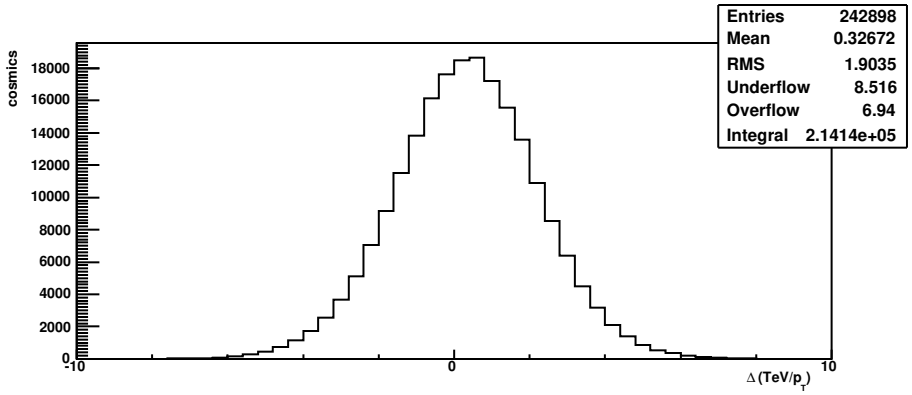
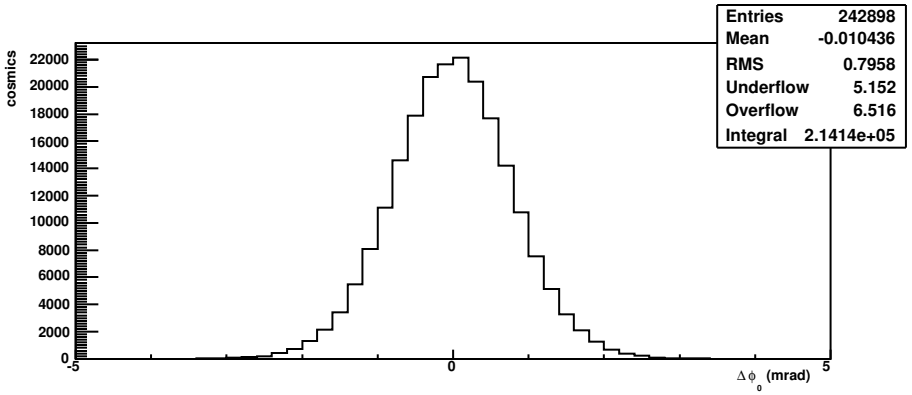
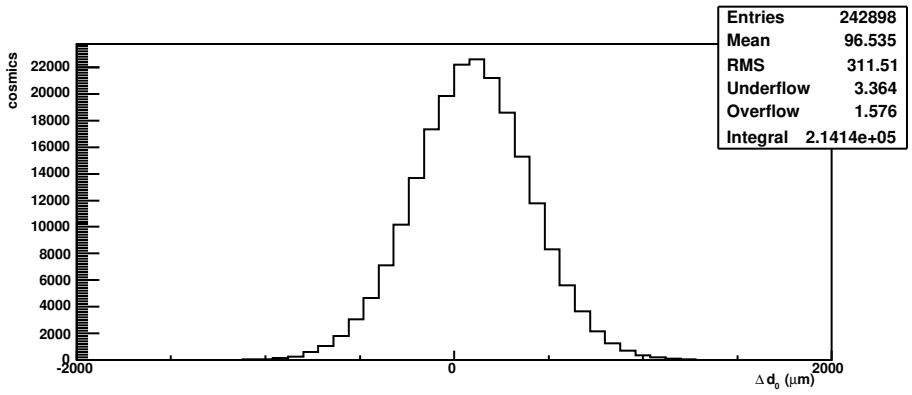
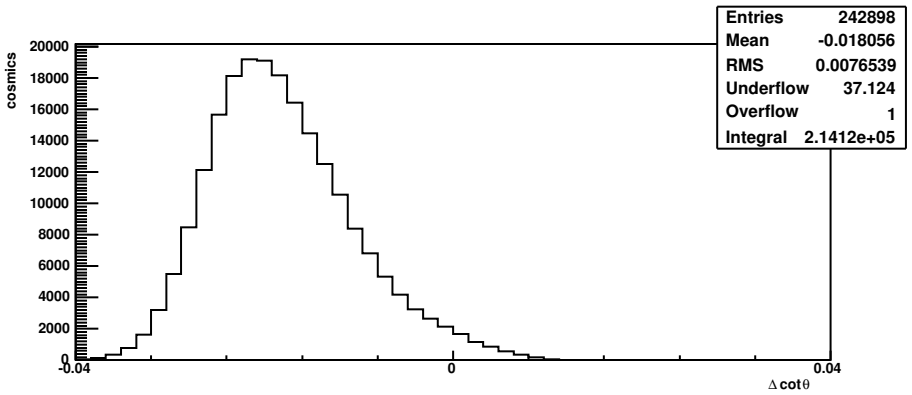
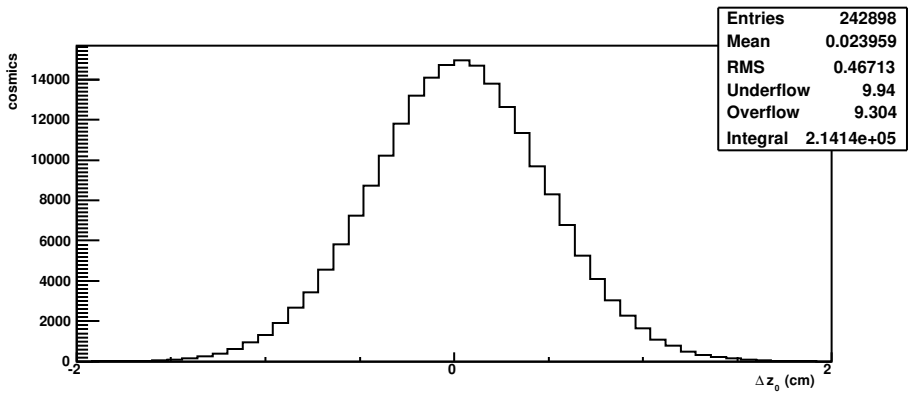
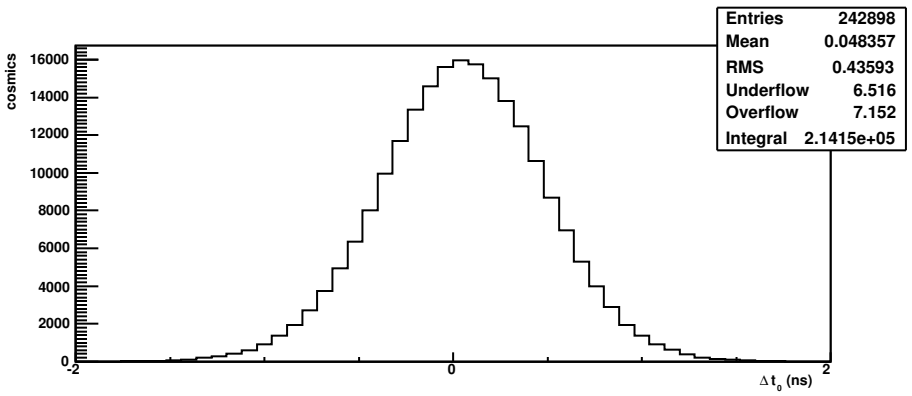

cosmics
Entries 242898
Mean 0.32672
RMS 1.9035
Underflow 8.516
Overflow 6.94
Integral 2.1414e+05
Δ(TeV/p_T)

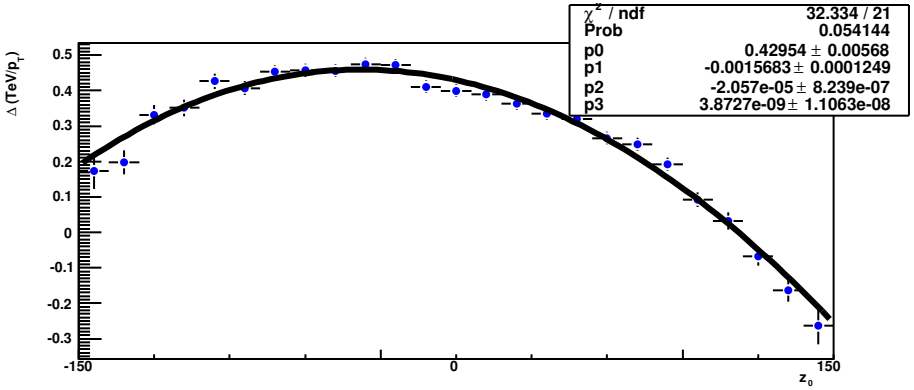

cosmics
Entries 242898
Mean -0.010436
RMS 0.7958
Underflow 5.152
Overflow 6.516
Integral 2.1414e+05
Δφ_0 (mrad)

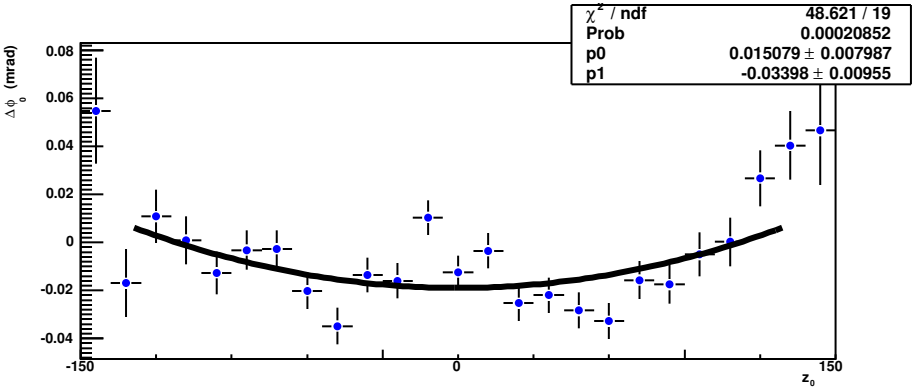

cosmics
Entries 242898
Mean 96.535
RMS 311.51
Underflow 3.364
Overflow 1.576
Integral 2.1414e+05
Δd_0 (μm)

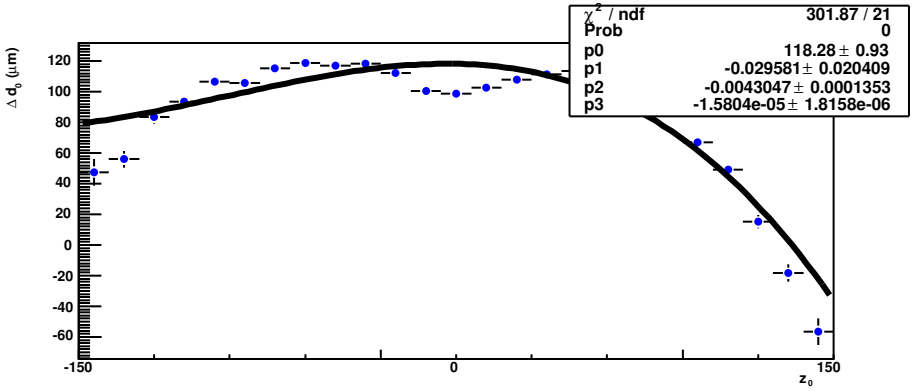

cosmics
Entries 242898
Mean -0.018056
RMS 0.0076539
Underflow 37.124
Overflow 1
Integral 2.1412e+05
Δcotθ

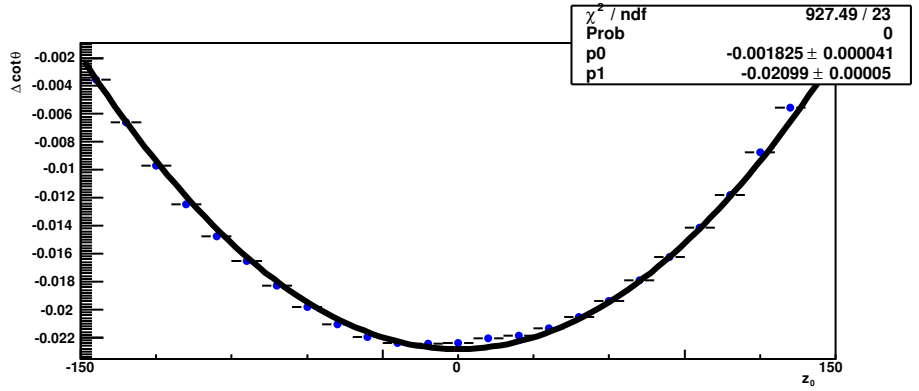

cosmics
Entries 242898
Mean 0.023959
RMS 0.46713
Underflow 9.94
Overflow 9.304
Integral 2.1414e+05
Δz_0 (cm)

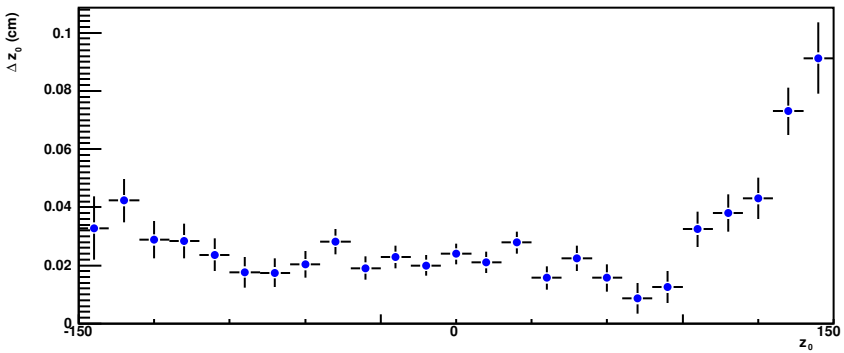

cosmics
Entries 242898
Mean 0.048357
RMS 0.43593
Underflow 6.516
Overflow 7.152
Integral 2.1415e+05
Δt_0 (ns)

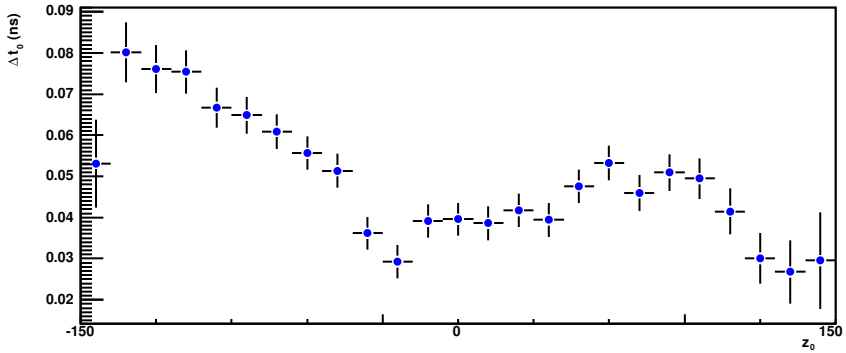

χ^2 / ndf 32.334 / 21
Prob 0.054144
p0 0.42954 ± 0.00568
p1 -0.0015683 ± 0.0001249
p2 -2.057e-05 ± 8.239e-07
p3 3.8727e-09 ± 1.1063e-08
Δ (TeV/p_T)
z_0

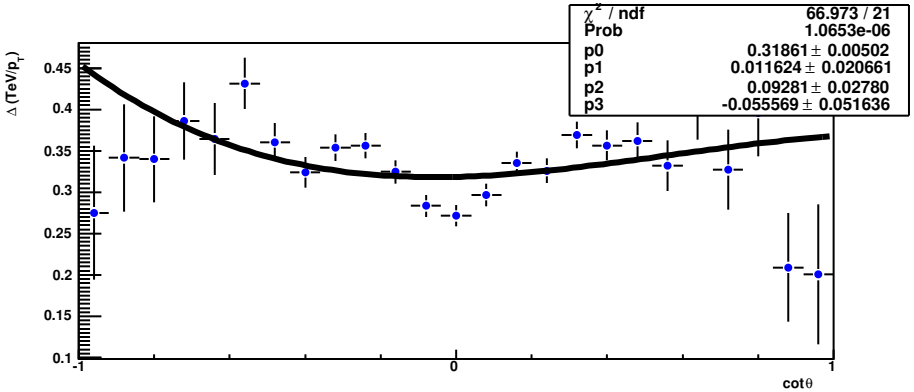

χ^2 / ndf 48.621 / 19
Prob 0.00020852
p0 0.015079 ± 0.007987
p1 -0.03398 ± 0.00955
$\Delta\phi_0$ (mrad)
z_0

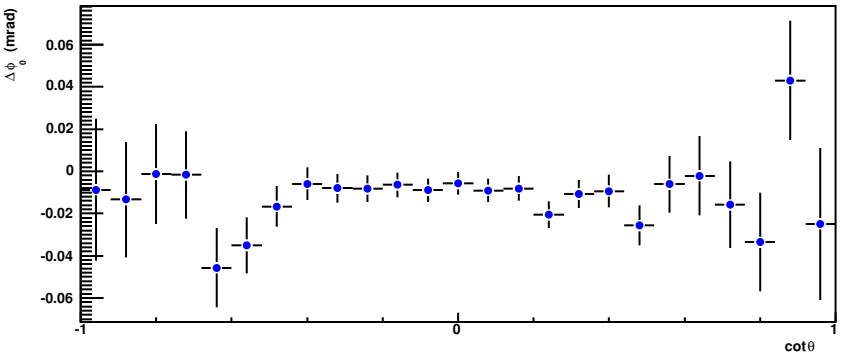

χ^2 / ndf 301.87 / 21
Prob 0
p0 118.28 ± 0.93
p1 -0.029581 ± 0.020409
p2 -0.0043047 ± 0.0001353
p3 -1.5804e-05 ± 1.8158e-06
Δd_0 (μm)
z_0

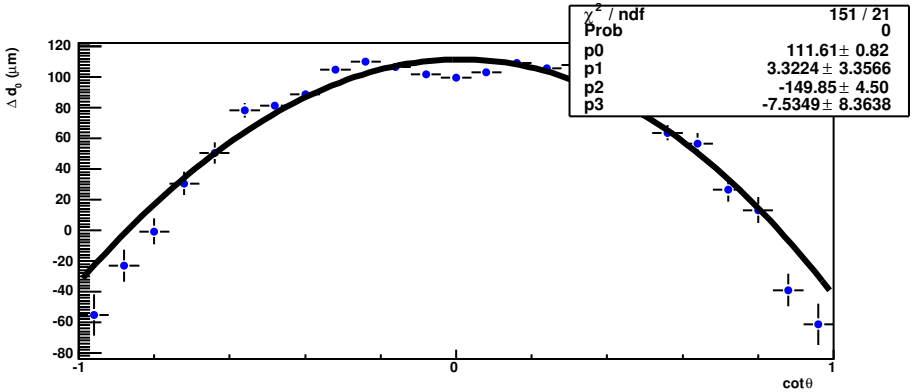

χ^2 / ndf 927.49 / 23
Prob 0
p0 -0.001825 ± 0.000041
p1 -0.02099 ± 0.00005
$\Delta\cot\theta$
z_0

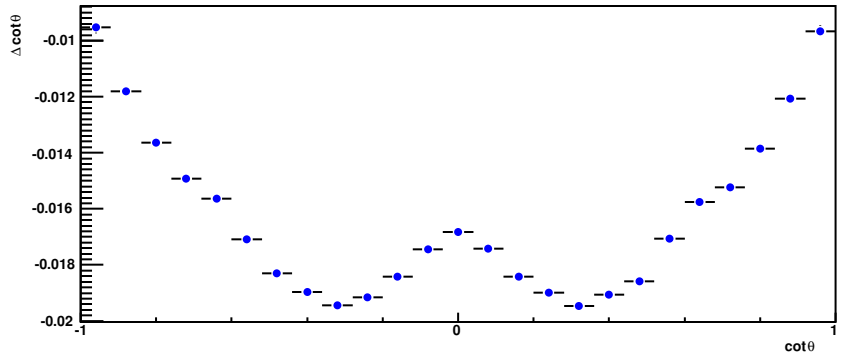

Δz_0 (cm)
z_0

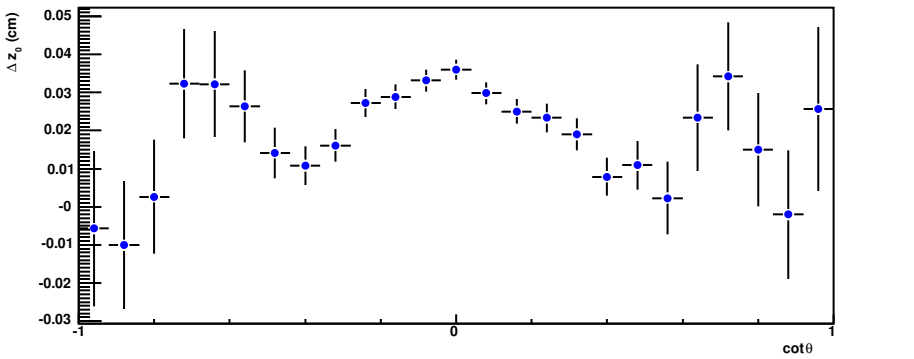

Δt_0 (ns)
z_0

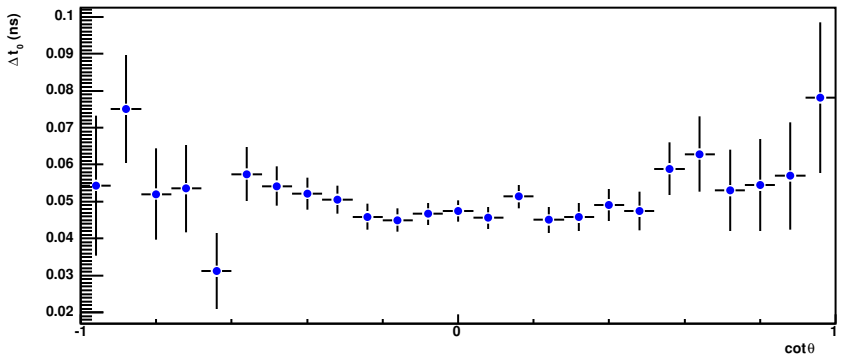

χ^2 / ndf 66.973 / 21
Prob 1.0653e-06
p0 0.31861 ± 0.00502
p1 0.011624 ± 0.020661
p2 0.09281 ± 0.02780
p3 -0.055569 ± 0.051636
Δ (TeV/p_T)
cotθ

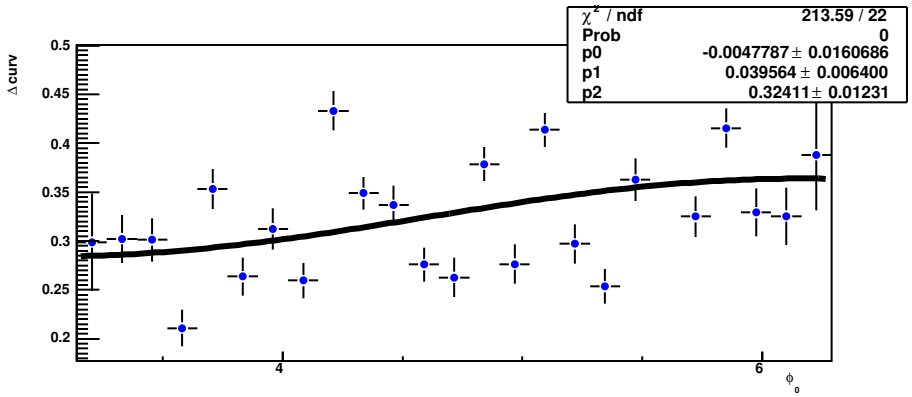

Δ φ_0 (mrad)
cotθ

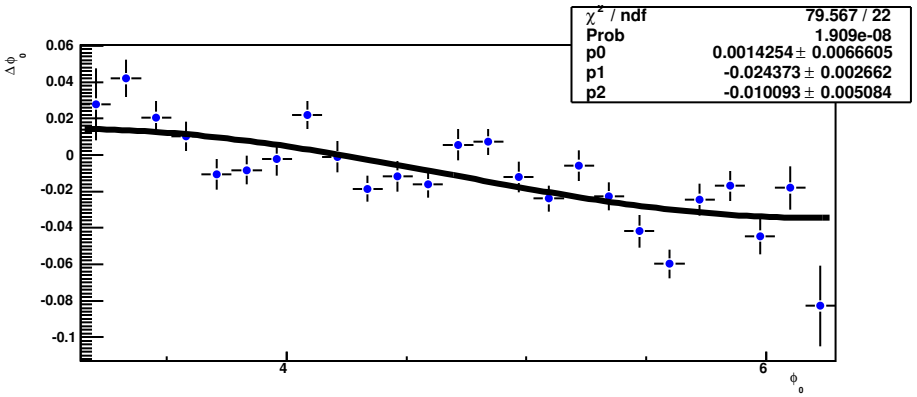

χ^2 / ndf 151 / 21
Prob 0
p0 111.61 ± 0.82
p1 3.3224 ± 3.3566
p2 -149.85 ± 4.50
p3 -7.5349 ± 8.3638
Δ d_0 (μm)
cotθ

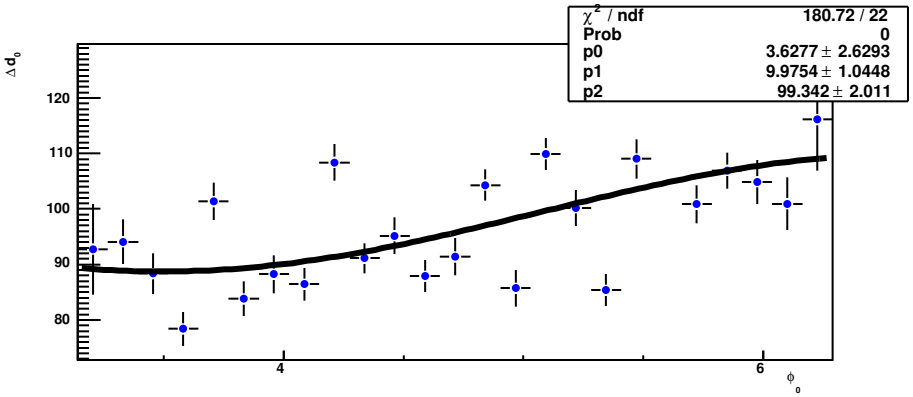

Δ cotθ
cotθ

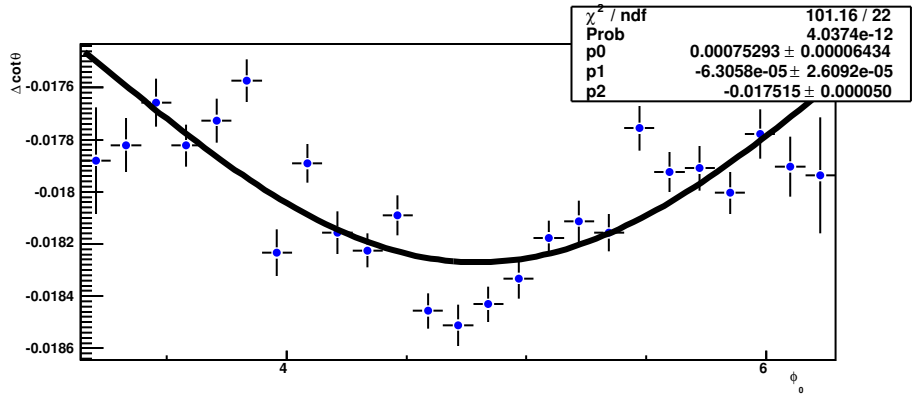

Δ z_0 (cm)
cotθ

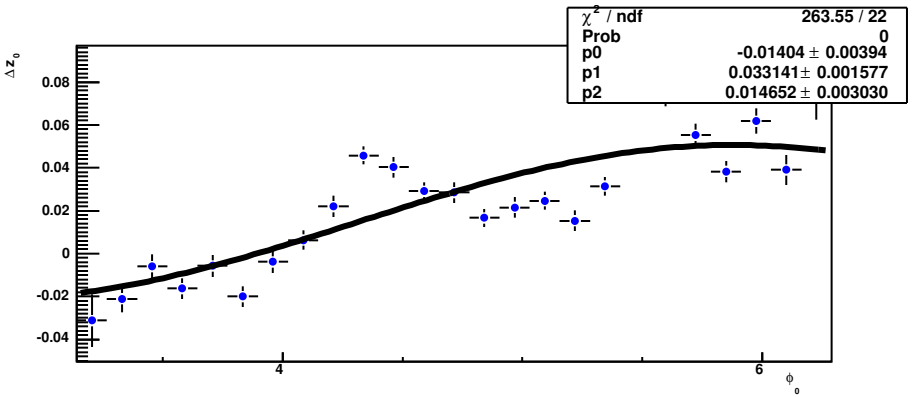

Δ t_0 (ns)
cotθ

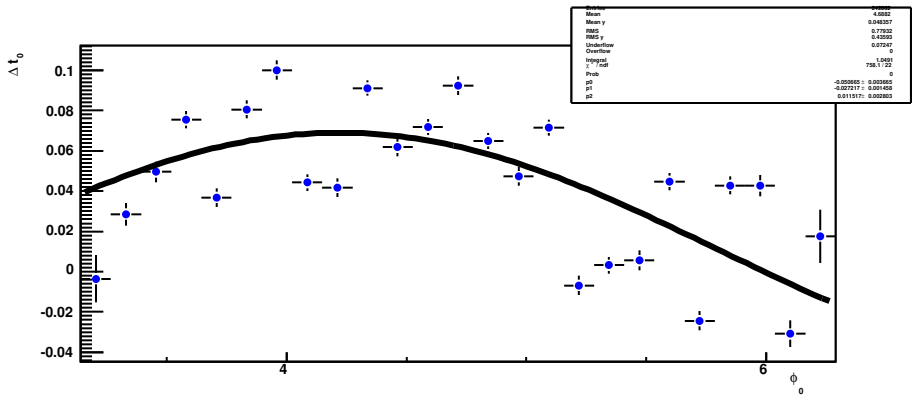

χ² / ndf 213.59 / 22
Prob 0
p0 -0.0047787 ± 0.0160686
p1 0.039564 ± 0.006400
p2 0.32411 ± 0.01231
Δ curv
φ0

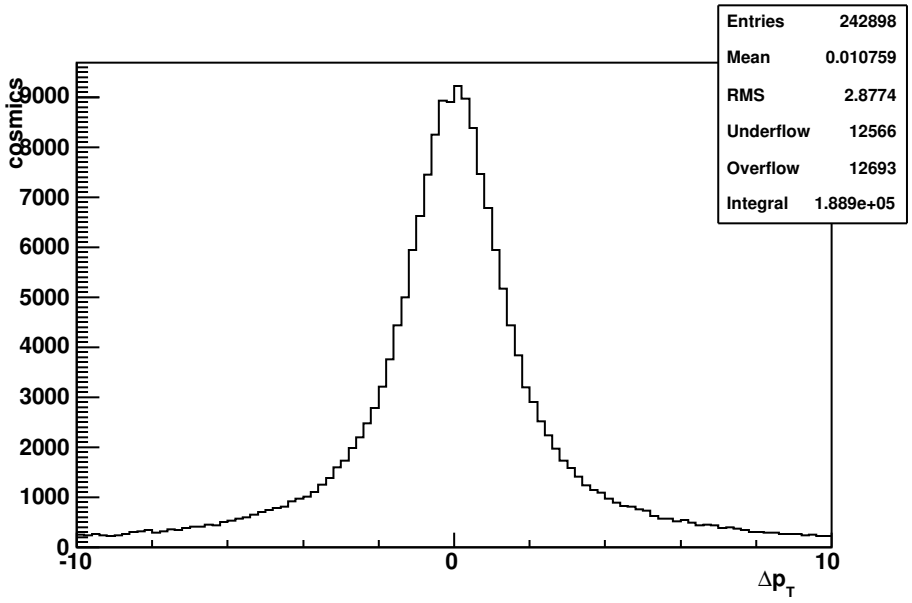

χ² / ndf 79.567 / 22
Prob 1.909e-08
p0 0.0014254 ± 0.0066605
p1 -0.024373 ± 0.002662
p2 -0.010093 ± 0.005084
Δ φ0
φ0

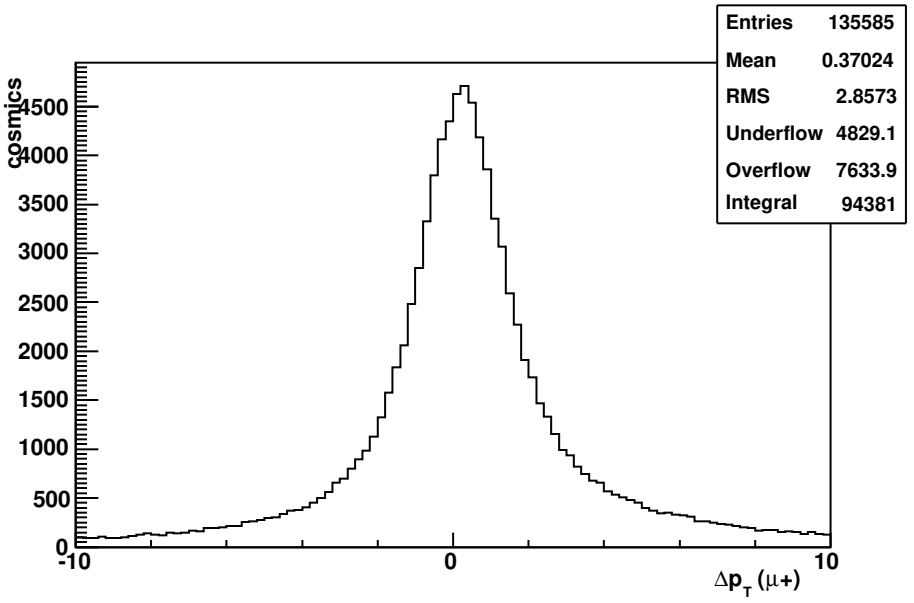

χ² / ndf 180.72 / 22
Prob 0
p0 3.6277 ± 2.6293
p1 9.9754 ± 1.0448
p2 99.342 ± 2.011
Δ d0
φ0

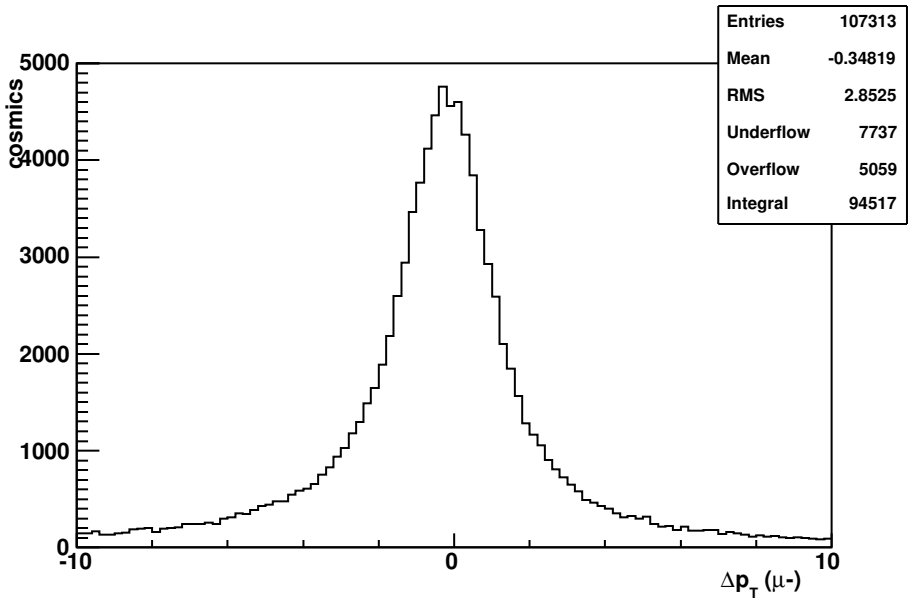

χ² / ndf 101.16 / 22
Prob 4.0374e-12
p0 0.00075293 ± 0.00006434
p1 -6.3058e-05 ± 2.6092e-05
p2 -0.017515 ± 0.000050
Δ cotθ
φ0

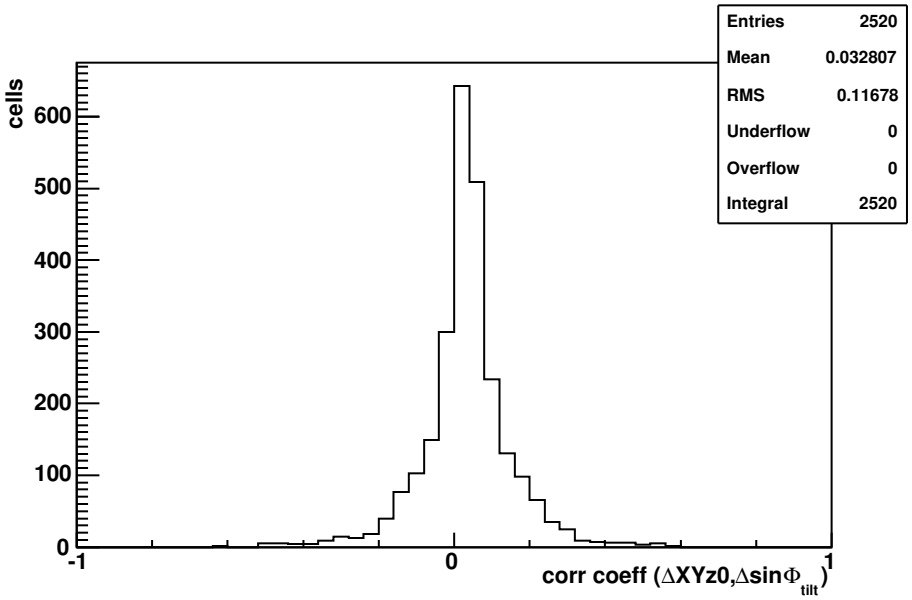

χ² / ndf 263.55 / 22
Prob 0
p0 -0.01404 ± 0.00394
p1 0.033141 ± 0.001577
p2 0.014652 ± 0.003030
Δ z0
φ0

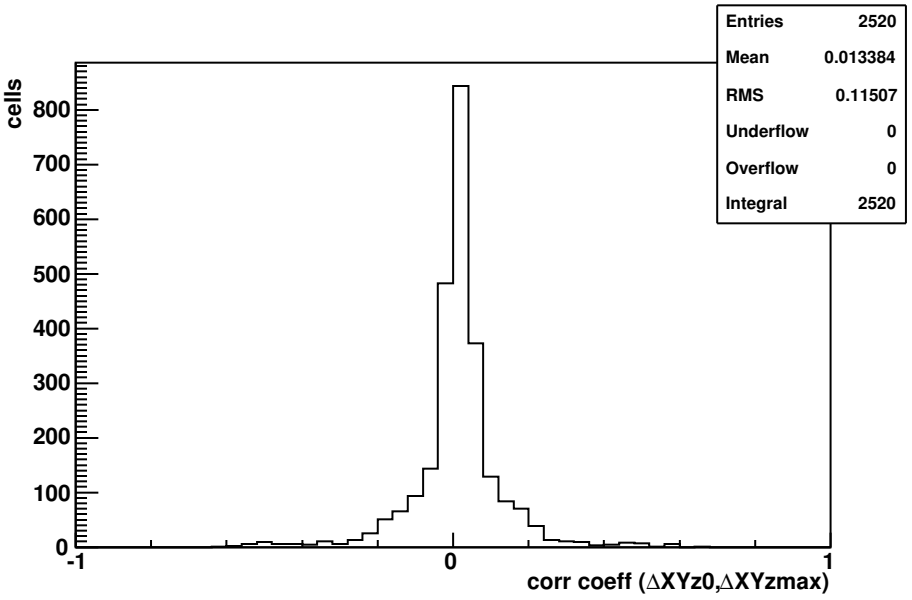

Δ t0
φ0

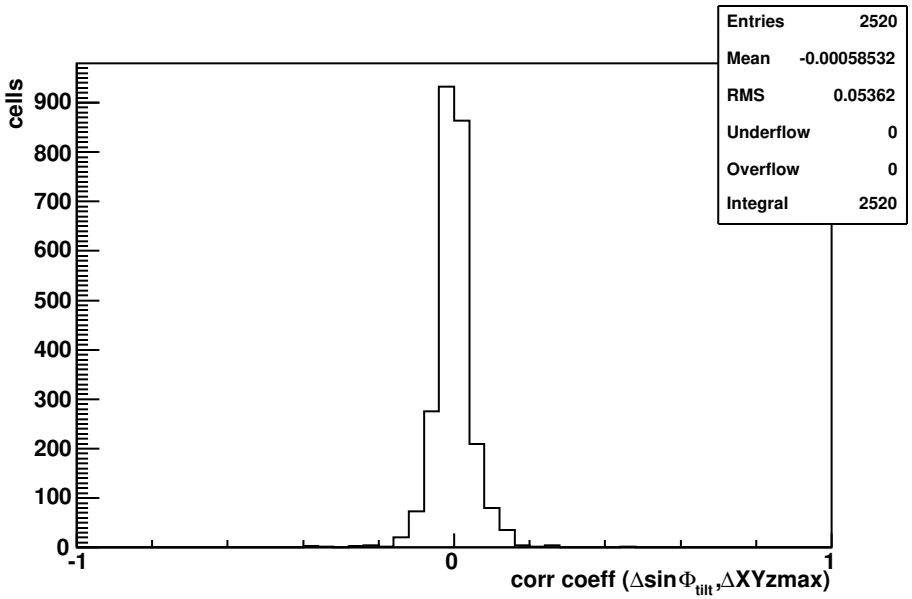

Entries 242898
Mean 0.010759
RMS 2.8774
Underflow 12566
Overflow 12693
Integral 1.889e+05
cosmics
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-10
0
10
Δp_T

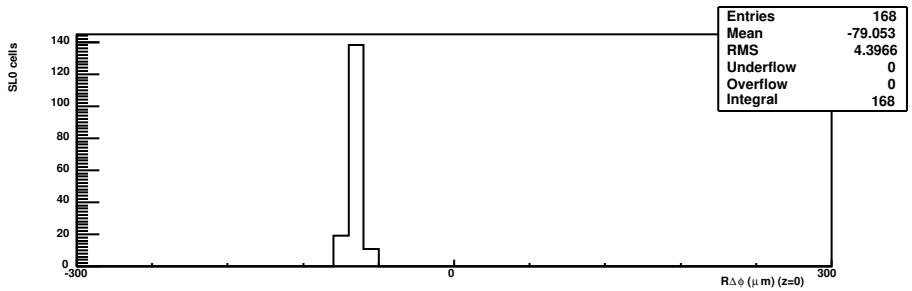

Entries 135585
Mean 0.37024
RMS 2.8573
Underflow 4829.1
Overflow 7633.9
Integral 94381
cosmics
4500
4000
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ+)

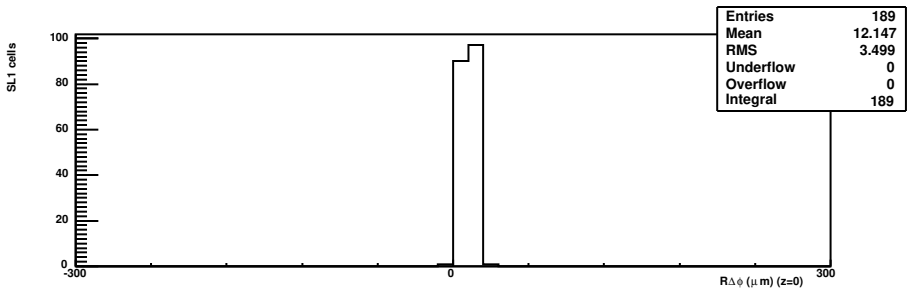

Entries 107313
Mean -0.34819
RMS 2.8525
Underflow 7737
Overflow 5059
Integral 94517
cosmics
5000
4000
3000
2000
1000
0
-10
0
10
Δp_T (μ-)

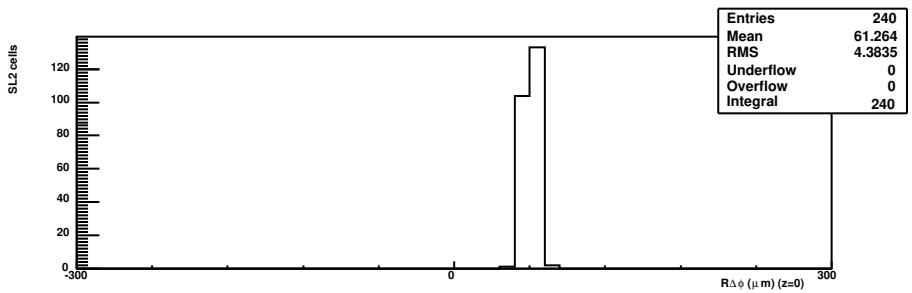

Entries 2520
Mean 0.032807
RMS 0.11678
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔsinΦ_{tilt})

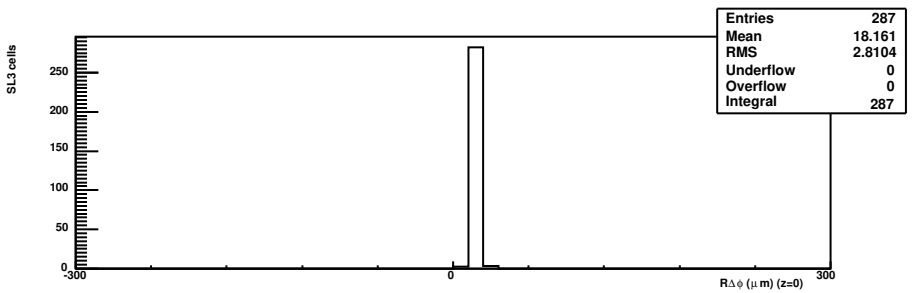

Entries 2520
Mean 0.013384
RMS 0.11507
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔXYzmax)

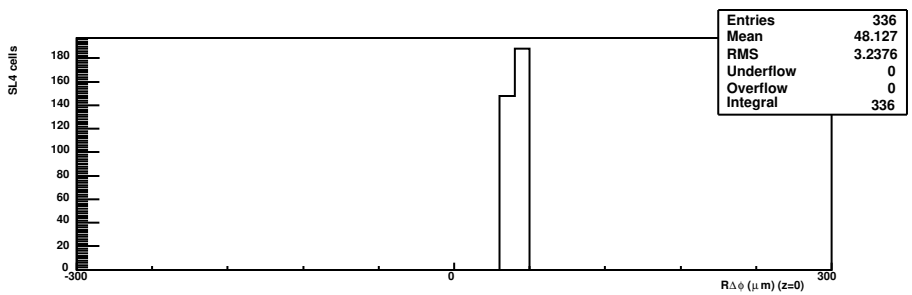

Entries 2520
Mean -0.00058532
RMS 0.05362
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔsinΦ_{tilt},ΔXYzmax)

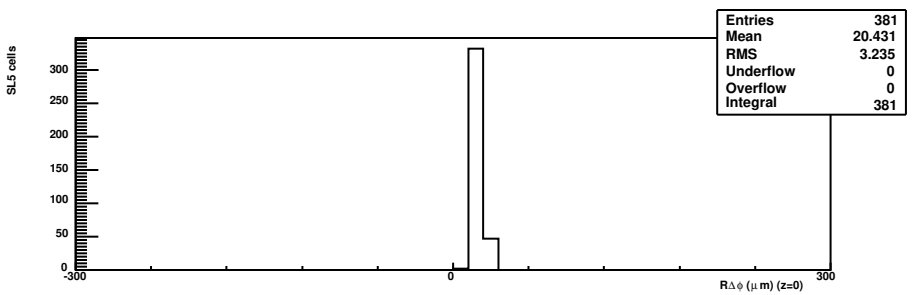

Entries 168
Mean -79.053
RMS 4.3966
Underflow 0
Overflow 0
Integral 168
SL0 cells
RΔφ (μm) (z=0)

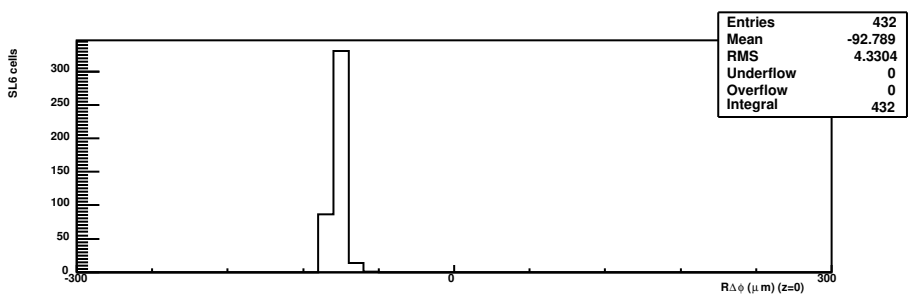

Entries 189
Mean 12.147
RMS 3.499
Underflow 0
Overflow 0
Integral 189
SL1 cells
RΔφ (μm) (z=0)

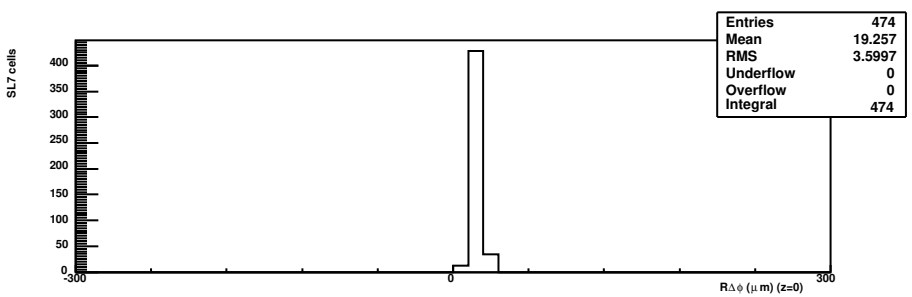

Entries 240
Mean 61.264
RMS 4.3835
Underflow 0
Overflow 0
Integral 240
SL2 cells
RΔφ (μm) (z=0)

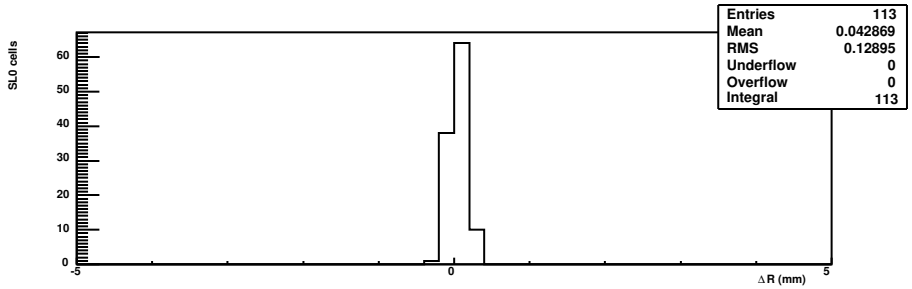

Entries 287
Mean 18.161
RMS 2.8104
Underflow 0
Overflow 0
Integral 287
SL3 cells
RΔφ (μm) (z=0)

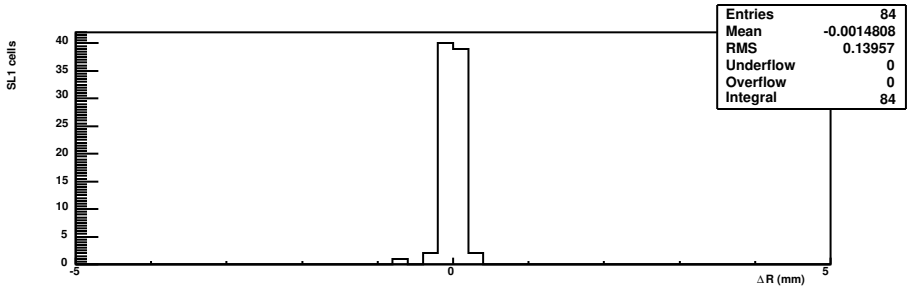

Entries 336
Mean 48.127
RMS 3.2376
Underflow 0
Overflow 0
Integral 336
SL4 cells
RΔφ (μm) (z=0)

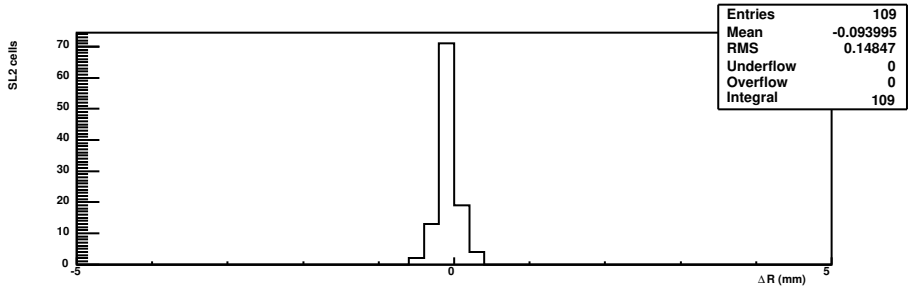

Entries 381
Mean 20.431
RMS 3.235
Underflow 0
Overflow 0
Integral 381
SL5 cells
RΔφ (μm) (z=0)

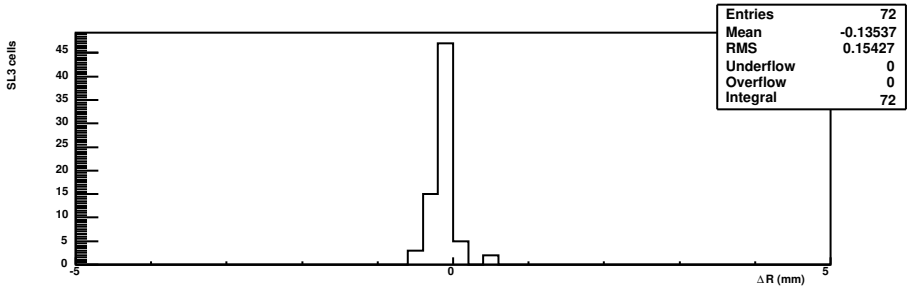

Entries 432
Mean -92.789
RMS 4.3304
Underflow 0
Overflow 0
Integral 432
SL6 cells
RΔφ (μm) (z=0)

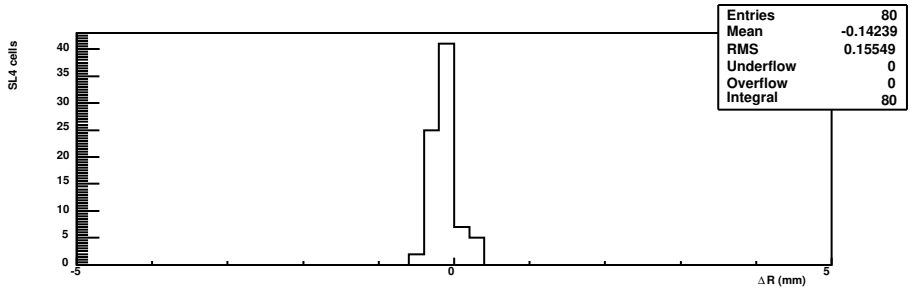

Entries 474
Mean 19.257
RMS 3.5997
Underflow 0
Overflow 0
Integral 474
SL7 cells
RΔφ (μm) (z=0)

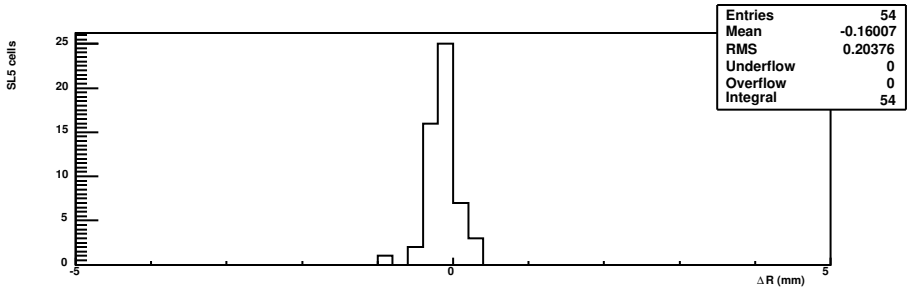

SL0 cells
Entries 113
Mean 0.042869
RMS 0.12895
Underflow 0
Overflow 0
Integral 113
ΔR (mm)

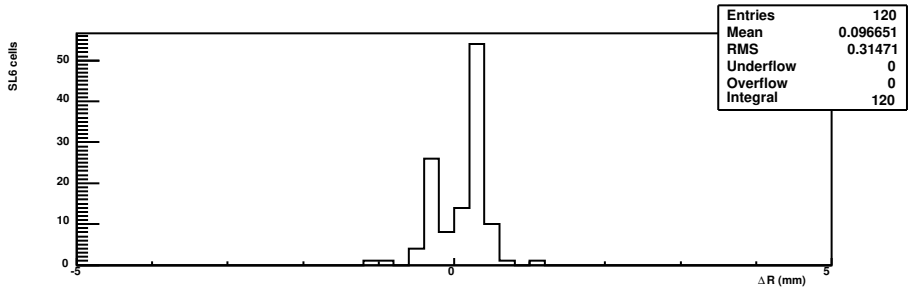

SL1 cells
Entries 84
Mean -0.0014808
RMS 0.13957
Underflow 0
Overflow 0
Integral 84
ΔR (mm)

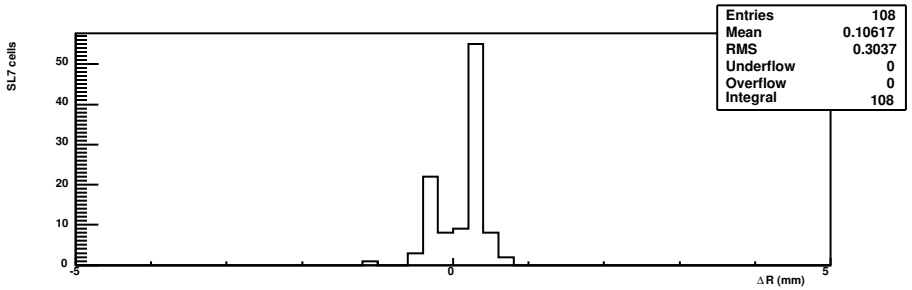

SL2 cells
Entries 109
Mean -0.093995
RMS 0.14847
Underflow 0
Overflow 0
Integral 109
ΔR (mm)

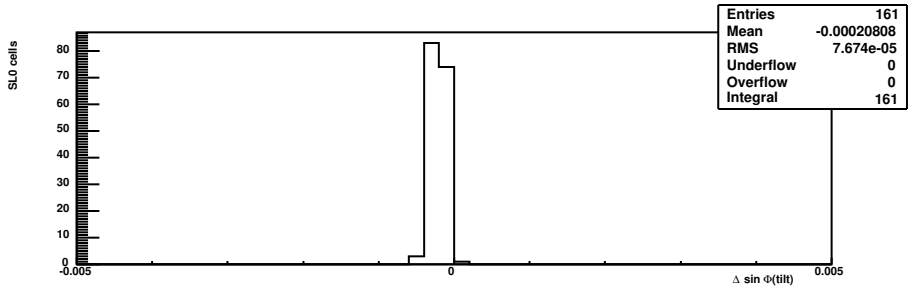

SL3 cells
Entries 72
Mean -0.13537
RMS 0.15427
Underflow 0
Overflow 0
Integral 72
ΔR (mm)

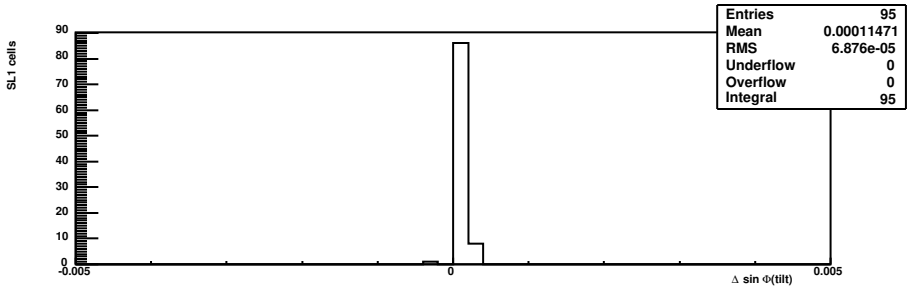

SL4 cells
Entries 80
Mean -0.14239
RMS 0.15549
Underflow 0
Overflow 0
Integral 80
ΔR (mm)

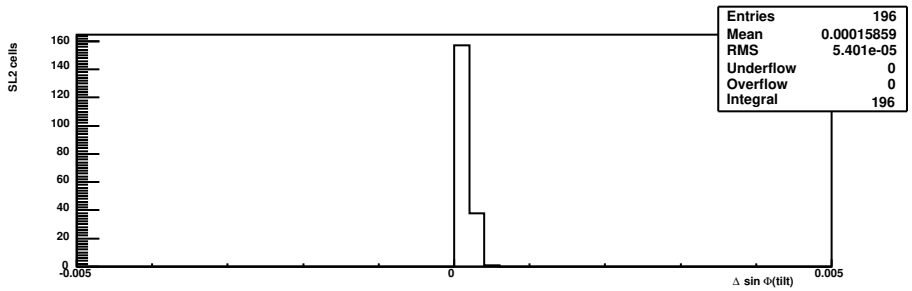

SL5 cells
Entries 54
Mean -0.16007
RMS 0.20376
Underflow 0
Overflow 0
Integral 54
ΔR (mm)

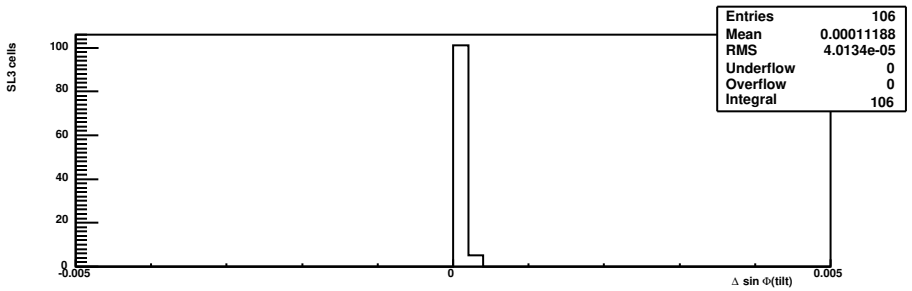

SL6 cells
Entries 120
Mean 0.096651
RMS 0.31471
Underflow 0
Overflow 0
Integral 120
ΔR (mm)

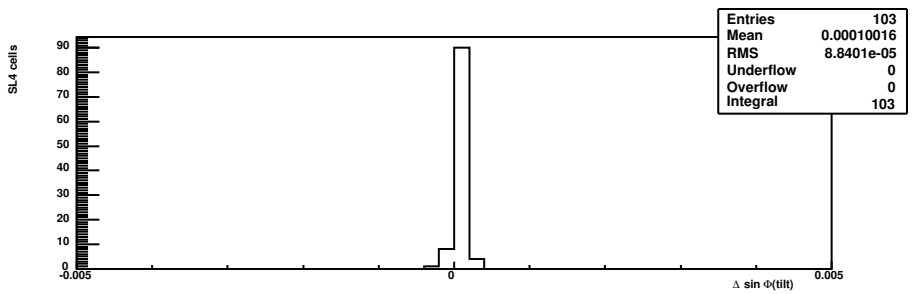

SL7 cells
Entries 108
Mean 0.10617
RMS 0.3037
Underflow 0
Overflow 0
Integral 108
ΔR (mm)

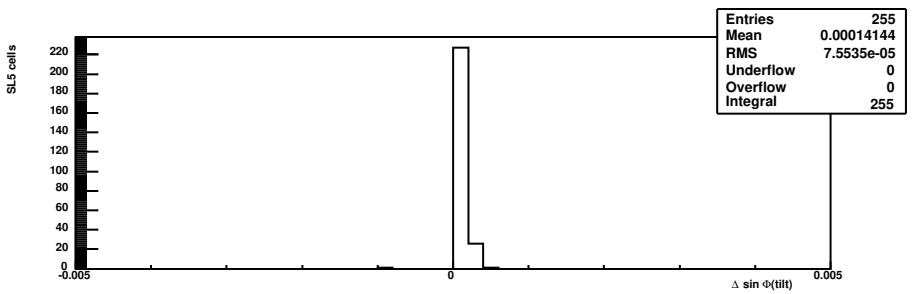

Entries 161
Mean -0.00020808
RMS 7.674e-05
Underflow 0
Overflow 0
Integral 161
SL0 cells
Δ sin Φ(tilt)

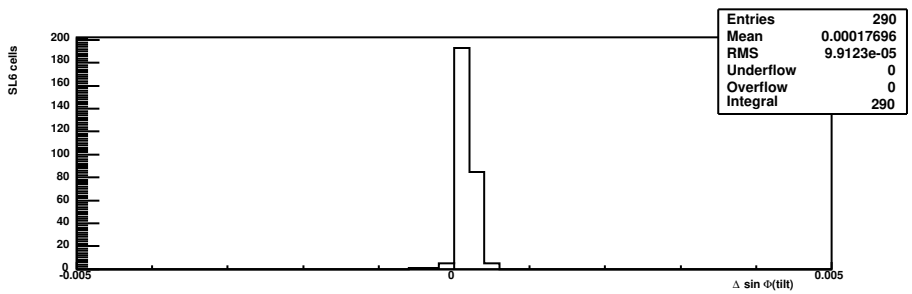

Entries 95
Mean 0.00011471
RMS 6.876e-05
Underflow 0
Overflow 0
Integral 95
SL1 cells
Δ sin Φ(tilt)

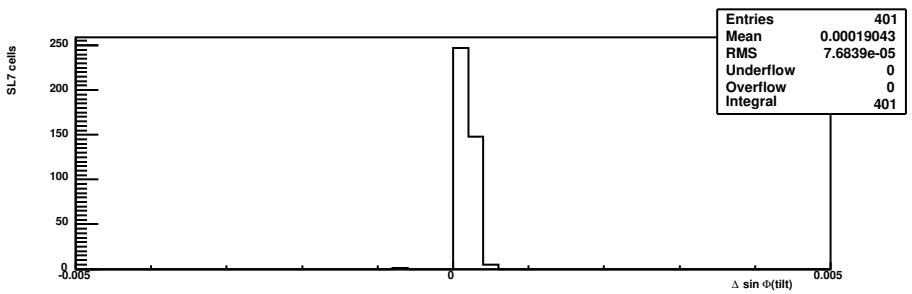

Entries 196
Mean 0.00015859
RMS 5.401e-05
Underflow 0
Overflow 0
Integral 196
SL2 cells
Δ sin Φ(tilt)

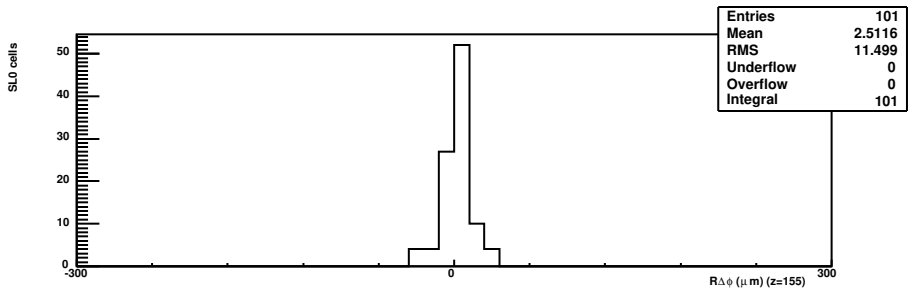

Entries 106
Mean 0.00011188
RMS 4.0134e-05
Underflow 0
Overflow 0
Integral 106
SL3 cells
Δ sin Φ(tilt)

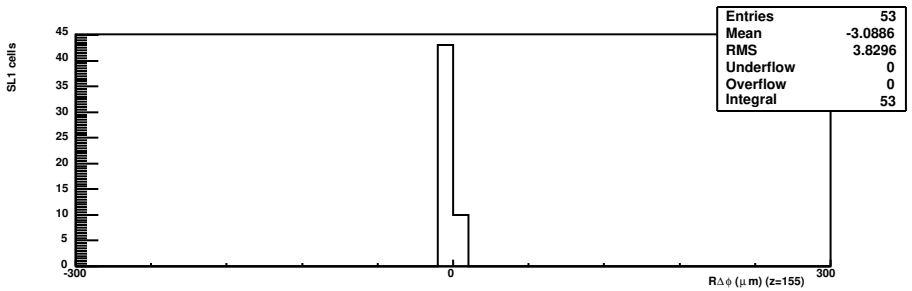

Entries 103
Mean 0.00010016
RMS 8.8401e-05
Underflow 0
Overflow 0
Integral 103
SL4 cells
Δ sin Φ(tilt)

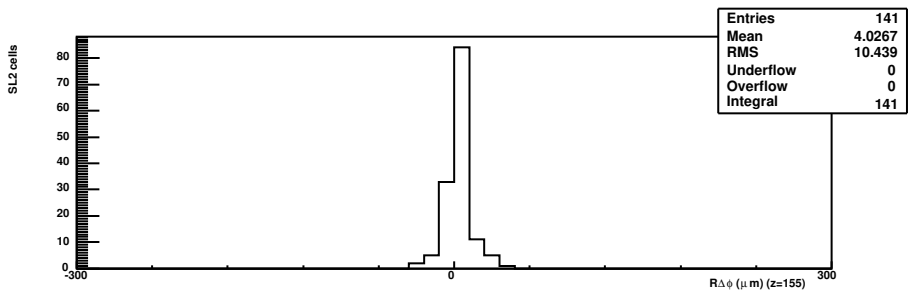

Entries 255
Mean 0.00014144
RMS 7.5535e-05
Underflow 0
Overflow 0
Integral 255
SL5 cells
Δ sin Φ(tilt)

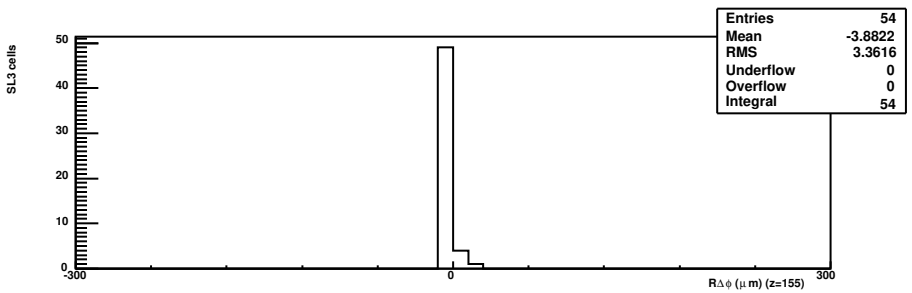

Entries 290
Mean 0.00017696
RMS 9.9123e-05
Underflow 0
Overflow 0
Integral 290
SL6 cells
Δ sin Φ(tilt)

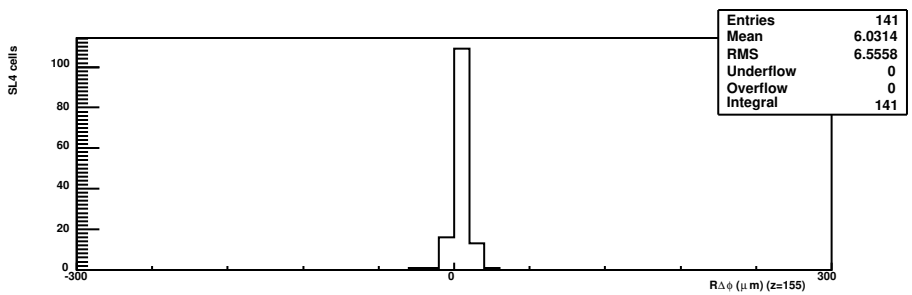

Entries 401
Mean 0.00019043
RMS 7.6839e-05
Underflow 0
Overflow 0
Integral 401
SL7 cells
Δ sin Φ(tilt)

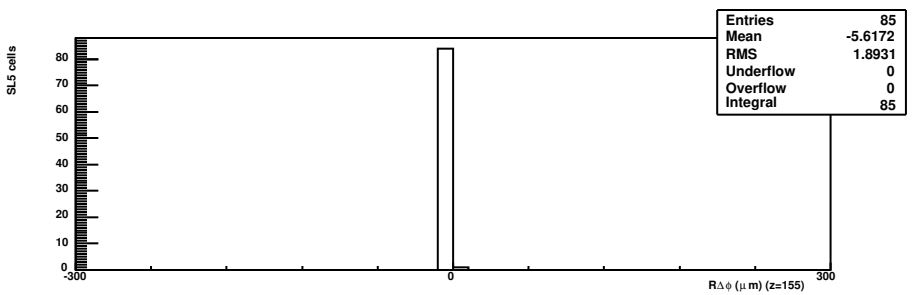

Entries 101
Mean 2.5116
RMS 11.499
Underflow 0
Overflow 0
Integral 101
SL0 cells
RΔφ (μm) (z=155)

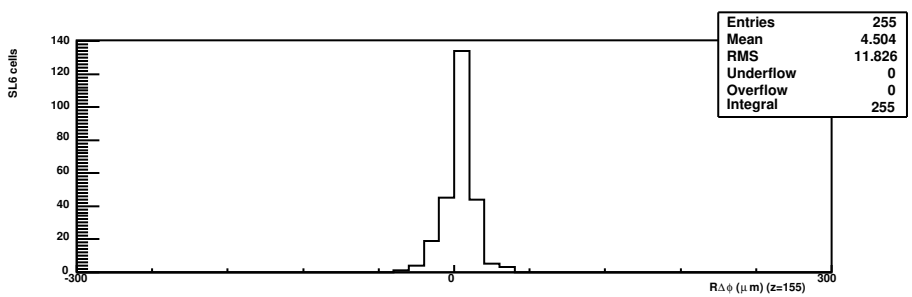

Entries 53
Mean -3.0886
RMS 3.8296
Underflow 0
Overflow 0
Integral 53
SL1 cells
RΔφ (μm) (z=155)

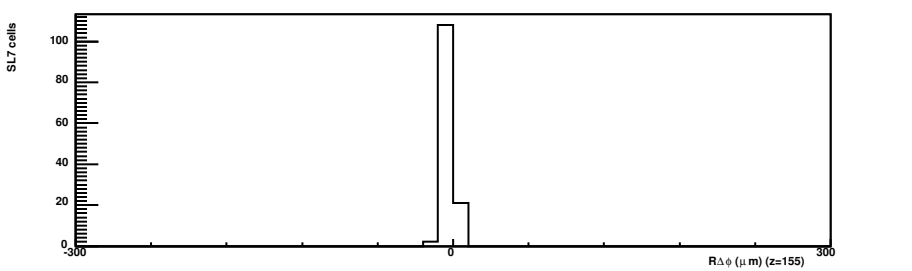

Entries 141
Mean 4.0267
RMS 10.439
Underflow 0
Overflow 0
Integral 141
SL2 cells
RΔφ (μm) (z=155)

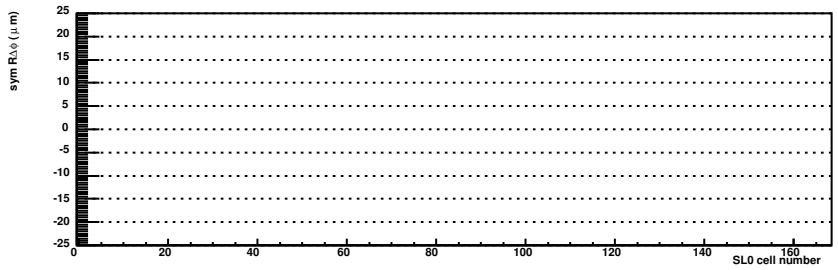

Entries 54
Mean -3.8822
RMS 3.3616
Underflow 0
Overflow 0
Integral 54
SL3 cells
RΔφ (μm) (z=155)

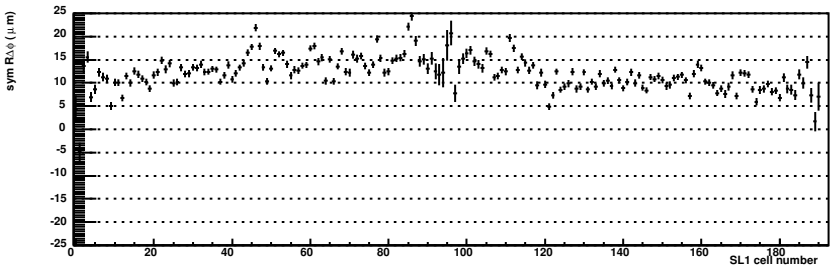

Entries 141
Mean 6.0314
RMS 6.5558
Underflow 0
Overflow 0
Integral 141
SL4 cells
RΔφ (μm) (z=155)

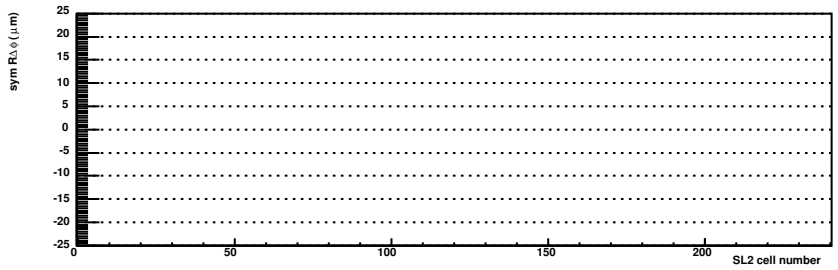

Entries 85
Mean -5.6172
RMS 1.8931
Underflow 0
Overflow 0
Integral 85
SL5 cells
RΔφ (μm) (z=155)

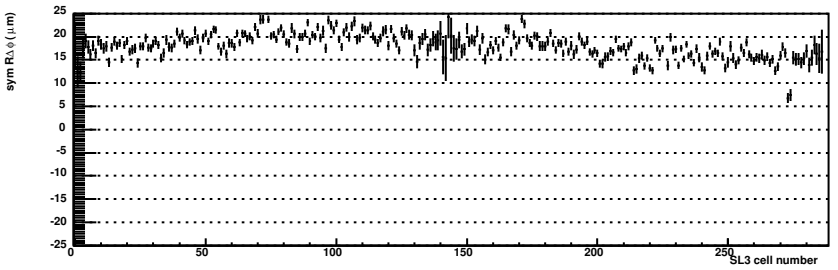

Entries 255
Mean 4.504
RMS 11.826
Underflow 0
Overflow 0
Integral 255
SL6 cells
RΔφ (μm) (z=155)

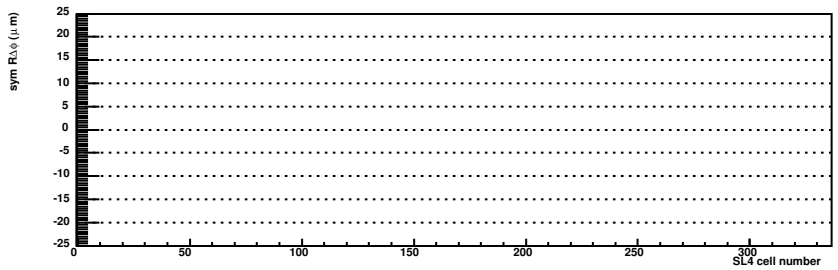

SL7 cells
RΔφ (μm) (z=155)

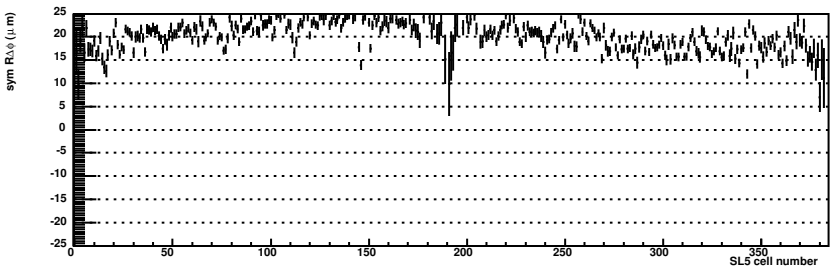

sym RΔφ (μm)
SL0 cell number

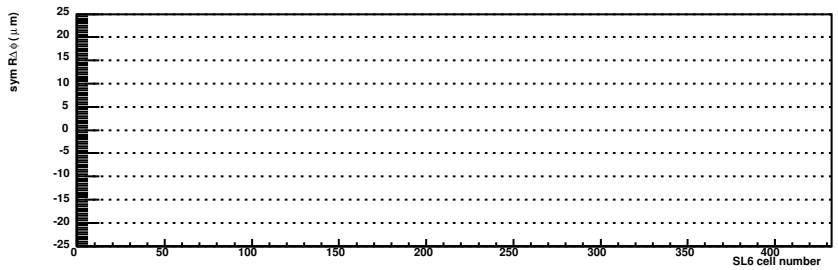

sym RΔφ (μm)
SL1 cell number

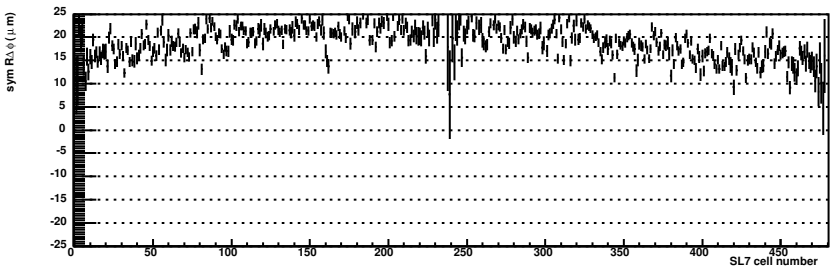

sym RΔφ (μm)
SL2 cell number

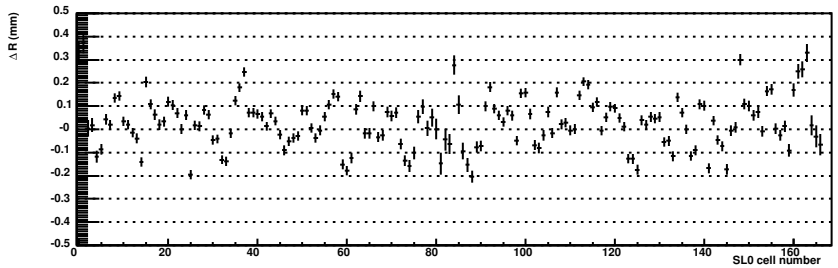

sym RΔφ (μm)
SL3 cell number

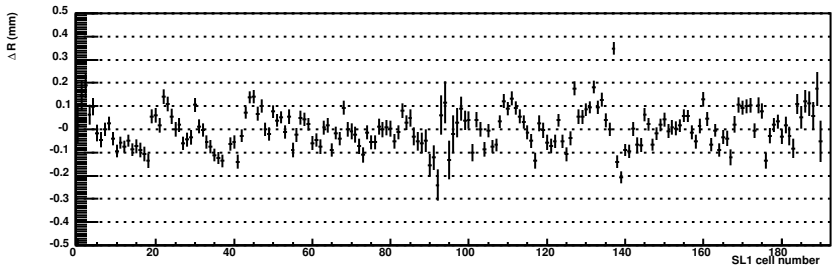

sym RΔφ (μm)
SL4 cell number

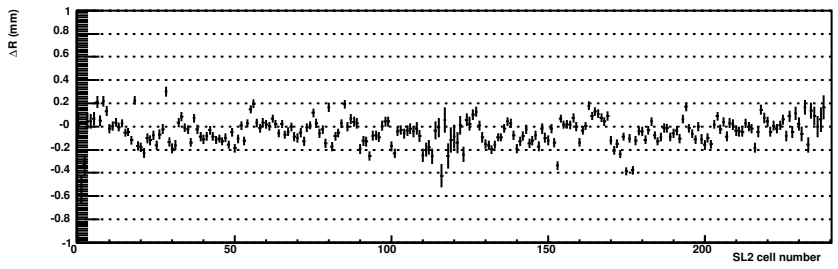

sym RΔφ (μm)
SL5 cell number

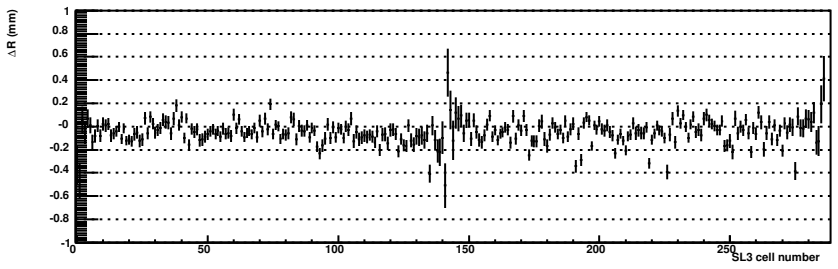

sym RΔφ (μm)
SL6 cell number

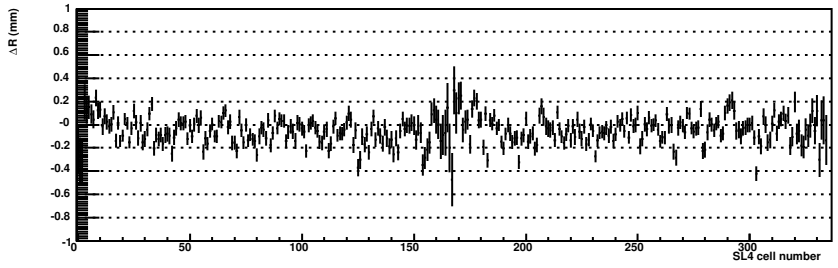

sym RΔφ (μm)
SL7 cell number

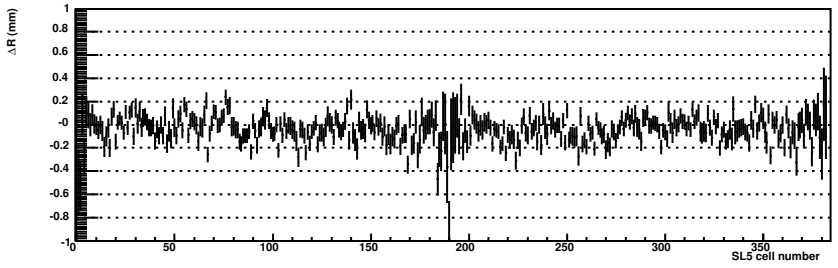

ΔR (mm)
SL0 cell number

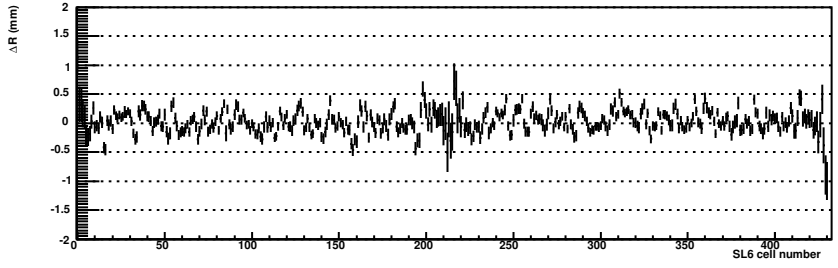

ΔR (mm)
SL1 cell number

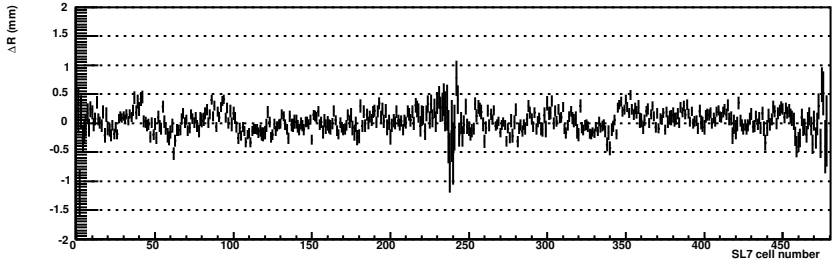

ΔR (mm)
SL2 cell number

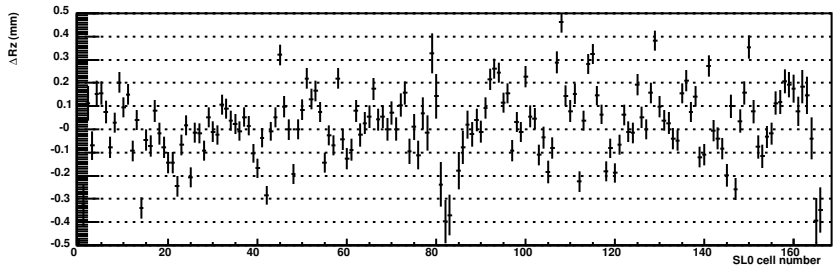

ΔR (mm)
SL3 cell number

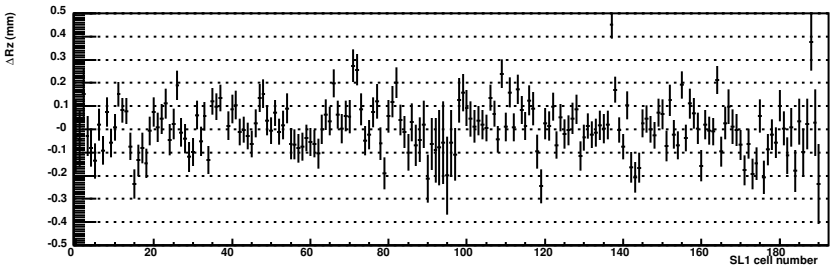

ΔR (mm)
SL4 cell number

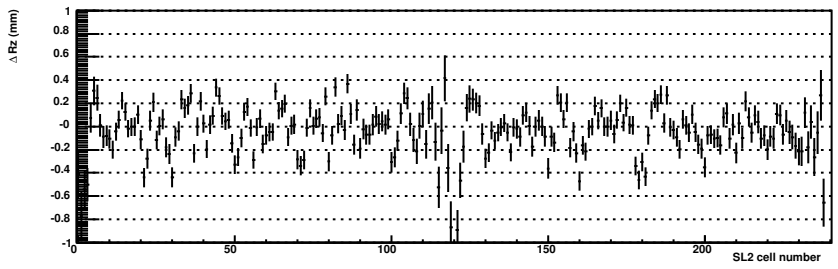

ΔR (mm)
SL5 cell number

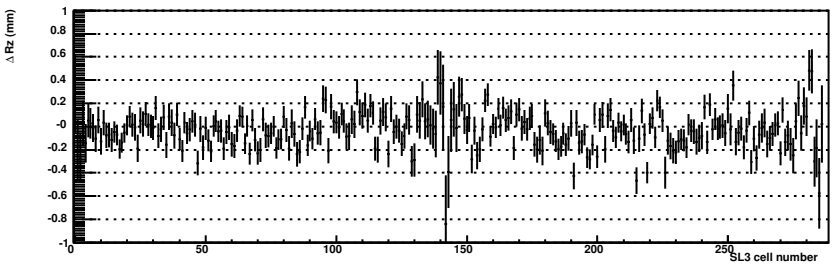

ΔR (mm)
SL6 cell number

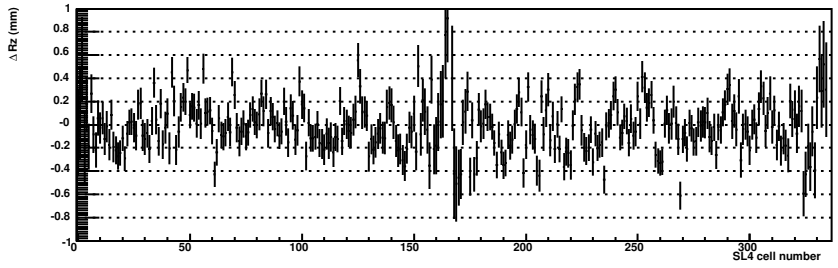

ΔR (mm)
SL7 cell number

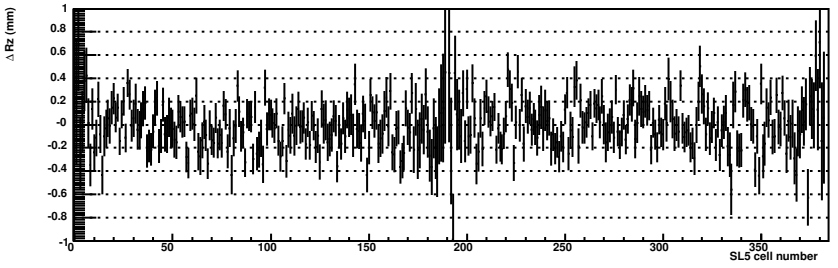

ΔRz (mm)
SL0 cell number

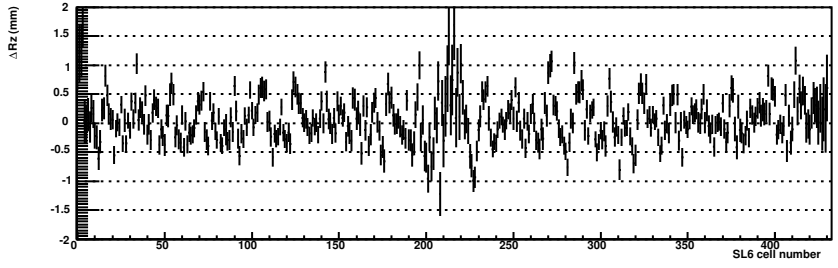

ΔRz (mm)
SL1 cell number

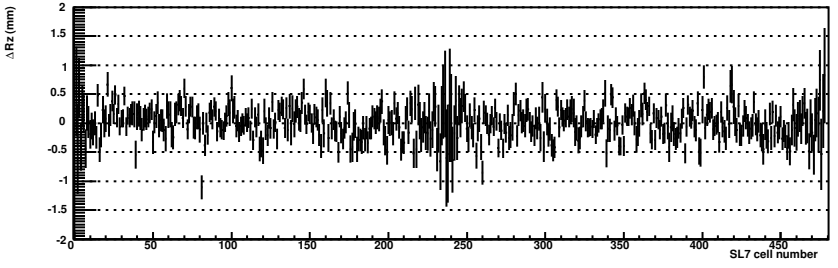

Δ Rz (mm)
SL2 cell number

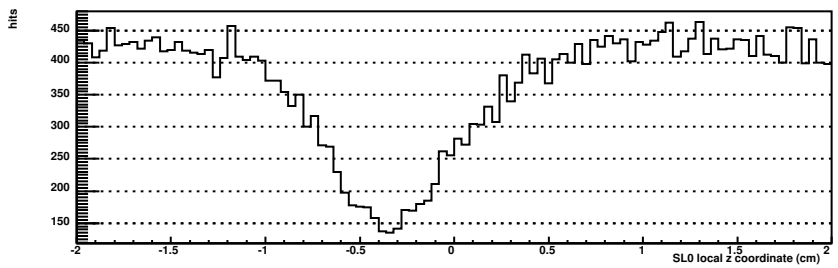

Δ Rz (mm)
SL3 cell number

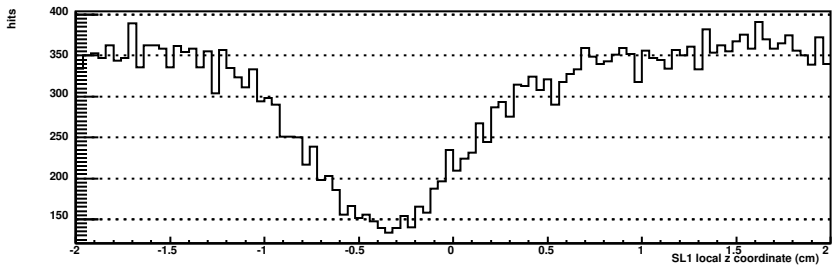

Δ Rz (mm)
SL4 cell number

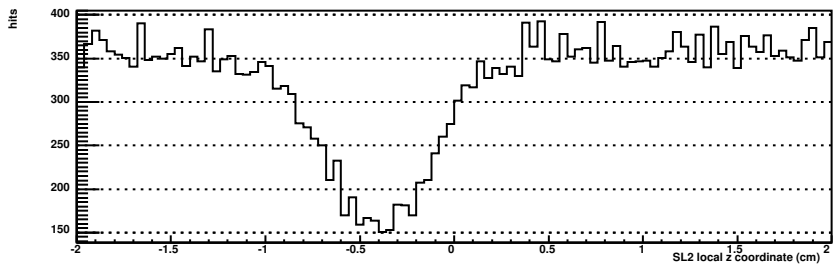

Δ Rz (mm)
SL5 cell number

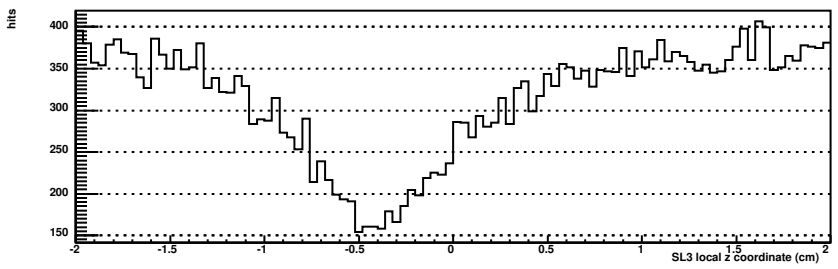

Δ Rz (mm)
SL6 cell number

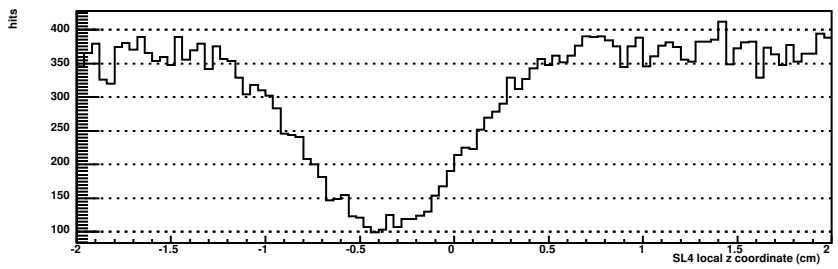

Δ Rz (mm)
SL7 cell number

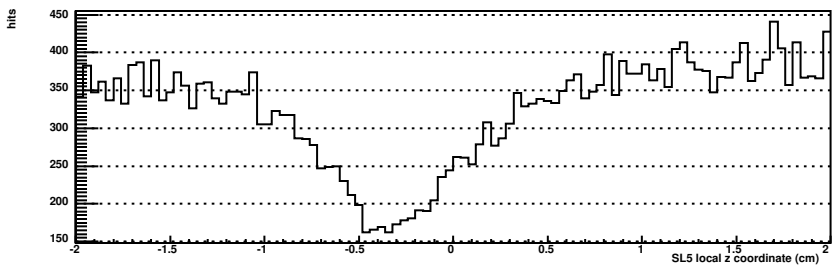

hits
SL0 local z coordinate (cm)

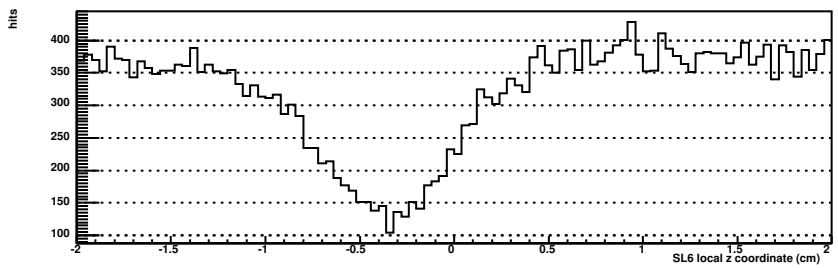

hits
SL1 local z coordinate (cm)

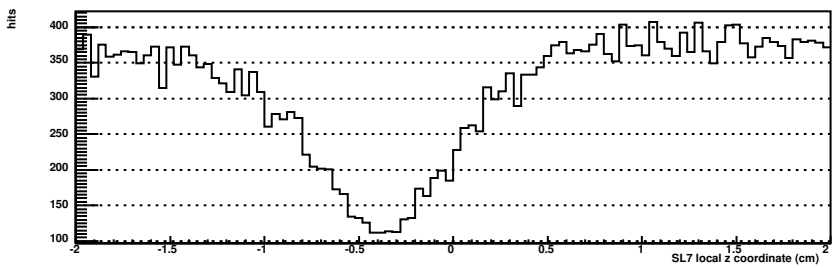

hits
SL2 local z coordinate (cm)

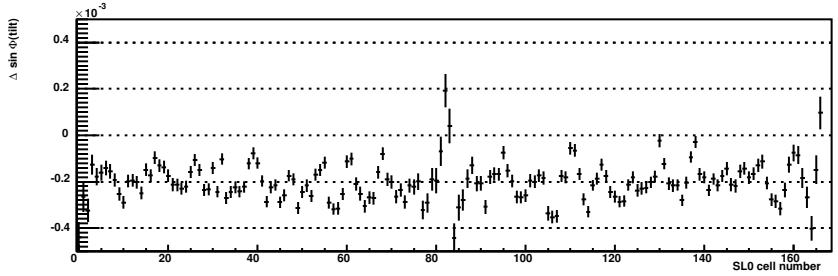

hits
SL3 local z coordinate (cm)

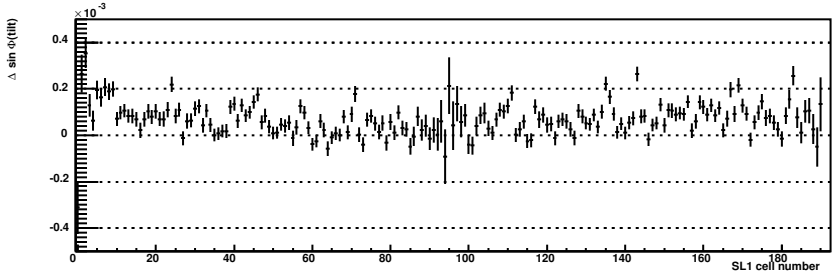

hits
SL4 local z coordinate (cm)

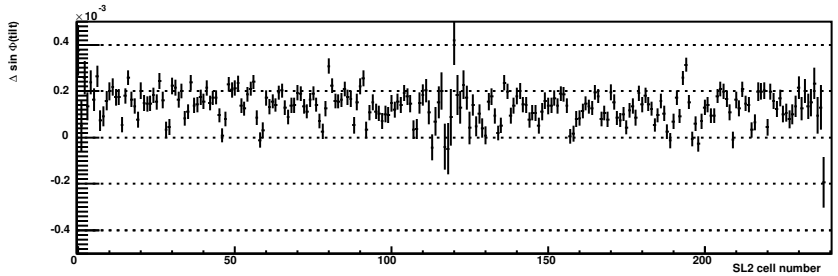

hits
SL5 local z coordinate (cm)

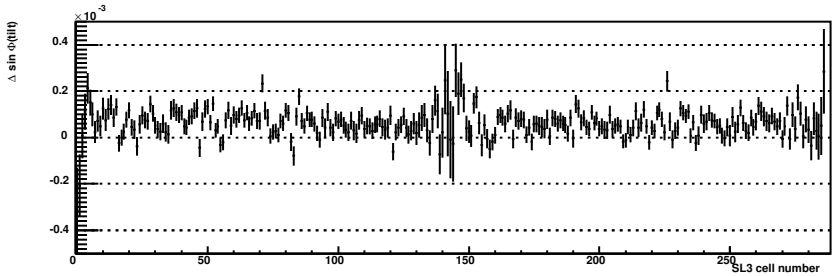

hits
SL6 local z coordinate (cm)

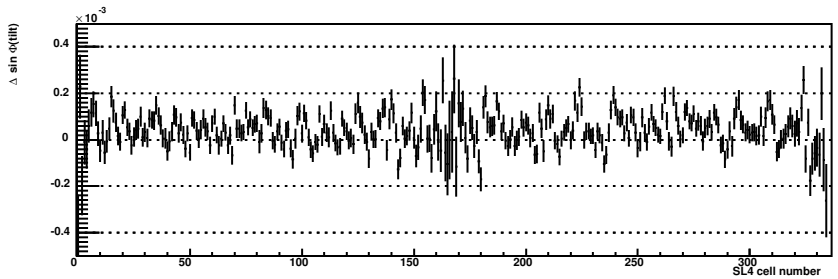

hits
SL7 local z coordinate (cm)

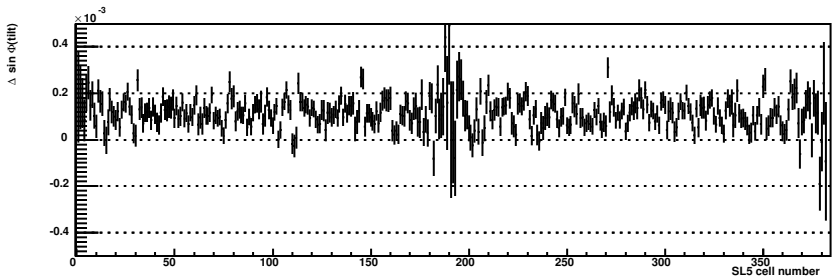

×10^-3
Δ sin Φ(tilt)
SL0 cell number

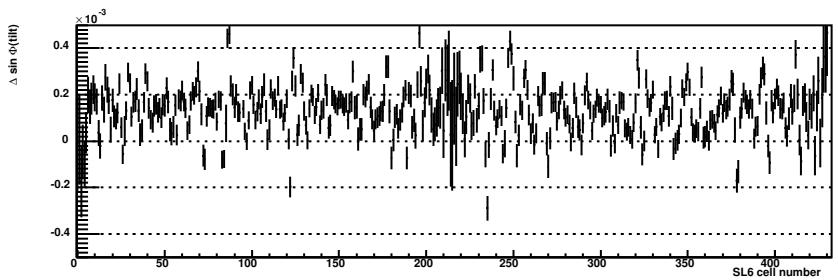

×10^-3
Δ sin Φ(tilt)
SL1 cell number

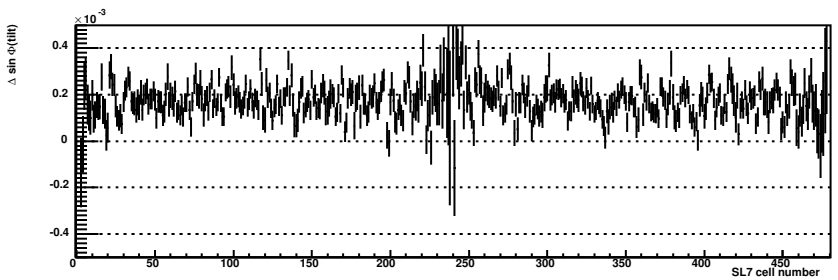

×10^-3
Δ sin Φ(tilt)
SL2 cell number

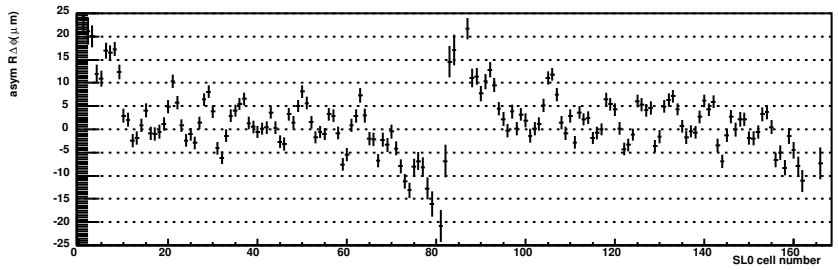

×10^-3
Δ sin Φ(tilt)
SL3 cell number

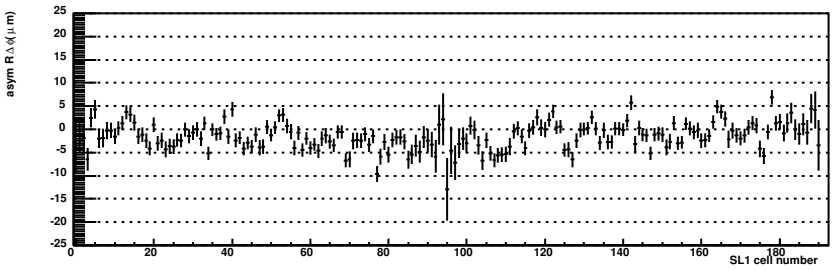

×10^-3
Δ sin Φ(tilt)
SL4 cell number

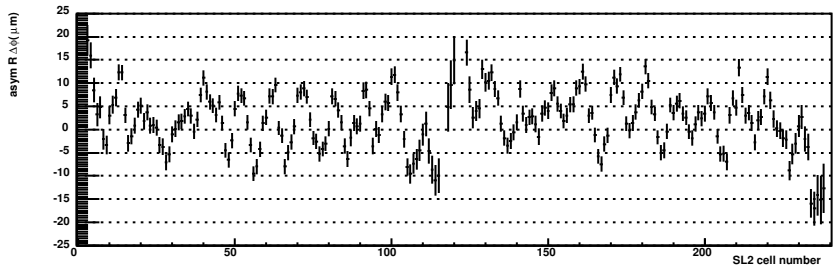

×10^-3
Δ sin Φ(tilt)
SL5 cell number

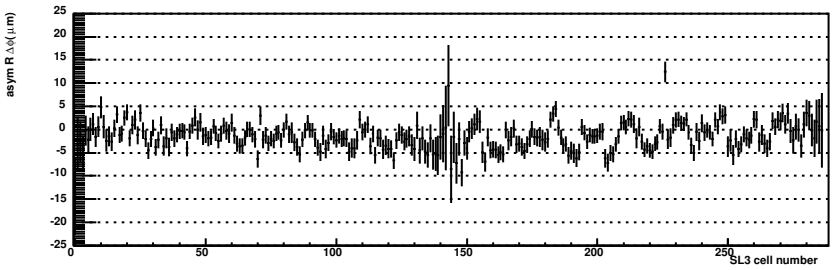

×10^-3
Δ sin Φ(tilt)
SL6 cell number

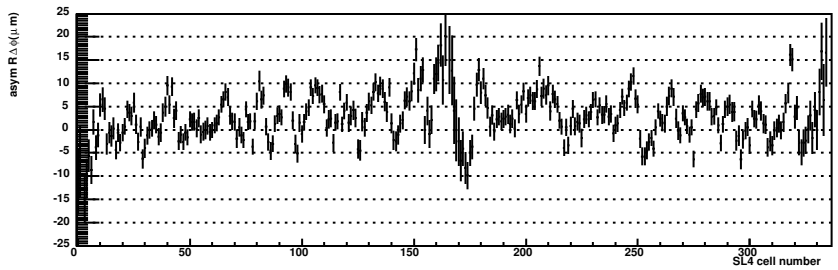

×10^-3
Δ sin Φ(tilt)
SL7 cell number

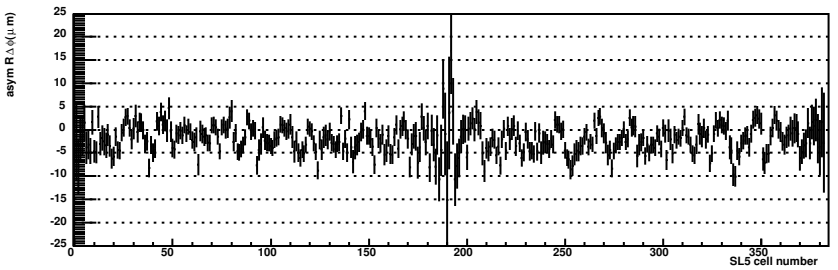

asym R Δφ(μm)
SL0 cell number

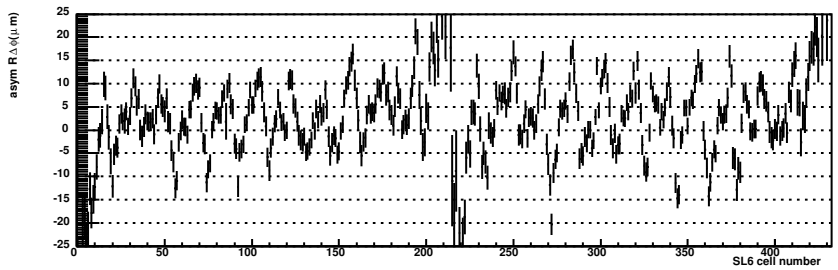

asym R Δφ(μm)
SL1 cell number

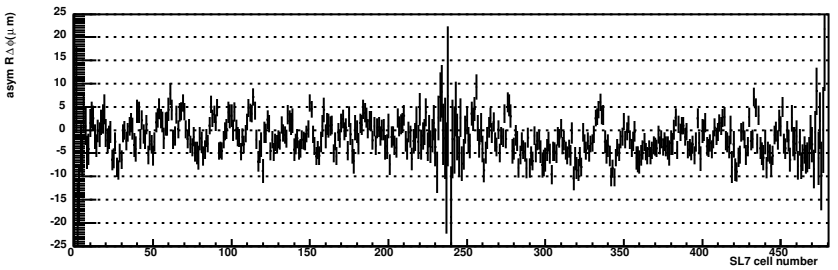

asym R Δφ(μm)
SL2 cell number

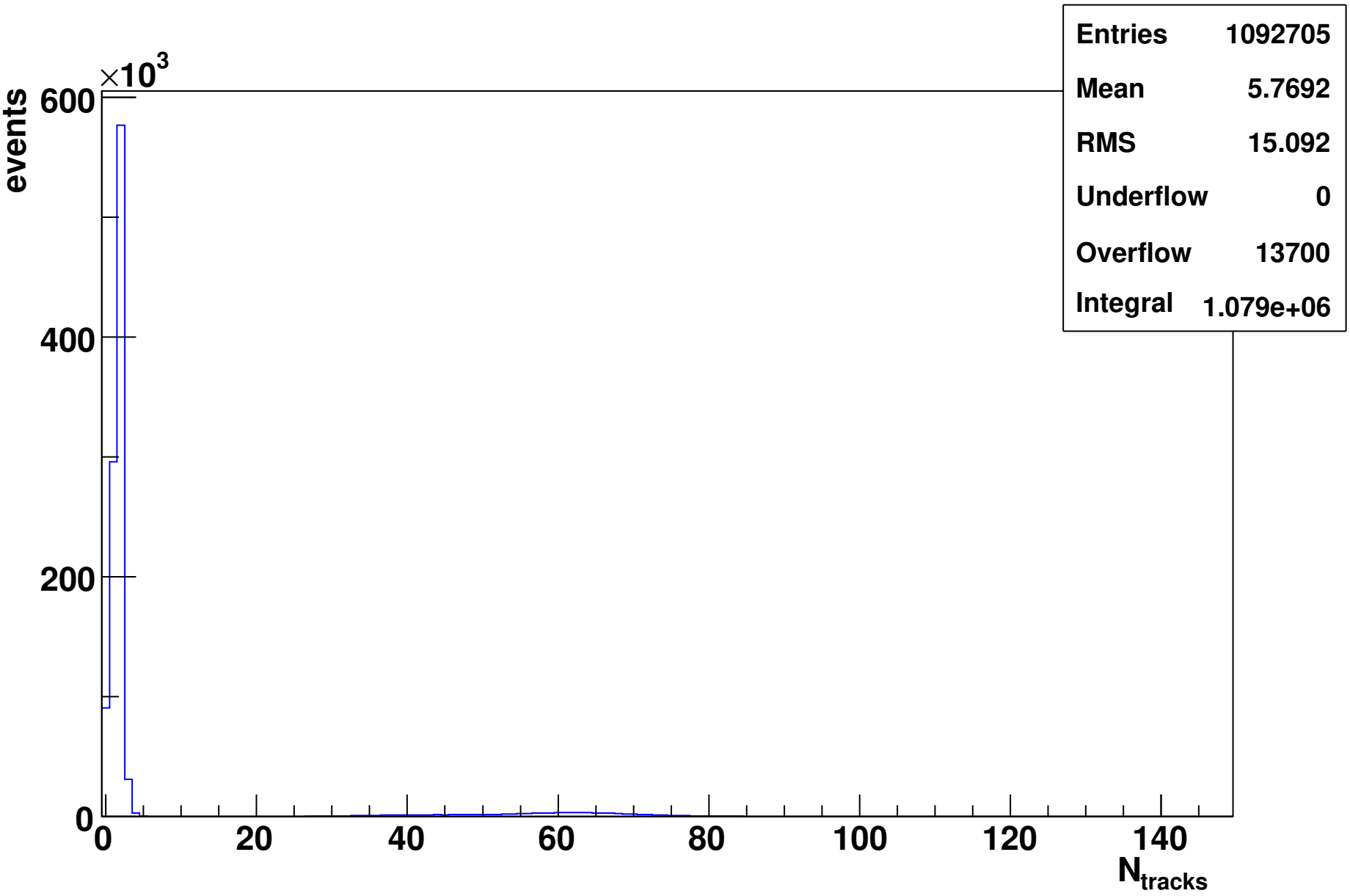

asym R Δφ(μm)
SL3 cell number

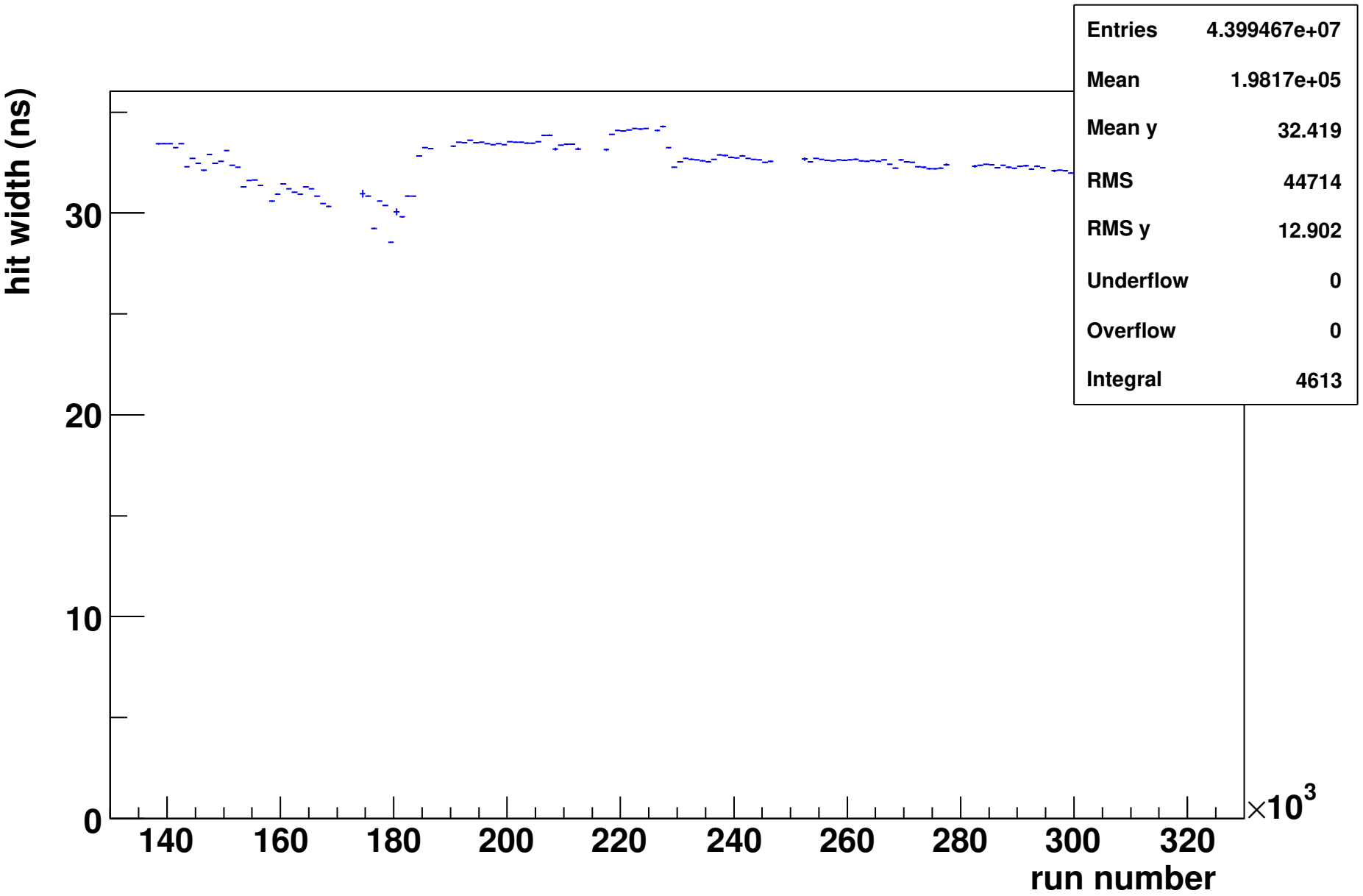

asym R Δφ(μm)
SL4 cell number

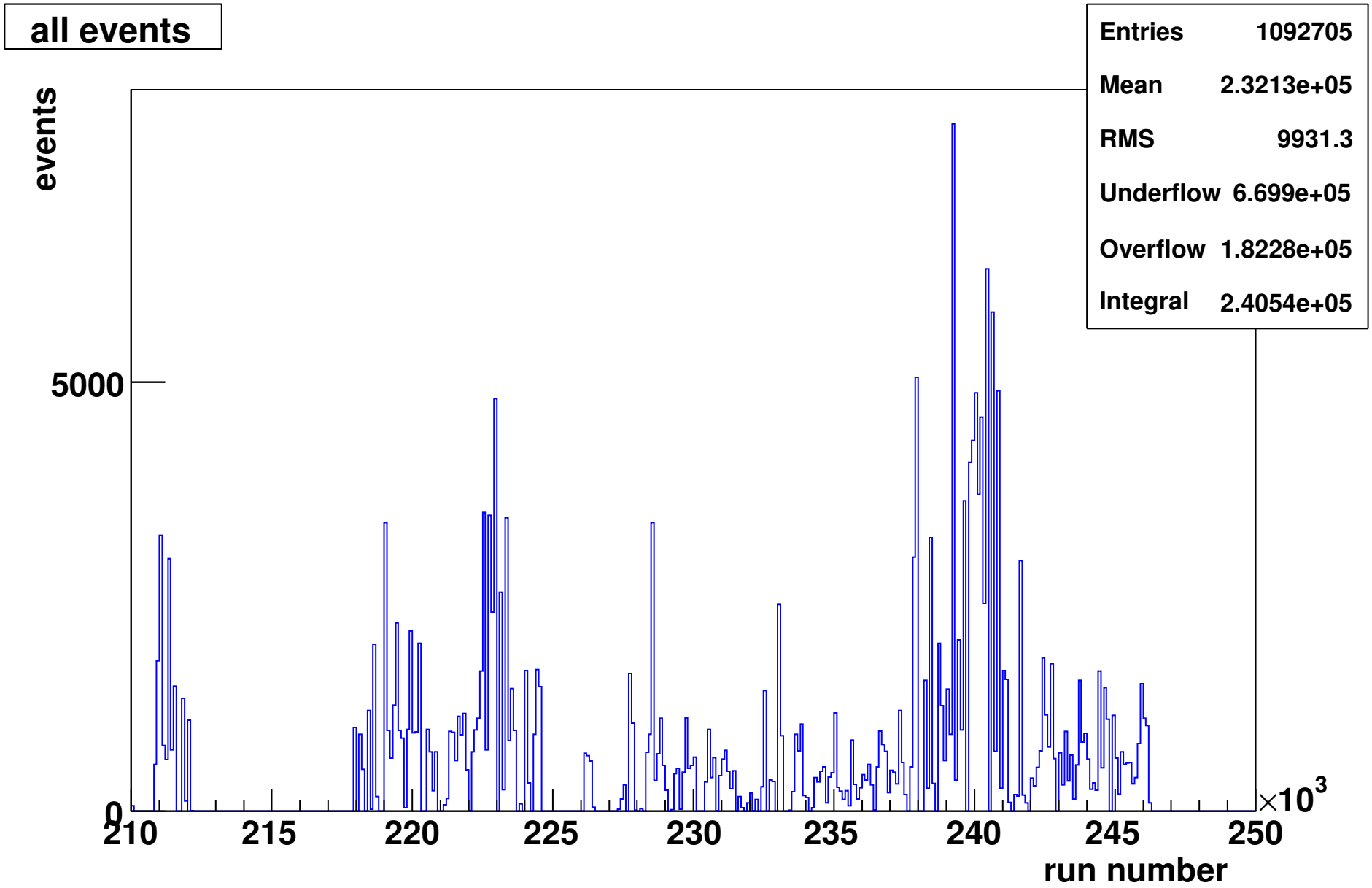

asym R Δφ(μm)
SL5 cell number

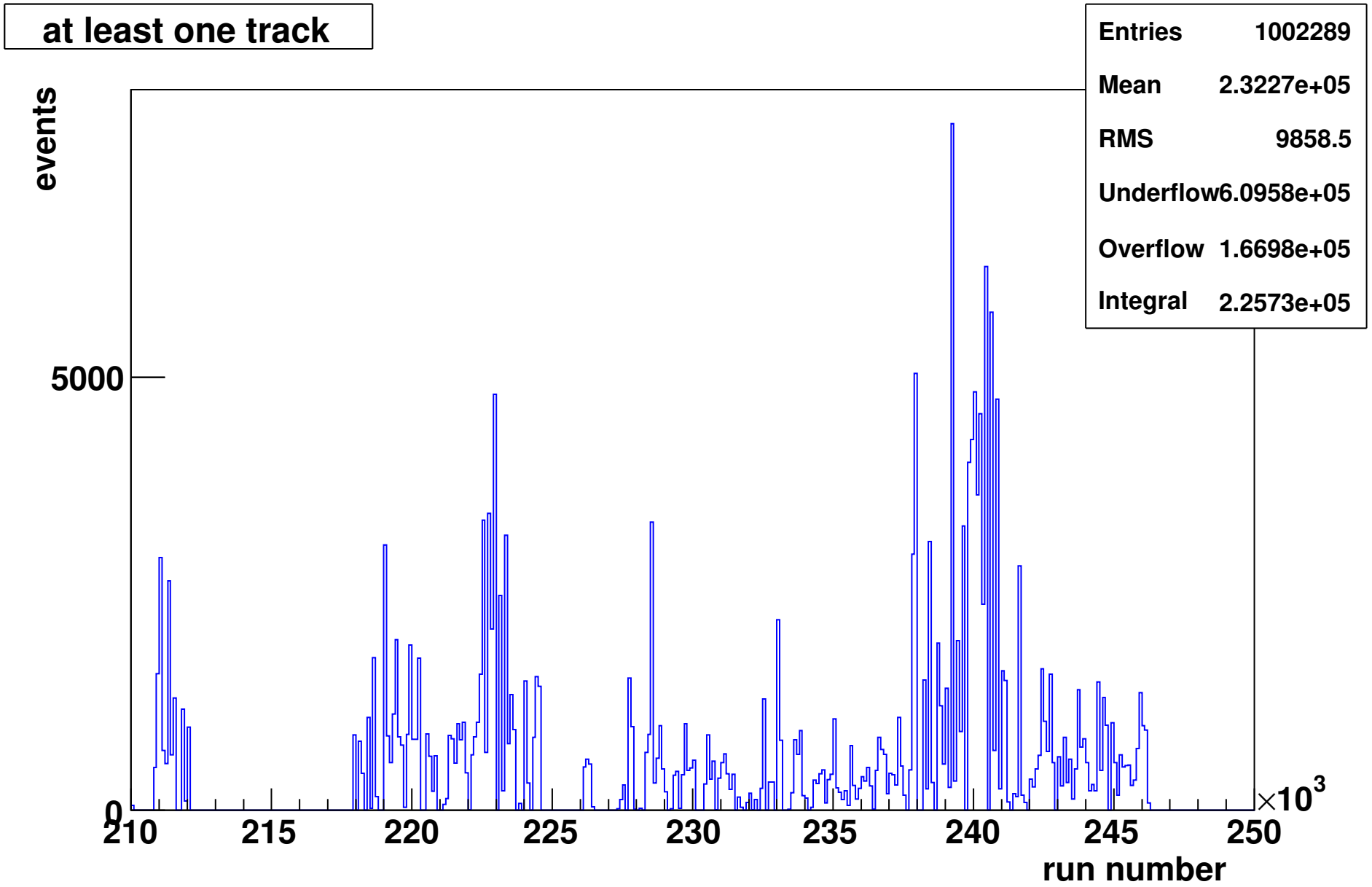

asym R Δφ(μm)
SL6 cell number

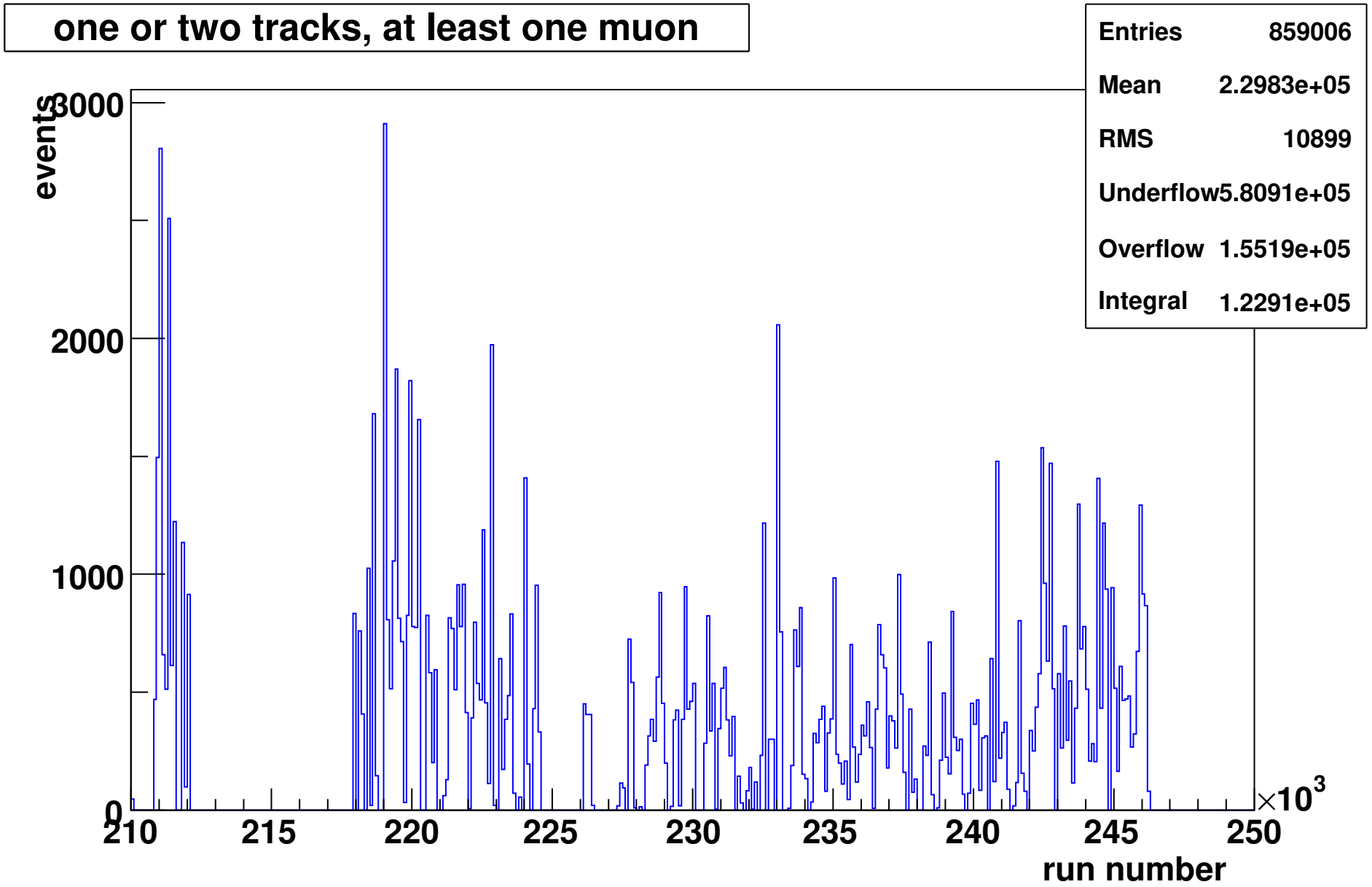

asym R Δφ(μm)
SL7 cell number

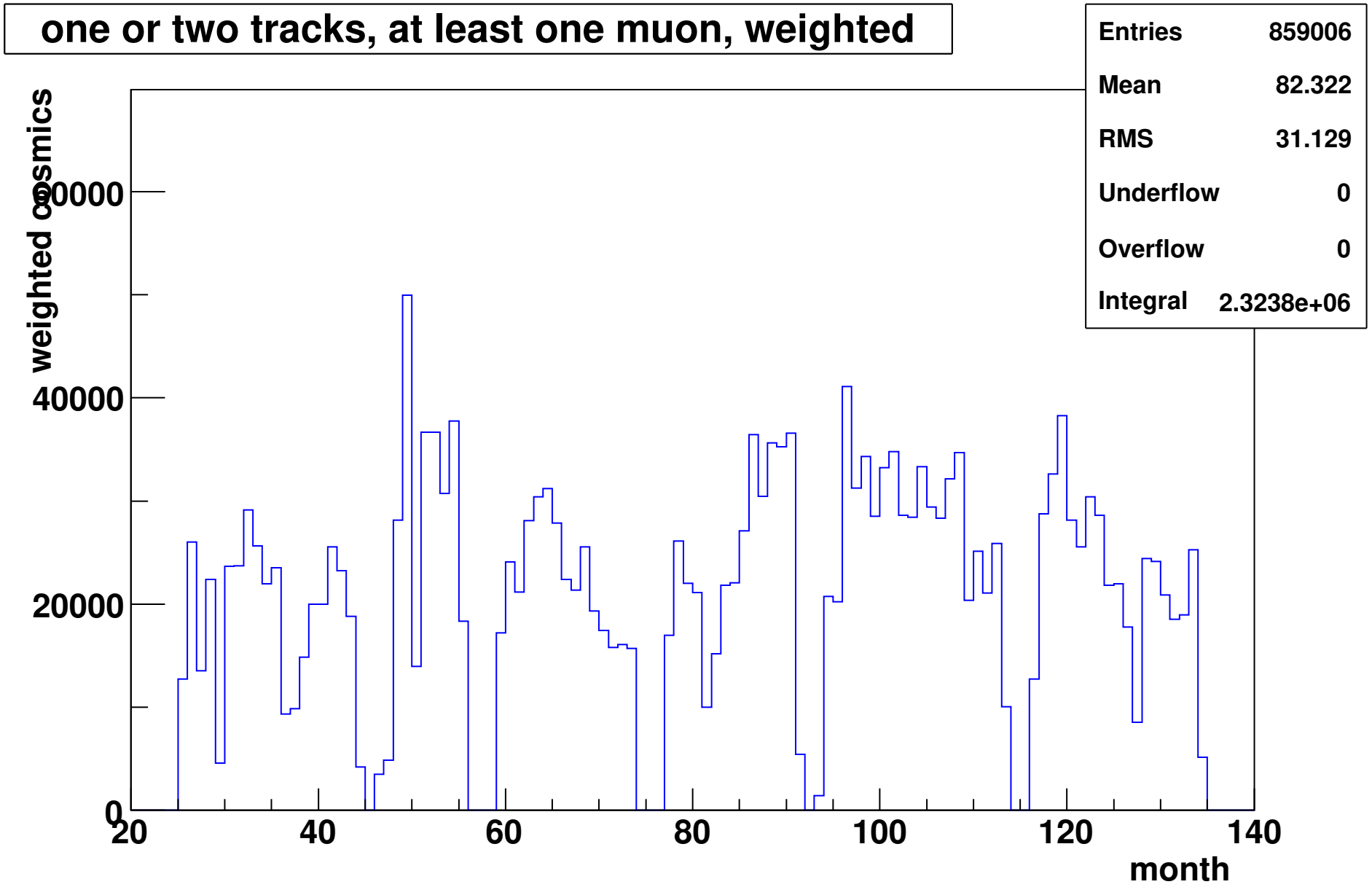

Entries 1092705
Mean 5.7692
RMS 15.092
Underflow 0
Overflow 13700
Integral 1.079e+06
events
×10^3
600
400
200
0
0
20
40
60
80
100
120
140
N_tracks

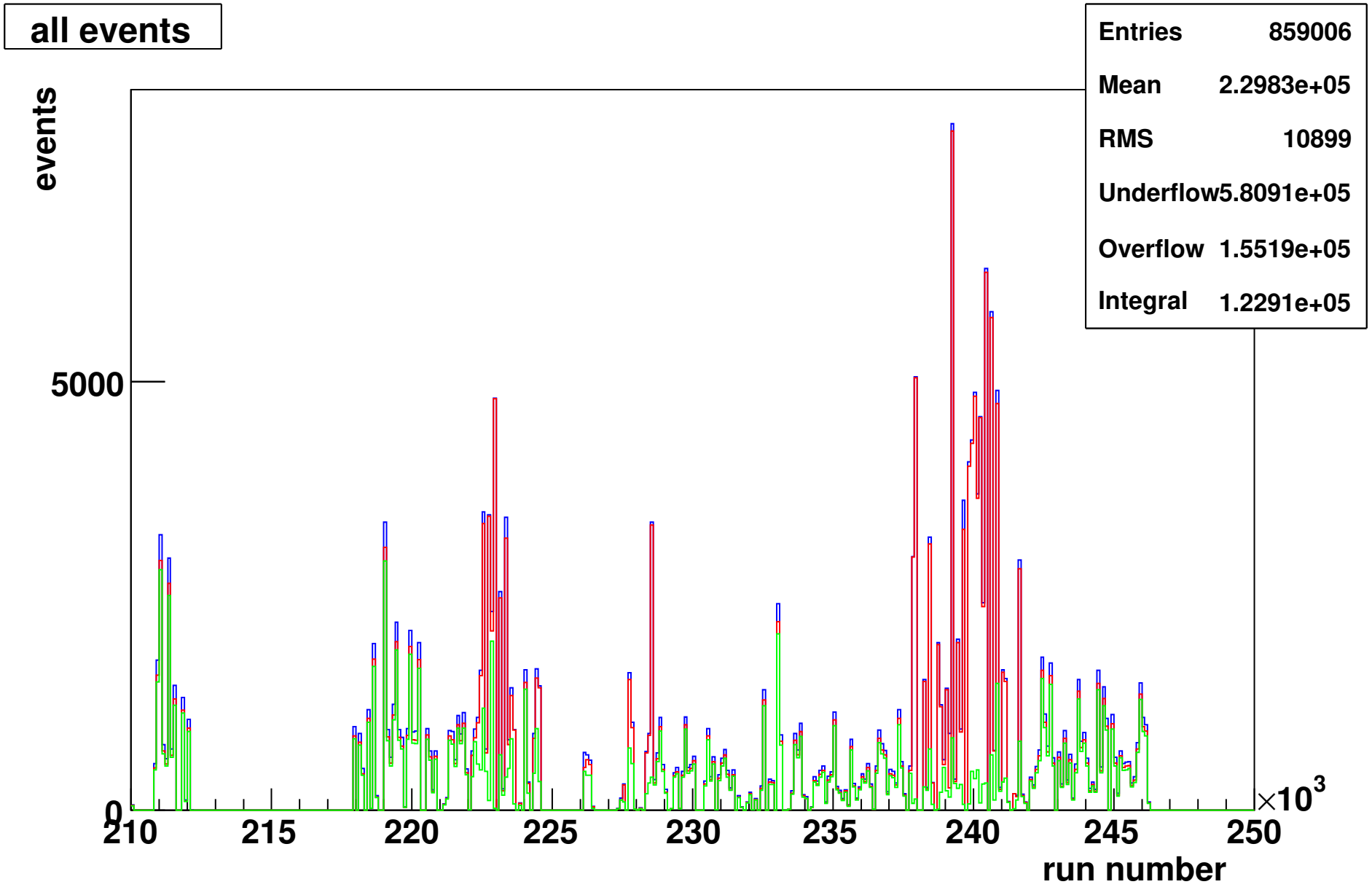

hit width (ns)
0
10
20
30
140
160
180
200
220
240
260
280
300
320
×10^3
run number
Entries 4.399467e+07
Mean 1.9817e+05
Mean y 32.419
RMS 44714
RMS y 12.902
Underflow 0
Overflow 0
Integral 4613

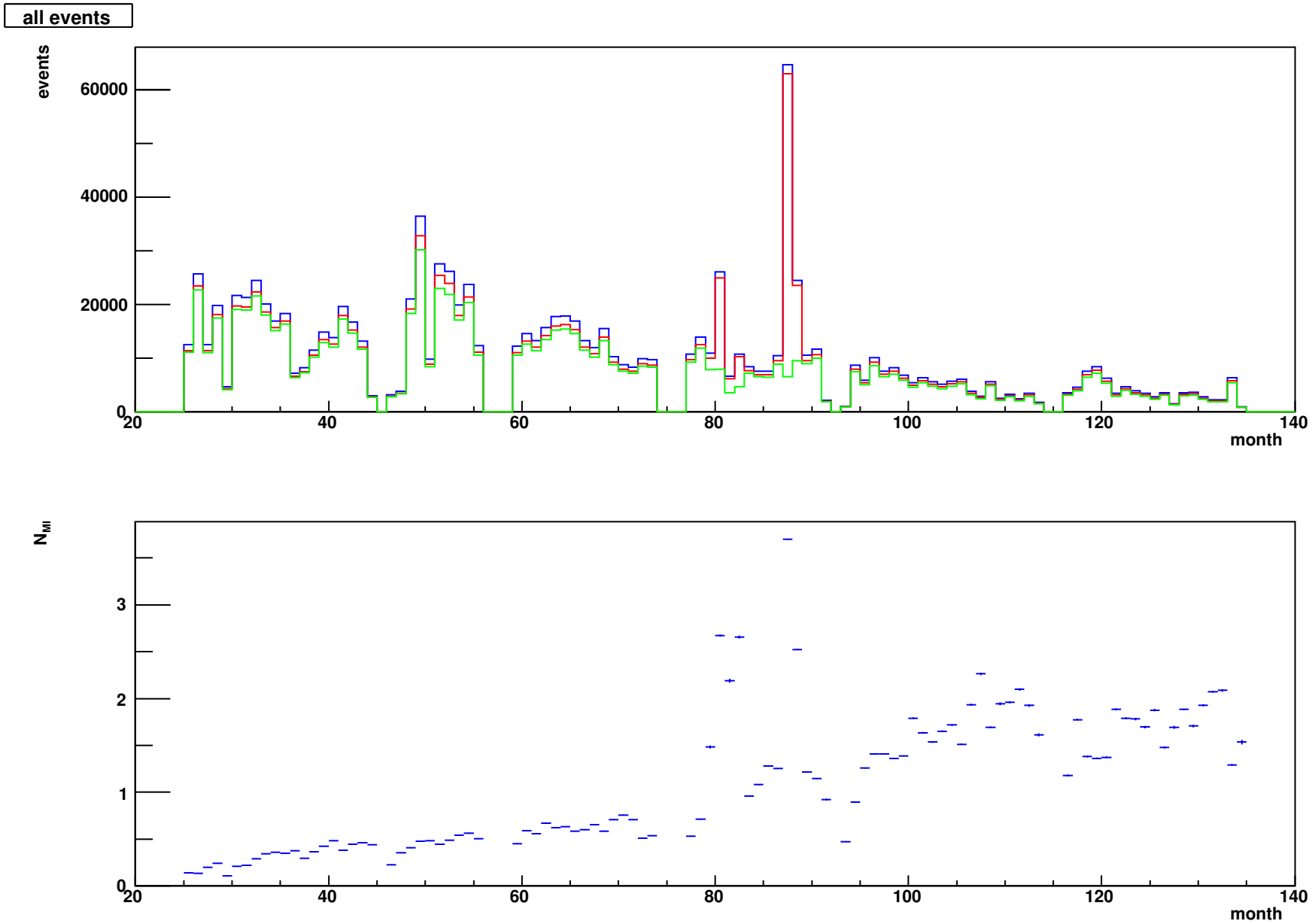

all events
Entries 1092705
Mean 2.3213e+05
RMS 9931.3
Underflow 6.699e+05
Overflow 1.8228e+05
Integral 2.4054e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

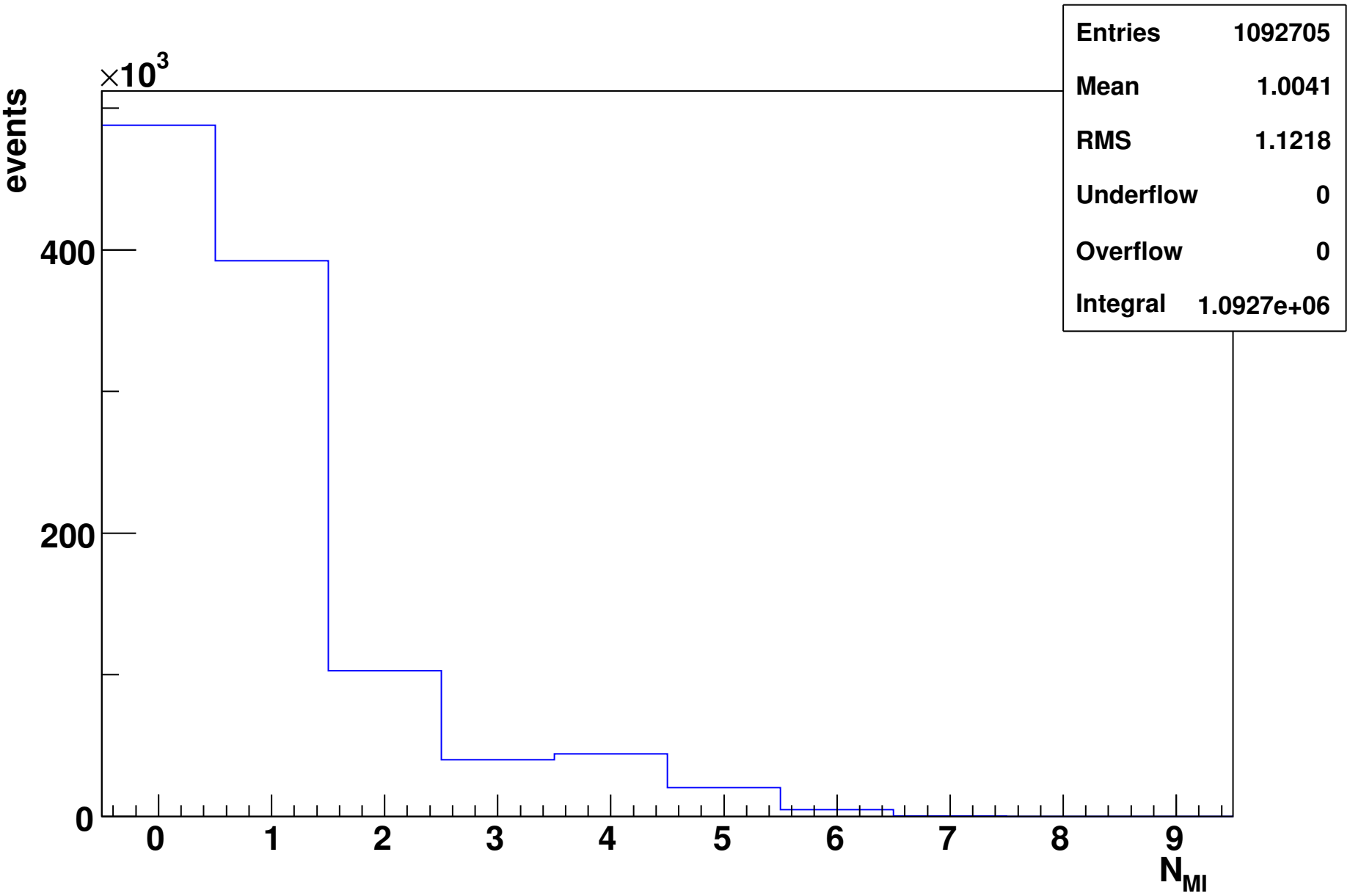

at least one track
Entries 1002289
Mean 2.3227e+05
RMS 9858.5
Underflow 6.0958e+05
Overflow 1.6698e+05
Integral 2.2573e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

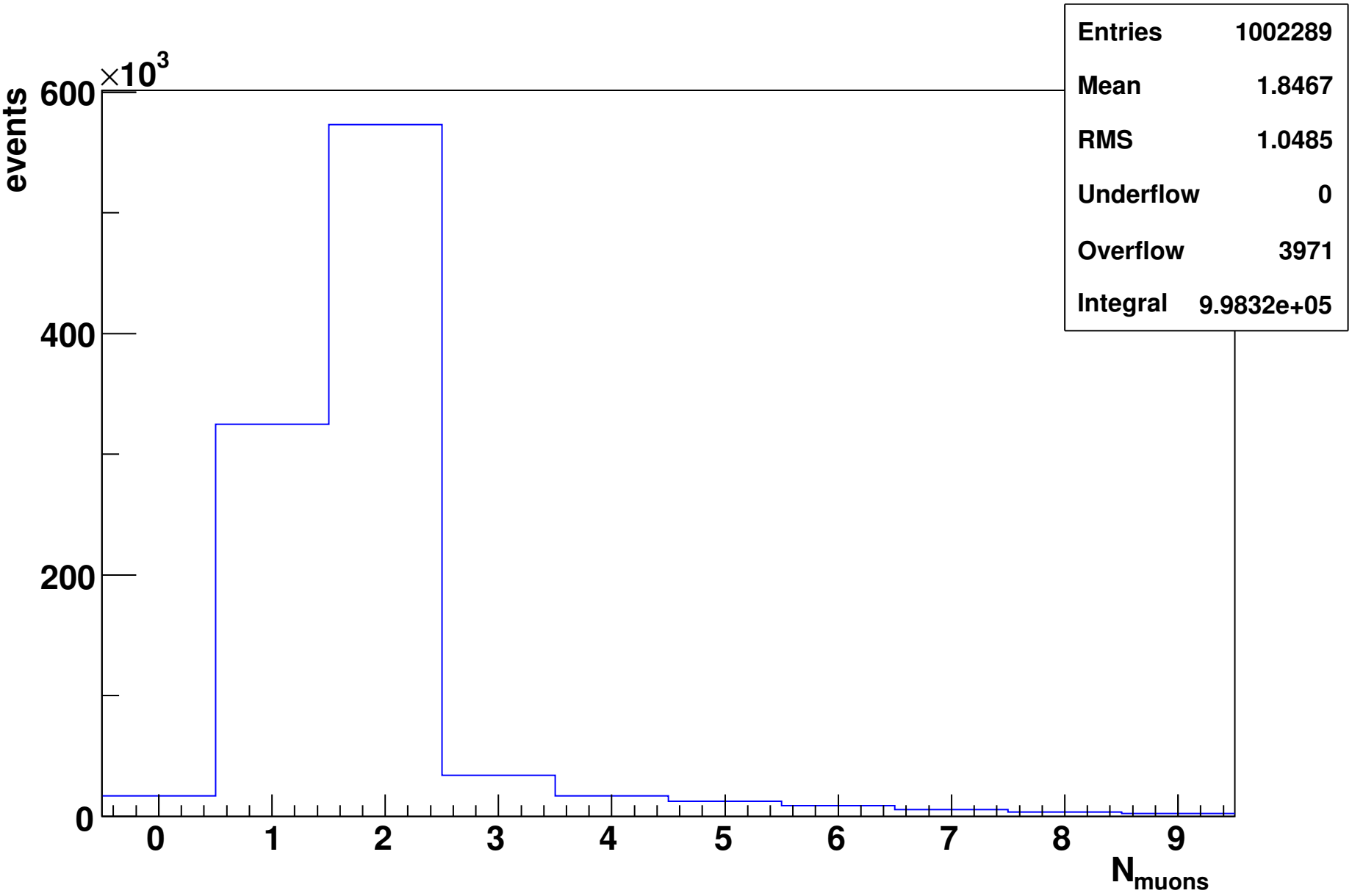

one or two tracks, at least one muon
Entries 859006
Mean 2.2983e+05
RMS 10899
Underflow 5.8091e+05
Overflow 1.5519e+05
Integral 1.2291e+05
events
3000
2000
1000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

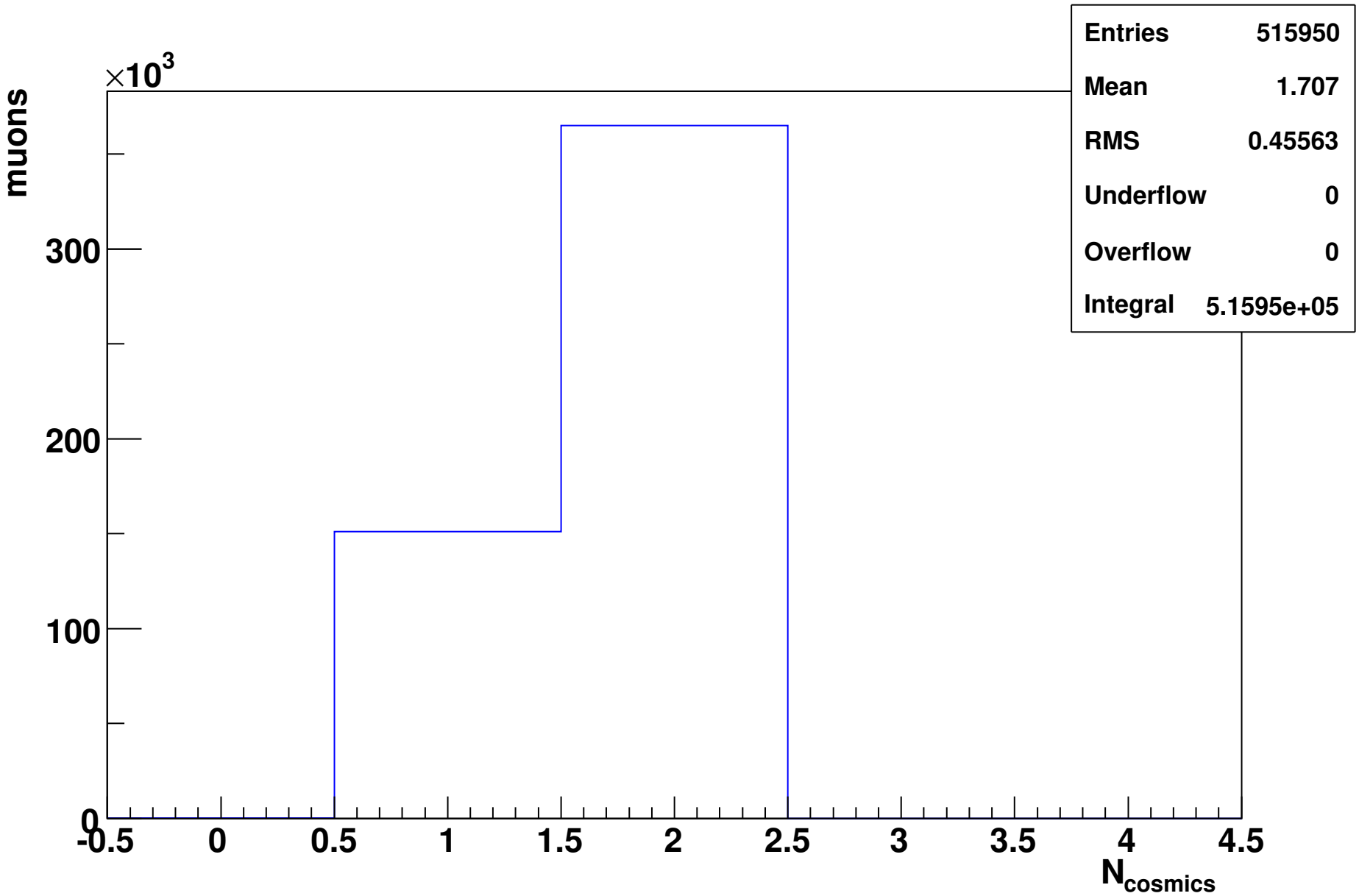

one or two tracks, at least one muon, weighted
Entries 859006
Mean 82.322
RMS 31.129
Underflow 0
Overflow 0
Integral 2.3238e+06
weighted cosmics
60000
40000
20000
0
20
40
60
80
100
120
140
month

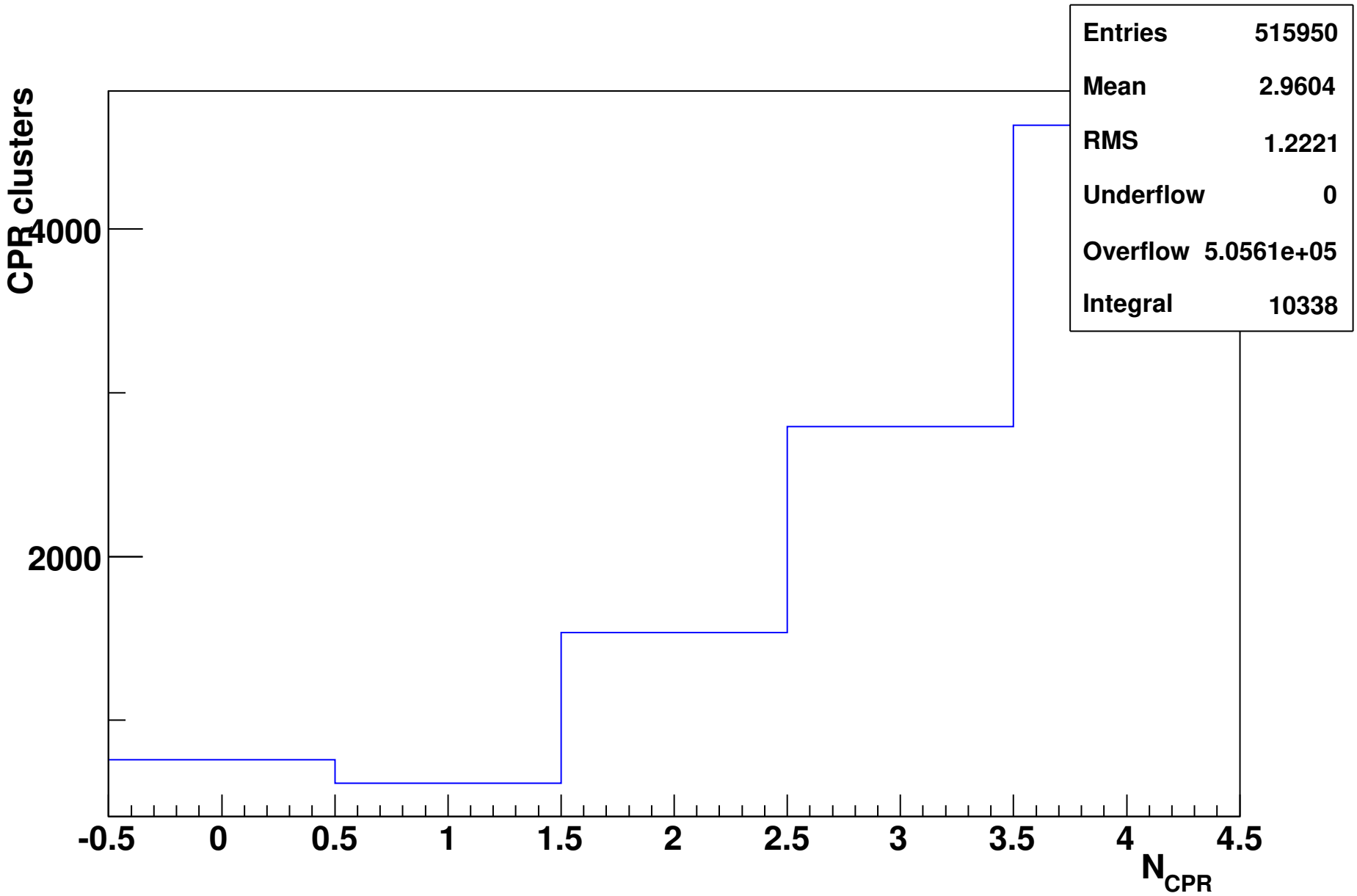

all events
Entries 859006
Mean 2.2983e+05
RMS 10899
Underflow 5.8091e+05
Overflow 1.5519e+05
Integral 1.2291e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

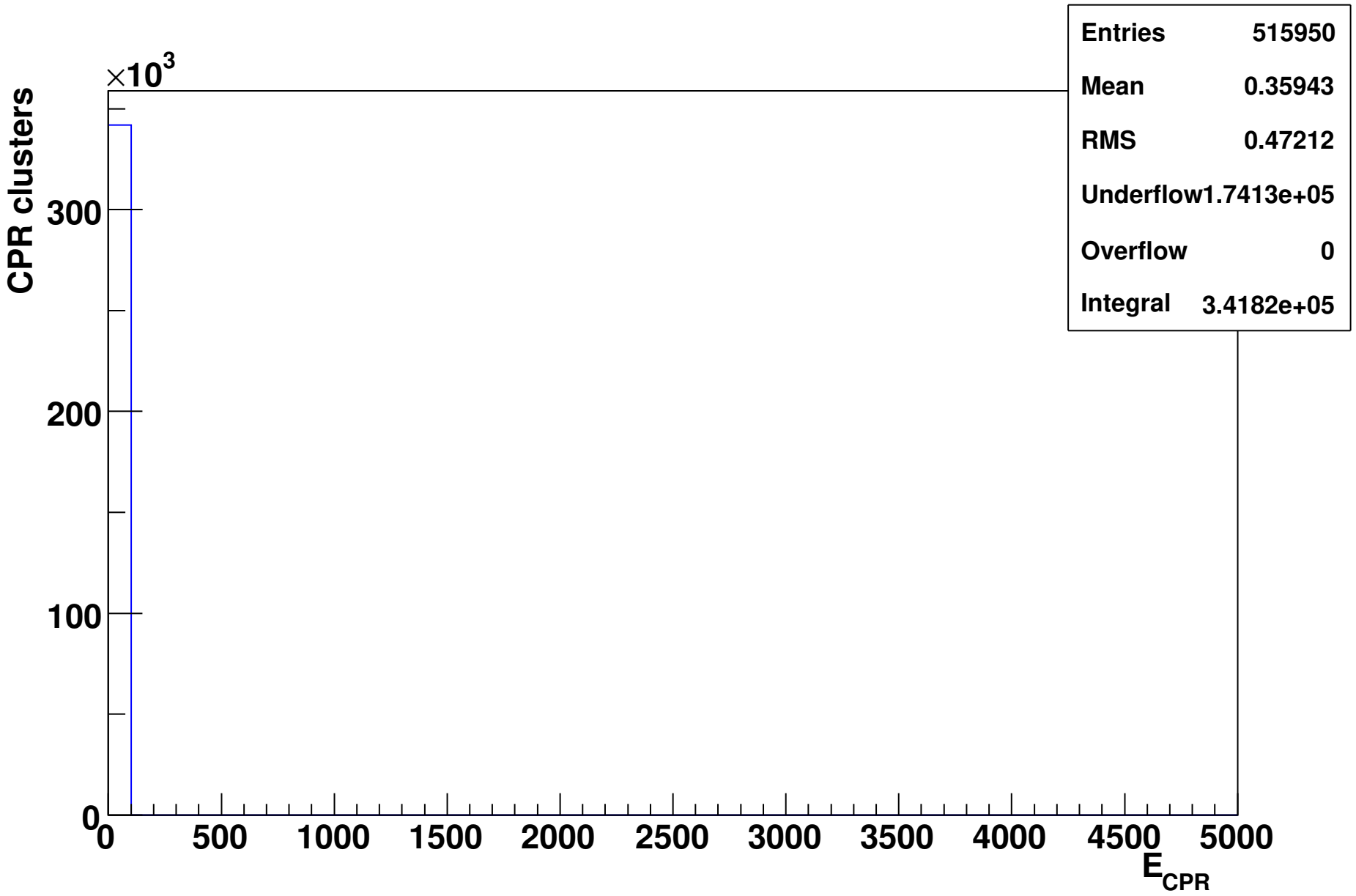

all events
events
60000
40000
20000
0
20
40
60
80
100
120
140
month
N_{MI}
3
2
1
0
20
40
60
80
100
120
140
month

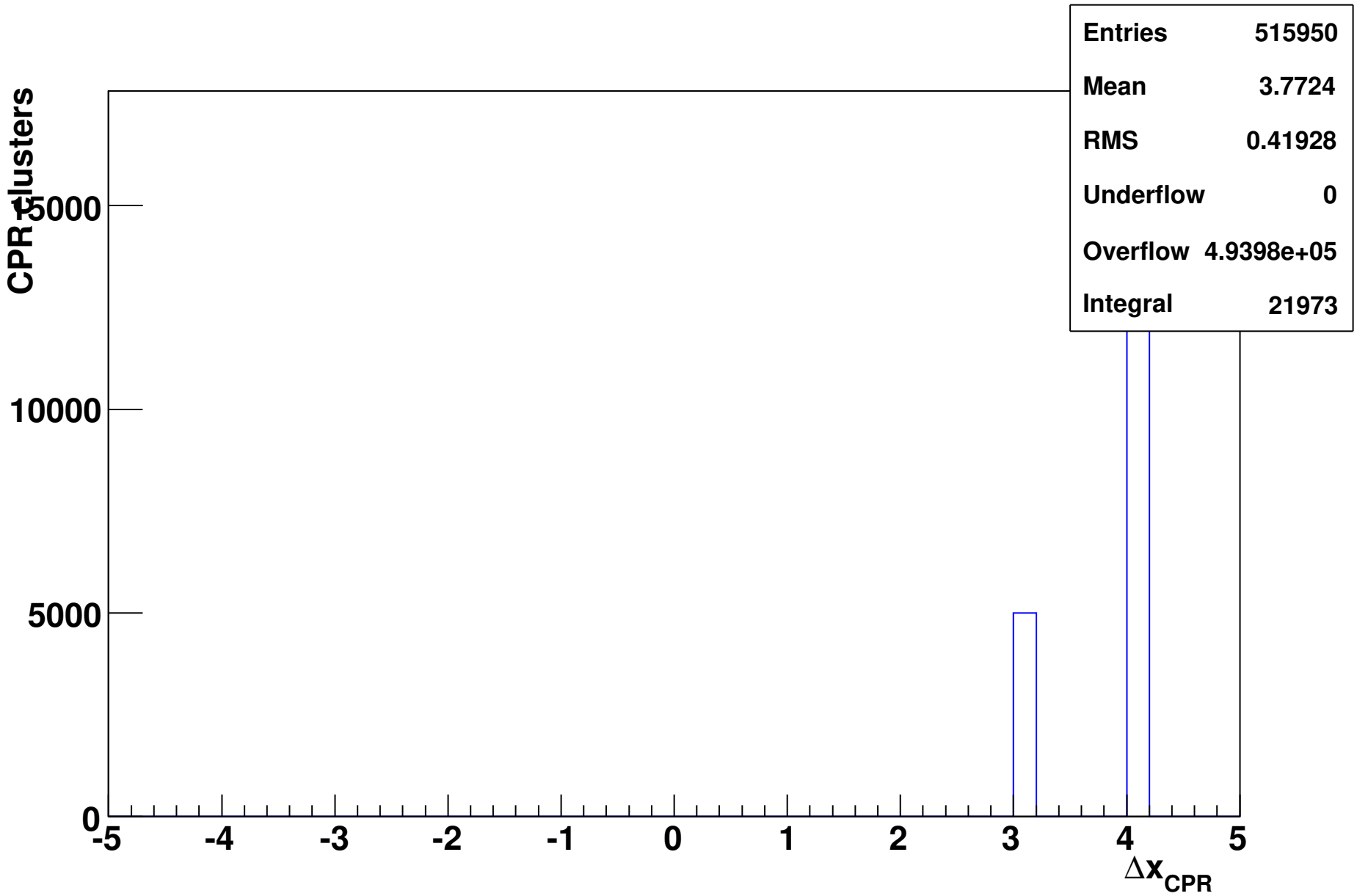

Entries 1092705
Mean 1.0041
RMS 1.1218
Underflow 0
Overflow 0
Integral 1.0927e+06
×10^3
events
400
200
0
0 1 2 3 4 5 6 7 8 9
N_MI

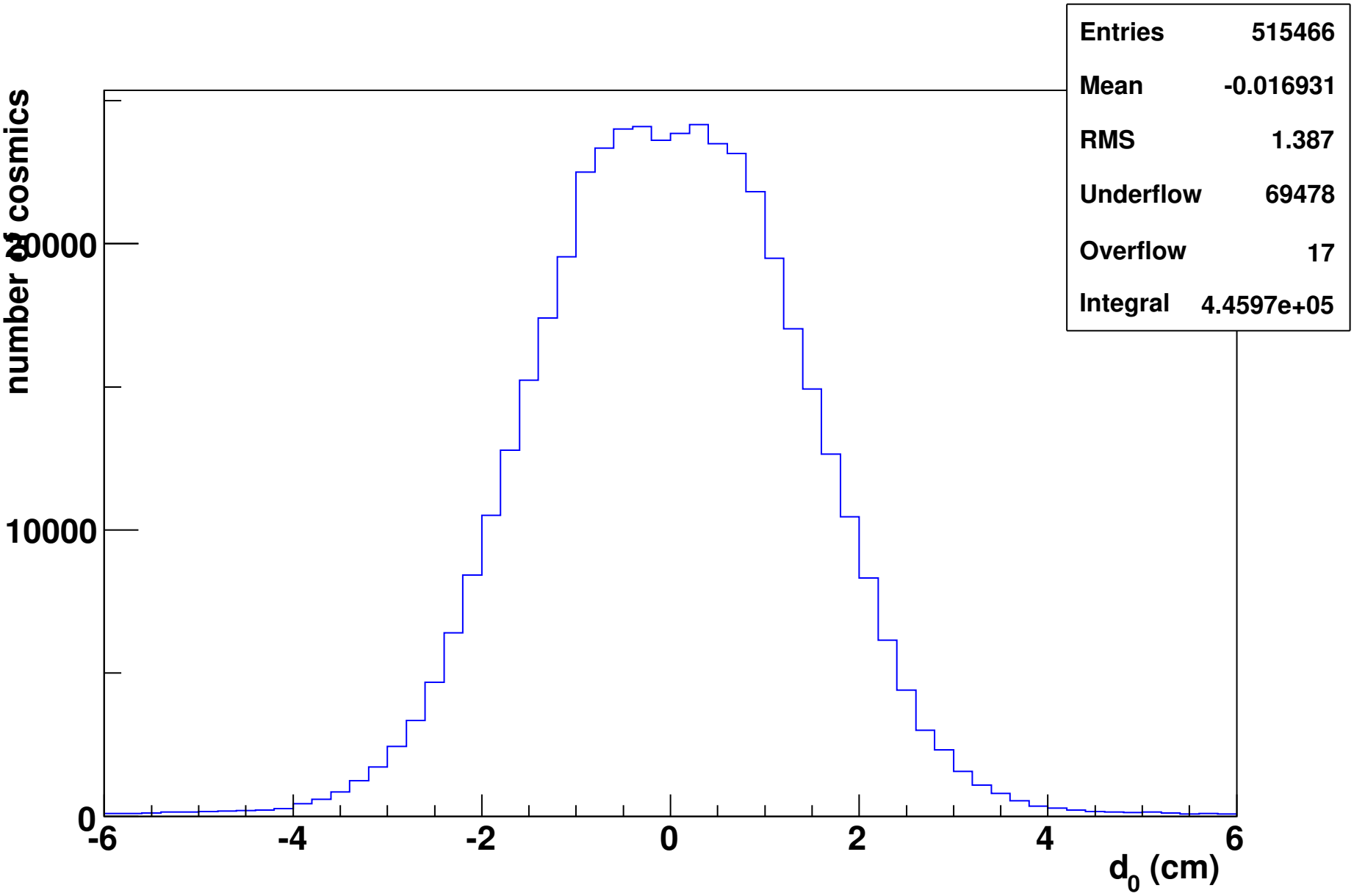

Entries 1002289
Mean 1.8467
RMS 1.0485
Underflow 0
Overflow 3971
Integral 9.9832e+05
events
×10^3
600
400
200
0
0
1
2
3
4
5
6
7
8
9
N_muons

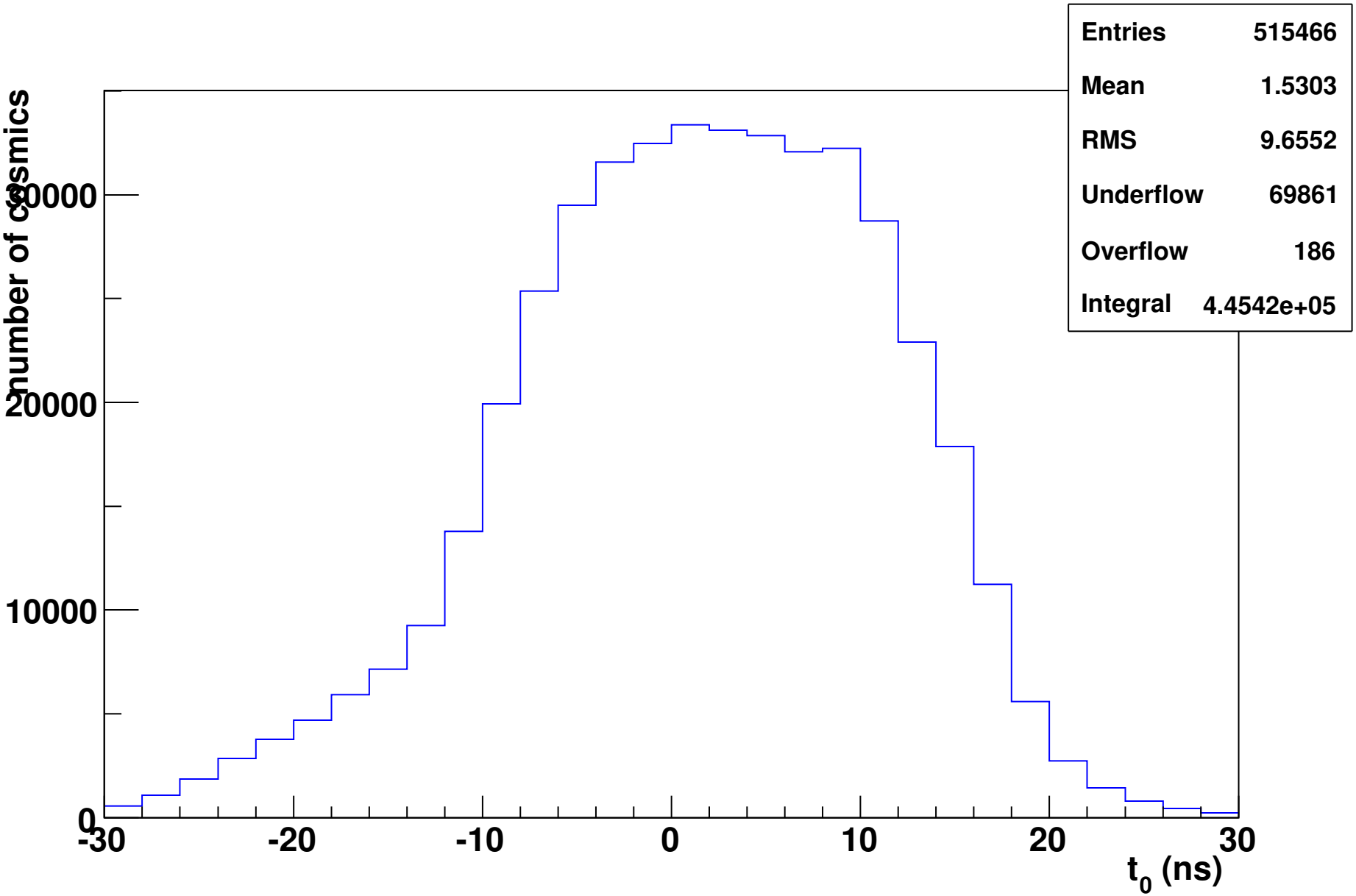

Entries 515950
Mean 1.707
RMS 0.45563
Underflow 0
Overflow 0
Integral 5.1595e+05
muons
×10^3
300
200
100
0
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_cosmics

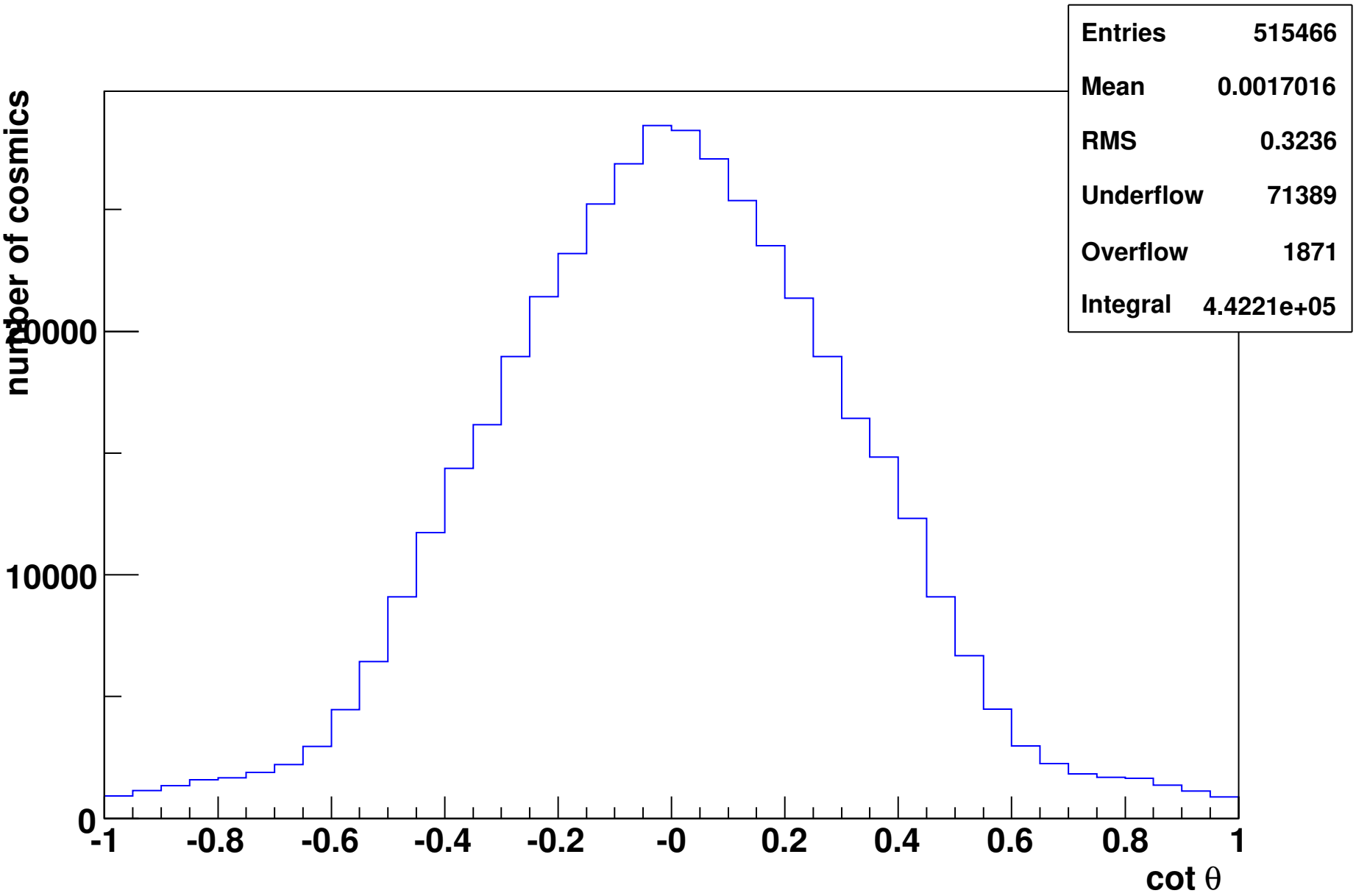

Entries 515950
Mean 2.9604
RMS 1.2221
Underflow 0
Overflow 5.0561e+05
Integral 10338
CPR clusters
4000
2000
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_CPR

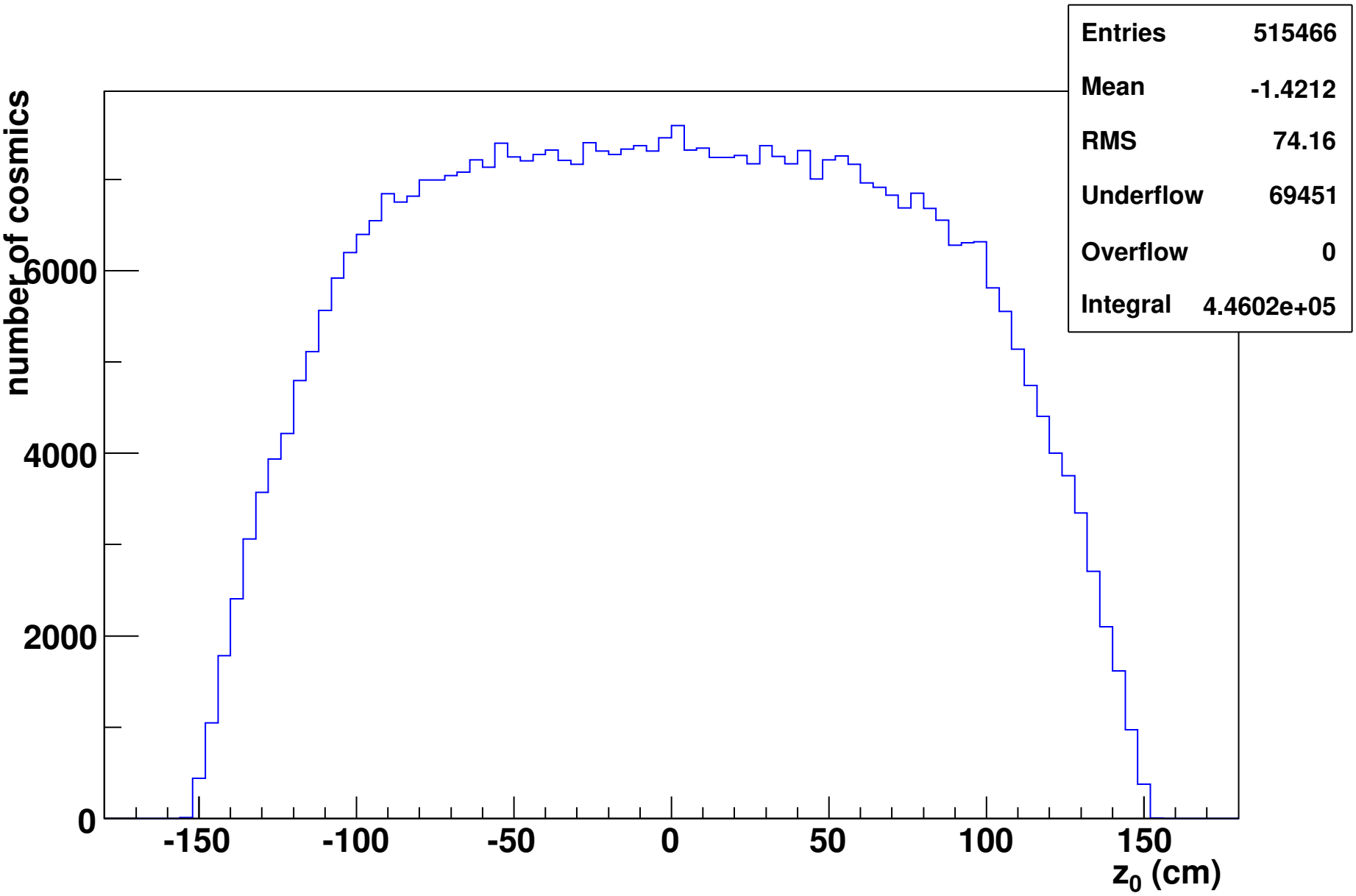

Entries 515950
Mean 0.35943
RMS 0.47212
Underflow 1.7413e+05
Overflow 0
Integral 3.4182e+05
×10^3
CPR clusters
300
200
100
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
E_CPR

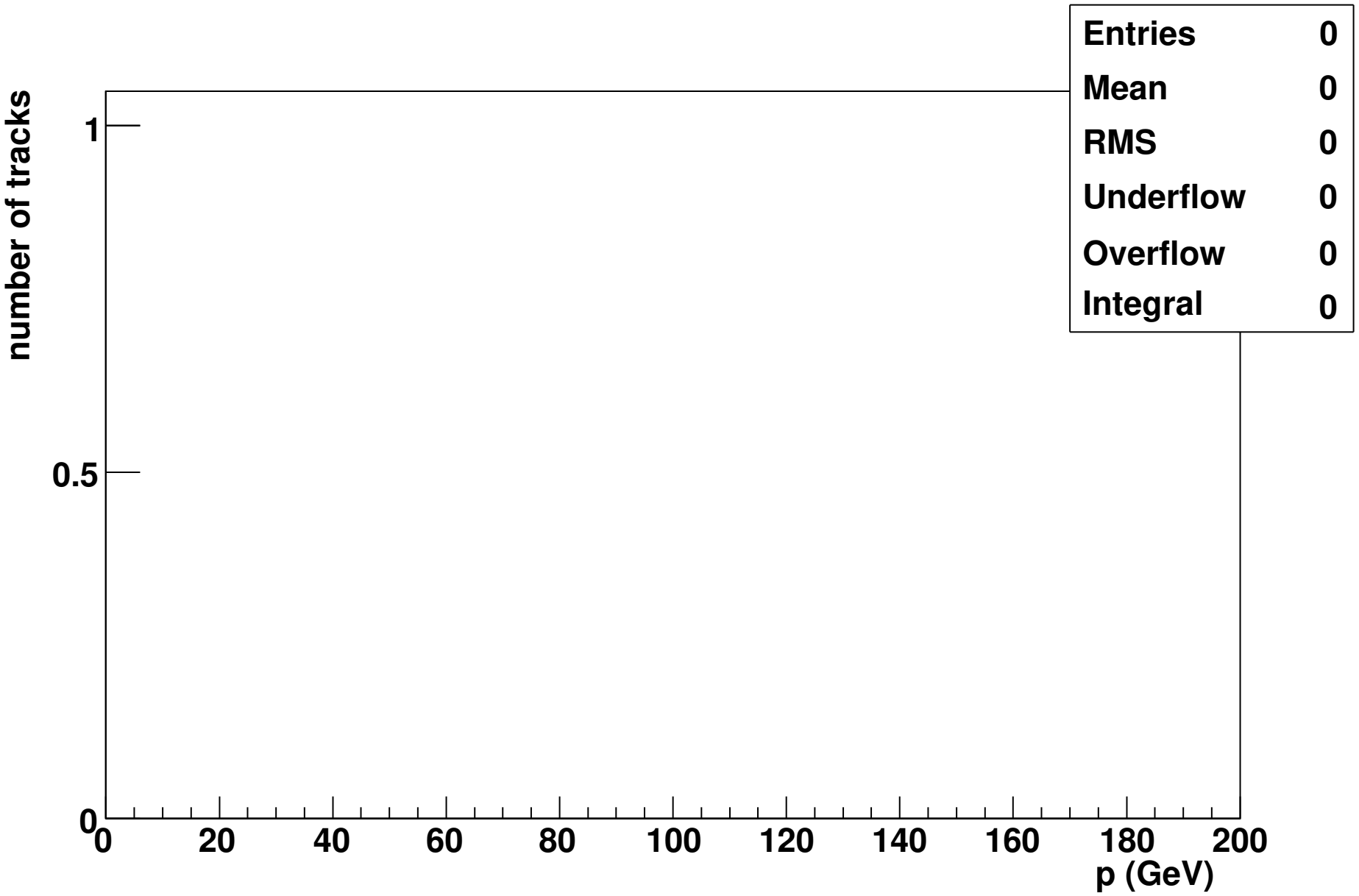

Entries 515950
Mean 3.7724
RMS 0.41928
Underflow 0
Overflow 4.9398e+05
Integral 21973
CPR clusters
15000
10000
5000
0
-5
-4
-3
-2
-1
0
1
2
3
4
5
Δx_CPR

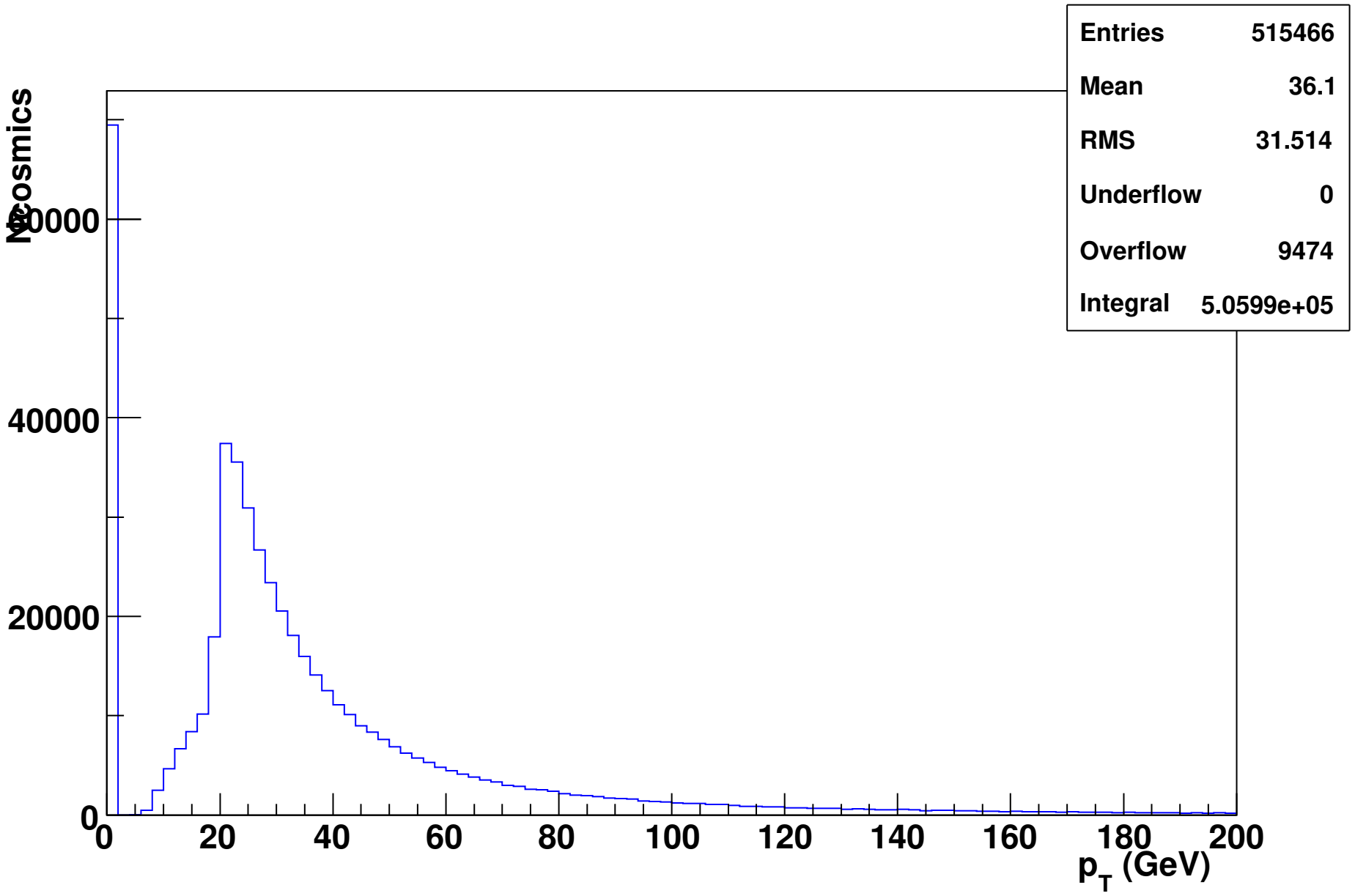

Entries 515466
Mean -0.016931
RMS 1.387
Underflow 69478
Overflow 17
Integral 4.4597e+05
number of cosmics
20000
10000
0
-6
-4
-2
0
2
4
6
d_0 (cm)

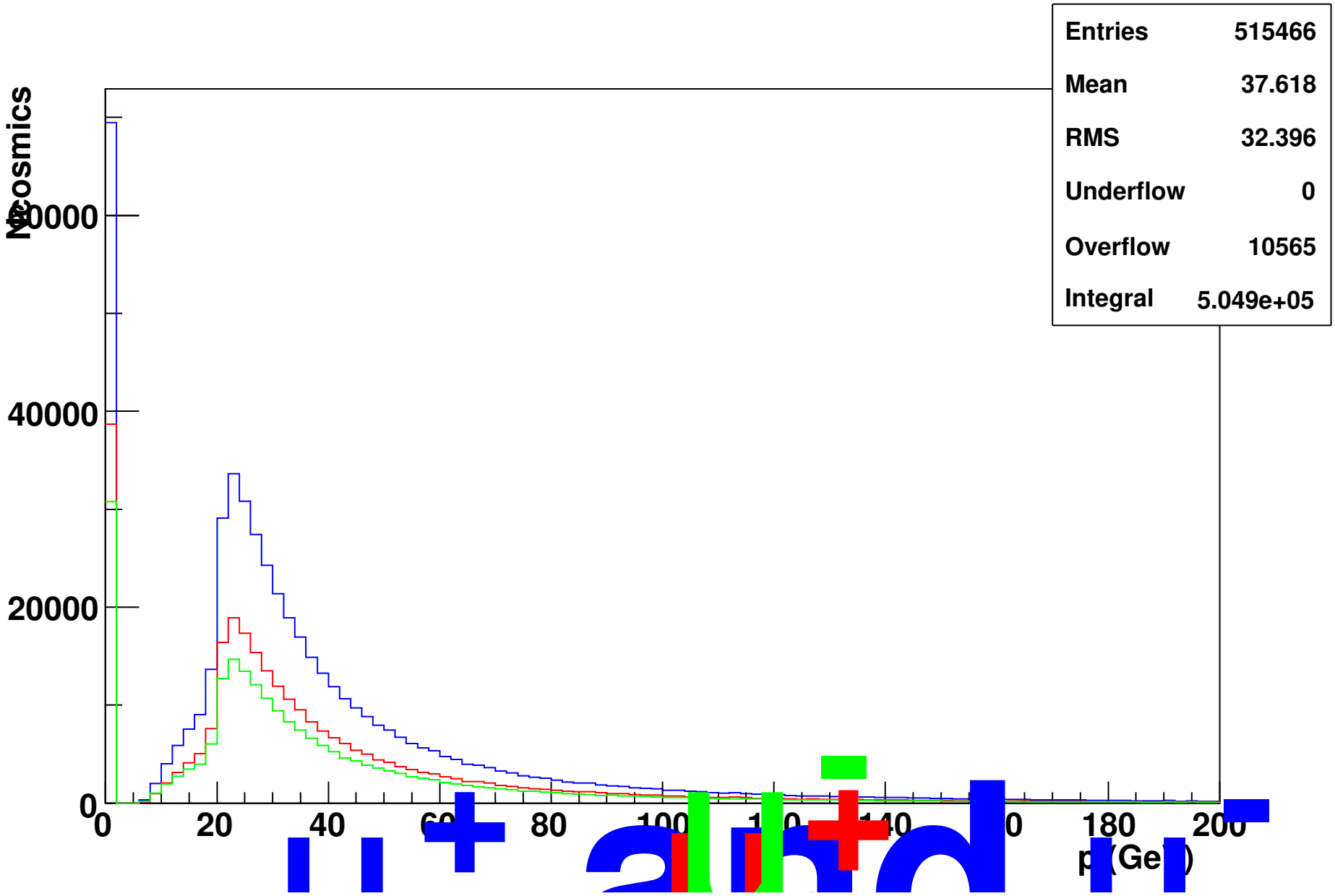

Entries 515466
Mean 1.5303
RMS 9.6552
Underflow 69861
Overflow 186
Integral 4.4542e+05
number of cosmics
30000
20000
10000
0
-30
-20
-10
0
10
20
30
t_0 (ns)


Entries 515466
Mean 0.0017016
RMS 0.3236
Underflow 71389
Overflow 1871
Integral 4.4221e+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

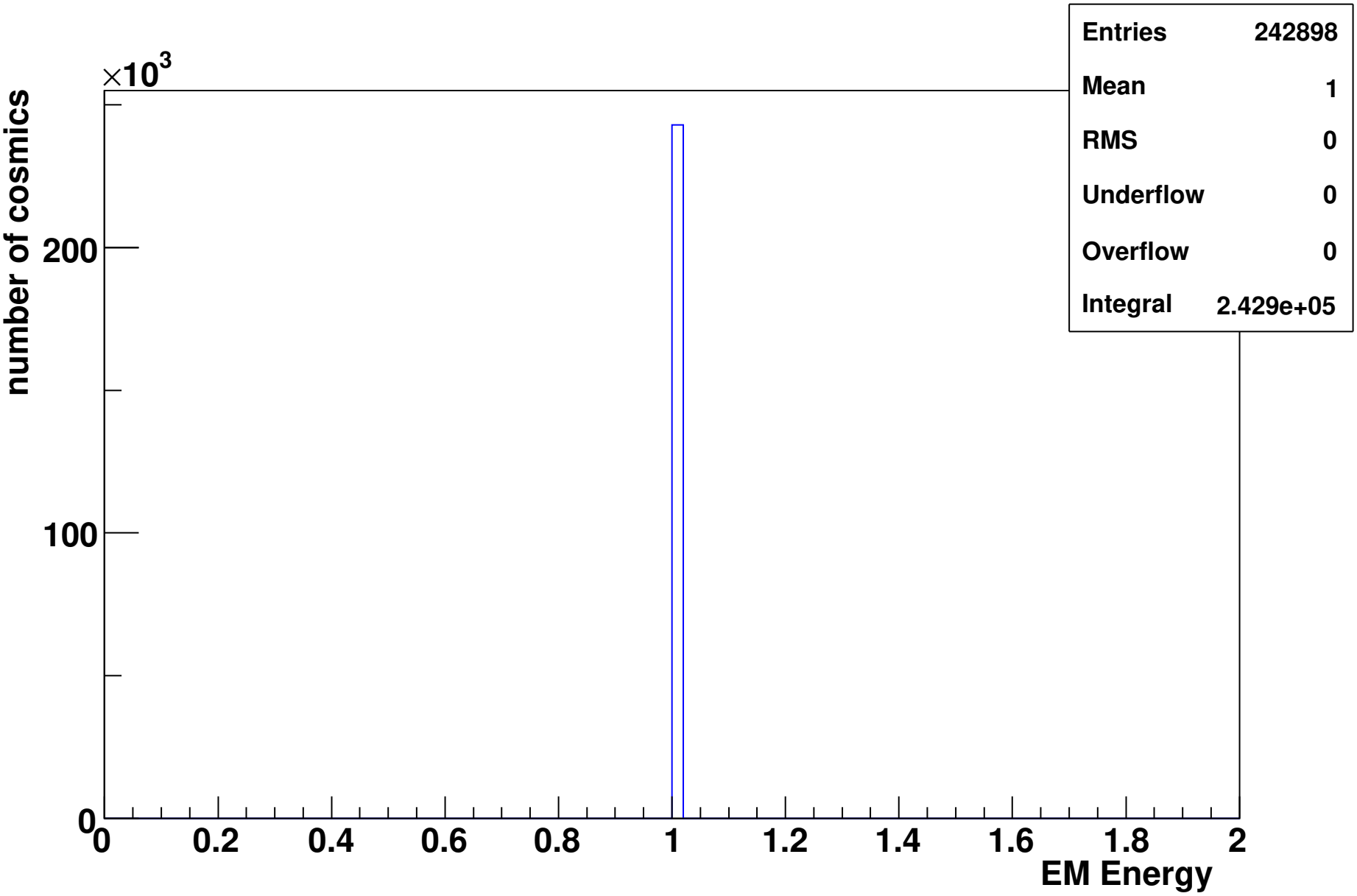

Entries 515466
Mean -1.4212
RMS 74.16
Underflow 69451
Overflow 0
Integral 4.4602e+05
number of cosmics
0
2000
4000
6000
-150
-100
-50
0
50
100
150
z_0 (cm)

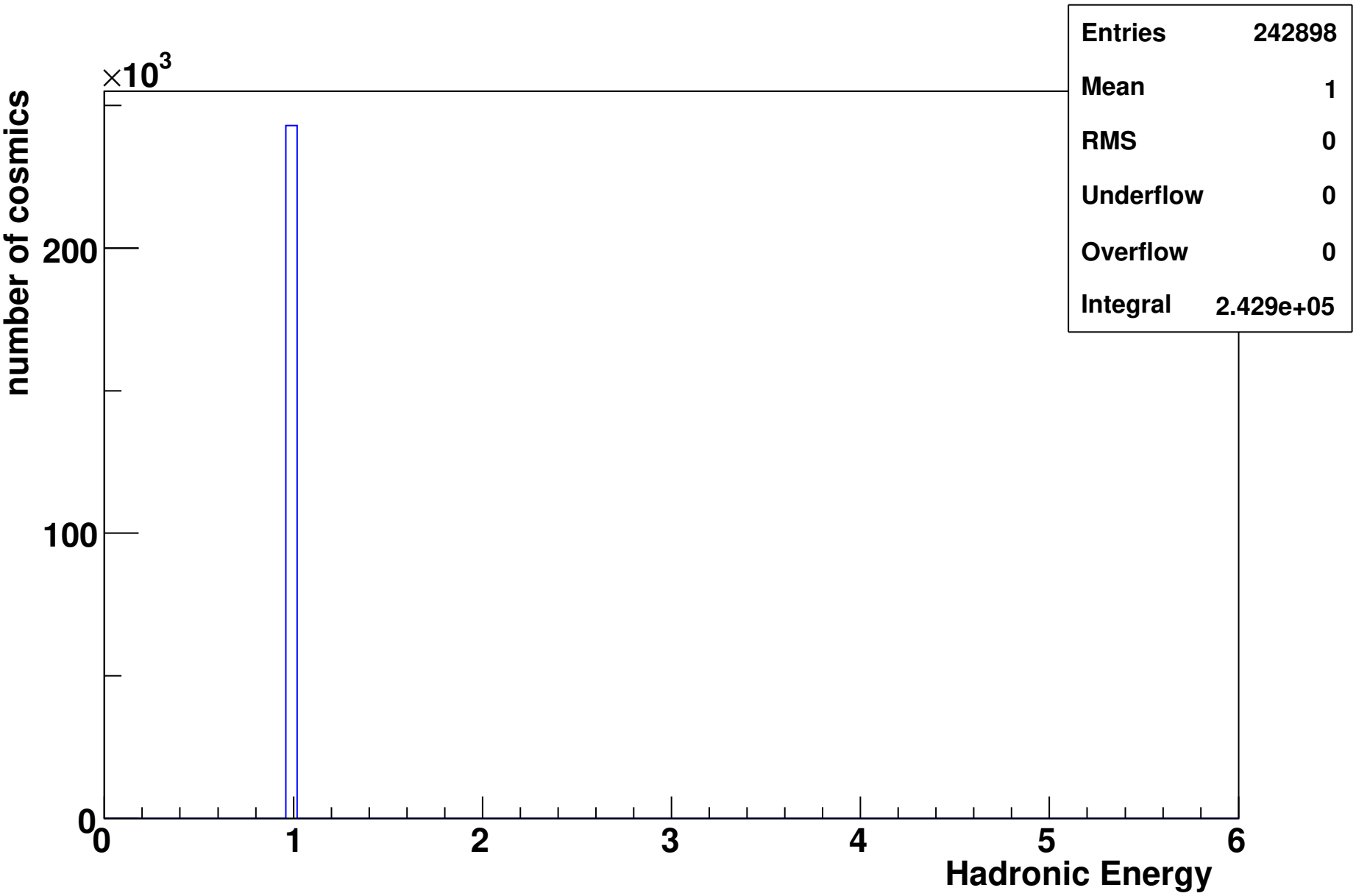

Entries 0
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 0
number of tracks
1
0.5
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

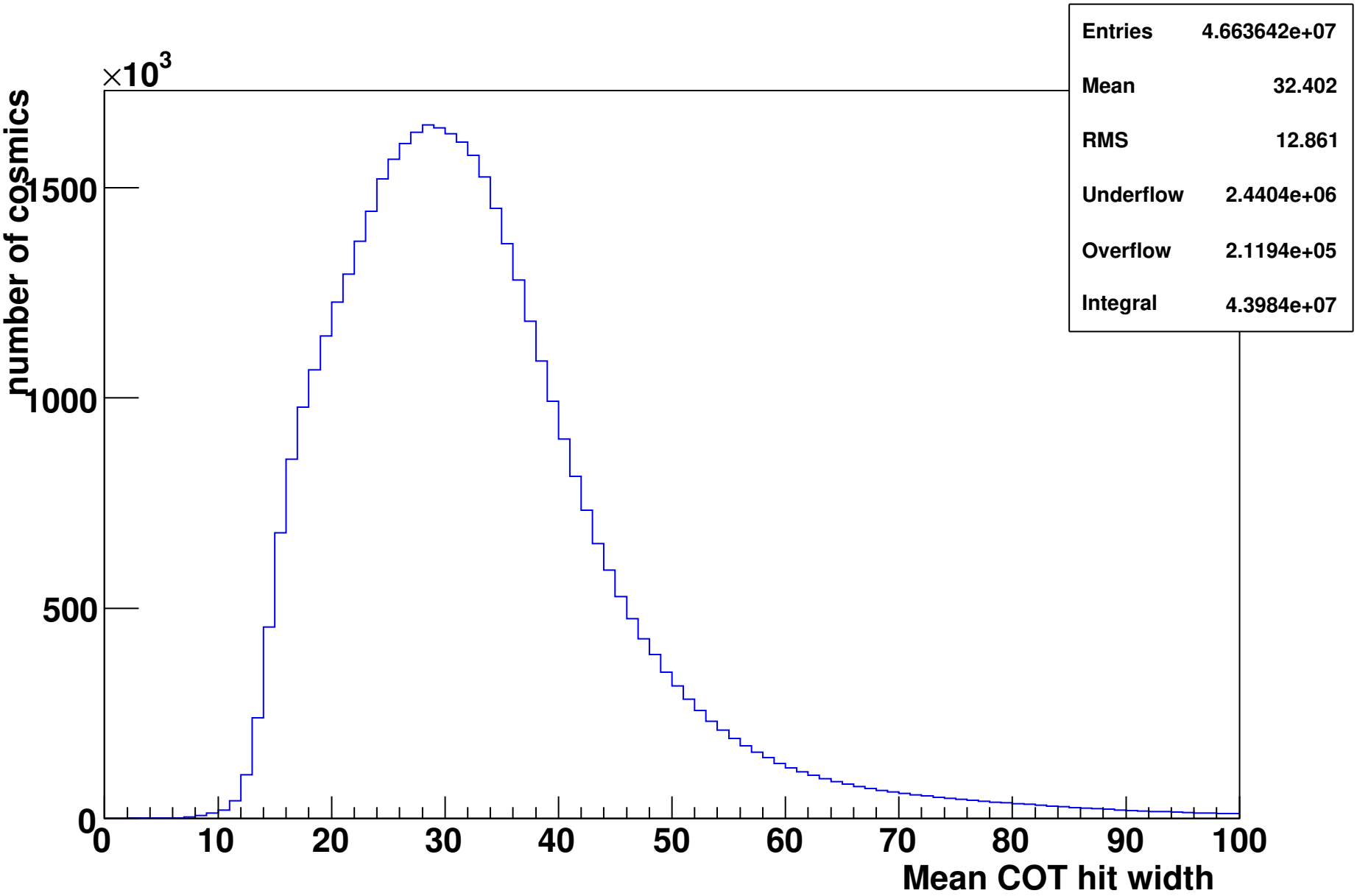

Entries 515466
Mean 36.1
RMS 31.514
Underflow 0
Overflow 9474
Integral 5.0599e+05
N cosmics
60000
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p_T (GeV)

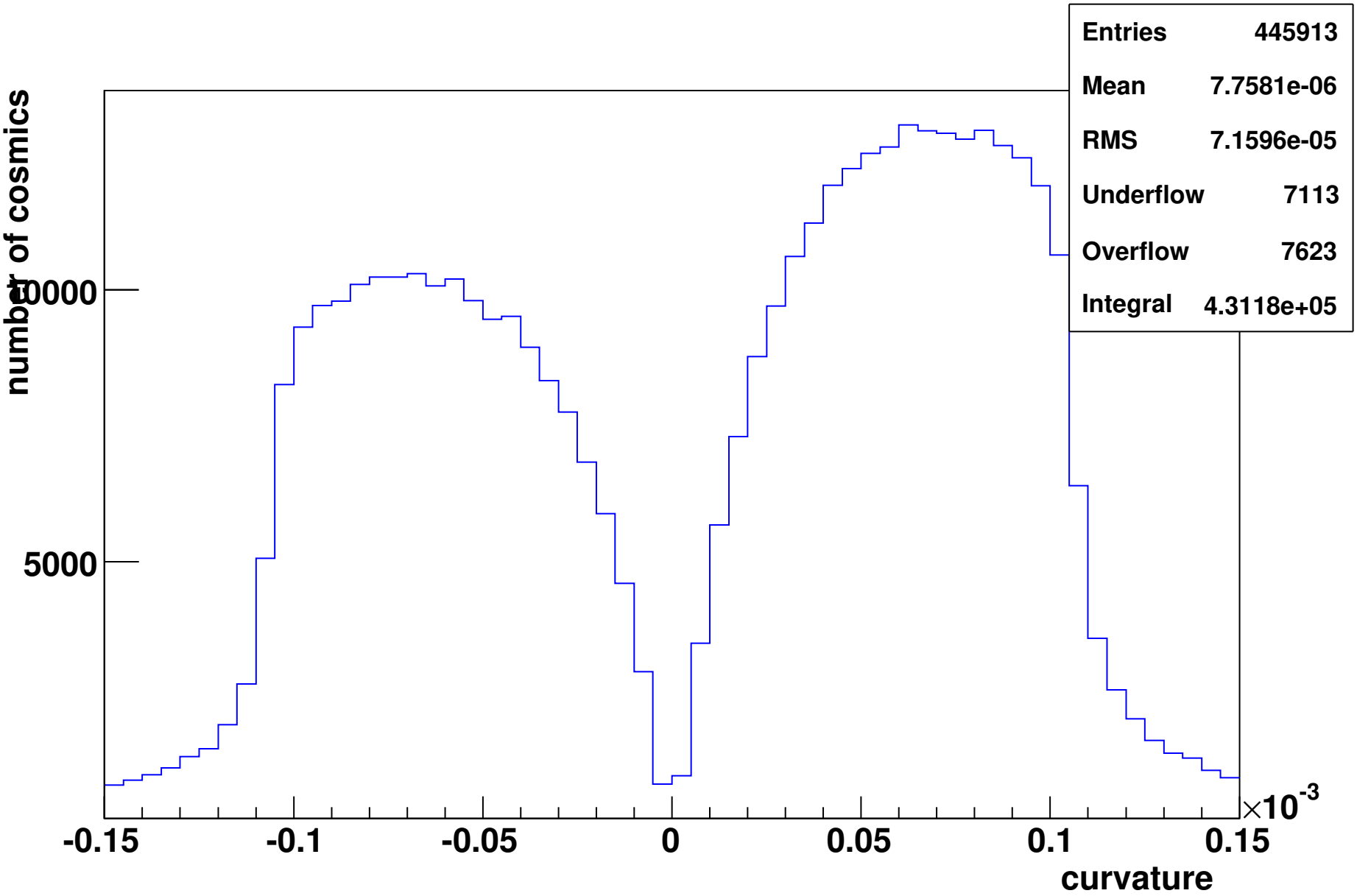


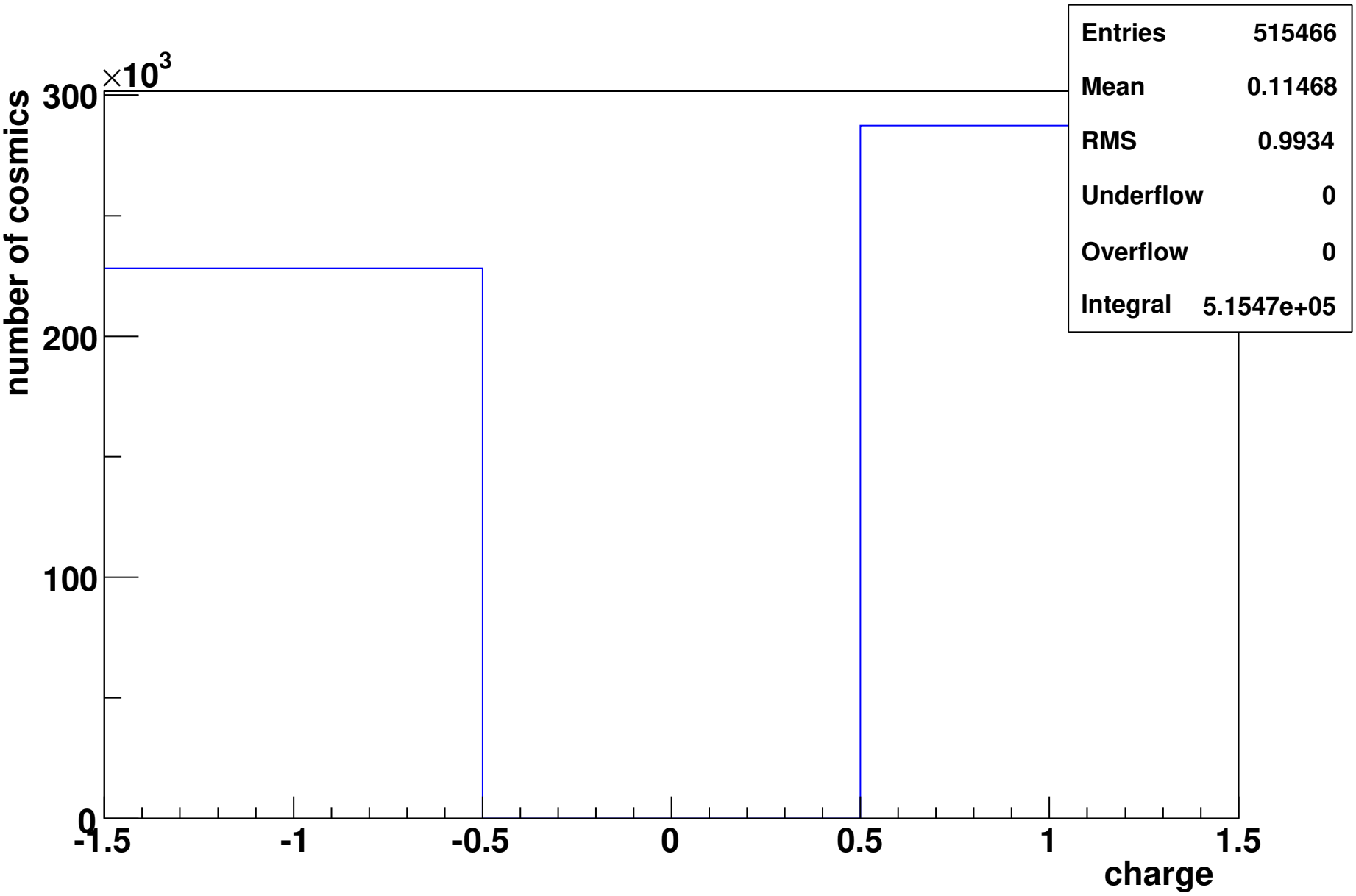
Entries 515466
Mean 37.618
RMS 32.396
Underflow 0
Overflow 10565
Integral 5.049e+05
Ncosmics
60000
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

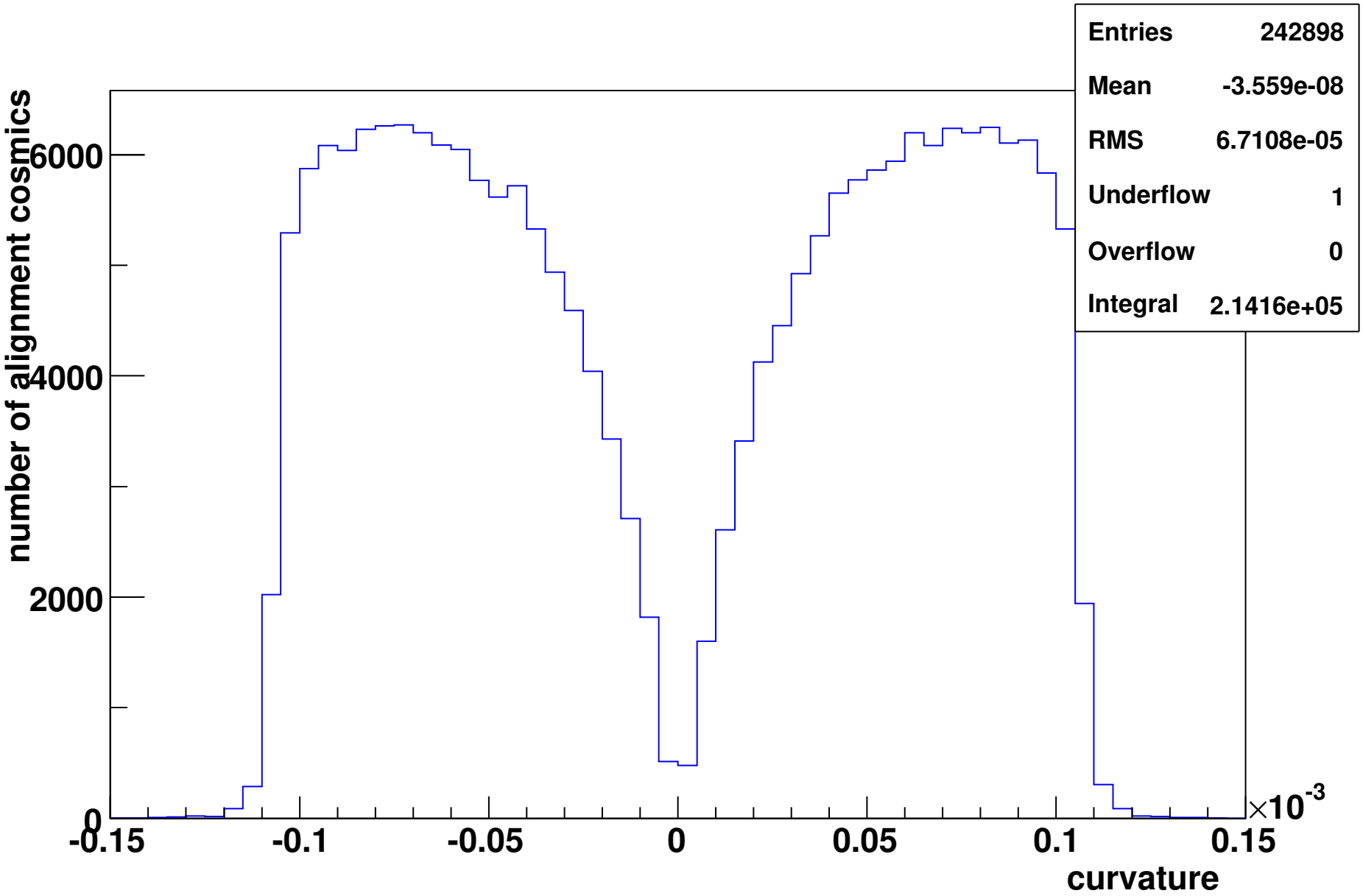

Entries 242898
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 2.429e+05
×10^3
number of cosmics
200
100
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
EM Energy

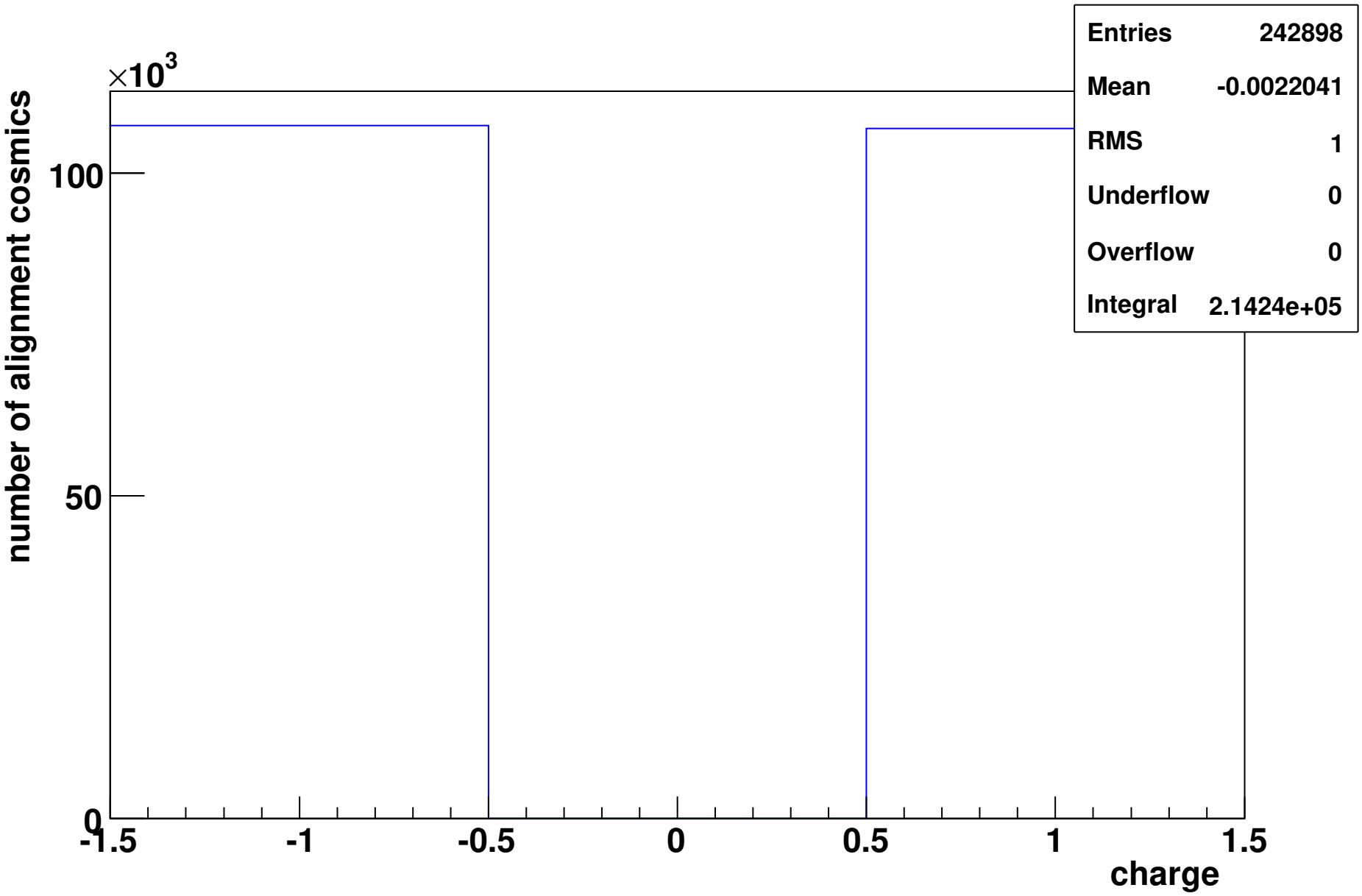

Entries 242898
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 2.429e+05
×10^3
number of cosmics
200
100
0
0
1
2
3
4
5
6
Hadronic Energy

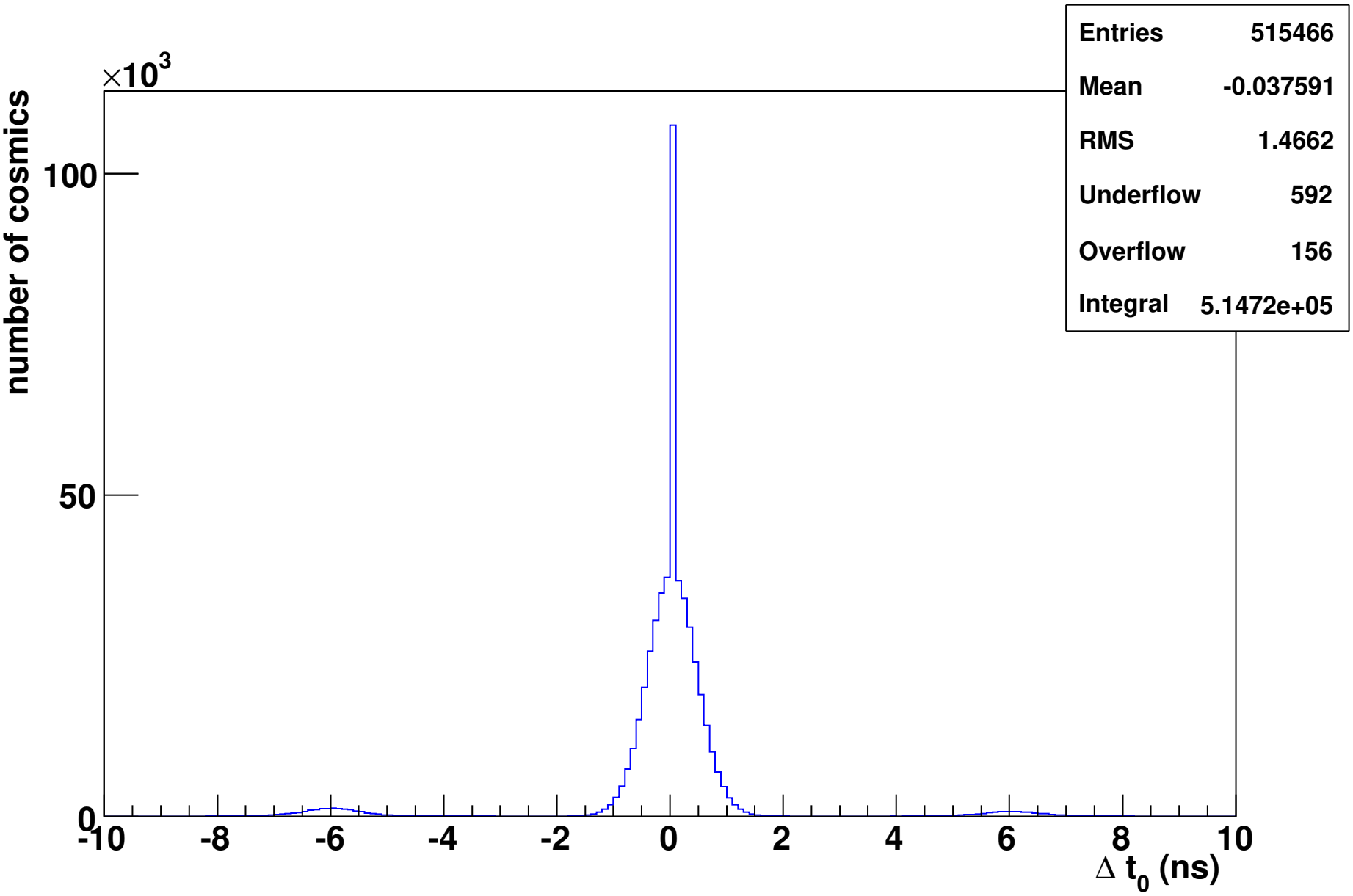

Entries 4.663642e+07
Mean 32.402
RMS 12.861
Underflow 2.4404e+06
Overflow 2.1194e+05
Integral 4.3984e+07
×10^3
number of cosmics
1500
1000
500
0
0
10
20
30
40
50
60
70
80
90
100
Mean COT hit width

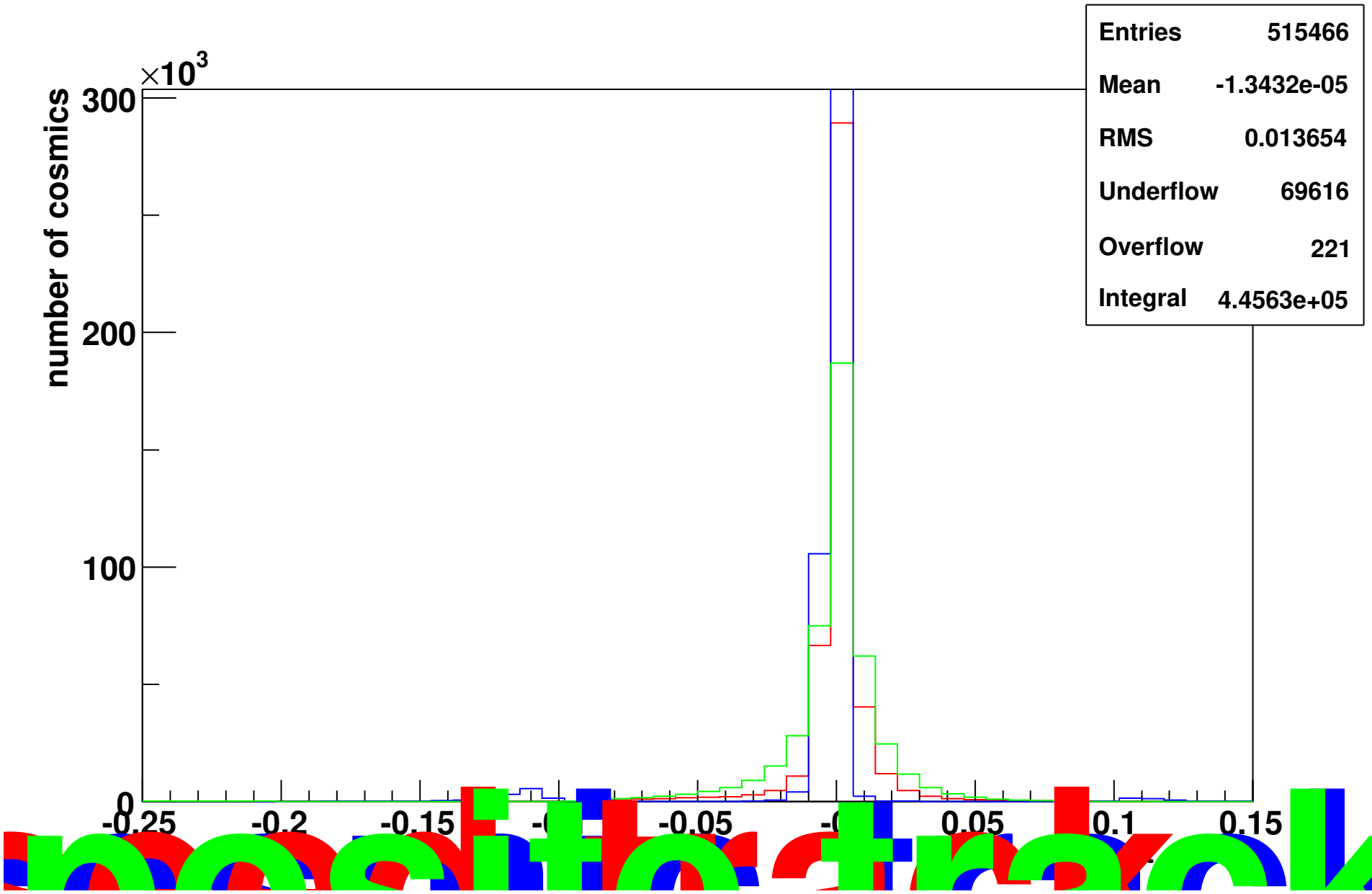

Entries 445913
Mean 7.7581e-06
RMS 7.1596e-05
Underflow 7113
Overflow 7623
Integral 4.3118e+05
number of cosmics
10000
5000
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

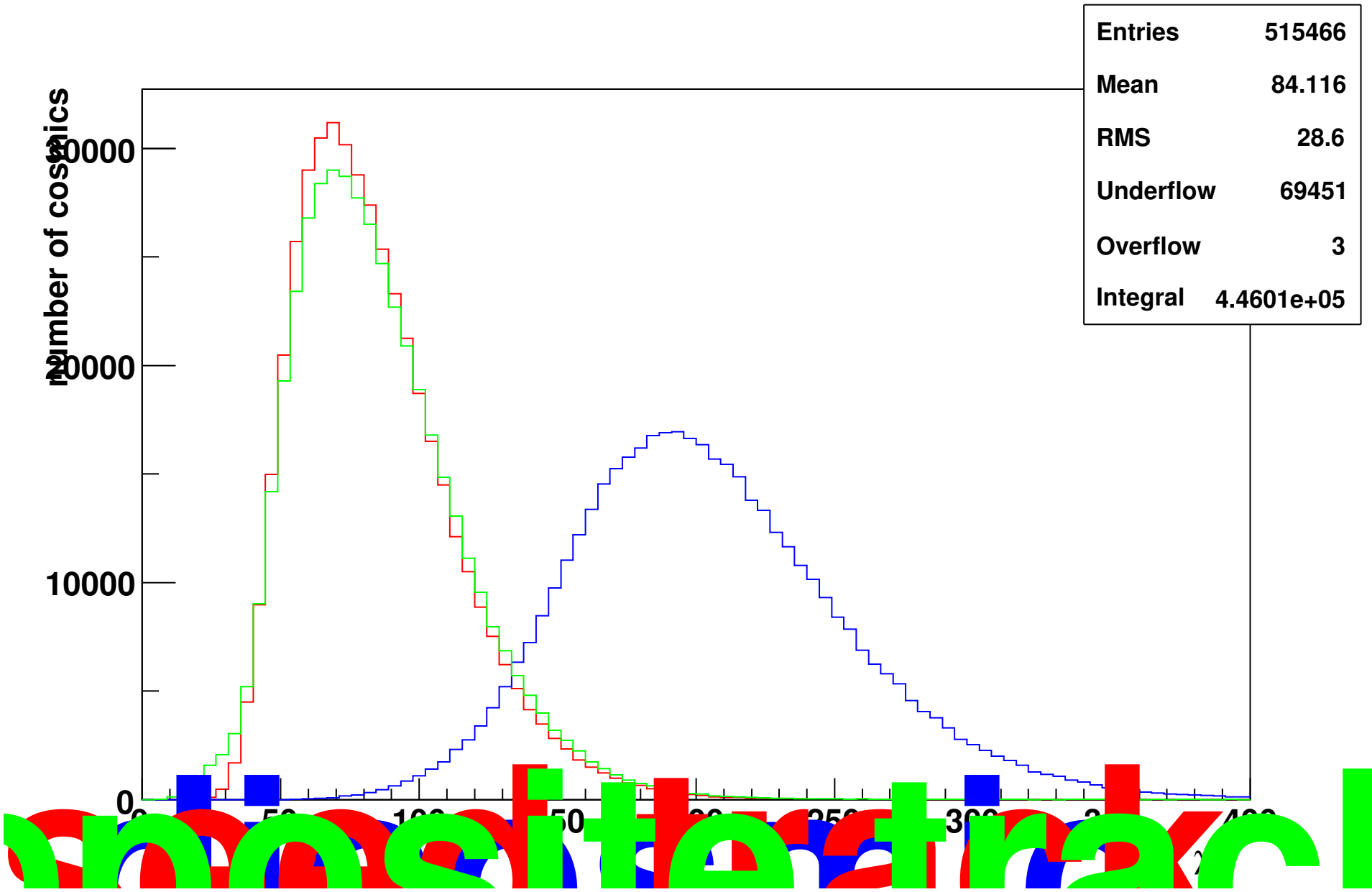

Entries 515466
Mean 0.11468
RMS 0.9934
Underflow 0
Overflow 0
Integral 5.1547e+05
×10^3
300
200
100
0
number of cosmics
-1.5
-1
-0.5
0
0.5
1
1.5
charge

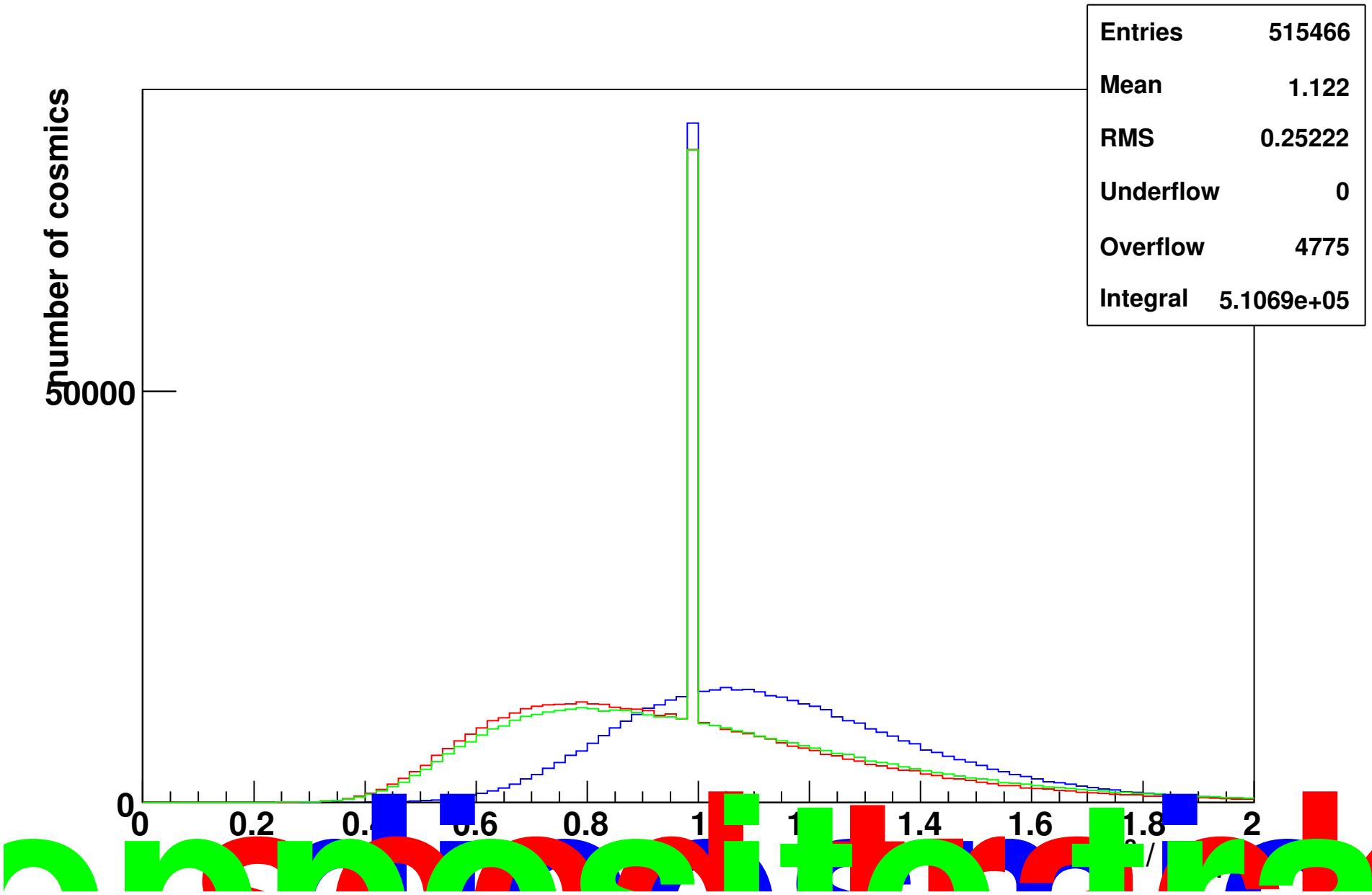

Entries 242898
Mean -3.559e-08
RMS 6.7108e-05
Underflow 1
Overflow 0
Integral 2.1416e+05
number of alignment cosmics
6000
4000
2000
0
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

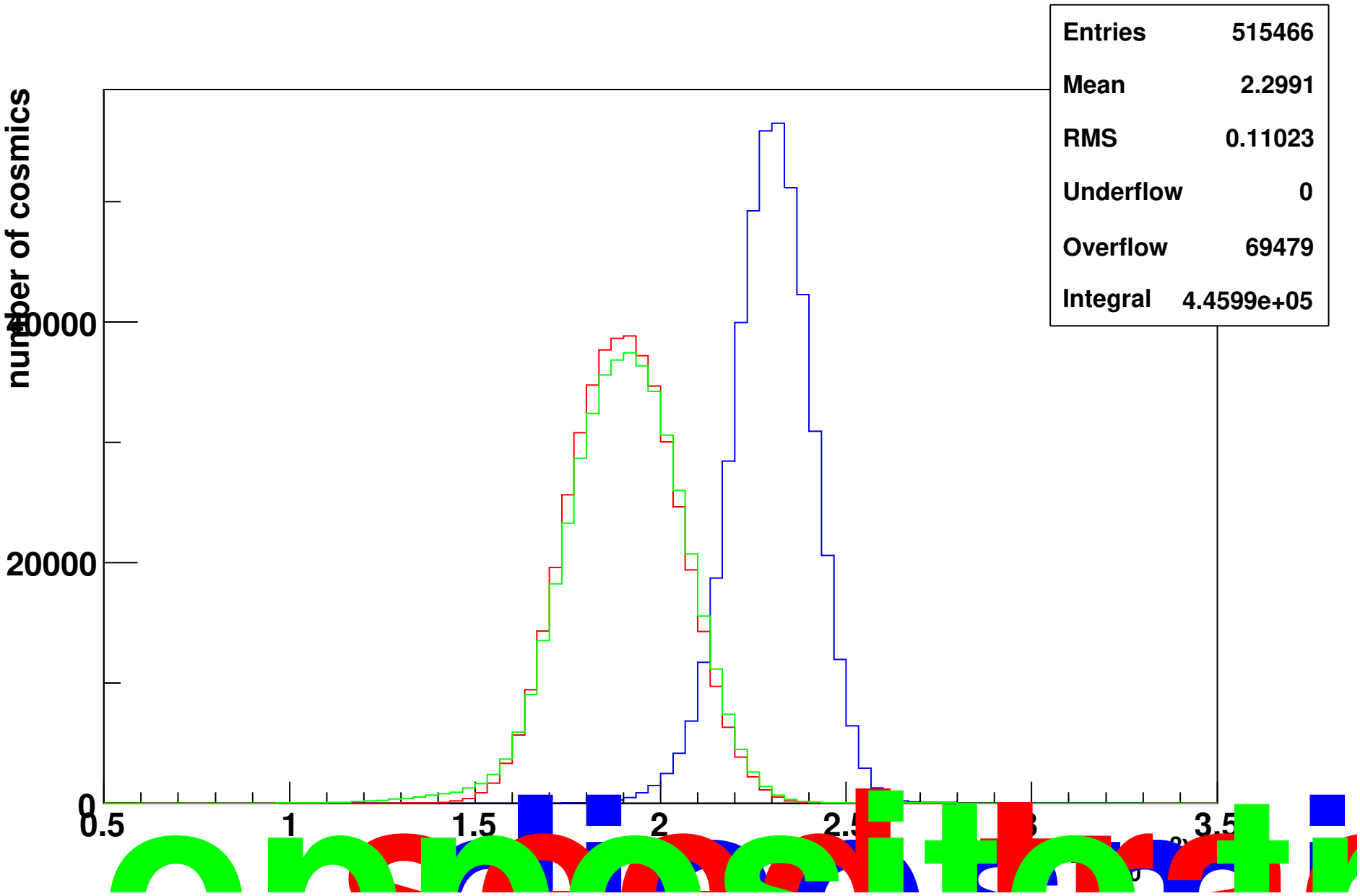

Entries 242898
Mean -0.0022041
RMS 1
Underflow 0
Overflow 0
Integral 2.1424e+05
×10^3
number of alignment cosmics
100
50
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 515466
Mean -0.037591
RMS 1.4662
Underflow 592
Overflow 156
Integral 5.1472e+05
×10^3
number of cosmics
100
50
0
-10
-8
-6
-4
-2
0
2
4
6
8
10
Δ t0 (ns)


Entries 515466
Mean -1.3432e-05
RMS 0.013654
Underflow 69616
Overflow 221
Integral 4.4563e+05
number of cosmics
×10^3
300
200
100
0
-0.25
-0.2
-0.15
-0.05
0.05
0.1
0.15


Entries 515466
Mean 84.116
RMS 28.6
Underflow 69451
Overflow 3
Integral 4.4601e+05
Number of cosmics
20000
10000
0


Entries 515466
Mean 1.122
RMS 0.25222
Underflow 0
Overflow 4775
Integral 5.1069e+05
number of cosmics
50000
0
0
0.2
0.6
0.8
1.4
1.6
1.8
2


Entries 515466
Mean 2.2991
RMS 0.11023
Underflow 0
Overflow 69479
Integral 4.4599e+05
number of cosmics
40000
20000
0
0.5
1
1.5
2
2.5
3.5

Entries 515466

number of ditracks

10^5

10^4

10^3

10^2

-0.5 0 0.5 1 1.5 2 2.5 3 3.5 4 4.5

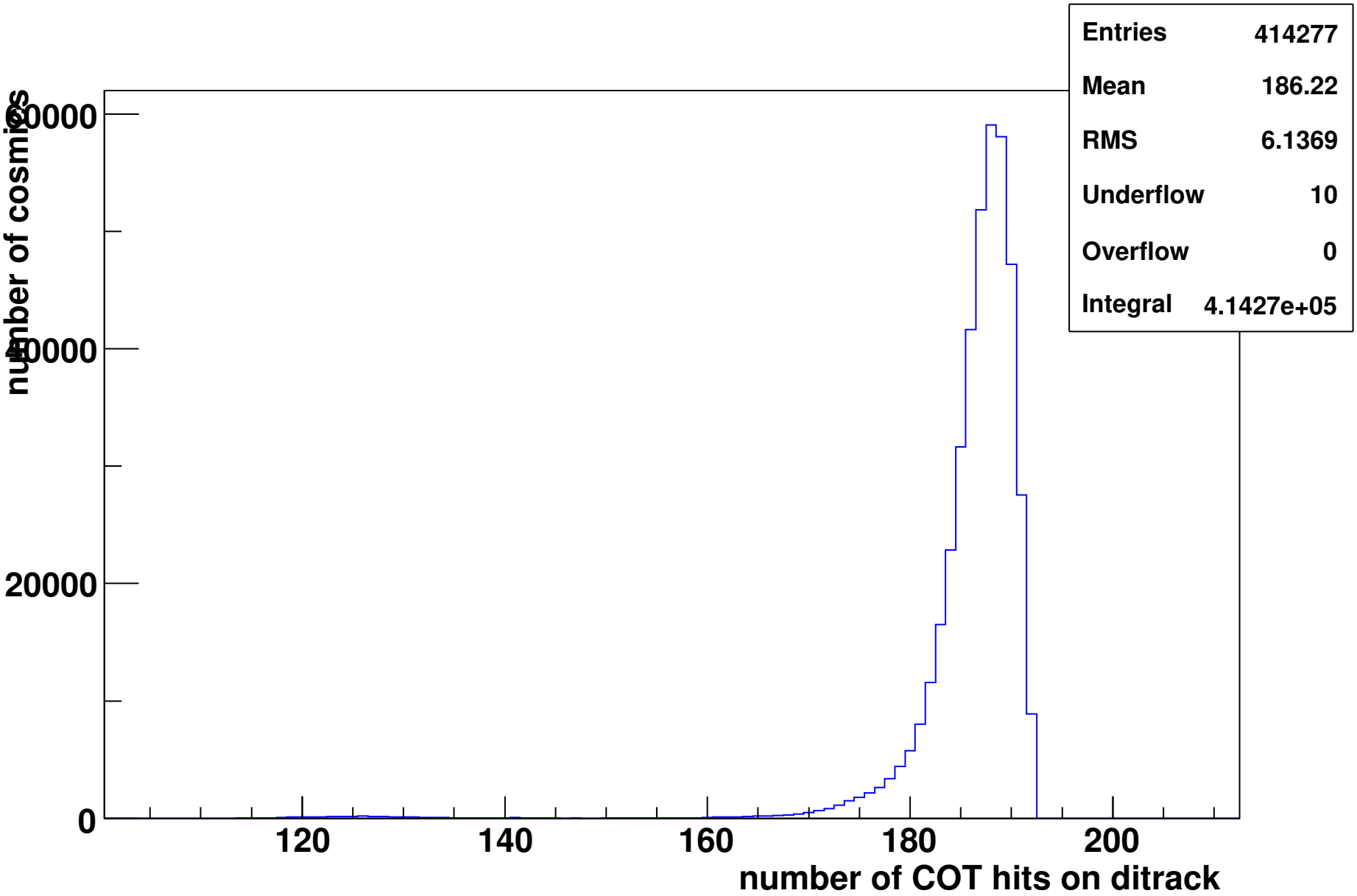
ditrack type

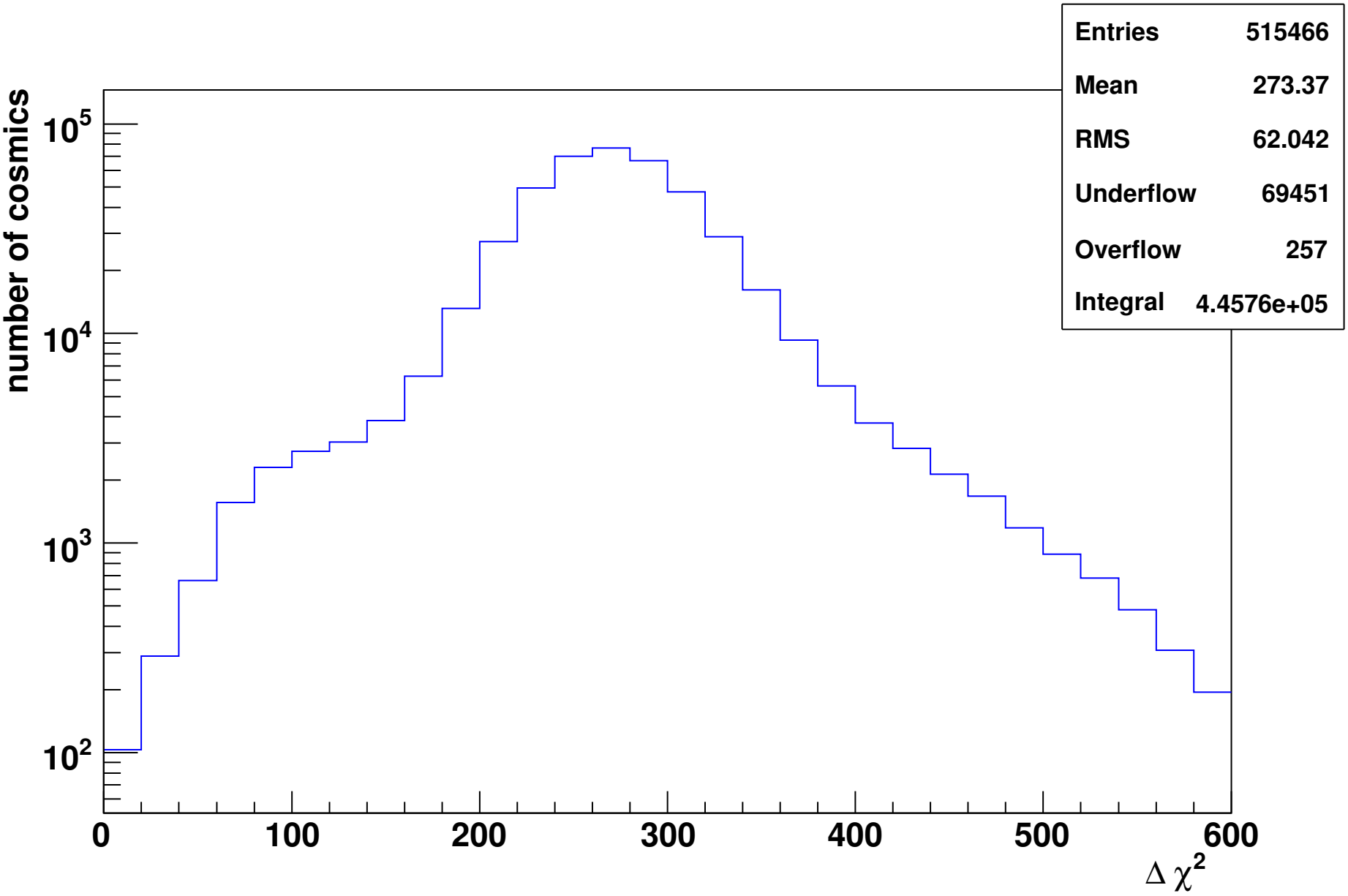
cosmic

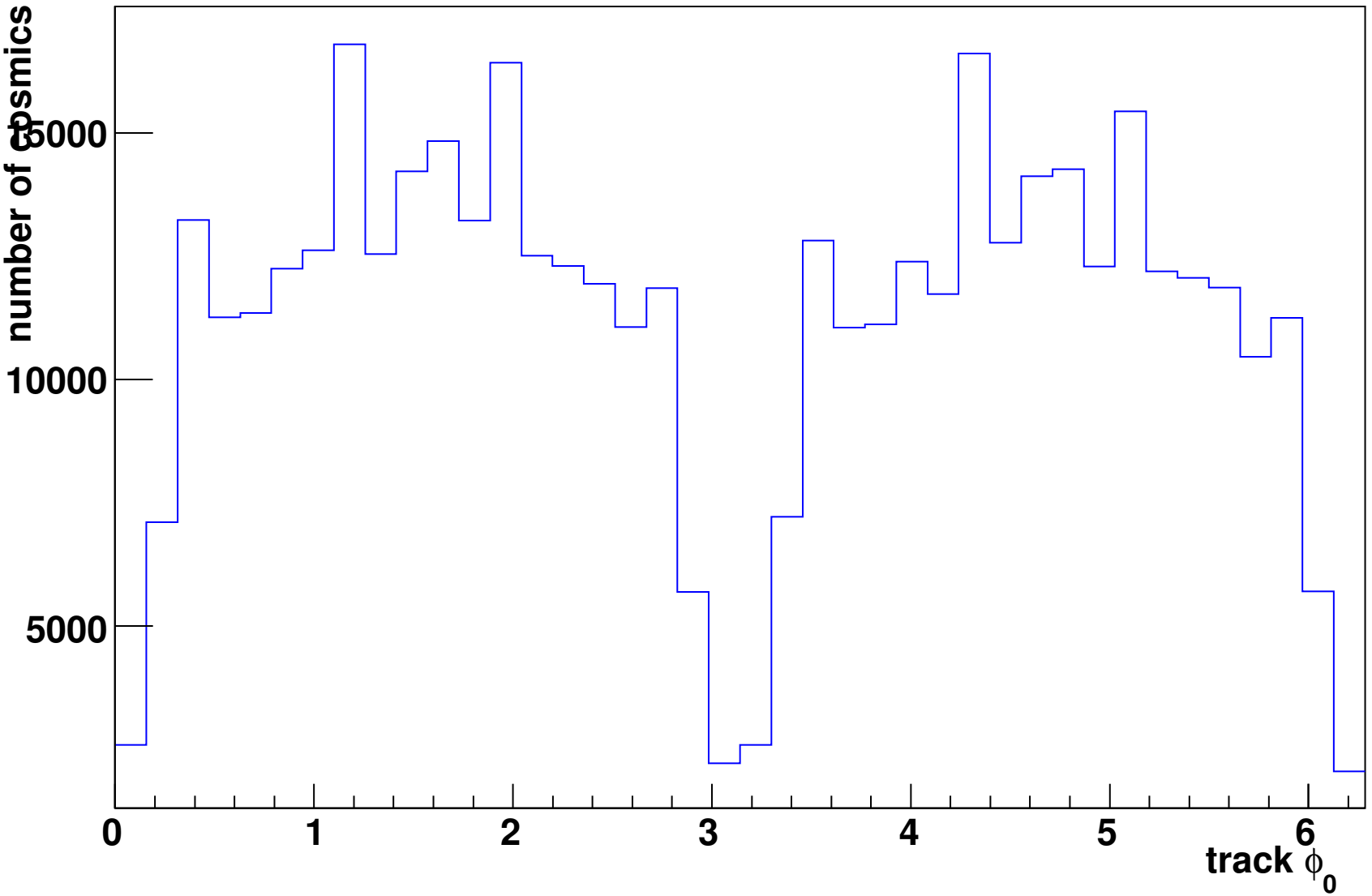
cosmic

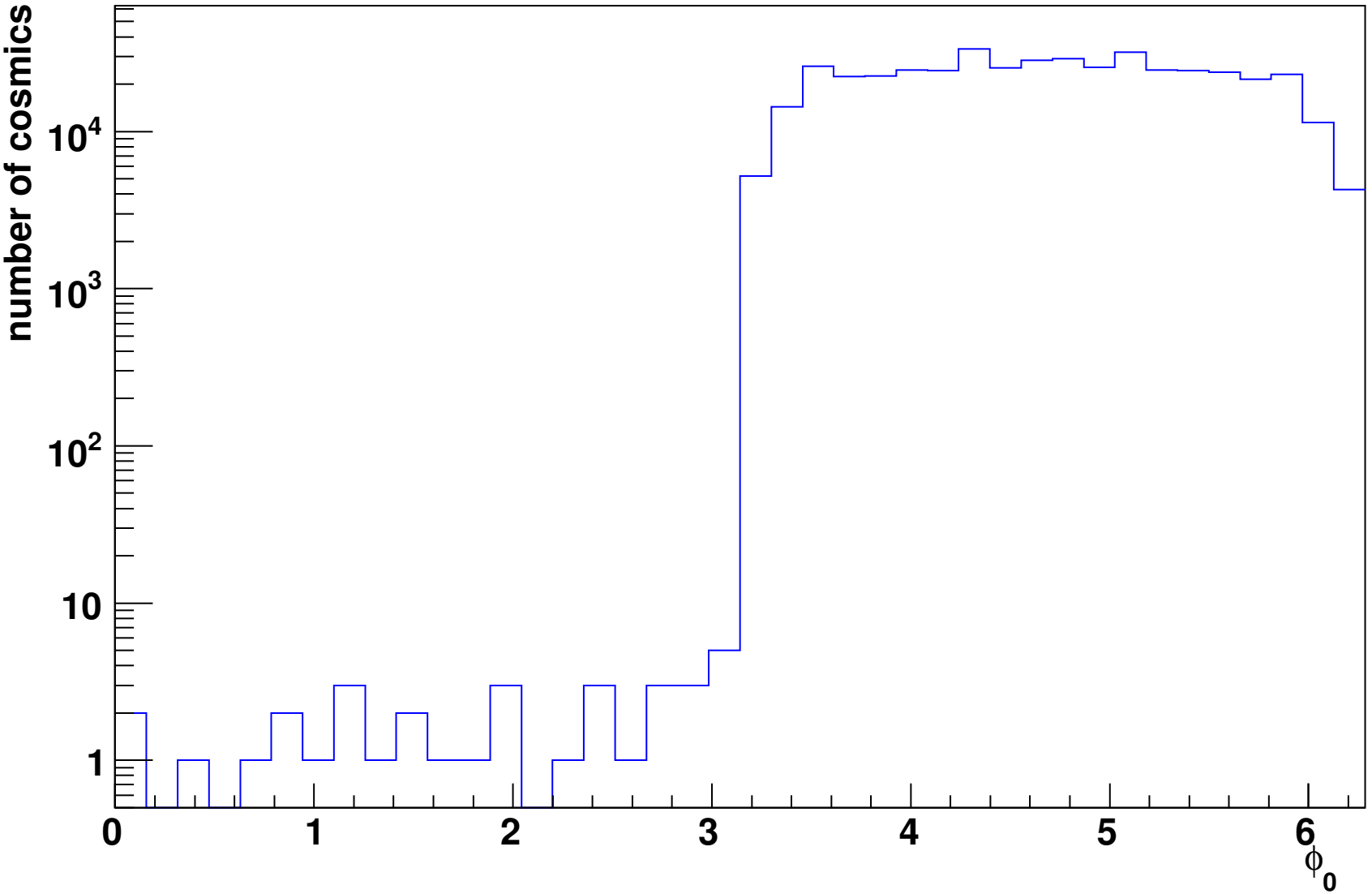
g pair

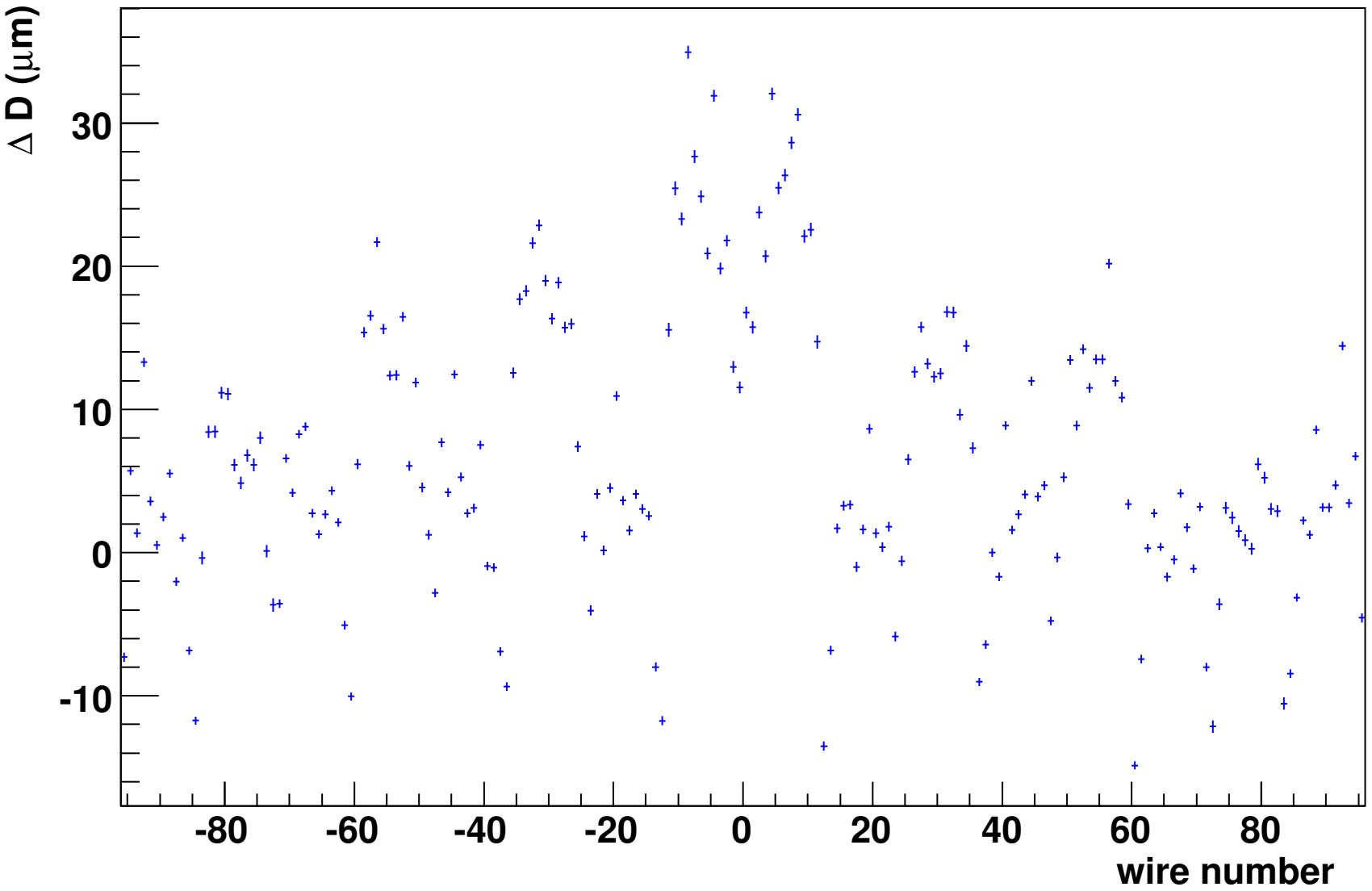
g pair

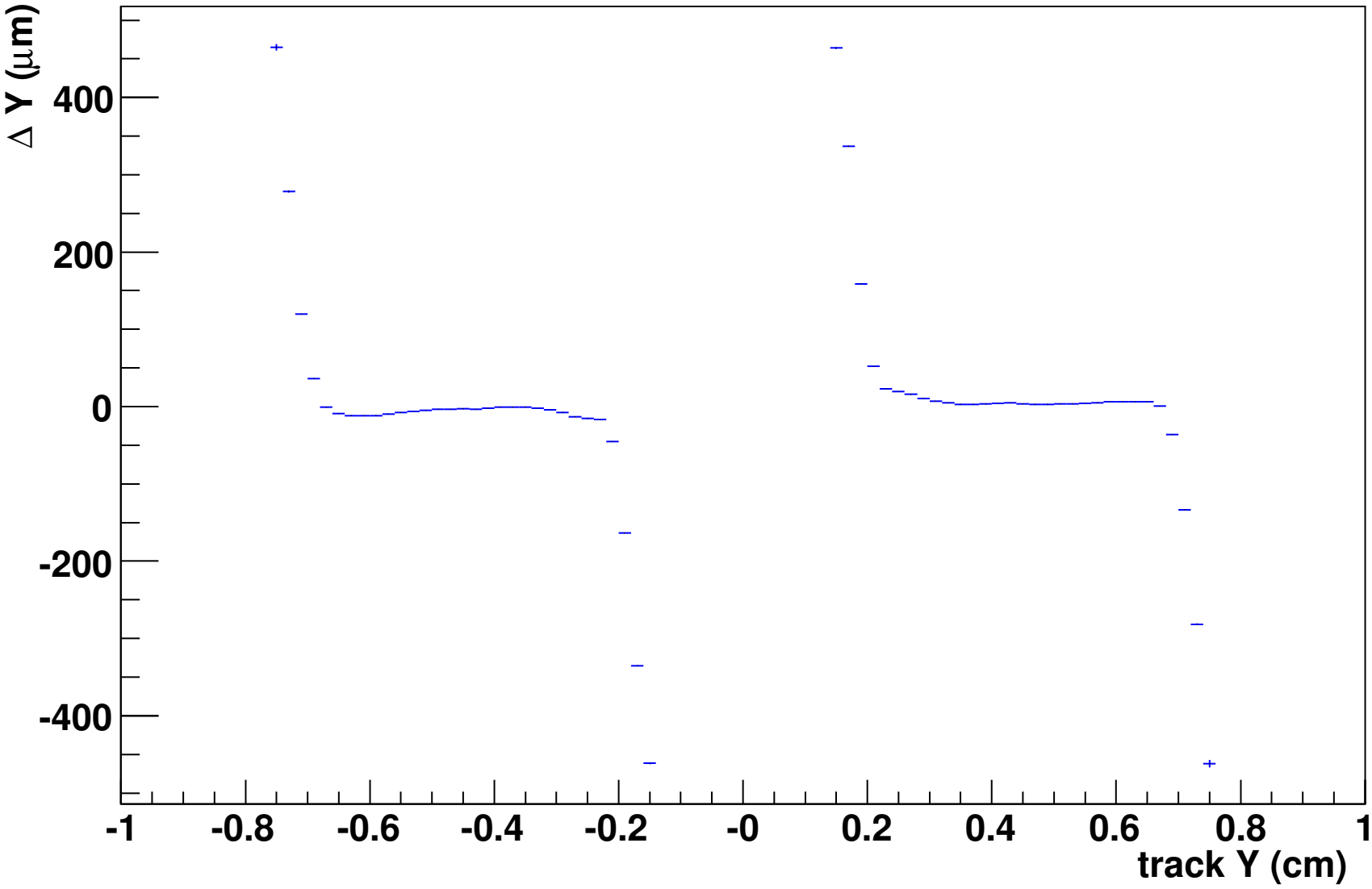

Entries 414277
Mean 186.22
RMS 6.1369
Underflow 10
Overflow 0
Integral 4.1427e+05
number of cosmics
60000
40000
20000
0
120
140
160
180
200
number of COT hits on ditrack

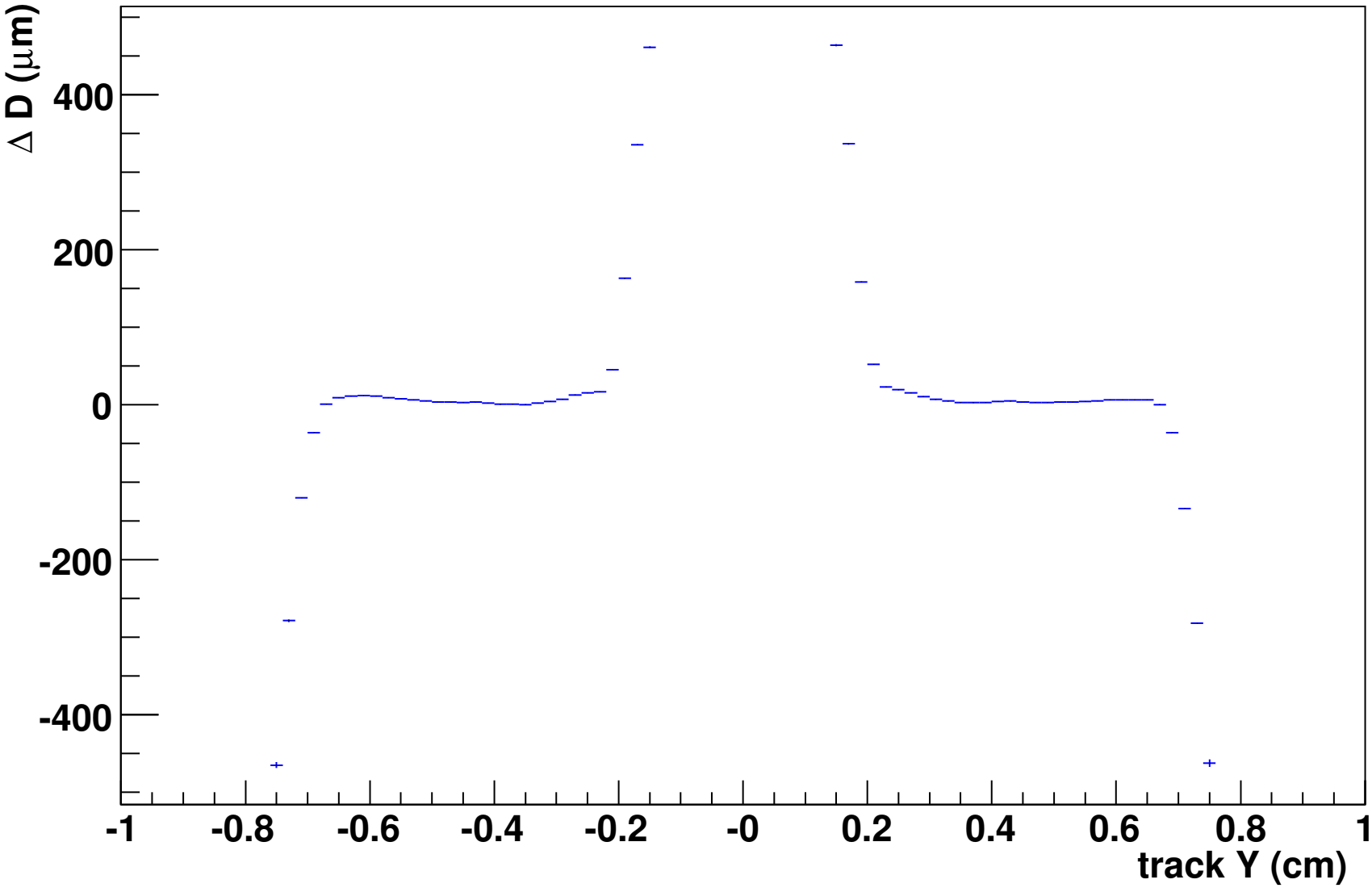

Entries 515466
Mean 273.37
RMS 62.042
Underflow 69451
Overflow 257
Integral 4.4576e+05
number of cosmics
10^5
10^4
10^3
10^2
0
100
200
300
400
500
600
$\Delta\ \chi^2$

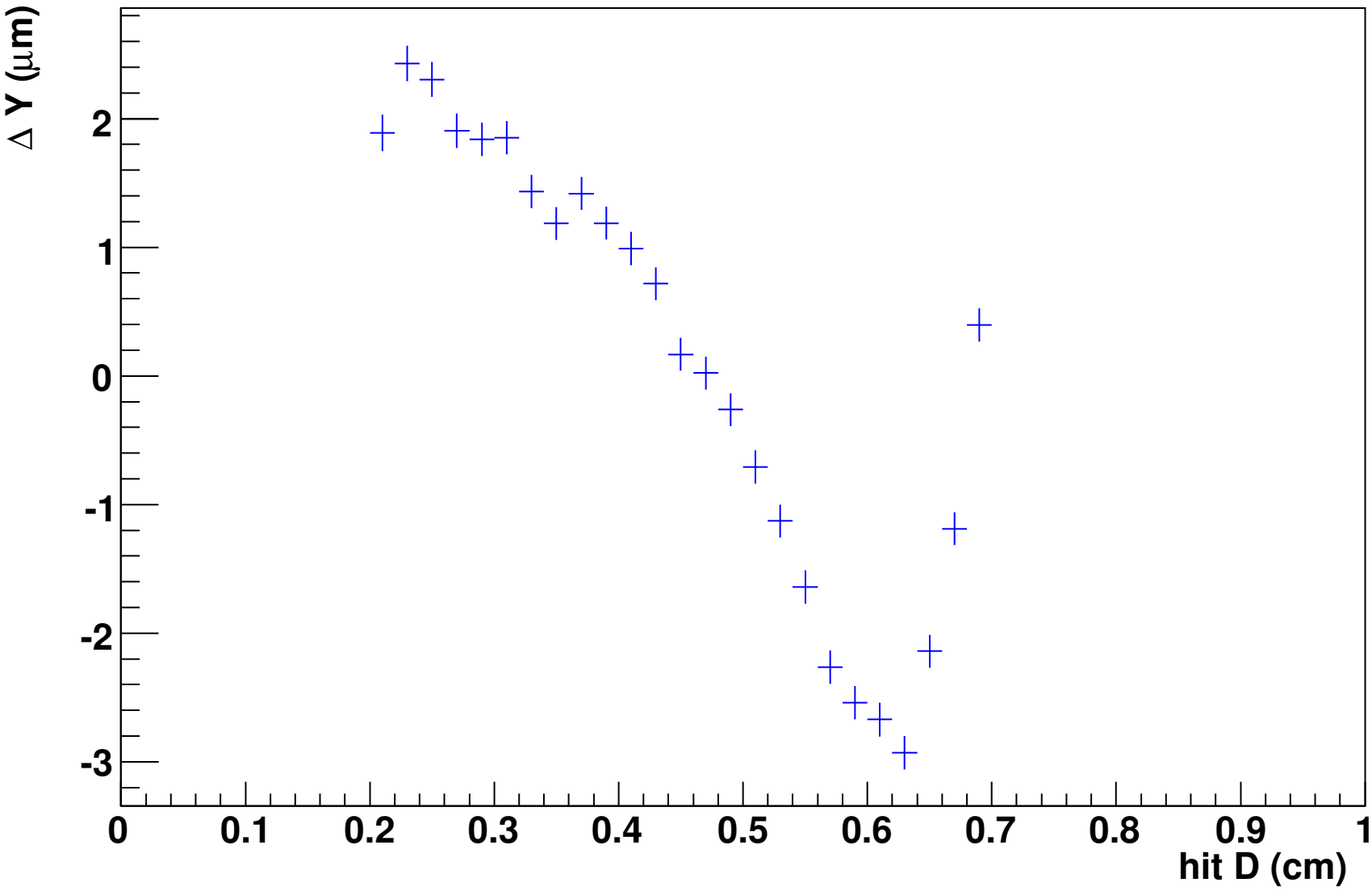

number of cosmics
15000
10000
5000
0
1
2
3
4
5
6
track ϕ_0

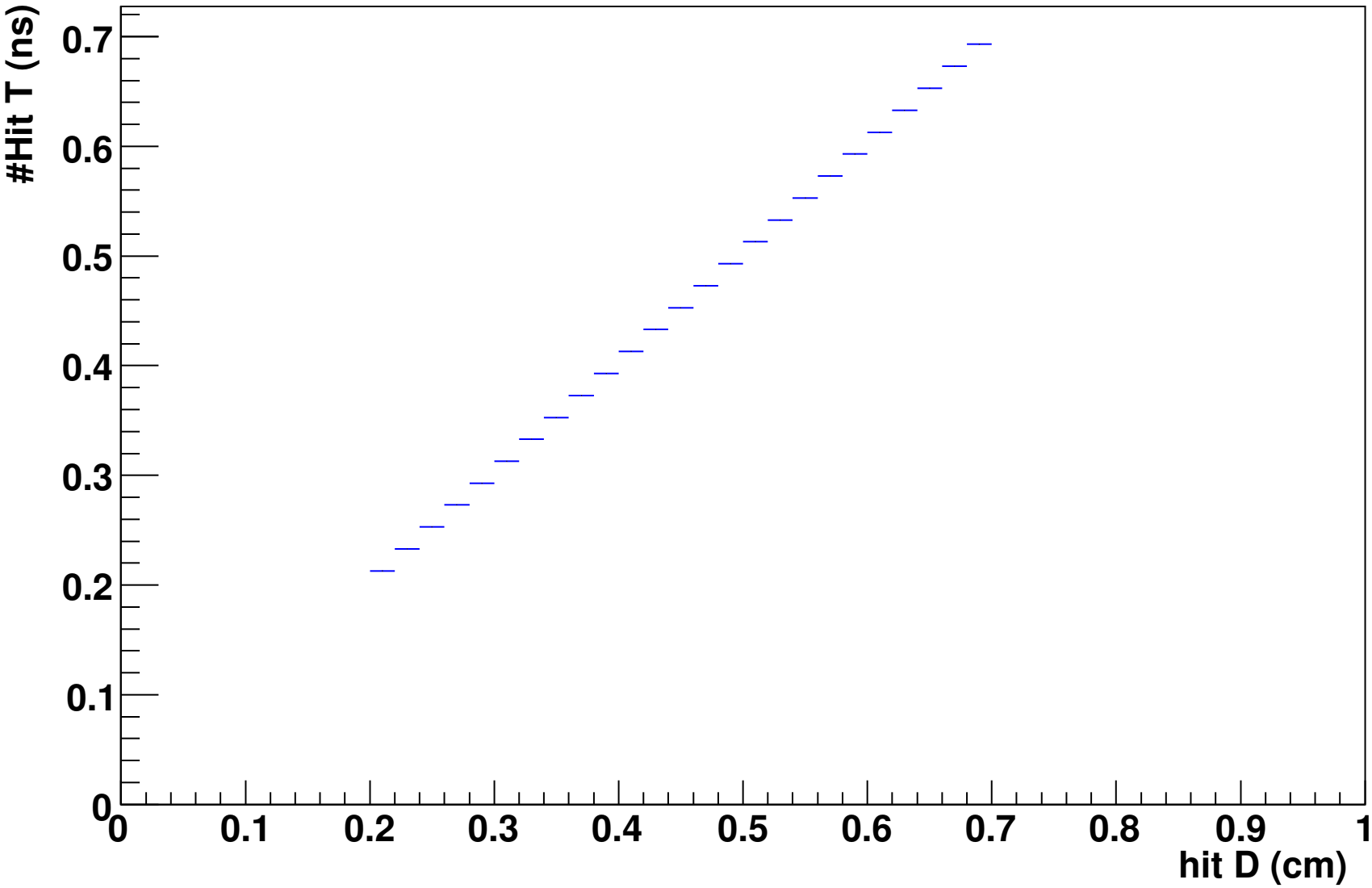

number of cosmics
10^4
10^3
10^2
10
1
0
1
2
3
4
5
6
ϕ_0

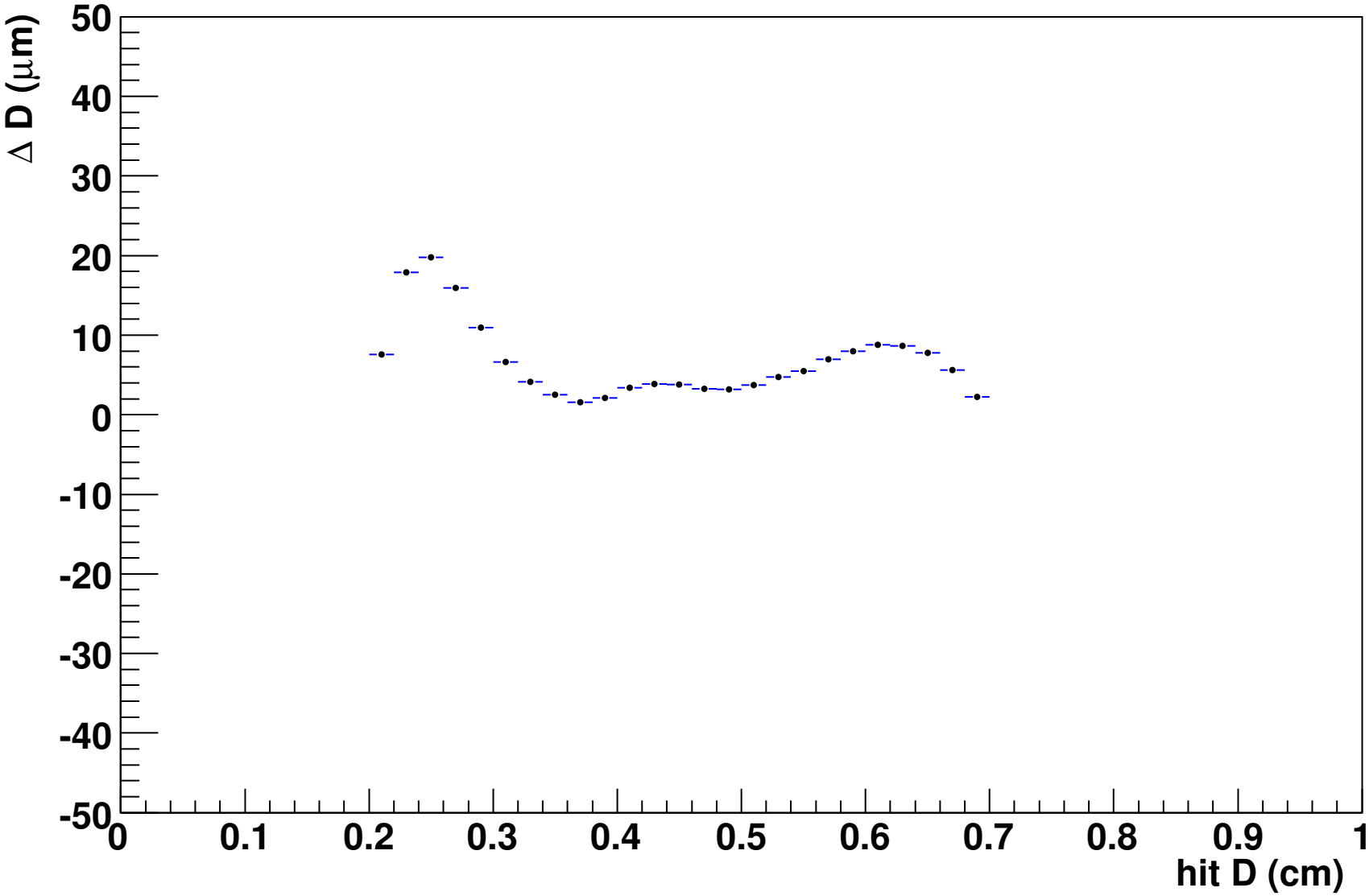

Δ D (μm)
30
20
10
0
-10
-80
-60
-40
-20
0
20
40
60
80
wire number

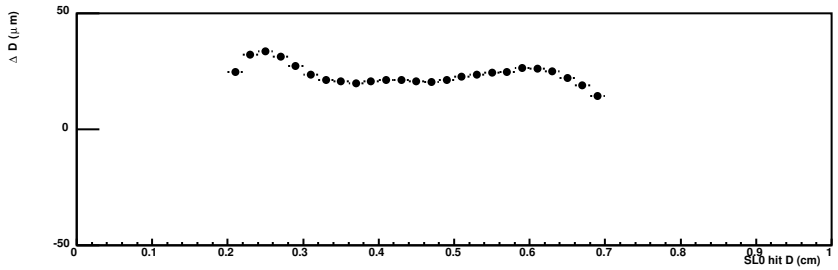

Δ Y (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

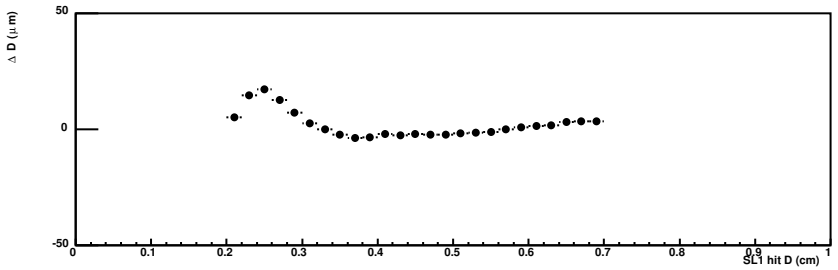

Δ D (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

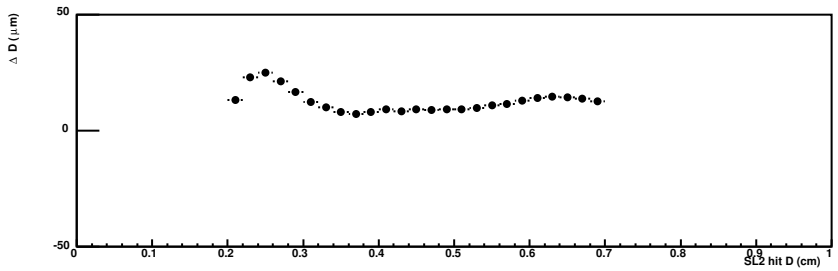

Δ Y (μm)
2
1
0
-1
-2
-3
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

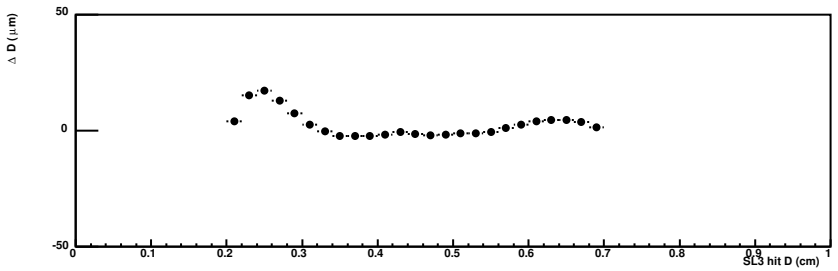

#Hit T (ns)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

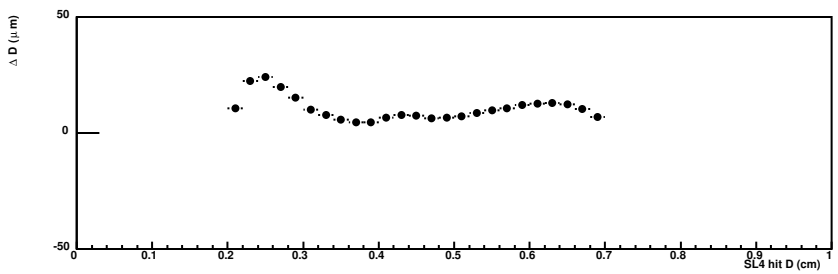

Δ D (μm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

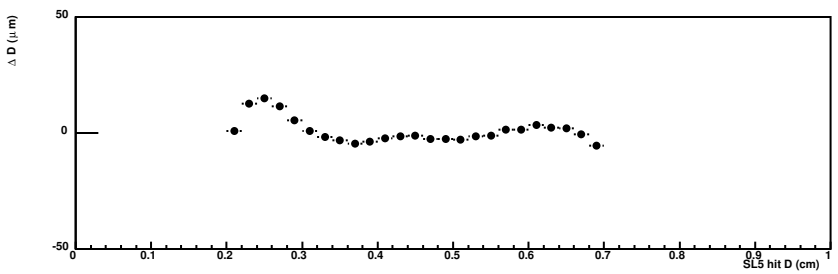

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL0 hit D (cm)

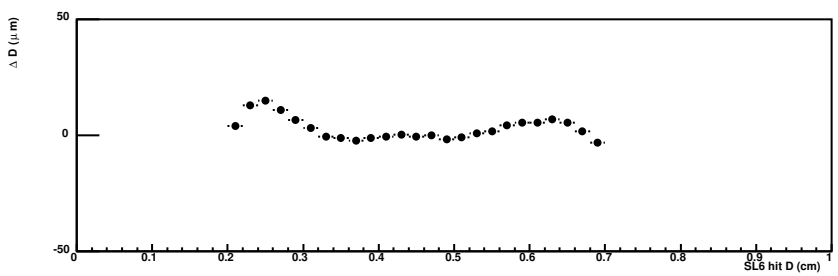

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL1 hit D (cm)

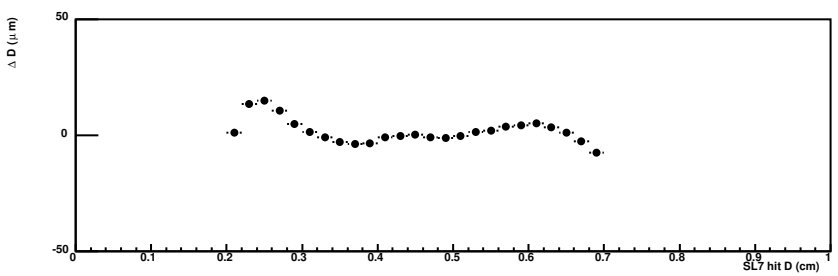

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL2 hit D (cm)

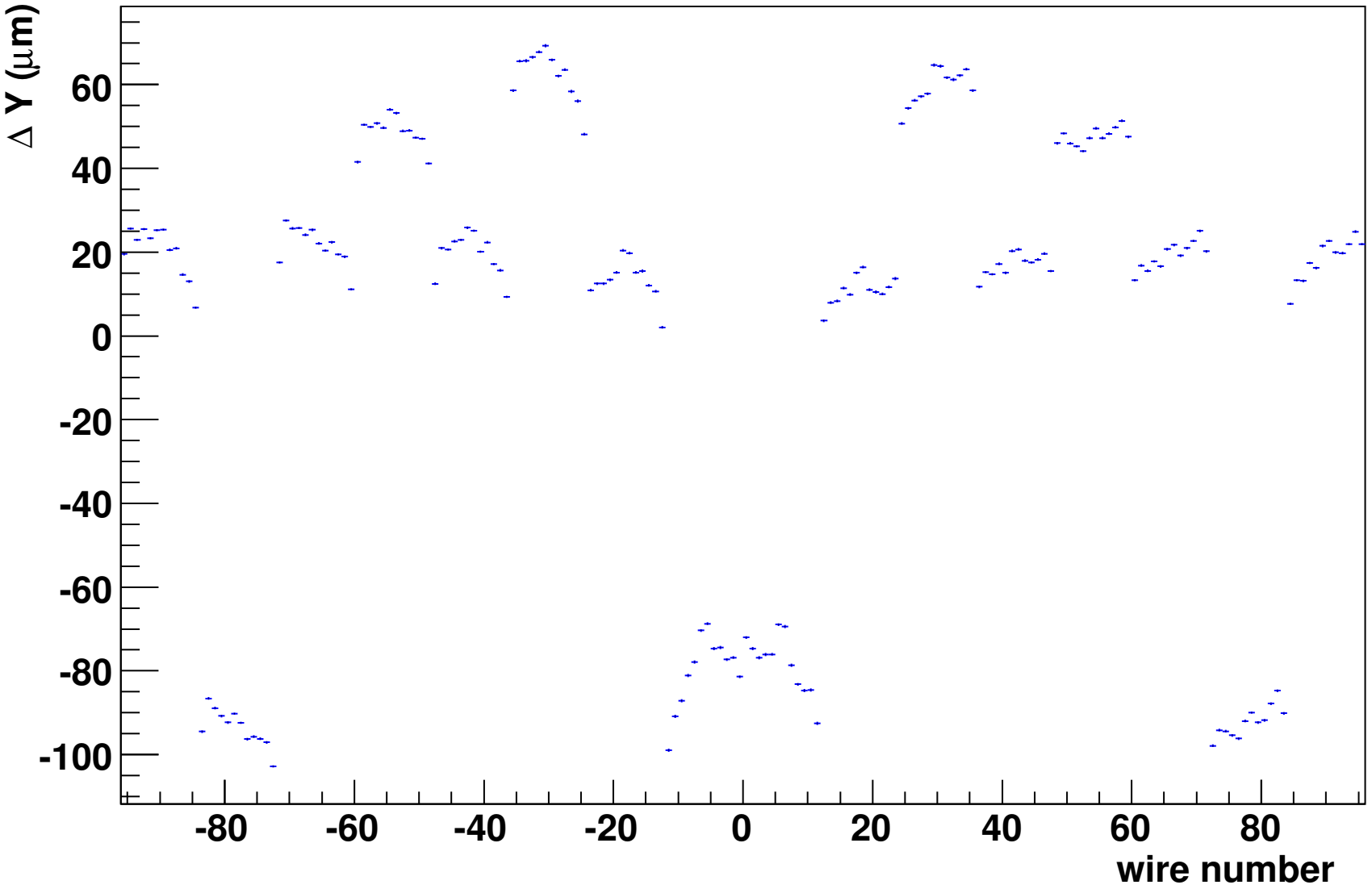

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL3 hit D (cm)

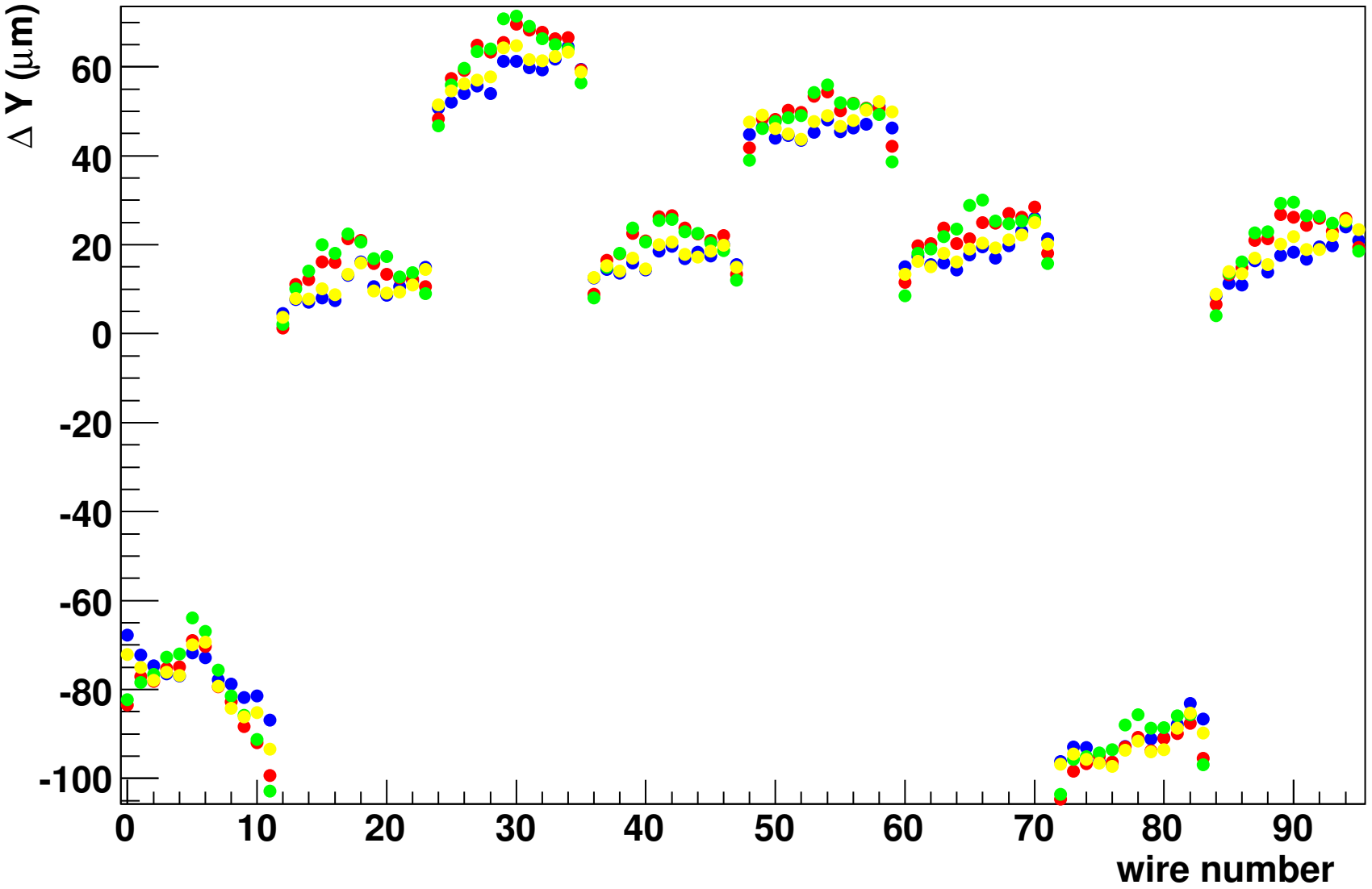

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL4 hit D (cm)

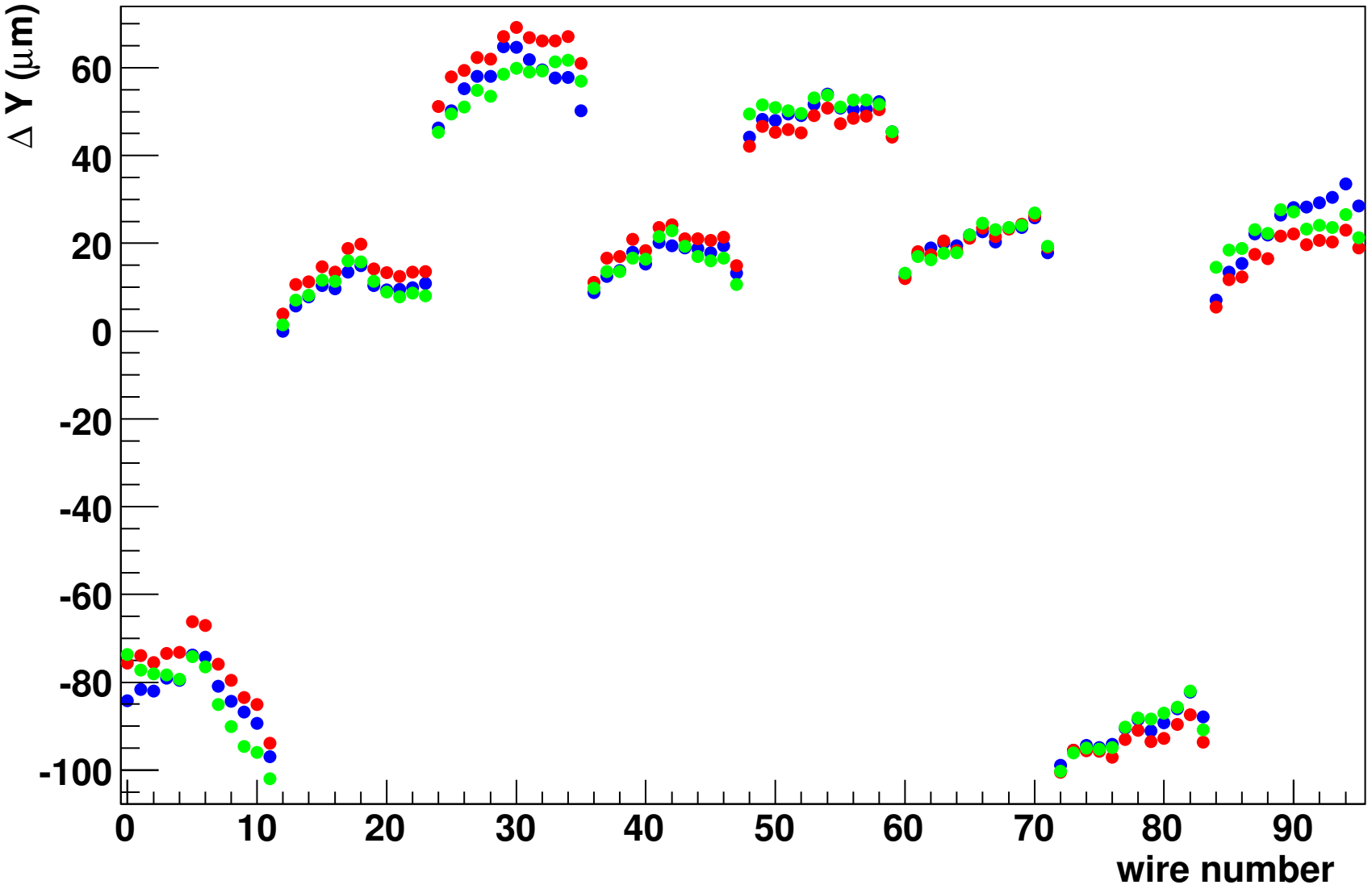

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL5 hit D (cm)

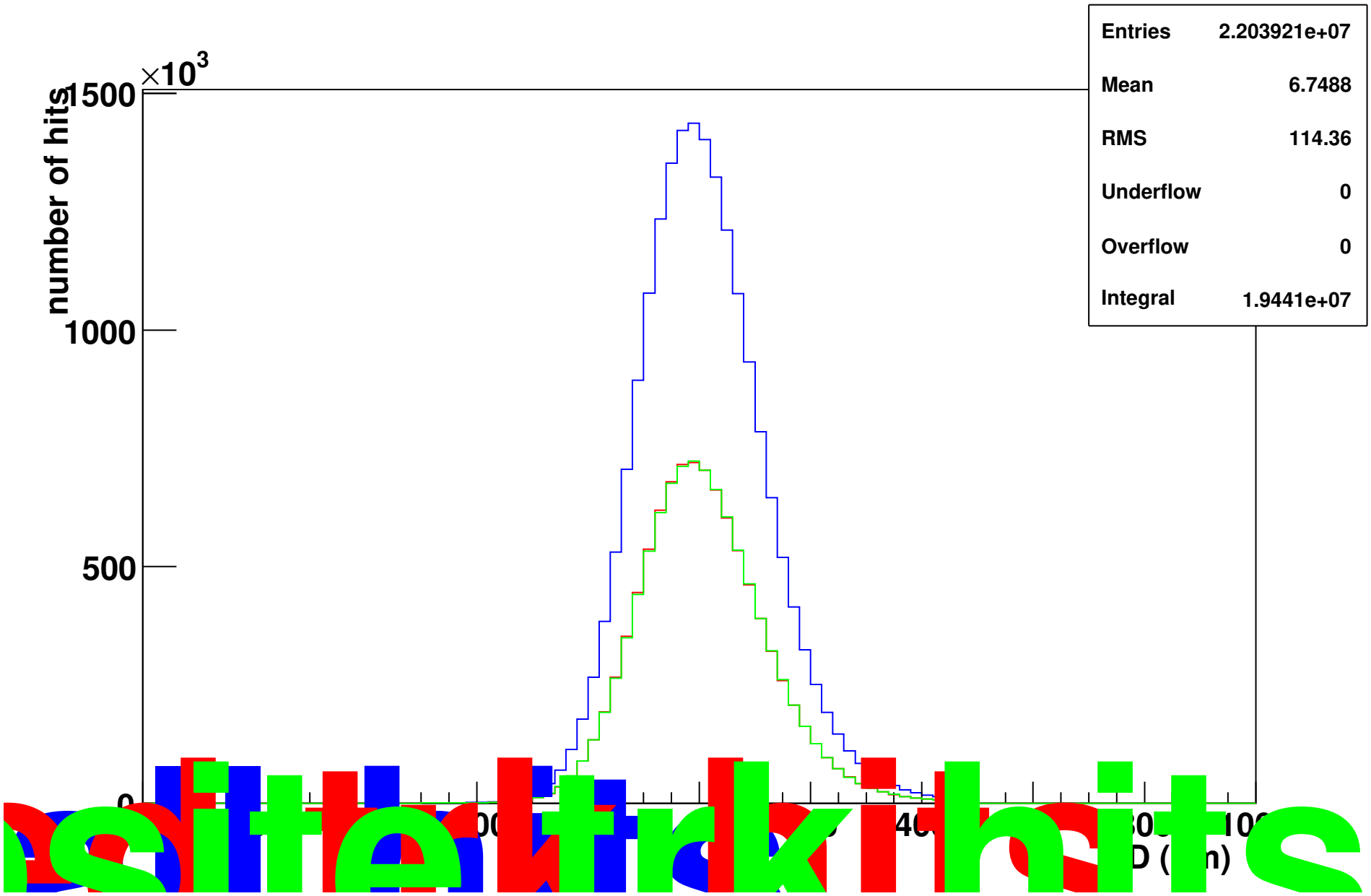

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL6 hit D (cm)

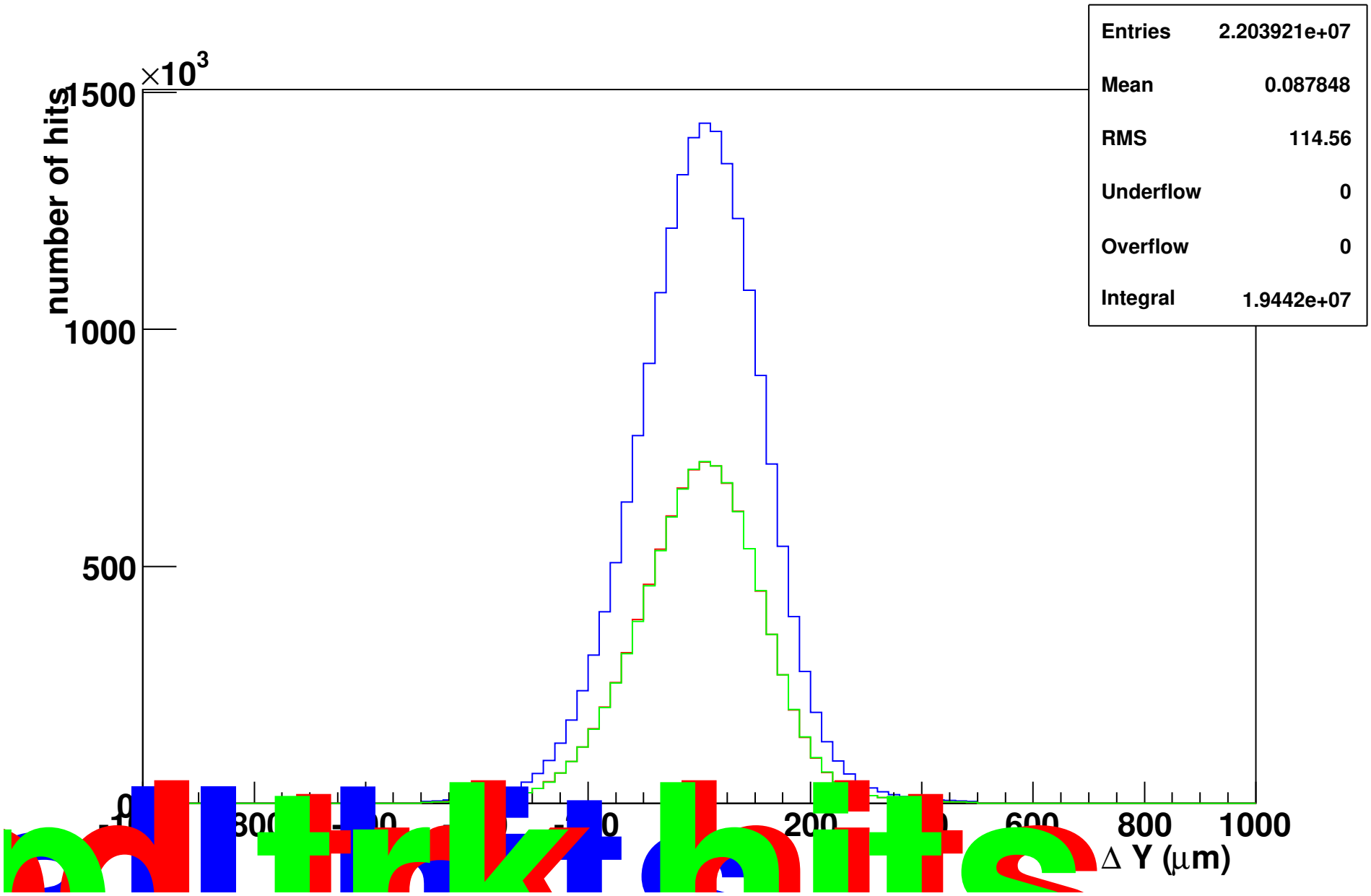

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL7 hit D (cm)

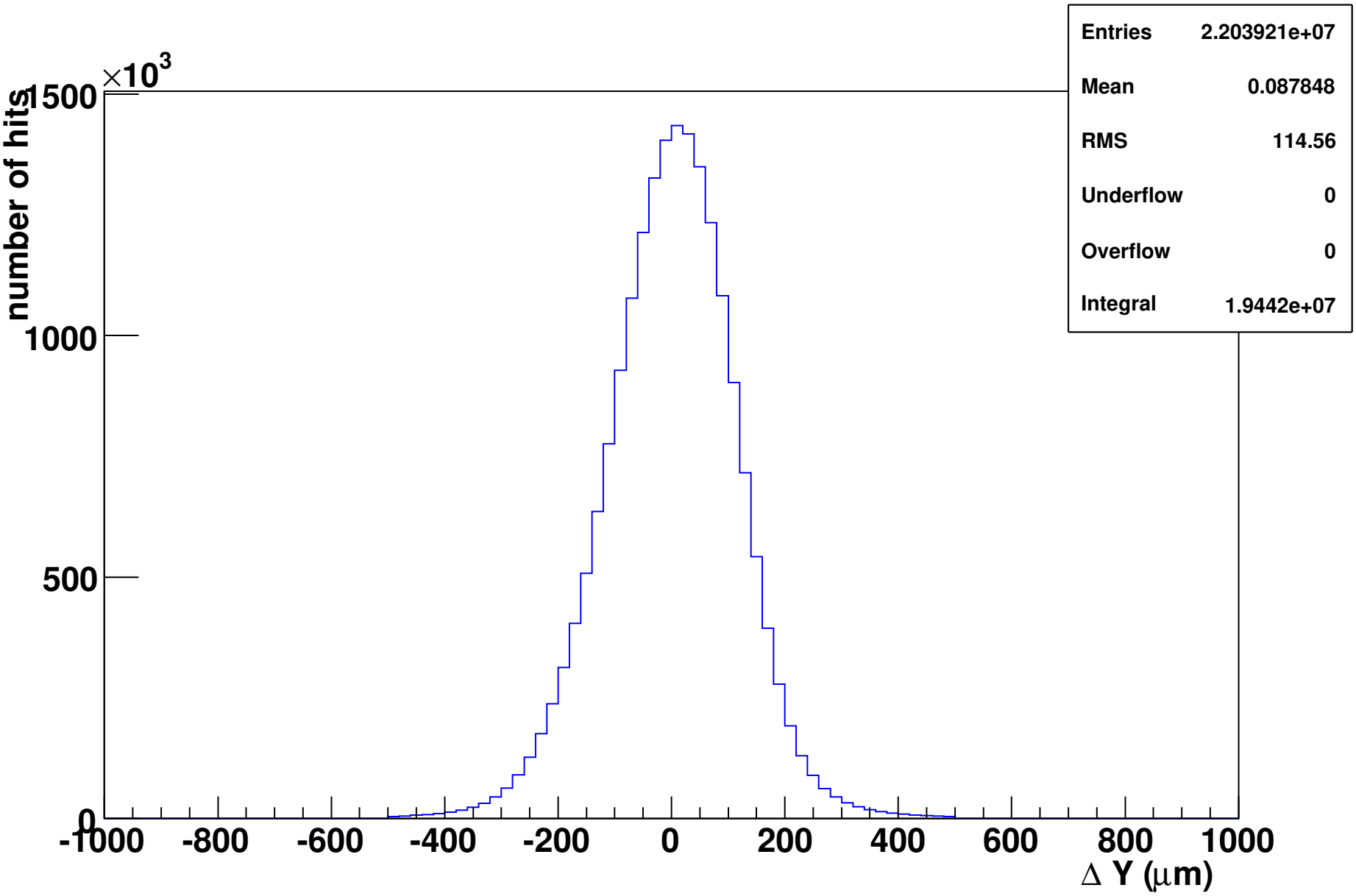

Δ Y (μm)
60
40
20
0
-20
-40
-60
-80
-100
-80
-60
-40
-20
0
20
40
60
80
wire number


Δ Y (μm)
60
40
20
0
-20
-40
-60
-80
-100
0
10
20
30
40
50
60
70
80
90
wire number


Δ Y (μm)
60
40
20
0
-20
-40
-60
-80
-100
0
10
20
30
40
50
60
70
80
90
wire number


Entries 2.203921e+07
Mean 6.7488
RMS 114.36
Underflow 0
Overflow 0
Integral 1.9441e+07
number of hits
×10^3
1500
1000
500
0
D (m)


Entries 2.203921e+07
Mean 0.087848
RMS 114.56
Underflow 0
Overflow 0
Integral 1.9442e+07
number of hits
×10^3
1500
1000
500
0
800
1000
Δ Y (μm)
all track hits


Entries 2.203921e+07
Mean 0.087848
RMS 114.56
Underflow 0
Overflow 0
Integral 1.9442e+07
number of hits
×10^3
1500
1000
500
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ Y (μm)