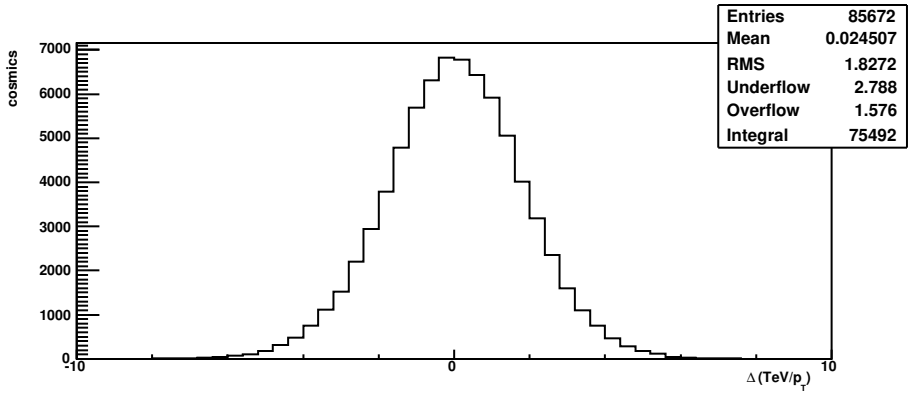
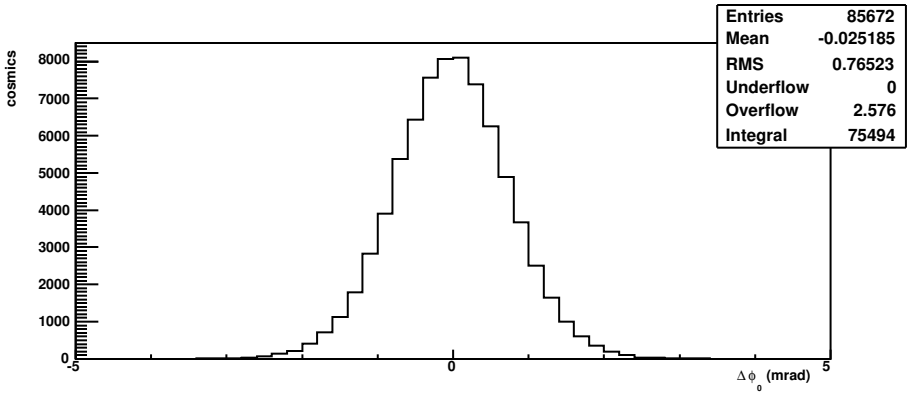
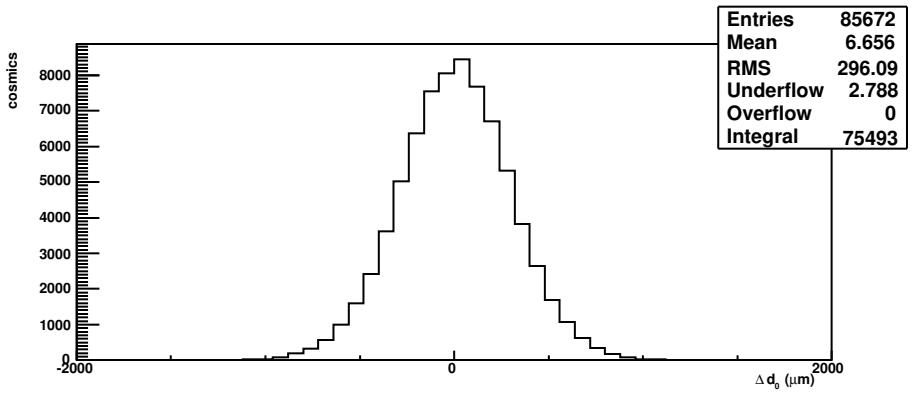
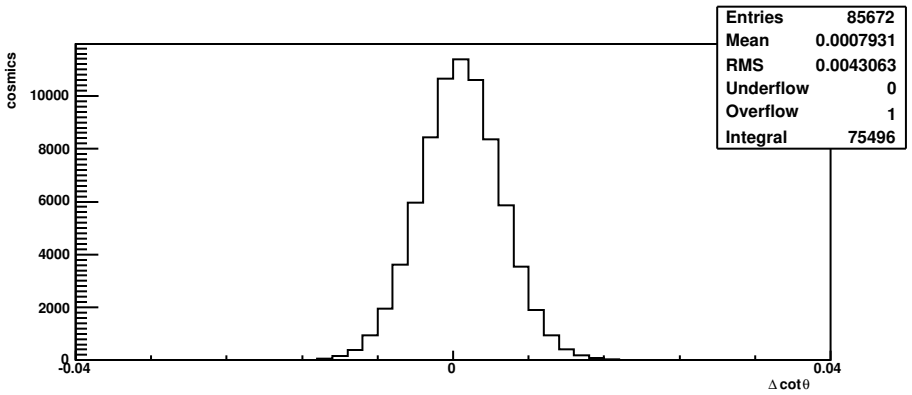
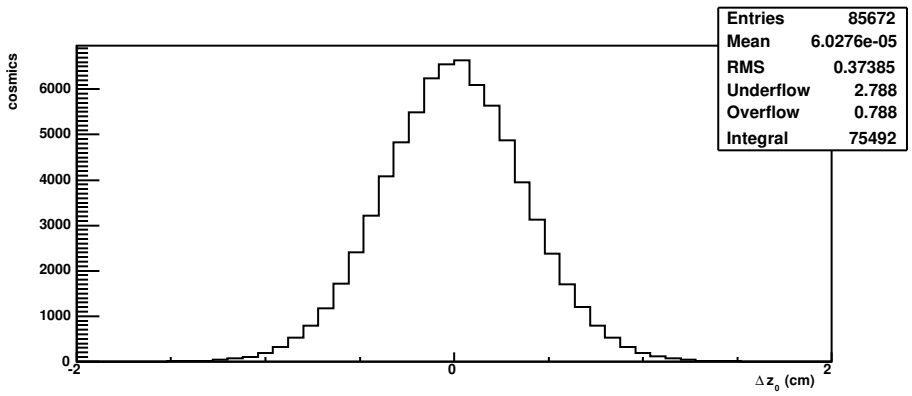
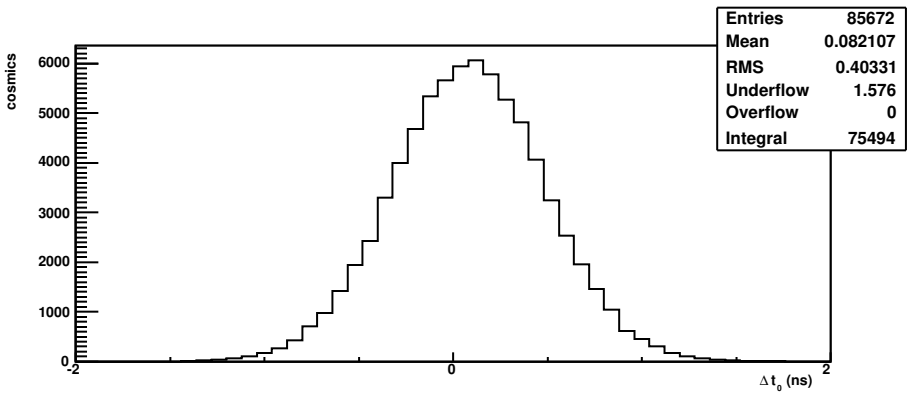

cosmics
Entries 85672
Mean 0.024507
RMS 1.8272
Underflow 2.788
Overflow 1.576
Integral 75492
Δ(TeV/p_T)

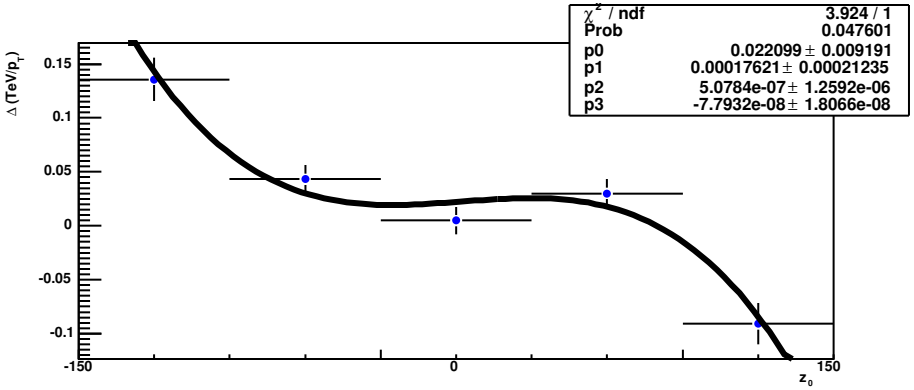

cosmics
Entries 85672
Mean -0.025185
RMS 0.76523
Underflow 0
Overflow 2.576
Integral 75494
Δφ_0 (mrad)

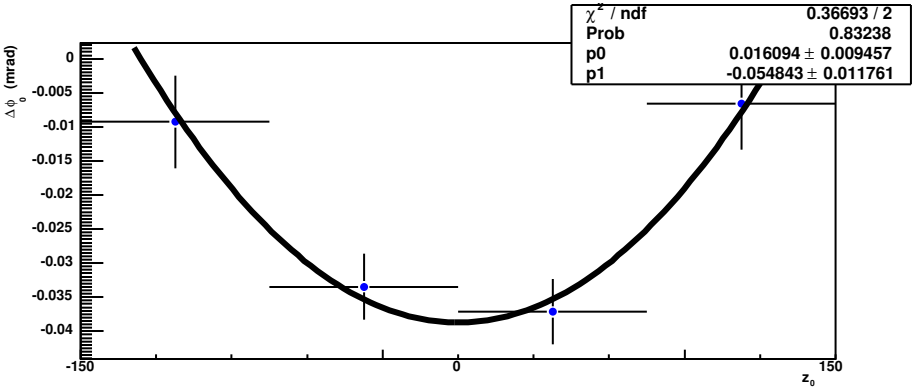

cosmics
Entries 85672
Mean 6.656
RMS 296.09
Underflow 2.788
Overflow 0
Integral 75493
Δd_0 (μm)

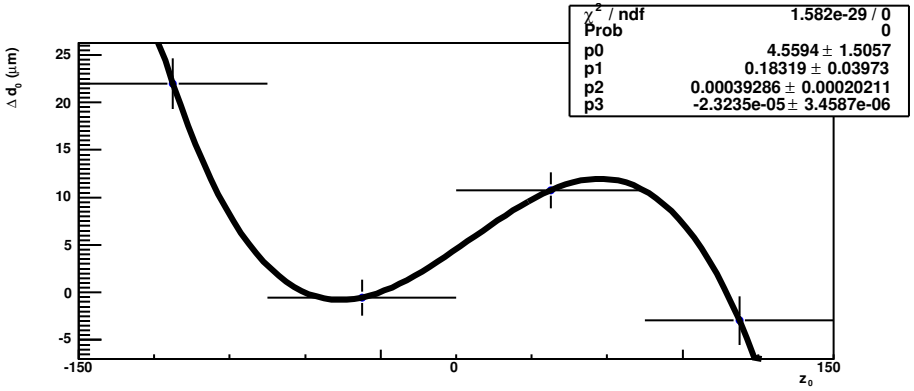

cosmics
Entries 85672
Mean 0.0007931
RMS 0.0043063
Underflow 0
Overflow 1
Integral 75496
Δcotθ

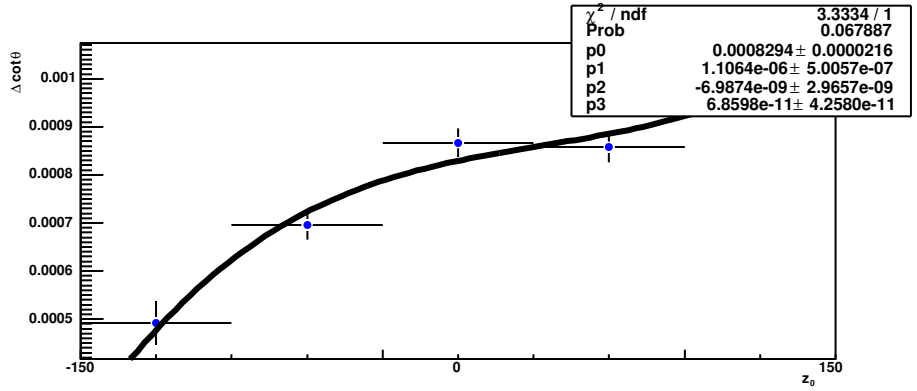

cosmics
Entries 85672
Mean 6.0276e-05
RMS 0.37385
Underflow 2.788
Overflow 0.788
Integral 75492
Δz_0 (cm)

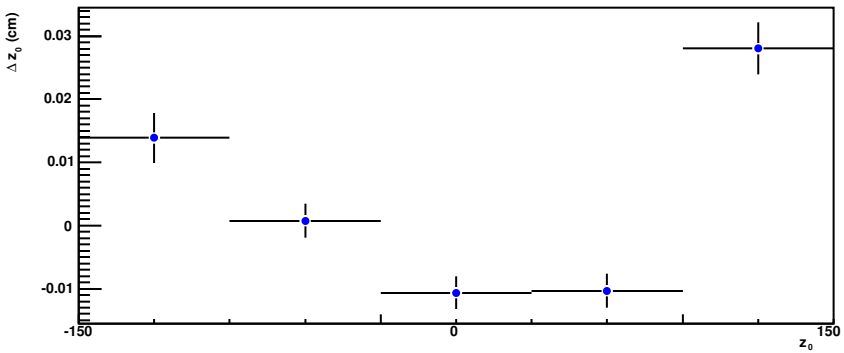

cosmics
Entries 85672
Mean 0.082107
RMS 0.40331
Underflow 1.576
Overflow 0
Integral 75494
Δt_0 (ns)

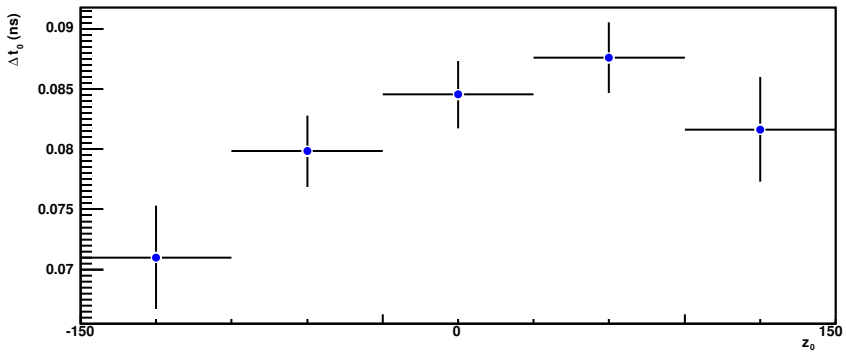

χ^2 / ndf 3.924 / 1
Prob 0.047601
p0 0.022099 ± 0.009191
p1 0.00017621 ± 0.00021235
p2 5.0784e-07 ± 1.2592e-06
p3 -7.7932e-08 ± 1.8066e-08
$\Delta(\mathrm{TeV}/p_T)$
z_0

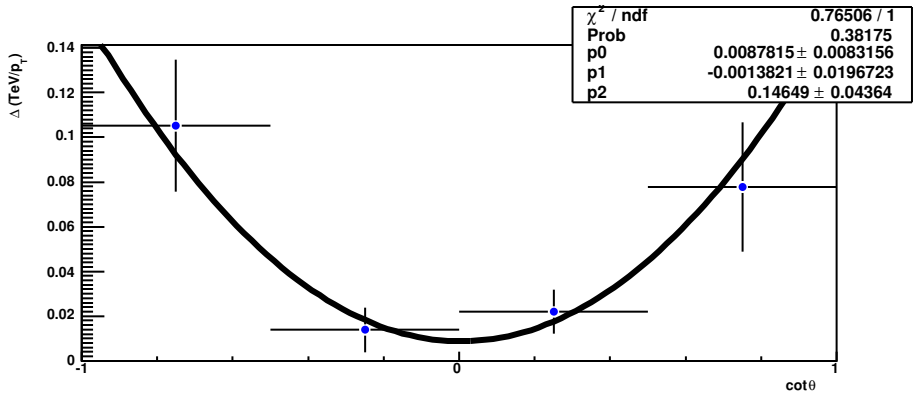

χ^2 / ndf 0.36693 / 2
Prob 0.83238
p0 0.016094 ± 0.009457
p1 -0.054843 ± 0.011761
$\Delta\phi_0$ (mrad)
z_0

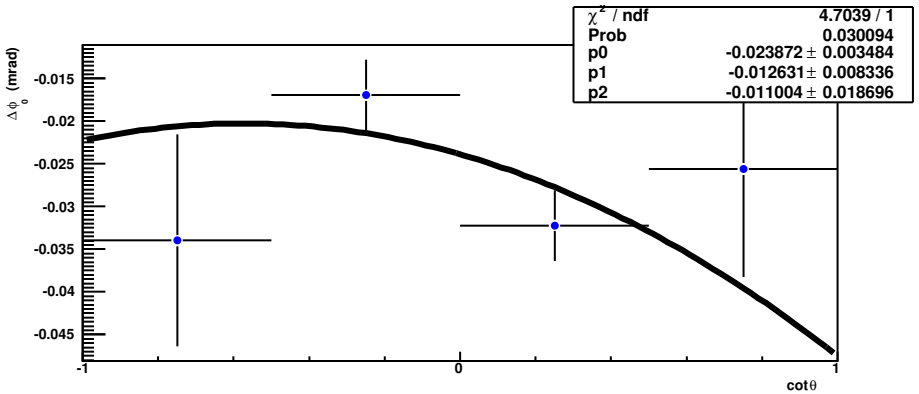

χ^2 / ndf 1.582e-29 / 0
Prob 0
p0 4.5594 ± 1.5057
p1 0.18319 ± 0.03973
p2 0.00039286 ± 0.00020211
p3 -2.3235e-05 ± 3.4587e-06
Δd_0 (μm)
z_0

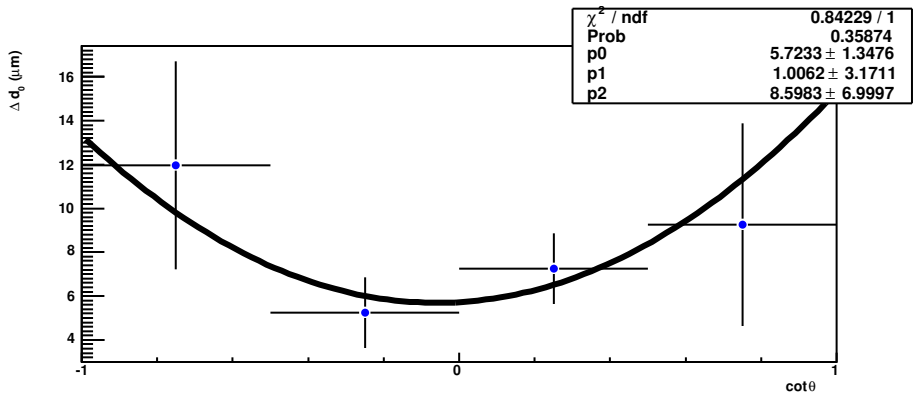

χ^2 / ndf 3.3334 / 1
Prob 0.067887
p0 0.0008294 ± 0.0000216
p1 1.1064e-06 ± 5.0057e-07
p2 -6.9874e-09 ± 2.9657e-09
p3 6.8598e-11 ± 4.2580e-11
$\Delta\cot\theta$
z_0

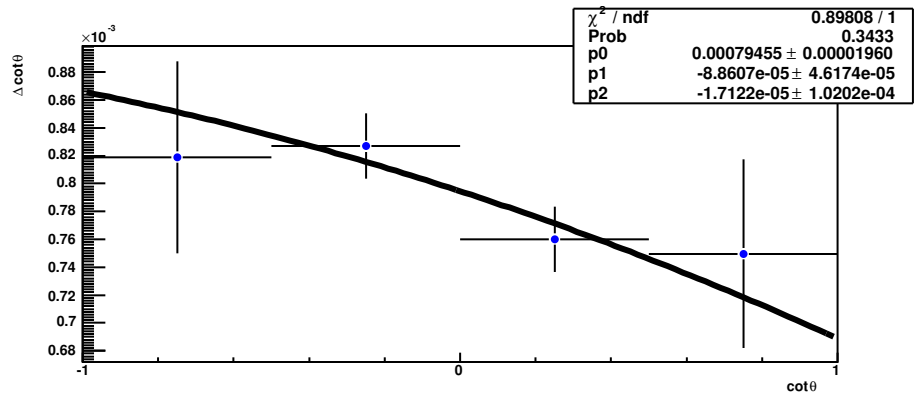

Δz_0 (cm)
z_0

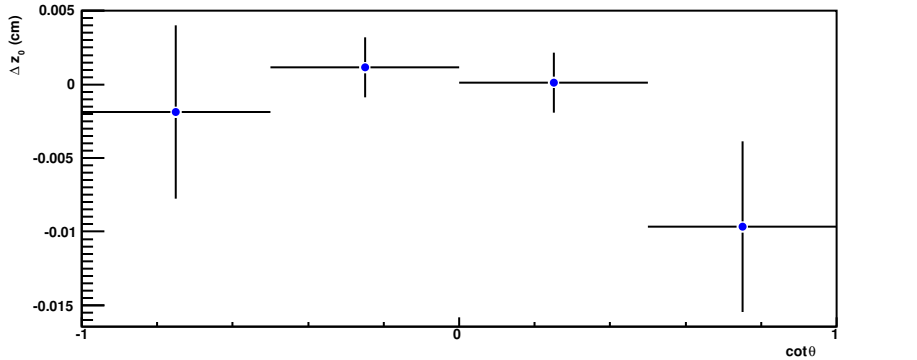

Δt_0 (ns)
z_0

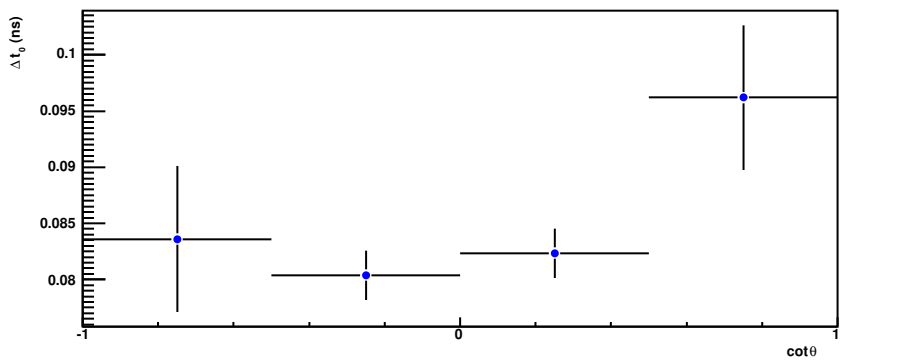

χ² / ndf 0.76506 / 1
Prob 0.38175
p0 0.0087815 ± 0.0083156
p1 -0.0013821 ± 0.0196723
p2 0.14649 ± 0.04364
Δ (TeV/p_T)
cotθ

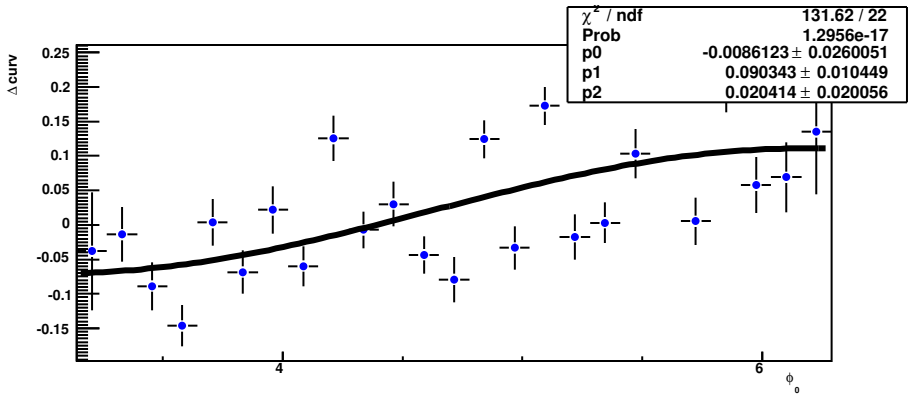

χ² / ndf 4.7039 / 1
Prob 0.030094
p0 -0.023872 ± 0.003484
p1 -0.012631 ± 0.008336
p2 -0.011004 ± 0.018696
Δ φ_0 (mrad)
cotθ

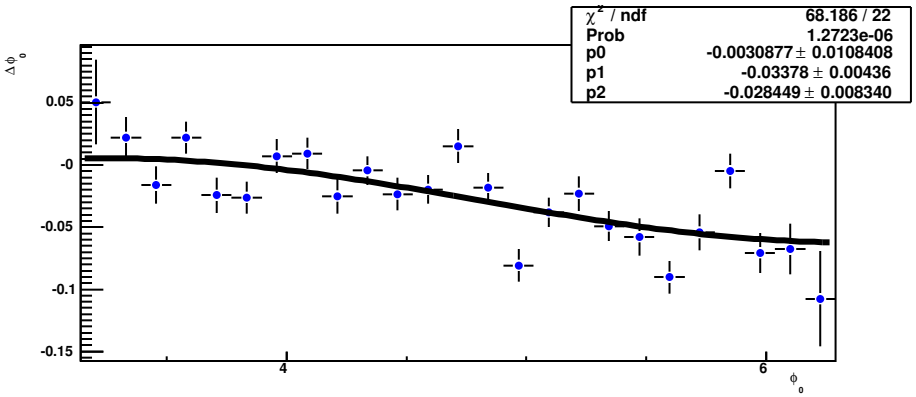

χ² / ndf 0.84229 / 1
Prob 0.35874
p0 5.7233 ± 1.3476
p1 1.0062 ± 3.1711
p2 8.5983 ± 6.9997
Δ d_0 (μm)
cotθ

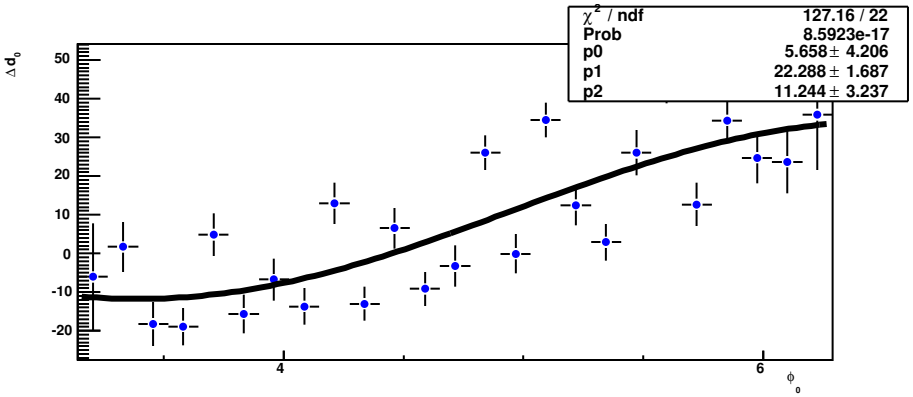

χ² / ndf 0.89808 / 1
Prob 0.3433
p0 0.00079455 ± 0.00001960
p1 -8.8607e-05 ± 4.6174e-05
p2 -1.7122e-05 ± 1.0202e-04
×10⁻³
Δ cotθ
cotθ

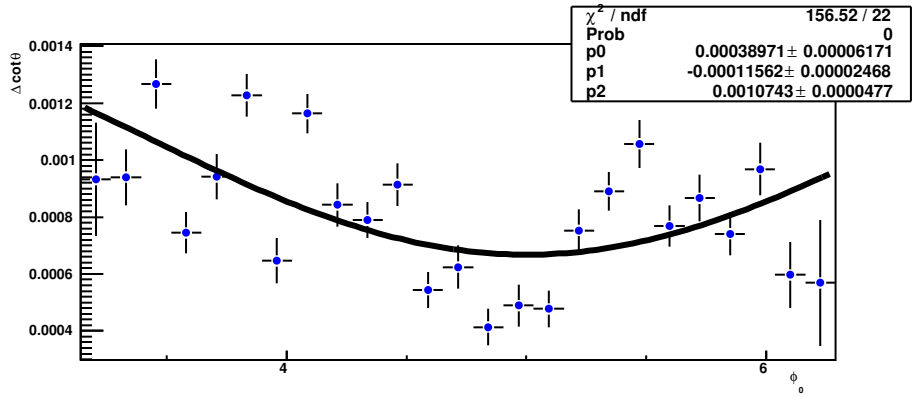

Δ z_0 (cm)
cotθ

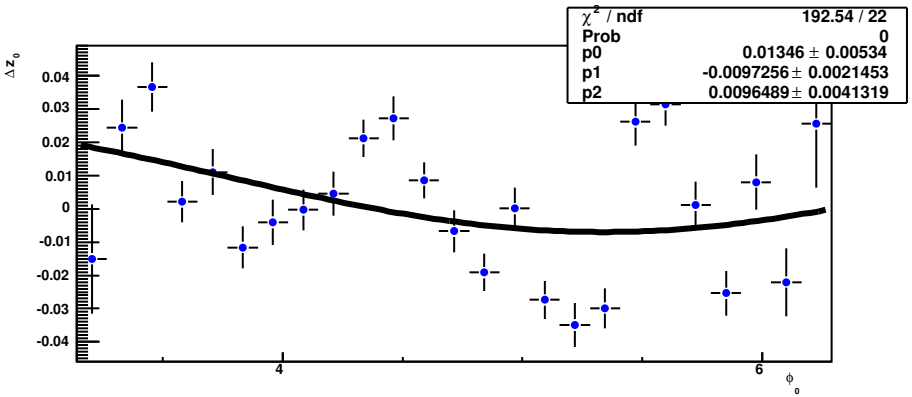

Δ t_0 (ns)
cotθ

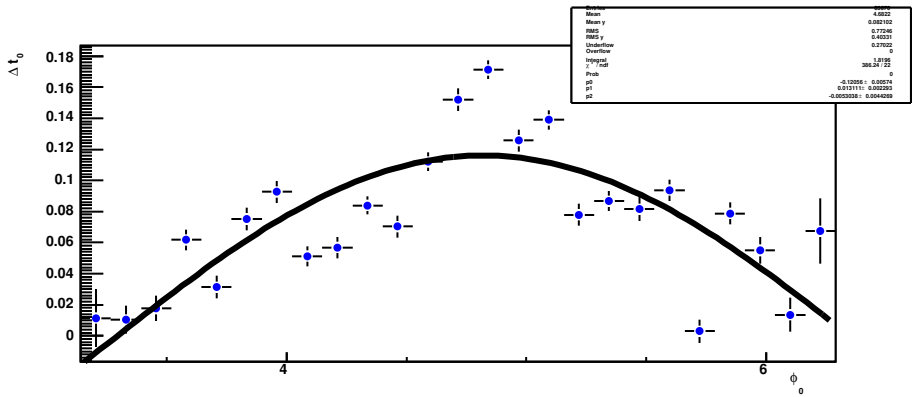

χ^2 / ndf 131.62 / 22
Prob 1.2956e-17
p0 -0.0086123 ± 0.0260051
p1 0.090343 ± 0.010449
p2 0.020414 ± 0.020056
Δ curv
ϕ_0

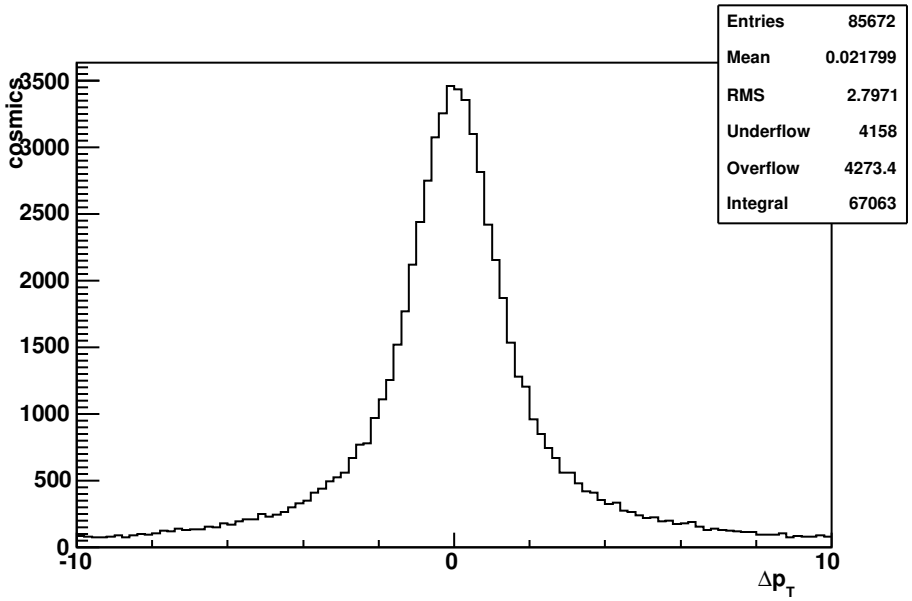

χ^2 / ndf 68.186 / 22
Prob 1.2723e-06
p0 -0.0030877 ± 0.0108408
p1 -0.03378 ± 0.00436
p2 -0.028449 ± 0.008340
$\Delta\phi_0$
ϕ_0

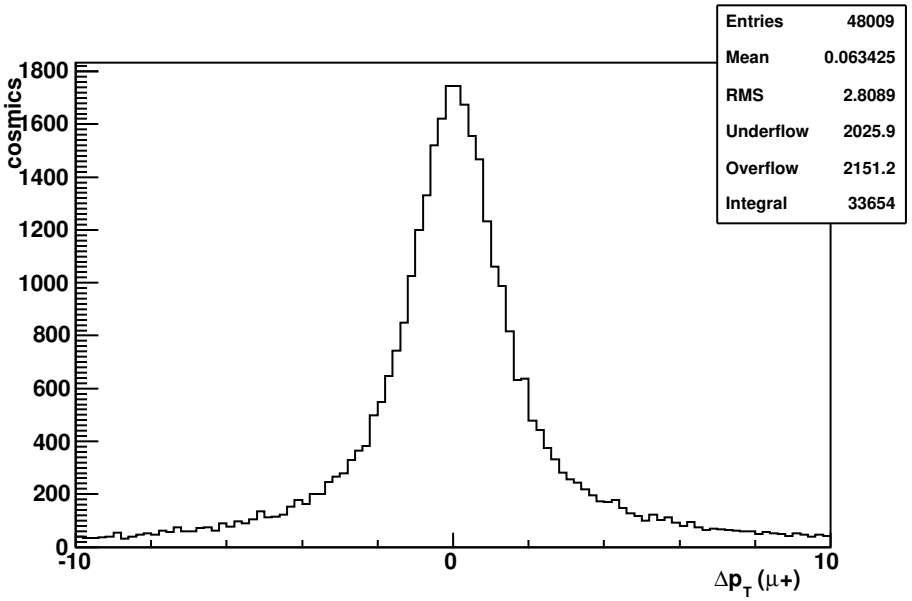

χ^2 / ndf 127.16 / 22
Prob 8.5923e-17
p0 5.658 ± 4.206
p1 22.288 ± 1.687
p2 11.244 ± 3.237
Δd_0
ϕ_0

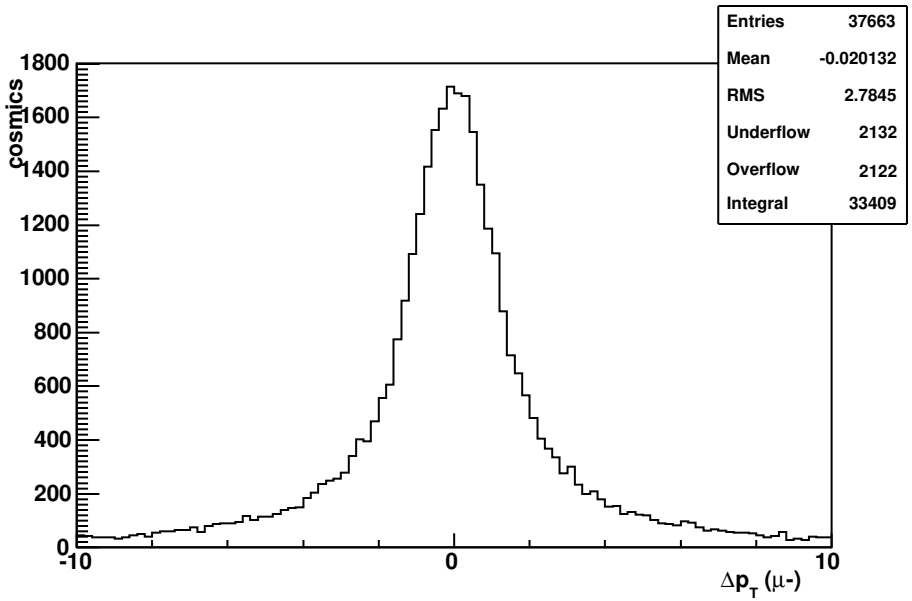

χ^2 / ndf 156.52 / 22
Prob 0
p0 0.00038971 ± 0.00006171
p1 -0.00011562 ± 0.00002468
p2 0.0010743 ± 0.0000477
$\Delta \cot\theta$
ϕ_0

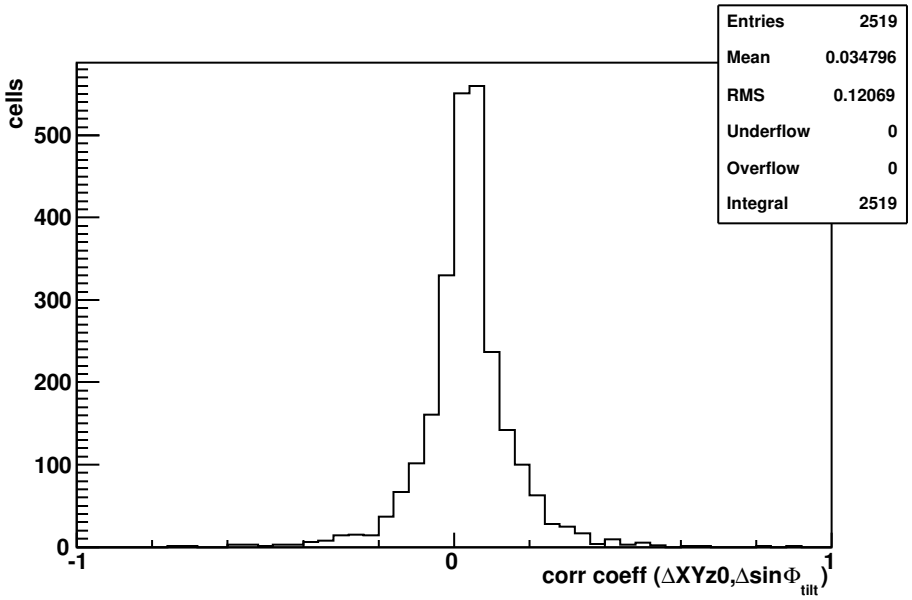

χ^2 / ndf 192.54 / 22
Prob 0
p0 0.01346 ± 0.00534
p1 -0.0097256 ± 0.0021453
p2 0.0096489 ± 0.0041319
Δz_0
ϕ_0

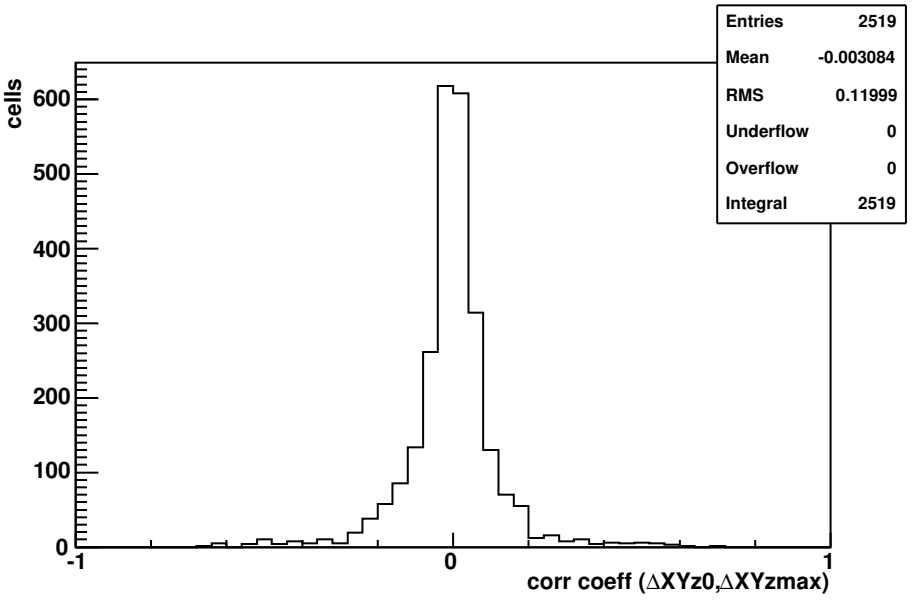

Δt_0
ϕ_0

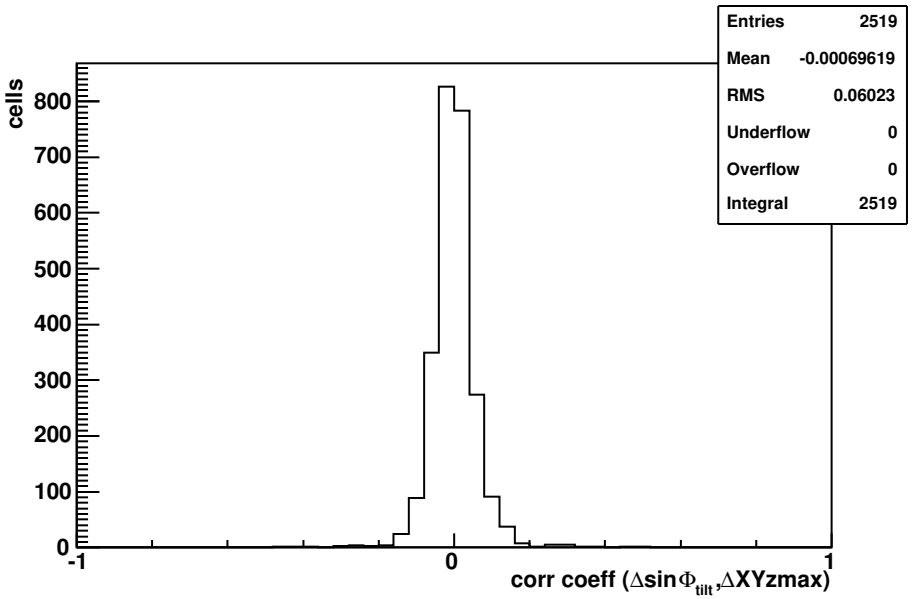

Entries 85672
Mean 0.021799
RMS 2.7971
Underflow 4158
Overflow 4273.4
Integral 67063
cosmics
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T

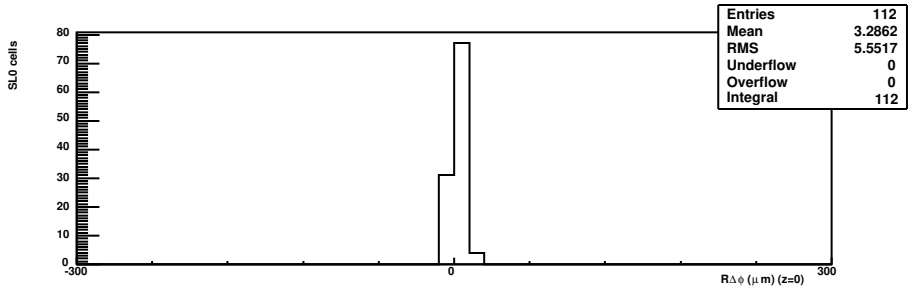

Entries 48009
Mean 0.063425
RMS 2.8089
Underflow 2025.9
Overflow 2151.2
Integral 33654
cosmics
1800
1600
1400
1200
1000
800
600
400
200
0
-10
0
10
Δp_T (μ+)

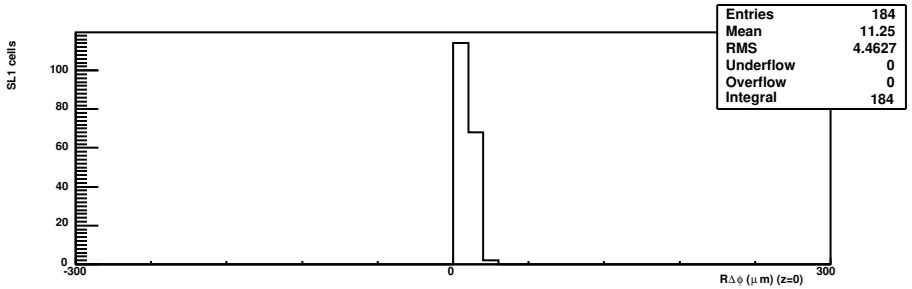

Entries 37663
Mean -0.020132
RMS 2.7845
Underflow 2132
Overflow 2122
Integral 33409
cosmics
1800
1600
1400
1200
1000
800
600
400
200
0
-10
0
10
Δp_T (μ-)

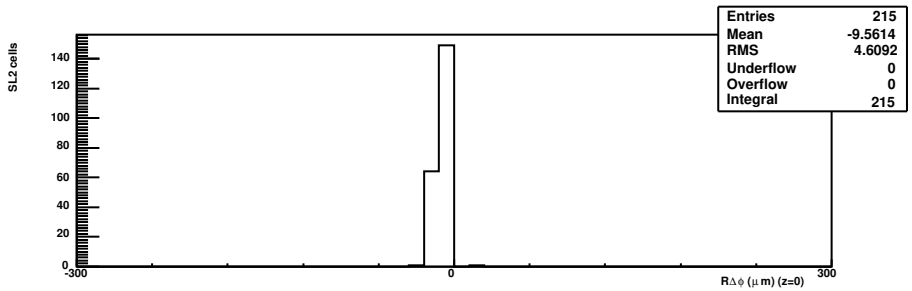

Entries 2519
Mean 0.034796
RMS 0.12069
Underflow 0
Overflow 0
Integral 2519
cells
corr coeff (ΔXYz0,ΔsinΦ_{tilt})

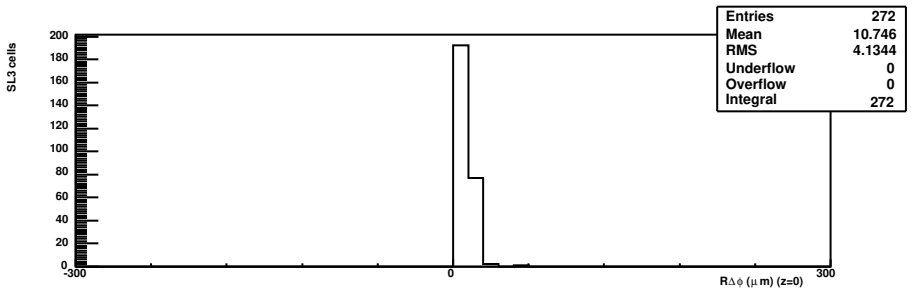

Entries 2519
Mean -0.003084
RMS 0.11999
Underflow 0
Overflow 0
Integral 2519
cells
corr coeff (ΔXYz0,ΔXYzmax)

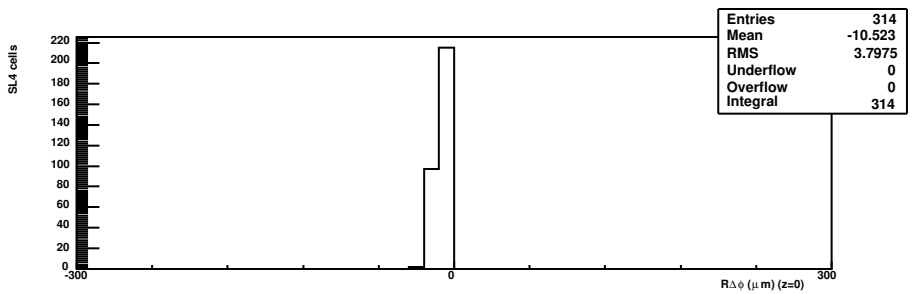

Entries 2519
Mean -0.00069619
RMS 0.06023
Underflow 0
Overflow 0
Integral 2519
cells
corr coeff (ΔsinΦ_{tilt},ΔXYzmax)

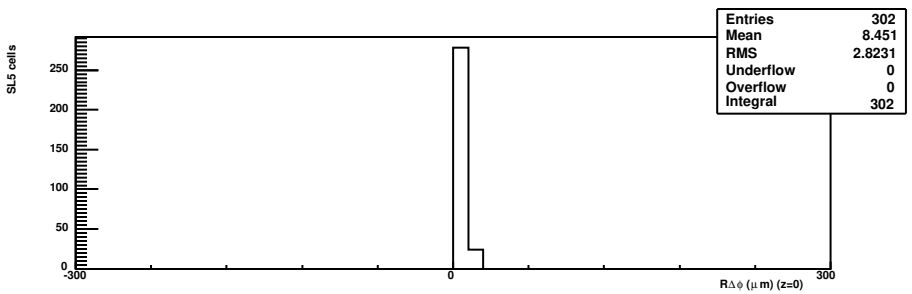

Entries 112
Mean 3.2862
RMS 5.5517
Underflow 0
Overflow 0
Integral 112
SL0 cells
RΔφ (μm) (z=0)

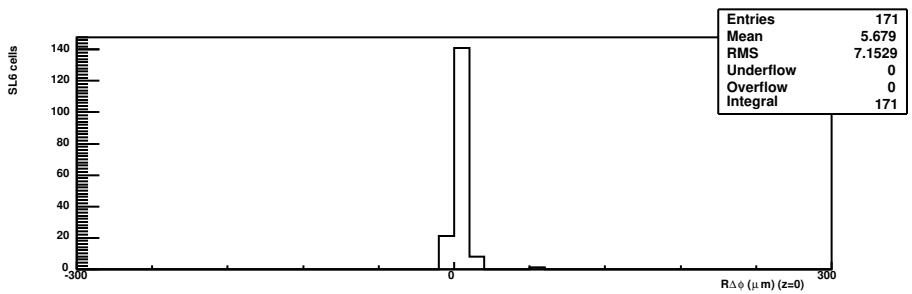

Entries 184
Mean 11.25
RMS 4.4627
Underflow 0
Overflow 0
Integral 184
SL1 cells
RΔφ (μm) (z=0)

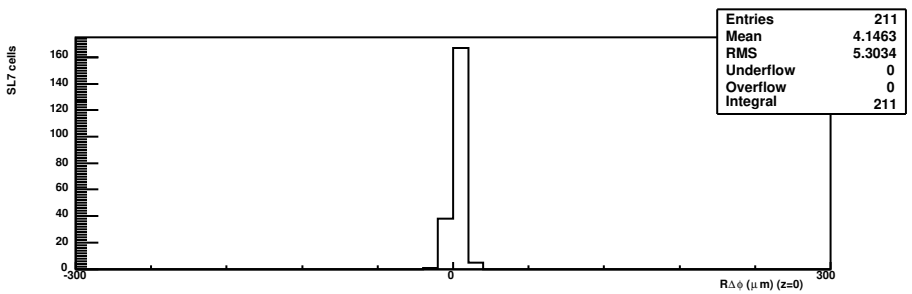

Entries 215
Mean -9.5614
RMS 4.6092
Underflow 0
Overflow 0
Integral 215
SL2 cells
RΔφ (μm) (z=0)

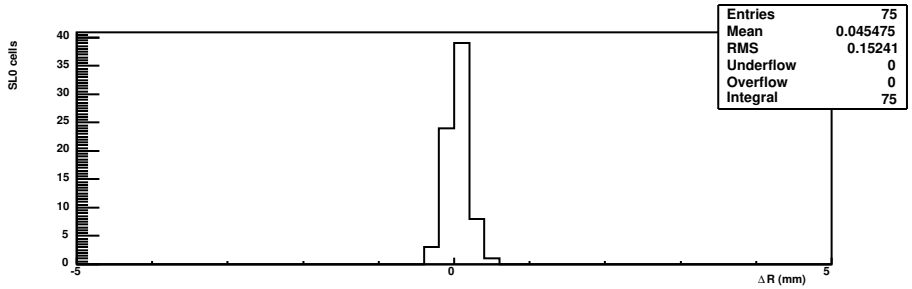

Entries 272
Mean 10.746
RMS 4.1344
Underflow 0
Overflow 0
Integral 272
SL3 cells
RΔφ (μm) (z=0)

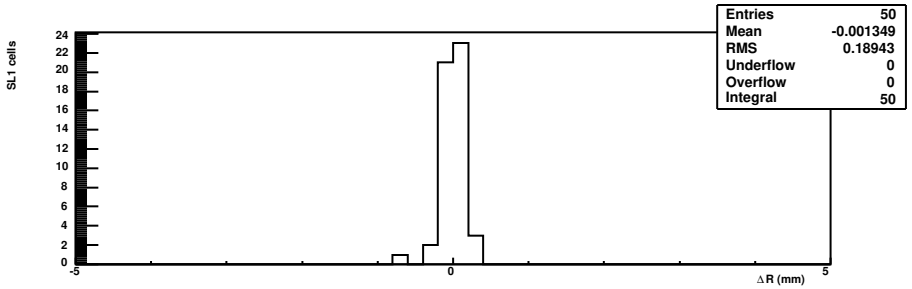

Entries 314
Mean -10.523
RMS 3.7975
Underflow 0
Overflow 0
Integral 314
SL4 cells
RΔφ (μm) (z=0)

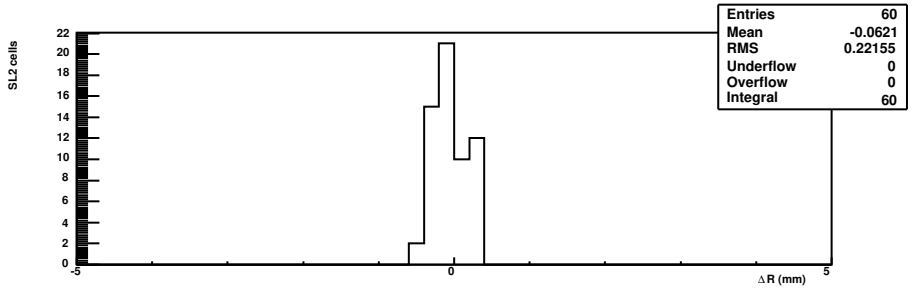

Entries 302
Mean 8.451
RMS 2.8231
Underflow 0
Overflow 0
Integral 302
SL5 cells
RΔφ (μm) (z=0)

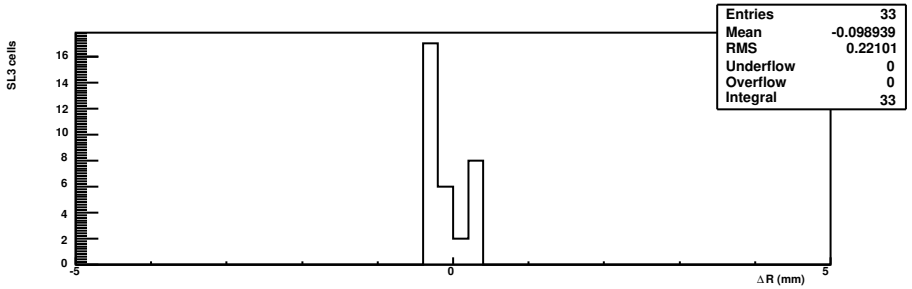

Entries 171
Mean 5.679
RMS 7.1529
Underflow 0
Overflow 0
Integral 171
SL6 cells
RΔφ (μm) (z=0)

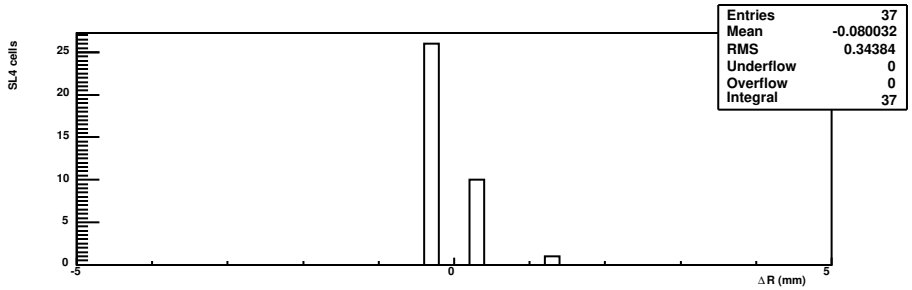

Entries 211
Mean 4.1463
RMS 5.3034
Underflow 0
Overflow 0
Integral 211
SL7 cells
RΔφ (μm) (z=0)

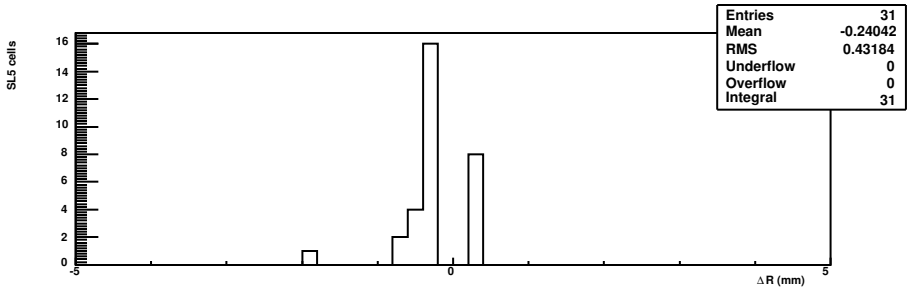

SL0 cells
ΔR (mm)
Entries 75
Mean 0.045475
RMS 0.15241
Underflow 0
Overflow 0
Integral 75

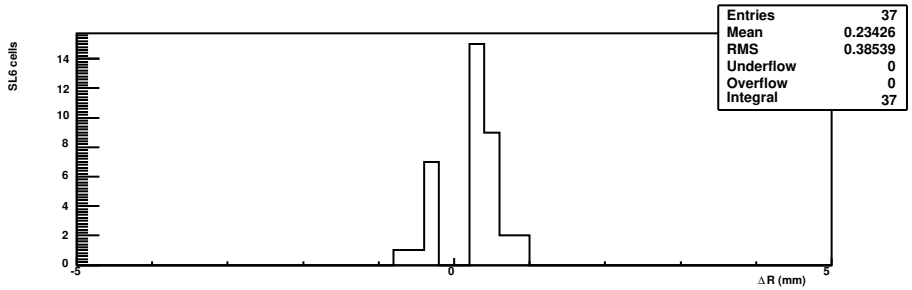

SL1 cells
ΔR (mm)
Entries 50
Mean -0.001349
RMS 0.18943
Underflow 0
Overflow 0
Integral 50

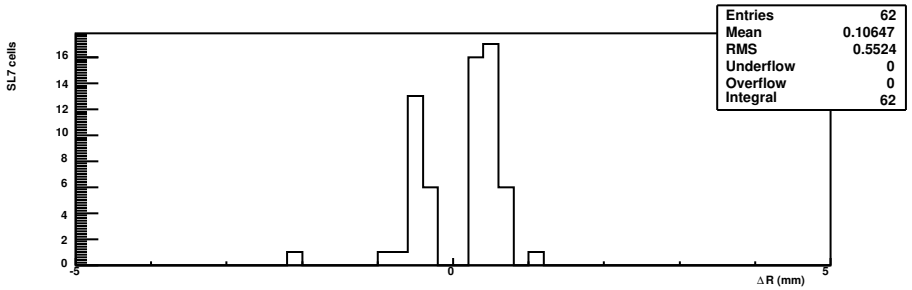

SL2 cells
ΔR (mm)
Entries 60
Mean -0.0621
RMS 0.22155
Underflow 0
Overflow 0
Integral 60

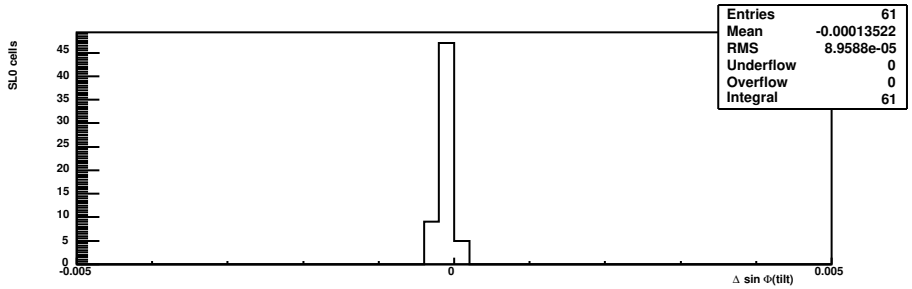

SL3 cells
ΔR (mm)
Entries 33
Mean -0.098939
RMS 0.22101
Underflow 0
Overflow 0
Integral 33

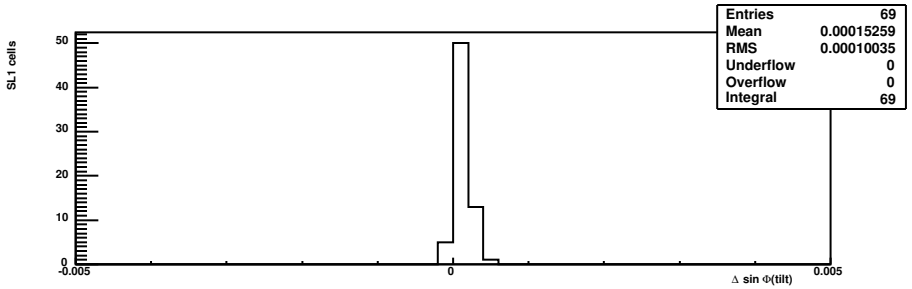

SL4 cells
ΔR (mm)
Entries 37
Mean -0.080032
RMS 0.34384
Underflow 0
Overflow 0
Integral 37

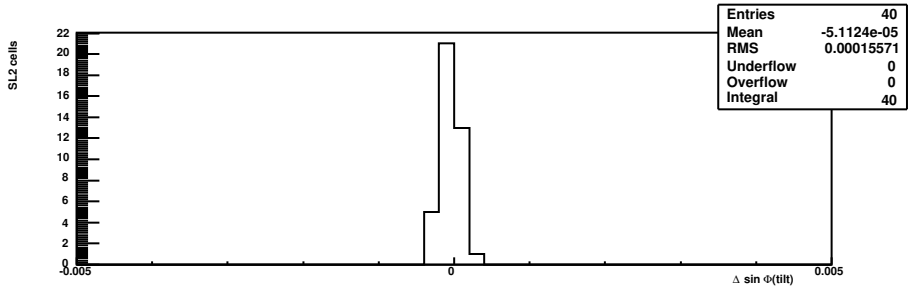

SL5 cells
ΔR (mm)
Entries 31
Mean -0.24042
RMS 0.43184
Underflow 0
Overflow 0
Integral 31

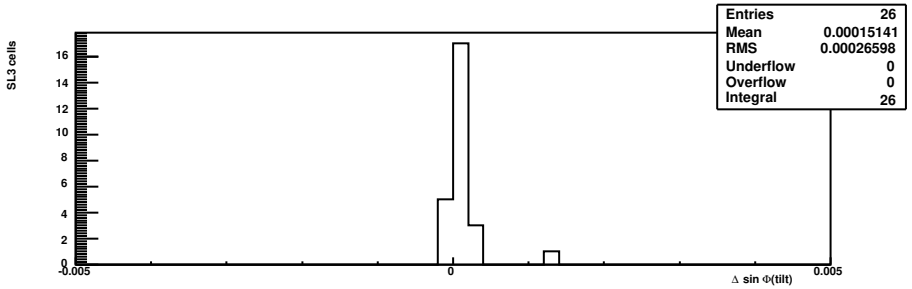

SL6 cells
ΔR (mm)
Entries 37
Mean 0.23426
RMS 0.38539
Underflow 0
Overflow 0
Integral 37

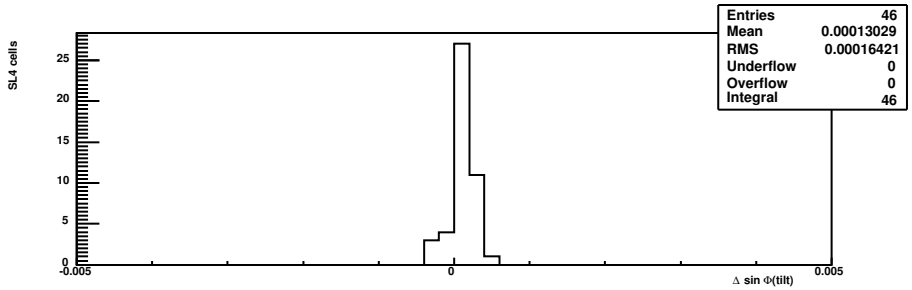

SL7 cells
ΔR (mm)
Entries 62
Mean 0.10647
RMS 0.5524
Underflow 0
Overflow 0
Integral 62

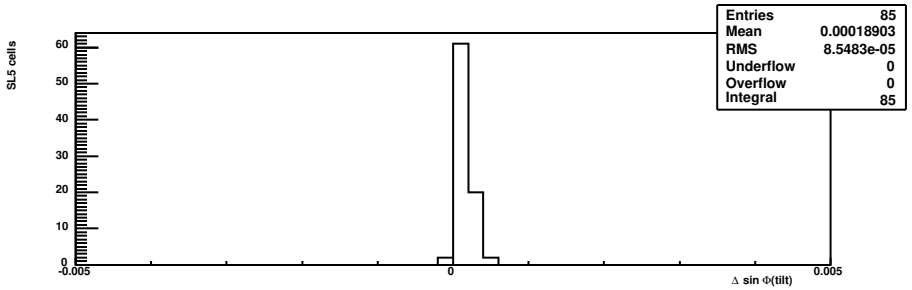

SL0 cells
Entries 61
Mean -0.00013522
RMS 8.9588e-05
Underflow 0
Overflow 0
Integral 61
Δ sin Φ(tilt)

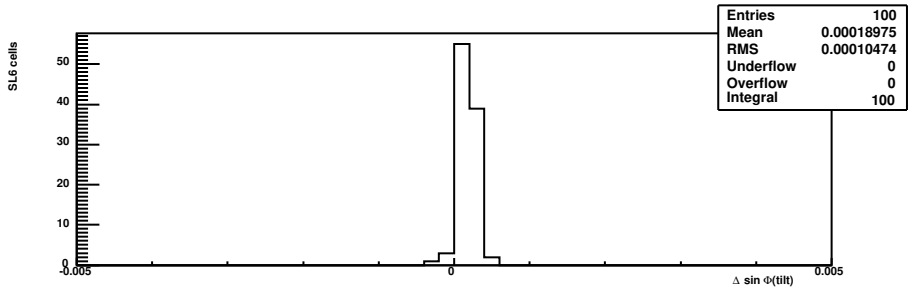

SL1 cells
Entries 69
Mean 0.00015259
RMS 0.00010035
Underflow 0
Overflow 0
Integral 69
Δ sin Φ(tilt)

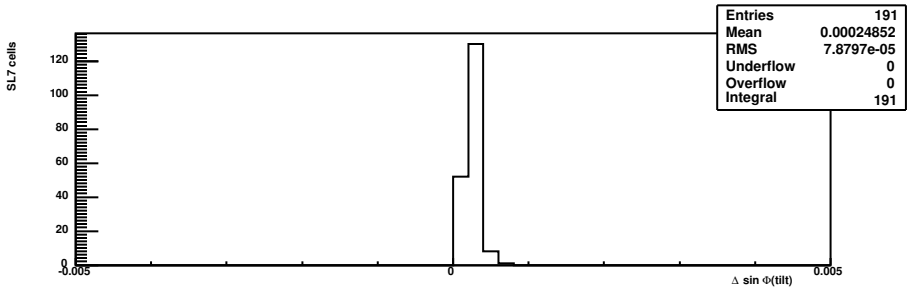

SL2 cells
Entries 40
Mean -5.1124e-05
RMS 0.00015571
Underflow 0
Overflow 0
Integral 40
Δ sin Φ(tilt)

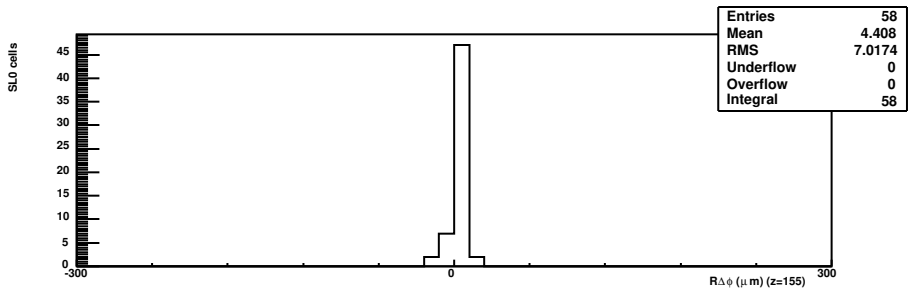

SL3 cells
Entries 26
Mean 0.00015141
RMS 0.00026598
Underflow 0
Overflow 0
Integral 26
Δ sin Φ(tilt)

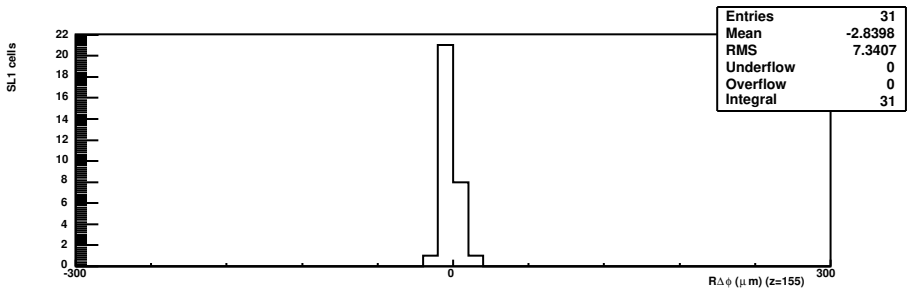

SL4 cells
Entries 46
Mean 0.00013029
RMS 0.00016421
Underflow 0
Overflow 0
Integral 46
Δ sin Φ(tilt)

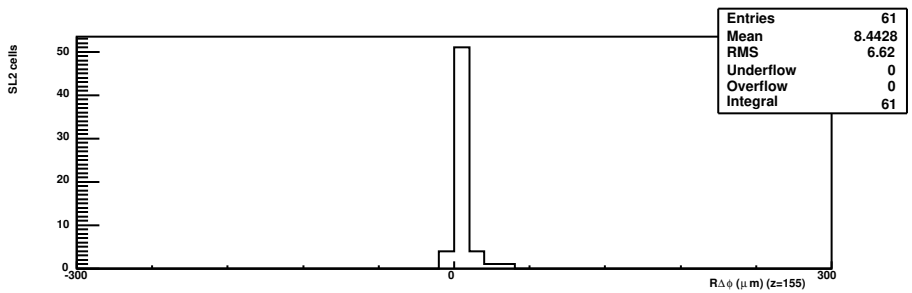

SL5 cells
Entries 85
Mean 0.00018903
RMS 8.5483e-05
Underflow 0
Overflow 0
Integral 85
Δ sin Φ(tilt)

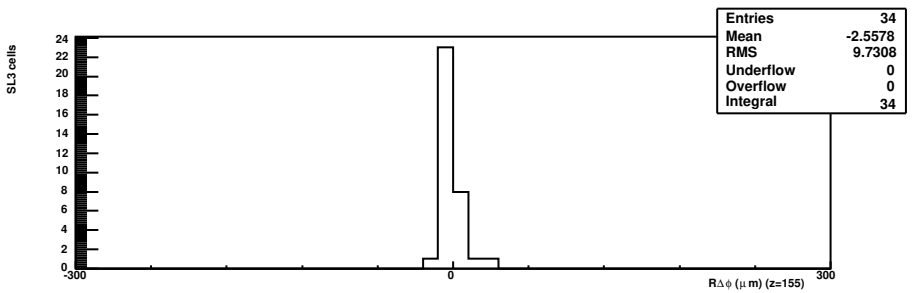

SL6 cells
Entries 100
Mean 0.00018975
RMS 0.00010474
Underflow 0
Overflow 0
Integral 100
Δ sin Φ(tilt)

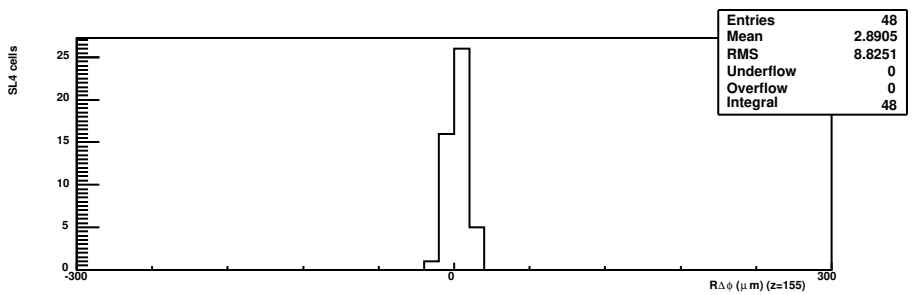

SL7 cells
Entries 191
Mean 0.00024852
RMS 7.8797e-05
Underflow 0
Overflow 0
Integral 191
Δ sin Φ(tilt)

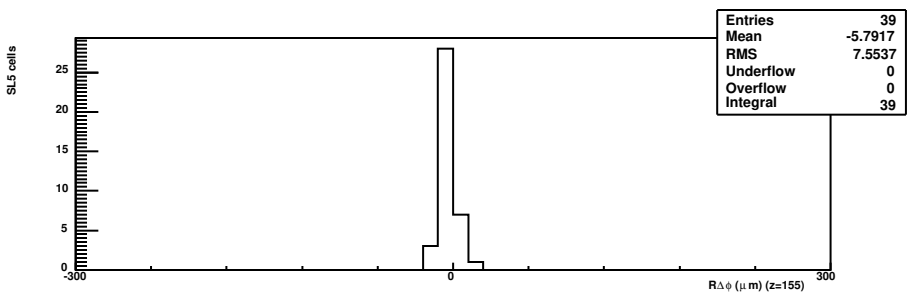

SL0 cells
Entries 58
Mean 4.408
RMS 7.0174
Underflow 0
Overflow 0
Integral 58
-300
0
300
RΔφ (μm) (z=155)

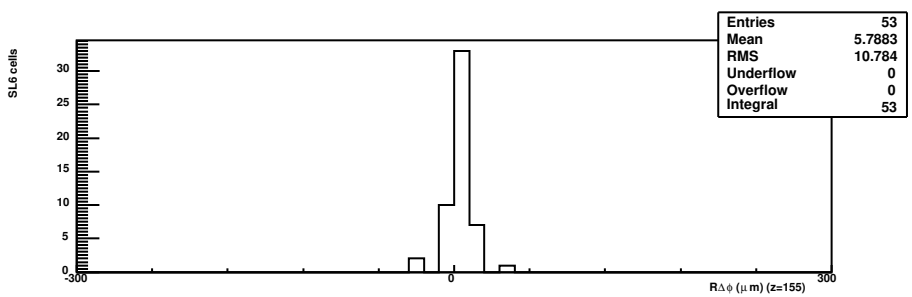

SL1 cells
Entries 31
Mean -2.8398
RMS 7.3407
Underflow 0
Overflow 0
Integral 31
-300
0
300
RΔφ (μm) (z=155)

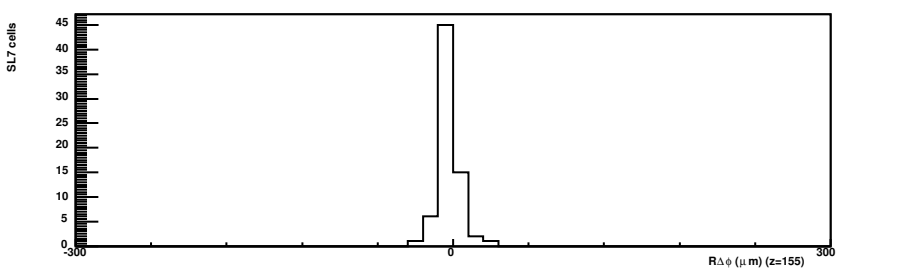

SL2 cells
Entries 61
Mean 8.4428
RMS 6.62
Underflow 0
Overflow 0
Integral 61
-300
0
300
RΔφ (μm) (z=155)

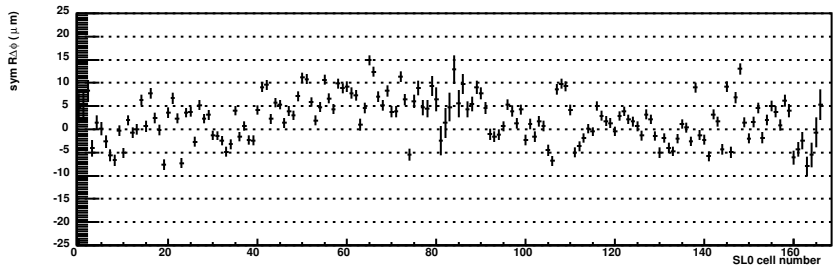

SL3 cells
Entries 34
Mean -2.5578
RMS 9.7308
Underflow 0
Overflow 0
Integral 34
-300
0
300
RΔφ (μm) (z=155)

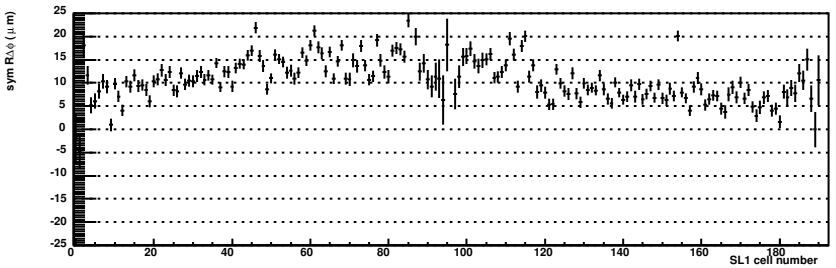

SL4 cells
Entries 48
Mean 2.8905
RMS 8.8251
Underflow 0
Overflow 0
Integral 48
-300
0
300
RΔφ (μm) (z=155)

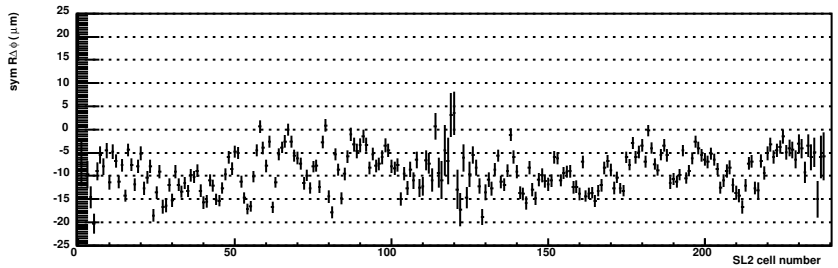

SL5 cells
Entries 39
Mean -5.7917
RMS 7.5537
Underflow 0
Overflow 0
Integral 39
-300
0
300
RΔφ (μm) (z=155)

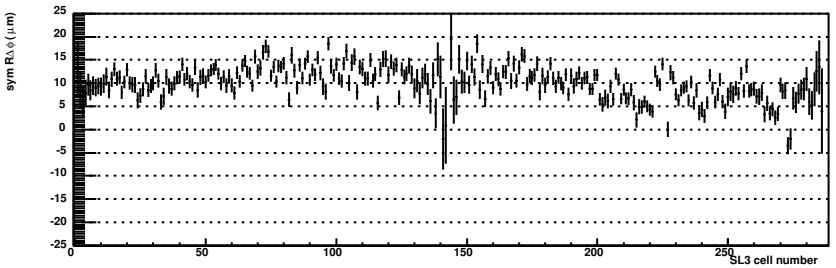

SL6 cells
Entries 53
Mean 5.7883
RMS 10.784
Underflow 0
Overflow 0
Integral 53
-300
0
300
RΔφ (μm) (z=155)

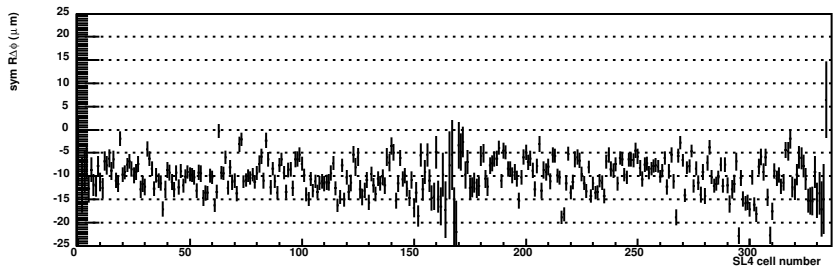

SL7 cells
-300
0
300
RΔφ (μm) (z=155)

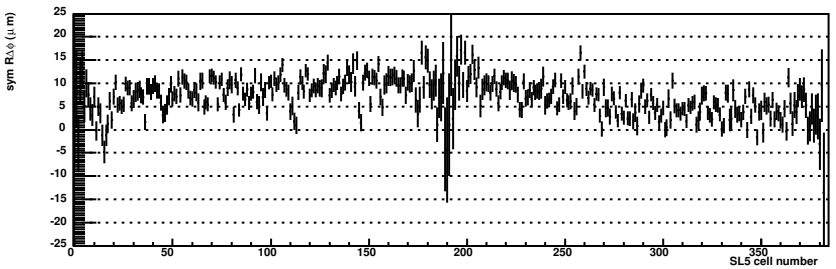

sym RΔφ (μm)
SL0 cell number

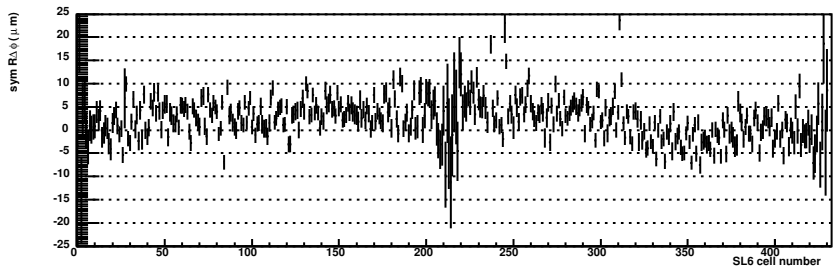

sym RΔφ (μm)
SL1 cell number

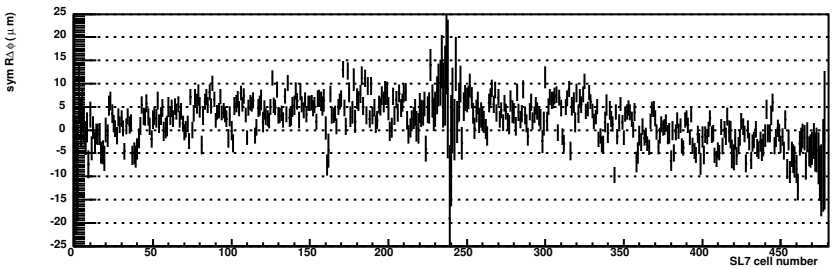

sym RΔφ (μm)
SL2 cell number

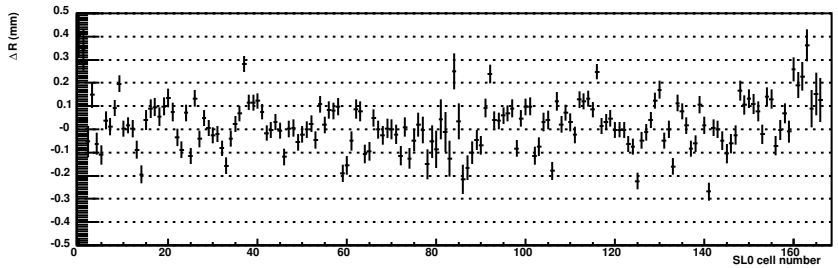

sym RΔφ (μm)
SL3 cell number

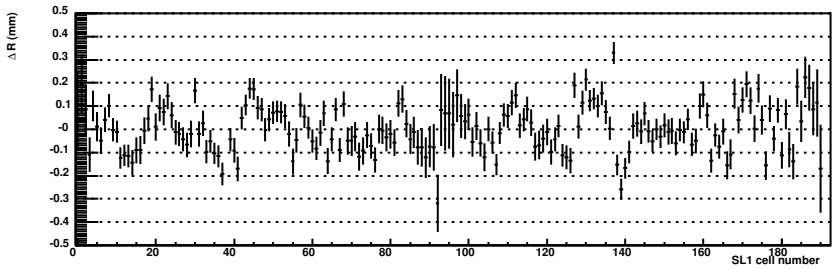

sym RΔφ (μm)
SL4 cell number

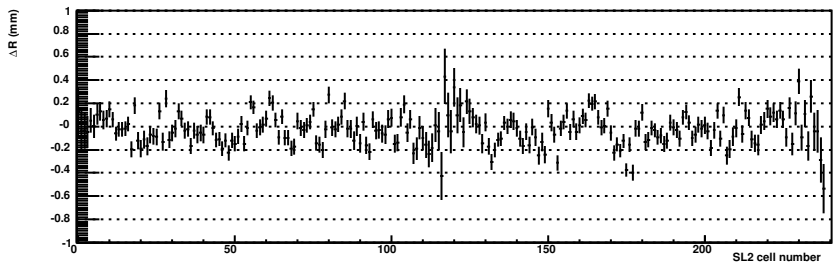

sym RΔφ (μm)
SL5 cell number

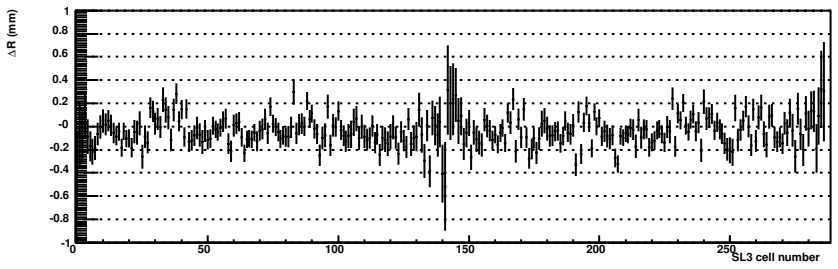

sym RΔφ (μm)
SL6 cell number

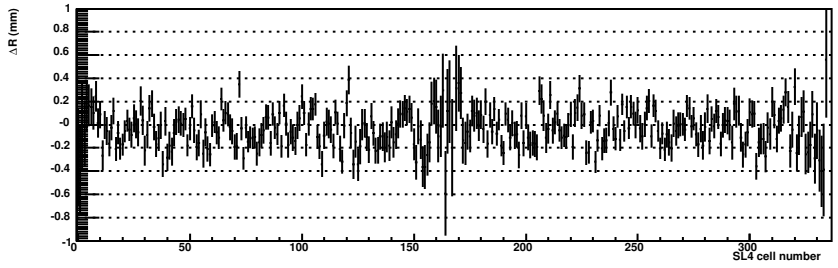

sym RΔφ (μm)
SL7 cell number

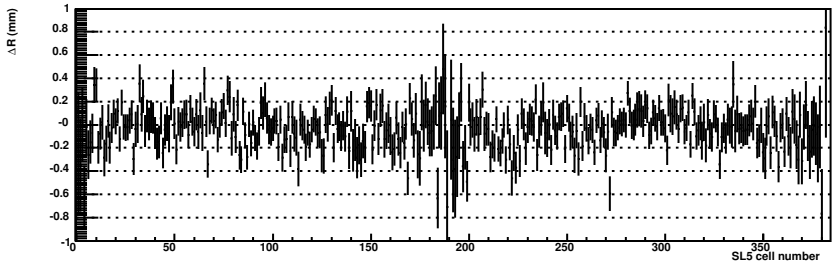

ΔR (mm)
SL0 cell number

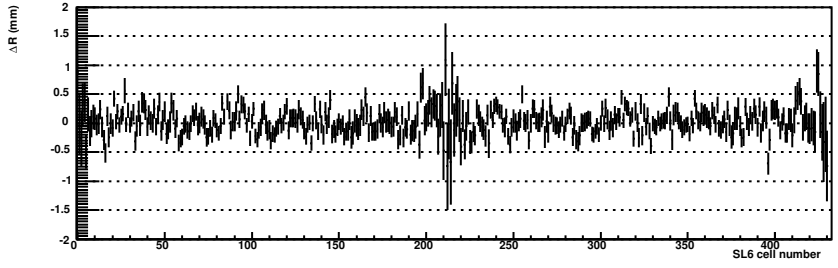

ΔR (mm)
SL1 cell number

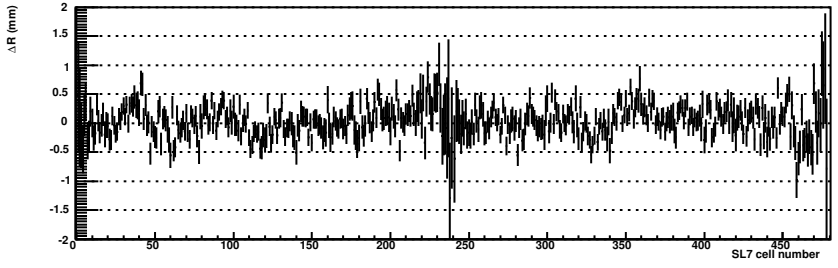

ΔR (mm)
SL2 cell number

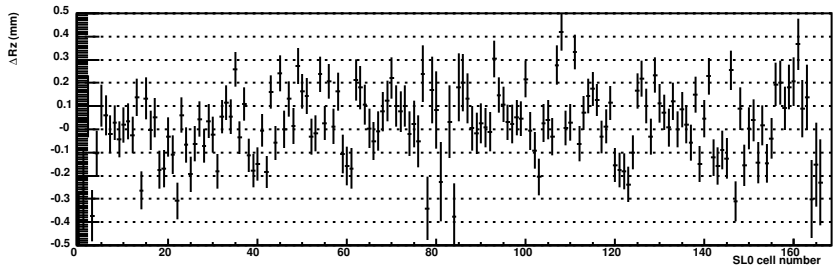

ΔR (mm)
SL3 cell number

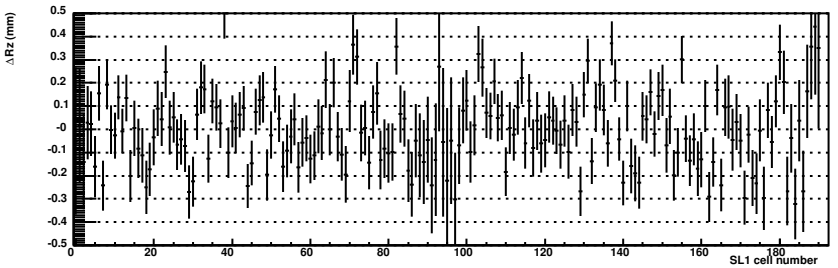

ΔR (mm)
SL4 cell number

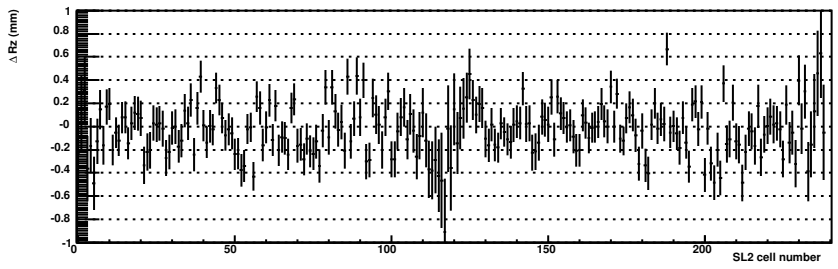

ΔR (mm)
SL5 cell number

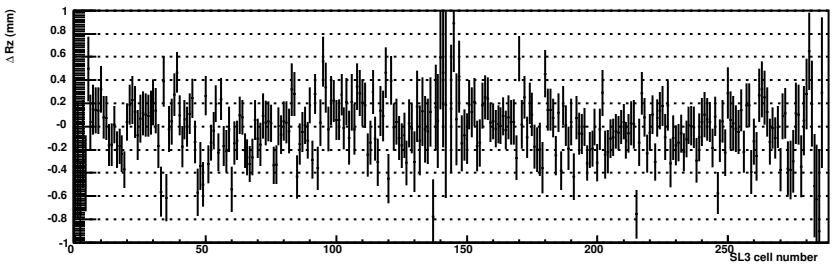

ΔR (mm)
SL6 cell number

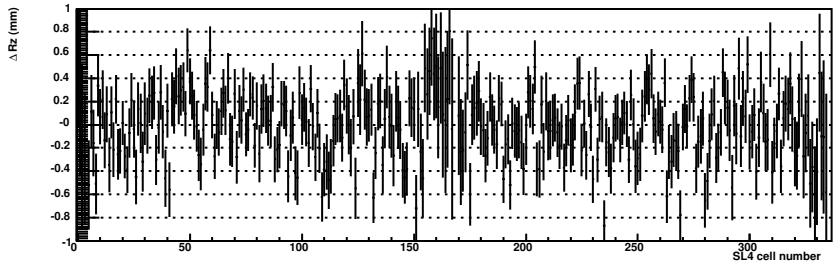

ΔR (mm)
SL7 cell number

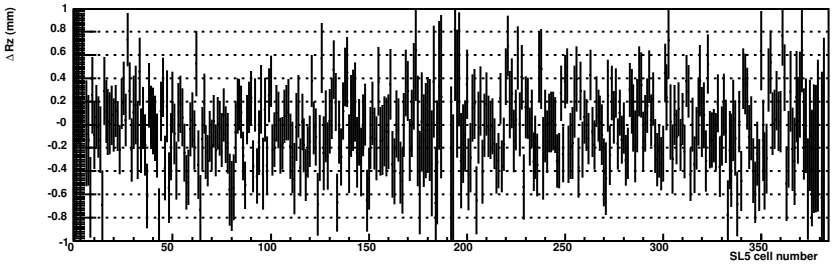

ΔRz (mm)
SL0 cell number

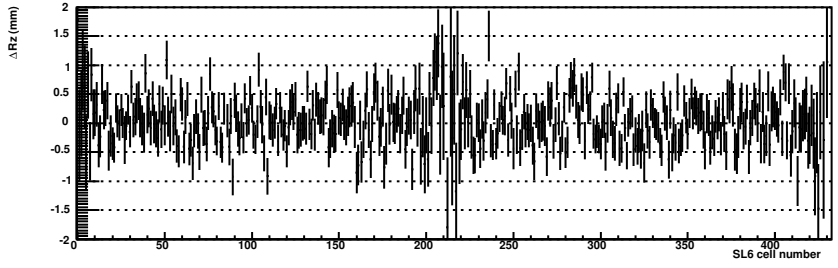

ΔRz (mm)
SL1 cell number

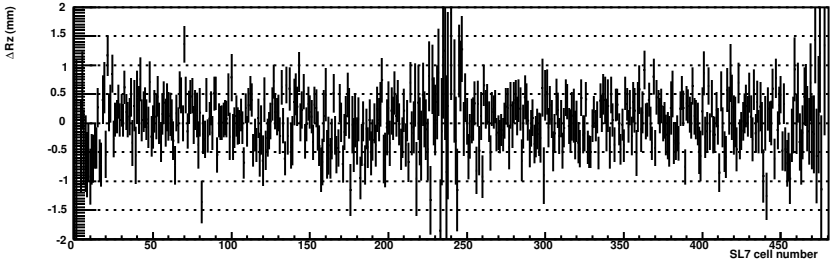

ΔRz (mm)
SL2 cell number

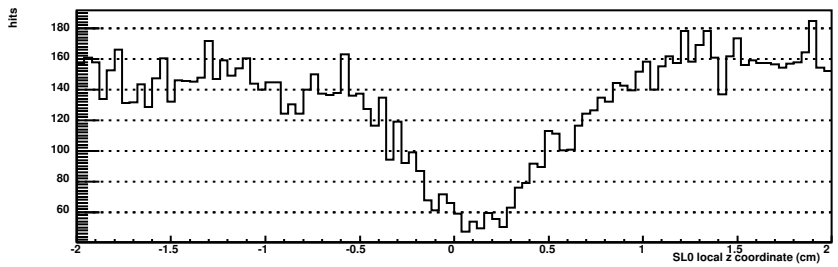

ΔRz (mm)
SL3 cell number

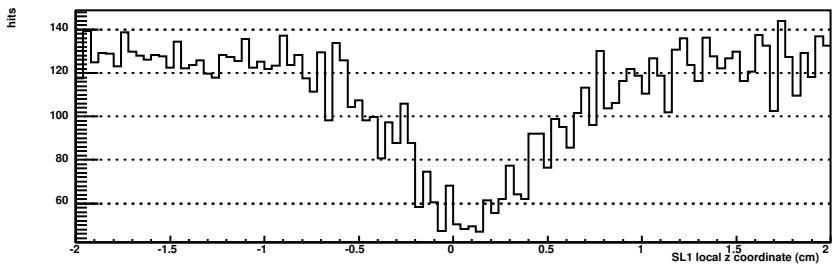

ΔRz (mm)
SL4 cell number

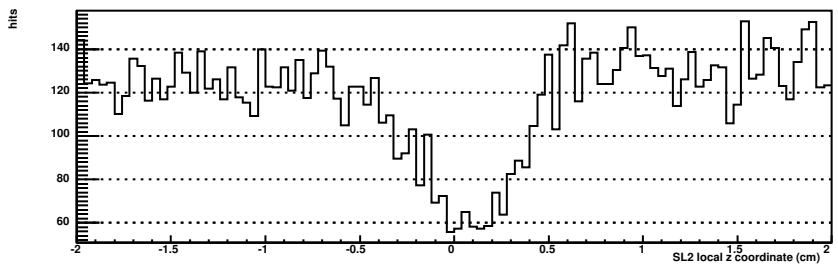

ΔRz (mm)
SL5 cell number

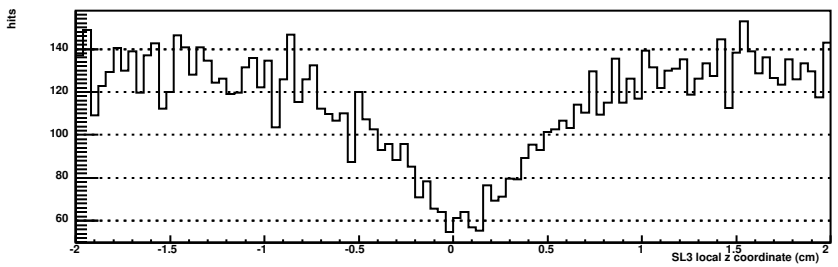

ΔRz (mm)
SL6 cell number

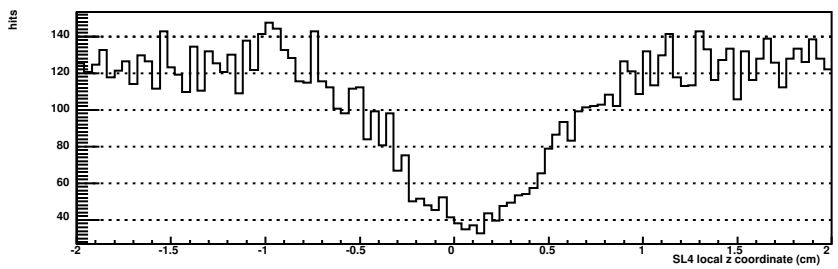

ΔRz (mm)
SL7 cell number

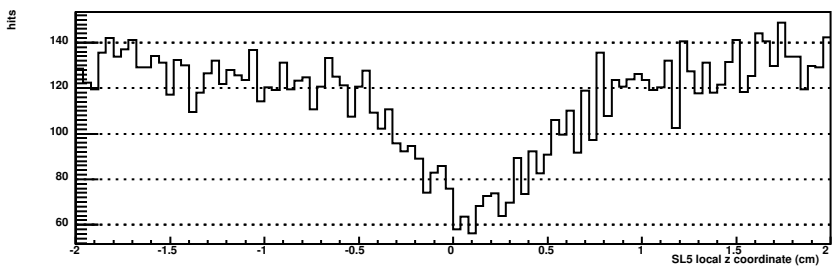

hits
SL0 local z coordinate (cm)

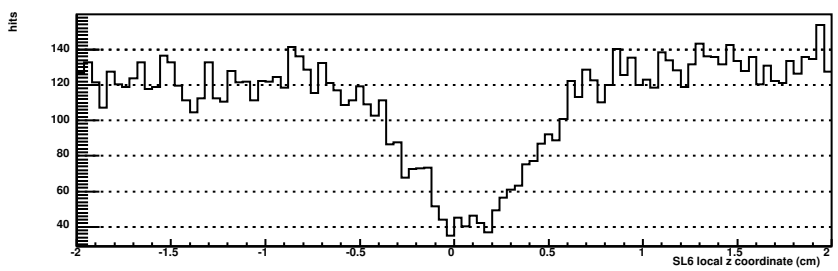

hits
SL1 local z coordinate (cm)

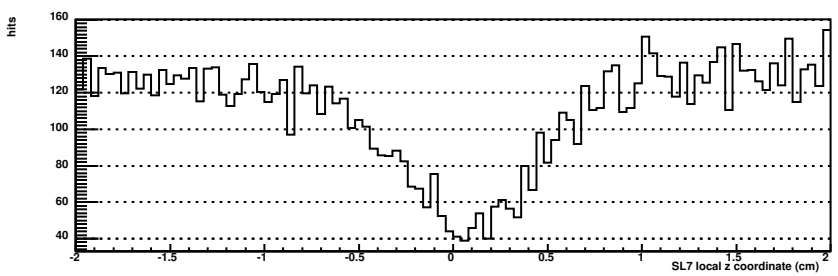

hits
SL2 local z coordinate (cm)

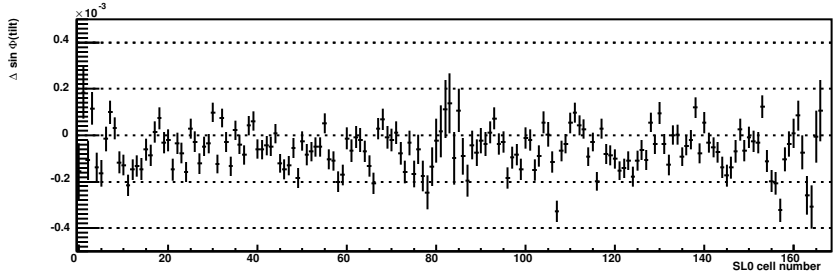

hits
SL3 local z coordinate (cm)

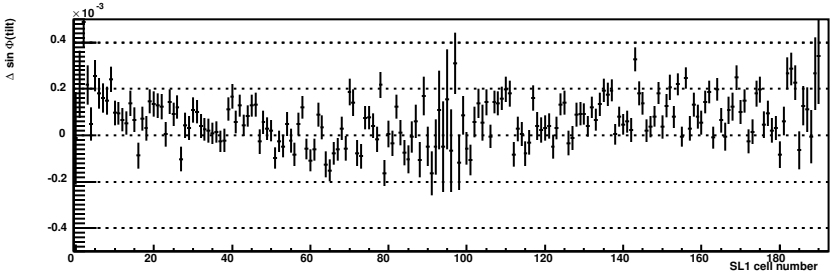

hits
SL4 local z coordinate (cm)

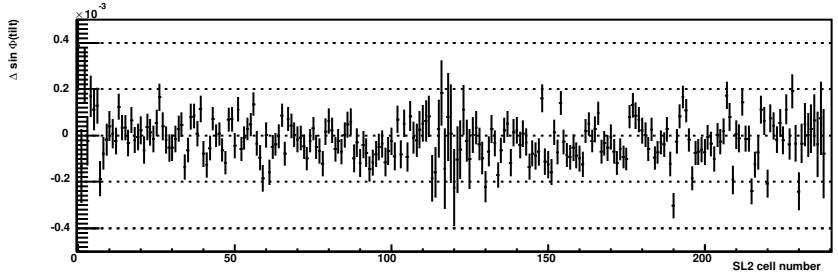

hits
SL5 local z coordinate (cm)

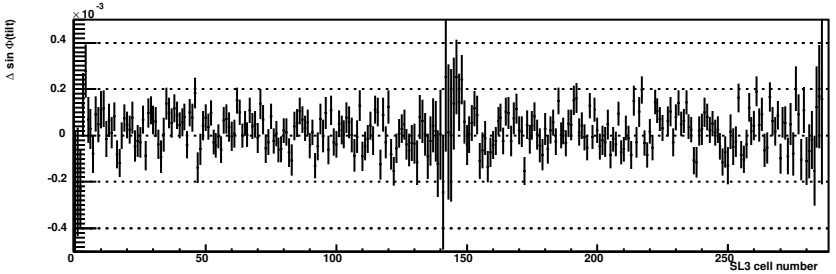

hits
SL6 local z coordinate (cm)

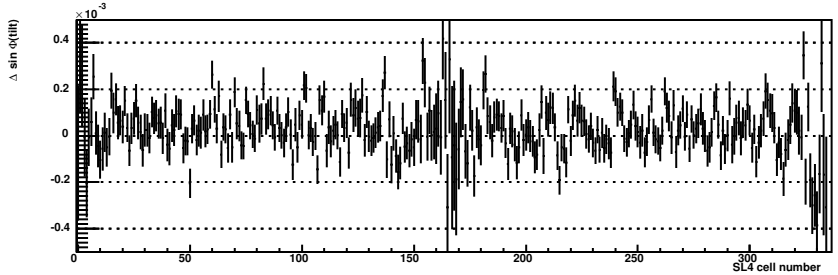

hits
SL7 local z coordinate (cm)

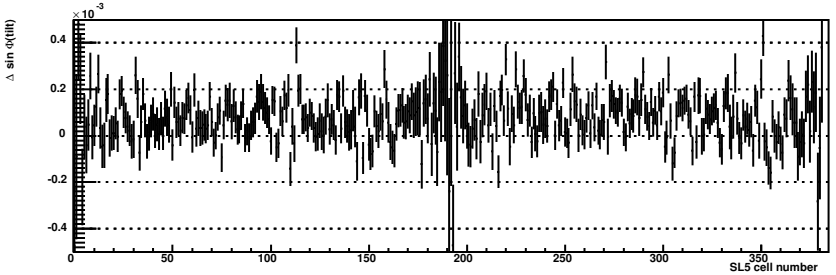

×10⁻³
Δ sin Φ(tilt)
SL0 cell number

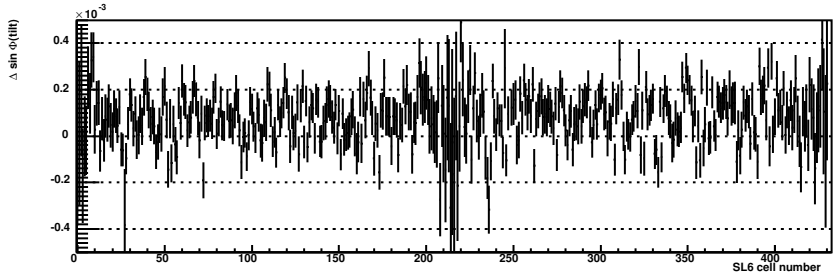

×10⁻³
Δ sin Φ(tilt)
SL1 cell number

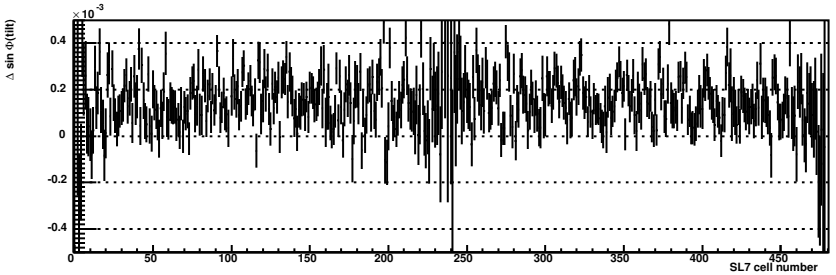

×10⁻³
Δ sin Φ(tilt)
SL2 cell number

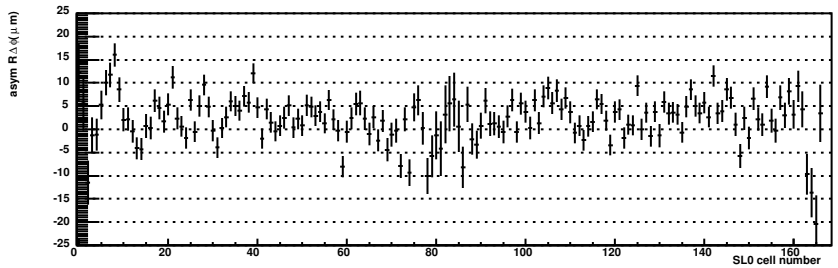

×10⁻³
Δ sin Φ(tilt)
SL3 cell number

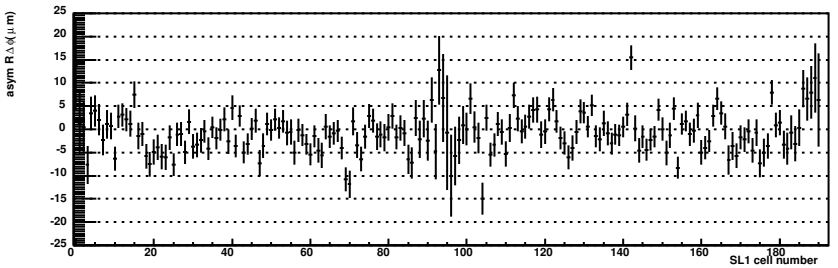

×10⁻³
Δ sin Φ(tilt)
SL4 cell number

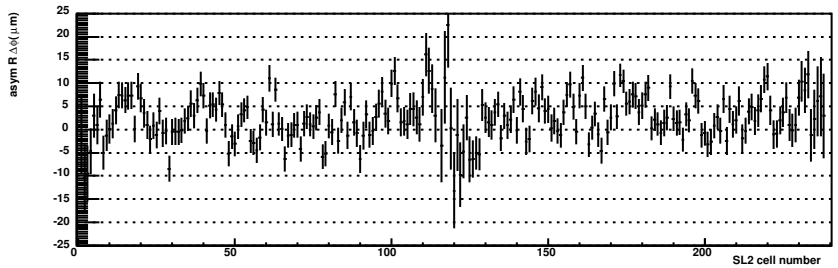

×10⁻³
Δ sin Φ(tilt)
SL5 cell number

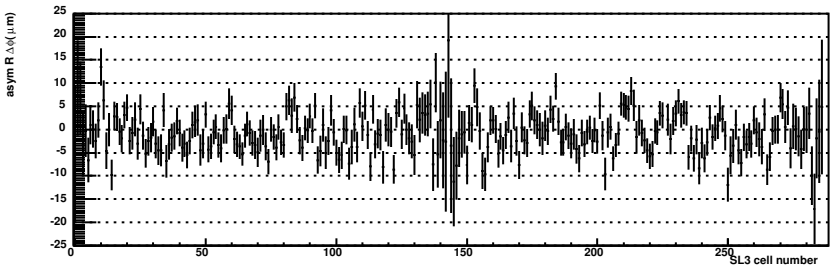

×10⁻³
Δ sin Φ(tilt)
SL6 cell number

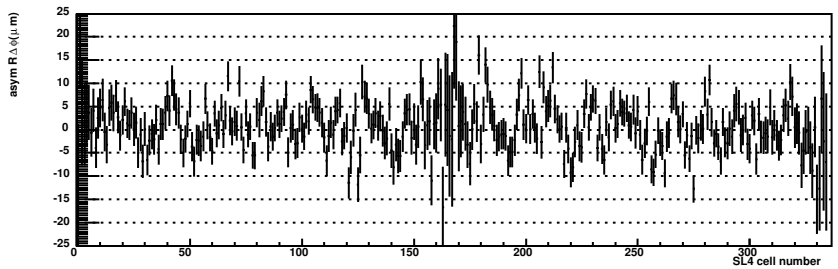

×10⁻³
Δ sin Φ(tilt)
SL7 cell number

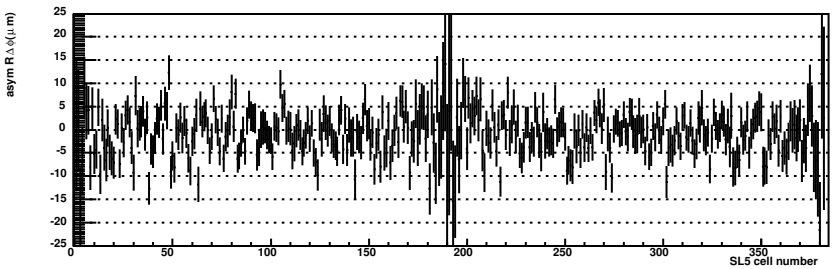

asym R Δφ(μm)
SL0 cell number

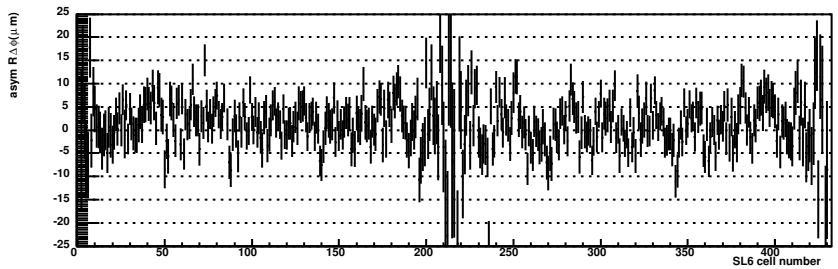

asym R Δφ(μm)
SL1 cell number

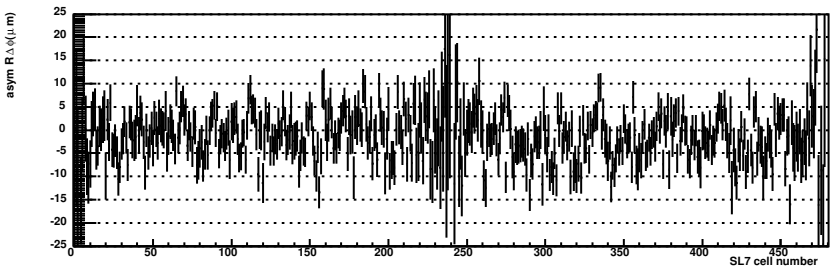

asym R Δφ(μm)
SL2 cell number

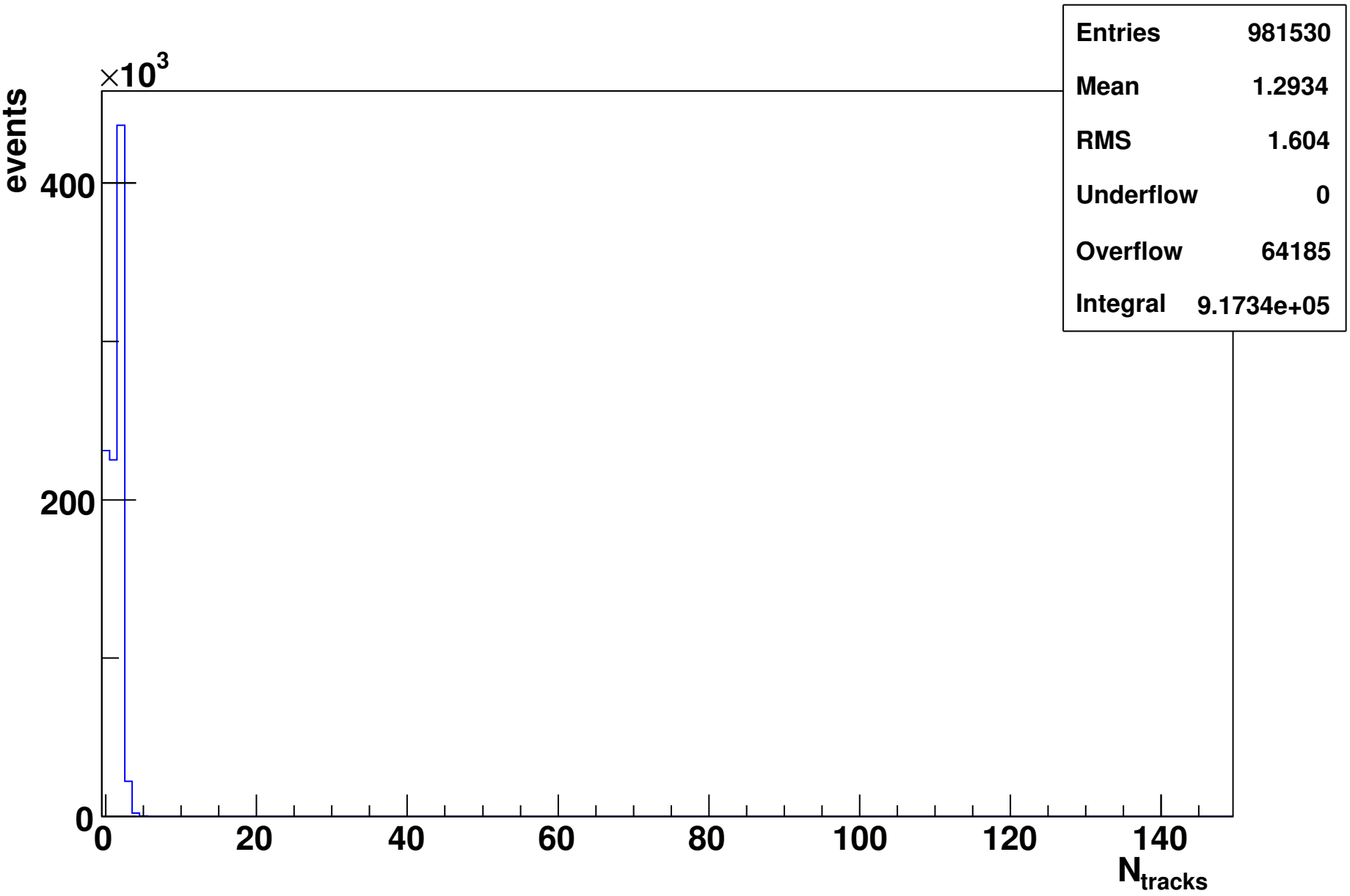

asym R Δφ(μm)
SL3 cell number

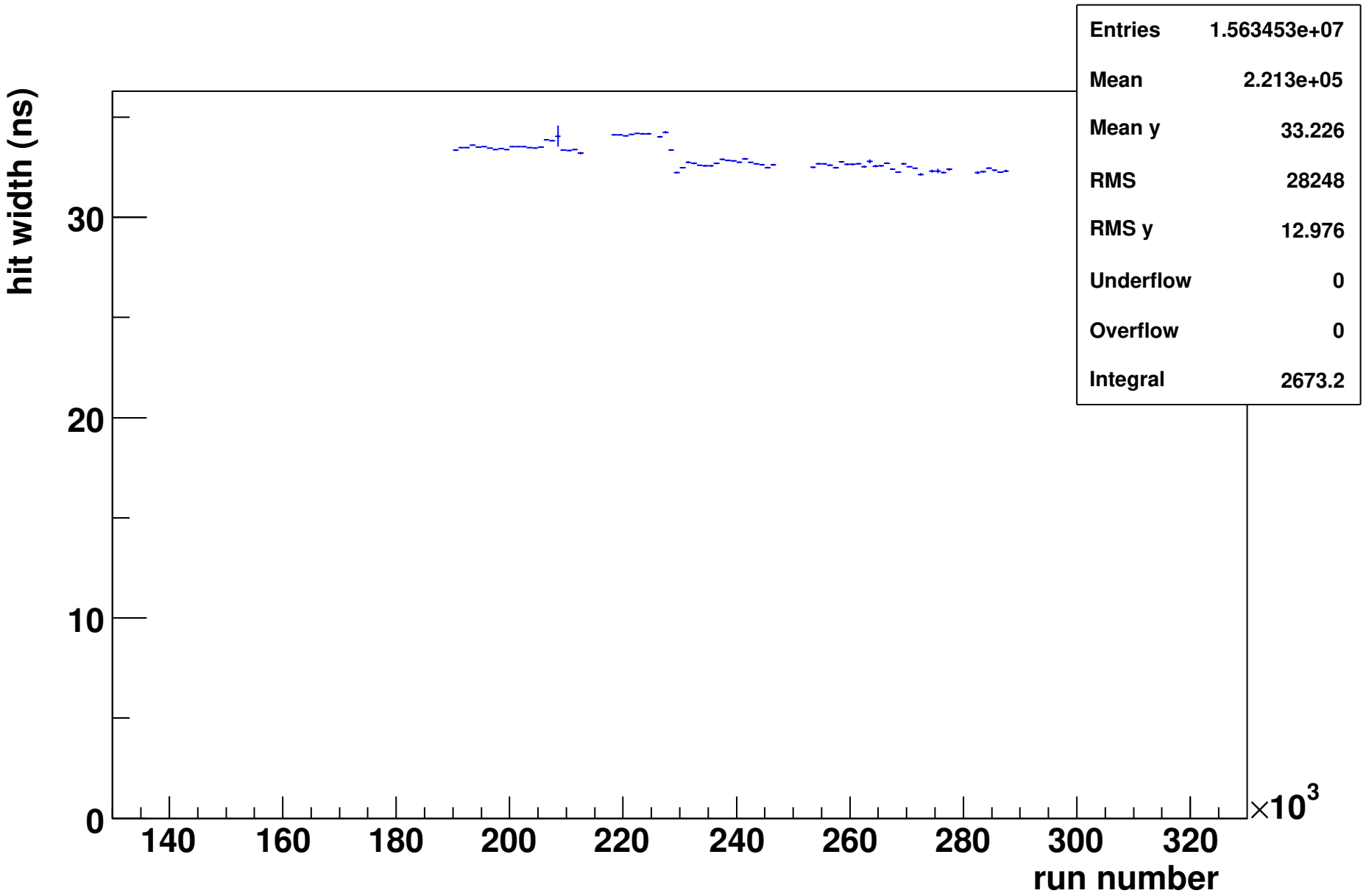

asym R Δφ(μm)
SL4 cell number

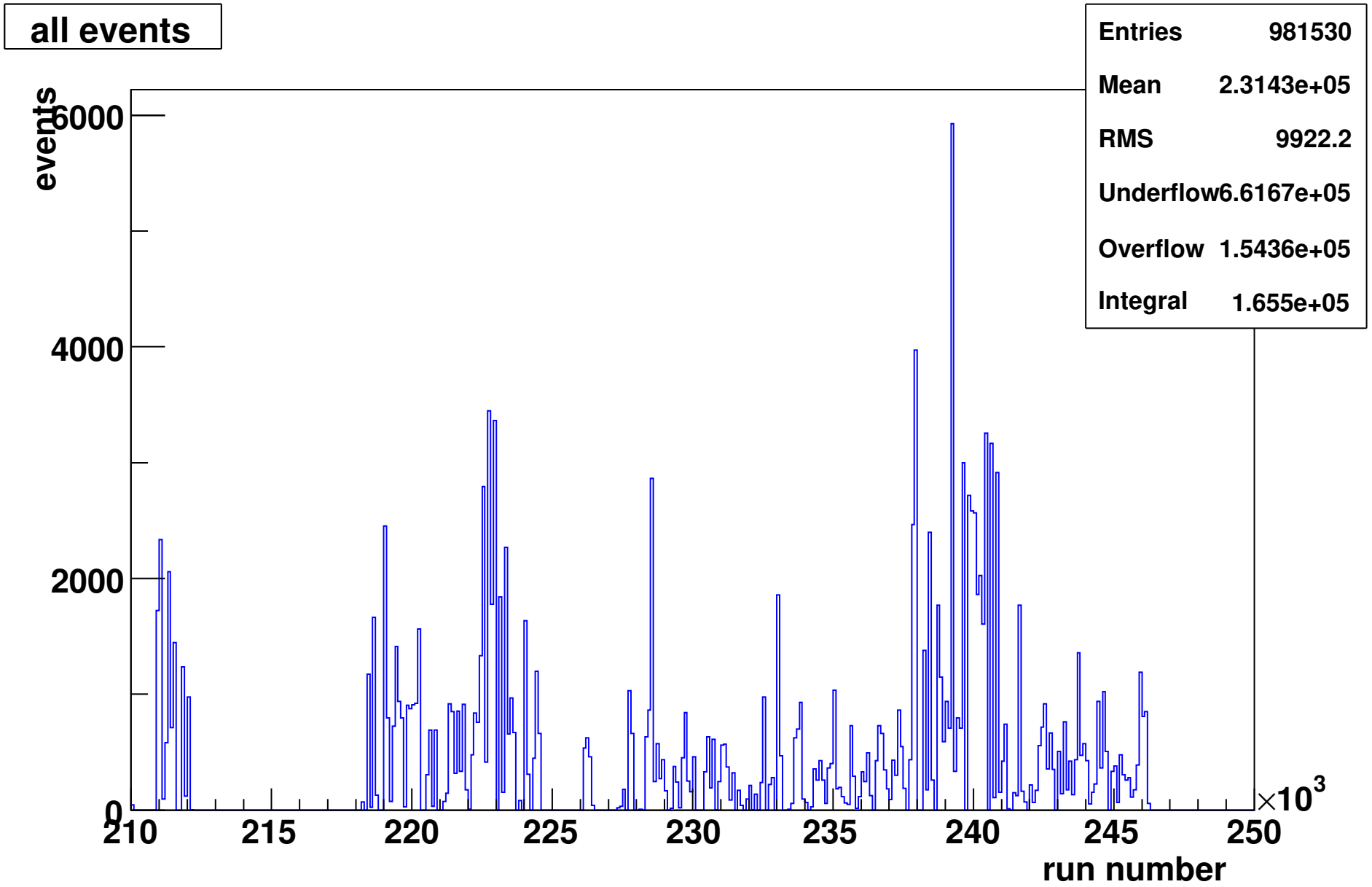

asym R Δφ(μm)
SL5 cell number

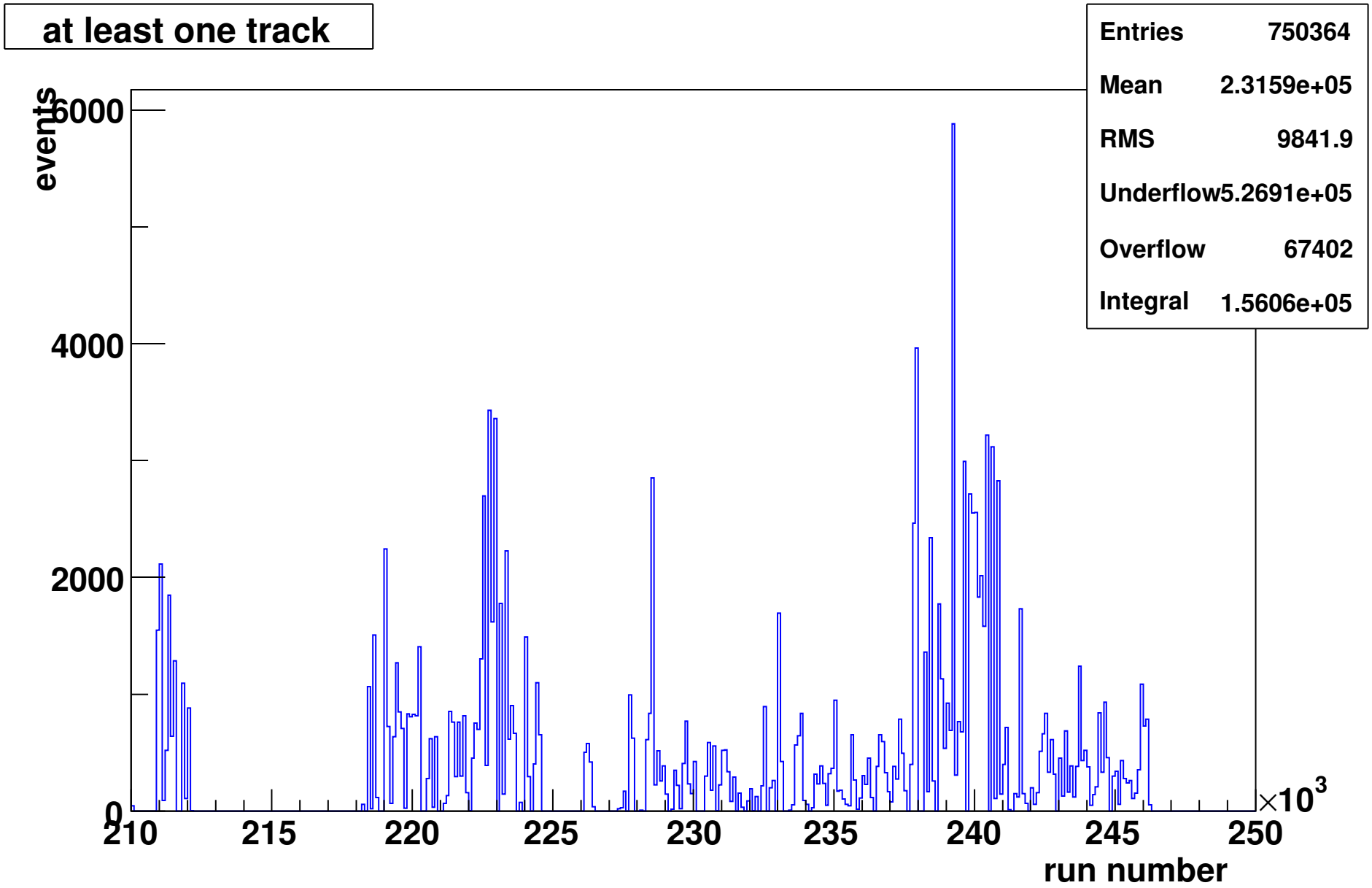

asym R Δφ(μm)
SL6 cell number

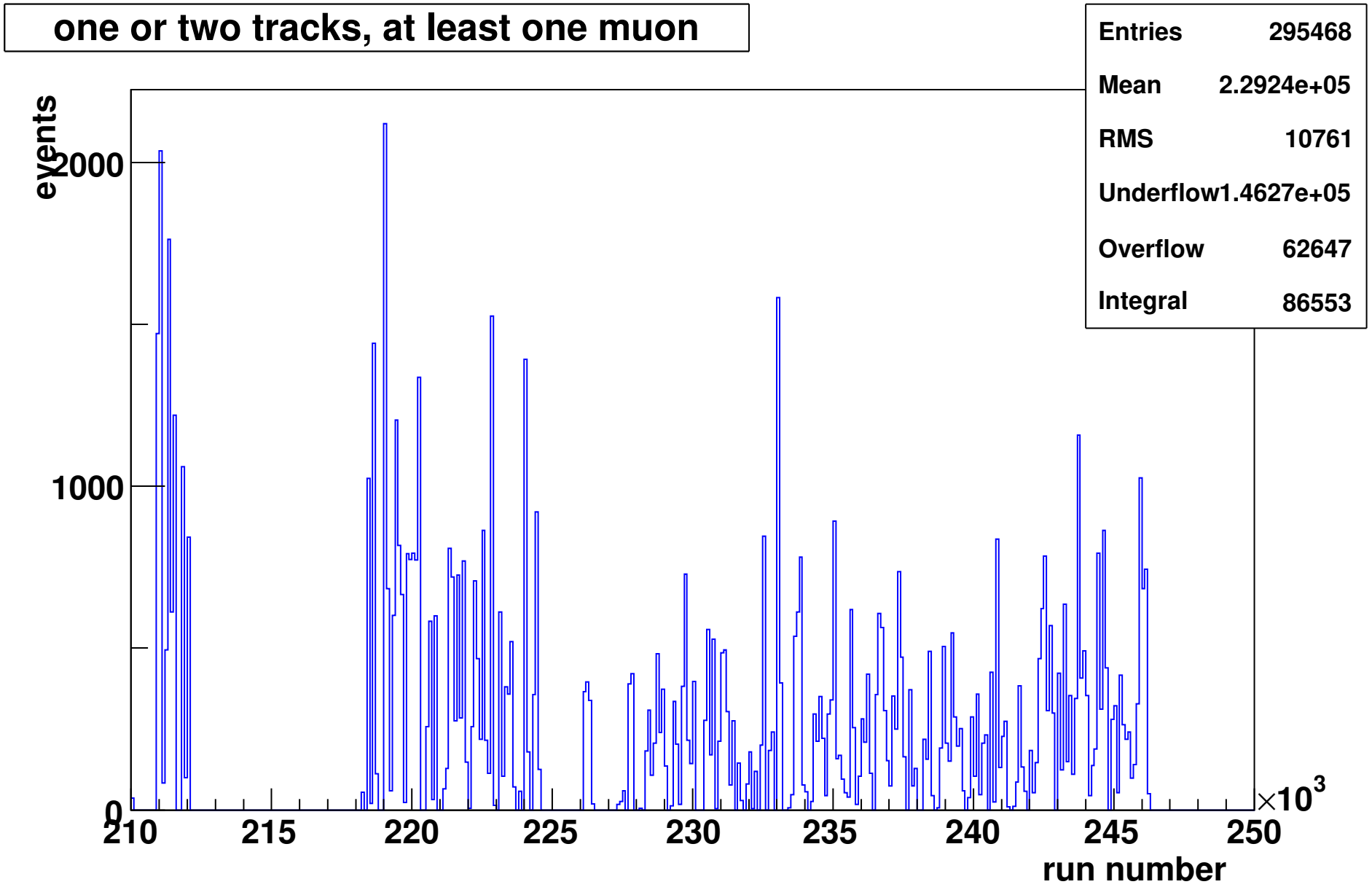

asym R Δφ(μm)
SL7 cell number

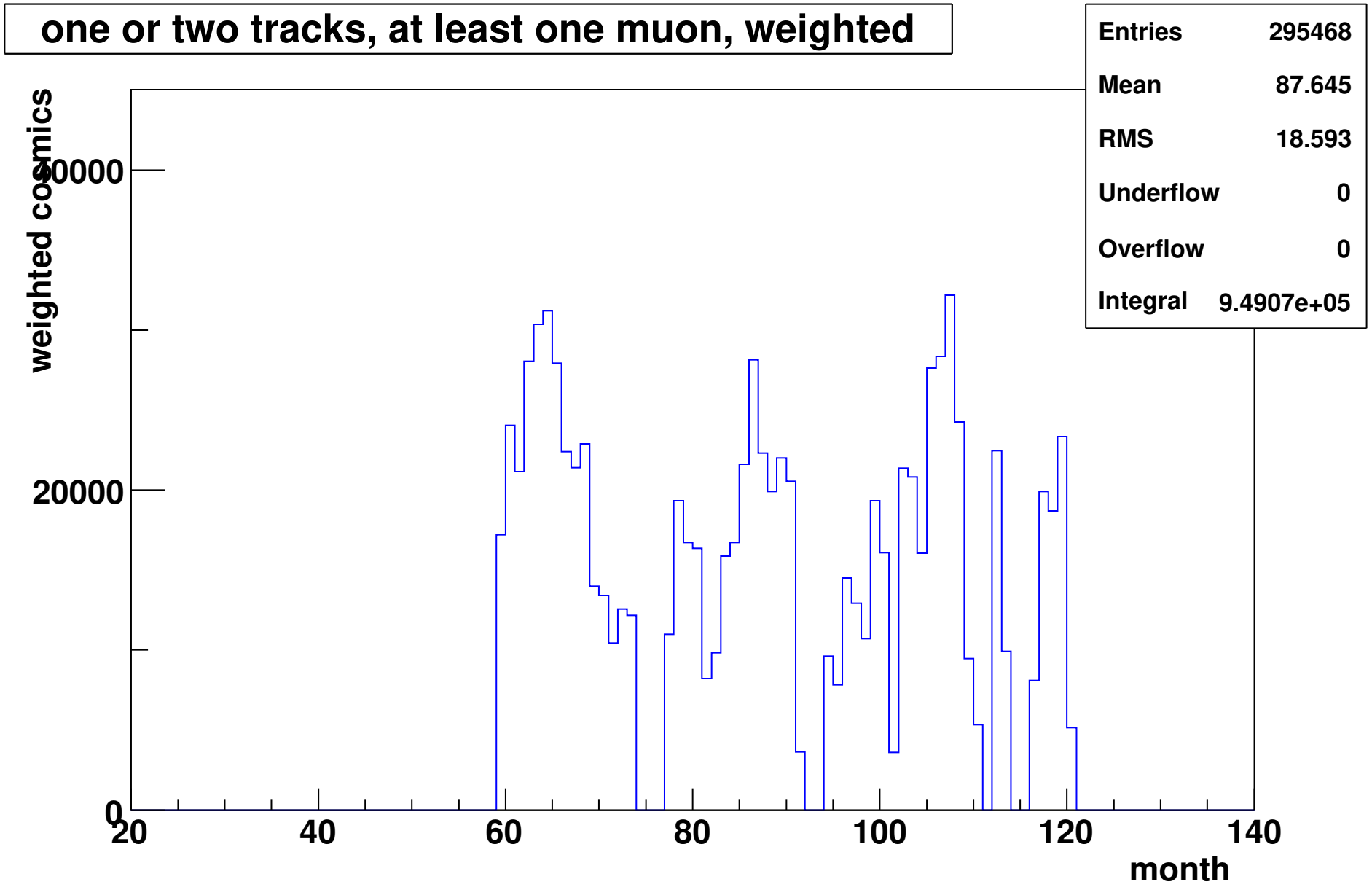

Entries 981530
Mean 1.2934
RMS 1.604
Underflow 0
Overflow 64185
Integral 9.1734e+05
events
×10^3
400
200
0
0
20
40
60
80
100
120
140
N_tracks

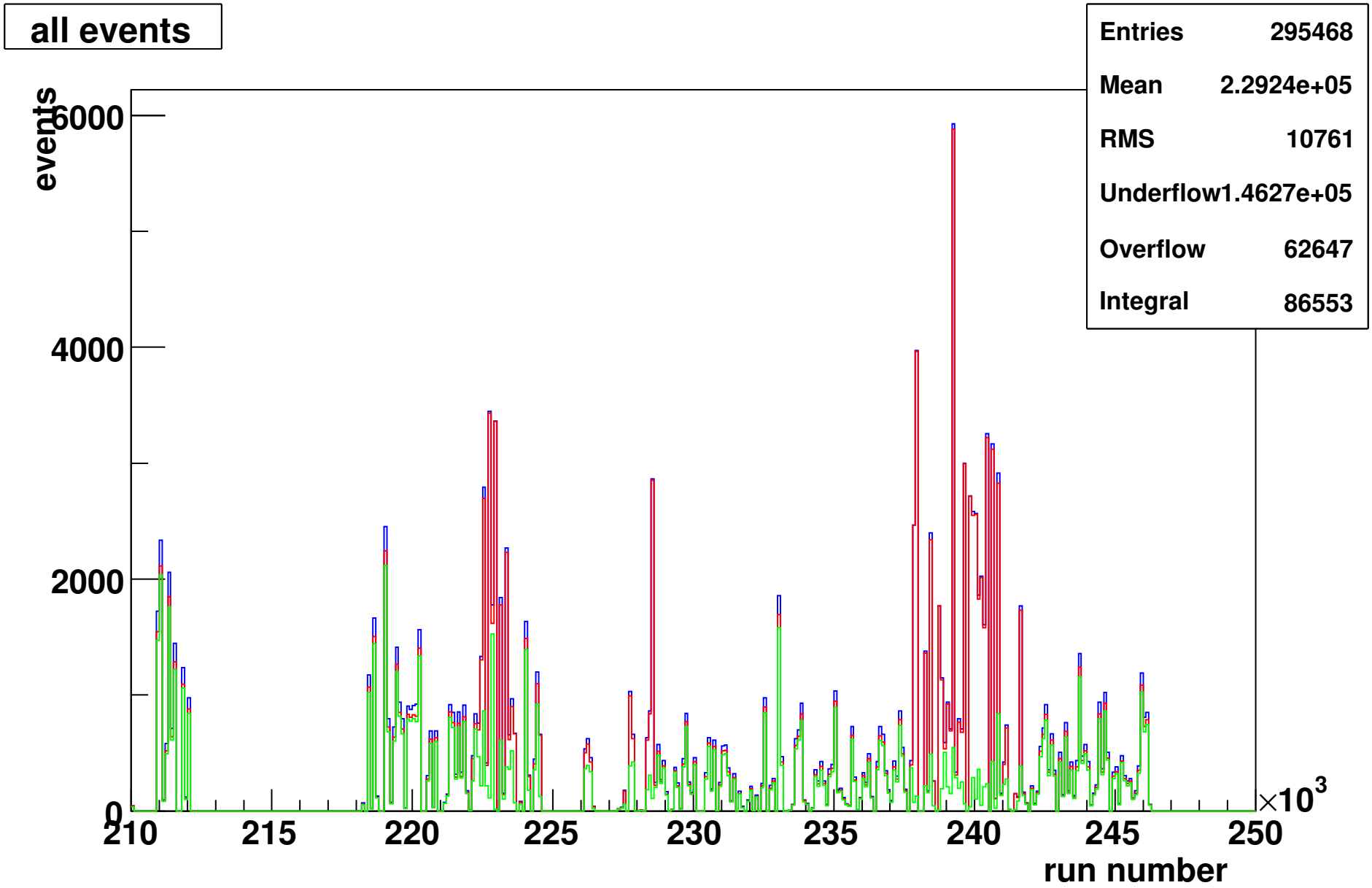

hit width (ns)
30
20
10
0
140
160
180
200
220
240
260
280
300
320
×10^3
run number
Entries 1.563453e+07
Mean 2.213e+05
Mean y 33.226
RMS 28248
RMS y 12.976
Underflow 0
Overflow 0
Integral 2673.2

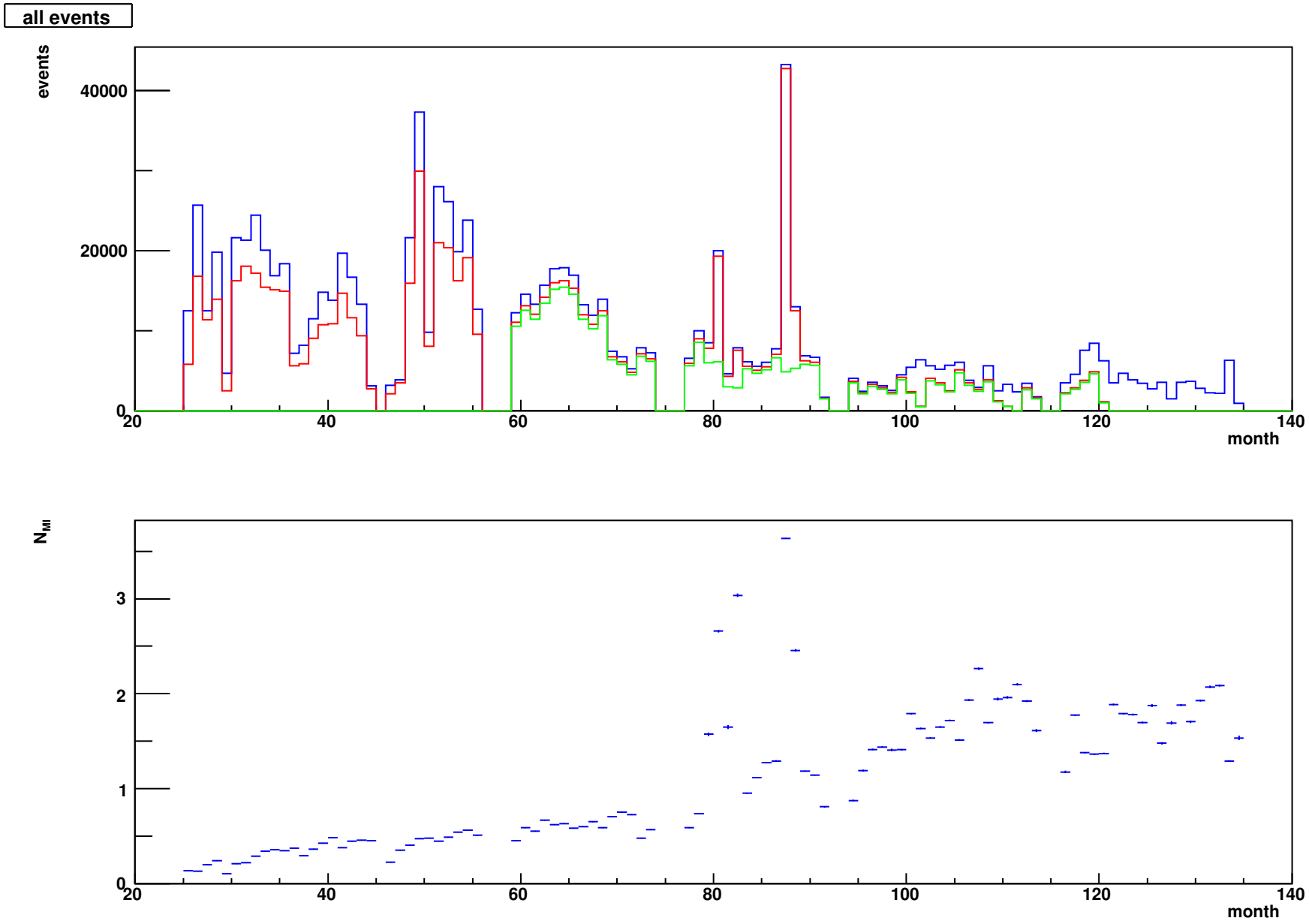

all events
Entries 981530
Mean 2.3143e+05
RMS 9922.2
Underflow 6.6167e+05
Overflow 1.5436e+05
Integral 1.655e+05
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

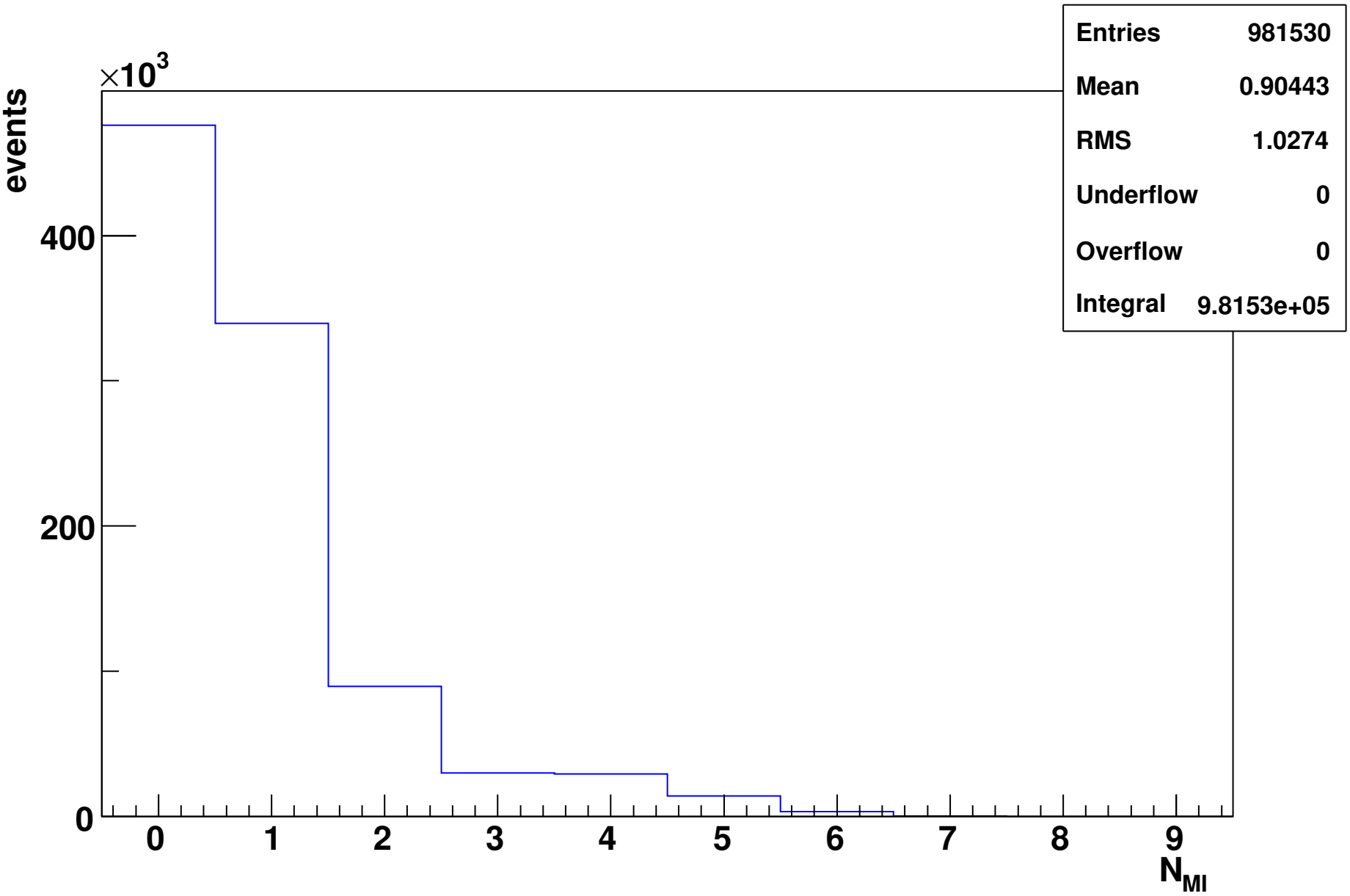

at least one track
Entries 750364
Mean 2.3159e+05
RMS 9841.9
Underflow 5.2691e+05
Overflow 67402
Integral 1.5606e+05
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

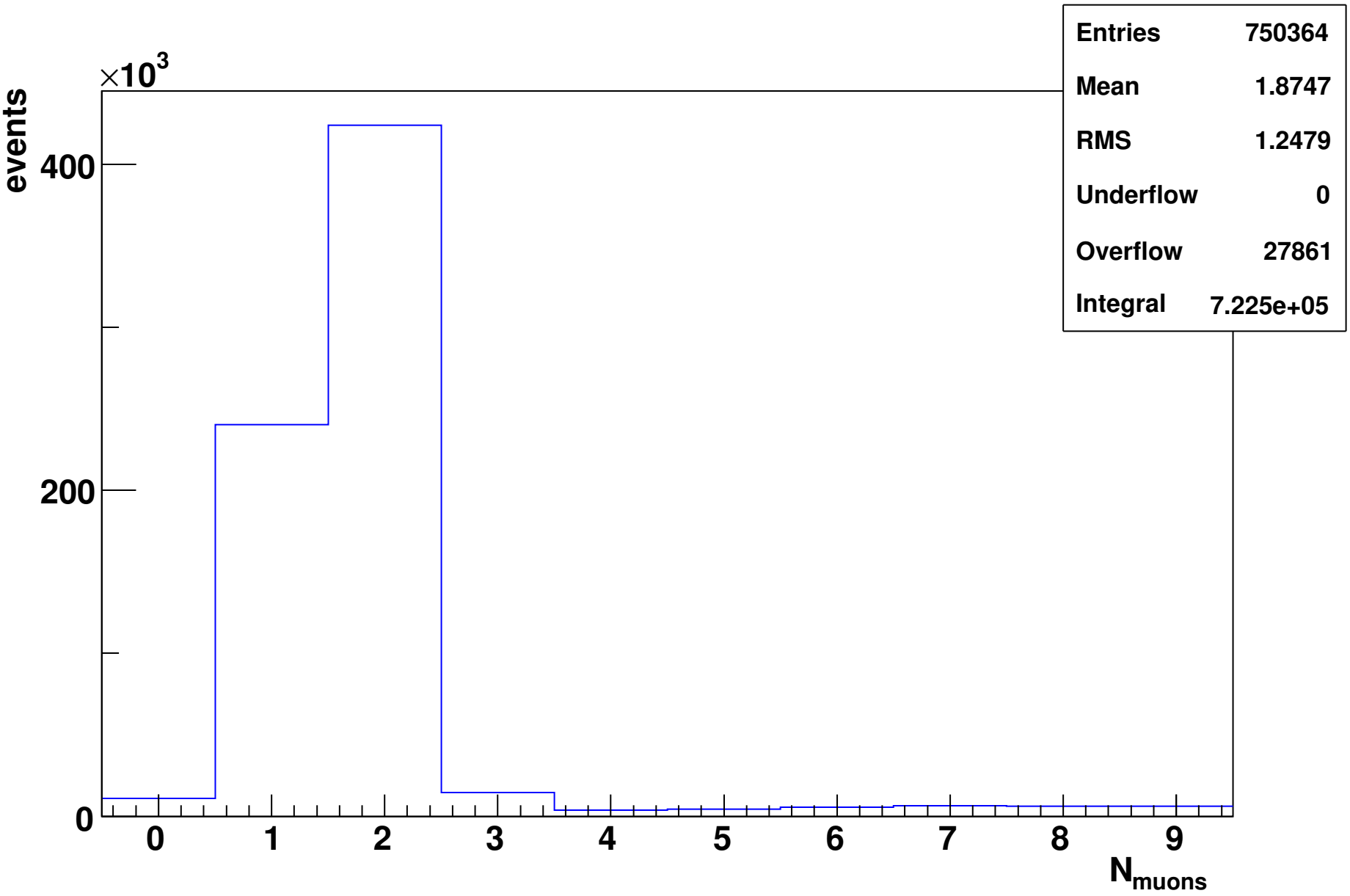

one or two tracks, at least one muon
Entries 295468
Mean 2.2924e+05
RMS 10761
Underflow 1.4627e+05
Overflow 62647
Integral 86553
events
2000
1000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

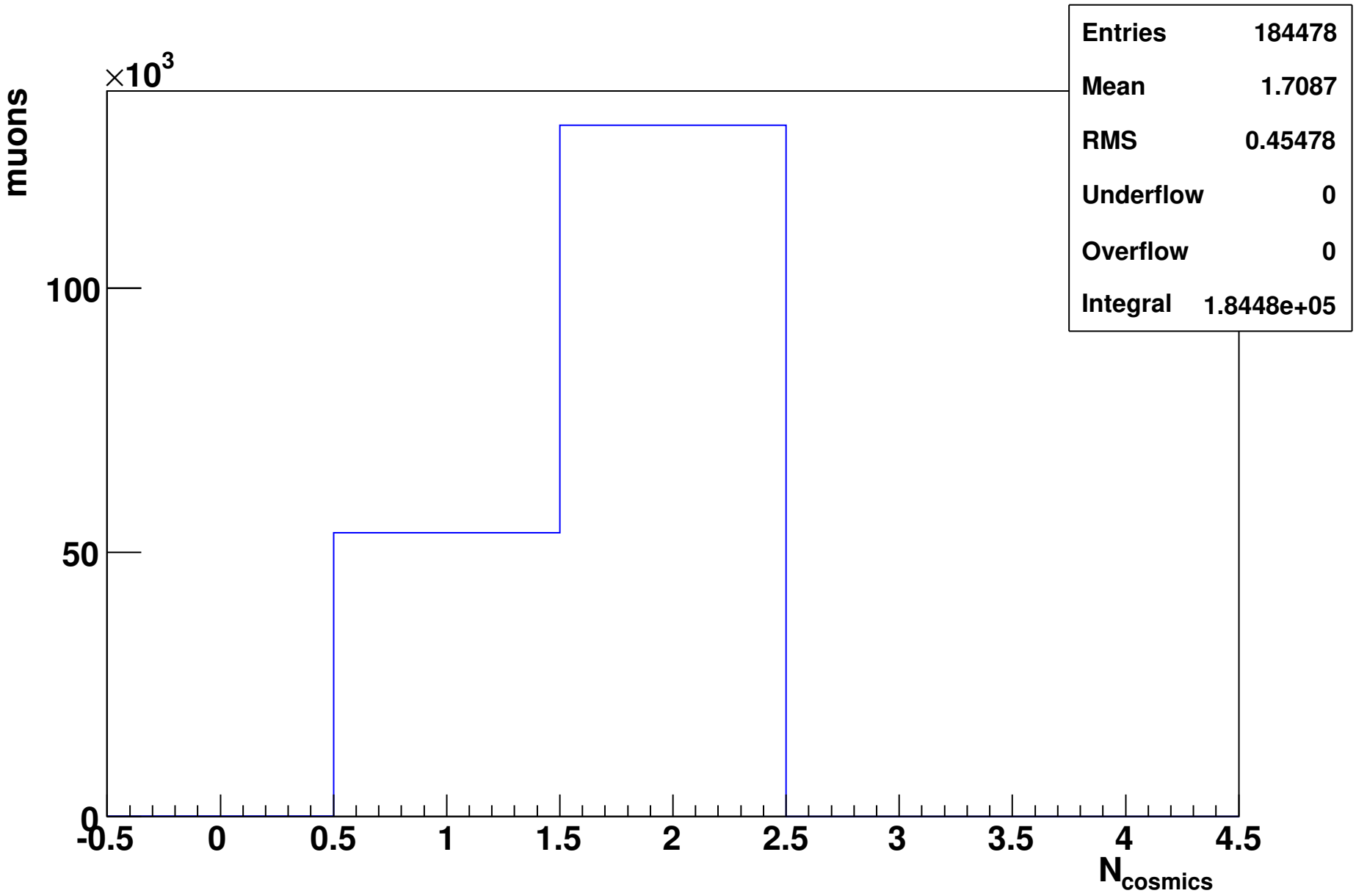

one or two tracks, at least one muon, weighted
Entries 295468
Mean 87.645
RMS 18.593
Underflow 0
Overflow 0
Integral 9.4907e+05
weighted cosmics
40000
20000
0
20
40
60
80
100
120
140
month

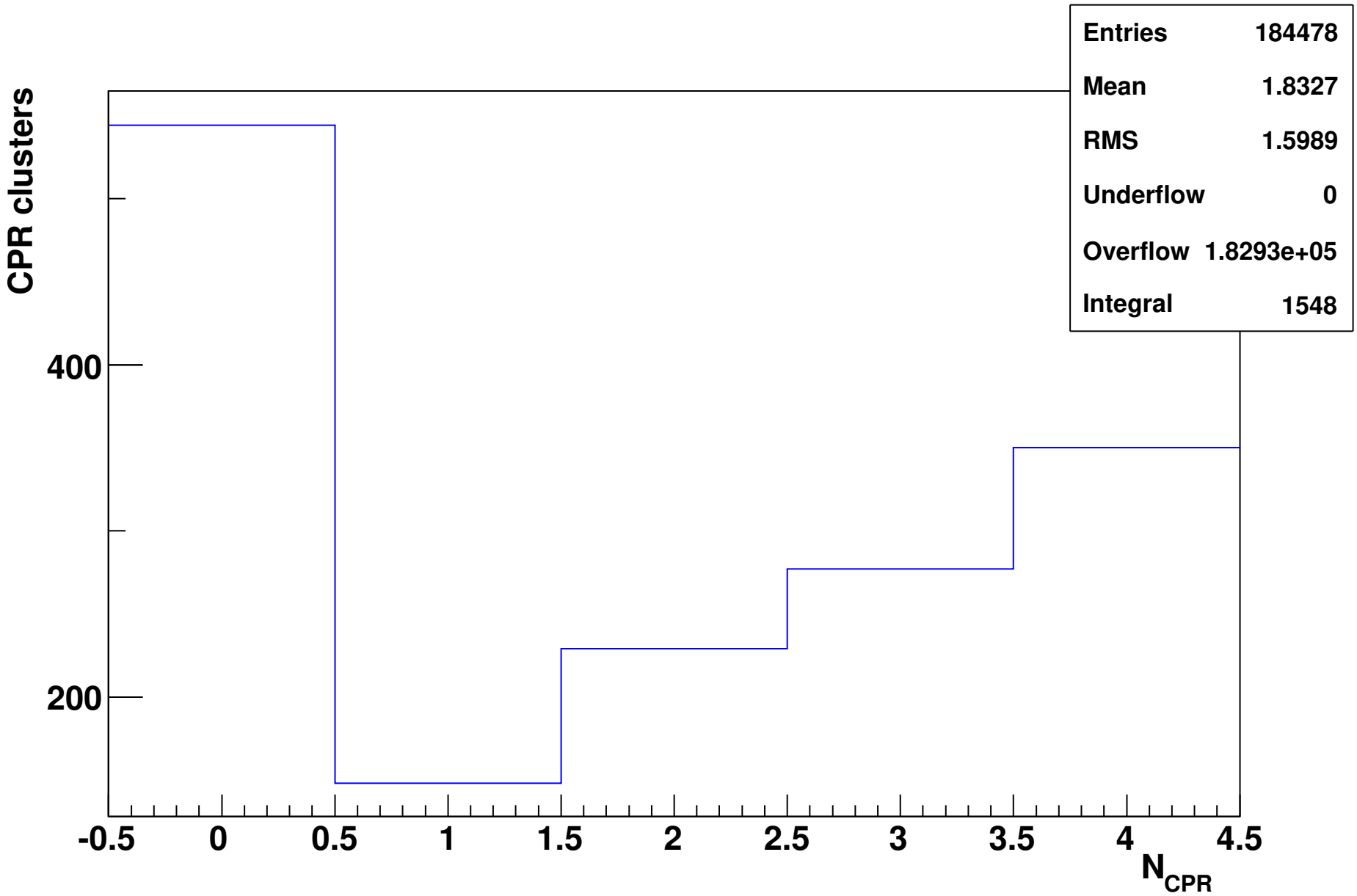

all events
Entries 295468
Mean 2.2924e+05
RMS 10761
Underflow 1.4627e+05
Overflow 62647
Integral 86553
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

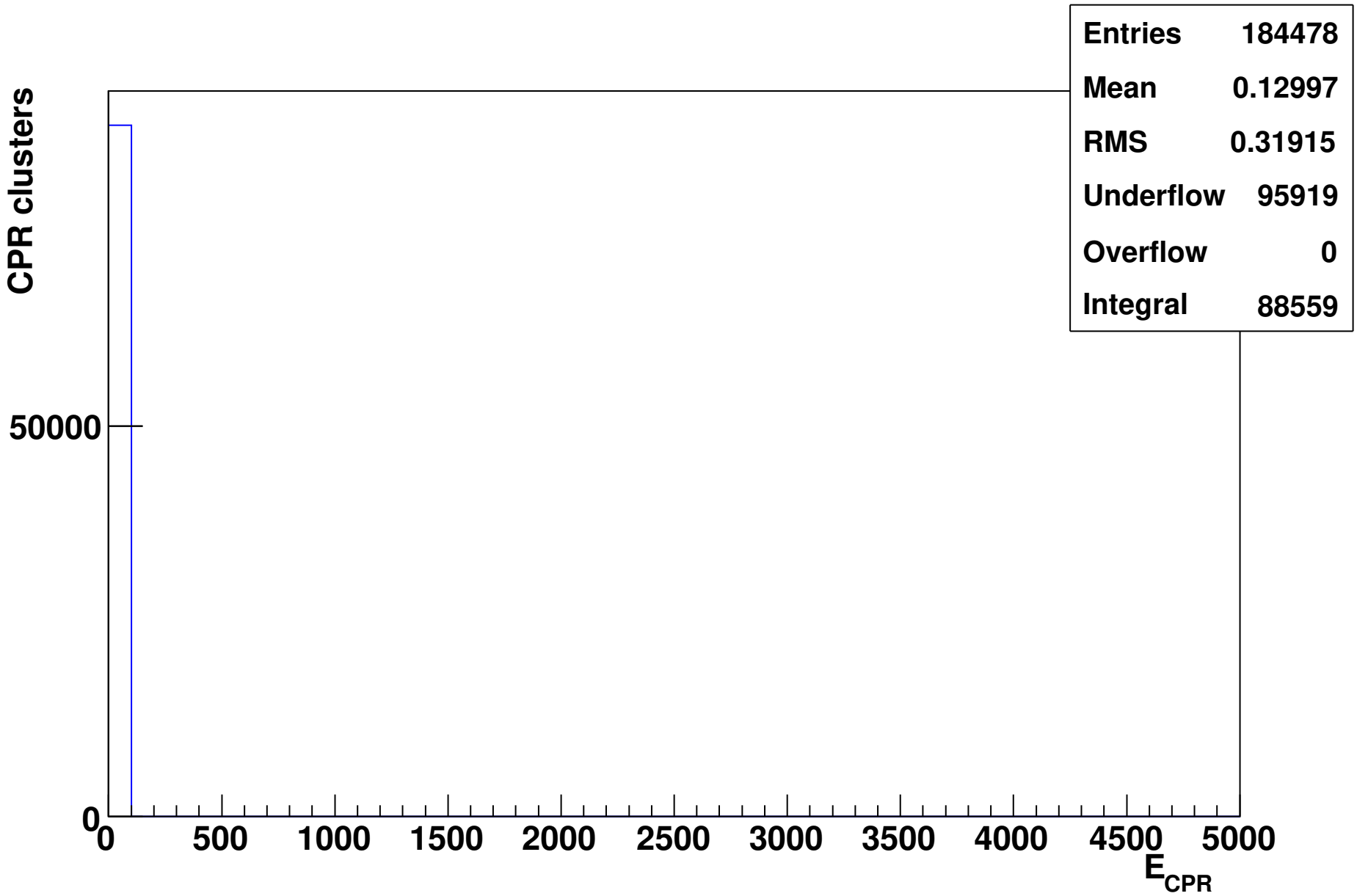

all events
events
40000
20000
0
20
40
60
80
100
120
140
month
N_{MI}
3
2
1
0
20
40
60
80
100
120
140
month

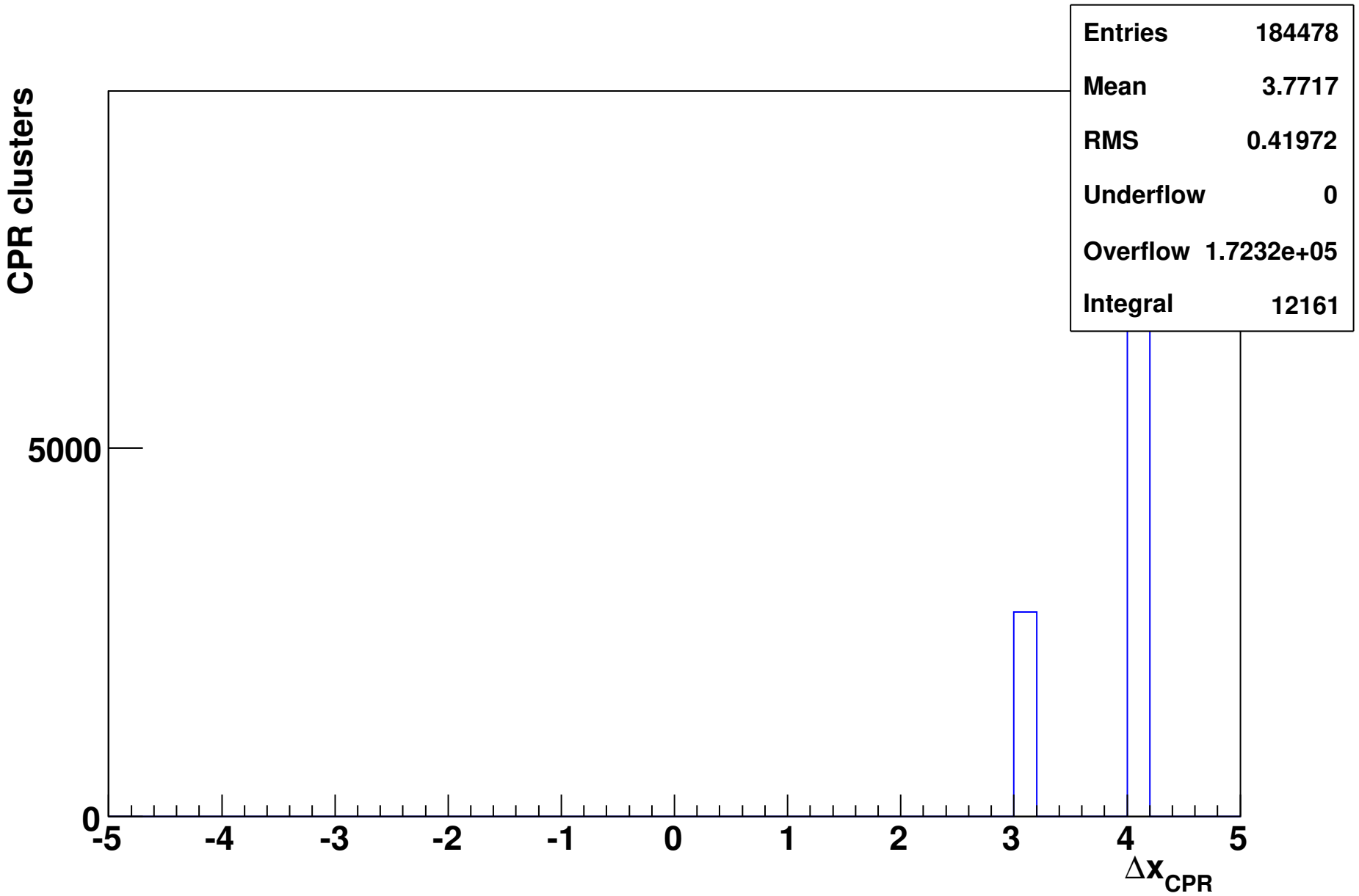

Entries 981530
Mean 0.90443
RMS 1.0274
Underflow 0
Overflow 0
Integral 9.8153e+05
events
×10^3
400
200
0
0 1 2 3 4 5 6 7 8 9
N_MI

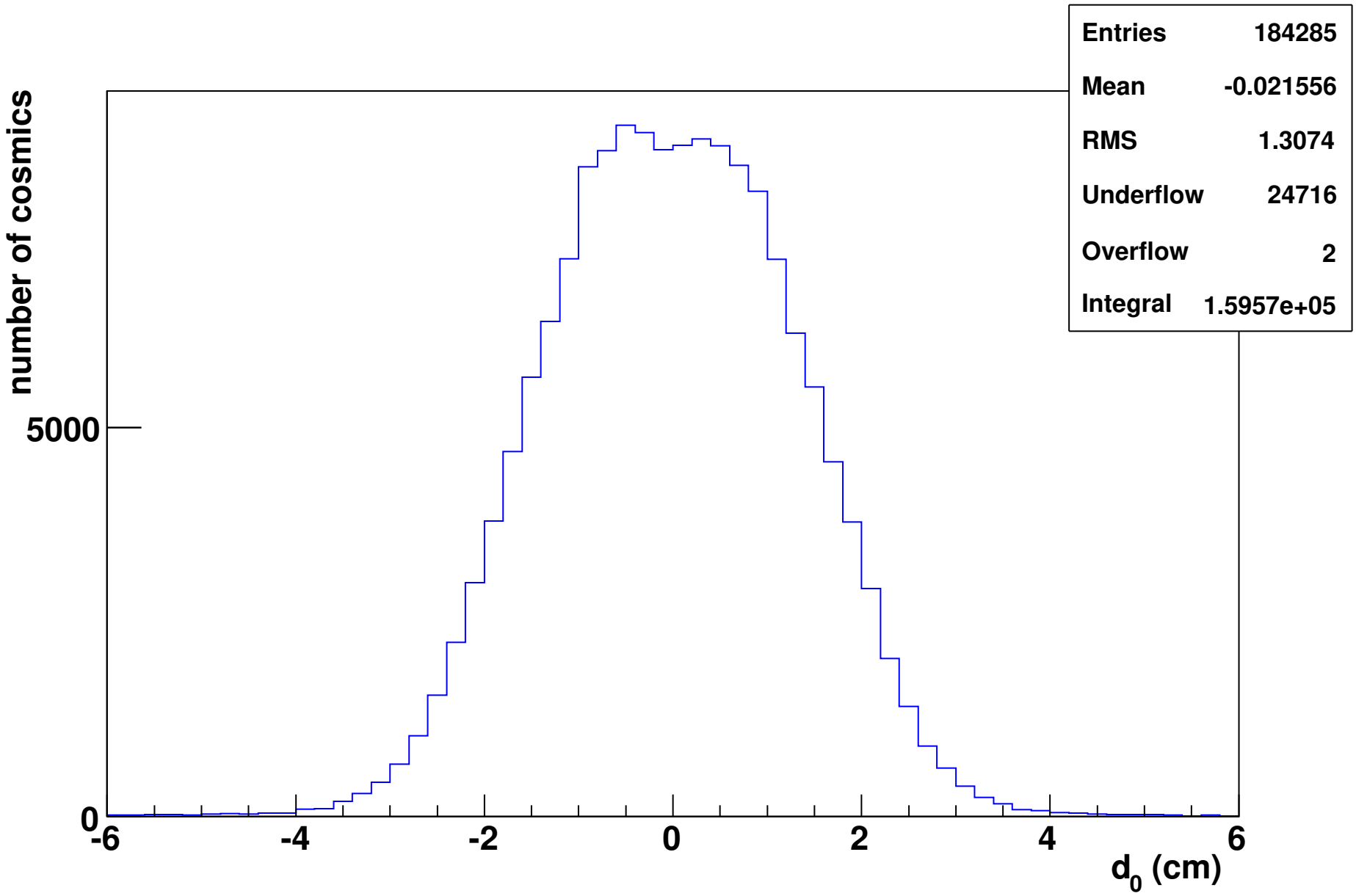

Entries 750364
Mean 1.8747
RMS 1.2479
Underflow 0
Overflow 27861
Integral 7.225e+05
×10^3
events
400
200
0
0
1
2
3
4
5
6
7
8
9
N_muons

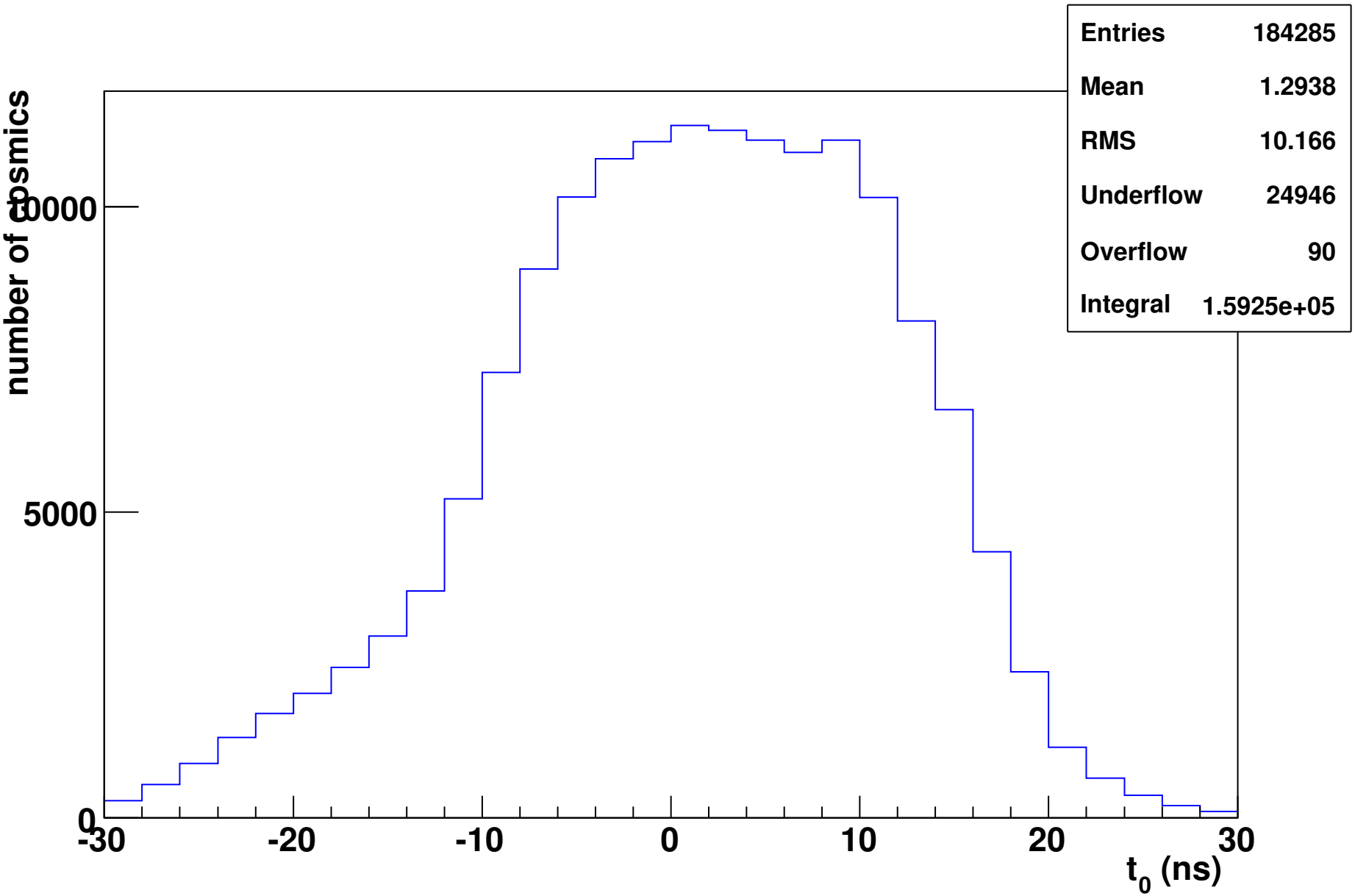

Entries 184478
Mean 1.7087
RMS 0.45478
Underflow 0
Overflow 0
Integral 1.8448e+05
muons
×10^3
100
50
0
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_cosmics

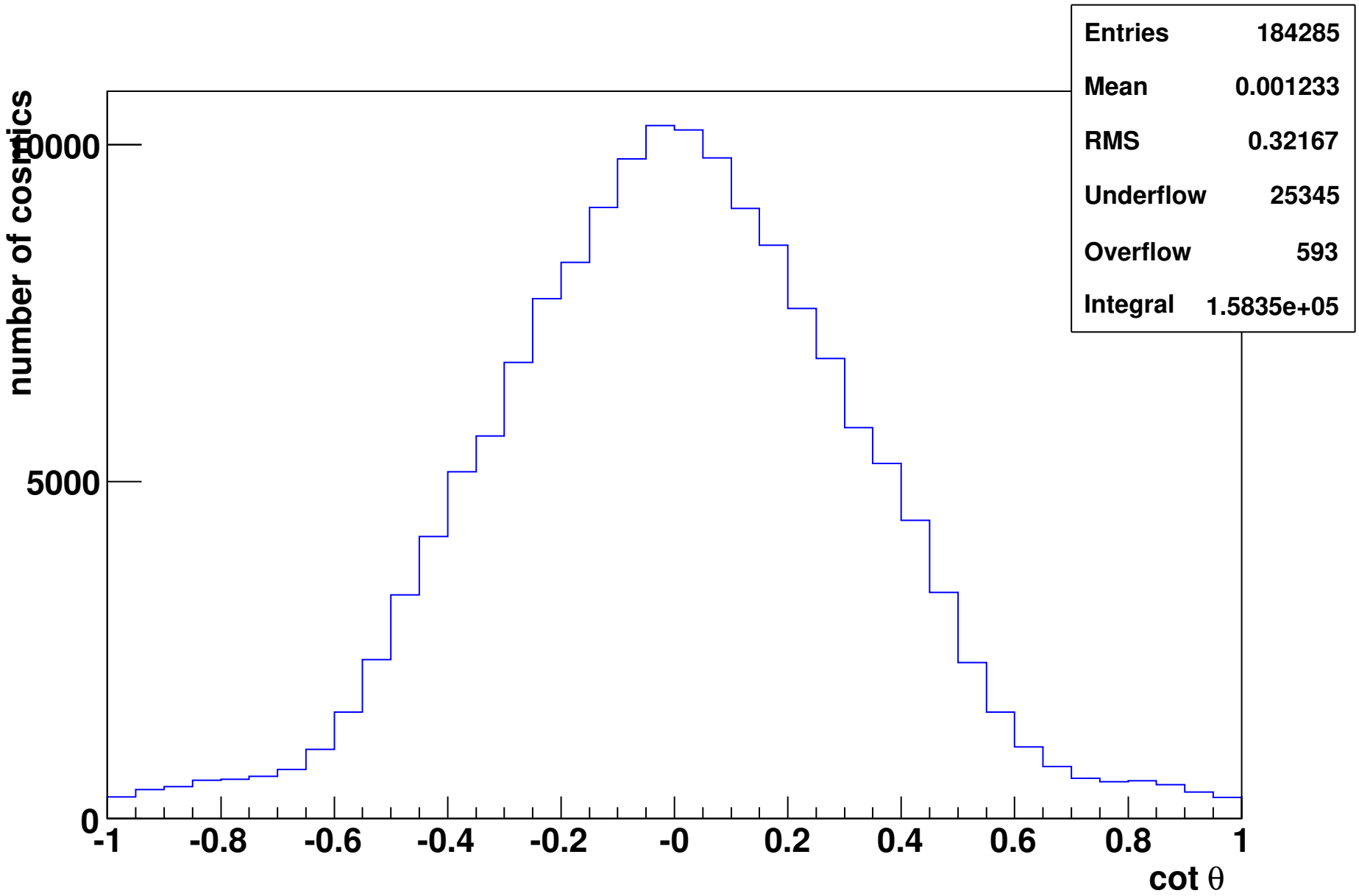

Entries 184478
Mean 1.8327
RMS 1.5989
Underflow 0
Overflow 1.8293e+05
Integral 1548
CPR clusters
400
200
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_CPR

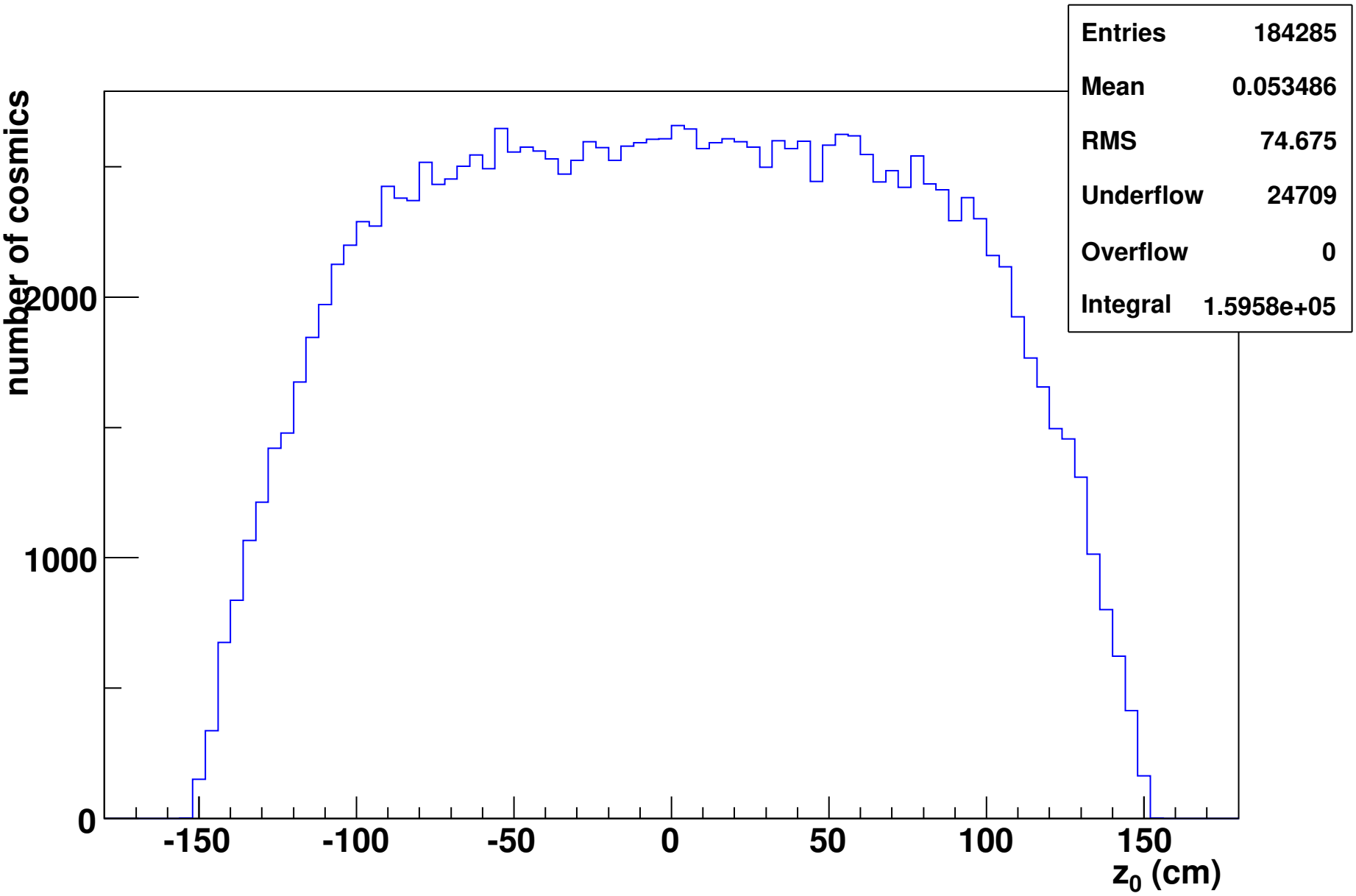

Entries 184478
Mean 0.12997
RMS 0.31915
Underflow 95919
Overflow 0
Integral 88559
CPR clusters
50000
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
E_CPR

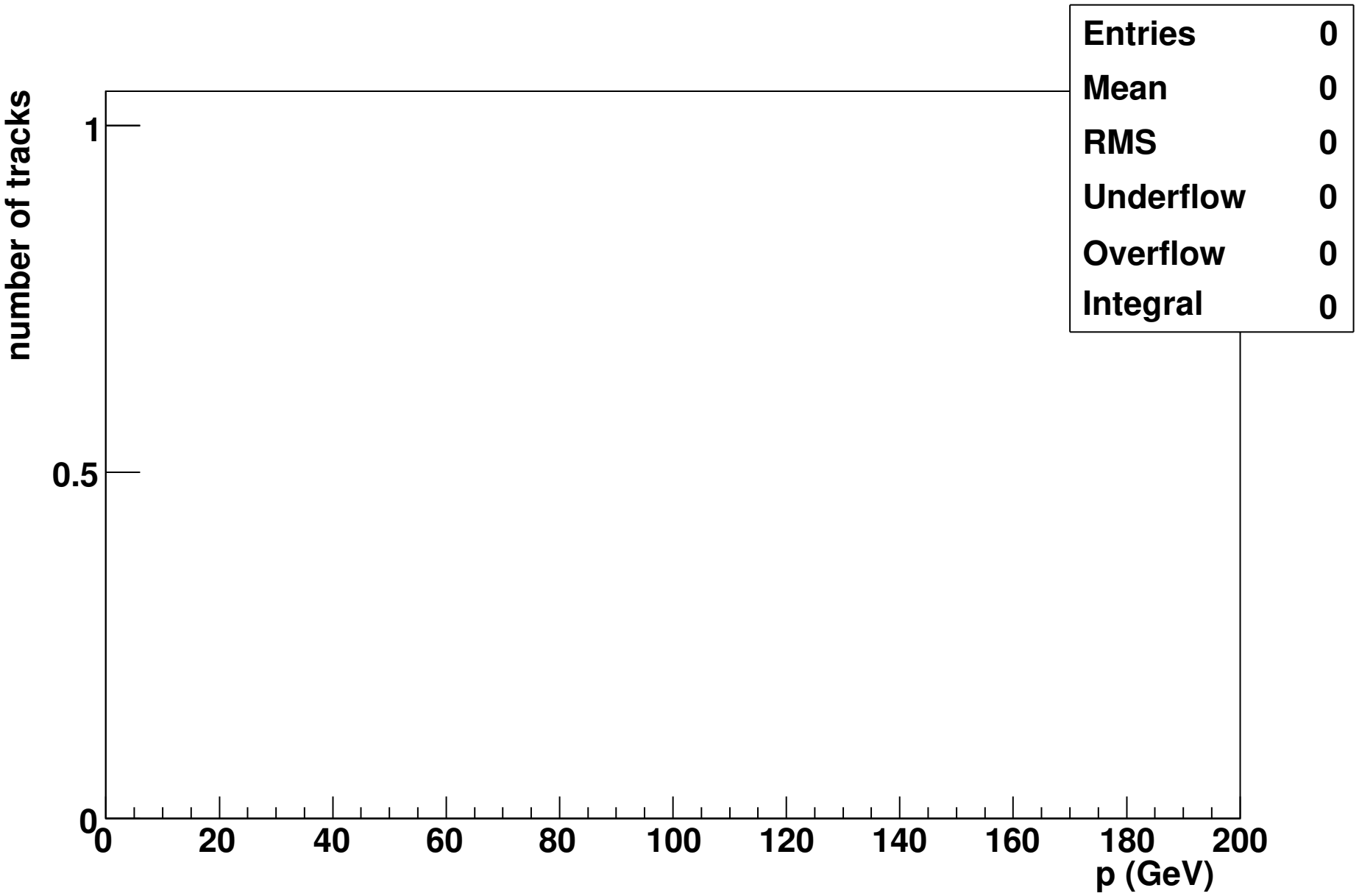

Entries 184478
Mean 3.7717
RMS 0.41972
Underflow 0
Overflow 1.7232e+05
Integral 12161
CPR clusters
5000
0
-5
-4
-3
-2
-1
0
1
2
3
4
5
Δx_CPR

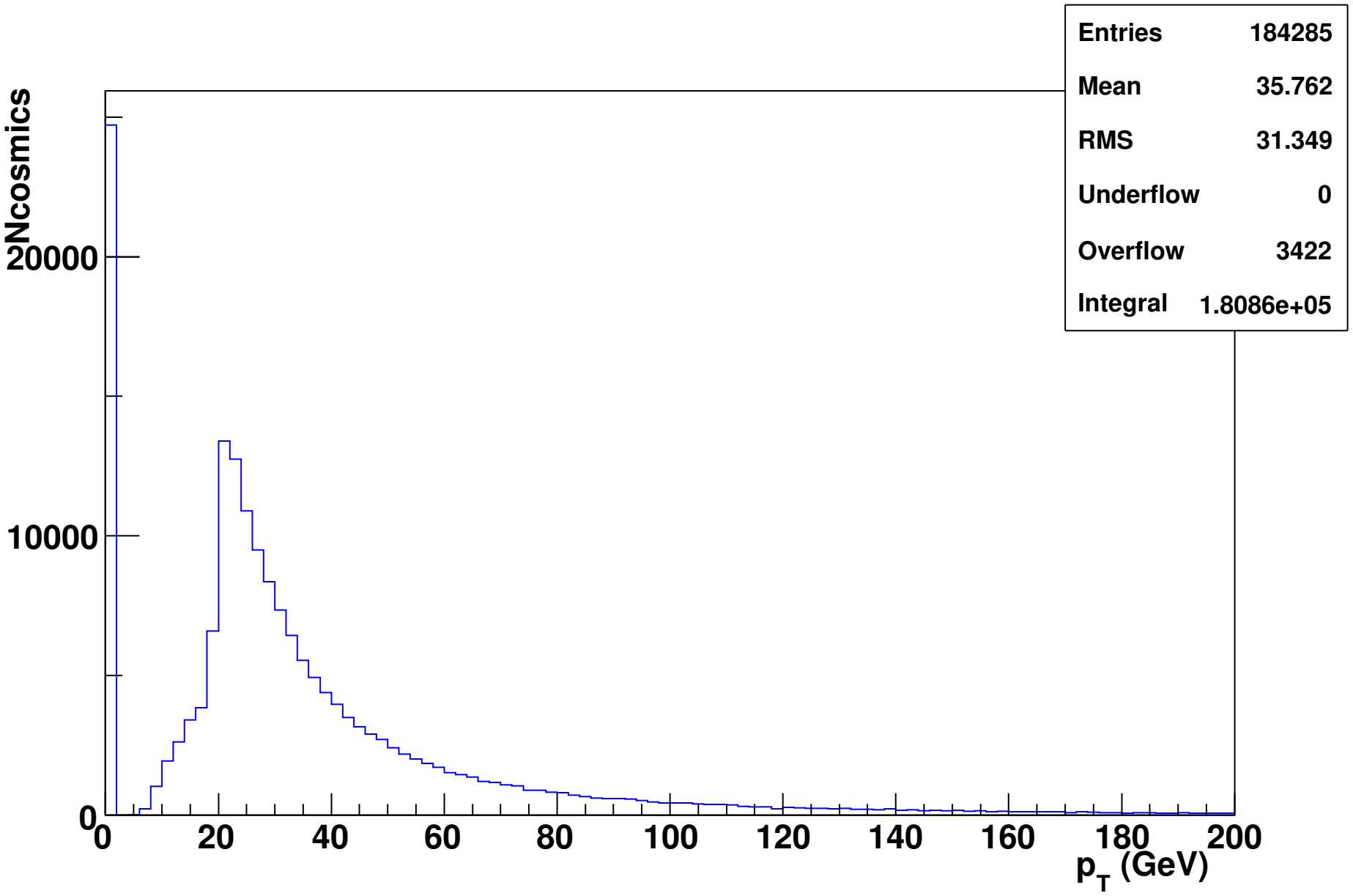

Entries 184285
Mean -0.021556
RMS 1.3074
Underflow 24716
Overflow 2
Integral 1.5957e+05
number of cosmics
5000
0
-6
-4
-2
0
2
4
6
d0 (cm)

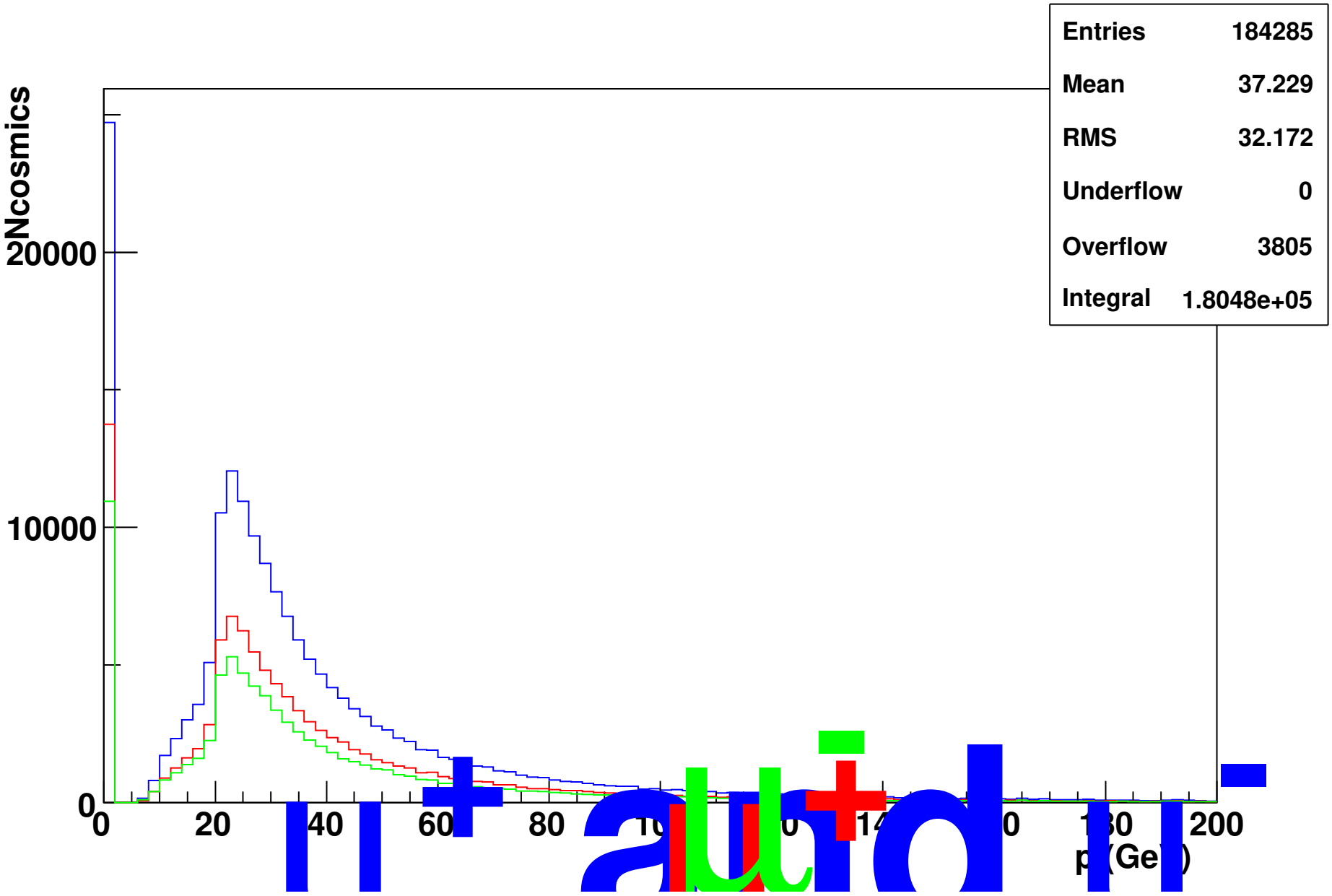

Entries 184285
Mean 1.2938
RMS 10.166
Underflow 24946
Overflow 90
Integral 1.5925e+05
number of cosmics
10000
5000
0
-30
-20
-10
0
10
20
30
t_0 (ns)

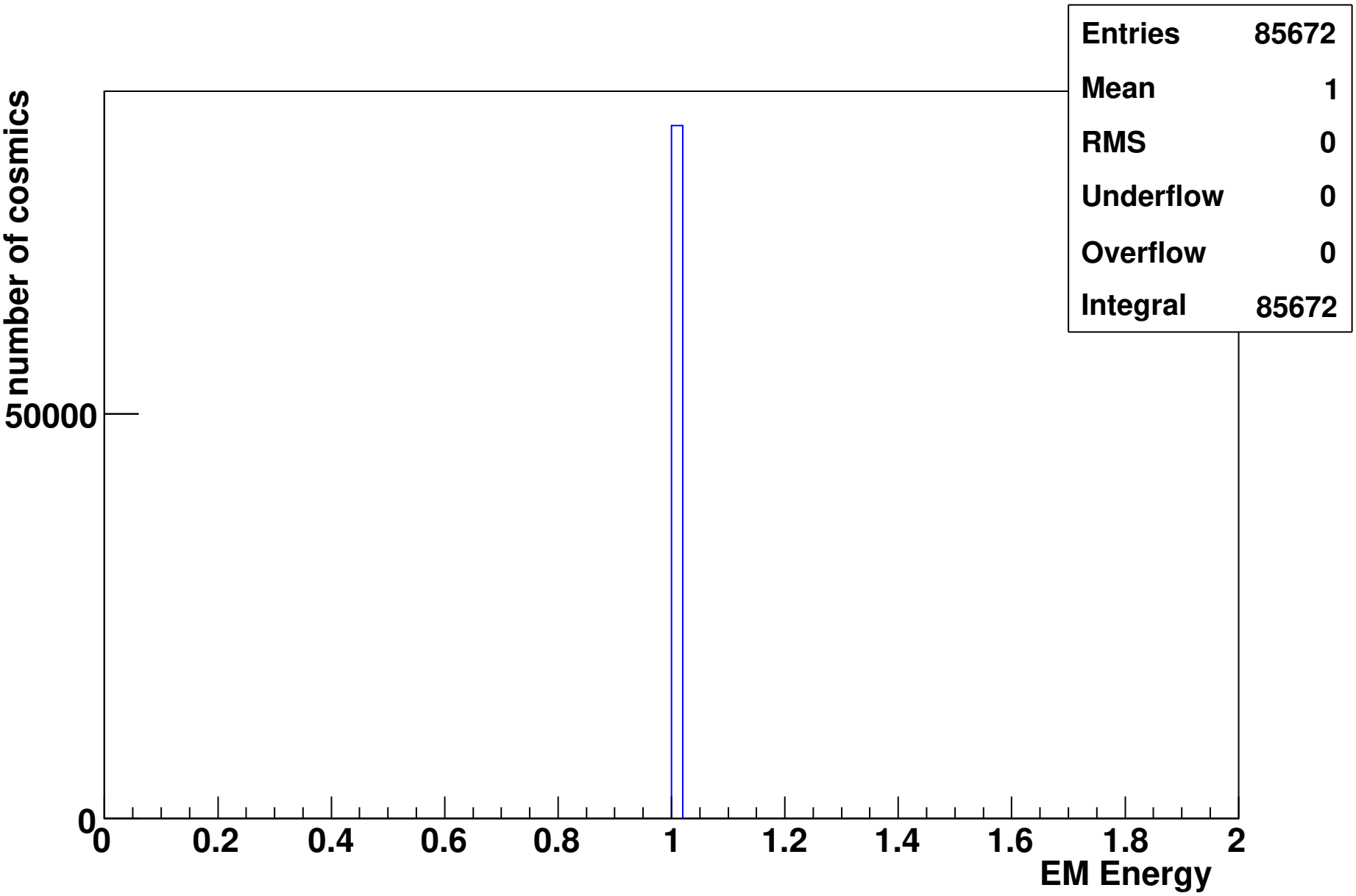

Entries 184285
Mean 0.001233
RMS 0.32167
Underflow 25345
Overflow 593
Integral 1.5835e+05
number of cosmics
10000
5000
0
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
cot θ

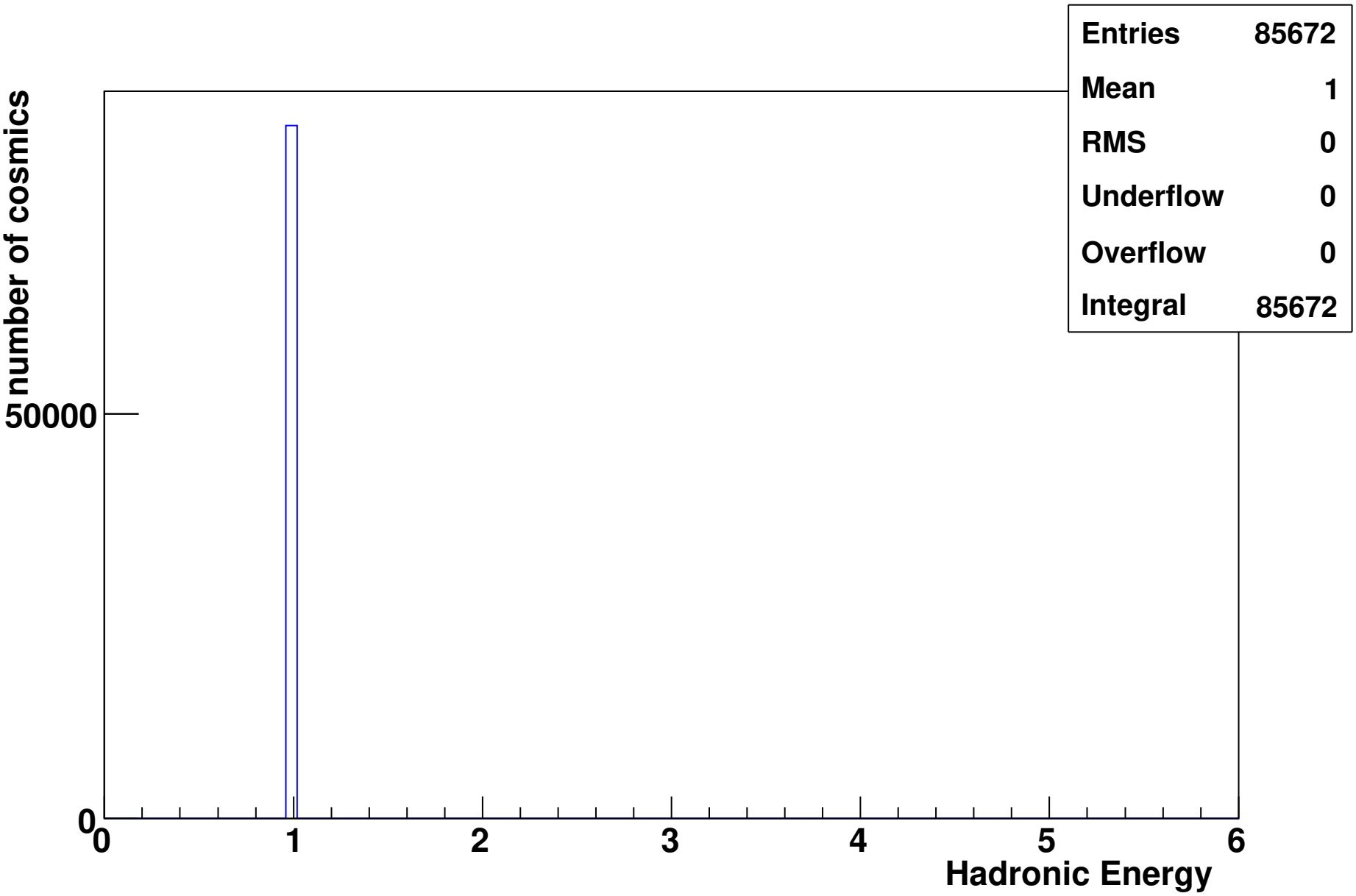

Entries 184285
Mean 0.053486
RMS 74.675
Underflow 24709
Overflow 0
Integral 1.5958e+05
number of cosmics
2000
1000
0
-150
-100
-50
0
50
100
150
z_0 (cm)

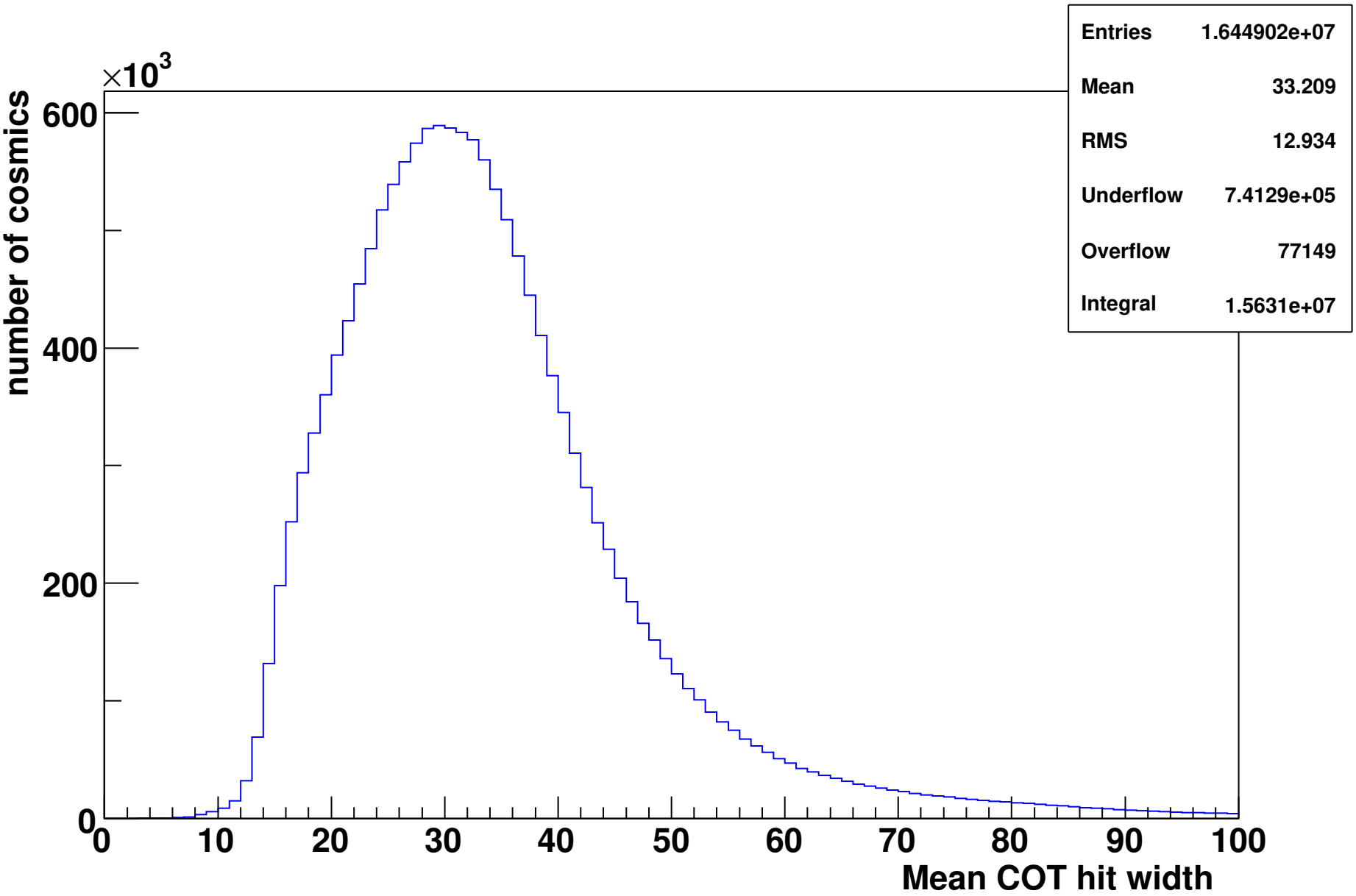

Entries 0
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 0
number of tracks
1
0.5
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

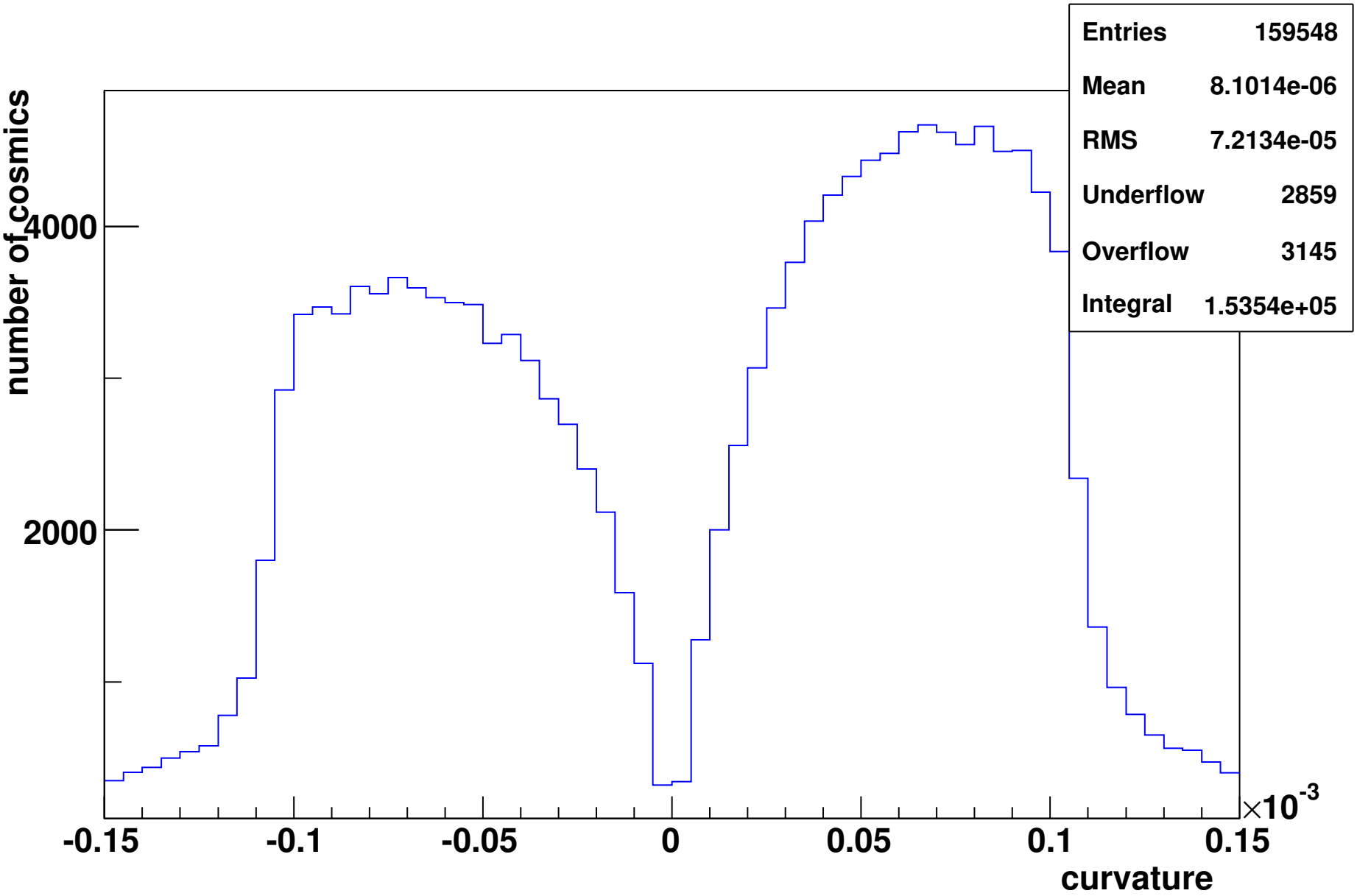

Entries 184285
Mean 35.762
RMS 31.349
Underflow 0
Overflow 3422
Integral 1.8086e+05
Ncosmics
20000
10000
0
0
20
40
60
80
100
120
140
160
180
200
p_T (GeV)

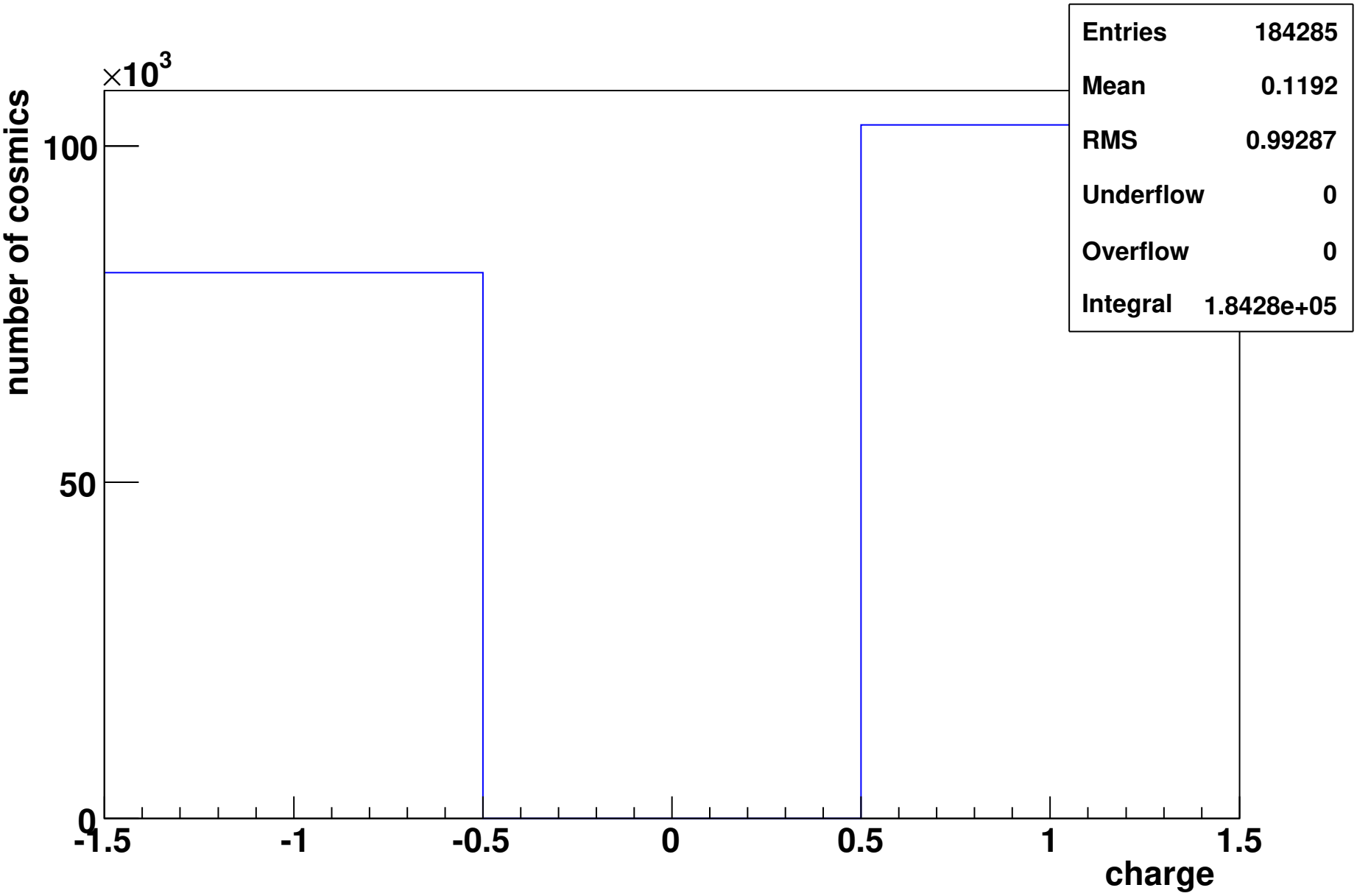

Entries 184285
Mean 37.229
RMS 32.172
Underflow 0
Overflow 3805
Integral 1.8048e+05
Ncosmics
20000
10000
0
0
20
40
60
80
200
p (GeV)
n+ auid n-

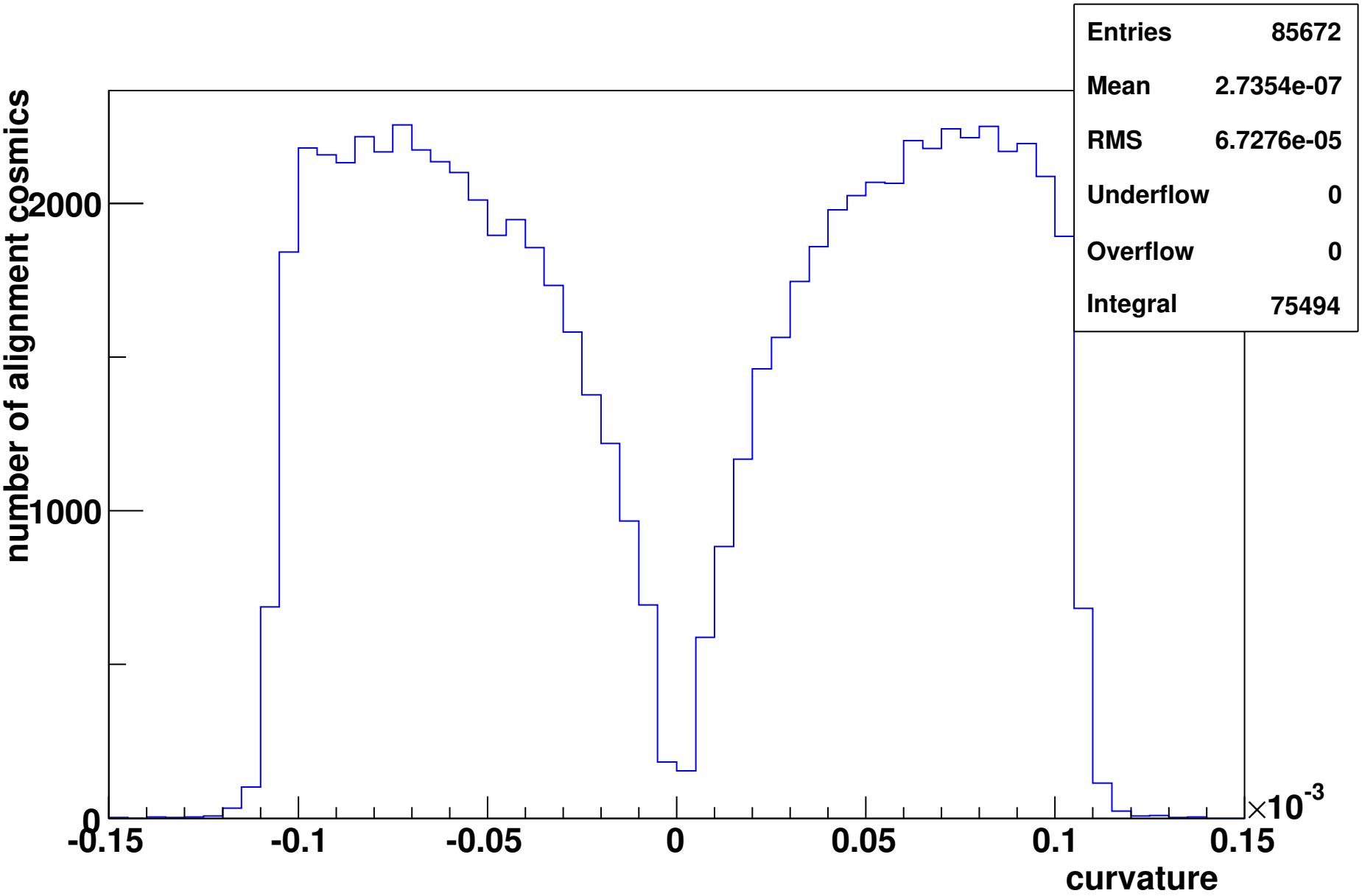

Entries 85672
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 85672
number of cosmics
50000
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
EM Energy

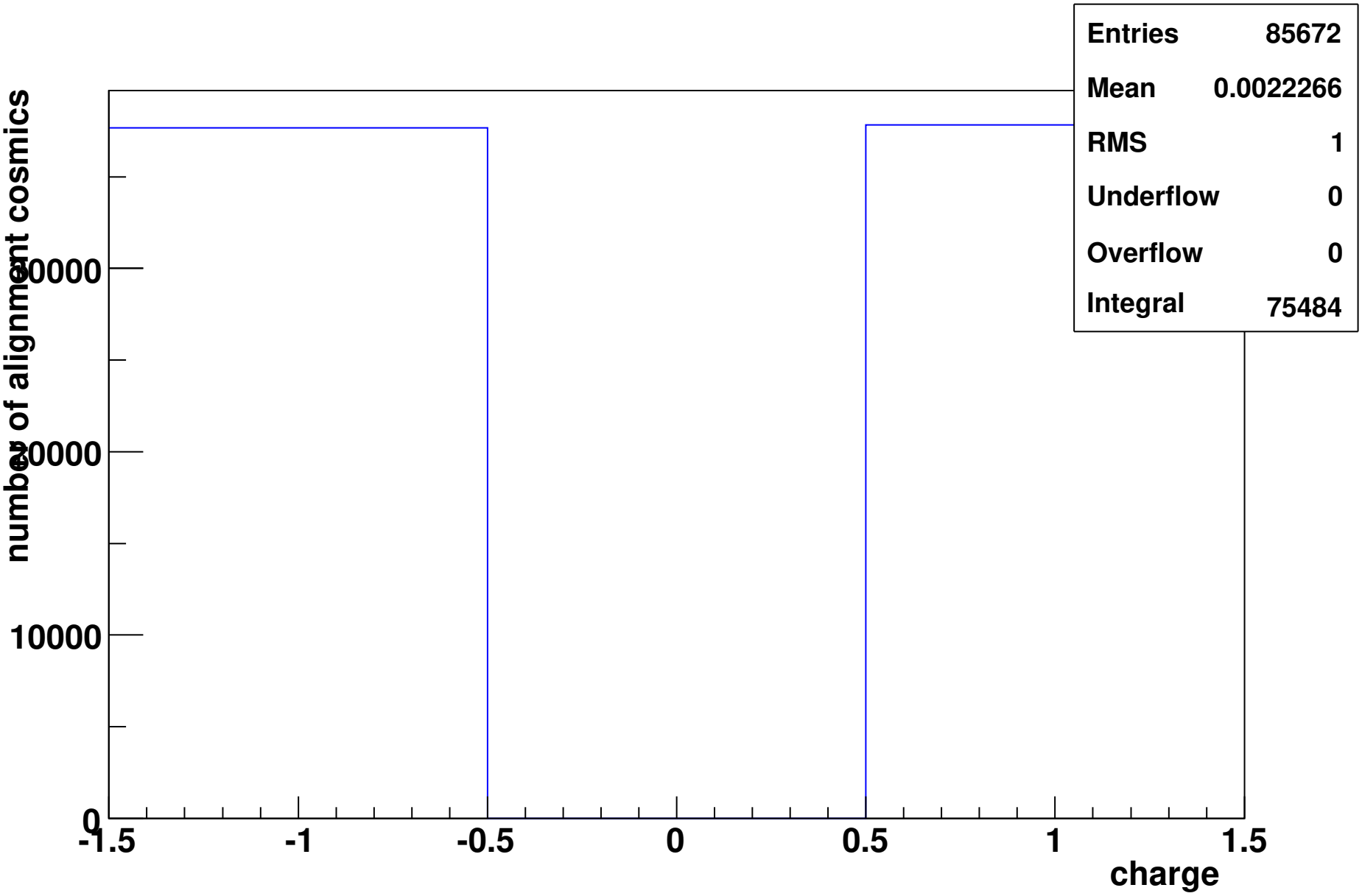

Entries 85672
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 85672
number of cosmics
50000
0
0
1
2
3
4
5
6
Hadronic Energy

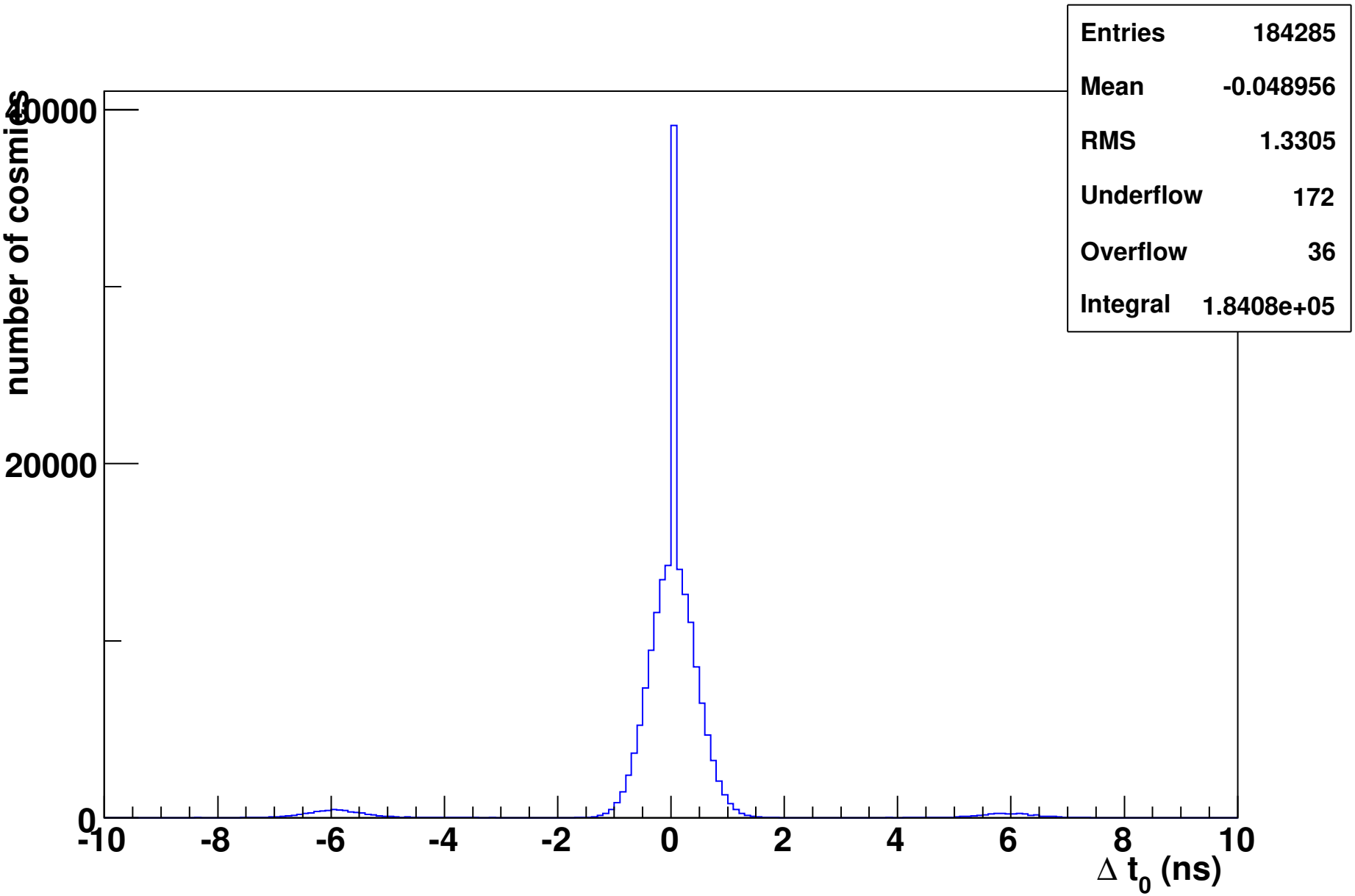

Entries 1.644902e+07
Mean 33.209
RMS 12.934
Underflow 7.4129e+05
Overflow 77149
Integral 1.5631e+07
×10^3
number of cosmics
600
400
200
0
0
10
20
30
40
50
60
70
80
90
100
Mean COT hit width

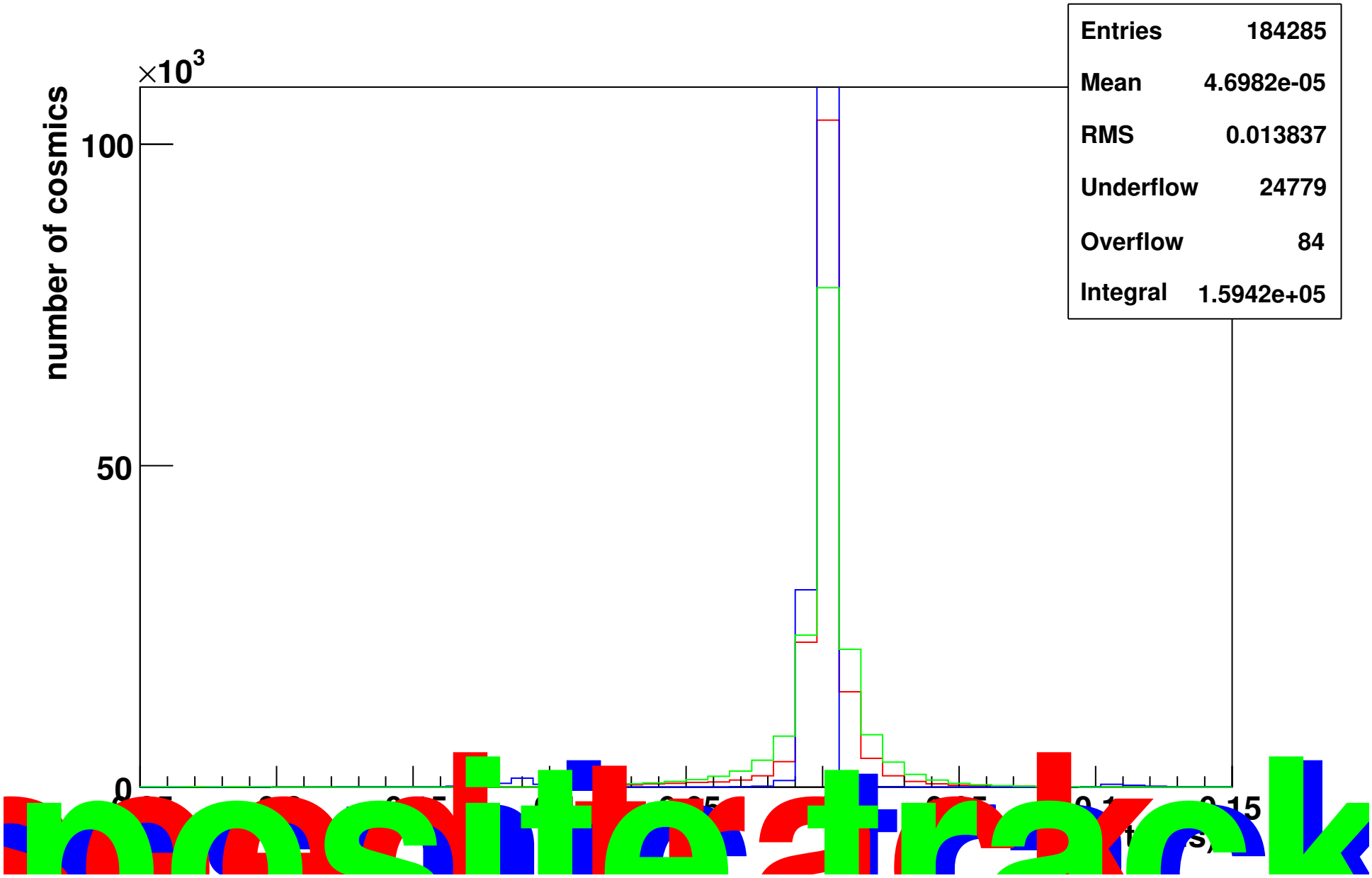

Entries 159548
Mean 8.1014e-06
RMS 7.2134e-05
Underflow 2859
Overflow 3145
Integral 1.5354e+05
number of cosmics
4000
2000
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10-3
curvature

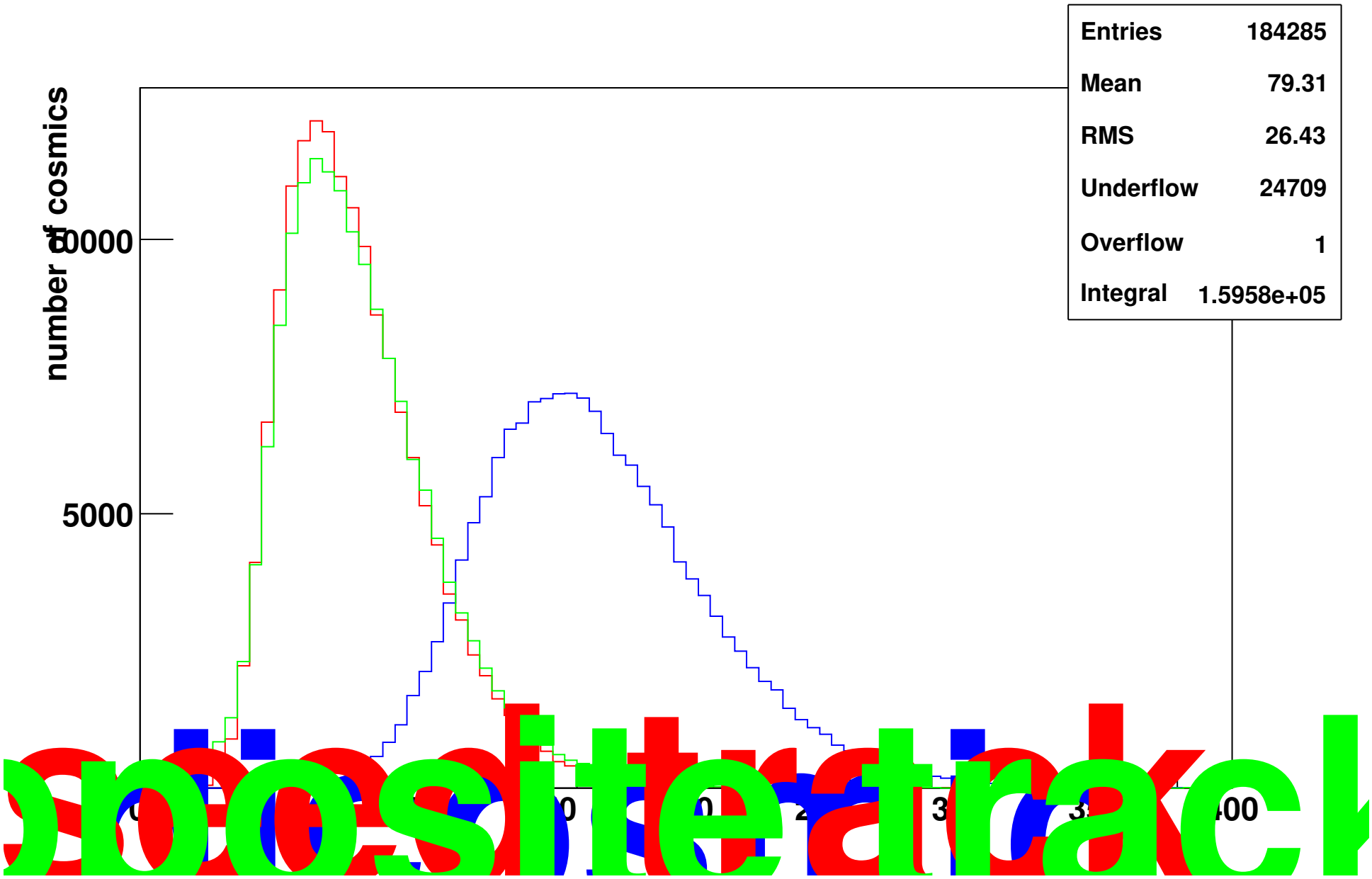

Entries 184285
Mean 0.1192
RMS 0.99287
Underflow 0
Overflow 0
Integral 1.8428e+05
×10^3
number of cosmics
100
50
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 85672
Mean 2.7354e-07
RMS 6.7276e-05
Underflow 0
Overflow 0
Integral 75494
number of alignment cosmics
2000
1000
0
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

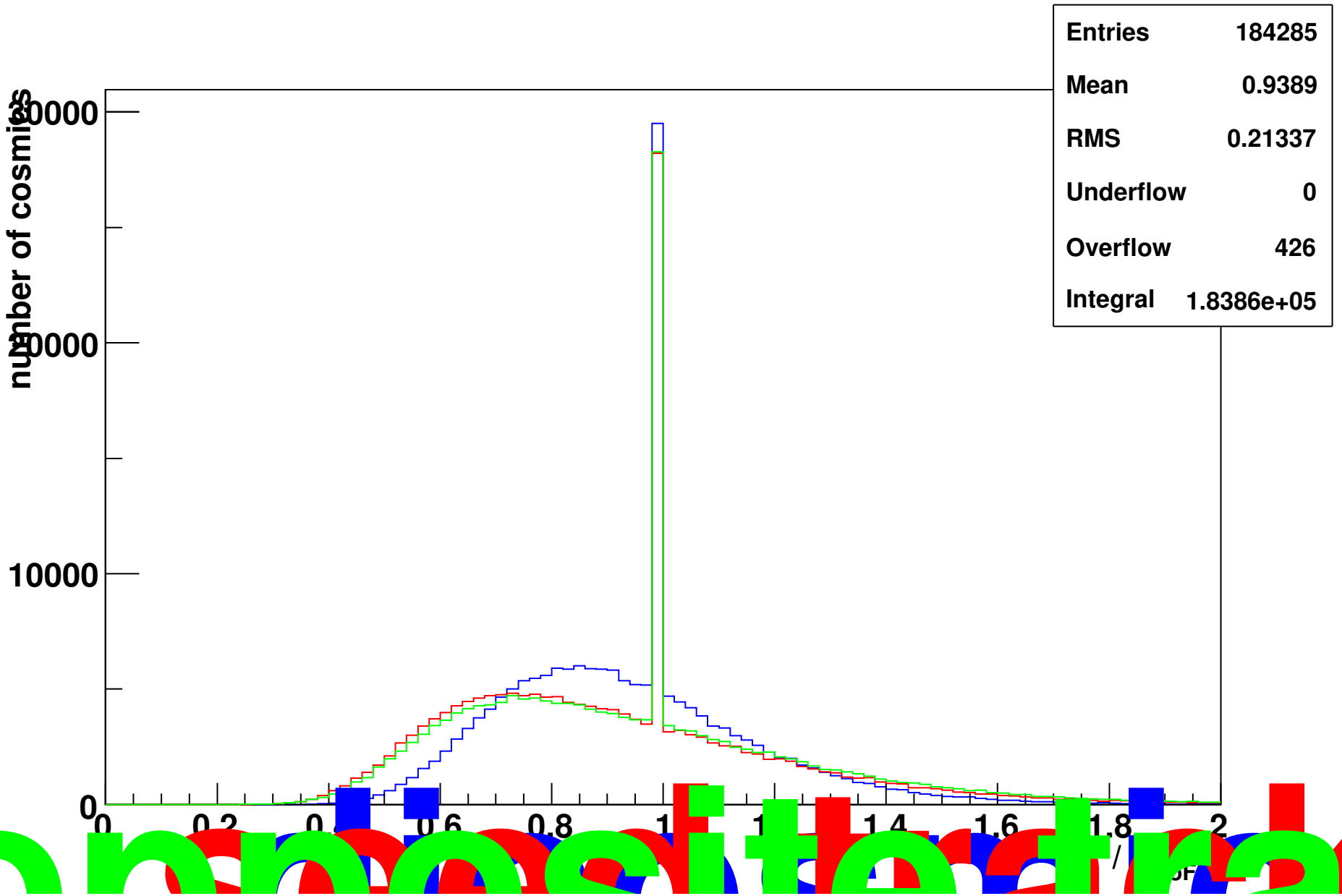

Entries 85672
Mean 0.0022266
RMS 1
Underflow 0
Overflow 0
Integral 75484
number of alignment cosmics
20000
10000
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge

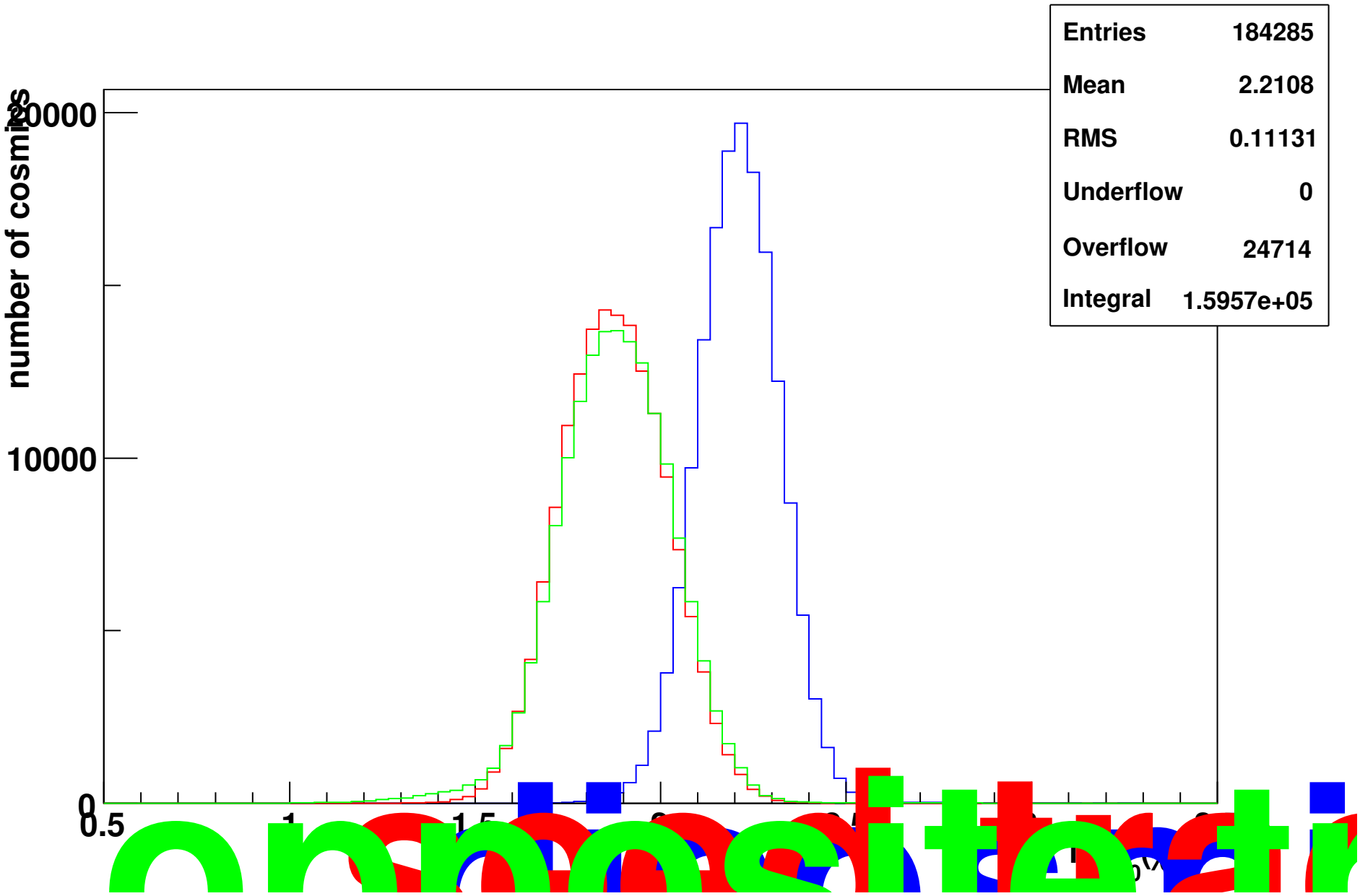

Entries 184285
Mean -0.048956
RMS 1.3305
Underflow 172
Overflow 36
Integral 1.8408e+05
number of cosmics
40000
20000
0
-10
-8
-6
-4
-2
0
2
4
6
8
10
Δ t0 (ns)


Entries 184285
Mean 4.6982e-05
RMS 0.013837
Underflow 24779
Overflow 84
Integral 1.5942e+05
number of cosmics
×10^3
100
50
0
no site track



opositeatack


Entries 184285
Mean 0.9389
RMS 0.21337
Underflow 0
Overflow 426
Integral 1.8386e+05
number of cosmics
20000
10000
0
0
0.2
0.6
0.8
1
1.4
1.6
1.8
2


Entries 184285
Mean 2.2108
RMS 0.11131
Underflow 0
Overflow 24714
Integral 1.5957e+05
number of cosmics
20000
10000
0
0.5

g cosmi
g cosmi
ng pair
ng pair

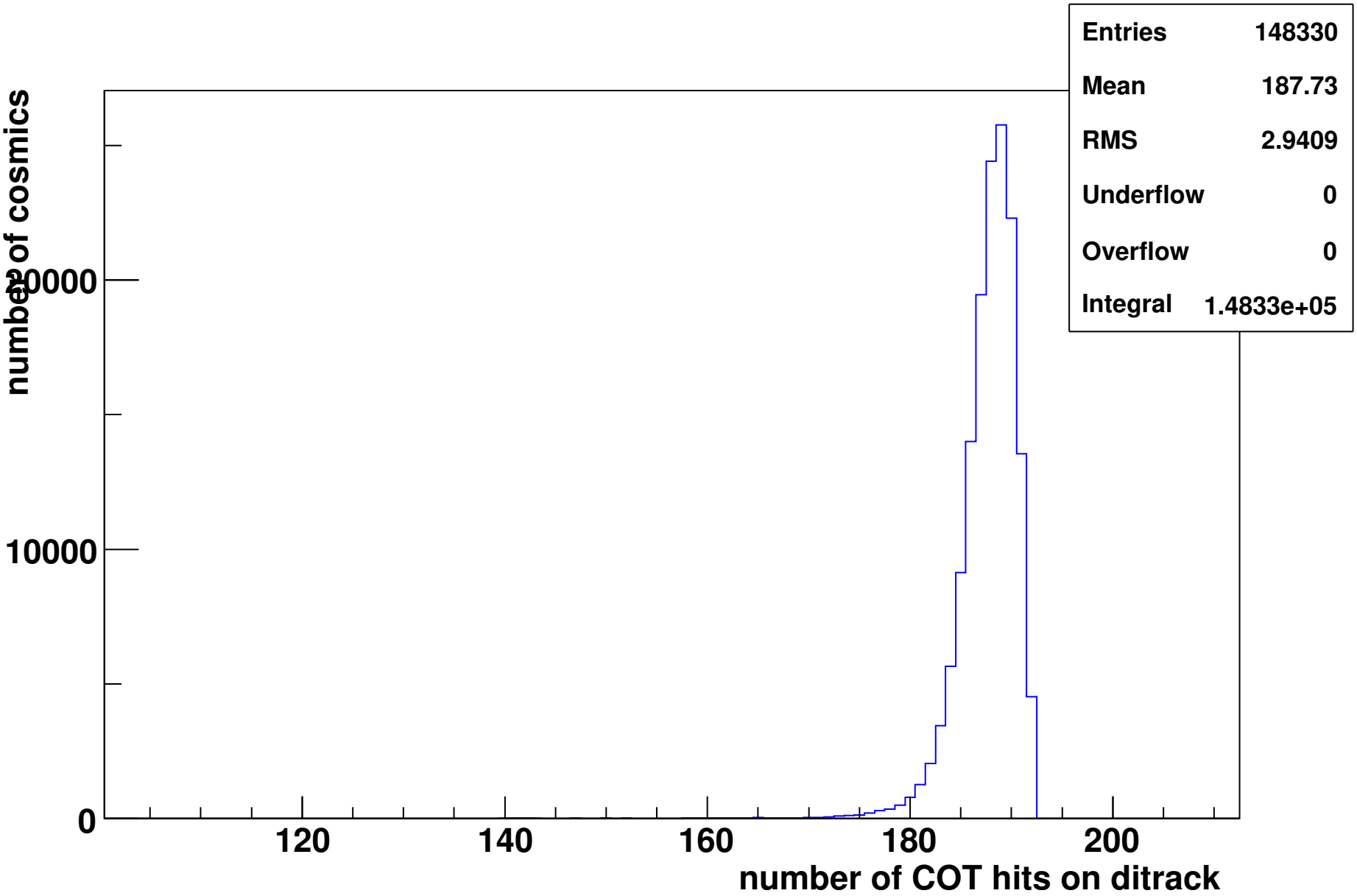
Entries 184285

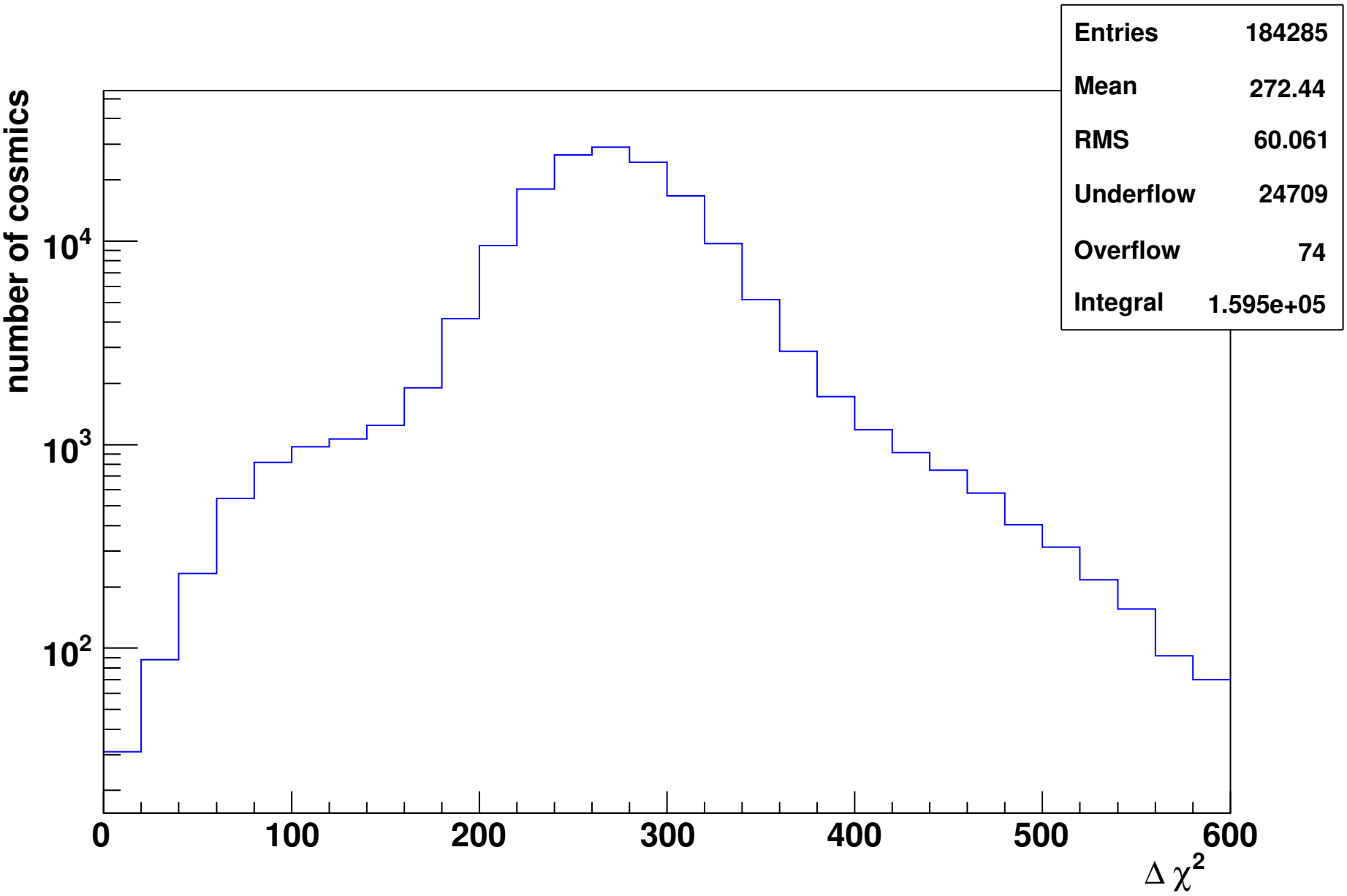
number of ditracks

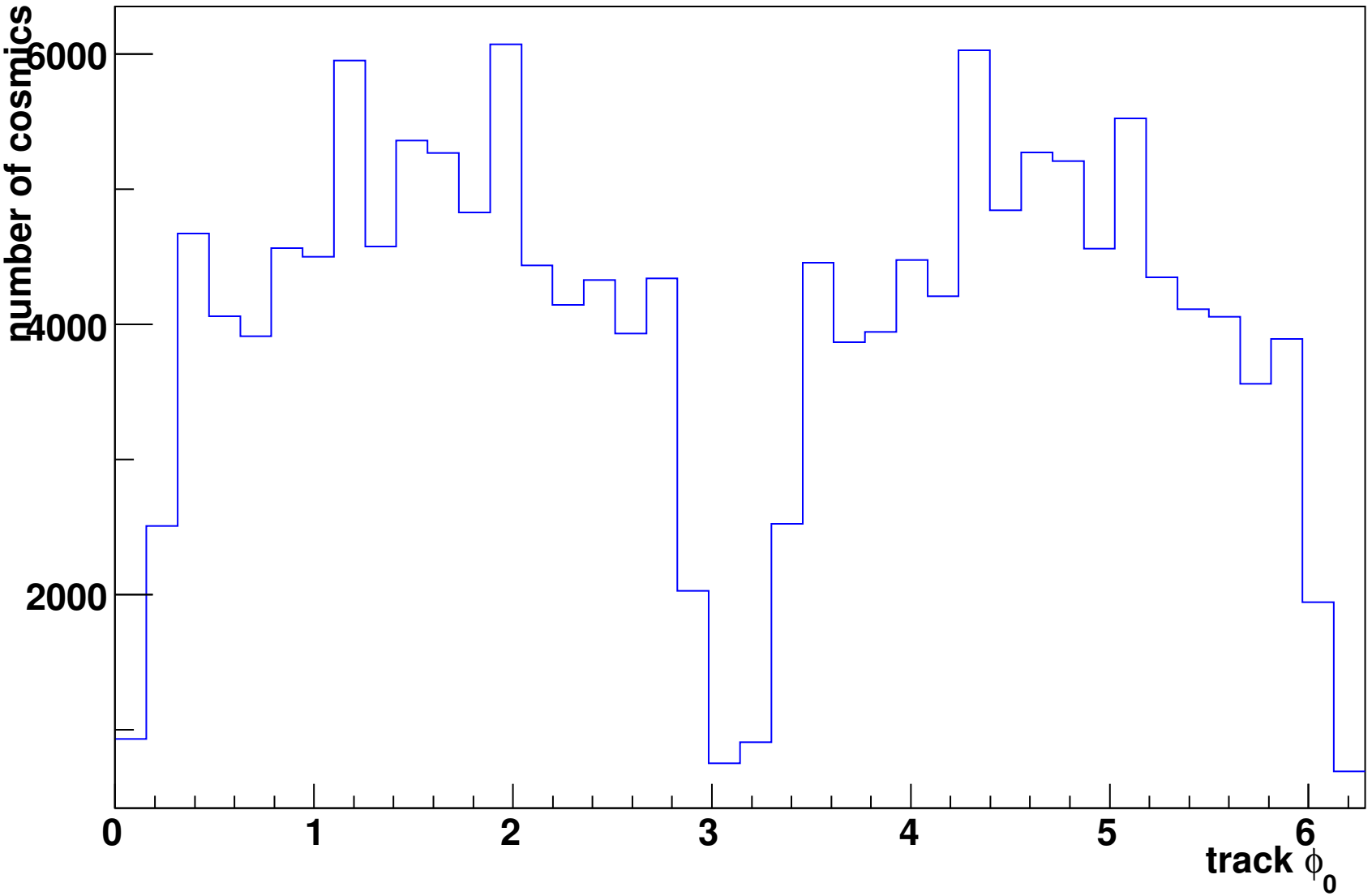
10^5
10^4
10^3
10^2
10

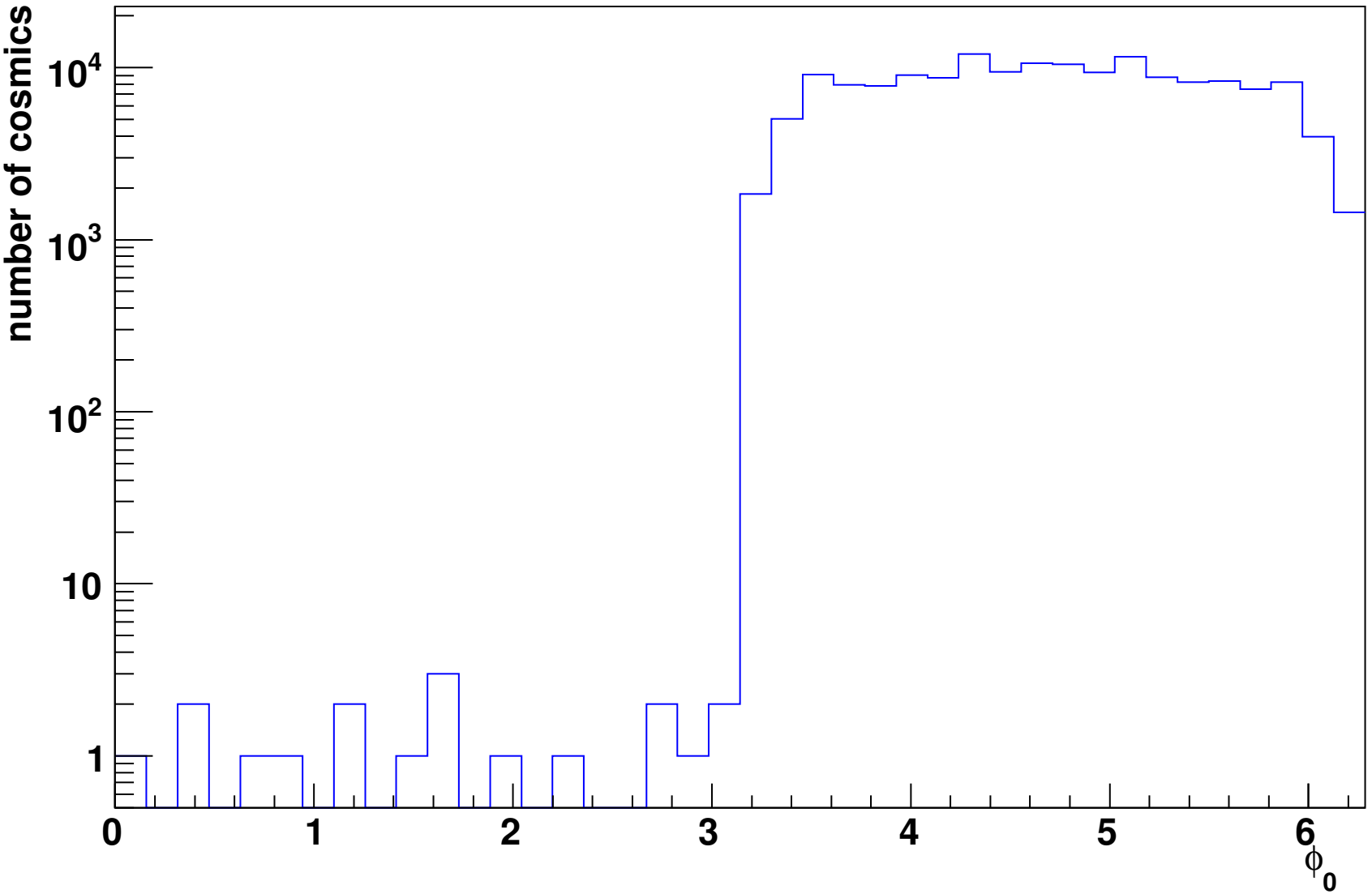
-0.5 0 0.5 1 2 2.5 3 3.5 4 4.5

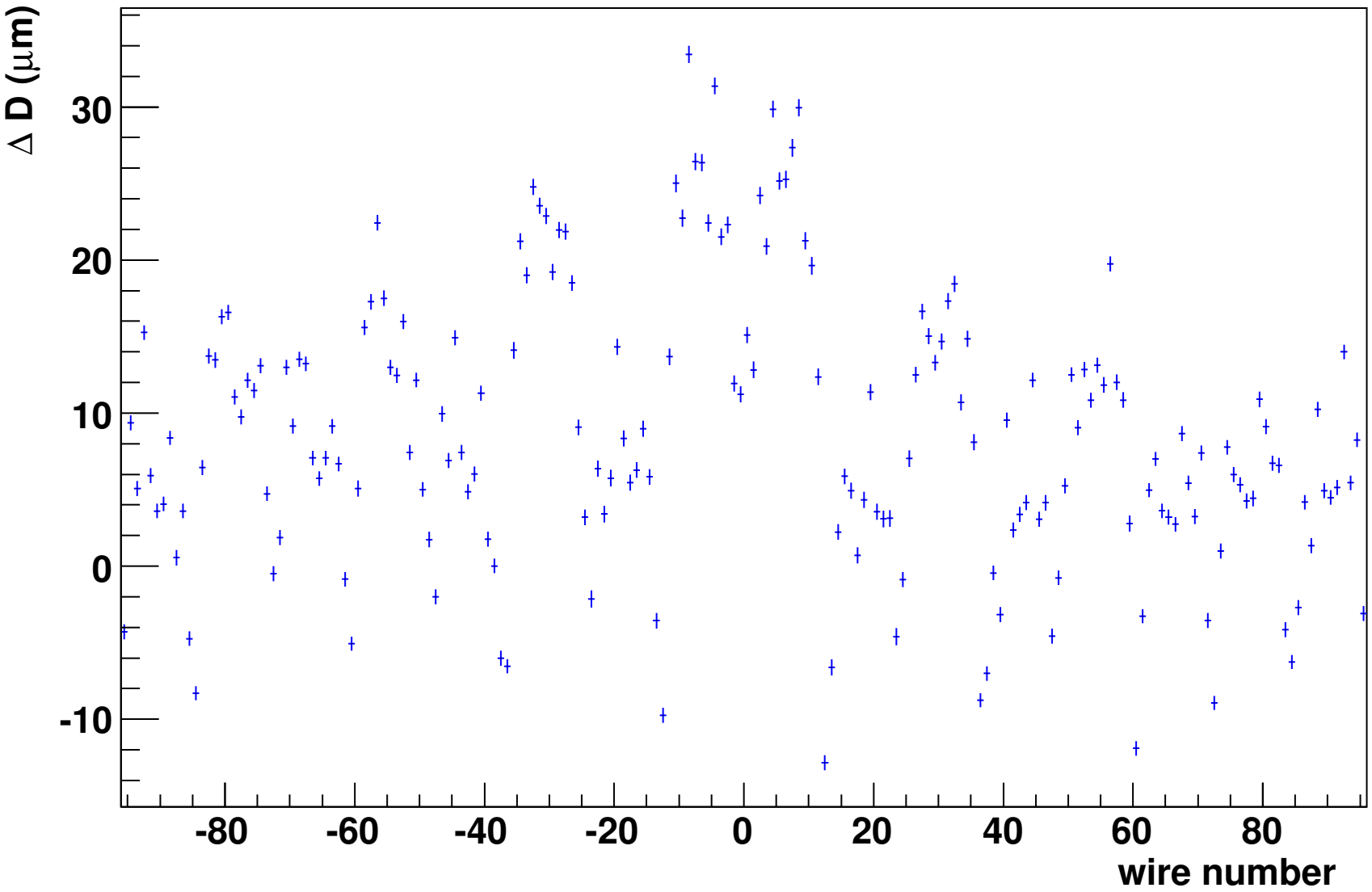
ditrack type

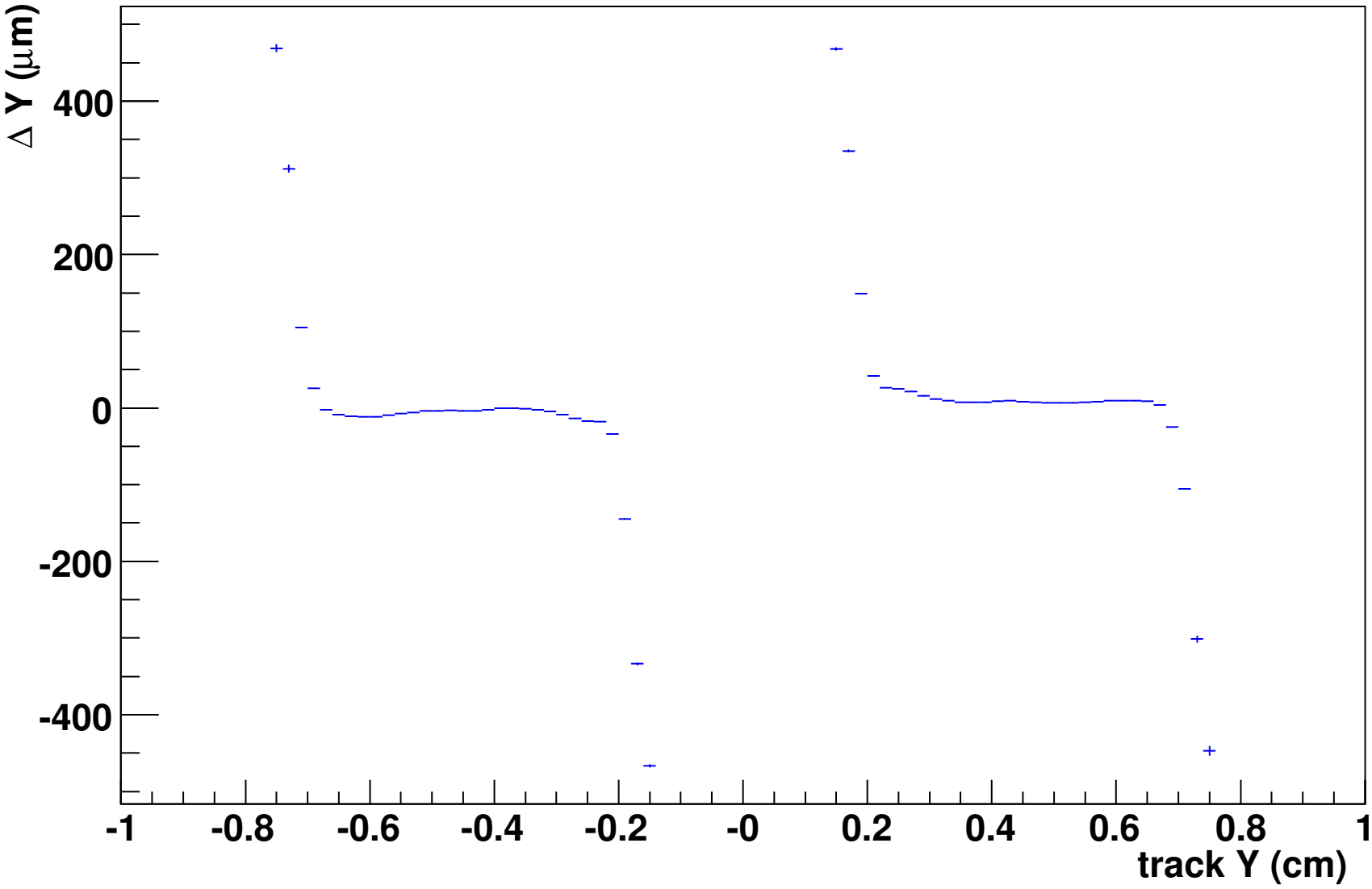

Entries 148330
Mean 187.73
RMS 2.9409
Underflow 0
Overflow 0
Integral 1.4833e+05
number of cosmics
20000
10000
0
120
140
160
180
200
number of COT hits on ditrack

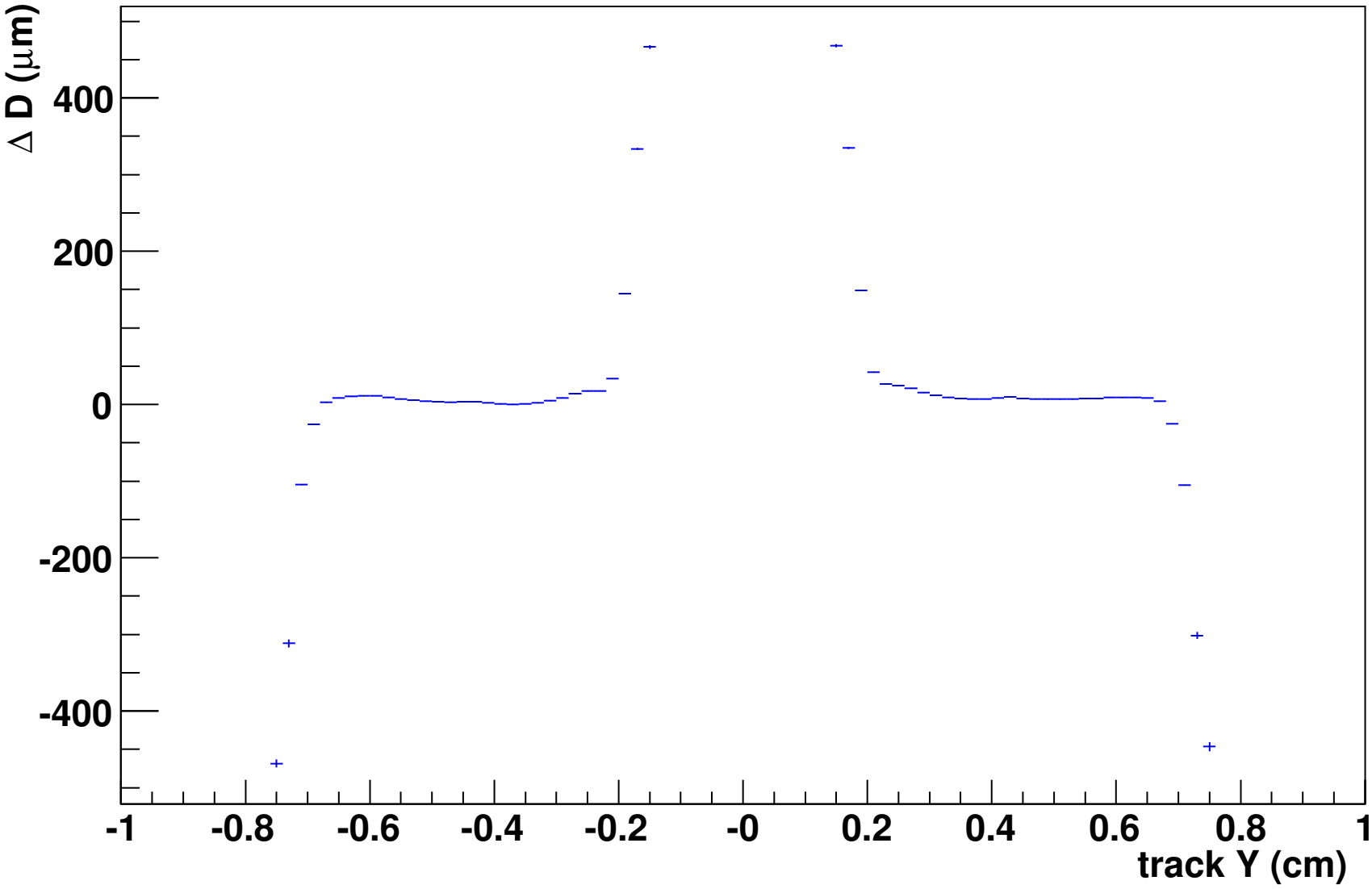

Entries 184285
Mean 272.44
RMS 60.061
Underflow 24709
Overflow 74
Integral 1.595e+05
number of cosmics
10^4
10^3
10^2
0
100
200
300
400
500
600
$\Delta\,\chi^2$

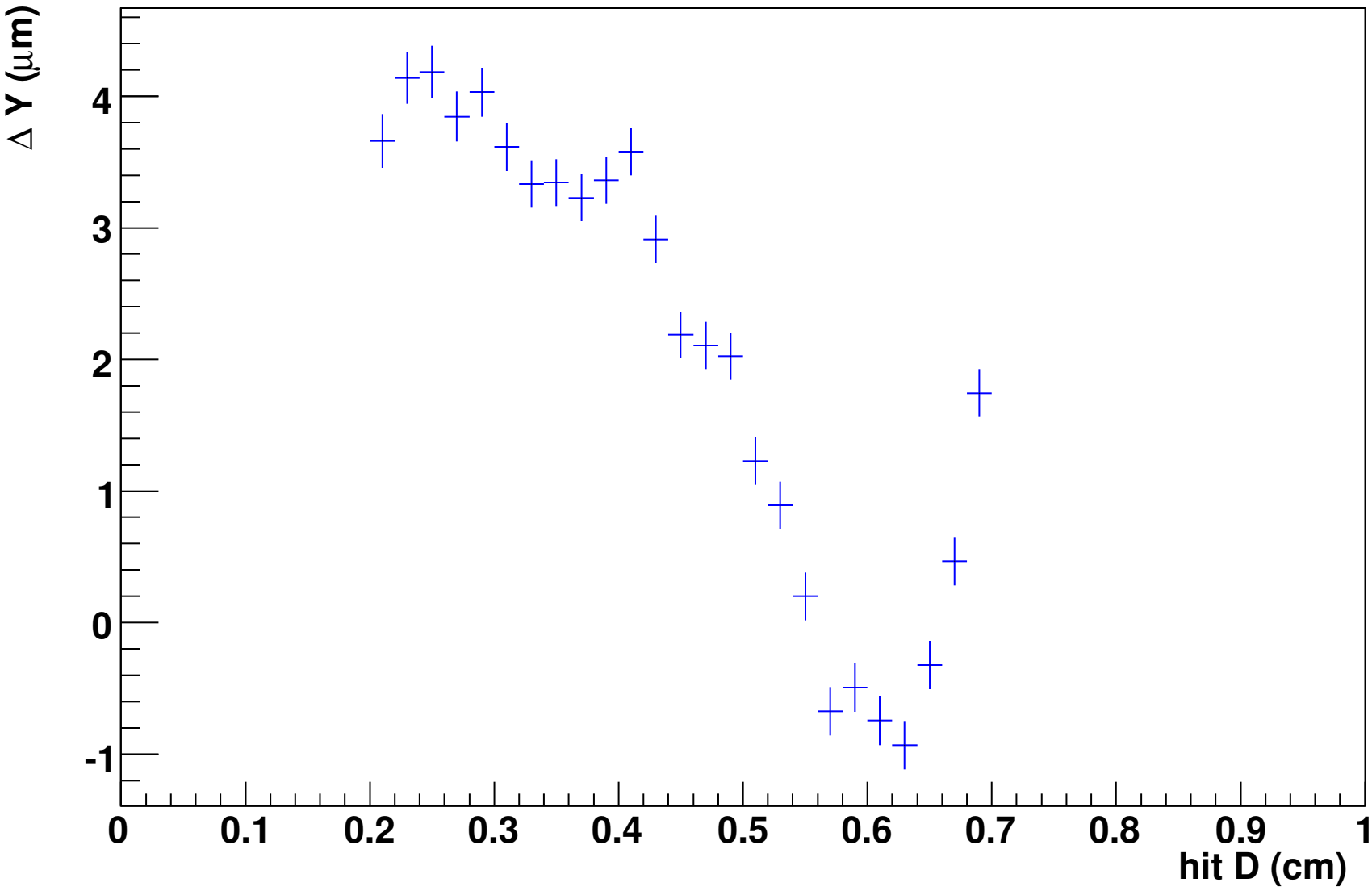

number of cosmics
6000
4000
2000
0
1
2
3
4
5
6
track ϕ_0

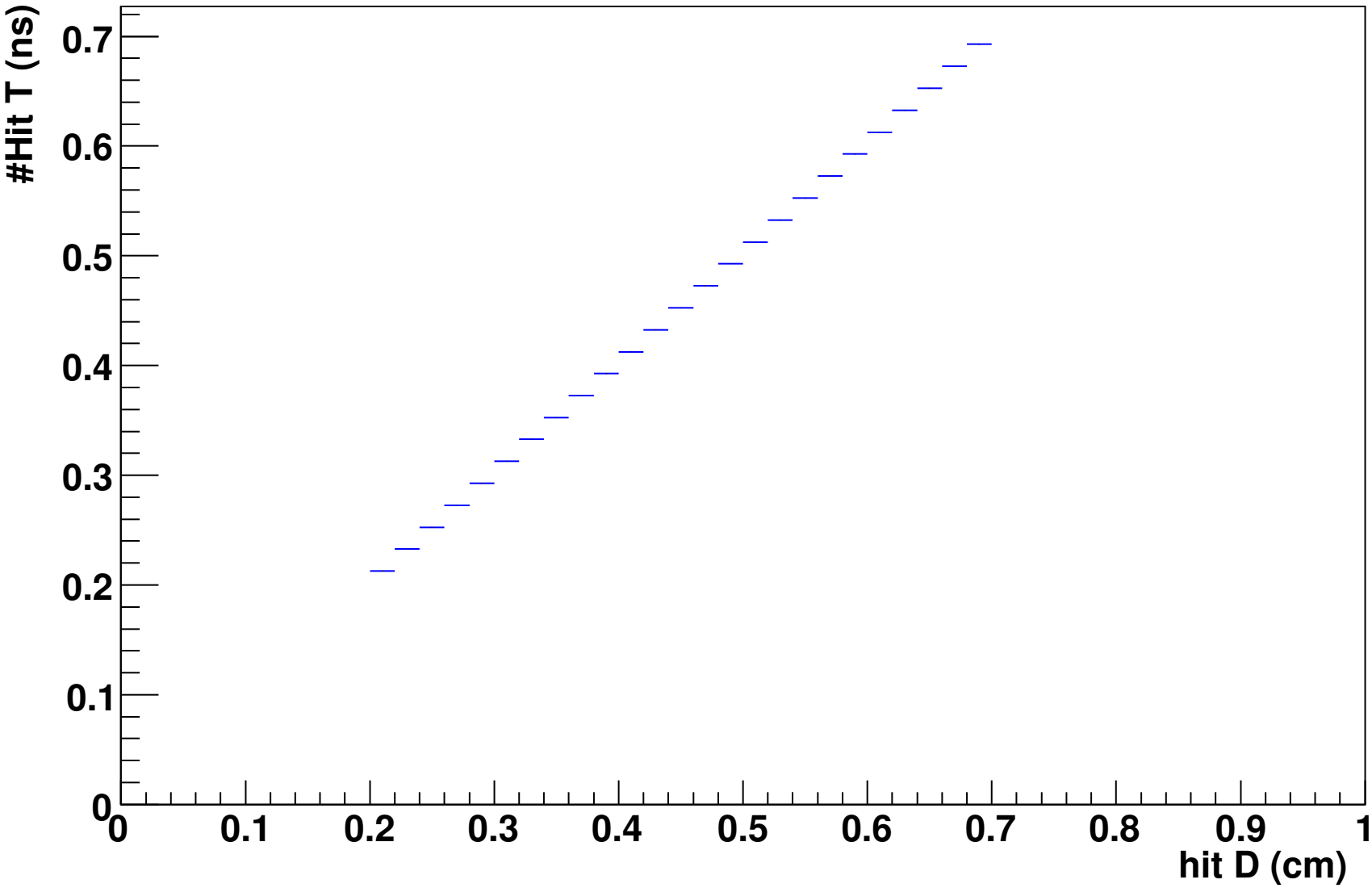

number of cosmics
10^4
10^3
10^2
10
1
0
1
2
3
4
5
6
ϕ_0

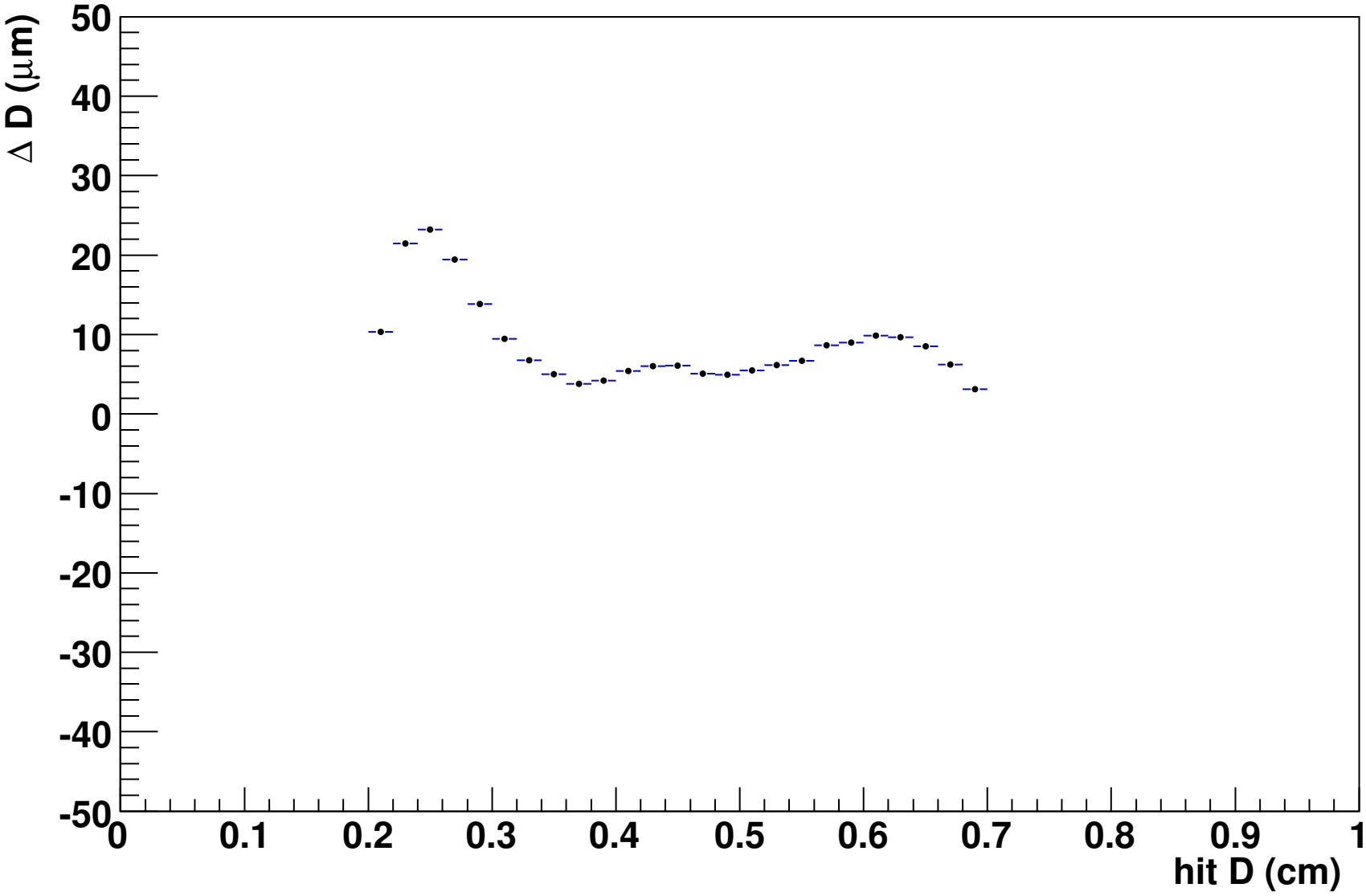

Δ D (μm)
30
20
10
0
-10
-80
-60
-40
-20
0
20
40
60
80
wire number

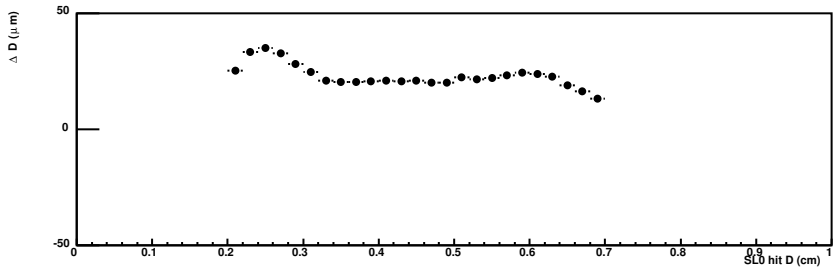

Δ Y (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

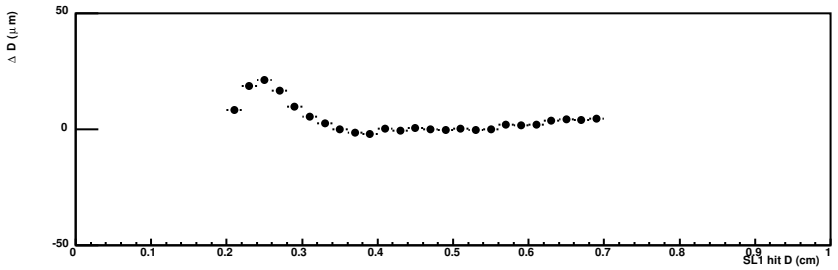

Δ D (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

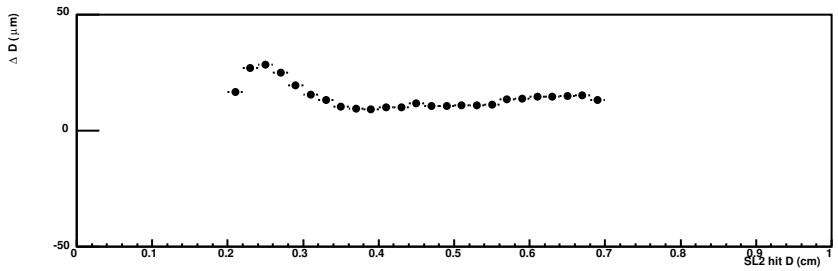

Δ Y (μm)
4
3
2
1
0
-1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

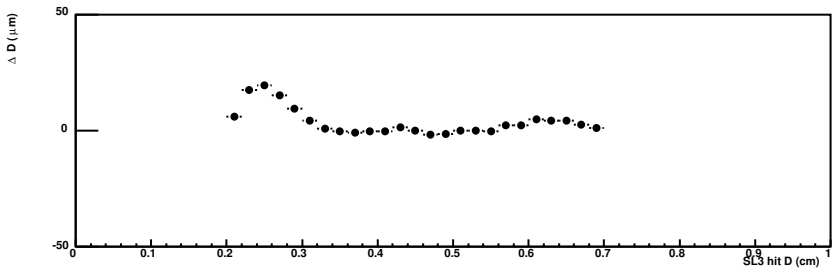

#Hit T (ns)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

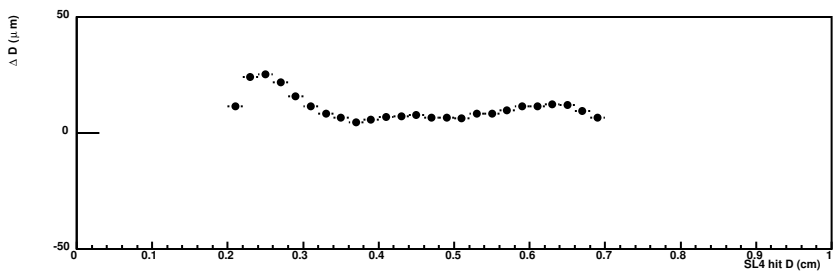

Δ D (μm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

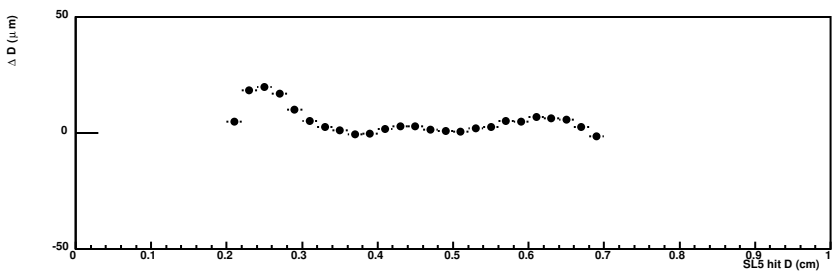

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL0 hit D (cm)

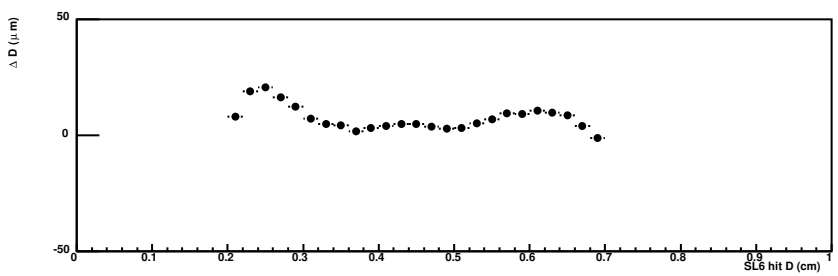

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL1 hit D (cm)

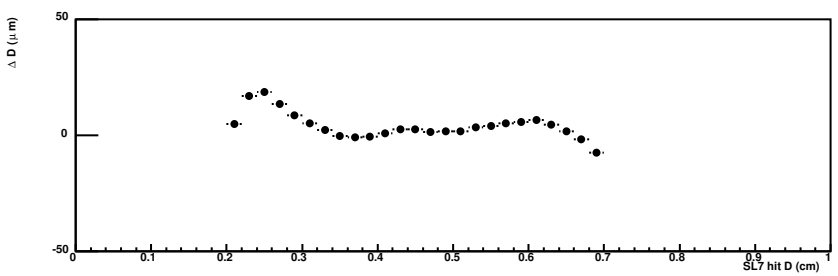

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL2 hit D (cm)

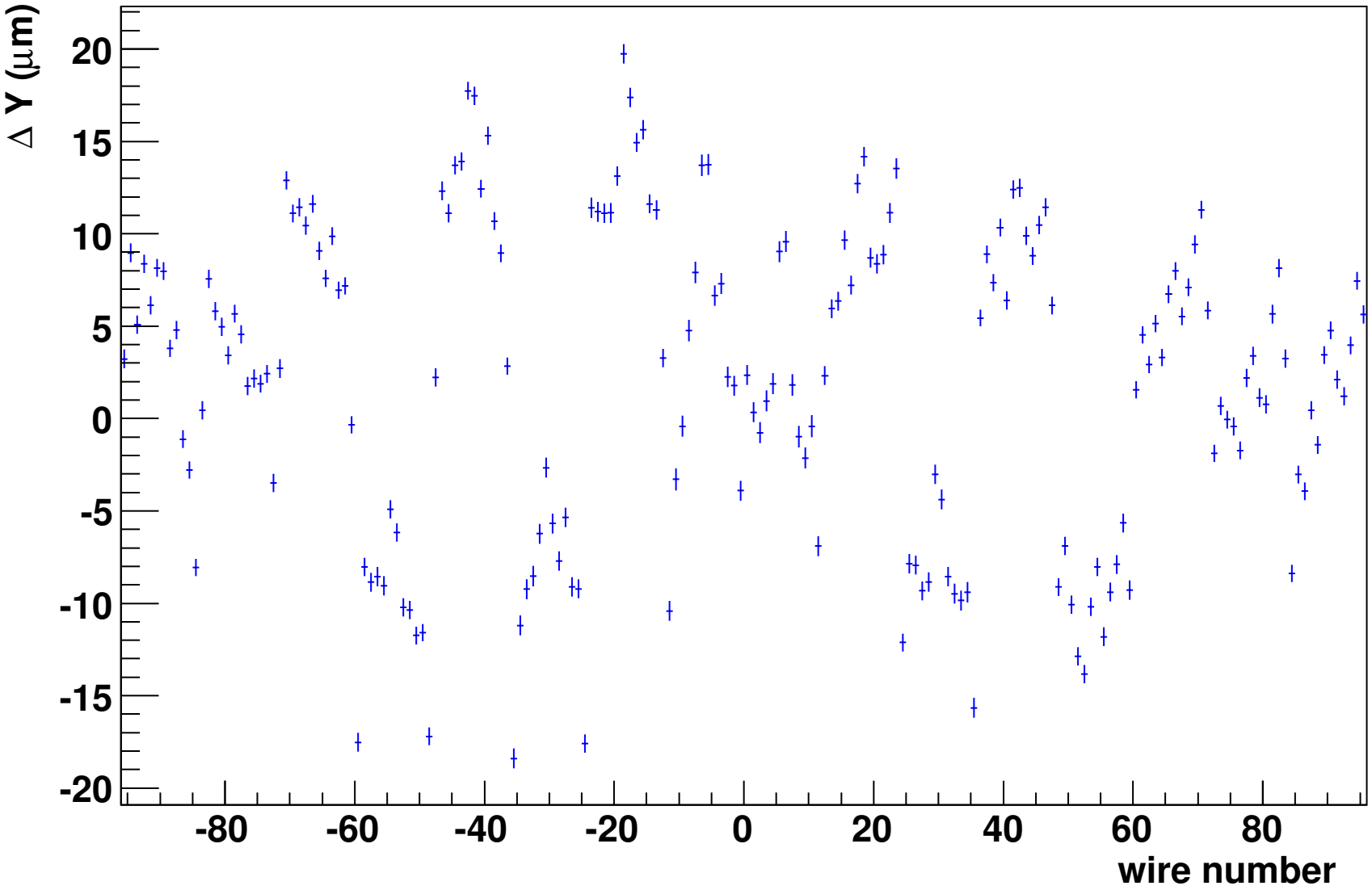

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL3 hit D (cm)

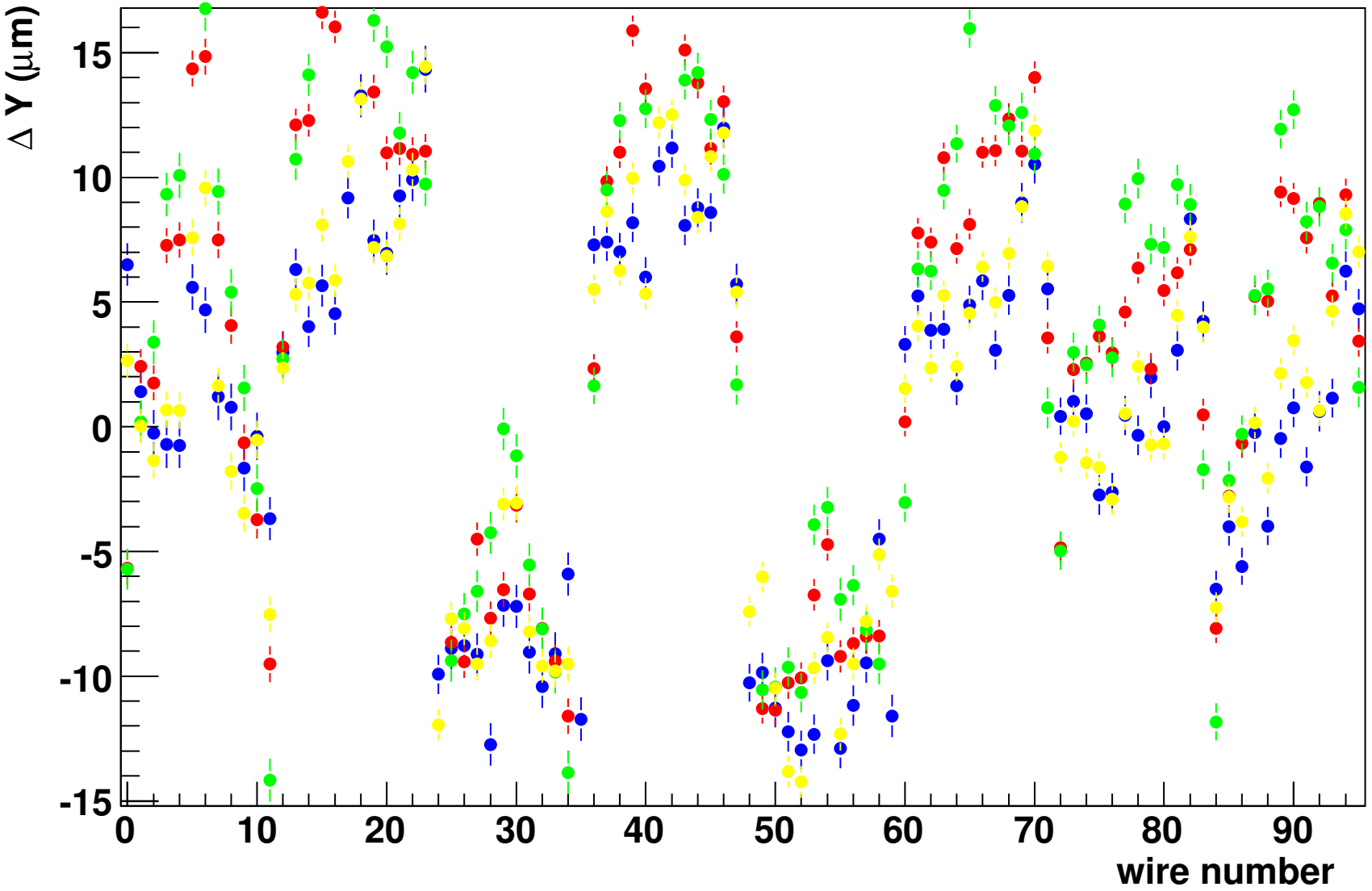

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL4 hit D (cm)

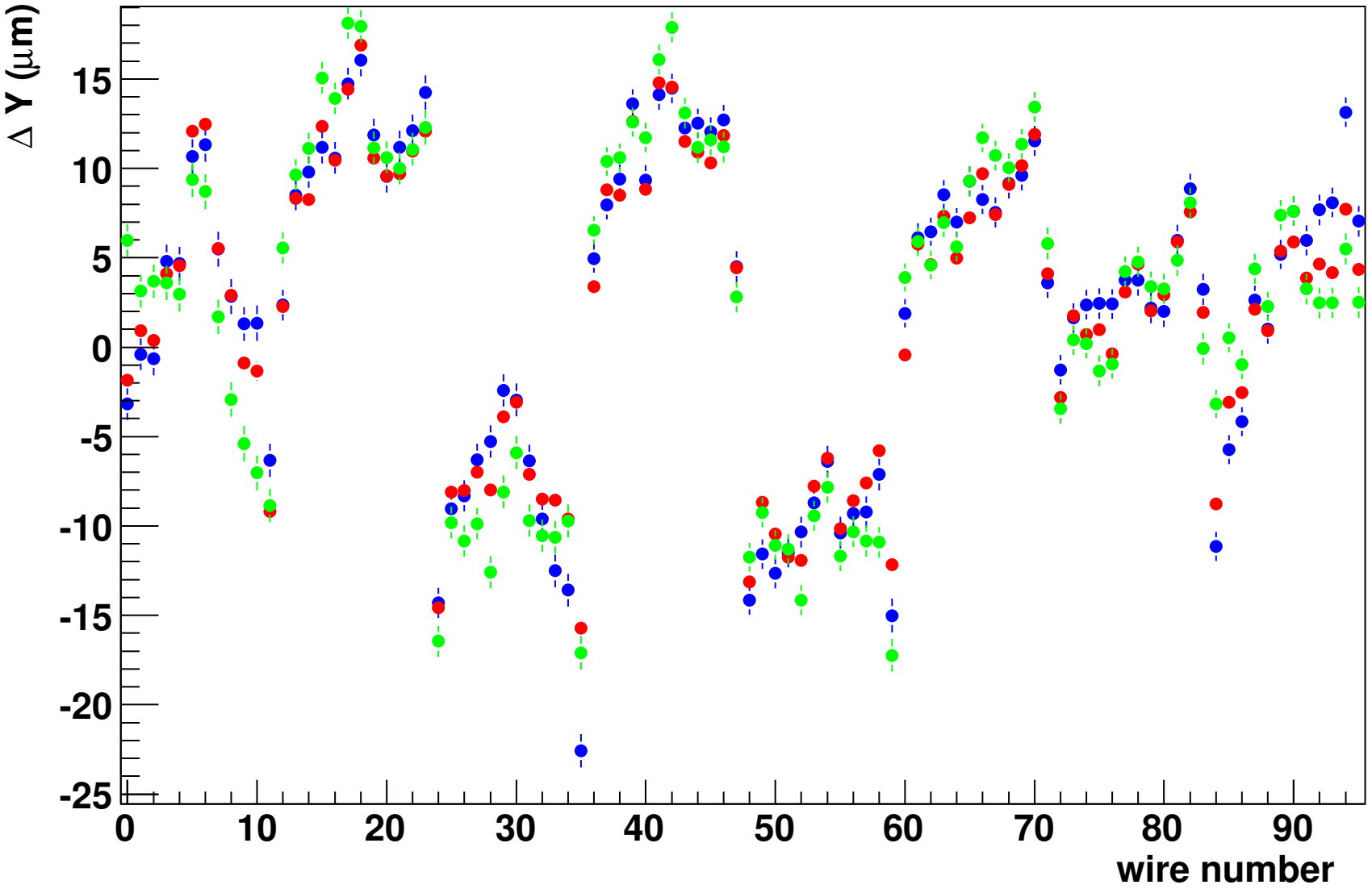

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL5 hit D (cm)

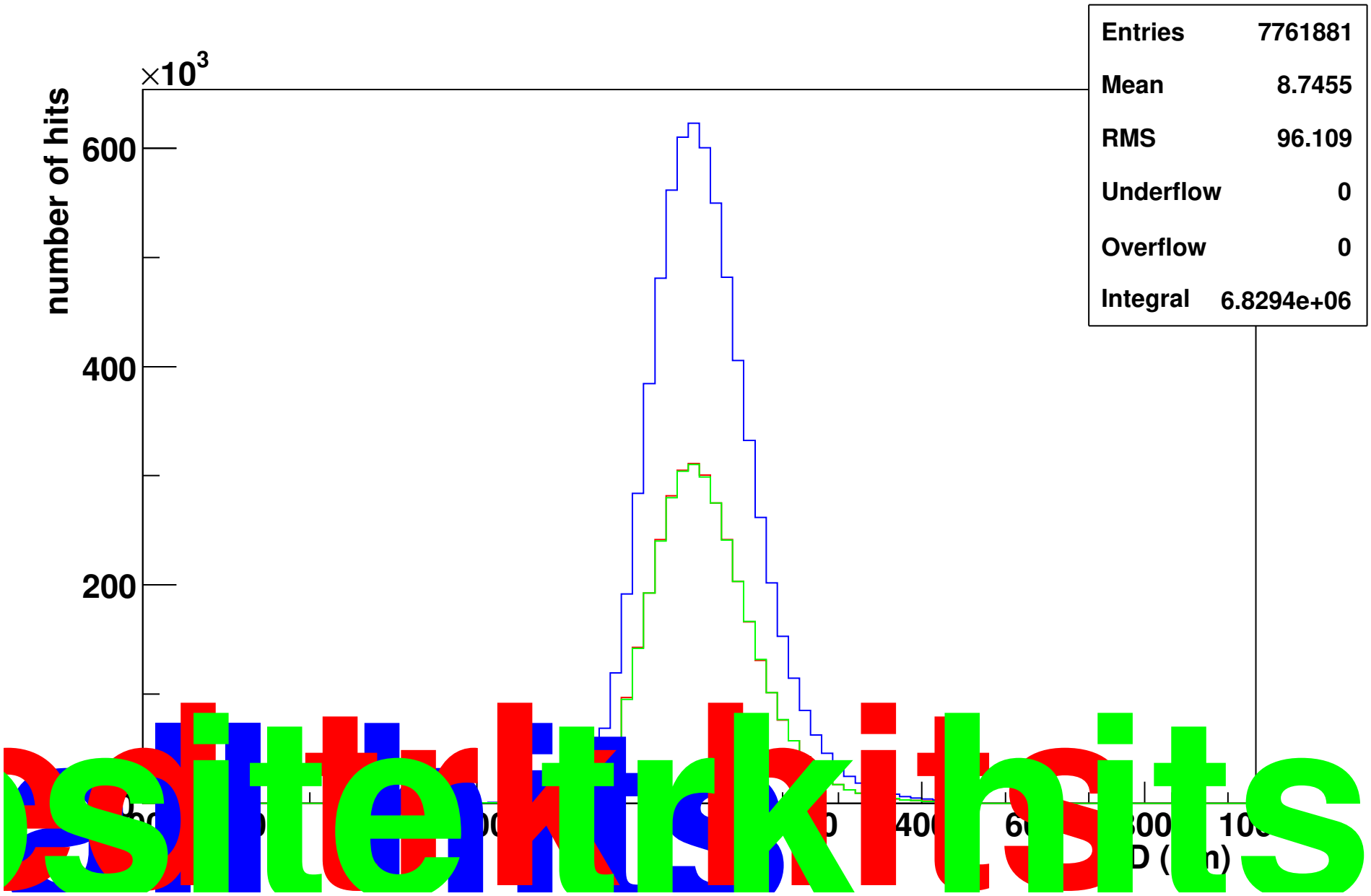

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL6 hit D (cm)


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)

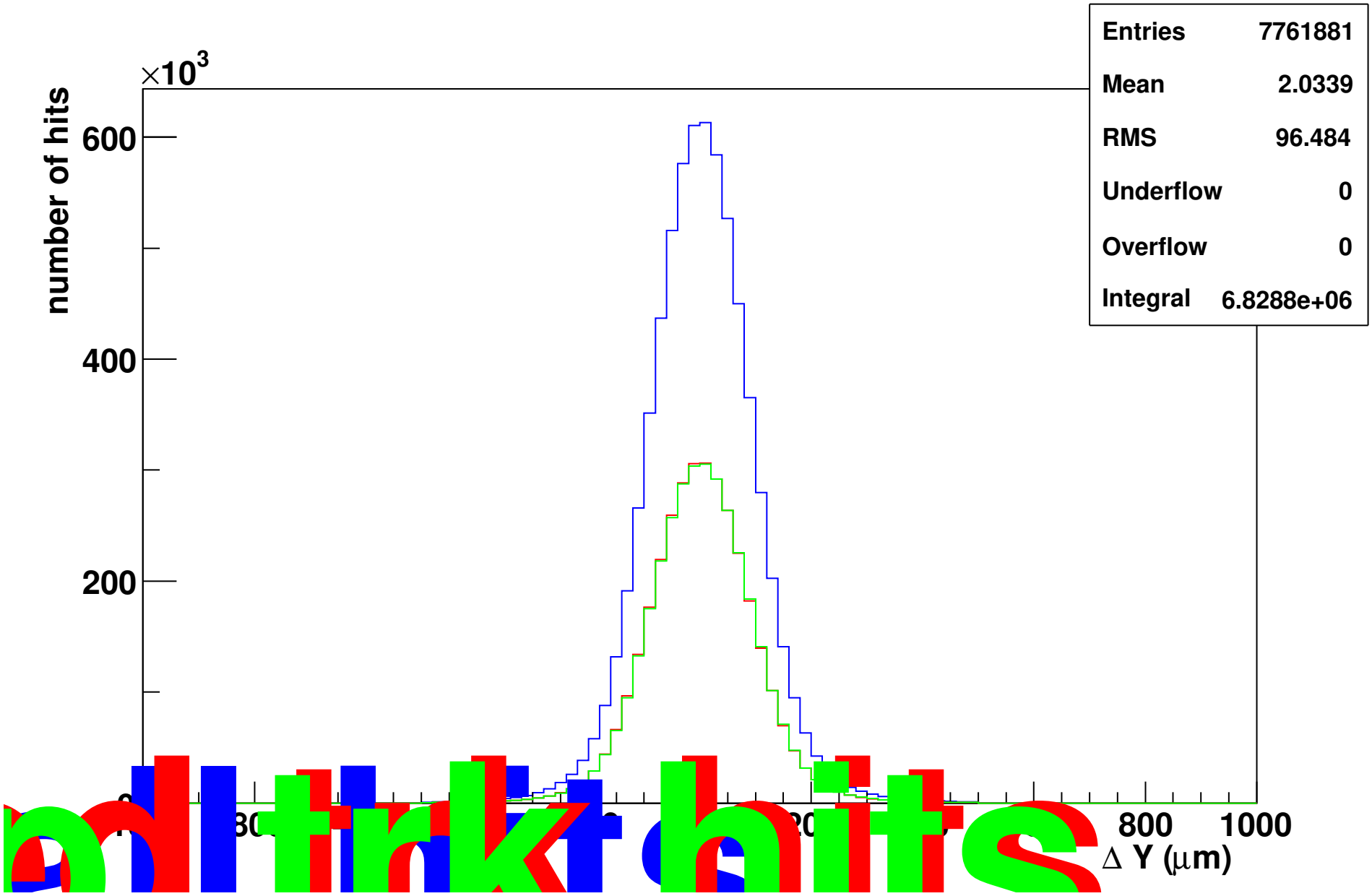

Δ Y (μm)
20
15
10
5
0
-5
-10
-15
-20
-80
-60
-40
-20
0
20
40
60
80
wire number

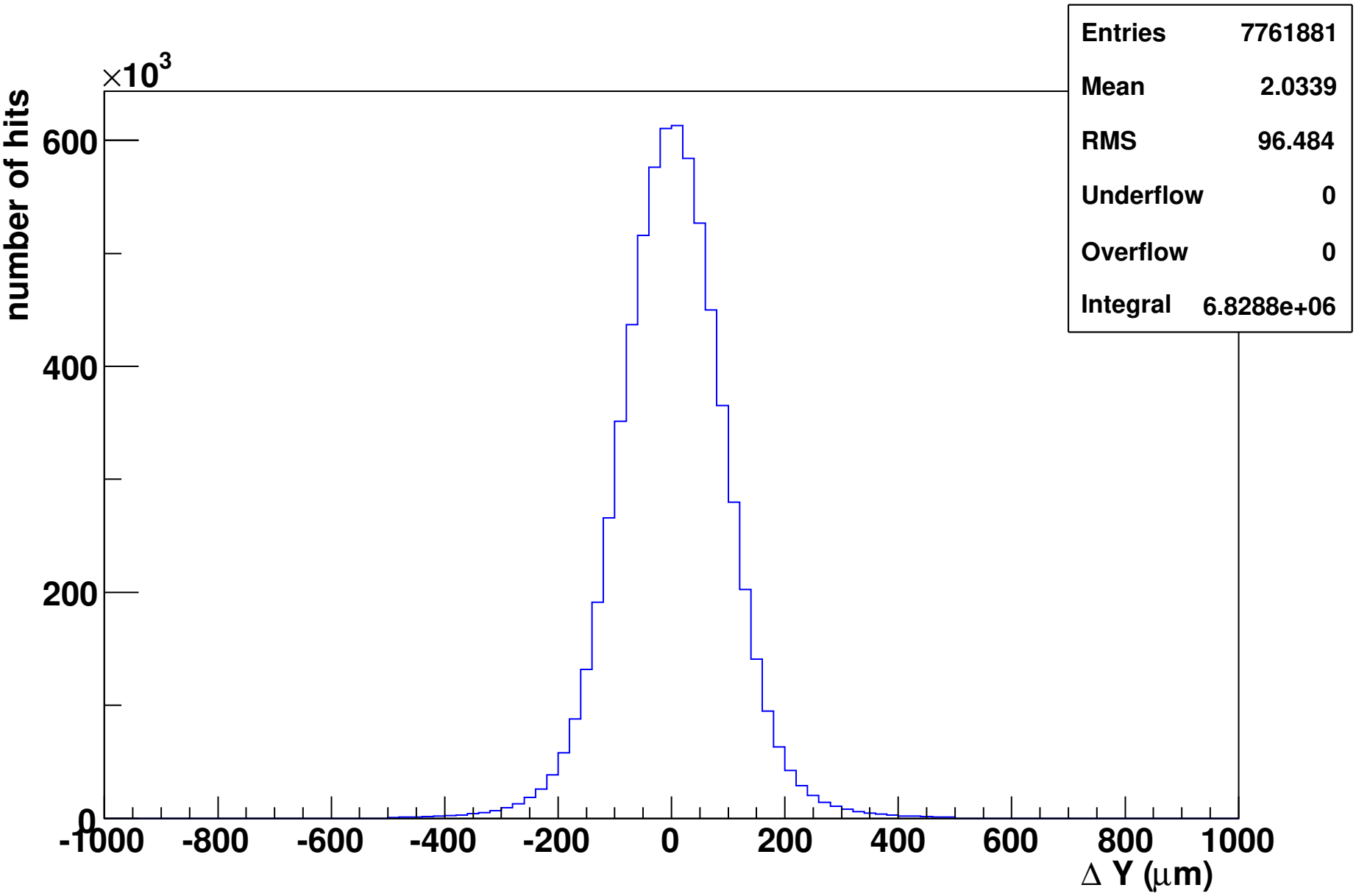

Δ Y (μm)
15
10
5
0
-5
-10
-15
0
10
20
30
40
50
60
70
80
90
wire number


Δ Y (μm)
15
10
5
0
-5
-10
-15
-20
-25
0
10
20
30
40
50
60
70
80
90
wire number



Entries 7761881
Mean 8.7455
RMS 96.109
Underflow 0
Overflow 0
Integral 6.8294e+06
number of hits
×10^3
600
400
200


Entries 7761881
Mean 2.0339
RMS 96.484
Underflow 0
Overflow 0
Integral 6.8288e+06
×10^3
number of hits
600
400
200
800
1000
Δ Y (μm)
all trk hits


Entries 7761881
Mean 2.0339
RMS 96.484
Underflow 0
Overflow 0
Integral 6.8288e+06
×10^3
number of hits
600
400
200
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ Y (μm)