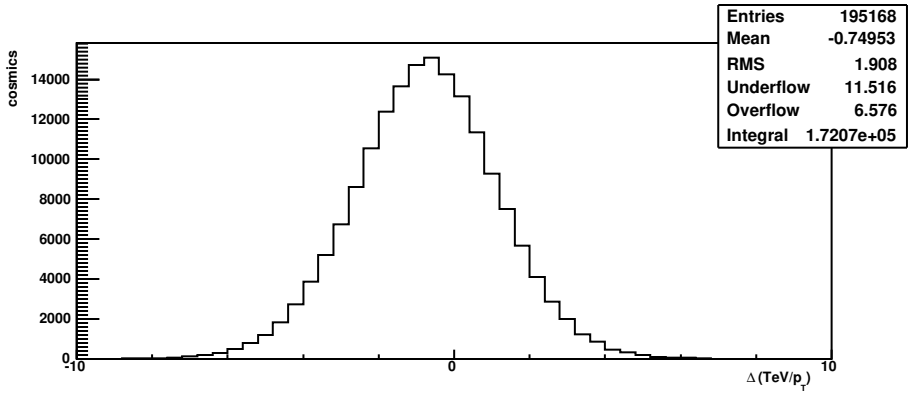
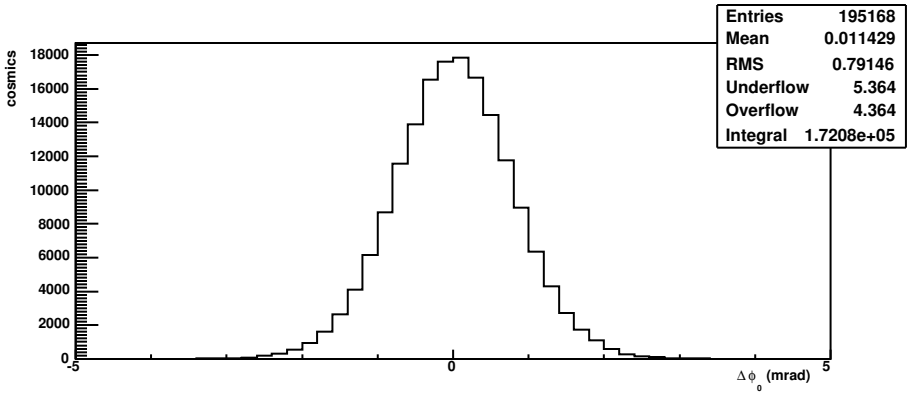
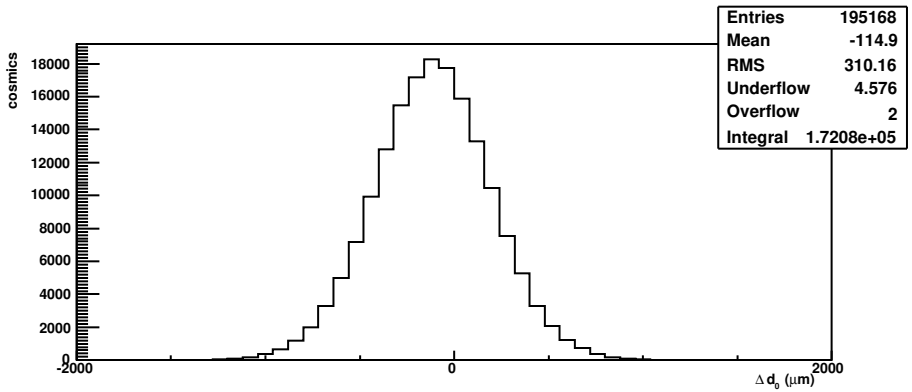
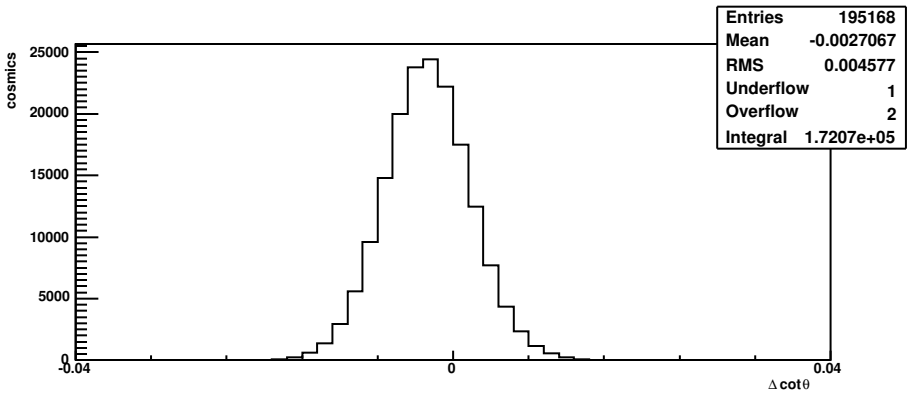
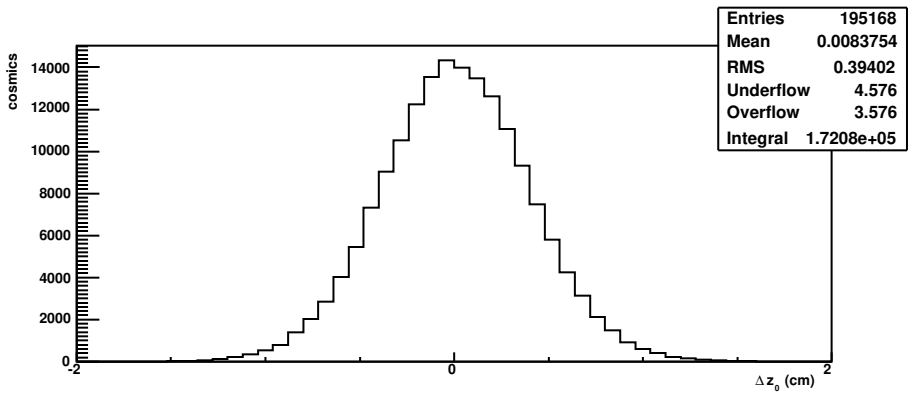
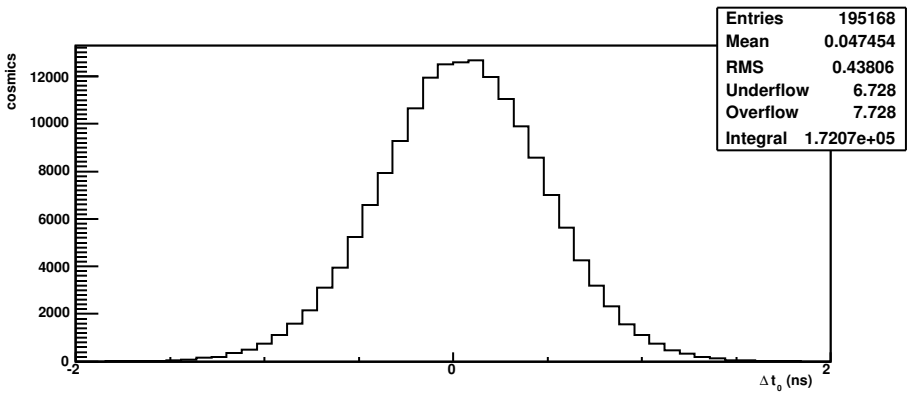

cosmics
Entries 195168
Mean -0.74953
RMS 1.908
Underflow 11.516
Overflow 6.576
Integral 1.7207e+05
Δ(TeV/p_T)

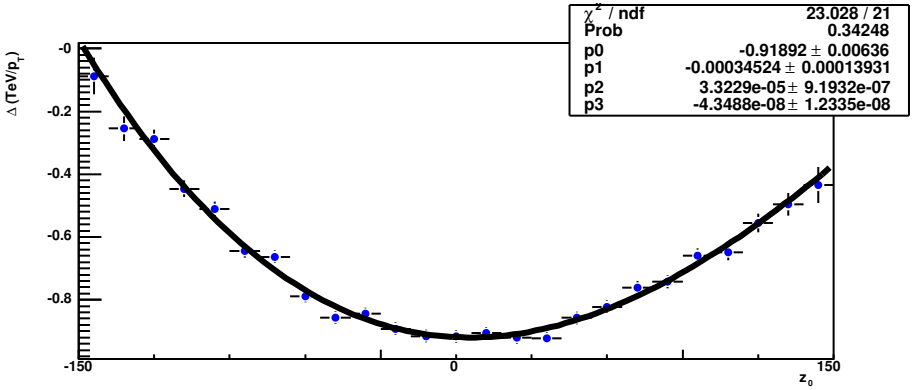

cosmics
Entries 195168
Mean 0.011429
RMS 0.79146
Underflow 5.364
Overflow 4.364
Integral 1.7208e+05
Δφ_0 (mrad)

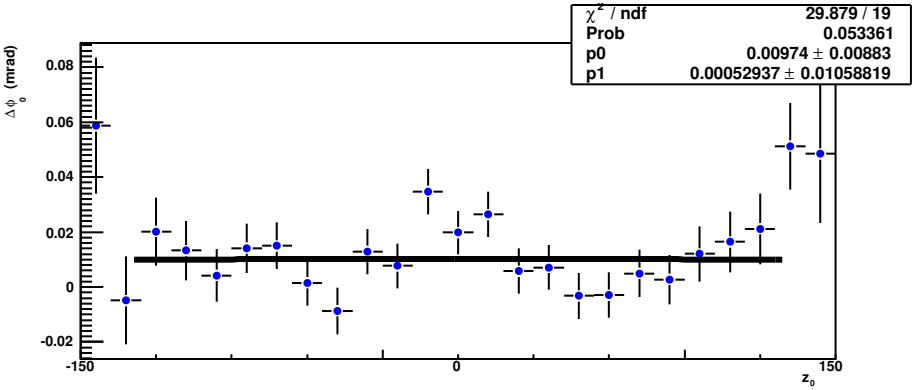

cosmics
Entries 195168
Mean -114.9
RMS 310.16
Underflow 4.576
Overflow 2
Integral 1.7208e+05
Δd_0 (μm)

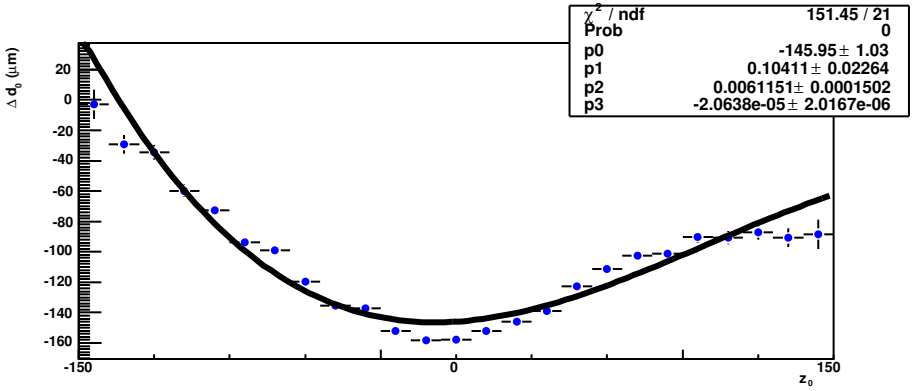

cosmics
Entries 195168
Mean -0.0027067
RMS 0.004577
Underflow 1
Overflow 2
Integral 1.7207e+05
Δcotθ

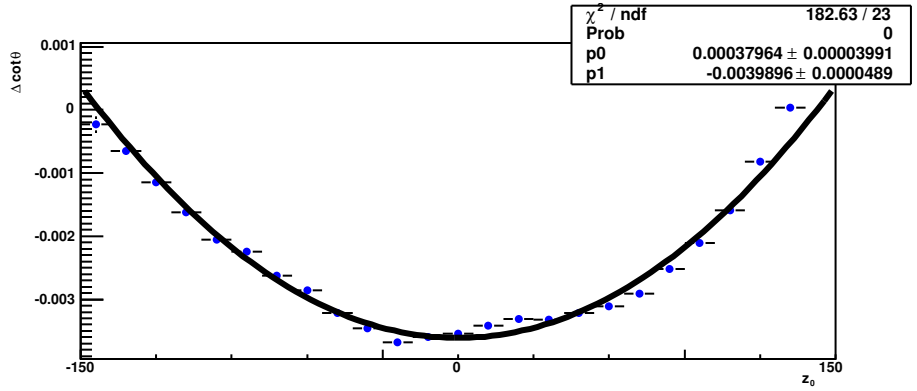

cosmics
Entries 195168
Mean 0.0083754
RMS 0.39402
Underflow 4.576
Overflow 3.576
Integral 1.7208e+05
Δz_0 (cm)

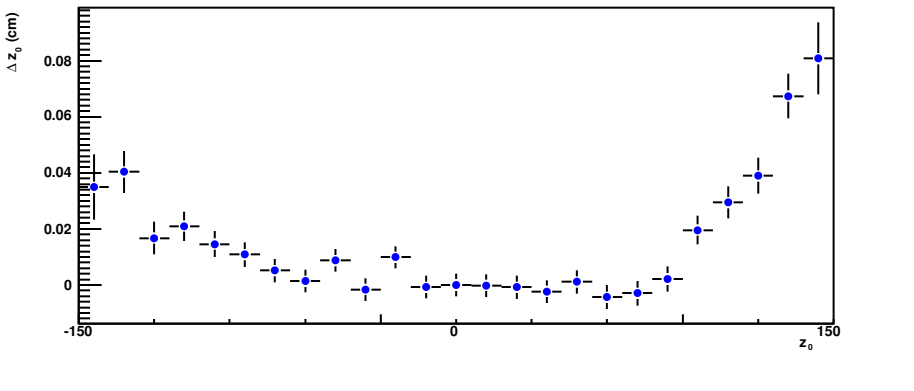

cosmics
Entries 195168
Mean 0.047454
RMS 0.43806
Underflow 6.728
Overflow 7.728
Integral 1.7207e+05
Δt_0 (ns)

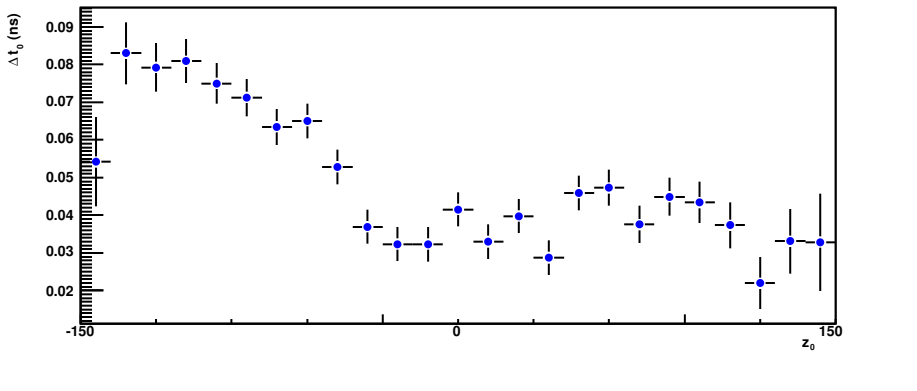

χ² / ndf 23.028 / 21
Prob 0.34248
p0 -0.91892 ± 0.00636
p1 -0.00034524 ± 0.00013931
p2 3.3229e-05 ± 9.1932e-07
p3 -4.3488e-08 ± 1.2335e-08
Δ (TeV/p_T)
z_0

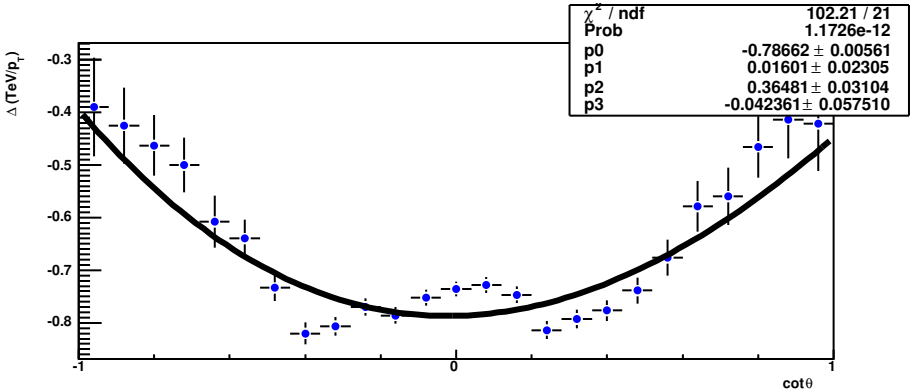

χ² / ndf 29.879 / 19
Prob 0.053361
p0 0.00974 ± 0.00883
p1 0.00052937 ± 0.01058819
Δφ_0 (mrad)
z_0

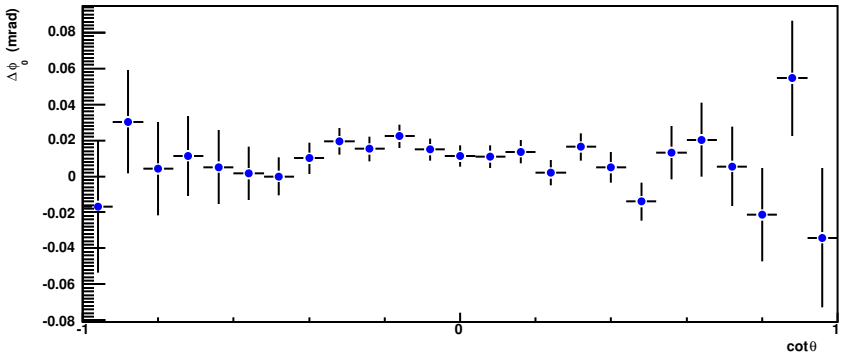

χ² / ndf 151.45 / 21
Prob 0
p0 -145.95 ± 1.03
p1 0.10411 ± 0.02264
p2 0.0061151 ± 0.0001502
p3 -2.0638e-05 ± 2.0167e-06
Δ d_0 (μm)
z_0

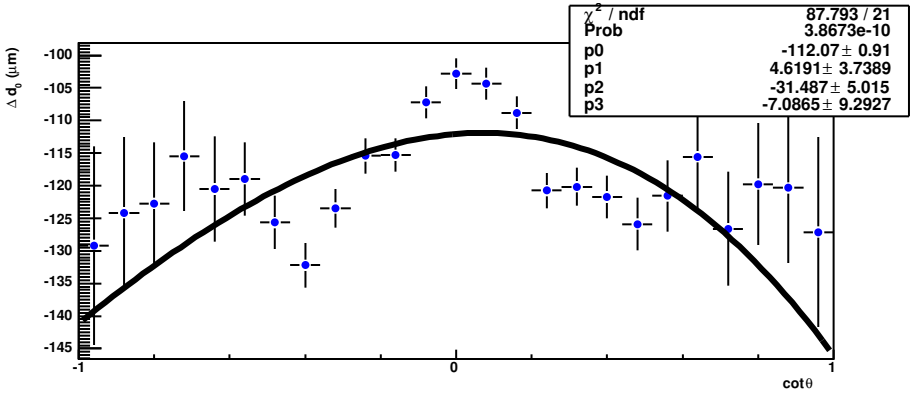

χ² / ndf 182.63 / 23
Prob 0
p0 0.00037964 ± 0.00003991
p1 -0.0039896 ± 0.0000489
Δ cotθ
z_0

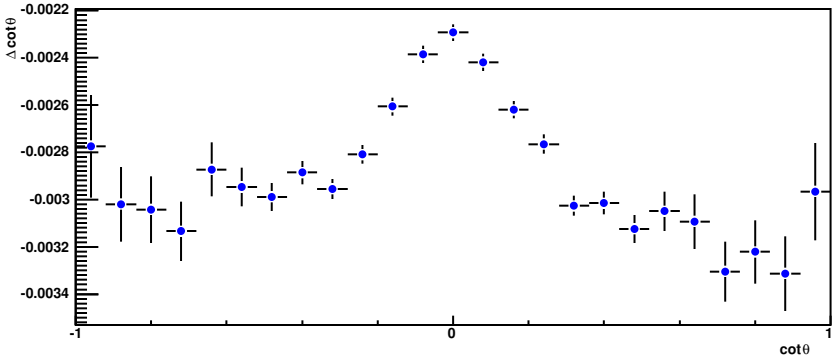

Δ z_0 (cm)
z_0

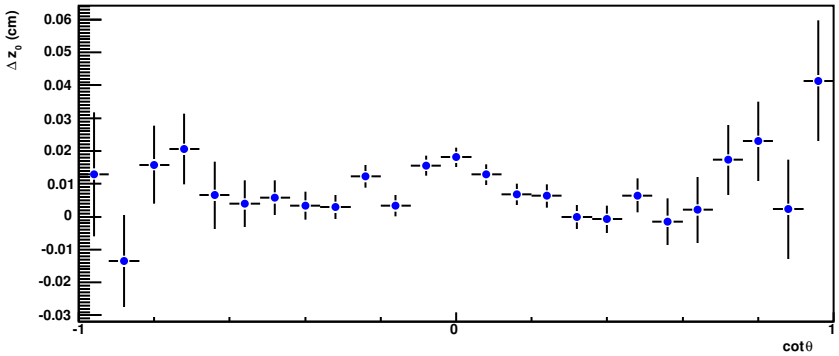

Δ t_0 (ns)
z_0

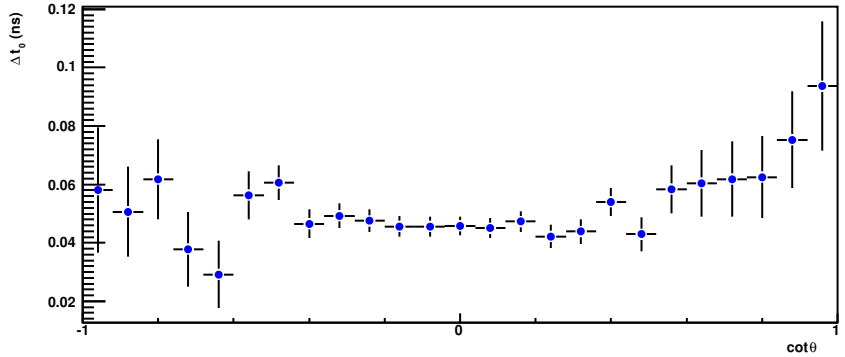

χ^2 / ndf 102.21 / 21
Prob 1.1726e-12
p0 -0.78662 ± 0.00561
p1 0.01601 ± 0.02305
p2 0.36481 ± 0.03104
p3 -0.042361 ± 0.057510
Δ (TeV/p_T)
cotθ

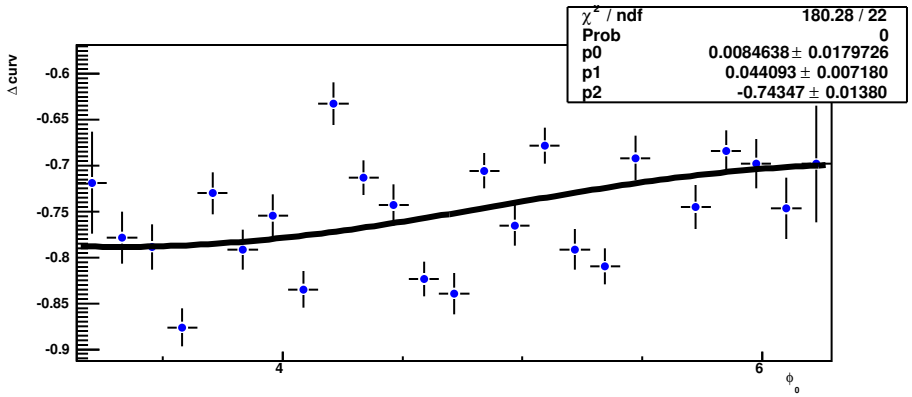

$\Delta\phi_0$ (mrad)
cotθ

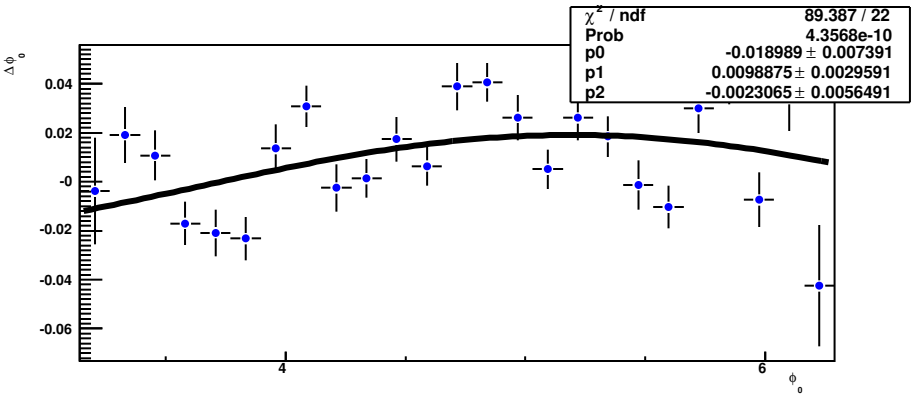

χ^2 / ndf 87.793 / 21
Prob 3.8673e-10
p0 -112.07 ± 0.91
p1 4.6191 ± 3.7389
p2 -31.487 ± 5.015
p3 -7.0865 ± 9.2927
Δd_0 (μm)
cotθ

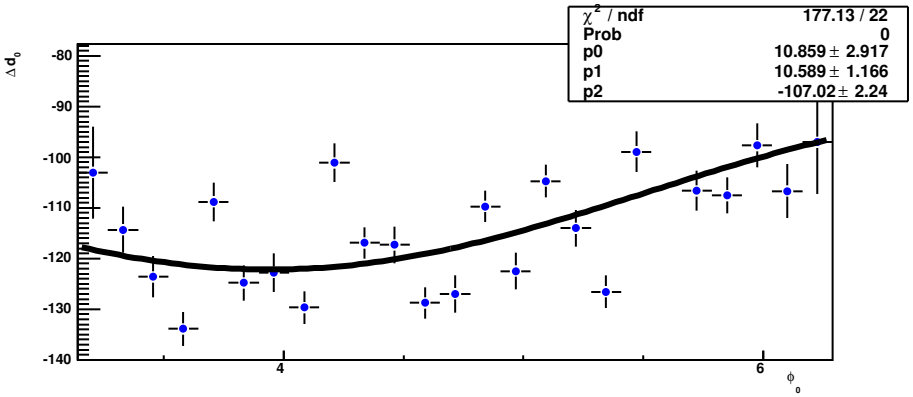

Δcotθ
cotθ

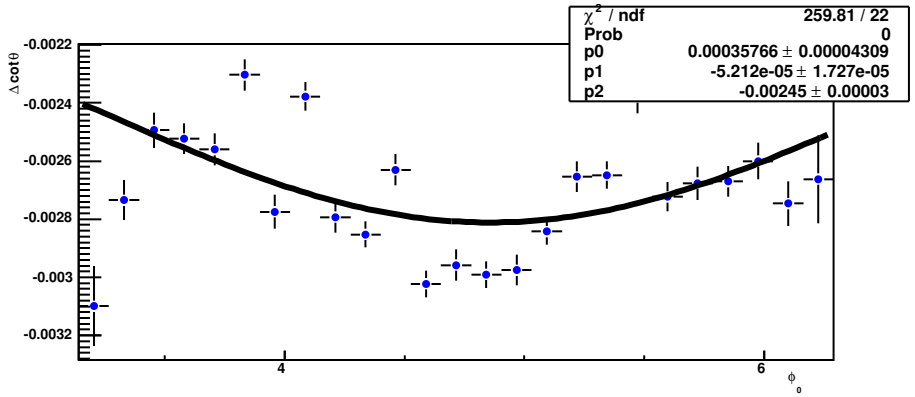

Δz_0 (cm)
cotθ

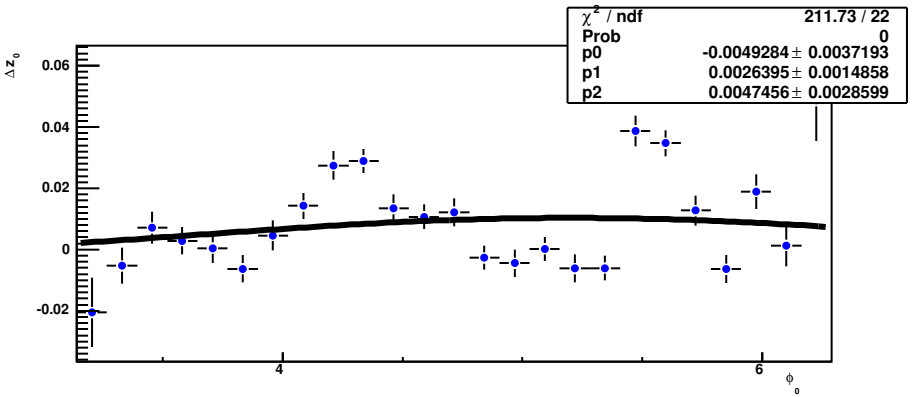

Δt_0 (ns)
cotθ

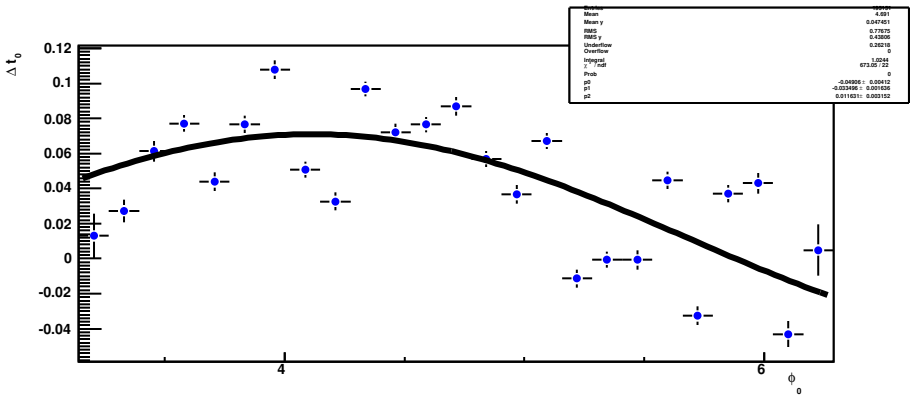

χ² / ndf 180.28 / 22
Prob 0
p0 0.0084638 ± 0.0179726
p1 0.044093 ± 0.007180
p2 -0.74347 ± 0.01380
Δ curv
φ0

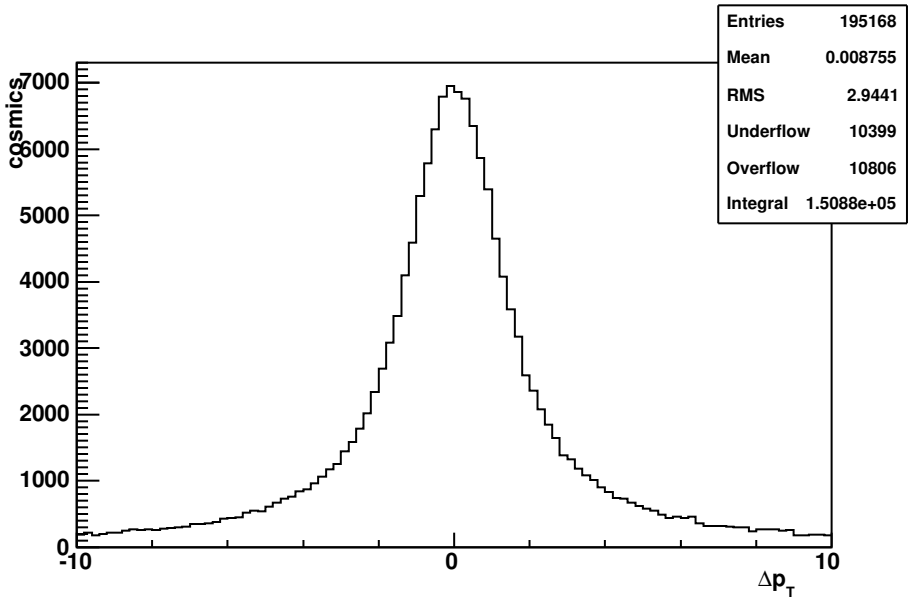

χ² / ndf 89.387 / 22
Prob 4.3568e-10
p0 -0.018989 ± 0.007391
p1 0.0098875 ± 0.0029591
p2 -0.0023065 ± 0.0056491
Δ φ0
φ0

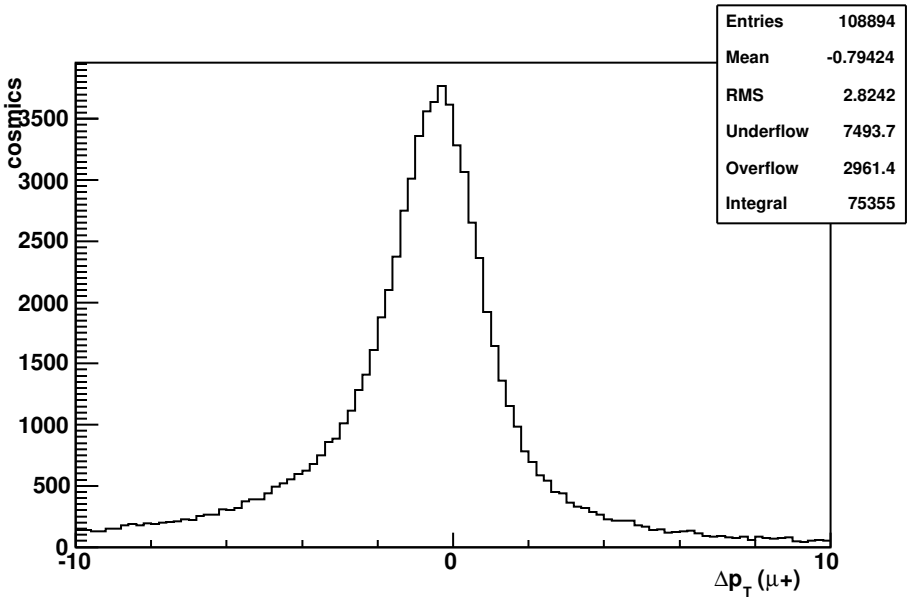

χ² / ndf 177.13 / 22
Prob 0
p0 10.859 ± 2.917
p1 10.589 ± 1.166
p2 -107.02 ± 2.24
Δ d0
φ0

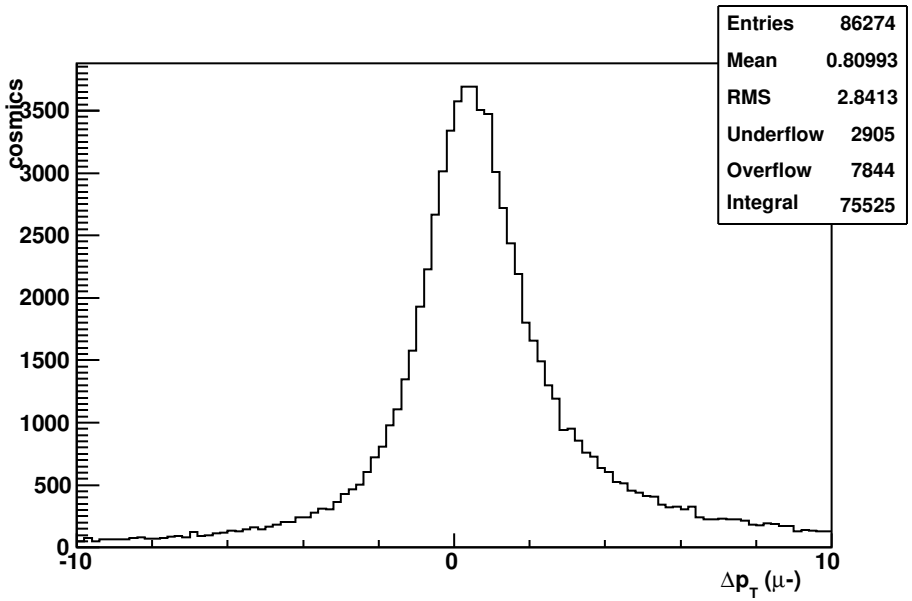

χ² / ndf 259.81 / 22
Prob 0
p0 0.00035766 ± 0.00004309
p1 -5.212e-05 ± 1.727e-05
p2 -0.00245 ± 0.00003
Δ cotθ
φ0

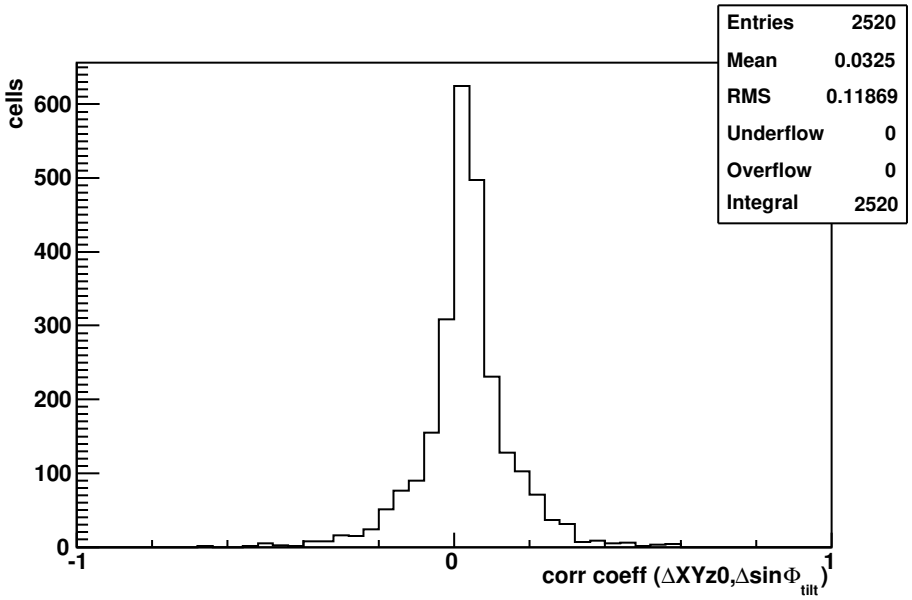

χ² / ndf 211.73 / 22
Prob 0
p0 -0.0049284 ± 0.0037193
p1 0.0026395 ± 0.0014858
p2 0.0047456 ± 0.0028599
Δ z0
φ0

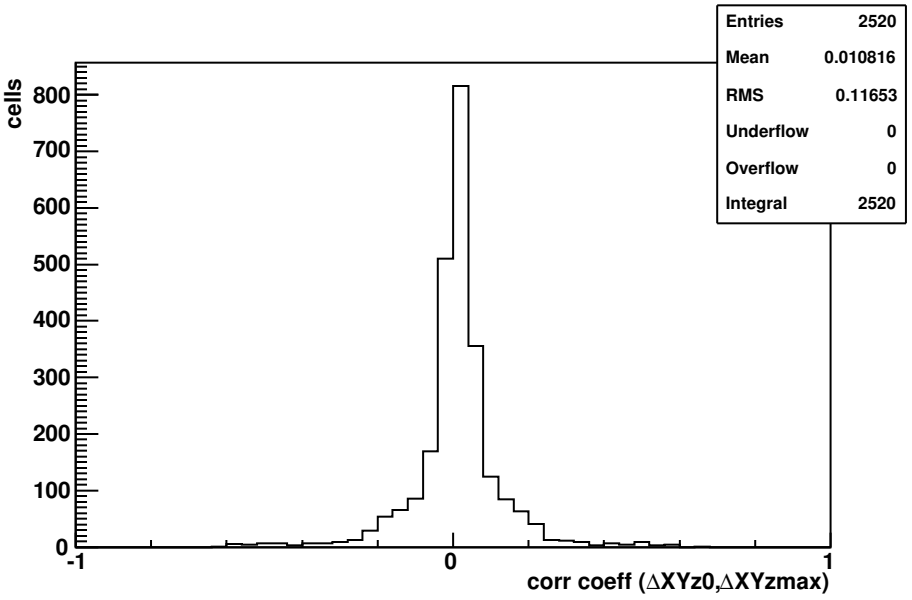

Δ t0
φ0

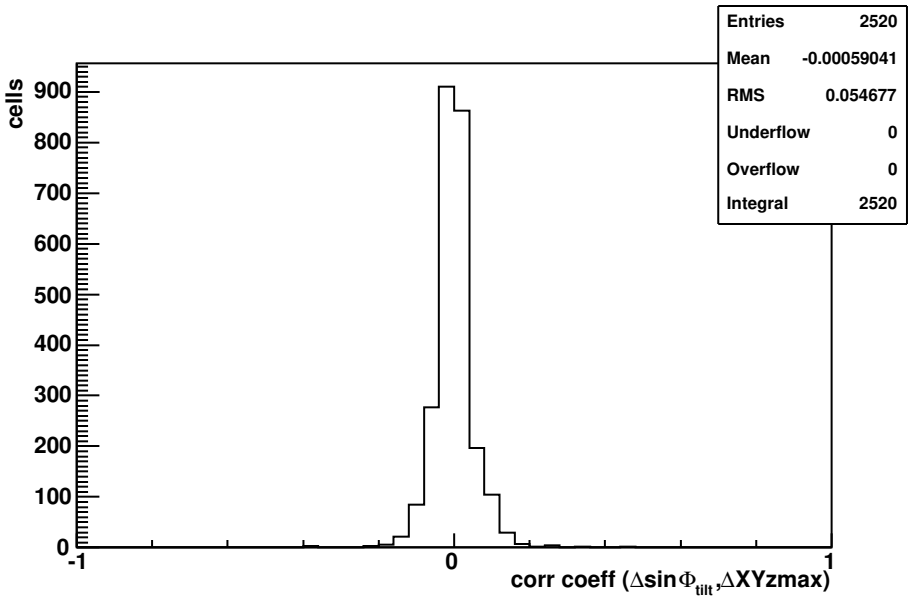

Entries 195168
Mean 0.008755
RMS 2.9441
Underflow 10399
Overflow 10806
Integral 1.5088e+05
cosmics
7000
6000
5000
4000
3000
2000
1000
0
-10
0
10
Δp_T

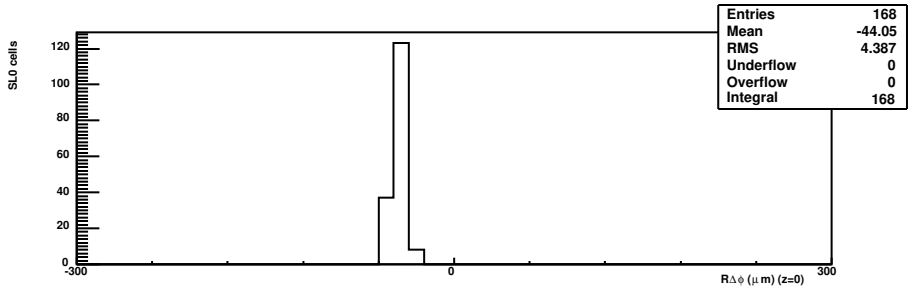

Entries 108894
Mean -0.79424
RMS 2.8242
Underflow 7493.7
Overflow 2961.4
Integral 75355
cosmics
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ+)

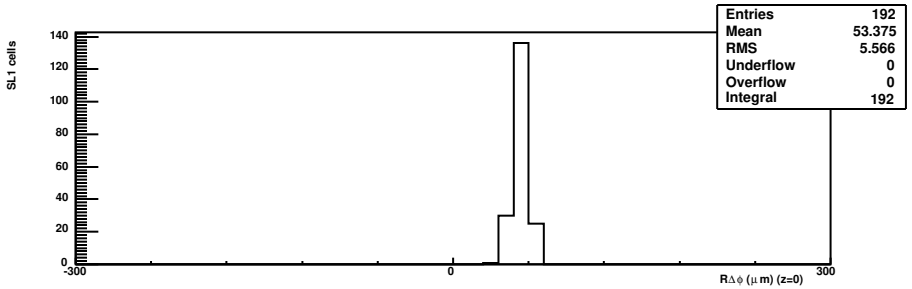

Entries 86274
Mean 0.80993
RMS 2.8413
Underflow 2905
Overflow 7844
Integral 75525
cosmics
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ-)

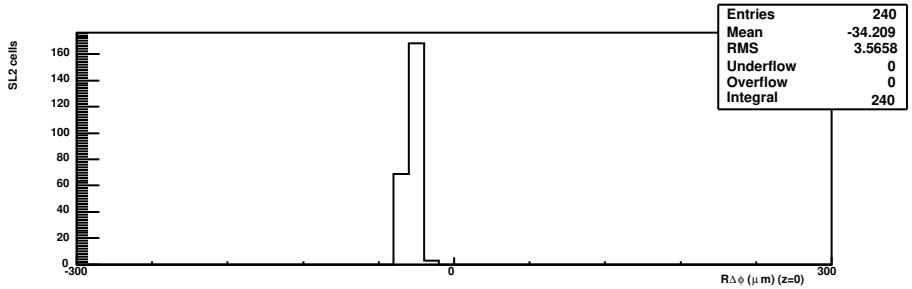

Entries 2520
Mean 0.0325
RMS 0.11869
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔsinΦ_{tilt})

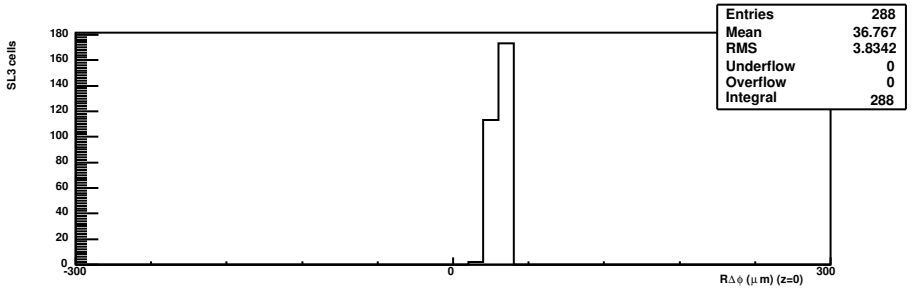

Entries 2520
Mean 0.010816
RMS 0.11653
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔXYzmax)

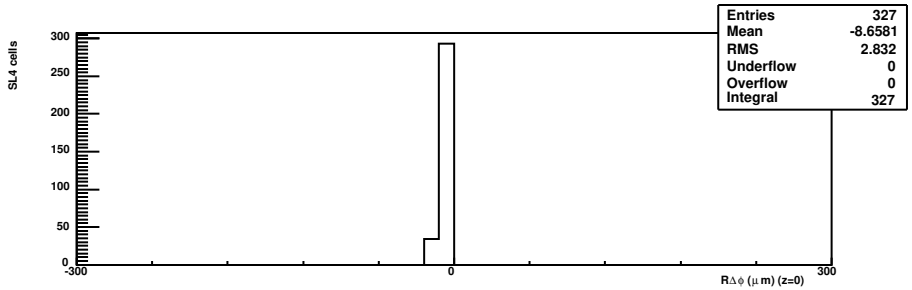

Entries 2520
Mean -0.00059041
RMS 0.054677
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔsinΦ_{tilt},ΔXYzmax)

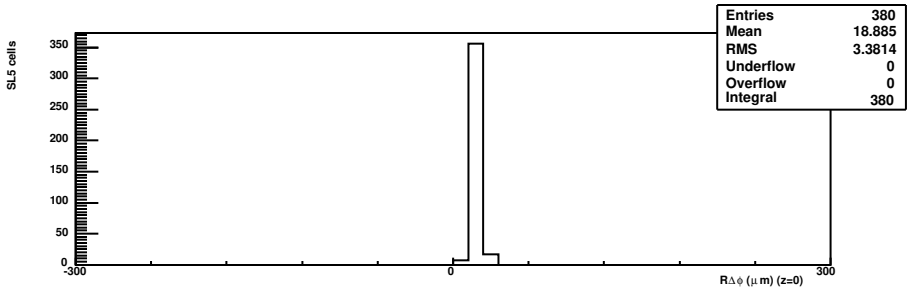

SL0 cells
Entries 168
Mean -44.05
RMS 4.387
Underflow 0
Overflow 0
Integral 168
RΔφ (μm) (z=0)

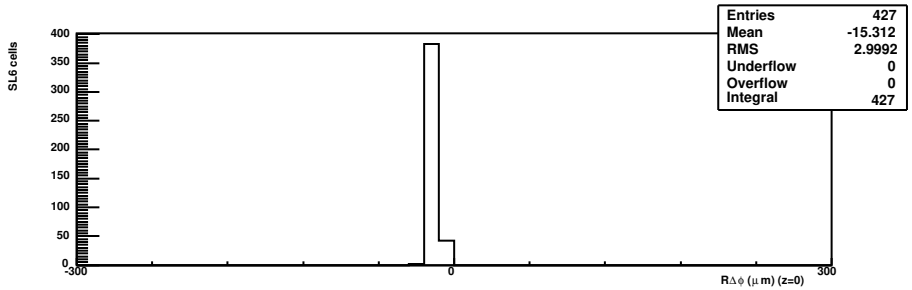

SL1 cells
Entries 192
Mean 53.375
RMS 5.566
Underflow 0
Overflow 0
Integral 192
RΔφ (μm) (z=0)

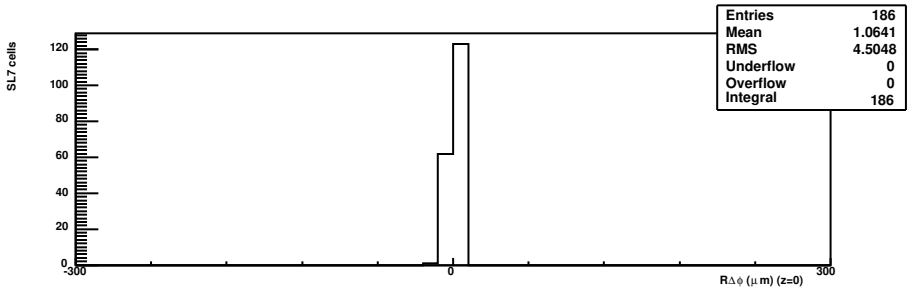

SL2 cells
Entries 240
Mean -34.209
RMS 3.5658
Underflow 0
Overflow 0
Integral 240
RΔφ (μm) (z=0)

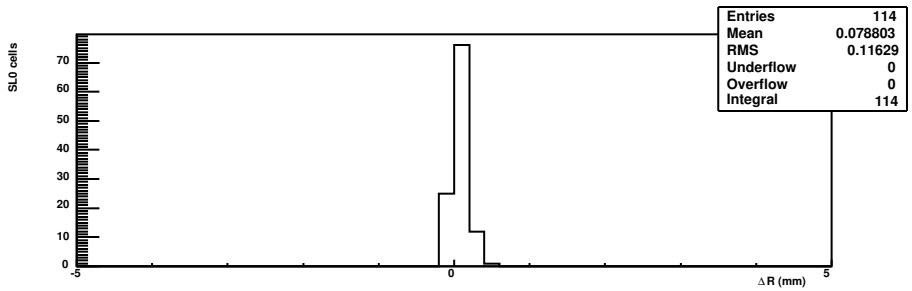

SL3 cells
Entries 288
Mean 36.767
RMS 3.8342
Underflow 0
Overflow 0
Integral 288
RΔφ (μm) (z=0)

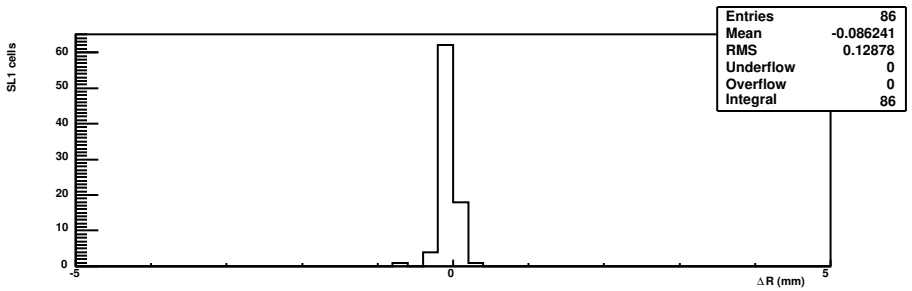

SL4 cells
Entries 327
Mean -8.6581
RMS 2.832
Underflow 0
Overflow 0
Integral 327
RΔφ (μm) (z=0)

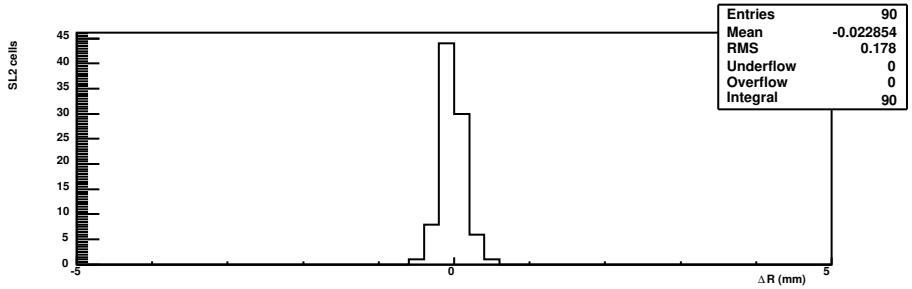

SL5 cells
Entries 380
Mean 18.885
RMS 3.3814
Underflow 0
Overflow 0
Integral 380
RΔφ (μm) (z=0)

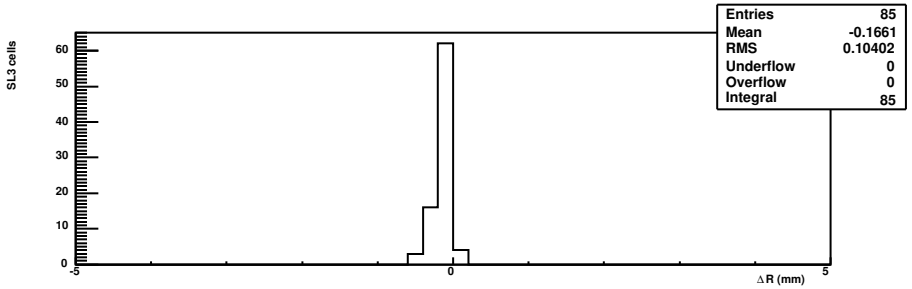

SL6 cells
Entries 427
Mean -15.312
RMS 2.9992
Underflow 0
Overflow 0
Integral 427
RΔφ (μm) (z=0)

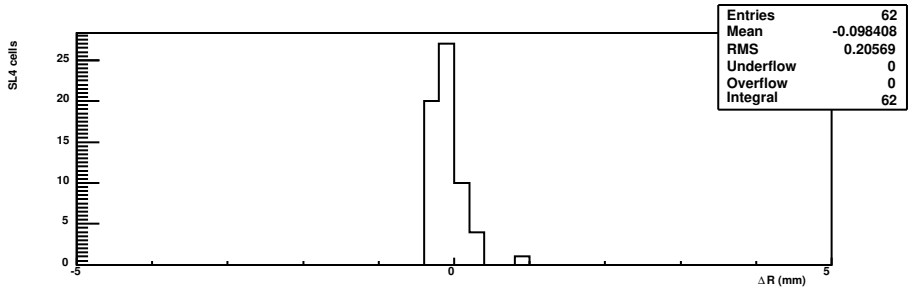

SL7 cells
Entries 186
Mean 1.0641
RMS 4.5048
Underflow 0
Overflow 0
Integral 186
RΔφ (μm) (z=0)

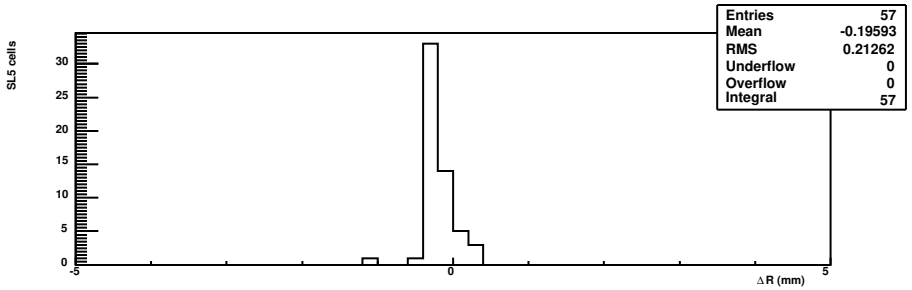

Entries 114
Mean 0.078803
RMS 0.11629
Underflow 0
Overflow 0
Integral 114
SL0 cells
ΔR (mm)

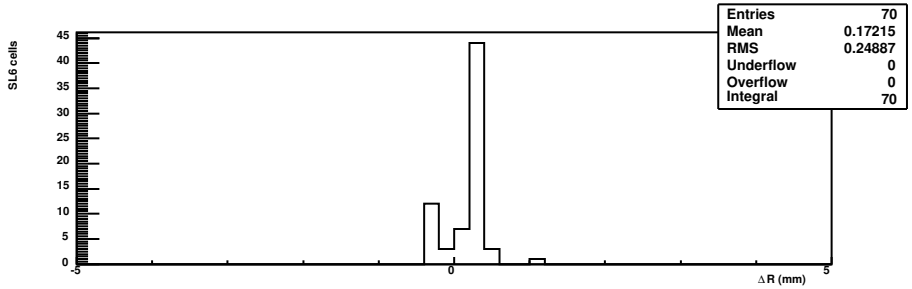

Entries 86
Mean -0.086241
RMS 0.12878
Underflow 0
Overflow 0
Integral 86
SL1 cells
ΔR (mm)

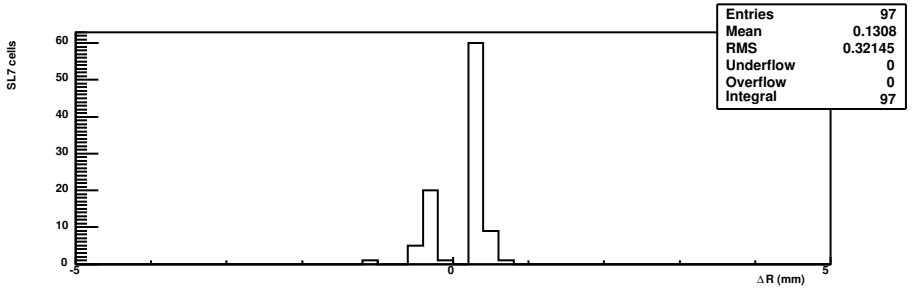

Entries 90
Mean -0.022854
RMS 0.178
Underflow 0
Overflow 0
Integral 90
SL2 cells
ΔR (mm)

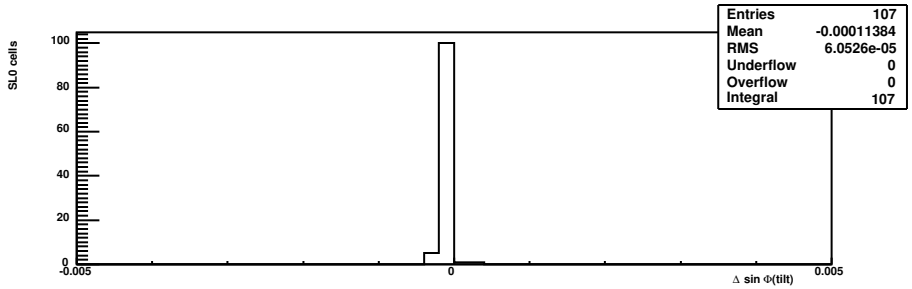

Entries 85
Mean -0.1661
RMS 0.10402
Underflow 0
Overflow 0
Integral 85
SL3 cells
ΔR (mm)

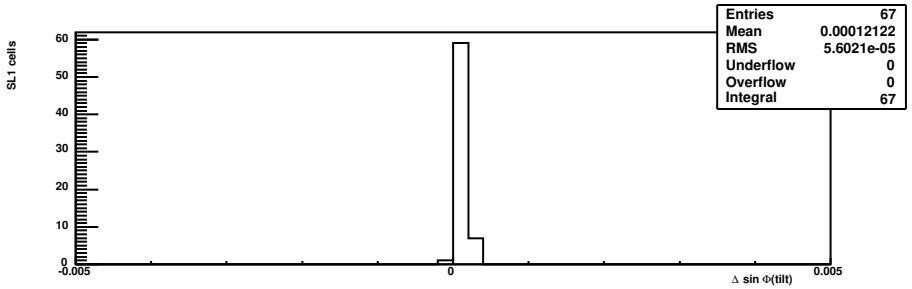

Entries 62
Mean -0.098408
RMS 0.20569
Underflow 0
Overflow 0
Integral 62
SL4 cells
ΔR (mm)

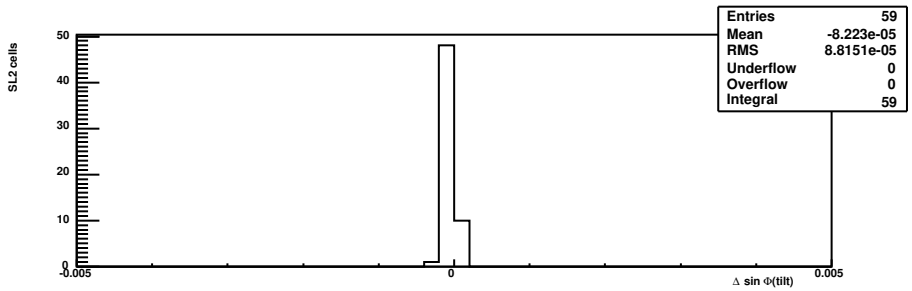

Entries 57
Mean -0.19593
RMS 0.21262
Underflow 0
Overflow 0
Integral 57
SL5 cells
ΔR (mm)

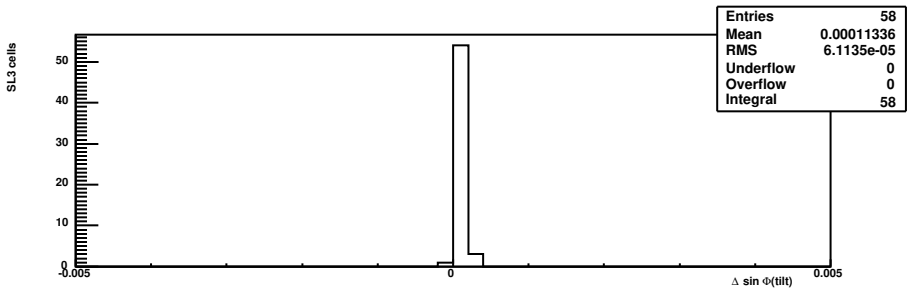

Entries 70
Mean 0.17215
RMS 0.24887
Underflow 0
Overflow 0
Integral 70
SL6 cells
ΔR (mm)

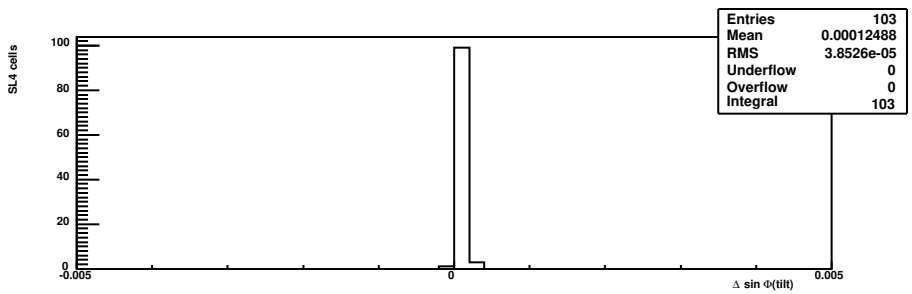

Entries 97
Mean 0.1308
RMS 0.32145
Underflow 0
Overflow 0
Integral 97
SL7 cells
ΔR (mm)

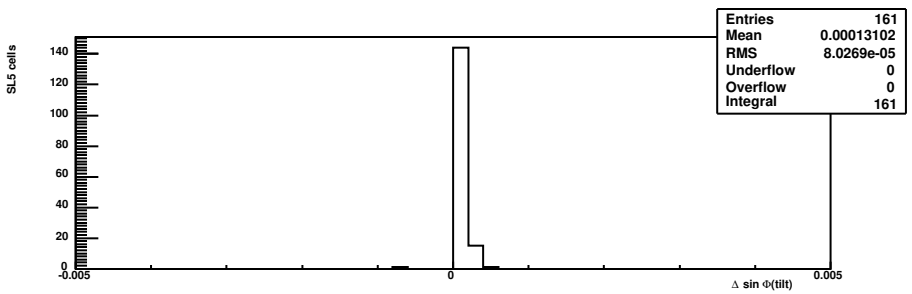

Entries 107
Mean -0.00011384
RMS 6.0526e-05
Underflow 0
Overflow 0
Integral 107
SL0 cells
Δ sin Φ(tilt)

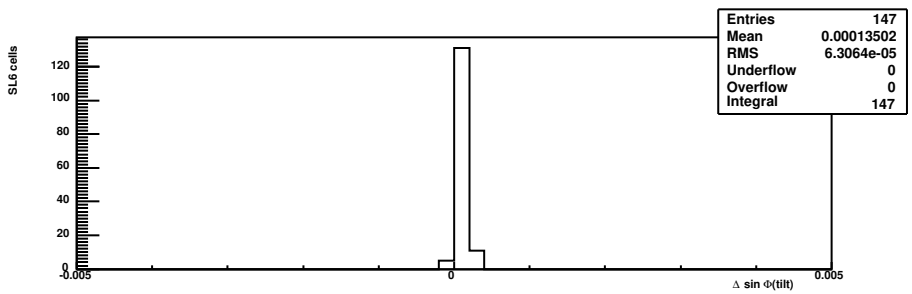

Entries 67
Mean 0.00012122
RMS 5.6021e-05
Underflow 0
Overflow 0
Integral 67
SL1 cells
Δ sin Φ(tilt)

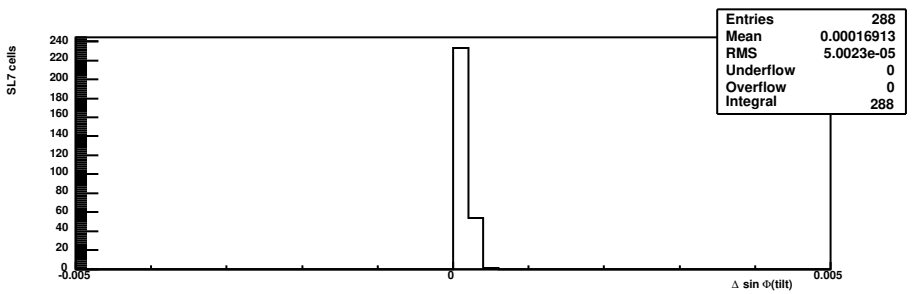

Entries 59
Mean -8.223e-05
RMS 8.8151e-05
Underflow 0
Overflow 0
Integral 59
SL2 cells
Δ sin Φ(tilt)

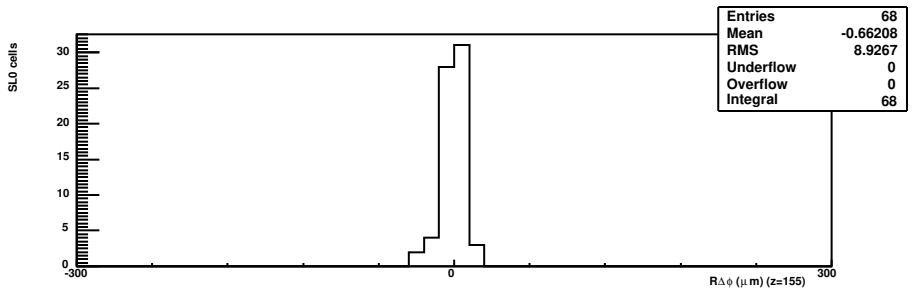

Entries 58
Mean 0.00011336
RMS 6.1135e-05
Underflow 0
Overflow 0
Integral 58
SL3 cells
Δ sin Φ(tilt)

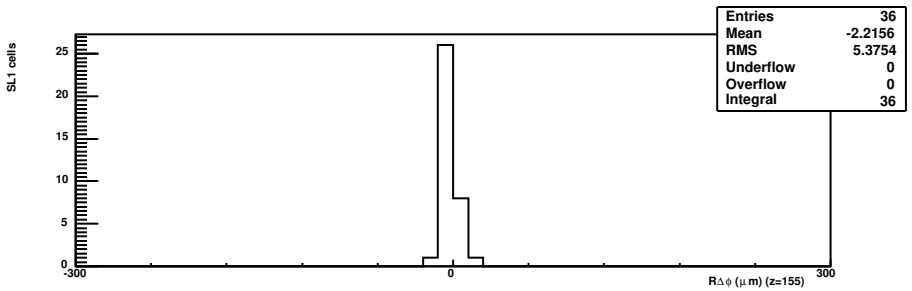

Entries 103
Mean 0.00012488
RMS 3.8526e-05
Underflow 0
Overflow 0
Integral 103
SL4 cells
Δ sin Φ(tilt)

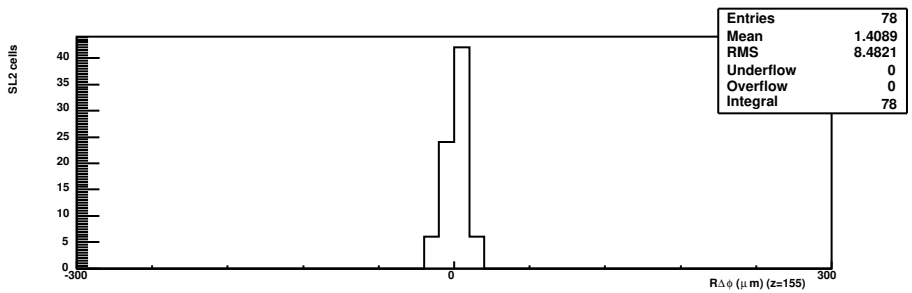

Entries 161
Mean 0.00013102
RMS 8.0269e-05
Underflow 0
Overflow 0
Integral 161
SL5 cells
Δ sin Φ(tilt)

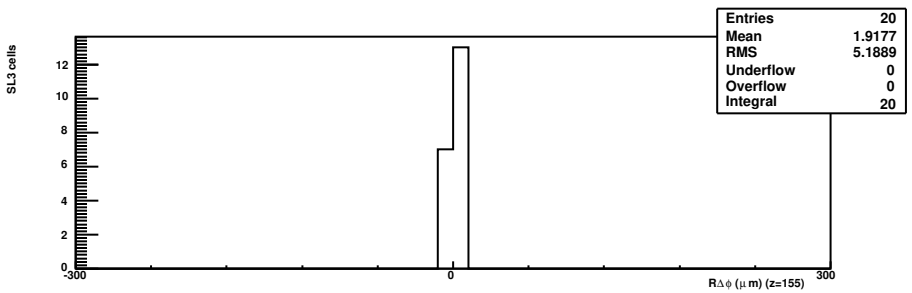

Entries 147
Mean 0.00013502
RMS 6.3064e-05
Underflow 0
Overflow 0
Integral 147
SL6 cells
Δ sin Φ(tilt)

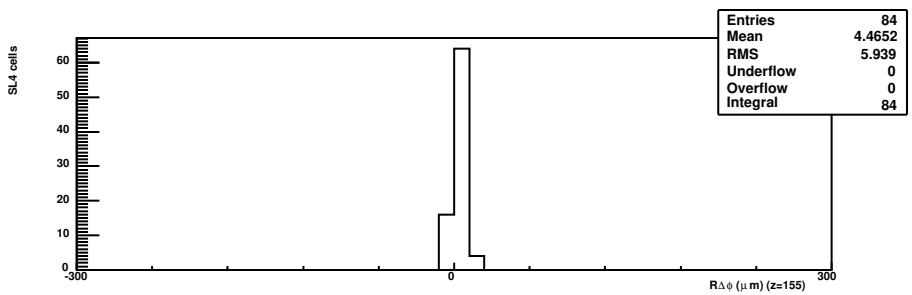

Entries 288
Mean 0.00016913
RMS 5.0023e-05
Underflow 0
Overflow 0
Integral 288
SL7 cells
Δ sin Φ(tilt)

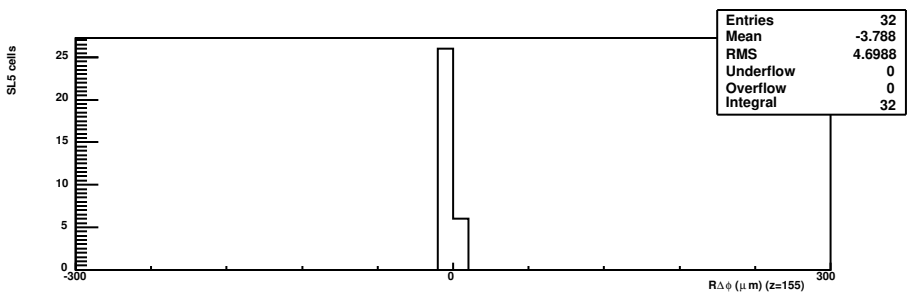

Entries 68
Mean -0.66208
RMS 8.9267
Underflow 0
Overflow 0
Integral 68
SL0 cells
RΔφ (μm) (z=155)

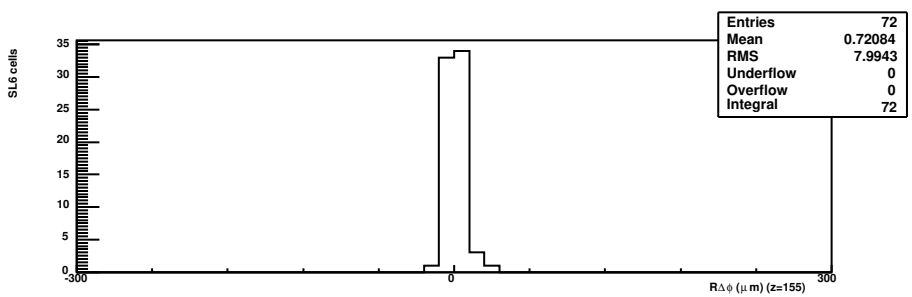

Entries 36
Mean -2.2156
RMS 5.3754
Underflow 0
Overflow 0
Integral 36
SL1 cells
RΔφ (μm) (z=155)

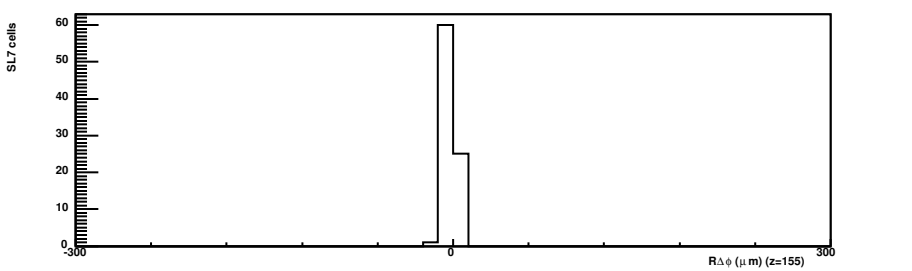

Entries 78
Mean 1.4089
RMS 8.4821
Underflow 0
Overflow 0
Integral 78
SL2 cells
RΔφ (μm) (z=155)

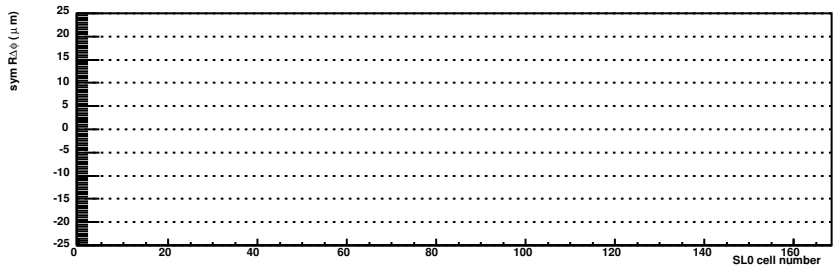

Entries 20
Mean 1.9177
RMS 5.1889
Underflow 0
Overflow 0
Integral 20
SL3 cells
RΔφ (μm) (z=155)

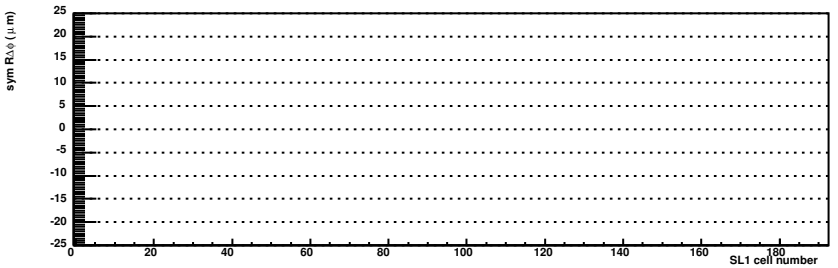

Entries 84
Mean 4.4652
RMS 5.939
Underflow 0
Overflow 0
Integral 84
SL4 cells
RΔφ (μm) (z=155)

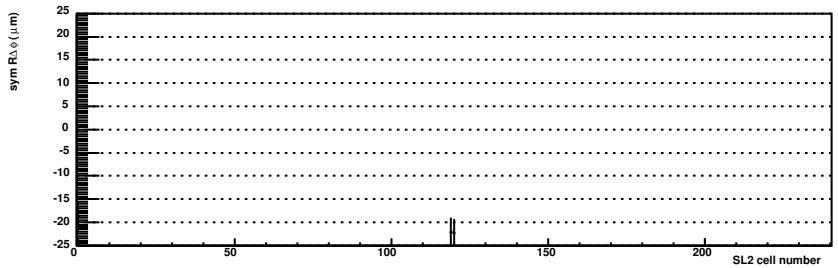

Entries 32
Mean -3.788
RMS 4.6988
Underflow 0
Overflow 0
Integral 32
SL5 cells
RΔφ (μm) (z=155)

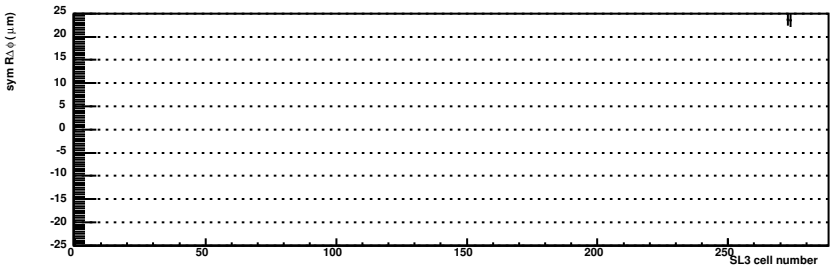

Entries 72
Mean 0.72084
RMS 7.9943
Underflow 0
Overflow 0
Integral 72
SL6 cells
RΔφ (μm) (z=155)

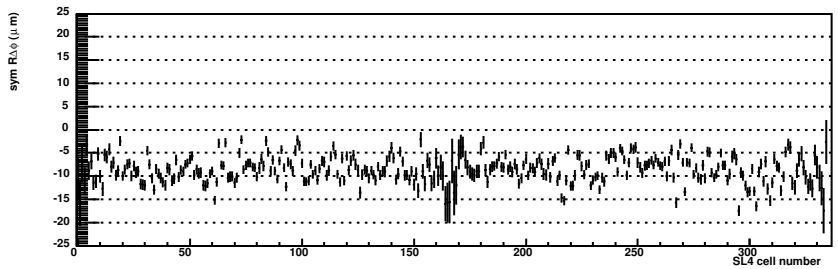

SL7 cells
RΔφ (μm) (z=155)

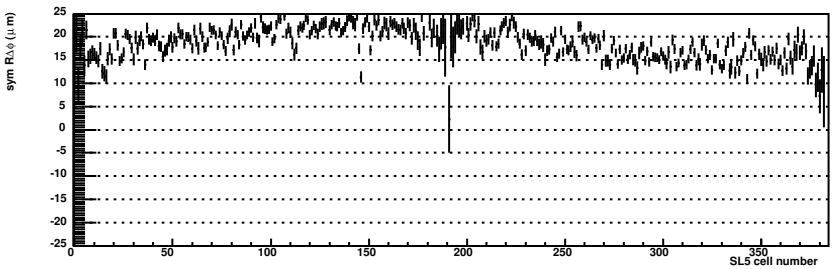

sym RΔφ (μm)
SL0 cell number

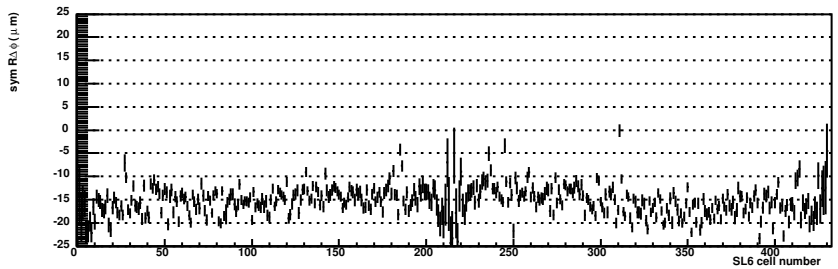

sym RΔφ (μm)
SL1 cell number

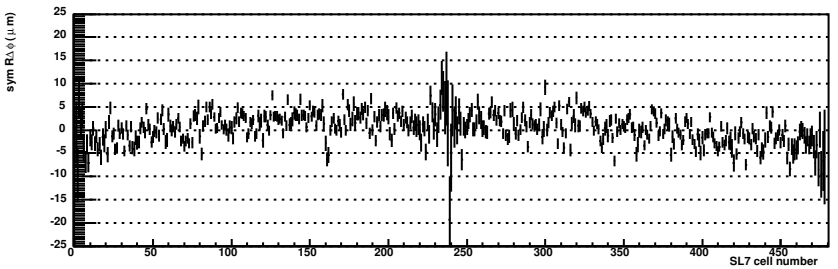

sym RΔφ (μm)
SL2 cell number

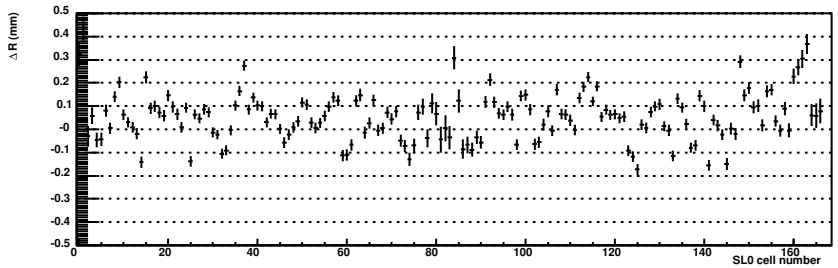

sym RΔφ (μm)
SL3 cell number

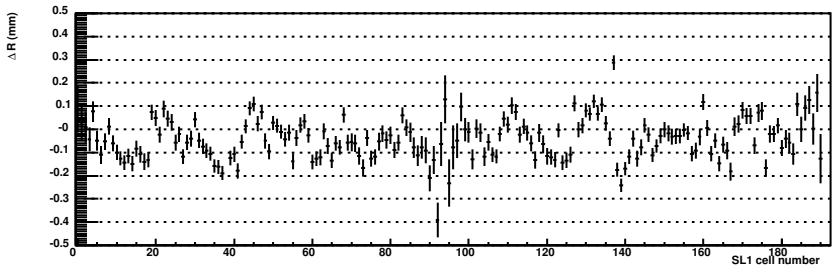

sym RΔφ (μm)
SL4 cell number

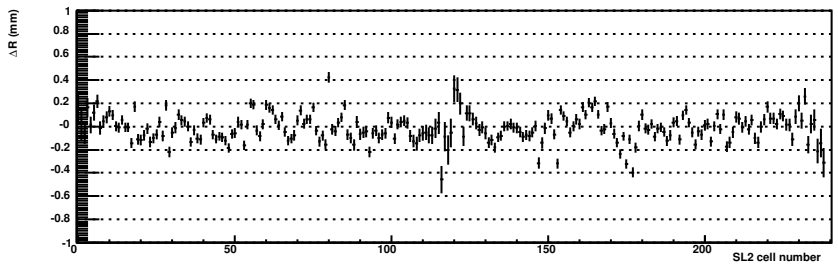

sym RΔφ (μm)
SL5 cell number

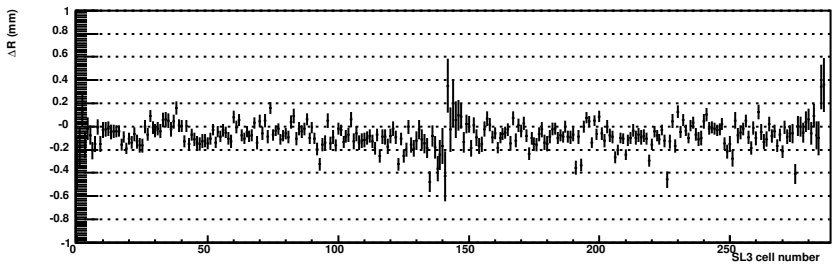

sym RΔφ (μm)
SL6 cell number

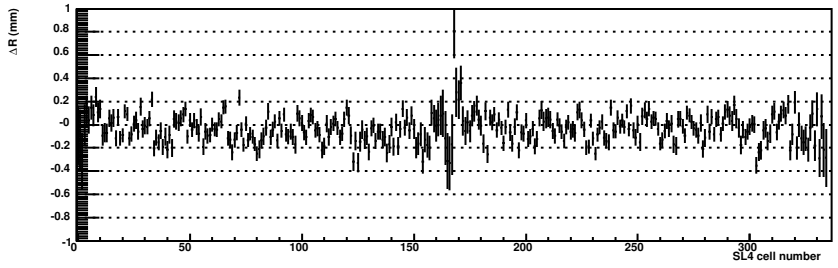

sym RΔφ (μm)
SL7 cell number

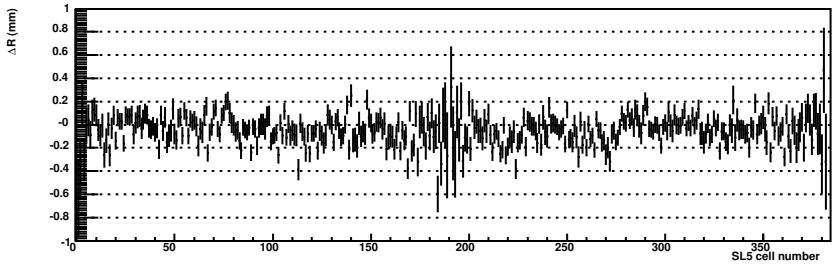

ΔR (mm)
SL0 cell number

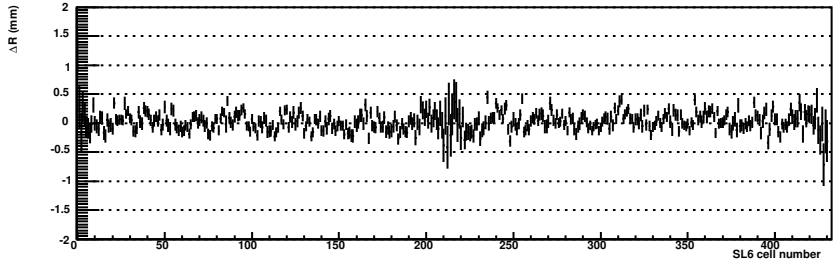

ΔR (mm)
SL1 cell number

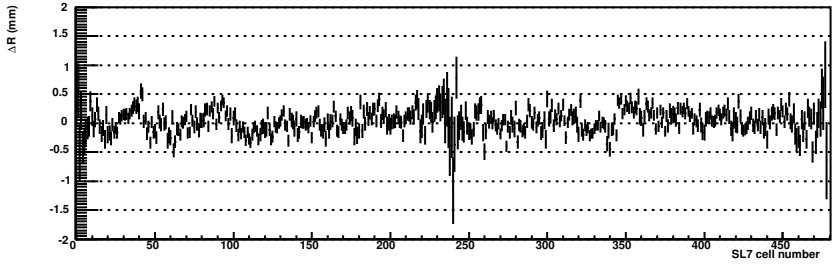

ΔR (mm)
SL2 cell number

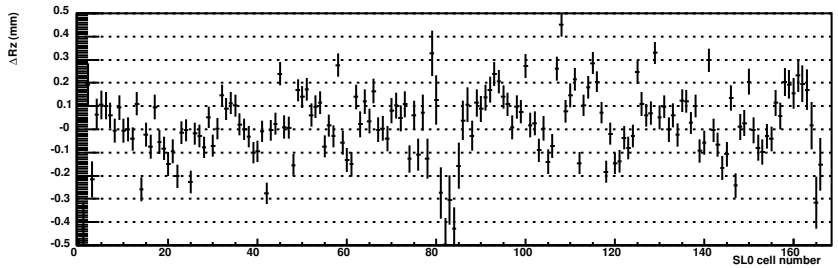

ΔR (mm)
SL3 cell number

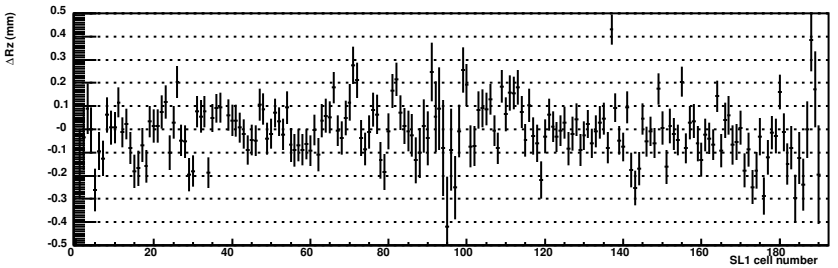

ΔR (mm)
SL4 cell number

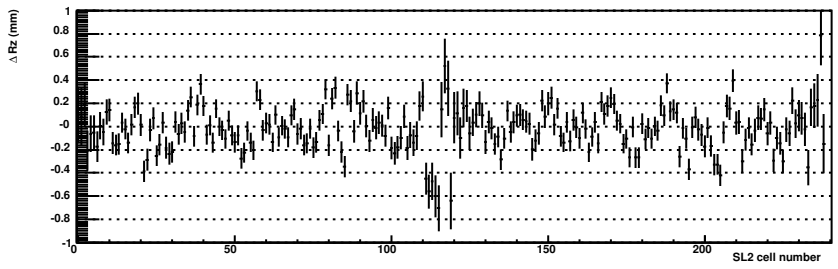

ΔR (mm)
SL5 cell number

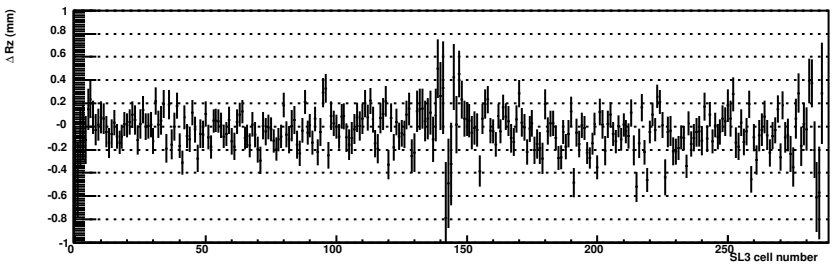

ΔR (mm)
SL6 cell number

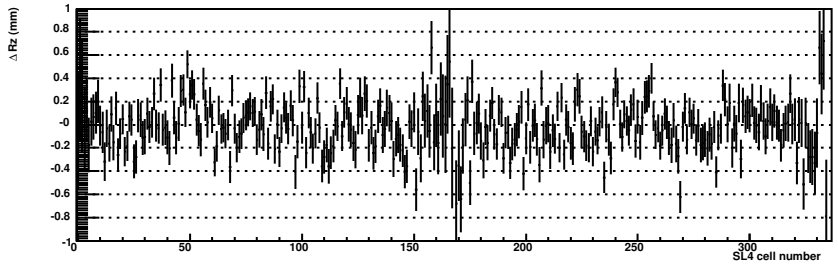

ΔR (mm)
SL7 cell number

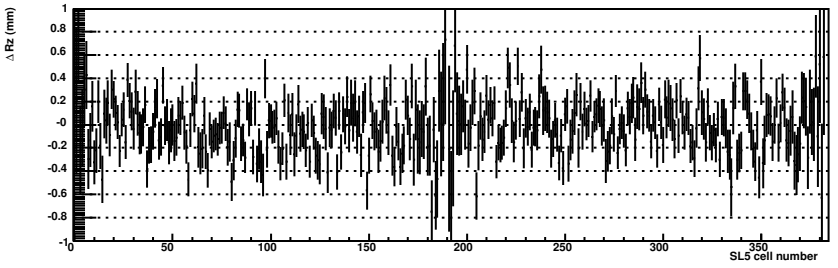

ΔRz (mm)
SL0 cell number

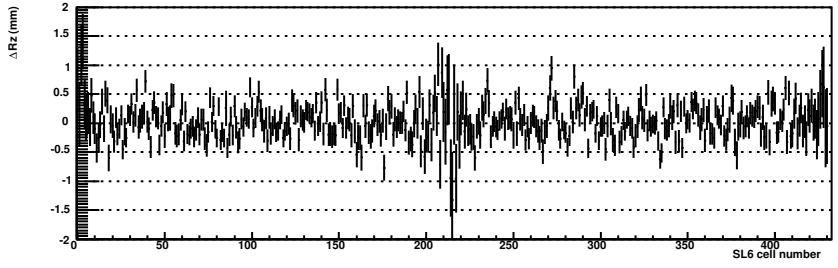

ΔRz (mm)
SL1 cell number

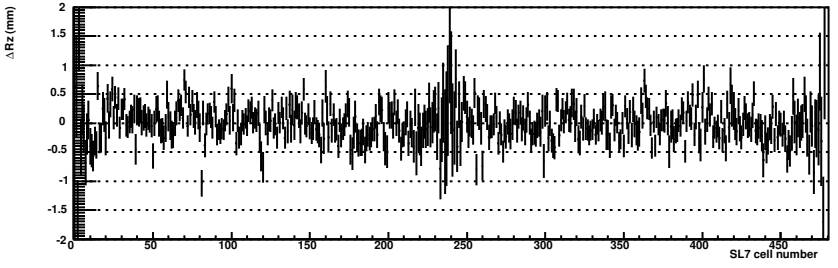

ΔRz (mm)
SL2 cell number

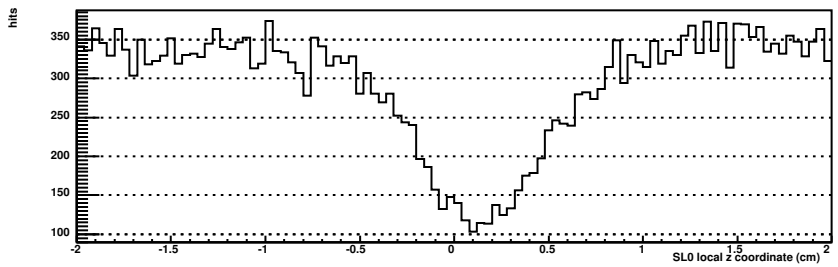

ΔRz (mm)
SL3 cell number

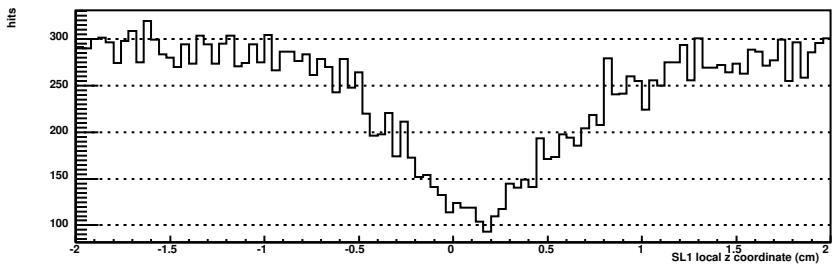

ΔRz (mm)
SL4 cell number

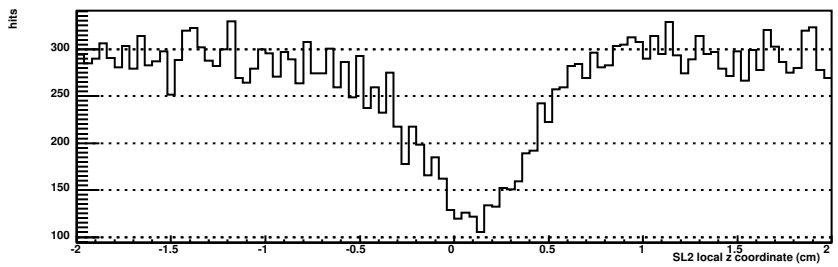

ΔRz (mm)
SL5 cell number

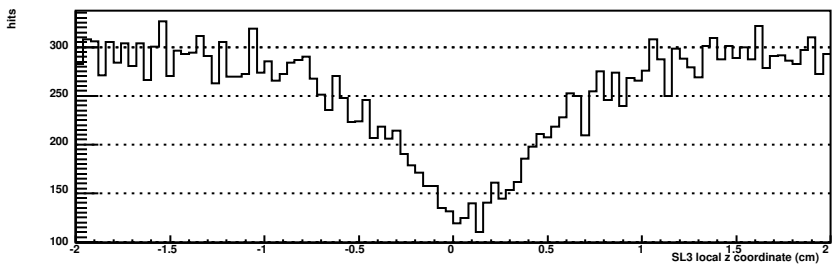

ΔRz (mm)
SL6 cell number

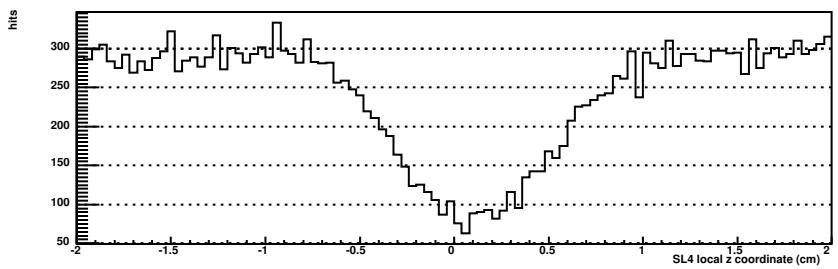

ΔRz (mm)
SL7 cell number

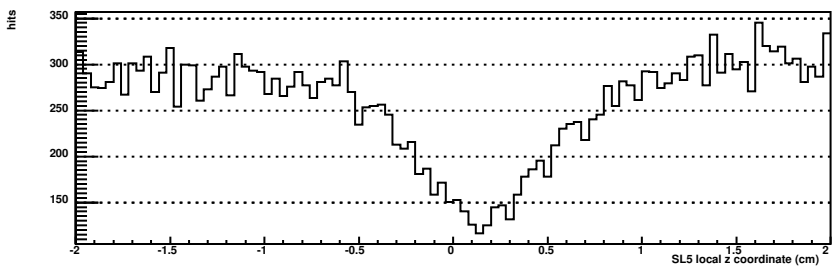

hits
SL0 local z coordinate (cm)

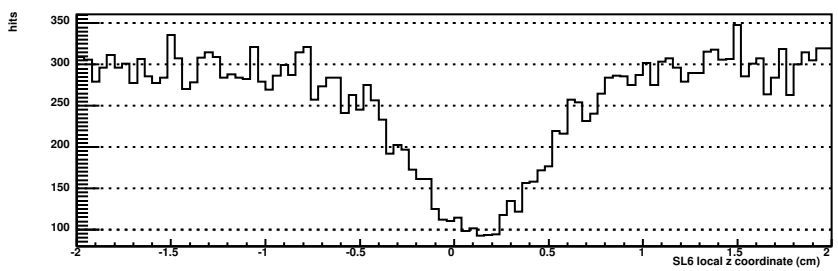

hits
SL1 local z coordinate (cm)

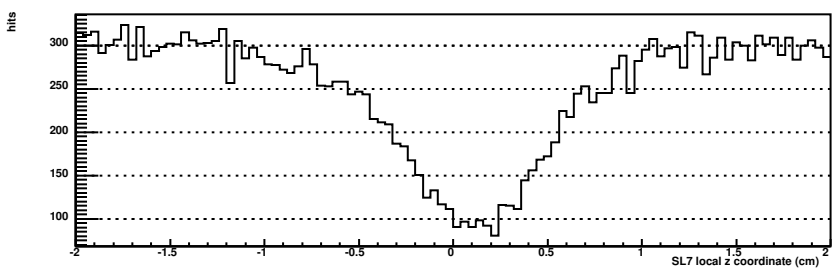

hits
SL2 local z coordinate (cm)

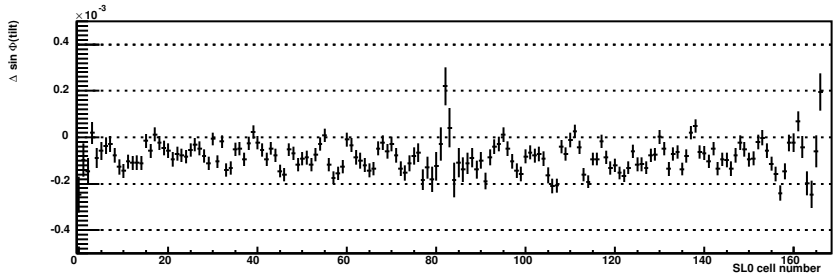

hits
SL3 local z coordinate (cm)

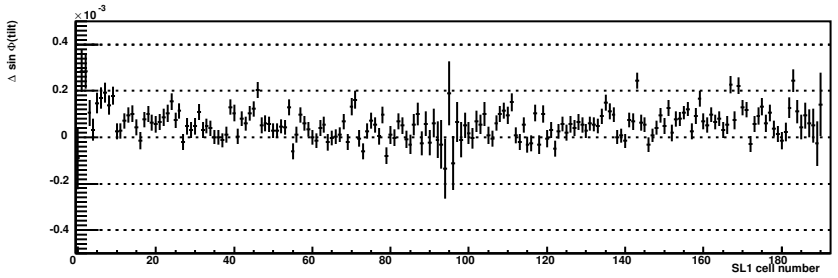

hits
SL4 local z coordinate (cm)

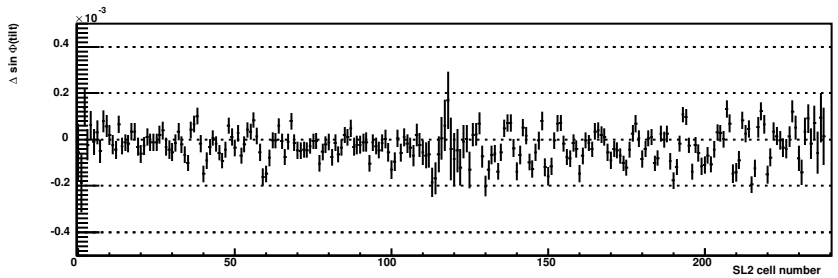

hits
SL5 local z coordinate (cm)

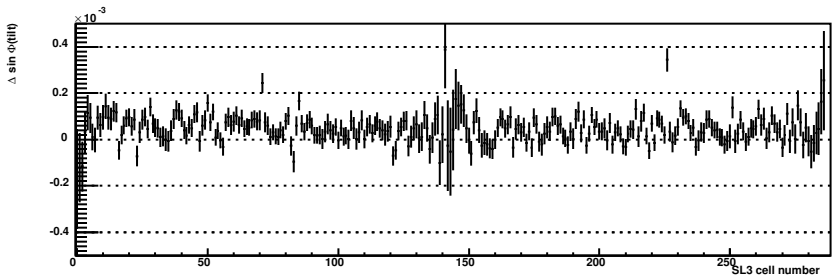

hits
SL6 local z coordinate (cm)

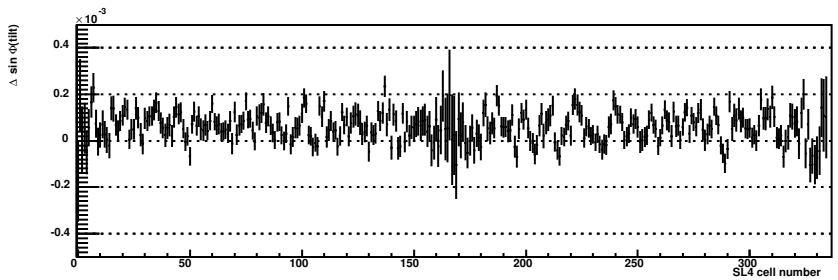

hits
SL7 local z coordinate (cm)

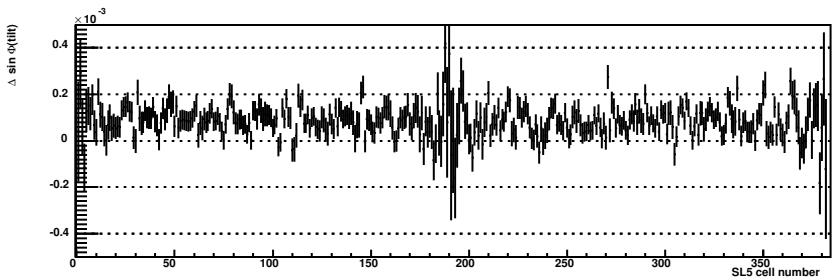

×10^-3
Δ sin Φ(tilt)
SL0 cell number

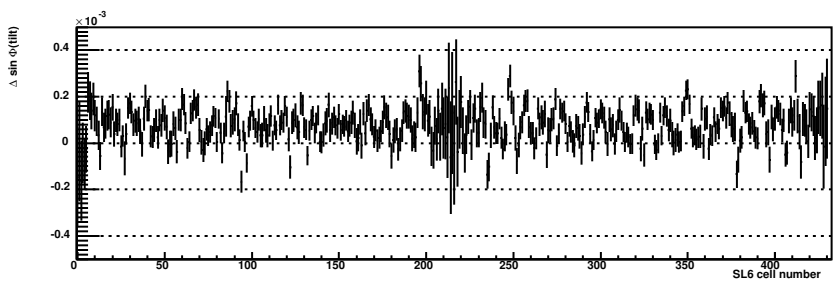

×10^-3
Δ sin Φ(tilt)
SL1 cell number

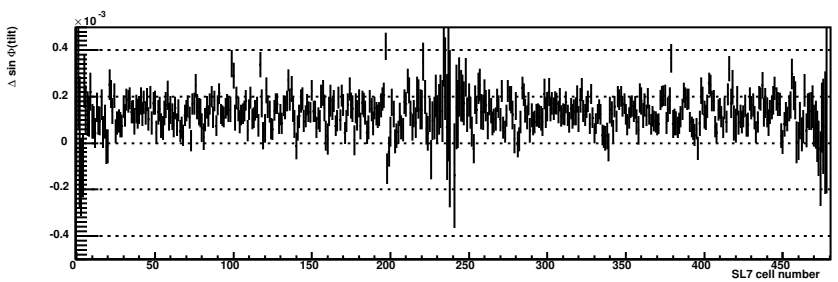

×10^-3
Δ sin Φ(tilt)
SL2 cell number

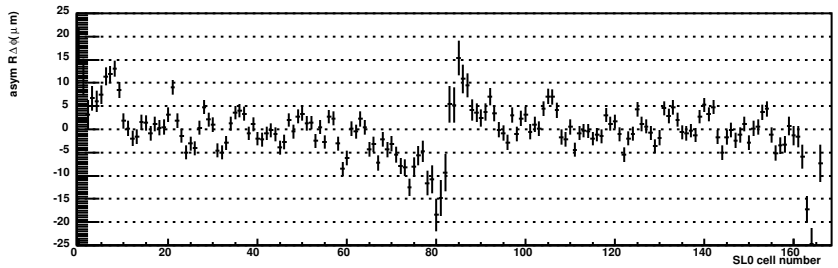

×10^-3
Δ sin Φ(tilt)
SL3 cell number

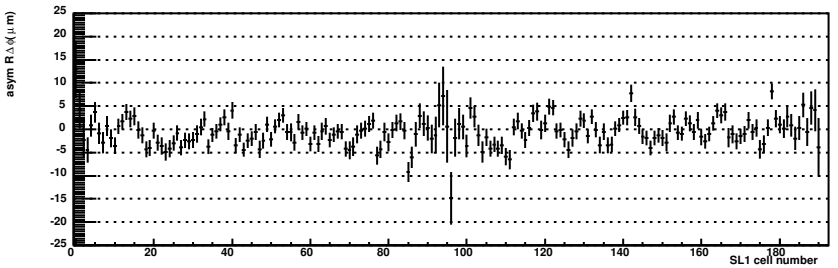

×10^-3
Δ sin Φ(tilt)
SL4 cell number

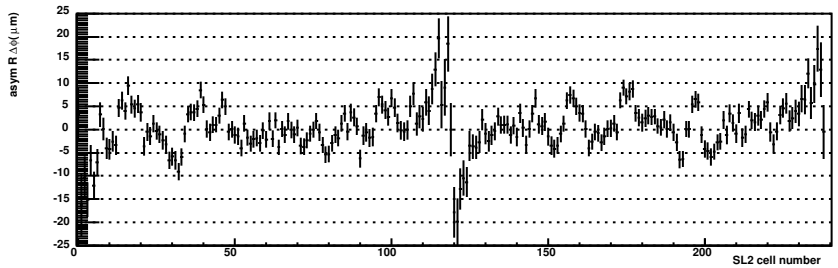

×10^-3
Δ sin Φ(tilt)
SL5 cell number

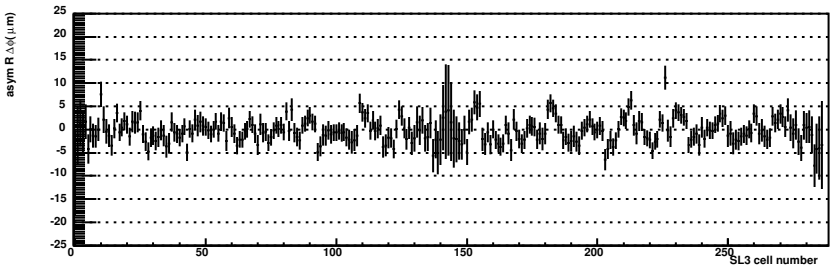

×10^-3
Δ sin Φ(tilt)
SL6 cell number

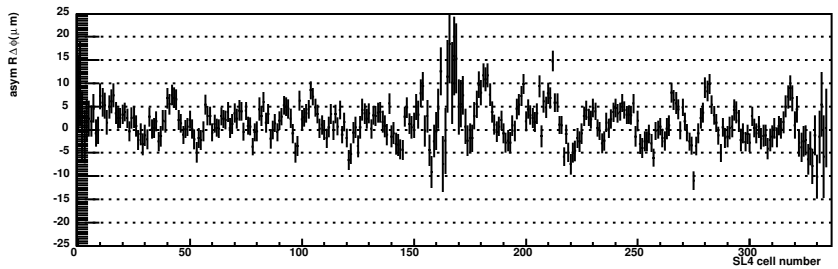

×10^-3
Δ sin Φ(tilt)
SL7 cell number

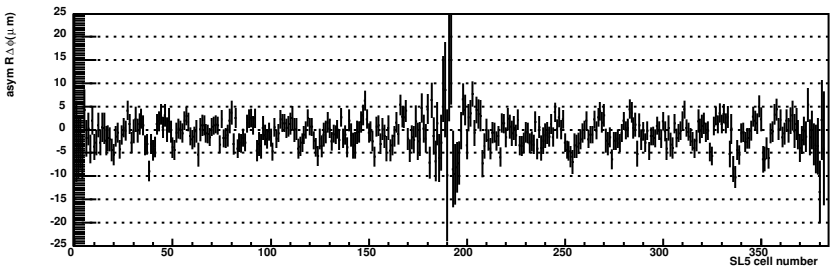

asym R Δφ(μm)
SL0 cell number

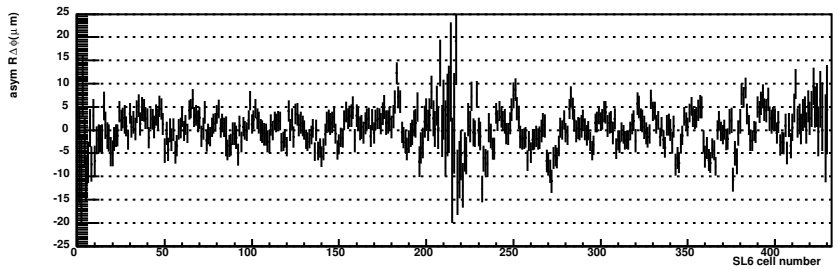

asym R Δφ(μm)
SL1 cell number

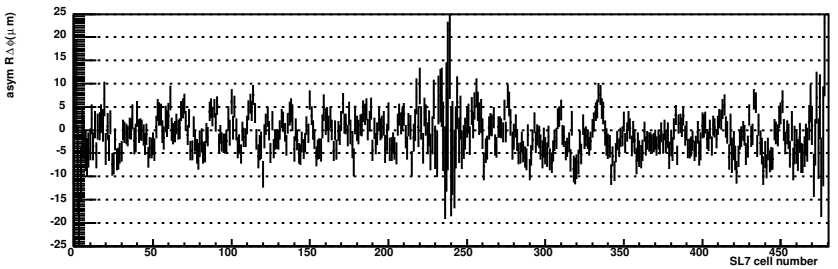

asym R Δφ(μm)
SL2 cell number

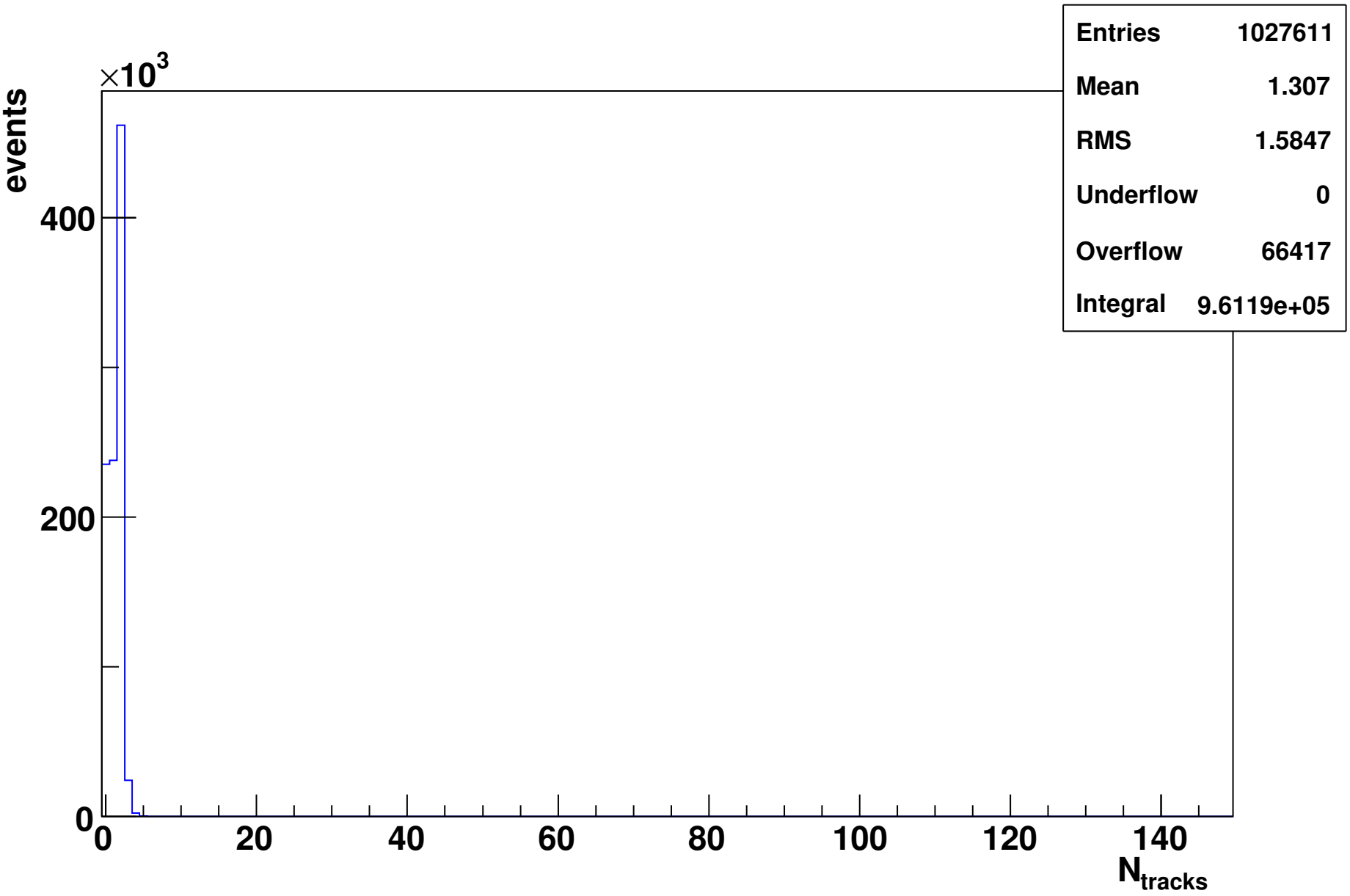

asym R Δφ(μm)
SL3 cell number

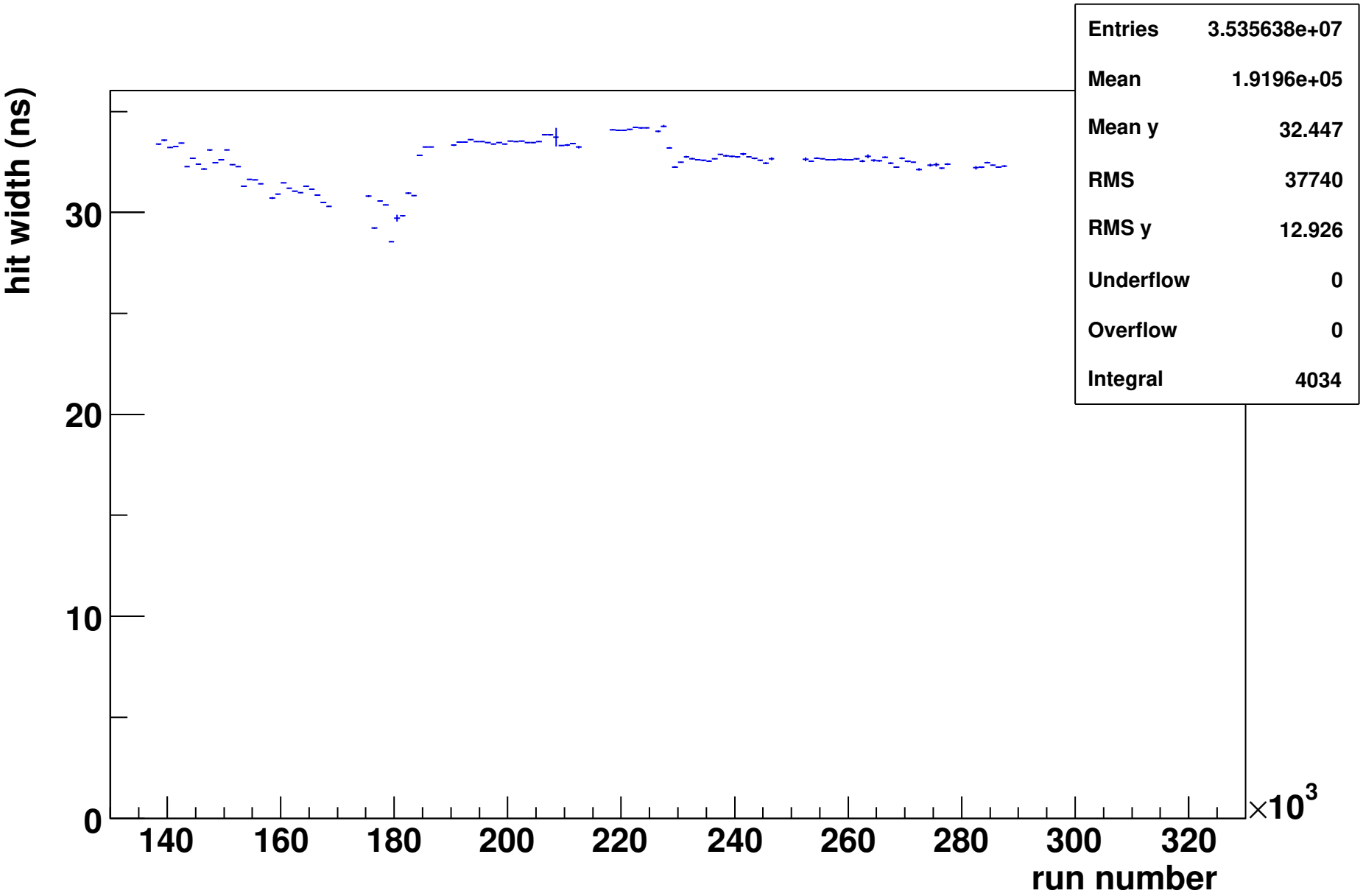

asym R Δφ(μm)
SL4 cell number

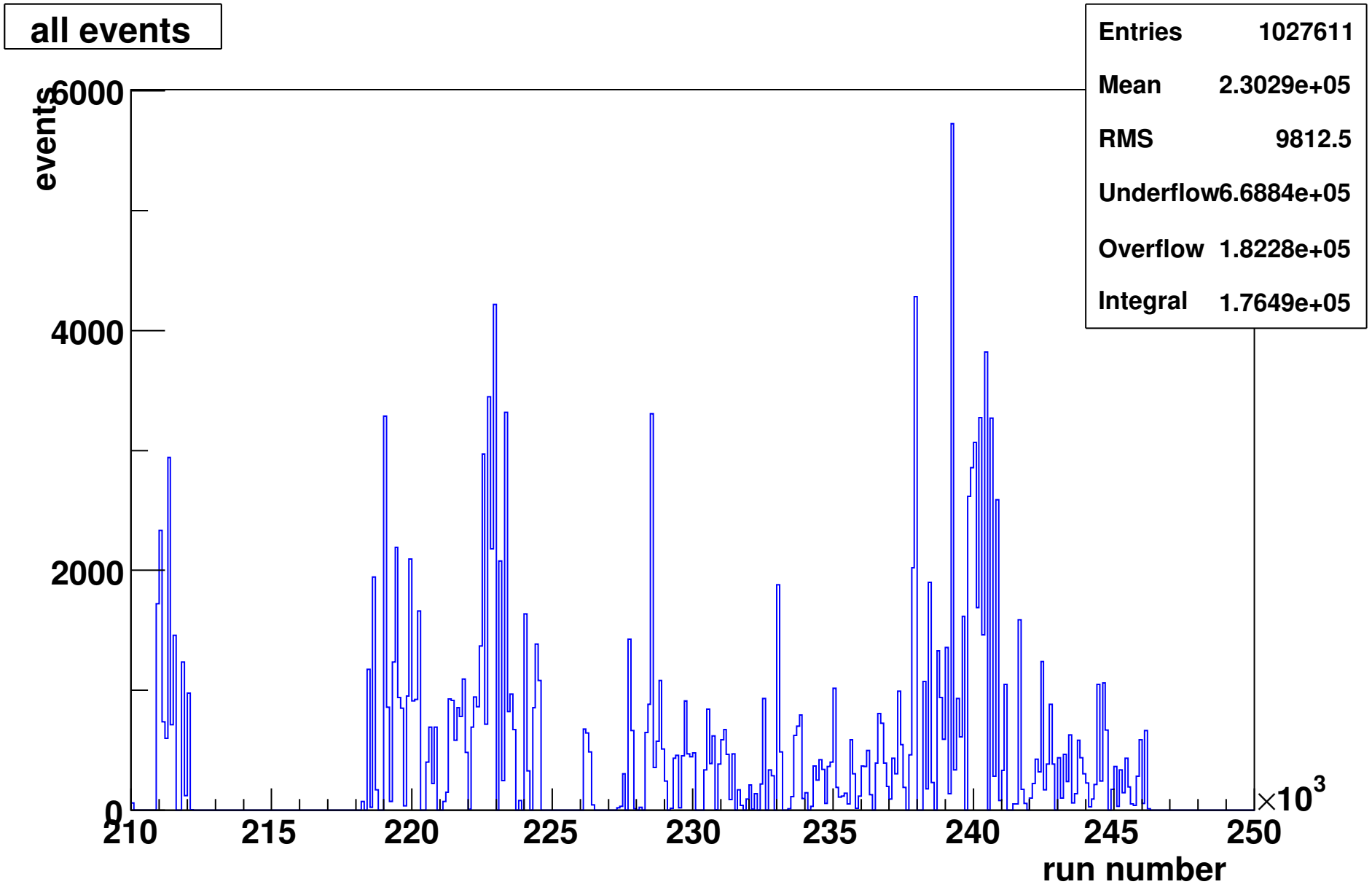

asym R Δφ(μm)
SL5 cell number

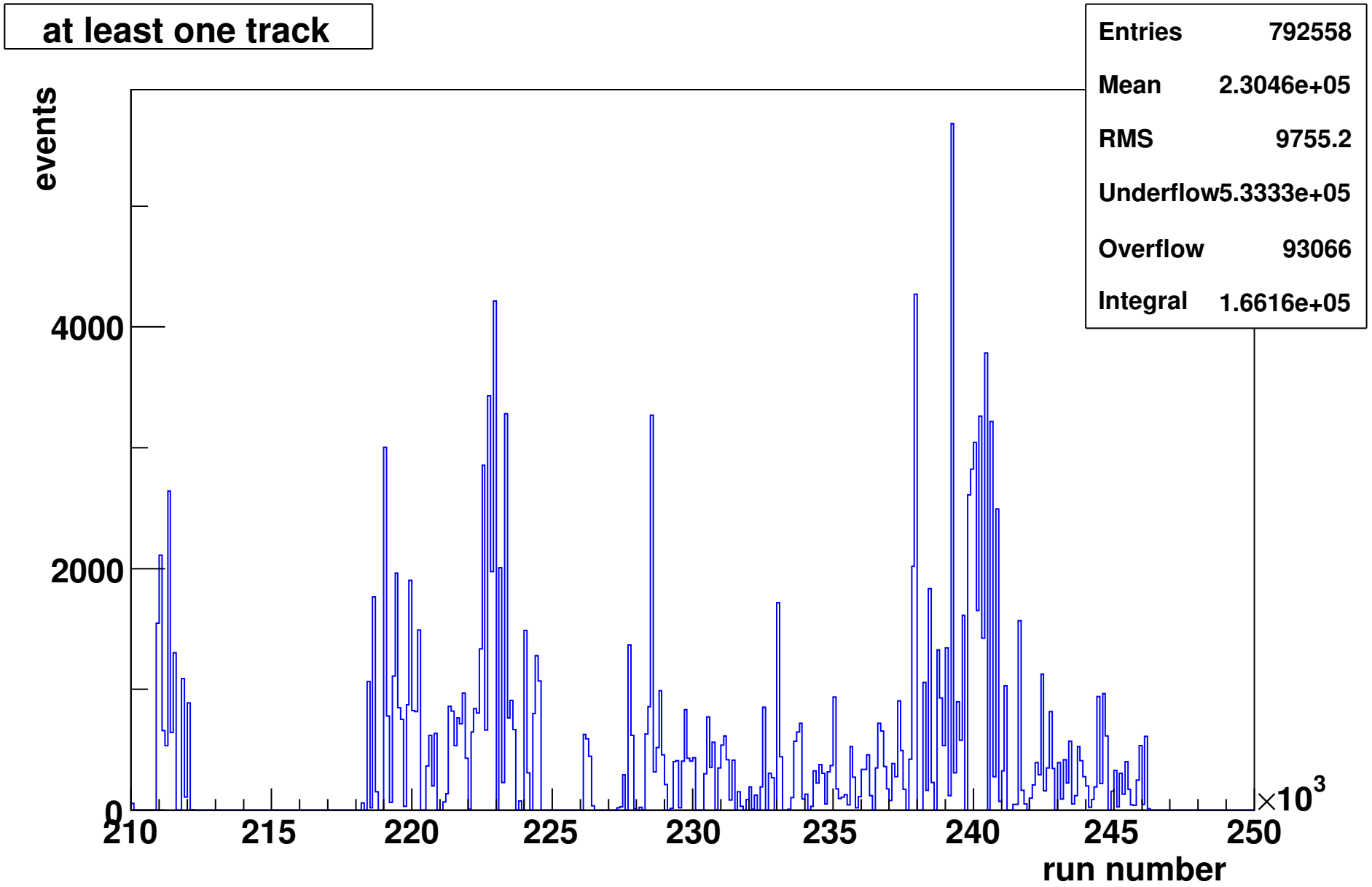

asym R Δφ(μm)
SL6 cell number

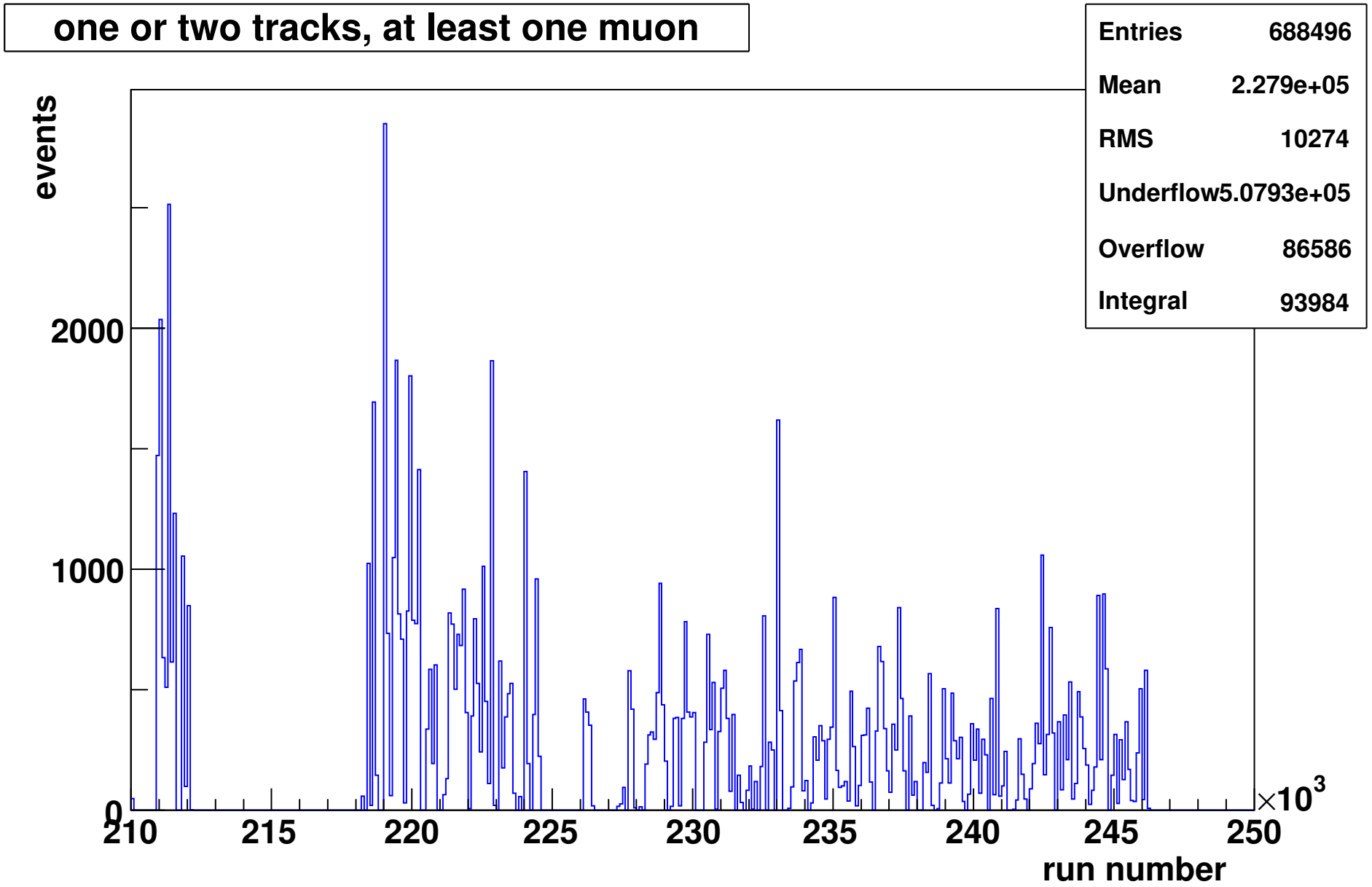

asym R Δφ(μm)
SL7 cell number

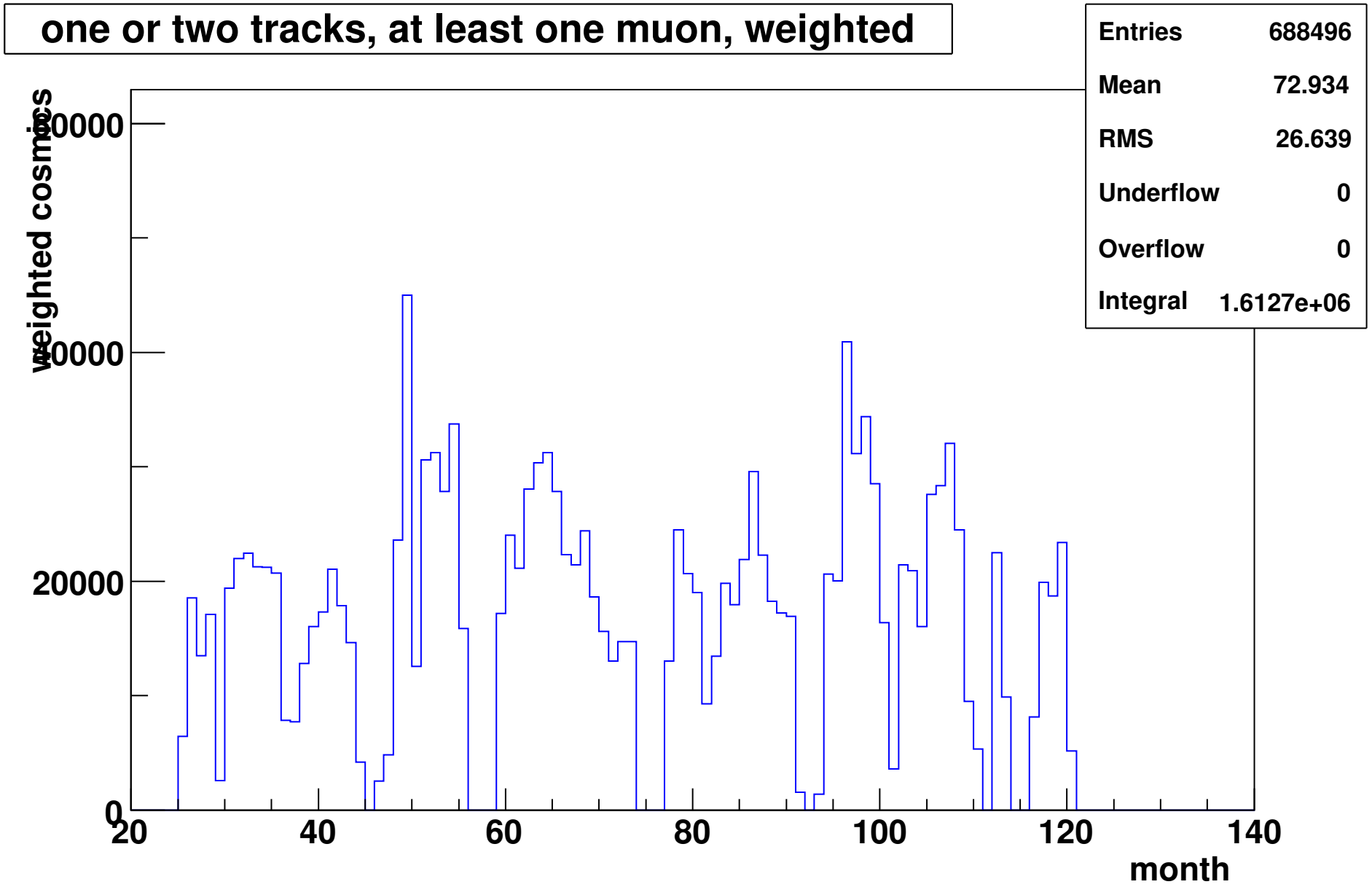

Entries 1027611
Mean 1.307
RMS 1.5847
Underflow 0
Overflow 66417
Integral 9.6119e+05
events
×10^3
400
200
0
0
20
40
60
80
100
120
140
N_tracks

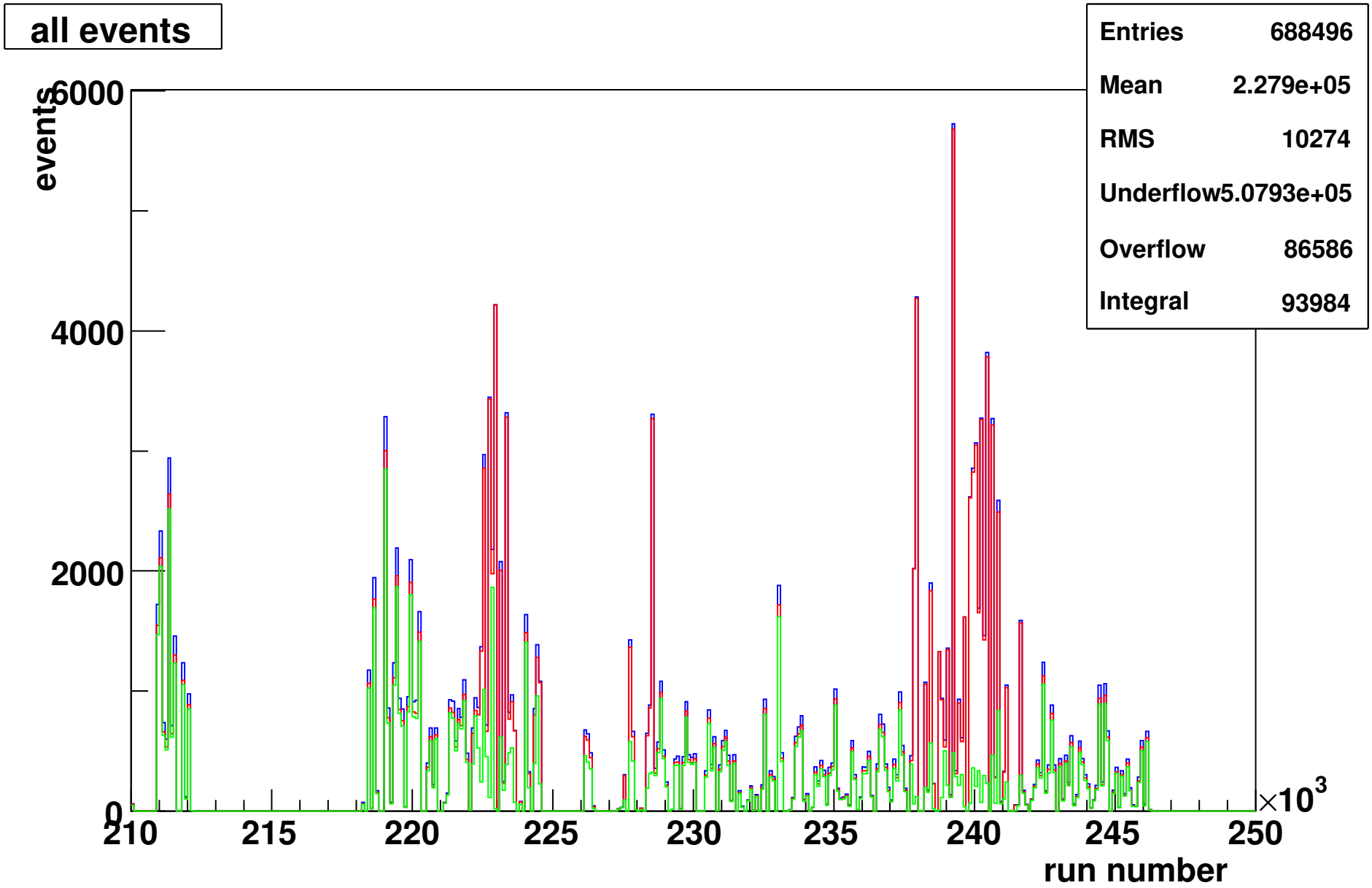

hit width (ns)
0
10
20
30
140
160
180
200
220
240
260
280
300
320
×10^3
run number
Entries 3.535638e+07
Mean 1.9196e+05
Mean y 32.447
RMS 37740
RMS y 12.926
Underflow 0
Overflow 0
Integral 4034

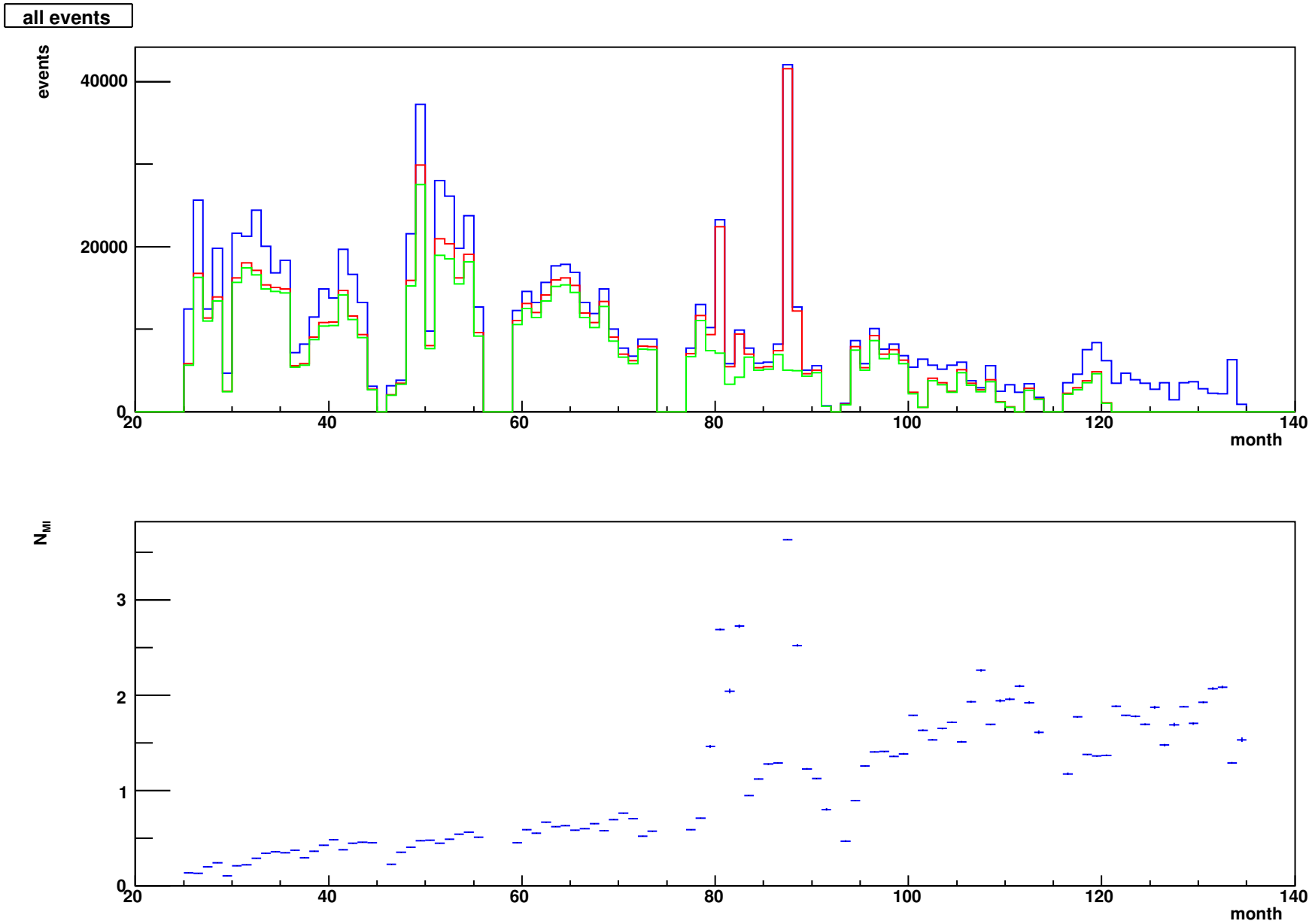

all events
Entries 1027611
Mean 2.3029e+05
RMS 9812.5
Underflow 6.6884e+05
Overflow 1.8228e+05
Integral 1.7649e+05
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

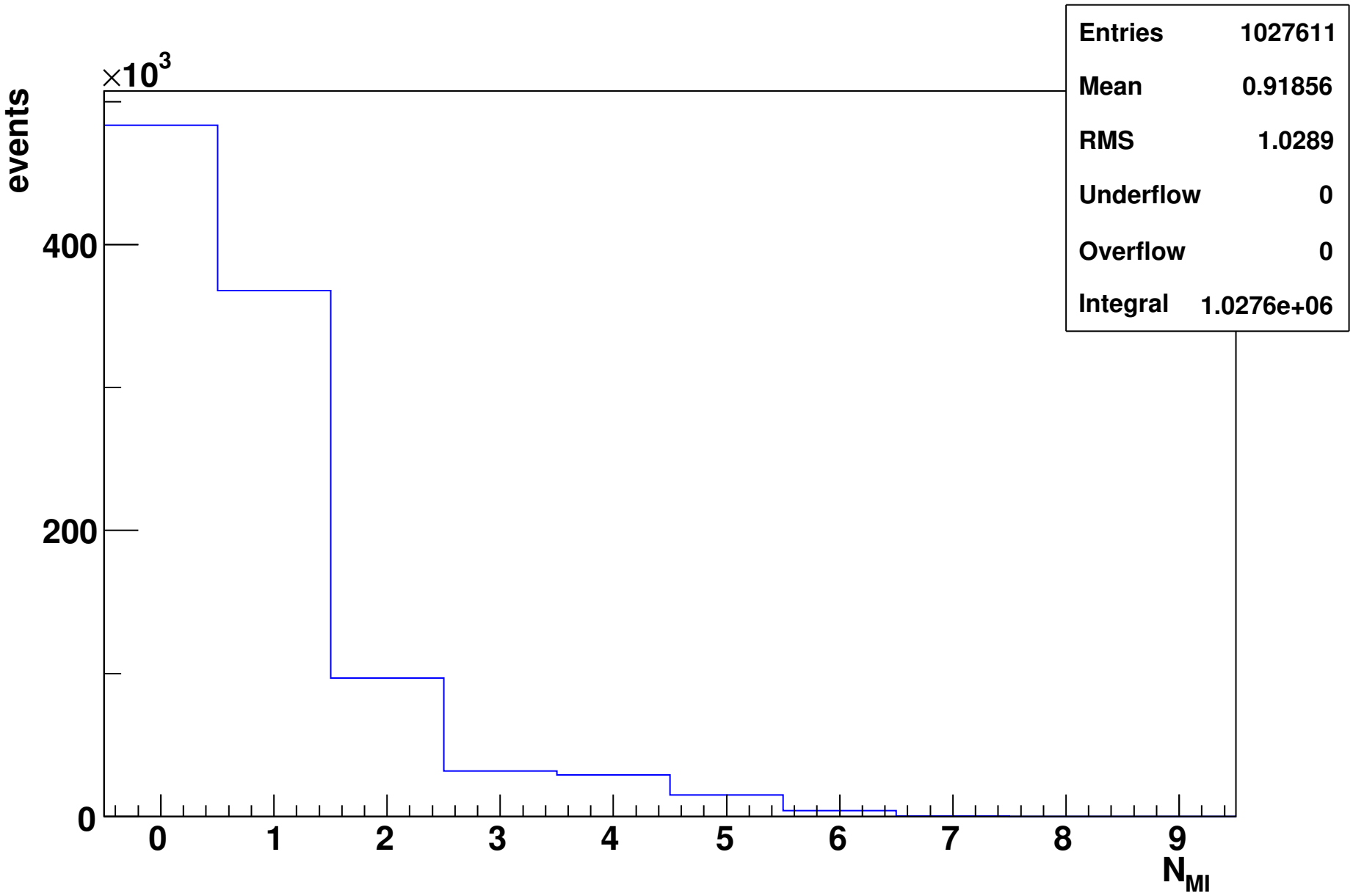

at least one track
Entries 792558
Mean 2.3046e+05
RMS 9755.2
Underflow 5.3333e+05
Overflow 93066
Integral 1.6616e+05
events
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

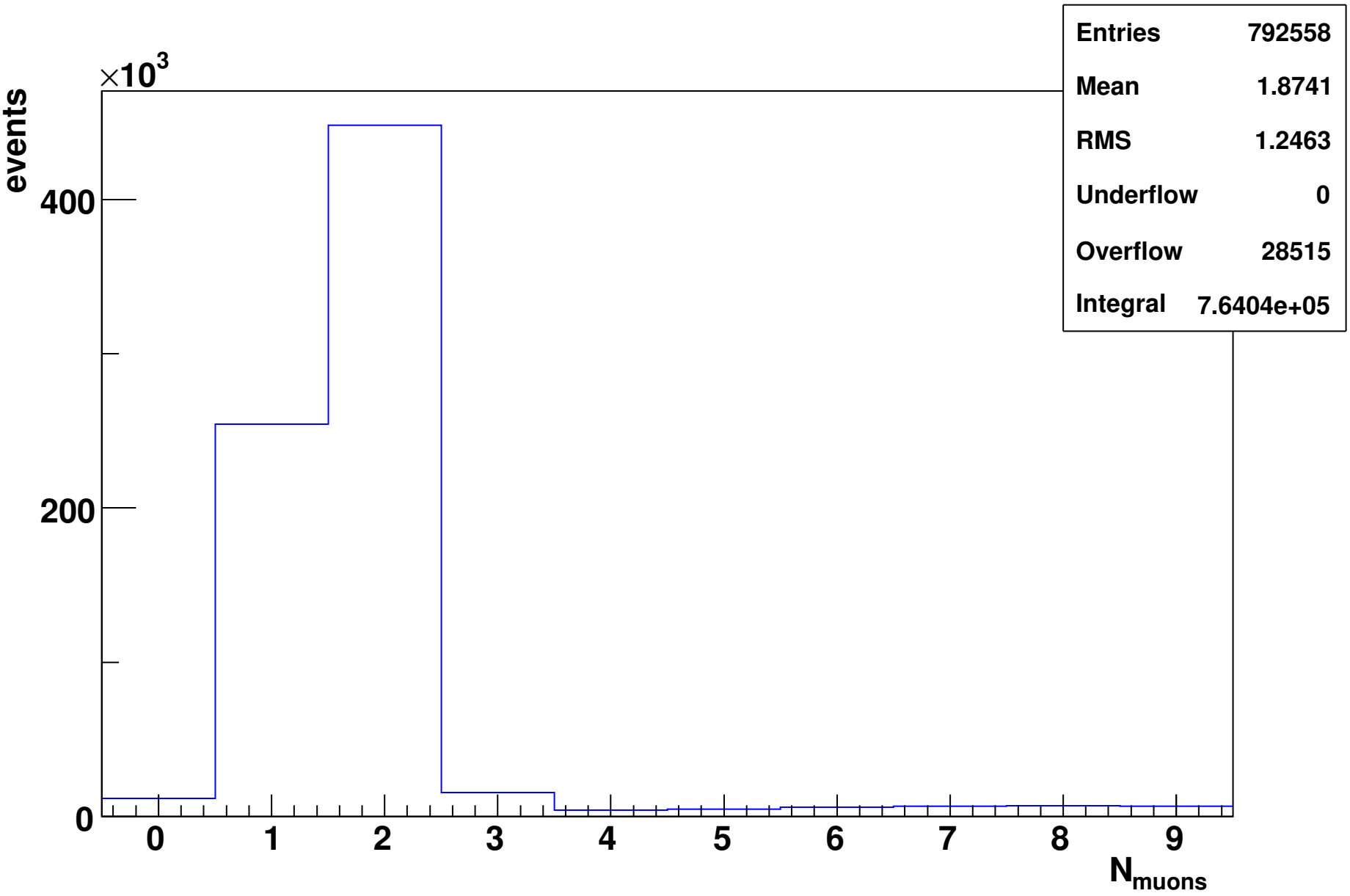

one or two tracks, at least one muon
Entries 688496
Mean 2.279e+05
RMS 10274
Underflow 5.0793e+05
Overflow 86586
Integral 93984
events
2000
1000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

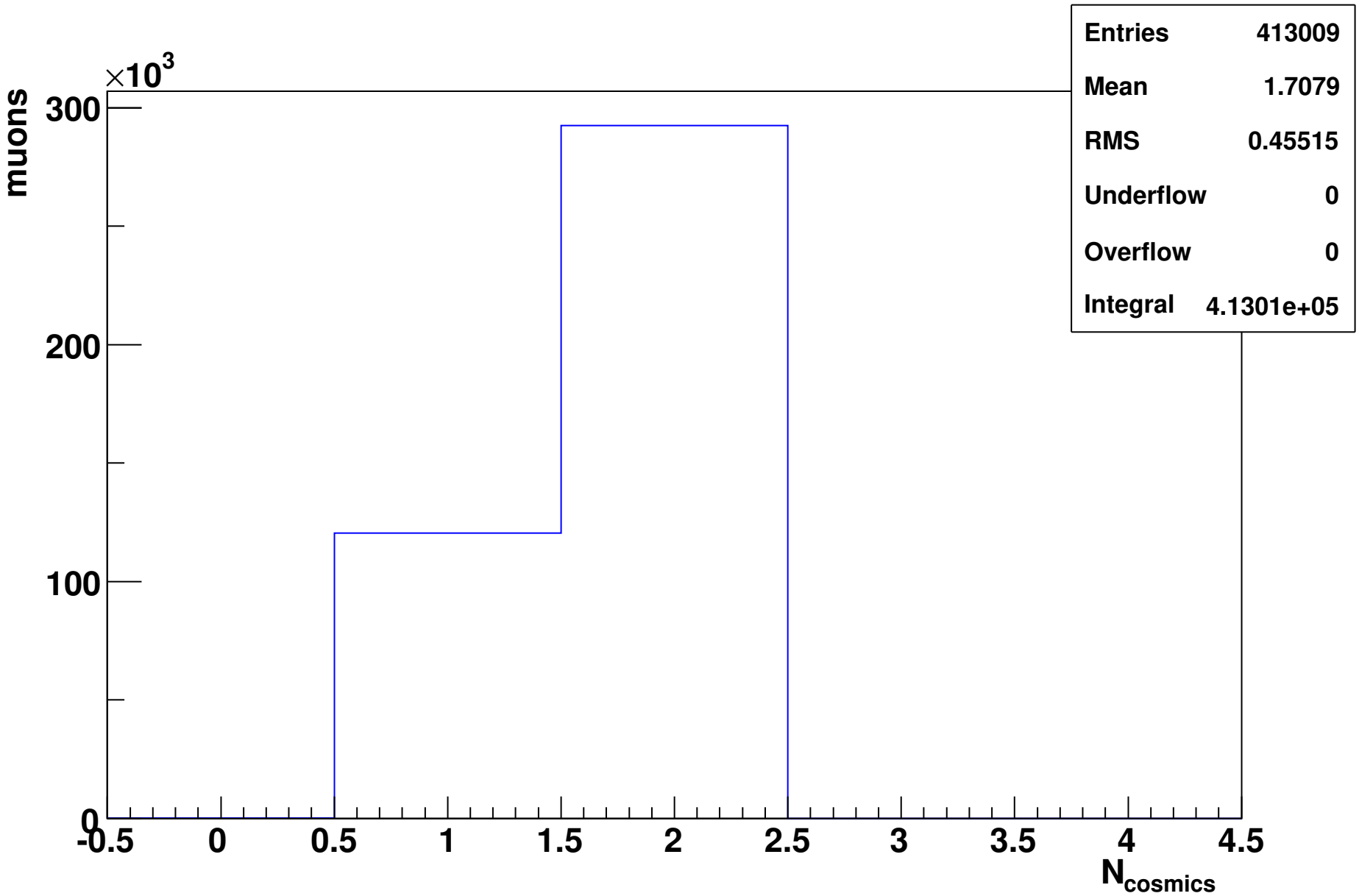

one or two tracks, at least one muon, weighted
Entries 688496
Mean 72.934
RMS 26.639
Underflow 0
Overflow 0
Integral 1.6127e+06
weighted cosmics
60000
40000
20000
0
20
40
60
80
100
120
140
month

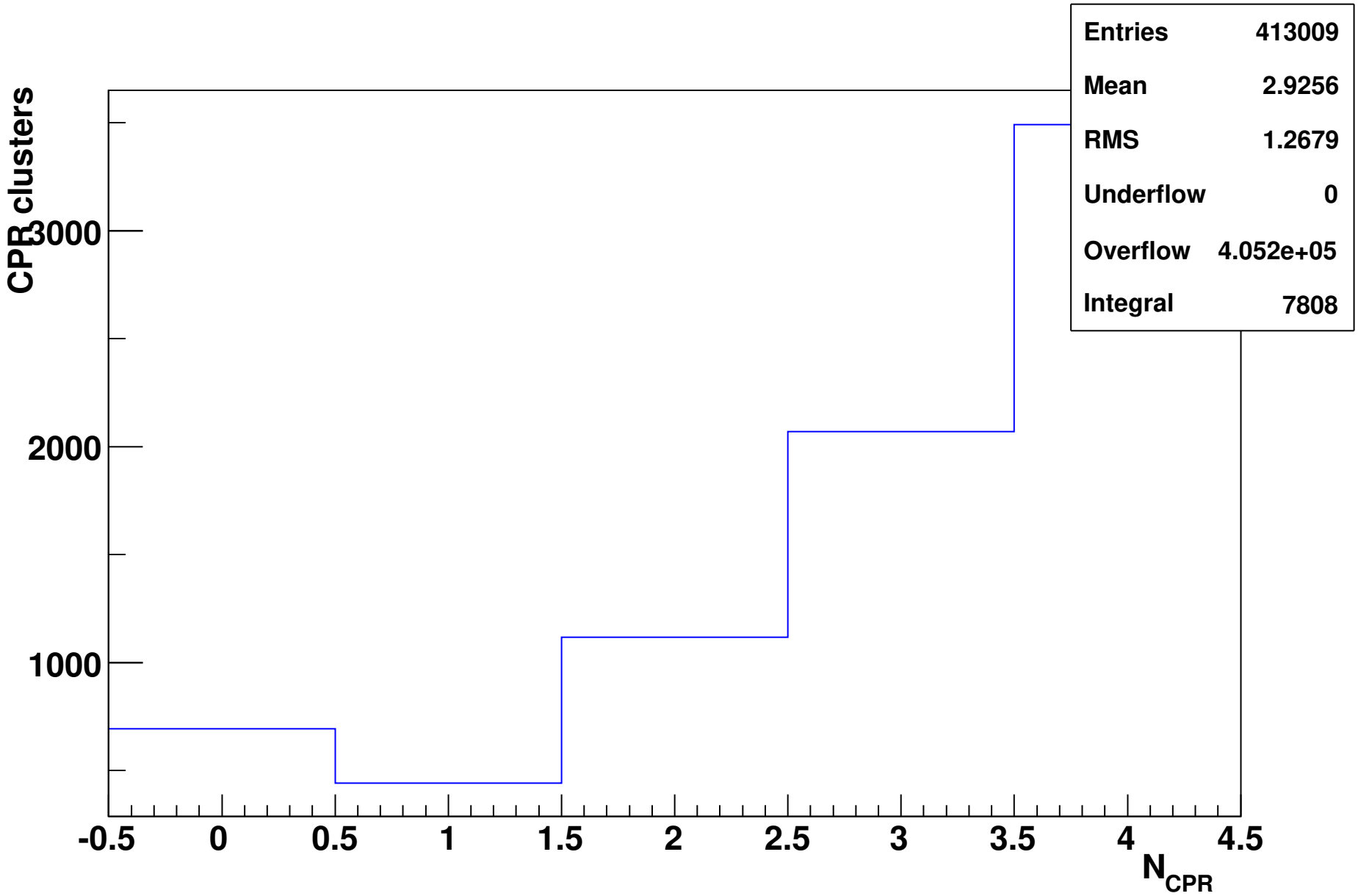

all events
Entries 688496
Mean 2.279e+05
RMS 10274
Underflow 5.0793e+05
Overflow 86586
Integral 93984
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

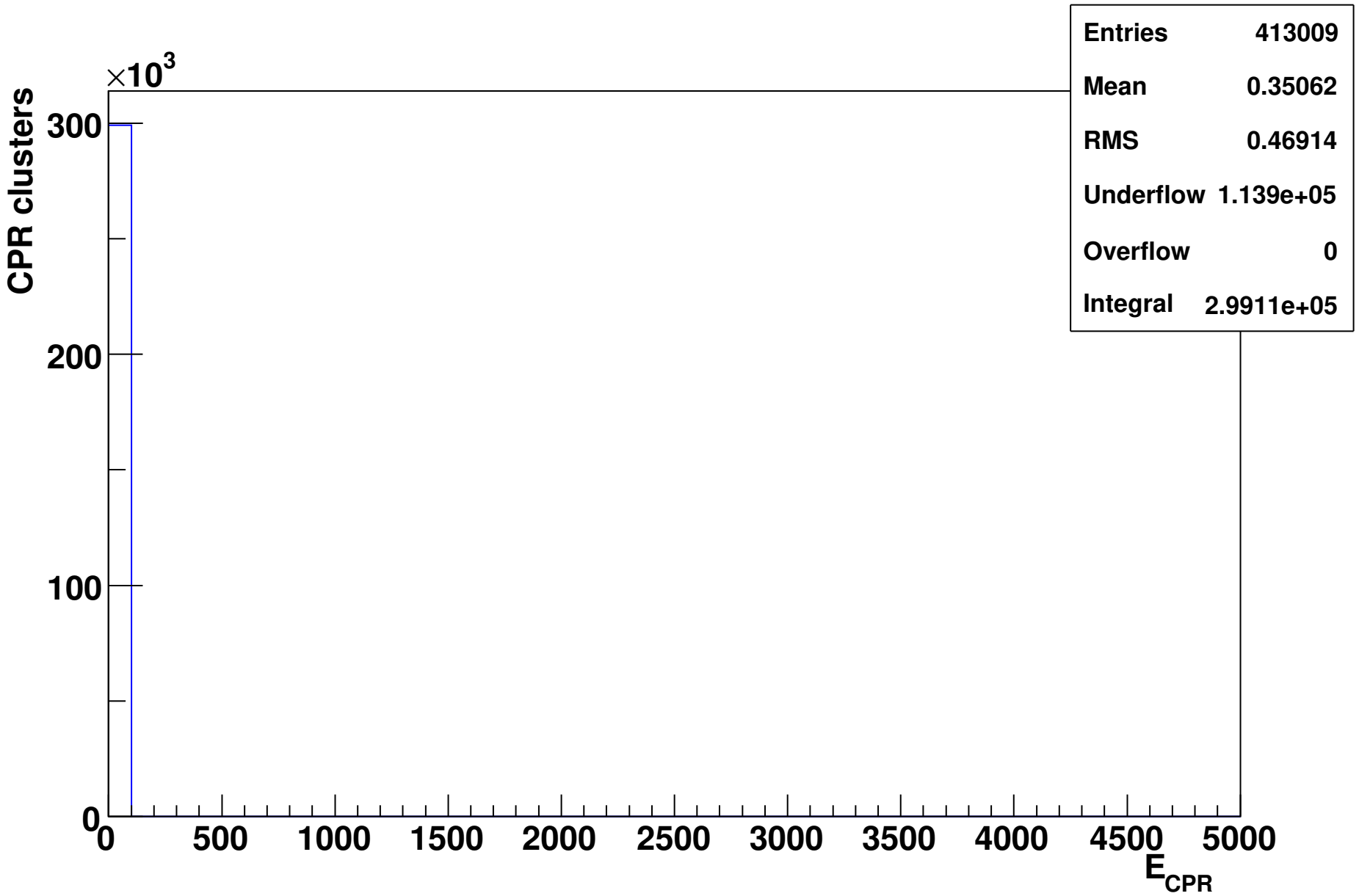

all events
events
40000
20000
0
20
40
60
80
100
120
140
month
N_{MI}
3
2
1
0
20
40
60
80
100
120
140
month

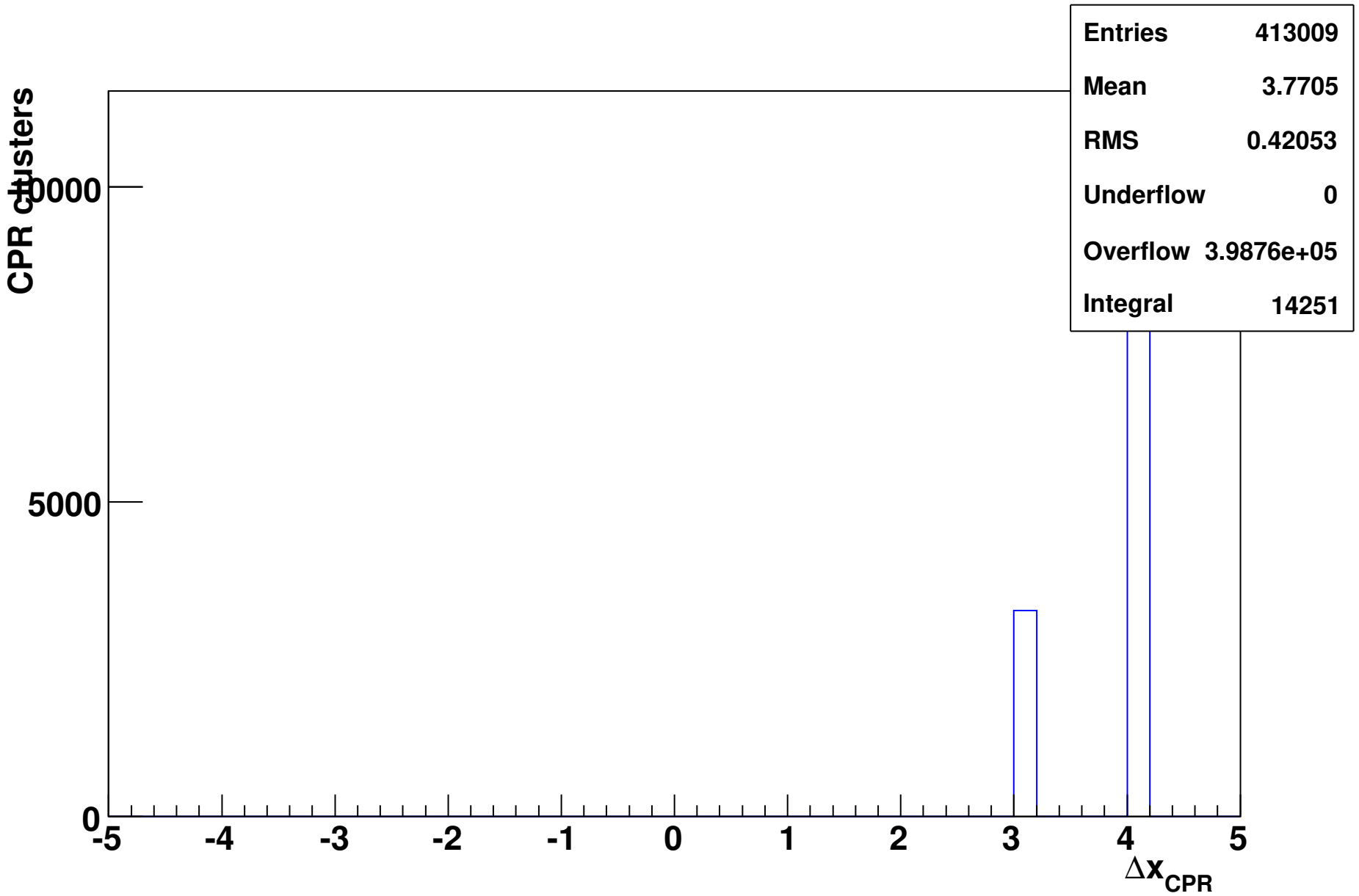

Entries 1027611
Mean 0.91856
RMS 1.0289
Underflow 0
Overflow 0
Integral 1.0276e+06
×10^3
events
400
200
0
0 1 2 3 4 5 6 7 8 9
N_MI

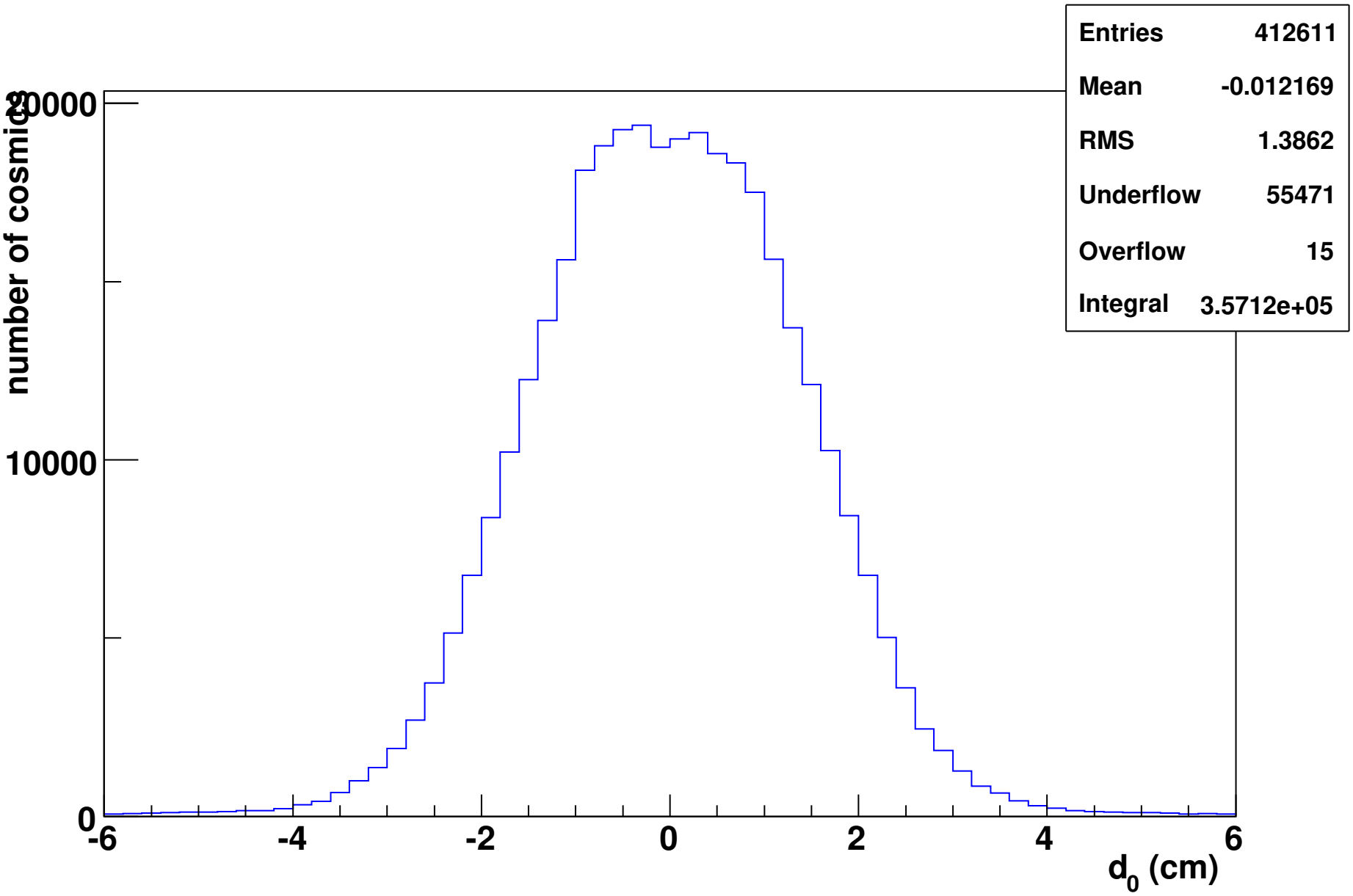

Entries 792558
Mean 1.8741
RMS 1.2463
Underflow 0
Overflow 28515
Integral 7.6404e+05
×10^3
events
400
200
0
0
1
2
3
4
5
6
7
8
9
N_muons

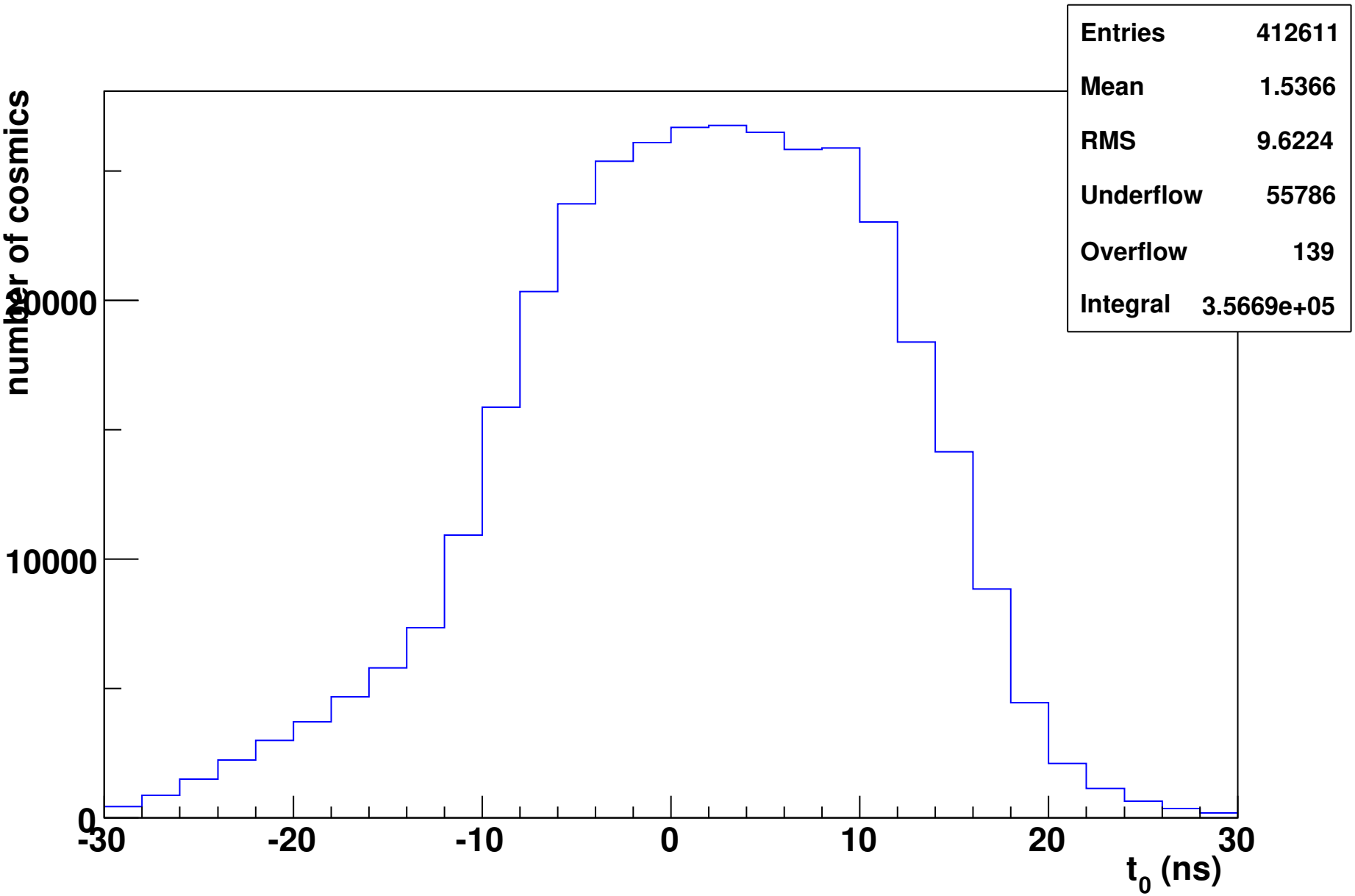

Entries 413009
Mean 1.7079
RMS 0.45515
Underflow 0
Overflow 0
Integral 4.1301e+05
×10^3
muons
300
200
100
0
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_cosmics

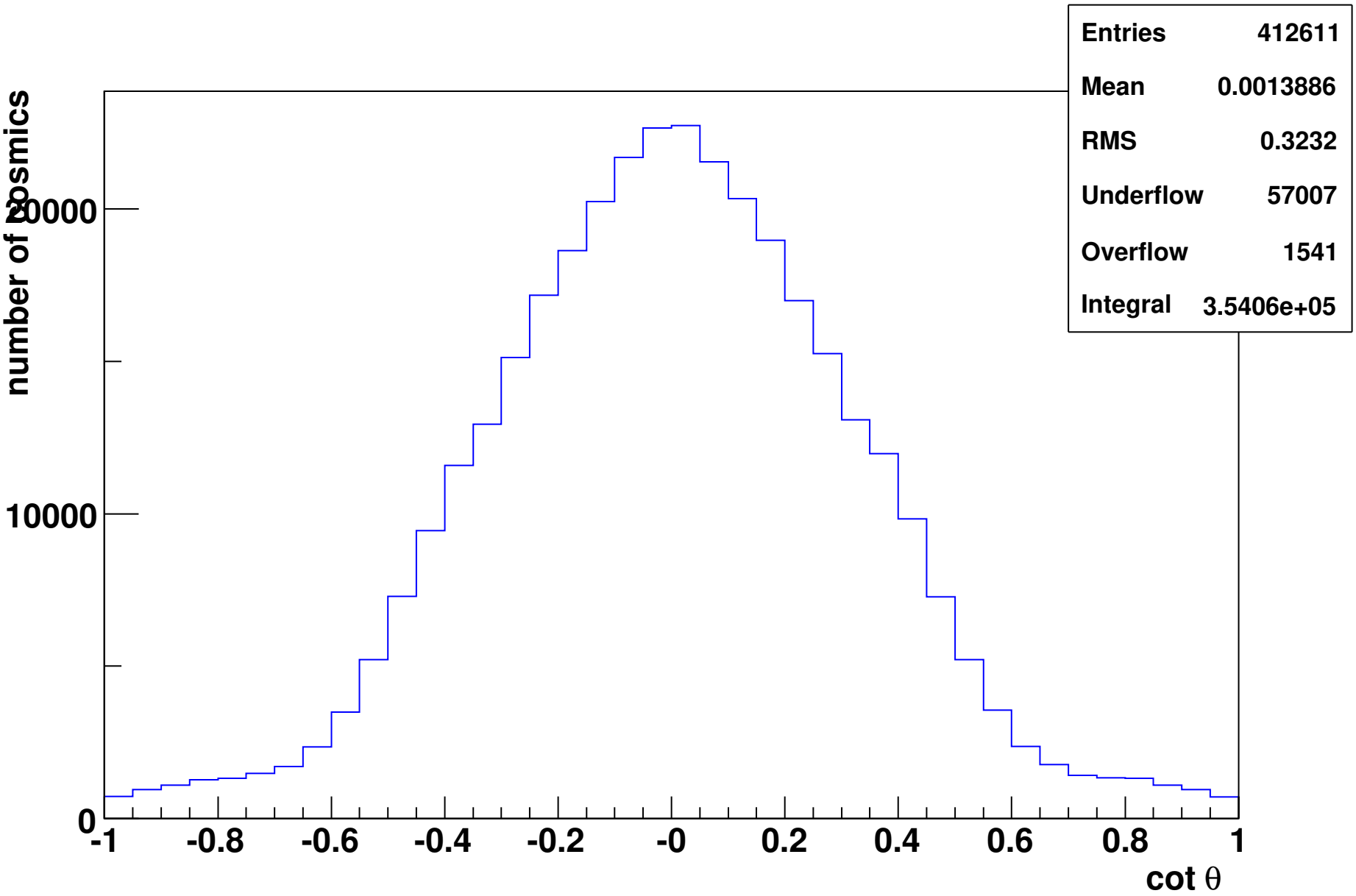

Entries 413009
Mean 2.9256
RMS 1.2679
Underflow 0
Overflow 4.052e+05
Integral 7808
CPR clusters
3000
2000
1000
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_CPR

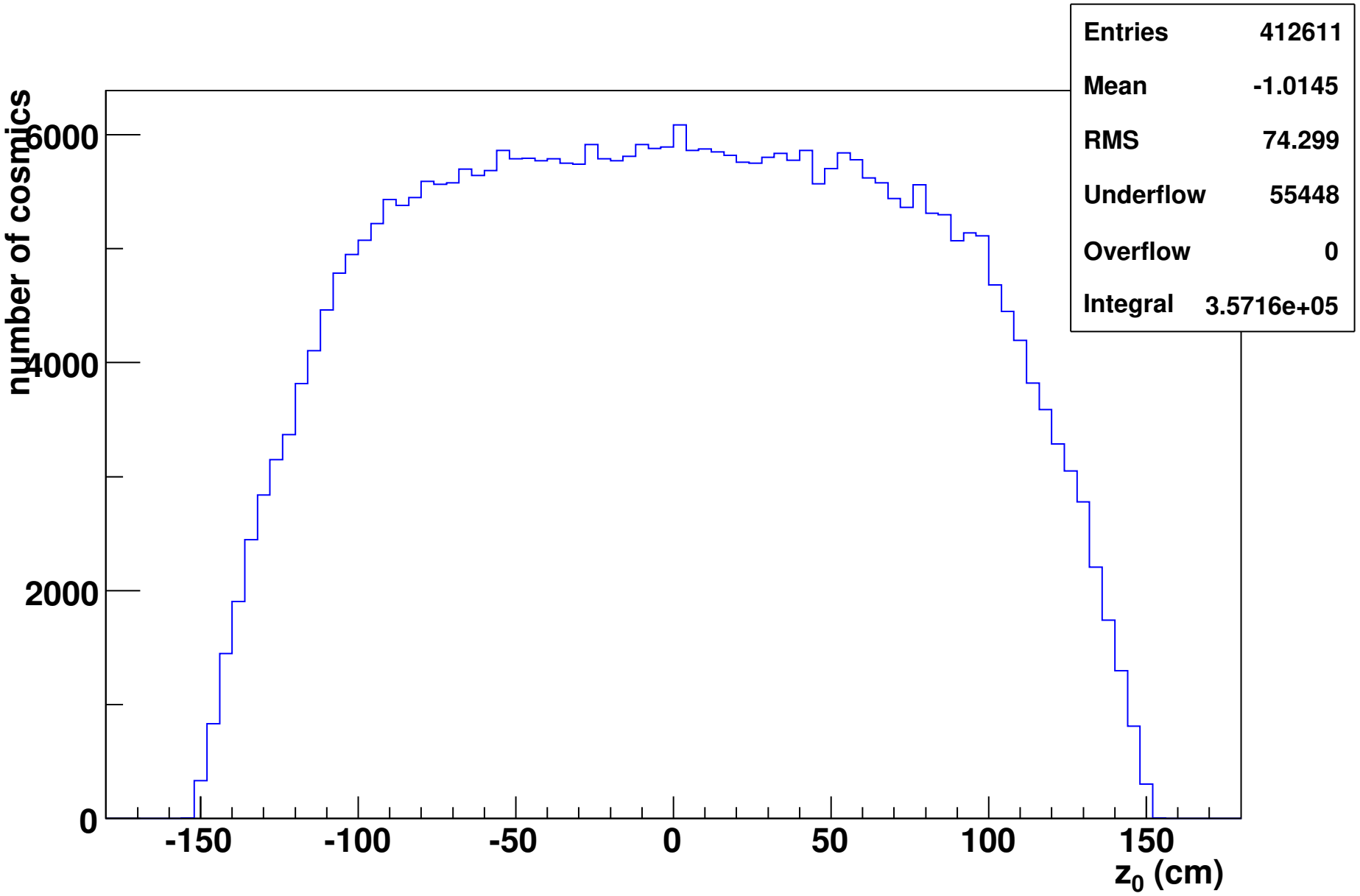

Entries 413009
Mean 0.35062
RMS 0.46914
Underflow 1.139e+05
Overflow 0
Integral 2.9911e+05
×10^3
CPR clusters
300
200
100
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
E_CPR

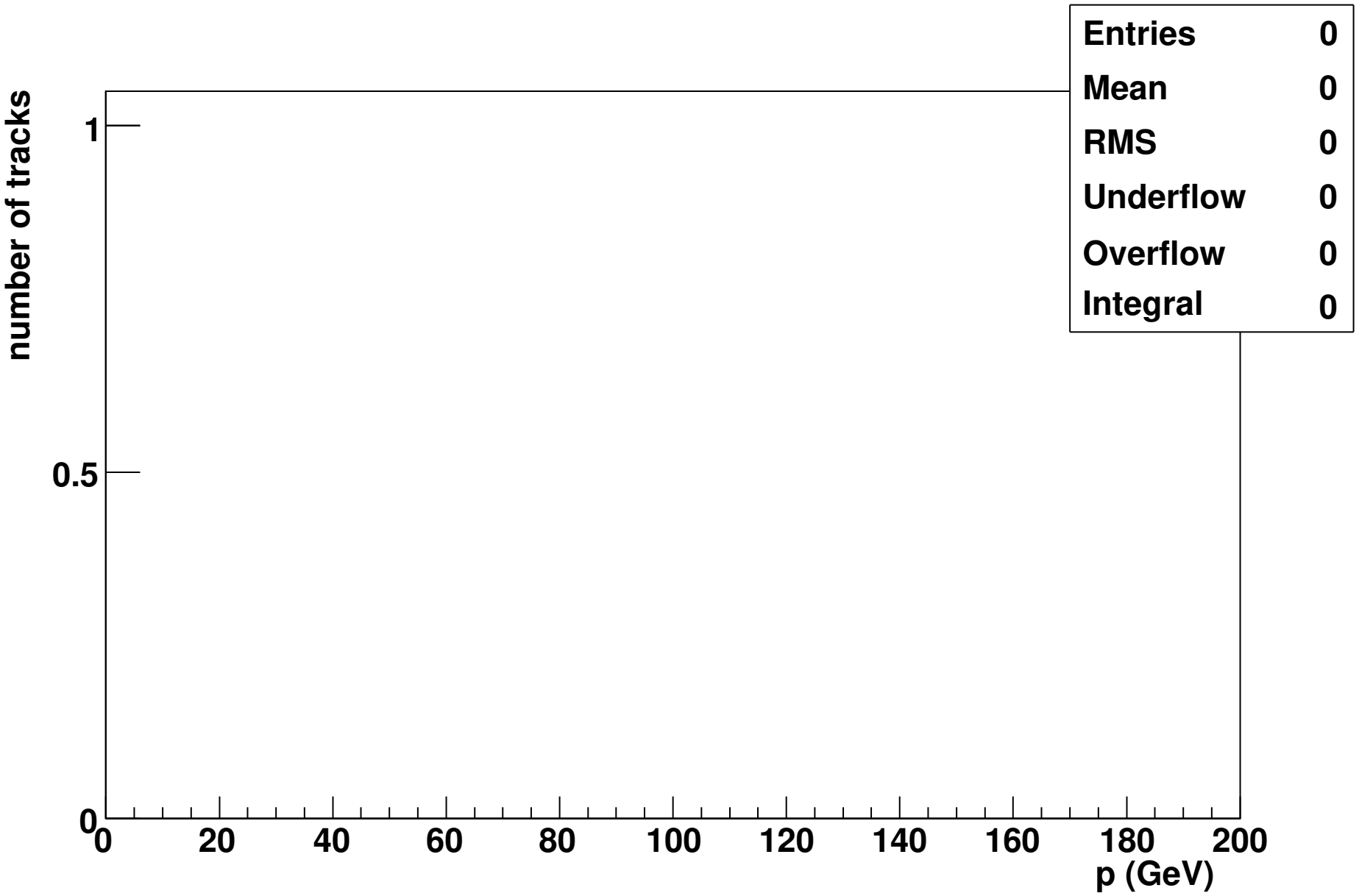

Entries 413009
Mean 3.7705
RMS 0.42053
Underflow 0
Overflow 3.9876e+05
Integral 14251
CPR clusters
10000
5000
0
-5
-4
-3
-2
-1
0
1
2
3
4
5
Δx_{CPR}

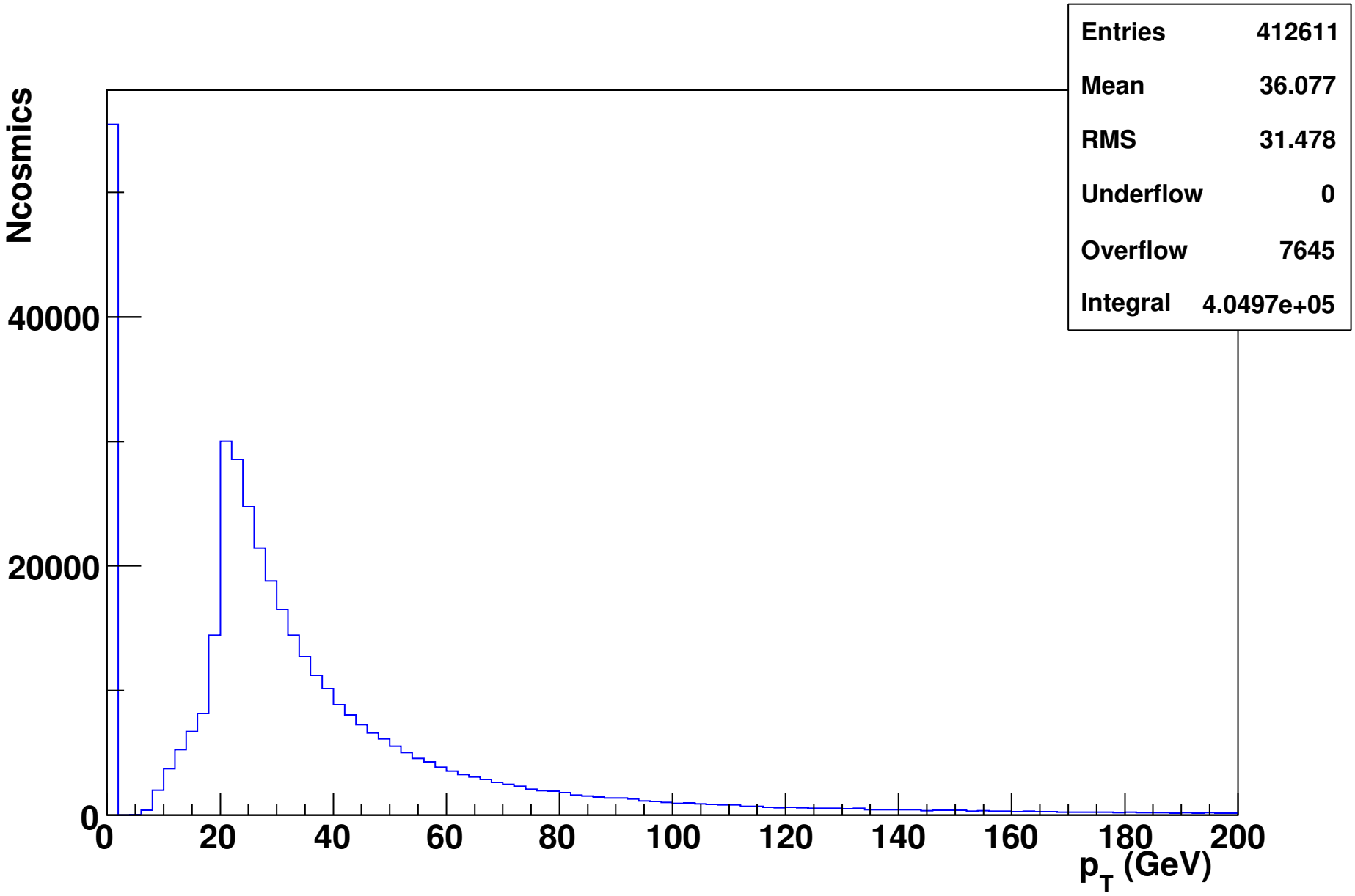

Entries 412611
Mean -0.012169
RMS 1.3862
Underflow 55471
Overflow 15
Integral 3.5712e+05
number of cosmics
20000
10000
0
-6
-4
-2
0
2
4
6
d_0 (cm)

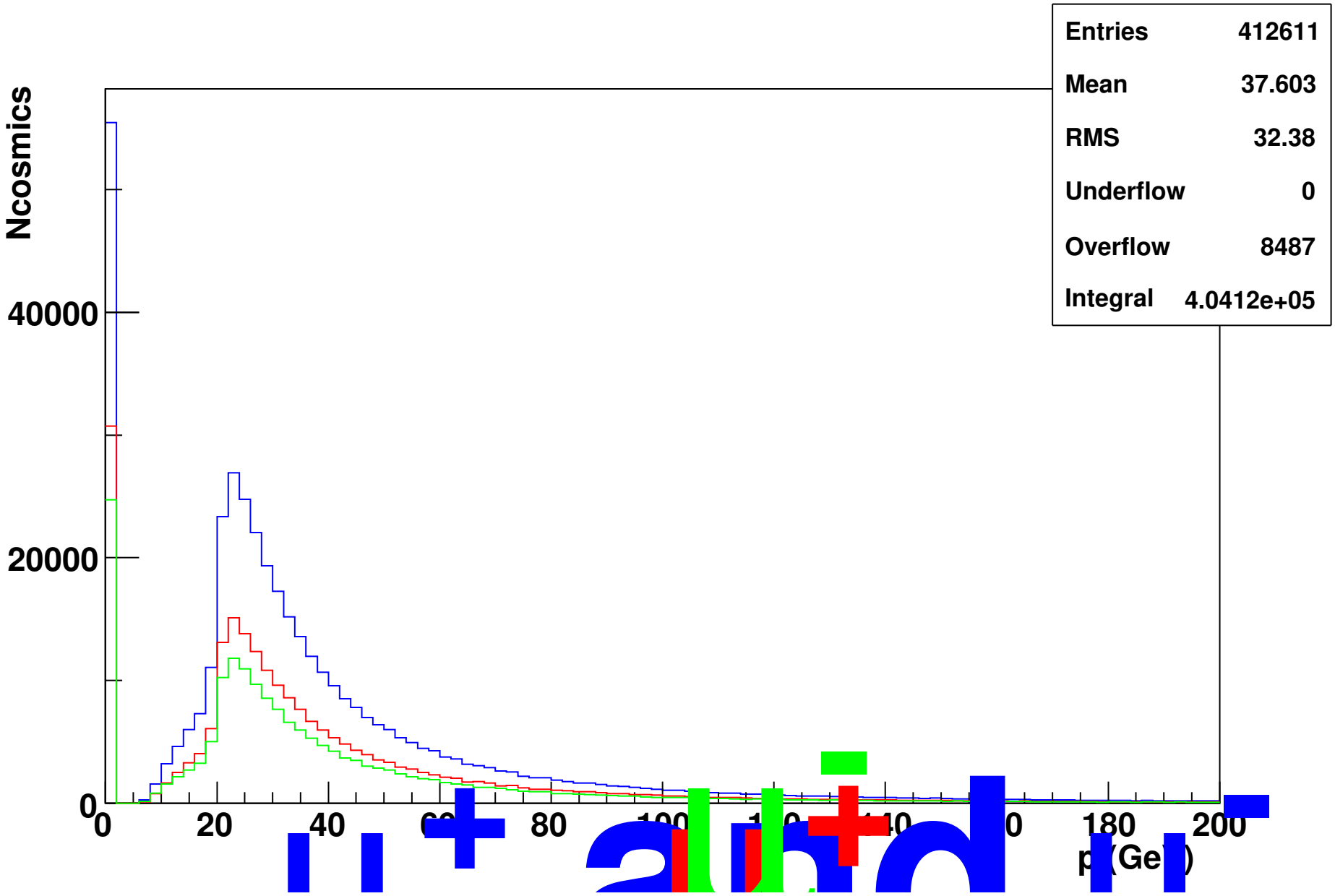

Entries 412611
Mean 1.5366
RMS 9.6224
Underflow 55786
Overflow 139
Integral 3.5669e+05
number of cosmics
20000
10000
0
-30
-20
-10
0
10
20
30
t0 (ns)

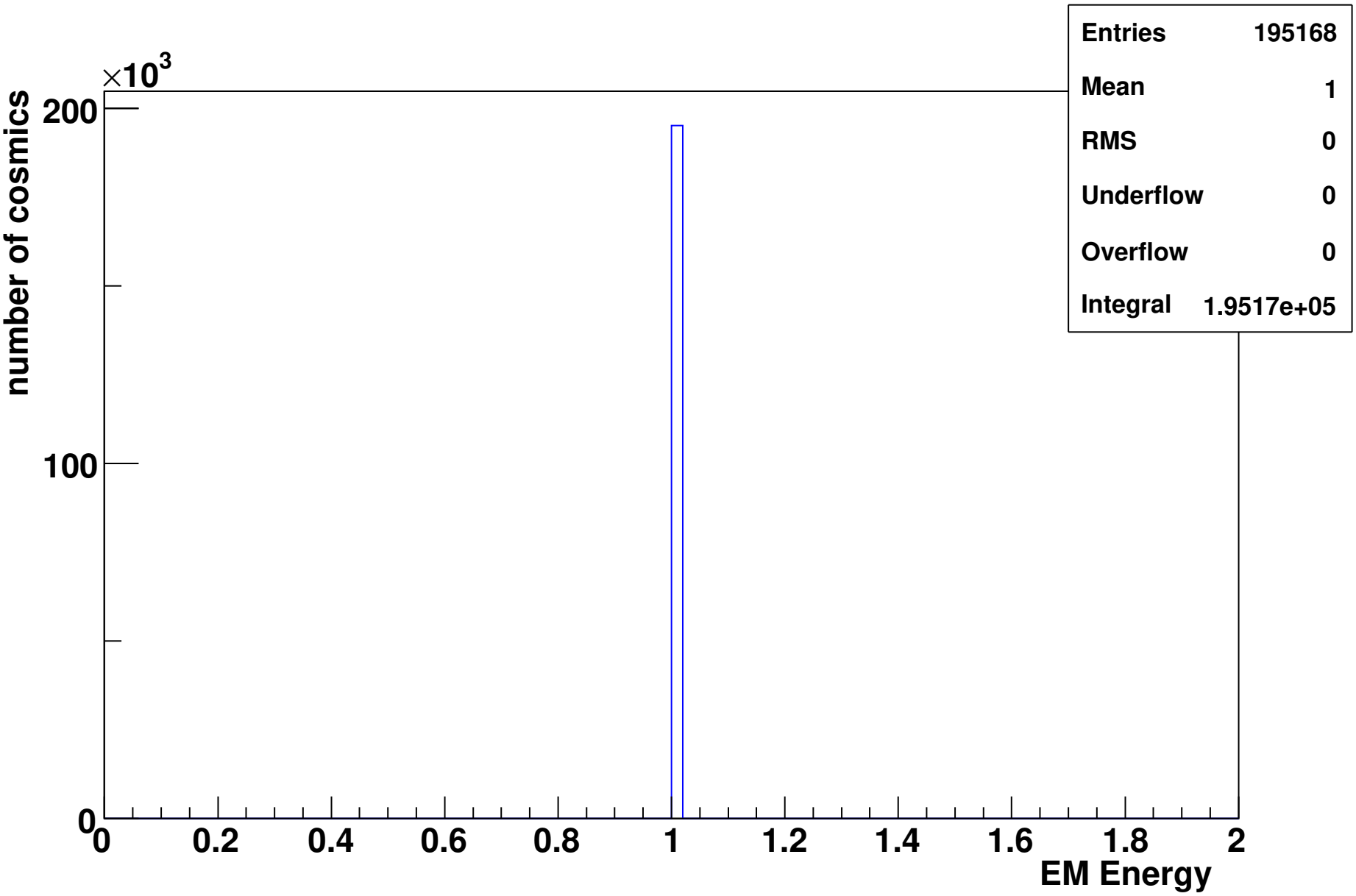

Entries 412611
Mean 0.0013886
RMS 0.3232
Underflow 57007
Overflow 1541
Integral 3.5406e+05
number of cosmics
20000
10000
0
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
cot θ

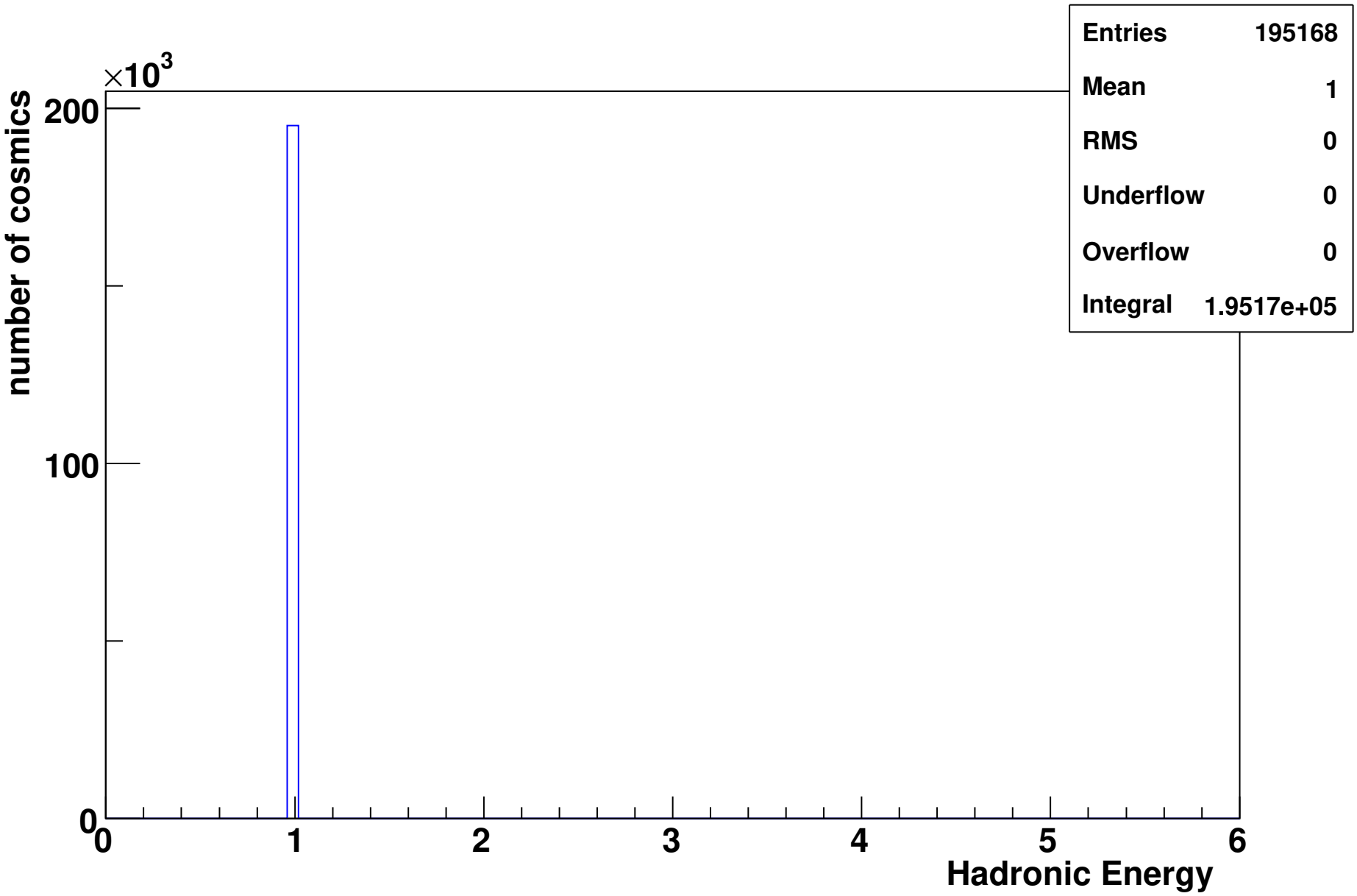

Entries 412611
Mean -1.0145
RMS 74.299
Underflow 55448
Overflow 0
Integral 3.5716e+05
number of cosmics
6000
4000
2000
0
-150
-100
-50
0
50
100
150
z_0 (cm)

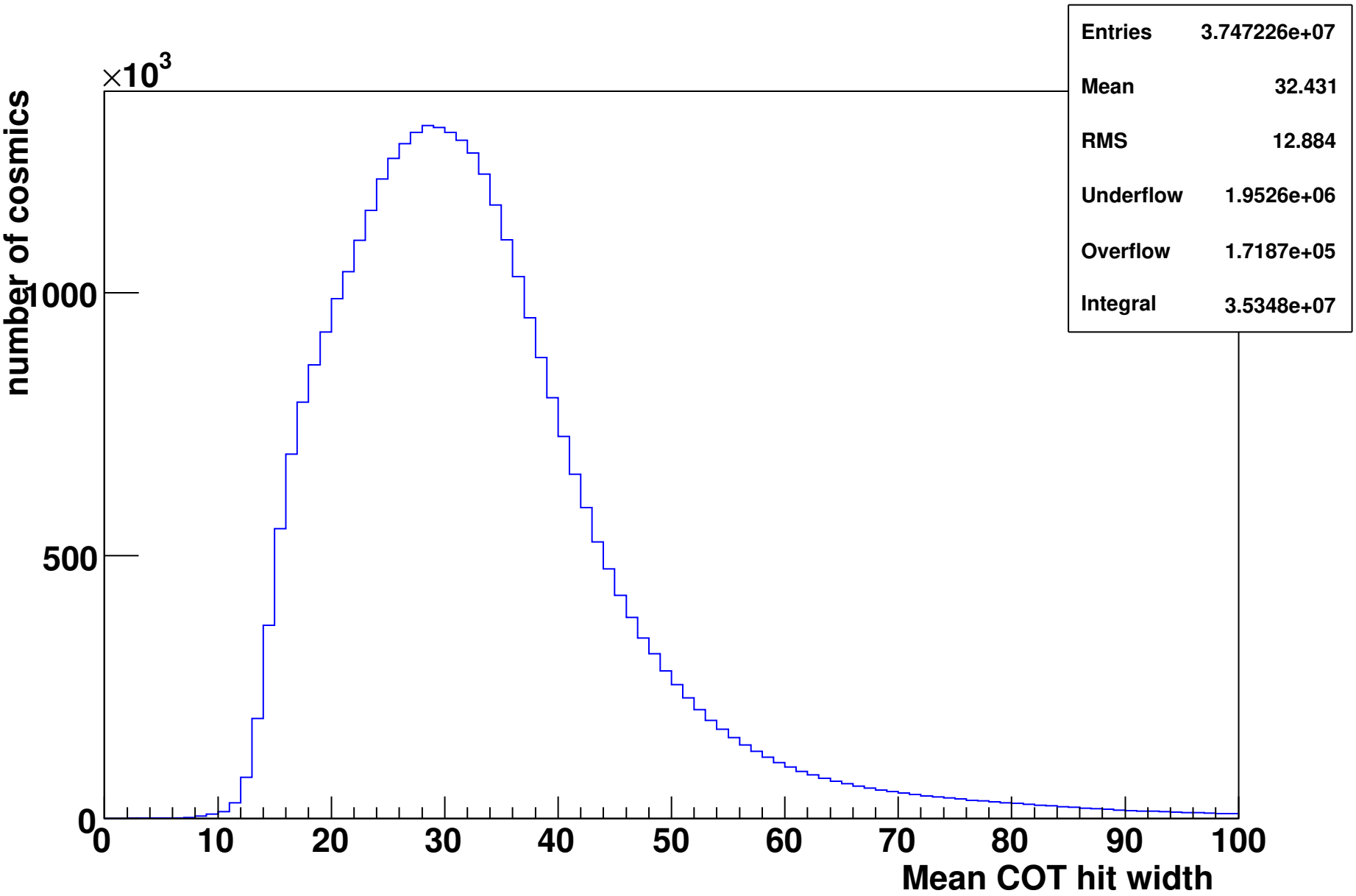

Entries 0
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 0
number of tracks
1
0.5
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

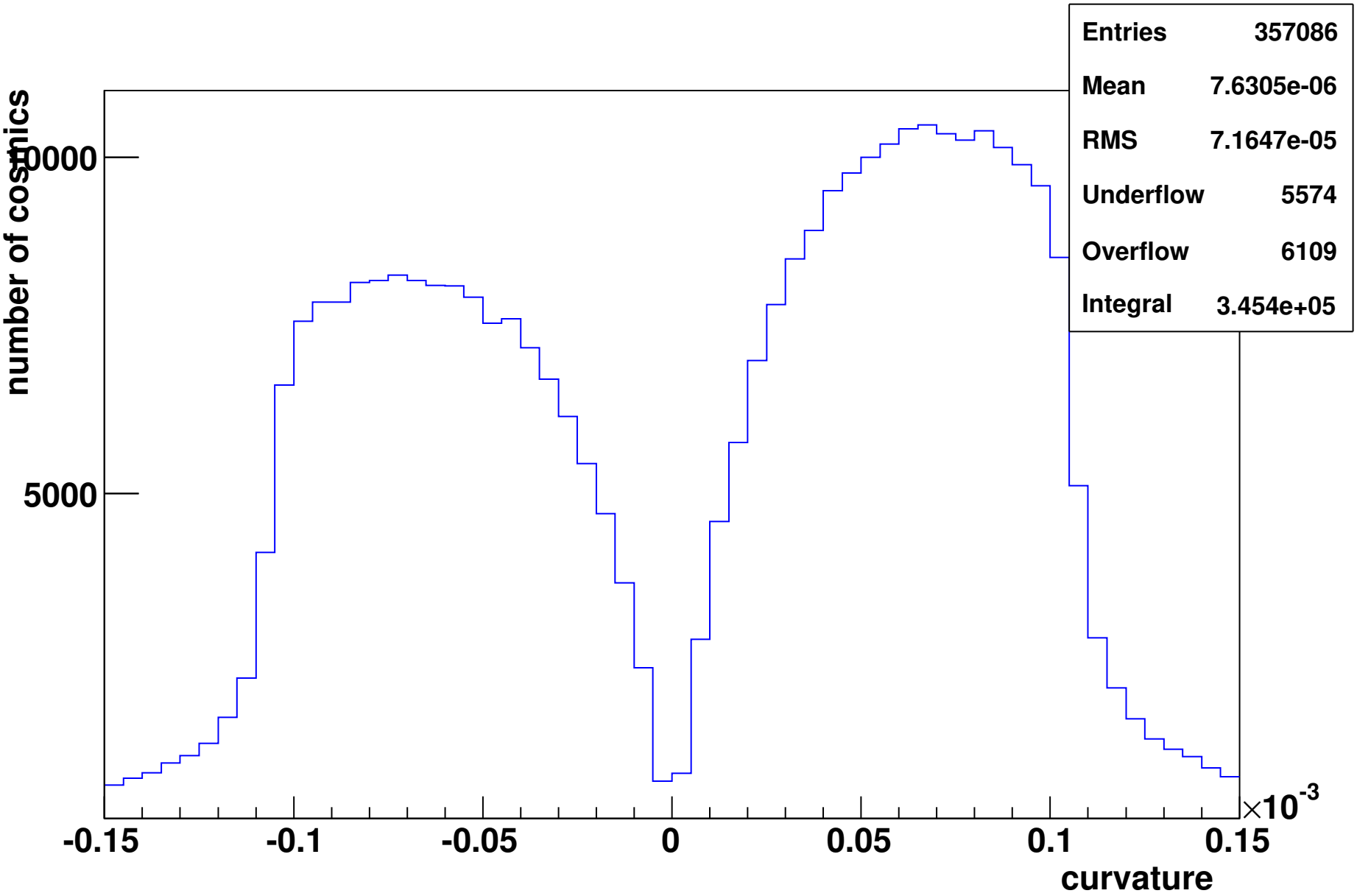

Entries 412611
Mean 36.077
RMS 31.478
Underflow 0
Overflow 7645
Integral 4.0497e+05
Ncosmics
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p_T (GeV)

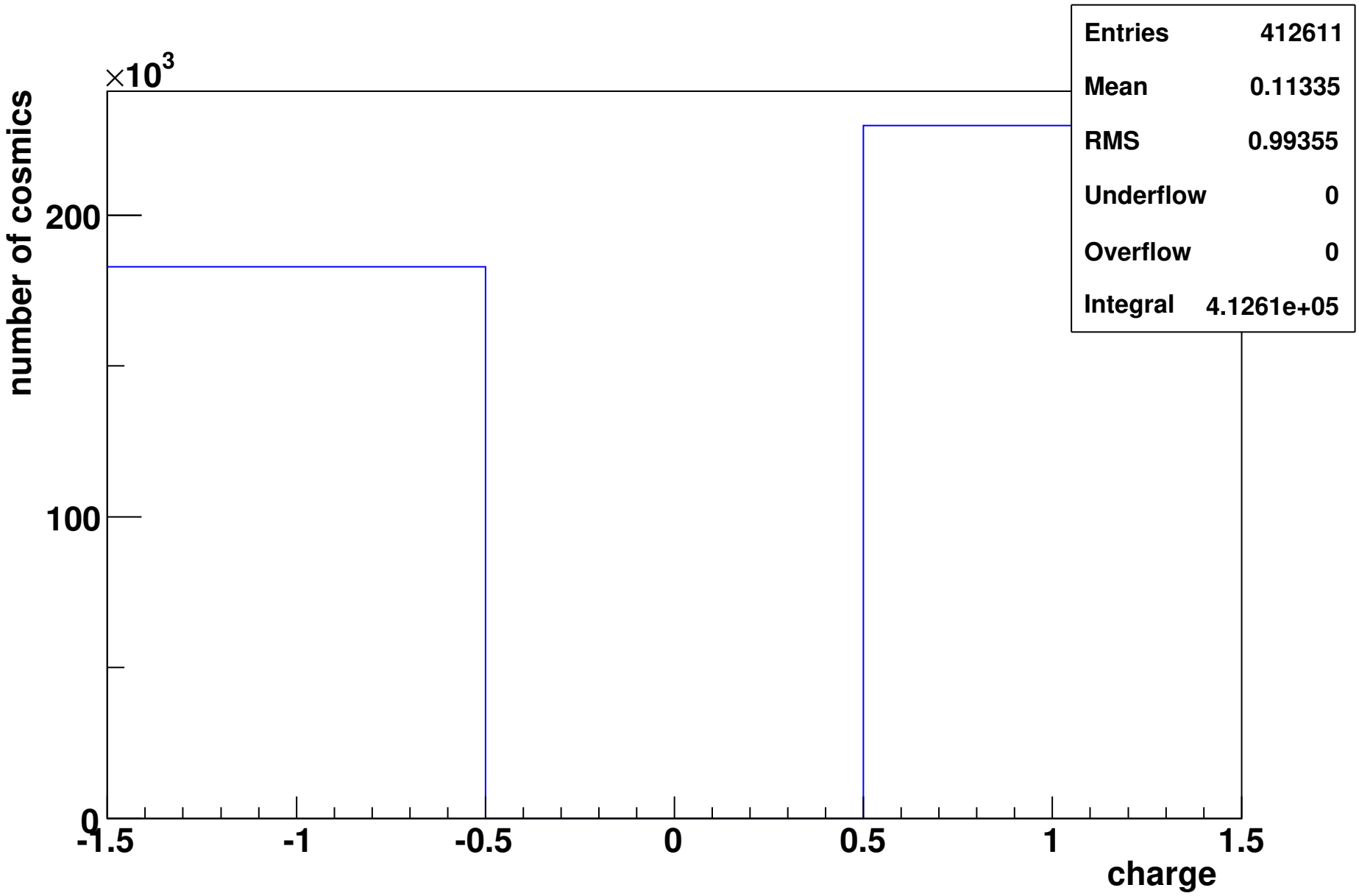

Entries 412611
Mean 37.603
RMS 32.38
Underflow 0
Overflow 8487
Integral 4.0412e+05
Ncosmics
40000
20000
0
0
20
40
80
180
200
p (GeV)

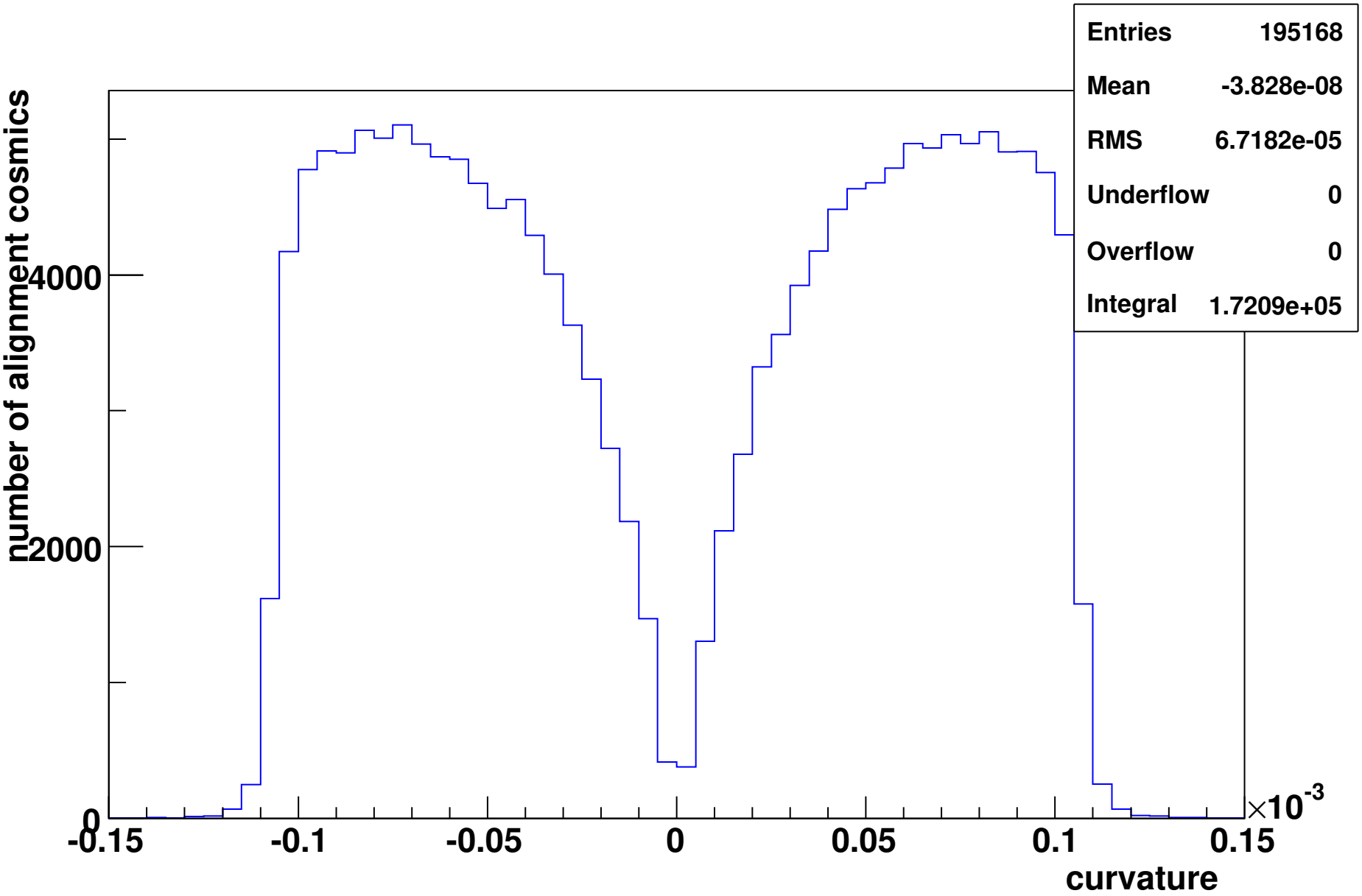

Entries 195168
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 1.9517e+05
×10^3
number of cosmics
200
100
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
EM Energy

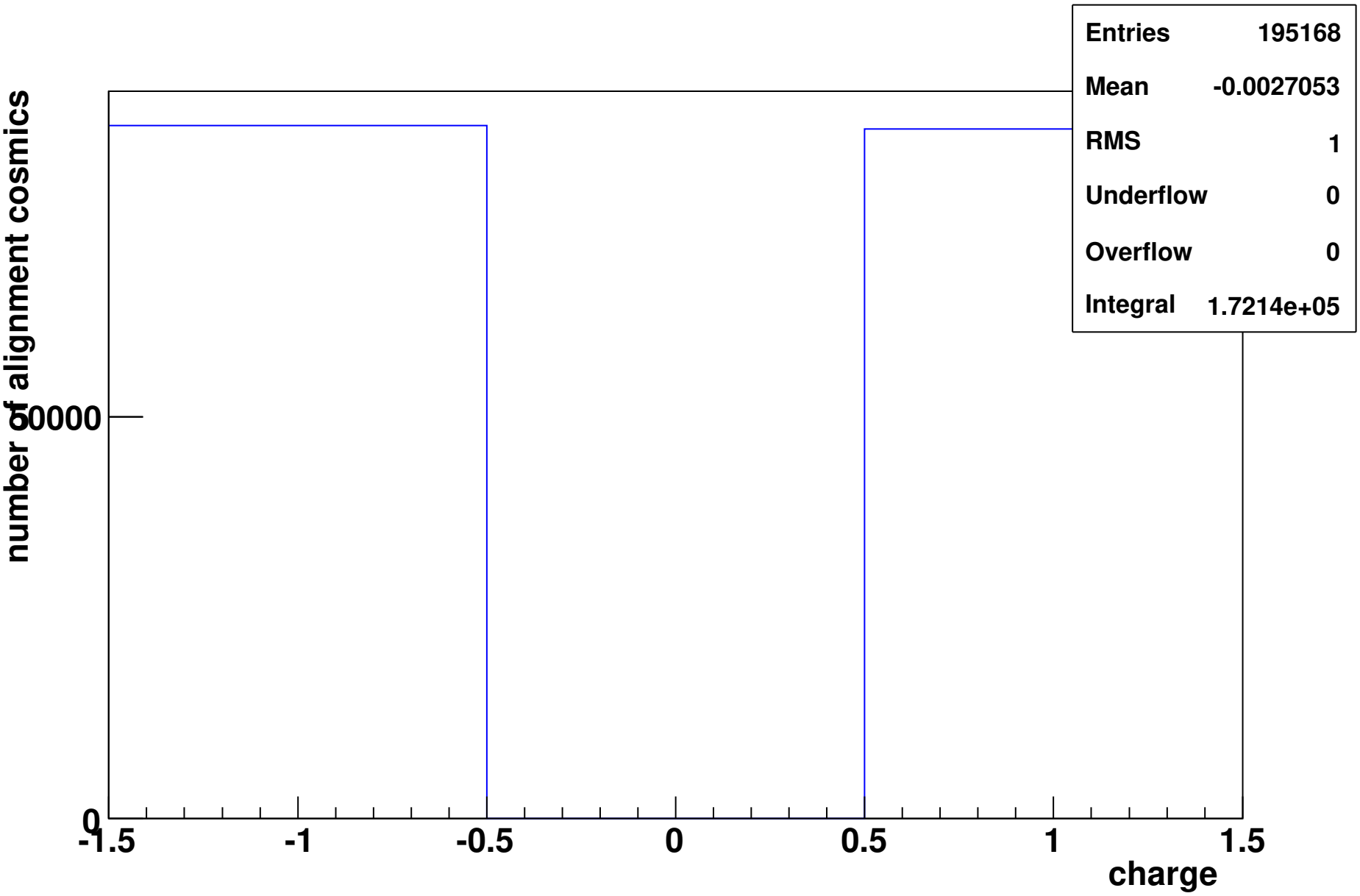

Entries 195168
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 1.9517e+05
×10^3
number of cosmics
200
100
0
0
1
2
3
4
5
6
Hadronic Energy

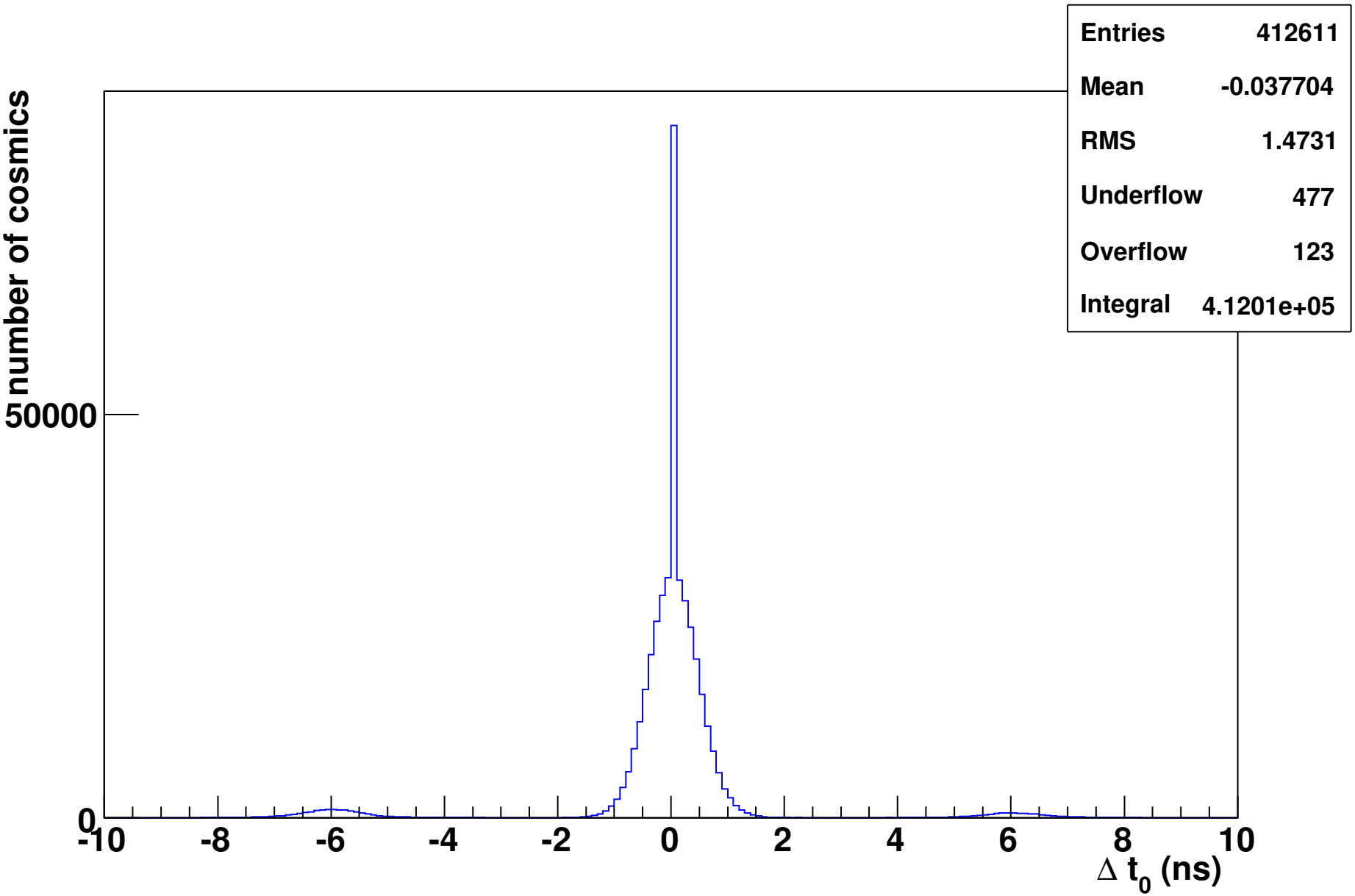

Entries 3.747226e+07
Mean 32.431
RMS 12.884
Underflow 1.9526e+06
Overflow 1.7187e+05
Integral 3.5348e+07
×10^3
number of cosmics
1000
500
0
0
10
20
30
40
50
60
70
80
90
100
Mean COT hit width

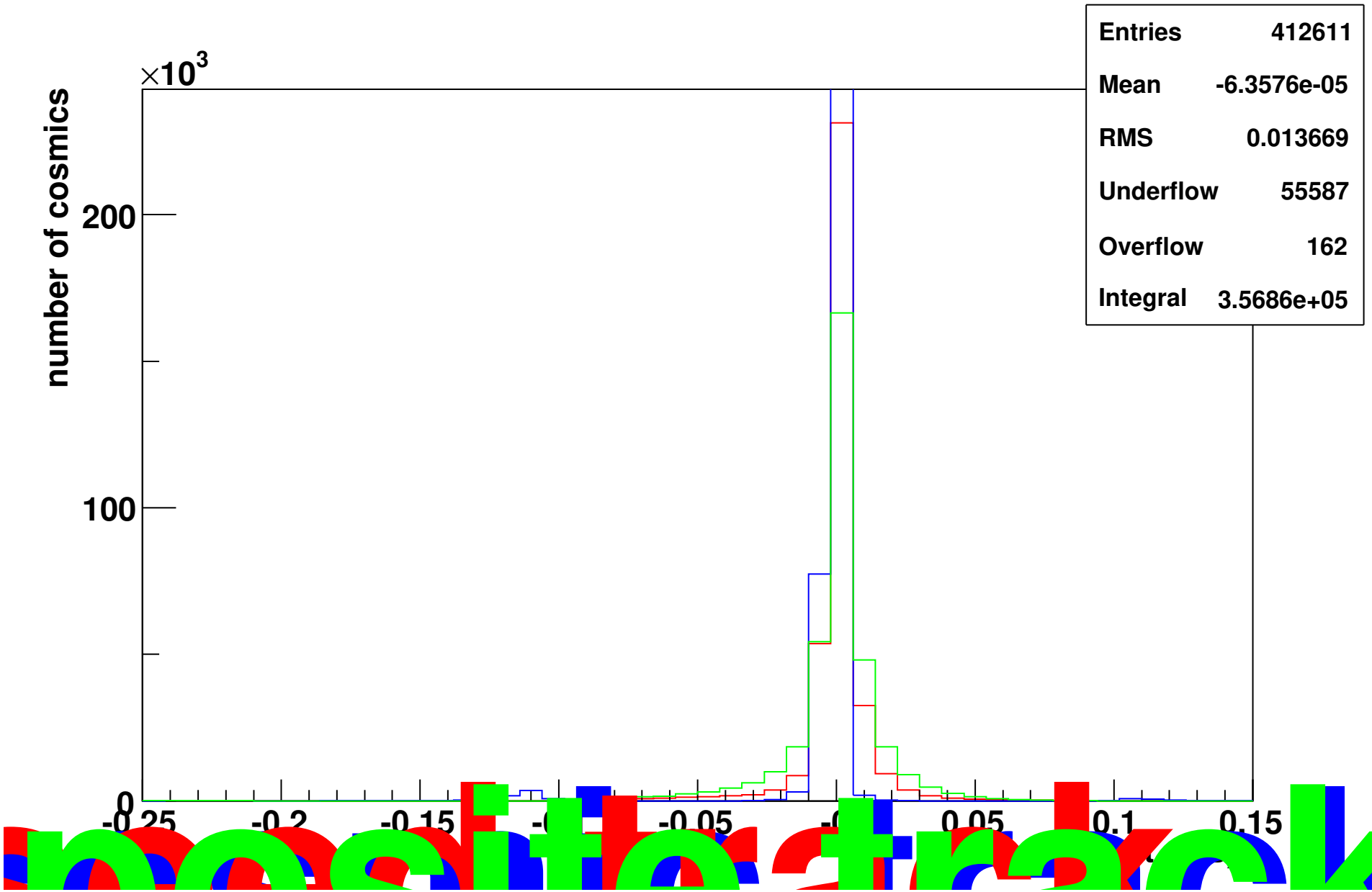

Entries 357086
Mean 7.6305e-06
RMS 7.1647e-05
Underflow 5574
Overflow 6109
Integral 3.454e+05
number of cosmics
10000
5000
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

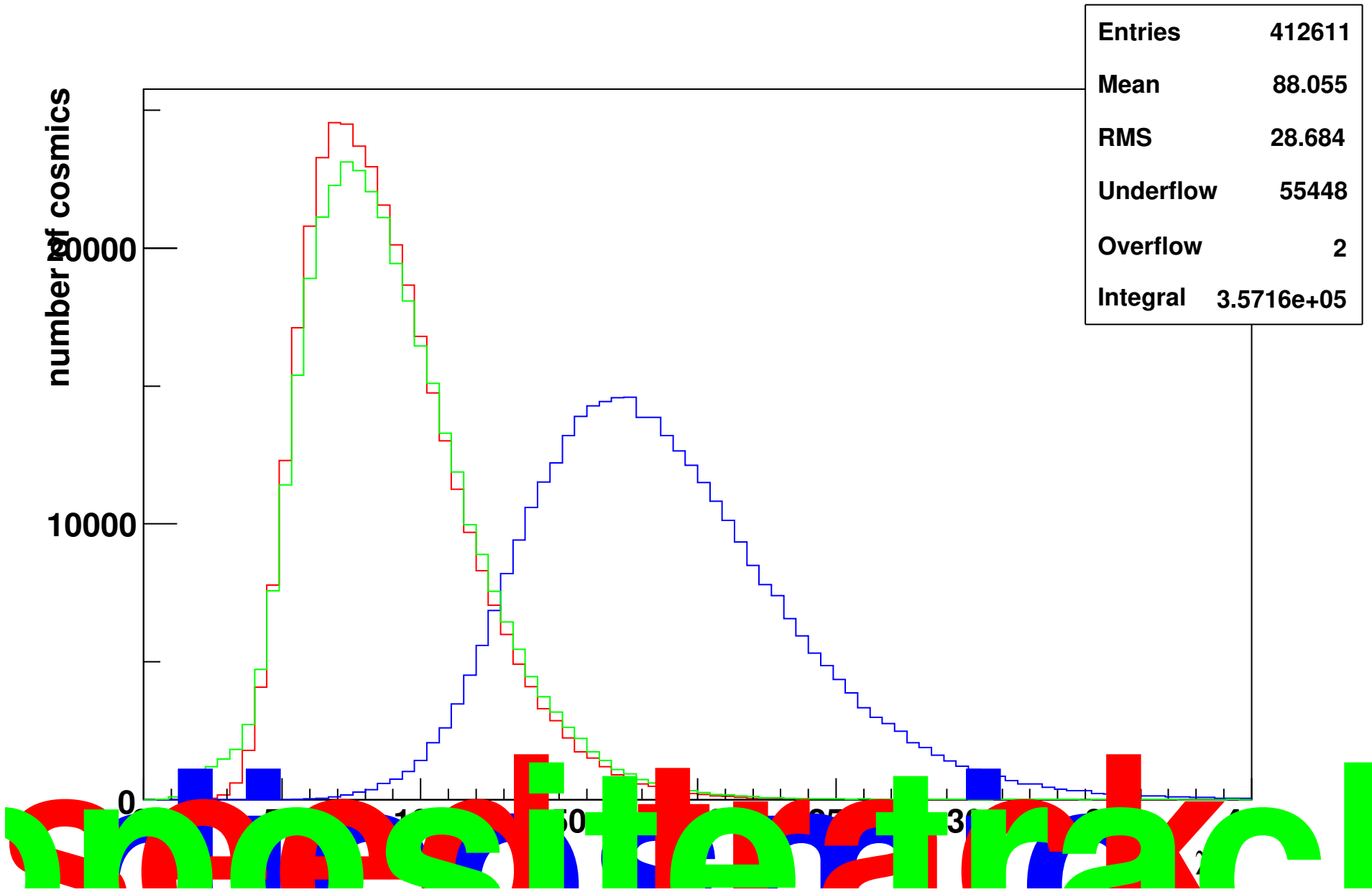

Entries 412611
Mean 0.11335
RMS 0.99355
Underflow 0
Overflow 0
Integral 4.1261e+05
×10^3
number of cosmics
200
100
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge

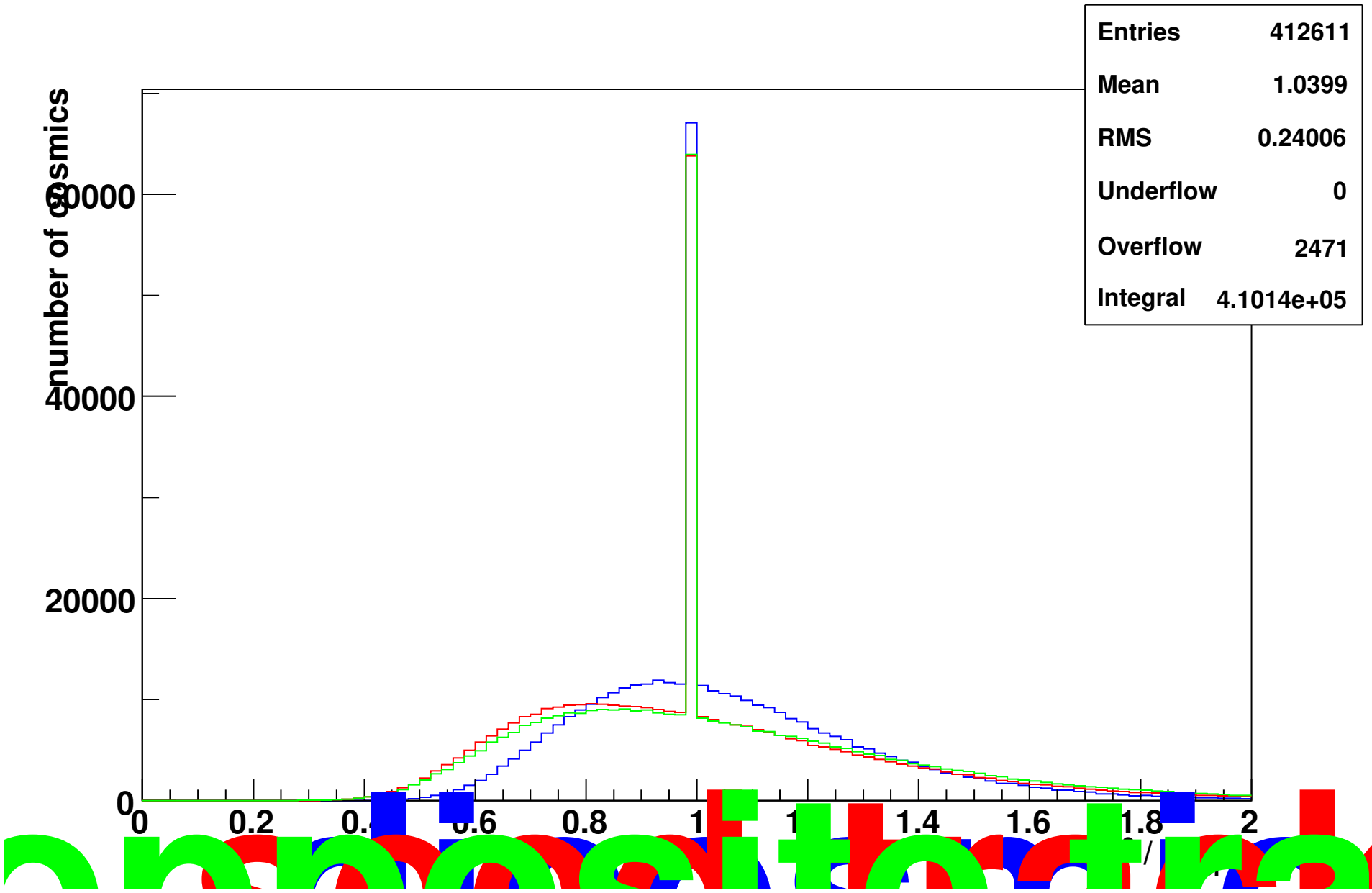

Entries 195168
Mean -3.828e-08
RMS 6.7182e-05
Underflow 0
Overflow 0
Integral 1.7209e+05
number of alignment cosmics
4000
2000
0
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

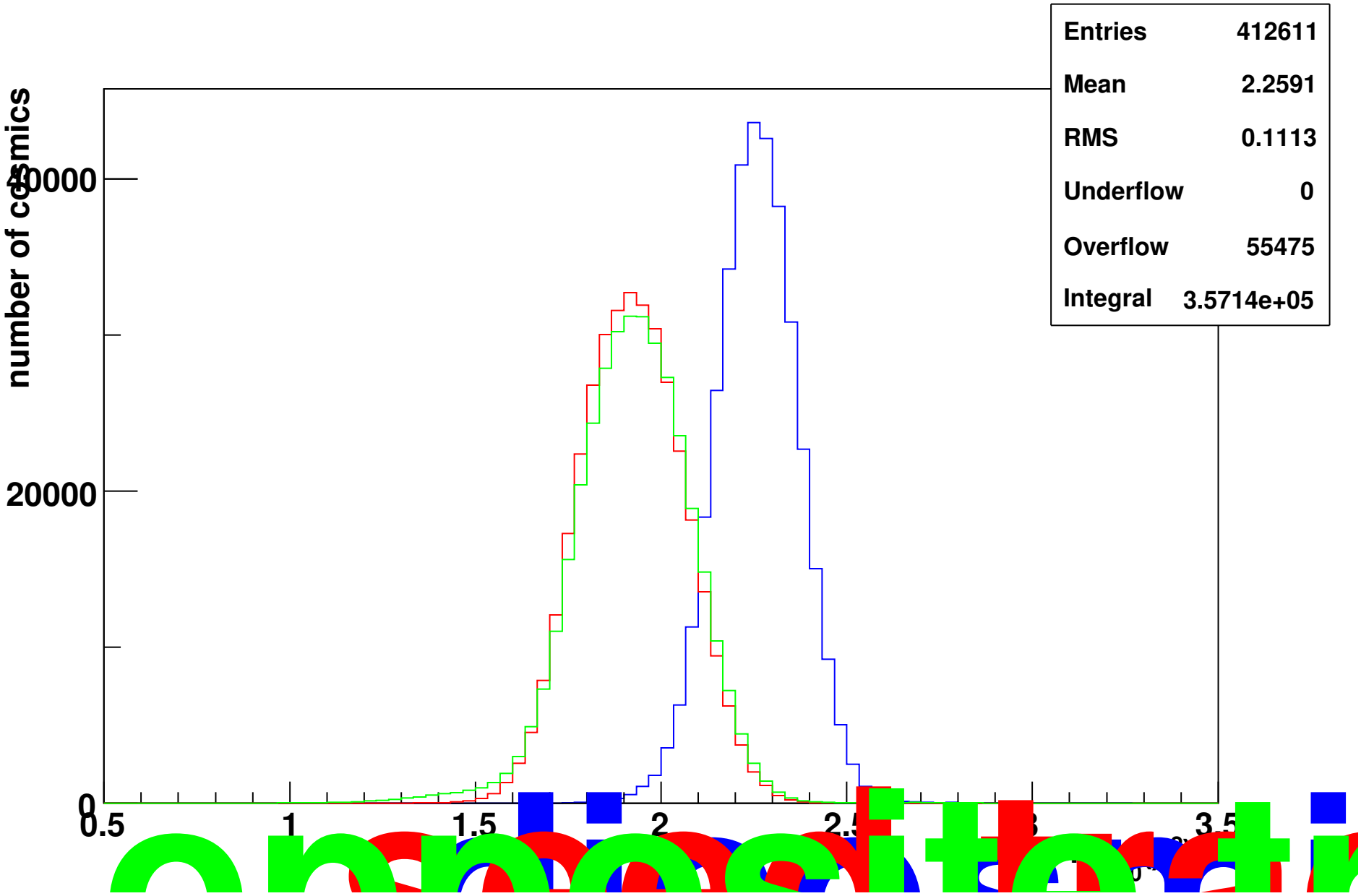

Entries 195168
Mean -0.0027053
RMS 1
Underflow 0
Overflow 0
Integral 1.7214e+05
number of alignment cosmics
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 412611
Mean -0.037704
RMS 1.4731
Underflow 477
Overflow 123
Integral 4.1201e+05
number of cosmics
50000
0
-10
-8
-6
-4
-2
0
2
4
6
8
10
Δ t0 (ns)

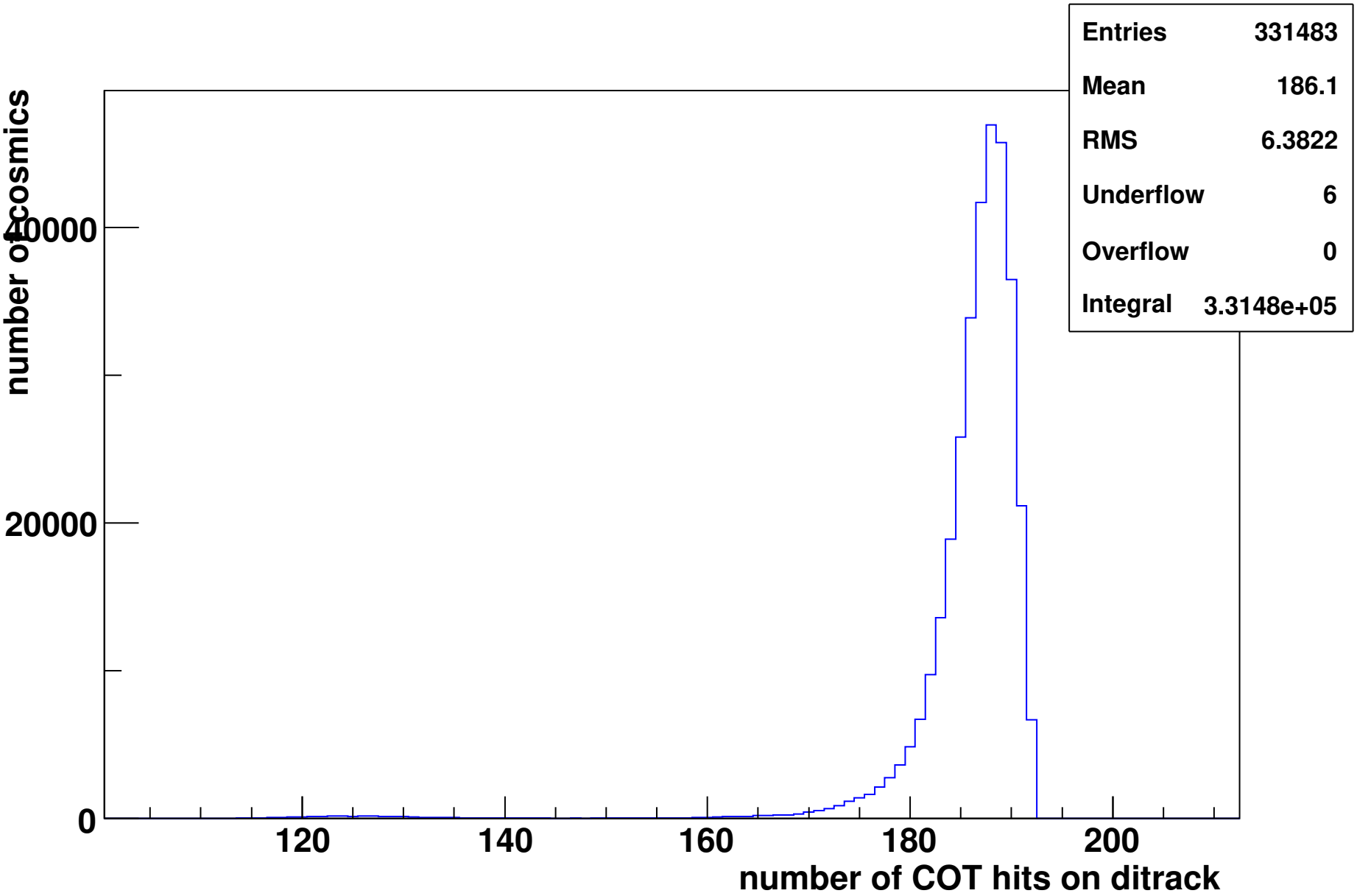

Entries 412611
Mean -6.3576e-05
RMS 0.013669
Underflow 55587
Overflow 162
Integral 3.5686e+05
number of cosmics
×10^3
200
100
0
-0.25
-0.2
-0.15
-0.05
0.05
0.1
0.15

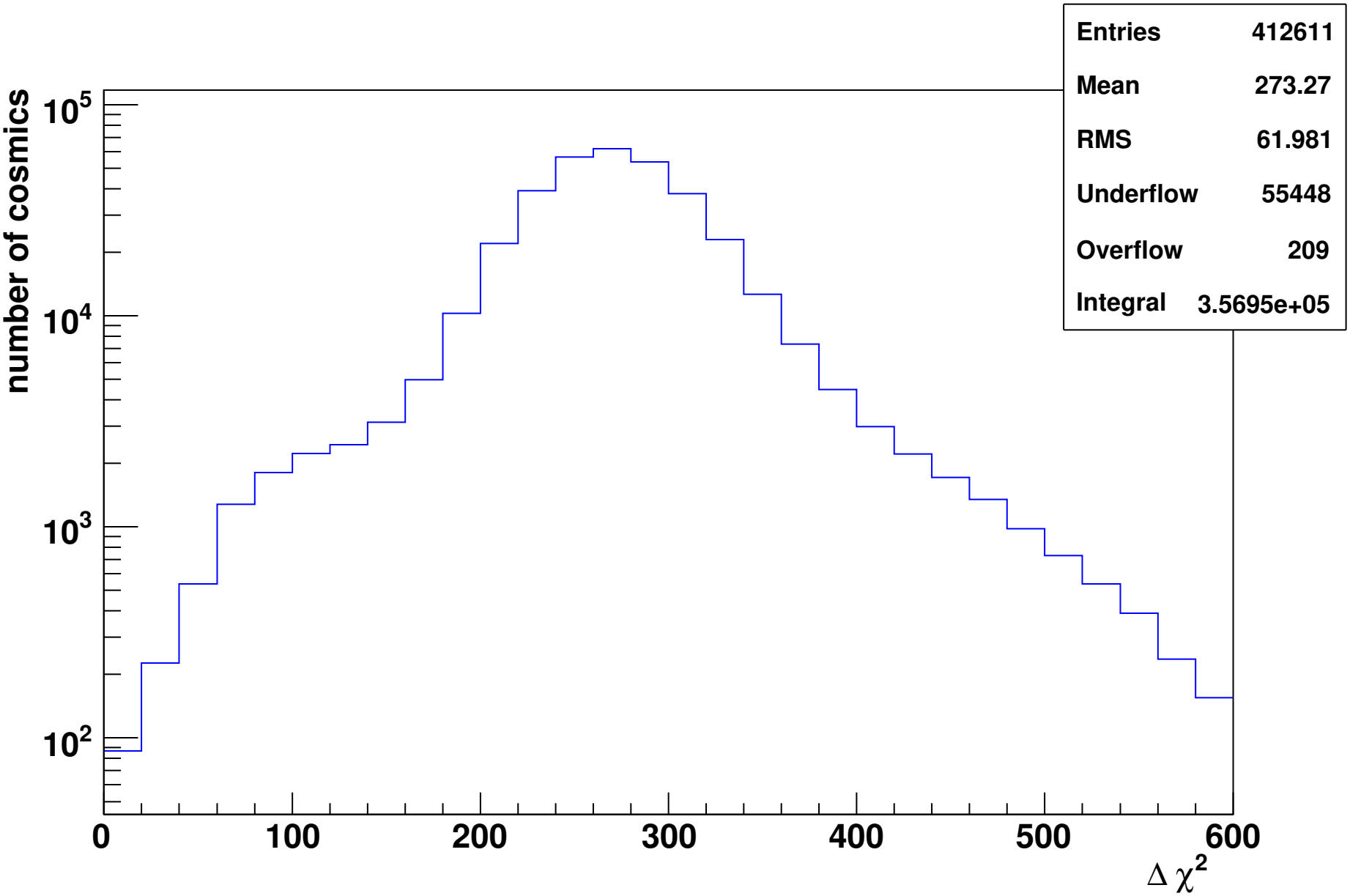

Entries 412611
Mean 88.055
RMS 28.684
Underflow 55448
Overflow 2
Integral 3.5716e+05
number of cosmics
20000
10000
0

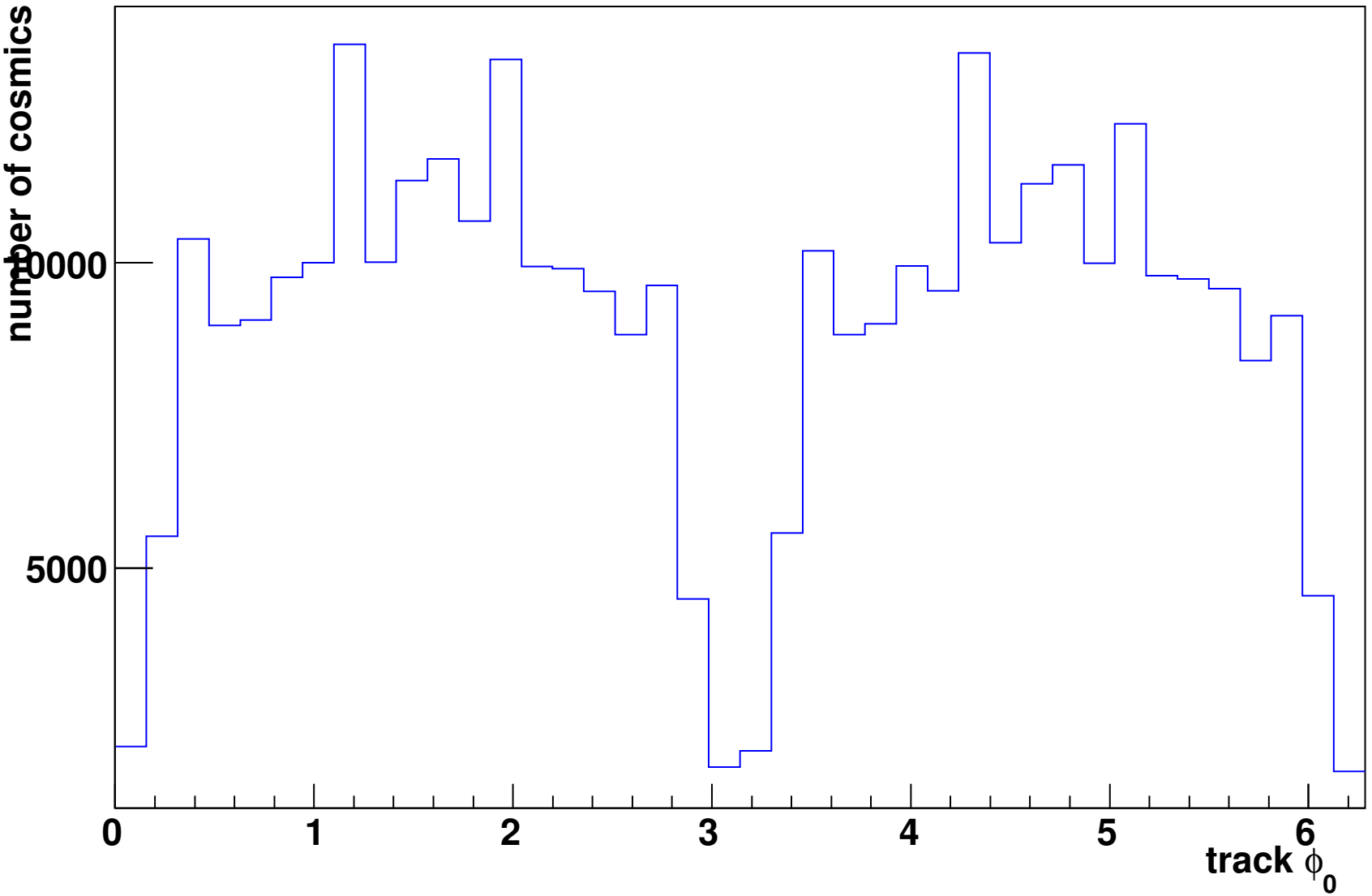

Entries 412611
Mean 1.0399
RMS 0.24006
Underflow 0
Overflow 2471
Integral 4.1014e+05
number of cosmics
60000
40000
20000
0
0
0.2
0.6
0.8
1.4
1.6
1.8
2

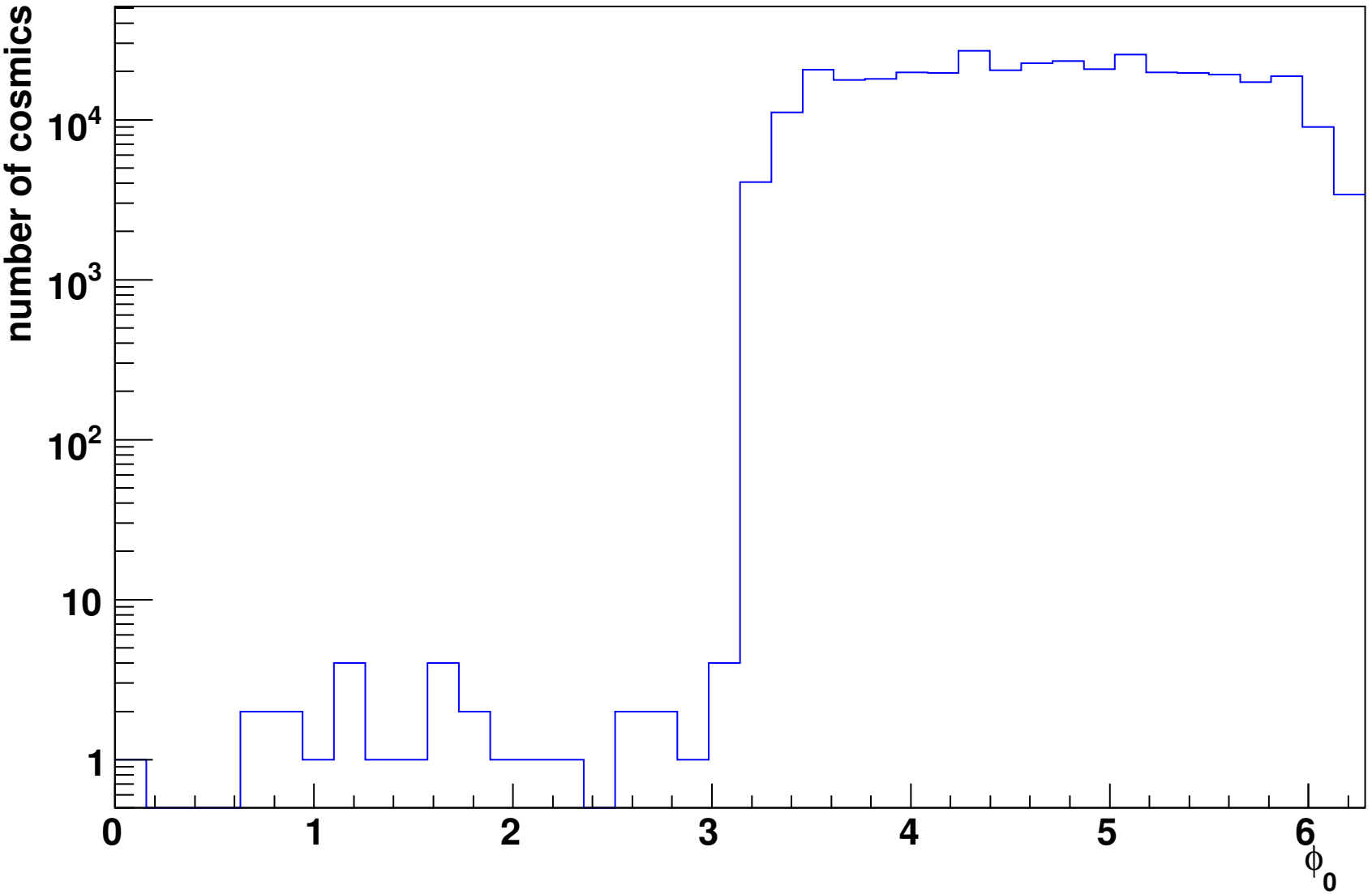

Entries 412611
Mean 2.2591
RMS 0.1113
Underflow 0
Overflow 55475
Integral 3.5714e+05
number of cosmics
40000
20000
0
0.5
1
1.5
2
2.5
3.5

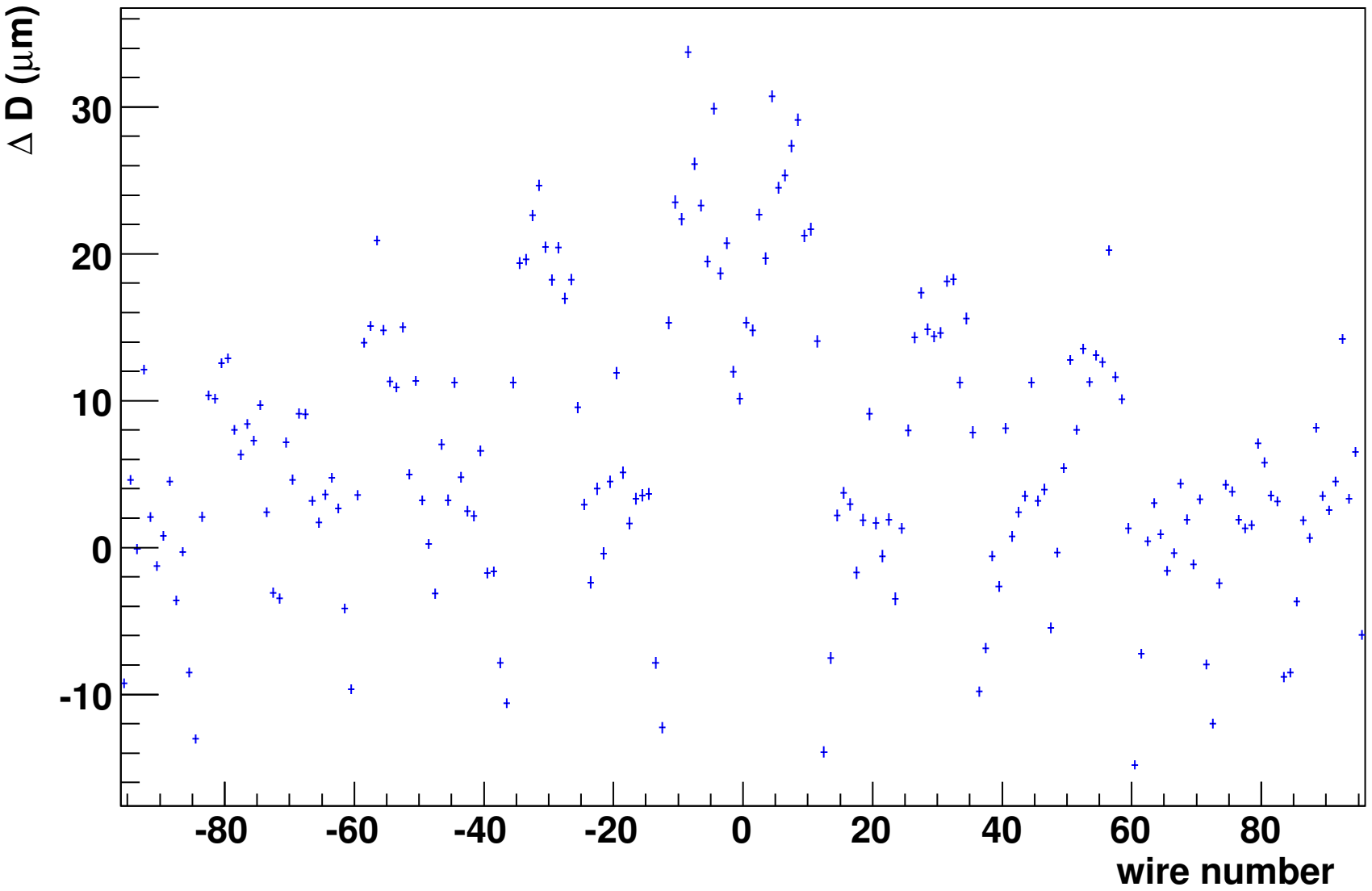
Entries 412611
number of ditracks
10^5
10^4
10^3
10^2
10
-0.5
0
0.5
1
1.5
2
2.5
3
4
4.5
ditrack type

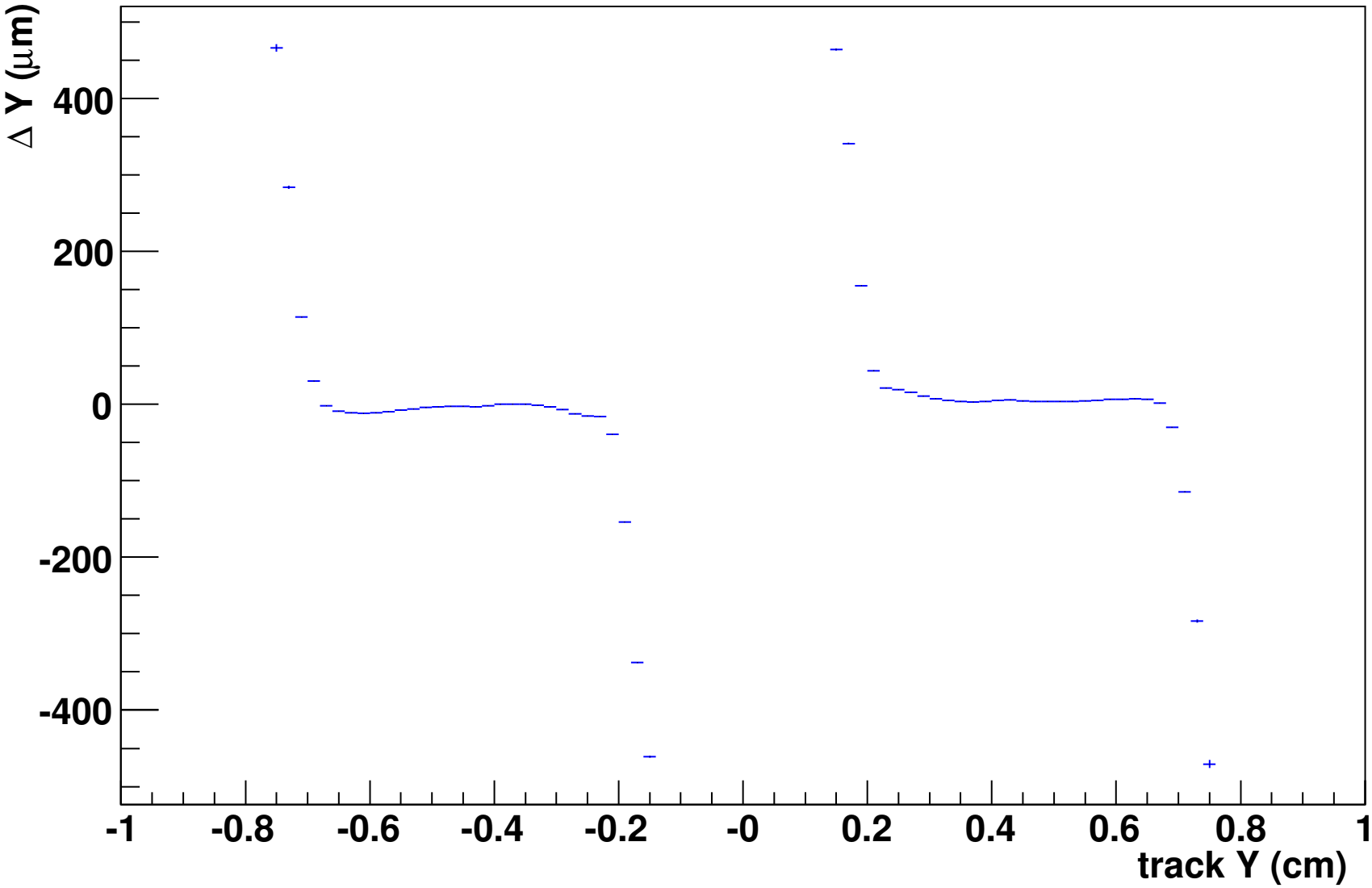

Entries 331483
Mean 186.1
RMS 6.3822
Underflow 6
Overflow 0
Integral 3.3148e+05
number of cosmics
40000
20000
0
120
140
160
180
200
number of COT hits on ditrack

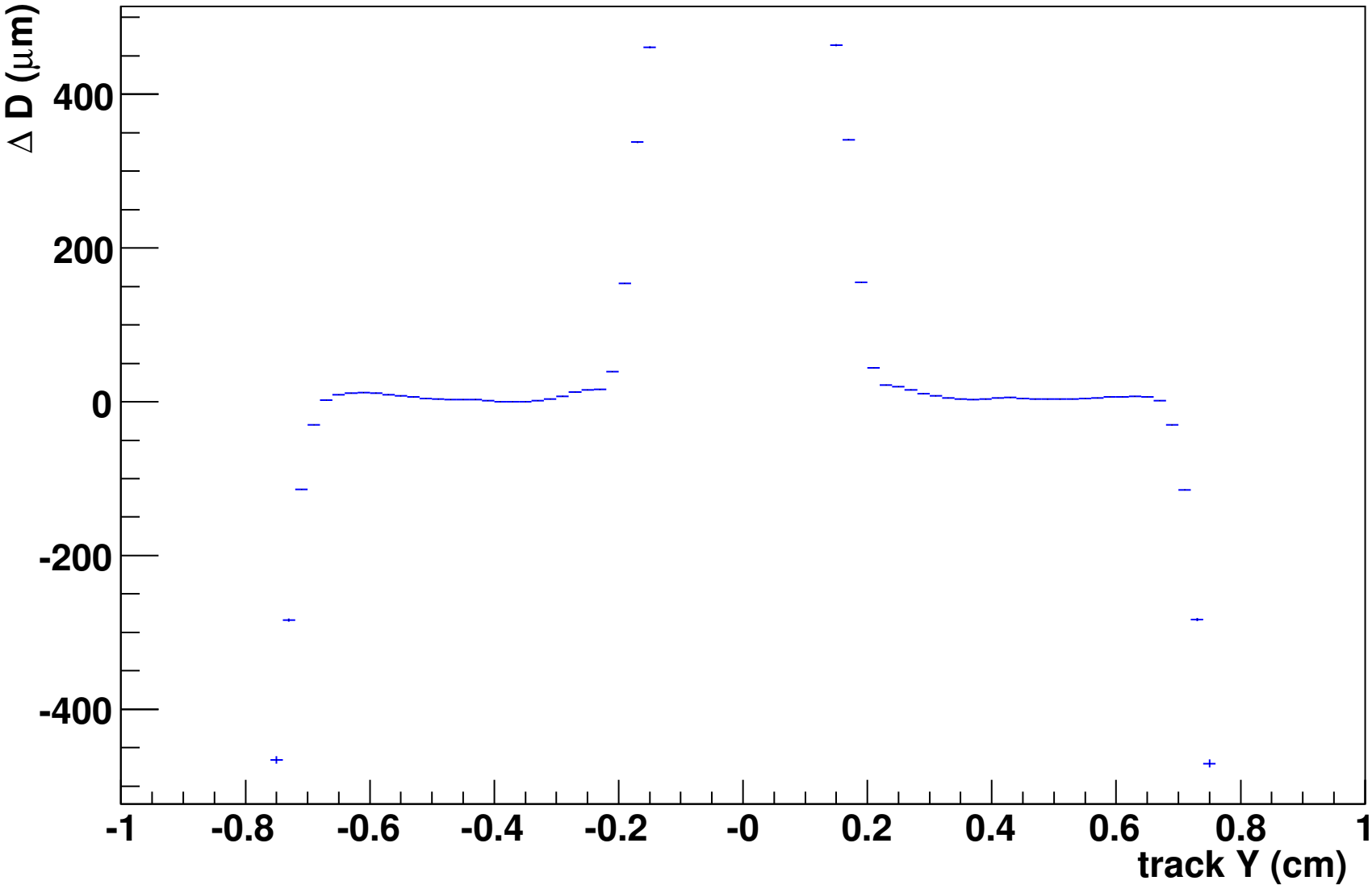

Entries 412611
Mean 273.27
RMS 61.981
Underflow 55448
Overflow 209
Integral 3.5695e+05
number of cosmics
10^5
10^4
10^3
10^2
0
100
200
300
400
500
600
$\Delta\,\chi^2$

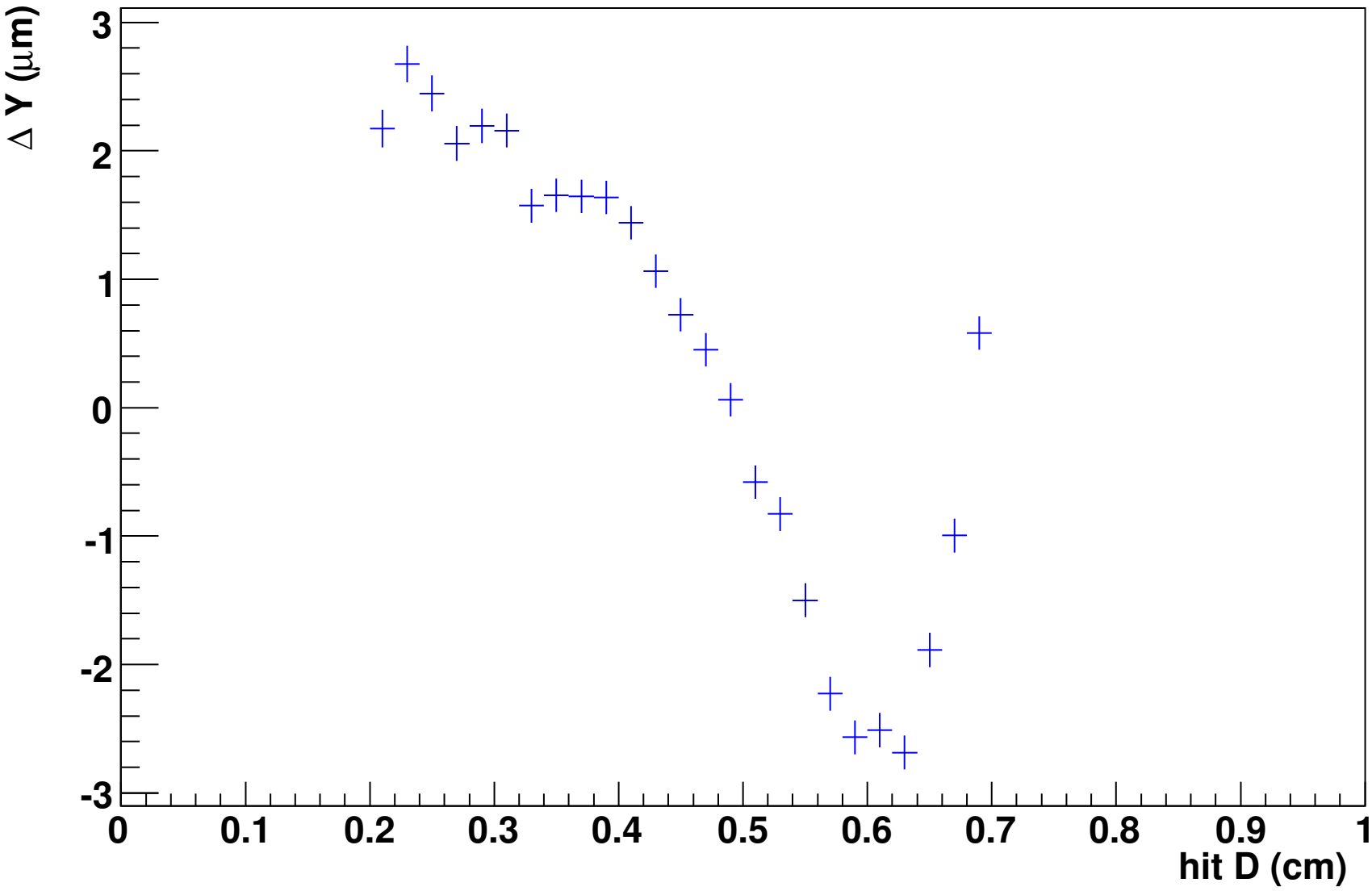

number of cosmics
10000
5000
0
1
2
3
4
5
6
track ϕ_0

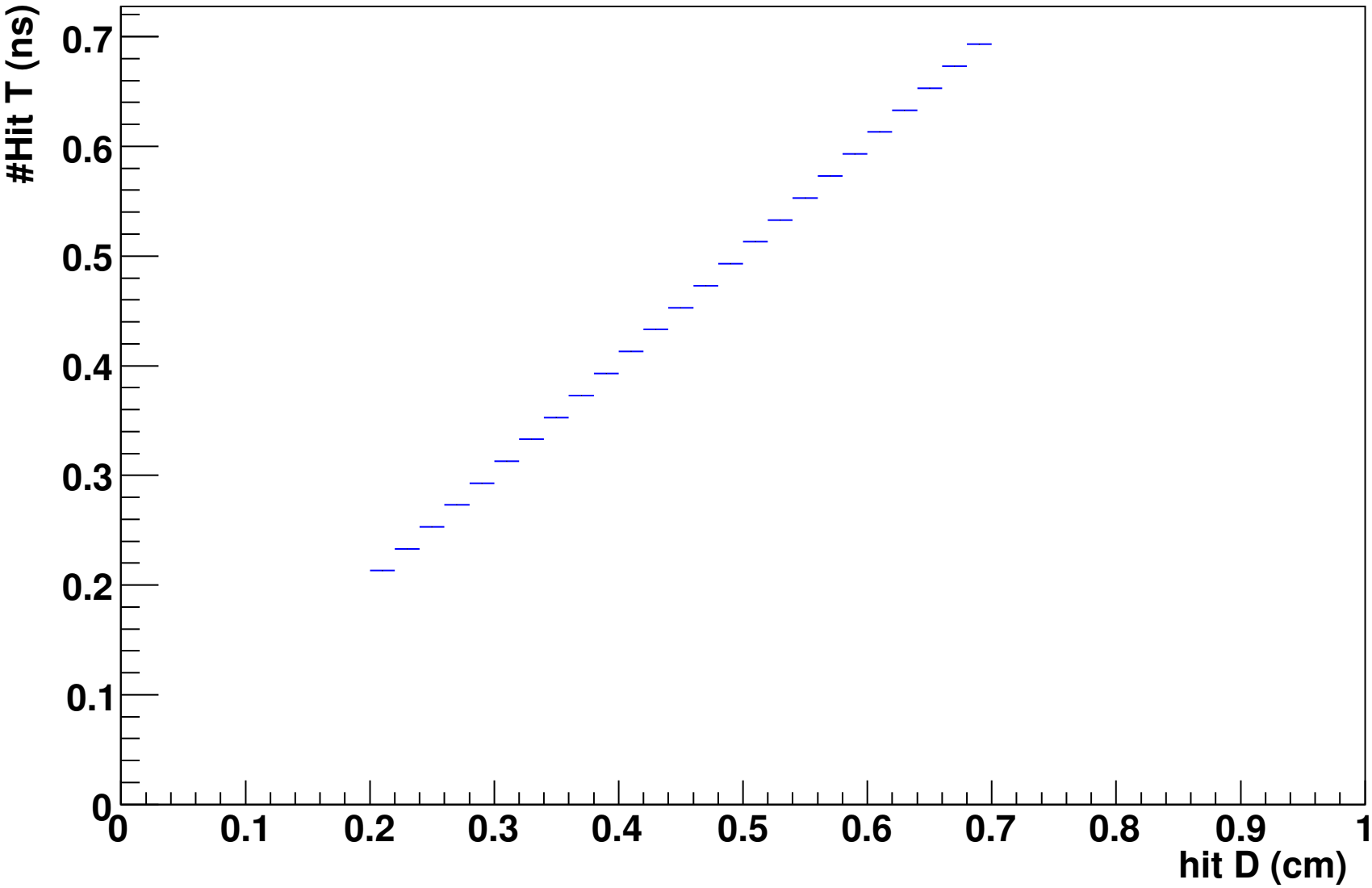

number of cosmics
10^4
10^3
10^2
10
1
0
1
2
3
4
5
6
ϕ_0

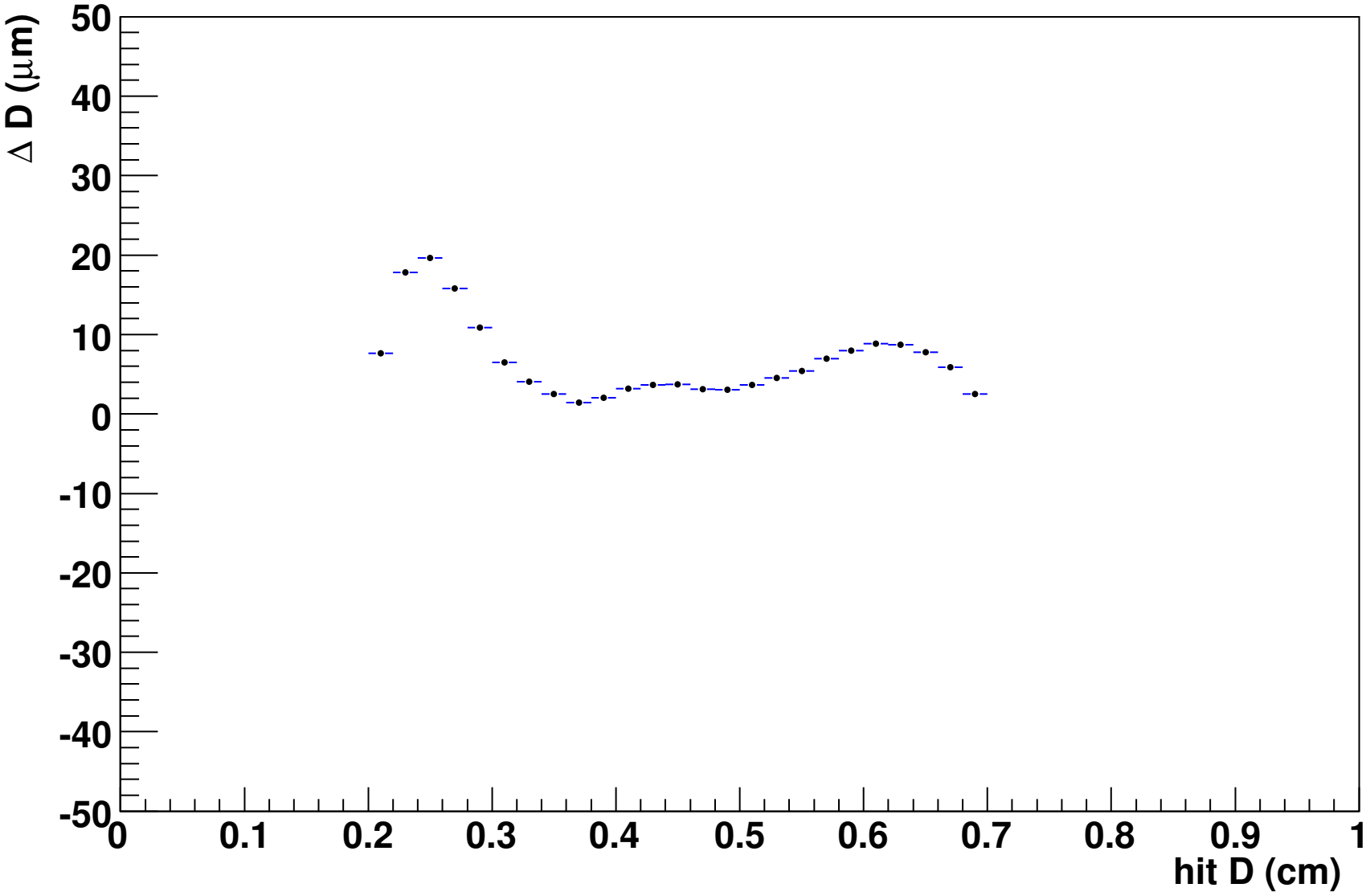

Δ D (μm)
30
20
10
0
-10
-80
-60
-40
-20
0
20
40
60
80
wire number

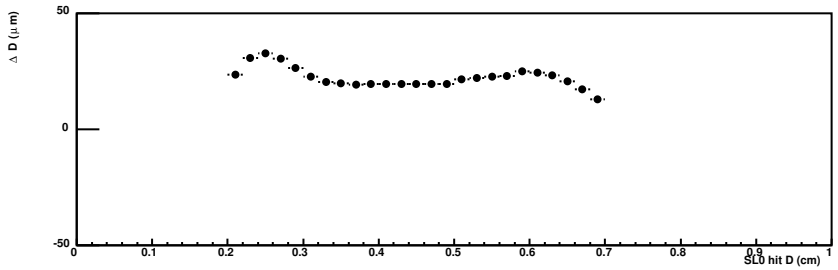

Δ Y (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

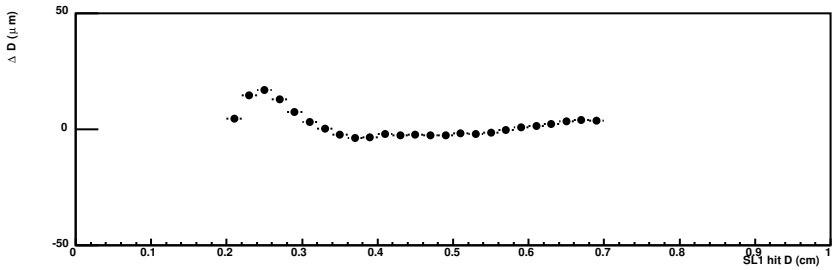

Δ D (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

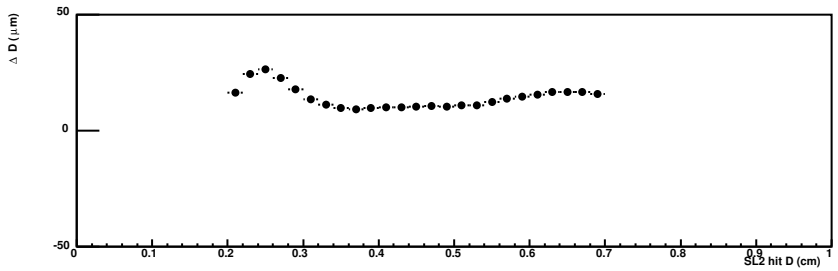

Δ Y (μm)
3
2
1
0
-1
-2
-3
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

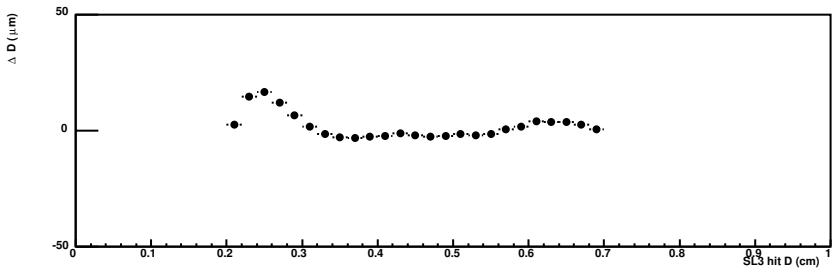

#Hit T (ns)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

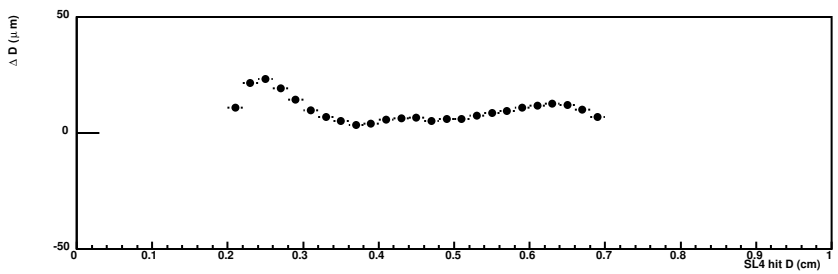

Δ D (μm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

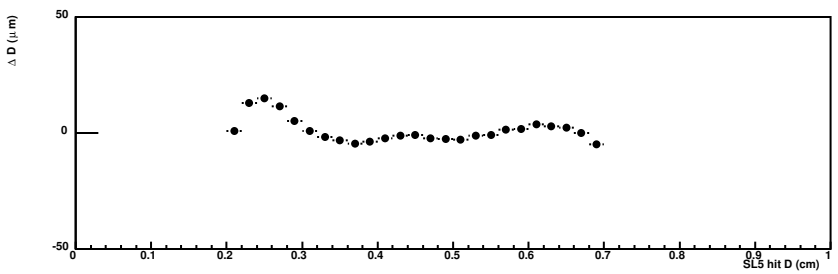

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL0 hit D (cm)

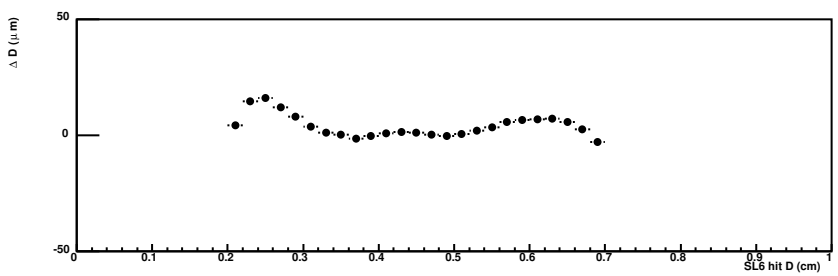

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL1 hit D (cm)

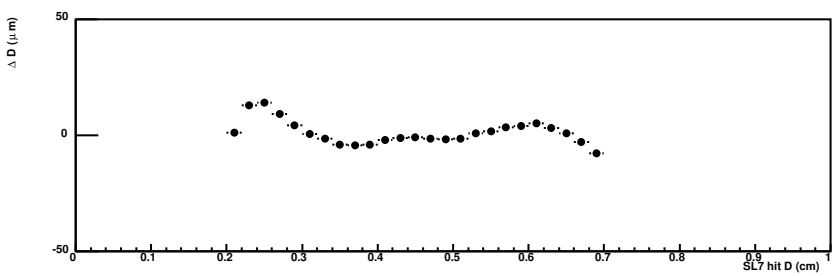

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL2 hit D (cm)

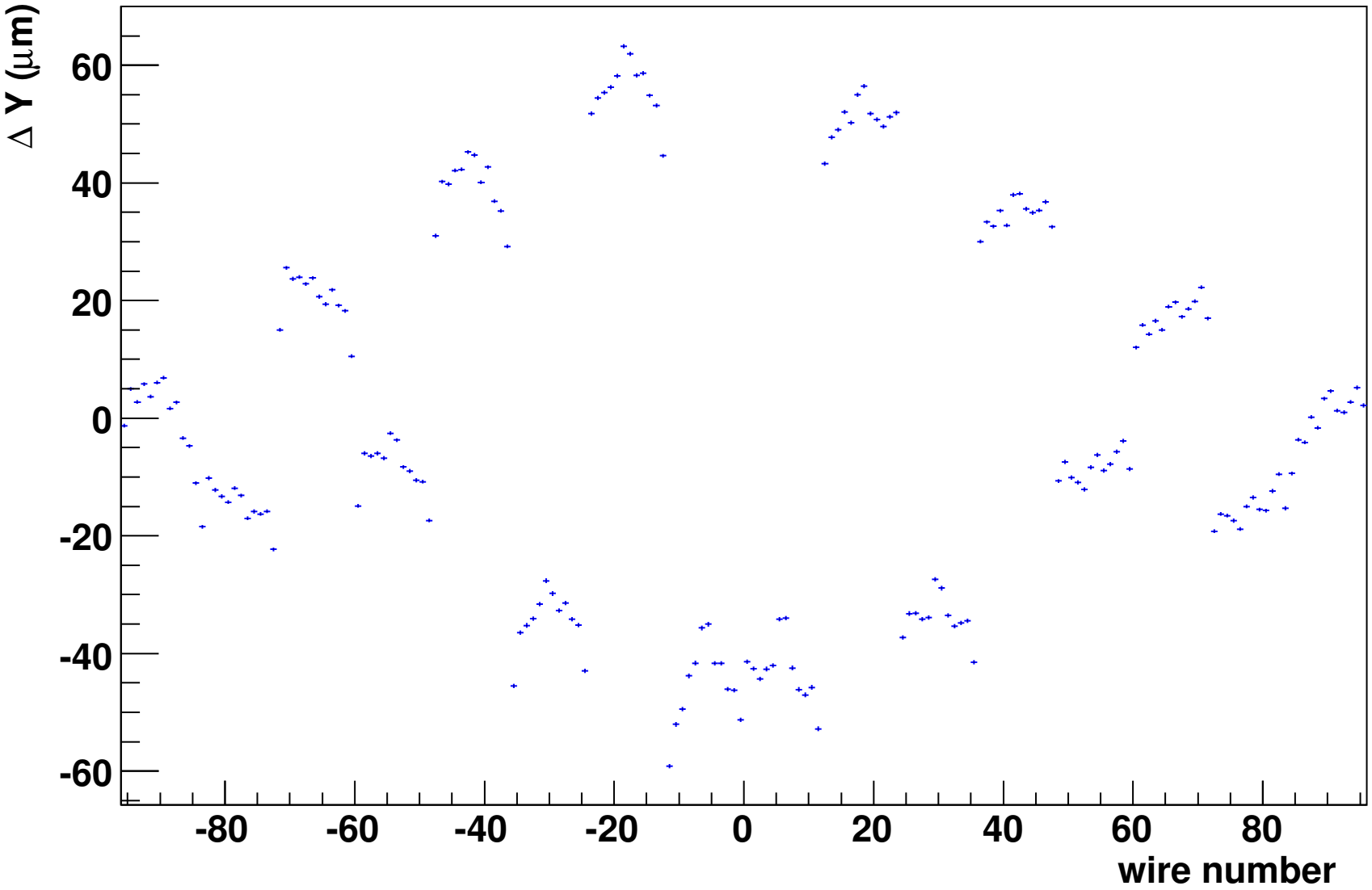

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL3 hit D (cm)

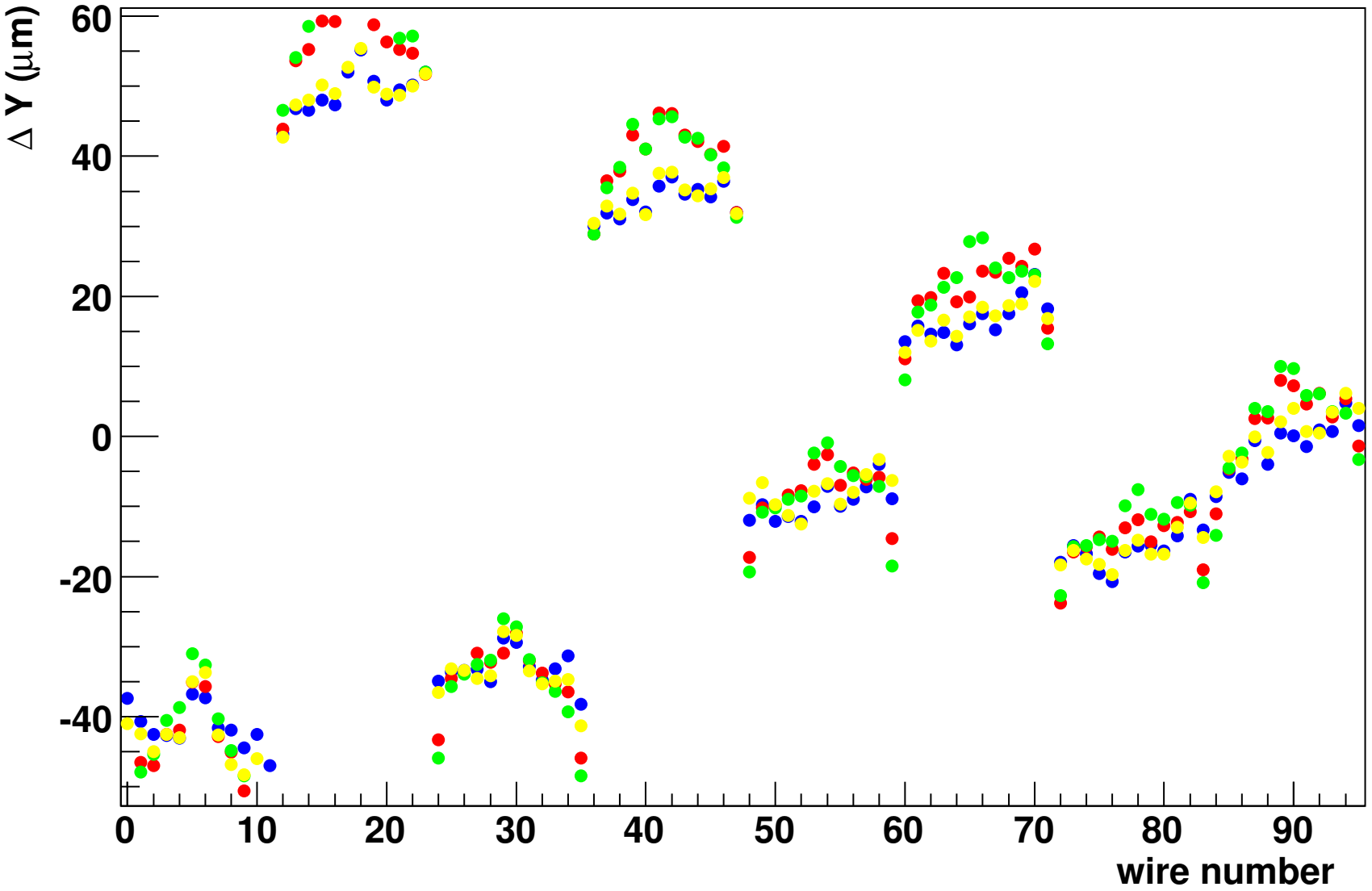

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL4 hit D (cm)

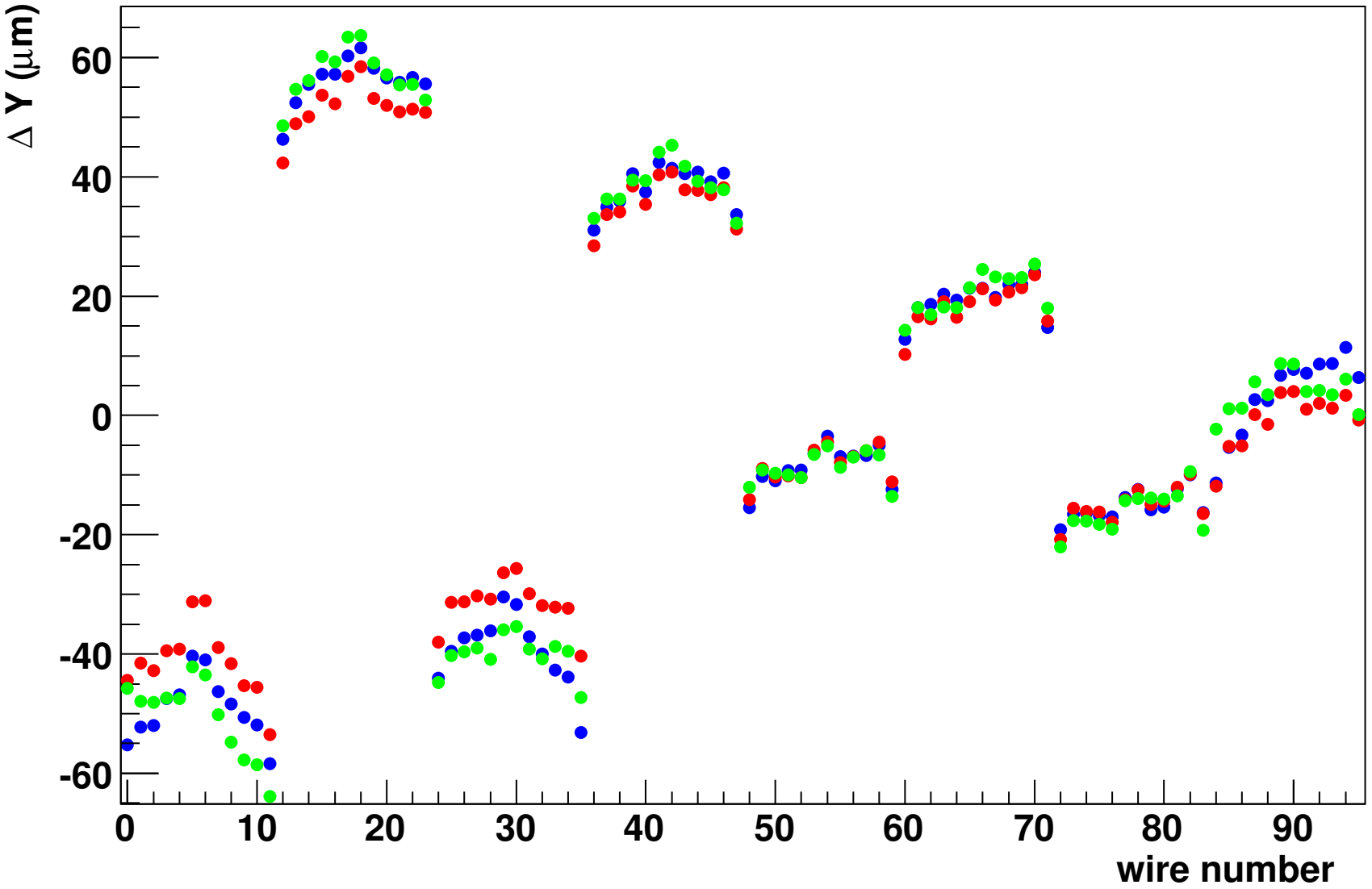

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL5 hit D (cm)

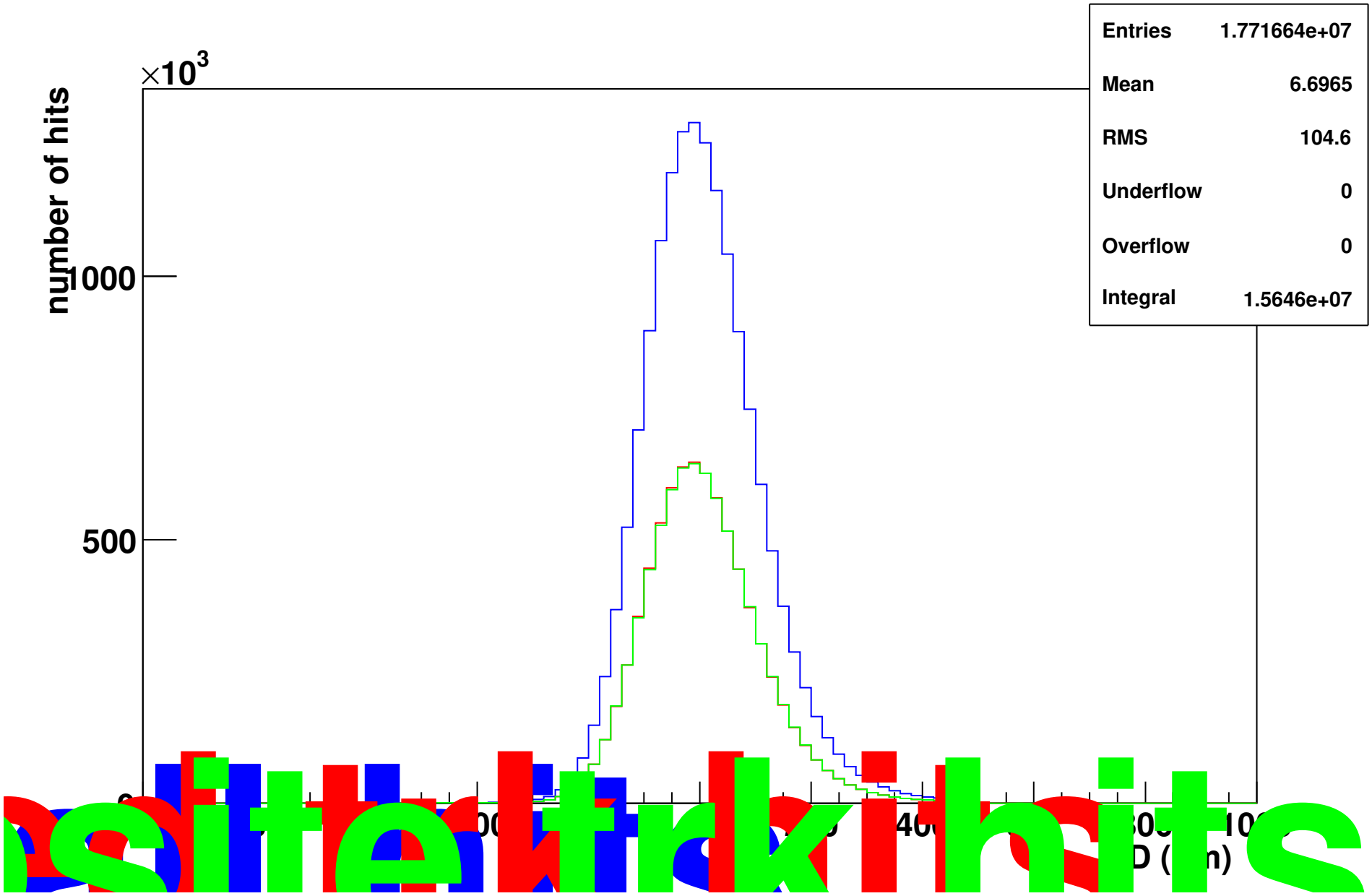

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL6 hit D (cm)


Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL7 hit D (cm)

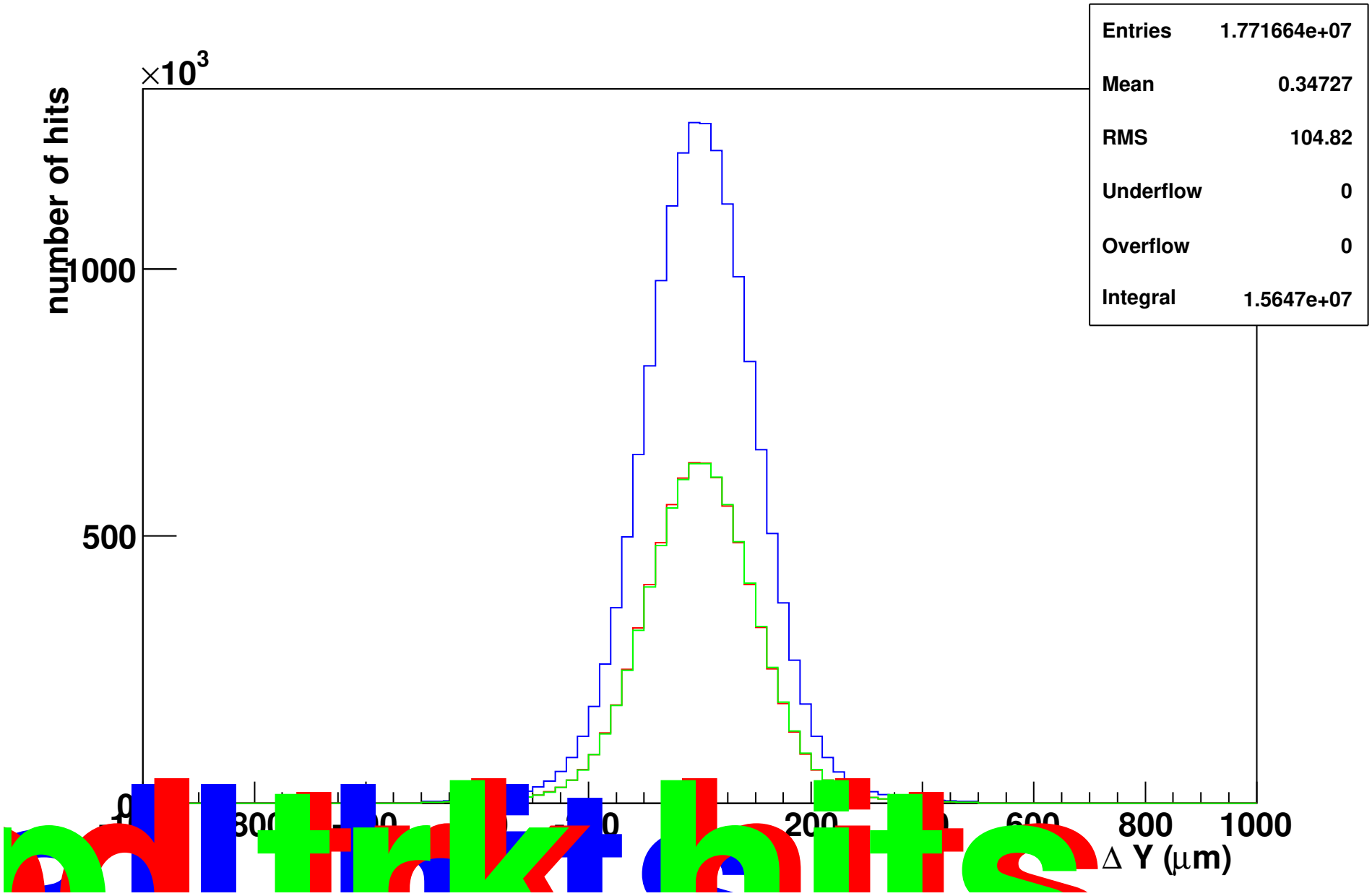

Δ Y (μm)
60
40
20
0
-20
-40
-60
-80
-60
-40
-20
0
20
40
60
80
wire number

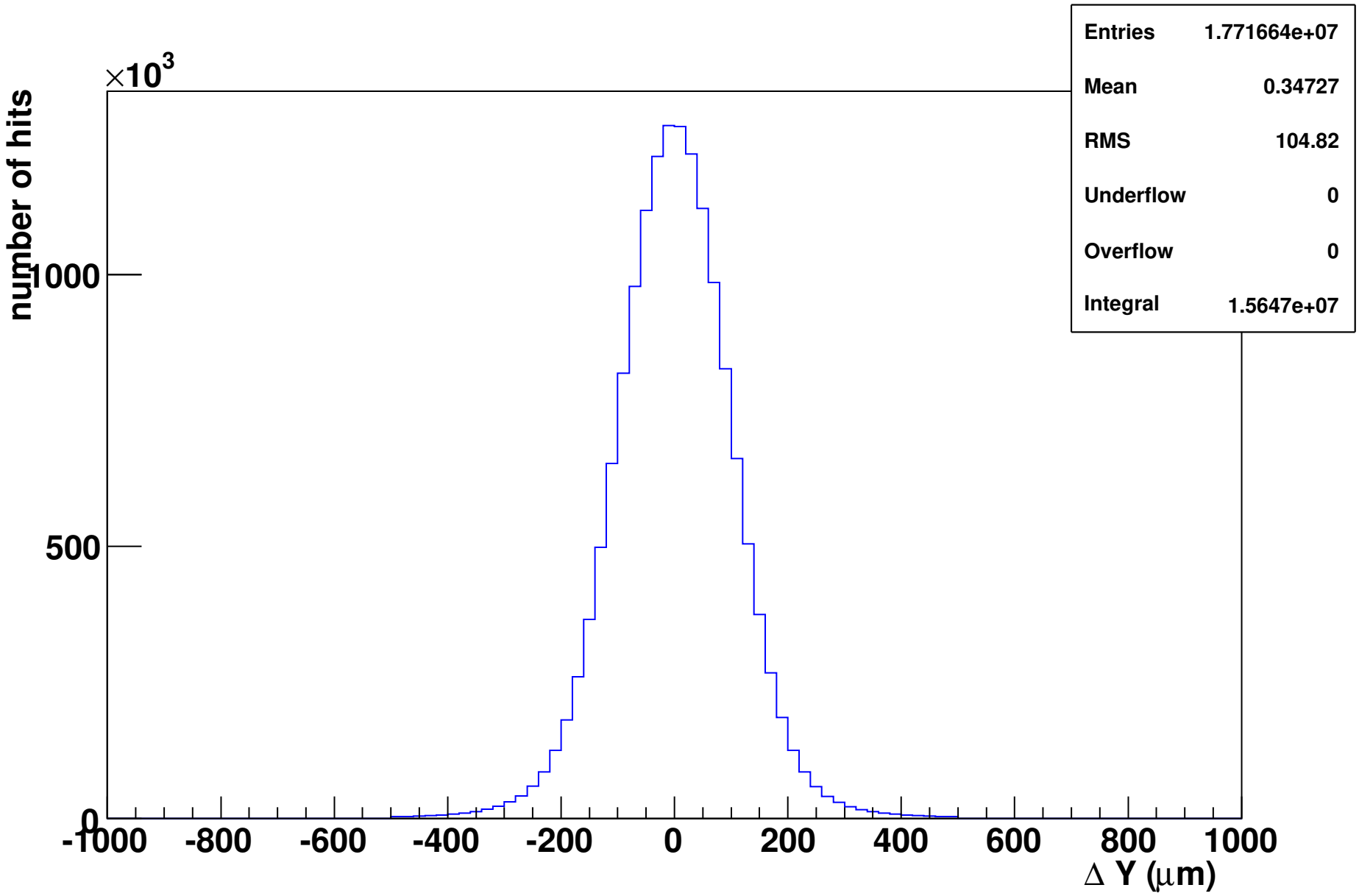

Δ Y (μm)
60
40
20
0
-20
-40
0
10
20
30
40
50
60
70
80
90
wire number


Δ Y (μm)
60
40
20
0
-20
-40
-60
0
10
20
30
40
50
60
70
80
90
wire number



Entries 1.771664e+07
Mean 6.6965
RMS 104.6
Underflow 0
Overflow 0
Integral 1.5646e+07
number of hits
×10^3
1000
500


Entries 1.771664e+07
Mean 0.34727
RMS 104.82
Underflow 0
Overflow 0
Integral 1.5647e+07
number of hits
×10^3
1000
500
0
800
1000
Δ Y (μm)
all track hits


Entries 1.771664e+07
Mean 0.34727
RMS 104.82
Underflow 0
Overflow 0
Integral 1.5647e+07
number of hits
×10^3
1000
500
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ Y (μm)