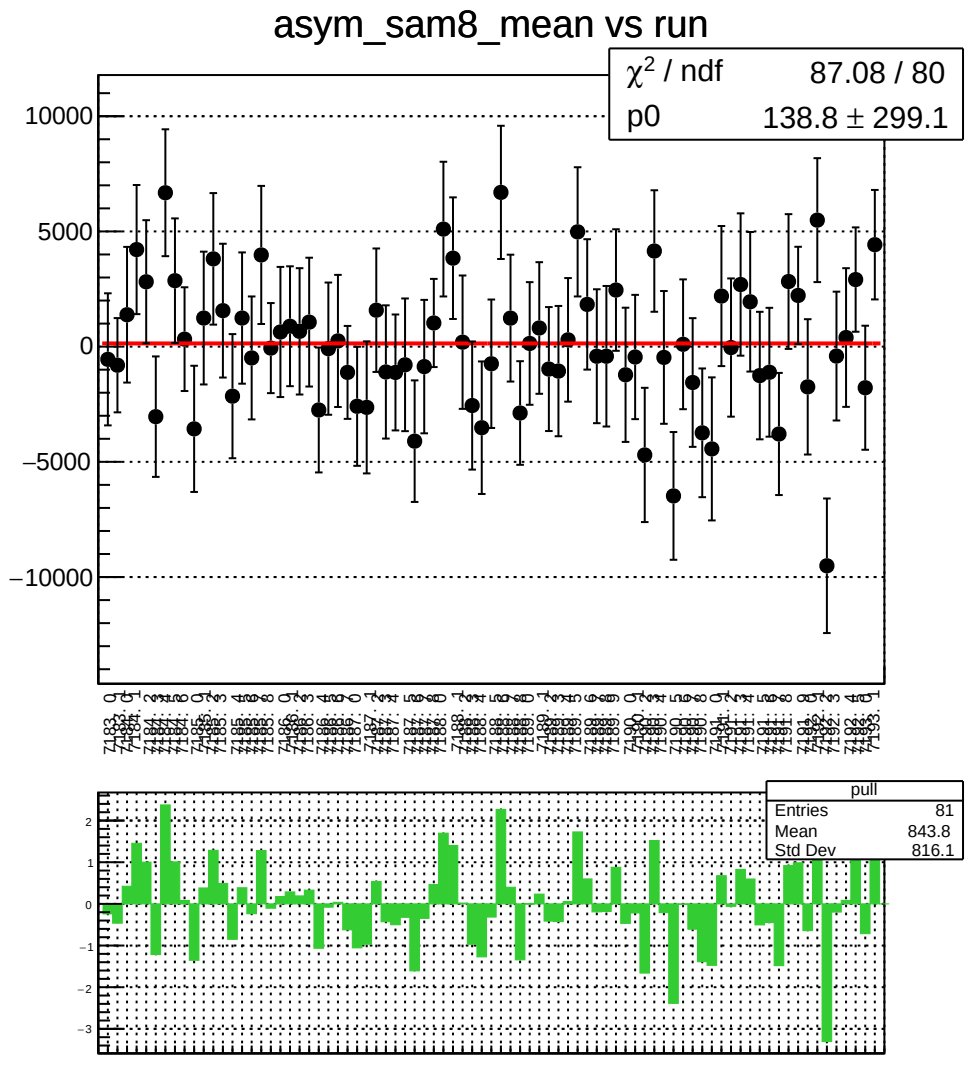

pull1D
Entries 81
Mean −0.01367
Std Dev 0.9782

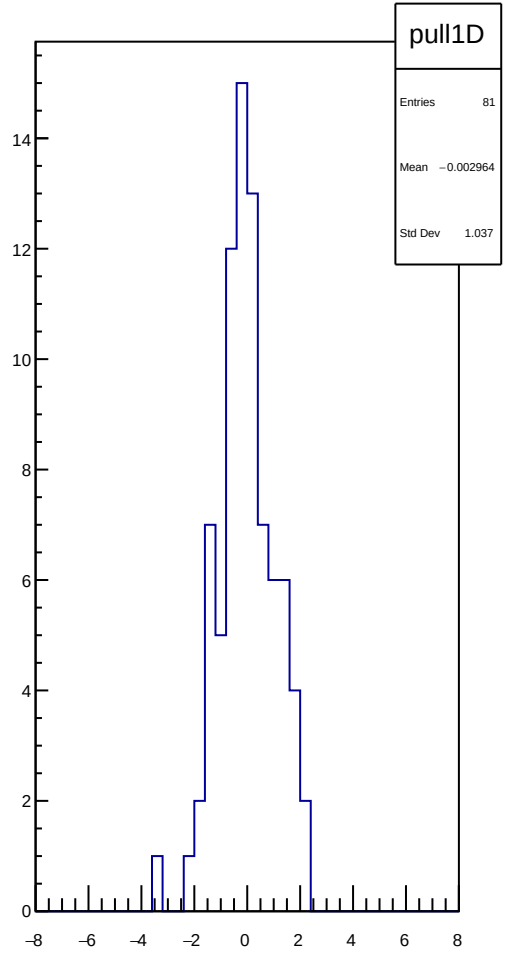

asym_sam6_rms vs run
χ² / ndf 2401 / 80
p0 1129 ± 0.9011
1250
1200
1150
1100
1050

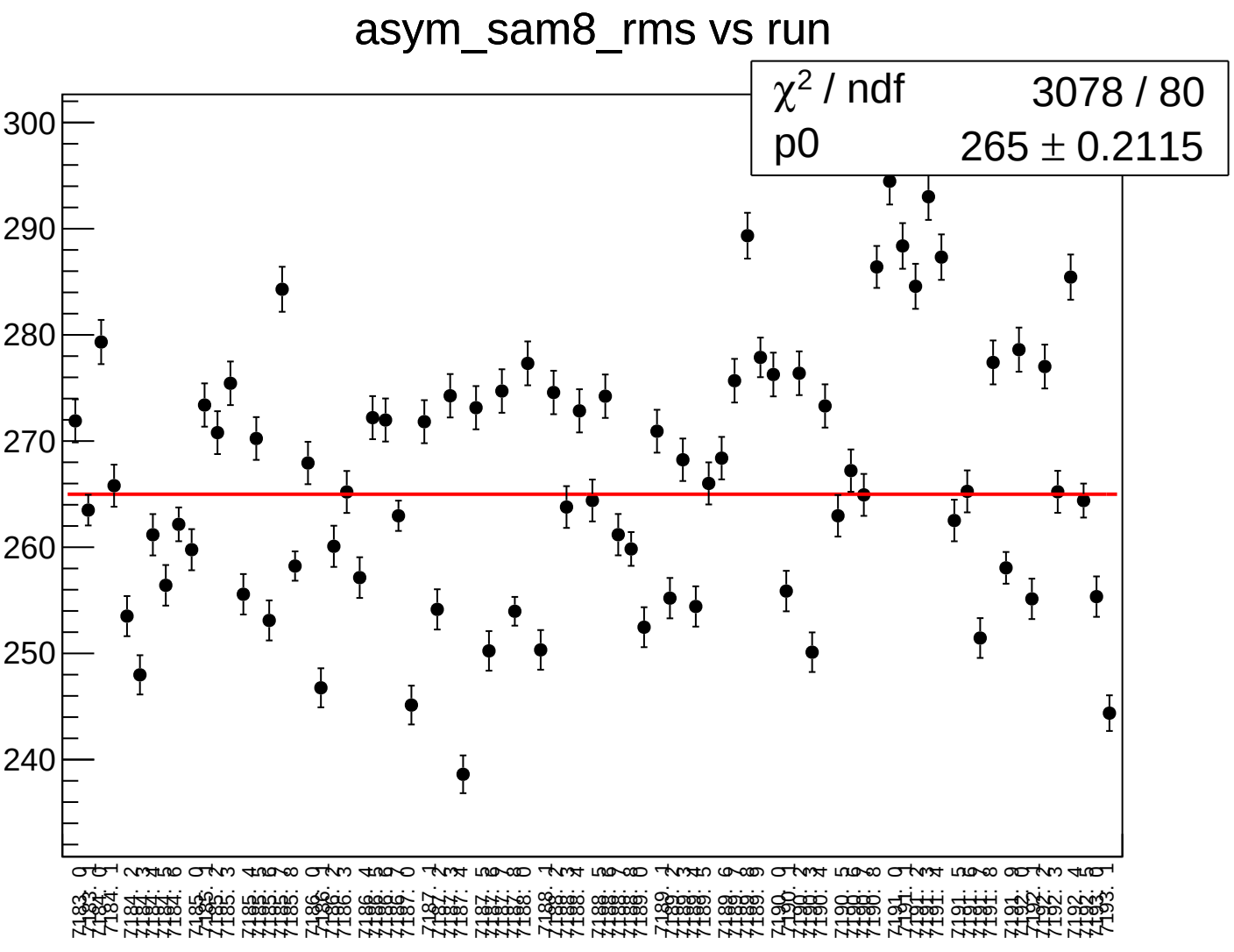

asym_sam7_mean vs run
χ^2 / ndf 84.11 / 80
p0 55.17 ± 324.7
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 414.4
Std Dev 393.1
2
1
0
−1
−2
−3

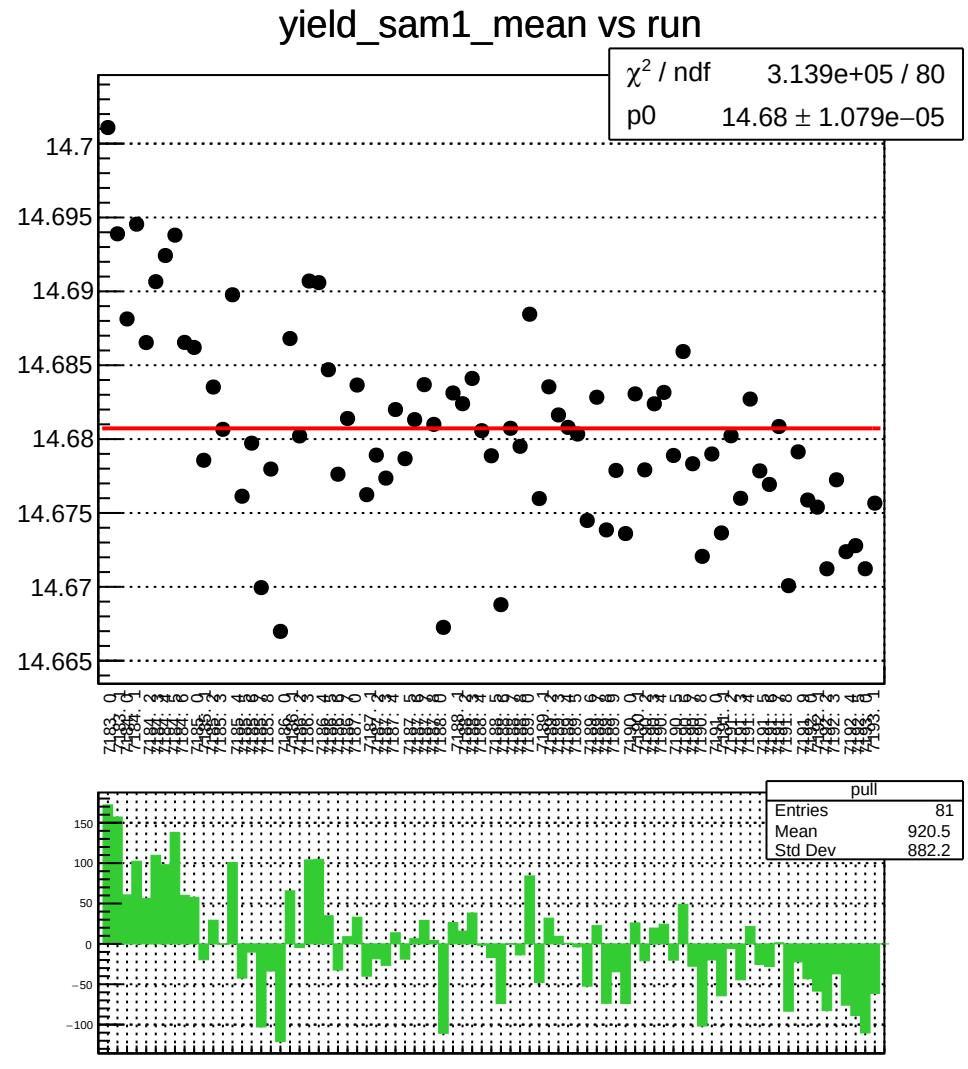

pull1D
Entries 81
Mean −0.004266
Std Dev 1.019
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

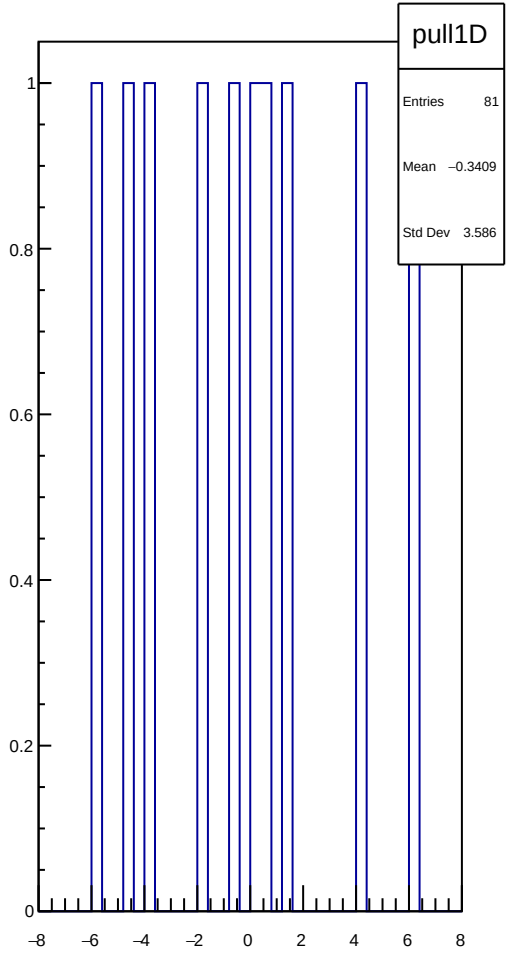

asym_sam7_rms vs run
χ² / ndf 4284 / 80
p0 287.6 ± 0.2296
320
310
300
290
280
270
260
250

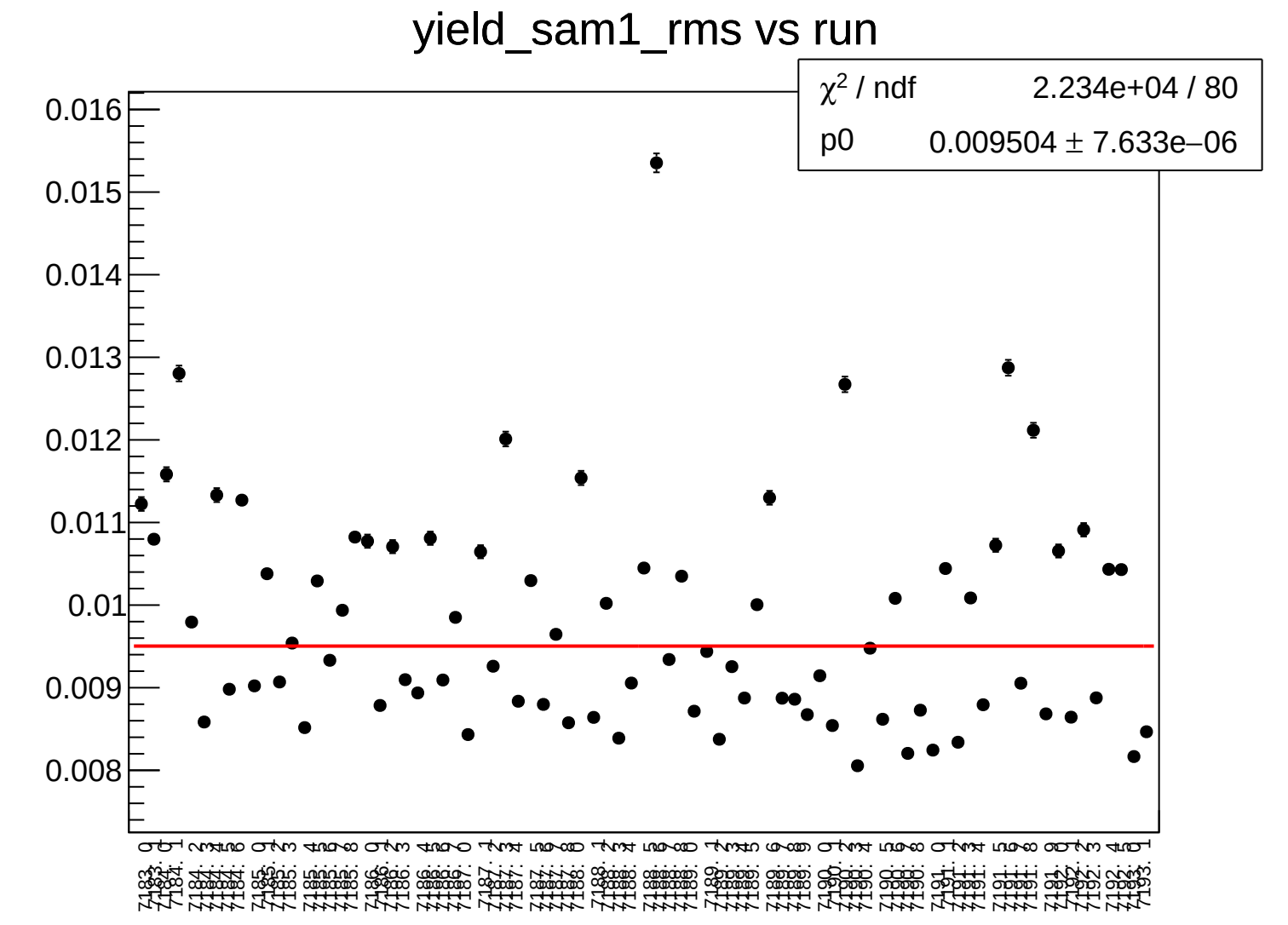

asym_sam8_mean vs run
χ² / ndf 87.08 / 80
p0 138.8 ± 299.1
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 843.8
Std Dev 816.1
2
1
0
−1
−2
−3

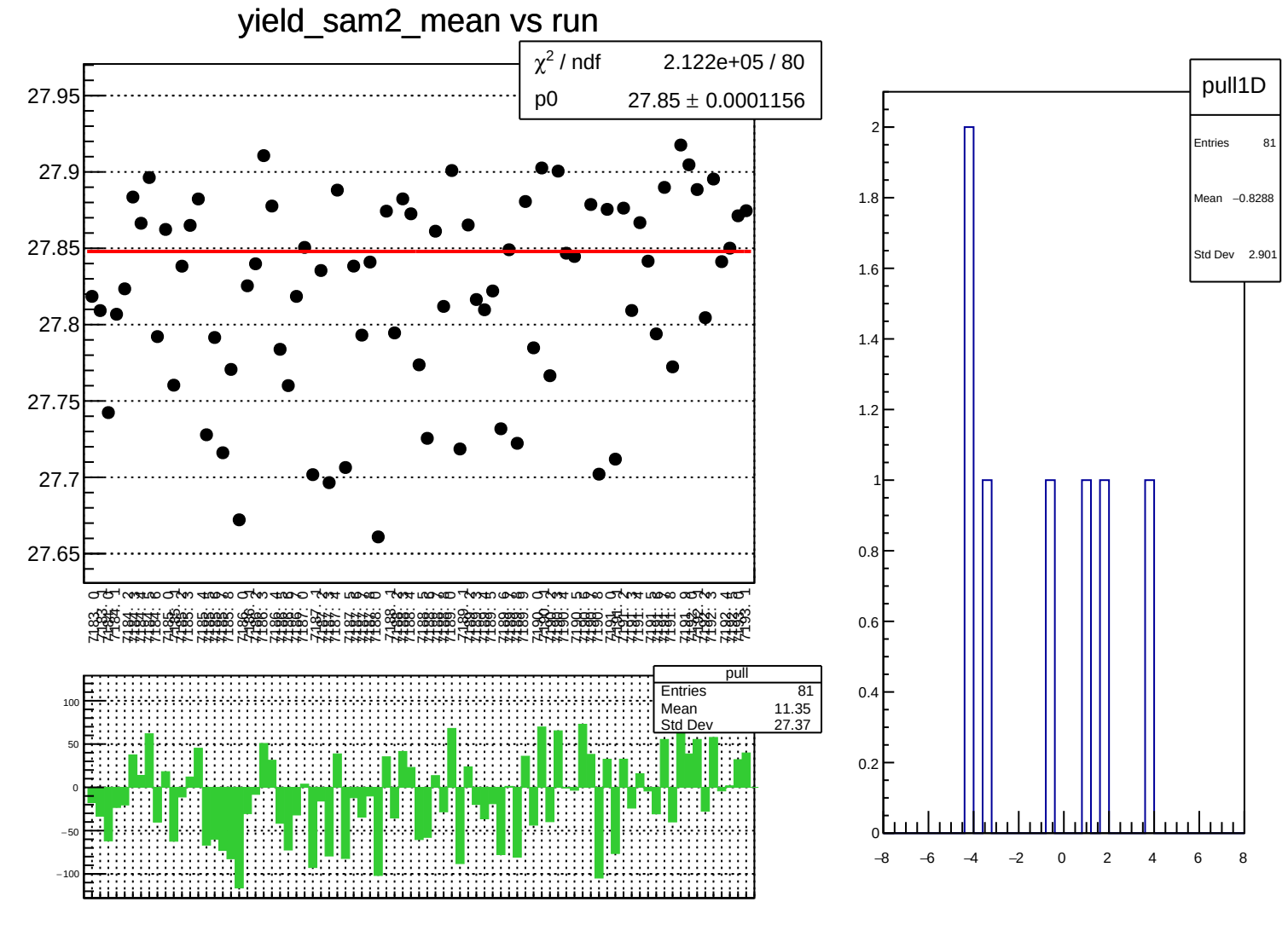

pull1D
Entries 81
Mean −0.002964
Std Dev 1.037
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

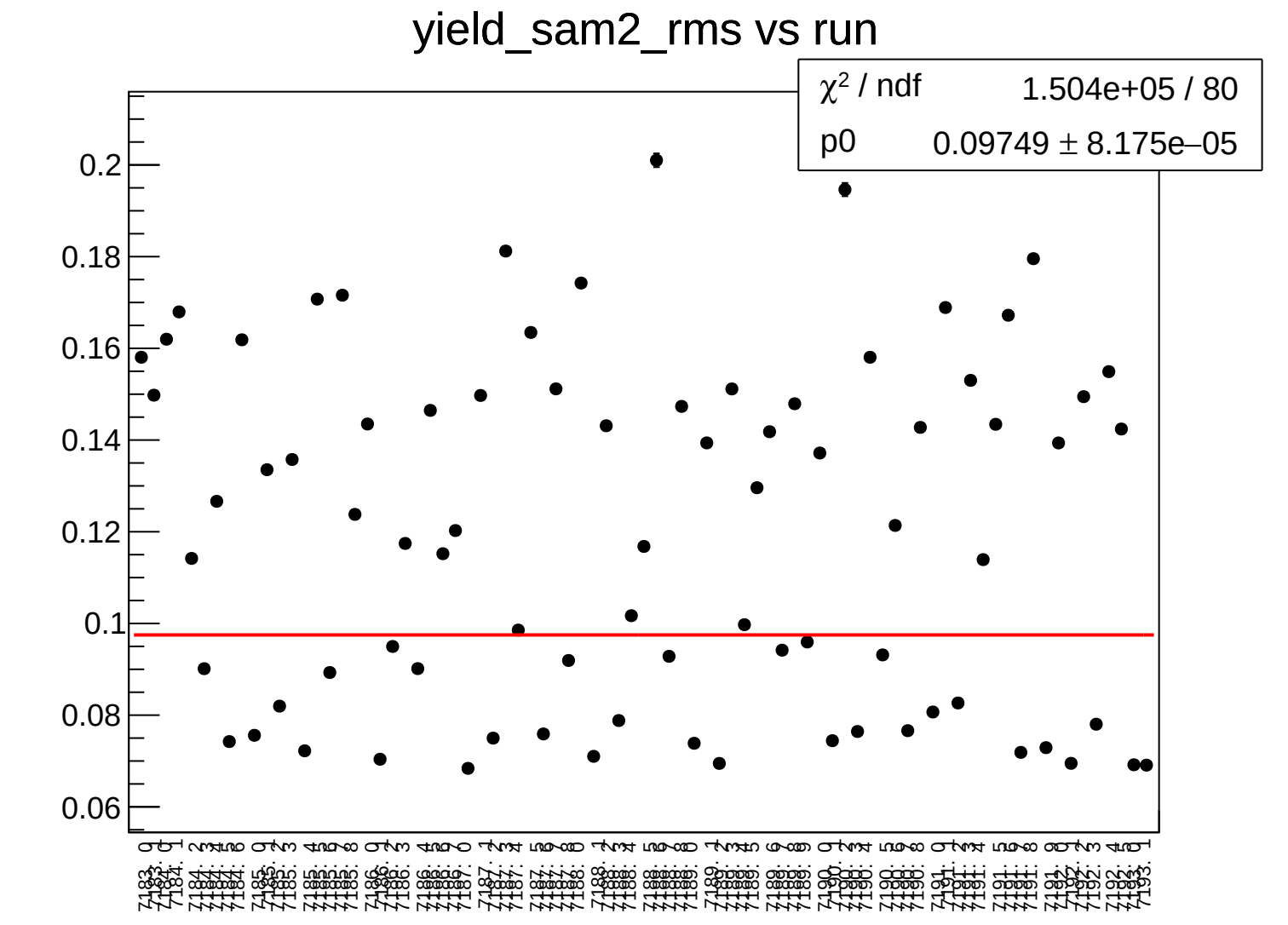

asym_sam8_rms vs run
χ^2 / ndf 3078 / 80
p0 265 ± 0.2115
300
290
280
270
260
250
240

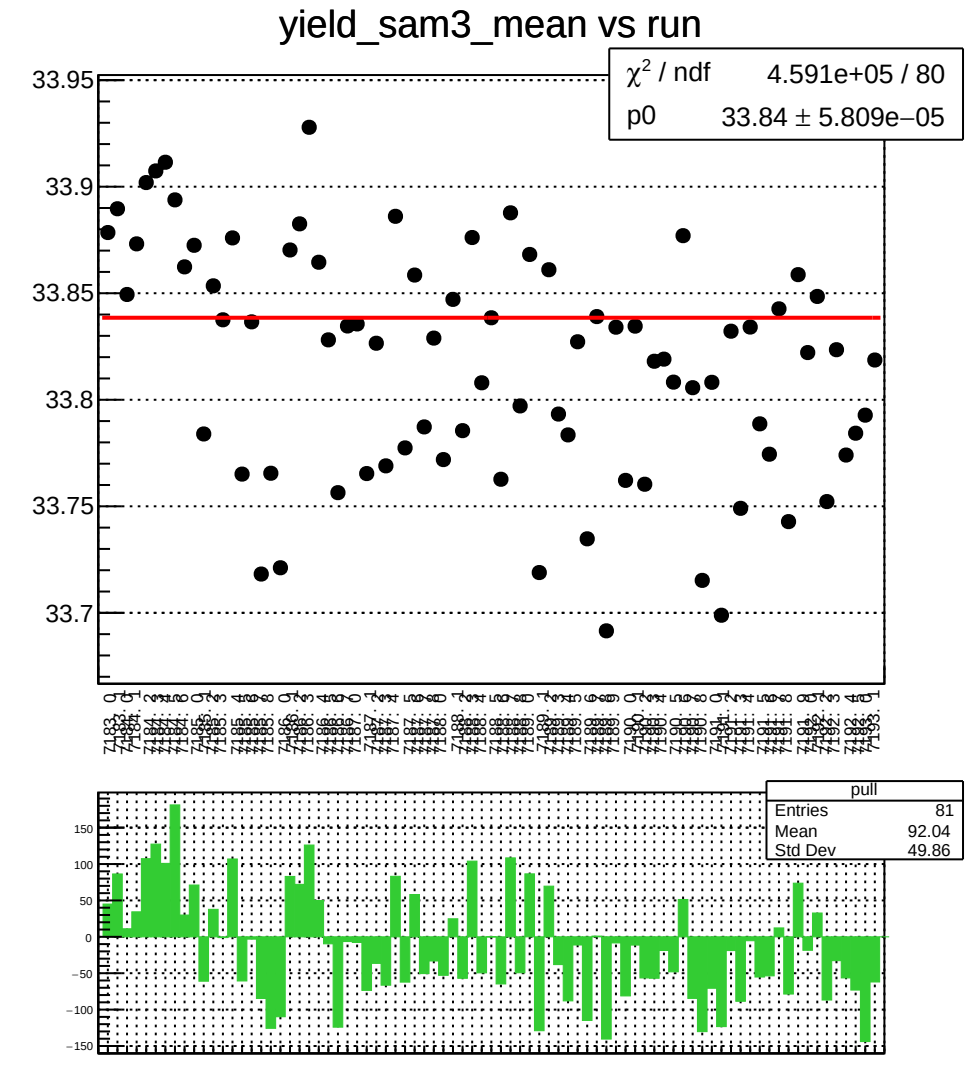

yield_sam1_mean vs run
χ² / ndf 3.139e+05 / 80
p0 14.68 ± 1.079e−05
14.7
14.695
14.69
14.685
14.68
14.675
14.67
14.665
pull
Entries 81
Mean 920.5
Std Dev 882.2
150
100
50
0
−50
−100

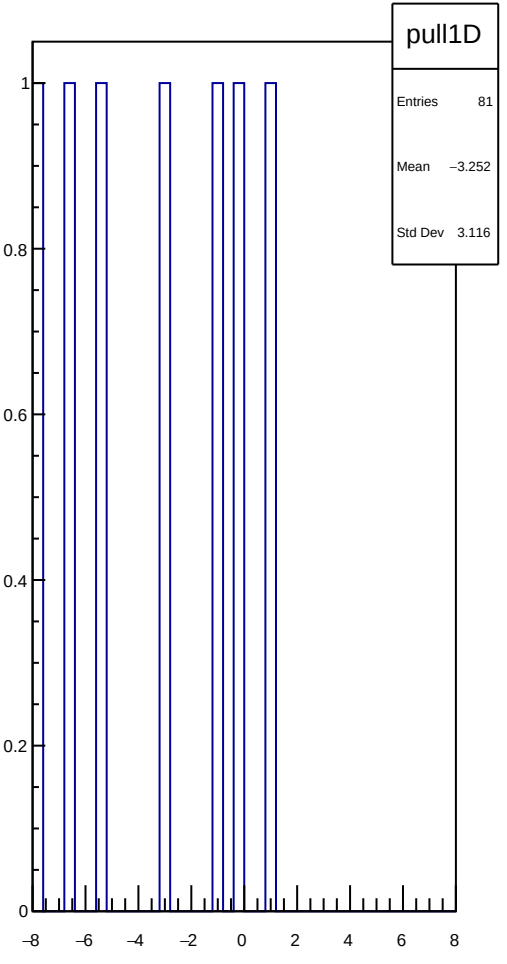

pull1D
Entries 81
Mean −0.3409
Std Dev 3.586
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

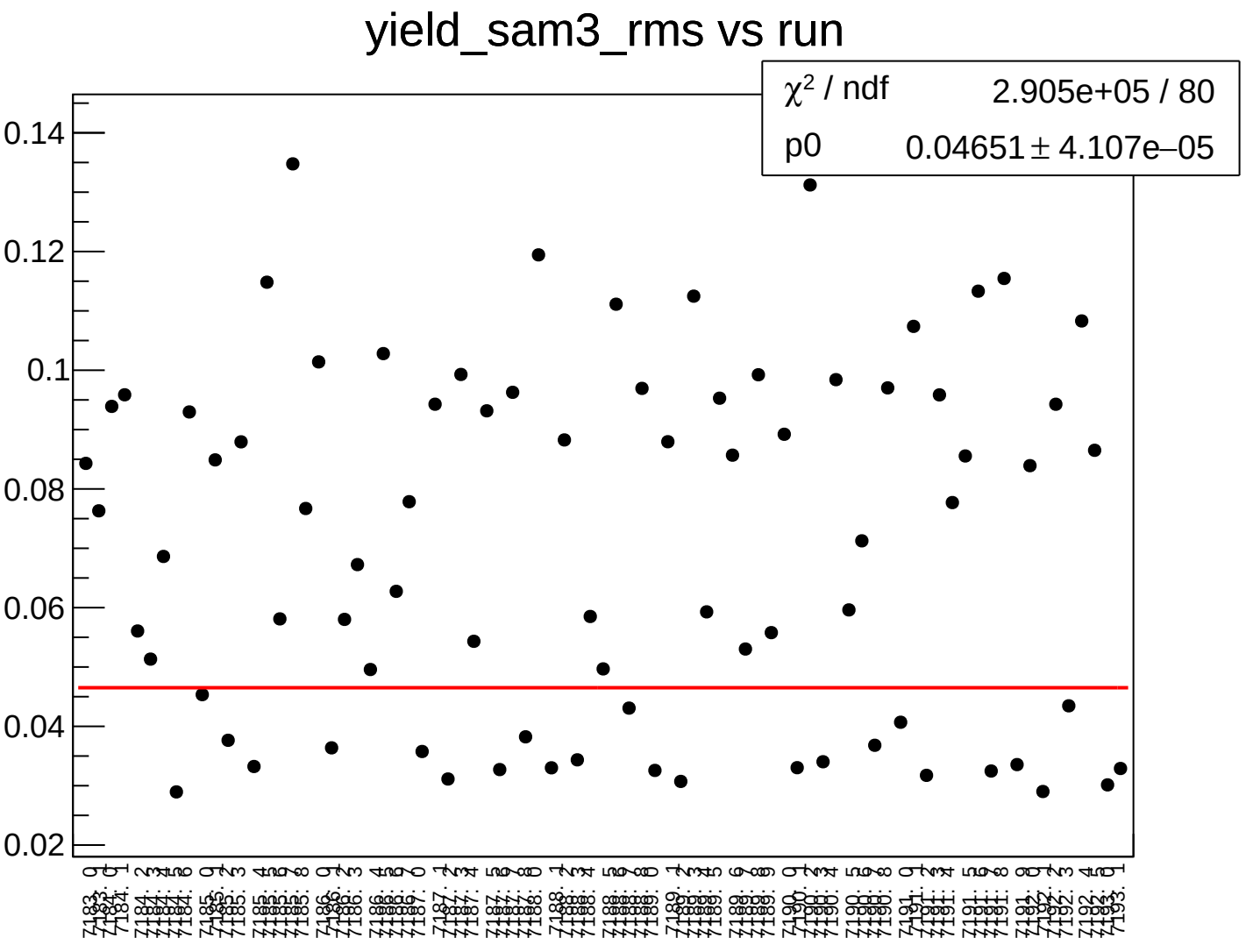

yield_sam1_rms vs run
χ^2 / ndf 2.234e+04 / 80
p0 0.009504 ± 7.633e−06
0.016
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008

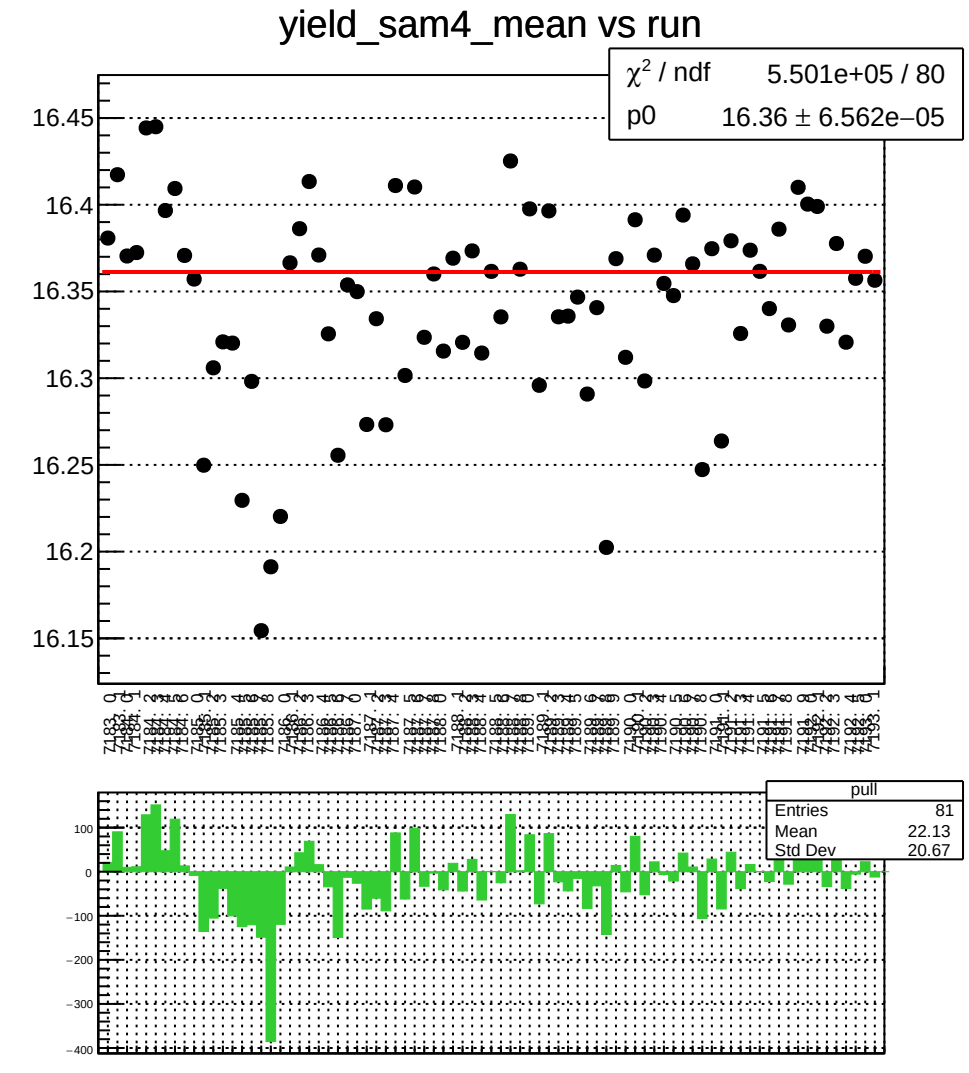

yield_sam2_mean vs run
χ² / ndf 2.122e+05 / 80
p0 27.85 ± 0.0001156
27.95
27.9
27.85
27.8
27.75
27.7
27.65
pull
Entries 81
Mean 11.35
Std Dev 27.37
100
50
0
−50
−100
pull1D
Entries 81
Mean −0.8288
Std Dev 2.901
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

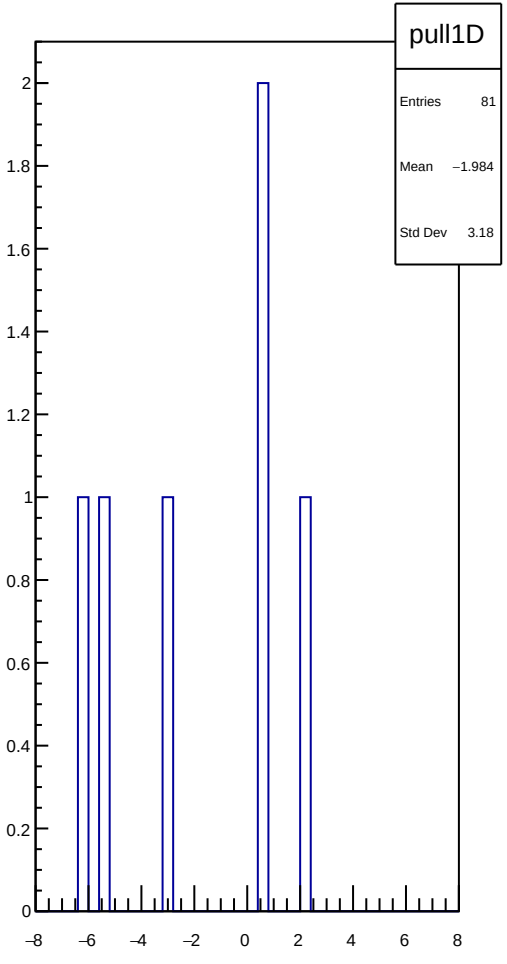

yield_sam2_rms vs run
χ² / ndf 1.504e+05 / 80
p0 0.09749 ± 8.175e−05
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06

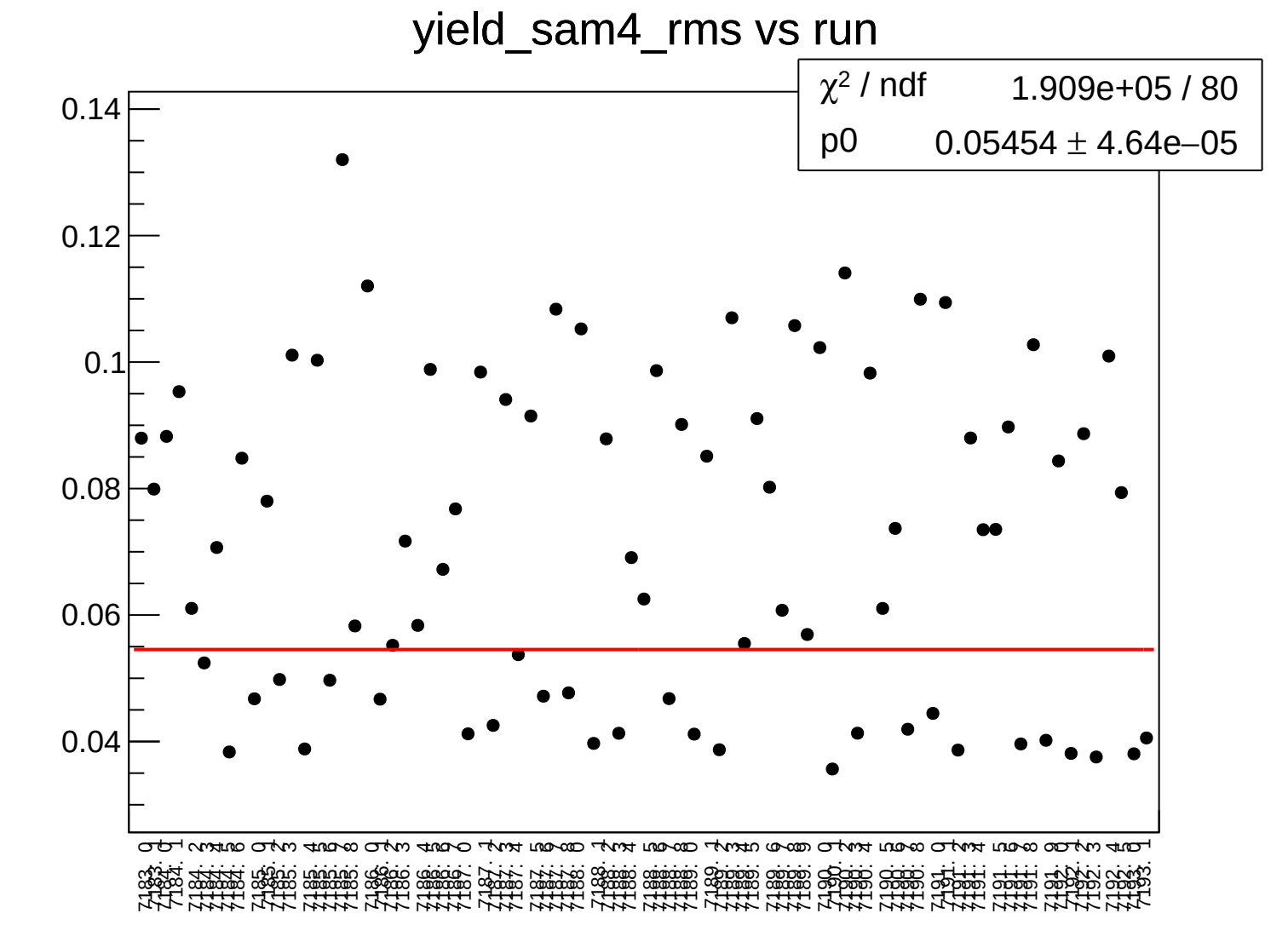

yield_sam3_mean vs run
χ² / ndf 4.591e+05 / 80
p0 33.84 ± 5.809e−05
33.95
33.9
33.85
33.8
33.75
33.7
pull
Entries 81
Mean 92.04
Std Dev 49.86
150
100
50
0
−50
−100
−150

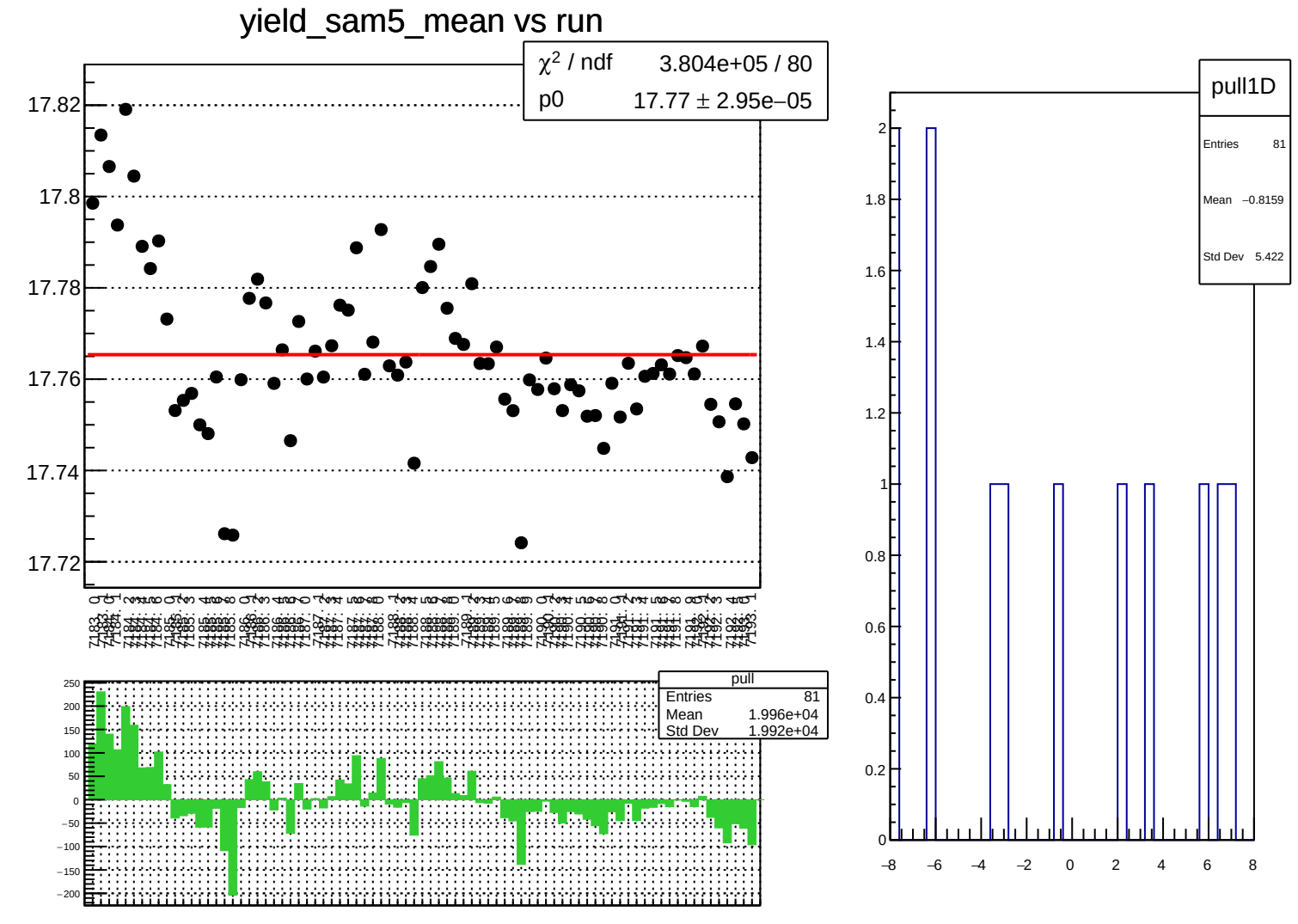

pull1D
Entries 81
Mean −3.252
Std Dev 3.116
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

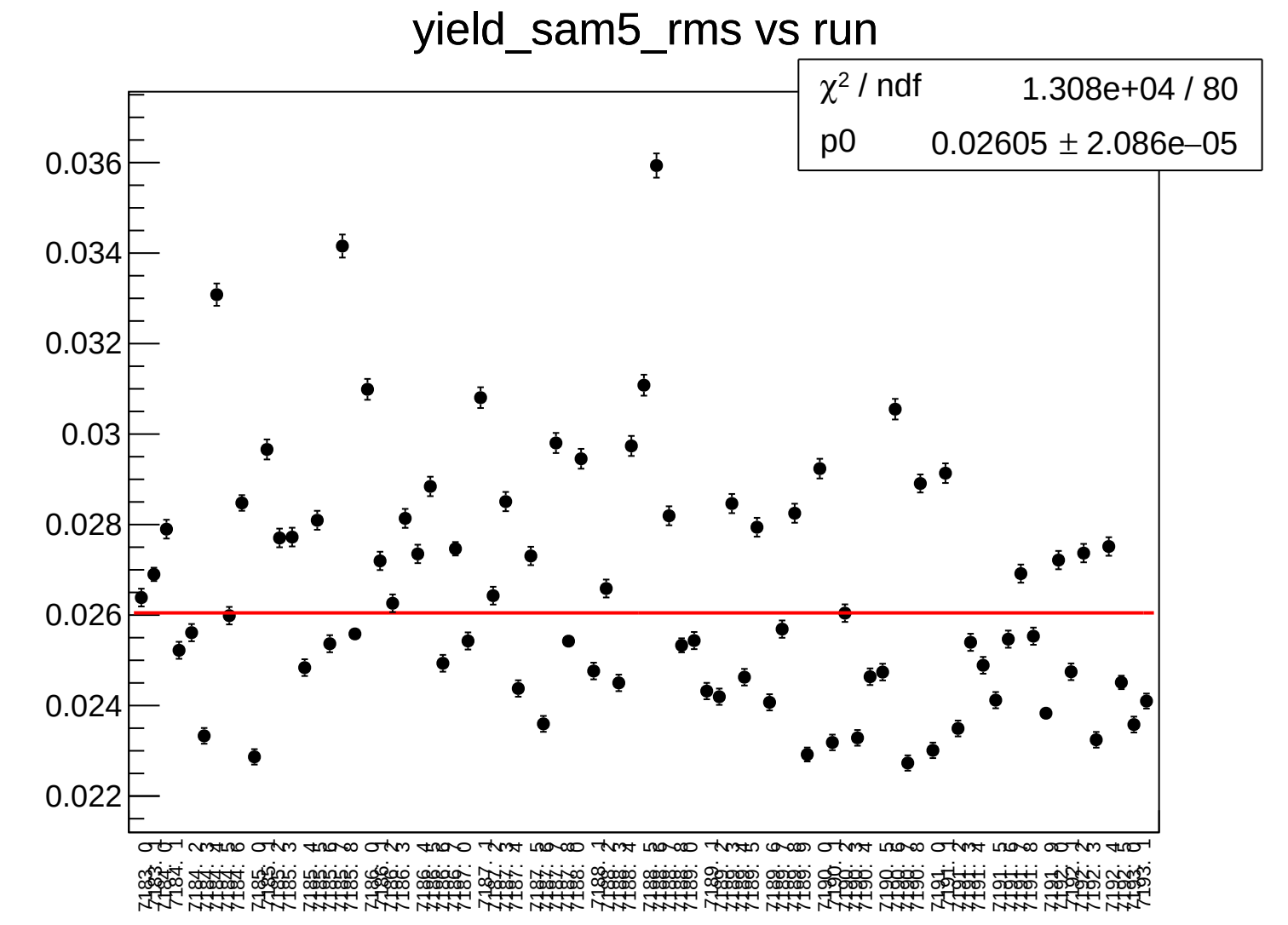

yield_sam3_rms vs run
χ² / ndf 2.905e+05 / 80
p0 0.04651 ± 4.107e–05
0.14
0.12
0.1
0.08
0.06
0.04
0.02

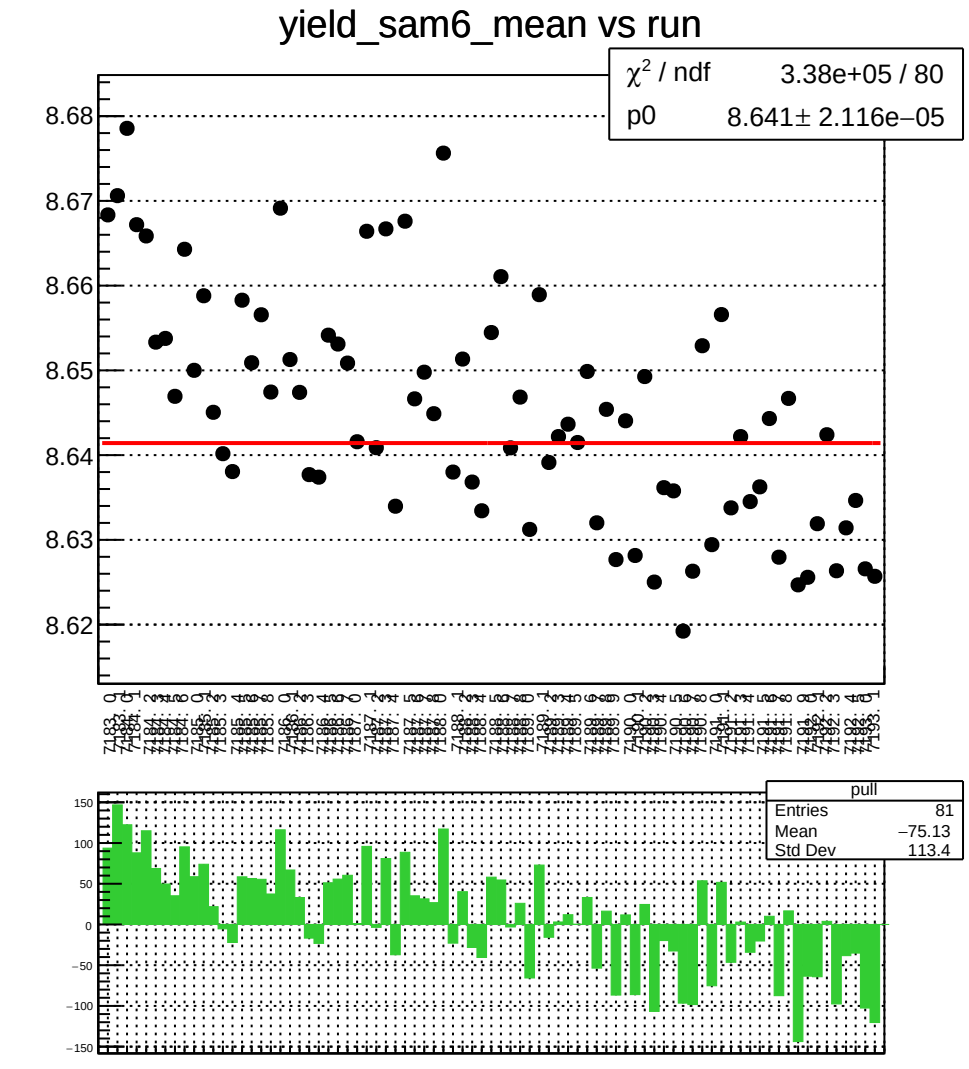

yield_sam4_mean vs run
χ² / ndf 5.501e+05 / 80
p0 16.36 ± 6.562e−05
16.45
16.4
16.35
16.3
16.25
16.2
16.15
pull
Entries 81
Mean 22.13
Std Dev 20.67
100
0
−100
−200
−300
−400

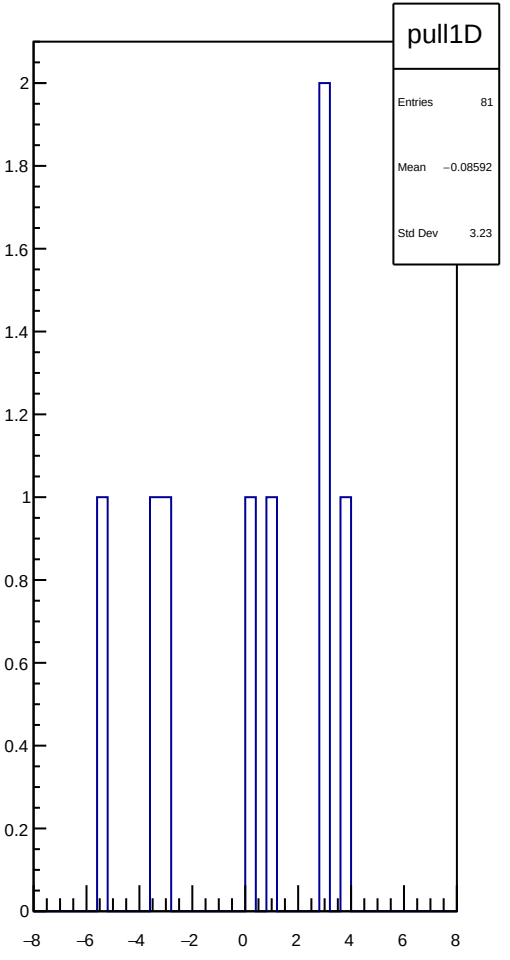

pull1D
Entries 81
Mean −1.984
Std Dev 3.18
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

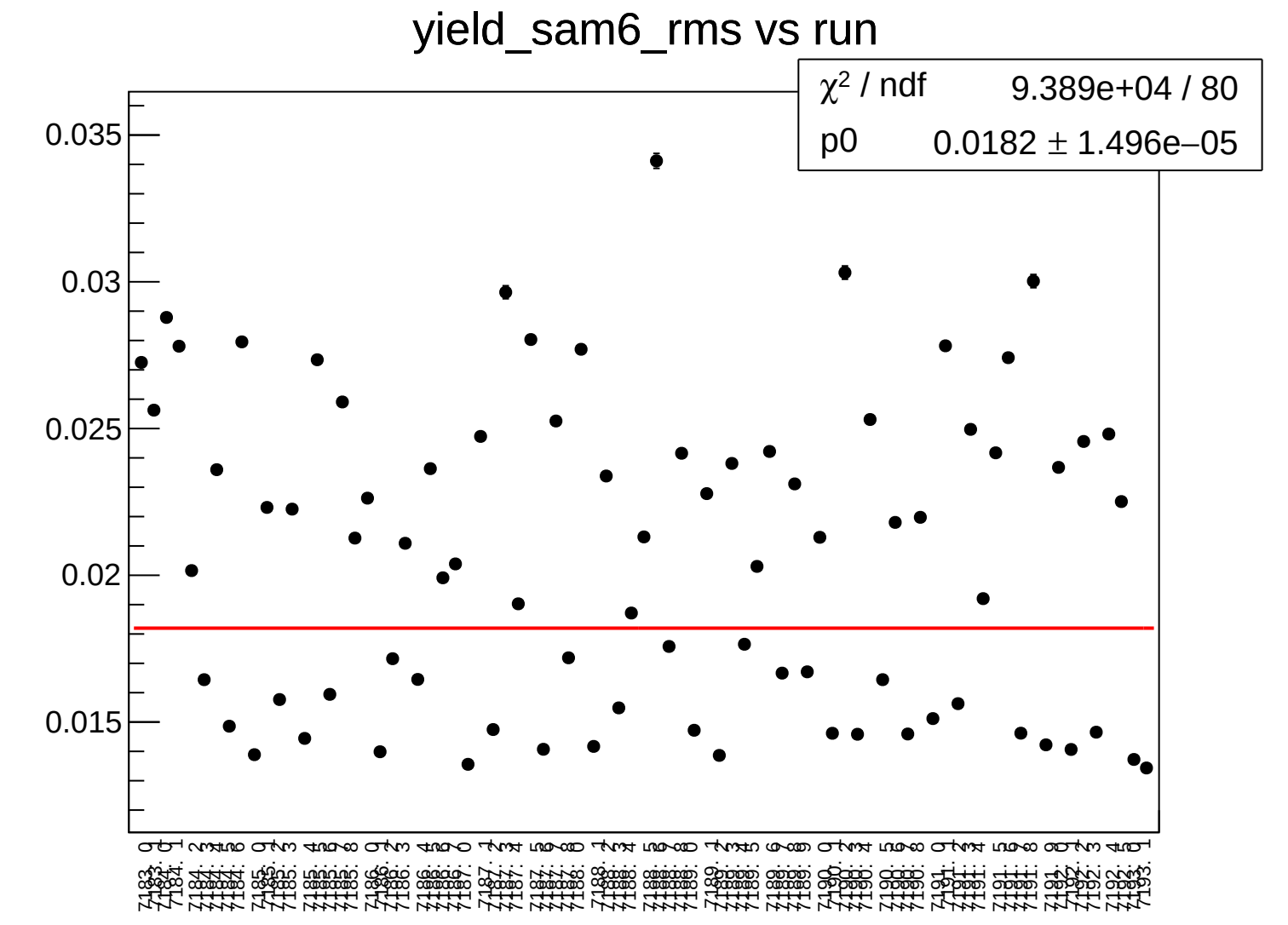

yield_sam4_rms vs run
χ² / ndf 1.909e+05 / 80
p0 0.05454 ± 4.64e−05
0.14
0.12
0.1
0.08
0.06
0.04

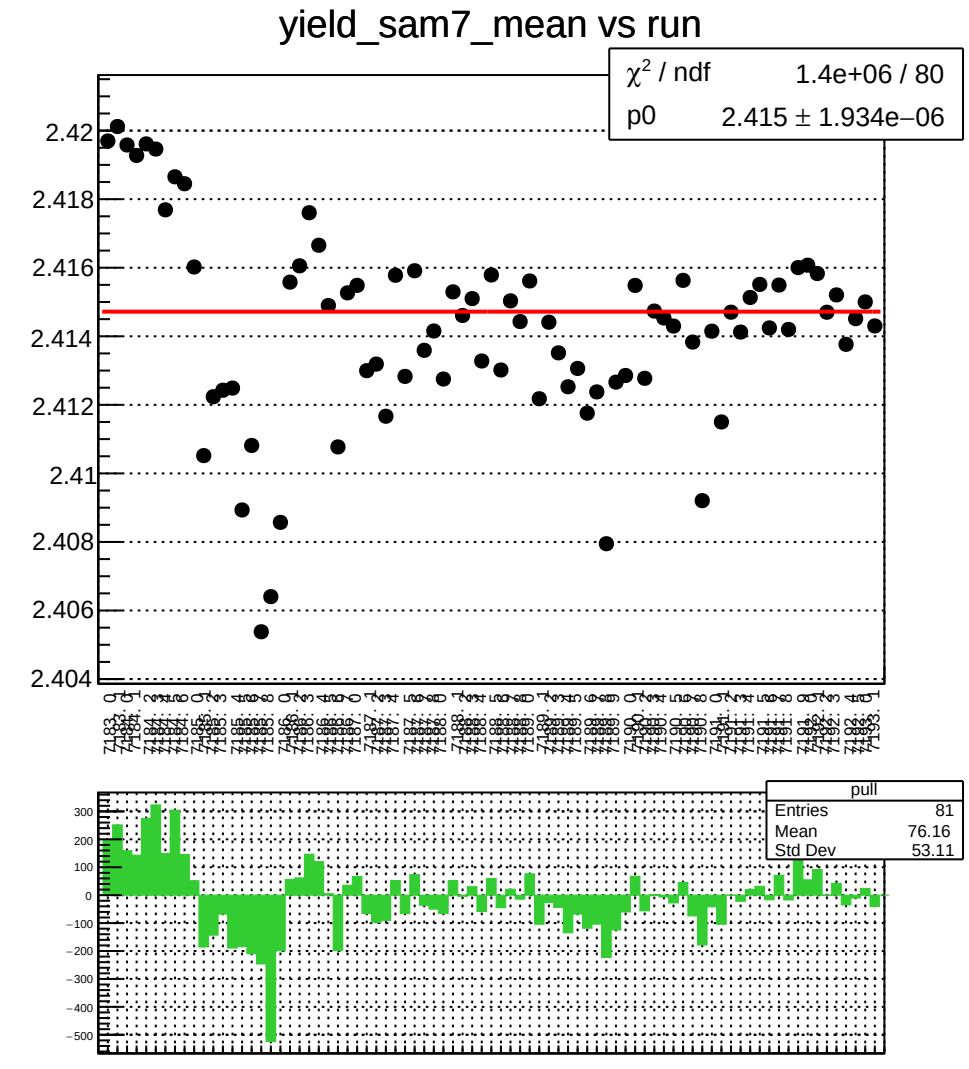

yield_sam5_mean vs run
χ² / ndf 3.804e+05 / 80
p0 17.77 ± 2.95e−05
17.82
17.8
17.78
17.76
17.74
17.72
pull
Entries 81
Mean 1.996e+04
Std Dev 1.992e+04
250
200
150
100
50
0
−50
−100
−150
−200
pull1D
Entries 81
Mean −0.8159
Std Dev 5.422
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

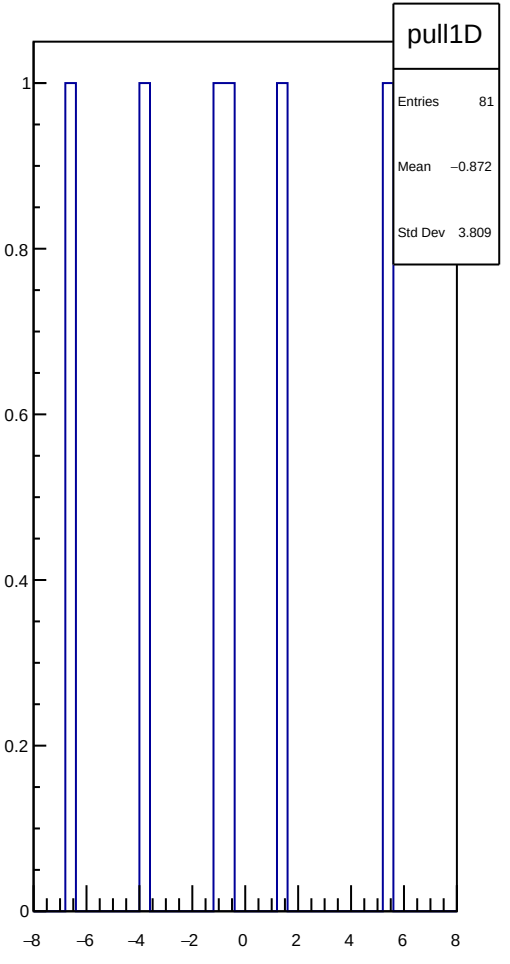

yield_sam5_rms vs run
χ² / ndf 1.308e+04 / 80
p0 0.02605 ± 2.086e–05
0.036
0.034
0.032
0.03
0.028
0.026
0.024
0.022

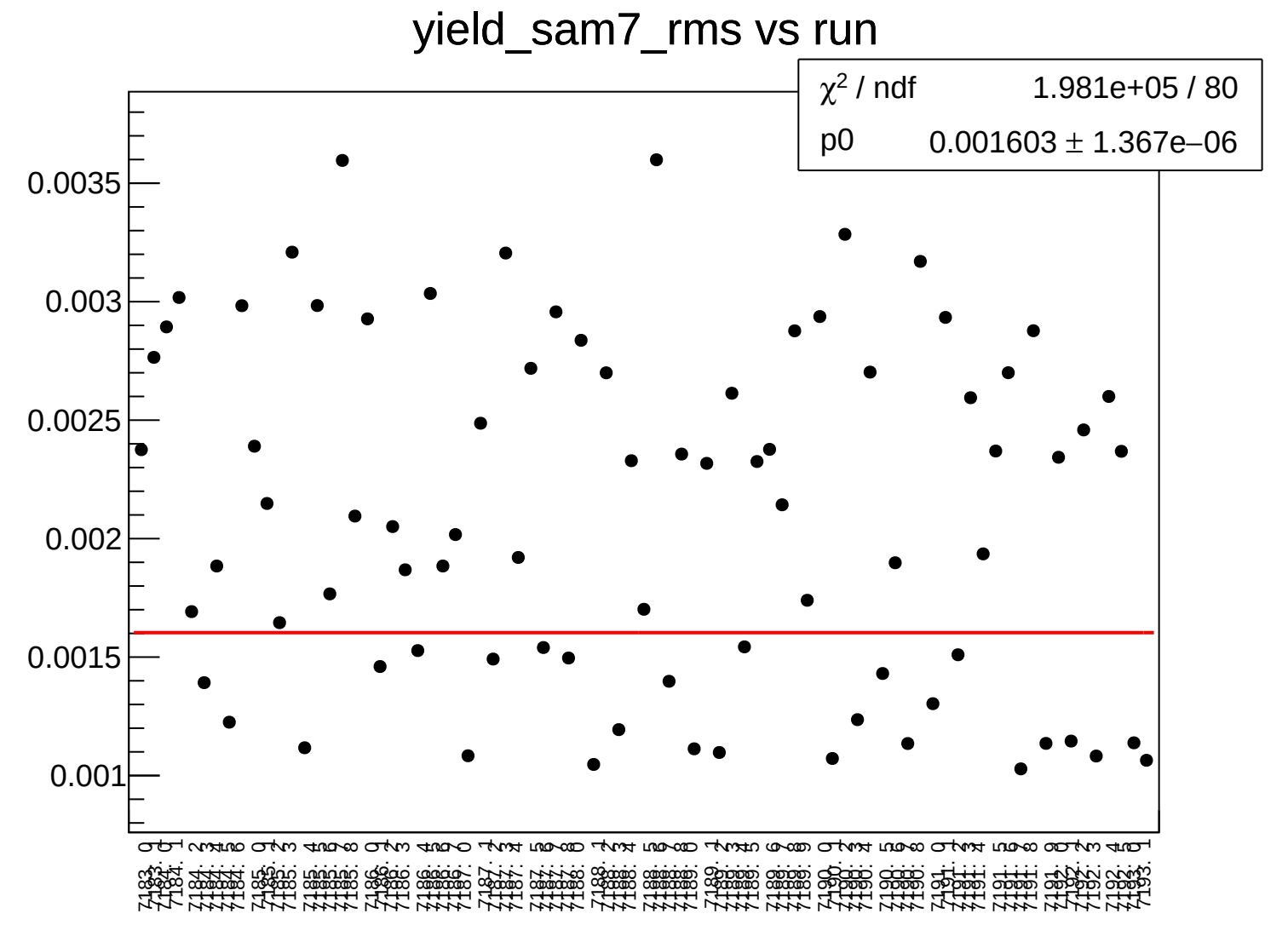

yield_sam6_mean vs run
χ² / ndf 3.38e+05 / 80
p0 8.641± 2.116e−05
8.68
8.67
8.66
8.65
8.64
8.63
8.62
pull
Entries 81
Mean −75.13
Std Dev 113.4
150
100
50
0
−50
−100
−150

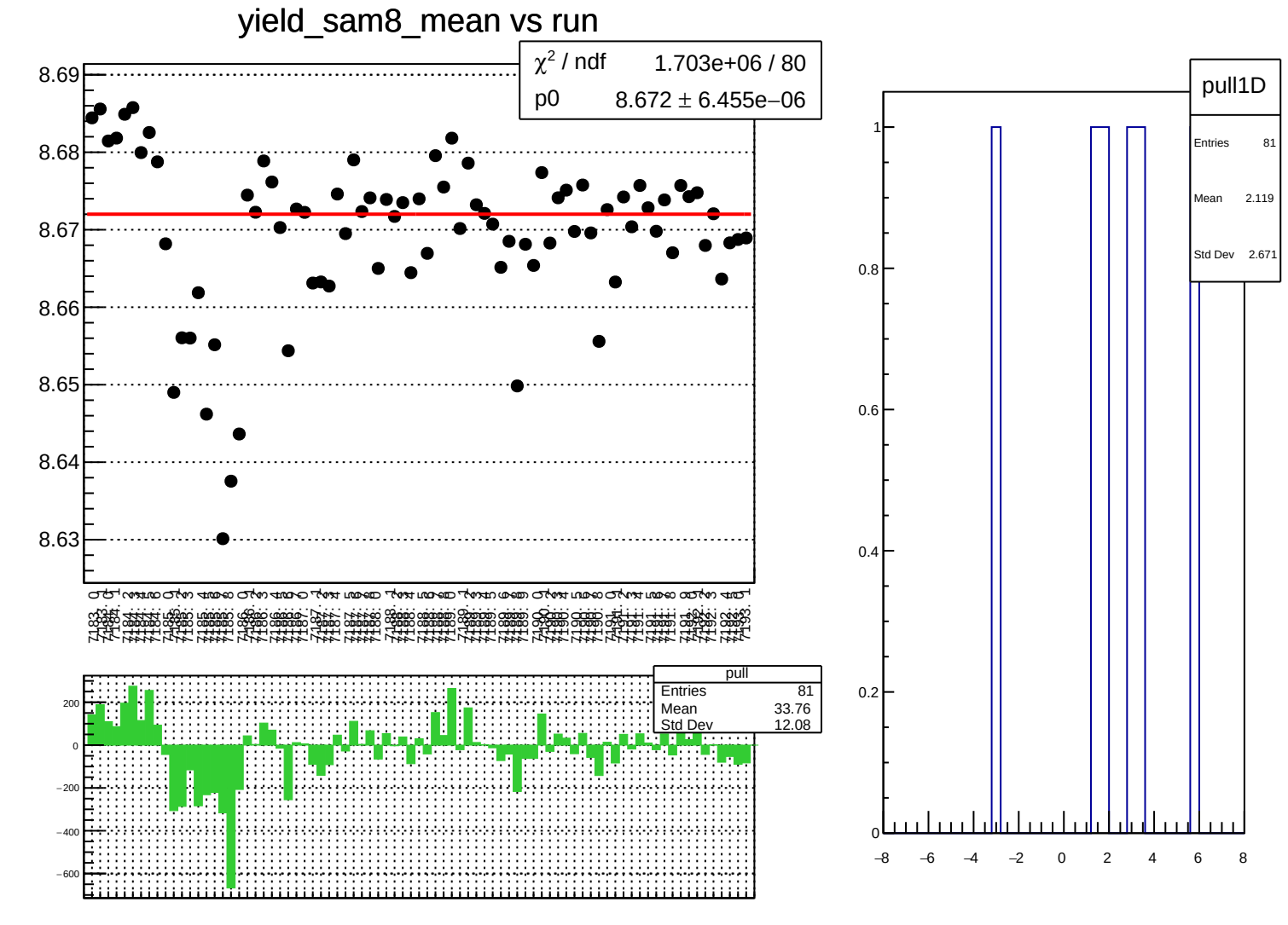

pull1D
Entries 81
Mean −0.08592
Std Dev 3.23
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

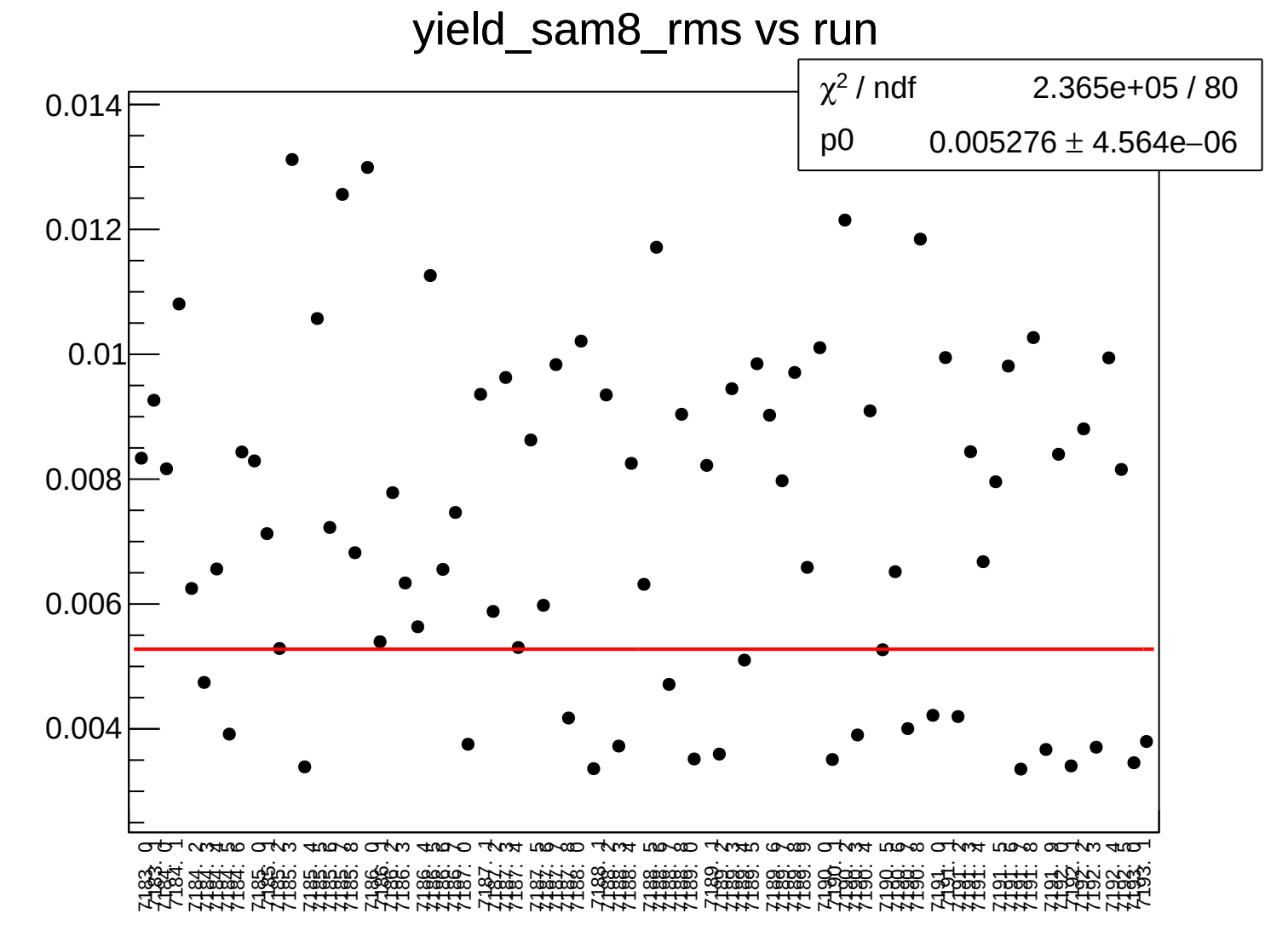

yield_sam6_rms vs run
χ² / ndf 9.389e+04 / 80
p0 0.0182 ± 1.496e−05
0.035
0.03
0.025
0.02
0.015

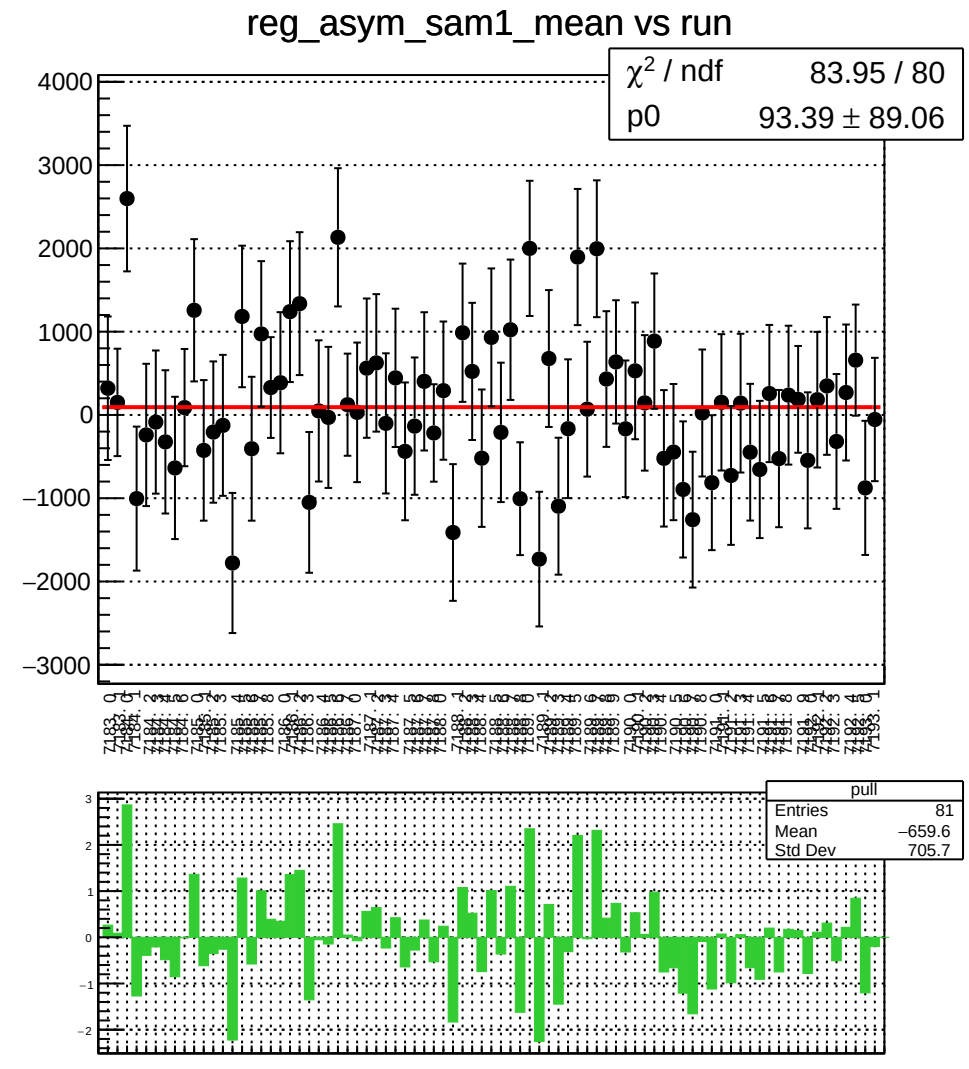

yield_sam7_mean vs run
χ² / ndf 1.4e+06 / 80
p0 2.415 ± 1.934e−06
2.42
2.418
2.416
2.414
2.412
2.41
2.408
2.406
2.404
pull
Entries 81
Mean 76.16
Std Dev 53.11
300
200
100
0
−100
−200
−300
−400
−500

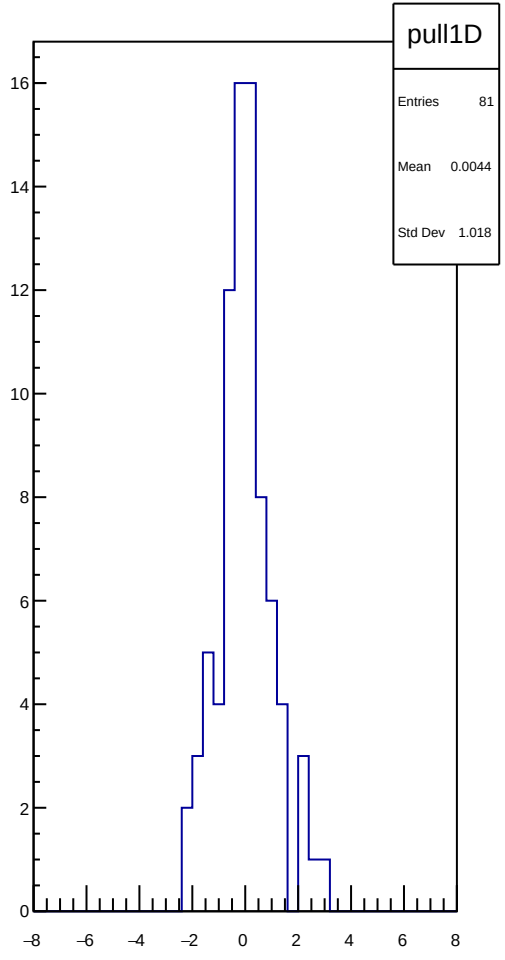

pull1D
Entries 81
Mean −0.872
Std Dev 3.809
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

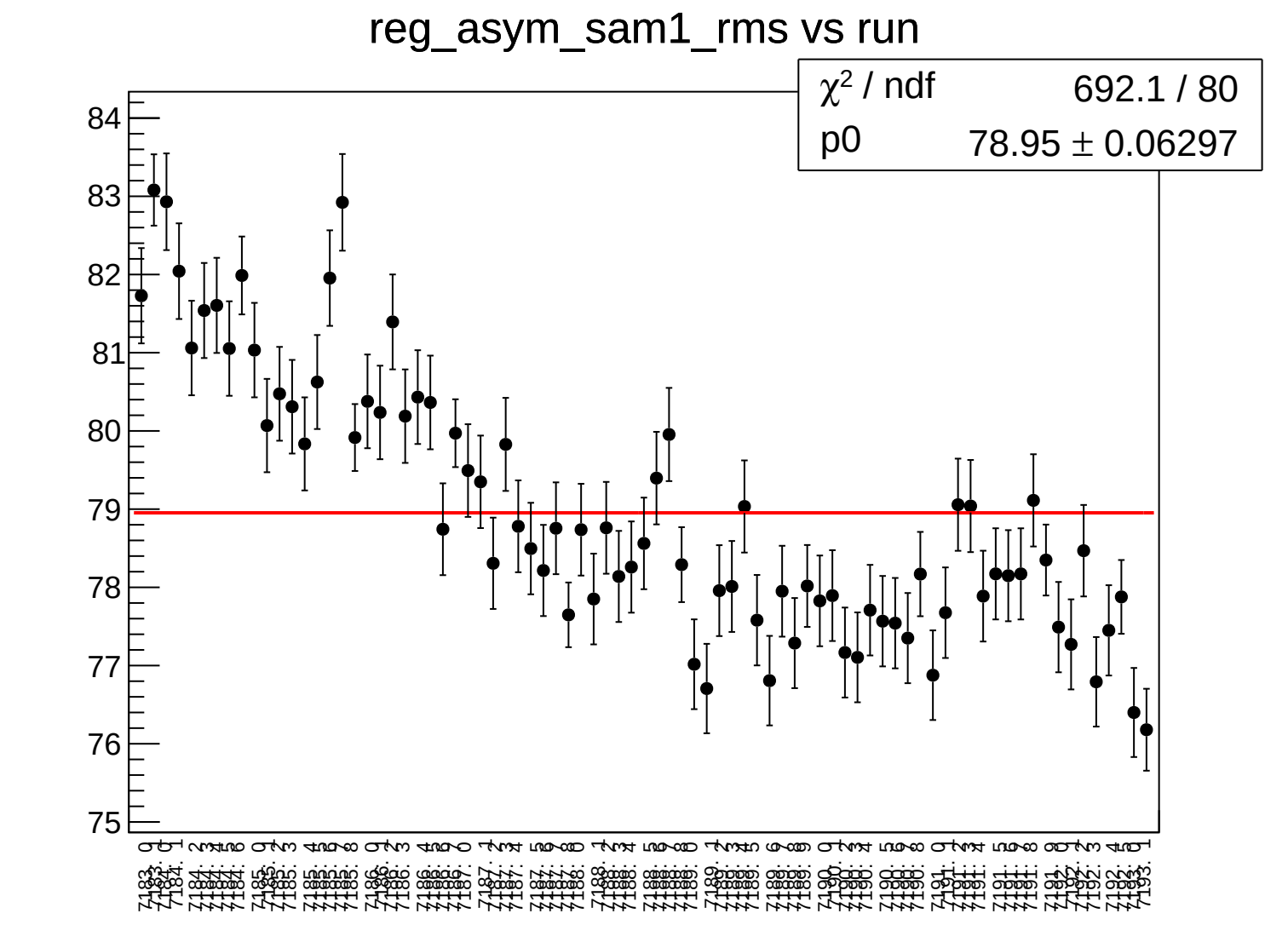

yield_sam7_rms vs run
χ² / ndf 1.981e+05 / 80
p0 0.001603 ± 1.367e−06
0.0035
0.003
0.0025
0.002
0.0015
0.001

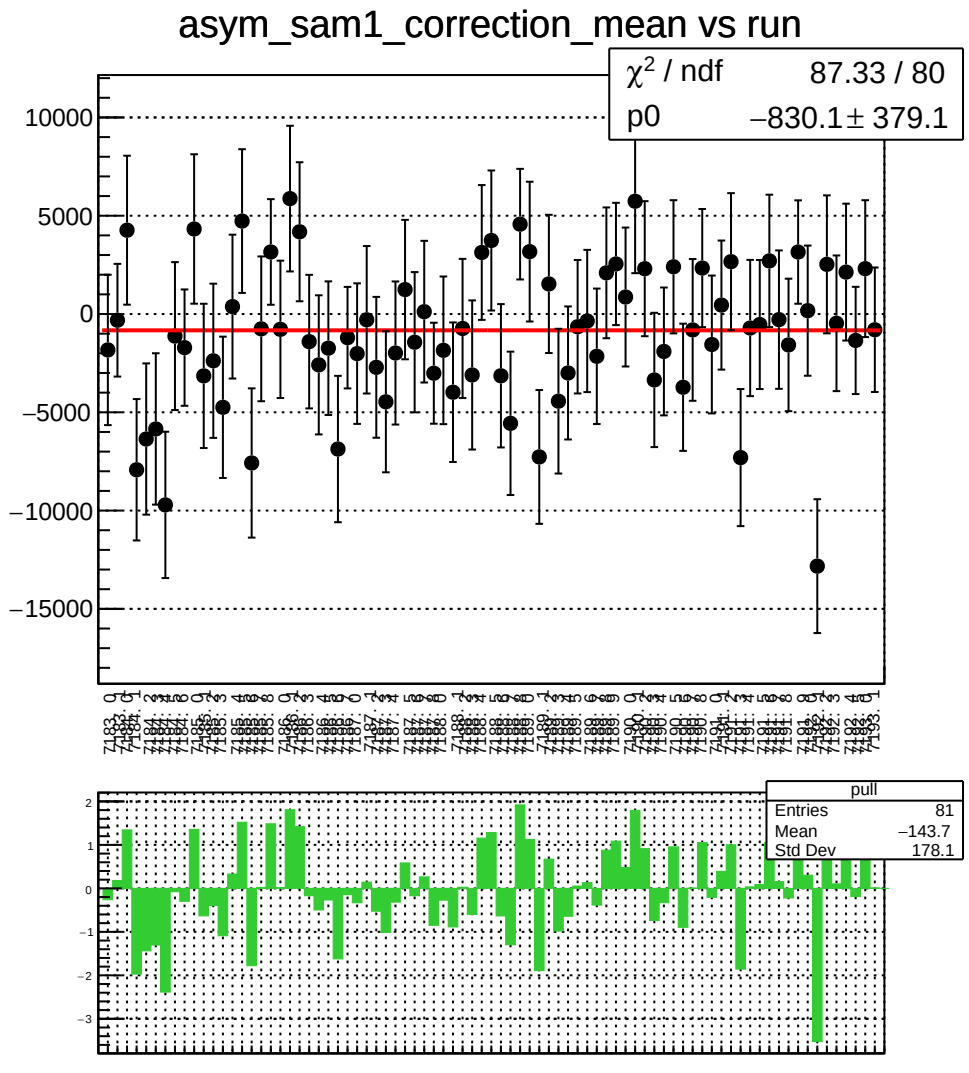

yield_sam8_mean vs run
χ² / ndf 1.703e+06 / 80
p0 8.672 ± 6.455e−06
8.69
8.68
8.67
8.66
8.65
8.64
8.63
pull
Entries 81
Mean 33.76
Std Dev 12.08
200
0
−200
−400
−600
pull1D
Entries 81
Mean 2.119
Std Dev 2.671
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

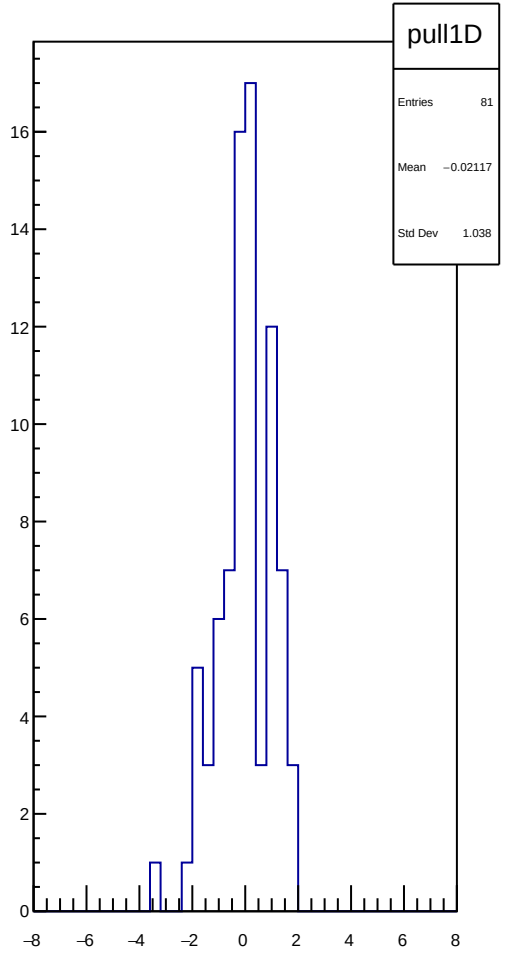

yield_sam8_rms vs run
χ² / ndf 2.365e+05 / 80
p0 0.005276 ± 4.564e−06
0.014
0.012
0.01
0.008
0.006
0.004

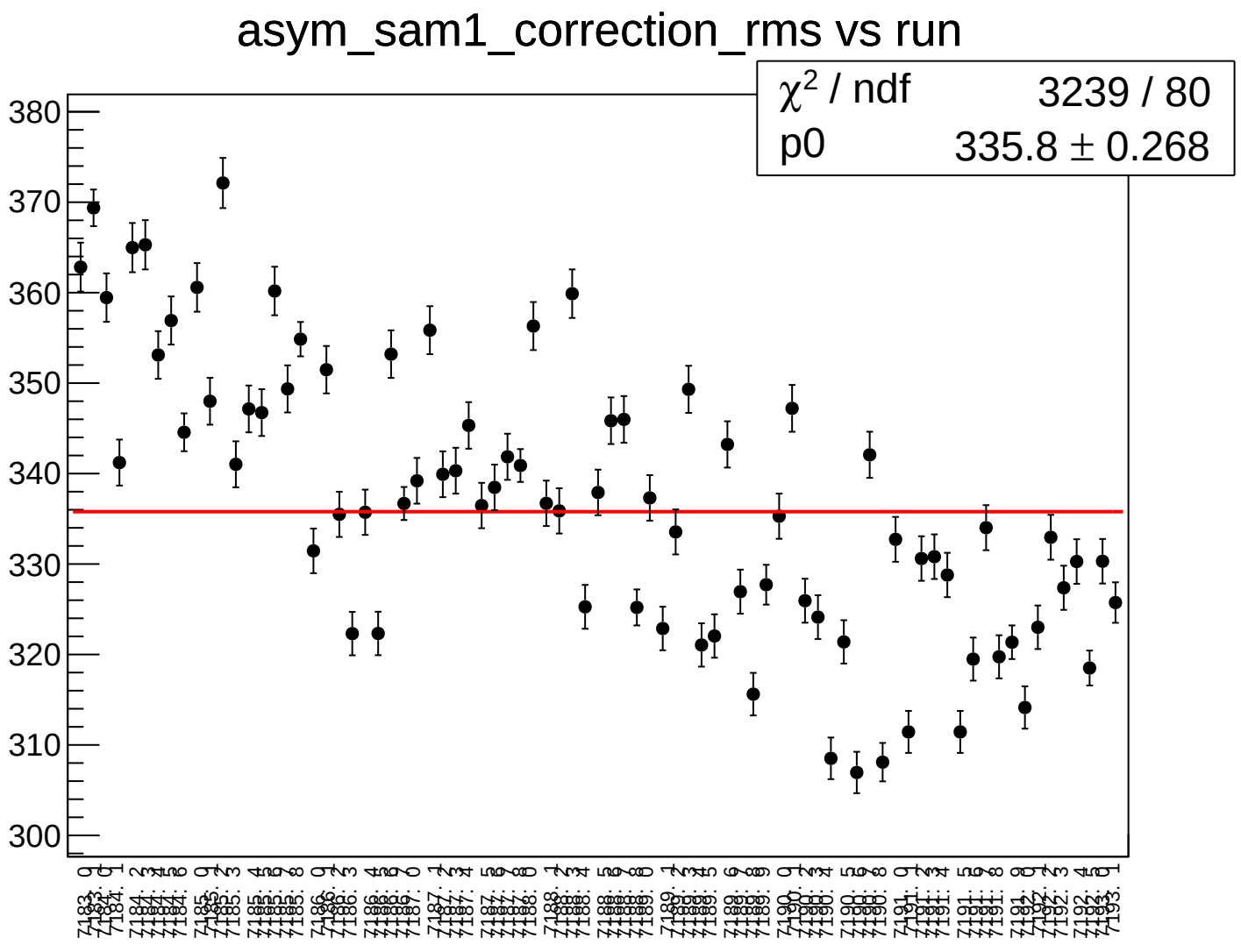

reg_asym_sam1_mean vs run
χ² / ndf 83.95 / 80
p0 93.39 ± 89.06
pull
Entries 81
Mean −659.6
Std Dev 705.7

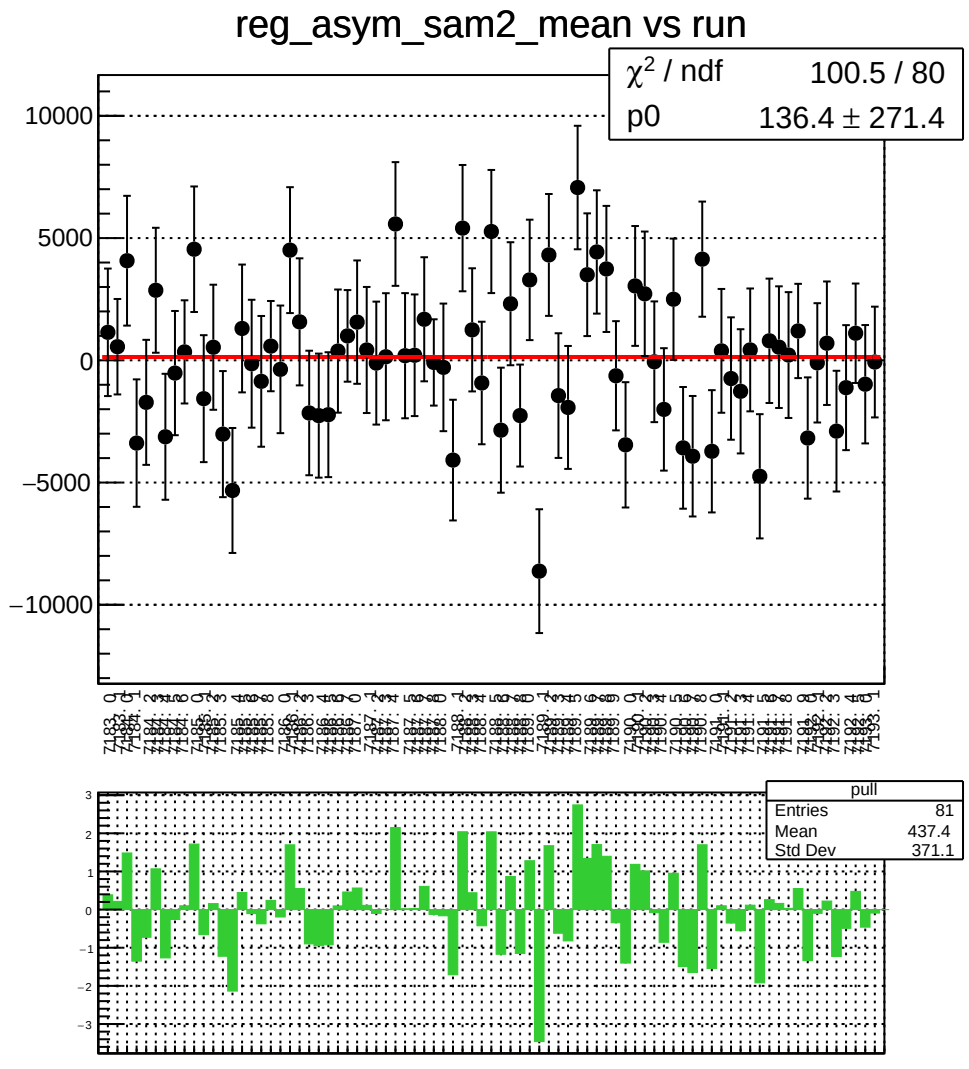

pull1D
Entries 81
Mean 0.0044
Std Dev 1.018

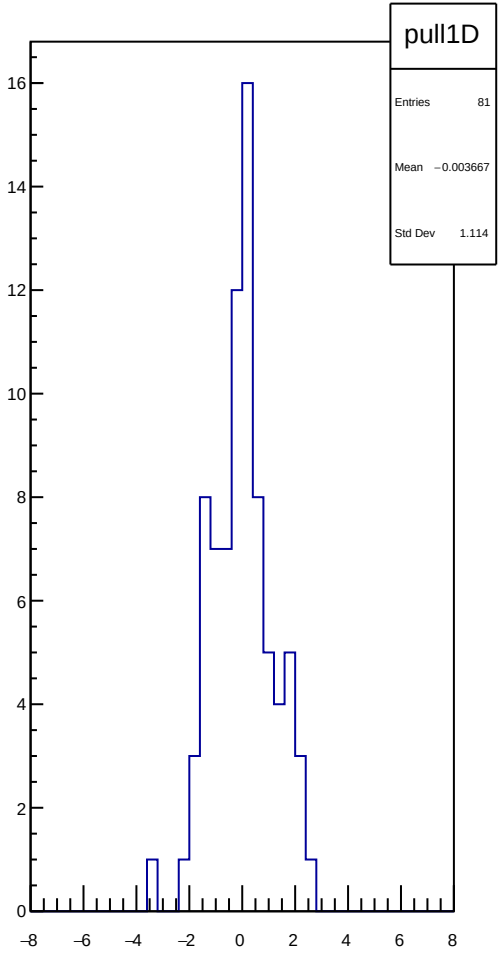

reg_asym_sam1_rms vs run
χ^2 / ndf 692.1 / 80
p0 78.95 ± 0.06297
84
83
82
81
80
79
78
77
76
75

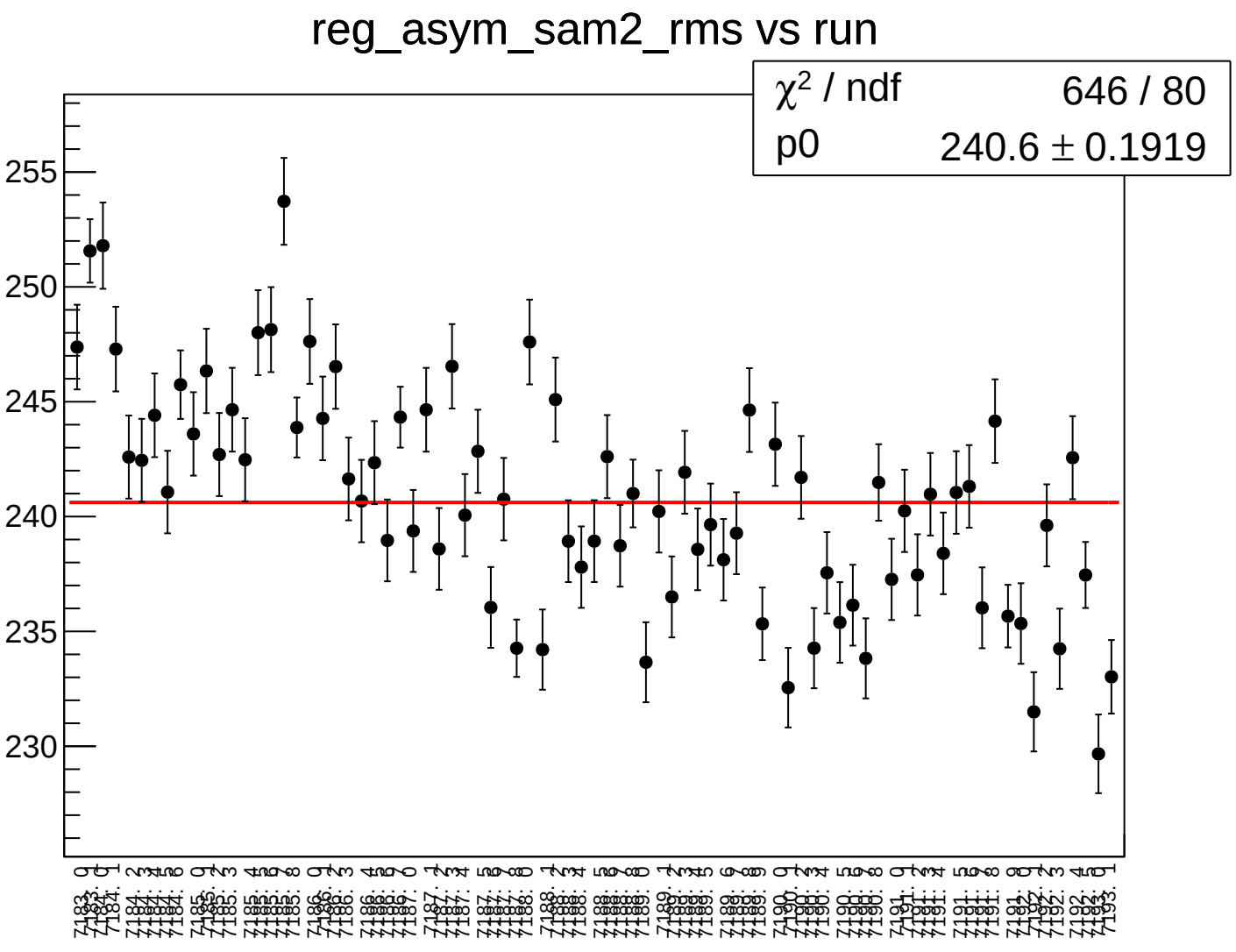

asym_sam1_correction_mean vs run
χ² / ndf 87.33 / 80
p0 −830.1 ± 379.1
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean −143.7
Std Dev 178.1
2
1
0
−1
−2
−3

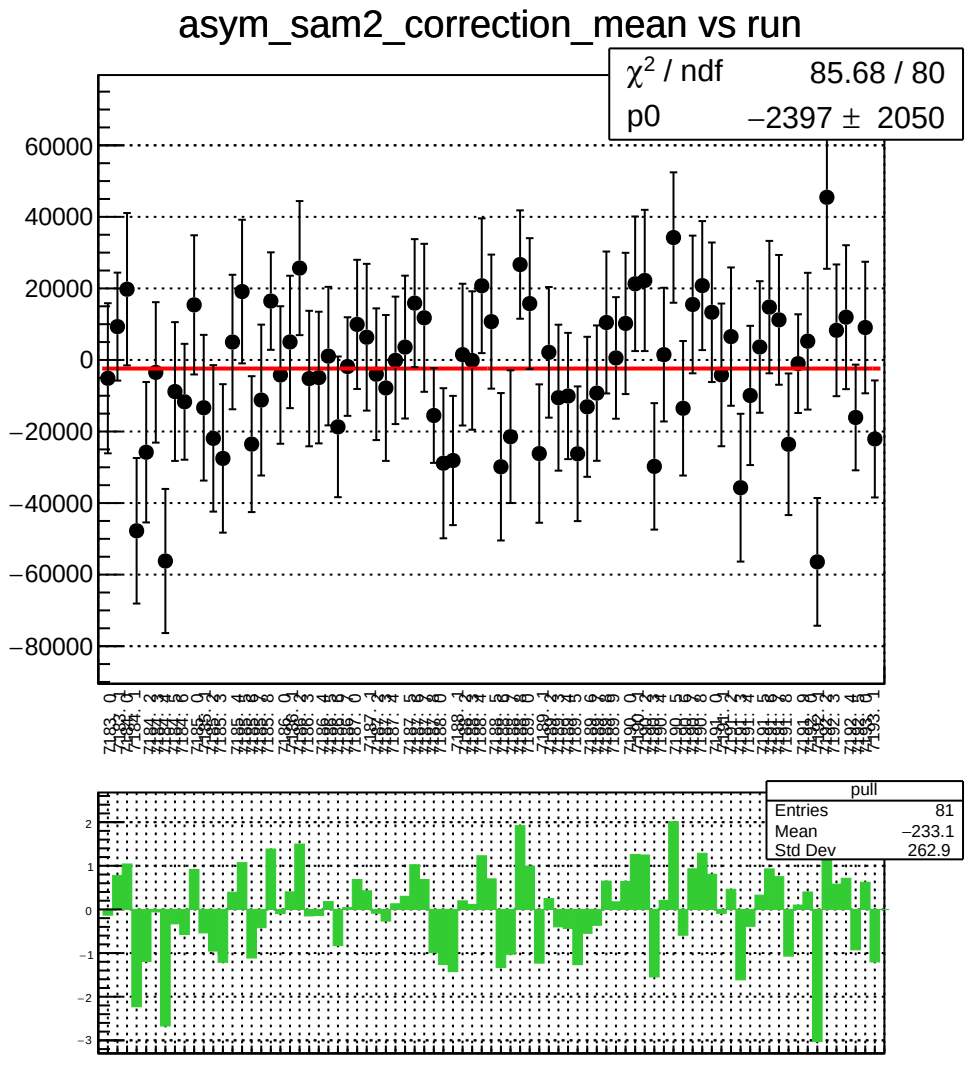

pull1D
Entries 81
Mean −0.02117
Std Dev 1.038
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

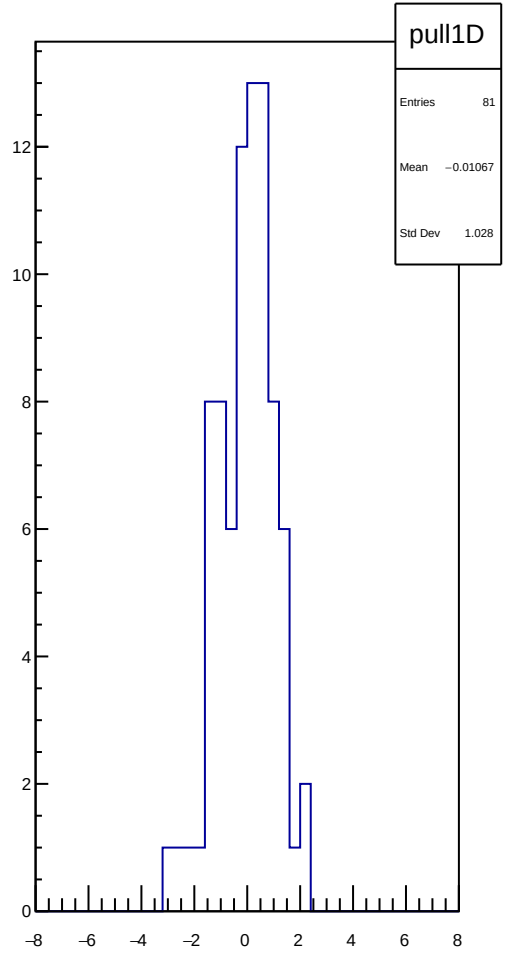

asym_sam1_correction_rms vs run
χ² / ndf 3239 / 80
p0 335.8 ± 0.268
380
370
360
350
340
330
320
310
300

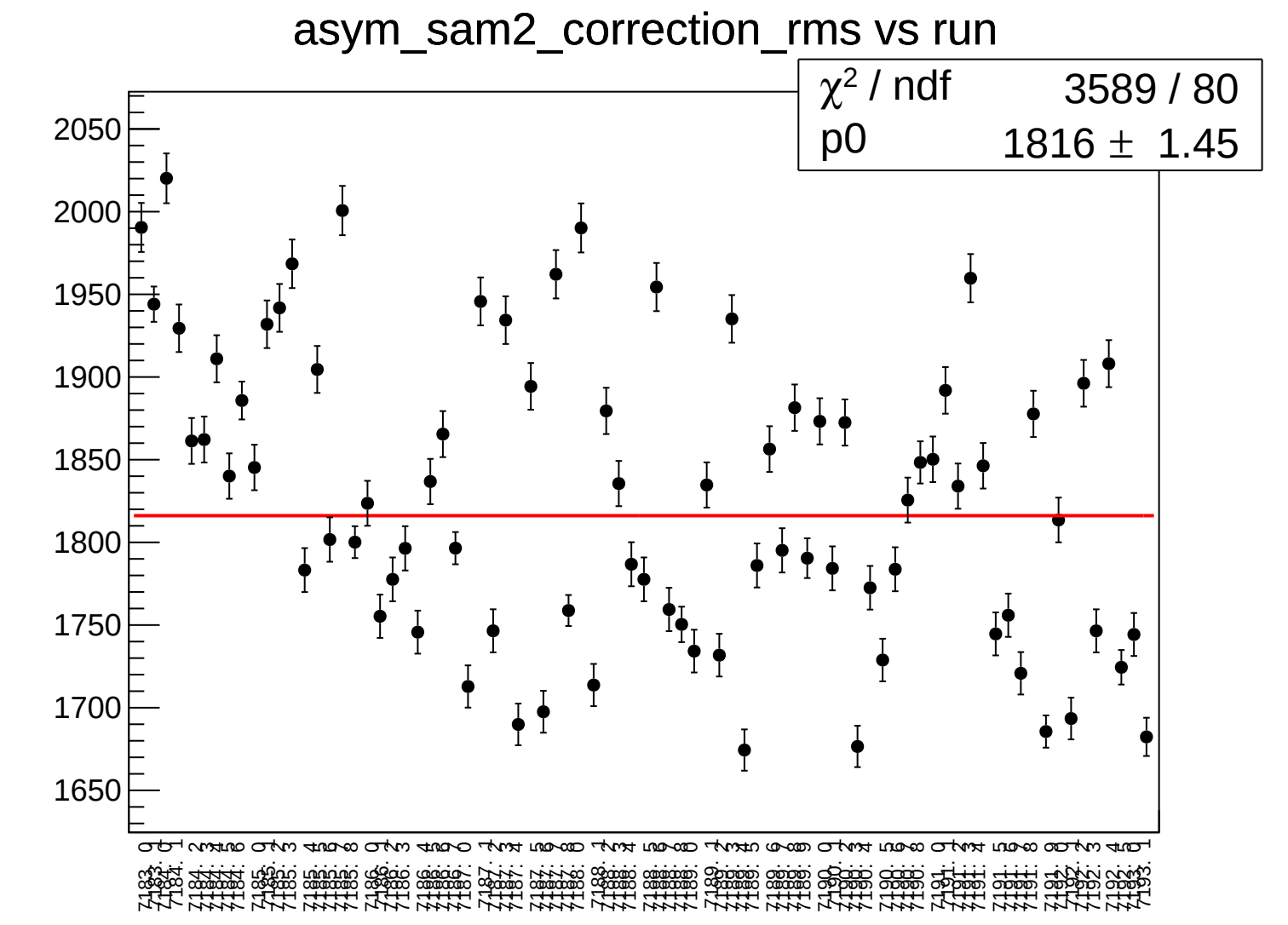

reg_asym_sam2_mean vs run
χ² / ndf 100.5 / 80
p0 136.4 ± 271.4
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 437.4
Std Dev 371.1
3
2
1
0
−1
−2
−3

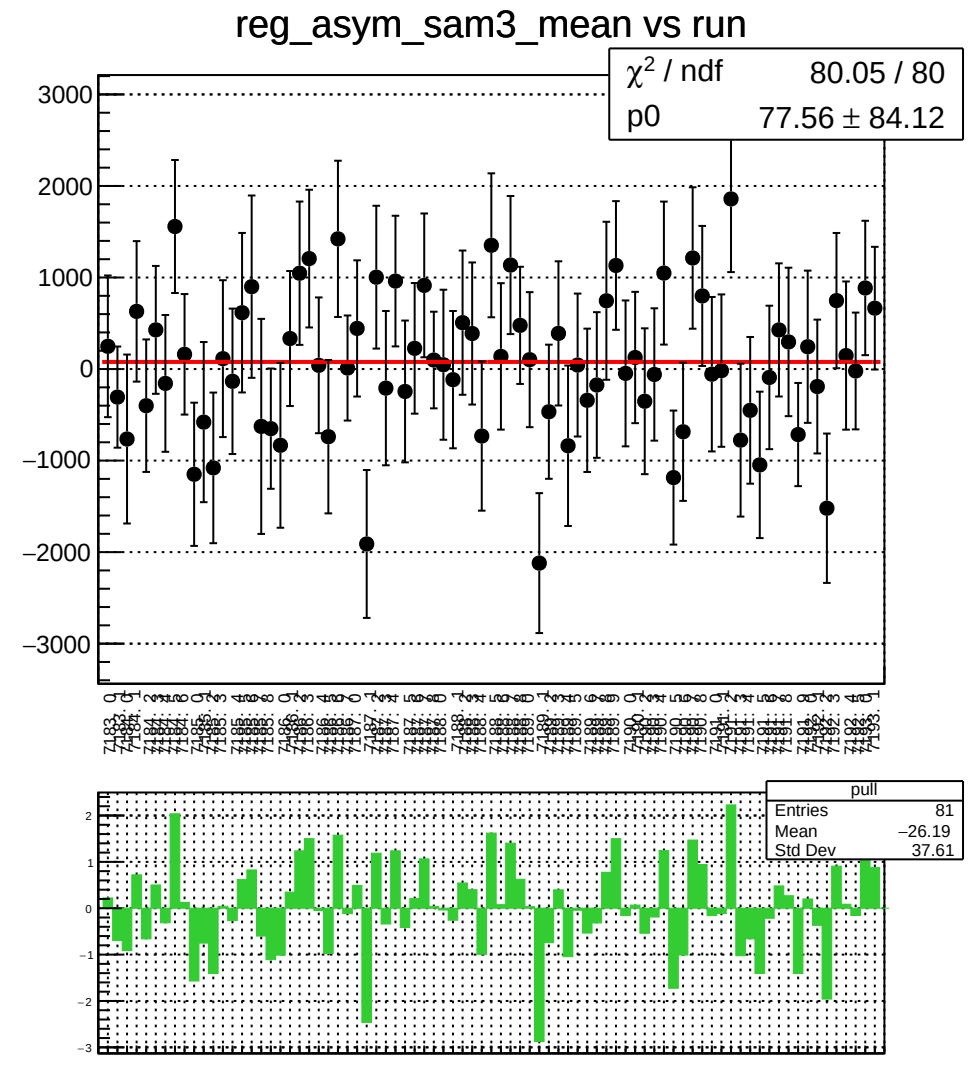

pull1D
Entries 81
Mean −0.003667
Std Dev 1.114
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

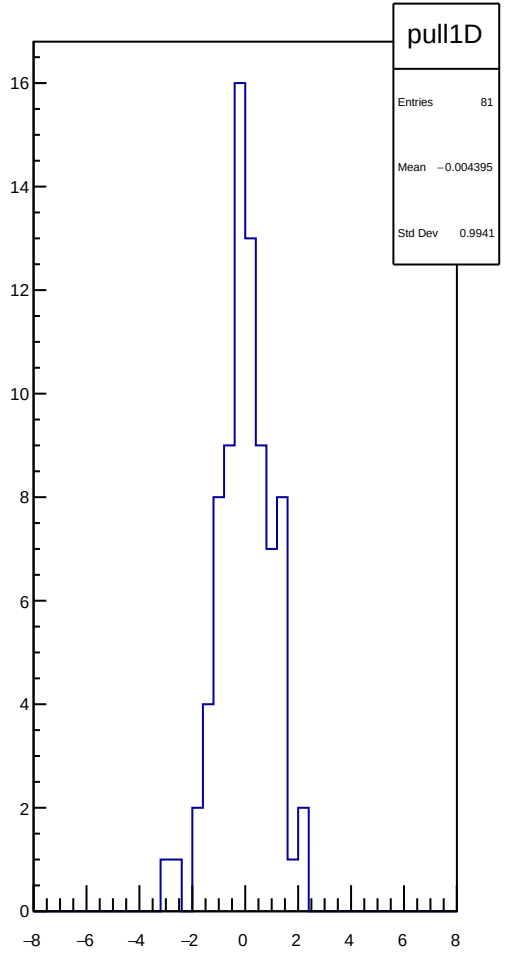

reg_asym_sam2_rms vs run
χ² / ndf 646 / 80
p0 240.6 ± 0.1919
255
250
245
240
235
230

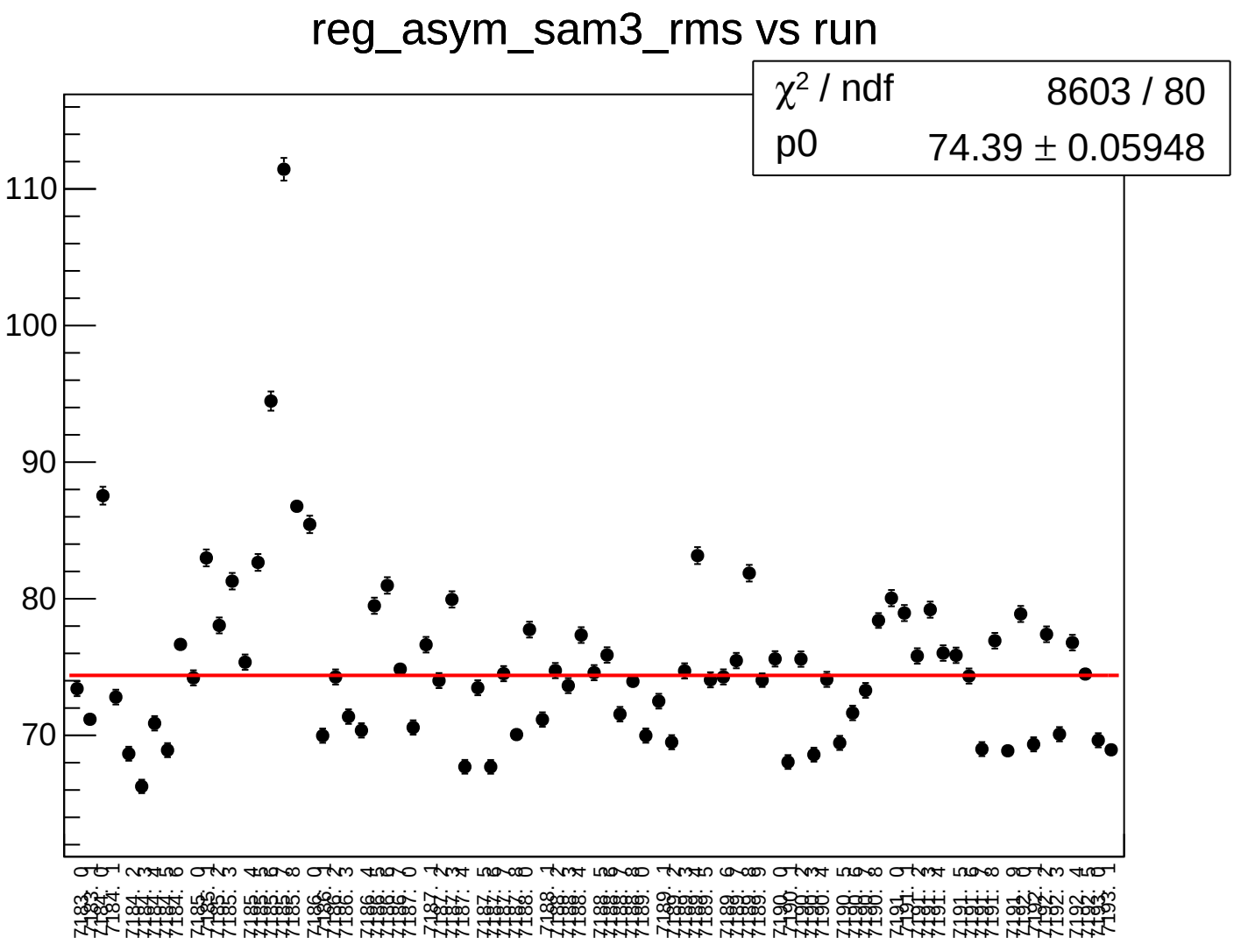

asym_sam2_correction_mean vs run
χ² / ndf 85.68 / 80
p0 −2397 ± 2050
60000
40000
20000
0
−20000
−40000
−60000
−80000
pull
Entries 81
Mean −233.1
Std Dev 262.9
2
1
0
−1
−2
−3

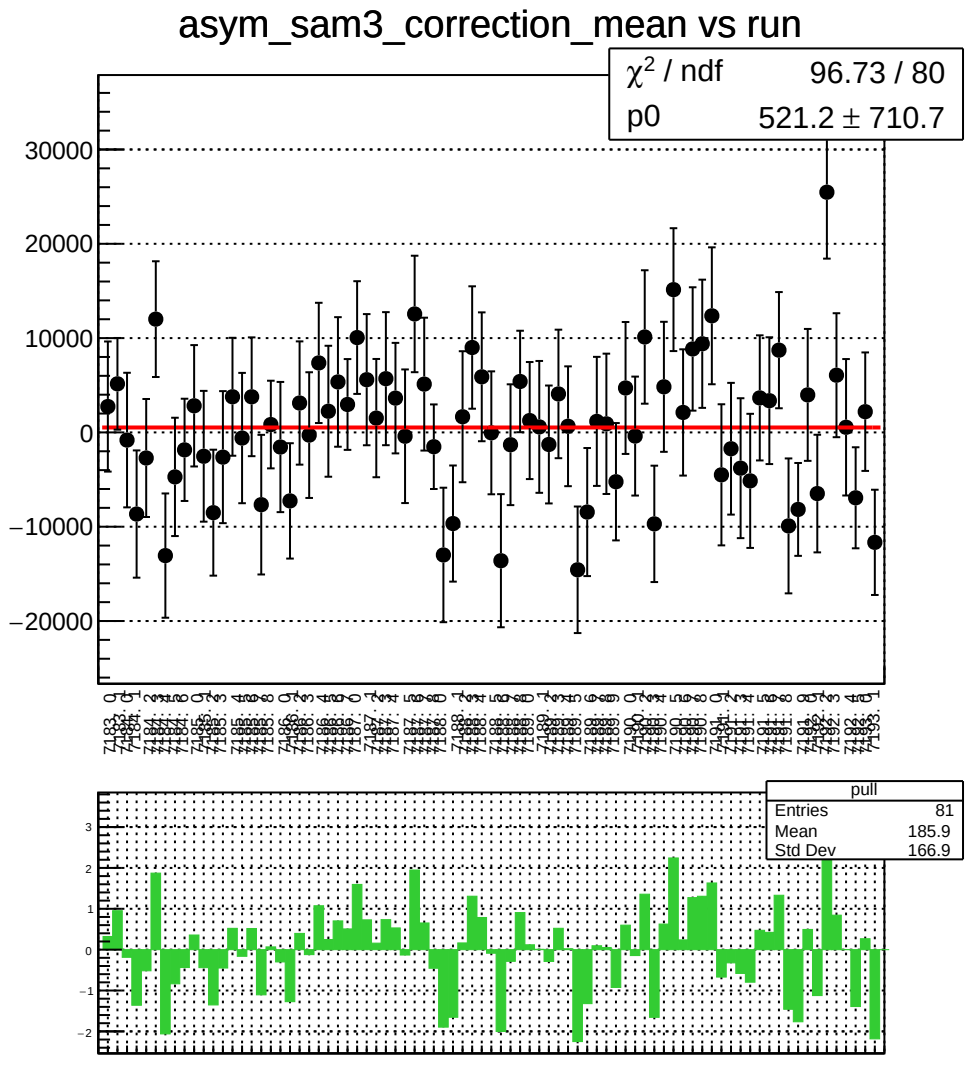

pull1D
Entries 81
Mean −0.01067
Std Dev 1.028
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

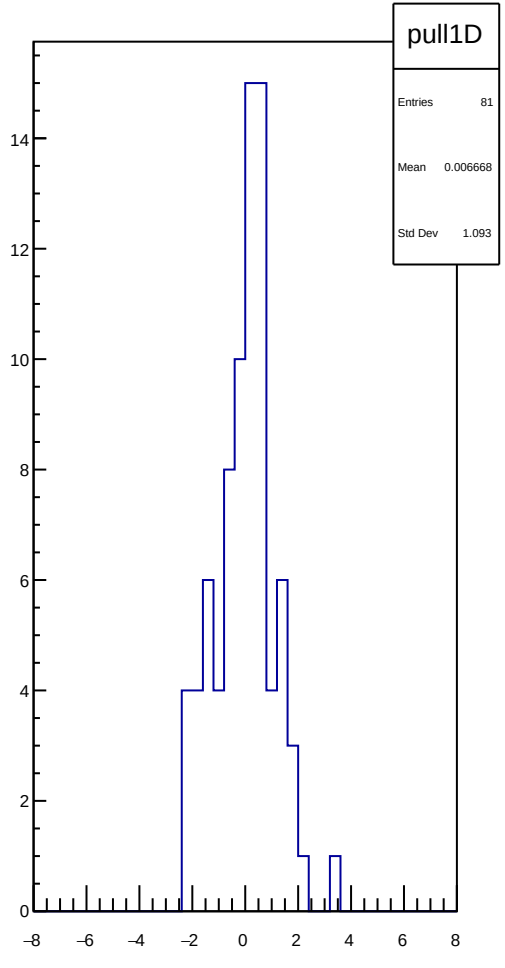

asym_sam2_correction_rms vs run
χ² / ndf 3589 / 80
p0 1816 ± 1.45
2050
2000
1950
1900
1850
1800
1750
1700
1650

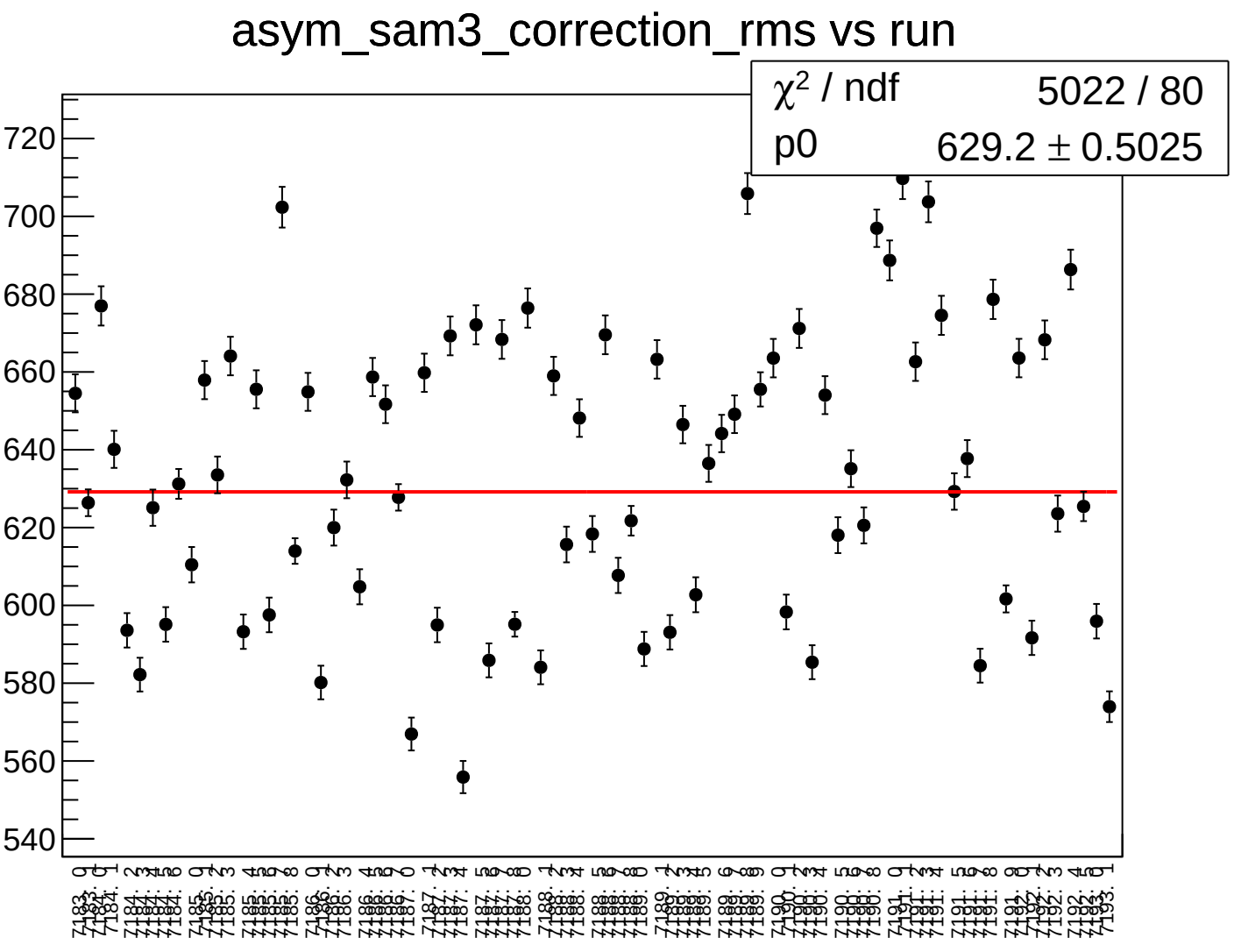

reg_asym_sam3_mean vs run
χ² / ndf 80.05 / 80
p0 77.56 ± 84.12
3000
2000
1000
0
−1000
−2000
−3000
pull
Entries 81
Mean −26.19
Std Dev 37.61
2
1
0
−1
−2
−3

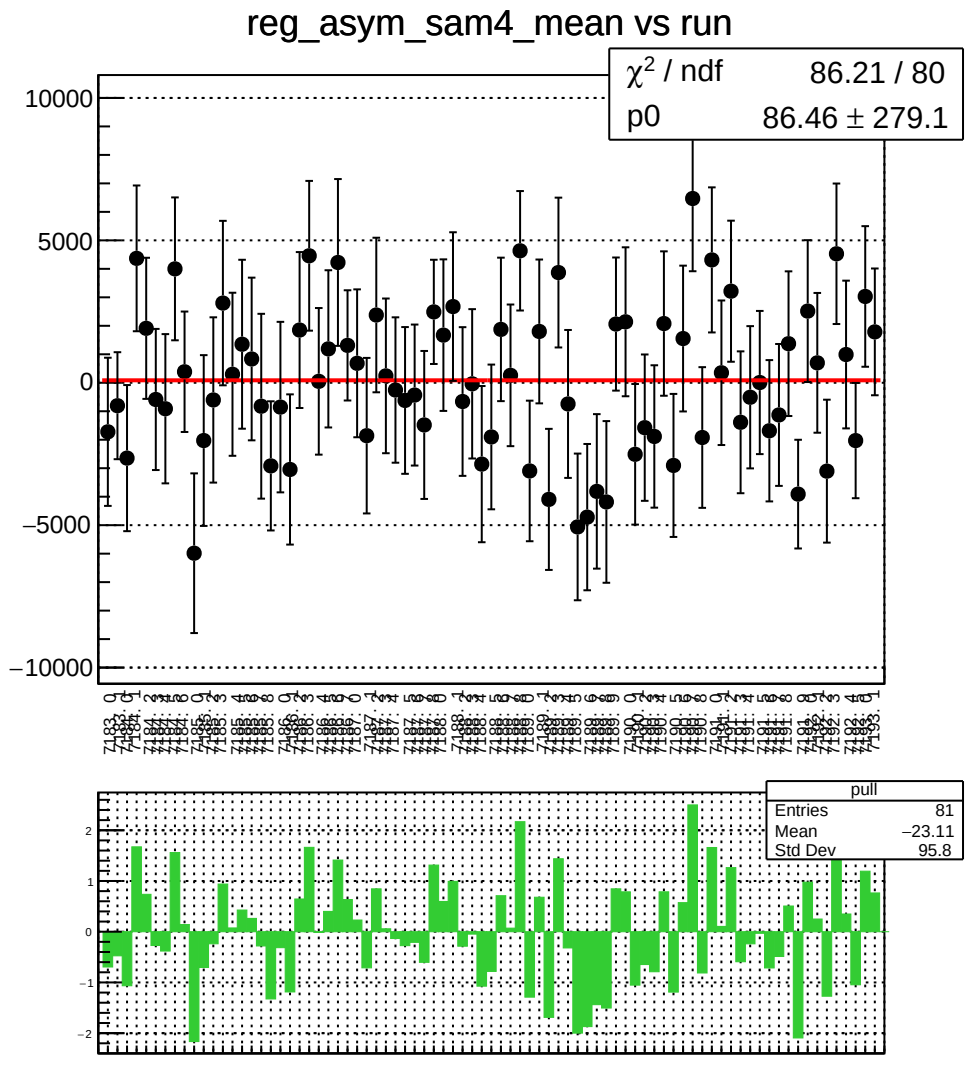

pull1D
Entries 81
Mean −0.004395
Std Dev 0.9941
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

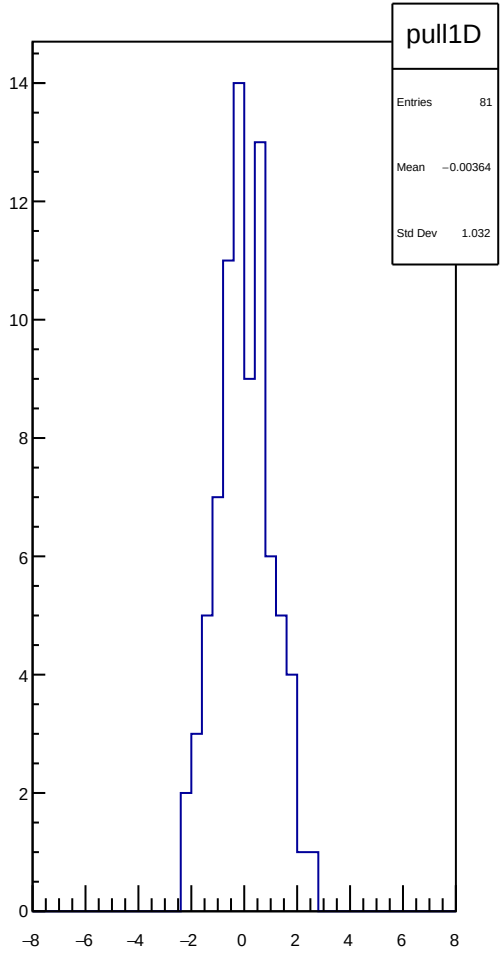

reg_asym_sam3_rms vs run
χ^2 / ndf 8603 / 80
p0 74.39 ± 0.05948
110
100
90
80
70

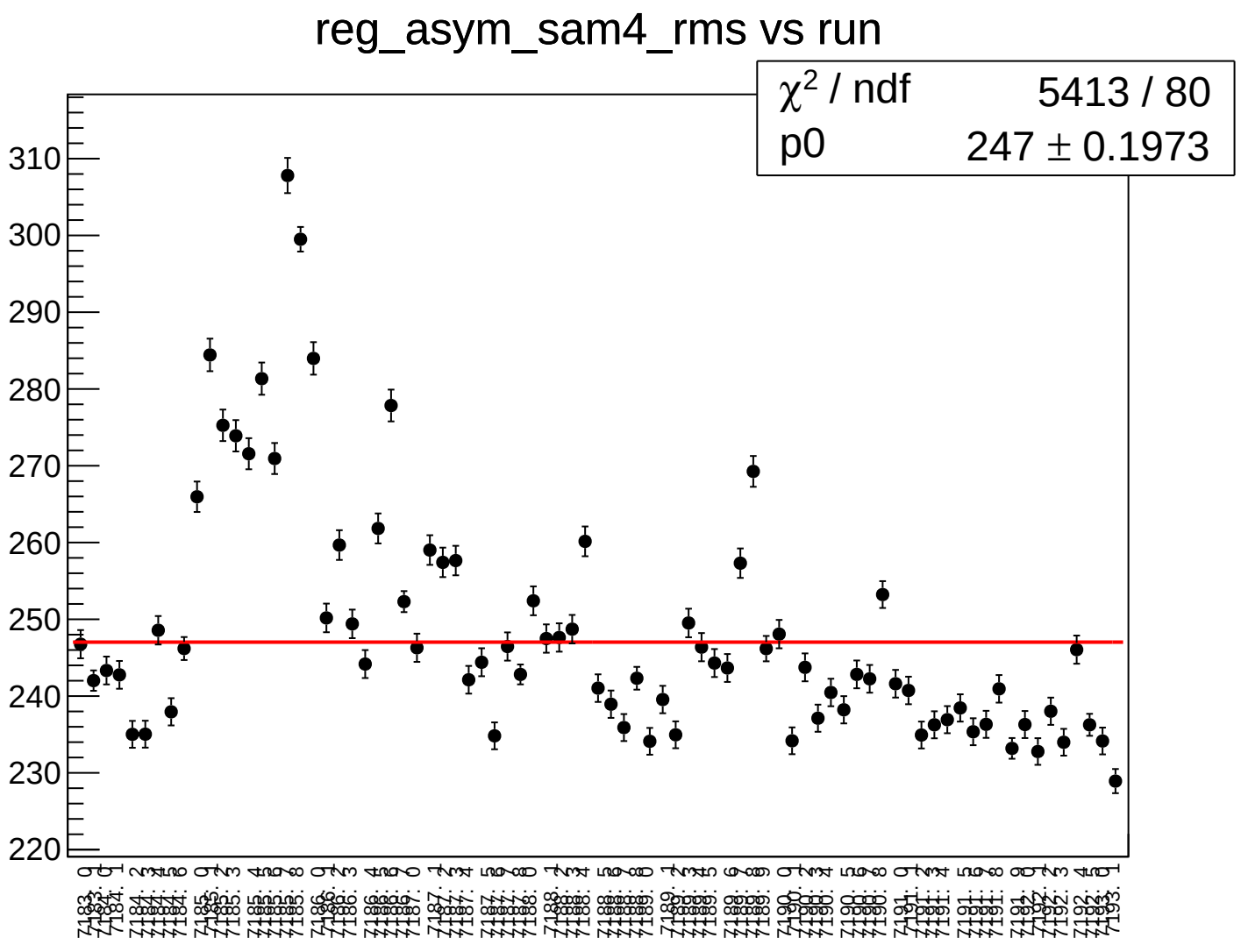

asym_sam3_correction_mean vs run
χ² / ndf 96.73 / 80
p0 521.2 ± 710.7
30000
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 185.9
Std Dev 166.9
3
2
1
0
−1
−2

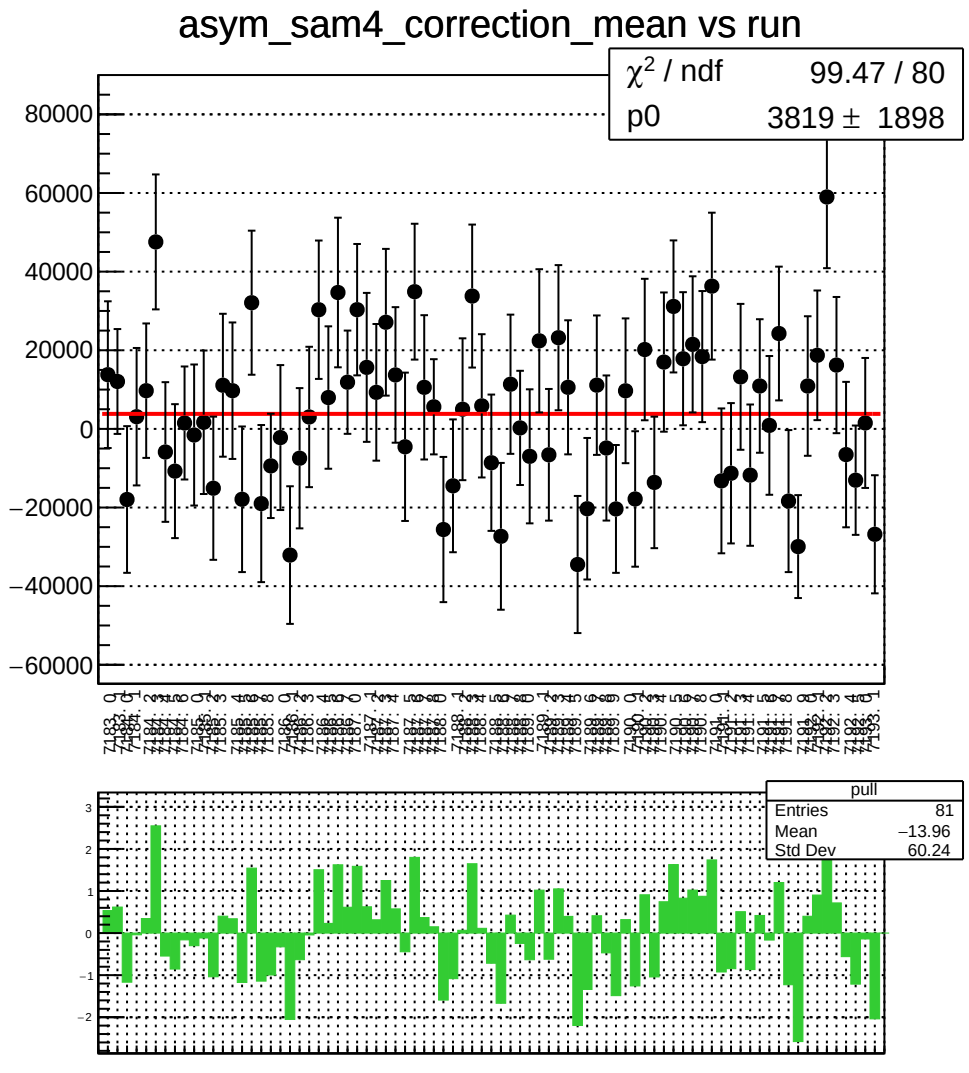

pull1D
Entries 81
Mean 0.006668
Std Dev 1.093
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

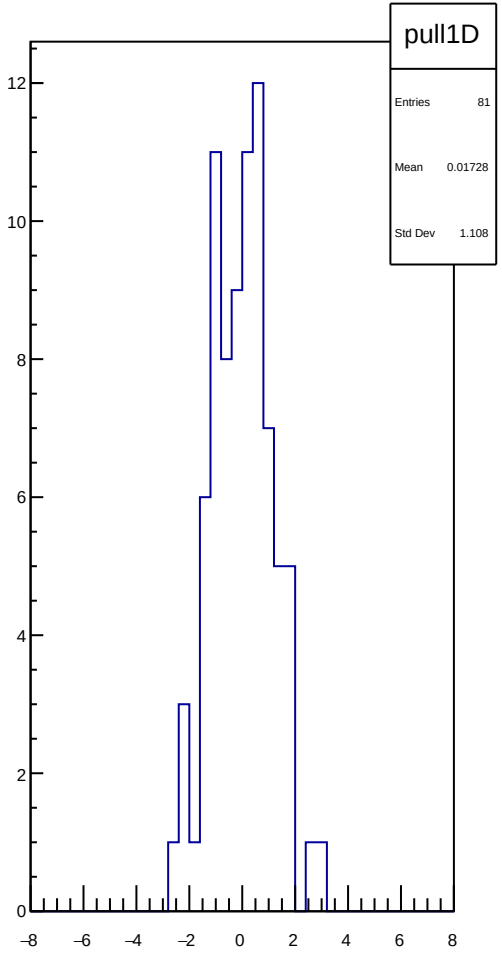

asym_sam3_correction_rms vs run
χ² / ndf 5022 / 80
p0 629.2 ± 0.5025
720
700
680
660
640
620
600
580
560
540

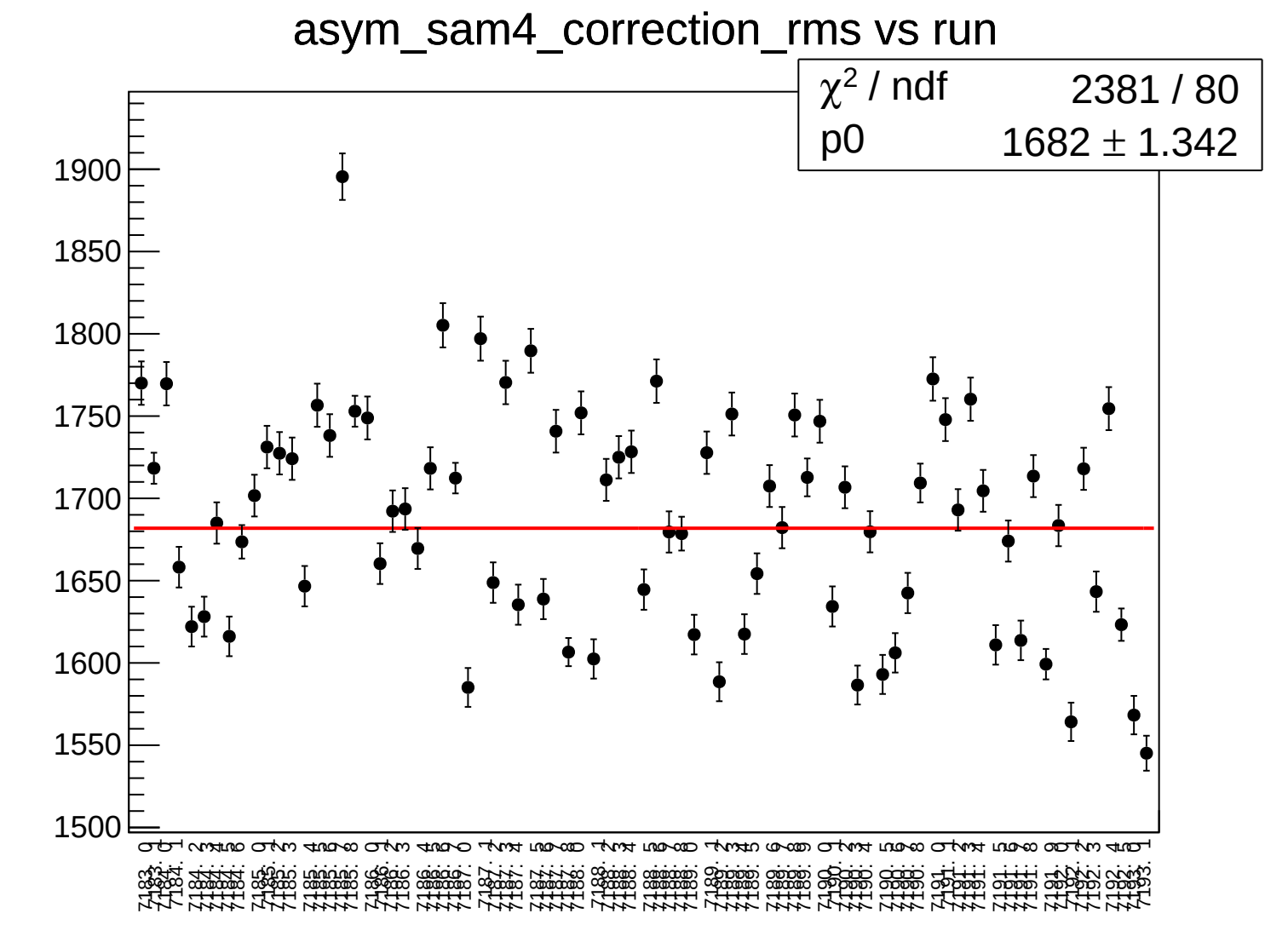

reg_asym_sam4_mean vs run
χ^2 / ndf 86.21 / 80
p0 86.46 ± 279.1
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −23.11
Std Dev 95.8
2
1
0
−1
−2

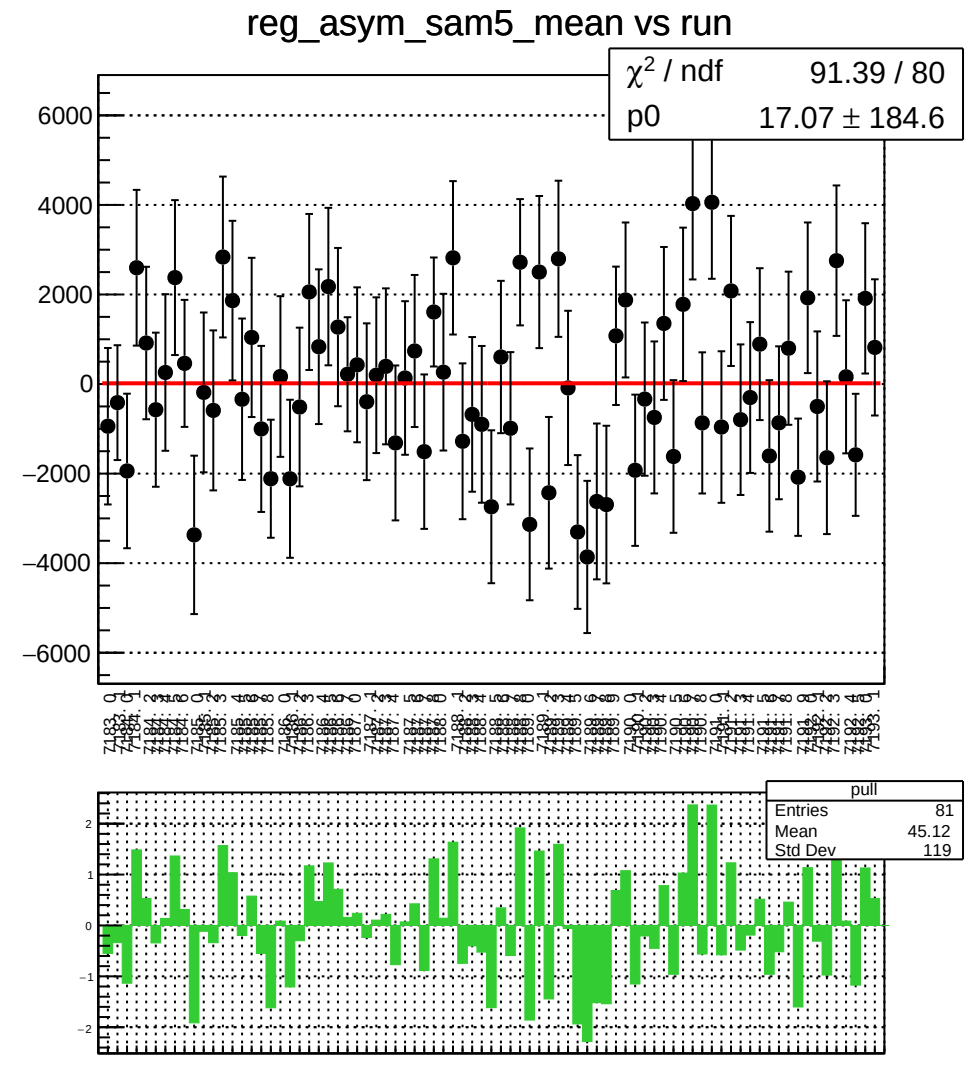

pull1D
Entries 81
Mean −0.00364
Std Dev 1.032
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

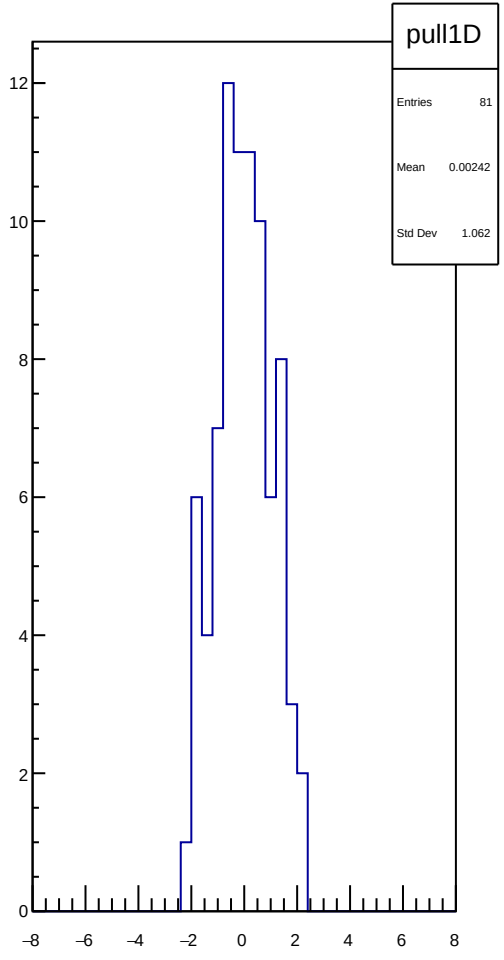

reg_asym_sam4_rms vs run
χ^2 / ndf 5413 / 80
p0 247 ± 0.1973
310
300
290
280
270
260
250
240
230
220

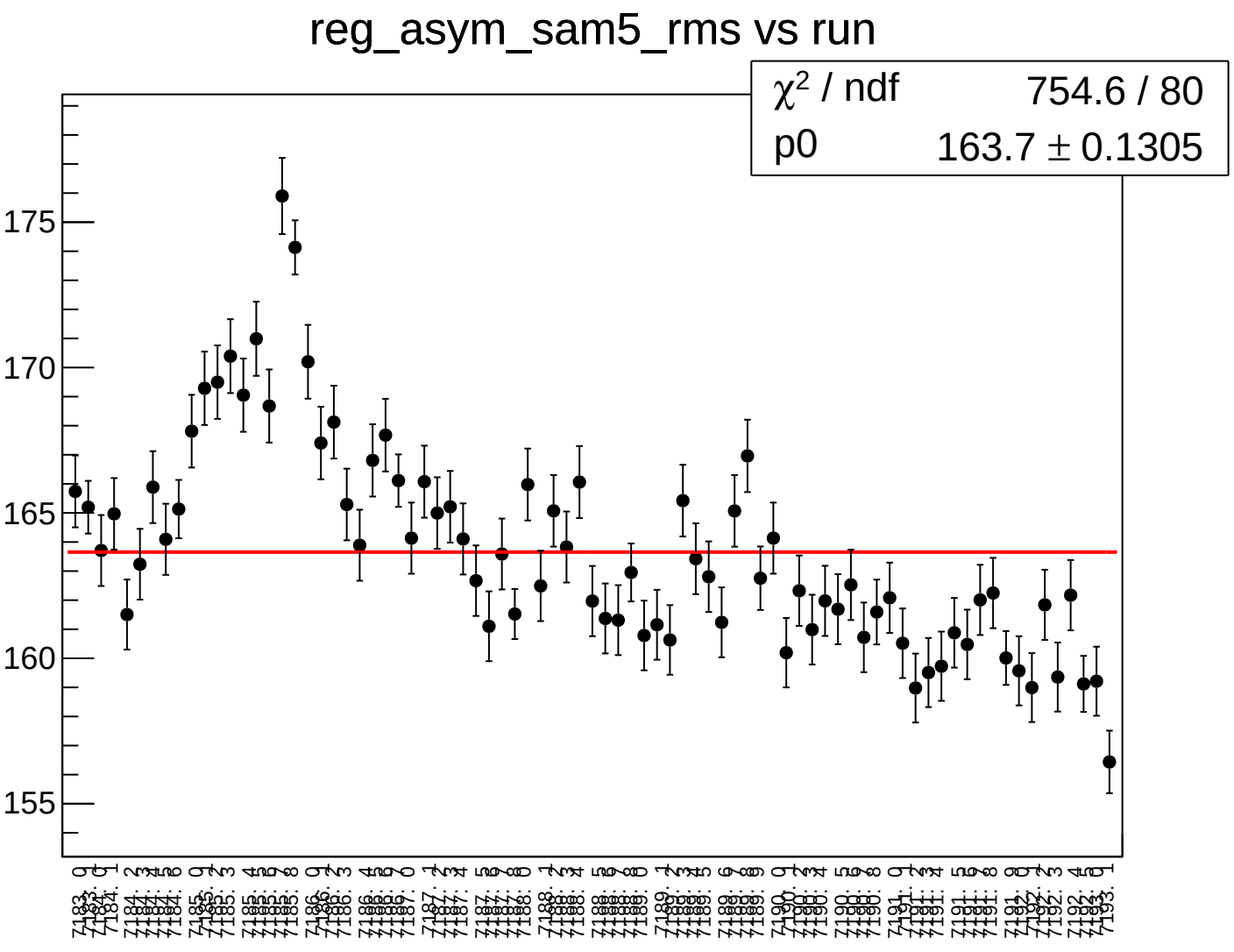

asym_sam4_correction_mean vs run
χ² / ndf 99.47 / 80
p0 3819 ± 1898
pull
Entries 81
Mean −13.96
Std Dev 60.24

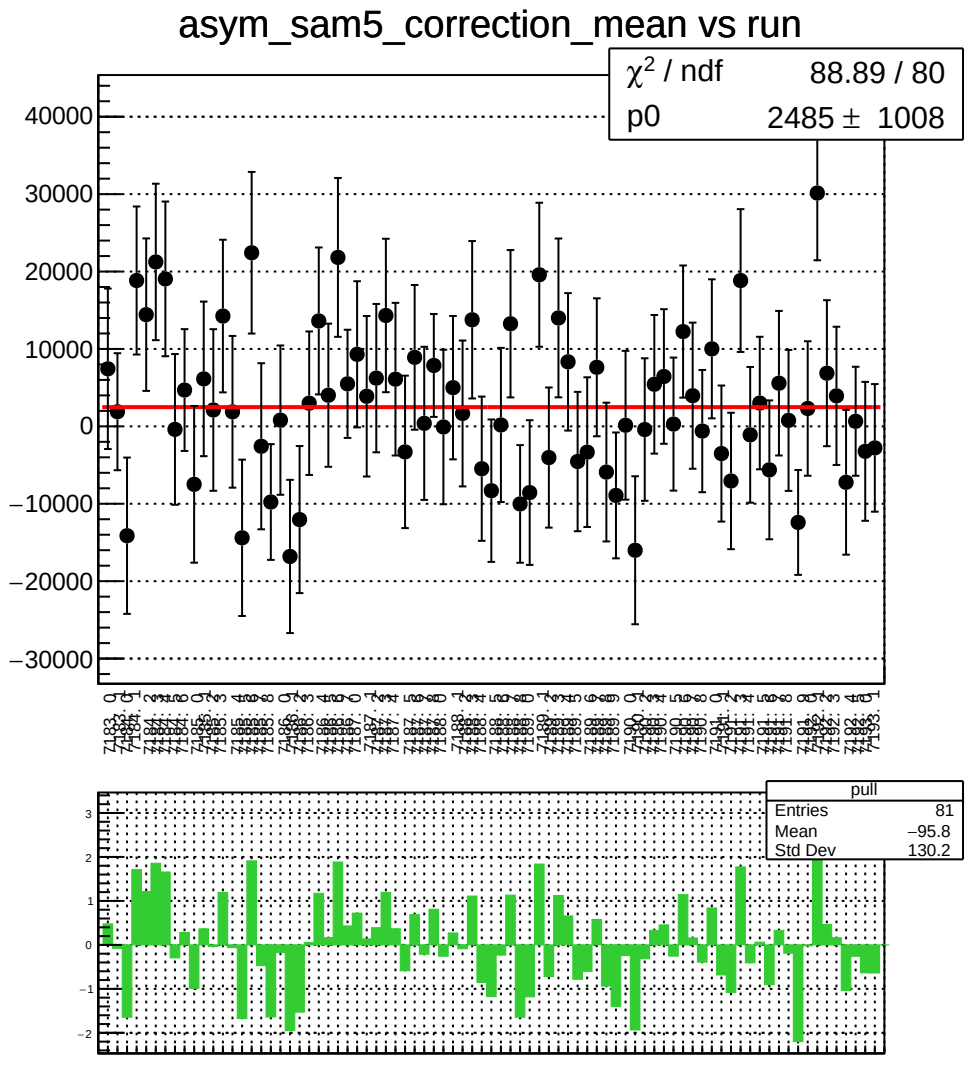

pull1D
Entries 81
Mean 0.01728
Std Dev 1.108

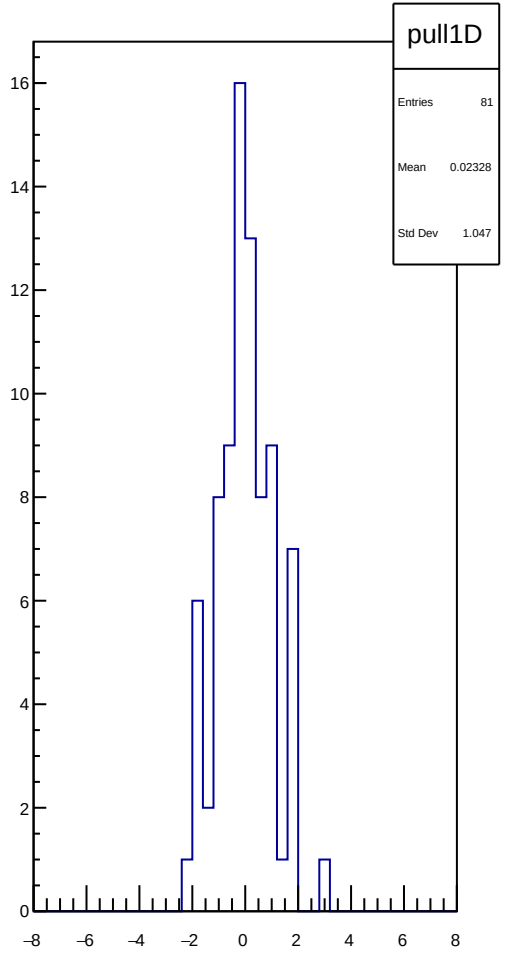

asym_sam4_correction_rms vs run
χ² / ndf 2381 / 80
p0 1682 ± 1.342
1900
1850
1800
1750
1700
1650
1600
1550
1500

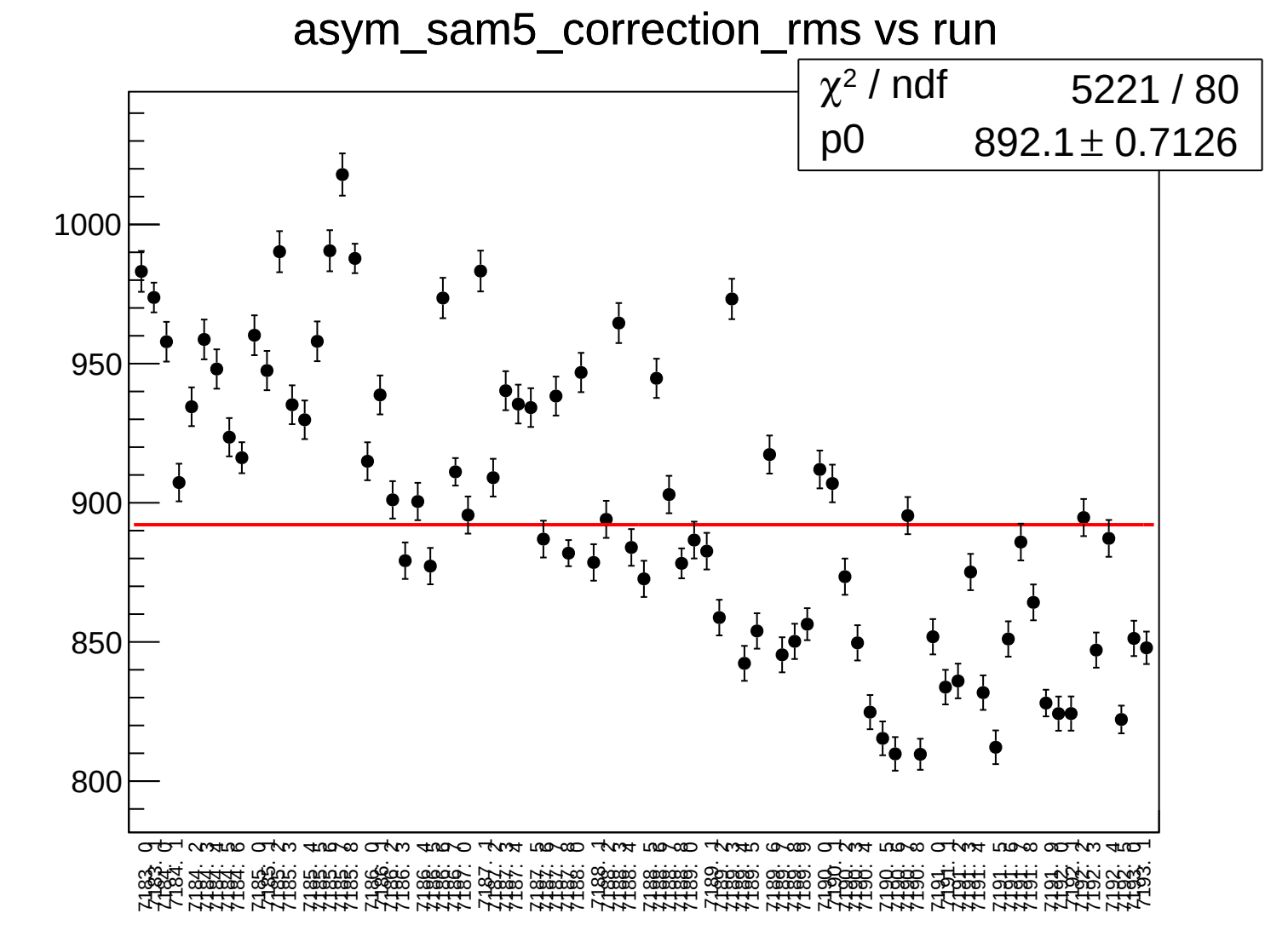

reg_asym_sam5_mean vs run
χ^2 / ndf 91.39 / 80
p0 17.07 ± 184.6
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean 45.12
Std Dev 119
2
1
0
−1
−2

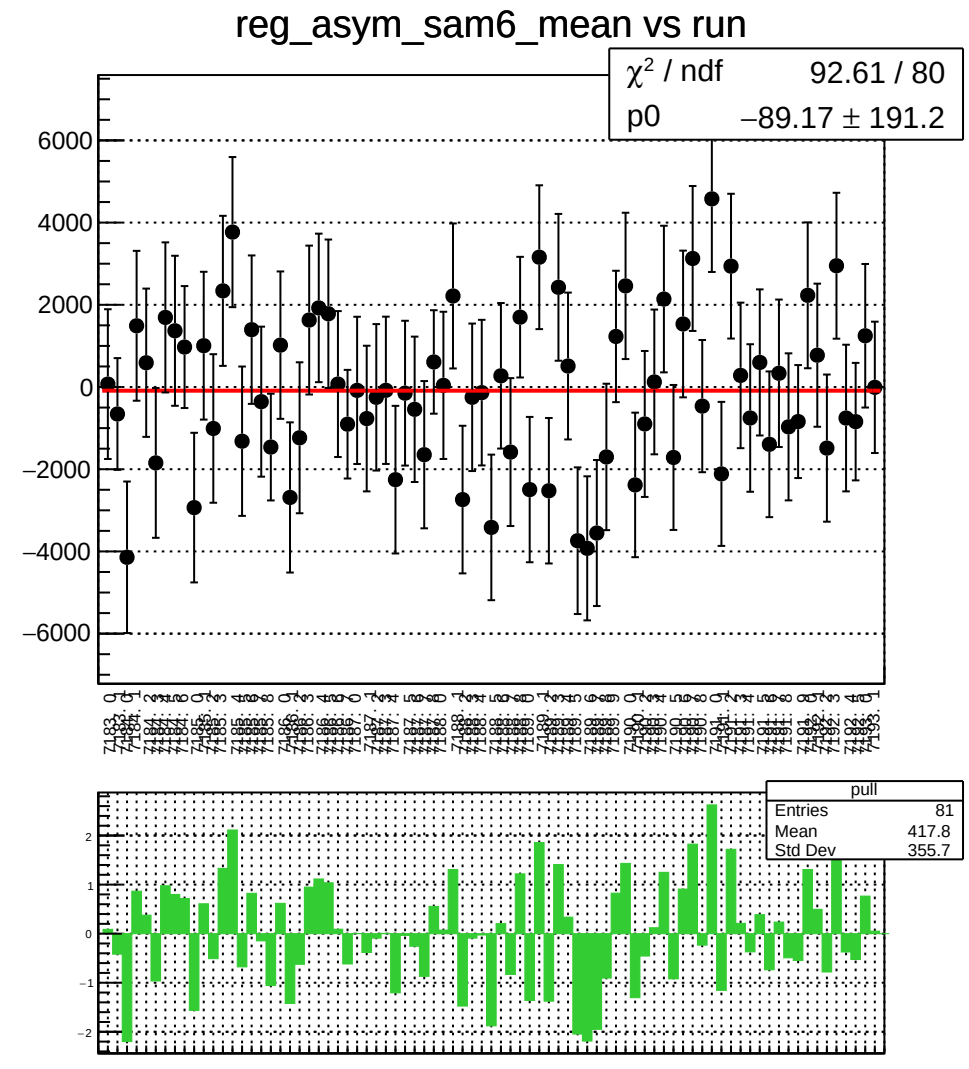

pull1D
Entries 81
Mean 0.00242
Std Dev 1.062
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

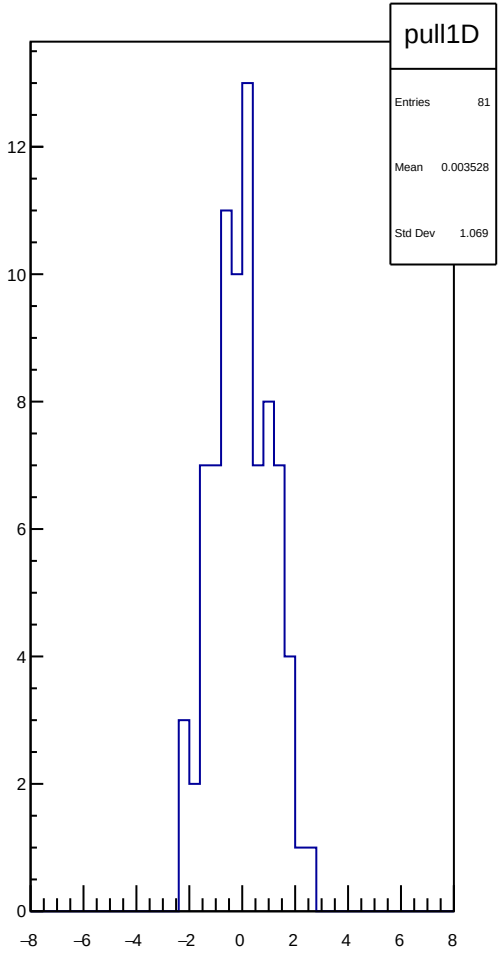

reg_asym_sam5_rms vs run
χ² / ndf 754.6 / 80
p0 163.7 ± 0.1305
175
170
165
160
155

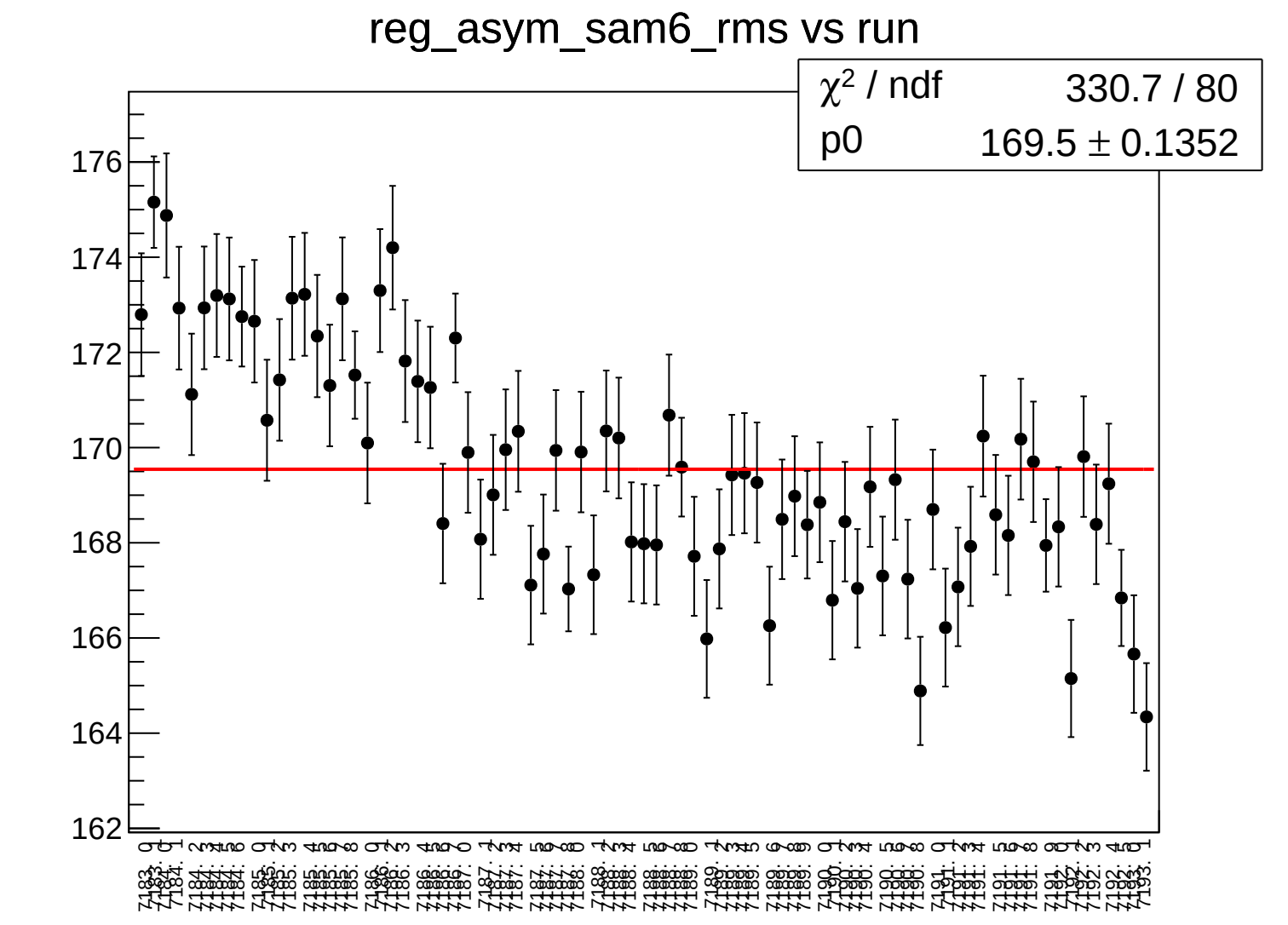

asym_sam5_correction_mean vs run
χ² / ndf 88.89 / 80
p0 2485 ± 1008
40000
30000
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −95.8
Std Dev 130.2
3
2
1
0
−1
−2

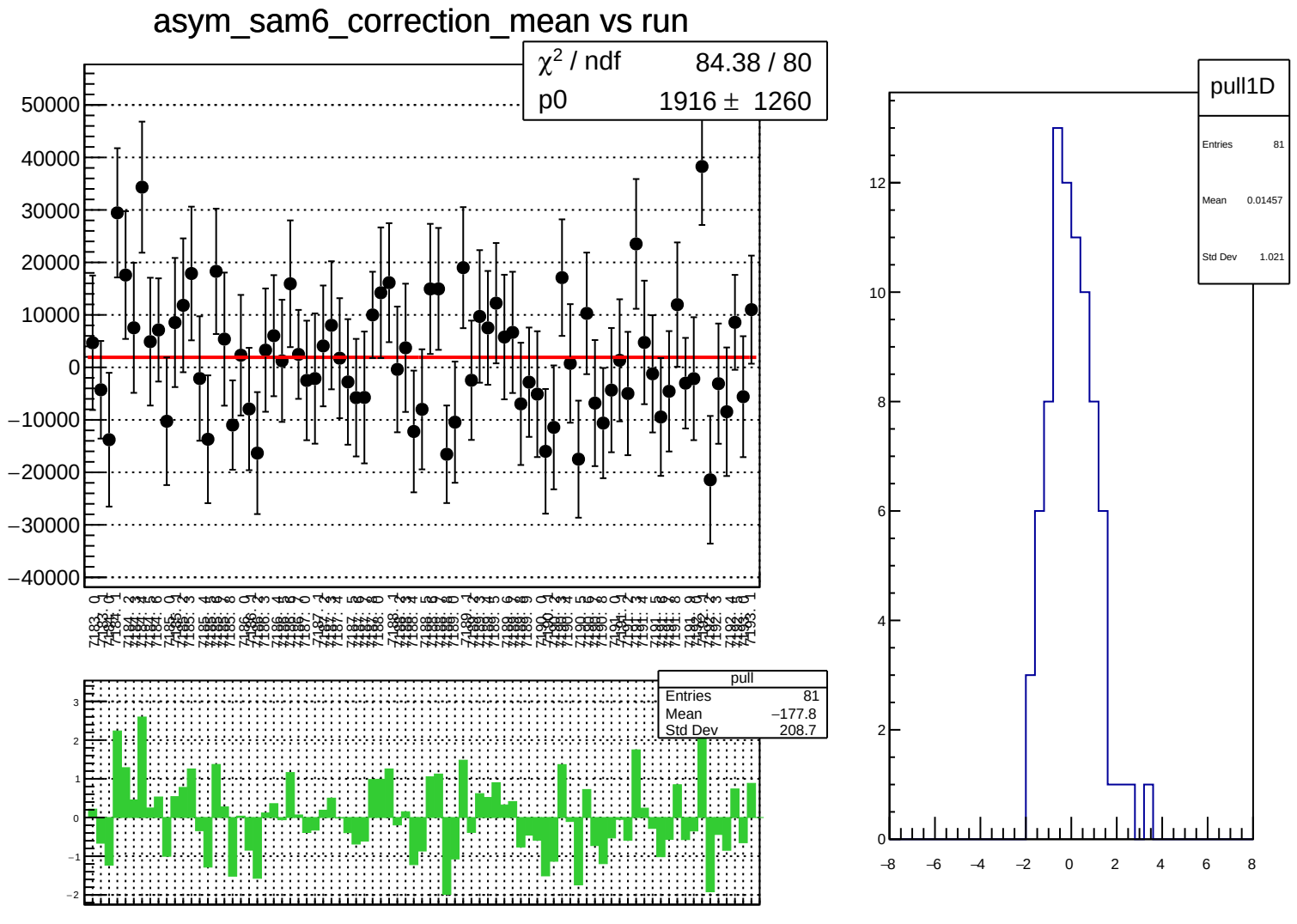

pull1D
Entries 81
Mean 0.02328
Std Dev 1.047
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

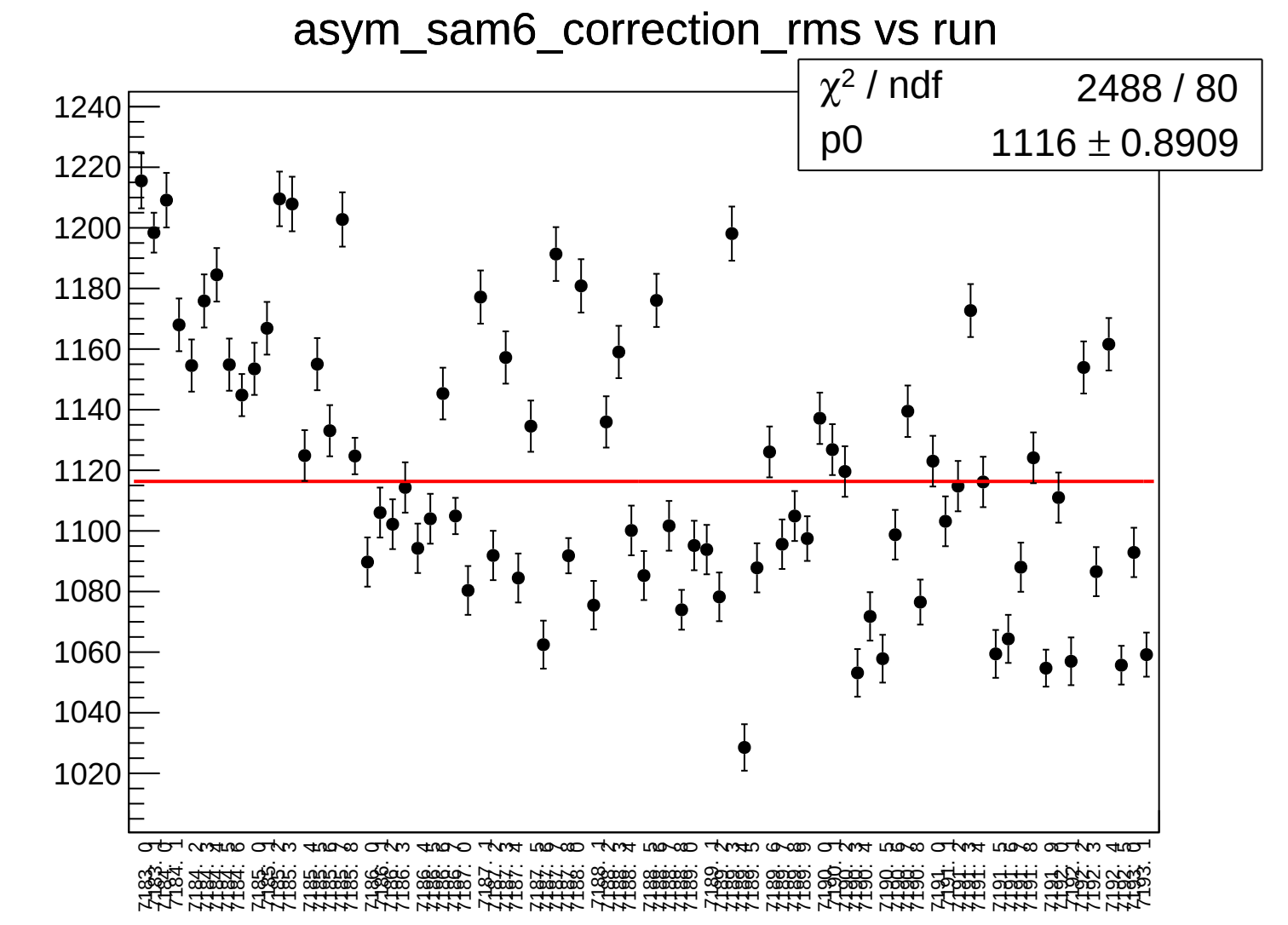

asym_sam5_correction_rms vs run
χ² / ndf 5221 / 80
p0 892.1 ± 0.7126
1000
950
900
850
800

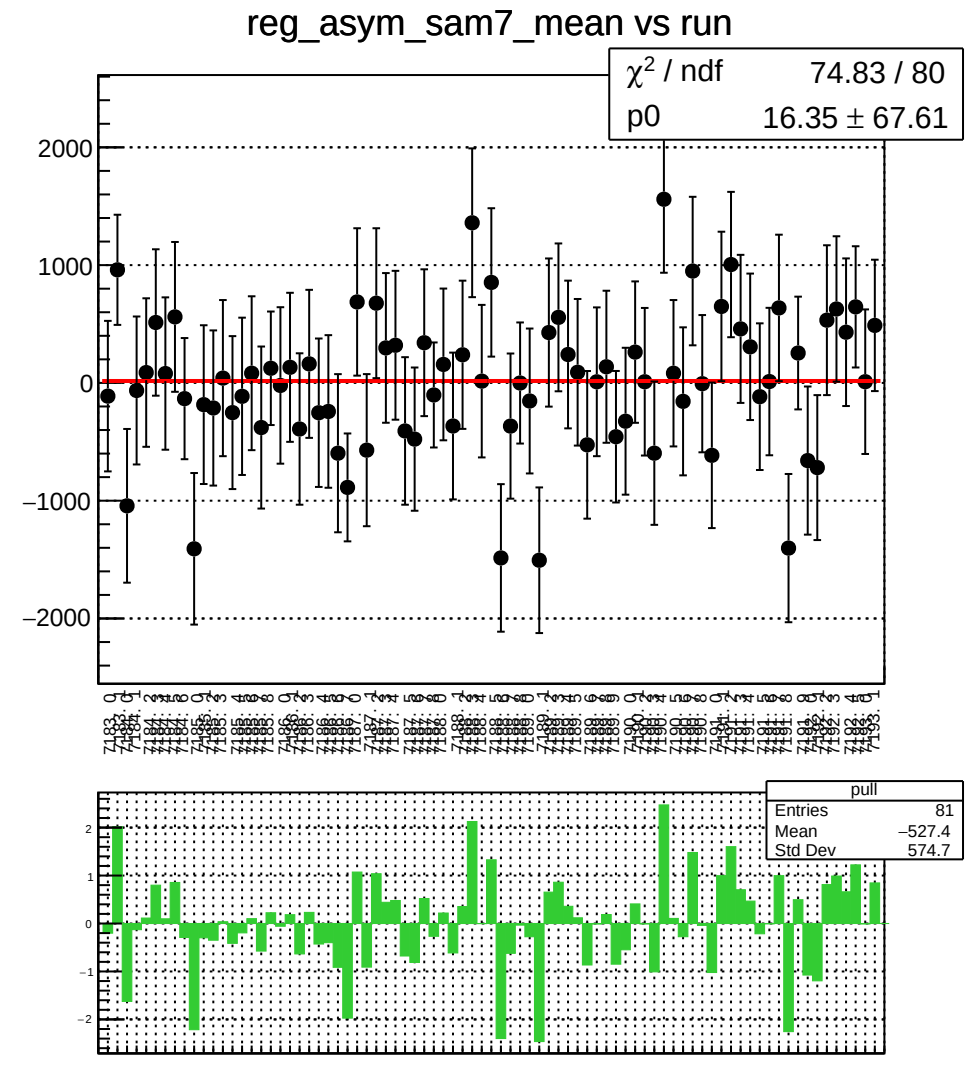

reg_asym_sam6_mean vs run
χ² / ndf 92.61 / 80
p0 −89.17 ± 191.2
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean 417.8
Std Dev 355.7
2
1
0
−1
−2

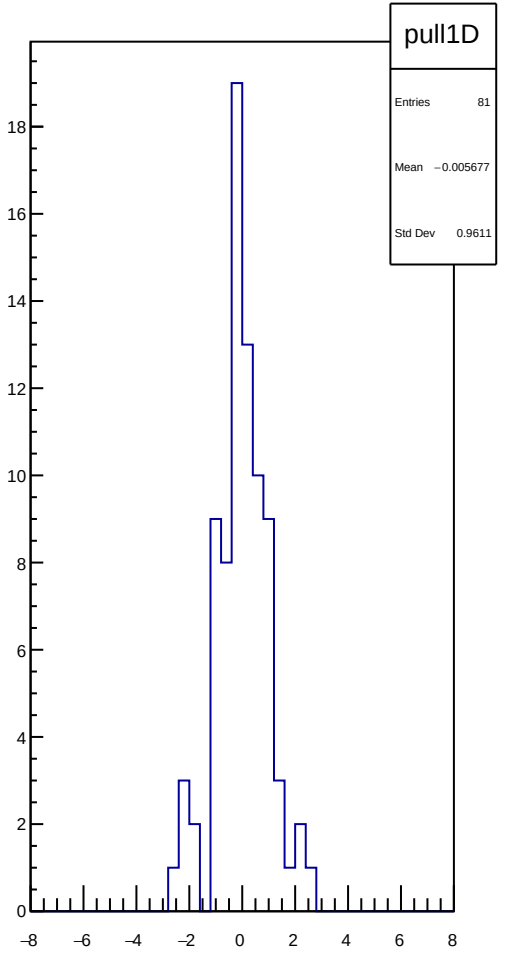

pull1D
Entries 81
Mean 0.003528
Std Dev 1.069
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

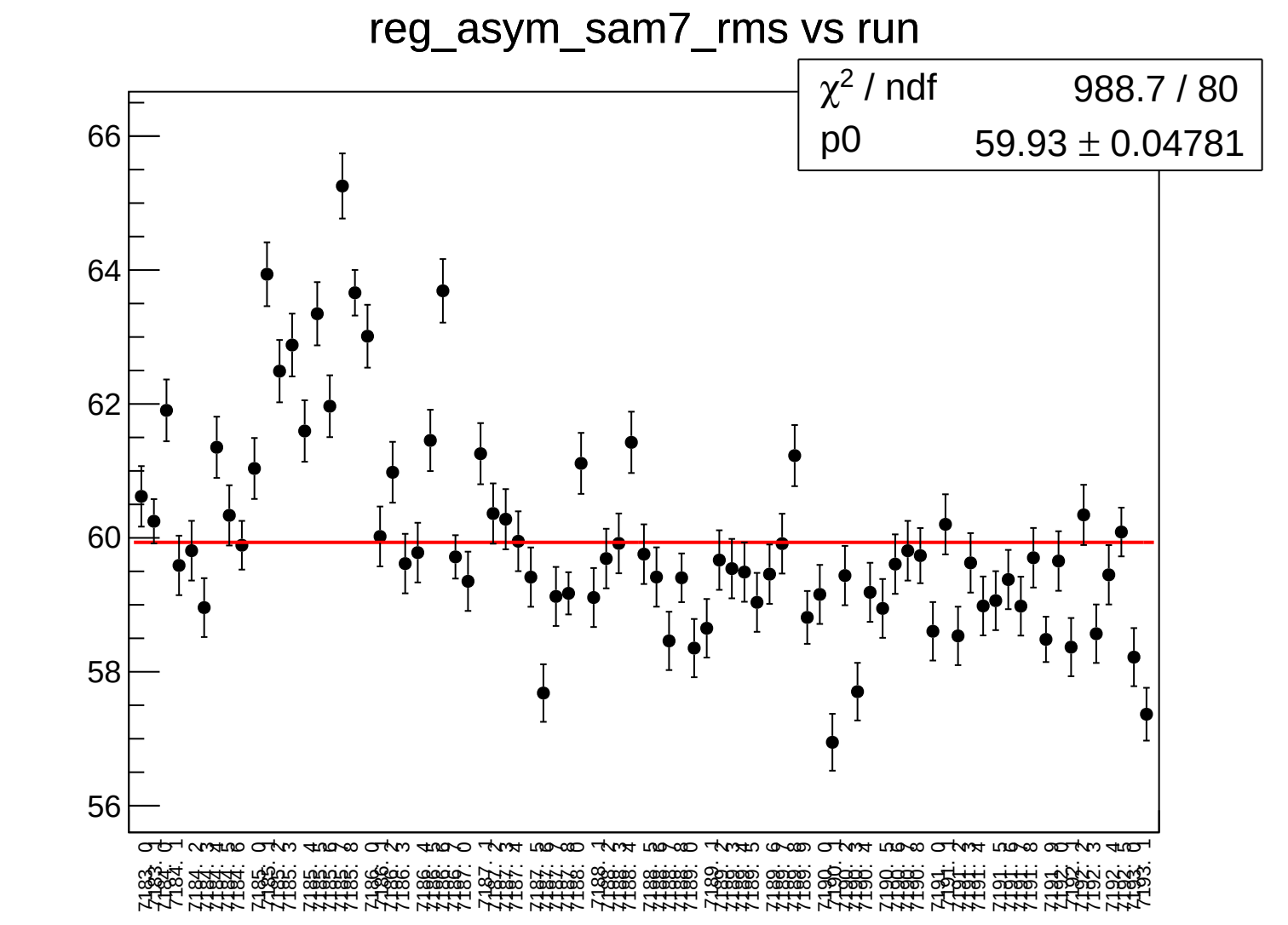

reg_asym_sam6_rms vs run
χ² / ndf 330.7 / 80
p0 169.5 ± 0.1352
176
174
172
170
168
166
164
162

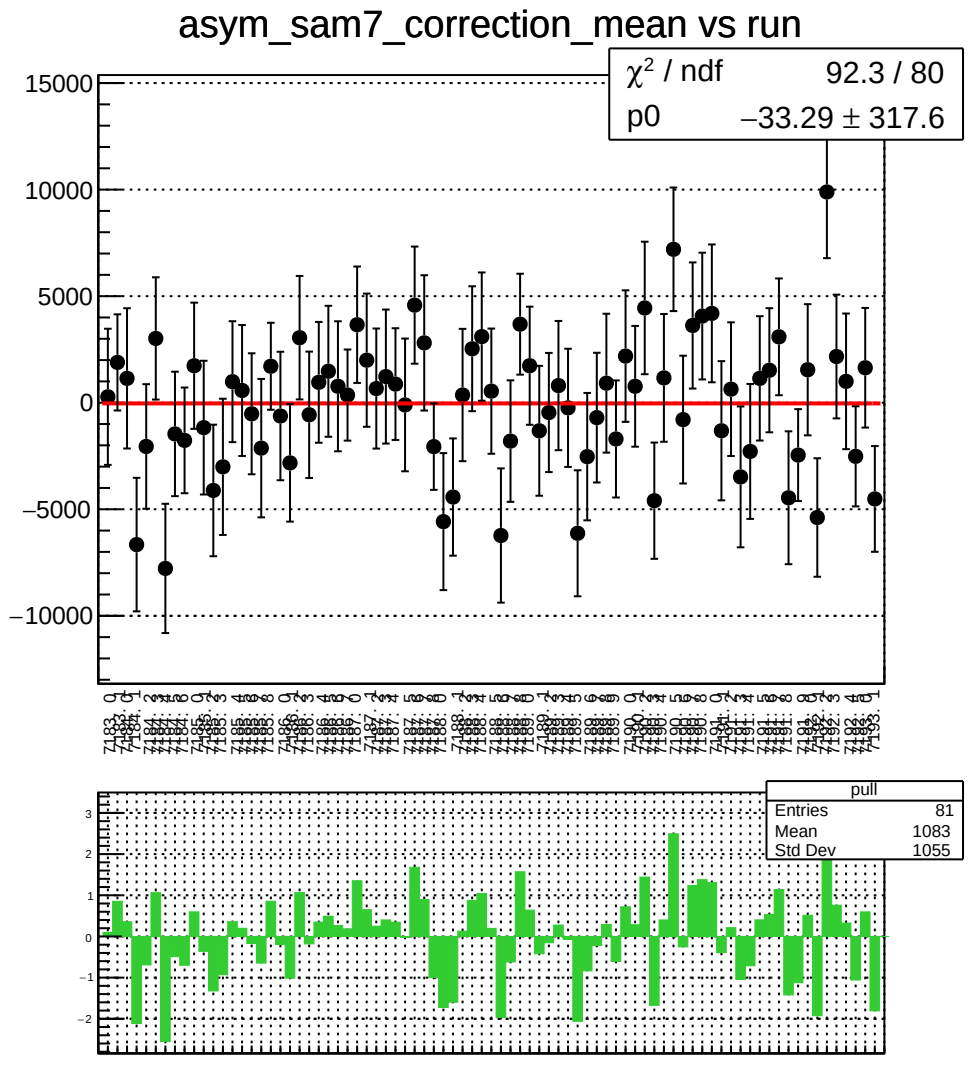

asym_sam6_correction_mean vs run
χ² / ndf 84.38 / 80
p0 1916 ± 1260
pull
Entries 81
Mean −177.8
Std Dev 208.7
pull1D
Entries 81
Mean 0.01457
Std Dev 1.021

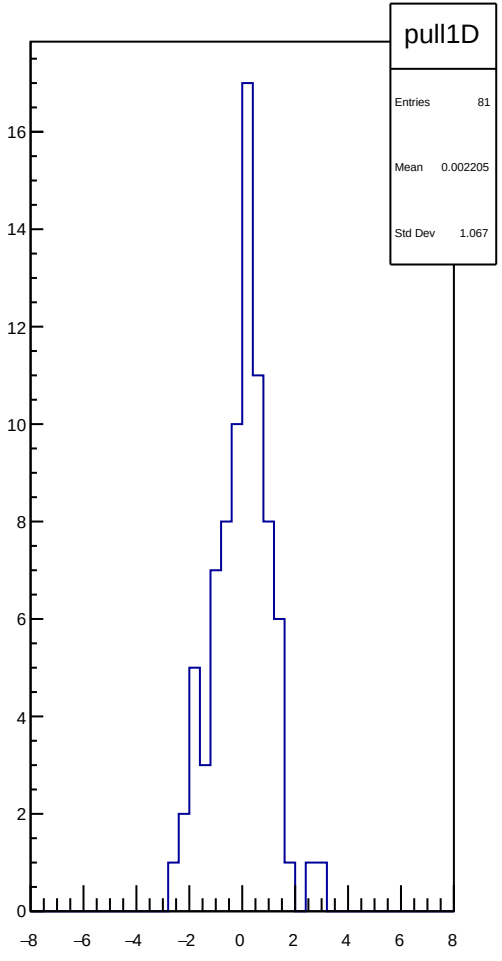

asym_sam6_correction_rms vs run
χ² / ndf 2488 / 80
p0 1116 ± 0.8909
1240
1220
1200
1180
1160
1140
1120
1100
1080
1060
1040
1020

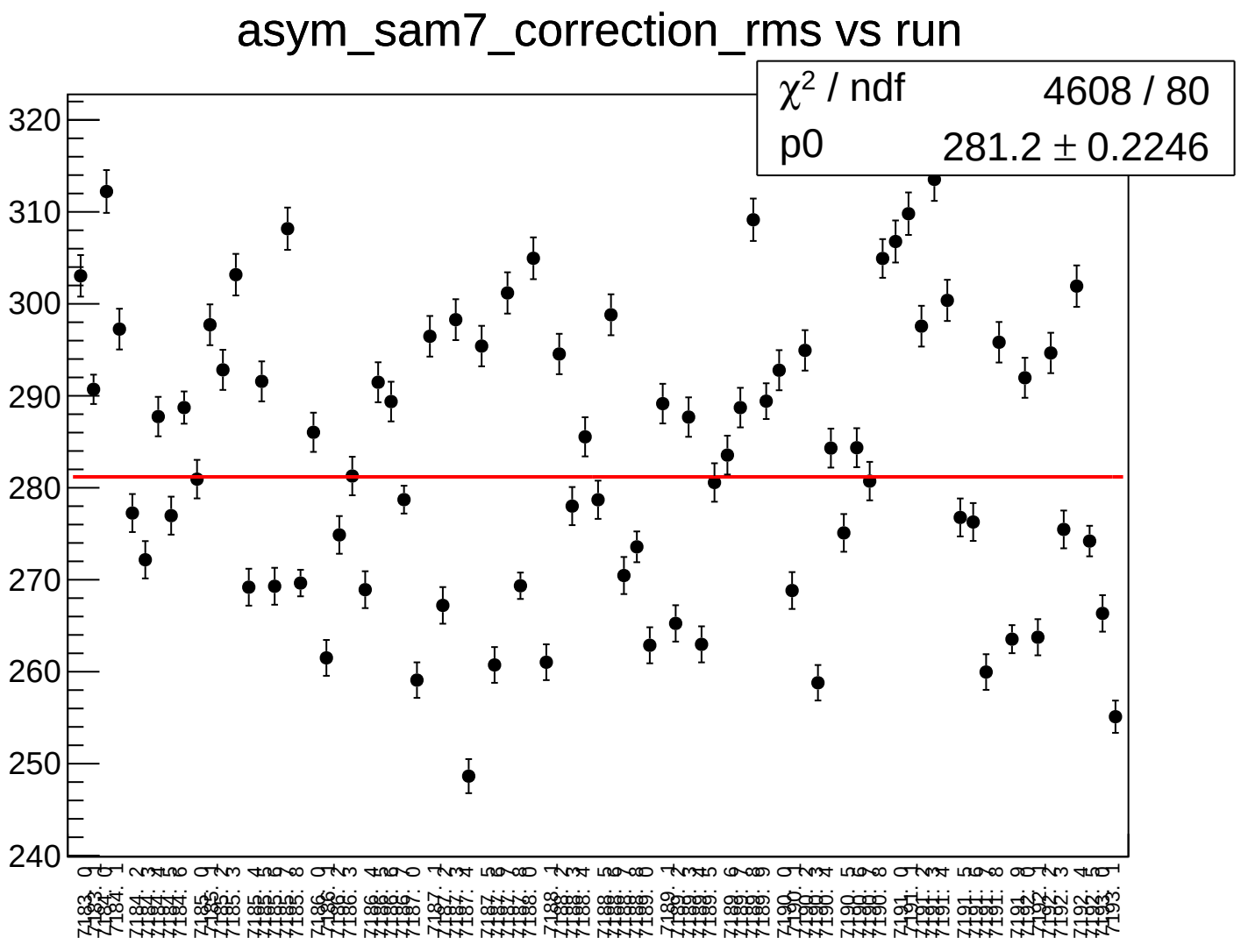

reg_asym_sam7_mean vs run
χ² / ndf 74.83 / 80
p0 16.35 ± 67.61
2000
1000
0
−1000
−2000
pull
Entries 81
Mean −527.4
Std Dev 574.7
2
1
0
−1
−2

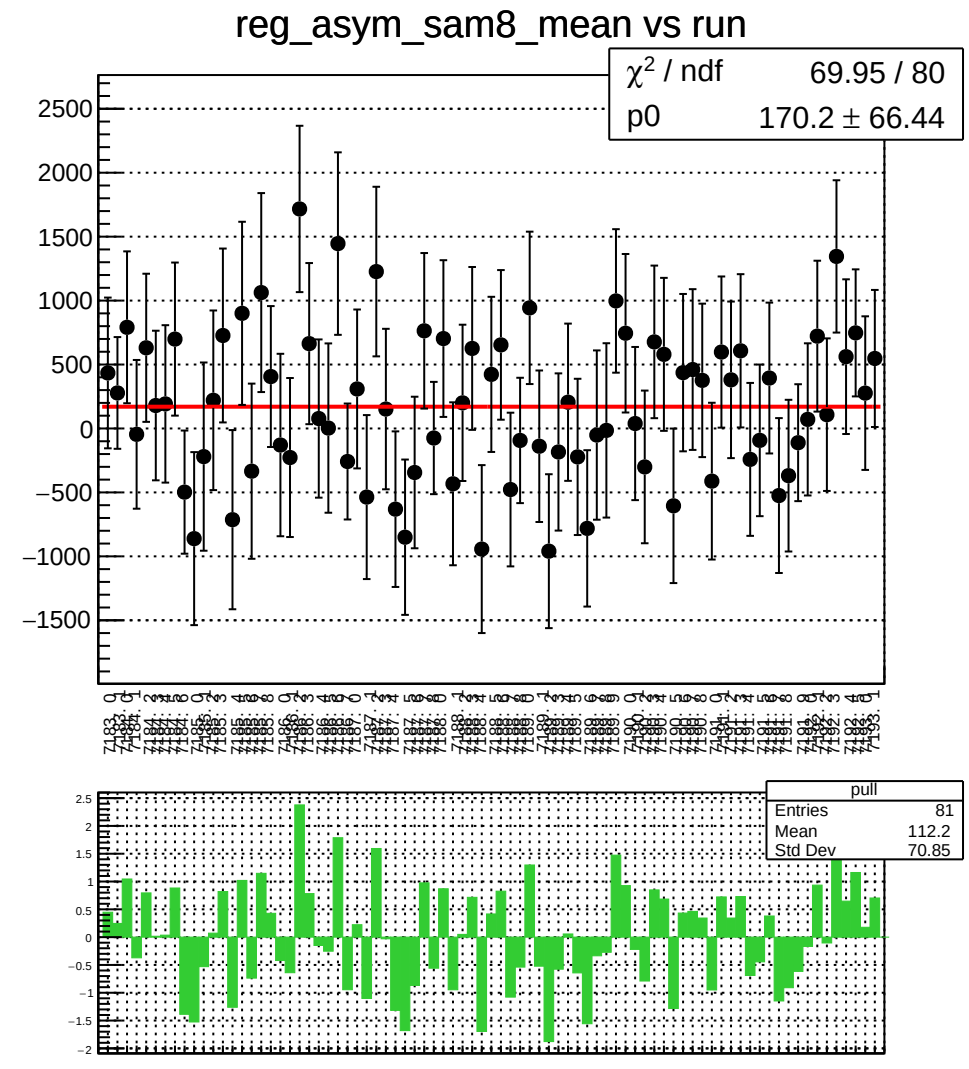

pull1D
Entries 81
Mean −0.005677
Std Dev 0.9611
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

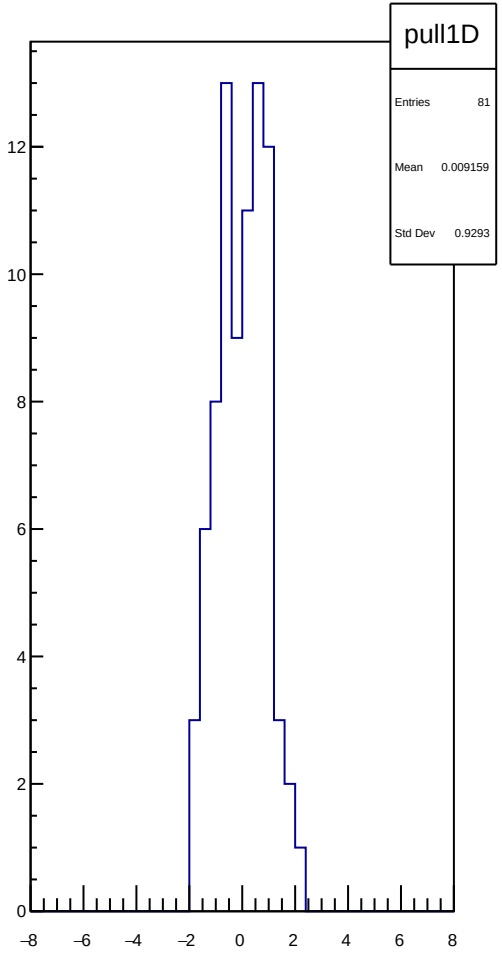

reg_asym_sam7_rms vs run
χ^2 / ndf 988.7 / 80
p0 59.93 ± 0.04781
66
64
62
60
58
56

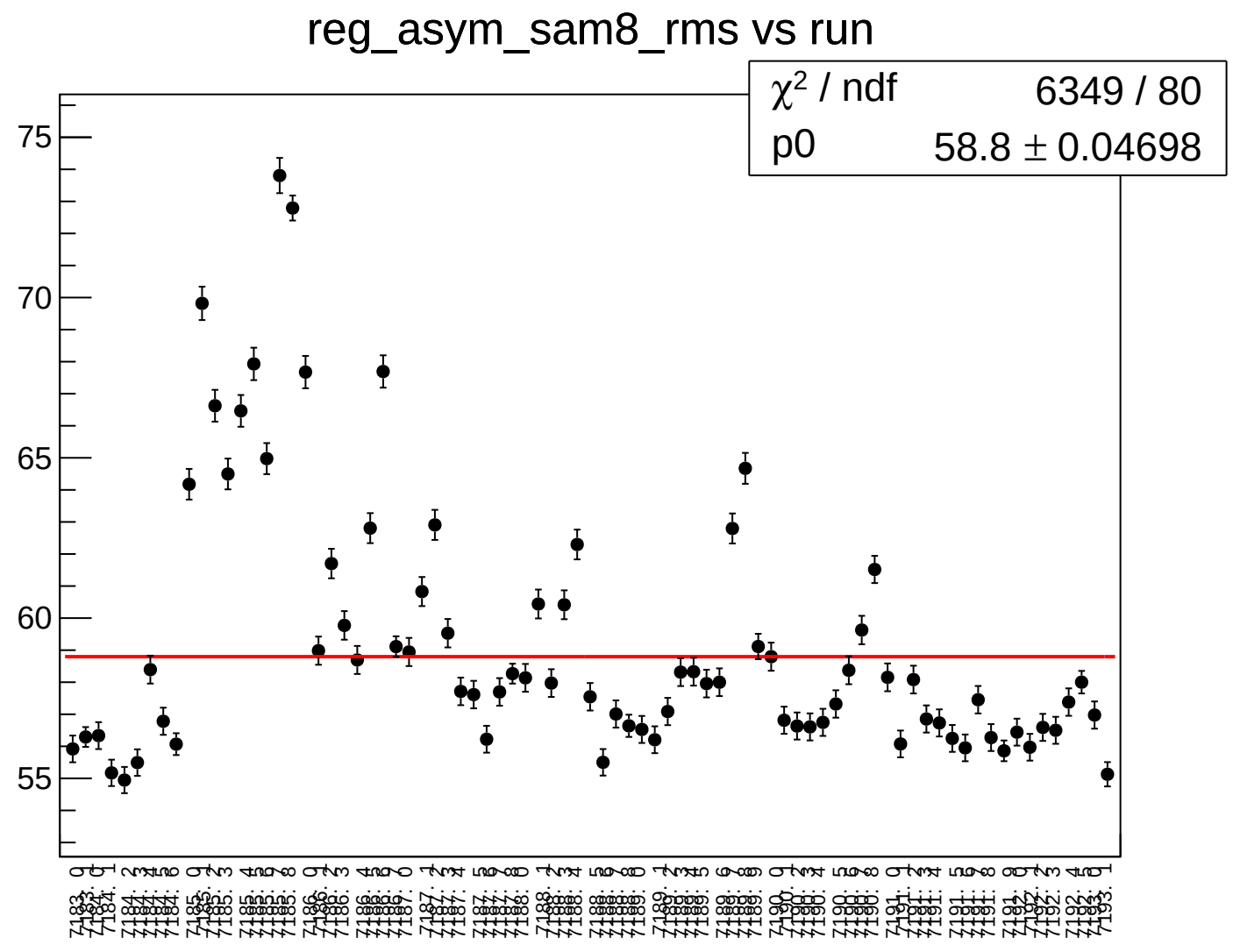

asym_sam7_correction_mean vs run
χ² / ndf 92.3 / 80
p0 −33.29 ± 317.6
15000
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 1083
Std Dev 1055
3
2
1
0
−1
−2

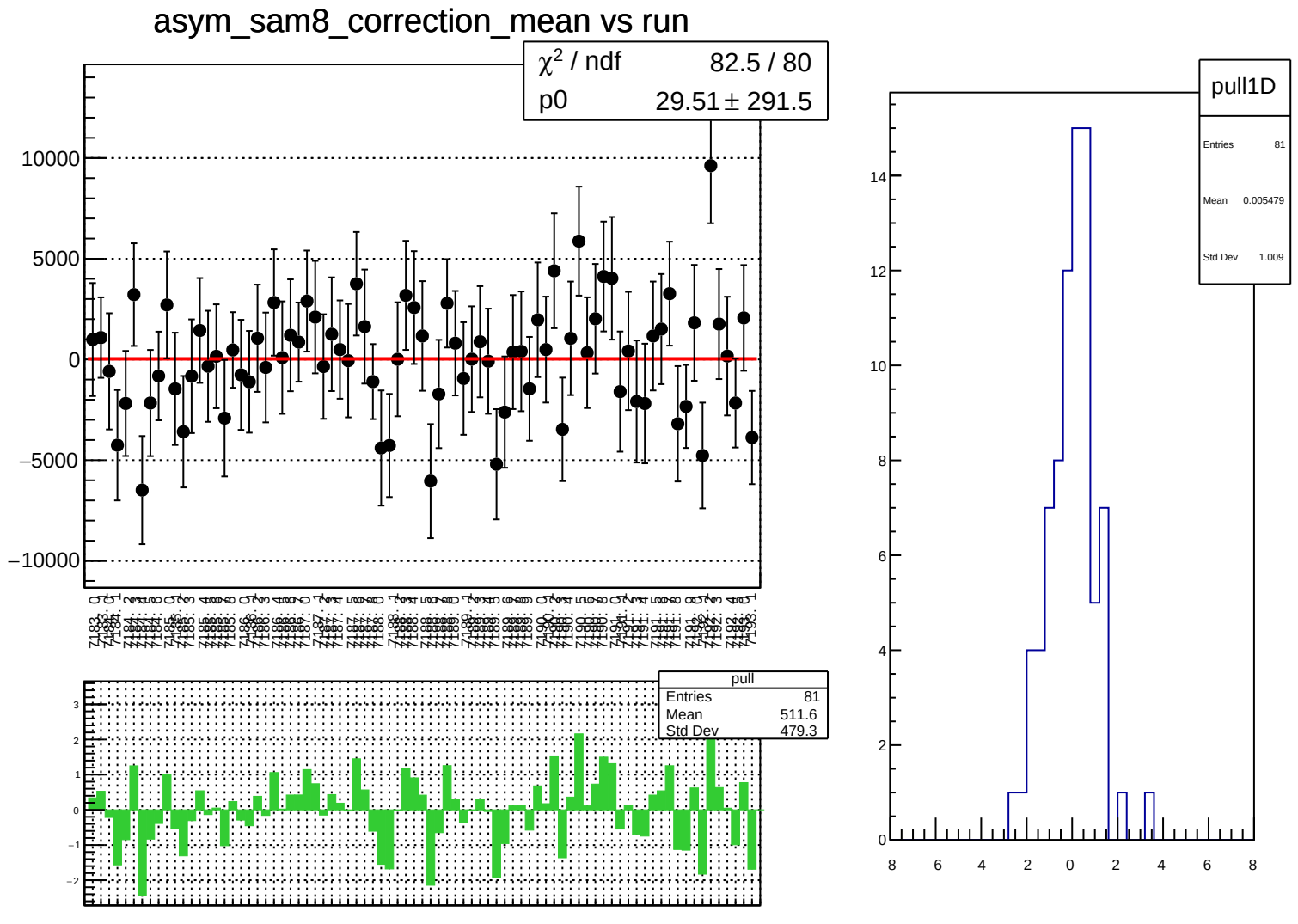

pull1D
Entries 81
Mean 0.002205
Std Dev 1.067
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

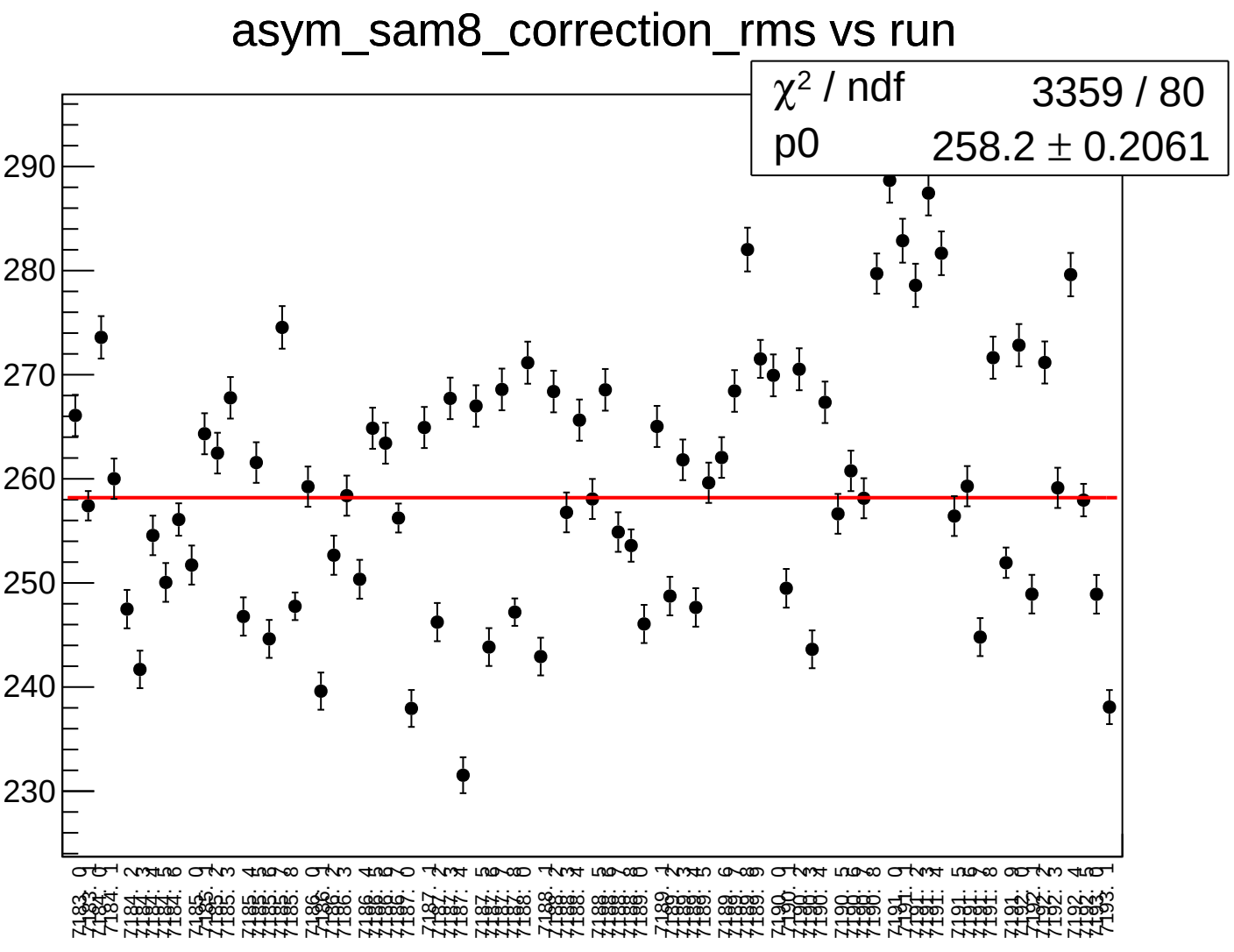

asym_sam7_correction_rms vs run
χ² / ndf 4608 / 80
p0 281.2 ± 0.2246
320
310
300
290
280
270
260
250
240

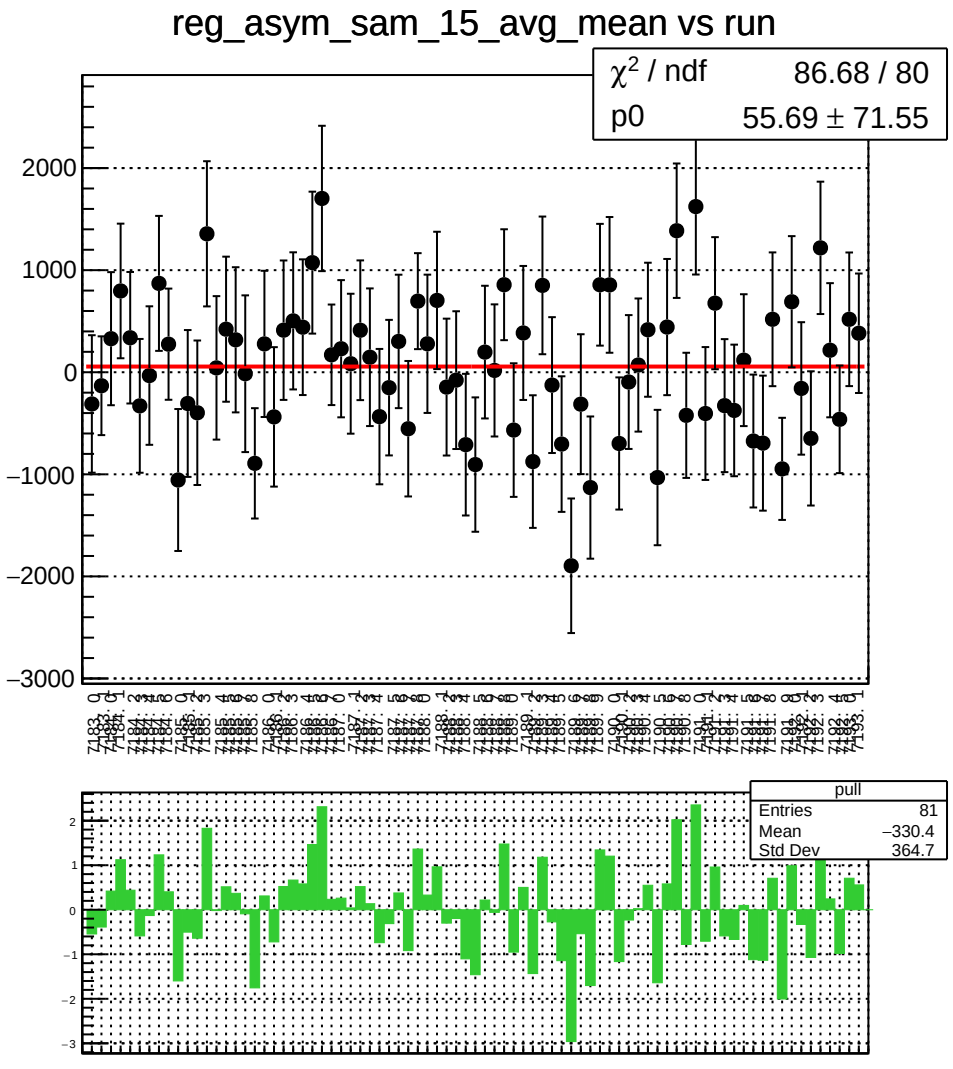

reg_asym_sam8_mean vs run
χ² / ndf 69.95 / 80
p0 170.2 ± 66.44
pull
Entries 81
Mean 112.2
Std Dev 70.85

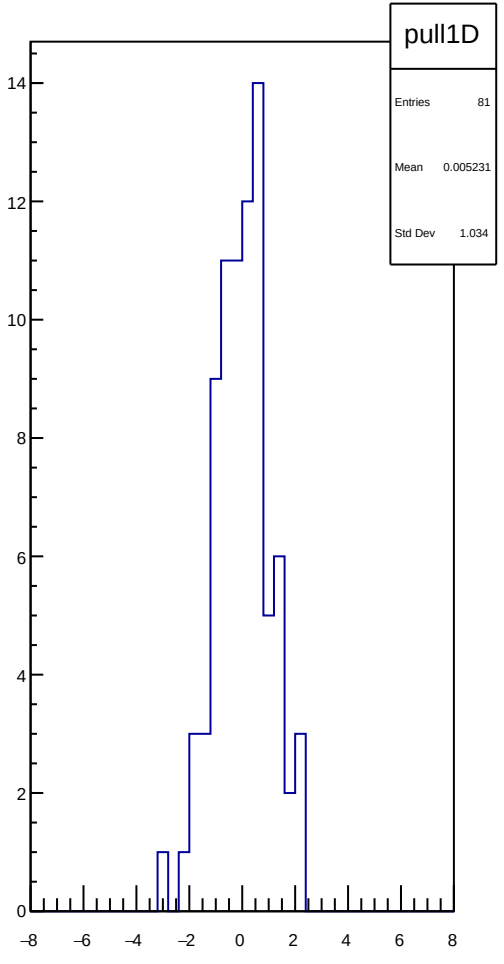

pull1D
Entries 81
Mean 0.009159
Std Dev 0.9293

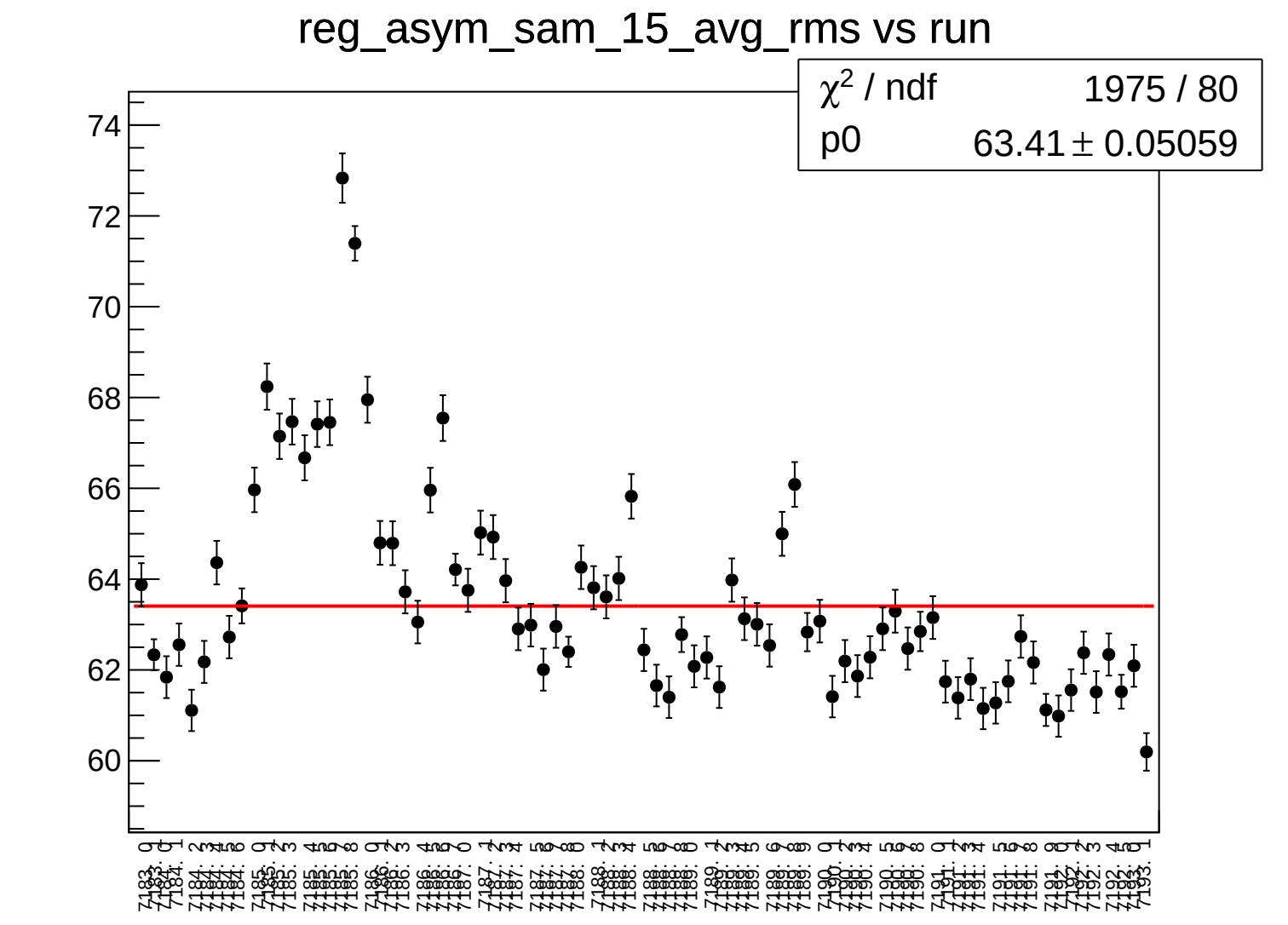

reg_asym_sam8_rms vs run
χ² / ndf 6349 / 80
p0 58.8 ± 0.04698
75
70
65
60
55

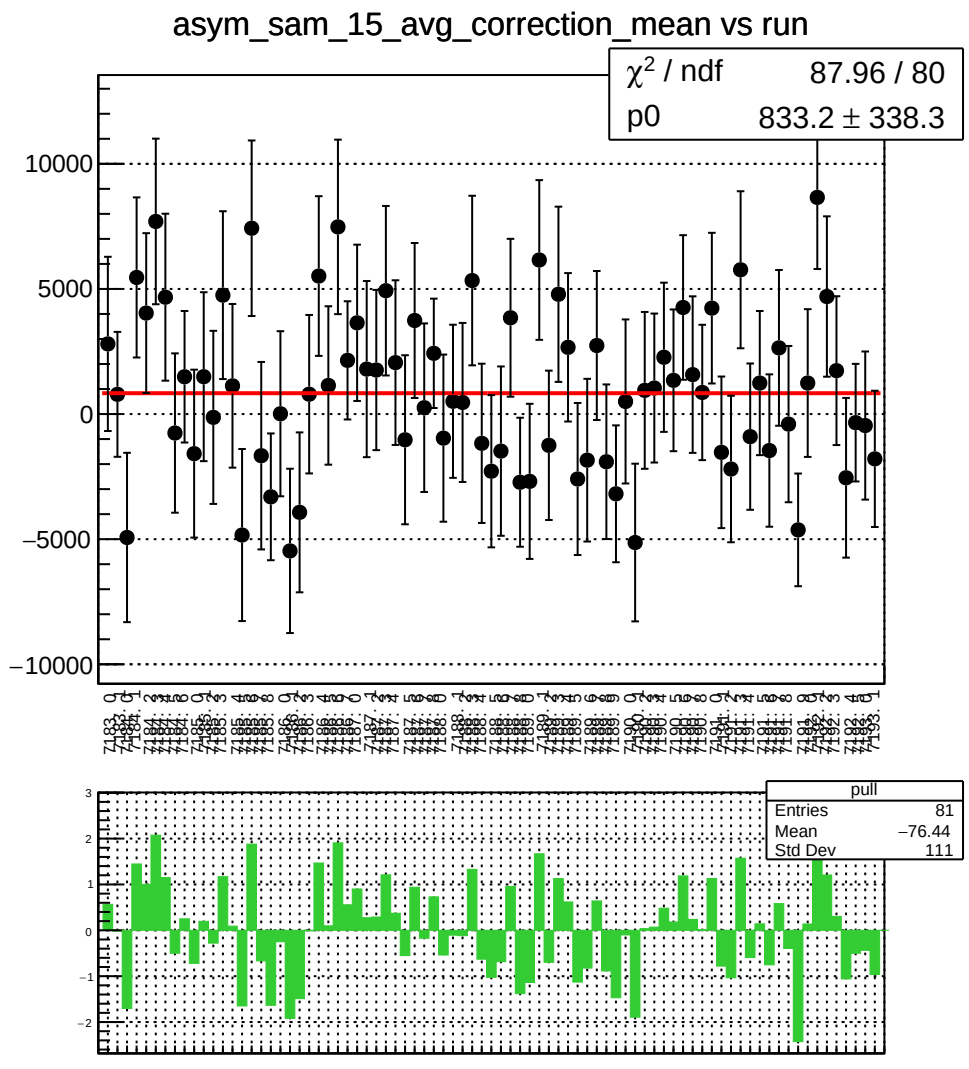

asym_sam8_correction_mean vs run
χ² / ndf 82.5 / 80
p0 29.51 ± 291.5
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 511.6
Std Dev 479.3
3
2
1
0
−1
−2
pull1D
Entries 81
Mean 0.005479
Std Dev 1.009
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

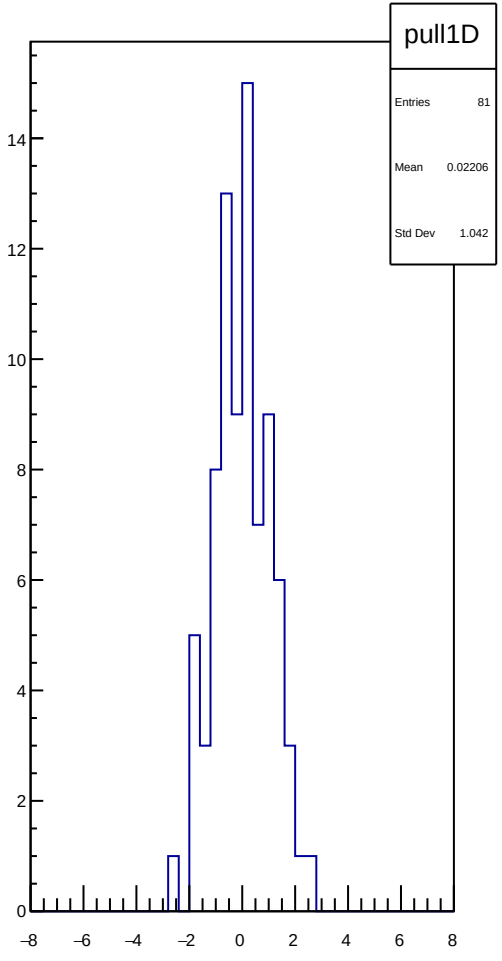

asym_sam8_correction_rms vs run
χ² / ndf 3359 / 80
p0 258.2 ± 0.2061
290
280
270
260
250
240
230

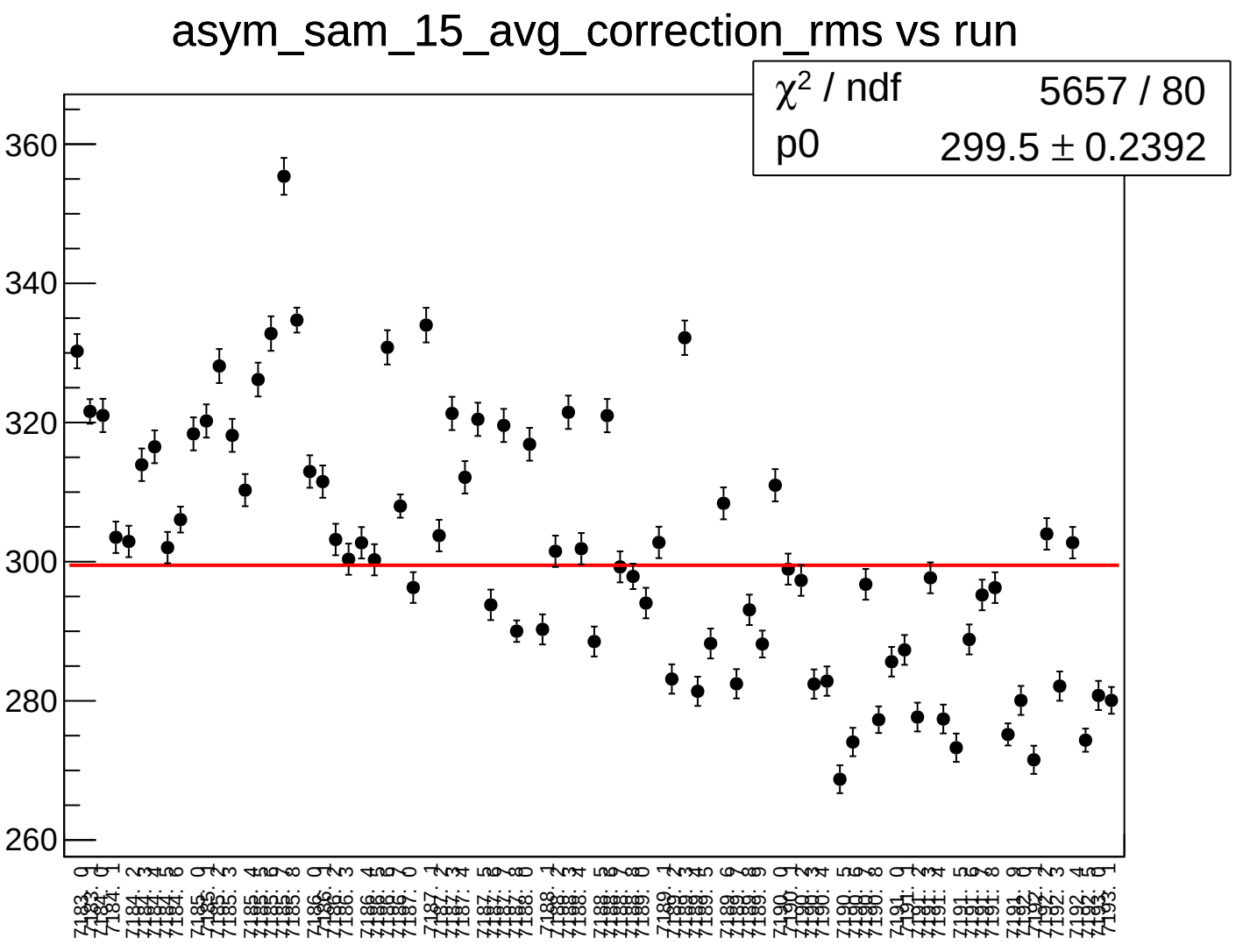

reg_asym_sam_15_avg_mean vs run
χ² / ndf 86.68 / 80
p0 55.69 ± 71.55
pull
Entries 81
Mean −330.4
Std Dev 364.7

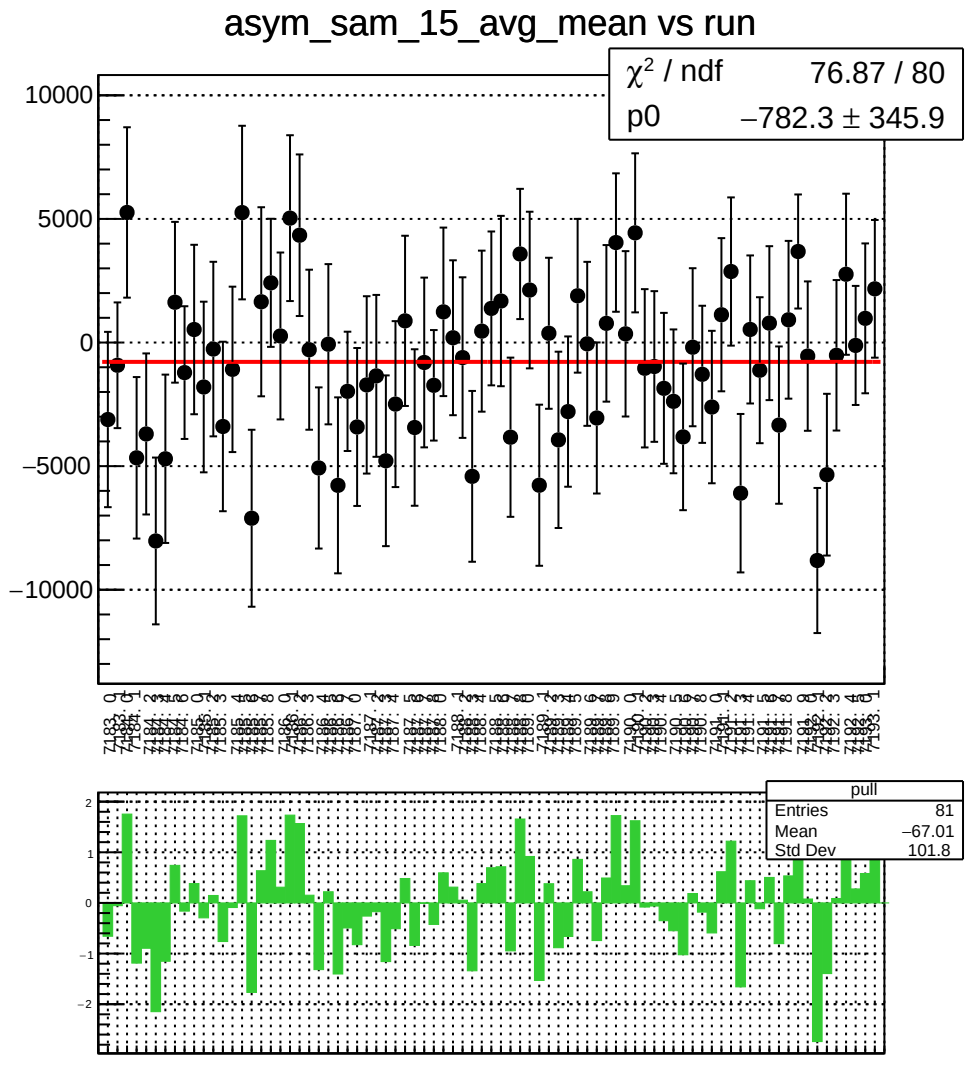

pull1D
Entries 81
Mean 0.005231
Std Dev 1.034

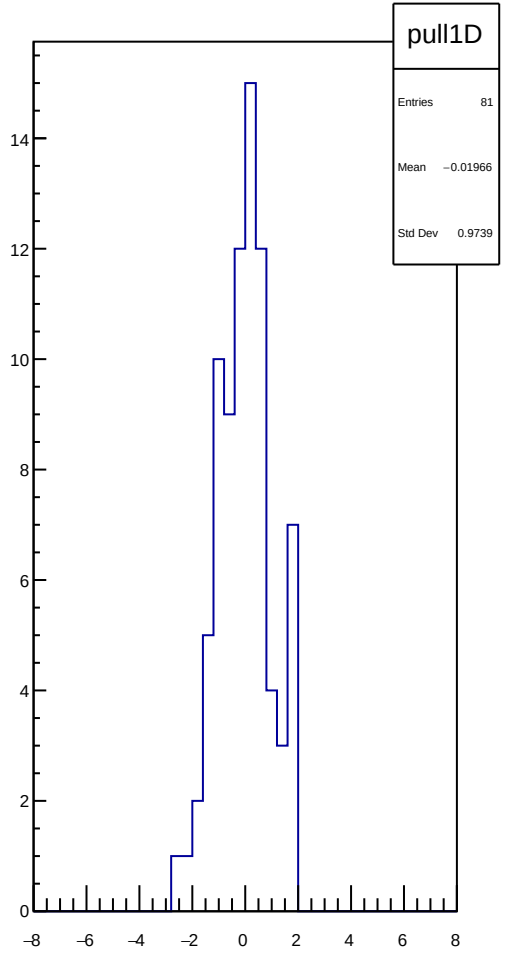

reg_asym_sam_15_avg_rms vs run
χ^2 / ndf 1975 / 80
p0 63.41 ± 0.05059
74
72
70
68
66
64
62
60

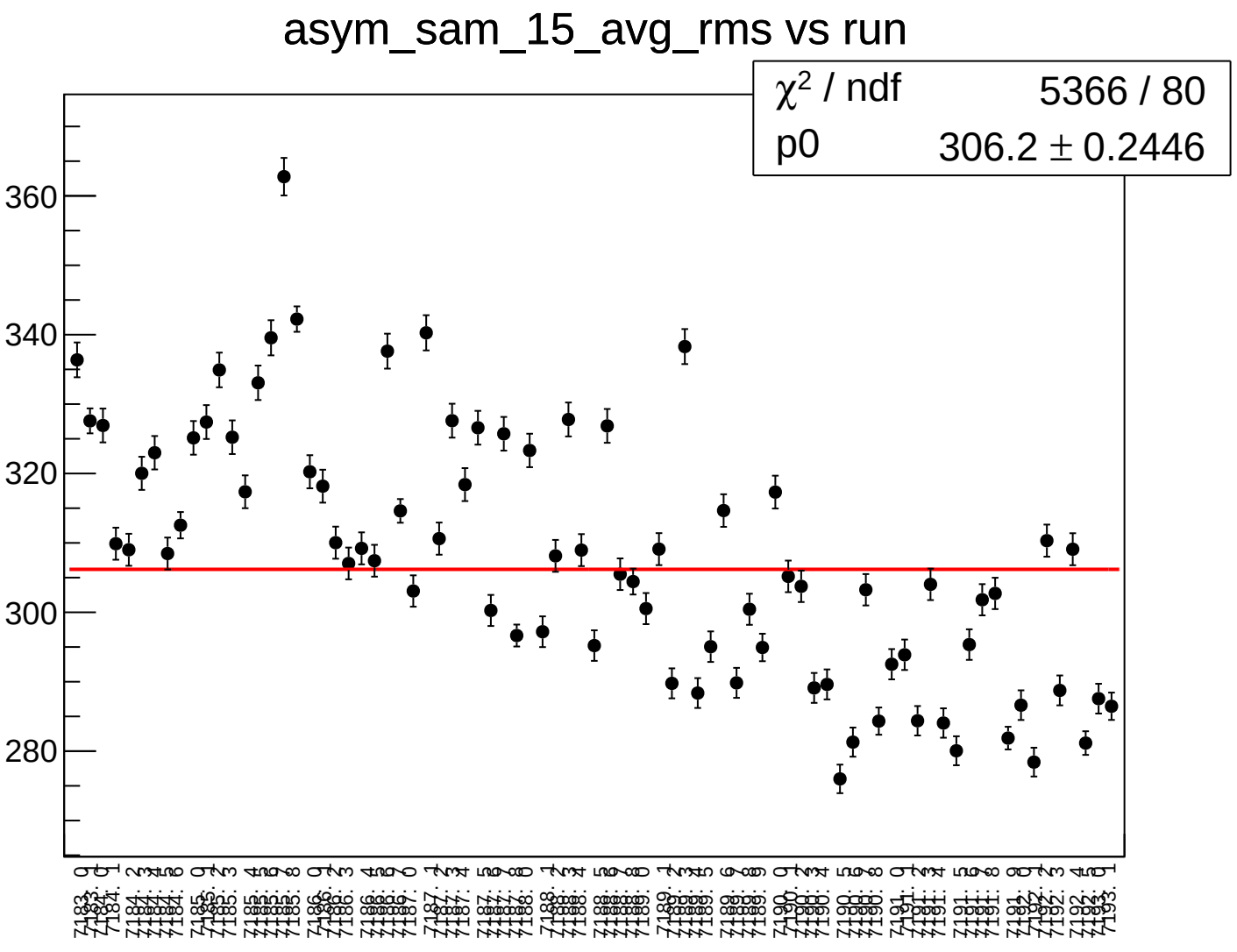

asym_sam_15_avg_correction_mean vs run
χ² / ndf 87.96 / 80
p0 833.2 ± 338.3
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −76.44
Std Dev 111
3
2
1
0
−1
−2

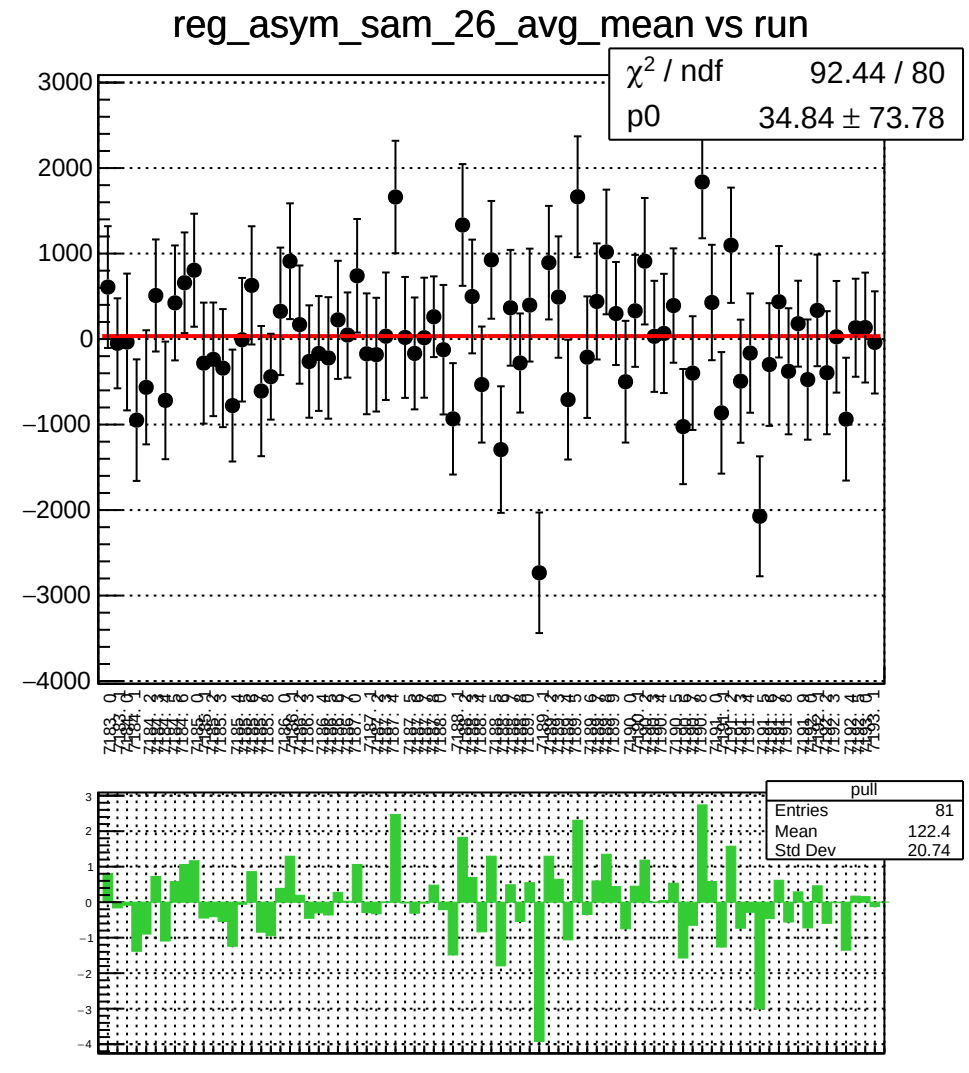

pull1D
Entries 81
Mean 0.02206
Std Dev 1.042
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

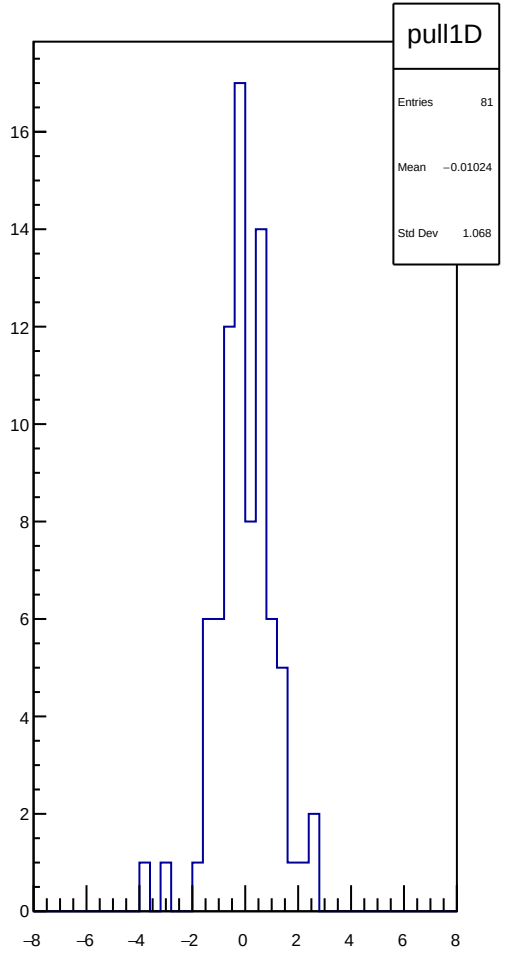

asym_sam_15_avg_correction_rms vs run
χ² / ndf 5657 / 80
p0 299.5 ± 0.2392
360
340
320
300
280
260

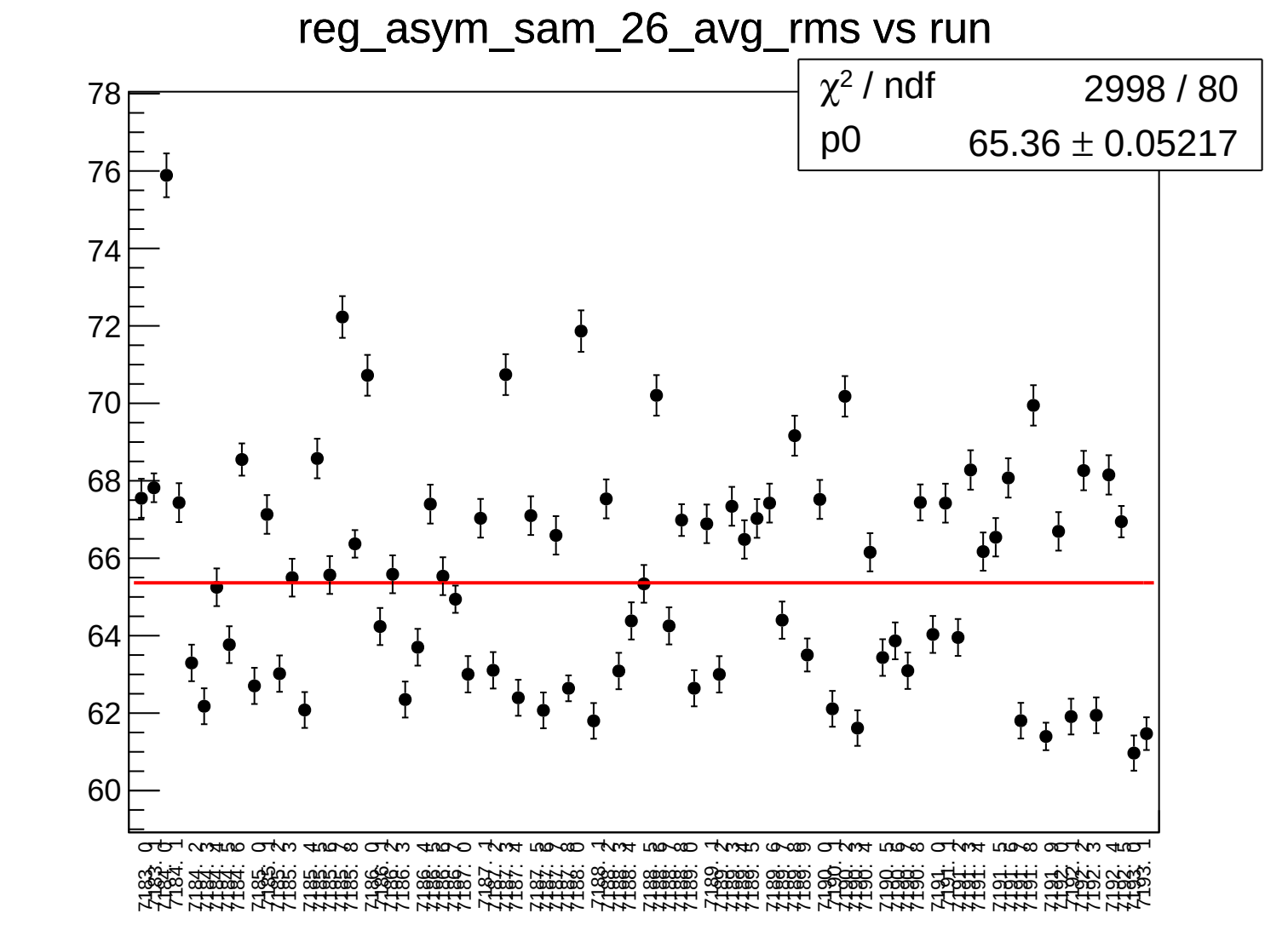

asym_sam_15_avg_mean vs run
χ² / ndf 76.87 / 80
p0 −782.3 ± 345.9
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −67.01
Std Dev 101.8
2
1
0
−1
−2

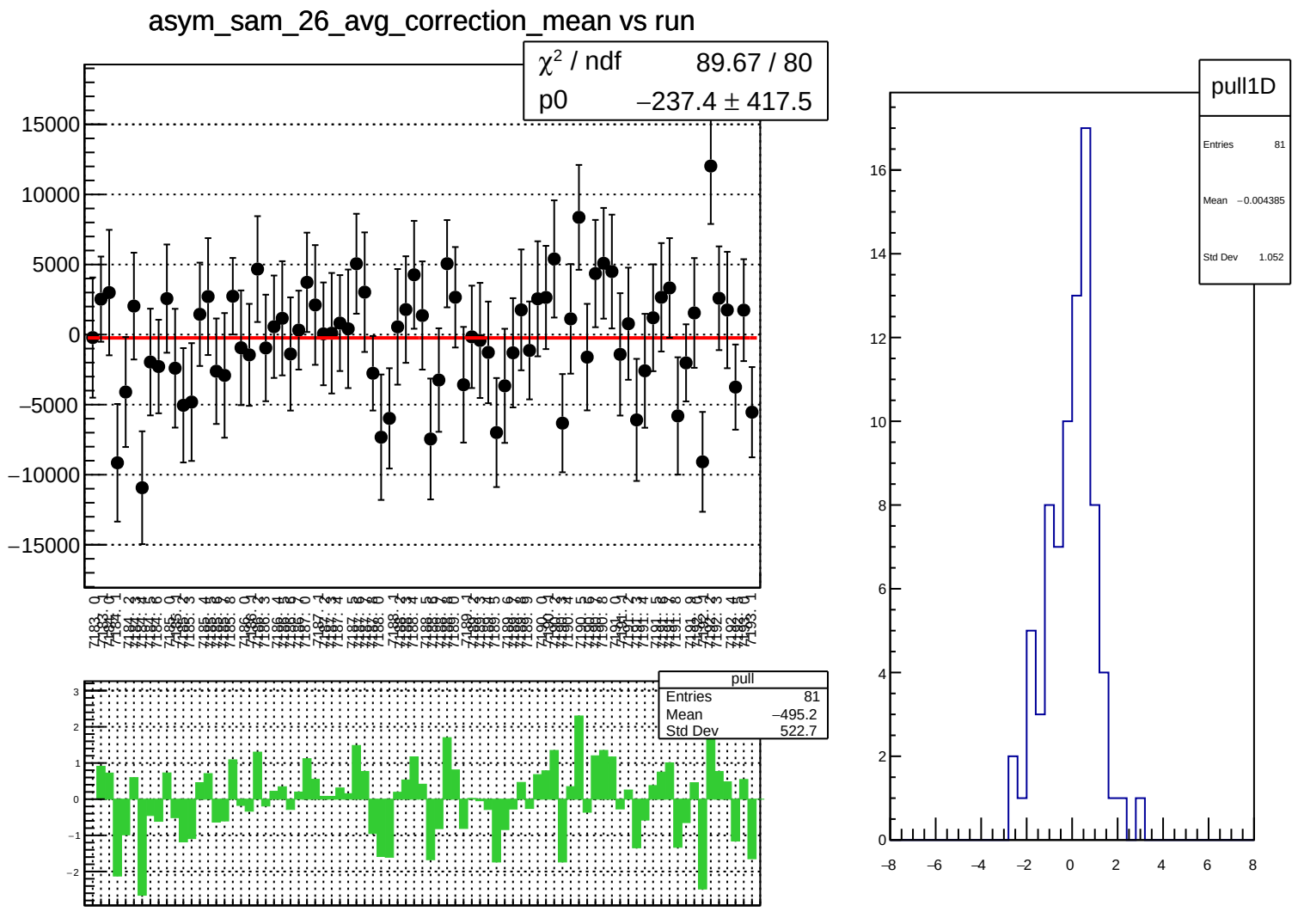

pull1D
Entries 81
Mean −0.01966
Std Dev 0.9739
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

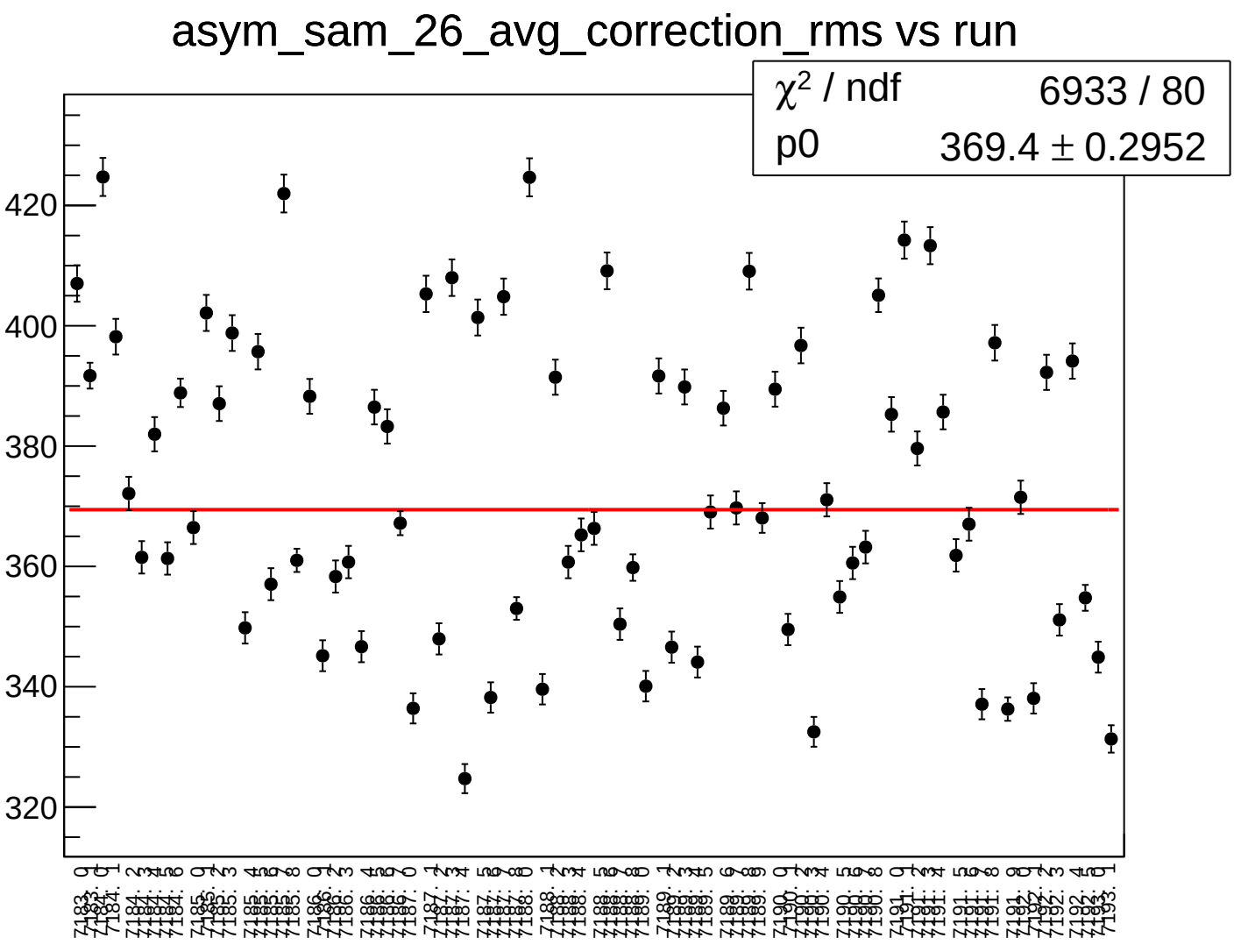

asym_sam_15_avg_rms vs run
χ² / ndf 5366 / 80
p0 306.2 ± 0.2446
360
340
320
300
280

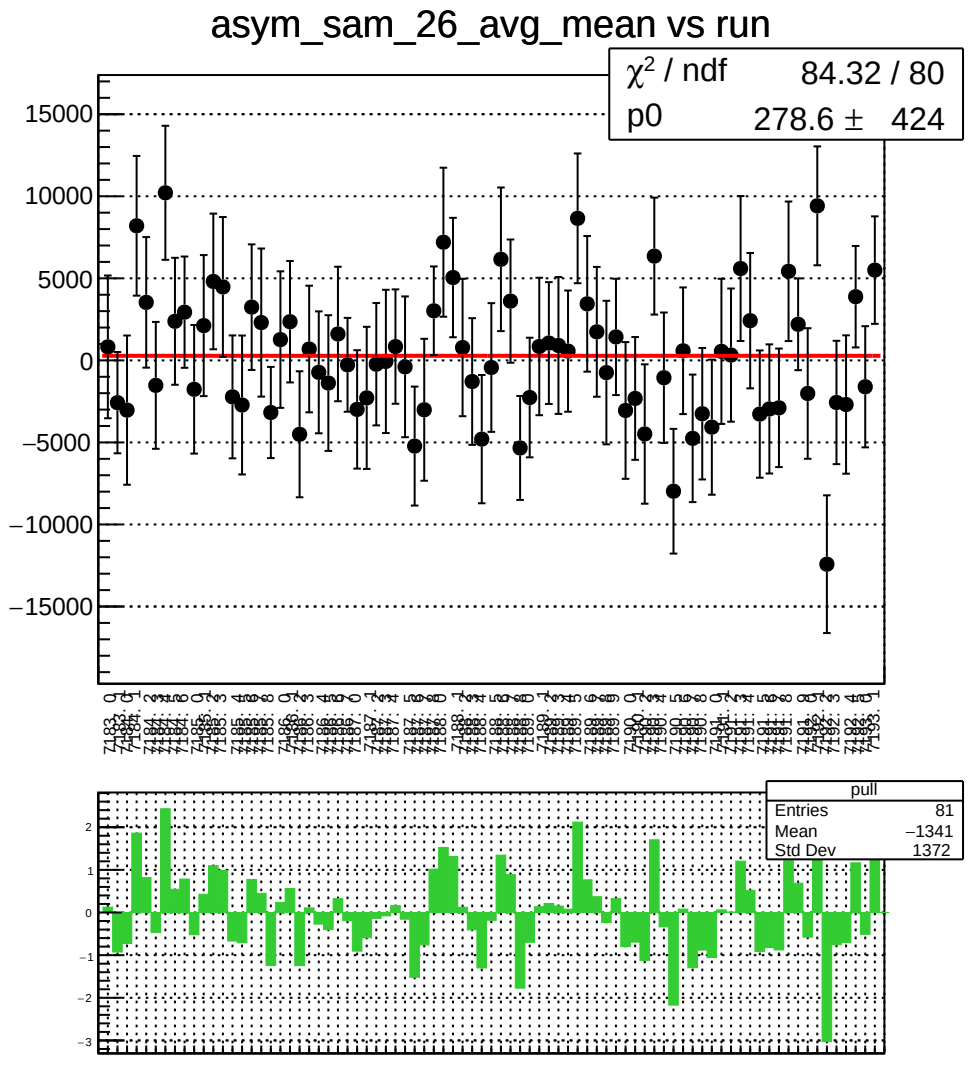

reg_asym_sam_26_avg_mean vs run
χ² / ndf 92.44 / 80
p0 34.84 ± 73.78
pull
Entries 81
Mean 122.4
Std Dev 20.74

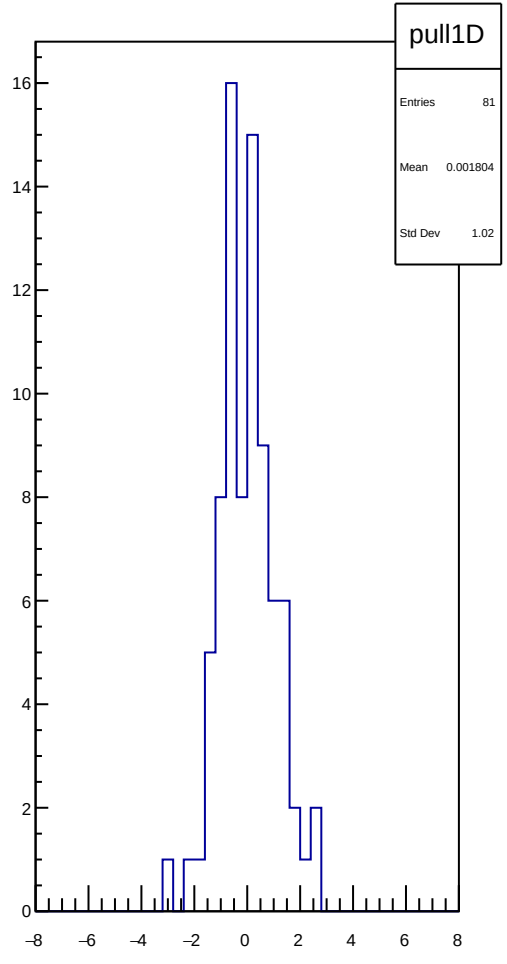

pull1D
Entries 81
Mean −0.01024
Std Dev 1.068

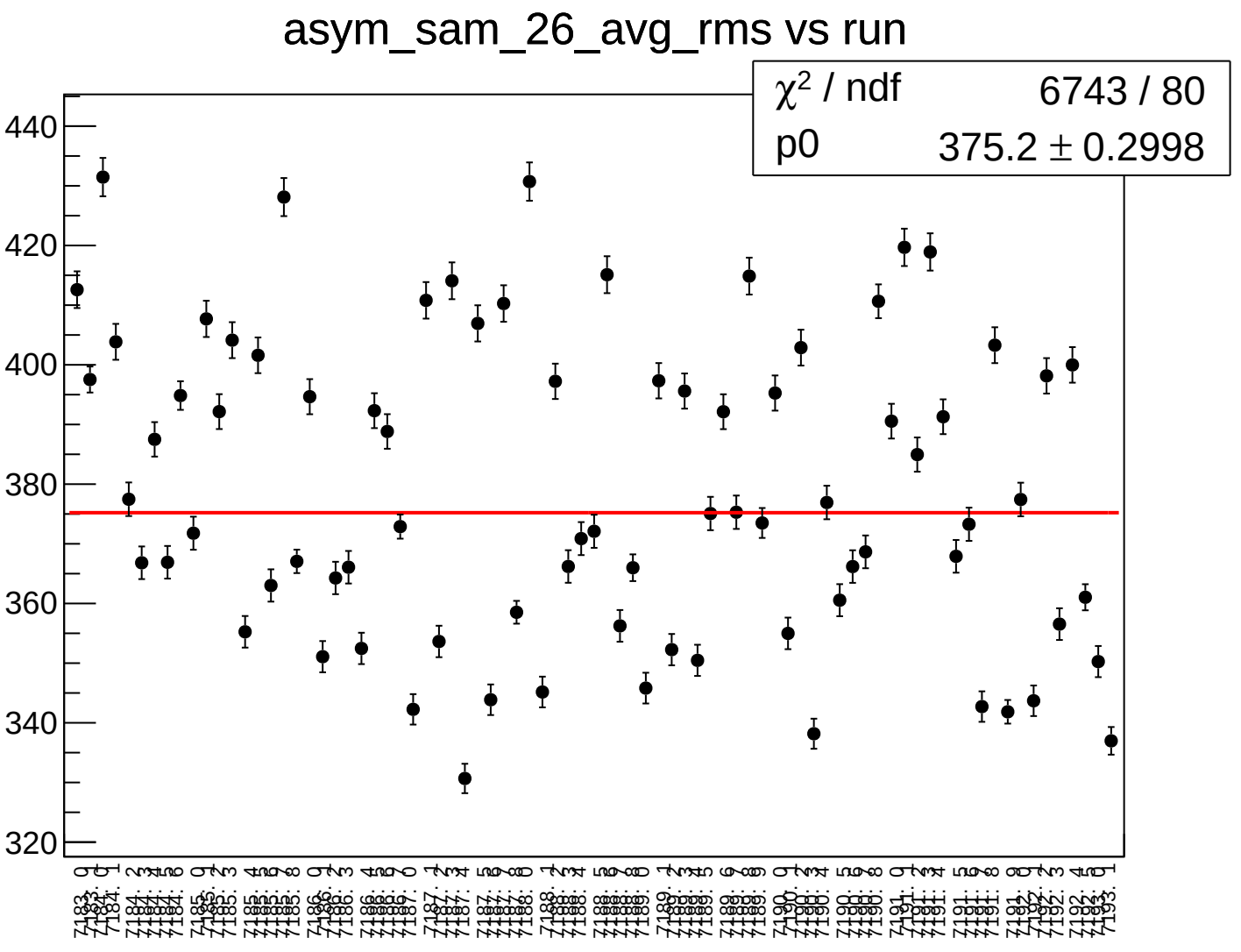

reg_asym_sam_26_avg_rms vs run
χ^2 / ndf 2998 / 80
p0 65.36 ± 0.05217
78
76
74
72
70
68
66
64
62
60

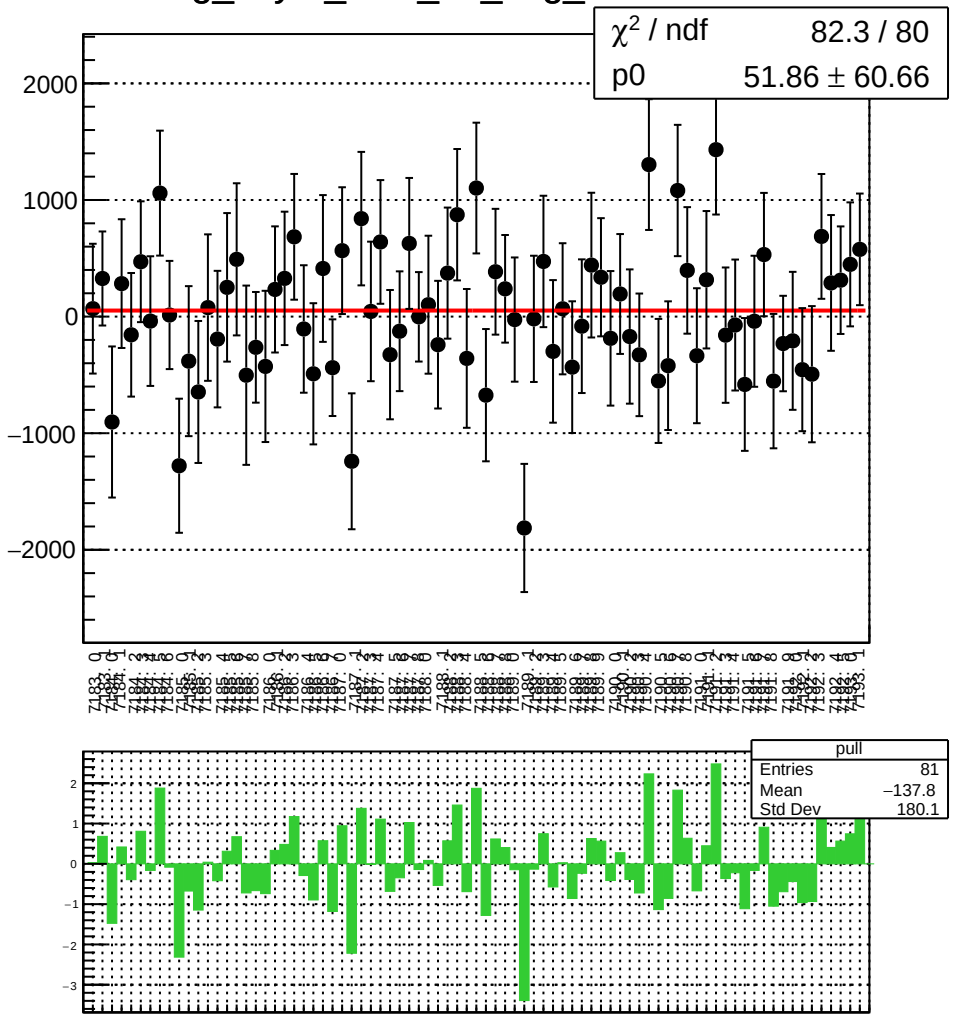

asym_sam_26_avg_correction_mean vs run
χ² / ndf 89.67 / 80
p0 −237.4 ± 417.5
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean −495.2
Std Dev 522.7
3
2
1
0
−1
−2
pull1D
Entries 81
Mean −0.004385
Std Dev 1.052
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

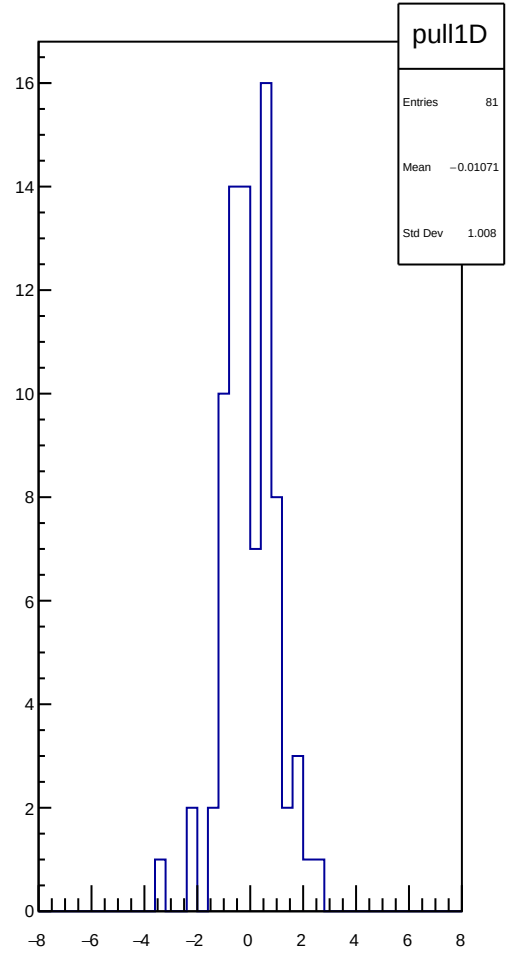

asym_sam_26_avg_correction_rms vs run
χ^2 / ndf 6933 / 80
p0 369.4 ± 0.2952
420
400
380
360
340
320

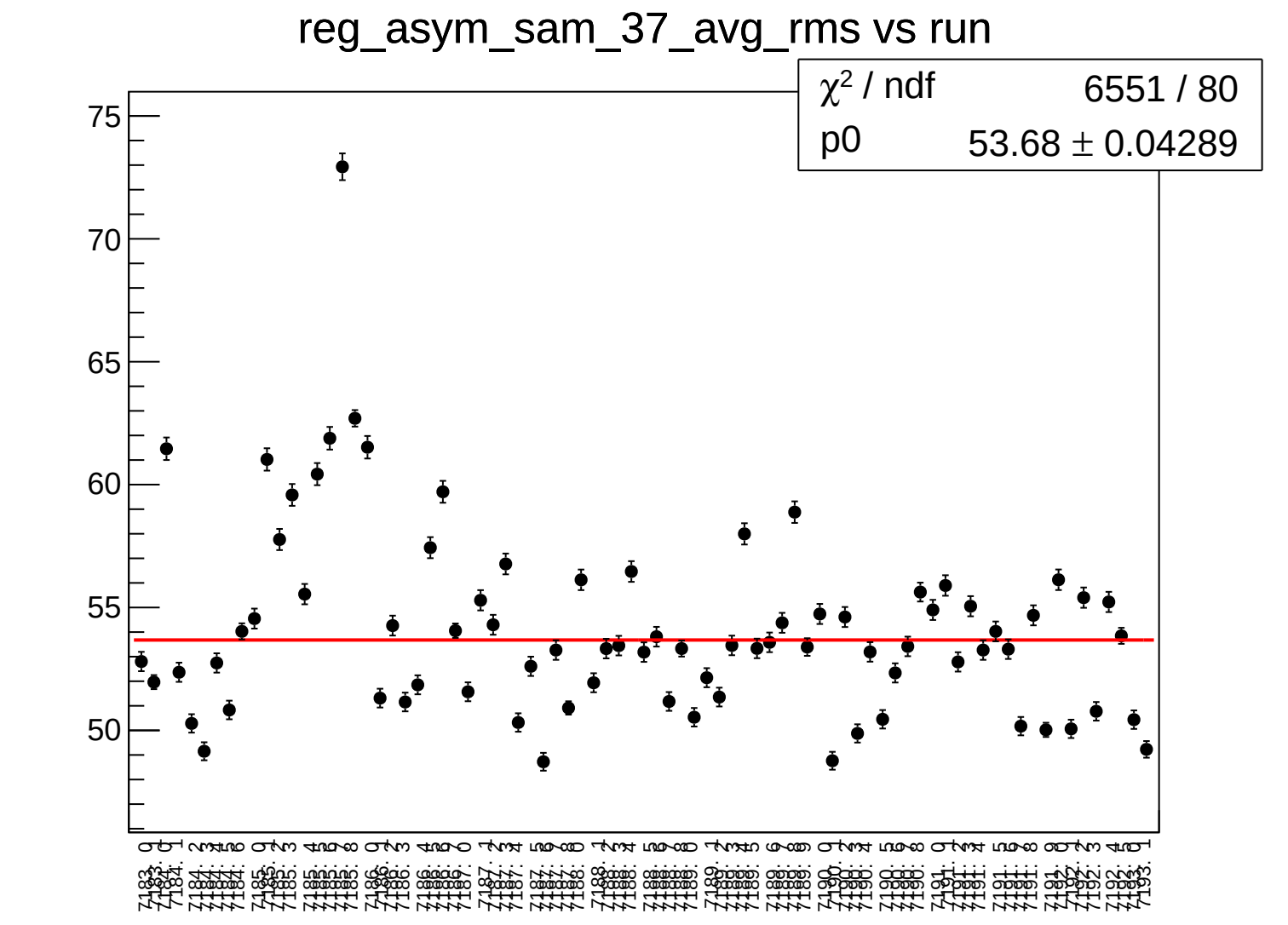

asym_sam_26_avg_mean vs run
χ² / ndf 84.32 / 80
p0 278.6 ± 424
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean −1341
Std Dev 1372
2
1
0
−1
−2
−3

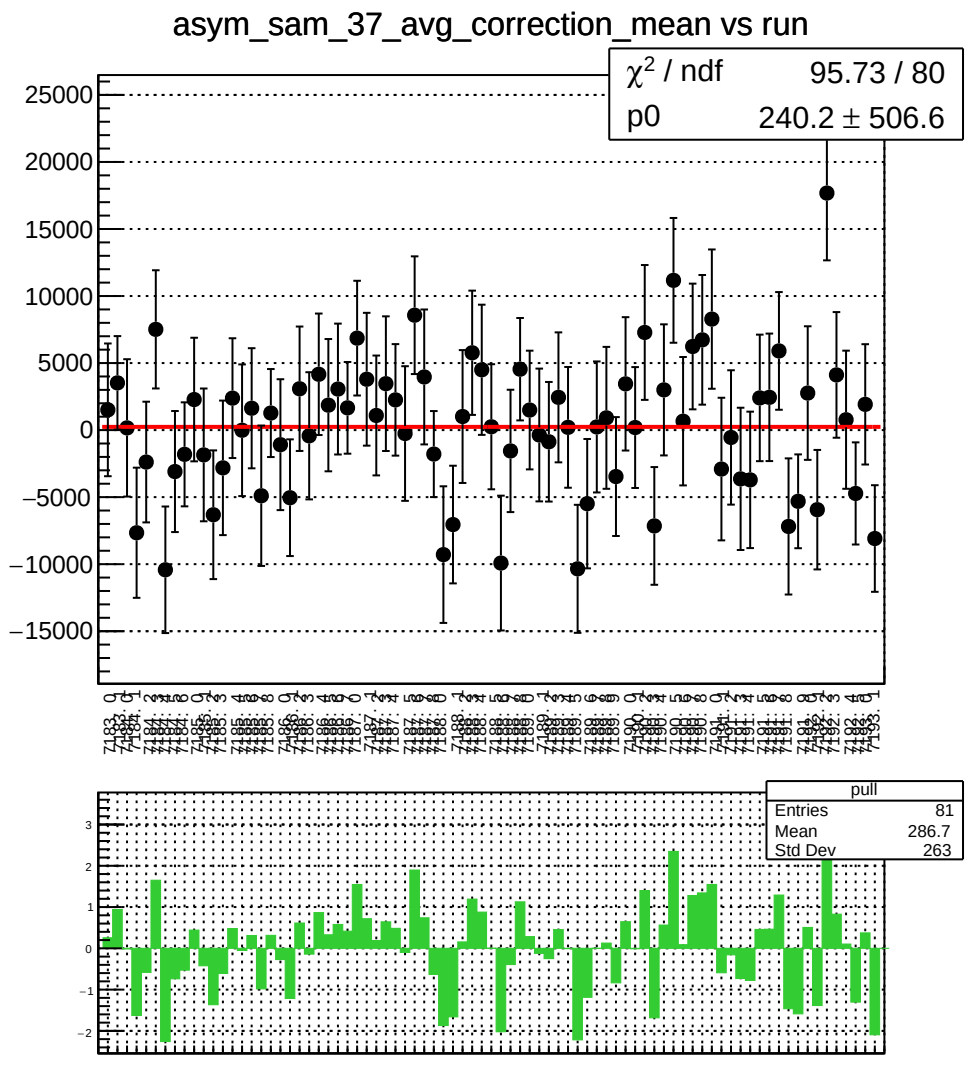

pull1D
Entries 81
Mean 0.001804
Std Dev 1.02
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

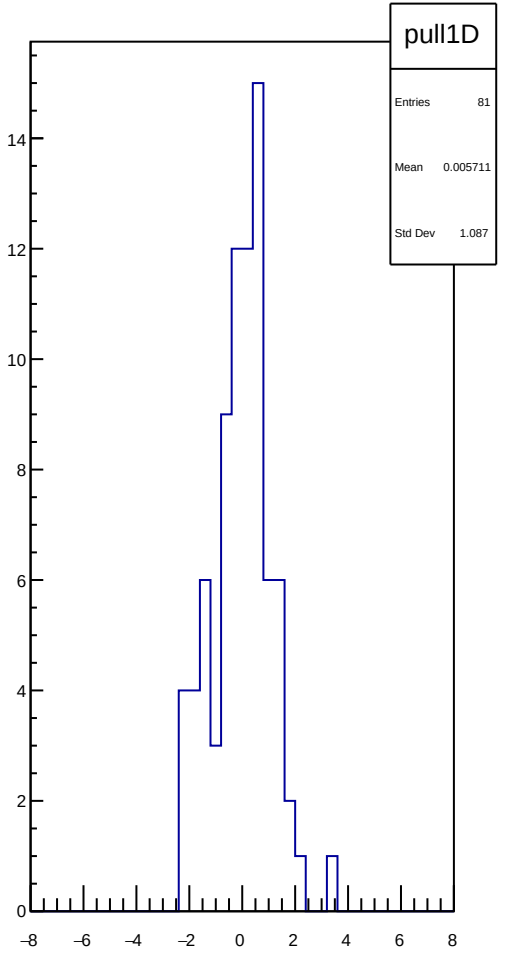

asym_sam_26_avg_rms vs run
χ^2 / ndf 6743 / 80
p0 375.2 ± 0.2998
440
420
400
380
360
340
320

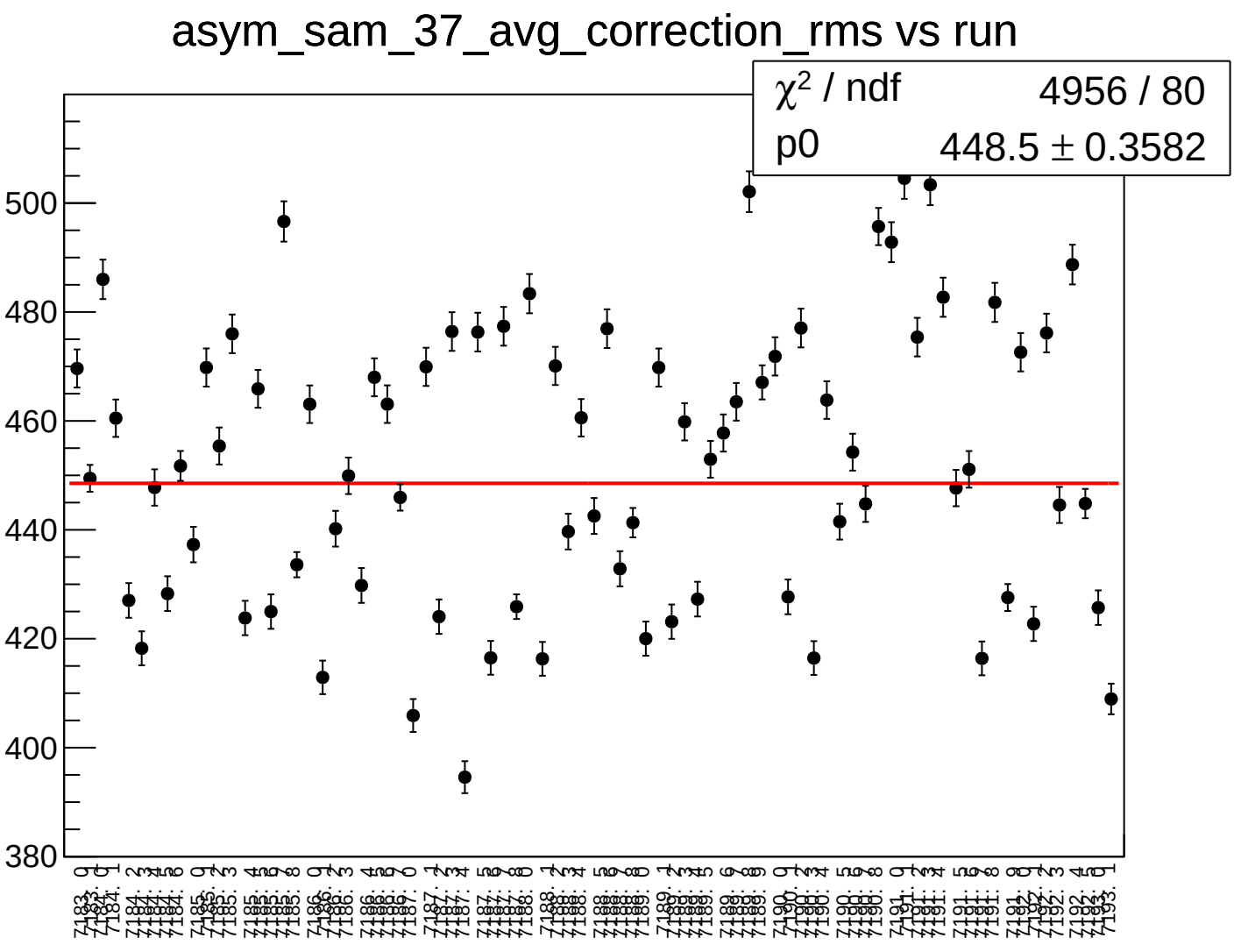

reg_asym_sam_37_avg_mean vs run
χ^2 / ndf 82.3 / 80
p0 51.86 ± 60.66
2000
1000
0
−1000
−2000
pull
Entries 81
Mean −137.8
Std Dev 180.1
2
1
0
−1
−2
−3

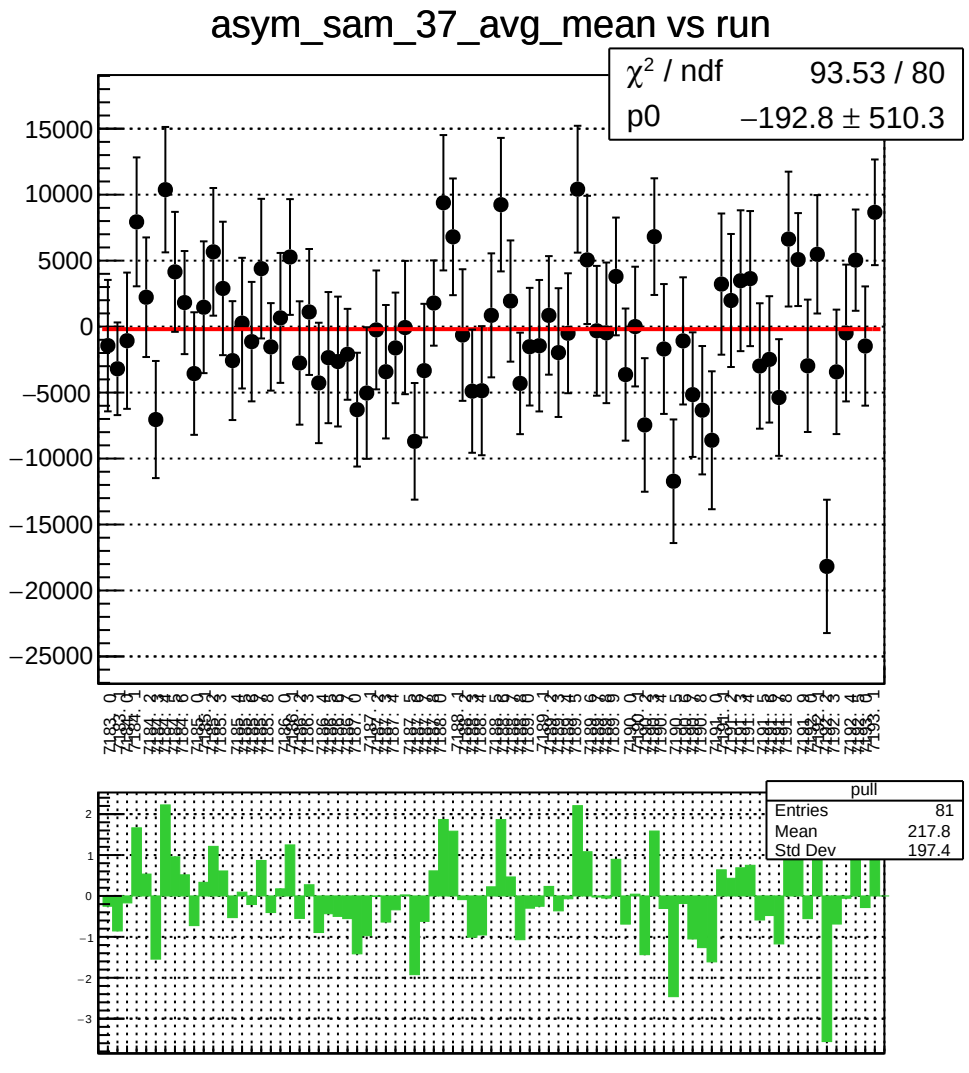

pull1D
Entries 81
Mean −0.01071
Std Dev 1.008
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

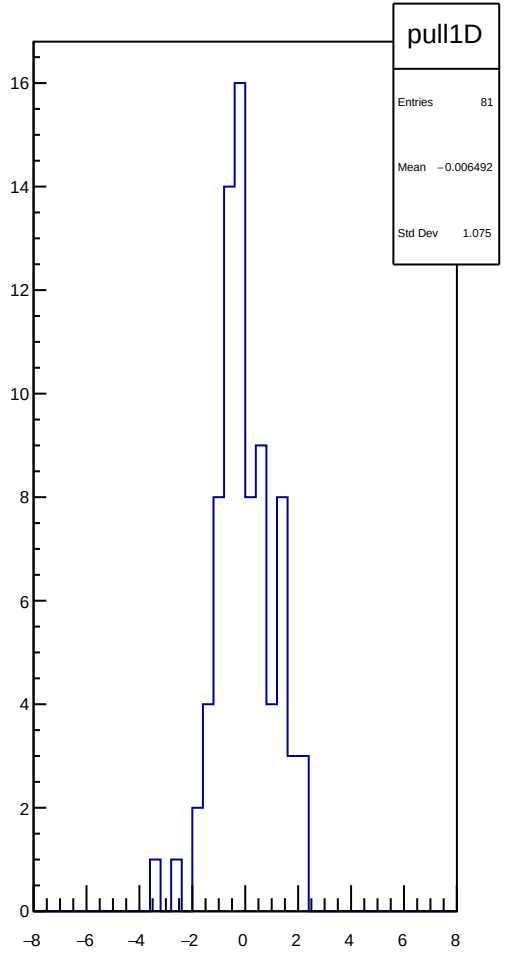

reg_asym_sam_37_avg_rms vs run
χ^2 / ndf 6551 / 80
p0 53.68 ± 0.04289
75
70
65
60
55
50

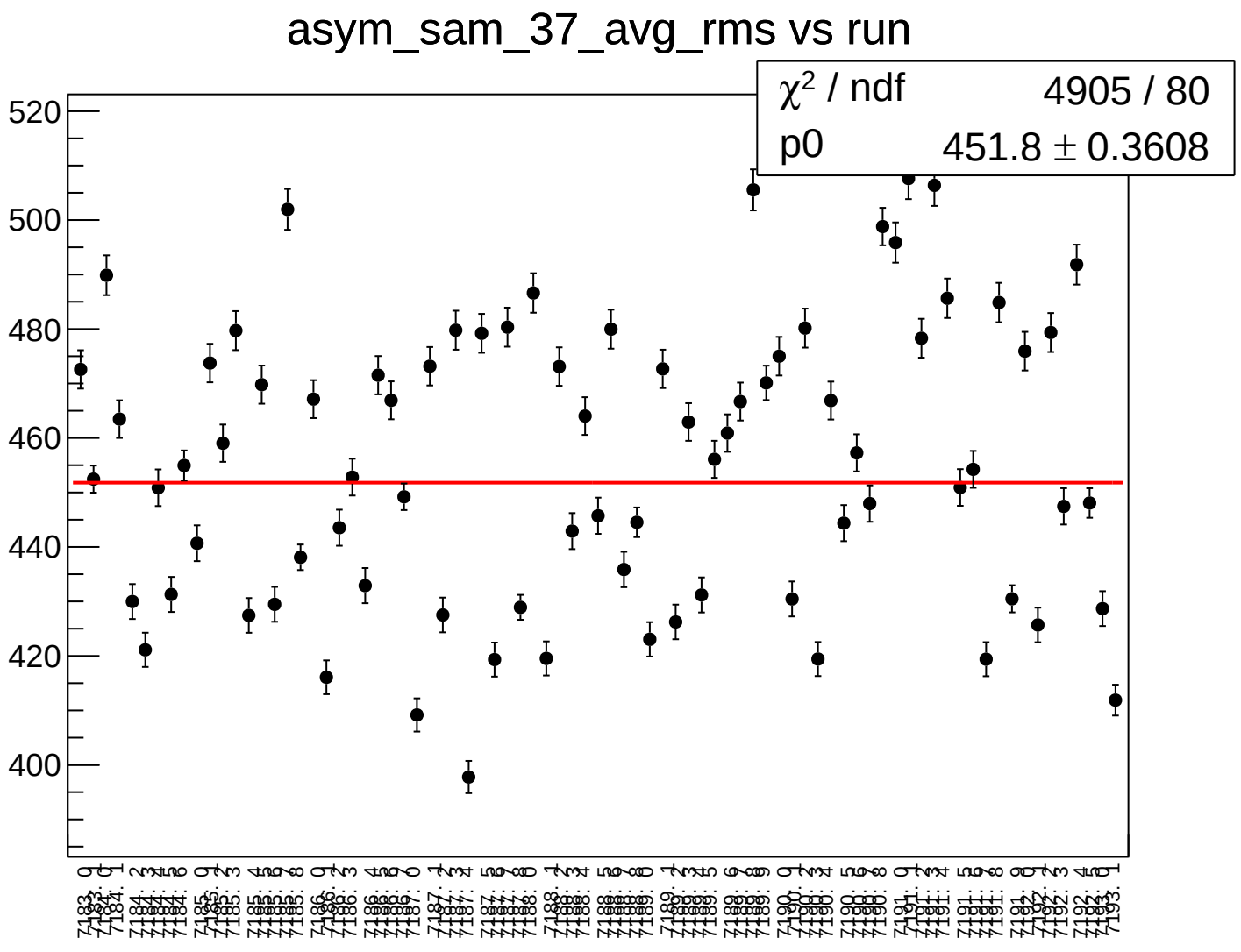

asym_sam_37_avg_correction_mean vs run
χ² / ndf 95.73 / 80
p0 240.2 ± 506.6
pull
Entries 81
Mean 286.7
Std Dev 263

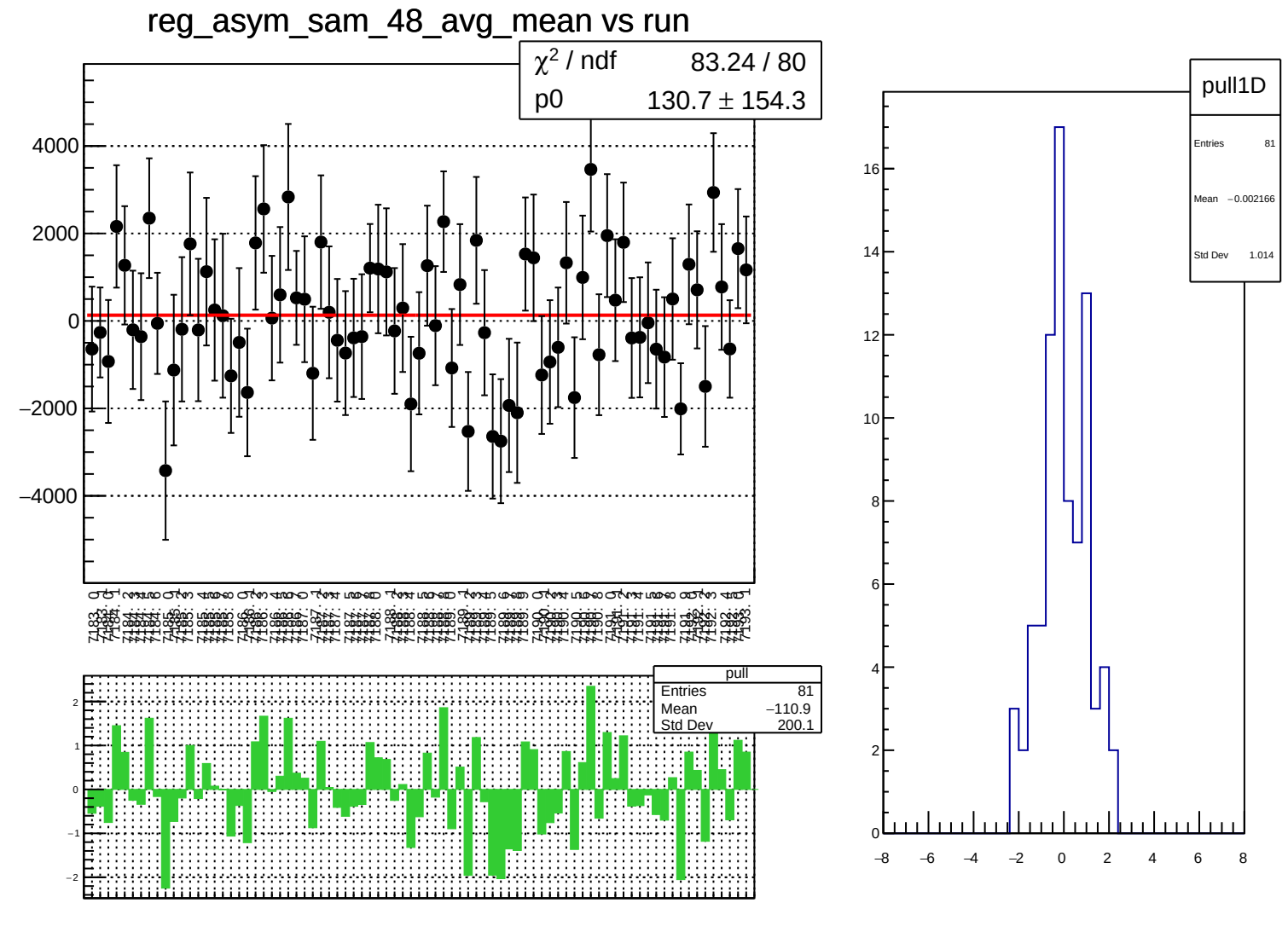

pull1D
Entries 81
Mean 0.005711
Std Dev 1.087

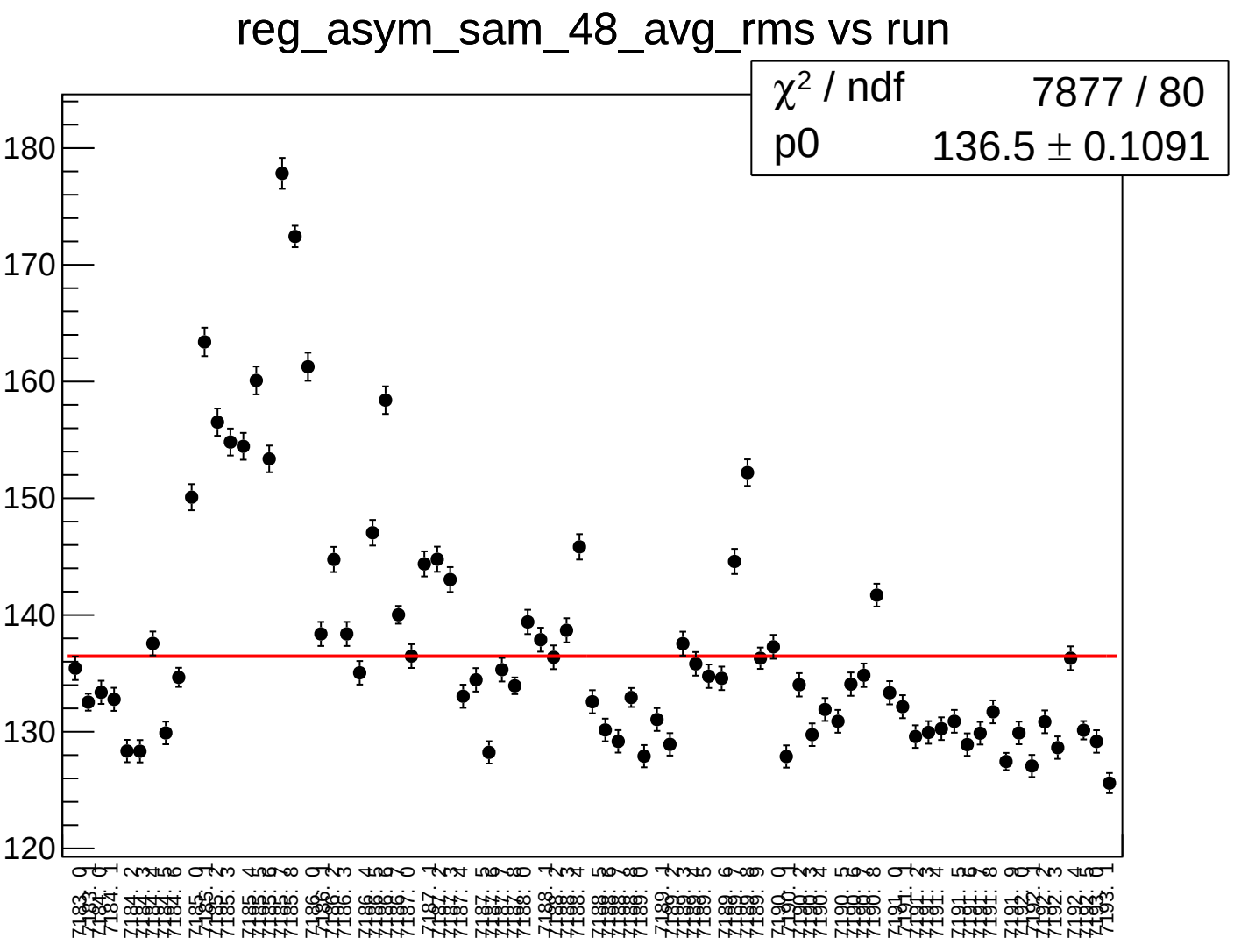

asym_sam_37_avg_correction_rms vs run
χ² / ndf 4956 / 80
p0 448.5 ± 0.3582
500
480
460
440
420
400
380

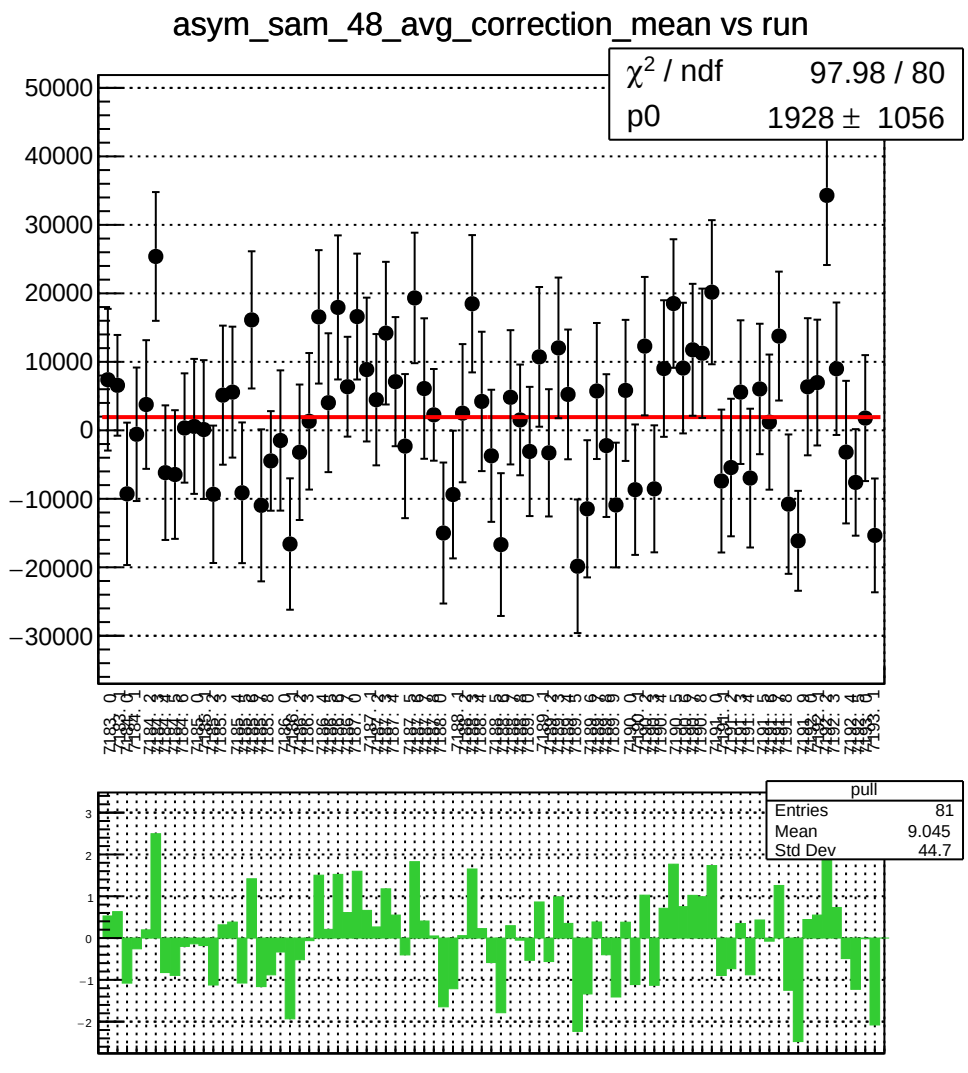

asym_sam_37_avg_mean vs run
χ² / ndf 93.53 / 80
p0 −192.8 ± 510.3
15000
10000
5000
0
−5000
−10000
−15000
−20000
−25000
pull
Entries 81
Mean 217.8
Std Dev 197.4
2
1
0
−1
−2
−3

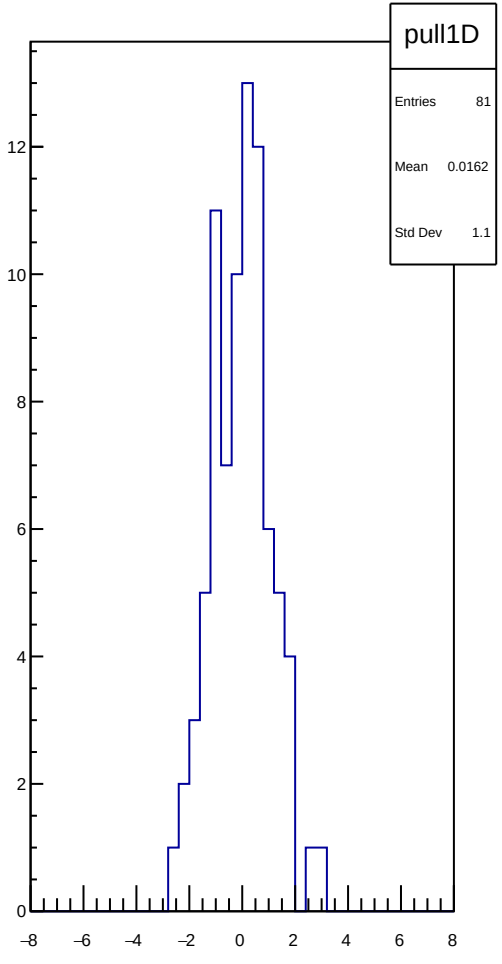

pull1D
Entries 81
Mean −0.006492
Std Dev 1.075
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

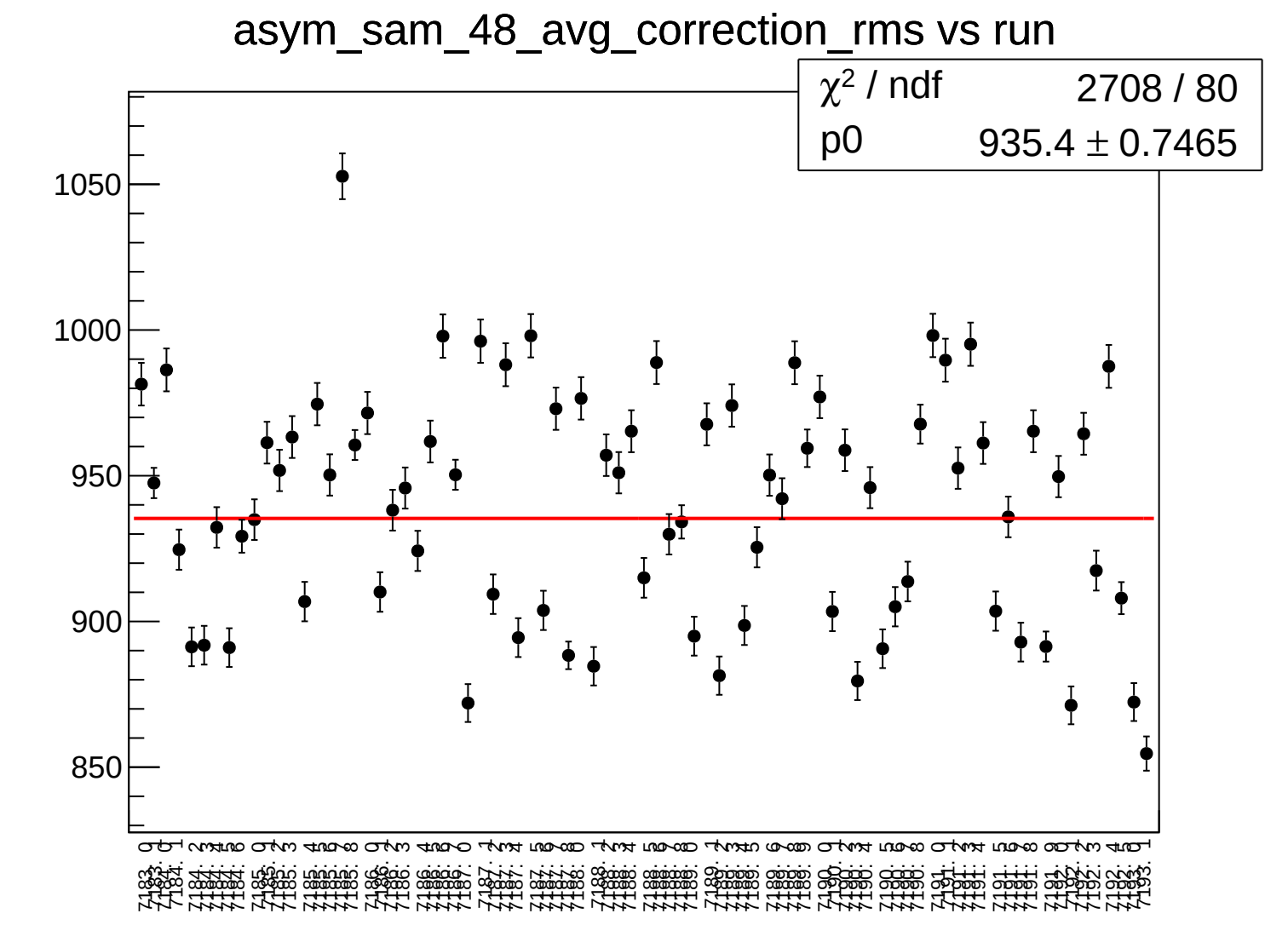

asym_sam_37_avg_rms vs run
χ² / ndf 4905 / 80
p0 451.8 ± 0.3608
520
500
480
460
440
420
400

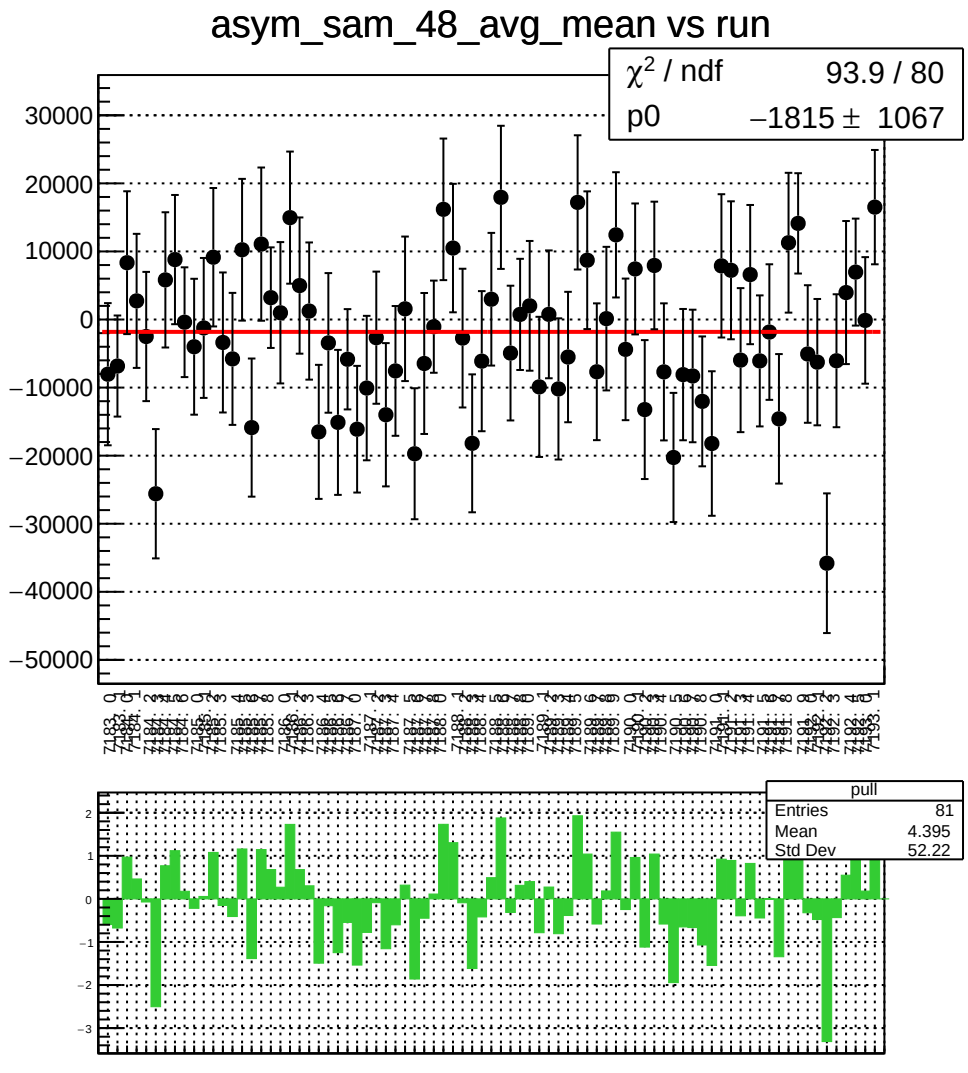

reg_asym_sam_48_avg_mean vs run
χ² / ndf 83.24 / 80
p0 130.7 ± 154.3
4000
2000
0
−2000
−4000
pull
Entries 81
Mean −110.9
Std Dev 200.1
2
1
0
−1
−2
pull1D
Entries 81
Mean −0.002166
Std Dev 1.014
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

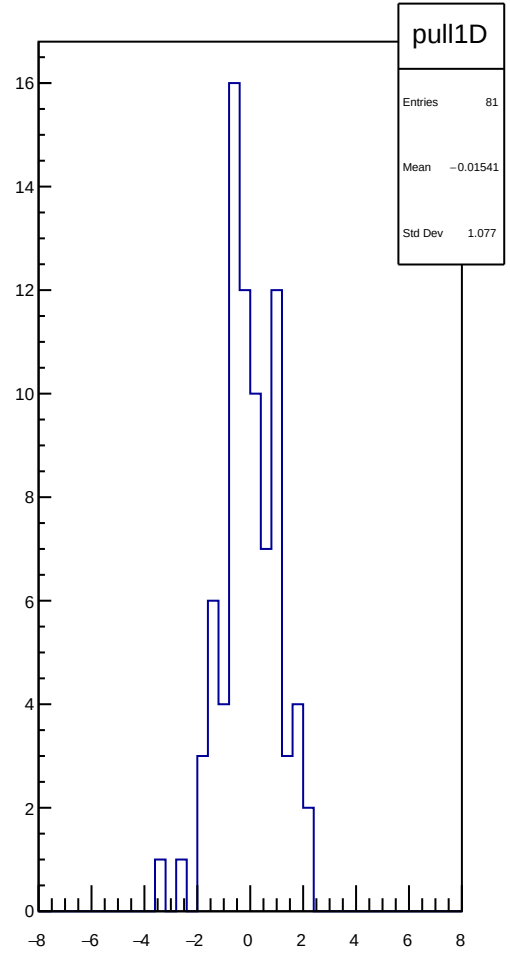

reg_asym_sam_48_avg_rms vs run
χ² / ndf 7877 / 80
p0 136.5 ± 0.1091
180
170
160
150
140
130
120

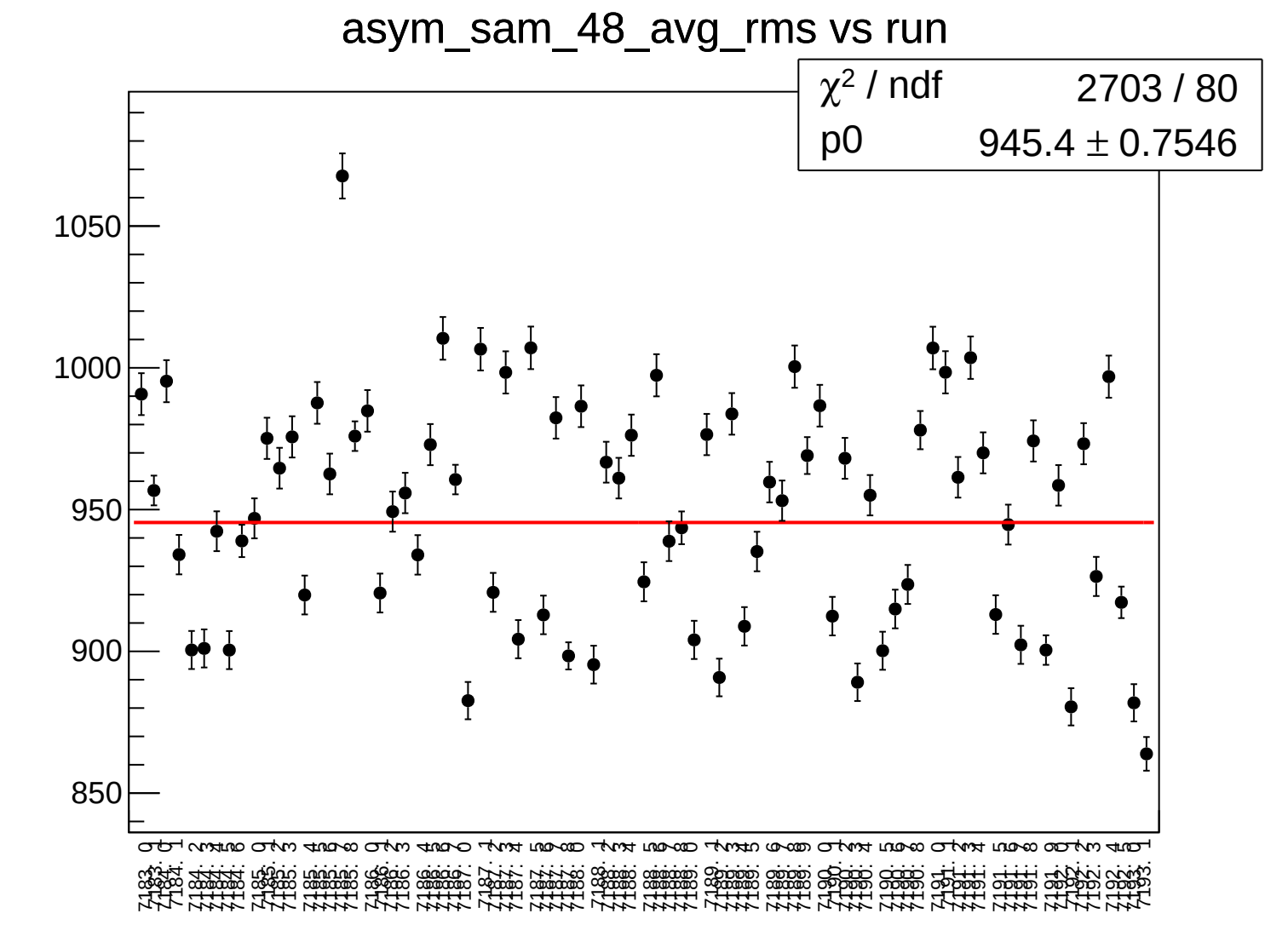

asym_sam_48_avg_correction_mean vs run
χ² / ndf 97.98 / 80
p0 1928 ± 1056
pull
Entries 81
Mean 9.045
Std Dev 44.7

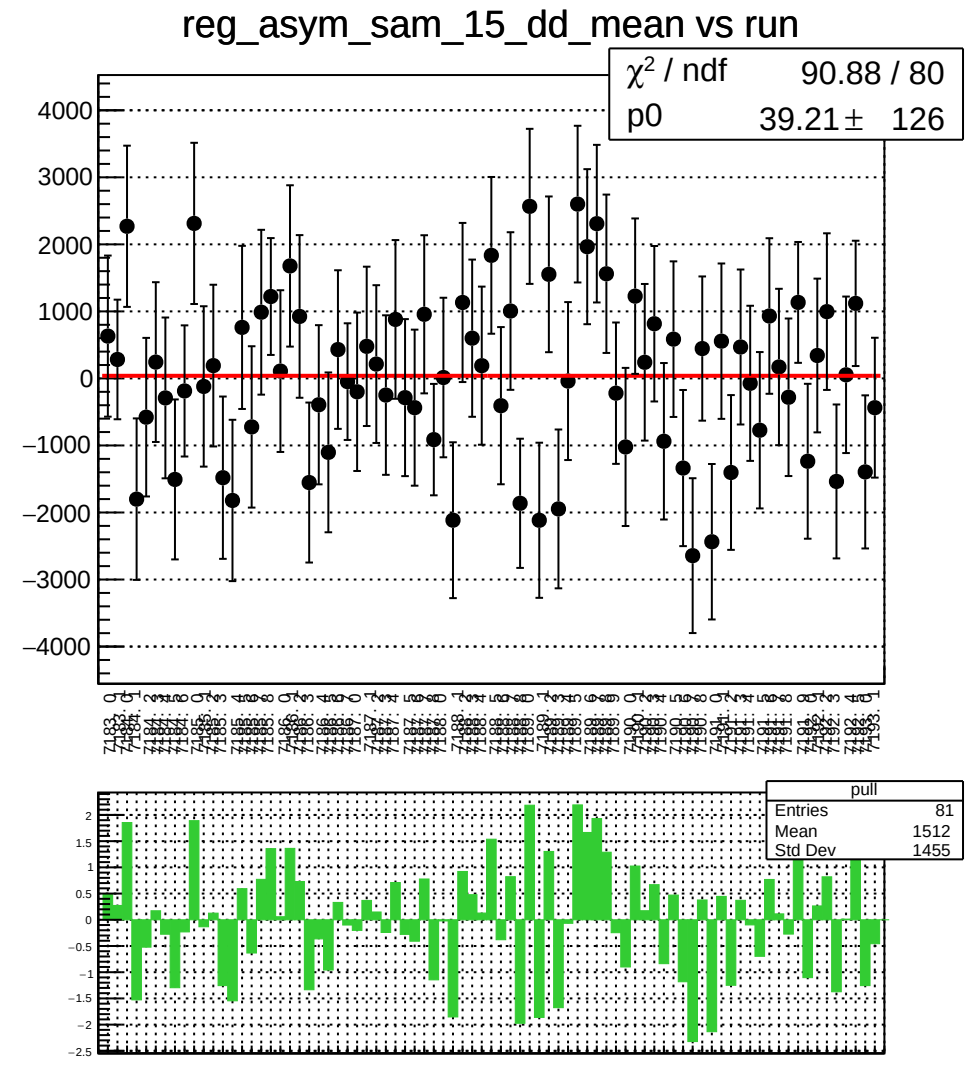

pull1D
Entries 81
Mean 0.0162
Std Dev 1.1

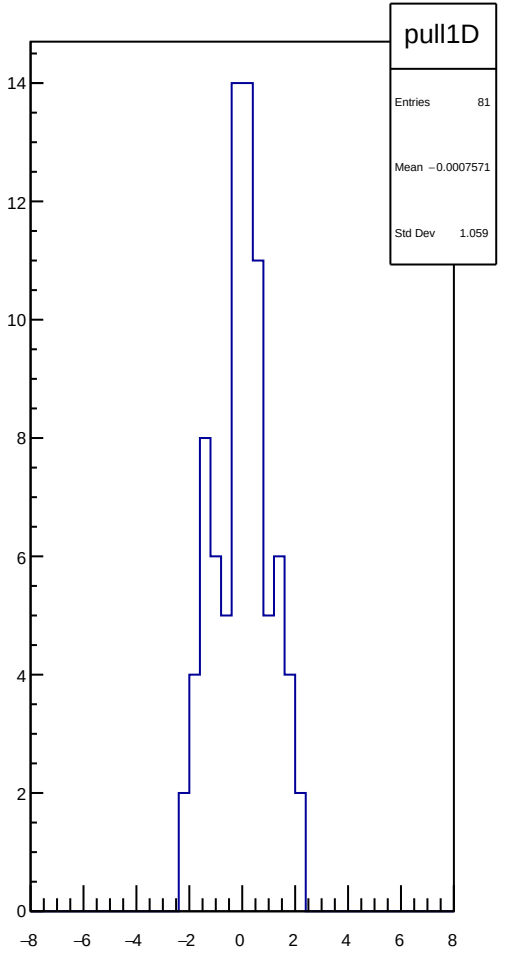

asym_sam_48_avg_correction_rms vs run
χ² / ndf 2708 / 80
p0 935.4 ± 0.7465
1050
1000
950
900
850

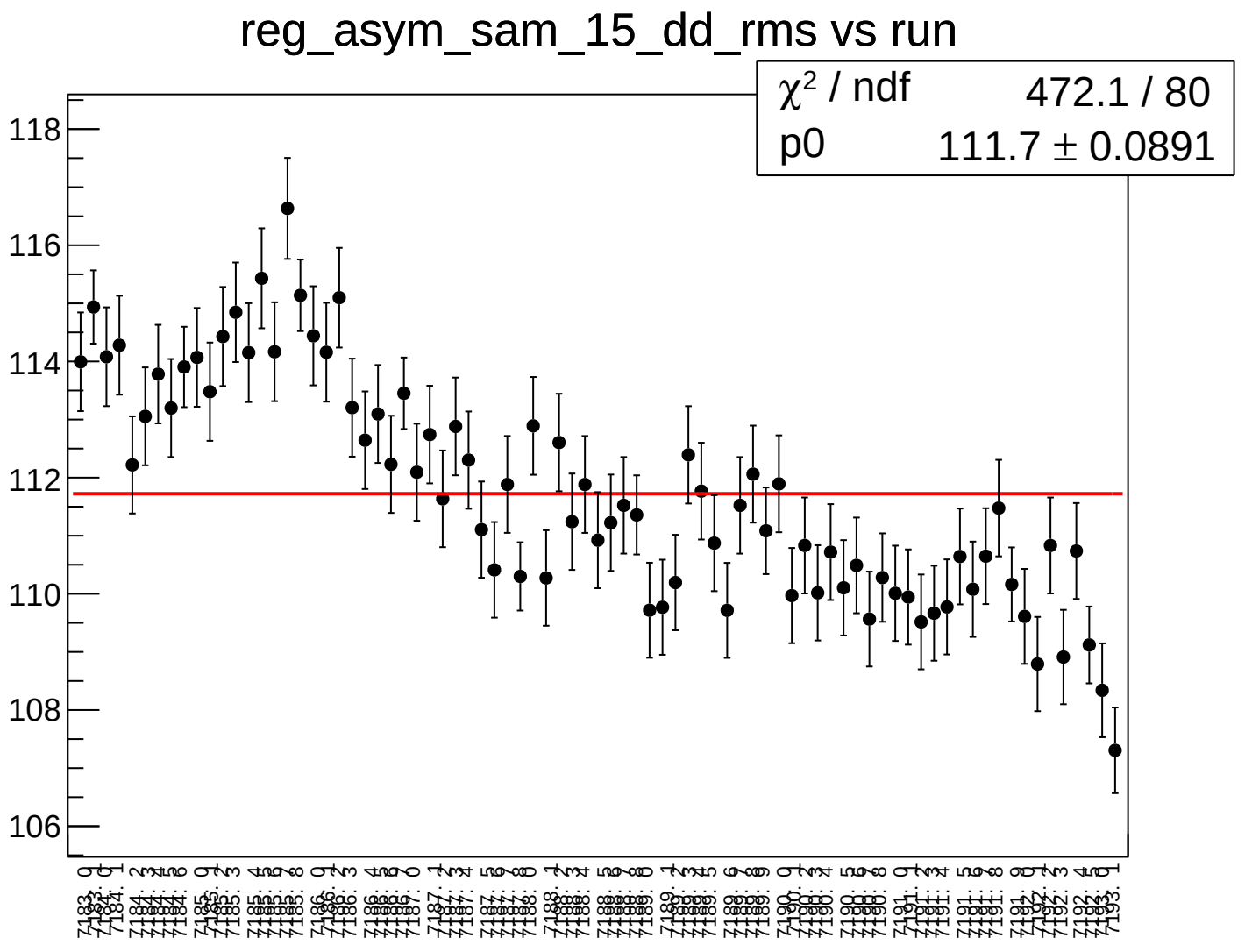

asym_sam_48_avg_mean vs run
χ² / ndf 93.9 / 80
p0 −1815 ± 1067
pull
Entries 81
Mean 4.395
Std Dev 52.22

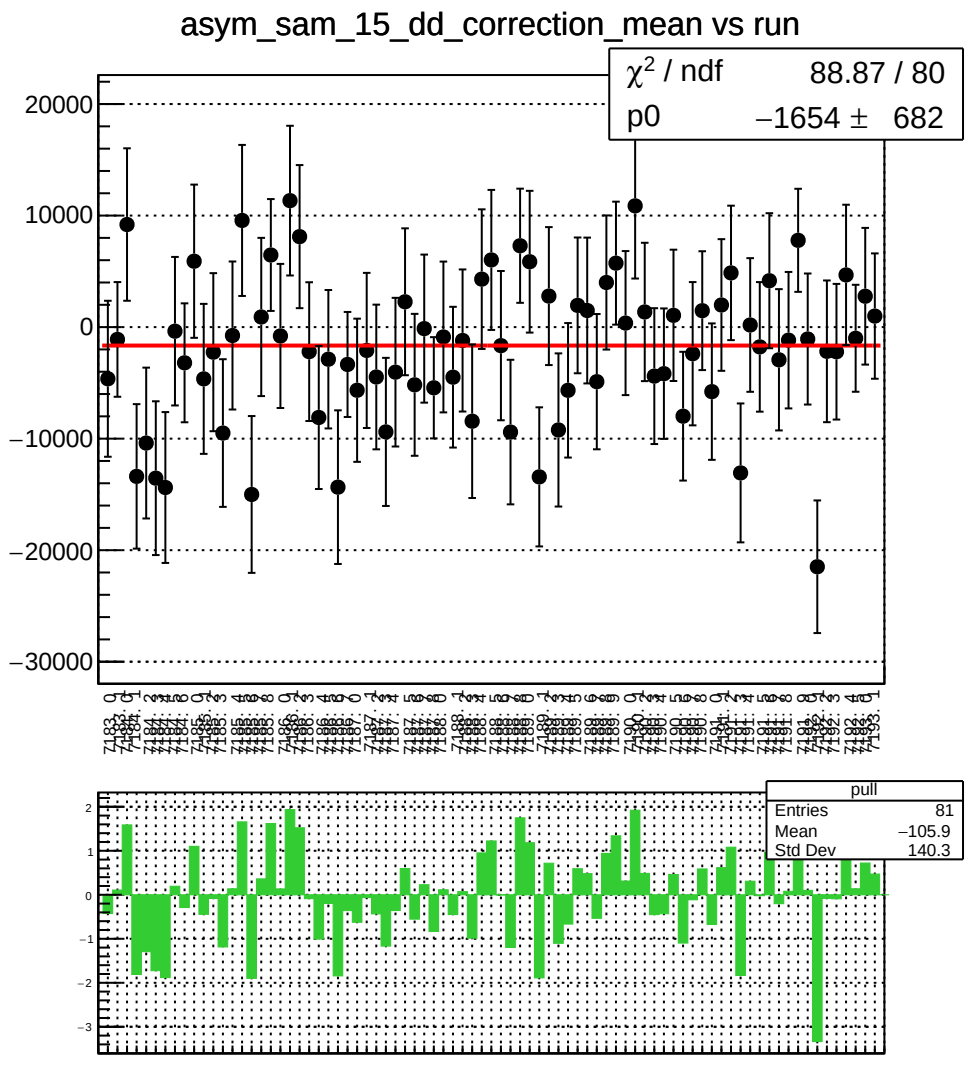

pull1D
Entries 81
Mean −0.01541
Std Dev 1.077

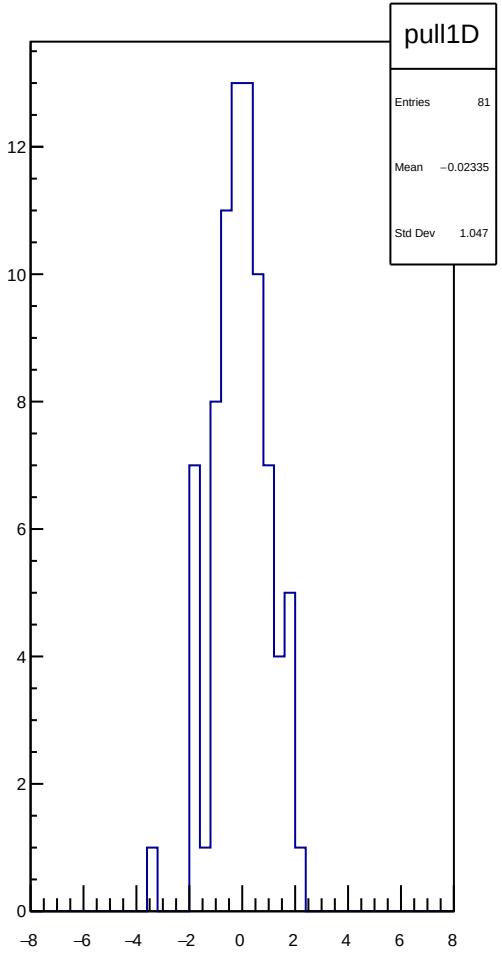

asym_sam_48_avg_rms vs run
χ² / ndf 2703 / 80
p0 945.4 ± 0.7546
1050
1000
950
900
850

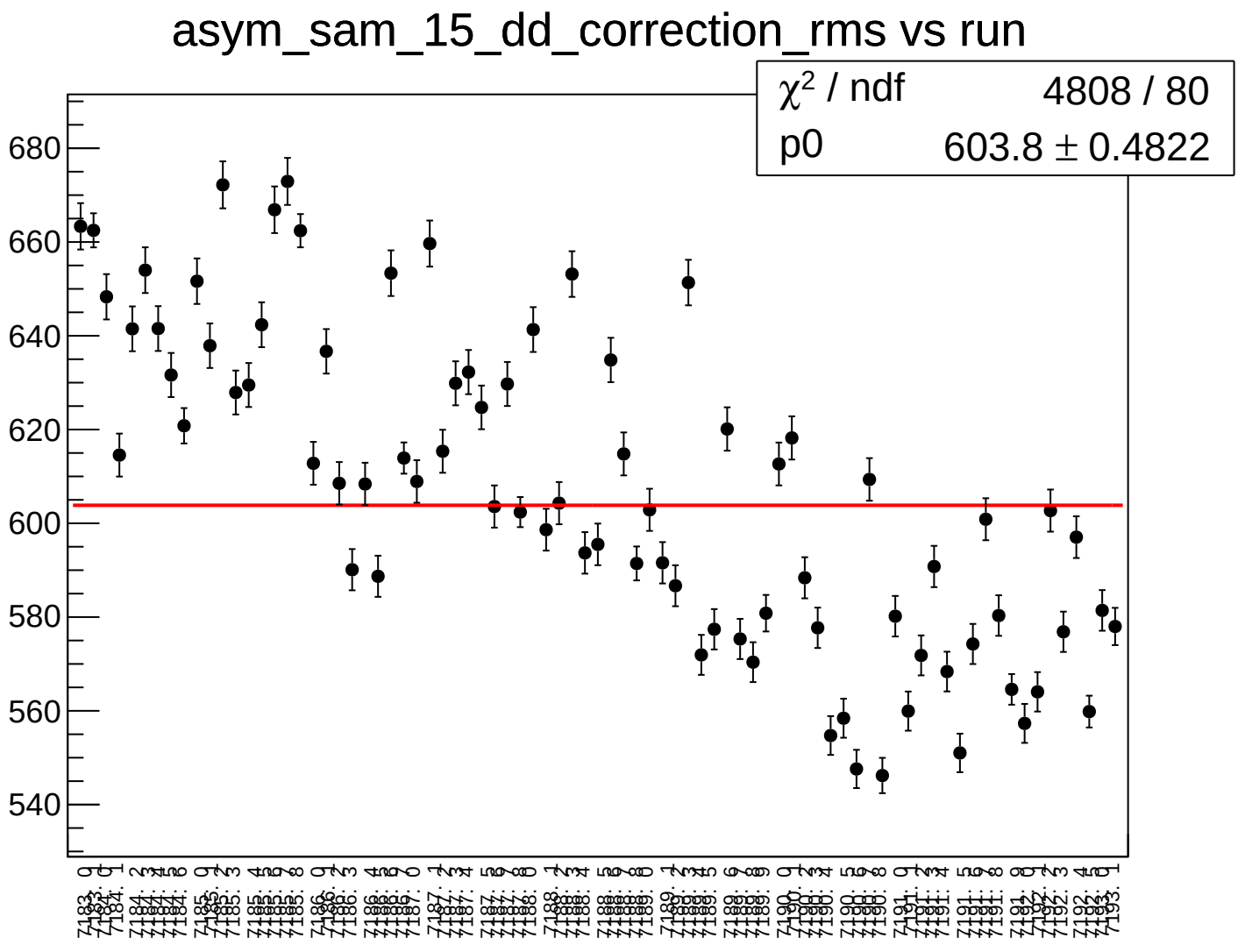

reg_asym_sam_15_dd_mean vs run
χ² / ndf 90.88 / 80
p0 39.21 ± 126
pull
Entries 81
Mean 1512
Std Dev 1455

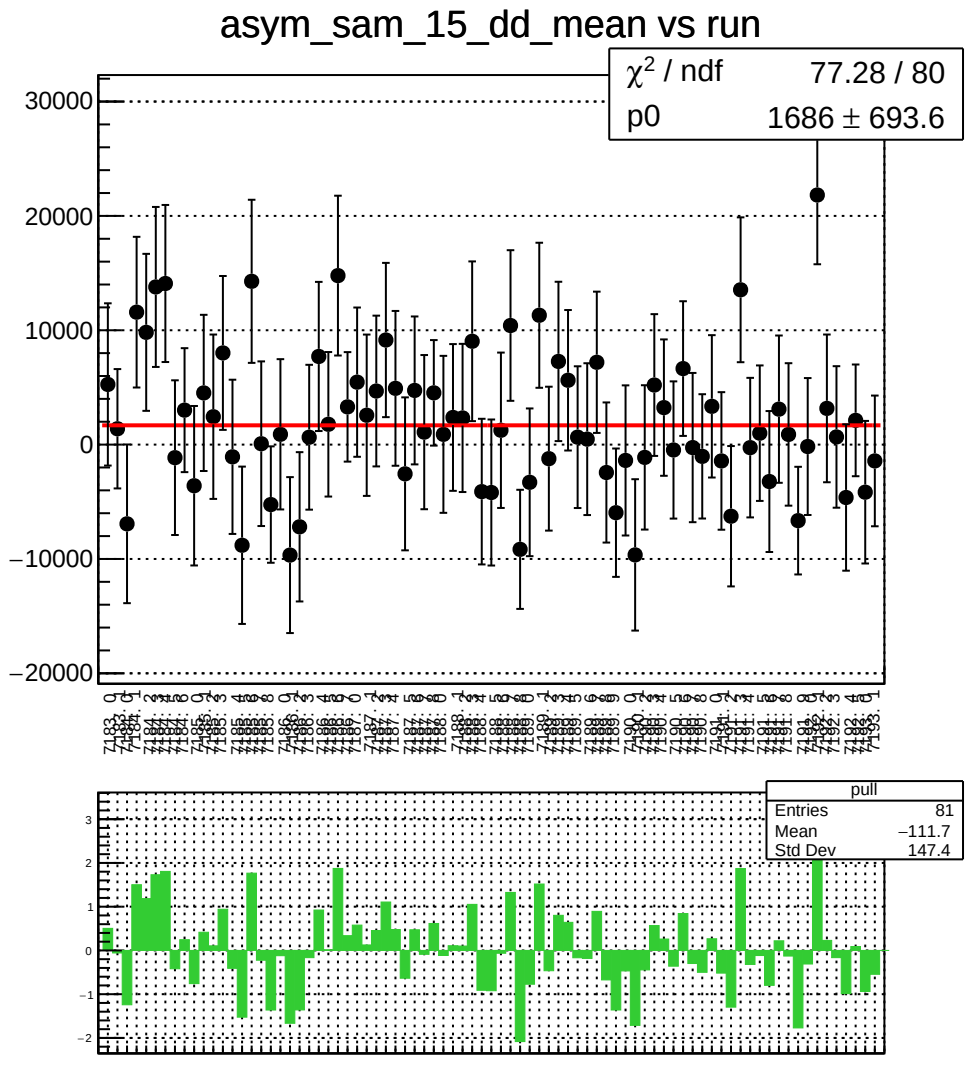

pull1D
Entries 81
Mean −0.0007571
Std Dev 1.059

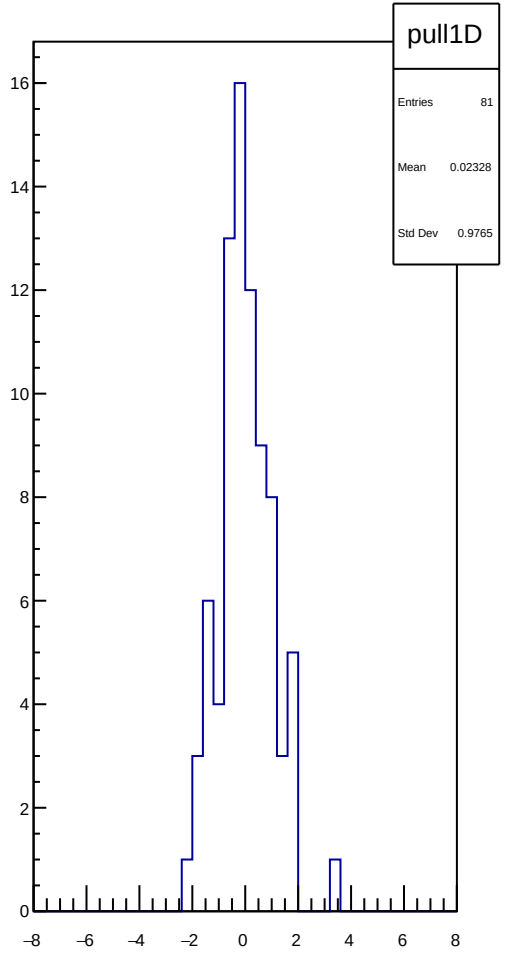

reg_asym_sam_15_dd_rms vs run
χ² / ndf 472.1 / 80
p0 111.7 ± 0.0891
118
116
114
112
110
108
106

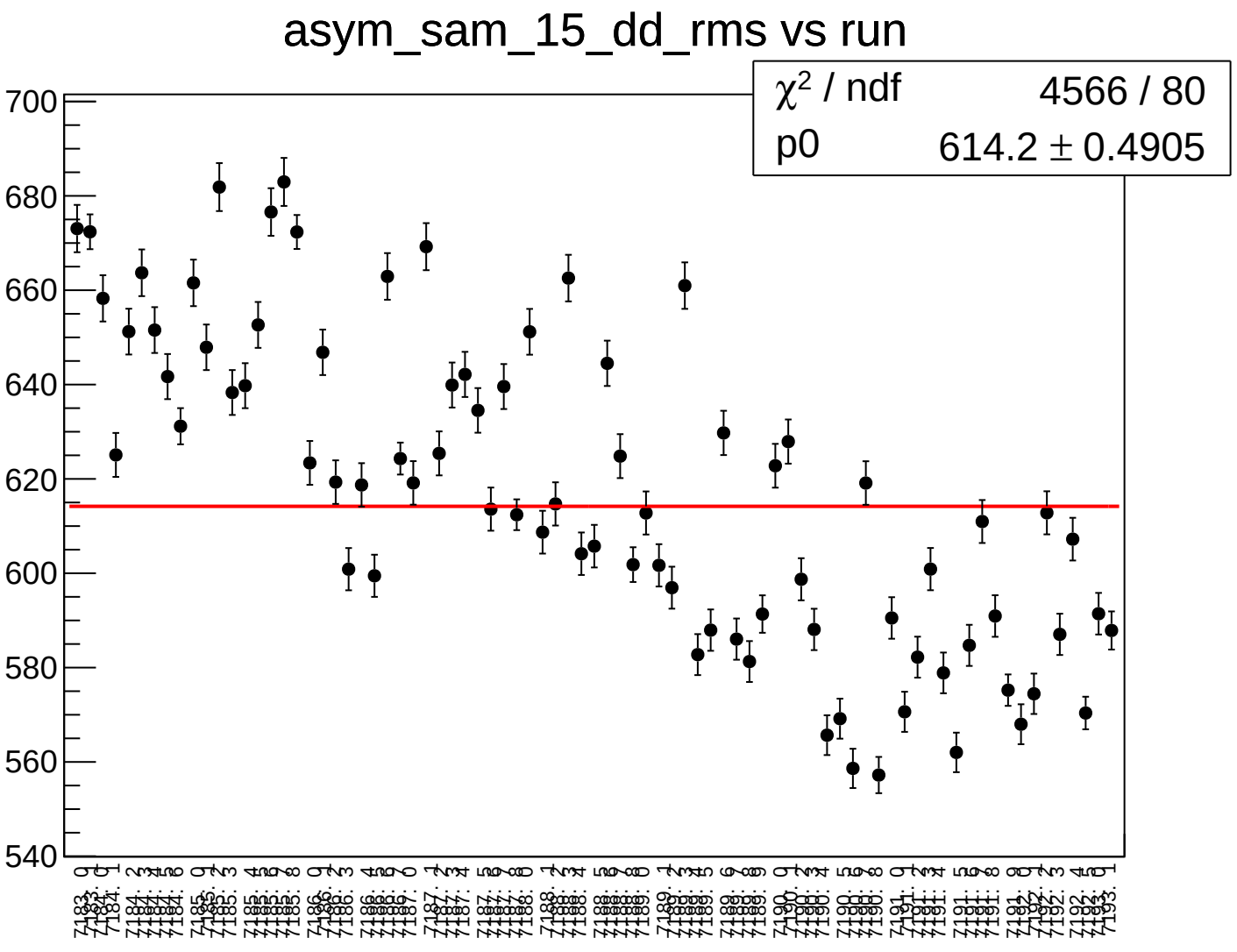

asym_sam_15_dd_correction_mean vs run
χ² / ndf 88.87 / 80
p0 −1654 ± 682
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean −105.9
Std Dev 140.3
2
1
0
−1
−2
−3

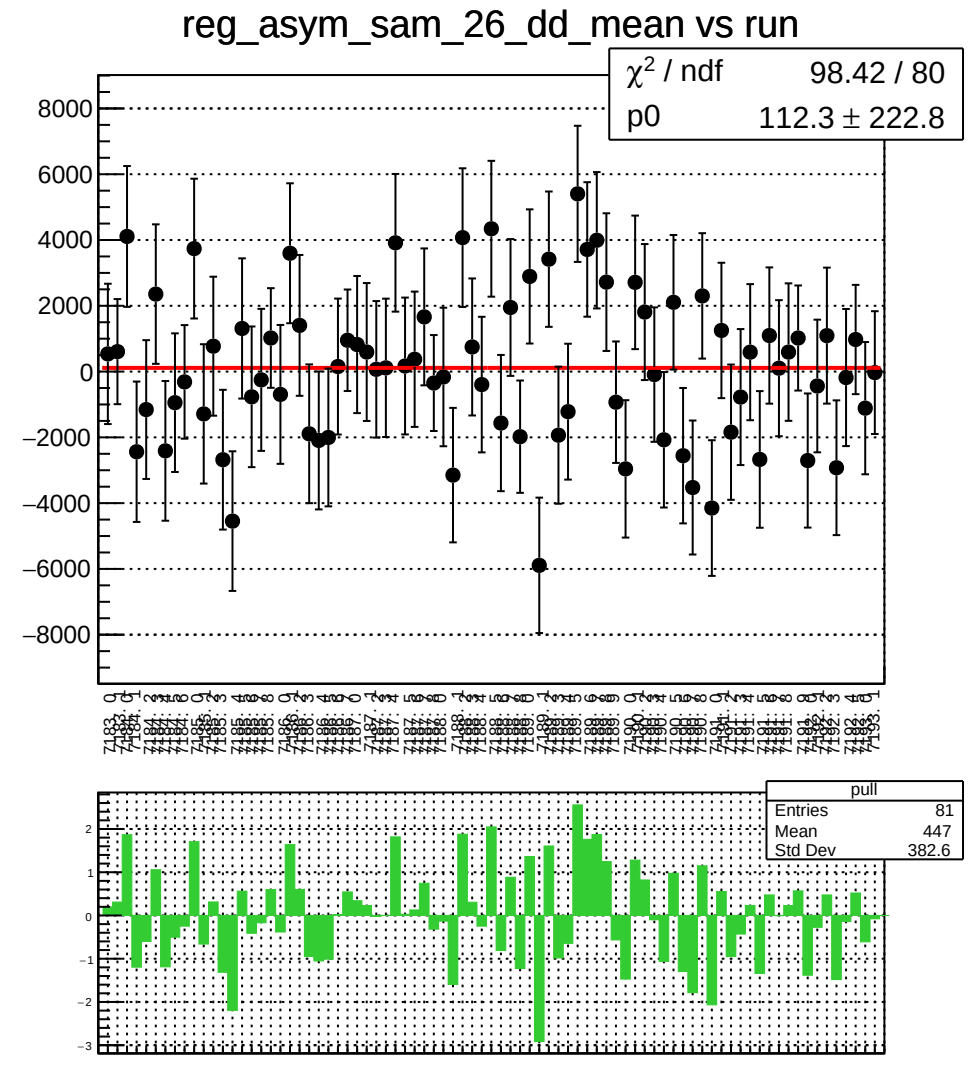

pull1D
Entries 81
Mean −0.02335
Std Dev 1.047
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

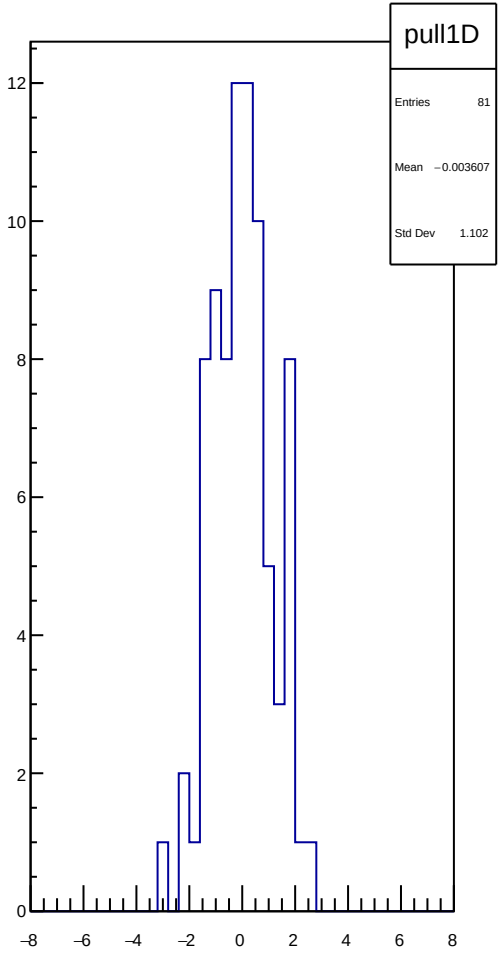

asym_sam_15_dd_correction_rms vs run
χ² / ndf 4808 / 80
p0 603.8 ± 0.4822
680
660
640
620
600
580
560
540

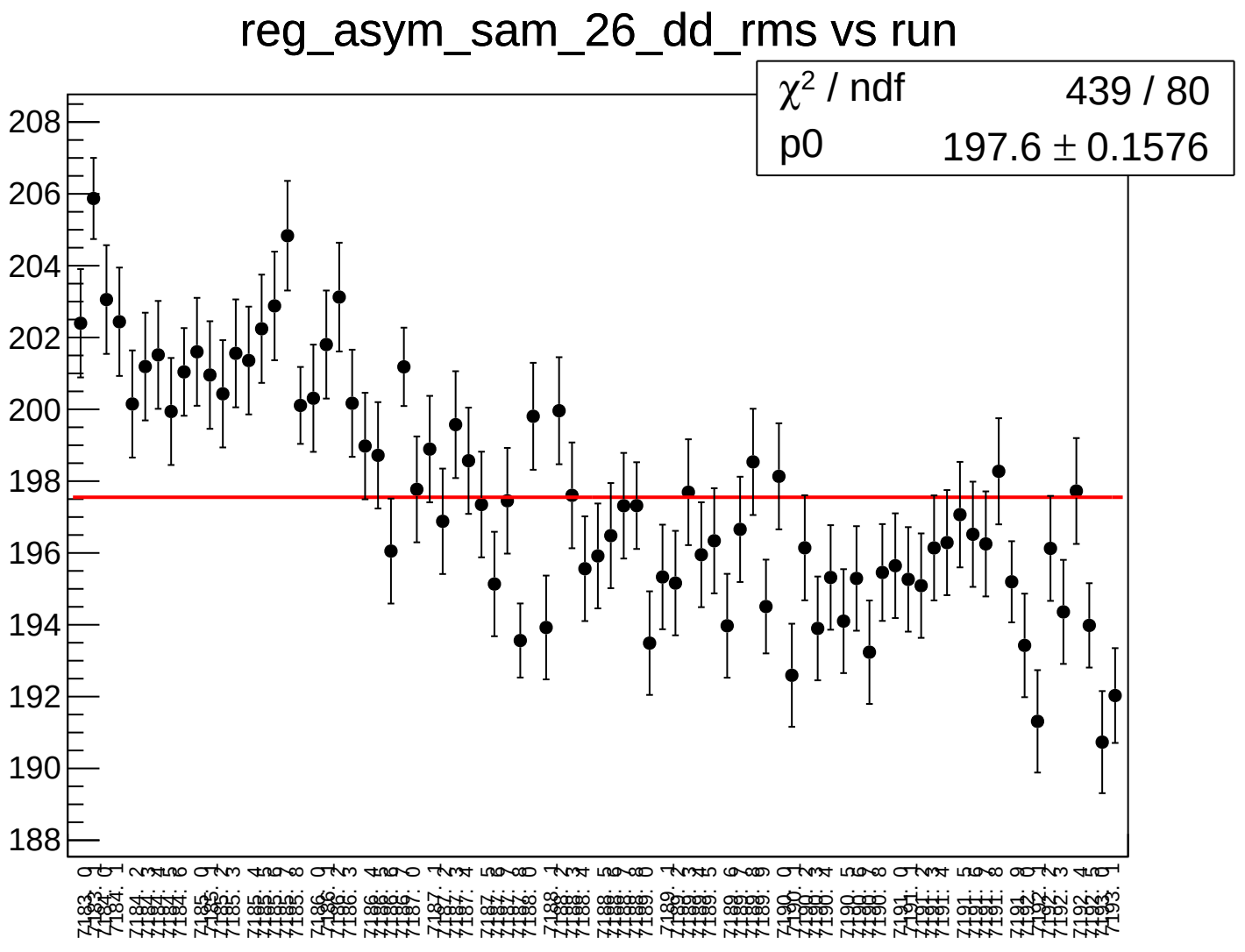

asym_sam_15_dd_mean vs run
χ² / ndf 77.28 / 80
p0 1686 ± 693.6
30000
20000
10000
0
−10000
−20000
pull
Entries 81
Mean −111.7
Std Dev 147.4
3
2
1
0
−1
−2

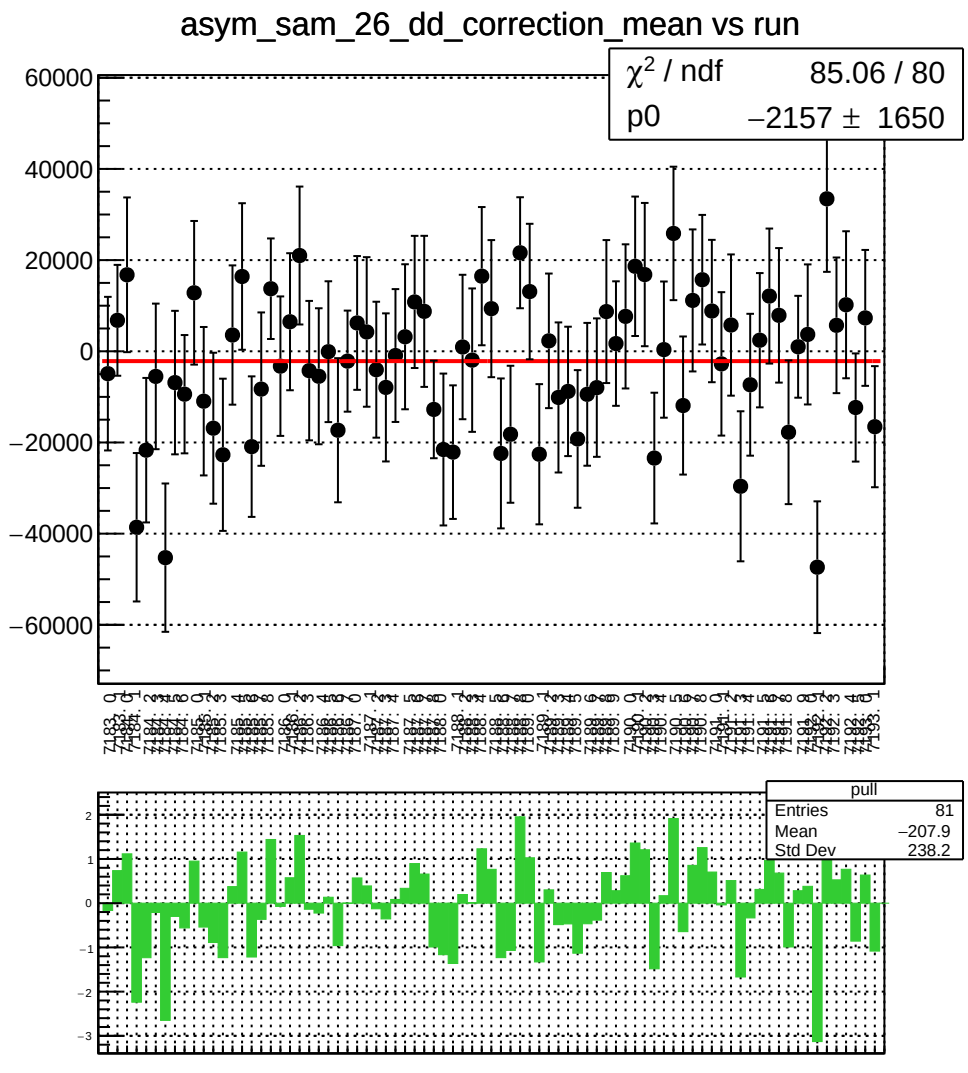

pull1D
Entries 81
Mean 0.02328
Std Dev 0.9765
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

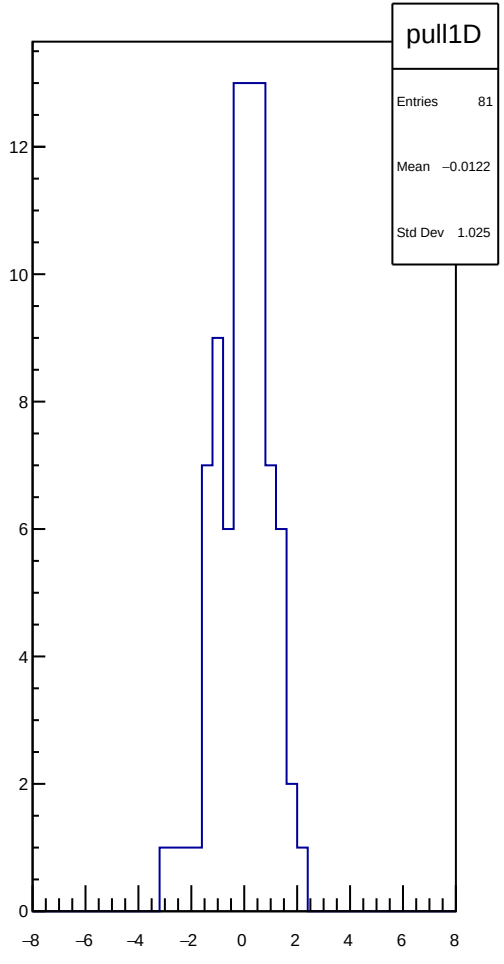

asym_sam_15_dd_rms vs run
χ² / ndf 4566 / 80
p0 614.2 ± 0.4905
700
680
660
640
620
600
580
560
540

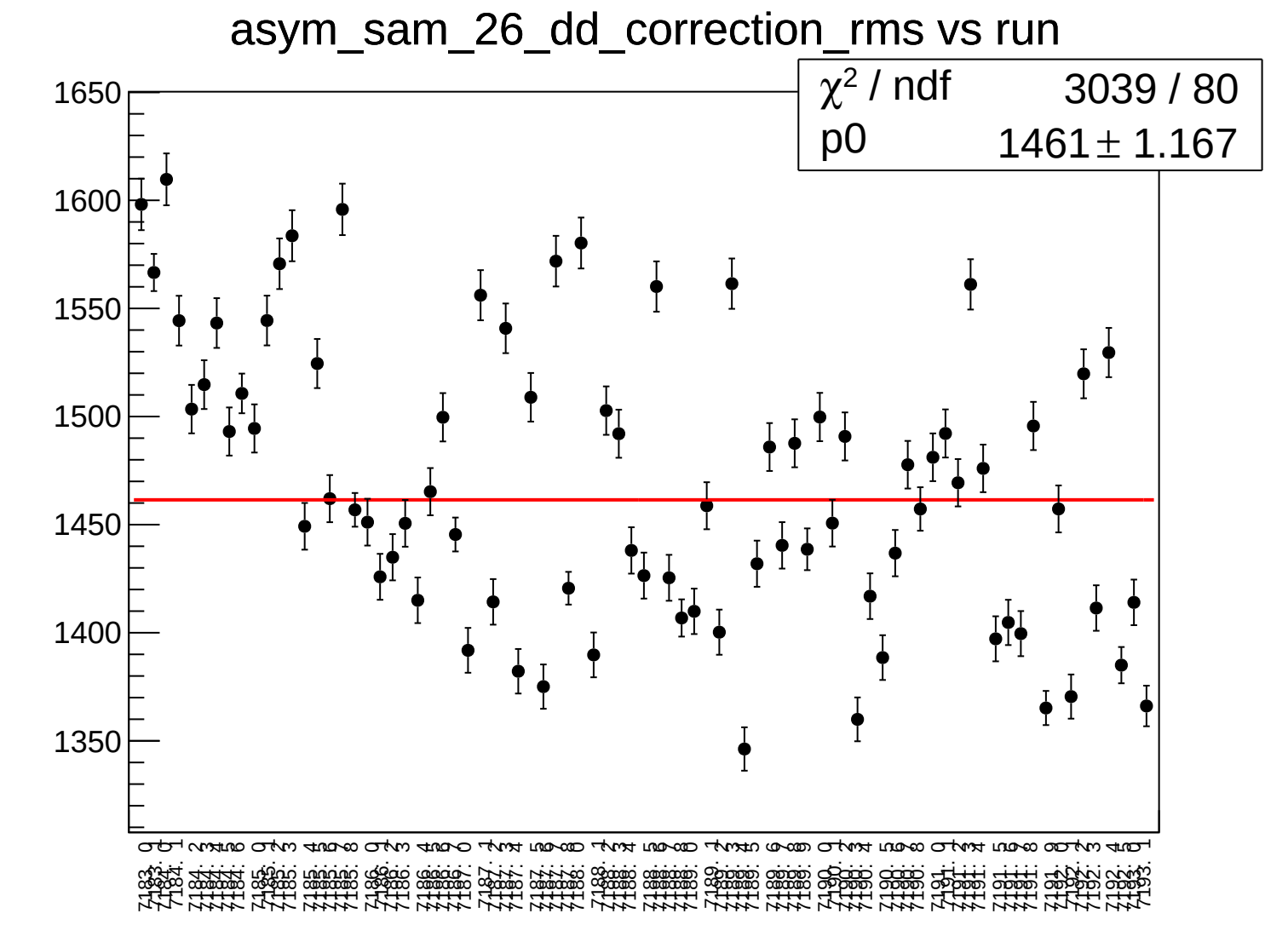

reg_asym_sam_26_dd_mean vs run
χ² / ndf 98.42 / 80
p0 112.3 ± 222.8
pull
Entries 81
Mean 447
Std Dev 382.6

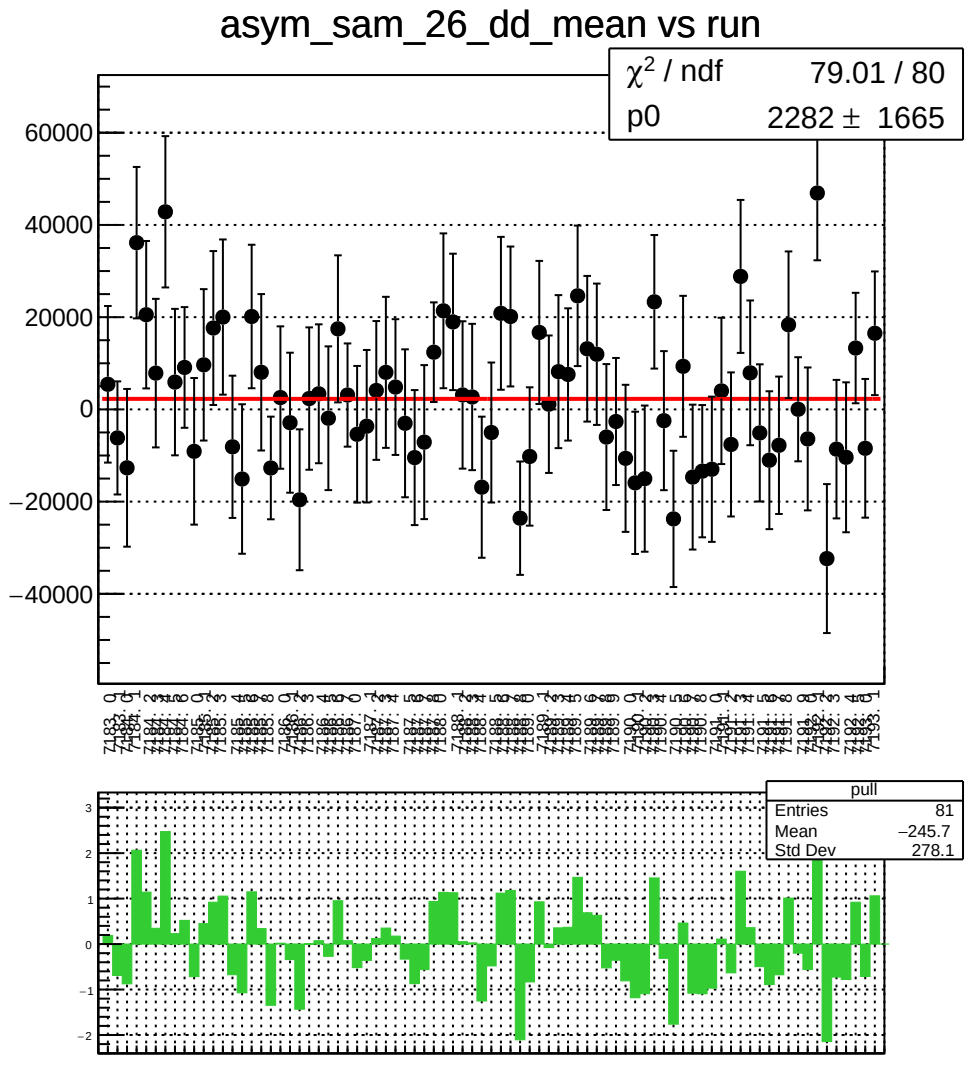

pull1D
Entries 81
Mean −0.003607
Std Dev 1.102

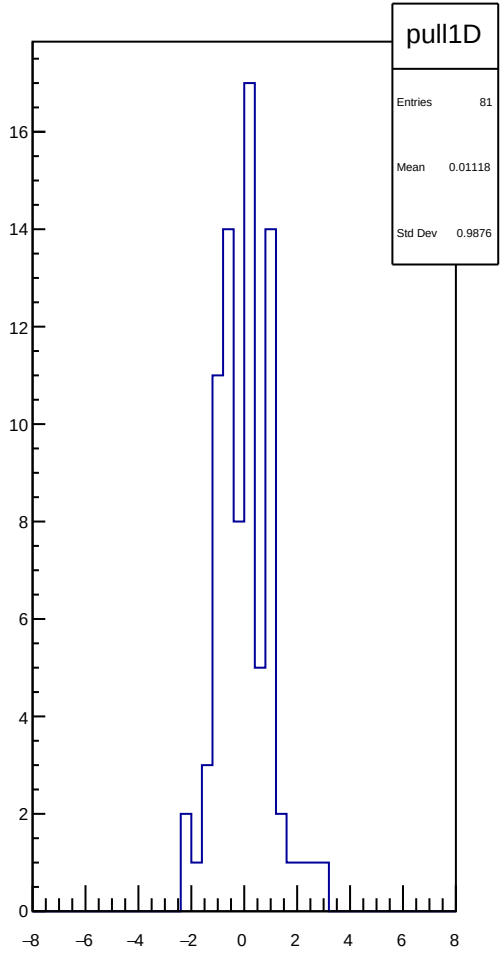

reg_asym_sam_26_dd_rms vs run
χ² / ndf 439 / 80
p0 197.6 ± 0.1576
208
206
204
202
200
198
196
194
192
190
188

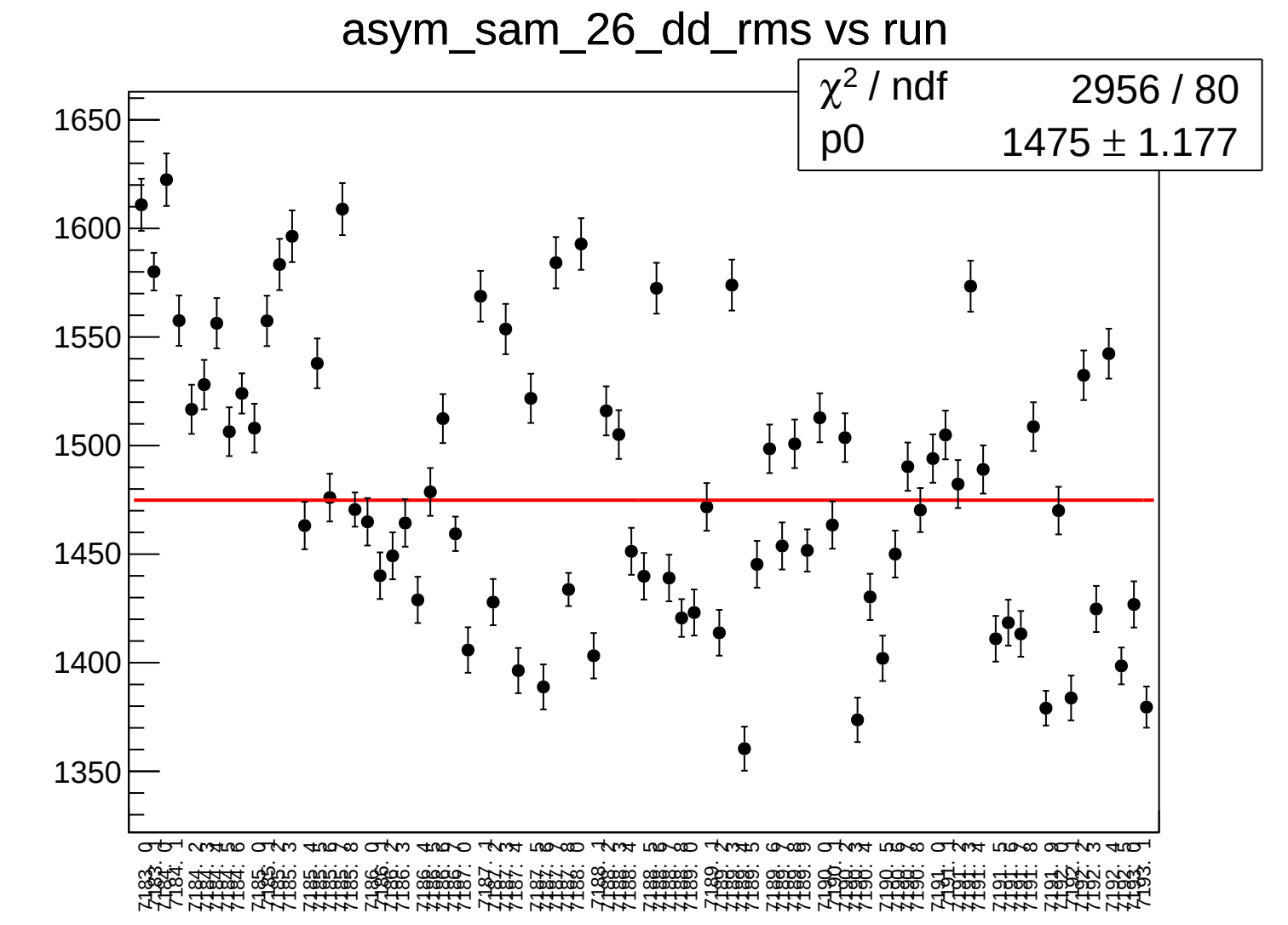

asym_sam_26_dd_correction_mean vs run
χ² / ndf 85.06 / 80
p0 −2157 ± 1650
60000
40000
20000
0
−20000
−40000
−60000
pull
Entries 81
Mean −207.9
Std Dev 238.2
2
1
0
−1
−2
−3

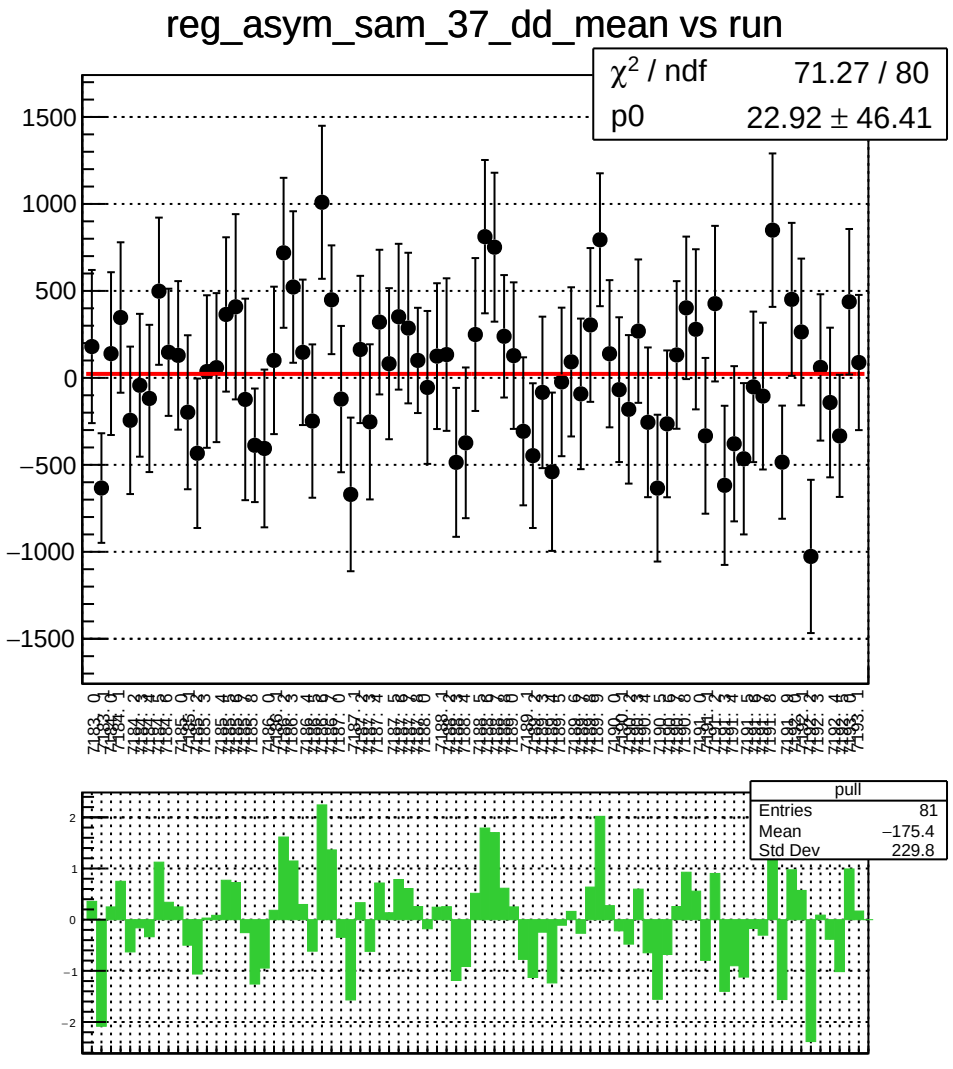

pull1D
Entries 81
Mean −0.0122
Std Dev 1.025
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

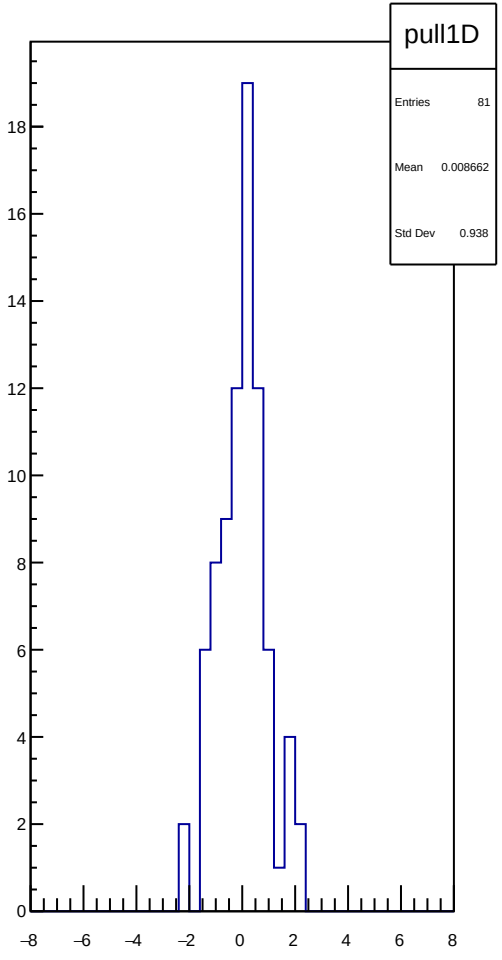

asym_sam_26_dd_correction_rms vs run
χ² / ndf 3039 / 80
p0 1461 ± 1.167
1650
1600
1550
1500
1450
1400
1350

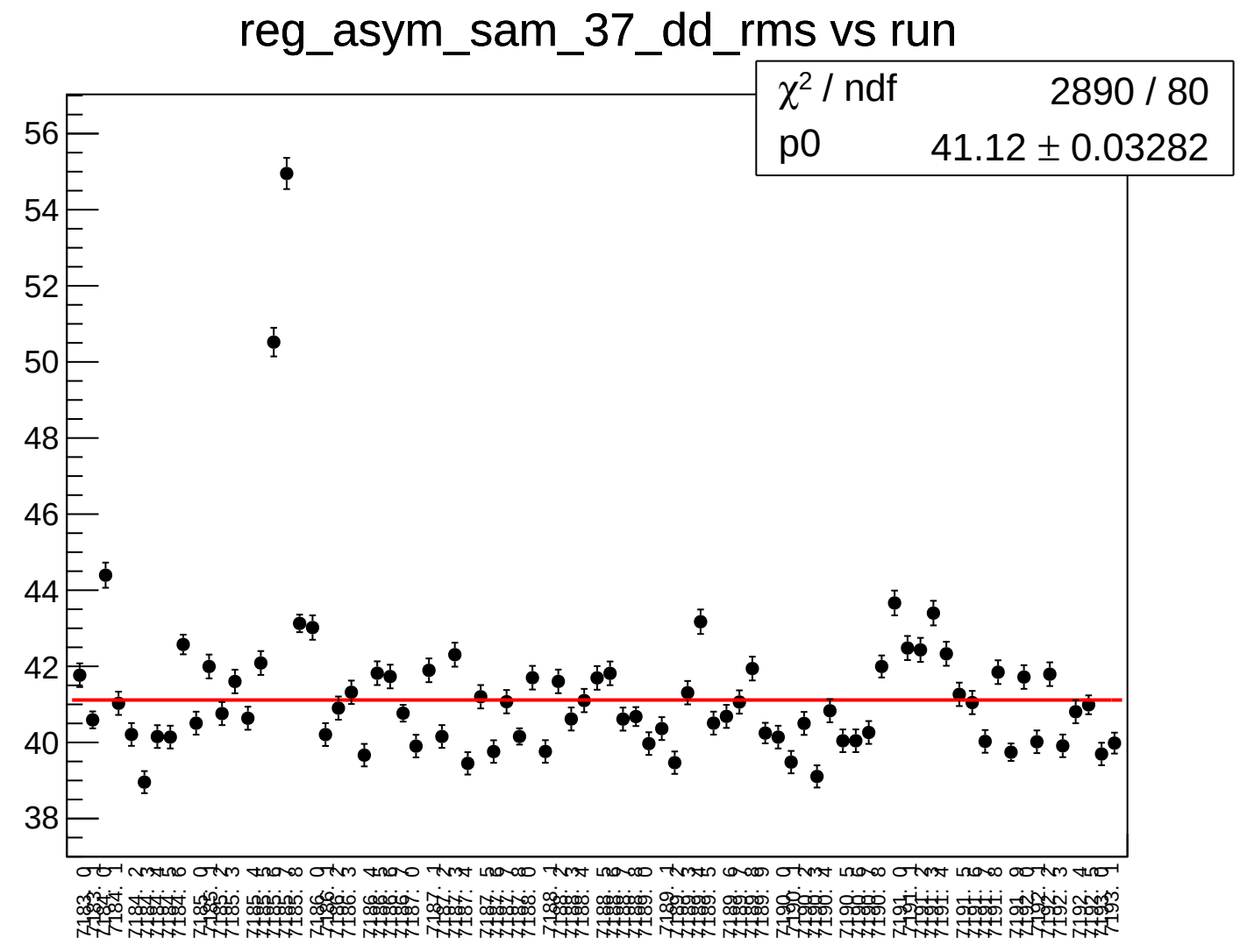

asym_sam_26_dd_mean vs run
χ² / ndf 79.01 / 80
p0 2282 ± 1665
60000
40000
20000
0
−20000
−40000
pull
Entries 81
Mean −245.7
Std Dev 278.1
3
2
1
0
−1
−2

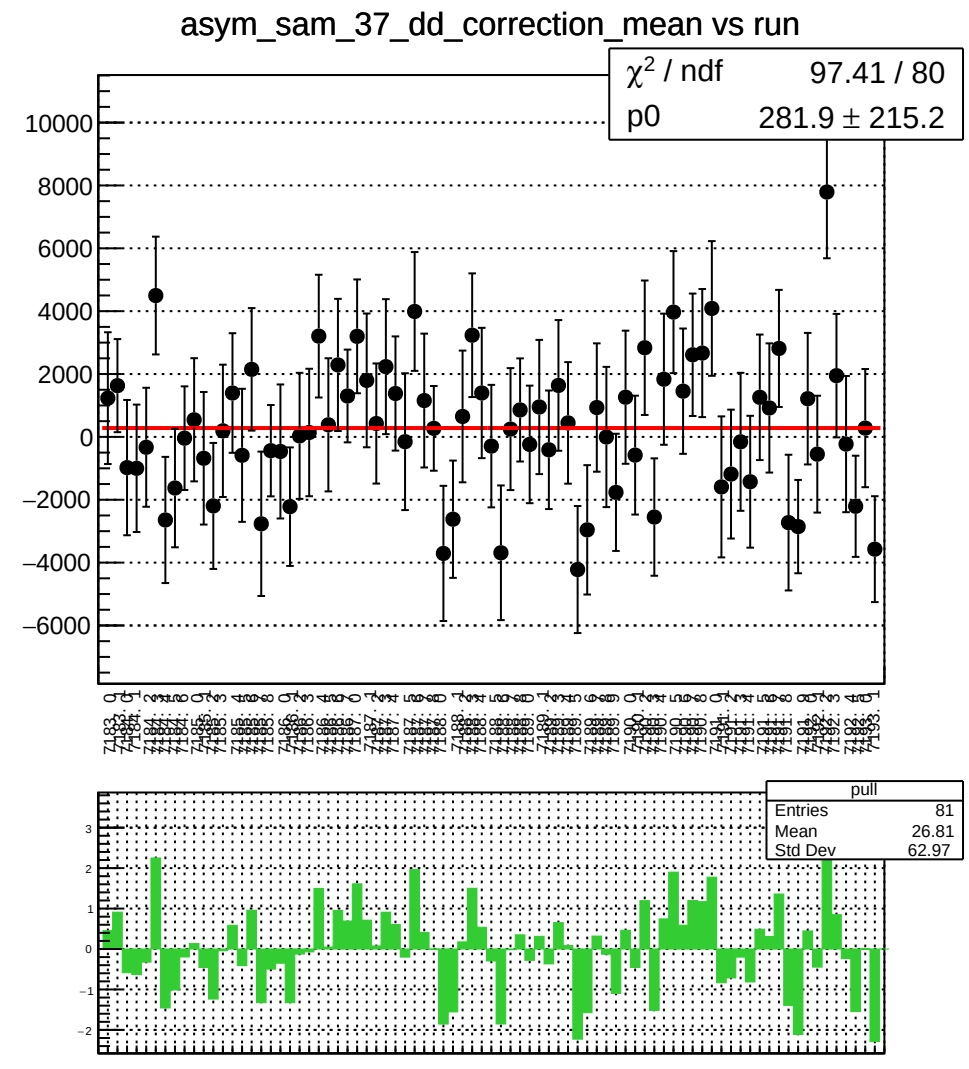

pull1D
Entries 81
Mean 0.01118
Std Dev 0.9876
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

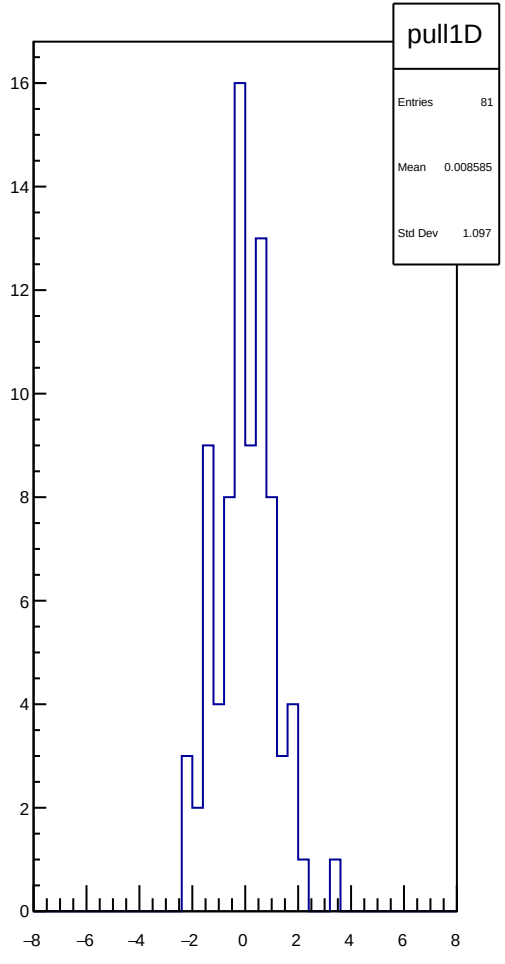

asym_sam_26_dd_rms vs run
χ² / ndf 2956 / 80
p0 1475 ± 1.177
1650
1600
1550
1500
1450
1400
1350

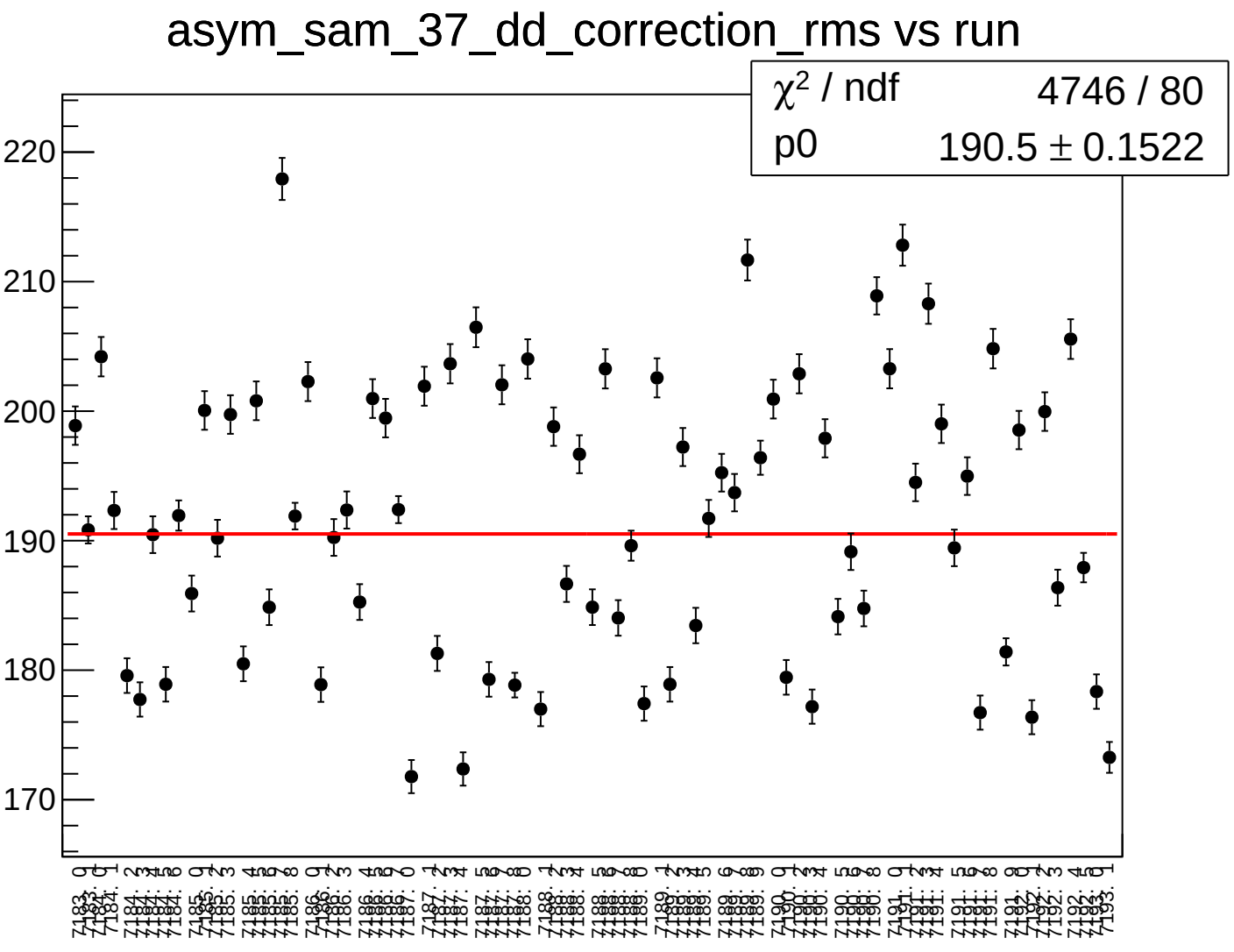

reg_asym_sam_37_dd_mean vs run
χ² / ndf 71.27 / 80
p0 22.92 ± 46.41
1500
1000
500
0
−500
−1000
−1500
pull
Entries 81
Mean −175.4
Std Dev 229.8
2
1
0
−1
−2

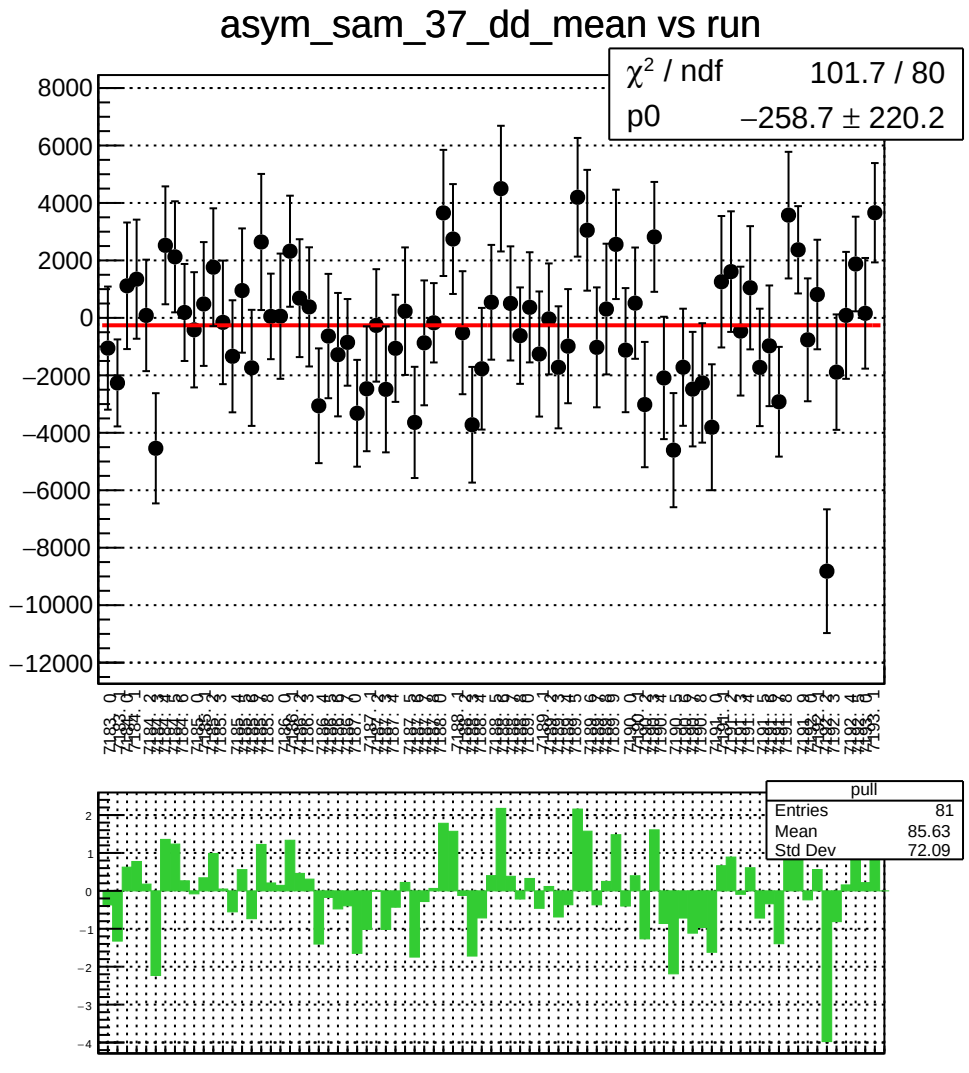

pull1D
Entries 81
Mean 0.008662
Std Dev 0.938
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

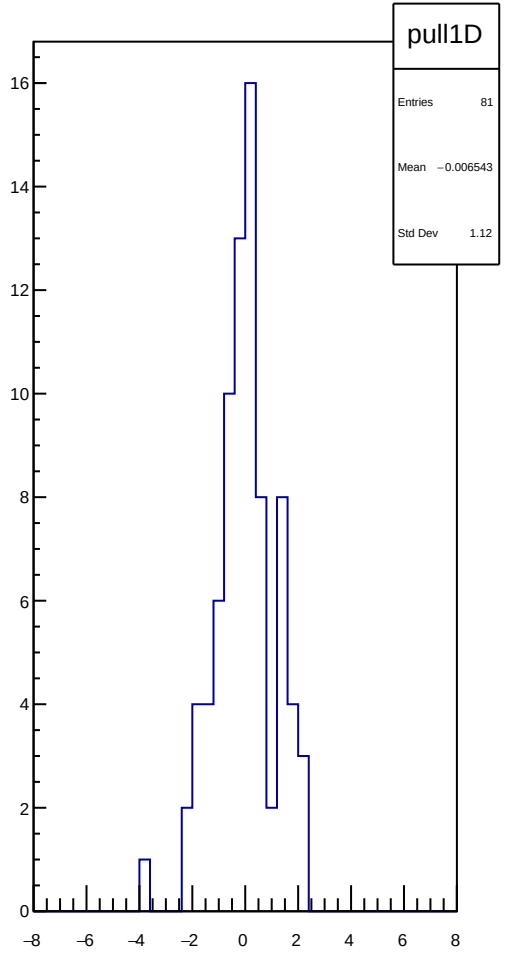

reg_asym_sam_37_dd_rms vs run
χ^2 / ndf 2890 / 80
p0 41.12 ± 0.03282
56
54
52
50
48
46
44
42
40
38

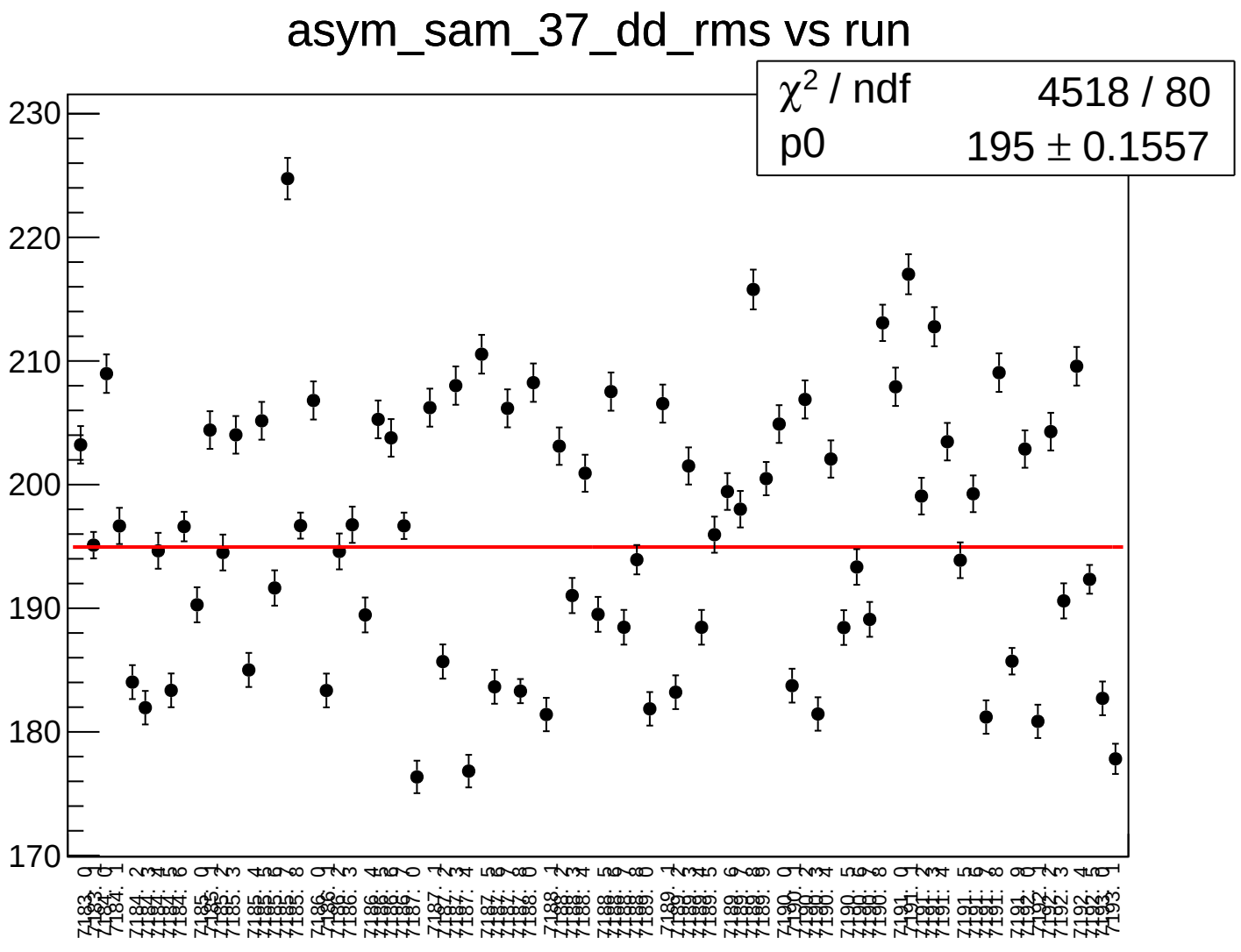

asym_sam_37_dd_correction_mean vs run
χ² / ndf 97.41 / 80
p0 281.9 ± 215.2
pull
Entries 81
Mean 26.81
Std Dev 62.97

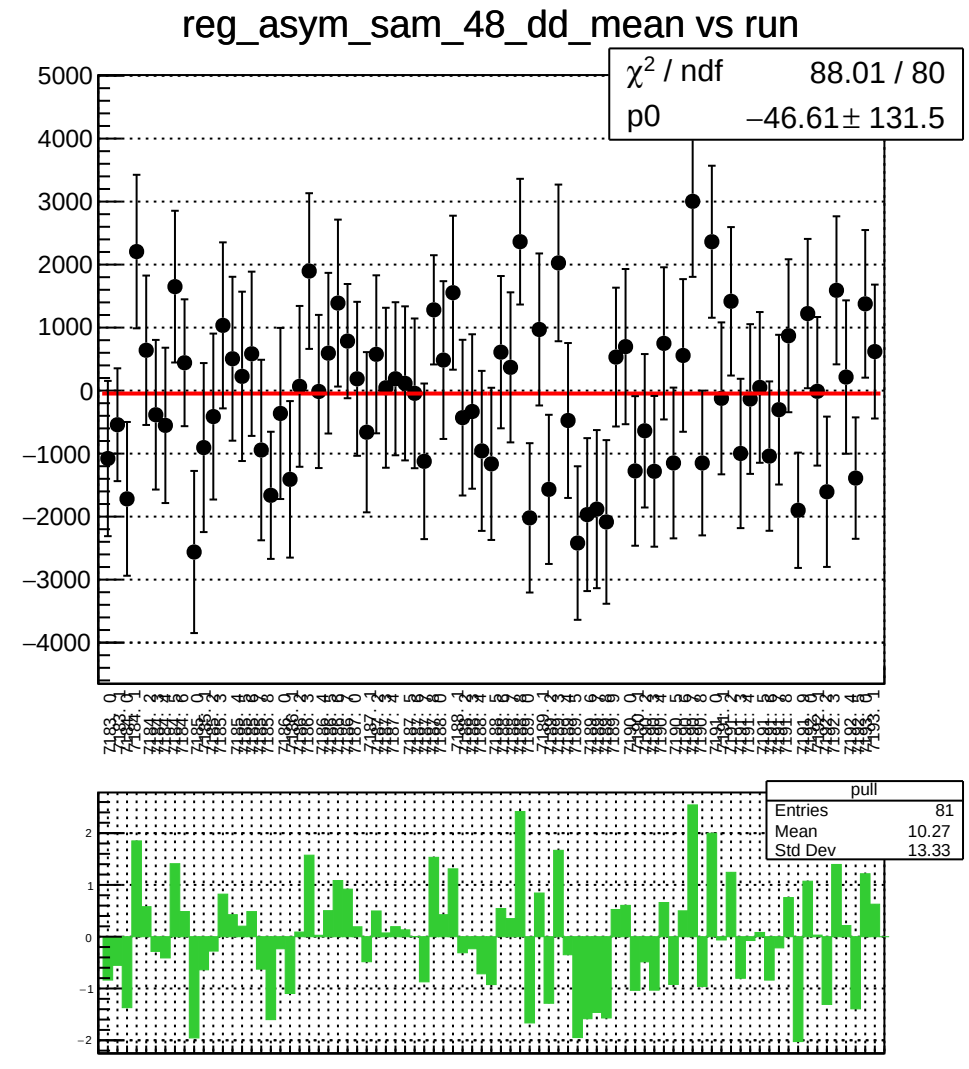

pull1D
Entries 81
Mean 0.008585
Std Dev 1.097

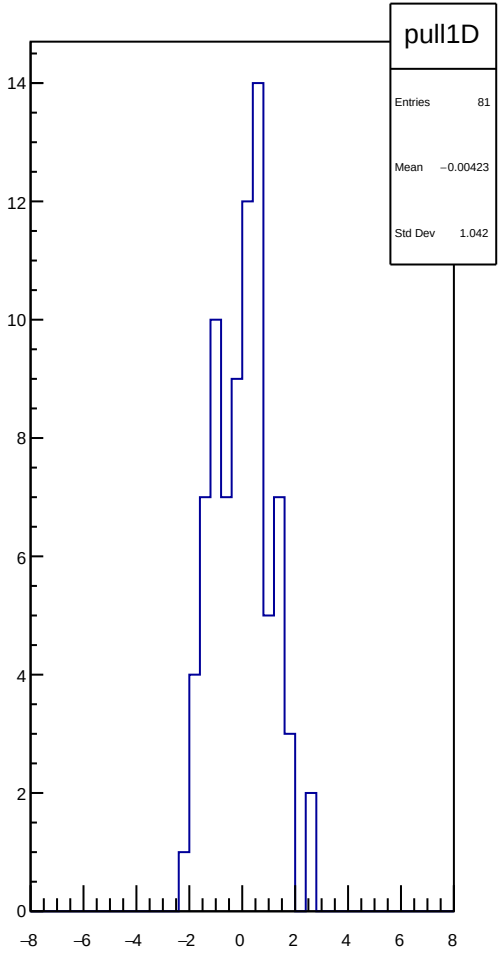

asym_sam_37_dd_correction_rms vs run
χ² / ndf 4746 / 80
p0 190.5 ± 0.1522
220
210
200
190
180
170

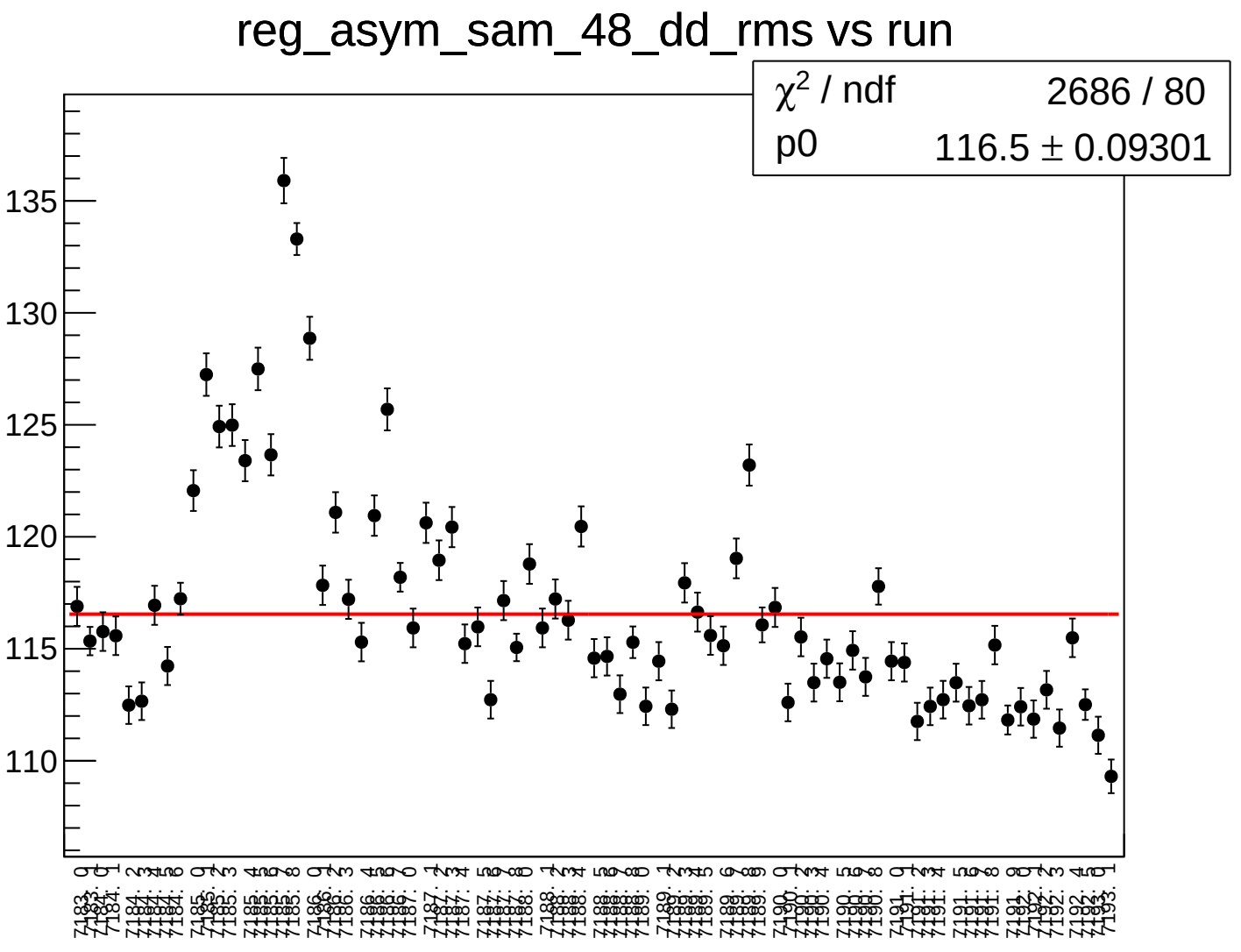

asym_sam_37_dd_mean vs run
χ² / ndf 101.7 / 80
p0 −258.7 ± 220.2
pull
Entries 81
Mean 85.63
Std Dev 72.09

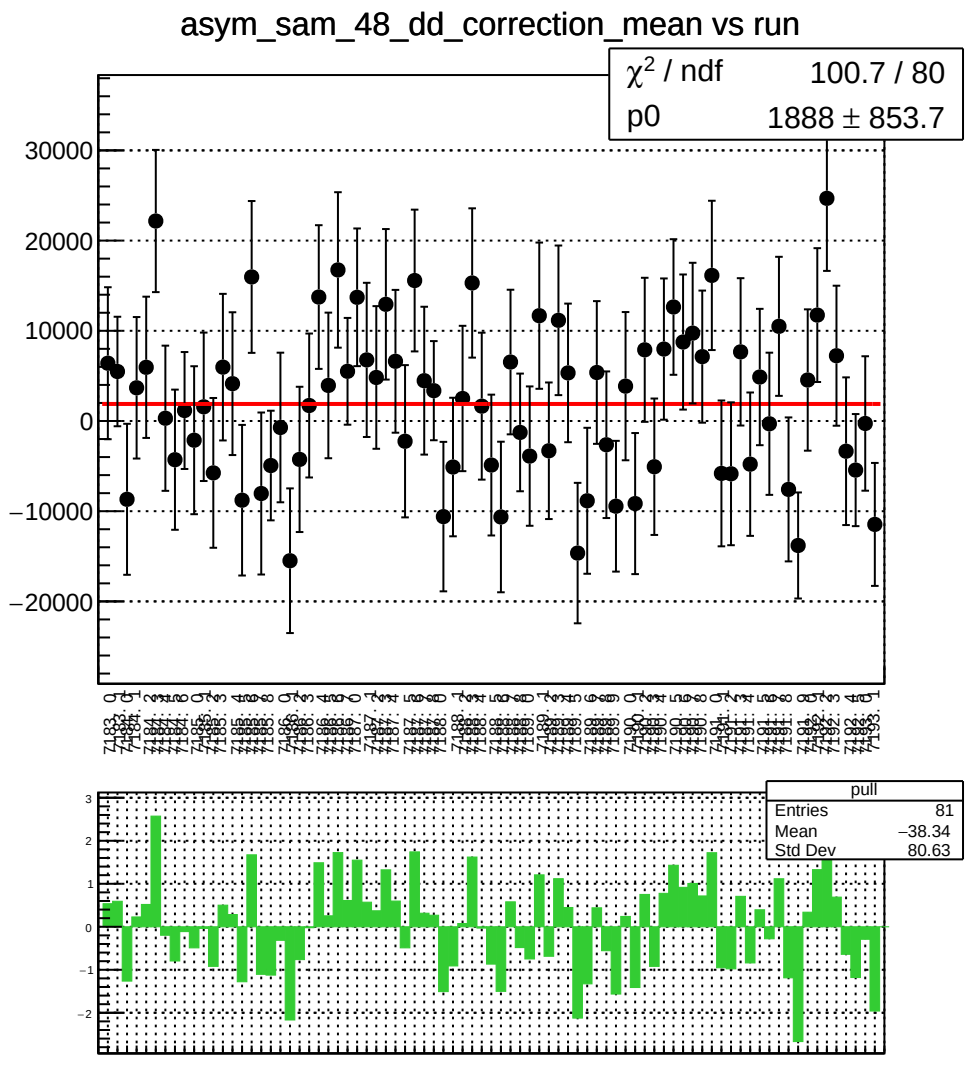

pull1D
Entries 81
Mean −0.006543
Std Dev 1.12

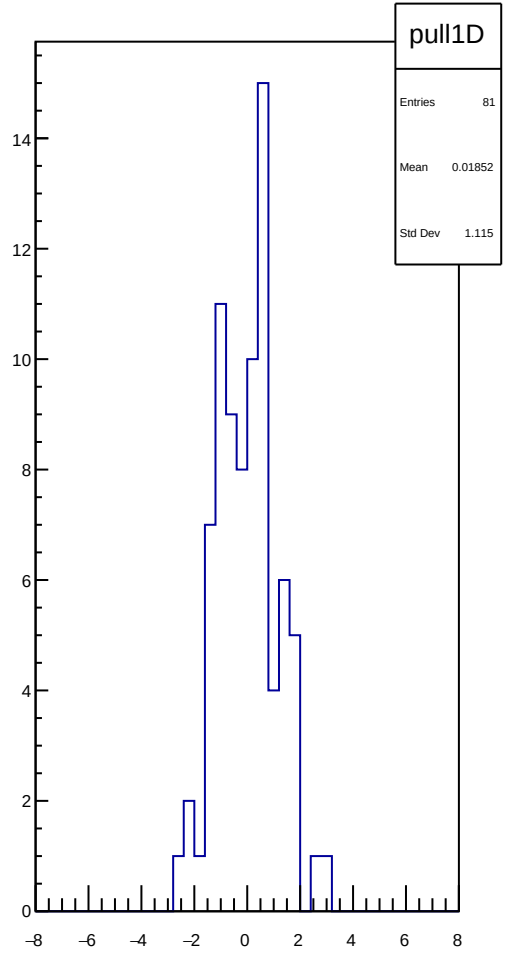

asym_sam_37_dd_rms vs run
χ^2 / ndf 4518 / 80
p0 195 ± 0.1557
230
220
210
200
190
180
170

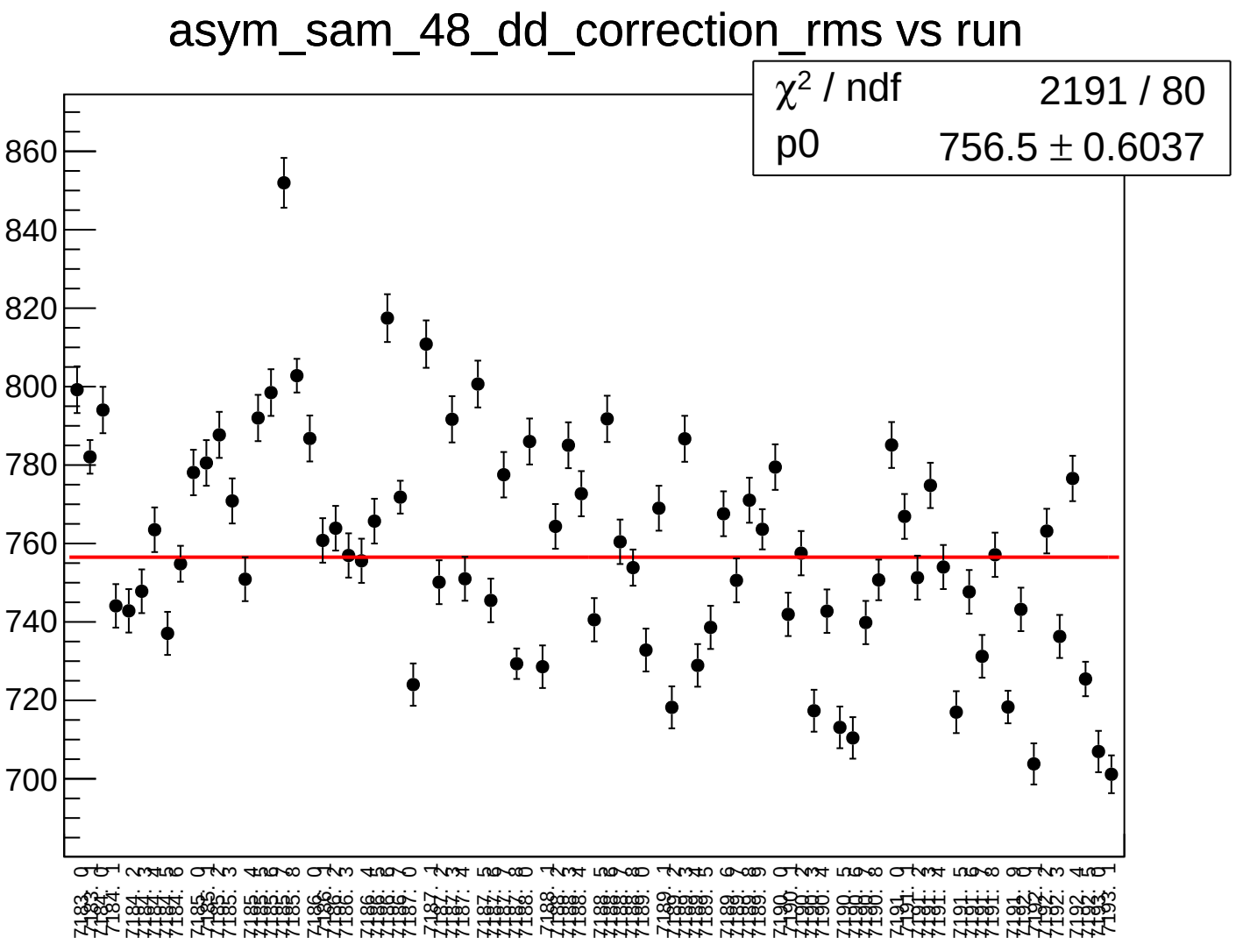

reg_asym_sam_48_dd_mean vs run
χ^2 / ndf 88.01 / 80
p0 −46.61± 131.5
pull
Entries 81
Mean 10.27
Std Dev 13.33

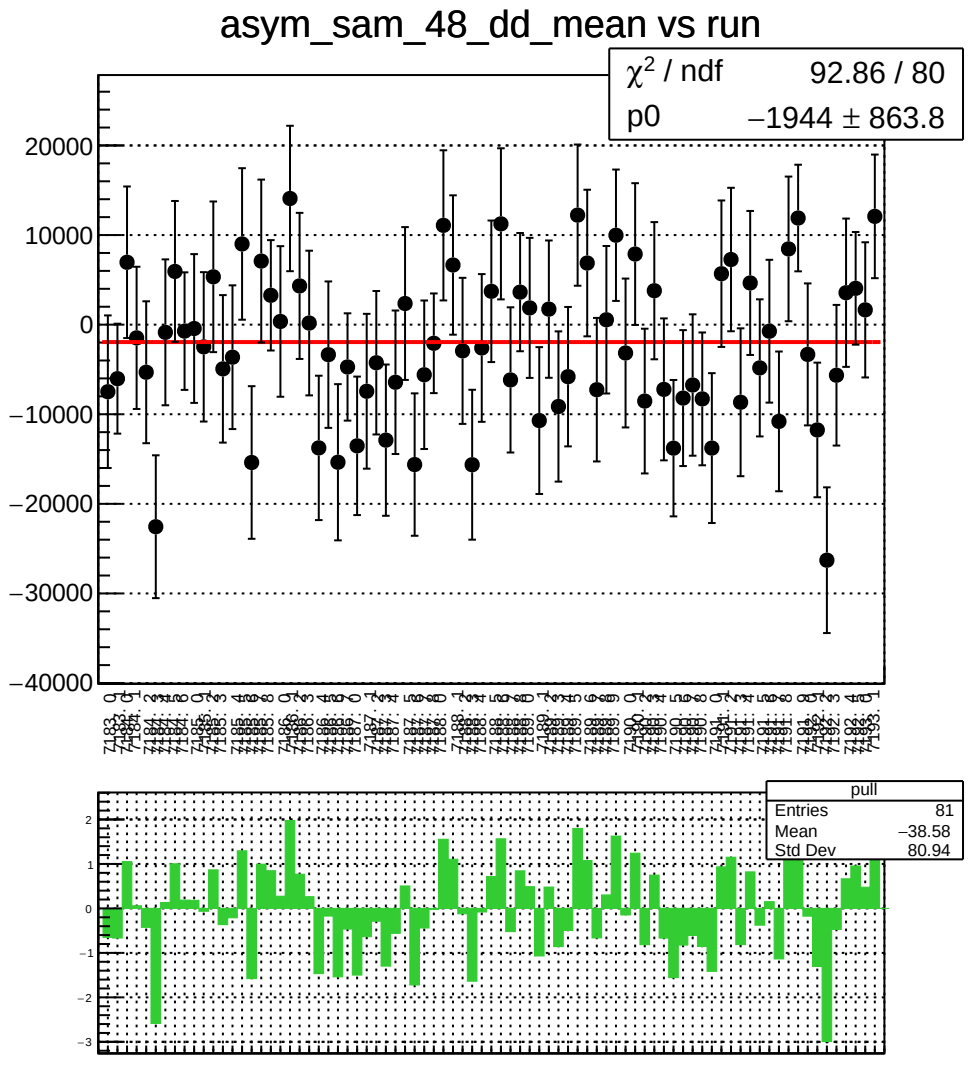

pull1D
Entries 81
Mean −0.00423
Std Dev 1.042

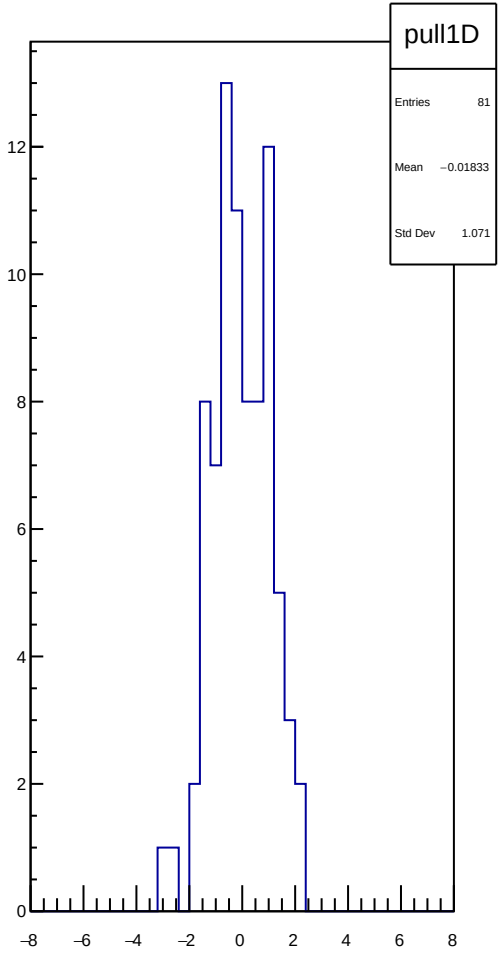

reg_asym_sam_48_dd_rms vs run
χ^2 / ndf 2686 / 80
p0 116.5 ± 0.09301
135
130
125
120
115
110

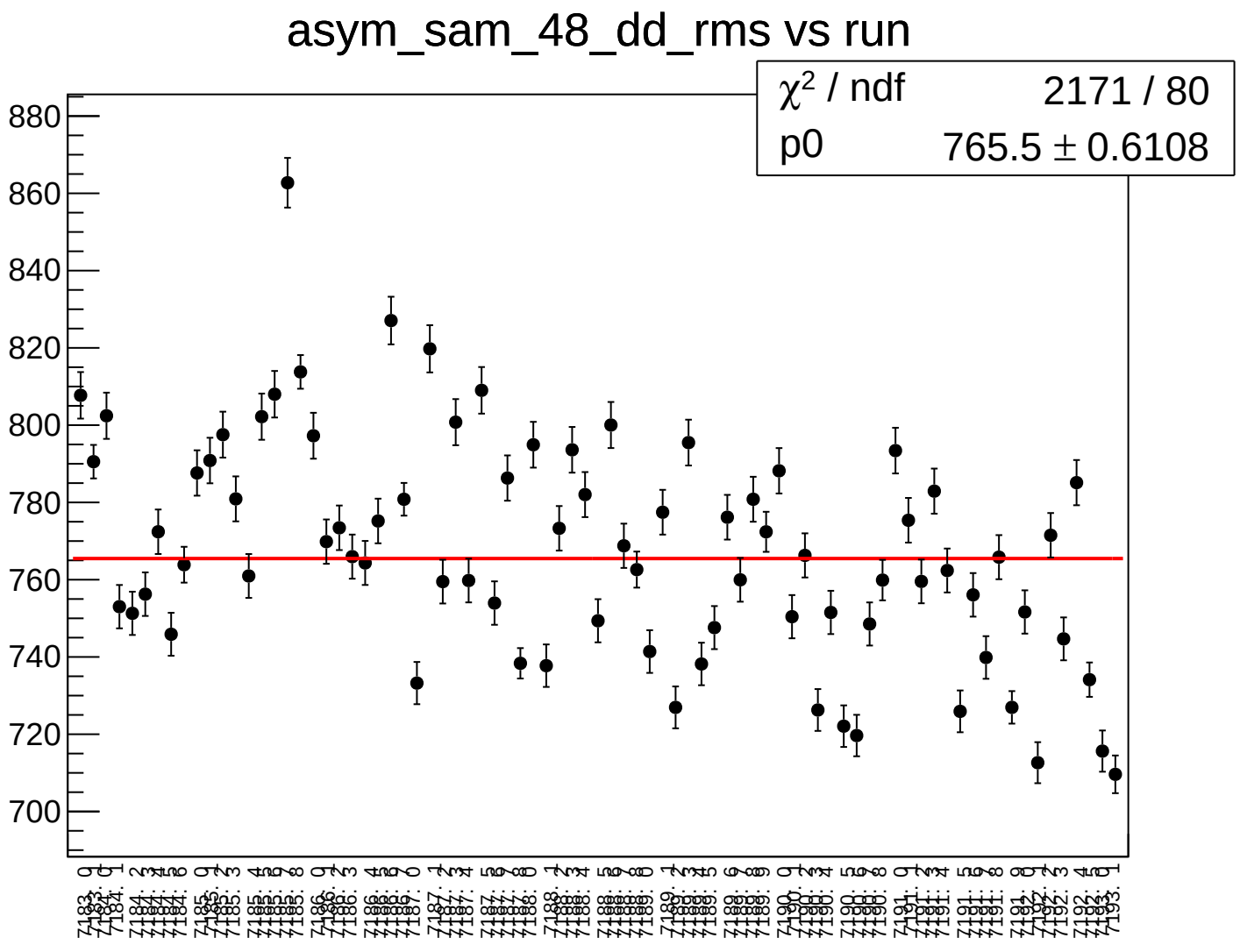

asym_sam_48_dd_correction_mean vs run
χ² / ndf 100.7 / 80
p0 1888 ± 853.7
30000
20000
10000
0
−10000
−20000
pull
Entries 81
Mean −38.34
Std Dev 80.63
3
2
1
0
−1
−2

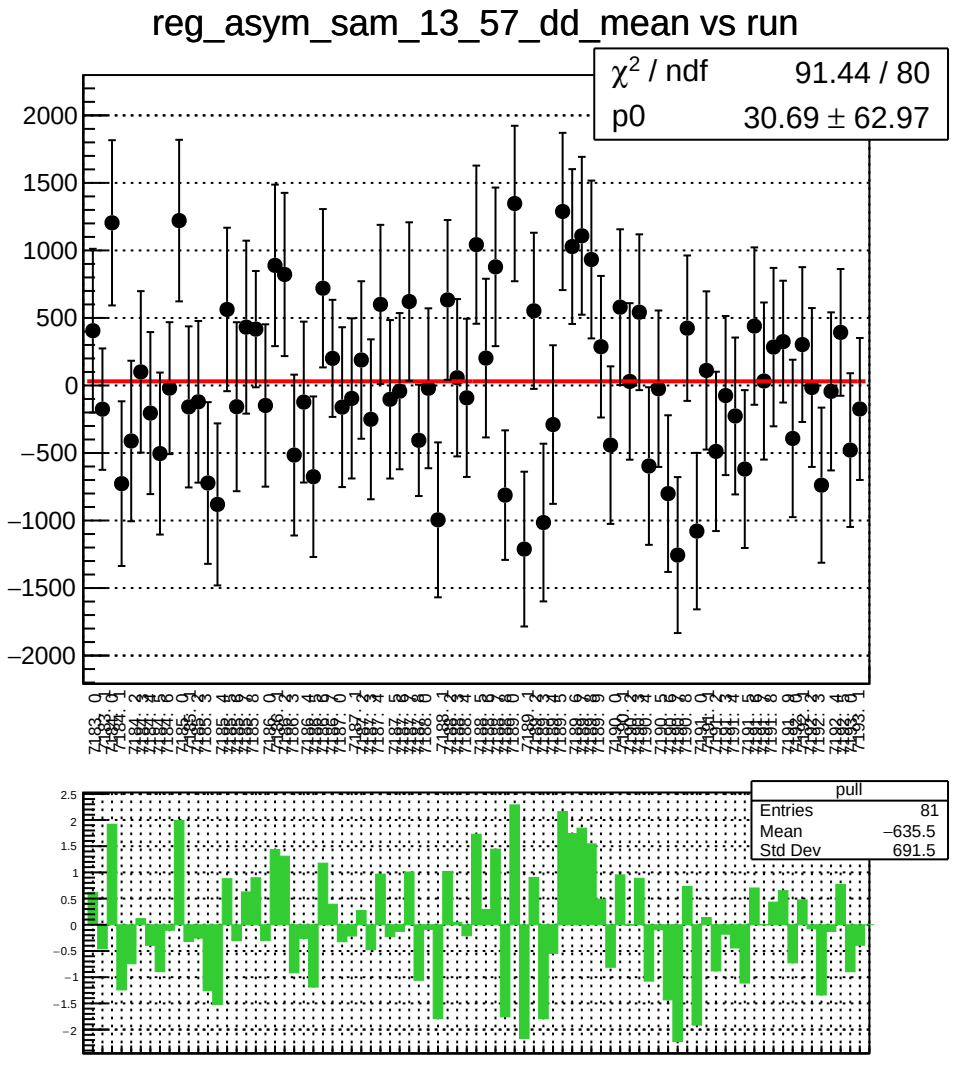

pull1D
Entries 81
Mean 0.01852
Std Dev 1.115
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

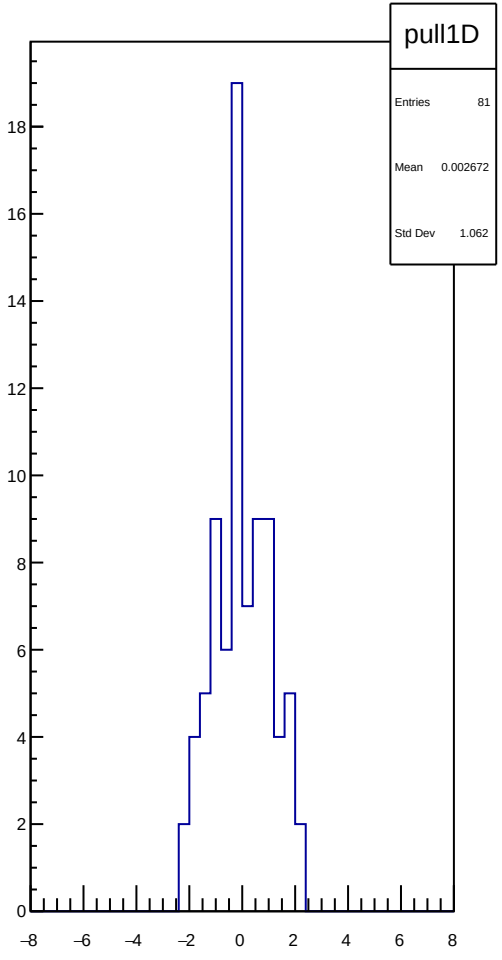

asym_sam_48_dd_correction_rms vs run
χ² / ndf 2191 / 80
p0 756.5 ± 0.6037
860
840
820
800
780
760
740
720
700

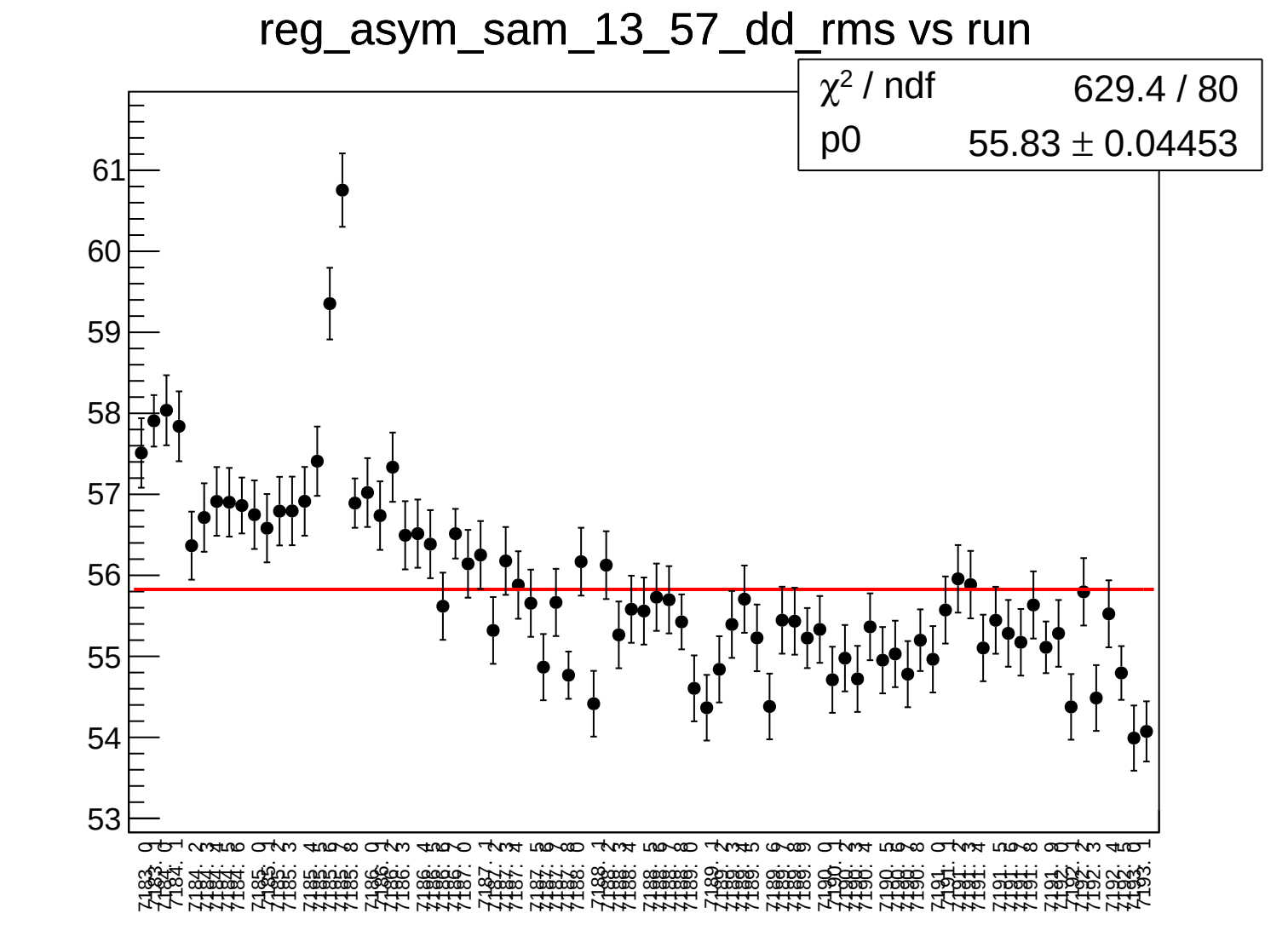

asym_sam_48_dd_mean vs run
χ² / ndf 92.86 / 80
p0 −1944 ± 863.8
pull
Entries 81
Mean −38.58
Std Dev 80.94

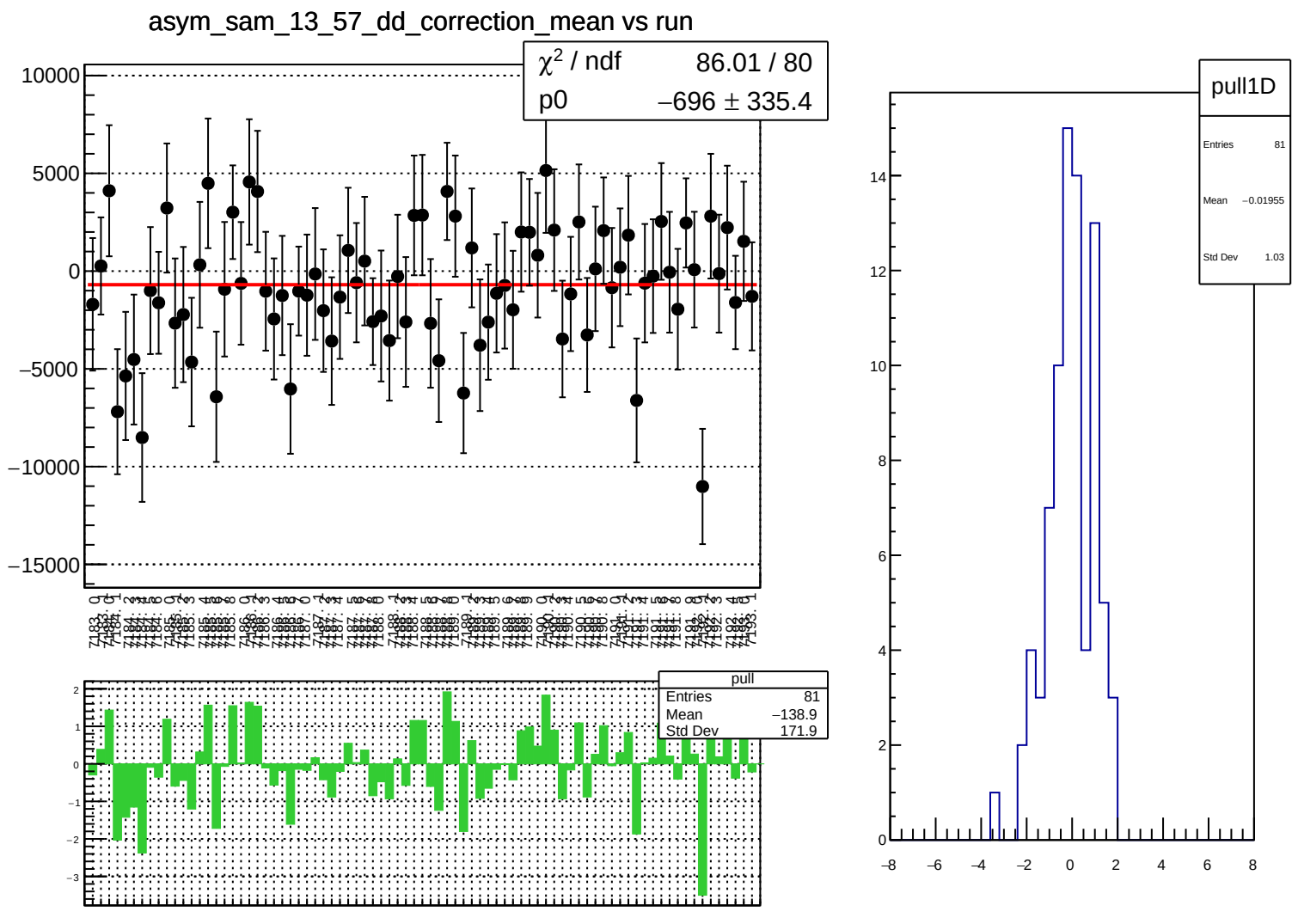

pull1D
Entries 81
Mean −0.01833
Std Dev 1.071

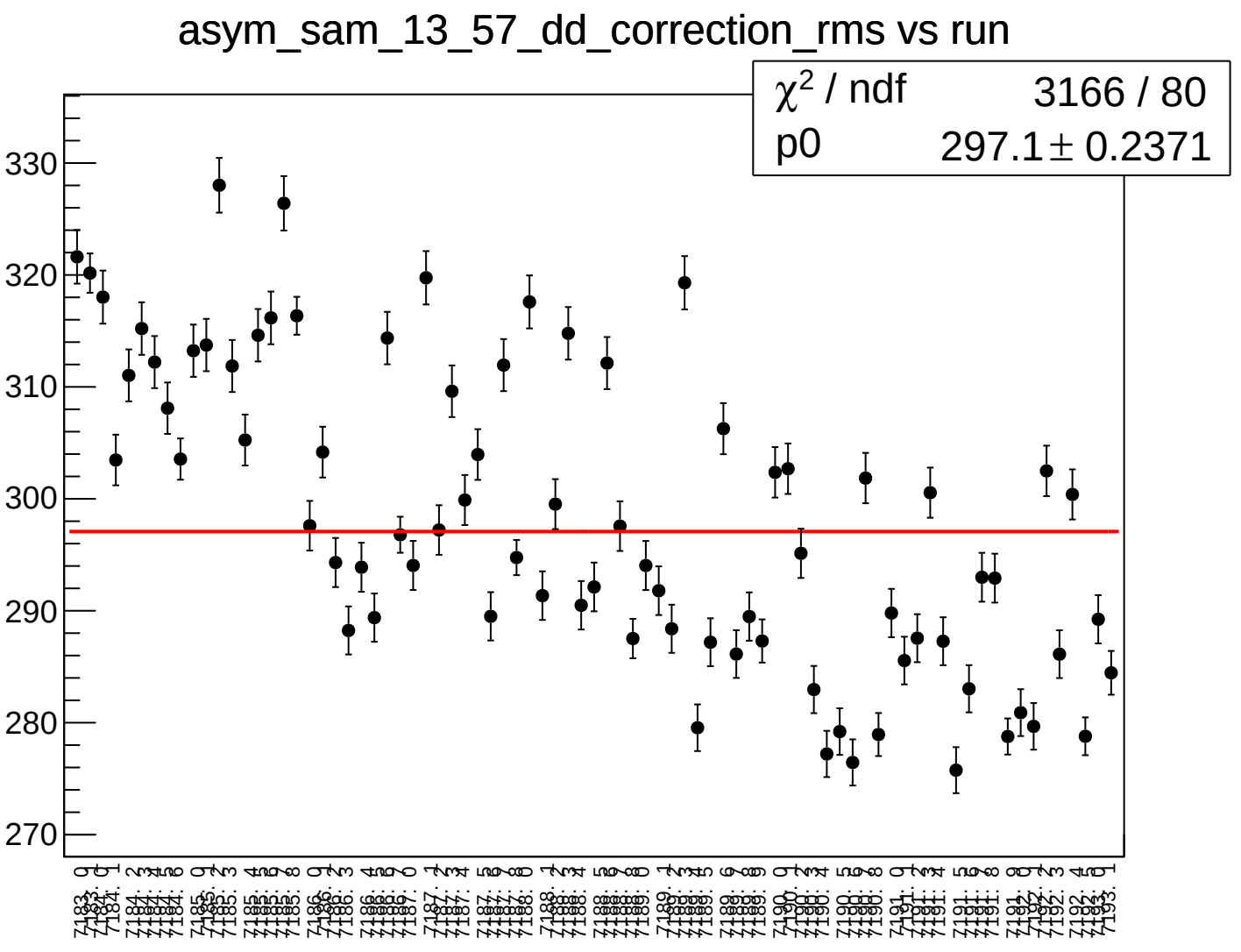

asym_sam_48_dd_rms vs run
χ² / ndf 2171 / 80
p0 765.5 ± 0.6108
880
860
840
820
800
780
760
740
720
700

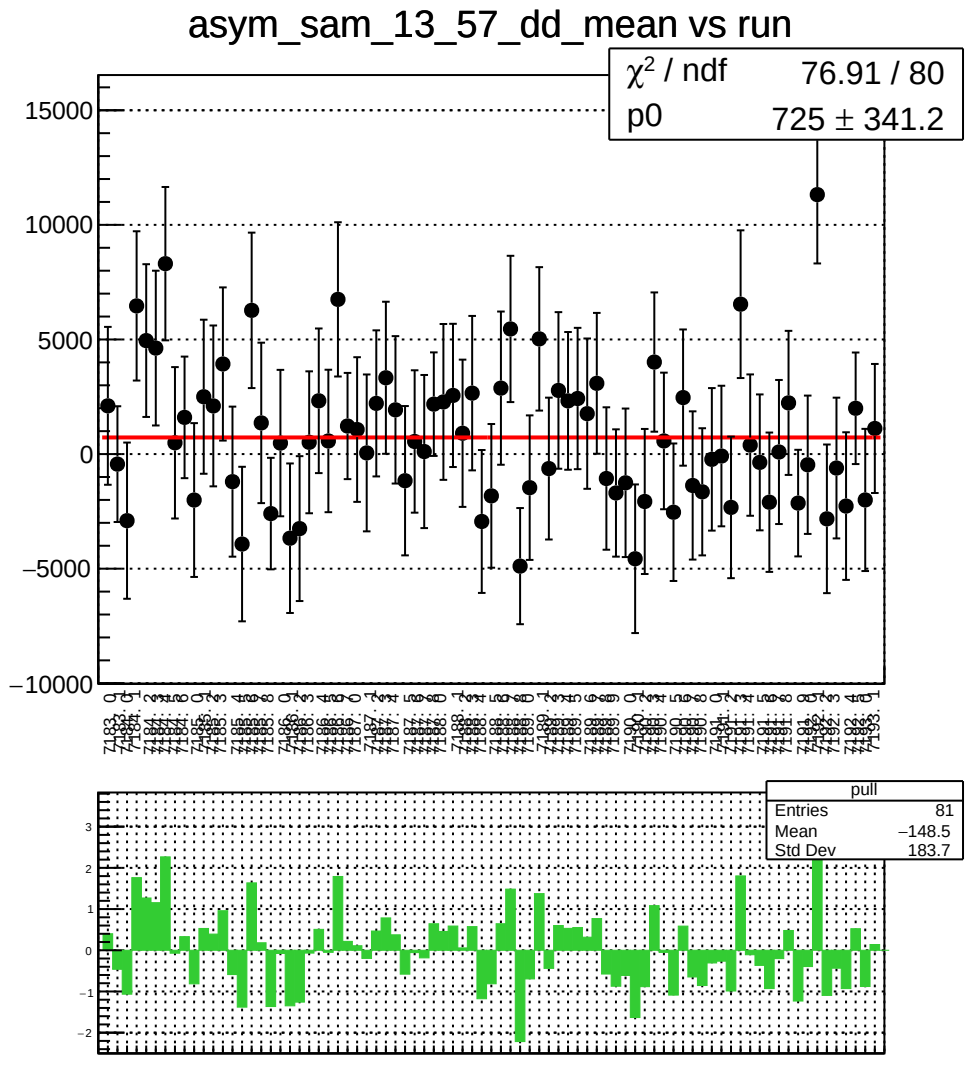

reg_asym_sam_13_57_dd_mean vs run
χ² / ndf 91.44 / 80
p0 30.69 ± 62.97
pull
Entries 81
Mean −635.5
Std Dev 691.5

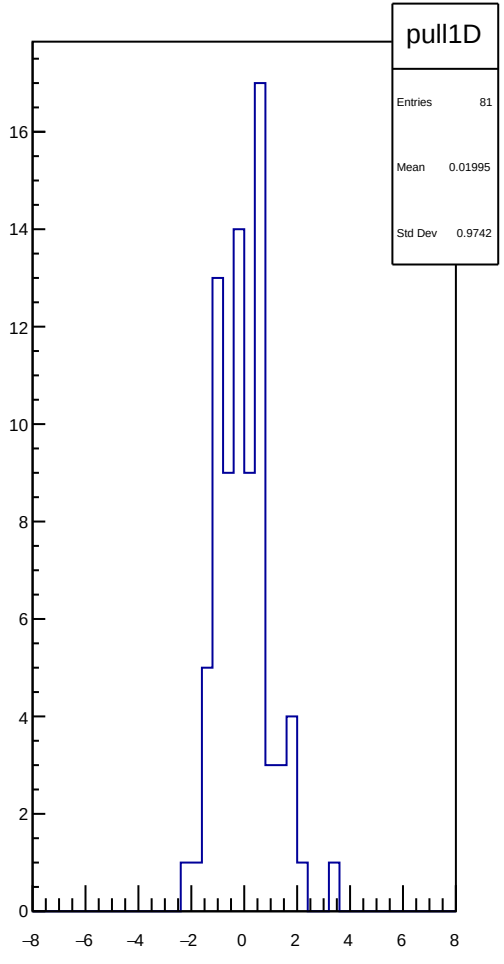

pull1D
Entries 81
Mean 0.002672
Std Dev 1.062

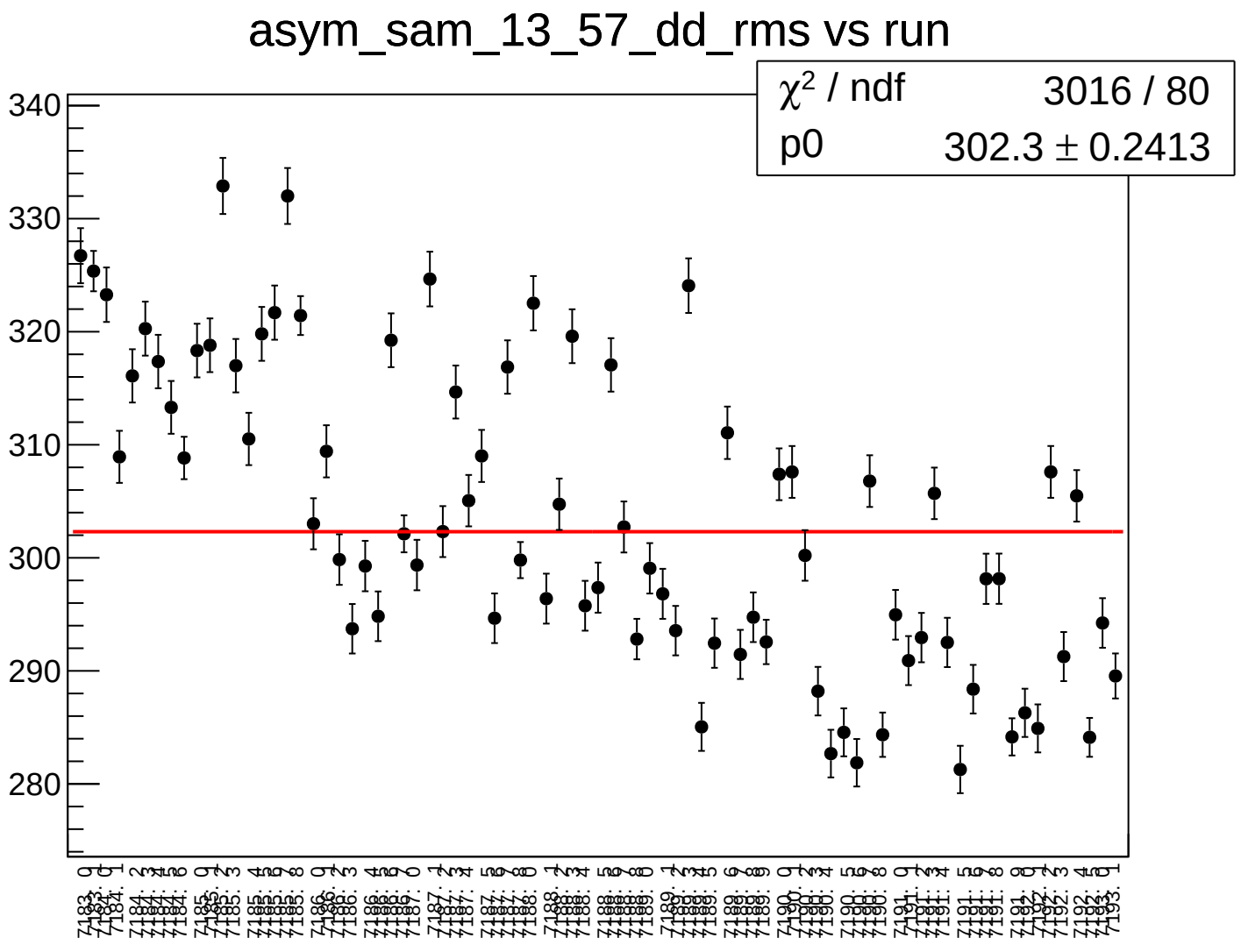

reg_asym_sam_13_57_dd_rms vs run
χ² / ndf 629.4 / 80
p0 55.83 ± 0.04453
61
60
59
58
57
56
55
54
53

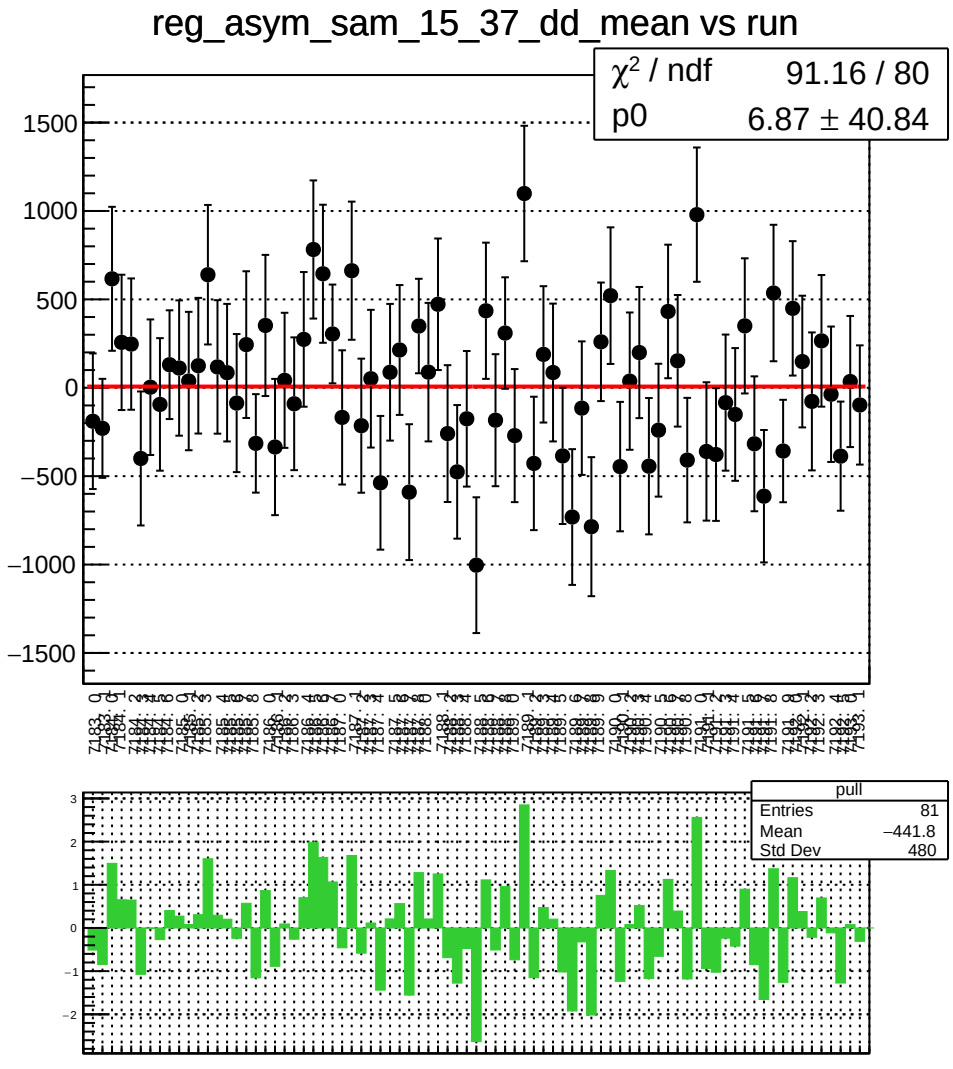

asym_sam_13_57_dd_correction_mean vs run
χ² / ndf 86.01 / 80
p0 −696 ± 335.4
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean −138.9
Std Dev 171.9
2
1
0
−1
−2
−3
pull1D
Entries 81
Mean −0.01955
Std Dev 1.03
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

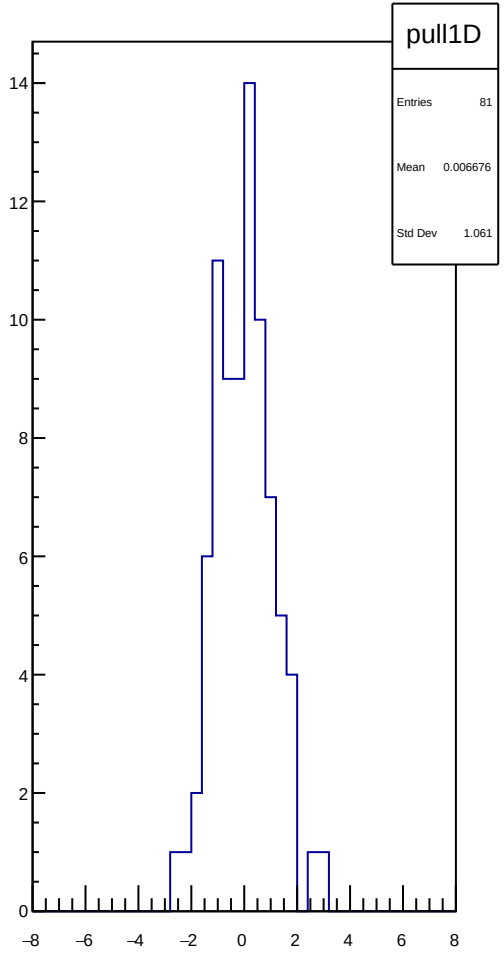

asym_sam_13_57_dd_correction_rms vs run
χ² / ndf 3166 / 80
p0 297.1 ± 0.2371
330
320
310
300
290
280
270

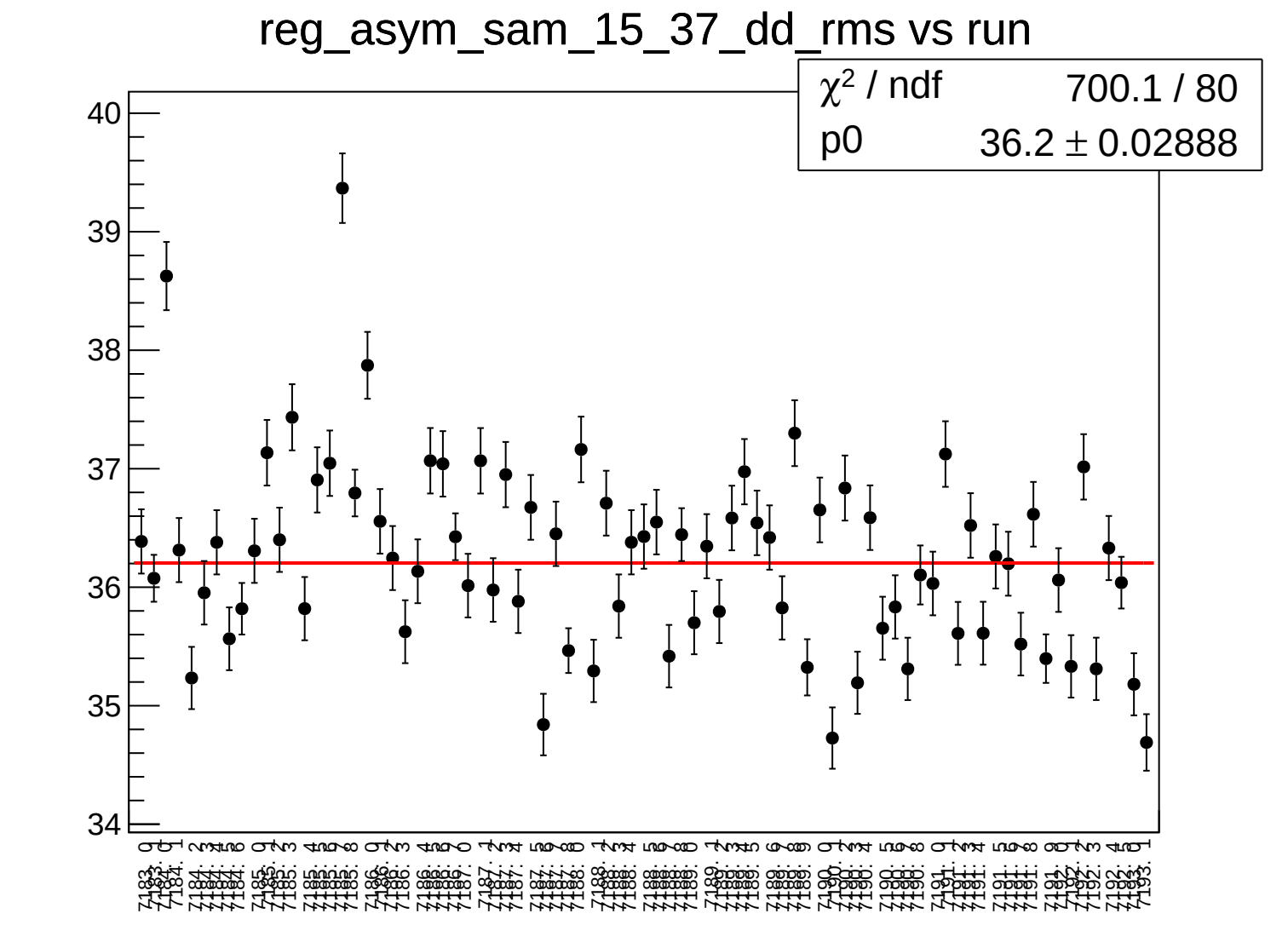

asym_sam_13_57_dd_mean vs run
χ² / ndf 76.91 / 80
p0 725 ± 341.2
15000
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −148.5
Std Dev 183.7
3
2
1
0
−1
−2

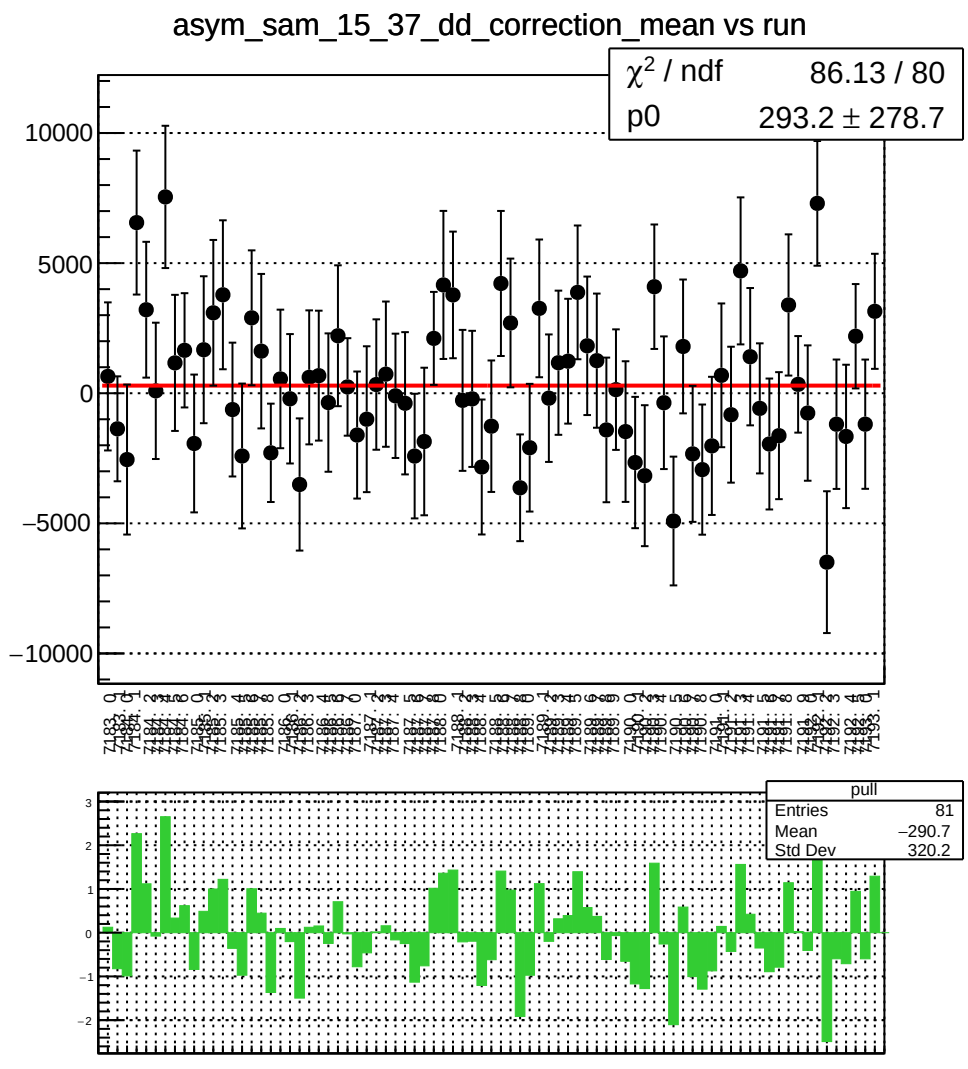

pull1D
Entries 81
Mean 0.01995
Std Dev 0.9742
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

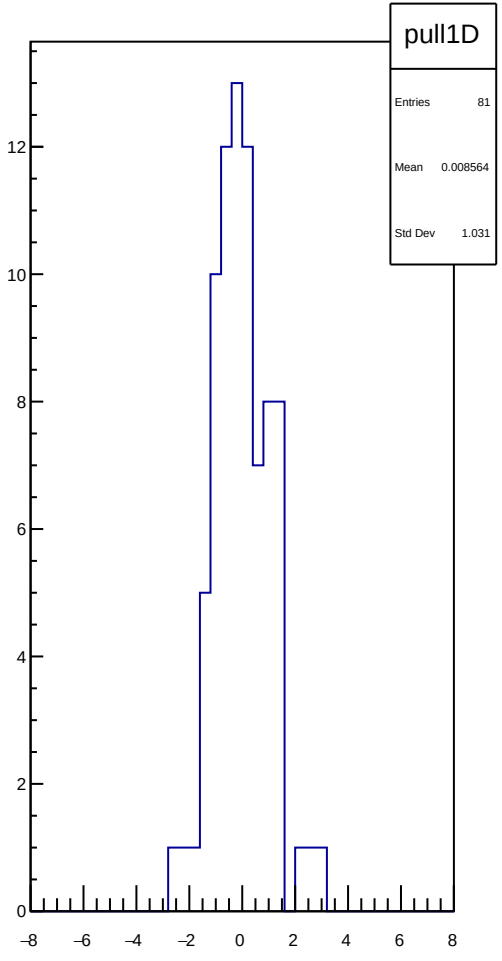

asym_sam_13_57_dd_rms vs run
χ² / ndf 3016 / 80
p0 302.3 ± 0.2413
340
330
320
310
300
290
280

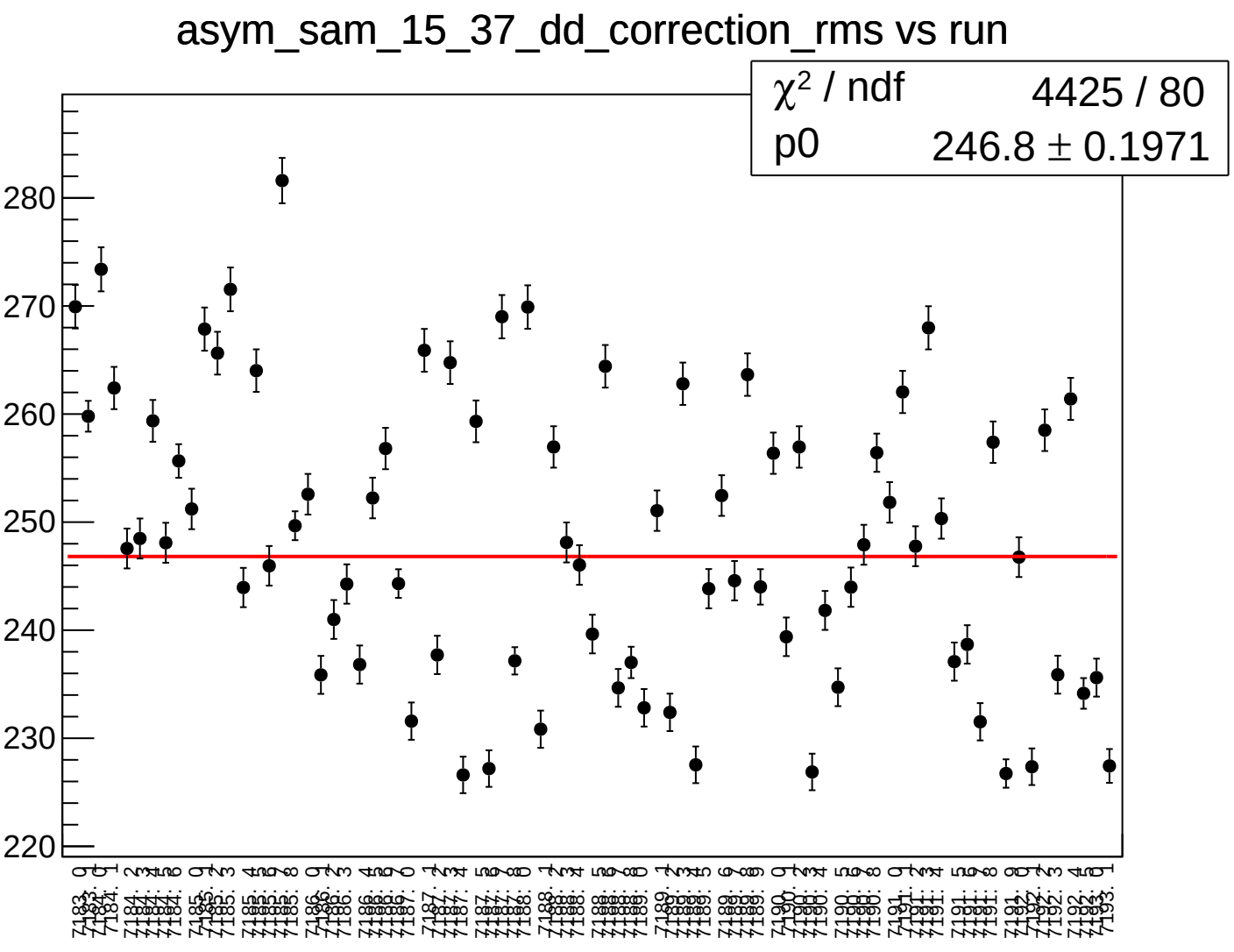

reg_asym_sam_15_37_dd_mean vs run
χ² / ndf 91.16 / 80
p0 6.87 ± 40.84
1500
1000
500
0
−500
−1000
−1500
pull
Entries 81
Mean −441.8
Std Dev 480
3
2
1
0
−1
−2

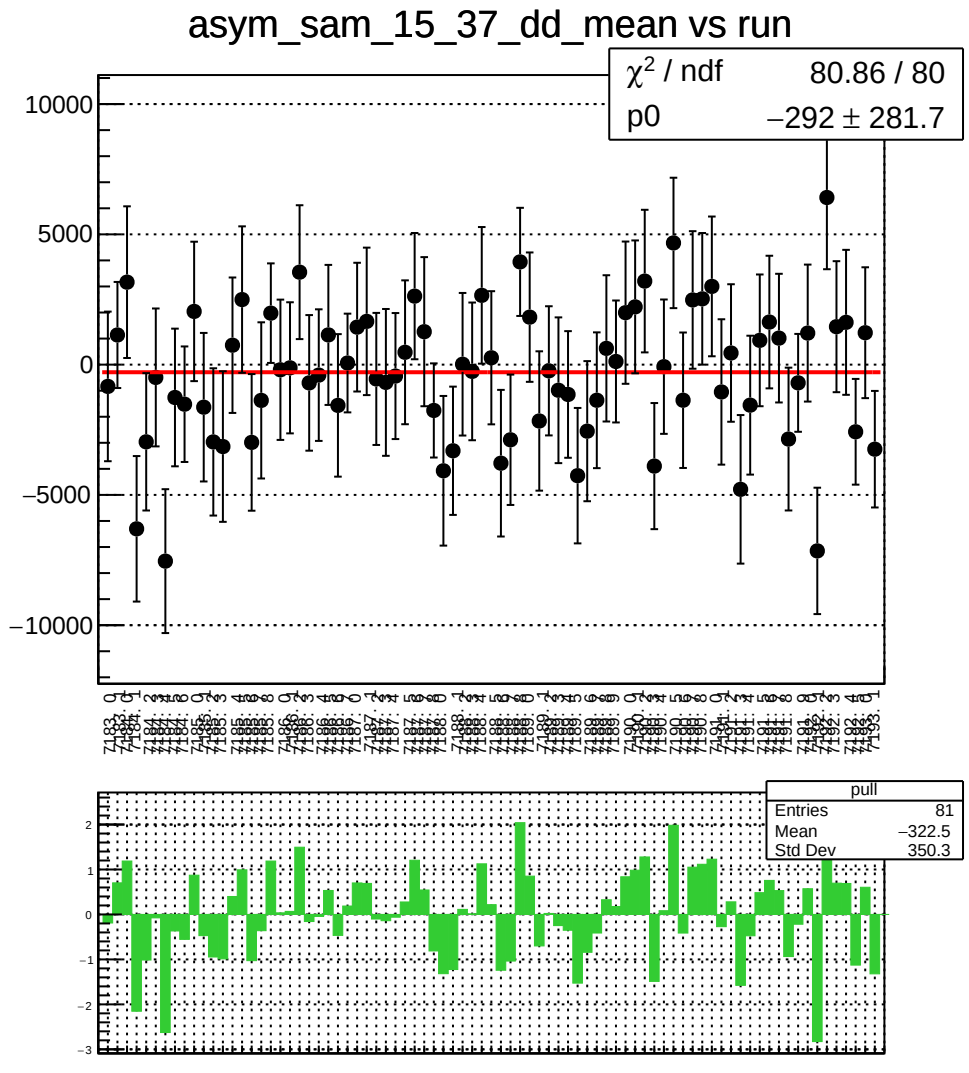

pull1D
Entries 81
Mean 0.006676
Std Dev 1.061
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

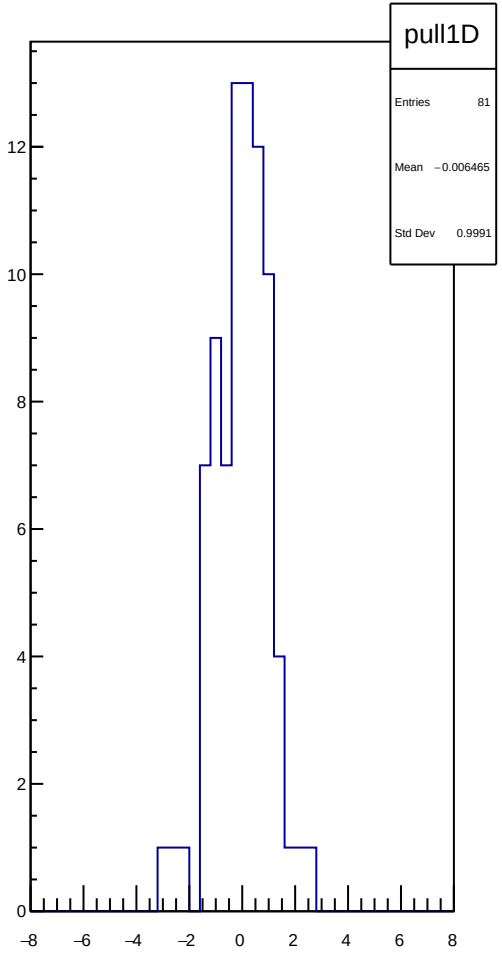

reg_asym_sam_15_37_dd_rms vs run
χ² / ndf 700.1 / 80
p0 36.2 ± 0.02888
40
39
38
37
36
35
34


asym_sam_15_37_dd_correction_mean vs run
χ² / ndf 86.13 / 80
p0 293.2 ± 278.7
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −290.7
Std Dev 320.2
3
2
1
0
−1
−2

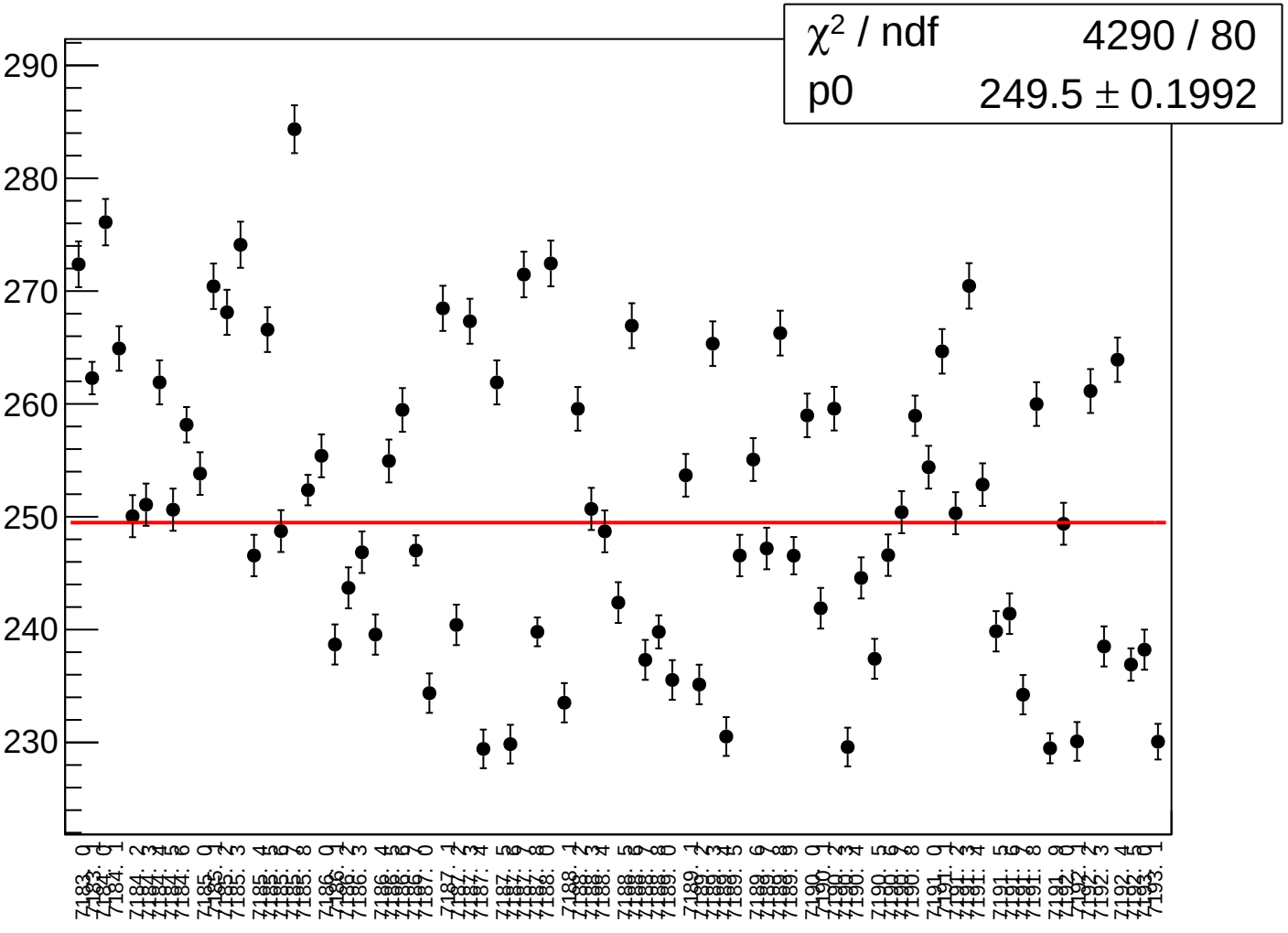

pull1D
Entries 81
Mean 0.008564
Std Dev 1.031
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

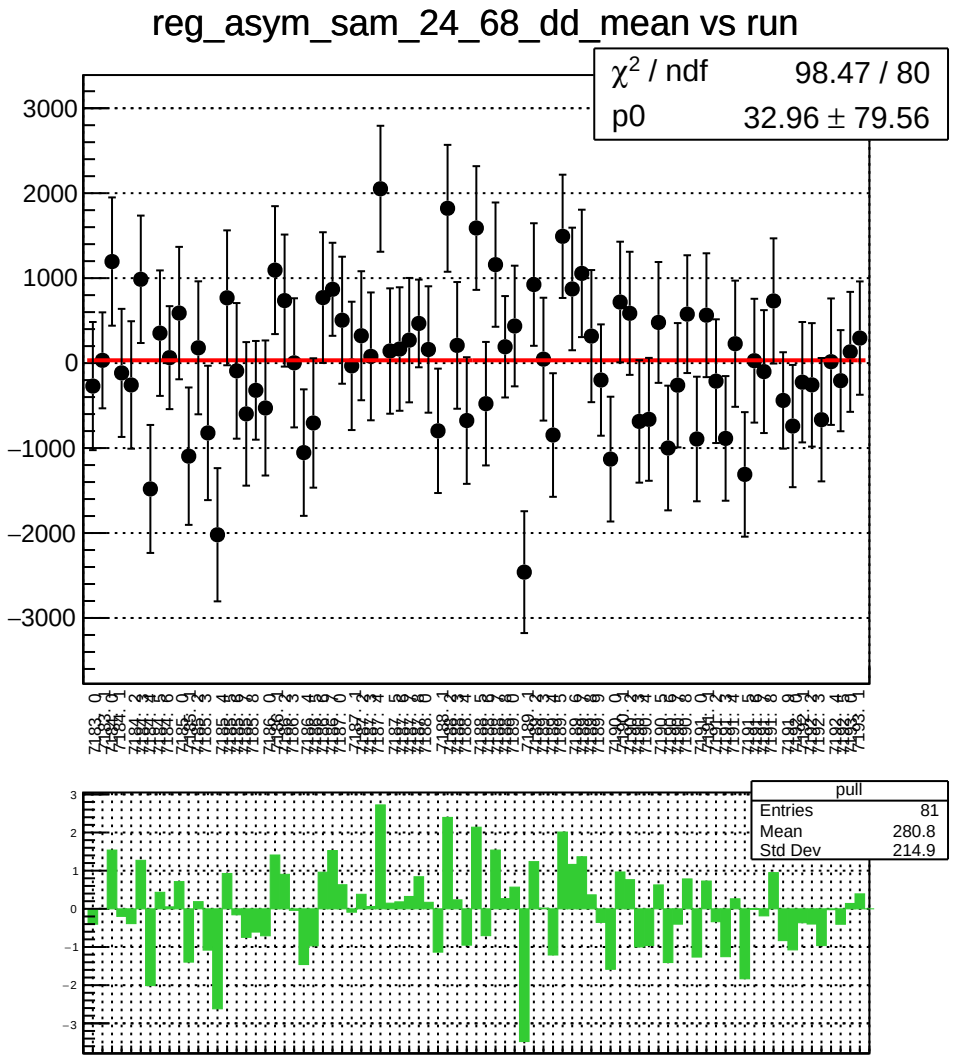

asym_sam_15_37_dd_correction_rms vs run
χ² / ndf 4425 / 80
p0 246.8 ± 0.1971
280
270
260
250
240
230
220

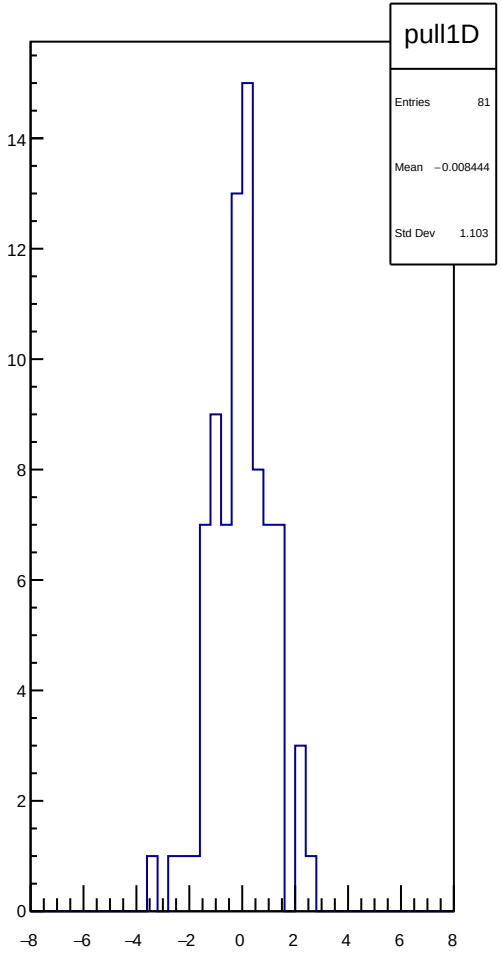

asym_sam_15_37_dd_mean vs run
χ² / ndf 80.86 / 80
p0 −292 ± 281.7
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −322.5
Std Dev 350.3
2
1
0
−1
−2
−3

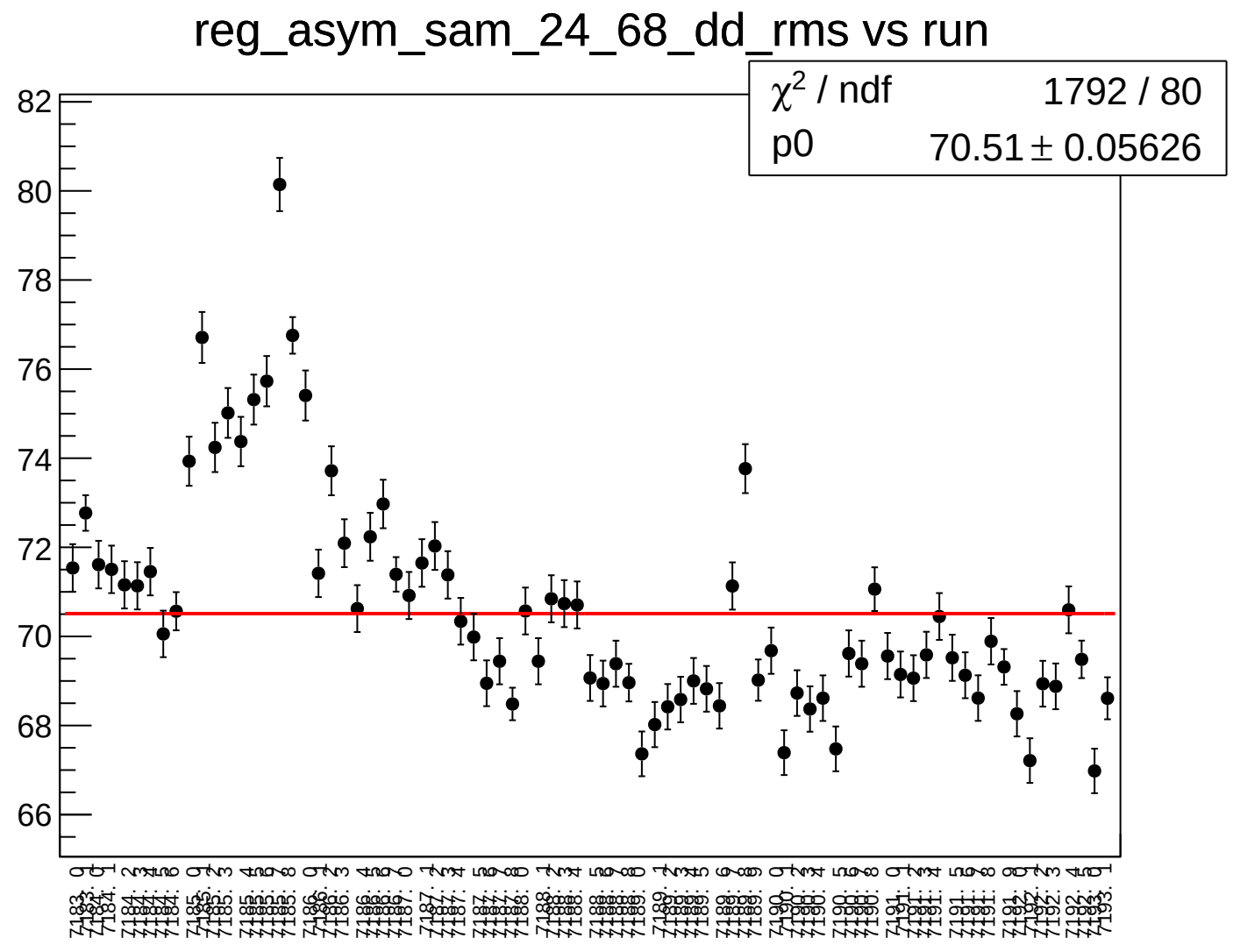

pull1D
Entries 81
Mean −0.006465
Std Dev 0.9991
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

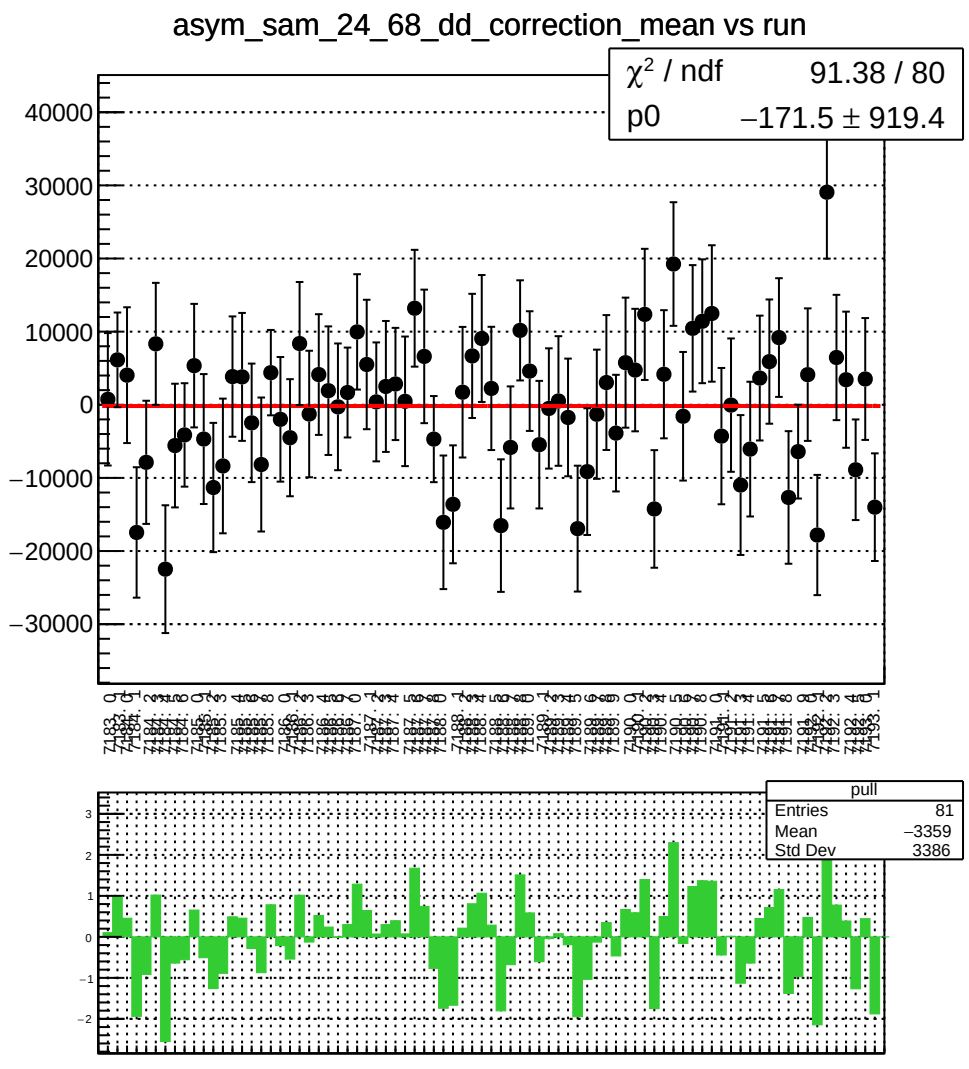
asym_sam_15_37_dd_rms vs run

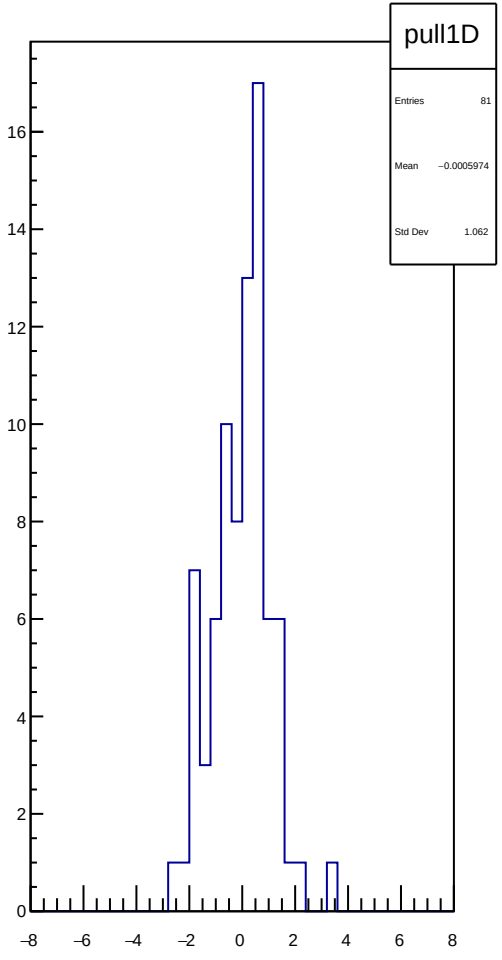


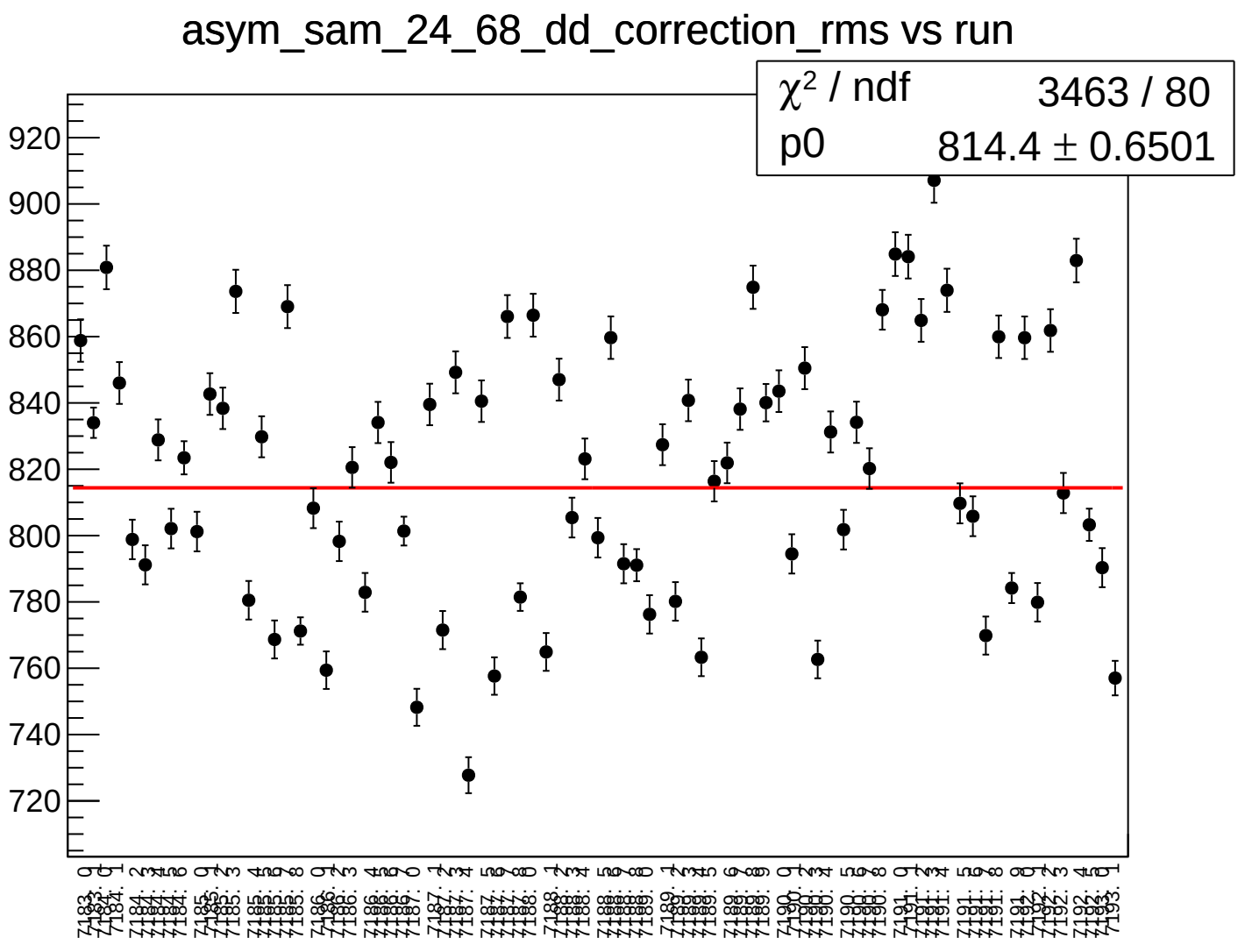

reg_asym_sam_24_68_dd_mean vs run
χ² / ndf 98.47 / 80
p0 32.96 ± 79.56
pull
Entries 81
Mean 280.8
Std Dev 214.9

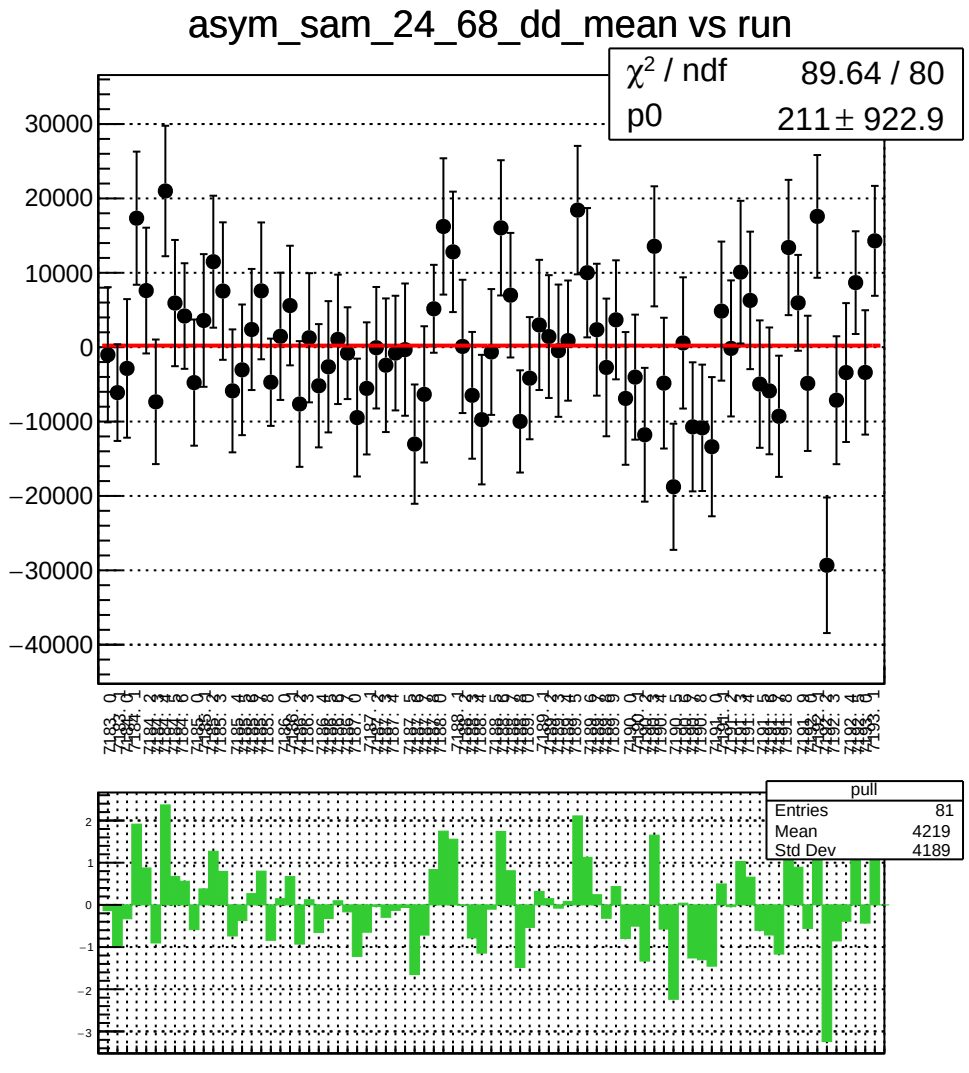

pull1D
Entries 81
Mean −0.008444
Std Dev 1.103

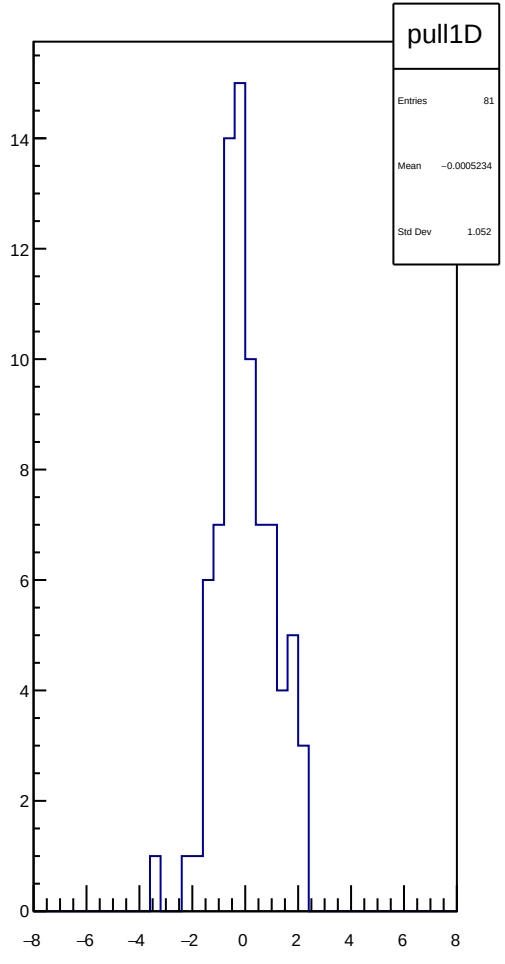

reg_asym_sam_24_68_dd_rms vs run
χ^2 / ndf 1792 / 80
p0 70.51 ± 0.05626
82
80
78
76
74
72
70
68
66

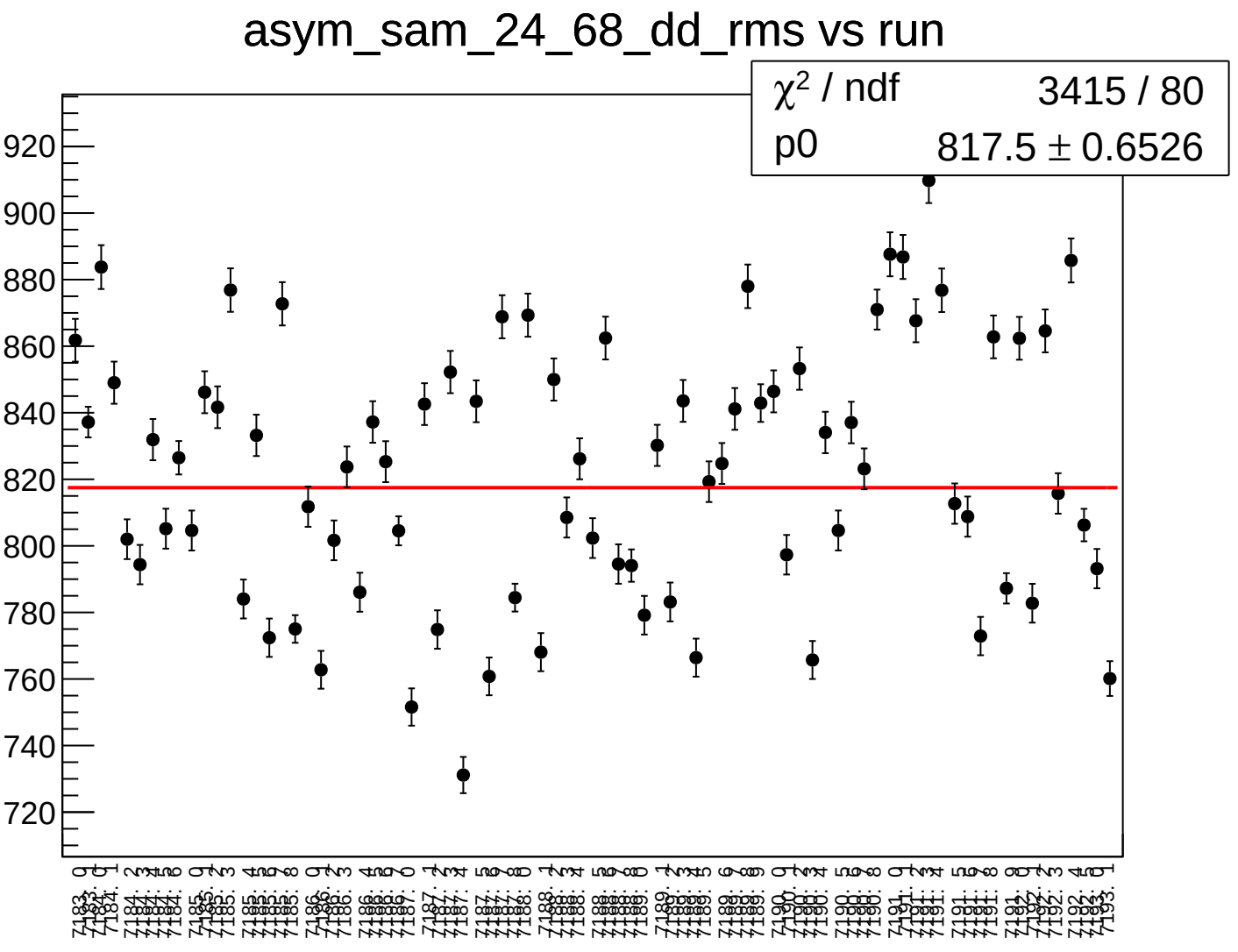

asym_sam_24_68_dd_correction_mean vs run
χ² / ndf 91.38 / 80
p0 −171.5 ± 919.4
pull
Entries 81
Mean −3359
Std Dev 3386

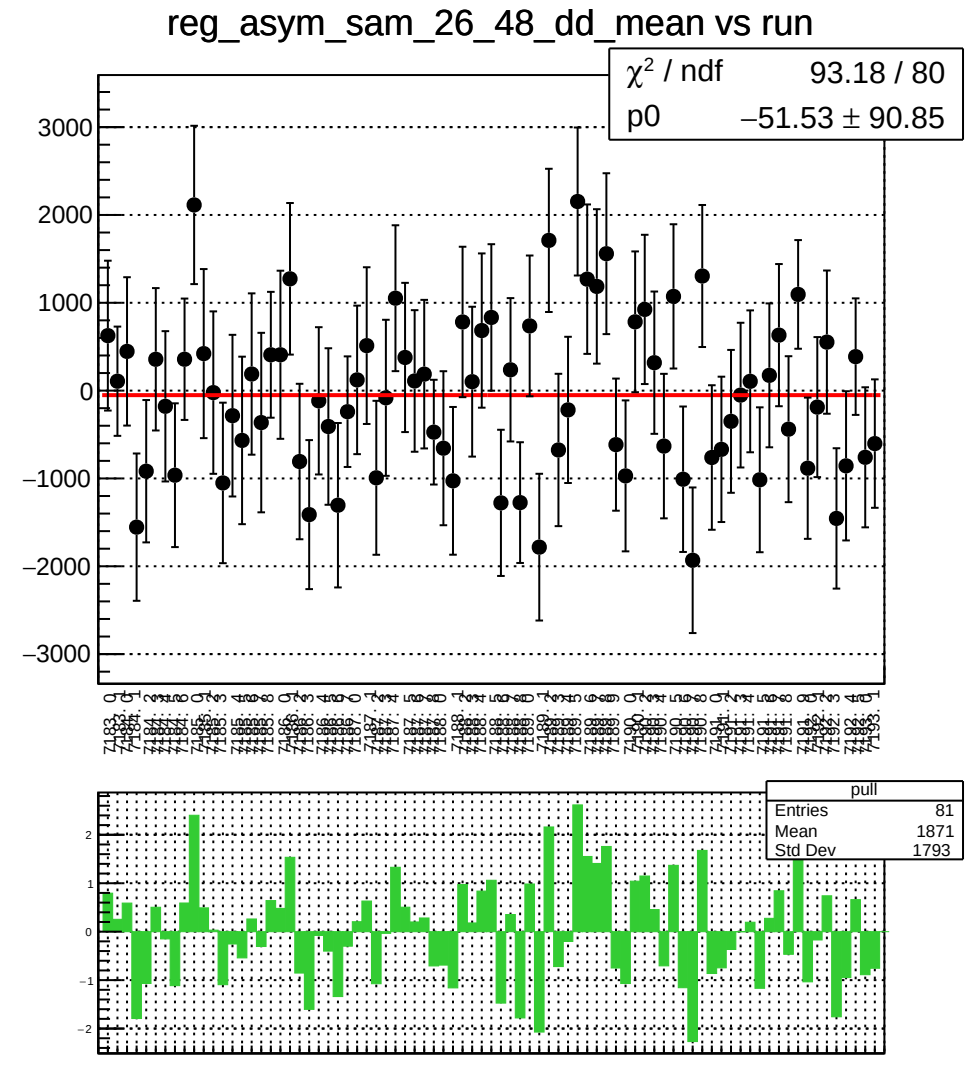

pull1D
Entries 81
Mean −0.0005974
Std Dev 1.062

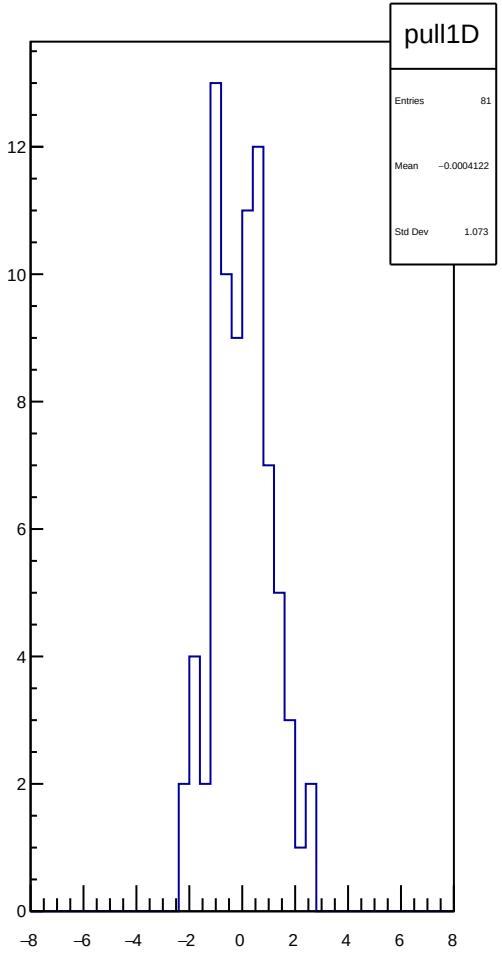

asym_sam_24_68_dd_correction_rms vs run
χ² / ndf 3463 / 80
p0 814.4 ± 0.6501
920
900
880
860
840
820
800
780
760
740
720

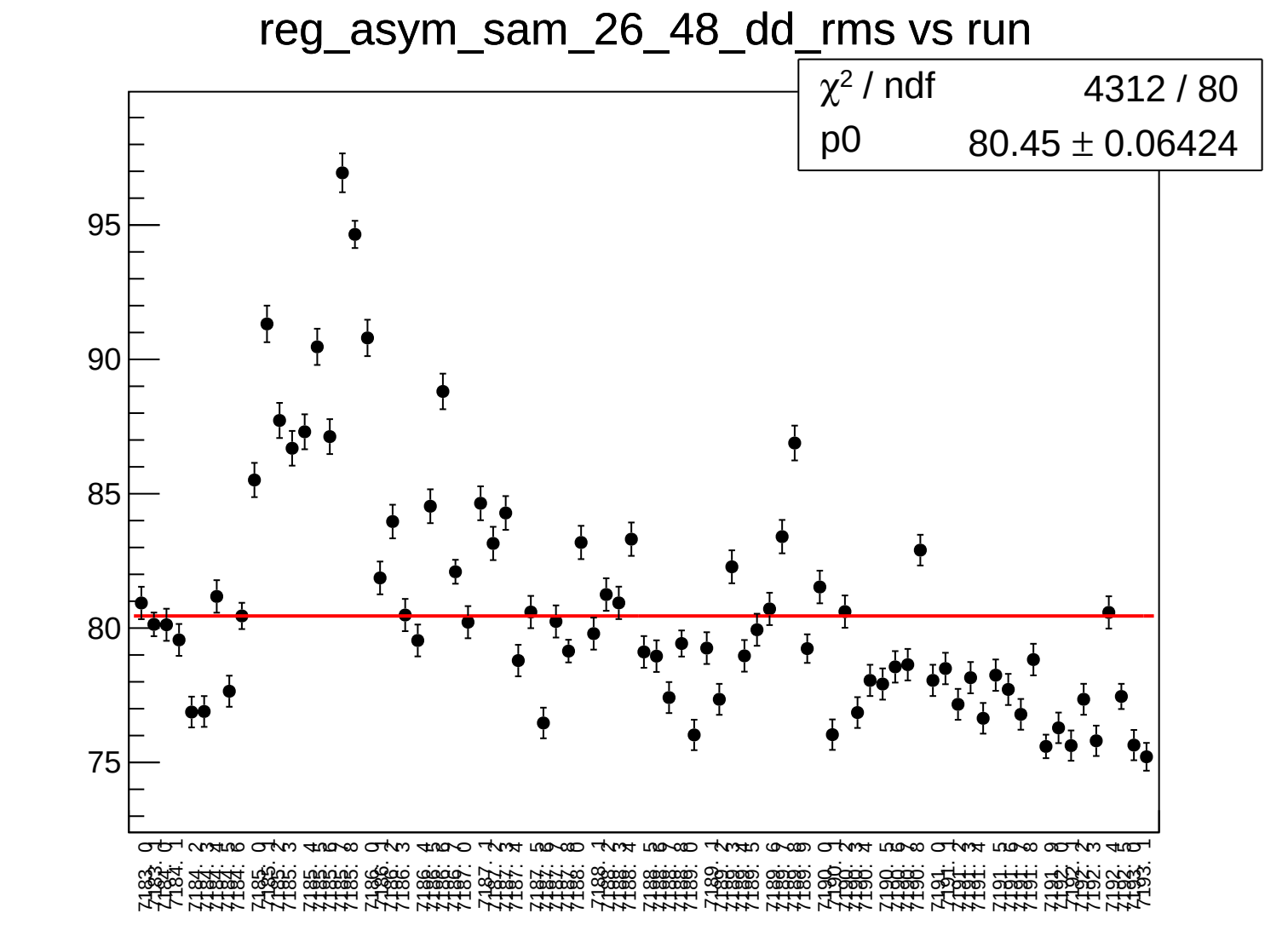

asym_sam_24_68_dd_mean vs run
χ² / ndf 89.64 / 80
p0 211 ± 922.9
30000
20000
10000
0
−10000
−20000
−30000
−40000
pull
Entries 81
Mean 4219
Std Dev 4189
2
1
0
−1
−2
−3

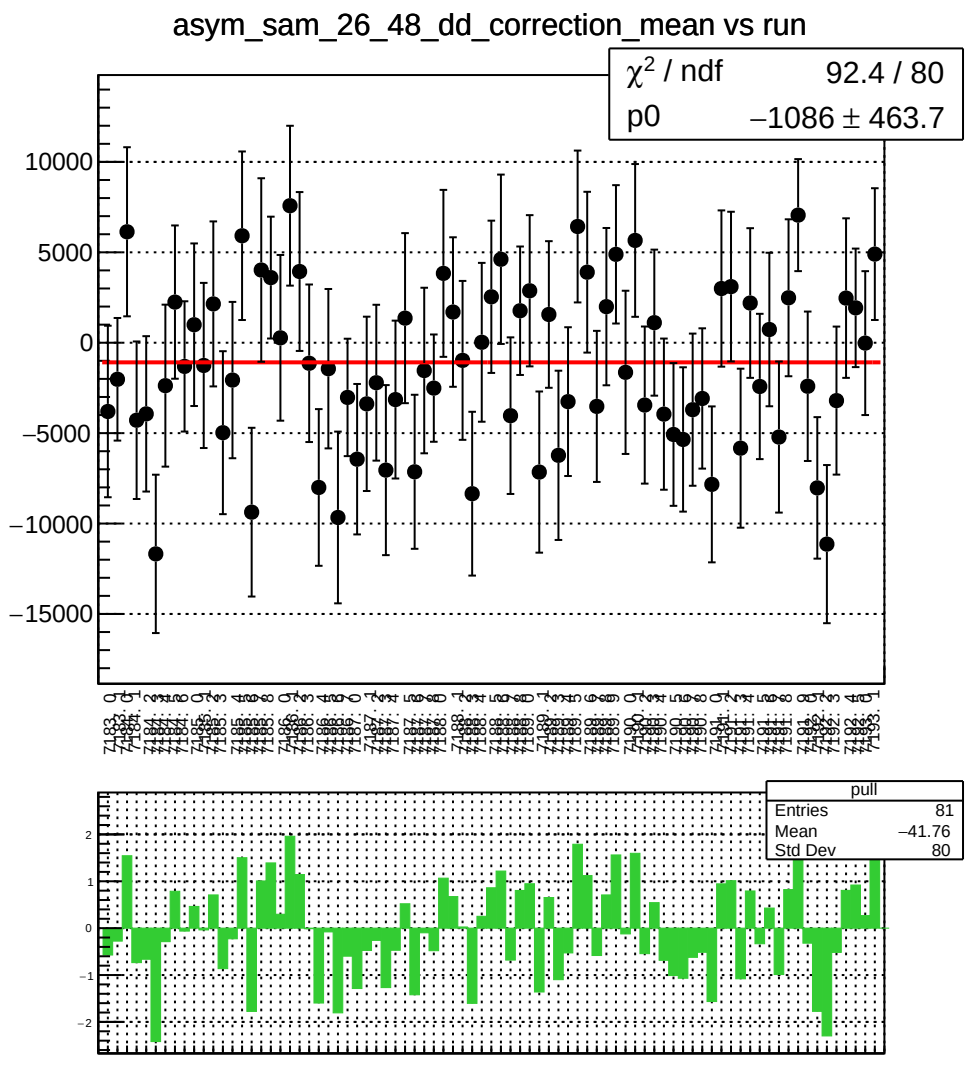

pull1D
Entries 81
Mean −0.0005234
Std Dev 1.052
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

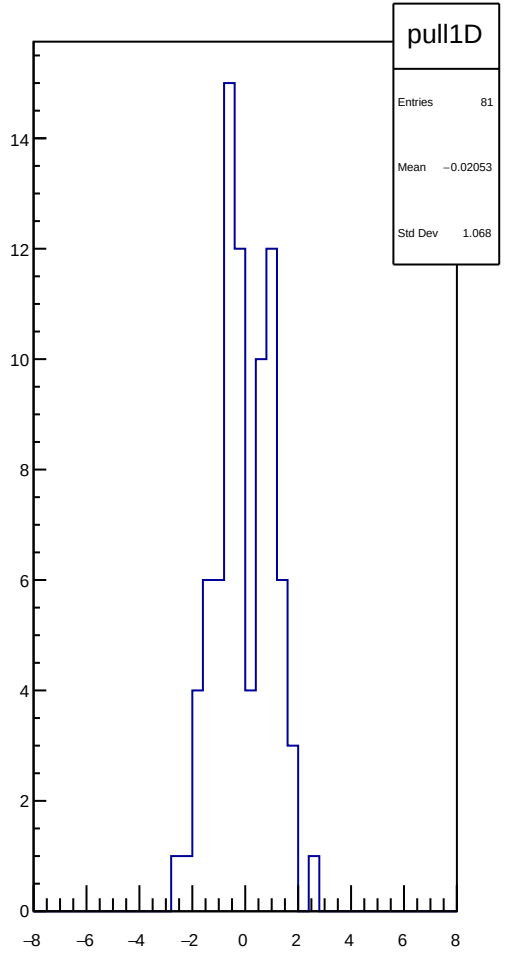

asym_sam_24_68_dd_rms vs run
χ^2 / ndf 3415 / 80
p0 817.5 ± 0.6526
920
900
880
860
840
820
800
780
760
740
720

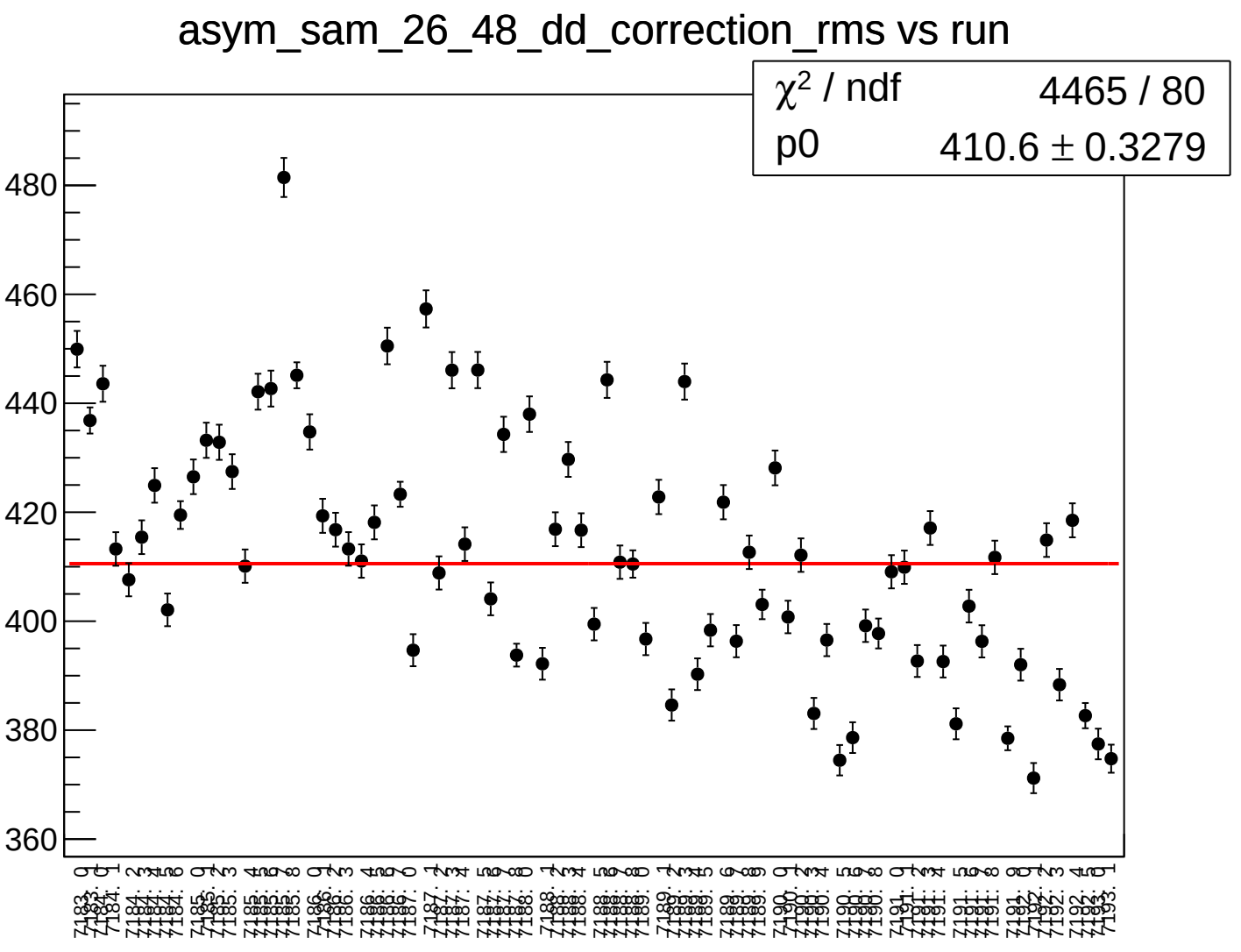

reg_asym_sam_26_48_dd_mean vs run
χ^2 / ndf 93.18 / 80
p0 −51.53 ± 90.85
3000
2000
1000
0
−1000
−2000
−3000
pull
Entries 81
Mean 1871
Std Dev 1793
2
1
0
−1
−2

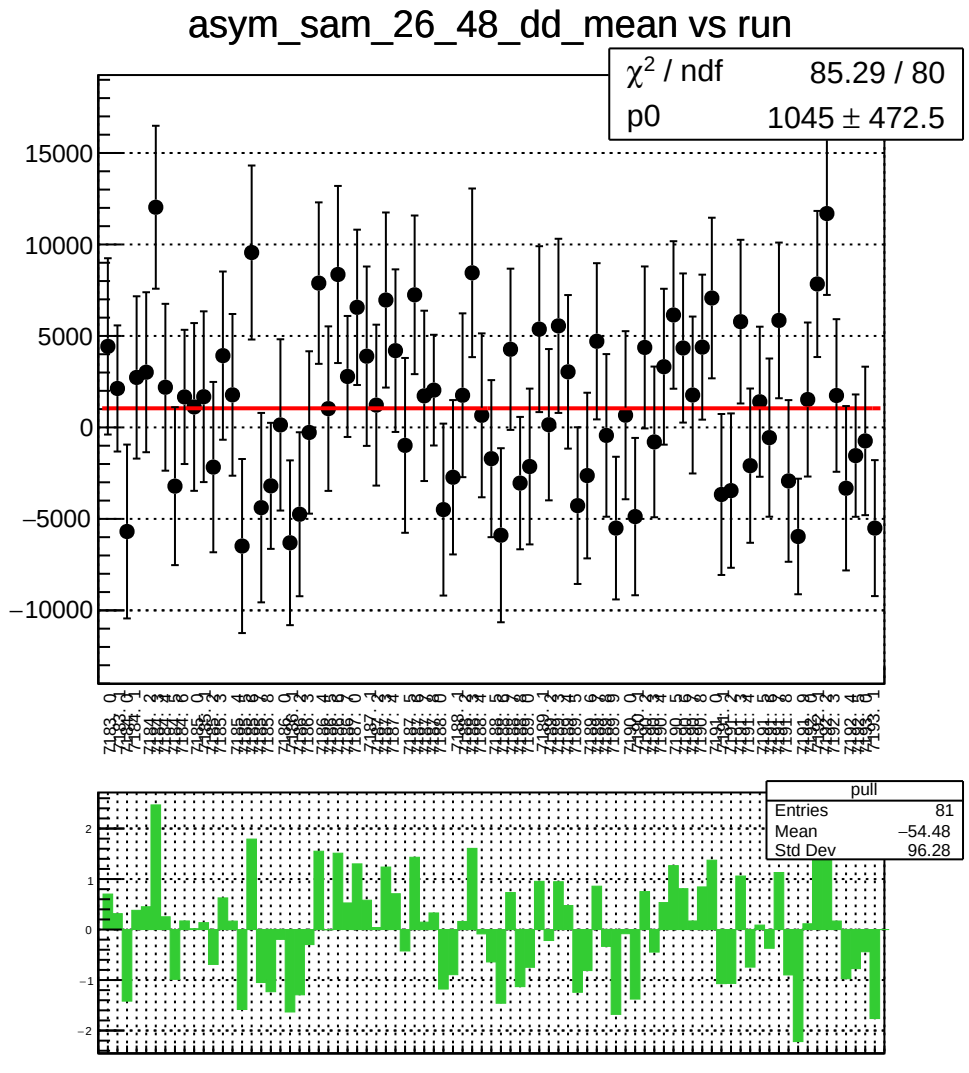

pull1D
Entries 81
Mean −0.0004122
Std Dev 1.073
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

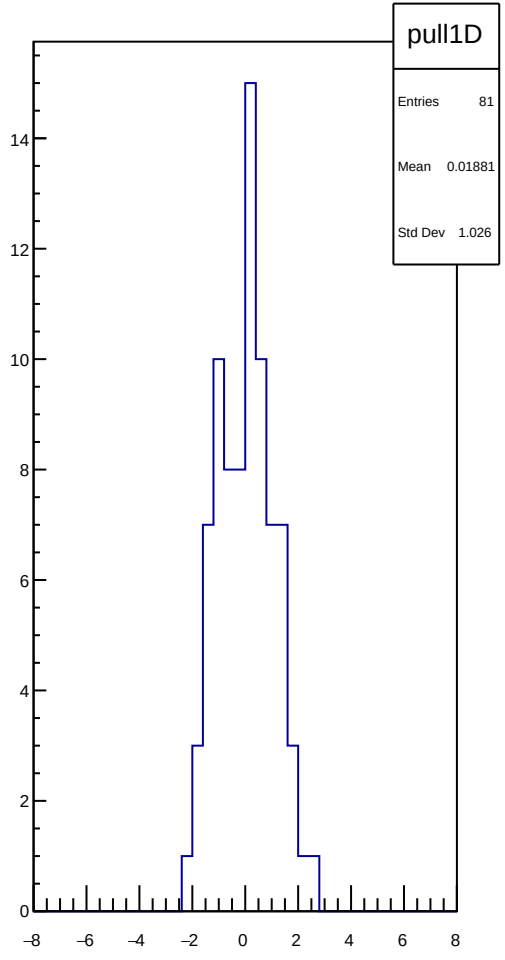

reg_asym_sam_26_48_dd_rms vs run
χ² / ndf 4312 / 80
p0 80.45 ± 0.06424
95
90
85
80
75

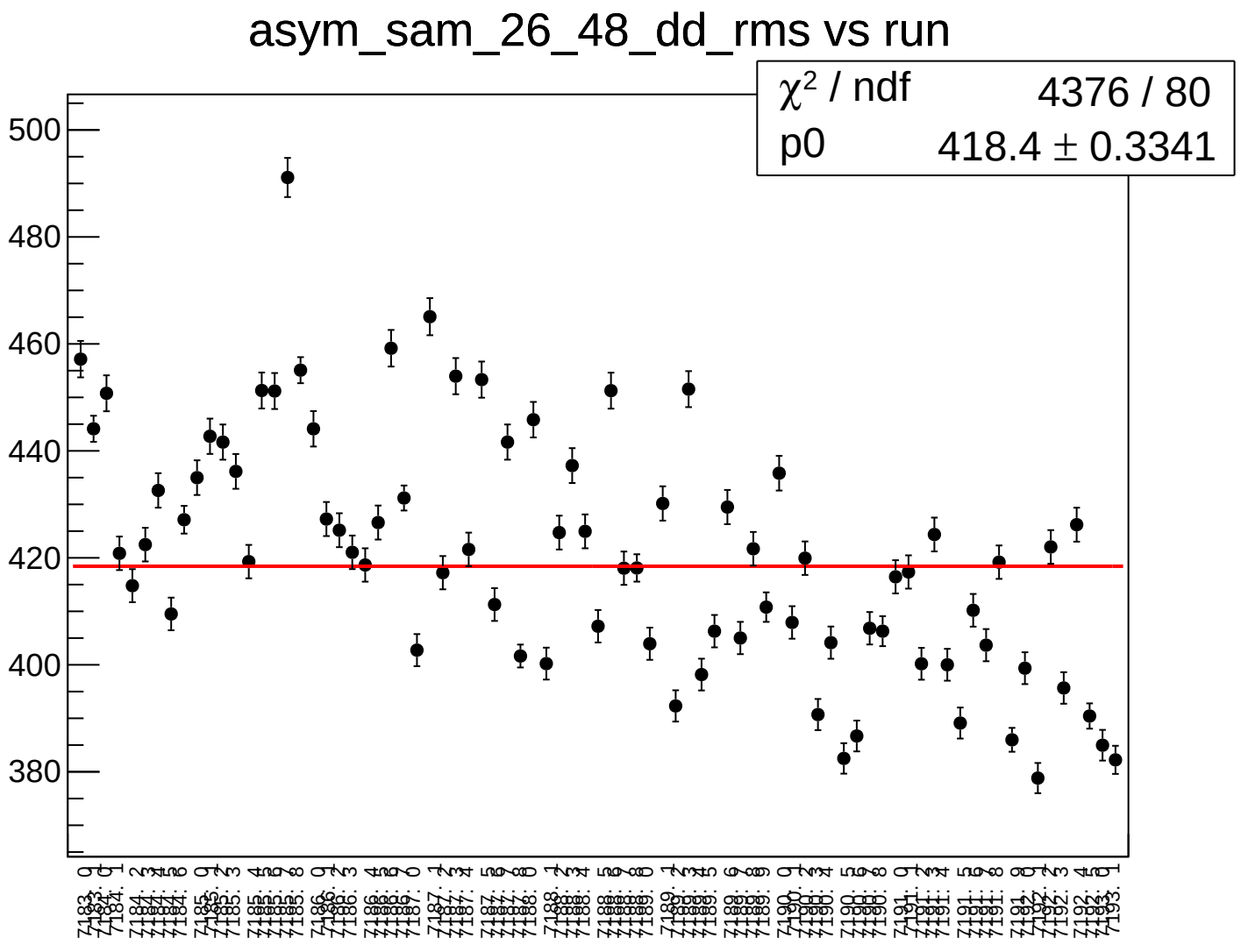

asym_sam_26_48_dd_correction_mean vs run
χ² / ndf 92.4 / 80
p0 −1086 ± 463.7
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean −41.76
Std Dev 80
2
1
0
−1
−2

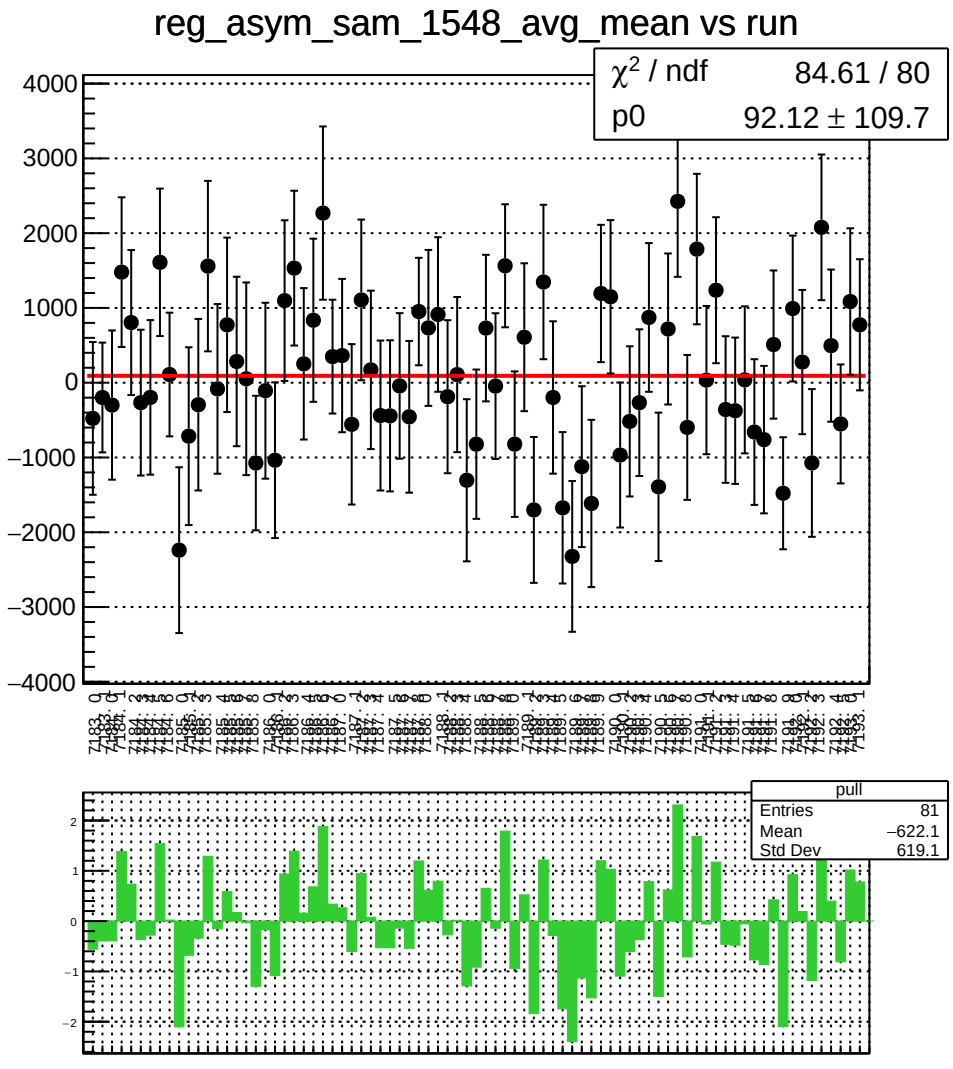

pull1D
Entries 81
Mean −0.02053
Std Dev 1.068
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

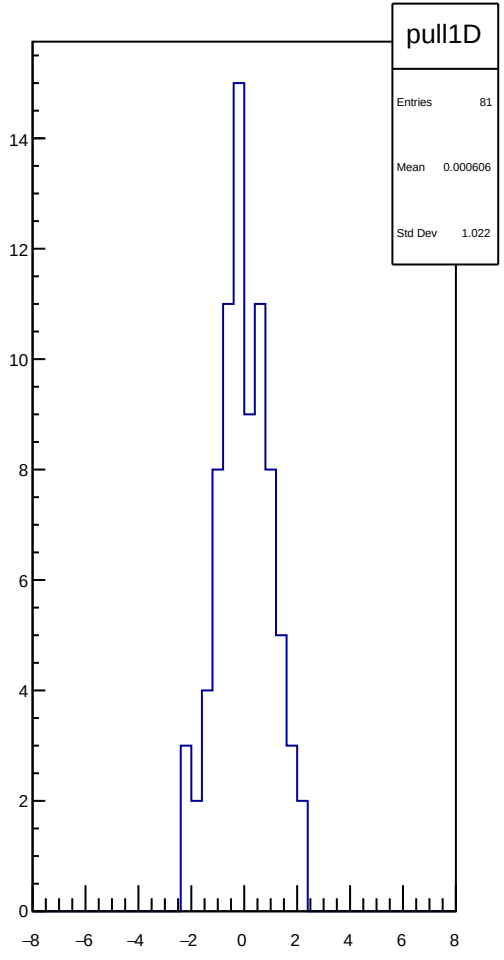

asym_sam_26_48_dd_correction_rms vs run
χ² / ndf 4465 / 80
p0 410.6 ± 0.3279
480
460
440
420
400
380
360

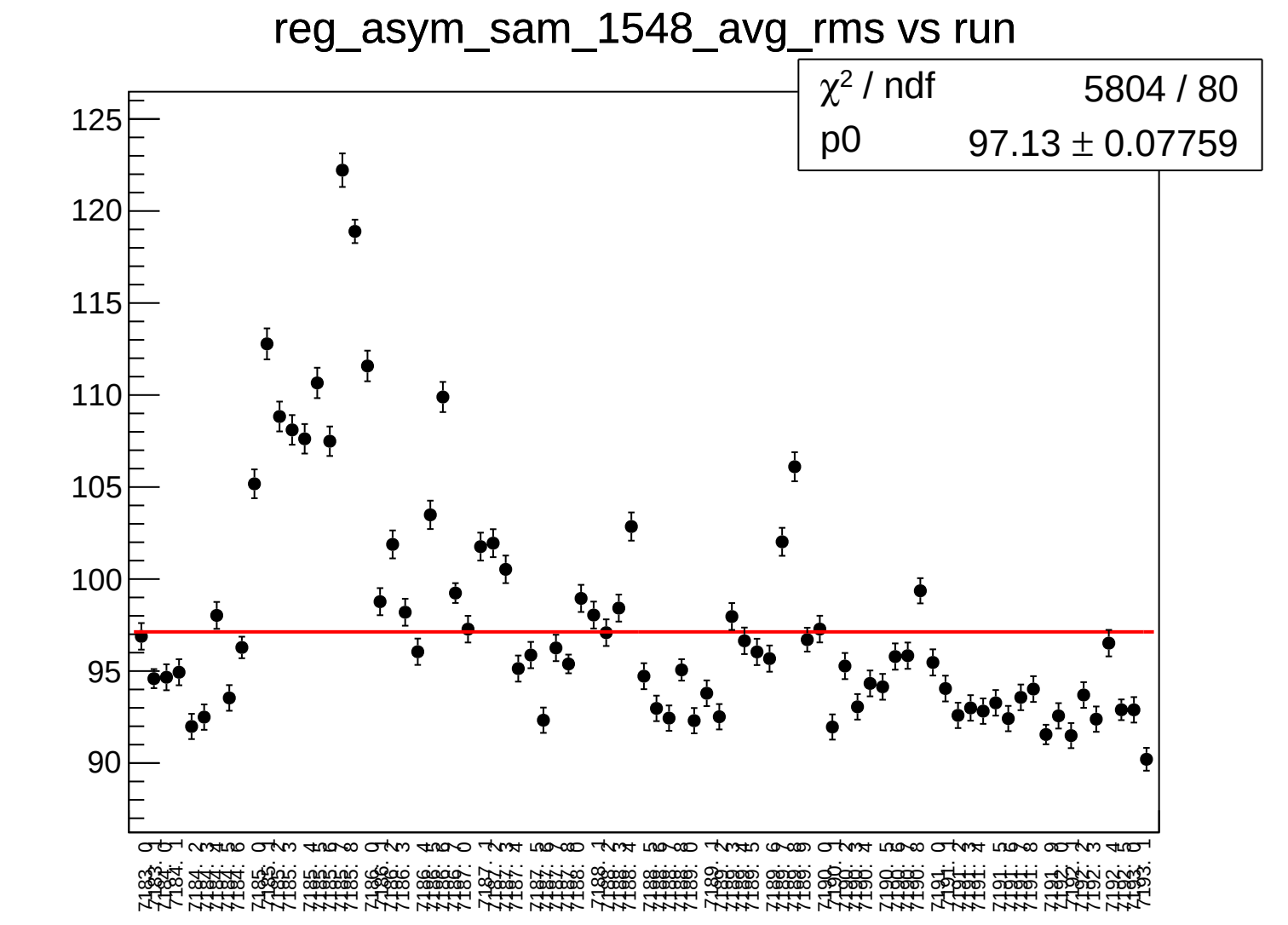

asym_sam_26_48_dd_mean vs run
χ² / ndf 85.29 / 80
p0 1045 ± 472.5
15000
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −54.48
Std Dev 96.28
2
1
0
−1
−2

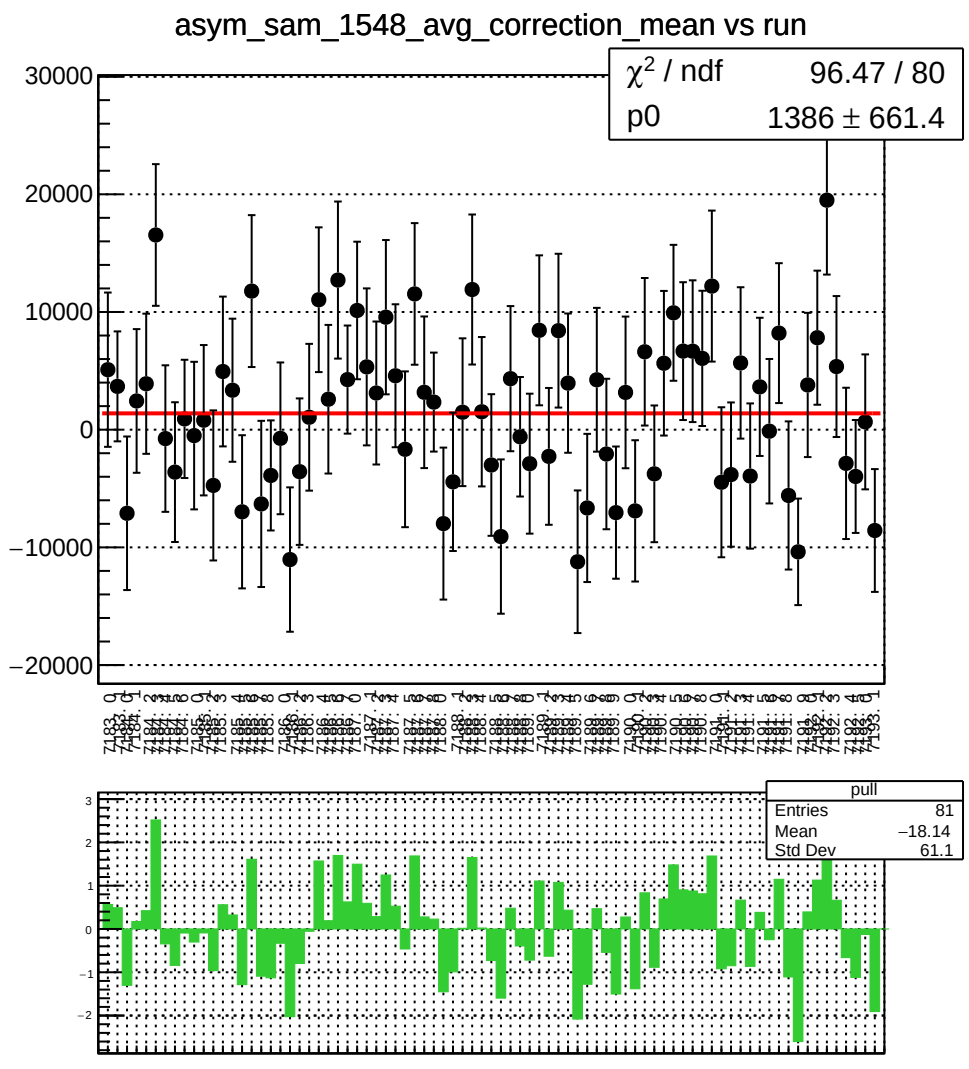

pull1D
Entries 81
Mean 0.01881
Std Dev 1.026
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

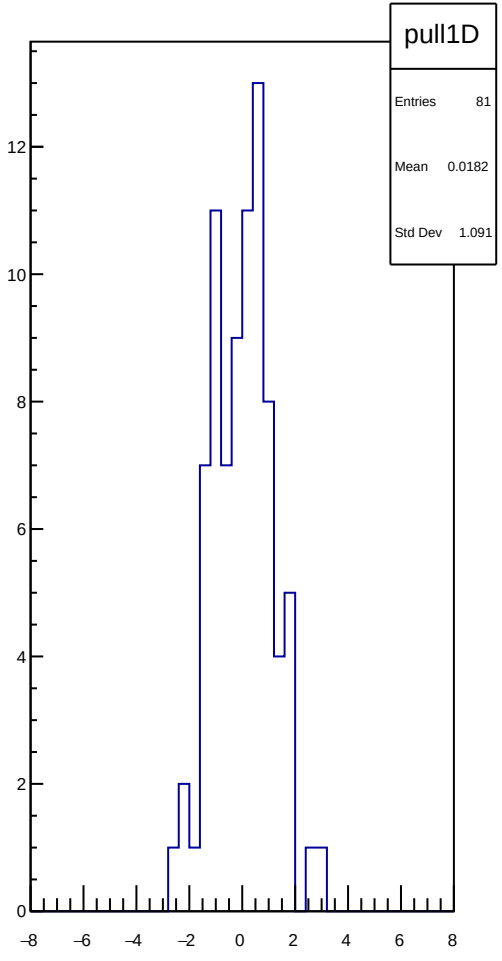

asym_sam_26_48_dd_rms vs run
χ² / ndf 4376 / 80
p0 418.4 ± 0.3341
500
480
460
440
420
400
380

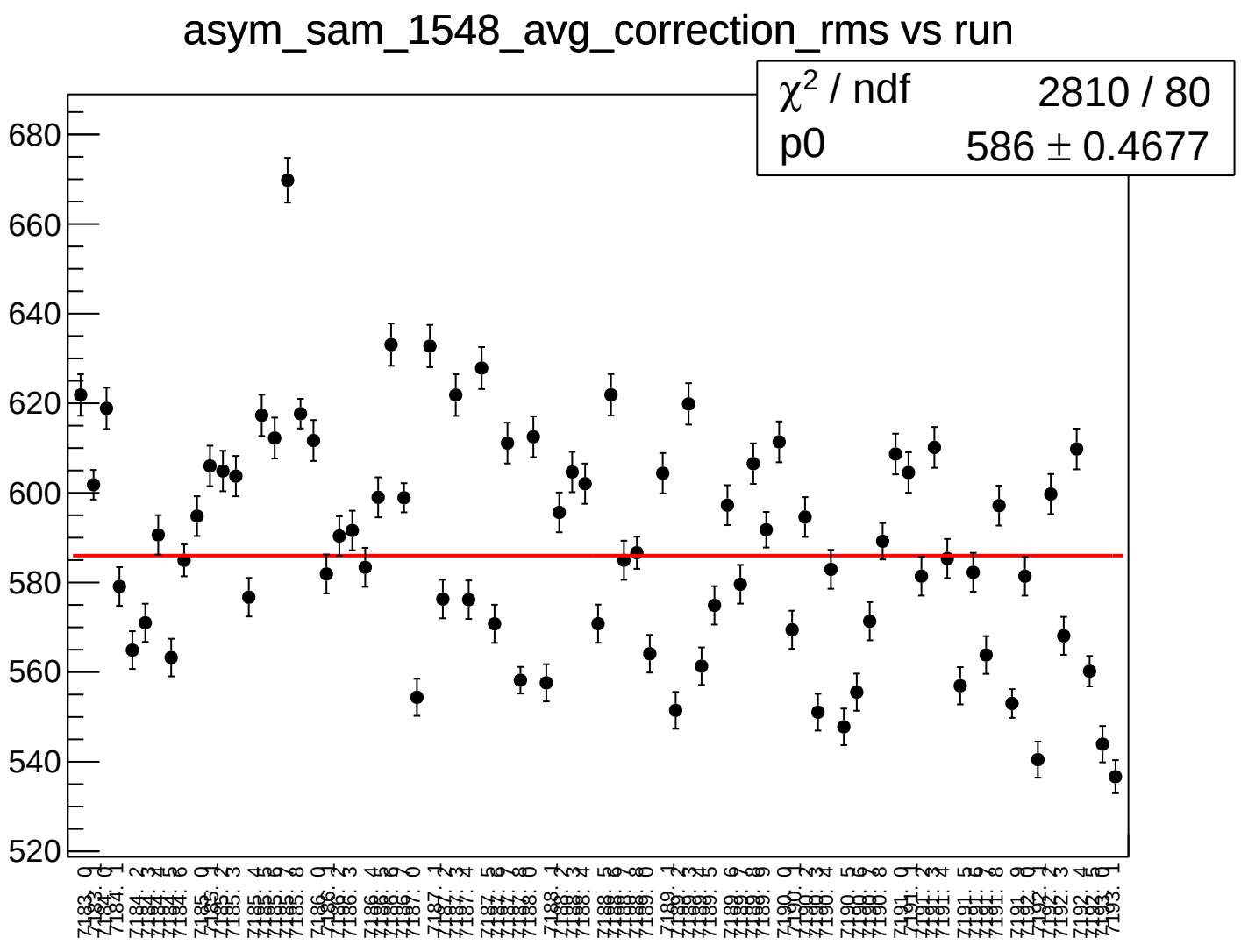

reg_asym_sam_1548_avg_mean vs run
χ² / ndf 84.61 / 80
p0 92.12 ± 109.7
pull
Entries 81
Mean −622.1
Std Dev 619.1

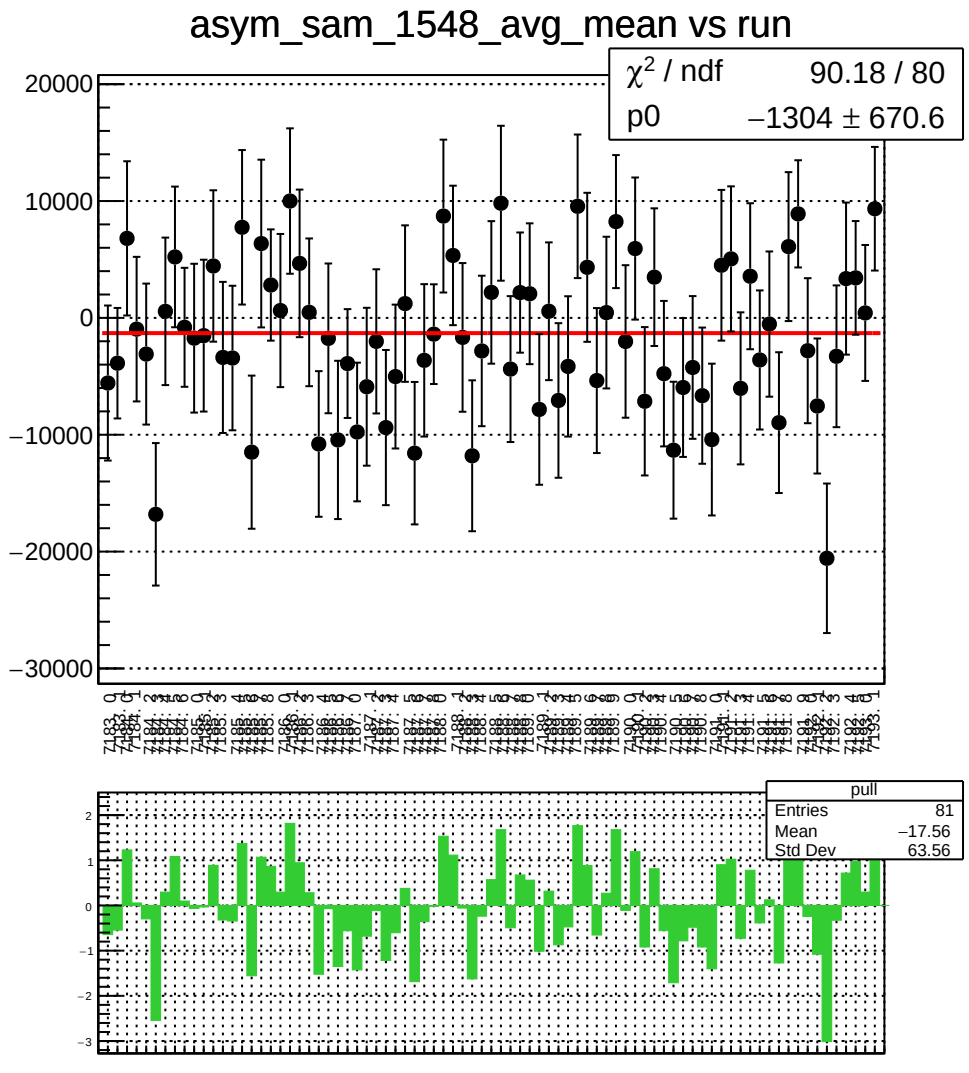

pull1D
Entries 81
Mean 0.000606
Std Dev 1.022

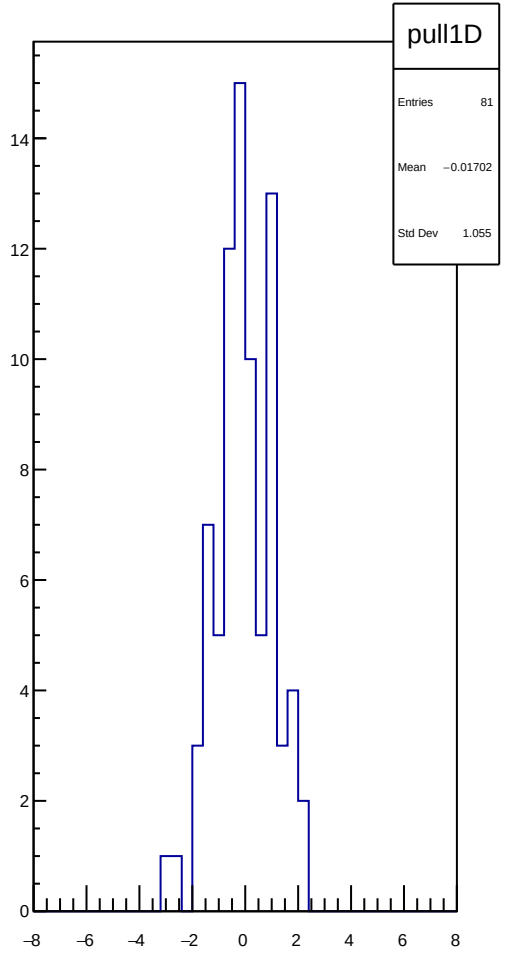

reg_asym_sam_1548_avg_rms vs run
χ^2 / ndf 5804 / 80
p0 97.13 ± 0.07759
125
120
115
110
105
100
95
90

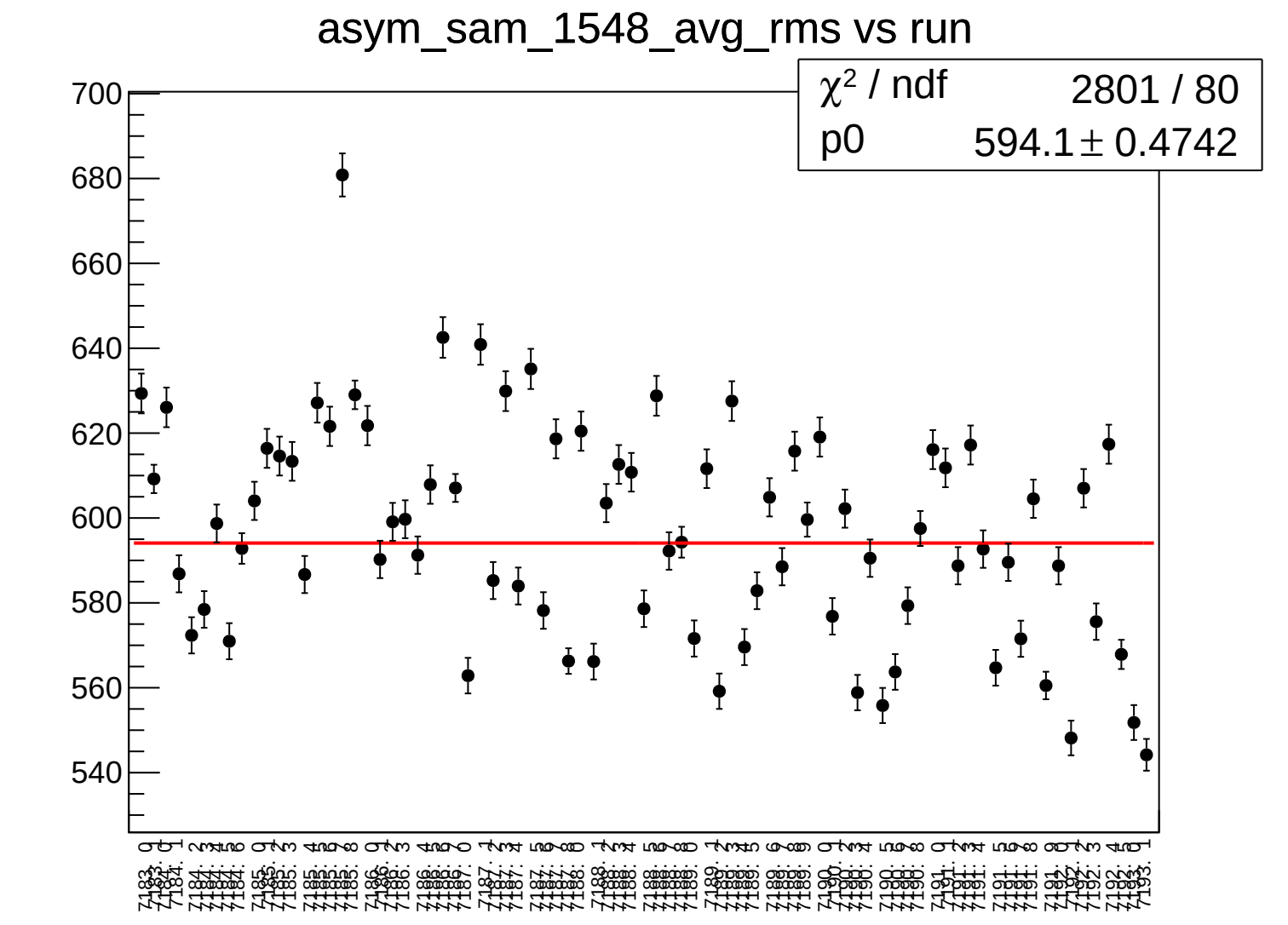

asym_sam_1548_avg_correction_mean vs run
χ² / ndf 96.47 / 80
p0 1386 ± 661.4
30000
20000
10000
0
−10000
−20000
pull
Entries 81
Mean −18.14
Std Dev 61.1
3
2
1
0
−1
−2

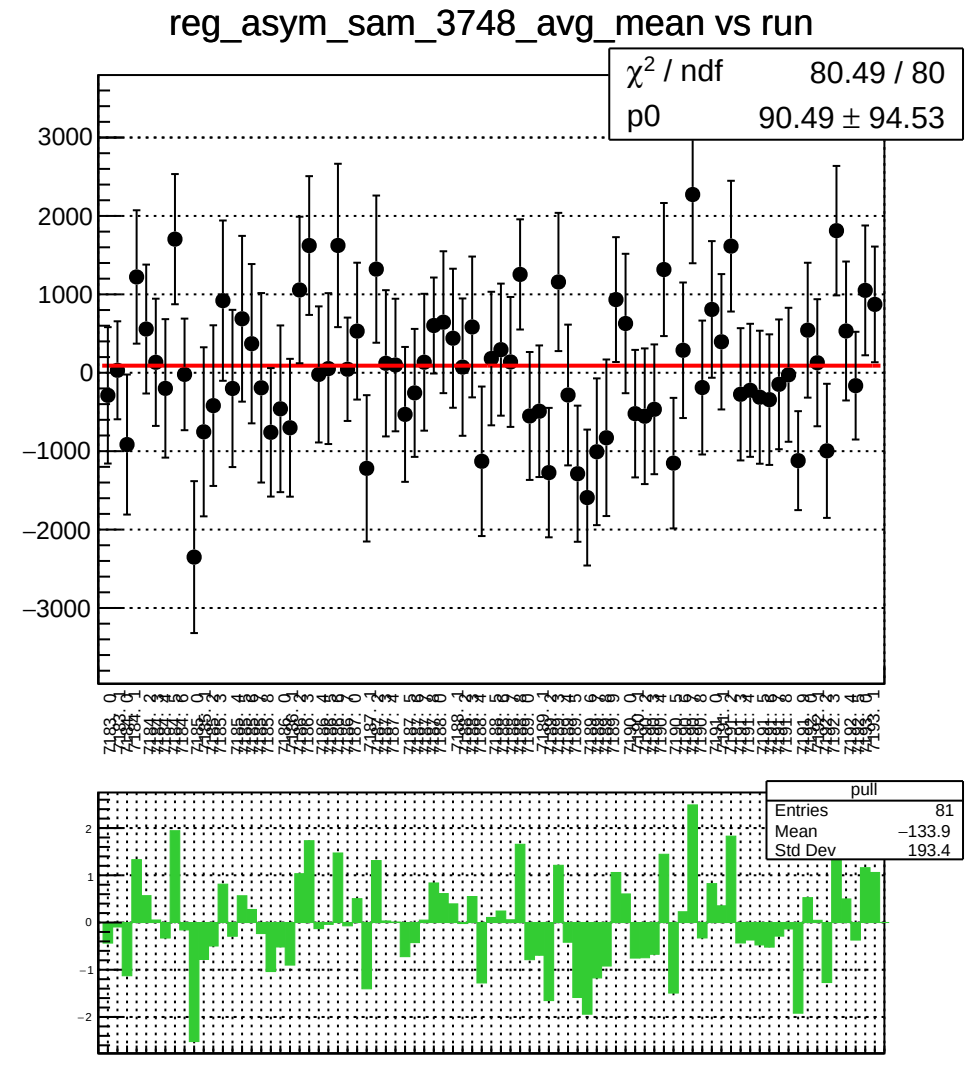

pull1D
Entries 81
Mean 0.0182
Std Dev 1.091
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

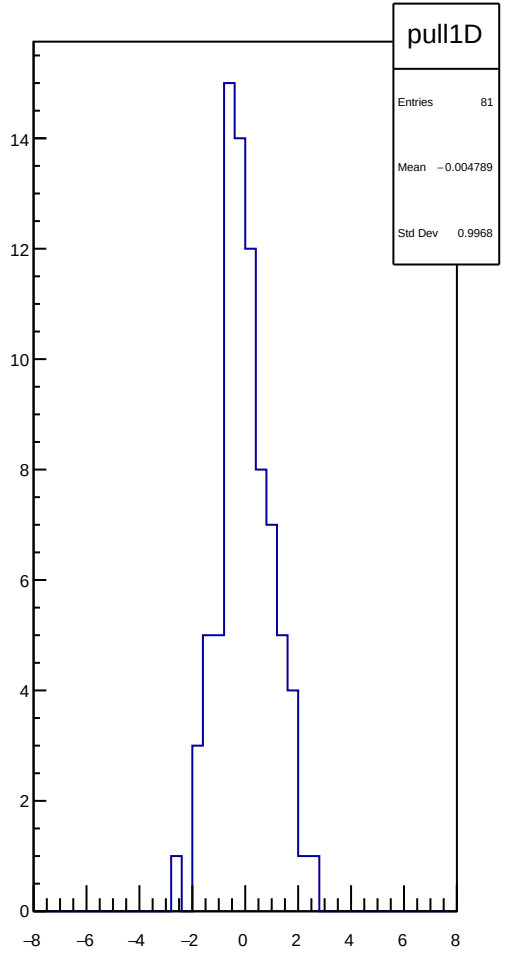

asym_sam_1548_avg_correction_rms vs run
χ² / ndf 2810 / 80
p0 586 ± 0.4677
680
660
640
620
600
580
560
540
520

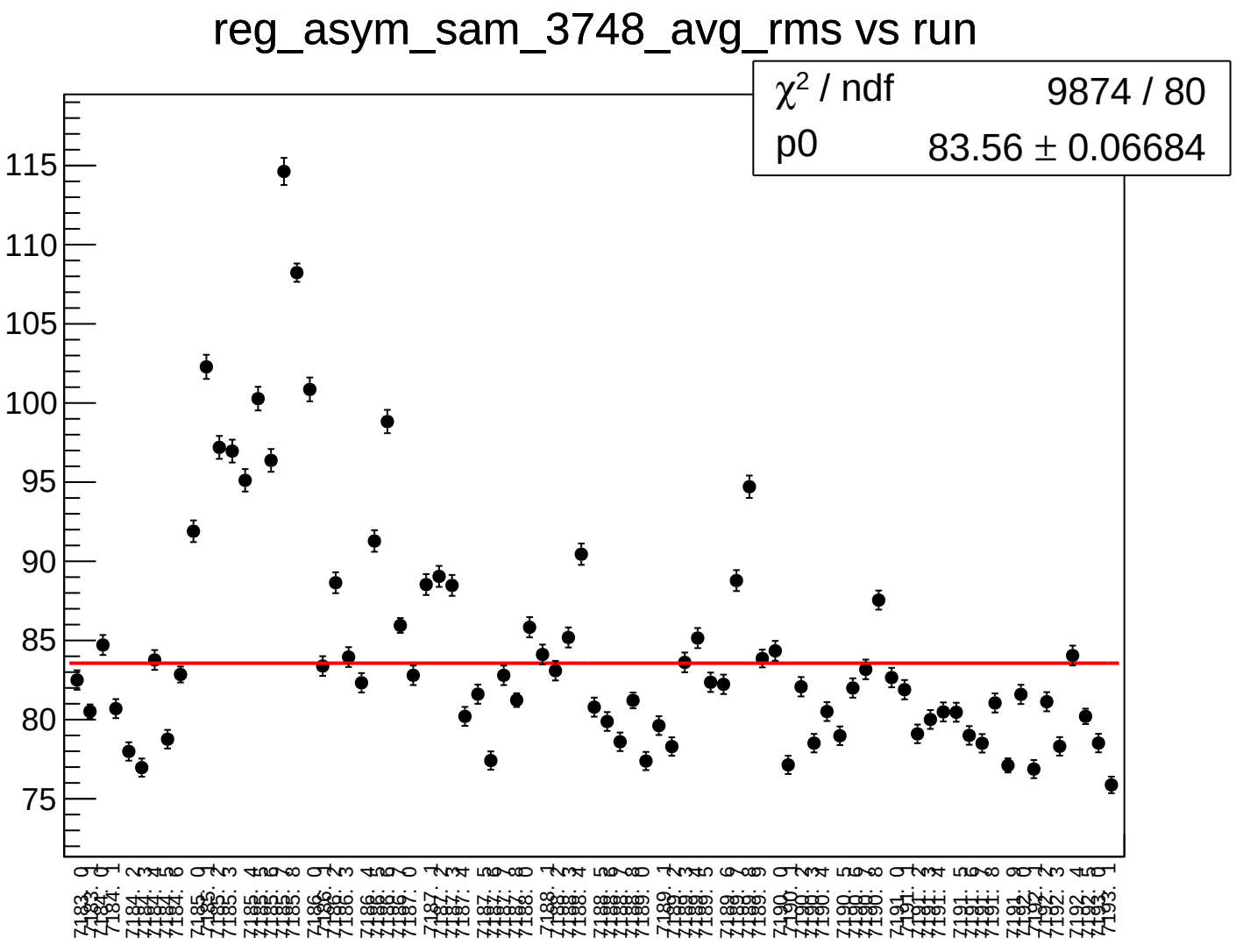

asym_sam_1548_avg_mean vs run
χ² / ndf 90.18 / 80
p0 −1304 ± 670.6
pull
Entries 81
Mean −17.56
Std Dev 63.56

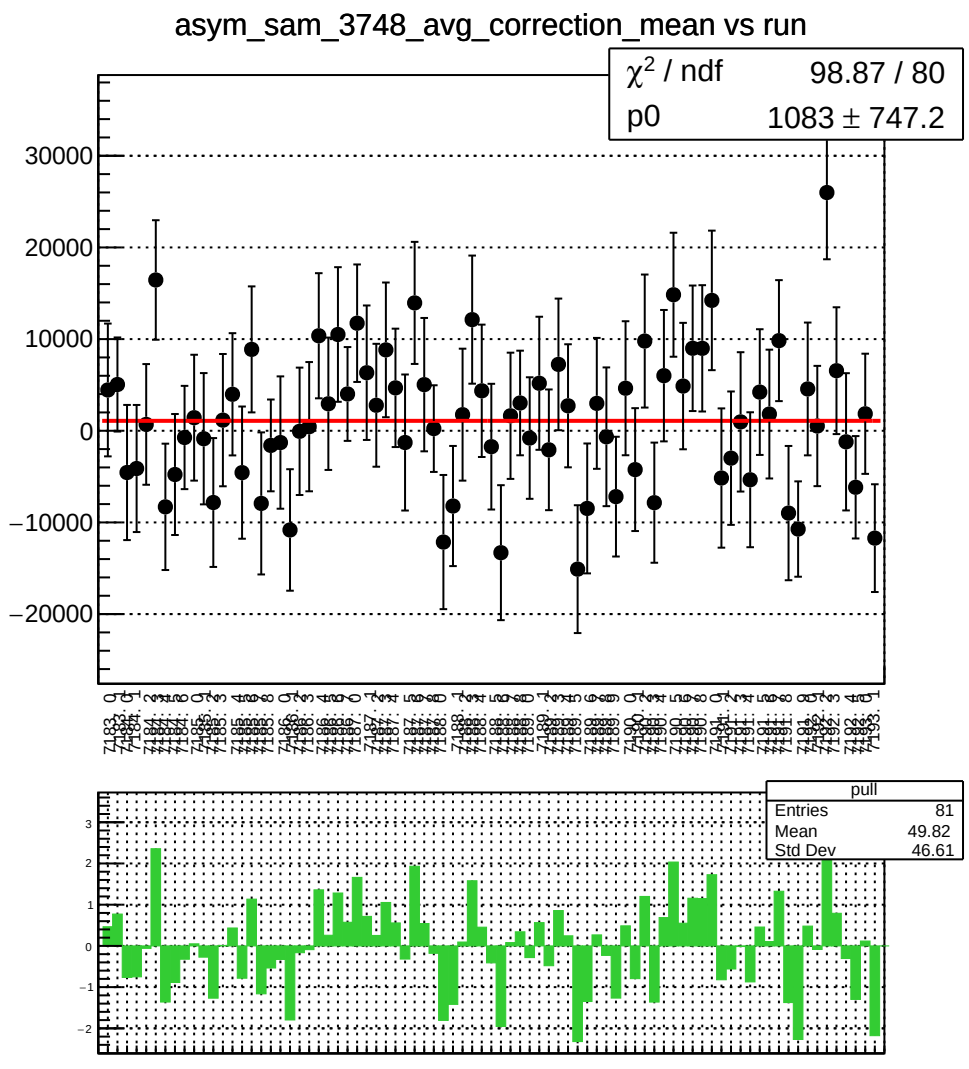

pull1D
Entries 81
Mean −0.01702
Std Dev 1.055

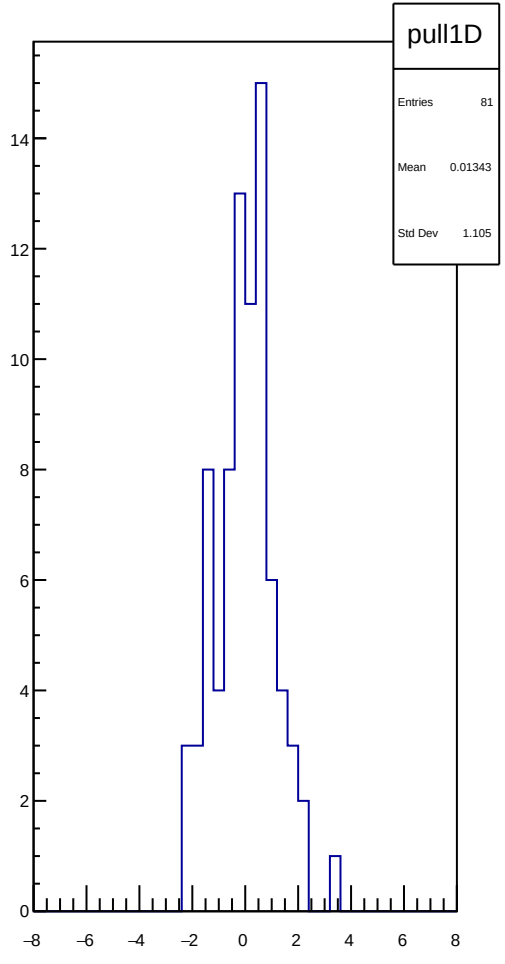

asym_sam_1548_avg_rms vs run
χ² / ndf 2801 / 80
p0 594.1 ± 0.4742
700
680
660
640
620
600
580
560
540

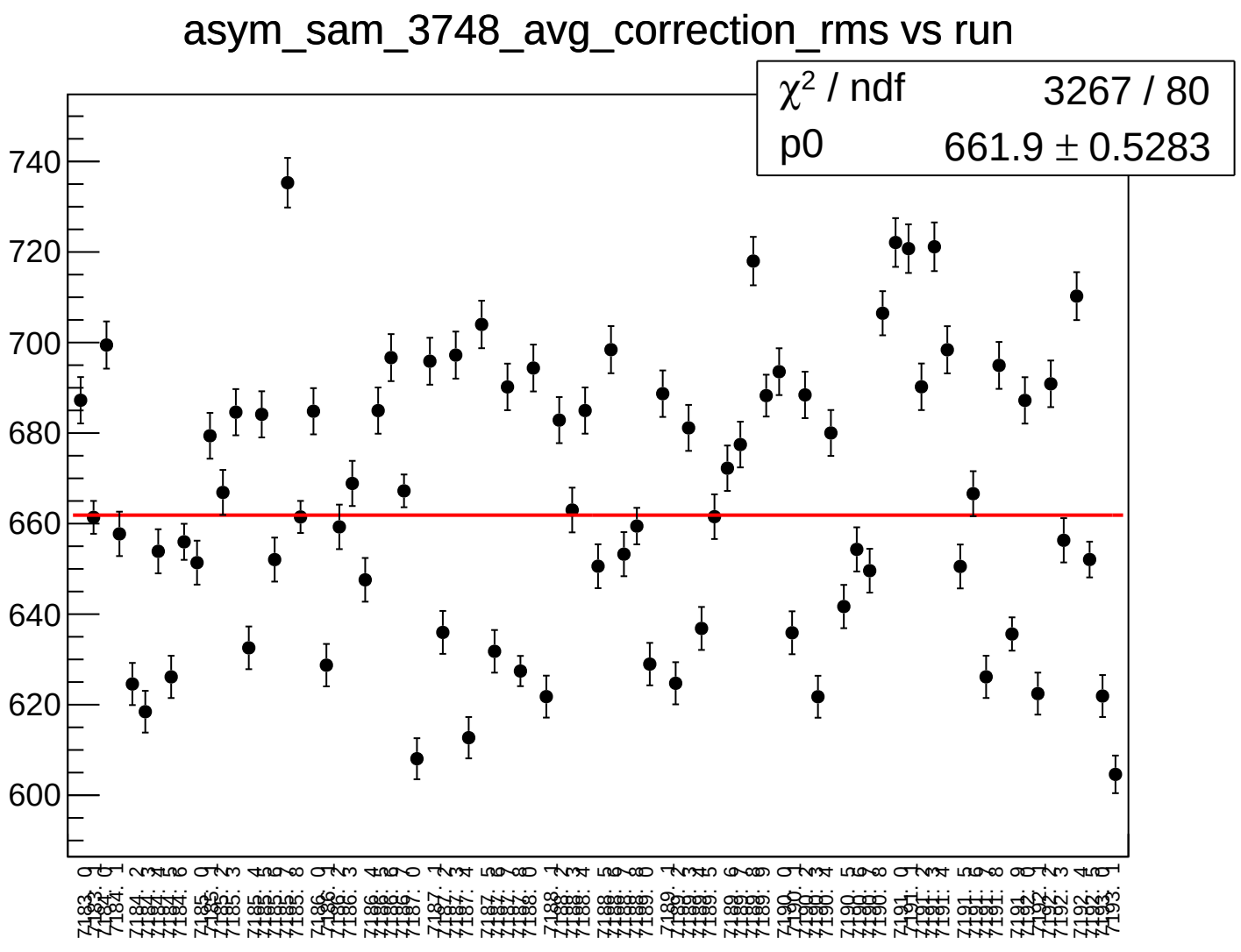

reg_asym_sam_3748_avg_mean vs run
χ² / ndf 80.49 / 80
p0 90.49 ± 94.53
3000
2000
1000
0
−1000
−2000
−3000
pull
Entries 81
Mean −133.9
Std Dev 193.4
2
1
0
−1
−2

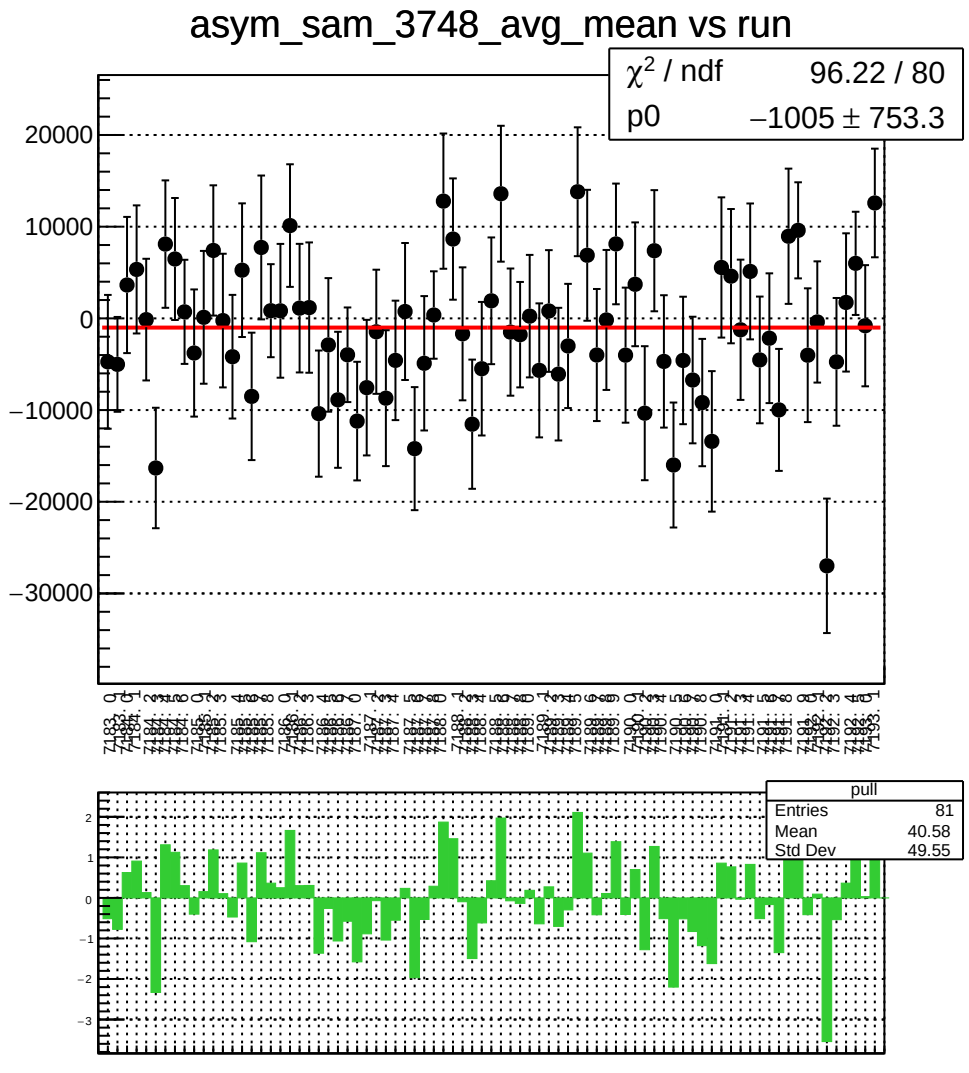

pull1D
Entries 81
Mean −0.004789
Std Dev 0.9968
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

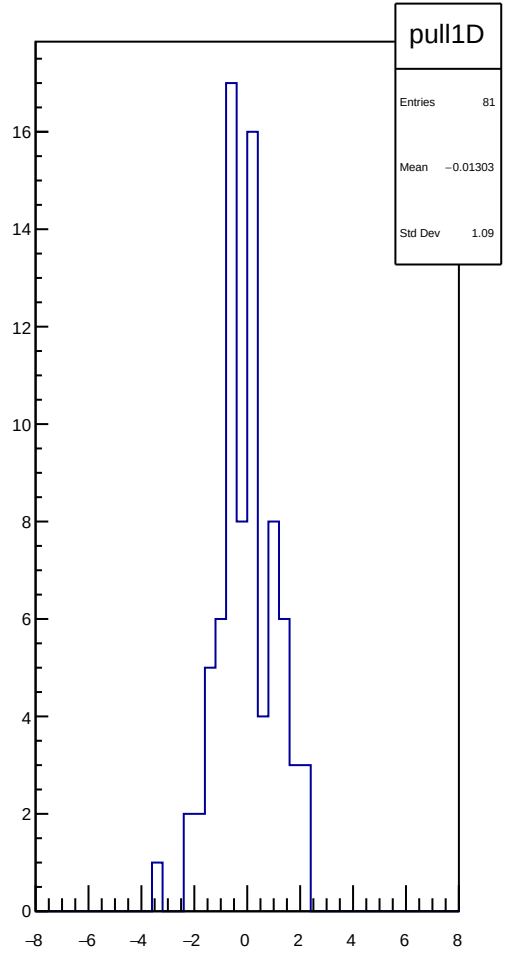

reg_asym_sam_3748_avg_rms vs run
χ^2 / ndf 9874 / 80
p0 83.56 ± 0.06684
115
110
105
100
95
90
85
80
75

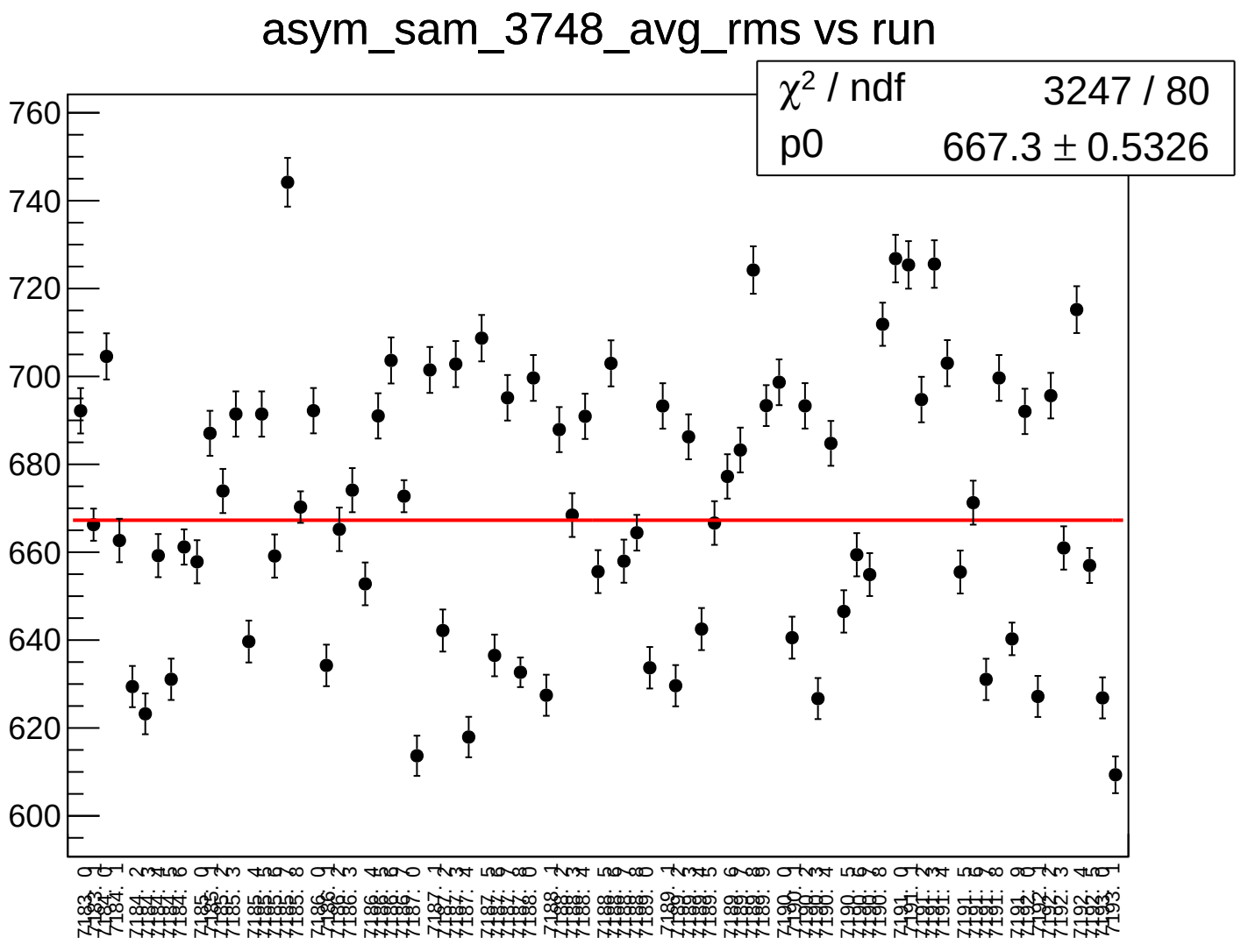

asym_sam_3748_avg_correction_mean vs run
χ² / ndf 98.87 / 80
p0 1083 ± 747.2
30000
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 49.82
Std Dev 46.61
3
2
1
0
−1
−2

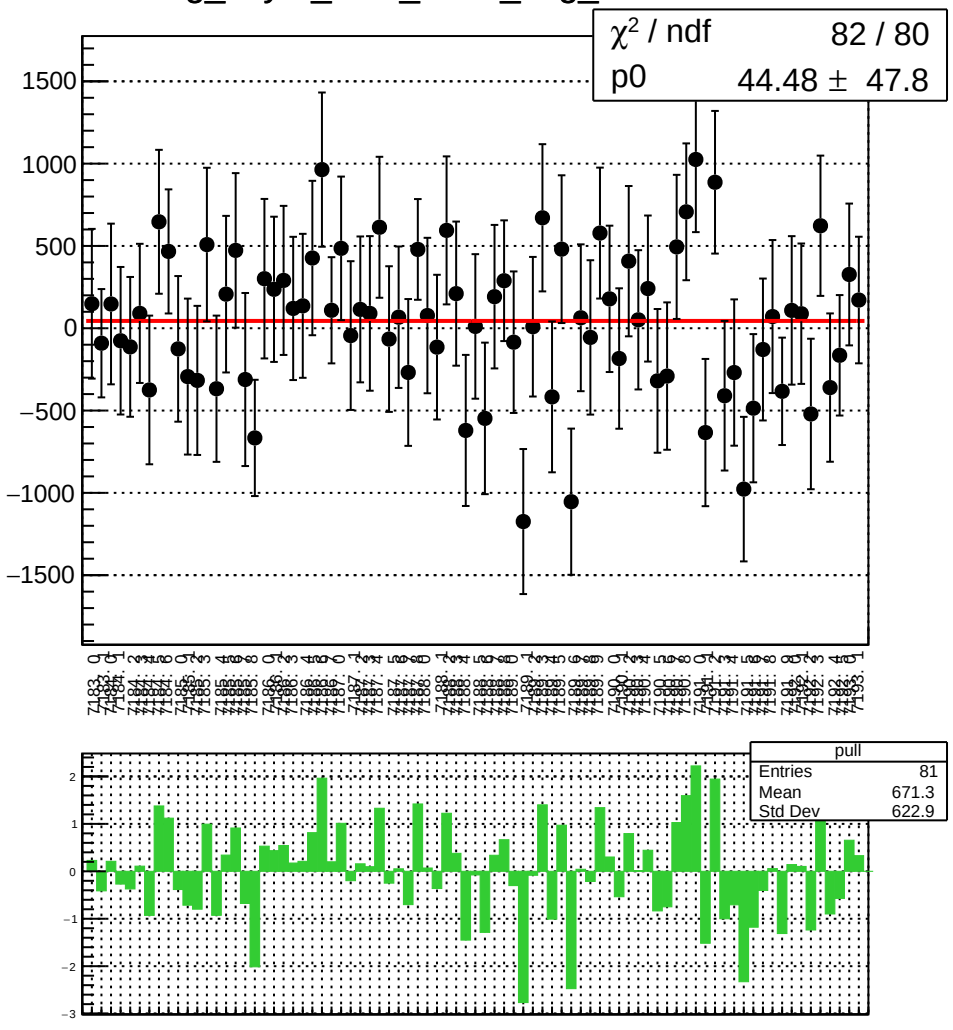

pull1D
Entries 81
Mean 0.01343
Std Dev 1.105
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

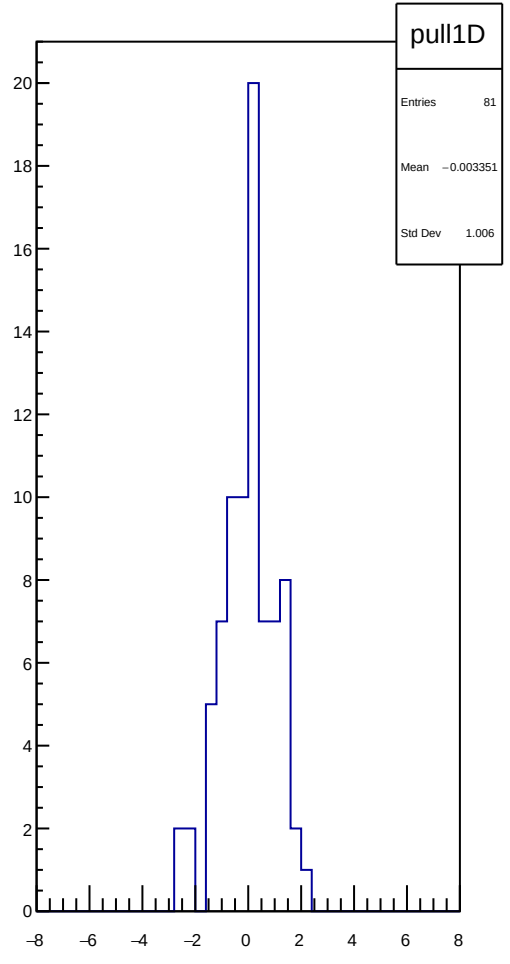

asym_sam_3748_avg_correction_rms vs run
χ² / ndf 3267 / 80
p0 661.9 ± 0.5283
740
720
700
680
660
640
620
600

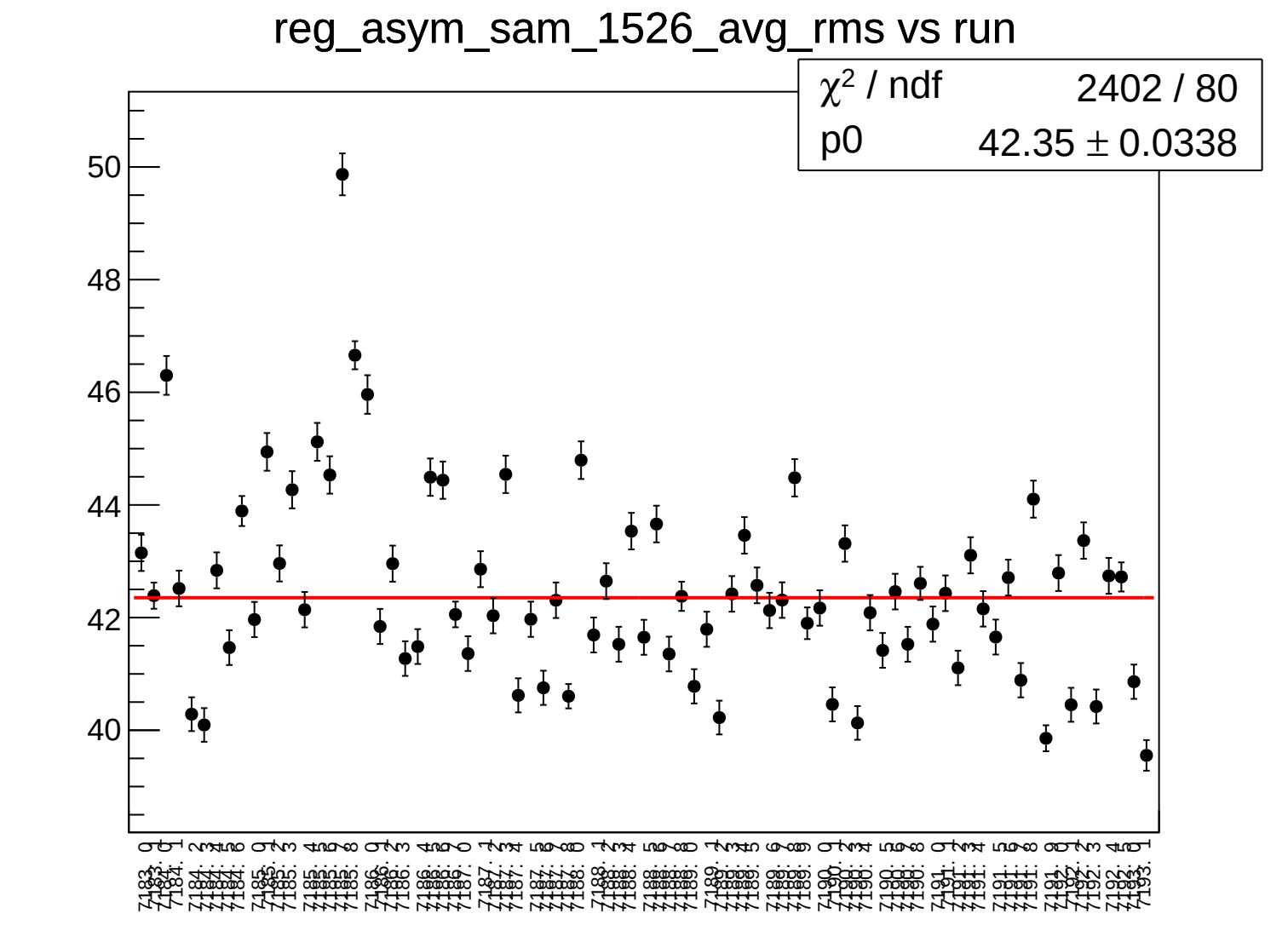

asym_sam_3748_avg_mean vs run
χ² / ndf 96.22 / 80
p0 −1005 ± 753.3
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean 40.58
Std Dev 49.55
2
1
0
−1
−2
−3

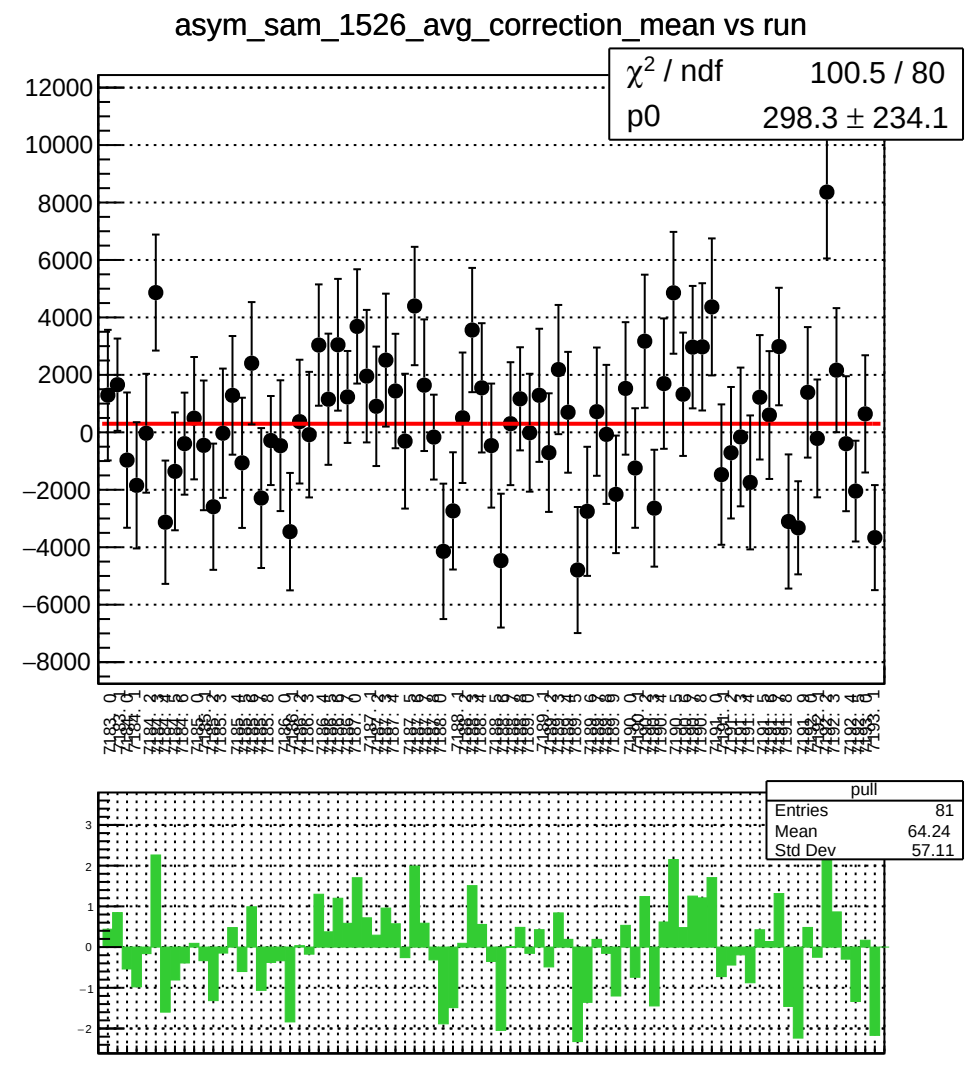

pull1D
Entries 81
Mean −0.01303
Std Dev 1.09
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

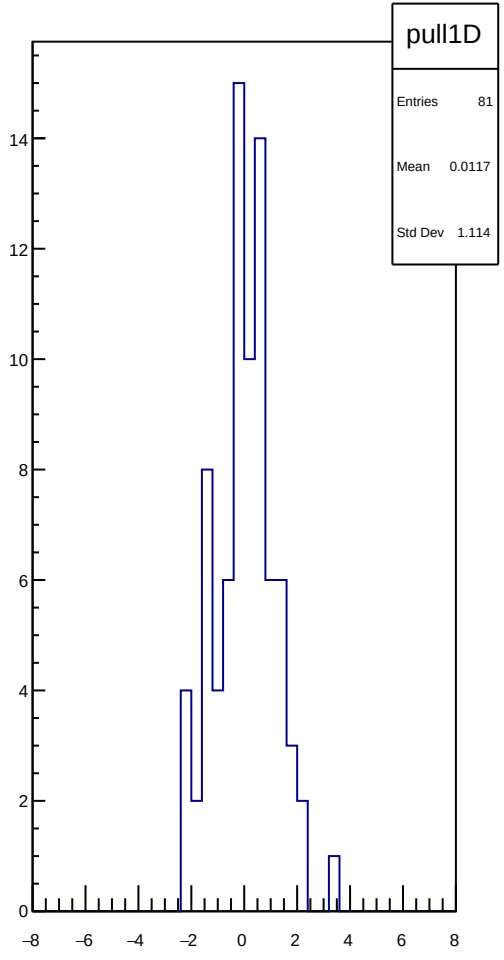

asym_sam_3748_avg_rms vs run
χ² / ndf 3247 / 80
p0 667.3 ± 0.5326
760
740
720
700
680
660
640
620
600

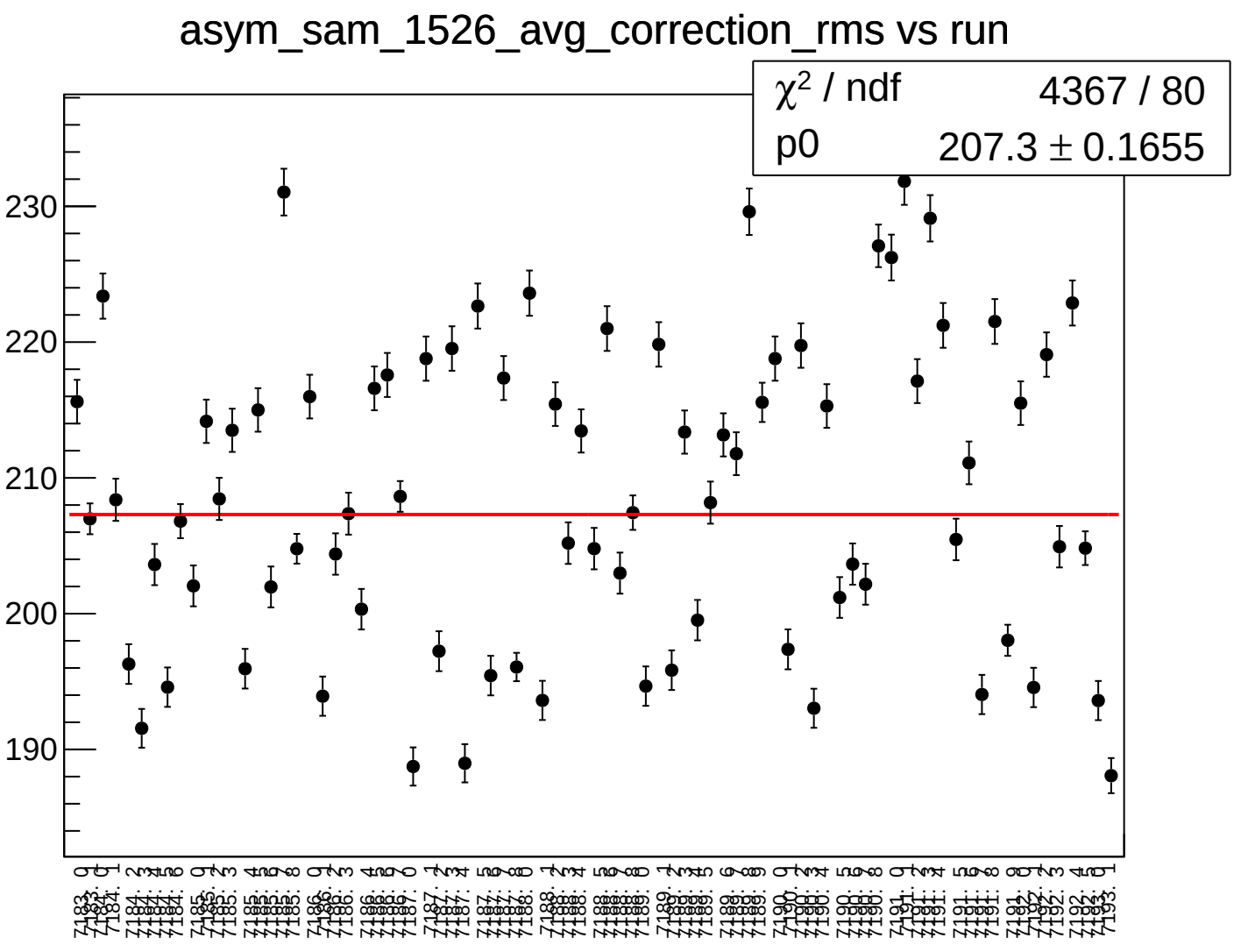

reg_asym_sam_1526_avg_mean vs run
χ² / ndf 82 / 80
p0 44.48 ± 47.8
pull
Entries 81
Mean 671.3
Std Dev 622.9

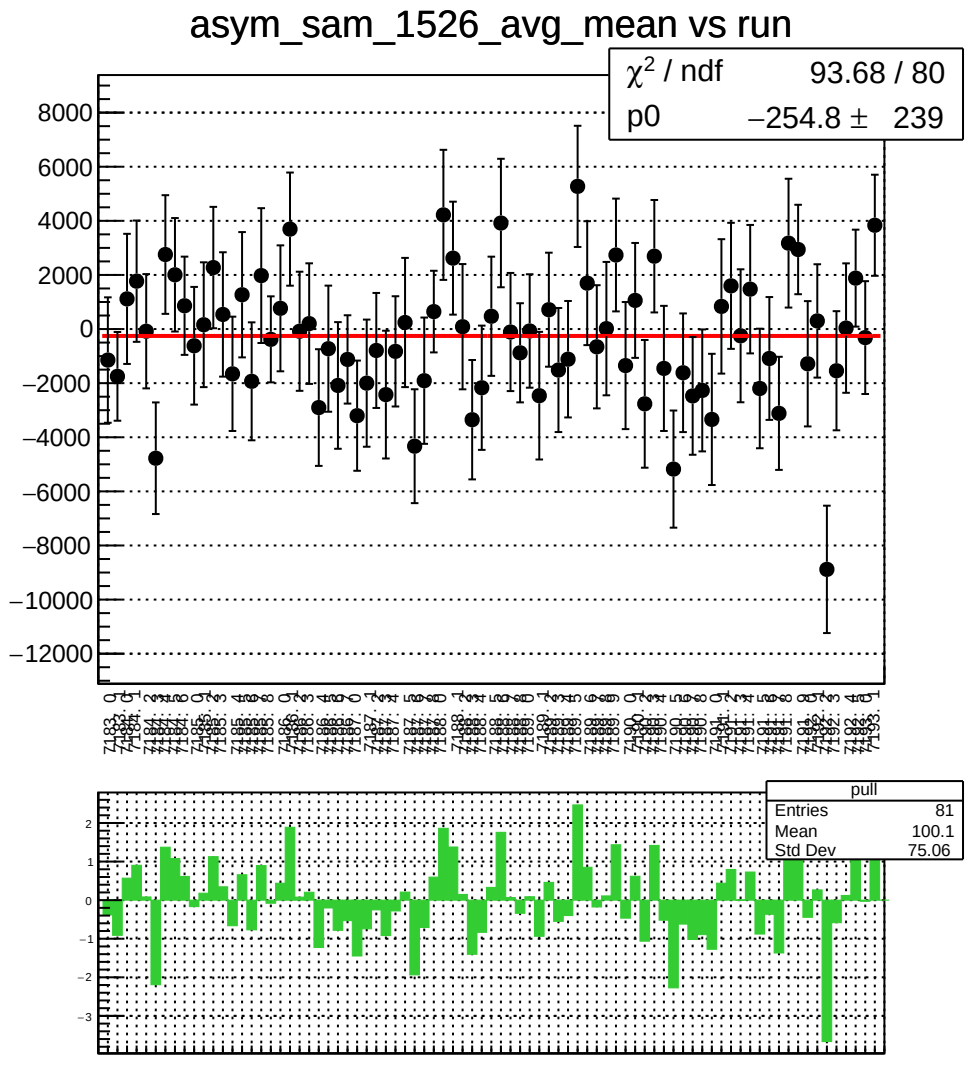

pull1D
Entries 81
Mean −0.003351
Std Dev 1.006

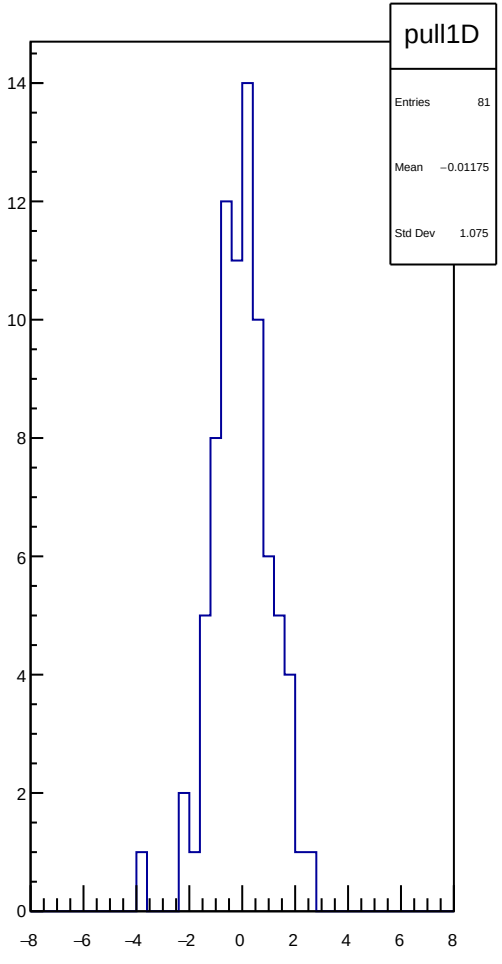

reg_asym_sam_1526_avg_rms vs run
χ² / ndf 2402 / 80
p0 42.35 ± 0.0338
50
48
46
44
42
40

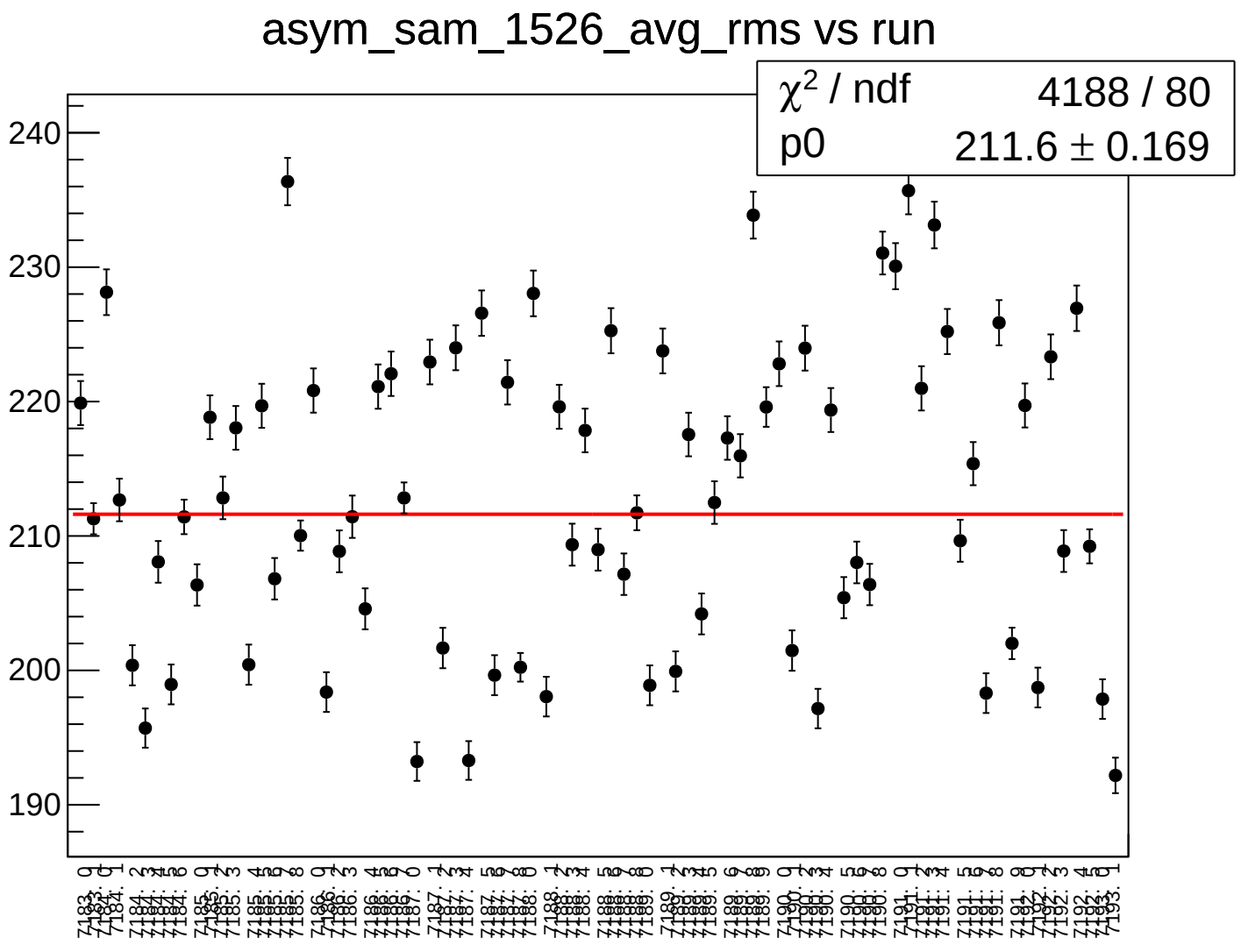

asym_sam_1526_avg_correction_mean vs run
χ² / ndf 100.5 / 80
p0 298.3 ± 234.1
pull
Entries 81
Mean 64.24
Std Dev 57.11

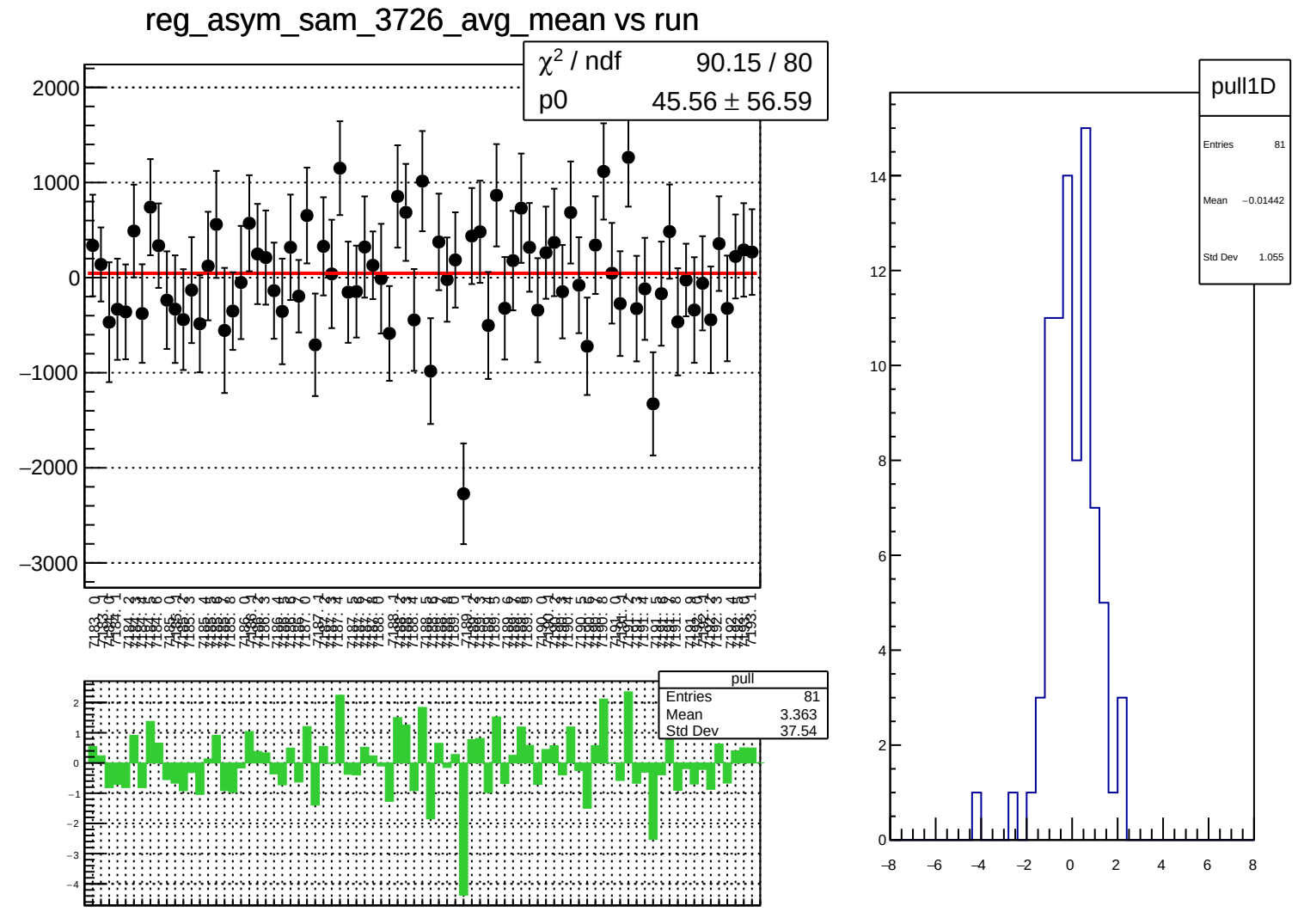

pull1D
Entries 81
Mean 0.0117
Std Dev 1.114

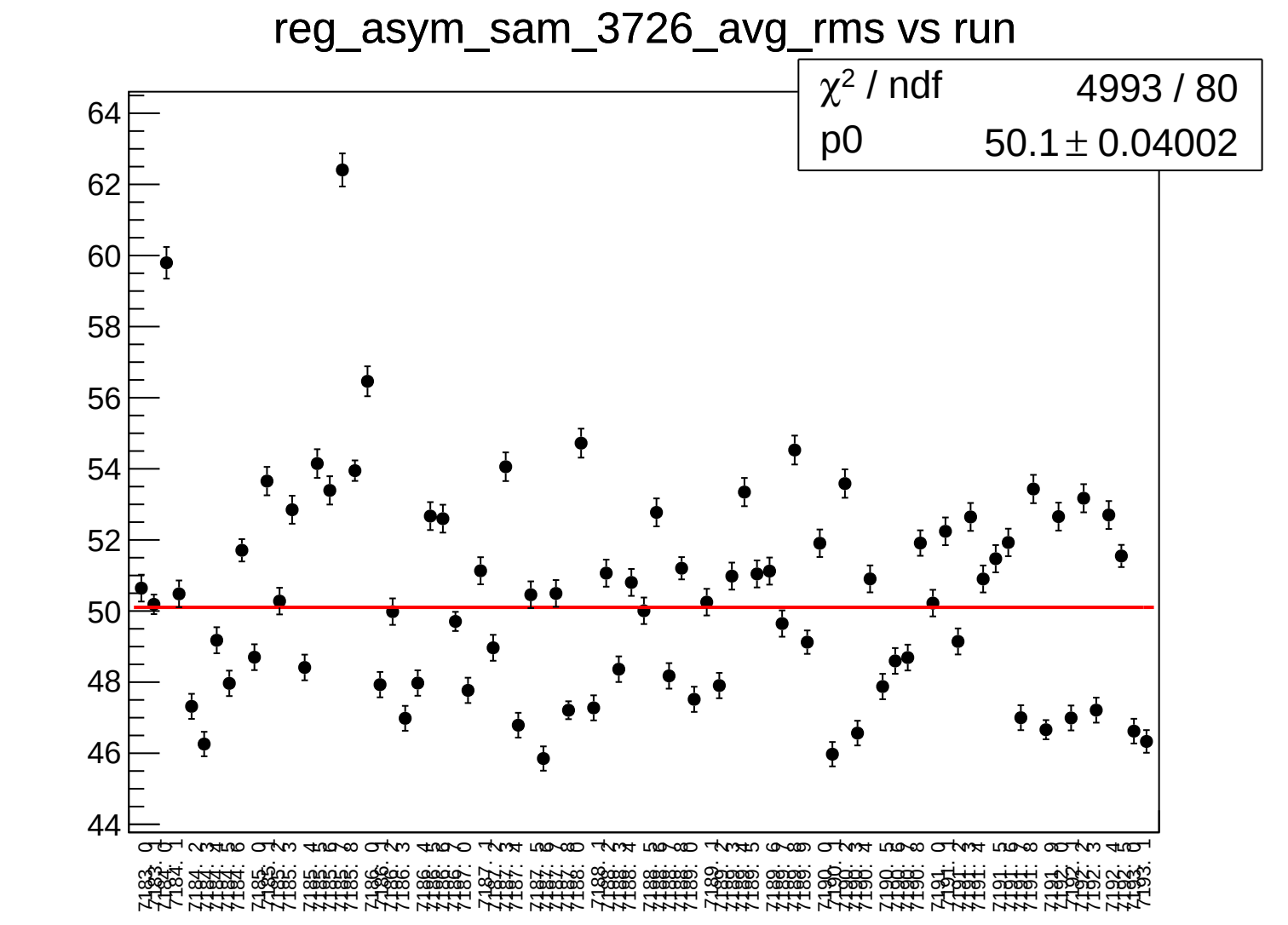

asym_sam_1526_avg_correction_rms vs run
χ² / ndf 4367 / 80
p0 207.3 ± 0.1655
230
220
210
200
190

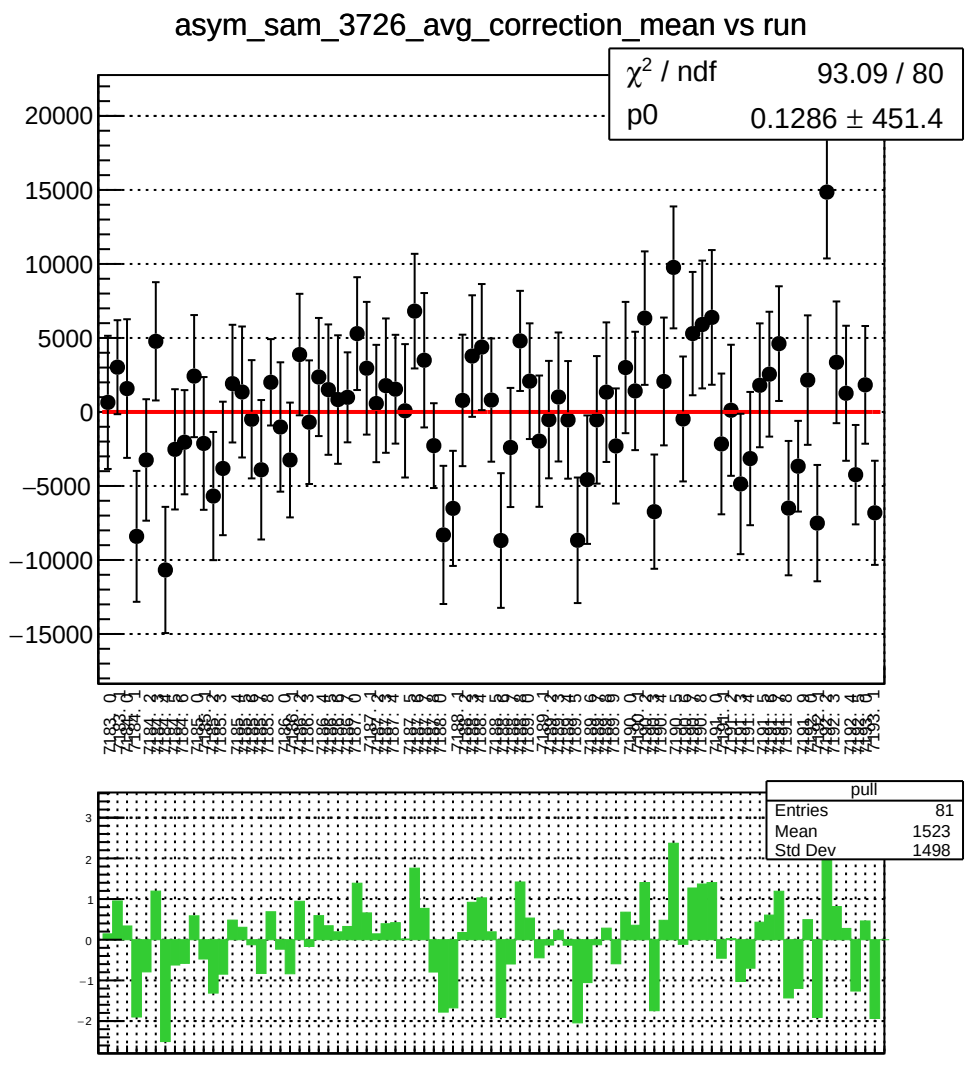

asym_sam_1526_avg_mean vs run
χ² / ndf 93.68 / 80
p0 −254.8 ± 239
pull
Entries 81
Mean 100.1
Std Dev 75.06

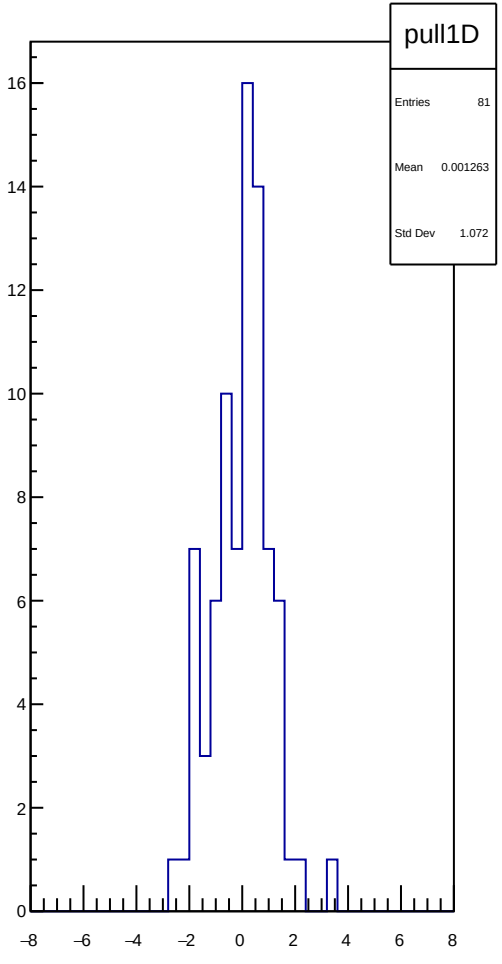

pull1D
Entries 81
Mean −0.01175
Std Dev 1.075

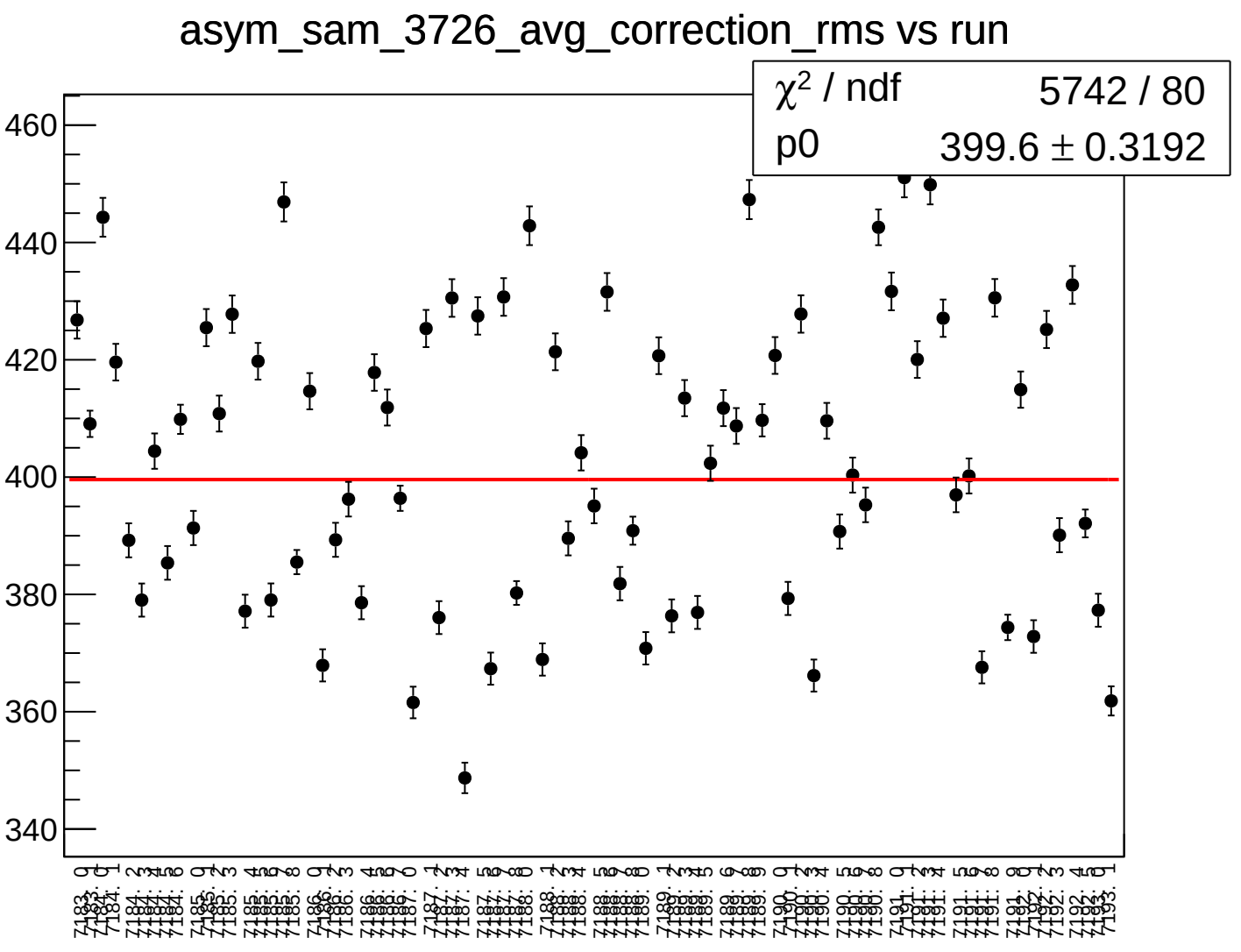

asym_sam_1526_avg_rms vs run
χ² / ndf 4188 / 80
p0 211.6 ± 0.169
240
230
220
210
200
190

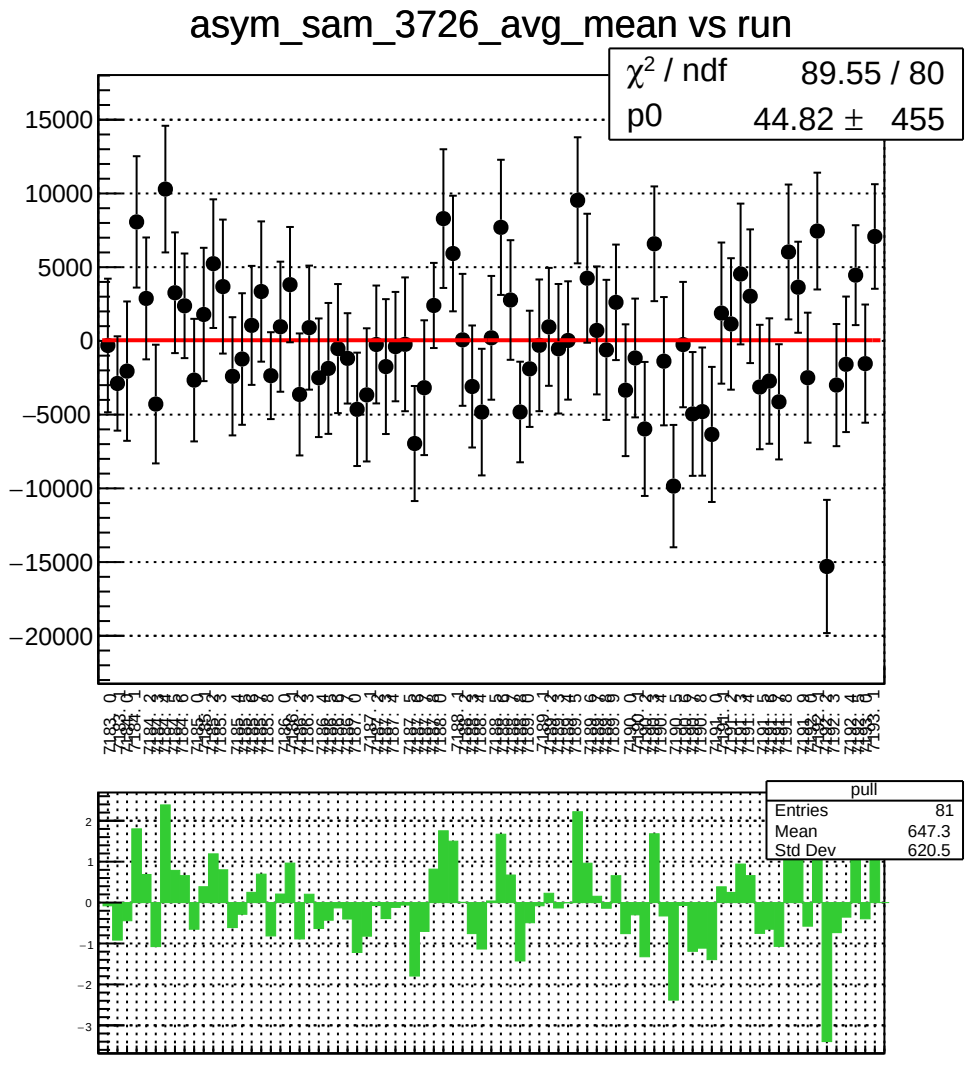

reg_asym_sam_3726_avg_mean vs run
χ² / ndf 90.15 / 80
p0 45.56 ± 56.59
2000
1000
0
−1000
−2000
−3000
pull
Entries 81
Mean 3.363
Std Dev 37.54
2
1
0
−1
−2
−3
−4
pull1D
Entries 81
Mean −0.01442
Std Dev 1.055
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

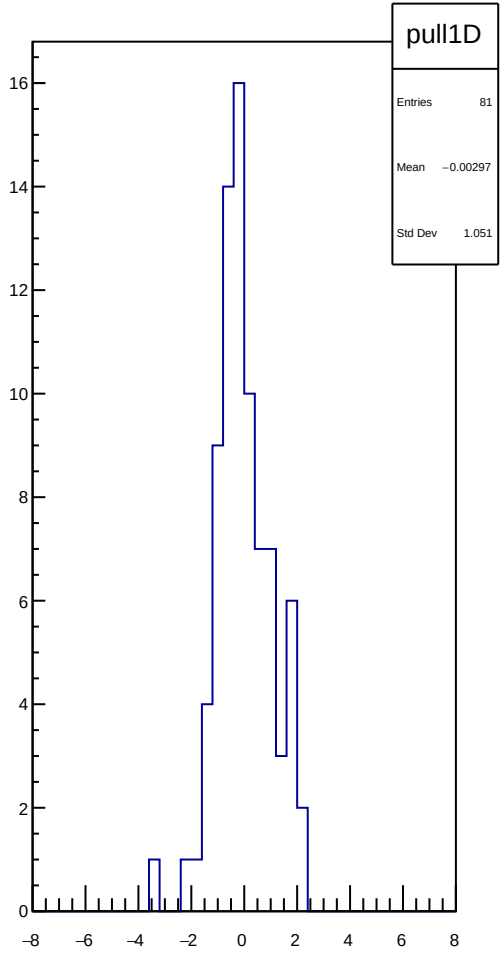

reg_asym_sam_3726_avg_rms vs run
χ² / ndf 4993 / 80
p0 50.1 ± 0.04002
64
62
60
58
56
54
52
50
48
46
44

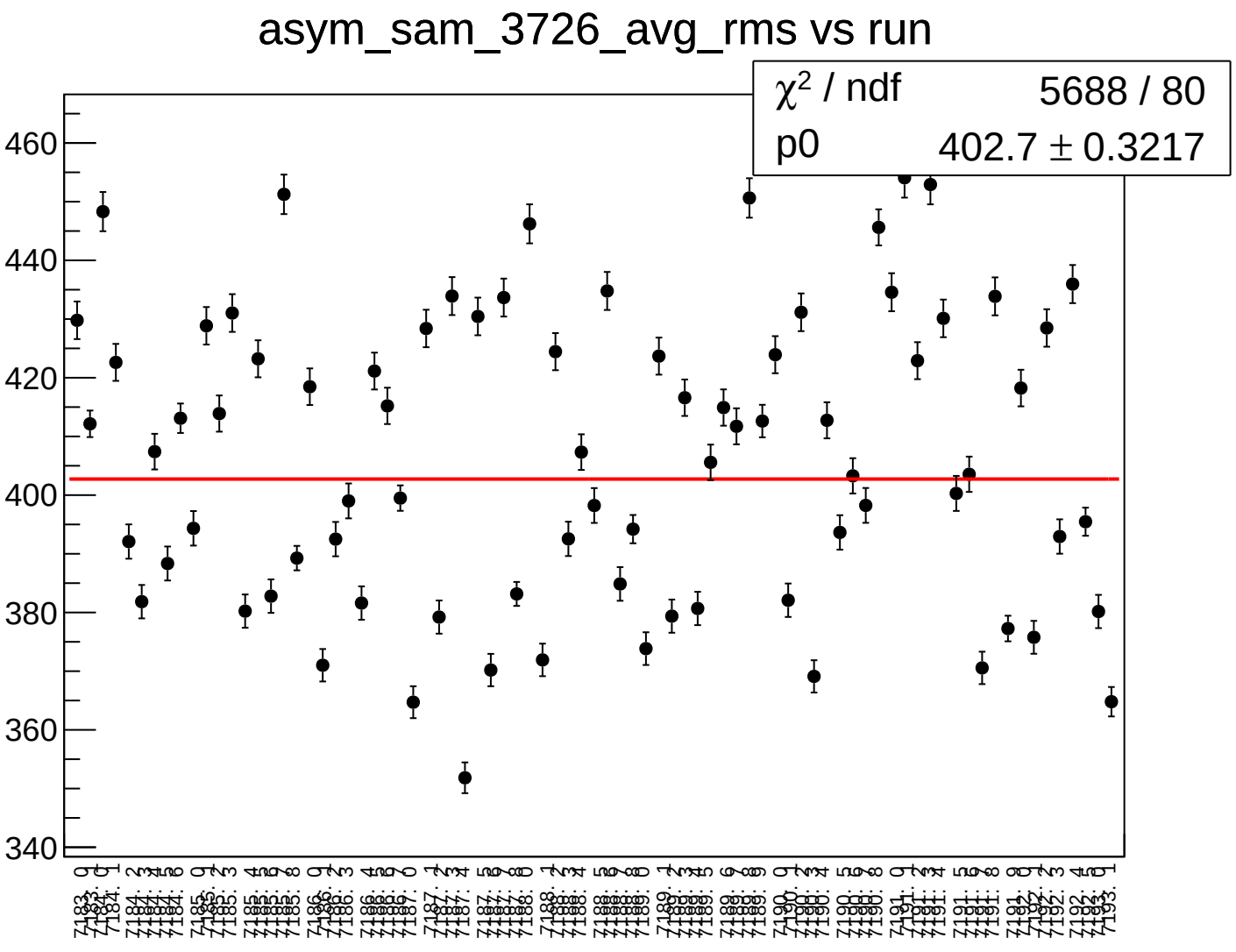

asym_sam_3726_avg_correction_mean vs run
χ² / ndf 93.09 / 80
p0 0.1286 ± 451.4
20000
15000
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean 1523
Std Dev 1498
3
2
1
0
−1
−2

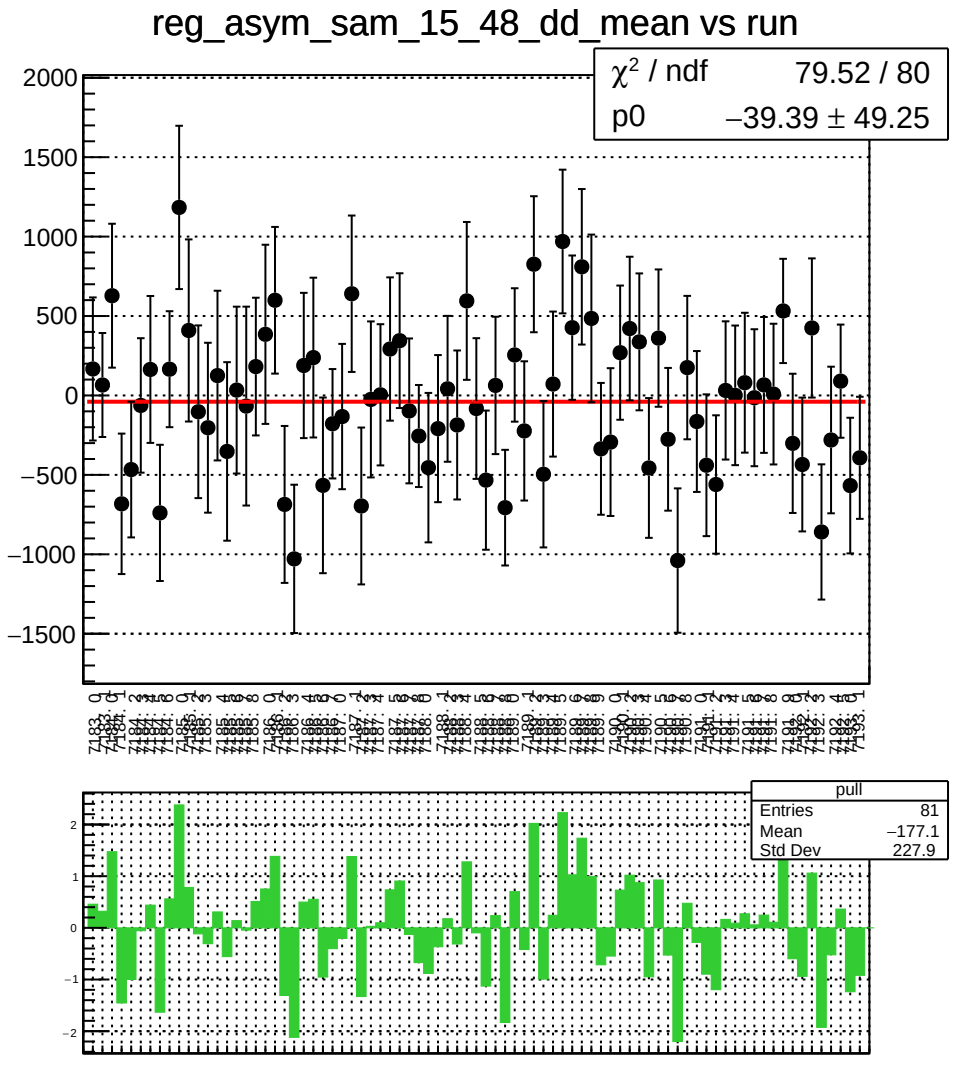

pull1D
Entries 81
Mean 0.001263
Std Dev 1.072
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

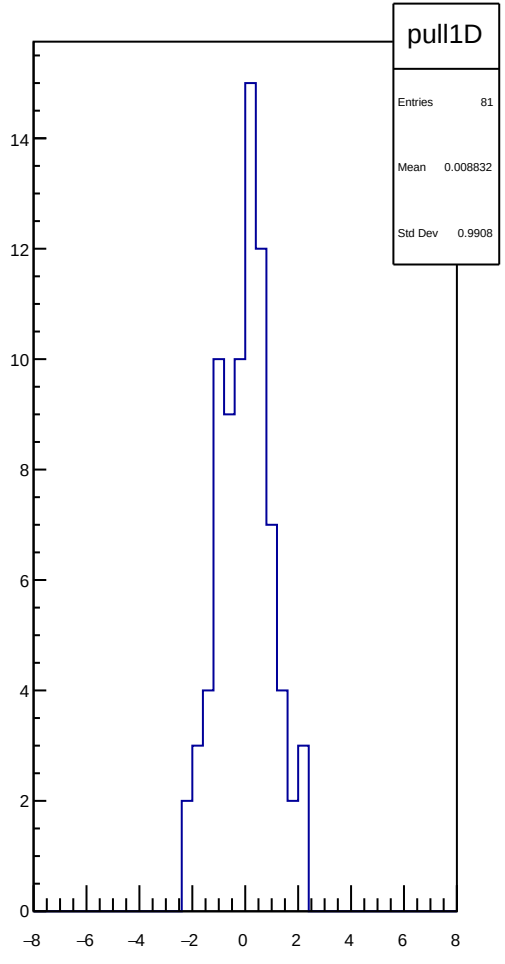

asym_sam_3726_avg_correction_rms vs run
χ² / ndf 5742 / 80
p0 399.6 ± 0.3192
460
440
420
400
380
360
340

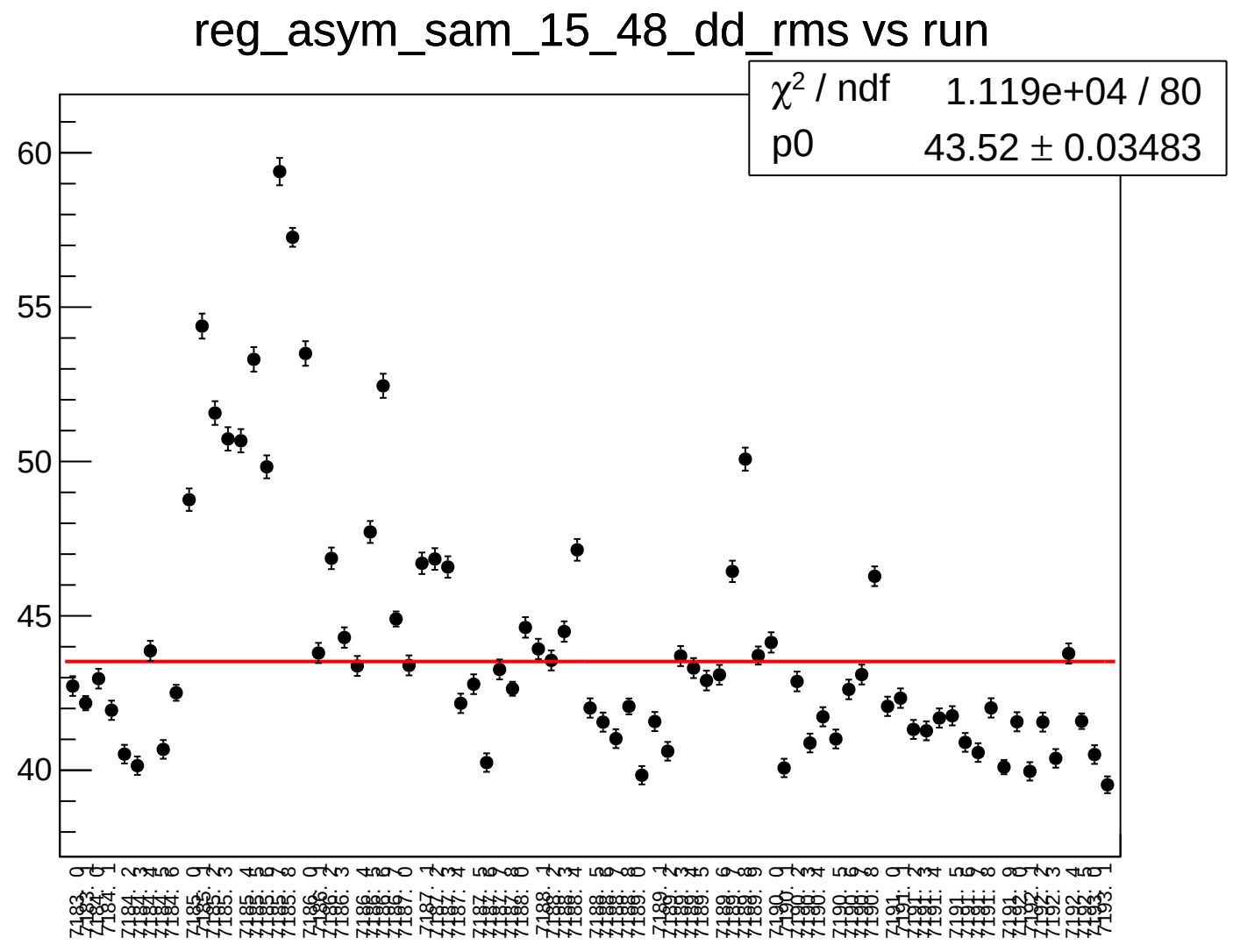

asym_sam_3726_avg_mean vs run
χ² / ndf 89.55 / 80
p0 44.82 ± 455
15000
10000
5000
0
−5000
−10000
−15000
−20000
pull
Entries 81
Mean 647.3
Std Dev 620.5
2
1
0
−1
−2
−3

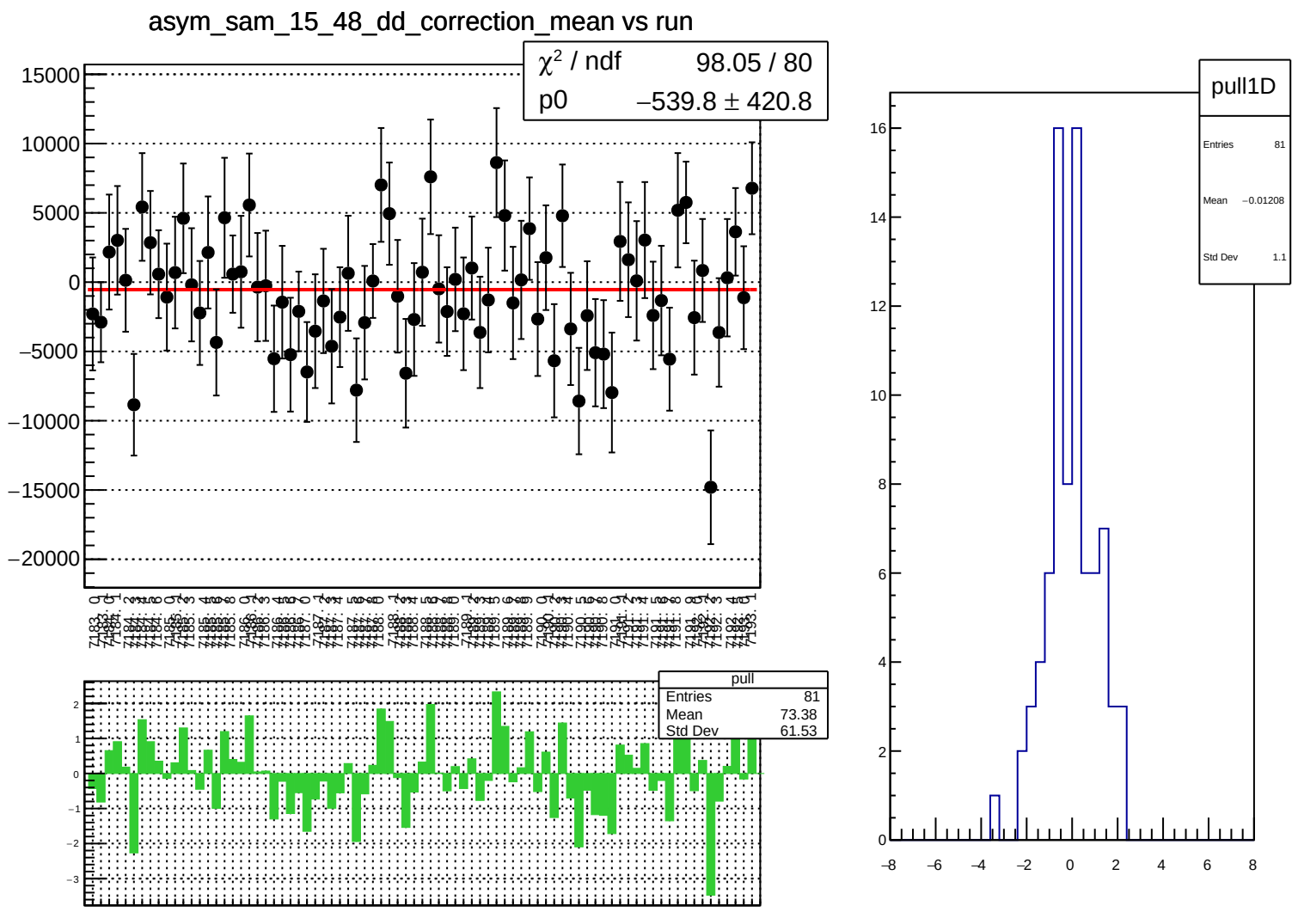

pull1D
Entries 81
Mean −0.00297
Std Dev 1.051
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

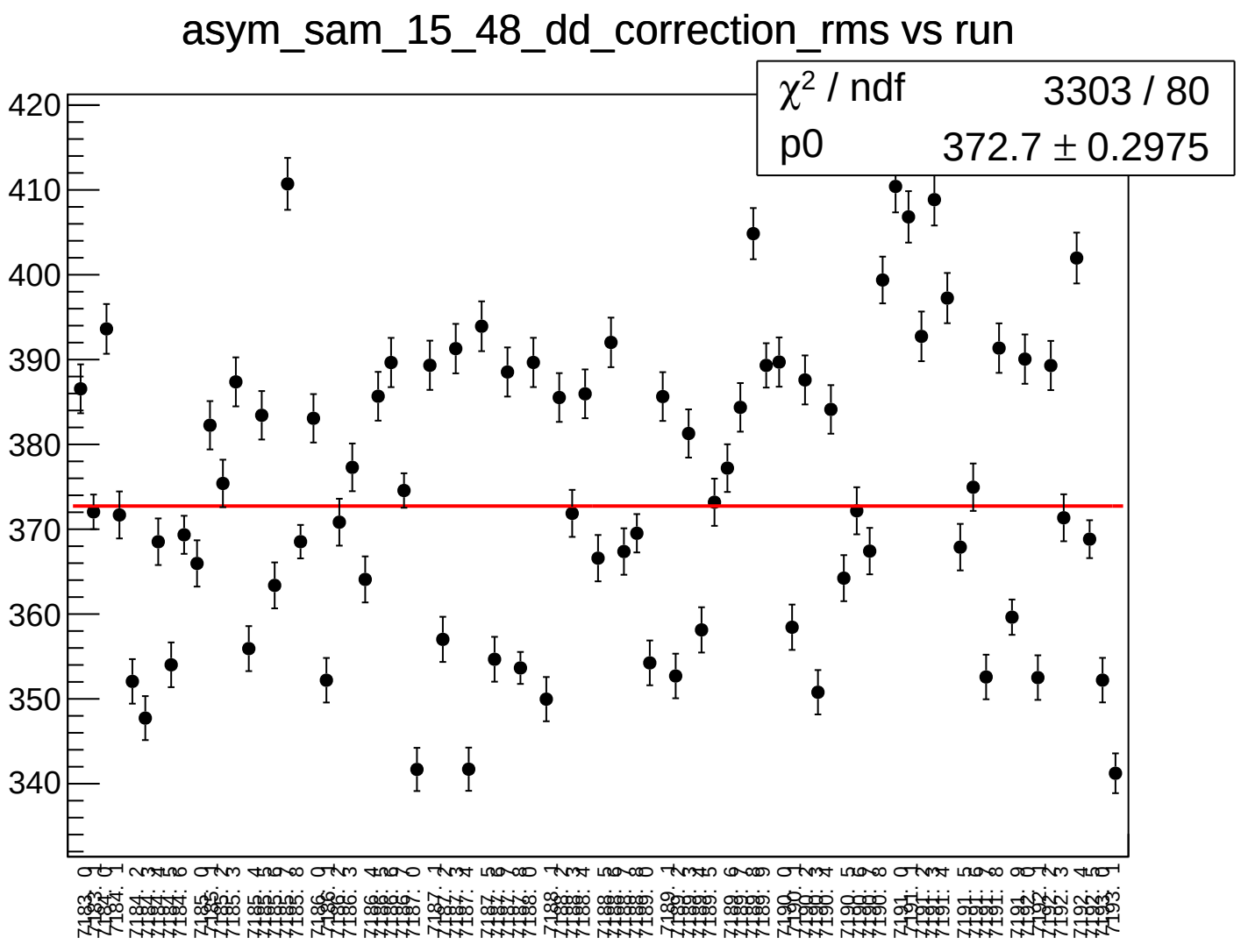

asym_sam_3726_avg_rms vs run
χ^2 / ndf 5688 / 80
p0 402.7 ± 0.3217
460
440
420
400
380
360
340

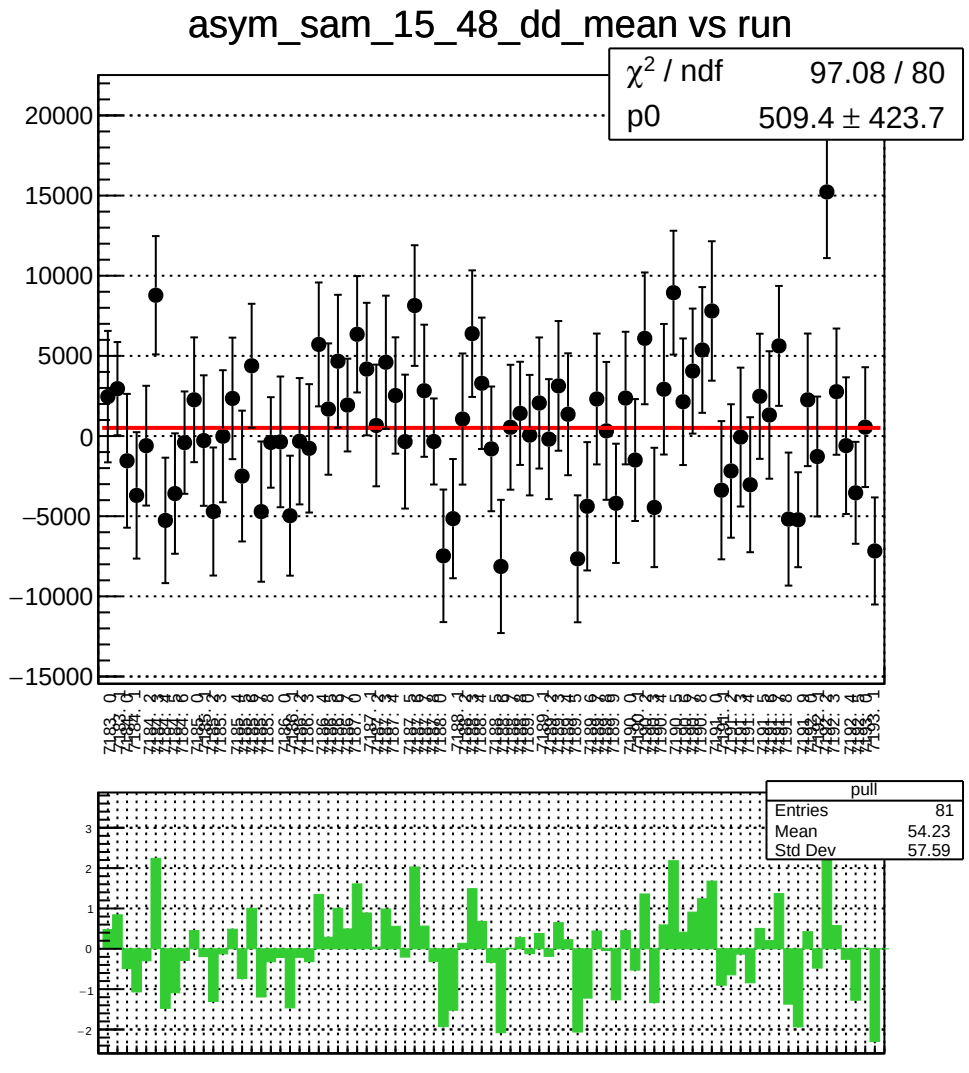

reg_asym_sam_15_48_dd_mean vs run
χ² / ndf 79.52 / 80
p0 −39.39 ± 49.25
pull
Entries 81
Mean −177.1
Std Dev 227.9

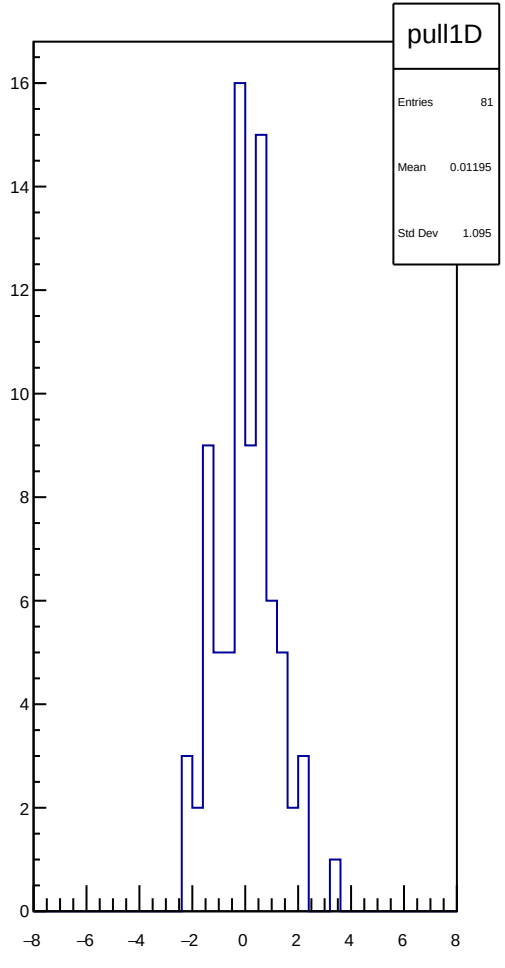

pull1D
Entries 81
Mean 0.008832
Std Dev 0.9908

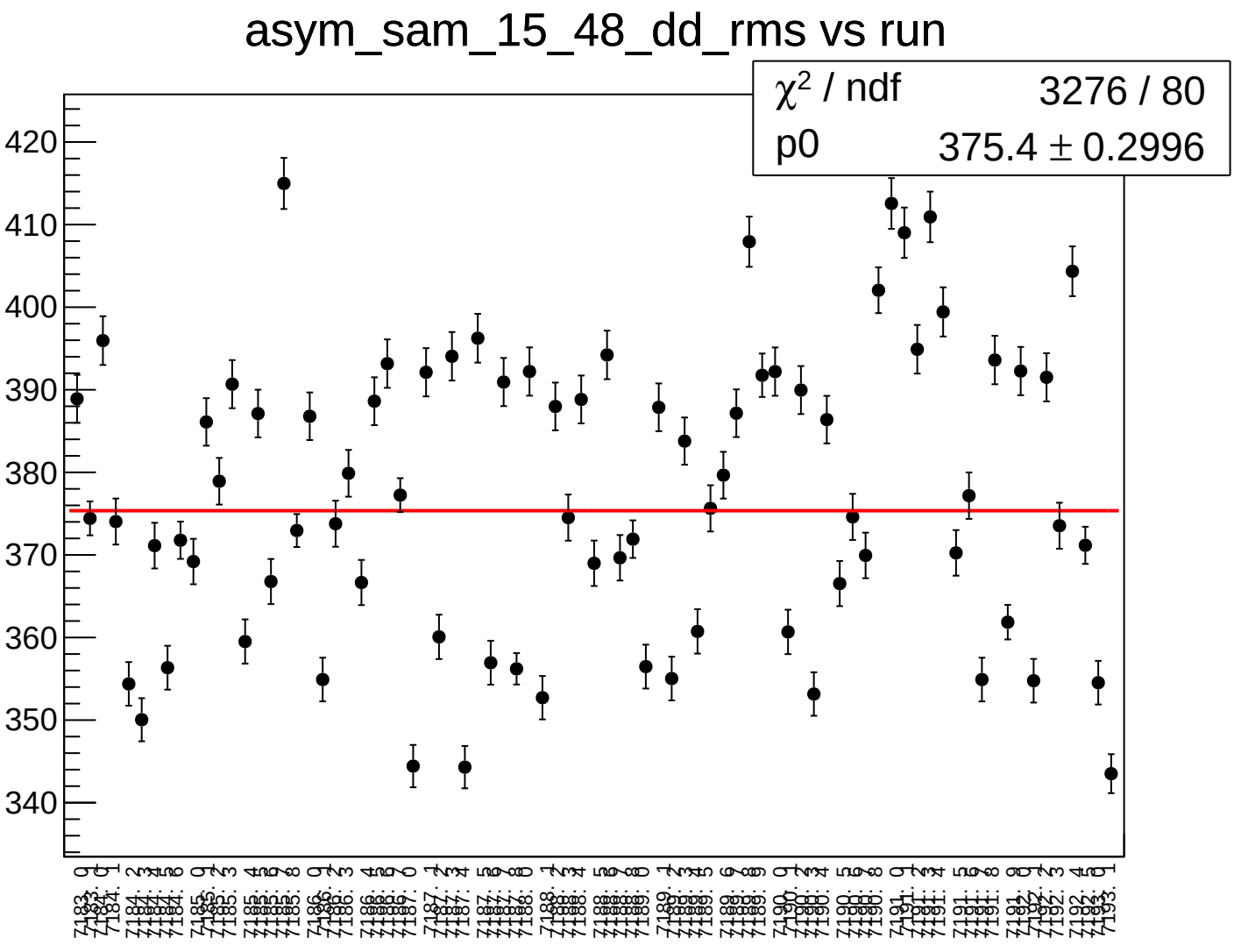

reg_asym_sam_15_48_dd_rms vs run
χ² / ndf 1.119e+04 / 80
p0 43.52 ± 0.03483
60
55
50
45
40

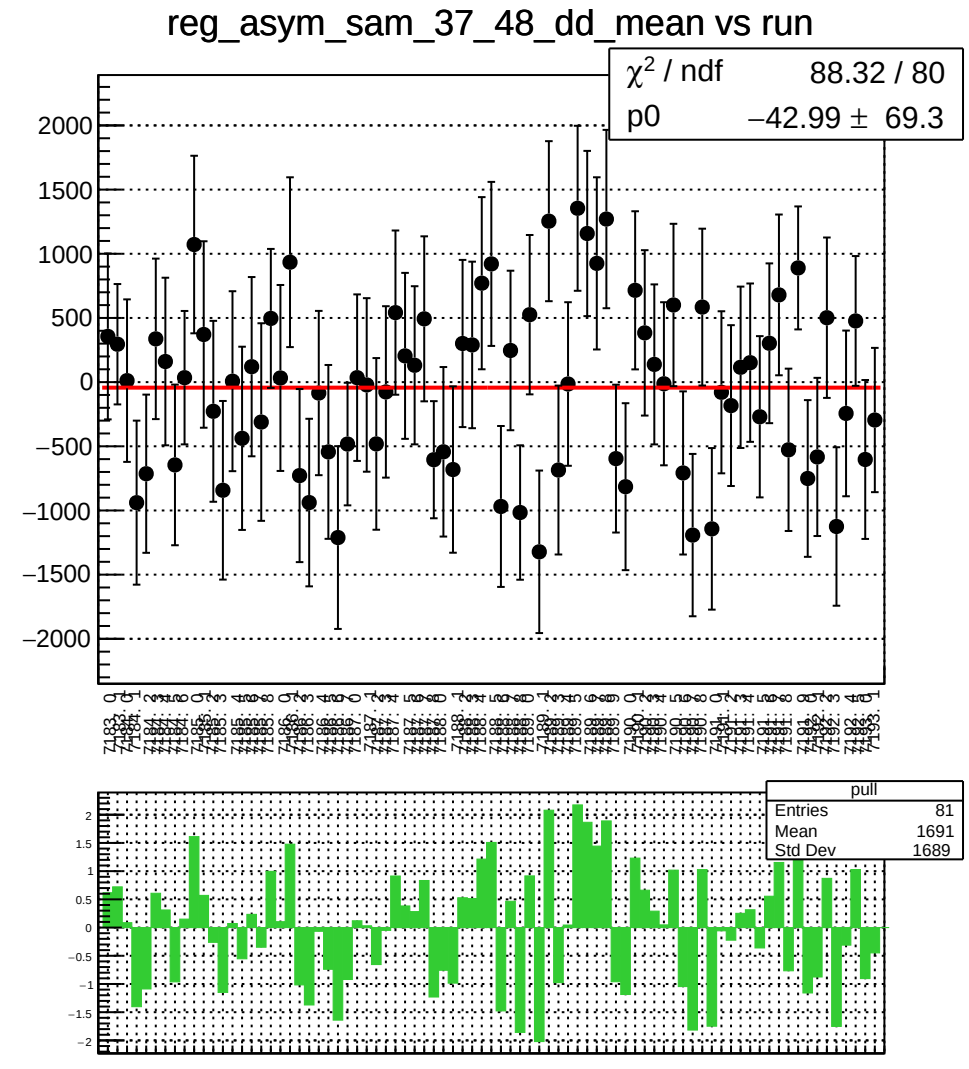

asym_sam_15_48_dd_correction_mean vs run
χ² / ndf 98.05 / 80
p0 −539.8 ± 420.8
15000
10000
5000
0
−5000
−10000
−15000
−20000
pull
Entries 81
Mean 73.38
Std Dev 61.53
2
1
0
−1
−2
−3
pull1D
Entries 81
Mean −0.01208
Std Dev 1.1
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

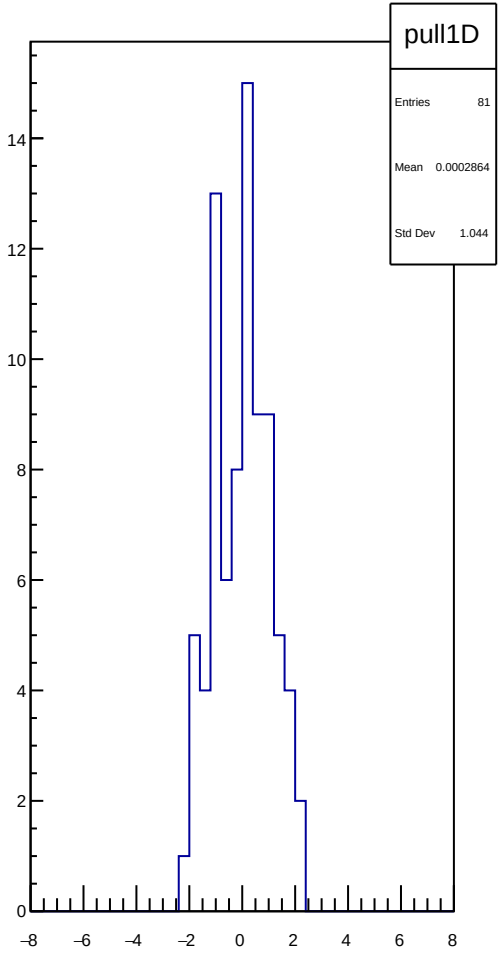

asym_sam_15_48_dd_correction_rms vs run
χ² / ndf 3303 / 80
p0 372.7 ± 0.2975
420
410
400
390
380
370
360
350
340

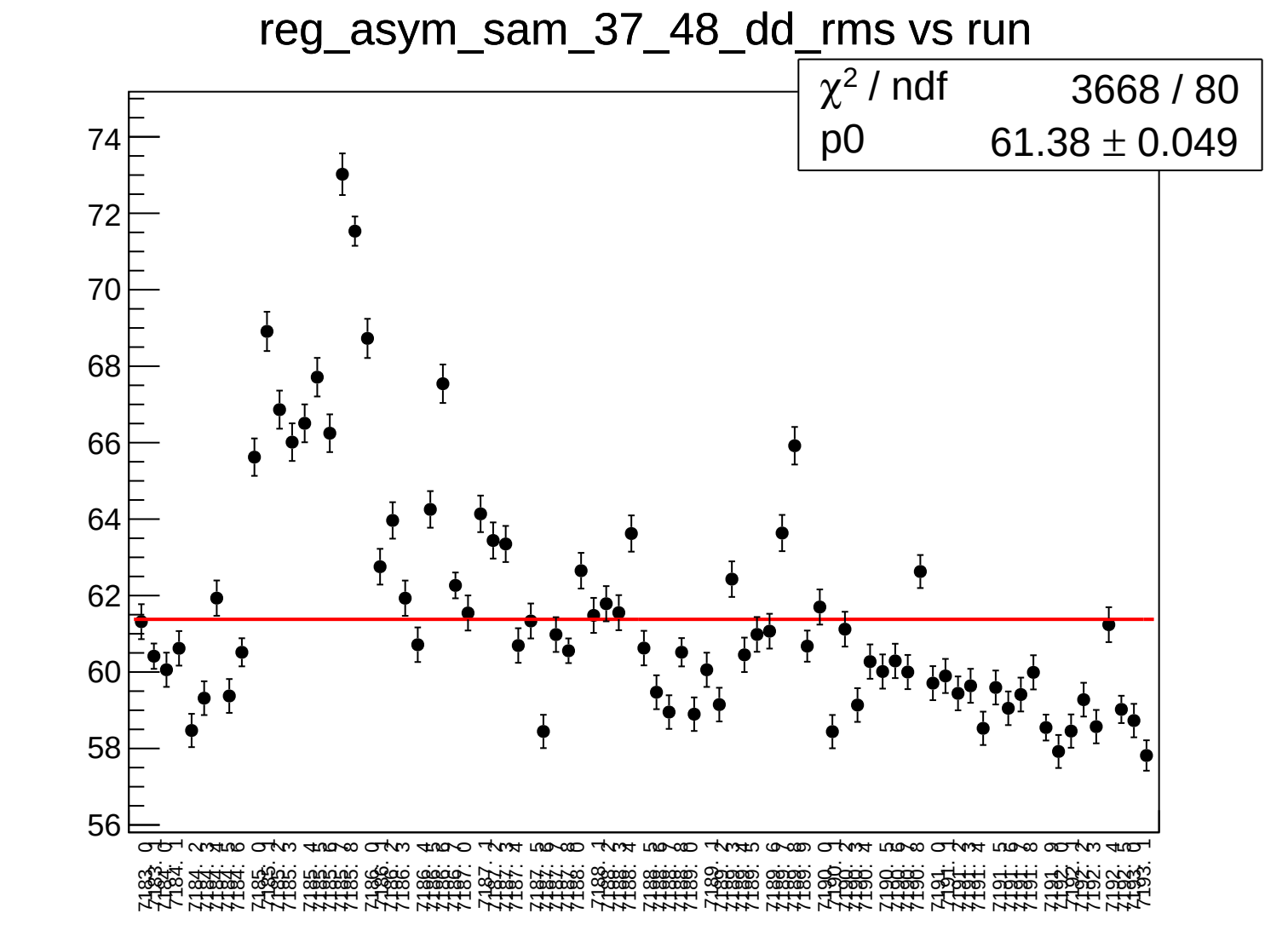

asym_sam_15_48_dd_mean vs run
χ² / ndf 97.08 / 80
p0 509.4 ± 423.7
pull
Entries 81
Mean 54.23
Std Dev 57.59

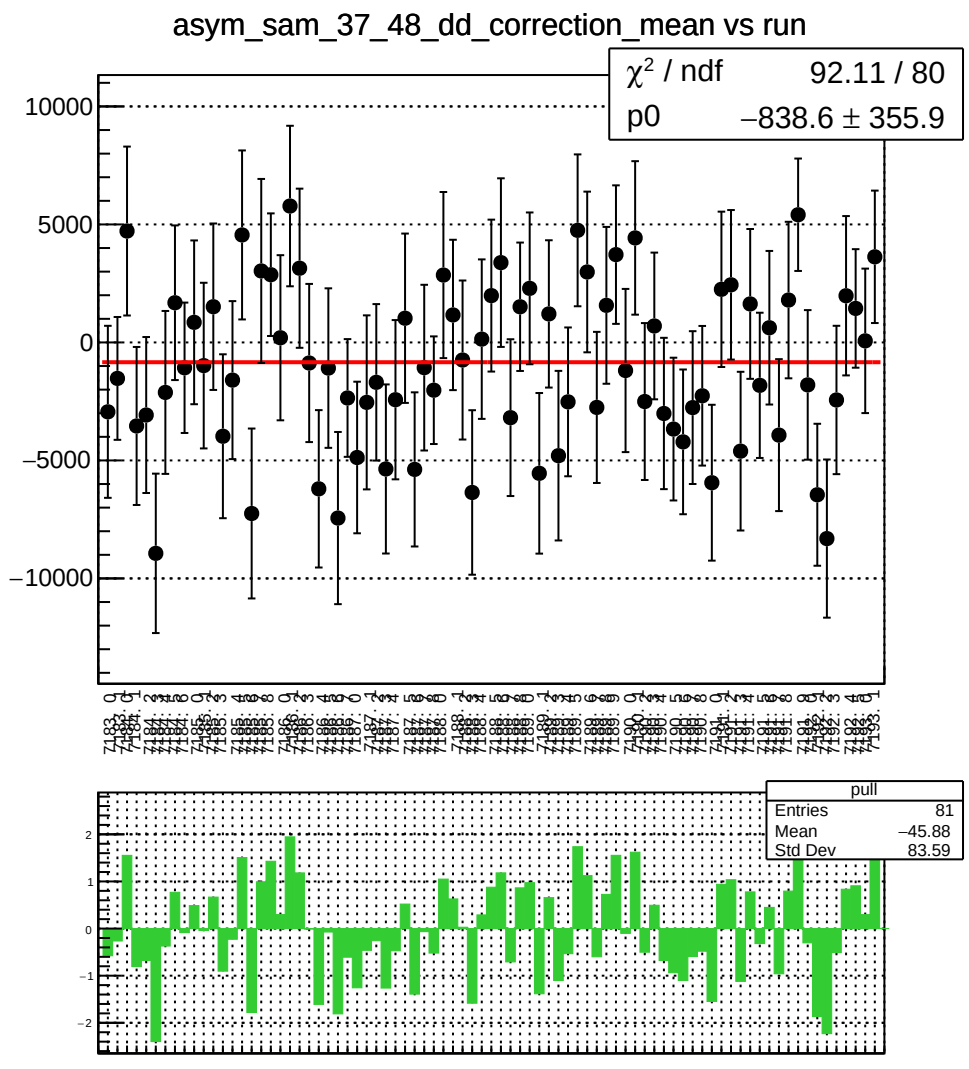

pull1D
Entries 81
Mean 0.01195
Std Dev 1.095

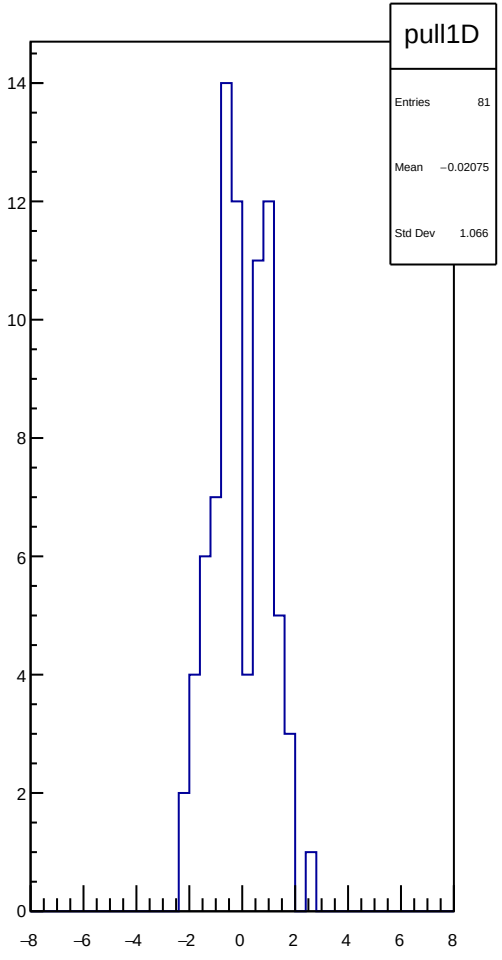

asym_sam_15_48_dd_rms vs run
χ² / ndf 3276 / 80
p0 375.4 ± 0.2996
420
410
400
390
380
370
360
350
340

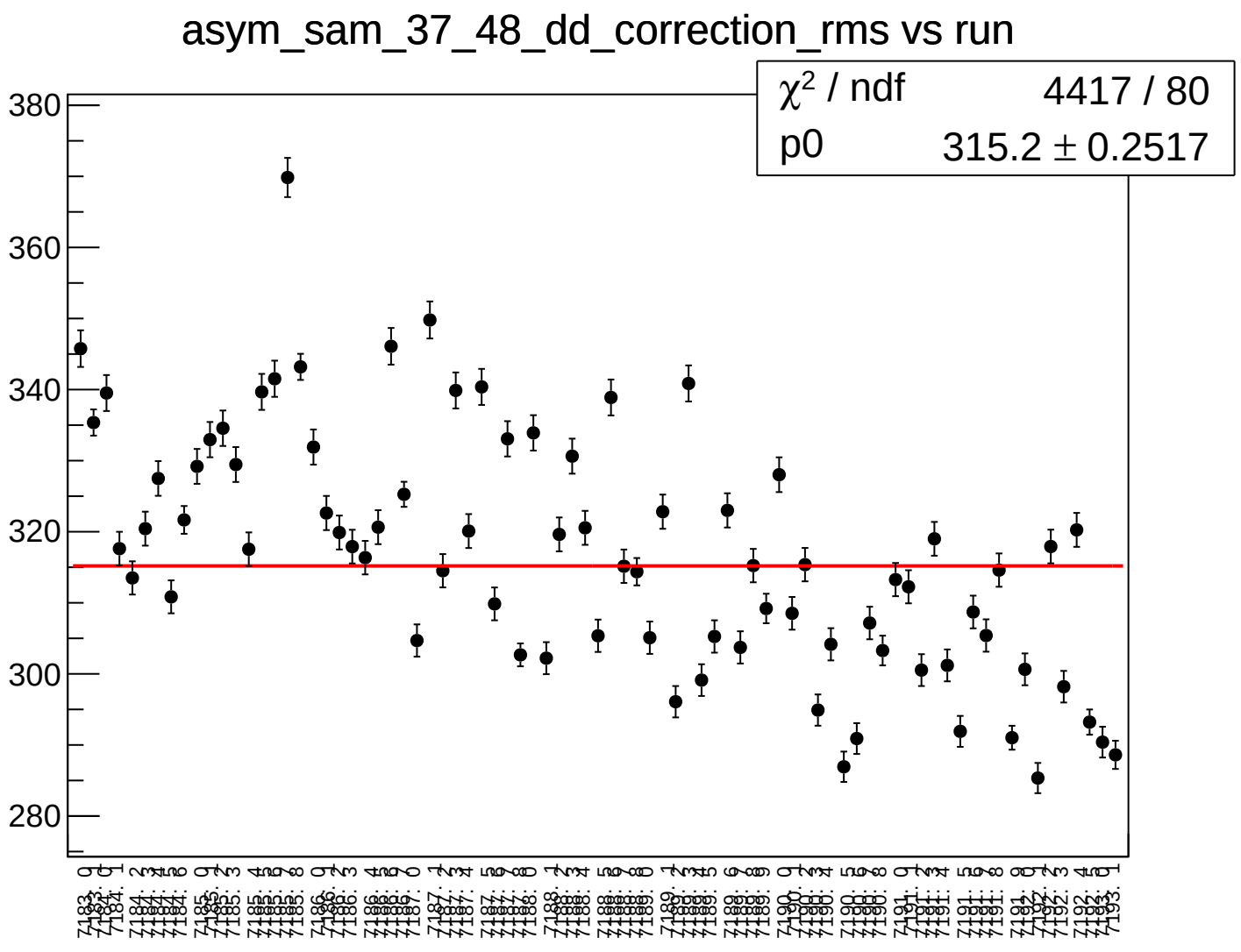

reg_asym_sam_37_48_dd_mean vs run
χ² / ndf 88.32 / 80
p0 −42.99 ± 69.3
pull
Entries 81
Mean 1691
Std Dev 1689

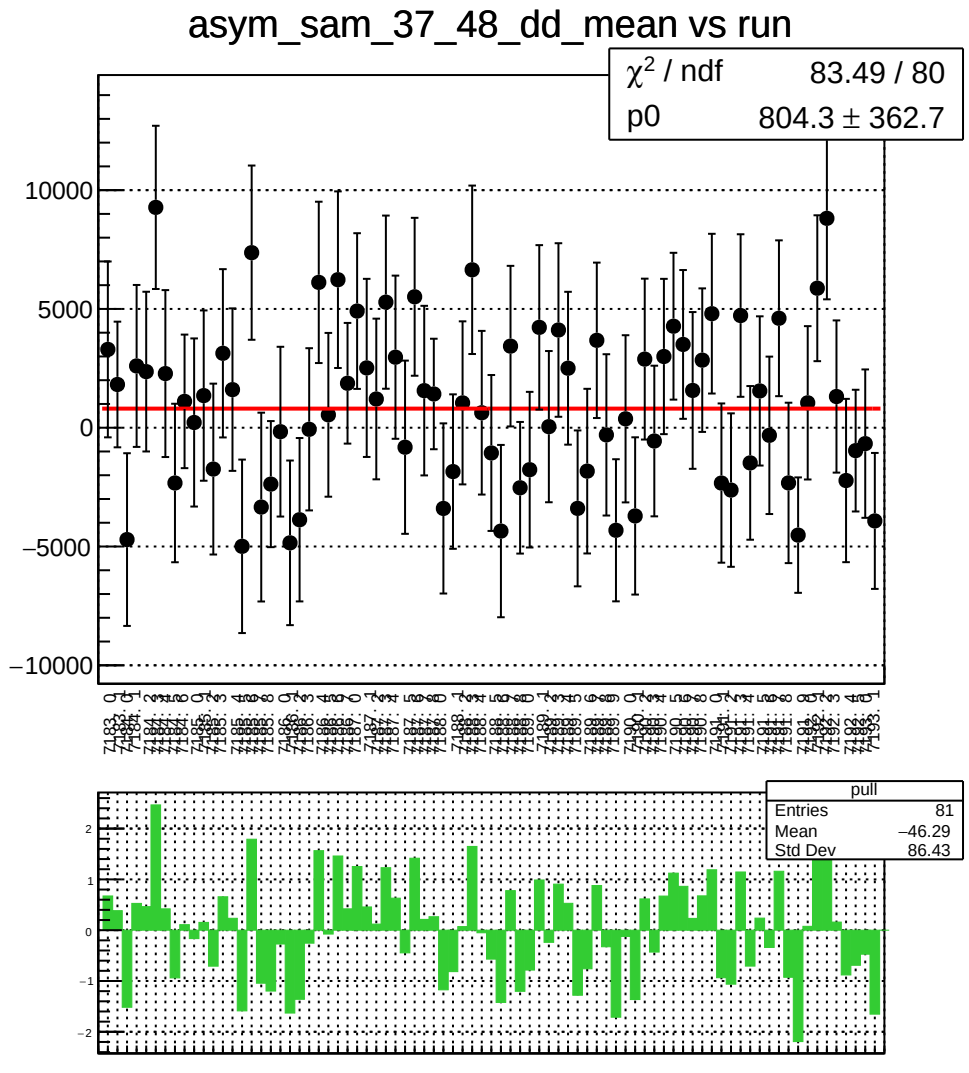

pull1D
Entries 81
Mean 0.0002864
Std Dev 1.044

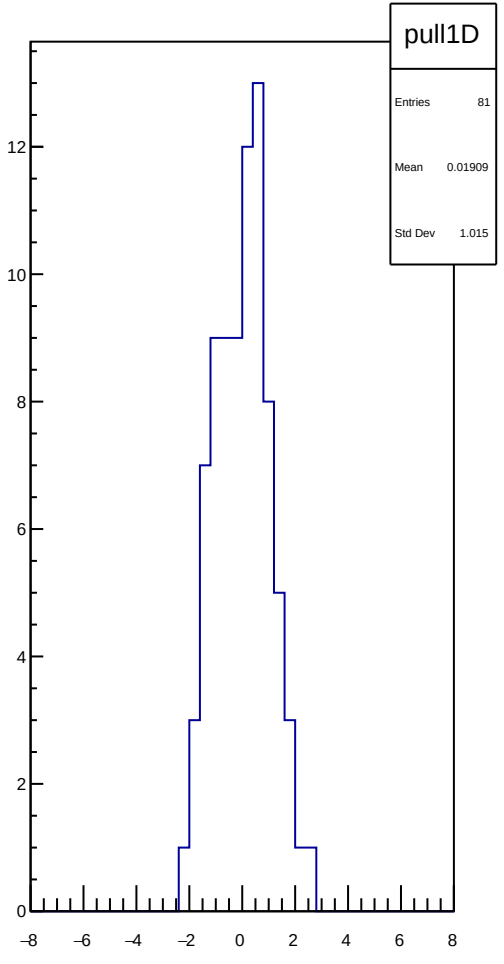

reg_asym_sam_37_48_dd_rms vs run
χ² / ndf 3668 / 80
p0 61.38 ± 0.049
74
72
70
68
66
64
62
60
58
56

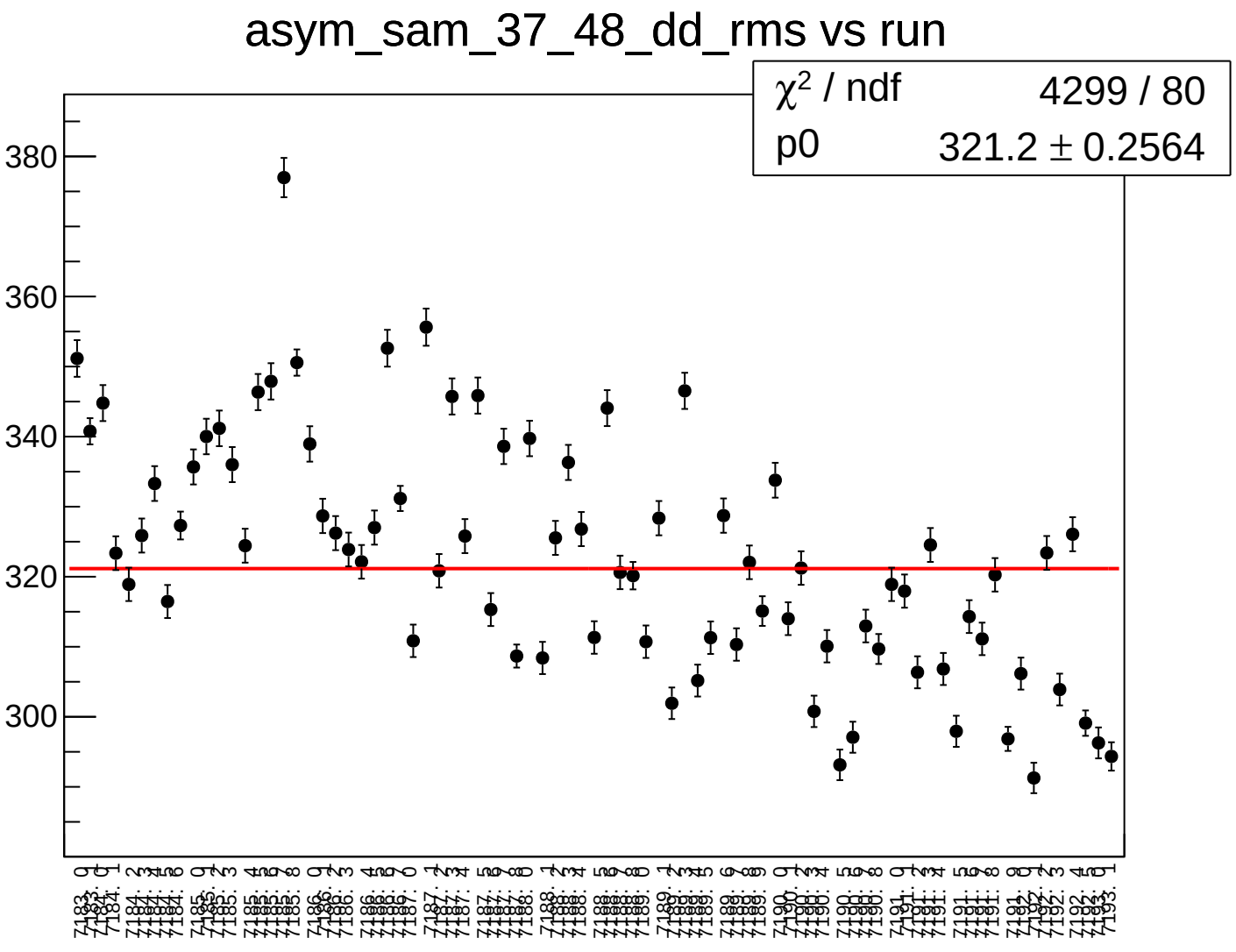

asym_sam_37_48_dd_correction_mean vs run
χ² / ndf 92.11 / 80
p0 −838.6 ± 355.9
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −45.88
Std Dev 83.59
2
1
0
−1
−2

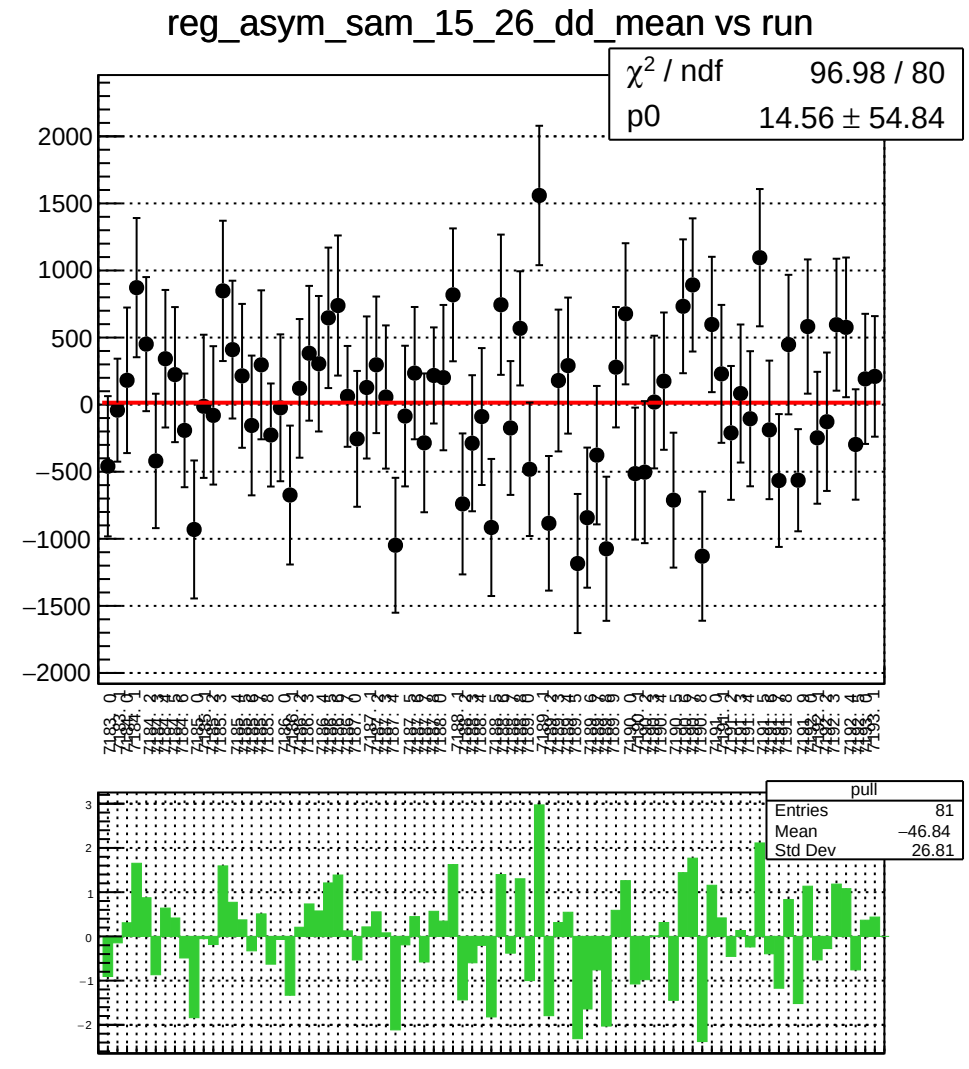

pull1D
Entries 81
Mean −0.02075
Std Dev 1.066
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

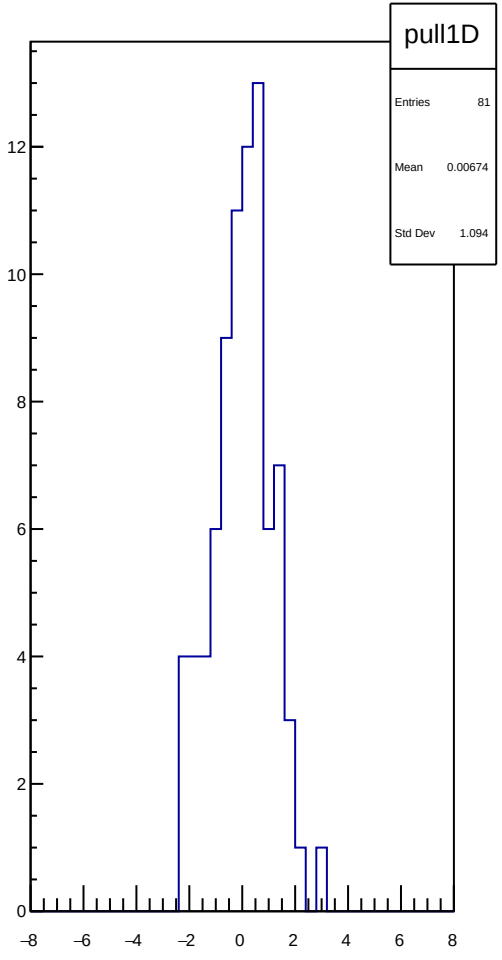

asym_sam_37_48_dd_correction_rms vs run
χ² / ndf 4417 / 80
p0 315.2 ± 0.2517
380
360
340
320
300
280

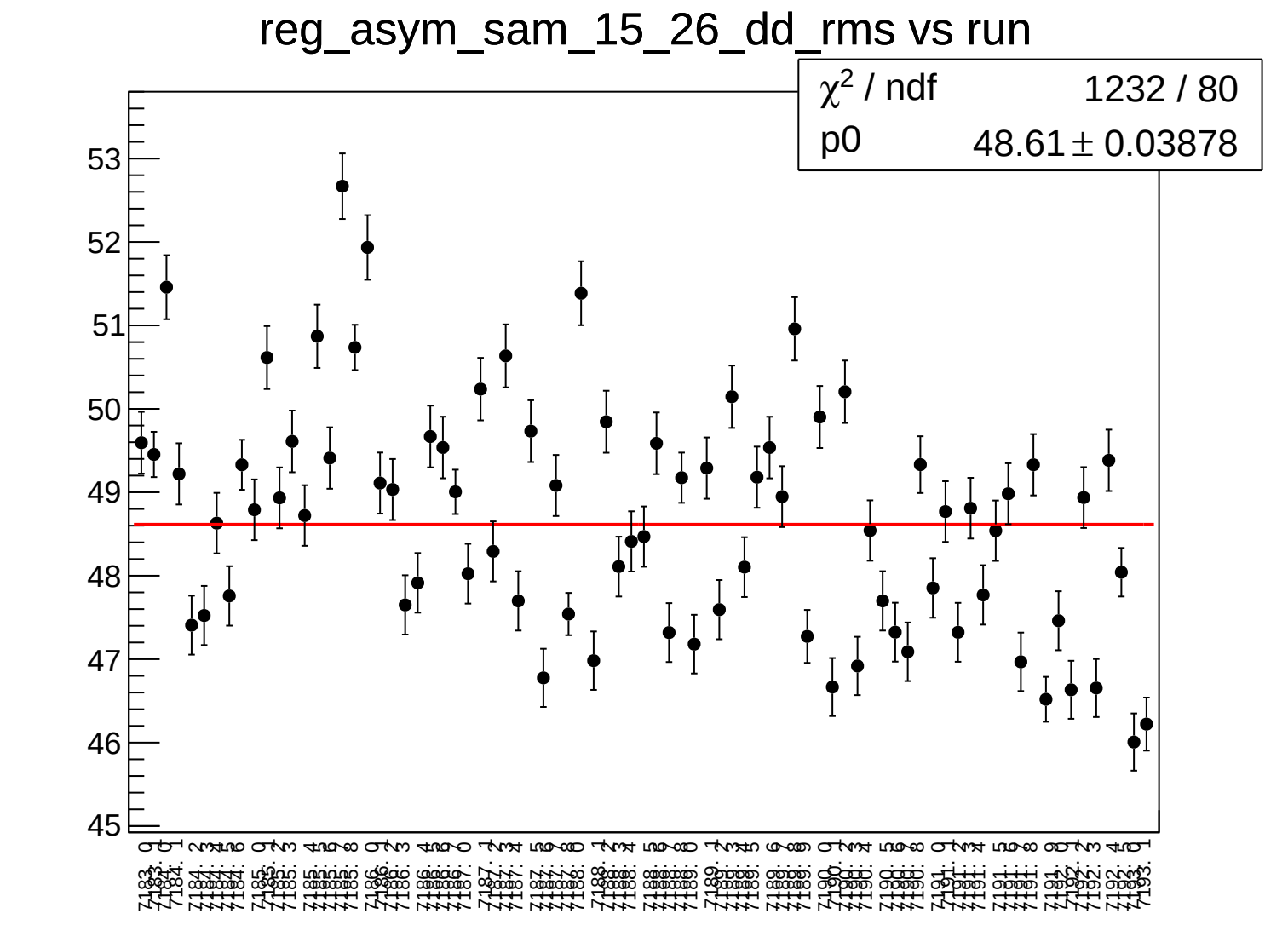

asym_sam_37_48_dd_mean vs run
χ² / ndf 83.49 / 80
p0 804.3 ± 362.7
10000
5000
0
−5000
−10000
pull
Entries 81
Mean −46.29
Std Dev 86.43
2
1
0
−1
−2

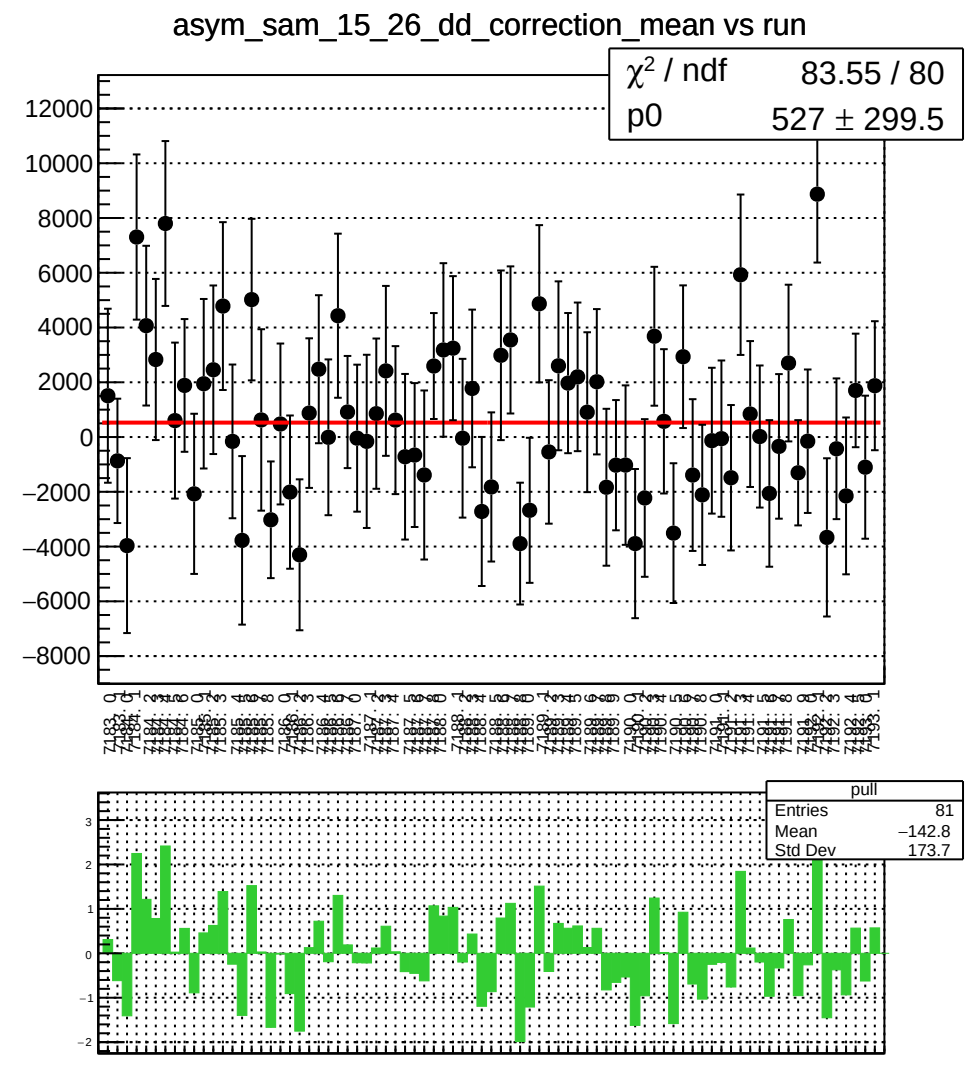

pull1D
Entries 81
Mean 0.01909
Std Dev 1.015
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

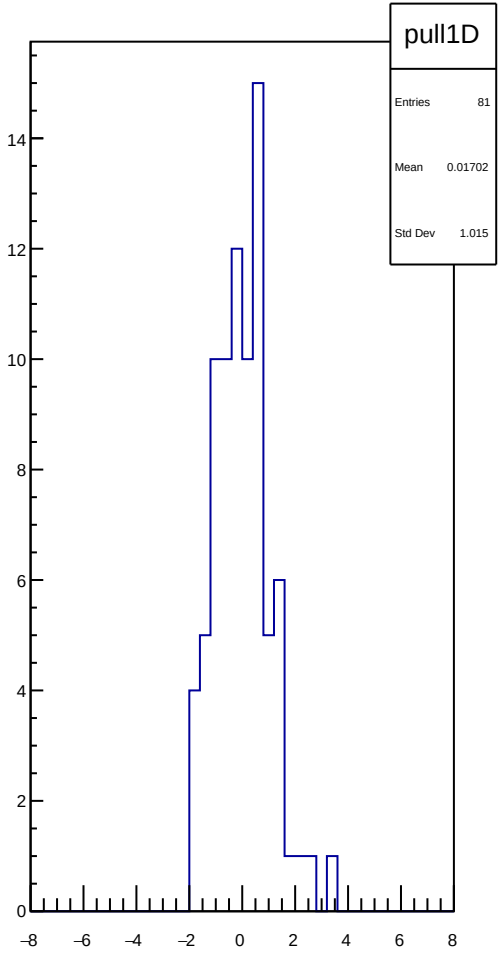

asym_sam_37_48_dd_rms vs run
χ² / ndf 4299 / 80
p0 321.2 ± 0.2564
380
360
340
320
300

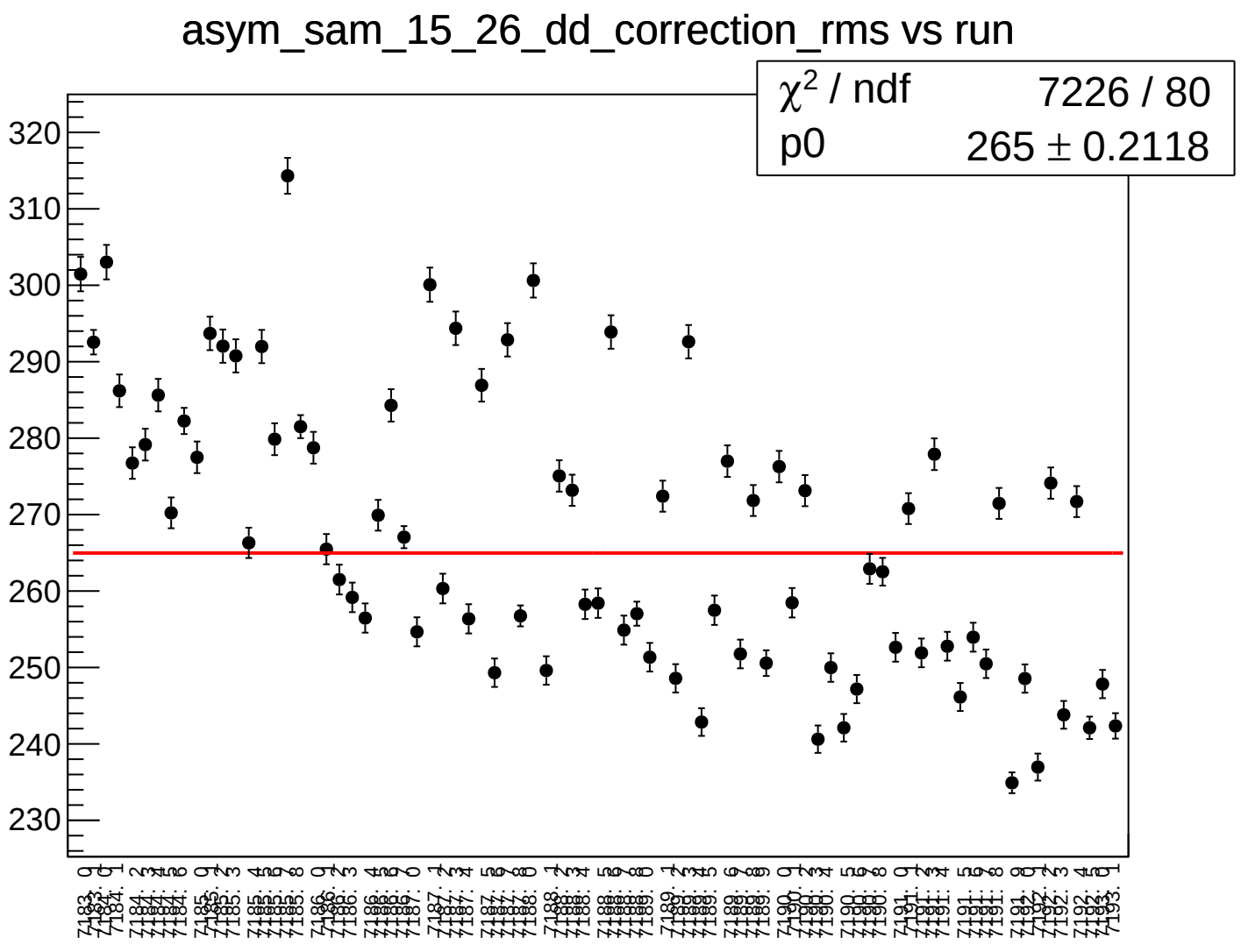

reg_asym_sam_15_26_dd_mean vs run
χ² / ndf 96.98 / 80
p0 14.56 ± 54.84
pull
Entries 81
Mean −46.84
Std Dev 26.81

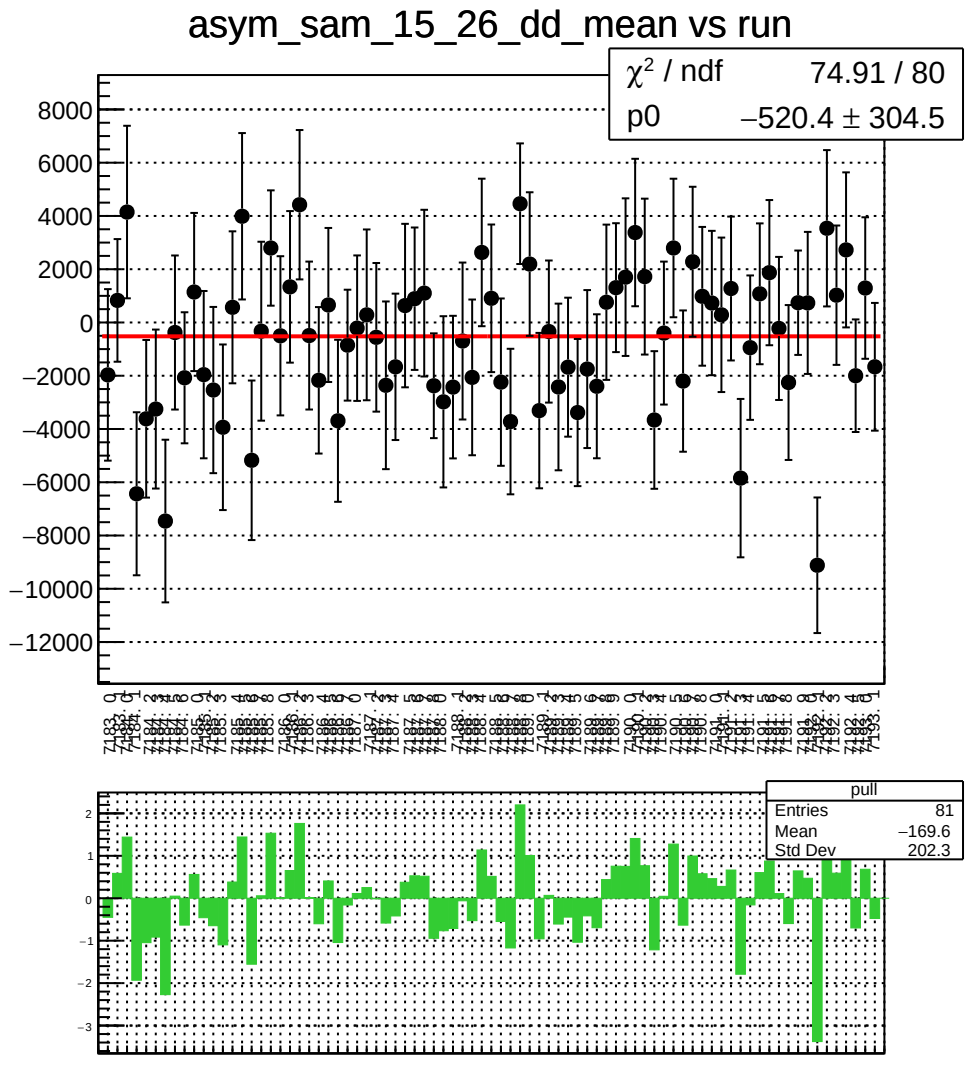

pull1D
Entries 81
Mean 0.00674
Std Dev 1.094

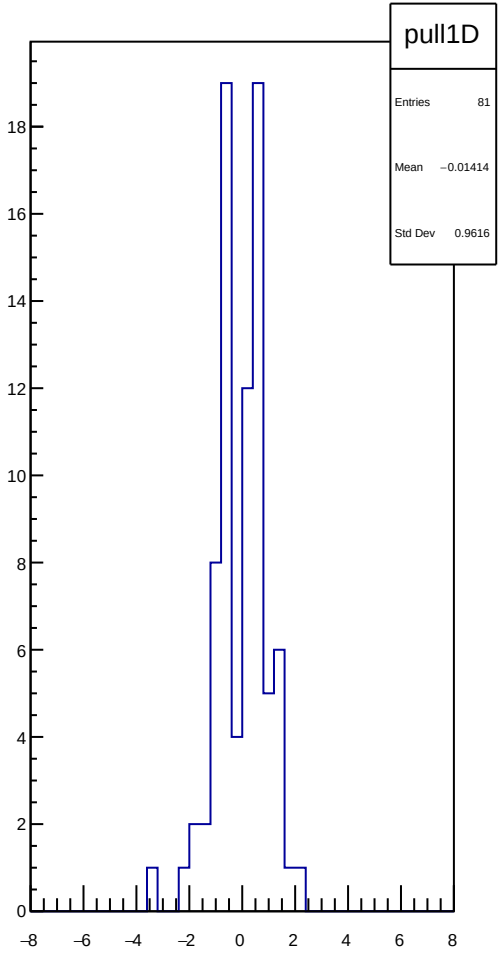

reg_asym_sam_15_26_dd_rms vs run
χ² / ndf 1232 / 80
p0 48.61 ± 0.03878
53
52
51
50
49
48
47
46
45

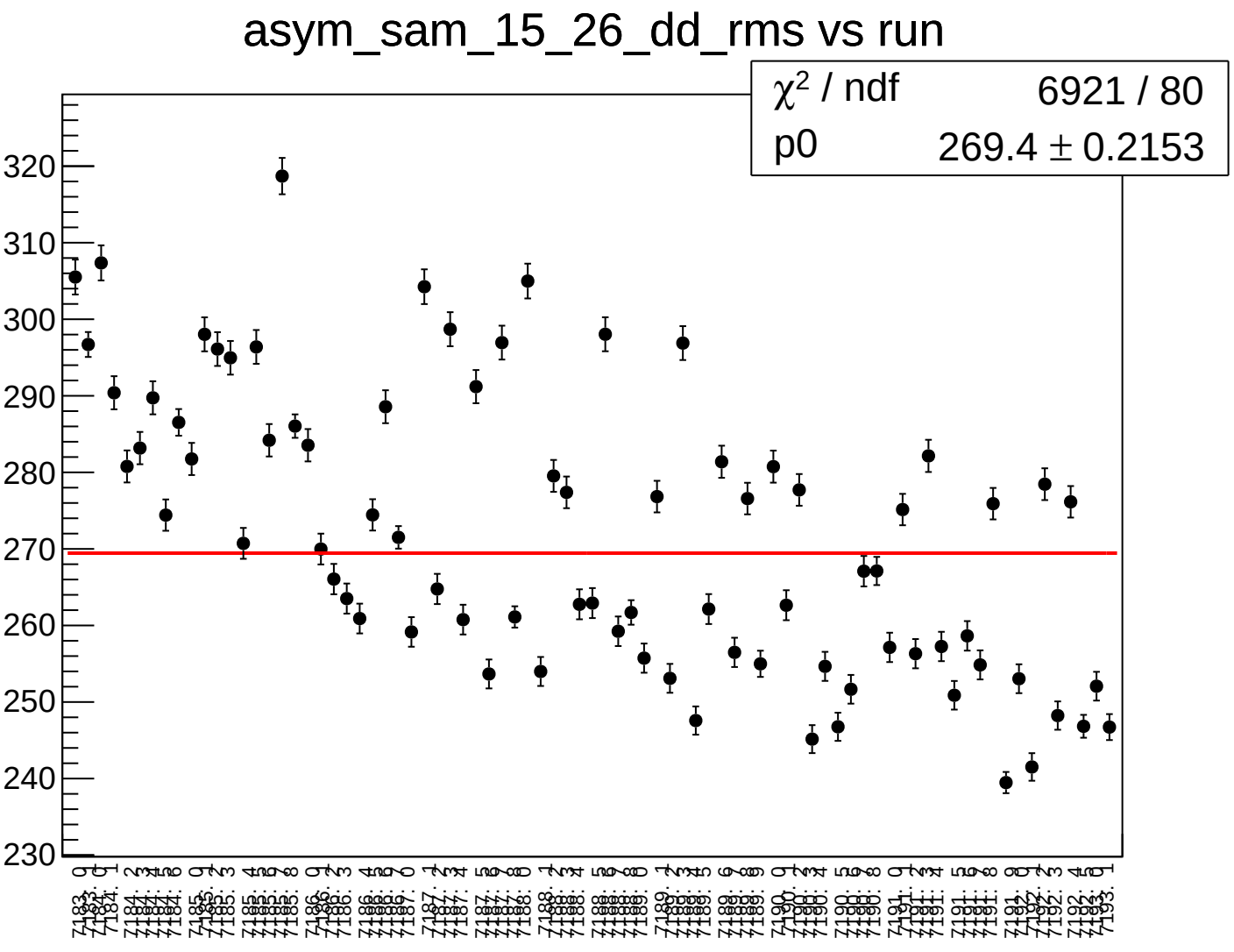

asym_sam_15_26_dd_correction_mean vs run
χ² / ndf 83.55 / 80
p0 527 ± 299.5
pull
Entries 81
Mean −142.8
Std Dev 173.7

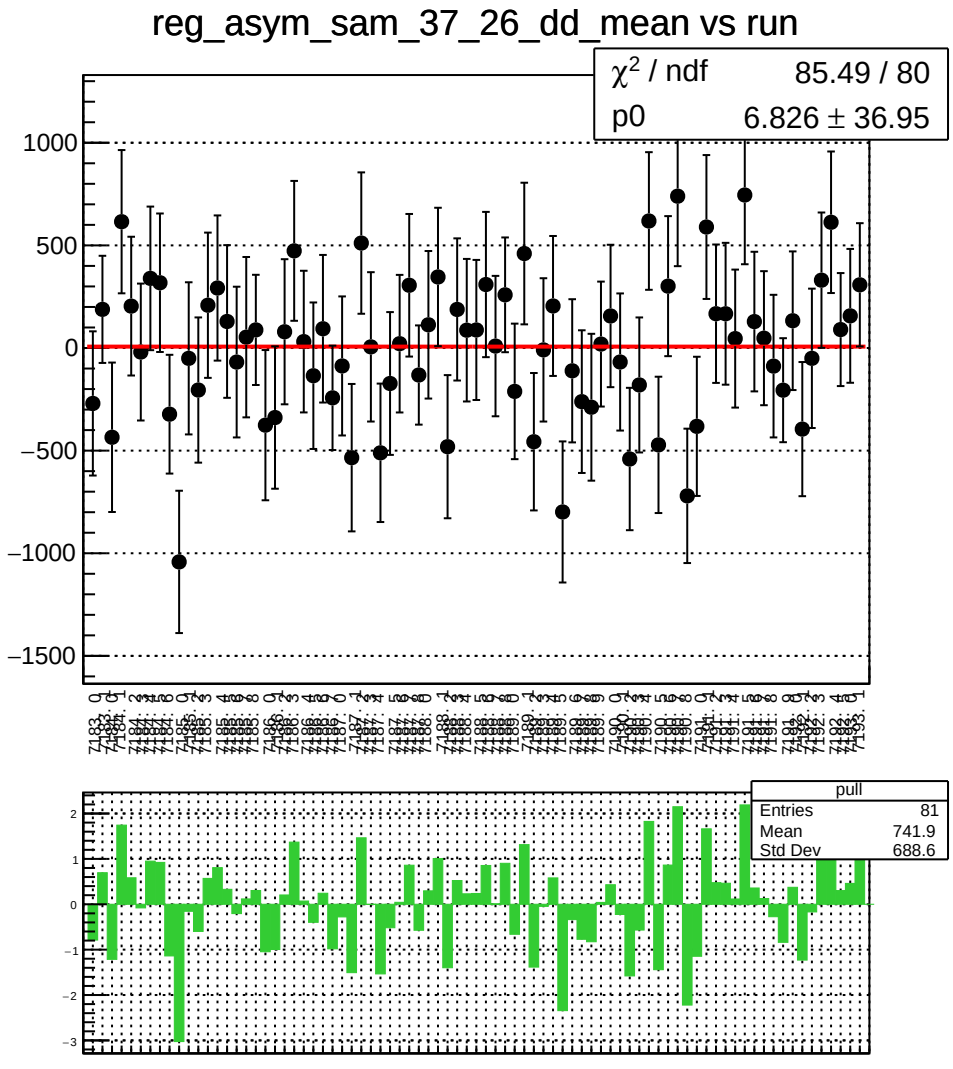

pull1D
Entries 81
Mean 0.01702
Std Dev 1.015

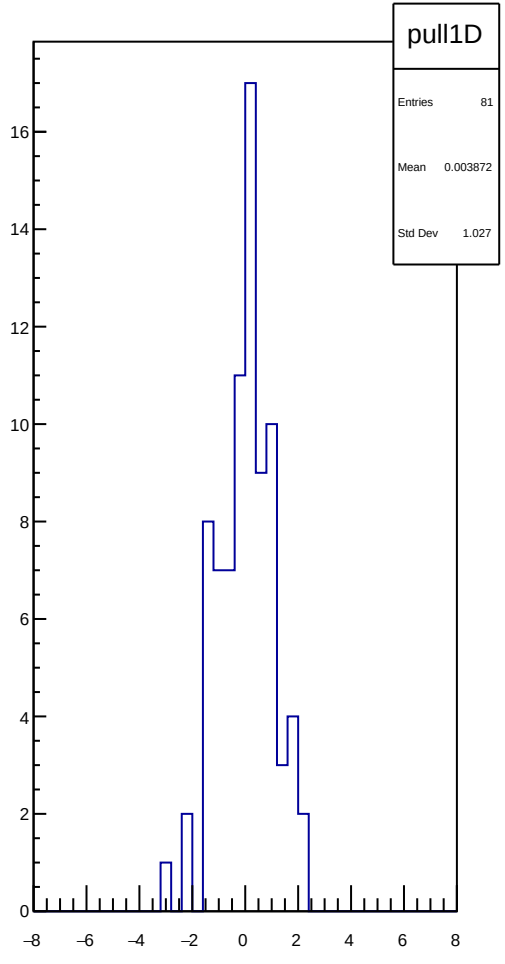

asym_sam_15_26_dd_correction_rms vs run
χ² / ndf 7226 / 80
p0 265 ± 0.2118
320
310
300
290
280
270
260
250
240
230

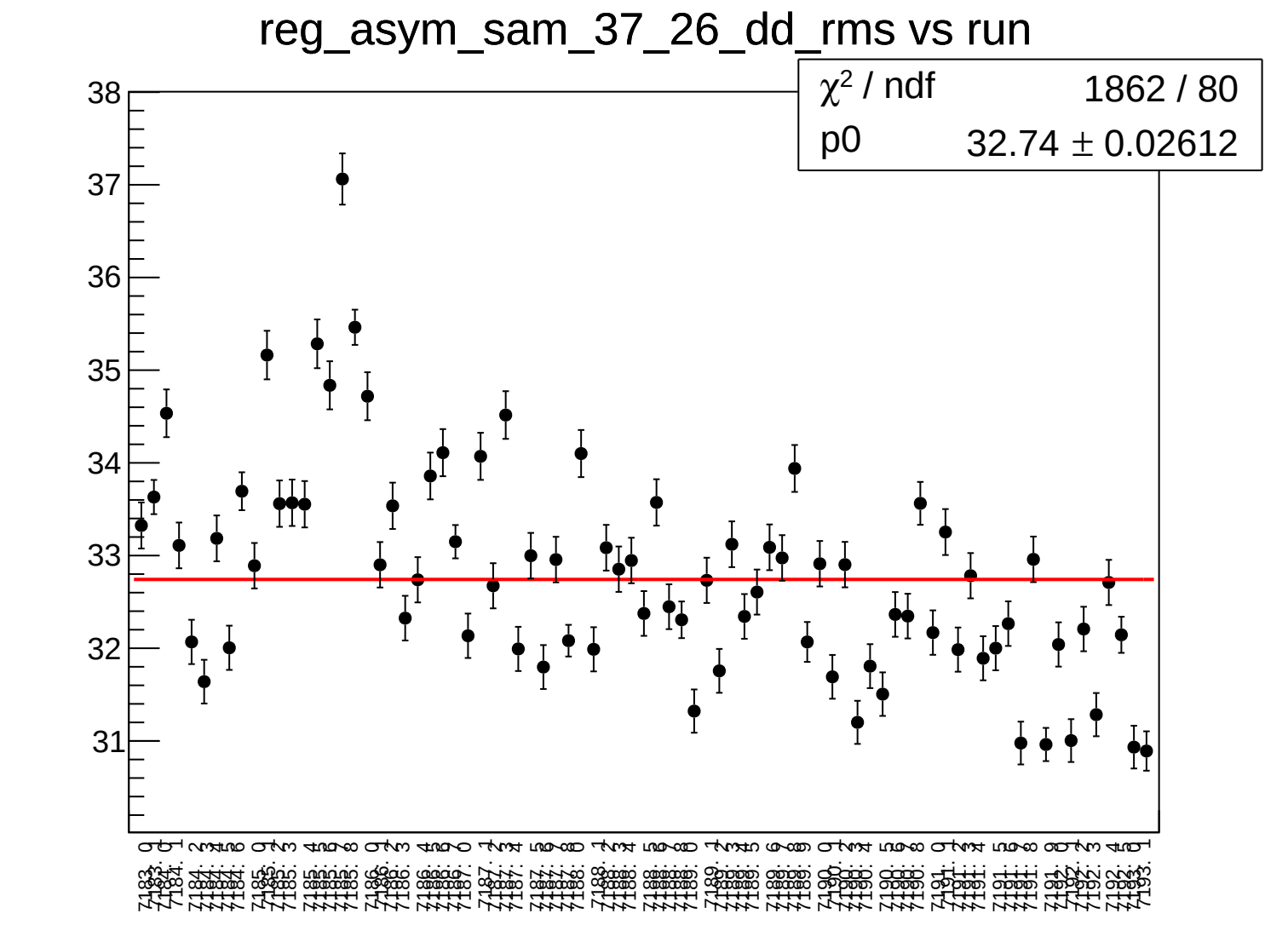

asym_sam_15_26_dd_mean vs run
χ² / ndf 74.91 / 80
p0 −520.4 ± 304.5
pull
Entries 81
Mean −169.6
Std Dev 202.3

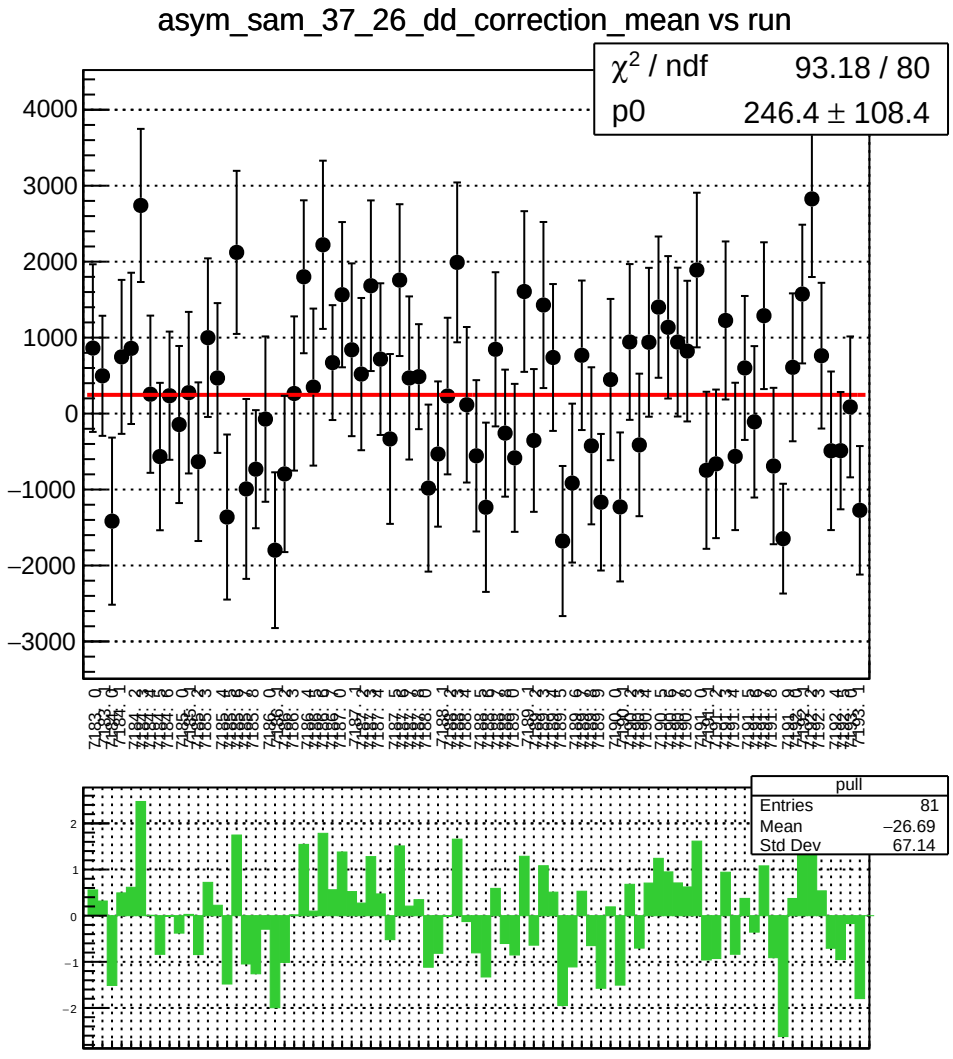

pull1D
Entries 81
Mean −0.01414
Std Dev 0.9616

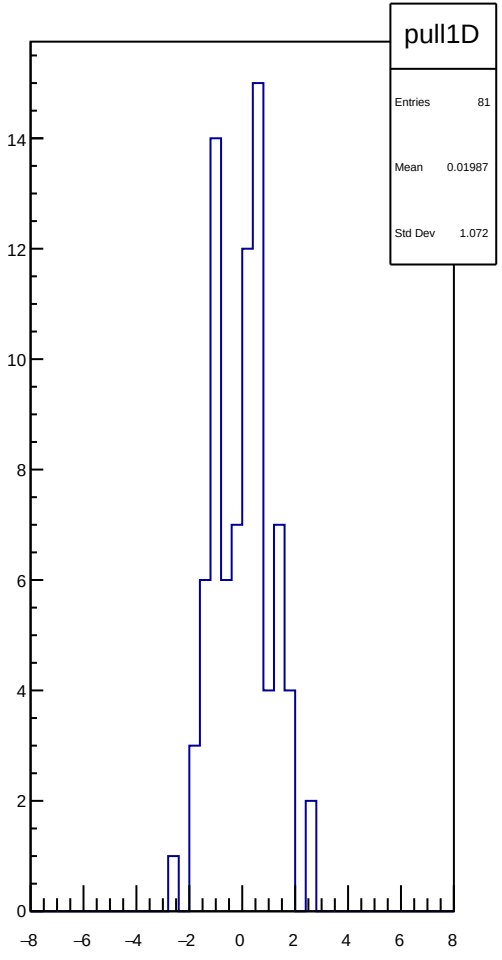

asym_sam_15_26_dd_rms vs run
χ² / ndf 6921 / 80
p0 269.4 ± 0.2153
320
310
300
290
280
270
260
250
240
230

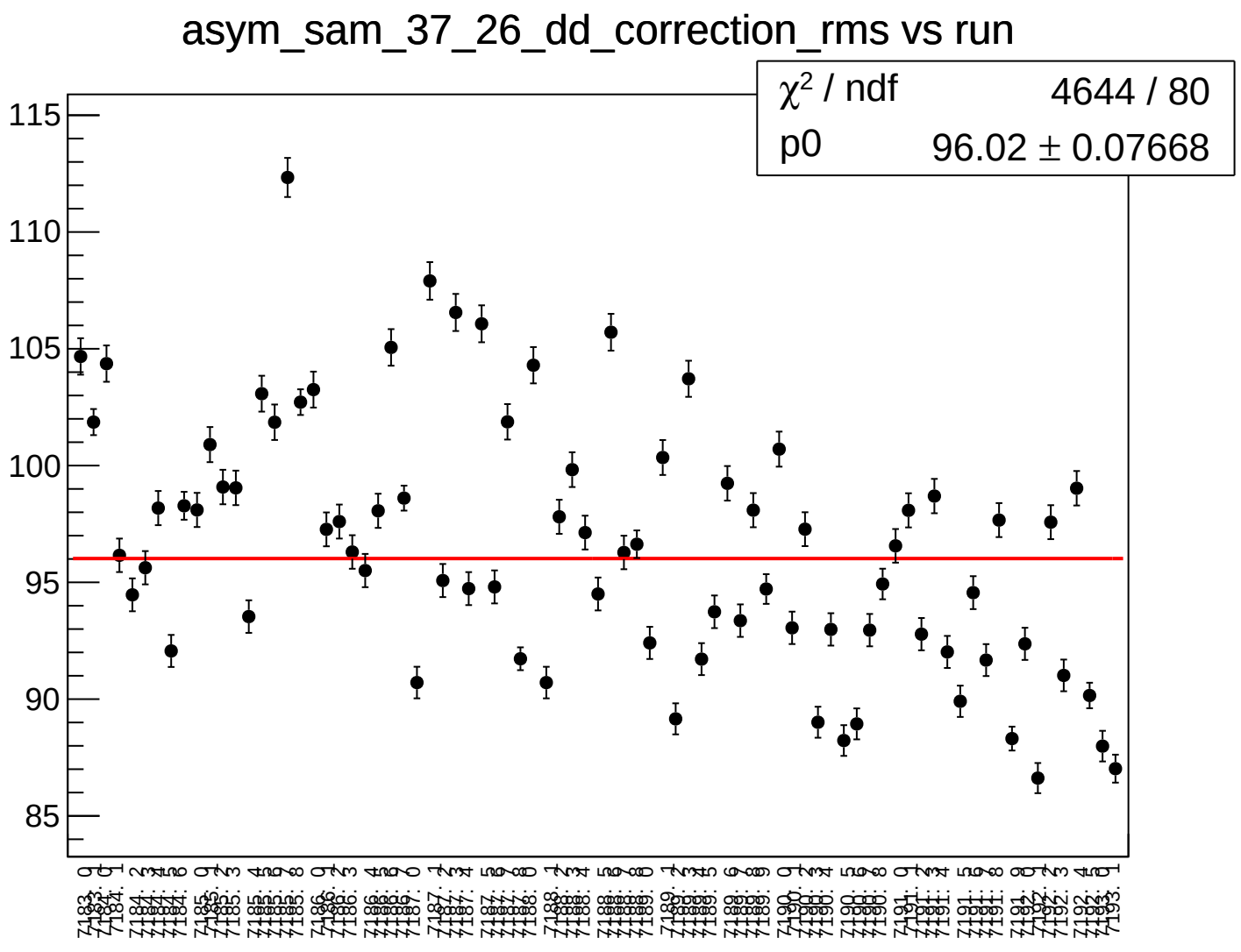

reg_asym_sam_37_26_dd_mean vs run
χ² / ndf 85.49 / 80
p0 6.826 ± 36.95
1000
500
0
−500
−1000
−1500
pull
Entries 81
Mean 741.9
Std Dev 688.6
2
1
0
−1
−2
−3

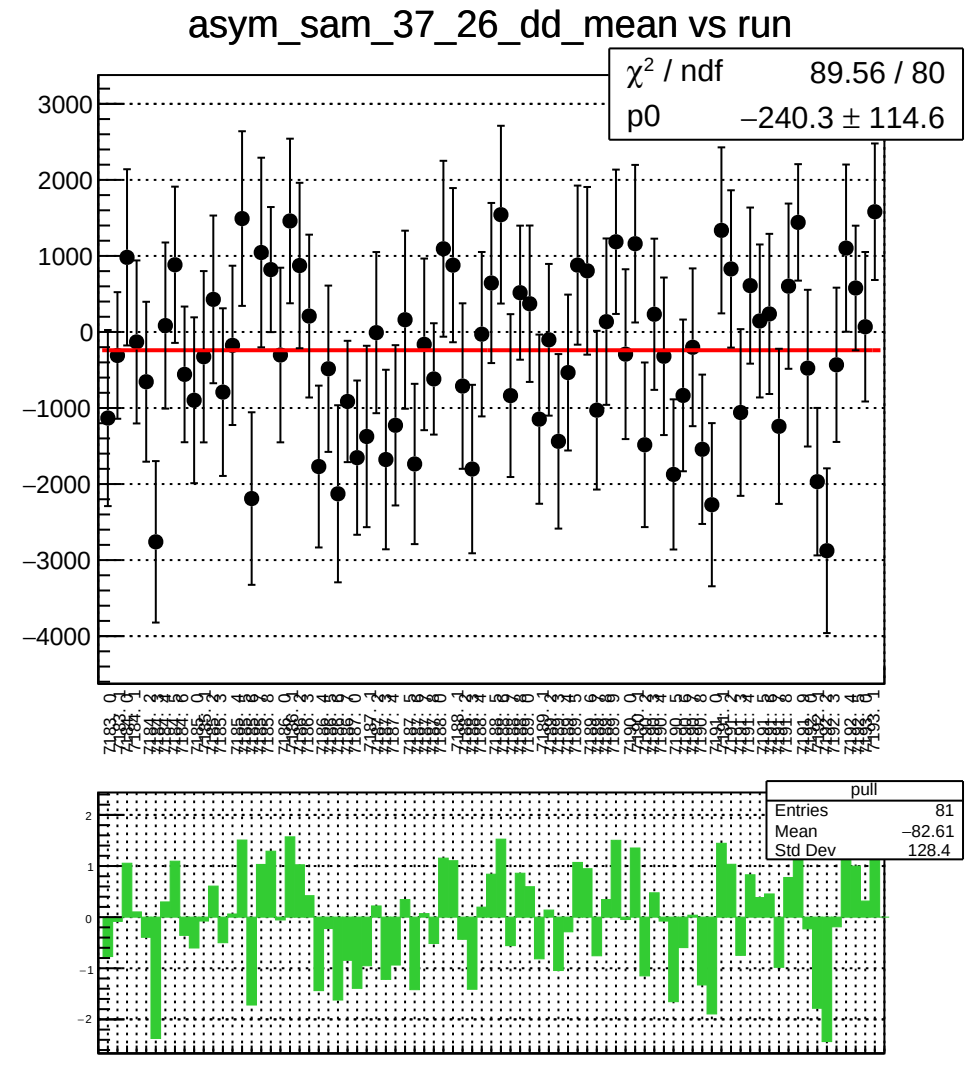

pull1D
Entries 81
Mean 0.003872
Std Dev 1.027
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

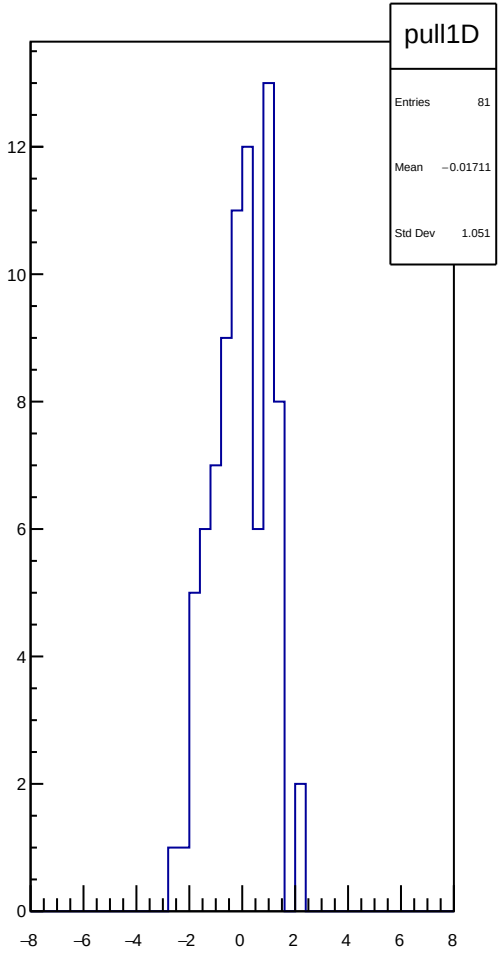

reg_asym_sam_37_26_dd_rms vs run
χ^2 / ndf 1862 / 80
p0 32.74 ± 0.02612
38
37
36
35
34
33
32
31

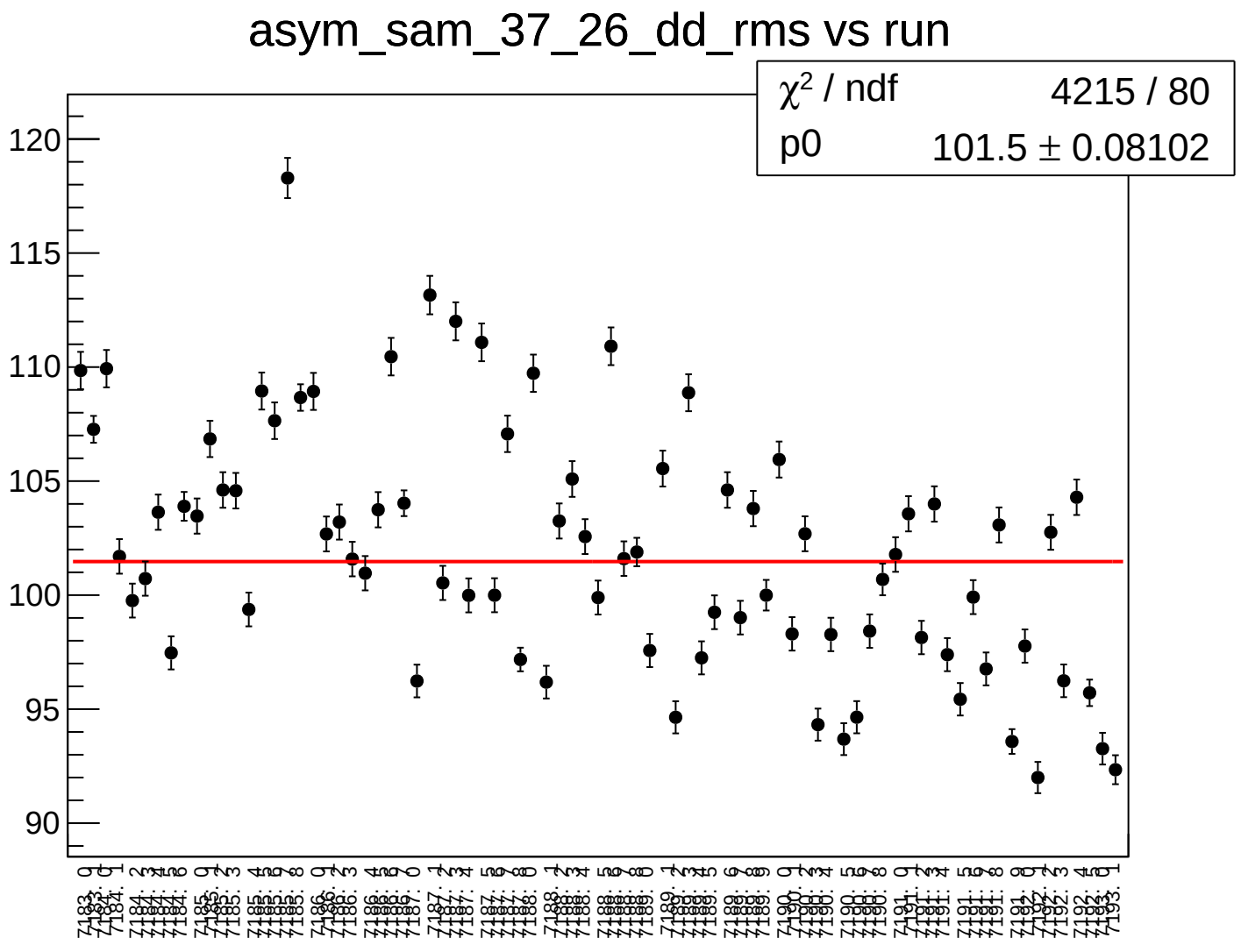

asym_sam_37_26_dd_correction_mean vs run
χ² / ndf 93.18 / 80
p0 246.4 ± 108.4
pull
Entries 81
Mean −26.69
Std Dev 67.14

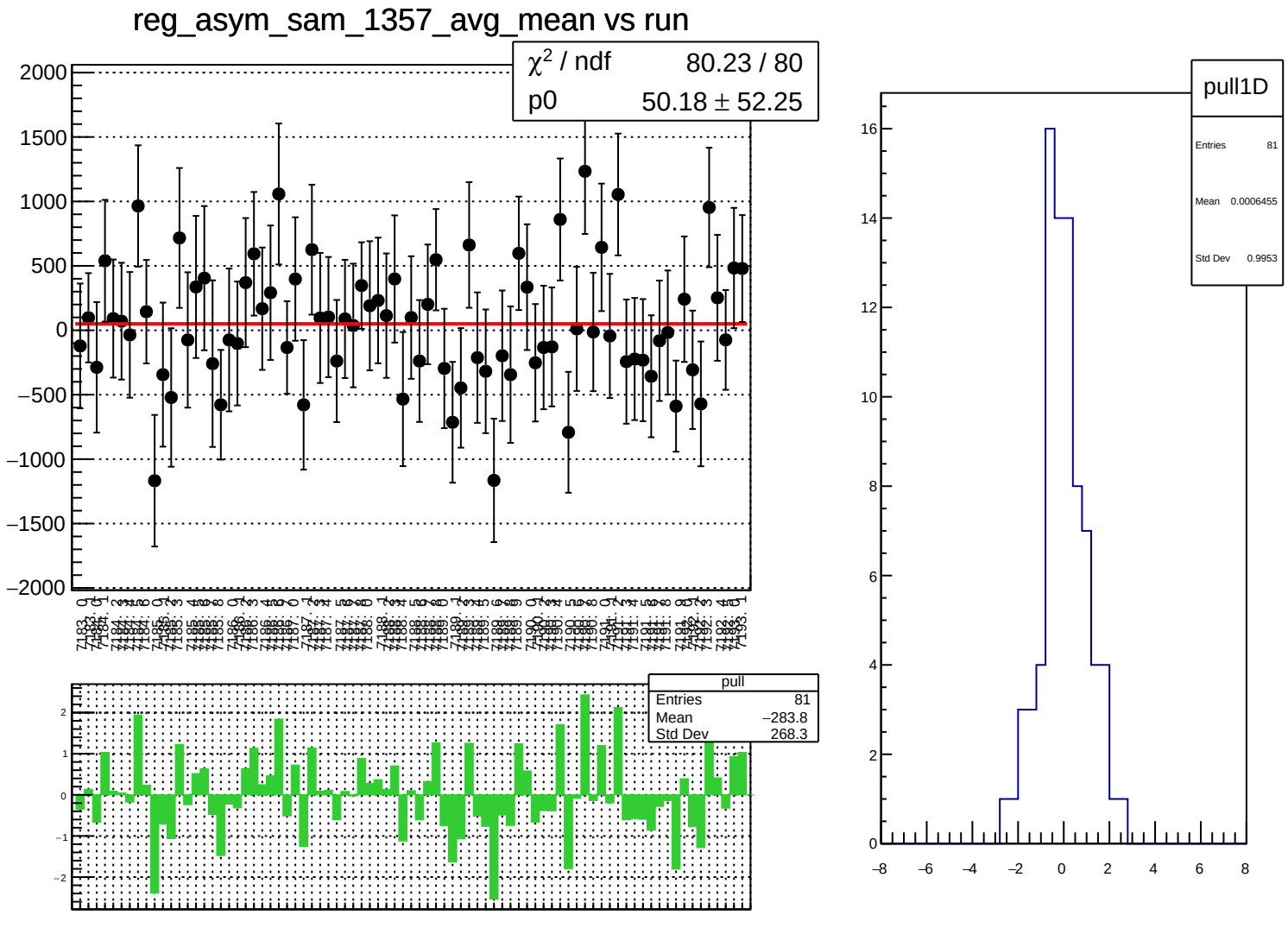

pull1D
Entries 81
Mean 0.01987
Std Dev 1.072

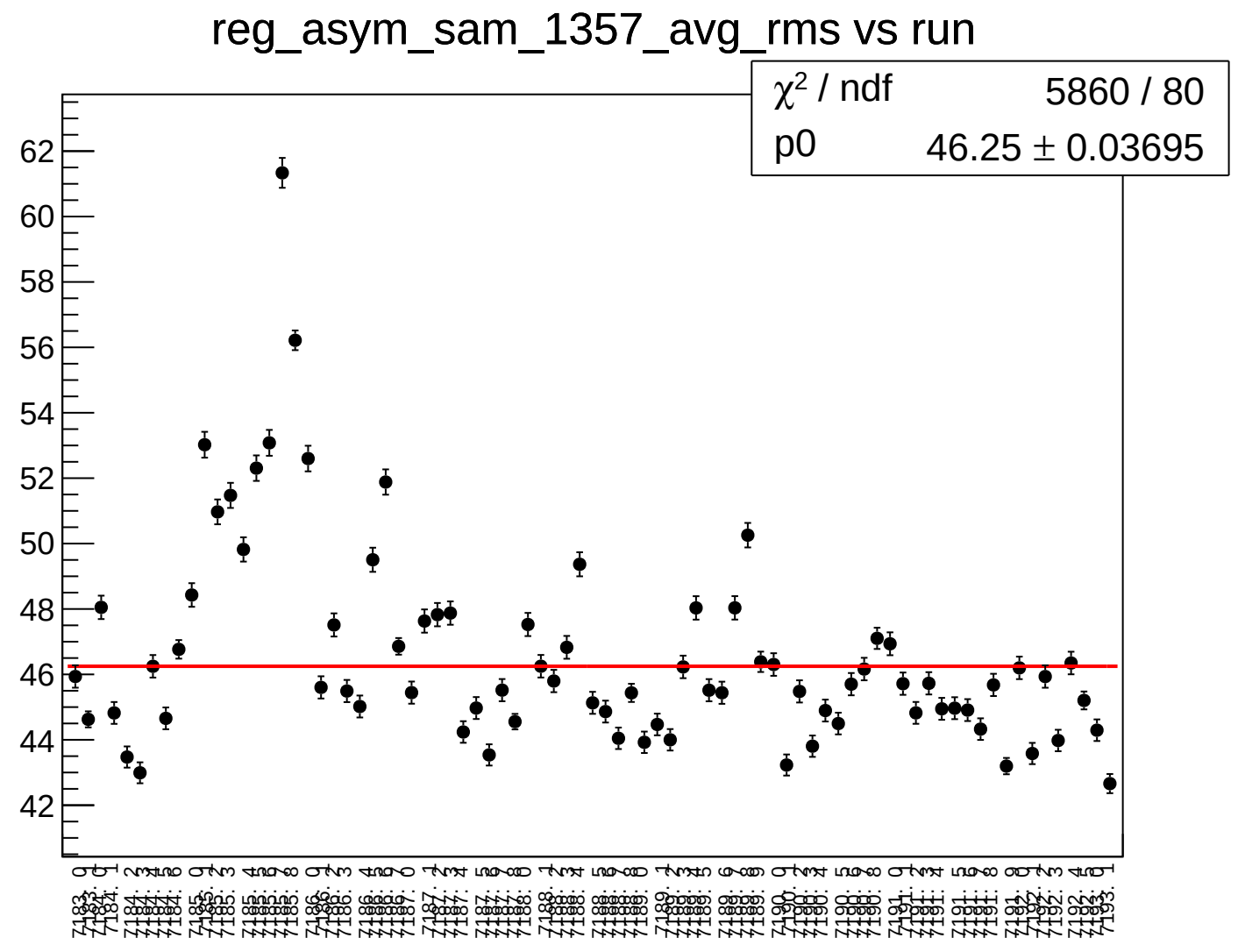

asym_sam_37_26_dd_correction_rms vs run
χ² / ndf 4644 / 80
p0 96.02 ± 0.07668
115
110
105
100
95
90
85

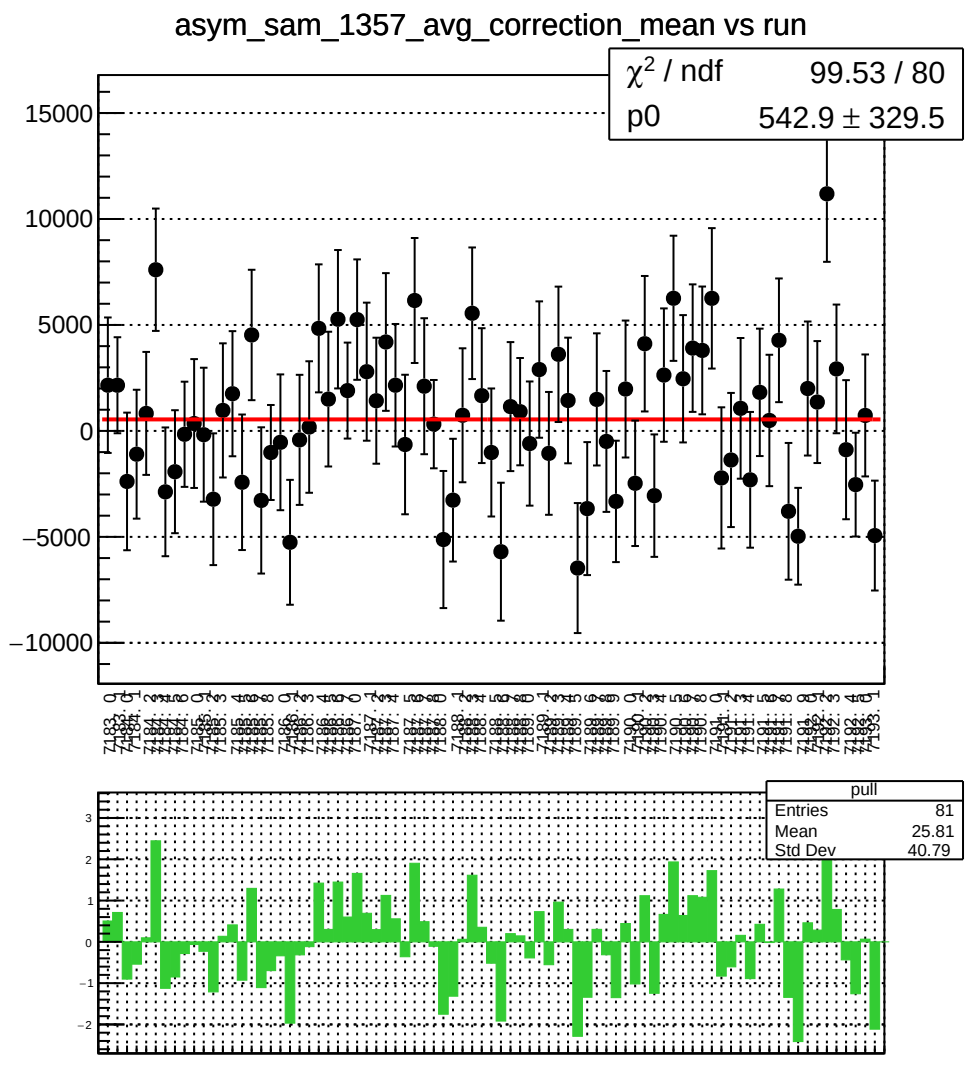

asym_sam_37_26_dd_mean vs run
χ² / ndf 89.56 / 80
p0 −240.3 ± 114.6
pull
Entries 81
Mean −82.61
Std Dev 128.4

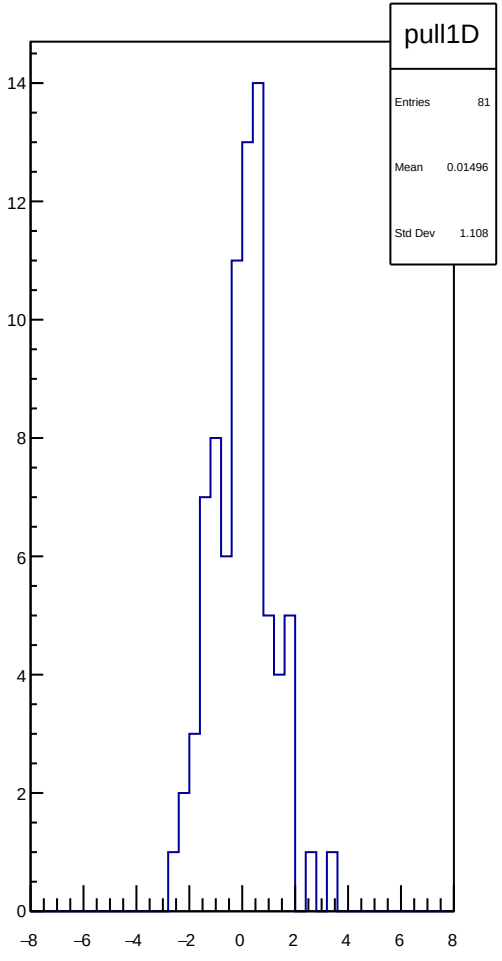

pull1D
Entries 81
Mean −0.01711
Std Dev 1.051

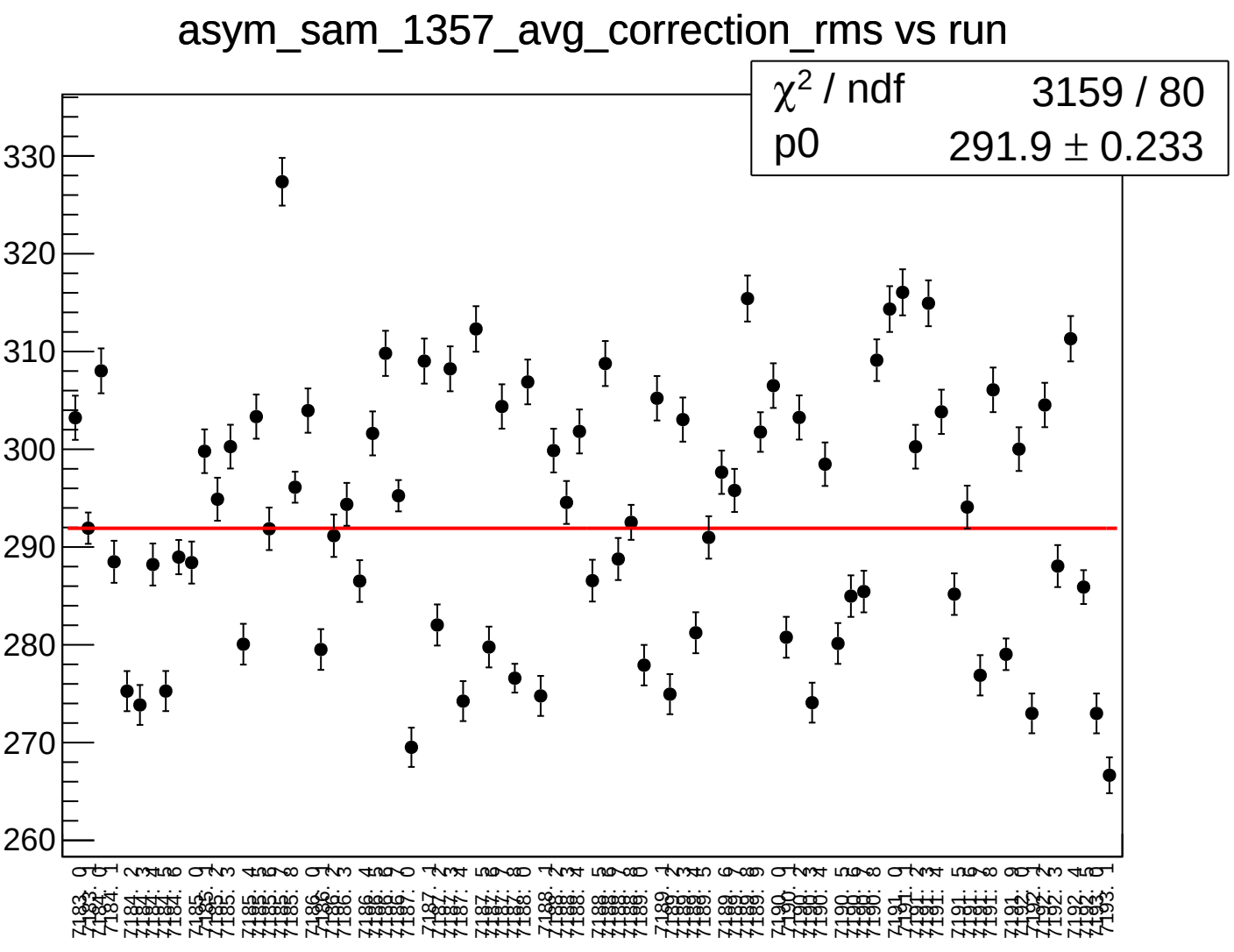

asym_sam_37_26_dd_rms vs run
χ^2 / ndf 4215 / 80
p0 101.5 ± 0.08102
120
115
110
105
100
95
90

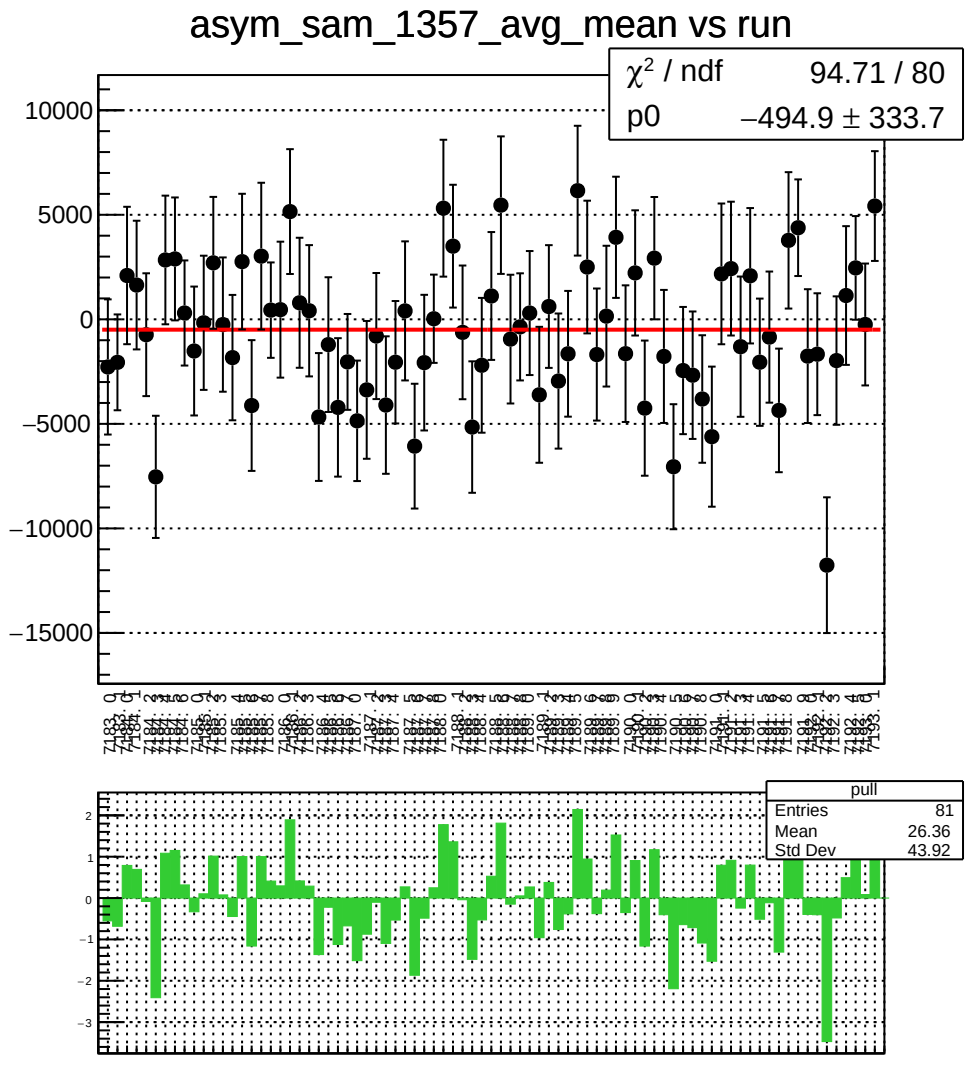

reg_asym_sam_1357_avg_mean vs run
χ² / ndf 80.23 / 80
p0 50.18 ± 52.25
pull
Entries 81
Mean −283.8
Std Dev 268.3
pull1D
Entries 81
Mean 0.0006455
Std Dev 0.9953

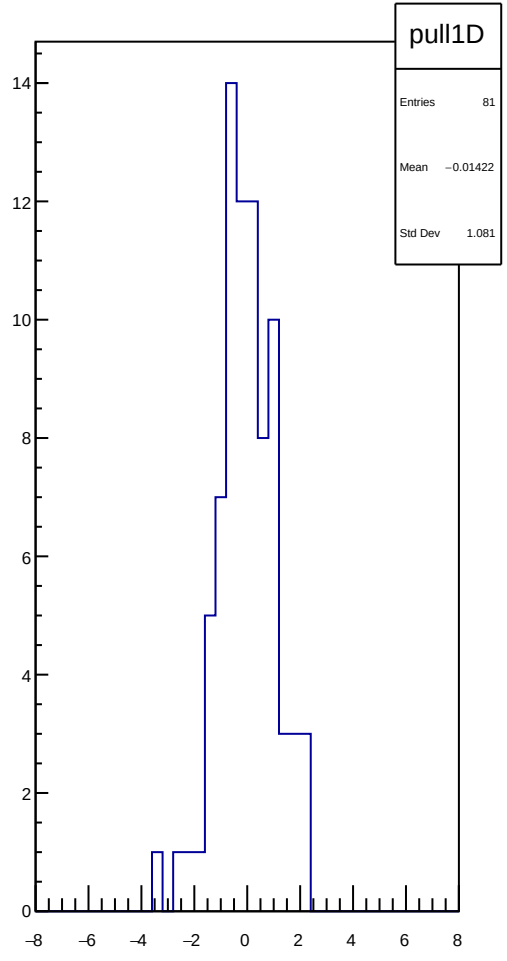

reg_asym_sam_1357_avg_rms vs run
χ^2 / ndf 5860 / 80
p0 46.25 ± 0.03695
62
60
58
56
54
52
50
48
46
44
42

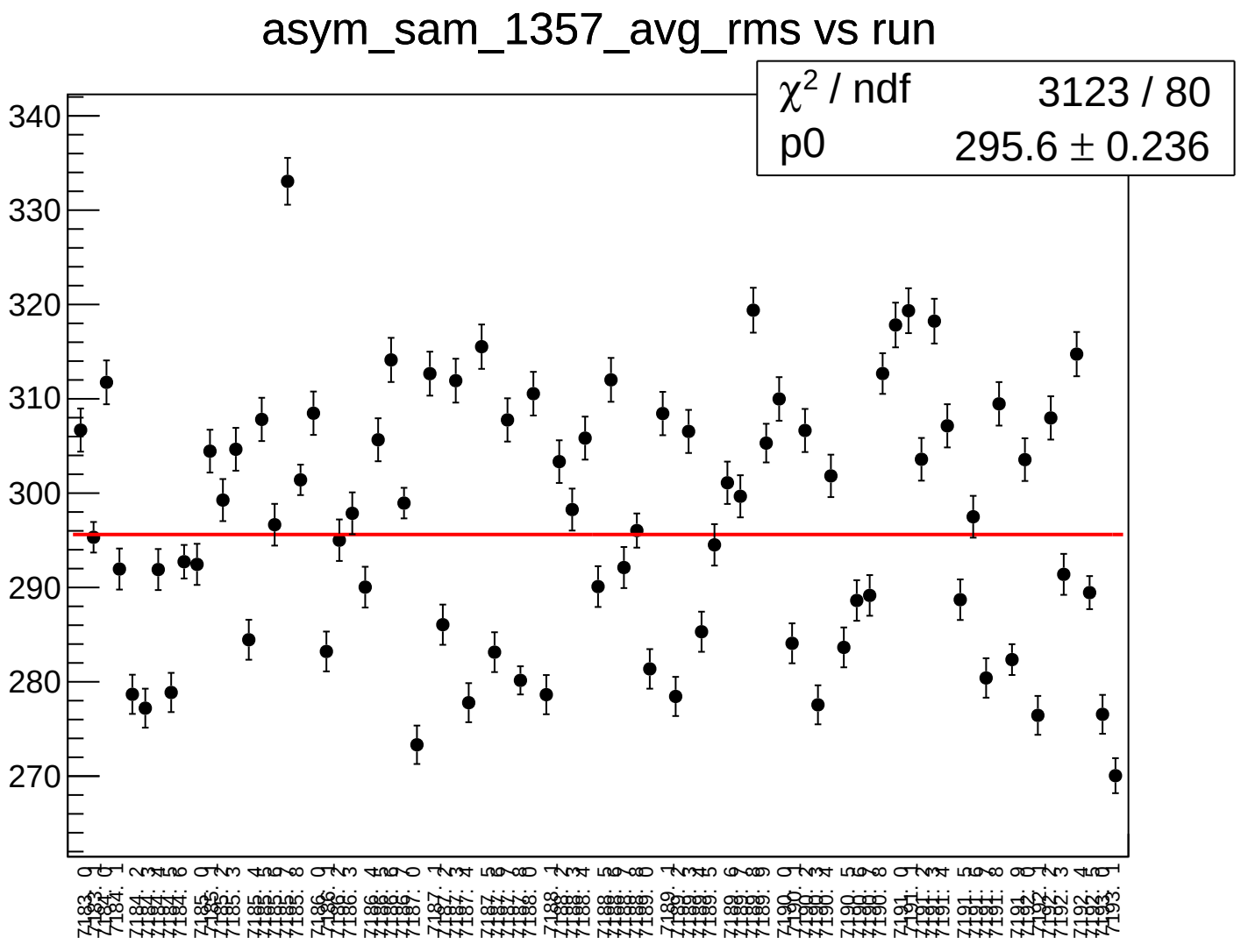

asym_sam_1357_avg_correction_mean vs run
χ² / ndf 99.53 / 80
p0 542.9 ± 329.5
15000
10000
5000
0
−5000
−10000
pull
Entries 81
Mean 25.81
Std Dev 40.79
3
2
1
0
−1
−2

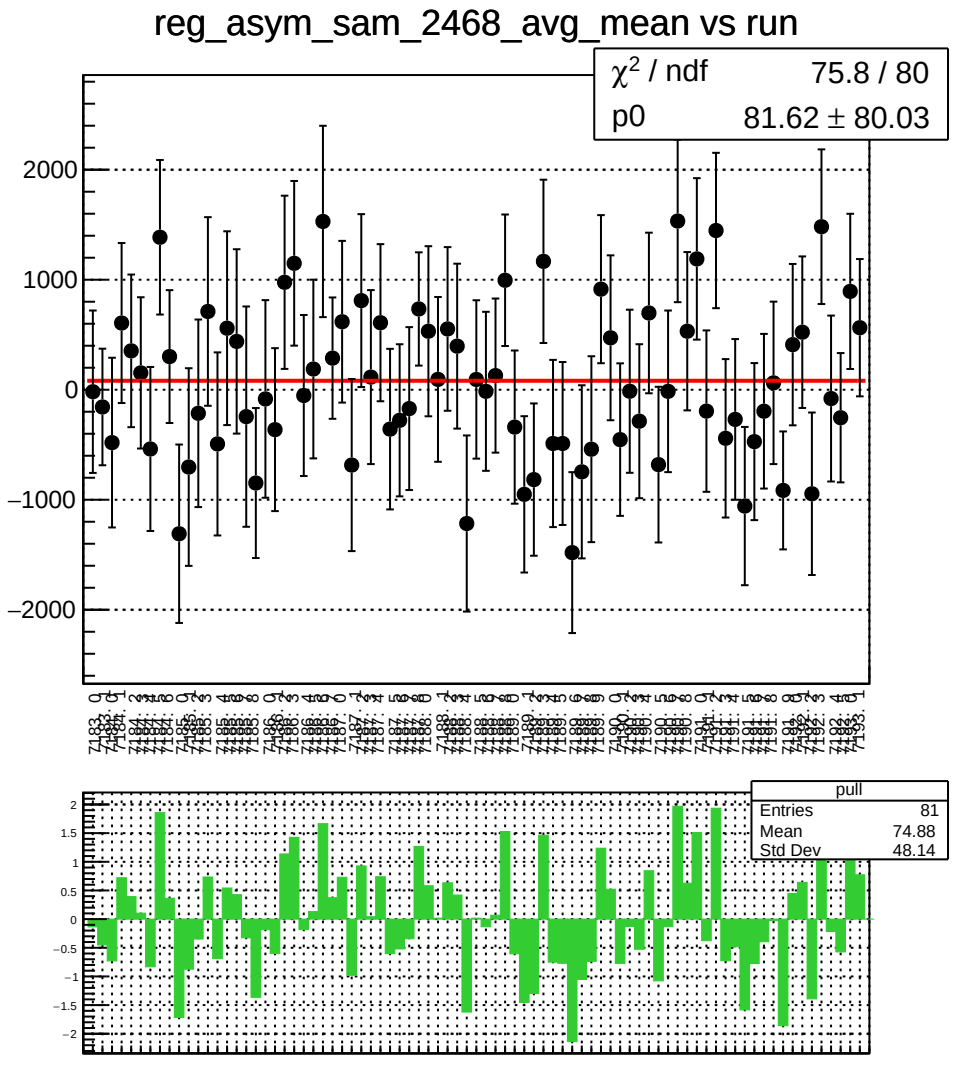

pull1D
Entries 81
Mean 0.01496
Std Dev 1.108
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

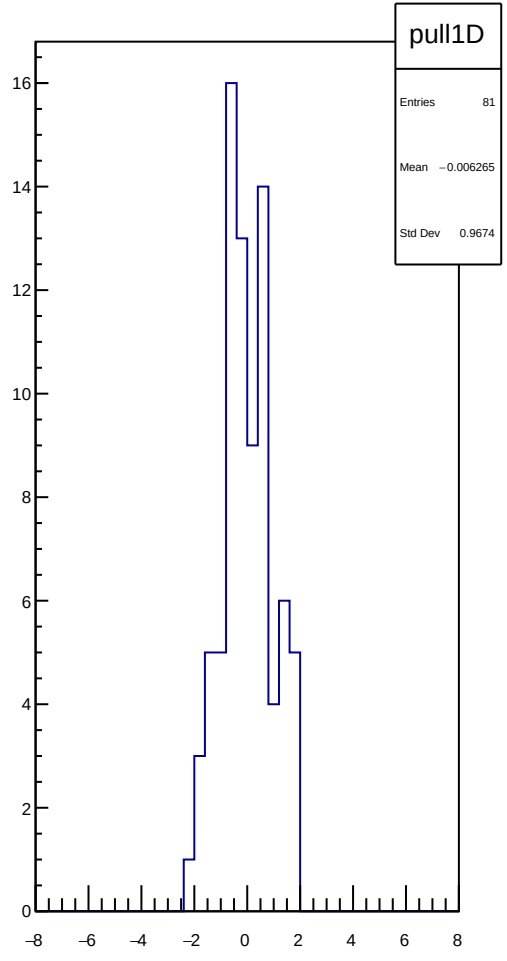

asym_sam_1357_avg_correction_rms vs run
χ² / ndf 3159 / 80
p0 291.9 ± 0.233
330
320
310
300
290
280
270
260

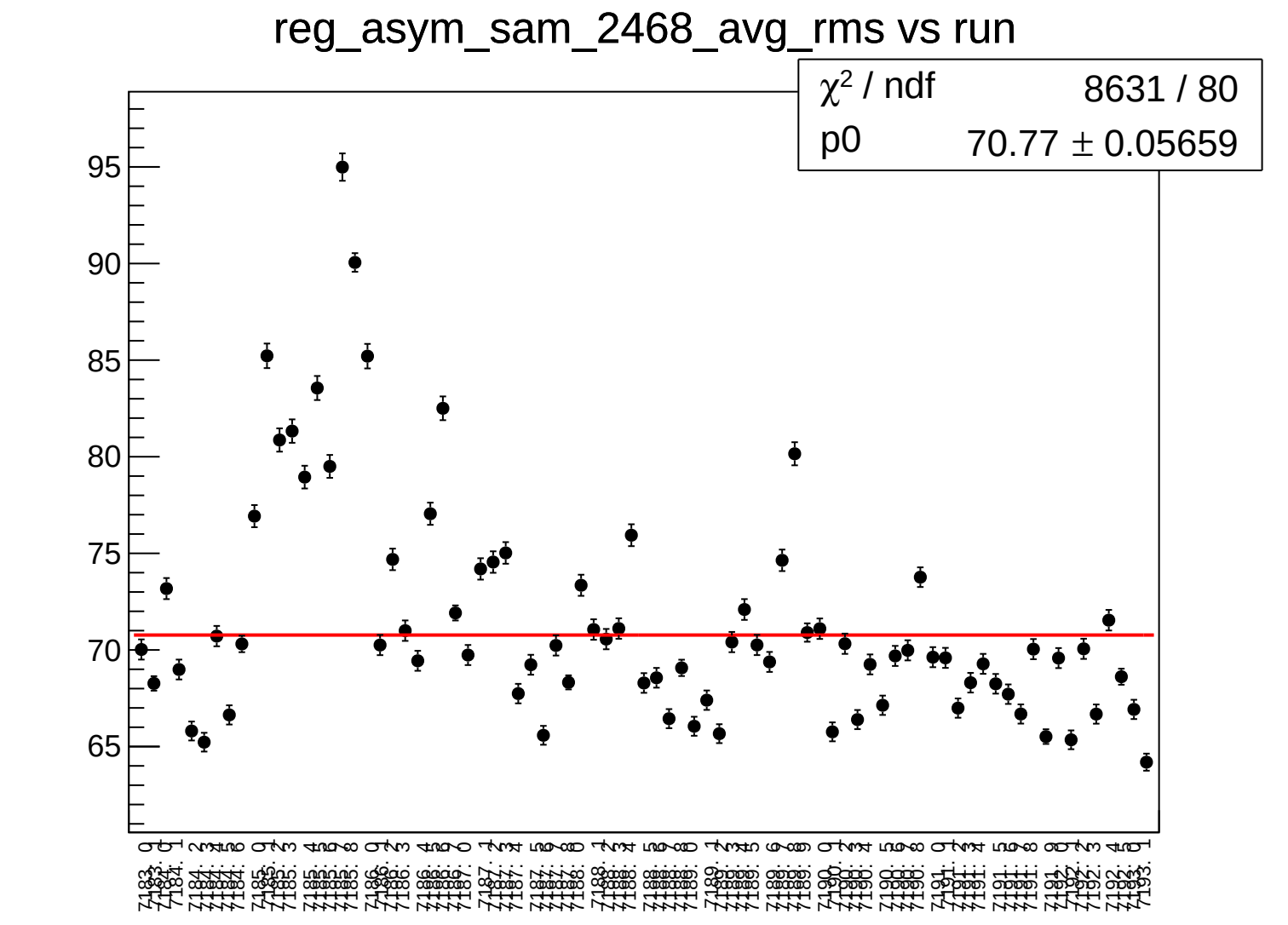

asym_sam_1357_avg_mean vs run
χ² / ndf 94.71 / 80
p0 −494.9 ± 333.7
10000
5000
0
−5000
−10000
−15000
pull
Entries 81
Mean 26.36
Std Dev 43.92
2
1
0
−1
−2
−3

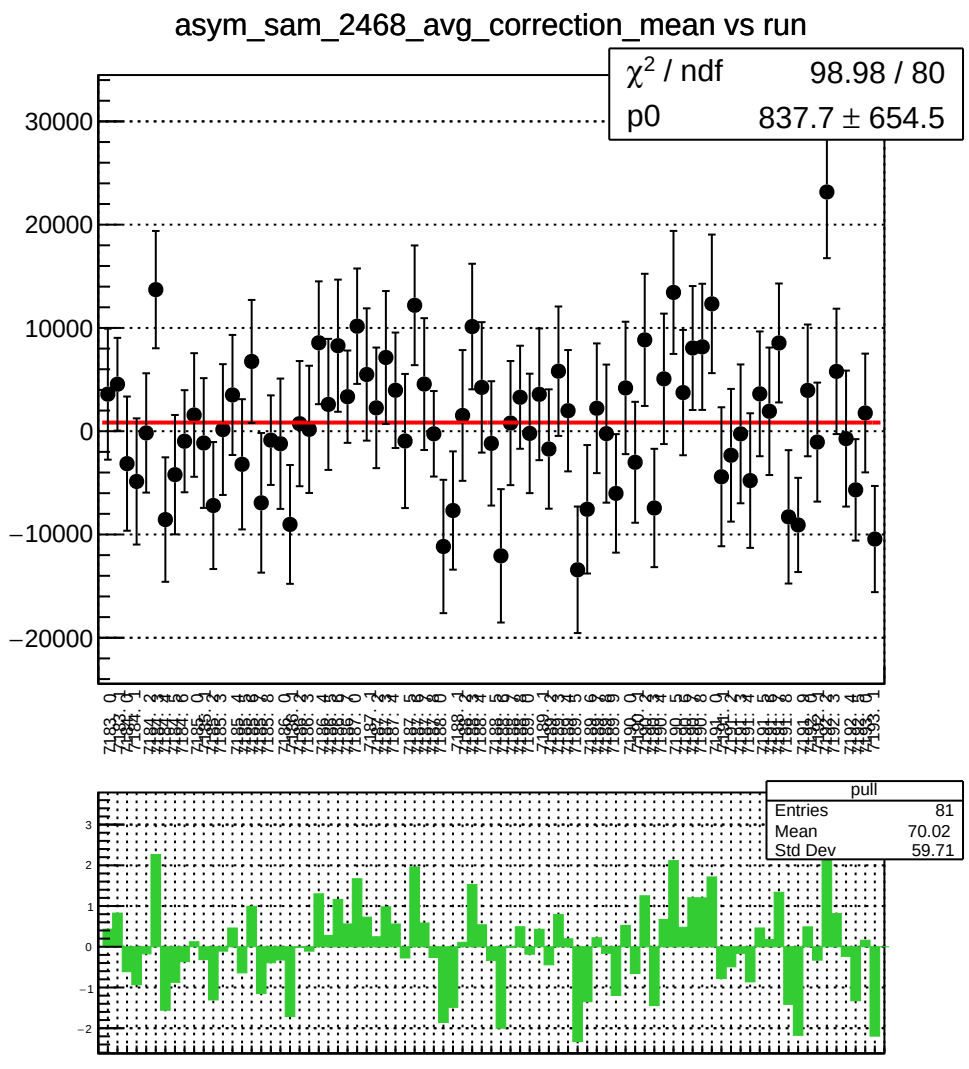

pull1D
Entries 81
Mean −0.01422
Std Dev 1.081
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

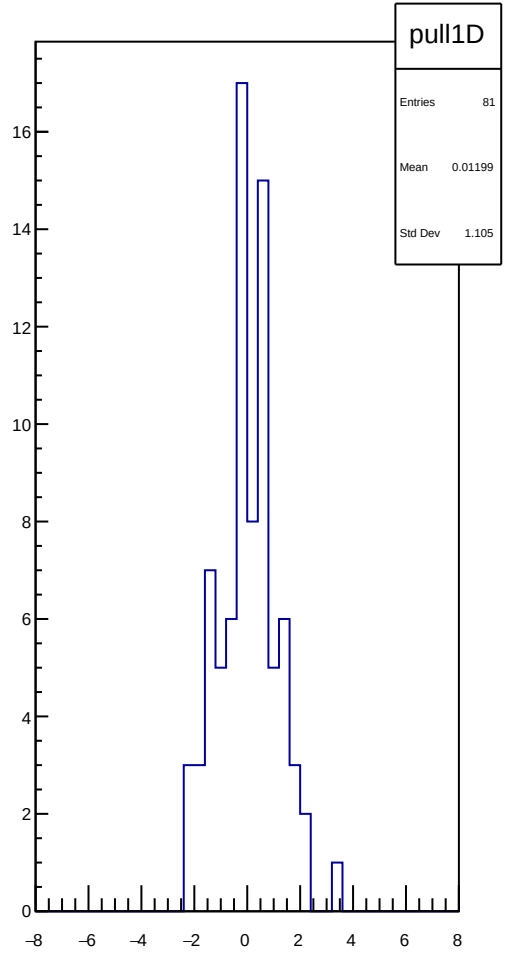

asym_sam_1357_avg_rms vs run
χ² / ndf 3123 / 80
p0 295.6 ± 0.236
340
330
320
310
300
290
280
270

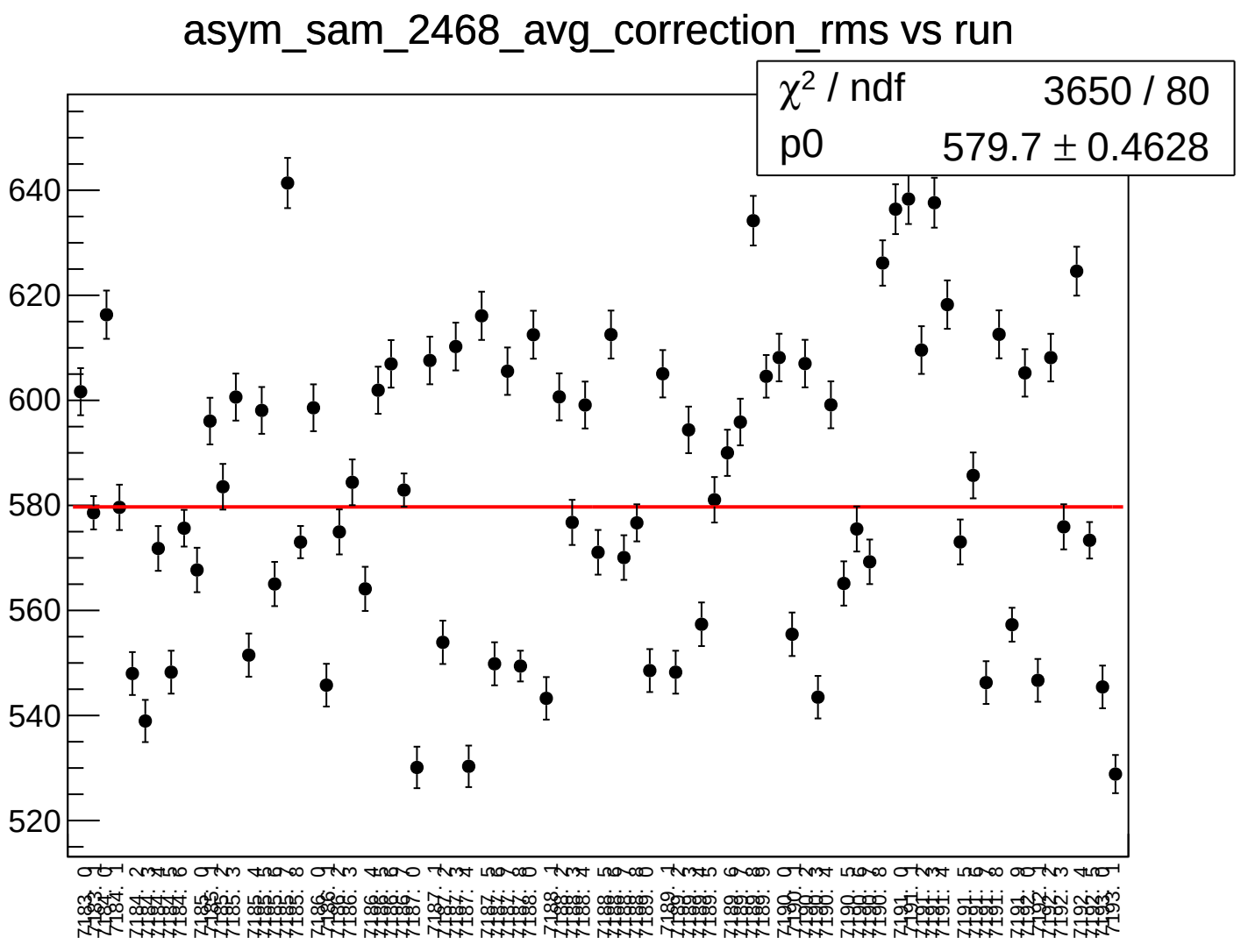

reg_asym_sam_2468_avg_mean vs run
χ² / ndf 75.8 / 80
p0 81.62 ± 80.03
2000
1000
0
−1000
−2000
pull
Entries 81
Mean 74.88
Std Dev 48.14
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

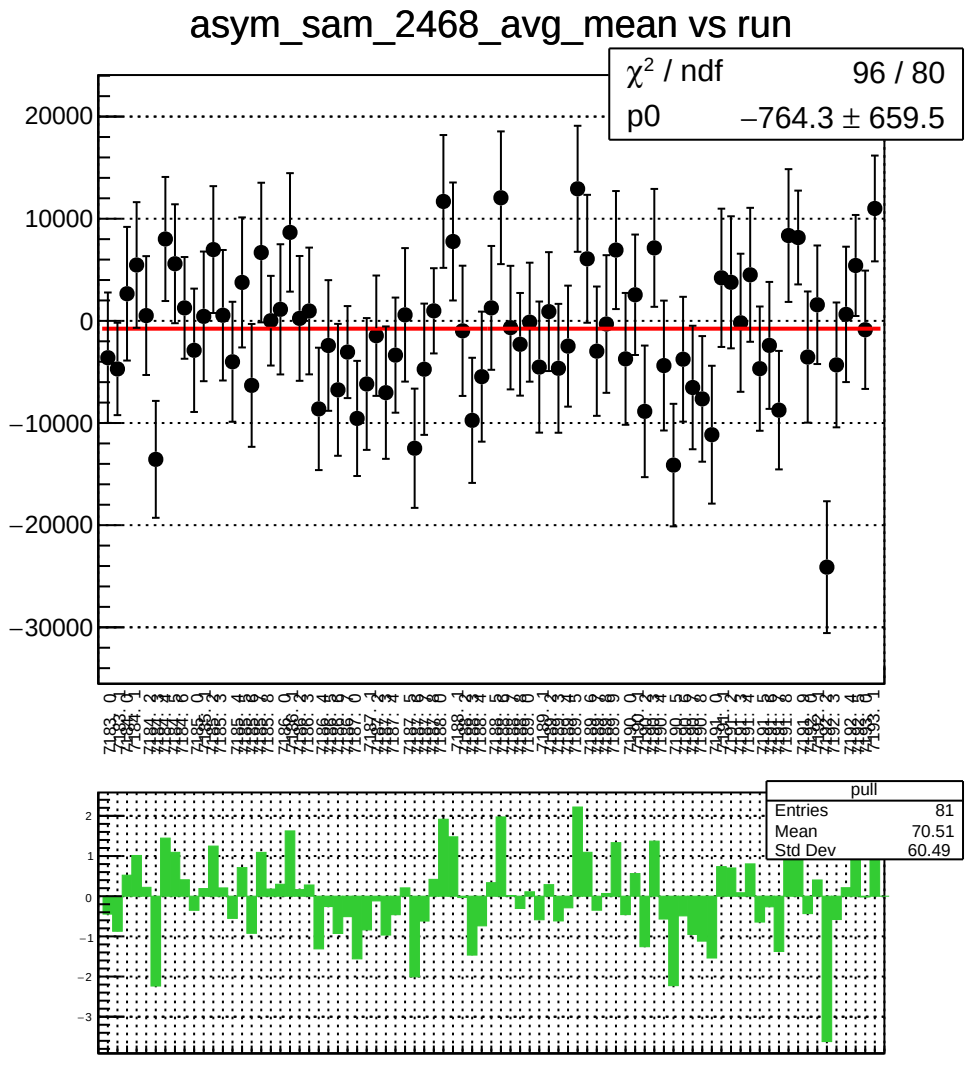

pull1D
Entries 81
Mean −0.006265
Std Dev 0.9674
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

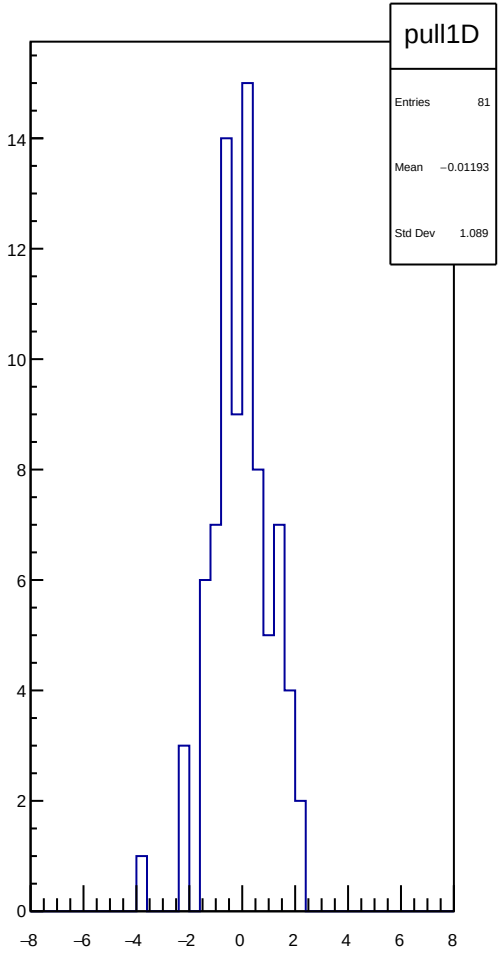

reg_asym_sam_2468_avg_rms vs run
χ^2 / ndf 8631 / 80
p0 70.77 ± 0.05659
95
90
85
80
75
70
65

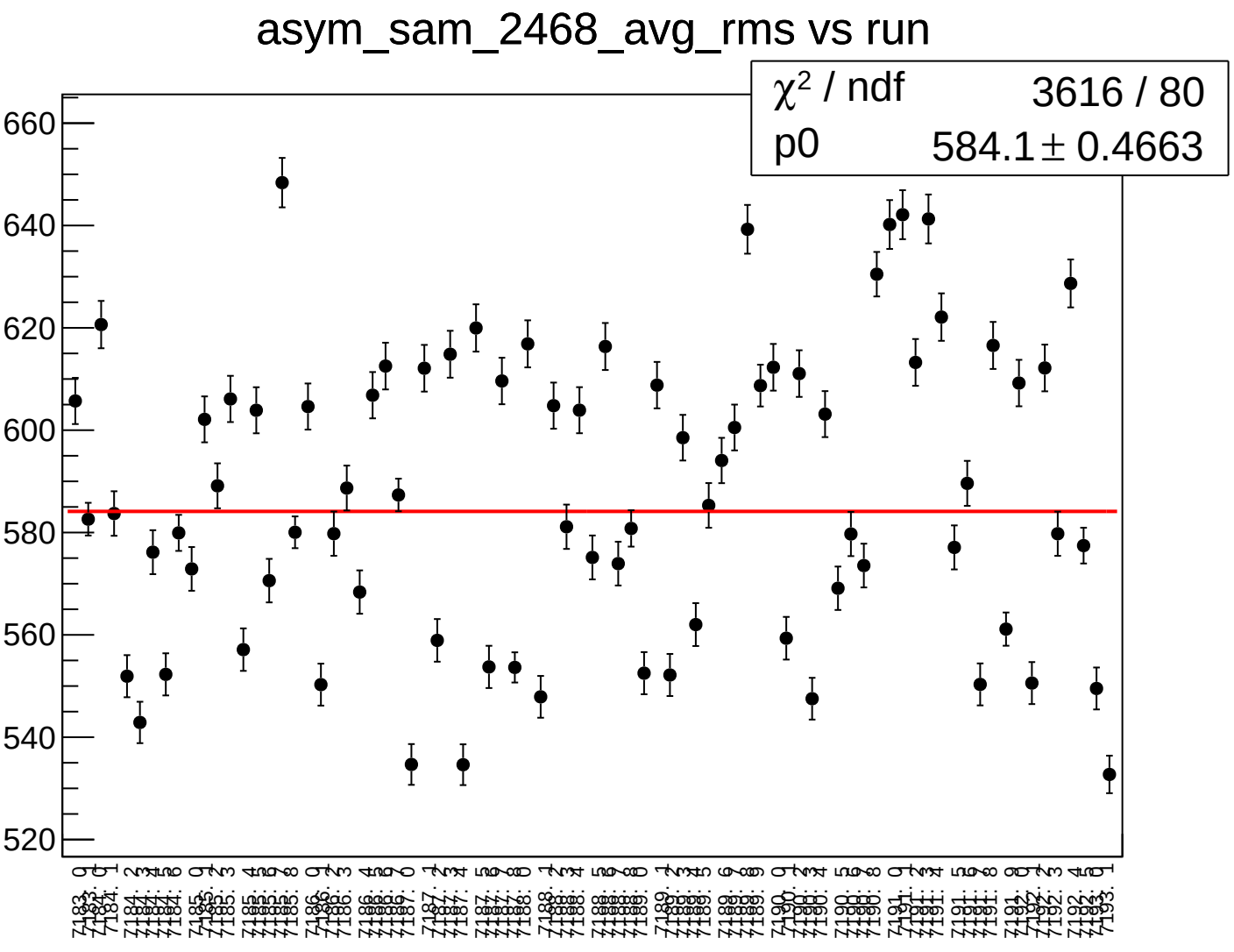

asym_sam_2468_avg_correction_mean vs run
χ² / ndf 98.98 / 80
p0 837.7 ± 654.5
30000
20000
10000
0
−10000
−20000
pull
Entries 81
Mean 70.02
Std Dev 59.71
3
2
1
0
−1
−2

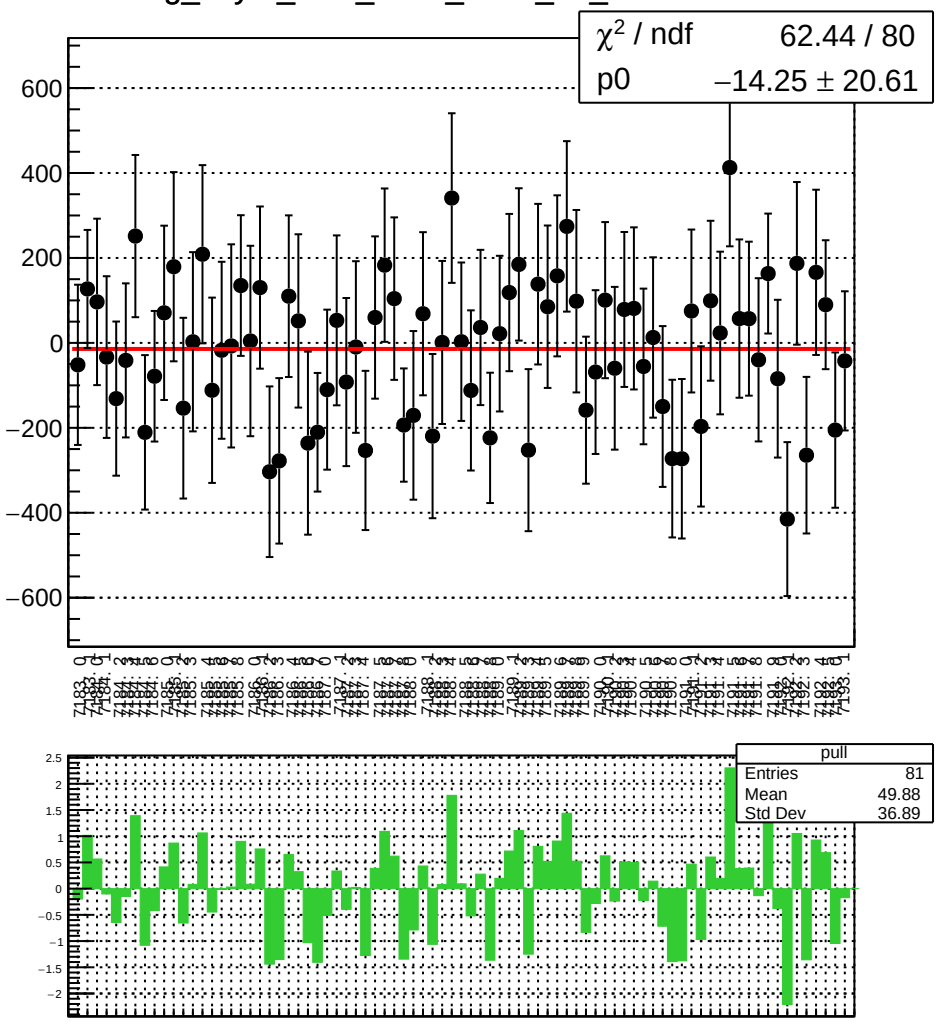

pull1D
Entries 81
Mean 0.01199
Std Dev 1.105
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

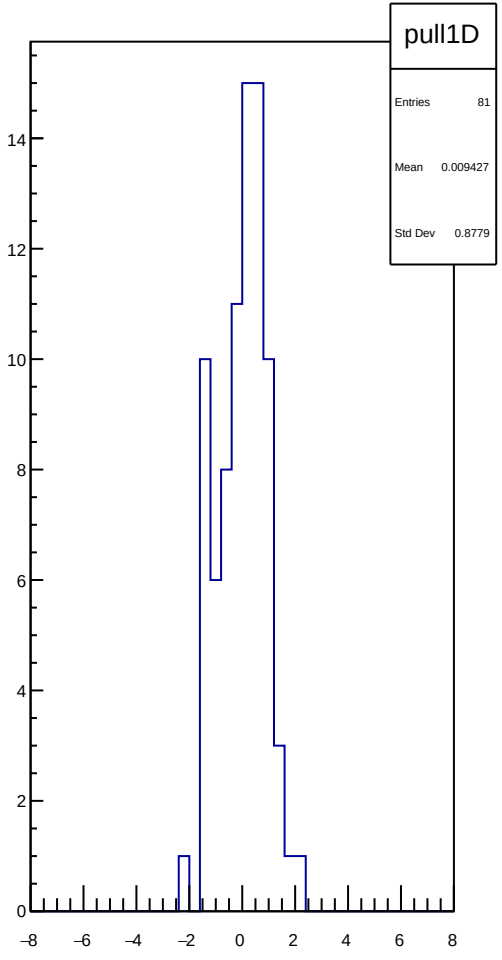

asym_sam_2468_avg_correction_rms vs run
χ² / ndf 3650 / 80
p0 579.7 ± 0.4628
640
620
600
580
560
540
520

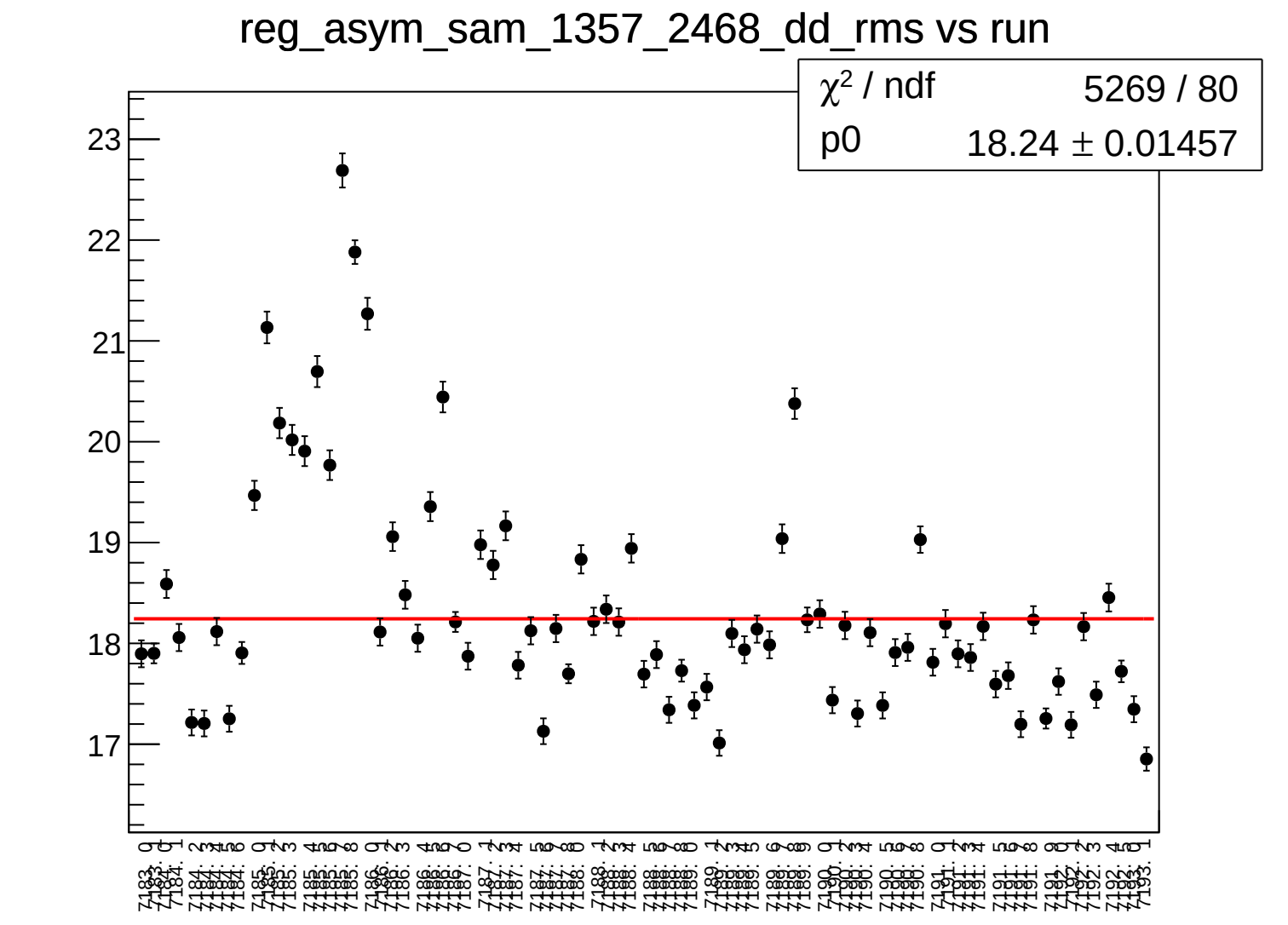

asym_sam_2468_avg_mean vs run
χ² / ndf 96 / 80
p0 −764.3 ± 659.5
20000
10000
0
−10000
−20000
−30000
pull
Entries 81
Mean 70.51
Std Dev 60.49
2
1
0
−1
−2
−3

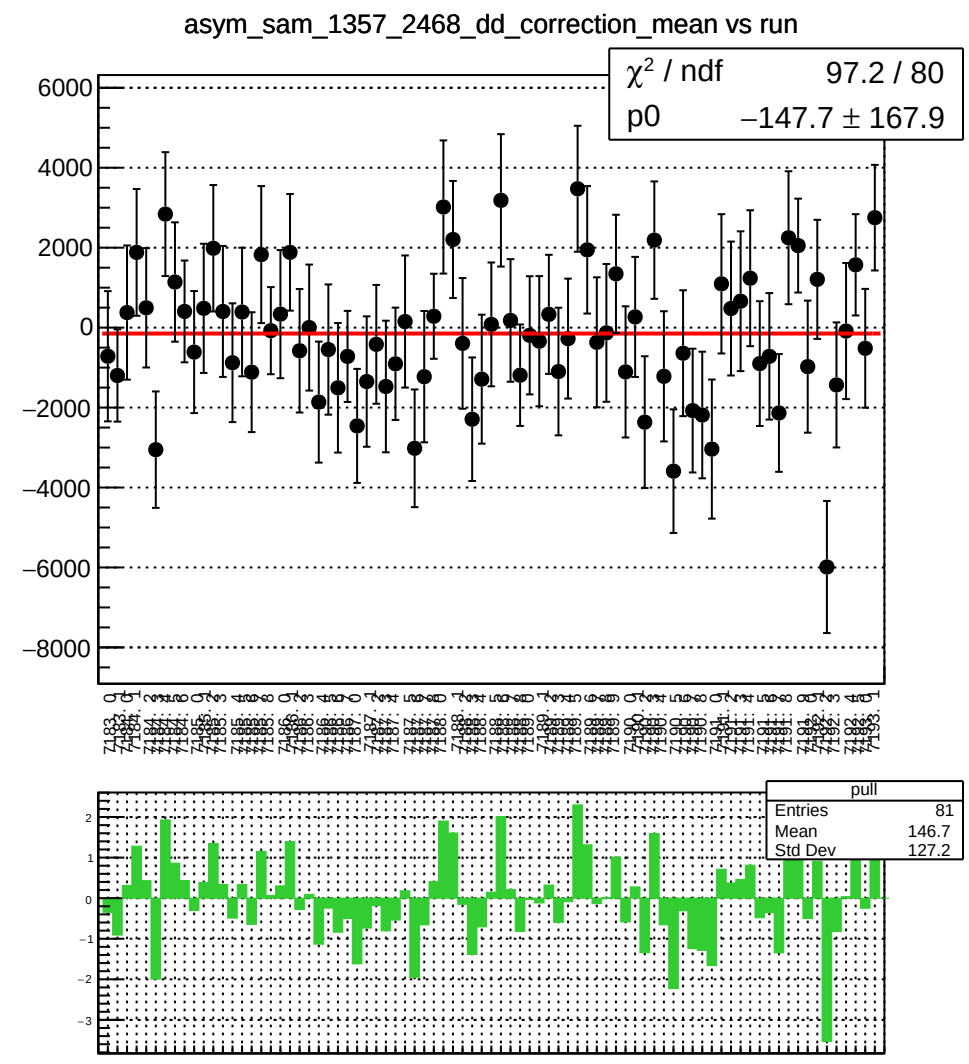

pull1D
Entries 81
Mean −0.01193
Std Dev 1.089
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

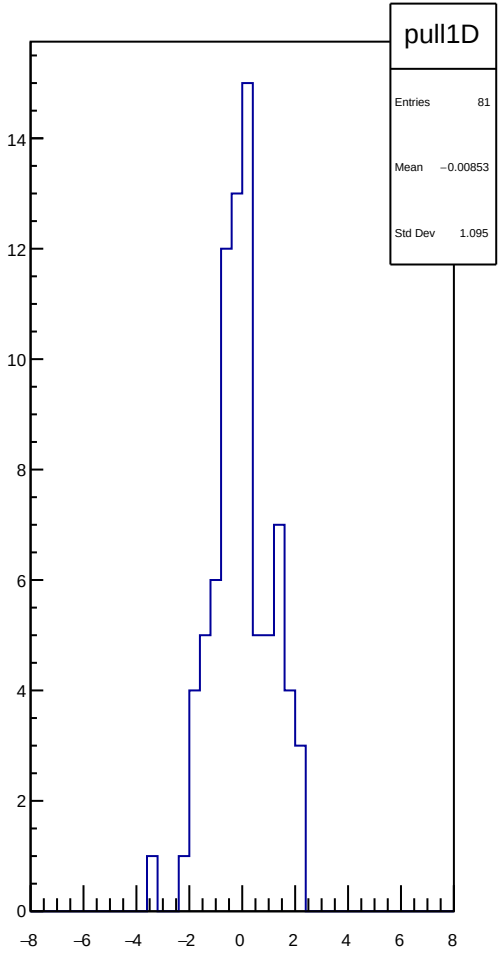

asym_sam_2468_avg_rms vs run
χ² / ndf 3616 / 80
p0 584.1 ± 0.4663
660
640
620
600
580
560
540
520

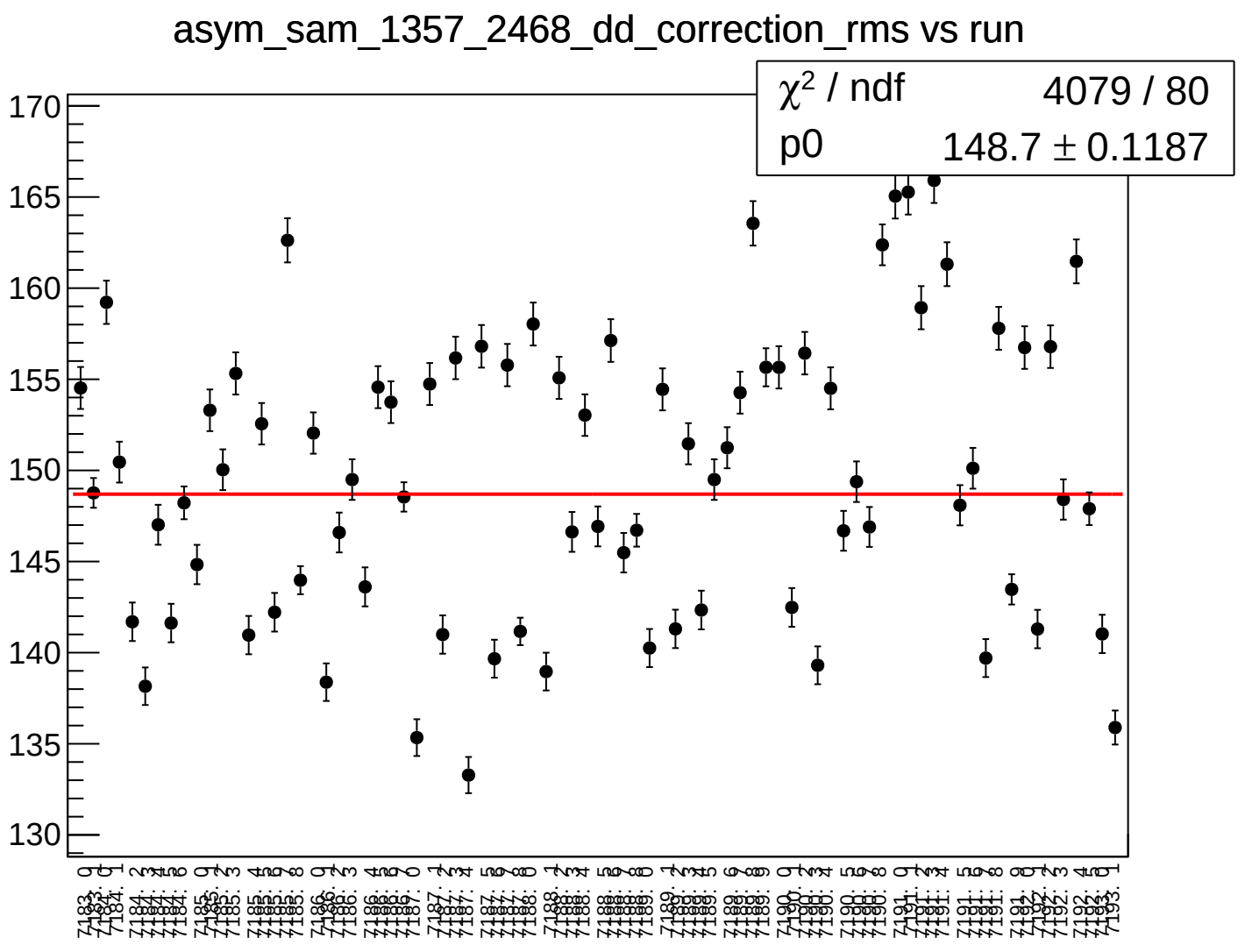

reg_asym_sam_1357_2468_dd_mean vs run
χ^2 / ndf 62.44 / 80
p0 −14.25 ± 20.61
pull
Entries 81
Mean 49.88
Std Dev 36.89

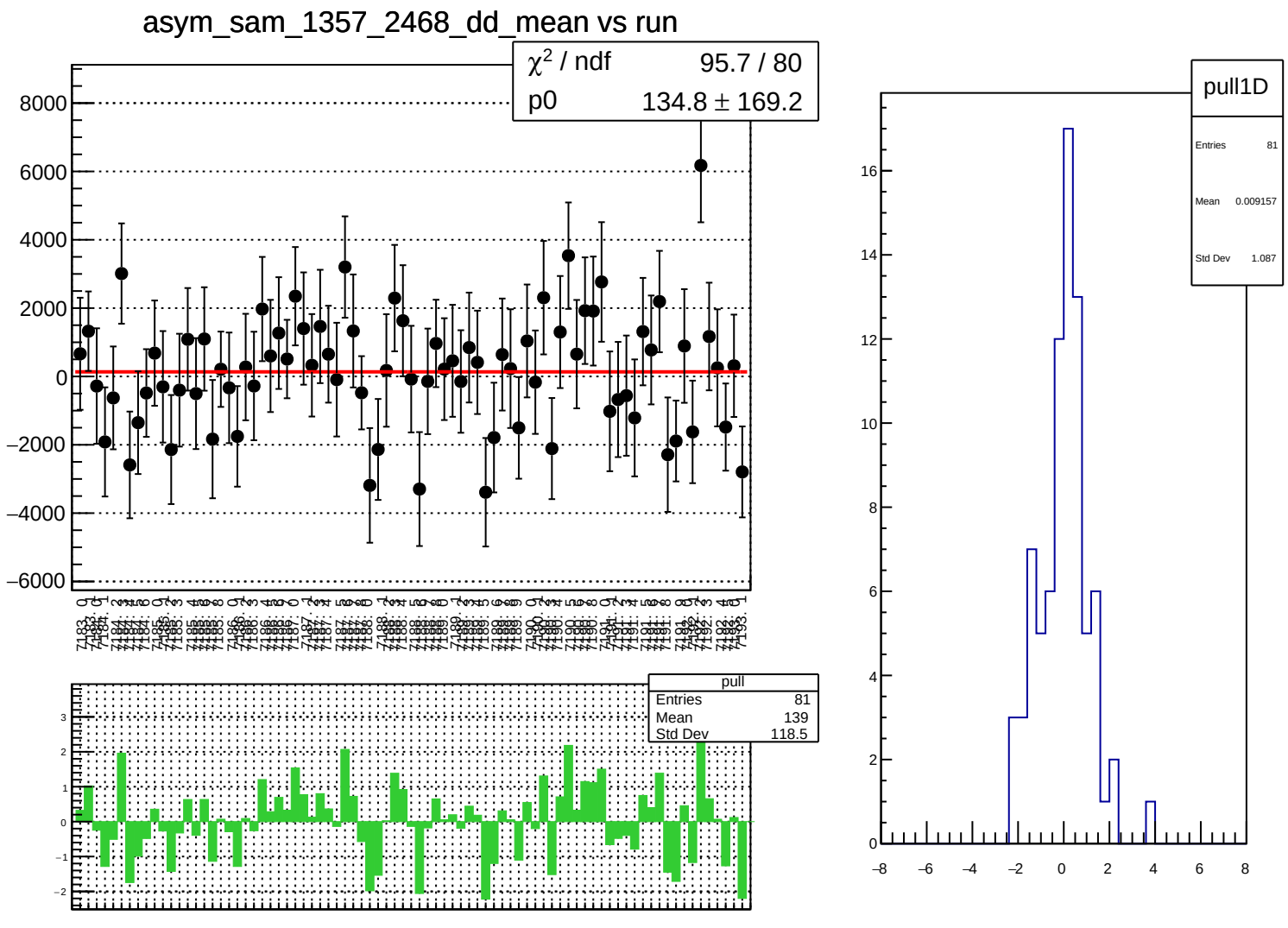

pull1D
Entries 81
Mean 0.009427
Std Dev 0.8779

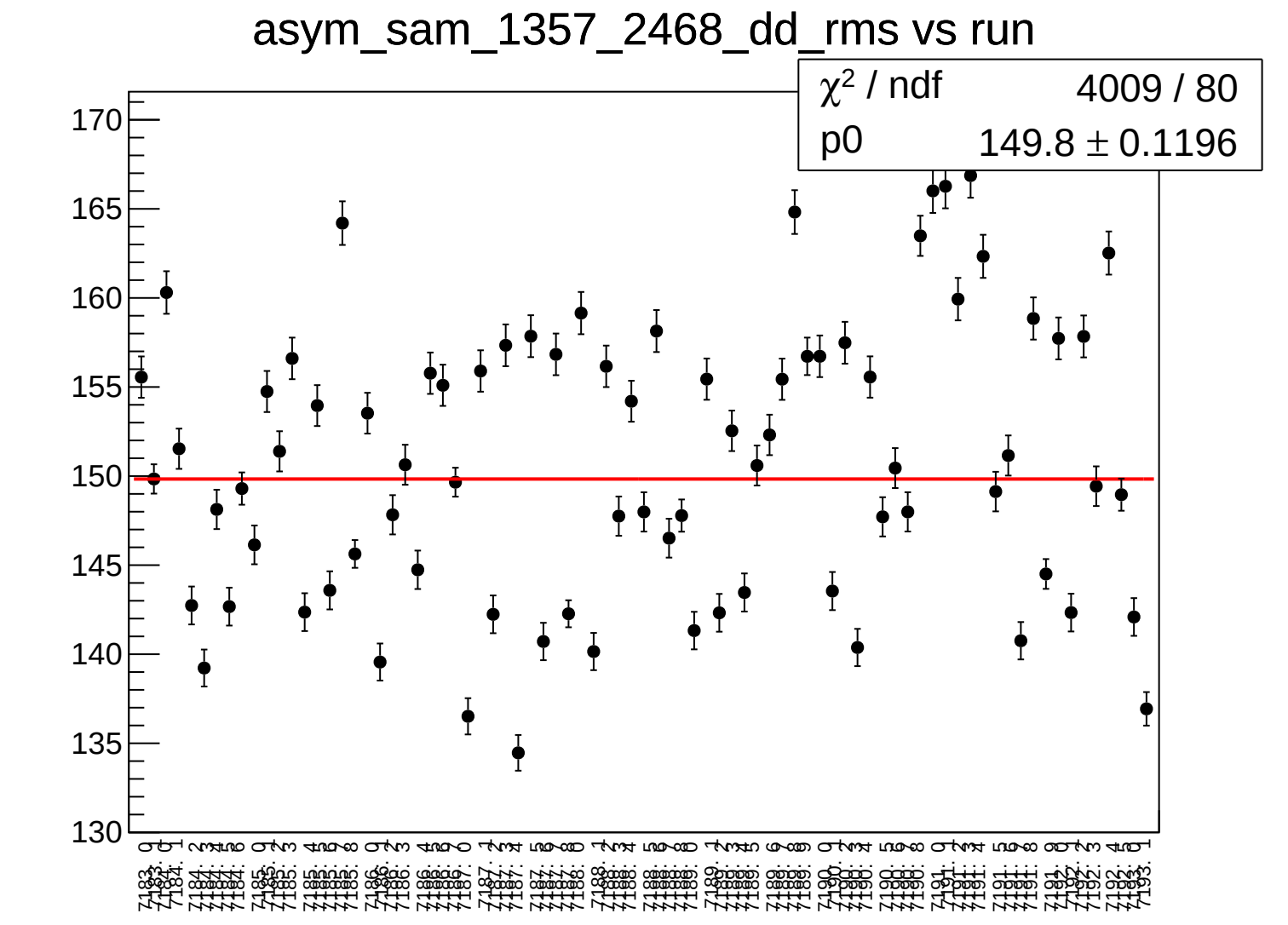

reg_asym_sam_1357_2468_dd_rms vs run
χ² / ndf 5269 / 80
p0 18.24 ± 0.01457
23
22
21
20
19
18
17

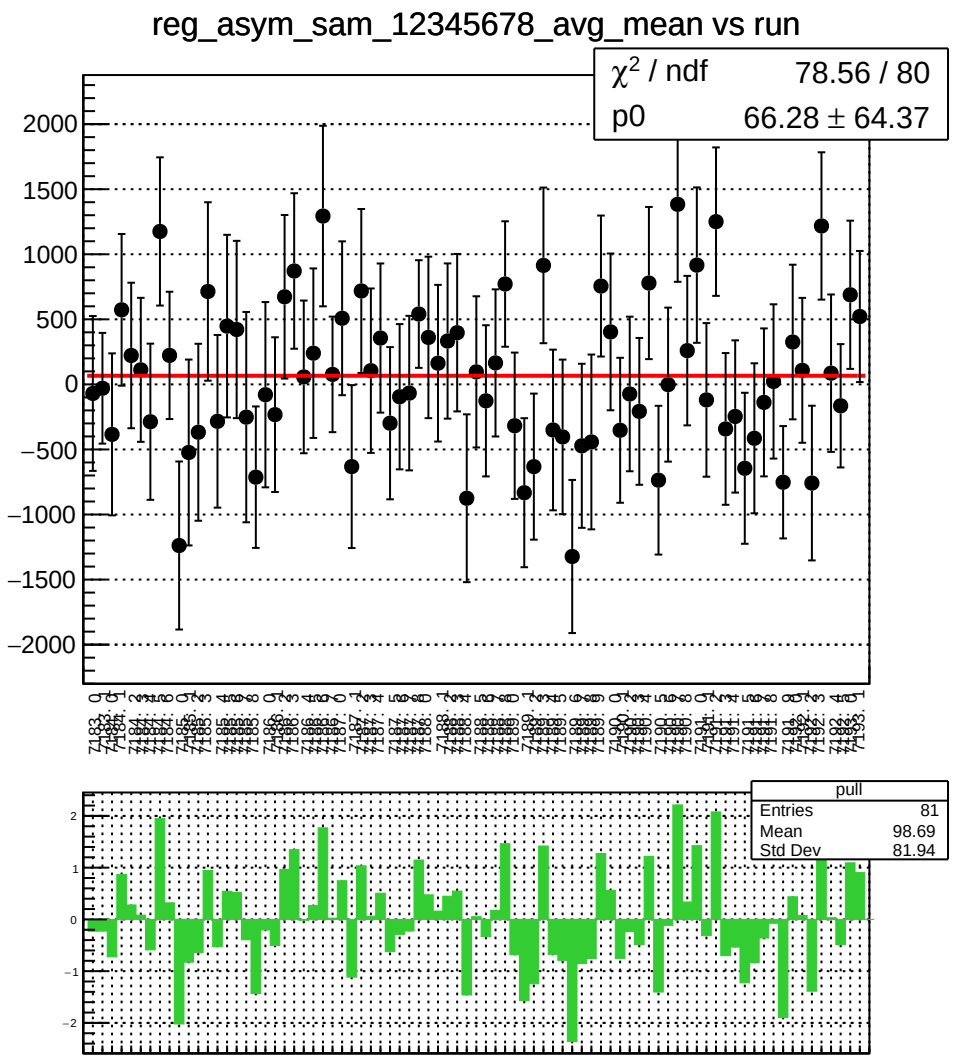

asym_sam_1357_2468_dd_correction_mean vs run
χ² / ndf 97.2 / 80
p0 −147.7 ± 167.9
pull
Entries 81
Mean 146.7
Std Dev 127.2

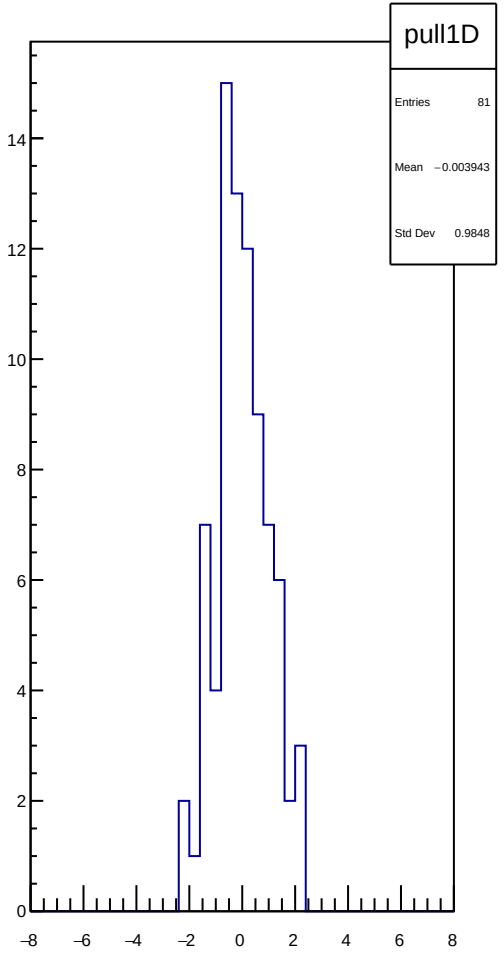

pull1D
Entries 81
Mean −0.00853
Std Dev 1.095

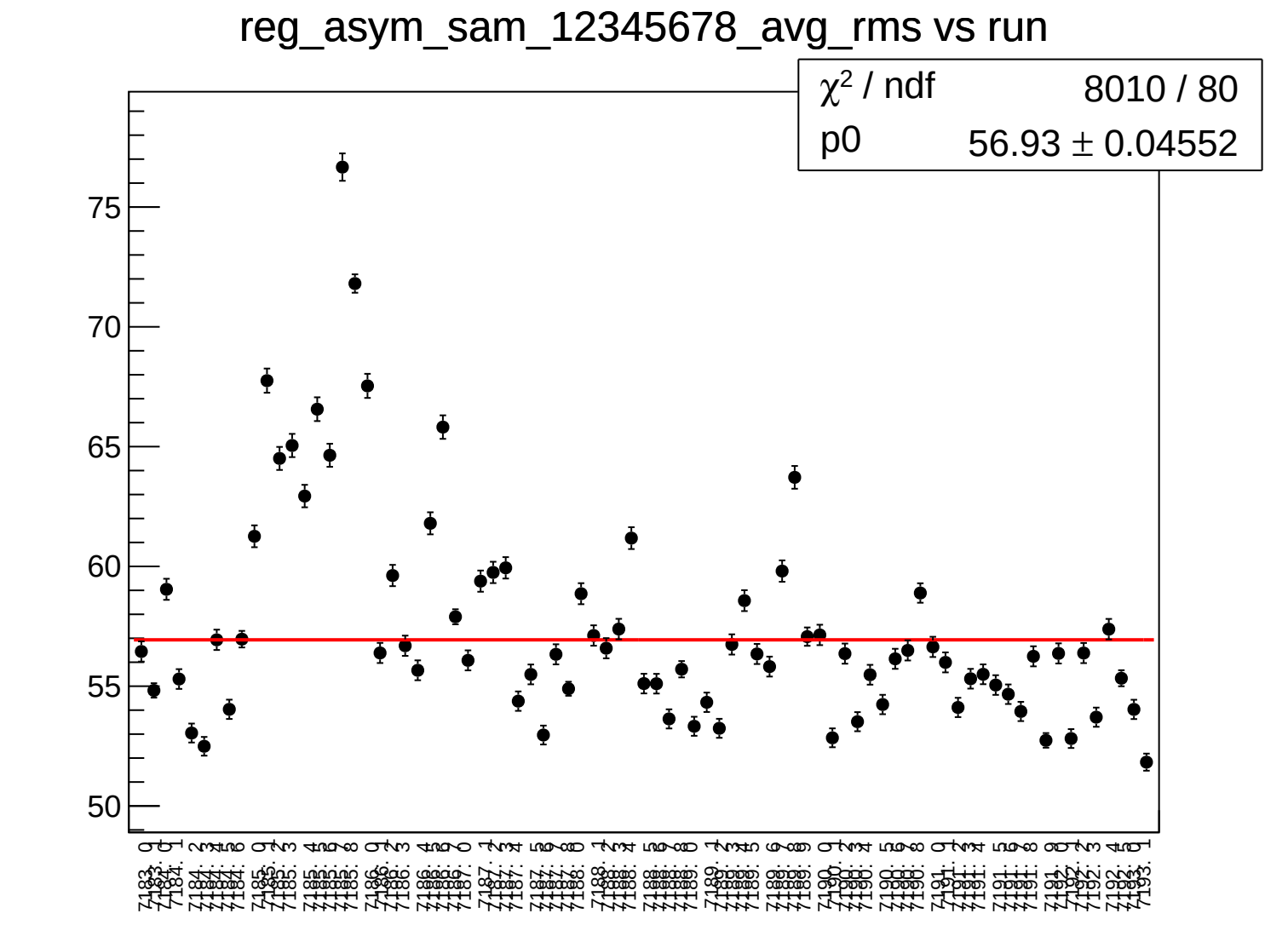

asym_sam_1357_2468_dd_correction_rms vs run
χ² / ndf 4079 / 80
p0 148.7 ± 0.1187
170
165
160
155
150
145
140
135
130

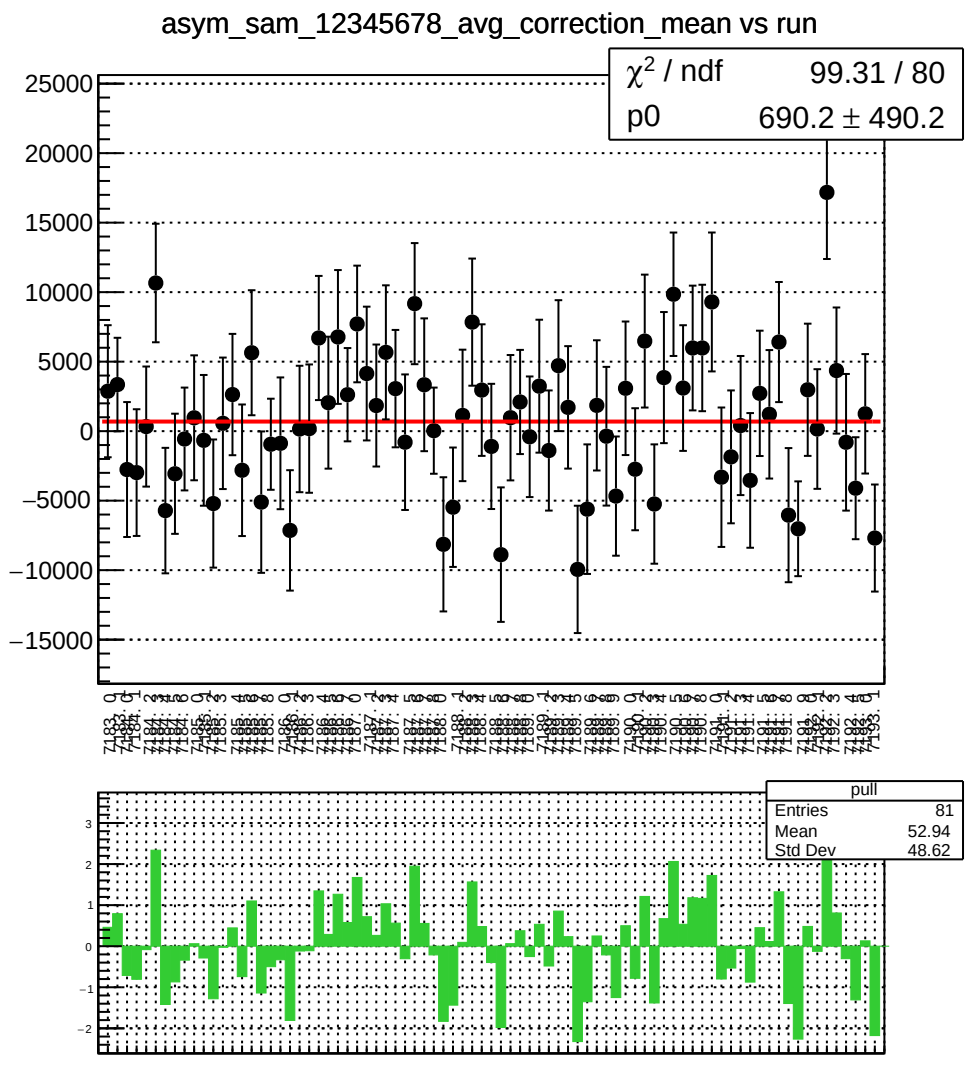

asym_sam_1357_2468_dd_mean vs run
χ² / ndf 95.7 / 80
p0 134.8 ± 169.2
8000
6000
4000
2000
0
−2000
−4000
−6000
pull
Entries 81
Mean 139
Std Dev 118.5
3
2
1
0
−1
−2
pull1D
Entries 81
Mean 0.009157
Std Dev 1.087
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

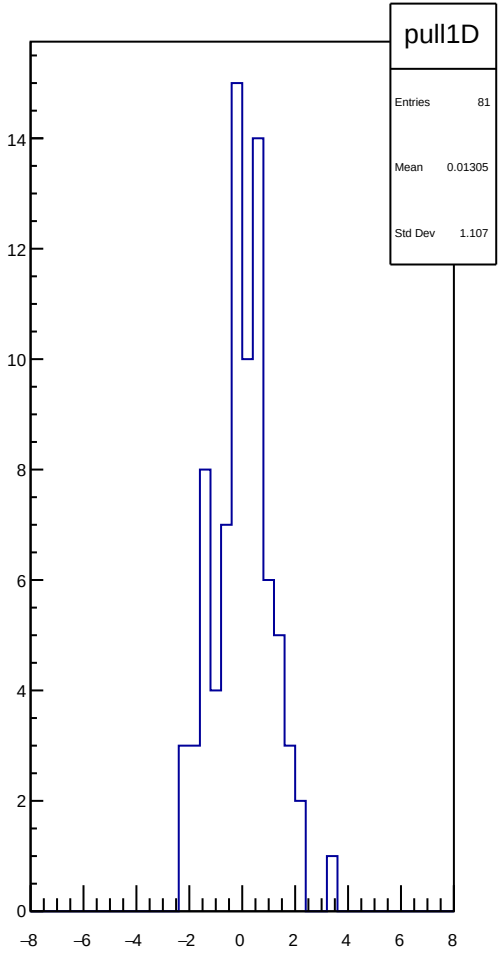

asym_sam_1357_2468_dd_rms vs run
χ² / ndf 4009 / 80
p0 149.8 ± 0.1196
170
165
160
155
150
145
140
135
130

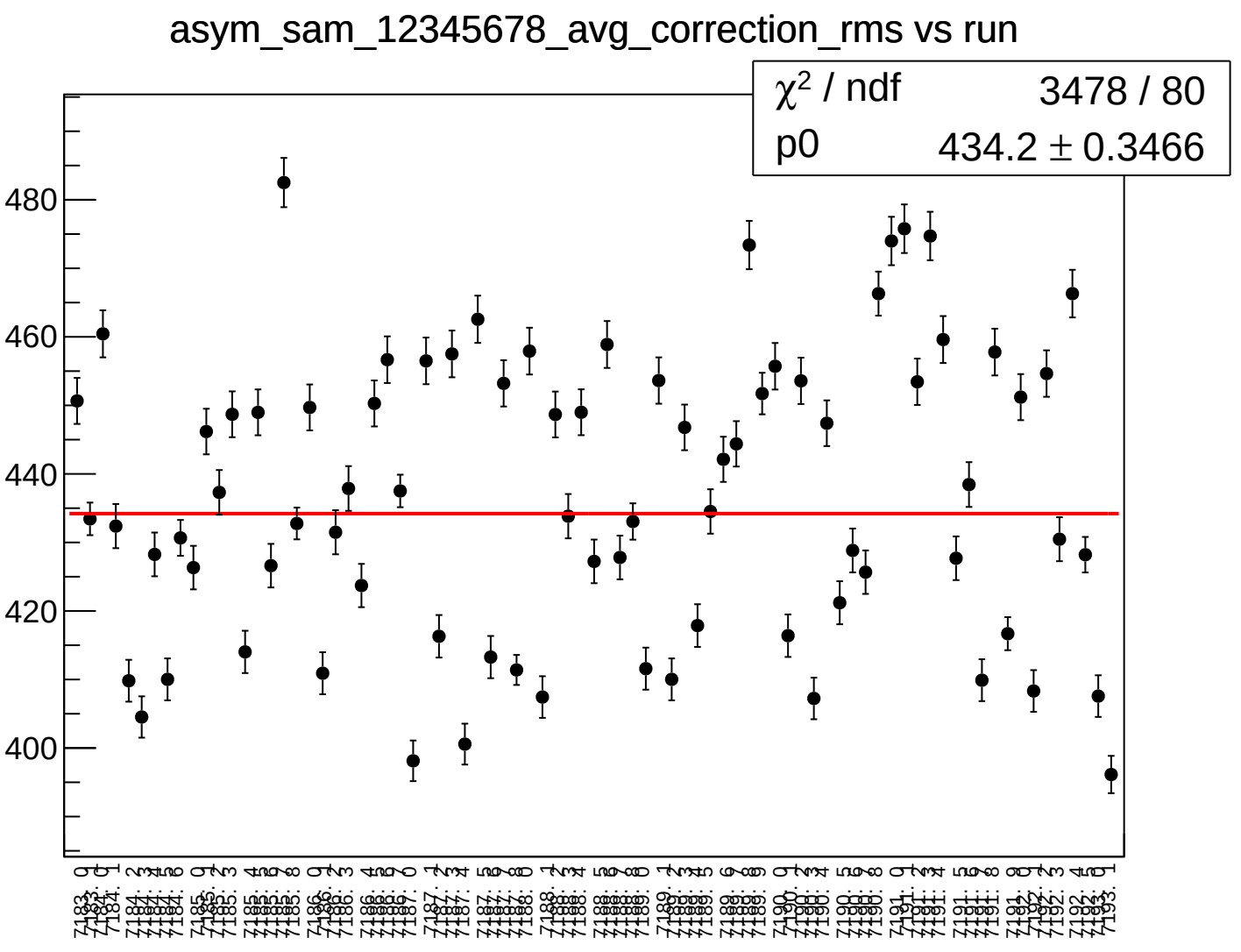

reg_asym_sam_12345678_avg_mean vs run
χ² / ndf 78.56 / 80
p0 66.28 ± 64.37
pull
Entries 81
Mean 98.69
Std Dev 81.94

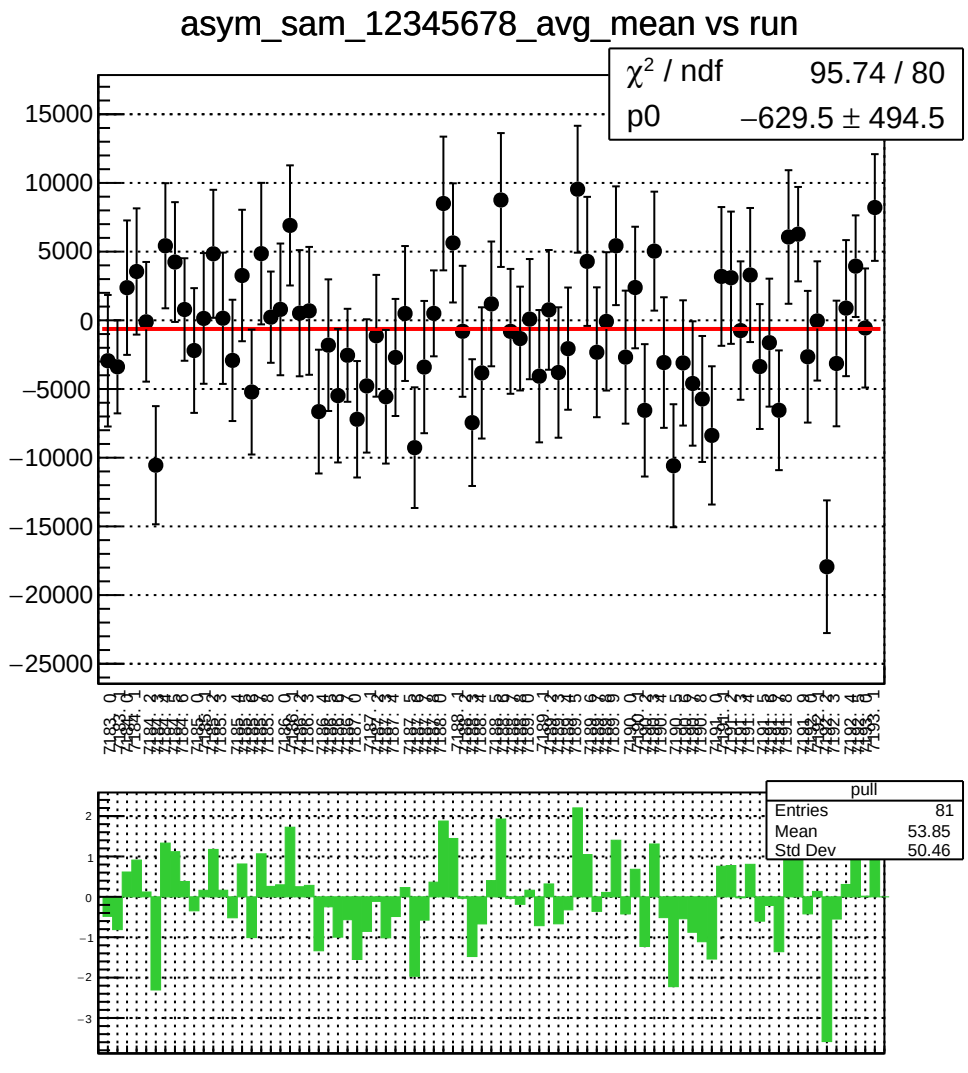

pull1D
Entries 81
Mean −0.003943
Std Dev 0.9848

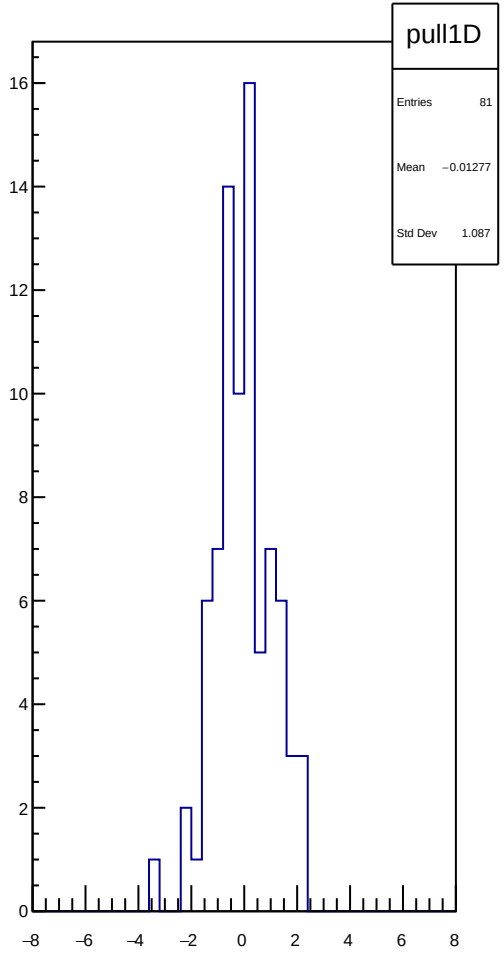

reg_asym_sam_12345678_avg_rms vs run
χ² / ndf 8010 / 80
p0 56.93 ± 0.04552
75
70
65
60
55
50

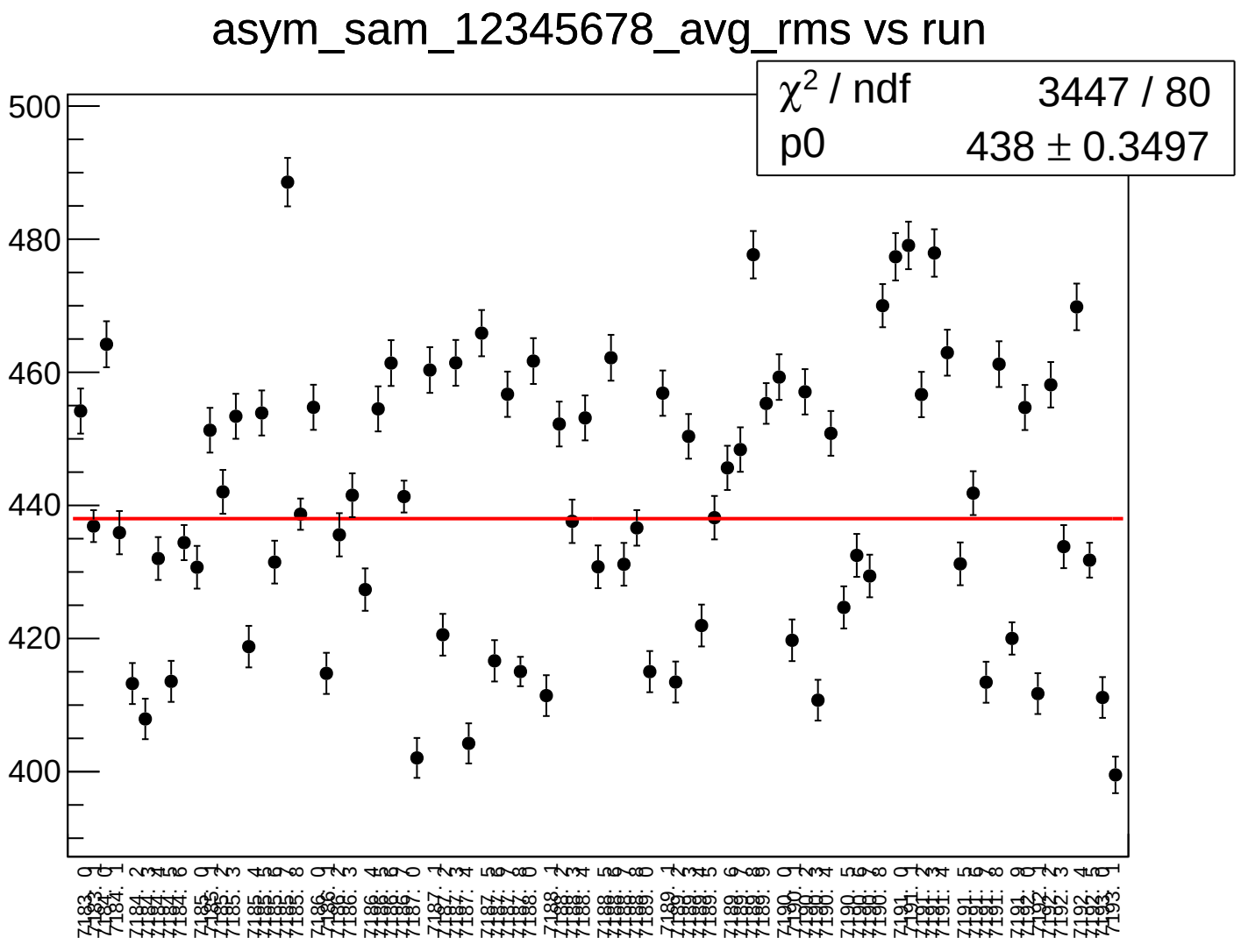

asym_sam_12345678_avg_correction_mean vs run
χ² / ndf 99.31 / 80
p0 690.2 ± 490.2
pull
Entries 81
Mean 52.94
Std Dev 48.62

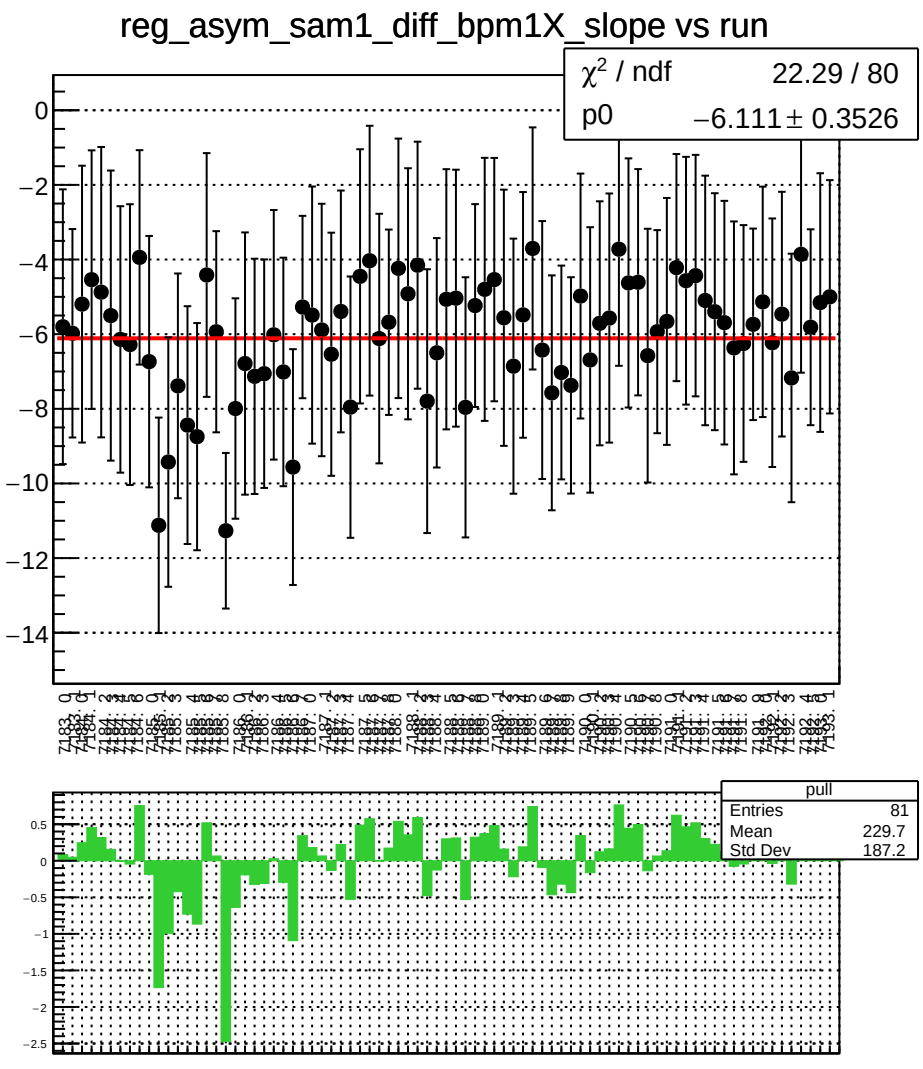

pull1D
Entries 81
Mean 0.01305
Std Dev 1.107

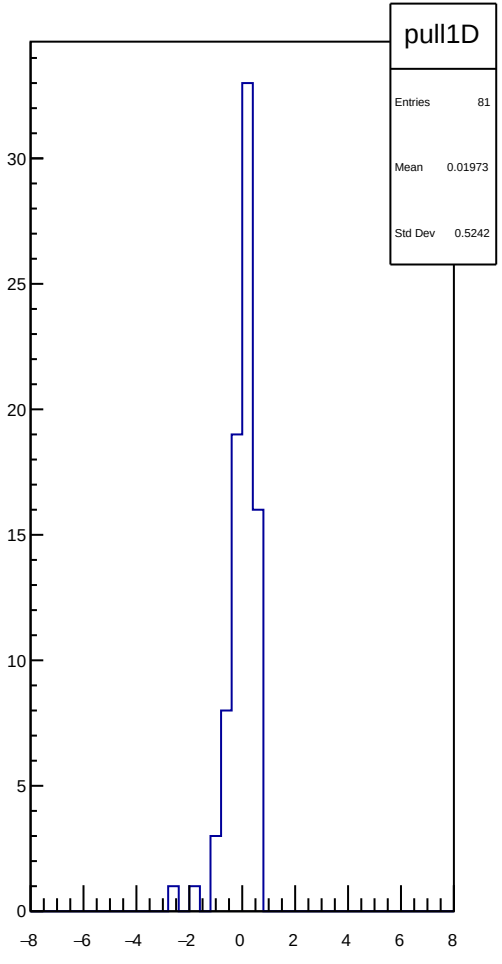

asym_sam_12345678_avg_correction_rms vs run
χ² / ndf 3478 / 80
p0 434.2 ± 0.3466
480
460
440
420
400

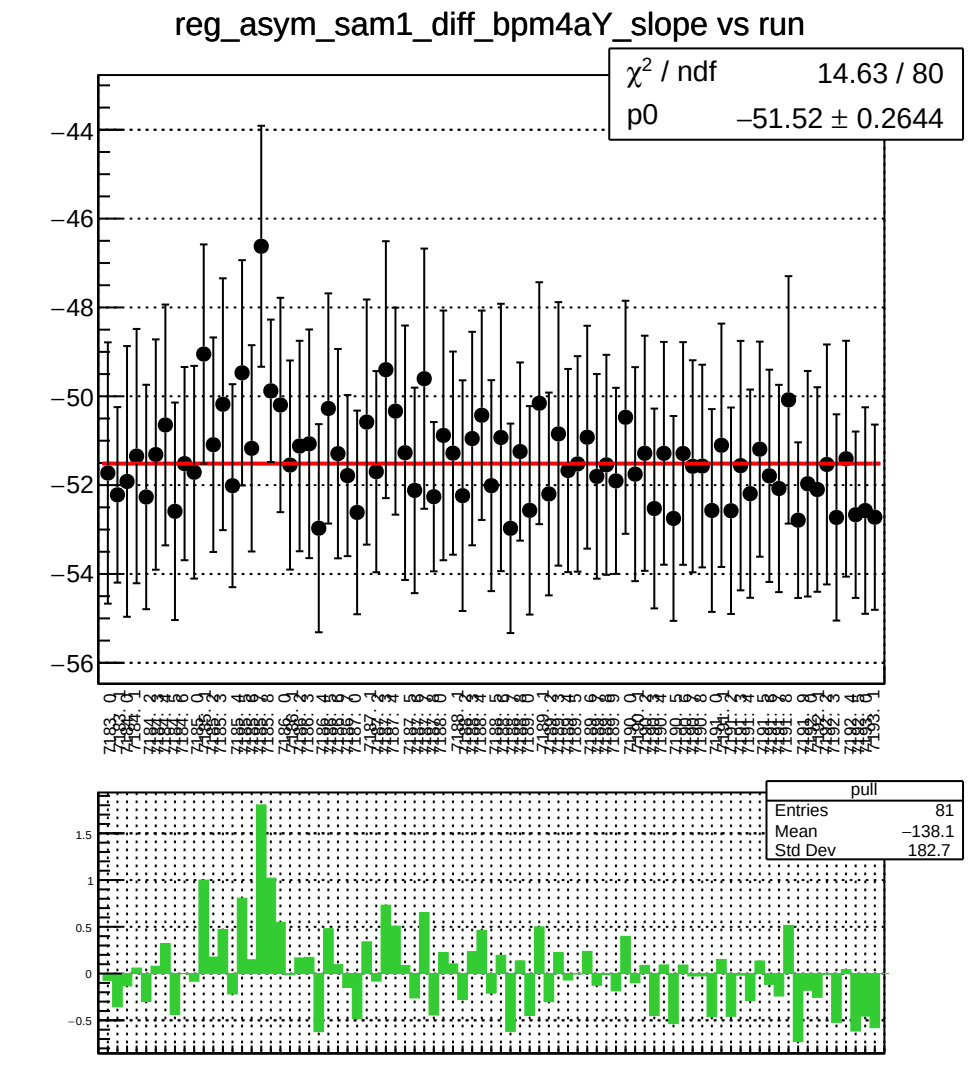

asym_sam_12345678_avg_mean vs run
χ² / ndf 95.74 / 80
p0 −629.5 ± 494.5
pull
Entries 81
Mean 53.85
Std Dev 50.46

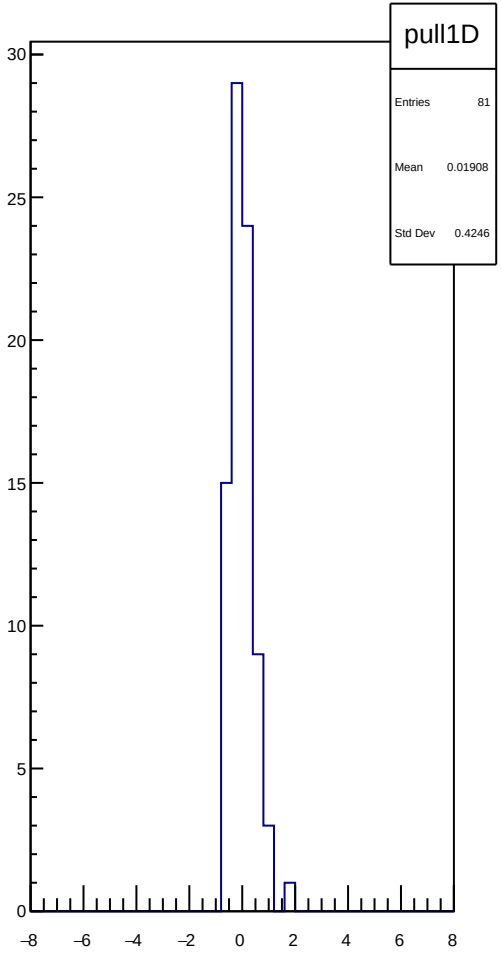

pull1D
Entries 81
Mean −0.01277
Std Dev 1.087

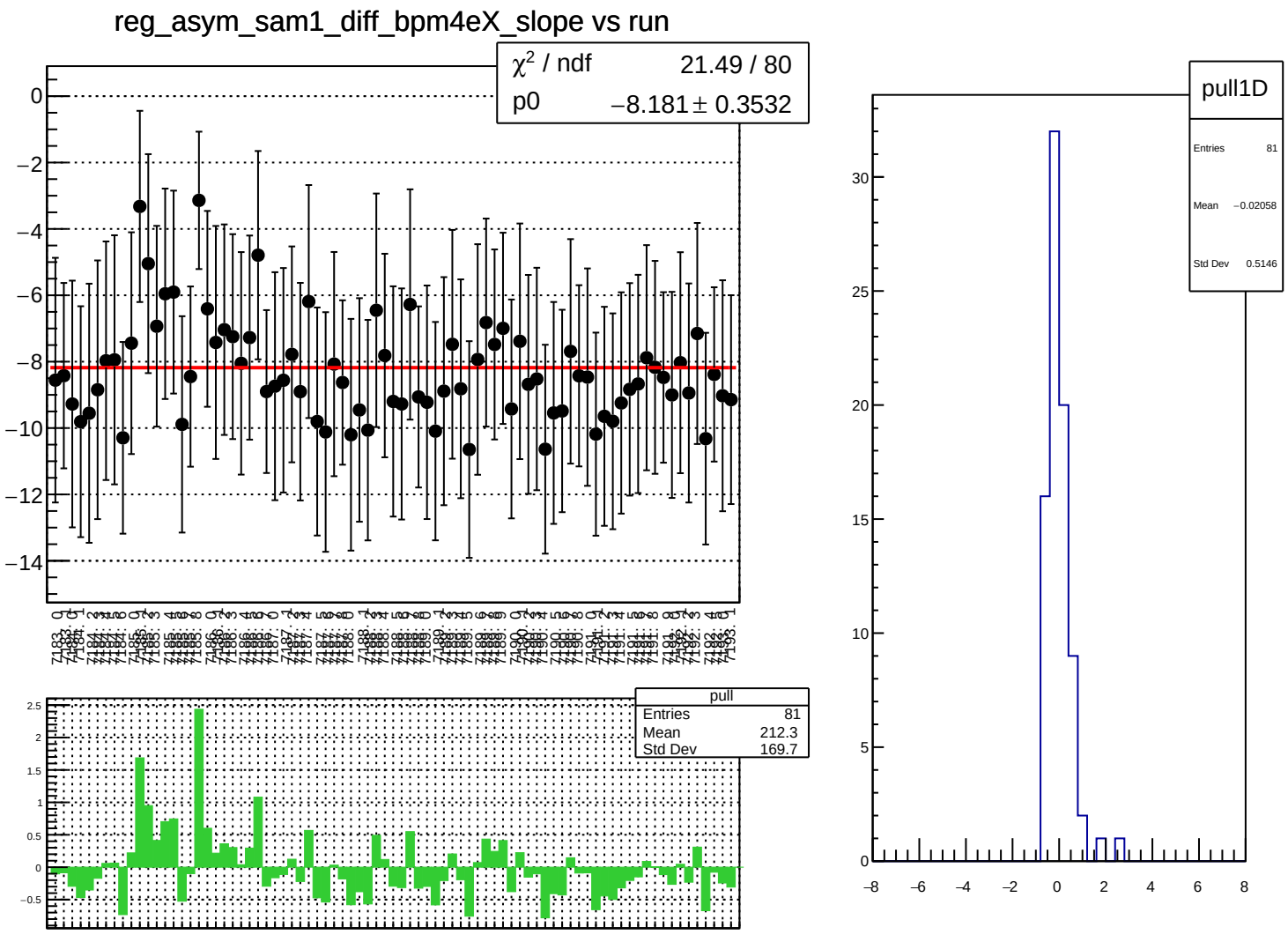

asym_sam_12345678_avg_rms vs run
χ² / ndf 3447 / 80
p0 438 ± 0.3497
500
480
460
440
420
400

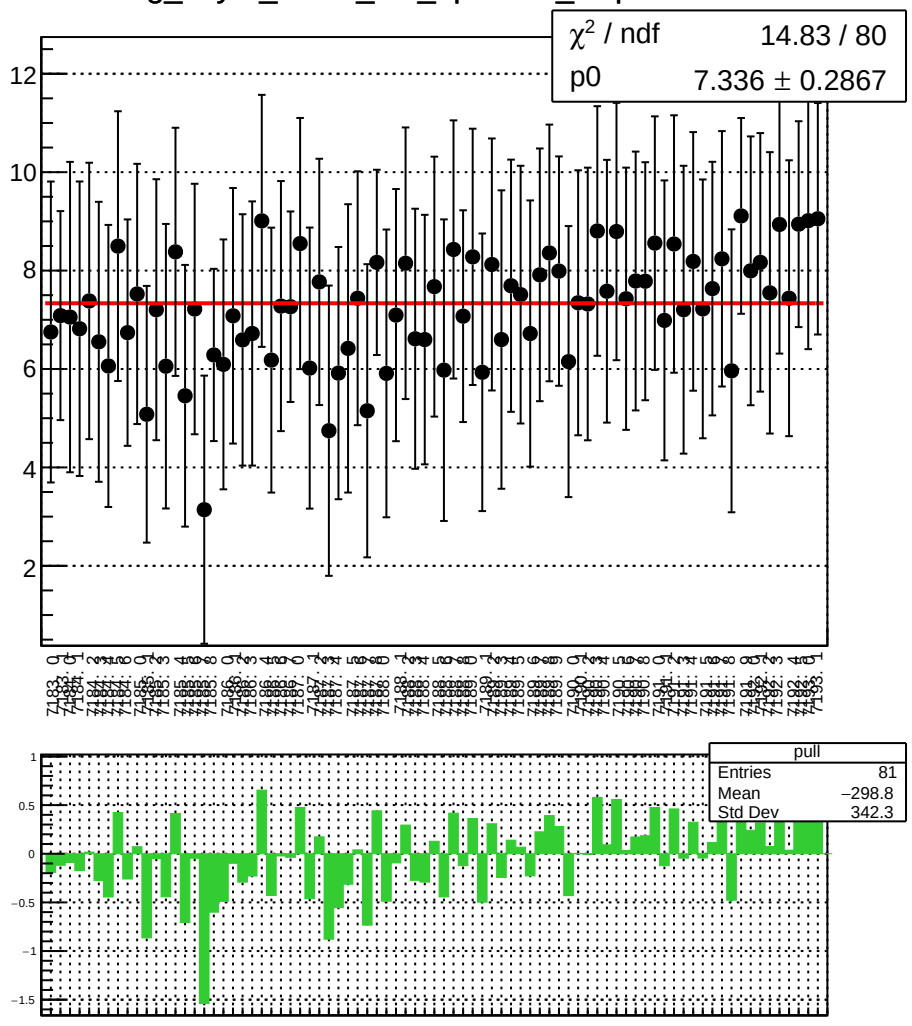

reg_asym_sam1_diff_bpm1X_slope vs run
χ² / ndf 22.29 / 80
p0 −6.111 ± 0.3526
pull
Entries 81
Mean 229.7
Std Dev 187.2

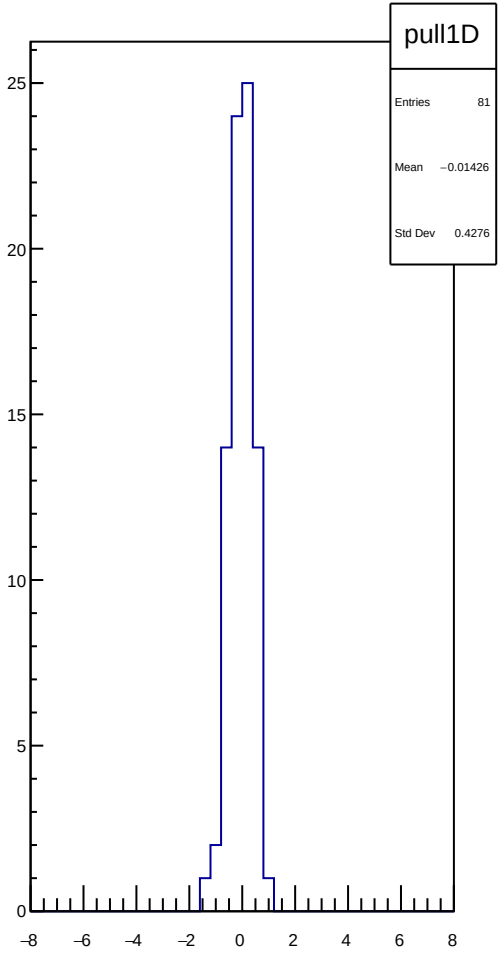

pull1D
Entries 81
Mean 0.01973
Std Dev 0.5242

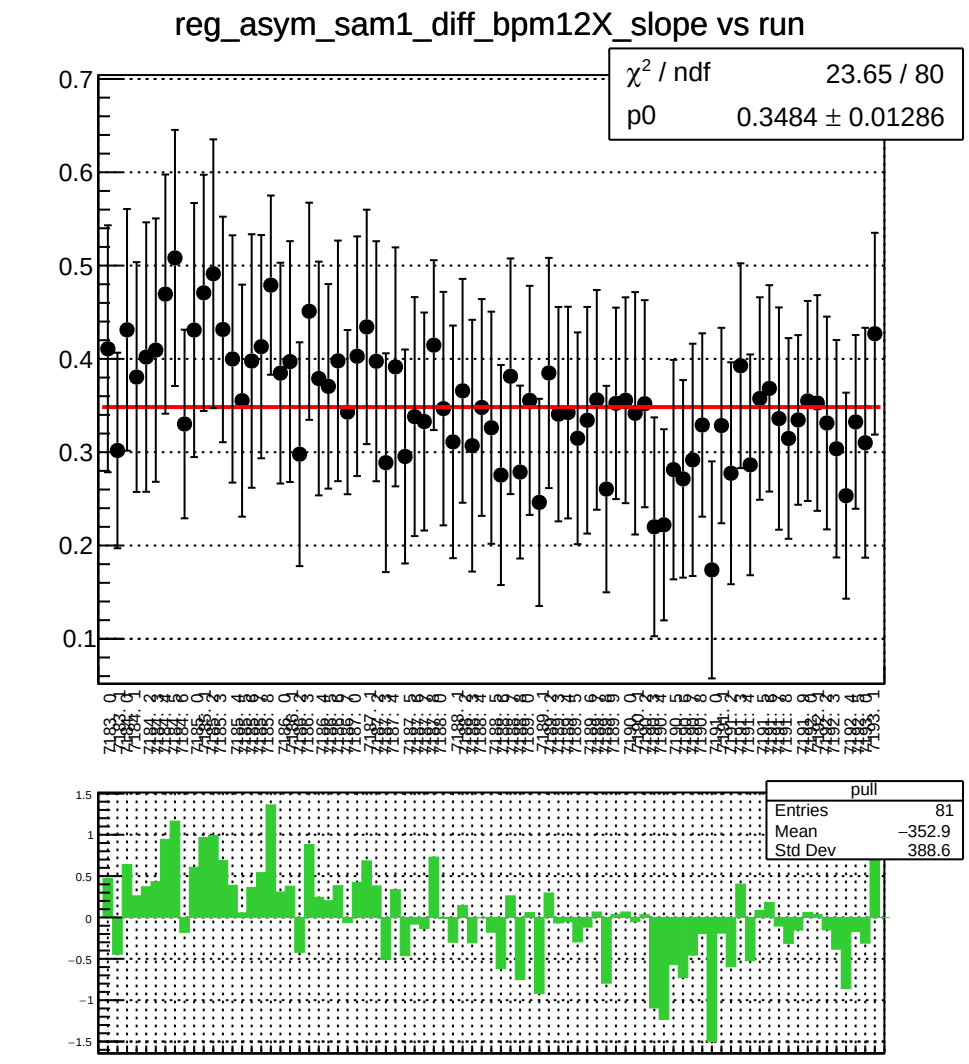

reg_asym_sam1_diff_bpm4aY_slope vs run
χ² / ndf 14.63 / 80
p0 −51.52 ± 0.2644
pull
Entries 81
Mean −138.1
Std Dev 182.7

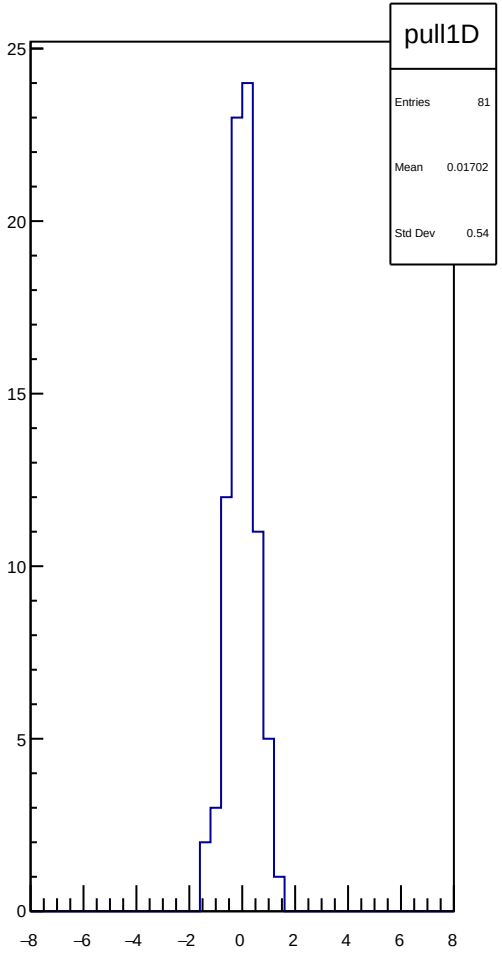

pull1D
Entries 81
Mean 0.01908
Std Dev 0.4246

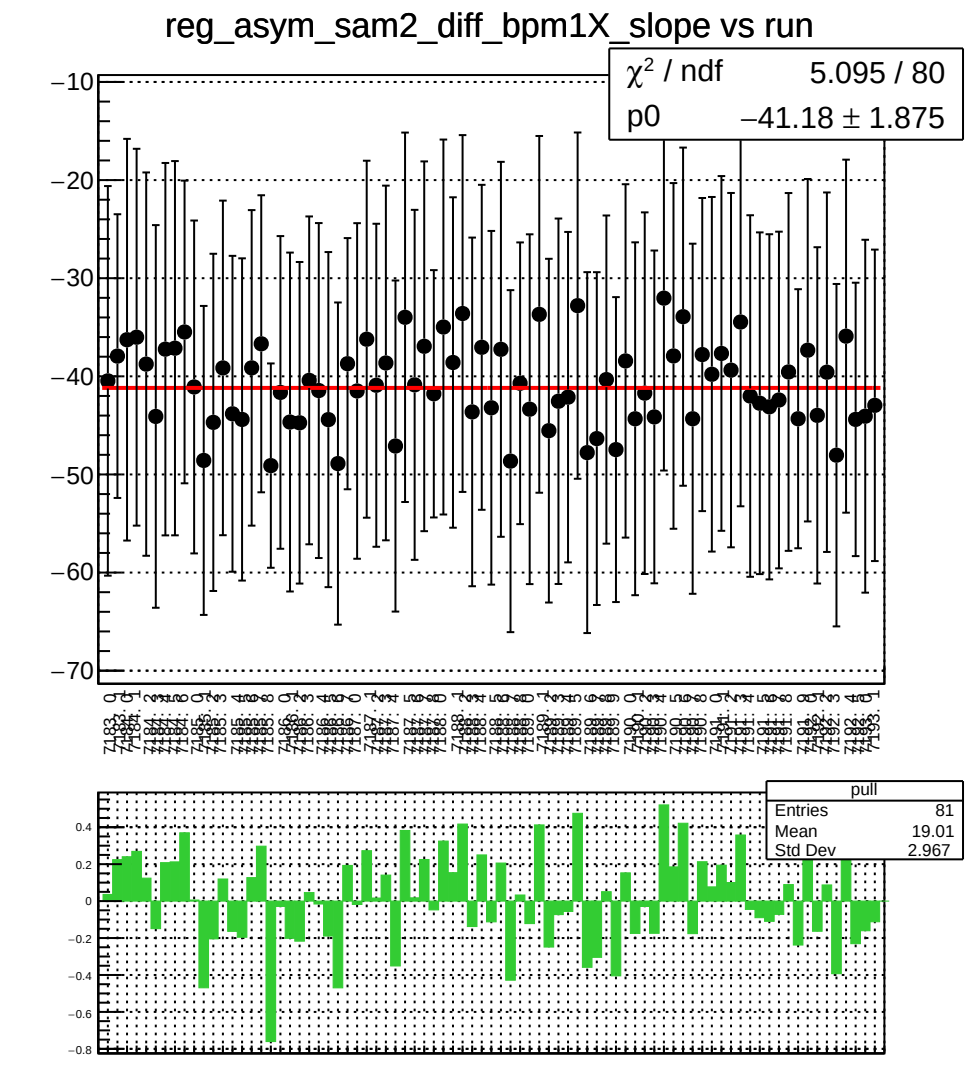

reg_asym_sam1_diff_bpm4eX_slope vs run
χ² / ndf 21.49 / 80
p0 −8.181 ± 0.3532
pull
Entries 81
Mean 212.3
Std Dev 169.7
pull1D
Entries 81
Mean −0.02058
Std Dev 0.5146

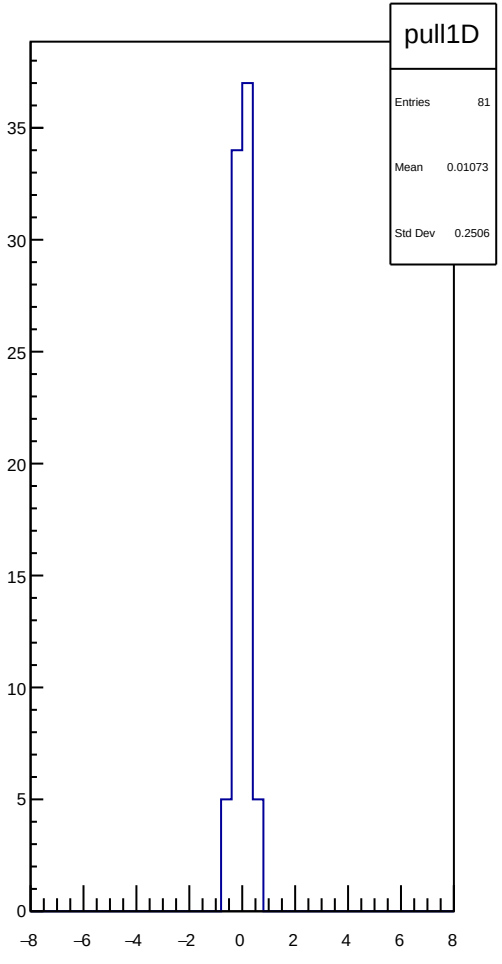

reg_asym_sam1_diff_bpm4eY_slope vs run
χ² / ndf 14.83 / 80
p0 7.336 ± 0.2867
pull
Entries 81
Mean −298.8
Std Dev 342.3

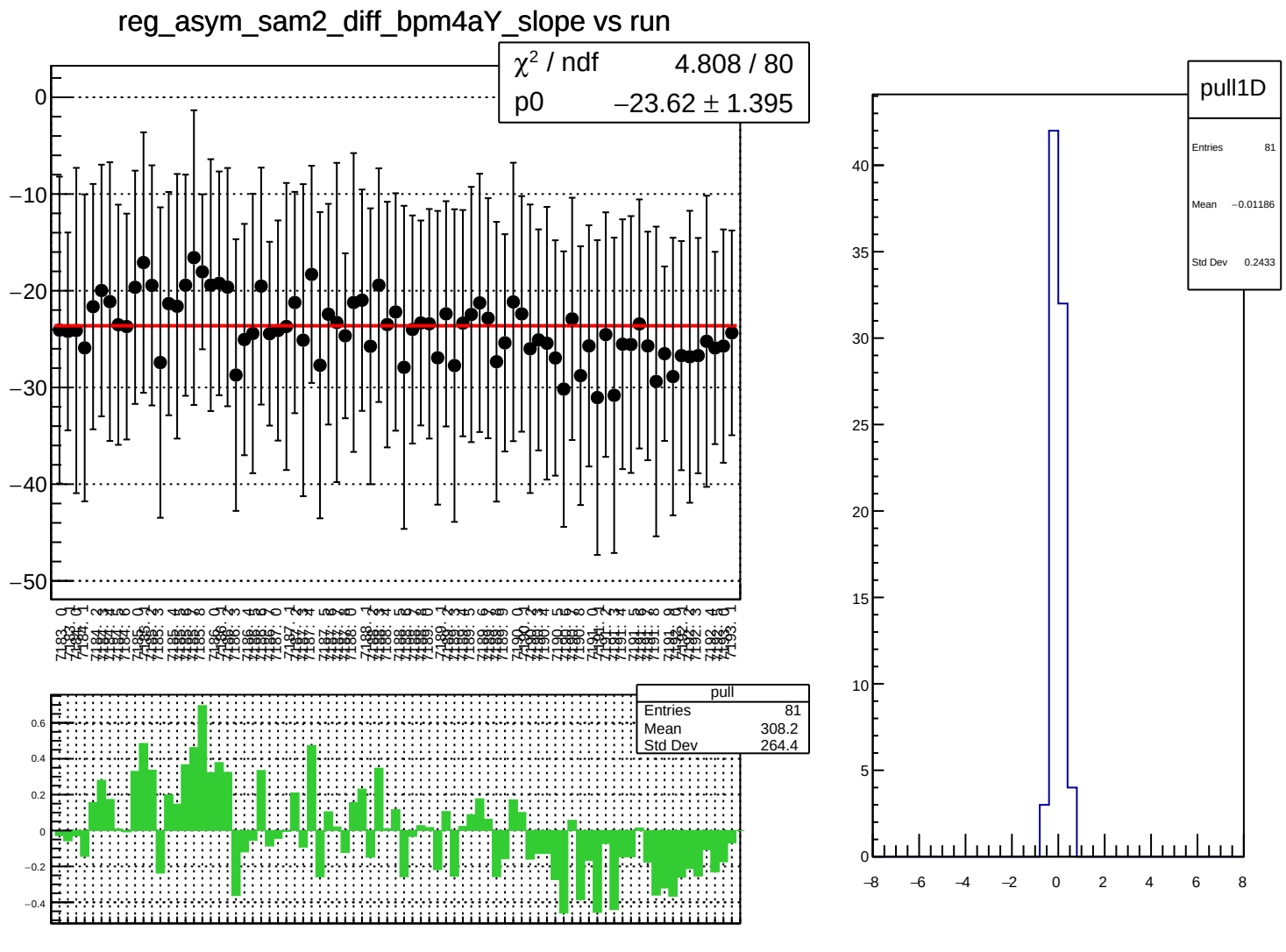

pull1D
Entries 81
Mean −0.01426
Std Dev 0.4276

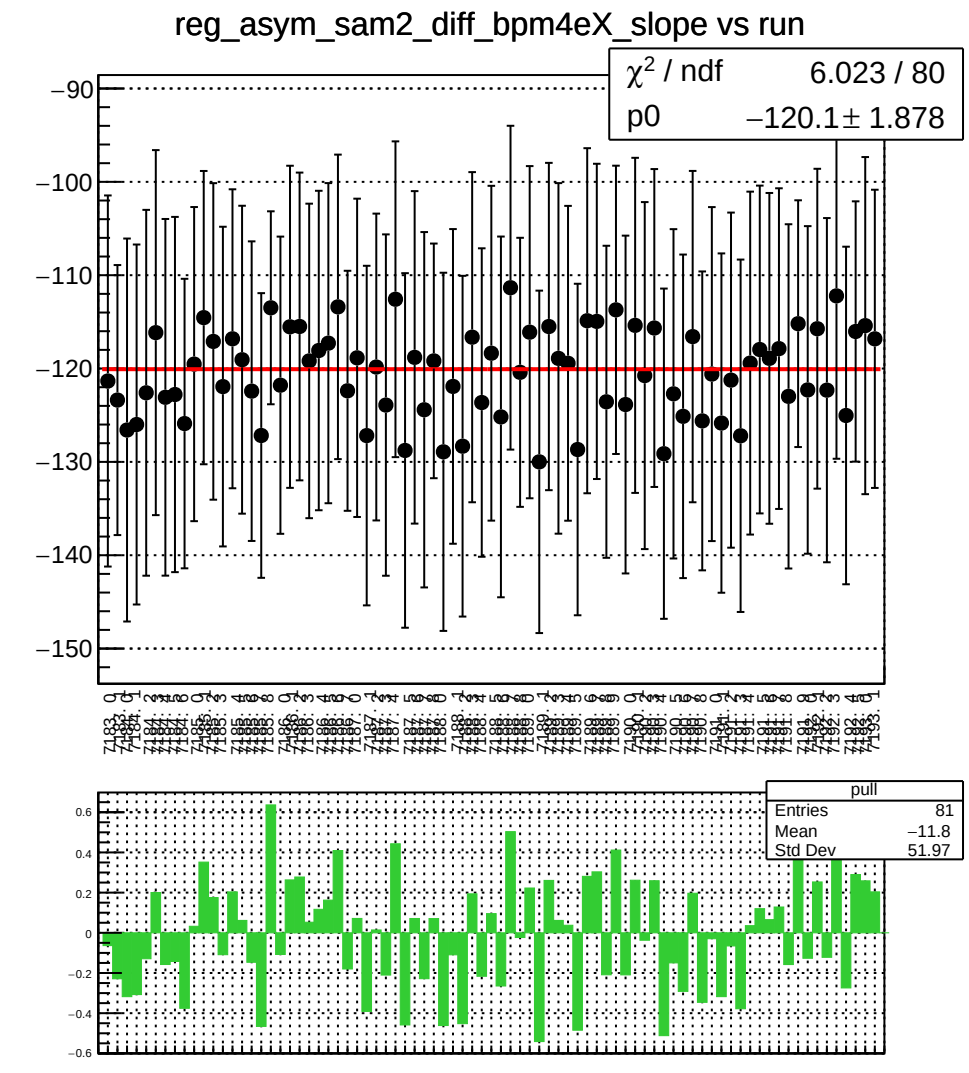

reg_asym_sam1_diff_bpm12X_slope vs run
χ² / ndf 23.65 / 80
p0 0.3484 ± 0.01286
pull
Entries 81
Mean −352.9
Std Dev 388.6

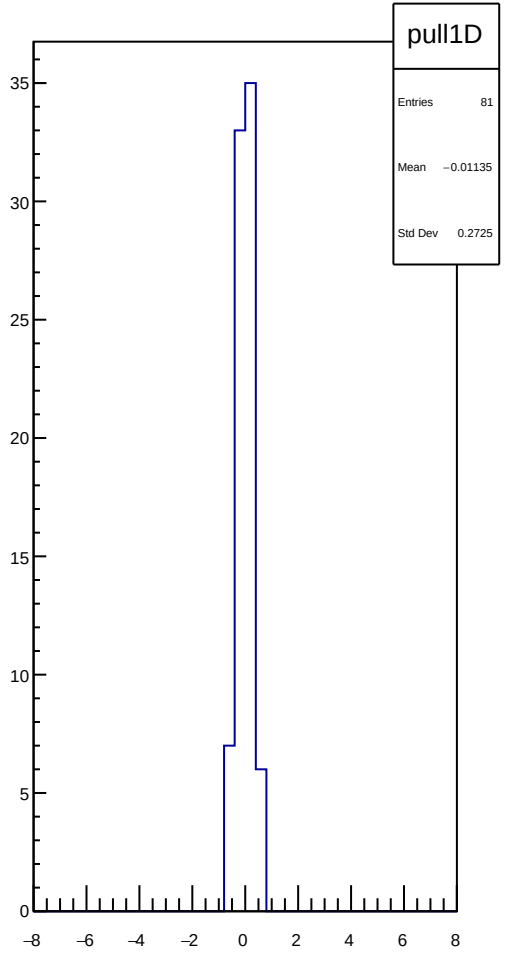

pull1D
Entries 81
Mean 0.01702
Std Dev 0.54

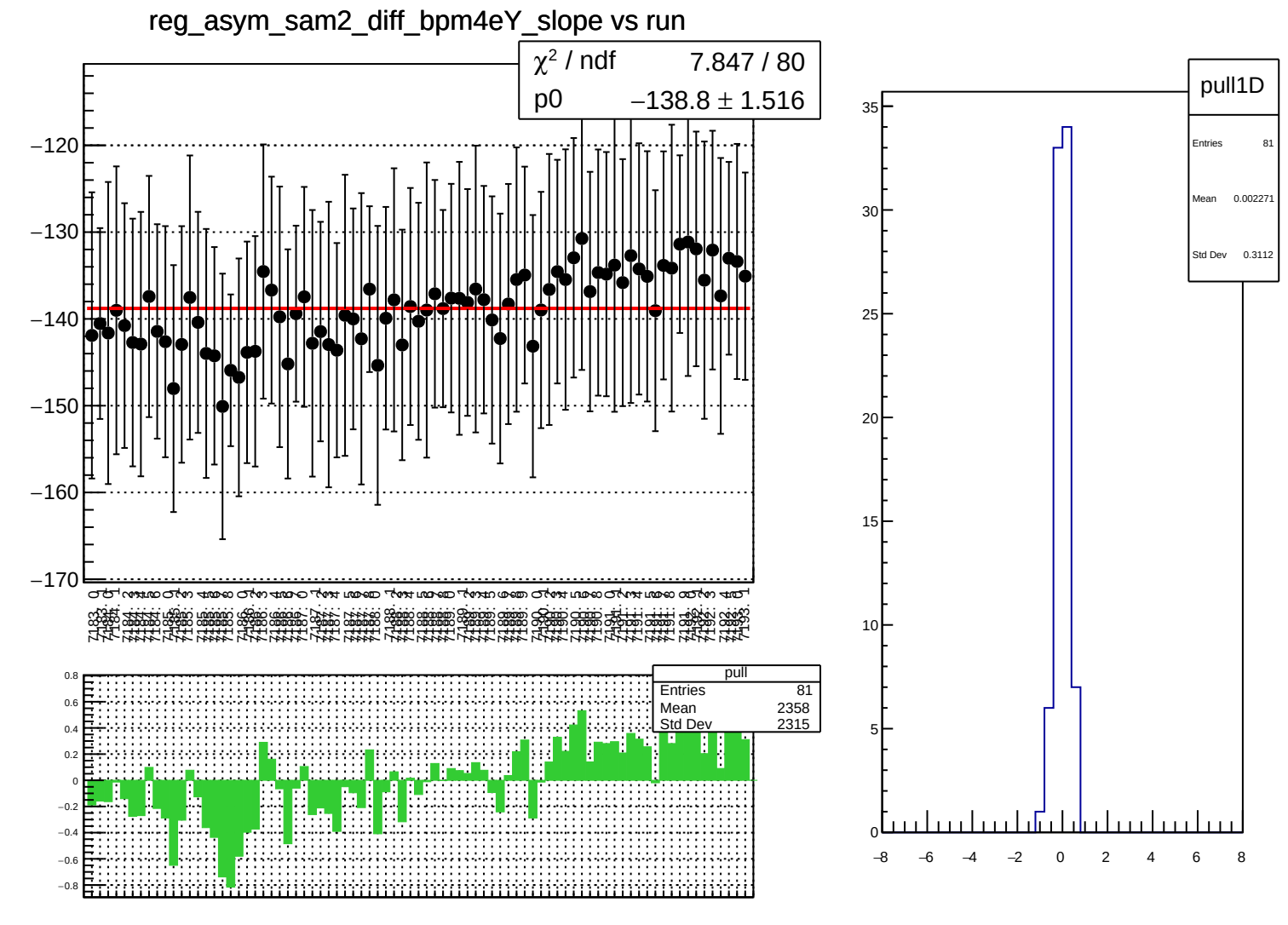

reg_asym_sam2_diff_bpm1X_slope vs run
χ² / ndf 5.095 / 80
p0 −41.18 ± 1.875
pull
Entries 81
Mean 19.01
Std Dev 2.967

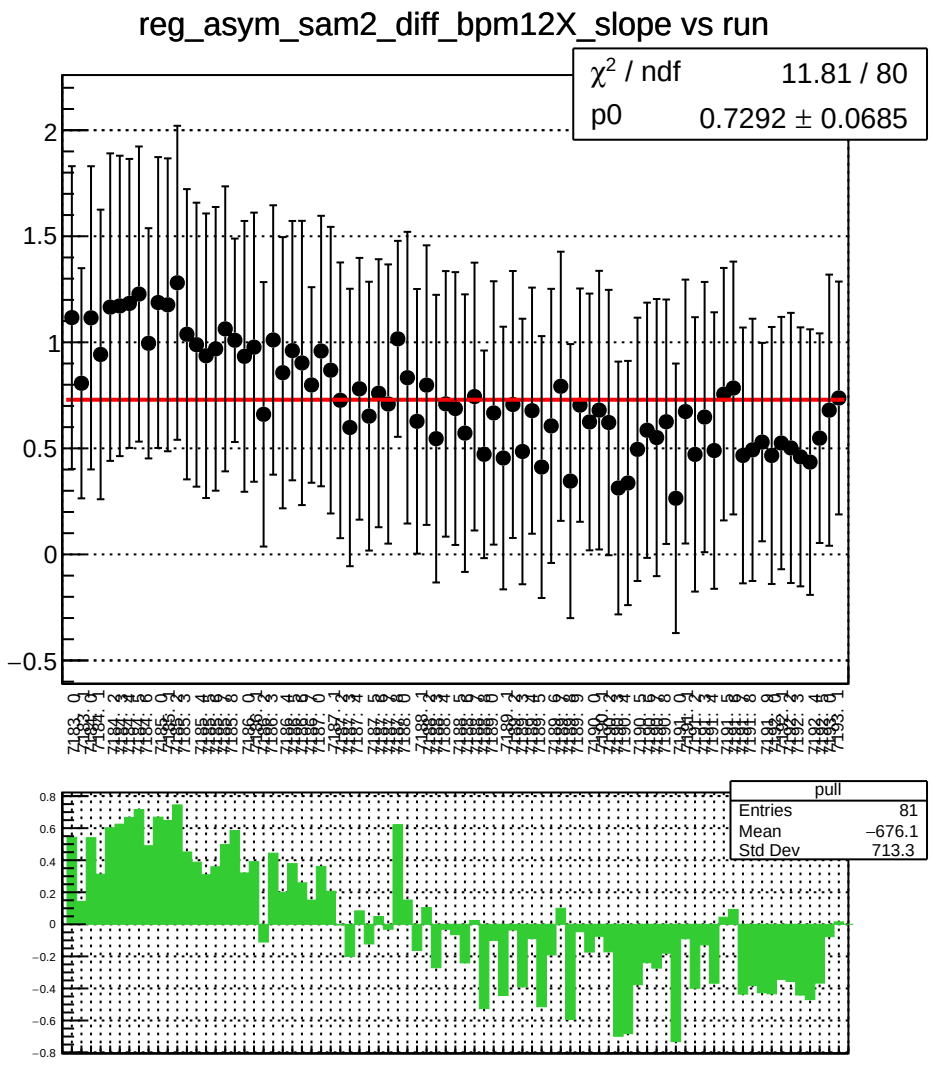

pull1D
Entries 81
Mean 0.01073
Std Dev 0.2506

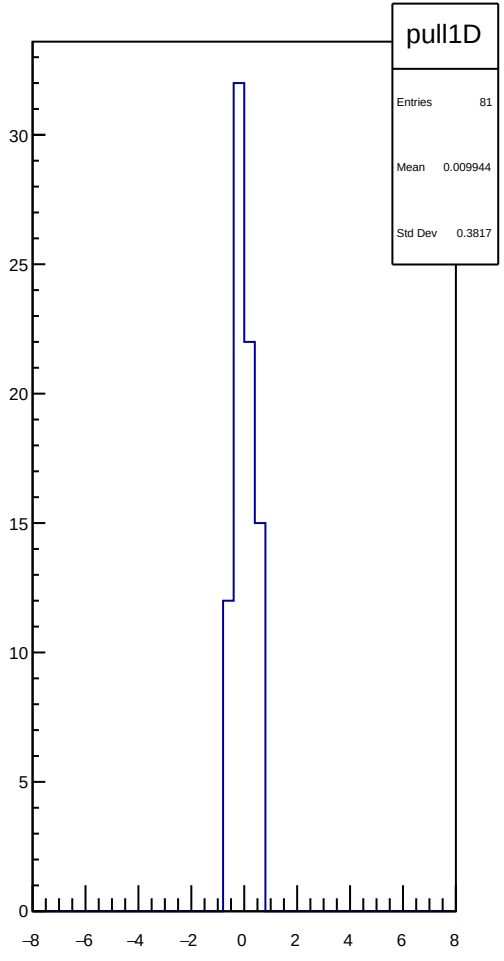

reg_asym_sam2_diff_bpm4aY_slope vs run
χ² / ndf 4.808 / 80
p0 −23.62 ± 1.395
pull
Entries 81
Mean 308.2
Std Dev 264.4
pull1D
Entries 81
Mean −0.01186
Std Dev 0.2433

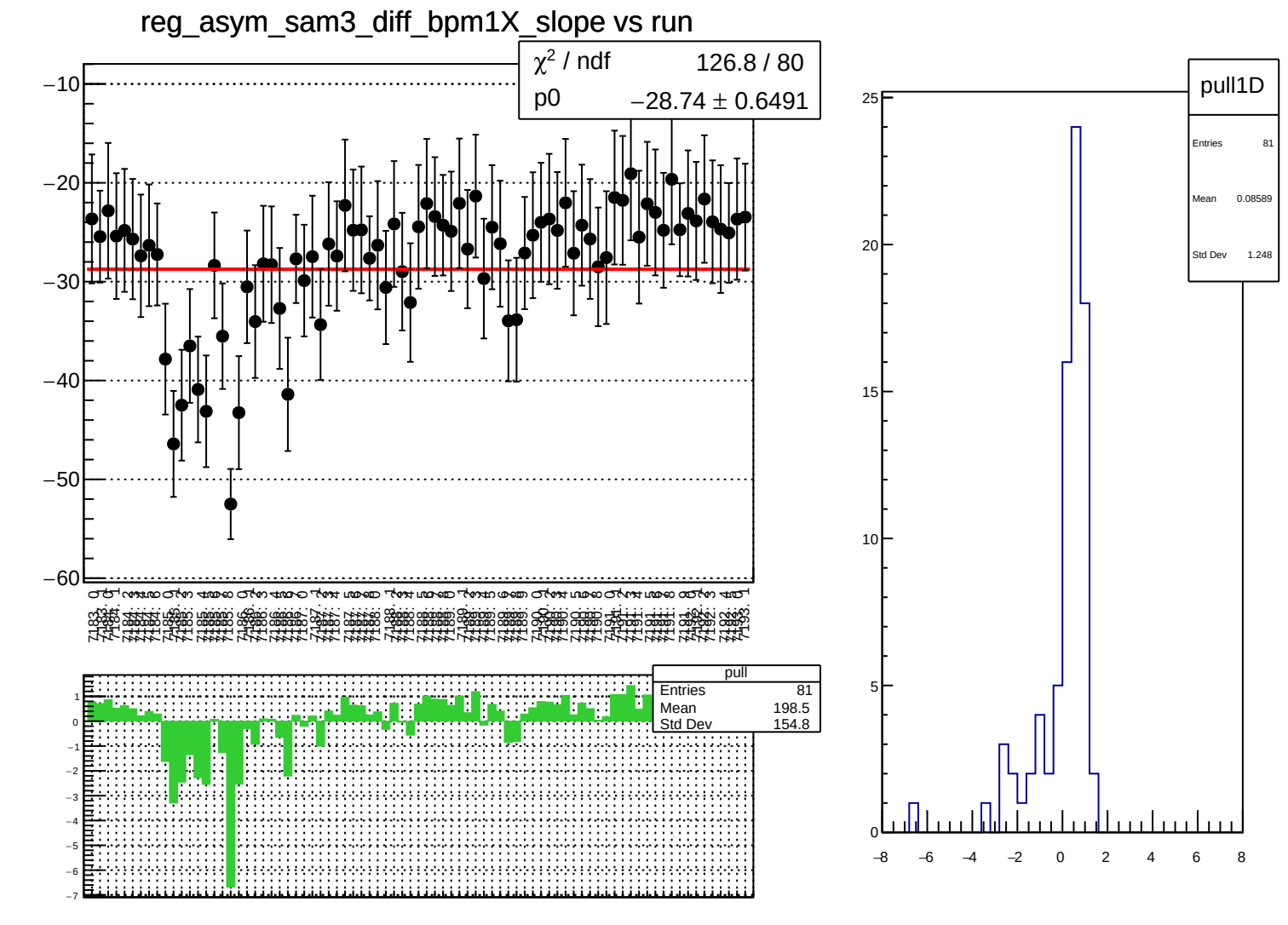

reg_asym_sam2_diff_bpm4eX_slope vs run
χ² / ndf 6.023 / 80
p0 −120.1± 1.878
−90
−100
−110
−120
−130
−140
−150
pull
Entries 81
Mean −11.8
Std Dev 51.97
0.6
0.4
0.2
0
−0.2
−0.4
−0.6

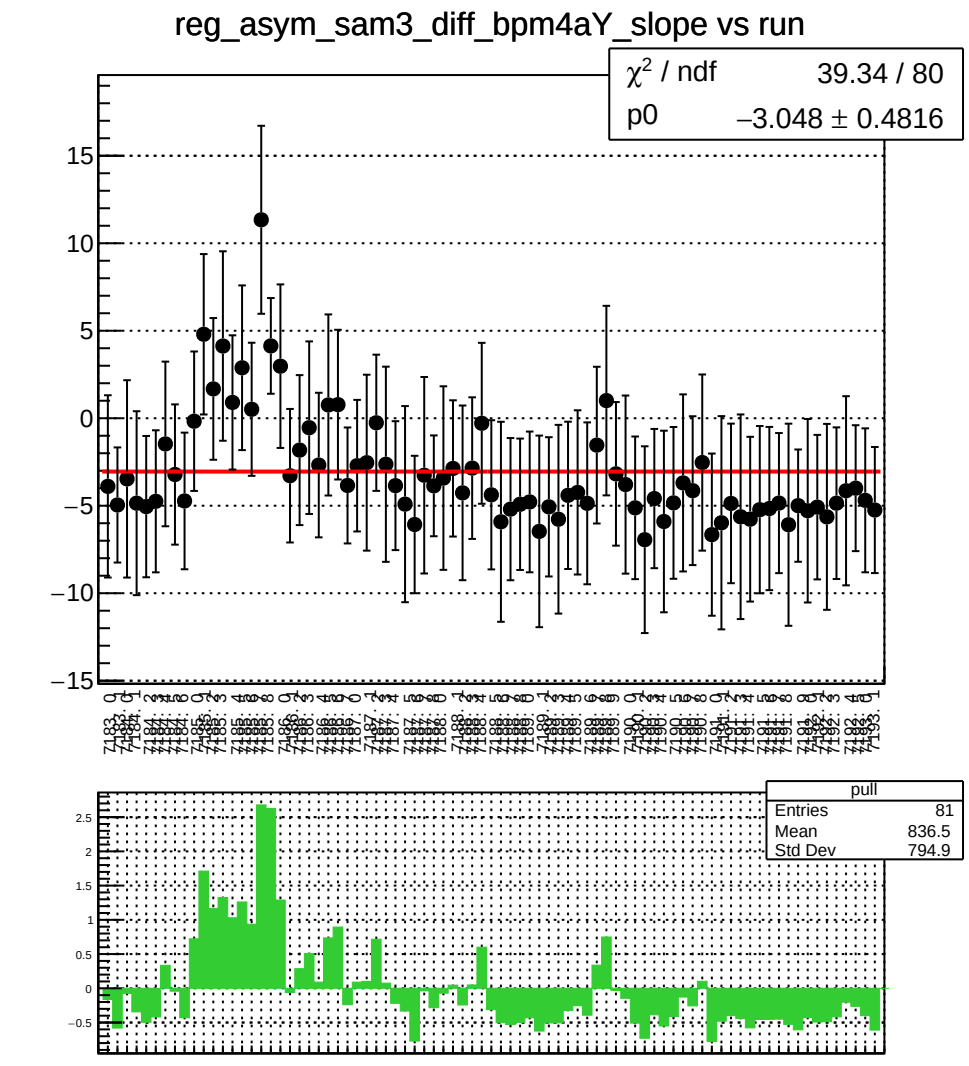

pull1D
Entries 81
Mean −0.01135
Std Dev 0.2725
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

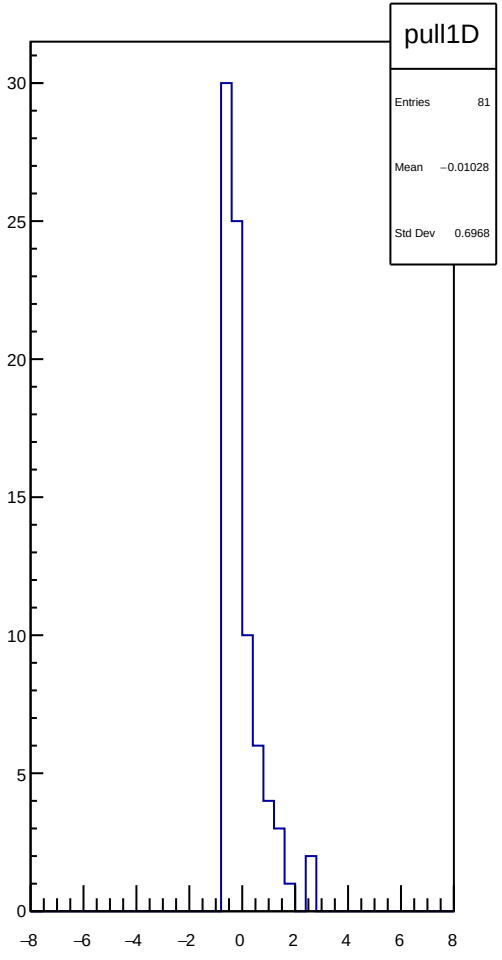

reg_asym_sam2_diff_bpm4eY_slope vs run
χ² / ndf 7.847 / 80
p0 −138.8 ± 1.516
−120
−130
−140
−150
−160
−170
pull
Entries 81
Mean 2358
Std Dev 2315
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
pull1D
Entries 81
Mean 0.002271
Std Dev 0.3112
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

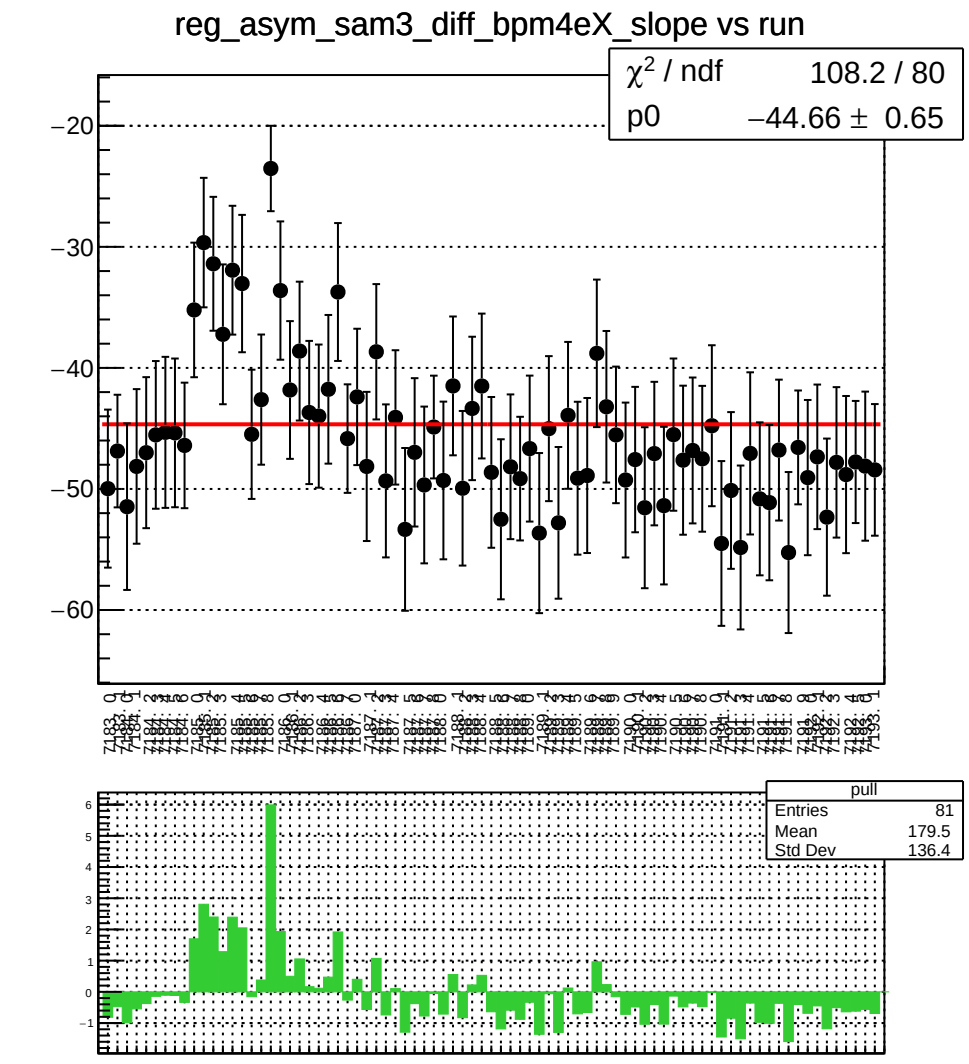

reg_asym_sam2_diff_bpm12X_slope vs run
χ² / ndf 11.81 / 80
p0 0.7292 ± 0.0685
pull
Entries 81
Mean −676.1
Std Dev 713.3

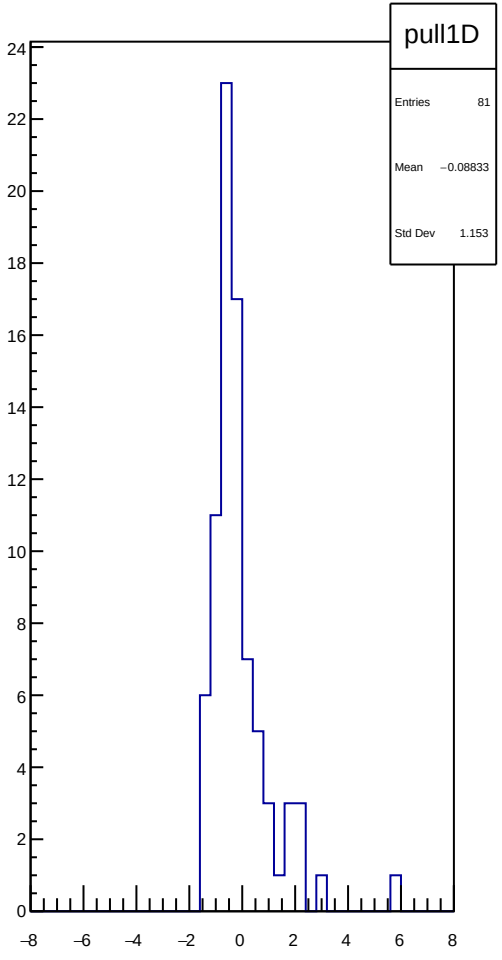

pull1D
Entries 81
Mean 0.009944
Std Dev 0.3817

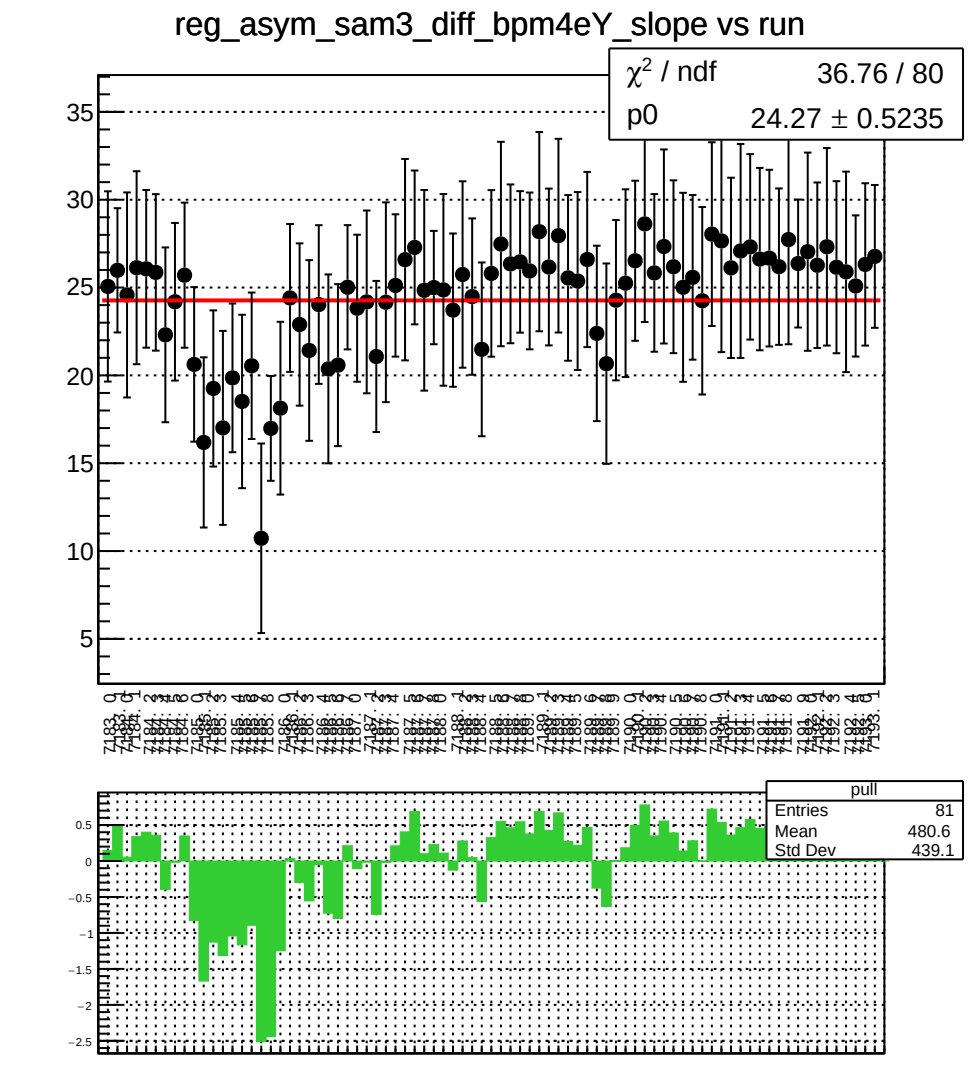

reg_asym_sam3_diff_bpm1X_slope vs run
χ² / ndf 126.8 / 80
p0 −28.74 ± 0.6491
pull
Entries 81
Mean 198.5
Std Dev 154.8
pull1D
Entries 81
Mean 0.08589
Std Dev 1.248

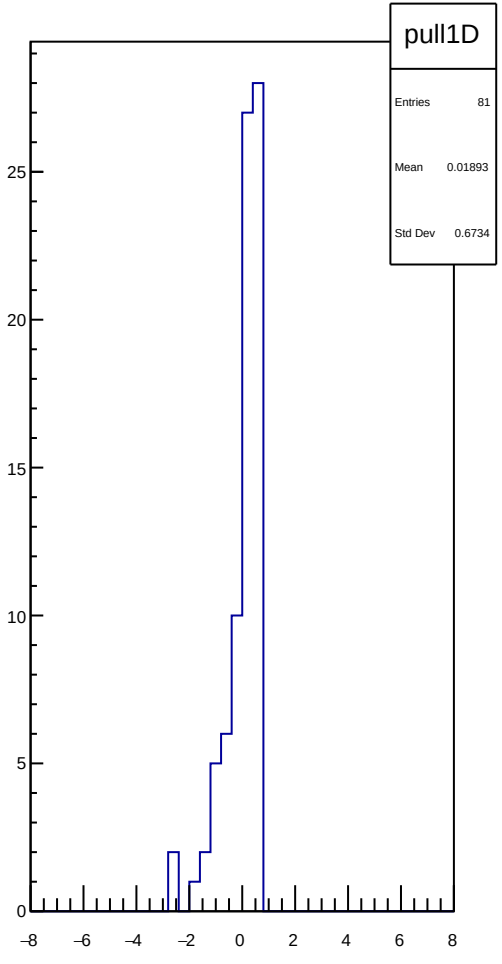

reg_asym_sam3_diff_bpm4aY_slope vs run
χ² / ndf 39.34 / 80
p0 −3.048 ± 0.4816
pull
Entries 81
Mean 836.5
Std Dev 794.9

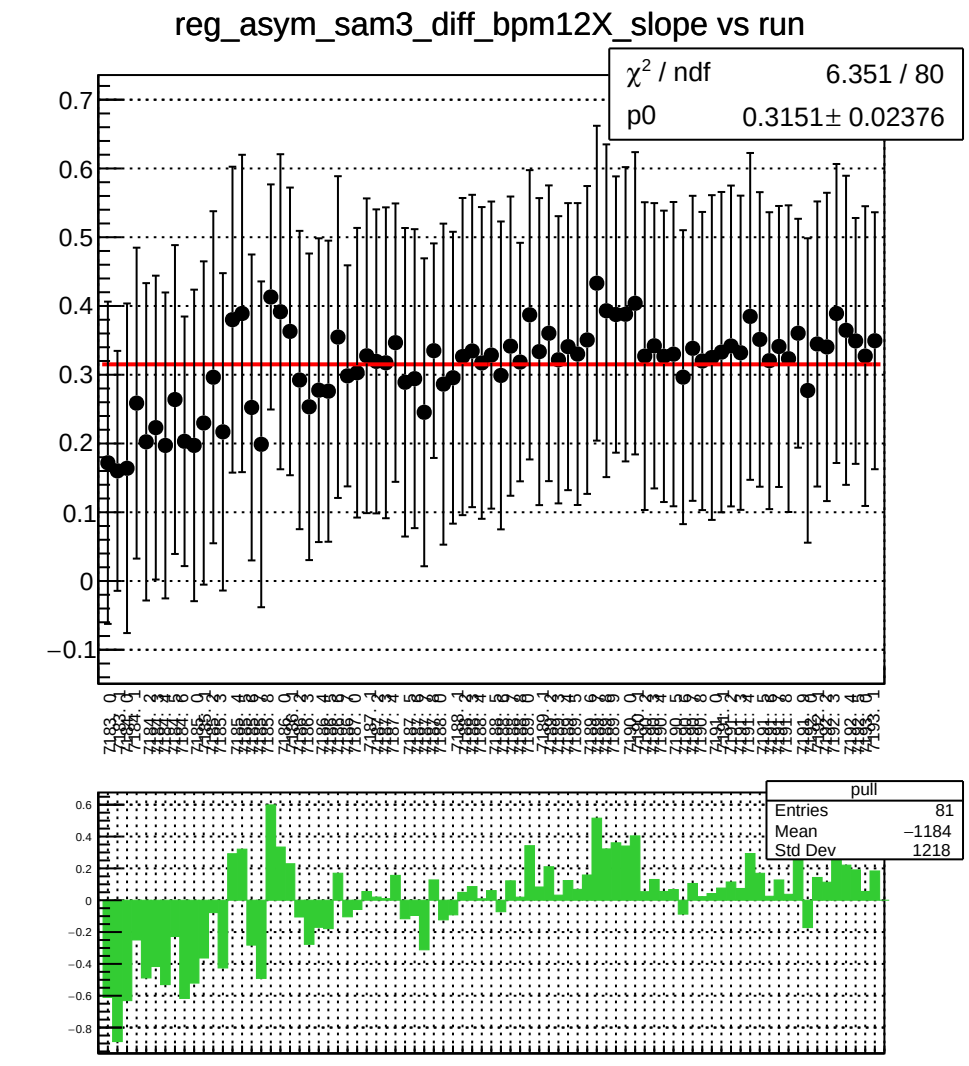

pull1D
Entries 81
Mean −0.01028
Std Dev 0.6968

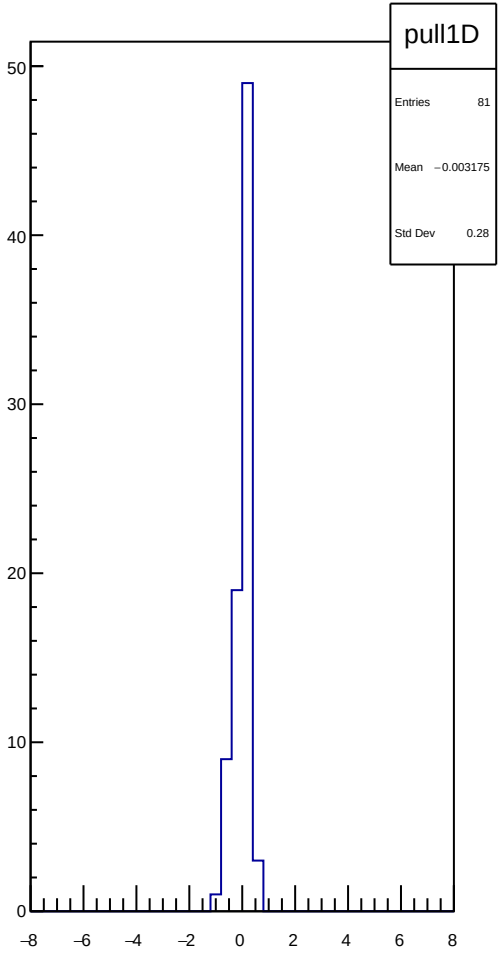

reg_asym_sam3_diff_bpm4eX_slope vs run
χ² / ndf 108.2 / 80
p0 −44.66 ± 0.65
pull
Entries 81
Mean 179.5
Std Dev 136.4

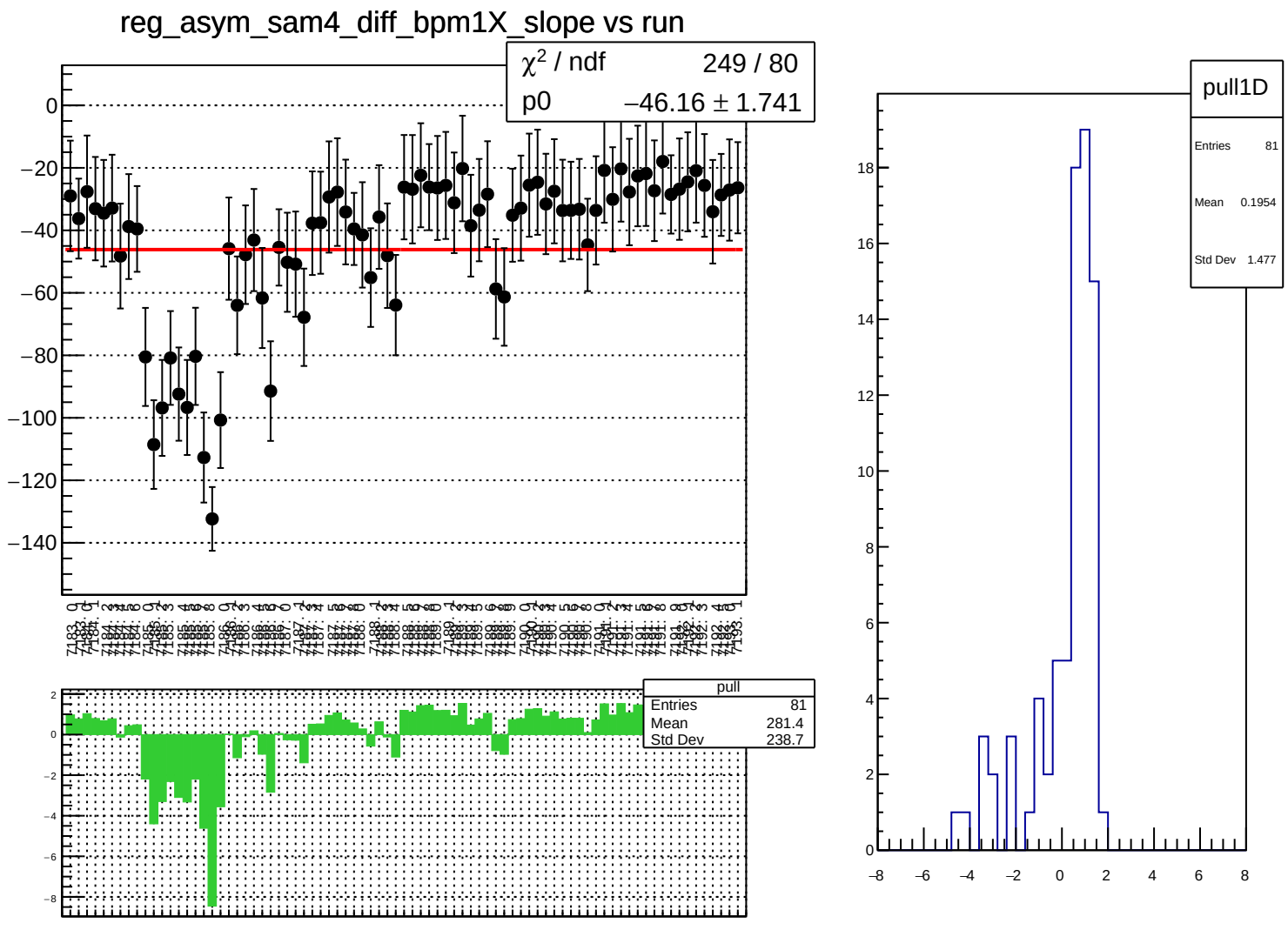

pull1D
Entries 81
Mean −0.08833
Std Dev 1.153

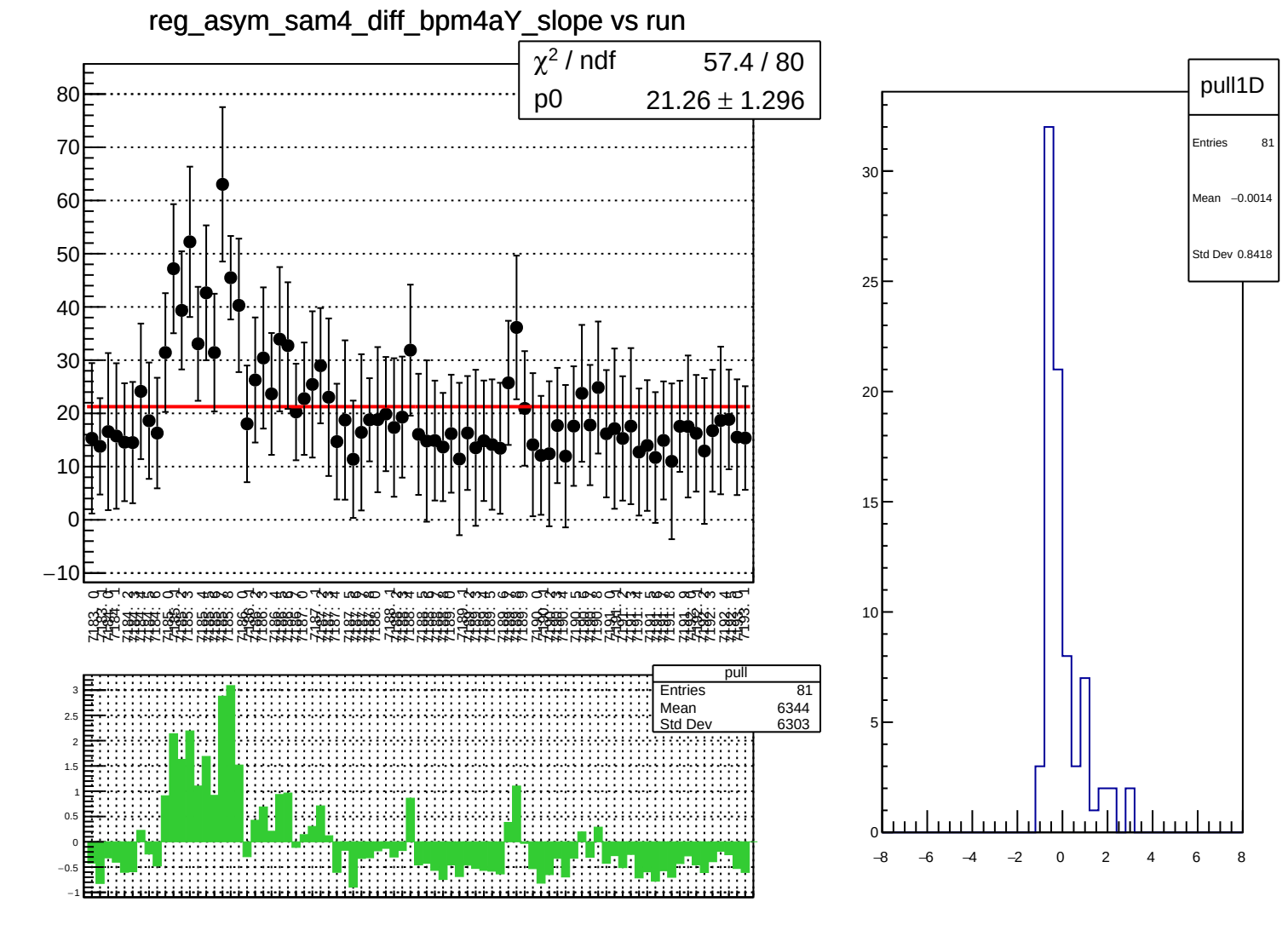

reg_asym_sam3_diff_bpm4eY_slope vs run
χ² / ndf 36.76 / 80
p0 24.27 ± 0.5235
pull
Entries 81
Mean 480.6
Std Dev 439.1

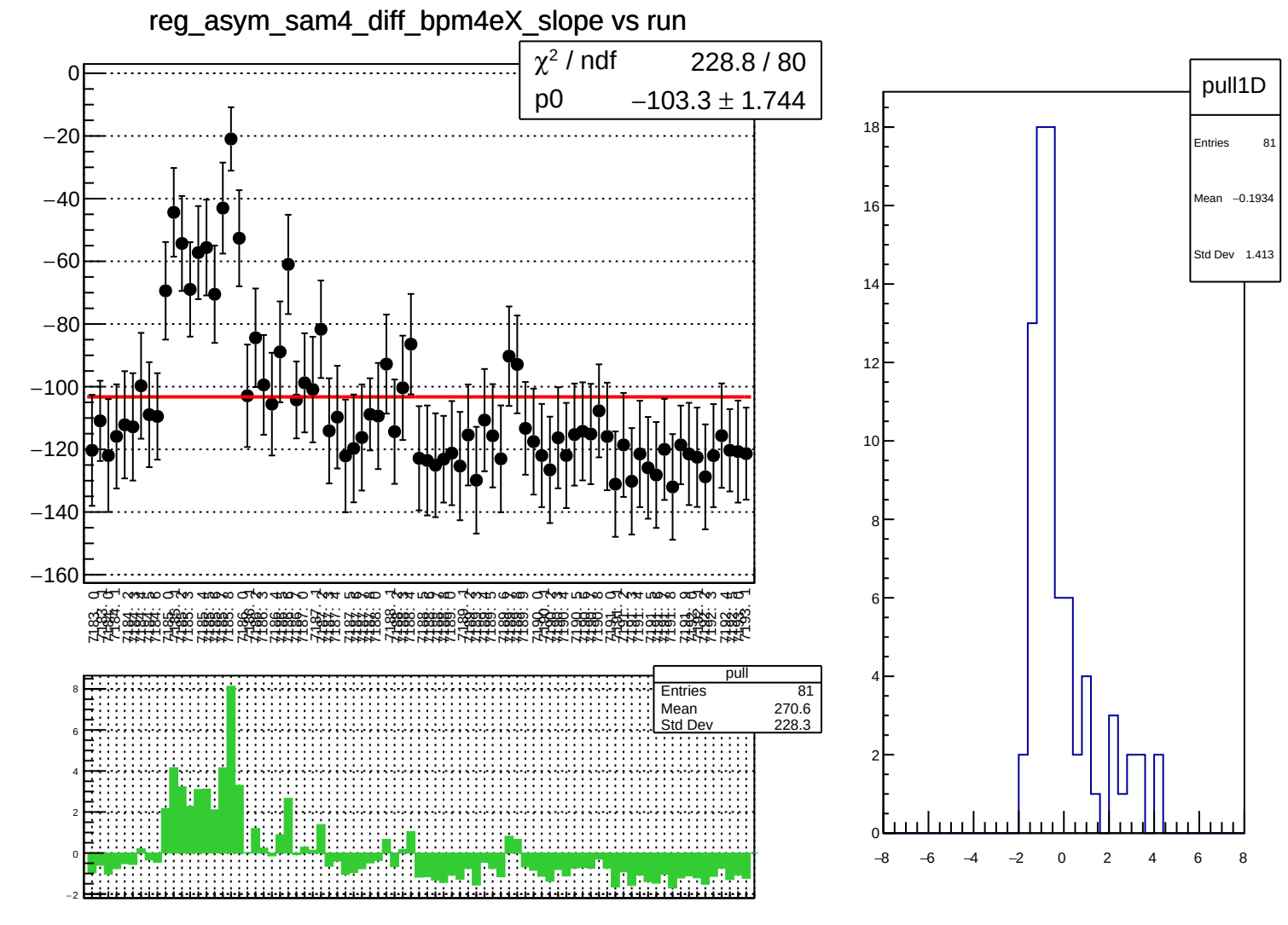

pull1D
Entries 81
Mean 0.01893
Std Dev 0.6734

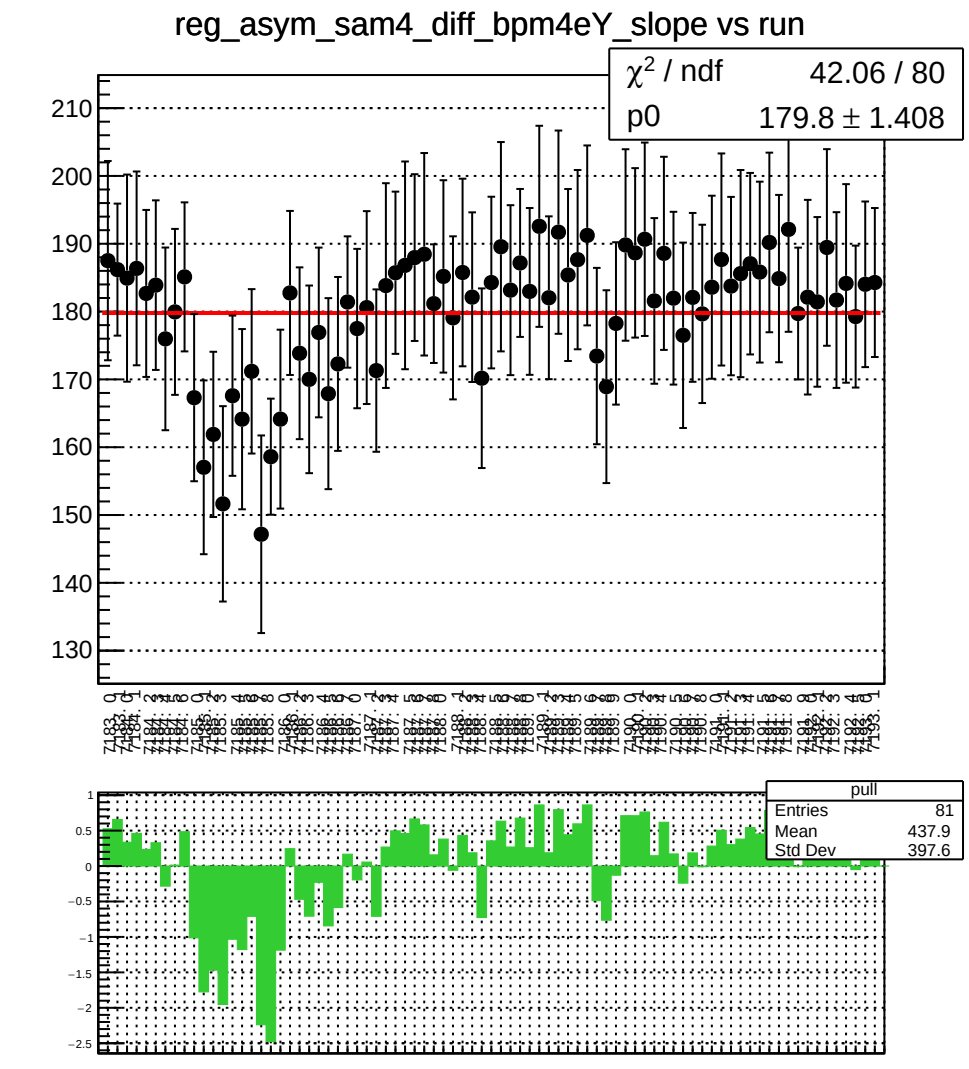

reg_asym_sam3_diff_bpm12X_slope vs run
χ² / ndf 6.351 / 80
p0 0.3151± 0.02376
pull
Entries 81
Mean −1184
Std Dev 1218

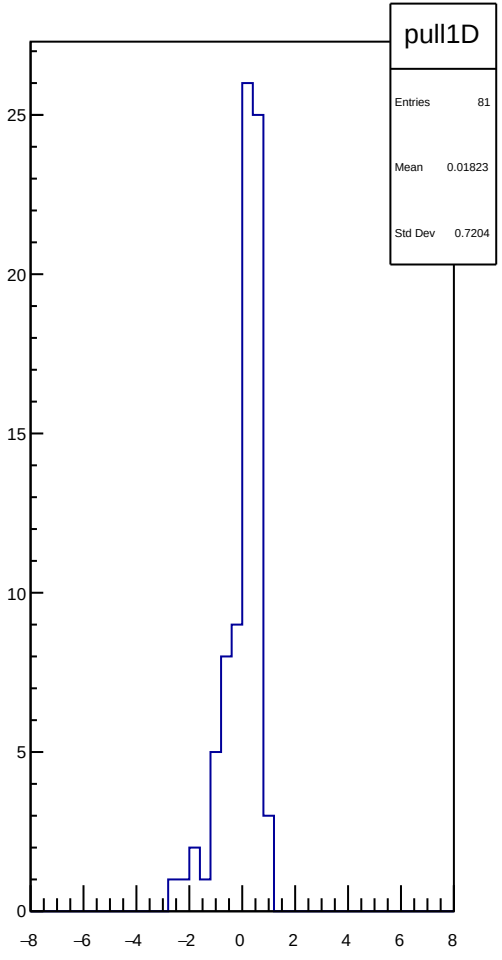

pull1D
Entries 81
Mean −0.003175
Std Dev 0.28

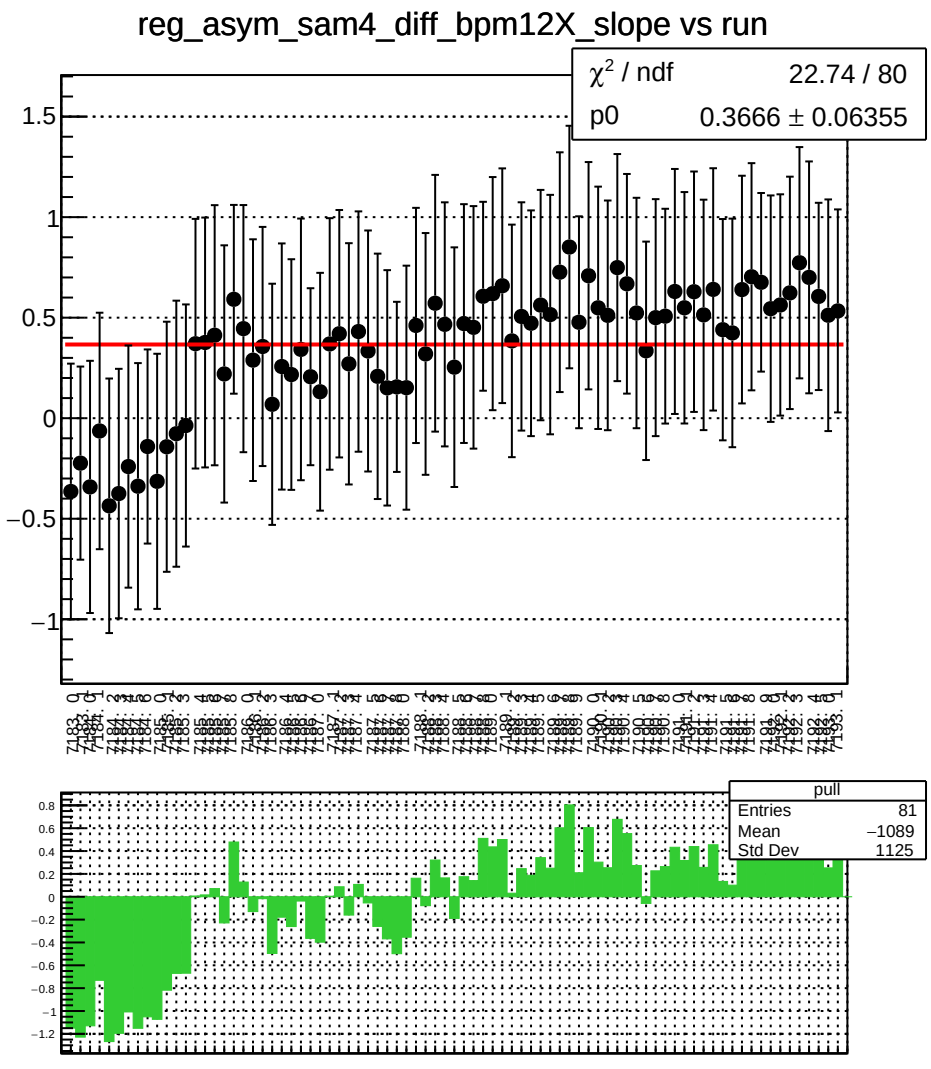

reg_asym_sam4_diff_bpm1X_slope vs run
χ² / ndf 249 / 80
p0 −46.16 ± 1.741
pull
Entries 81
Mean 281.4
Std Dev 238.7
pull1D
Entries 81
Mean 0.1954
Std Dev 1.477

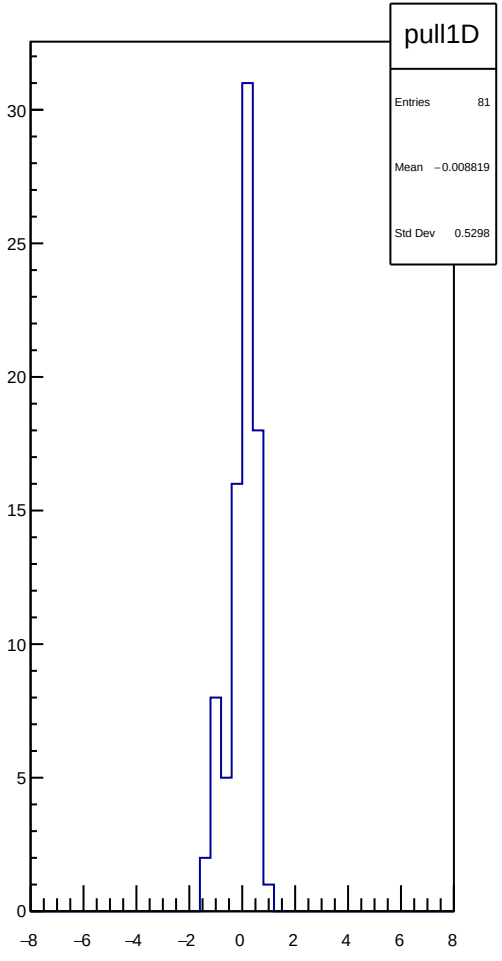

reg_asym_sam4_diff_bpm4aY_slope vs run
χ² / ndf 57.4 / 80
p0 21.26 ± 1.296
pull
Entries 81
Mean 6344
Std Dev 6303
pull1D
Entries 81
Mean −0.0014
Std Dev 0.8418

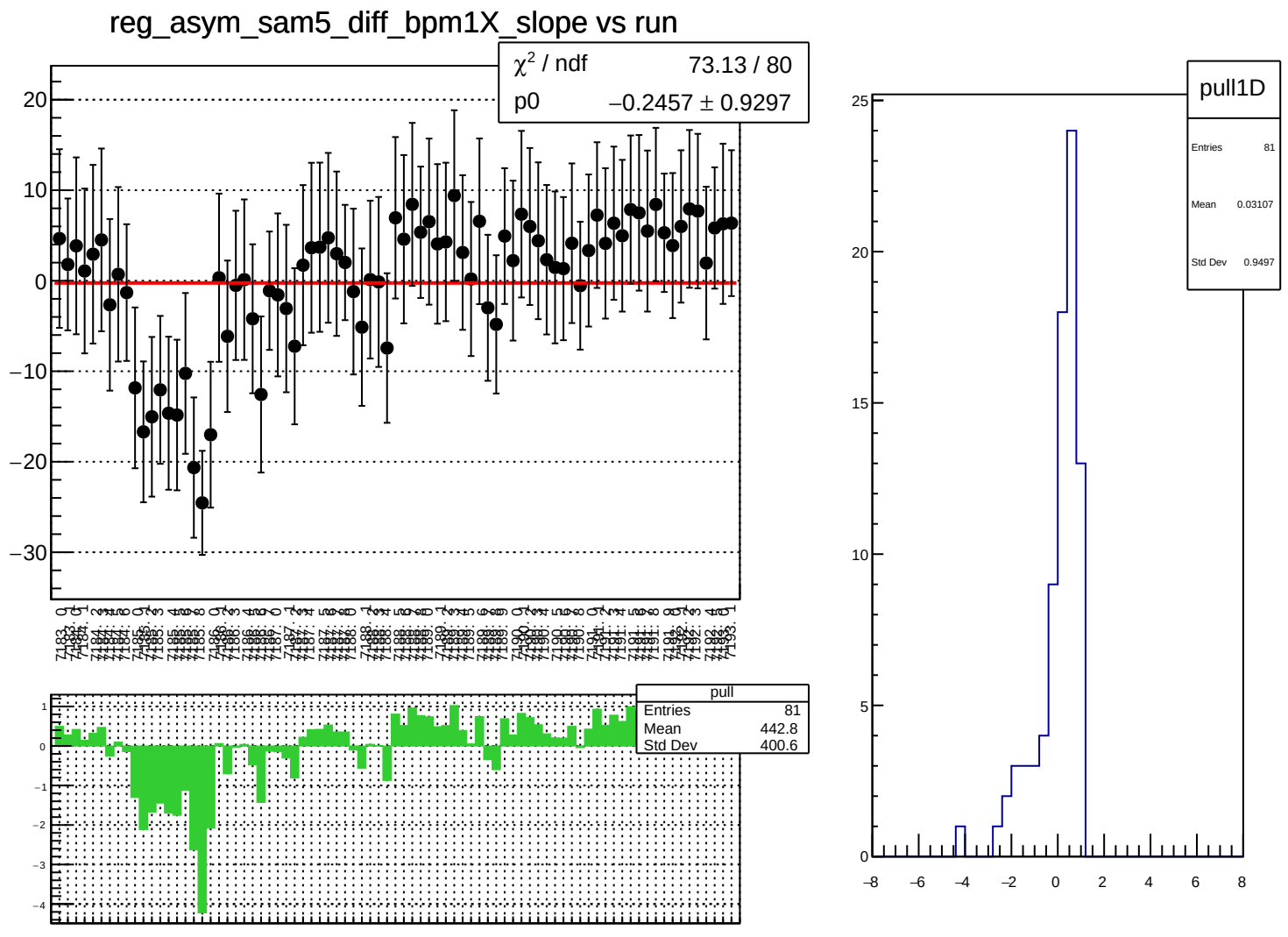

reg_asym_sam4_diff_bpm4eX_slope vs run
χ² / ndf 228.8 / 80
p0 −103.3 ± 1.744
pull
Entries 81
Mean 270.6
Std Dev 228.3
pull1D
Entries 81
Mean −0.1934
Std Dev 1.413

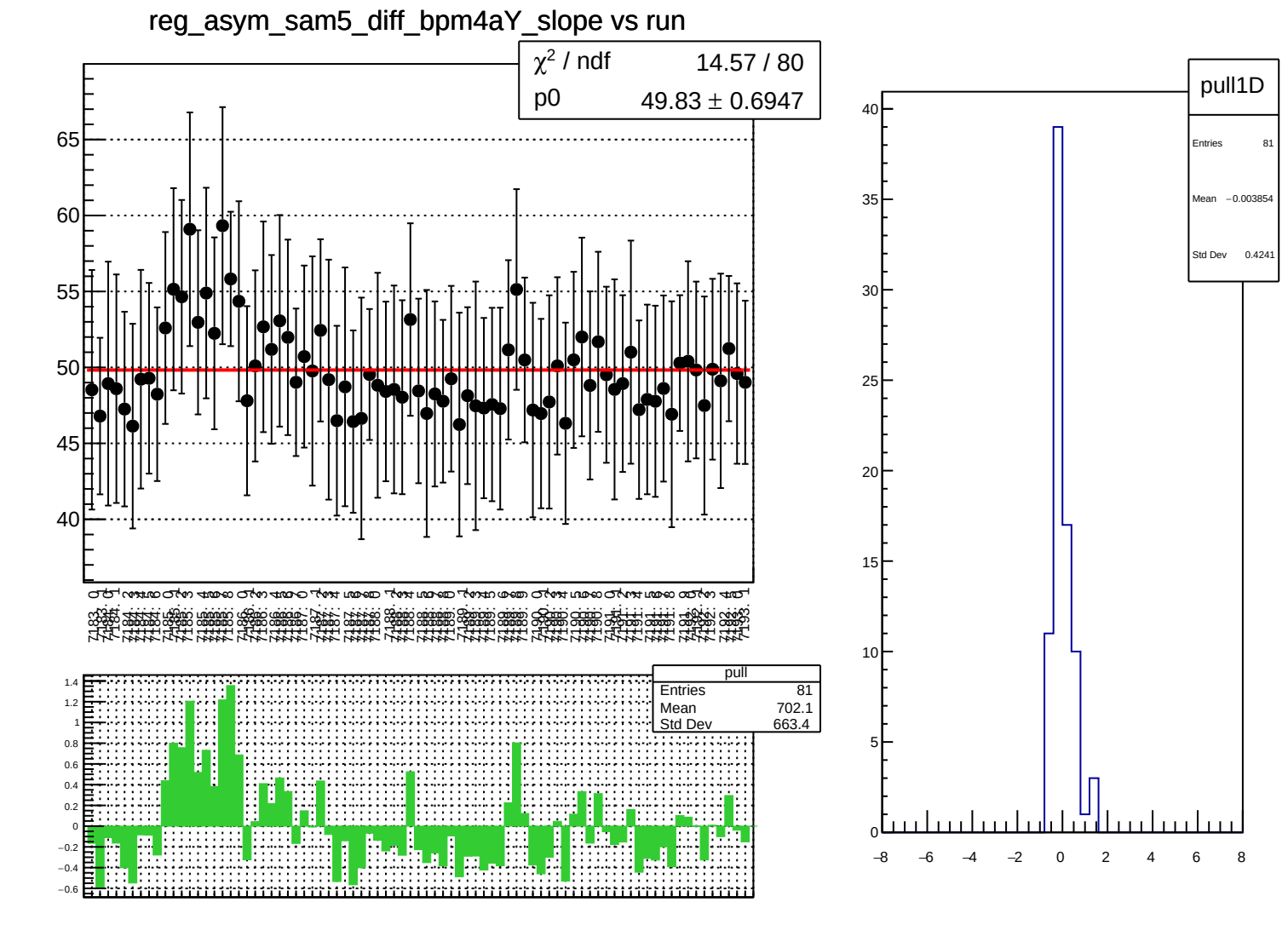

reg_asym_sam4_diff_bpm4eY_slope vs run
χ² / ndf 42.06 / 80
p0 179.8 ± 1.408
pull
Entries 81
Mean 437.9
Std Dev 397.6

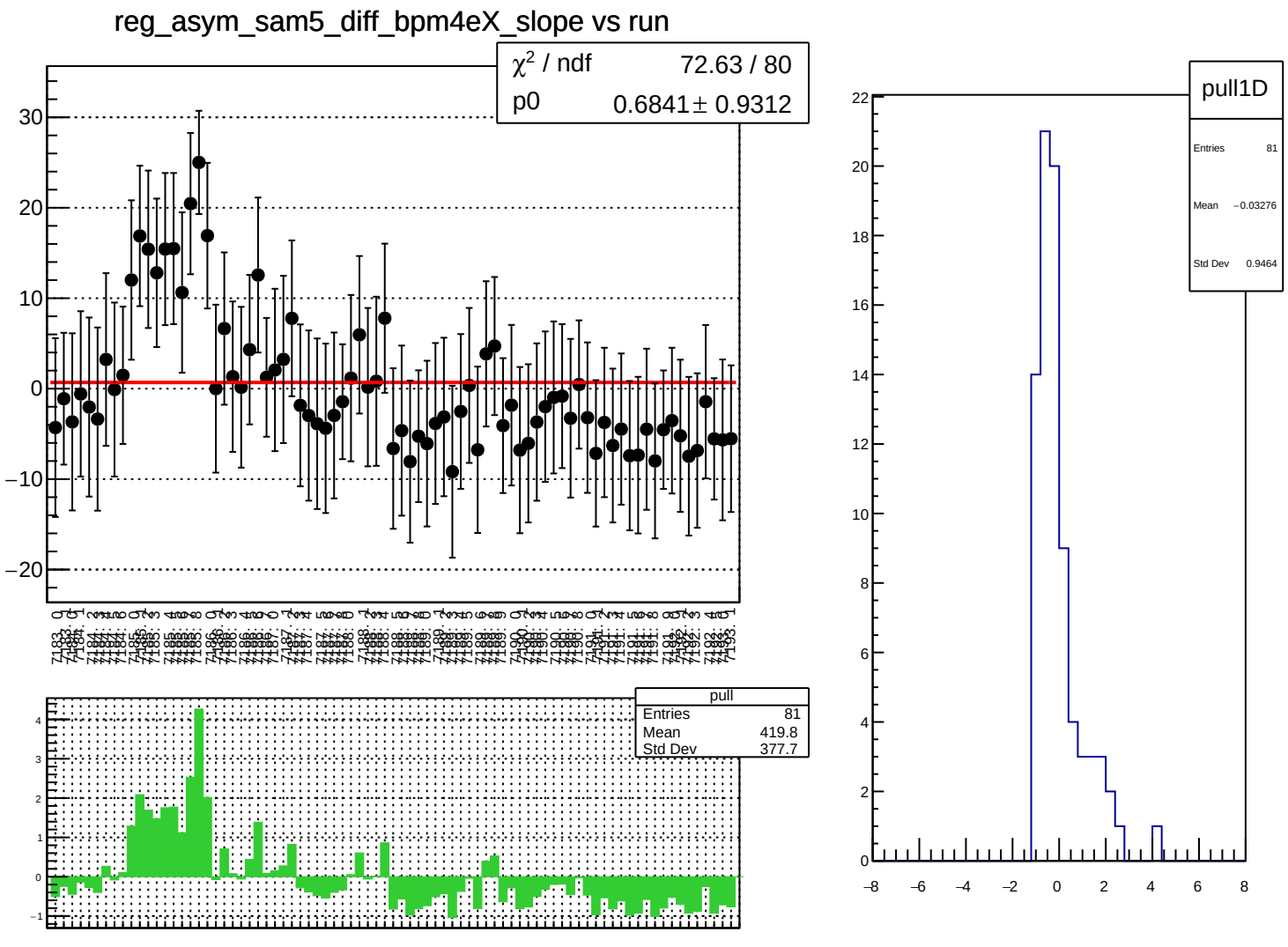

pull1D
Entries 81
Mean 0.01823
Std Dev 0.7204

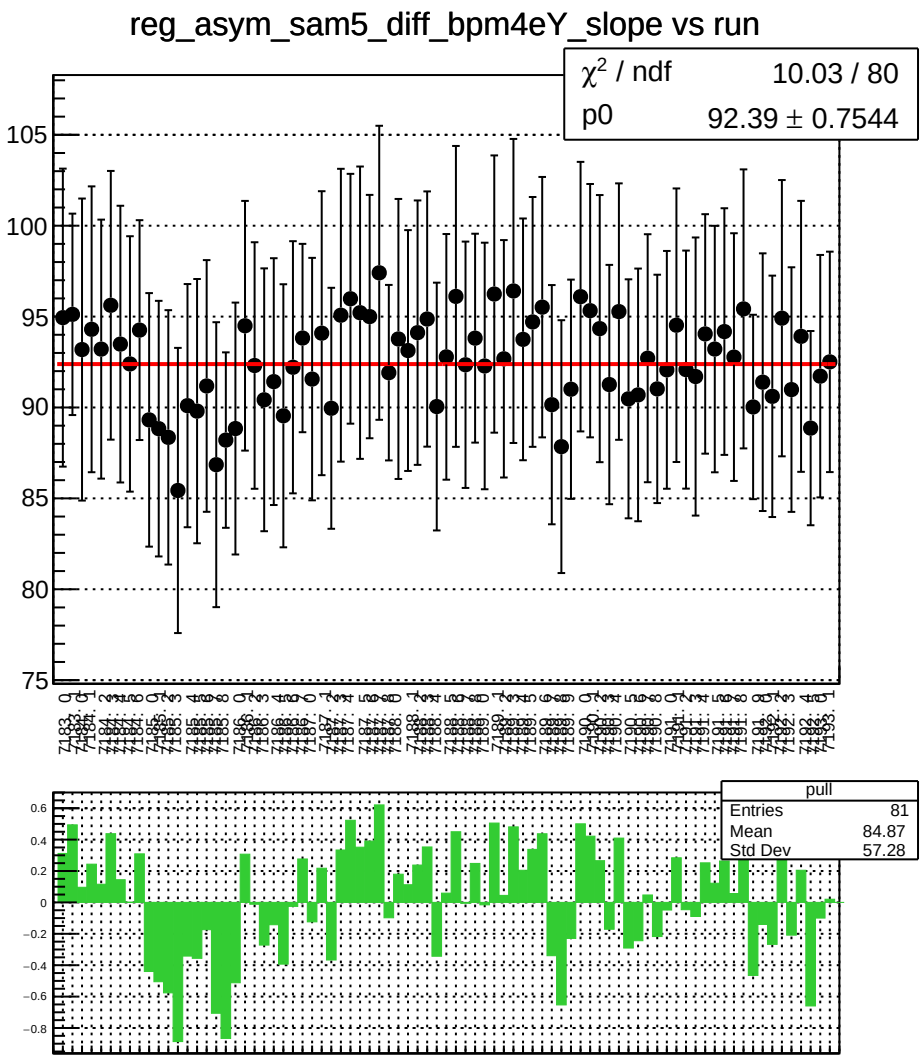

reg_asym_sam4_diff_bpm12X_slope vs run
χ² / ndf 22.74 / 80
p0 0.3666 ± 0.06355
pull
Entries 81
Mean −1089
Std Dev 1125

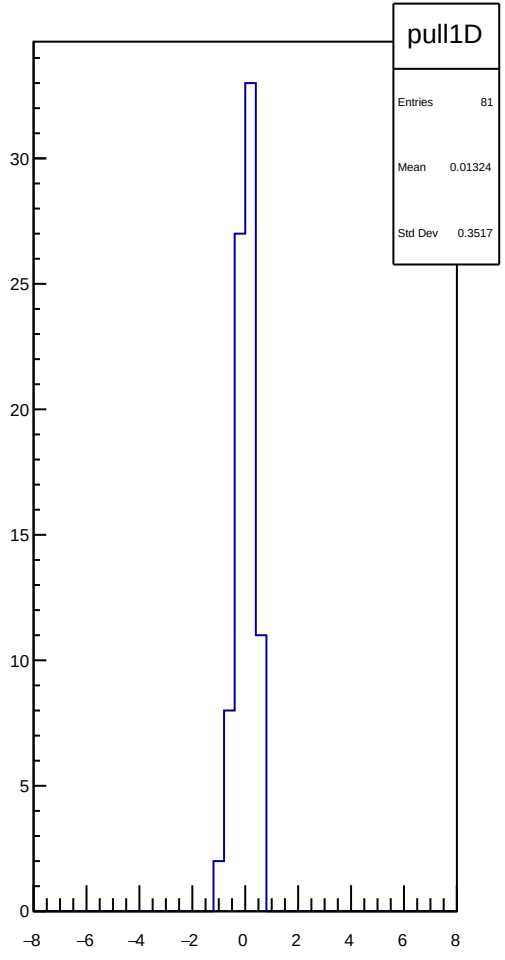

pull1D
Entries 81
Mean −0.008819
Std Dev 0.5298

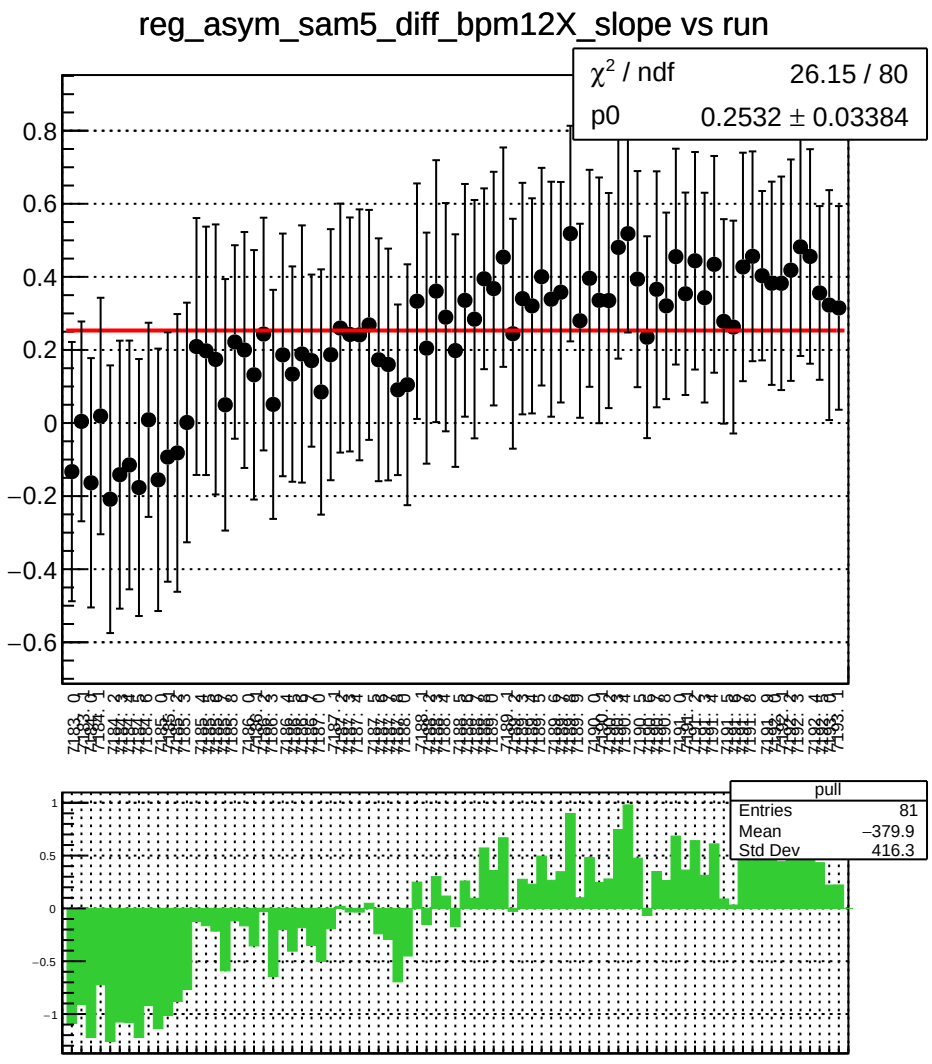

reg_asym_sam5_diff_bpm1X_slope vs run
χ² / ndf 73.13 / 80
p0 −0.2457 ± 0.9297
pull
Entries 81
Mean 442.8
Std Dev 400.6
pull1D
Entries 81
Mean 0.03107
Std Dev 0.9497

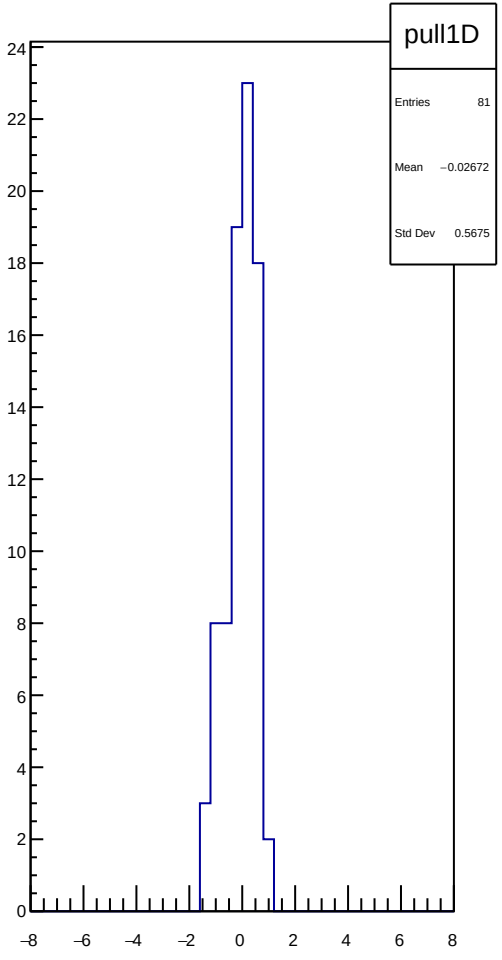

reg_asym_sam5_diff_bpm4aY_slope vs run
χ² / ndf 14.57 / 80
p0 49.83 ± 0.6947
pull
Entries 81
Mean 702.1
Std Dev 663.4
pull1D
Entries 81
Mean −0.003854
Std Dev 0.4241

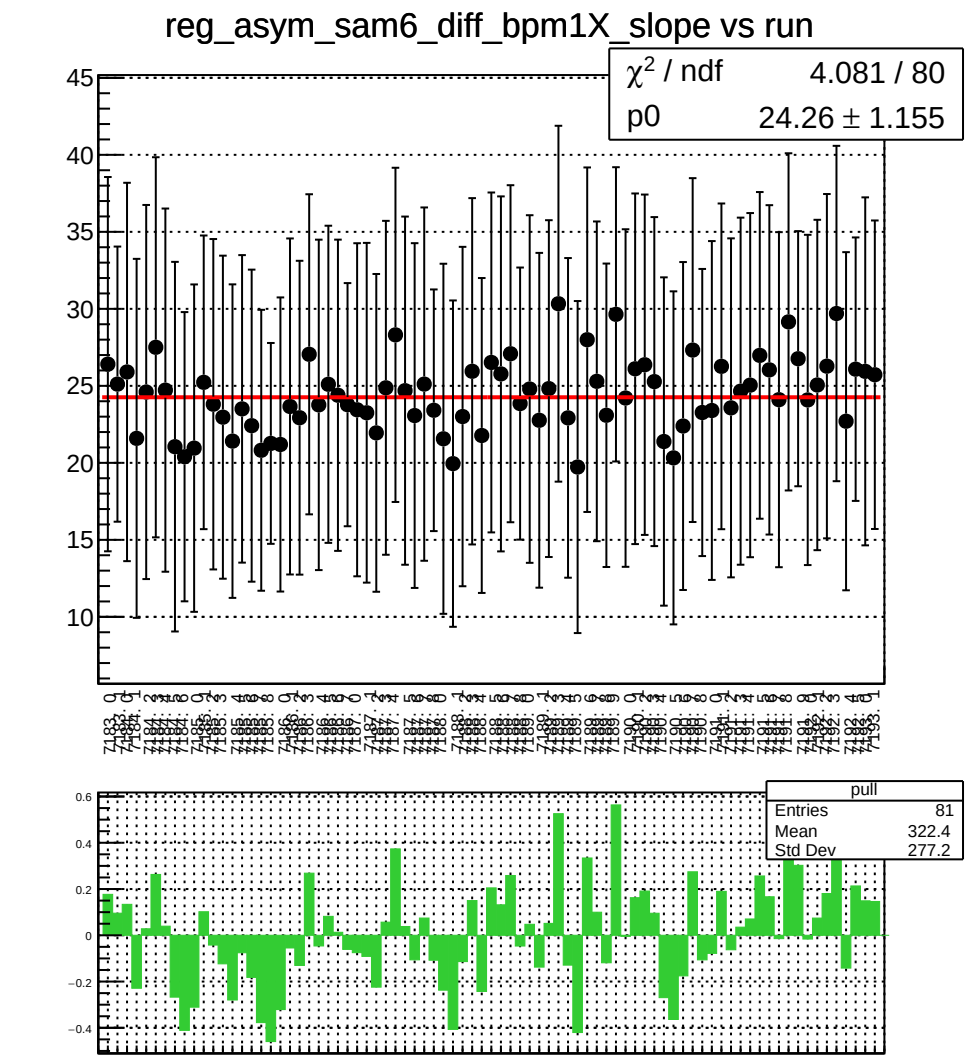

reg_asym_sam5_diff_bpm4eX_slope vs run
χ² / ndf 72.63 / 80
p0 0.6841 ± 0.9312
pull
Entries 81
Mean 419.8
Std Dev 377.7
pull1D
Entries 81
Mean −0.03276
Std Dev 0.9464

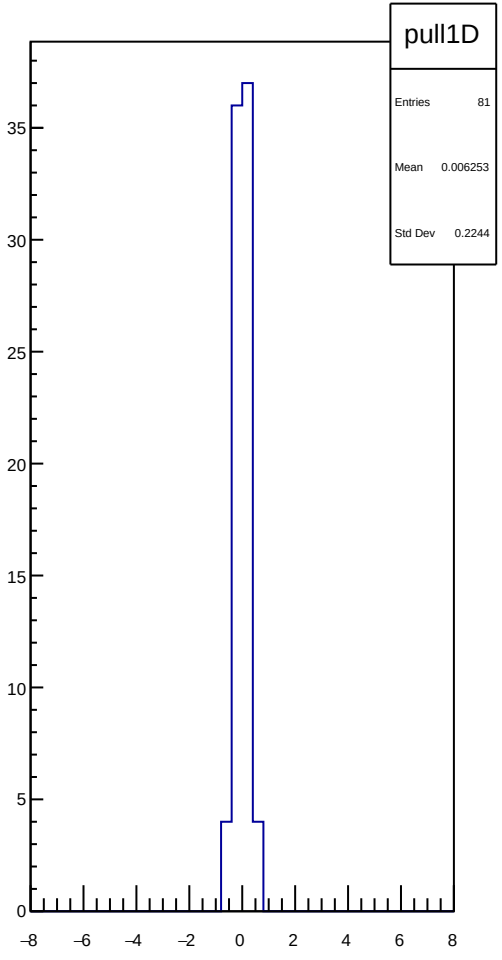

reg_asym_sam5_diff_bpm4eY_slope vs run
χ² / ndf 10.03 / 80
p0 92.39 ± 0.7544
105
100
95
90
85
80
75
pull
Entries 81
Mean 84.87
Std Dev 57.28
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8

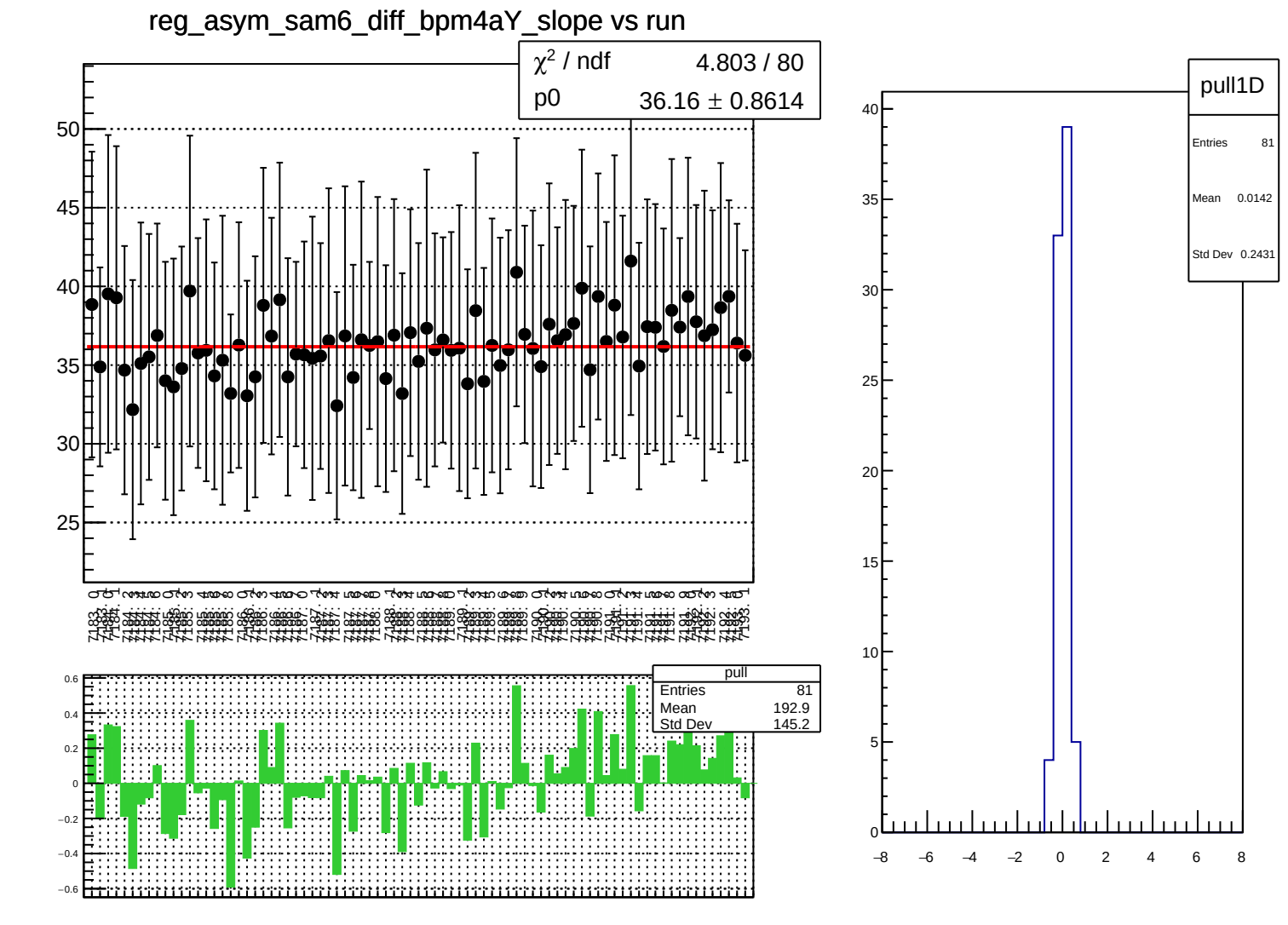

pull1D
Entries 81
Mean 0.01324
Std Dev 0.3517
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

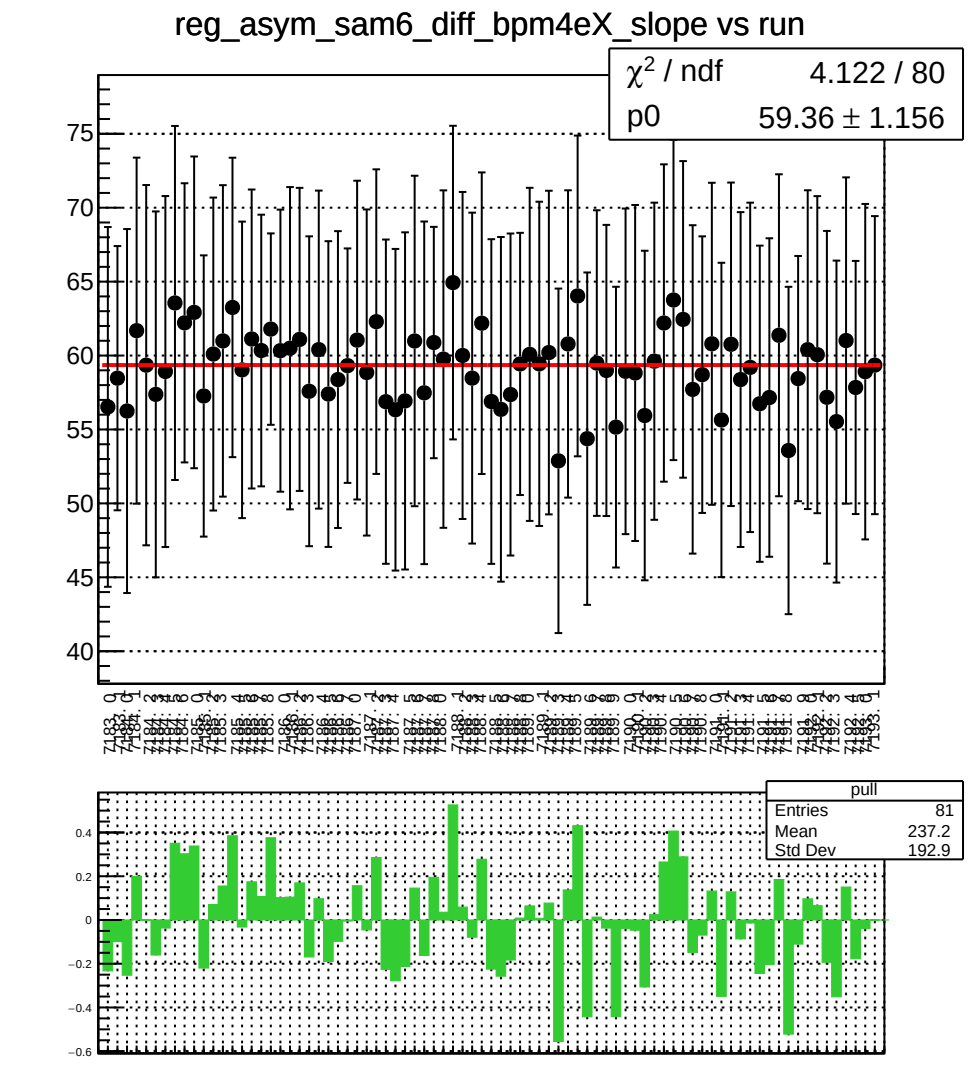

reg_asym_sam5_diff_bpm12X_slope vs run
χ^2 / ndf 26.15 / 80
p0 0.2532 ± 0.03384
pull
Entries 81
Mean −379.9
Std Dev 416.3

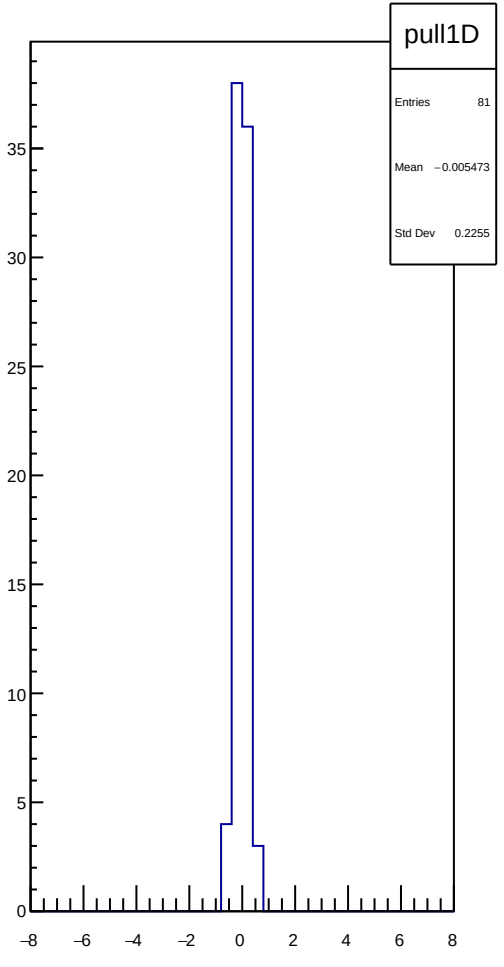

pull1D
Entries 81
Mean −0.02672
Std Dev 0.5675

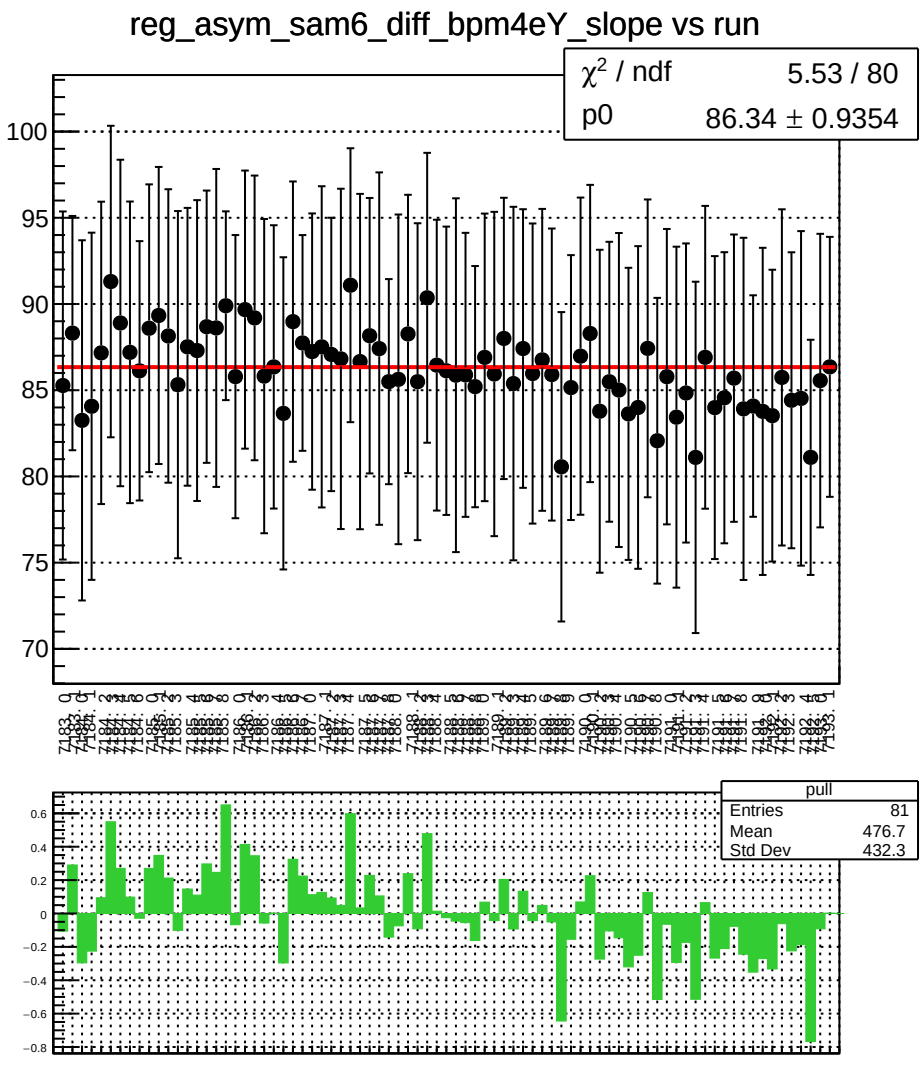

reg_asym_sam6_diff_bpm1X_slope vs run
χ² / ndf 4.081 / 80
p0 24.26 ± 1.155
pull
Entries 81
Mean 322.4
Std Dev 277.2

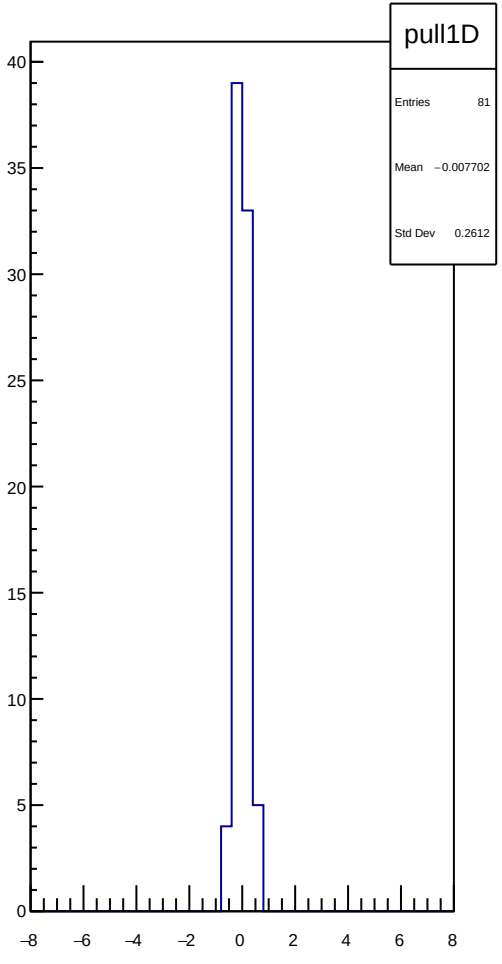

pull1D
Entries 81
Mean 0.006253
Std Dev 0.2244

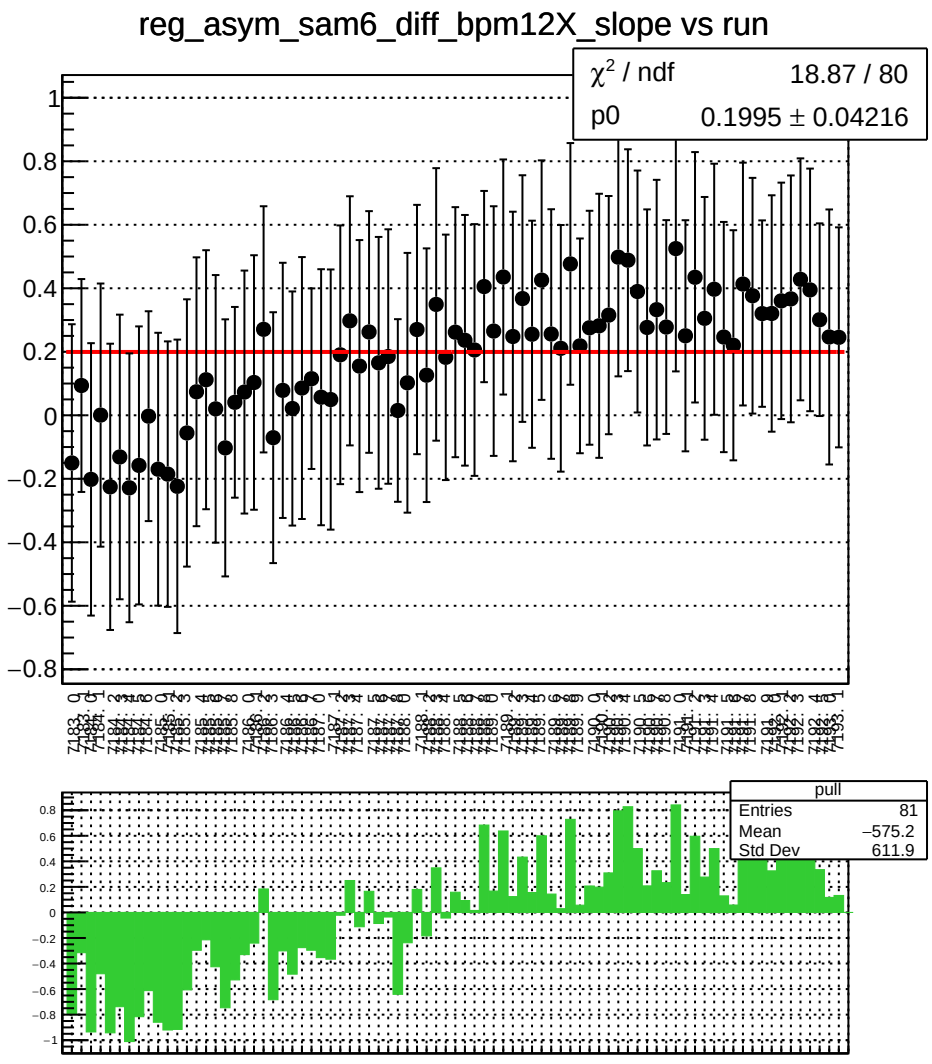

reg_asym_sam6_diff_bpm4aY_slope vs run
χ² / ndf 4.803 / 80
p0 36.16 ± 0.8614
pull
Entries 81
Mean 192.9
Std Dev 145.2
pull1D
Entries 81
Mean 0.0142
Std Dev 0.2431

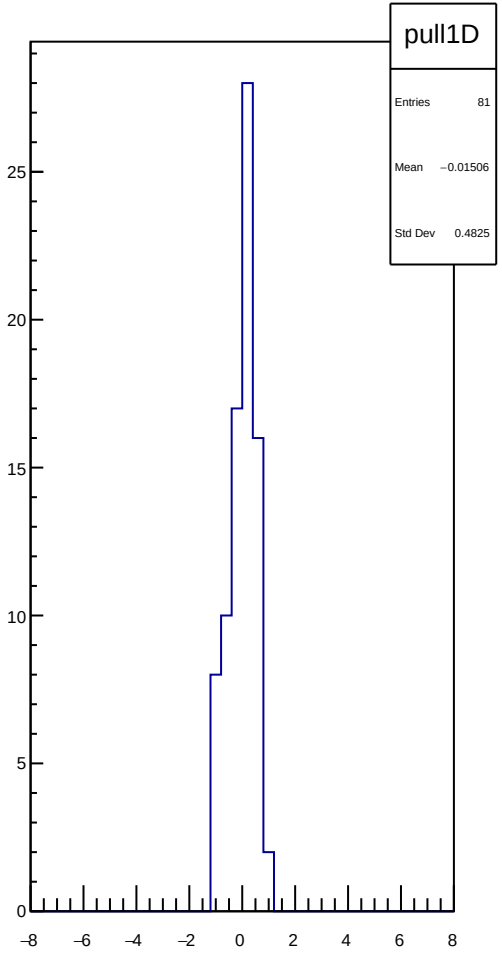

reg_asym_sam6_diff_bpm4eX_slope vs run
χ² / ndf 4.122 / 80
p0 59.36 ± 1.156
pull
Entries 81
Mean 237.2
Std Dev 192.9

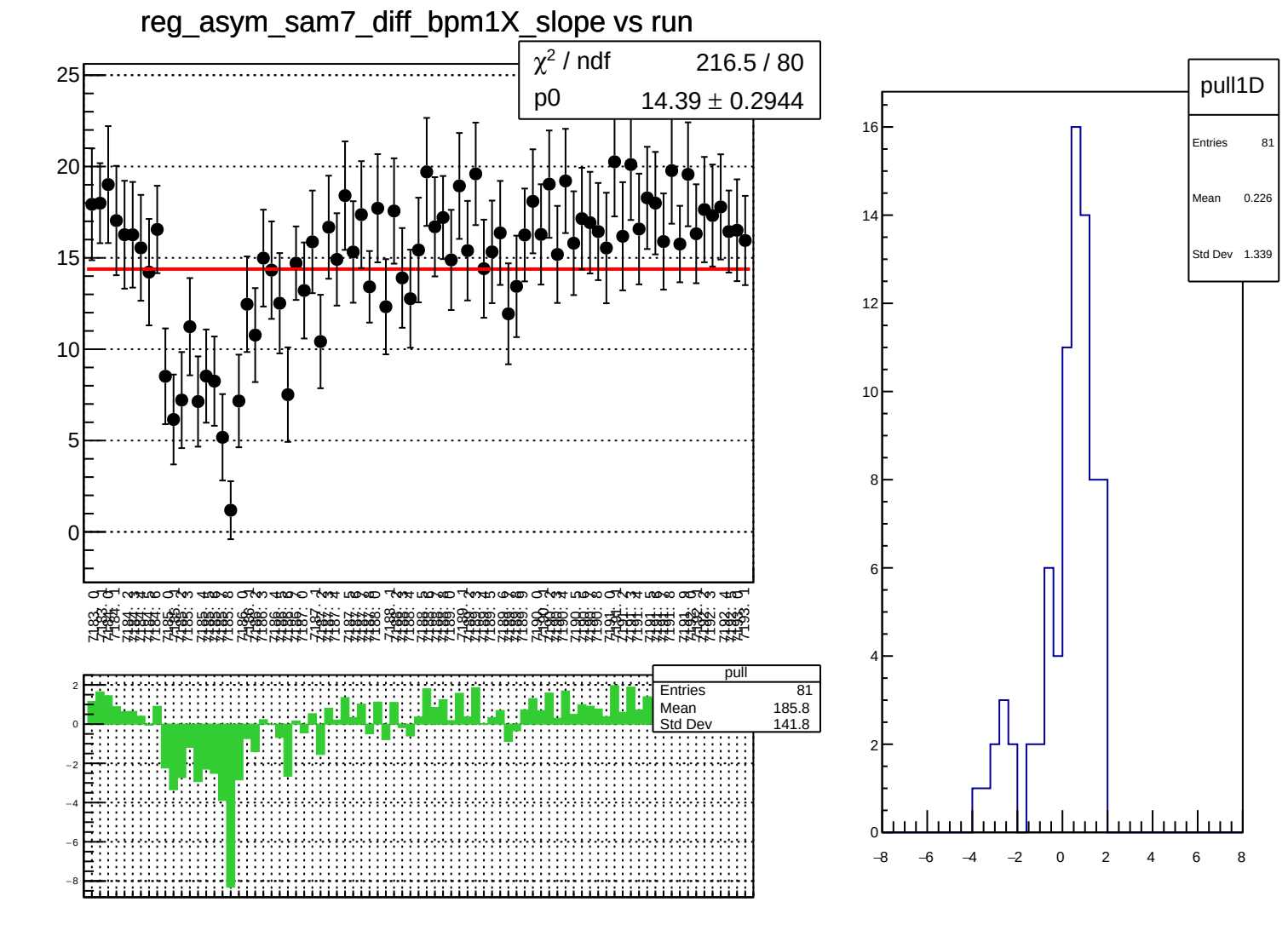

pull1D
Entries 81
Mean −0.005473
Std Dev 0.2255

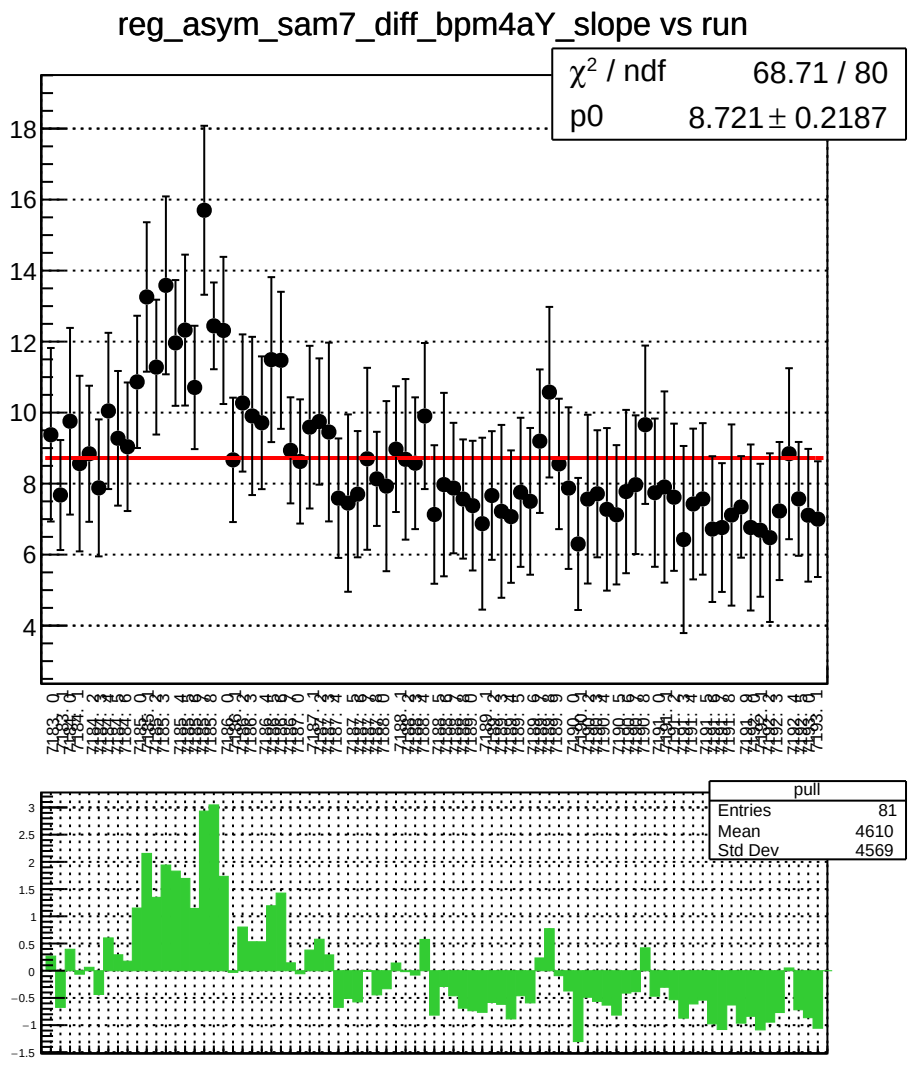

reg_asym_sam6_diff_bpm4eY_slope vs run
χ² / ndf 5.53 / 80
p0 86.34 ± 0.9354
pull
Entries 81
Mean 476.7
Std Dev 432.3

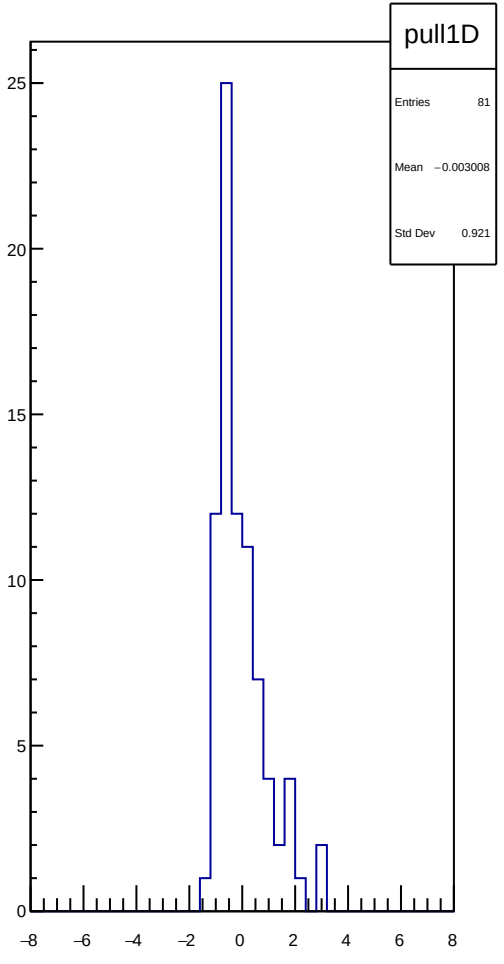

pull1D
Entries 81
Mean −0.007702
Std Dev 0.2612

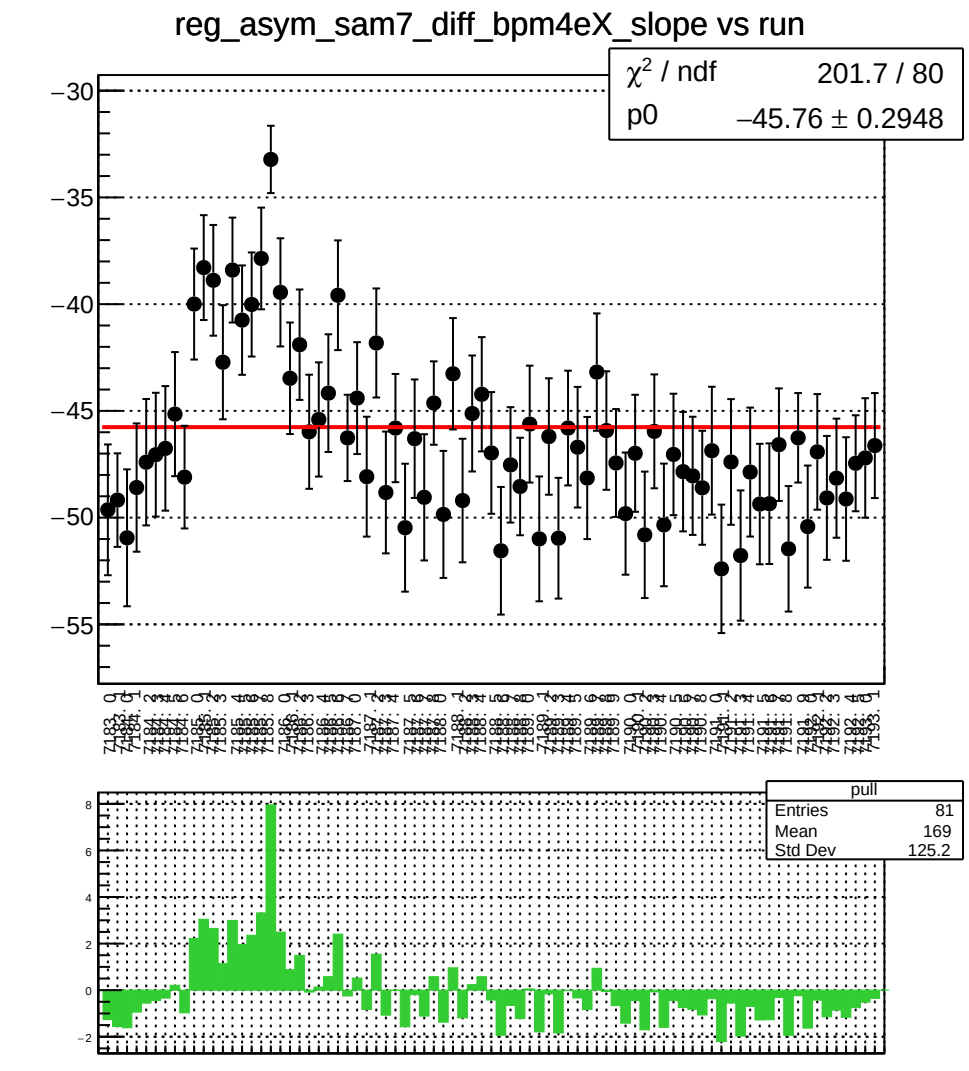

reg_asym_sam6_diff_bpm12X_slope vs run
χ² / ndf 18.87 / 80
p0 0.1995 ± 0.04216
pull
Entries 81
Mean −575.2
Std Dev 611.9

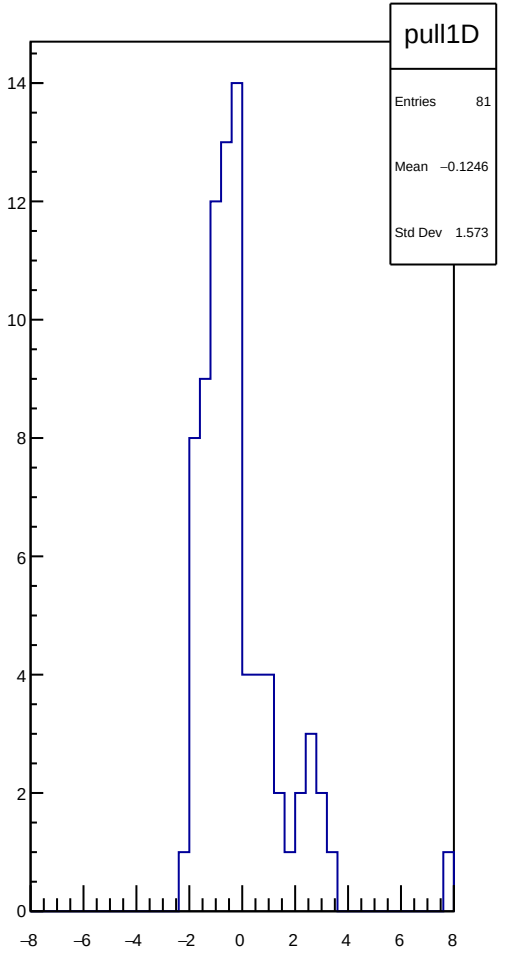

pull1D
Entries 81
Mean −0.01506
Std Dev 0.4825

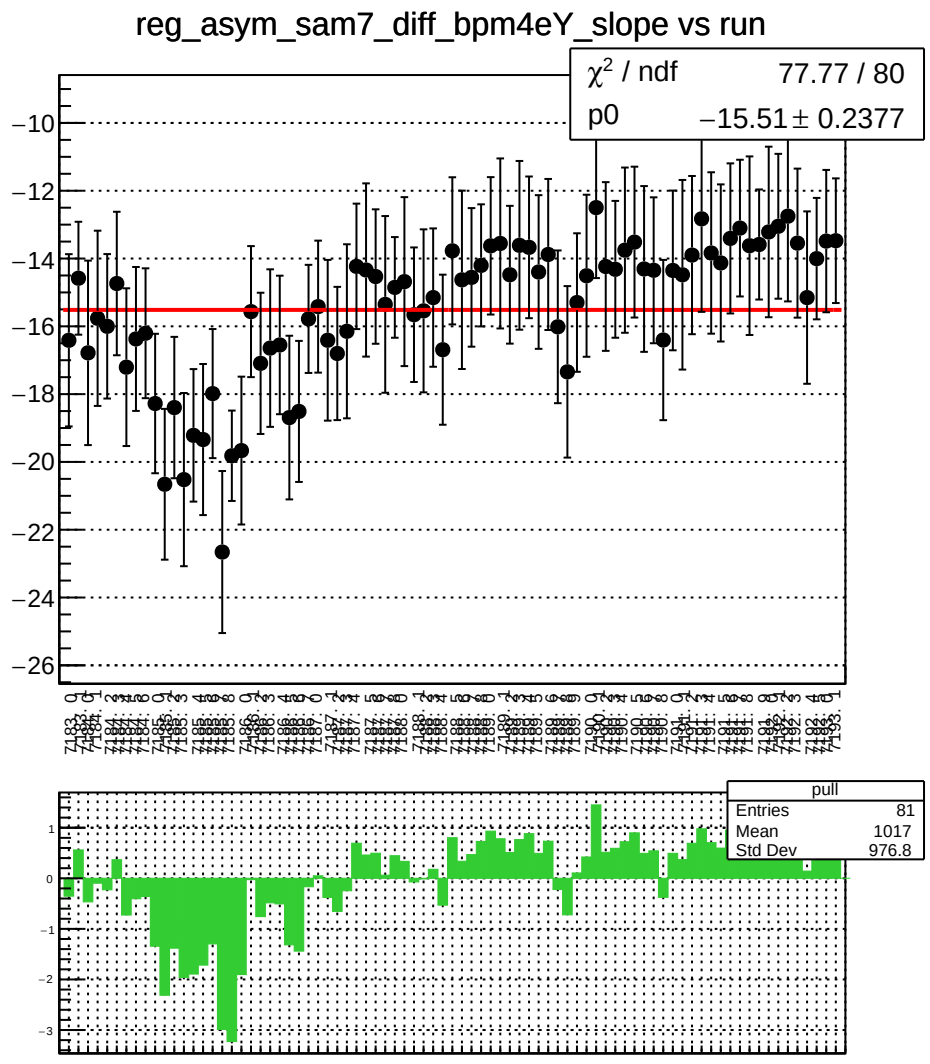

reg_asym_sam7_diff_bpm1X_slope vs run
χ² / ndf 216.5 / 80
p0 14.39 ± 0.2944
pull
Entries 81
Mean 185.8
Std Dev 141.8
pull1D
Entries 81
Mean 0.226
Std Dev 1.339

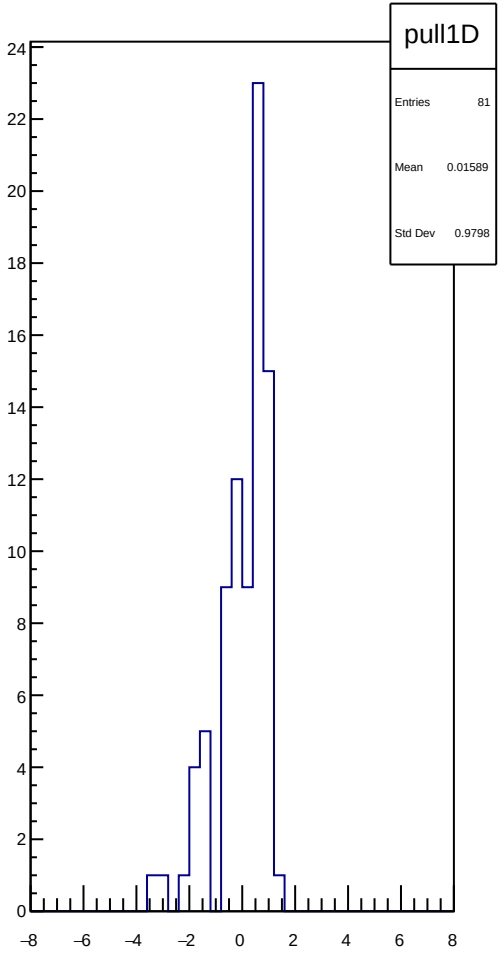

reg_asym_sam7_diff_bpm4aY_slope vs run
χ² / ndf 68.71 / 80
p0 8.721 ± 0.2187
pull
Entries 81
Mean 4610
Std Dev 4569

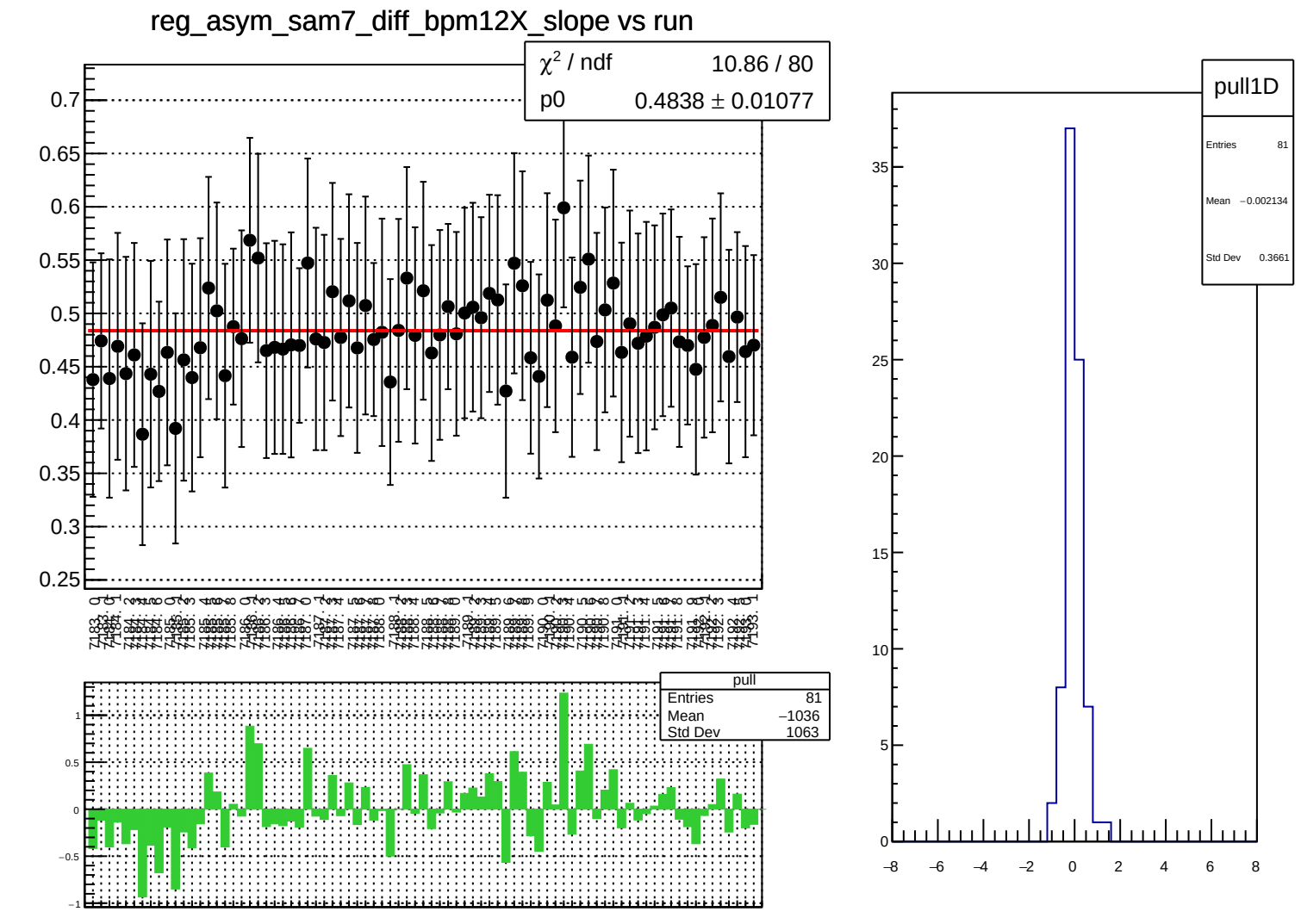

pull1D
Entries 81
Mean −0.003008
Std Dev 0.921

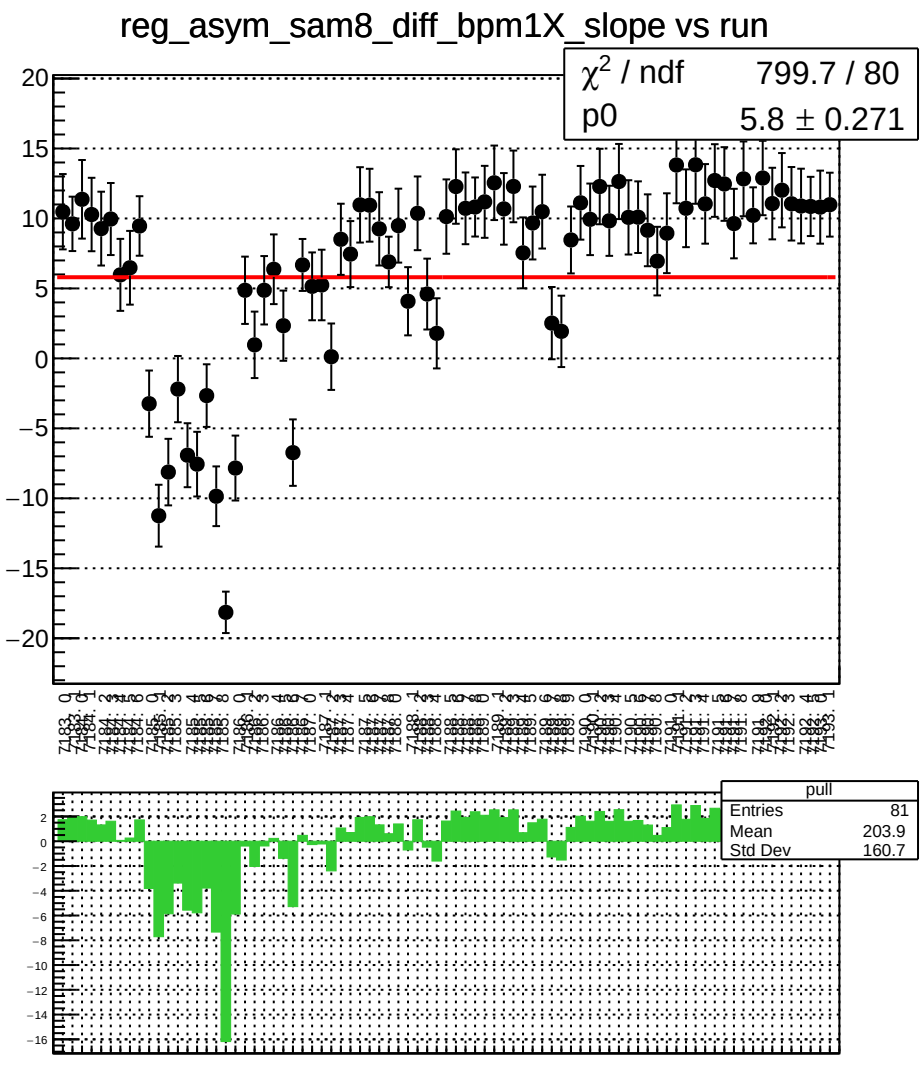

reg_asym_sam7_diff_bpm4eX_slope vs run
χ² / ndf 201.7 / 80
p0 −45.76 ± 0.2948
pull
Entries 81
Mean 169
Std Dev 125.2

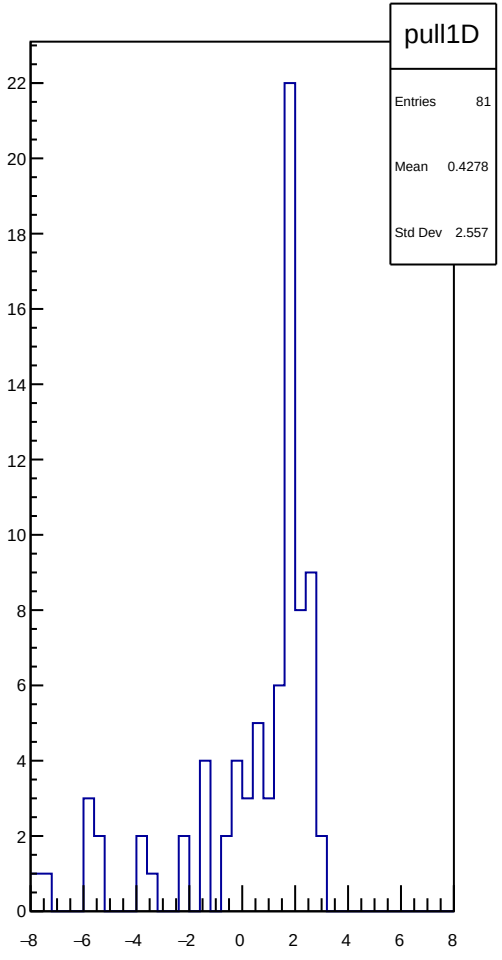

pull1D
Entries 81
Mean −0.1246
Std Dev 1.573

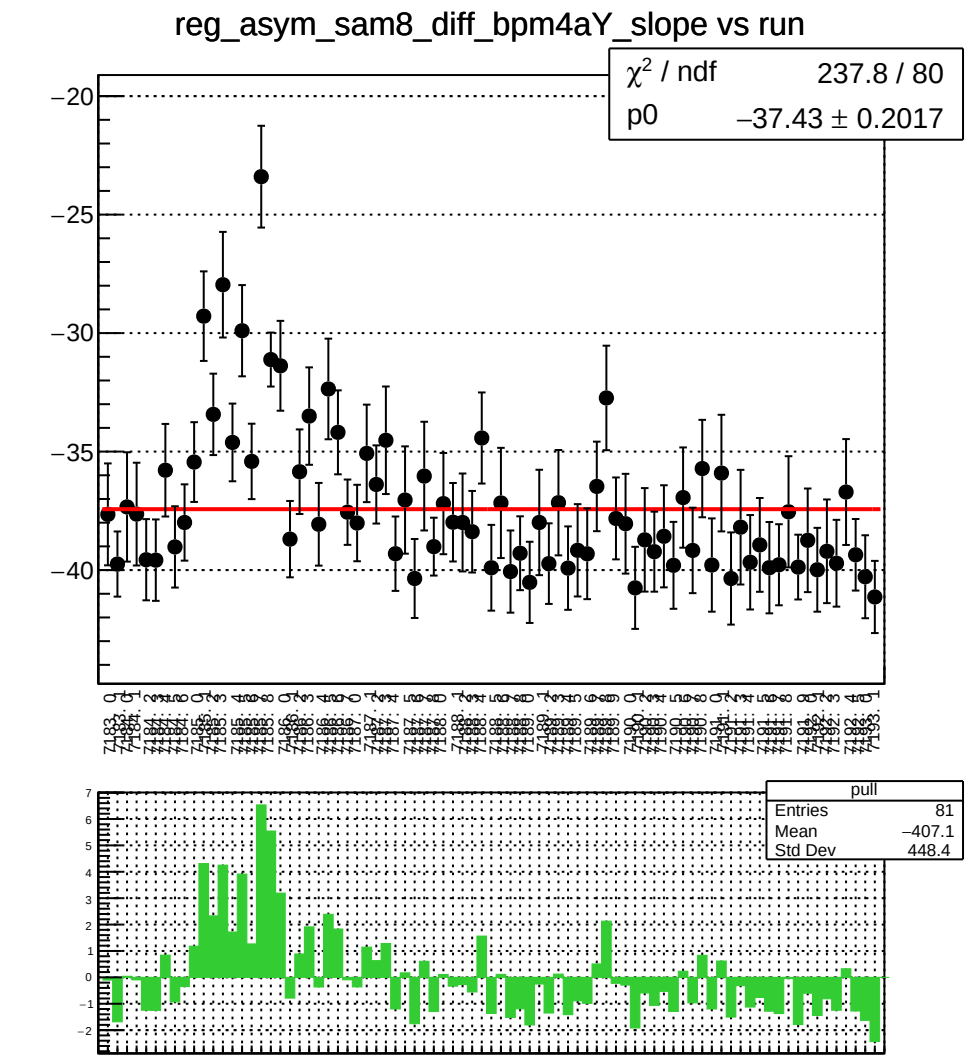

reg_asym_sam7_diff_bpm4eY_slope vs run
χ² / ndf 77.77 / 80
p0 −15.51 ± 0.2377
pull
Entries 81
Mean 1017
Std Dev 976.8

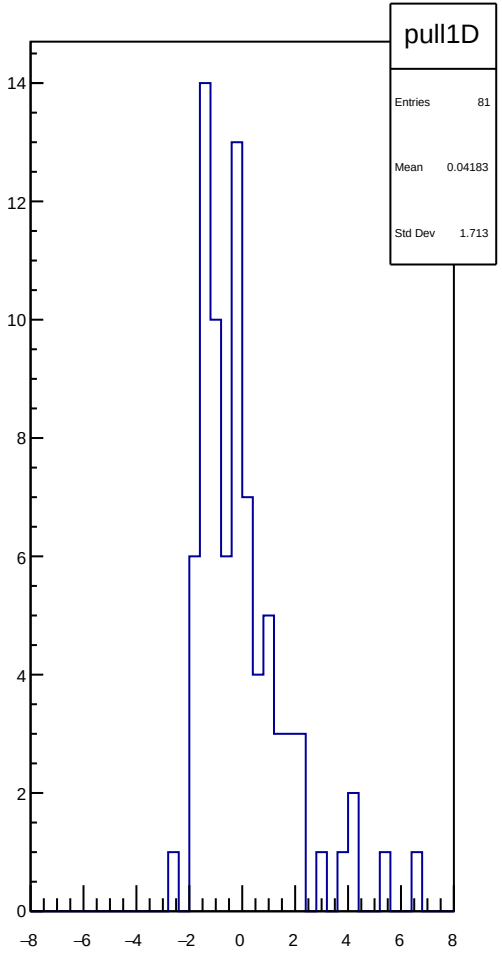

pull1D
Entries 81
Mean 0.01589
Std Dev 0.9798

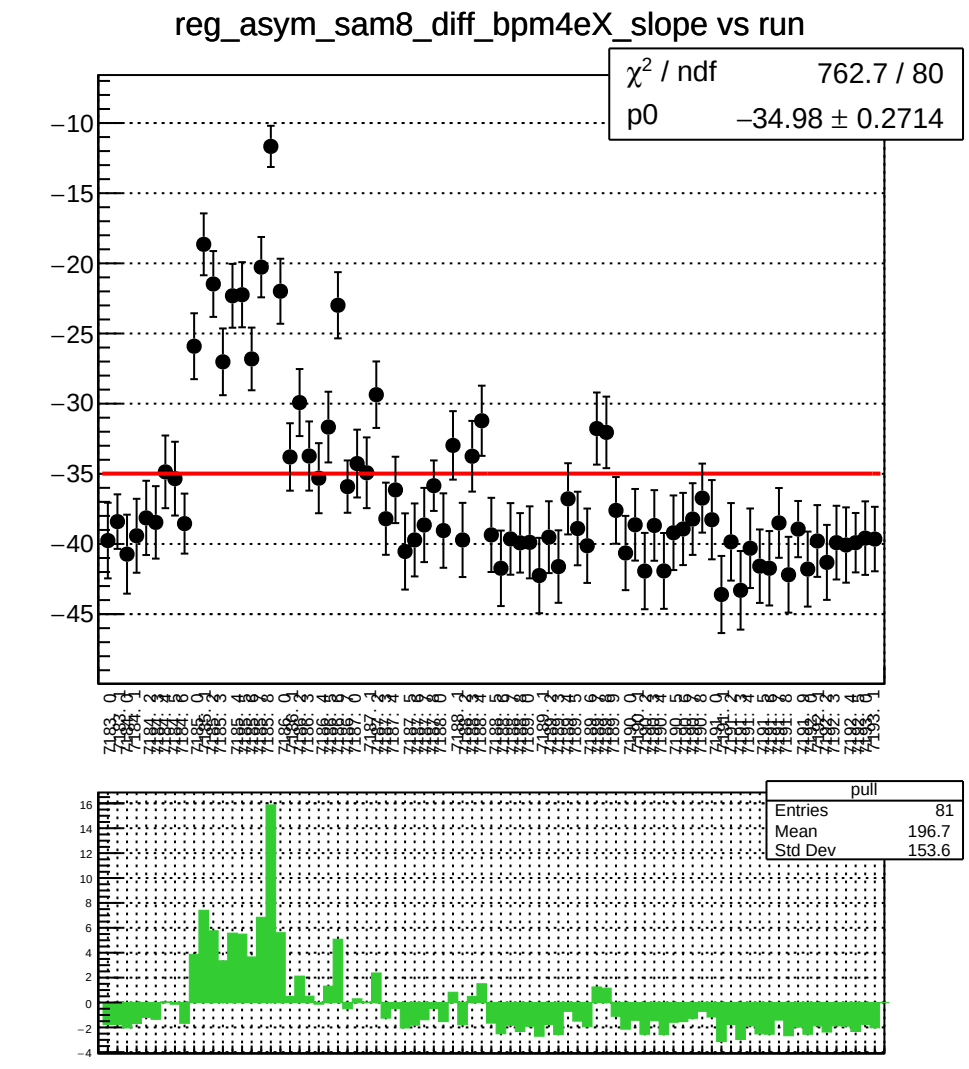

reg_asym_sam7_diff_bpm12X_slope vs run
χ^2 / ndf 10.86 / 80
p0 0.4838 ± 0.01077
pull
Entries 81
Mean −1036
Std Dev 1063
pull1D
Entries 81
Mean −0.002134
Std Dev 0.3661

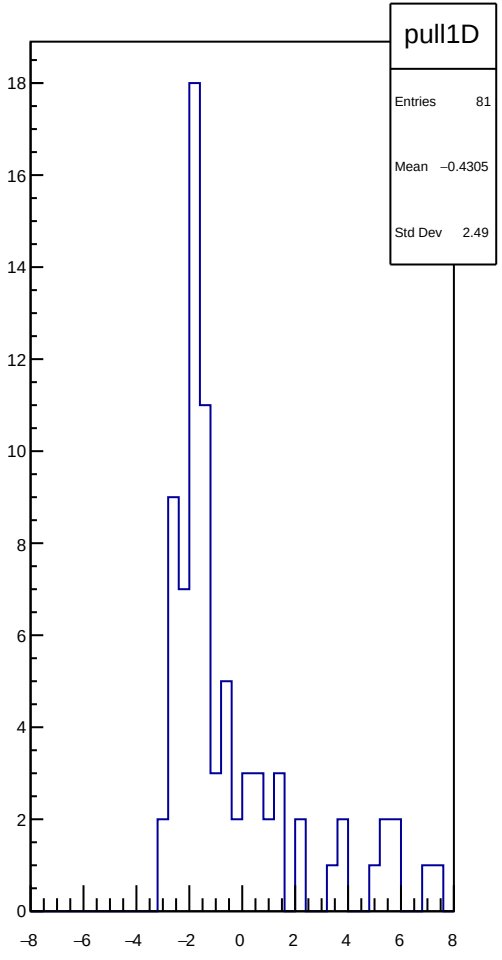

reg_asym_sam8_diff_bpm1X_slope vs run
χ² / ndf 799.7 / 80
p0 5.8 ± 0.271
pull
Entries 81
Mean 203.9
Std Dev 160.7

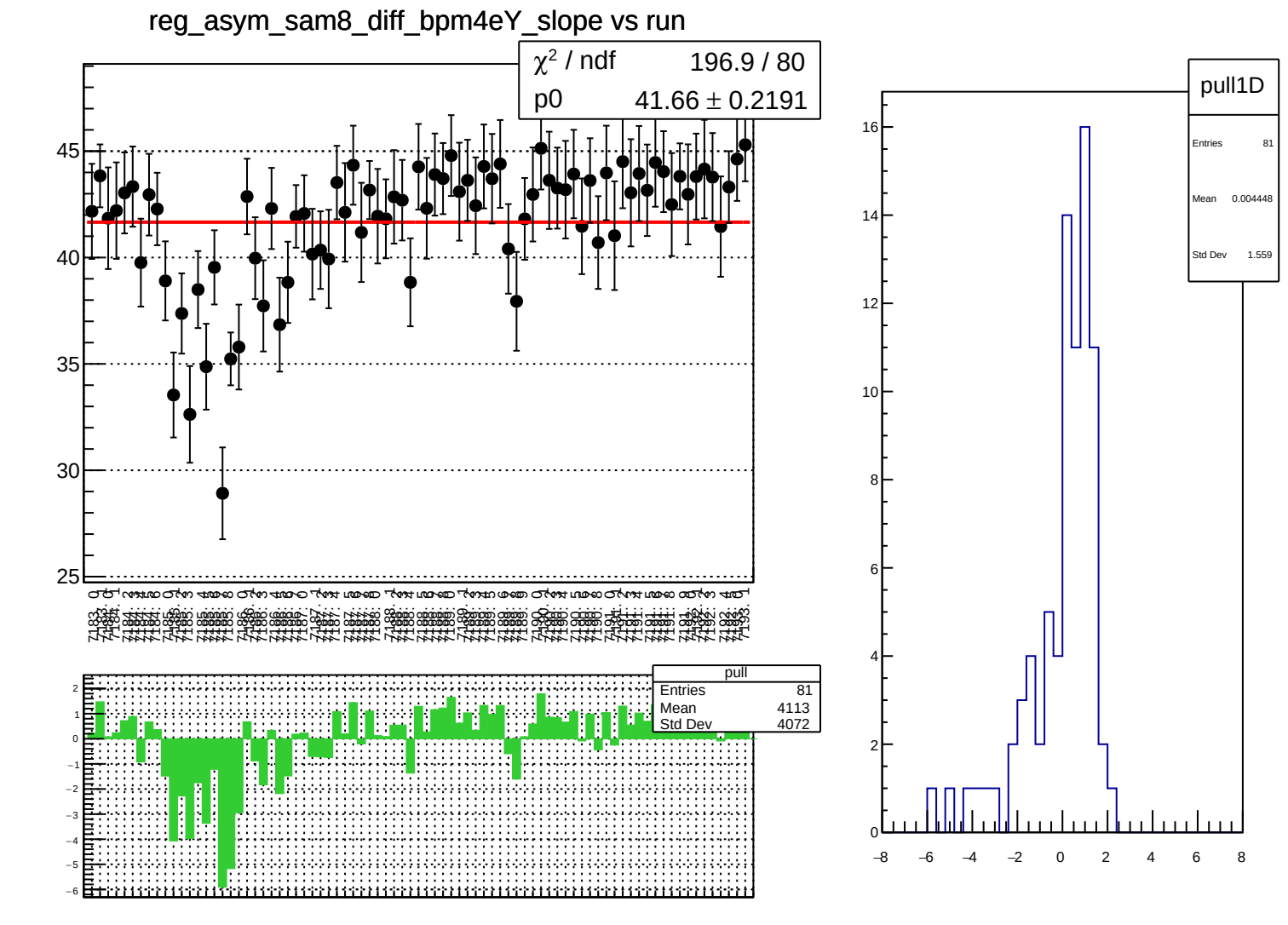

pull1D
Entries 81
Mean 0.4278
Std Dev 2.557

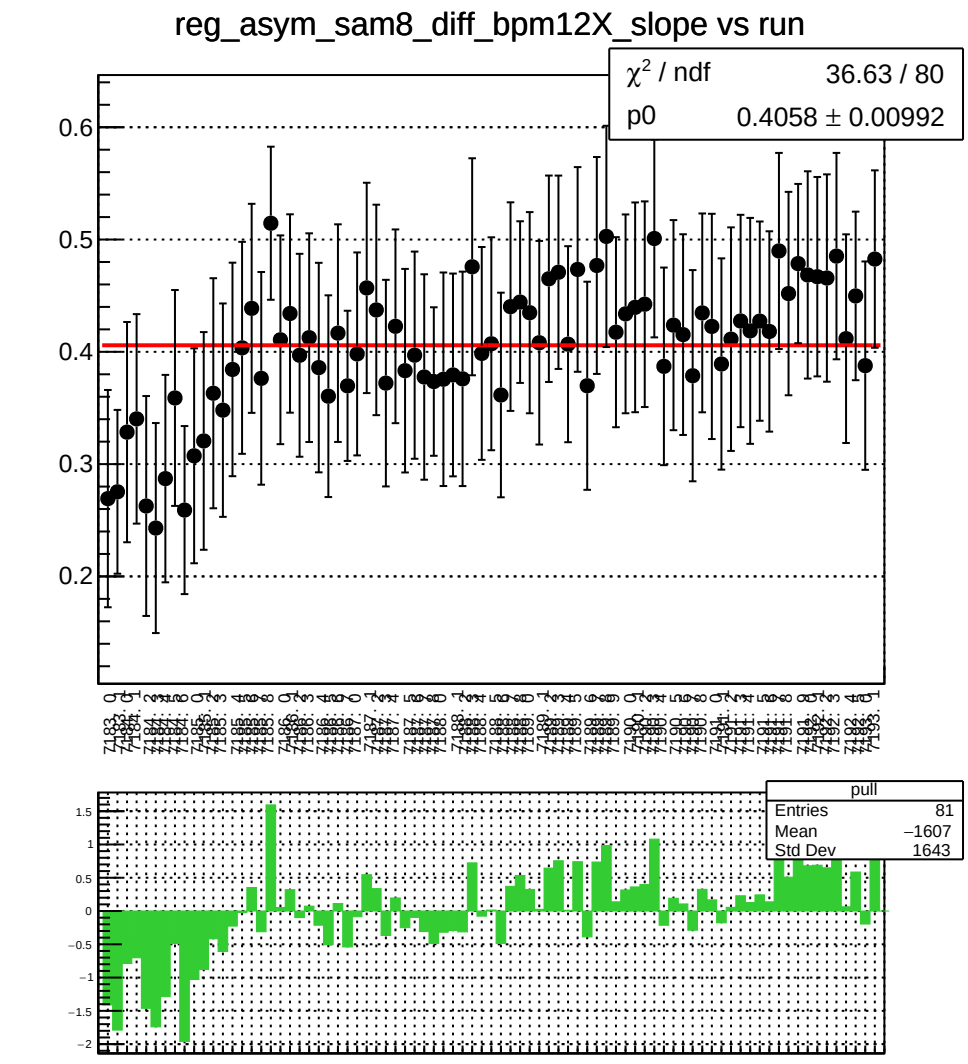

reg_asym_sam8_diff_bpm4aY_slope vs run
χ² / ndf 237.8 / 80
p0 −37.43 ± 0.2017
pull
Entries 81
Mean −407.1
Std Dev 448.4

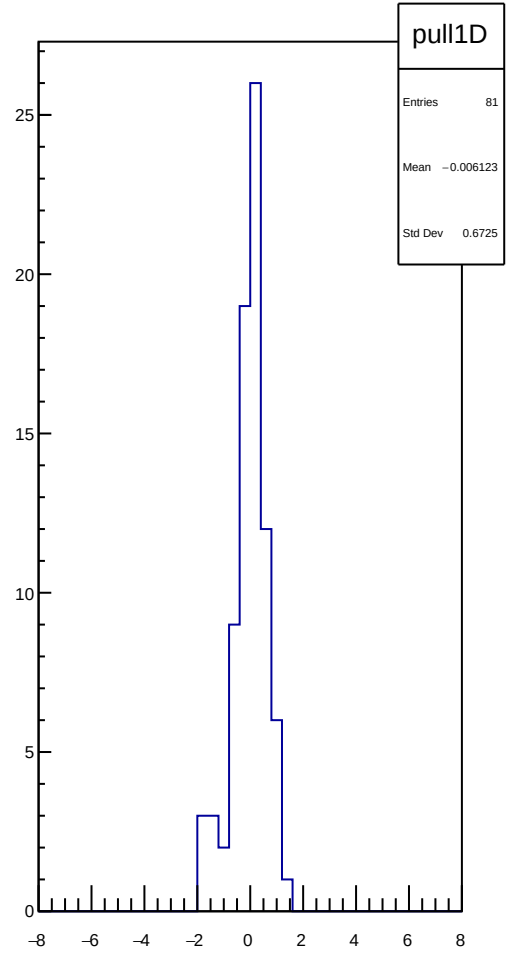

pull1D
Entries 81
Mean 0.04183
Std Dev 1.713

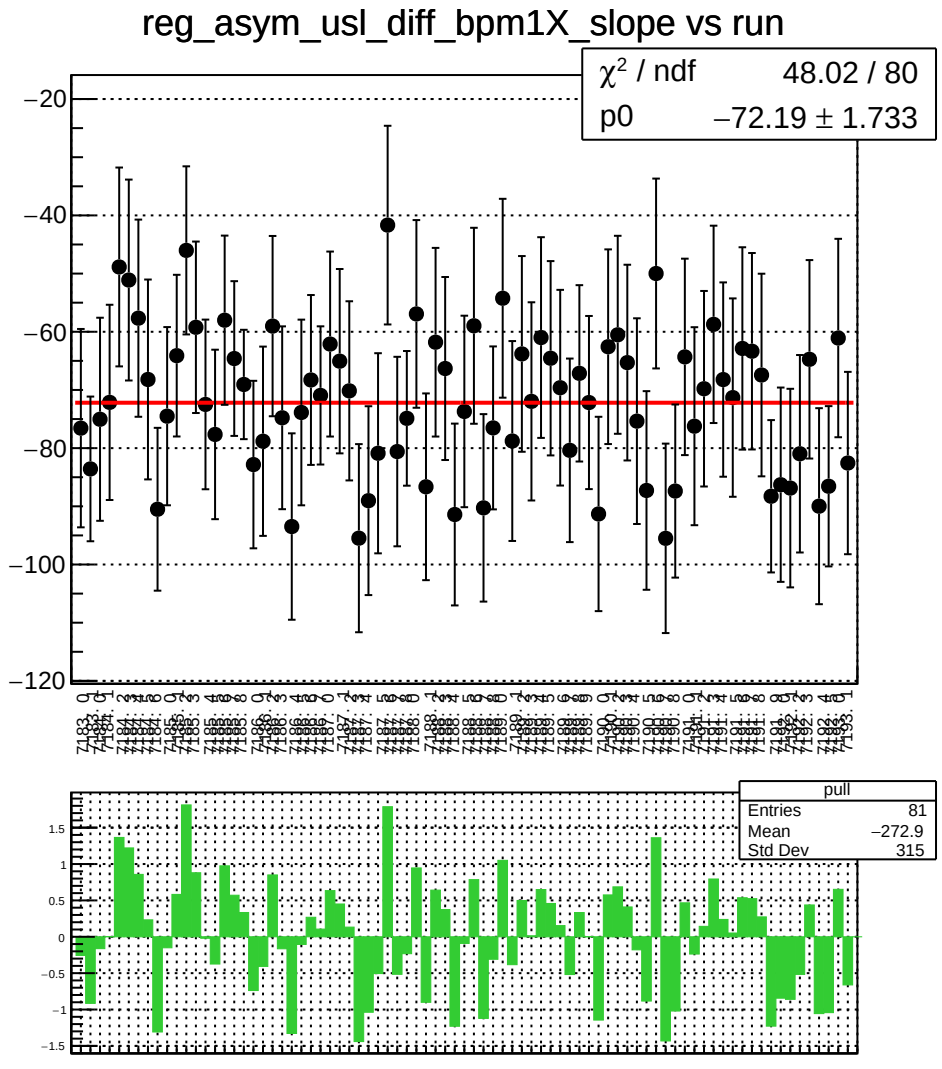

reg_asym_sam8_diff_bpm4eX_slope vs run
χ² / ndf 762.7 / 80
p0 −34.98 ± 0.2714
pull
Entries 81
Mean 196.7
Std Dev 153.6

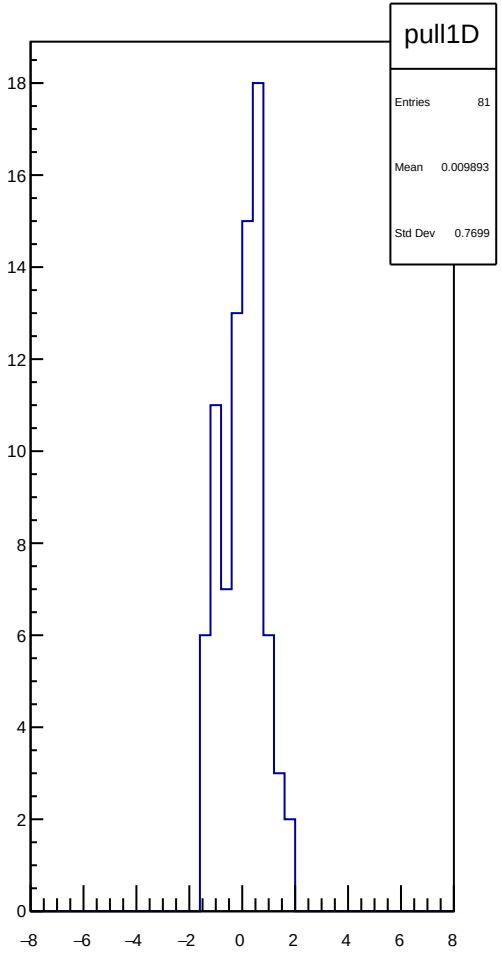

pull1D
Entries 81
Mean −0.4305
Std Dev 2.49

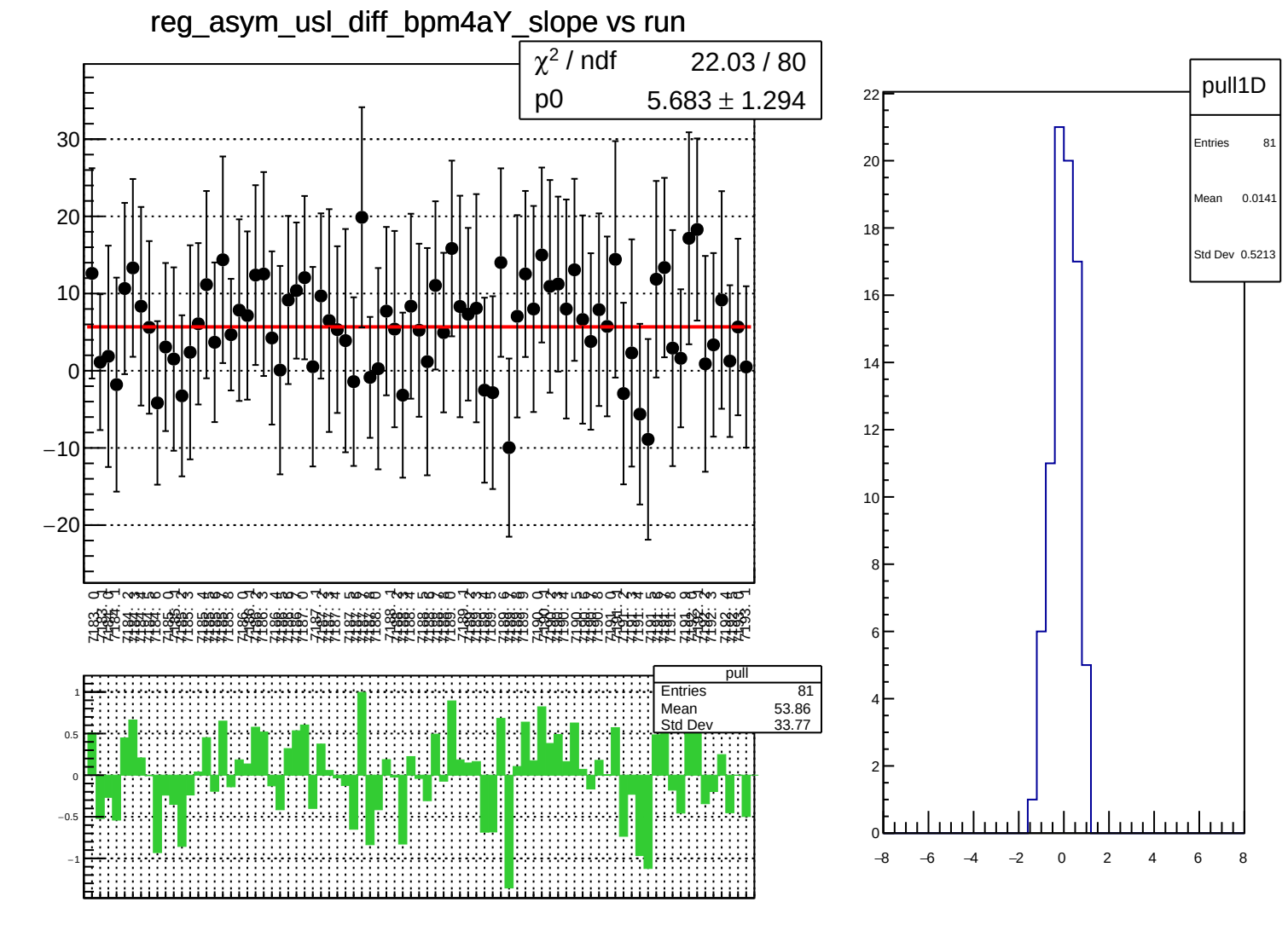

reg_asym_sam8_diff_bpm4eY_slope vs run
χ² / ndf 196.9 / 80
p0 41.66 ± 0.2191
pull
Entries 81
Mean 4113
Std Dev 4072
pull1D
Entries 81
Mean 0.004448
Std Dev 1.559

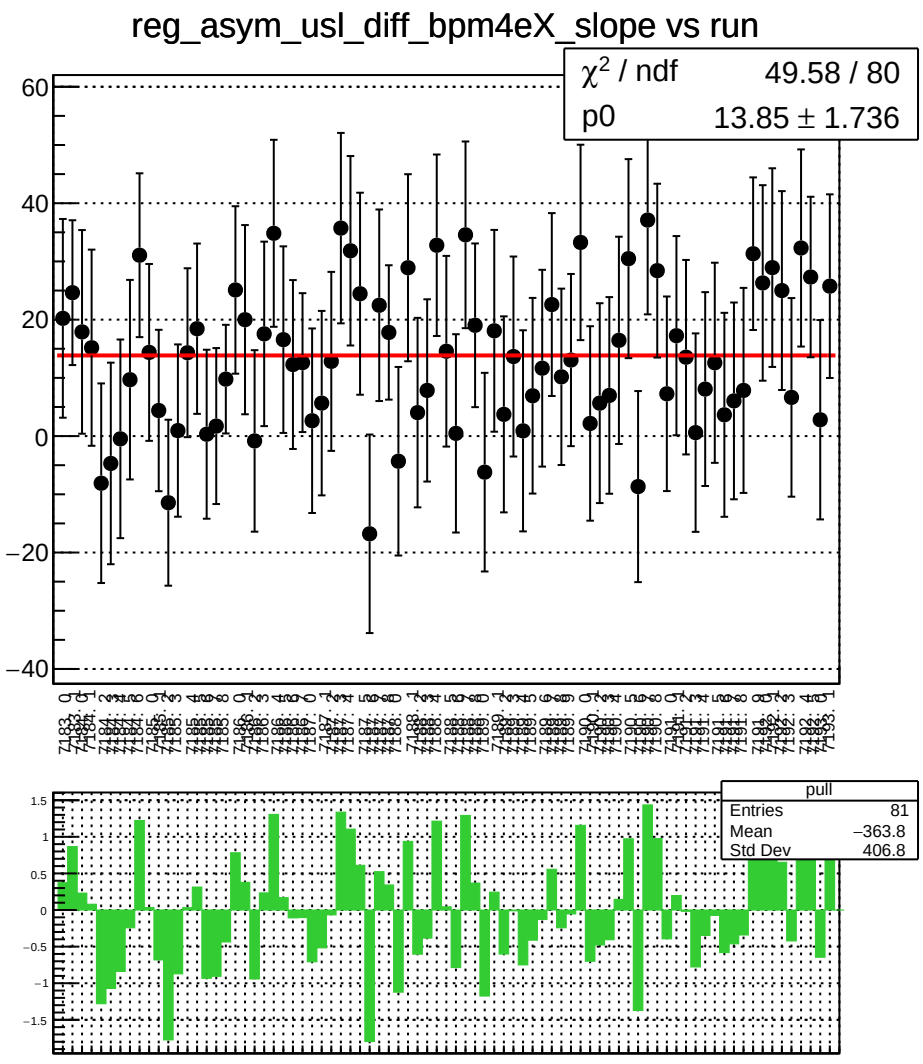

reg_asym_sam8_diff_bpm12X_slope vs run
χ² / ndf 36.63 / 80
p0 0.4058 ± 0.00992
pull
Entries 81
Mean −1607
Std Dev 1643

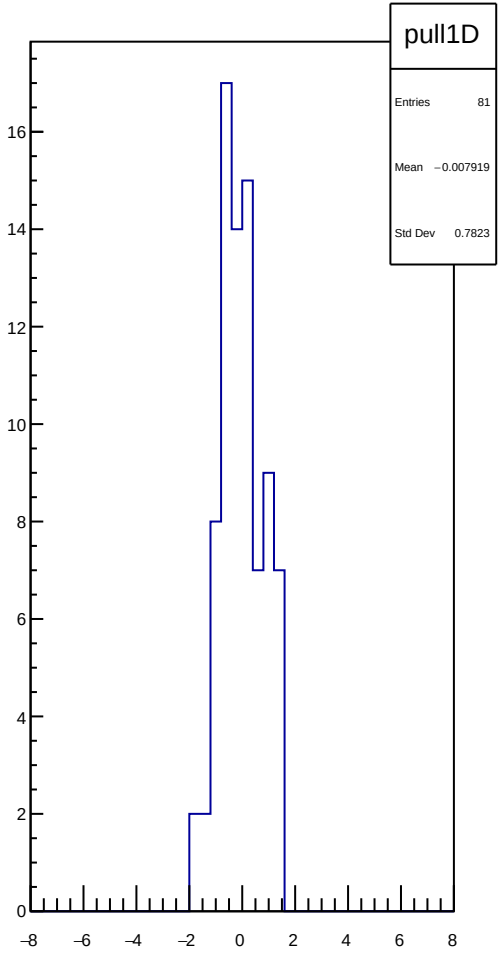

pull1D
Entries 81
Mean −0.006123
Std Dev 0.6725

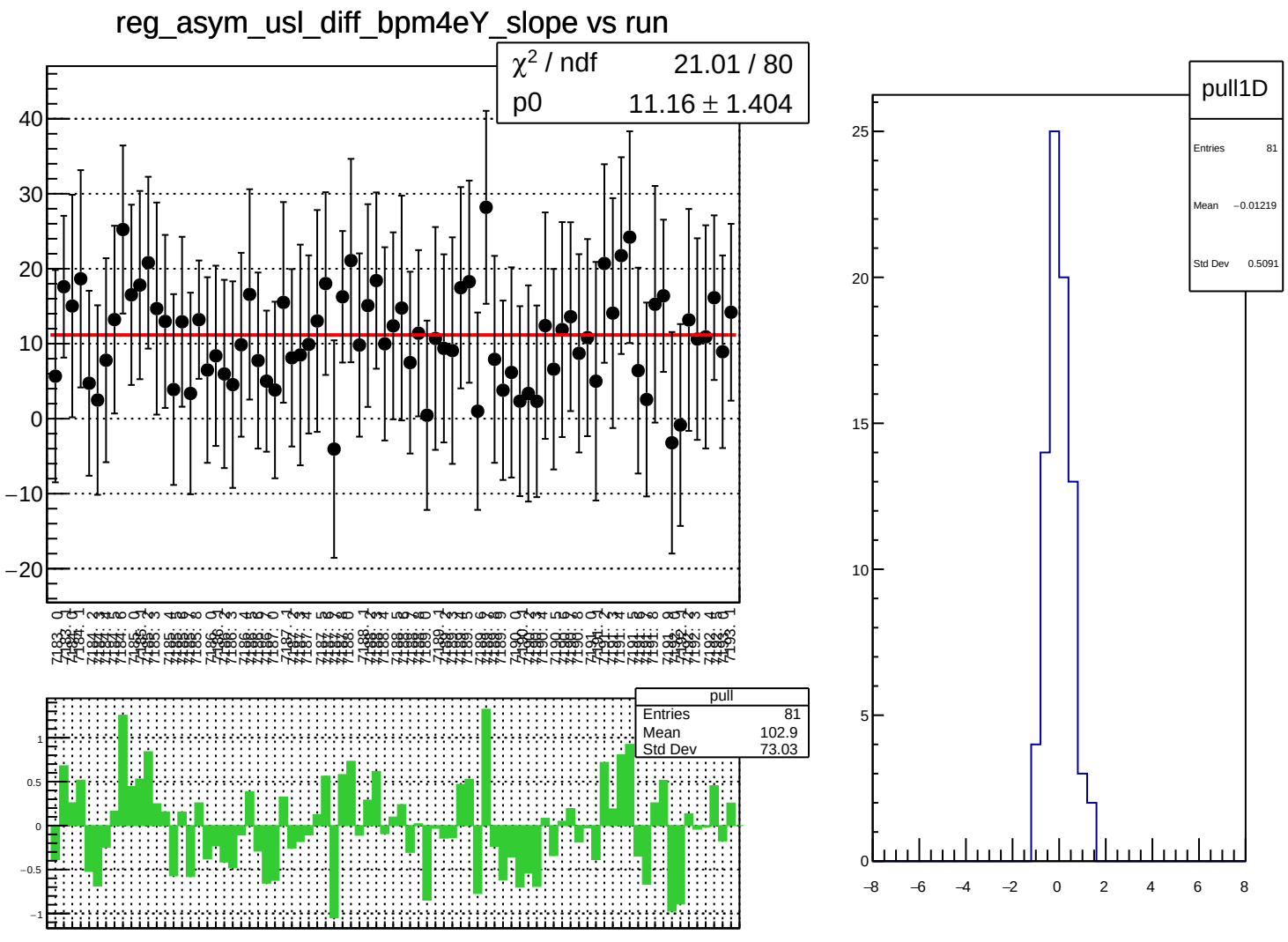

reg_asym_usl_diff_bpm1X_slope vs run
χ² / ndf 48.02 / 80
p0 −72.19 ± 1.733
pull
Entries 81
Mean −272.9
Std Dev 315

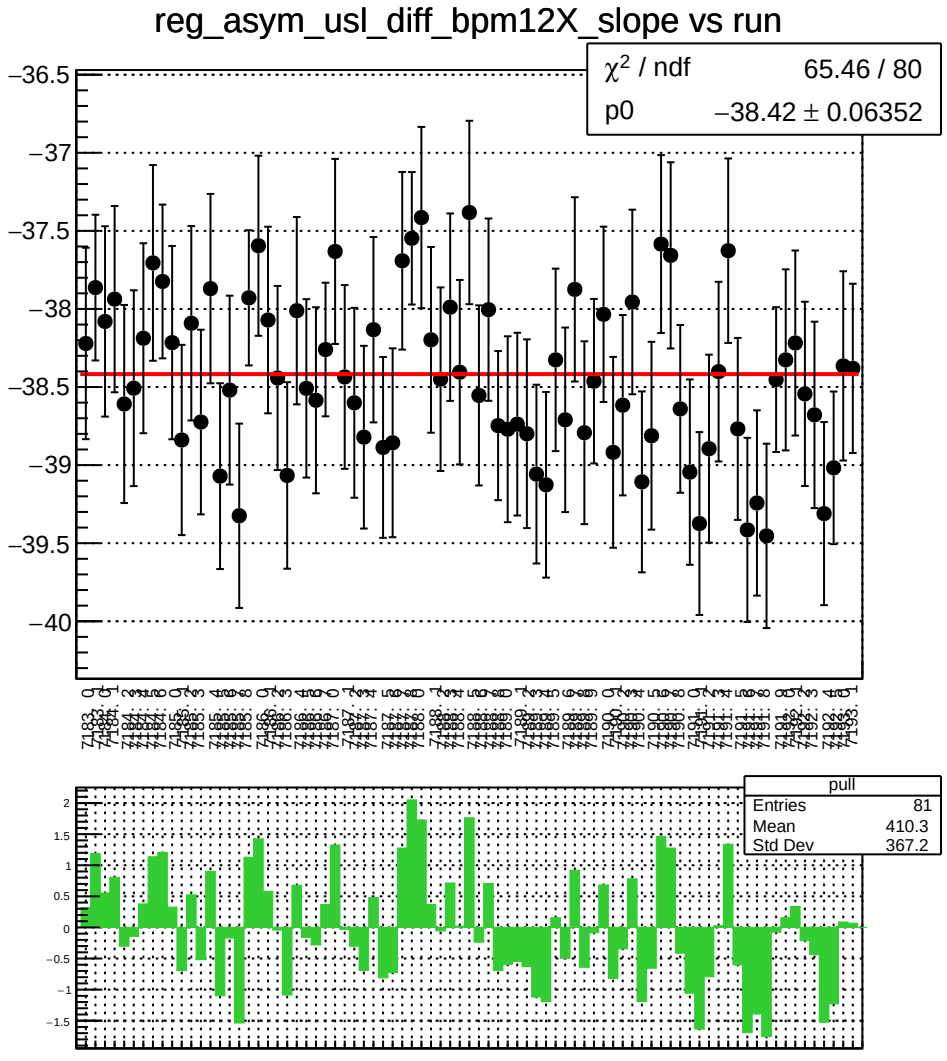

pull1D
Entries 81
Mean 0.009893
Std Dev 0.7699

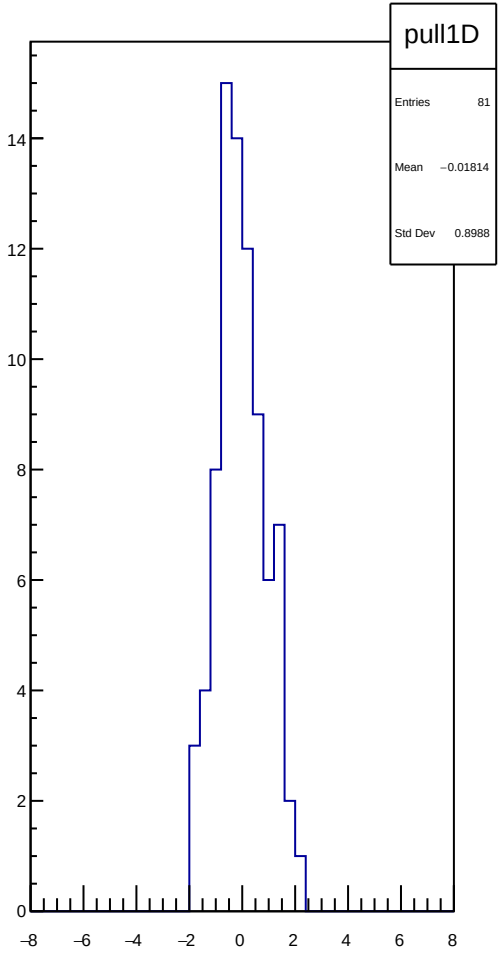

reg_asym_usl_diff_bpm4aY_slope vs run
χ² / ndf 22.03 / 80
p0 5.683 ± 1.294
pull
Entries 81
Mean 53.86
Std Dev 33.77
pull1D
Entries 81
Mean 0.0141
Std Dev 0.5213

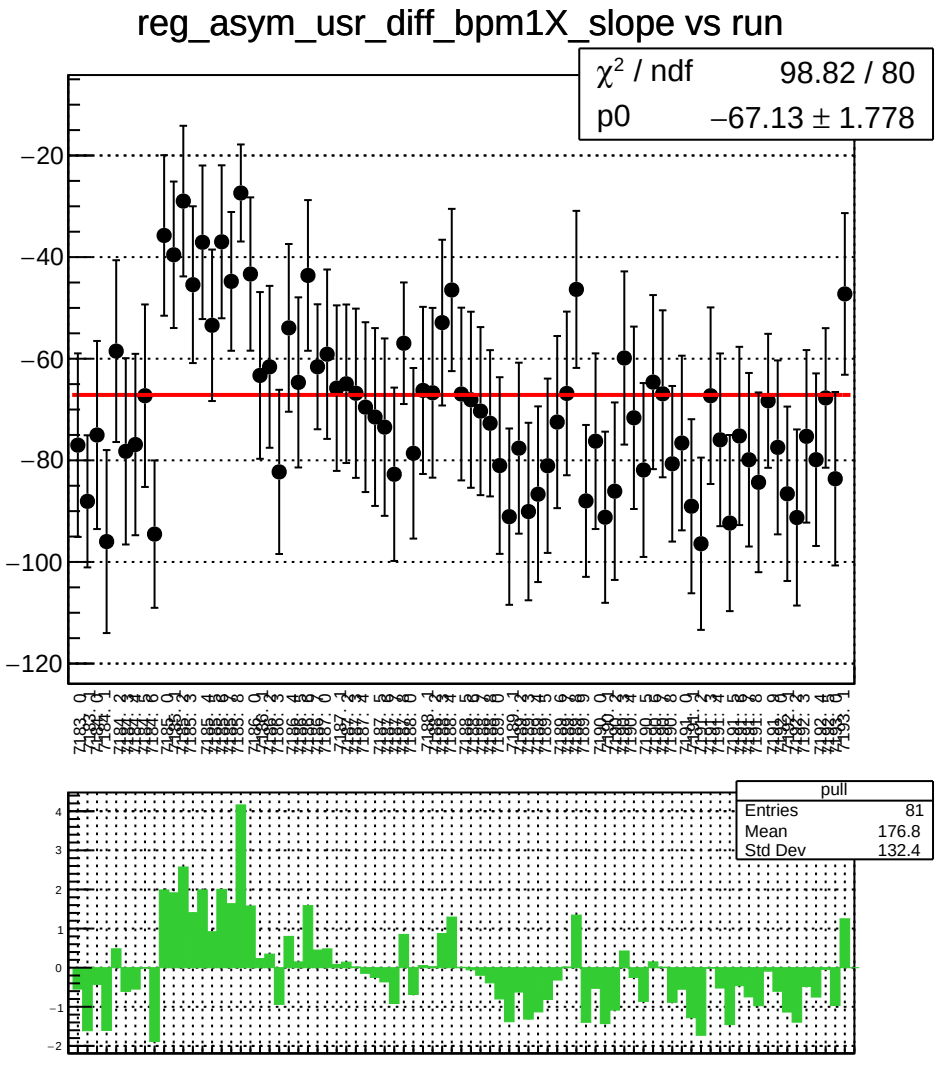

reg_asym_usl_diff_bpm4eX_slope vs run
χ² / ndf 49.58 / 80
p0 13.85 ± 1.736
pull
Entries 81
Mean −363.8
Std Dev 406.8

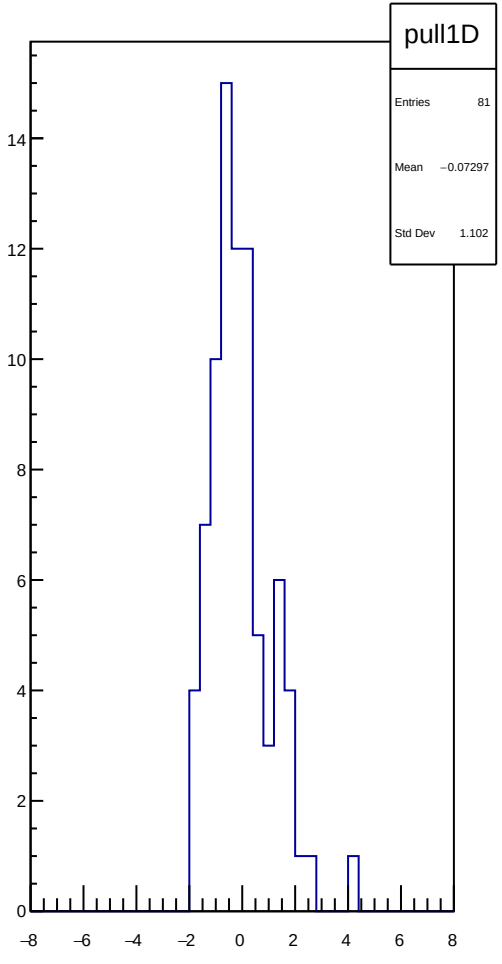

pull1D
Entries 81
Mean −0.007919
Std Dev 0.7823

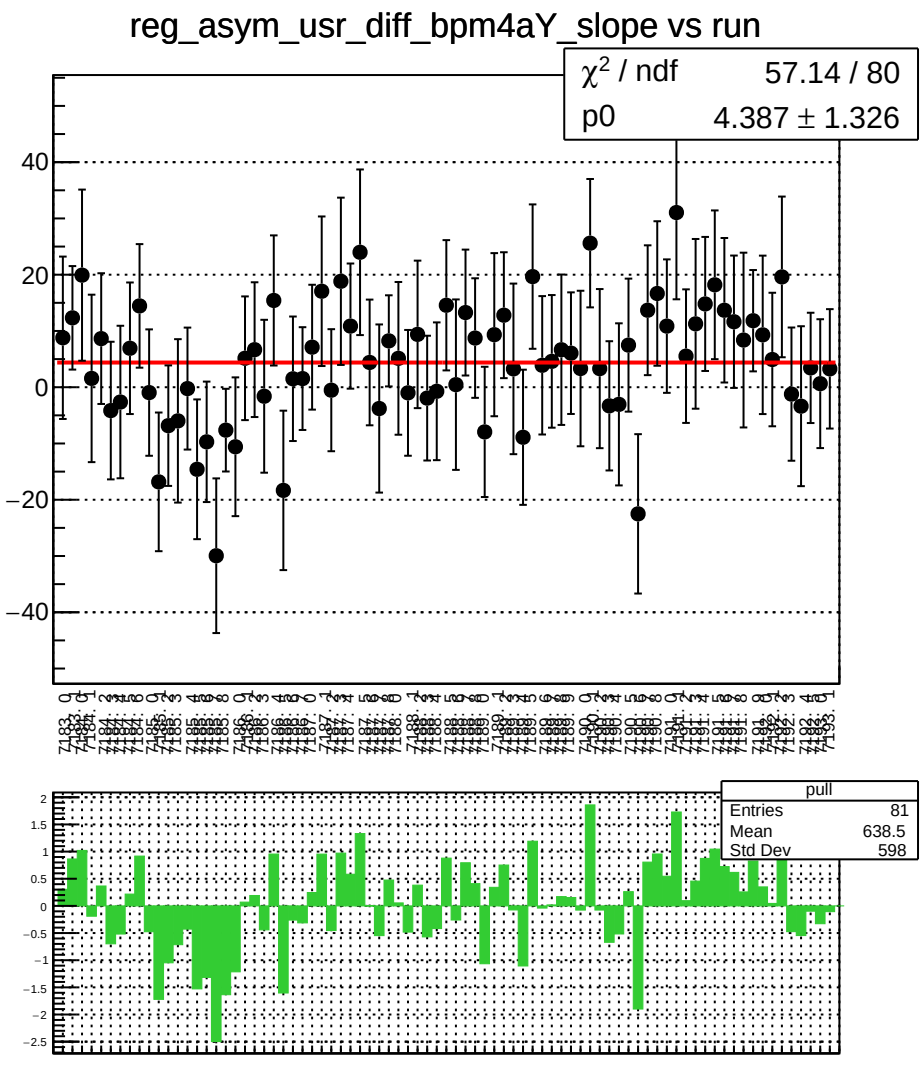

reg_asym_usl_diff_bpm4eY_slope vs run
χ² / ndf 21.01 / 80
p0 11.16 ± 1.404
pull
Entries 81
Mean 102.9
Std Dev 73.03
pull1D
Entries 81
Mean −0.01219
Std Dev 0.5091

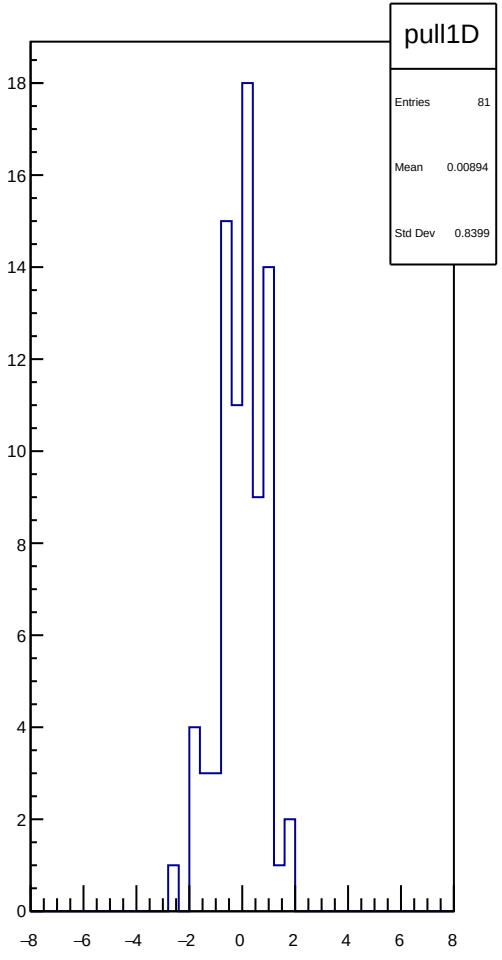

reg_asym_usl_diff_bpm12X_slope vs run
χ² / ndf 65.46 / 80
p0 −38.42 ± 0.06352
pull
Entries 81
Mean 410.3
Std Dev 367.2

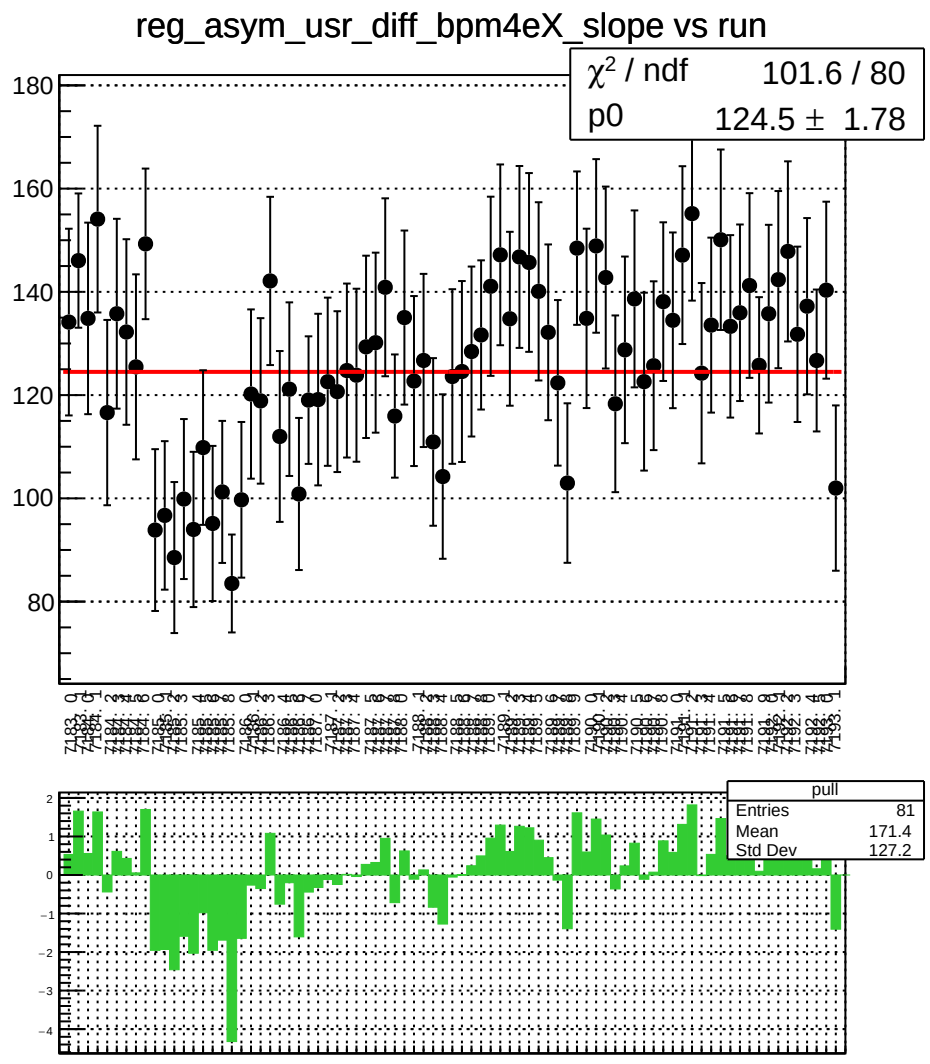

pull1D
Entries 81
Mean −0.01814
Std Dev 0.8988

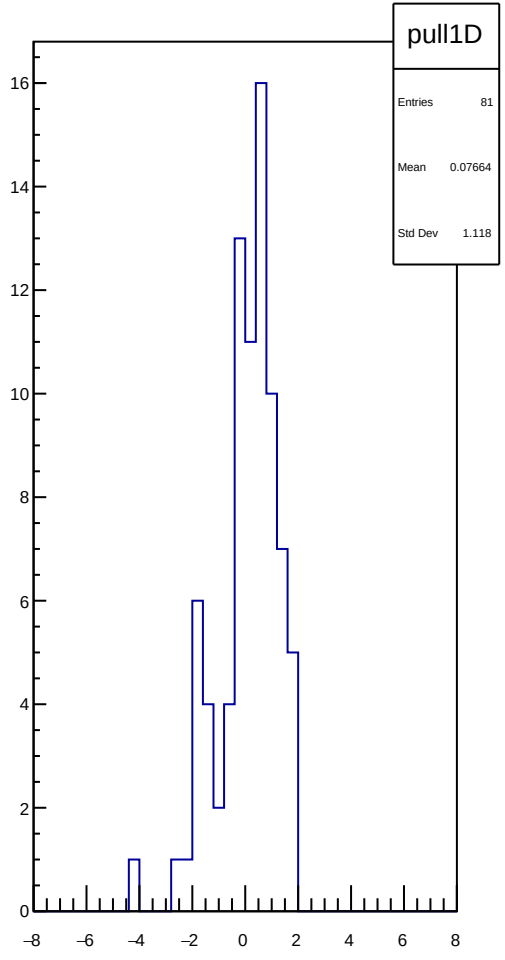

reg_asym_usr_diff_bpm1X_slope vs run
χ² / ndf 98.82 / 80
p0 −67.13 ± 1.778
pull
Entries 81
Mean 176.8
Std Dev 132.4

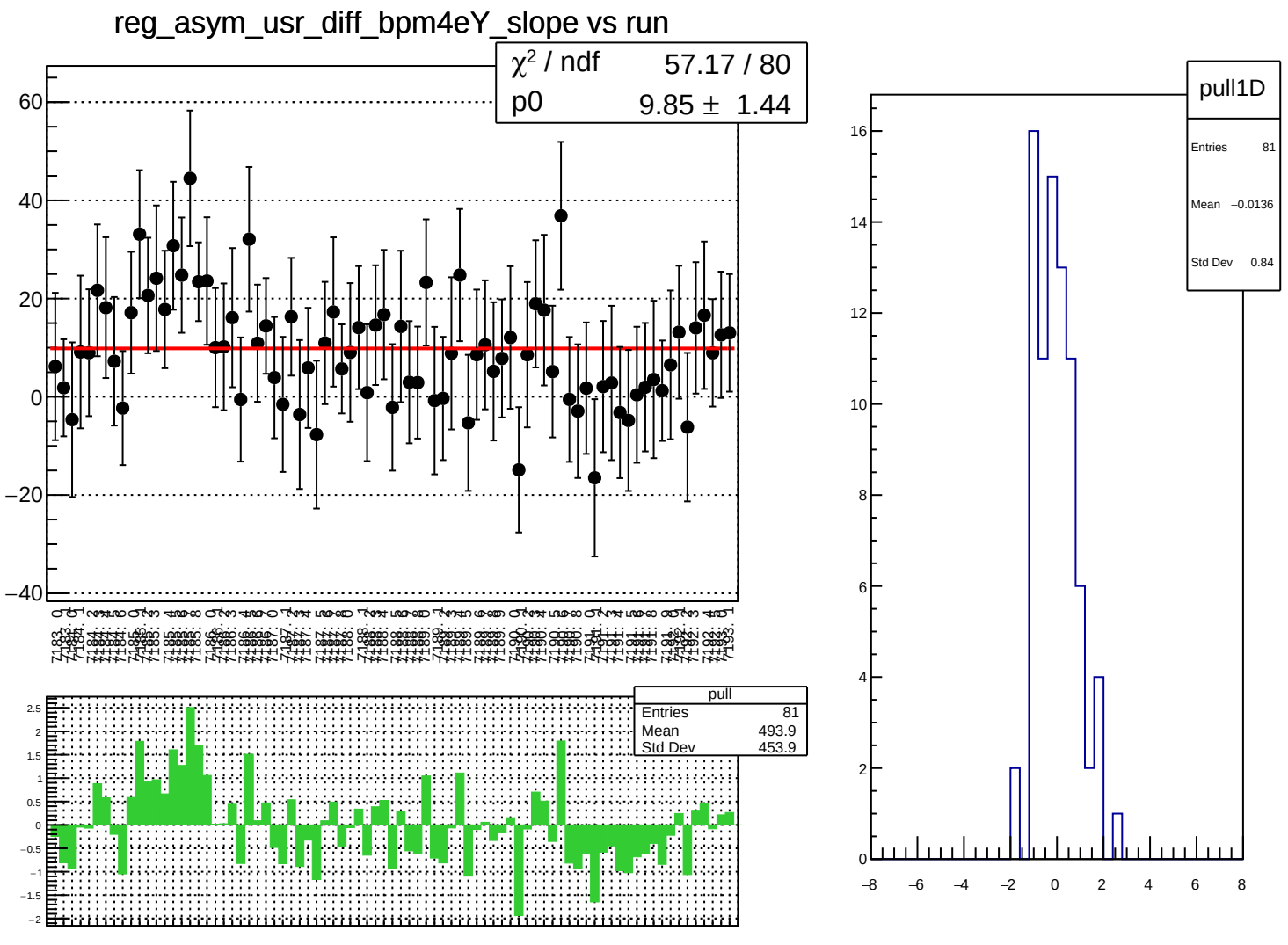

pull1D
Entries 81
Mean −0.07297
Std Dev 1.102

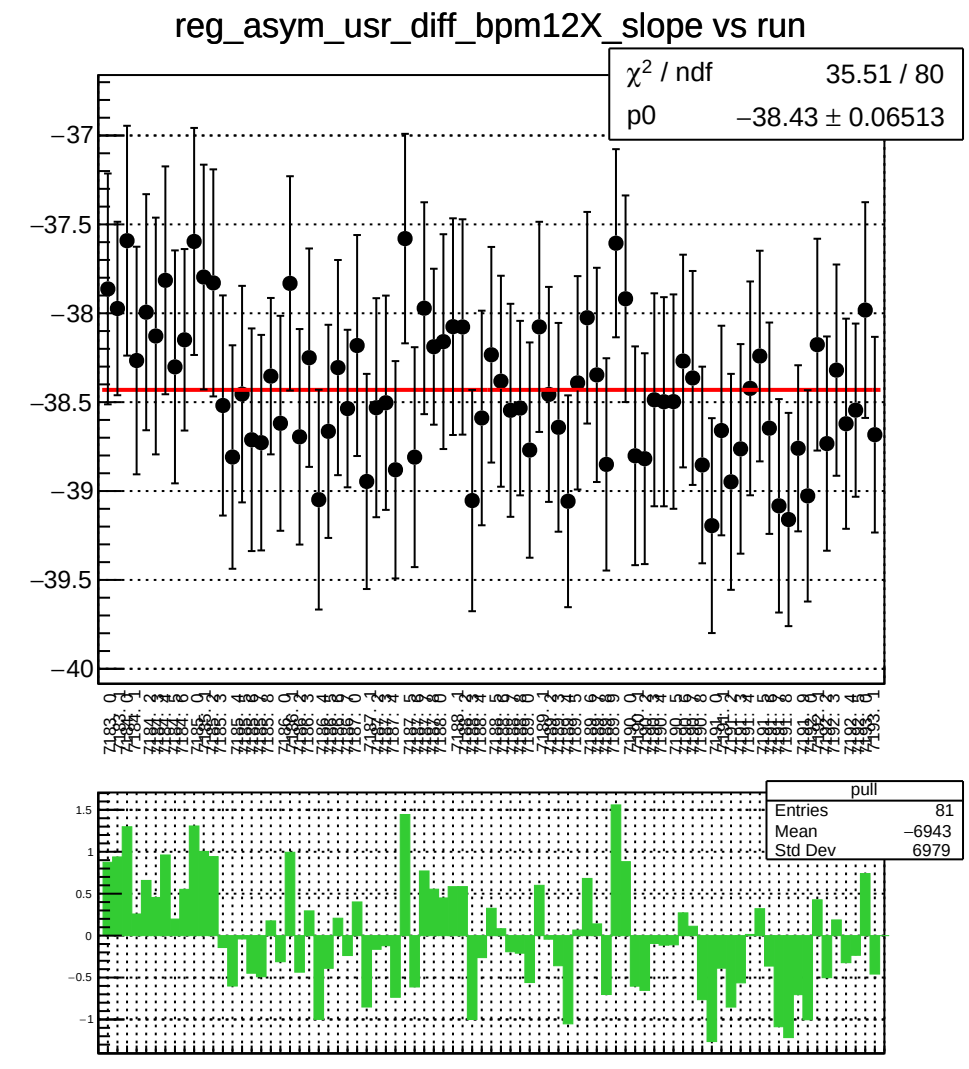

reg_asym_usr_diff_bpm4aY_slope vs run
χ² / ndf 57.14 / 80
p0 4.387 ± 1.326
pull
Entries 81
Mean 638.5
Std Dev 598

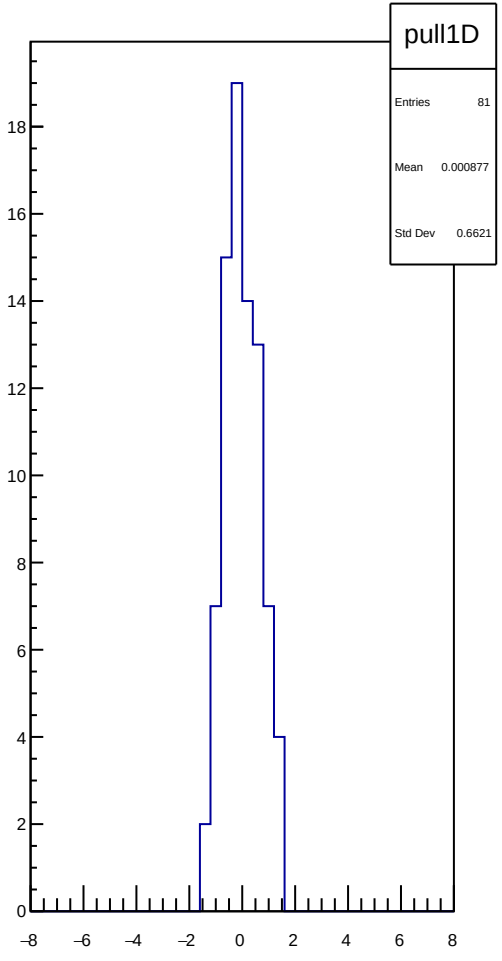

pull1D
Entries 81
Mean 0.00894
Std Dev 0.8399

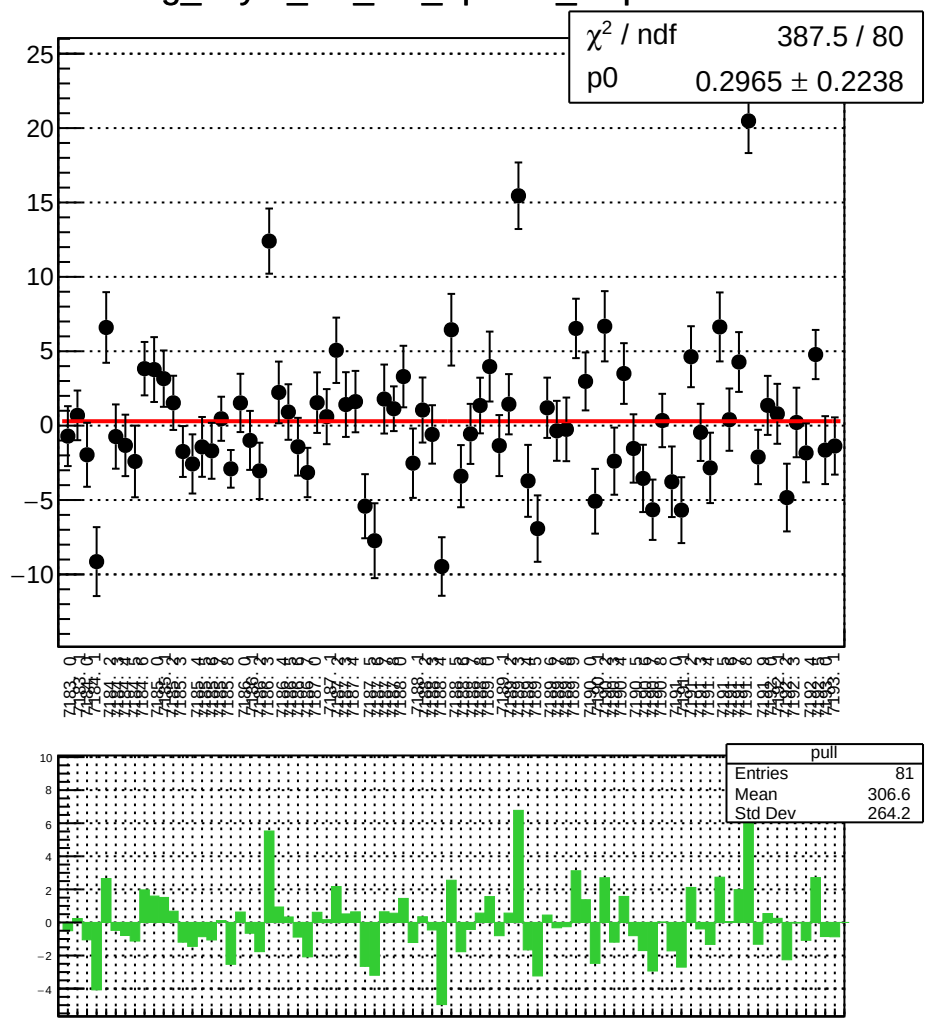

reg_asym_usr_diff_bpm4eX_slope vs run
χ² / ndf 101.6 / 80
p0 124.5 ± 1.78
180
160
140
120
100
80
pull
Entries 81
Mean 171.4
Std Dev 127.2
2
1
0
−1
−2
−3
−4

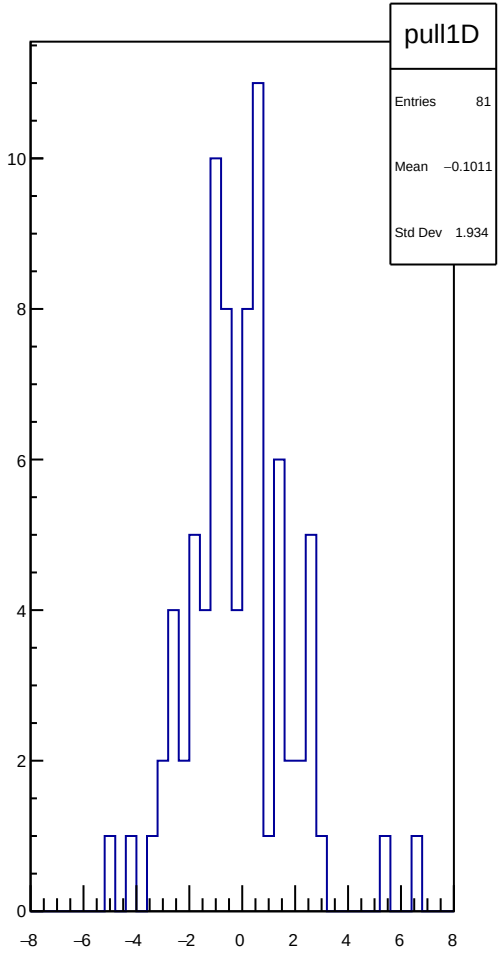

pull1D
Entries 81
Mean 0.07664
Std Dev 1.118
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

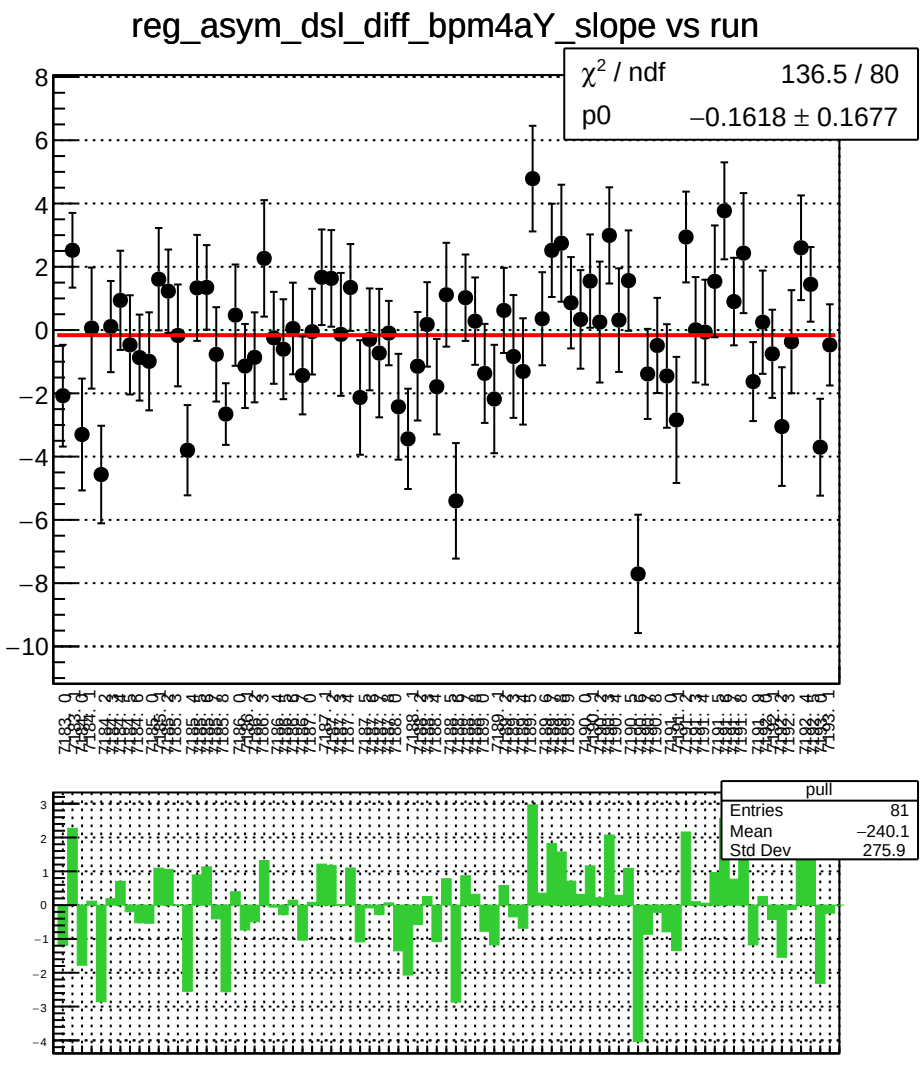

reg_asym_usr_diff_bpm4eY_slope vs run
χ² / ndf 57.17 / 80
p0 9.85 ± 1.44
pull
Entries 81
Mean 493.9
Std Dev 453.9
pull1D
Entries 81
Mean −0.0136
Std Dev 0.84

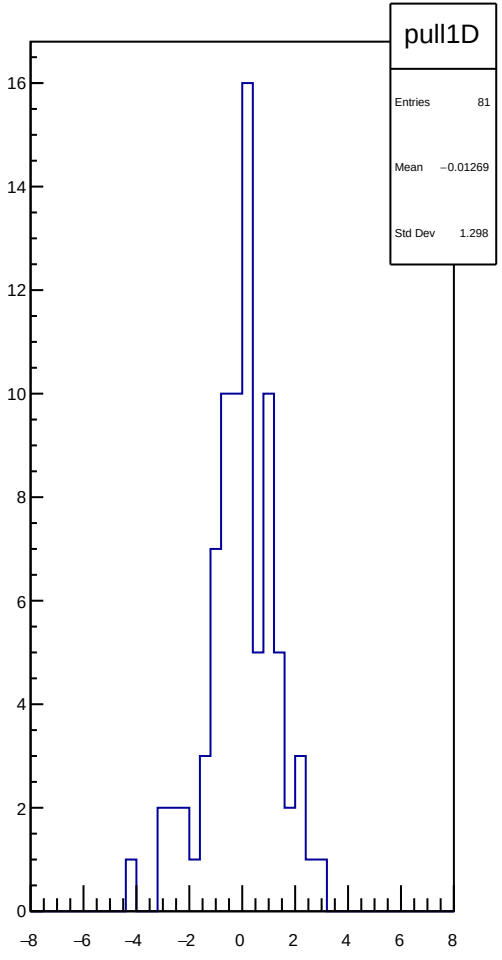

reg_asym_usr_diff_bpm12X_slope vs run
χ² / ndf 35.51 / 80
p0 −38.43 ± 0.06513
pull
Entries 81
Mean −6943
Std Dev 6979

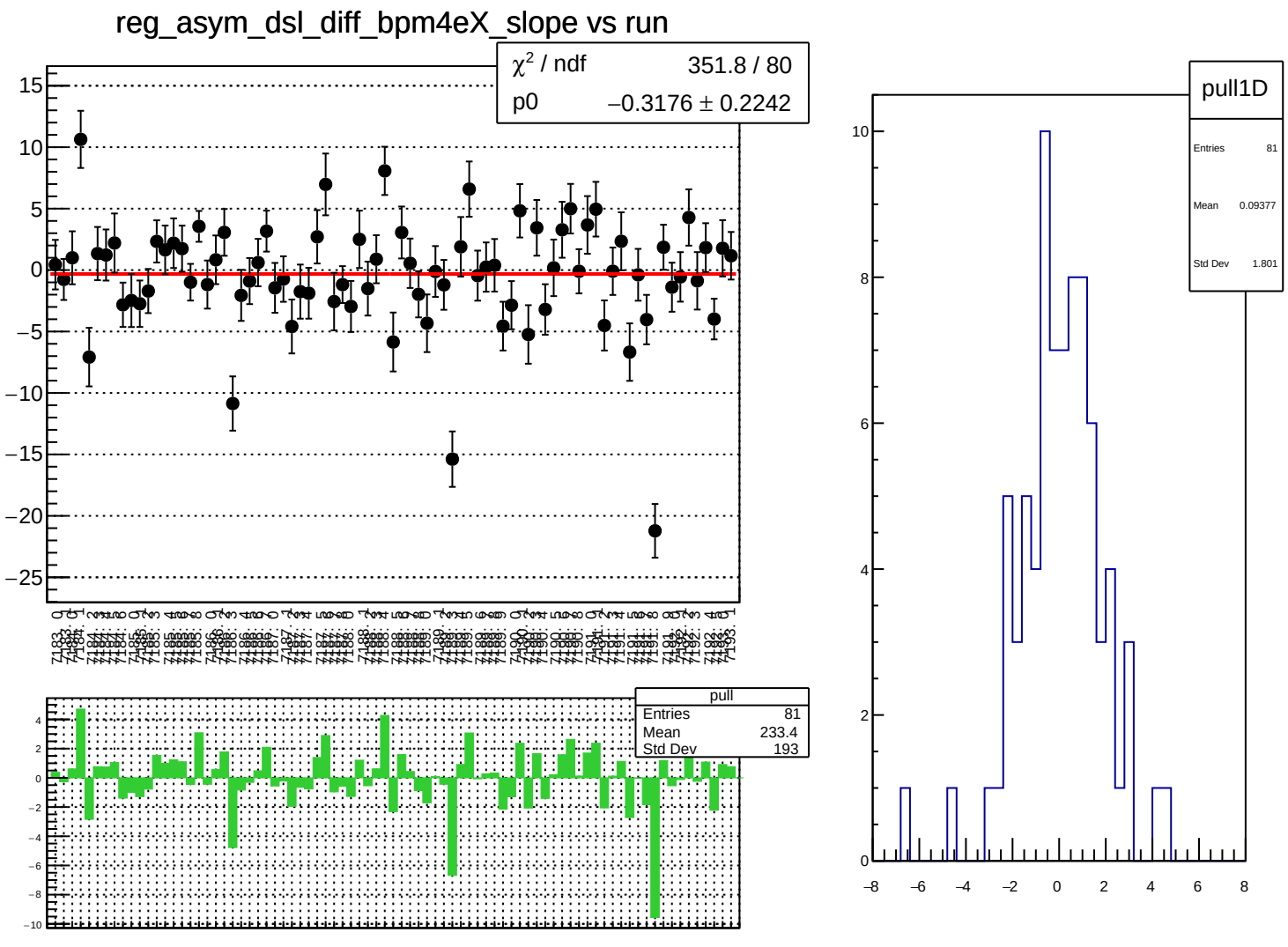

pull1D
Entries 81
Mean 0.000877
Std Dev 0.6621

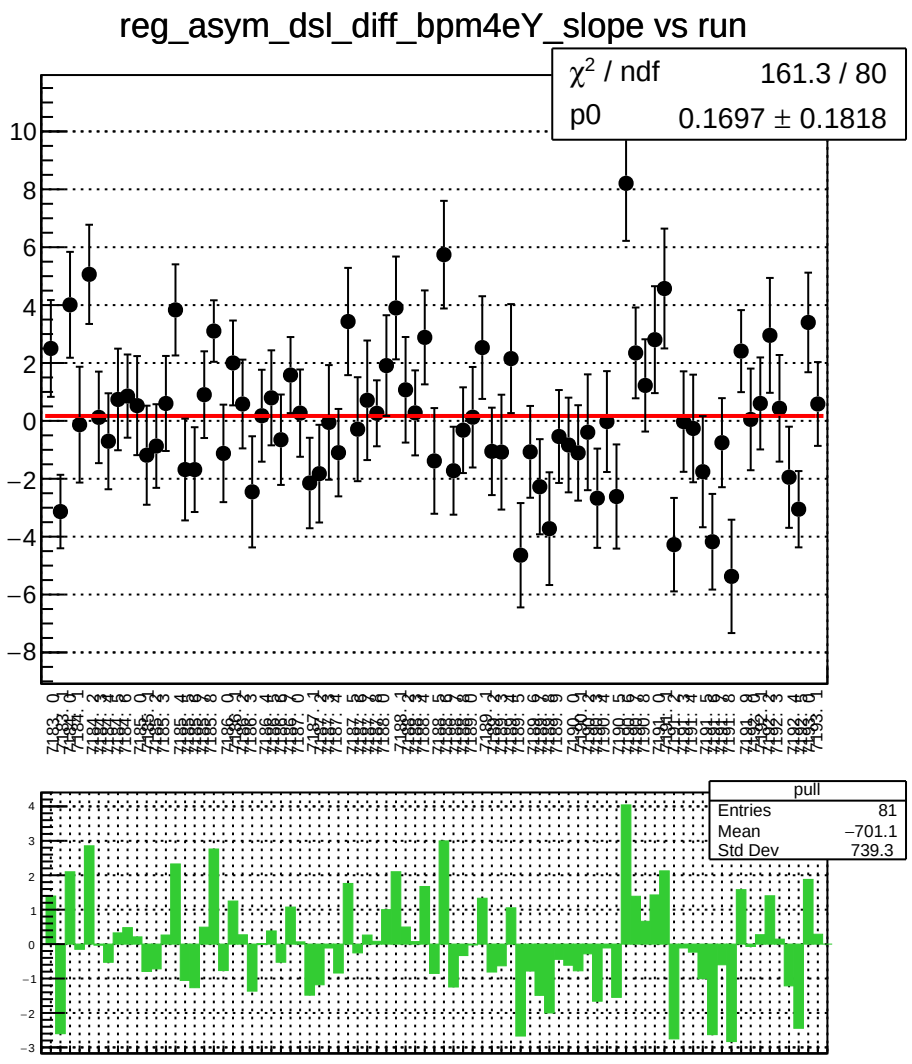

reg_asym_dsl_diff_bpm1X_slope vs run
χ² / ndf 387.5 / 80
p0 0.2965 ± 0.2238
pull
Entries 81
Mean 306.6
Std Dev 264.2

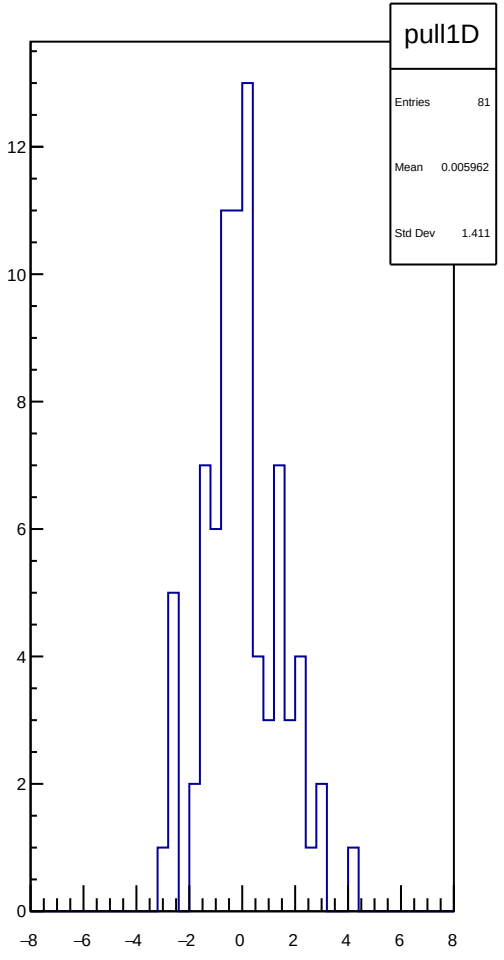

pull1D
Entries 81
Mean −0.1011
Std Dev 1.934

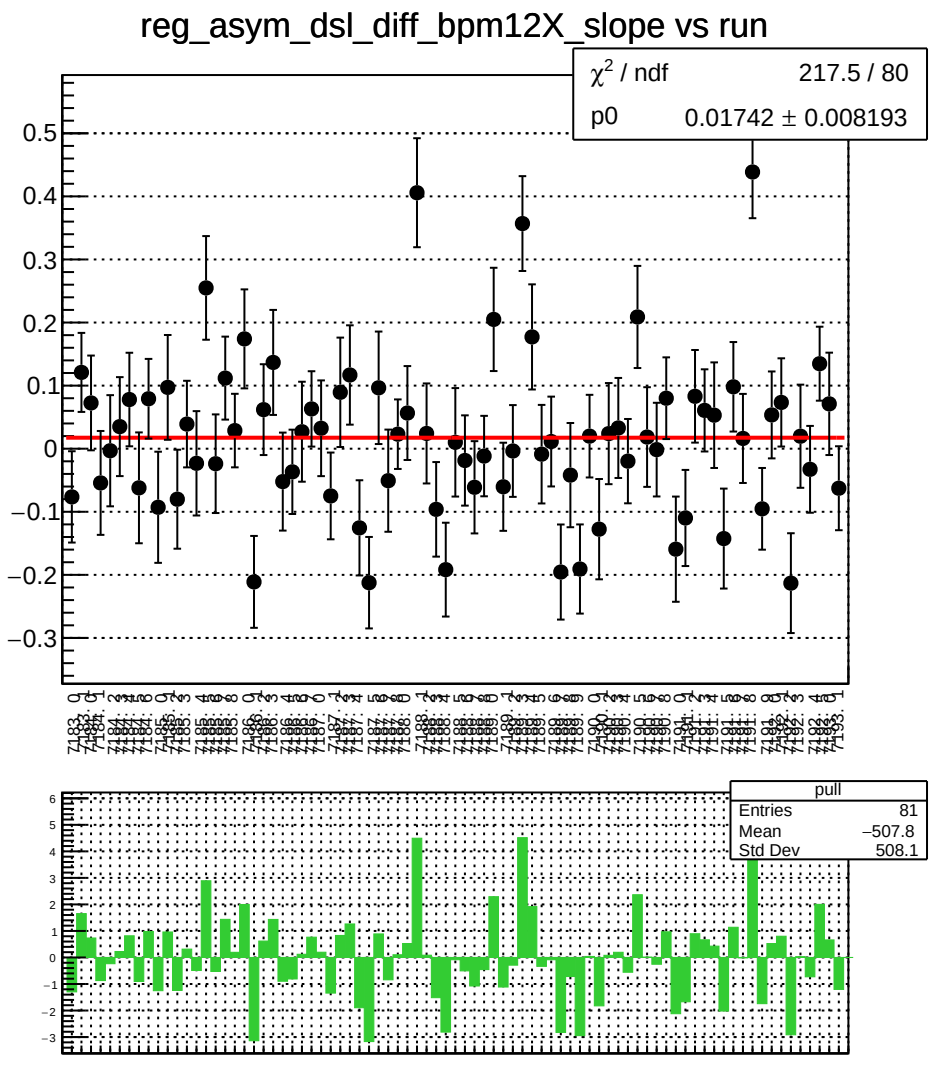

reg_asym_dsl_diff_bpm4aY_slope vs run
χ² / ndf 136.5 / 80
p0 −0.1618 ± 0.1677
pull
Entries 81
Mean −240.1
Std Dev 275.9

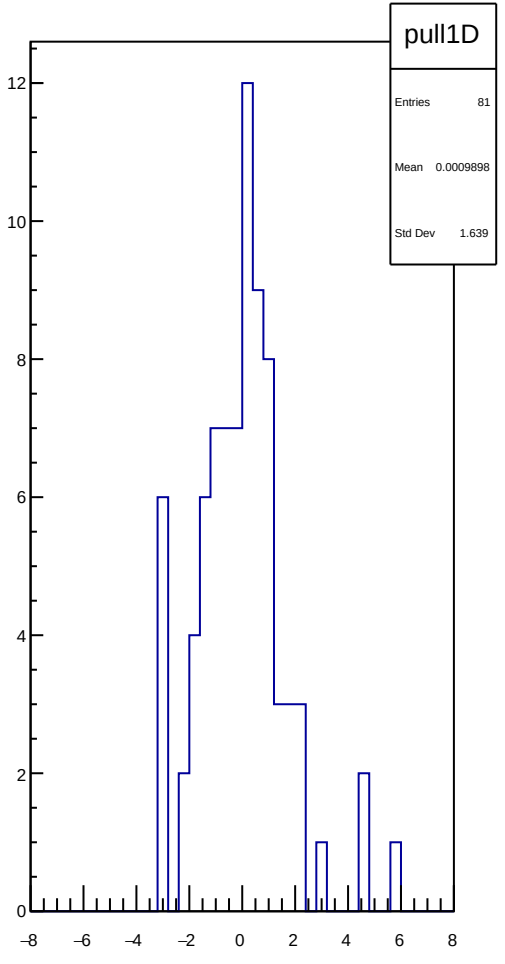

pull1D
Entries 81
Mean −0.01269
Std Dev 1.298

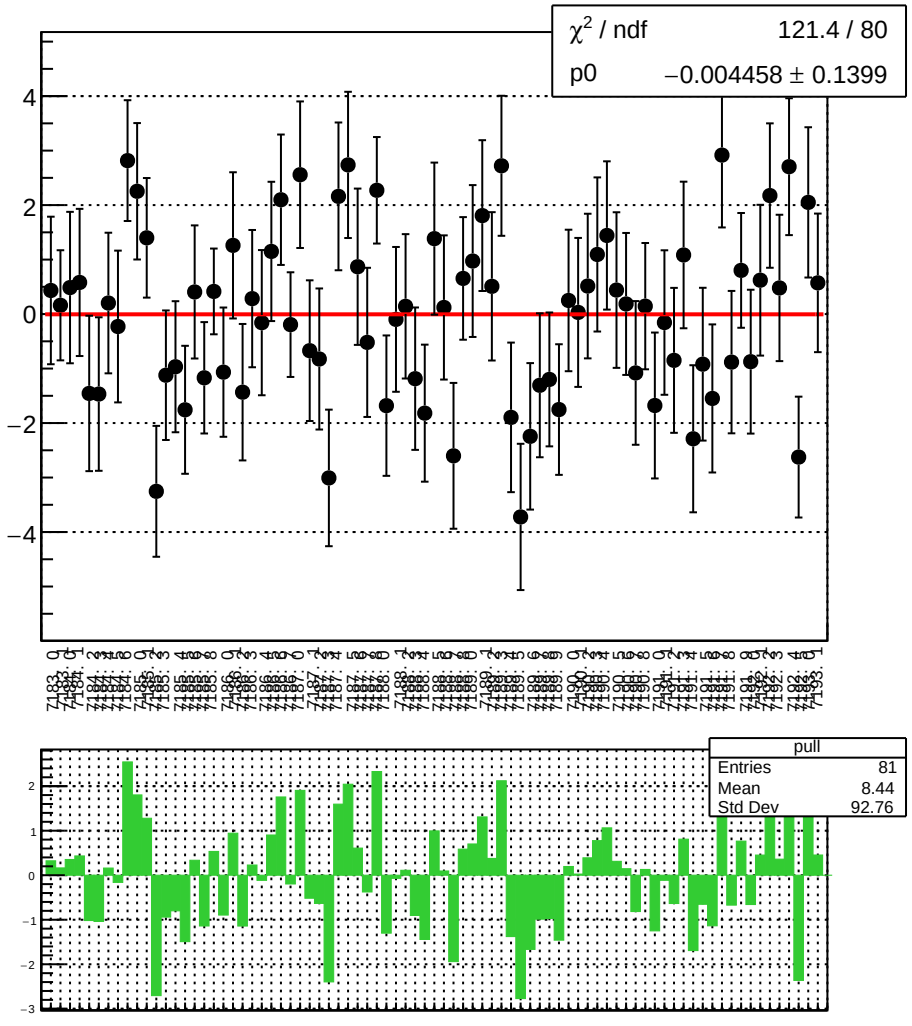

reg_asym_dsl_diff_bpm4eX_slope vs run
χ² / ndf 351.8 / 80
p0 −0.3176 ± 0.2242
pull
Entries 81
Mean 233.4
Std Dev 193
pull1D
Entries 81
Mean 0.09377
Std Dev 1.801

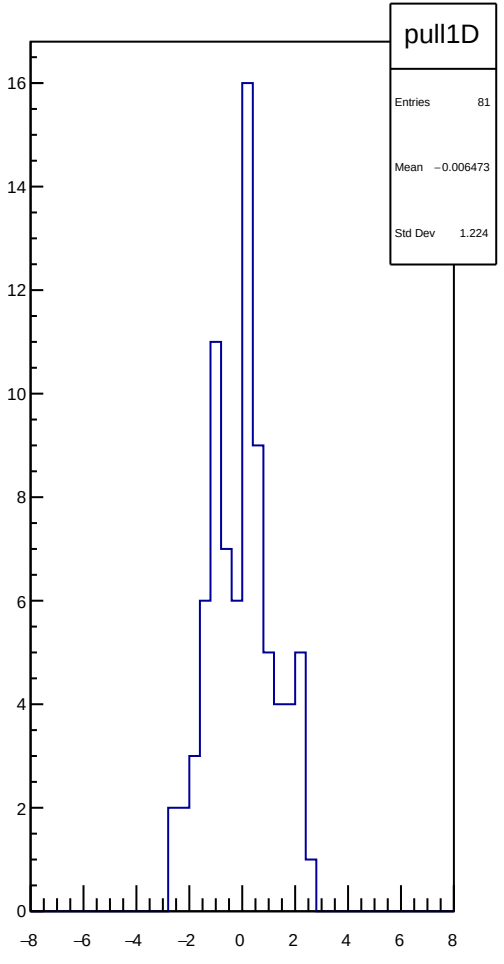

reg_asym_dsl_diff_bpm4eY_slope vs run
χ² / ndf 161.3 / 80
p0 0.1697 ± 0.1818
pull
Entries 81
Mean −701.1
Std Dev 739.3

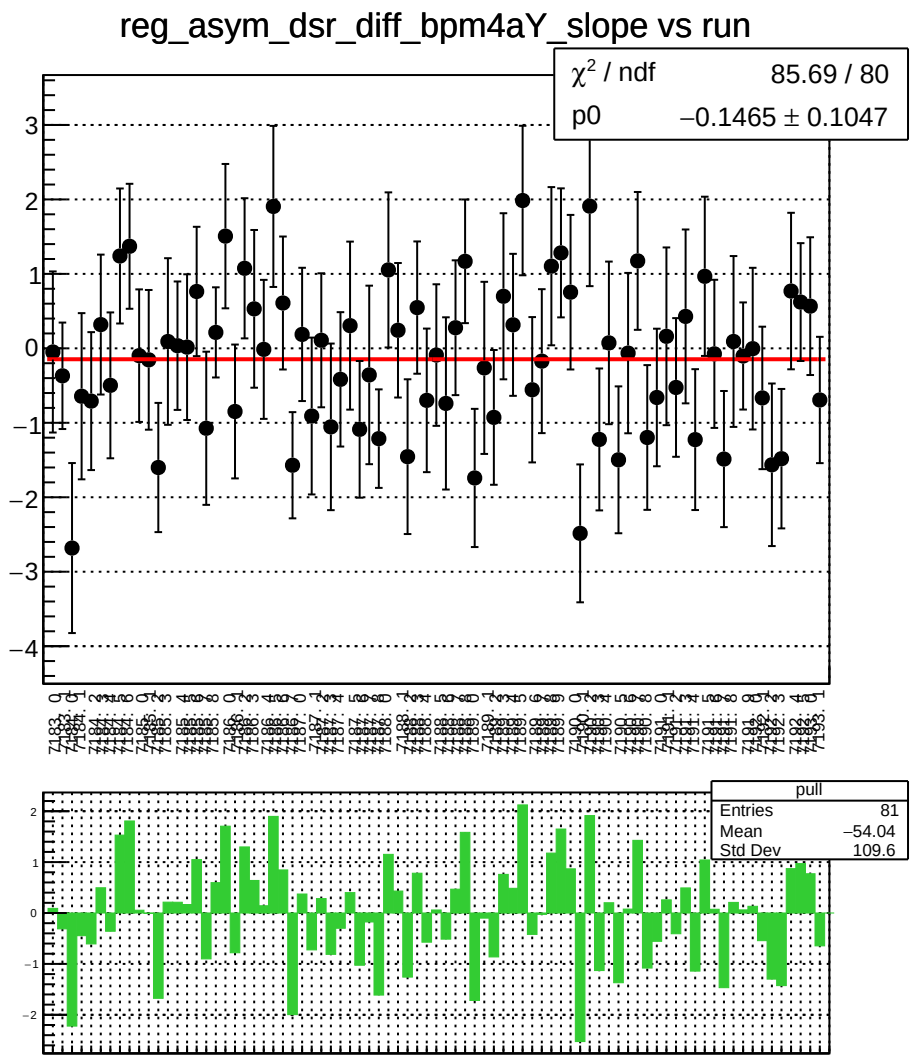

pull1D
Entries 81
Mean 0.005962
Std Dev 1.411

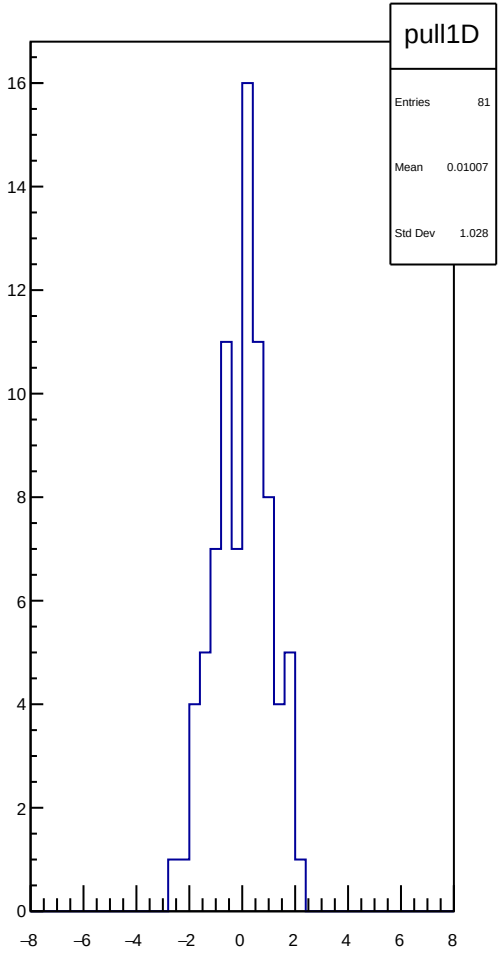

reg_asym_dsl_diff_bpm12X_slope vs run
χ² / ndf 217.5 / 80
p0 0.01742 ± 0.008193
pull
Entries 81
Mean −507.8
Std Dev 508.1

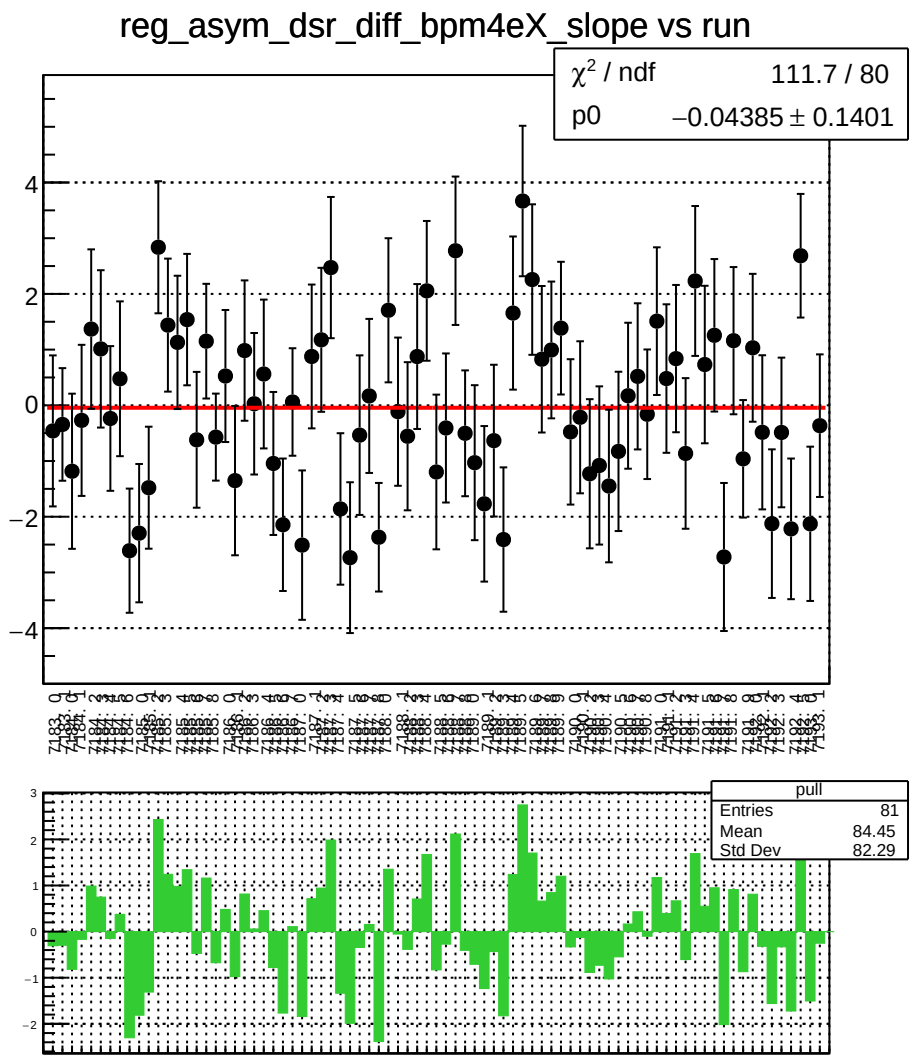

pull1D
Entries 81
Mean 0.0009898
Std Dev 1.639

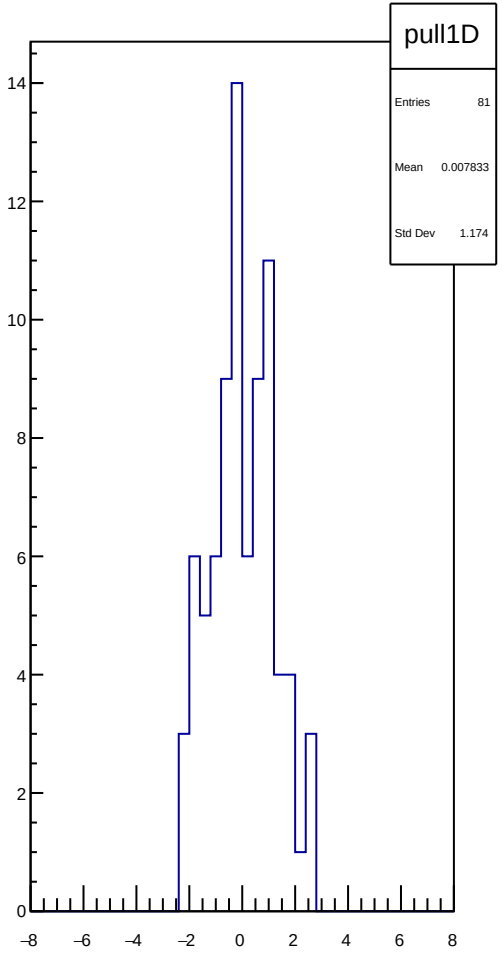

reg_asym_dsr_diff_bpm1X_slope vs run
χ² / ndf 121.4 / 80
p0 −0.004458 ± 0.1399
pull
Entries 81
Mean 8.44
Std Dev 92.76

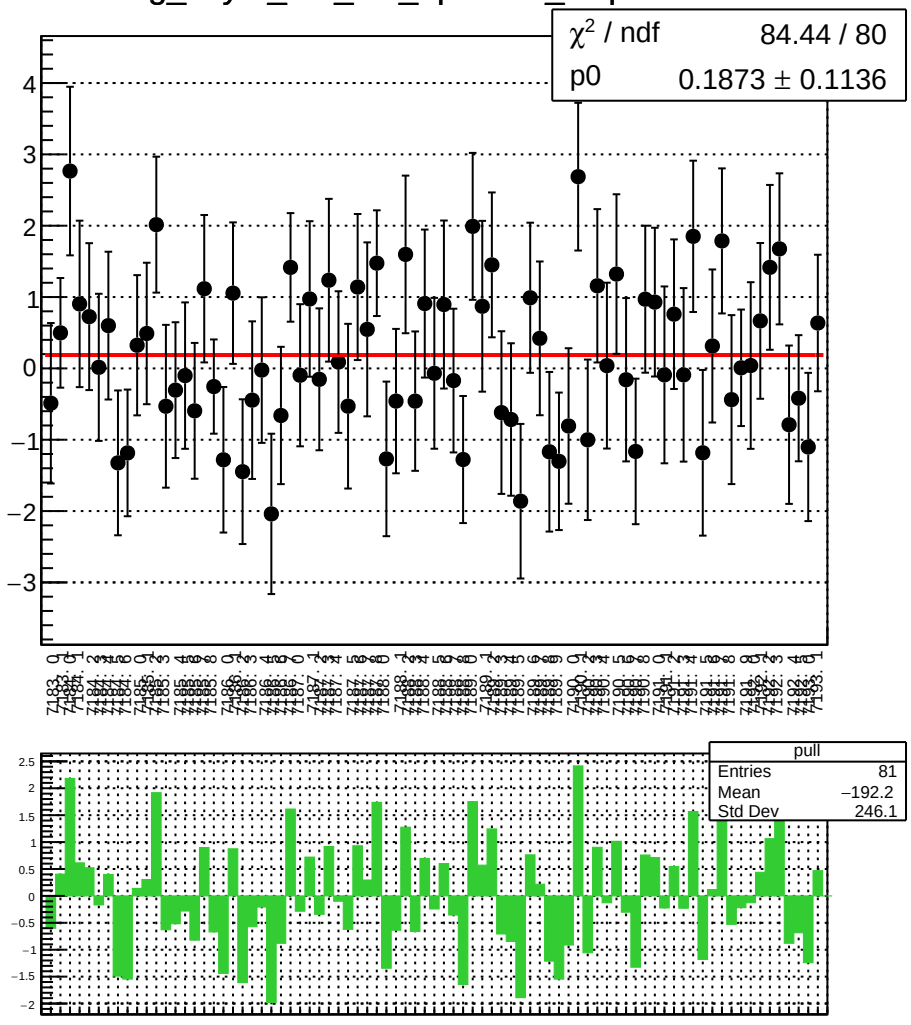

pull1D
Entries 81
Mean −0.006473
Std Dev 1.224

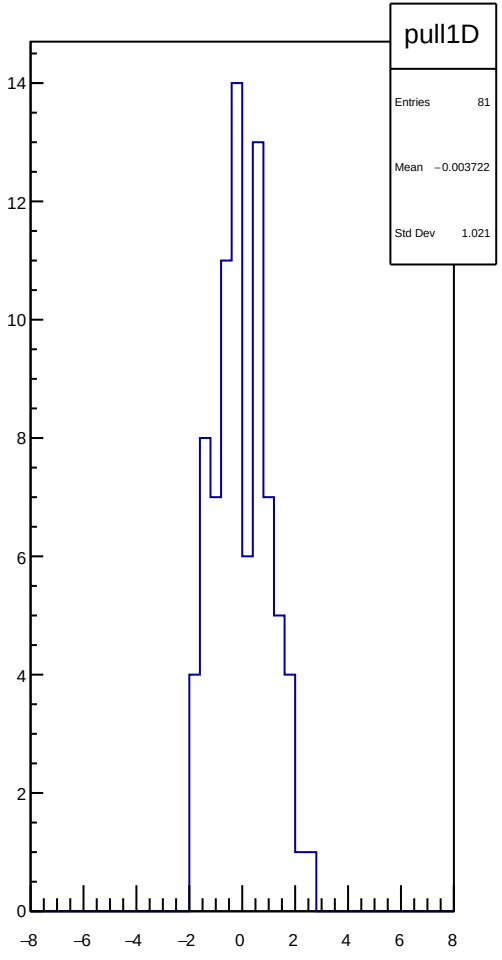

reg_asym_dsr_diff_bpm4aY_slope vs run
χ² / ndf 85.69 / 80
p0 −0.1465 ± 0.1047
pull
Entries 81
Mean −54.04
Std Dev 109.6

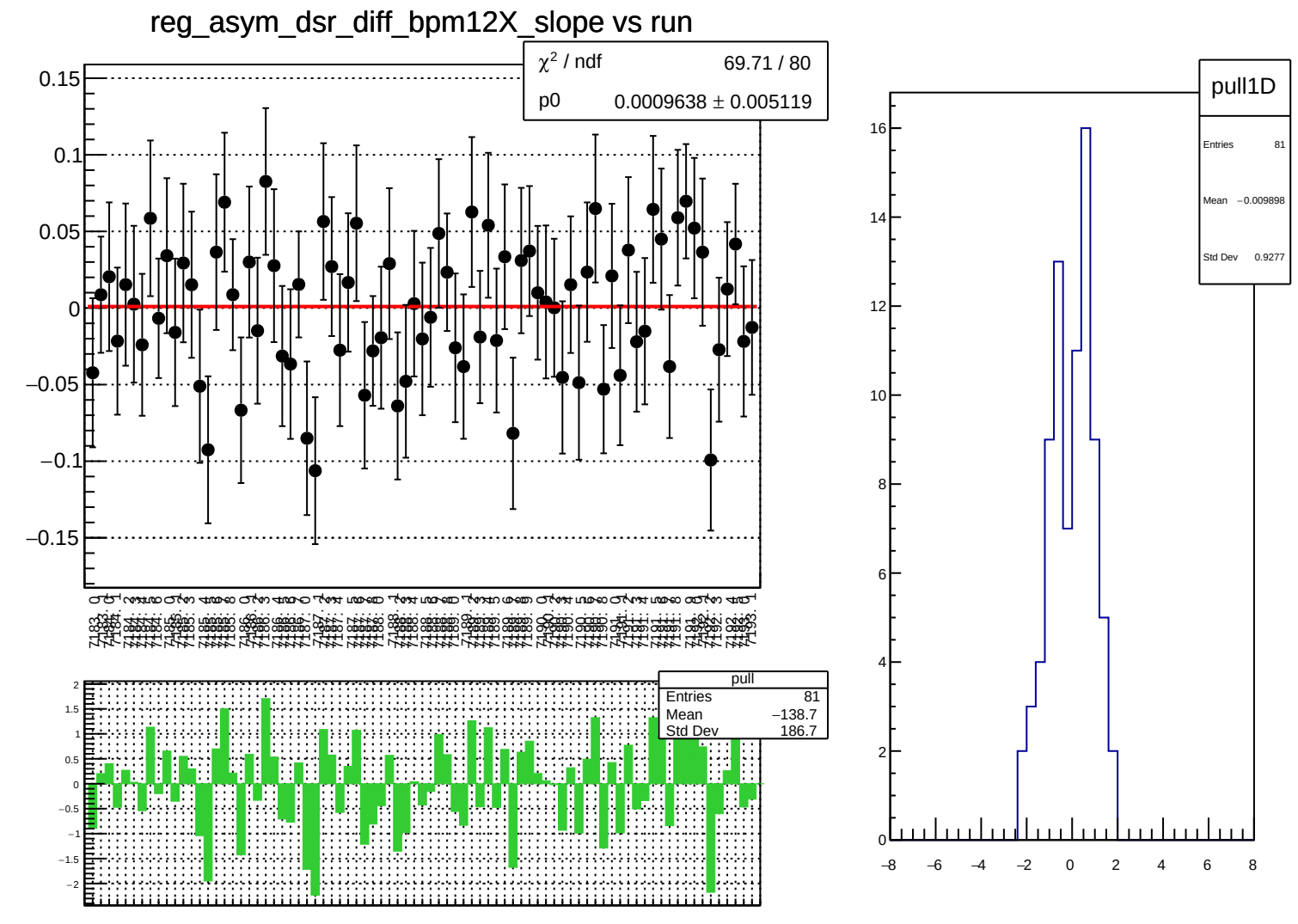

pull1D
Entries 81
Mean 0.01007
Std Dev 1.028

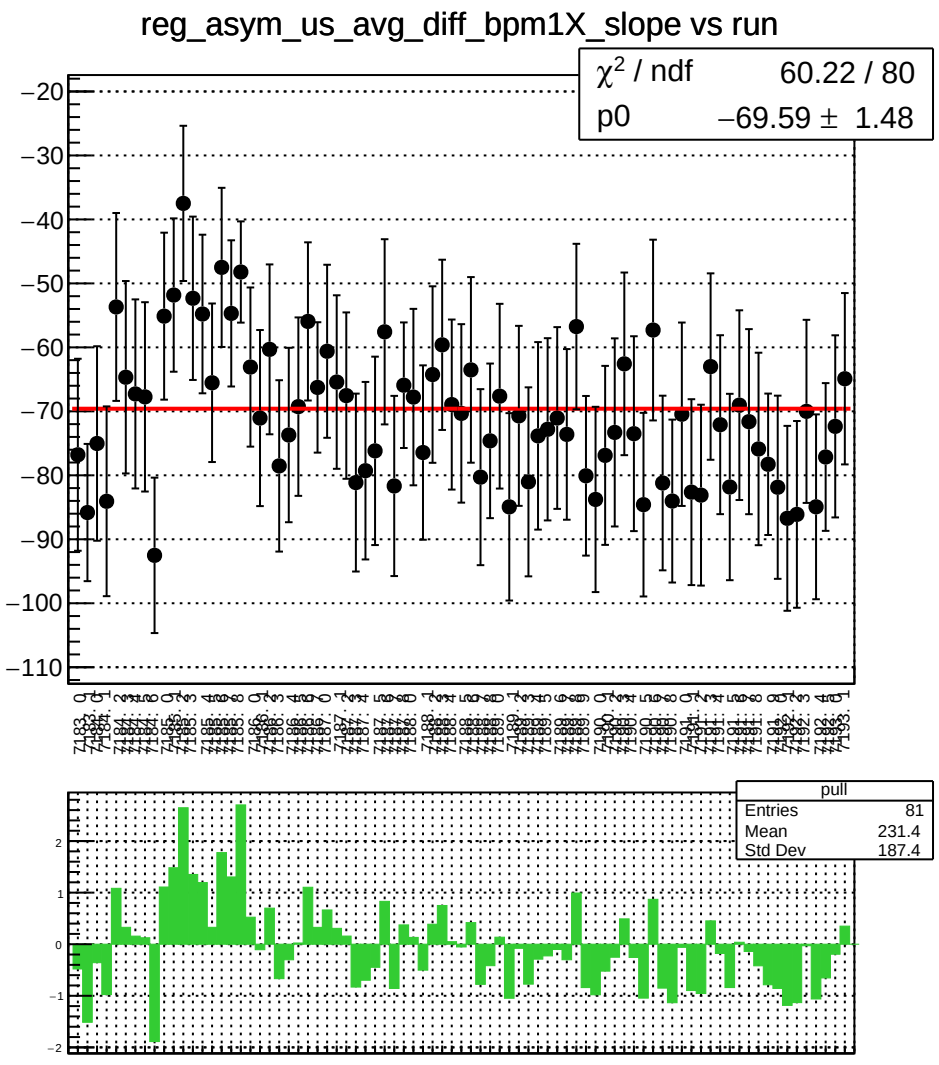

reg_asym_dsr_diff_bpm4eX_slope vs run
χ² / ndf 111.7 / 80
p0 −0.04385 ± 0.1401
pull
Entries 81
Mean 84.45
Std Dev 82.29

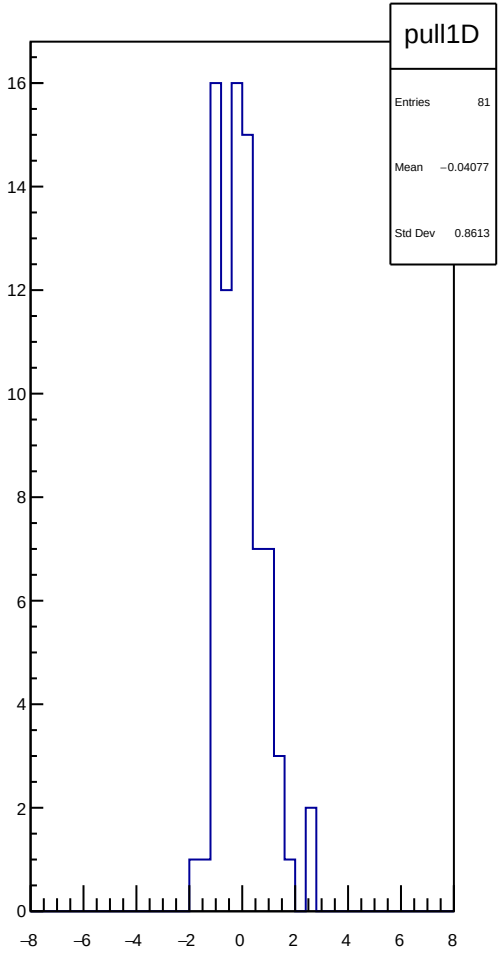

pull1D
Entries 81
Mean 0.007833
Std Dev 1.174

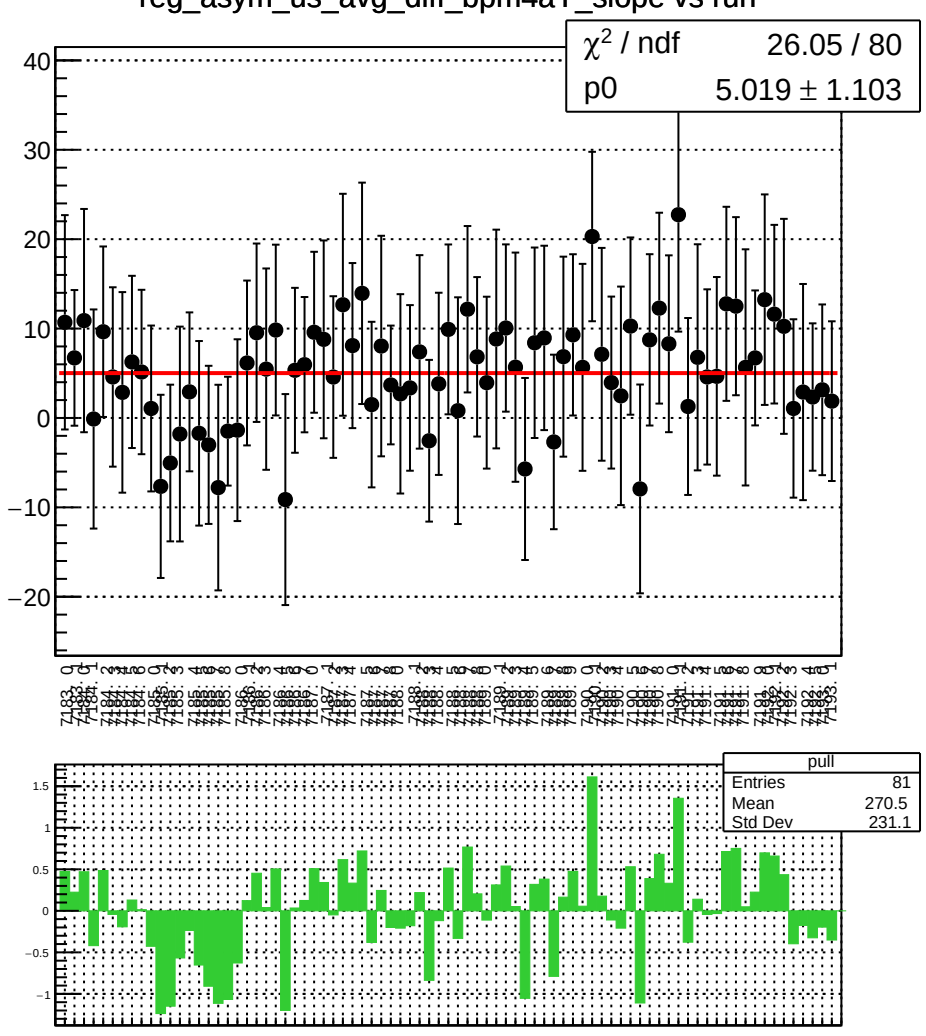

reg_asym_dsr_diff_bpm4eY_slope vs run
χ^2 / ndf 84.44 / 80
p0 0.1873 ± 0.1136
pull
Entries 81
Mean −192.2
Std Dev 246.1

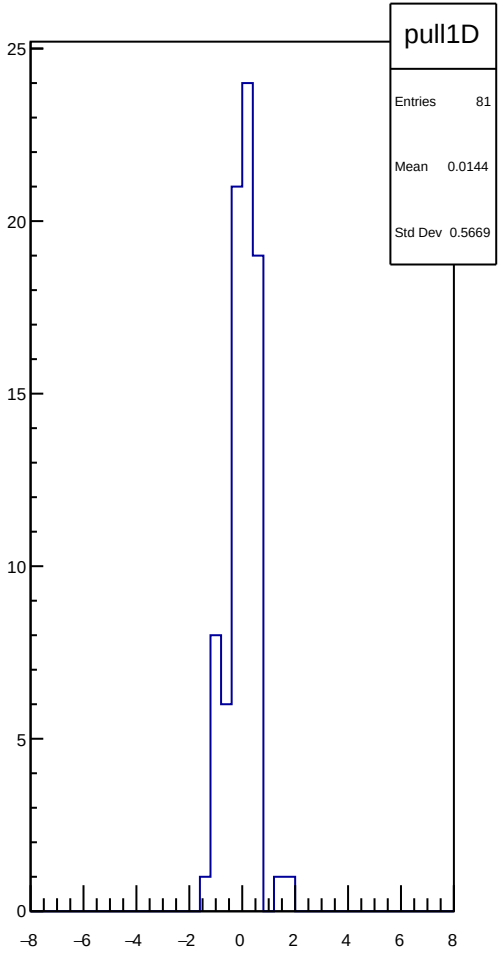

pull1D
Entries 81
Mean −0.003722
Std Dev 1.021

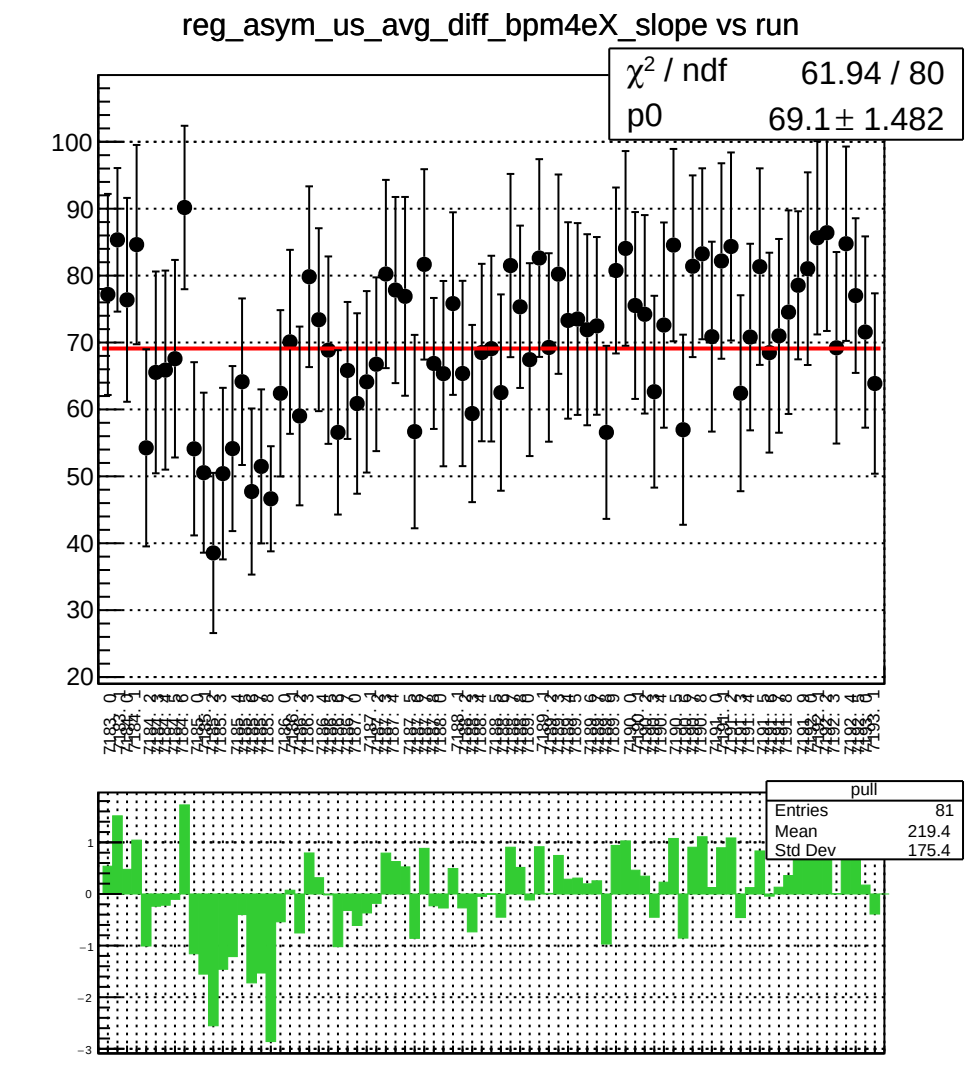

reg_asym_dsr_diff_bpm12X_slope vs run
χ² / ndf 69.71 / 80
p0 0.0009638 ± 0.005119
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
pull
Entries 81
Mean −138.7
Std Dev 186.7
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
pull1D
Entries 81
Mean −0.009898
Std Dev 0.9277
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

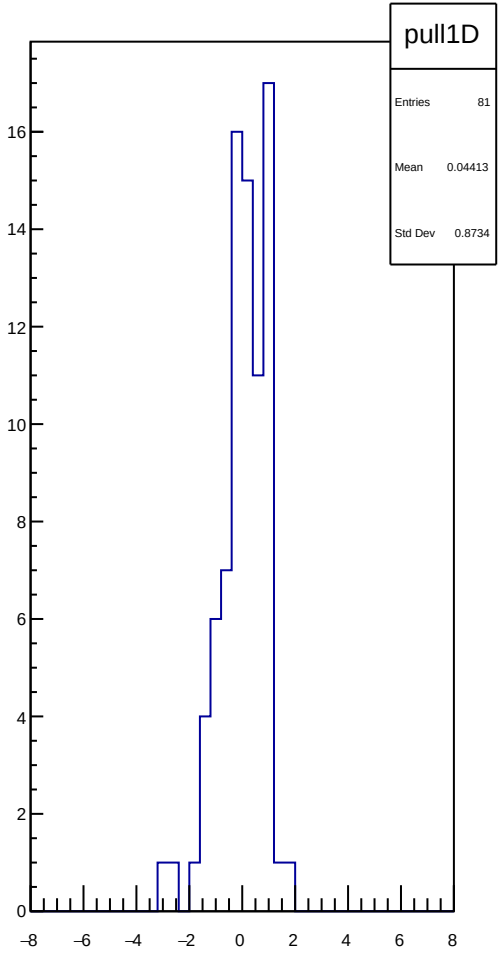

reg_asym_us_avg_diff_bpm1X_slope vs run
χ² / ndf 60.22 / 80
p0 −69.59 ± 1.48
pull
Entries 81
Mean 231.4
Std Dev 187.4

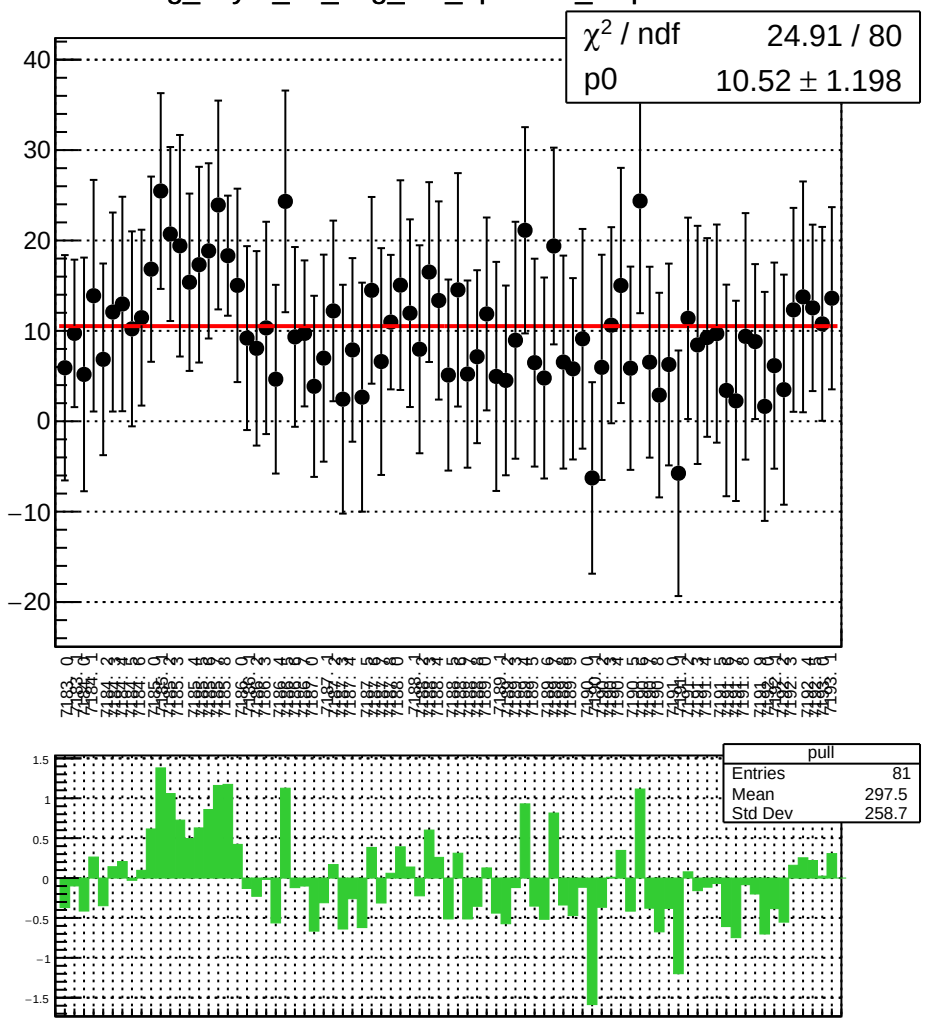

pull1D
Entries 81
Mean −0.04077
Std Dev 0.8613

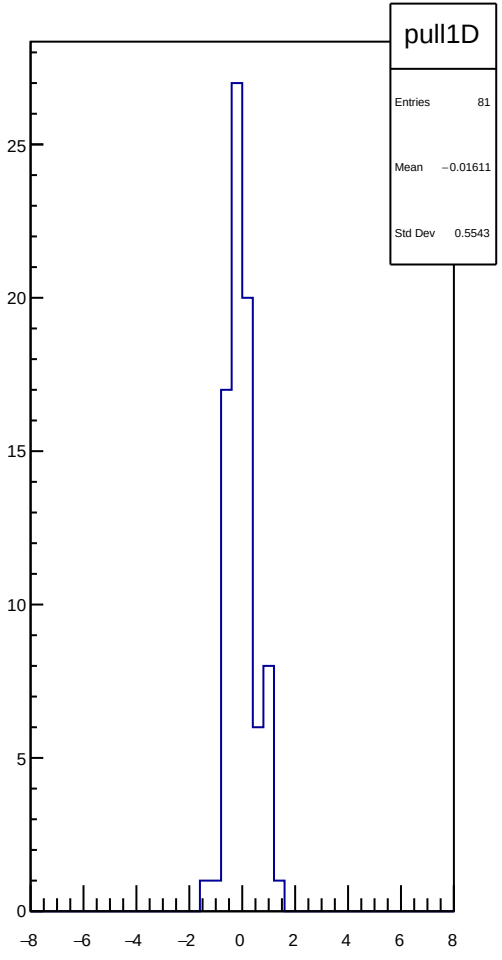

reg_asym_us_avg_diff_bpm4aY_slope vs run
χ² / ndf 26.05 / 80
p0 5.019 ± 1.103
pull
Entries 81
Mean 270.5
Std Dev 231.1

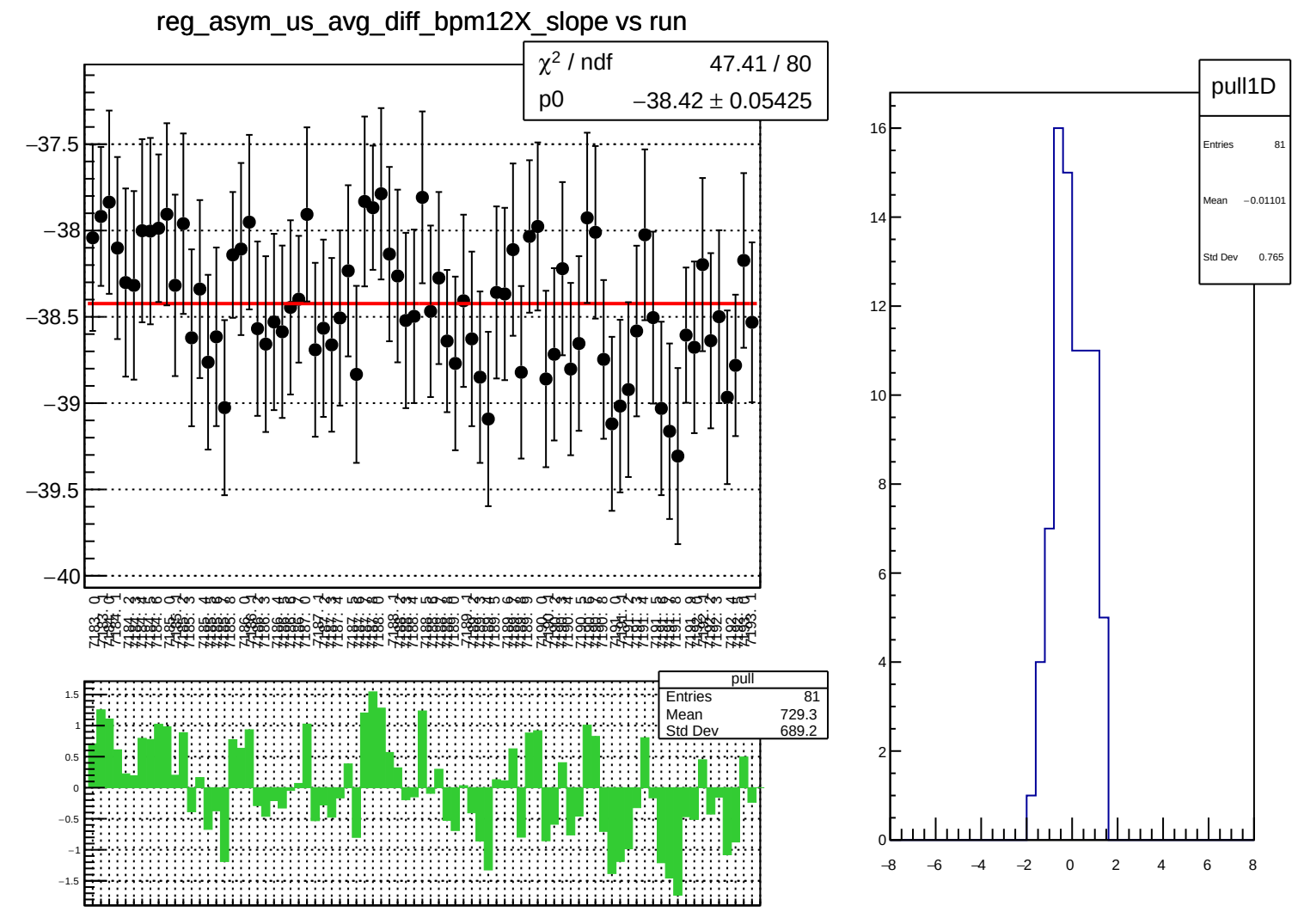

pull1D
Entries 81
Mean 0.0144
Std Dev 0.5669

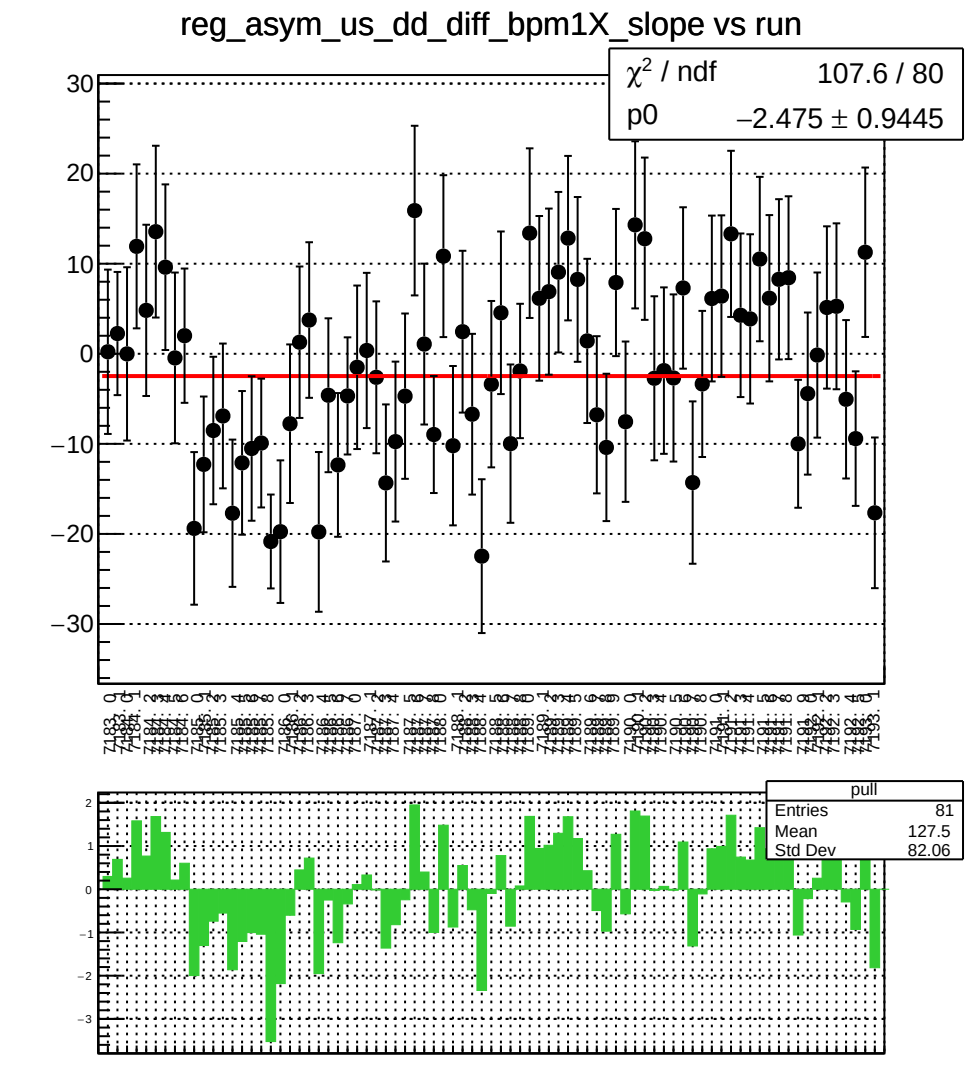

reg_asym_us_avg_diff_bpm4eX_slope vs run
χ² / ndf 61.94 / 80
p0 69.1 ± 1.482
pull
Entries 81
Mean 219.4
Std Dev 175.4

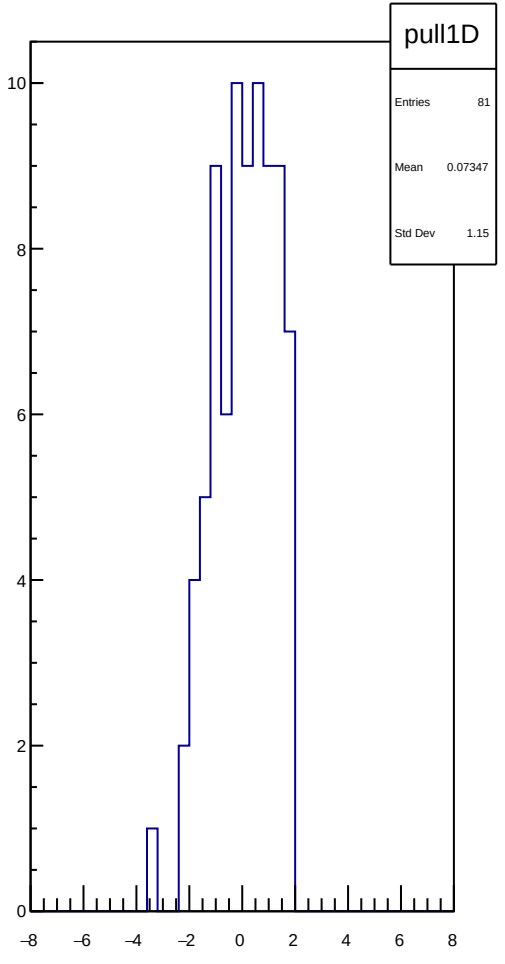

pull1D
Entries 81
Mean 0.04413
Std Dev 0.8734

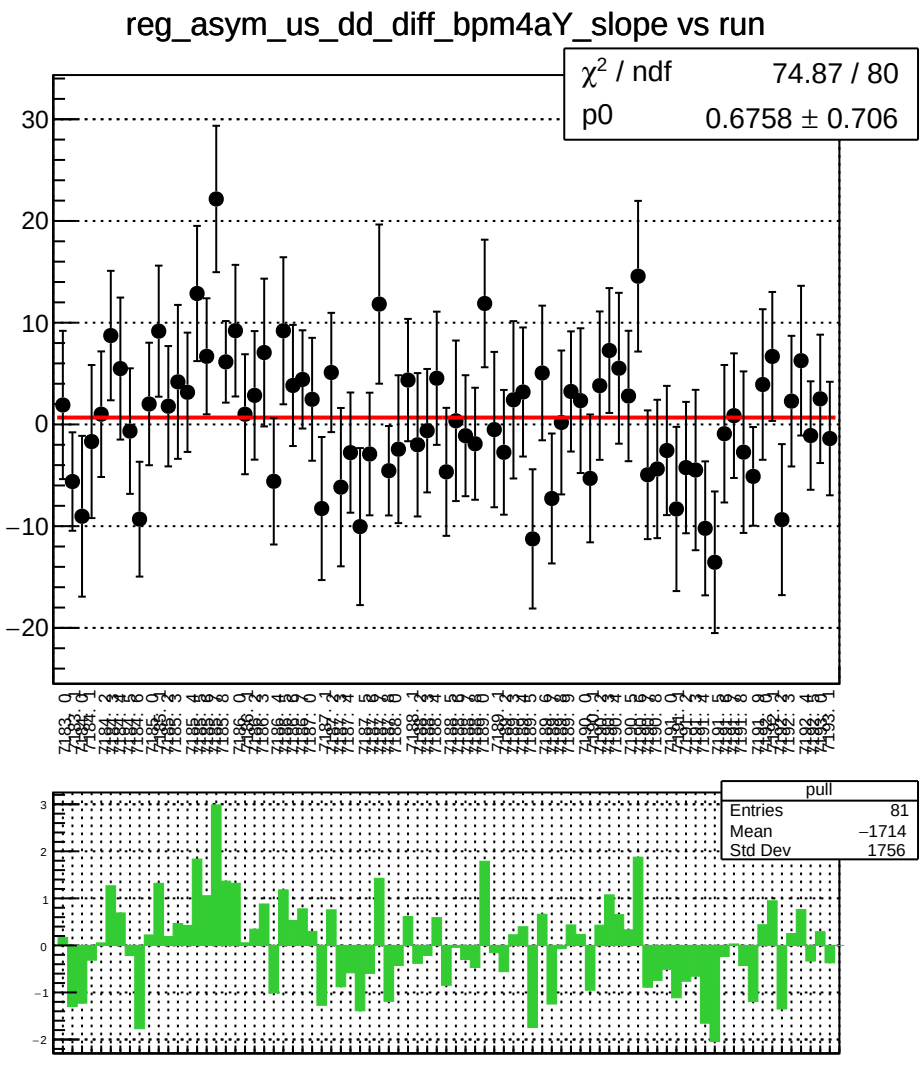

reg_asym_us_avg_diff_bpm4eY_slope vs run
χ² / ndf 24.91 / 80
p0 10.52 ± 1.198
pull
Entries 81
Mean 297.5
Std Dev 258.7

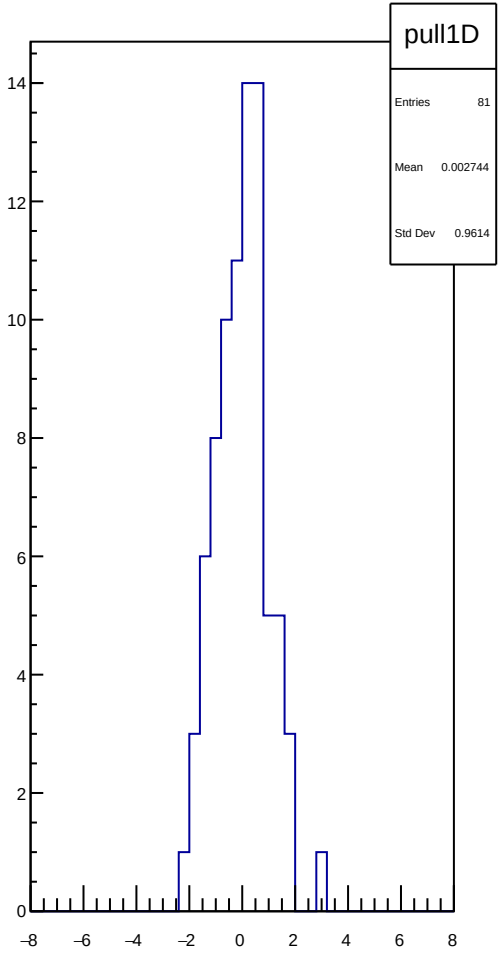

pull1D
Entries 81
Mean −0.01611
Std Dev 0.5543

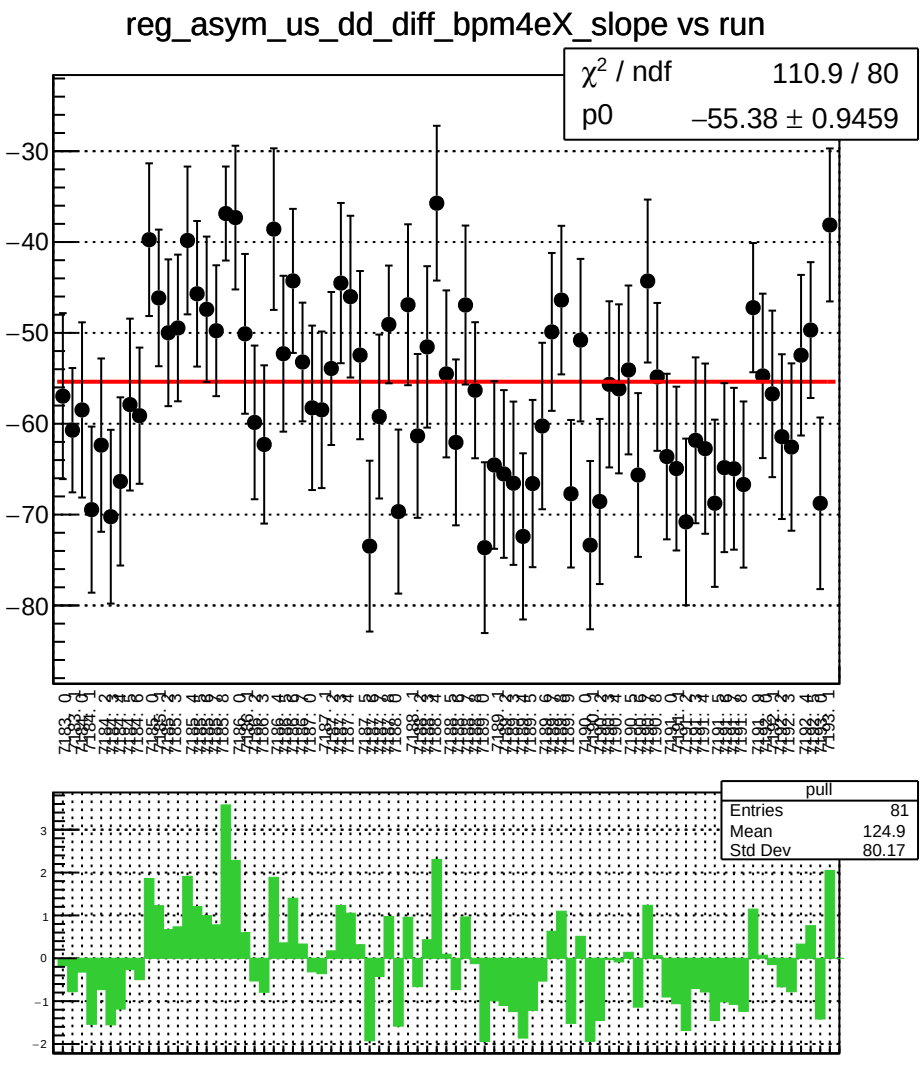

reg_asym_us_avg_diff_bpm12X_slope vs run
χ² / ndf 47.41 / 80
p0 −38.42 ± 0.05425
−37.5
−38
−38.5
−39
−39.5
−40
pull
Entries 81
Mean 729.3
Std Dev 689.2
1.5
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 81
Mean −0.01101
Std Dev 0.765
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

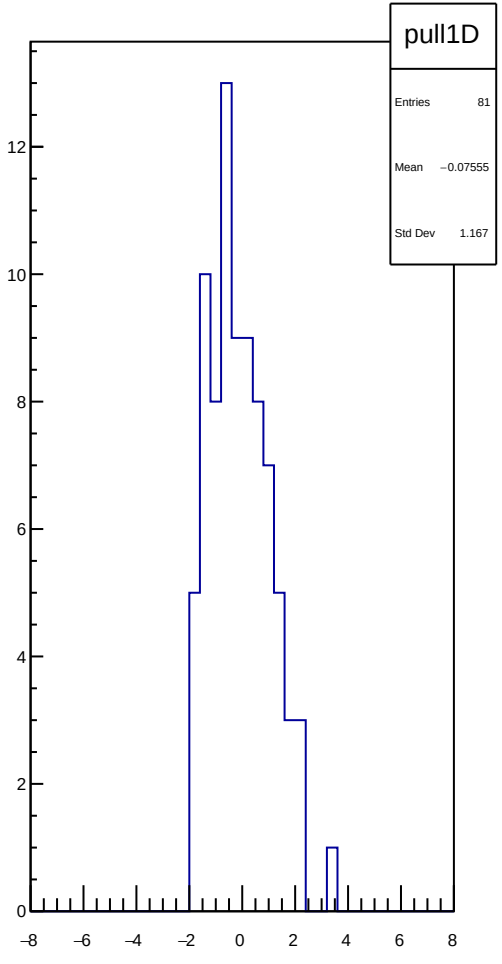

reg_asym_us_dd_diff_bpm1X_slope vs run
χ² / ndf 107.6 / 80
p0 −2.475 ± 0.9445
pull
Entries 81
Mean 127.5
Std Dev 82.06

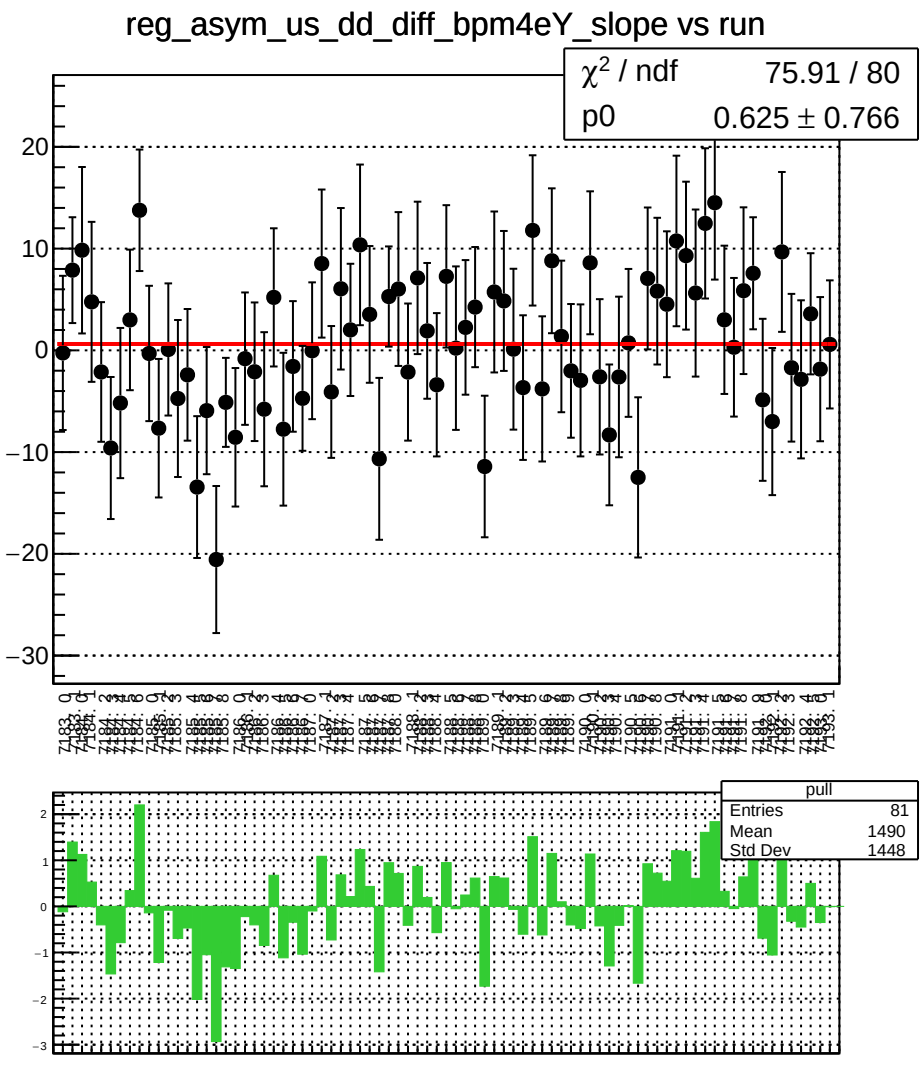

pull1D
Entries 81
Mean 0.07347
Std Dev 1.15

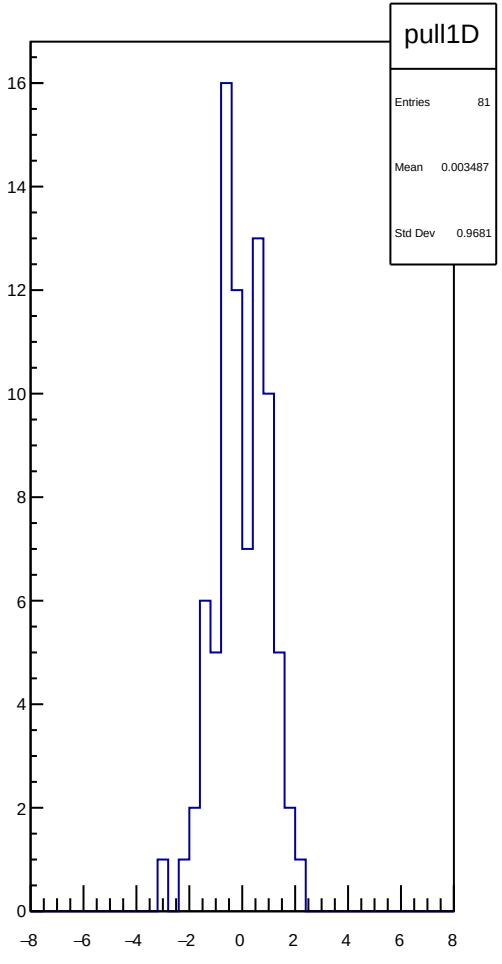

reg_asym_us_dd_diff_bpm4aY_slope vs run
χ² / ndf 74.87 / 80
p0 0.6758 ± 0.706
pull
Entries 81
Mean −1714
Std Dev 1756

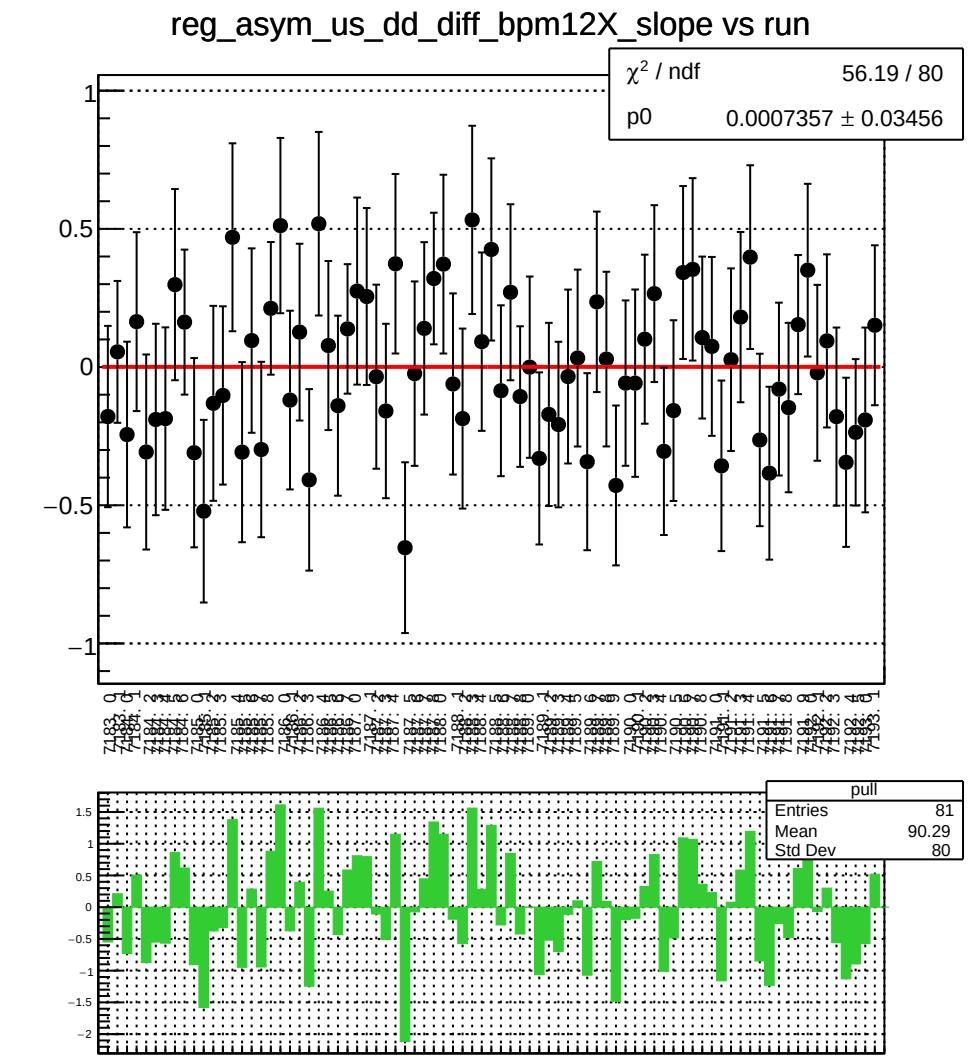

pull1D
Entries 81
Mean 0.002744
Std Dev 0.9614

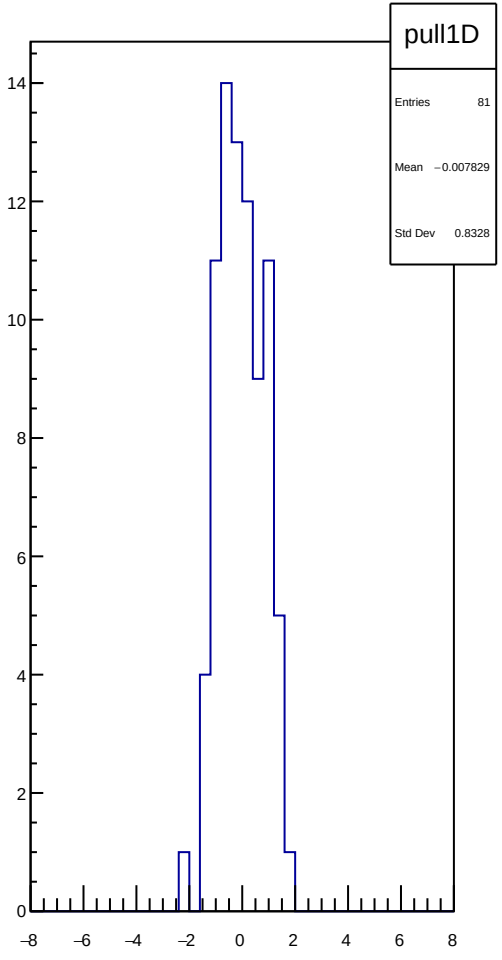

reg_asym_us_dd_diff_bpm4eX_slope vs run
χ² / ndf 110.9 / 80
p0 −55.38 ± 0.9459
pull
Entries 81
Mean 124.9
Std Dev 80.17

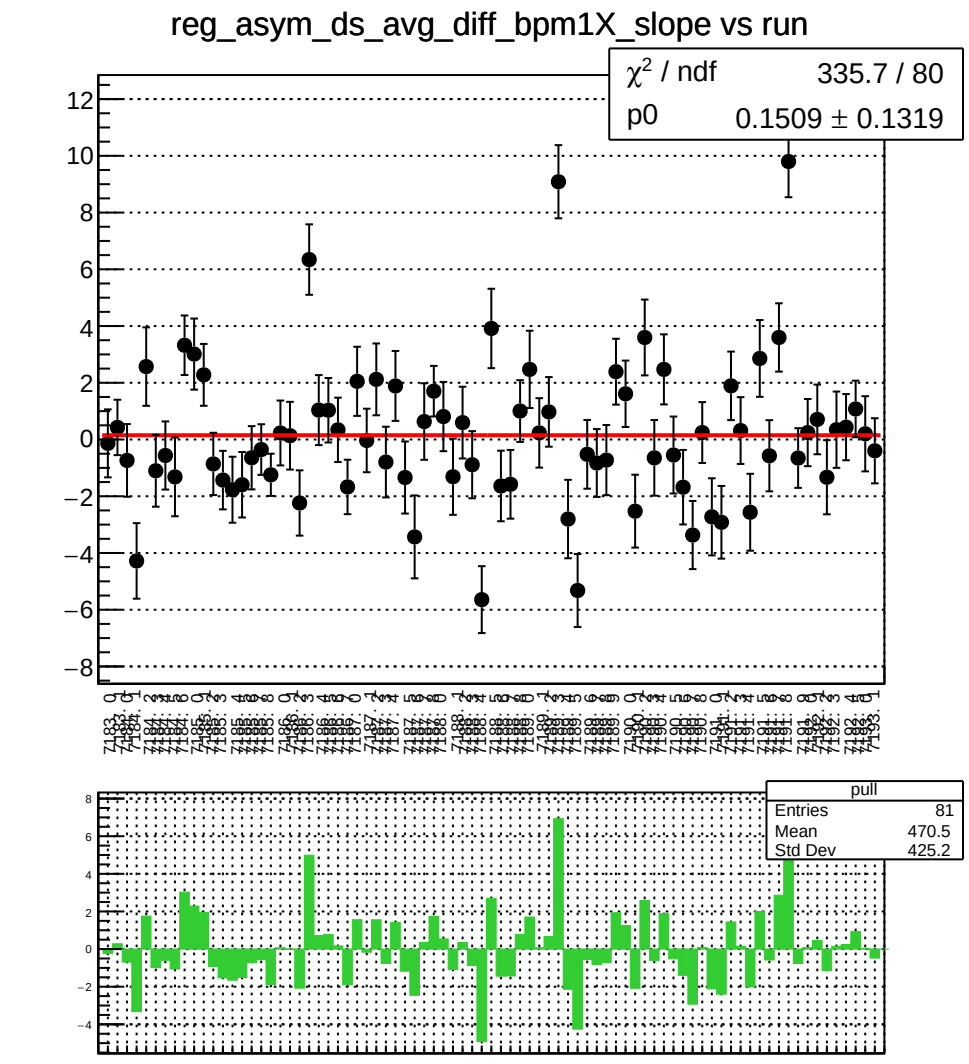

pull1D
Entries 81
Mean −0.07555
Std Dev 1.167

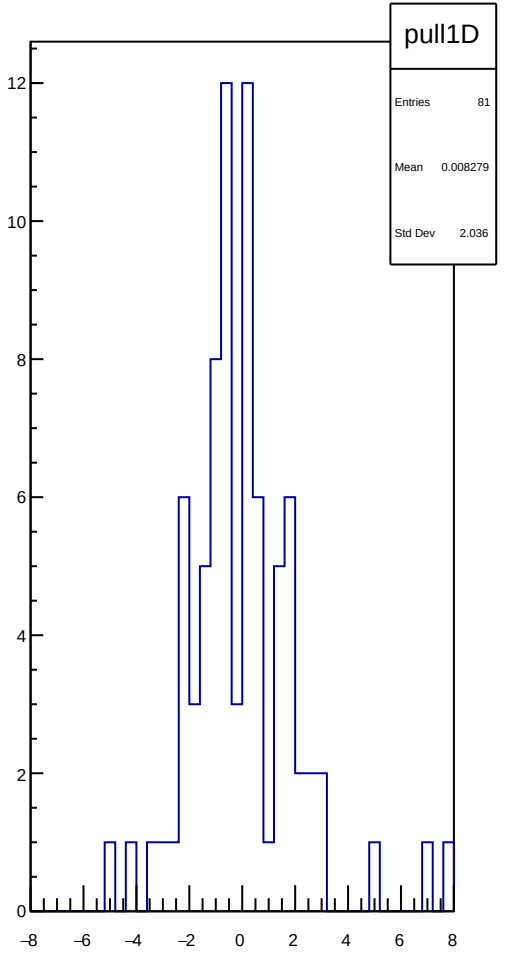

reg_asym_us_dd_diff_bpm4eY_slope vs run
χ² / ndf 75.91 / 80
p0 0.625 ± 0.766
pull
Entries 81
Mean 1490
Std Dev 1448

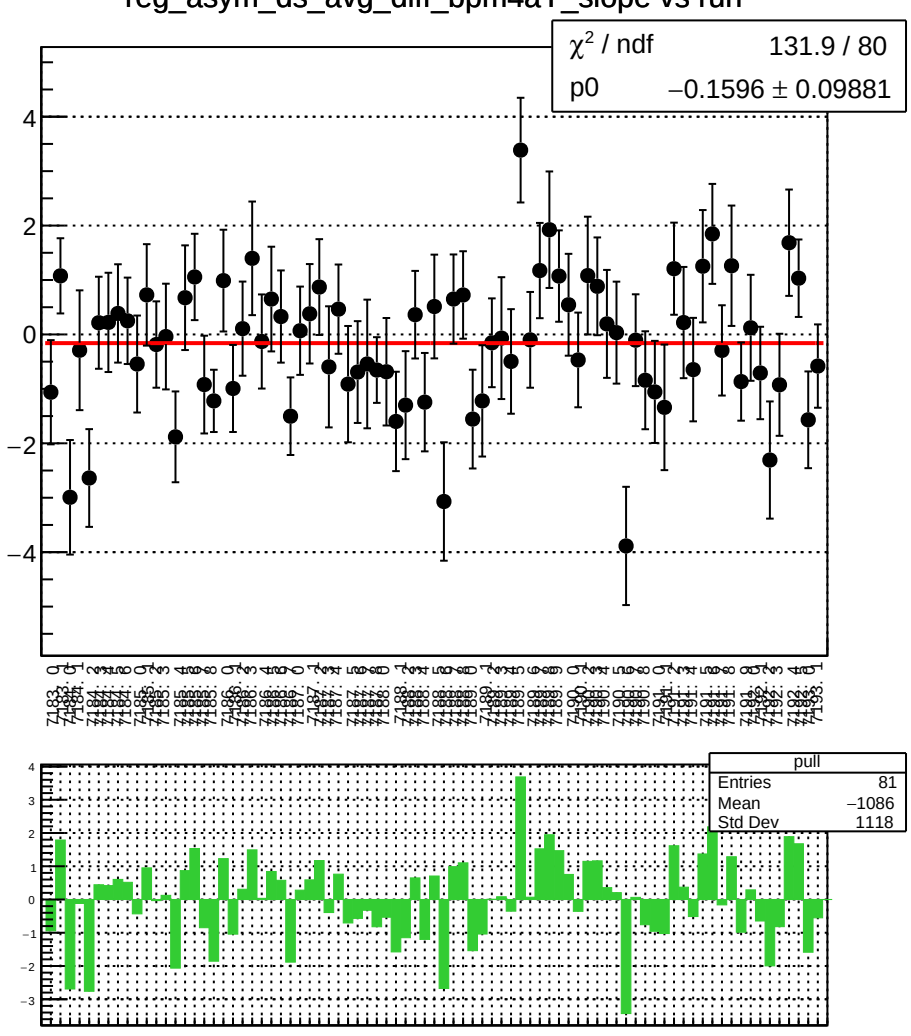

pull1D
Entries 81
Mean 0.003487
Std Dev 0.9681

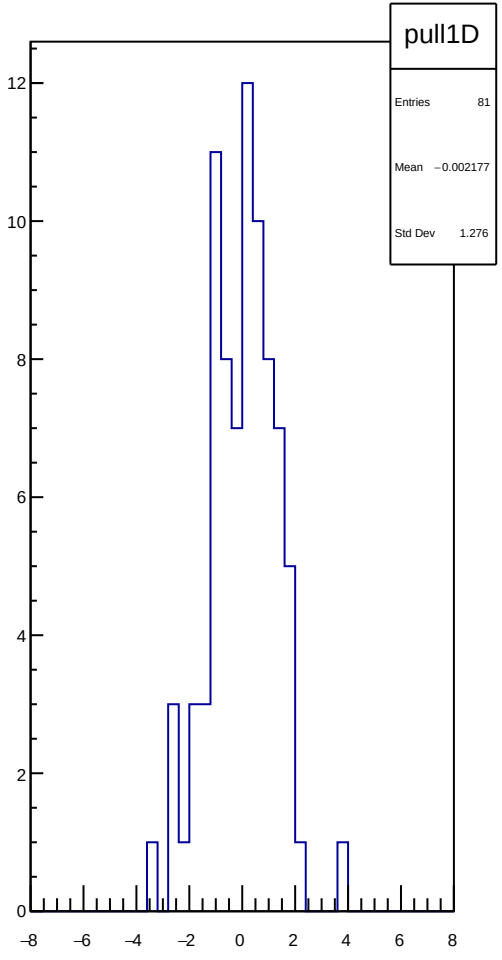

reg_asym_us_dd_diff_bpm12X_slope vs run
χ² / ndf 56.19 / 80
p0 0.0007357 ± 0.03456
pull
Entries 81
Mean 90.29
Std Dev 80

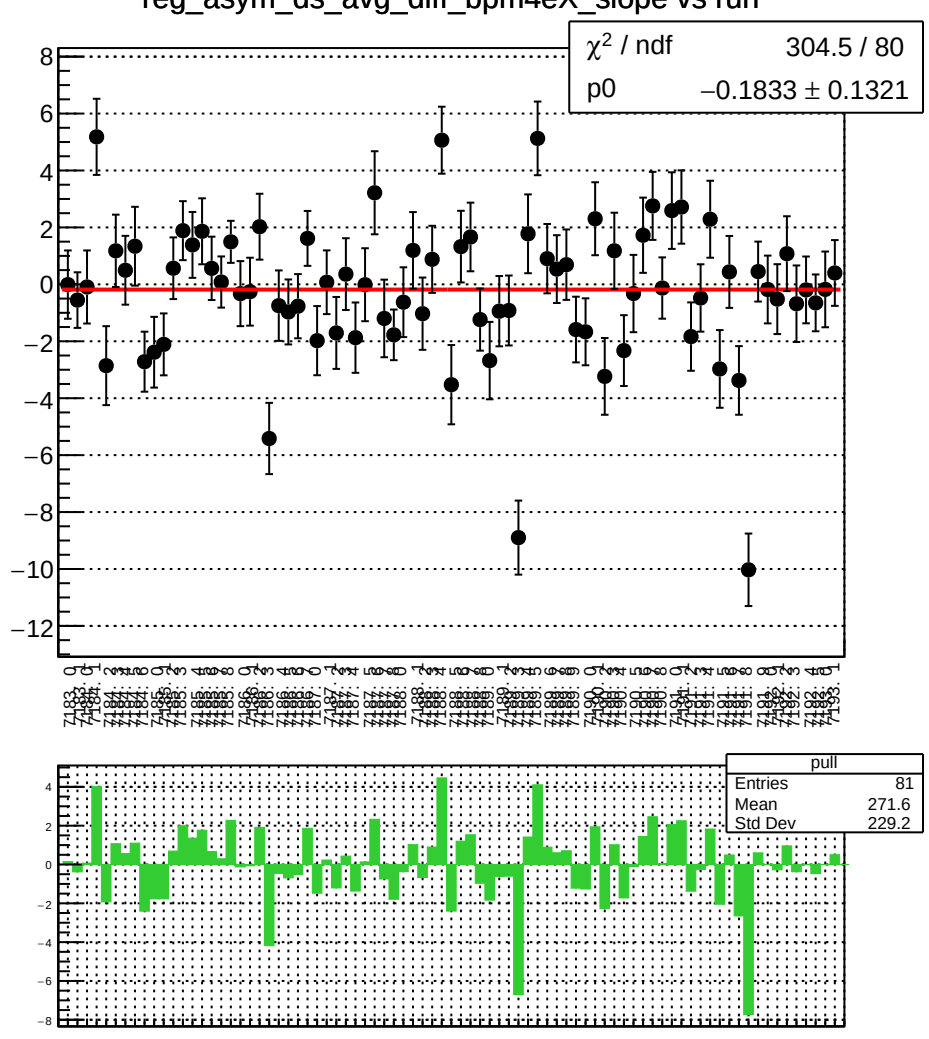

pull1D
Entries 81
Mean −0.007829
Std Dev 0.8328

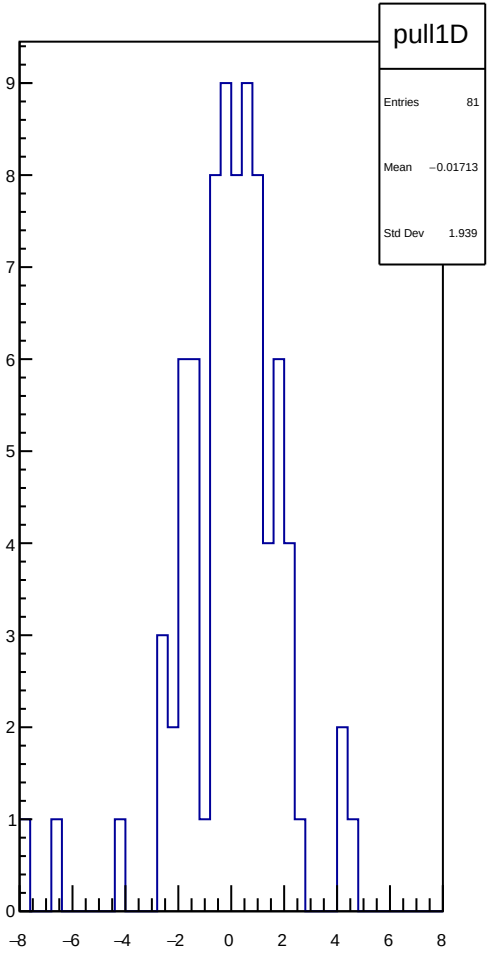

reg_asym_ds_avg_diff_bpm1X_slope vs run
χ² / ndf 335.7 / 80
p0 0.1509 ± 0.1319
pull
Entries 81
Mean 470.5
Std Dev 425.2

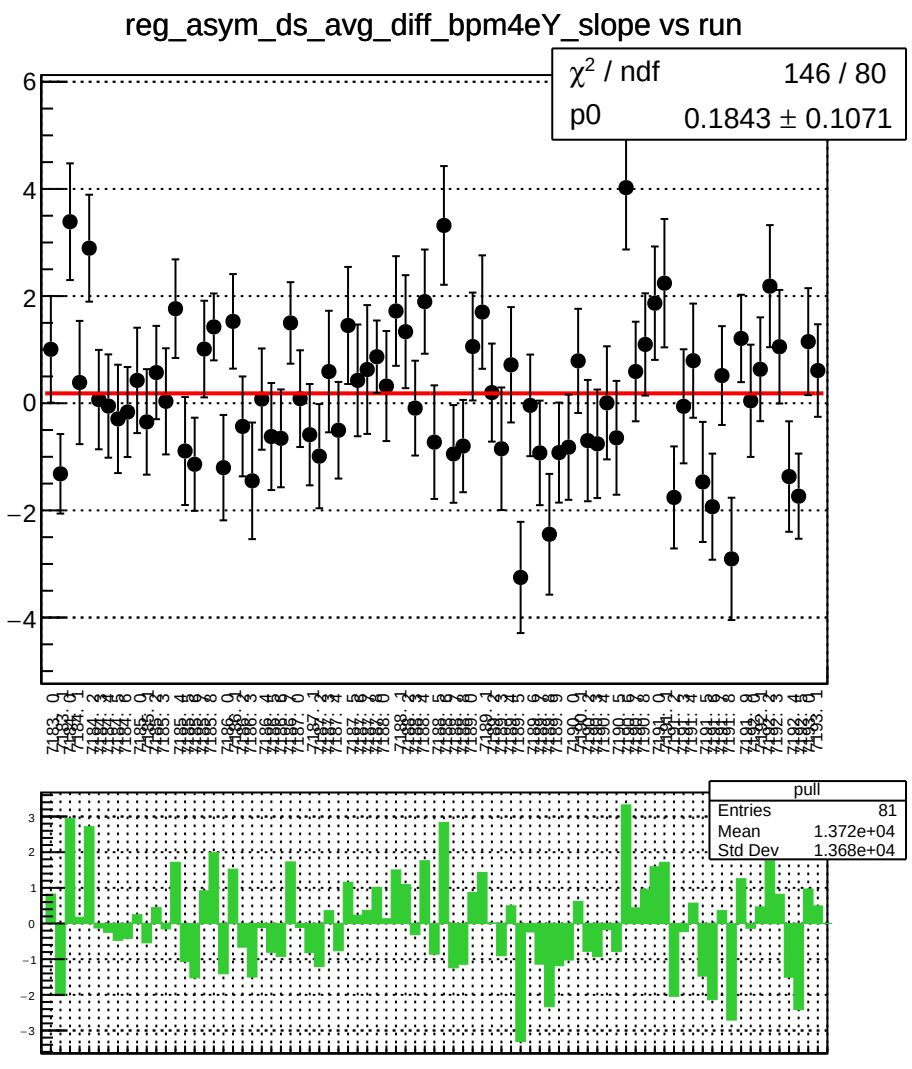

pull1D
Entries 81
Mean 0.008279
Std Dev 2.036

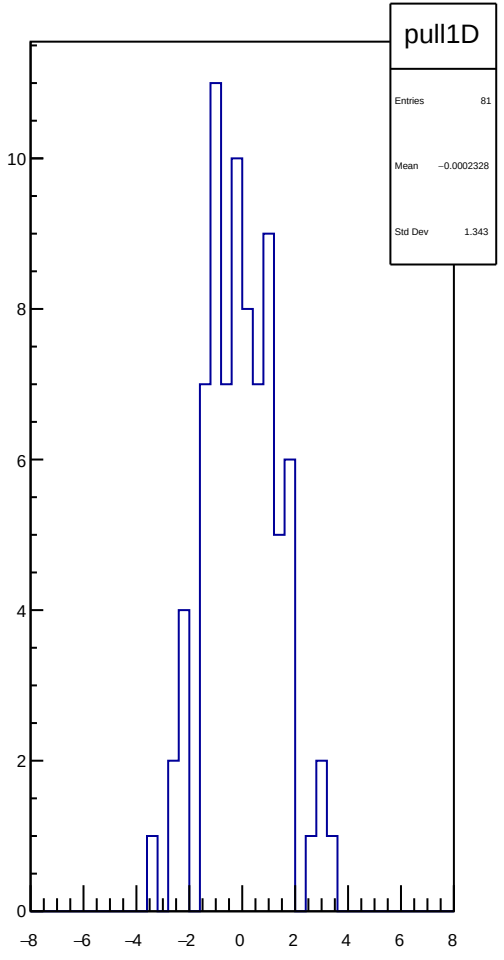

reg_asym_ds_avg_diff_bpm4aY_slope vs run
χ² / ndf 131.9 / 80
p0 −0.1596 ± 0.09881
pull
Entries 81
Mean −1086
Std Dev 1118

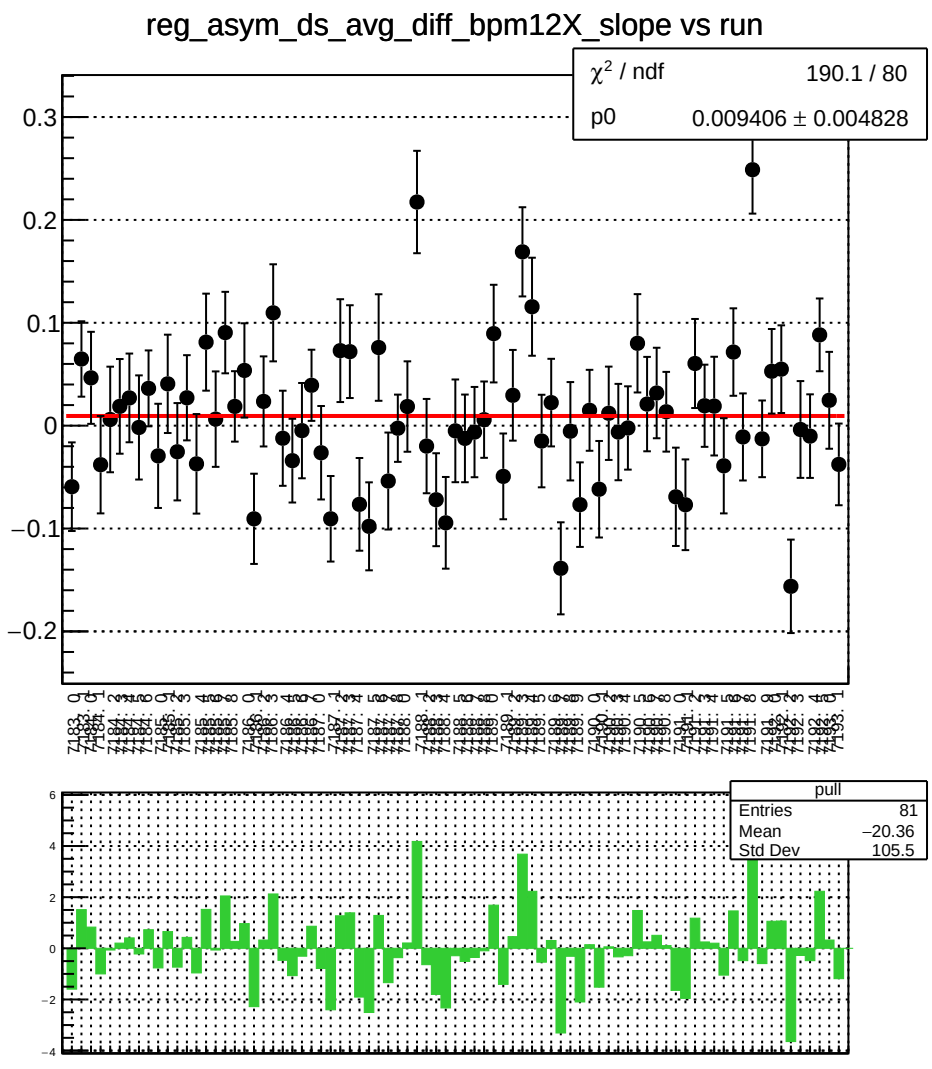

pull1D
Entries 81
Mean −0.002177
Std Dev 1.276

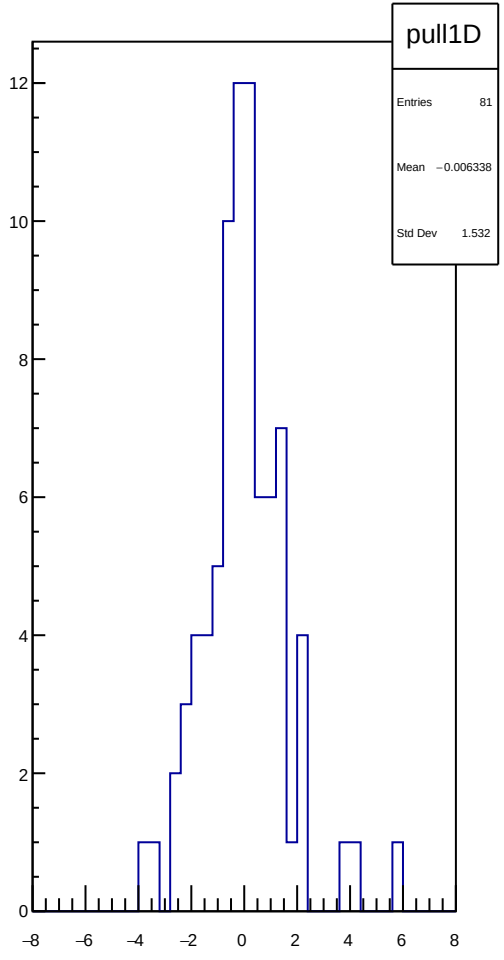

reg_asym_ds_avg_diff_bpm4eX_slope vs run
χ² / ndf 304.5 / 80
p0 −0.1833 ± 0.1321
pull
Entries 81
Mean 271.6
Std Dev 229.2

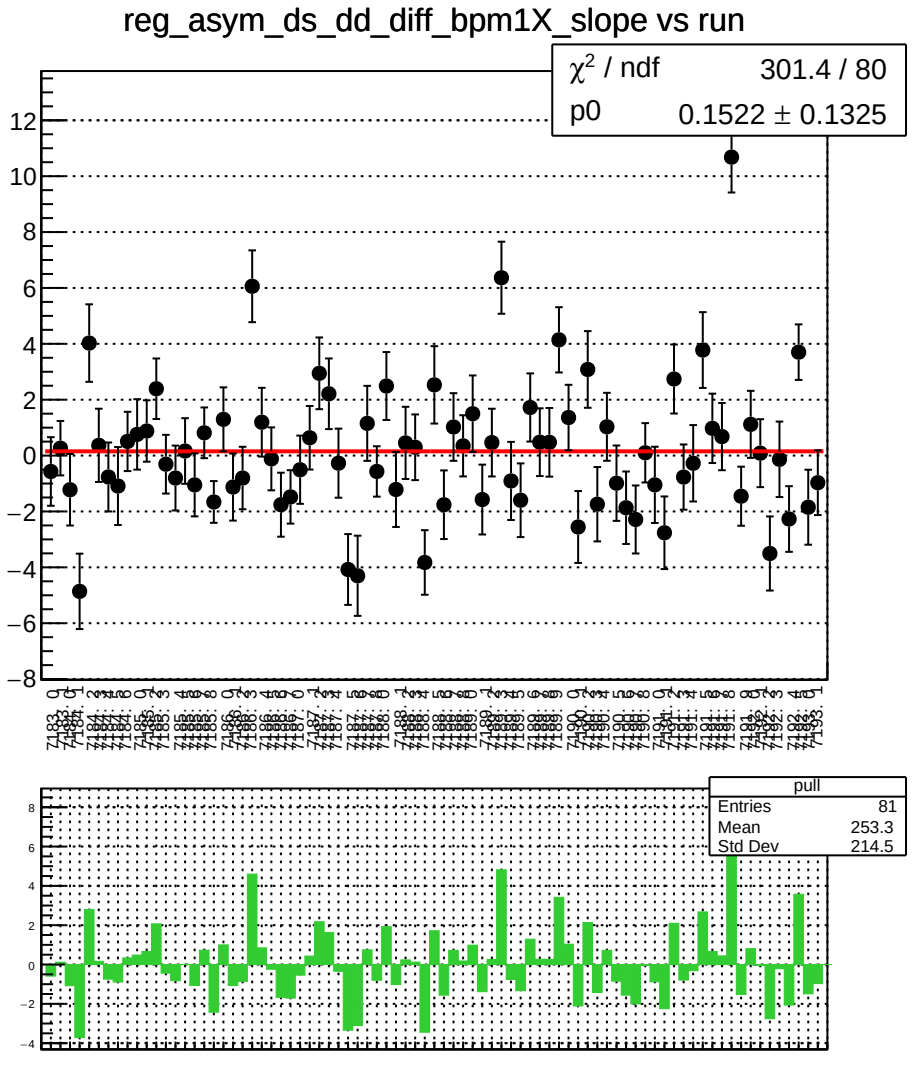

pull1D
Entries 81
Mean −0.01713
Std Dev 1.939

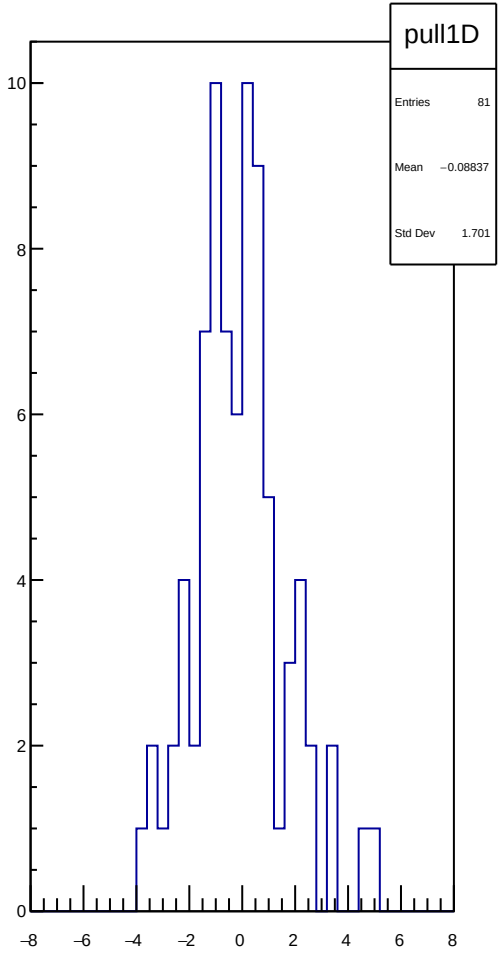

reg_asym_ds_avg_diff_bpm4eY_slope vs run
χ² / ndf 146 / 80
p0 0.1843 ± 0.1071
pull
Entries 81
Mean 1.372e+04
Std Dev 1.368e+04

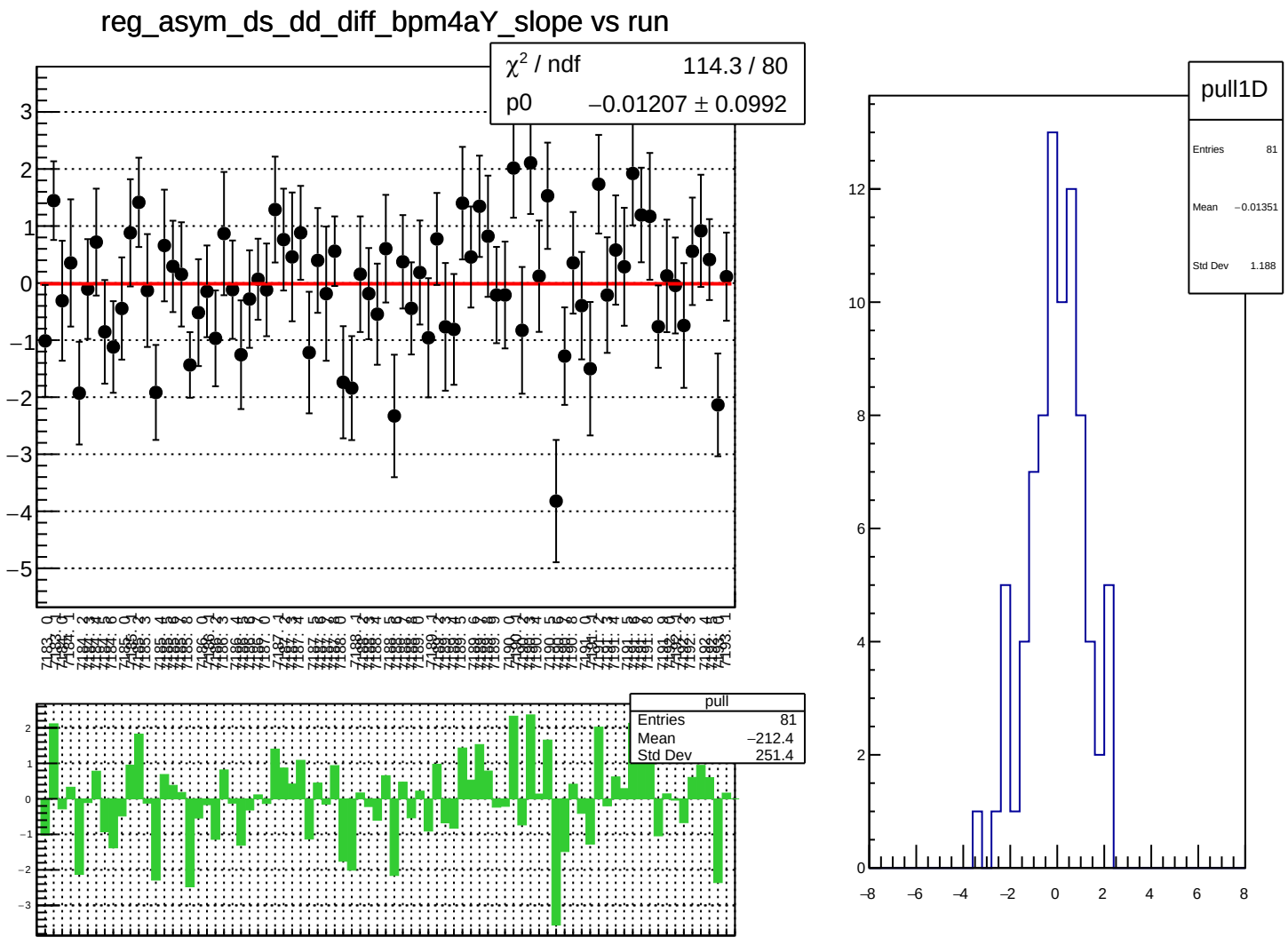

pull1D
Entries 81
Mean −0.0002328
Std Dev 1.343

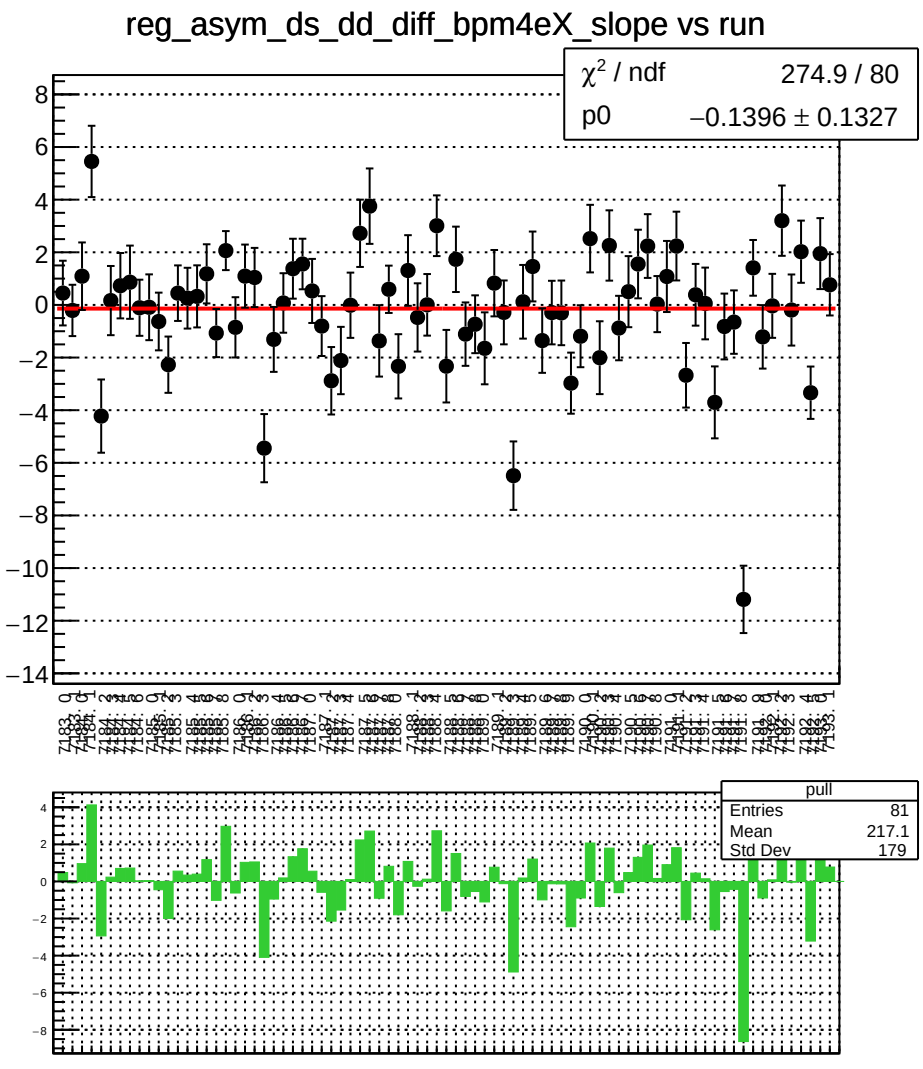

reg_asym_ds_avg_diff_bpm12X_slope vs run
χ² / ndf 190.1 / 80
p0 0.009406 ± 0.004828
pull
Entries 81
Mean −20.36
Std Dev 105.5

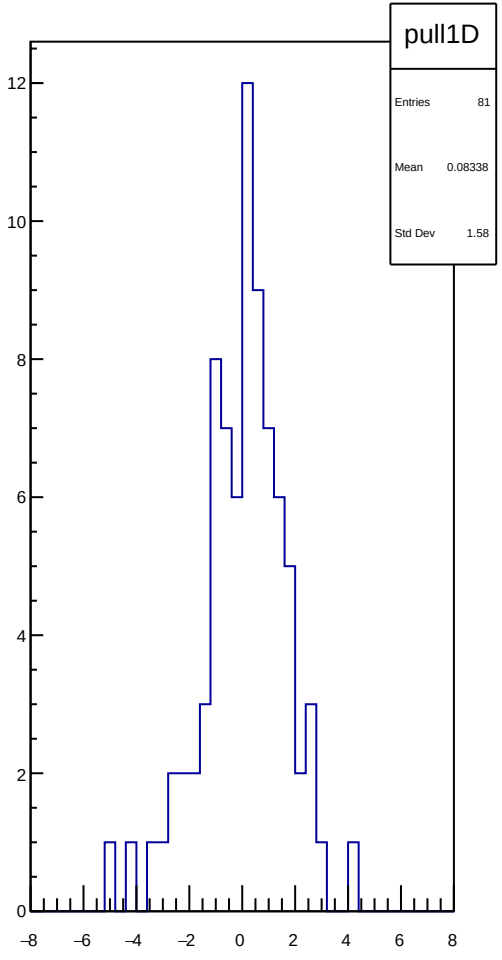

pull1D
Entries 81
Mean −0.006338
Std Dev 1.532

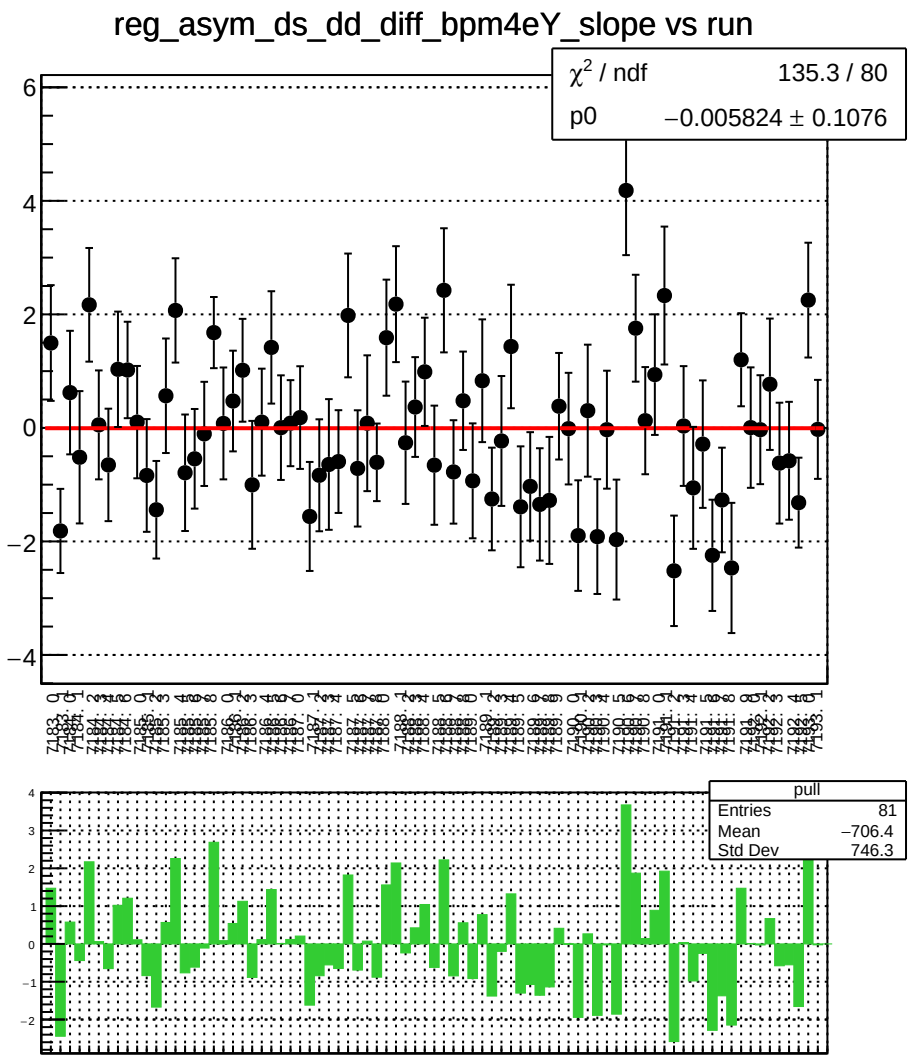

reg_asym_ds_dd_diff_bpm1X_slope vs run
χ² / ndf 301.4 / 80
p0 0.1522 ± 0.1325
pull
Entries 81
Mean 253.3
Std Dev 214.5

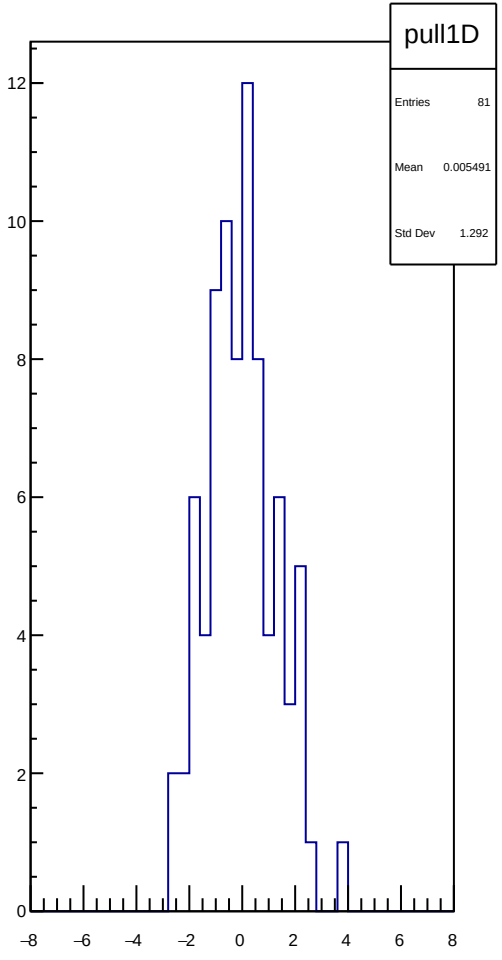

pull1D
Entries 81
Mean −0.08837
Std Dev 1.701

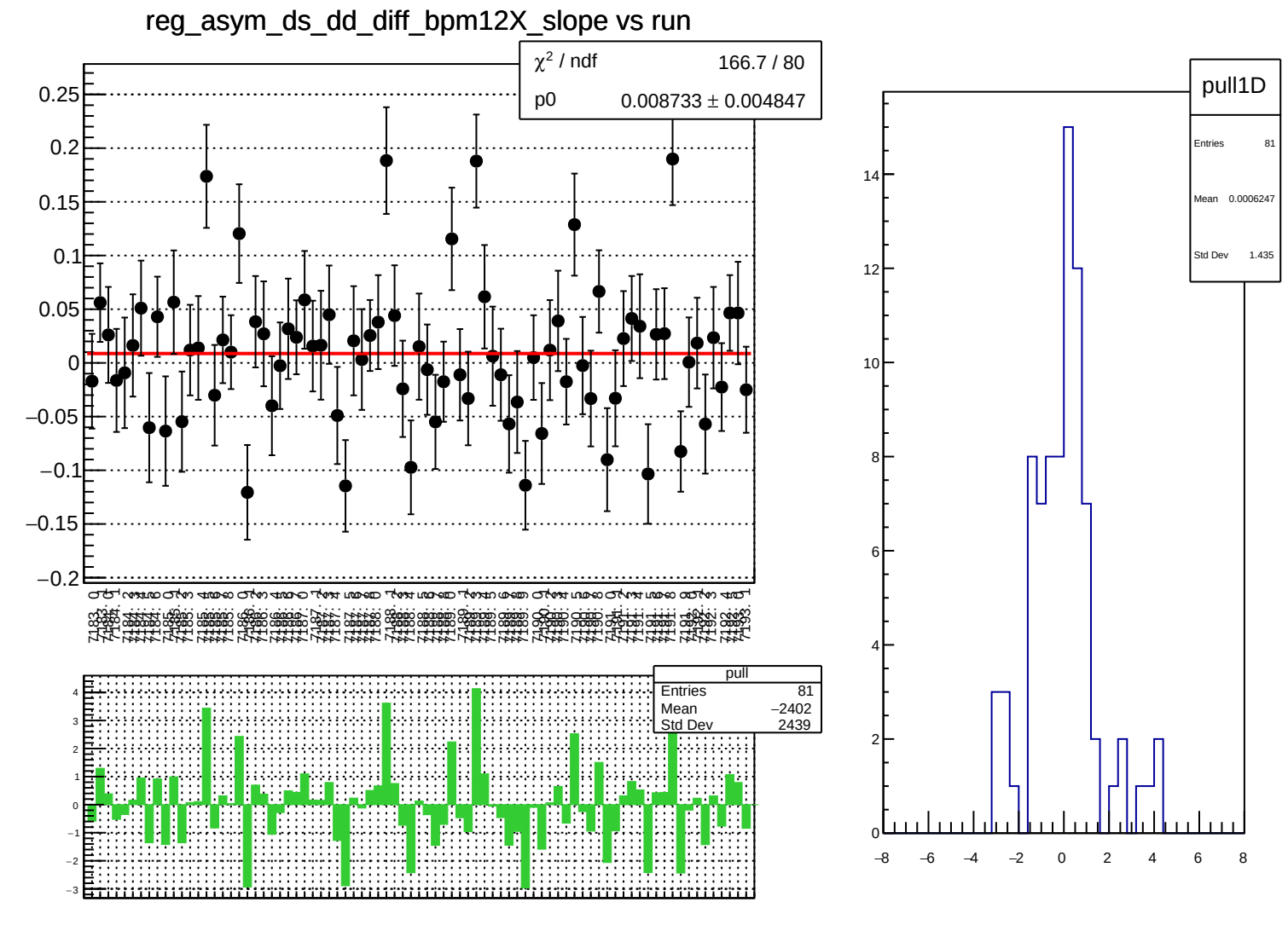

reg_asym_ds_dd_diff_bpm4aY_slope vs run
χ² / ndf 114.3 / 80
p0 −0.01207 ± 0.0992
pull
Entries 81
Mean −212.4
Std Dev 251.4
pull1D
Entries 81
Mean −0.01351
Std Dev 1.188

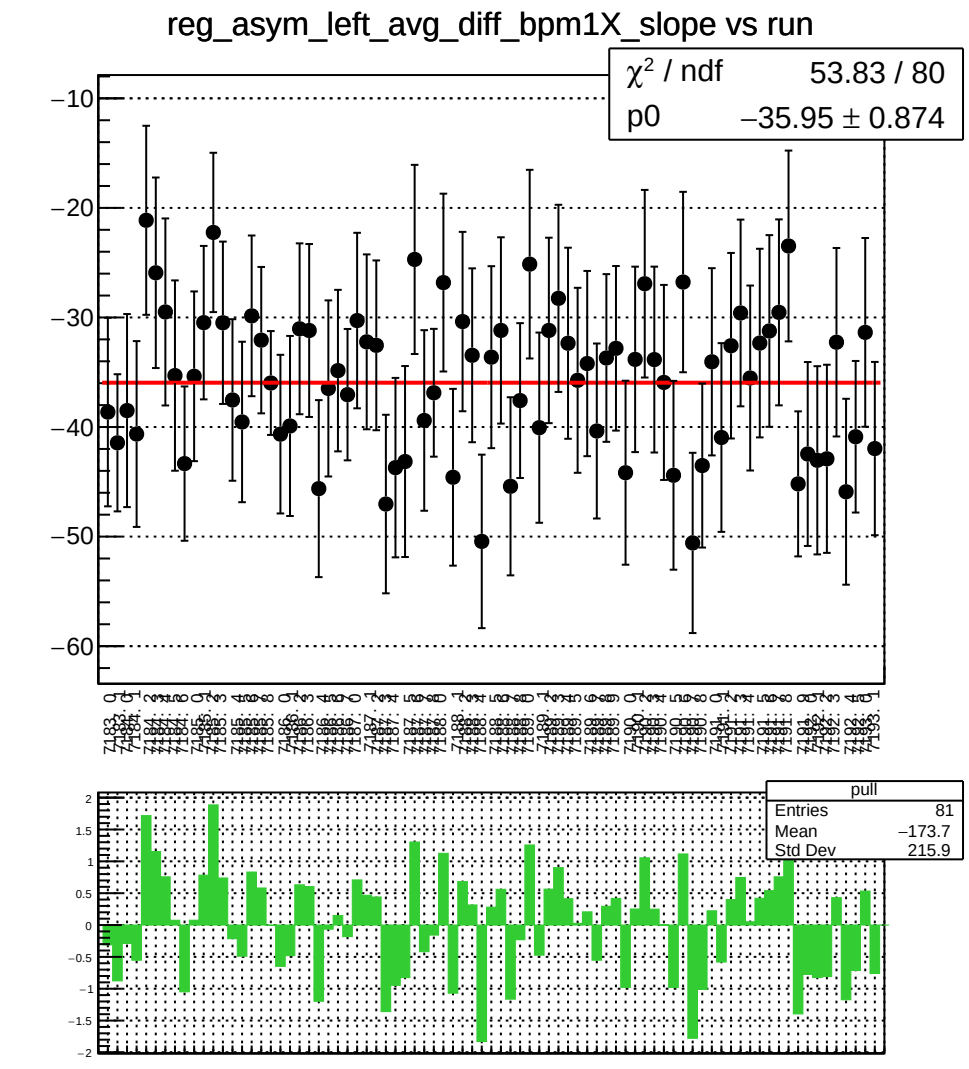

reg_asym_ds_dd_diff_bpm4eX_slope vs run
χ² / ndf 274.9 / 80
p0 −0.1396 ± 0.1327
pull
Entries 81
Mean 217.1
Std Dev 179

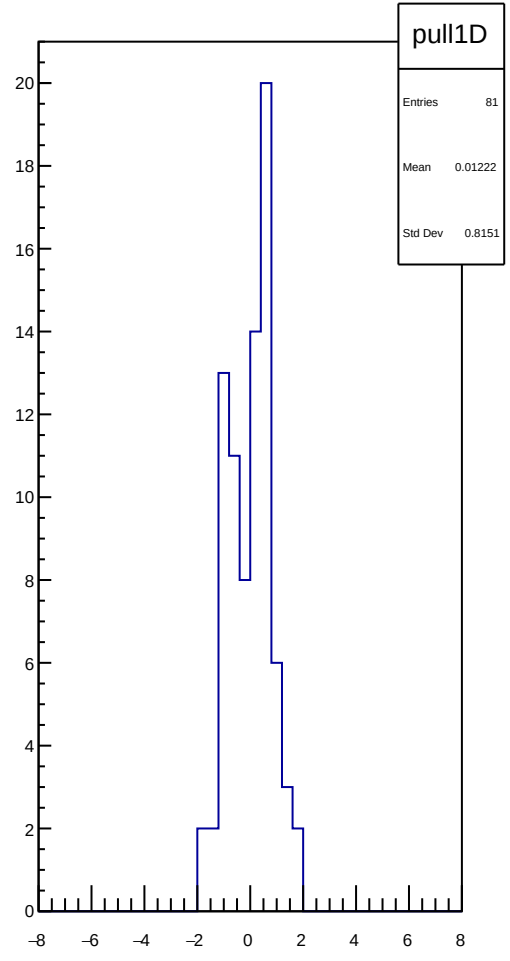

pull1D
Entries 81
Mean 0.08338
Std Dev 1.58

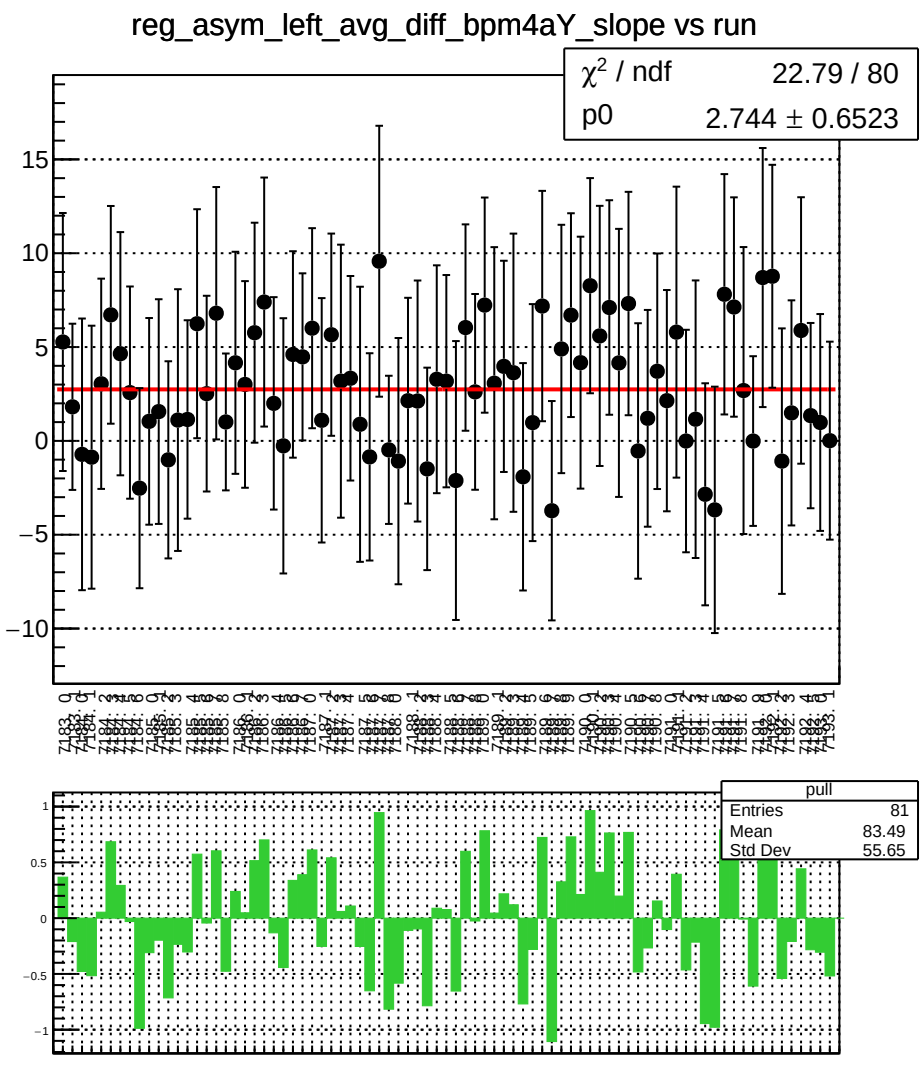

reg_asym_ds_dd_diff_bpm4eY_slope vs run
χ² / ndf 135.3 / 80
p0 −0.005824 ± 0.1076
pull
Entries 81
Mean −706.4
Std Dev 746.3

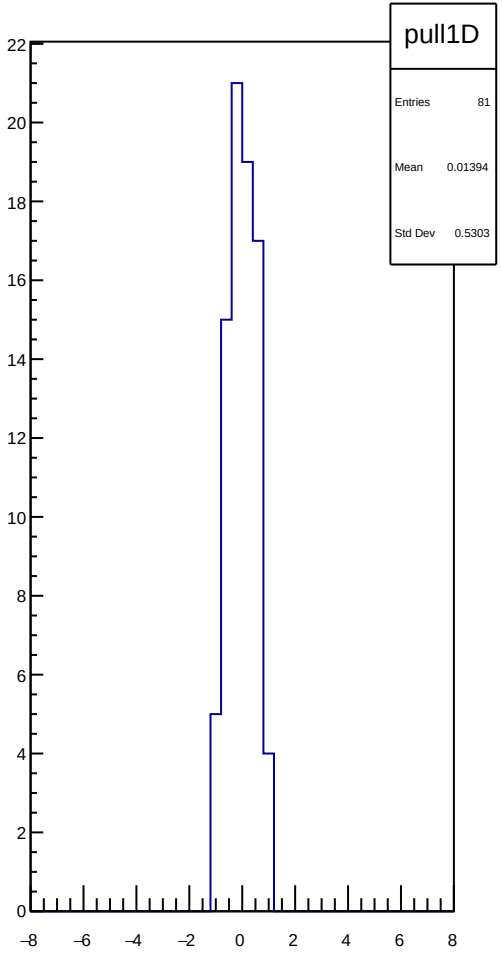

pull1D
Entries 81
Mean 0.005491
Std Dev 1.292

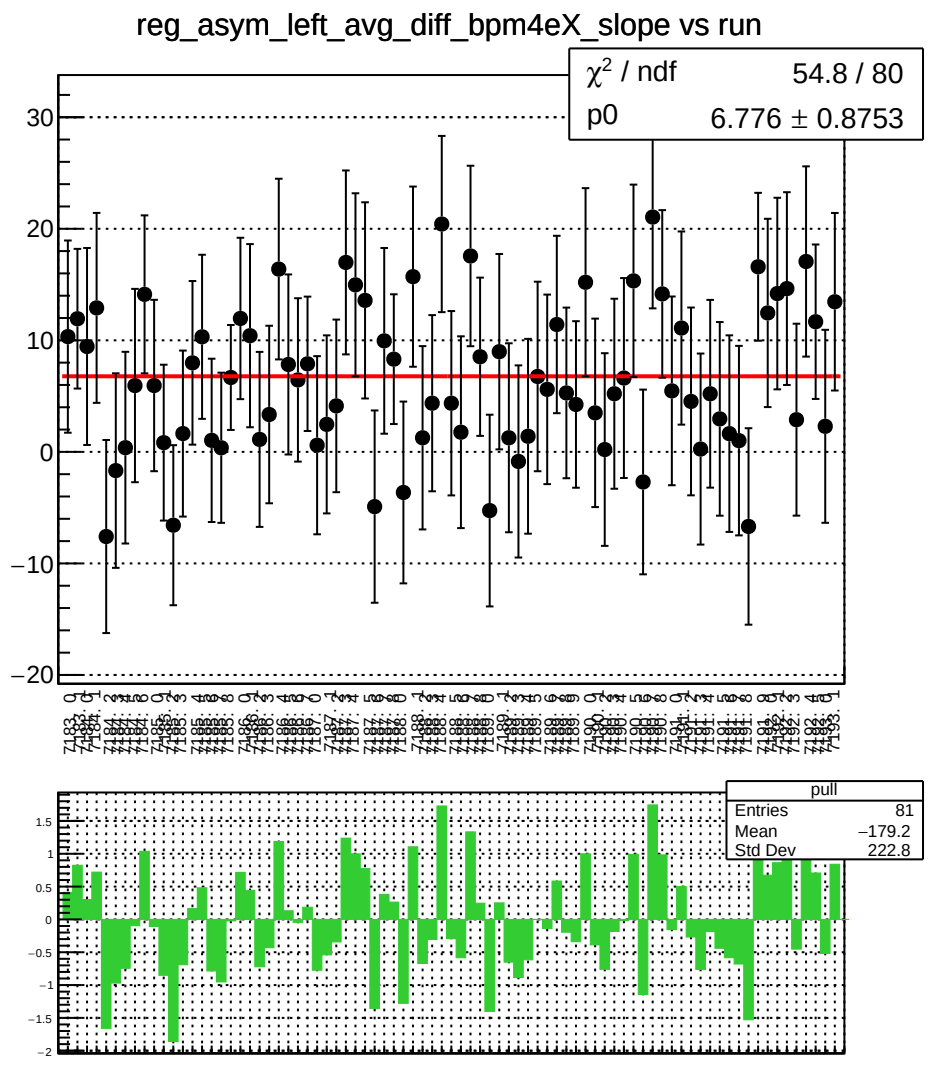

reg_asym_ds_dd_diff_bpm12X_slope vs run
χ² / ndf 166.7 / 80
p0 0.008733 ± 0.004847
pull
Entries 81
Mean −2402
Std Dev 2439
pull1D
Entries 81
Mean 0.0006247
Std Dev 1.435

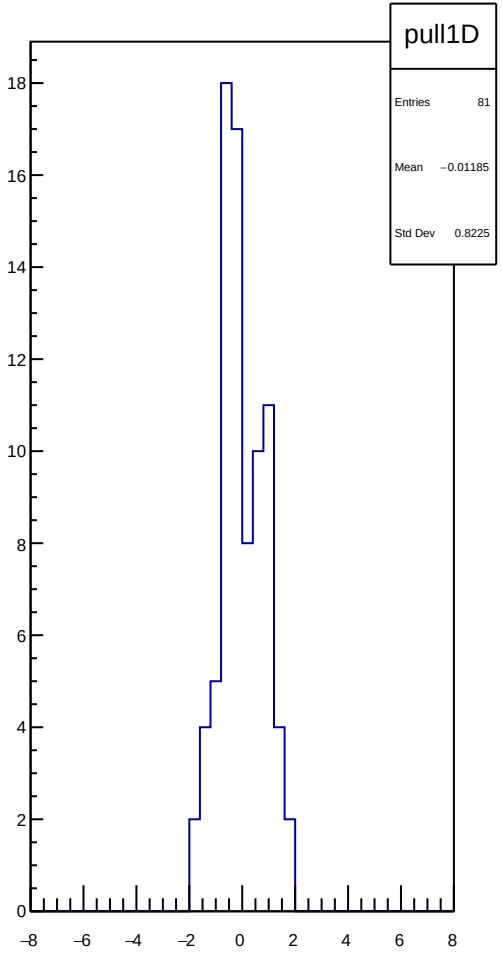

reg_asym_left_avg_diff_bpm1X_slope vs run
χ² / ndf 53.83 / 80
p0 −35.95 ± 0.874
pull
Entries 81
Mean −173.7
Std Dev 215.9

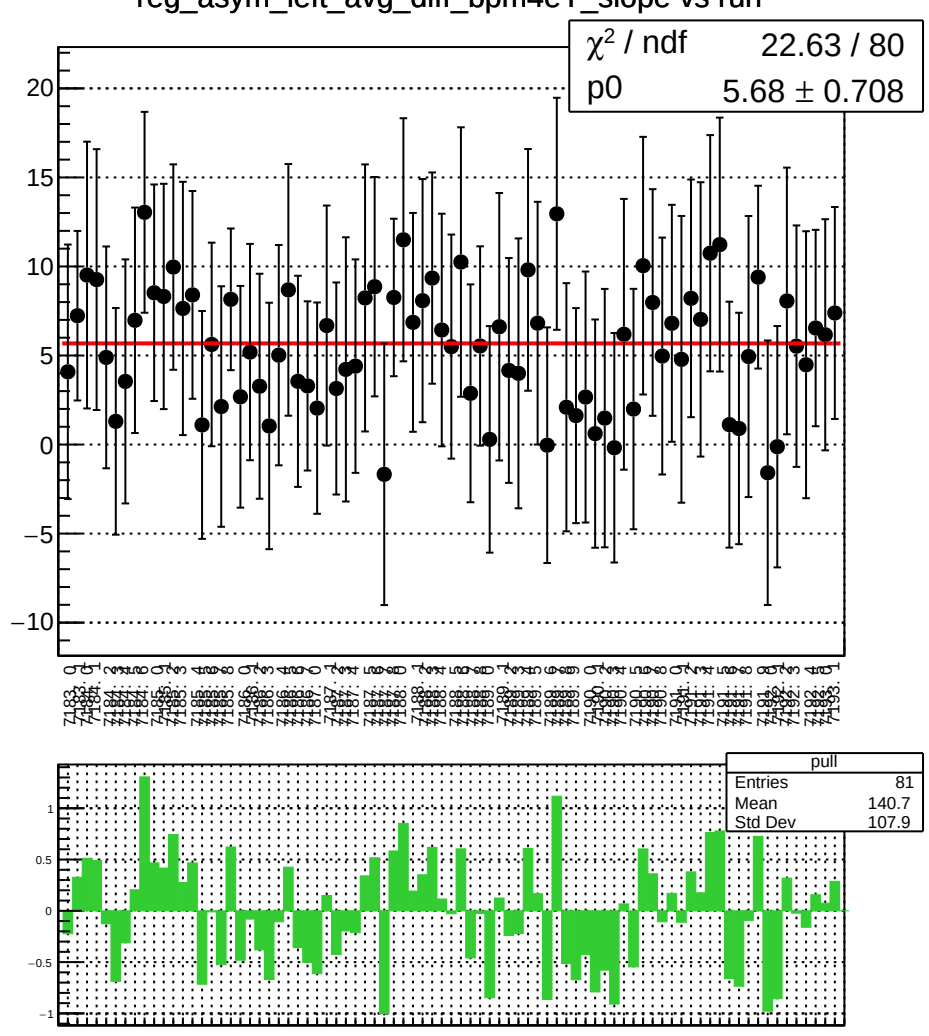

pull1D
Entries 81
Mean 0.01222
Std Dev 0.8151

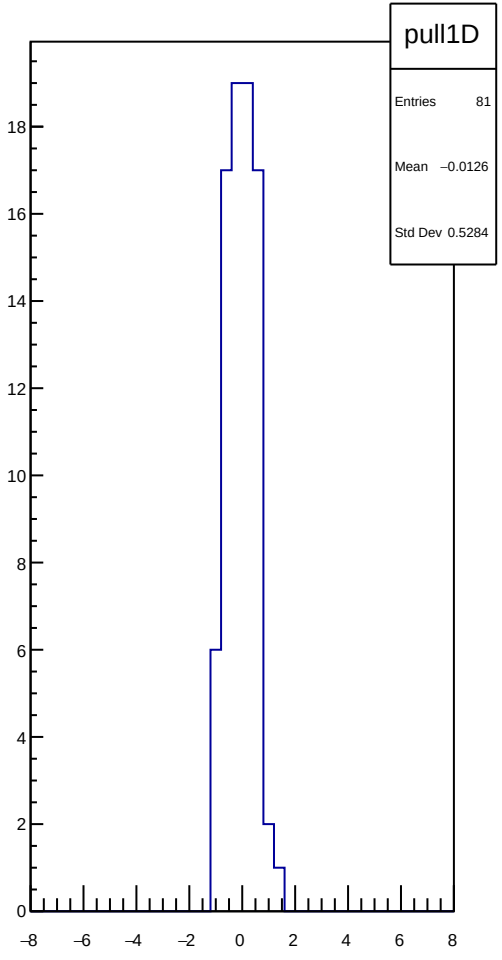

reg_asym_left_avg_diff_bpm4aY_slope vs run
χ² / ndf 22.79 / 80
p0 2.744 ± 0.6523
pull
Entries 81
Mean 83.49
Std Dev 55.65

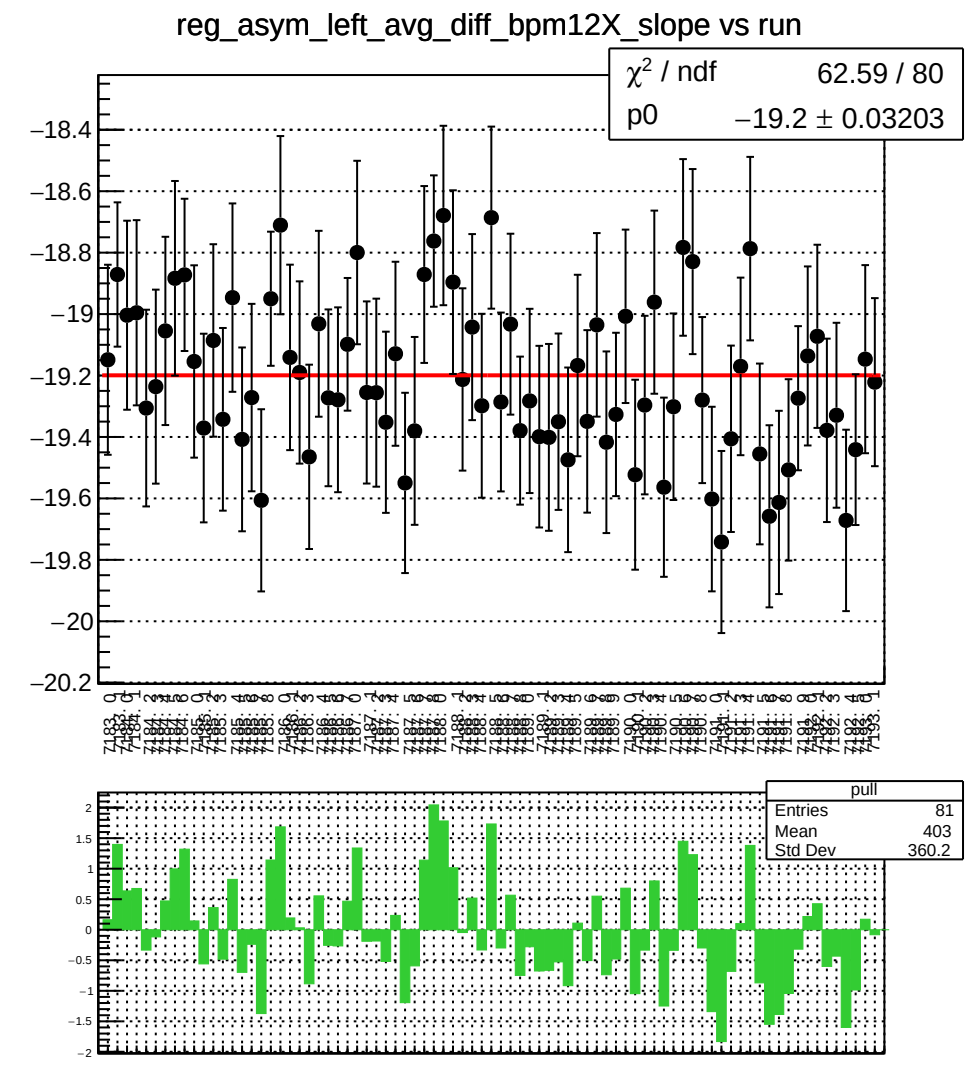

pull1D
Entries 81
Mean 0.01394
Std Dev 0.5303

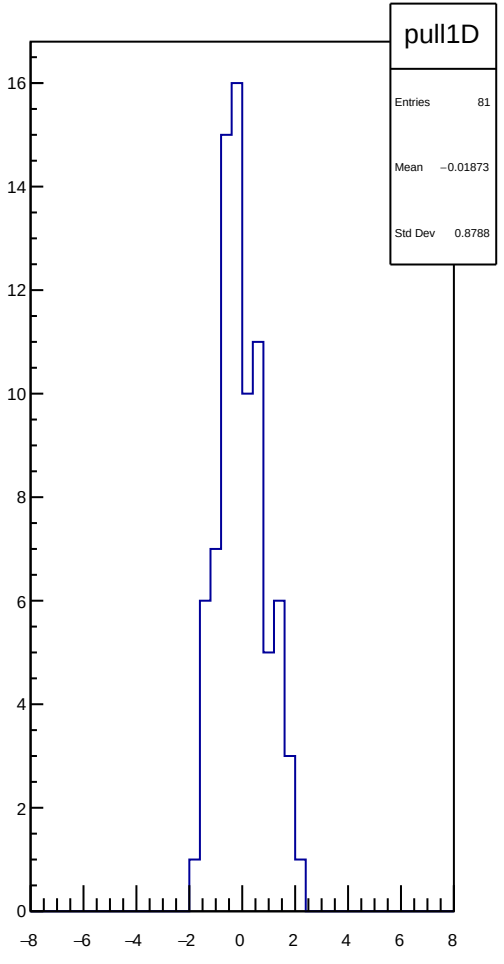

reg_asym_left_avg_diff_bpm4eX_slope vs run
χ² / ndf 54.8 / 80
p0 6.776 ± 0.8753
pull
Entries 81
Mean −179.2
Std Dev 222.8

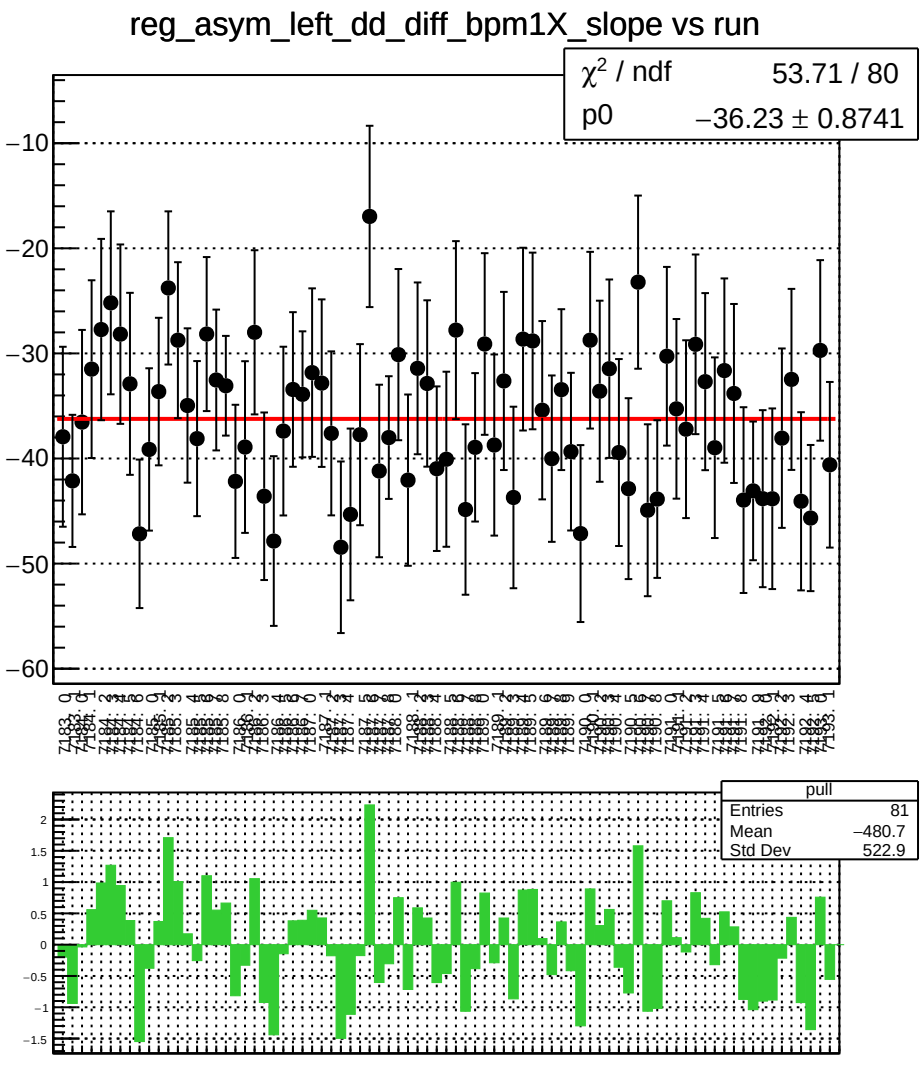

pull1D
Entries 81
Mean −0.01185
Std Dev 0.8225

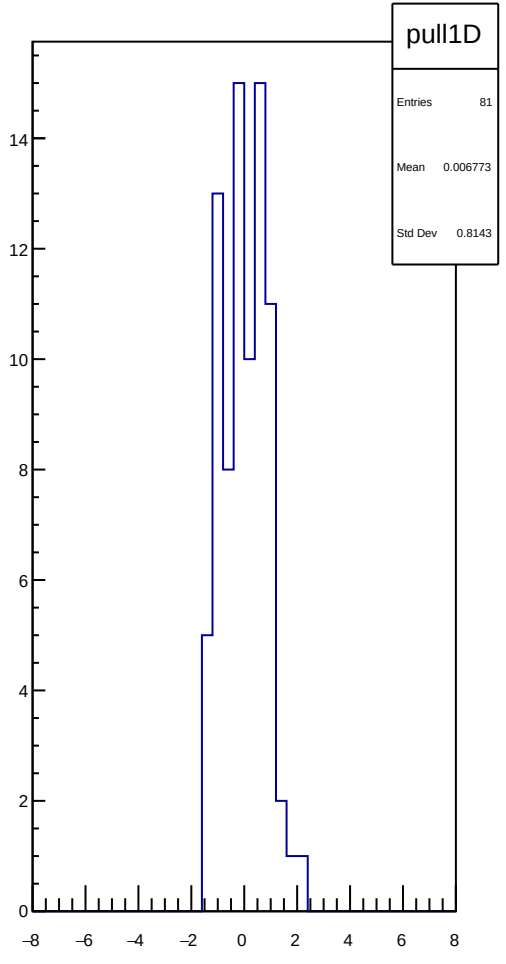

reg_asym_left_avg_diff_bpm4eY_slope vs run
χ² / ndf 22.63 / 80
p0 5.68 ± 0.708
pull
Entries 81
Mean 140.7
Std Dev 107.9

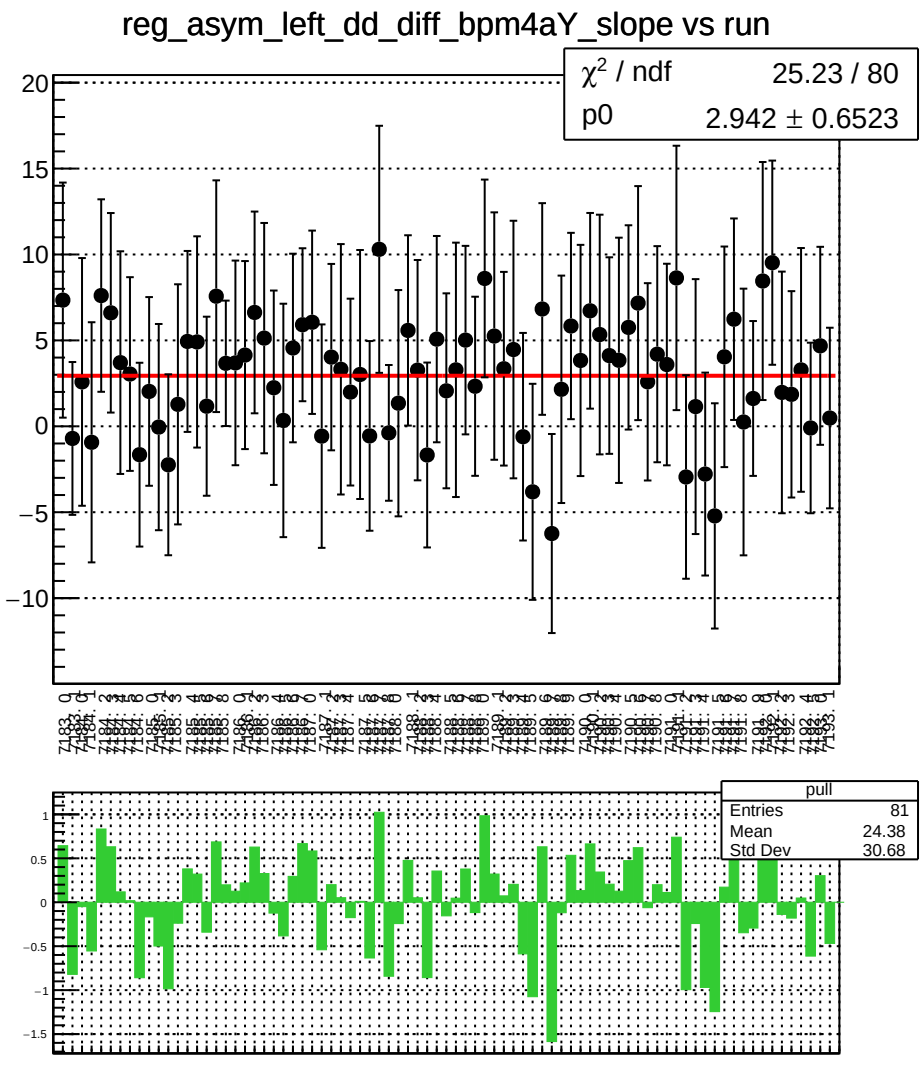

pull1D
Entries 81
Mean −0.0126
Std Dev 0.5284

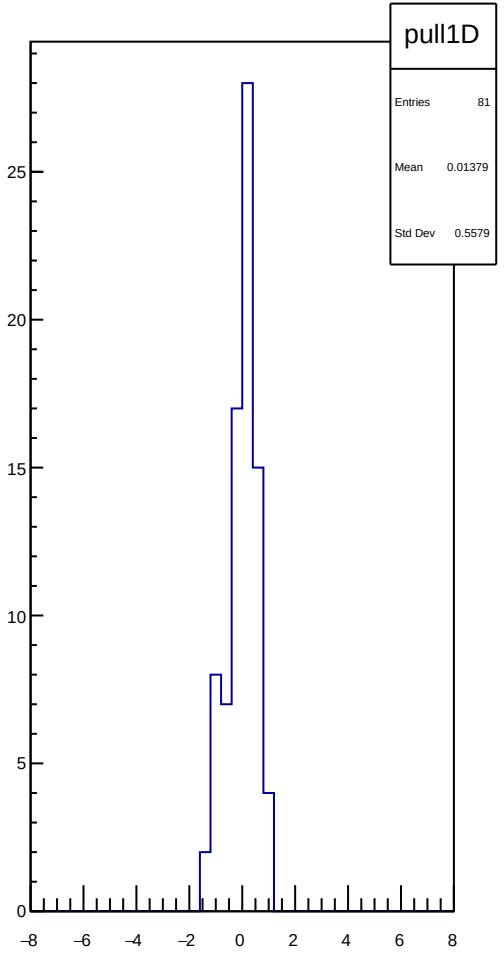

reg_asym_left_avg_diff_bpm12X_slope vs run
χ² / ndf 62.59 / 80
p0 −19.2 ± 0.03203
pull
Entries 81
Mean 403
Std Dev 360.2

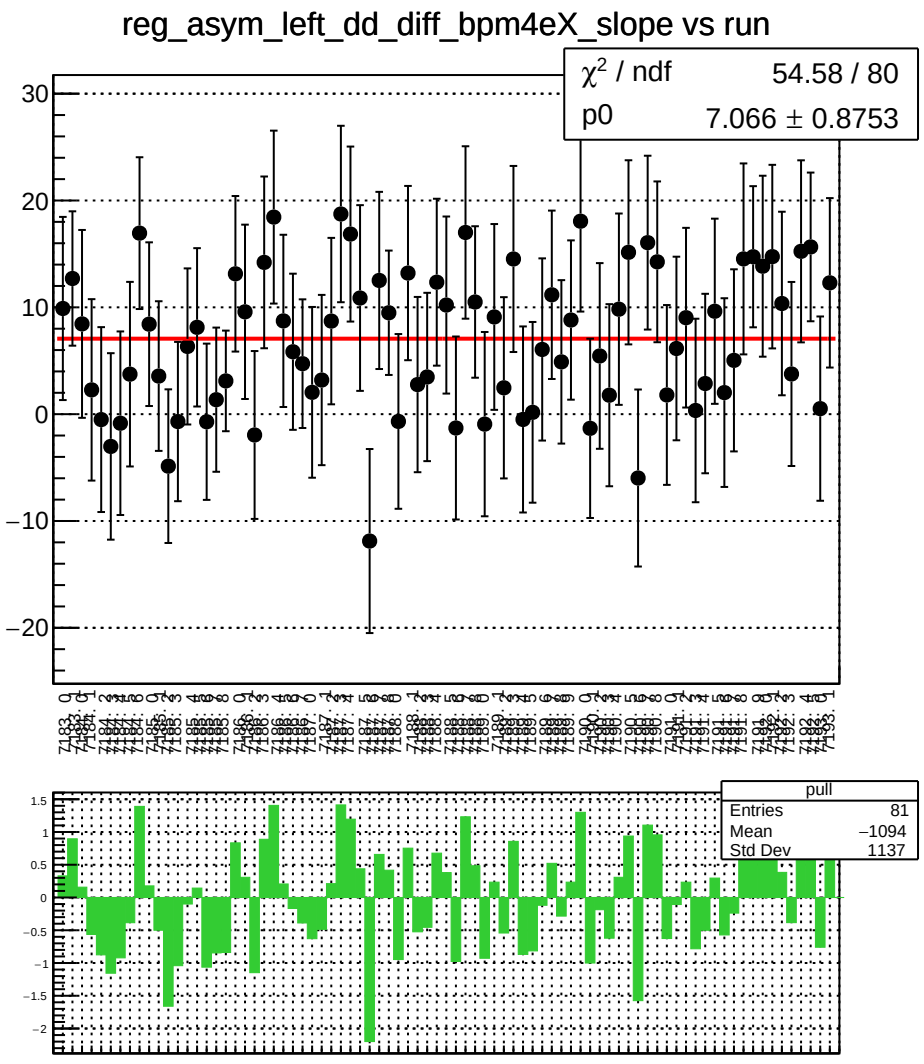

pull1D
Entries 81
Mean −0.01873
Std Dev 0.8788

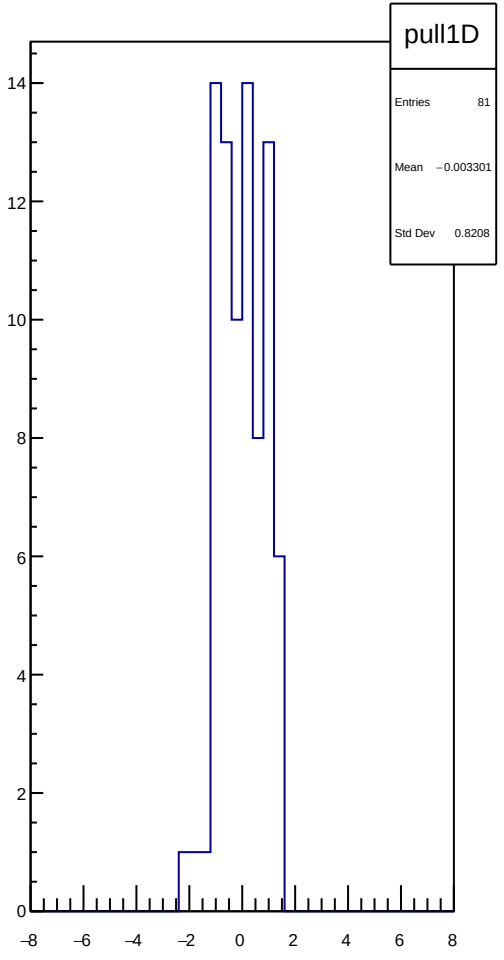

reg_asym_left_dd_diff_bpm1X_slope vs run
χ² / ndf 53.71 / 80
p0 −36.23 ± 0.8741
pull
Entries 81
Mean −480.7
Std Dev 522.9

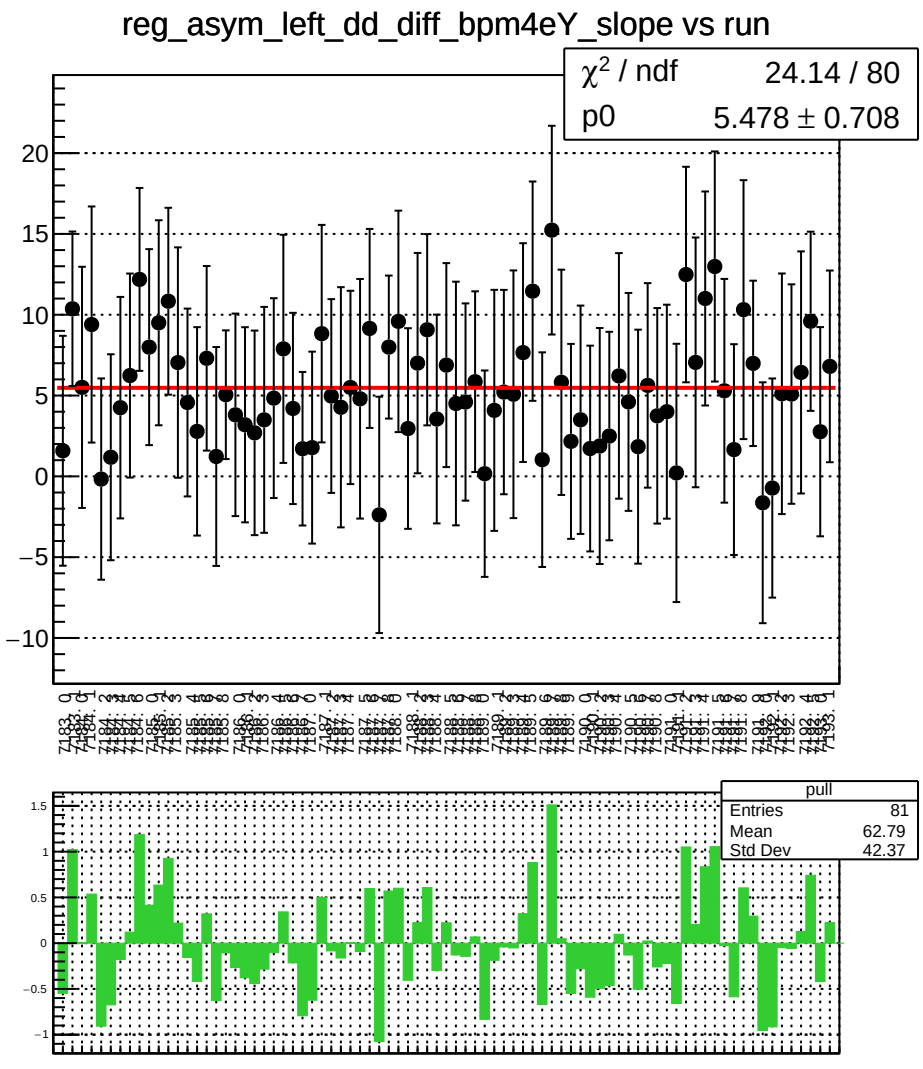

pull1D
Entries 81
Mean 0.006773
Std Dev 0.8143

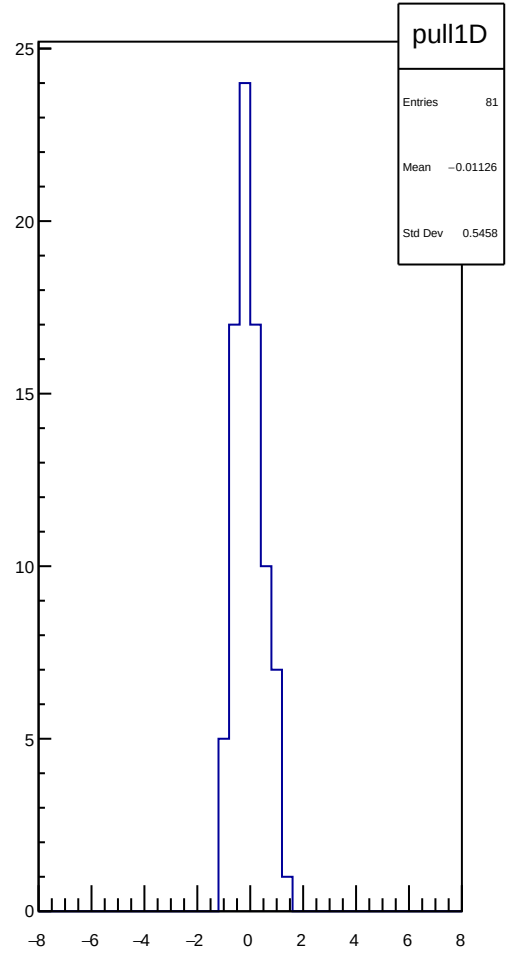

reg_asym_left_dd_diff_bpm4aY_slope vs run
χ² / ndf 25.23 / 80
p0 2.942 ± 0.6523
pull
Entries 81
Mean 24.38
Std Dev 30.68

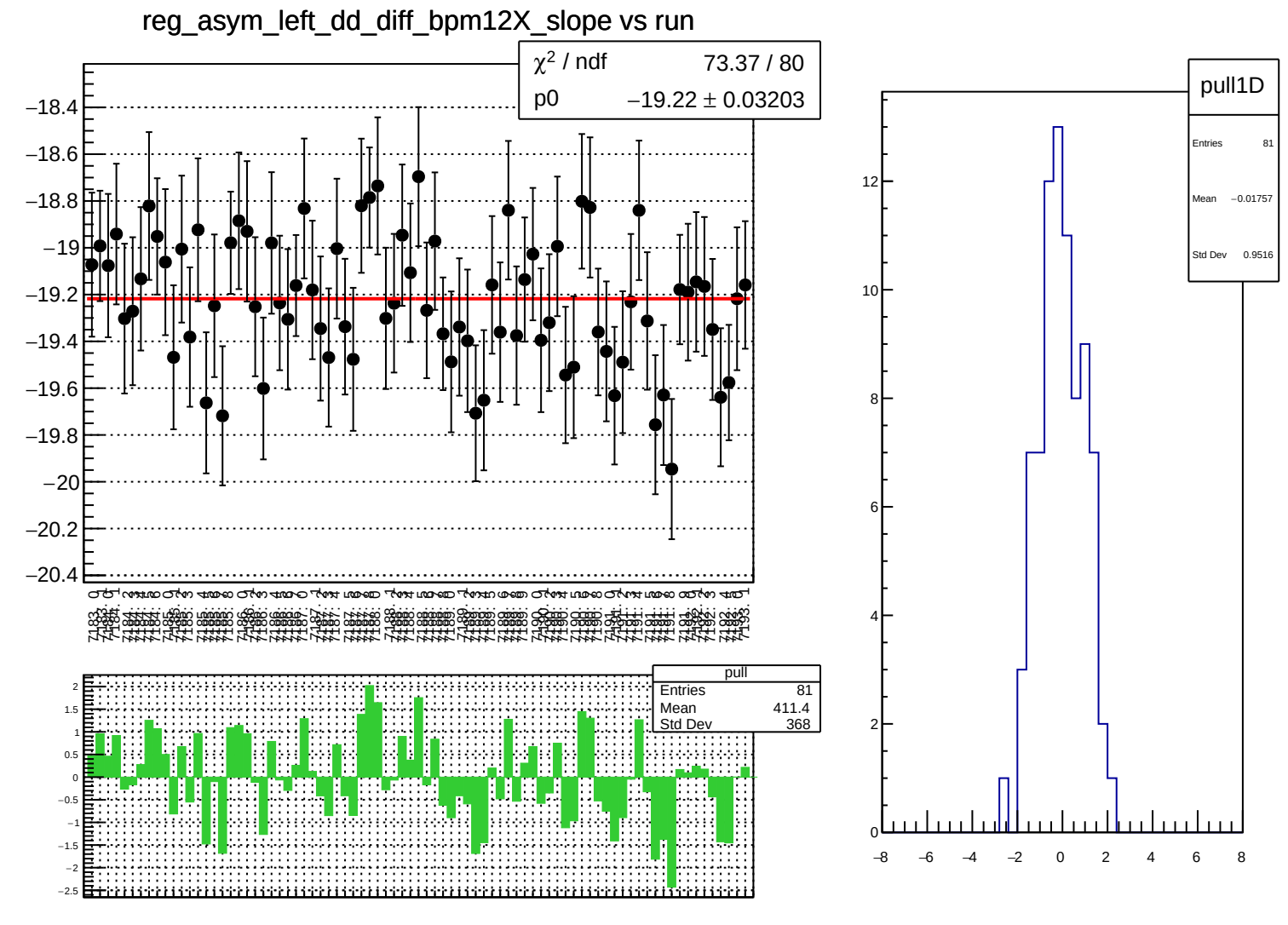

pull1D
Entries 81
Mean 0.01379
Std Dev 0.5579

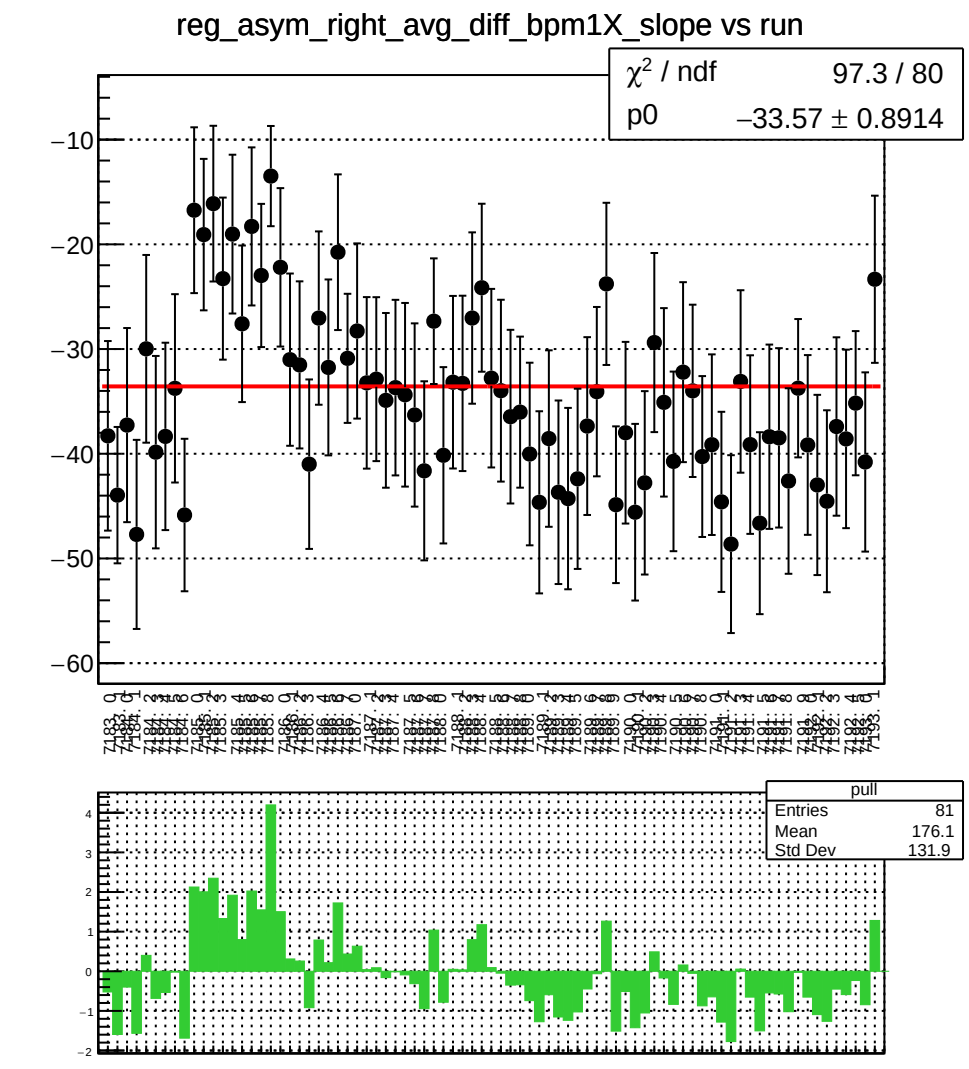

reg_asym_left_dd_diff_bpm4eX_slope vs run
χ² / ndf 54.58 / 80
p0 7.066 ± 0.8753
pull
Entries 81
Mean −1094
Std Dev 1137

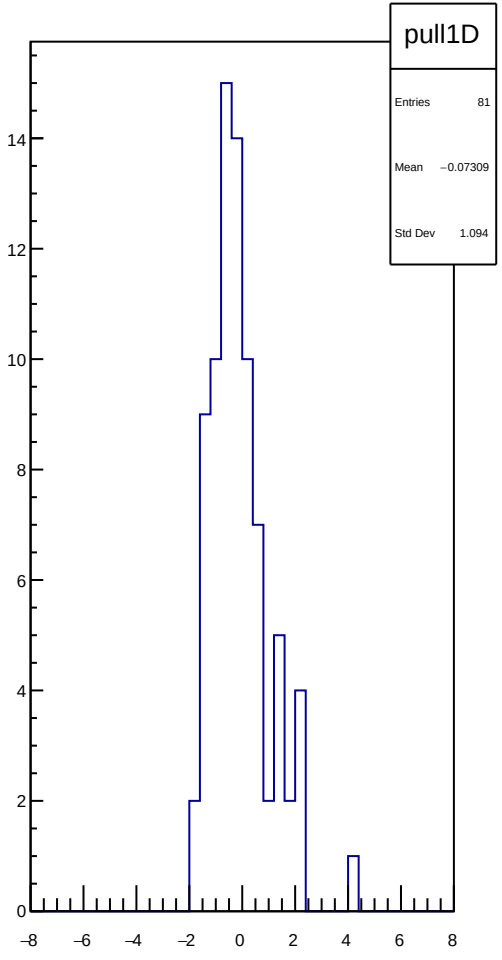

pull1D
Entries 81
Mean −0.003301
Std Dev 0.8208

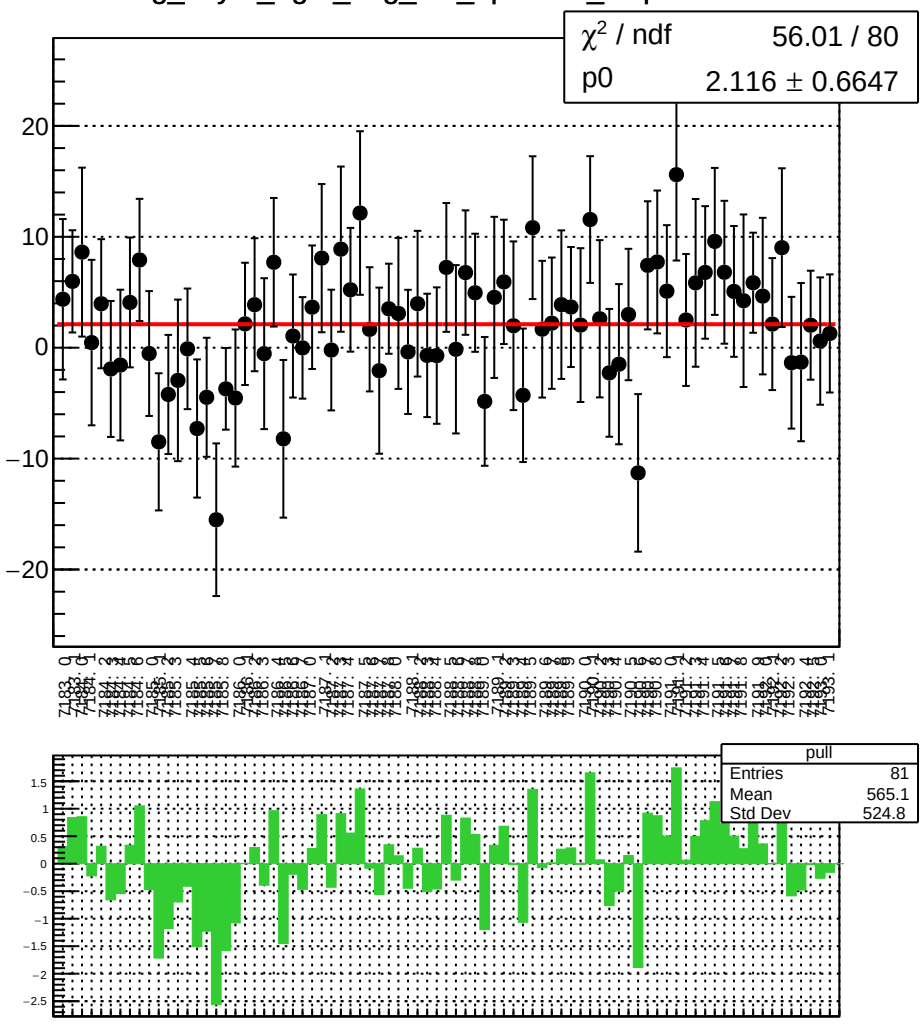

reg_asym_left_dd_diff_bpm4eY_slope vs run
χ² / ndf 24.14 / 80
p0 5.478 ± 0.708
pull
Entries 81
Mean 62.79
Std Dev 42.37

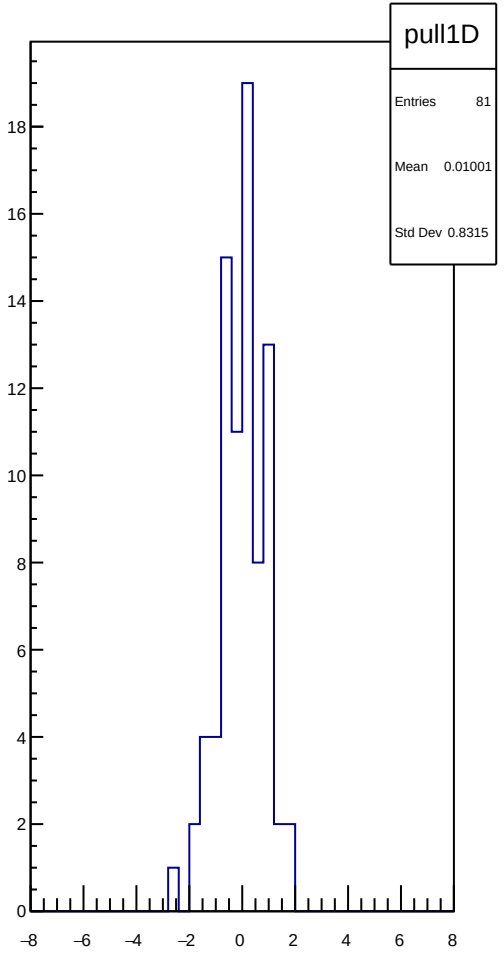

pull1D
Entries 81
Mean −0.01126
Std Dev 0.5458

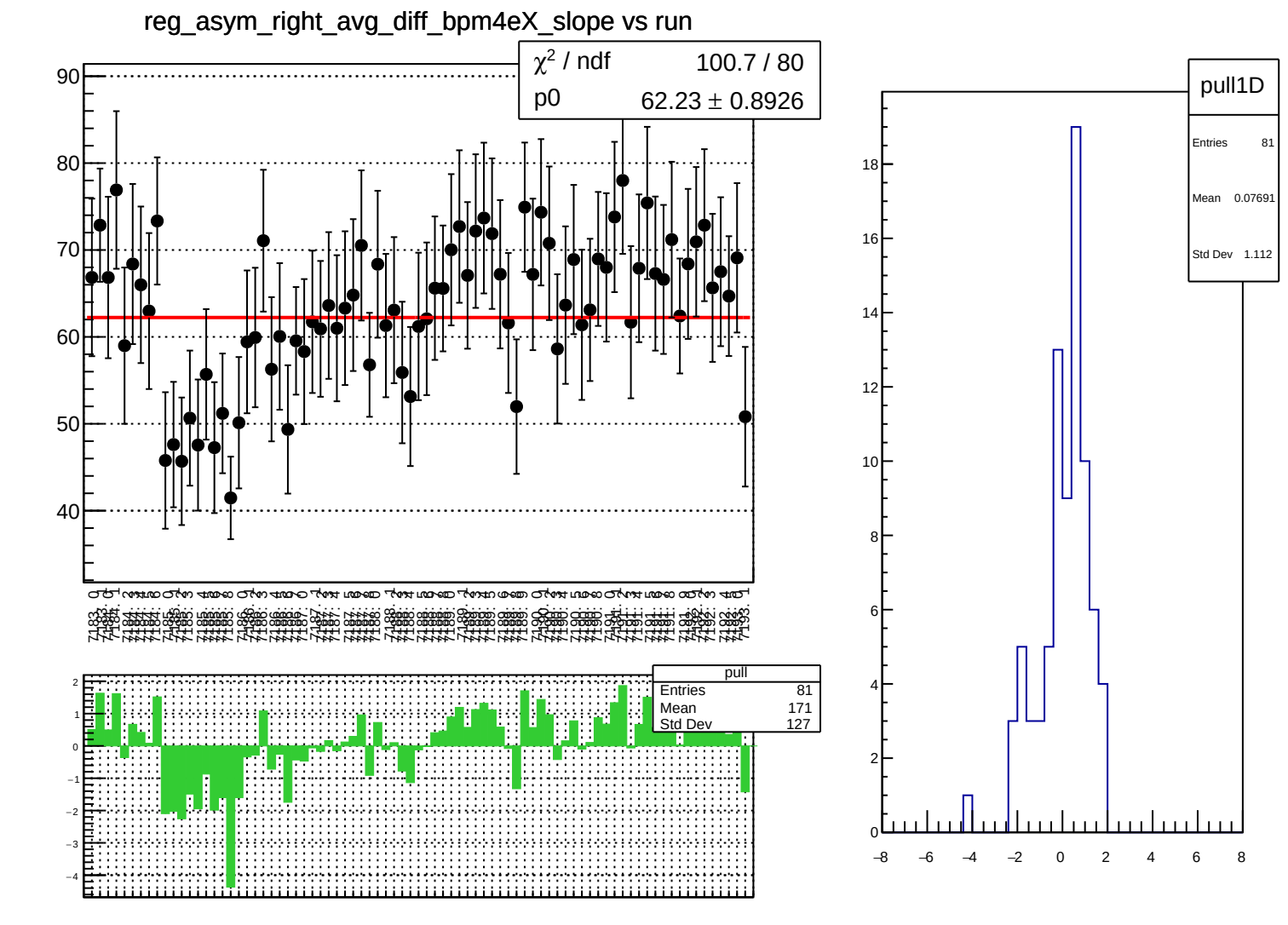

reg_asym_left_dd_diff_bpm12X_slope vs run
χ² / ndf 73.37 / 80
p0 −19.22 ± 0.03203
pull
Entries 81
Mean 411.4
Std Dev 368
pull1D
Entries 81
Mean −0.01757
Std Dev 0.9516

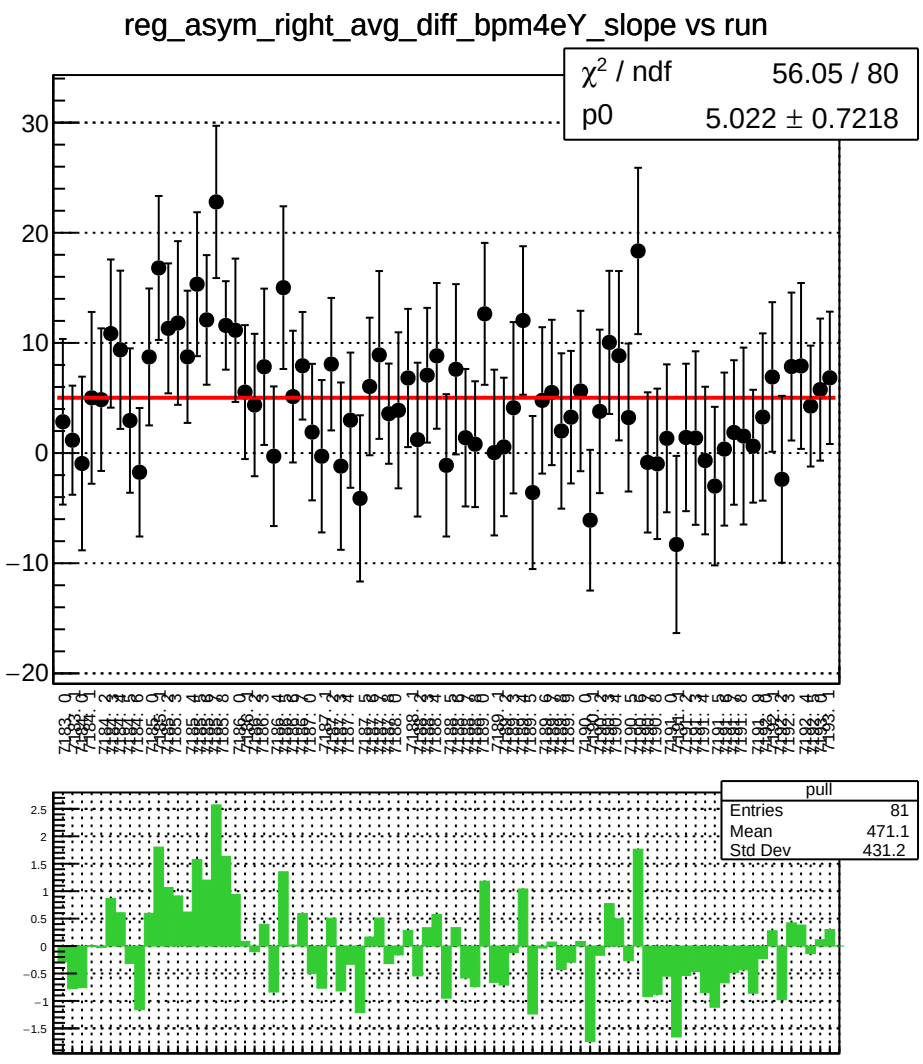

reg_asym_right_avg_diff_bpm1X_slope vs run
χ² / ndf 97.3 / 80
p0 −33.57 ± 0.8914
pull
Entries 81
Mean 176.1
Std Dev 131.9

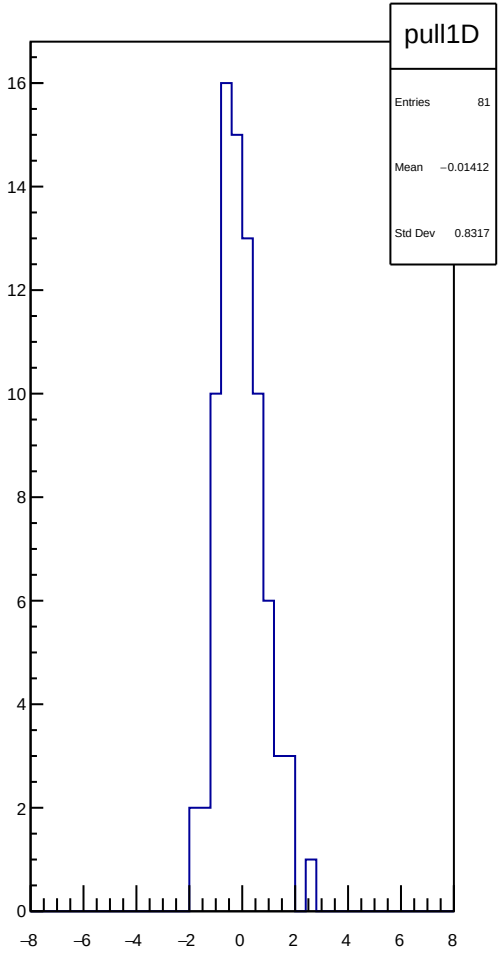

pull1D
Entries 81
Mean −0.07309
Std Dev 1.094

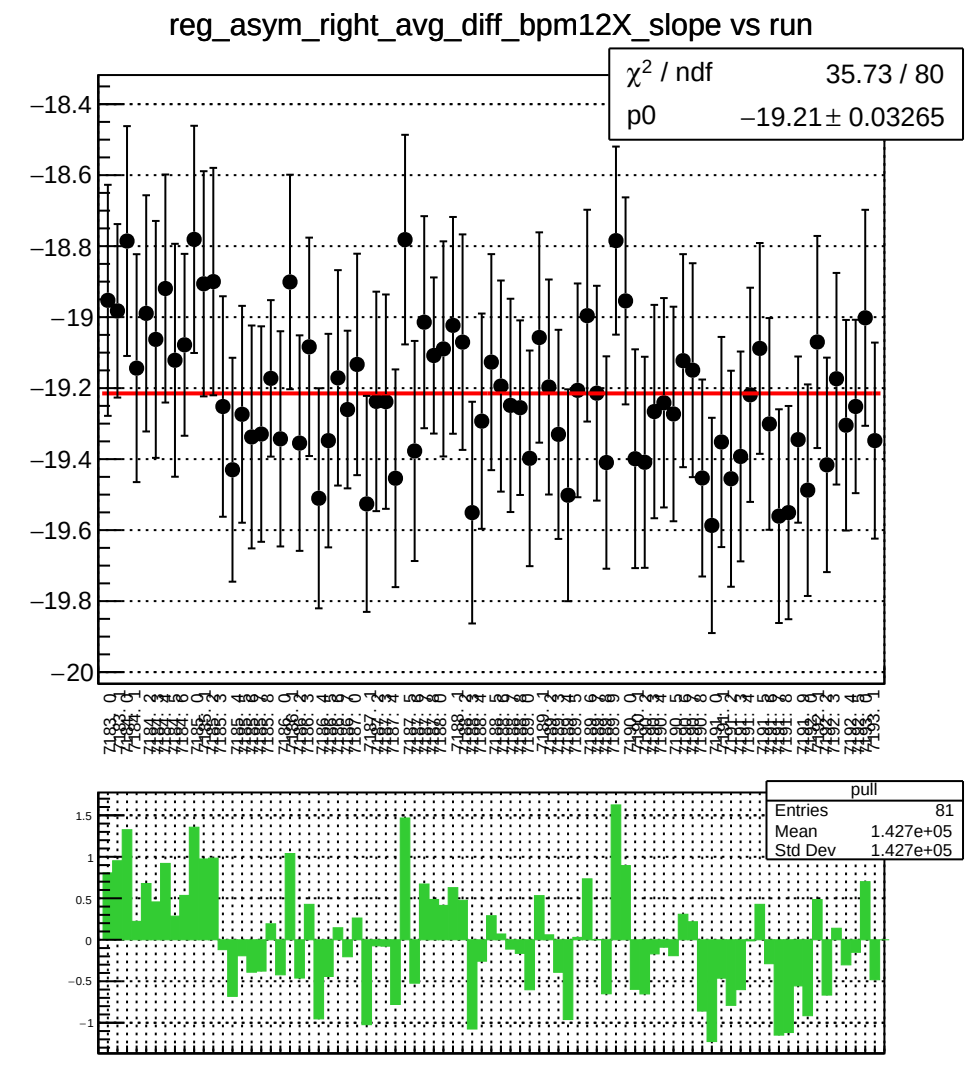

reg_asym_right_avg_diff_bpm4aY_slope vs run
χ² / ndf 56.01 / 80
p0 2.116 ± 0.6647
pull
Entries 81
Mean 565.1
Std Dev 524.8

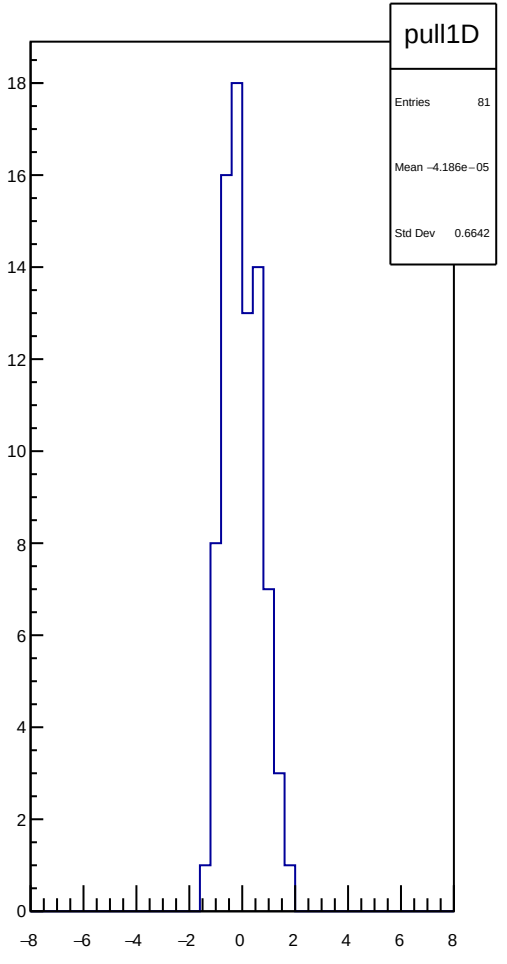

pull1D
Entries 81
Mean 0.01001
Std Dev 0.8315

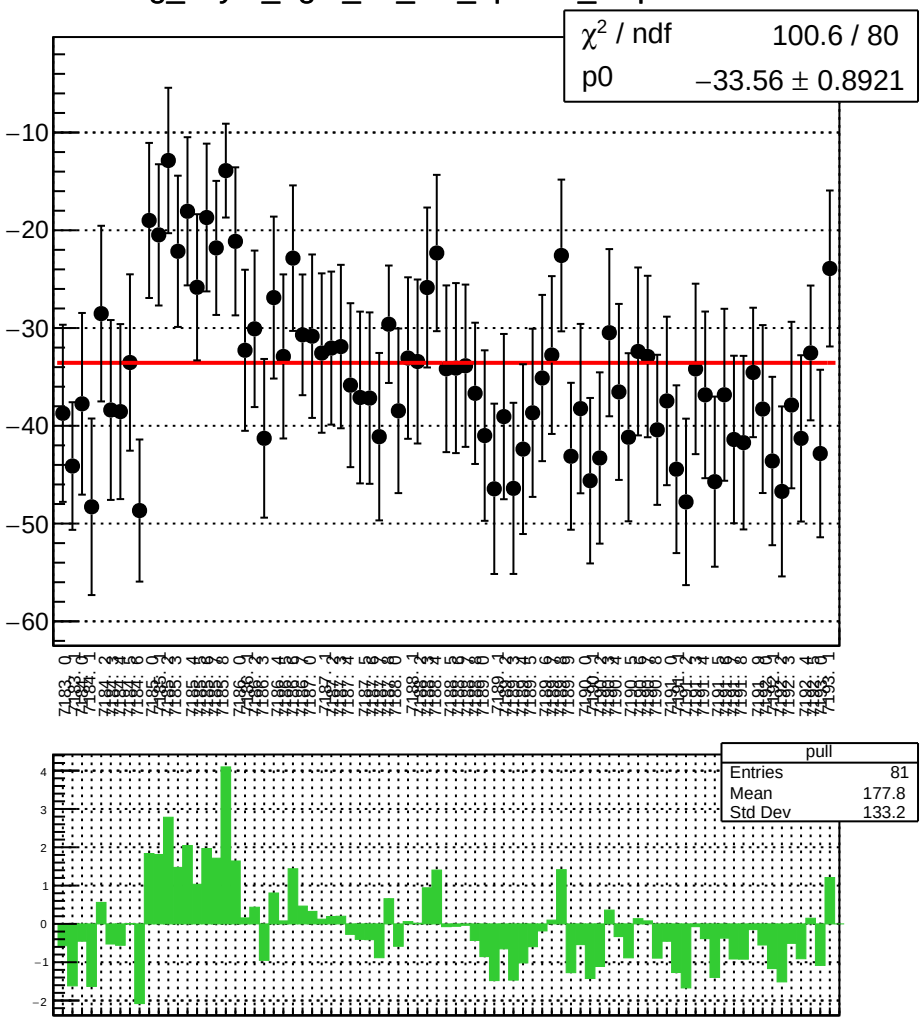

reg_asym_right_avg_diff_bpm4eX_slope vs run
χ² / ndf 100.7 / 80
p0 62.23 ± 0.8926
pull
Entries 81
Mean 171
Std Dev 127
pull1D
Entries 81
Mean 0.07691
Std Dev 1.112

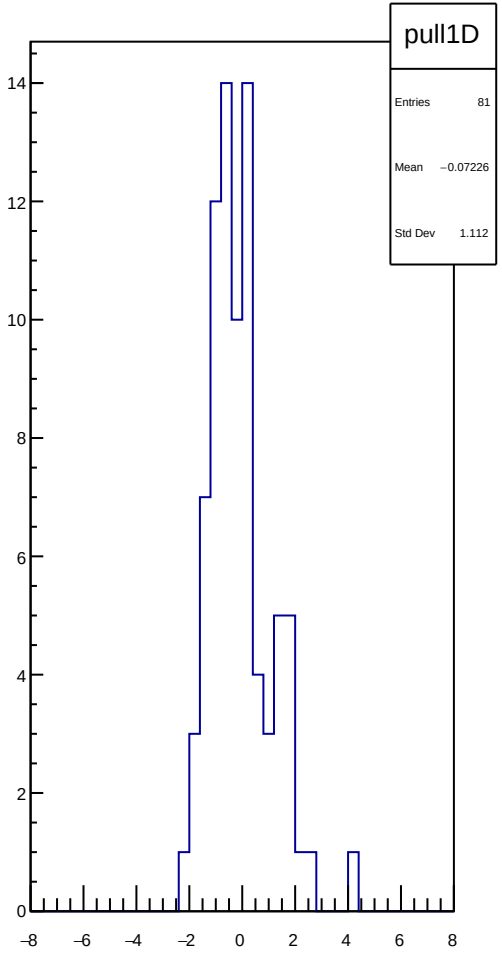

reg_asym_right_avg_diff_bpm4eY_slope vs run
χ² / ndf 56.05 / 80
p0 5.022 ± 0.7218
pull
Entries 81
Mean 471.1
Std Dev 431.2

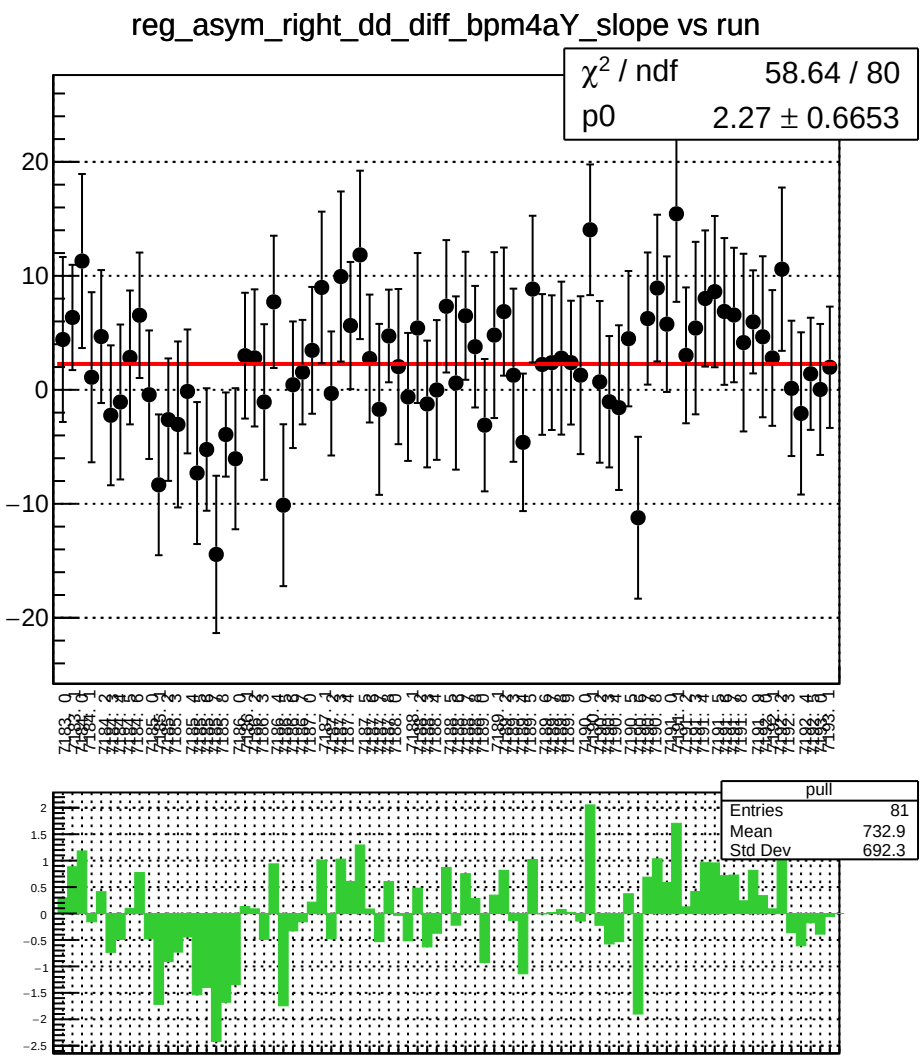

pull1D
Entries 81
Mean −0.01412
Std Dev 0.8317

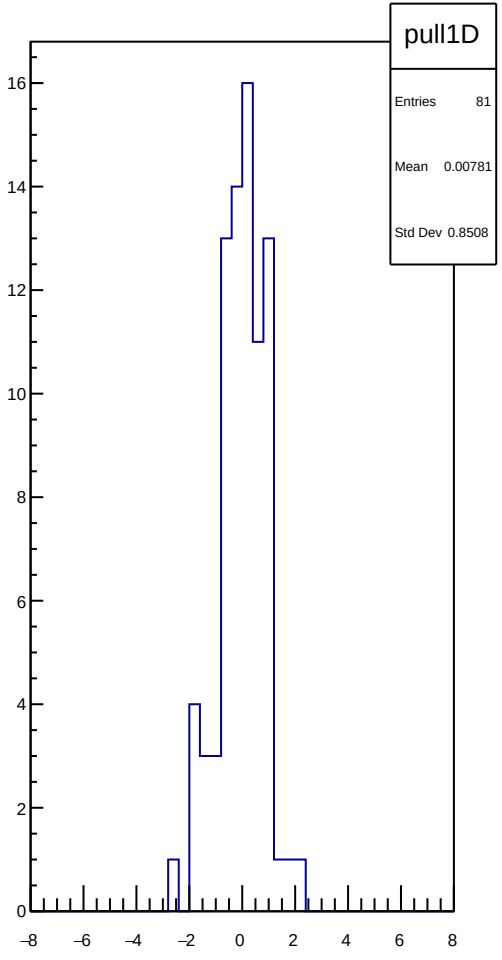

reg_asym_right_avg_diff_bpm12X_slope vs run
χ² / ndf 35.73 / 80
p0 −19.21 ± 0.03265
−18.4
−18.6
−18.8
−19
−19.2
−19.4
−19.6
−19.8
−20
pull
Entries 81
Mean 1.427e+05
Std Dev 1.427e+05
1.5
1
0.5
0
−0.5
−1

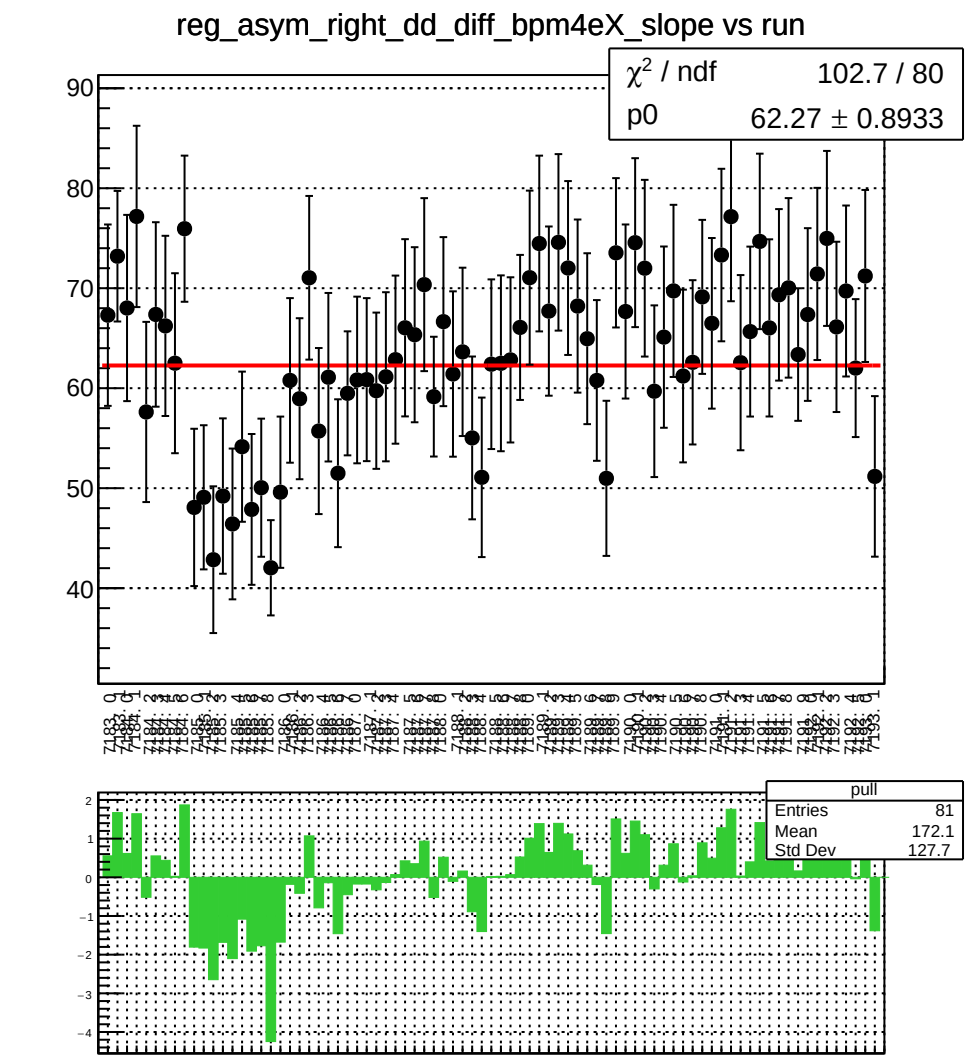

pull1D
Entries 81
Mean −4.186e−05
Std Dev 0.6642
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

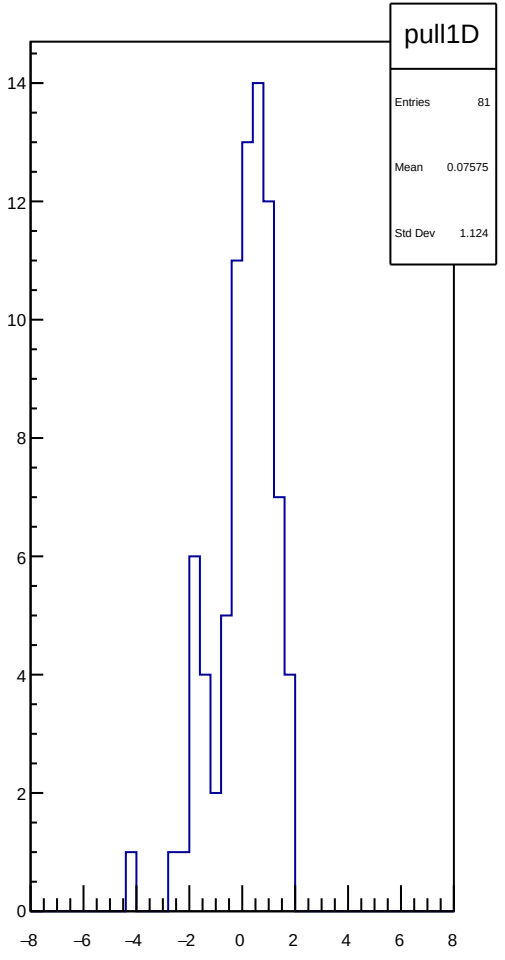

reg_asym_right_dd_diff_bpm1X_slope vs run
χ² / ndf 100.6 / 80
p0 −33.56 ± 0.8921
pull
Entries 81
Mean 177.8
Std Dev 133.2

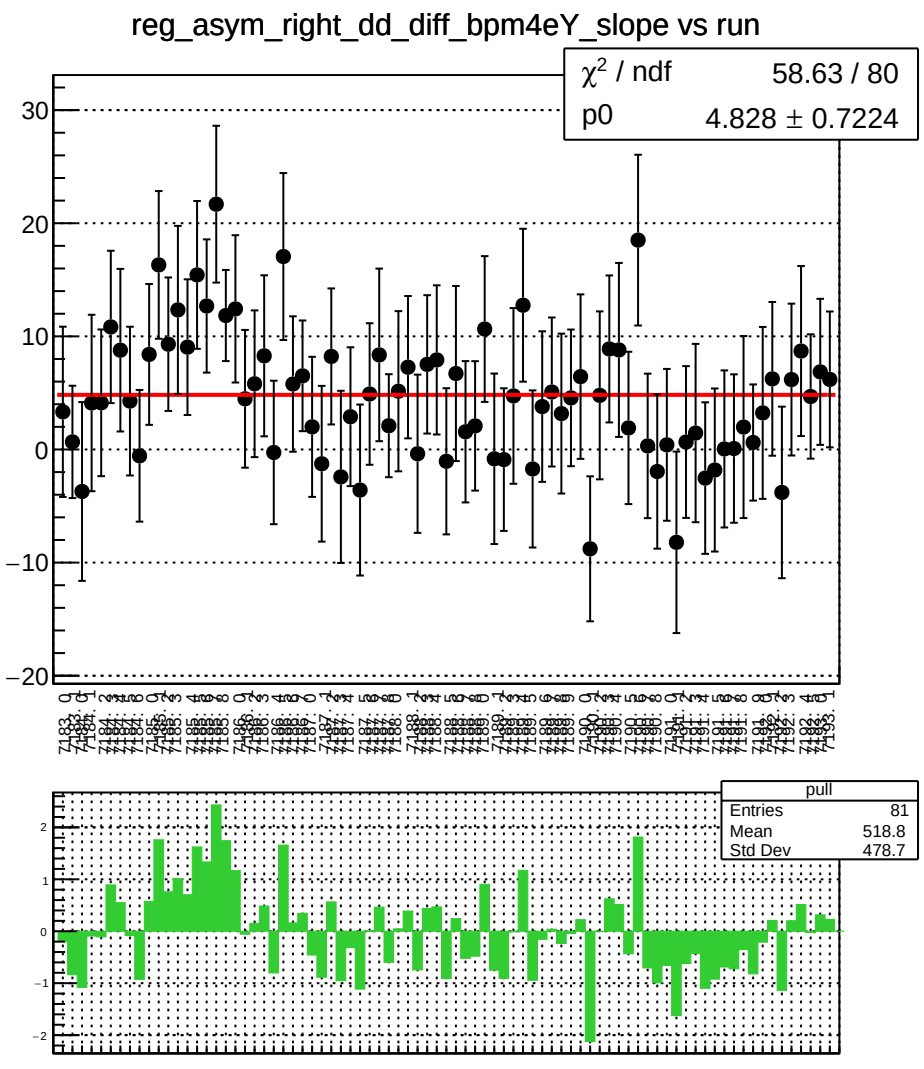

pull1D
Entries 81
Mean −0.07226
Std Dev 1.112

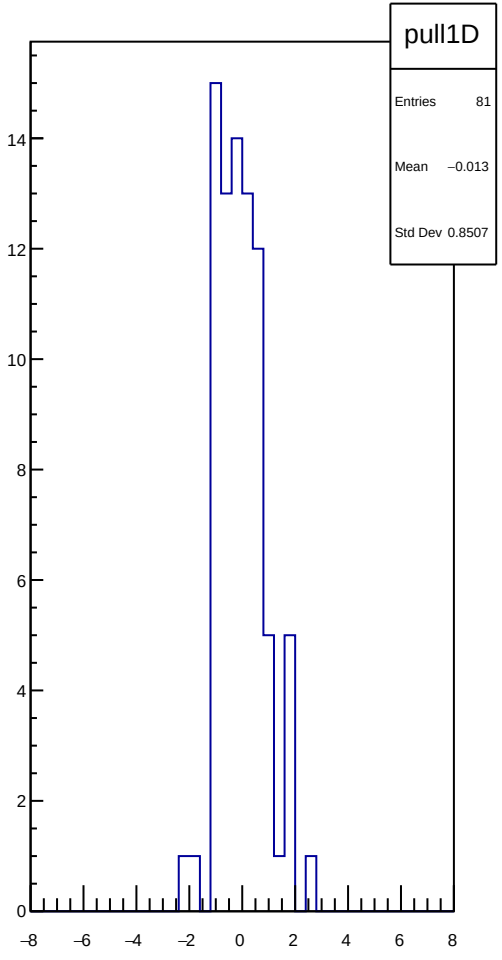

reg_asym_right_dd_diff_bpm4aY_slope vs run
χ² / ndf 58.64 / 80
p0 2.27 ± 0.6653
pull
Entries 81
Mean 732.9
Std Dev 692.3

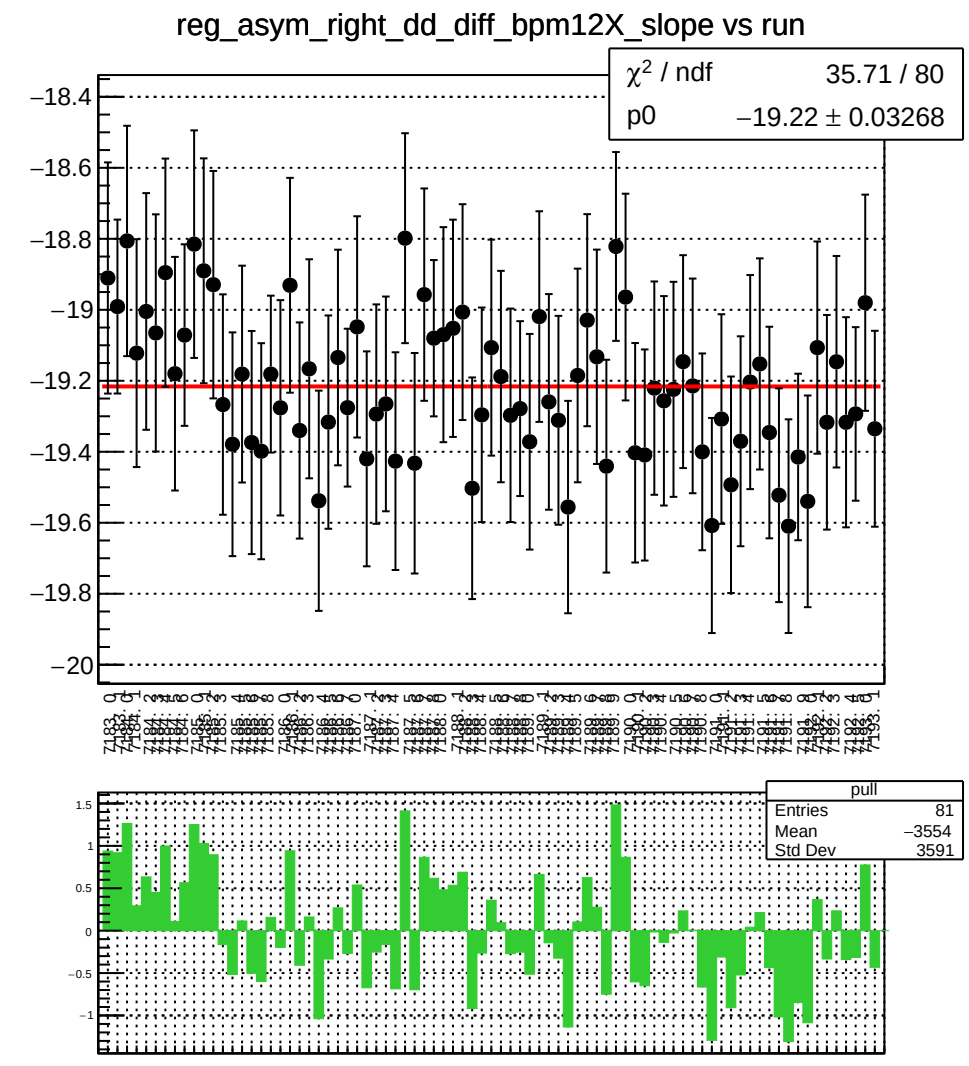

pull1D
Entries 81
Mean 0.00781
Std Dev 0.8508

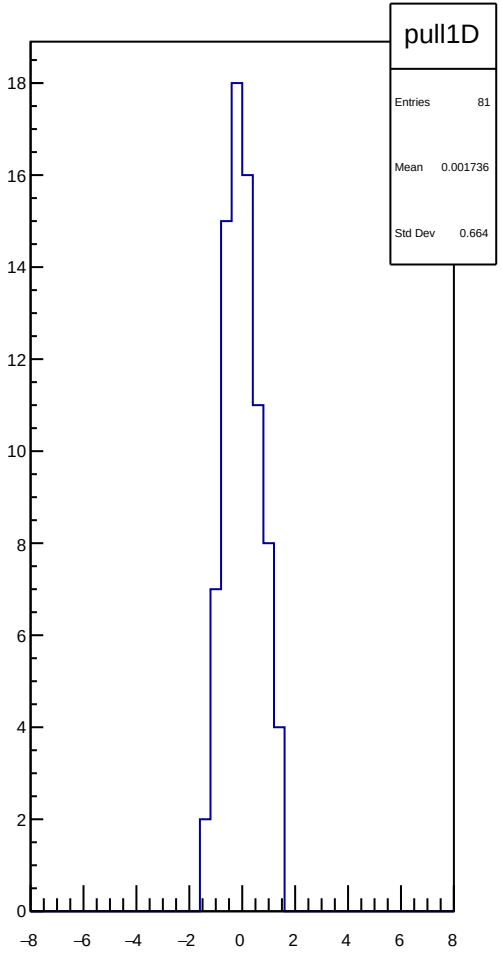

reg_asym_right_dd_diff_bpm4eX_slope vs run
χ² / ndf 102.7 / 80
p0 62.27 ± 0.8933
pull
Entries 81
Mean 172.1
Std Dev 127.7

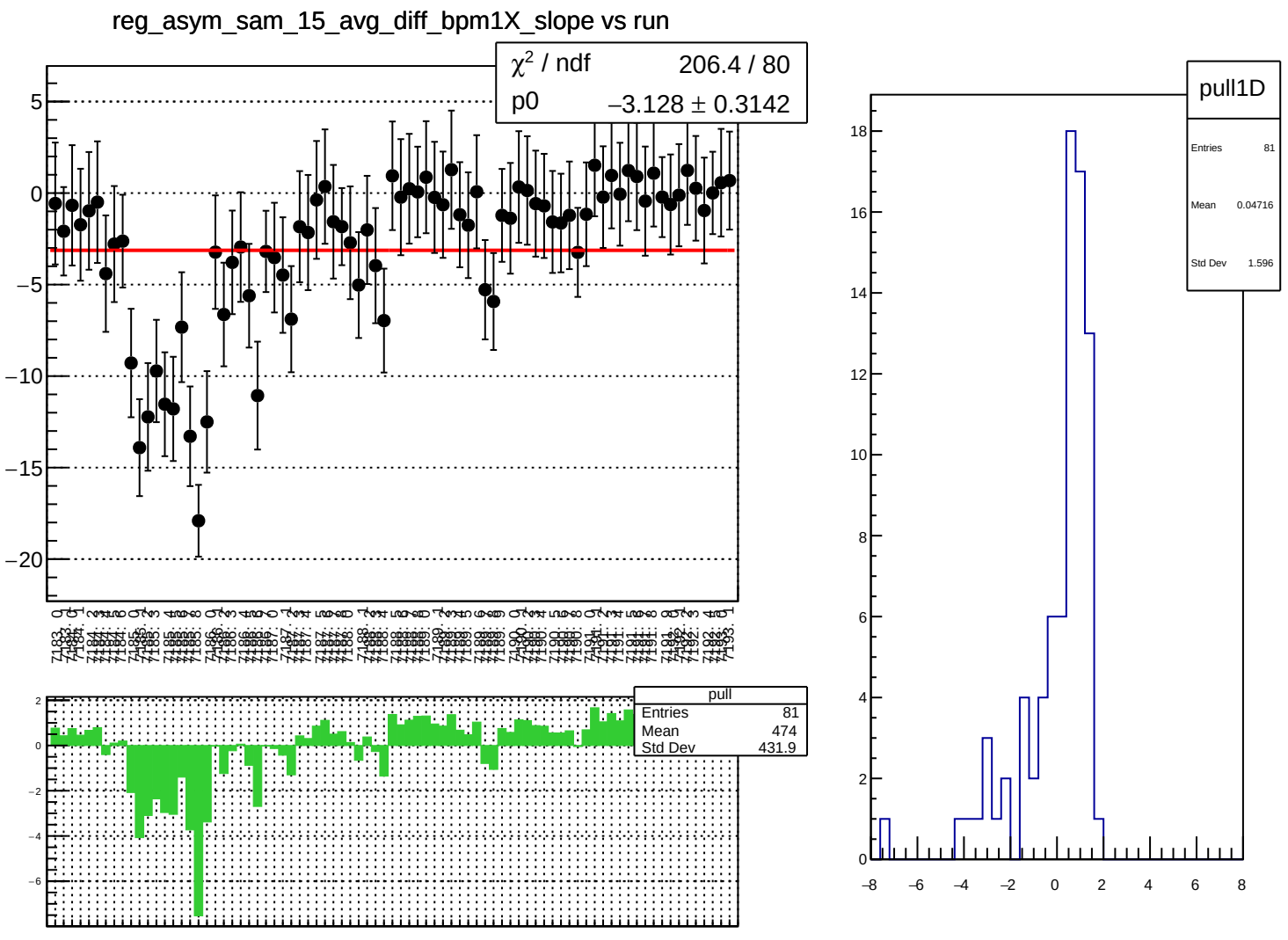

pull1D
Entries 81
Mean 0.07575
Std Dev 1.124

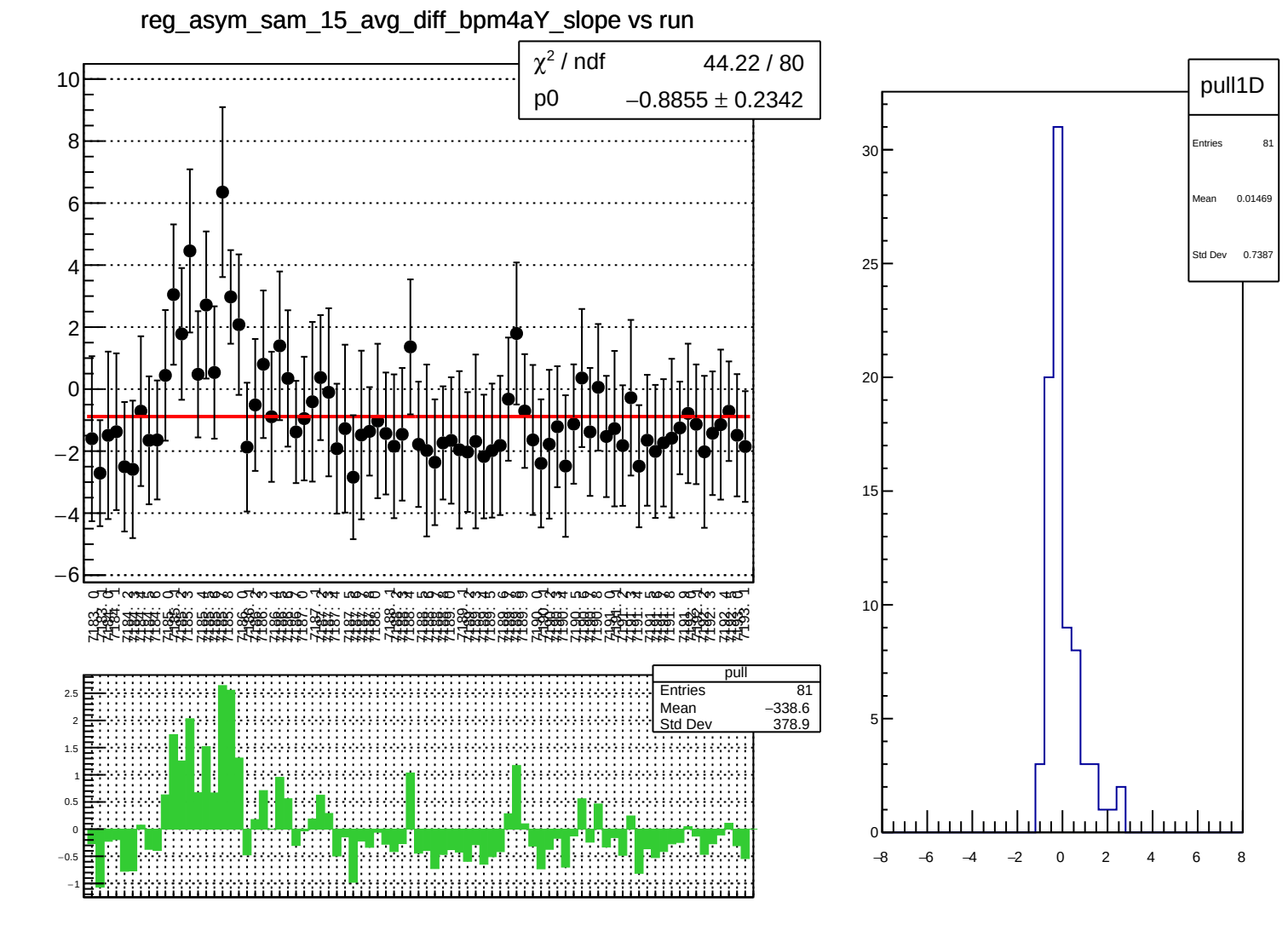

reg_asym_right_dd_diff_bpm4eY_slope vs run
χ² / ndf 58.63 / 80
p0 4.828 ± 0.7224
pull
Entries 81
Mean 518.8
Std Dev 478.7

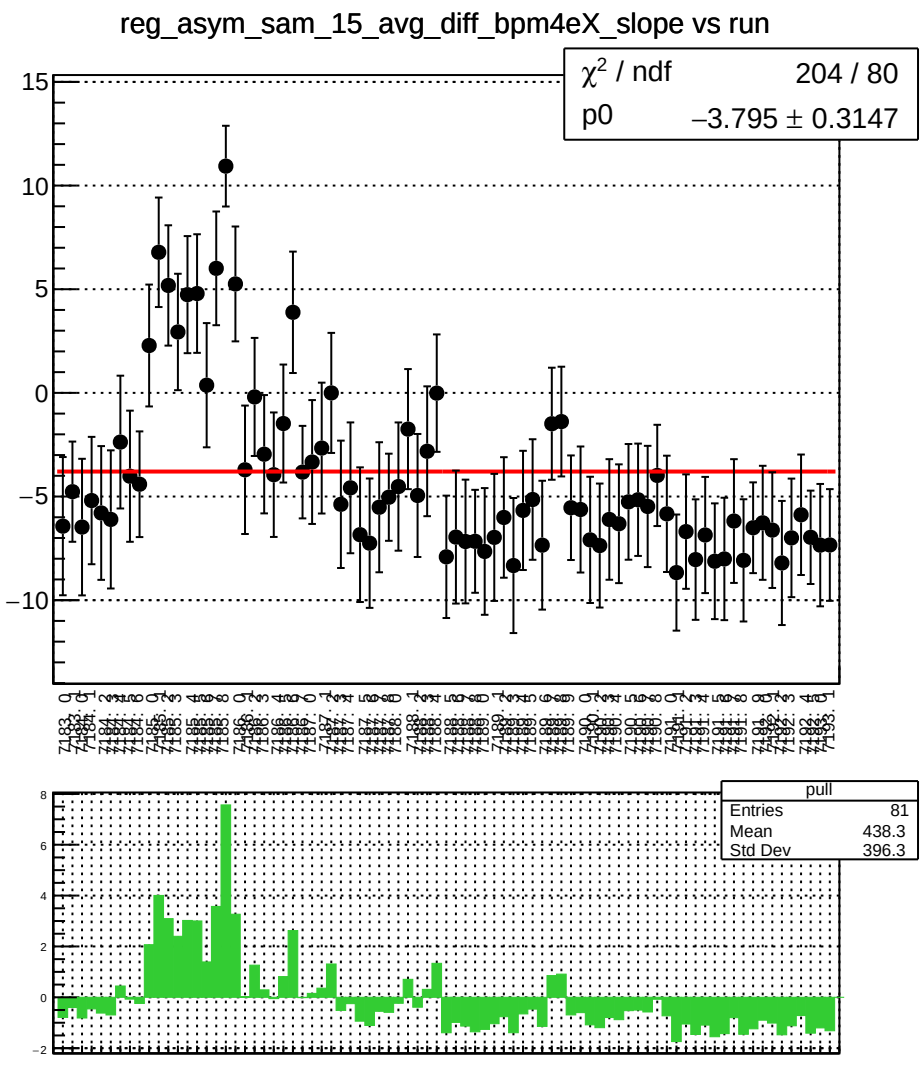

pull1D
Entries 81
Mean −0.013
Std Dev 0.8507

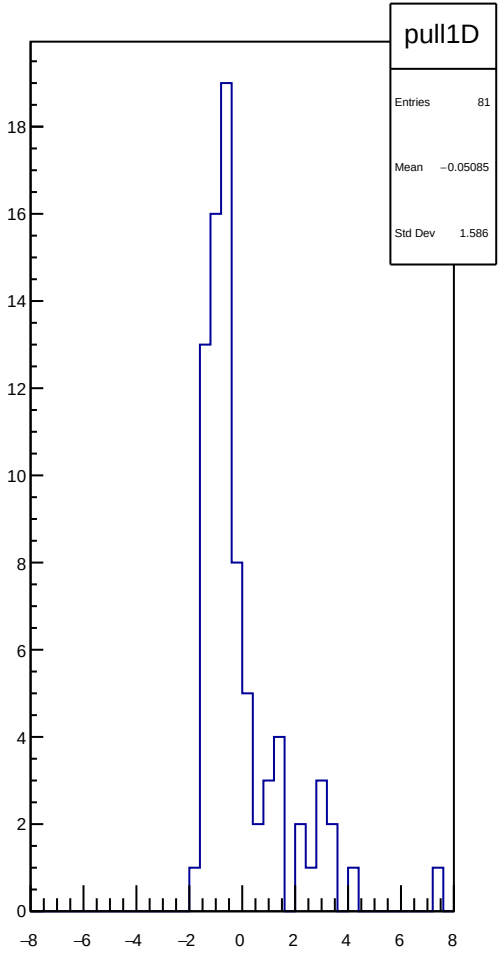

reg_asym_right_dd_diff_bpm12X_slope vs run
χ² / ndf 35.71 / 80
p0 −19.22 ± 0.03268
pull
Entries 81
Mean −3554
Std Dev 3591

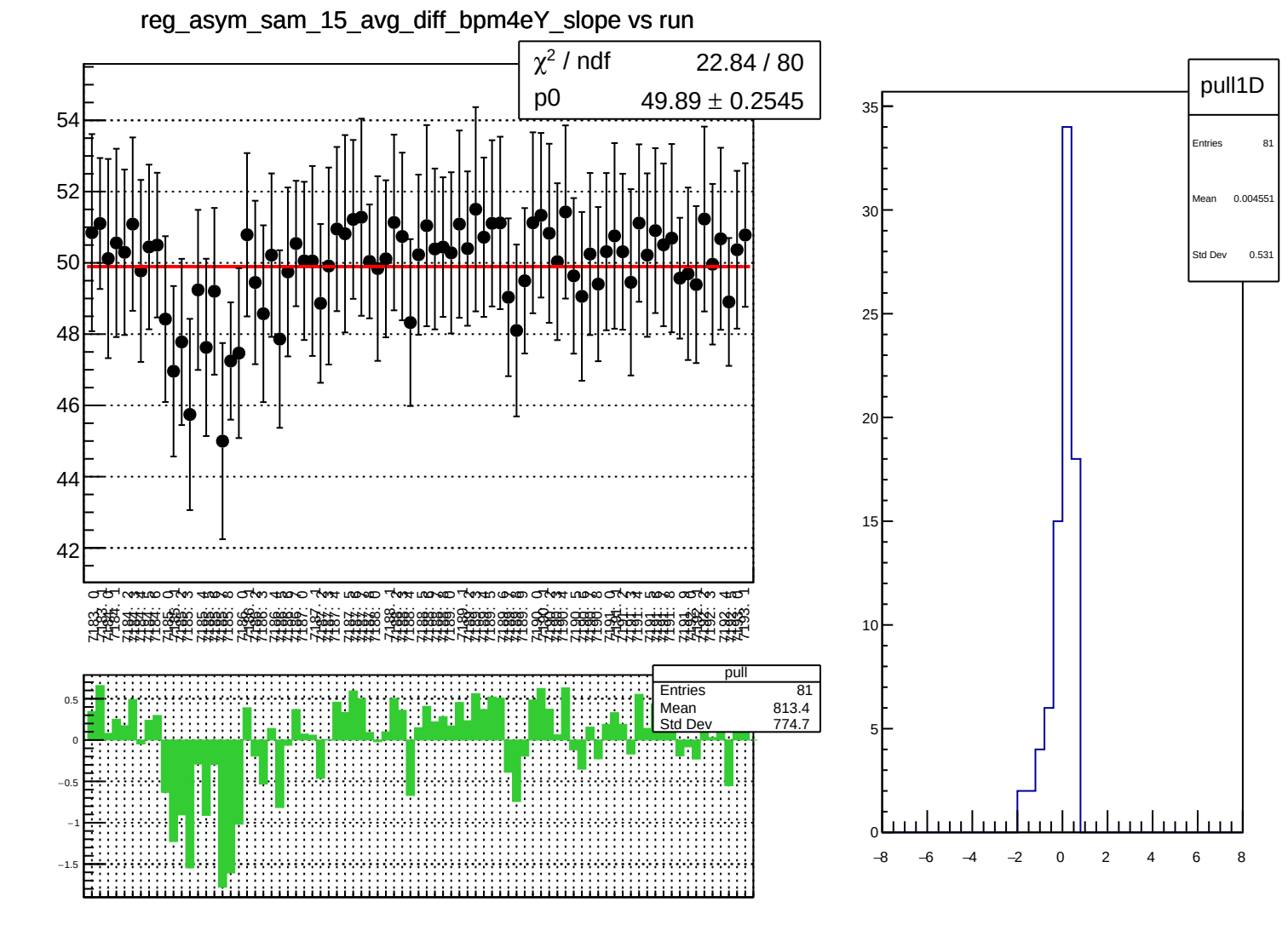

pull1D
Entries 81
Mean 0.001736
Std Dev 0.664

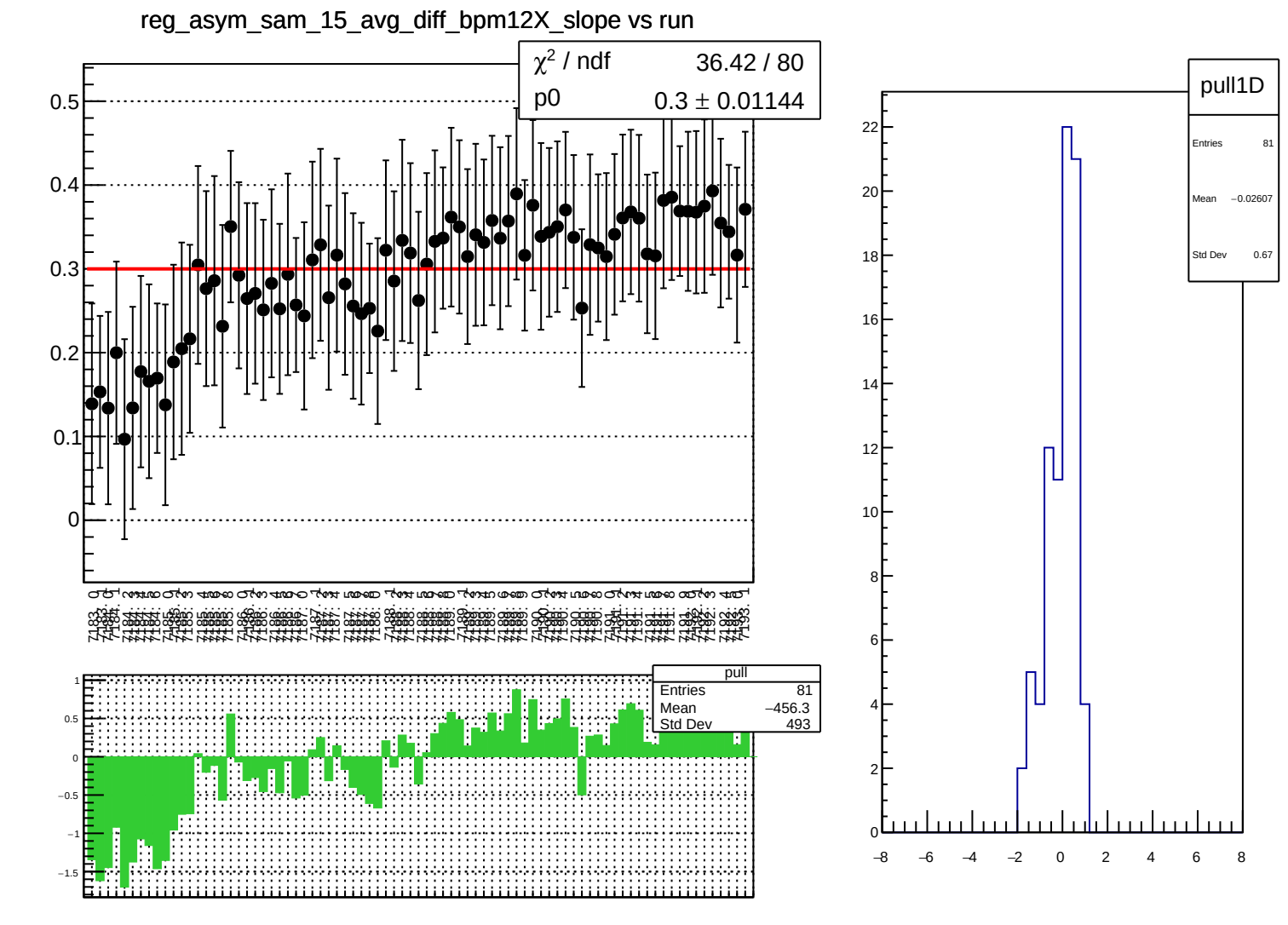

reg_asym_sam_15_avg_diff_bpm1X_slope vs run
χ² / ndf 206.4 / 80
p0 −3.128 ± 0.3142
pull
Entries 81
Mean 474
Std Dev 431.9
pull1D
Entries 81
Mean 0.04716
Std Dev 1.596

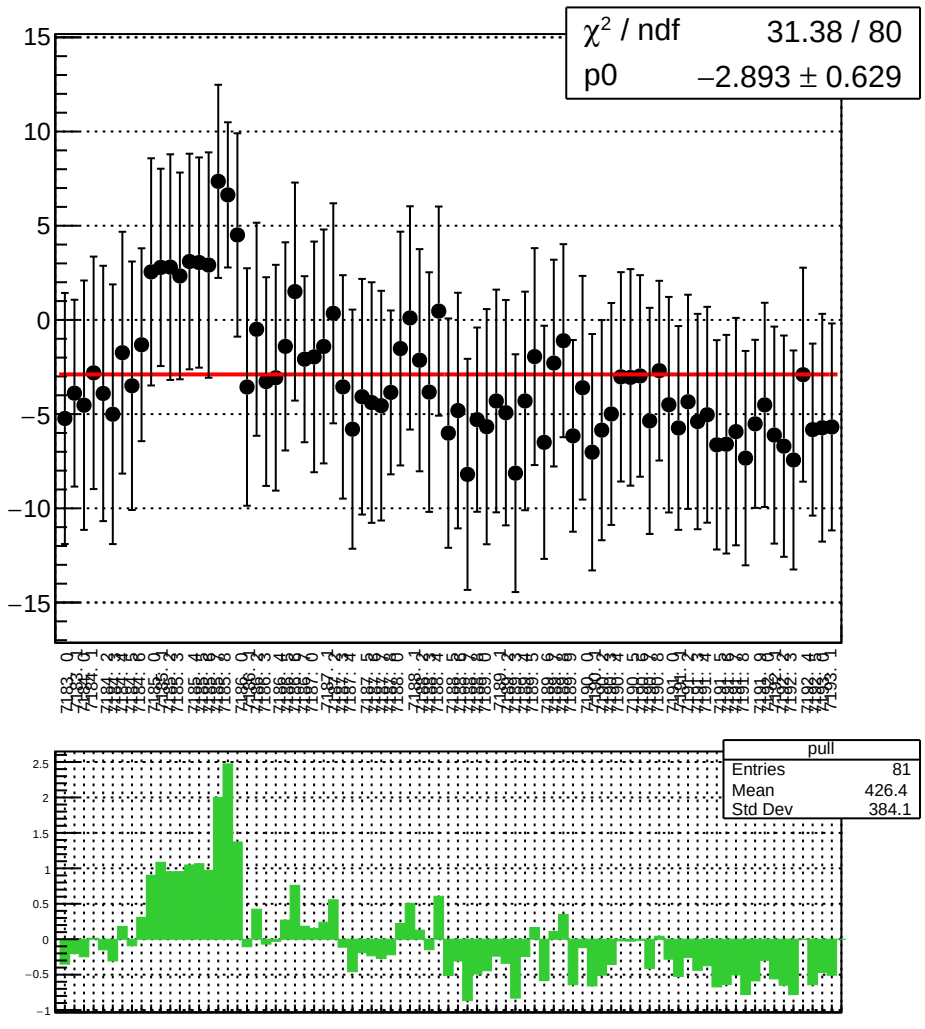

reg_asym_sam_15_avg_diff_bpm4aY_slope vs run
χ² / ndf 44.22 / 80
p0 −0.8855 ± 0.2342
pull
Entries 81
Mean −338.6
Std Dev 378.9
pull1D
Entries 81
Mean 0.01469
Std Dev 0.7387

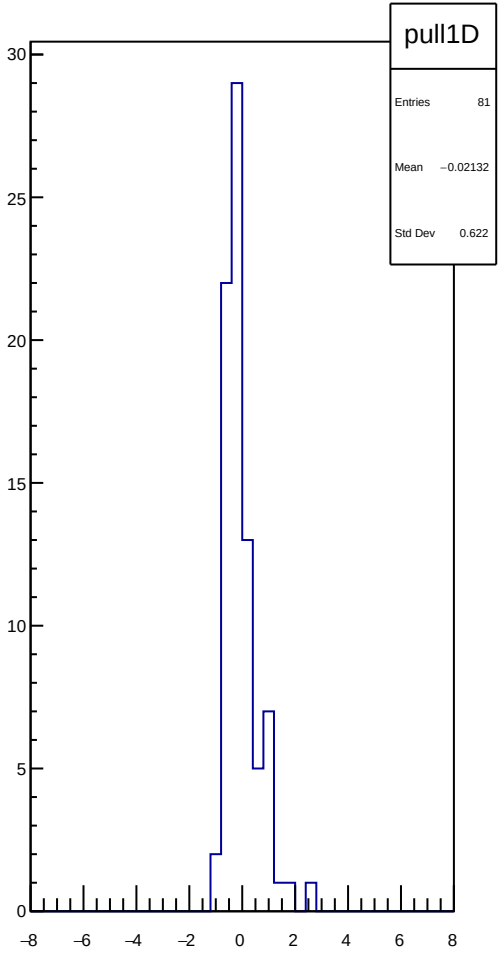

reg_asym_sam_15_avg_diff_bpm4eX_slope vs run
χ² / ndf 204 / 80
p0 −3.795 ± 0.3147
pull
Entries 81
Mean 438.3
Std Dev 396.3

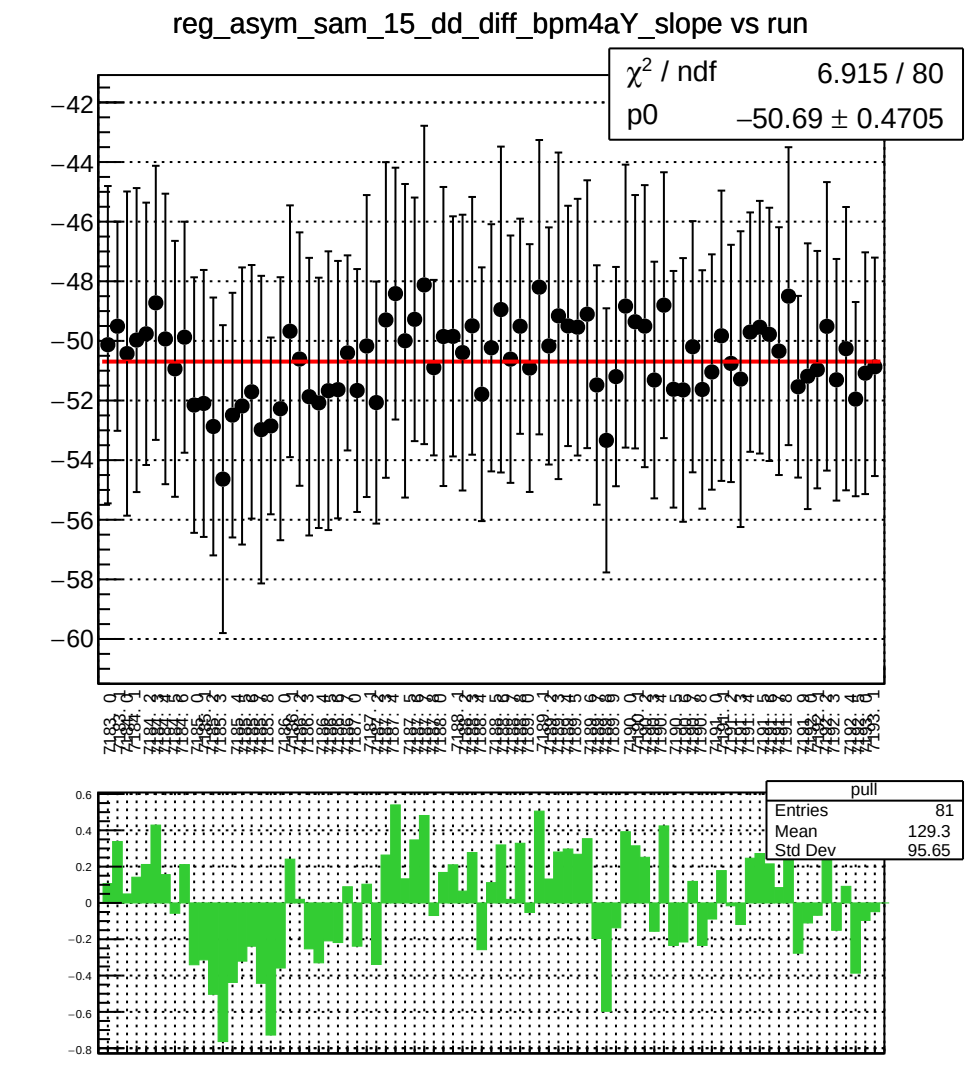

pull1D
Entries 81
Mean −0.05085
Std Dev 1.586

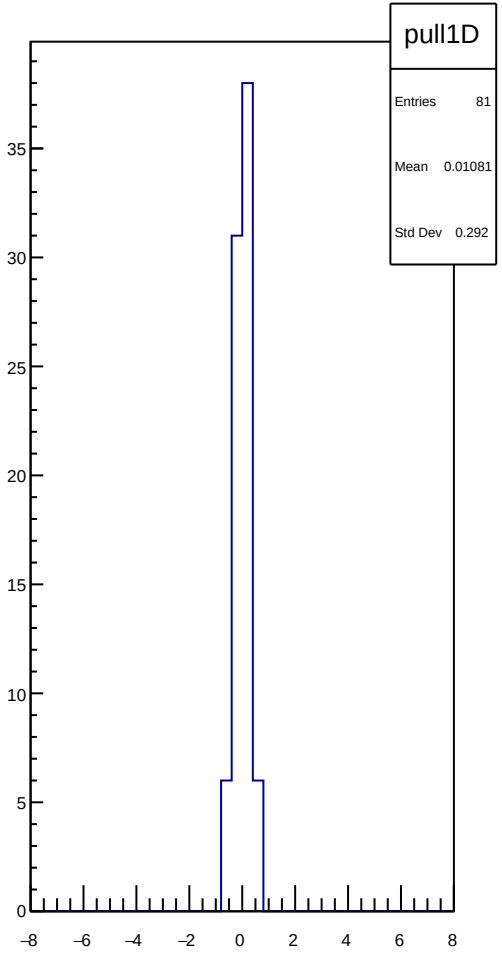

reg_asym_sam_15_avg_diff_bpm4eY_slope vs run
χ² / ndf 22.84 / 80
p0 49.89 ± 0.2545
pull
Entries 81
Mean 813.4
Std Dev 774.7
pull1D
Entries 81
Mean 0.004551
Std Dev 0.531

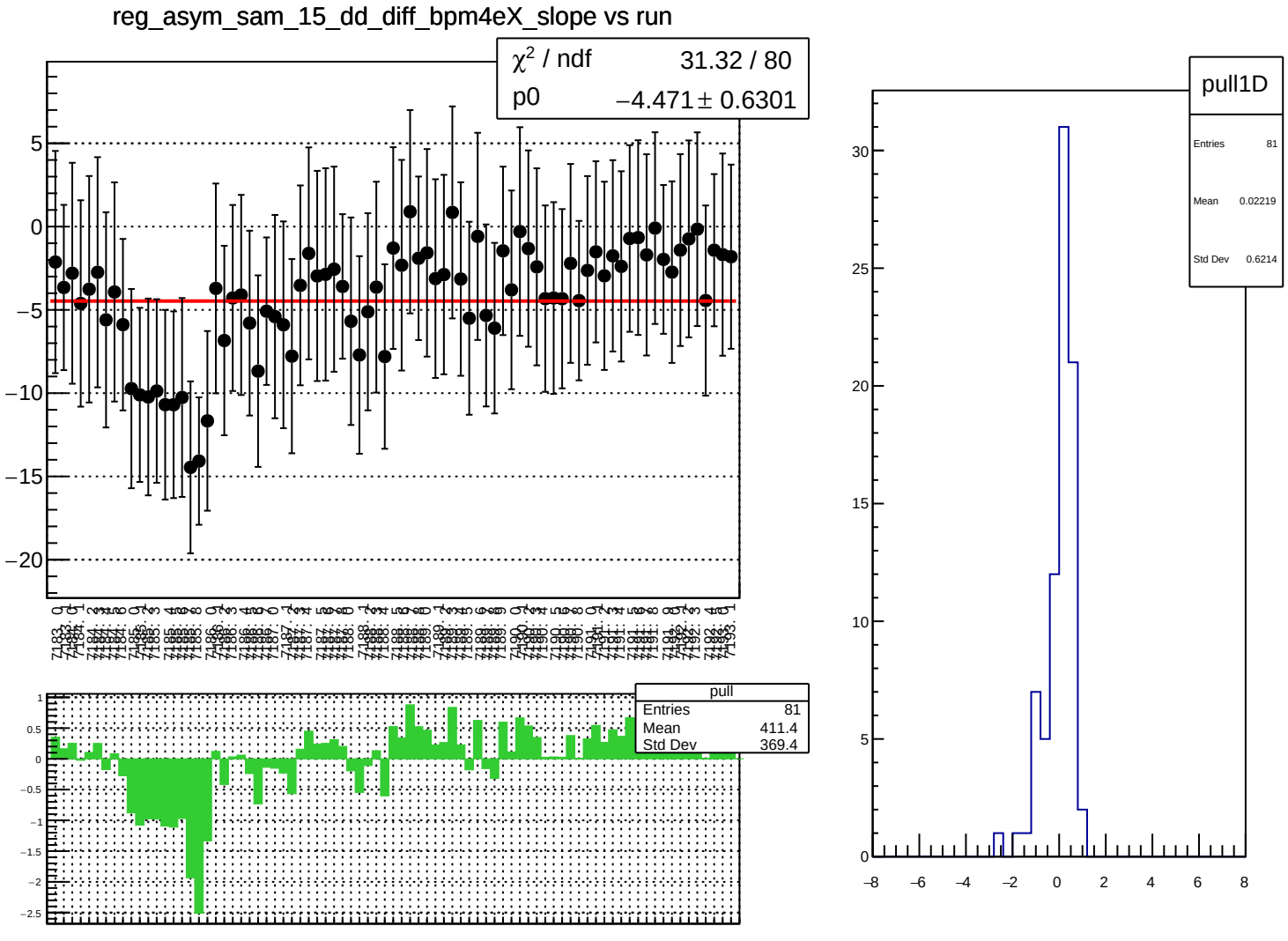

reg_asym_sam_15_avg_diff_bpm12X_slope vs run
χ² / ndf 36.42 / 80
p0 0.3 ± 0.01144
pull
Entries 81
Mean −456.3
Std Dev 493
pull1D
Entries 81
Mean −0.02607
Std Dev 0.67

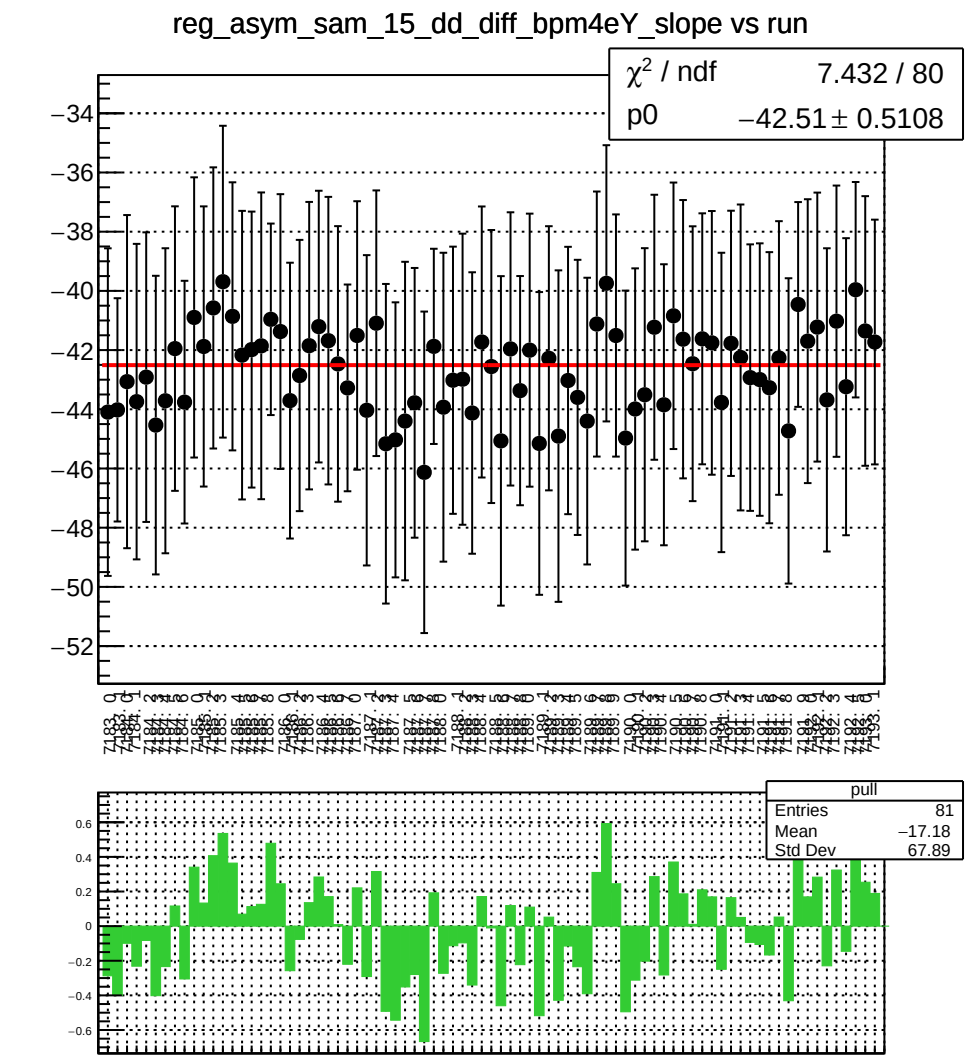

reg_asym_sam_15_dd_diff_bpm1X_slope vs run
χ² / ndf 31.38 / 80
p0 −2.893 ± 0.629
pull
Entries 81
Mean 426.4
Std Dev 384.1

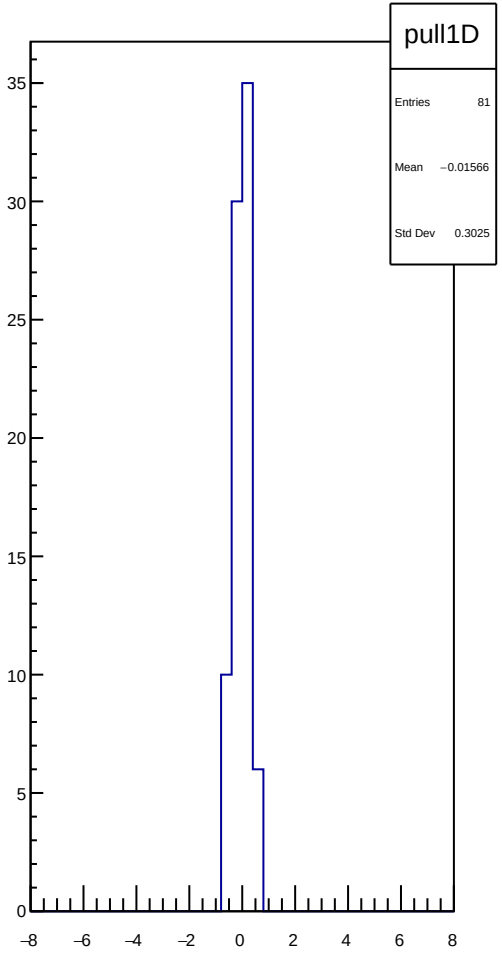

pull1D
Entries 81
Mean −0.02132
Std Dev 0.622

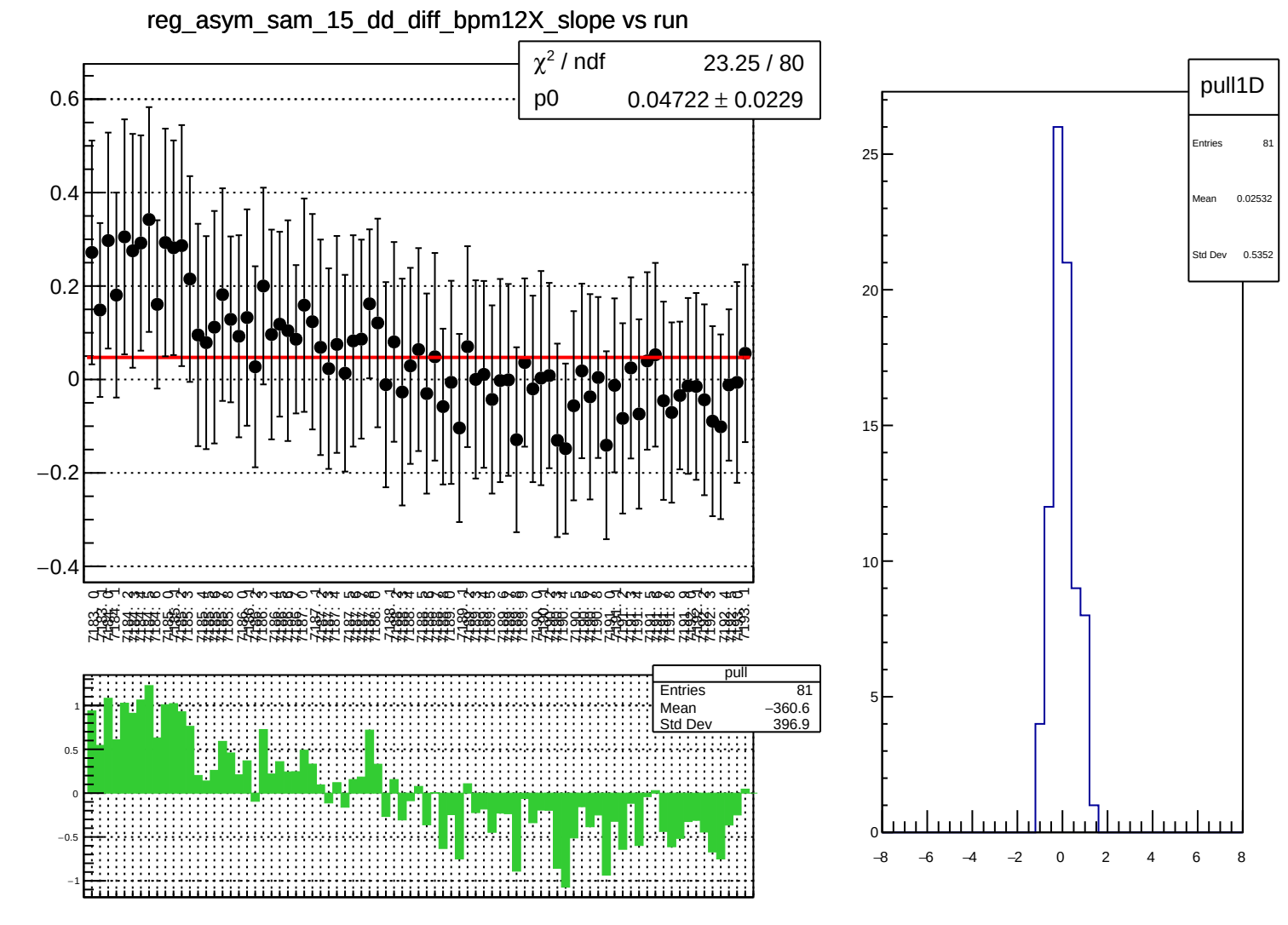

reg_asym_sam_15_dd_diff_bpm4aY_slope vs run
χ² / ndf 6.915 / 80
p0 −50.69 ± 0.4705
pull
Entries 81
Mean 129.3
Std Dev 95.65

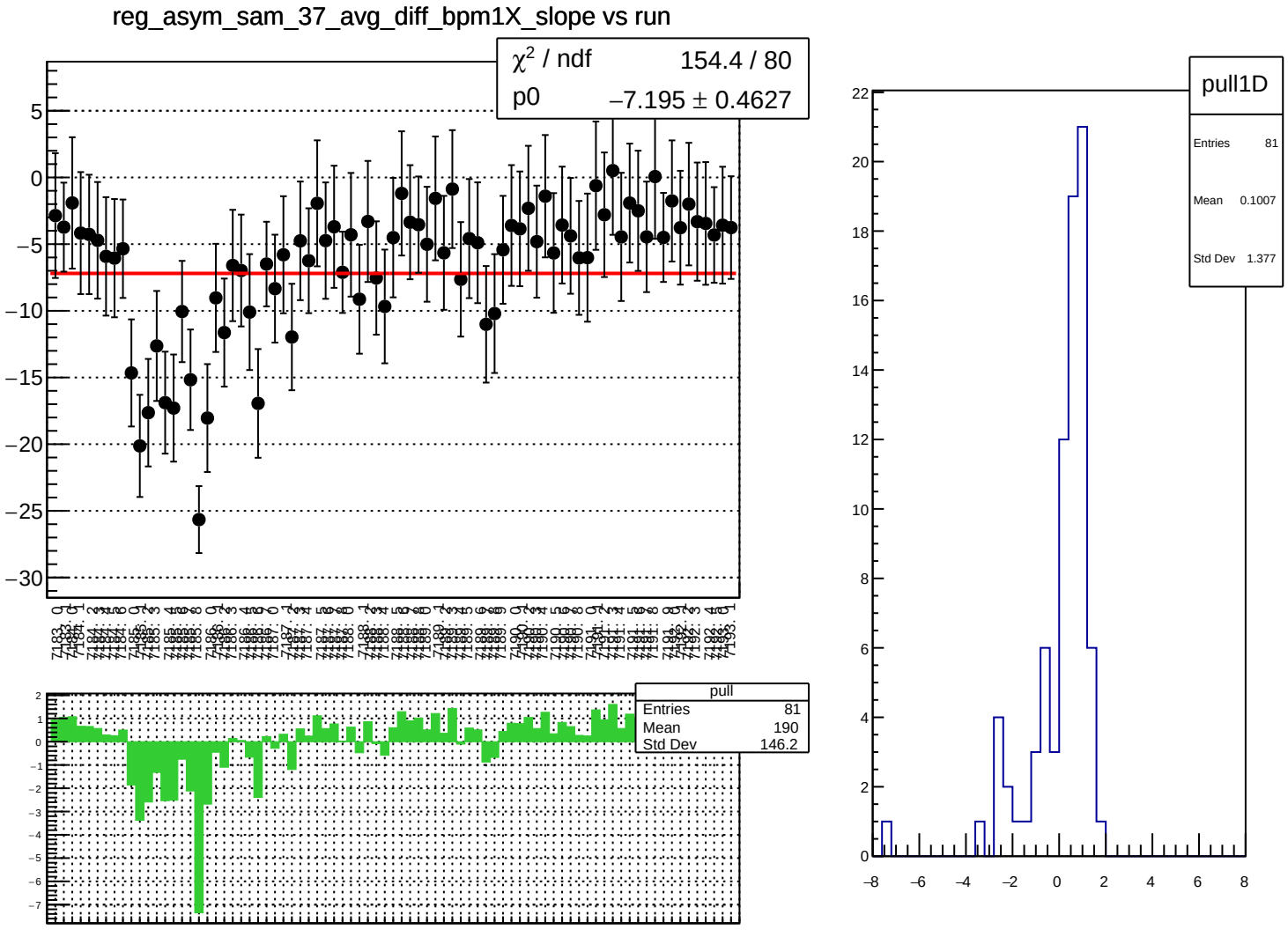

pull1D
Entries 81
Mean 0.01081
Std Dev 0.292

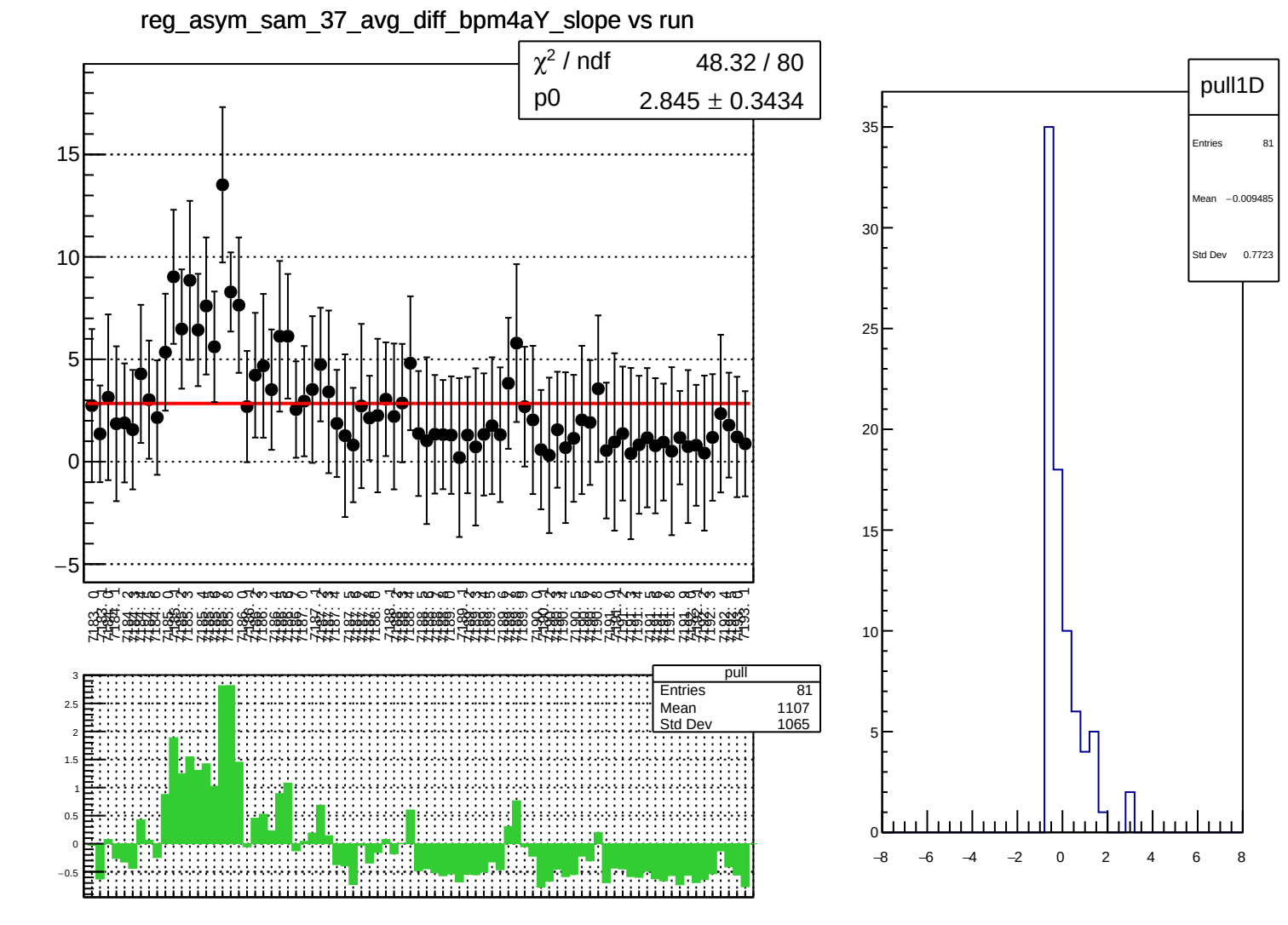

reg_asym_sam_15_dd_diff_bpm4eX_slope vs run
χ² / ndf 31.32 / 80
p0 −4.471 ± 0.6301
pull
Entries 81
Mean 411.4
Std Dev 369.4
pull1D
Entries 81
Mean 0.02219
Std Dev 0.6214

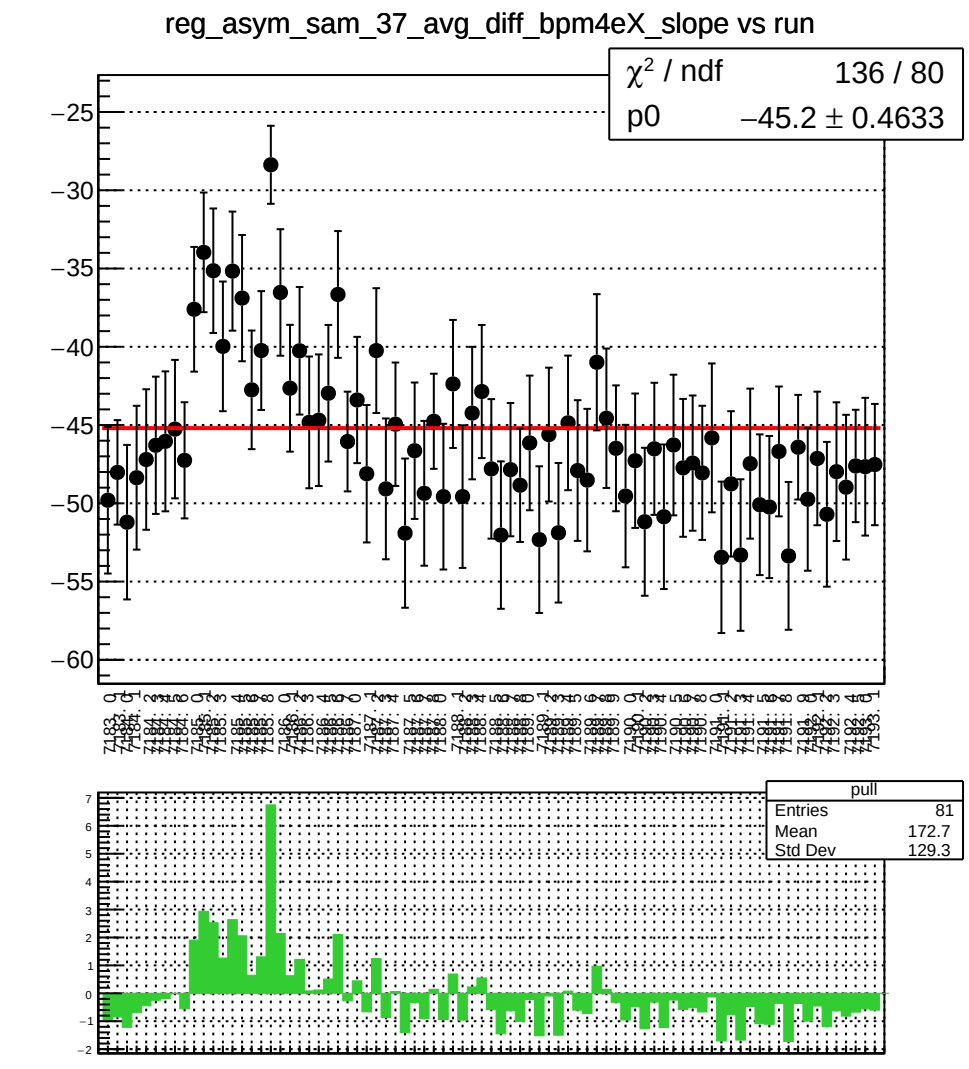

reg_asym_sam_15_dd_diff_bpm4eY_slope vs run
χ² / ndf 7.432 / 80
p0 −42.51 ± 0.5108
pull
Entries 81
Mean −17.18
Std Dev 67.89

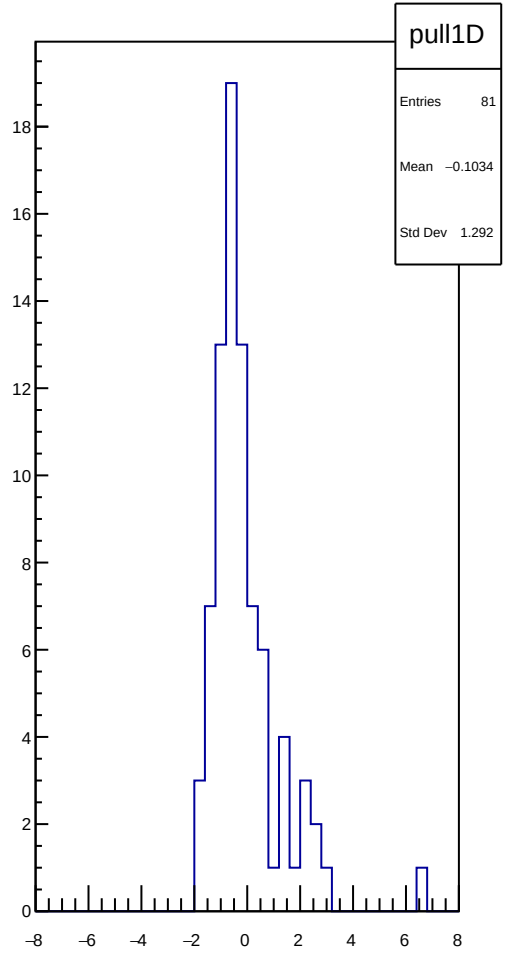

pull1D
Entries 81
Mean −0.01566
Std Dev 0.3025

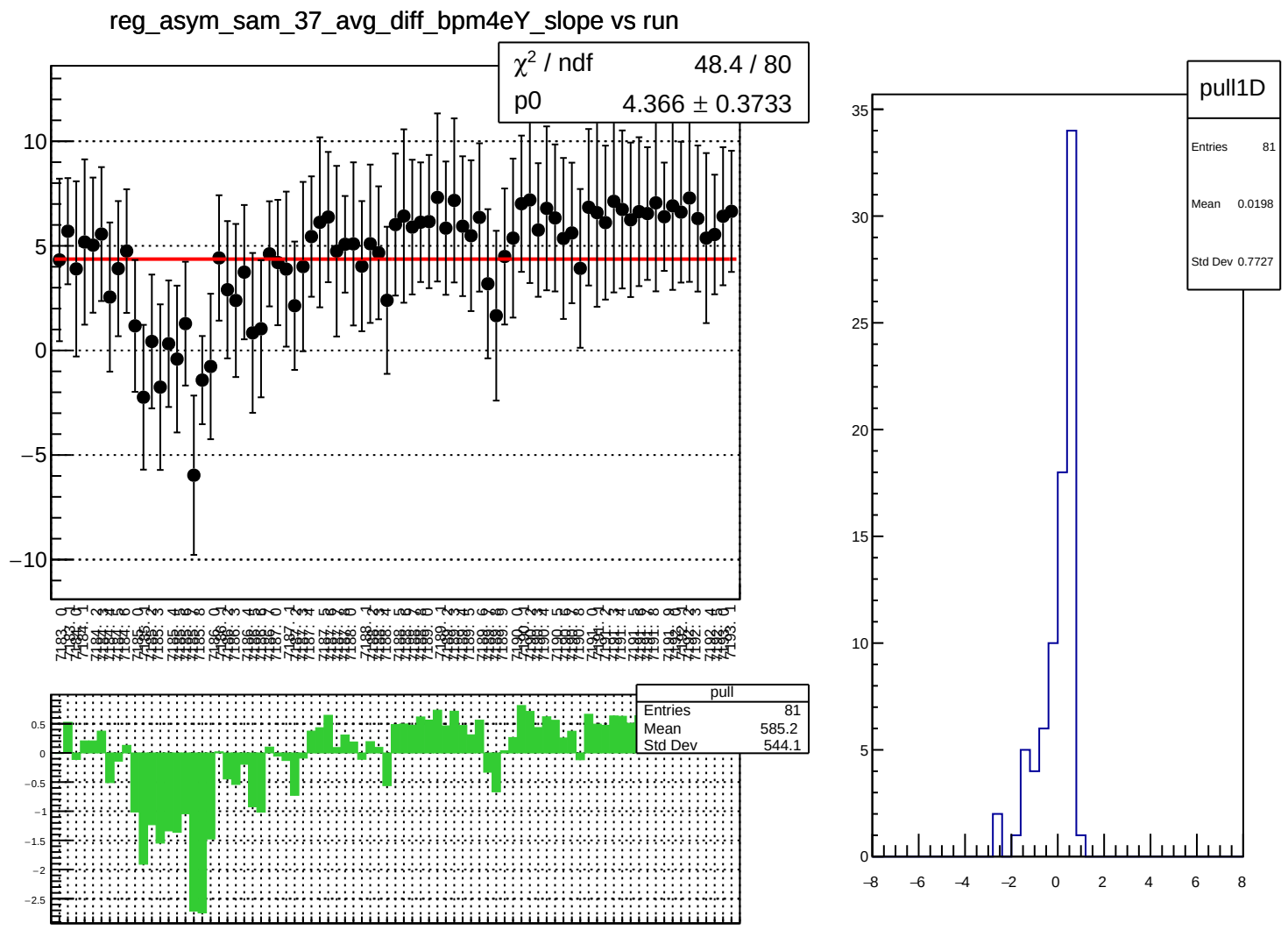

reg_asym_sam_15_dd_diff_bpm12X_slope vs run
χ² / ndf 23.25 / 80
p0 0.04722 ± 0.0229
pull
Entries 81
Mean −360.6
Std Dev 396.9
pull1D
Entries 81
Mean 0.02532
Std Dev 0.5352

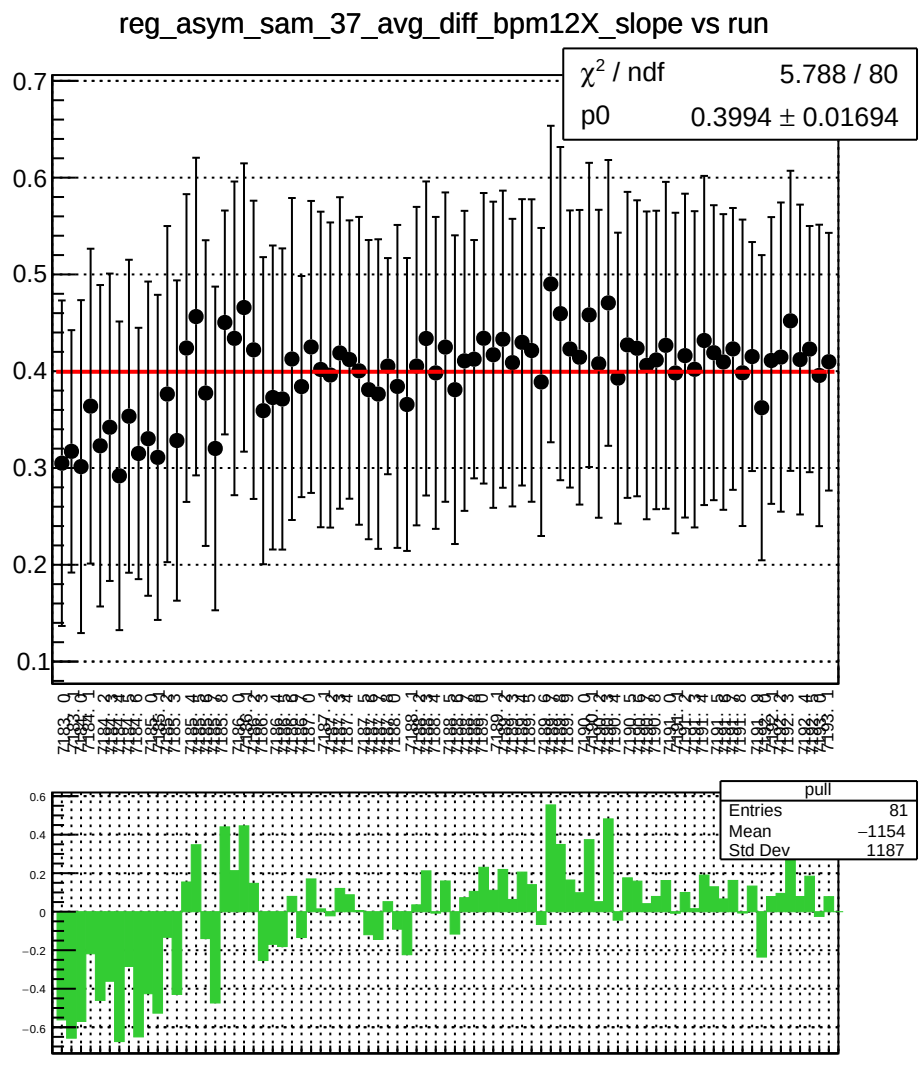

reg_asym_sam_37_avg_diff_bpm1X_slope vs run
χ² / ndf 154.4 / 80
p0 −7.195 ± 0.4627
pull
Entries 81
Mean 190
Std Dev 146.2
pull1D
Entries 81
Mean 0.1007
Std Dev 1.377

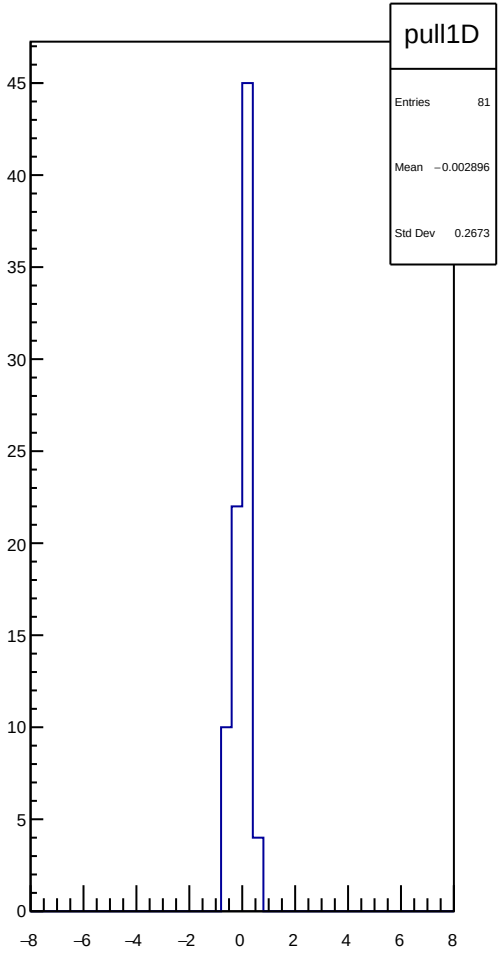

reg_asym_sam_37_avg_diff_bpm4aY_slope vs run
χ² / ndf 48.32 / 80
p0 2.845 ± 0.3434
pull
Entries 81
Mean 1107
Std Dev 1065
pull1D
Entries 81
Mean −0.009485
Std Dev 0.7723

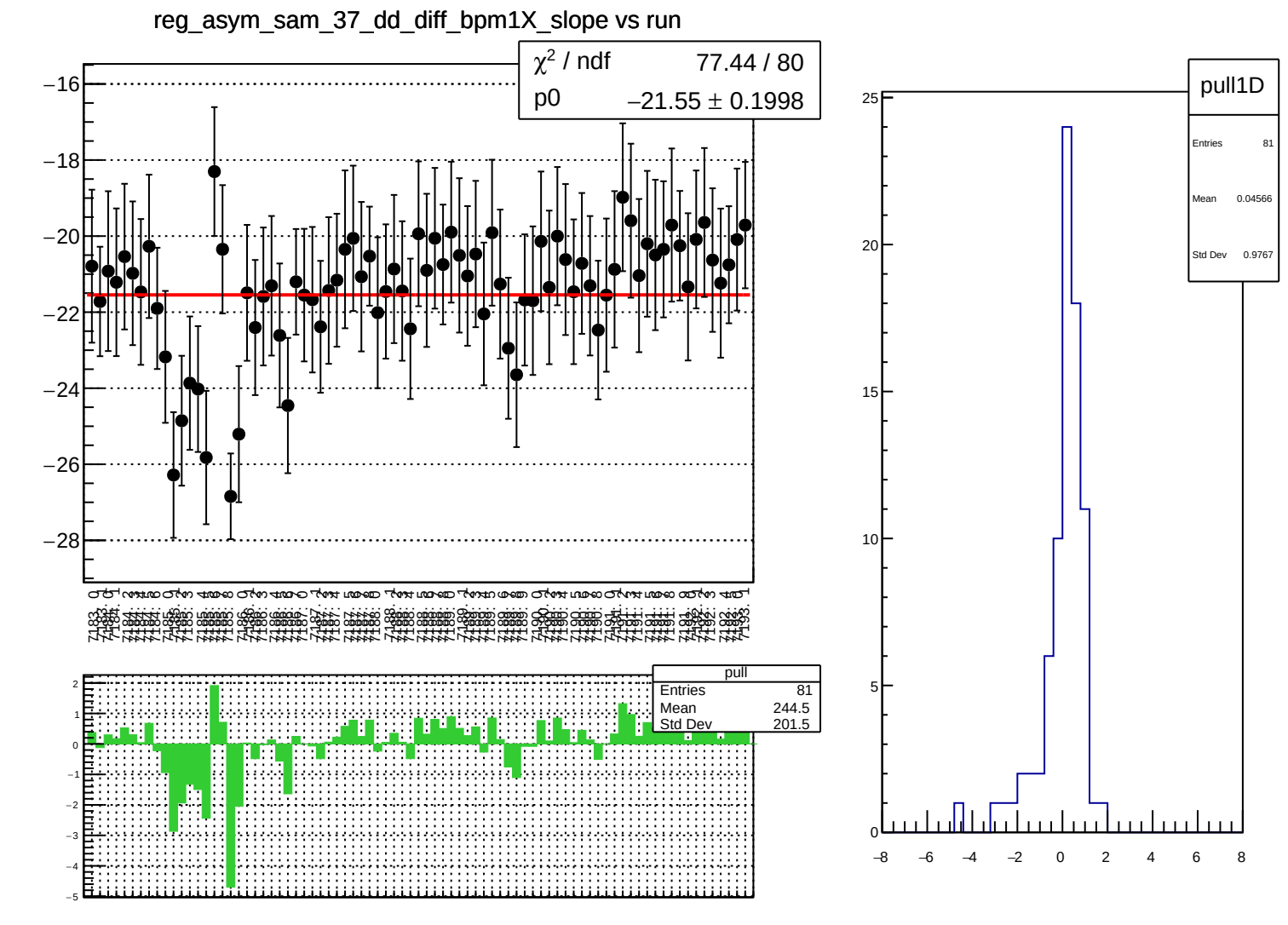

reg_asym_sam_37_avg_diff_bpm4eX_slope vs run
χ² / ndf 136 / 80
p0 −45.2 ± 0.4633
pull
Entries 81
Mean 172.7
Std Dev 129.3

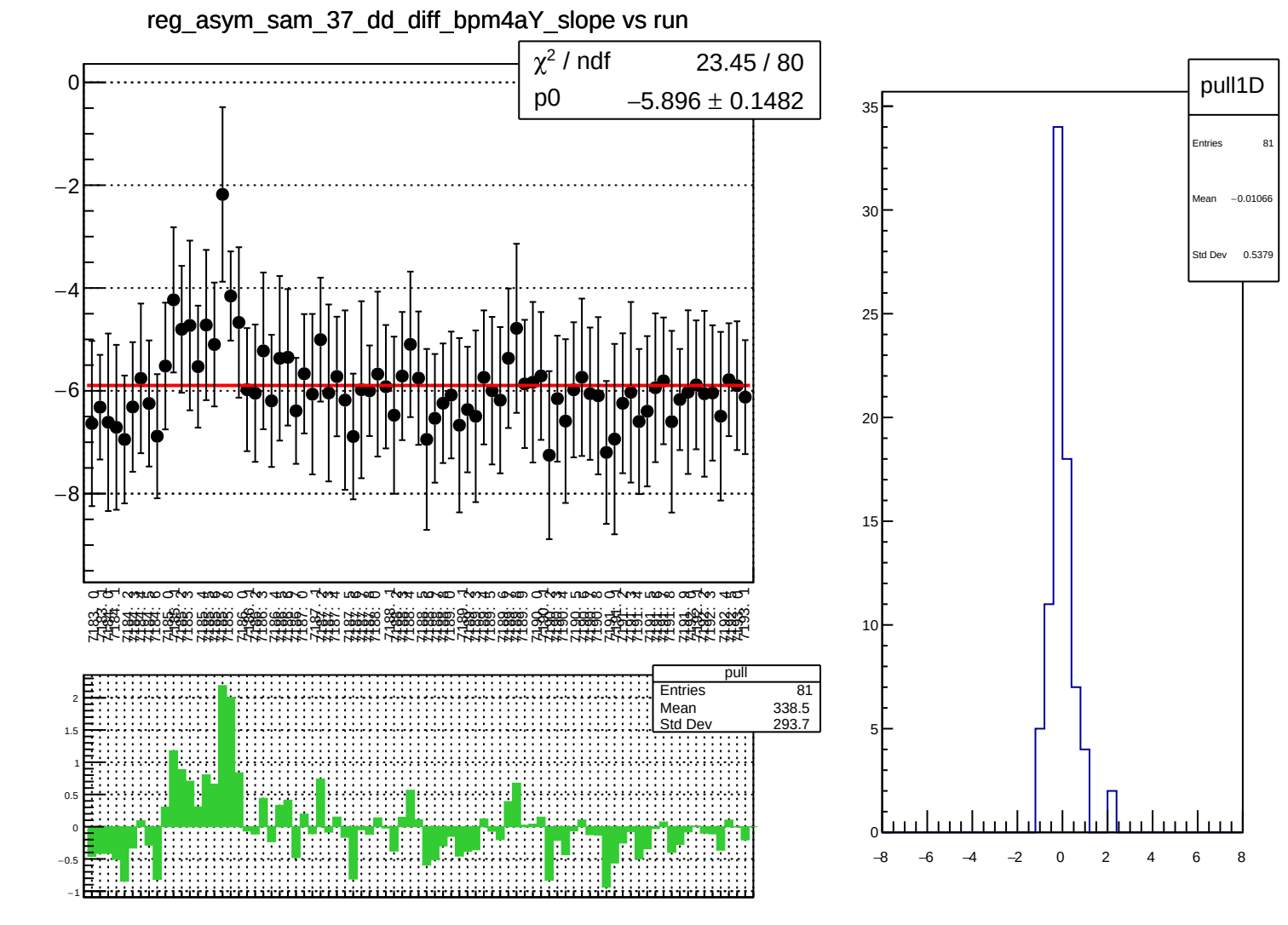

pull1D
Entries 81
Mean −0.1034
Std Dev 1.292

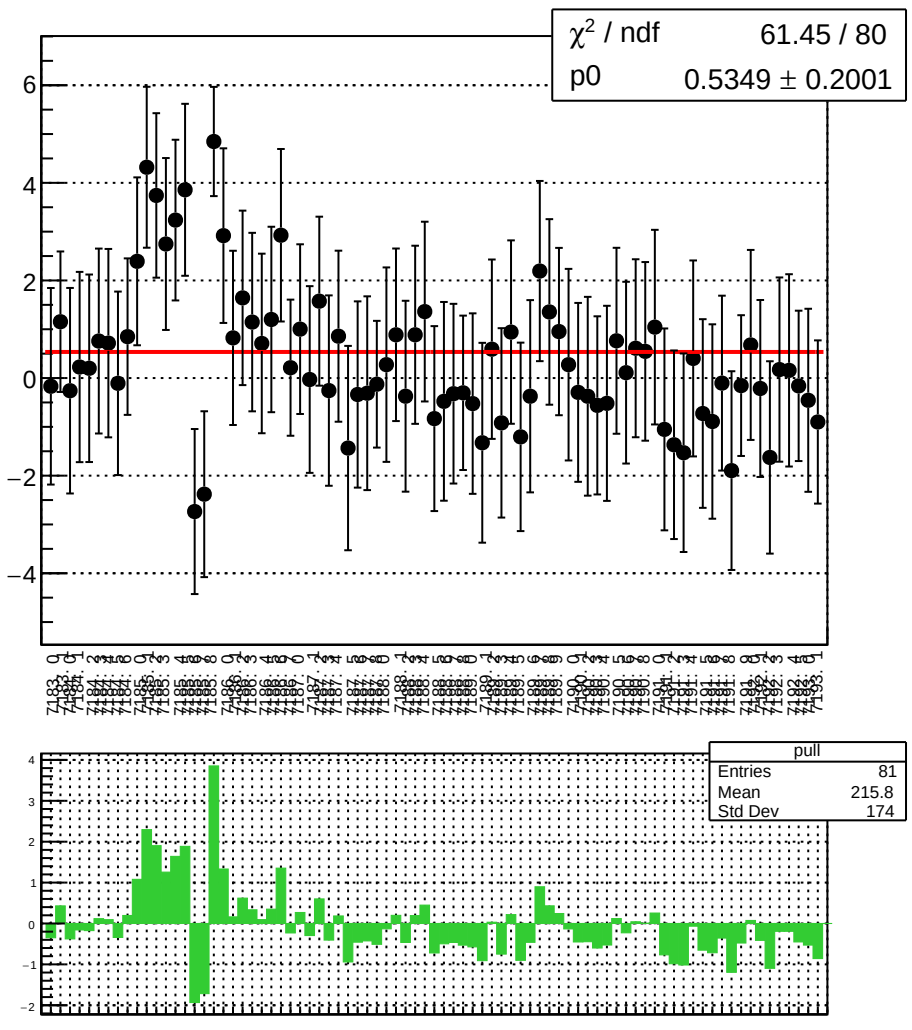

reg_asym_sam_37_avg_diff_bpm4eY_slope vs run
χ² / ndf 48.4 / 80
p0 4.366 ± 0.3733
pull
Entries 81
Mean 585.2
Std Dev 544.1
pull1D
Entries 81
Mean 0.0198
Std Dev 0.7727

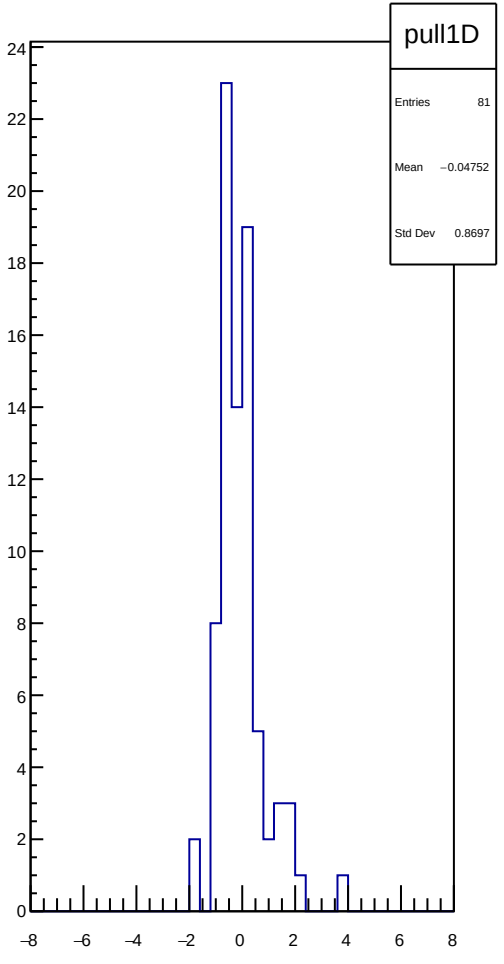

reg_asym_sam_37_avg_diff_bpm12X_slope vs run
χ² / ndf 5.788 / 80
p0 0.3994 ± 0.01694
pull
Entries 81
Mean −1154
Std Dev 1187

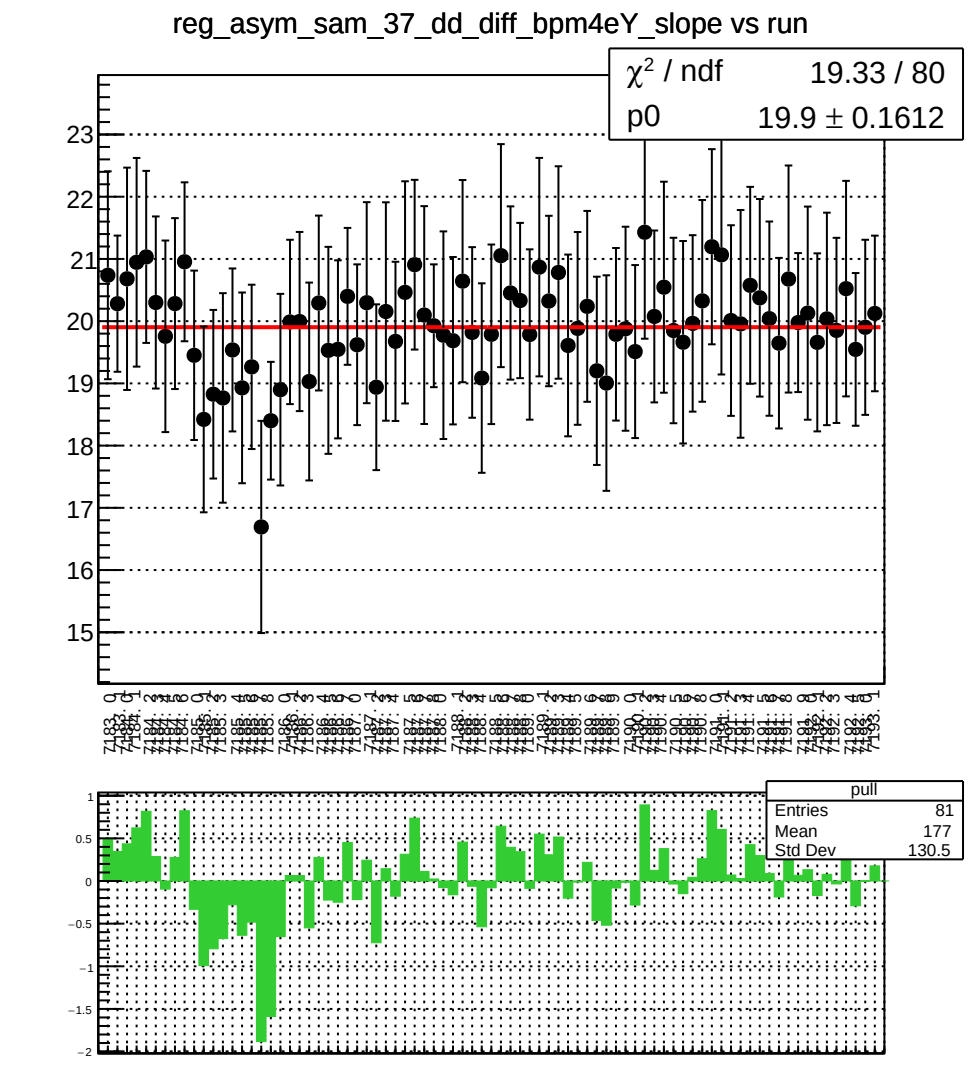

pull1D
Entries 81
Mean −0.002896
Std Dev 0.2673

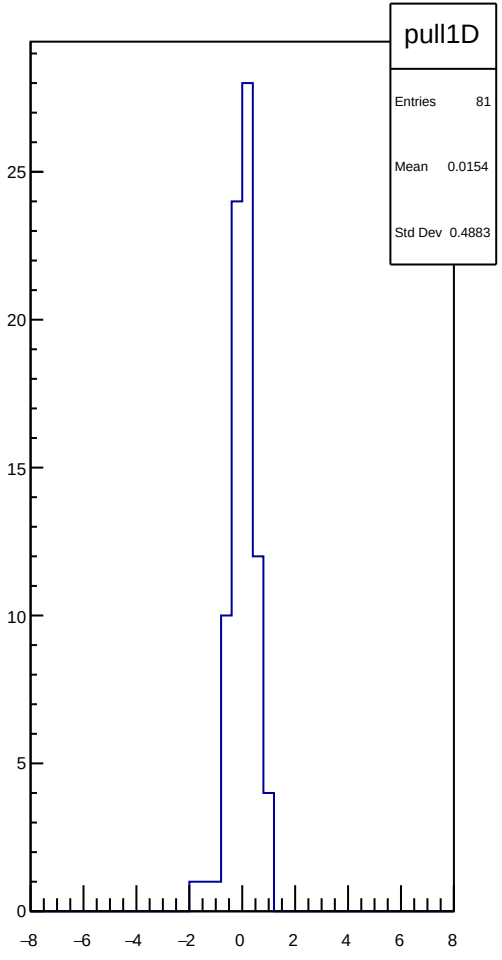

reg_asym_sam_37_dd_diff_bpm1X_slope vs run
χ² / ndf 77.44 / 80
p0 −21.55 ± 0.1998
pull
Entries 81
Mean 244.5
Std Dev 201.5
pull1D
Entries 81
Mean 0.04566
Std Dev 0.9767

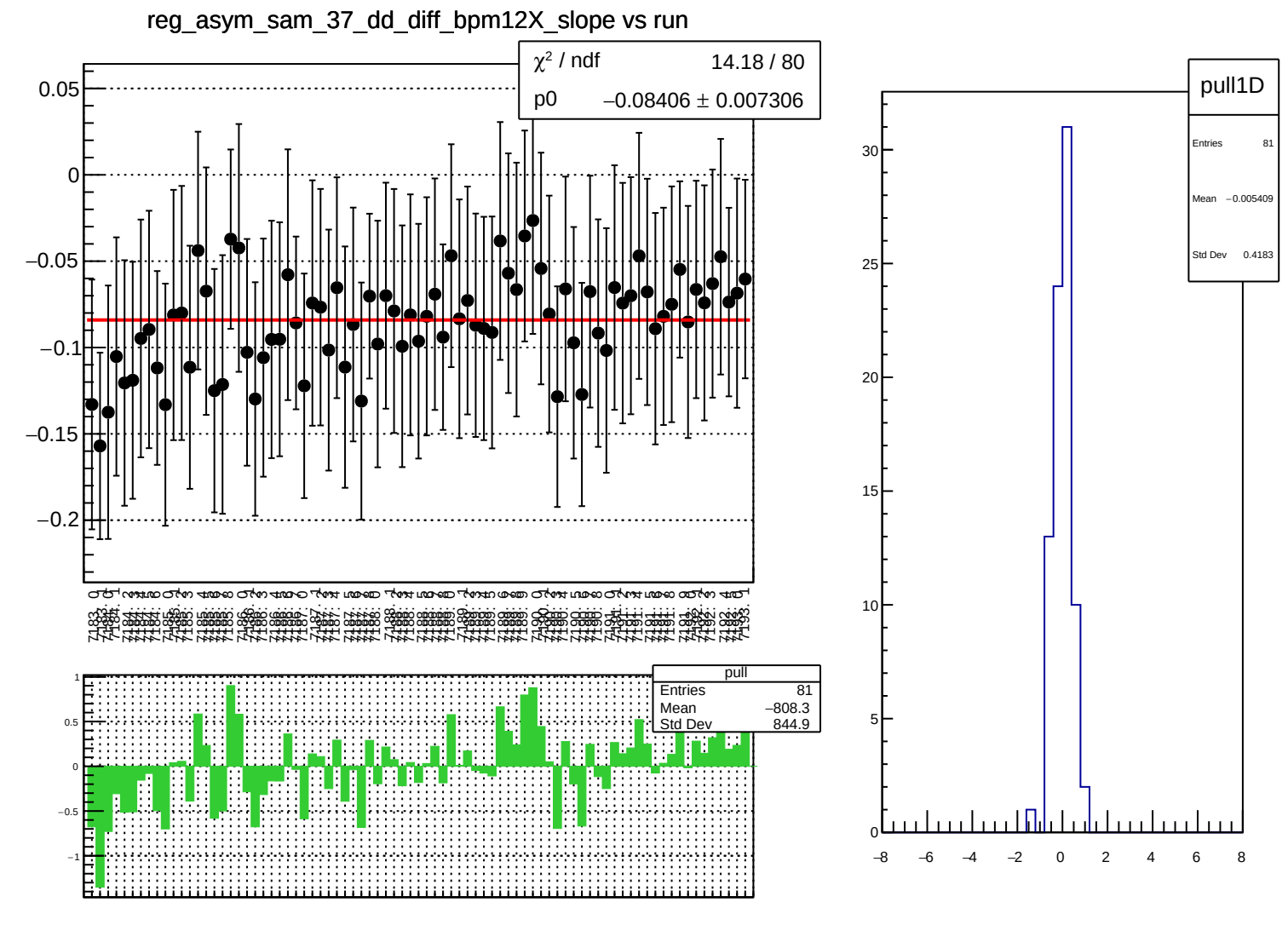

reg_asym_sam_37_dd_diff_bpm4aY_slope vs run
χ² / ndf 23.45 / 80
p0 −5.896 ± 0.1482
pull
Entries 81
Mean 338.5
Std Dev 293.7
pull1D
Entries 81
Mean −0.01066
Std Dev 0.5379

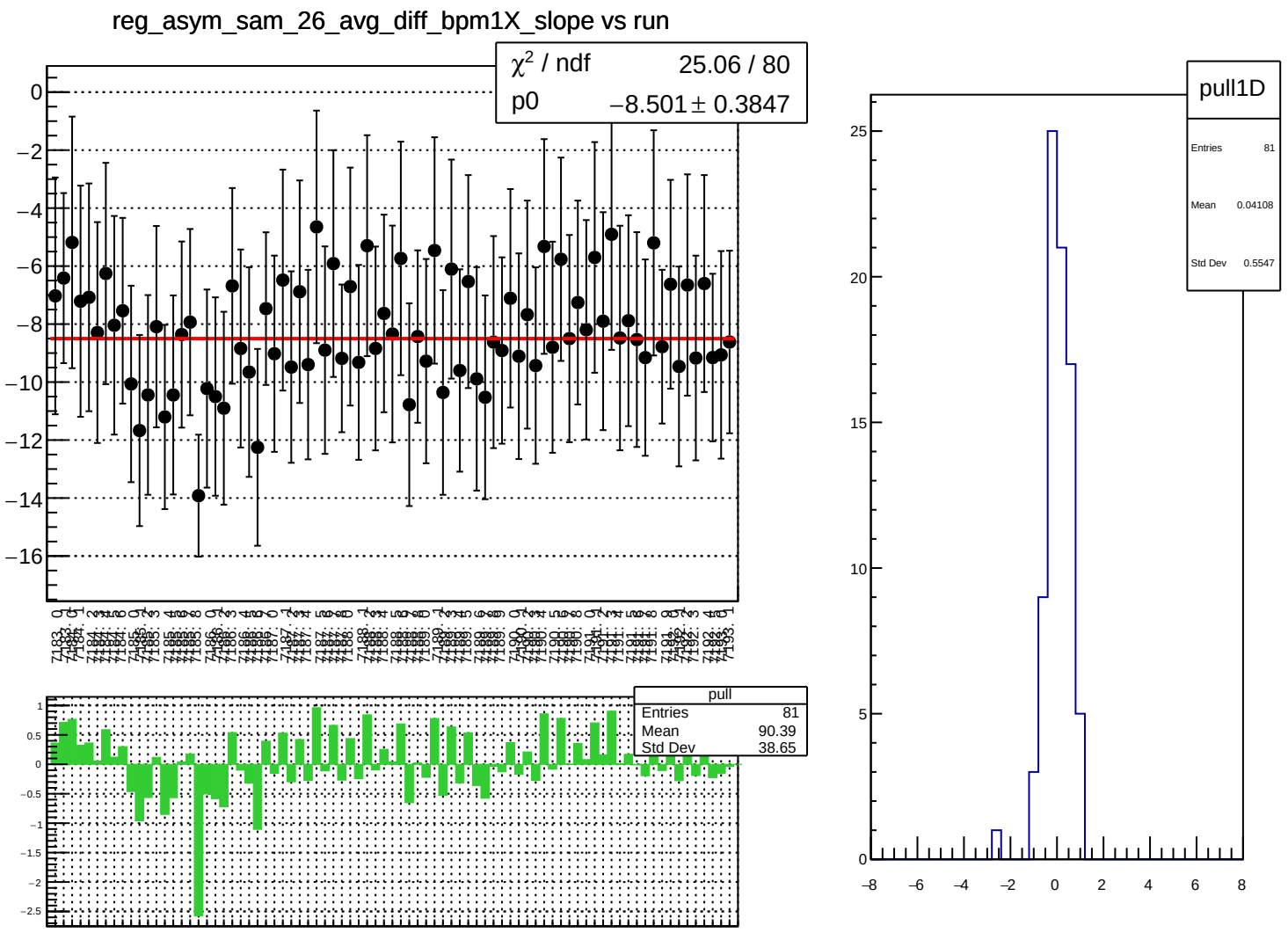

reg_asym_sam_37_dd_diff_bpm4eX_slope vs run
χ² / ndf 61.45 / 80
p0 0.5349 ± 0.2001
pull
Entries 81
Mean 215.8
Std Dev 174

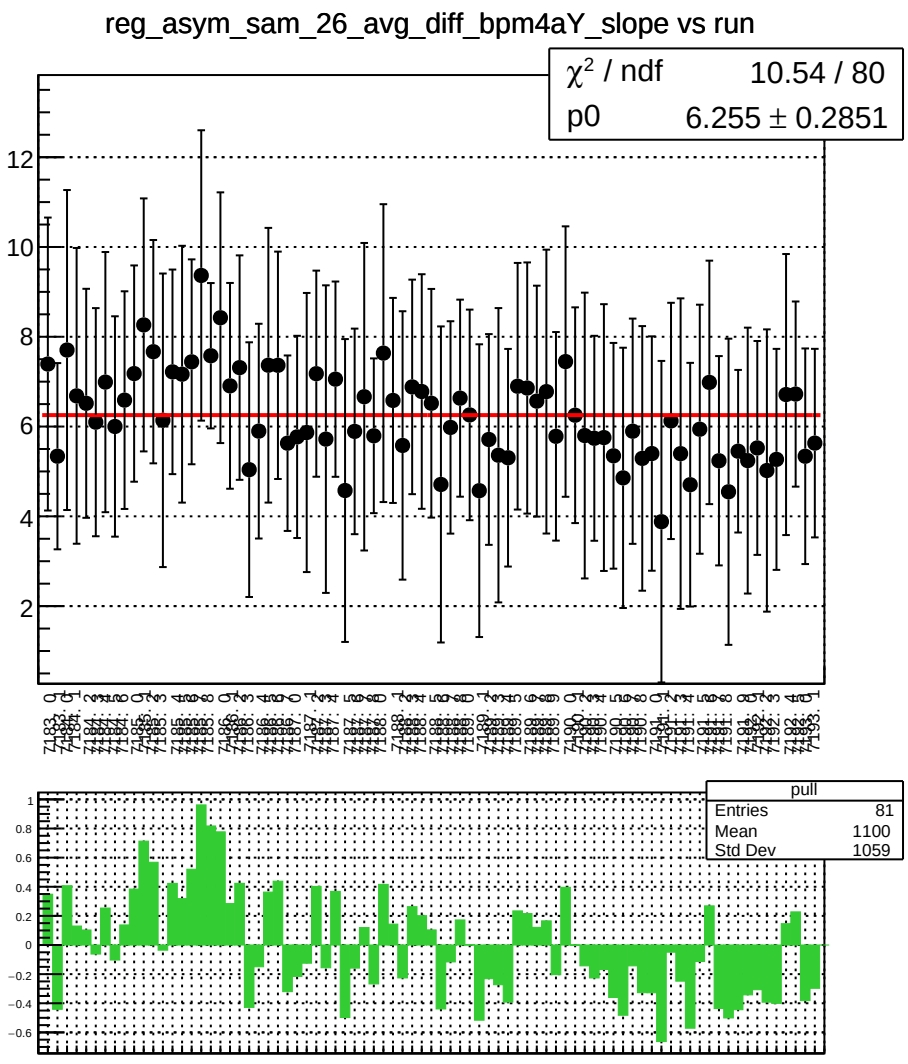

pull1D
Entries 81
Mean −0.04752
Std Dev 0.8697

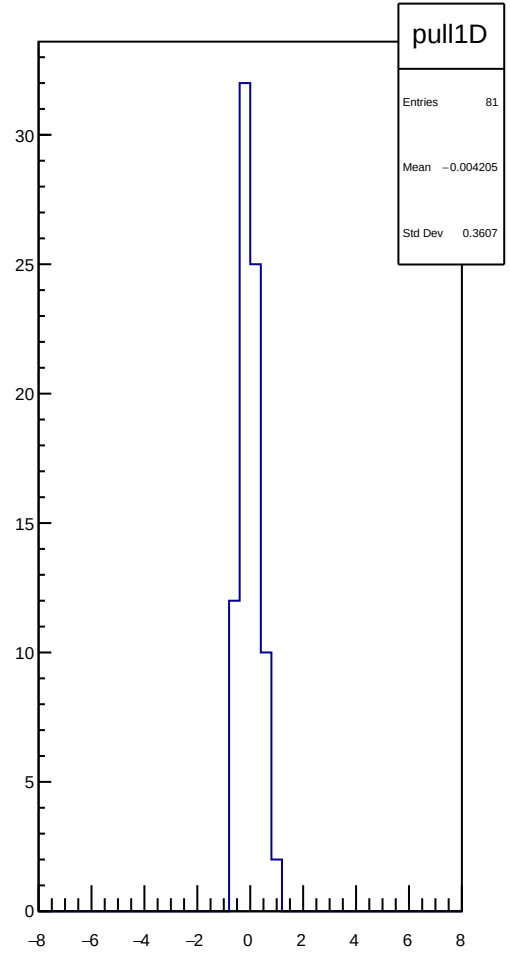

reg_asym_sam_37_dd_diff_bpm4eY_slope vs run
χ² / ndf 19.33 / 80
p0 19.9 ± 0.1612
pull
Entries 81
Mean 177
Std Dev 130.5

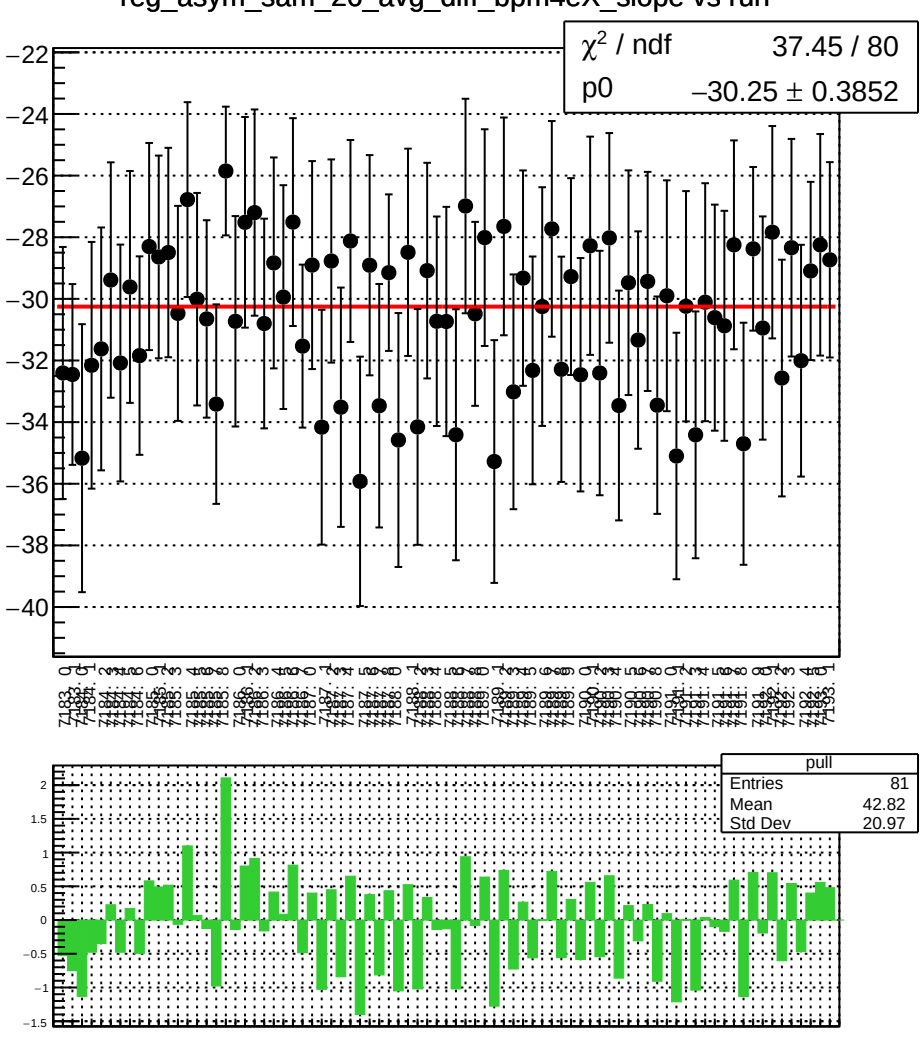

pull1D
Entries 81
Mean 0.0154
Std Dev 0.4883

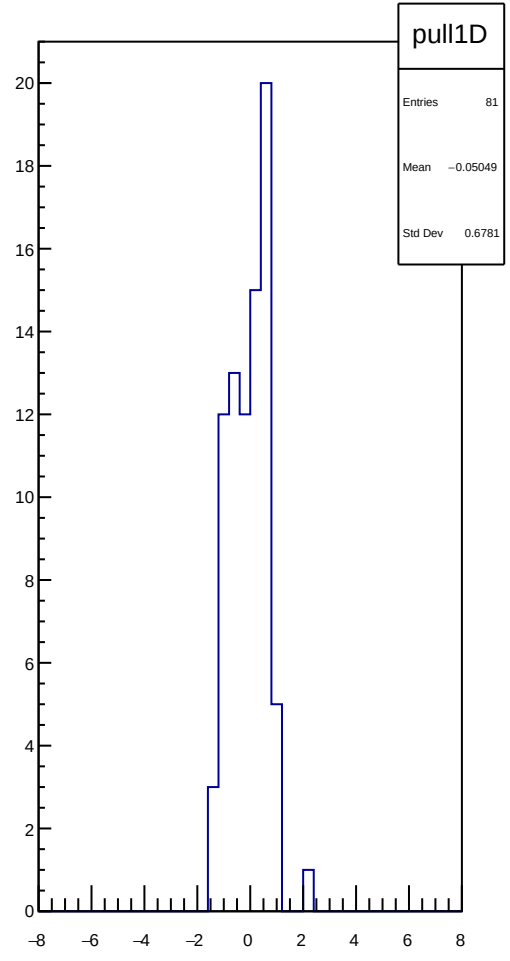

reg_asym_sam_37_dd_diff_bpm12X_slope vs run
χ² / ndf 14.18 / 80
p0 −0.08406 ± 0.007306
0.05
0
−0.05
−0.1
−0.15
−0.2
pull
Entries 81
Mean −808.3
Std Dev 844.9
1
0.5
0
−0.5
−1
pull1D
Entries 81
Mean −0.005409
Std Dev 0.4183
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

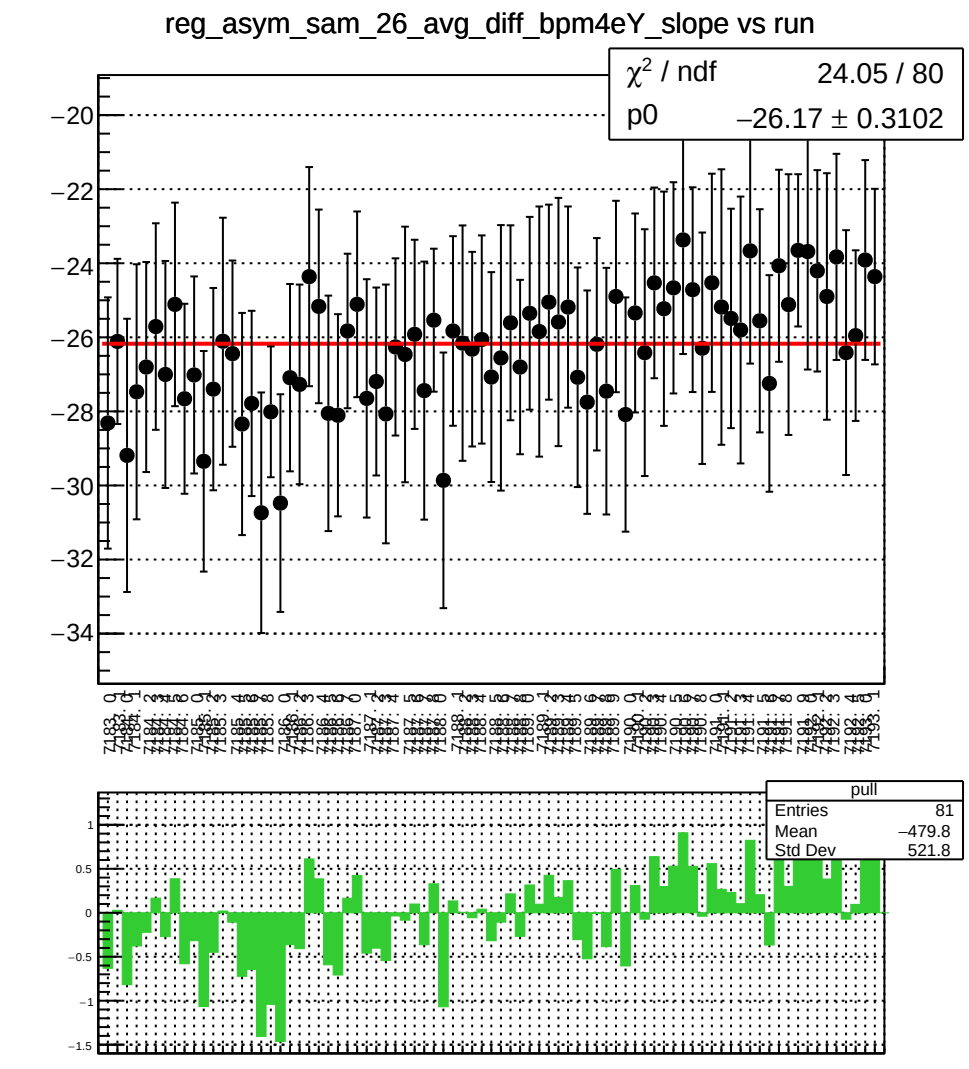

reg_asym_sam_26_avg_diff_bpm1X_slope vs run
χ² / ndf 25.06 / 80
p0 −8.501 ± 0.3847
pull
Entries 81
Mean 90.39
Std Dev 38.65
pull1D
Entries 81
Mean 0.04108
Std Dev 0.5547

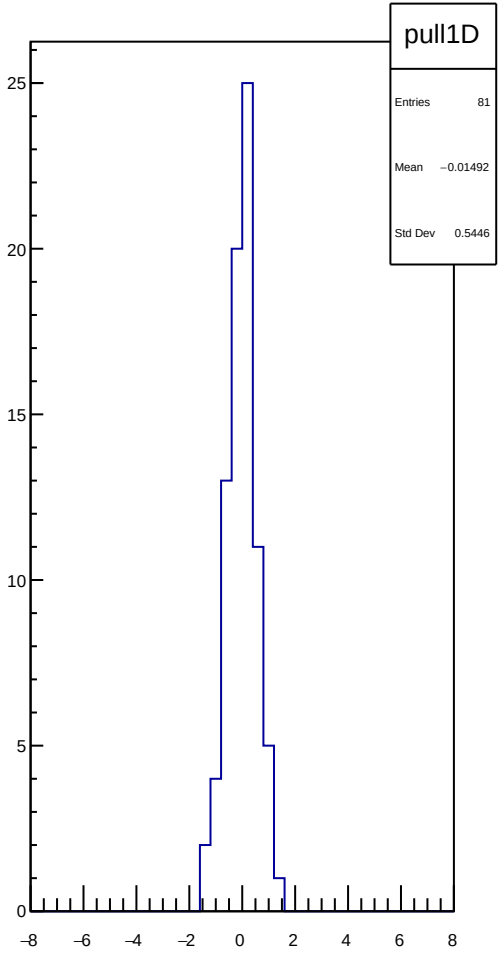

reg_asym_sam_26_avg_diff_bpm4aY_slope vs run
χ² / ndf 10.54 / 80
p0 6.255 ± 0.2851
pull
Entries 81
Mean 1100
Std Dev 1059

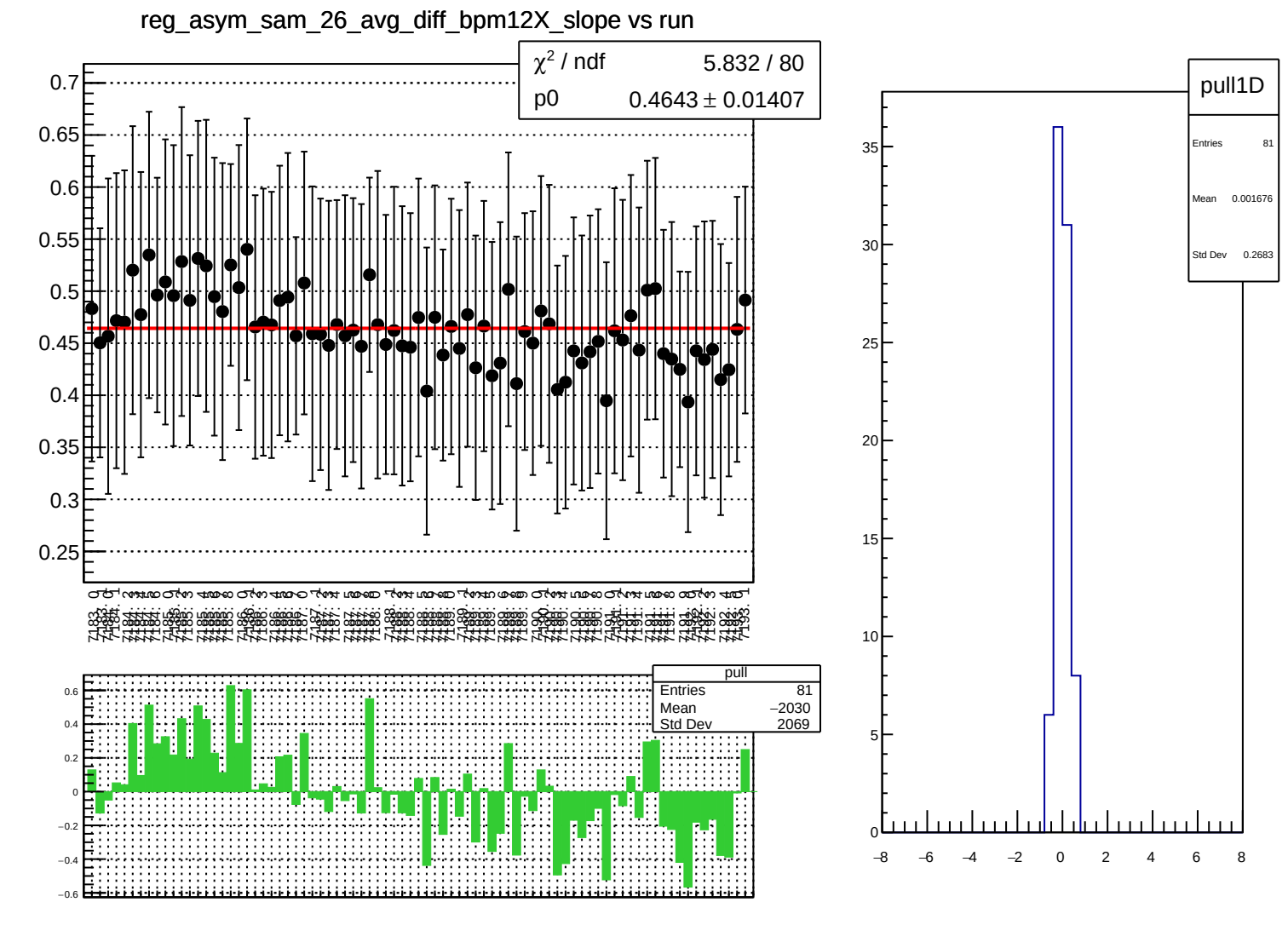

pull1D
Entries 81
Mean −0.004205
Std Dev 0.3607

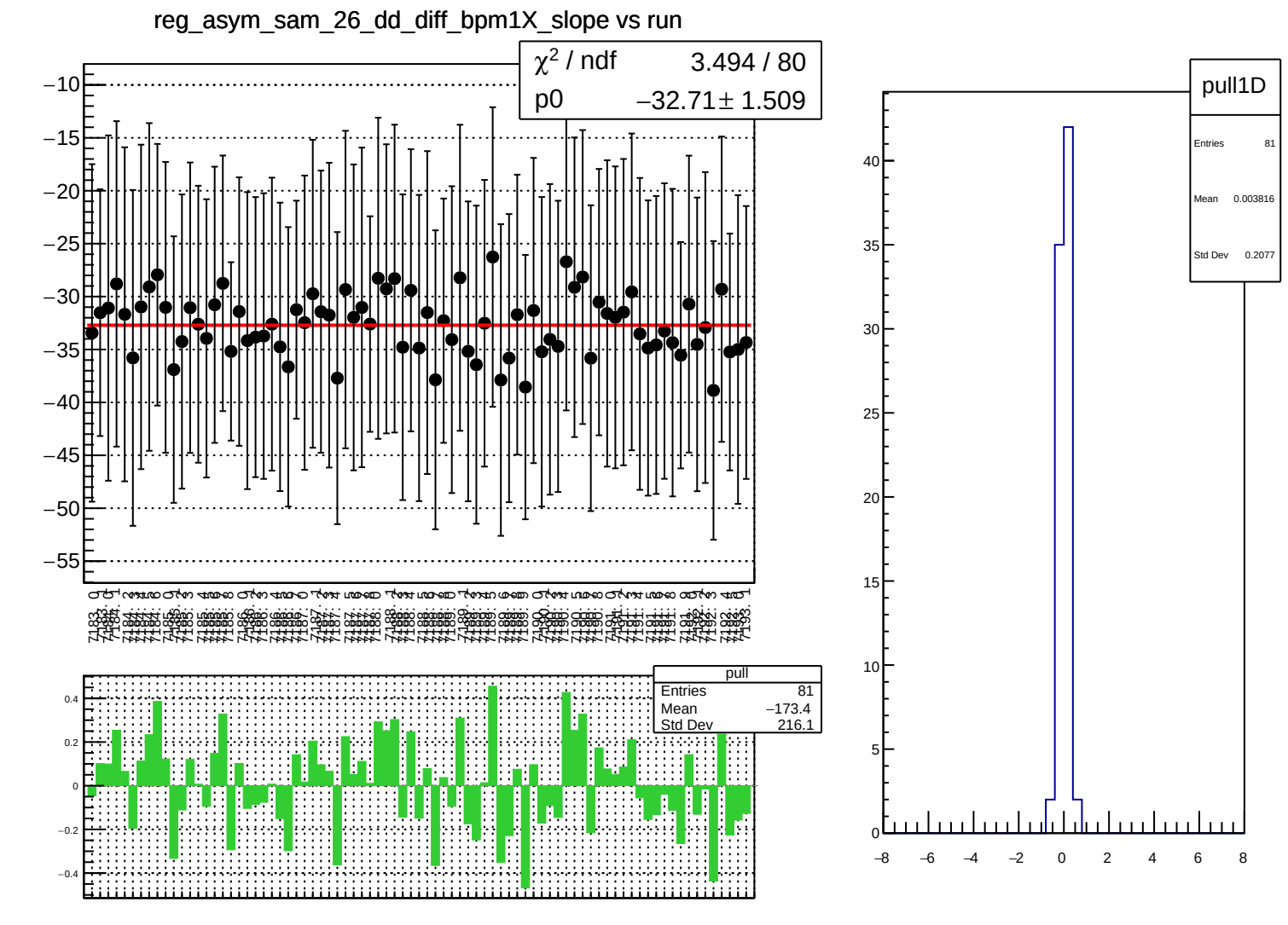

reg_asym_sam_26_avg_diff_bpm4eX_slope vs run
χ² / ndf 37.45 / 80
p0 −30.25 ± 0.3852
pull
Entries 81
Mean 42.82
Std Dev 20.97

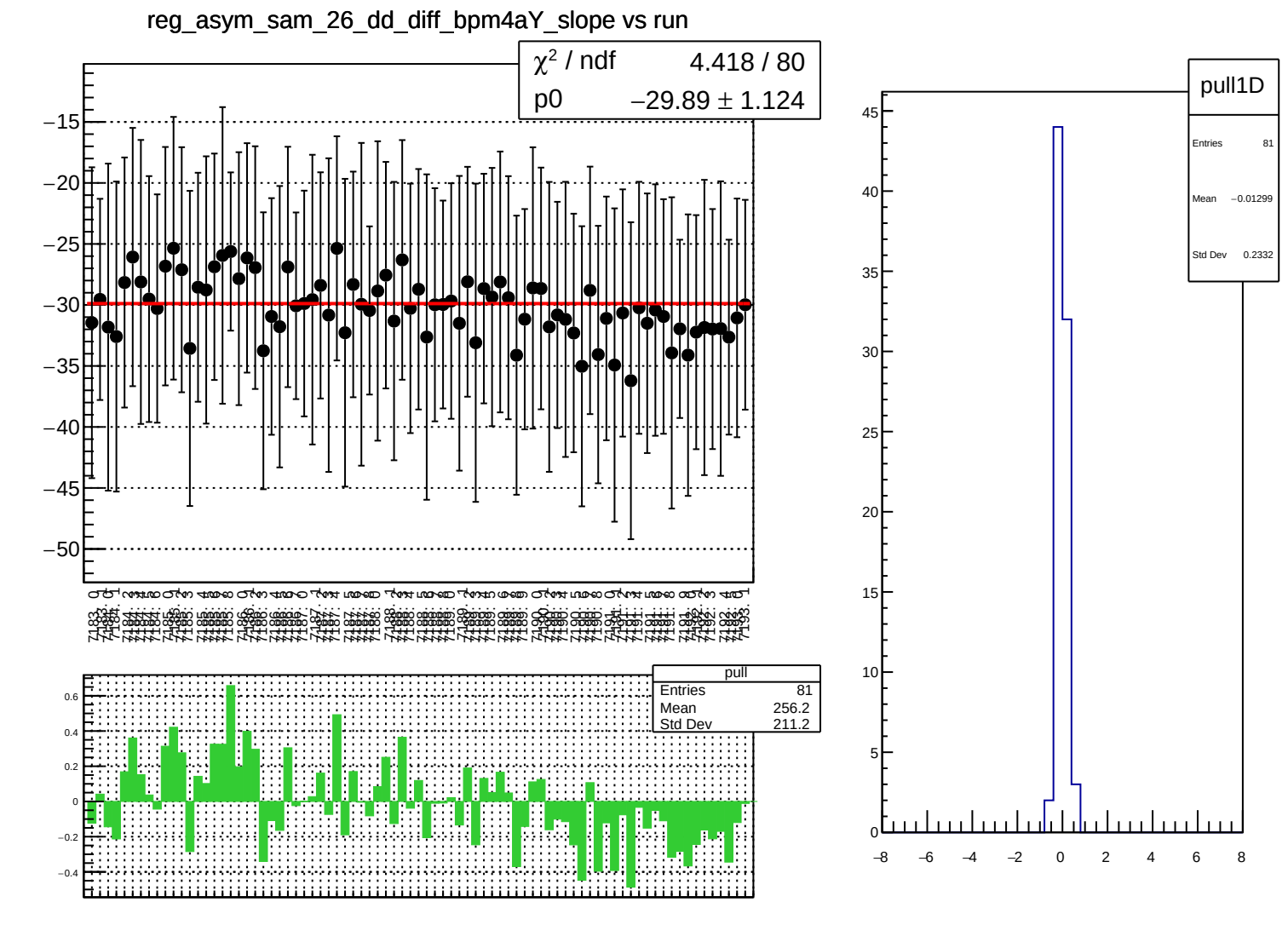

pull1D
Entries 81
Mean −0.05049
Std Dev 0.6781

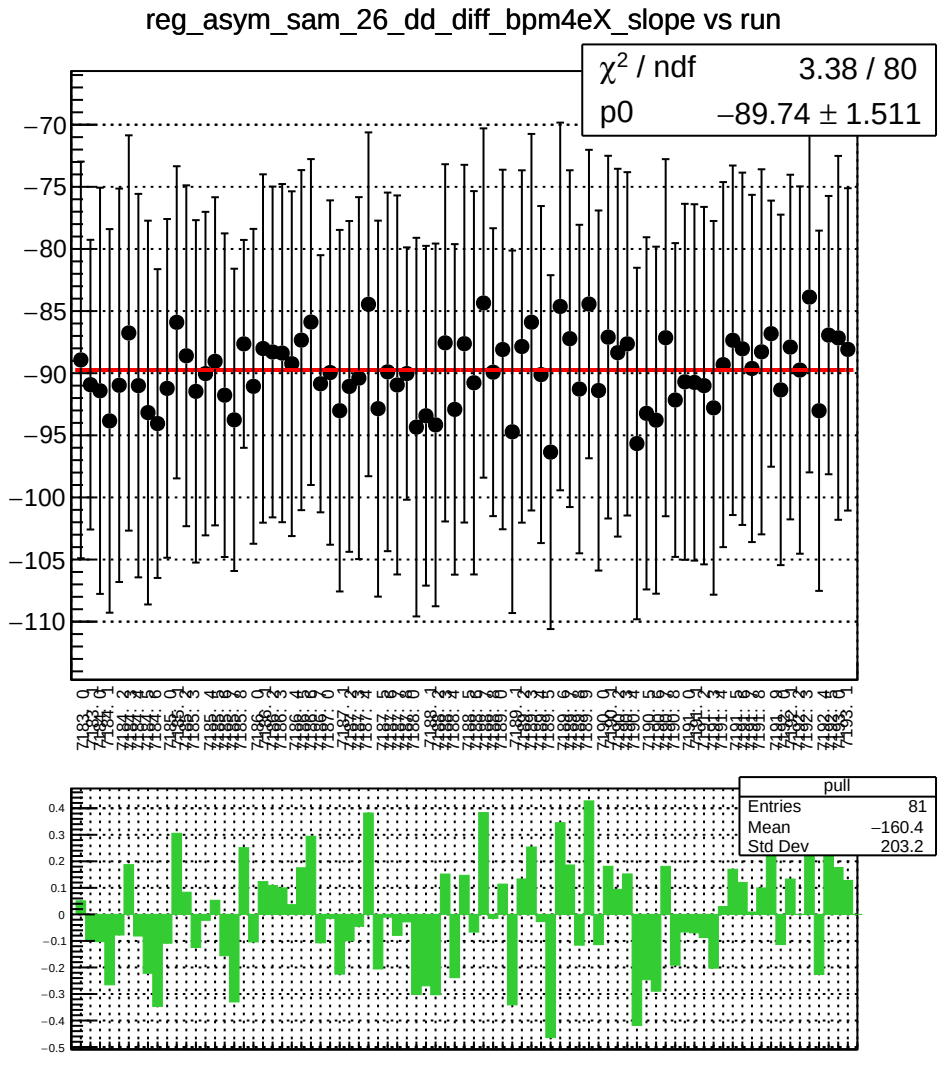

reg_asym_sam_26_avg_diff_bpm4eY_slope vs run
χ² / ndf 24.05 / 80
p0 −26.17 ± 0.3102
pull
Entries 81
Mean −479.8
Std Dev 521.8

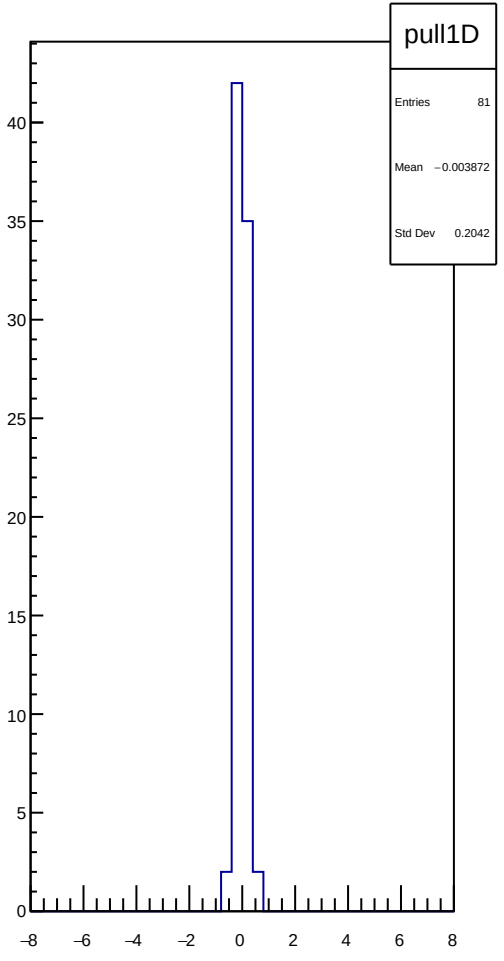

pull1D
Entries 81
Mean −0.01492
Std Dev 0.5446

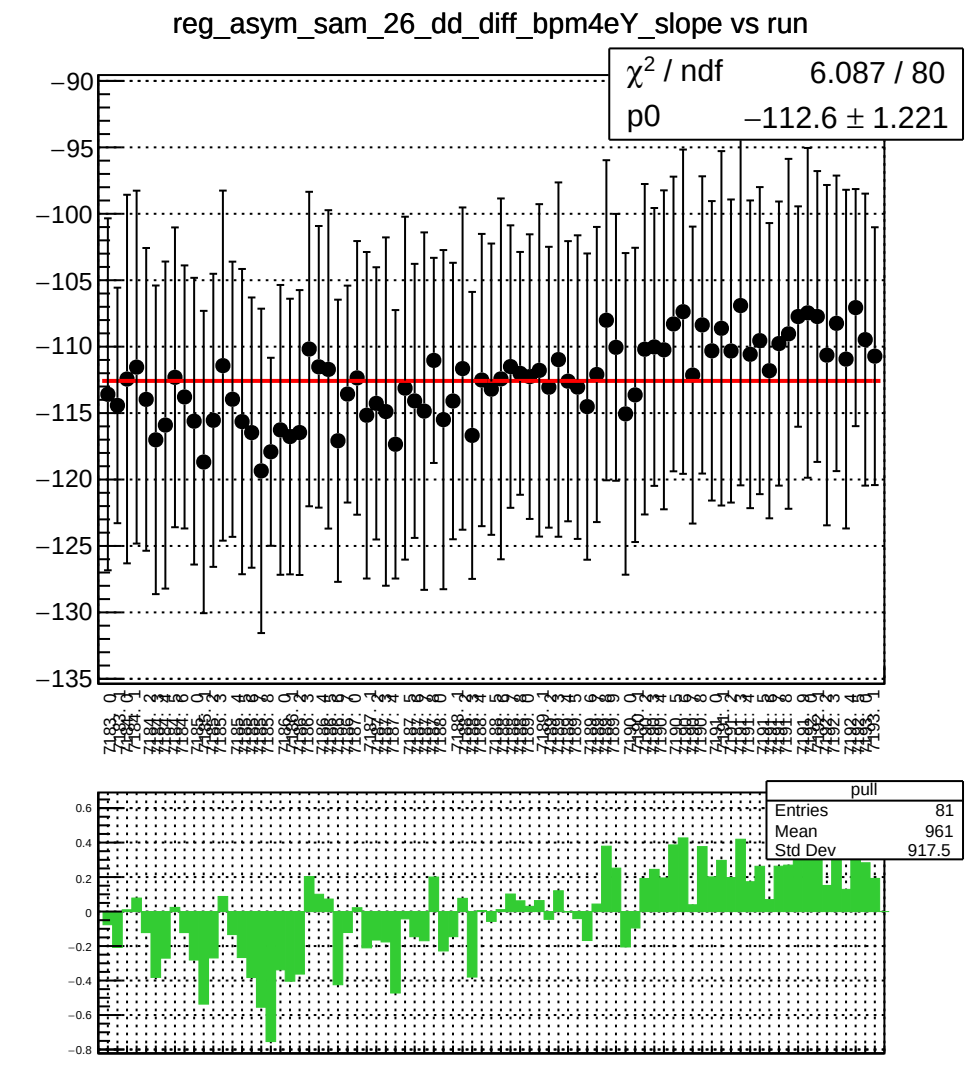

reg_asym_sam_26_avg_diff_bpm12X_slope vs run
χ² / ndf 5.832 / 80
p0 0.4643 ± 0.01407
pull
Entries 81
Mean −2030
Std Dev 2069
pull1D
Entries 81
Mean 0.001676
Std Dev 0.2683

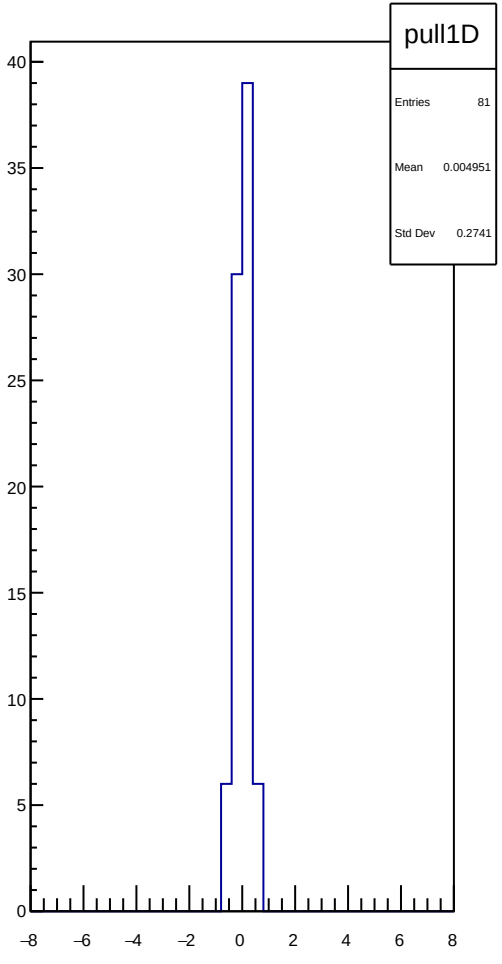

reg_asym_sam_26_dd_diff_bpm1X_slope vs run
χ² / ndf 3.494 / 80
p0 −32.71 ± 1.509
pull
Entries 81
Mean −173.4
Std Dev 216.1
pull1D
Entries 81
Mean 0.003816
Std Dev 0.2077

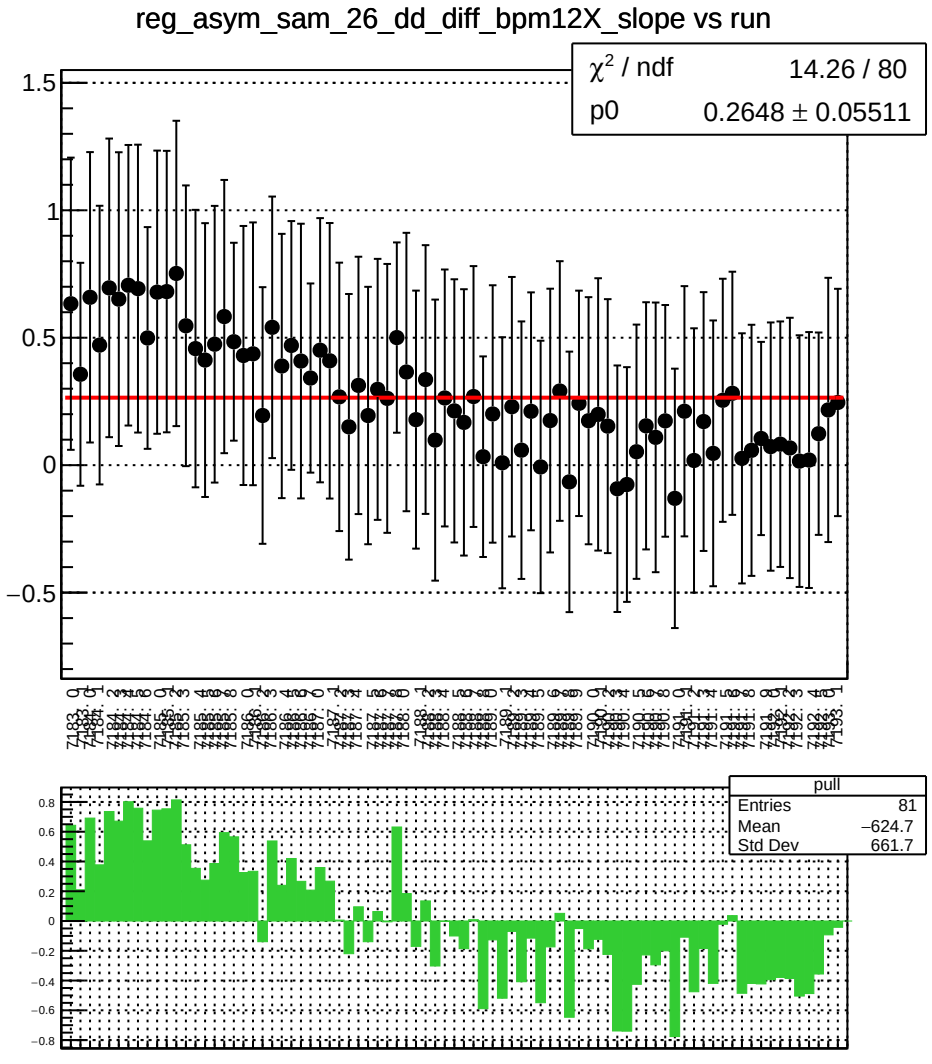

reg_asym_sam_26_dd_diff_bpm4aY_slope vs run
χ² / ndf 4.418 / 80
p0 −29.89 ± 1.124
pull
Entries 81
Mean 256.2
Std Dev 211.2
pull1D
Entries 81
Mean −0.01299
Std Dev 0.2332

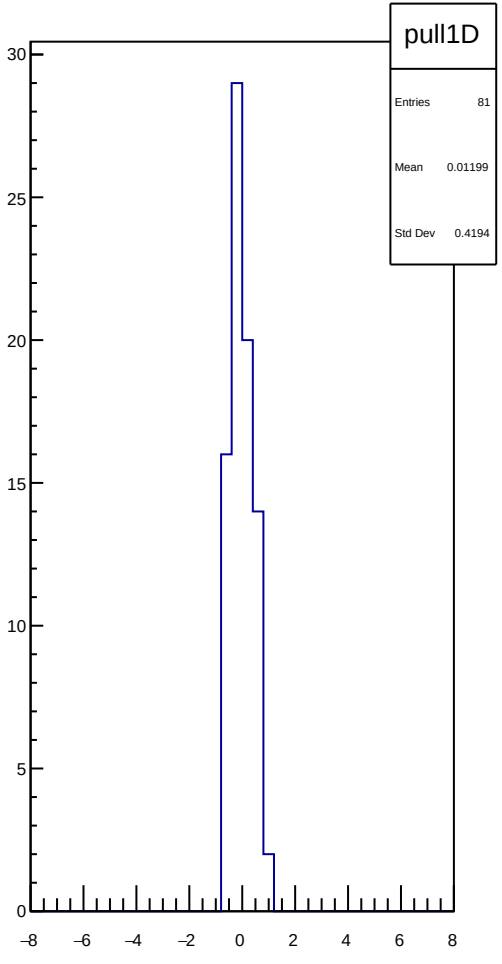

reg_asym_sam_26_dd_diff_bpm4eX_slope vs run
χ² / ndf 3.38 / 80
p0 −89.74 ± 1.511
pull
Entries 81
Mean −160.4
Std Dev 203.2

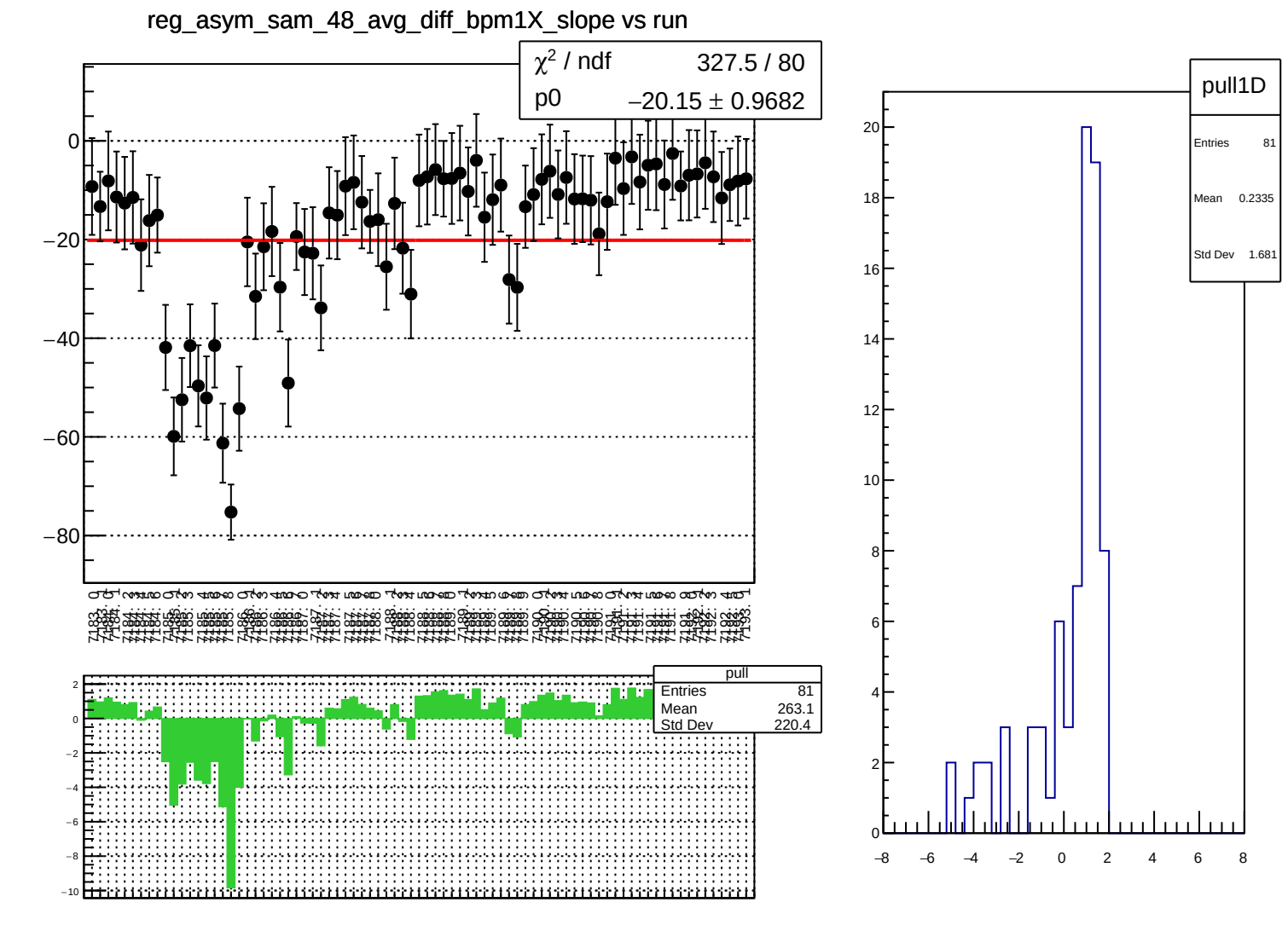

pull1D
Entries 81
Mean −0.003872
Std Dev 0.2042

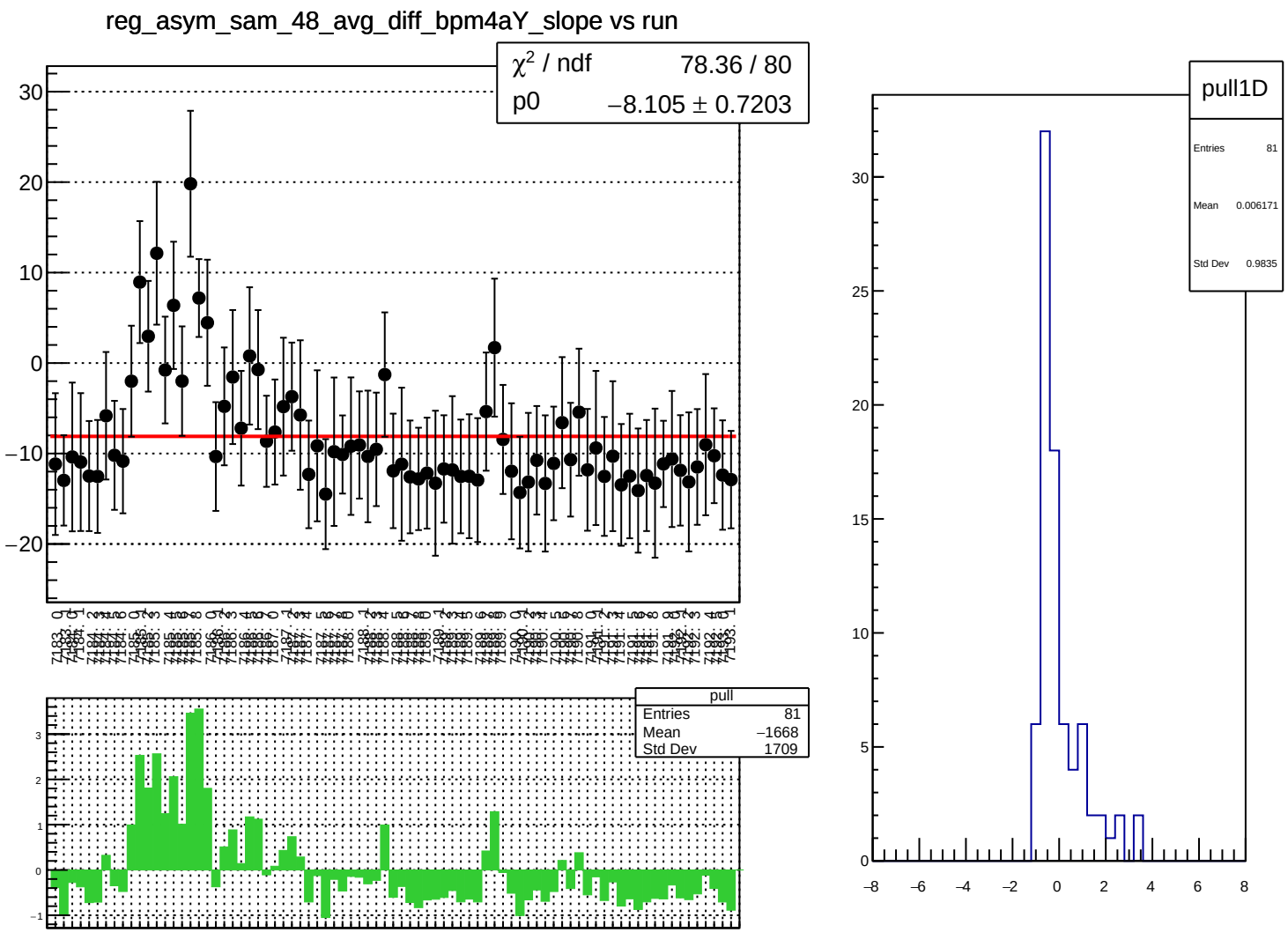

reg_asym_sam_26_dd_diff_bpm4eY_slope vs run
χ² / ndf 6.087 / 80
p0 −112.6 ± 1.221
pull
Entries 81
Mean 961
Std Dev 917.5

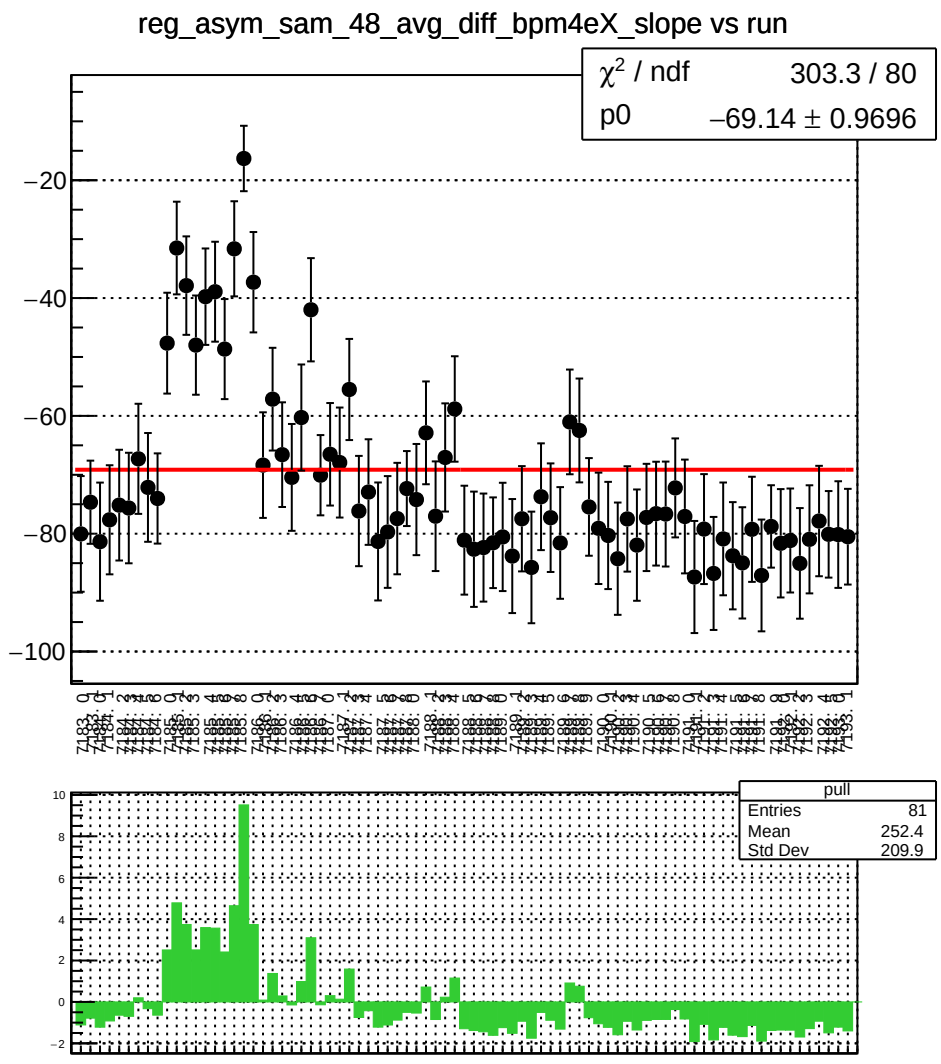

pull1D
Entries 81
Mean 0.004951
Std Dev 0.2741

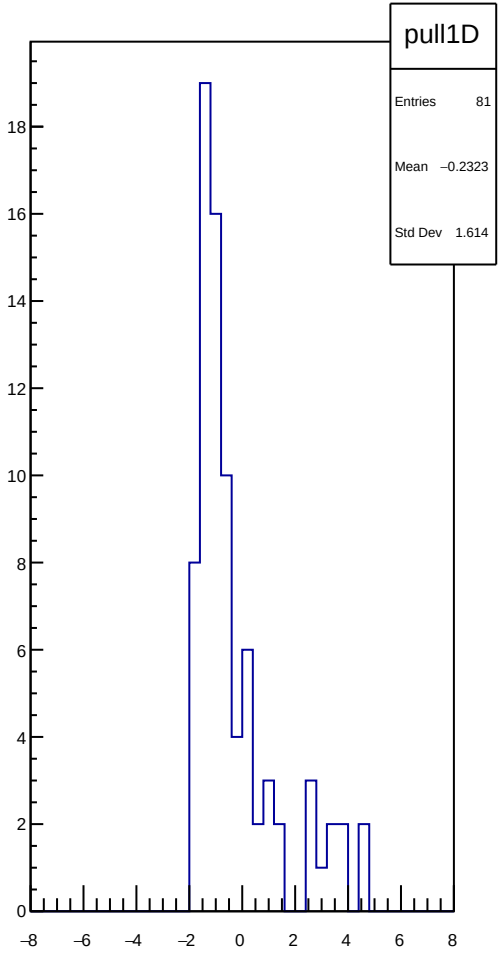

reg_asym_sam_26_dd_diff_bpm12X_slope vs run
χ² / ndf 14.26 / 80
p0 0.2648 ± 0.05511
pull
Entries 81
Mean −624.7
Std Dev 661.7

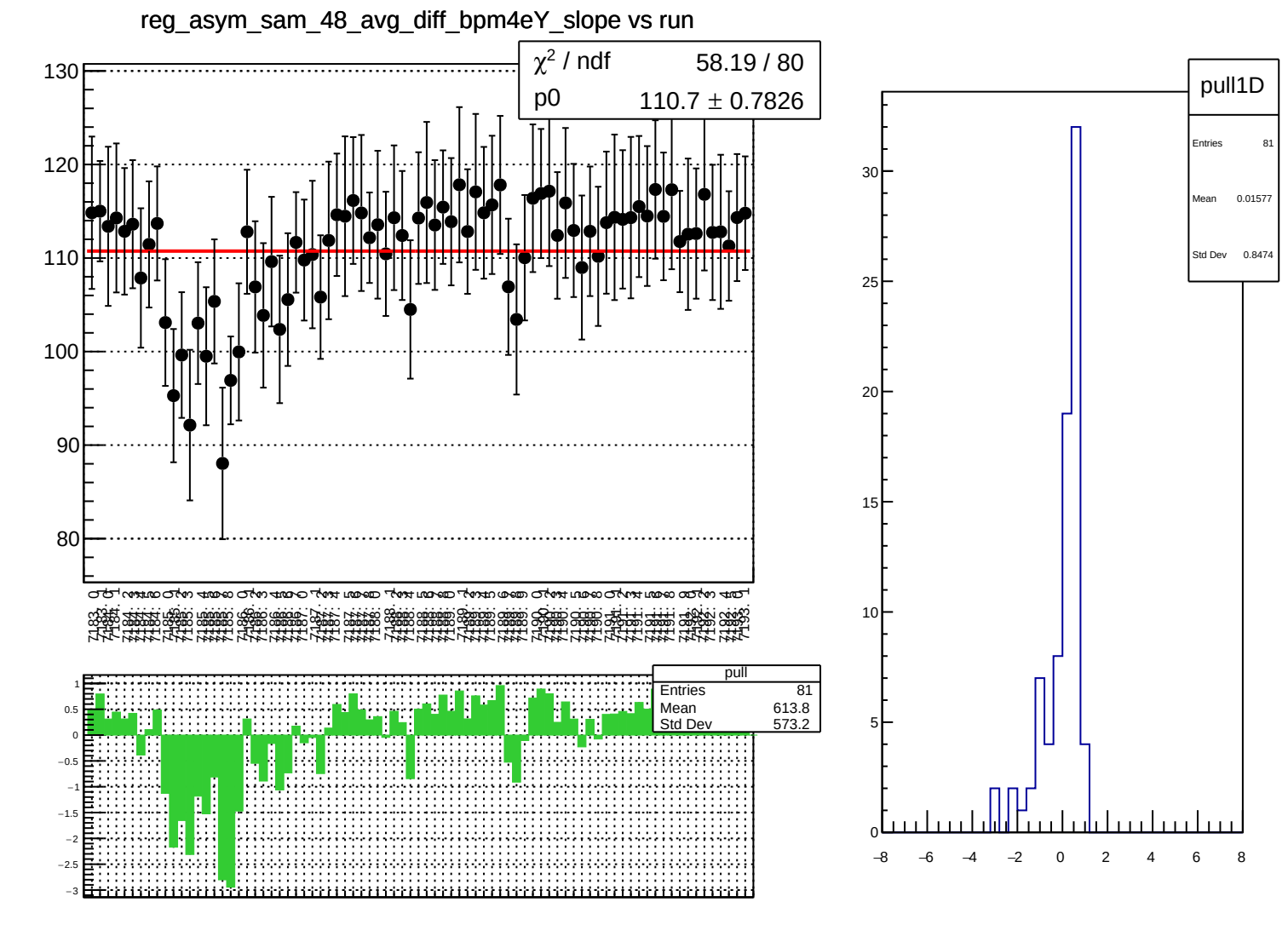

pull1D
Entries 81
Mean 0.01199
Std Dev 0.4194

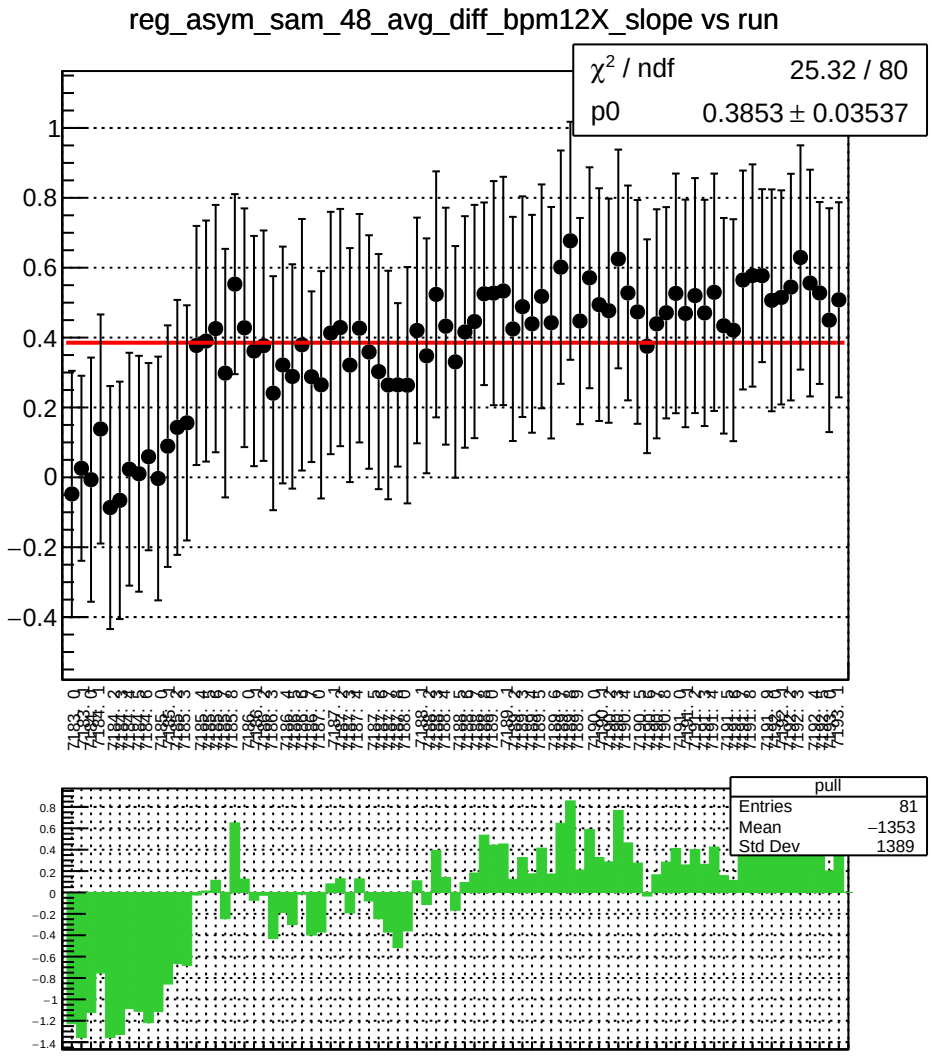

reg_asym_sam_48_avg_diff_bpm1X_slope vs run
χ² / ndf 327.5 / 80
p0 −20.15 ± 0.9682
0
−20
−40
−60
−80
pull
Entries 81
Mean 263.1
Std Dev 220.4
2
0
−2
−4
−6
−8
−10
pull1D
Entries 81
Mean 0.2335
Std Dev 1.681
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

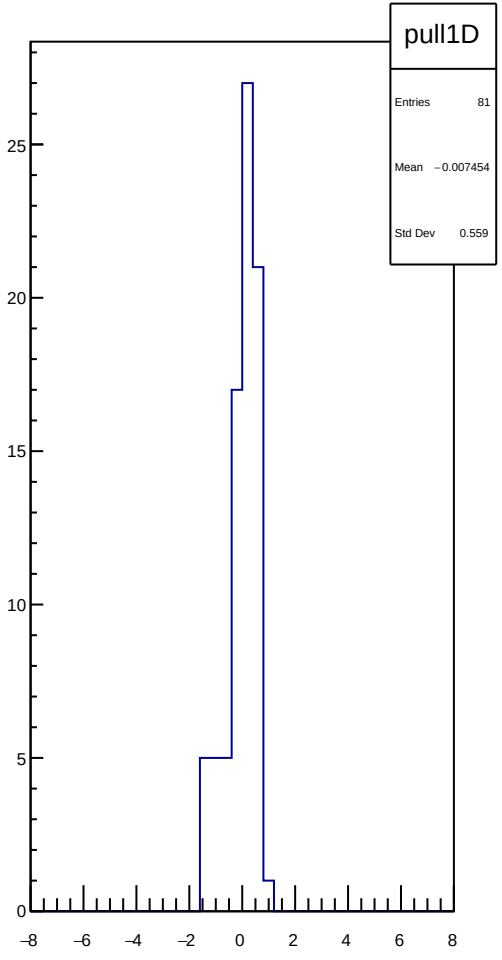

reg_asym_sam_48_avg_diff_bpm4aY_slope vs run
χ² / ndf 78.36 / 80
p0 −8.105 ± 0.7203
pull
Entries 81
Mean −1668
Std Dev 1709
pull1D
Entries 81
Mean 0.006171
Std Dev 0.9835

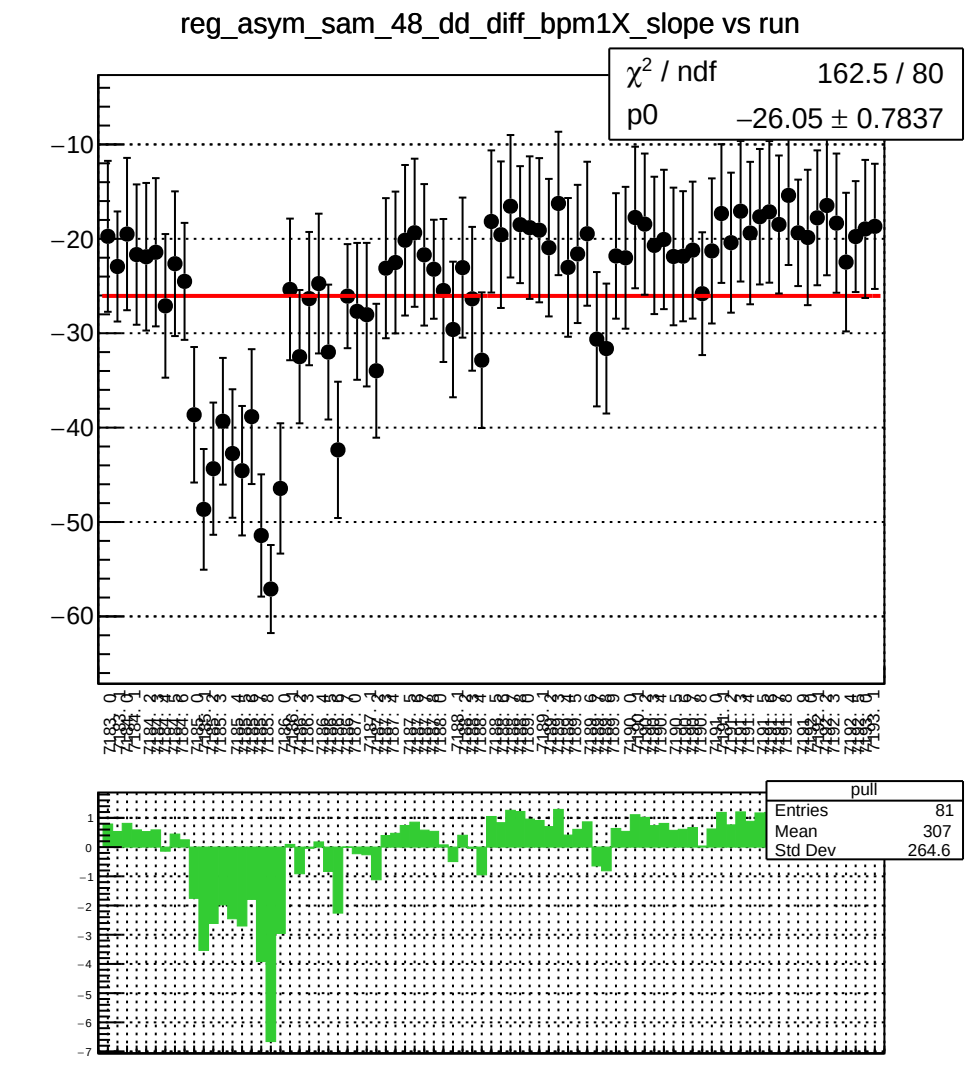

reg_asym_sam_48_avg_diff_bpm4eX_slope vs run
χ² / ndf 303.3 / 80
p0 −69.14 ± 0.9696
pull
Entries 81
Mean 252.4
Std Dev 209.9

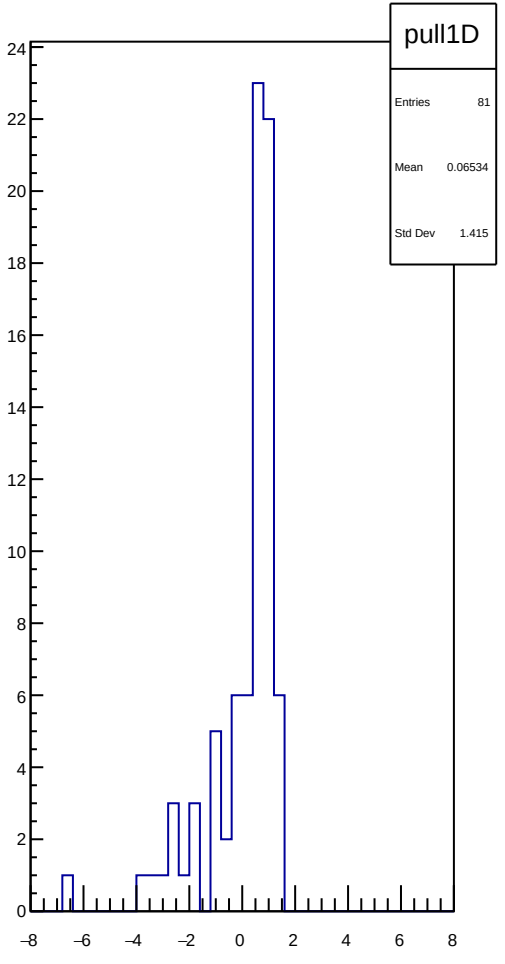

pull1D
Entries 81
Mean −0.2323
Std Dev 1.614

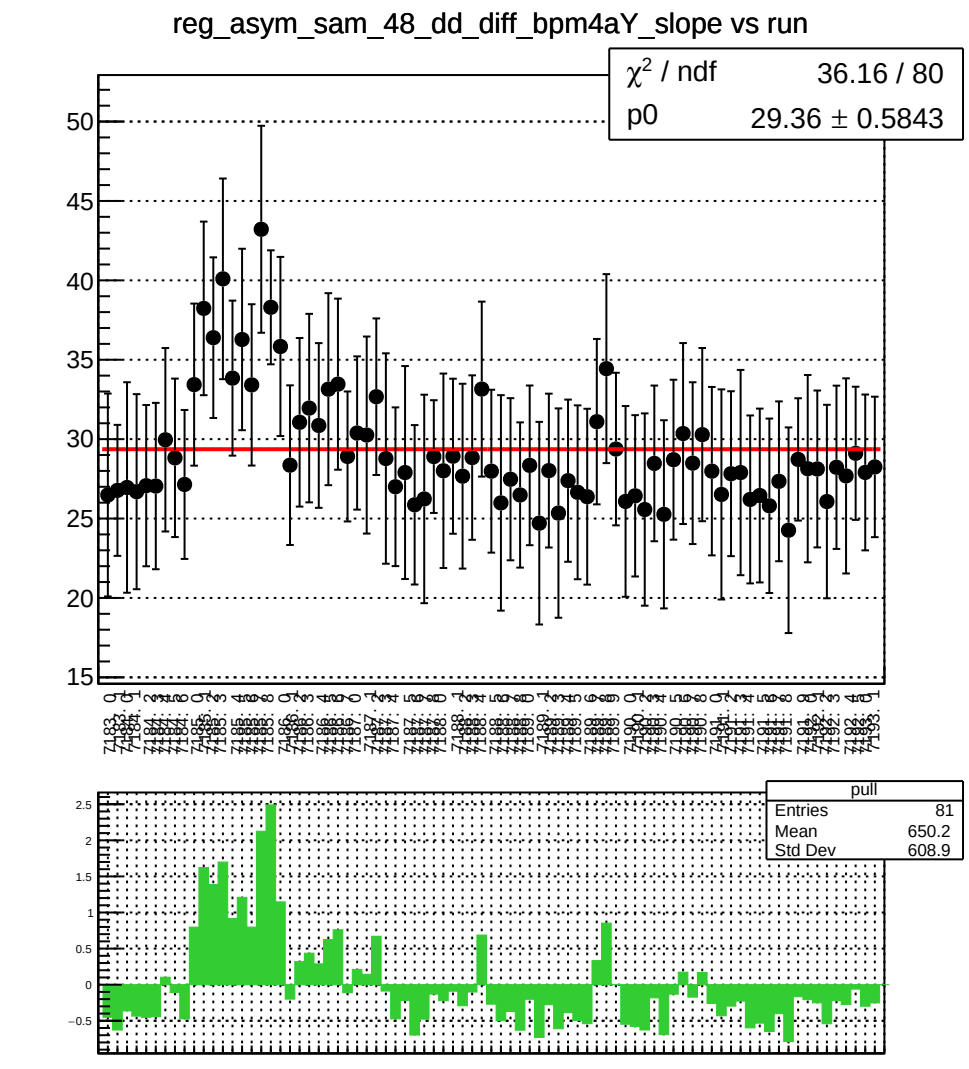

reg_asym_sam_48_avg_diff_bpm4eY_slope vs run
χ² / ndf 58.19 / 80
p0 110.7 ± 0.7826
pull
Entries 81
Mean 613.8
Std Dev 573.2
pull1D
Entries 81
Mean 0.01577
Std Dev 0.8474

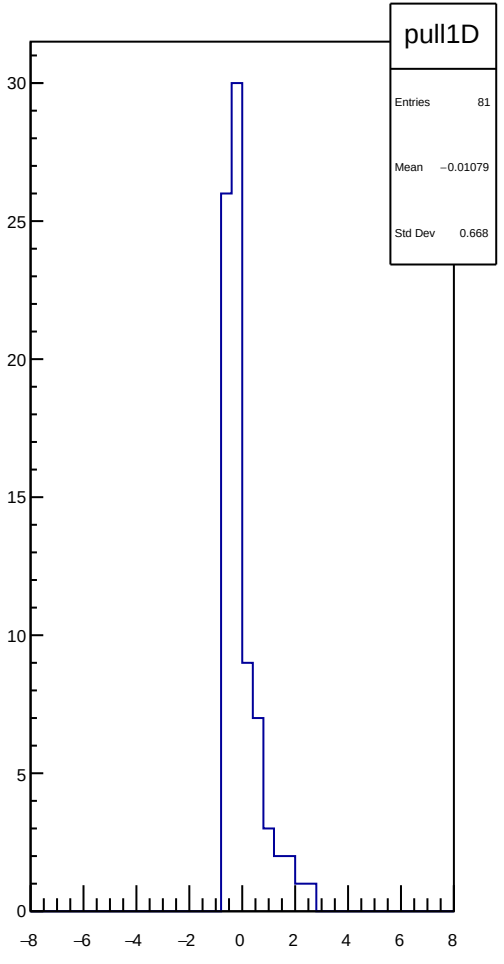

reg_asym_sam_48_avg_diff_bpm12X_slope vs run
χ² / ndf 25.32 / 80
p0 0.3853 ± 0.03537
pull
Entries 81
Mean −1353
Std Dev 1389

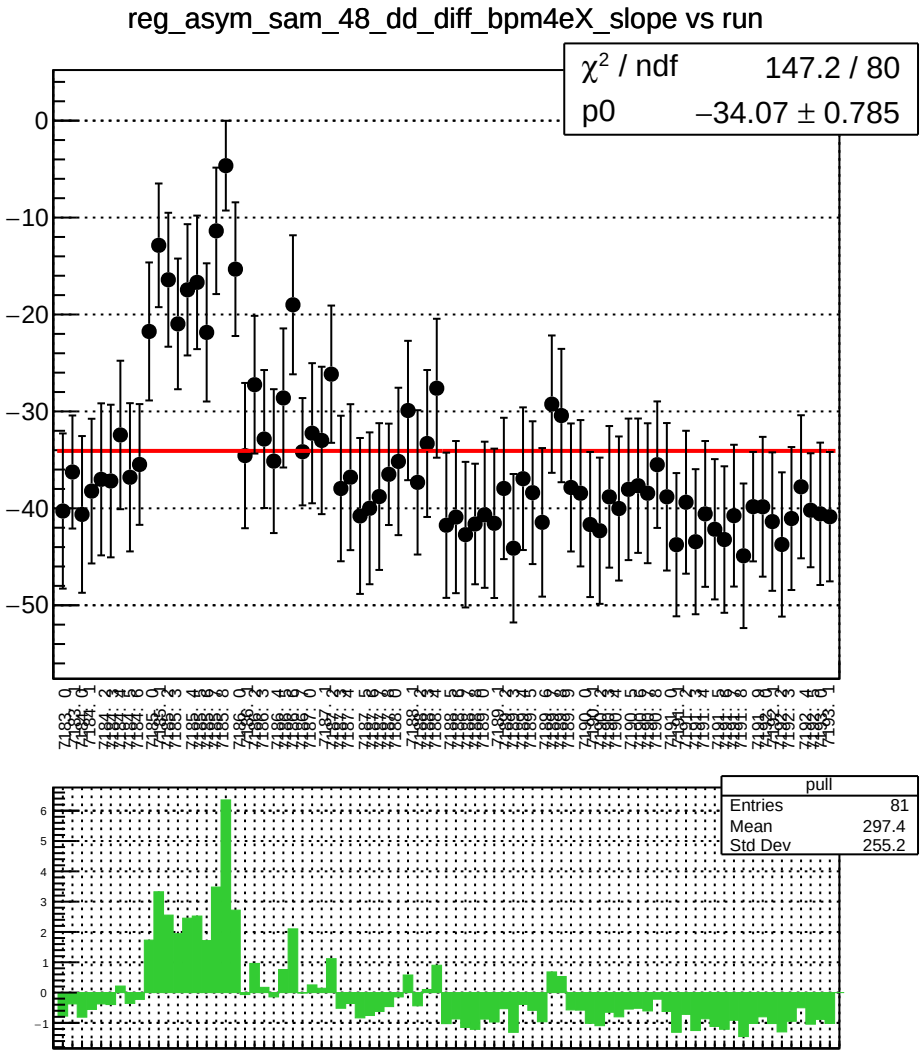

pull1D
Entries 81
Mean −0.007454
Std Dev 0.559

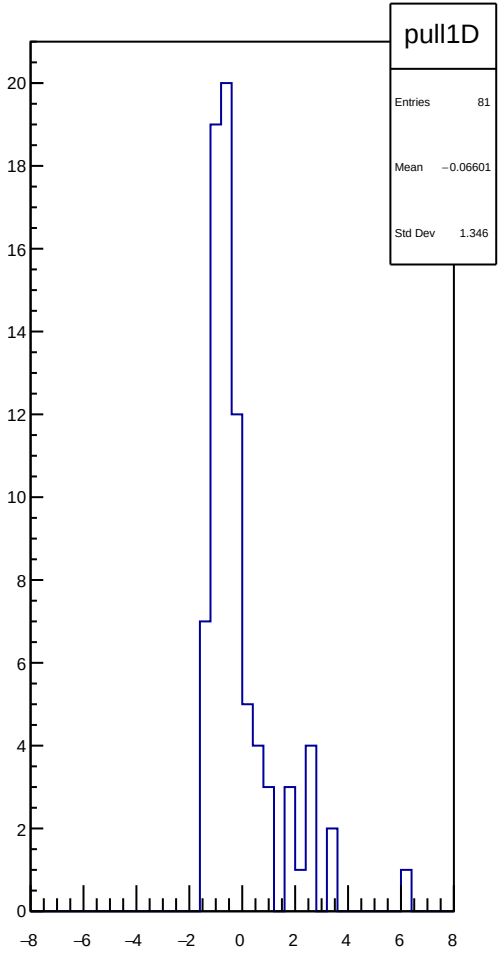

reg_asym_sam_48_dd_diff_bpm1X_slope vs run
χ² / ndf 162.5 / 80
p0 −26.05 ± 0.7837
pull
Entries 81
Mean 307
Std Dev 264.6

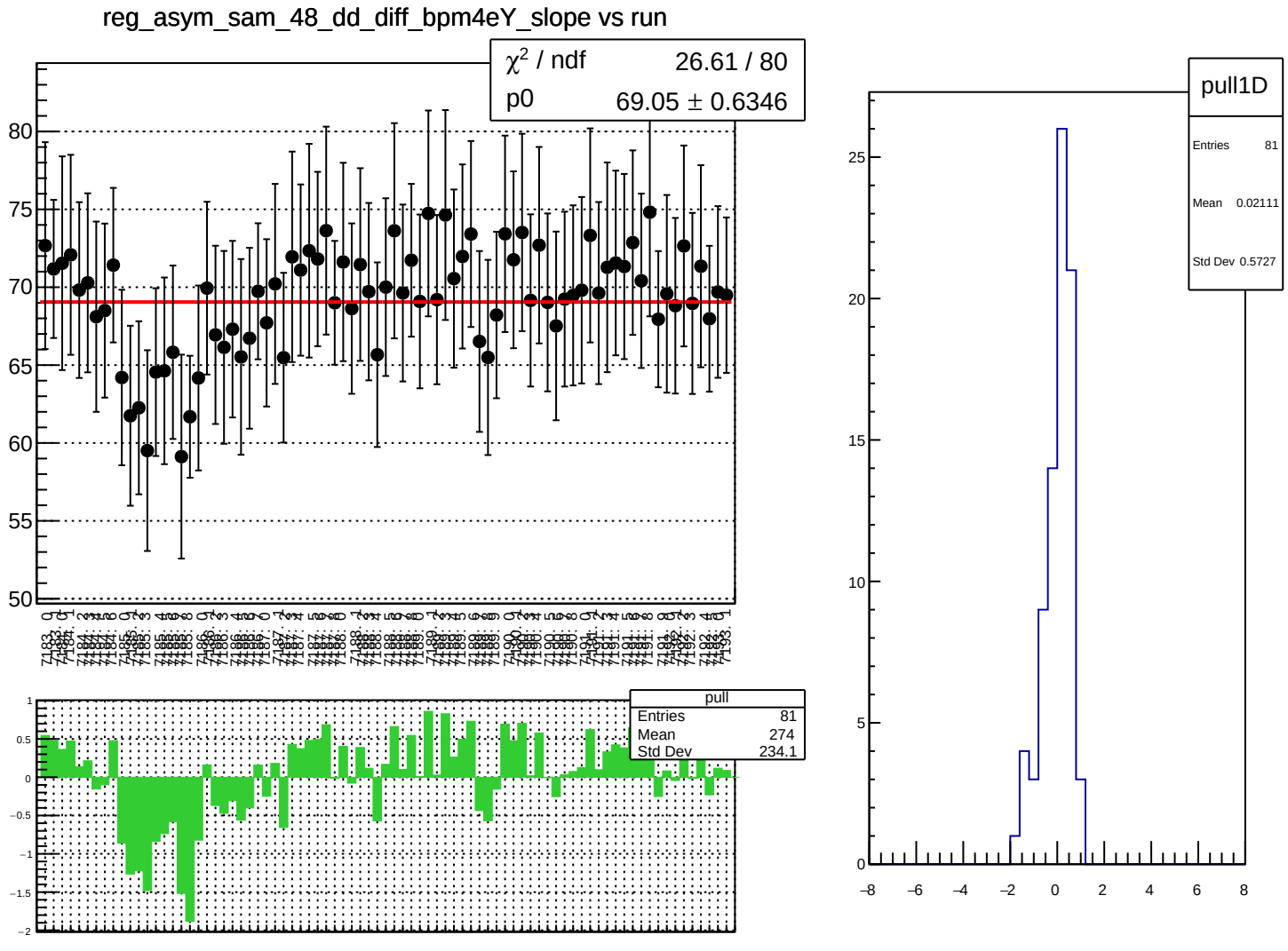

pull1D
Entries 81
Mean 0.06534
Std Dev 1.415

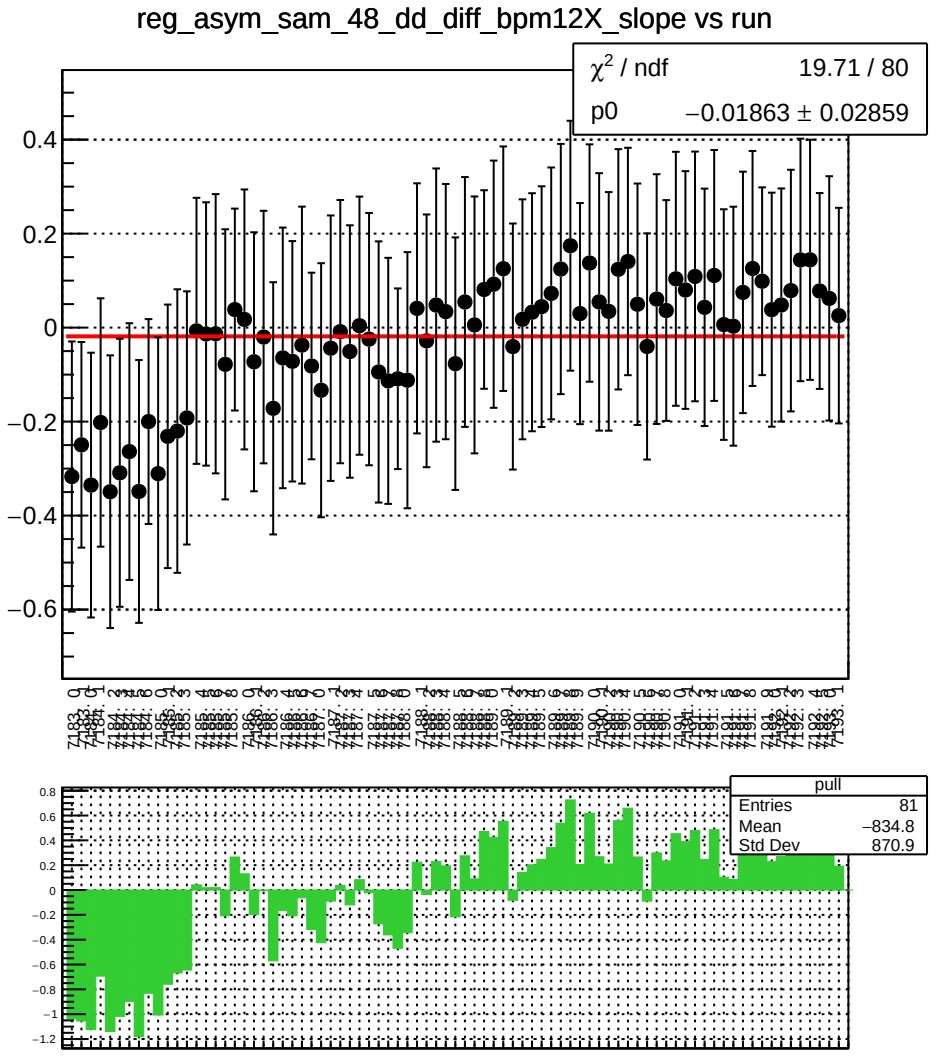

reg_asym_sam_48_dd_diff_bpm4aY_slope vs run
χ² / ndf 36.16 / 80
p0 29.36 ± 0.5843
pull
Entries 81
Mean 650.2
Std Dev 608.9

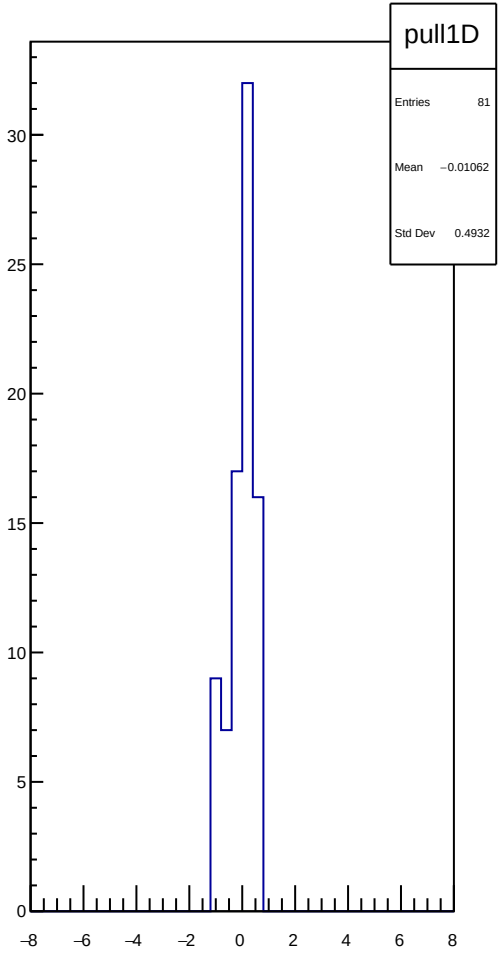

pull1D
Entries 81
Mean −0.01079
Std Dev 0.668

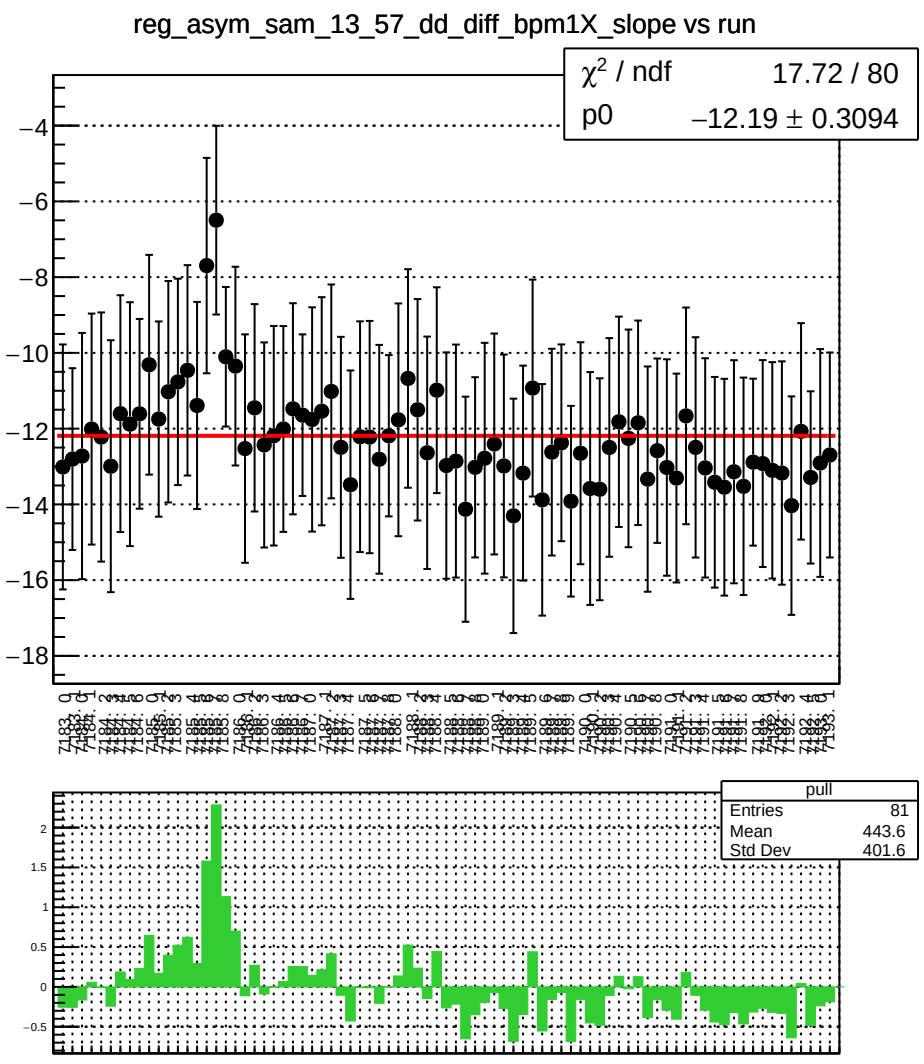

reg_asym_sam_48_dd_diff_bpm4eX_slope vs run
χ² / ndf 147.2 / 80
p0 −34.07 ± 0.785
pull
Entries 81
Mean 297.4
Std Dev 255.2

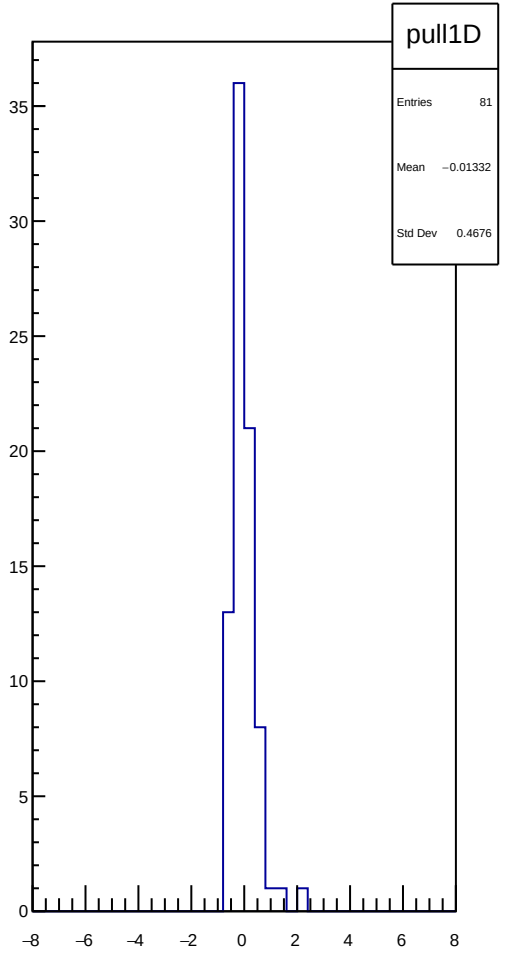

pull1D
Entries 81
Mean −0.06601
Std Dev 1.346

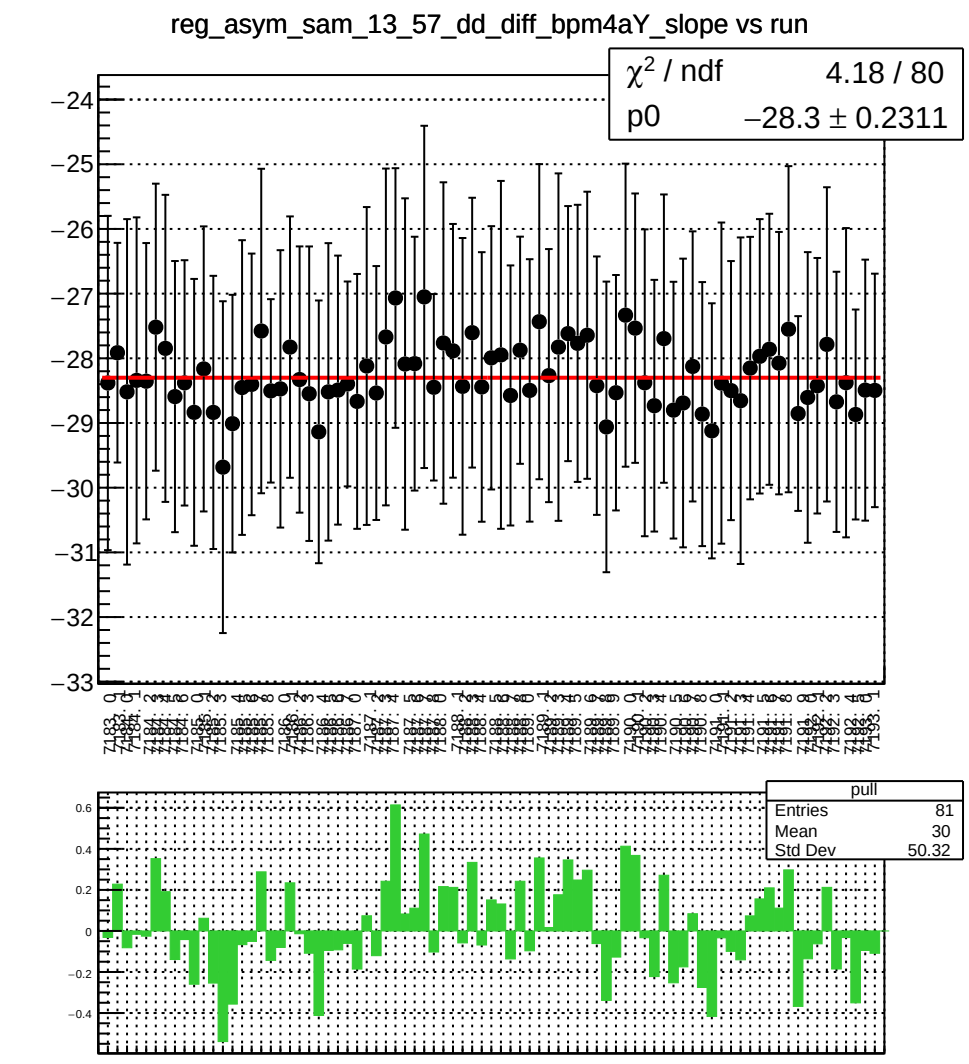

reg_asym_sam_48_dd_diff_bpm4eY_slope vs run
χ² / ndf 26.61 / 80
p0 69.05 ± 0.6346
pull
Entries 81
Mean 274
Std Dev 234.1
pull1D
Entries 81
Mean 0.02111
Std Dev 0.5727

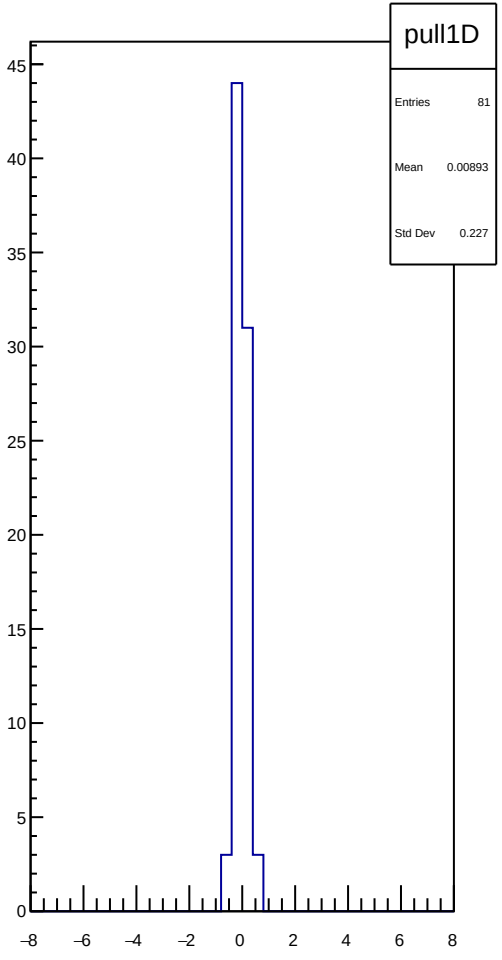

reg_asym_sam_48_dd_diff_bpm12X_slope vs run
χ² / ndf 19.71 / 80
p0 −0.01863 ± 0.02859
pull
Entries 81
Mean −834.8
Std Dev 870.9

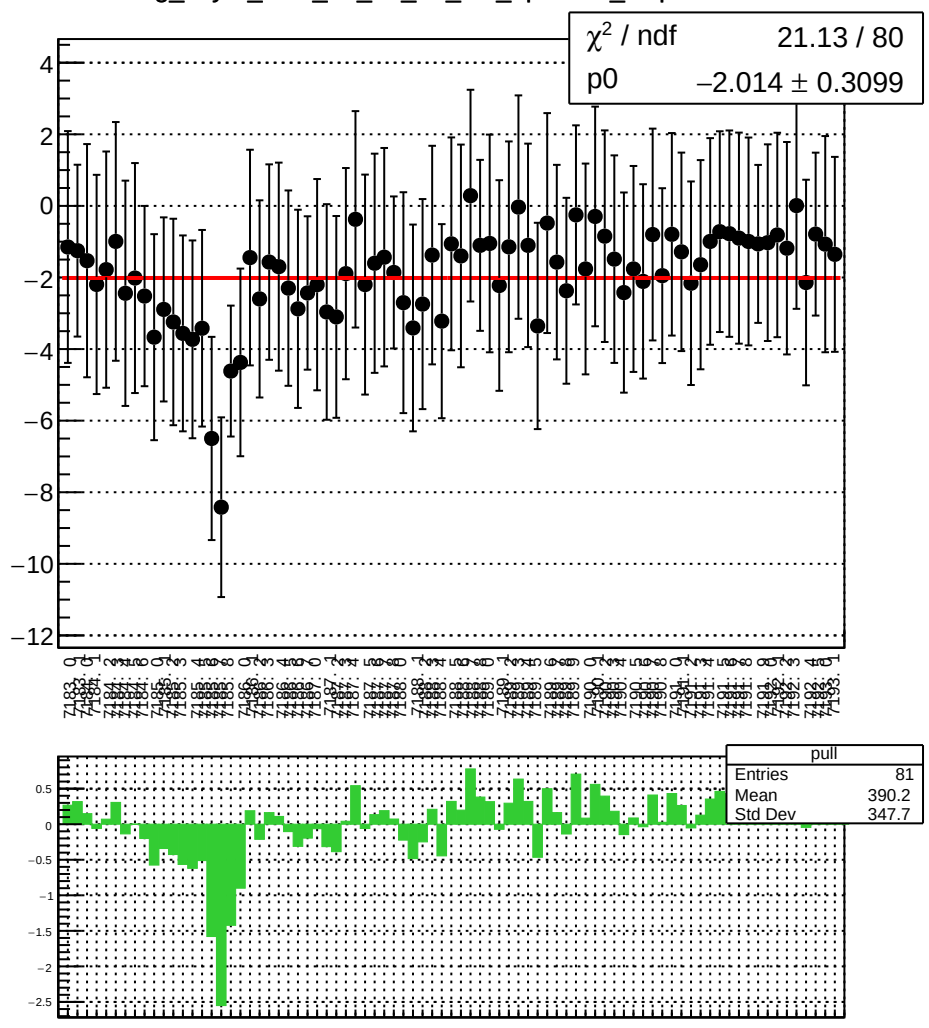

pull1D
Entries 81
Mean −0.01062
Std Dev 0.4932

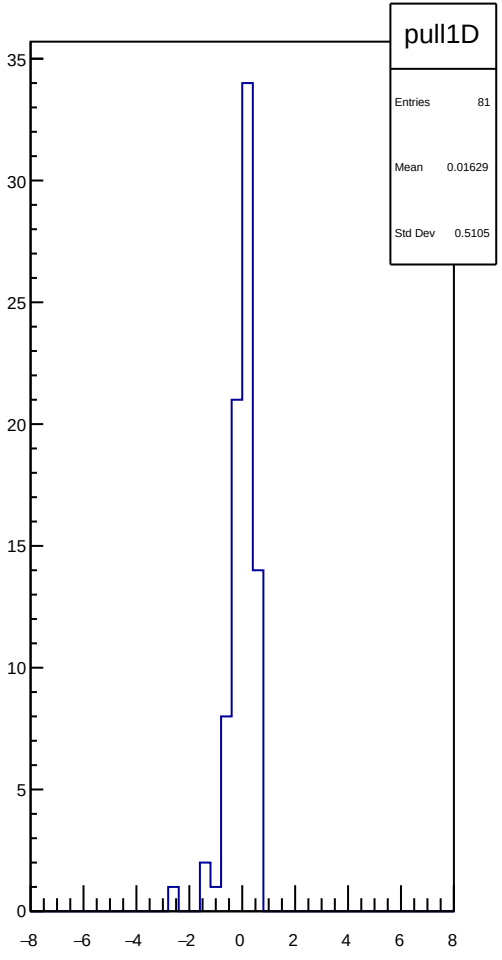

reg_asym_sam_13_57_dd_diff_bpm1X_slope vs run
χ² / ndf 17.72 / 80
p0 −12.19 ± 0.3094
pull
Entries 81
Mean 443.6
Std Dev 401.6

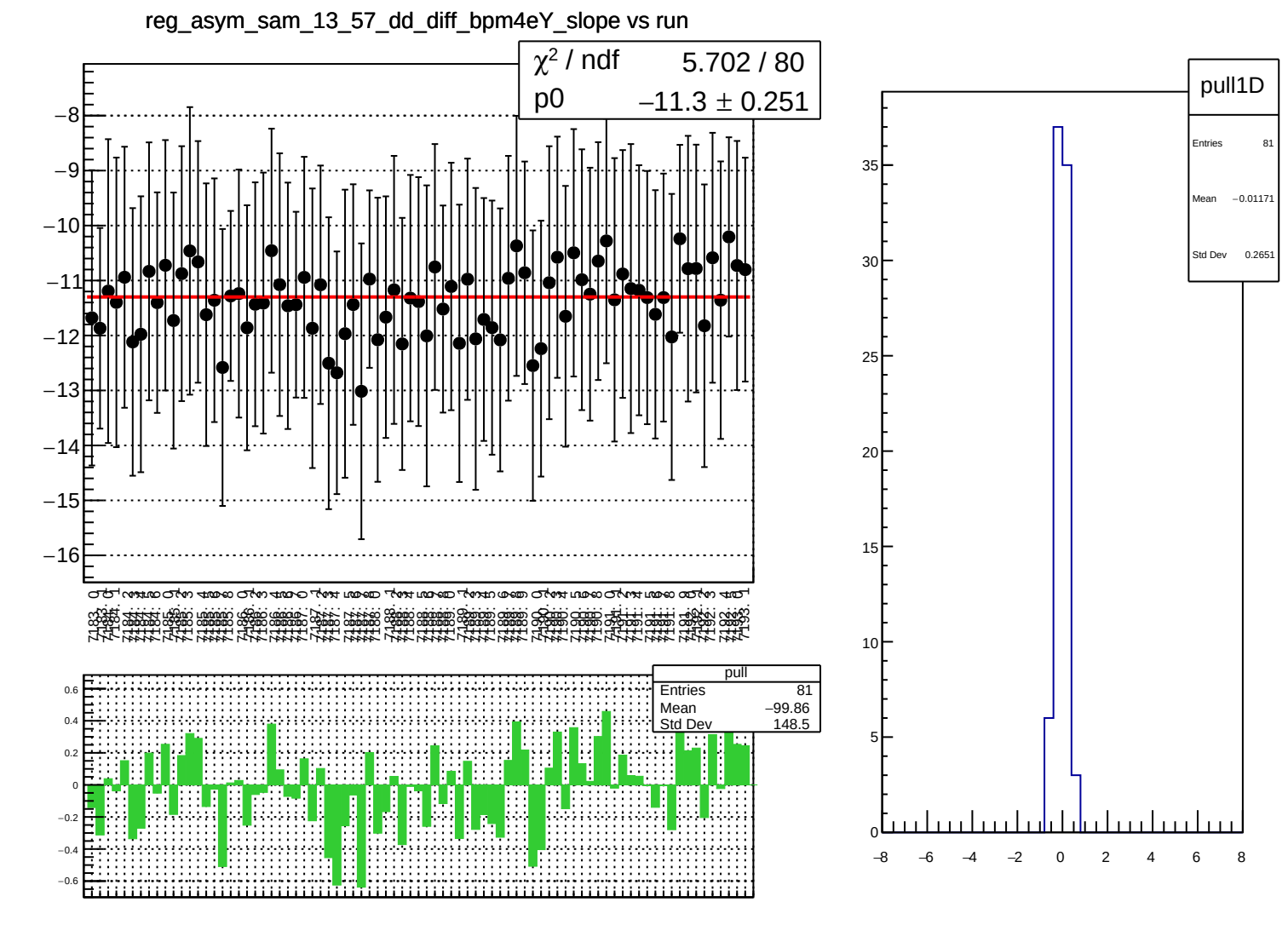

pull1D
Entries 81
Mean −0.01332
Std Dev 0.4676

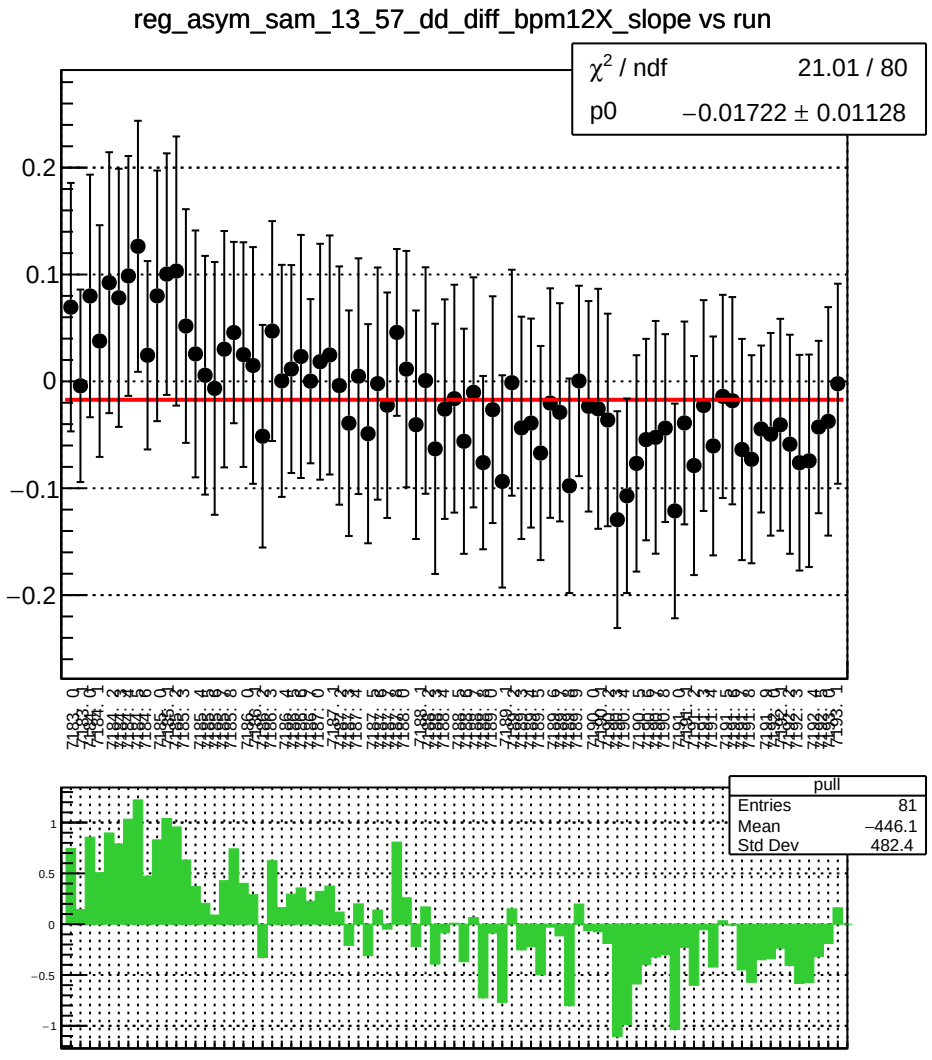

reg_asym_sam_13_57_dd_diff_bpm4aY_slope vs run
χ² / ndf 4.18 / 80
p0 −28.3 ± 0.2311
pull
Entries 81
Mean 30
Std Dev 50.32

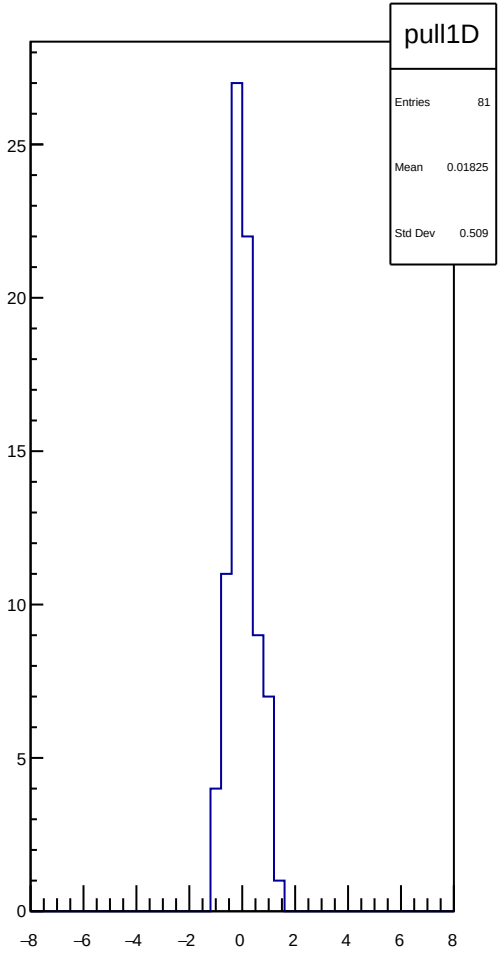

pull1D
Entries 81
Mean 0.00893
Std Dev 0.227

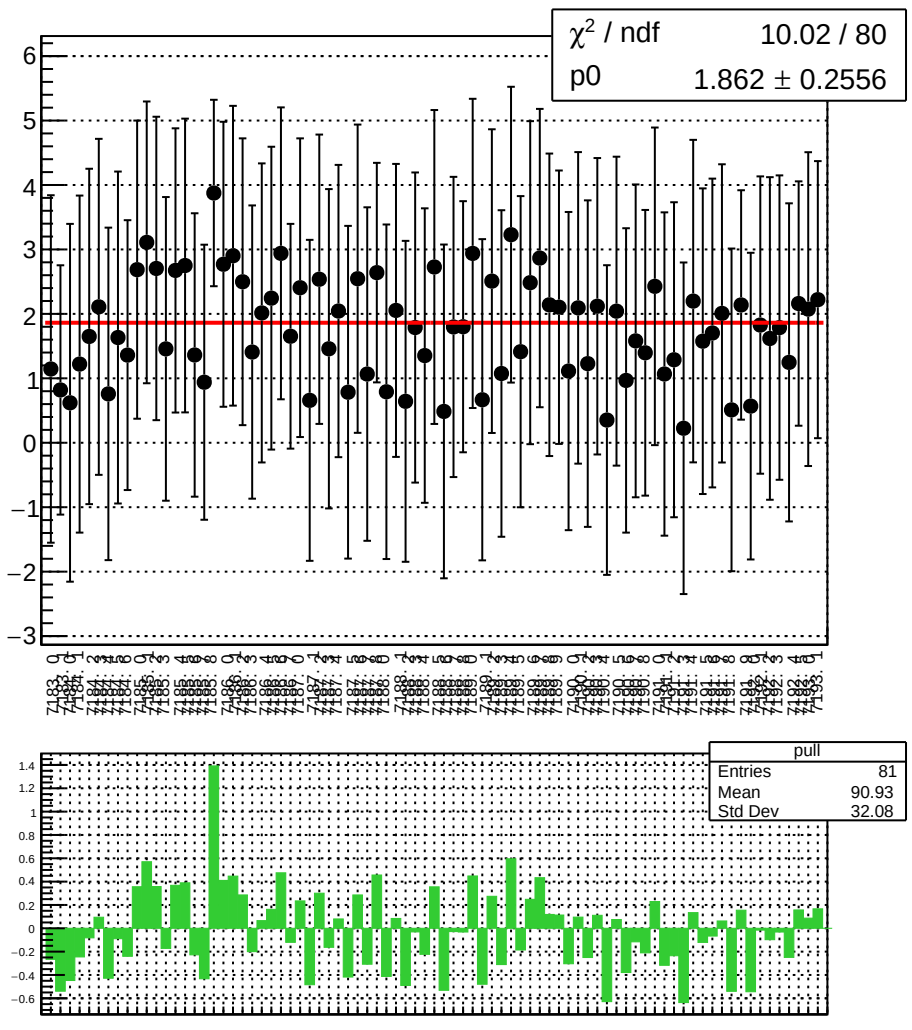

reg_asym_sam_13_57_dd_diff_bpm4eX_slope vs run
χ² / ndf 21.13 / 80
p0 −2.014 ± 0.3099
pull
Entries 81
Mean 390.2
Std Dev 347.7

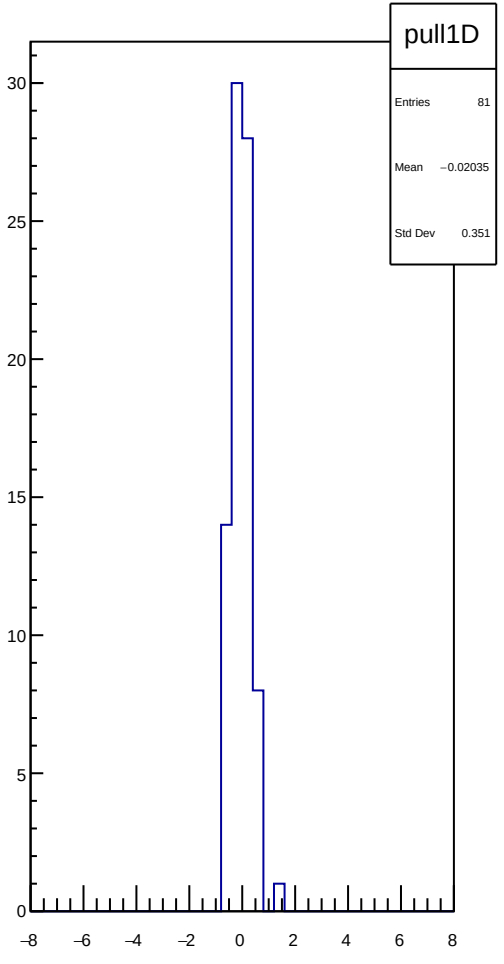

pull1D
Entries 81
Mean 0.01629
Std Dev 0.5105

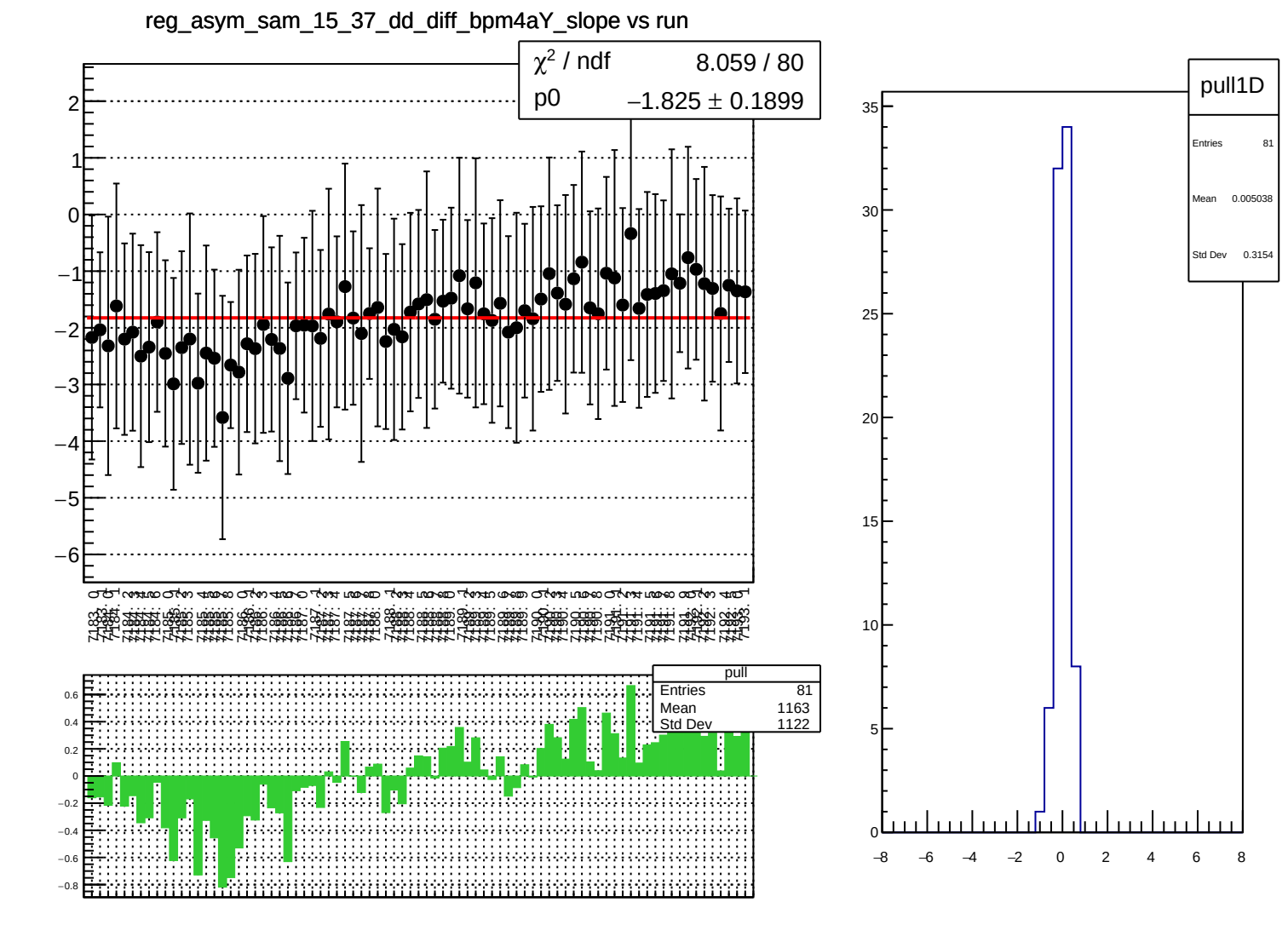

reg_asym_sam_13_57_dd_diff_bpm4eY_slope vs run
χ² / ndf 5.702 / 80
p0 −11.3 ± 0.251
pull
Entries 81
Mean −99.86
Std Dev 148.5
pull1D
Entries 81
Mean −0.01171
Std Dev 0.2651

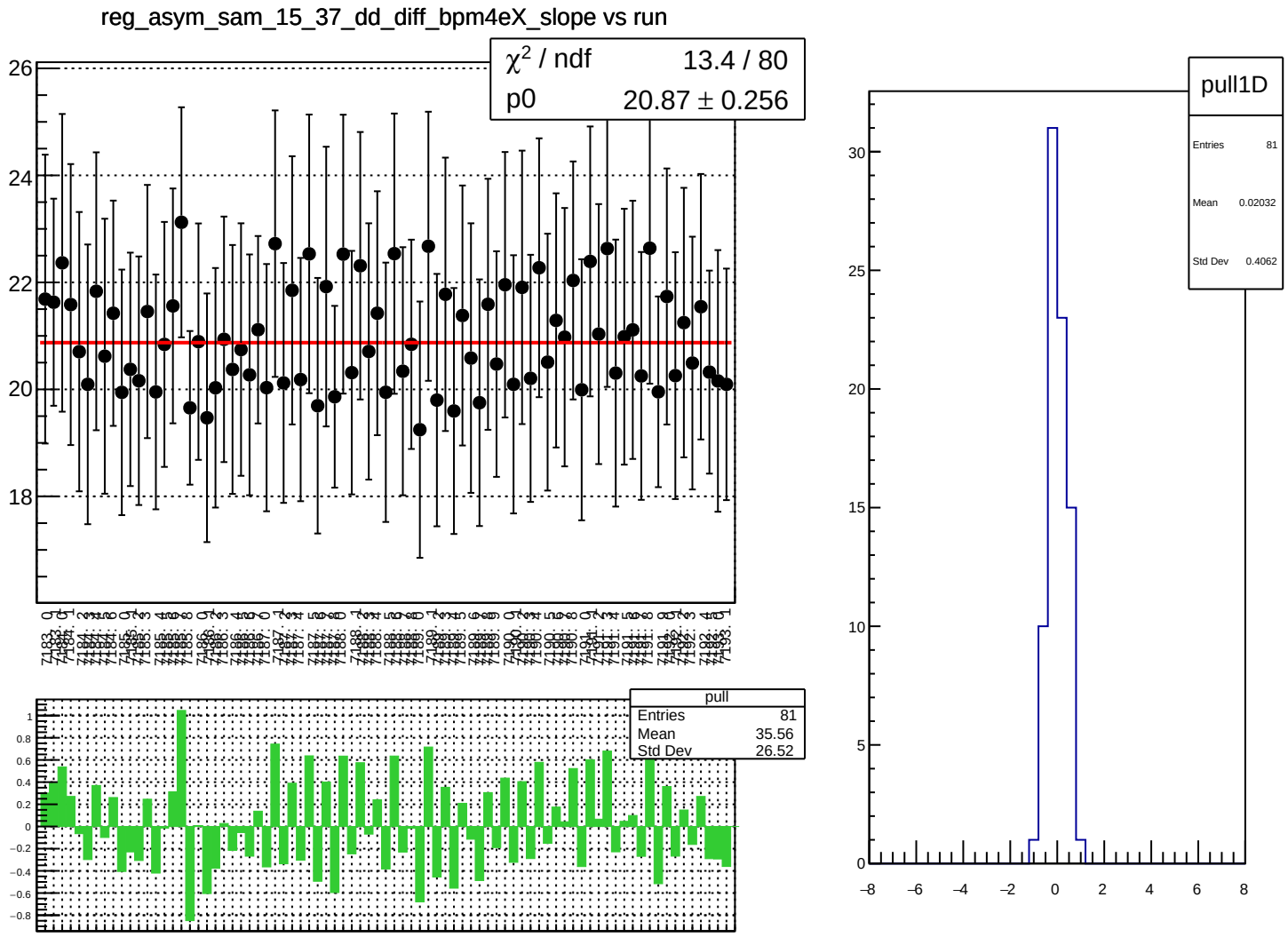

reg_asym_sam_13_57_dd_diff_bpm12X_slope vs run
χ² / ndf 21.01 / 80
p0 −0.01722 ± 0.01128
pull
Entries 81
Mean −446.1
Std Dev 482.4

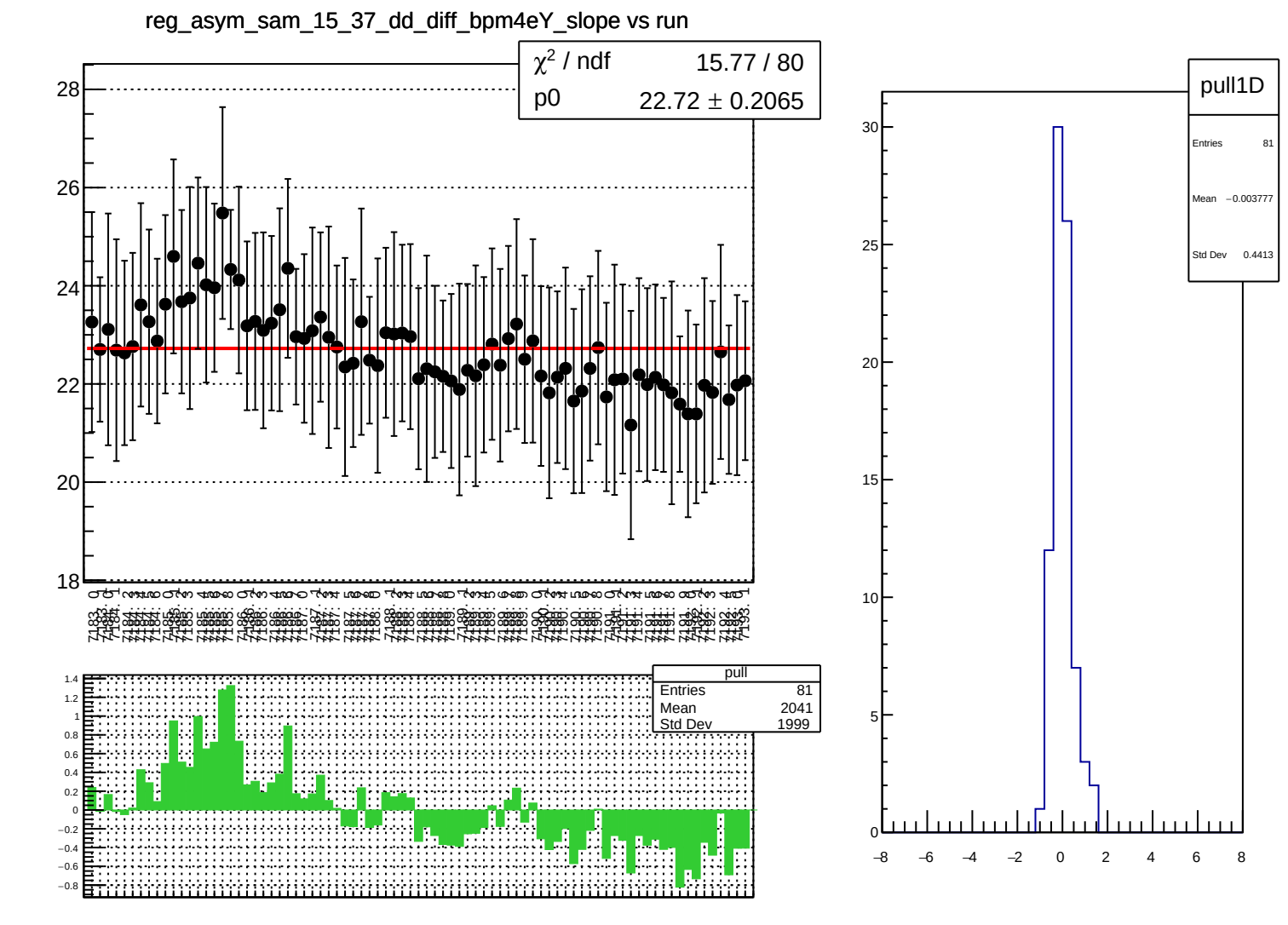

pull1D
Entries 81
Mean 0.01825
Std Dev 0.509

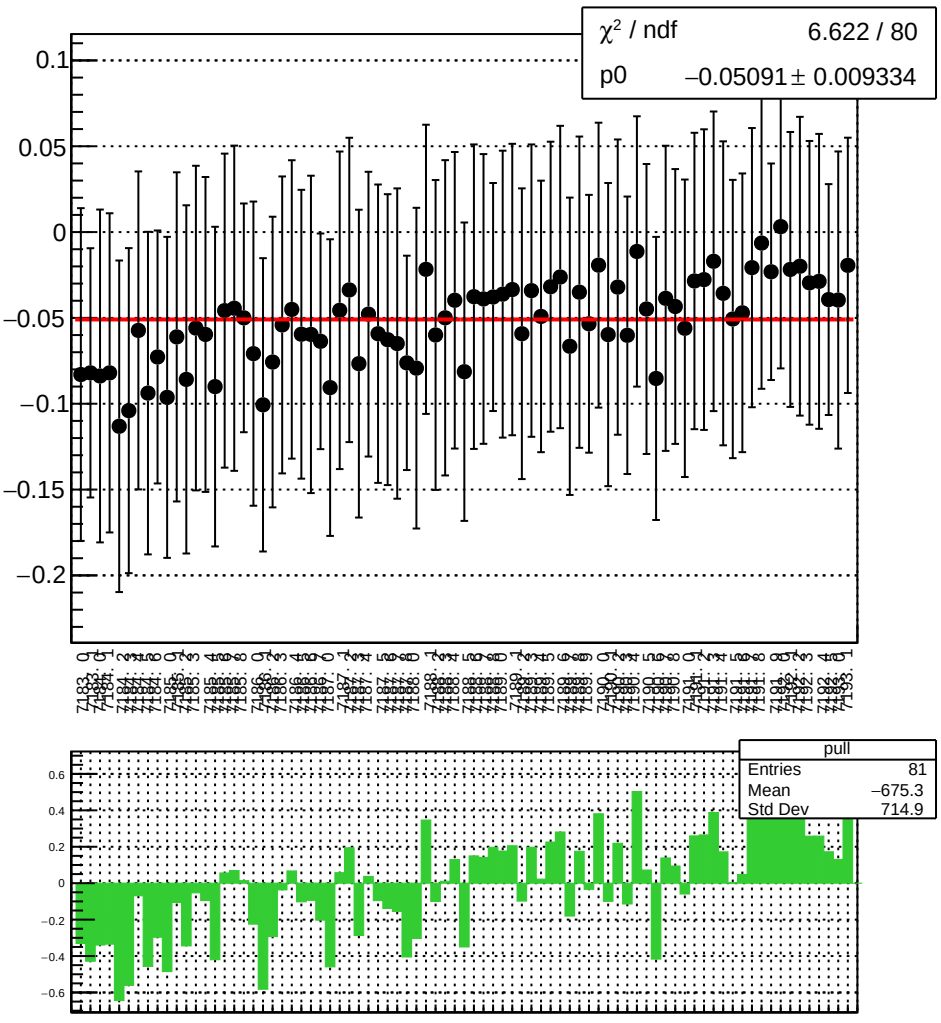

reg_asym_sam_15_37_dd_diff_bpm1X_slope vs run
χ² / ndf 10.02 / 80
p0 1.862 ± 0.2556
pull
Entries 81
Mean 90.93
Std Dev 32.08

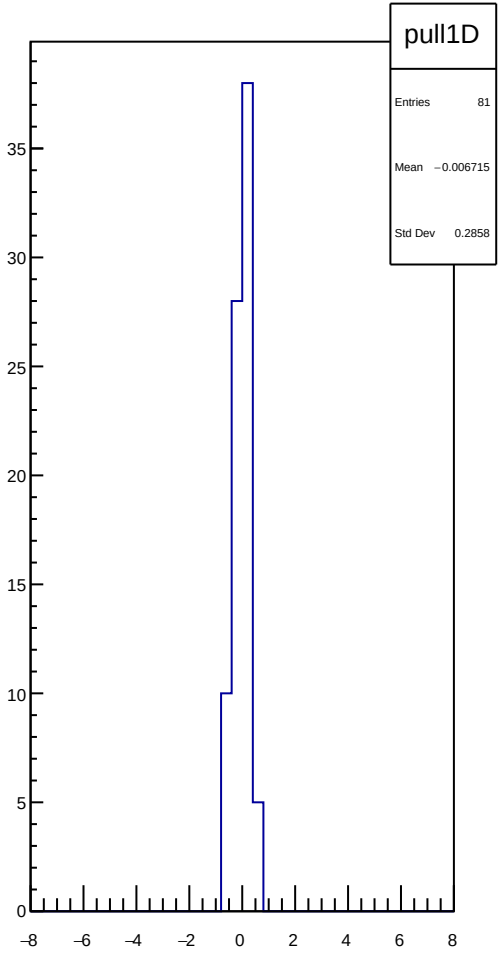

pull1D
Entries 81
Mean −0.02035
Std Dev 0.351

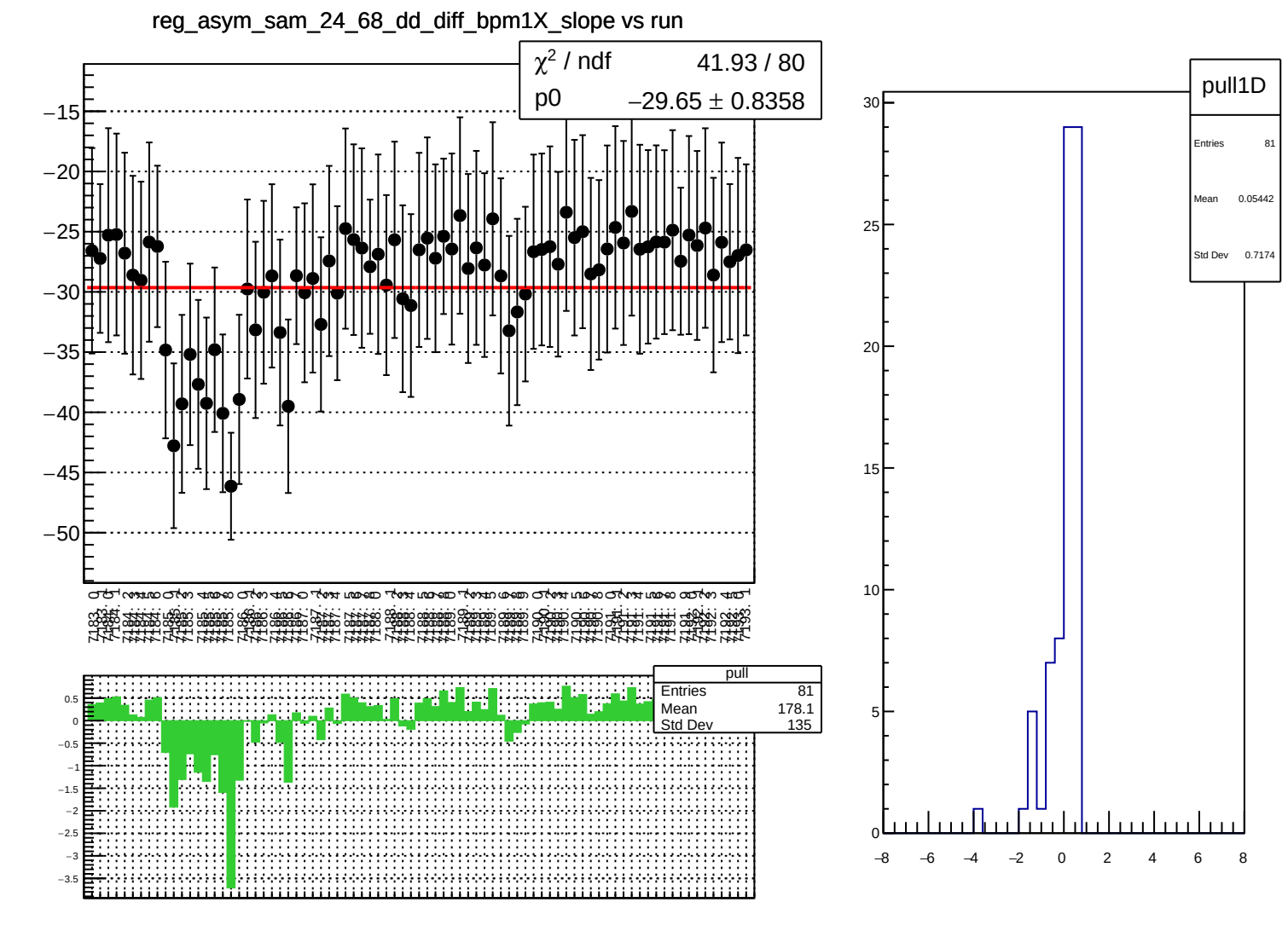

reg_asym_sam_15_37_dd_diff_bpm4aY_slope vs run
χ² / ndf 8.059 / 80
p0 −1.825 ± 0.1899
pull
Entries 81
Mean 1163
Std Dev 1122
pull1D
Entries 81
Mean 0.005038
Std Dev 0.3154

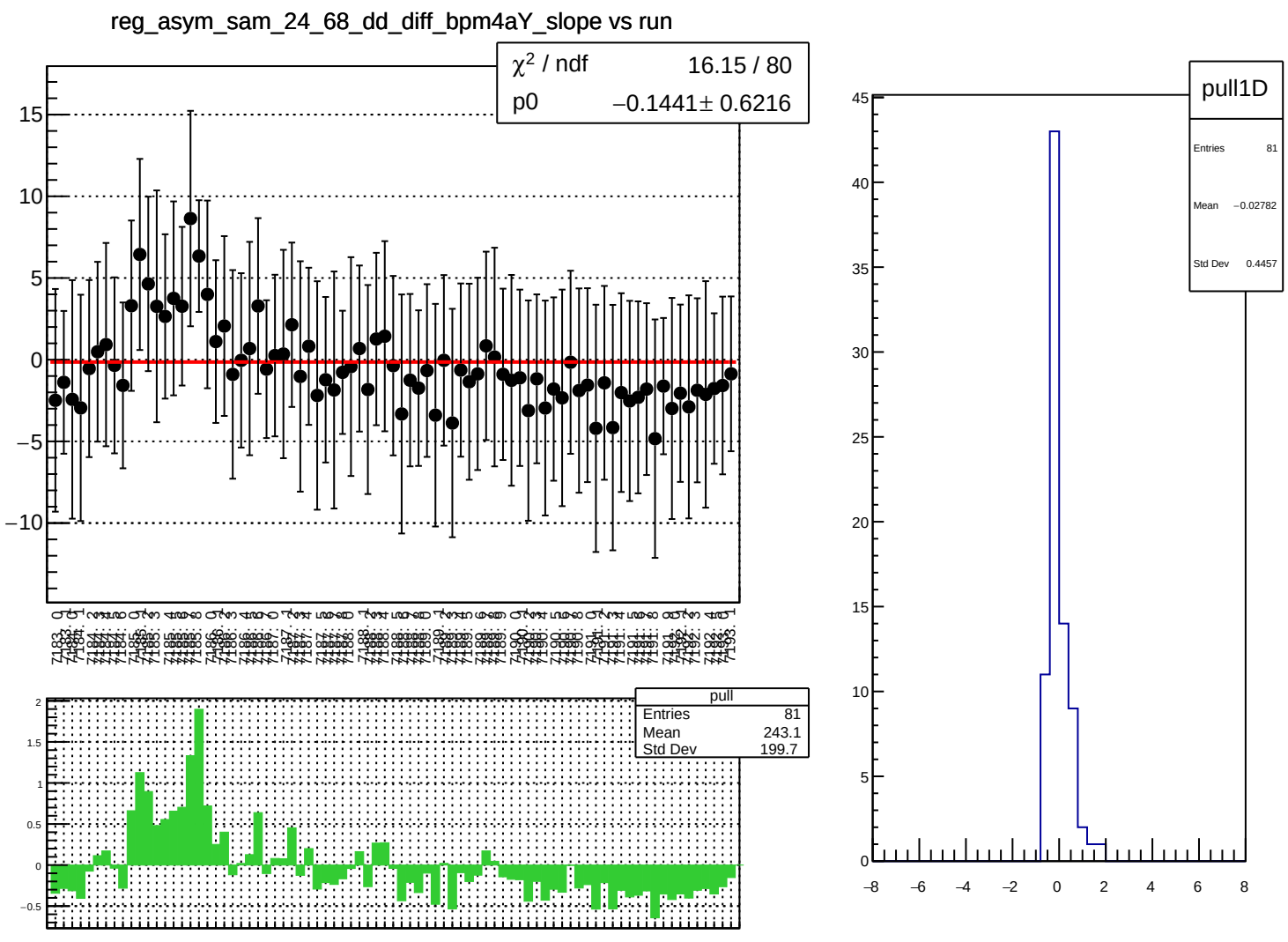

reg_asym_sam_15_37_dd_diff_bpm4eX_slope vs run
χ² / ndf 13.4 / 80
p0 20.87 ± 0.256
pull
Entries 81
Mean 35.56
Std Dev 26.52
pull1D
Entries 81
Mean 0.02032
Std Dev 0.4062

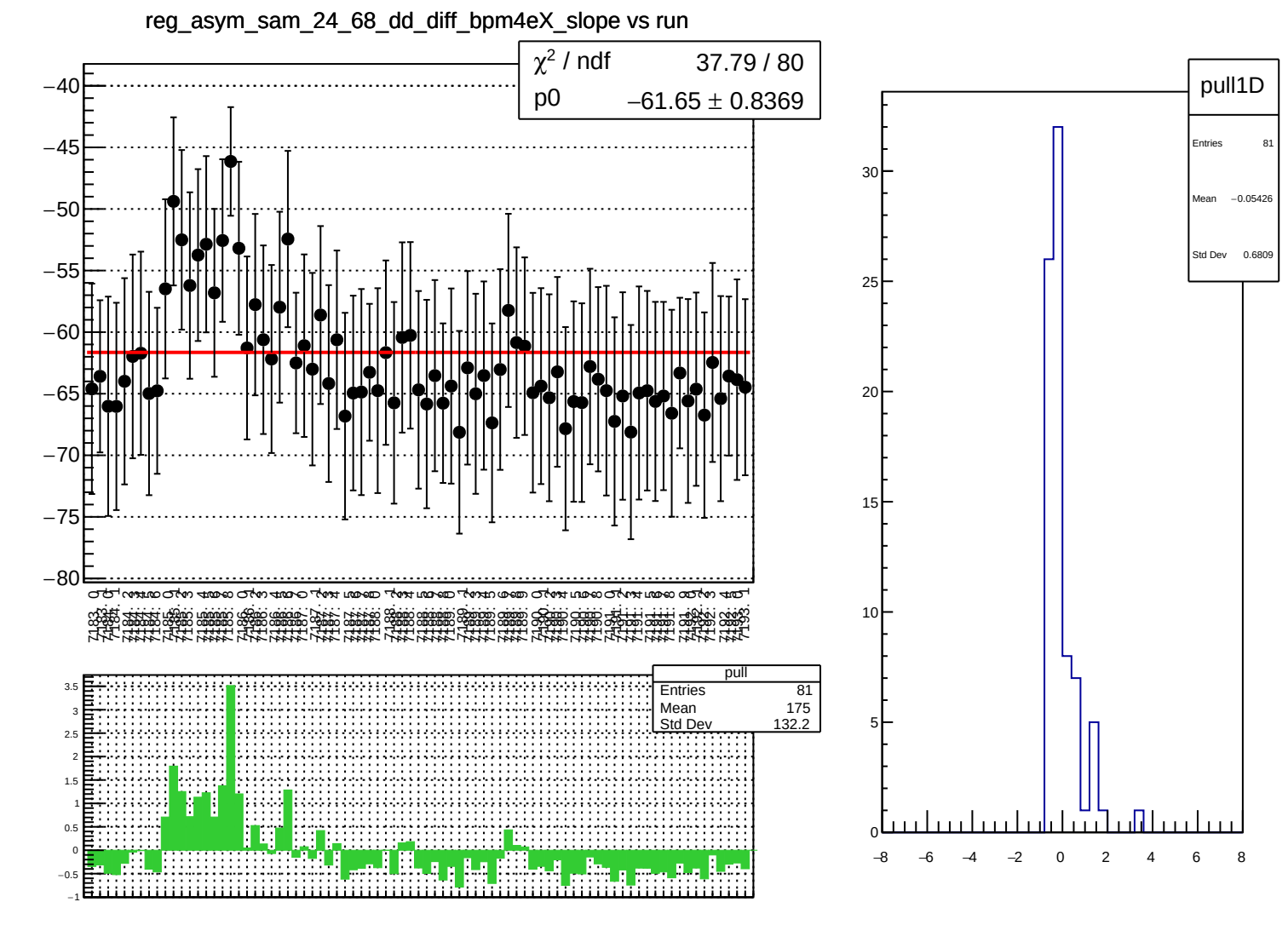

reg_asym_sam_15_37_dd_diff_bpm4eY_slope vs run
χ² / ndf 15.77 / 80
p0 22.72 ± 0.2065
pull
Entries 81
Mean 2041
Std Dev 1999
pull1D
Entries 81
Mean −0.003777
Std Dev 0.4413

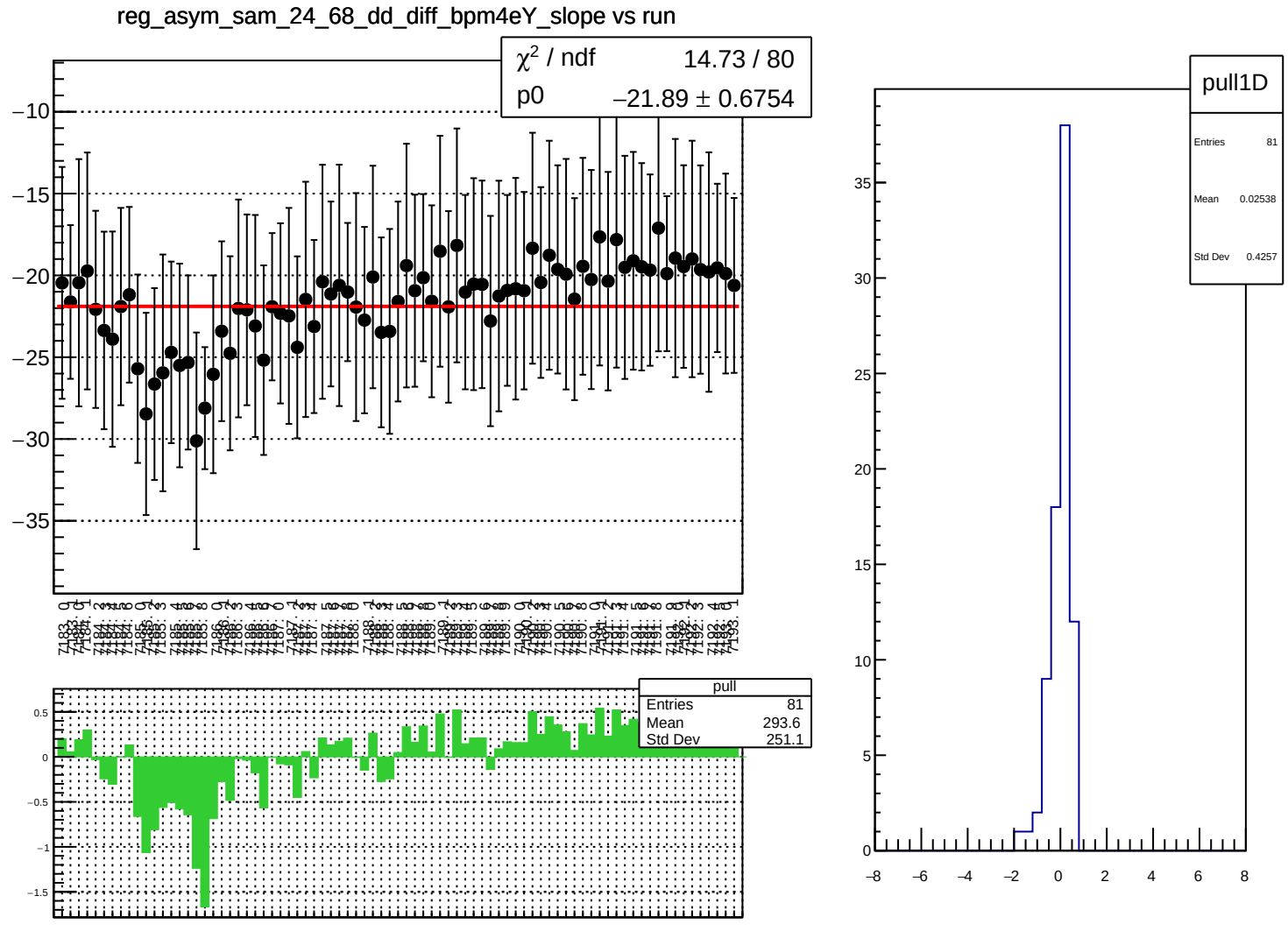

reg_asym_sam_15_37_dd_diff_bpm12X_slope vs run
χ² / ndf 6.622 / 80
p0 −0.05091 ± 0.009334
pull
Entries 81
Mean −675.3
Std Dev 714.9

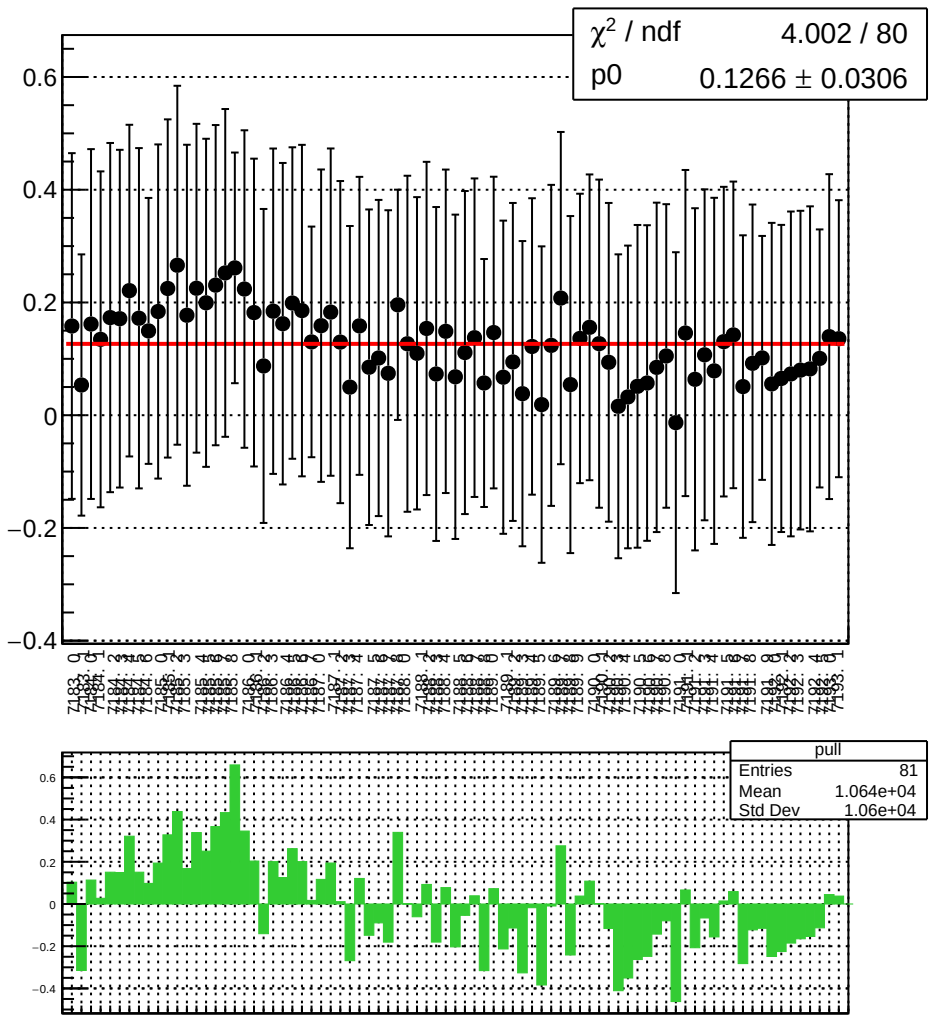

pull1D
Entries 81
Mean −0.006715
Std Dev 0.2858

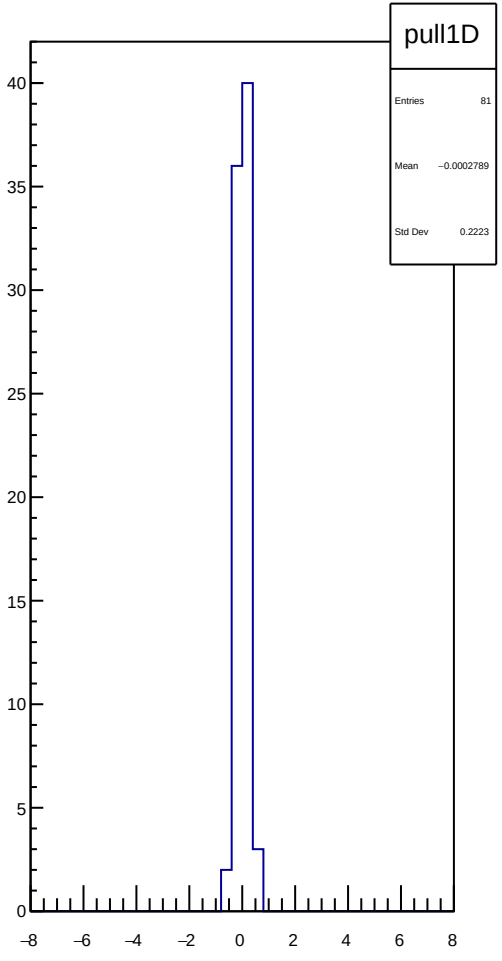

reg_asym_sam_24_68_dd_diff_bpm1X_slope vs run
χ² / ndf 41.93 / 80
p0 −29.65 ± 0.8358
pull
Entries 81
Mean 178.1
Std Dev 135
pull1D
Entries 81
Mean 0.05442
Std Dev 0.7174

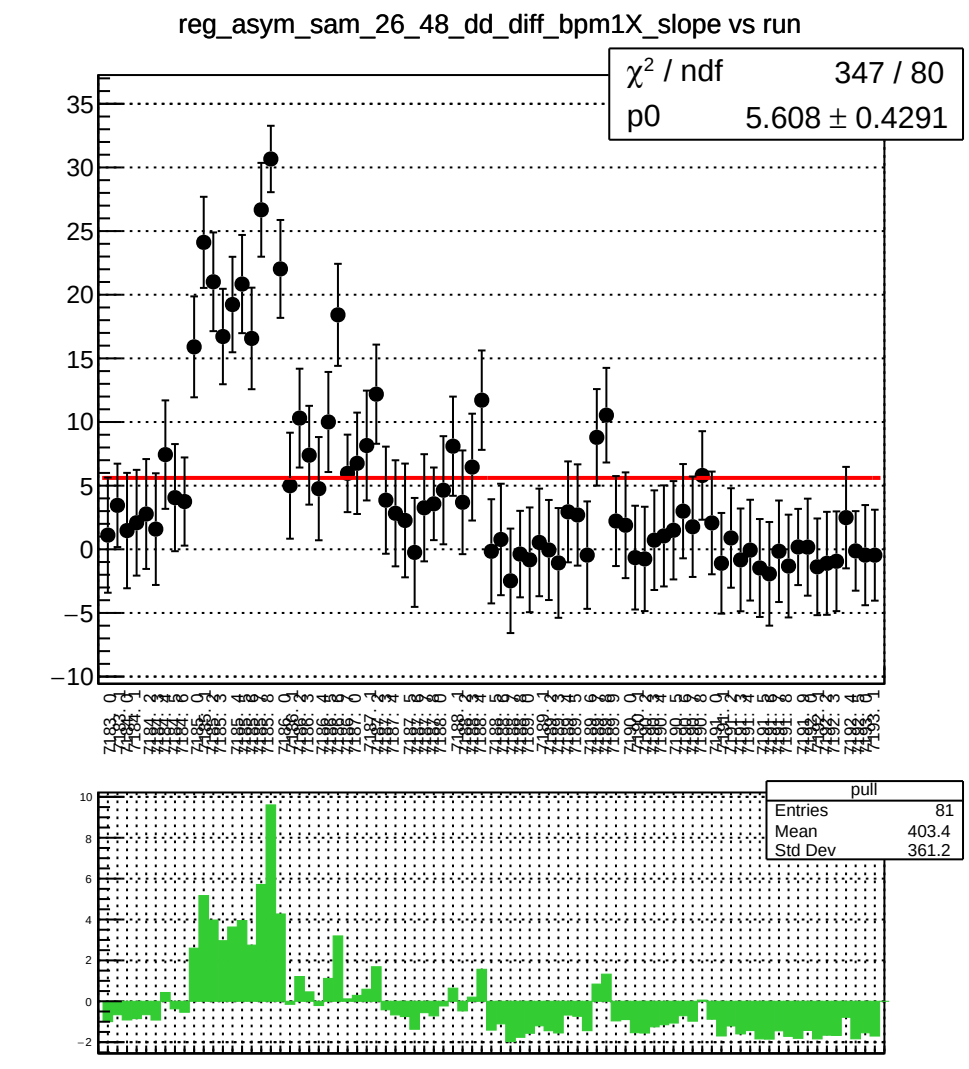

reg_asym_sam_24_68_dd_diff_bpm4aY_slope vs run
χ² / ndf 16.15 / 80
p0 −0.1441± 0.6216
pull
Entries 81
Mean 243.1
Std Dev 199.7
pull1D
Entries 81
Mean −0.02782
Std Dev 0.4457

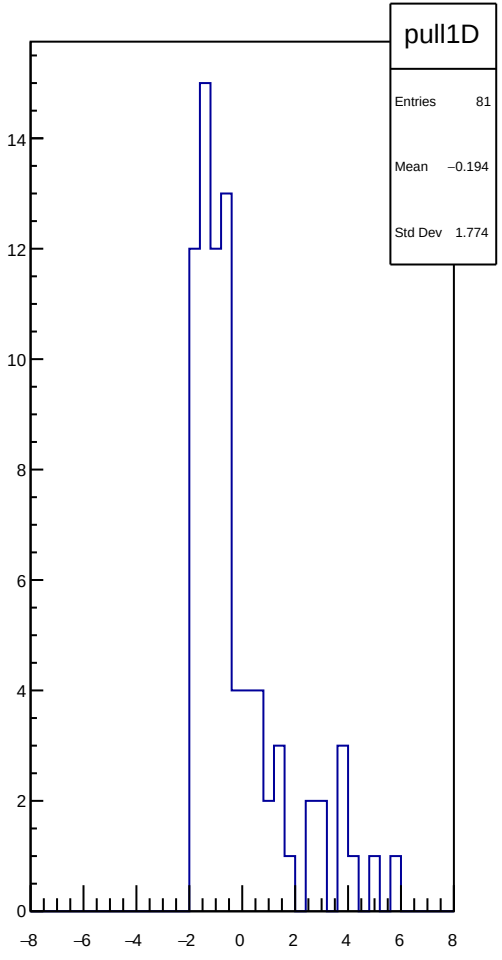

reg_asym_sam_24_68_dd_diff_bpm4eX_slope vs run
χ² / ndf 37.79 / 80
p0 −61.65 ± 0.8369
pull
Entries 81
Mean 175
Std Dev 132.2
pull1D
Entries 81
Mean −0.05426
Std Dev 0.6809

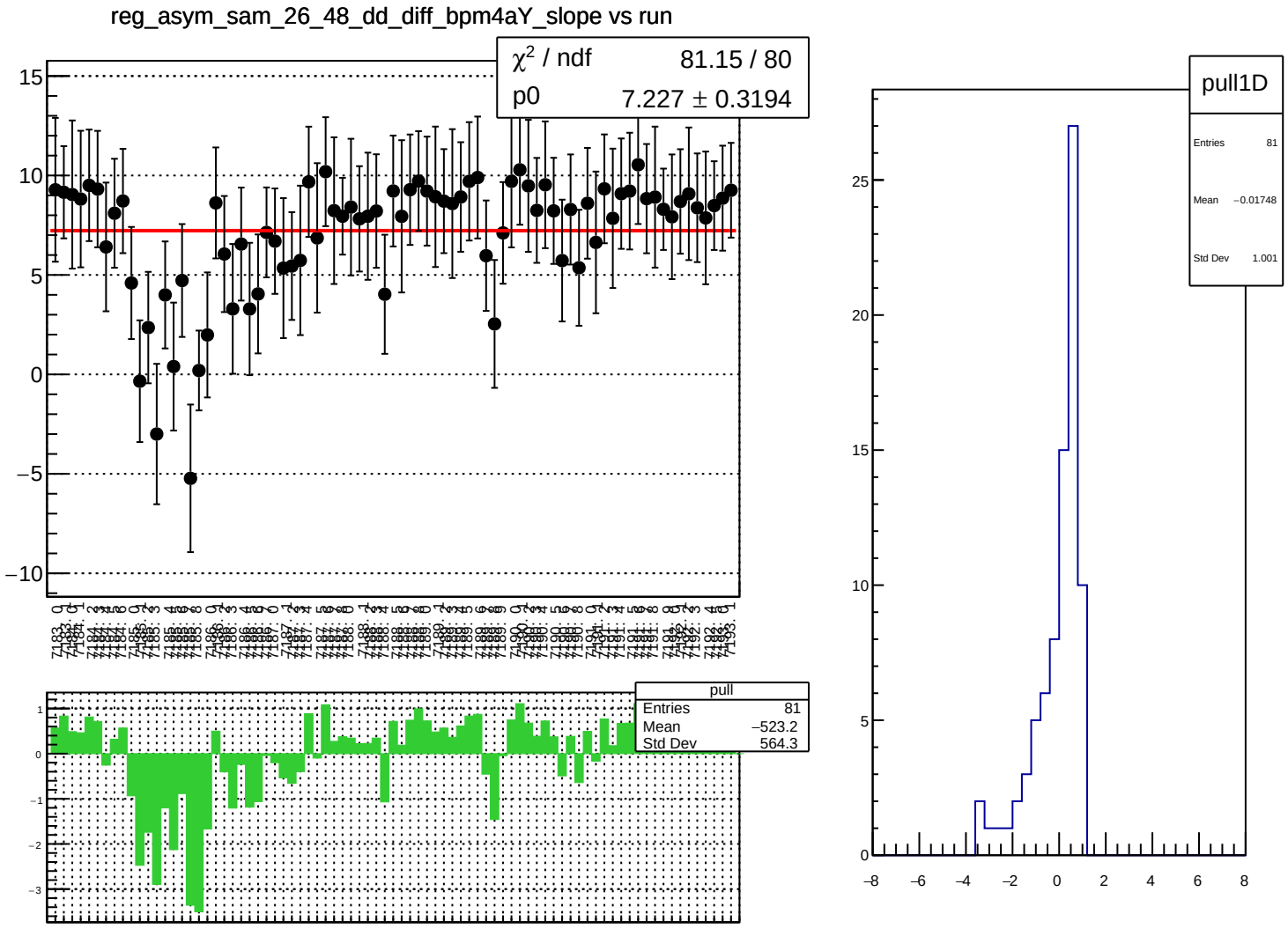

reg_asym_sam_24_68_dd_diff_bpm4eY_slope vs run
χ² / ndf 14.73 / 80
p0 −21.89 ± 0.6754
pull
Entries 81
Mean 293.6
Std Dev 251.1
pull1D
Entries 81
Mean 0.02538
Std Dev 0.4257

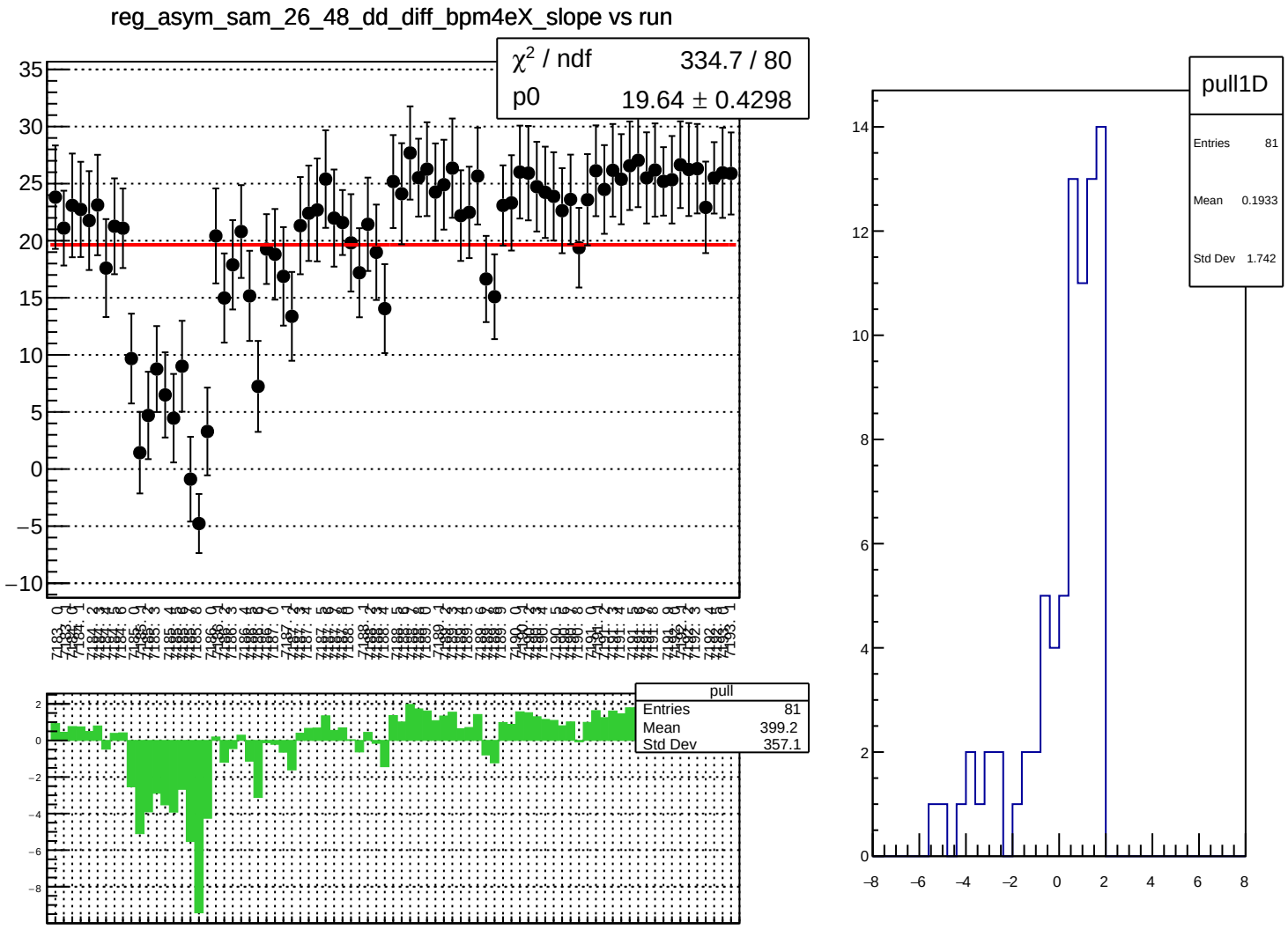

reg_asym_sam_24_68_dd_diff_bpm12X_slope vs run
χ² / ndf 4.002 / 80
p0 0.1266 ± 0.0306
pull
Entries 81
Mean 1.064e+04
Std Dev 1.06e+04

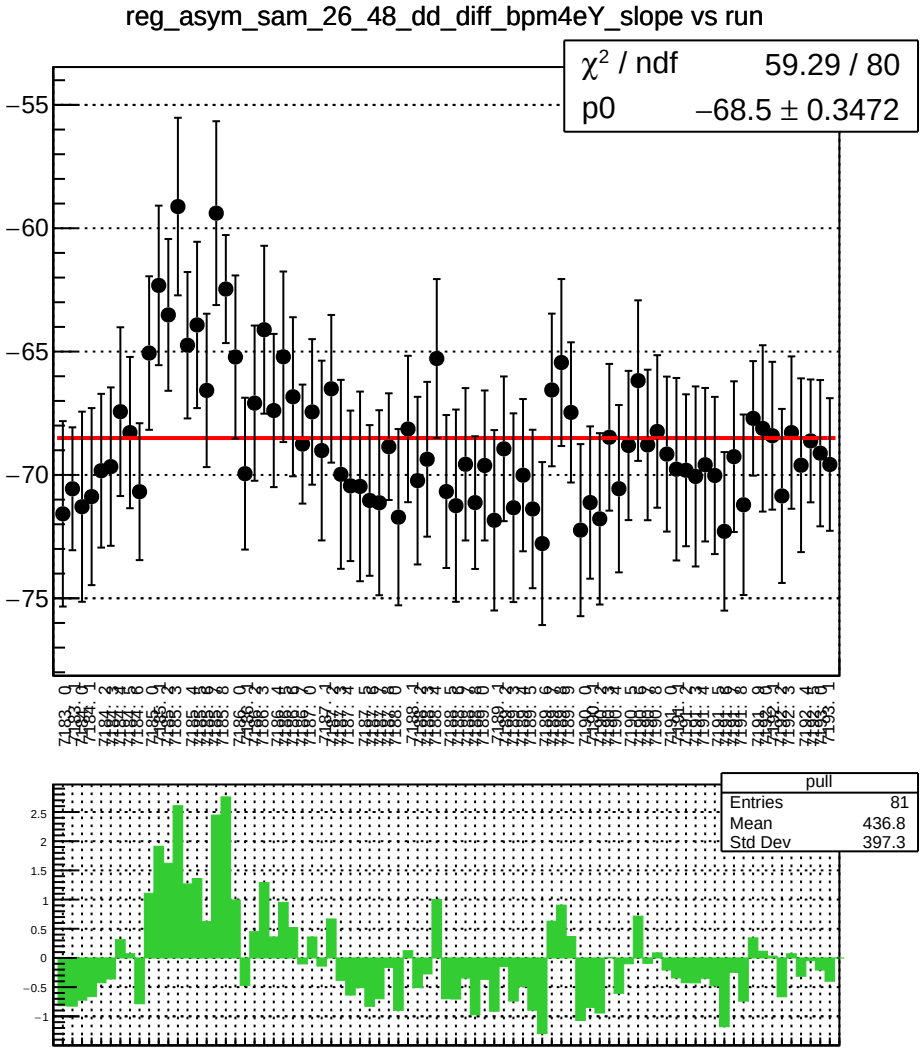

pull1D
Entries 81
Mean −0.0002789
Std Dev 0.2223

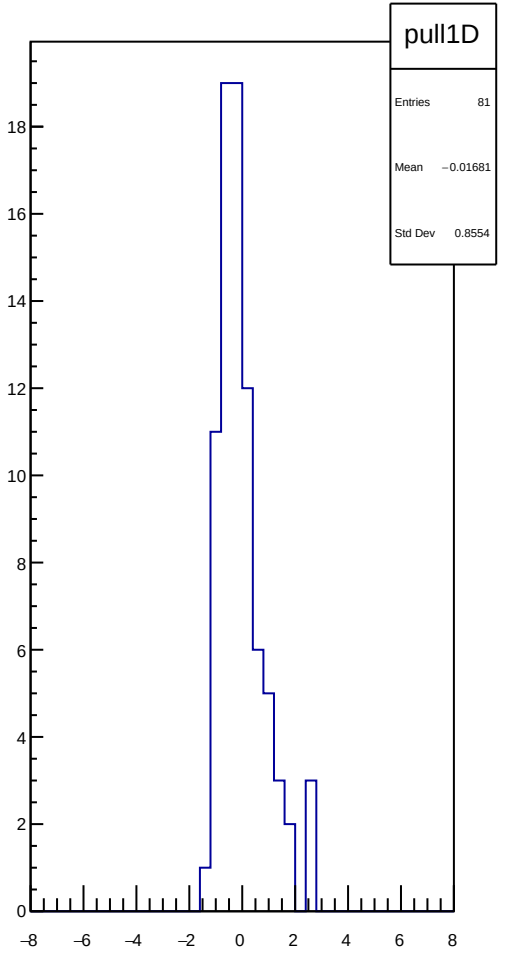

reg_asym_sam_26_48_dd_diff_bpm1X_slope vs run
χ² / ndf 347 / 80
p0 5.608 ± 0.4291
pull
Entries 81
Mean 403.4
Std Dev 361.2

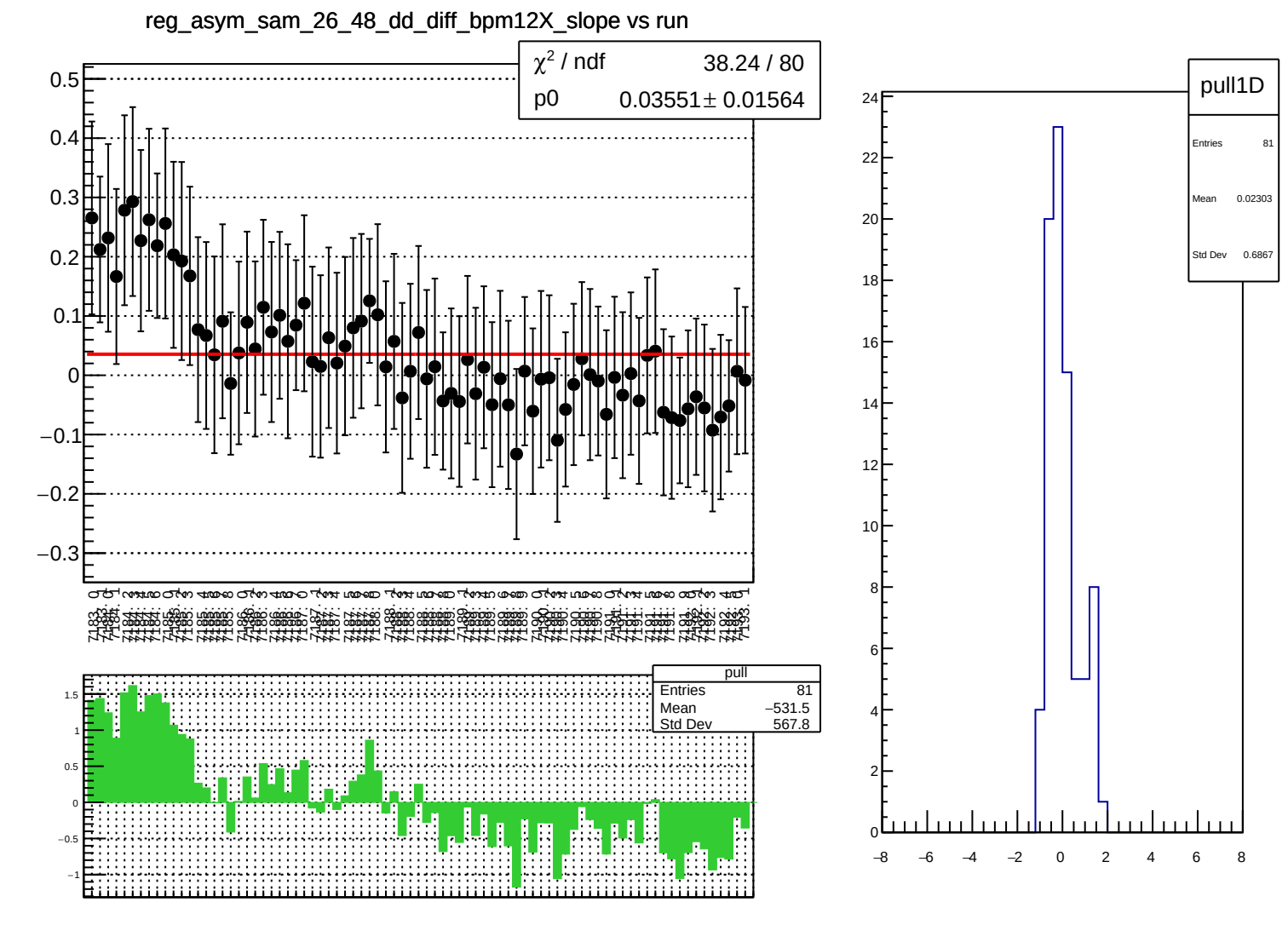

pull1D
Entries 81
Mean −0.194
Std Dev 1.774

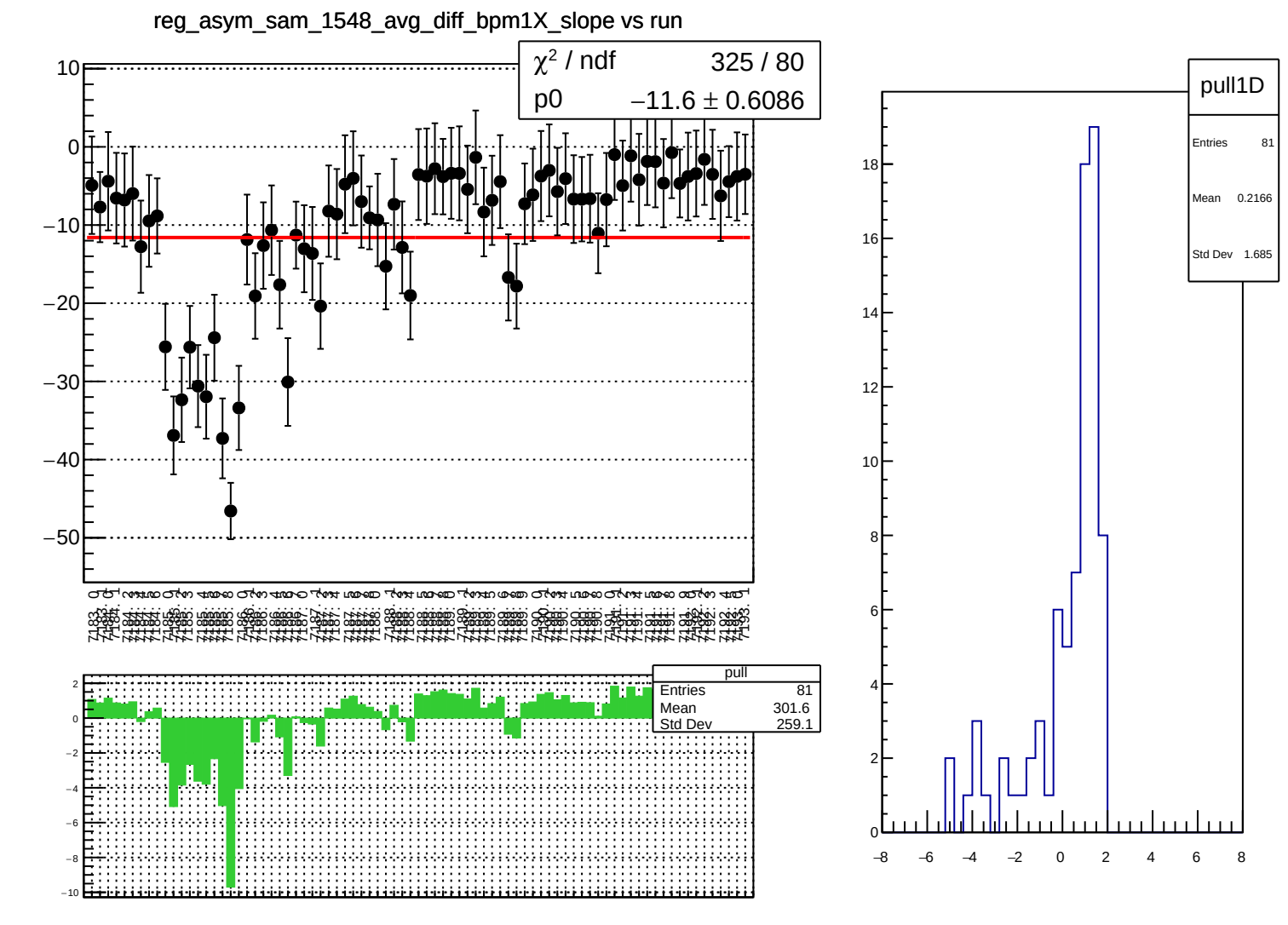

reg_asym_sam_26_48_dd_diff_bpm4aY_slope vs run
χ² / ndf 81.15 / 80
p0 7.227 ± 0.3194
pull
Entries 81
Mean −523.2
Std Dev 564.3
pull1D
Entries 81
Mean −0.01748
Std Dev 1.001

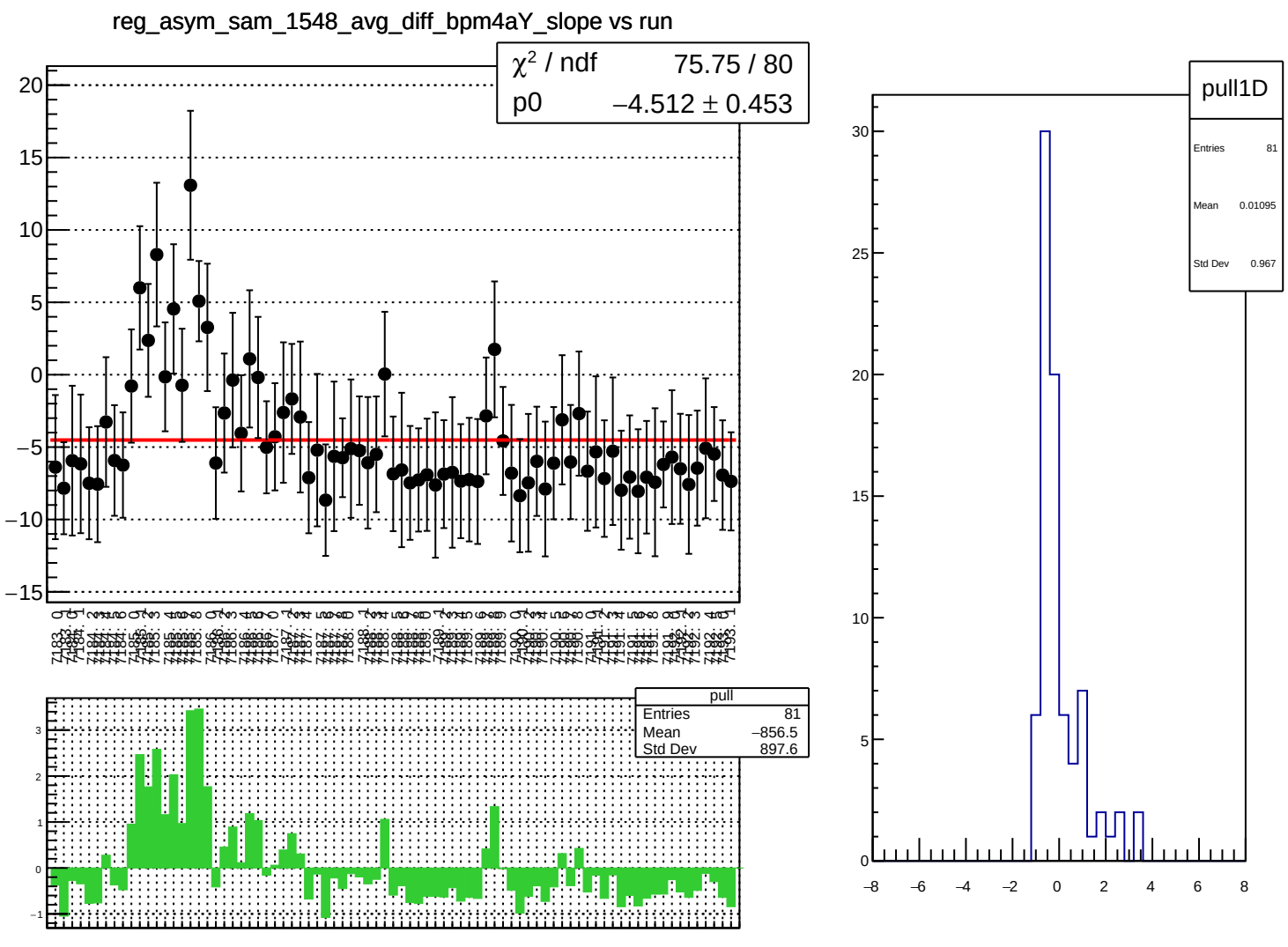

reg_asym_sam_26_48_dd_diff_bpm4eX_slope vs run
χ² / ndf 334.7 / 80
p0 19.64 ± 0.4298
pull
Entries 81
Mean 399.2
Std Dev 357.1
pull1D
Entries 81
Mean 0.1933
Std Dev 1.742

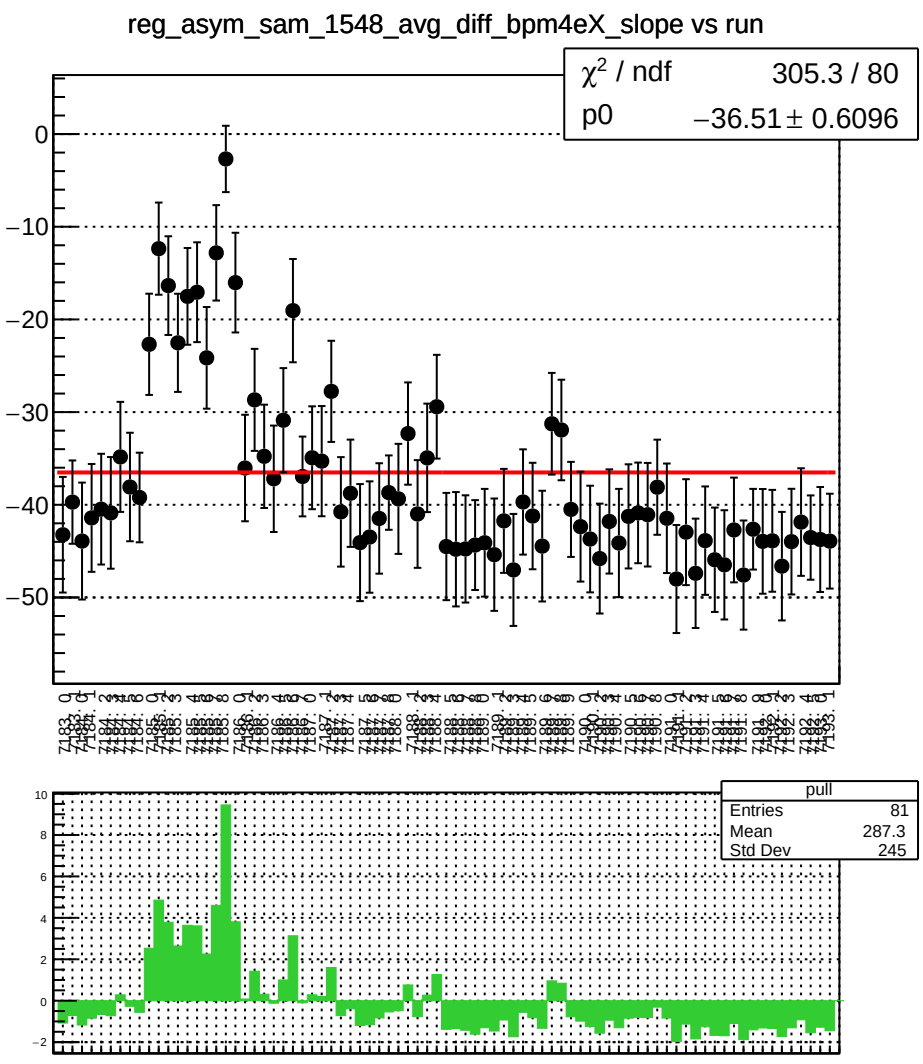

reg_asym_sam_26_48_dd_diff_bpm4eY_slope vs run
χ² / ndf 59.29 / 80
p0 −68.5 ± 0.3472
pull
Entries 81
Mean 436.8
Std Dev 397.3

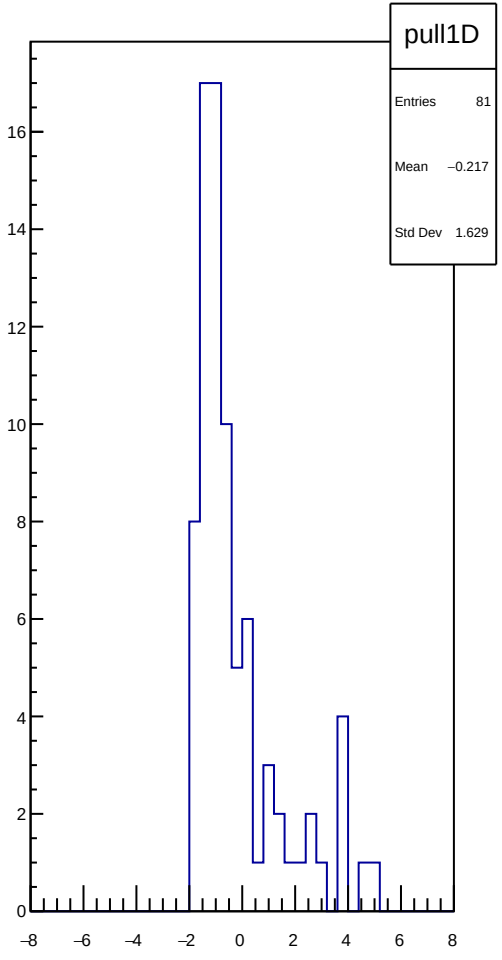

pull1D
Entries 81
Mean −0.01681
Std Dev 0.8554

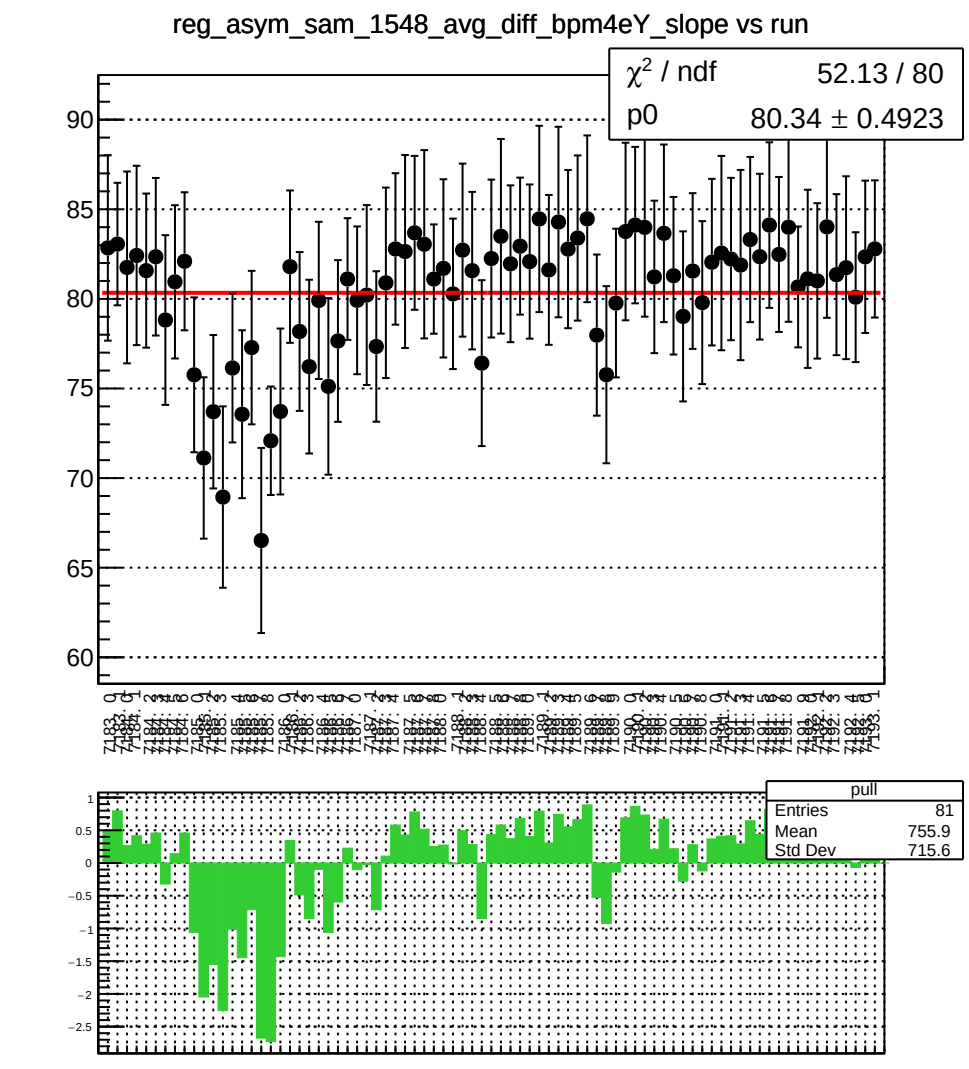

reg_asym_sam_26_48_dd_diff_bpm12X_slope vs run
χ² / ndf 38.24 / 80
p0 0.03551 ± 0.01564
pull
Entries 81
Mean −531.5
Std Dev 567.8
pull1D
Entries 81
Mean 0.02303
Std Dev 0.6867

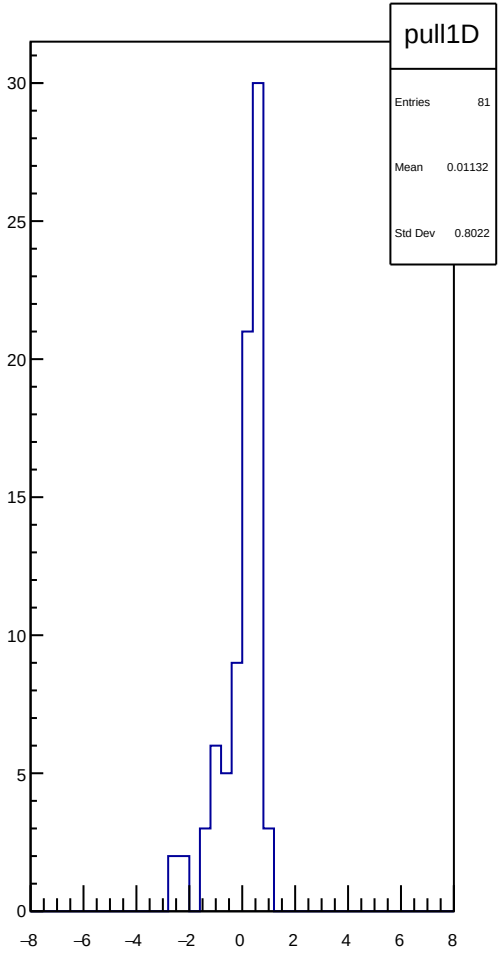

reg_asym_sam_1548_avg_diff_bpm1X_slope vs run
χ² / ndf 325 / 80
p0 −11.6 ± 0.6086
pull
Entries 81
Mean 301.6
Std Dev 259.1
pull1D
Entries 81
Mean 0.2166
Std Dev 1.685

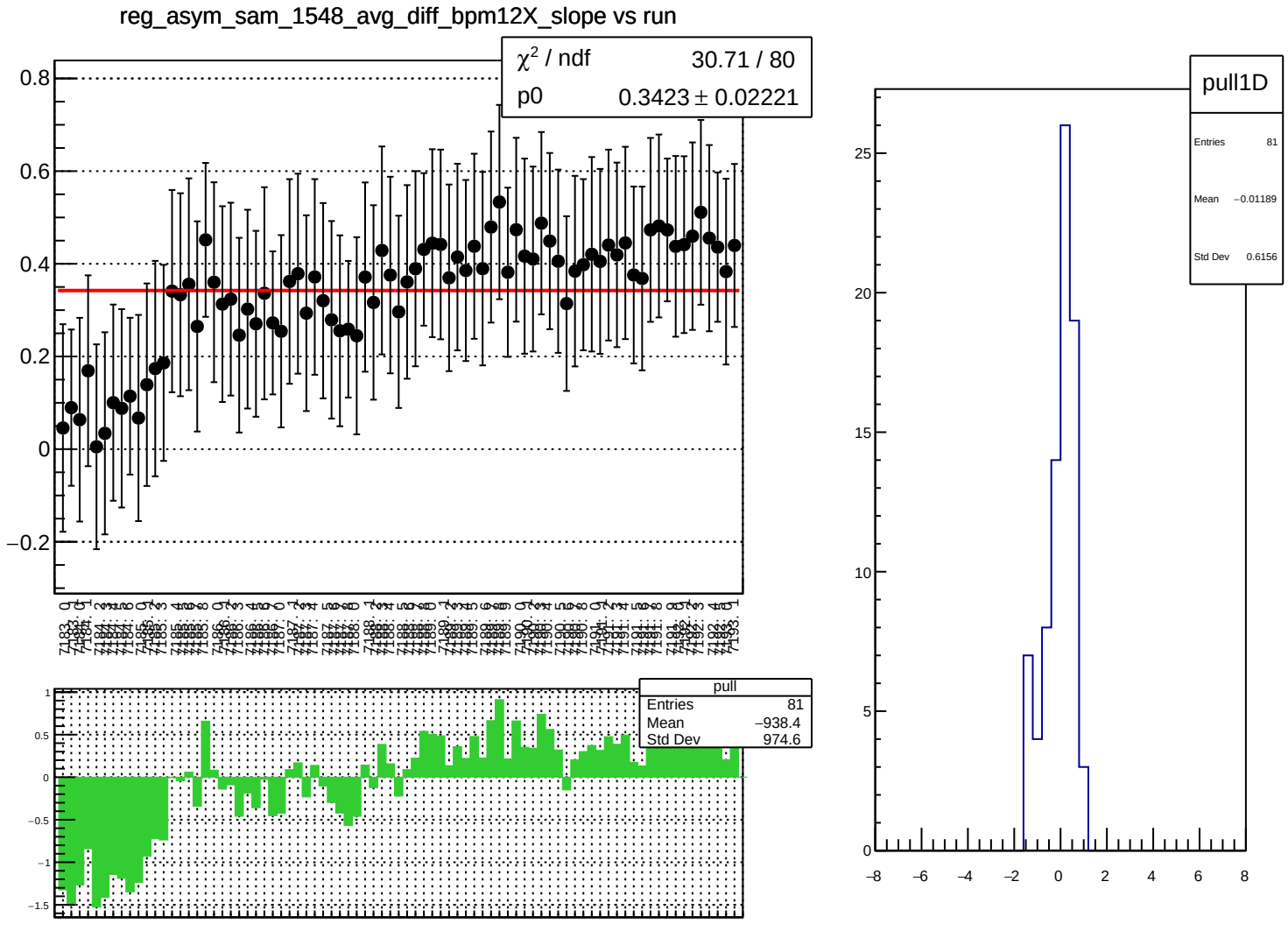

reg_asym_sam_1548_avg_diff_bpm4aY_slope vs run
χ² / ndf 75.75 / 80
p0 −4.512 ± 0.453
pull
Entries 81
Mean −856.5
Std Dev 897.6
pull1D
Entries 81
Mean 0.01095
Std Dev 0.967

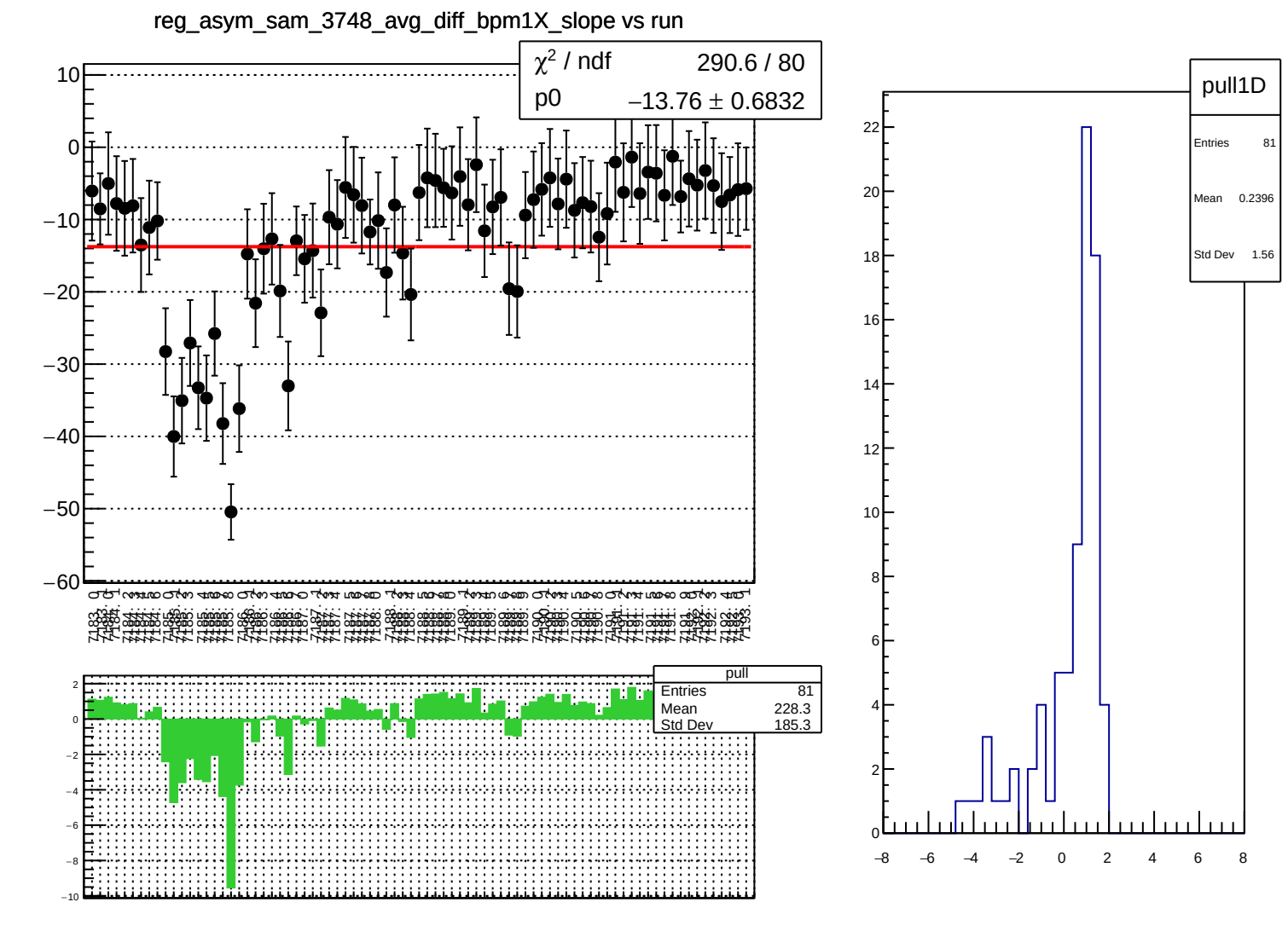

reg_asym_sam_1548_avg_diff_bpm4eX_slope vs run
χ² / ndf 305.3 / 80
p0 −36.51 ± 0.6096
pull
Entries 81
Mean 287.3
Std Dev 245

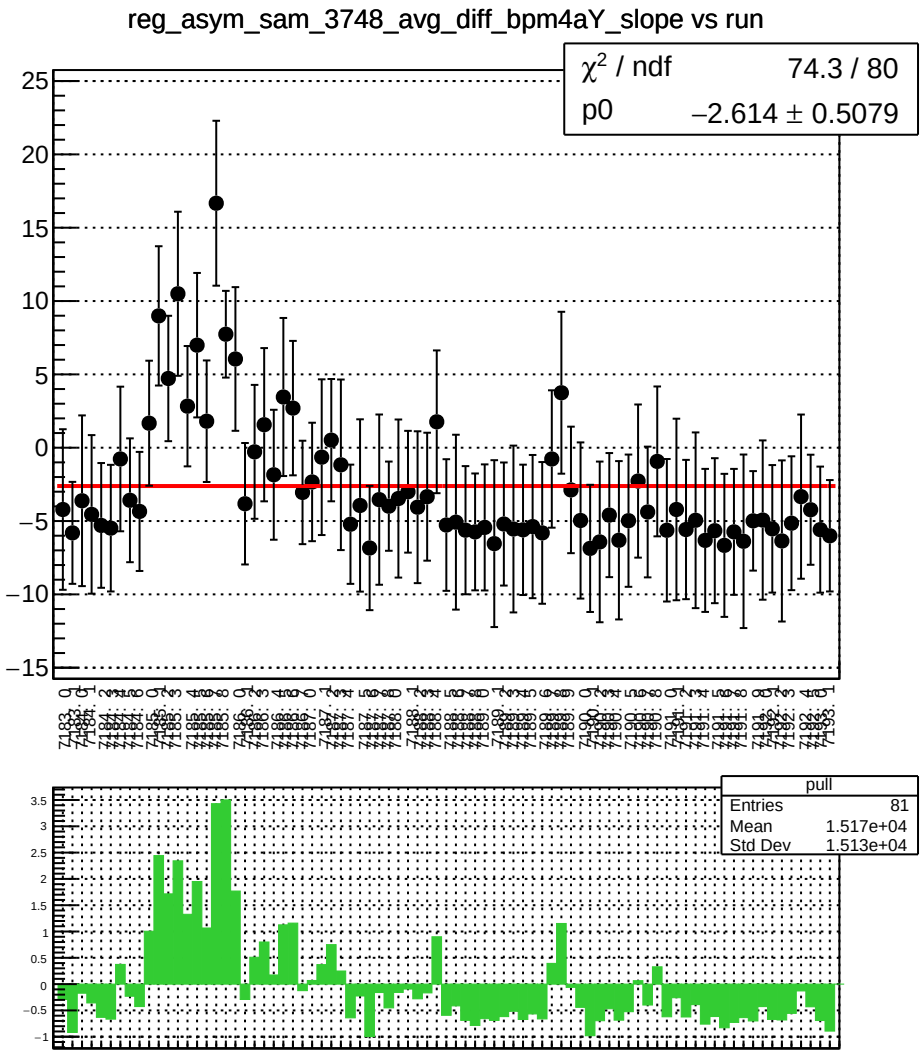

pull1D
Entries 81
Mean −0.217
Std Dev 1.629

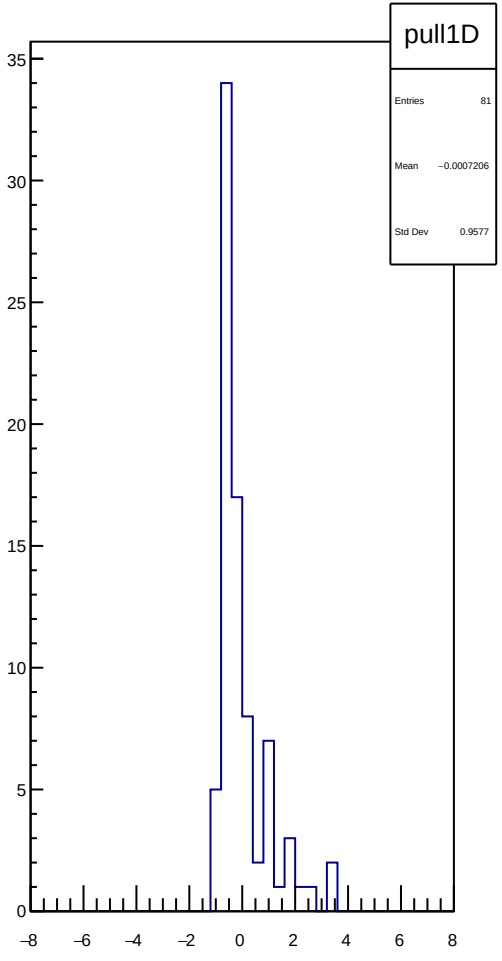

reg_asym_sam_1548_avg_diff_bpm4eY_slope vs run
χ² / ndf 52.13 / 80
p0 80.34 ± 0.4923
pull
Entries 81
Mean 755.9
Std Dev 715.6

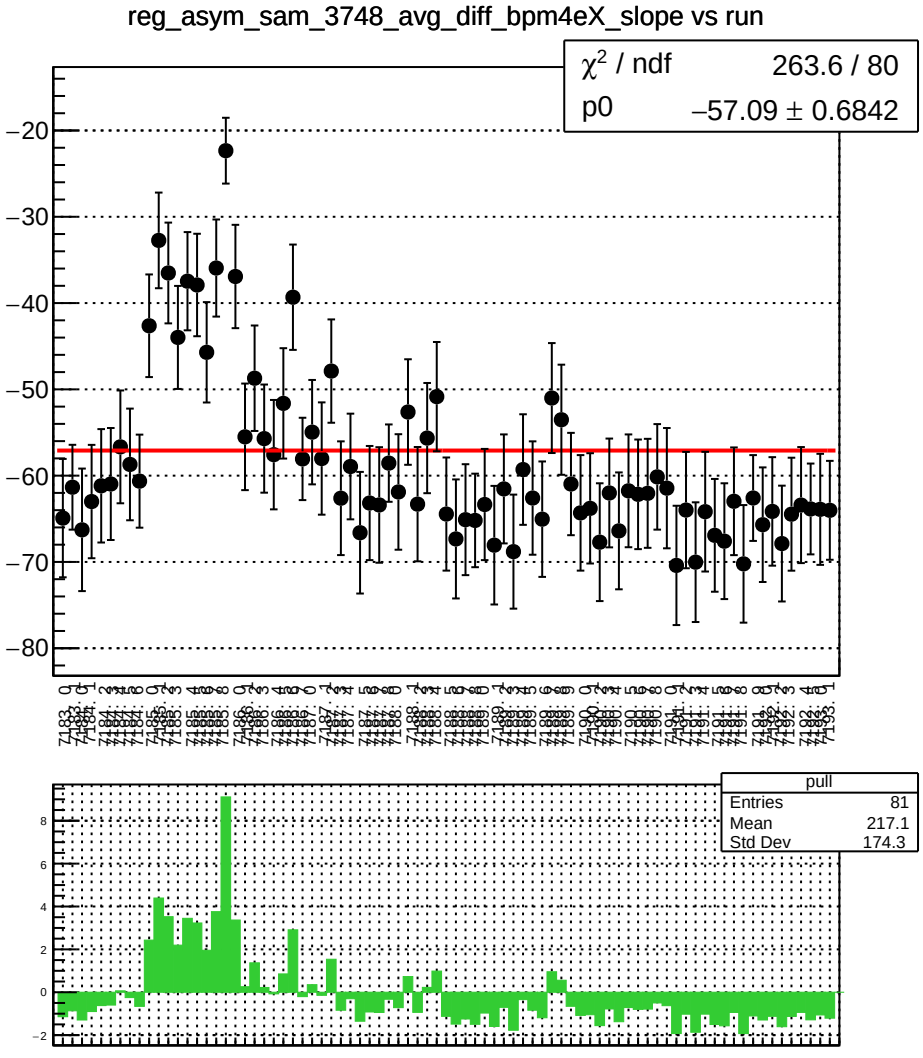

pull1D
Entries 81
Mean 0.01132
Std Dev 0.8022

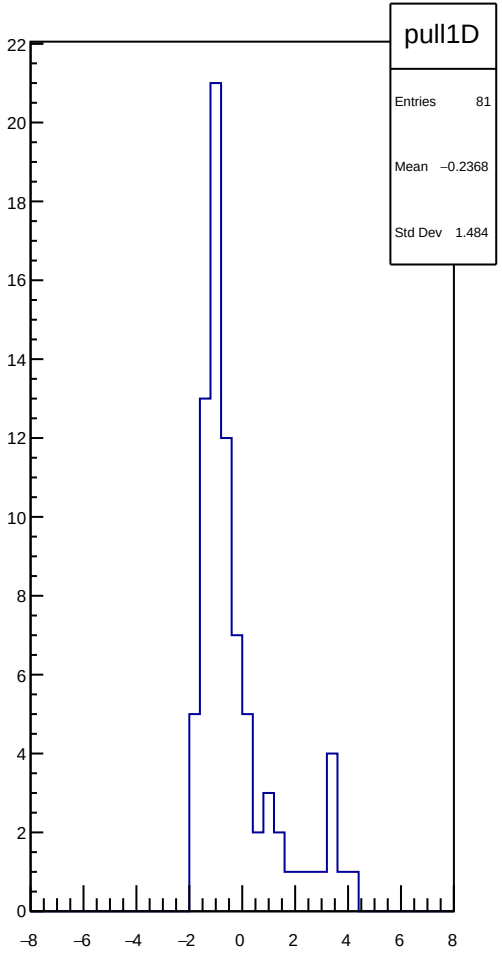

reg_asym_sam_1548_avg_diff_bpm12X_slope vs run
χ² / ndf 30.71 / 80
p0 0.3423 ± 0.02221
pull
Entries 81
Mean −938.4
Std Dev 974.6
pull1D
Entries 81
Mean −0.01189
Std Dev 0.6156

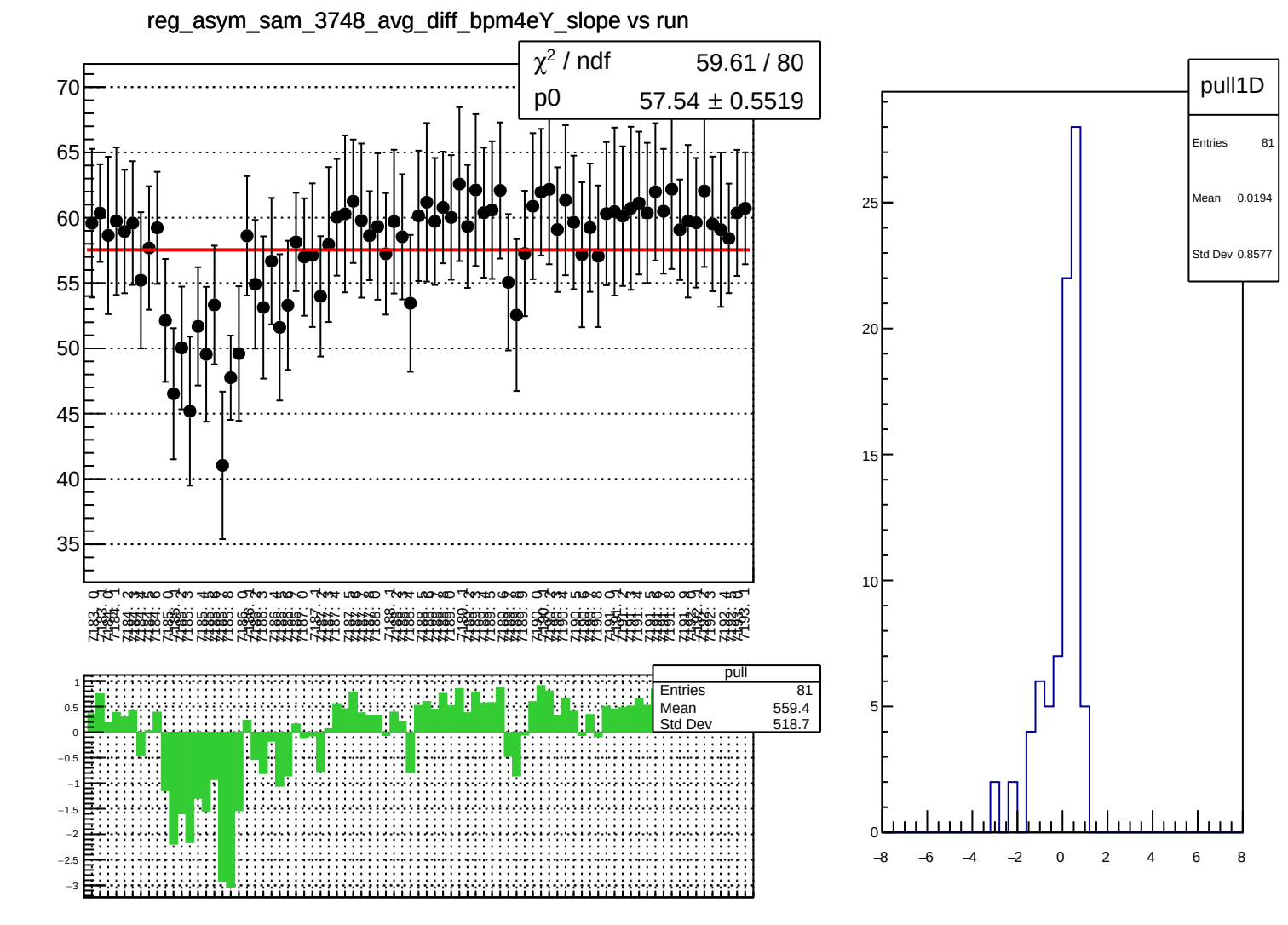

reg_asym_sam_3748_avg_diff_bpm1X_slope vs run
χ² / ndf 290.6 / 80
p0 −13.76 ± 0.6832
pull
Entries 81
Mean 228.3
Std Dev 185.3
pull1D
Entries 81
Mean 0.2396
Std Dev 1.56

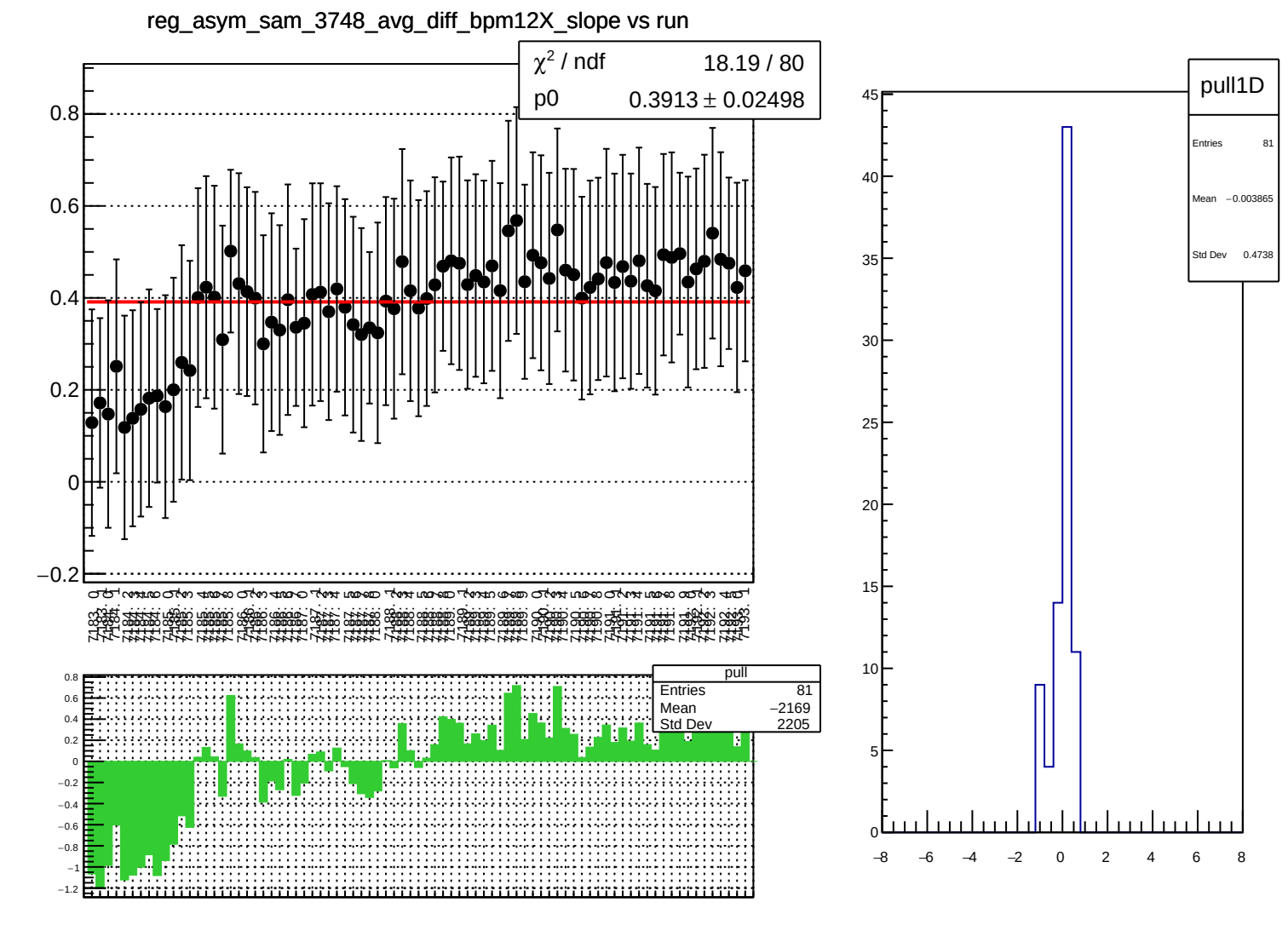

reg_asym_sam_3748_avg_diff_bpm4aY_slope vs run
χ² / ndf 74.3 / 80
p0 −2.614 ± 0.5079
pull
Entries 81
Mean 1.517e+04
Std Dev 1.513e+04

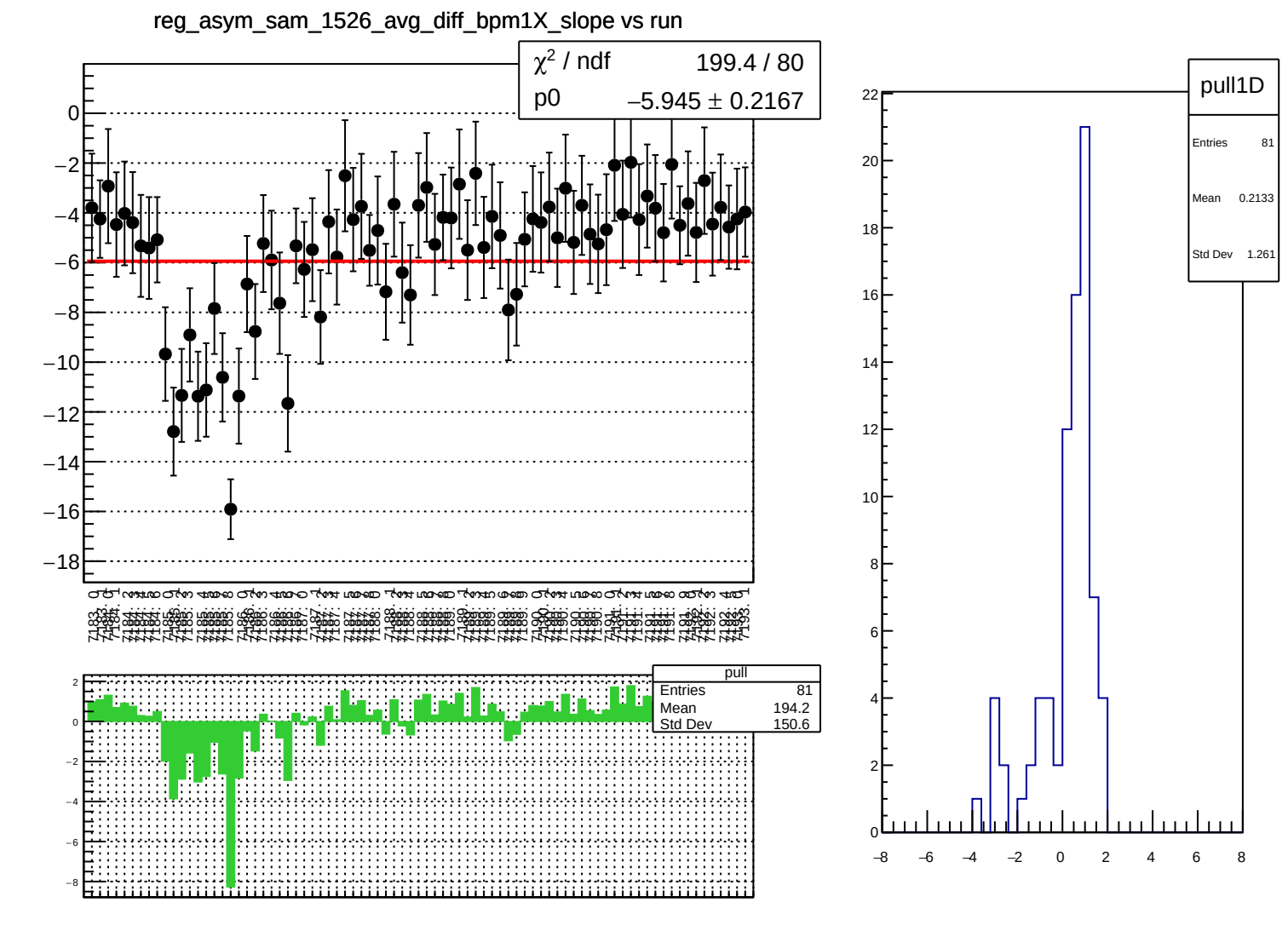

pull1D
Entries 81
Mean −0.0007206
Std Dev 0.9577

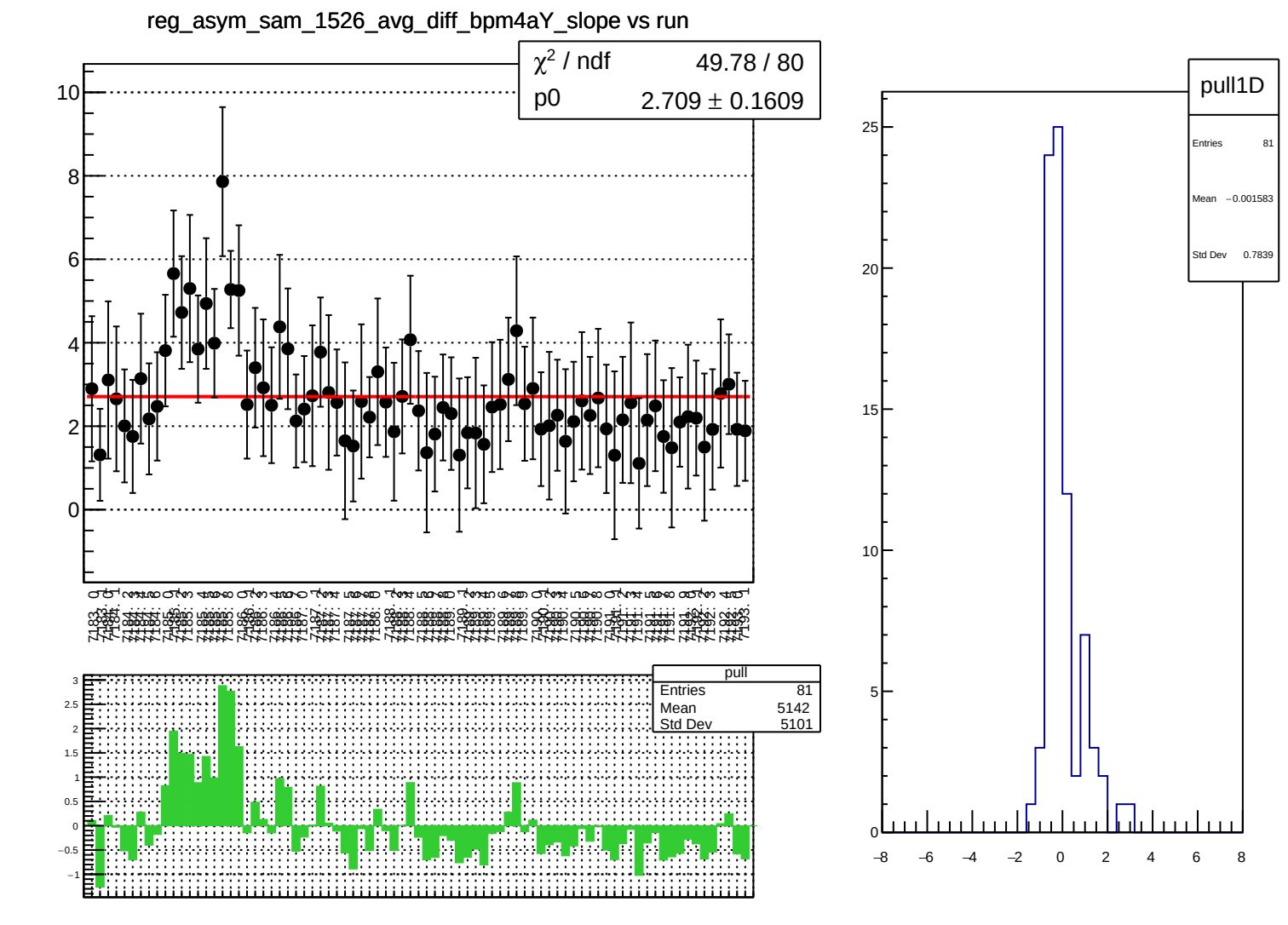

reg_asym_sam_3748_avg_diff_bpm4eX_slope vs run
χ² / ndf 263.6 / 80
p0 −57.09 ± 0.6842
pull
Entries 81
Mean 217.1
Std Dev 174.3

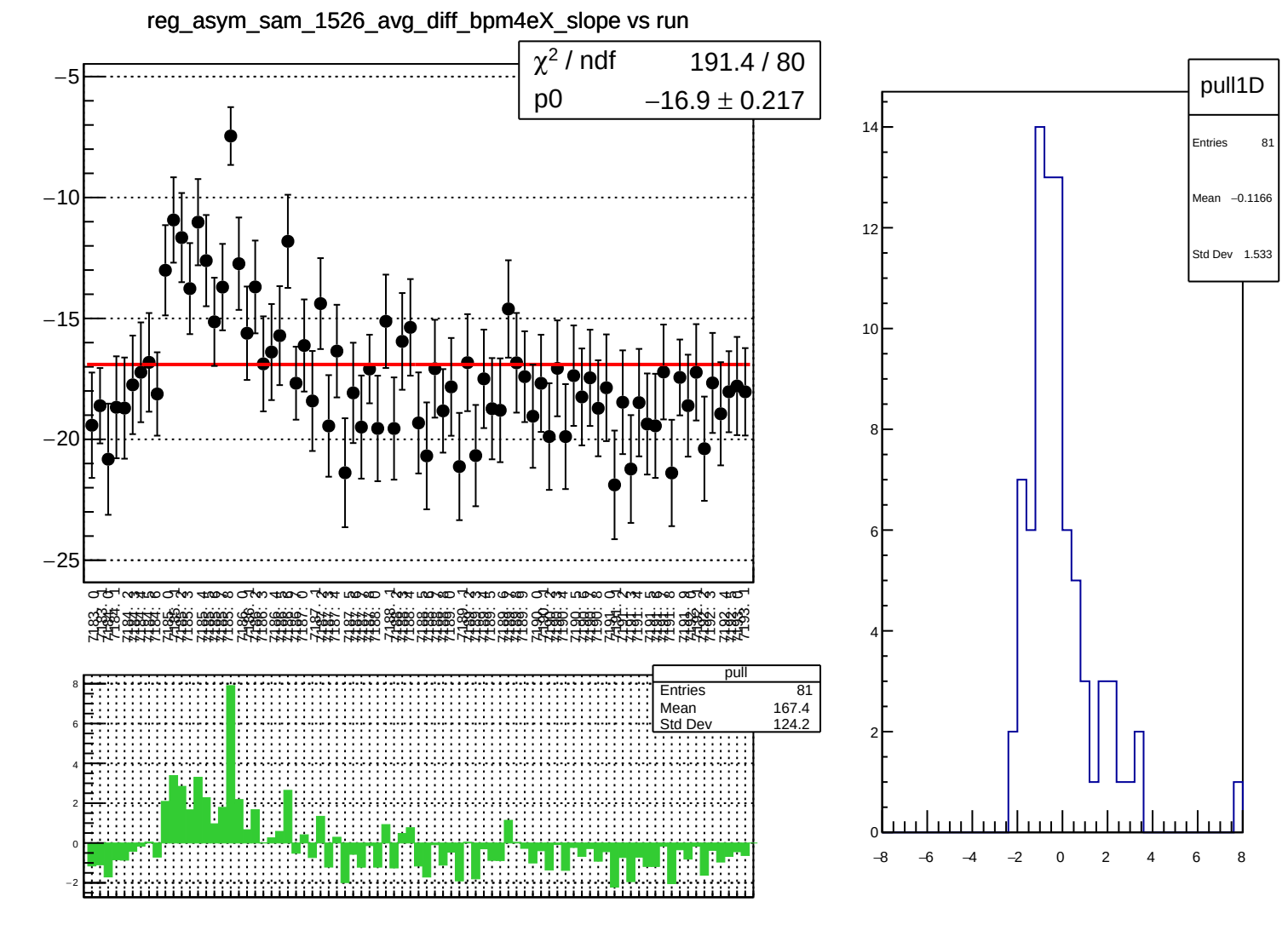

pull1D
Entries 81
Mean −0.2368
Std Dev 1.484

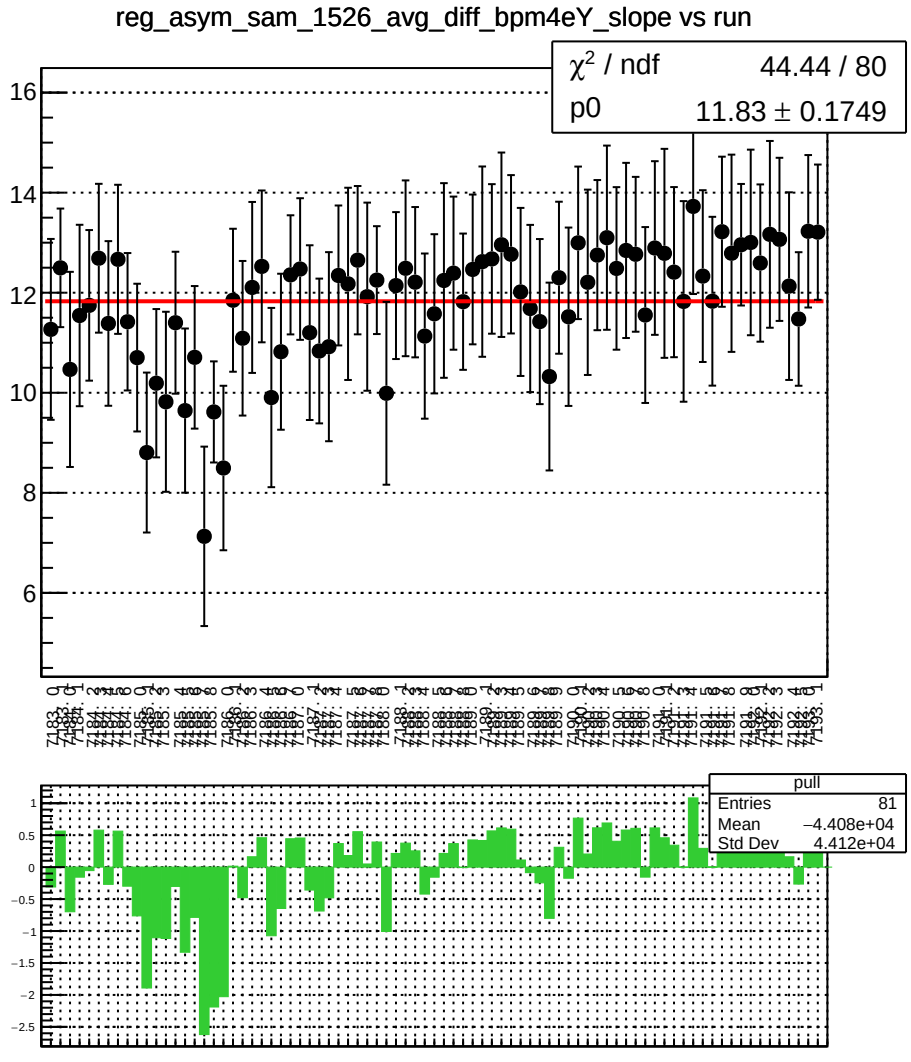

reg_asym_sam_3748_avg_diff_bpm4eY_slope vs run
χ² / ndf 59.61 / 80
p0 57.54 ± 0.5519
pull
Entries 81
Mean 559.4
Std Dev 518.7
pull1D
Entries 81
Mean 0.0194
Std Dev 0.8577

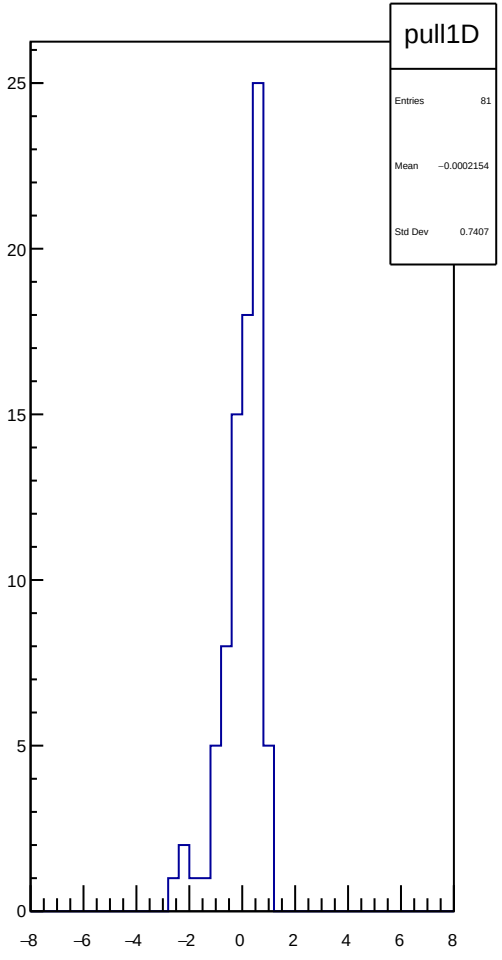

reg_asym_sam_3748_avg_diff_bpm12X_slope vs run
χ² / ndf 18.19 / 80
p0 0.3913 ± 0.02498
pull
Entries 81
Mean −2169
Std Dev 2205
pull1D
Entries 81
Mean −0.003865
Std Dev 0.4738

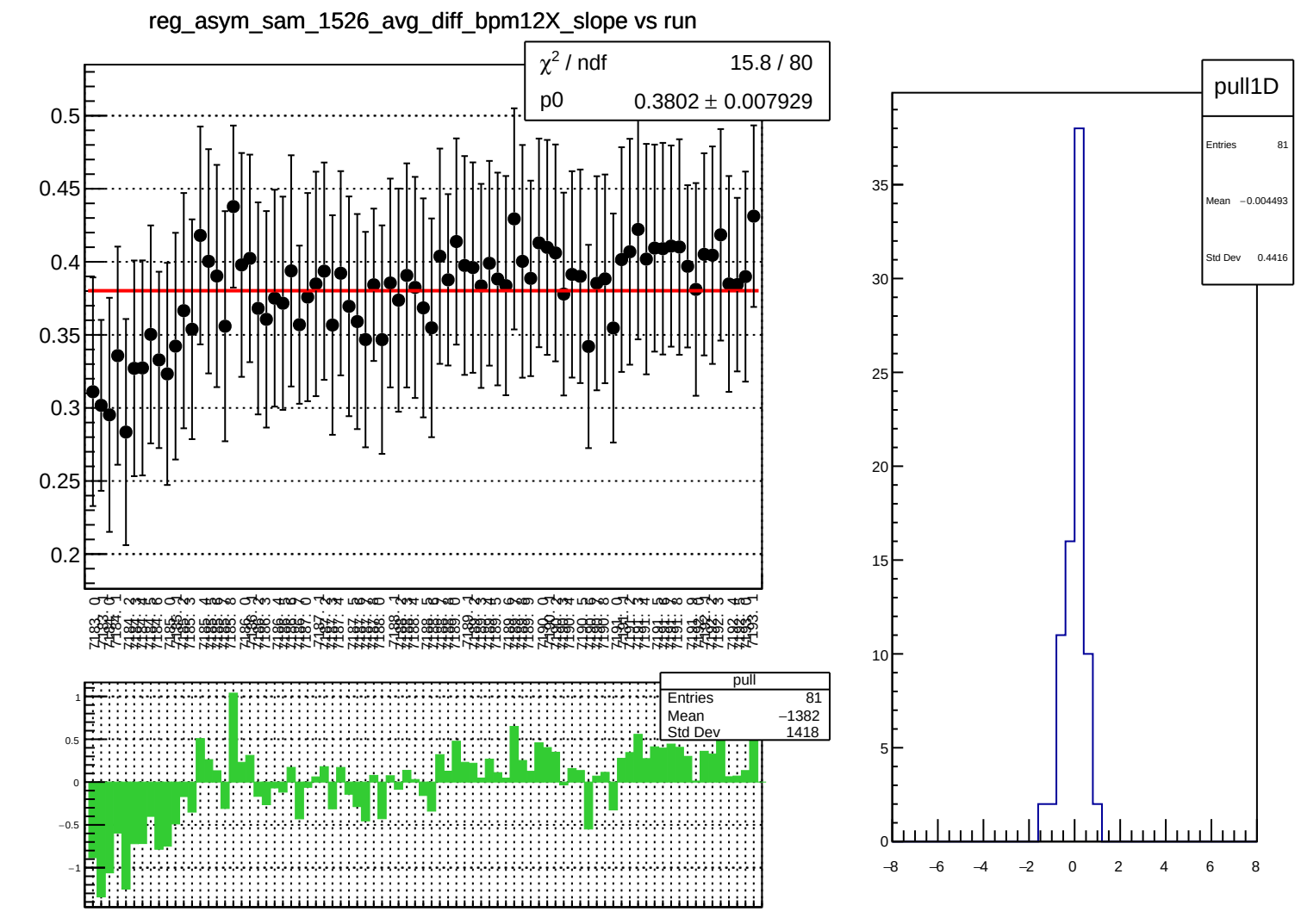

reg_asym_sam_1526_avg_diff_bpm1X_slope vs run
χ² / ndf 199.4 / 80
p0 −5.945 ± 0.2167
pull
Entries 81
Mean 194.2
Std Dev 150.6
pull1D
Entries 81
Mean 0.2133
Std Dev 1.261

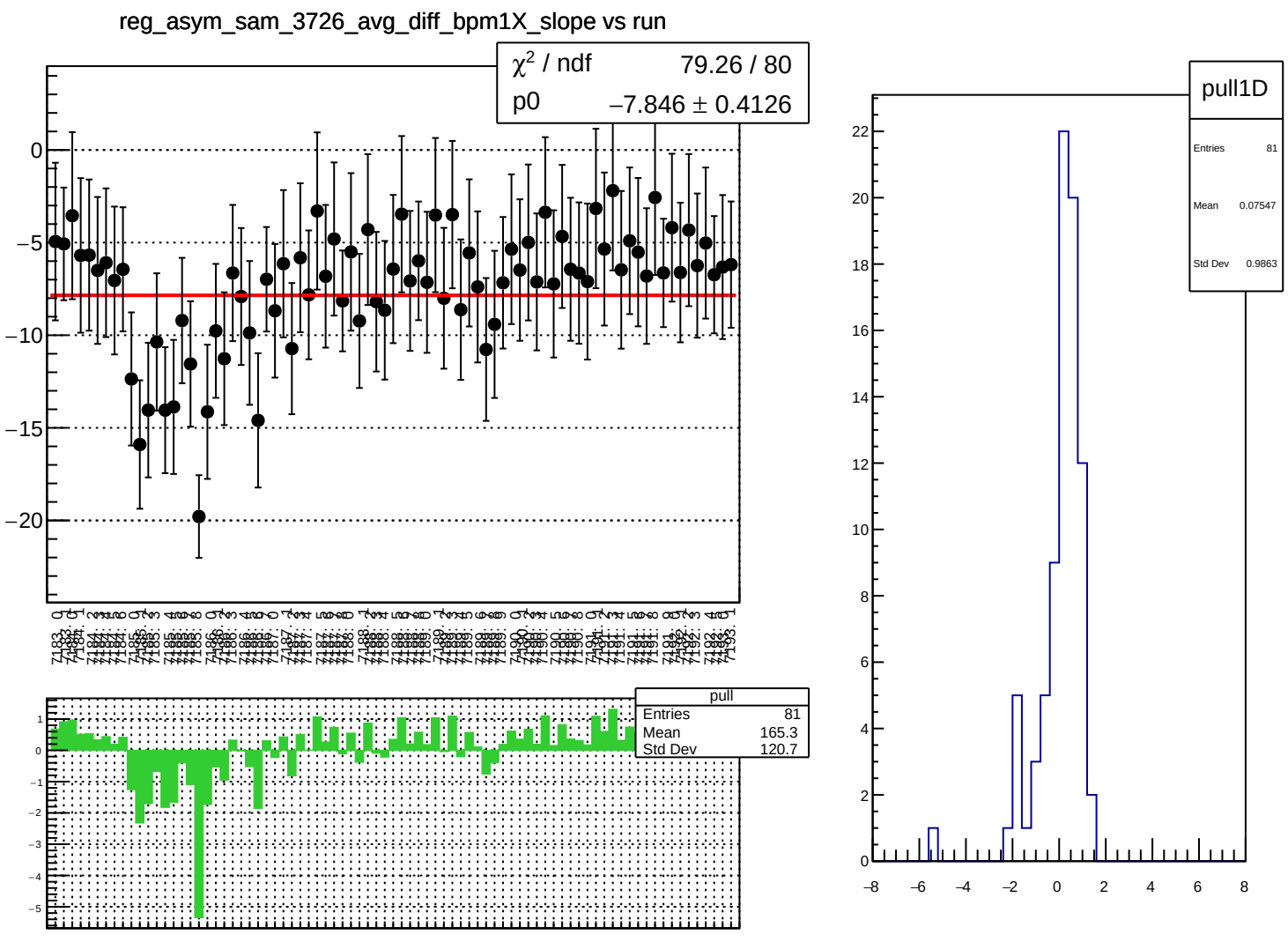

reg_asym_sam_1526_avg_diff_bpm4aY_slope vs run
χ² / ndf 49.78 / 80
p0 2.709 ± 0.1609
pull
Entries 81
Mean 5142
Std Dev 5101
pull1D
Entries 81
Mean −0.001583
Std Dev 0.7839

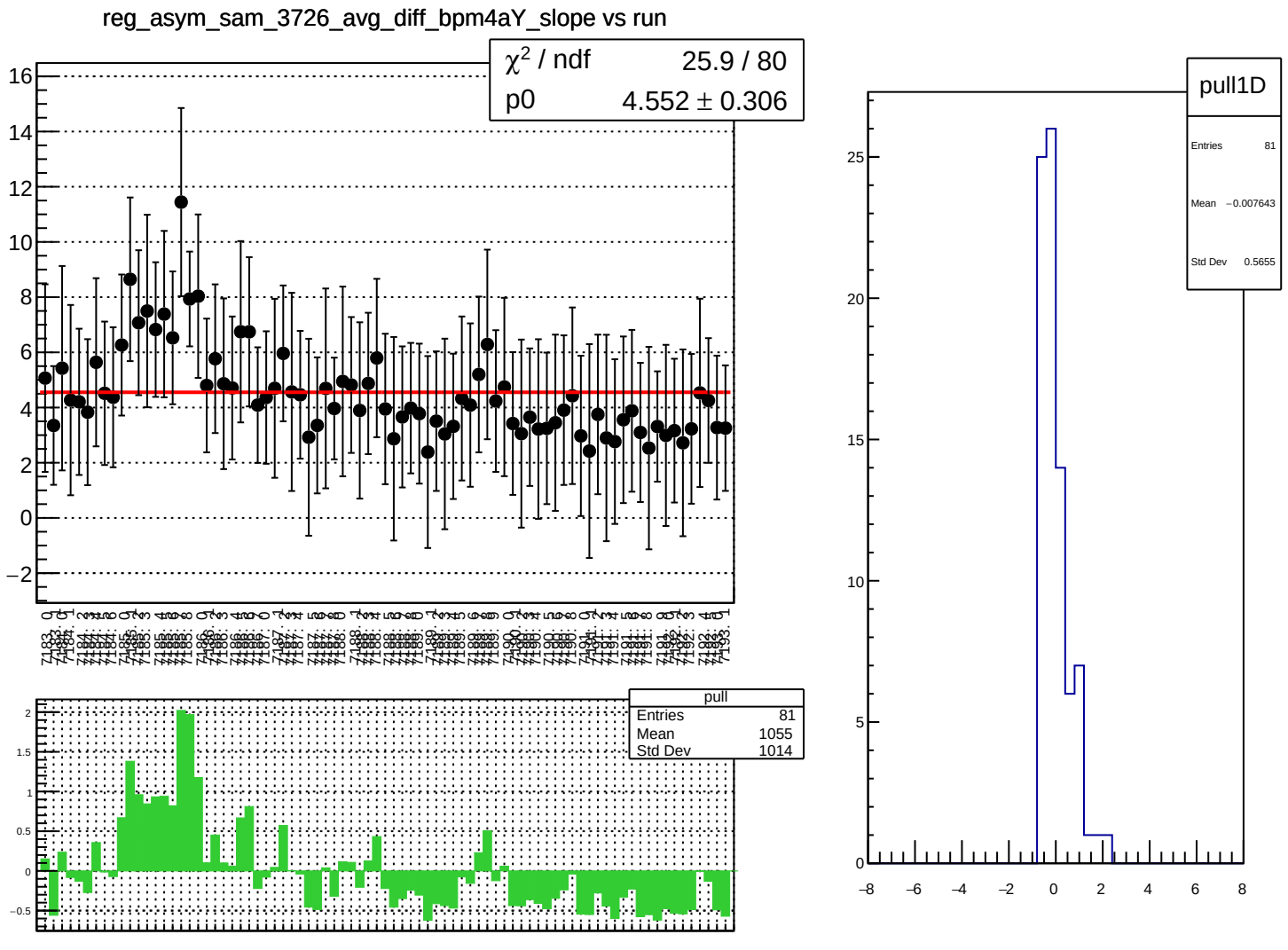

reg_asym_sam_1526_avg_diff_bpm4eX_slope vs run
χ² / ndf 191.4 / 80
p0 −16.9 ± 0.217
pull
Entries 81
Mean 167.4
Std Dev 124.2
pull1D
Entries 81
Mean −0.1166
Std Dev 1.533

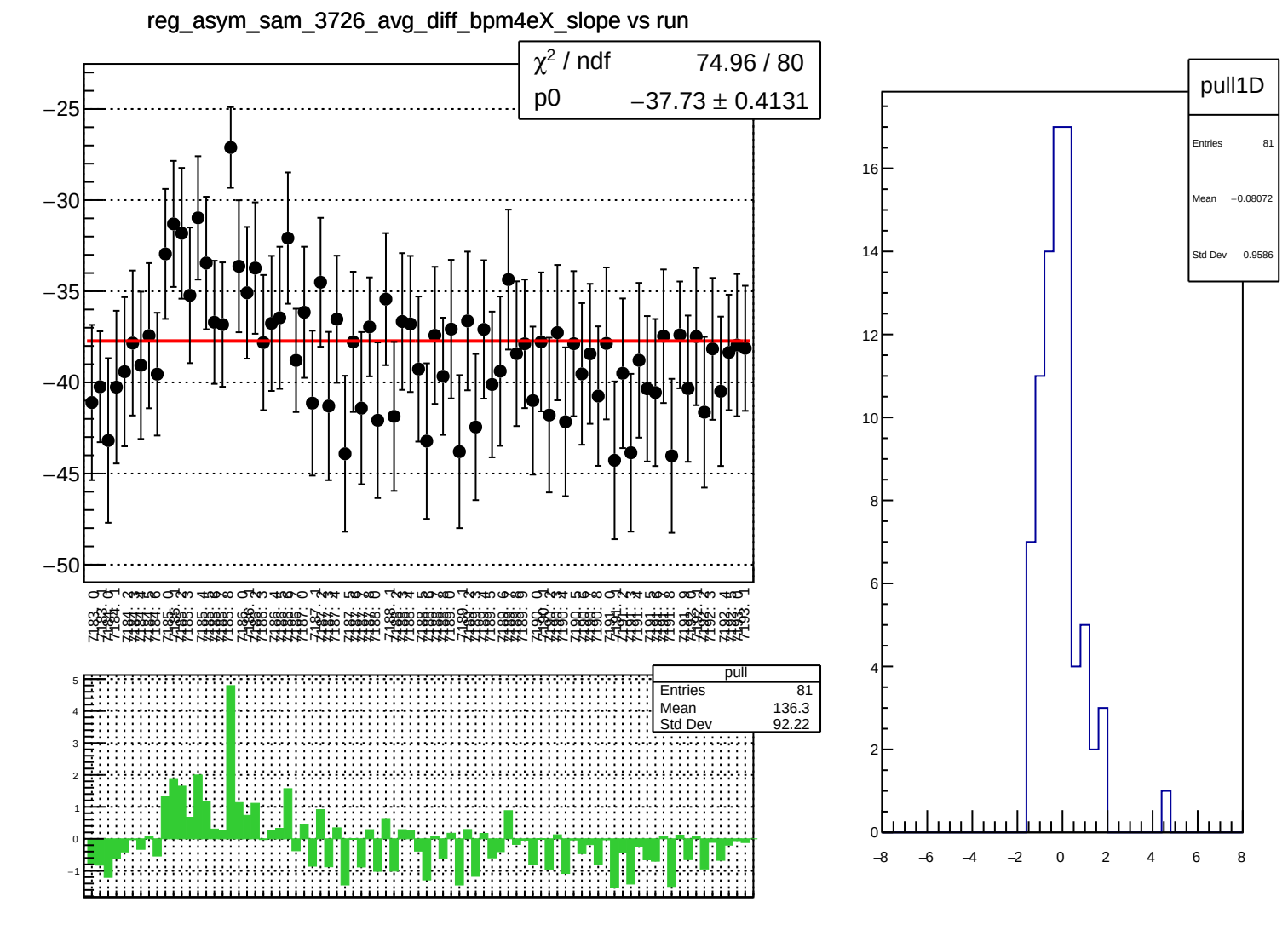

reg_asym_sam_1526_avg_diff_bpm4eY_slope vs run
χ² / ndf 44.44 / 80
p0 11.83 ± 0.1749
pull
Entries 81
Mean −4.408e+04
Std Dev 4.412e+04

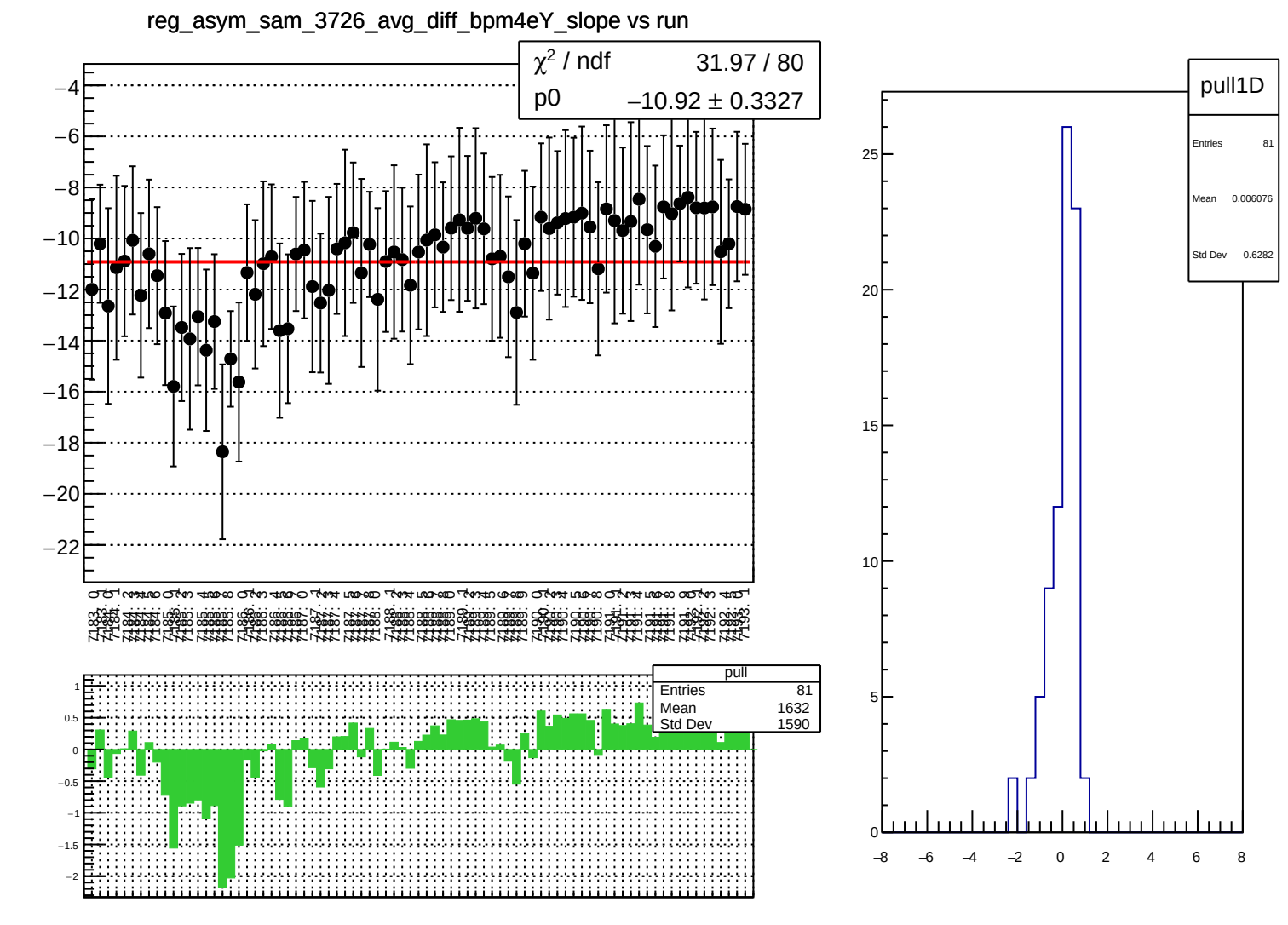

pull1D
Entries 81
Mean −0.0002154
Std Dev 0.7407

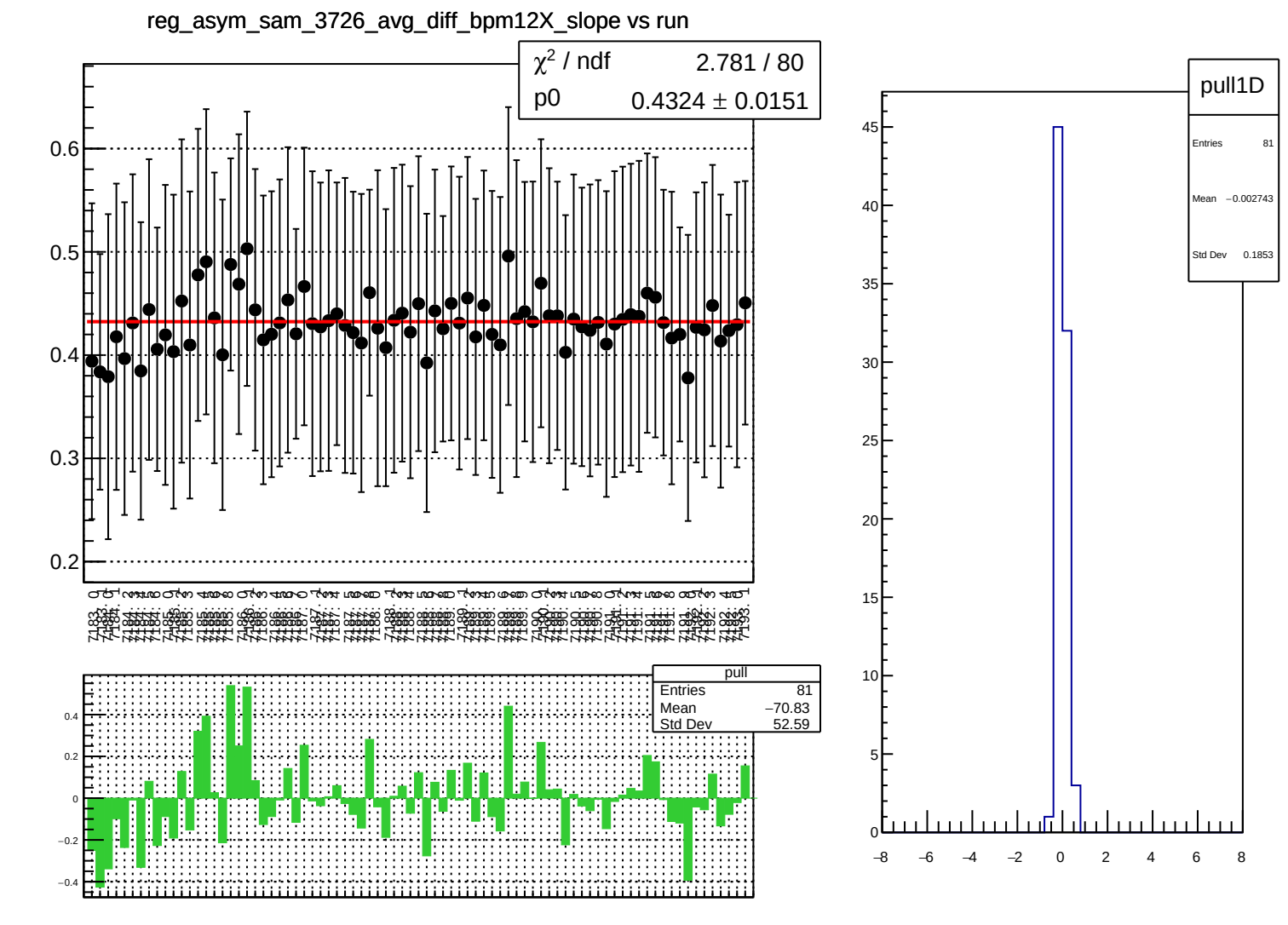

reg_asym_sam_1526_avg_diff_bpm12X_slope vs run
χ² / ndf 15.8 / 80
p0 0.3802 ± 0.007929
pull
Entries 81
Mean −1382
Std Dev 1418
pull1D
Entries 81
Mean −0.004493
Std Dev 0.4416

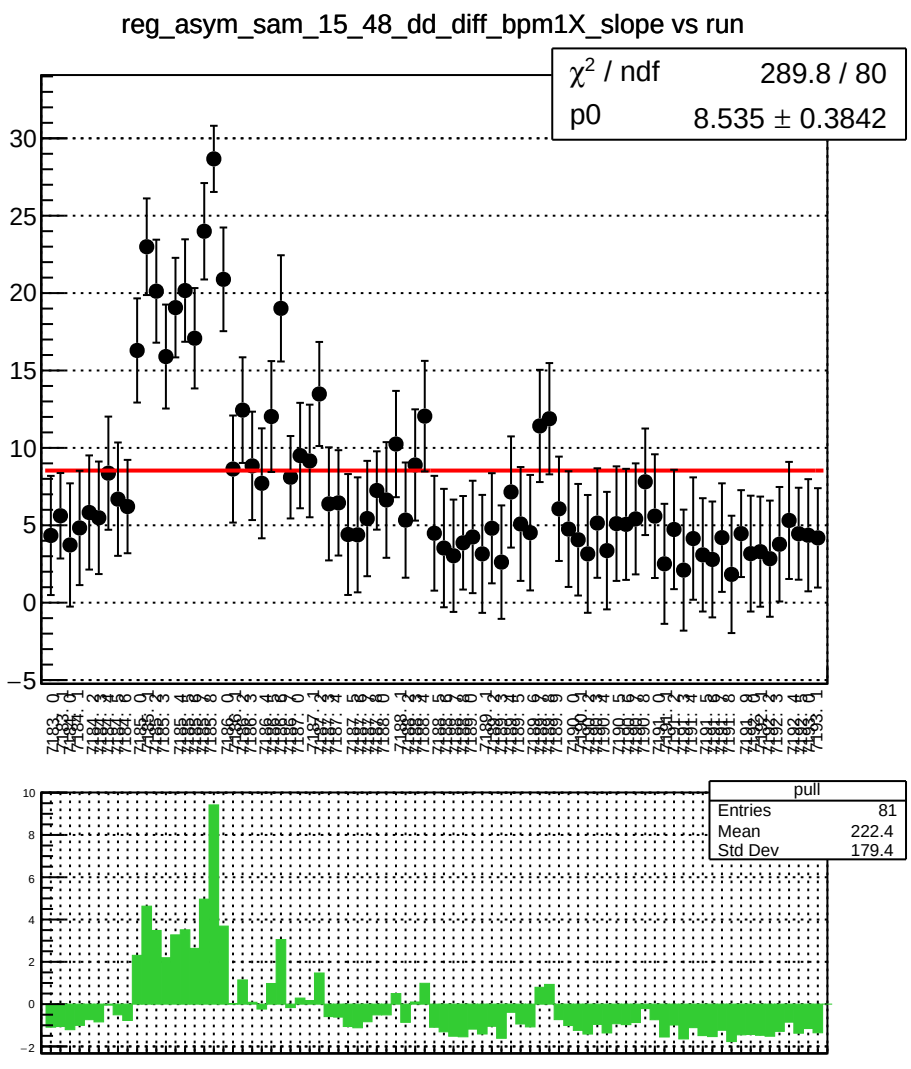

reg_asym_sam_3726_avg_diff_bpm1X_slope vs run
χ² / ndf 79.26 / 80
p0 −7.846 ± 0.4126
pull
Entries 81
Mean 165.3
Std Dev 120.7
pull1D
Entries 81
Mean 0.07547
Std Dev 0.9863

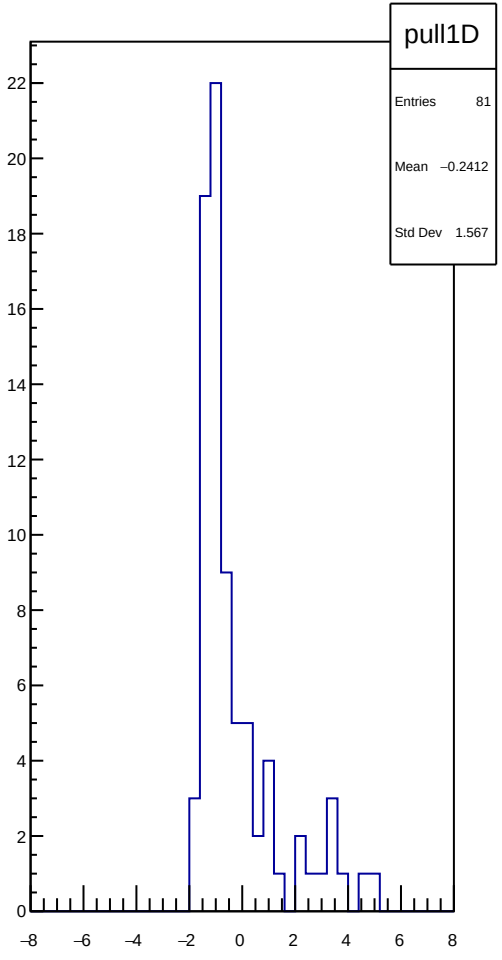

reg_asym_sam_3726_avg_diff_bpm4aY_slope vs run
χ² / ndf 25.9 / 80
p0 4.552 ± 0.306
pull
Entries 81
Mean 1055
Std Dev 1014
pull1D
Entries 81
Mean −0.007643
Std Dev 0.5655

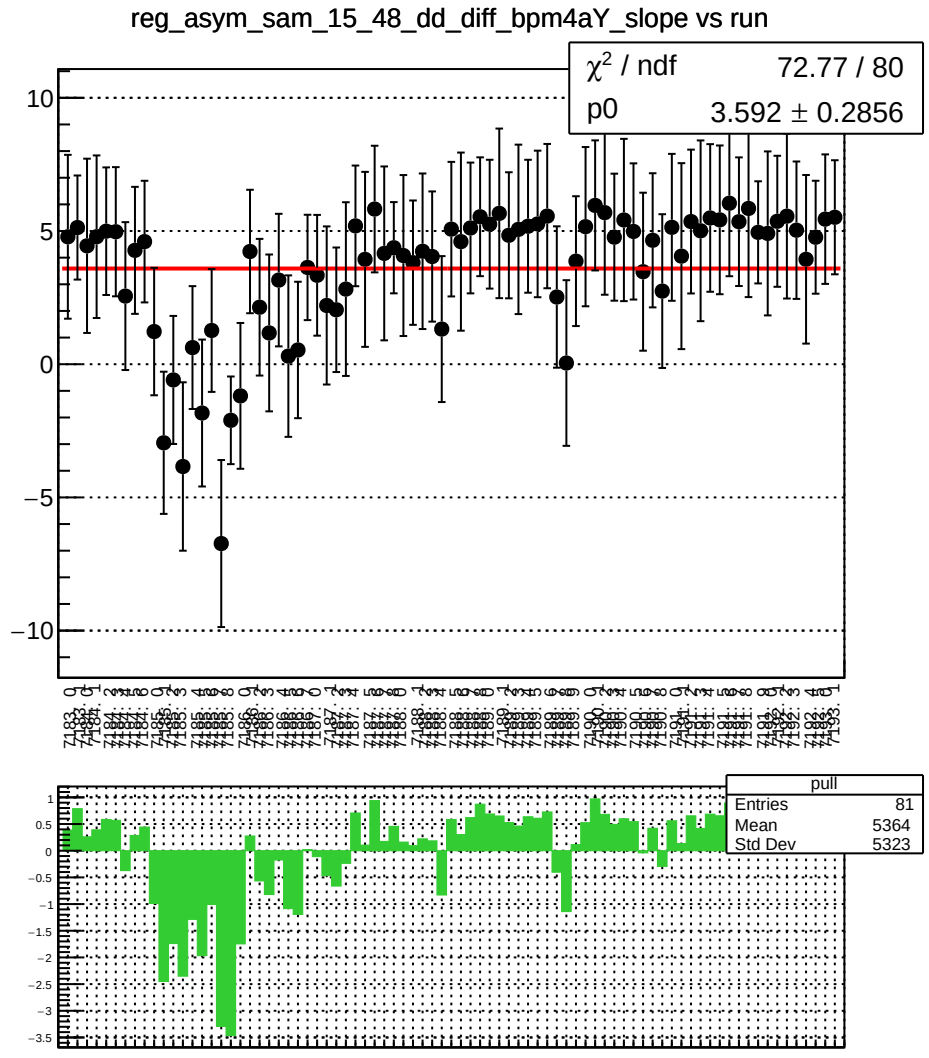

reg_asym_sam_3726_avg_diff_bpm4eX_slope vs run
χ² / ndf 74.96 / 80
p0 −37.73 ± 0.4131
pull
Entries 81
Mean 136.3
Std Dev 92.22
pull1D
Entries 81
Mean −0.08072
Std Dev 0.9586

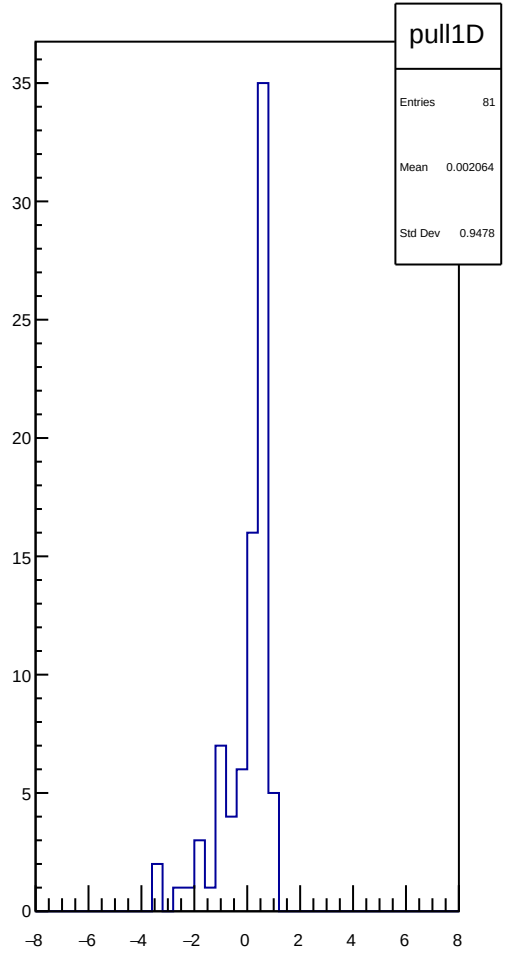

reg_asym_sam_3726_avg_diff_bpm4eY_slope vs run
χ² / ndf 31.97 / 80
p0 −10.92 ± 0.3327
pull
Entries 81
Mean 1632
Std Dev 1590
pull1D
Entries 81
Mean 0.006076
Std Dev 0.6282

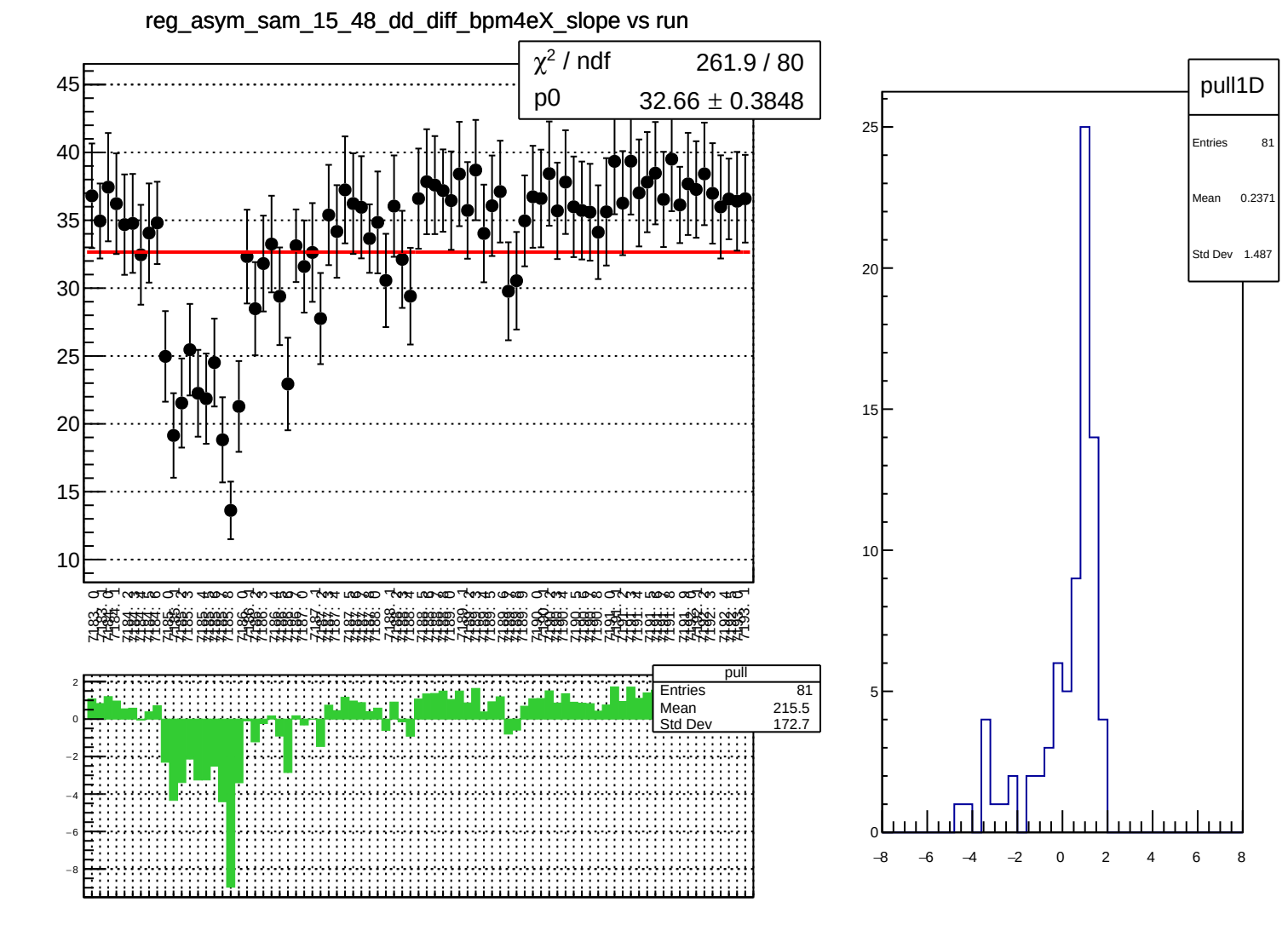

reg_asym_sam_3726_avg_diff_bpm12X_slope vs run
χ² / ndf 2.781 / 80
p0 0.4324 ± 0.0151
pull
Entries 81
Mean −70.83
Std Dev 52.59
pull1D
Entries 81
Mean −0.002743
Std Dev 0.1853

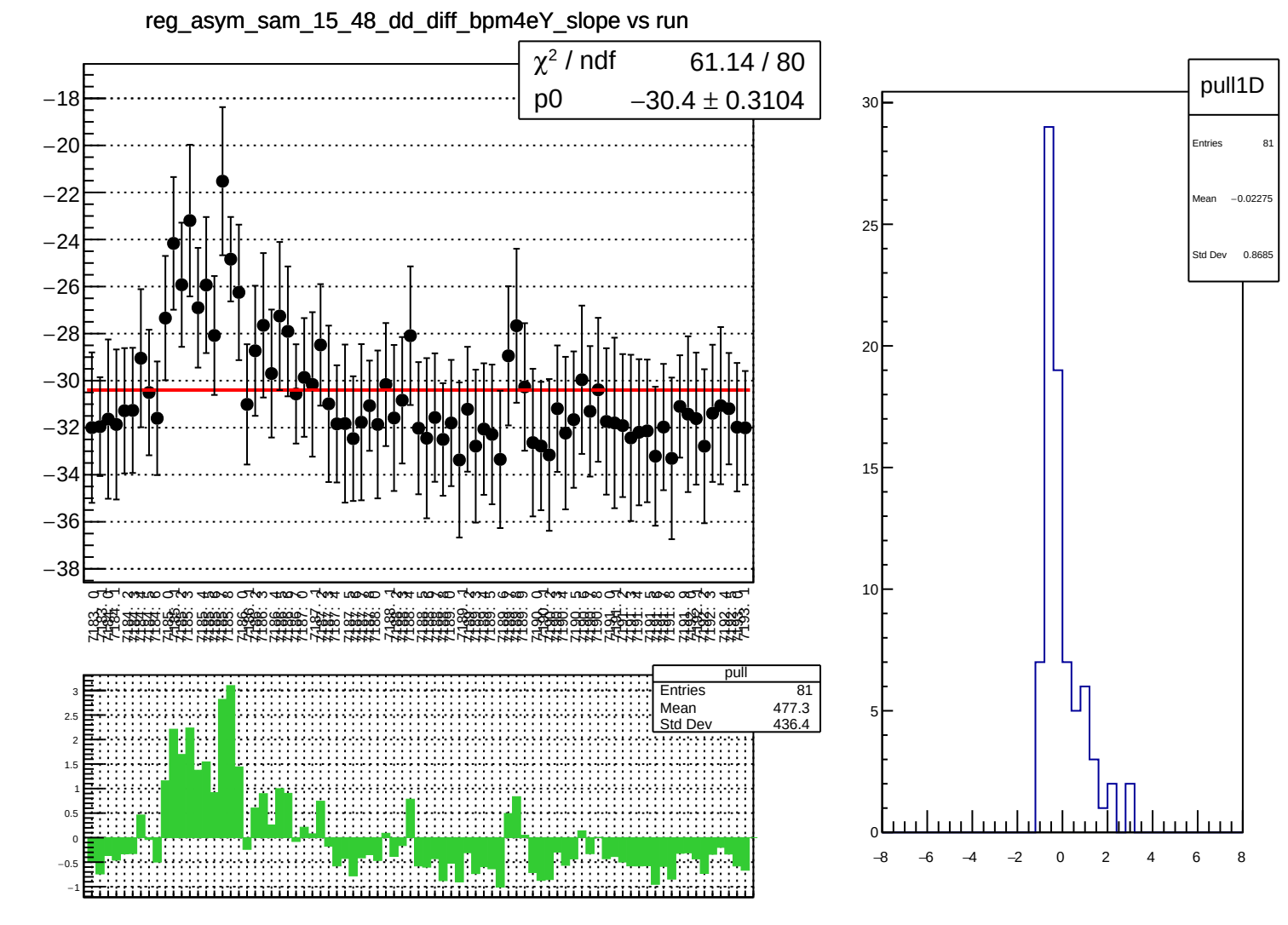

reg_asym_sam_15_48_dd_diff_bpm1X_slope vs run
χ² / ndf 289.8 / 80
p0 8.535 ± 0.3842
pull
Entries 81
Mean 222.4
Std Dev 179.4

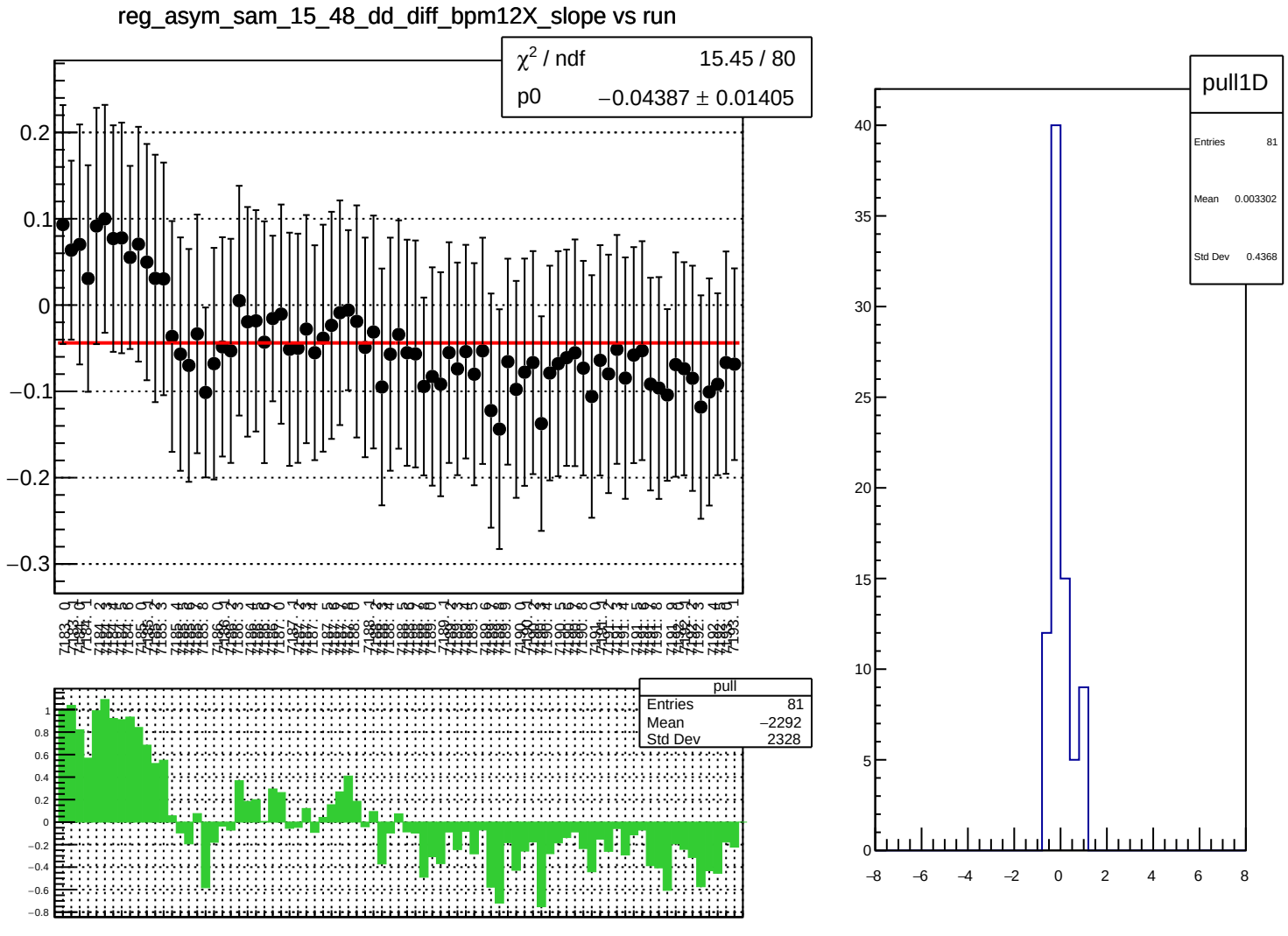

pull1D
Entries 81
Mean −0.2412
Std Dev 1.567

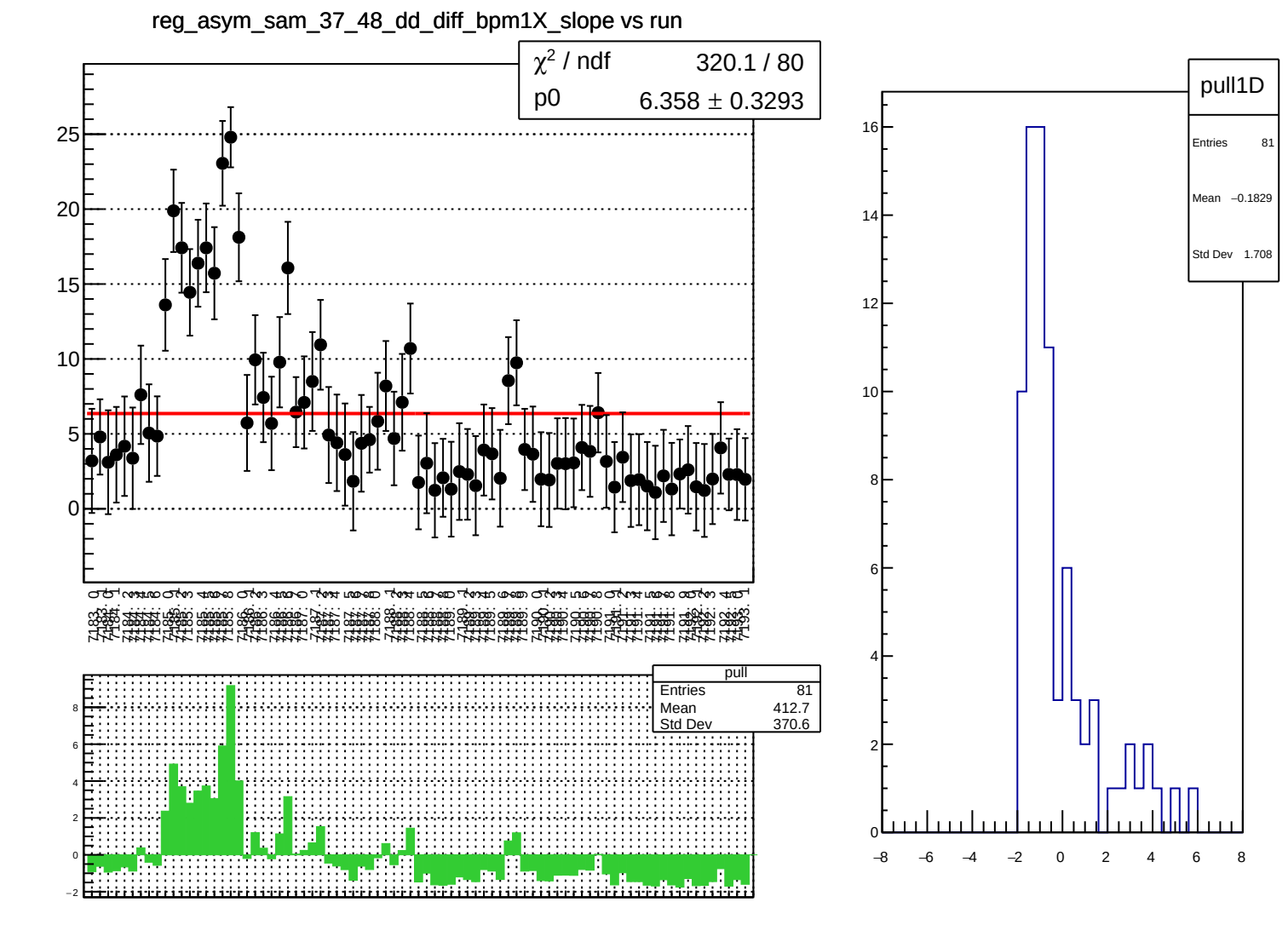

reg_asym_sam_15_48_dd_diff_bpm4aY_slope vs run
χ² / ndf 72.77 / 80
p0 3.592 ± 0.2856
pull
Entries 81
Mean 5364
Std Dev 5323

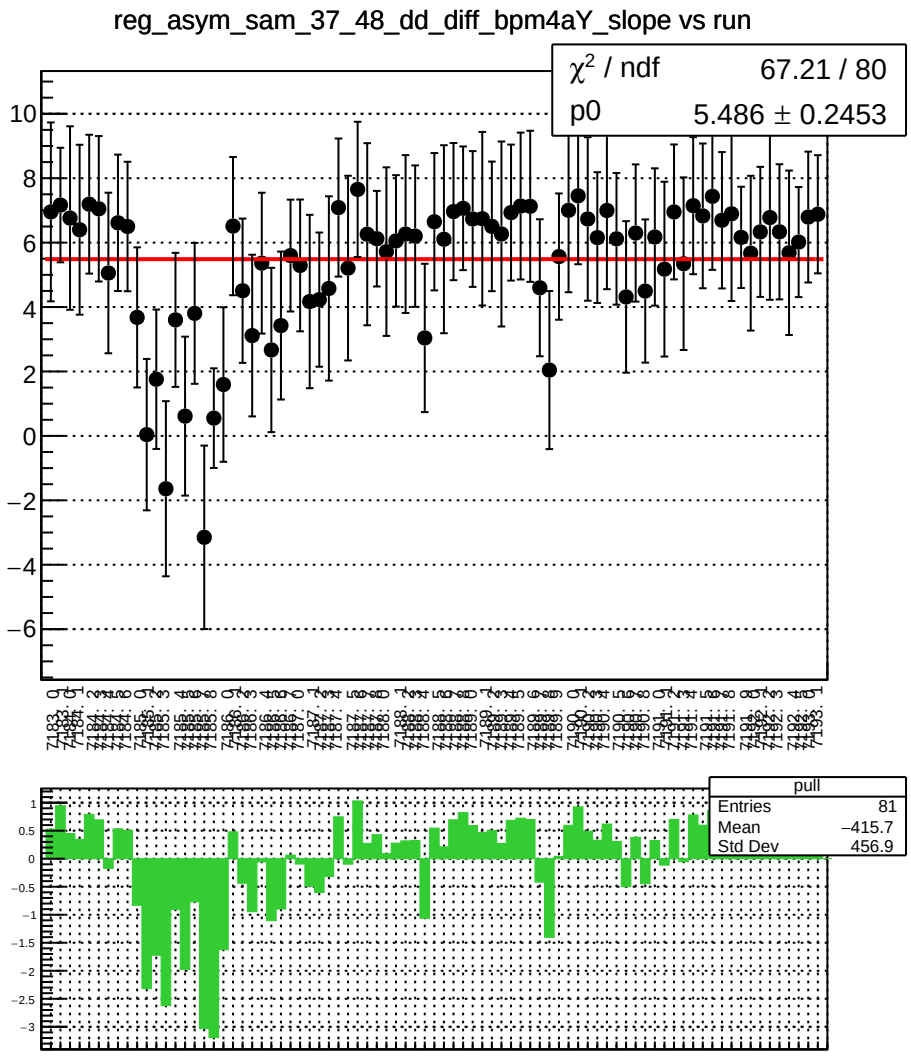

pull1D
Entries 81
Mean 0.002064
Std Dev 0.9478

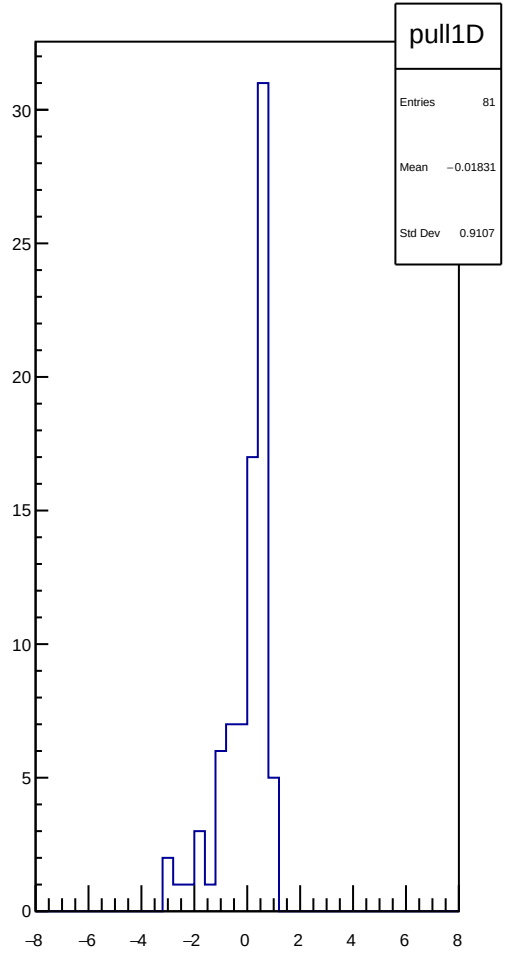

reg_asym_sam_15_48_dd_diff_bpm4eX_slope vs run
χ² / ndf 261.9 / 80
p0 32.66 ± 0.3848
pull
Entries 81
Mean 215.5
Std Dev 172.7
pull1D
Entries 81
Mean 0.2371
Std Dev 1.487

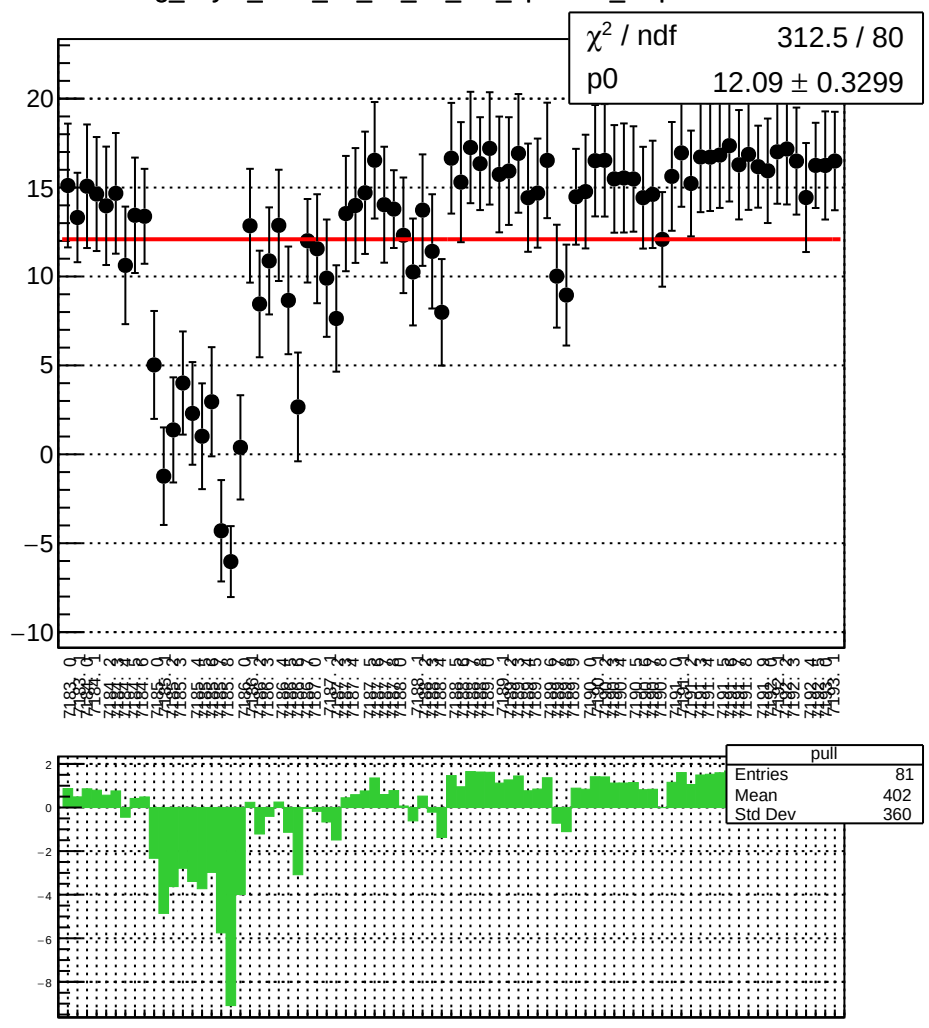

reg_asym_sam_15_48_dd_diff_bpm4eY_slope vs run
χ² / ndf 61.14 / 80
p0 −30.4 ± 0.3104
pull
Entries 81
Mean 477.3
Std Dev 436.4
pull1D
Entries 81
Mean −0.02275
Std Dev 0.8685

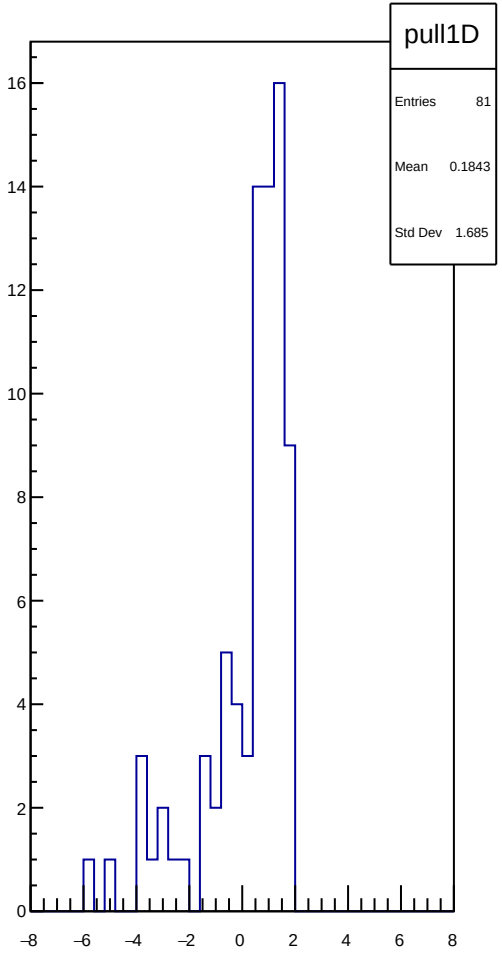

reg_asym_sam_15_48_dd_diff_bpm12X_slope vs run
χ² / ndf 15.45 / 80
p0 −0.04387 ± 0.01405
pull
Entries 81
Mean −2292
Std Dev 2328
pull1D
Entries 81
Mean 0.003302
Std Dev 0.4368

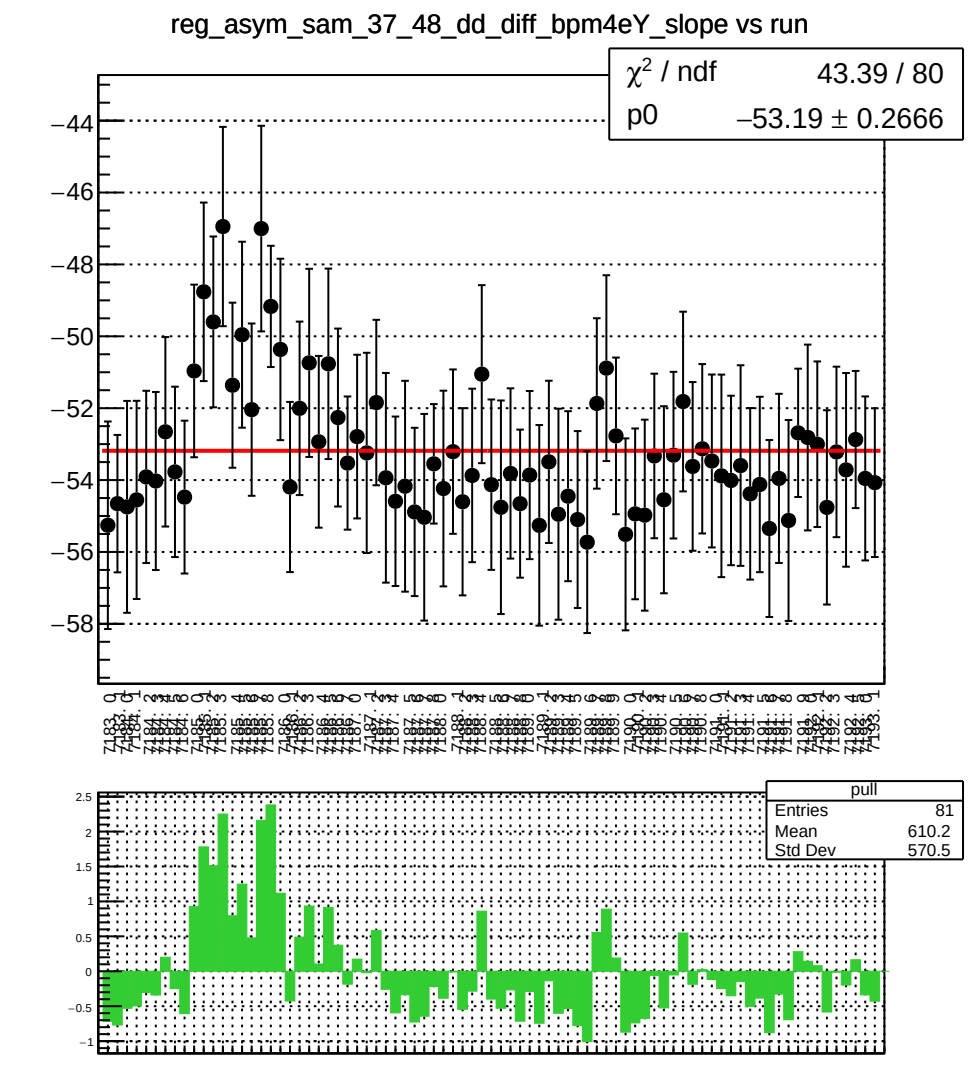

reg_asym_sam_37_48_dd_diff_bpm1X_slope vs run
χ² / ndf 320.1 / 80
p0 6.358 ± 0.3293
pull
Entries 81
Mean 412.7
Std Dev 370.6
pull1D
Entries 81
Mean −0.1829
Std Dev 1.708

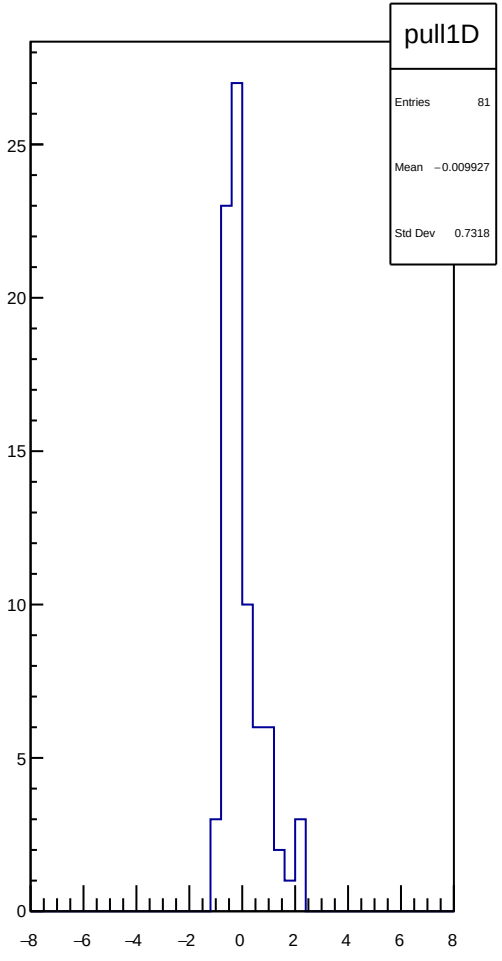

reg_asym_sam_37_48_dd_diff_bpm4aY_slope vs run
χ² / ndf 67.21 / 80
p0 5.486 ± 0.2453
pull
Entries 81
Mean −415.7
Std Dev 456.9

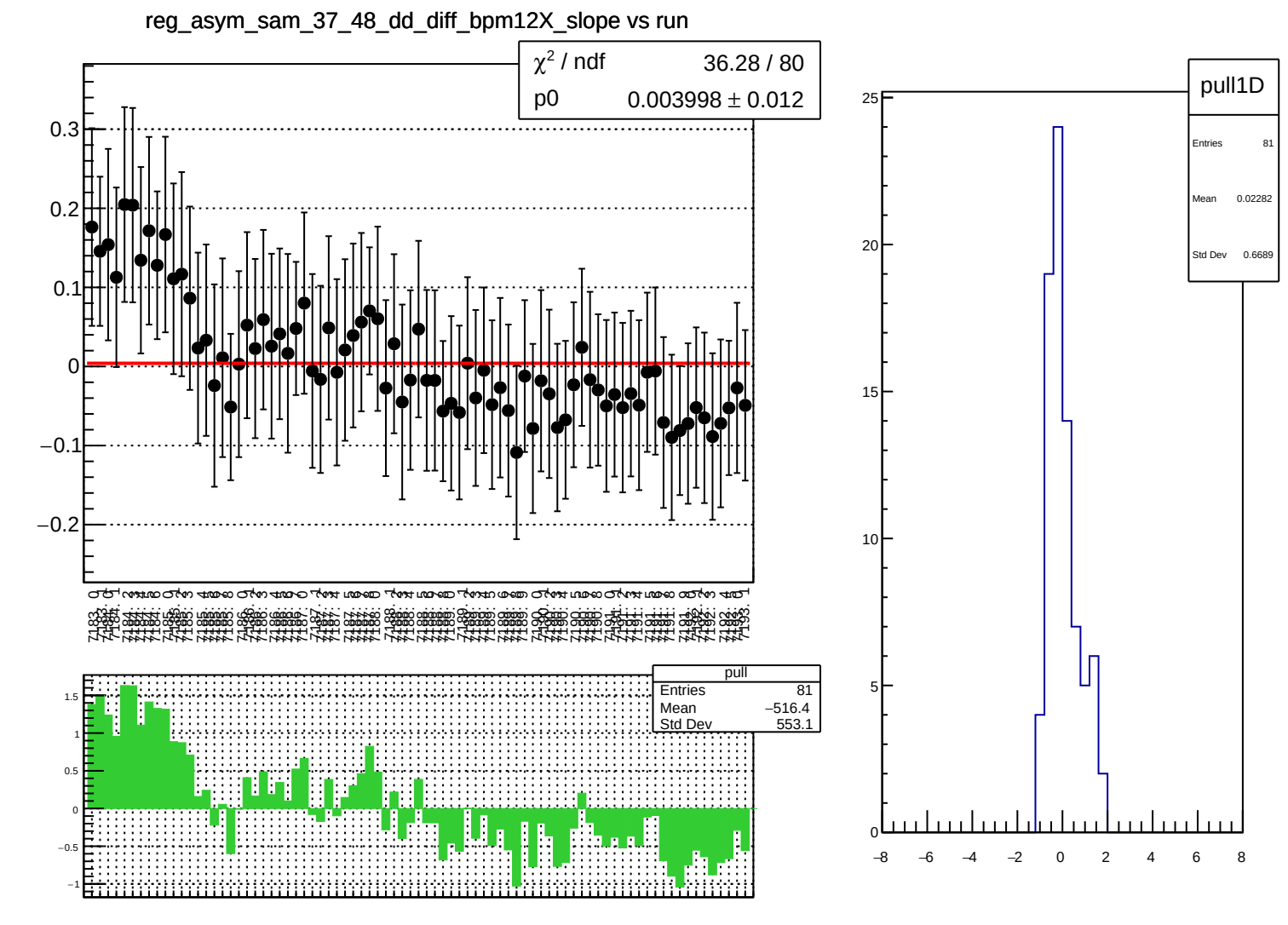

pull1D
Entries 81
Mean −0.01831
Std Dev 0.9107

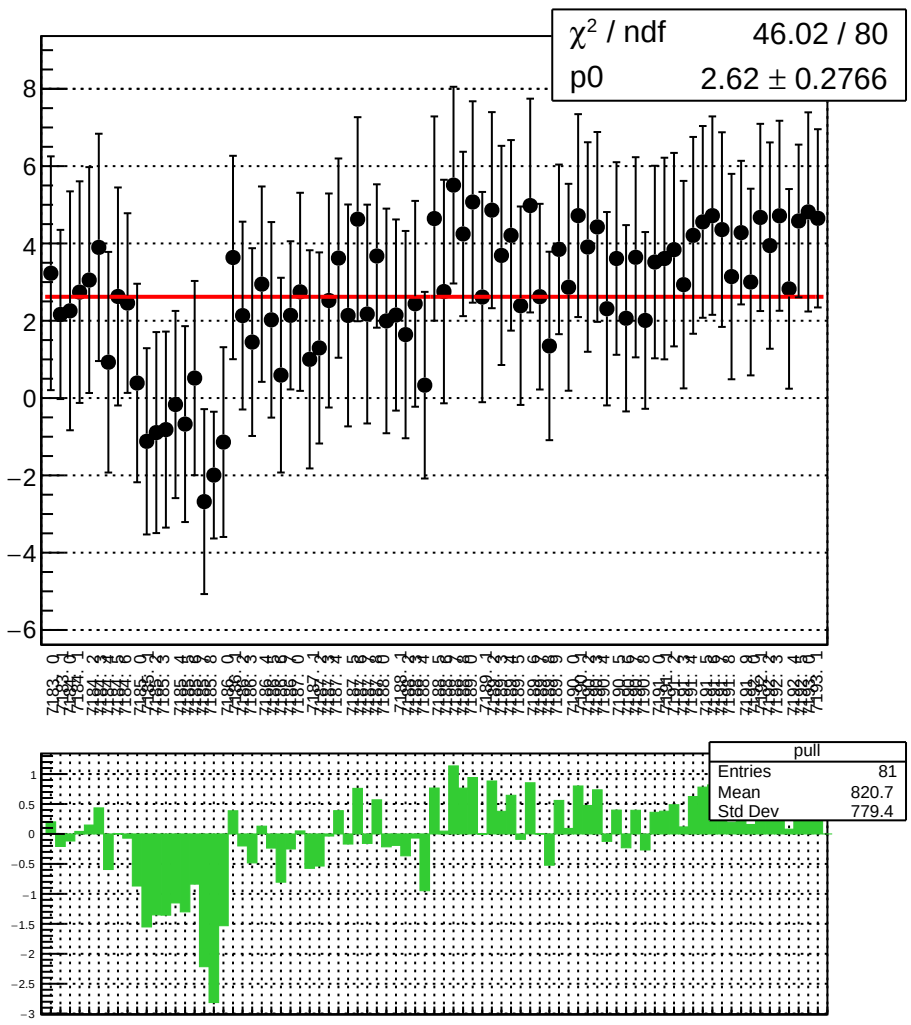

reg_asym_sam_37_48_dd_diff_bpm4eX_slope vs run
χ² / ndf 312.5 / 80
p0 12.09 ± 0.3299
pull
Entries 81
Mean 402
Std Dev 360

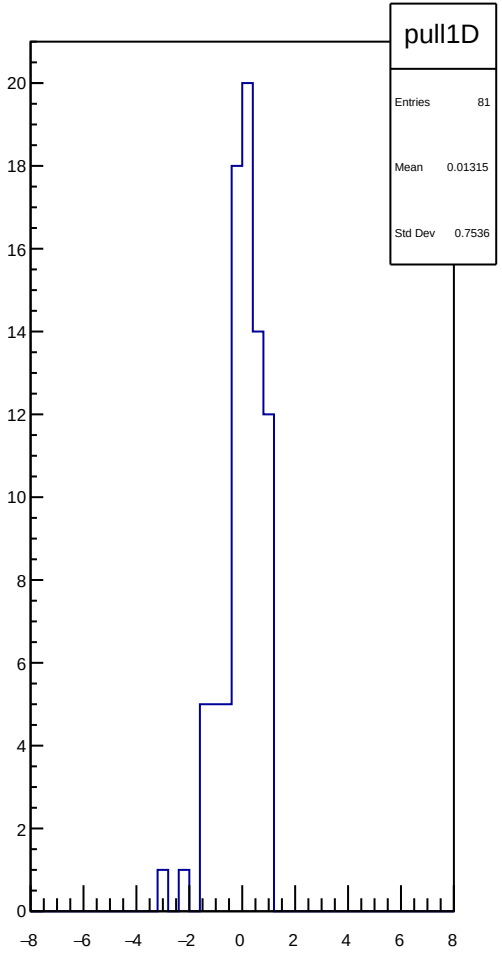

pull1D
Entries 81
Mean 0.1843
Std Dev 1.685

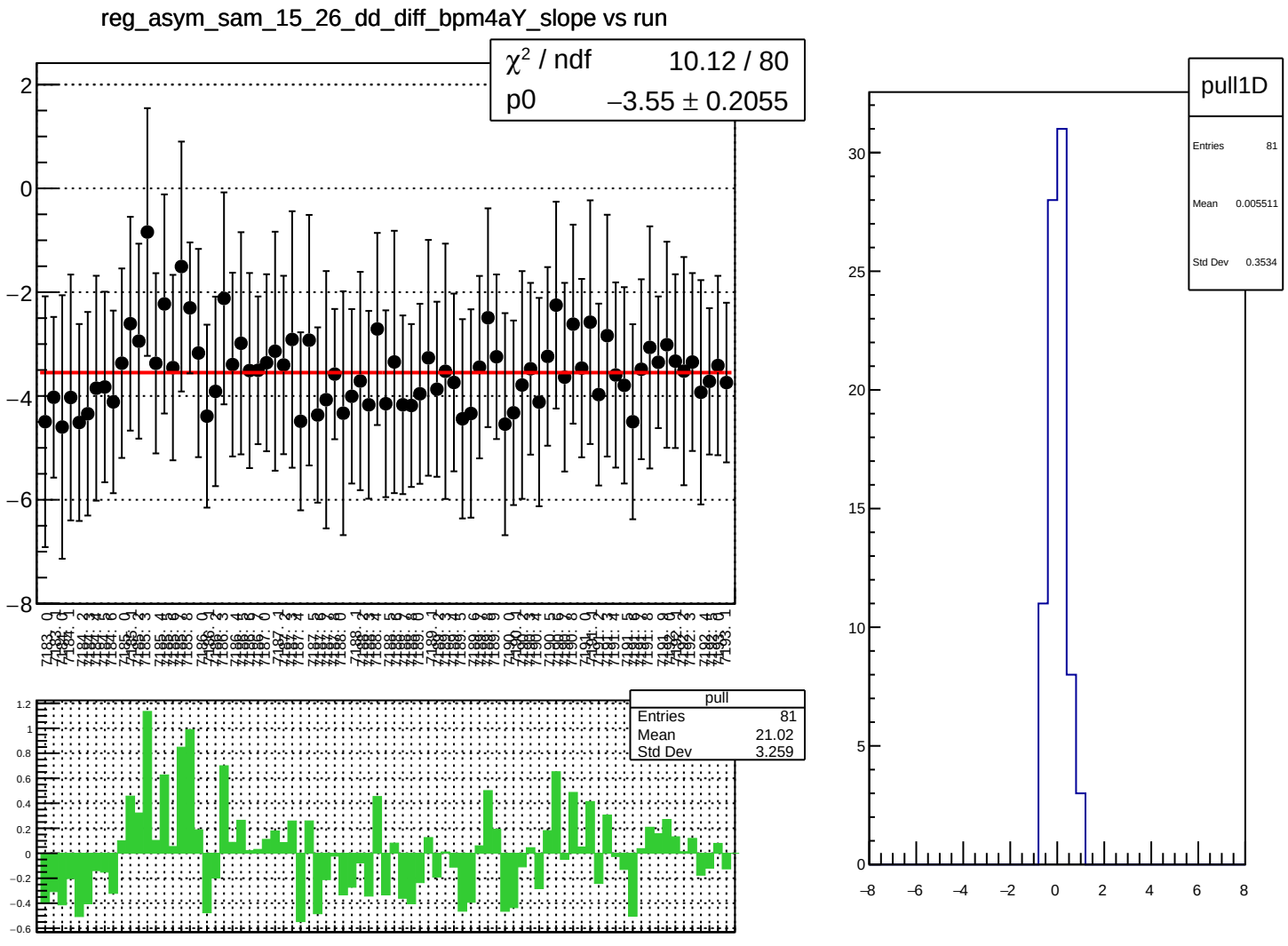

reg_asym_sam_37_48_dd_diff_bpm4eY_slope vs run
χ² / ndf 43.39 / 80
p0 −53.19 ± 0.2666
pull
Entries 81
Mean 610.2
Std Dev 570.5

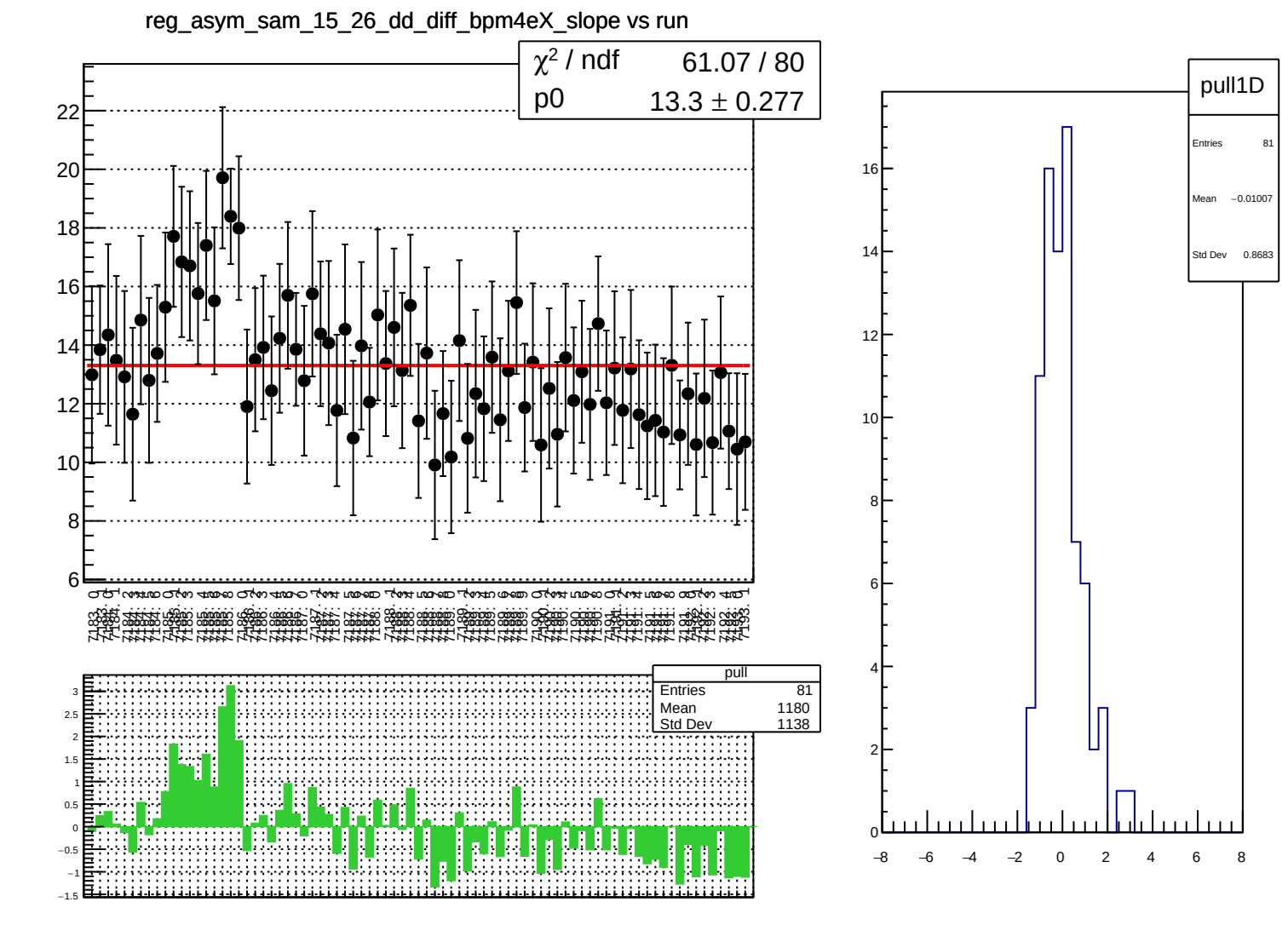

pull1D
Entries 81
Mean −0.009927
Std Dev 0.7318

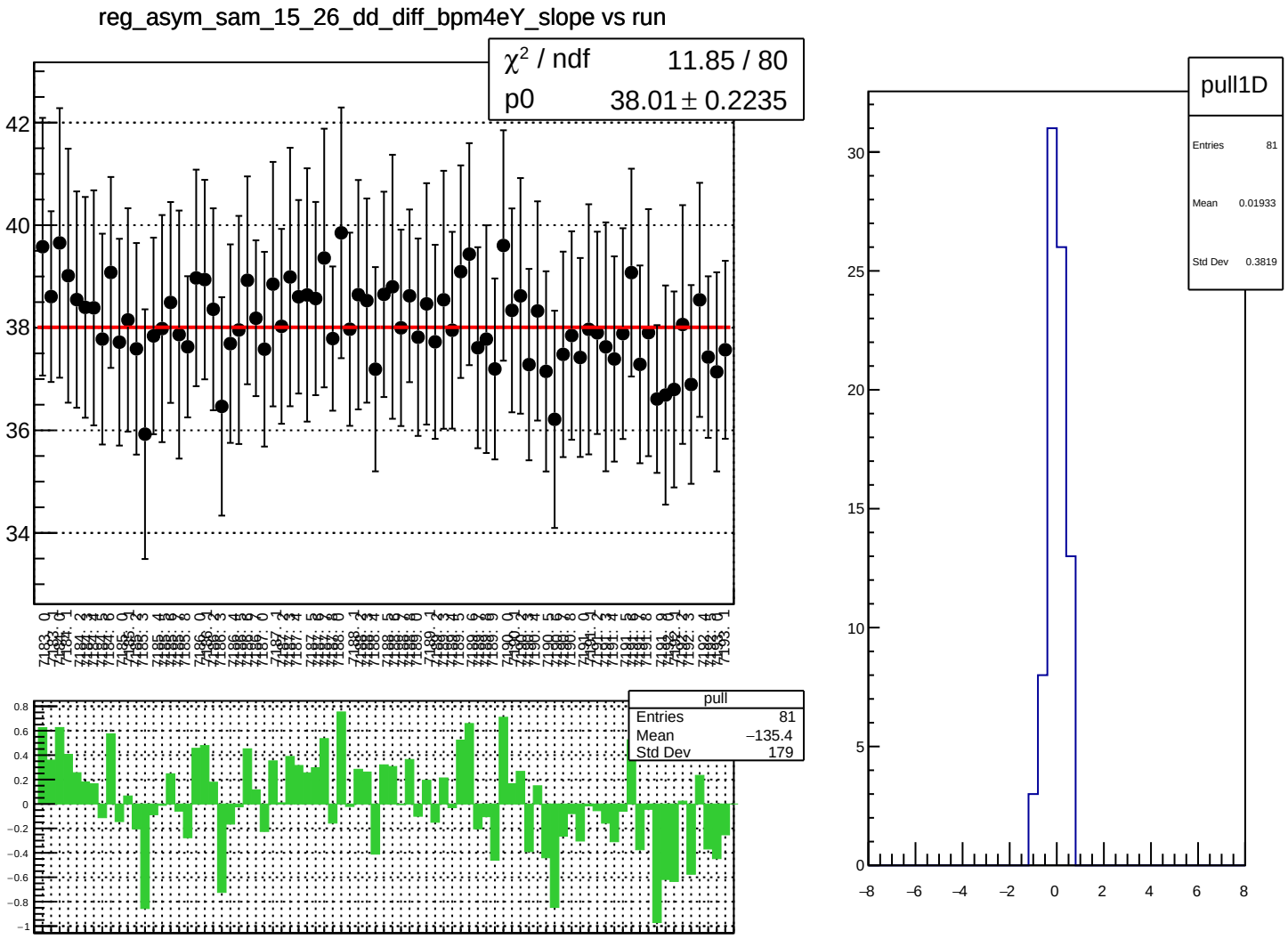

reg_asym_sam_37_48_dd_diff_bpm12X_slope vs run
χ² / ndf 36.28 / 80
p0 0.003998 ± 0.012
0.3
0.2
0.1
0
−0.1
−0.2
pull
Entries 81
Mean −516.4
Std Dev 553.1
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 81
Mean 0.02282
Std Dev 0.6689
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

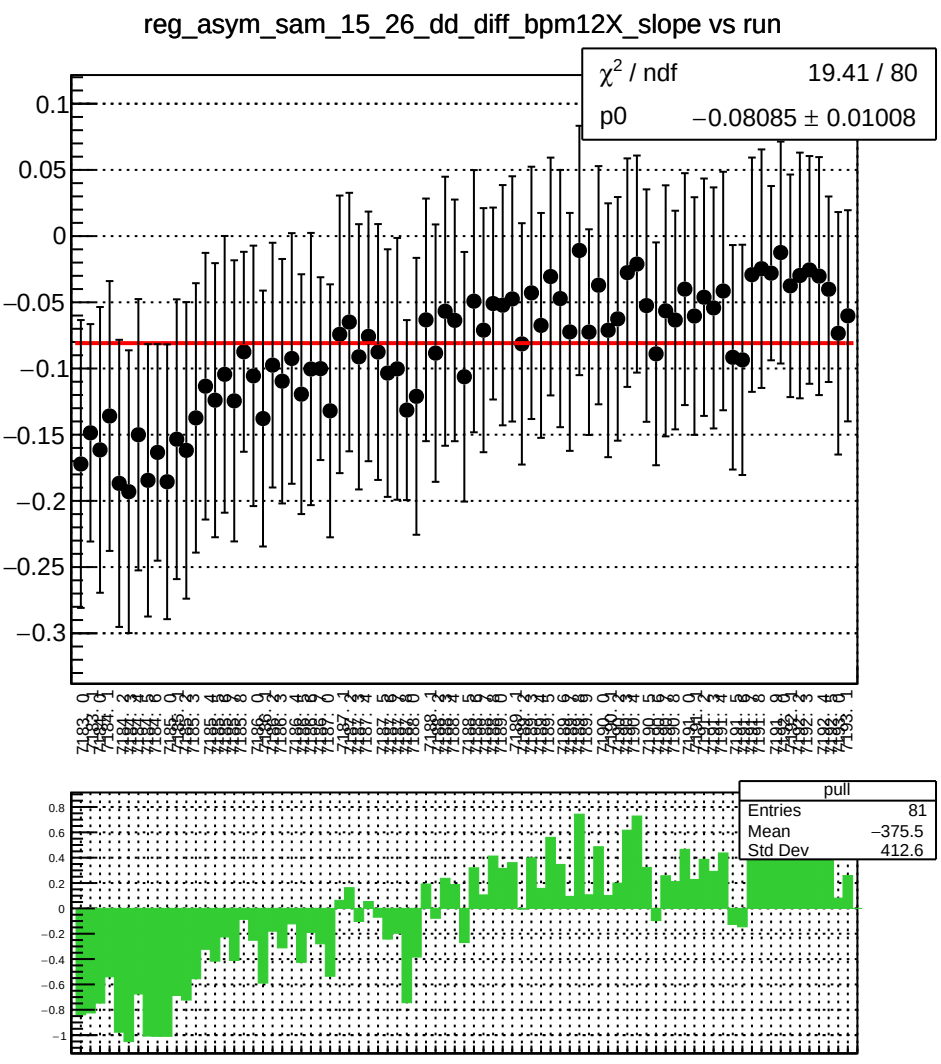

reg_asym_sam_15_26_dd_diff_bpm1X_slope vs run
χ² / ndf 46.02 / 80
p0 2.62 ± 0.2766
pull
Entries 81
Mean 820.7
Std Dev 779.4

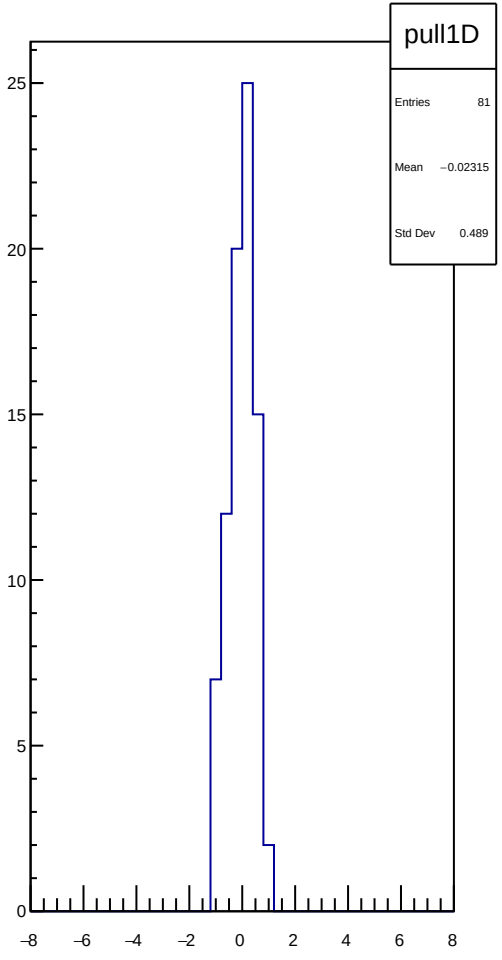

pull1D
Entries 81
Mean 0.01315
Std Dev 0.7536

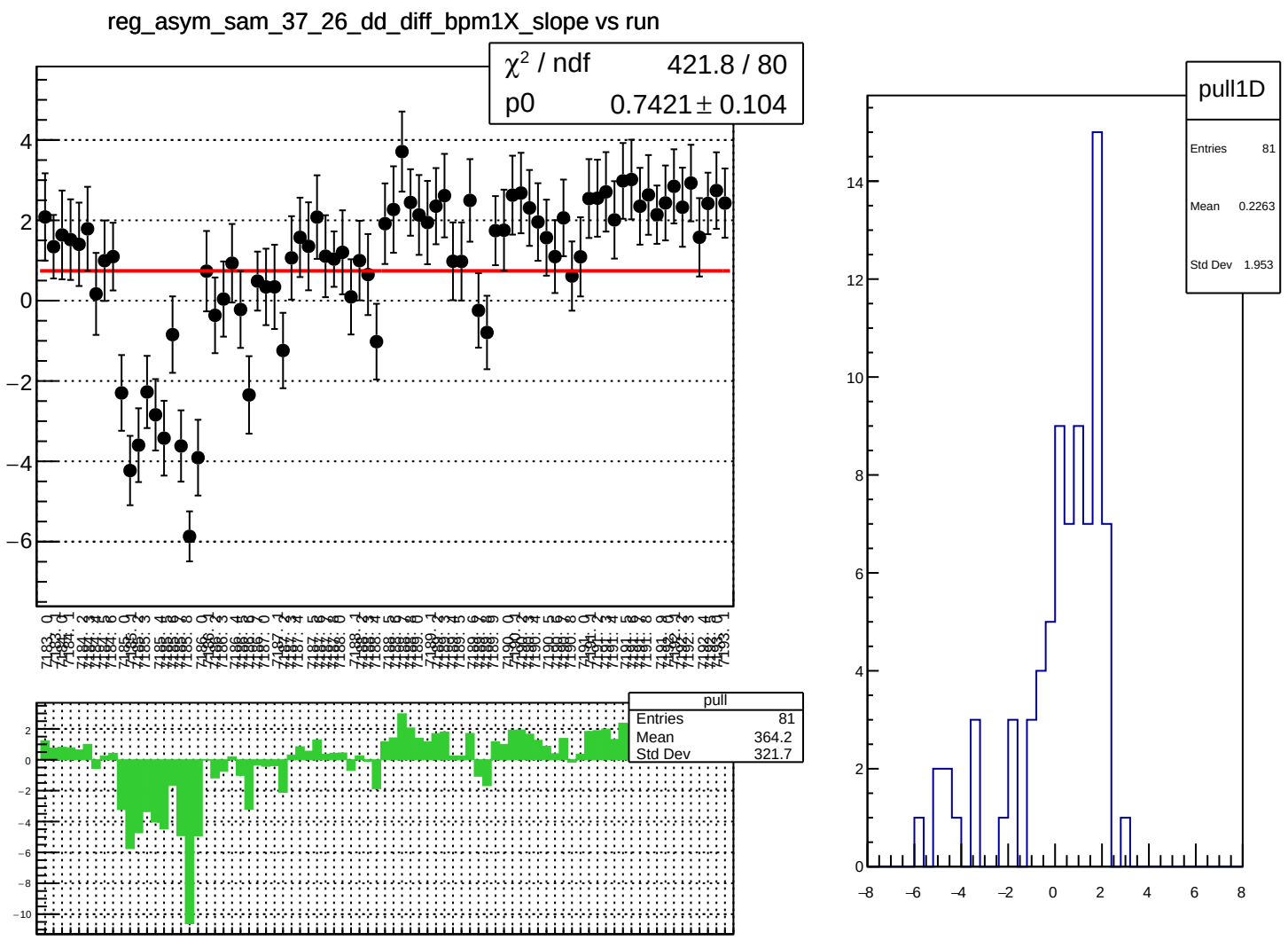

reg_asym_sam_15_26_dd_diff_bpm4aY_slope vs run
χ² / ndf 10.12 / 80
p0 −3.55 ± 0.2055
pull
Entries 81
Mean 21.02
Std Dev 3.259
pull1D
Entries 81
Mean 0.005511
Std Dev 0.3534

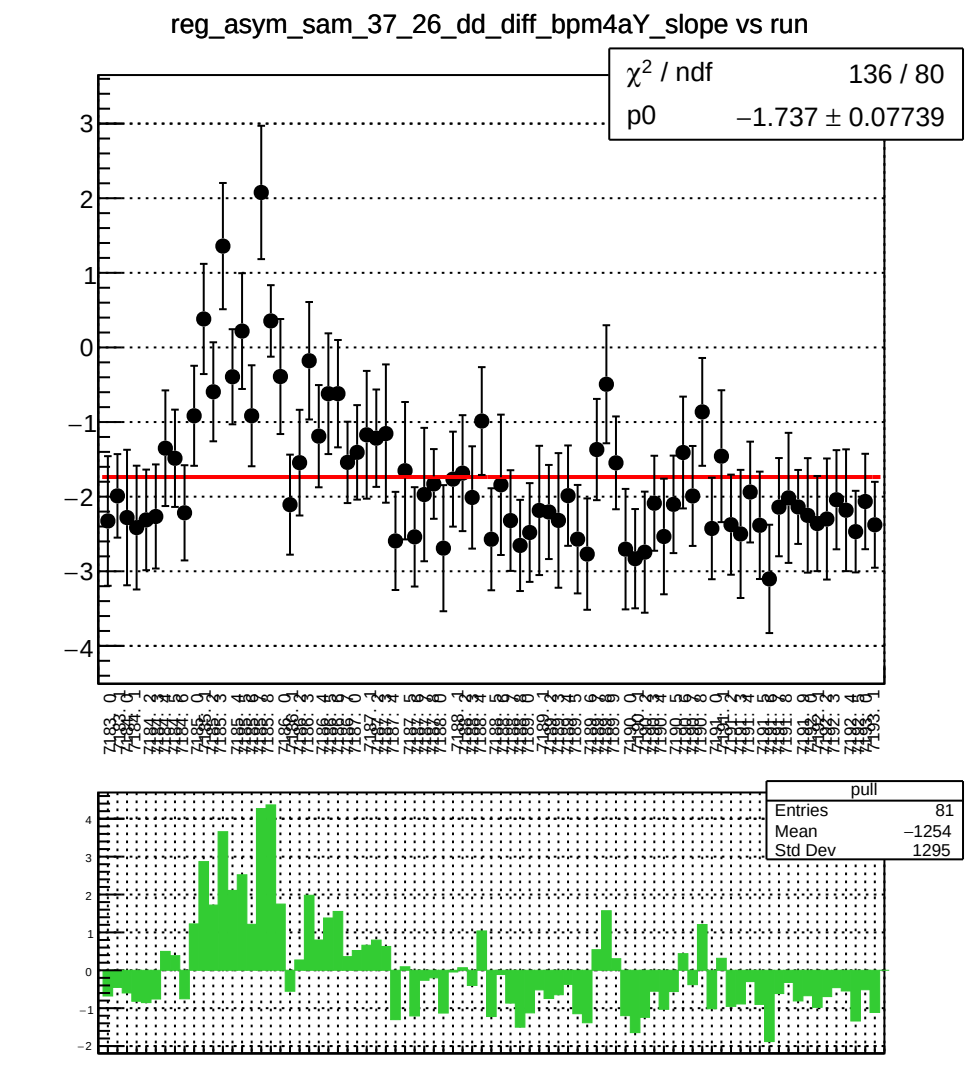

reg_asym_sam_15_26_dd_diff_bpm4eX_slope vs run
χ² / ndf 61.07 / 80
p0 13.3 ± 0.277
pull
Entries 81
Mean 1180
Std Dev 1138
pull1D
Entries 81
Mean −0.01007
Std Dev 0.8683

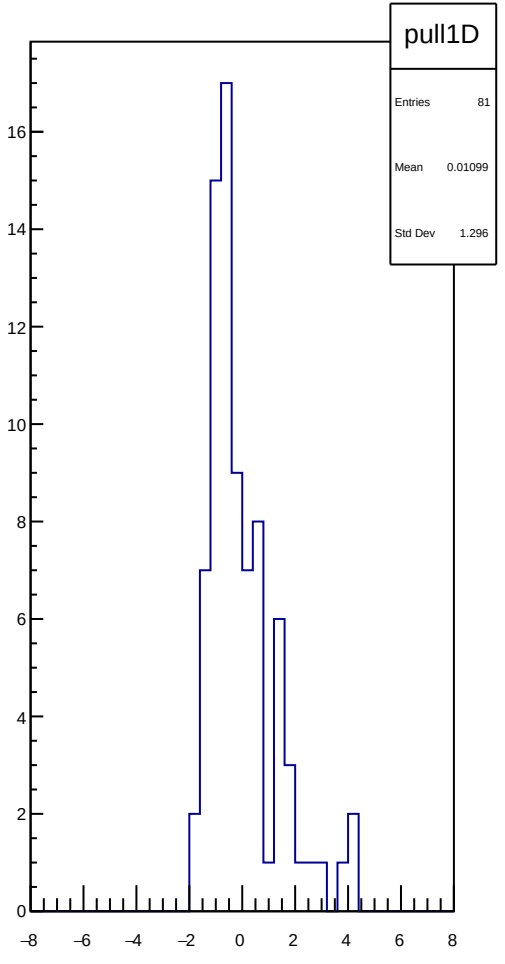

reg_asym_sam_15_26_dd_diff_bpm4eY_slope vs run
χ² / ndf 11.85 / 80
p0 38.01 ± 0.2235
pull
Entries 81
Mean −135.4
Std Dev 179
pull1D
Entries 81
Mean 0.01933
Std Dev 0.3819

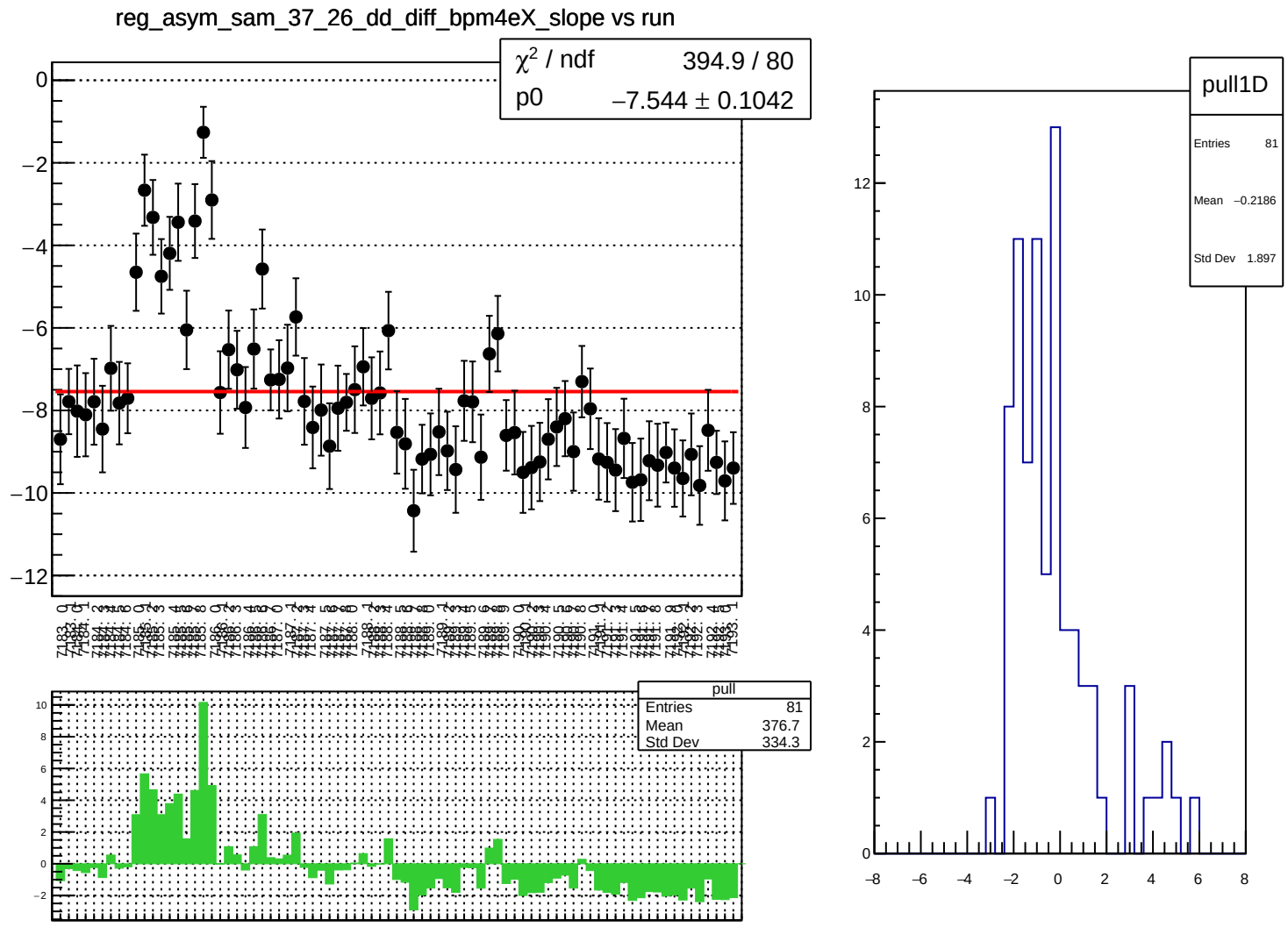

reg_asym_sam_15_26_dd_diff_bpm12X_slope vs run
χ² / ndf 19.41 / 80
p0 −0.08085 ± 0.01008
pull
Entries 81
Mean −375.5
Std Dev 412.6

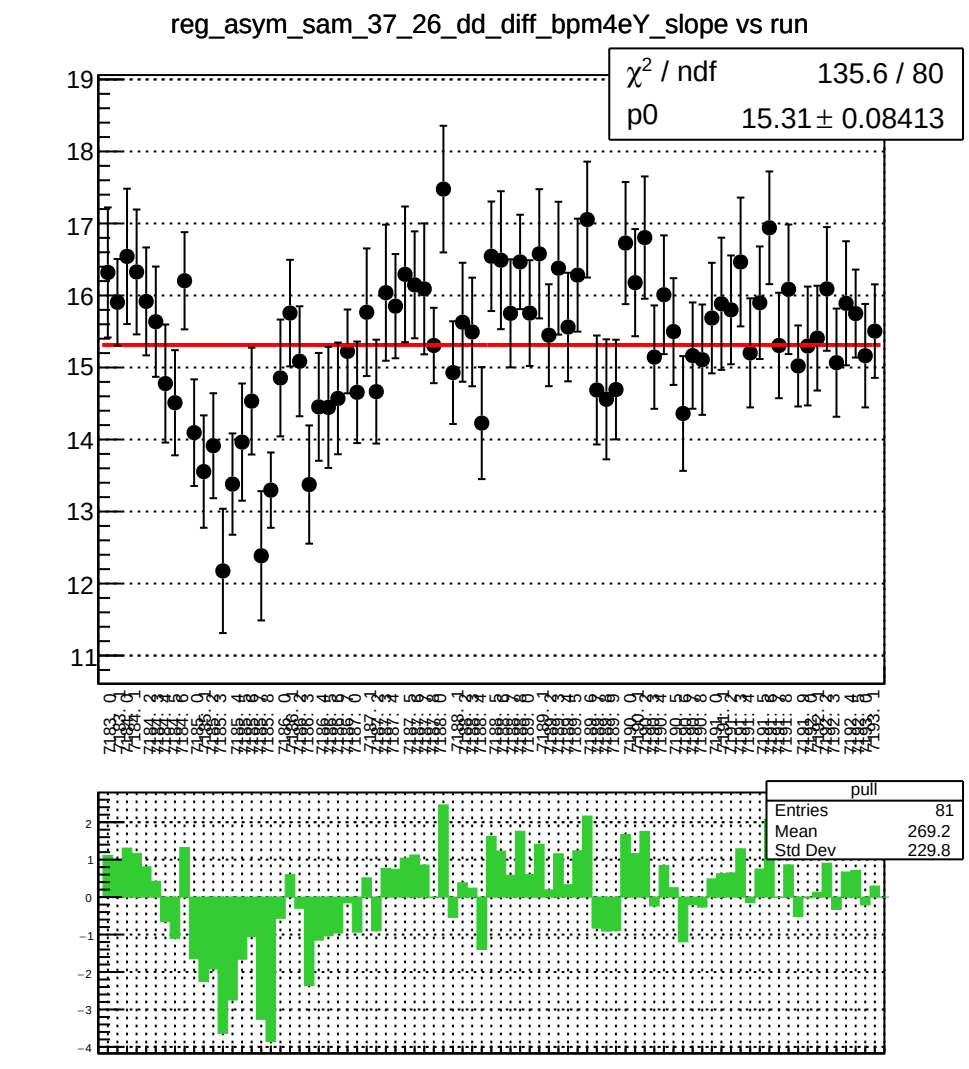

pull1D
Entries 81
Mean −0.02315
Std Dev 0.489

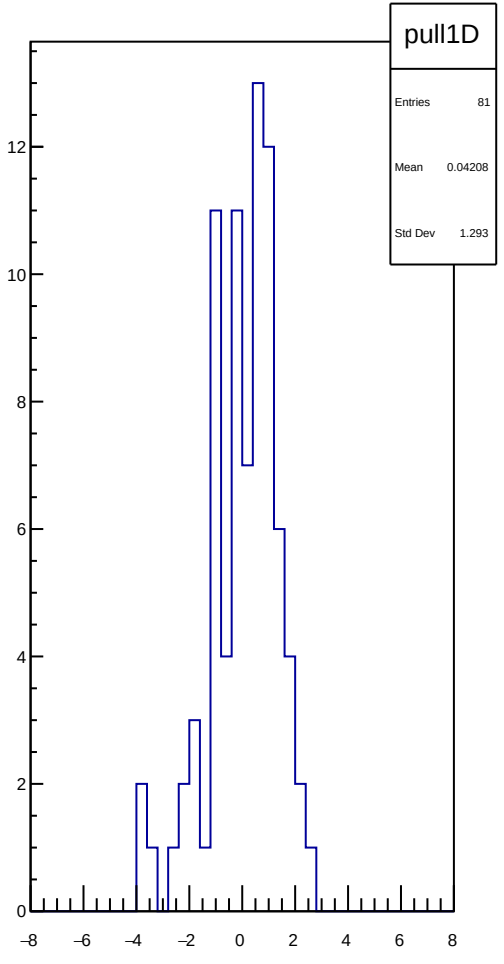

reg_asym_sam_37_26_dd_diff_bpm1X_slope vs run
χ² / ndf 421.8 / 80
p0 0.7421 ± 0.104
pull
Entries 81
Mean 364.2
Std Dev 321.7
pull1D
Entries 81
Mean 0.2263
Std Dev 1.953

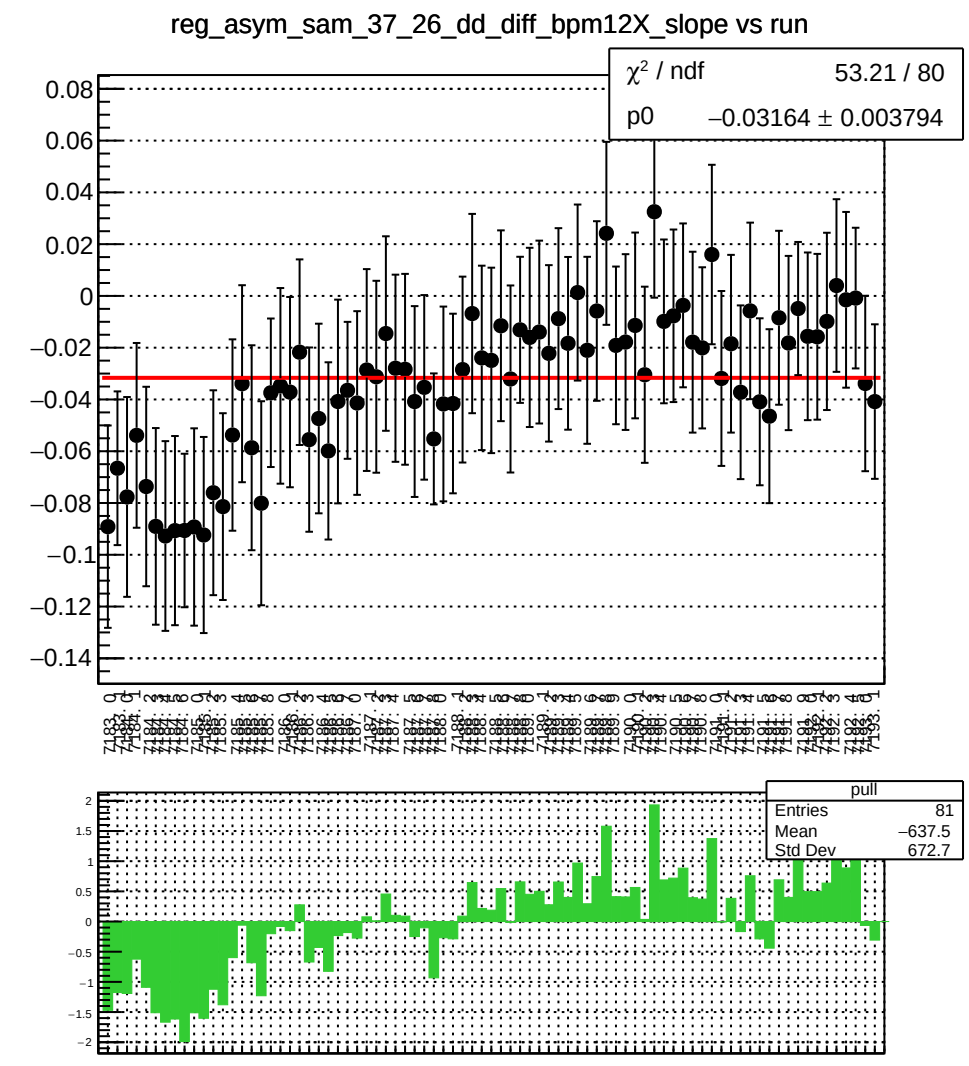

reg_asym_sam_37_26_dd_diff_bpm4aY_slope vs run
χ² / ndf 136 / 80
p0 −1.737 ± 0.07739
pull
Entries 81
Mean −1254
Std Dev 1295

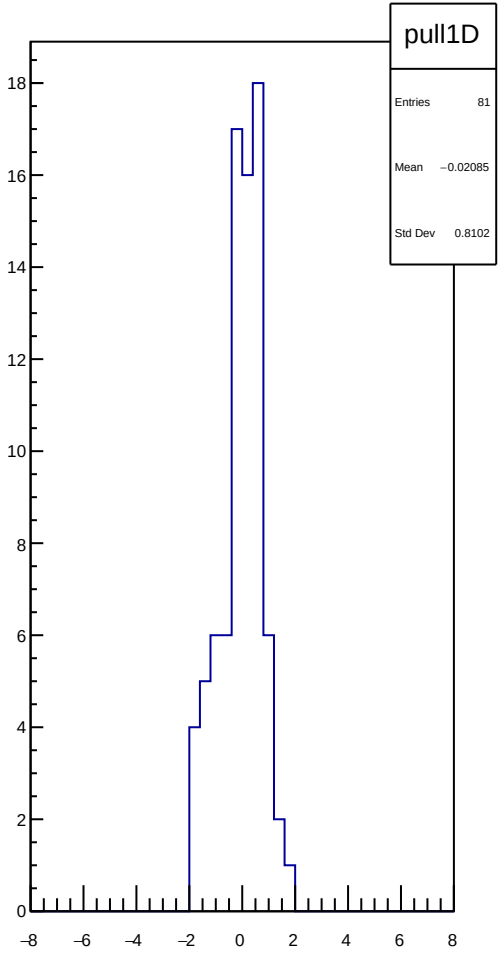

pull1D
Entries 81
Mean 0.01099
Std Dev 1.296

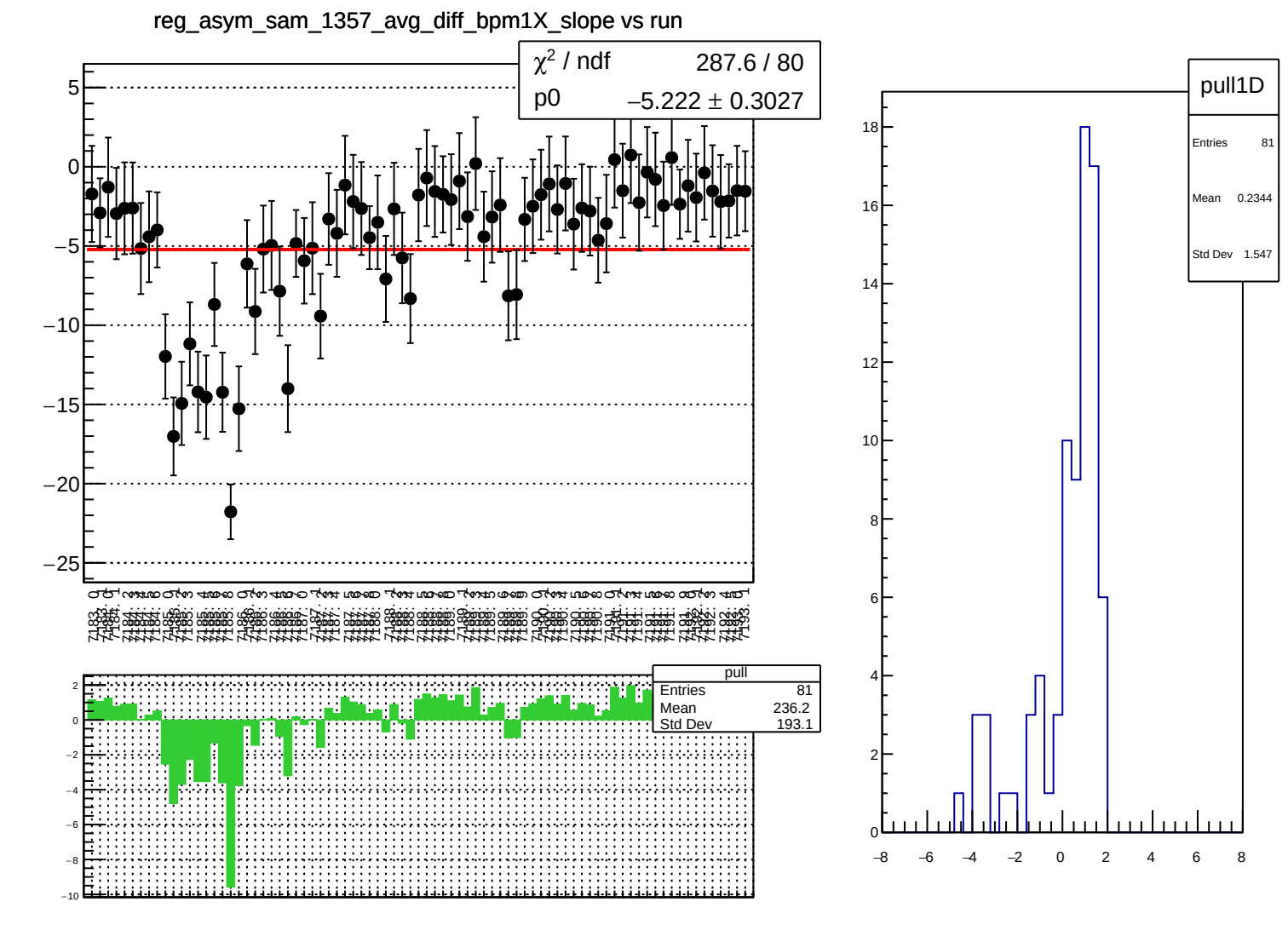

reg_asym_sam_37_26_dd_diff_bpm4eX_slope vs run
χ² / ndf 394.9 / 80
p0 −7.544 ± 0.1042
pull
Entries 81
Mean 376.7
Std Dev 334.3
pull1D
Entries 81
Mean −0.2186
Std Dev 1.897

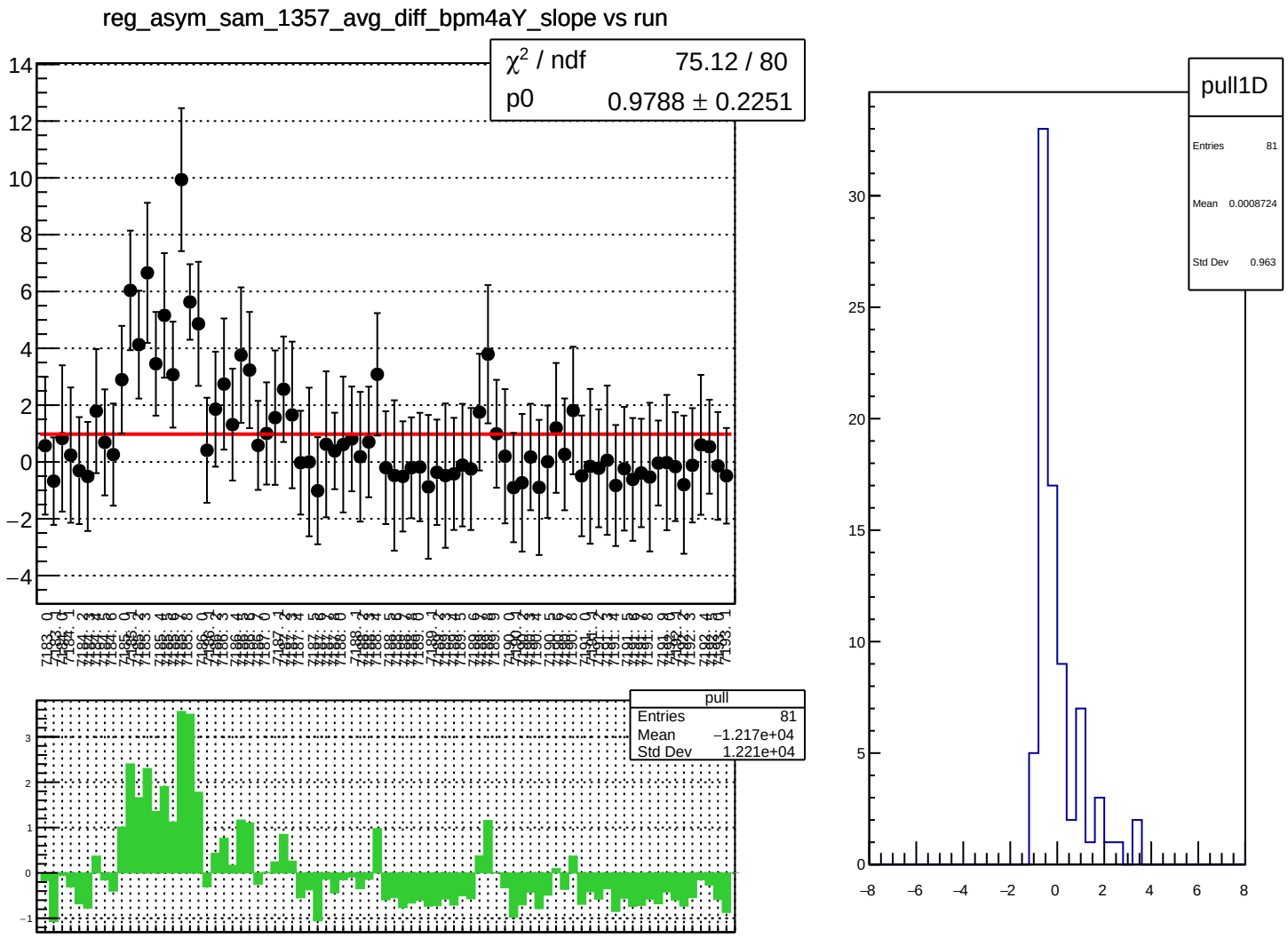

reg_asym_sam_37_26_dd_diff_bpm4eY_slope vs run
χ² / ndf 135.6 / 80
p0 15.31 ± 0.08413
pull
Entries 81
Mean 269.2
Std Dev 229.8

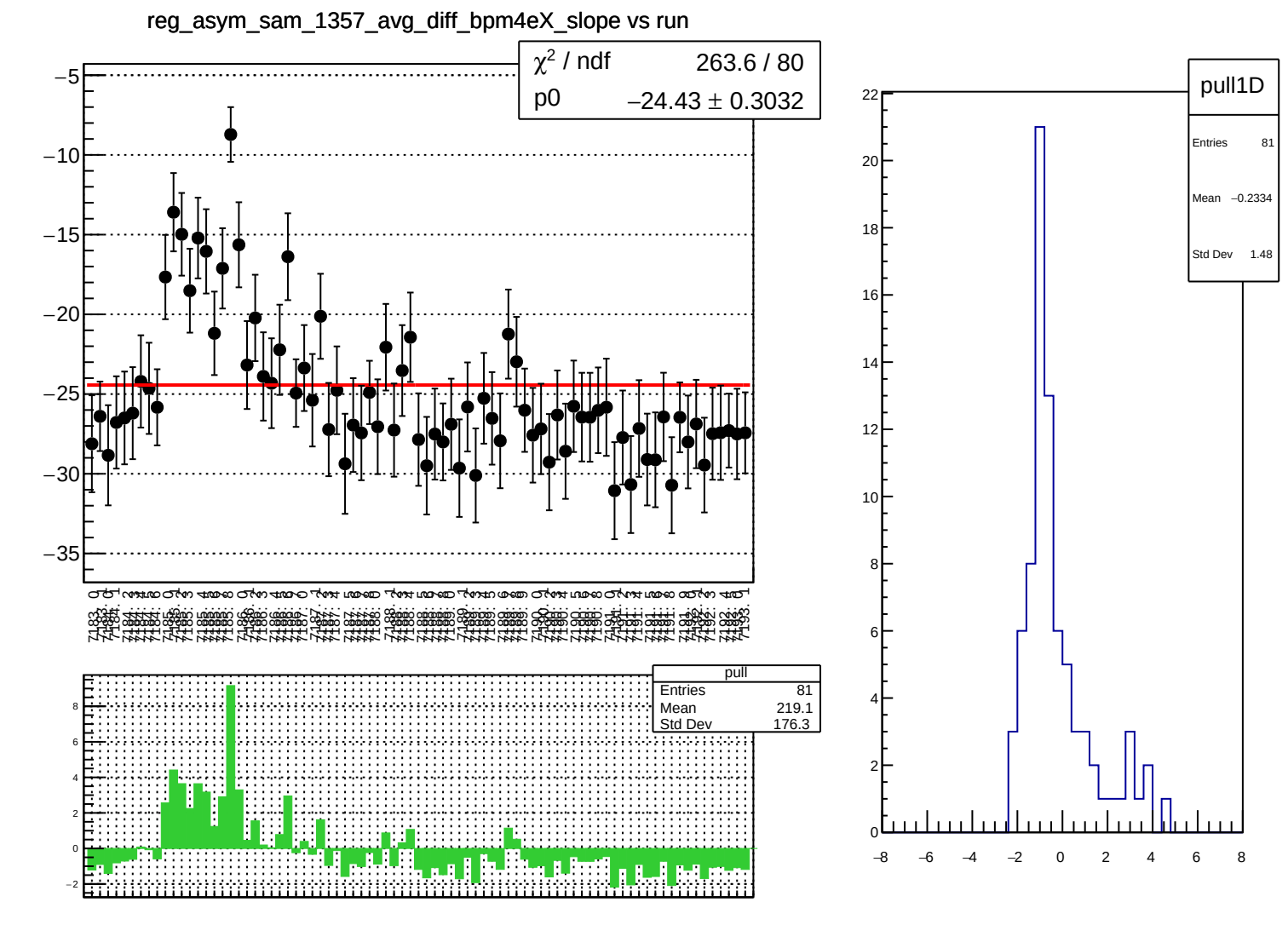

pull1D
Entries 81
Mean 0.04208
Std Dev 1.293

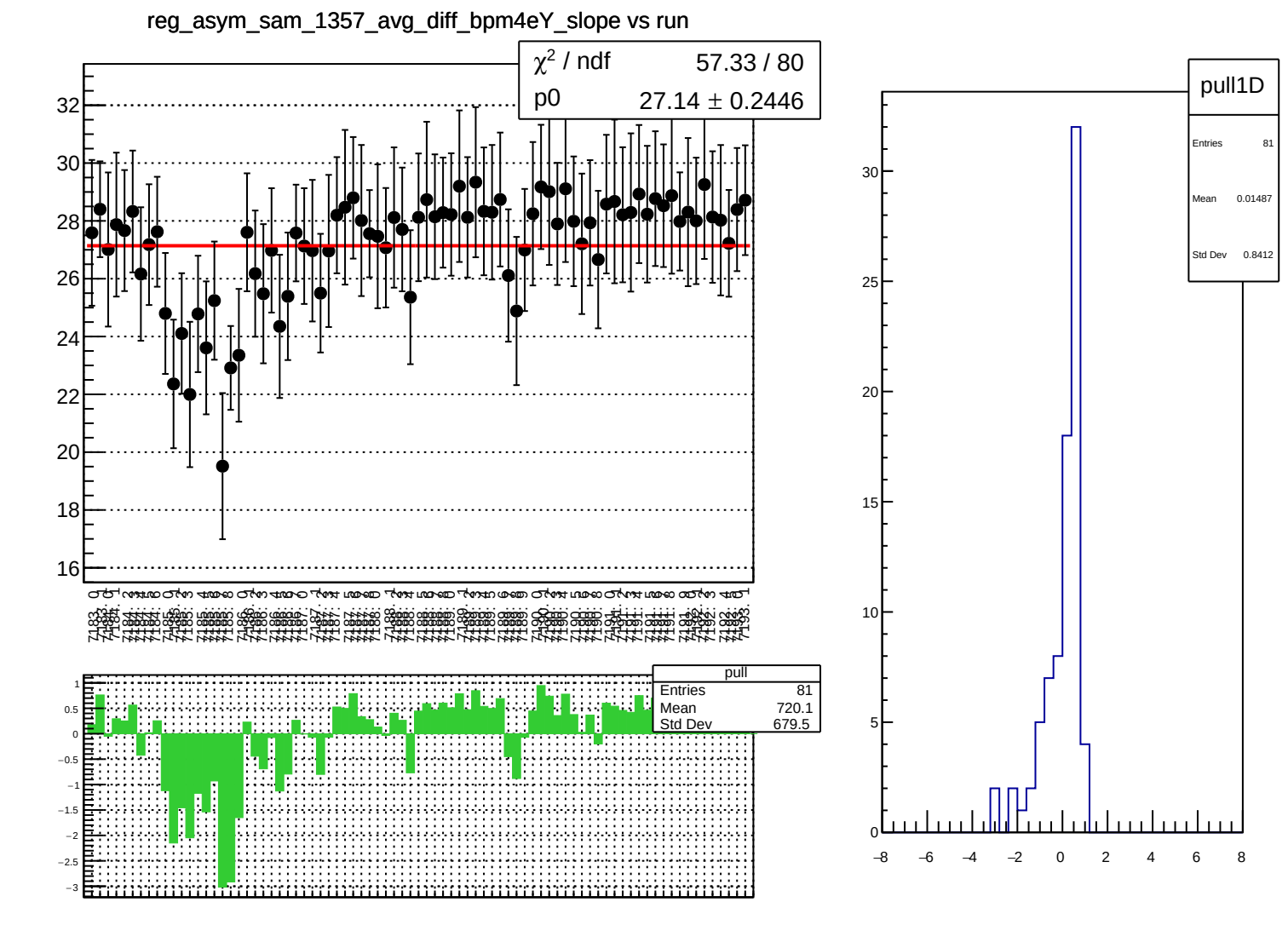

reg_asym_sam_37_26_dd_diff_bpm12X_slope vs run
χ² / ndf 53.21 / 80
p0 −0.03164 ± 0.003794
pull
Entries 81
Mean −637.5
Std Dev 672.7

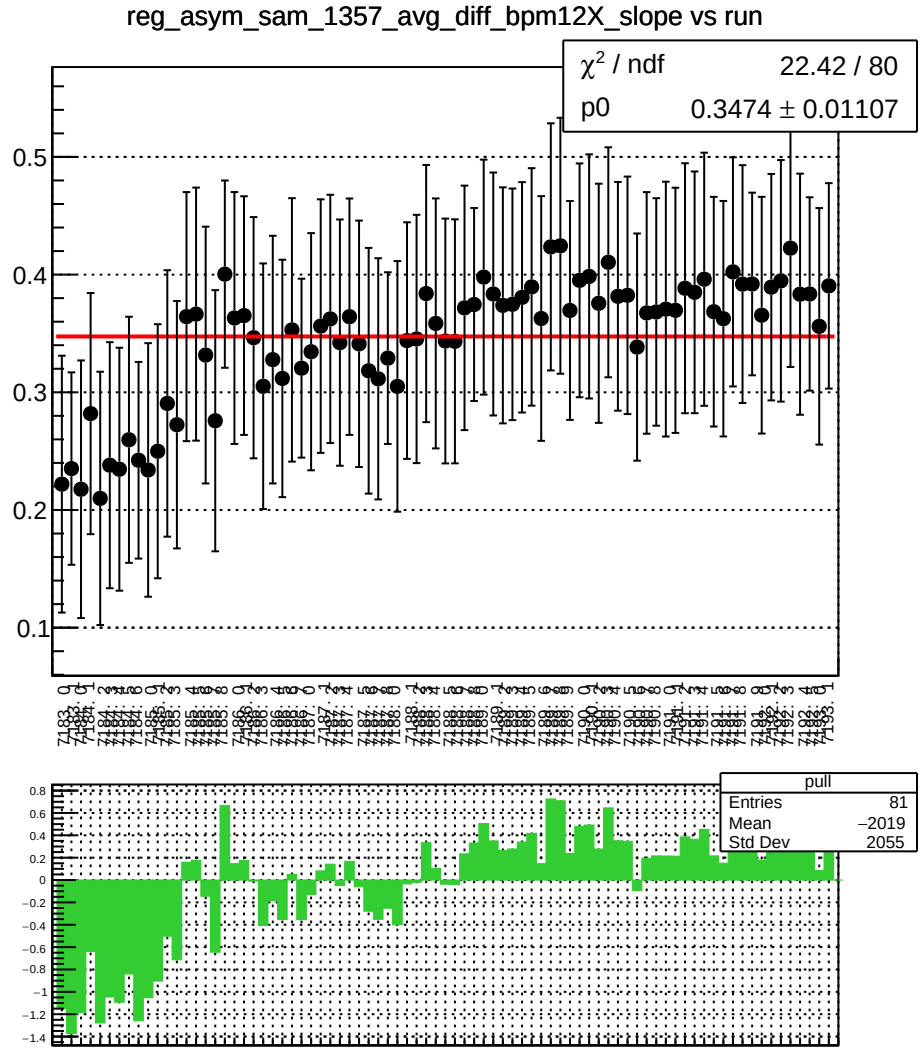

pull1D
Entries 81
Mean −0.02085
Std Dev 0.8102

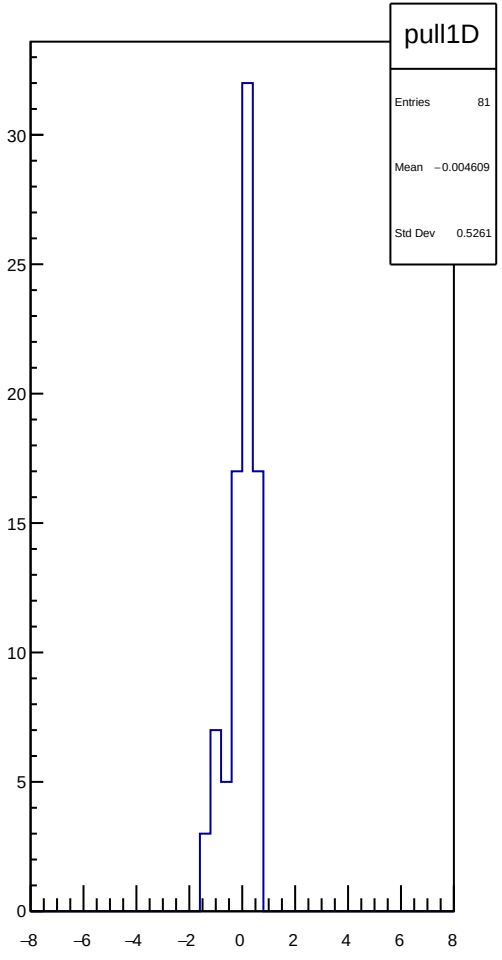

reg_asym_sam_1357_avg_diff_bpm1X_slope vs run
χ² / ndf 287.6 / 80
p0 −5.222 ± 0.3027
pull
Entries 81
Mean 236.2
Std Dev 193.1
pull1D
Entries 81
Mean 0.2344
Std Dev 1.547

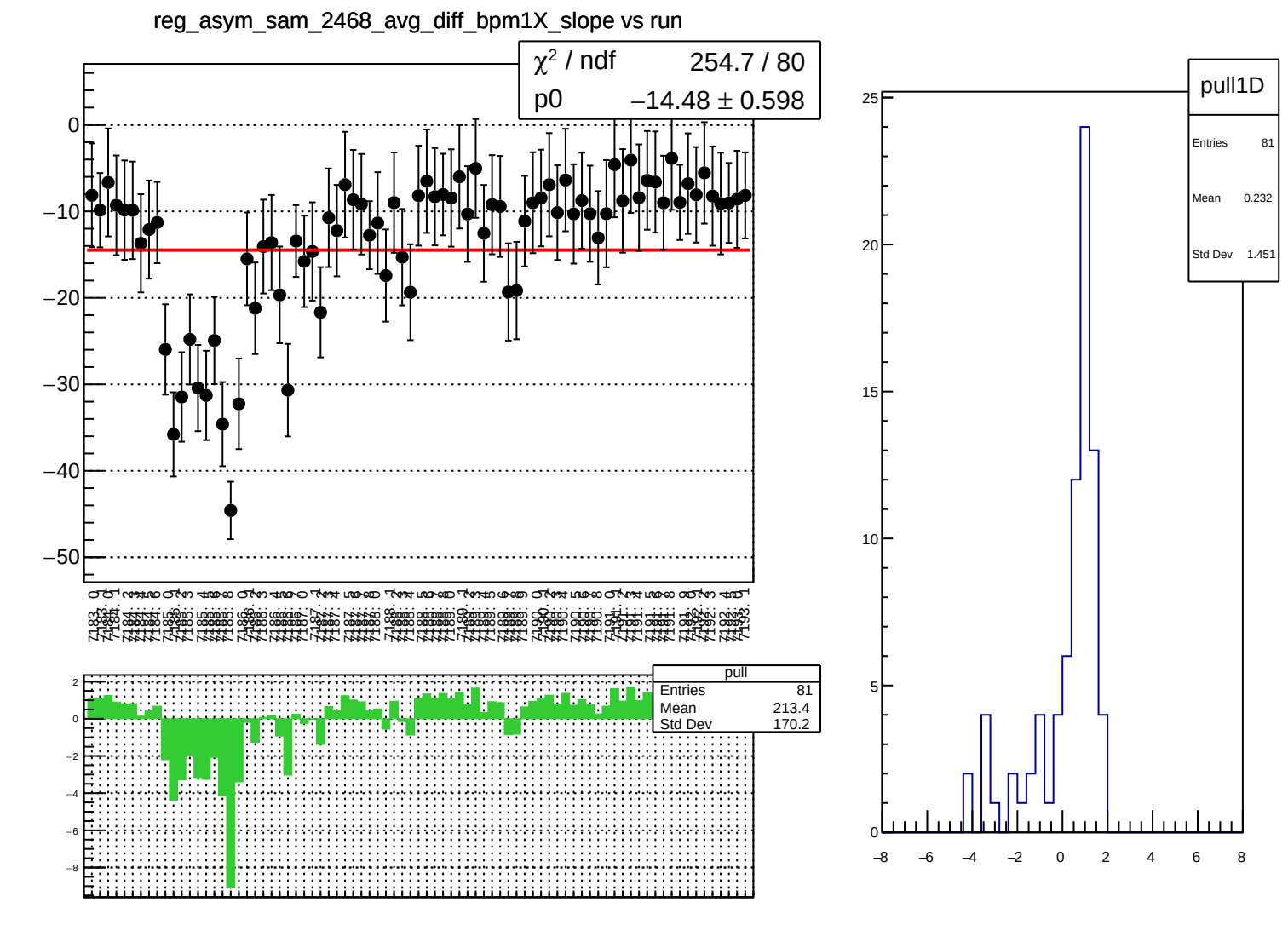

reg_asym_sam_1357_avg_diff_bpm4aY_slope vs run
χ² / ndf 75.12 / 80
p0 0.9788 ± 0.2251
pull
Entries 81
Mean −1.217e+04
Std Dev 1.221e+04
pull1D
Entries 81
Mean 0.0008724
Std Dev 0.963

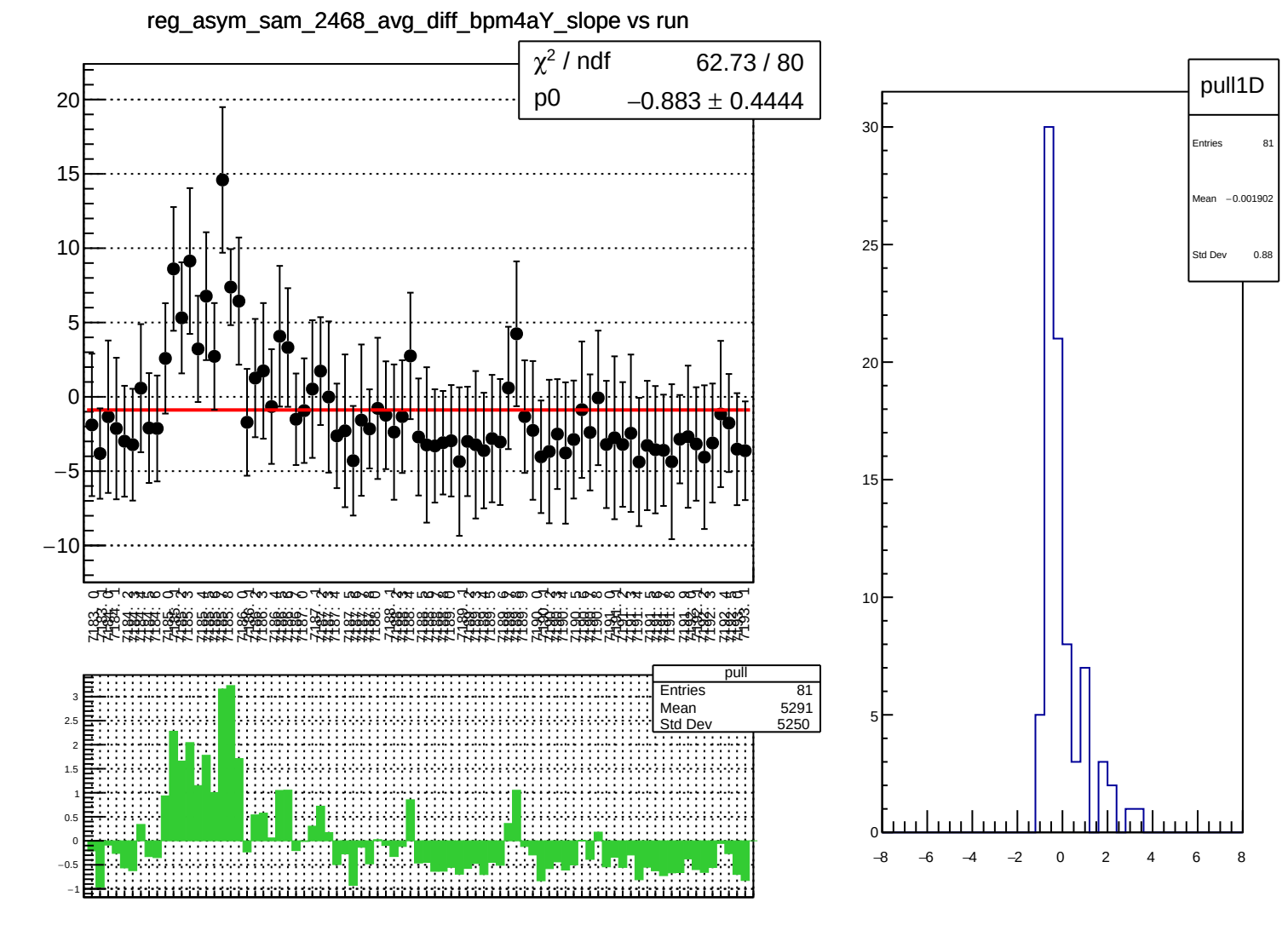

reg_asym_sam_1357_avg_diff_bpm4eX_slope vs run
χ² / ndf 263.6 / 80
p0 −24.43 ± 0.3032
pull
Entries 81
Mean 219.1
Std Dev 176.3
pull1D
Entries 81
Mean −0.2334
Std Dev 1.48

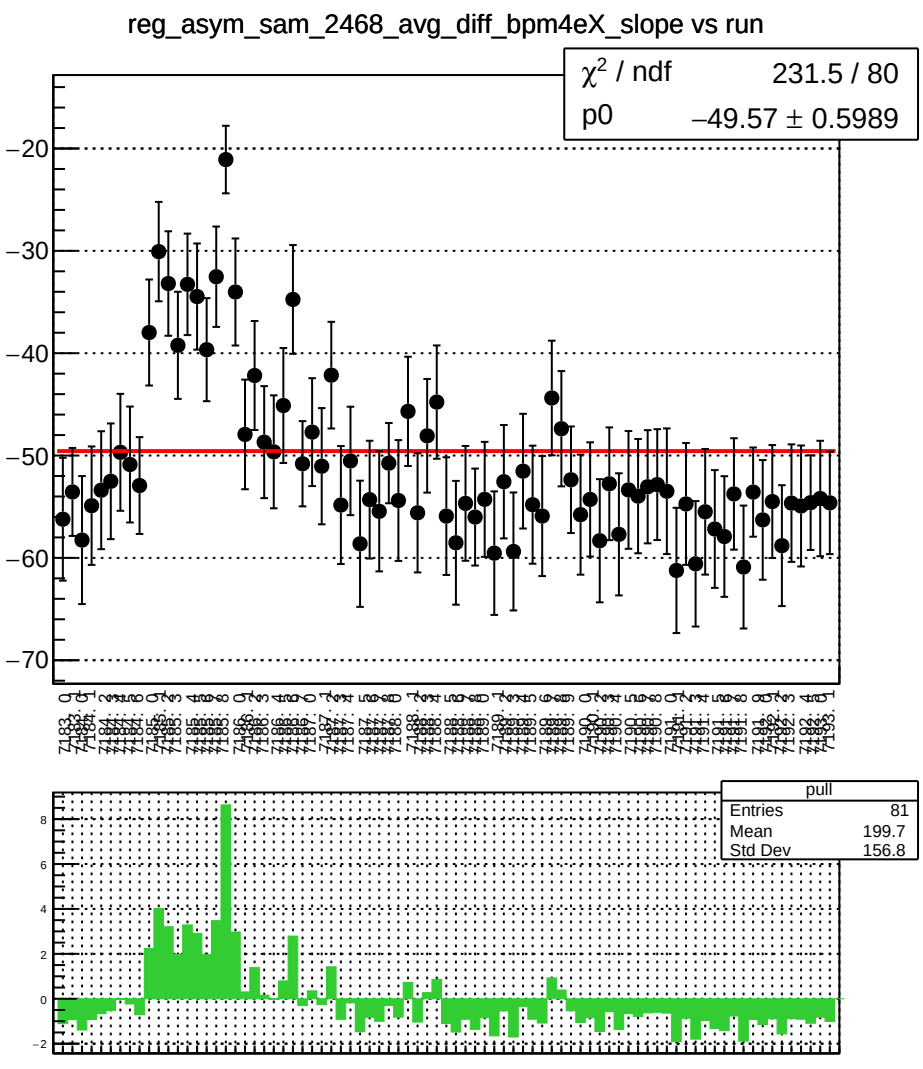

reg_asym_sam_1357_avg_diff_bpm4eY_slope vs run
χ² / ndf 57.33 / 80
p0 27.14 ± 0.2446
pull
Entries 81
Mean 720.1
Std Dev 679.5
pull1D
Entries 81
Mean 0.01487
Std Dev 0.8412

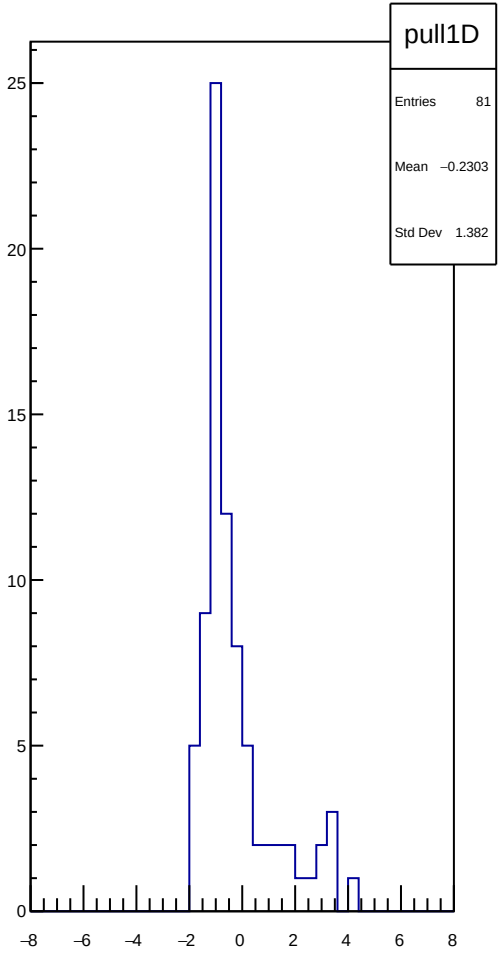

reg_asym_sam_1357_avg_diff_bpm12X_slope vs run
χ² / ndf 22.42 / 80
p0 0.3474 ± 0.01107
pull
Entries 81
Mean −2019
Std Dev 2055

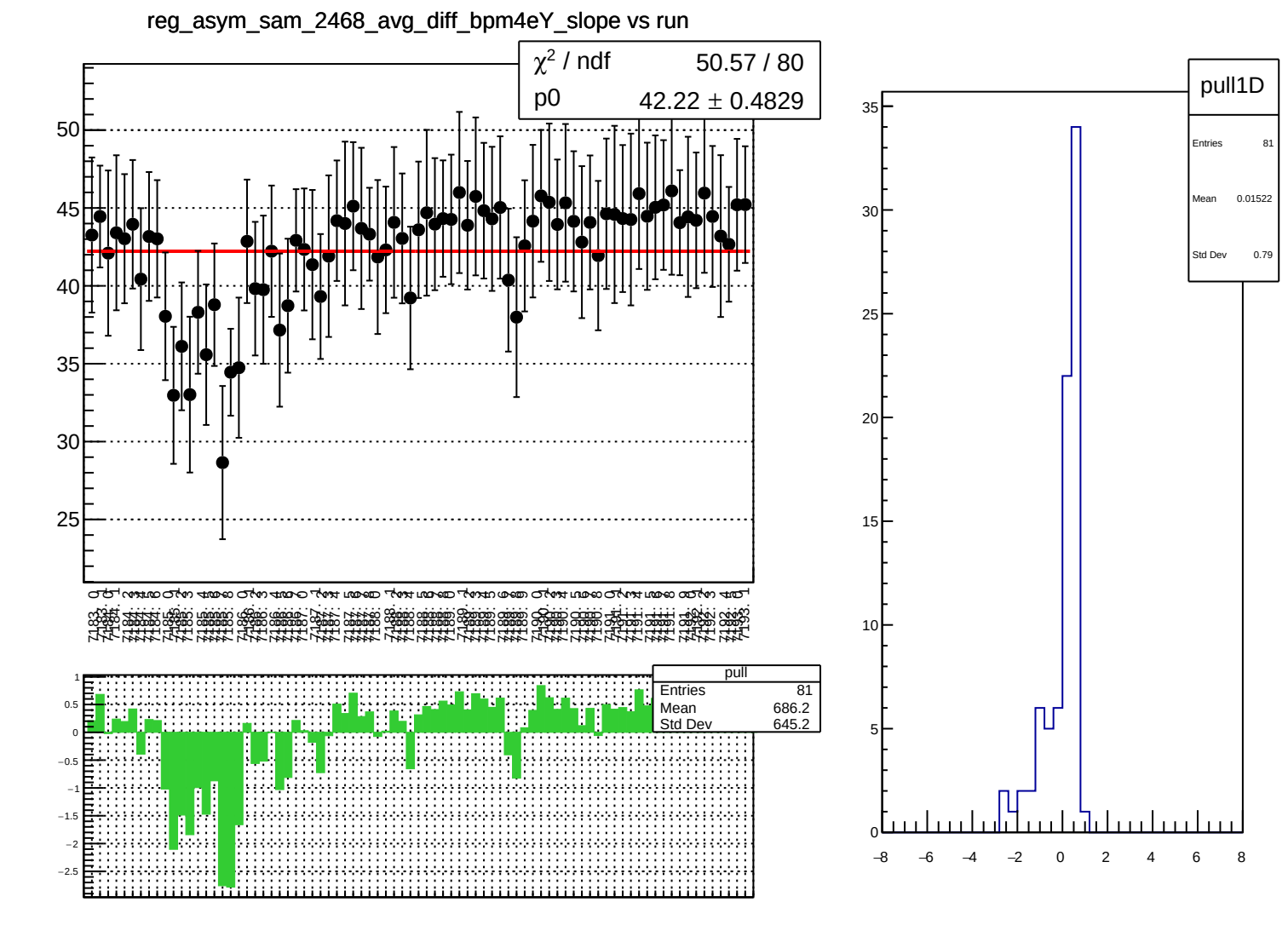

pull1D
Entries 81
Mean −0.004609
Std Dev 0.5261

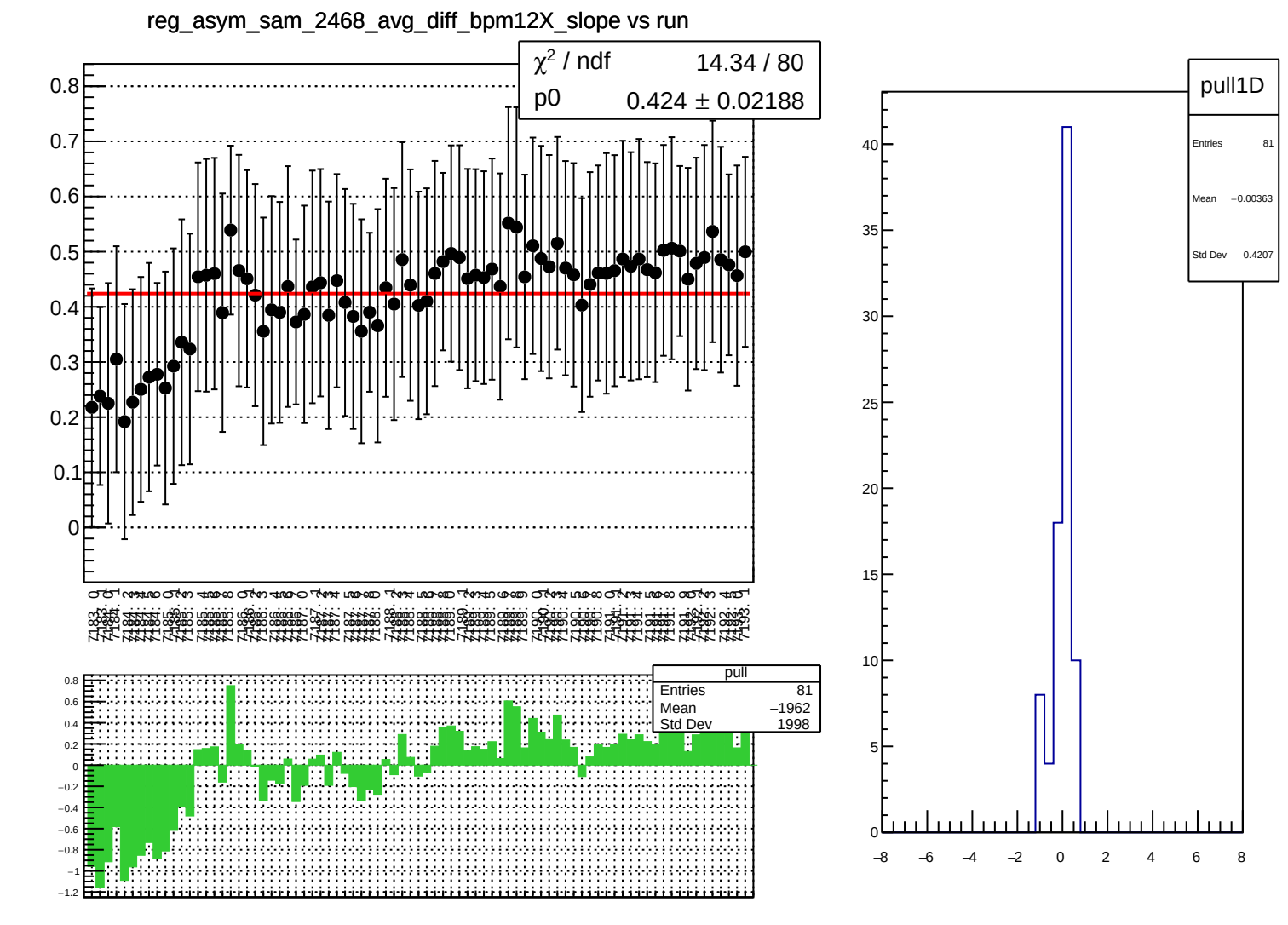

reg_asym_sam_2468_avg_diff_bpm1X_slope vs run
χ² / ndf 254.7 / 80
p0 −14.48 ± 0.598
pull
Entries 81
Mean 213.4
Std Dev 170.2
pull1D
Entries 81
Mean 0.232
Std Dev 1.451

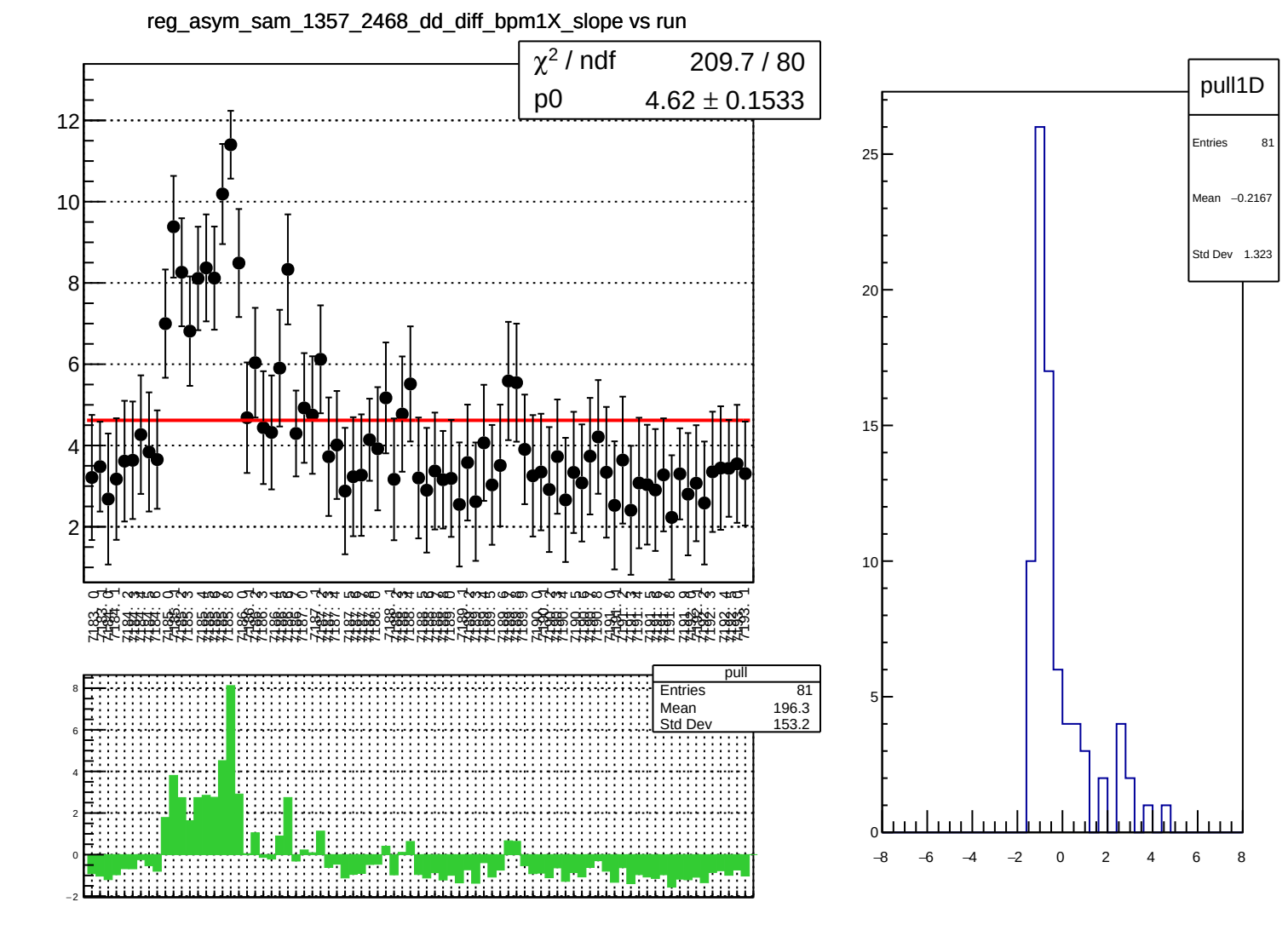

reg_asym_sam_2468_avg_diff_bpm4aY_slope vs run
χ² / ndf 62.73 / 80
p0 −0.883 ± 0.4444
pull
Entries 81
Mean 5291
Std Dev 5250
pull1D
Entries 81
Mean −0.001902
Std Dev 0.88

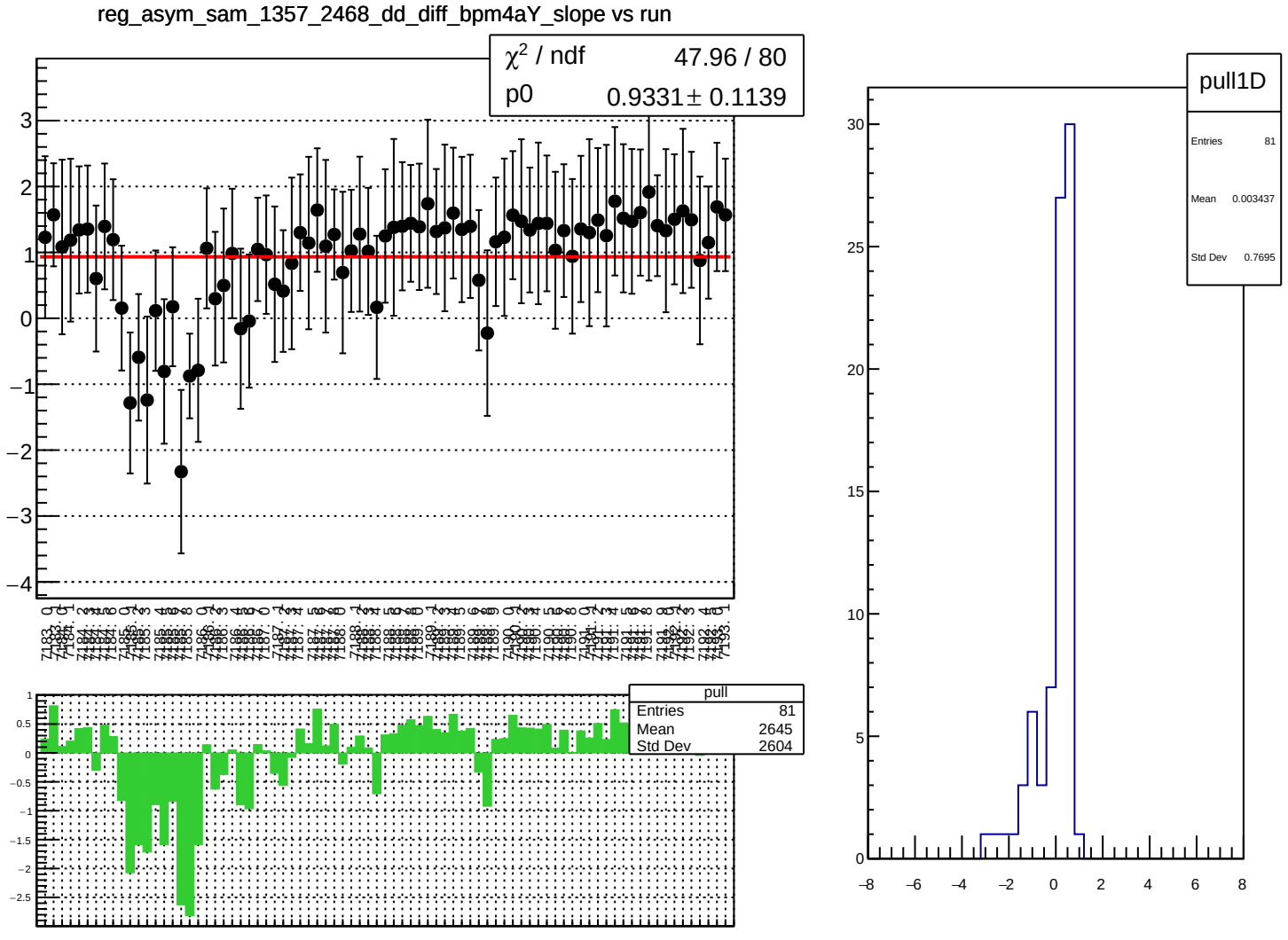

reg_asym_sam_2468_avg_diff_bpm4eX_slope vs run
χ² / ndf 231.5 / 80
p0 −49.57 ± 0.5989
pull
Entries 81
Mean 199.7
Std Dev 156.8

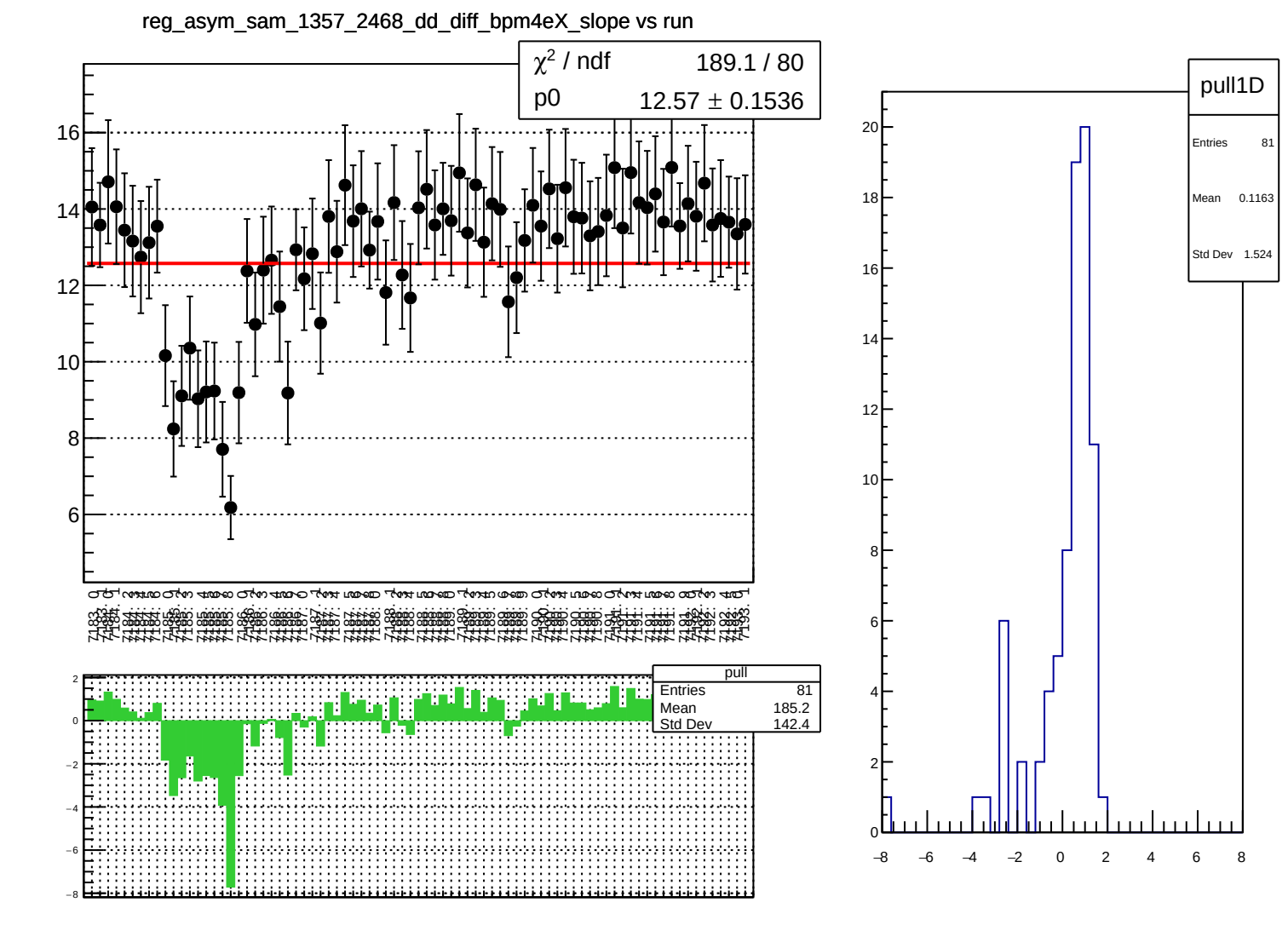

pull1D
Entries 81
Mean −0.2303
Std Dev 1.382

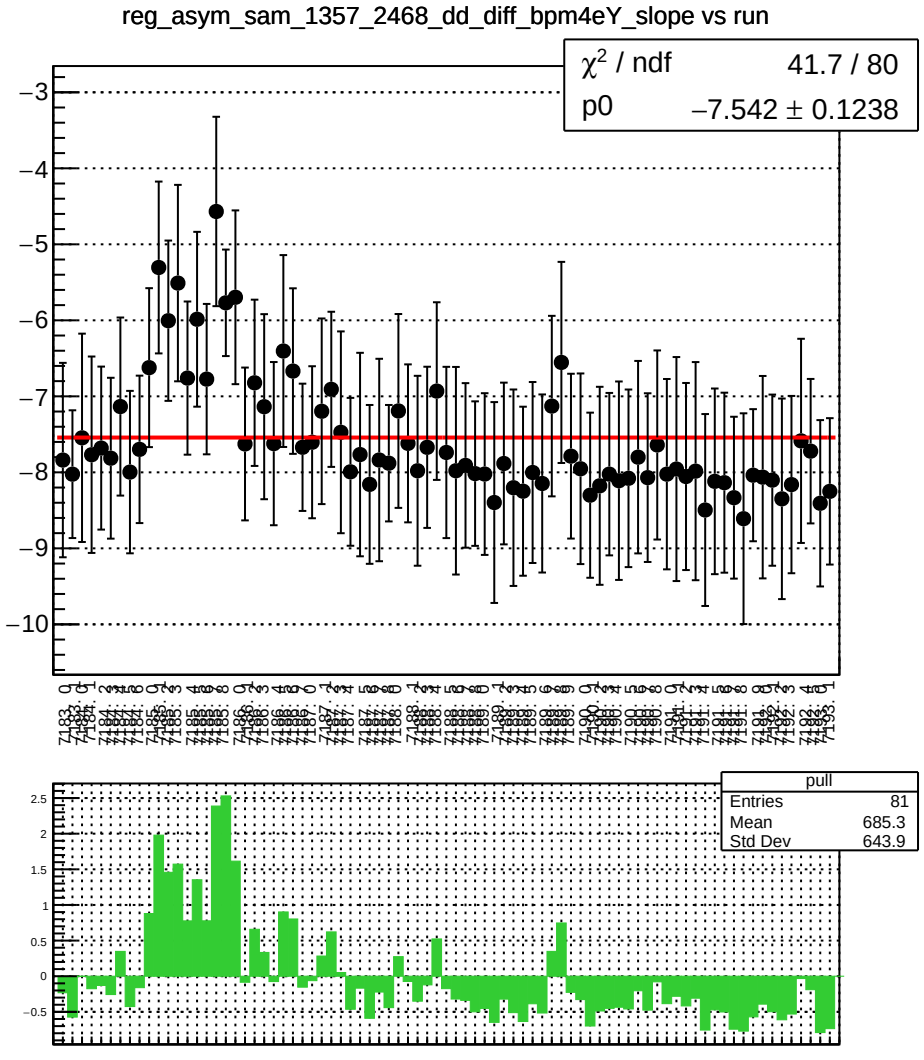

reg_asym_sam_2468_avg_diff_bpm4eY_slope vs run
χ² / ndf 50.57 / 80
p0 42.22 ± 0.4829
pull
Entries 81
Mean 686.2
Std Dev 645.2
pull1D
Entries 81
Mean 0.01522
Std Dev 0.79

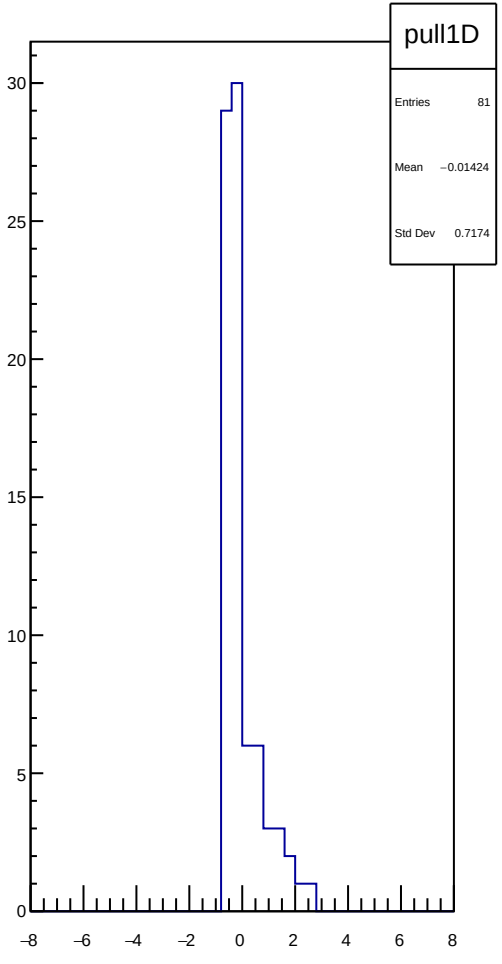

reg_asym_sam_2468_avg_diff_bpm12X_slope vs run
χ² / ndf 14.34 / 80
p0 0.424 ± 0.02188
pull
Entries 81
Mean −1962
Std Dev 1998
pull1D
Entries 81
Mean −0.00363
Std Dev 0.4207

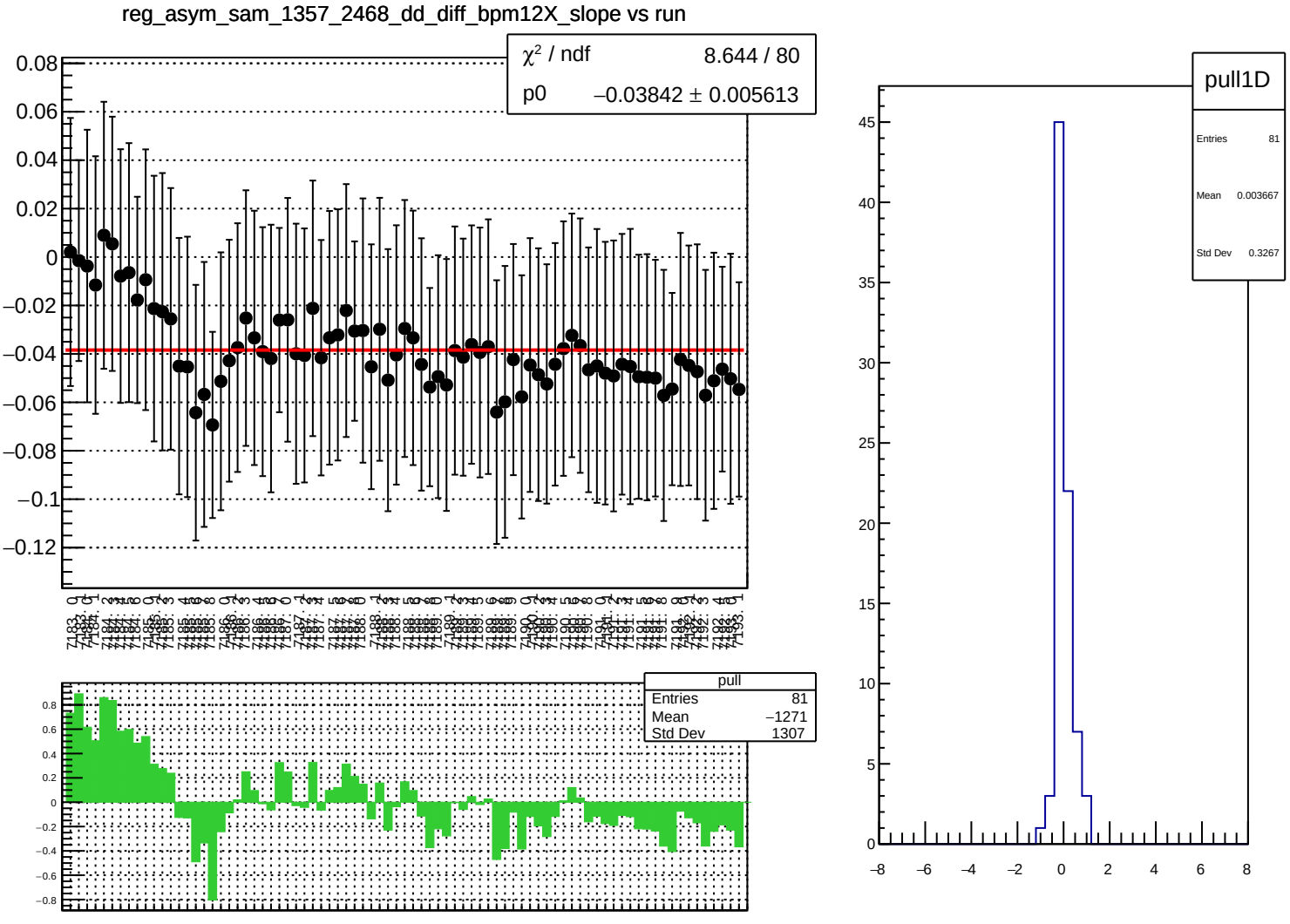

reg_asym_sam_1357_2468_dd_diff_bpm1X_slope vs run
χ² / ndf 209.7 / 80
p0 4.62 ± 0.1533
pull
Entries 81
Mean 196.3
Std Dev 153.2
pull1D
Entries 81
Mean −0.2167
Std Dev 1.323

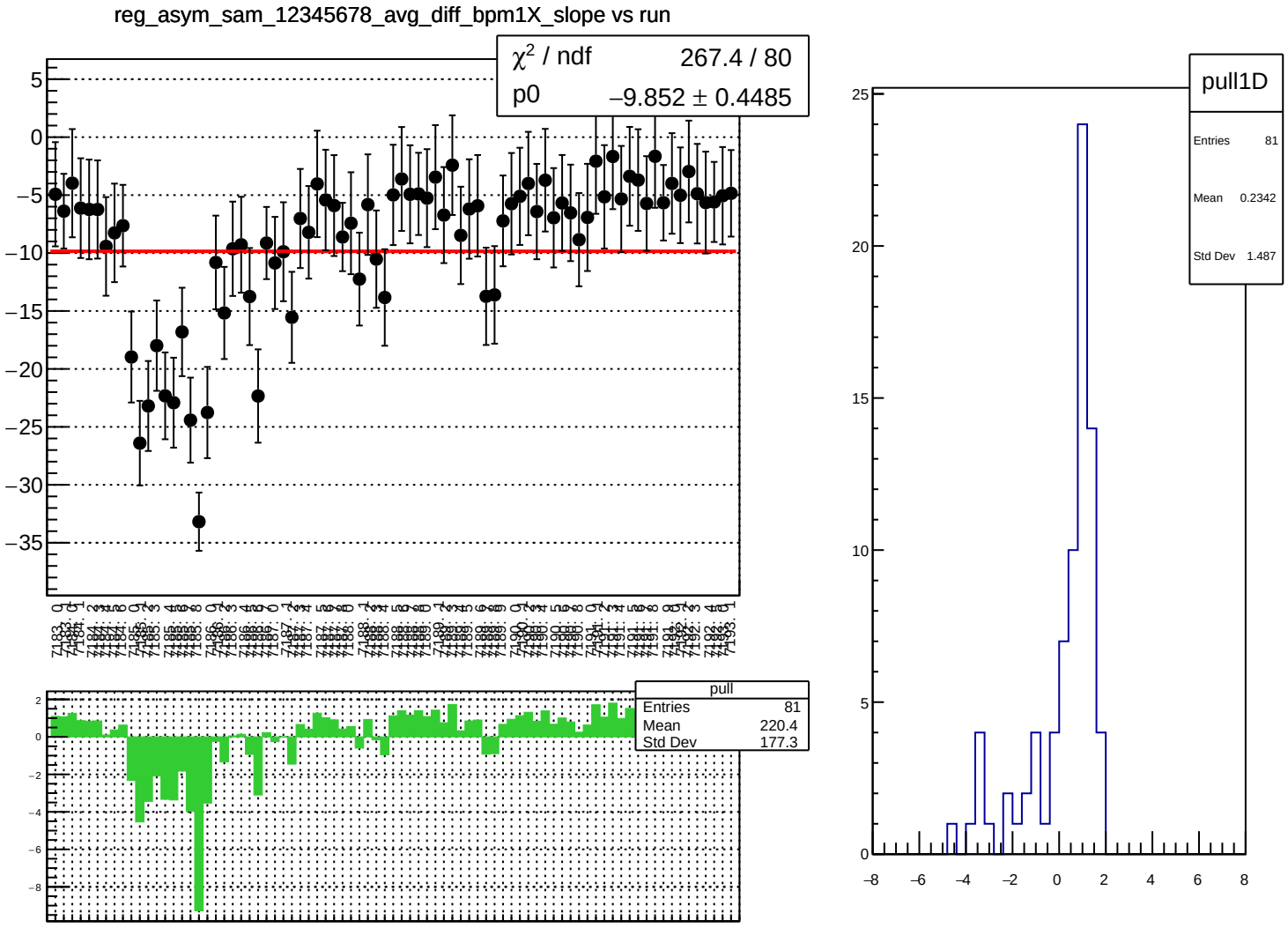

reg_asym_sam_1357_2468_dd_diff_bpm4aY_slope vs run
χ² / ndf 47.96 / 80
p0 0.9331 ± 0.1139
pull
Entries 81
Mean 2645
Std Dev 2604
pull1D
Entries 81
Mean 0.003437
Std Dev 0.7695

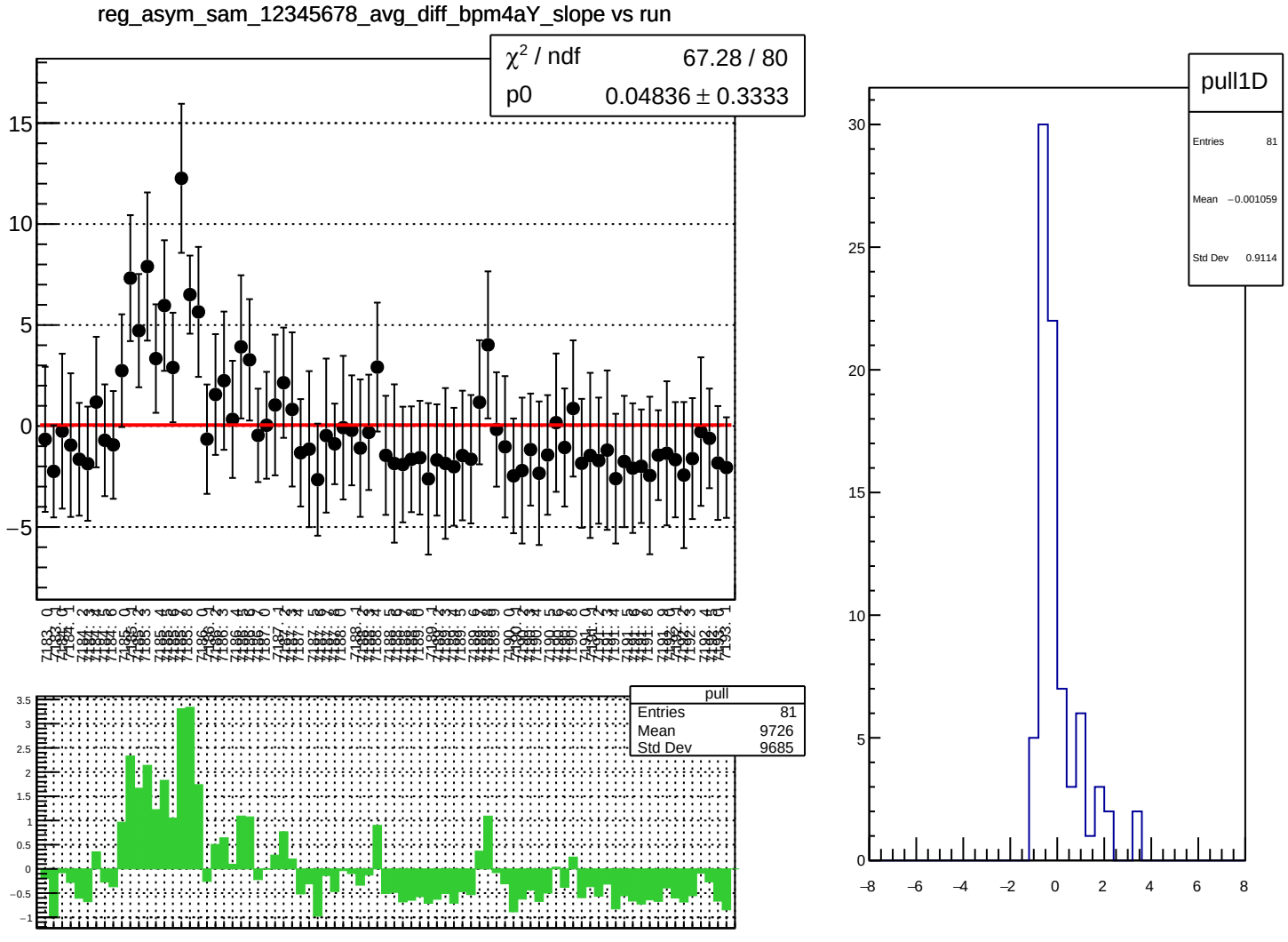

reg_asym_sam_1357_2468_dd_diff_bpm4eX_slope vs run
χ² / ndf 189.1 / 80
p0 12.57 ± 0.1536
pull
Entries 81
Mean 185.2
Std Dev 142.4
pull1D
Entries 81
Mean 0.1163
Std Dev 1.524

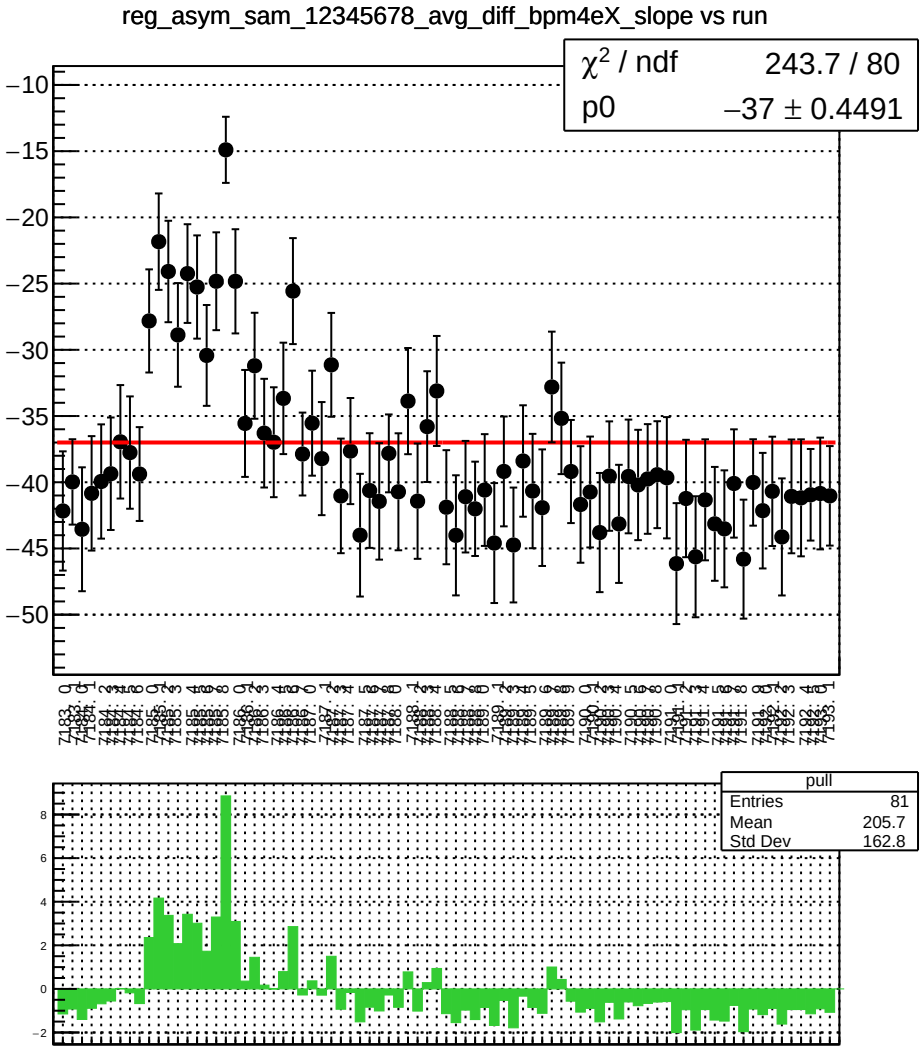

reg_asym_sam_1357_2468_dd_diff_bpm4eY_slope vs run
χ^2 / ndf 41.7 / 80
p0 −7.542 ± 0.1238
pull
Entries 81
Mean 685.3
Std Dev 643.9

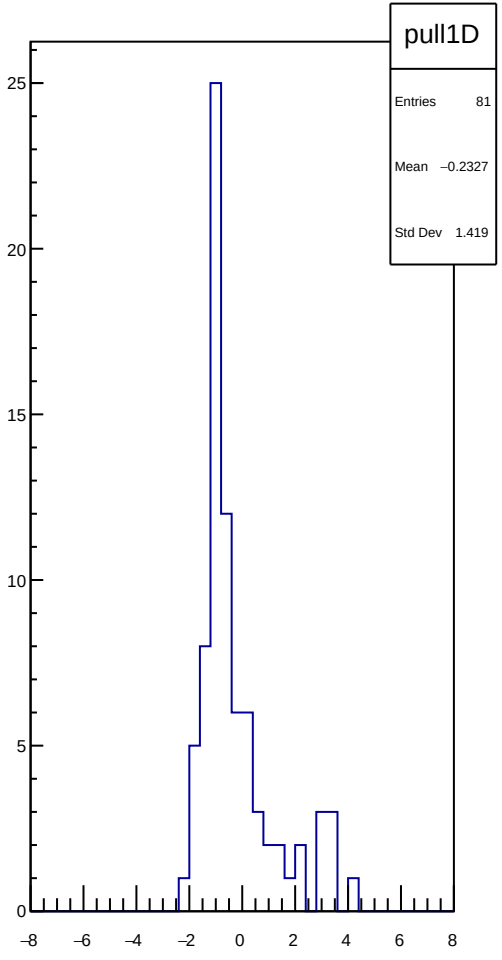

pull1D
Entries 81
Mean −0.01424
Std Dev 0.7174

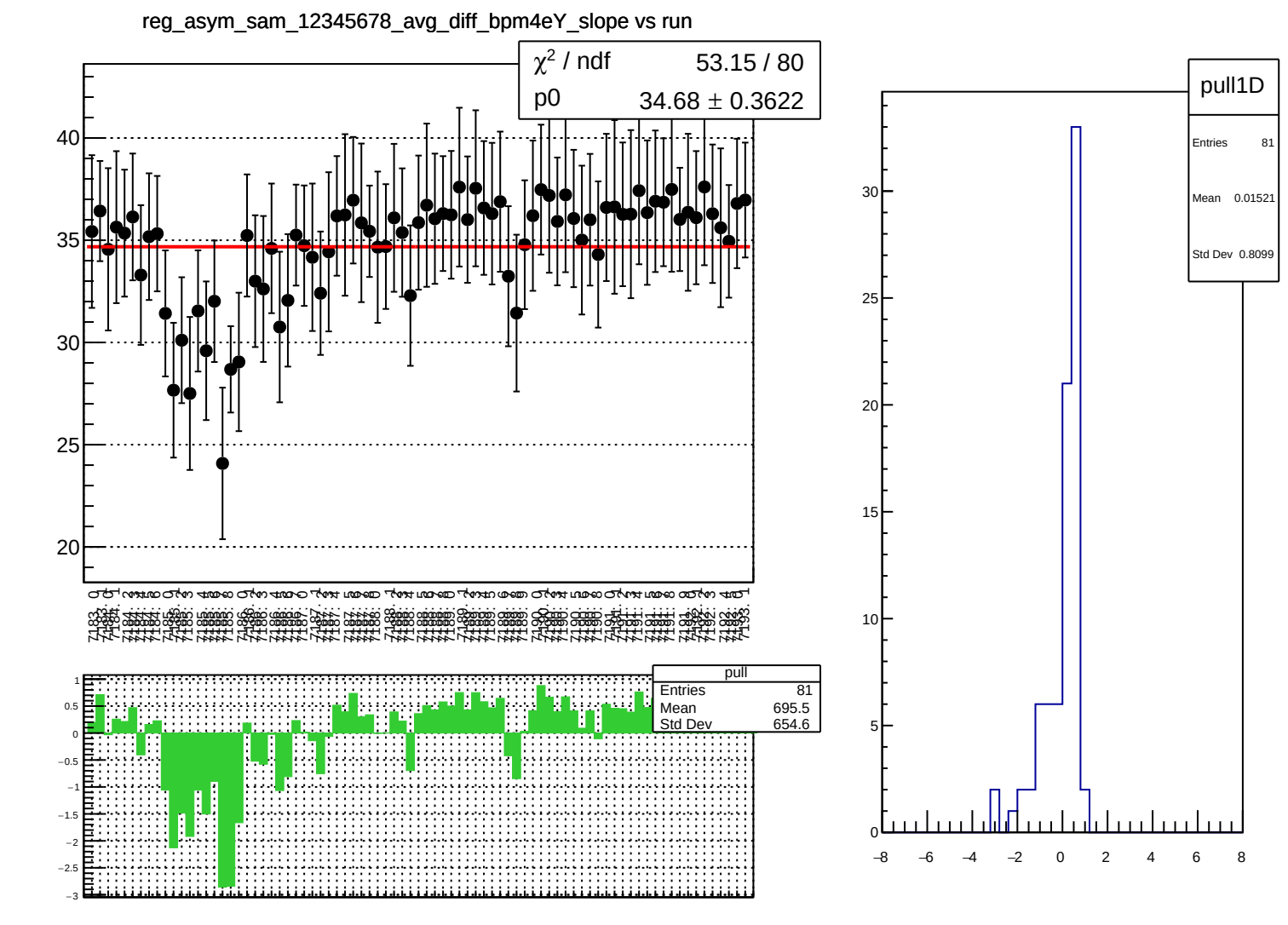

reg_asym_sam_1357_2468_dd_diff_bpm12X_slope vs run
χ² / ndf 8.644 / 80
p0 −0.03842 ± 0.005613
pull
Entries 81
Mean −1271
Std Dev 1307
pull1D
Entries 81
Mean 0.003667
Std Dev 0.3267

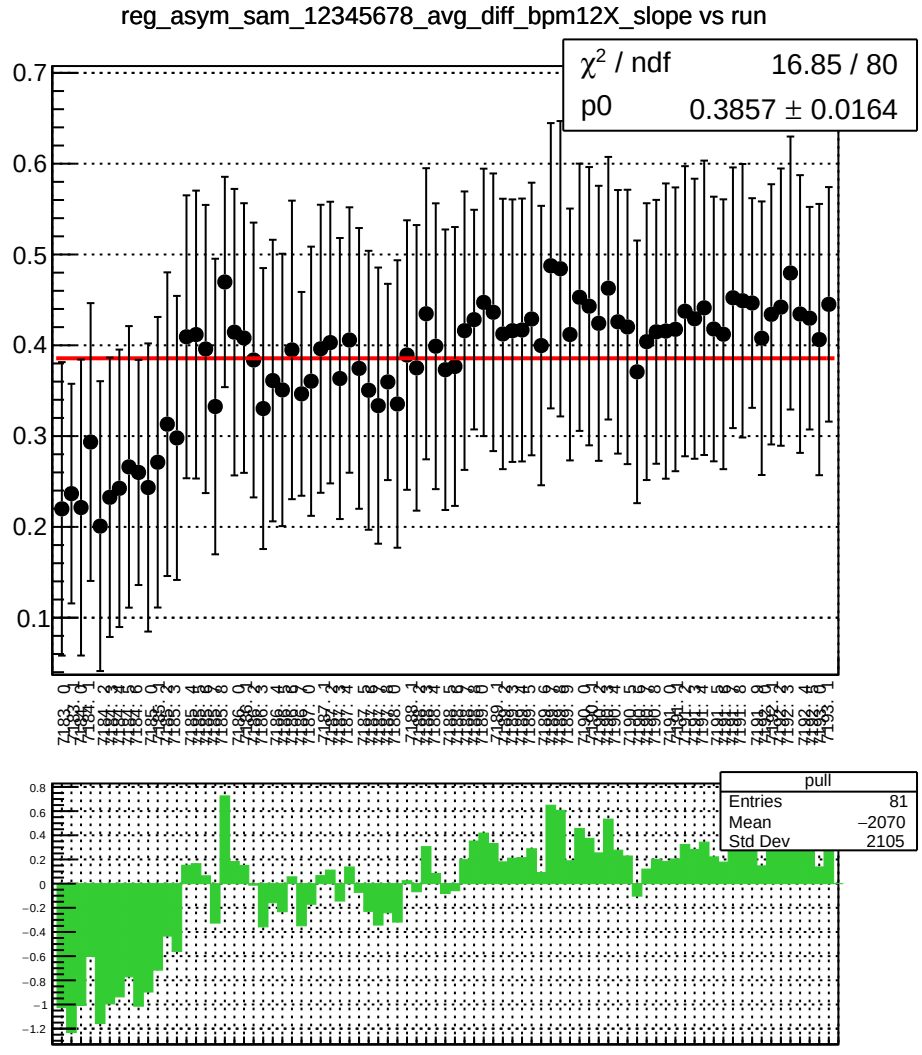

reg_asym_sam_12345678_avg_diff_bpm1X_slope vs run
χ² / ndf 267.4 / 80
p0 −9.852 ± 0.4485
pull
Entries 81
Mean 220.4
Std Dev 177.3
pull1D
Entries 81
Mean 0.2342
Std Dev 1.487

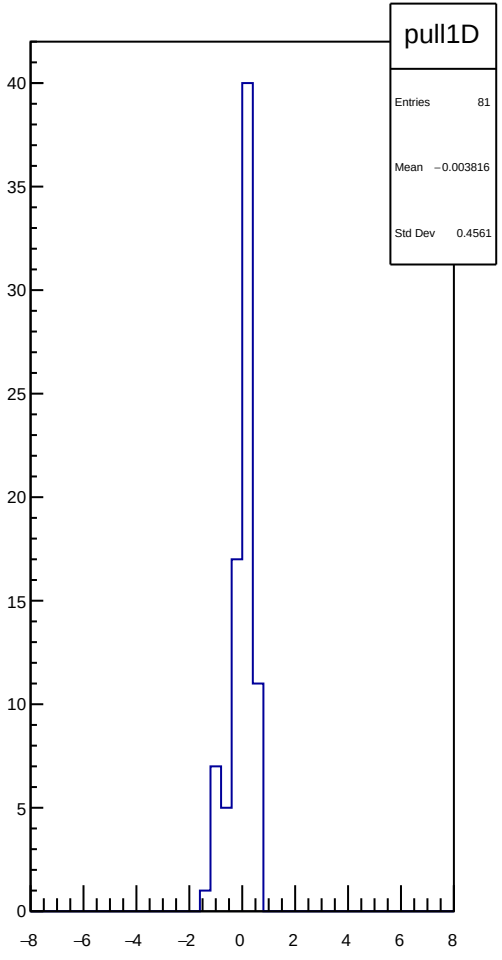

reg_asym_sam_12345678_avg_diff_bpm4aY_slope vs run
χ² / ndf 67.28 / 80
p0 0.04836 ± 0.3333
pull
Entries 81
Mean 9726
Std Dev 9685
pull1D
Entries 81
Mean −0.001059
Std Dev 0.9114

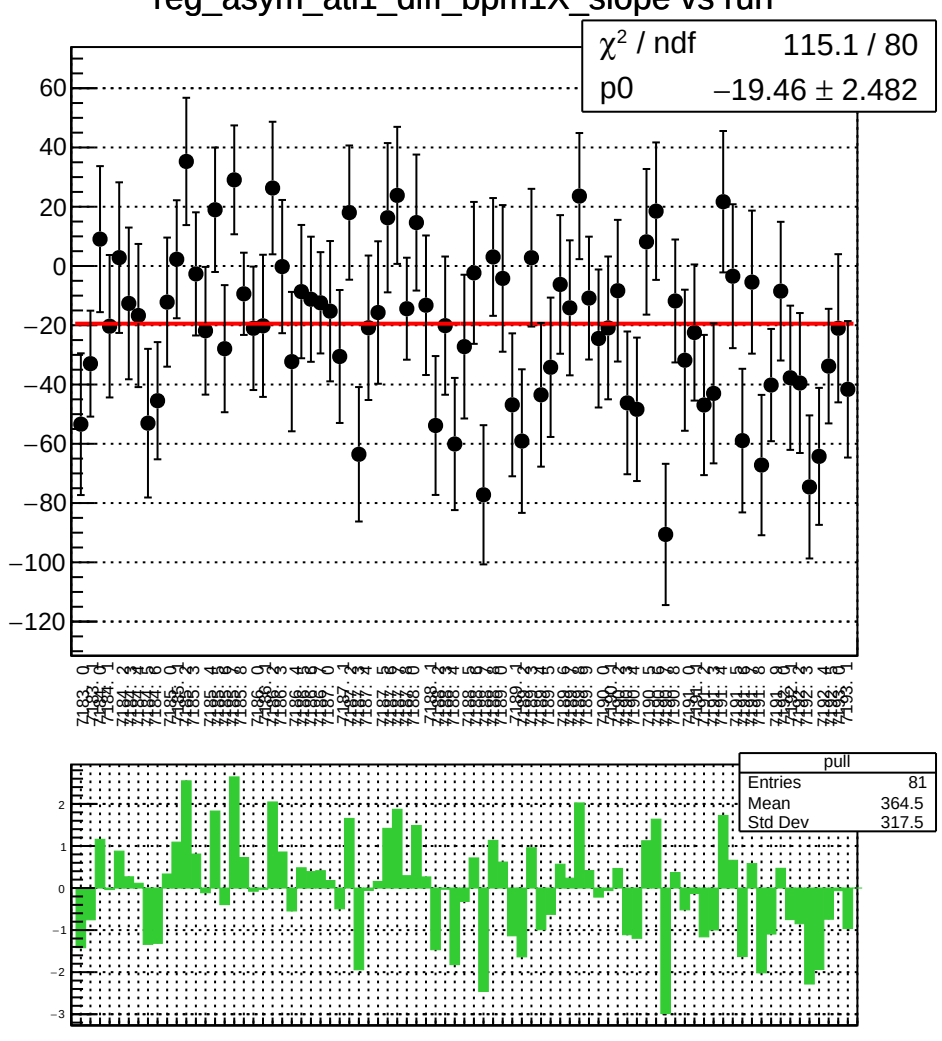

reg_asym_sam_12345678_avg_diff_bpm4eX_slope vs run
χ² / ndf 243.7 / 80
p0 −37 ± 0.4491
pull
Entries 81
Mean 205.7
Std Dev 162.8

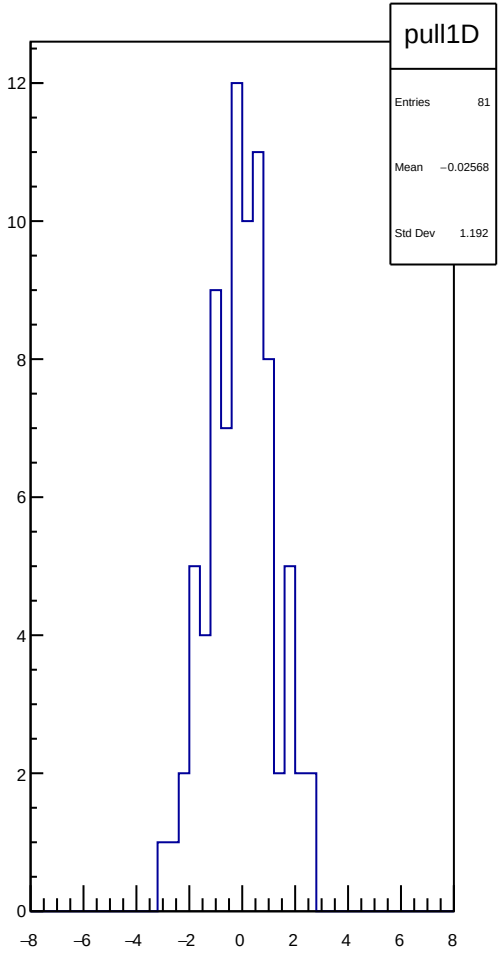

pull1D
Entries 81
Mean −0.2327
Std Dev 1.419

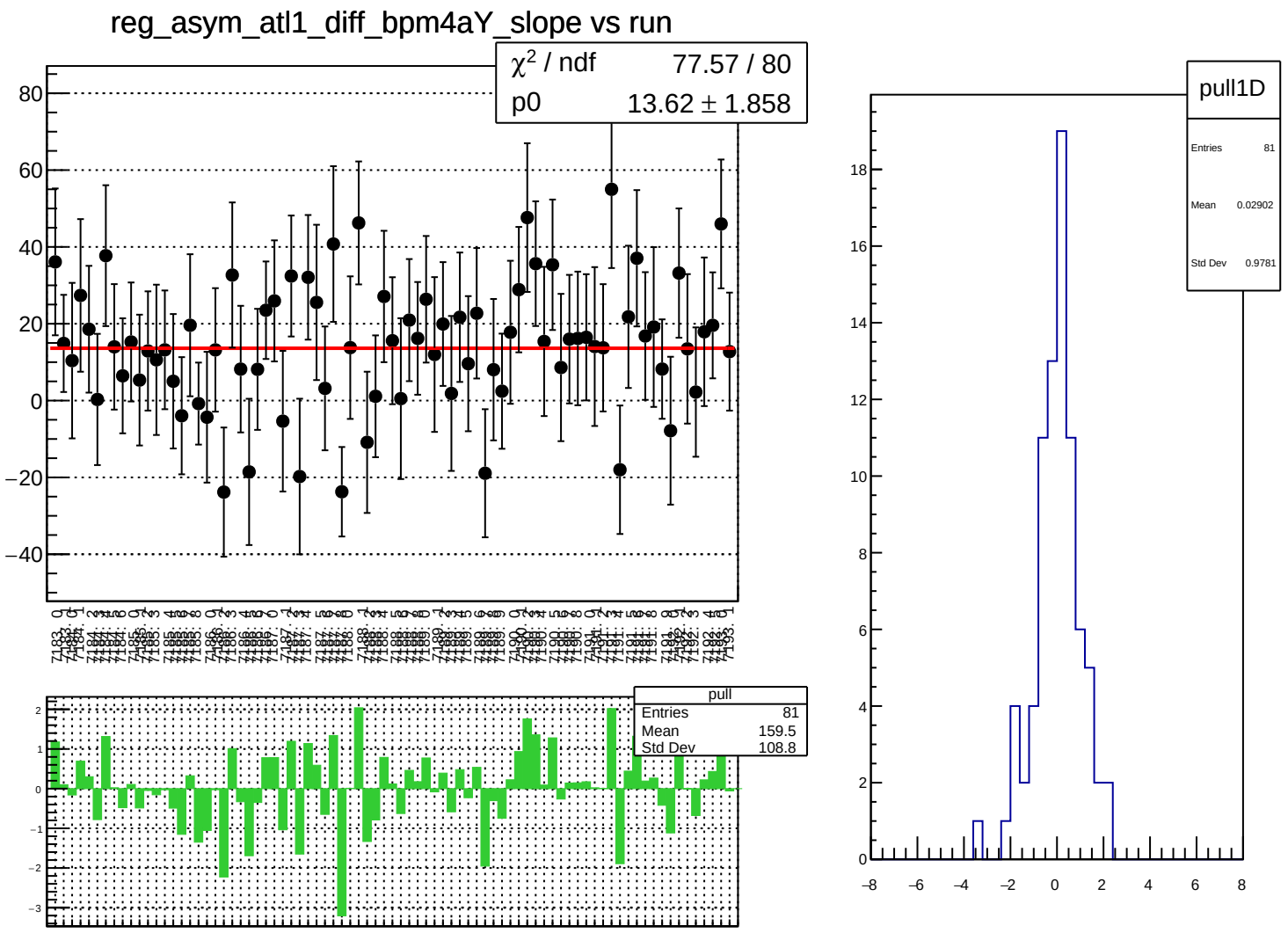

reg_asym_sam_12345678_avg_diff_bpm4eY_slope vs run
χ² / ndf 53.15 / 80
p0 34.68 ± 0.3622
pull
Entries 81
Mean 695.5
Std Dev 654.6
pull1D
Entries 81
Mean 0.01521
Std Dev 0.8099

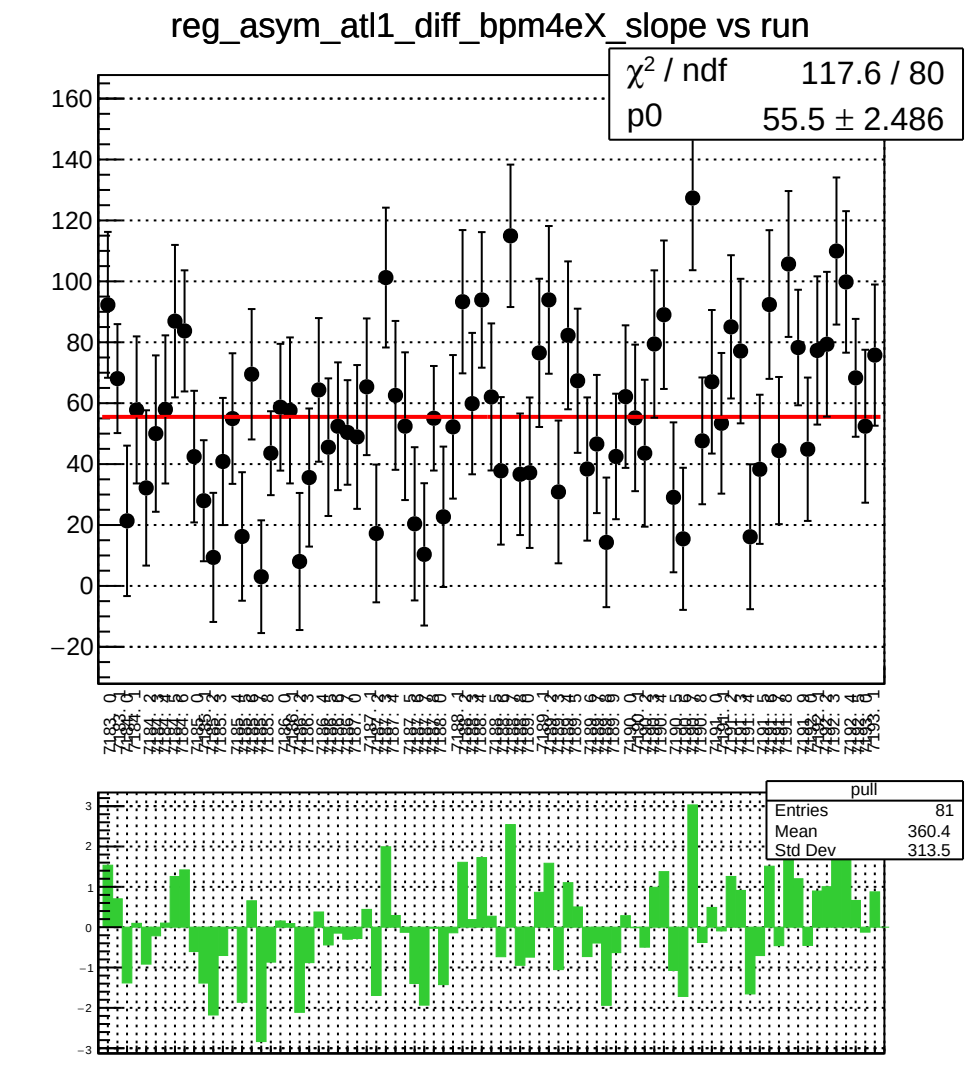

reg_asym_sam_12345678_avg_diff_bpm12X_slope vs run
χ² / ndf 16.85 / 80
p0 0.3857 ± 0.0164
pull
Entries 81
Mean −2070
Std Dev 2105

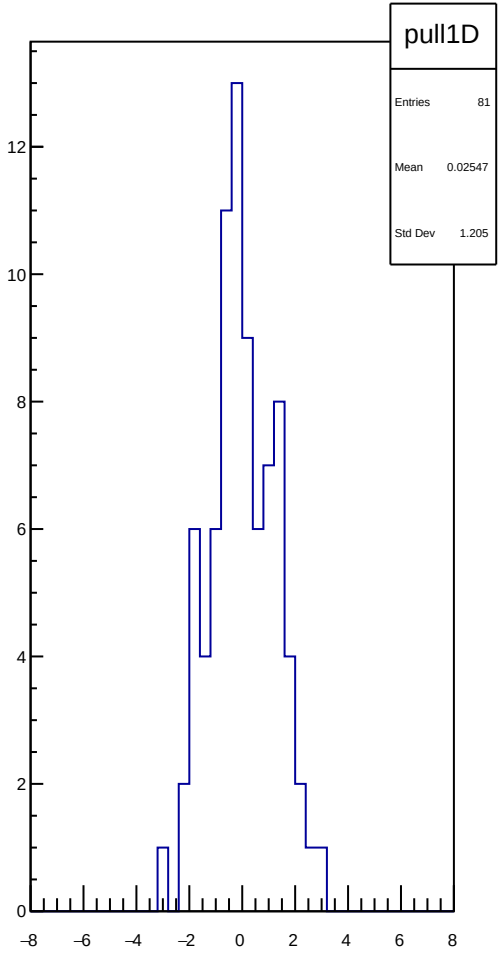

pull1D
Entries 81
Mean −0.003816
Std Dev 0.4561

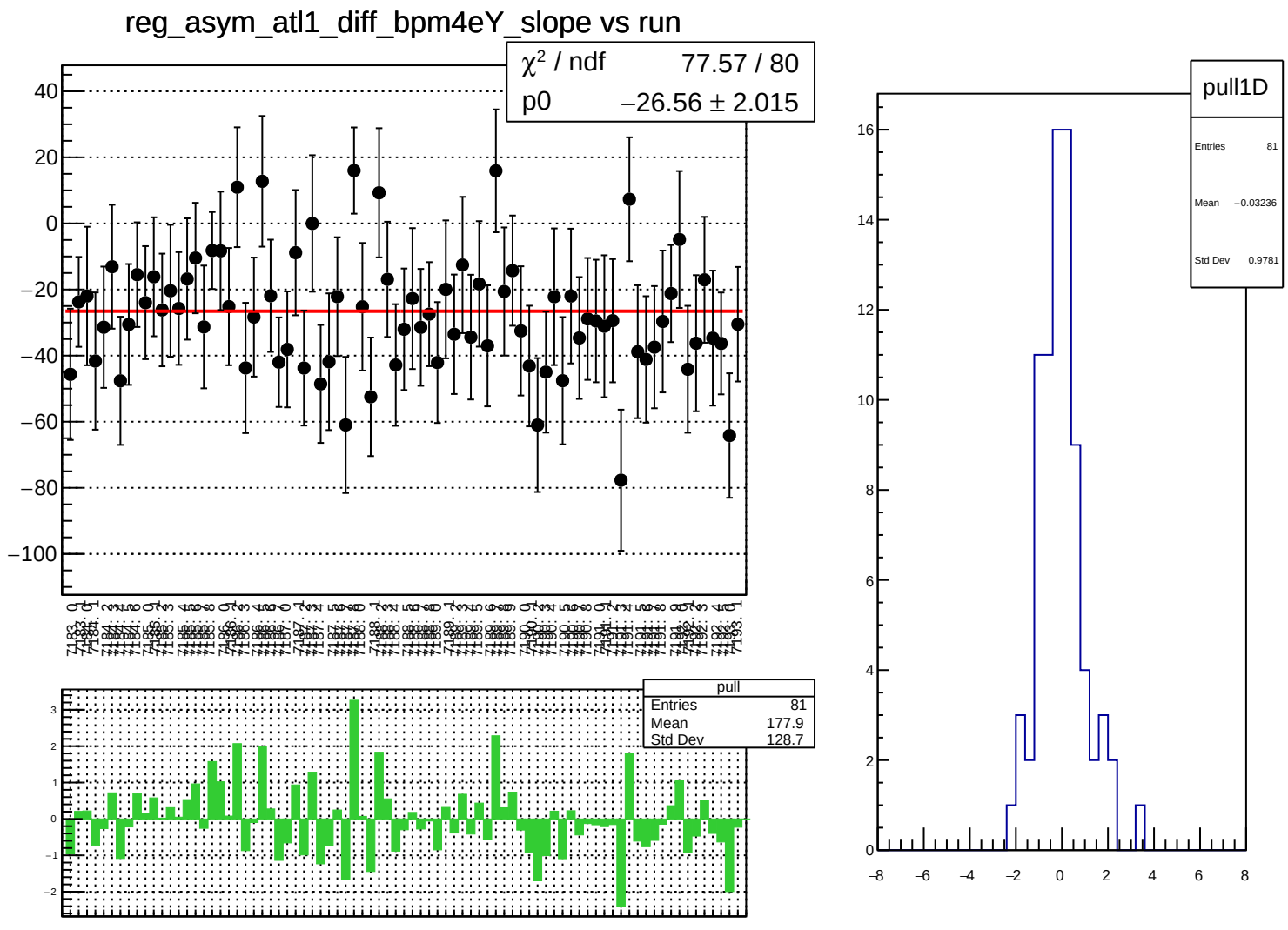

reg_asym_atl1_diff_bpm1X_slope vs run
χ² / ndf 115.1 / 80
p0 −19.46 ± 2.482
pull
Entries 81
Mean 364.5
Std Dev 317.5

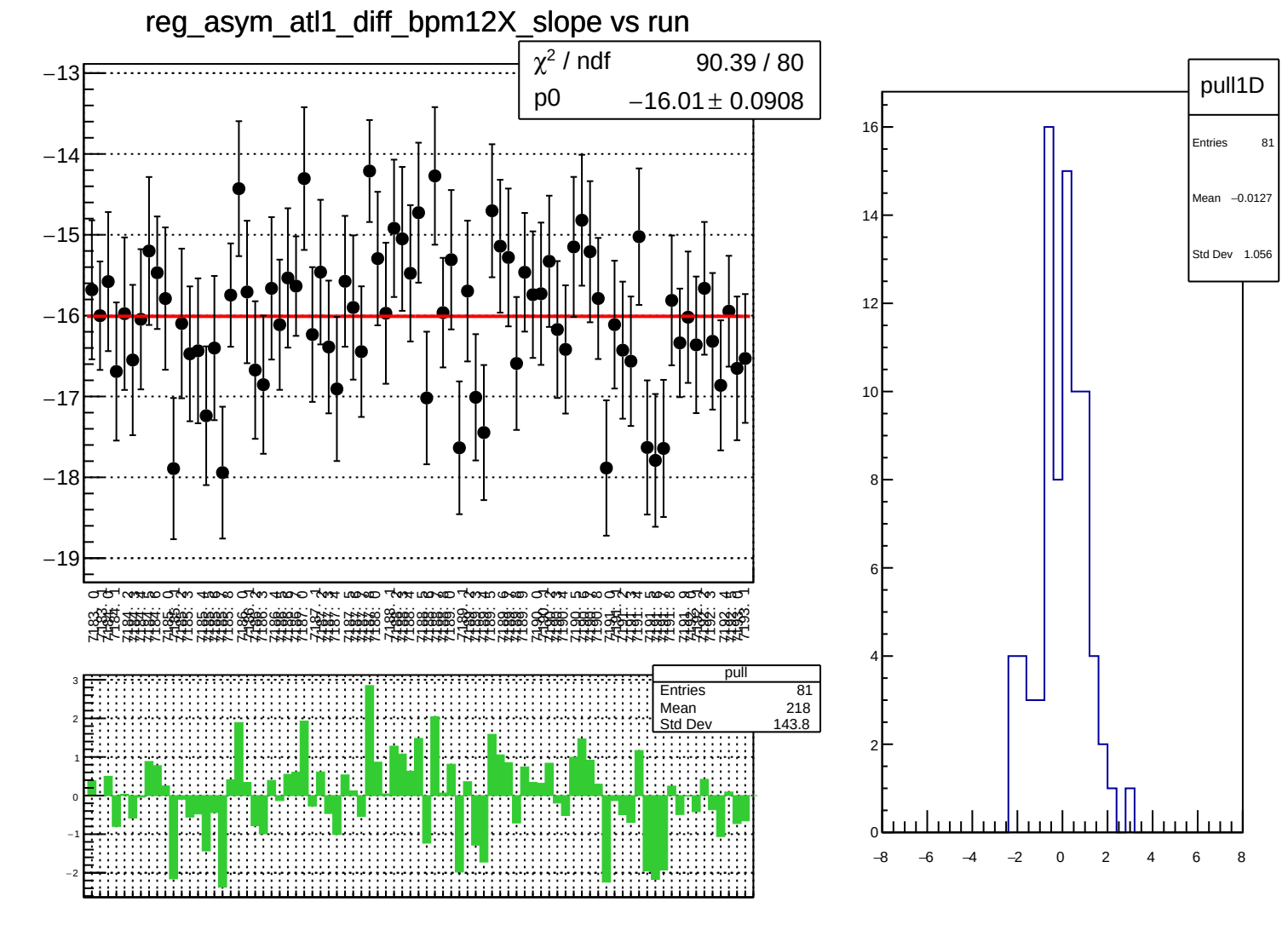

pull1D
Entries 81
Mean −0.02568
Std Dev 1.192

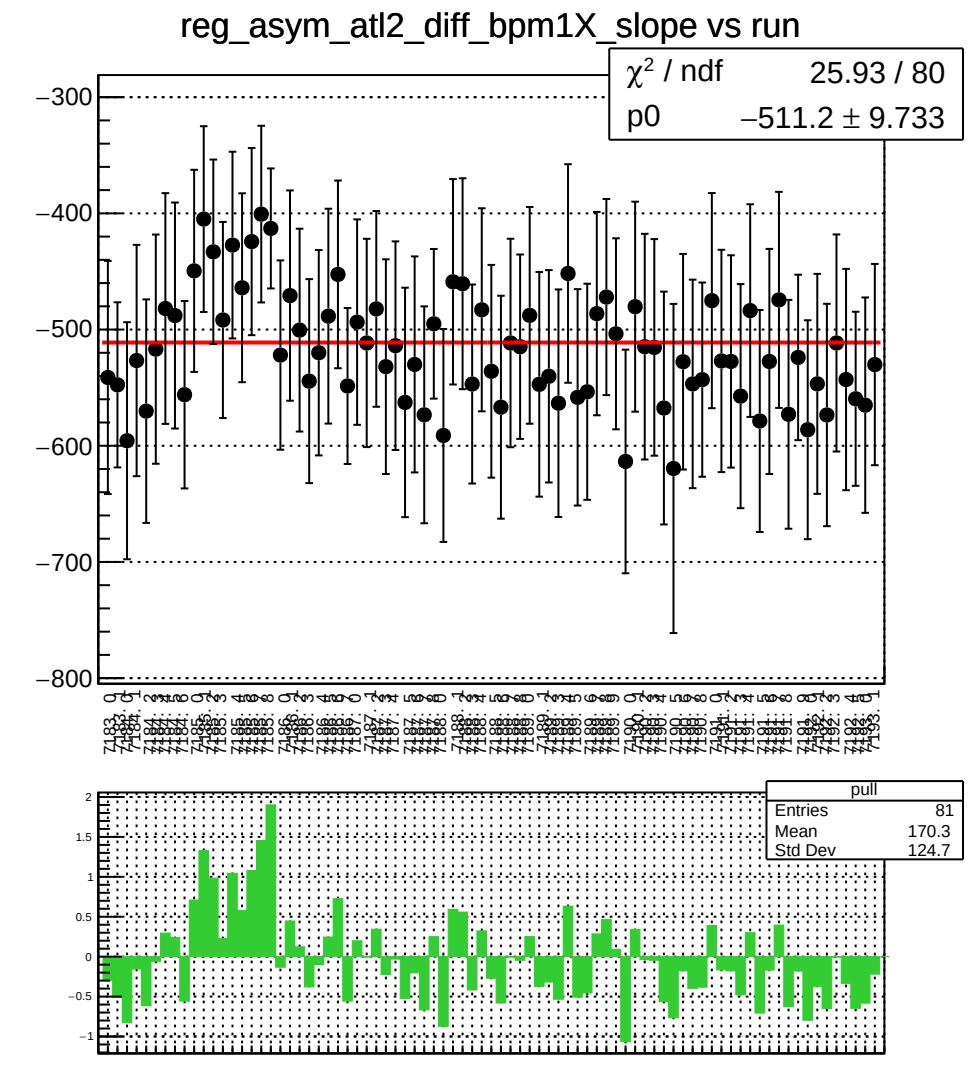

reg_asym_atl1_diff_bpm4aY_slope vs run
χ² / ndf 77.57 / 80
p0 13.62 ± 1.858
pull
Entries 81
Mean 159.5
Std Dev 108.8
pull1D
Entries 81
Mean 0.02902
Std Dev 0.9781

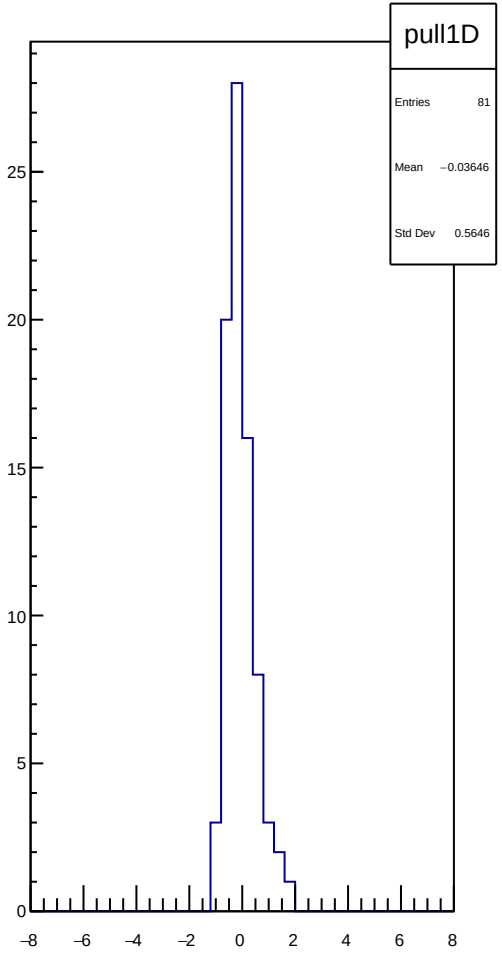

reg_asym_atl1_diff_bpm4eX_slope vs run
χ² / ndf 117.6 / 80
p0 55.5 ± 2.486
160
140
120
100
80
60
40
20
0
−20
pull
Entries 81
Mean 360.4
Std Dev 313.5
3
2
1
0
−1
−2
−3

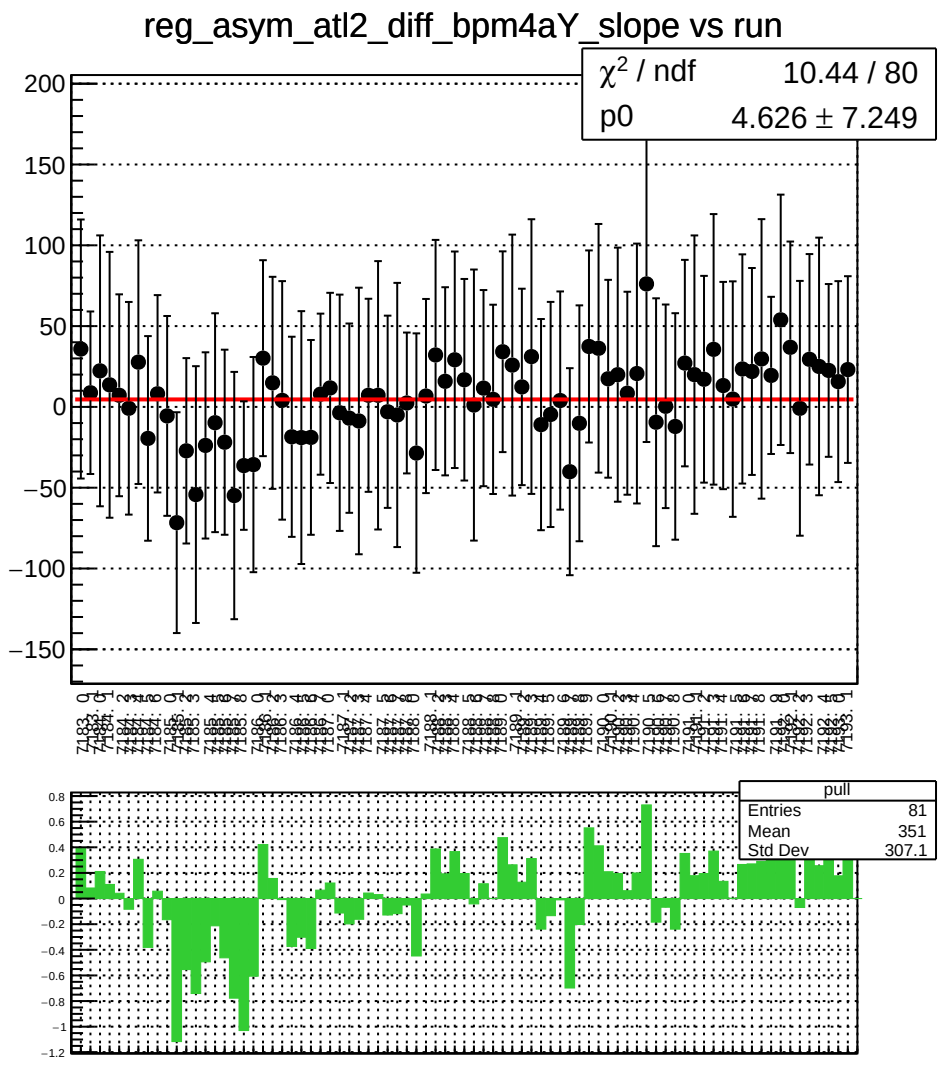

pull1D
Entries 81
Mean 0.02547
Std Dev 1.205
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

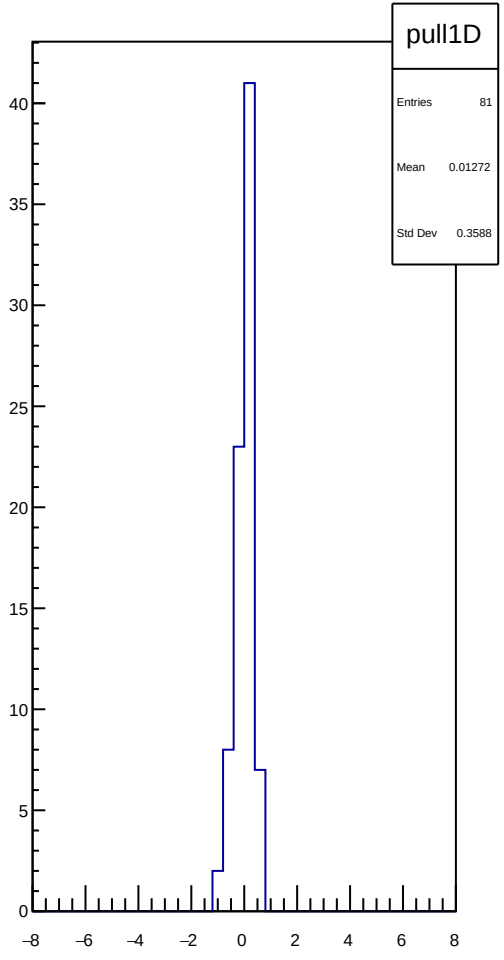

reg_asym_atl1_diff_bpm4eY_slope vs run
χ² / ndf 77.57 / 80
p0 −26.56 ± 2.015
pull
Entries 81
Mean 177.9
Std Dev 128.7
pull1D
Entries 81
Mean −0.03236
Std Dev 0.9781

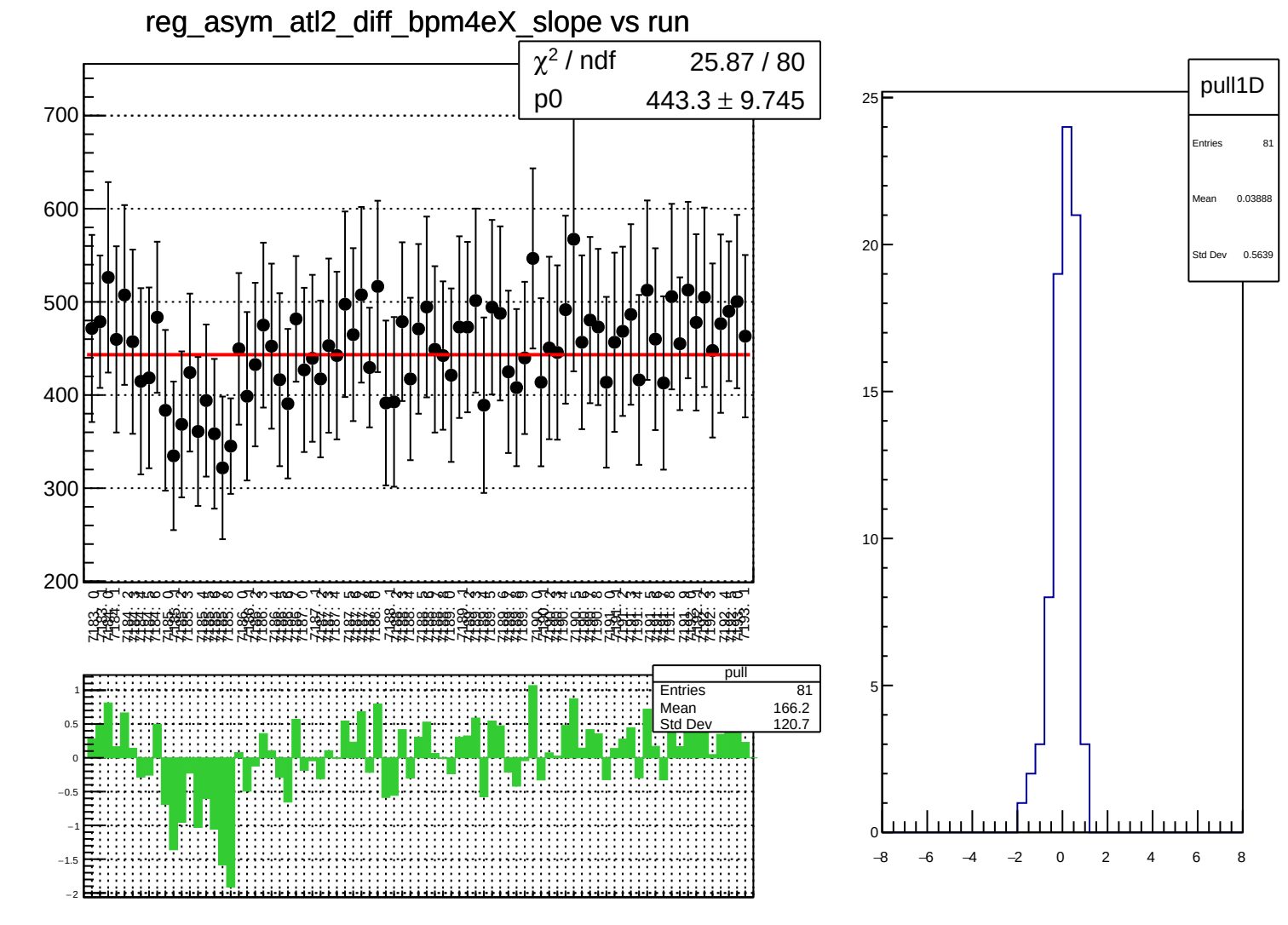

reg_asym_atl1_diff_bpm12X_slope vs run
χ² / ndf 90.39 / 80
p0 −16.01 ± 0.0908
pull
Entries 81
Mean 218
Std Dev 143.8
pull1D
Entries 81
Mean −0.0127
Std Dev 1.056

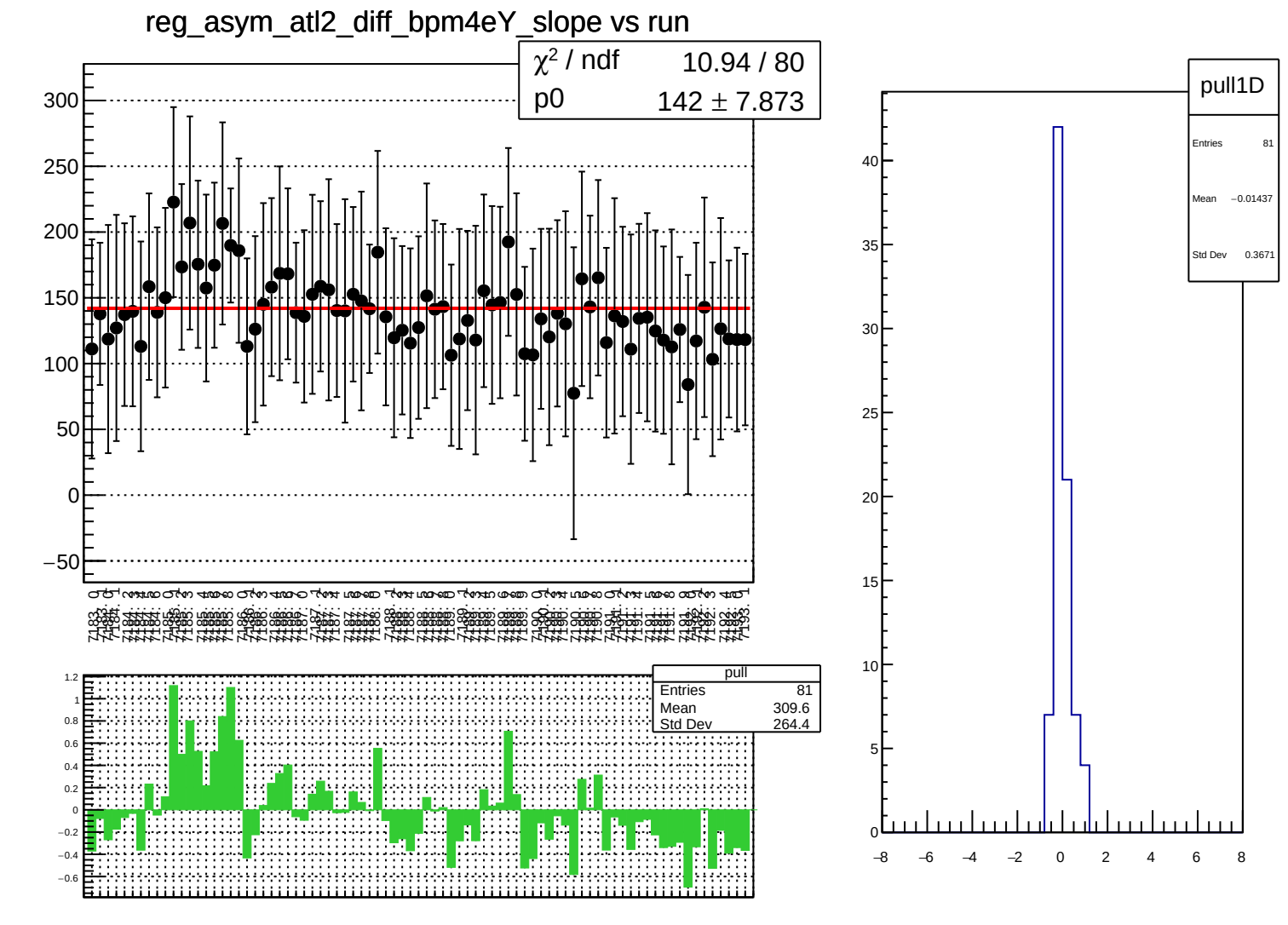

reg_asym_atl2_diff_bpm1X_slope vs run
χ² / ndf 25.93 / 80
p0 −511.2 ± 9.733
pull
Entries 81
Mean 170.3
Std Dev 124.7

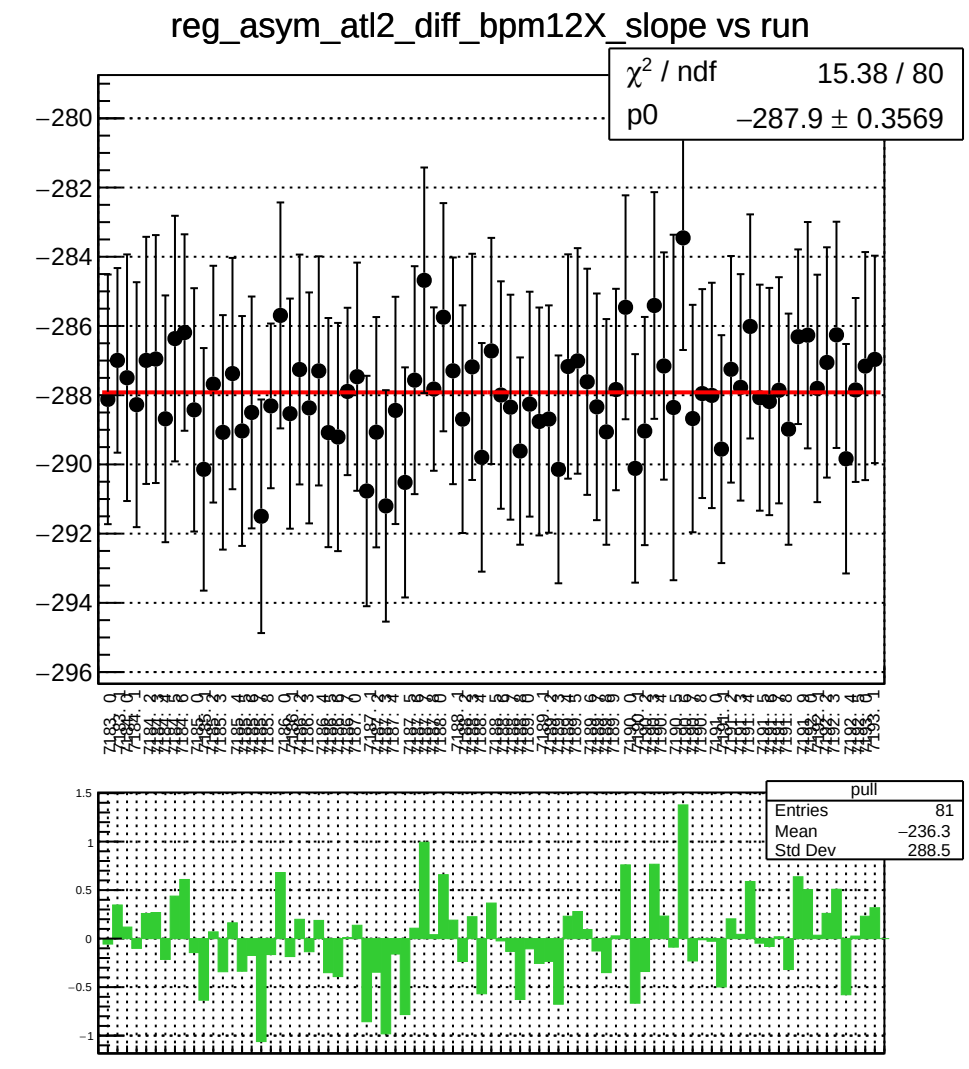

pull1D
Entries 81
Mean −0.03646
Std Dev 0.5646

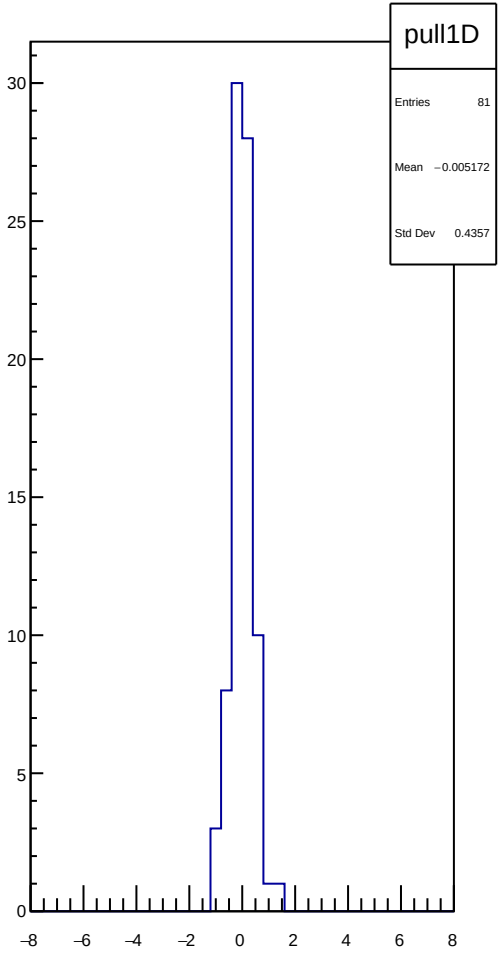

reg_asym_atl2_diff_bpm4aY_slope vs run
χ² / ndf 10.44 / 80
p0 4.626 ± 7.249
pull
Entries 81
Mean 351
Std Dev 307.1

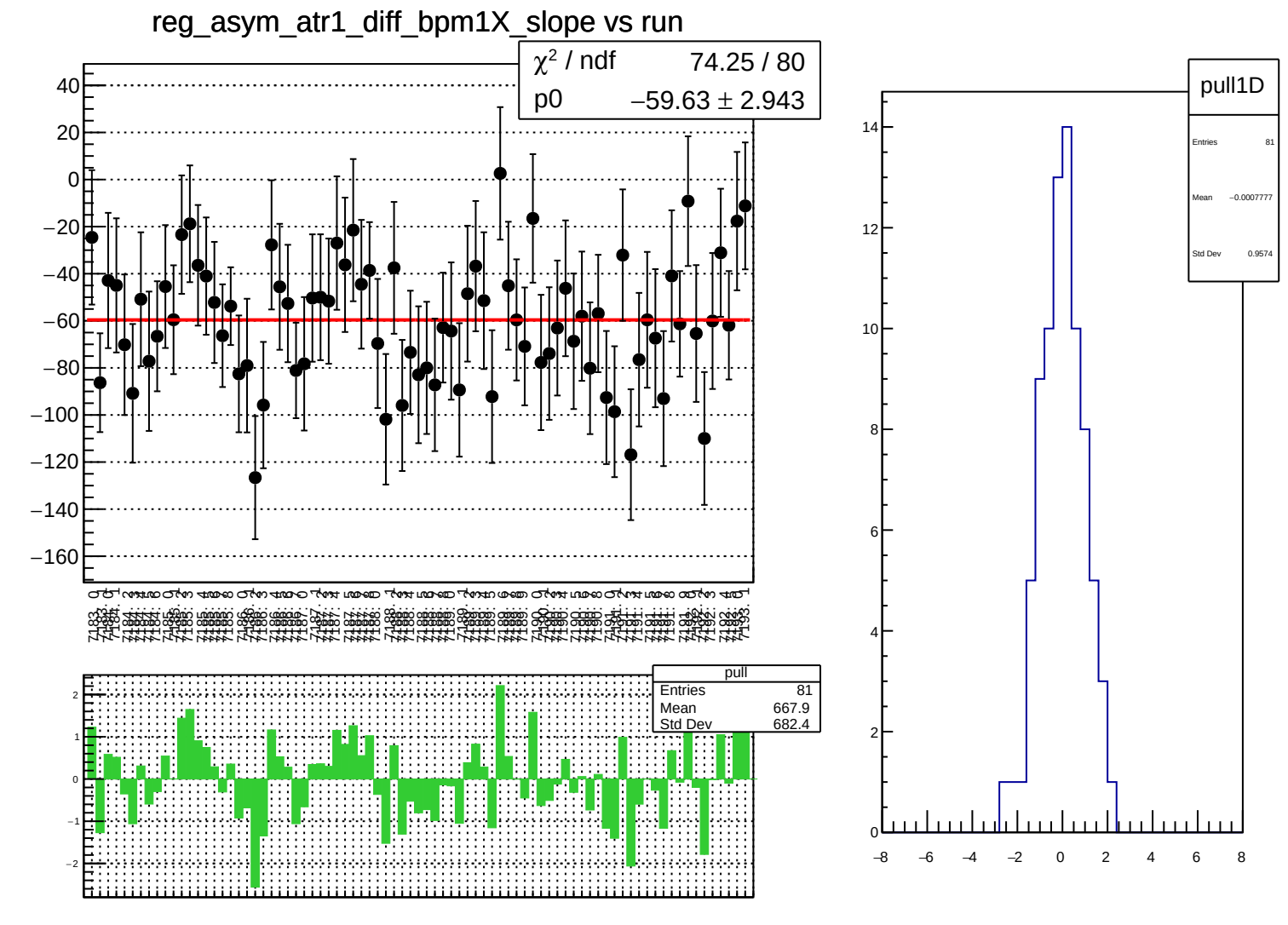

pull1D
Entries 81
Mean 0.01272
Std Dev 0.3588

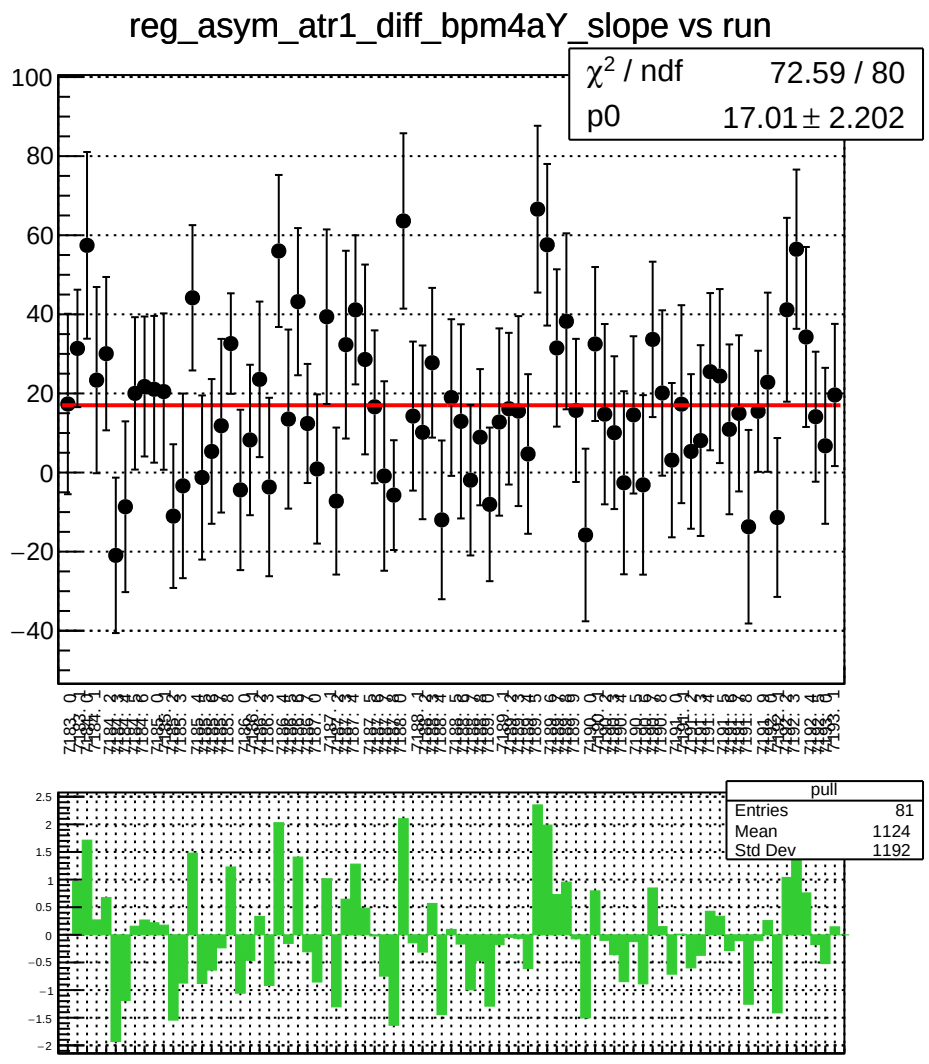

reg_asym_atl2_diff_bpm4eX_slope vs run
χ² / ndf 25.87 / 80
p0 443.3 ± 9.745
700
600
500
400
300
200
pull
Entries 81
Mean 166.2
Std Dev 120.7
1
0.5
0
−0.5
−1
−1.5
−2
pull1D
Entries 81
Mean 0.03888
Std Dev 0.5639
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

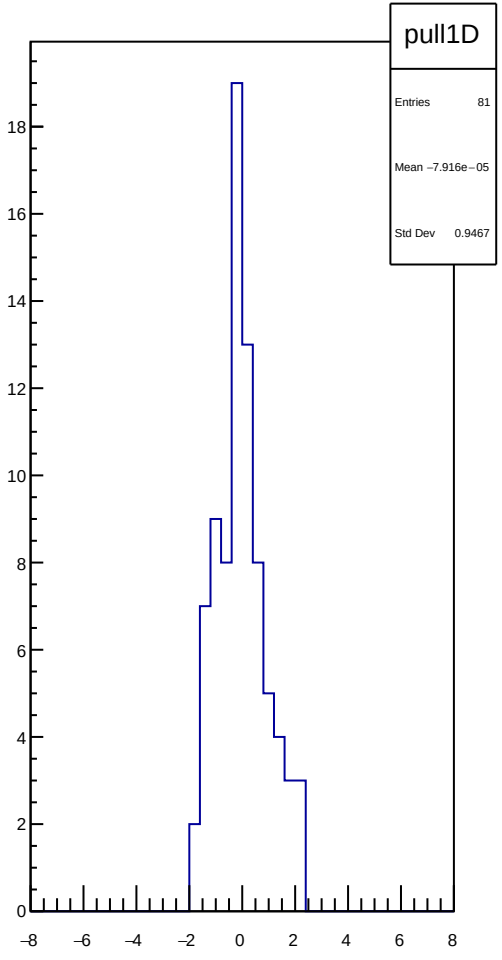

reg_asym_atl2_diff_bpm4eY_slope vs run
χ² / ndf 10.94 / 80
p0 142 ± 7.873
pull
Entries 81
Mean 309.6
Std Dev 264.4
pull1D
Entries 81
Mean −0.01437
Std Dev 0.3671

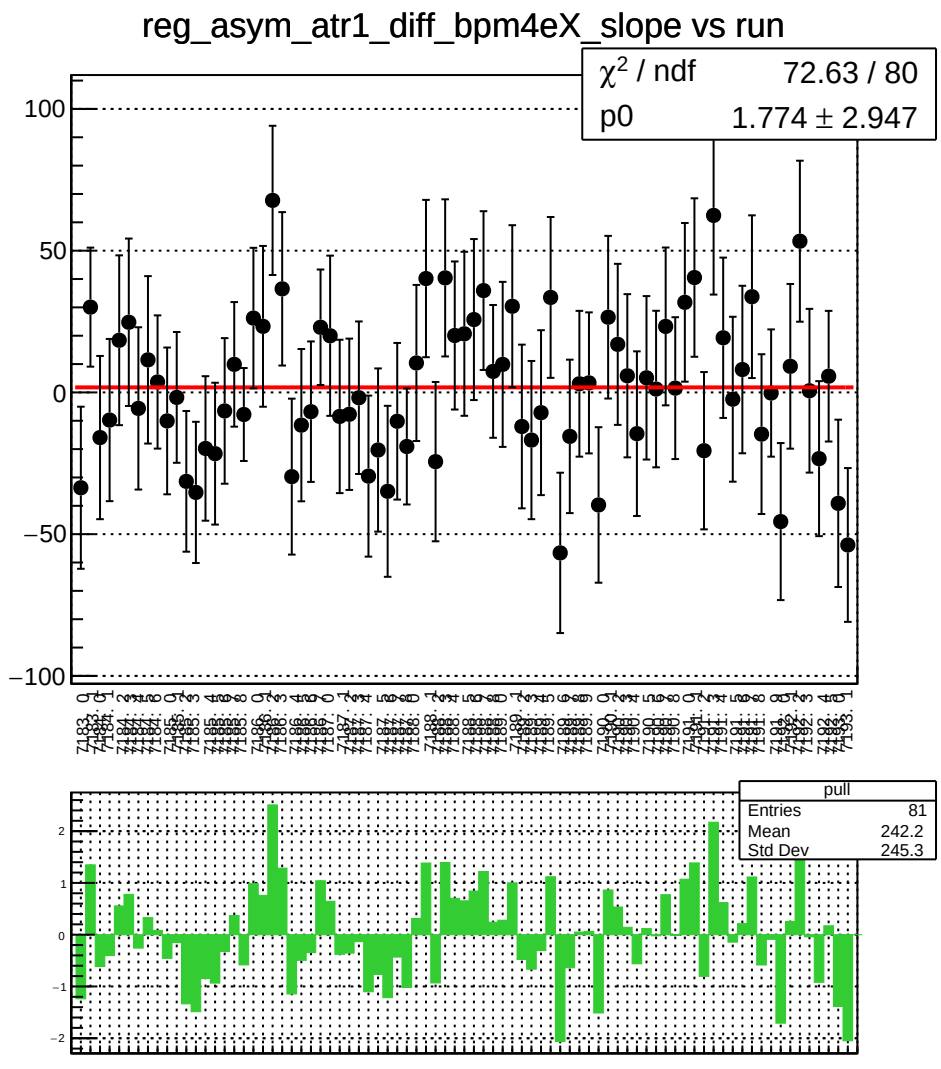

reg_asym_atl2_diff_bpm12X_slope vs run
χ² / ndf 15.38 / 80
p0 −287.9 ± 0.3569
pull
Entries 81
Mean −236.3
Std Dev 288.5

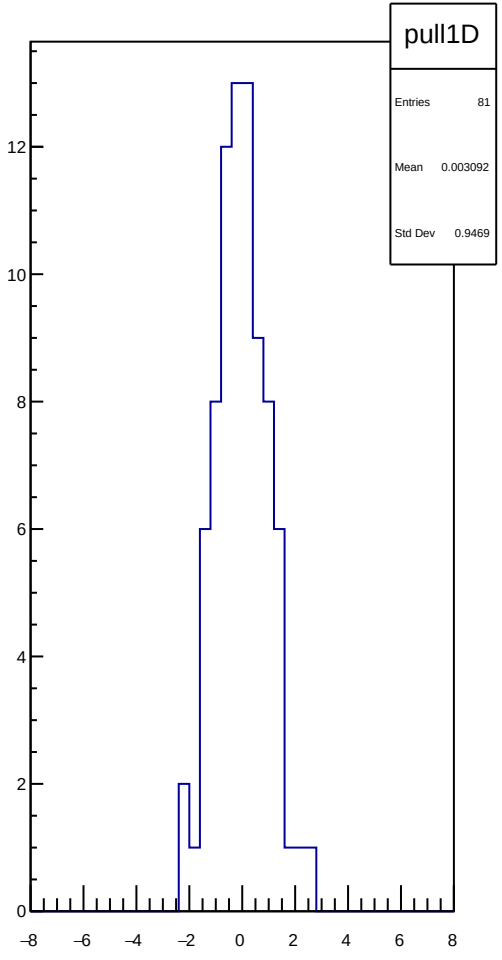

pull1D
Entries 81
Mean −0.005172
Std Dev 0.4357

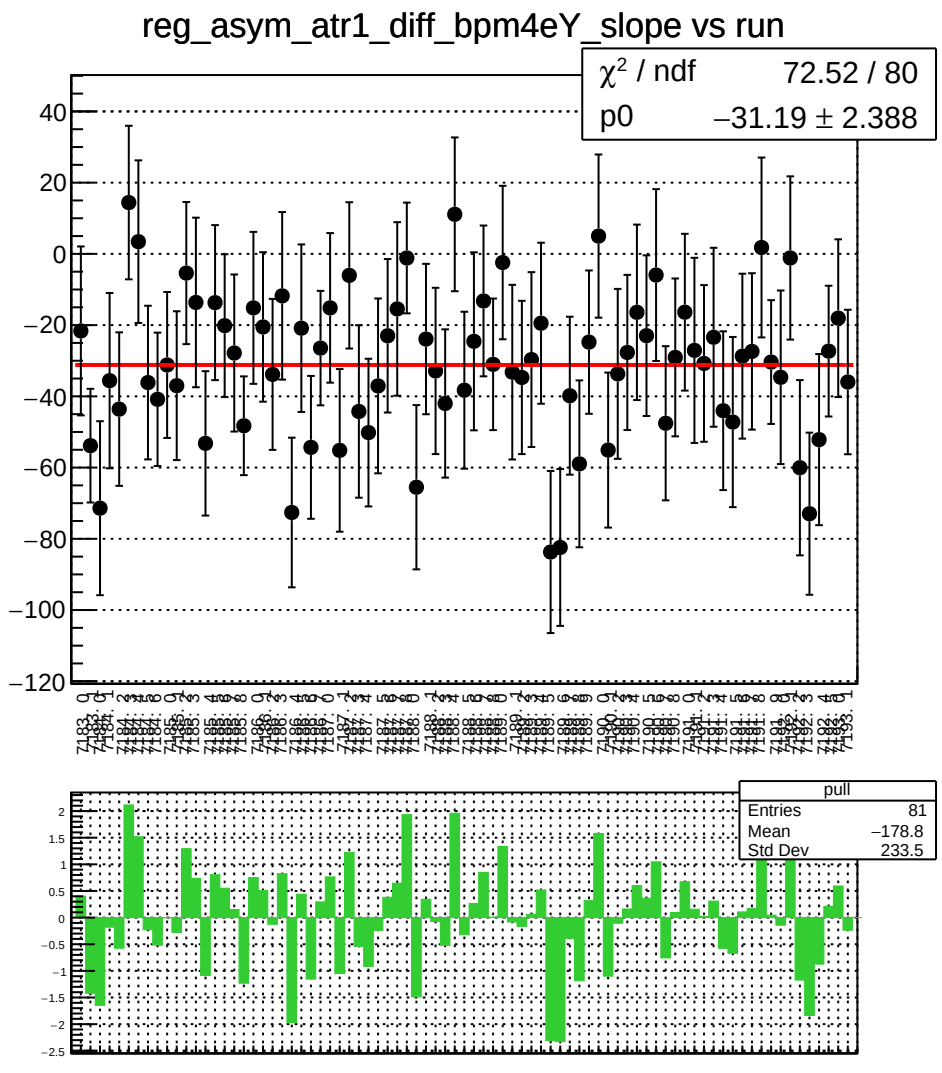

reg_asym_atr1_diff_bpm1X_slope vs run
χ² / ndf 74.25 / 80
p0 −59.63 ± 2.943
pull
Entries 81
Mean 667.9
Std Dev 682.4
pull1D
Entries 81
Mean −0.0007777
Std Dev 0.9574

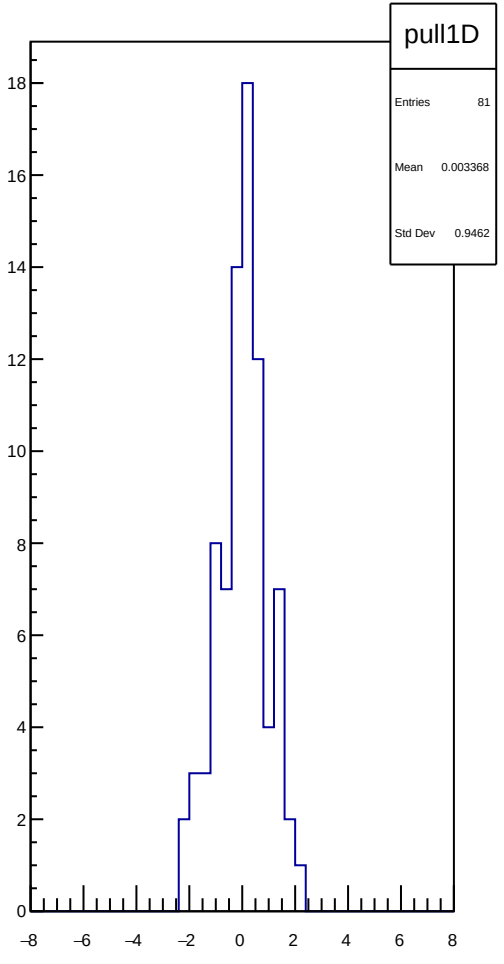

reg_asym_atr1_diff_bpm4aY_slope vs run
χ² / ndf 72.59 / 80
p0 17.01 ± 2.202
pull
Entries 81
Mean 1124
Std Dev 1192

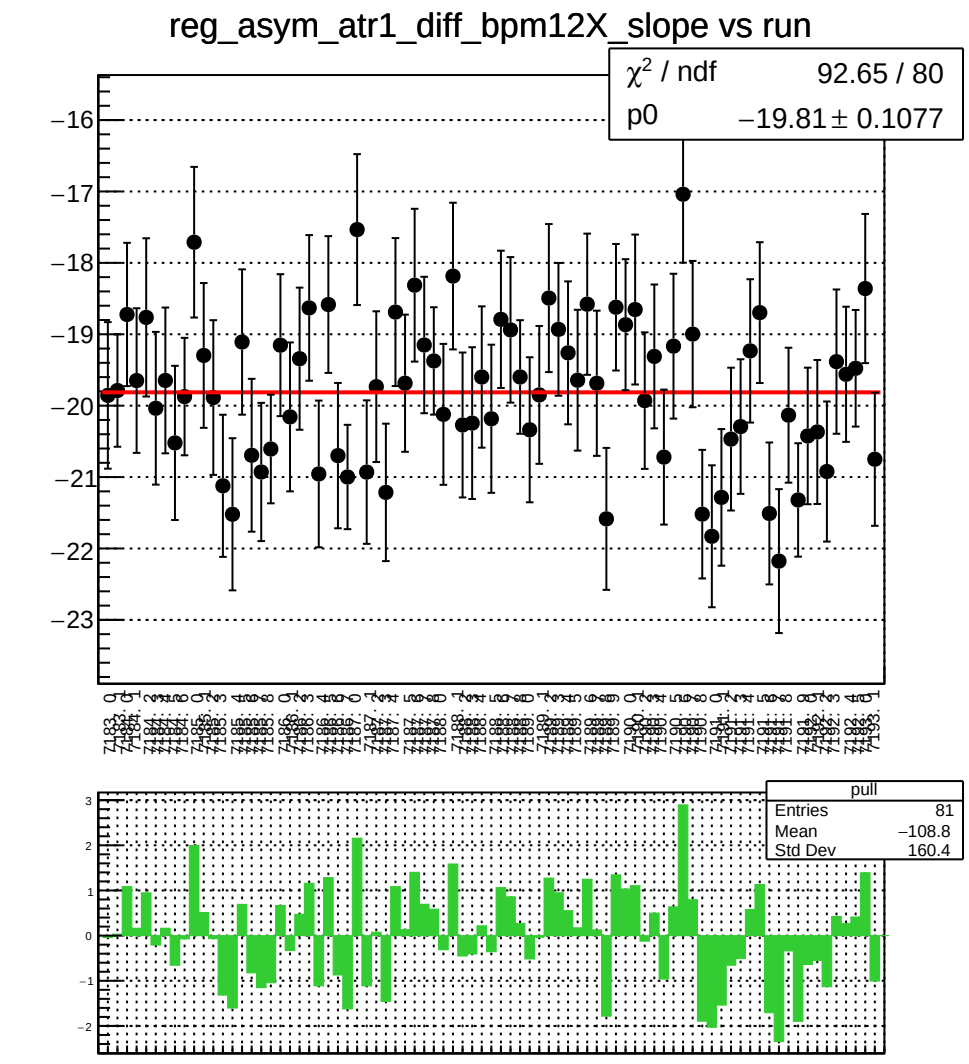

pull1D
Entries 81
Mean −7.916e−05
Std Dev 0.9467

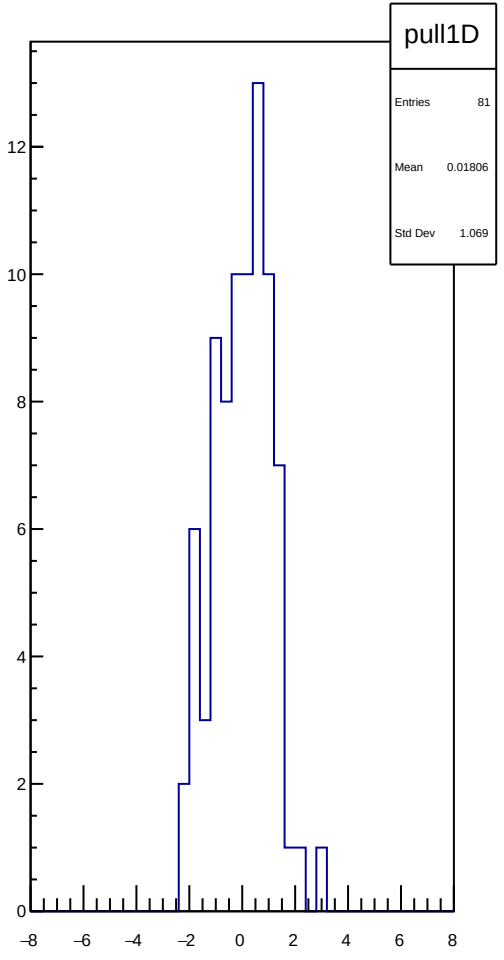

reg_asym_atr1_diff_bpm4eX_slope vs run
χ² / ndf 72.63 / 80
p0 1.774 ± 2.947
100
50
0
−50
−100
pull
Entries 81
Mean 242.2
Std Dev 245.3
2
1
0
−1
−2

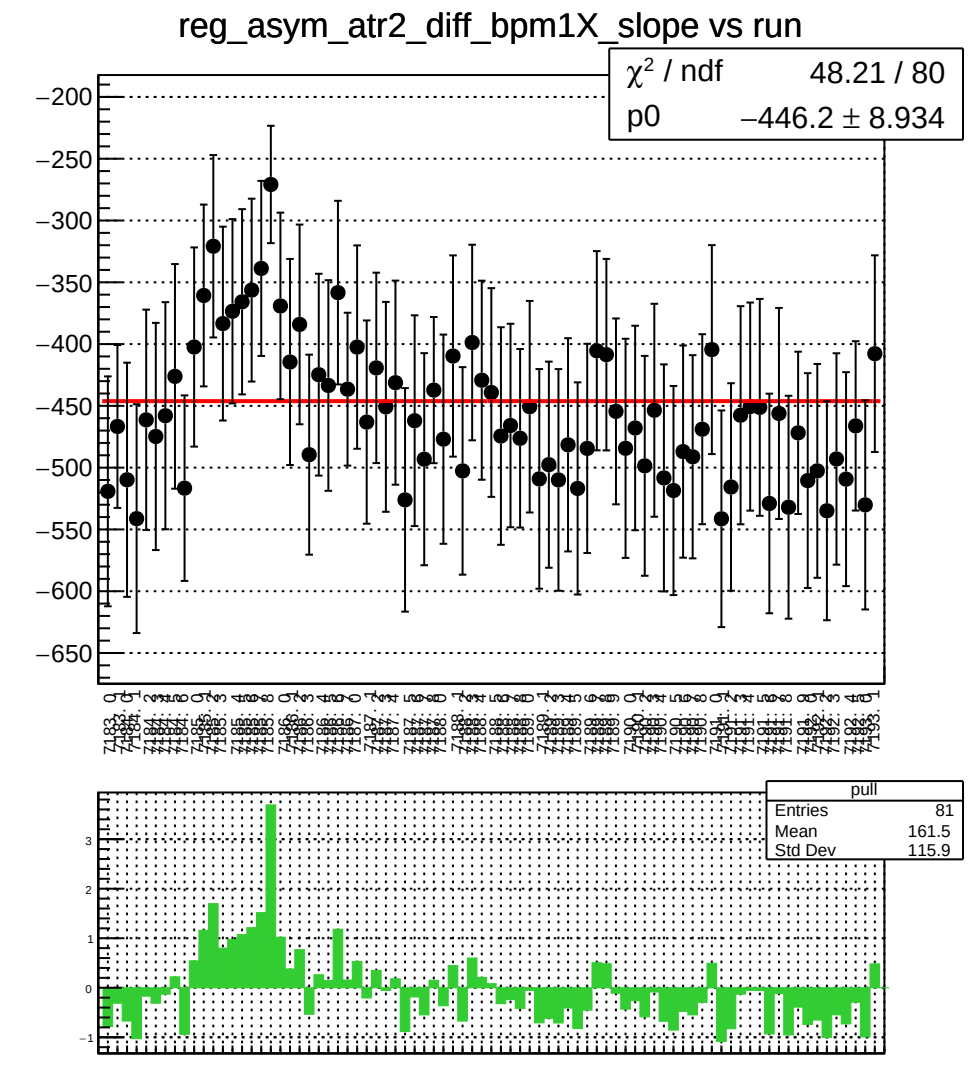

pull1D
Entries 81
Mean 0.003092
Std Dev 0.9469
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

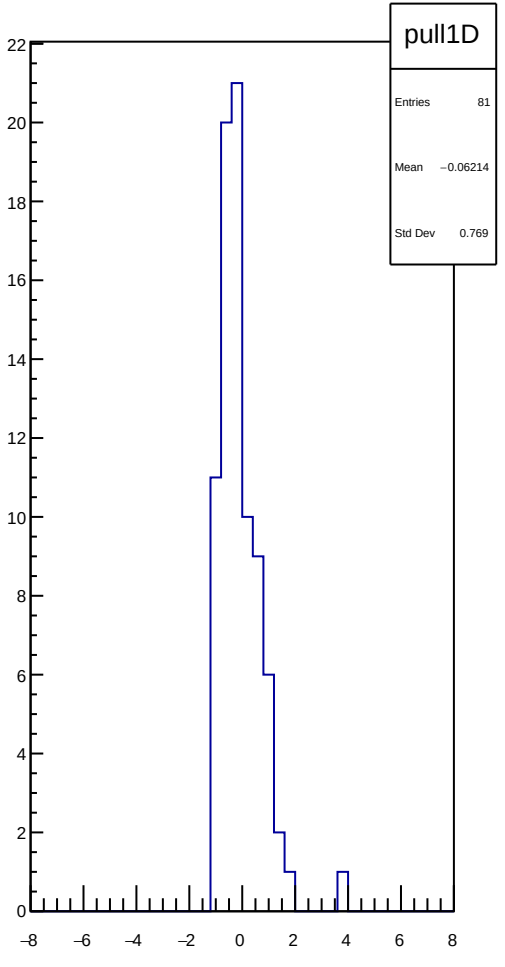

reg_asym_atr1_diff_bpm4eY_slope vs run
χ² / ndf 72.52 / 80
p0 −31.19 ± 2.388
pull
Entries 81
Mean −178.8
Std Dev 233.5

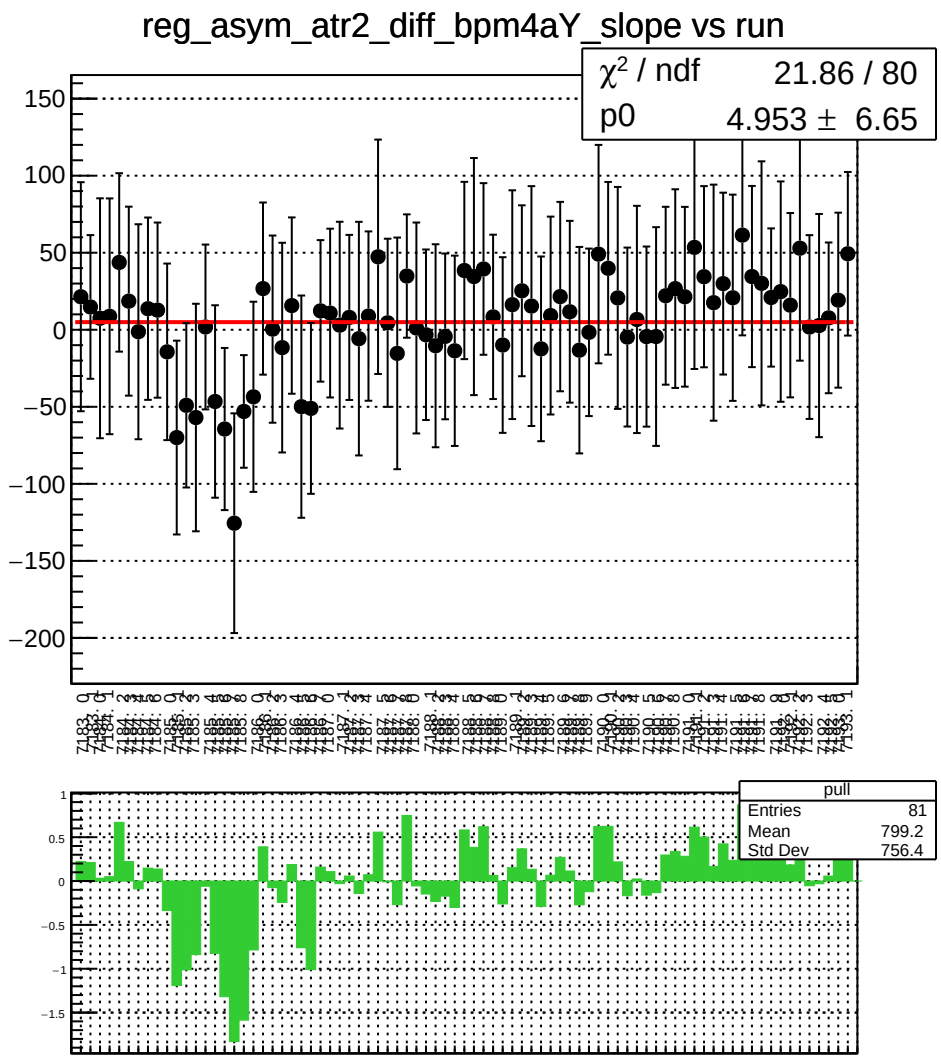

pull1D
Entries 81
Mean 0.003368
Std Dev 0.9462

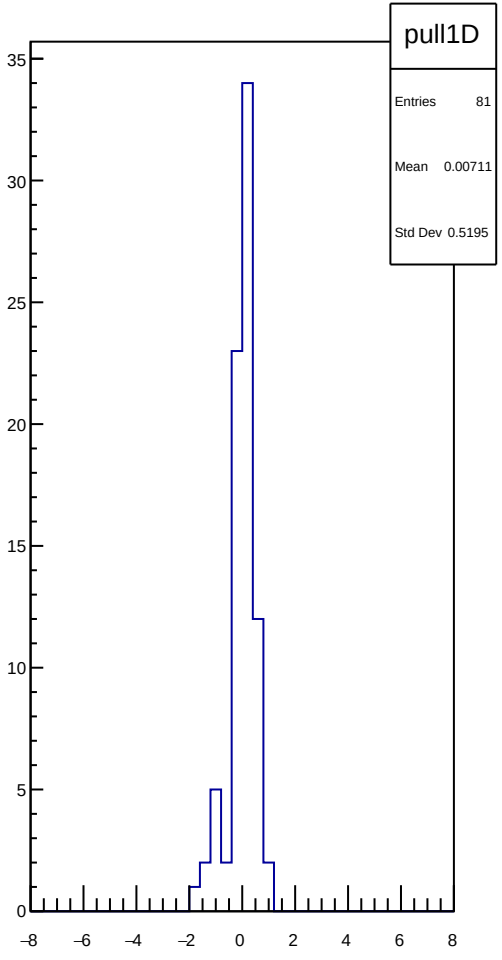

reg_asym_atr1_diff_bpm12X_slope vs run
χ² / ndf 92.65 / 80
p0 −19.81 ± 0.1077
pull
Entries 81
Mean −108.8
Std Dev 160.4

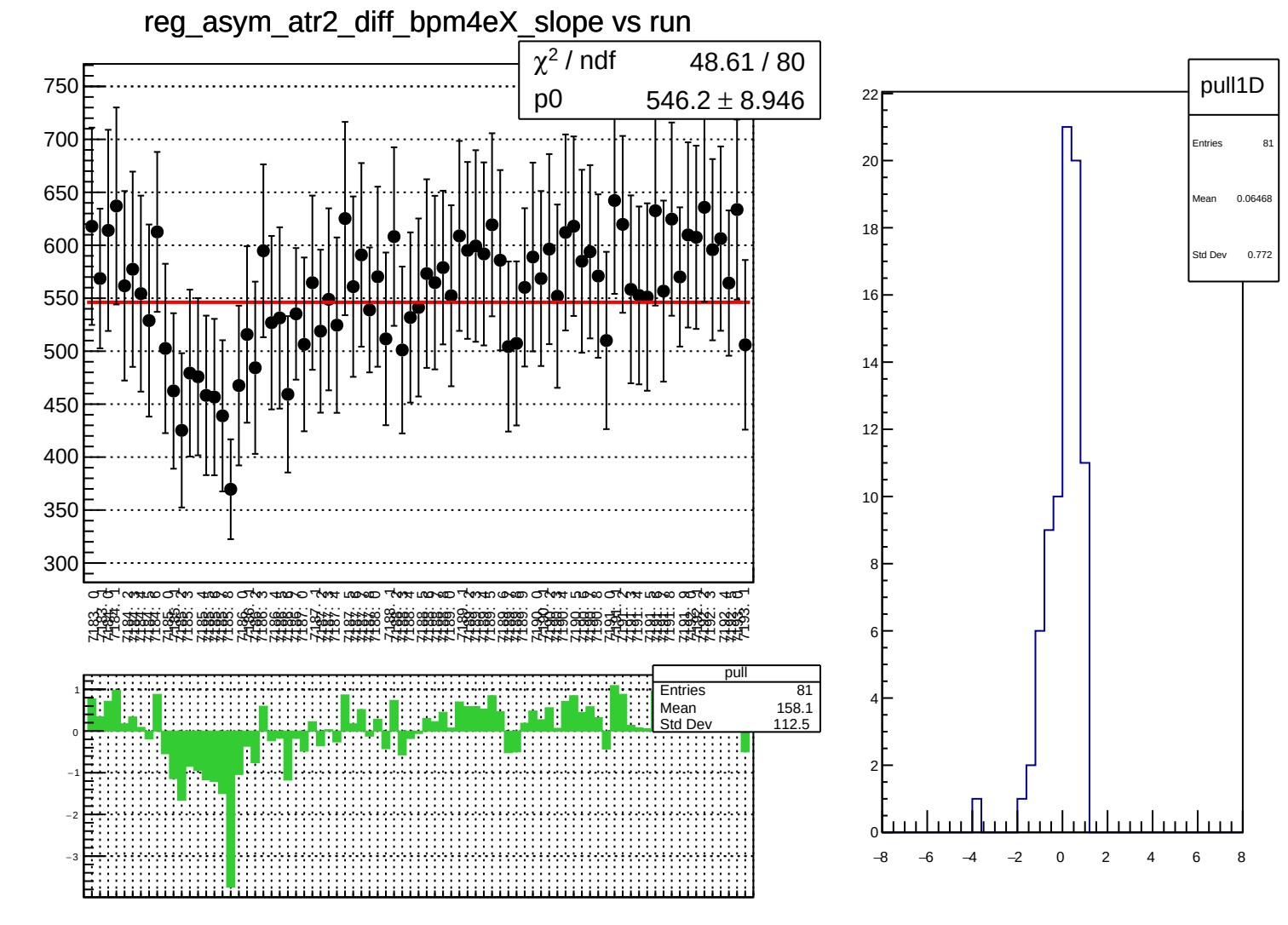

pull1D
Entries 81
Mean 0.01806
Std Dev 1.069

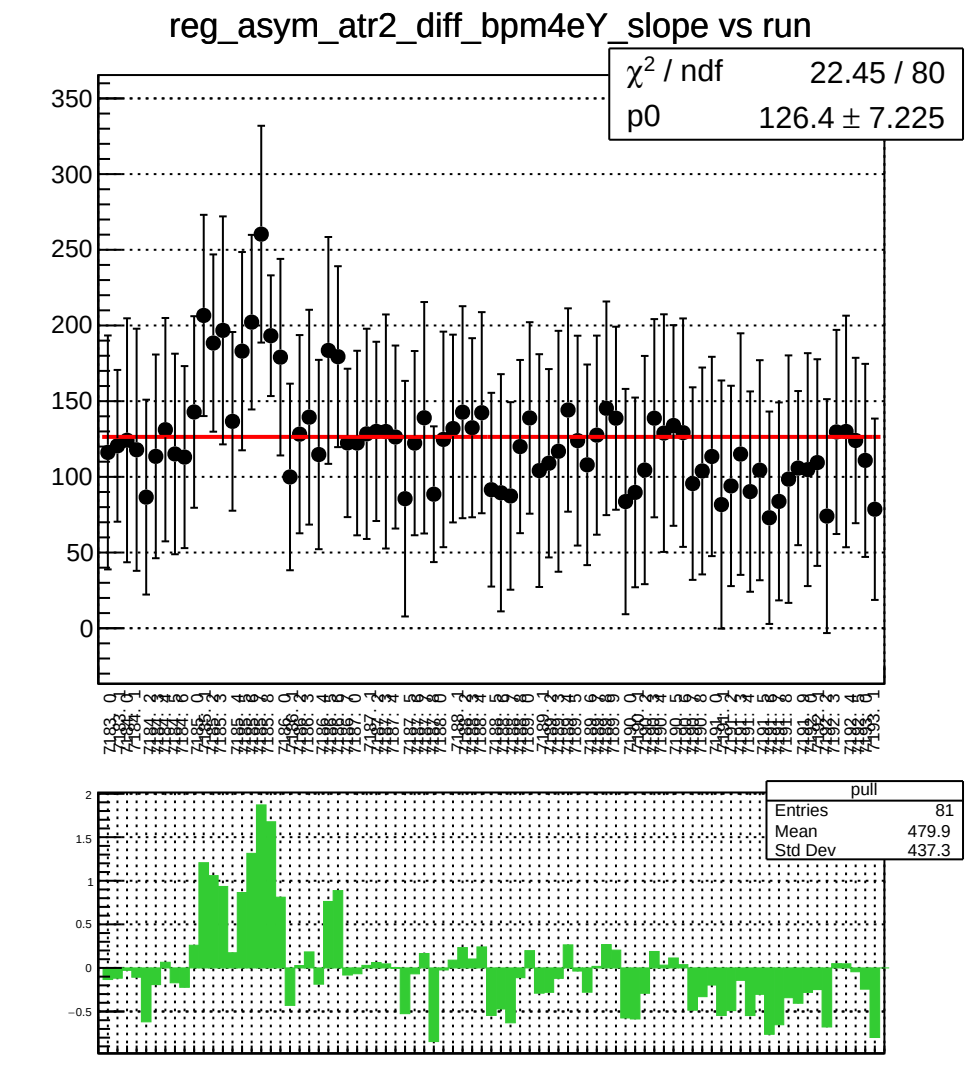

reg_asym_atr2_diff_bpm1X_slope vs run
χ² / ndf 48.21 / 80
p0 −446.2 ± 8.934
pull
Entries 81
Mean 161.5
Std Dev 115.9

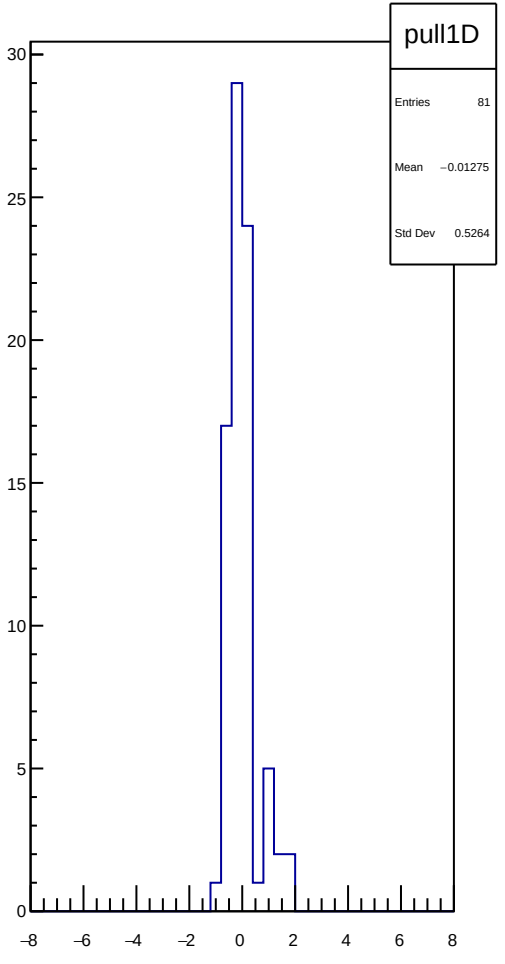

pull1D
Entries 81
Mean −0.06214
Std Dev 0.769

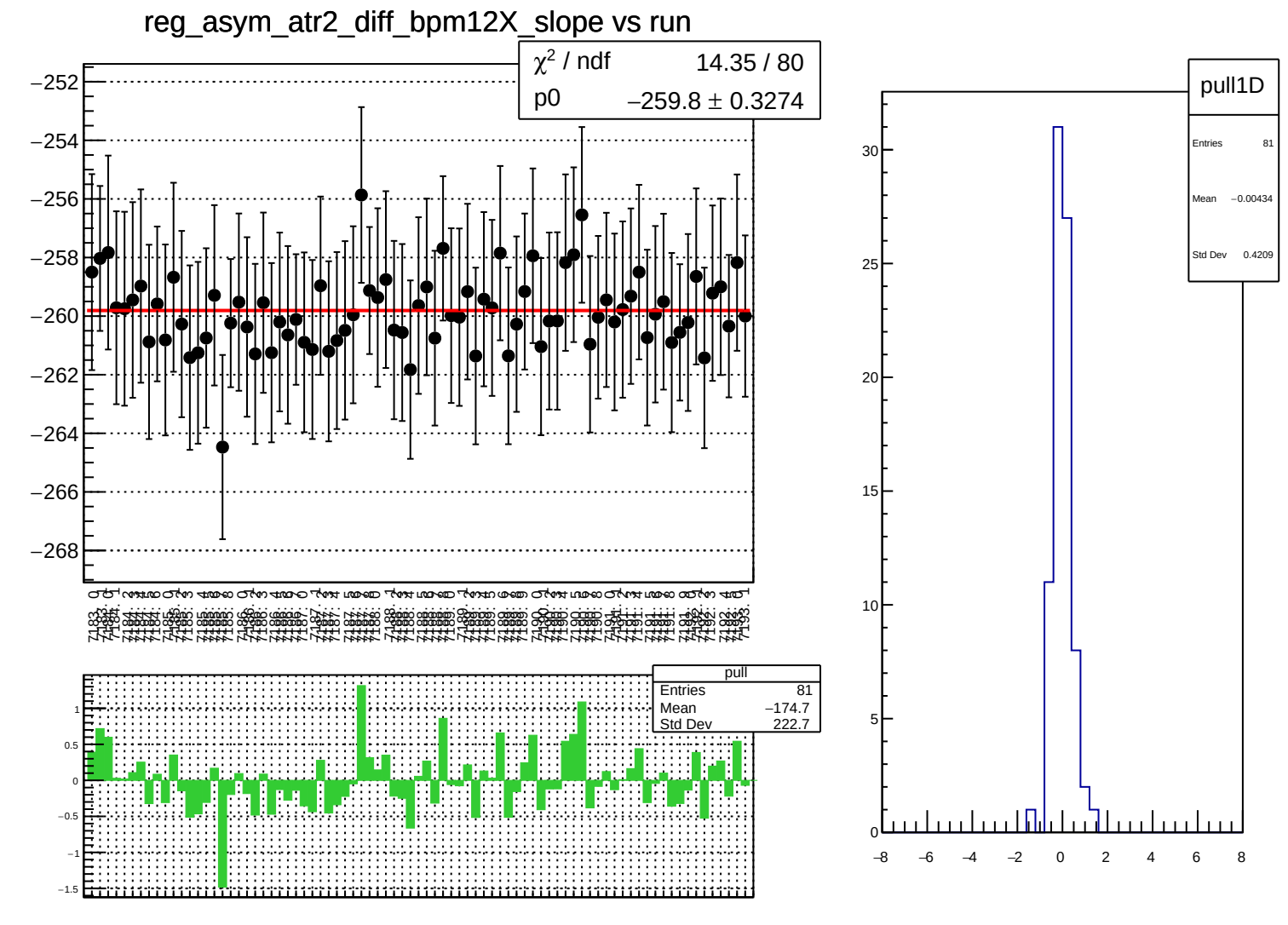

reg_asym_atr2_diff_bpm4aY_slope vs run
χ² / ndf 21.86 / 80
p0 4.953 ± 6.65
pull
Entries 81
Mean 799.2
Std Dev 756.4

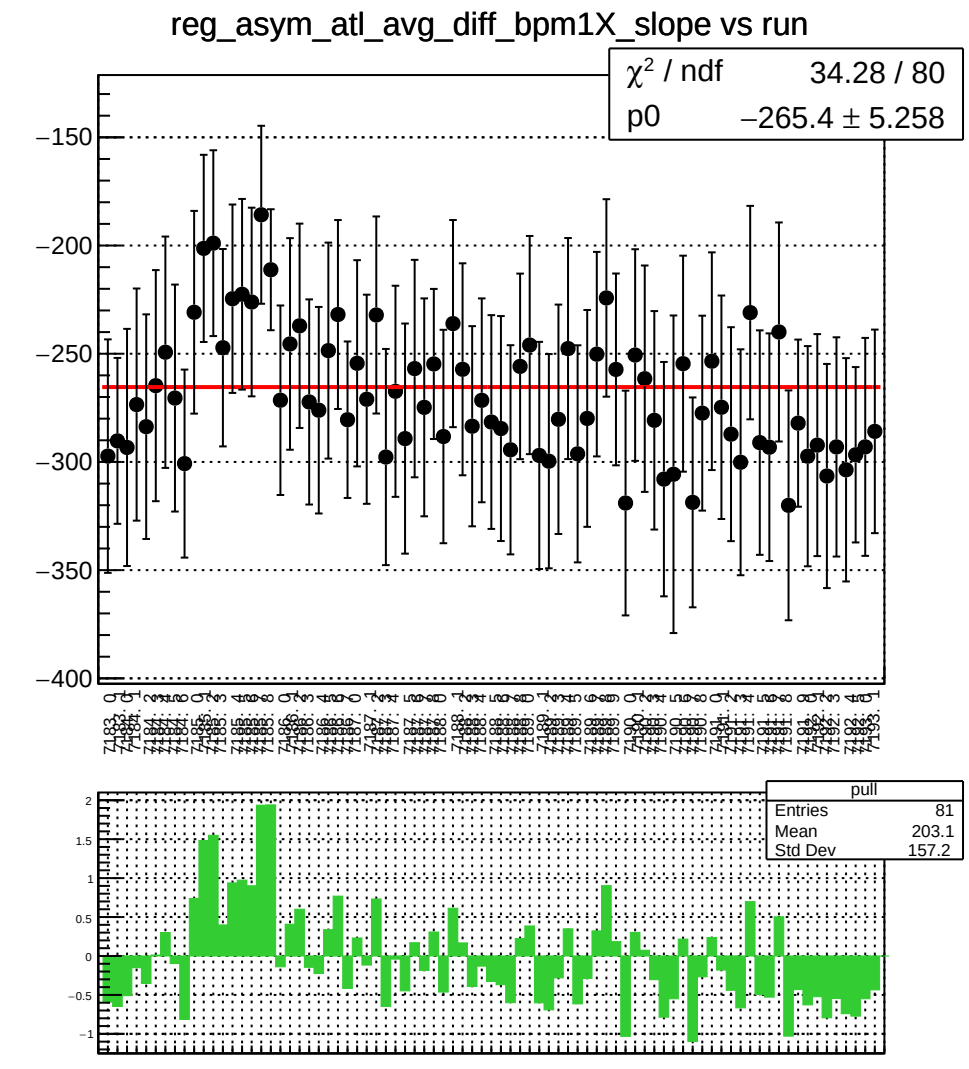

pull1D
Entries 81
Mean 0.00711
Std Dev 0.5195

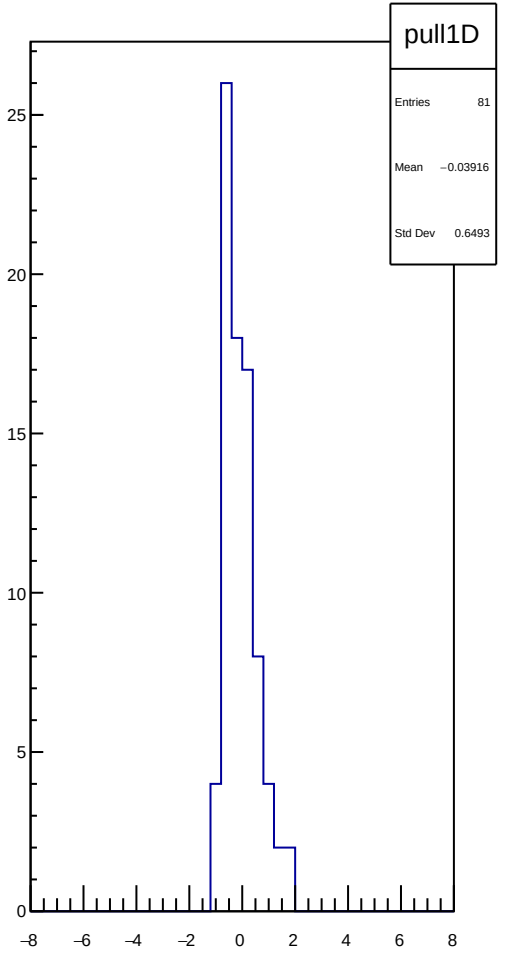

reg_asym_atr2_diff_bpm4eX_slope vs run
χ² / ndf 48.61 / 80
p0 546.2 ± 8.946
pull
Entries 81
Mean 158.1
Std Dev 112.5
pull1D
Entries 81
Mean 0.06468
Std Dev 0.772

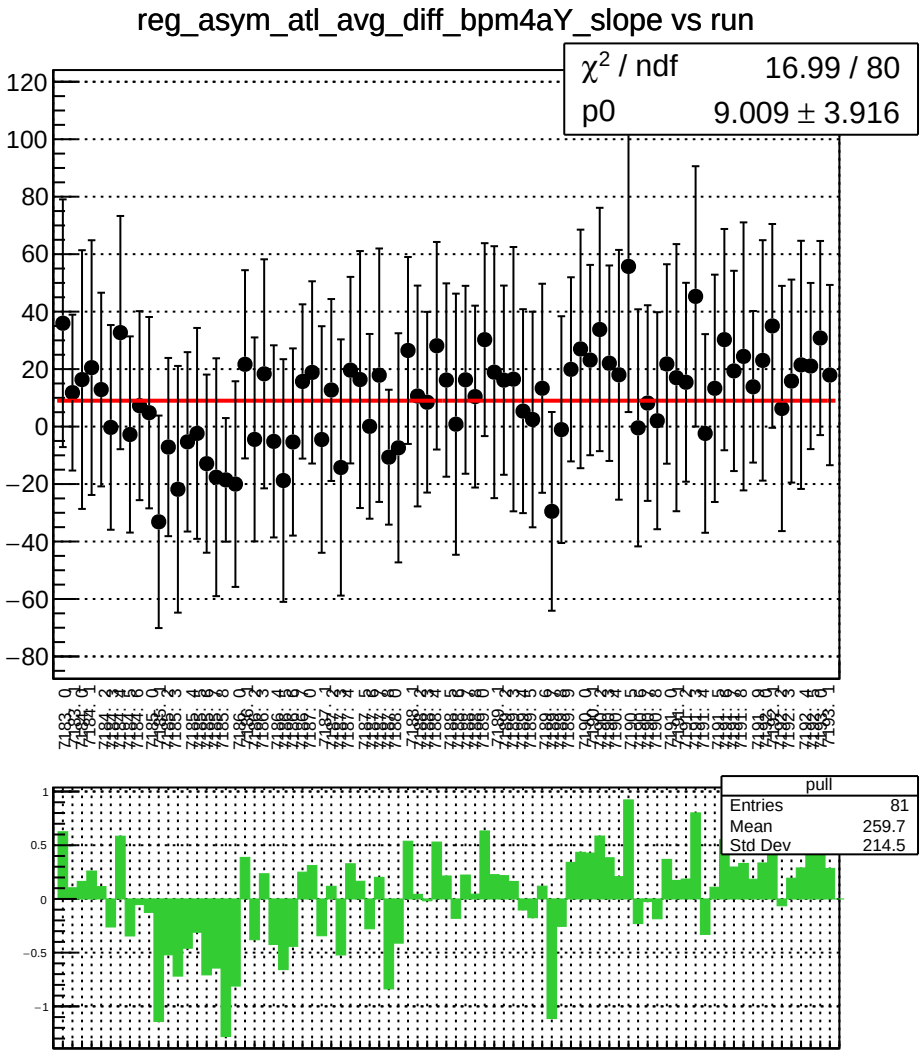

reg_asym_atr2_diff_bpm4eY_slope vs run
χ² / ndf 22.45 / 80
p0 126.4 ± 7.225
pull
Entries 81
Mean 479.9
Std Dev 437.3

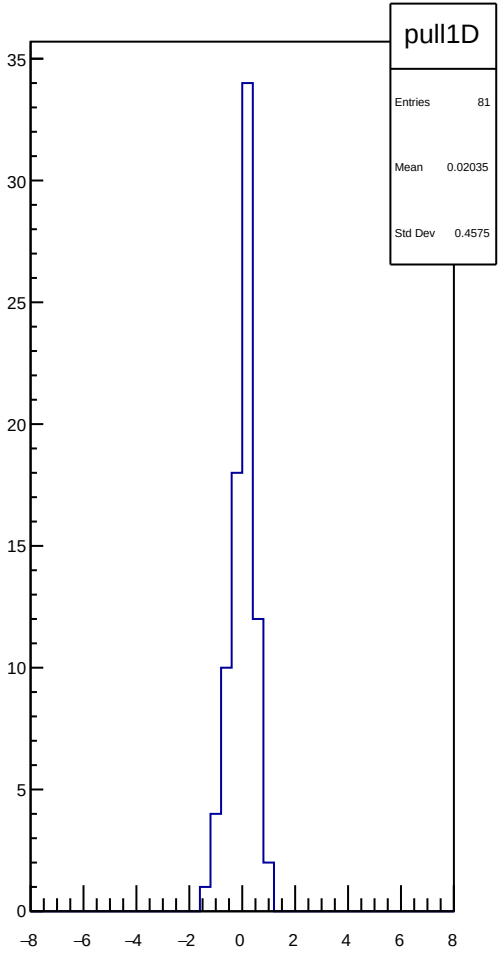

pull1D
Entries 81
Mean −0.01275
Std Dev 0.5264

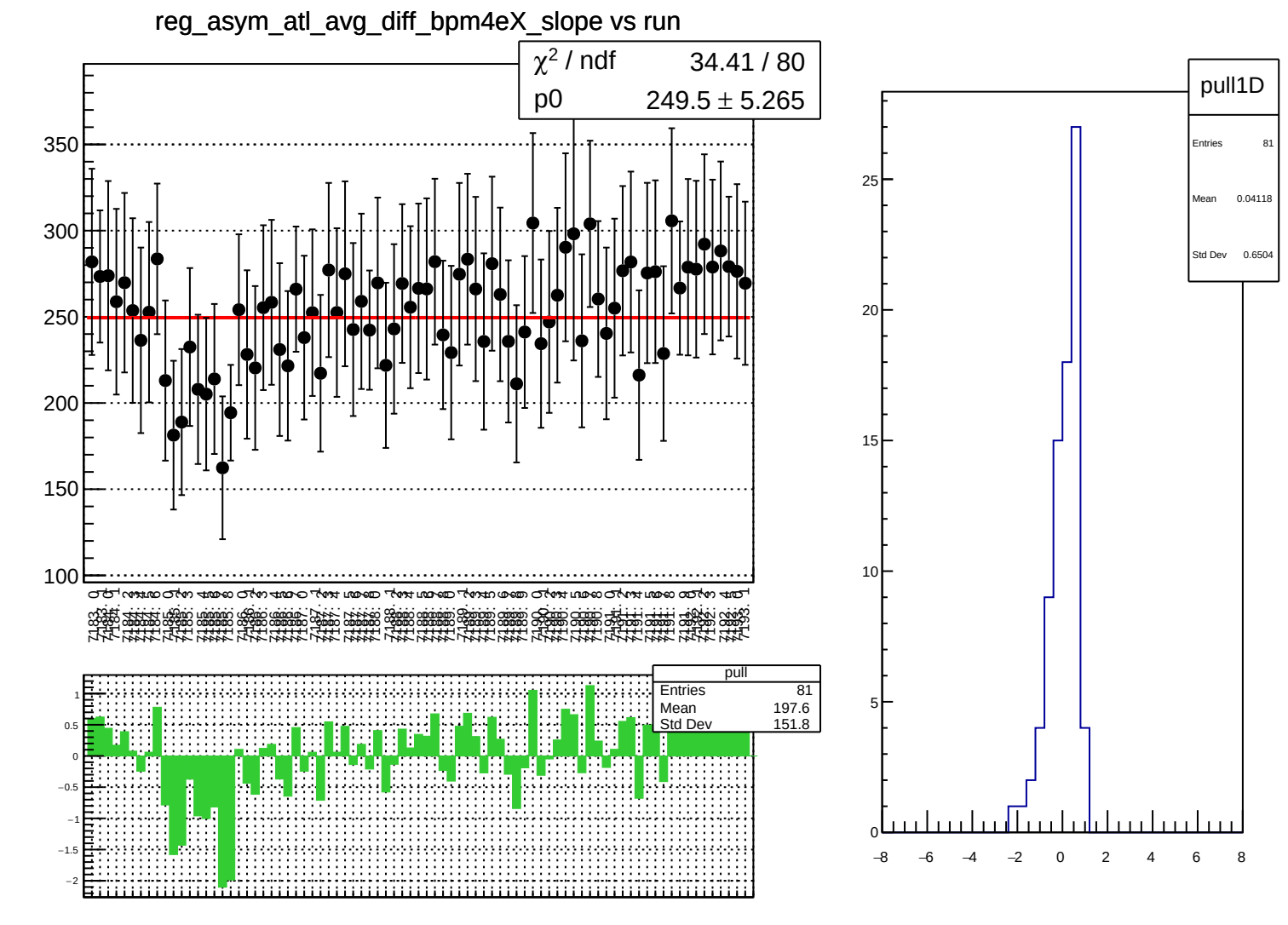

reg_asym_atr2_diff_bpm12X_slope vs run
χ² / ndf 14.35 / 80
p0 −259.8 ± 0.3274
pull
Entries 81
Mean −174.7
Std Dev 222.7
pull1D
Entries 81
Mean −0.00434
Std Dev 0.4209

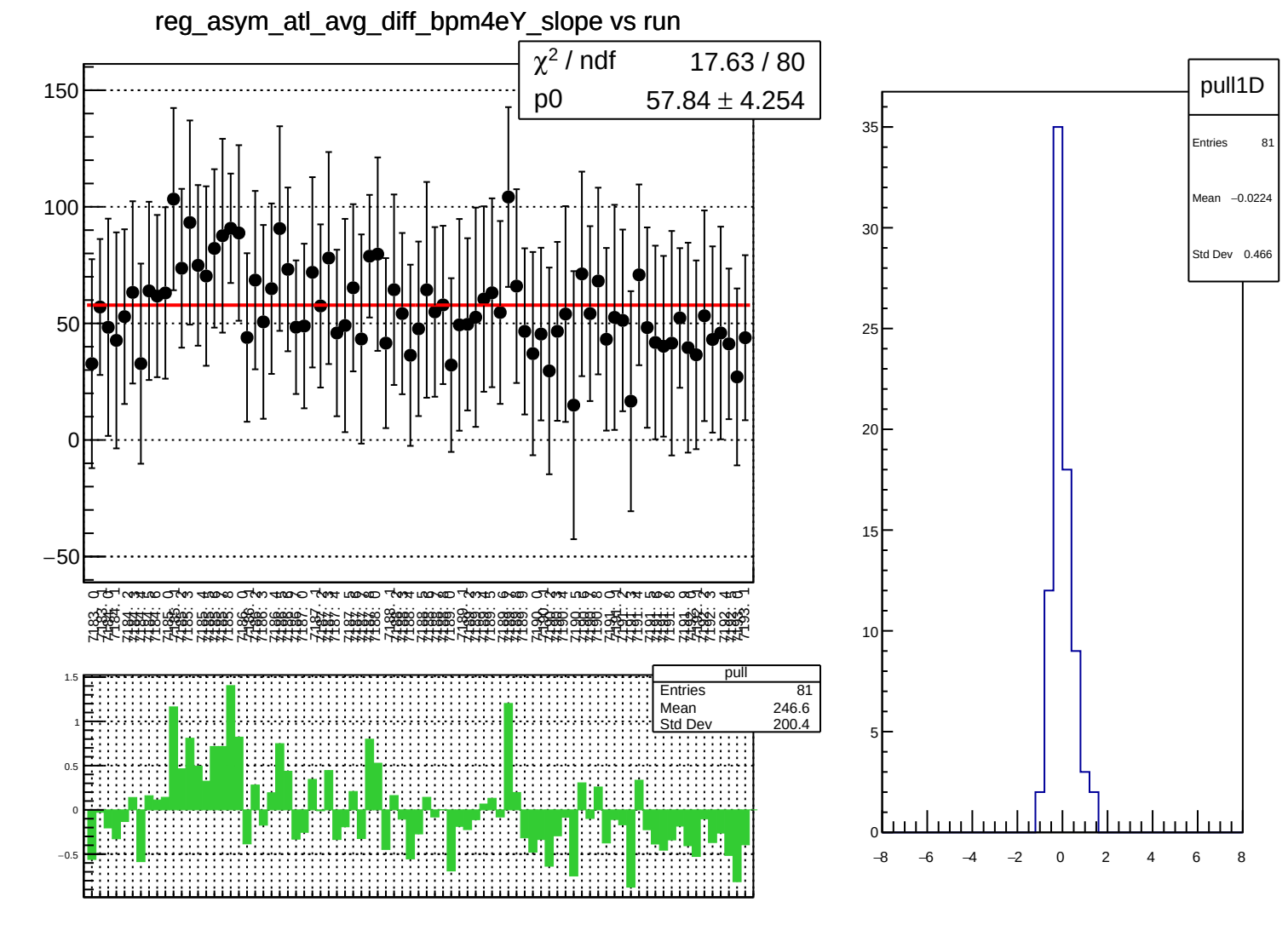

reg_asym_atl_avg_diff_bpm1X_slope vs run
χ² / ndf 34.28 / 80
p0 −265.4 ± 5.258
−150
−200
−250
−300
−350
−400
pull
Entries 81
Mean 203.1
Std Dev 157.2
2
1.5
1
0.5
0
−0.5
−1

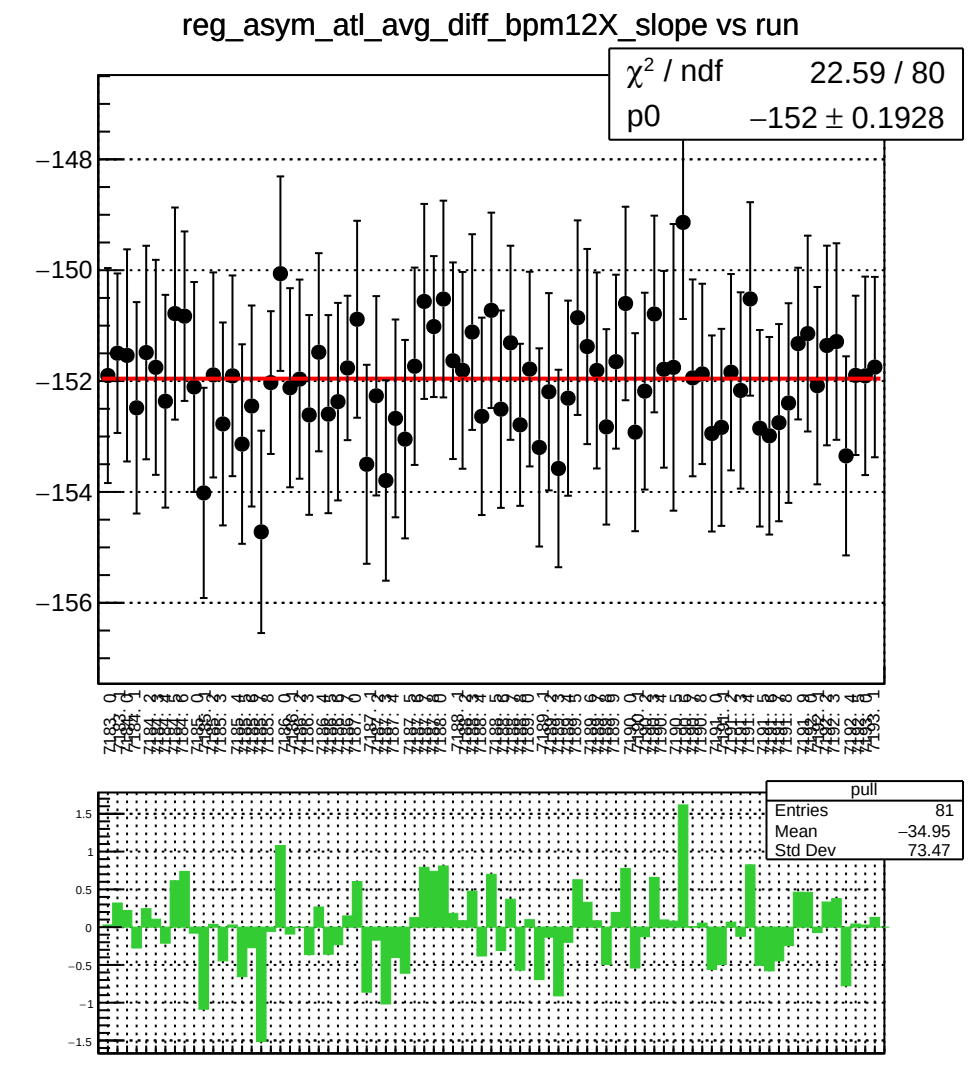

pull1D
Entries 81
Mean −0.03916
Std Dev 0.6493
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

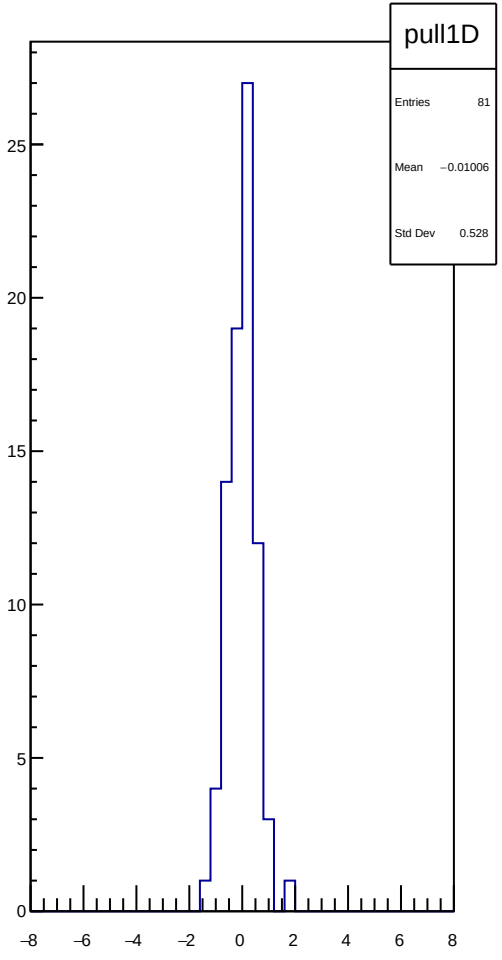

reg_asym_atl_avg_diff_bpm4aY_slope vs run
χ² / ndf 16.99 / 80
p0 9.009 ± 3.916
pull
Entries 81
Mean 259.7
Std Dev 214.5

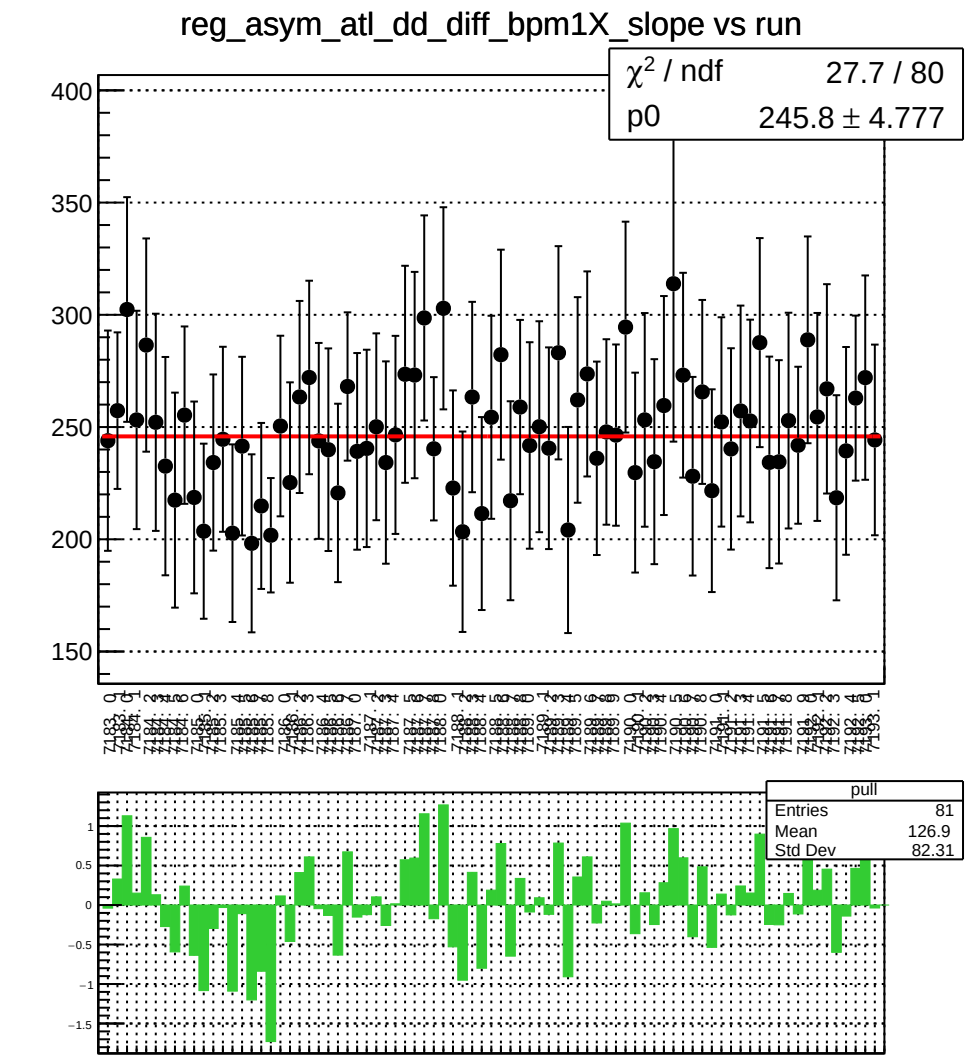

pull1D
Entries 81
Mean 0.02035
Std Dev 0.4575

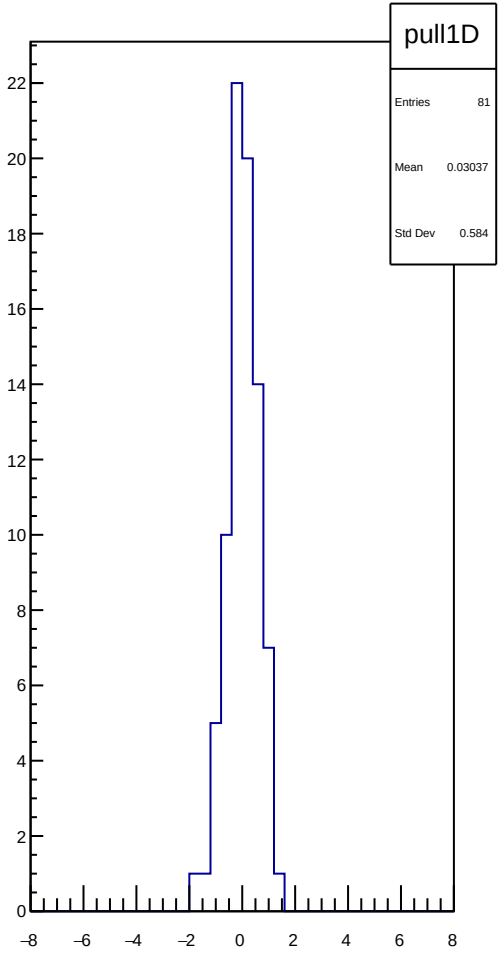

reg_asym_atl_avg_diff_bpm4eX_slope vs run
χ² / ndf 34.41 / 80
p0 249.5 ± 5.265
pull
Entries 81
Mean 197.6
Std Dev 151.8
pull1D
Entries 81
Mean 0.04118
Std Dev 0.6504

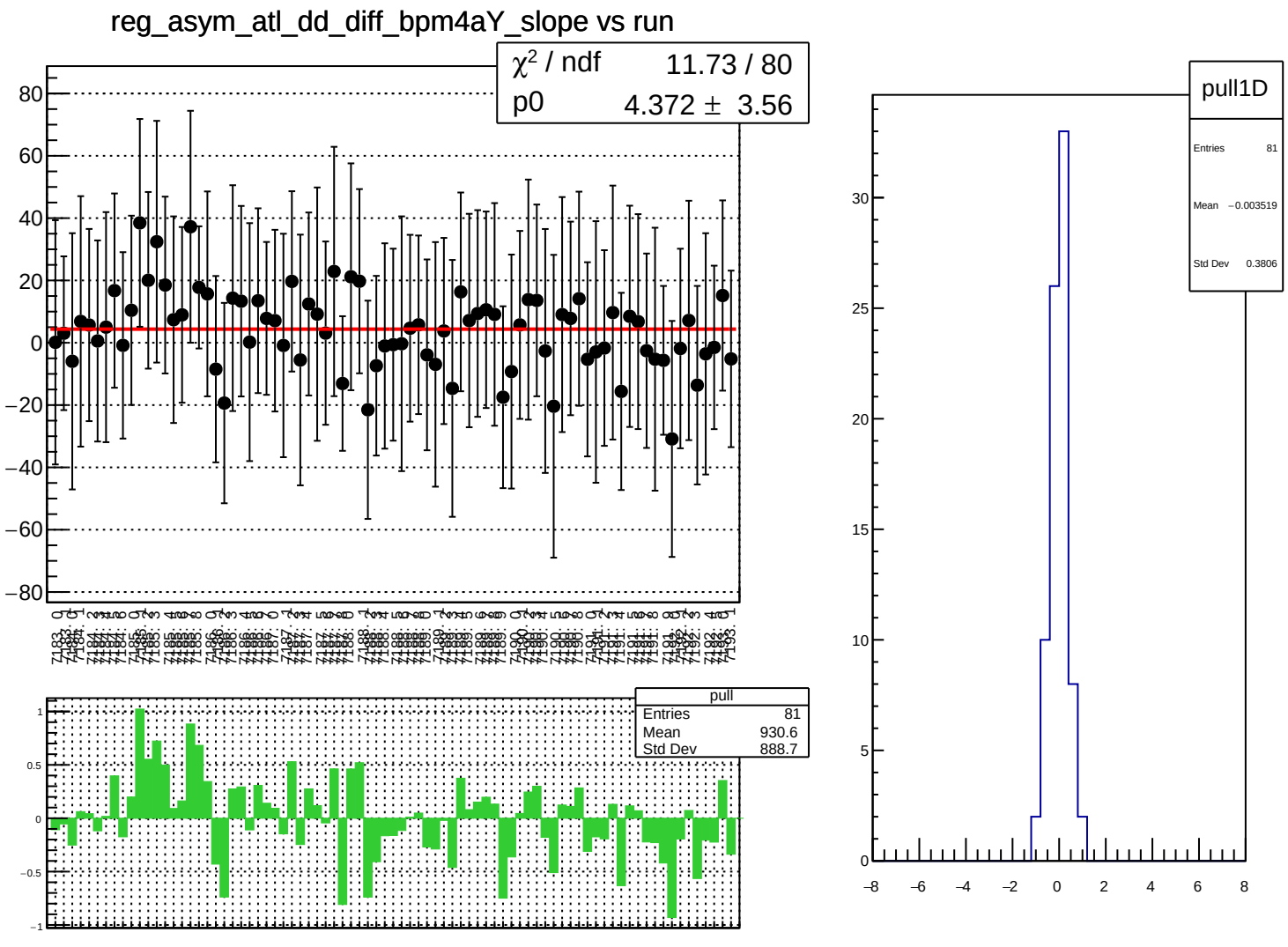

reg_asym_atl_avg_diff_bpm4eY_slope vs run
χ² / ndf 17.63 / 80
p0 57.84 ± 4.254
150
100
50
0
−50
pull
Entries 81
Mean 246.6
Std Dev 200.4
1.5
1
0.5
0
−0.5
pull1D
Entries 81
Mean −0.0224
Std Dev 0.466
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

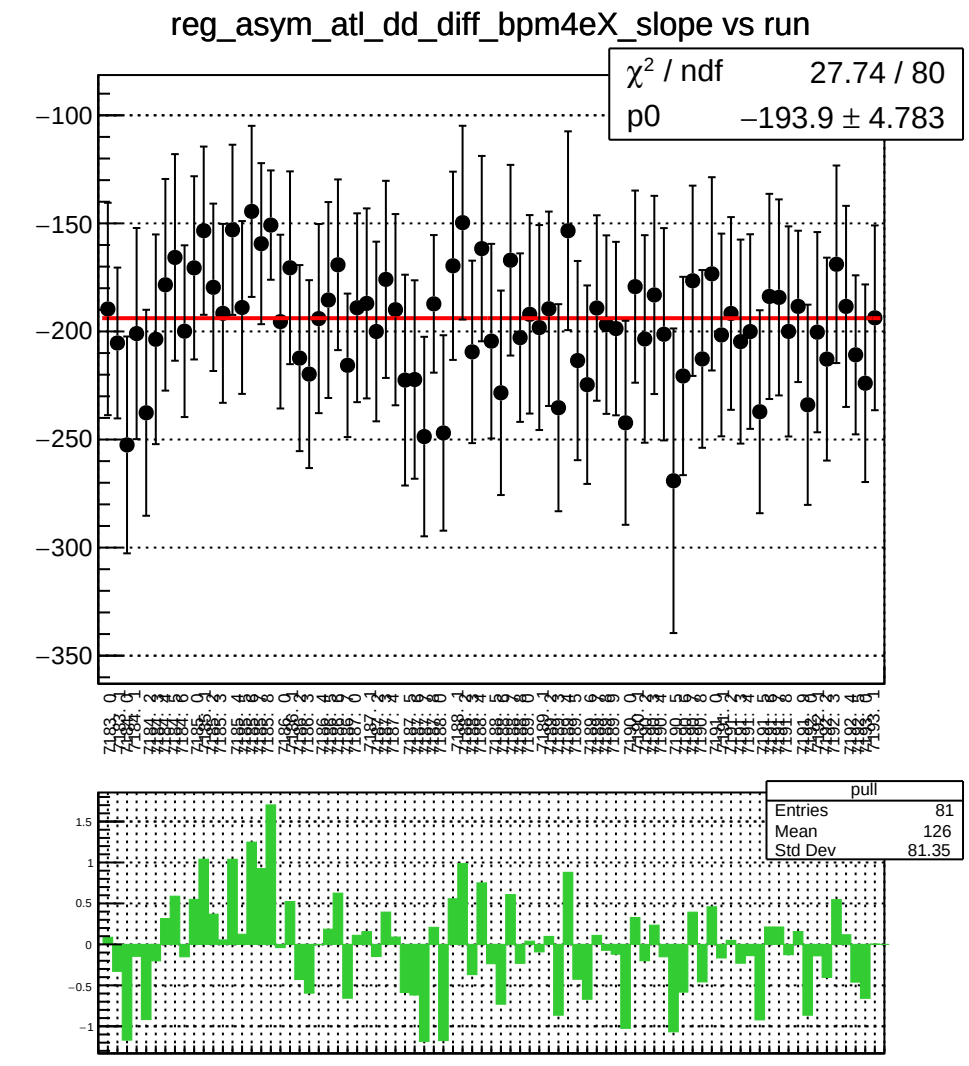

reg_asym_atl_avg_diff_bpm12X_slope vs run
χ² / ndf 22.59 / 80
p0 −152 ± 0.1928
−148
−150
−152
−154
−156
pull
Entries 81
Mean −34.95
Std Dev 73.47
1.5
1
0.5
0
−0.5
−1
−1.5

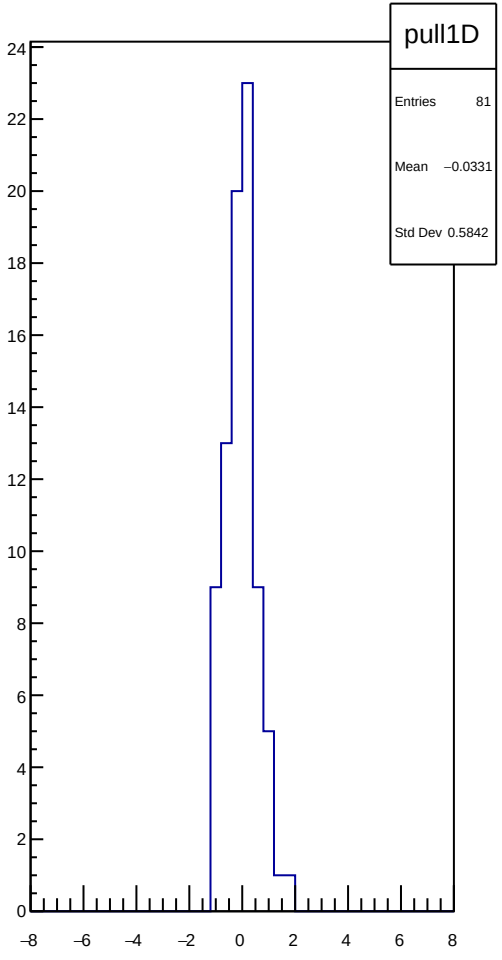

pull1D
Entries 81
Mean −0.01006
Std Dev 0.528
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

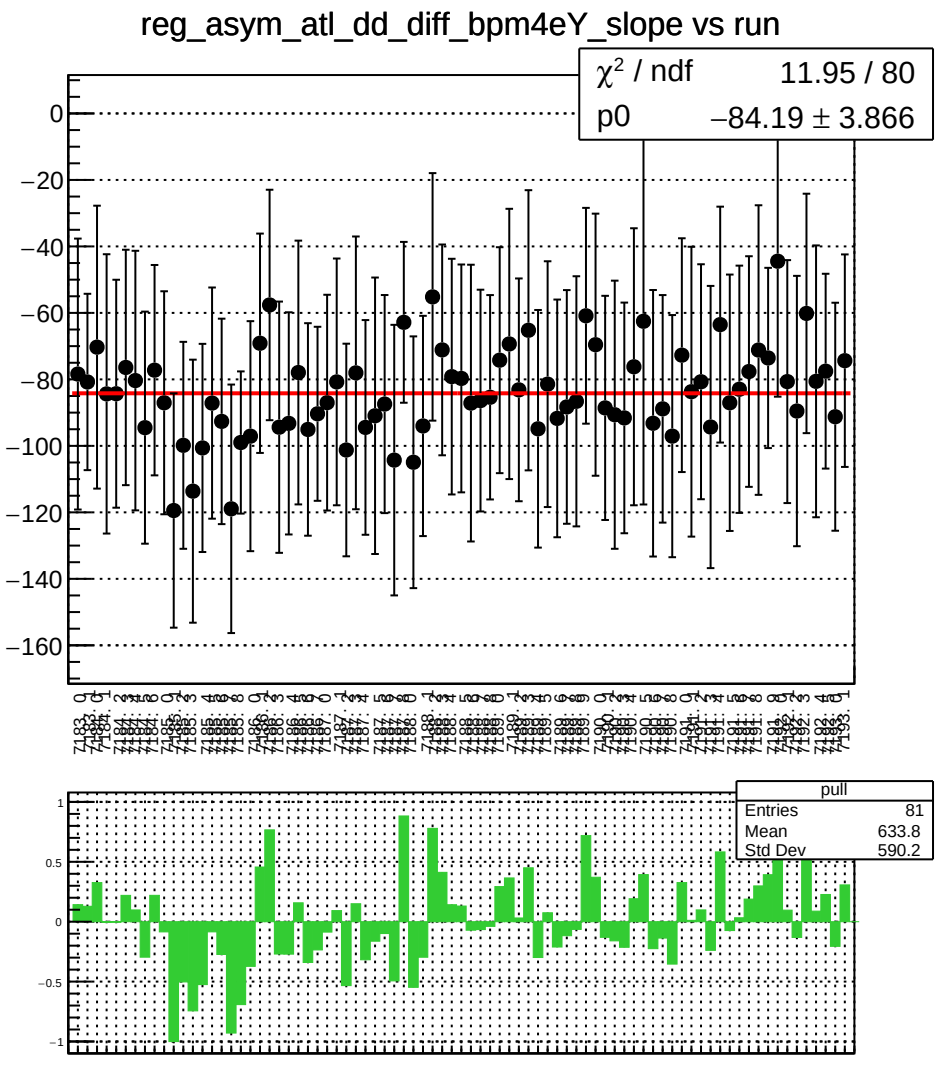

reg_asym_atl_dd_diff_bpm1X_slope vs run
χ² / ndf 27.7 / 80
p0 245.8 ± 4.777
pull
Entries 81
Mean 126.9
Std Dev 82.31

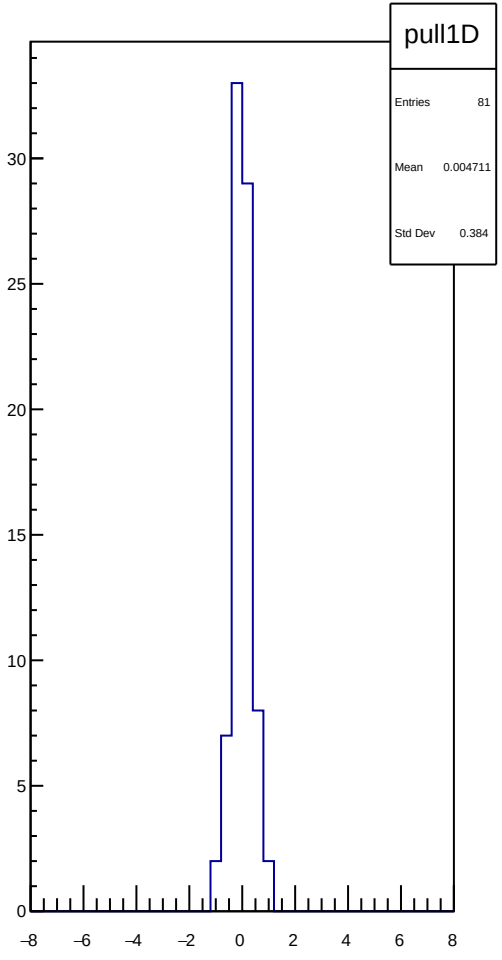

pull1D
Entries 81
Mean 0.03037
Std Dev 0.584

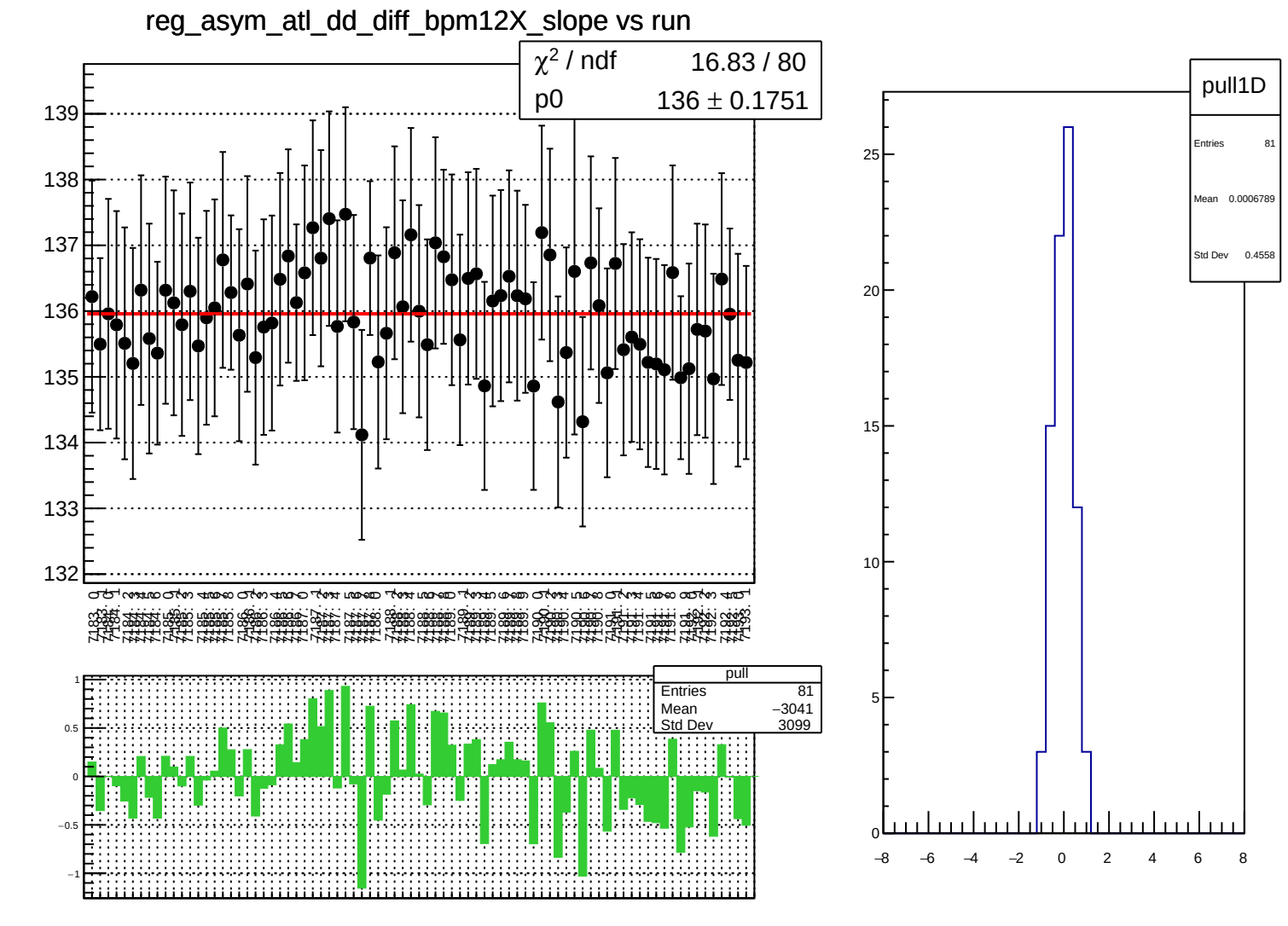

reg_asym_atl_dd_diff_bpm4aY_slope vs run
χ² / ndf 11.73 / 80
p0 4.372 ± 3.56
pull
Entries 81
Mean 930.6
Std Dev 888.7
pull1D
Entries 81
Mean −0.003519
Std Dev 0.3806

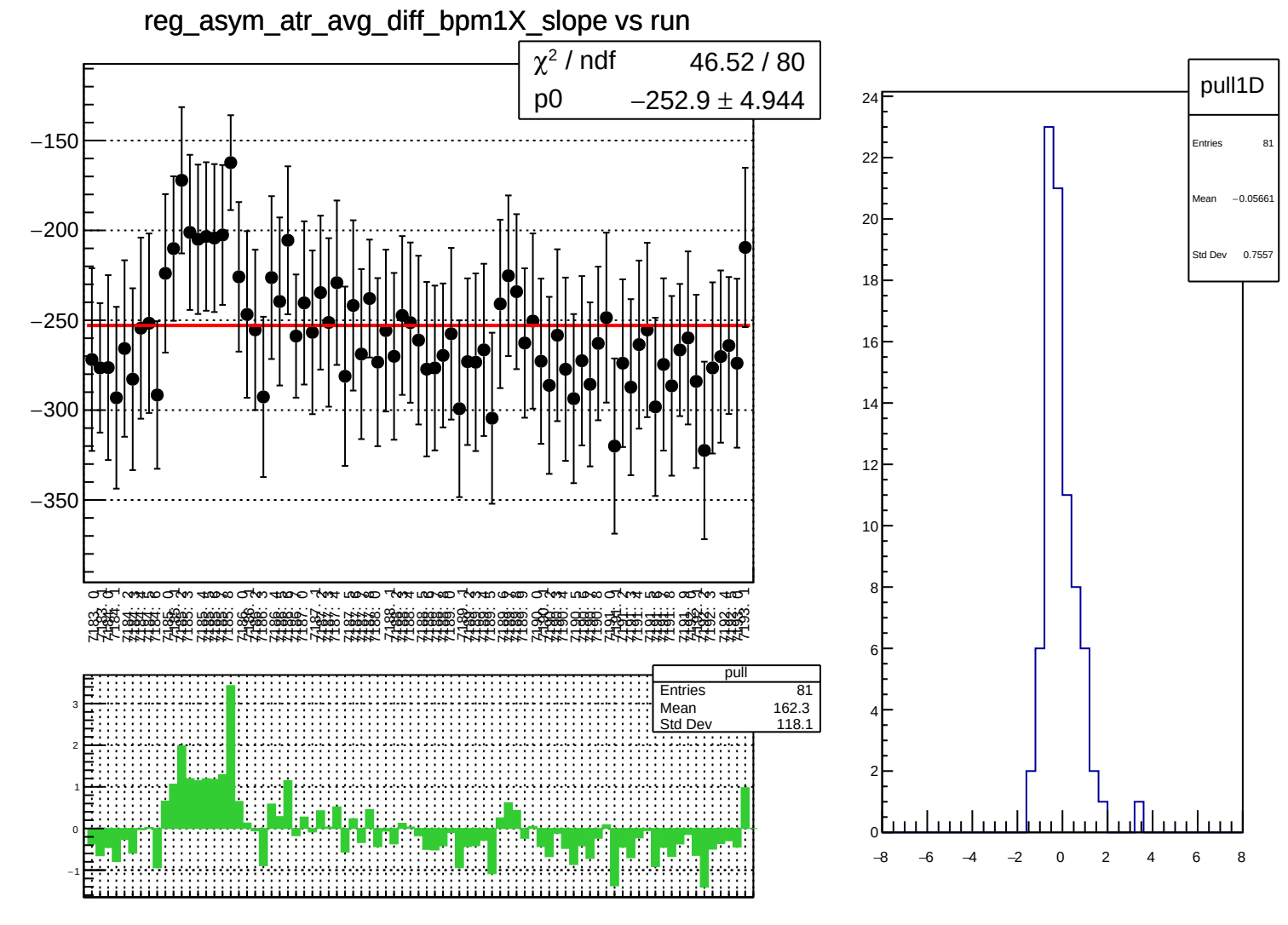

reg_asym_atl_dd_diff_bpm4eX_slope vs run
χ² / ndf 27.74 / 80
p0 −193.9 ± 4.783
pull
Entries 81
Mean 126
Std Dev 81.35

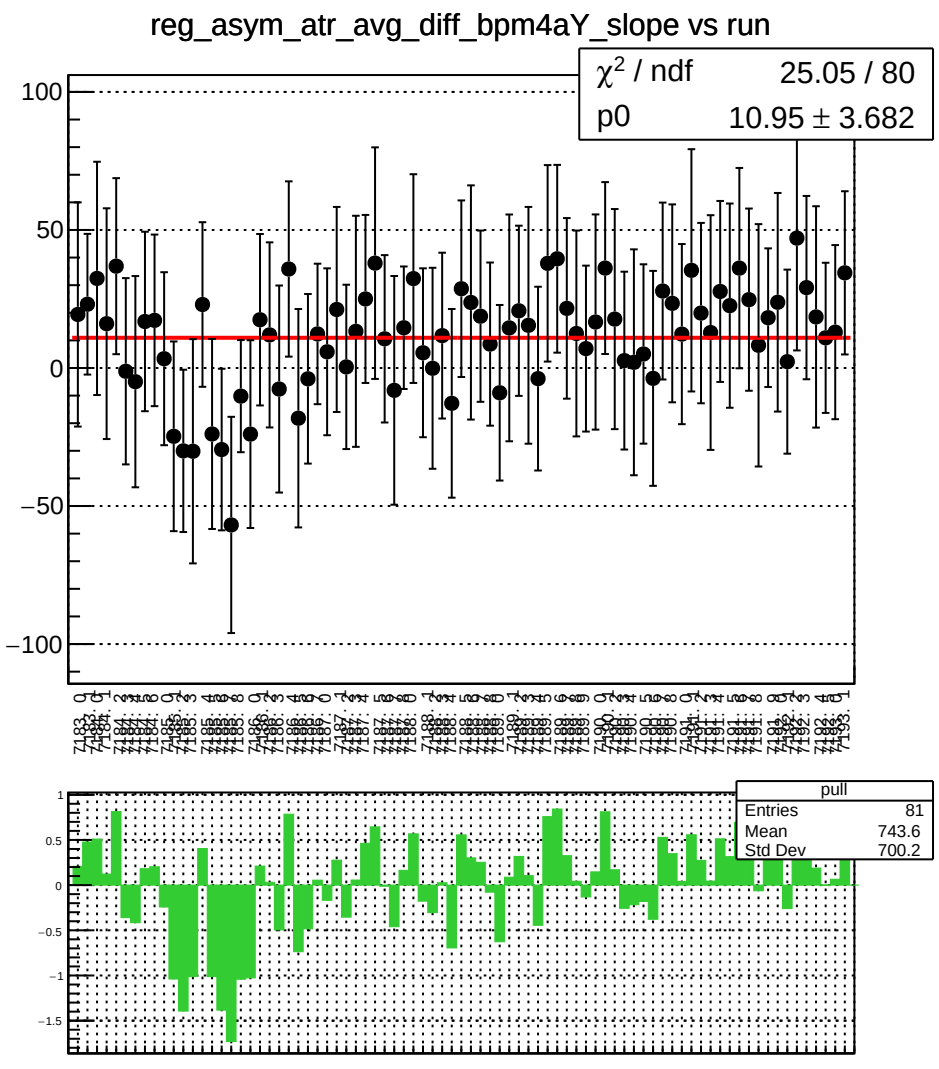

pull1D
Entries 81
Mean −0.0331
Std Dev 0.5842

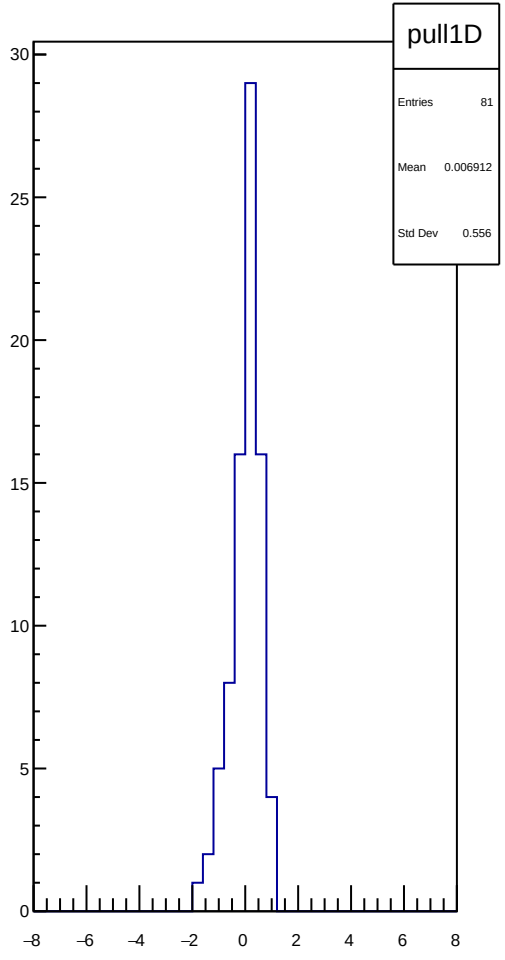

reg_asym_atl_dd_diff_bpm4eY_slope vs run
χ² / ndf 11.95 / 80
p0 −84.19 ± 3.866
pull
Entries 81
Mean 633.8
Std Dev 590.2

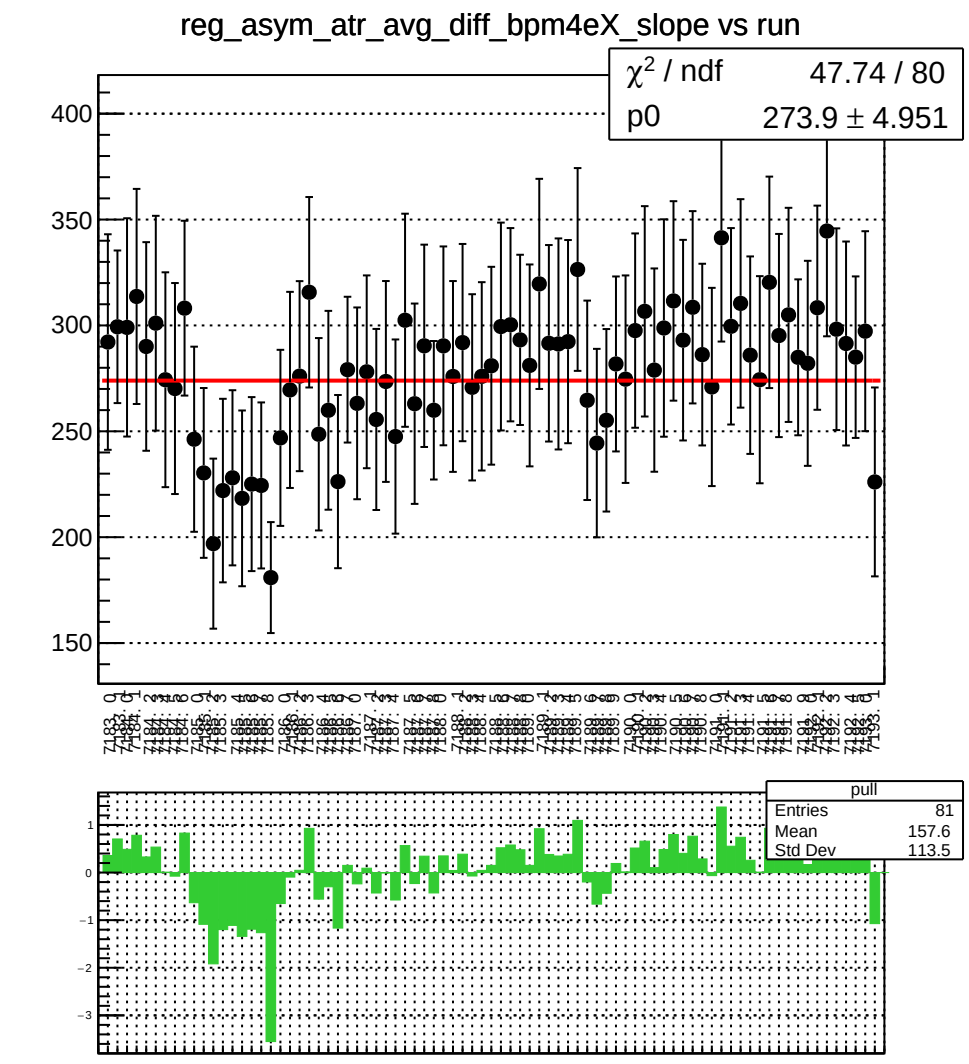

pull1D
Entries 81
Mean 0.004711
Std Dev 0.384

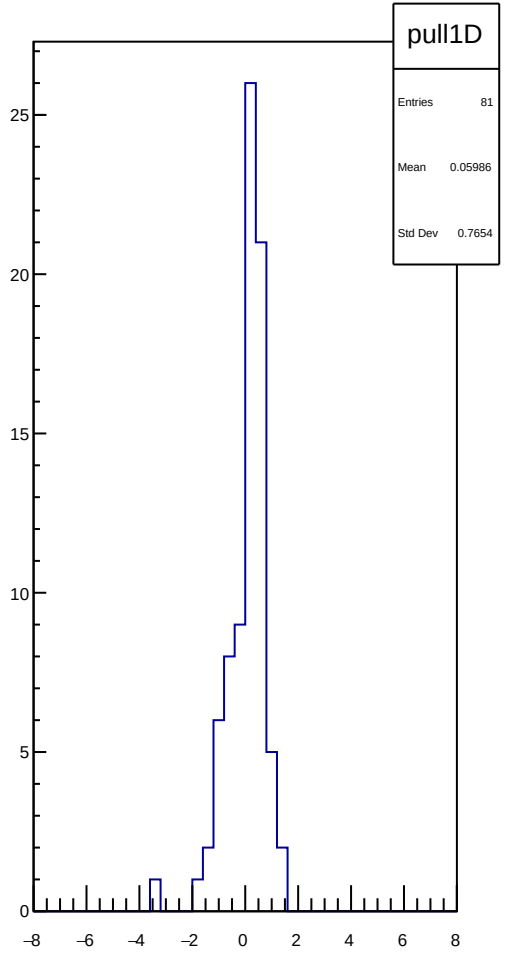

reg_asym_atl_dd_diff_bpm12X_slope vs run
χ² / ndf 16.83 / 80
p0 136 ± 0.1751
pull
Entries 81
Mean −3041
Std Dev 3099
pull1D
Entries 81
Mean 0.0006789
Std Dev 0.4558

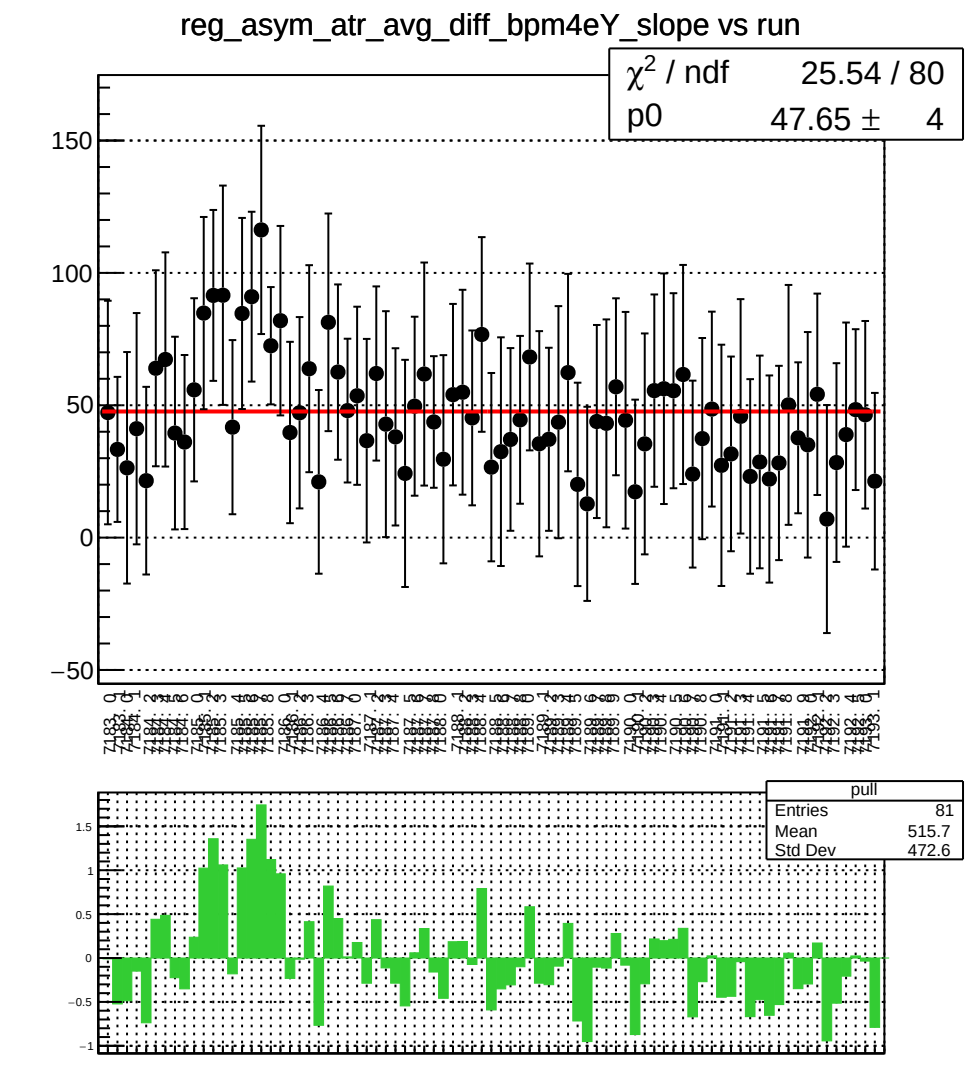

reg_asym_atr_avg_diff_bpm1X_slope vs run
χ² / ndf 46.52 / 80
p0 −252.9 ± 4.944
−150
−200
−250
−300
−350
pull
Entries 81
Mean 162.3
Std Dev 118.1
3
2
1
0
−1
pull1D
Entries 81
Mean −0.05661
Std Dev 0.7557
24
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

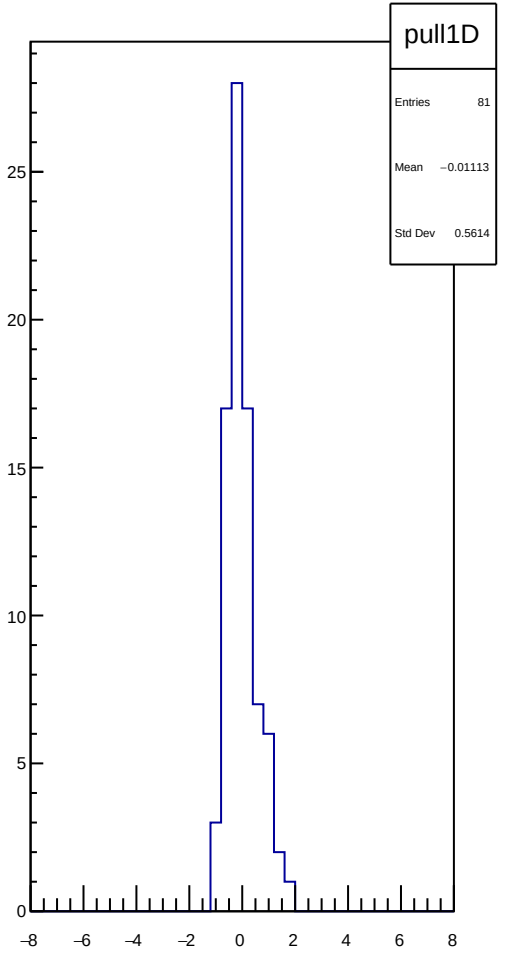

reg_asym_atr_avg_diff_bpm4aY_slope vs run
χ² / ndf 25.05 / 80
p0 10.95 ± 3.682
100
50
0
−50
−100
pull
Entries 81
Mean 743.6
Std Dev 700.2
1
0.5
0
−0.5
−1
−1.5

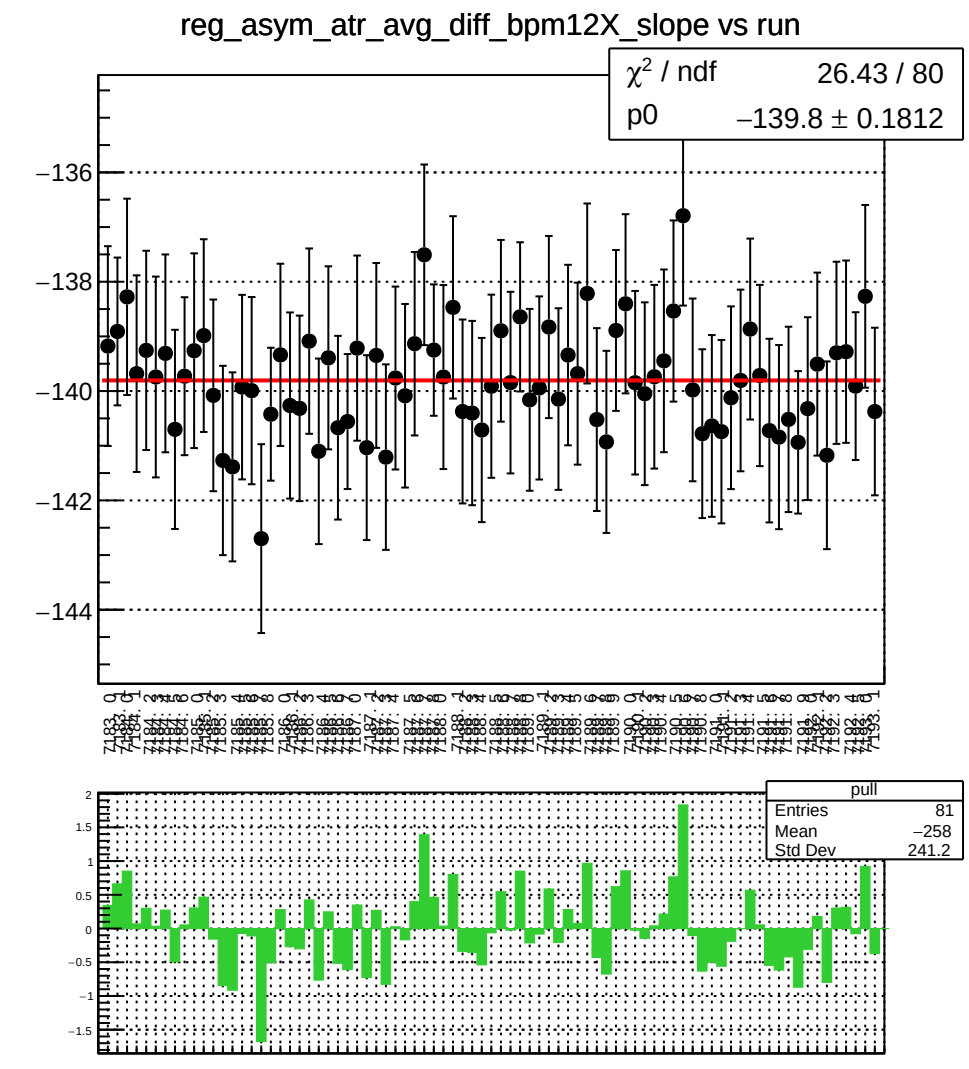

pull1D
Entries 81
Mean 0.006912
Std Dev 0.556
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

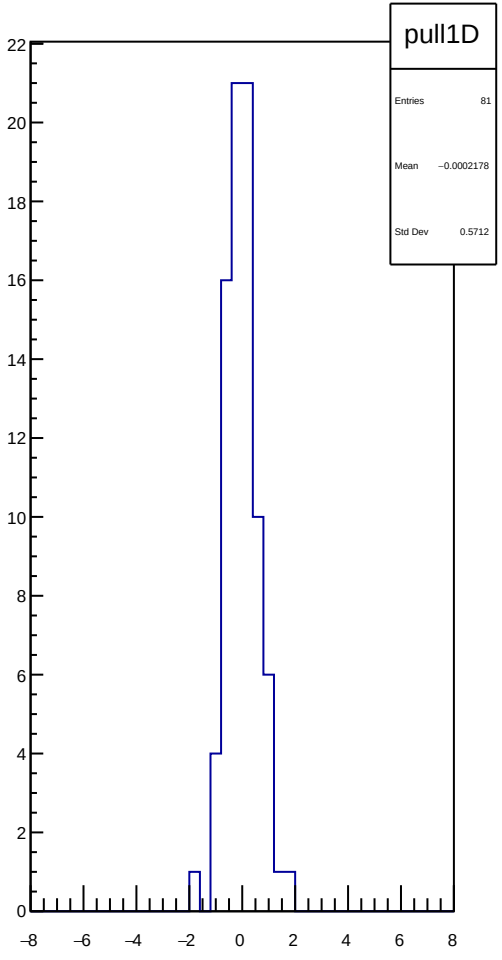

reg_asym_atr_avg_diff_bpm4eX_slope vs run
χ² / ndf 47.74 / 80
p0 273.9 ± 4.951
pull
Entries 81
Mean 157.6
Std Dev 113.5

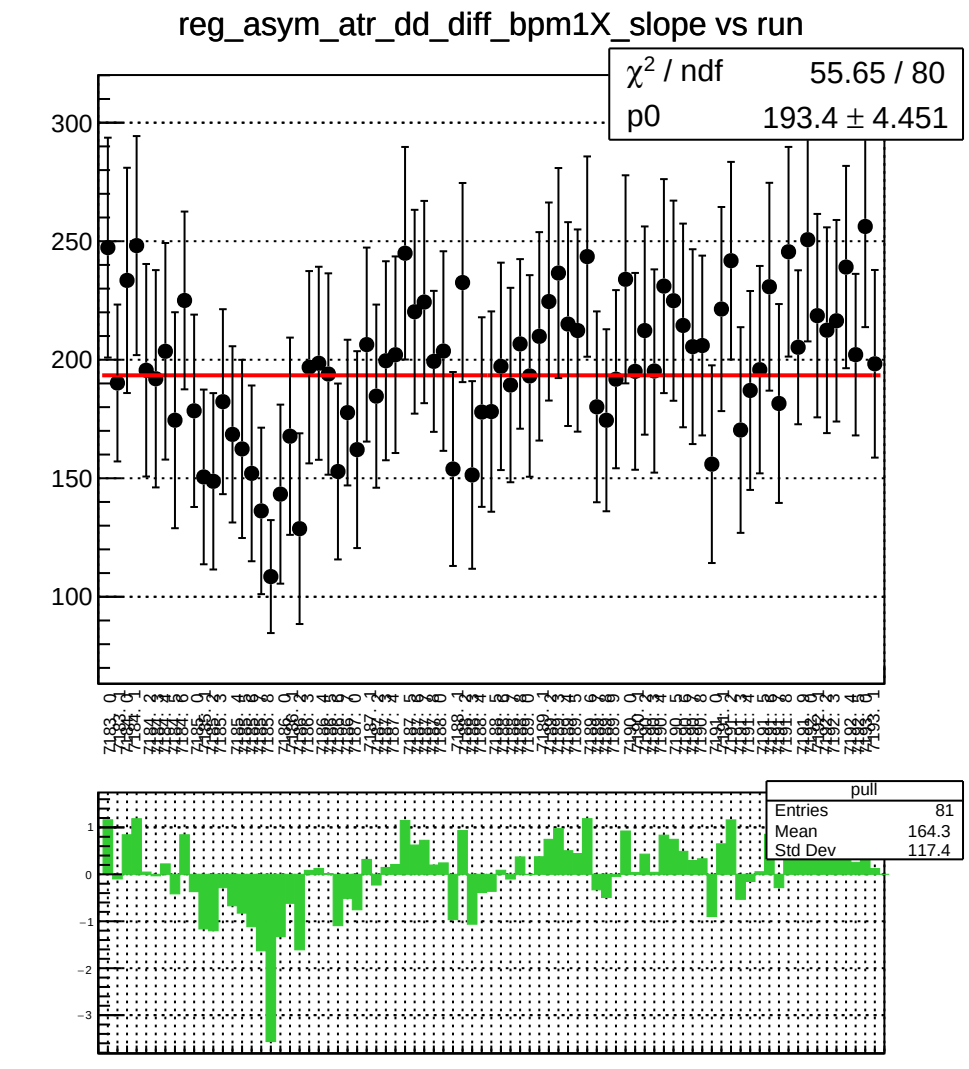

pull1D
Entries 81
Mean 0.05986
Std Dev 0.7654

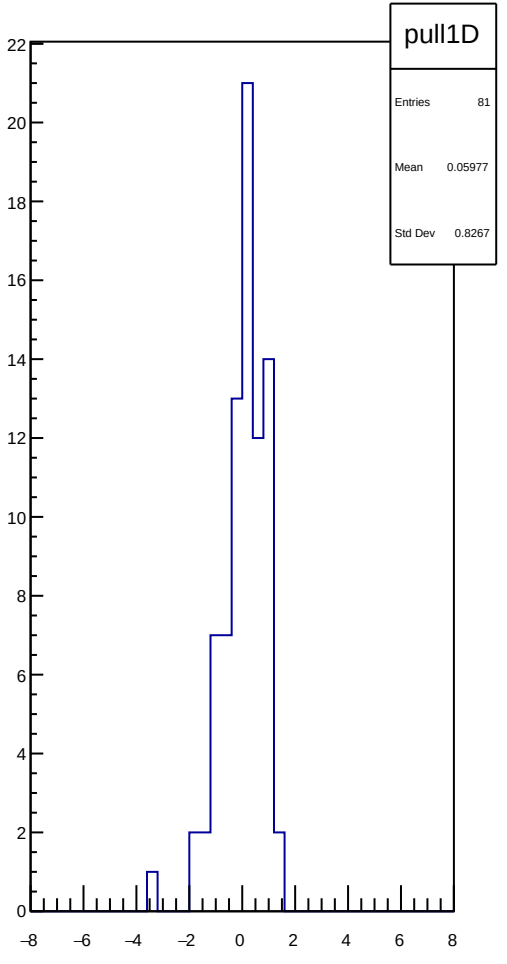

reg_asym_atr_avg_diff_bpm4eY_slope vs run
χ² / ndf 25.54 / 80
p0 47.65 ± 4
150
100
50
0
−50
pull
Entries 81
Mean 515.7
Std Dev 472.6
1.5
1
0.5
0
−0.5
−1

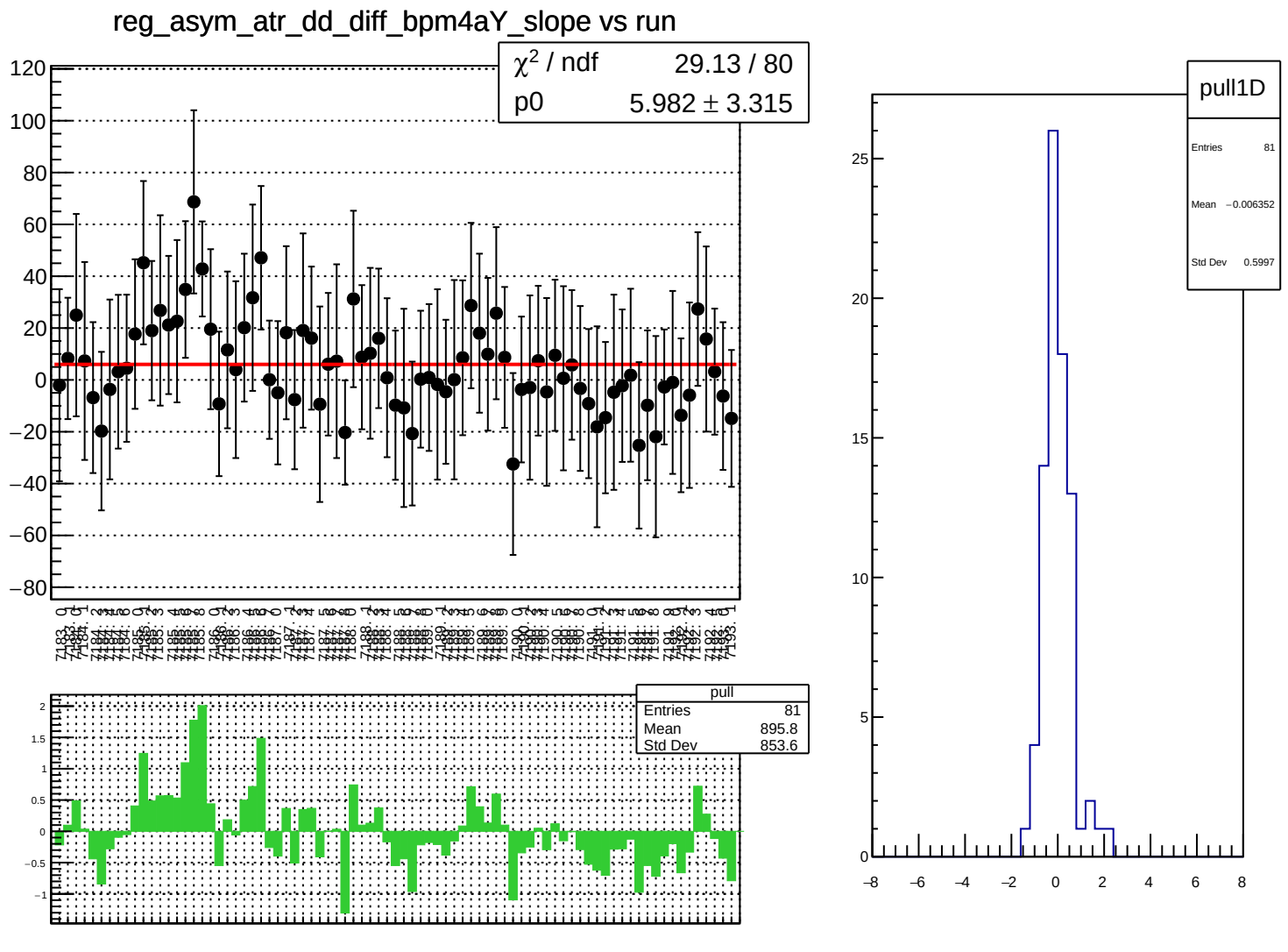

pull1D
Entries 81
Mean −0.01113
Std Dev 0.5614
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

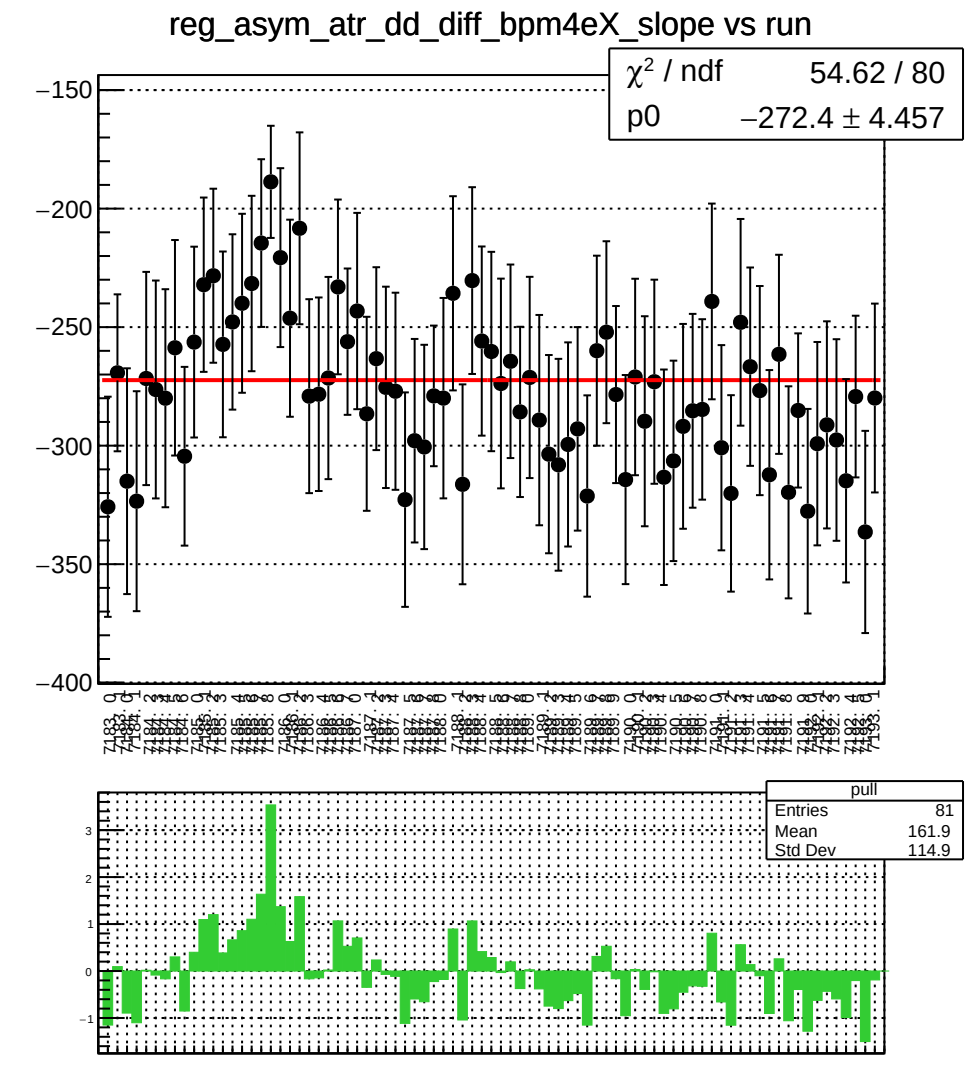

reg_asym_atr_avg_diff_bpm12X_slope vs run
χ² / ndf 26.43 / 80
p0 −139.8 ± 0.1812
−136
−138
−140
−142
−144
pull
Entries 81
Mean −258
Std Dev 241.2
2
1.5
1
0.5
0
−0.5
−1
−1.5

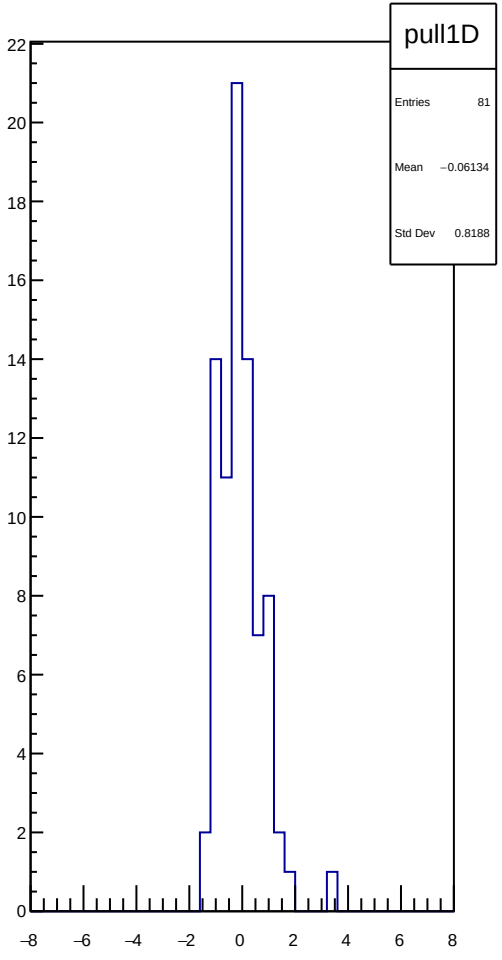

pull1D
Entries 81
Mean −0.0002178
Std Dev 0.5712
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

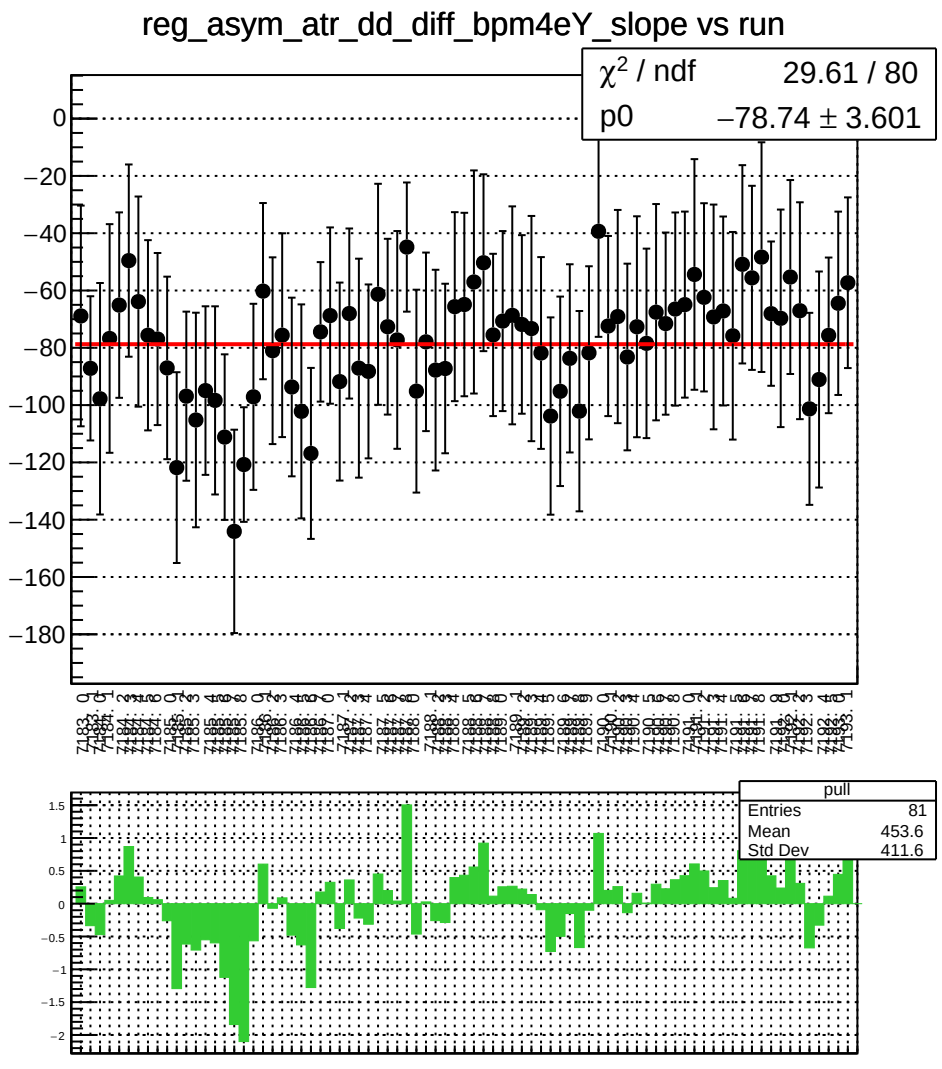

reg_asym_atr_dd_diff_bpm1X_slope vs run
χ² / ndf 55.65 / 80
p0 193.4 ± 4.451
300
250
200
150
100
pull
Entries 81
Mean 164.3
Std Dev 117.4
1
0
−1
−2
−3

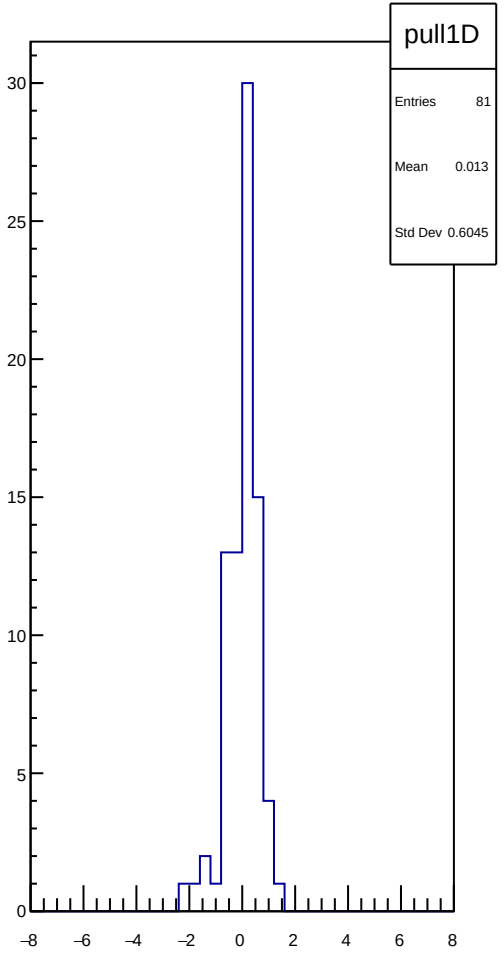

pull1D
Entries 81
Mean 0.05977
Std Dev 0.8267
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

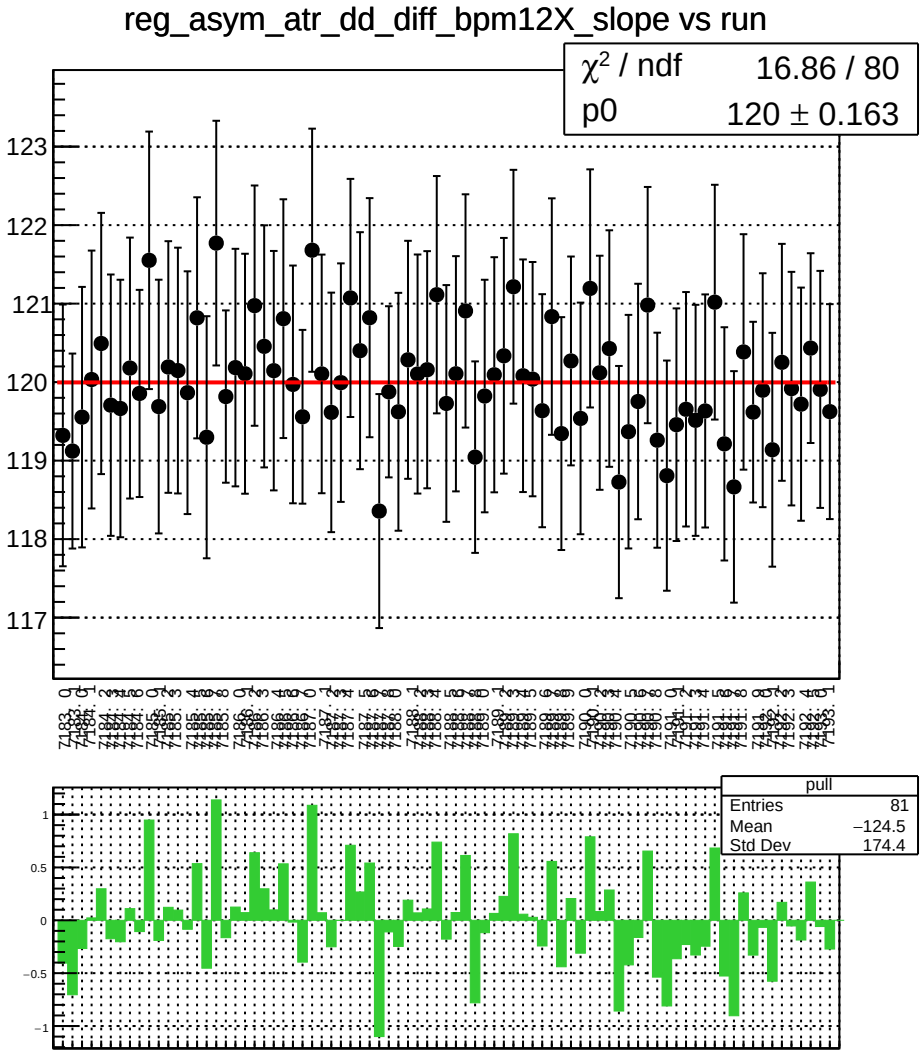

reg_asym_atr_dd_diff_bpm4aY_slope vs run
χ² / ndf 29.13 / 80
p0 5.982 ± 3.315
pull
Entries 81
Mean 895.8
Std Dev 853.6
pull1D
Entries 81
Mean −0.006352
Std Dev 0.5997

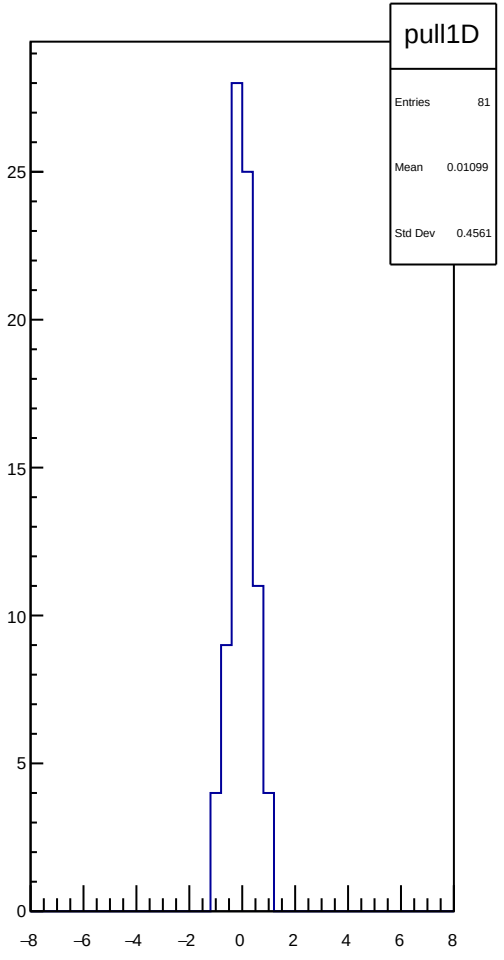

reg_asym_atr_dd_diff_bpm4eX_slope vs run
χ² / ndf 54.62 / 80
p0 −272.4 ± 4.457
pull
Entries 81
Mean 161.9
Std Dev 114.9

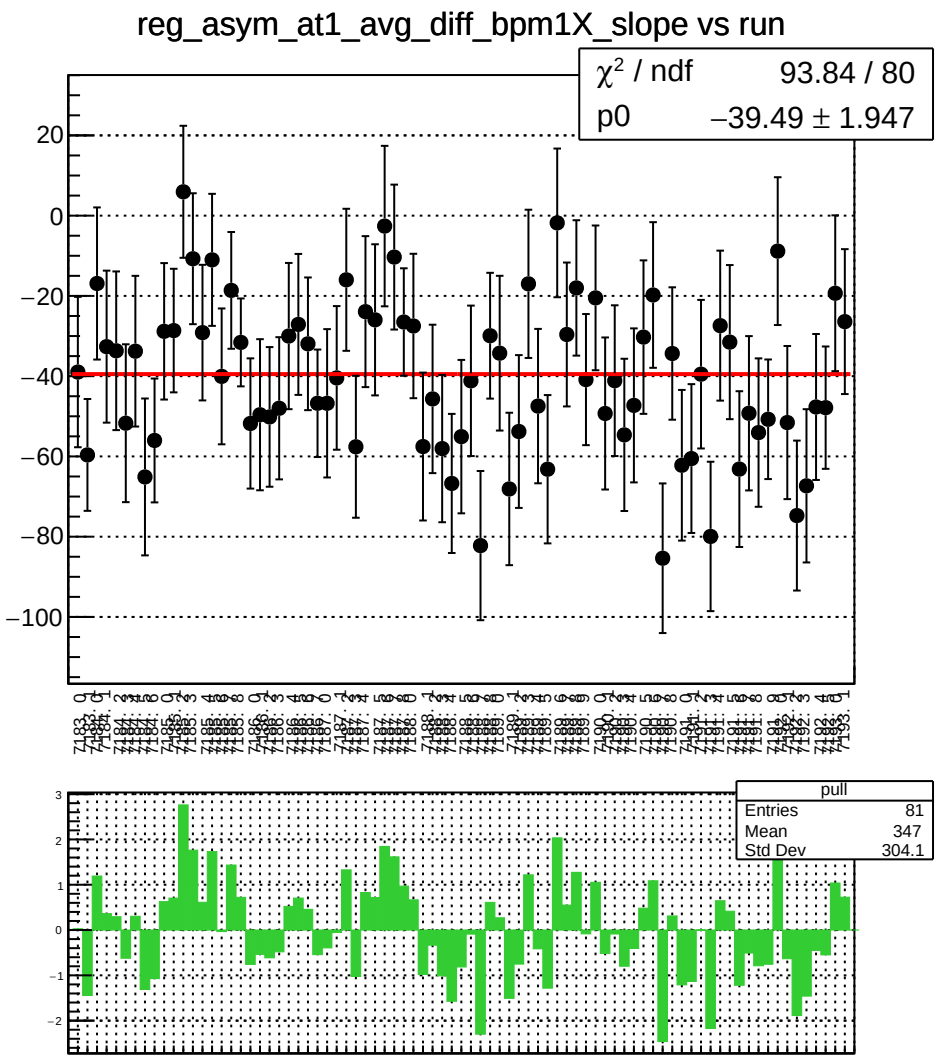

pull1D
Entries 81
Mean −0.06134
Std Dev 0.8188

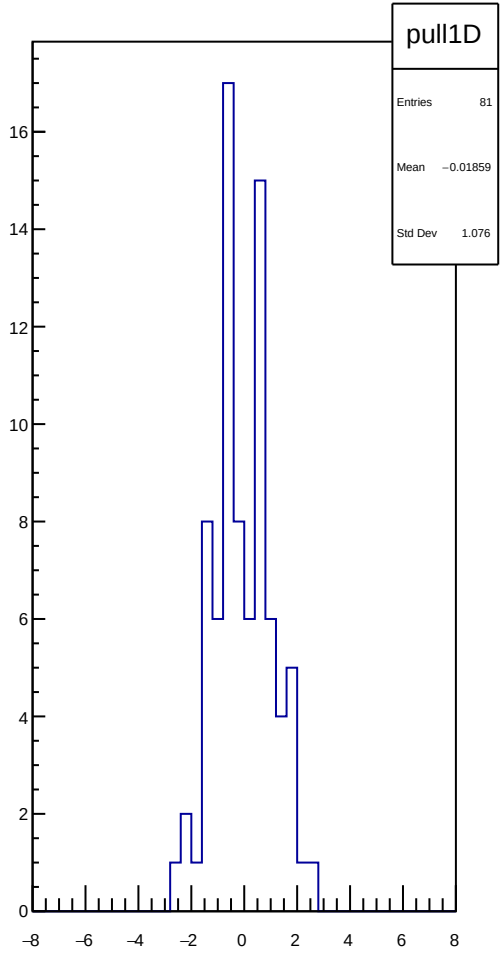

reg_asym_atr_dd_diff_bpm4eY_slope vs run
χ² / ndf 29.61 / 80
p0 −78.74 ± 3.601
pull
Entries 81
Mean 453.6
Std Dev 411.6

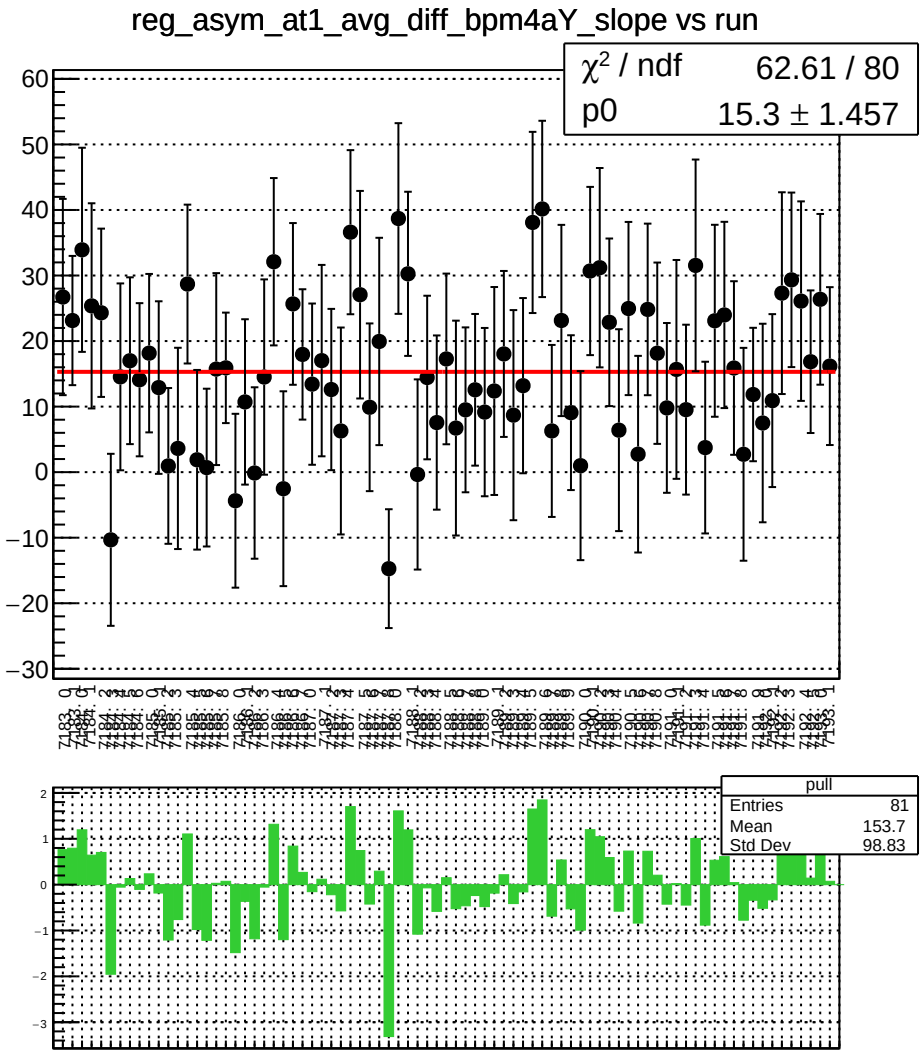

pull1D
Entries 81
Mean 0.013
Std Dev 0.6045

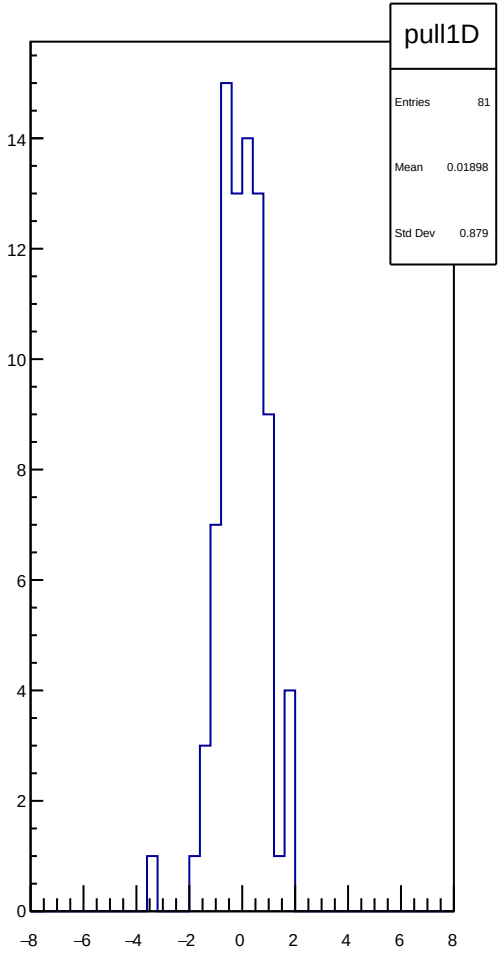

reg_asym_atr_dd_diff_bpm12X_slope vs run
χ^2 / ndf 16.86 / 80
p0 120 ± 0.163
123
122
121
120
119
118
117
pull
Entries 81
Mean −124.5
Std Dev 174.4
1
0.5
0
−0.5
−1

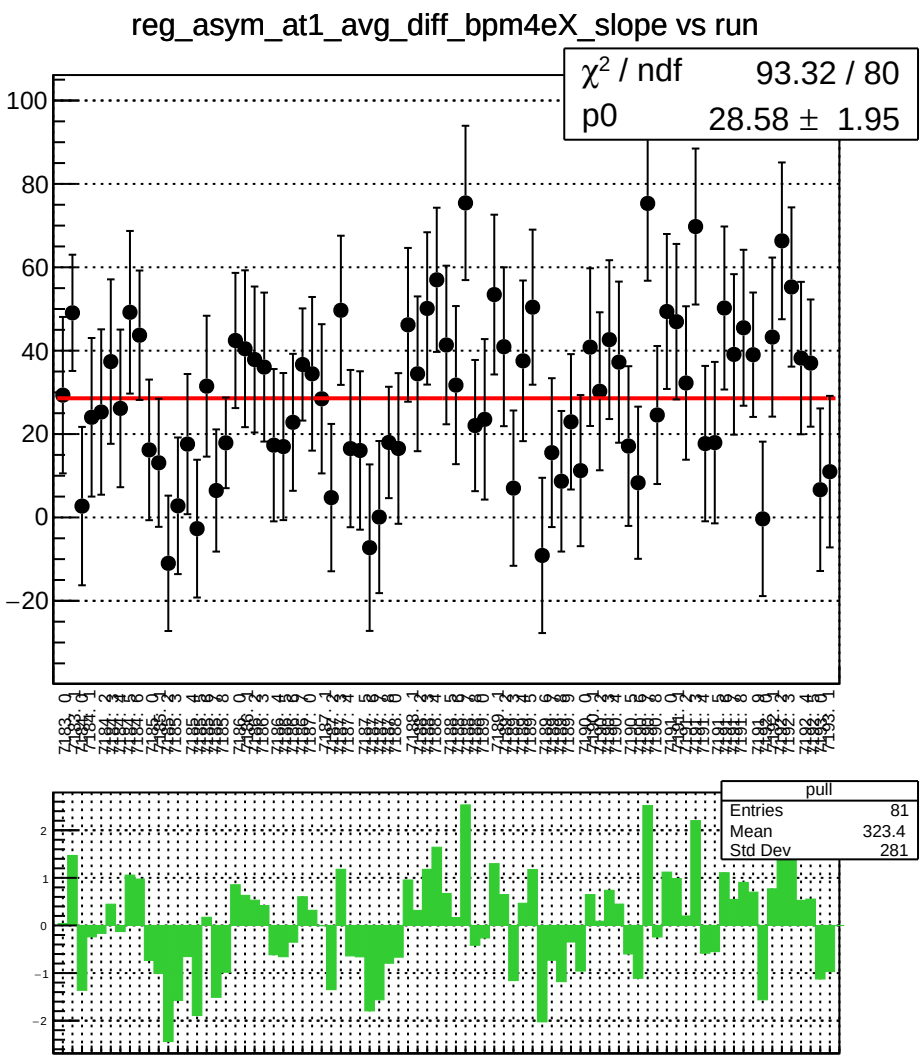

pull1D
Entries 81
Mean 0.01099
Std Dev 0.4561
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

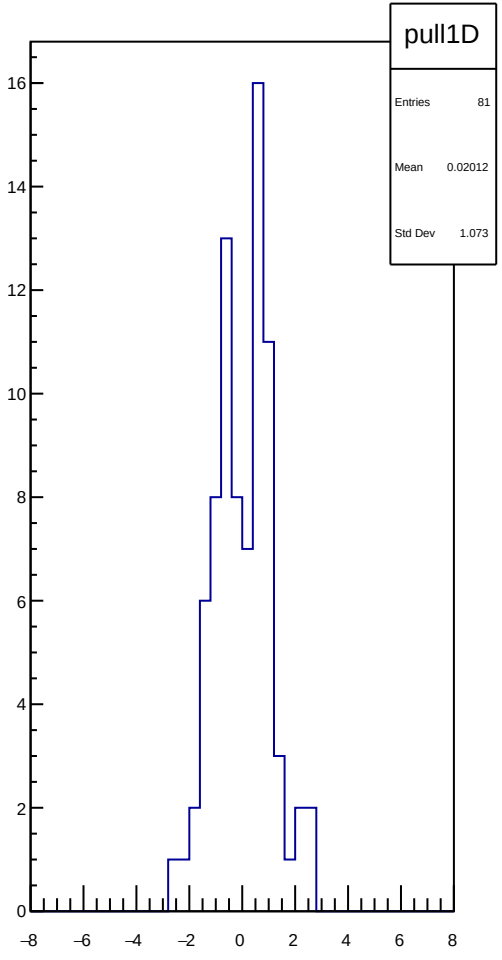

reg_asym_at1_avg_diff_bpm1X_slope vs run
χ² / ndf 93.84 / 80
p0 −39.49 ± 1.947
pull
Entries 81
Mean 347
Std Dev 304.1

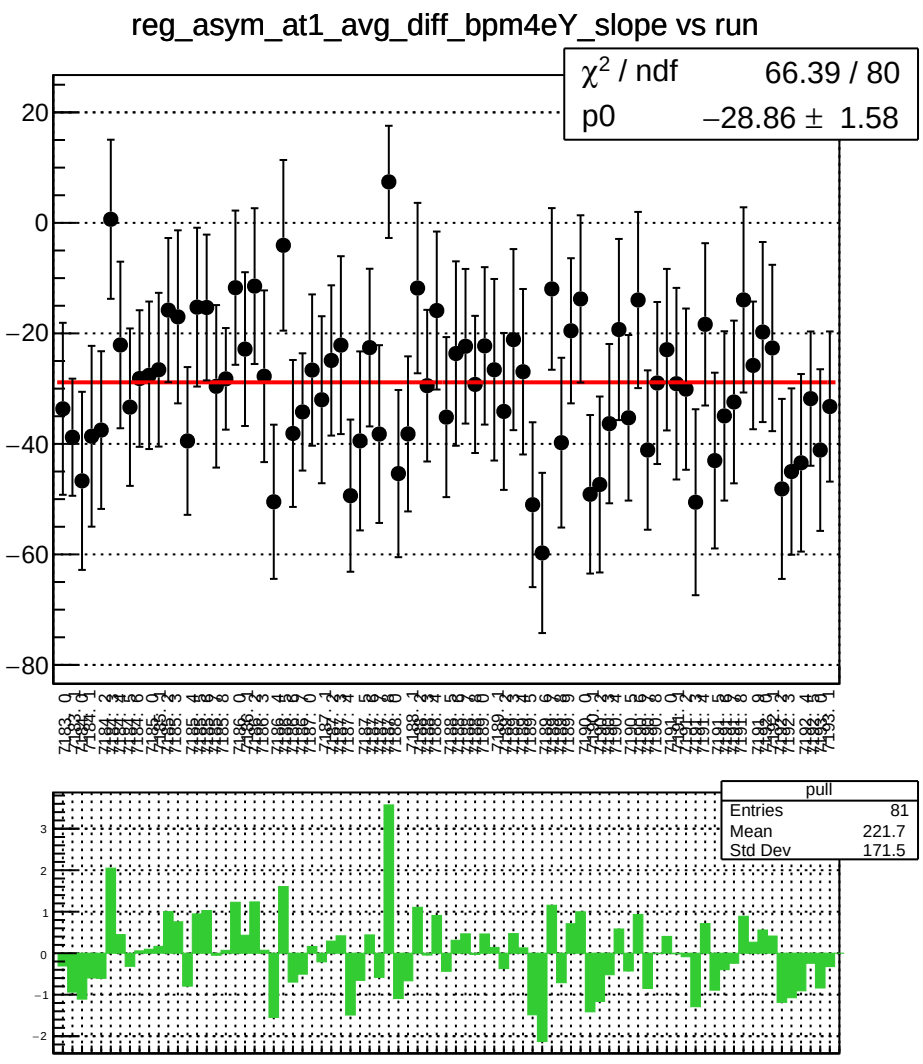

pull1D
Entries 81
Mean −0.01859
Std Dev 1.076

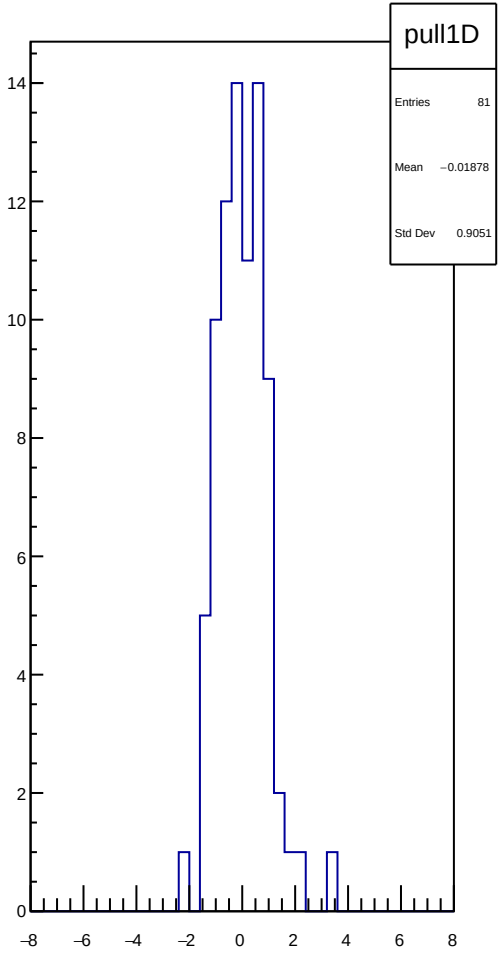

reg_asym_at1_avg_diff_bpm4aY_slope vs run
χ² / ndf 62.61 / 80
p0 15.3 ± 1.457
pull
Entries 81
Mean 153.7
Std Dev 98.83

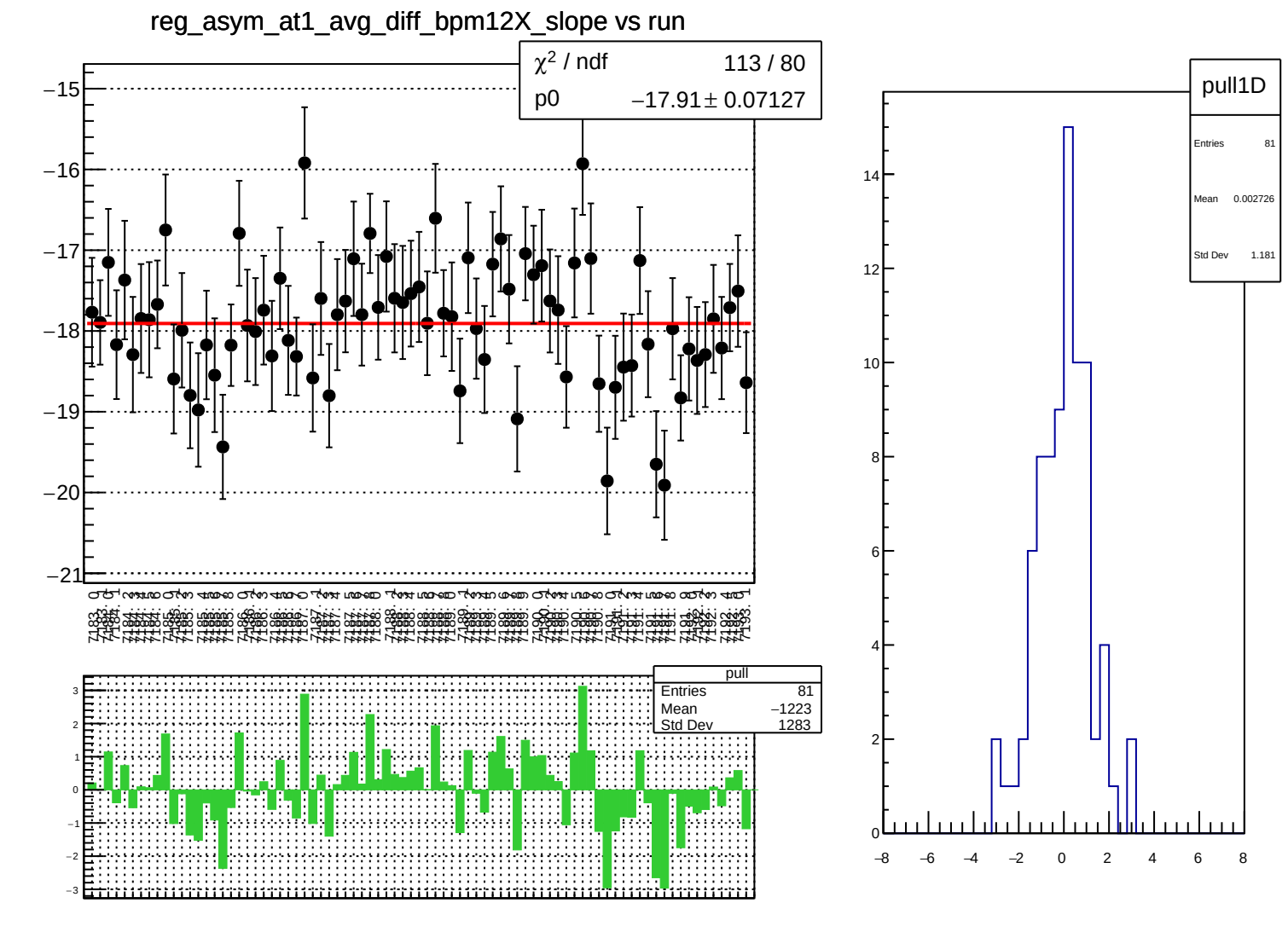

pull1D
Entries 81
Mean 0.01898
Std Dev 0.879

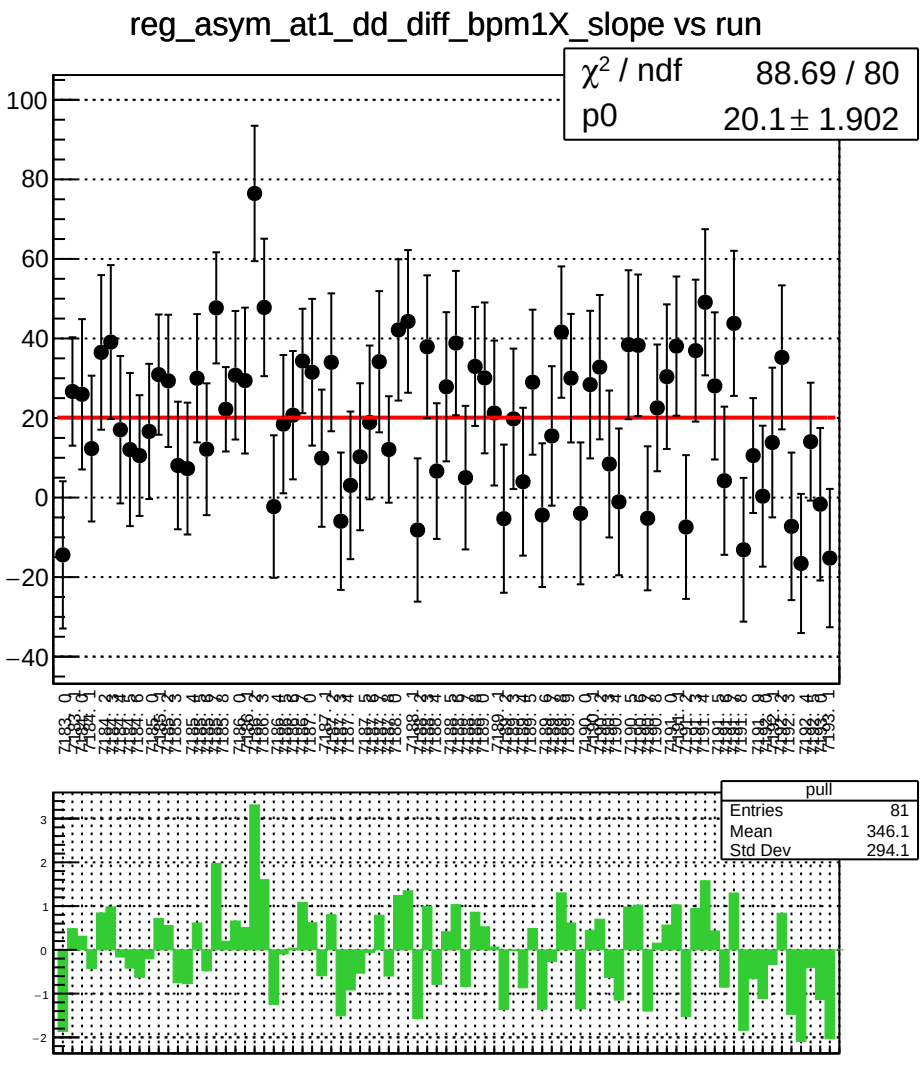

reg_asym_at1_avg_diff_bpm4eX_slope vs run
χ² / ndf 93.32 / 80
p0 28.58 ± 1.95
pull
Entries 81
Mean 323.4
Std Dev 281

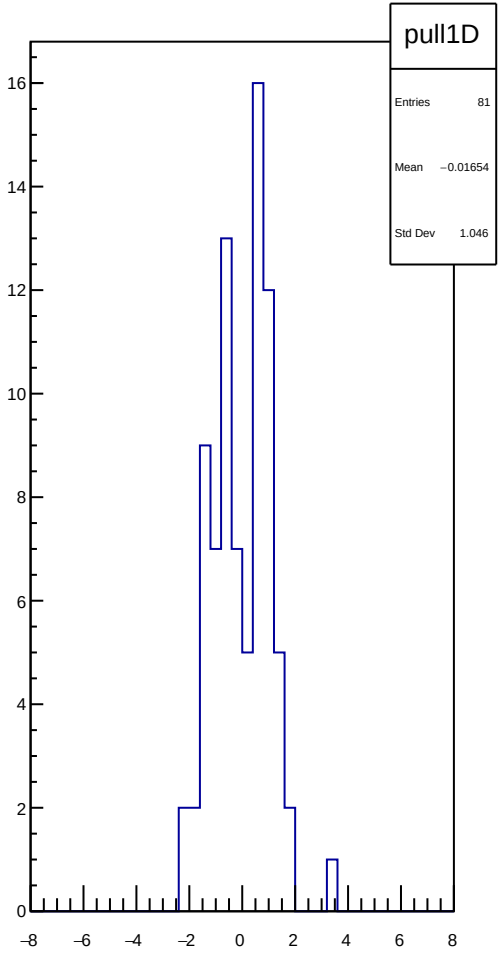

pull1D
Entries 81
Mean 0.02012
Std Dev 1.073

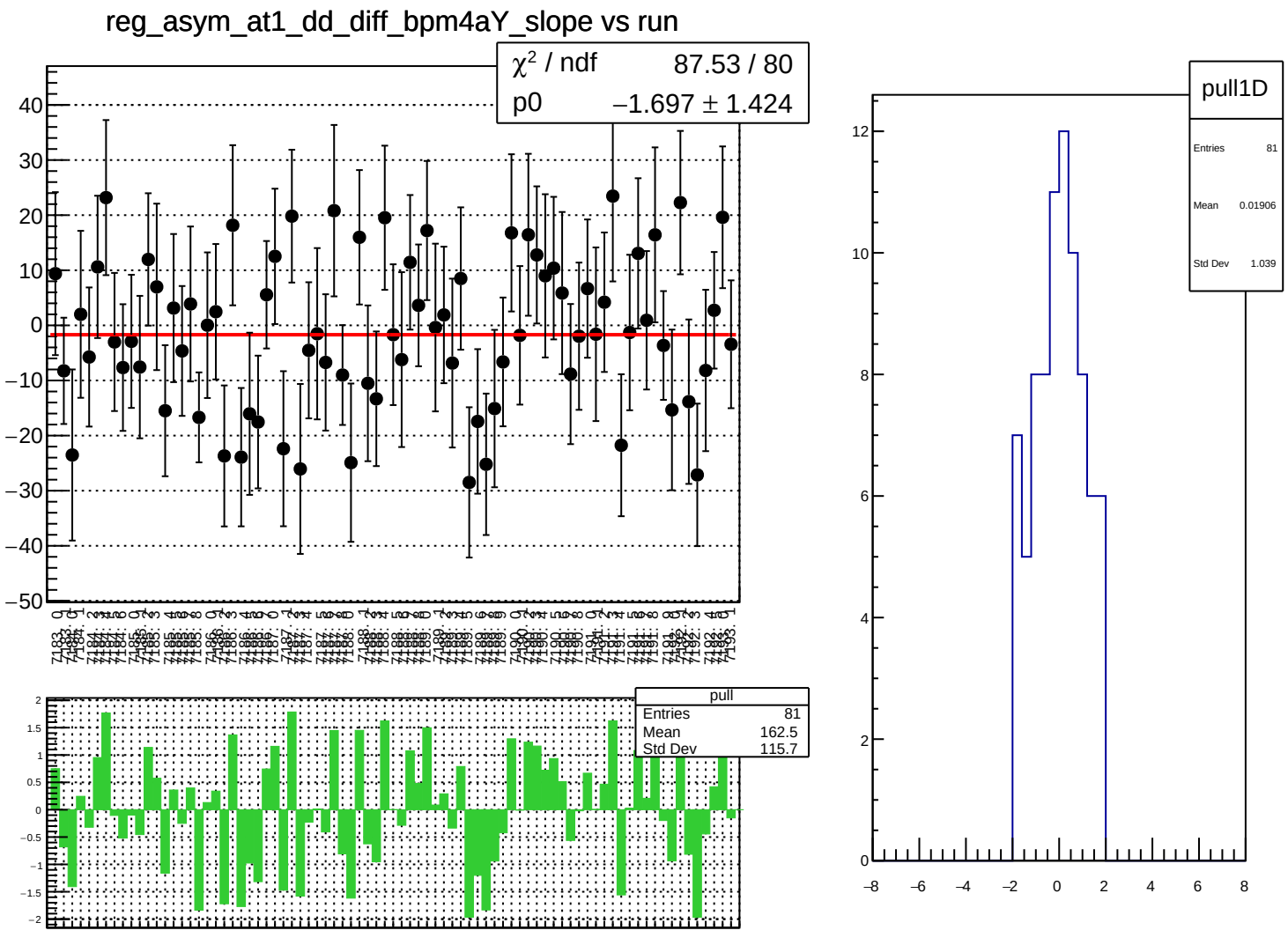

reg_asym_at1_avg_diff_bpm4eY_slope vs run
χ² / ndf 66.39 / 80
p0 −28.86 ± 1.58
pull
Entries 81
Mean 221.7
Std Dev 171.5

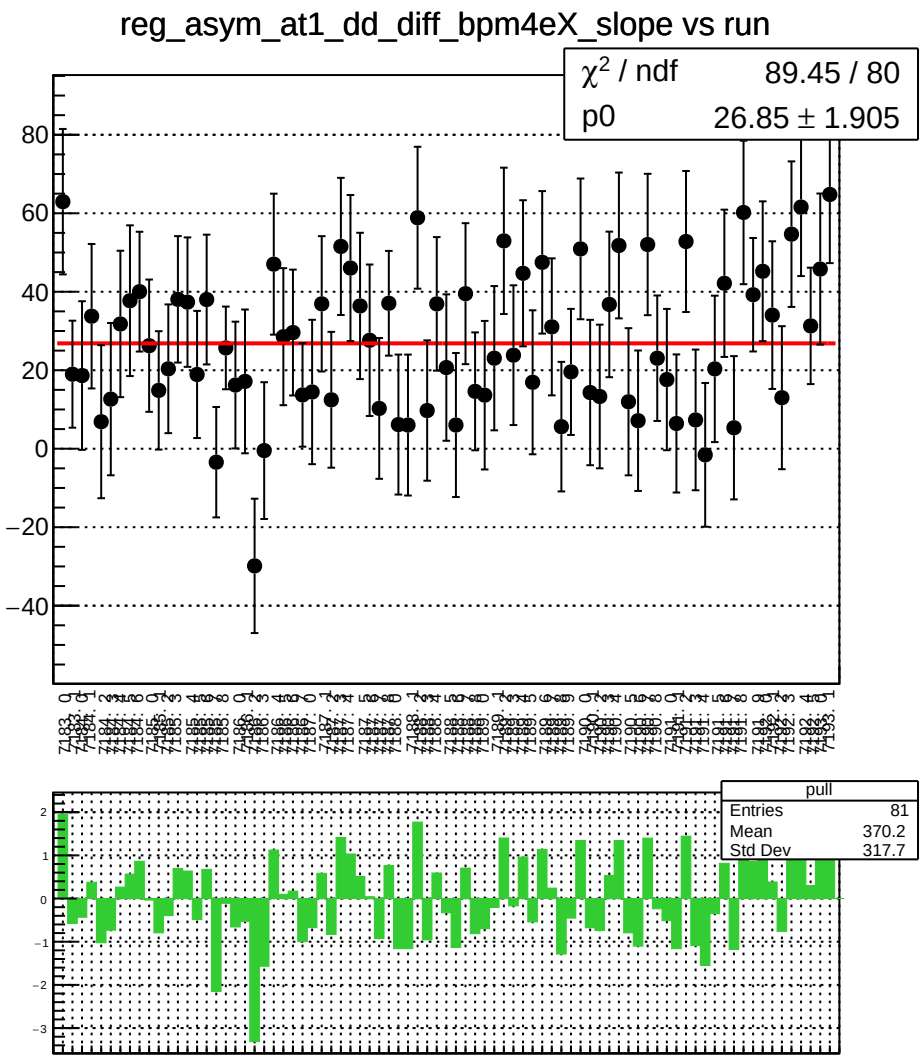

pull1D
Entries 81
Mean −0.01878
Std Dev 0.9051

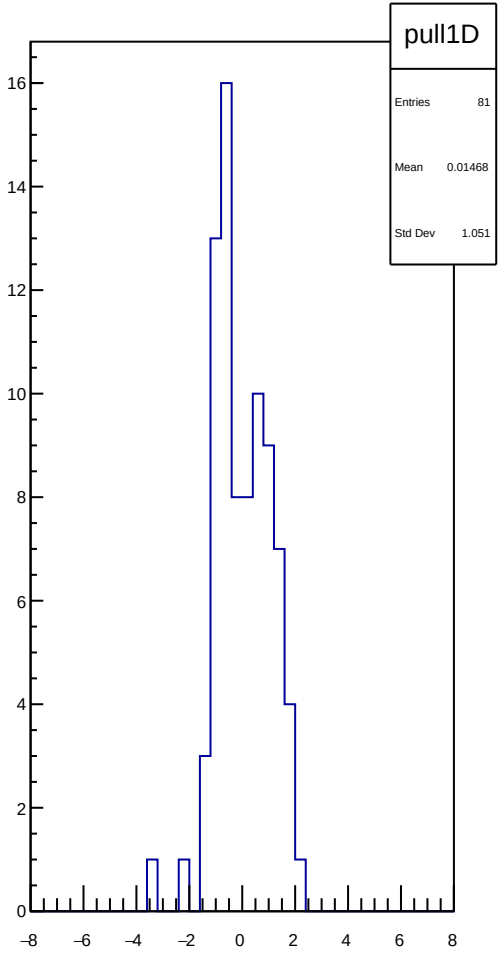

reg_asym_at1_avg_diff_bpm12X_slope vs run
χ² / ndf 113 / 80
p0 −17.91 ± 0.07127
pull
Entries 81
Mean −1223
Std Dev 1283
pull1D
Entries 81
Mean 0.002726
Std Dev 1.181

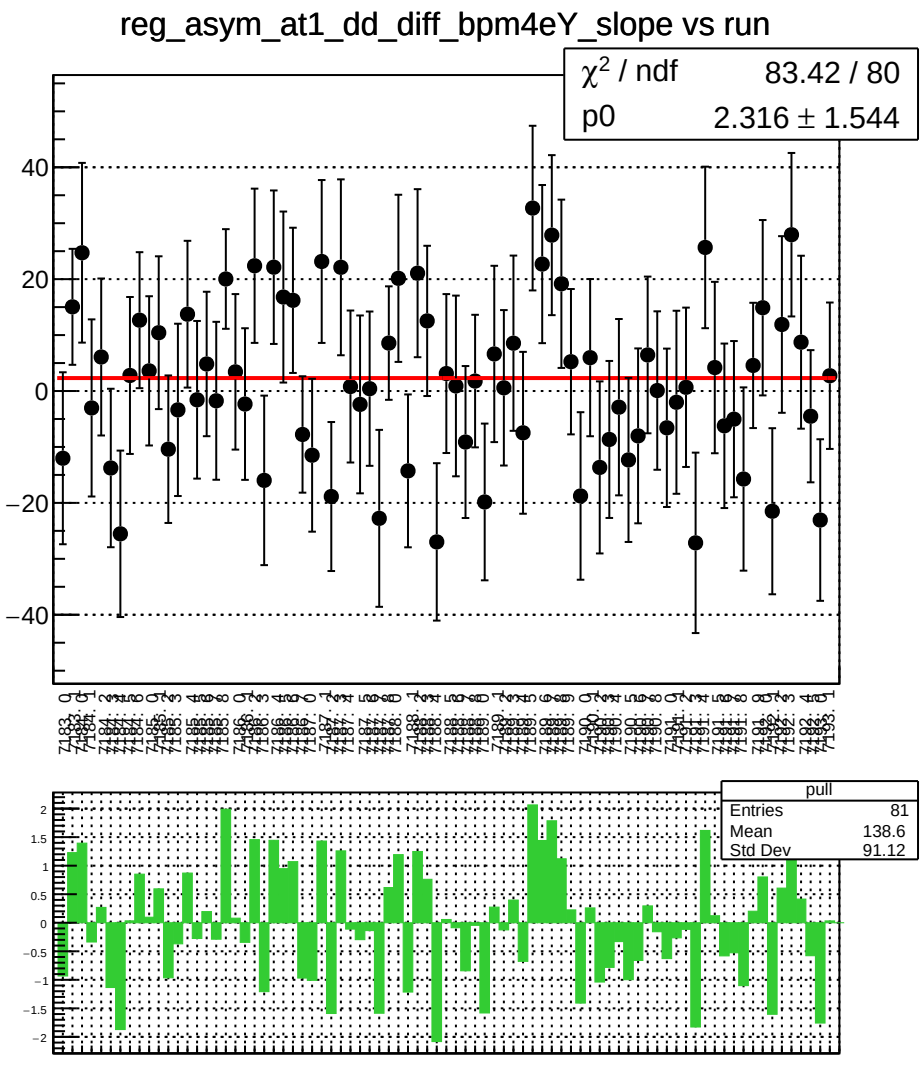

reg_asym_at1_dd_diff_bpm1X_slope vs run
χ² / ndf 88.69 / 80
p0 20.1 ± 1.902
pull
Entries 81
Mean 346.1
Std Dev 294.1

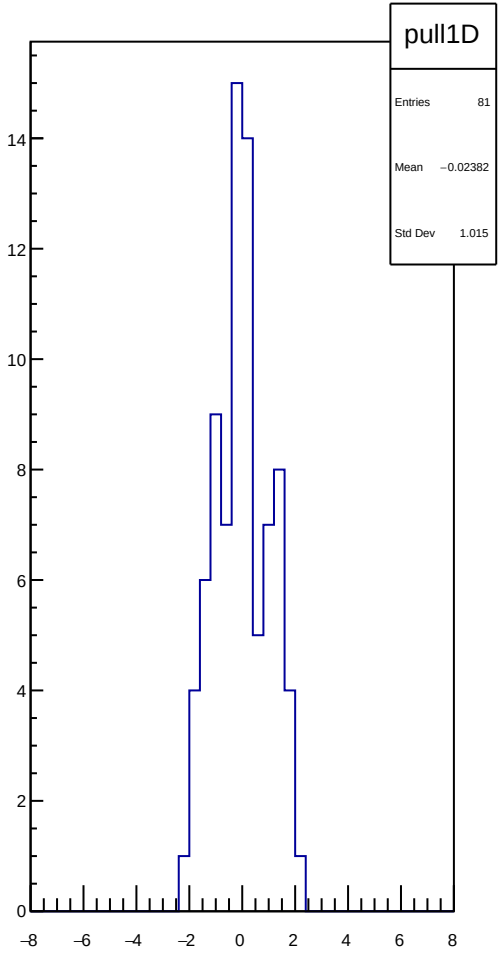

pull1D
Entries 81
Mean −0.01654
Std Dev 1.046

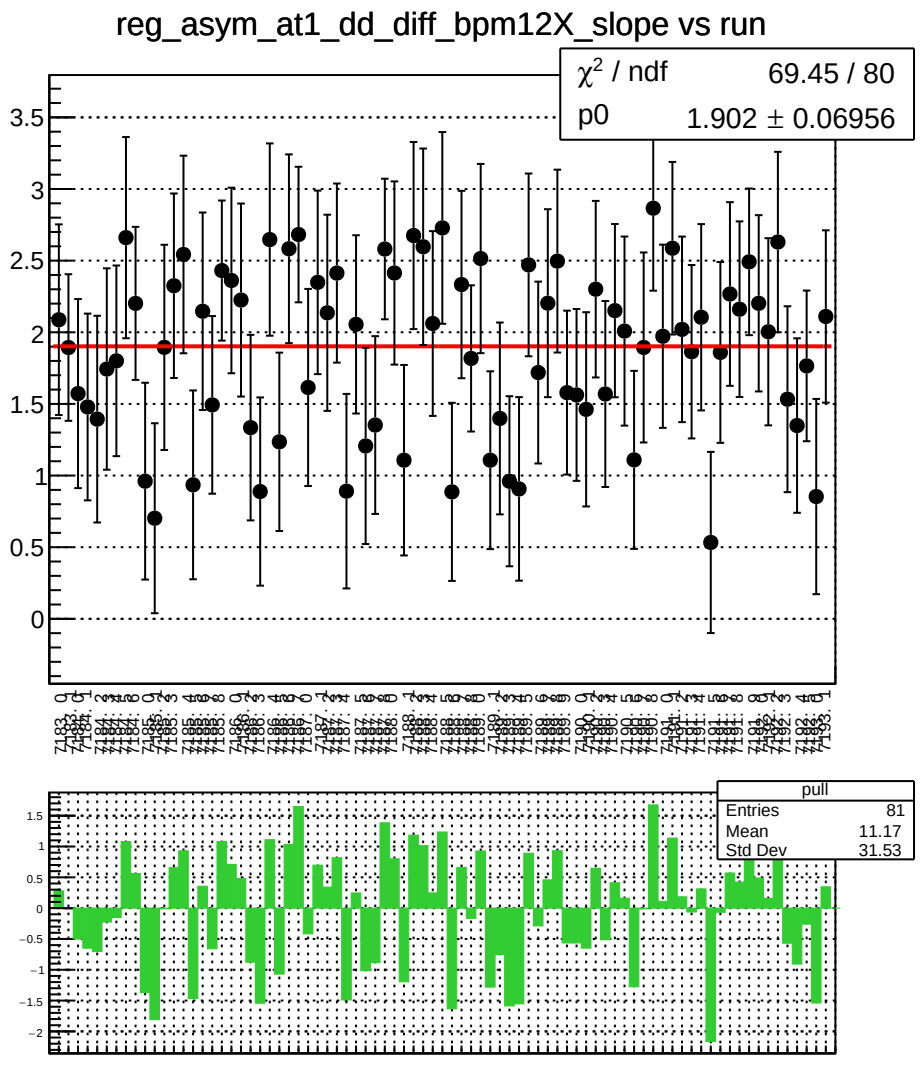

reg_asym_at1_dd_diff_bpm4aY_slope vs run
χ² / ndf 87.53 / 80
p0 −1.697 ± 1.424
pull
Entries 81
Mean 162.5
Std Dev 115.7
pull1D
Entries 81
Mean 0.01906
Std Dev 1.039

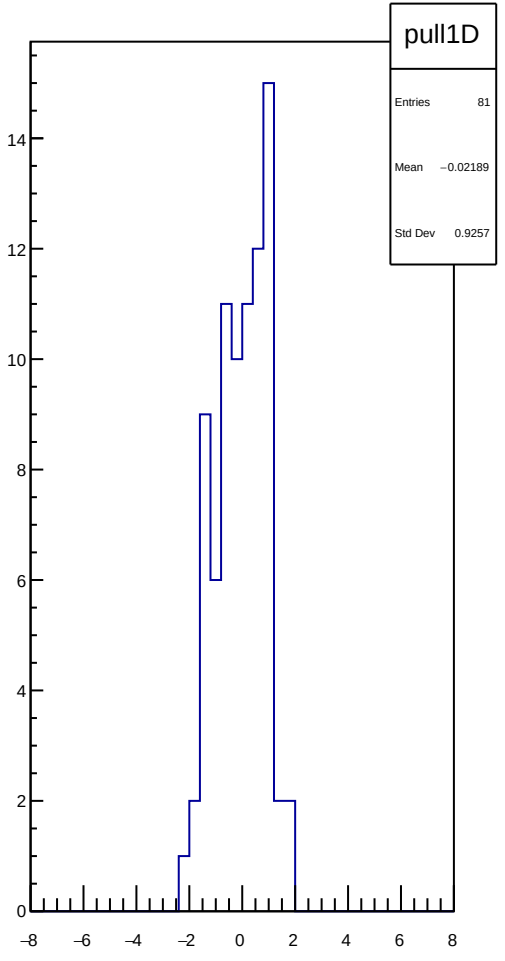

reg_asym_at1_dd_diff_bpm4eX_slope vs run
χ² / ndf 89.45 / 80
p0 26.85 ± 1.905
pull
Entries 81
Mean 370.2
Std Dev 317.7

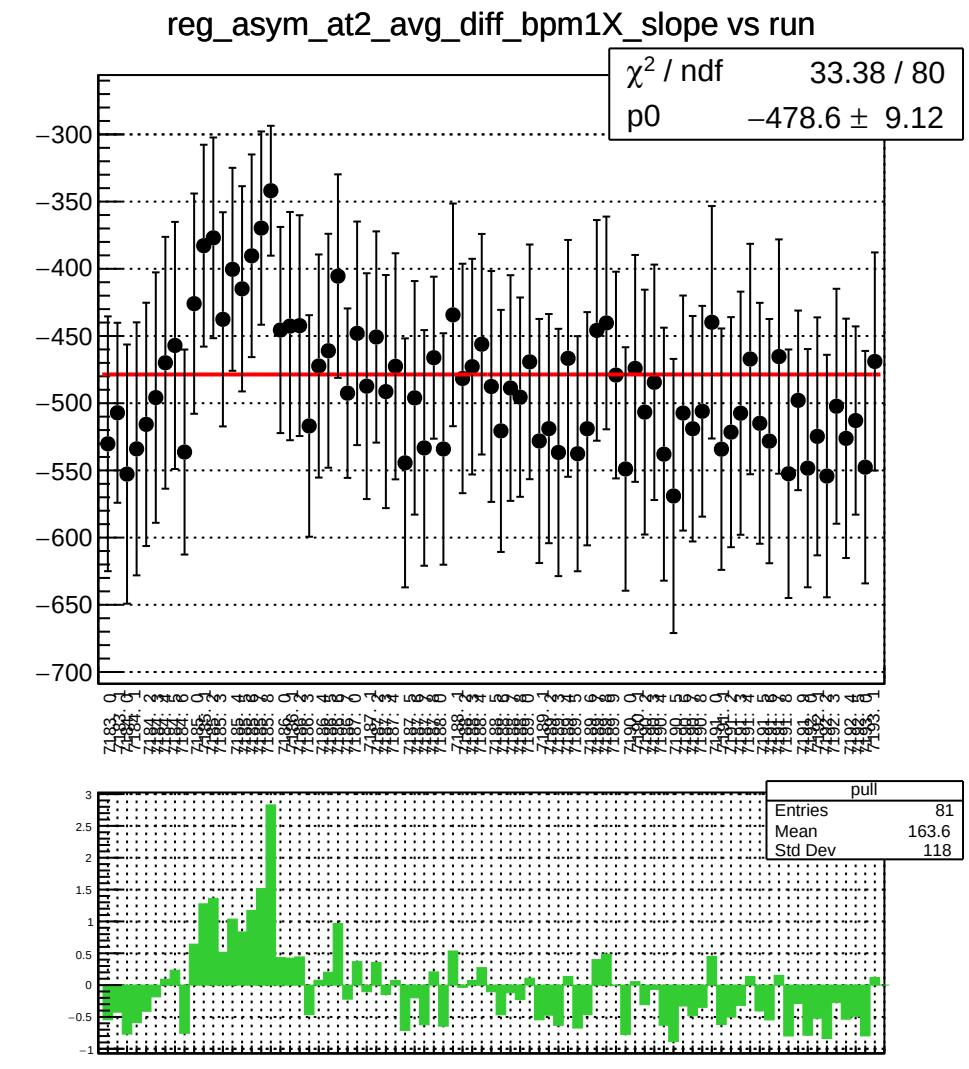

pull1D
Entries 81
Mean 0.01468
Std Dev 1.051

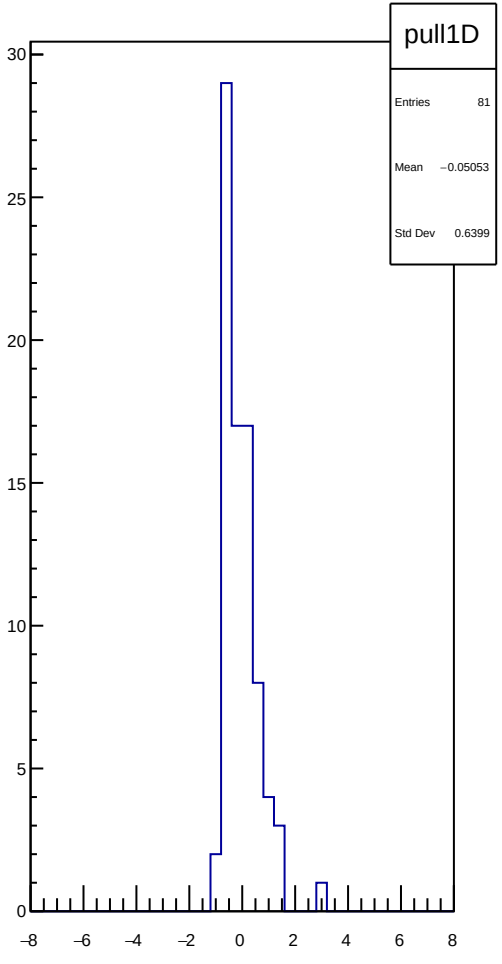

reg_asym_at1_dd_diff_bpm4eY_slope vs run
χ² / ndf 83.42 / 80
p0 2.316 ± 1.544
40
20
0
−20
−40
pull
Entries 81
Mean 138.6
Std Dev 91.12
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

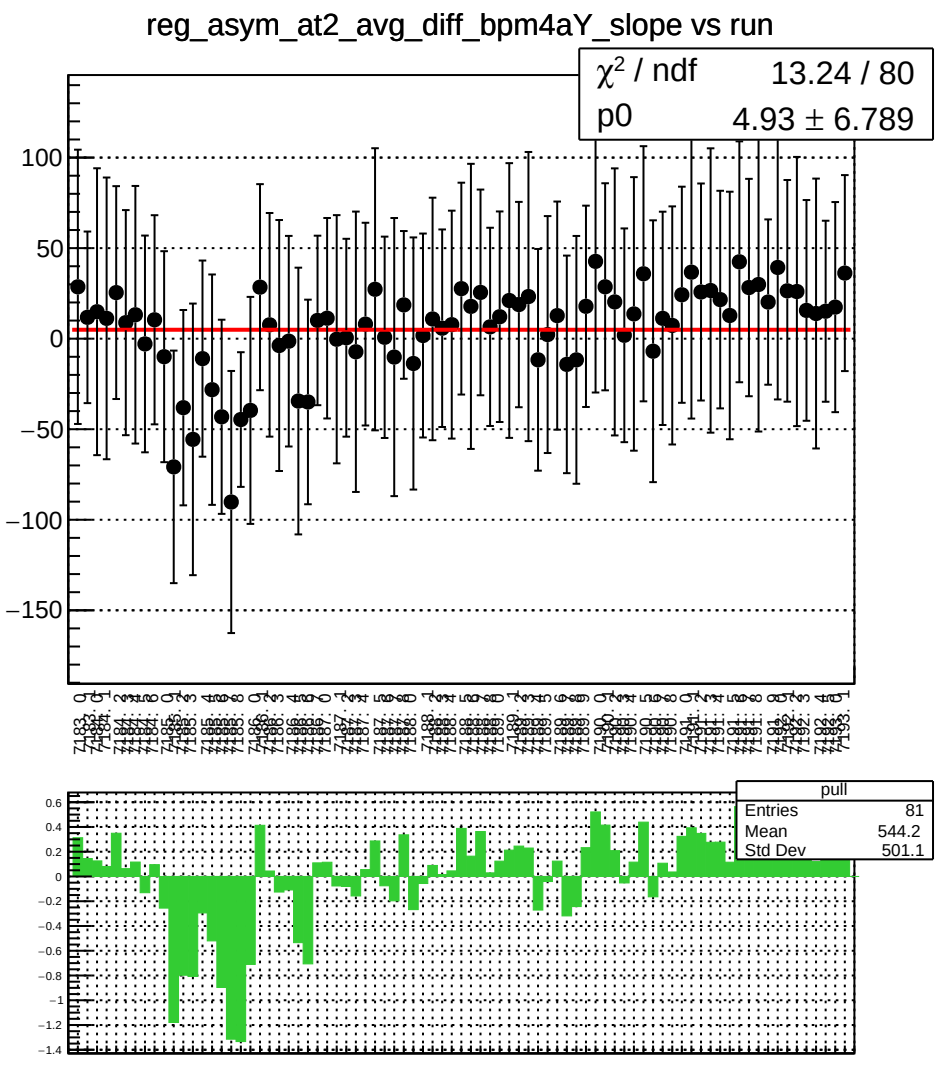

pull1D
Entries 81
Mean −0.02382
Std Dev 1.015
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

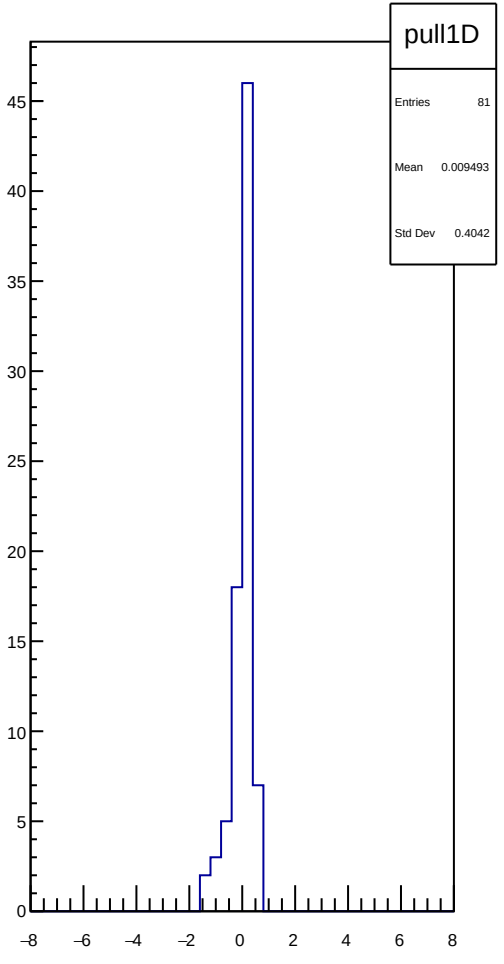

reg_asym_at1_dd_diff_bpm12X_slope vs run
χ² / ndf 69.45 / 80
p0 1.902 ± 0.06956
pull
Entries 81
Mean 11.17
Std Dev 31.53

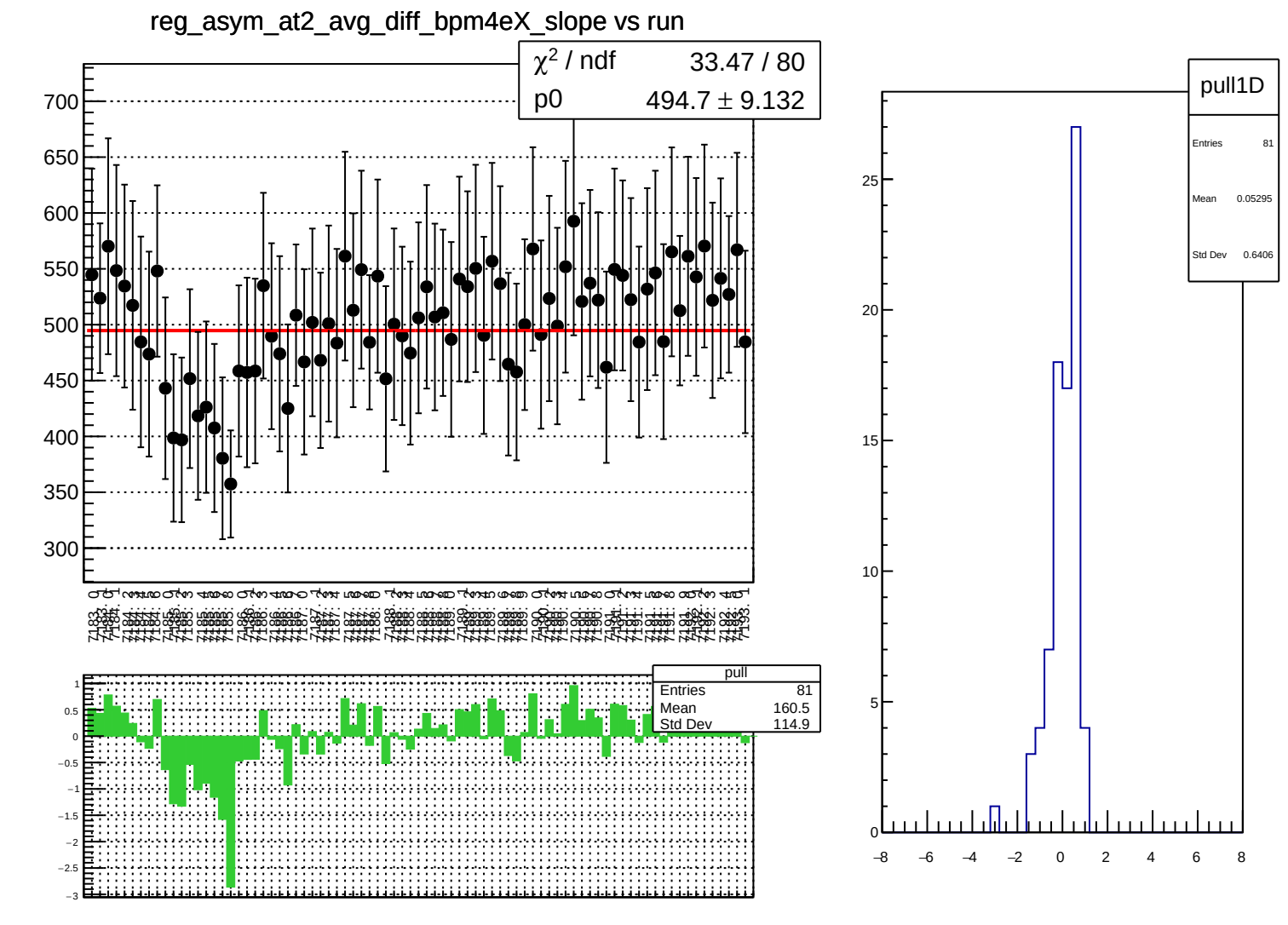

pull1D
Entries 81
Mean −0.02189
Std Dev 0.9257

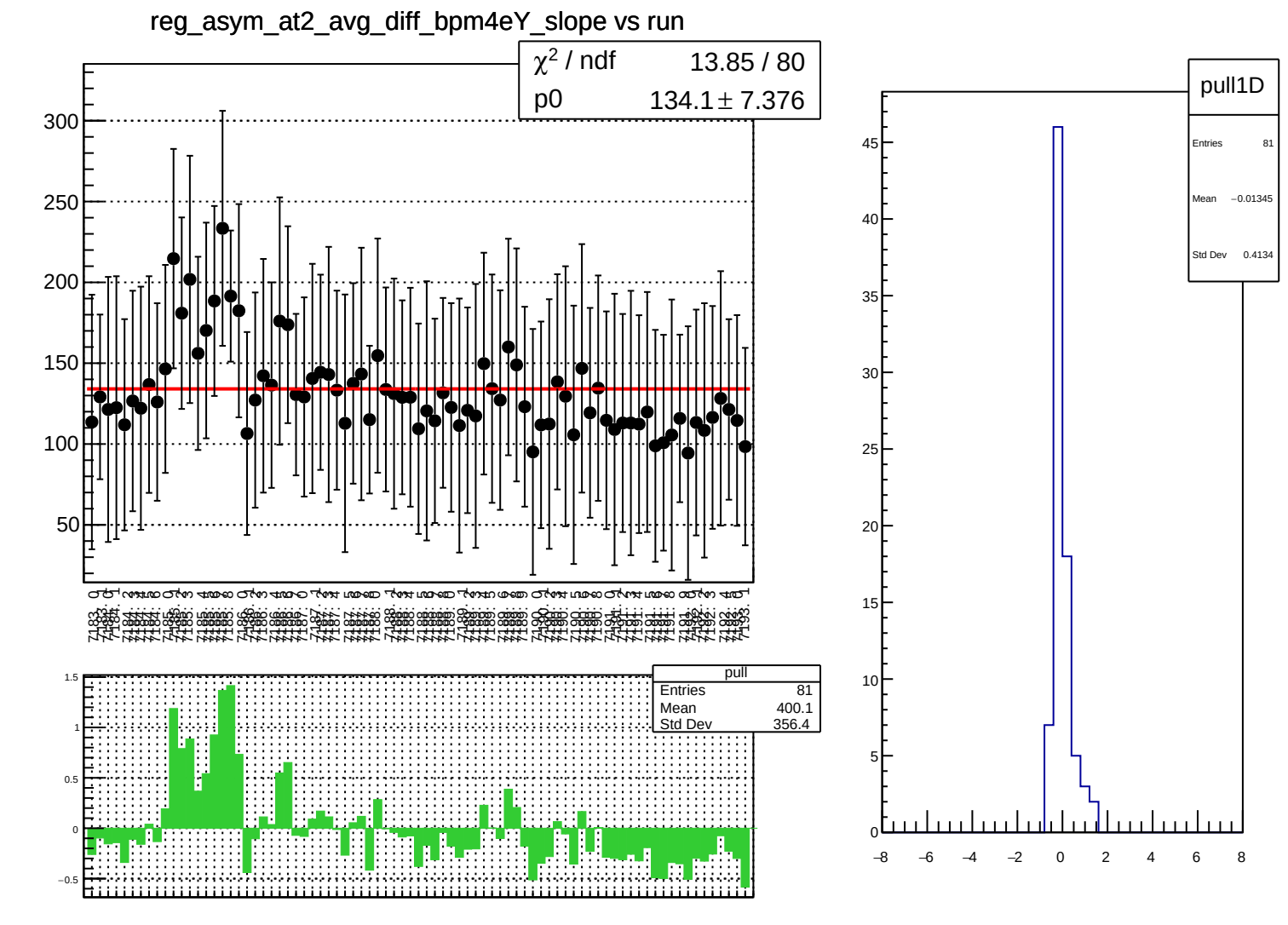

reg_asym_at2_avg_diff_bpm1X_slope vs run
χ² / ndf 33.38 / 80
p0 −478.6 ± 9.12
pull
Entries 81
Mean 163.6
Std Dev 118

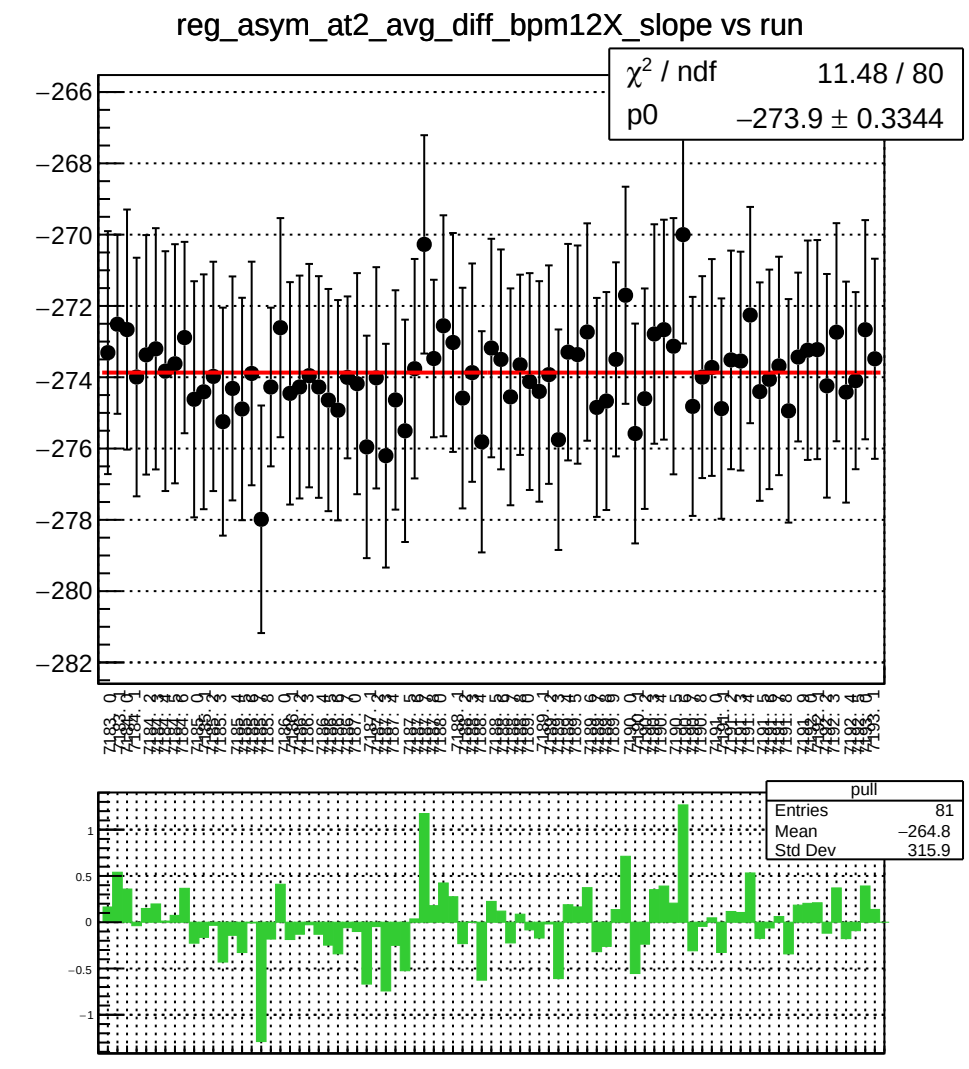

pull1D
Entries 81
Mean −0.05053
Std Dev 0.6399

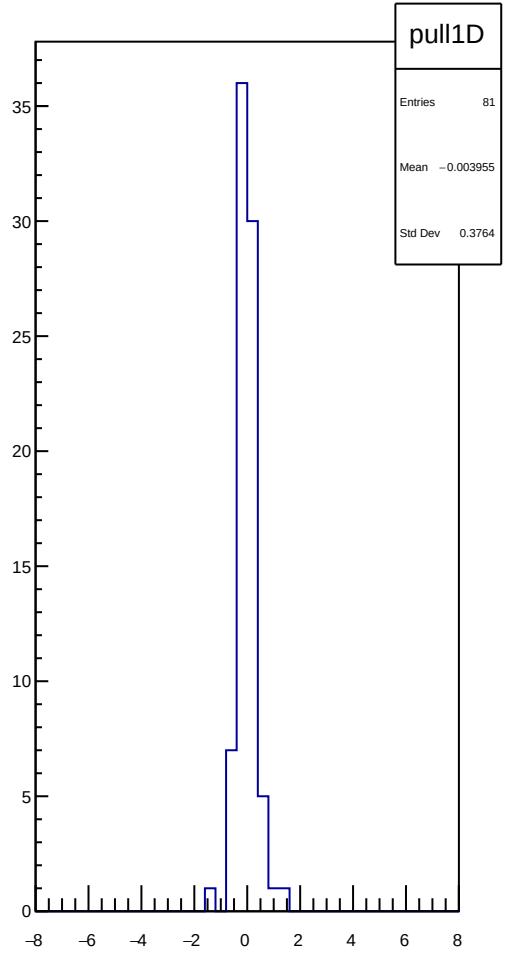

reg_asym_at2_avg_diff_bpm4aY_slope vs run
χ² / ndf 13.24 / 80
p0 4.93 ± 6.789
pull
Entries 81
Mean 544.2
Std Dev 501.1

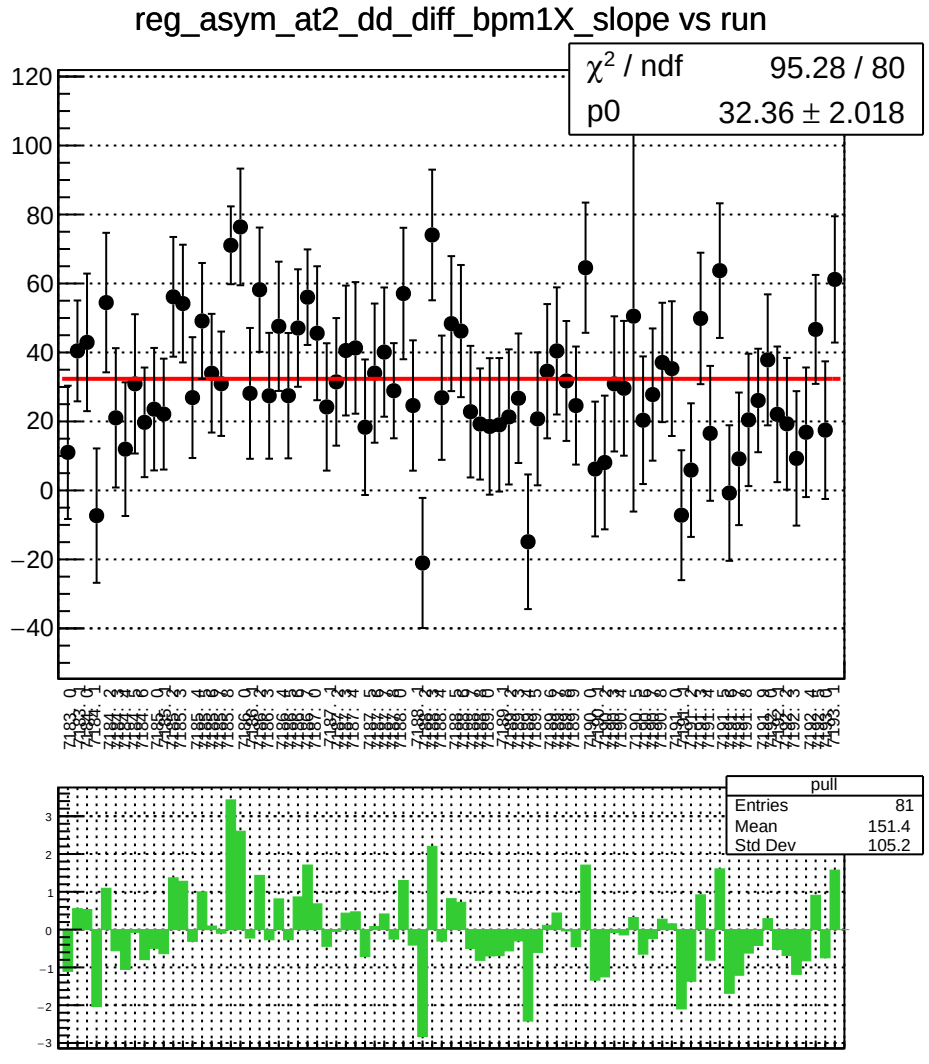

pull1D
Entries 81
Mean 0.009493
Std Dev 0.4042

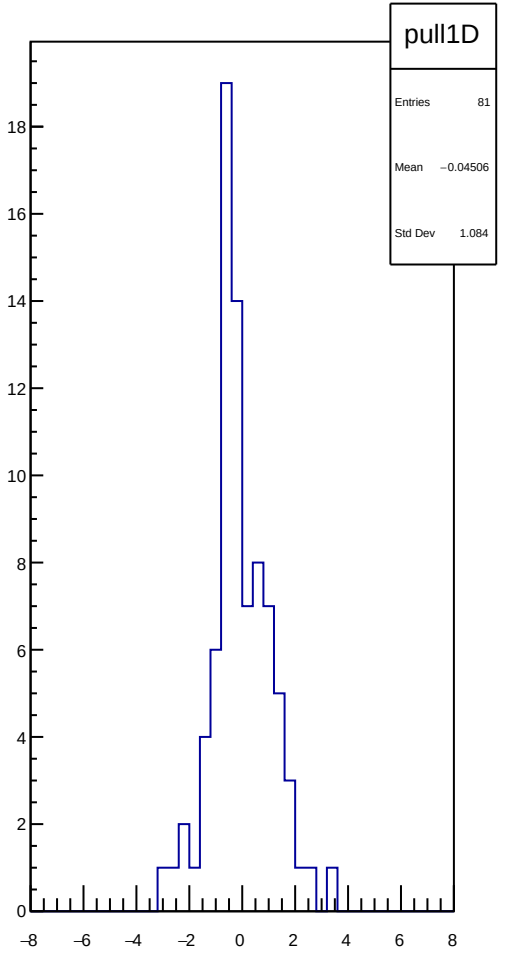

reg_asym_at2_avg_diff_bpm4eX_slope vs run
χ² / ndf 33.47 / 80
p0 494.7 ± 9.132
700
650
600
550
500
450
400
350
300
pull
Entries 81
Mean 160.5
Std Dev 114.9
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
−3
pull1D
Entries 81
Mean 0.05295
Std Dev 0.6406
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

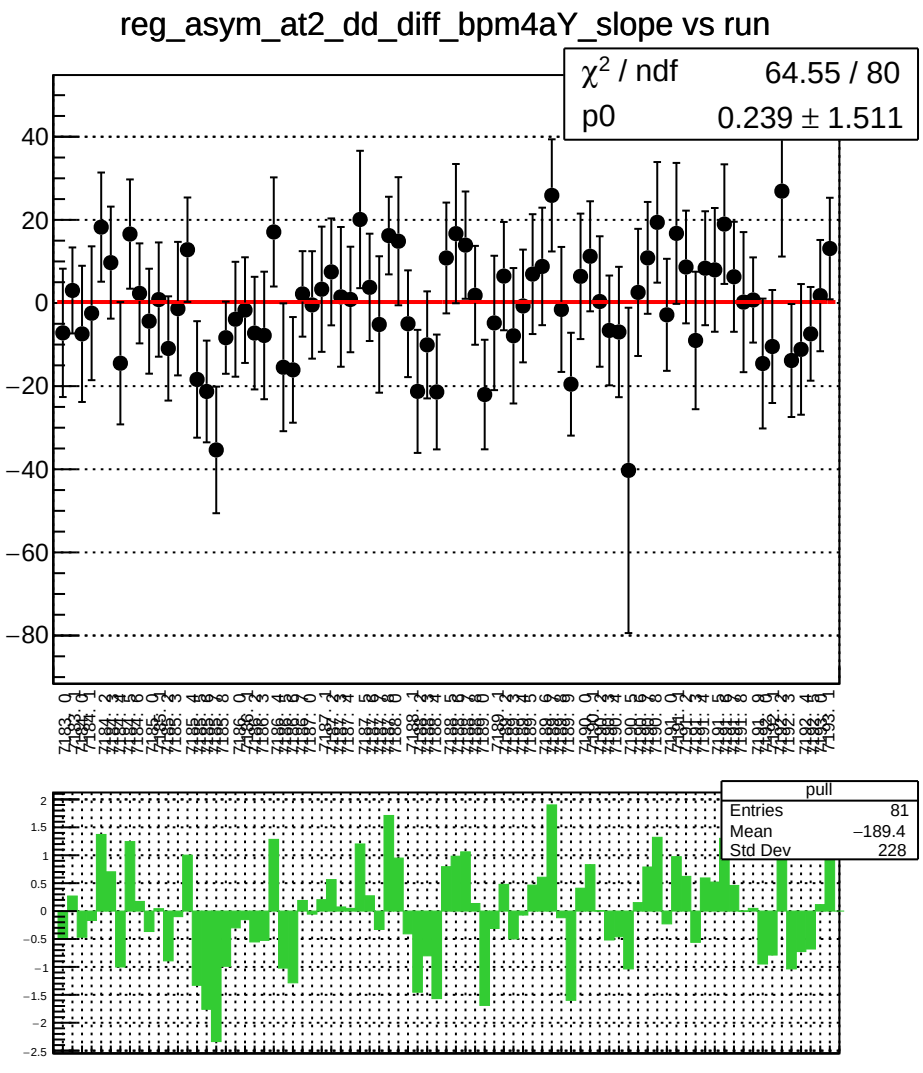

reg_asym_at2_avg_diff_bpm4eY_slope vs run
χ² / ndf 13.85 / 80
p0 134.1 ± 7.376
300
250
200
150
100
50
pull
Entries 81
Mean 400.1
Std Dev 356.4
1.5
1
0.5
0
−0.5
pull1D
Entries 81
Mean −0.01345
Std Dev 0.4134
45
40
35
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

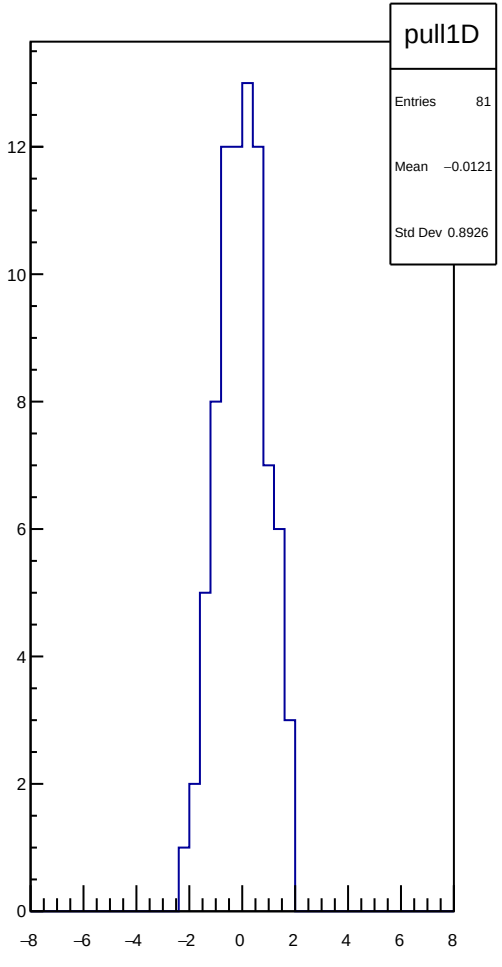

reg_asym_at2_avg_diff_bpm12X_slope vs run
χ² / ndf 11.48 / 80
p0 −273.9 ± 0.3344
pull
Entries 81
Mean −264.8
Std Dev 315.9

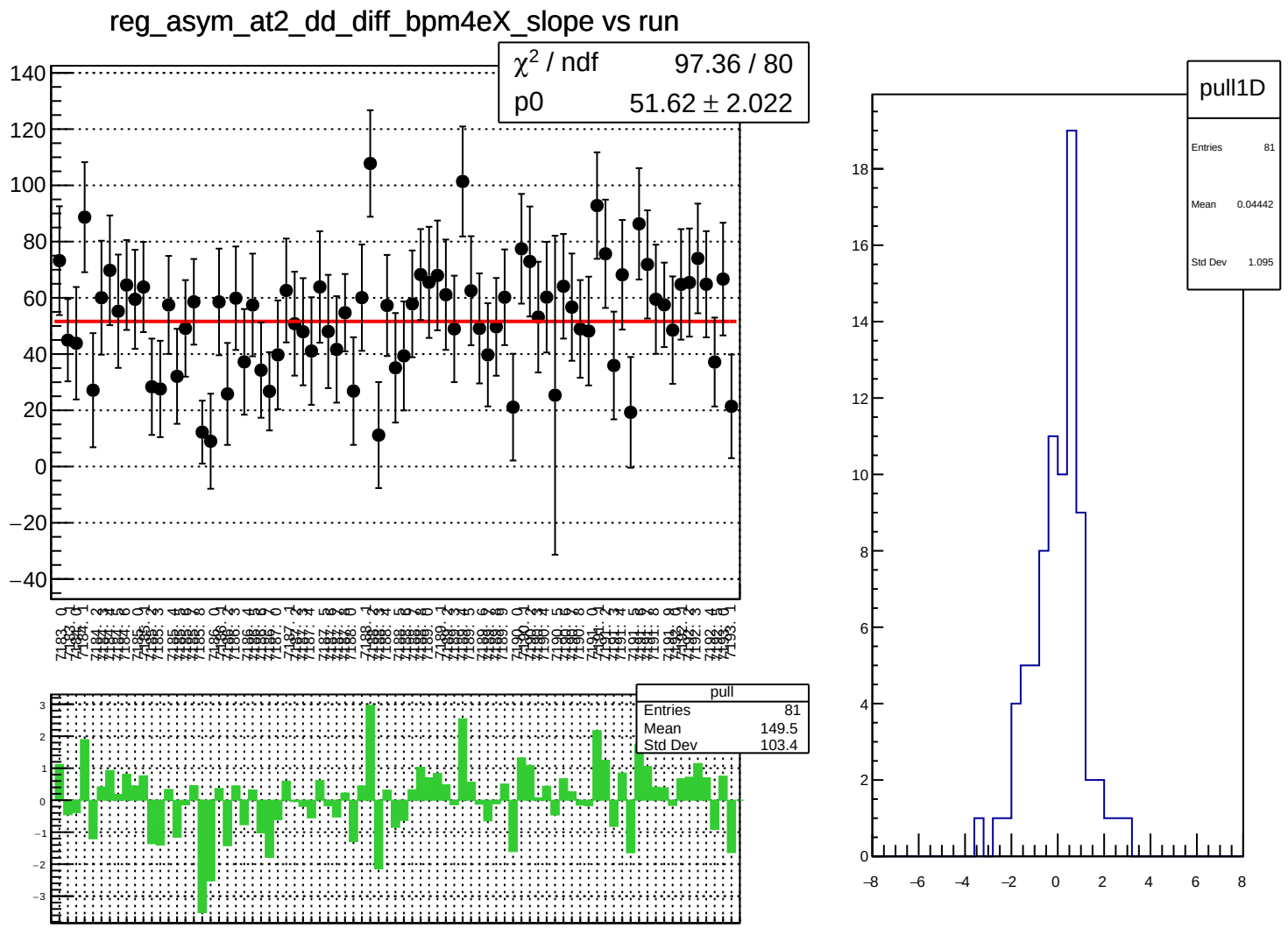

pull1D
Entries 81
Mean −0.003955
Std Dev 0.3764

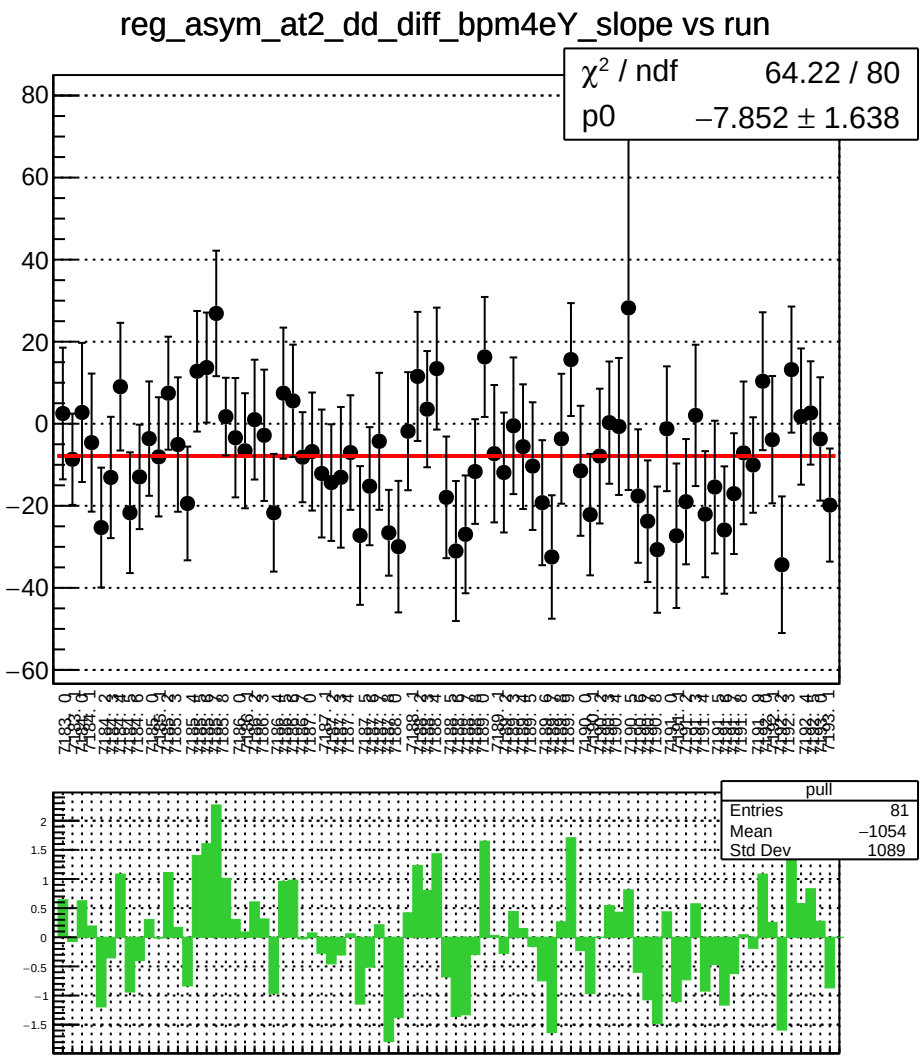

reg_asym_at2_dd_diff_bpm1X_slope vs run
χ^2 / ndf 95.28 / 80
p0 32.36 ± 2.018
pull
Entries 81
Mean 151.4
Std Dev 105.2

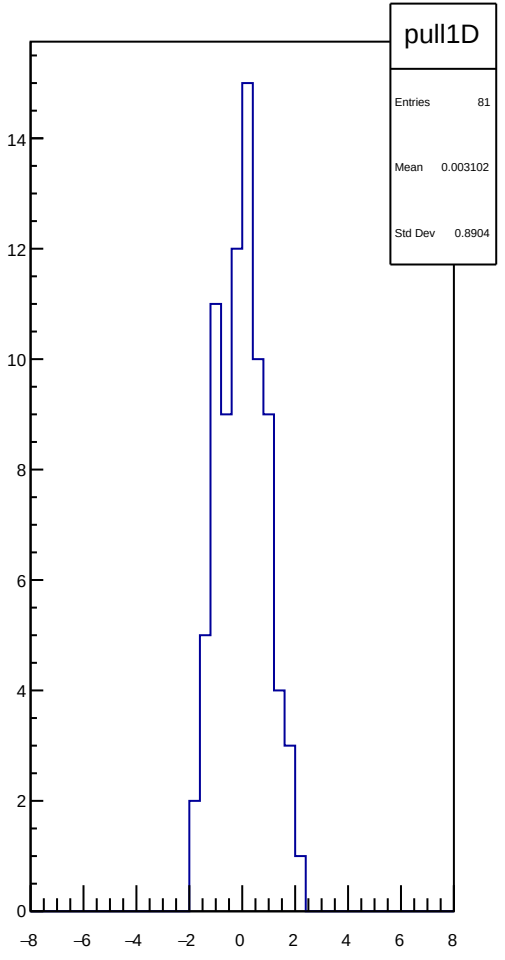

pull1D
Entries 81
Mean −0.04506
Std Dev 1.084

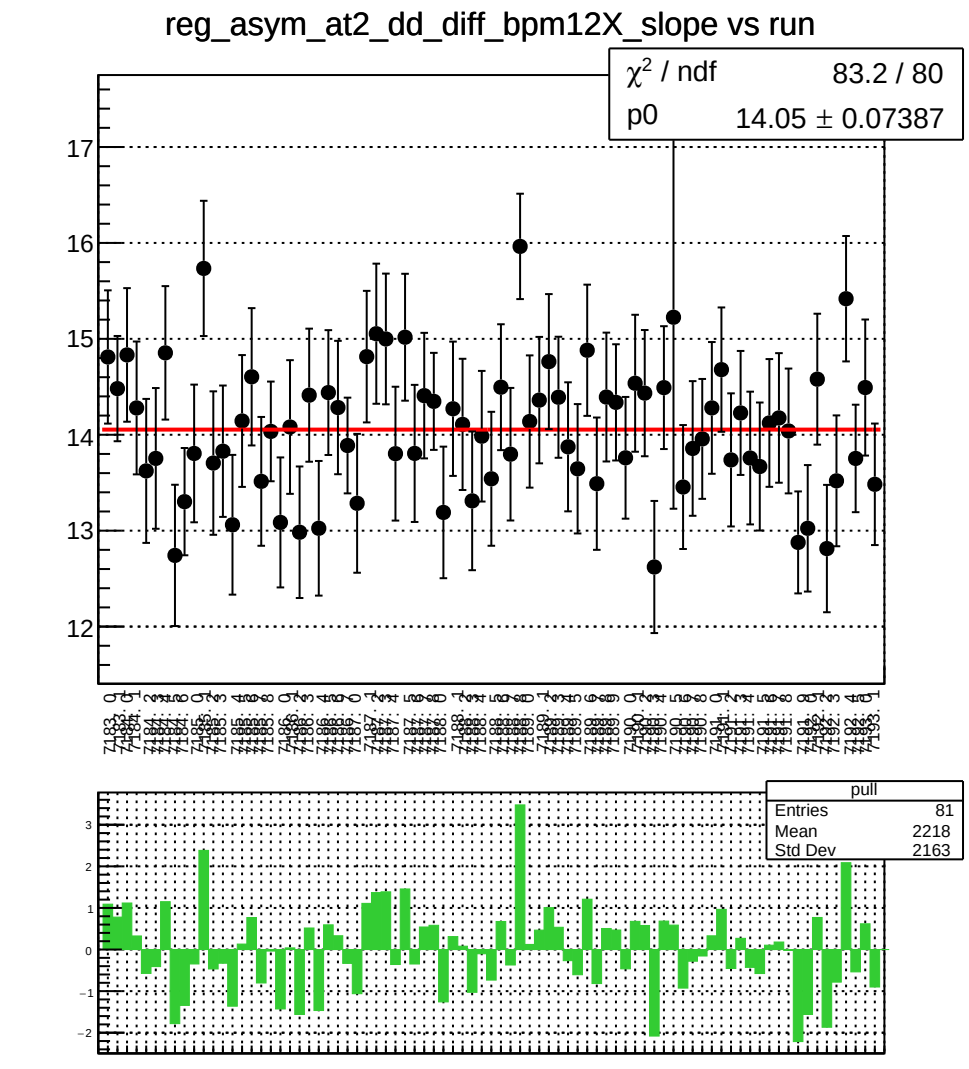

reg_asym_at2_dd_diff_bpm4aY_slope vs run
χ² / ndf 64.55 / 80
p0 0.239 ± 1.511
pull
Entries 81
Mean −189.4
Std Dev 228

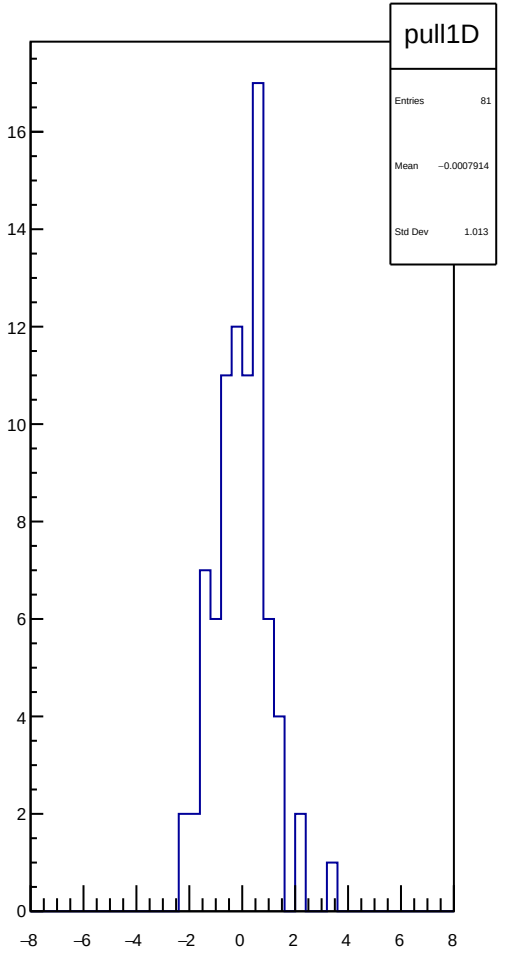

pull1D
Entries 81
Mean −0.0121
Std Dev 0.8926

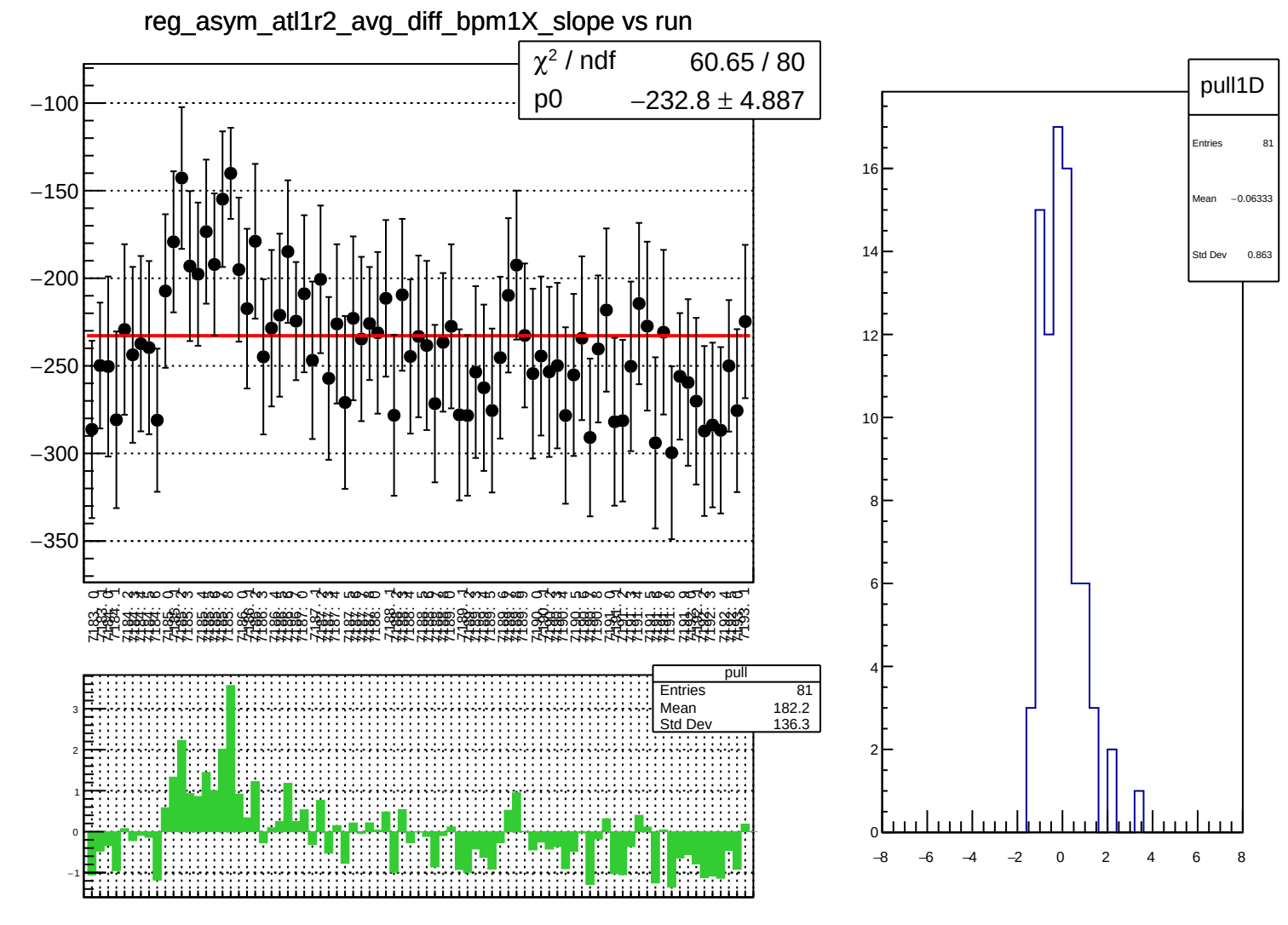

reg_asym_at2_dd_diff_bpm4eX_slope vs run
χ² / ndf 97.36 / 80
p0 51.62 ± 2.022
pull
Entries 81
Mean 149.5
Std Dev 103.4
pull1D
Entries 81
Mean 0.04442
Std Dev 1.095

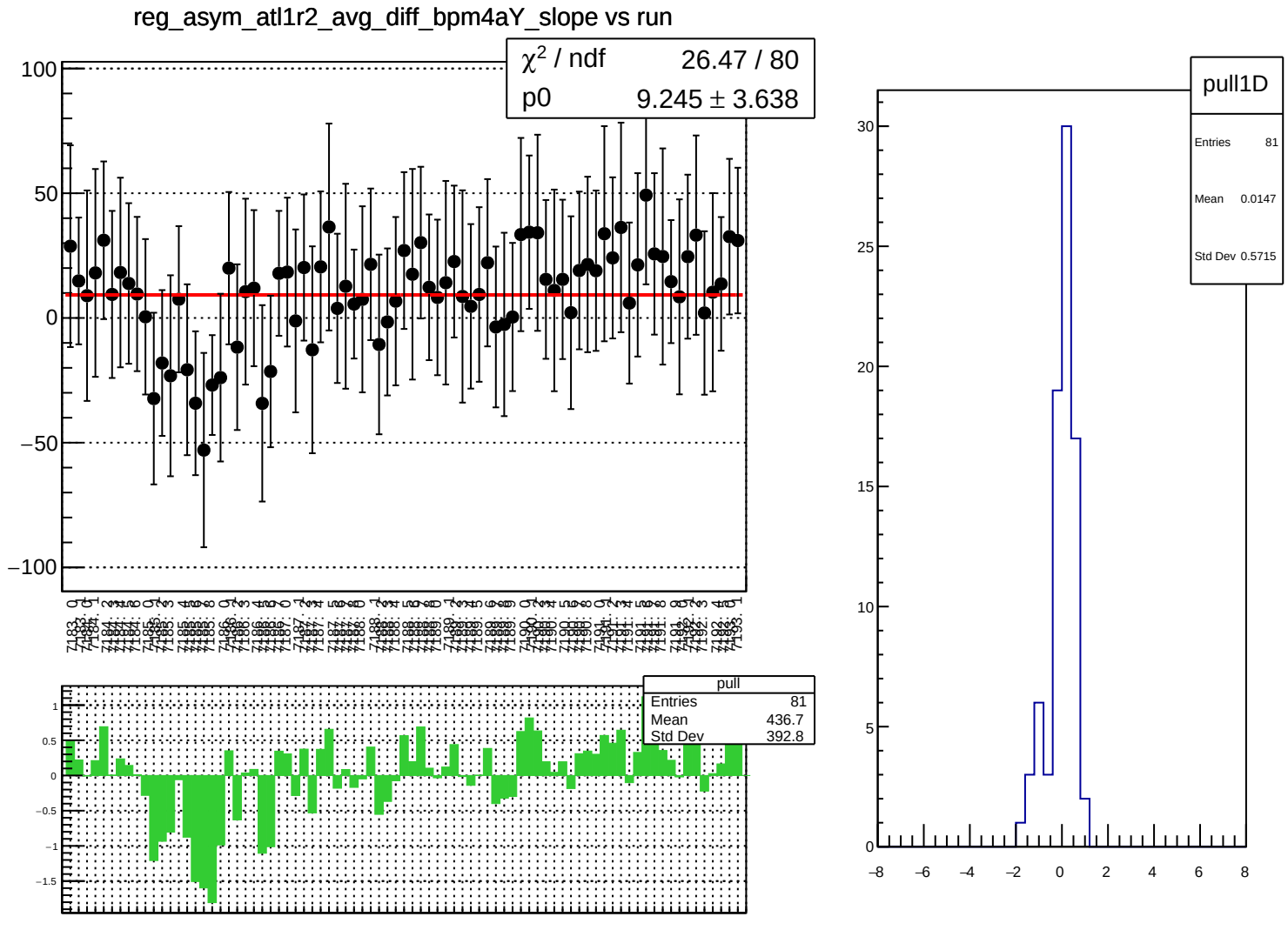

reg_asym_at2_dd_diff_bpm4eY_slope vs run
χ² / ndf 64.22 / 80
p0 −7.852 ± 1.638
pull
Entries 81
Mean −1054
Std Dev 1089

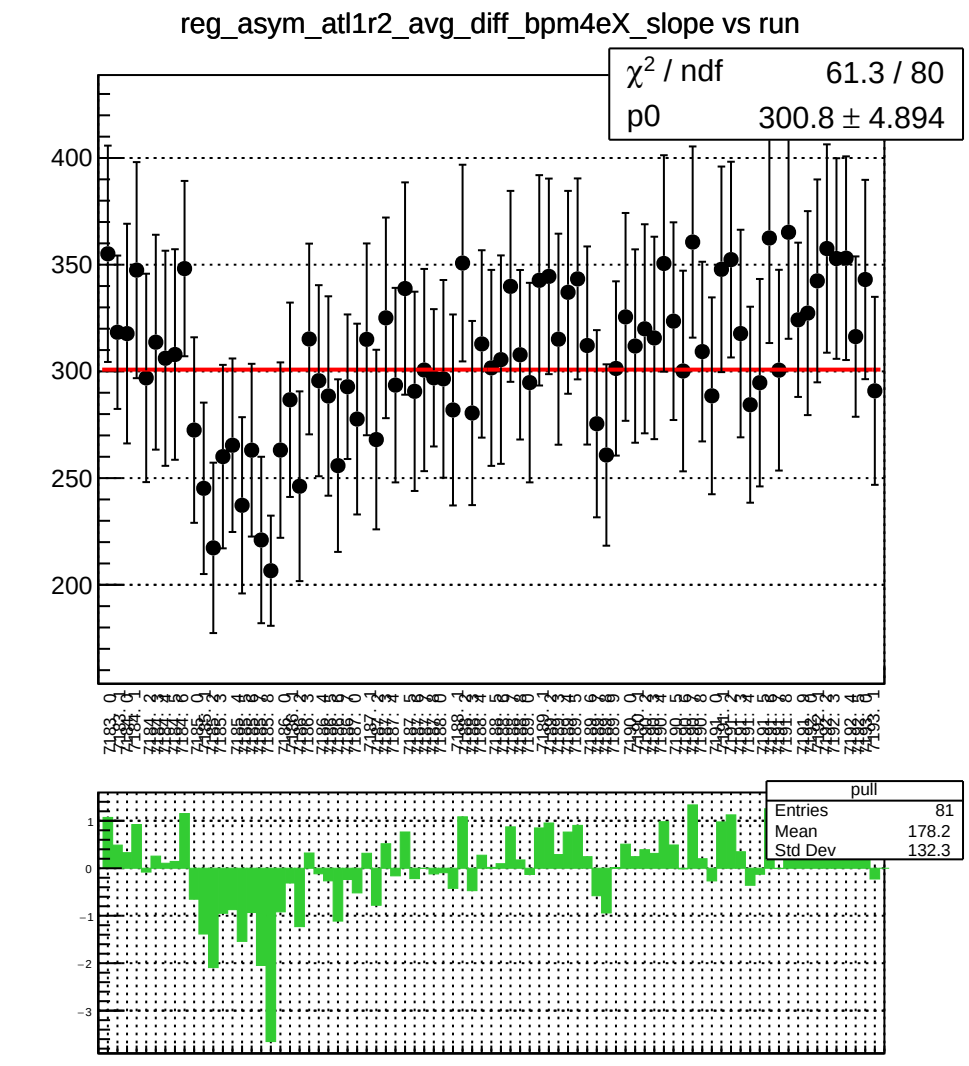

pull1D
Entries 81
Mean 0.003102
Std Dev 0.8904

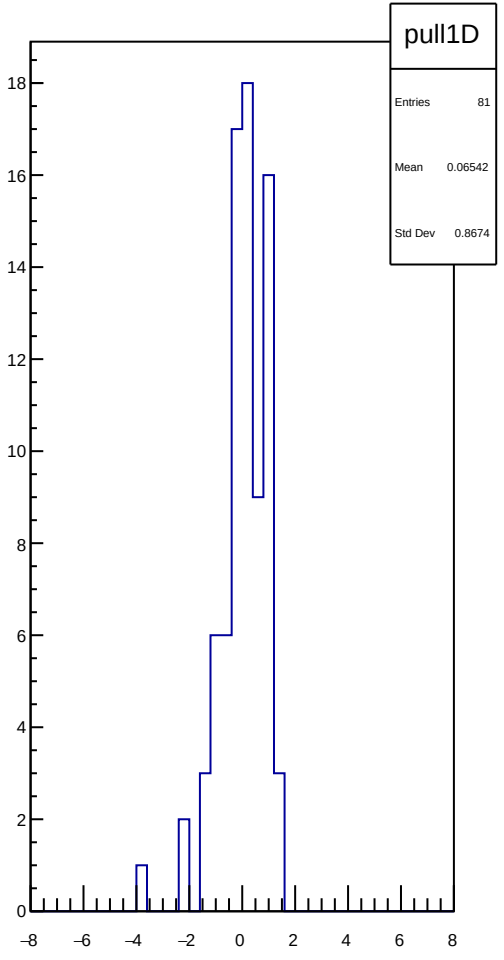

reg_asym_at2_dd_diff_bpm12X_slope vs run
χ² / ndf 83.2 / 80
p0 14.05 ± 0.07387
pull
Entries 81
Mean 2218
Std Dev 2163

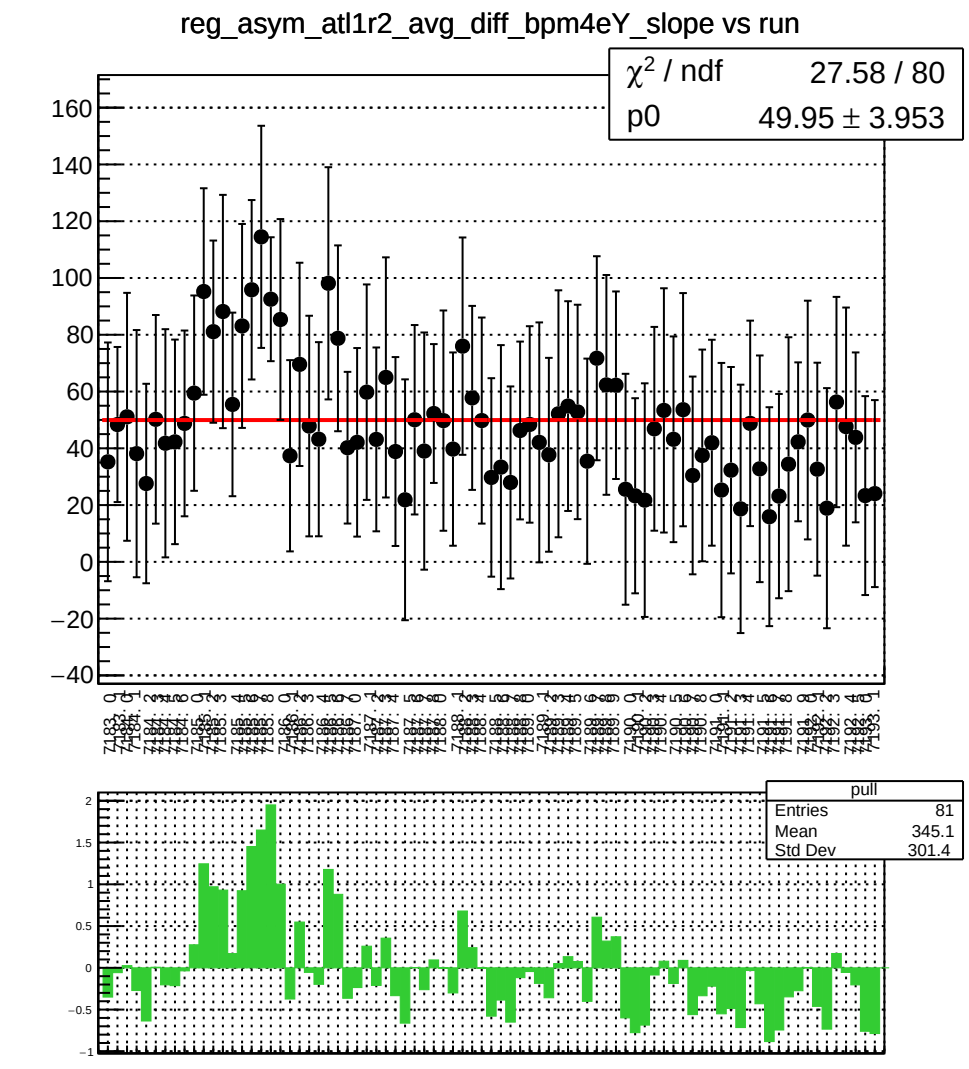

pull1D
Entries 81
Mean −0.0007914
Std Dev 1.013

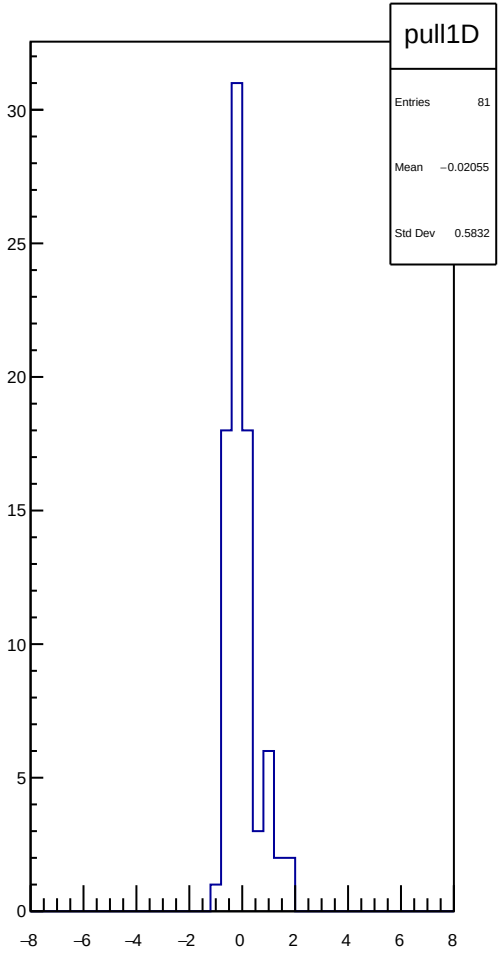

reg_asym_atl1r2_avg_diff_bpm1X_slope vs run
χ² / ndf 60.65 / 80
p0 −232.8 ± 4.887
−100
−150
−200
−250
−300
−350
pull
Entries 81
Mean 182.2
Std Dev 136.3
3
2
1
0
−1
pull1D
Entries 81
Mean −0.06333
Std Dev 0.863
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

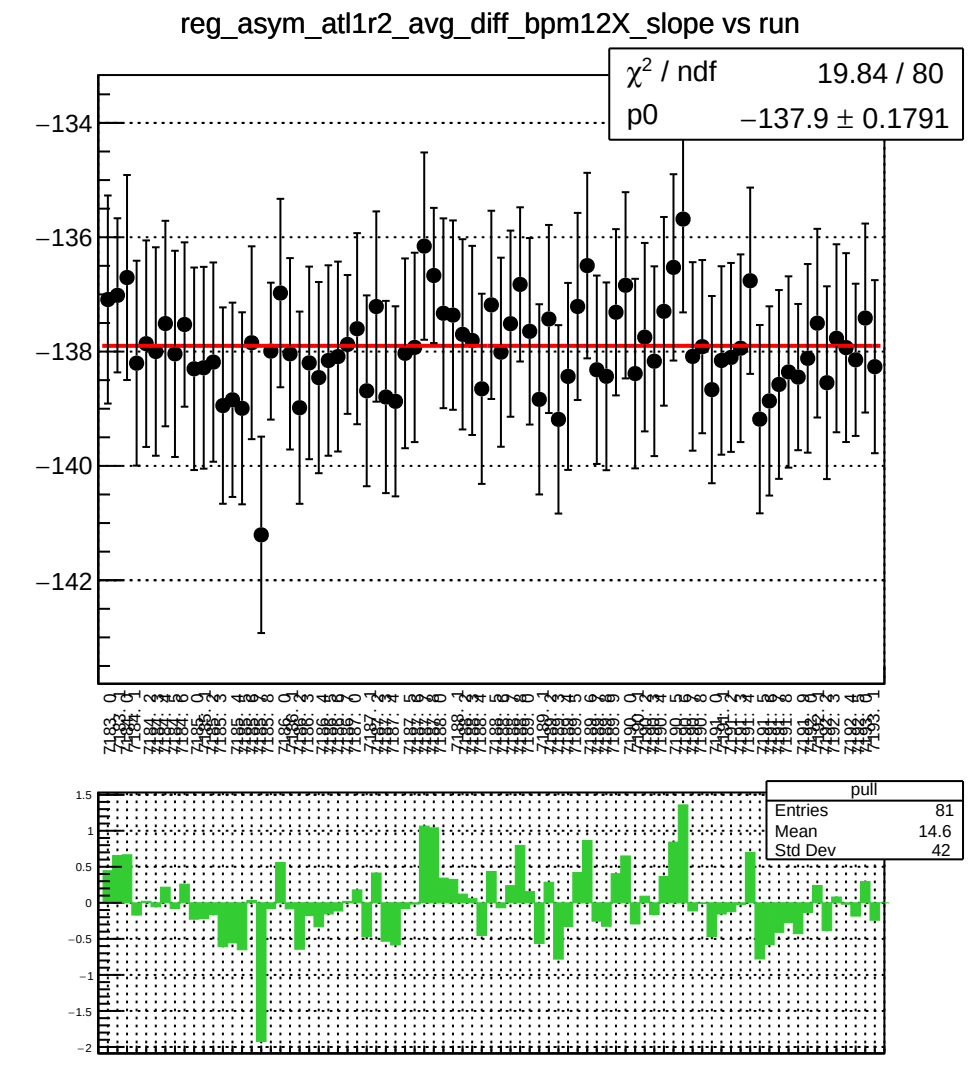

reg_asym_atl1r2_avg_diff_bpm4aY_slope vs run
χ² / ndf 26.47 / 80
p0 9.245 ± 3.638
100
50
0
−50
−100
pull
Entries 81
Mean 436.7
Std Dev 392.8
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 81
Mean 0.0147
Std Dev 0.5715
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

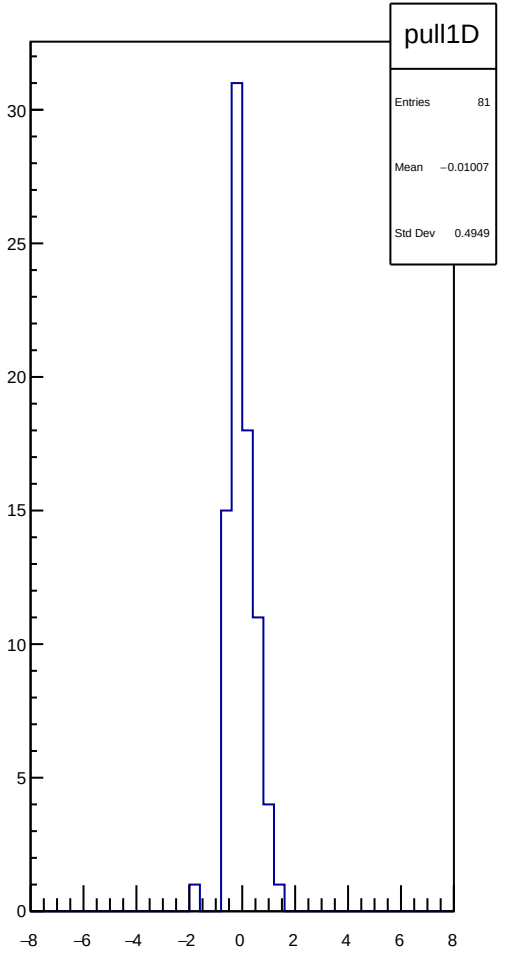

reg_asym_atl1r2_avg_diff_bpm4eX_slope vs run
χ² / ndf 61.3 / 80
p0 300.8 ± 4.894
400
350
300
250
200
pull
Entries 81
Mean 178.2
Std Dev 132.3
1
0
−1
−2
−3

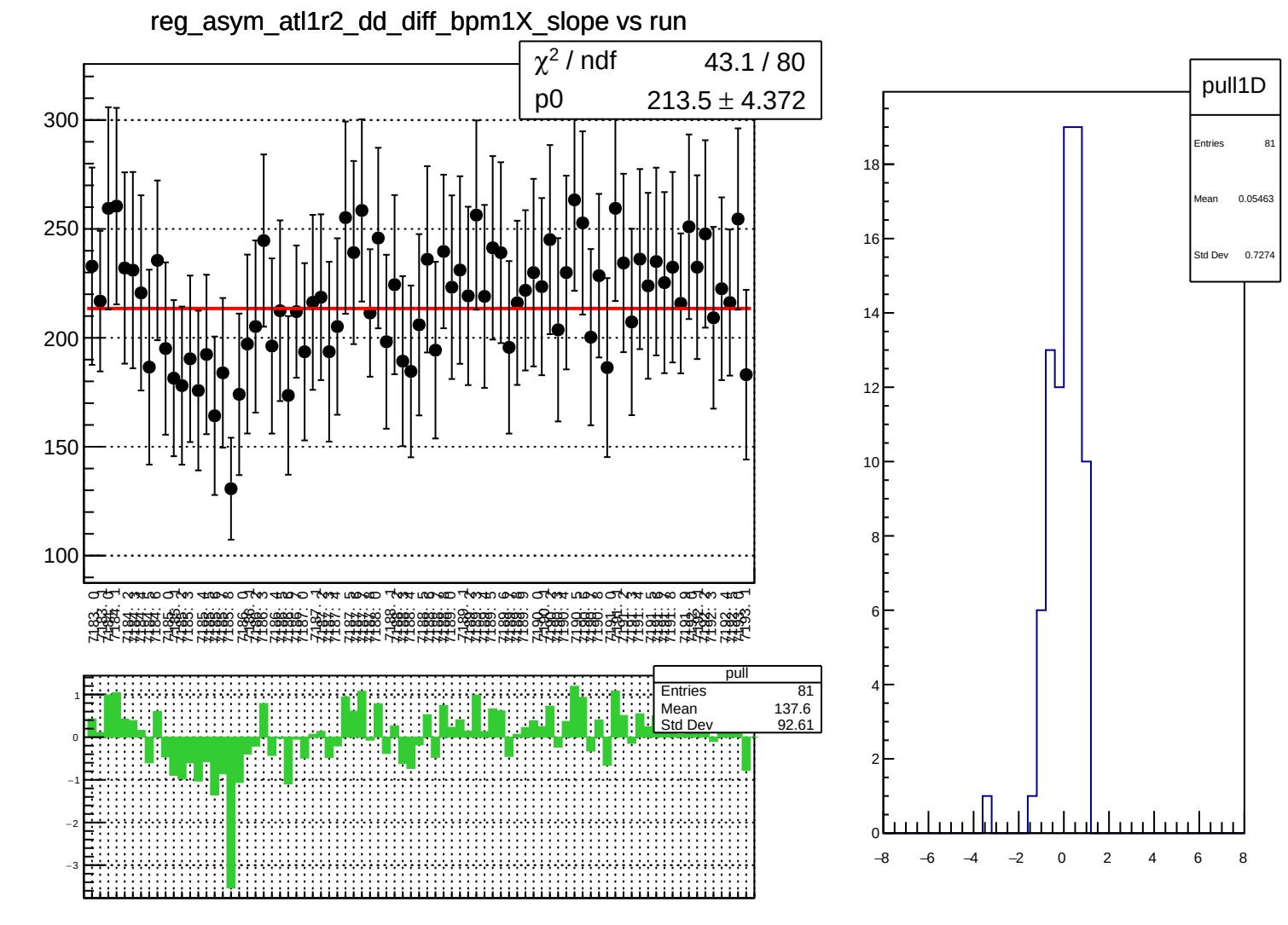

pull1D
Entries 81
Mean 0.06542
Std Dev 0.8674
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

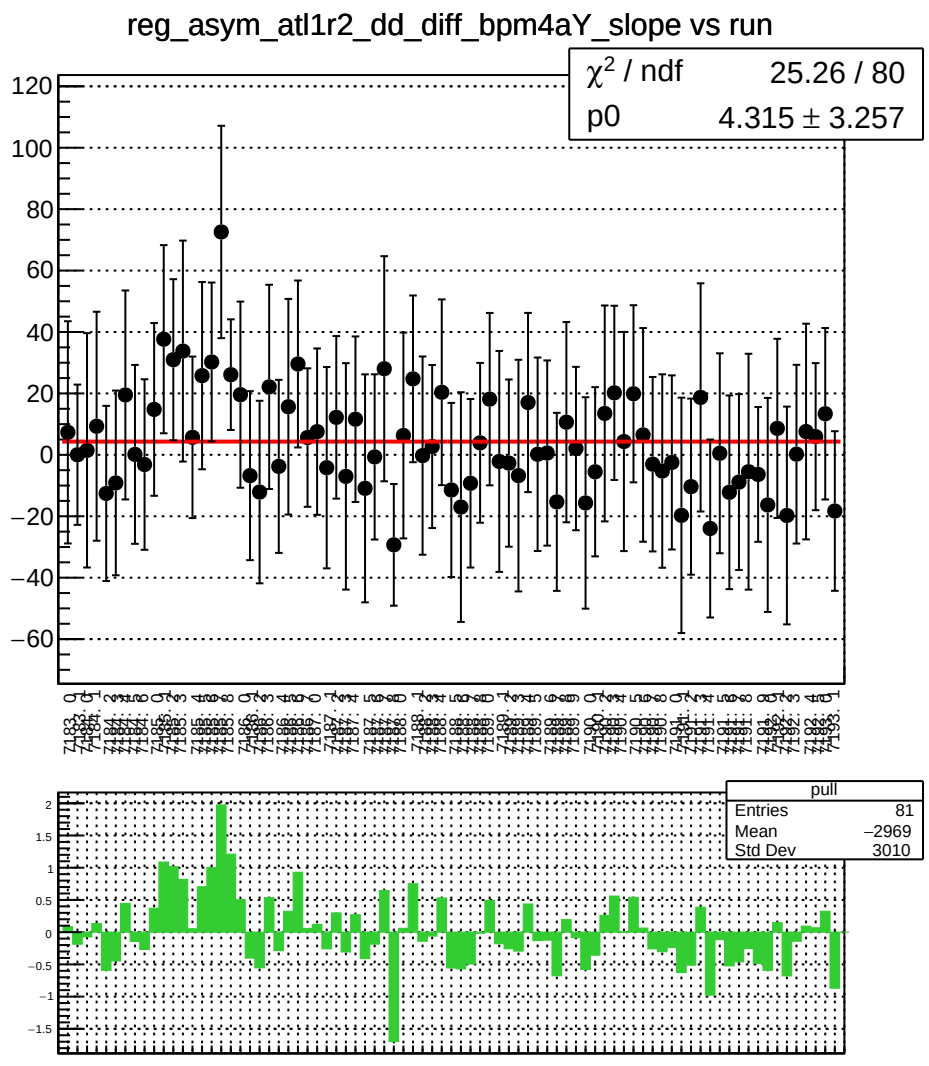

reg_asym_atl1r2_avg_diff_bpm4eY_slope vs run
χ² / ndf 27.58 / 80
p0 49.95 ± 3.953
pull
Entries 81
Mean 345.1
Std Dev 301.4

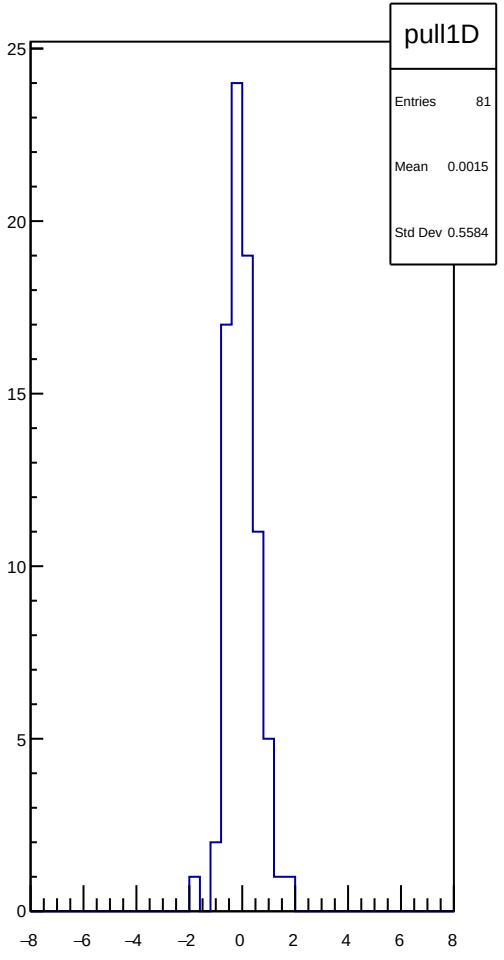

pull1D
Entries 81
Mean −0.02055
Std Dev 0.5832

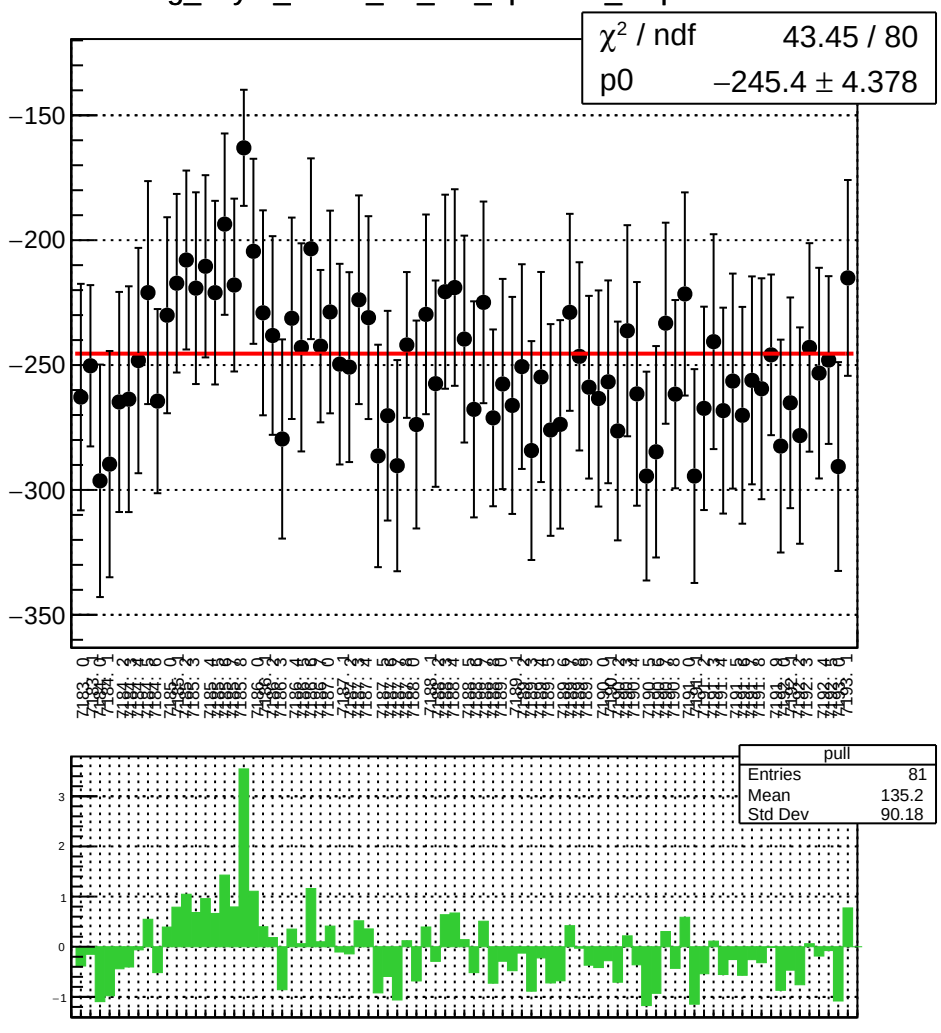

reg_asym_atl1r2_avg_diff_bpm12X_slope vs run
χ² / ndf 19.84 / 80
p0 −137.9 ± 0.1791
−134
−136
−138
−140
−142
pull
Entries 81
Mean 14.6
Std Dev 42
1.5
1
0.5
0
−0.5
−1
−1.5
−2

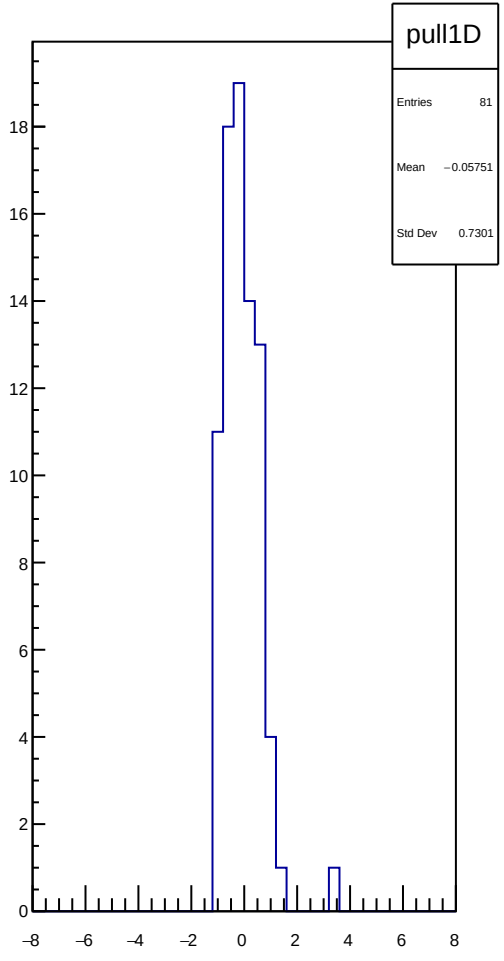

pull1D
Entries 81
Mean −0.01007
Std Dev 0.4949
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

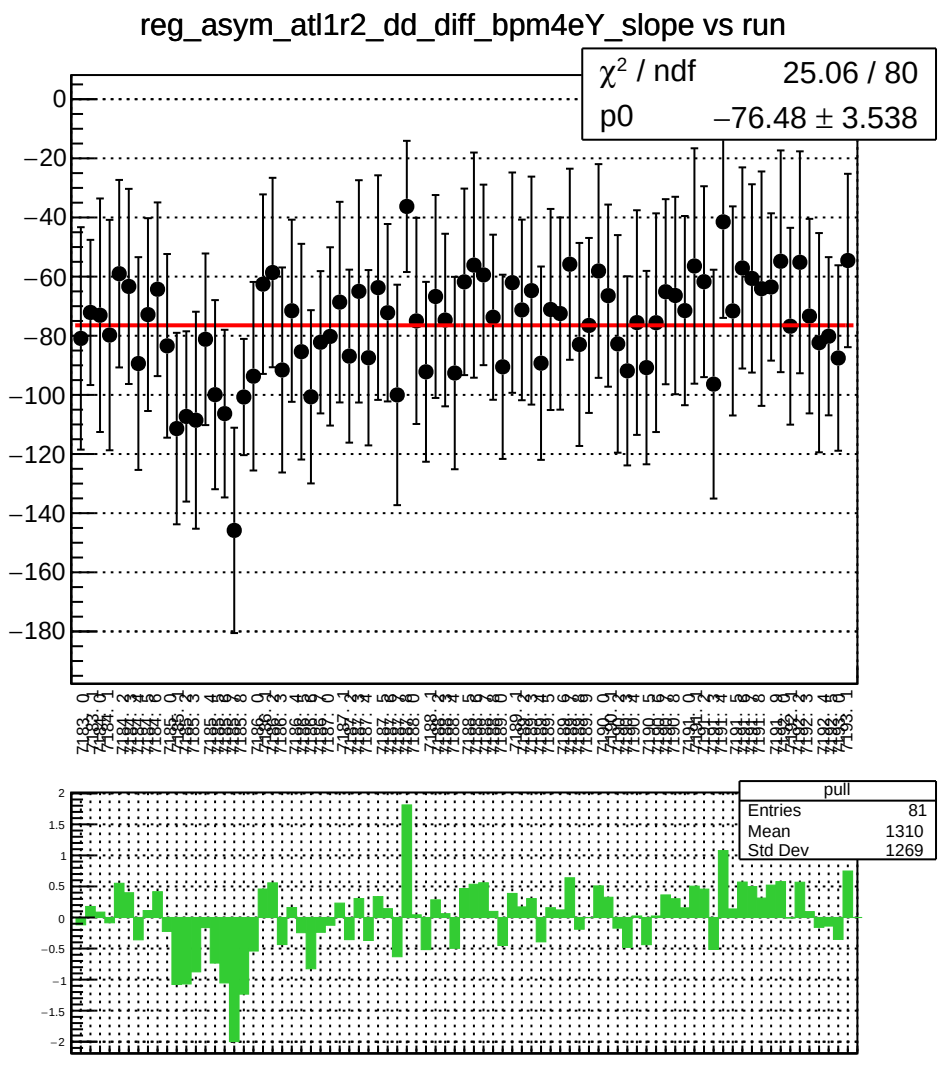

reg_asym_atl1r2_dd_diff_bpm1X_slope vs run
χ² / ndf 43.1 / 80
p0 213.5 ± 4.372
300
250
200
150
100
pull
Entries 81
Mean 137.6
Std Dev 92.61
1
0
−1
−2
−3
pull1D
Entries 81
Mean 0.05463
Std Dev 0.7274
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

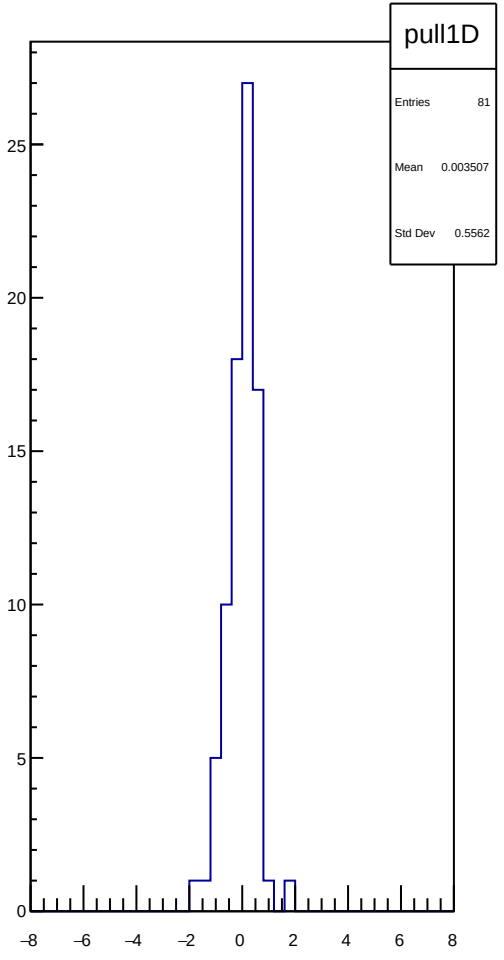

reg_asym_atl1r2_dd_diff_bpm4aY_slope vs run
χ² / ndf 25.26 / 80
p0 4.315 ± 3.257
pull
Entries 81
Mean −2969
Std Dev 3010

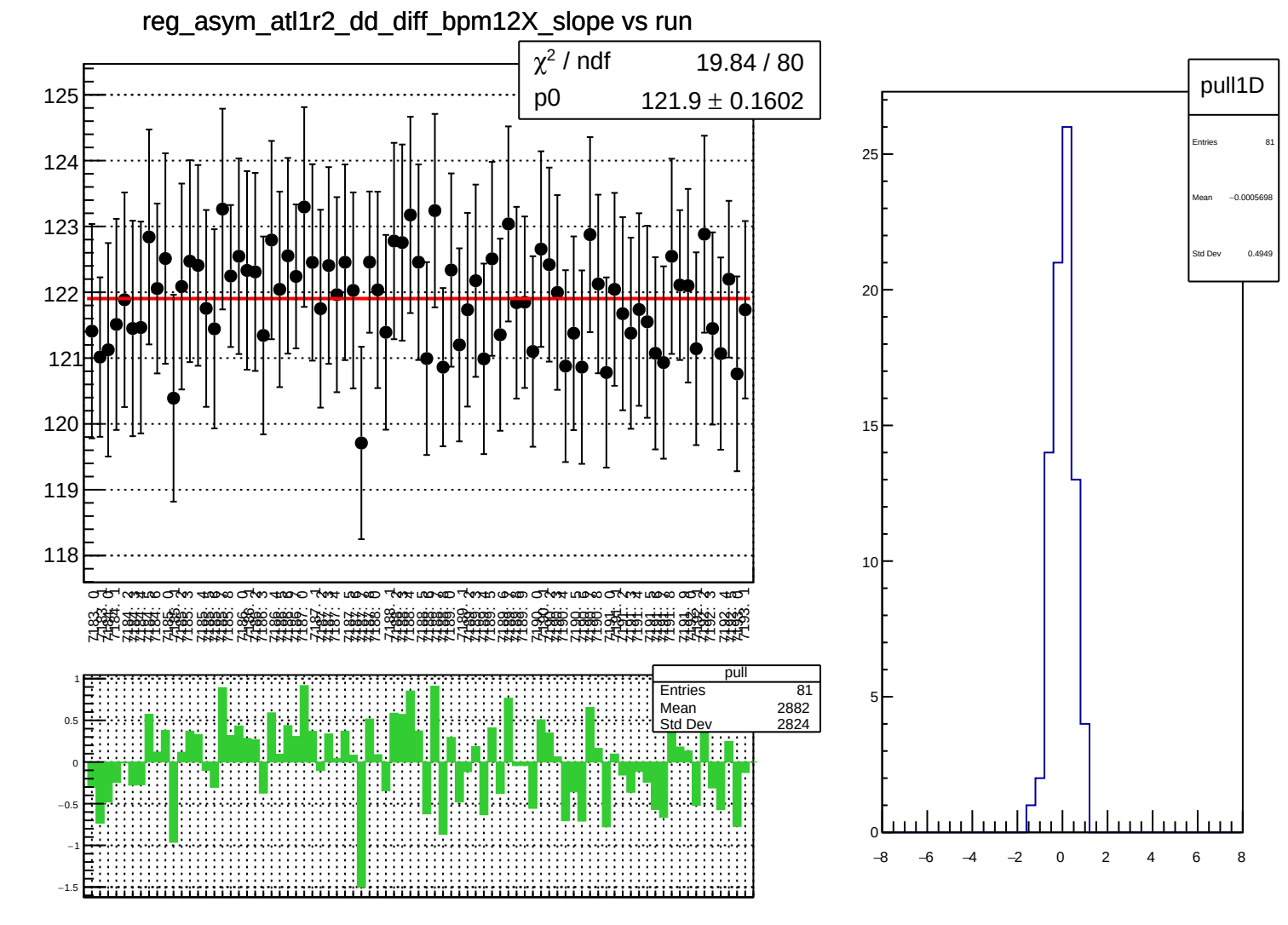

pull1D
Entries 81
Mean 0.0015
Std Dev 0.5584

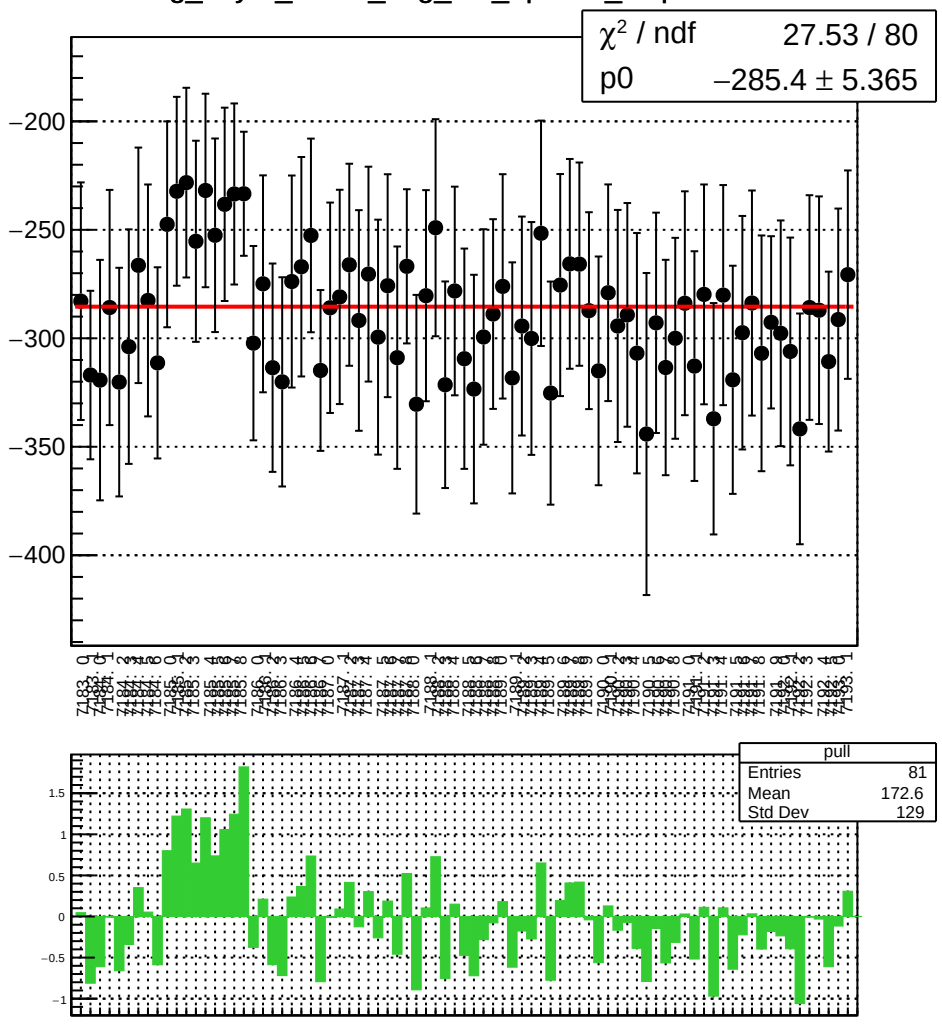

reg_asym_atl1r2_dd_diff_bpm4eX_slope vs run
χ² / ndf 43.45 / 80
p0 −245.4 ± 4.378
−150
−200
−250
−300
−350
pull
Entries 81
Mean 135.2
Std Dev 90.18
3
2
1
0
−1

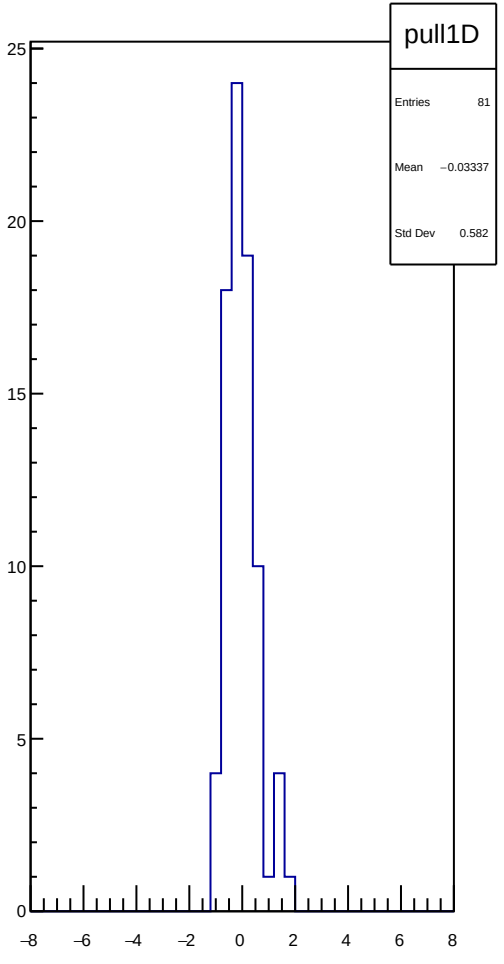

pull1D
Entries 81
Mean −0.05751
Std Dev 0.7301
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

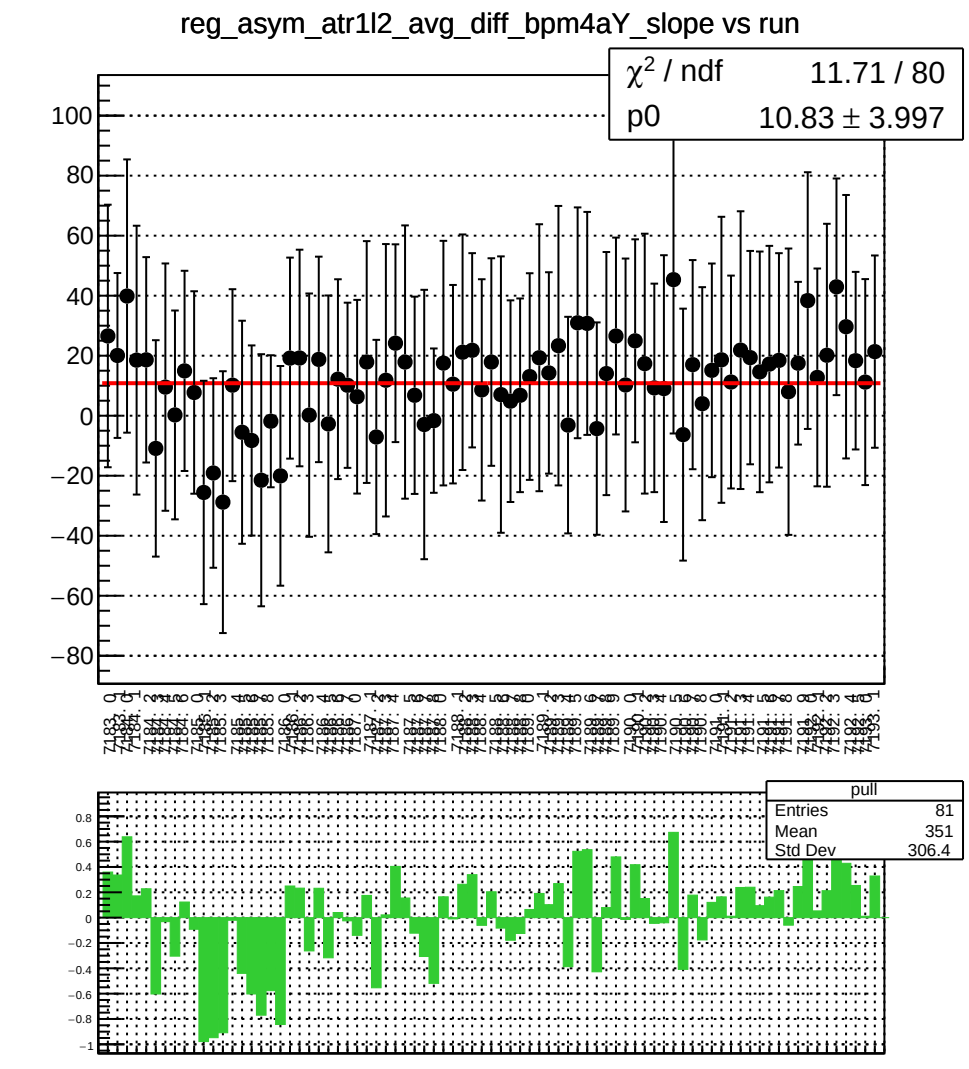

reg_asym_atl1r2_dd_diff_bpm4eY_slope vs run
χ² / ndf 25.06 / 80
p0 −76.48 ± 3.538
pull
Entries 81
Mean 1310
Std Dev 1269

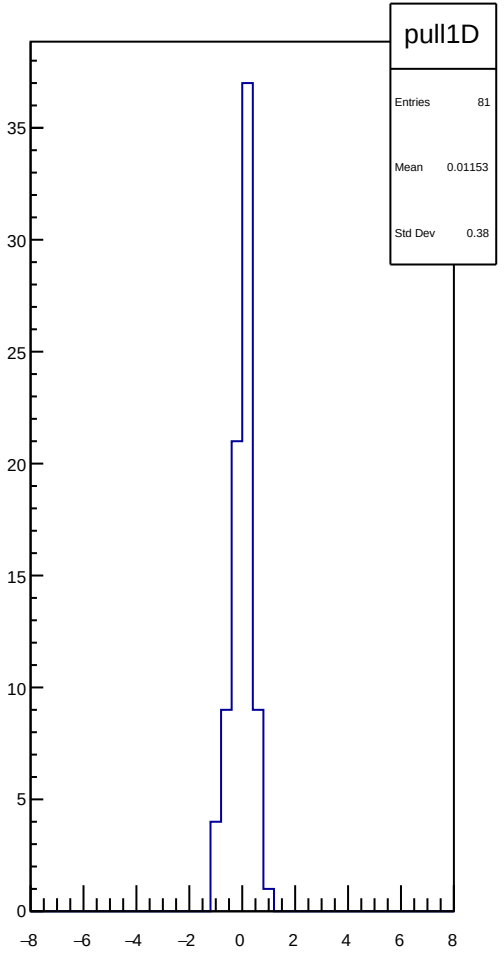

pull1D
Entries 81
Mean 0.003507
Std Dev 0.5562

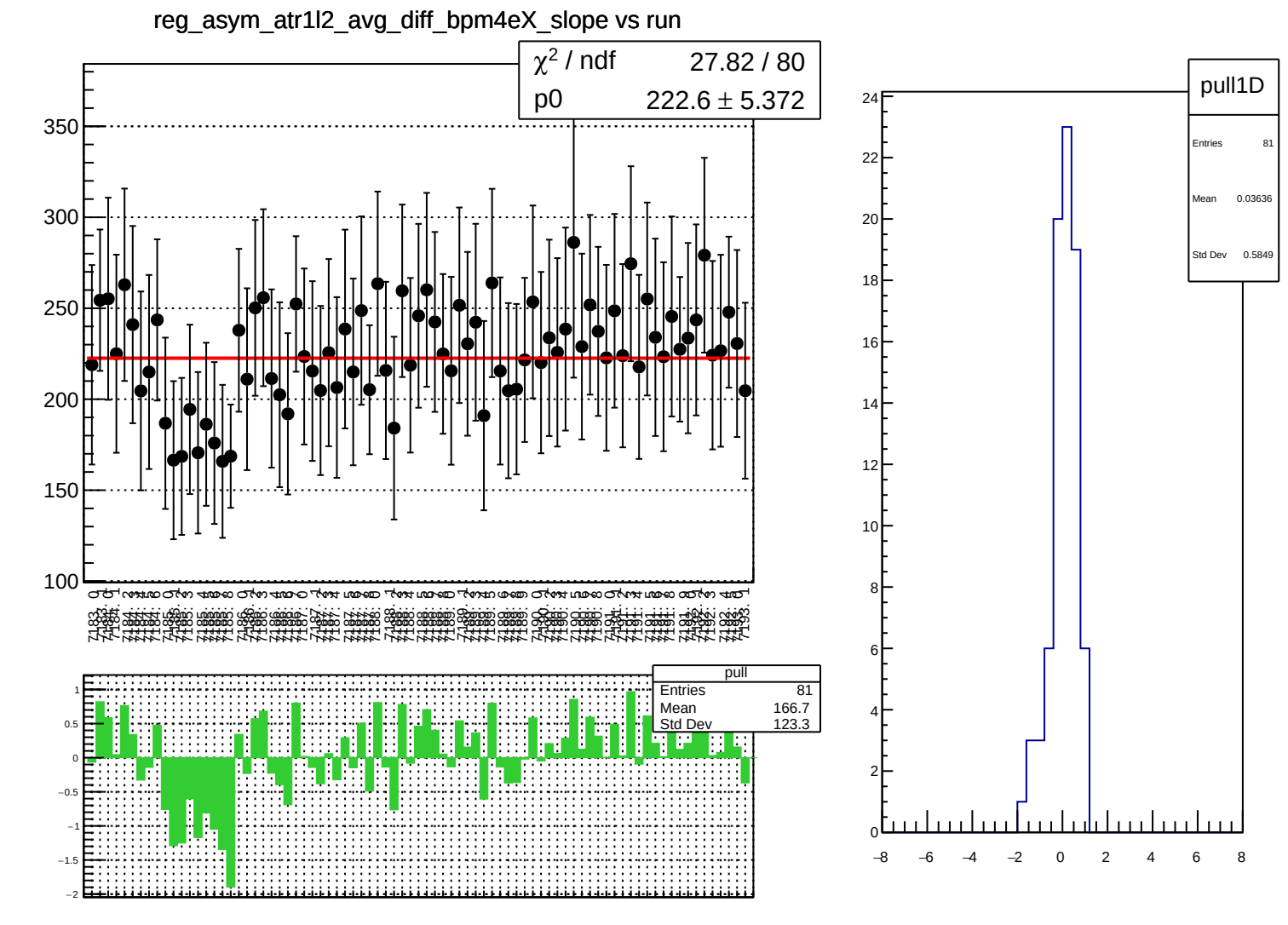

reg_asym_atl1r2_dd_diff_bpm12X_slope vs run
χ² / ndf 19.84 / 80
p0 121.9 ± 0.1602
125
124
123
122
121
120
119
118
pull
Entries 81
Mean 2882
Std Dev 2824
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 81
Mean −0.0005698
Std Dev 0.4949
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

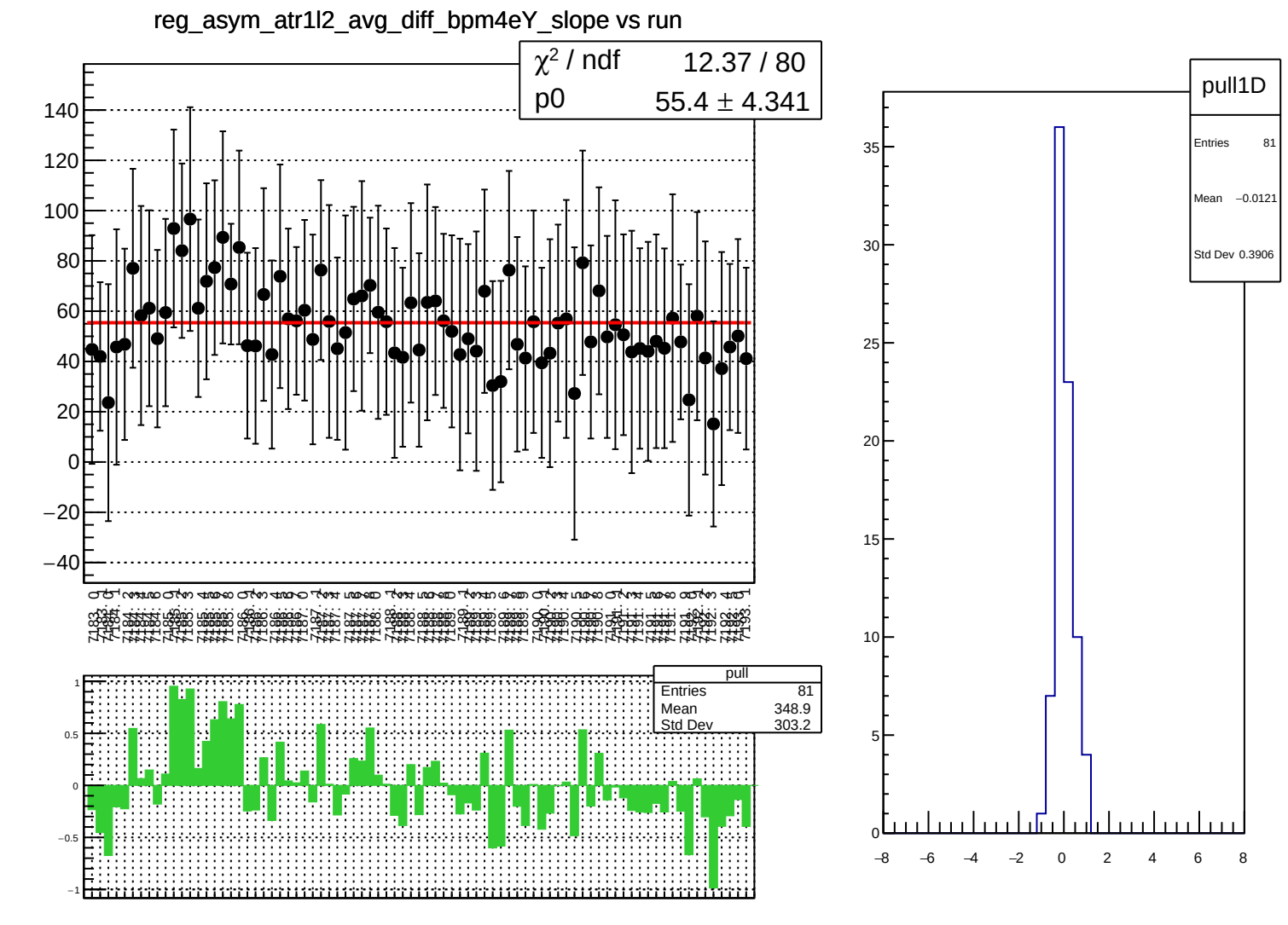

reg_asym_atr1l2_avg_diff_bpm1X_slope vs run
χ² / ndf 27.53 / 80
p0 −285.4 ± 5.365
pull
Entries 81
Mean 172.6
Std Dev 129

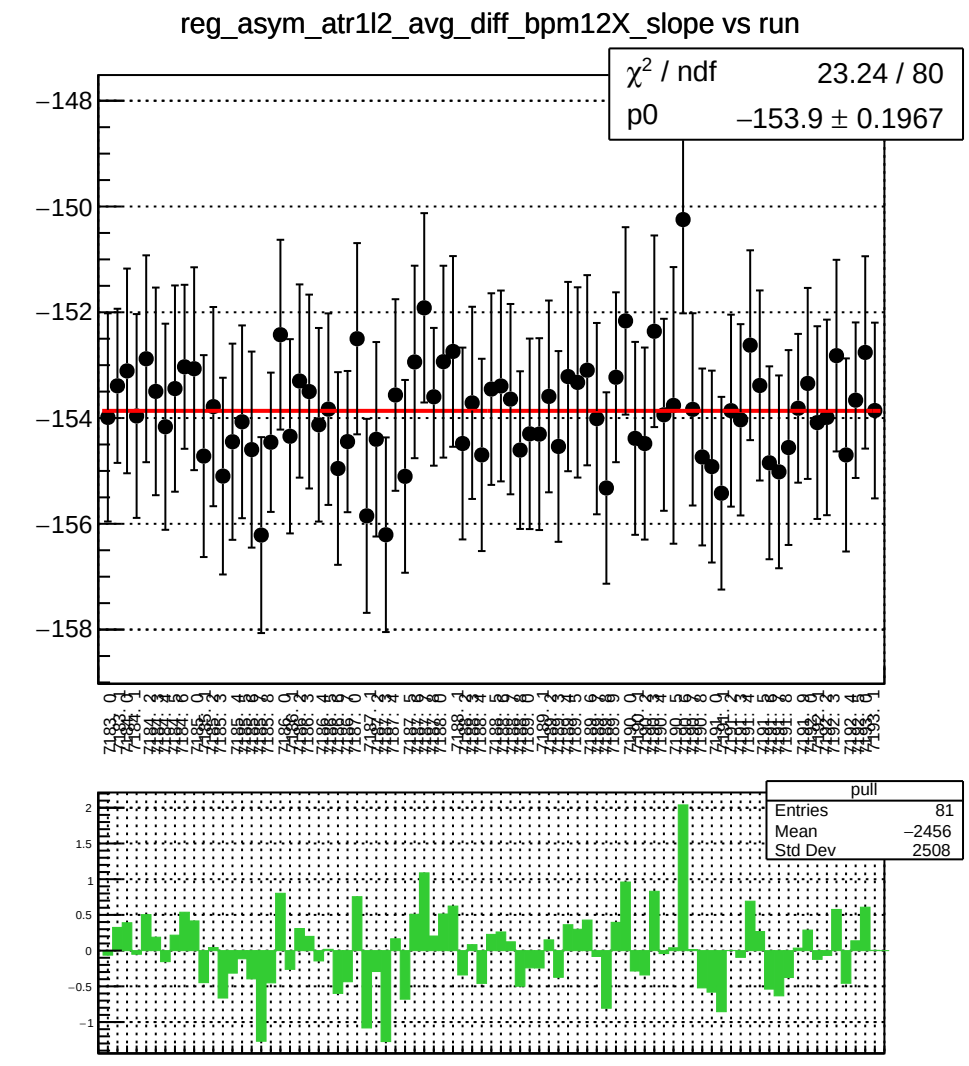

pull1D
Entries 81
Mean −0.03337
Std Dev 0.582

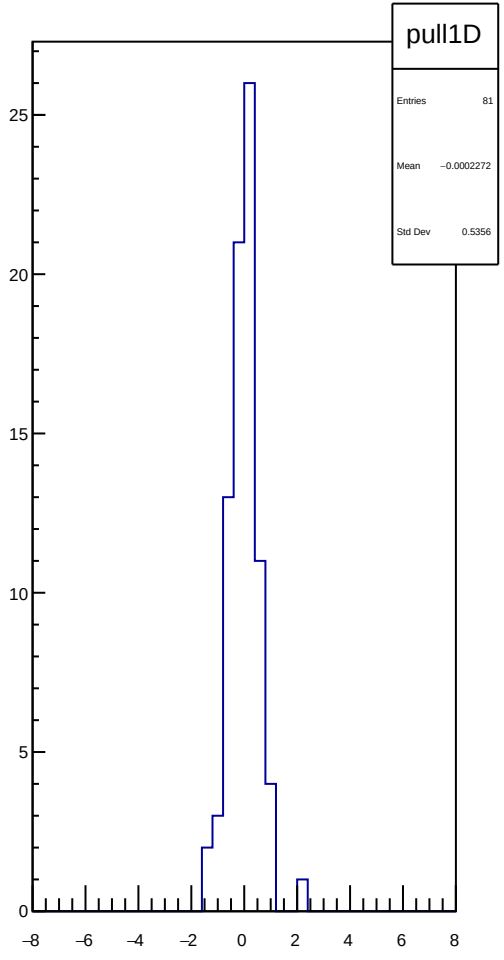

reg_asym_atr1l2_avg_diff_bpm4aY_slope vs run
χ² / ndf 11.71 / 80
p0 10.83 ± 3.997
pull
Entries 81
Mean 351
Std Dev 306.4

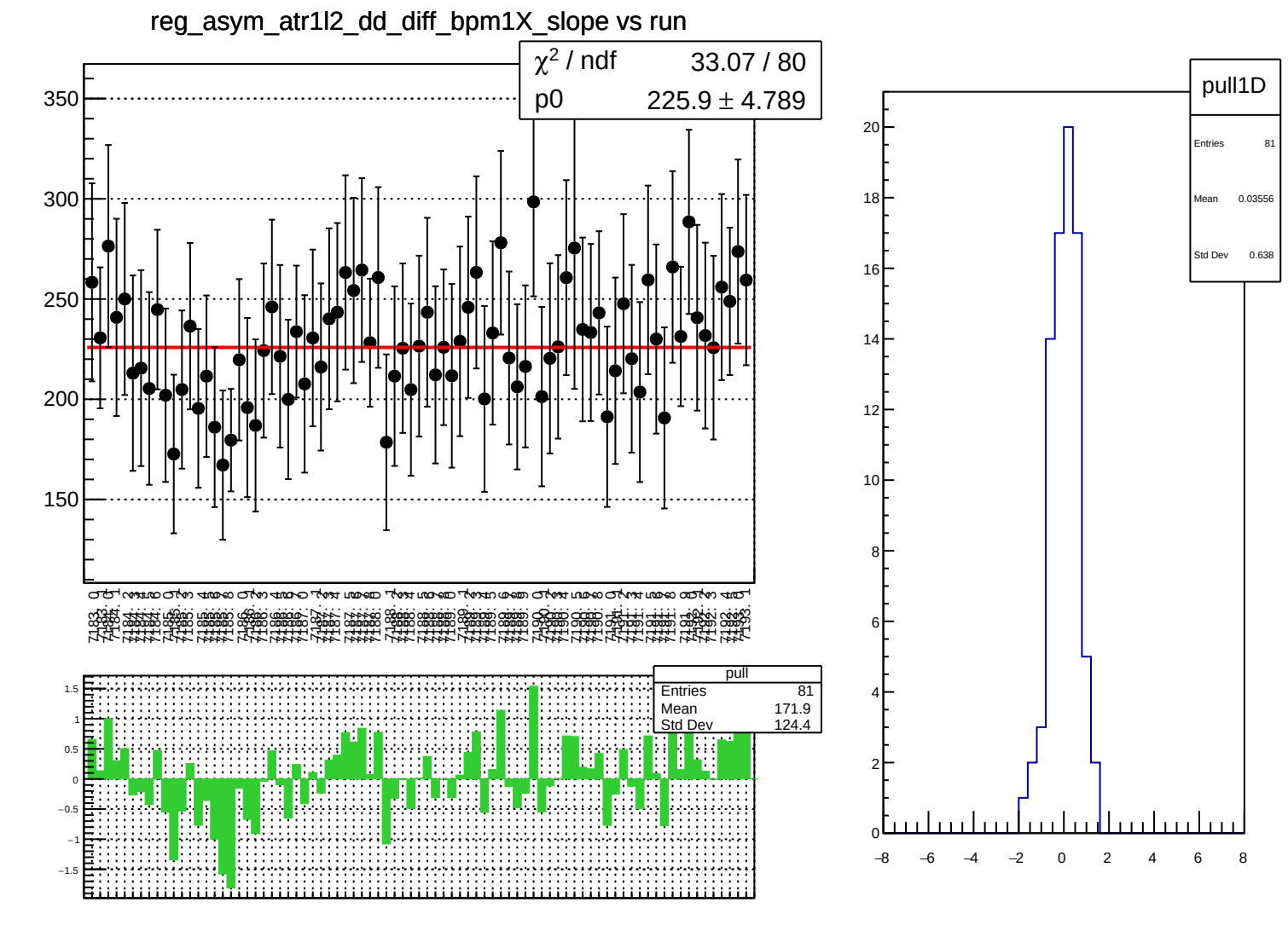

pull1D
Entries 81
Mean 0.01153
Std Dev 0.38

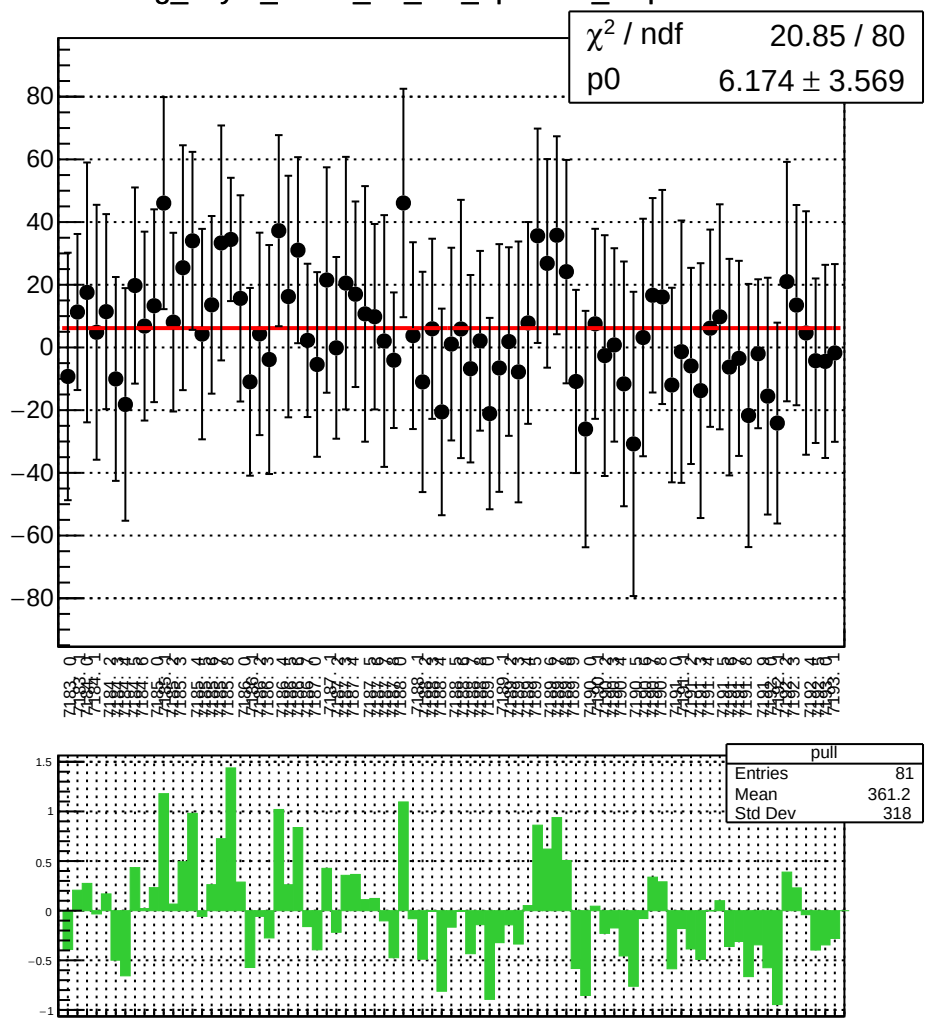

reg_asym_atr1l2_avg_diff_bpm4eX_slope vs run
χ² / ndf 27.82 / 80
p0 222.6 ± 5.372
pull
Entries 81
Mean 166.7
Std Dev 123.3
pull1D
Entries 81
Mean 0.03636
Std Dev 0.5849

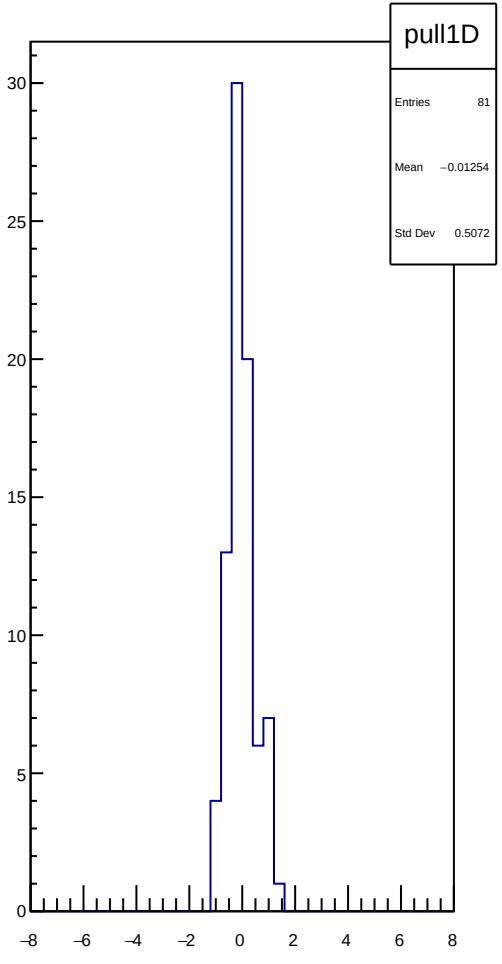

reg_asym_atr1l2_avg_diff_bpm4eY_slope vs run
χ² / ndf 12.37 / 80
p0 55.4 ± 4.341
pull
Entries 81
Mean 348.9
Std Dev 303.2
pull1D
Entries 81
Mean −0.0121
Std Dev 0.3906

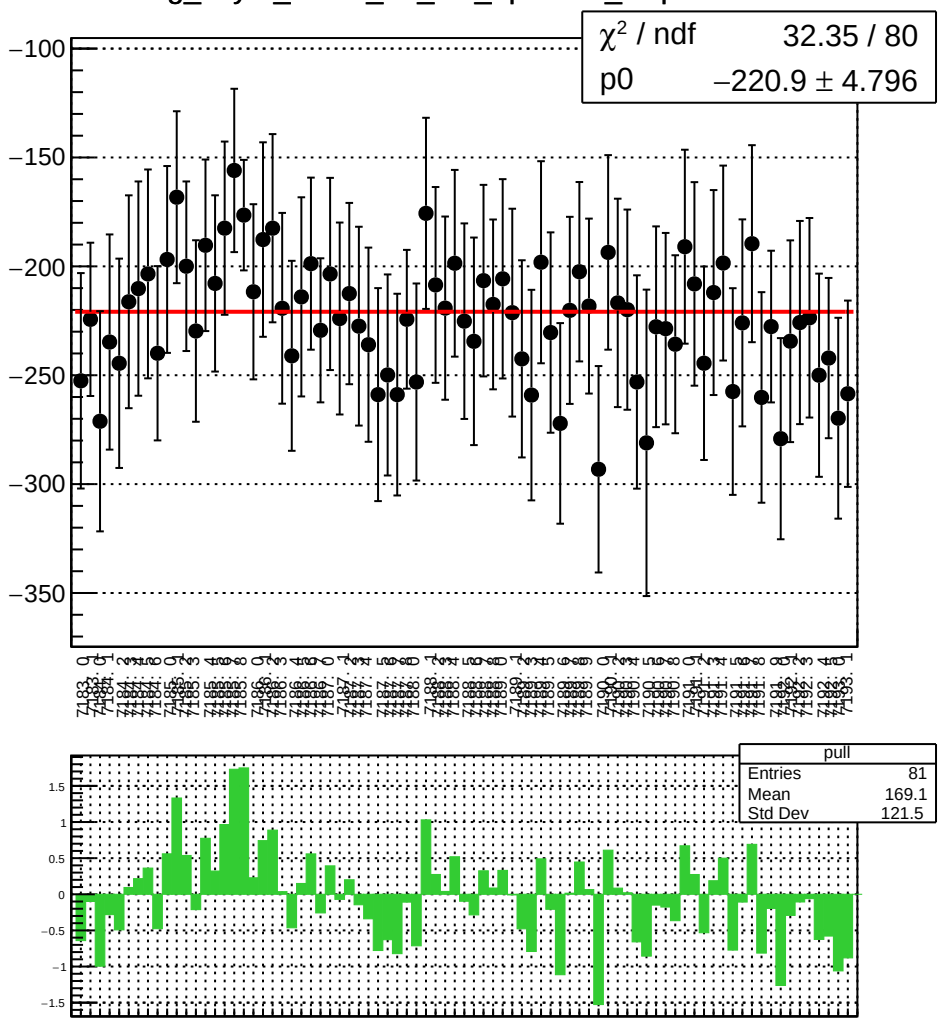

reg_asym_atr1l2_avg_diff_bpm12X_slope vs run
χ² / ndf 23.24 / 80
p0 −153.9 ± 0.1967
−148
−150
−152
−154
−156
−158
pull
Entries 81
Mean −2456
Std Dev 2508
2
1.5
1
0.5
0
−0.5
−1

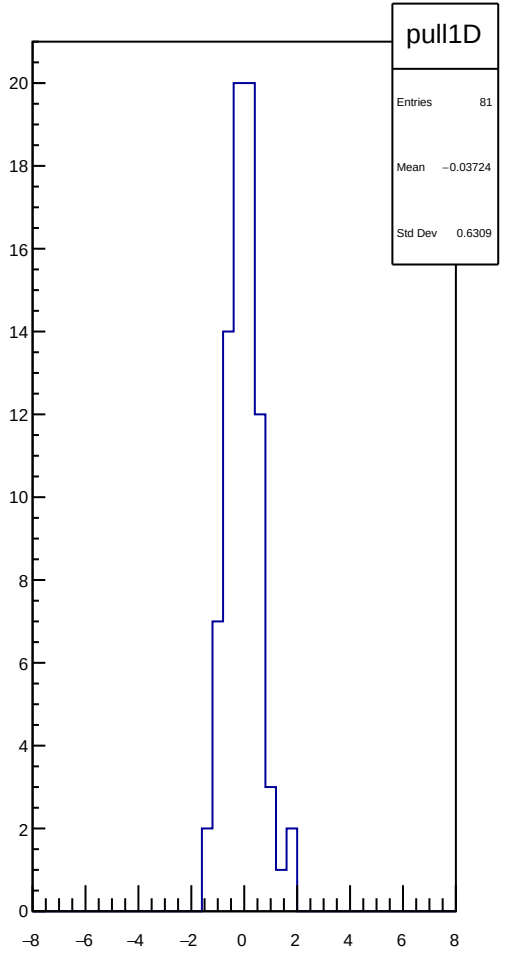

pull1D
Entries 81
Mean −0.0002272
Std Dev 0.5356
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

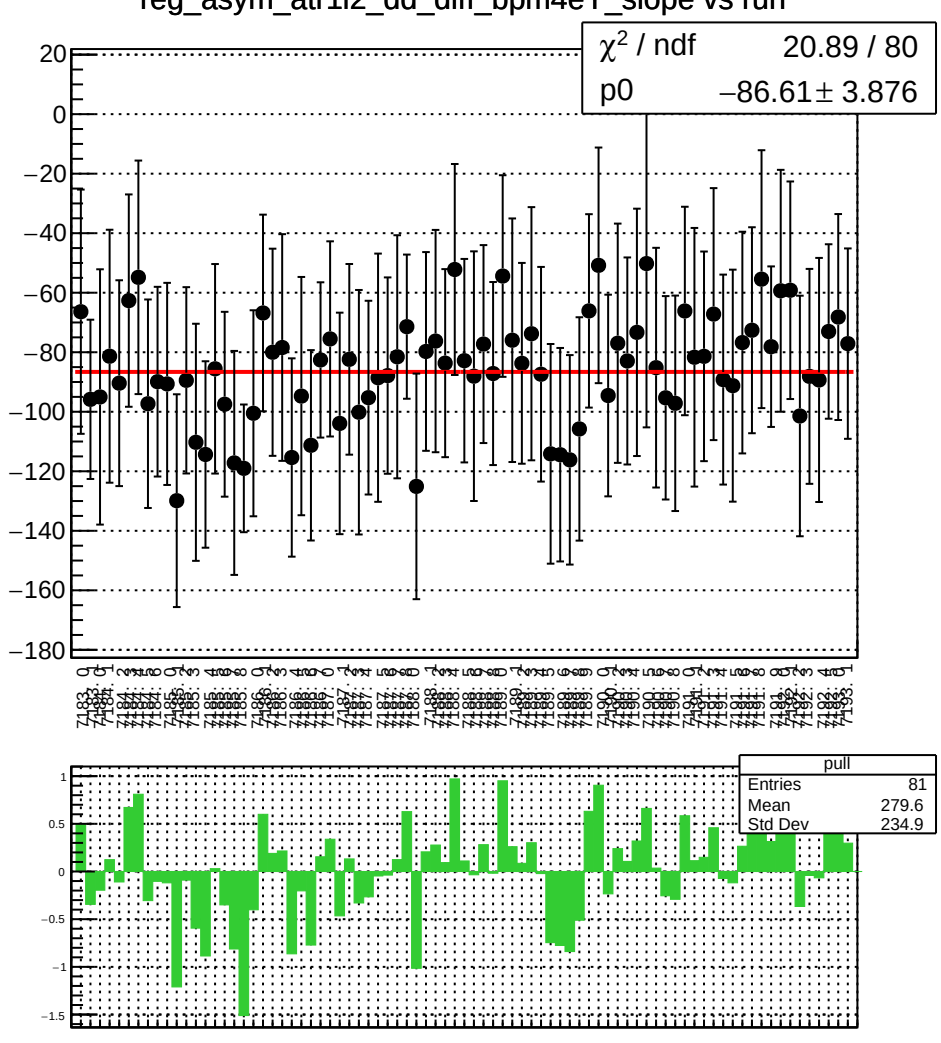

reg_asym_atr1l2_dd_diff_bpm1X_slope vs run
χ² / ndf 33.07 / 80
p0 225.9 ± 4.789
350
300
250
200
150
pull
Entries 81
Mean 171.9
Std Dev 124.4
1.5
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 81
Mean 0.03556
Std Dev 0.638
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

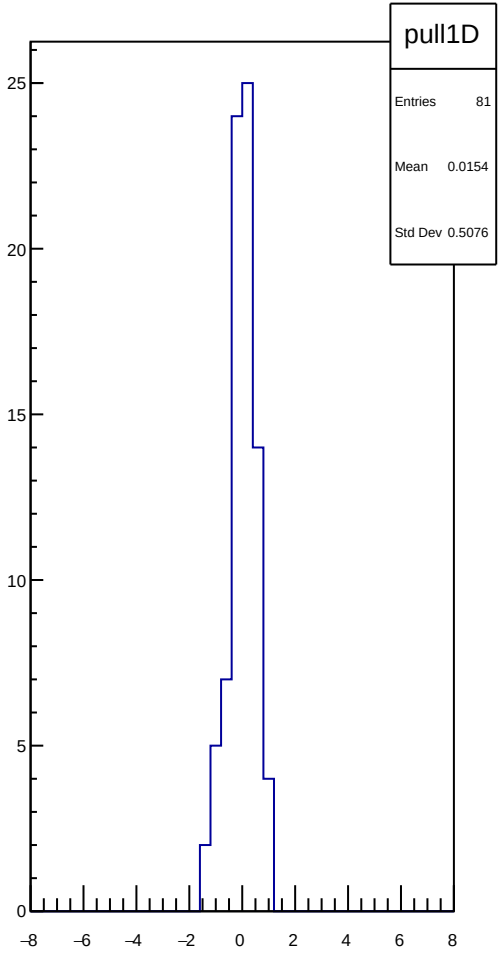

reg_asym_atr1l2_dd_diff_bpm4aY_slope vs run
χ² / ndf 20.85 / 80
p0 6.174 ± 3.569
pull
Entries 81
Mean 361.2
Std Dev 318

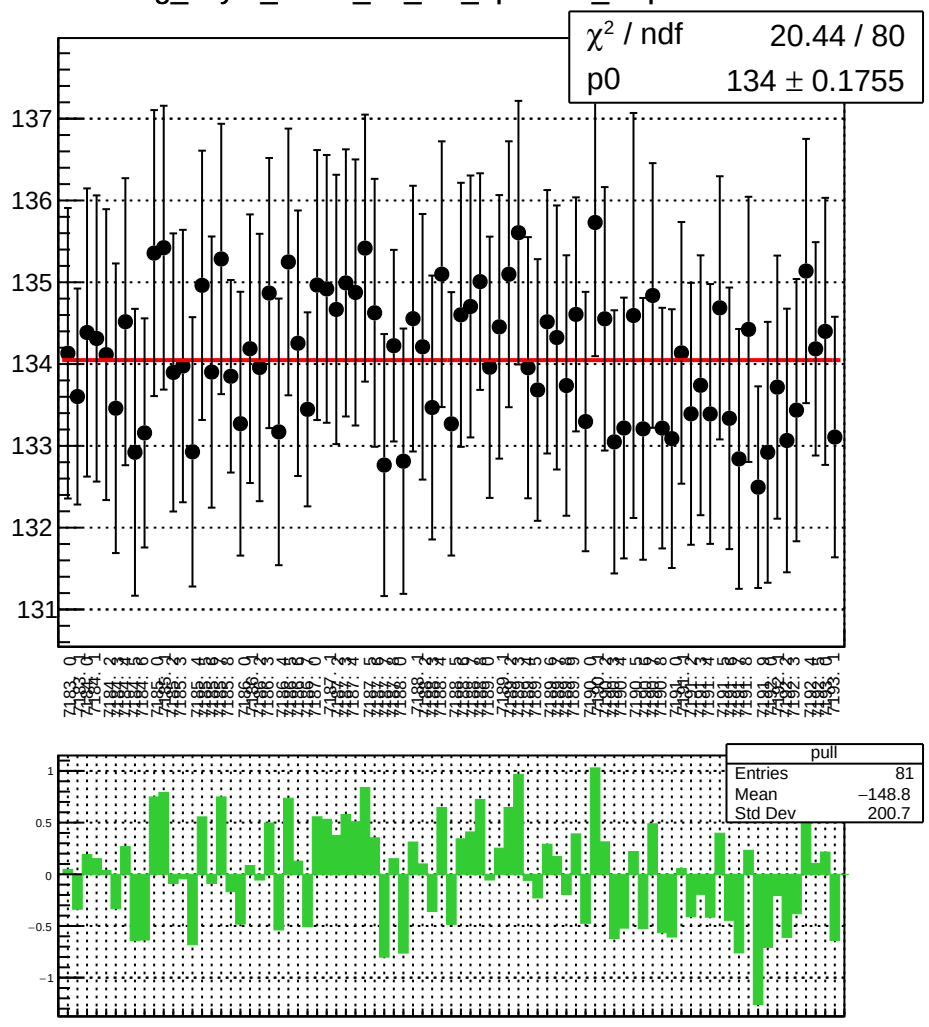

pull1D
Entries 81
Mean −0.01254
Std Dev 0.5072

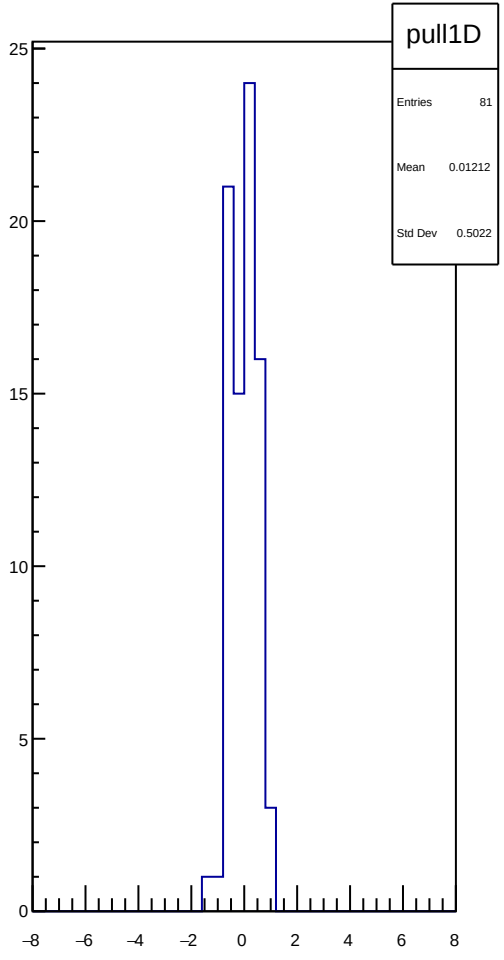

reg_asym_atr1l2_dd_diff_bpm4eX_slope vs run
χ² / ndf 32.35 / 80
p0 −220.9 ± 4.796
pull
Entries 81
Mean 169.1
Std Dev 121.5

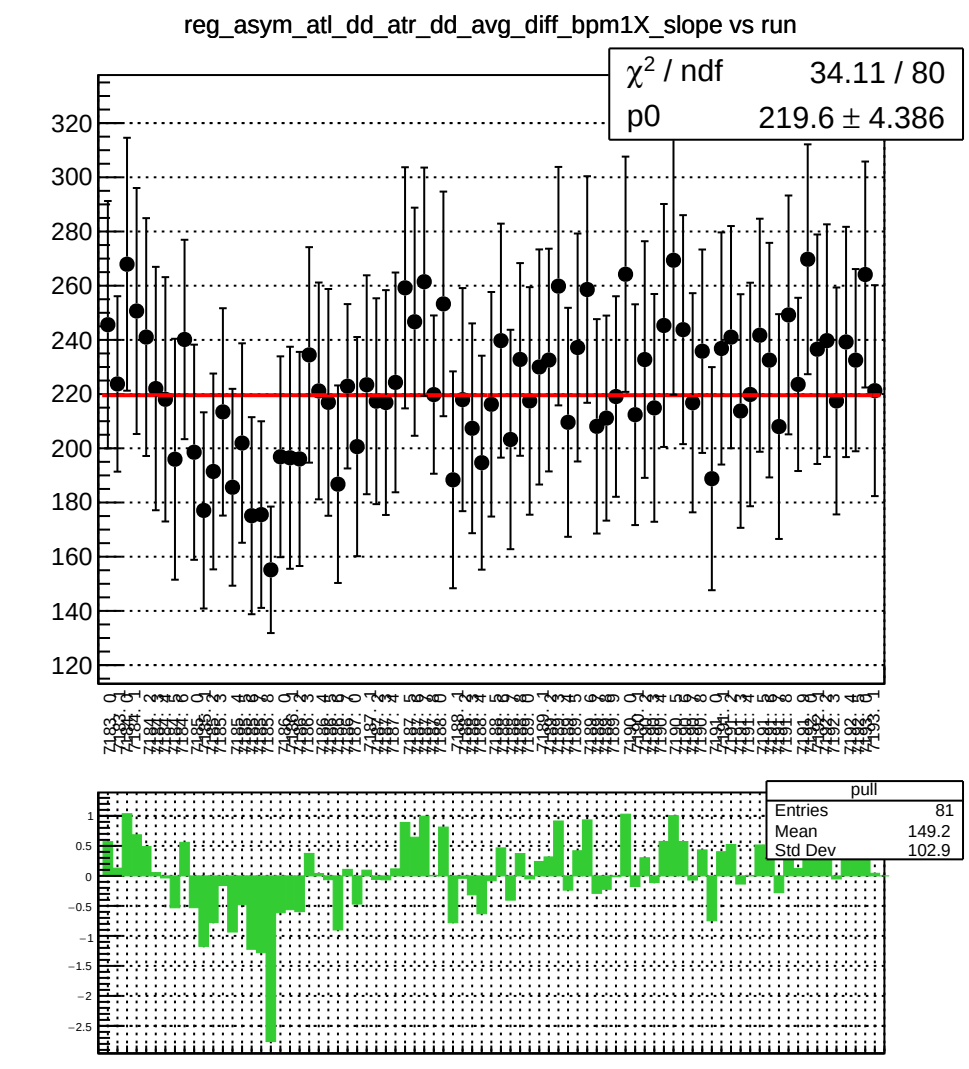

pull1D
Entries 81
Mean −0.03724
Std Dev 0.6309

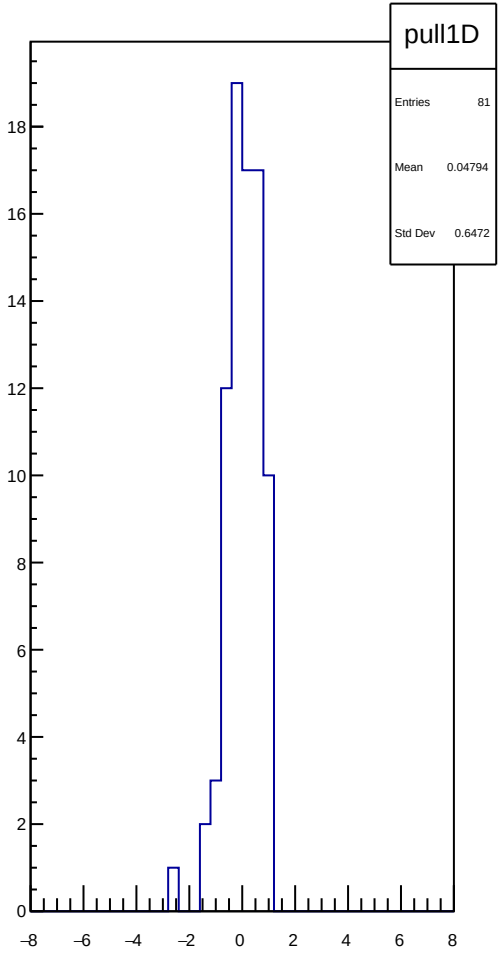

reg_asym_atr1l2_dd_diff_bpm4eY_slope vs run
χ² / ndf 20.89 / 80
p0 −86.61 ± 3.876
pull
Entries 81
Mean 279.6
Std Dev 234.9

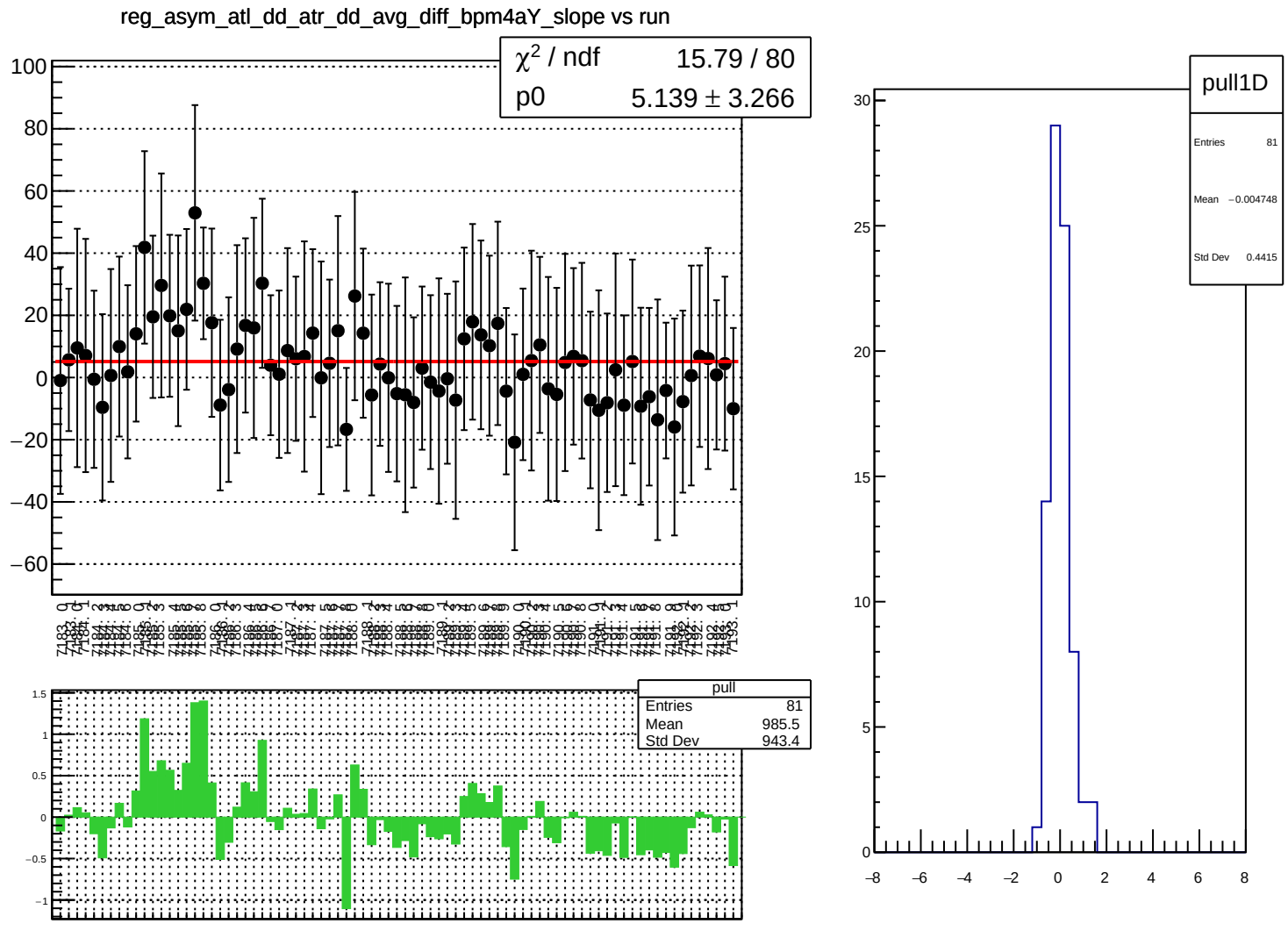

pull1D
Entries 81
Mean 0.0154
Std Dev 0.5076

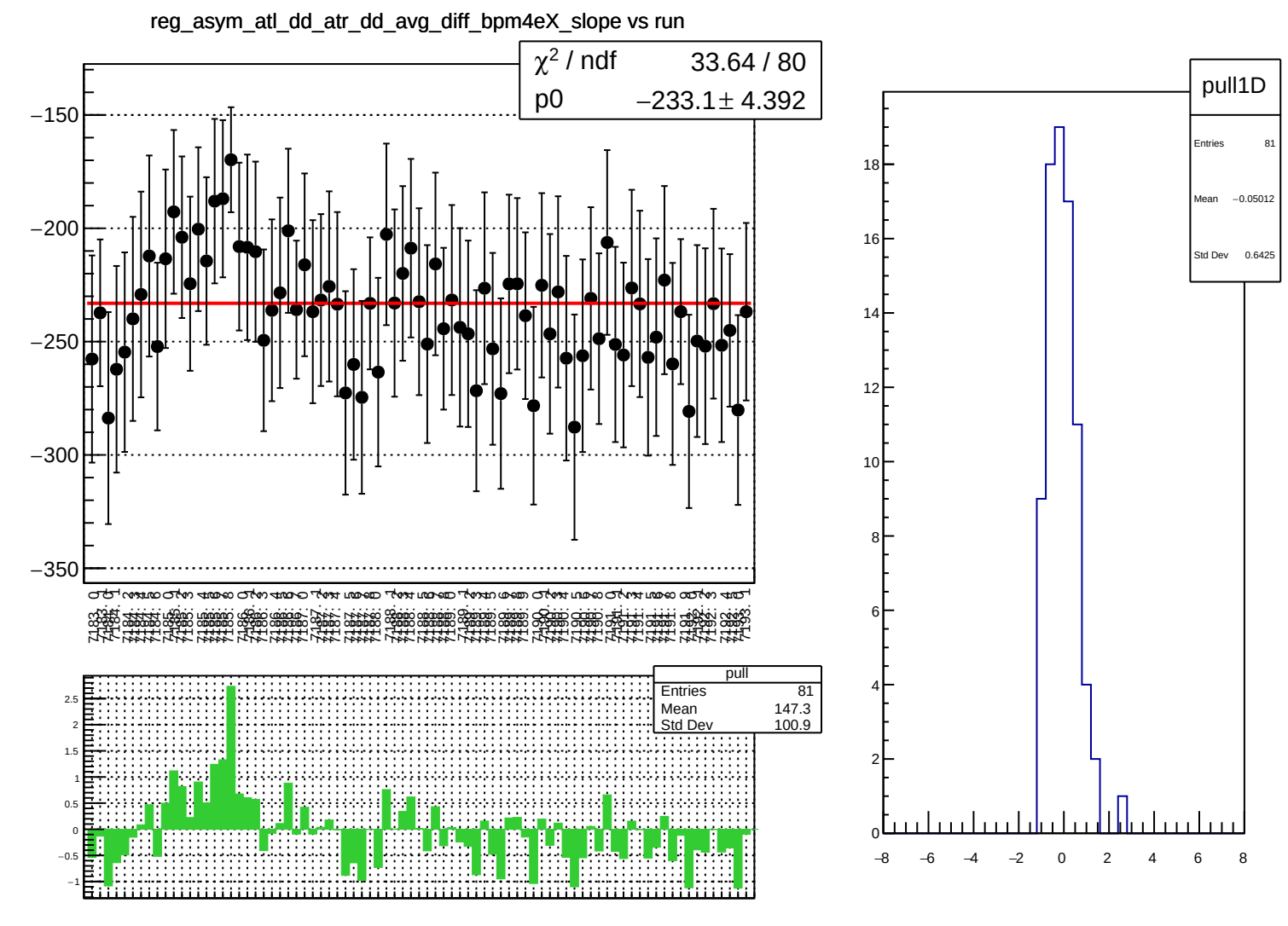

reg_asym_atr1l2_dd_diff_bpm12X_slope vs run
χ² / ndf 20.44 / 80
p0 134 ± 0.1755
137
136
135
134
133
132
131
pull
Entries 81
Mean −148.8
Std Dev 200.7
1
0.5
0
−0.5
−1

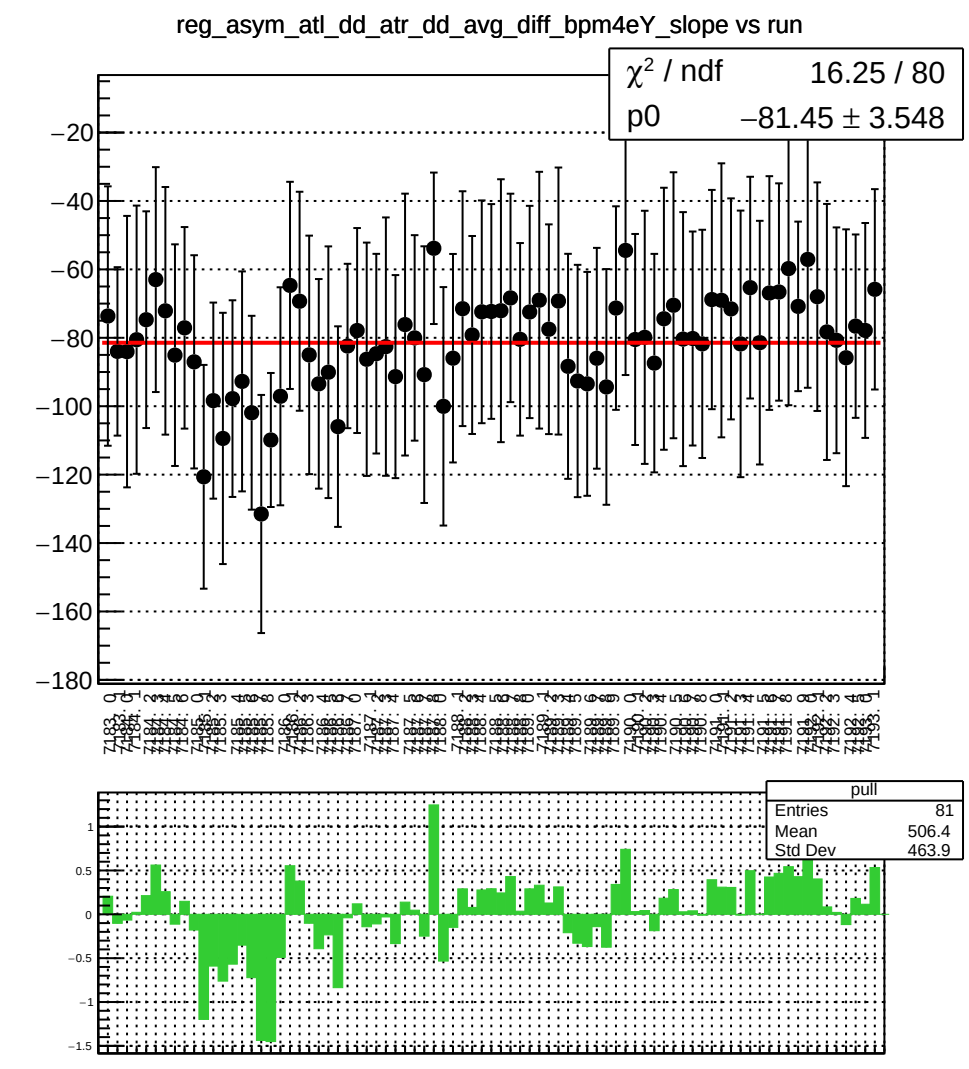

pull1D
Entries 81
Mean 0.01212
Std Dev 0.5022
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

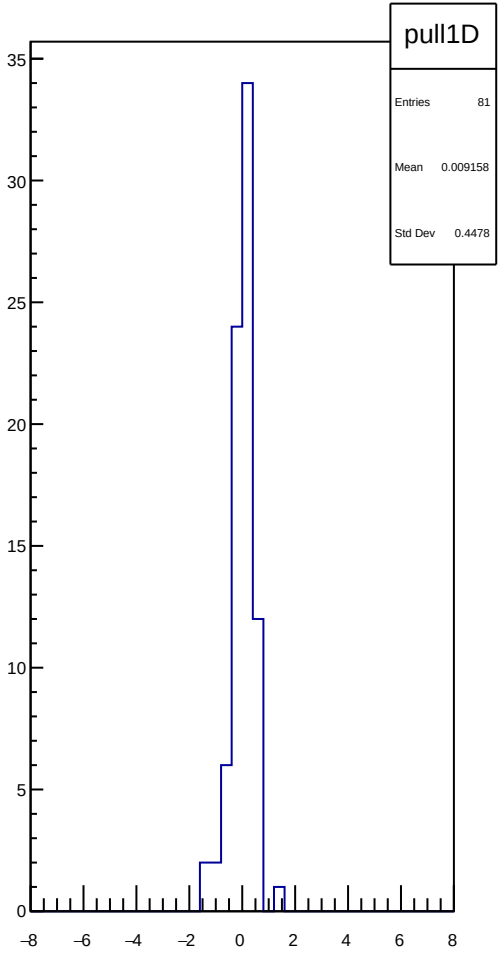

reg_asym_atl_dd_atr_dd_avg_diff_bpm1X_slope vs run
χ² / ndf 34.11 / 80
p0 219.6 ± 4.386
pull
Entries 81
Mean 149.2
Std Dev 102.9

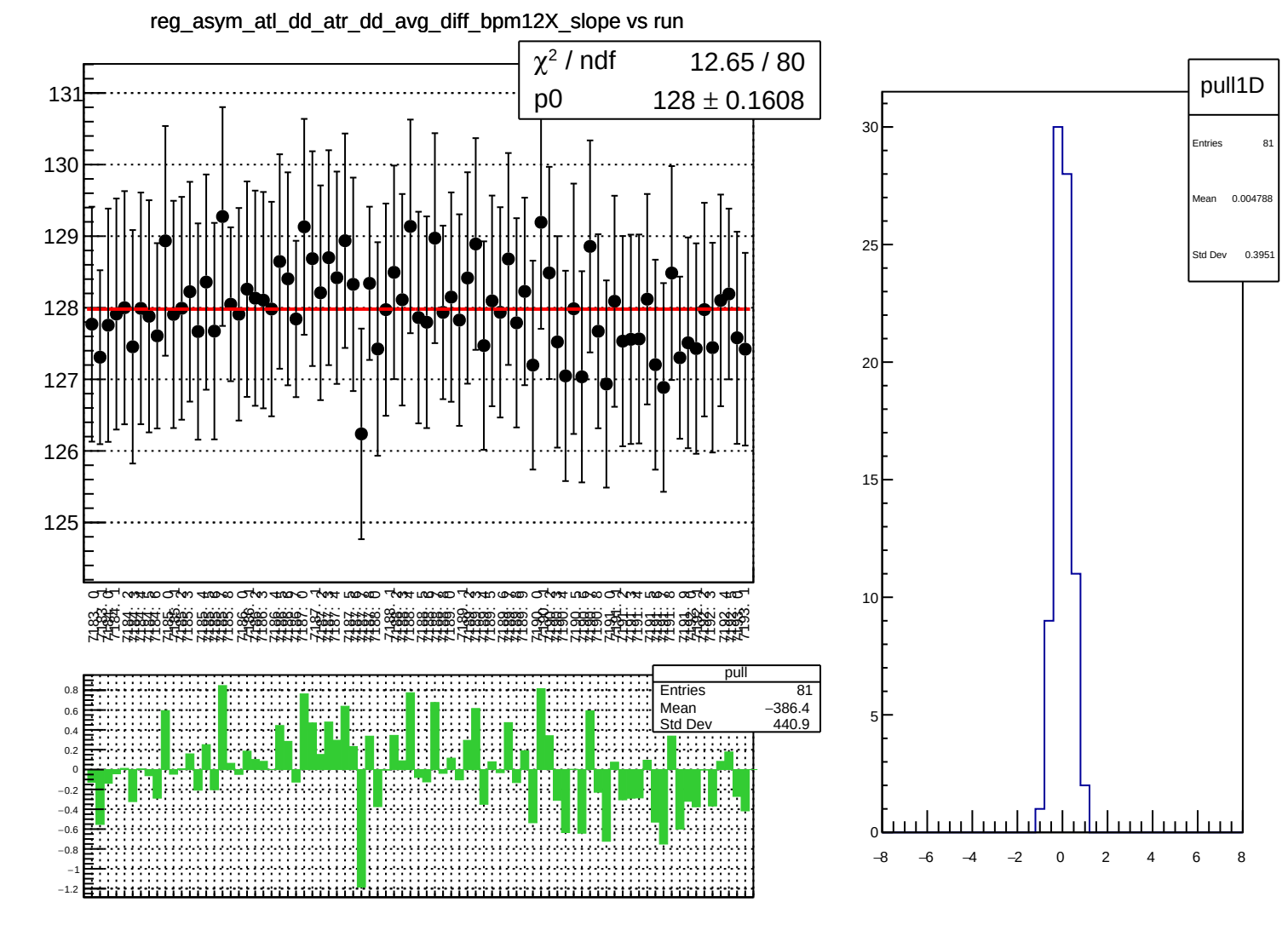

pull1D
Entries 81
Mean 0.04794
Std Dev 0.6472

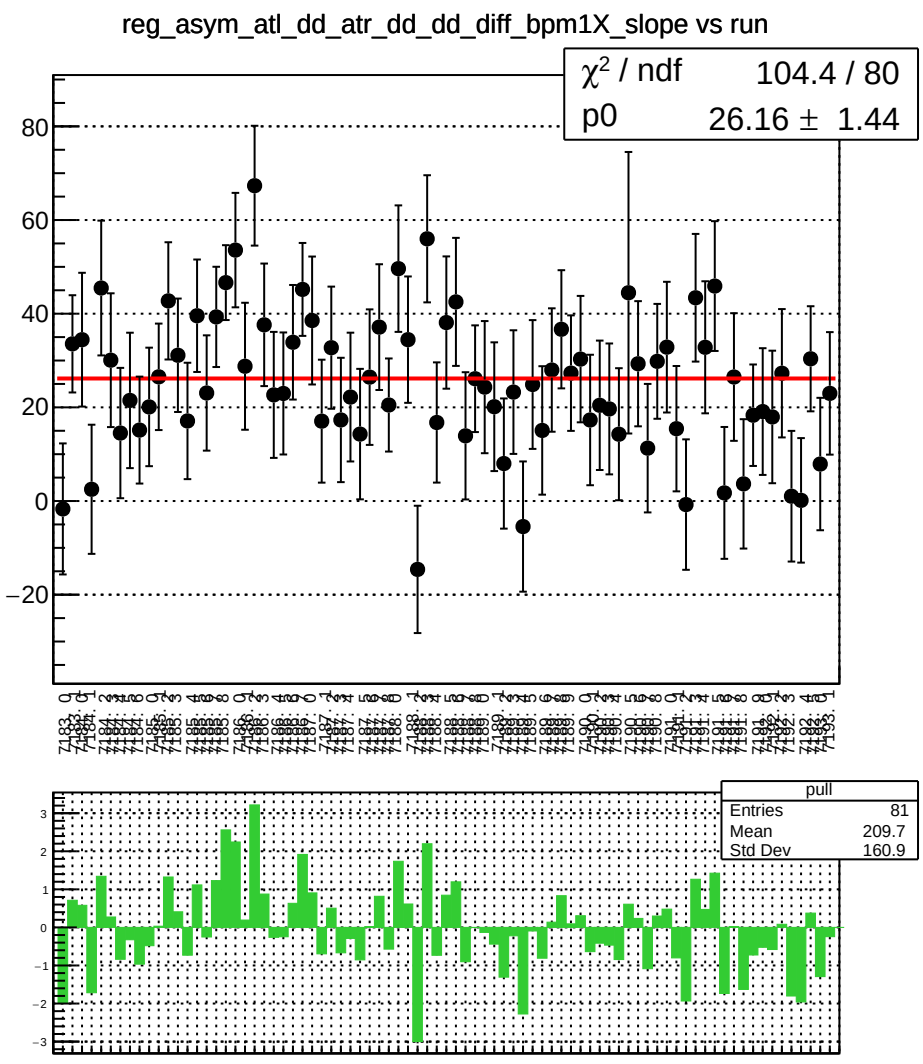

reg_asym_atl_dd_atr_dd_avg_diff_bpm4aY_slope vs run
χ² / ndf 15.79 / 80
p0 5.139 ± 3.266
pull
Entries 81
Mean 985.5
Std Dev 943.4
pull1D
Entries 81
Mean −0.004748
Std Dev 0.4415

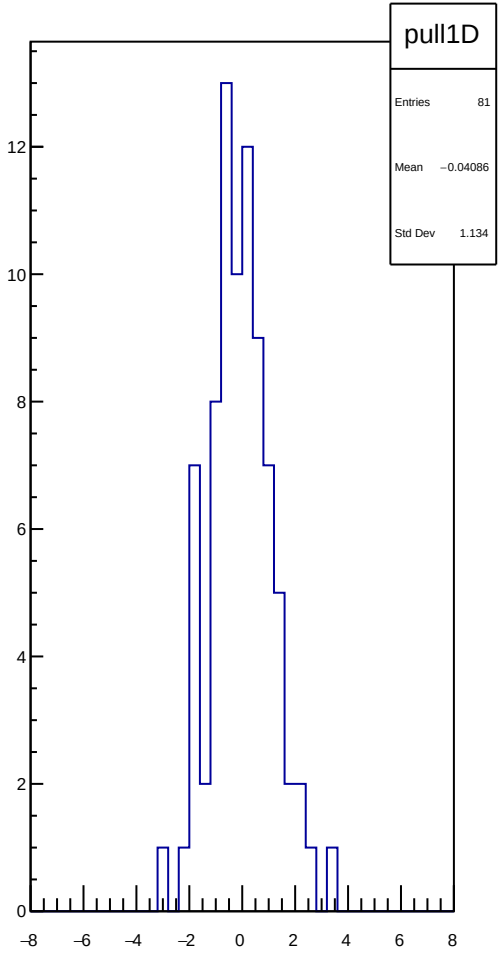

reg_asym_atl_dd_atr_dd_avg_diff_bpm4eX_slope vs run
χ² / ndf 33.64 / 80
p0 −233.1 ± 4.392
−150
−200
−250
−300
−350
pull
Entries 81
Mean 147.3
Std Dev 100.9
2.5
2
1.5
1
0.5
0
−0.5
−1
pull1D
Entries 81
Mean −0.05012
Std Dev 0.6425
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

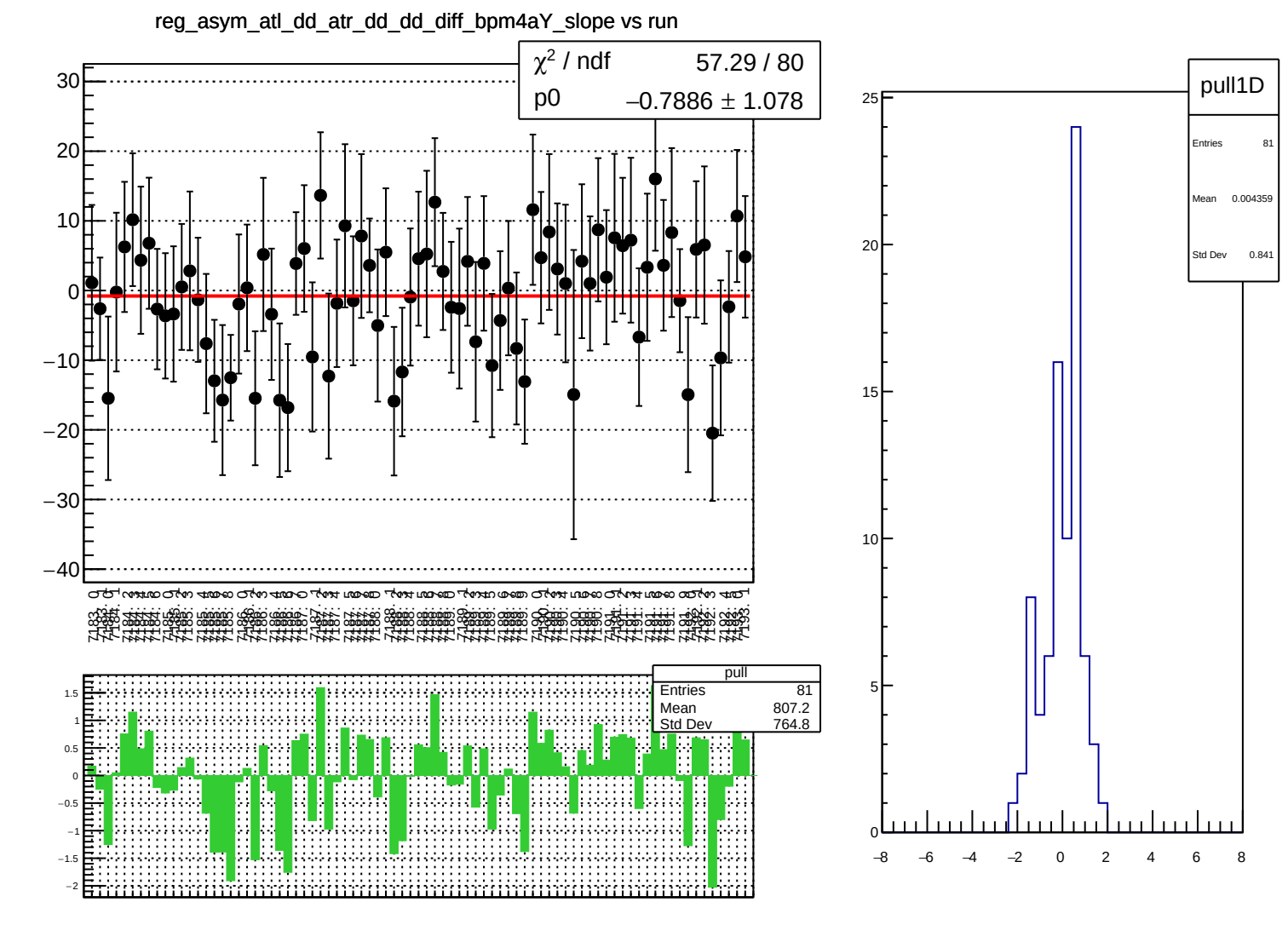

reg_asym_atl_dd_atr_dd_avg_diff_bpm4eY_slope vs run
χ² / ndf 16.25 / 80
p0 −81.45 ± 3.548
pull
Entries 81
Mean 506.4
Std Dev 463.9

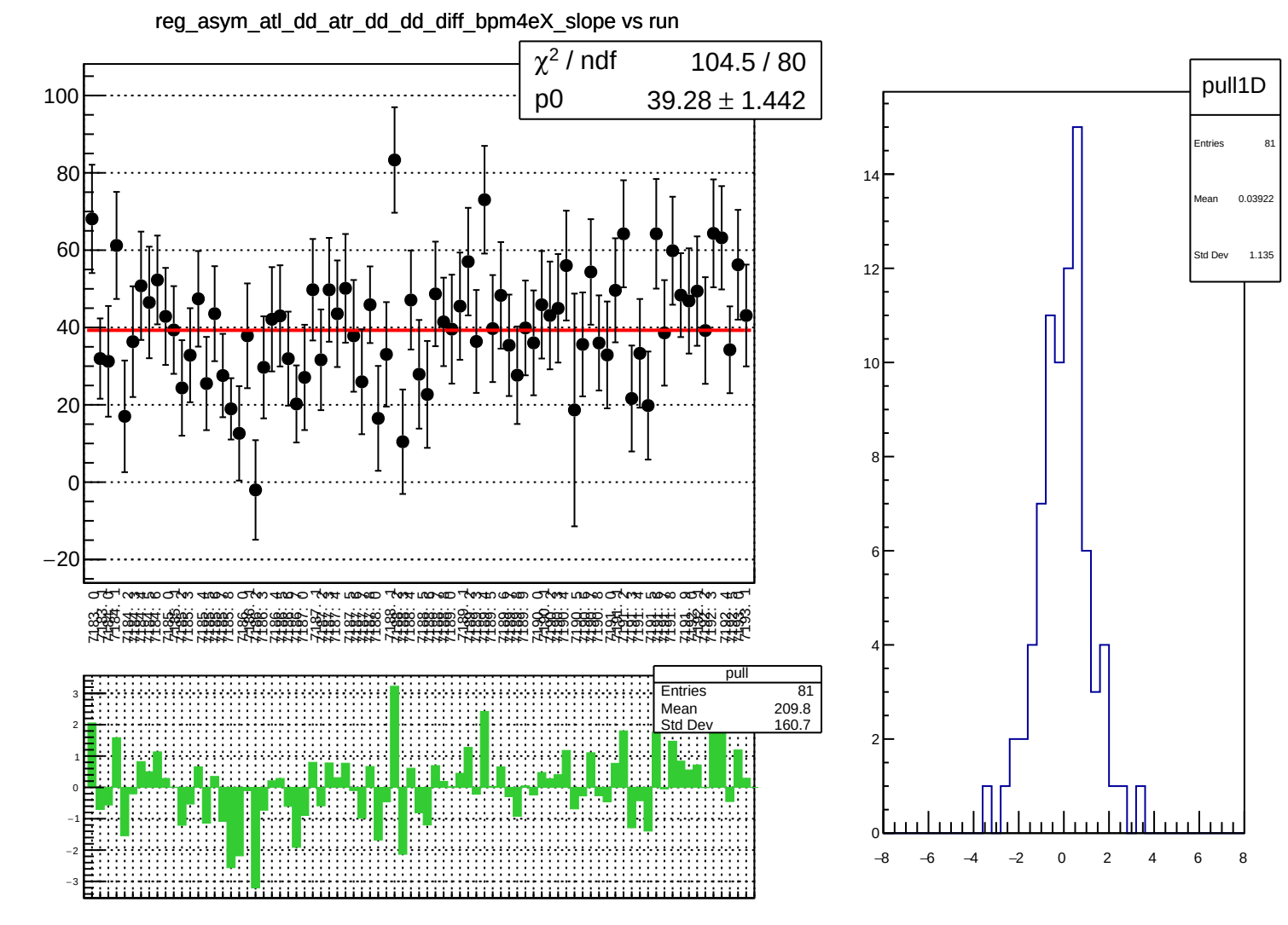

pull1D
Entries 81
Mean 0.009158
Std Dev 0.4478

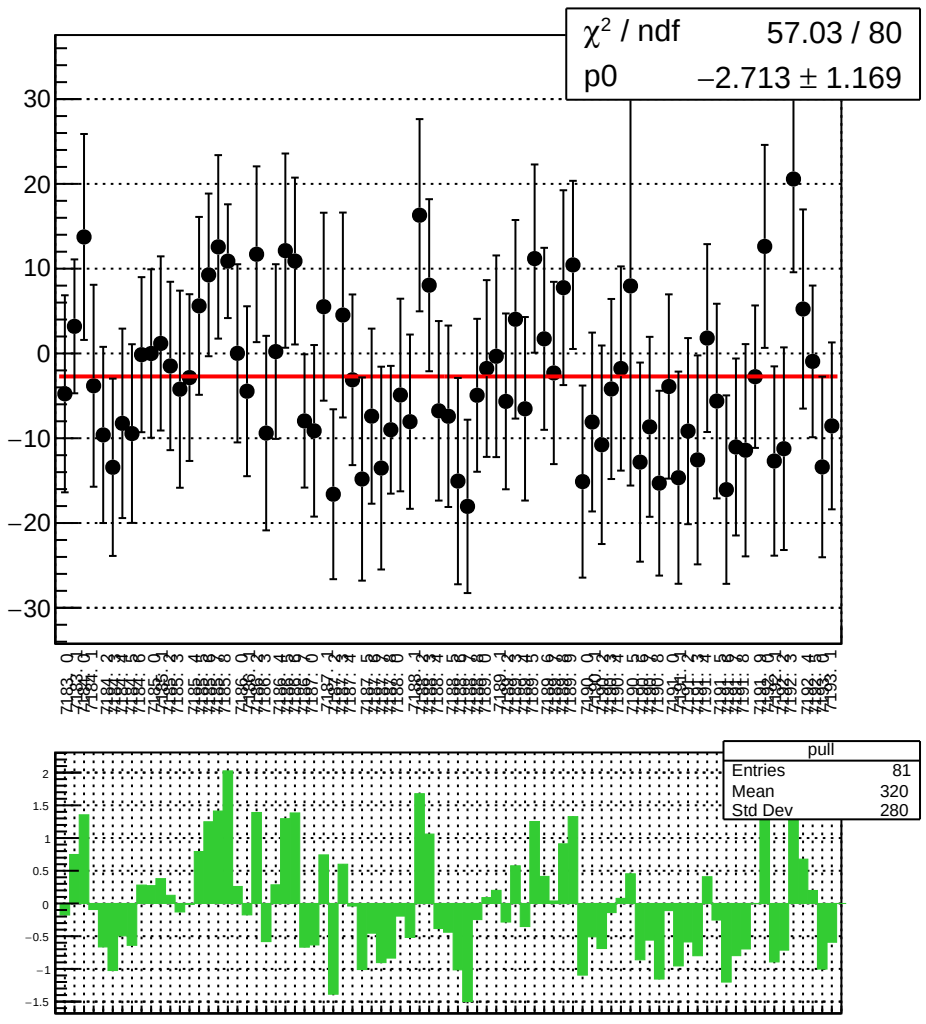

reg_asym_atl_dd_atr_dd_avg_diff_bpm12X_slope vs run
χ² / ndf 12.65 / 80
p0 128 ± 0.1608
131
130
129
128
127
126
125
pull
Entries 81
Mean −386.4
Std Dev 440.9
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
−1.2
pull1D
Entries 81
Mean 0.004788
Std Dev 0.3951
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

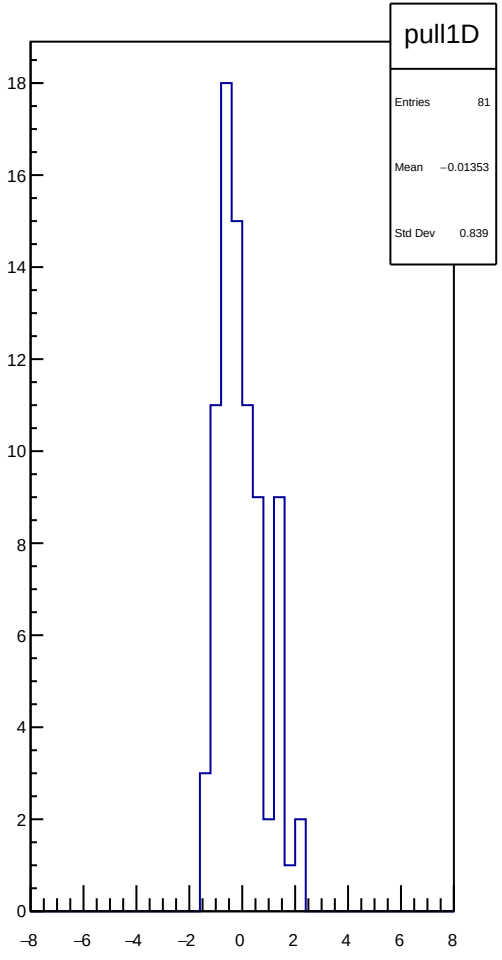

reg_asym_atl_dd_atr_dd_dd_diff_bpm1X_slope vs run
χ² / ndf 104.4 / 80
p0 26.16 ± 1.44
pull
Entries 81
Mean 209.7
Std Dev 160.9

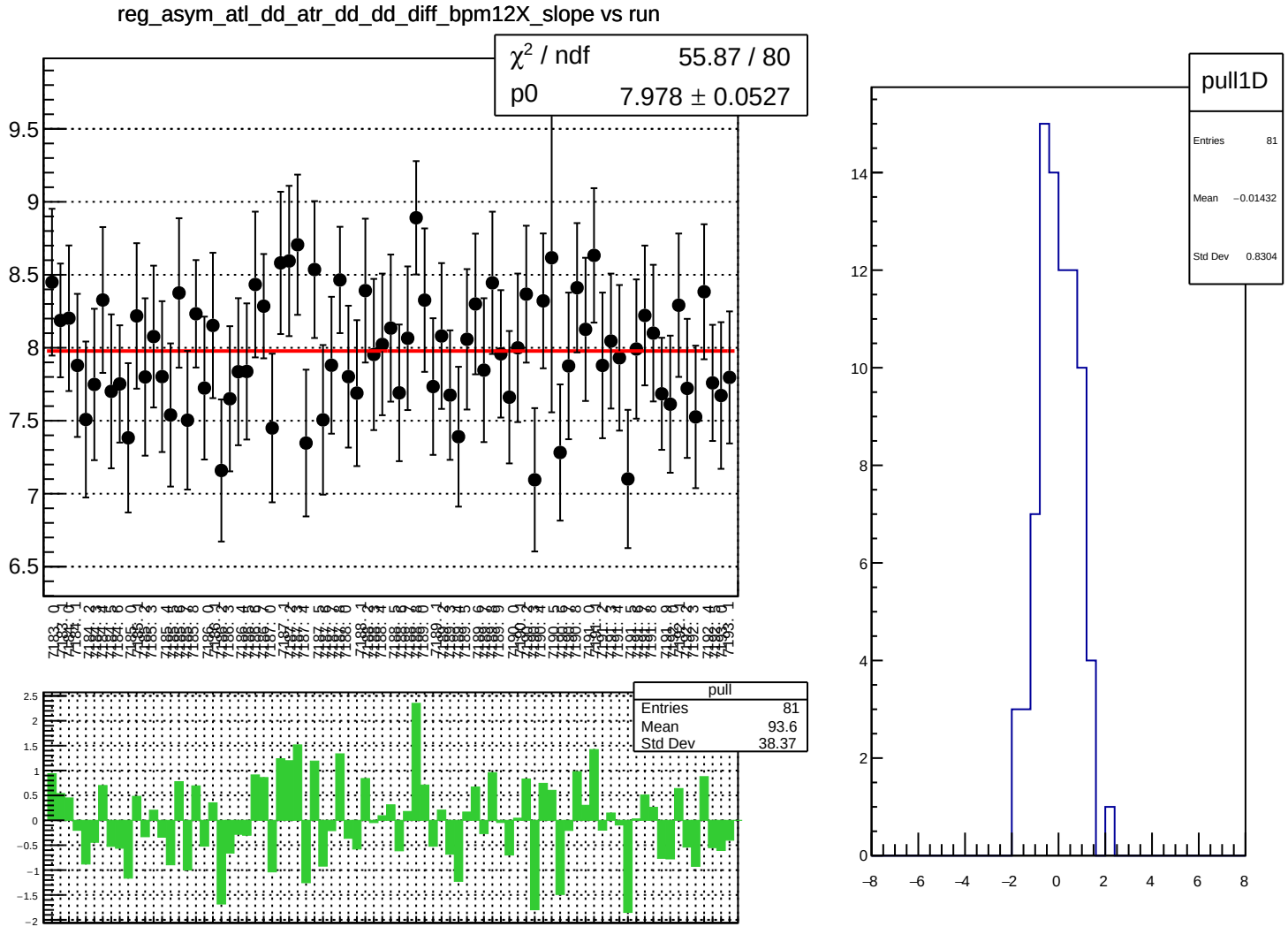

pull1D
Entries 81
Mean −0.04086
Std Dev 1.134

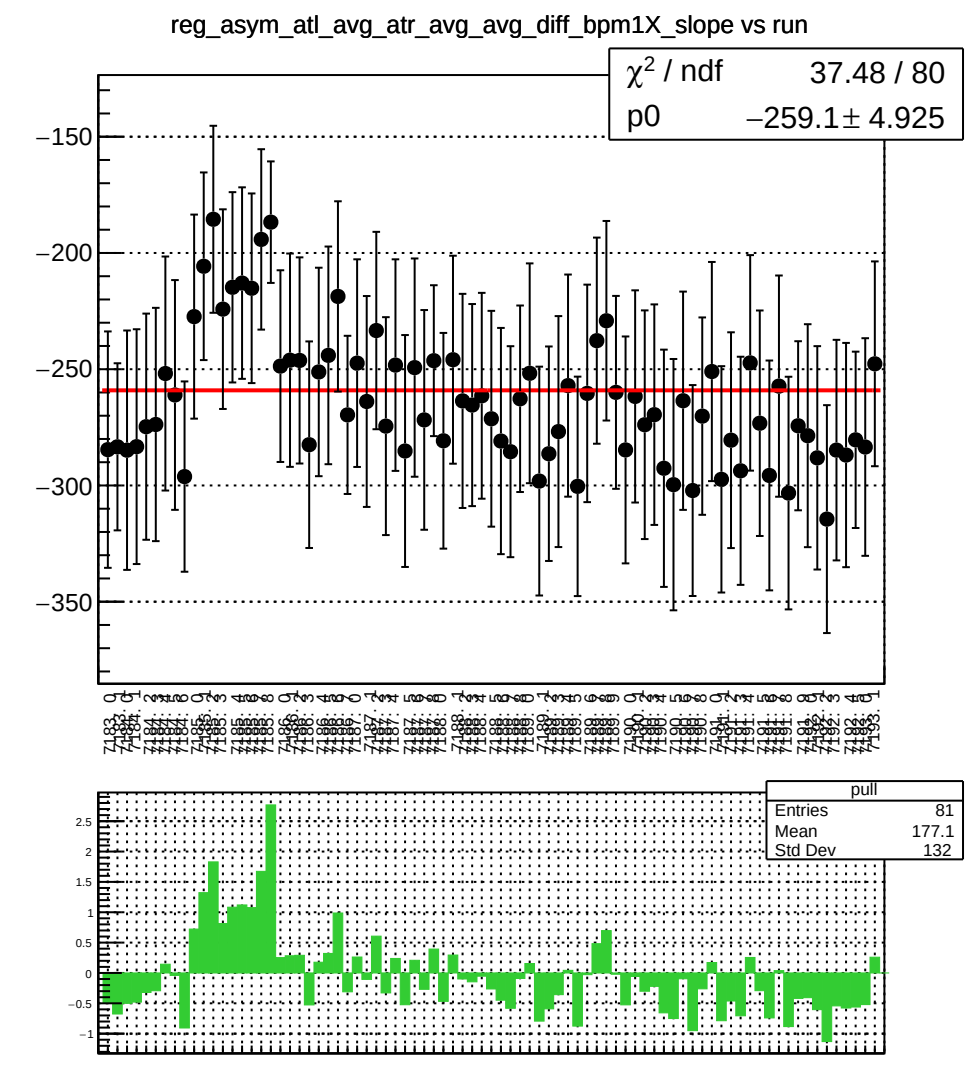

reg_asym_atl_dd_atr_dd_dd_diff_bpm4aY_slope vs run
χ² / ndf 57.29 / 80
p0 −0.7886 ± 1.078
pull
Entries 81
Mean 807.2
Std Dev 764.8
pull1D
Entries 81
Mean 0.004359
Std Dev 0.841

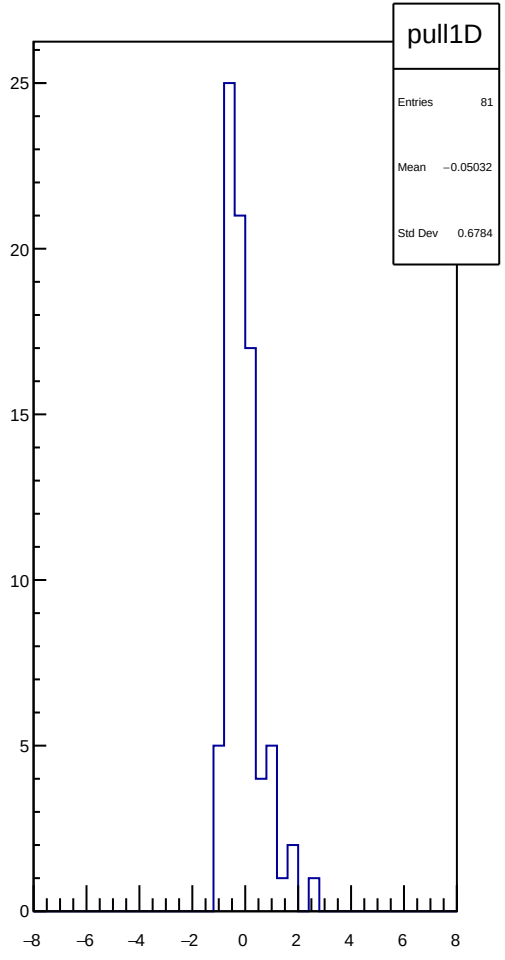

reg_asym_atl_dd_atr_dd_dd_diff_bpm4eX_slope vs run
χ² / ndf 104.5 / 80
p0 39.28 ± 1.442
pull
Entries 81
Mean 209.8
Std Dev 160.7
pull1D
Entries 81
Mean 0.03922
Std Dev 1.135

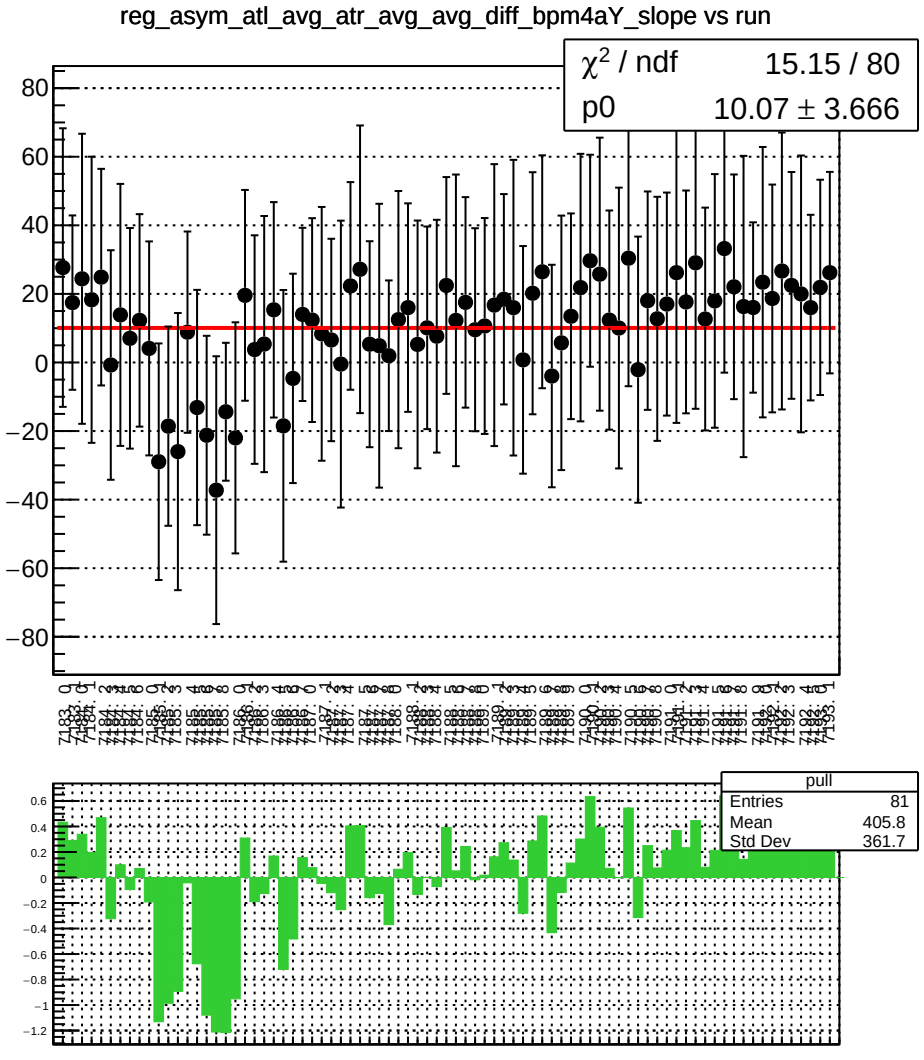

reg_asym_atl_dd_atr_dd_dd_diff_bpm4eY_slope vs run
χ² / ndf 57.03 / 80
p0 −2.713 ± 1.169
pull
Entries 81
Mean 320
Std Dev 280

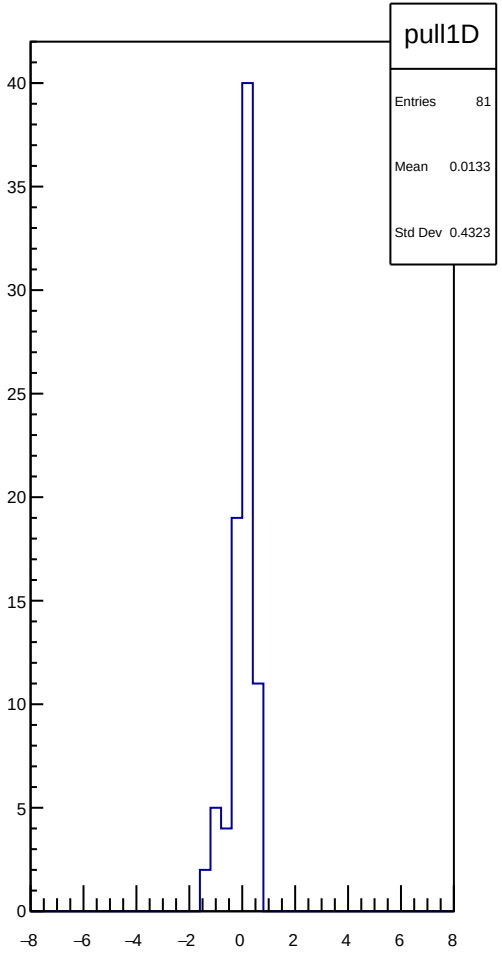

pull1D
Entries 81
Mean −0.01353
Std Dev 0.839

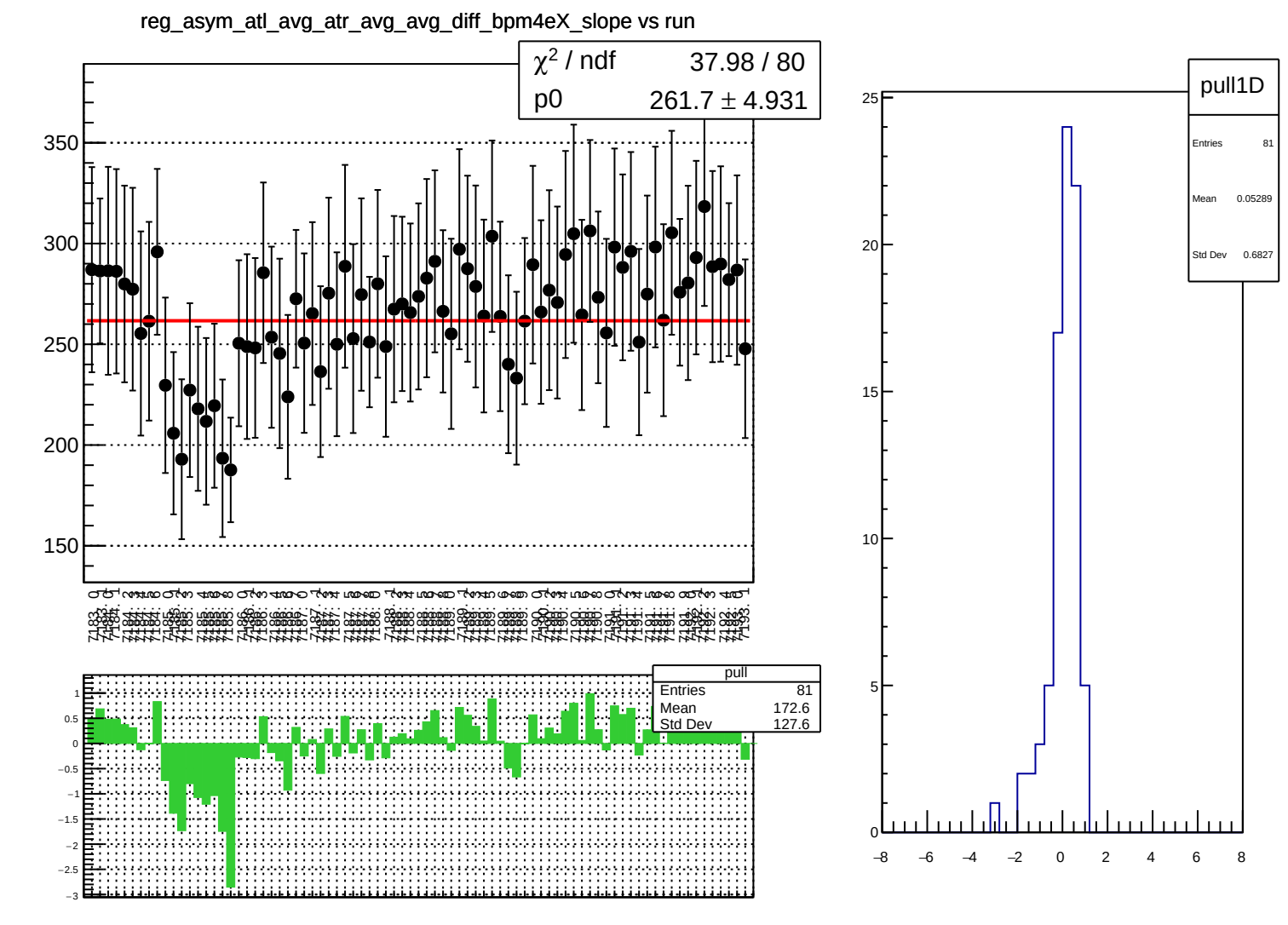

reg_asym_atl_dd_atr_dd_dd_diff_bpm12X_slope vs run
χ² / ndf 55.87 / 80
p0 7.978 ± 0.0527
pull
Entries 81
Mean 93.6
Std Dev 38.37
pull1D
Entries 81
Mean −0.01432
Std Dev 0.8304

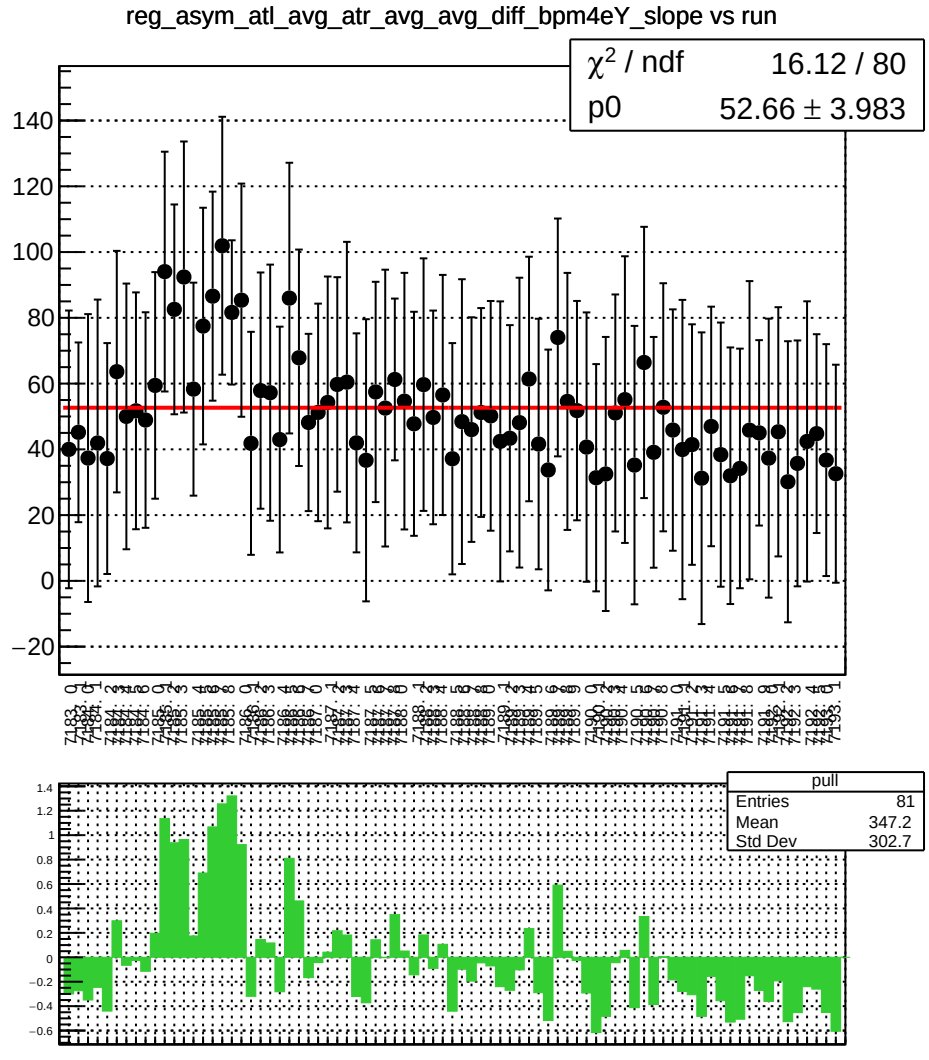

reg_asym_atl_avg_atr_avg_avg_diff_bpm1X_slope vs run
χ² / ndf 37.48 / 80
p0 −259.1 ± 4.925
−150
−200
−250
−300
−350
pull
Entries 81
Mean 177.1
Std Dev 132
2.5
2
1.5
1
0.5
0
−0.5
−1

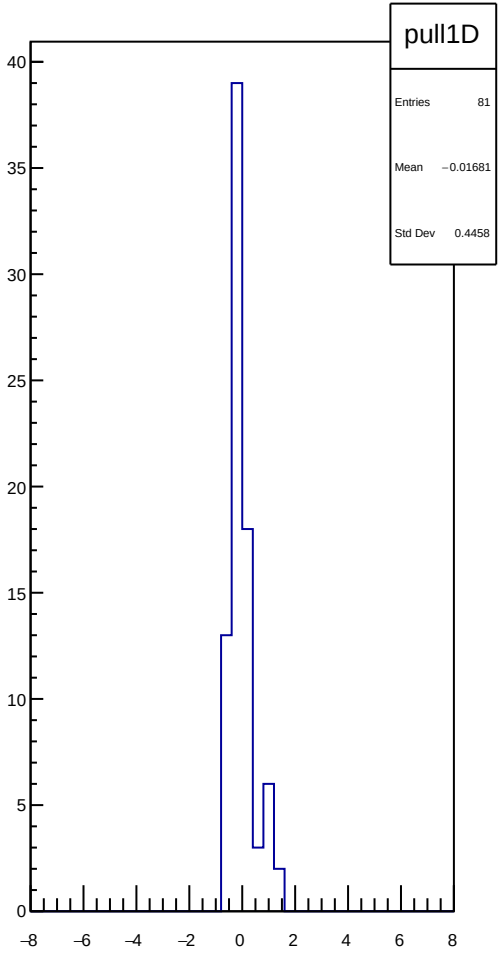

pull1D
Entries 81
Mean −0.05032
Std Dev 0.6784
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

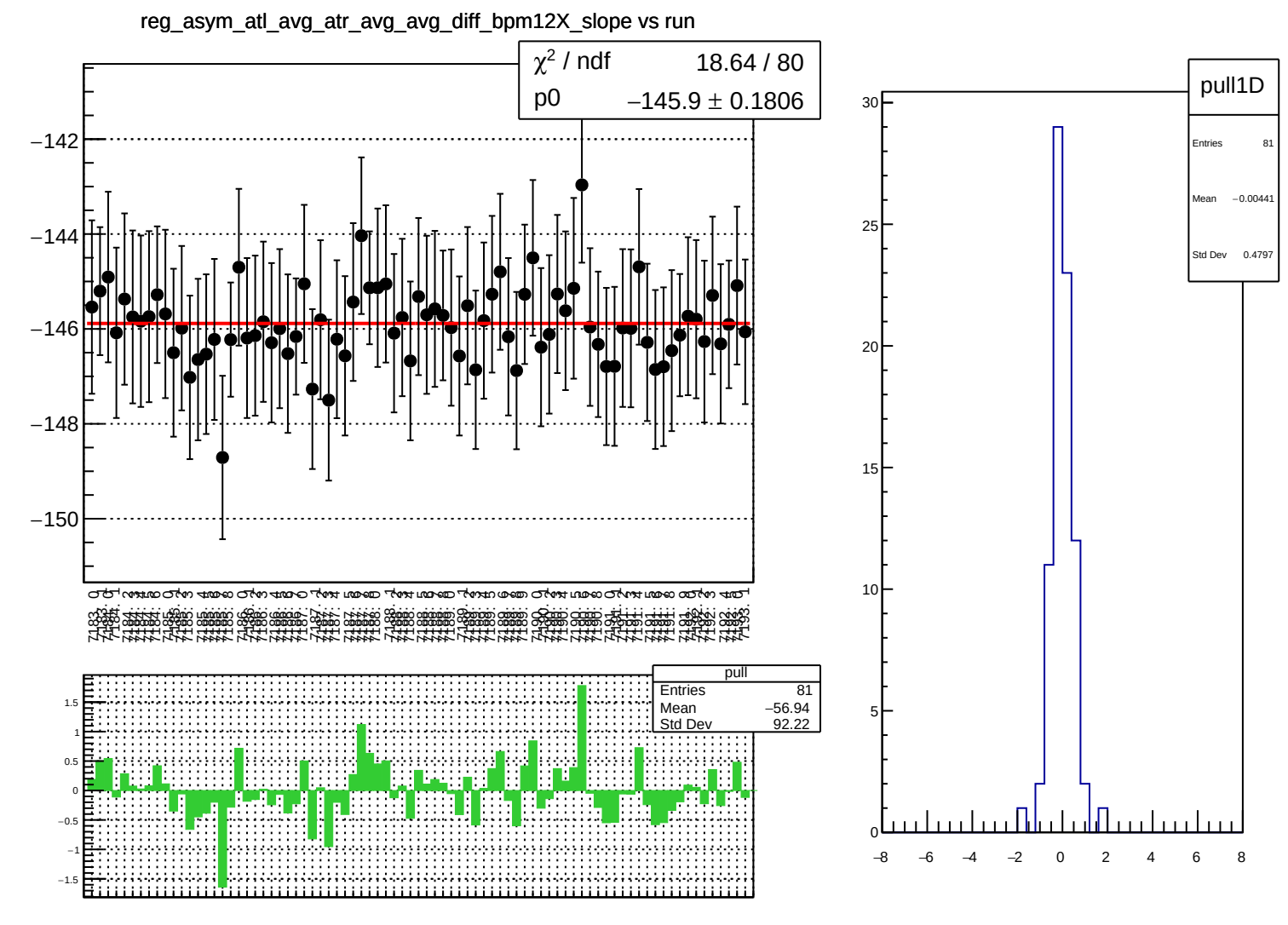

reg_asym_atl_avg_atr_avg_avg_diff_bpm4aY_slope vs run
χ² / ndf 15.15 / 80
p0 10.07 ± 3.666
pull
Entries 81
Mean 405.8
Std Dev 361.7

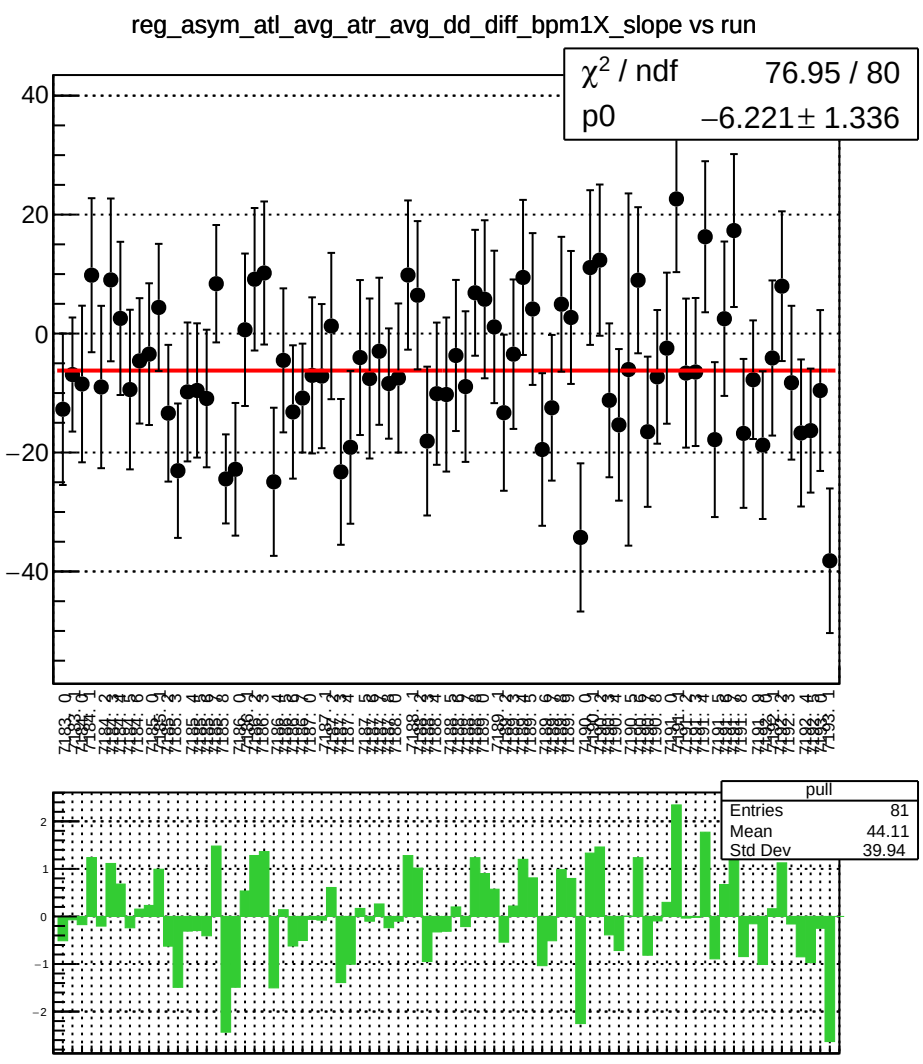

pull1D
Entries 81
Mean 0.0133
Std Dev 0.4323

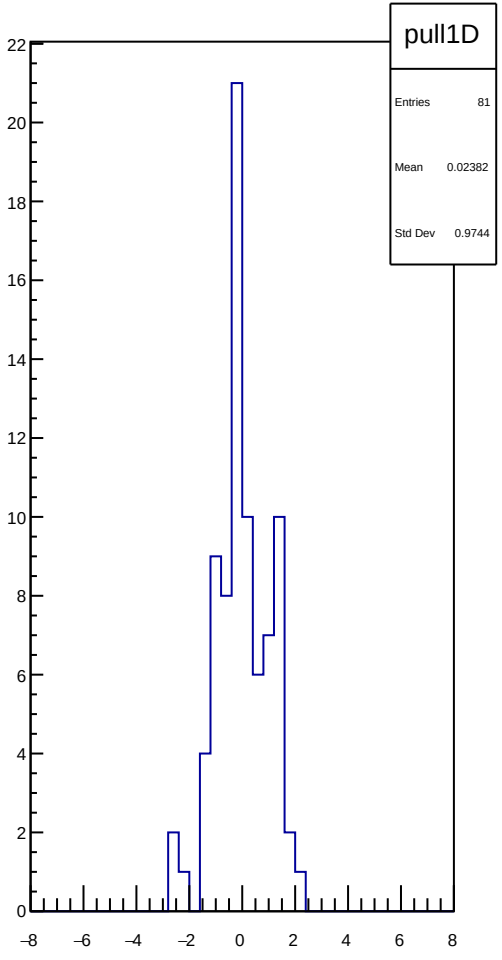

reg_asym_atl_avg_atr_avg_avg_diff_bpm4eX_slope vs run
χ² / ndf 37.98 / 80
p0 261.7 ± 4.931
350
300
250
200
150
pull
Entries 81
Mean 172.6
Std Dev 127.6
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
−3
pull1D
Entries 81
Mean 0.05289
Std Dev 0.6827
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

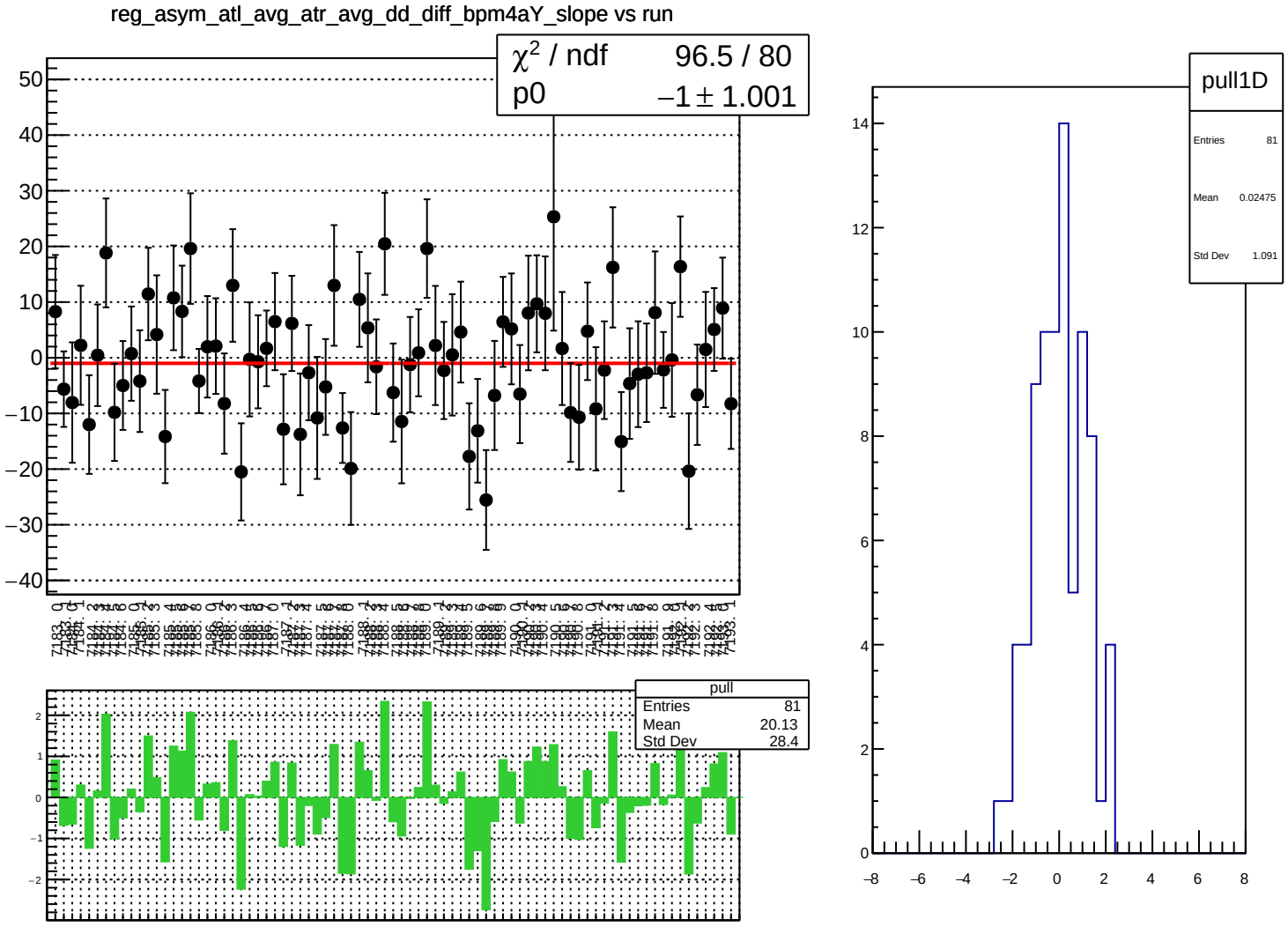

reg_asym_atl_avg_atr_avg_avg_diff_bpm4eY_slope vs run
χ² / ndf 16.12 / 80
p0 52.66 ± 3.983
pull
Entries 81
Mean 347.2
Std Dev 302.7

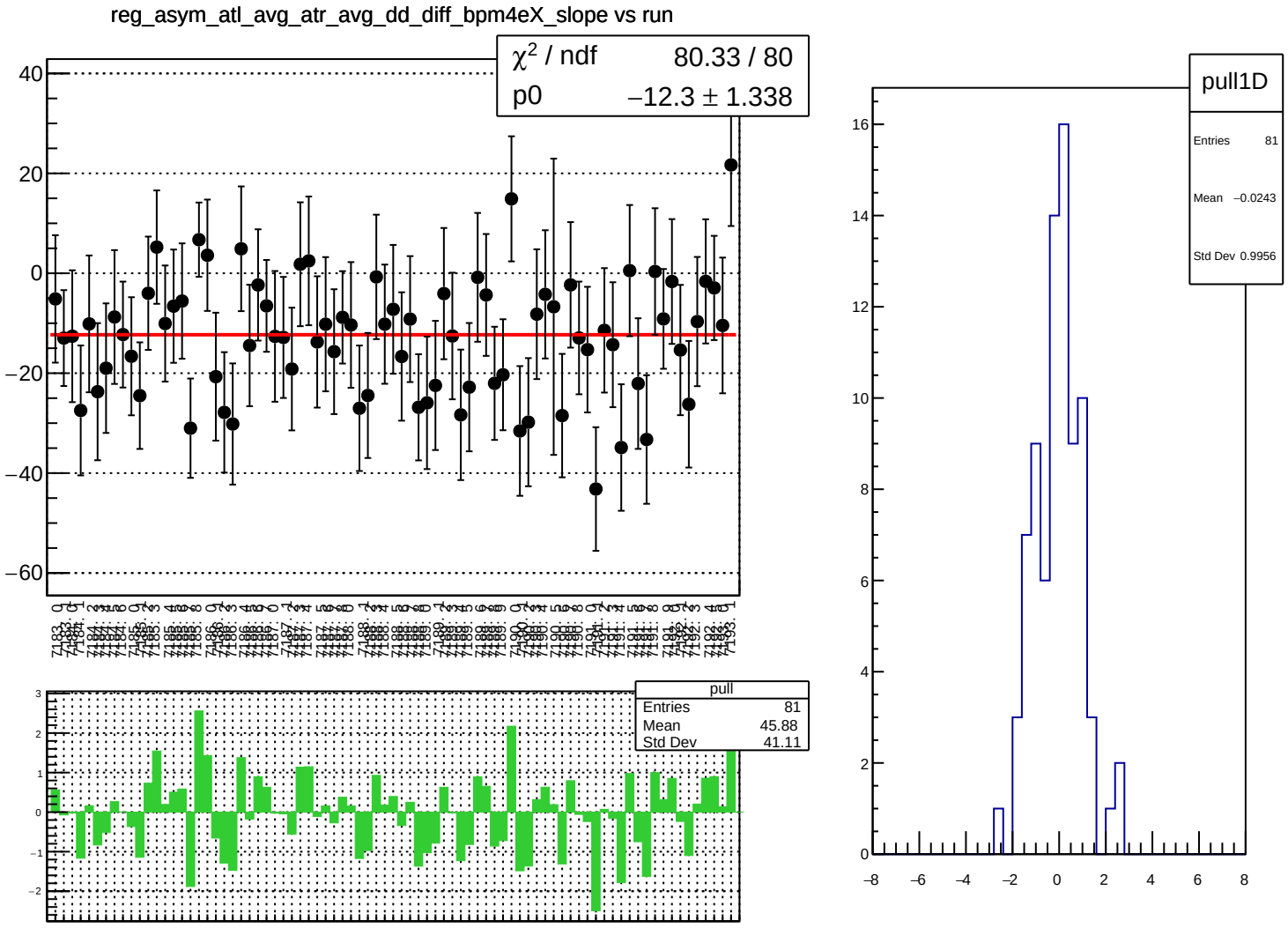

pull1D
Entries 81
Mean −0.01681
Std Dev 0.4458

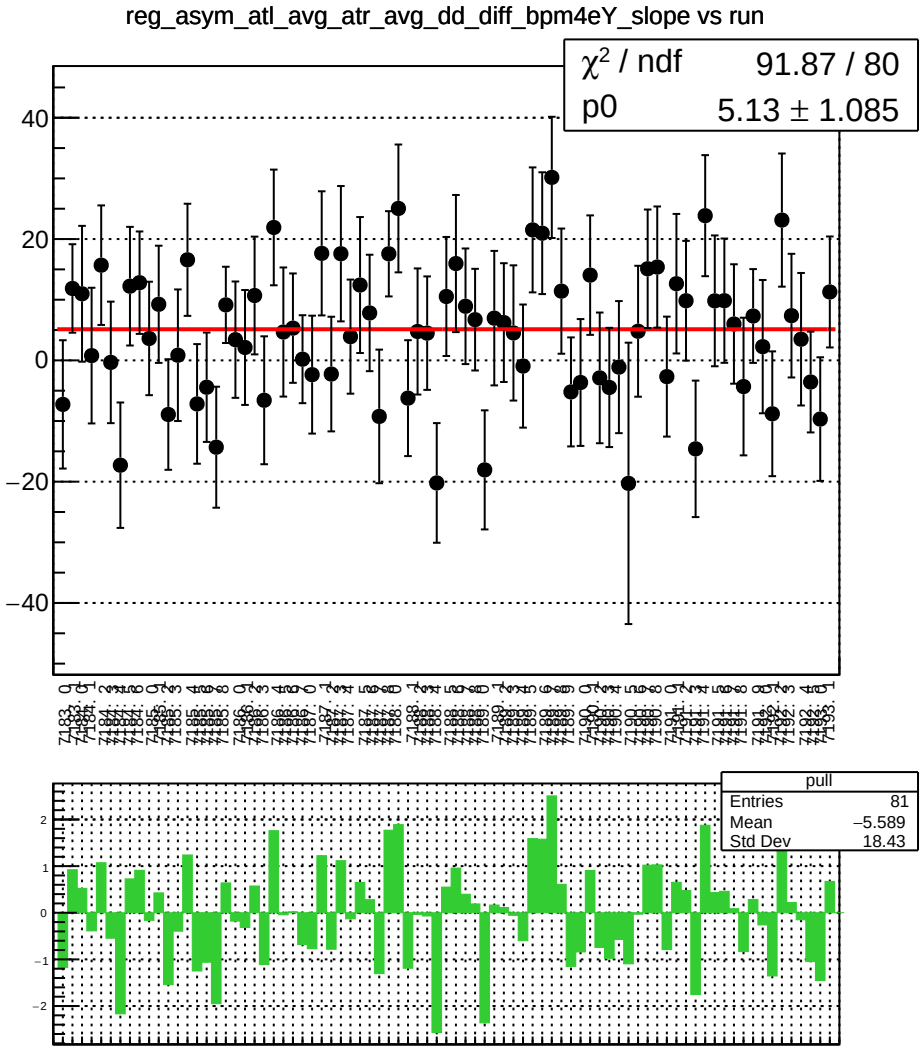

reg_asym_atl_avg_atr_avg_avg_diff_bpm12X_slope vs run
χ² / ndf 18.64 / 80
p0 −145.9 ± 0.1806
−142
−144
−146
−148
−150
pull
Entries 81
Mean −56.94
Std Dev 92.22
1.5
1
0.5
0
−0.5
−1
−1.5
pull1D
Entries 81
Mean −0.00441
Std Dev 0.4797
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

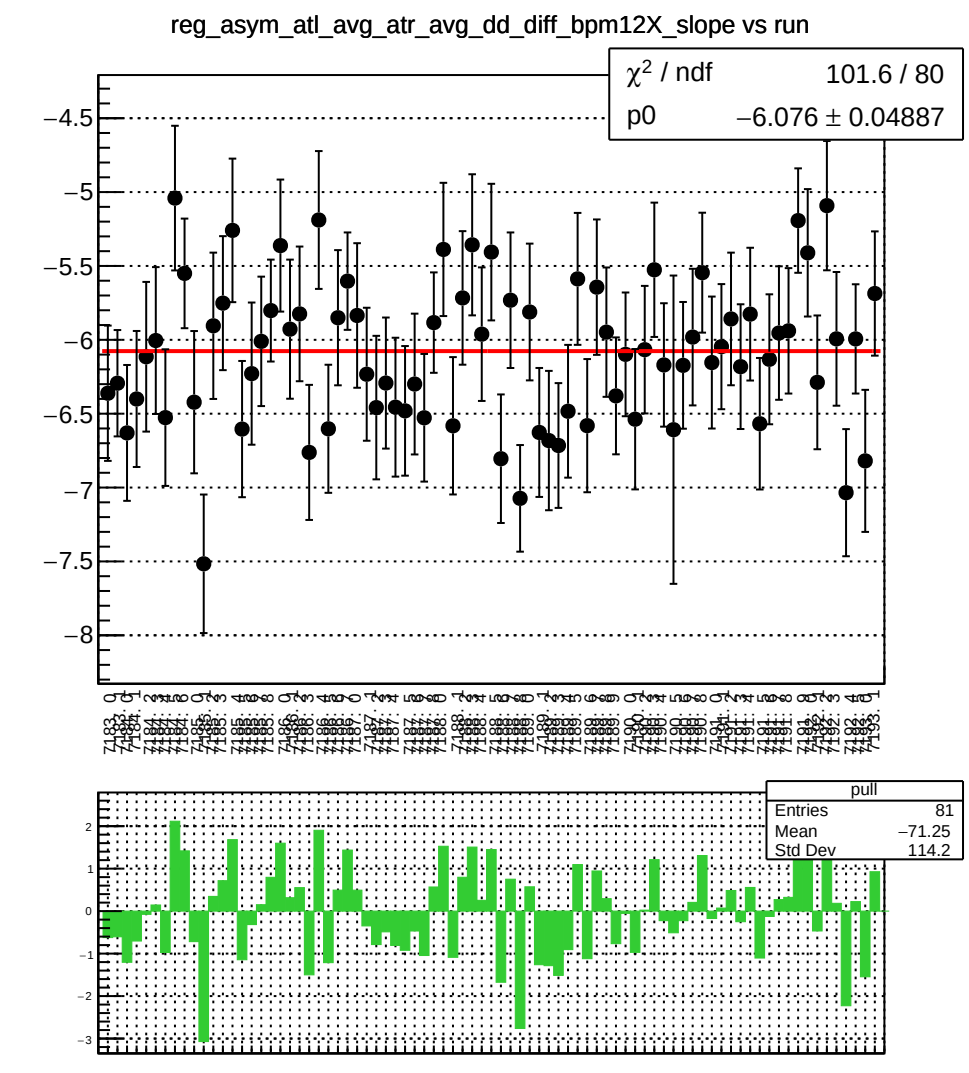

reg_asym_atl_avg_atr_avg_dd_diff_bpm1X_slope vs run
χ² / ndf 76.95 / 80
p0 −6.221 ± 1.336
pull
Entries 81
Mean 44.11
Std Dev 39.94

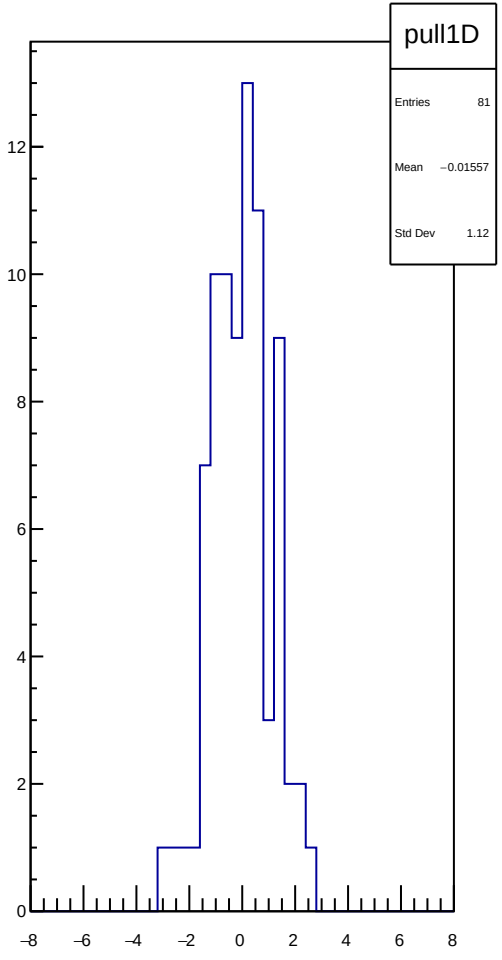

pull1D
Entries 81
Mean 0.02382
Std Dev 0.9744

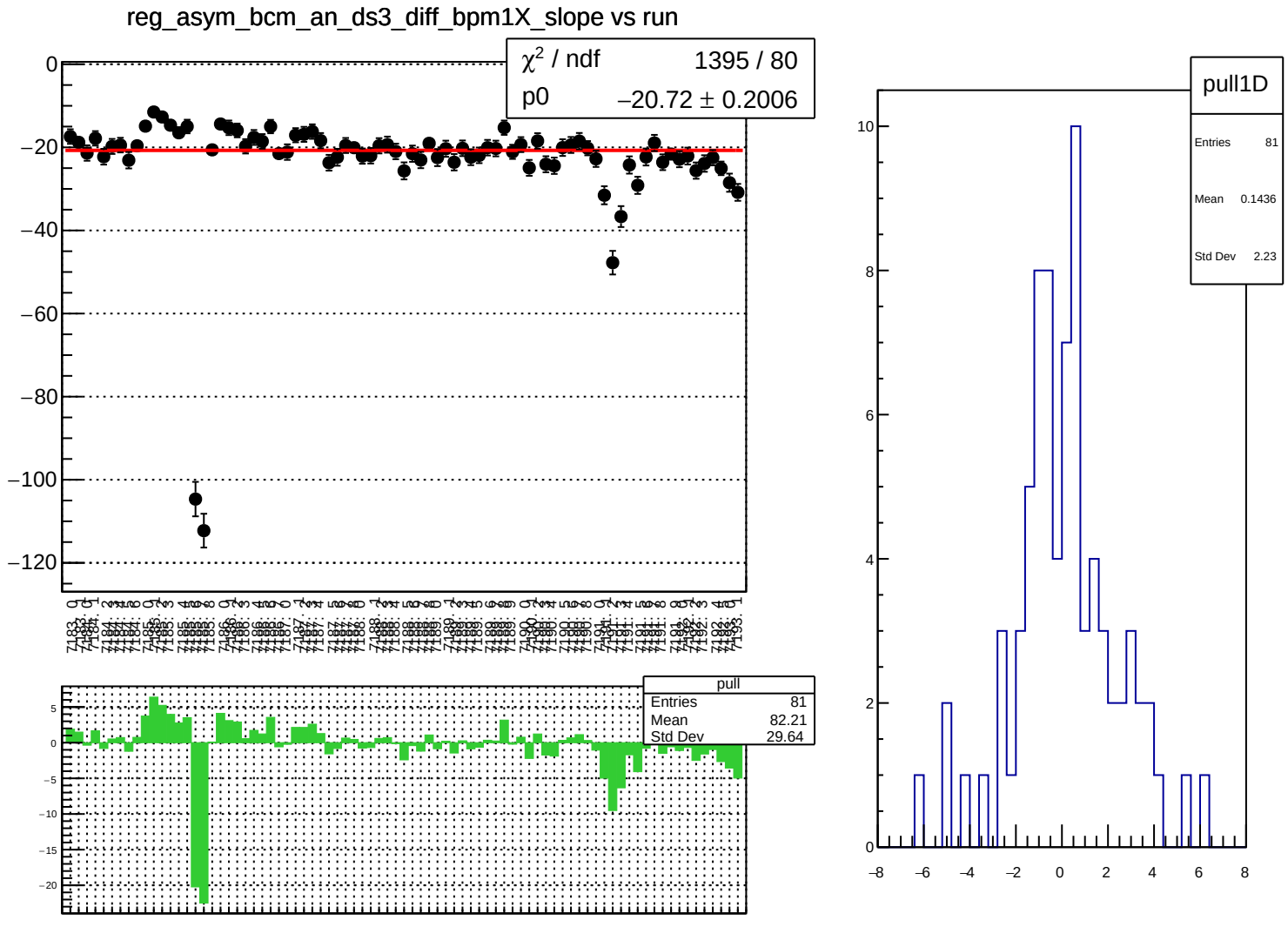

reg_asym_atl_avg_atr_avg_dd_diff_bpm4aY_slope vs run
χ² / ndf 96.5 / 80
p0 −1 ± 1.001
pull
Entries 81
Mean 20.13
Std Dev 28.4
pull1D
Entries 81
Mean 0.02475
Std Dev 1.091

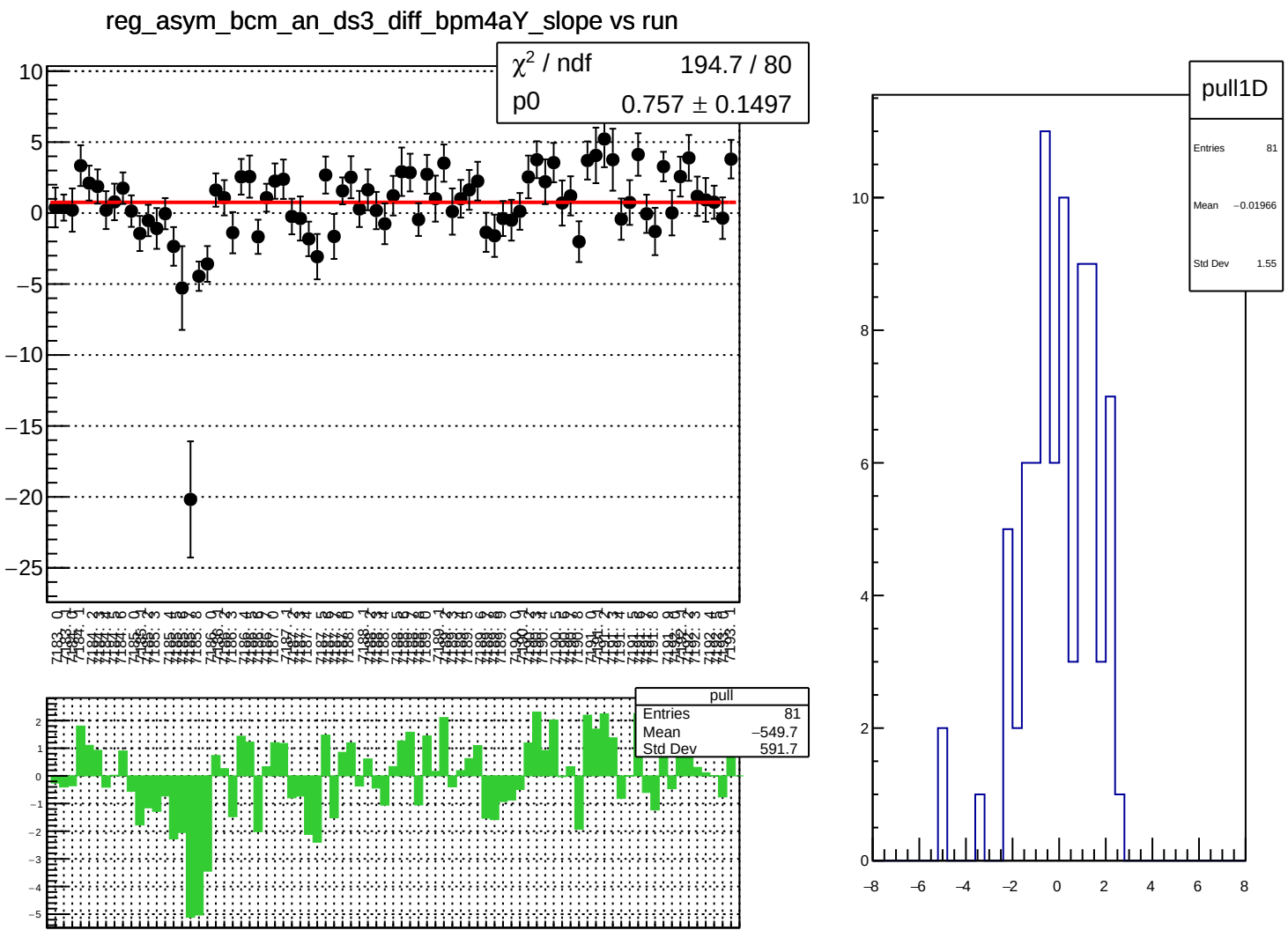

reg_asym_atl_avg_atr_avg_dd_diff_bpm4eX_slope vs run
χ² / ndf 80.33 / 80
p0 −12.3 ± 1.338
pull
Entries 81
Mean 45.88
Std Dev 41.11
pull1D
Entries 81
Mean −0.0243
Std Dev 0.9956

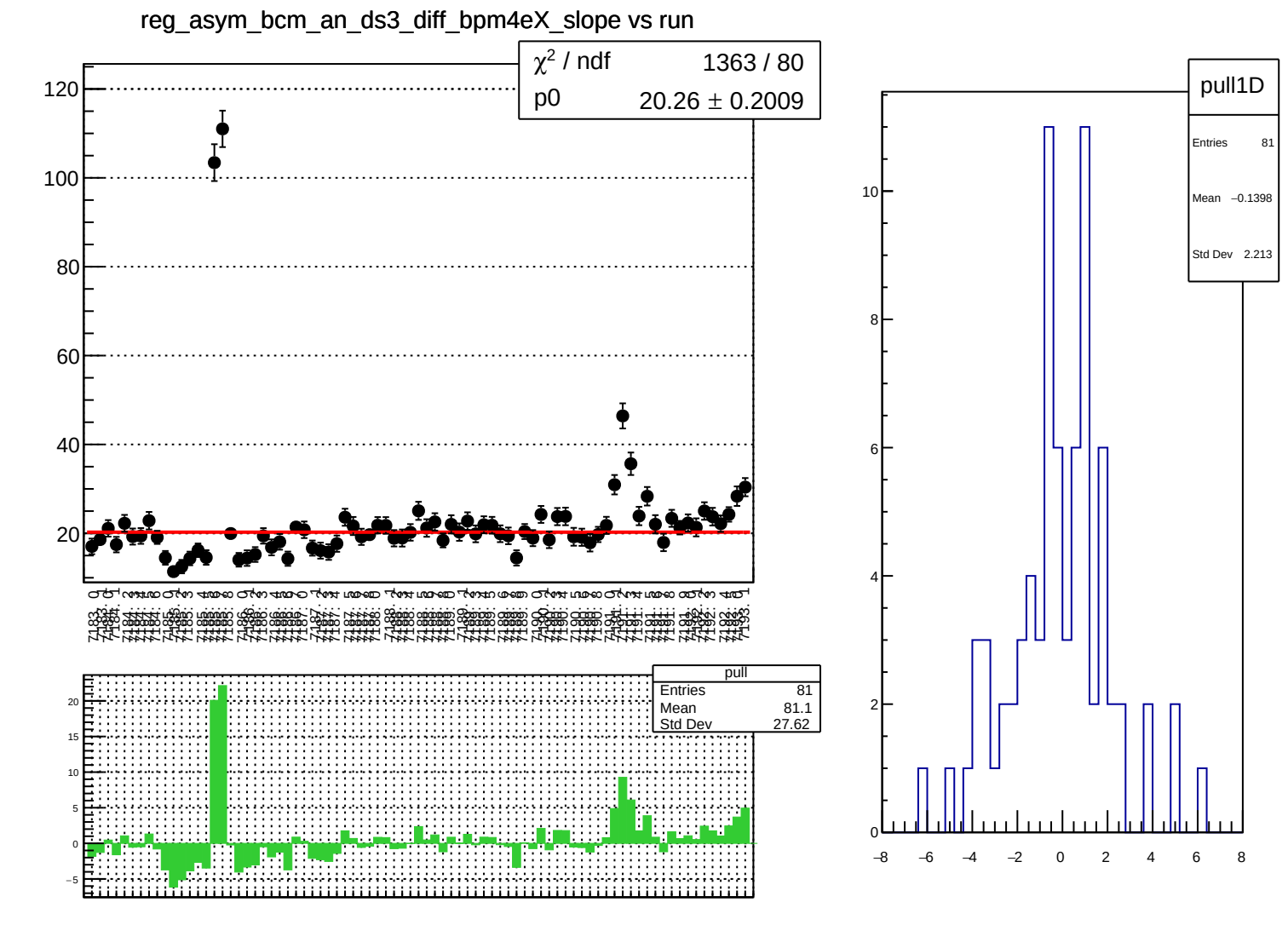

reg_asym_atl_avg_atr_avg_dd_diff_bpm4eY_slope vs run
χ² / ndf 91.87 / 80
p0 5.13 ± 1.085
pull
Entries 81
Mean −5.589
Std Dev 18.43
pull1D
Entries 81
Mean −0.02126
Std Dev 1.065

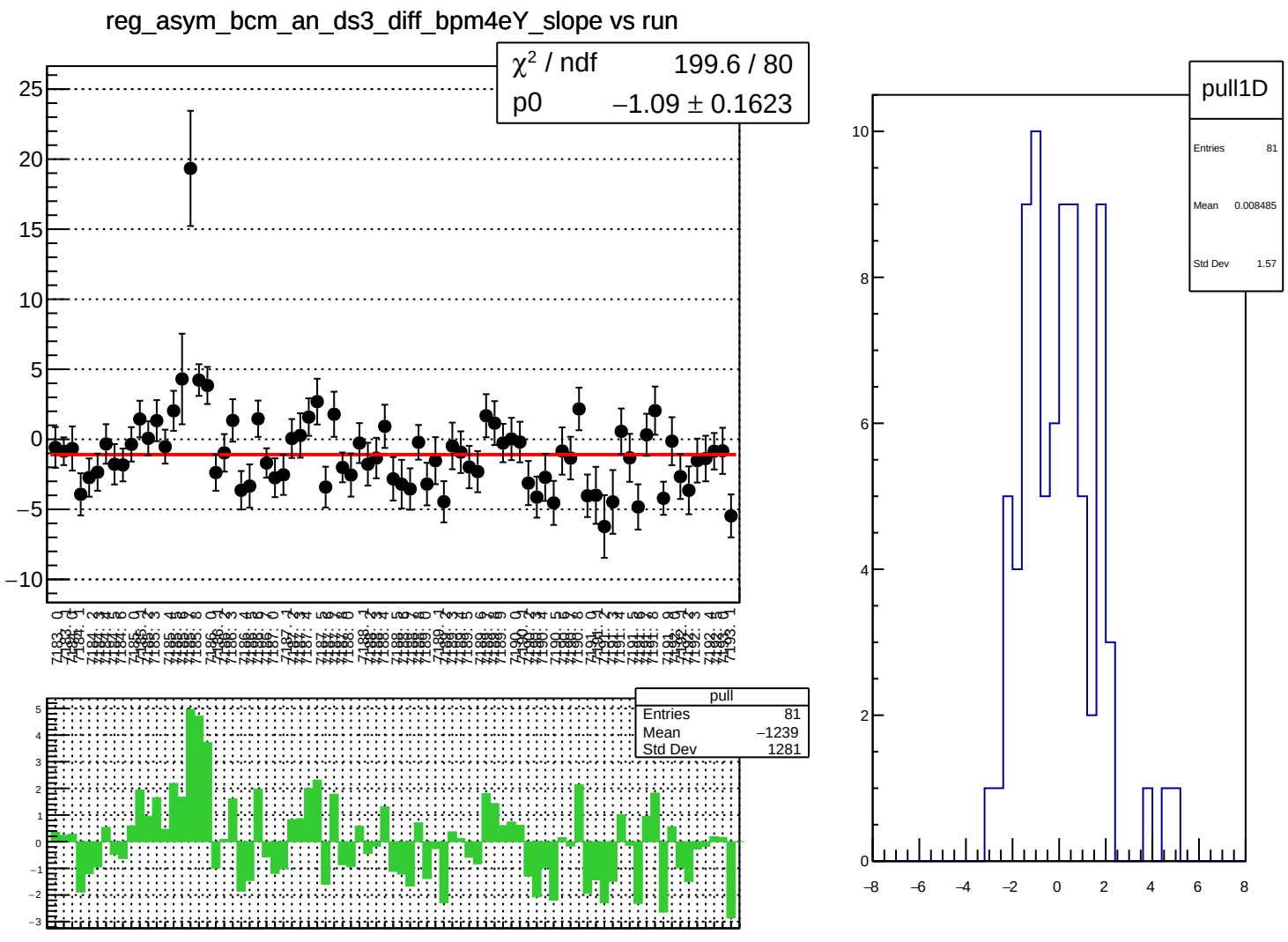

reg_asym_atl_avg_atr_avg_dd_diff_bpm12X_slope vs run
χ² / ndf 101.6 / 80
p0 −6.076 ± 0.04887
pull
Entries 81
Mean −71.25
Std Dev 114.2

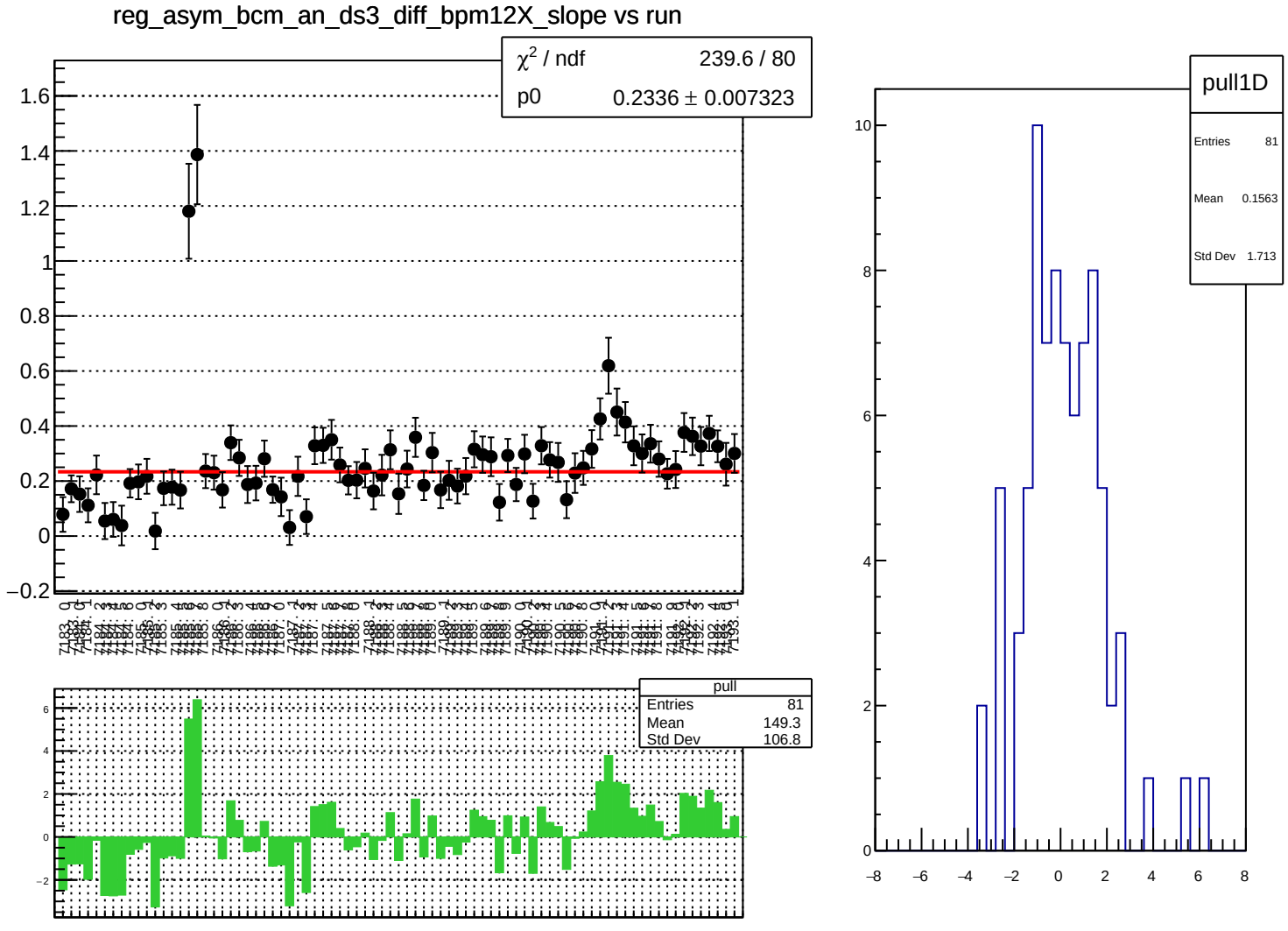

pull1D
Entries 81
Mean −0.01557
Std Dev 1.12

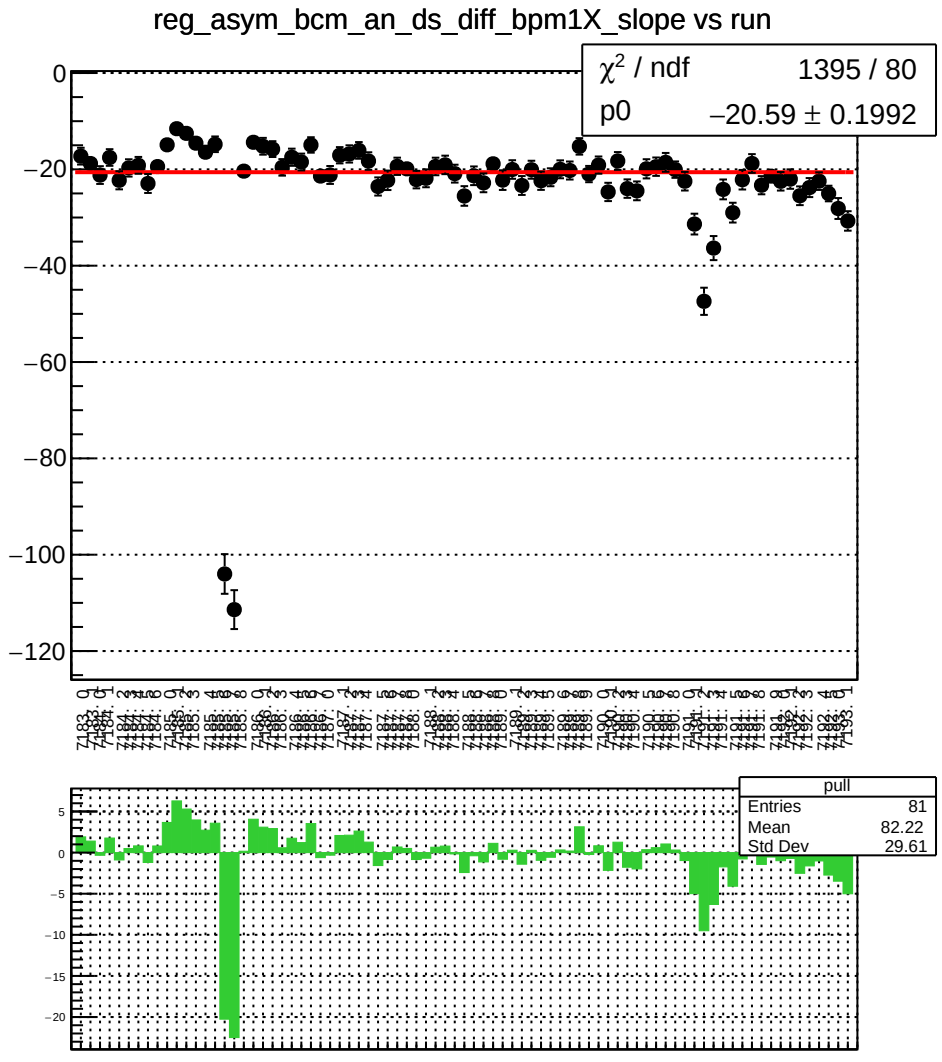

reg_asym_bcm_an_ds3_diff_bpm1X_slope vs run
χ² / ndf 1395 / 80
p0 −20.72 ± 0.2006
pull
Entries 81
Mean 82.21
Std Dev 29.64
pull1D
Entries 81
Mean 0.1436
Std Dev 2.23

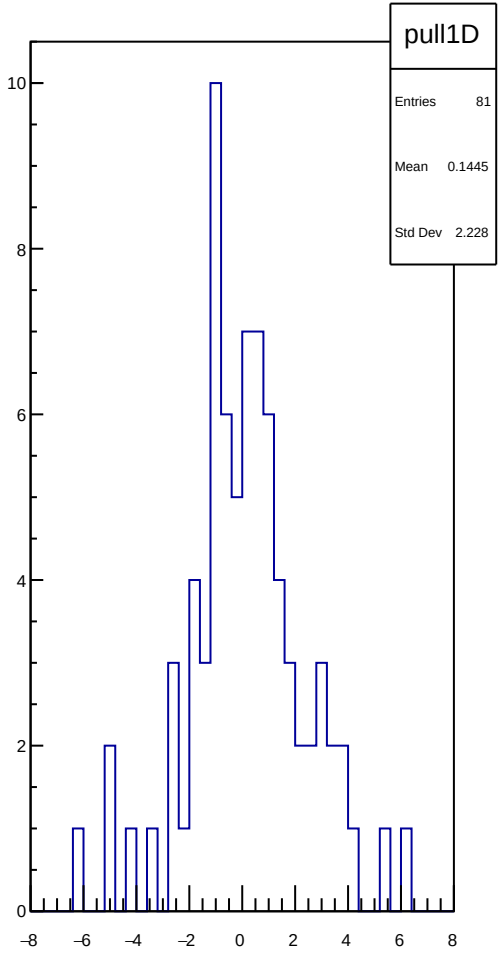

reg_asym_bcm_an_ds3_diff_bpm4aY_slope vs run
χ² / ndf 194.7 / 80
p0 0.757 ± 0.1497
pull
Entries 81
Mean −549.7
Std Dev 591.7
pull1D
Entries 81
Mean −0.01966
Std Dev 1.55

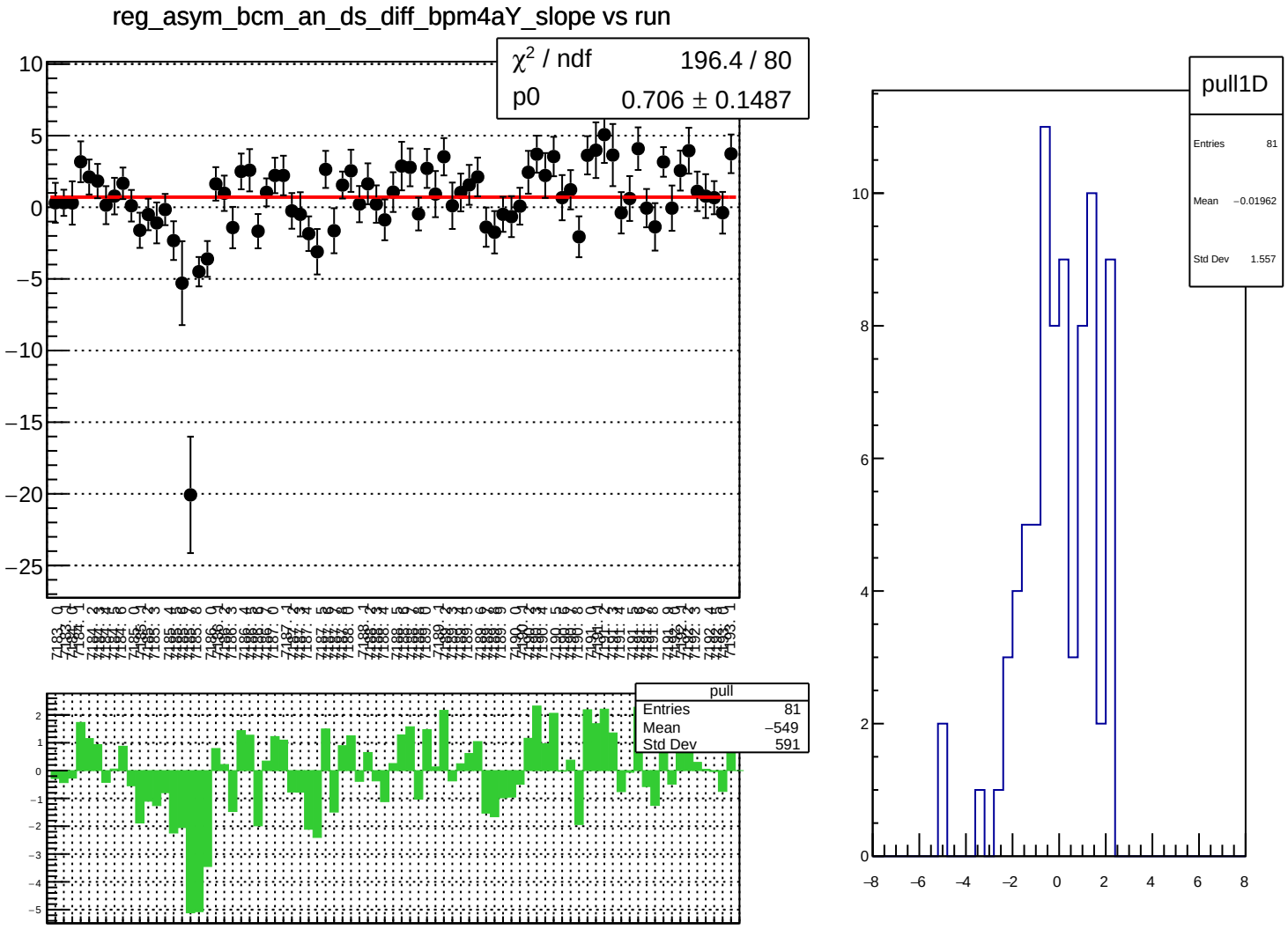

reg_asym_bcm_an_ds3_diff_bpm4eX_slope vs run
χ² / ndf 1363 / 80
p0 20.26 ± 0.2009
pull
Entries 81
Mean 81.1
Std Dev 27.62
pull1D
Entries 81
Mean −0.1398
Std Dev 2.213

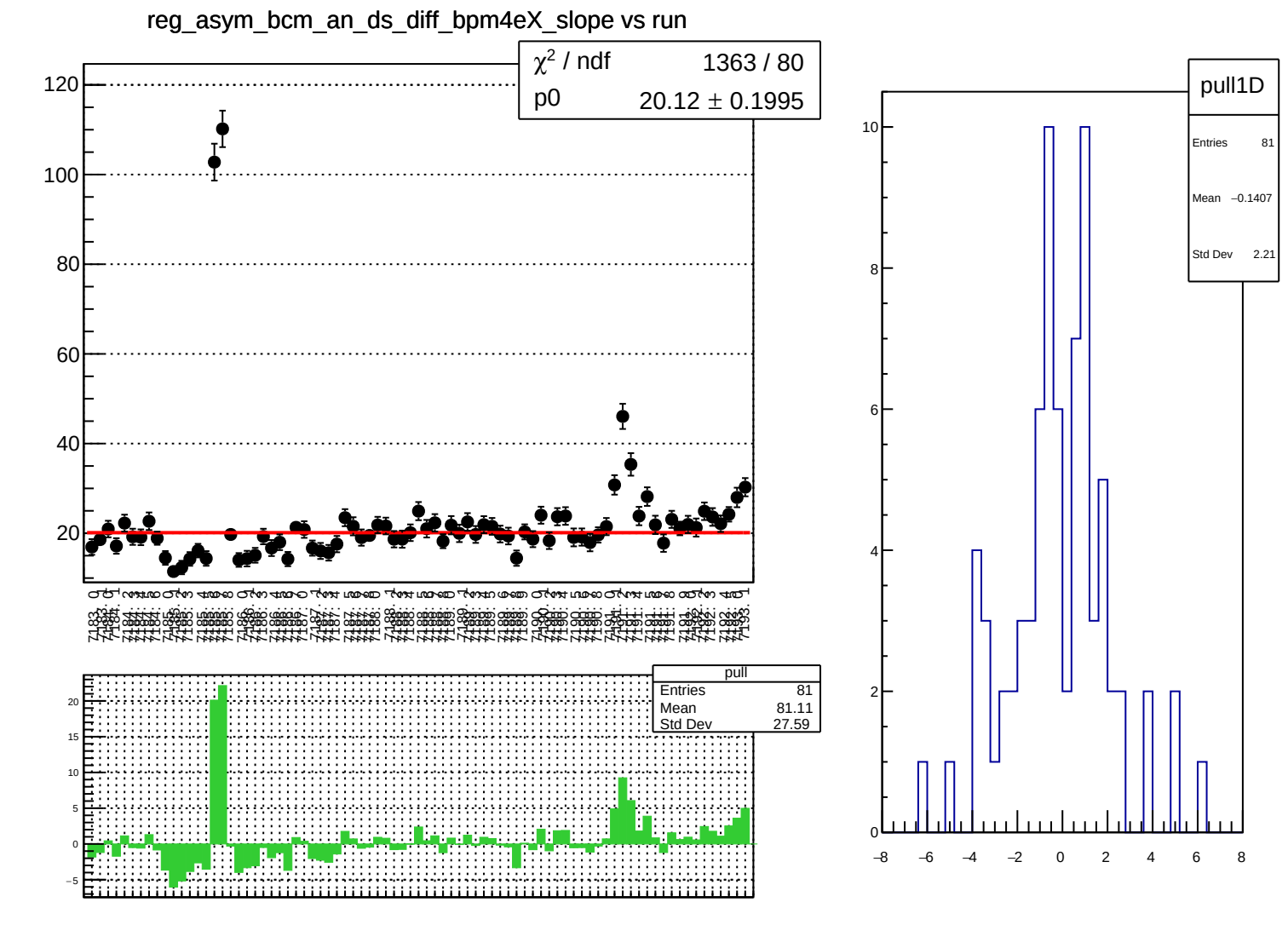

reg_asym_bcm_an_ds3_diff_bpm4eY_slope vs run
χ² / ndf 199.6 / 80
p0 −1.09 ± 0.1623
pull
Entries 81
Mean −1239
Std Dev 1281
pull1D
Entries 81
Mean 0.008485
Std Dev 1.57

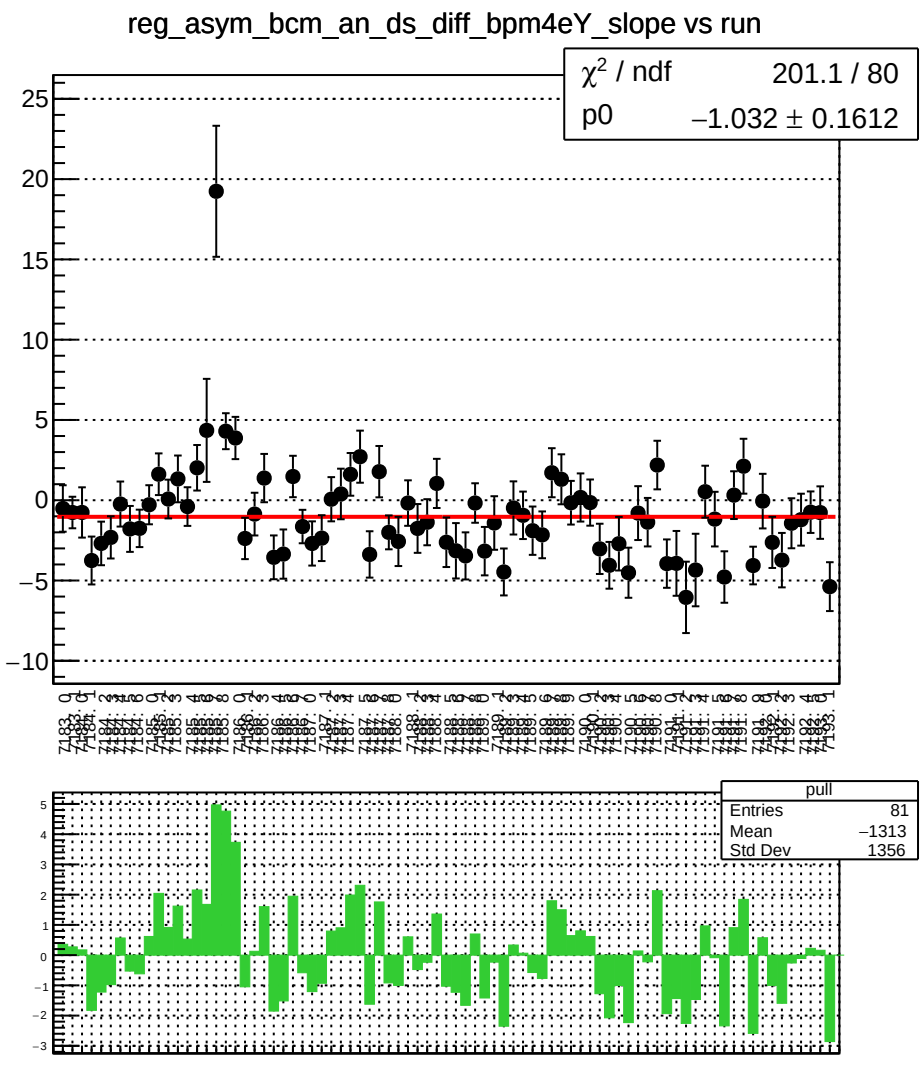

reg_asym_bcm_an_ds3_diff_bpm12X_slope vs run
χ² / ndf 239.6 / 80
p0 0.2336 ± 0.007323
pull
Entries 81
Mean 149.3
Std Dev 106.8
pull1D
Entries 81
Mean 0.1563
Std Dev 1.713

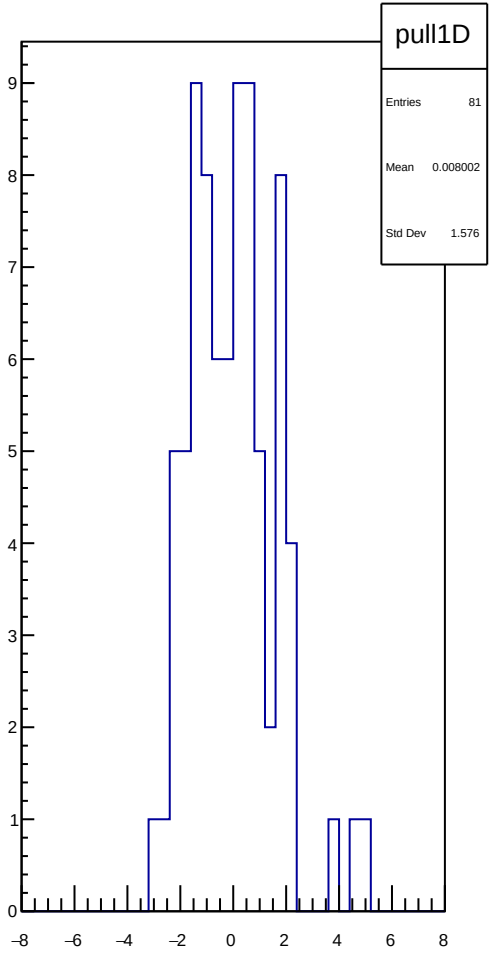

reg_asym_bcm_an_ds_diff_bpm1X_slope vs run
χ² / ndf 1395 / 80
p0 −20.59 ± 0.1992
pull
Entries 81
Mean 82.22
Std Dev 29.61

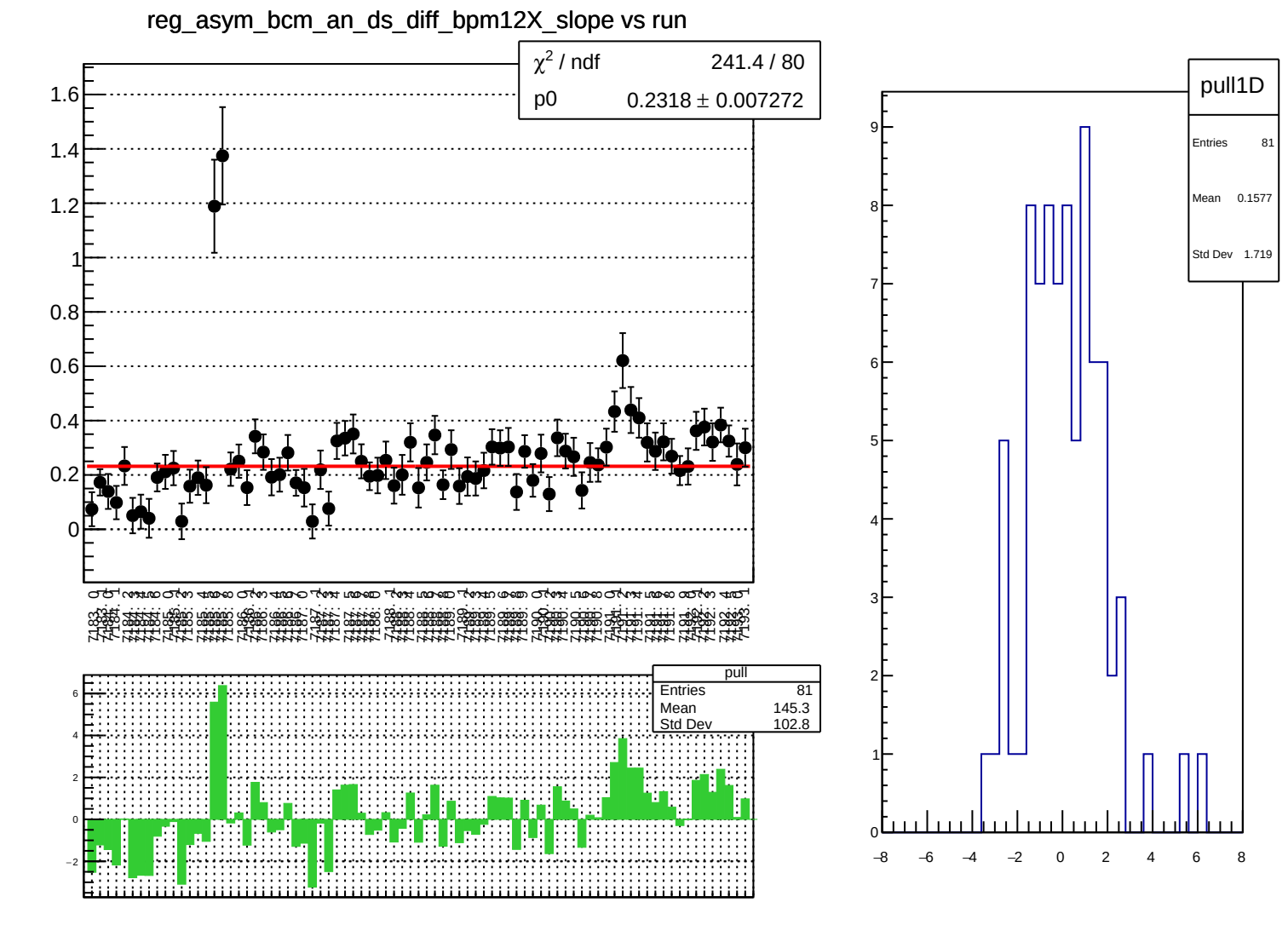

pull1D
Entries 81
Mean 0.1445
Std Dev 2.228

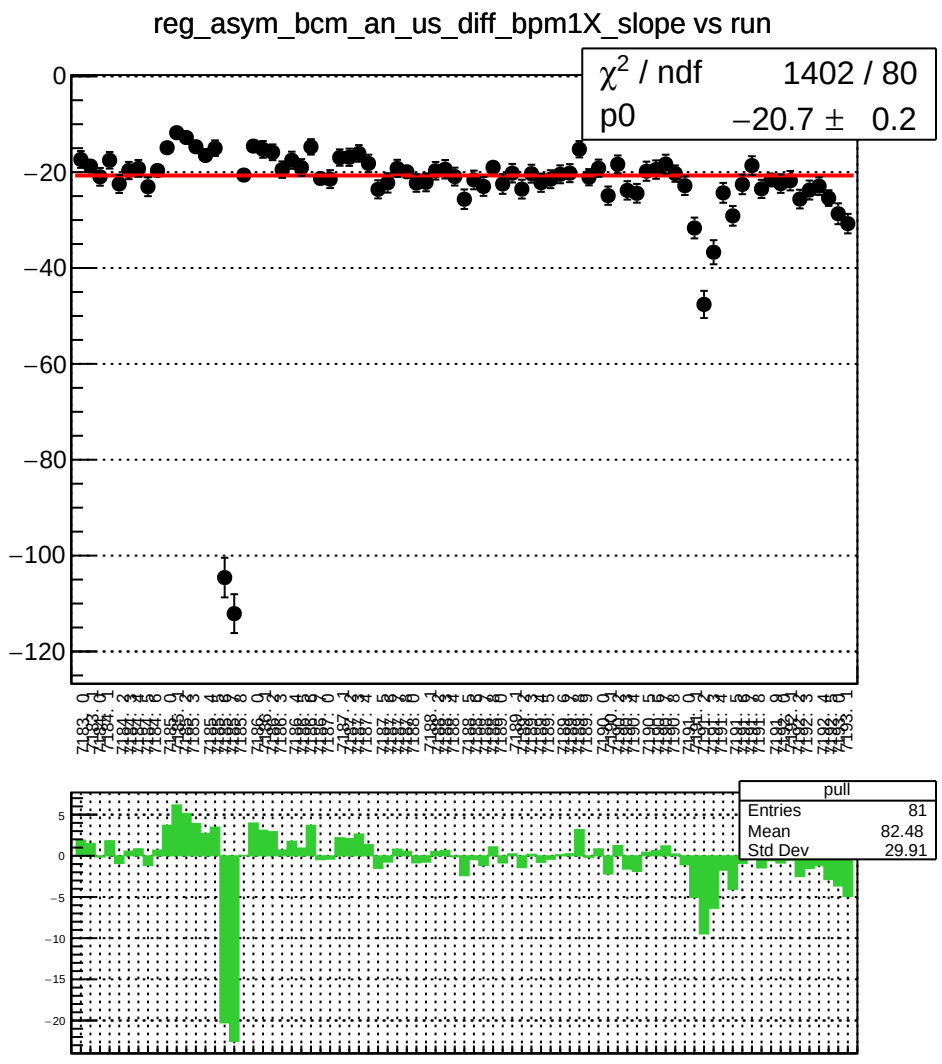

reg_asym_bcm_an_ds_diff_bpm4aY_slope vs run
χ² / ndf 196.4 / 80
p0 0.706 ± 0.1487
pull
Entries 81
Mean −549
Std Dev 591
pull1D
Entries 81
Mean −0.01962
Std Dev 1.557

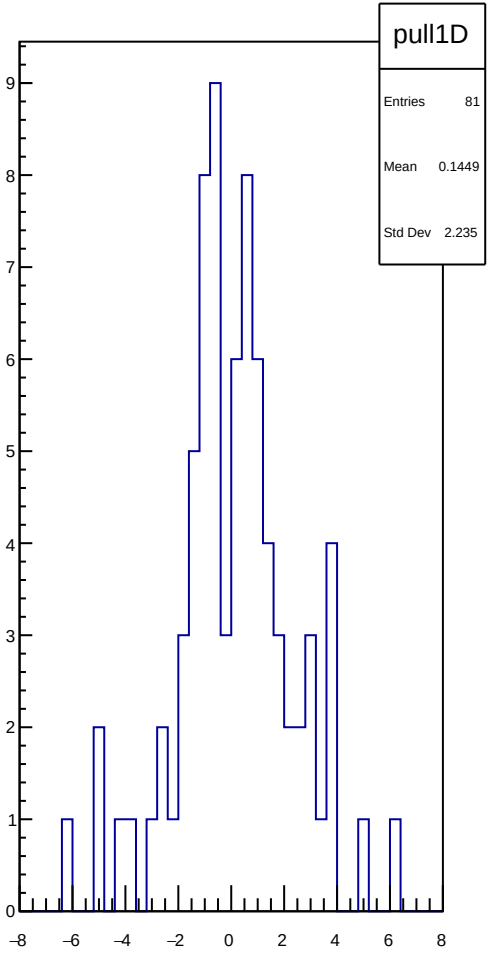

reg_asym_bcm_an_ds_diff_bpm4eX_slope vs run
χ² / ndf 1363 / 80
p0 20.12 ± 0.1995
120
100
80
60
40
20
pull
Entries 81
Mean 81.11
Std Dev 27.59
20
15
10
5
0
−5
pull1D
Entries 81
Mean −0.1407
Std Dev 2.21
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

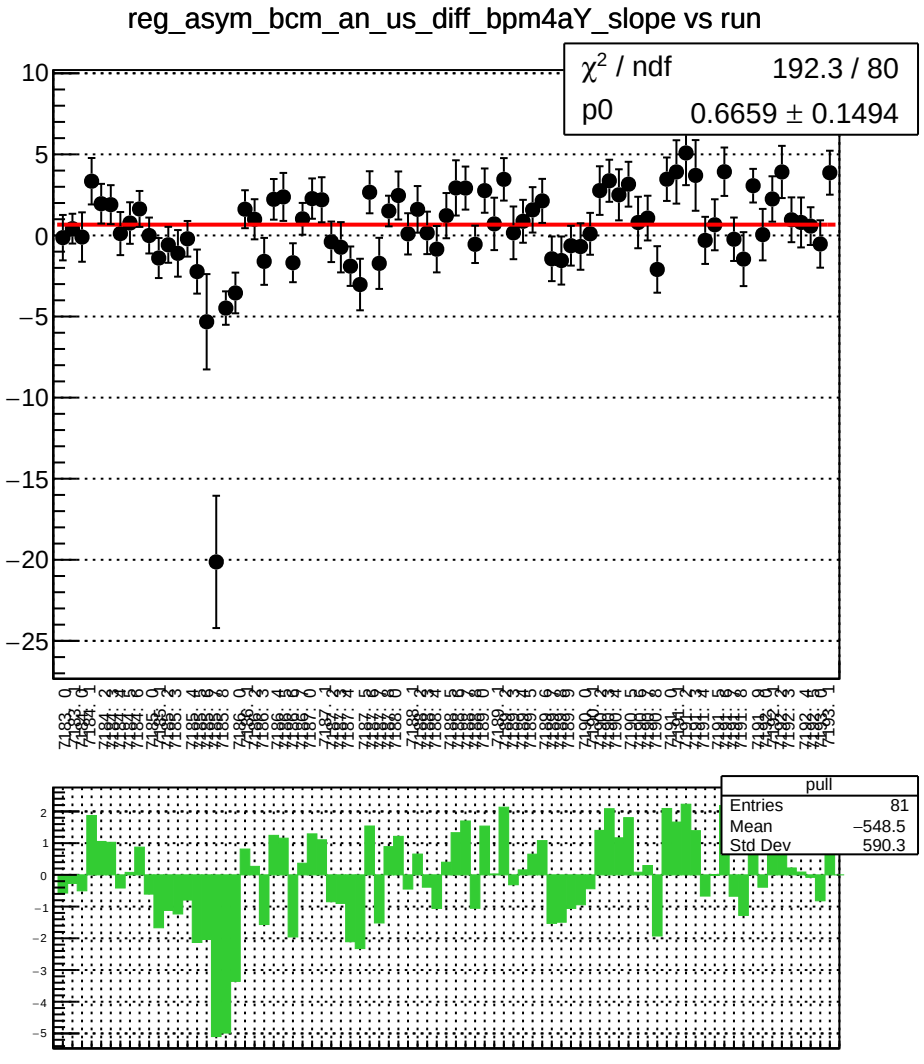

reg_asym_bcm_an_ds_diff_bpm4eY_slope vs run
χ² / ndf 201.1 / 80
p0 −1.032 ± 0.1612
pull
Entries 81
Mean −1313
Std Dev 1356

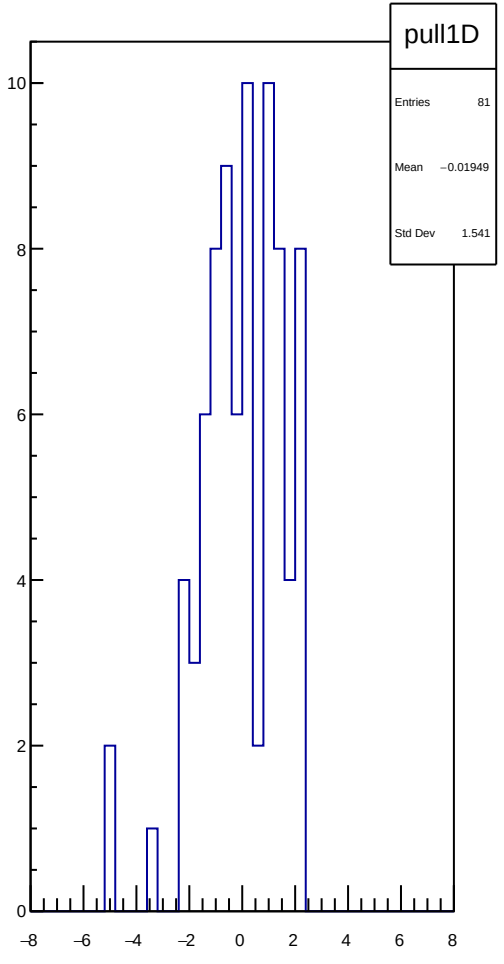

pull1D
Entries 81
Mean 0.008002
Std Dev 1.576

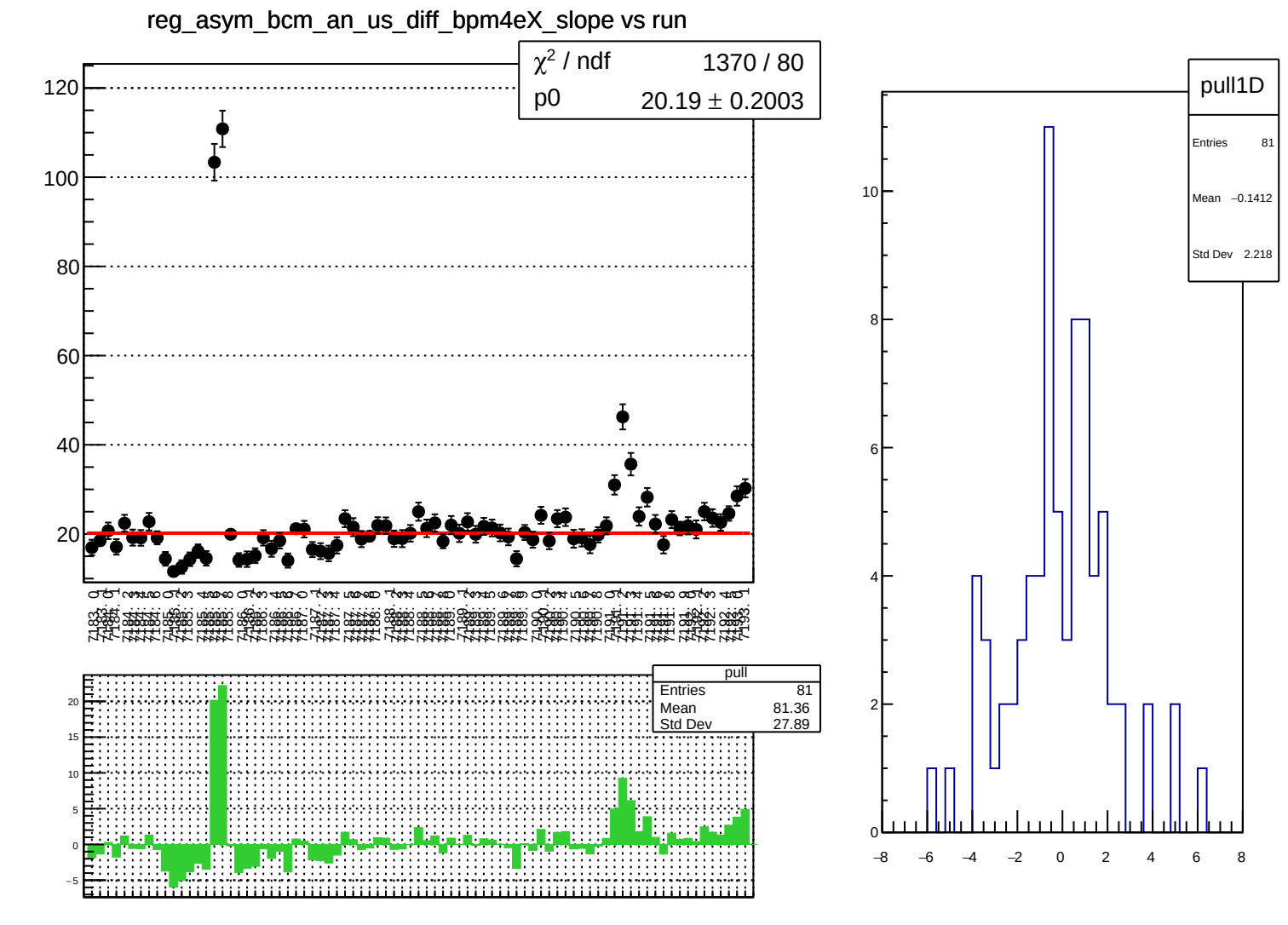

reg_asym_bcm_an_ds_diff_bpm12X_slope vs run
χ² / ndf 241.4 / 80
p0 0.2318 ± 0.007272
pull
Entries 81
Mean 145.3
Std Dev 102.8
pull1D
Entries 81
Mean 0.1577
Std Dev 1.719

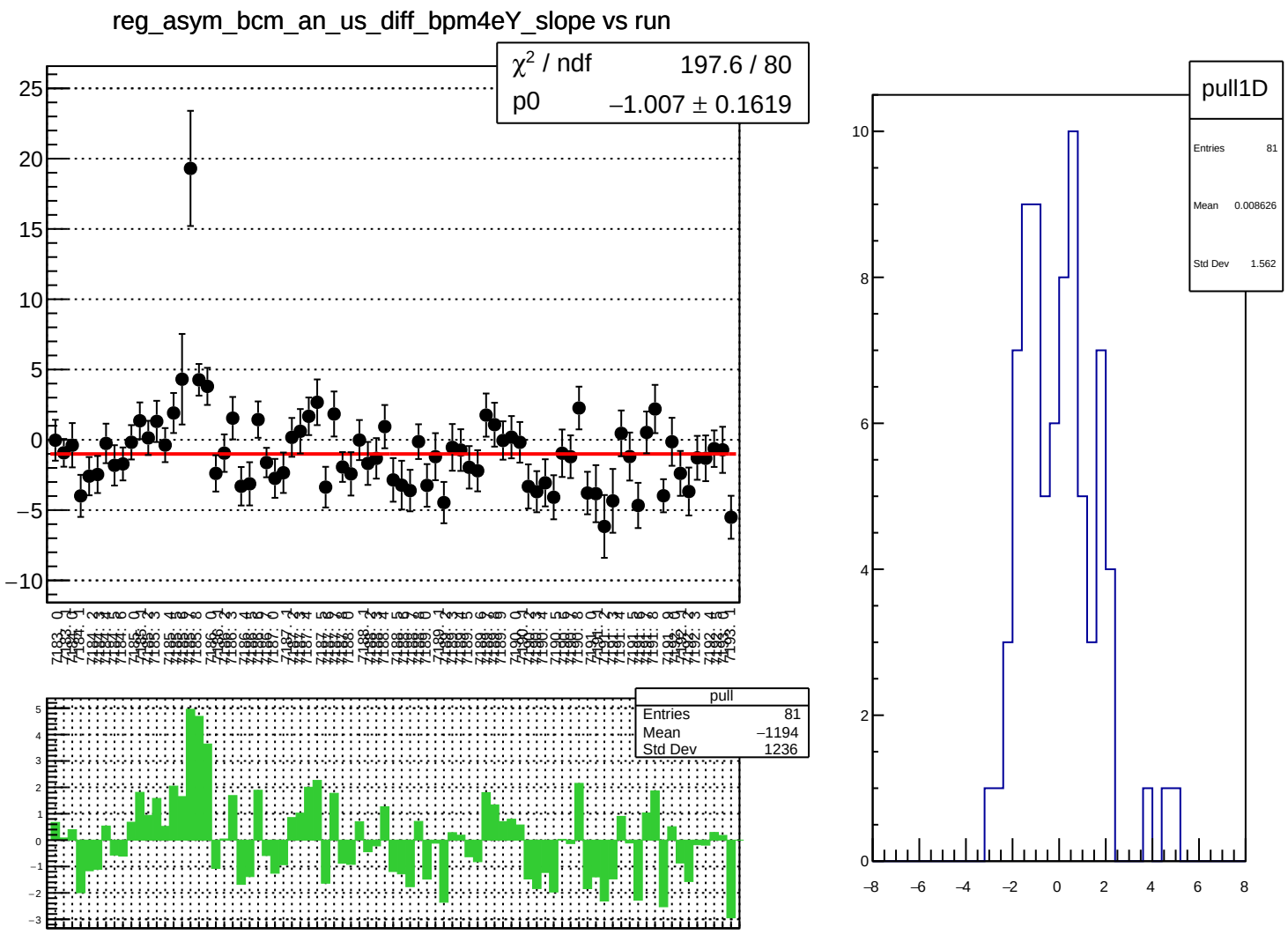

reg_asym_bcm_an_us_diff_bpm1X_slope vs run
χ² / ndf 1402 / 80
p0 −20.7 ± 0.2
pull
Entries 81
Mean 82.48
Std Dev 29.91

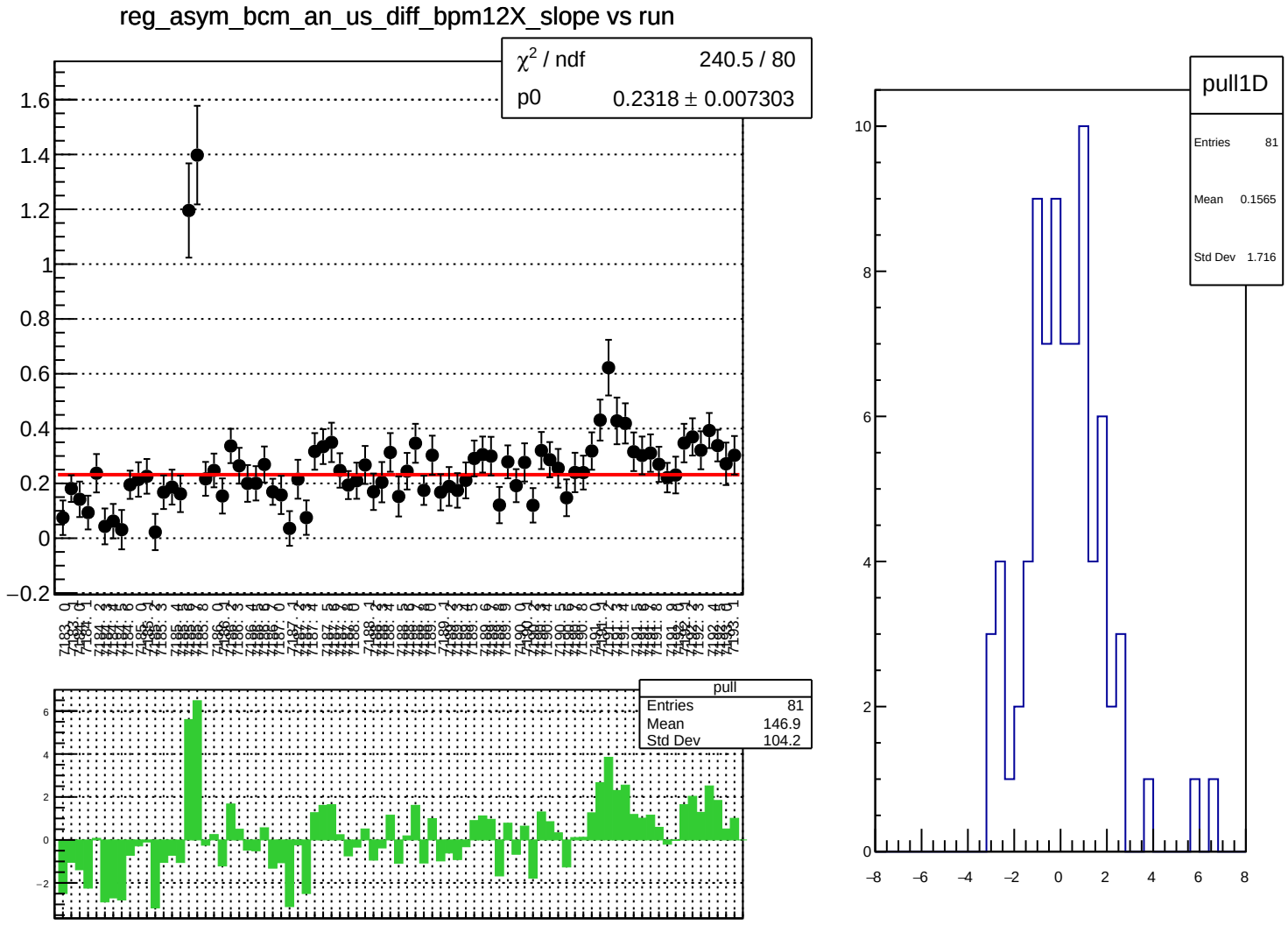

pull1D
Entries 81
Mean 0.1449
Std Dev 2.235

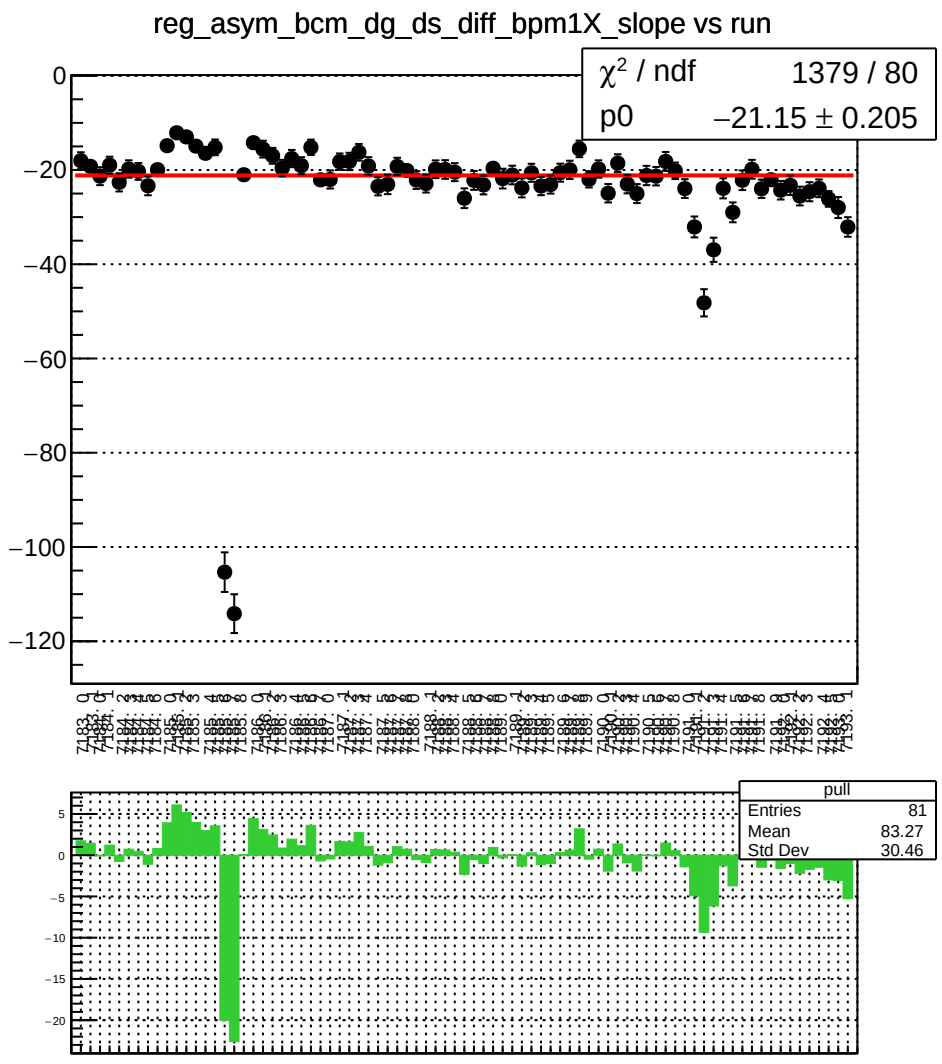

reg_asym_bcm_an_us_diff_bpm4aY_slope vs run
χ² / ndf 192.3 / 80
p0 0.6659 ± 0.1494
pull
Entries 81
Mean −548.5
Std Dev 590.3

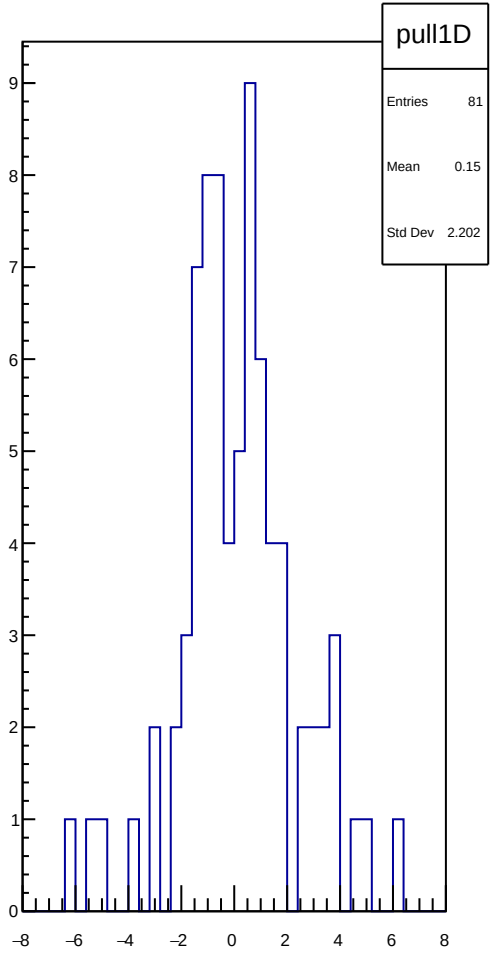

pull1D
Entries 81
Mean −0.01949
Std Dev 1.541

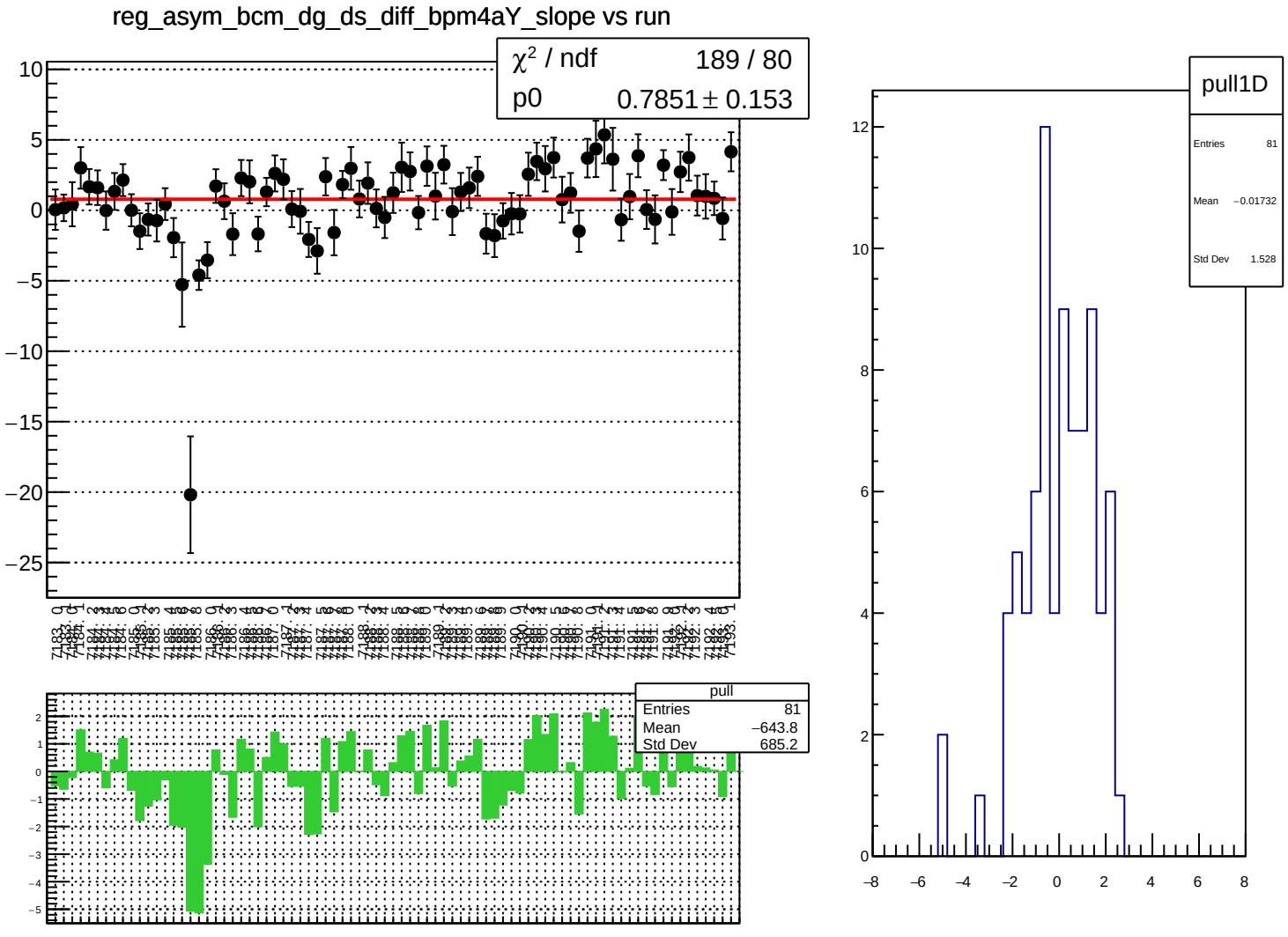

reg_asym_bcm_an_us_diff_bpm4eX_slope vs run
χ² / ndf 1370 / 80
p0 20.19 ± 0.2003
120
100
80
60
40
20
pull
Entries 81
Mean 81.36
Std Dev 27.89
20
15
10
5
0
−5
pull1D
Entries 81
Mean −0.1412
Std Dev 2.218
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

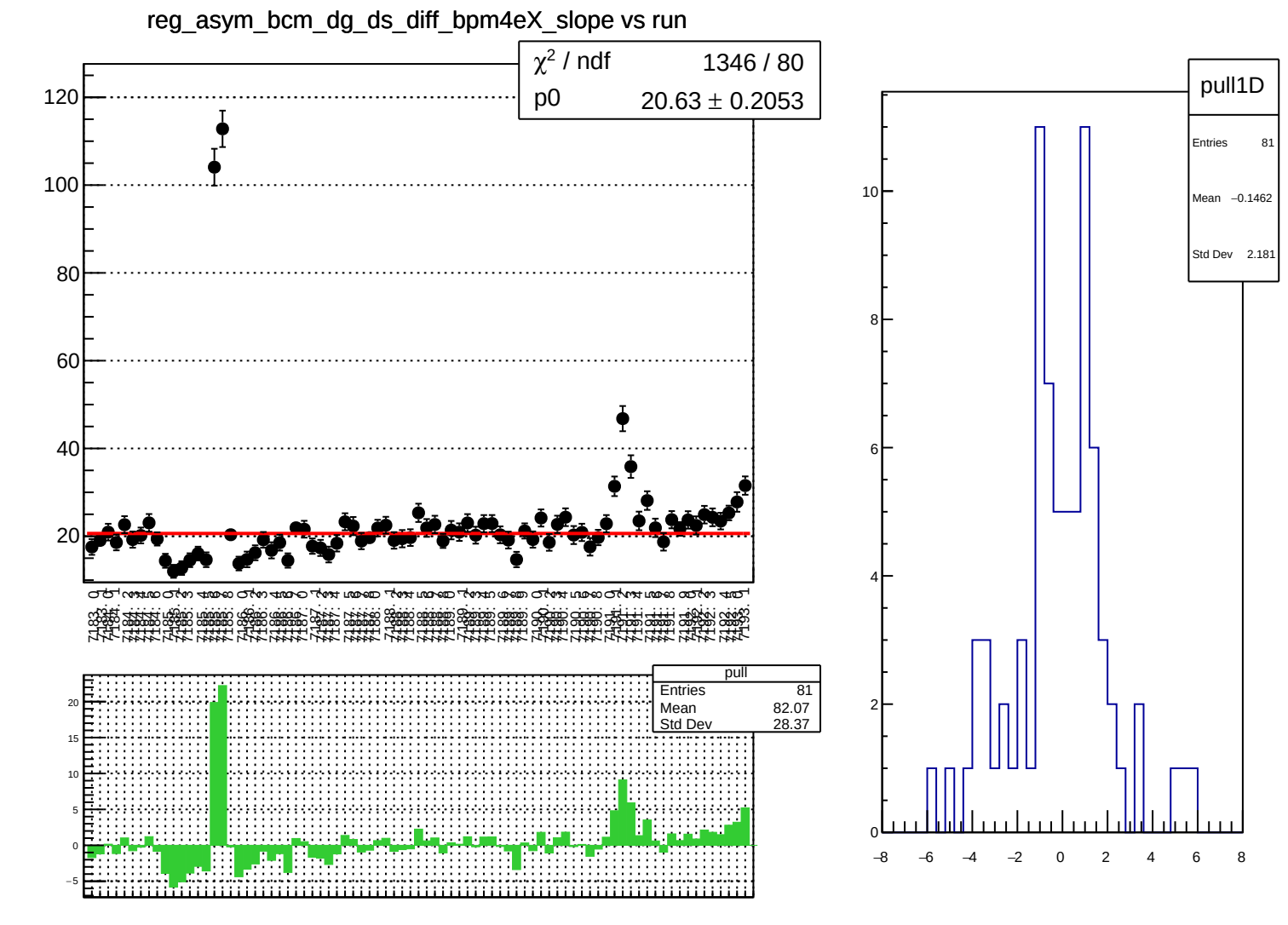

reg_asym_bcm_an_us_diff_bpm4eY_slope vs run
χ² / ndf 197.6 / 80
p0 −1.007 ± 0.1619
pull
Entries 81
Mean −1194
Std Dev 1236
pull1D
Entries 81
Mean 0.008626
Std Dev 1.562

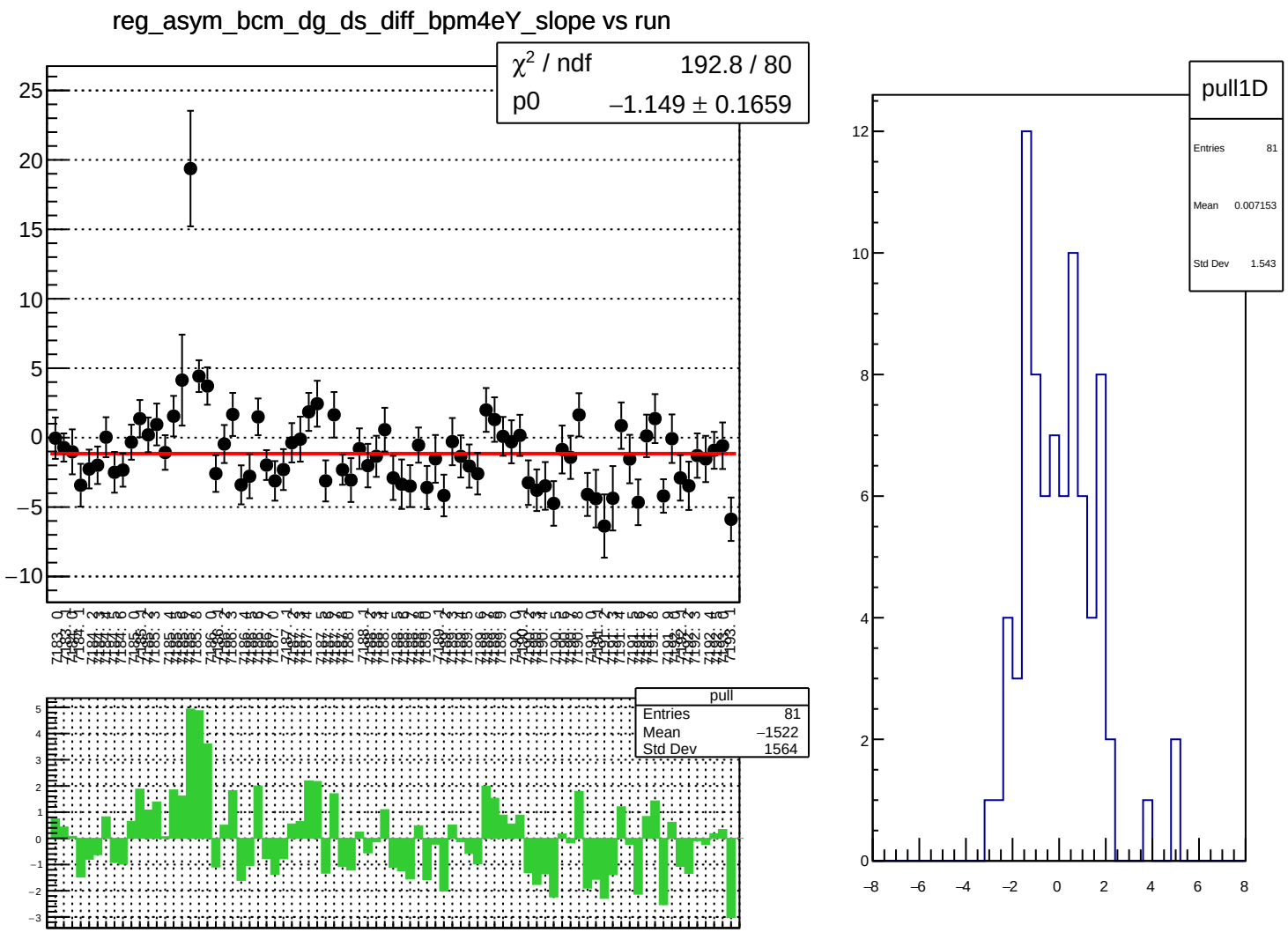

reg_asym_bcm_an_us_diff_bpm12X_slope vs run
χ² / ndf 240.5 / 80
p0 0.2318 ± 0.007303
pull
Entries 81
Mean 146.9
Std Dev 104.2
pull1D
Entries 81
Mean 0.1565
Std Dev 1.716

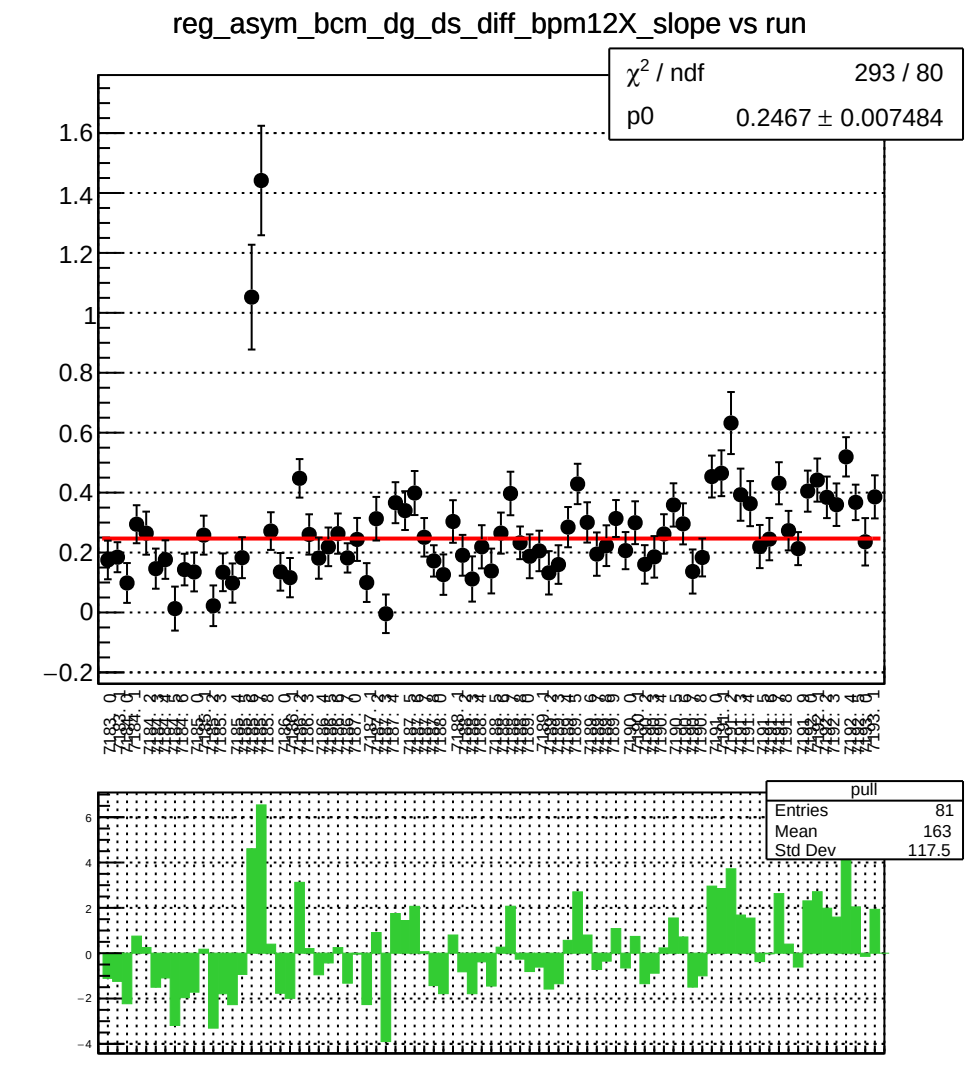

reg_asym_bcm_dg_ds_diff_bpm1X_slope vs run
χ² / ndf 1379 / 80
p0 −21.15 ± 0.205
pull
Entries 81
Mean 83.27
Std Dev 30.46

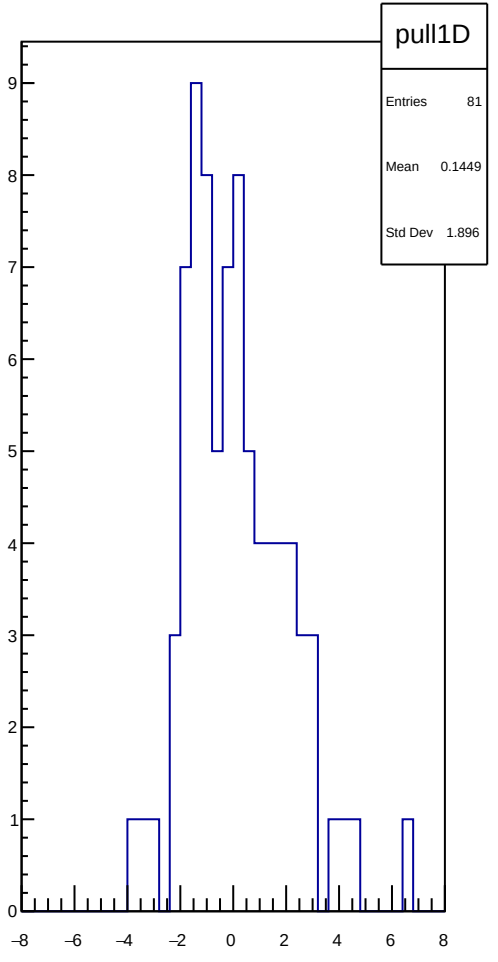

pull1D
Entries 81
Mean 0.15
Std Dev 2.202

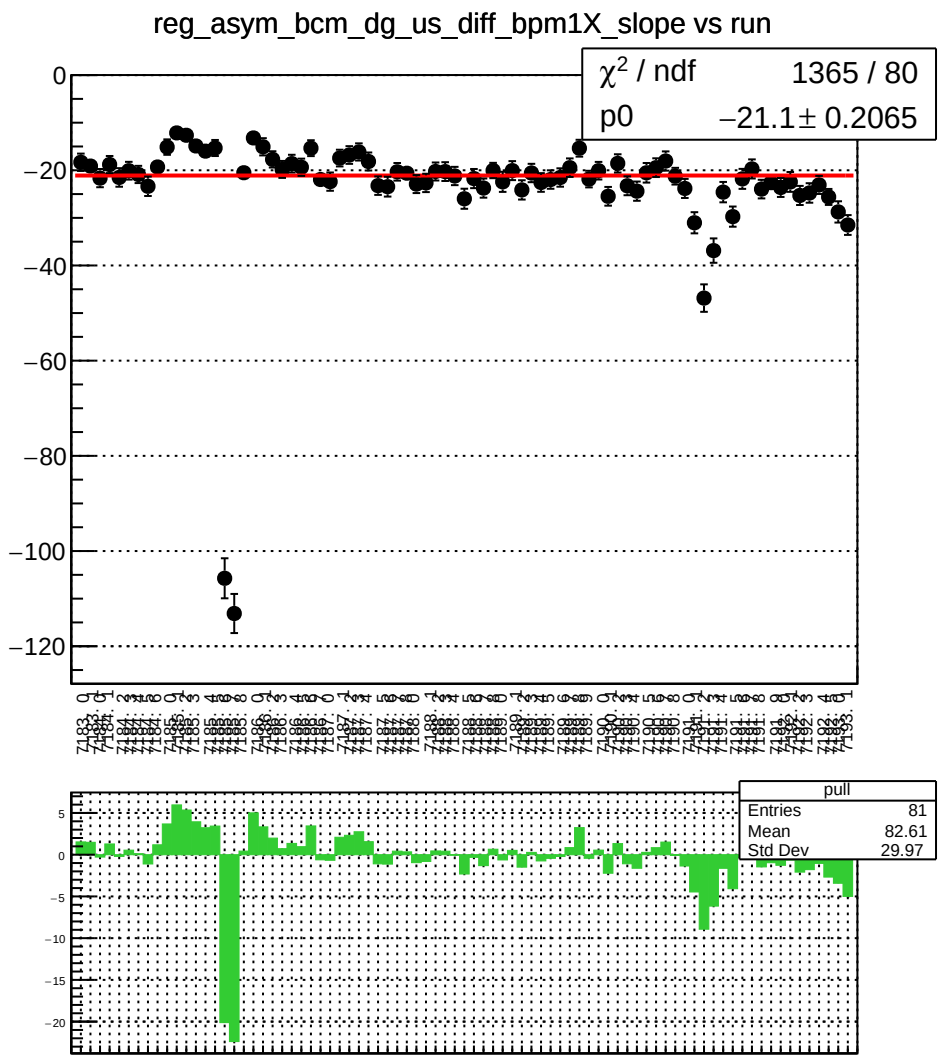

reg_asym_bcm_dg_ds_diff_bpm4aY_slope vs run
χ² / ndf 189 / 80
p0 0.7851 ± 0.153
pull
Entries 81
Mean −643.8
Std Dev 685.2
pull1D
Entries 81
Mean −0.01732
Std Dev 1.528

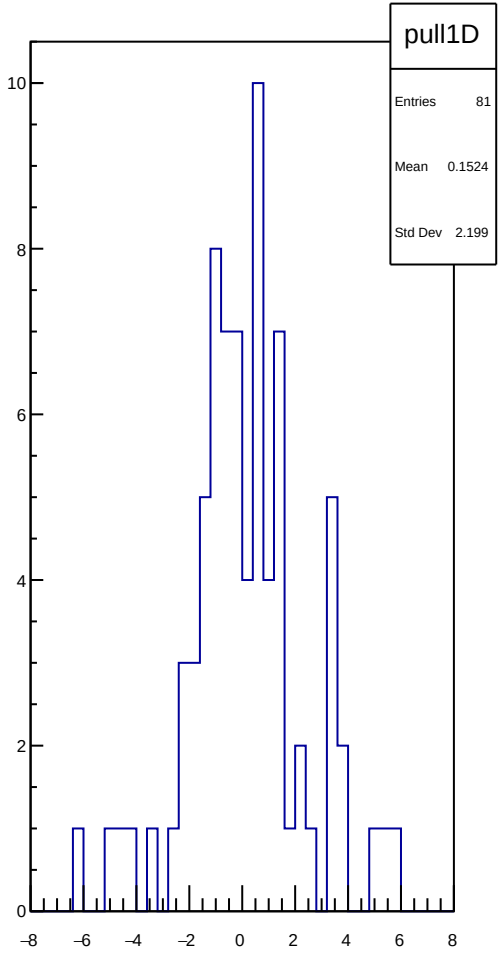

reg_asym_bcm_dg_ds_diff_bpm4eX_slope vs run
χ² / ndf 1346 / 80
p0 20.63 ± 0.2053
pull
Entries 81
Mean 82.07
Std Dev 28.37
pull1D
Entries 81
Mean −0.1462
Std Dev 2.181

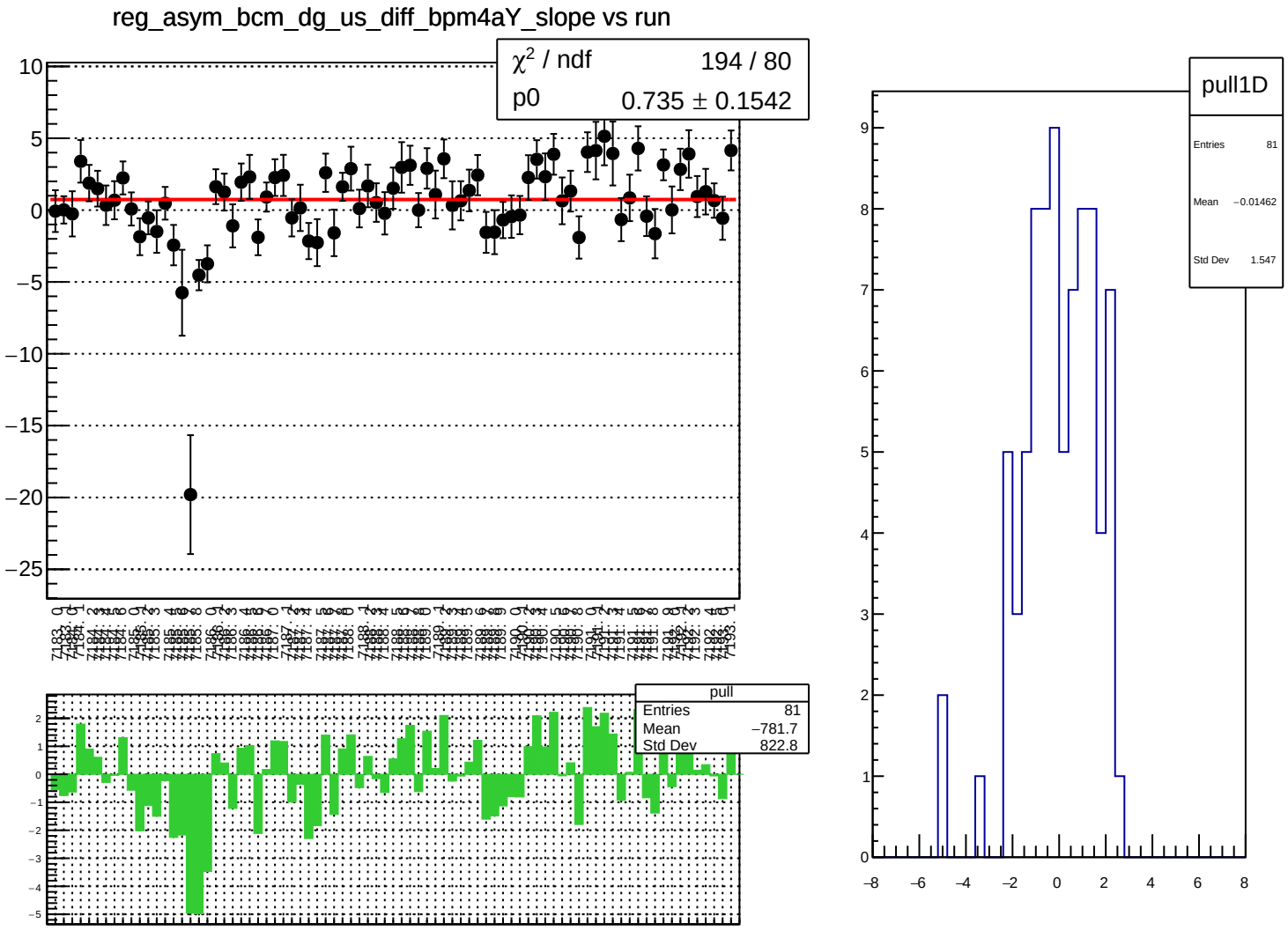

reg_asym_bcm_dg_ds_diff_bpm4eY_slope vs run
χ² / ndf 192.8 / 80
p0 −1.149 ± 0.1659
pull
Entries 81
Mean −1522
Std Dev 1564
pull1D
Entries 81
Mean 0.007153
Std Dev 1.543

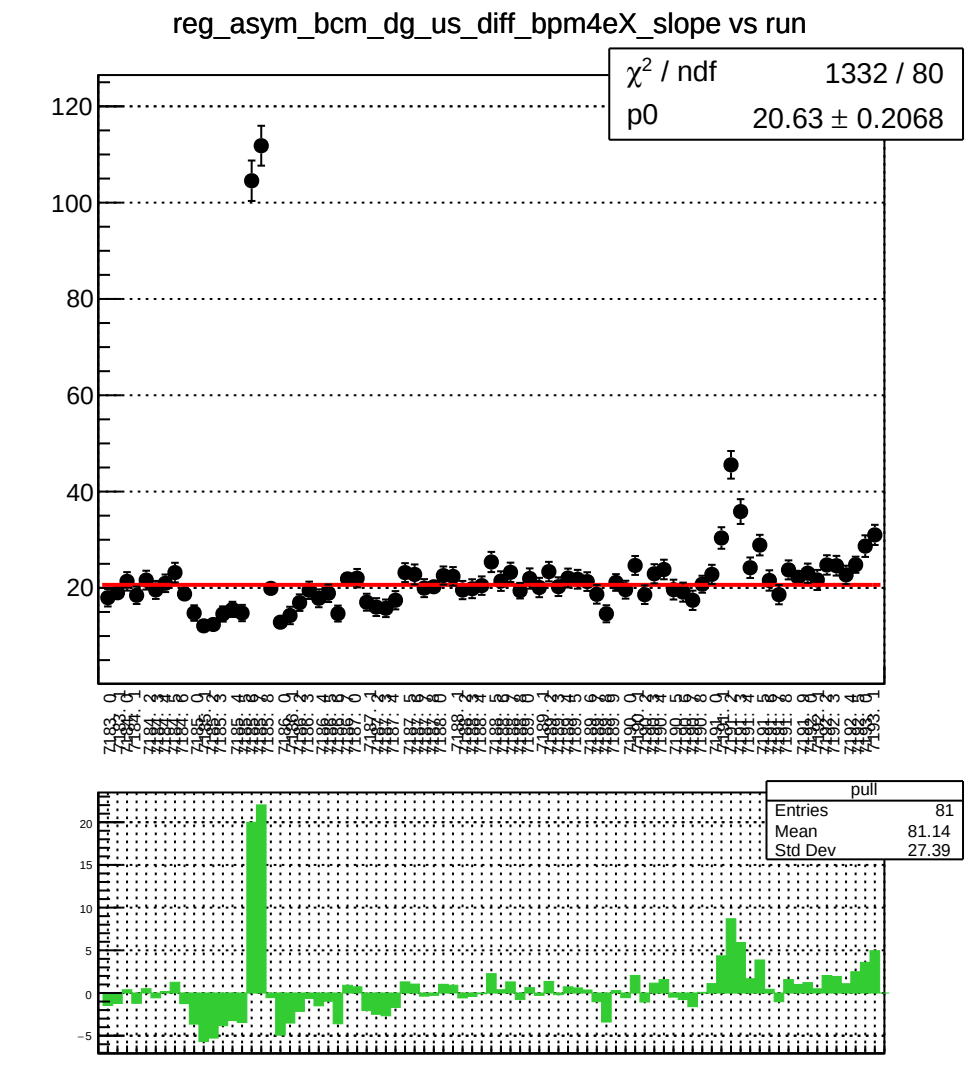

reg_asym_bcm_dg_ds_diff_bpm12X_slope vs run
χ² / ndf 293 / 80
p0 0.2467 ± 0.007484
pull
Entries 81
Mean 163
Std Dev 117.5

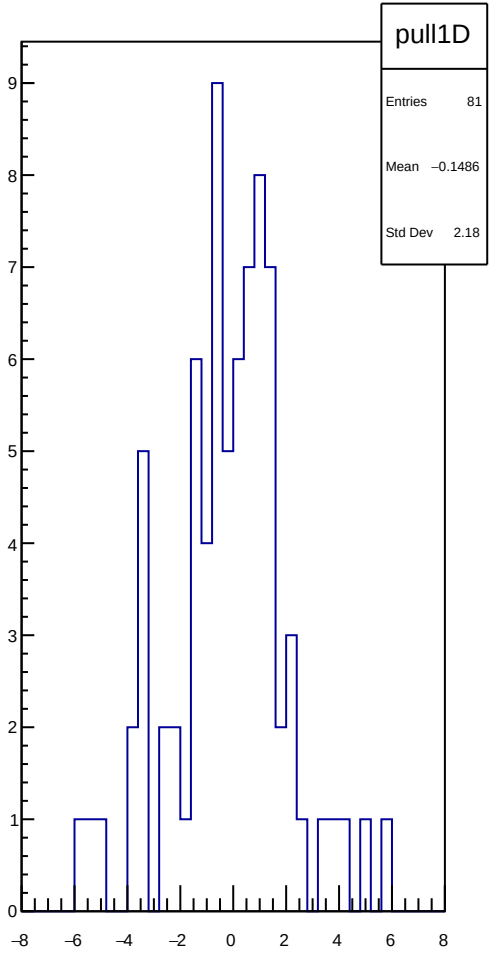

pull1D
Entries 81
Mean 0.1449
Std Dev 1.896

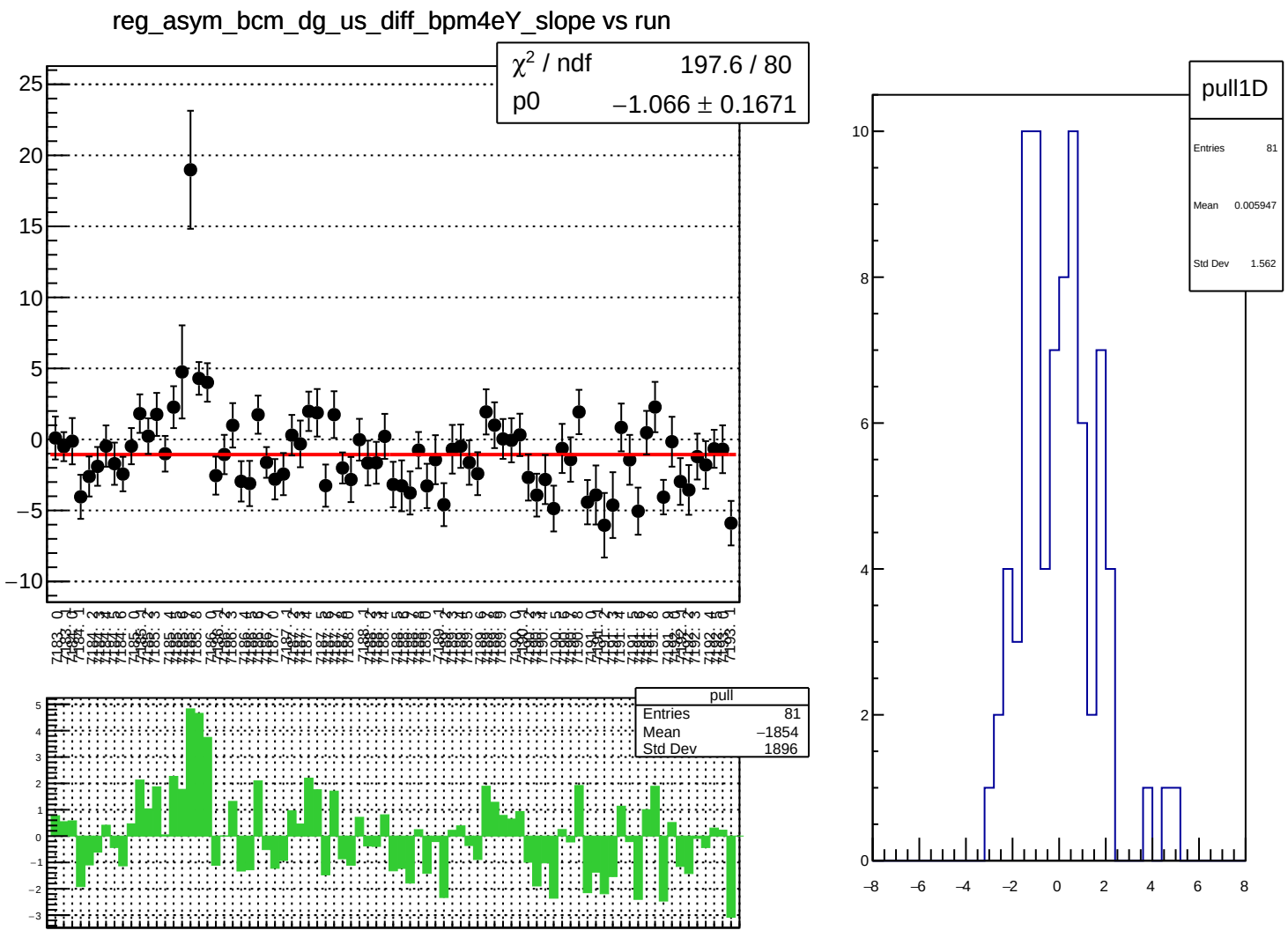

reg_asym_bcm_dg_us_diff_bpm1X_slope vs run
χ² / ndf 1365 / 80
p0 −21.1 ± 0.2065
pull
Entries 81
Mean 82.61
Std Dev 29.97

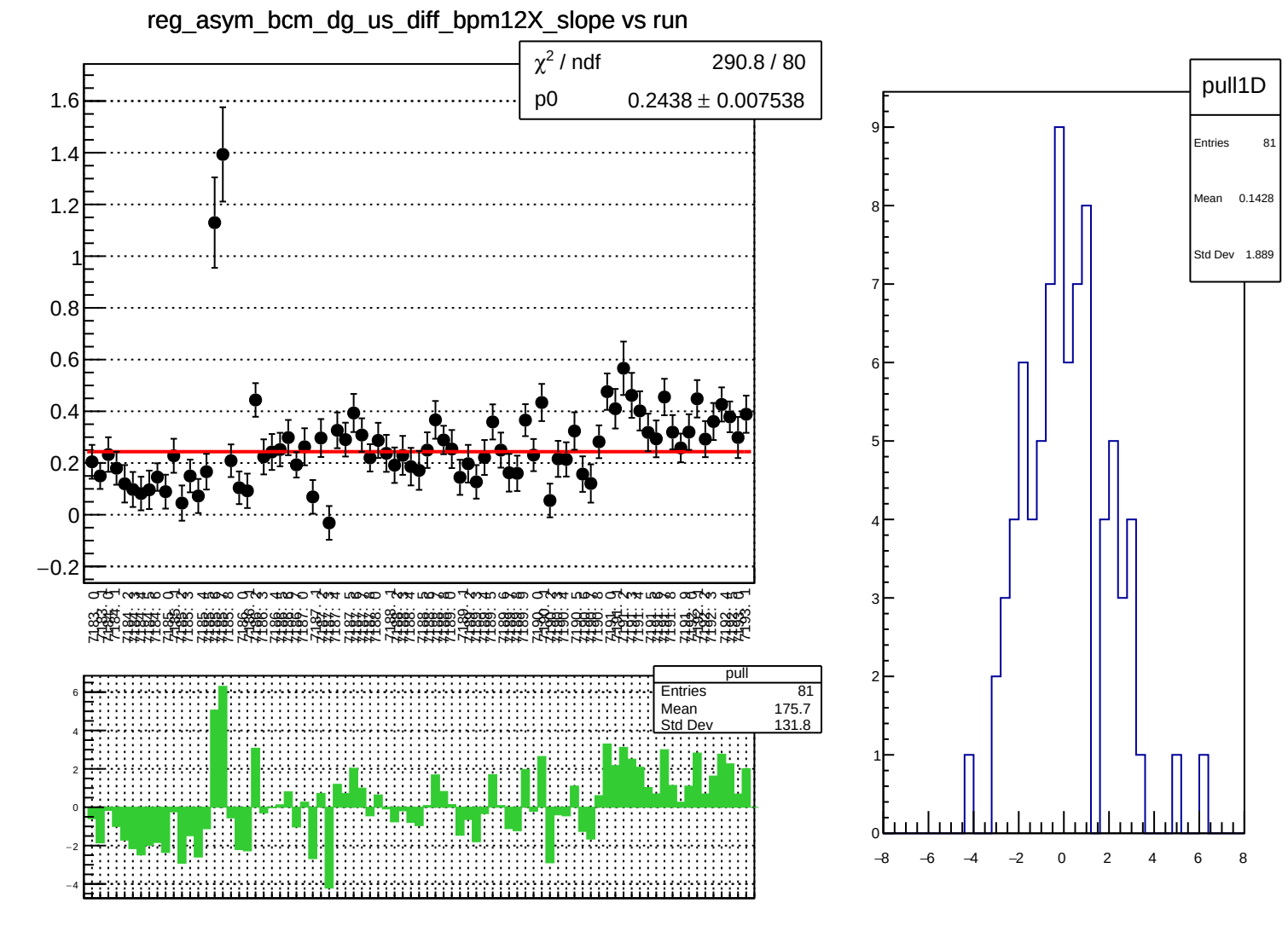

pull1D
Entries 81
Mean 0.1524
Std Dev 2.199

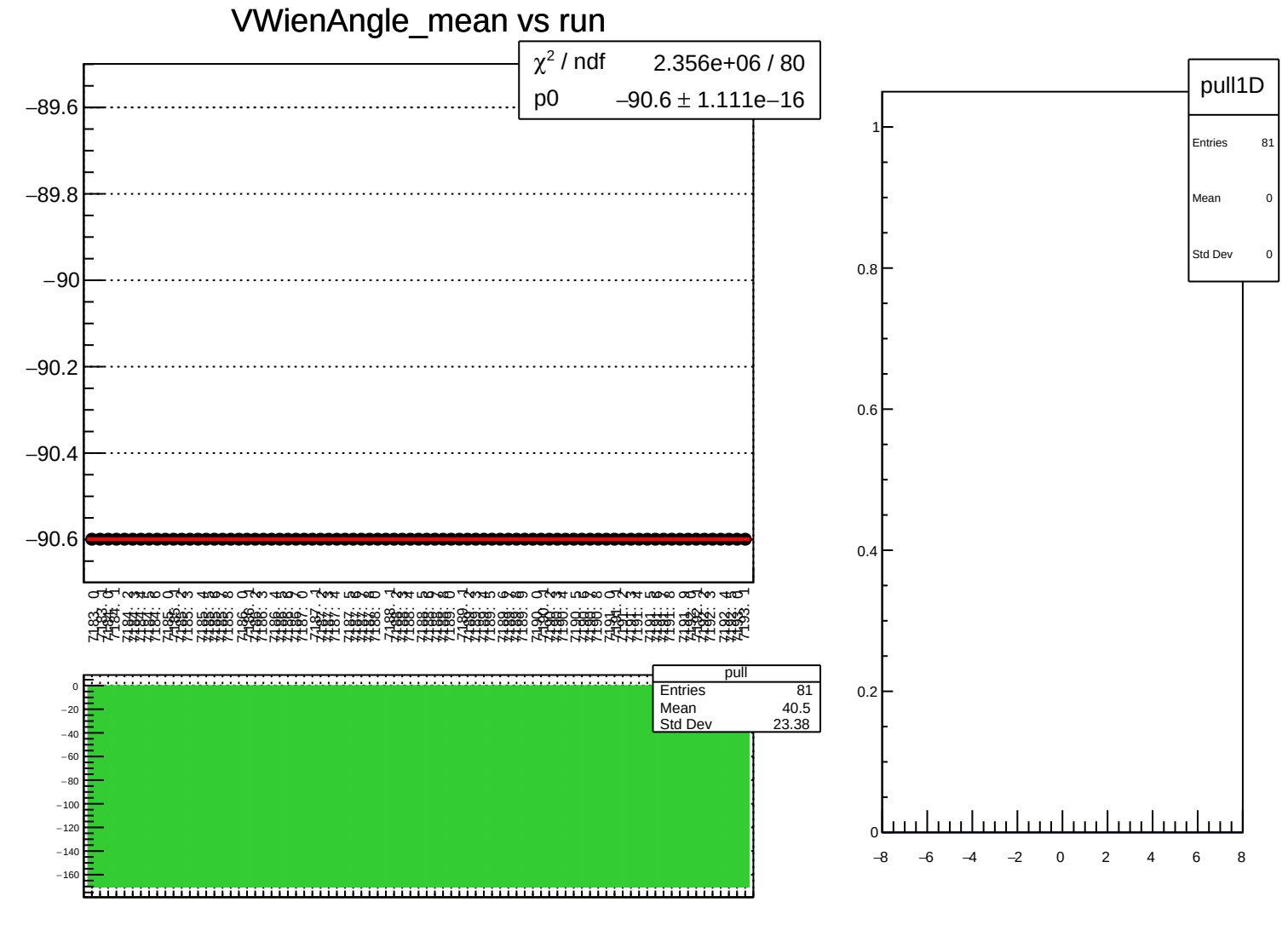

reg_asym_bcm_dg_us_diff_bpm4aY_slope vs run
χ² / ndf 194 / 80
p0 0.735 ± 0.1542
pull
Entries 81
Mean −781.7
Std Dev 822.8
pull1D
Entries 81
Mean −0.01462
Std Dev 1.547

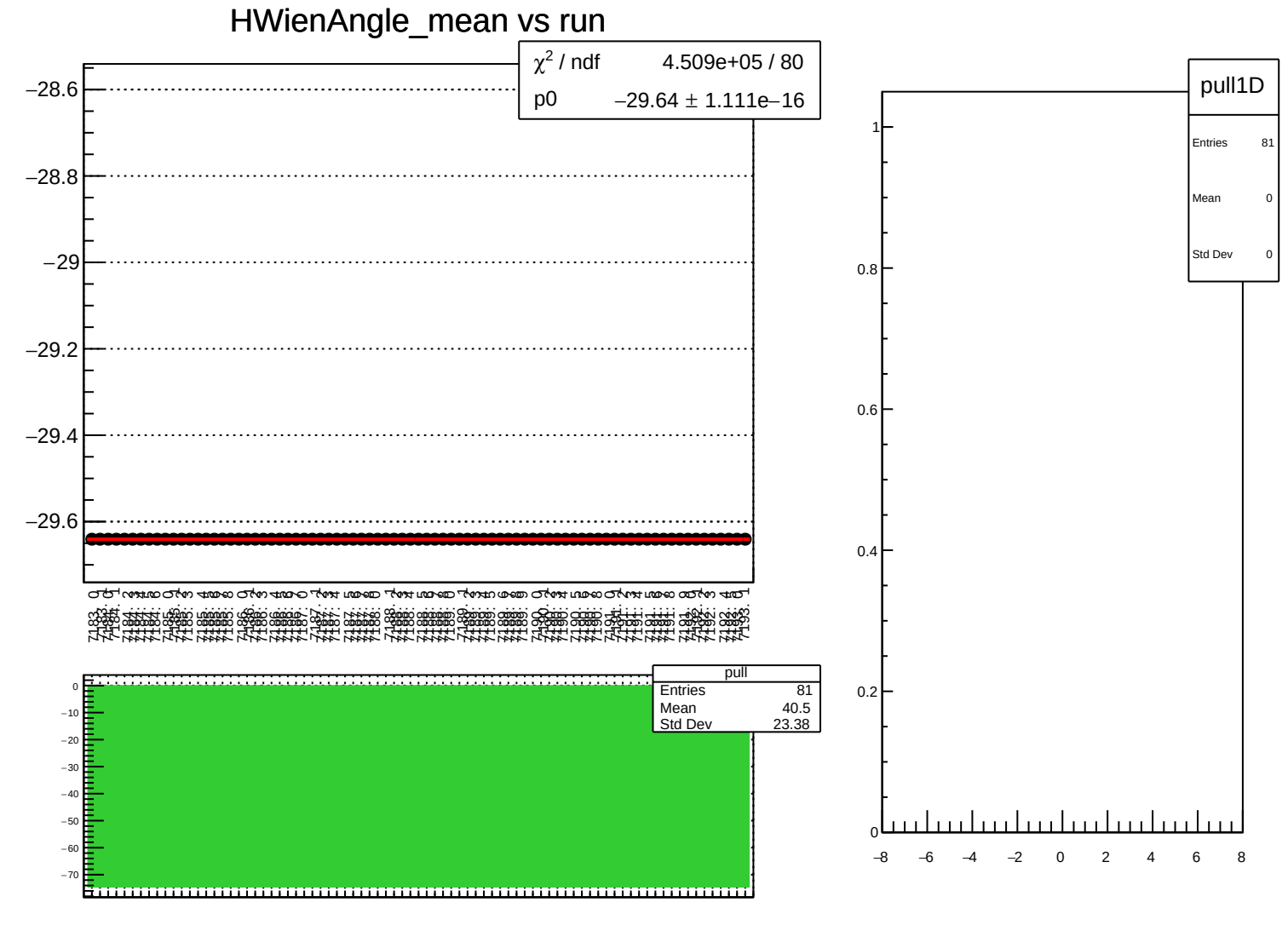

reg_asym_bcm_dg_us_diff_bpm4eX_slope vs run
χ² / ndf 1332 / 80
p0 20.63 ± 0.2068
pull
Entries 81
Mean 81.14
Std Dev 27.39

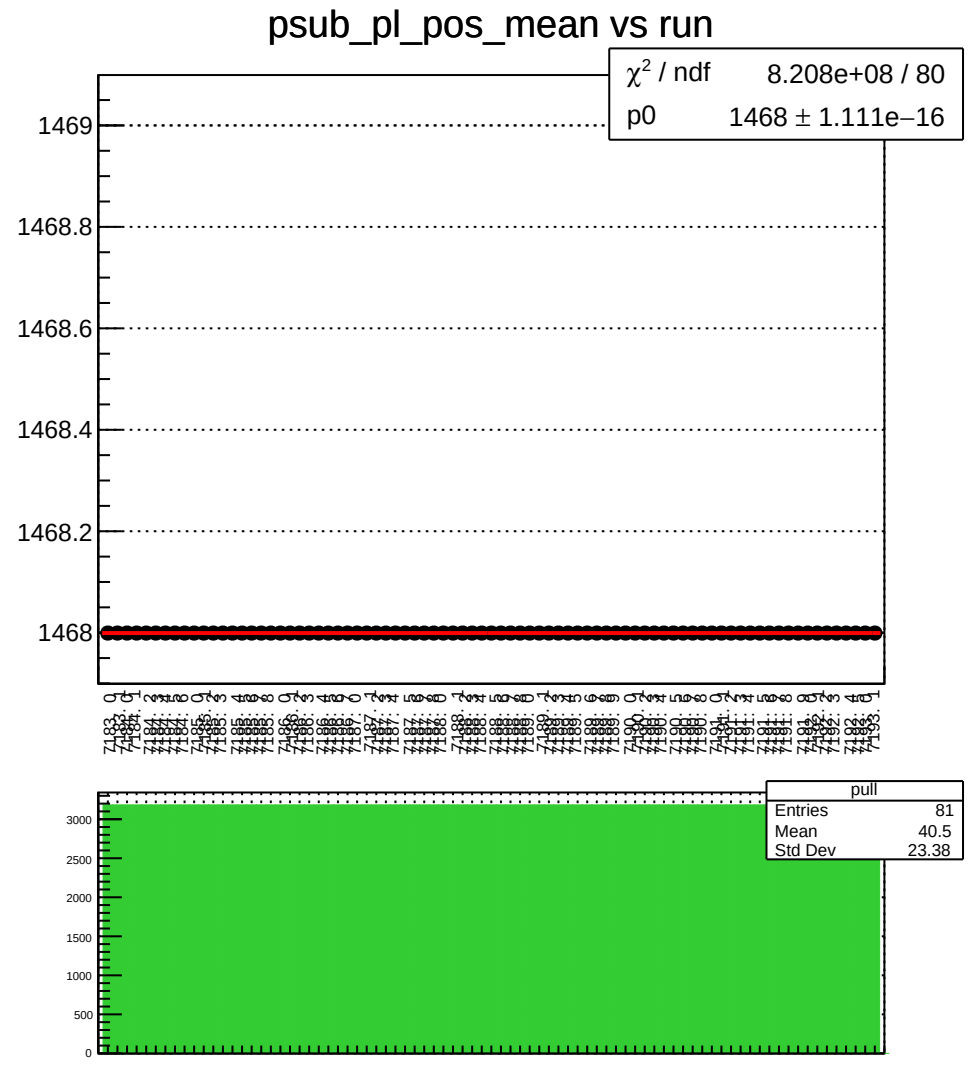

pull1D
Entries 81
Mean −0.1486
Std Dev 2.18

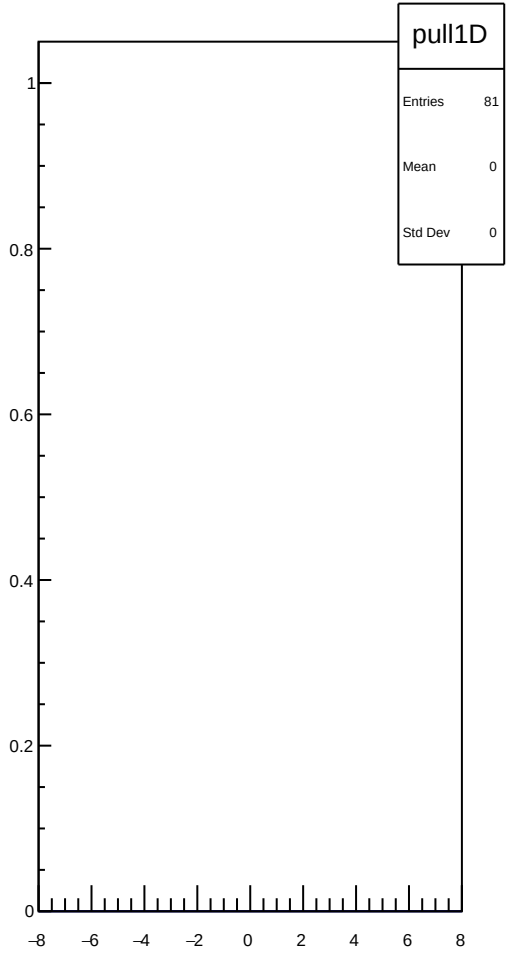

reg_asym_bcm_dg_us_diff_bpm4eY_slope vs run
χ² / ndf 197.6 / 80
p0 −1.066 ± 0.1671
pull
Entries 81
Mean −1854
Std Dev 1896
pull1D
Entries 81
Mean 0.005947
Std Dev 1.562

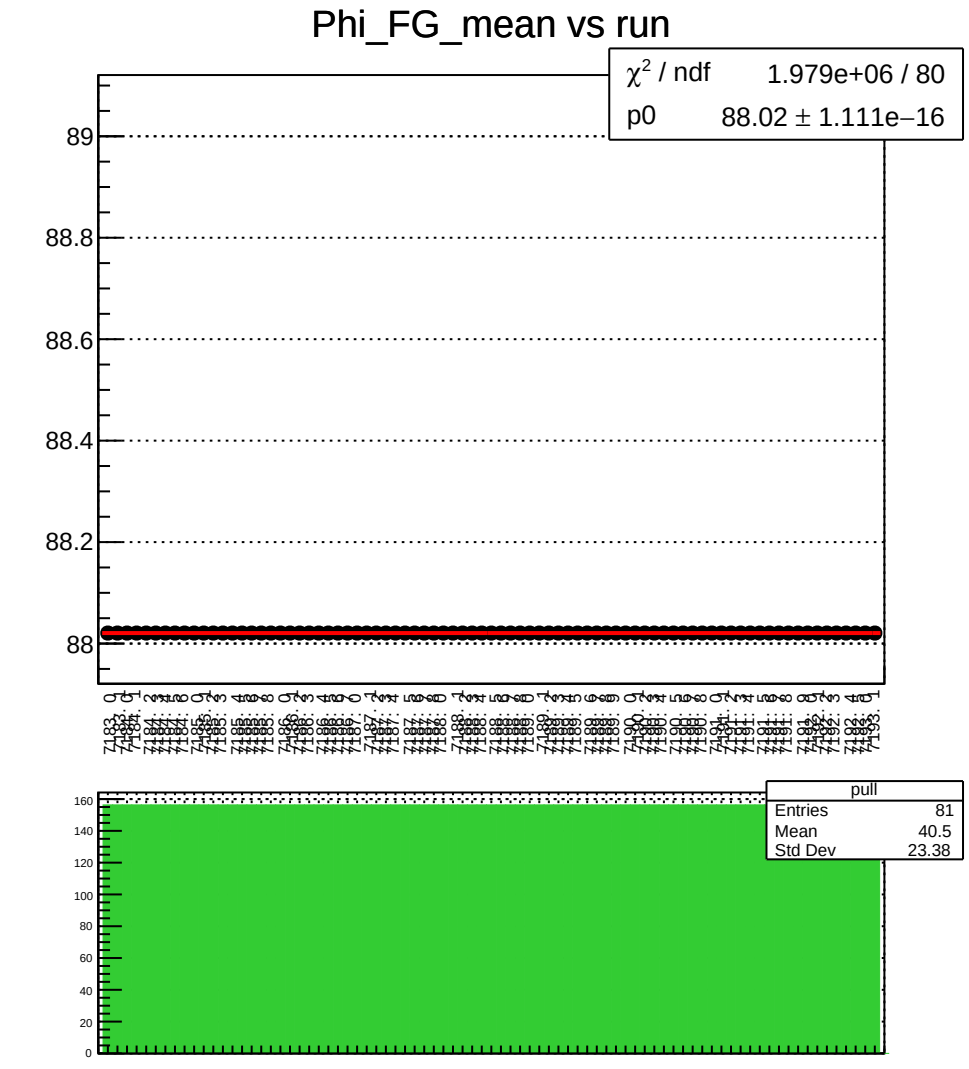

reg_asym_bcm_dg_us_diff_bpm12X_slope vs run
χ² / ndf 290.8 / 80
p0 0.2438 ± 0.007538
pull
Entries 81
Mean 175.7
Std Dev 131.8
pull1D
Entries 81
Mean 0.1428
Std Dev 1.889

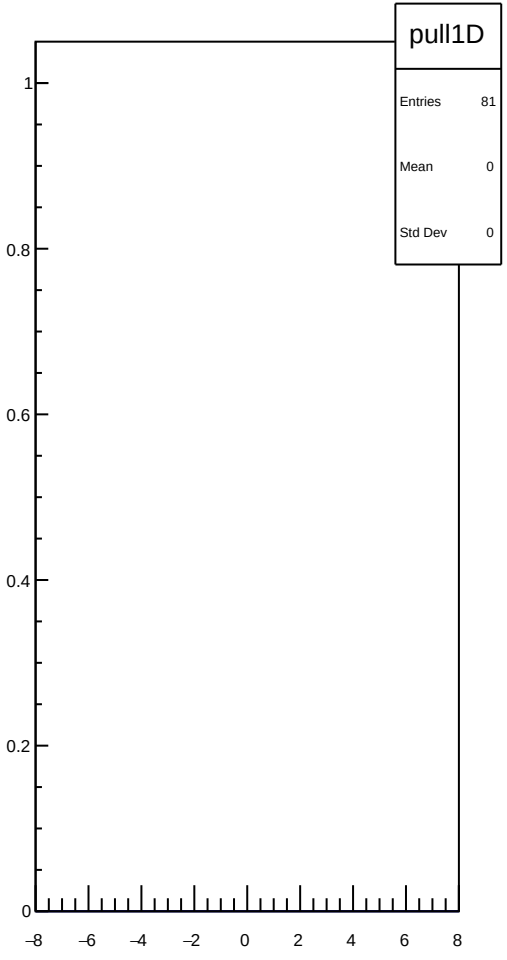

VWienAngle_mean vs run
χ² / ndf 2.356e+06 / 80
p0 −90.6 ± 1.111e−16
−89.6
−89.8
−90
−90.2
−90.4
−90.6
pull
Entries 81
Mean 40.5
Std Dev 23.38
0
−20
−40
−60
−80
−100
−120
−140
−160
pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

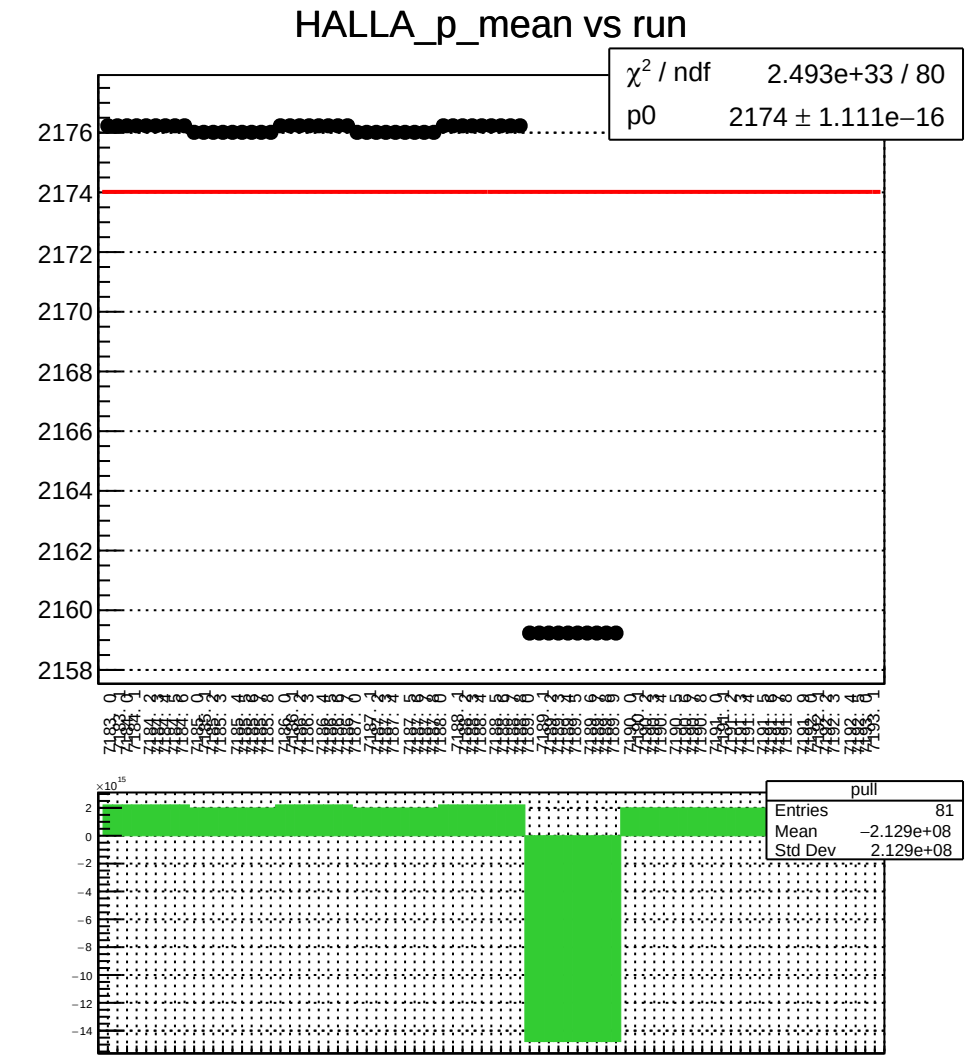

HWienAngle_mean vs run
χ² / ndf 4.509e+05 / 80
p0 −29.64 ± 1.111e−16
−28.6
−28.8
−29
−29.2
−29.4
−29.6
pull
Entries 81
Mean 40.5
Std Dev 23.38
0
−10
−20
−30
−40
−50
−60
−70
pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

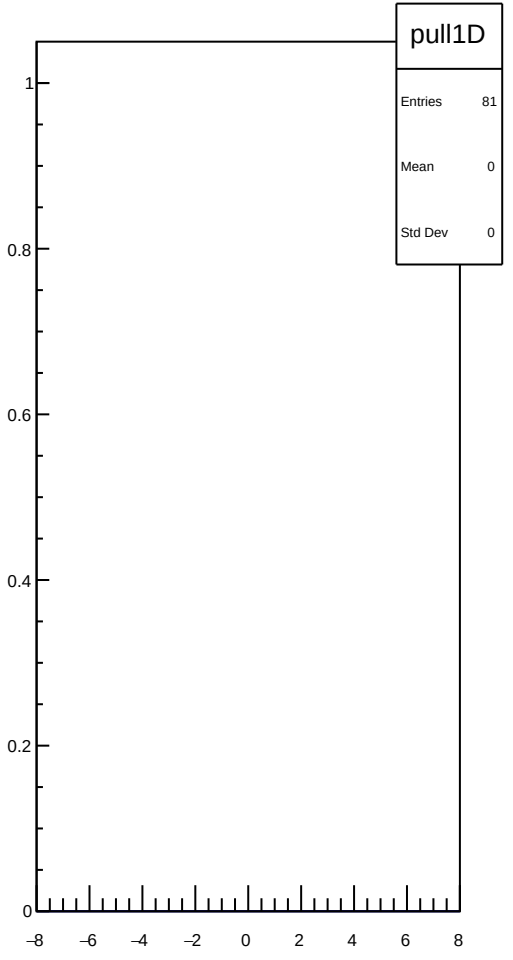

psub_pl_pos_mean vs run
χ² / ndf 8.208e+08 / 80
p0 1468 ± 1.111e−16
1469
1468.8
1468.6
1468.4
1468.2
1468
pull
Entries 81
Mean 40.5
Std Dev 23.38
3000
2500
2000
1500
1000
500
0

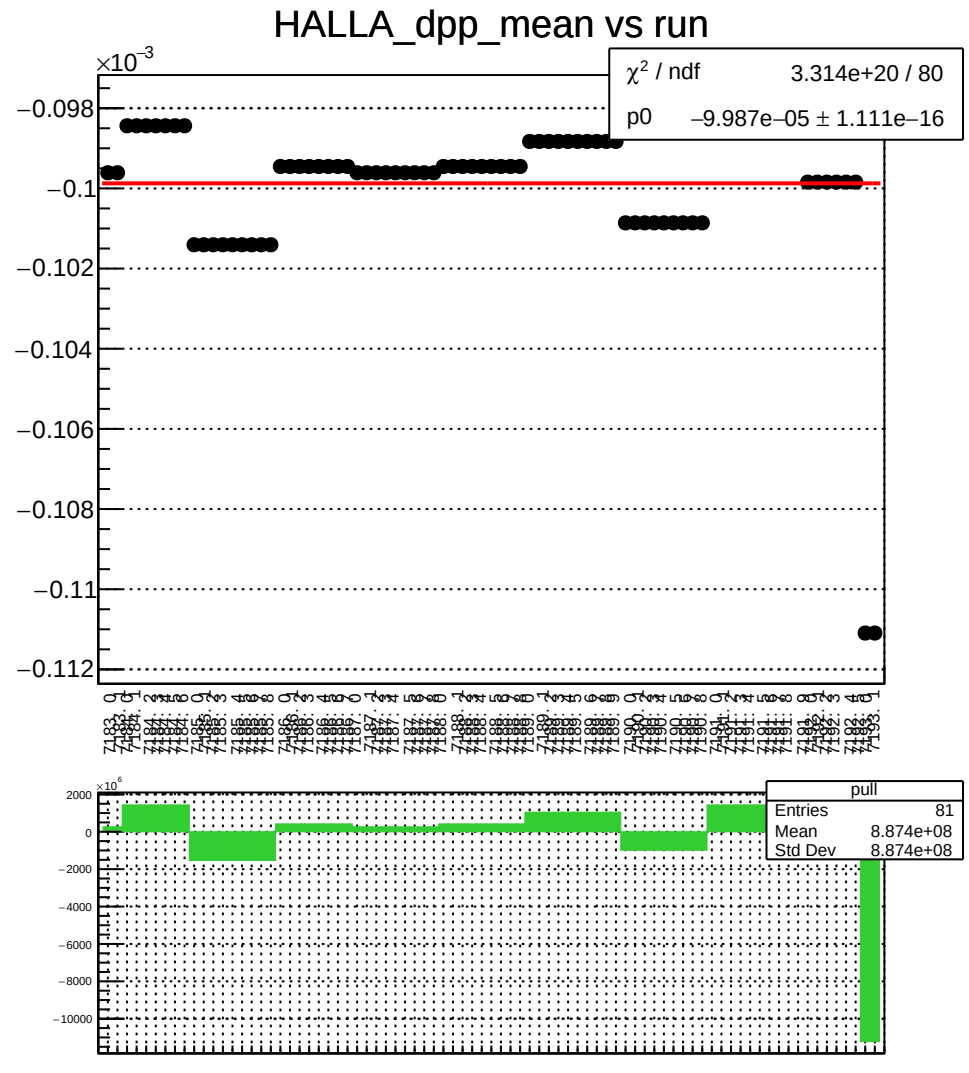

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

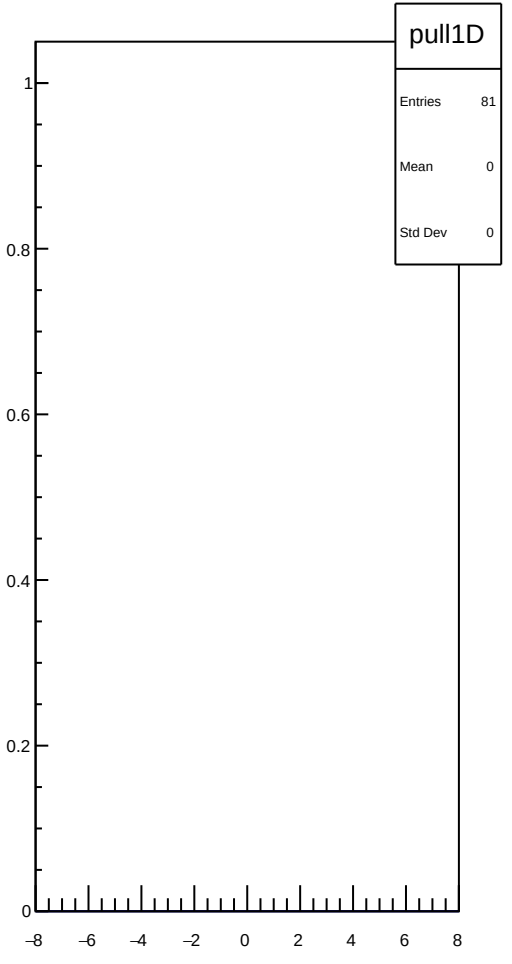

Phi_FG_mean vs run
χ² / ndf 1.979e+06 / 80
p0 88.02 ± 1.111e−16
89
88.8
88.6
88.4
88.2
88
pull
Entries 81
Mean 40.5
Std Dev 23.38
160
140
120
100
80
60
40
20
0

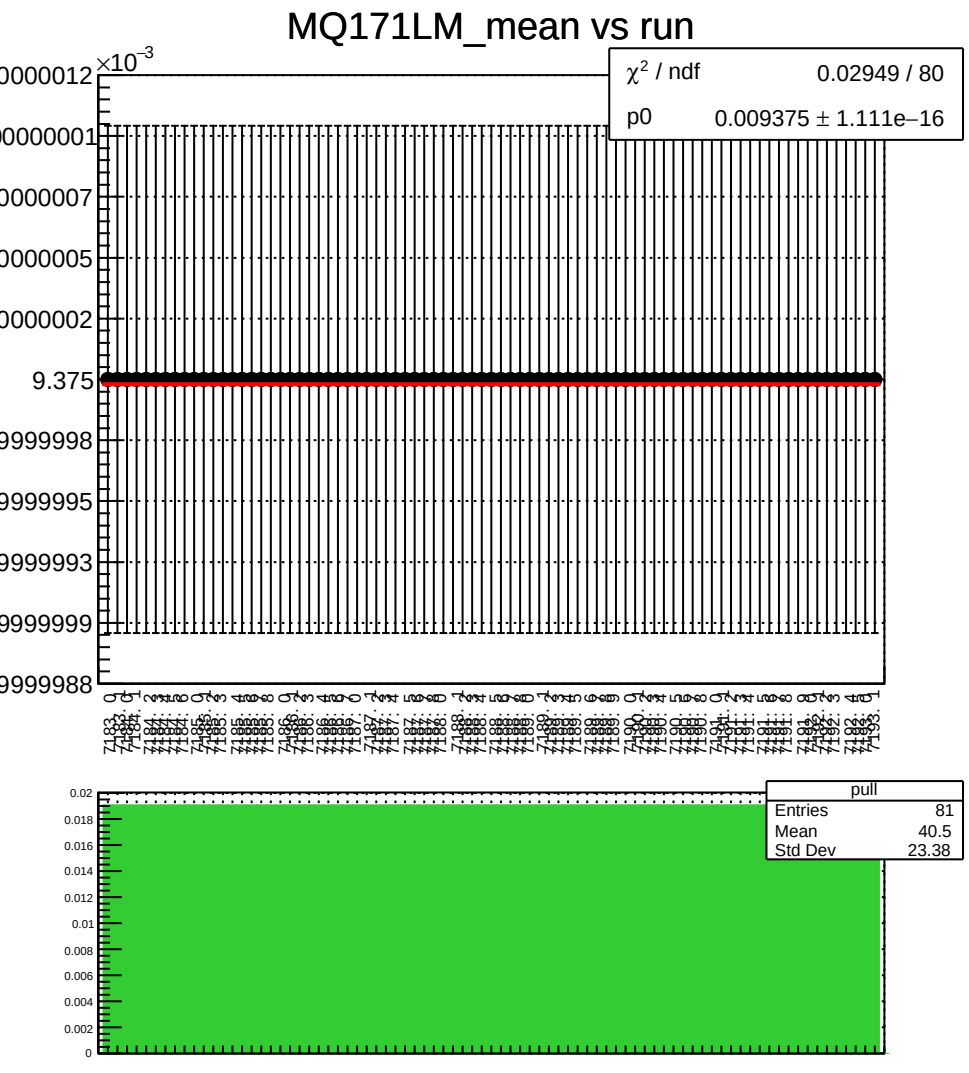

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

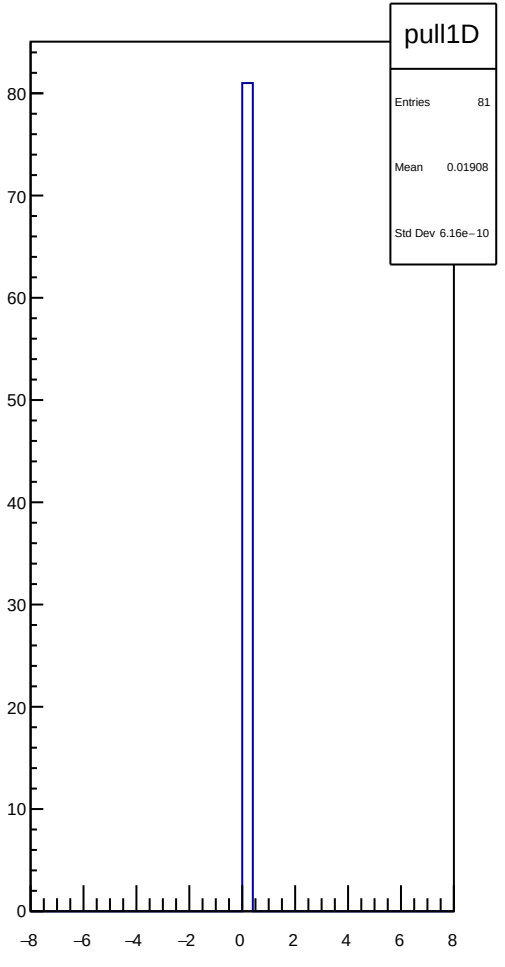

HALLA_p_mean vs run
χ² / ndf 2.493e+33 / 80
p0 2174 ± 1.111e−16
2176
2174
2172
2170
2168
2166
2164
2162
2160
2158
pull
Entries 81
Mean −2.129e+08
Std Dev 2.129e+08
×10¹⁵
2
0
−2
−4
−6
−8
−10
−12
−14

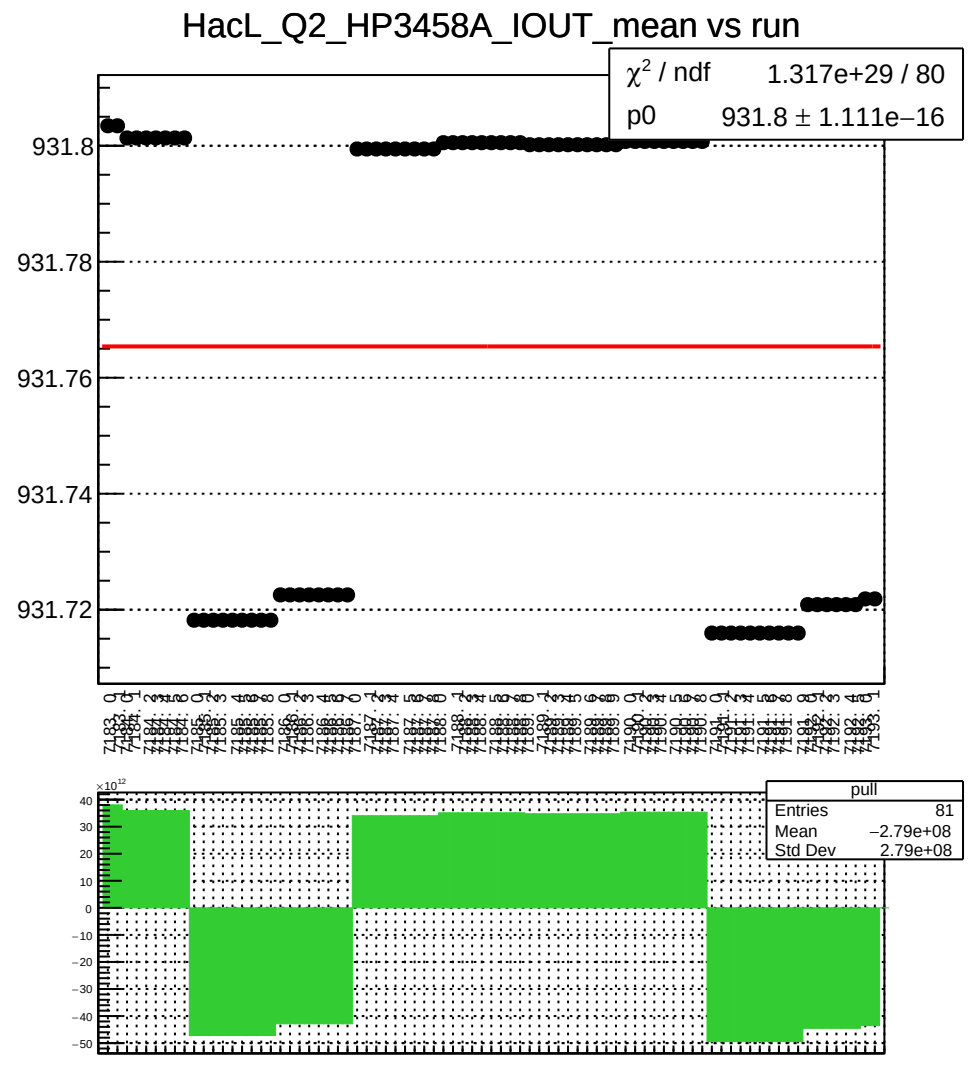

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

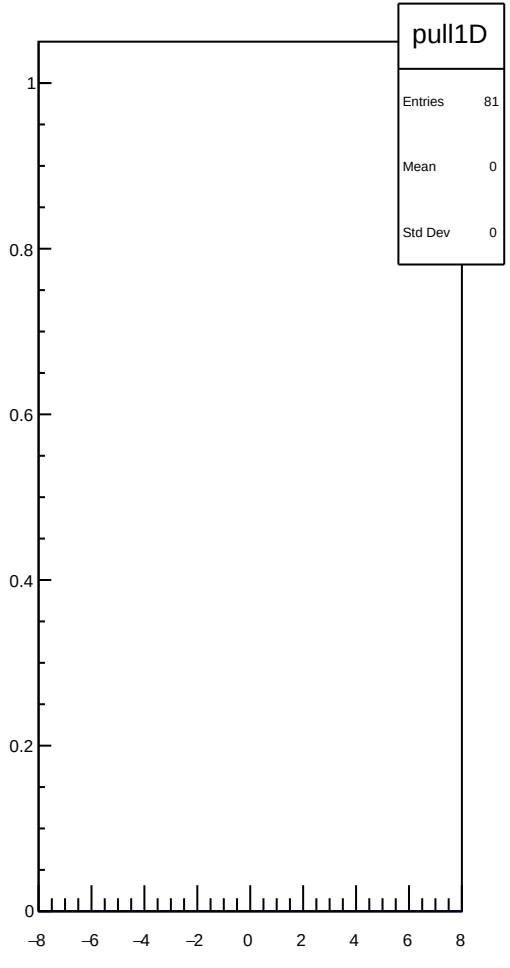

HALLA_dpp_mean vs run
×10⁻³
χ² / ndf 3.314e+20 / 80
p0 −9.987e−05 ± 1.111e−16
−0.098
−0.1
−0.102
−0.104
−0.106
−0.108
−0.11
−0.112
×10⁶
2000
0
−2000
−4000
−6000
−8000
−10000
pull
Entries 81
Mean 8.874e+08
Std Dev 8.874e+08

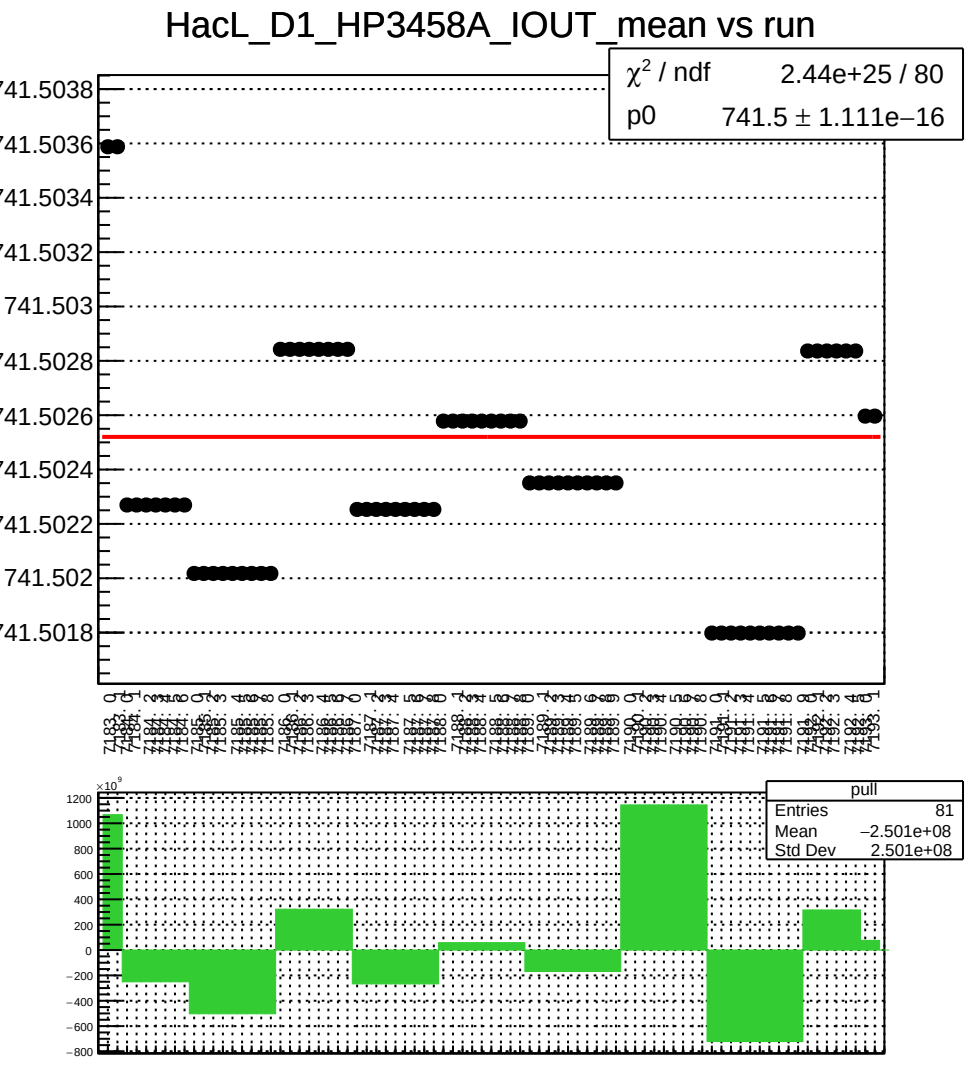

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

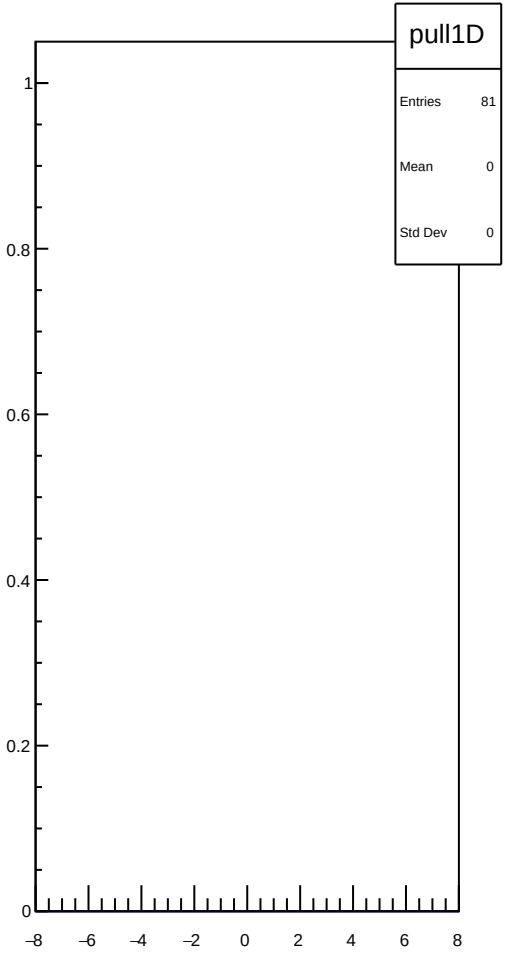

MQ171LM_mean vs run
χ² / ndf 0.02949 / 80
p0 0.009375 ± 1.111e−16
×10⁻³
9.375
pull
Entries 81
Mean 40.5
Std Dev 23.38

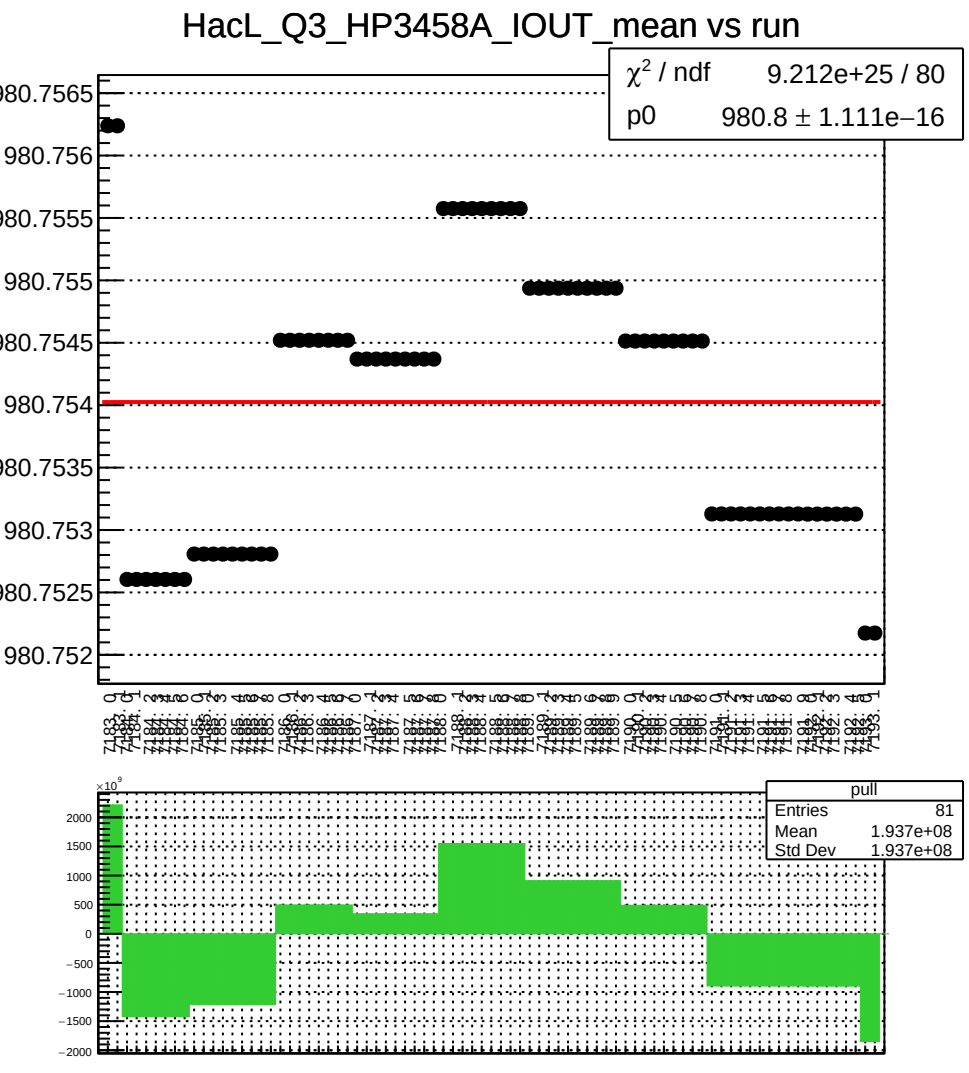

pull1D
Entries 81
Mean 0.01908
Std Dev 6.16e−10

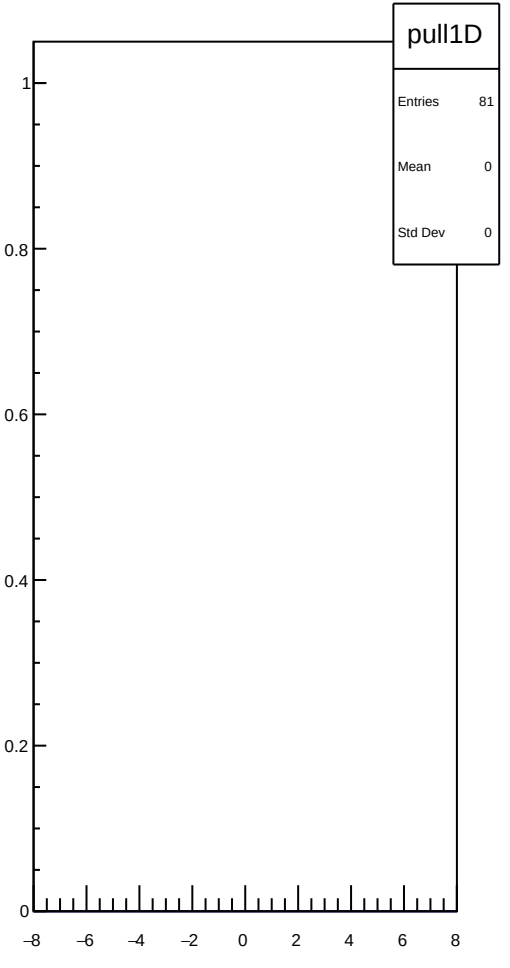

HacL_Q2_HP3458A_IOUT_mean vs run
χ² / ndf 1.317e+29 / 80
p0 931.8 ± 1.111e−16
931.8
931.78
931.76
931.74
931.72
pull
Entries 81
Mean −2.79e+08
Std Dev 2.79e+08
×10¹²
40
30
20
10
0
−10
−20
−30
−40
−50

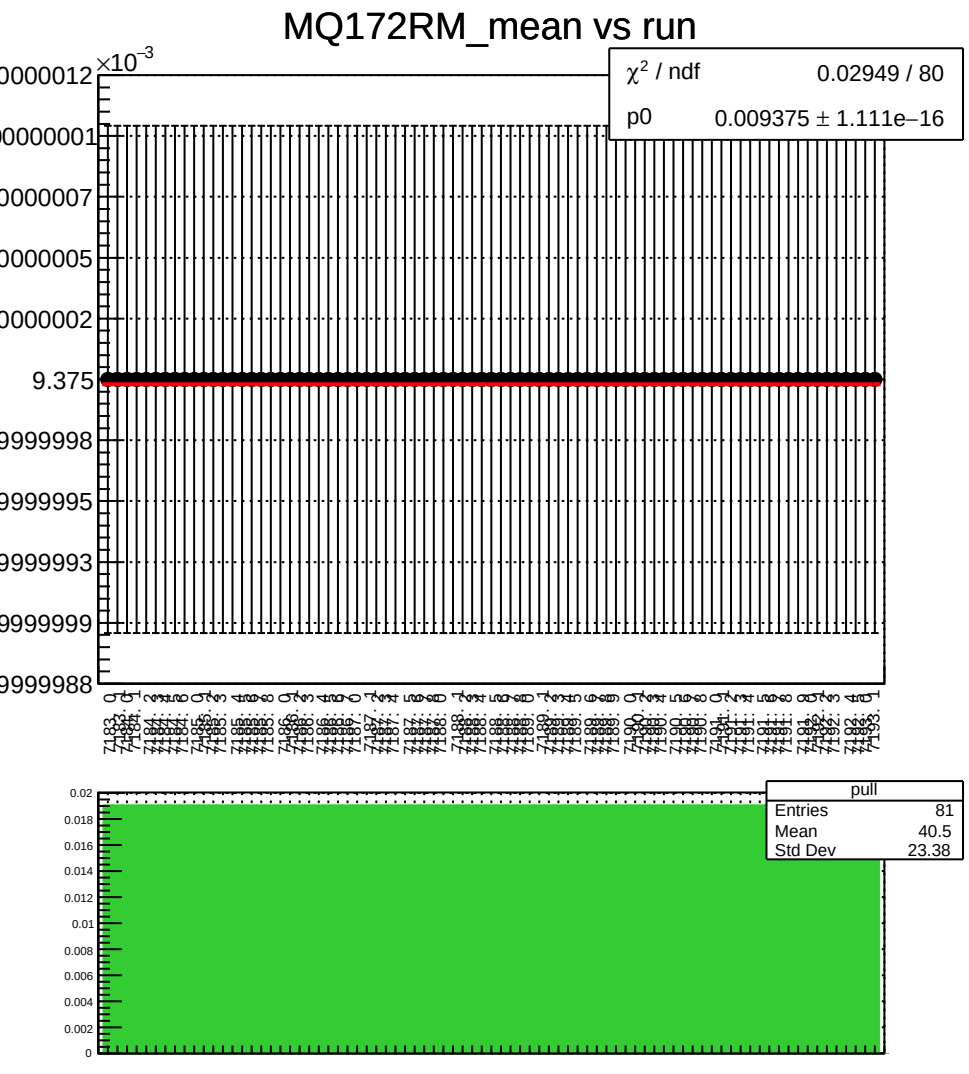

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

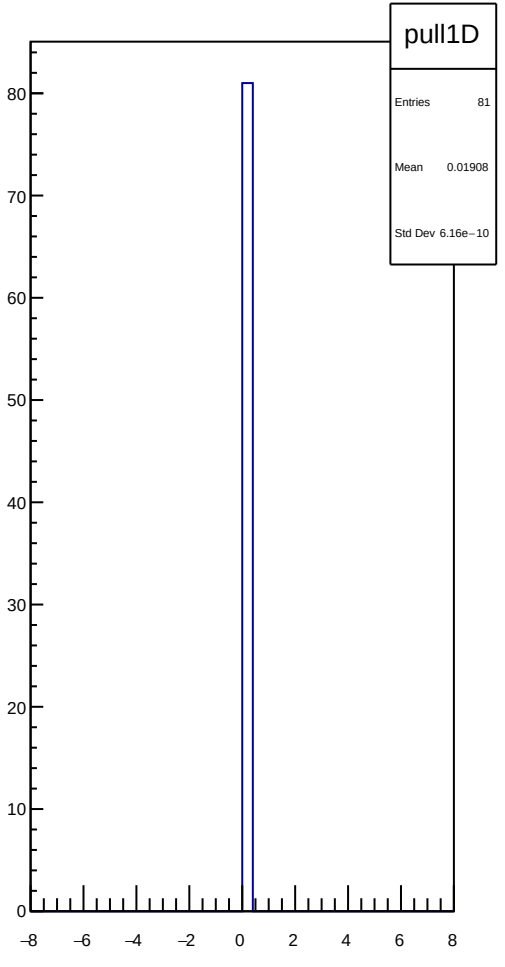

HacL_D1_HP3458A_IOUT_mean vs run
χ² / ndf 2.44e+25 / 80
p0 741.5 ± 1.111e−16
741.5038
741.5036
741.5034
741.5032
741.503
741.5028
741.5026
741.5024
741.5022
741.502
741.5018
pull
Entries 81
Mean −2.501e+08
Std Dev 2.501e+08
×10⁹
1200
1000
800
600
400
200
0
−200
−400
−600
−800

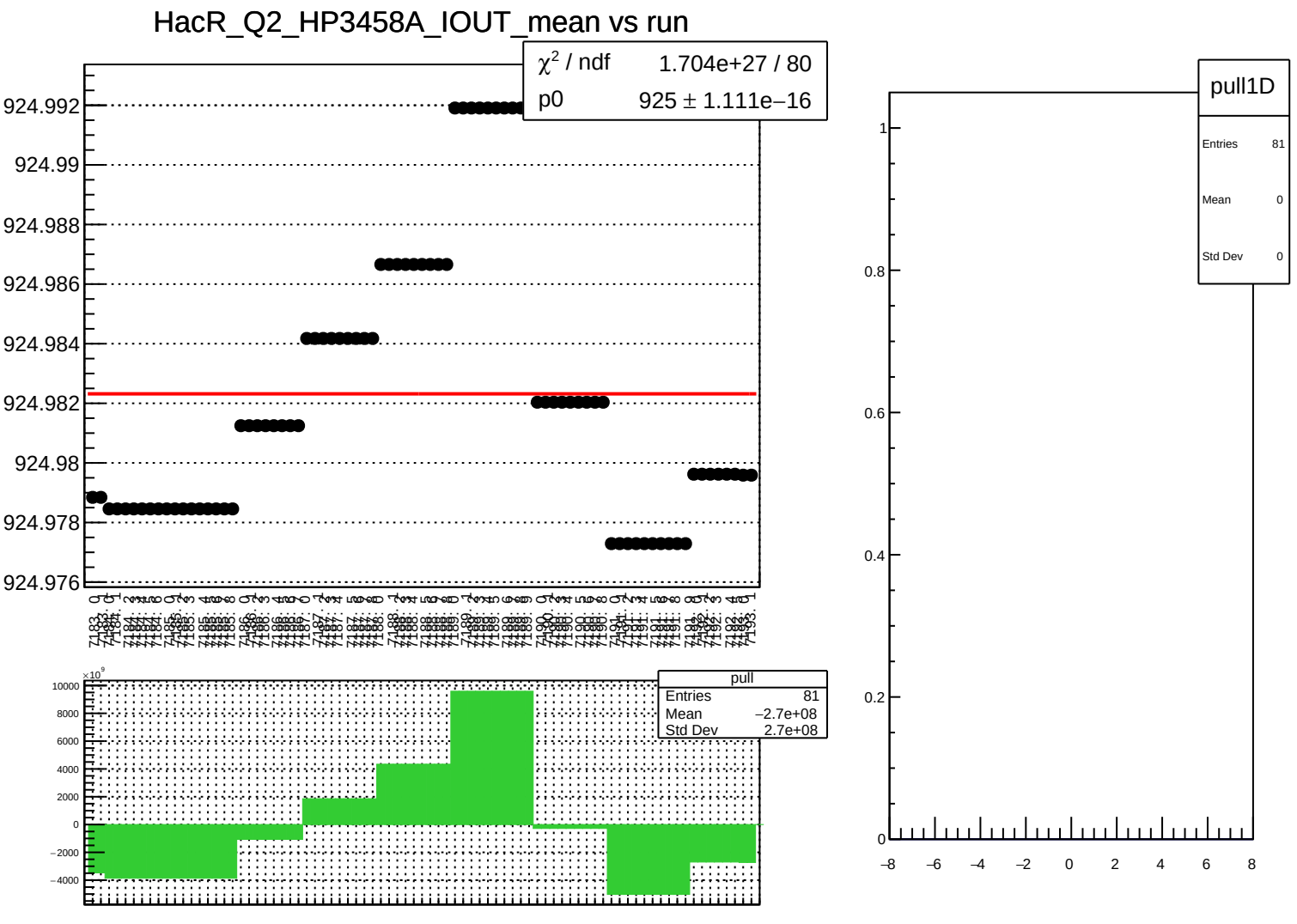

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

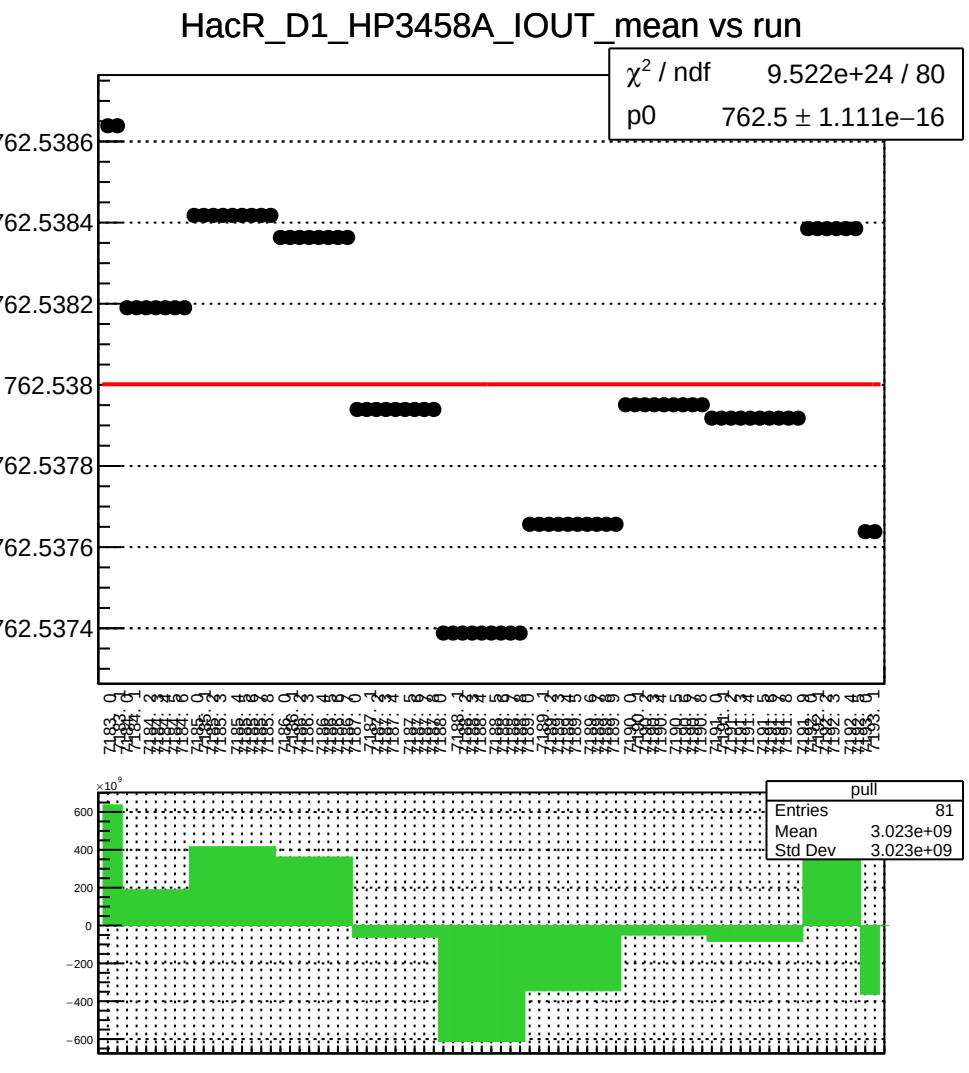

HacL_Q3_HP3458A_IOUT_mean vs run
χ² / ndf 9.212e+25 / 80
p0 980.8 ± 1.111e−16
980.7565
980.756
980.7555
980.755
980.7545
980.754
980.7535
980.753
980.7525
980.752
pull
Entries 81
Mean 1.937e+08
Std Dev 1.937e+08
×10⁹
2000
1500
1000
500
0
−500
−1000
−1500
−2000

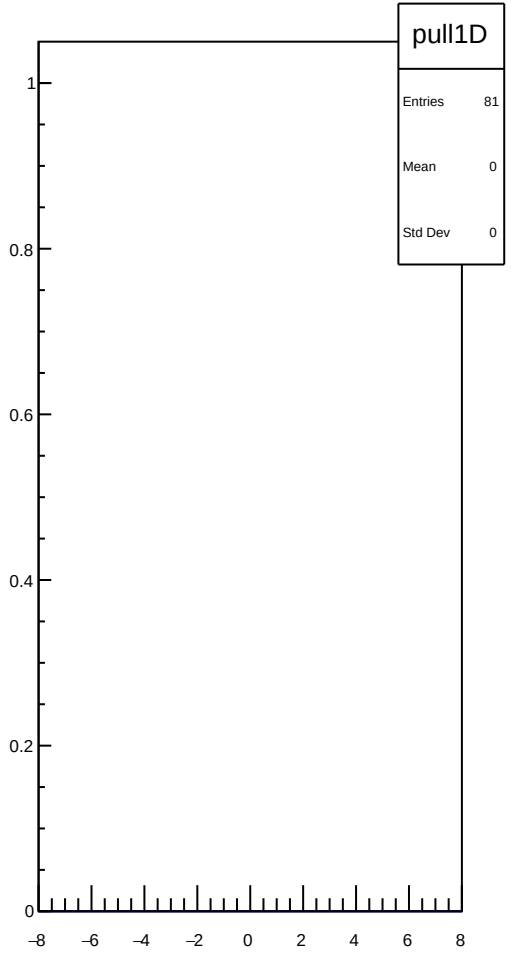

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

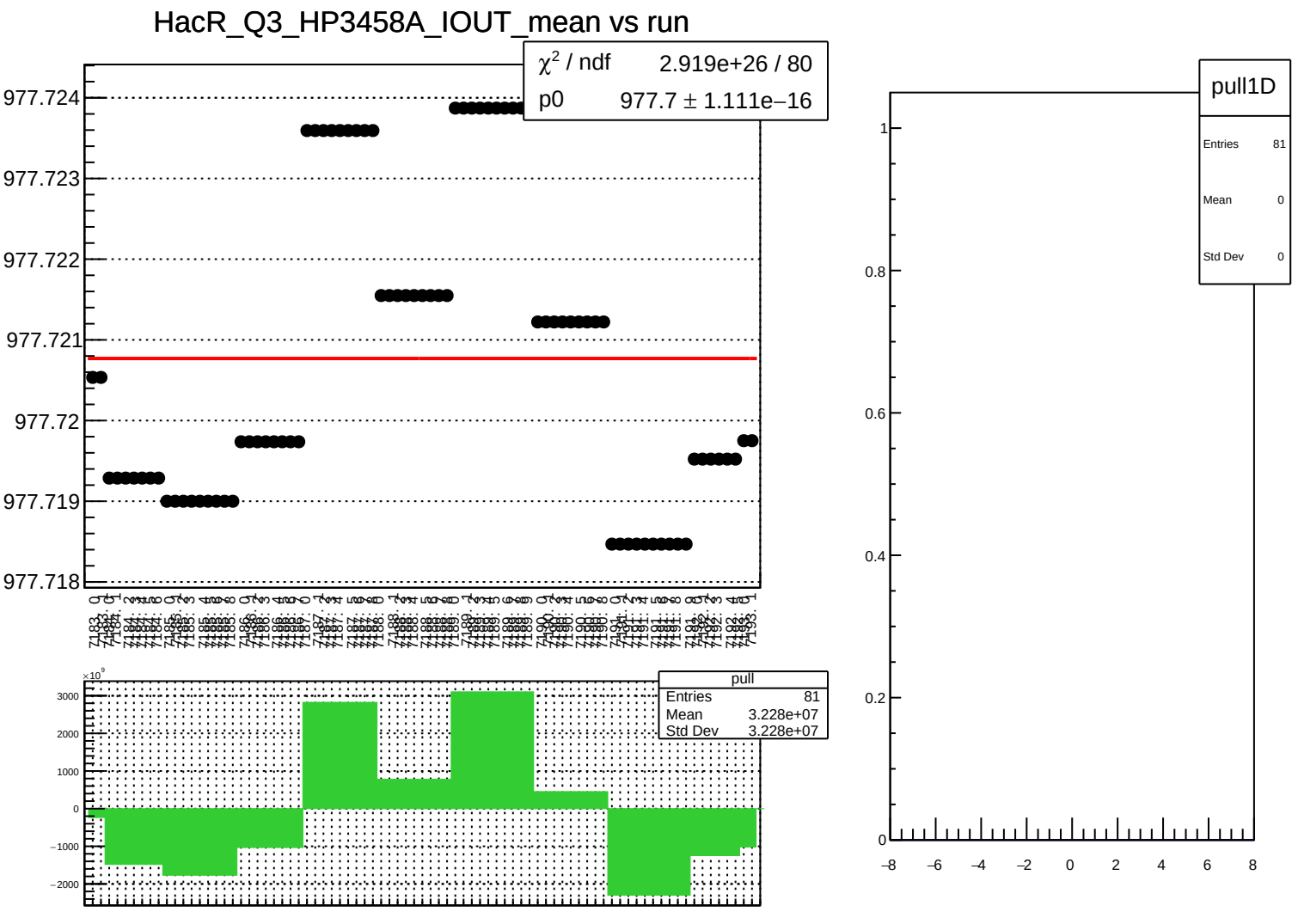

MQ172RM_mean vs run
×10⁻³
χ² / ndf 0.02949 / 80
p0 0.009375 ± 1.111e−16
9.375
pull
Entries 81
Mean 40.5
Std Dev 23.38

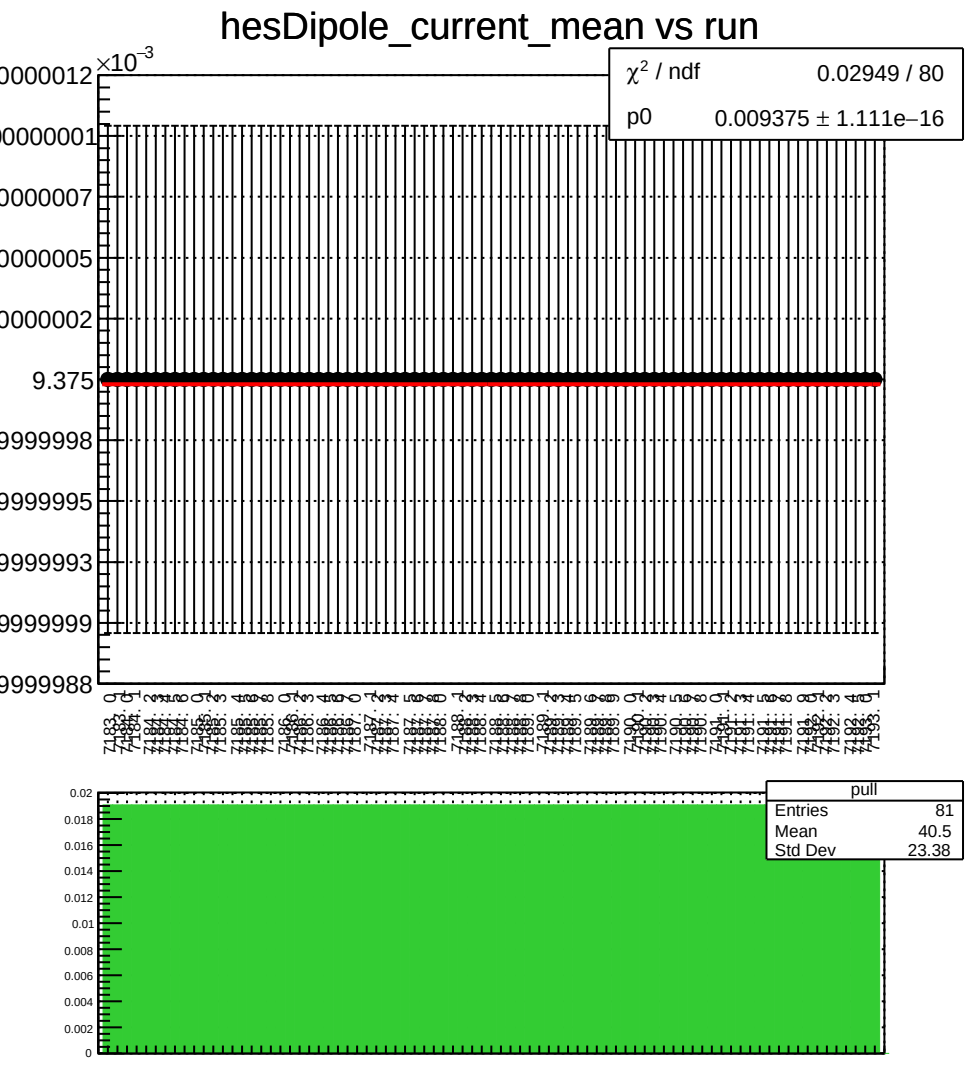

pull1D
Entries 81
Mean 0.01908
Std Dev 6.16e−10

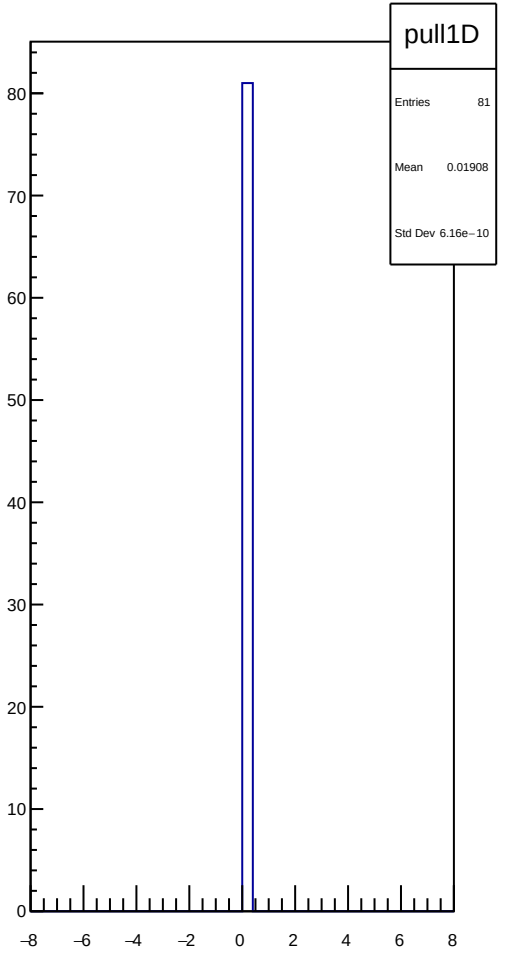

HacR_Q2_HP3458A_IOUT_mean vs run
χ² / ndf 1.704e+27 / 80
p0 925 ± 1.111e−16
924.992
924.99
924.988
924.986
924.984
924.982
924.98
924.978
924.976
×10⁹
10000
8000
6000
4000
2000
0
−2000
−4000
pull
Entries 81
Mean −2.7e+08
Std Dev 2.7e+08
pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

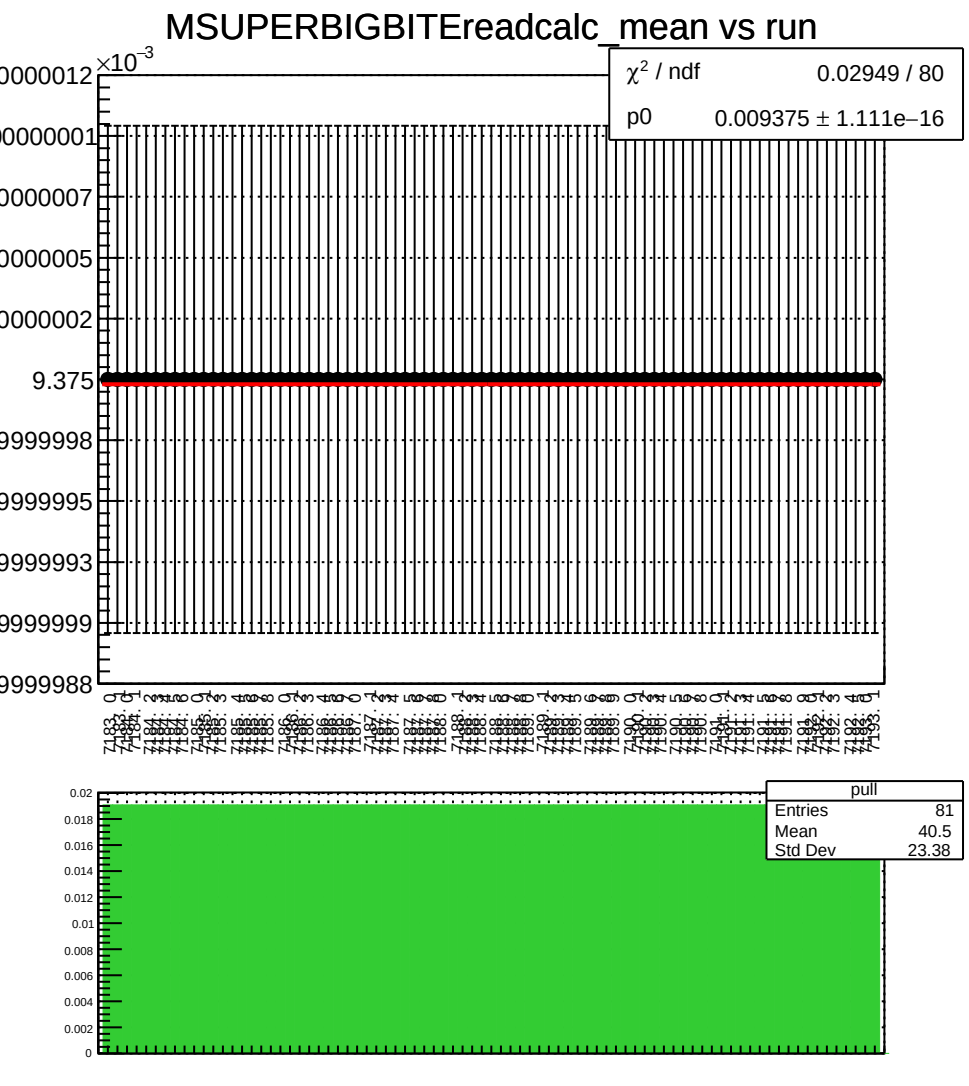

HacR_D1_HP3458A_IOUT_mean vs run
χ² / ndf 9.522e+24 / 80
p0 762.5 ± 1.111e−16
762.5386
762.5384
762.5382
762.538
762.5378
762.5376
762.5374
×10⁹
600
400
200
0
−200
−400
−600
pull
Entries 81
Mean 3.023e+09
Std Dev 3.023e+09

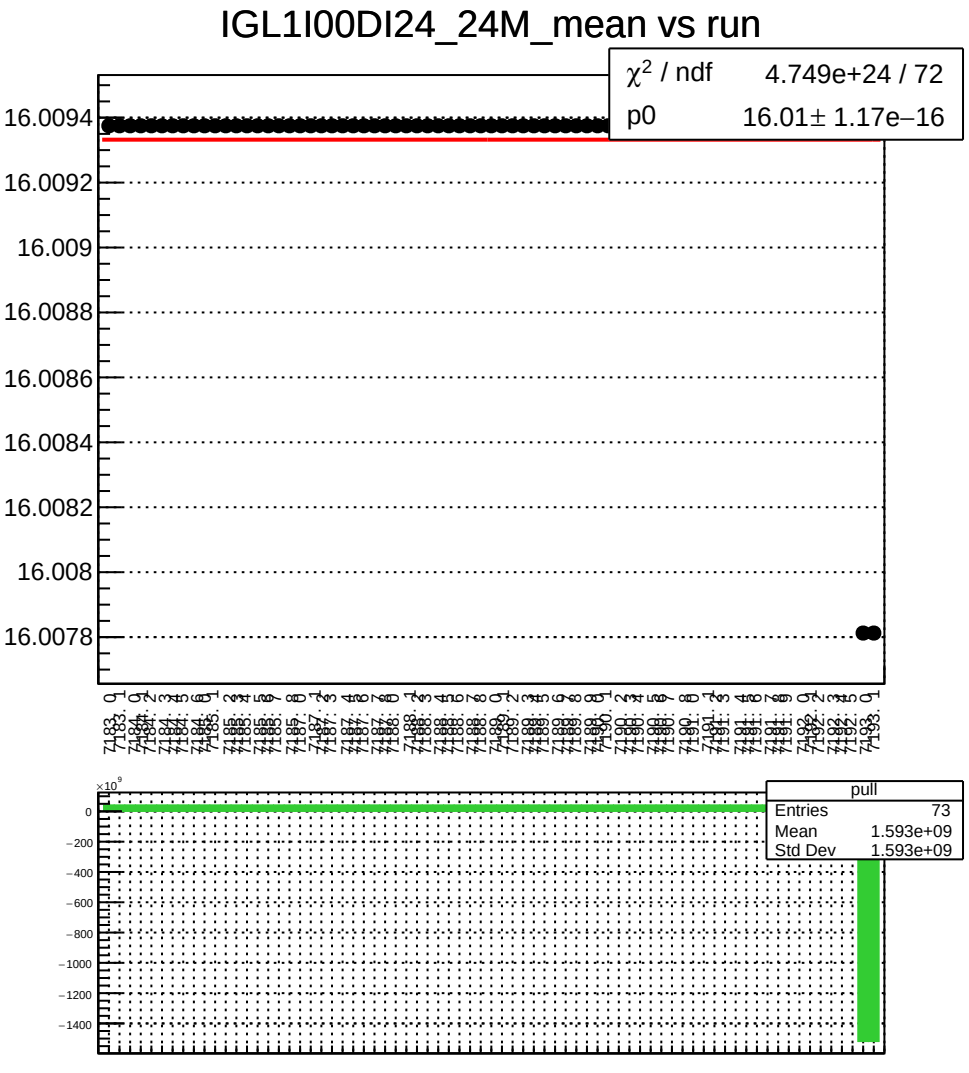

pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

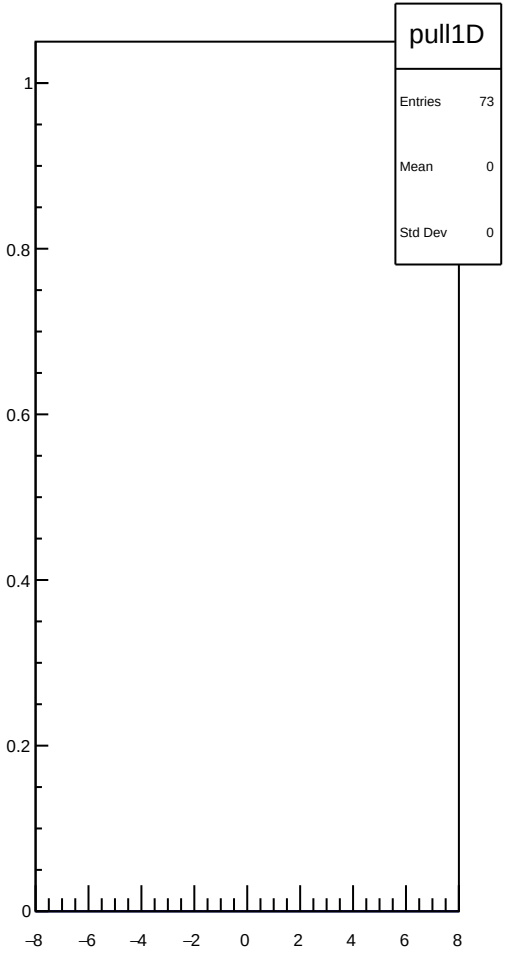

HacR_Q3_HP3458A_IOUT_mean vs run
χ² / ndf 2.919e+26 / 80
p0 977.7 ± 1.111e−16
977.724
977.723
977.722
977.721
977.72
977.719
977.718
pull
Entries 81
Mean 3.228e+07
Std Dev 3.228e+07
×10⁹
3000
2000
1000
0
−1000
−2000
pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

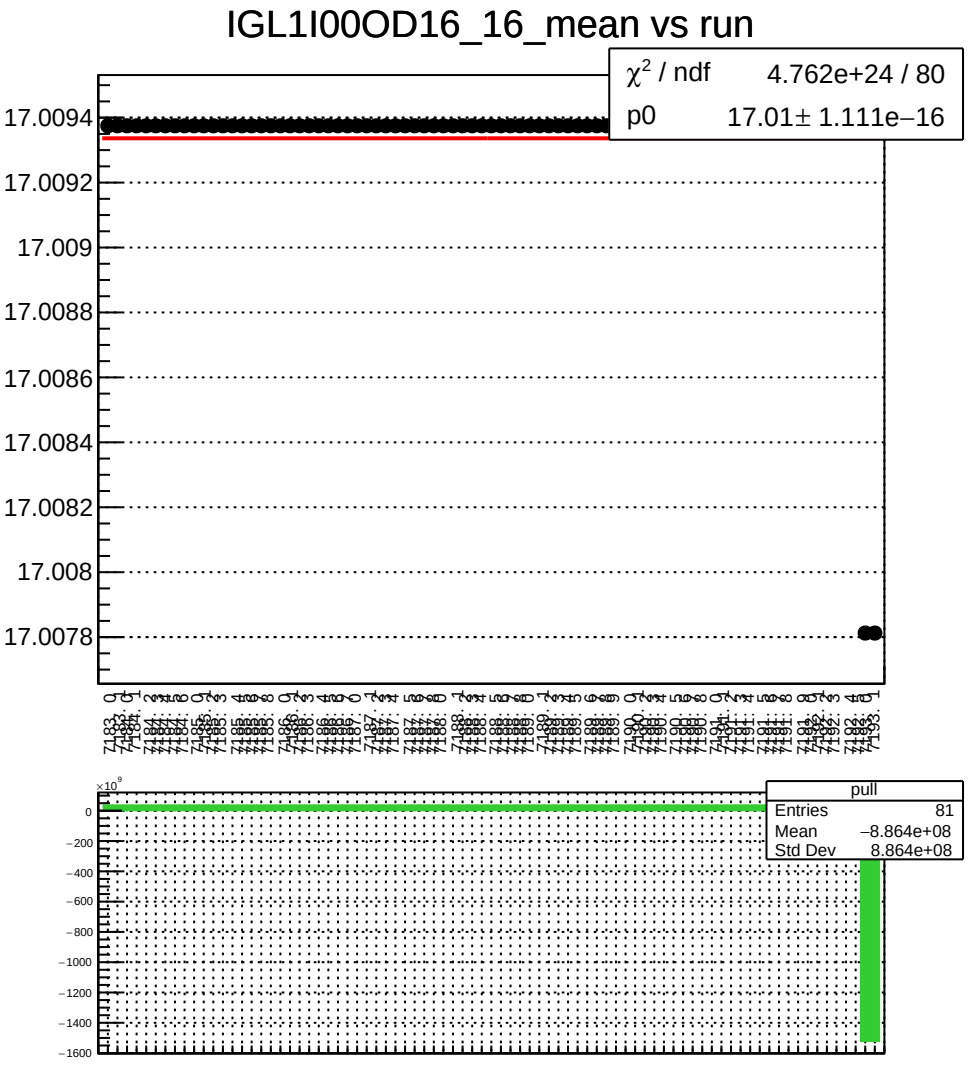

hesDipole_current_mean vs run
×10⁻³
χ² / ndf 0.02949 / 80
p0 0.009375 ± 1.111e−16
9.375
pull
Entries 81
Mean 40.5
Std Dev 23.38

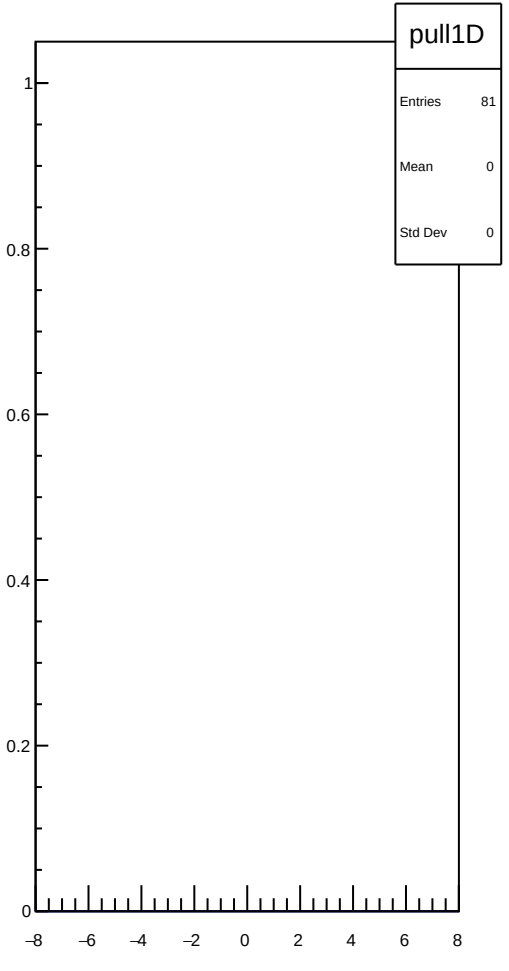

pull1D
Entries 81
Mean 0.01908
Std Dev 6.16e−10

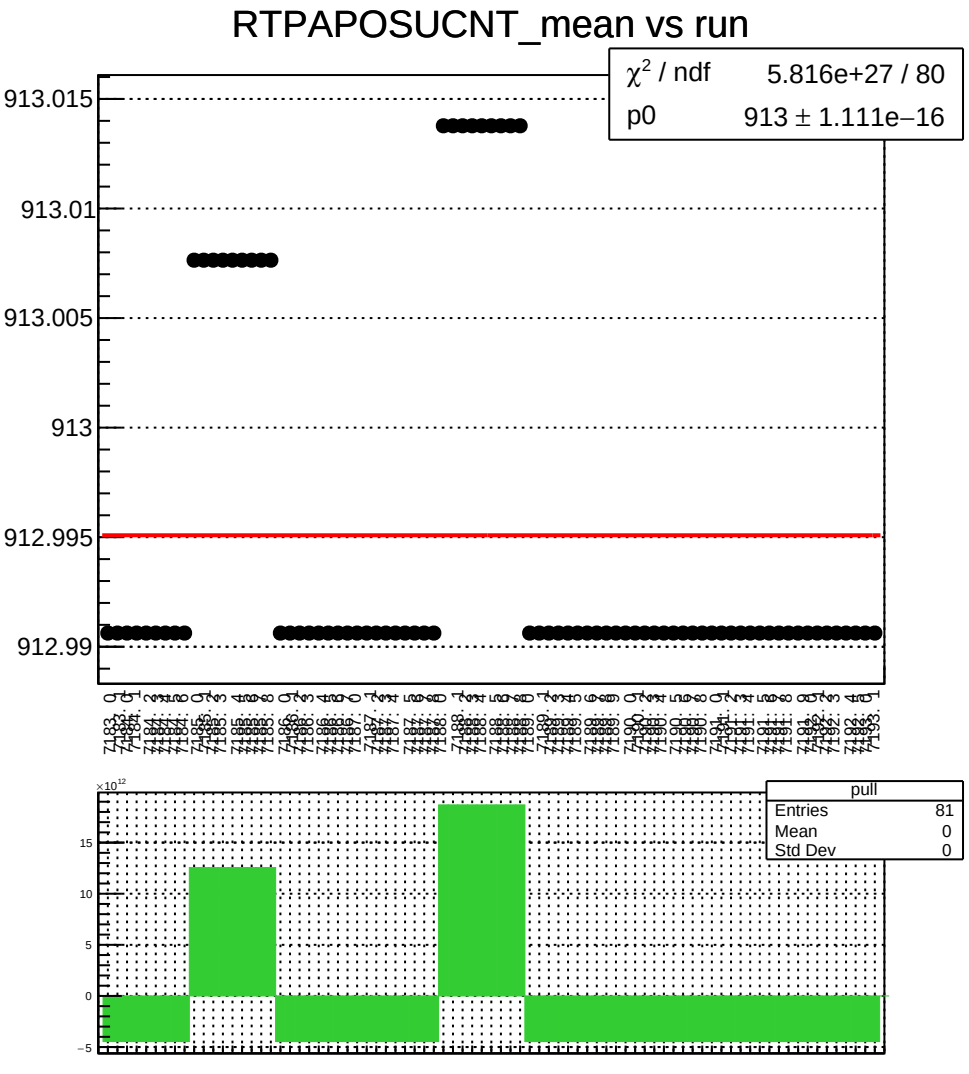

MSUPERBIGBITEreadcalc_mean vs run
χ² / ndf 0.02949 / 80
p0 0.009375 ± 1.111e−16
×10⁻³
pull
Entries 81
Mean 40.5
Std Dev 23.38
pull1D
Entries 81
Mean 0.01908
Std Dev 6.16e−10

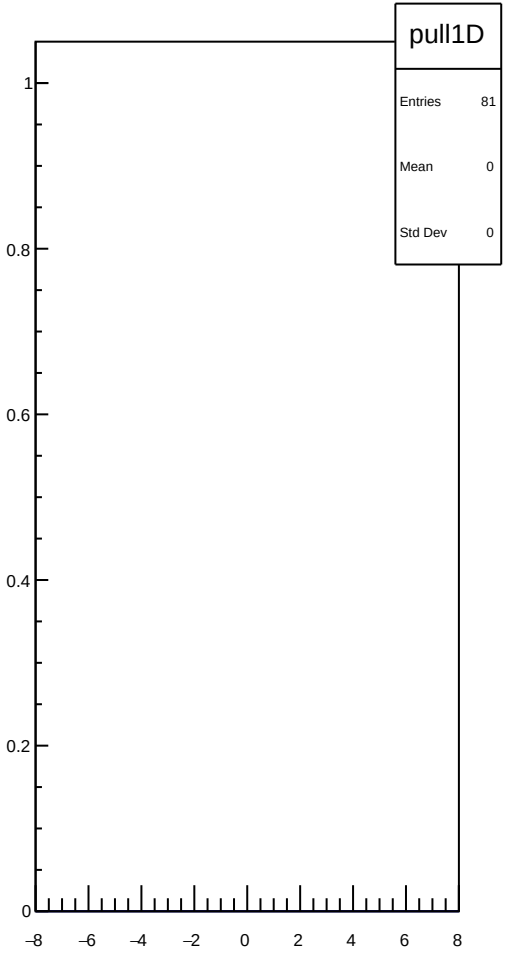

IGL1I00DI24_24M_mean vs run
χ² / ndf 4.749e+24 / 72
p0 16.01± 1.17e−16
16.0094
16.0092
16.009
16.0088
16.0086
16.0084
16.0082
16.008
16.0078
pull
Entries 73
Mean 1.593e+09
Std Dev 1.593e+09
×10⁹
0
−200
−400
−600
−800
−1000
−1200
−1400

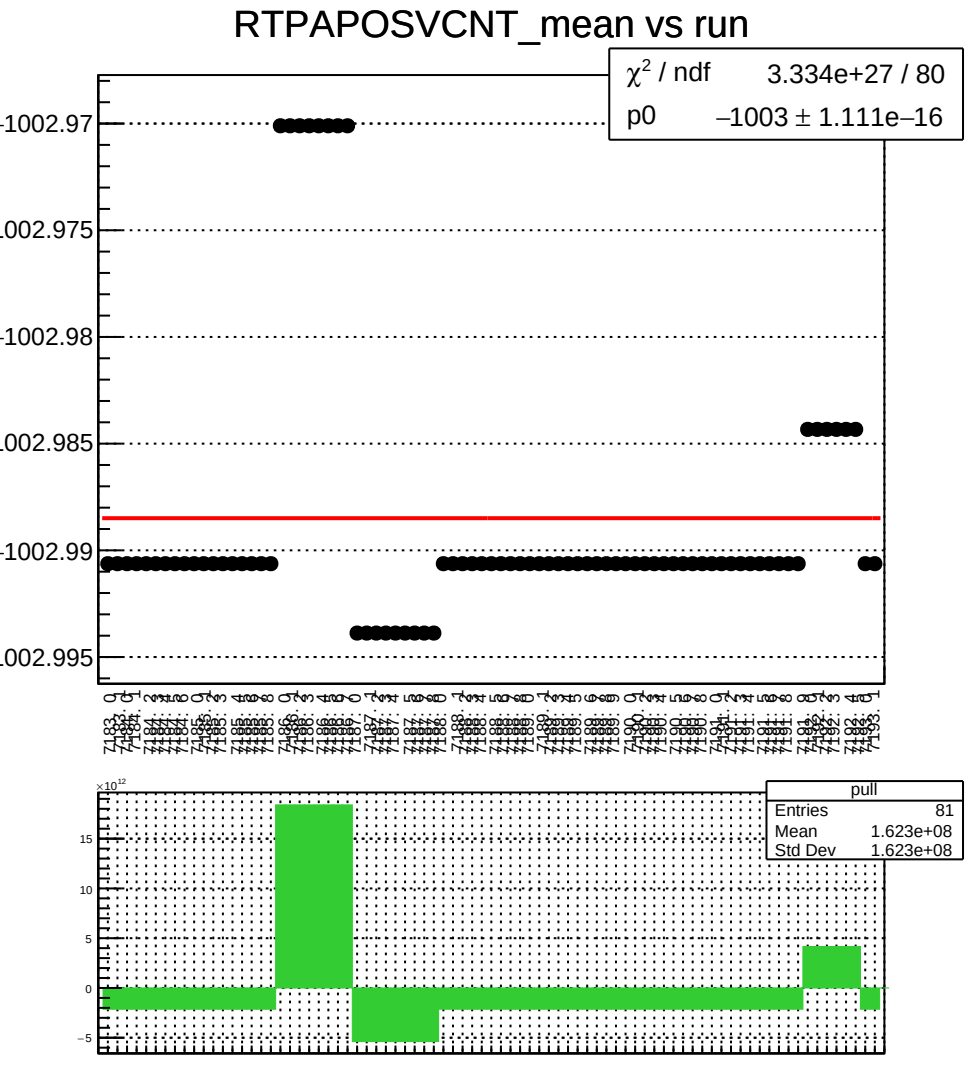

pull1D
Entries 73
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

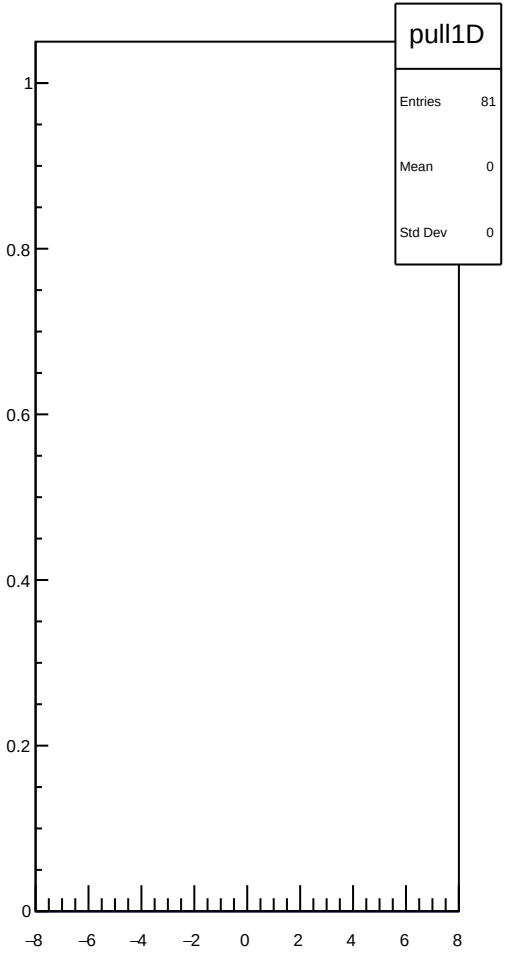

IGL1I00OD16_16_mean vs run
χ² / ndf 4.762e+24 / 80
p0 17.01± 1.111e−16
17.0094
17.0092
17.009
17.0088
17.0086
17.0084
17.0082
17.008
17.0078
×10⁹
0
−200
−400
−600
−800
−1000
−1200
−1400
−1600
pull
Entries 81
Mean −8.864e+08
Std Dev 8.864e+08


pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


RTPAPOSUCNT_mean vs run
χ² / ndf 5.816e+27 / 80
p0 913 ± 1.111e−16
913.015
913.01
913.005
913
912.995
912.99
pull
Entries 81
Mean 0
Std Dev 0
×10¹²
15
10
5
0
−5


pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


RTPAPOSVCNT_mean vs run
χ² / ndf 3.334e+27 / 80
p0 −1003 ± 1.111e−16
−1002.97
−1002.975
−1002.98
−1002.985
−1002.99
−1002.995
pull
Entries 81
Mean 1.623e+08
Std Dev 1.623e+08
×10¹²
15
10
5
0
−5


pull1D
Entries 81
Mean 0
Std Dev 0
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8