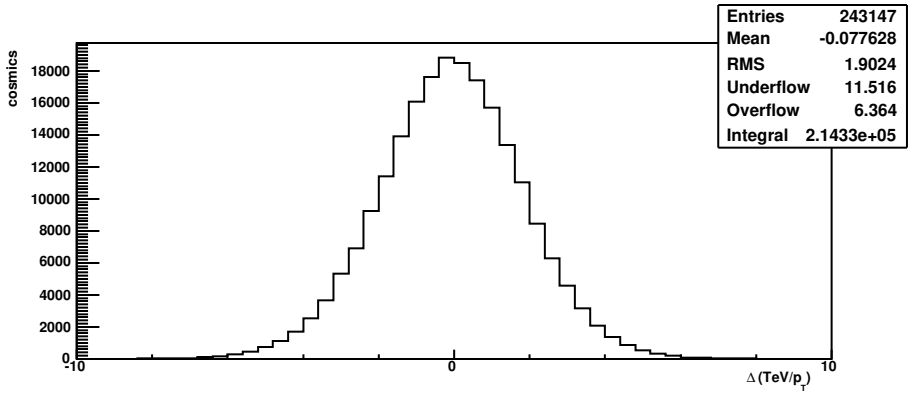
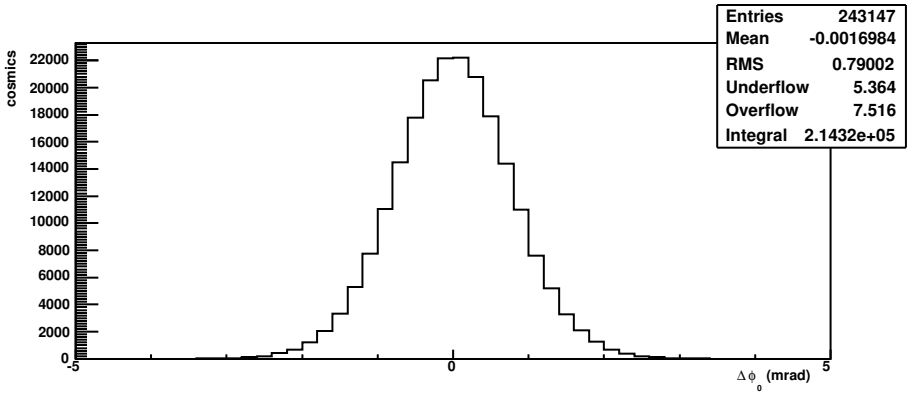
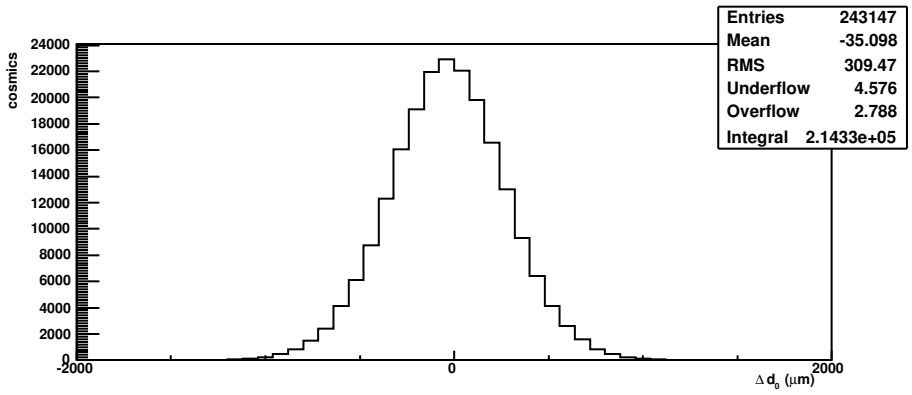
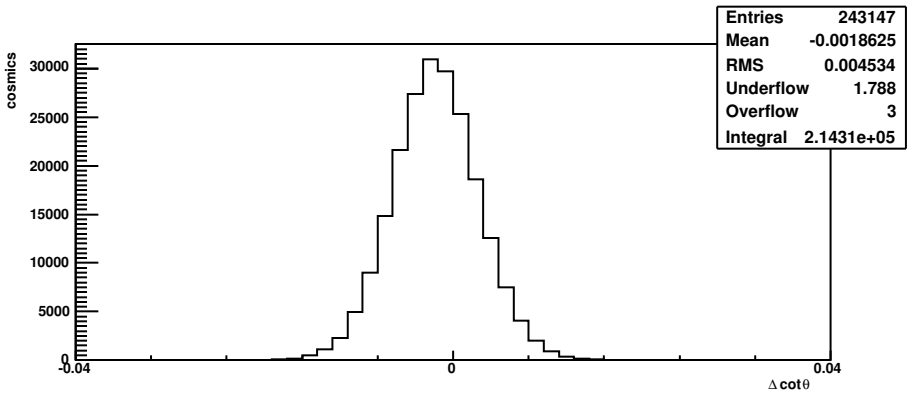
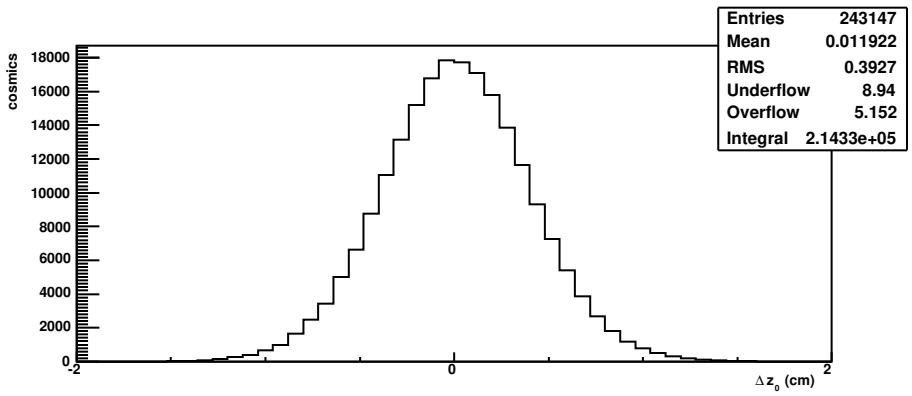
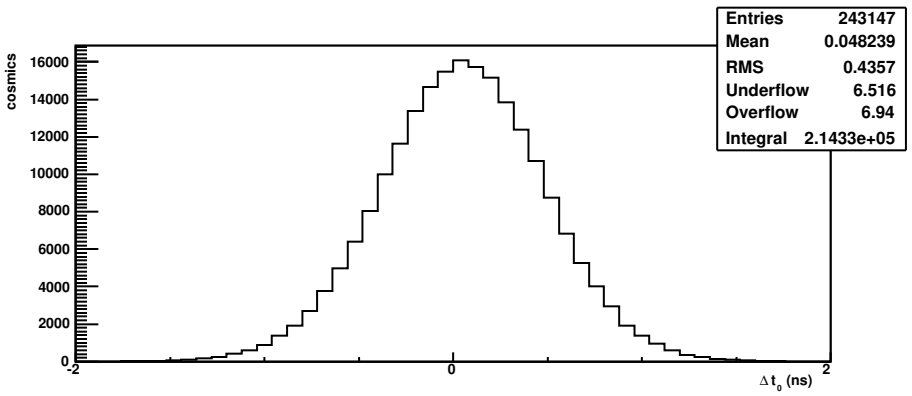

cosmics
Entries 243147
Mean -0.077628
RMS 1.9024
Underflow 11.516
Overflow 6.364
Integral 2.1433e+05
Δ(TeV/p_T)

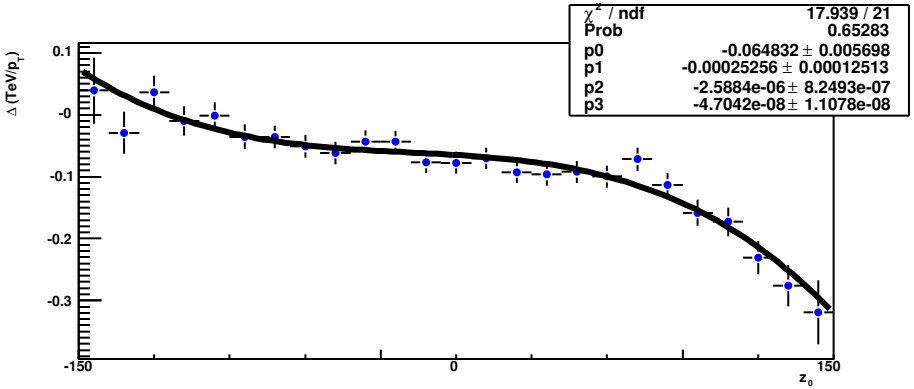

cosmics
Entries 243147
Mean -0.0016984
RMS 0.79002
Underflow 5.364
Overflow 7.516
Integral 2.1432e+05
Δφ_0 (mrad)

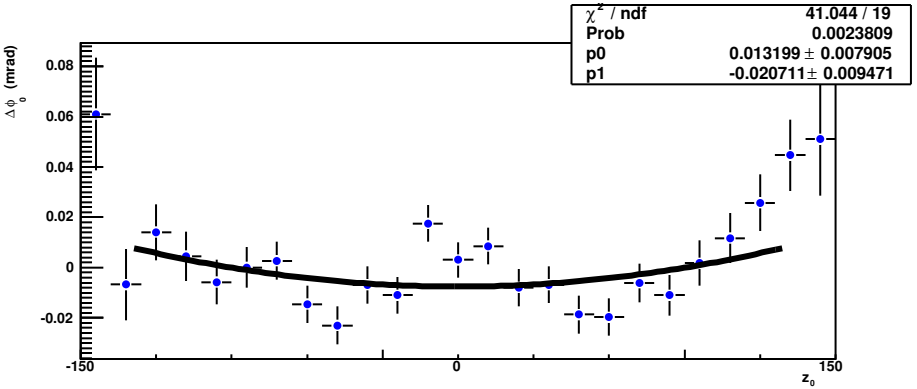

cosmics
Entries 243147
Mean -35.098
RMS 309.47
Underflow 4.576
Overflow 2.788
Integral 2.1433e+05
Δd_0 (μm)

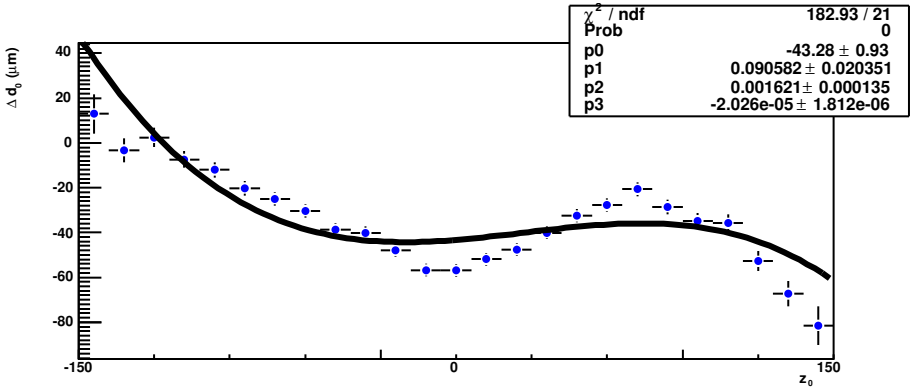

cosmics
Entries 243147
Mean -0.0018625
RMS 0.004534
Underflow 1.788
Overflow 3
Integral 2.1431e+05
Δcotθ

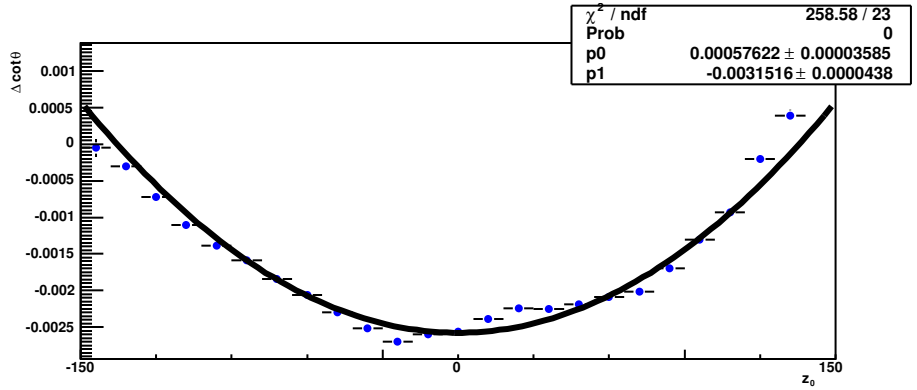

cosmics
Entries 243147
Mean 0.011922
RMS 0.3927
Underflow 8.94
Overflow 5.152
Integral 2.1433e+05
Δz_0 (cm)

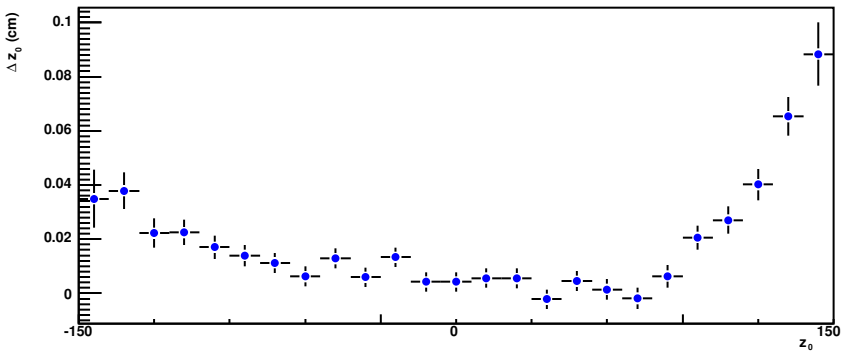

cosmics
Entries 243147
Mean 0.048239
RMS 0.4357
Underflow 6.516
Overflow 6.94
Integral 2.1433e+05
Δt_0 (ns)

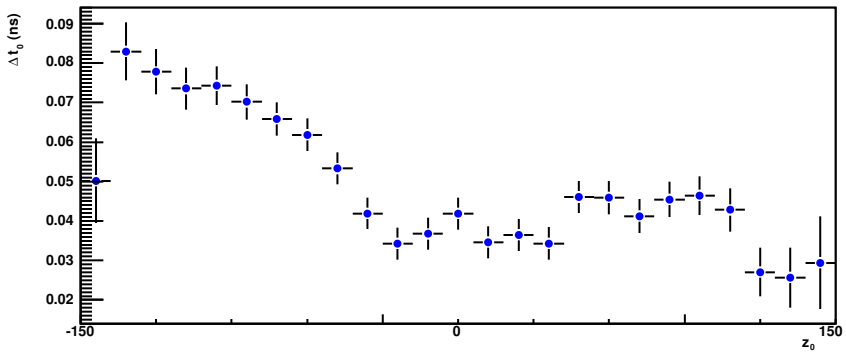

χ² / ndf 17.939 / 21
Prob 0.65283
p0 -0.064832 ± 0.005698
p1 -0.00025256 ± 0.00012513
p2 -2.5884e-06 ± 8.2493e-07
p3 -4.7042e-08 ± 1.1078e-08
Δ (TeV/p_T)
z_0

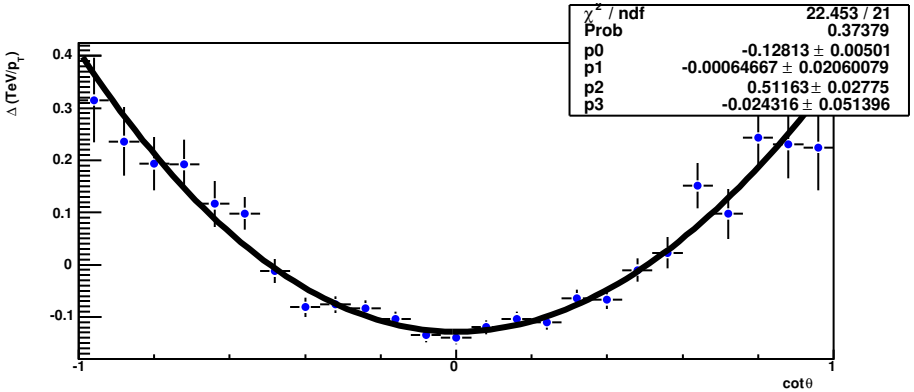

χ² / ndf 41.044 / 19
Prob 0.0023809
p0 0.013199 ± 0.007905
p1 -0.020711 ± 0.009471
Δφ_0 (mrad)
z_0

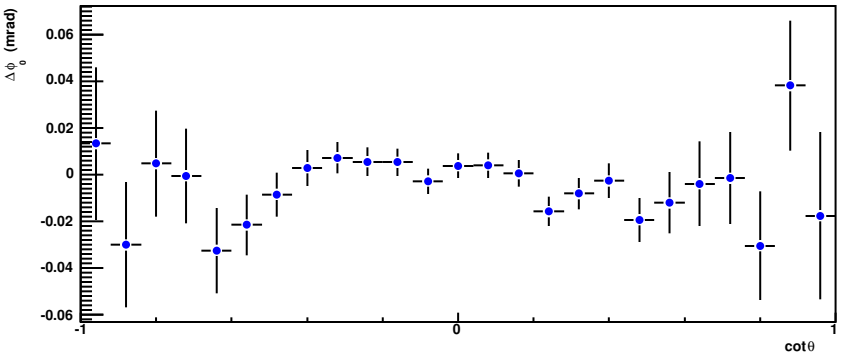

χ² / ndf 182.93 / 21
Prob 0
p0 -43.28 ± 0.93
p1 0.090582 ± 0.020351
p2 0.001621 ± 0.000135
p3 -2.026e-05 ± 1.812e-06
Δ d_0 (μm)
z_0

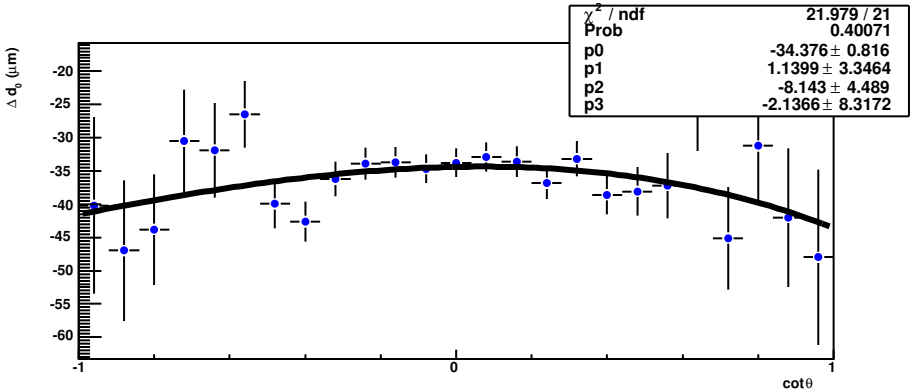

χ² / ndf 258.58 / 23
Prob 0
p0 0.00057622 ± 0.00003585
p1 -0.0031516 ± 0.0000438
Δ cotθ
z_0

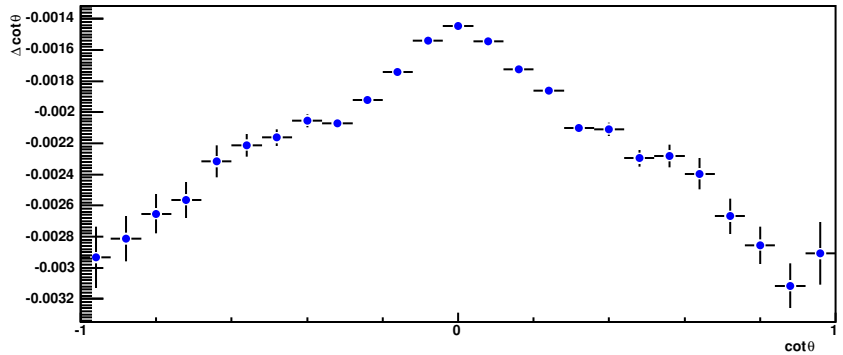

Δ z_0 (cm)
z_0

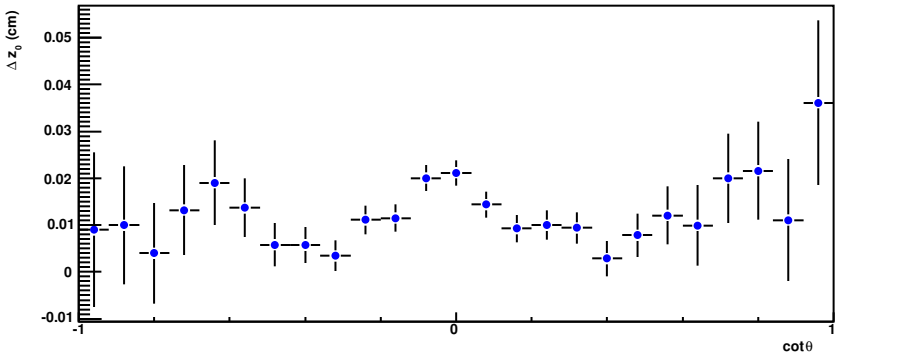

Δ t_0 (ns)
z_0

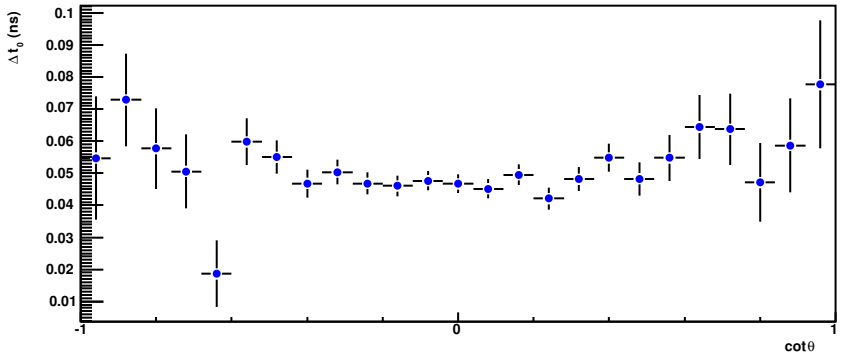

χ^2 / ndf 22.453 / 21
Prob 0.37379
p0 -0.12813 ± 0.00501
p1 -0.00064667 ± 0.02060079
p2 0.51163 ± 0.02775
p3 -0.024316 ± 0.051396
Δ (TeV/p_T)
cotθ

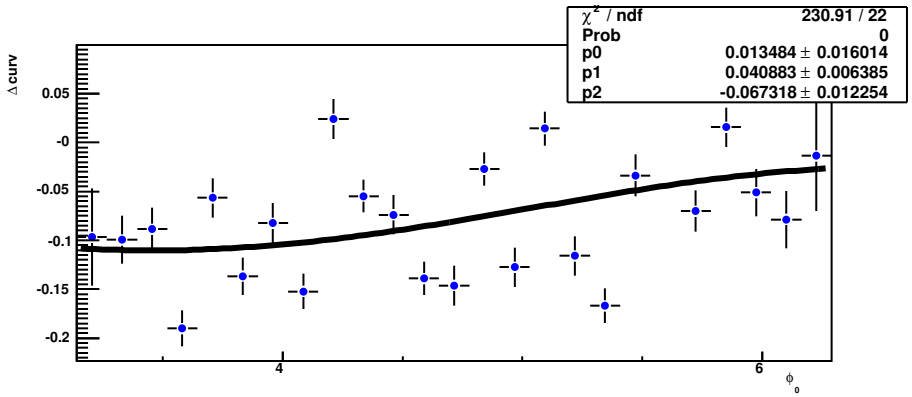

Δ φ_0 (mrad)
cotθ

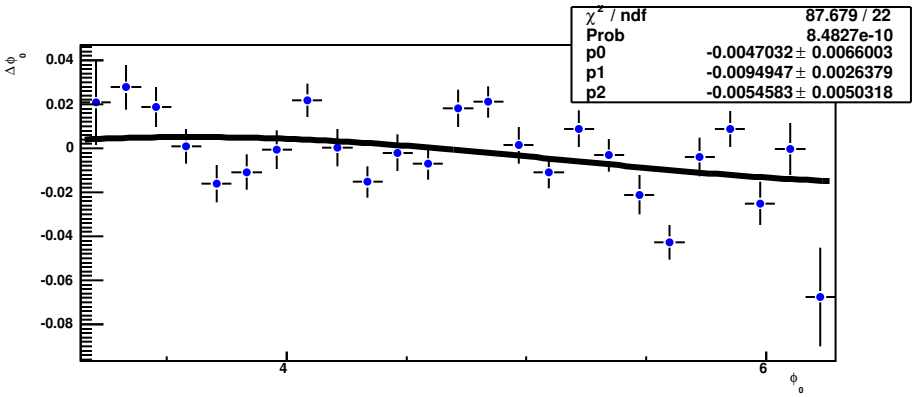

χ^2 / ndf 21.979 / 21
Prob 0.40071
p0 -34.376 ± 0.816
p1 1.1399 ± 3.3464
p2 -8.143 ± 4.489
p3 -2.1366 ± 8.3172
Δ d_0 (μm)
cotθ

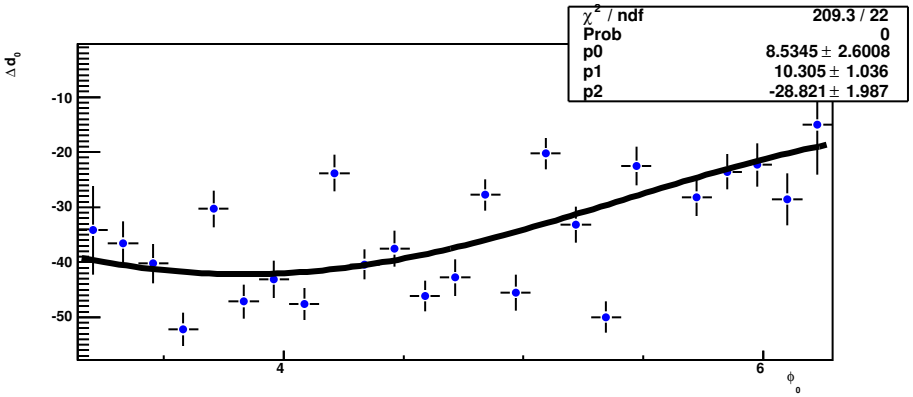

Δ cotθ
cotθ

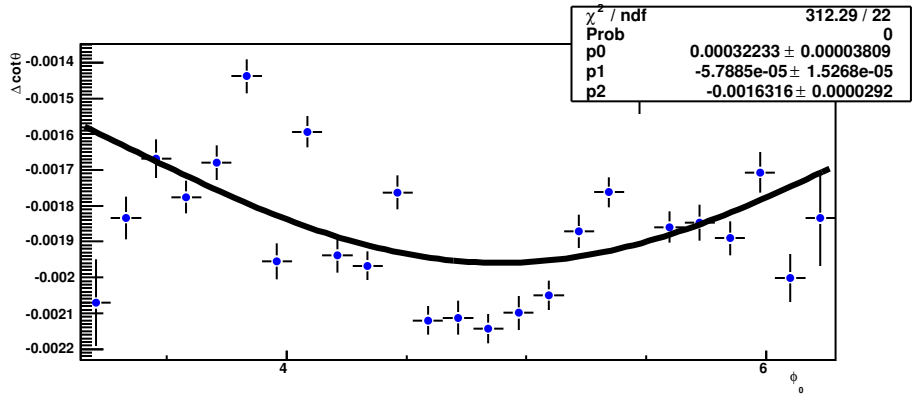

Δ z_0 (cm)
cotθ

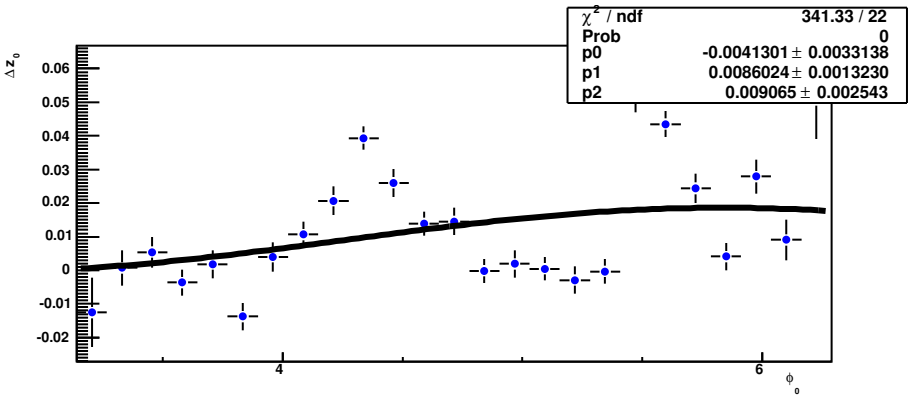

Δ t_0 (ns)
cotθ

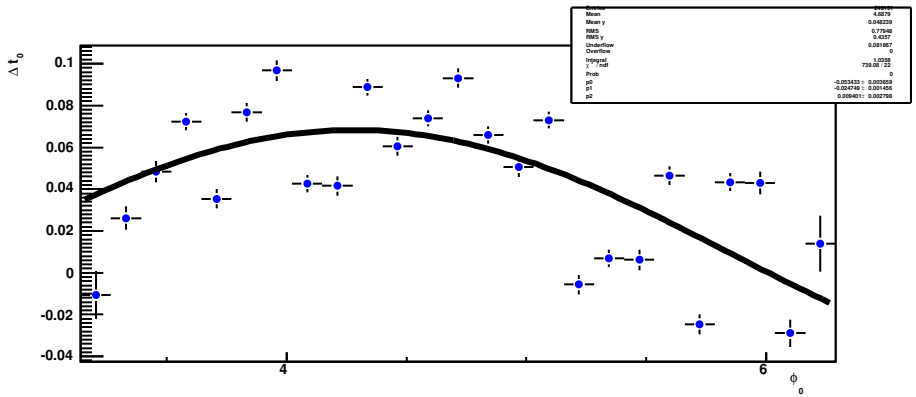

χ² / ndf 230.91 / 22
Prob 0
p0 0.013484 ± 0.016014
p1 0.040883 ± 0.006385
p2 -0.067318 ± 0.012254
Δ curv
φ0

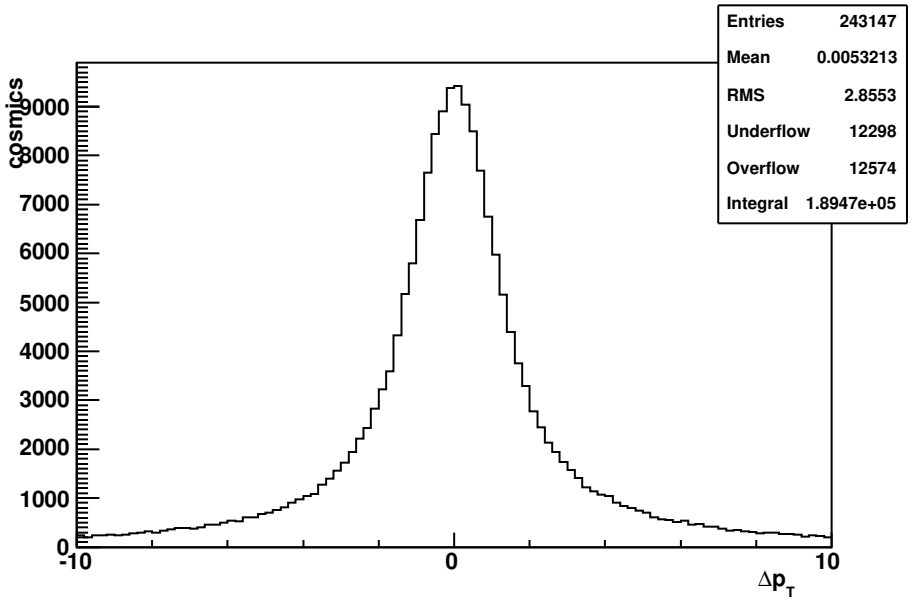

χ² / ndf 87.679 / 22
Prob 8.4827e-10
p0 -0.0047032 ± 0.0066003
p1 -0.0094947 ± 0.0026379
p2 -0.0054583 ± 0.0050318
Δ φ0
φ0

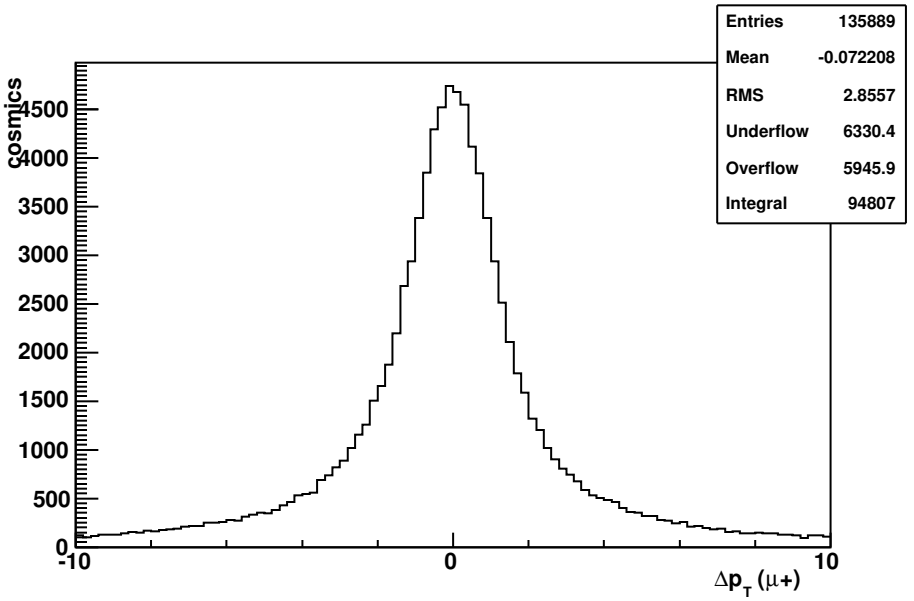

χ² / ndf 209.3 / 22
Prob 0
p0 8.5345 ± 2.6008
p1 10.305 ± 1.036
p2 -28.821 ± 1.987
Δ d0
φ0

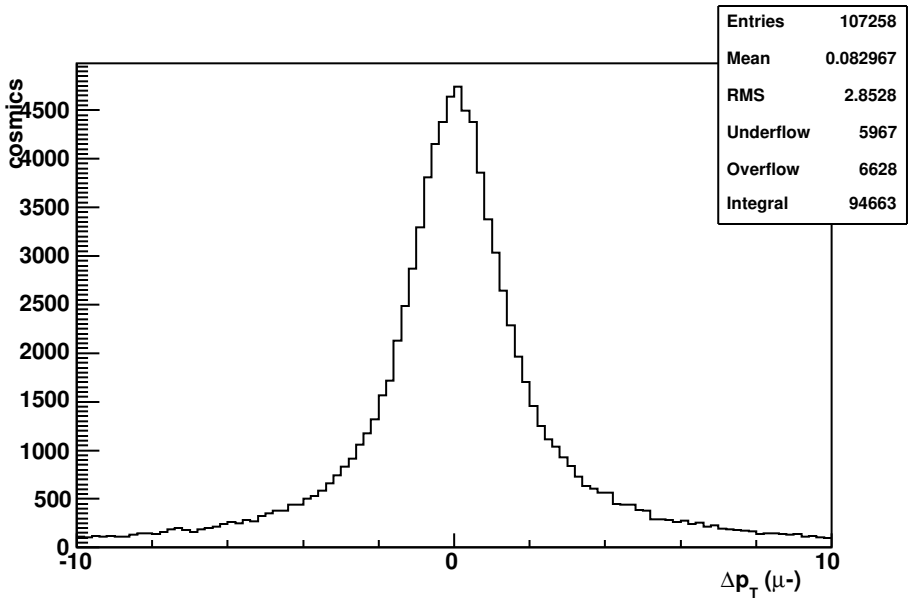

χ² / ndf 312.29 / 22
Prob 0
p0 0.00032233 ± 0.00003809
p1 -5.7885e-05 ± 1.5268e-05
p2 -0.0016316 ± 0.0000292
Δ cot(θ)
φ0

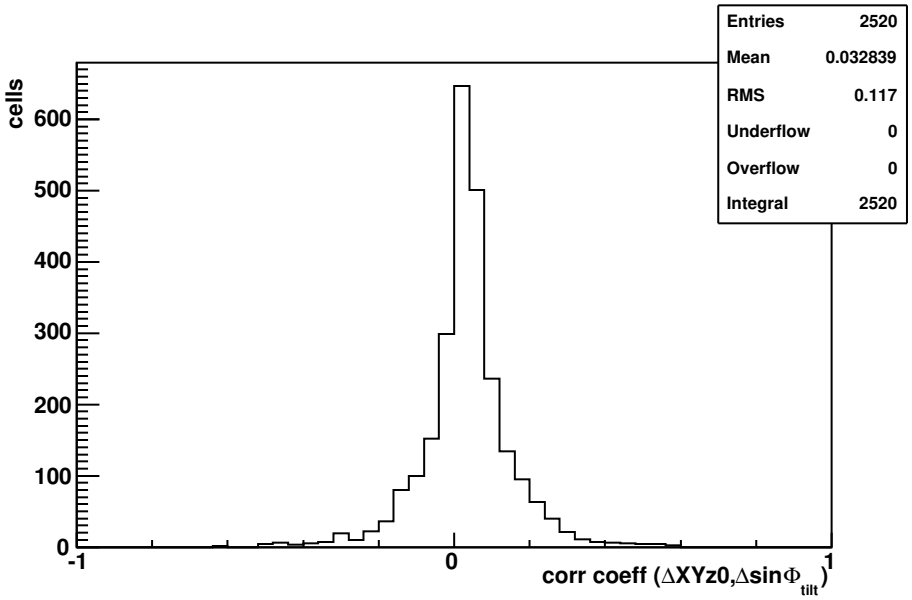

χ² / ndf 341.33 / 22
Prob 0
p0 -0.0041301 ± 0.0033138
p1 0.0086024 ± 0.0013230
p2 0.009065 ± 0.002543
Δ z0
φ0

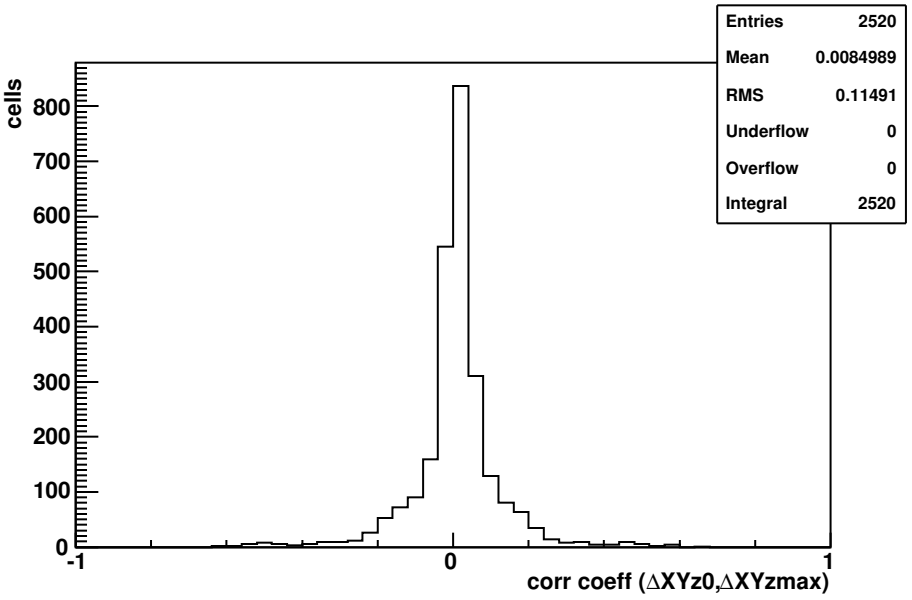

Δ t0
φ0

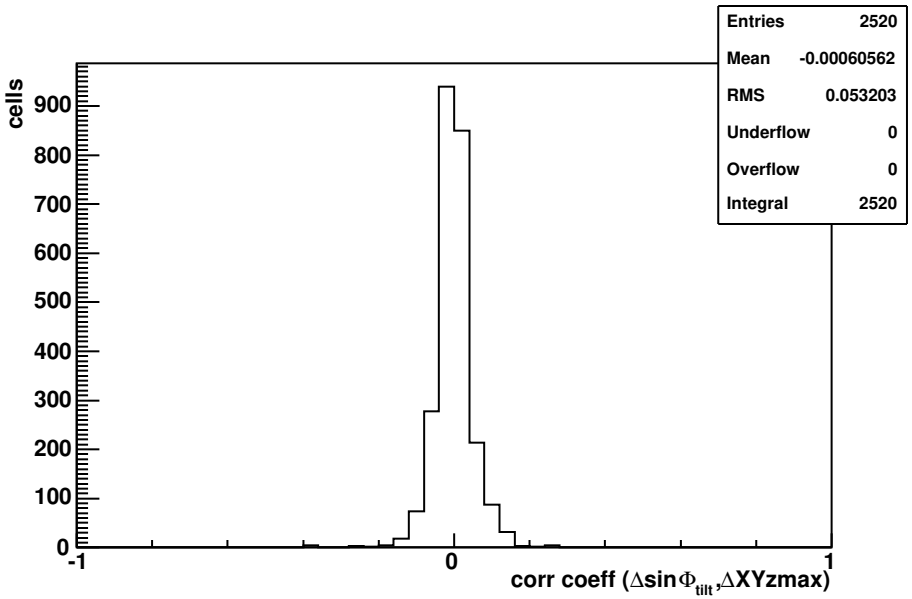

Entries 243147
Mean 0.0053213
RMS 2.8553
Underflow 12298
Overflow 12574
Integral 1.8947e+05
cosmics
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-10
0
10
Δp_T

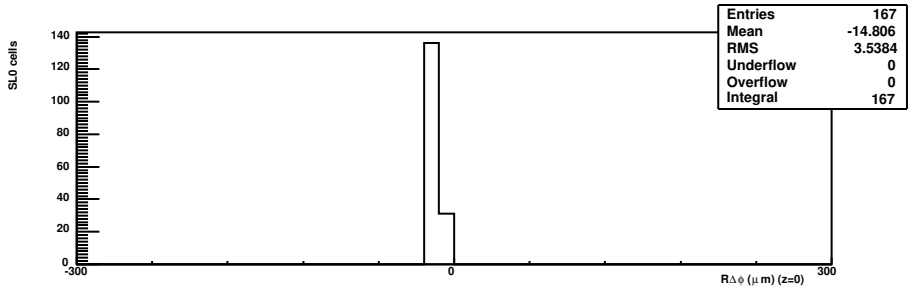

Entries 135889
Mean -0.072208
RMS 2.8557
Underflow 6330.4
Overflow 5945.9
Integral 94807
cosmics
4500
4000
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ+)

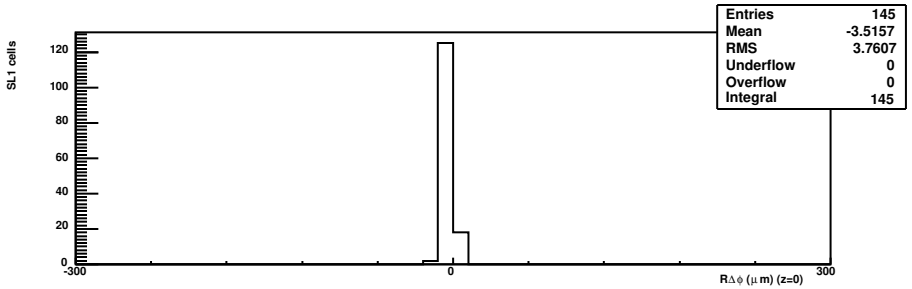

Entries 107258
Mean 0.082967
RMS 2.8528
Underflow 5967
Overflow 6628
Integral 94663
cosmics
4500
4000
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ-)

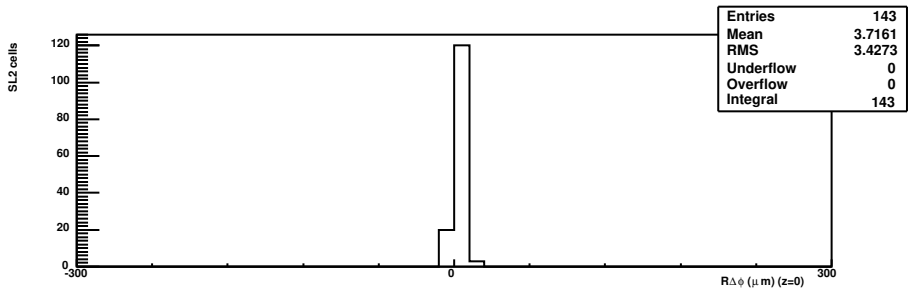

Entries 2520
Mean 0.032839
RMS 0.117
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔsinΦ_{tilt})

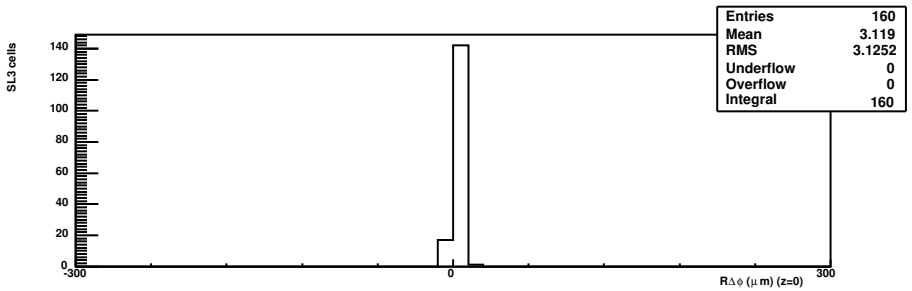

Entries 2520
Mean 0.0084989
RMS 0.11491
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔXYzmax)

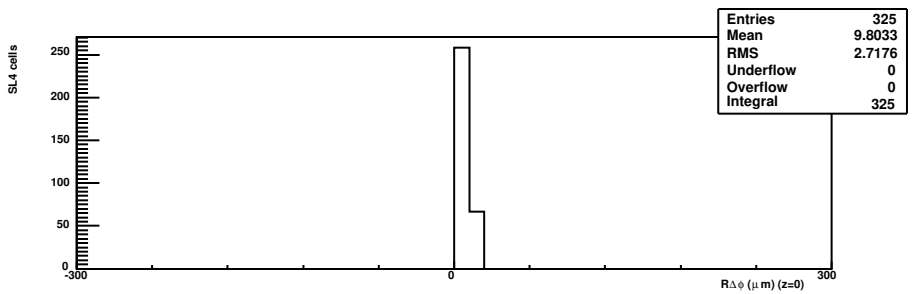

Entries 2520
Mean -0.00060562
RMS 0.053203
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔsinΦ_{tilt},ΔXYzmax)

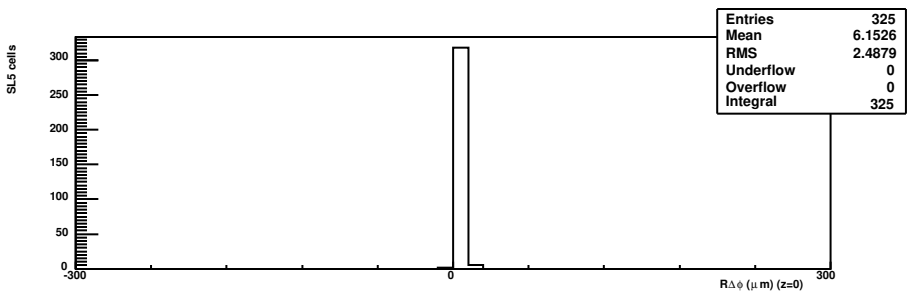

SL0 cells
Entries 167
Mean -14.806
RMS 3.5384
Underflow 0
Overflow 0
Integral 167
R∆ϕ (μm) (z=0)

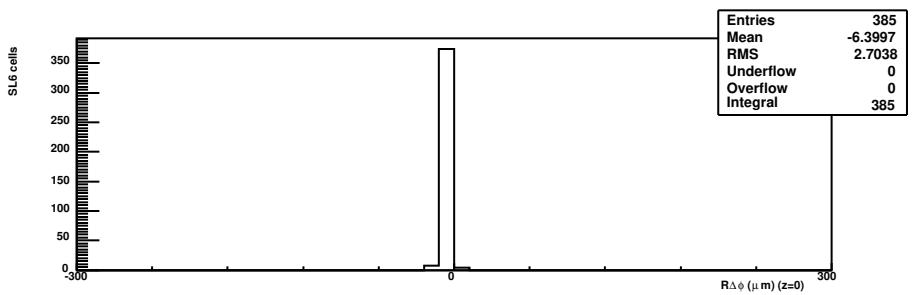

SL1 cells
Entries 145
Mean -3.5157
RMS 3.7607
Underflow 0
Overflow 0
Integral 145
R∆ϕ (μm) (z=0)

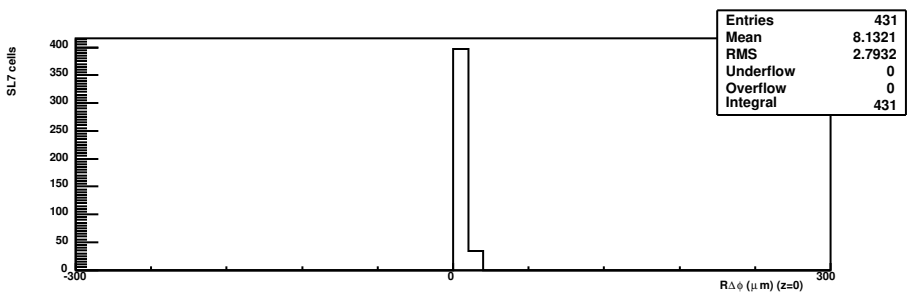

SL2 cells
Entries 143
Mean 3.7161
RMS 3.4273
Underflow 0
Overflow 0
Integral 143
R∆ϕ (μm) (z=0)

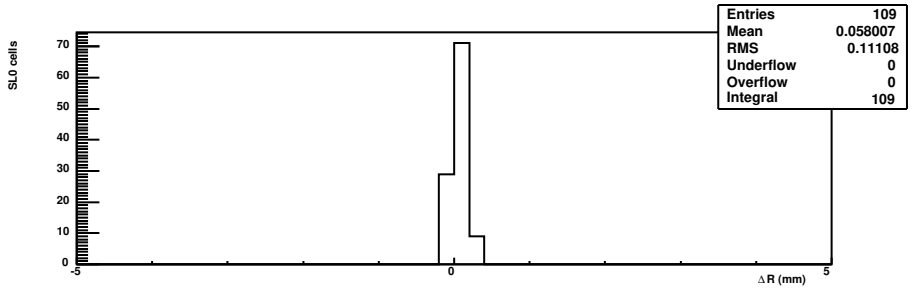

SL3 cells
Entries 160
Mean 3.119
RMS 3.1252
Underflow 0
Overflow 0
Integral 160
R∆ϕ (μm) (z=0)

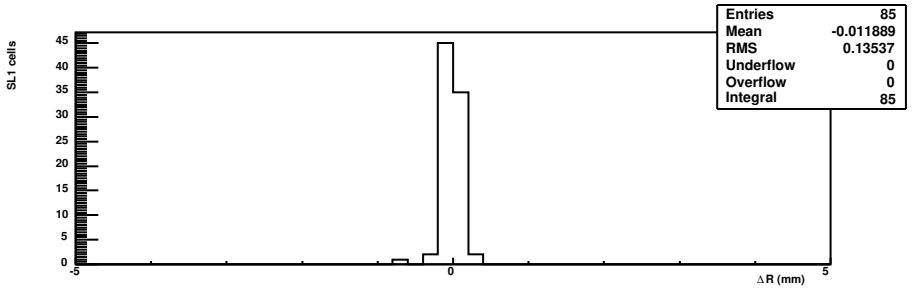

SL4 cells
Entries 325
Mean 9.8033
RMS 2.7176
Underflow 0
Overflow 0
Integral 325
R∆ϕ (μm) (z=0)

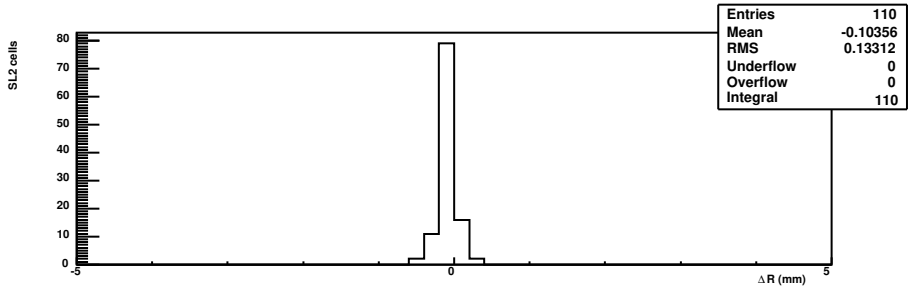

SL5 cells
Entries 325
Mean 6.1526
RMS 2.4879
Underflow 0
Overflow 0
Integral 325
R∆ϕ (μm) (z=0)

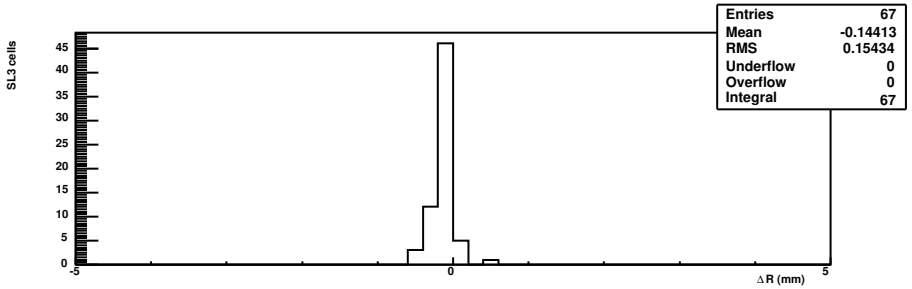

SL6 cells
Entries 385
Mean -6.3997
RMS 2.7038
Underflow 0
Overflow 0
Integral 385
R∆ϕ (μm) (z=0)

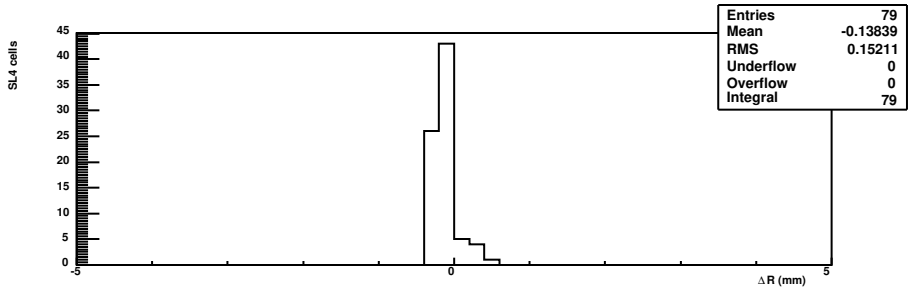

SL7 cells
Entries 431
Mean 8.1321
RMS 2.7932
Underflow 0
Overflow 0
Integral 431
R∆ϕ (μm) (z=0)

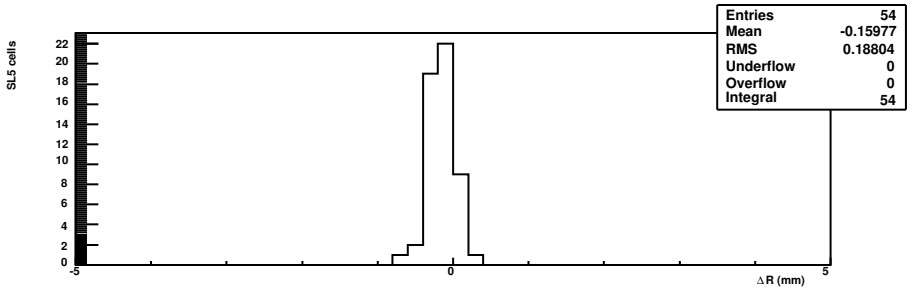

Entries 109
Mean 0.058007
RMS 0.11108
Underflow 0
Overflow 0
Integral 109
SL0 cells
ΔR (mm)

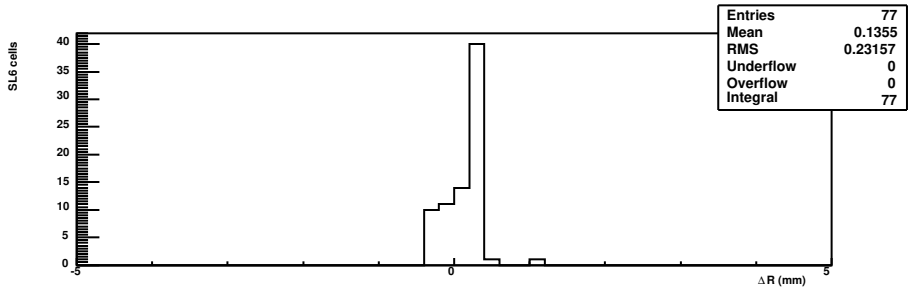

Entries 85
Mean -0.011889
RMS 0.13537
Underflow 0
Overflow 0
Integral 85
SL1 cells
ΔR (mm)

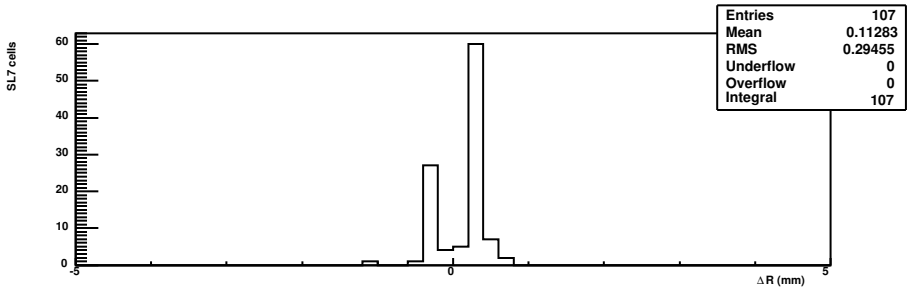

Entries 110
Mean -0.10356
RMS 0.13312
Underflow 0
Overflow 0
Integral 110
SL2 cells
ΔR (mm)

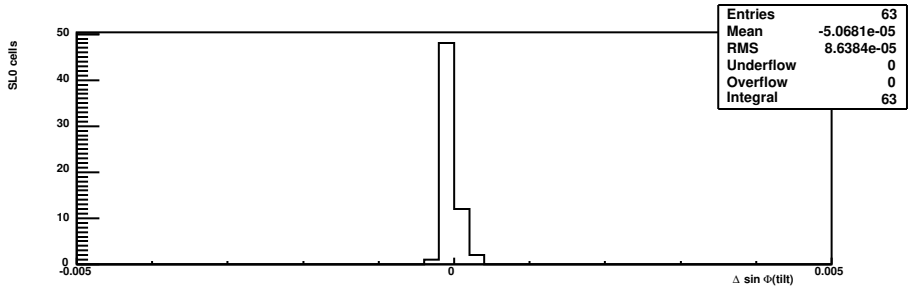

Entries 67
Mean -0.14413
RMS 0.15434
Underflow 0
Overflow 0
Integral 67
SL3 cells
ΔR (mm)

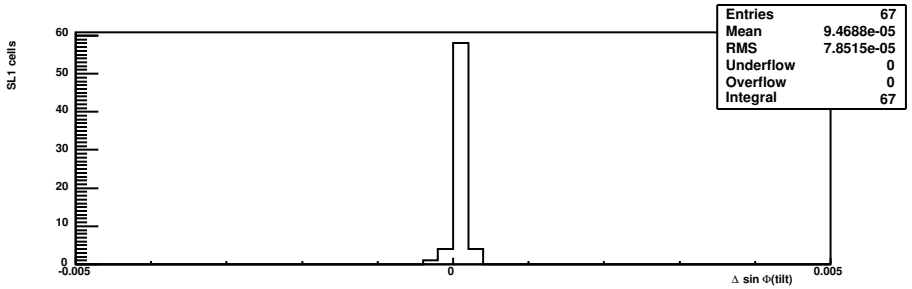

Entries 79
Mean -0.13839
RMS 0.15211
Underflow 0
Overflow 0
Integral 79
SL4 cells
ΔR (mm)

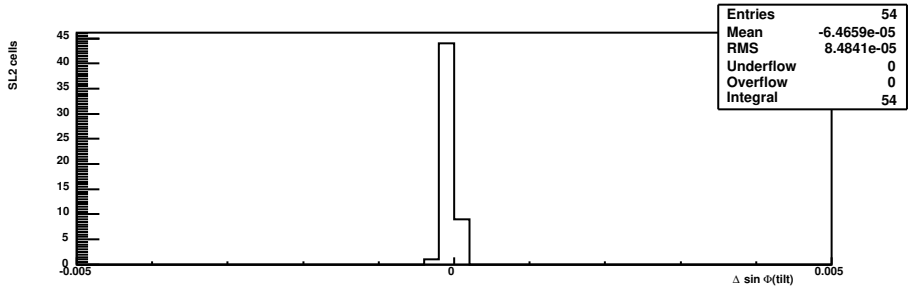

Entries 54
Mean -0.15977
RMS 0.18804
Underflow 0
Overflow 0
Integral 54
SL5 cells
ΔR (mm)

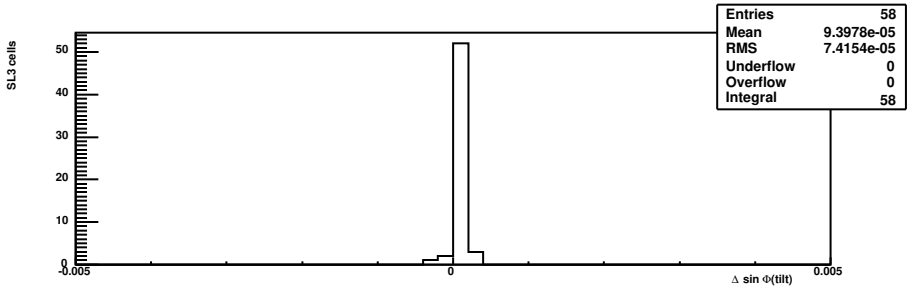

Entries 77
Mean 0.1355
RMS 0.23157
Underflow 0
Overflow 0
Integral 77
SL6 cells
ΔR (mm)

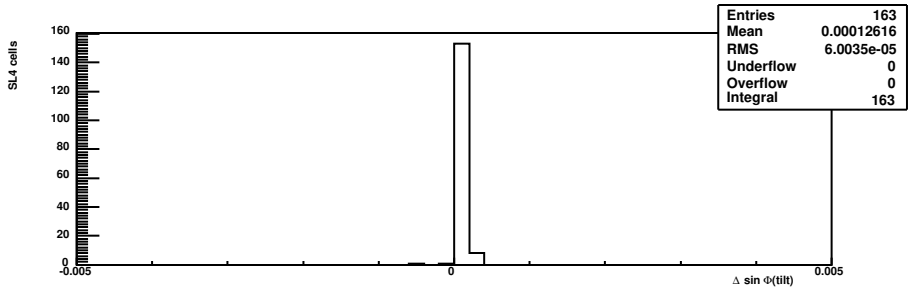

Entries 107
Mean 0.11283
RMS 0.29455
Underflow 0
Overflow 0
Integral 107
SL7 cells
ΔR (mm)

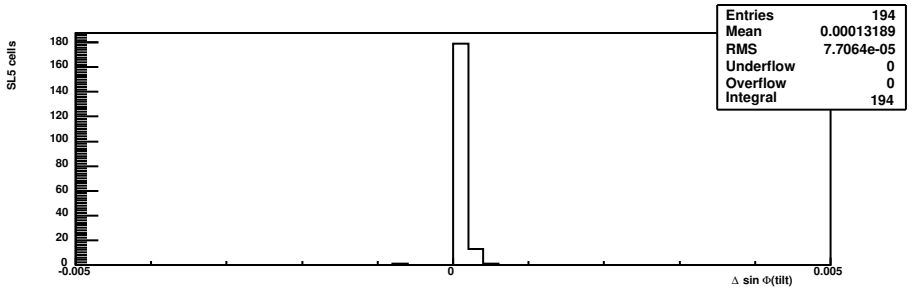

SL0 cells
Entries 63
Mean -5.0681e-05
RMS 8.6384e-05
Underflow 0
Overflow 0
Integral 63
Δ sin Φ(tilt)

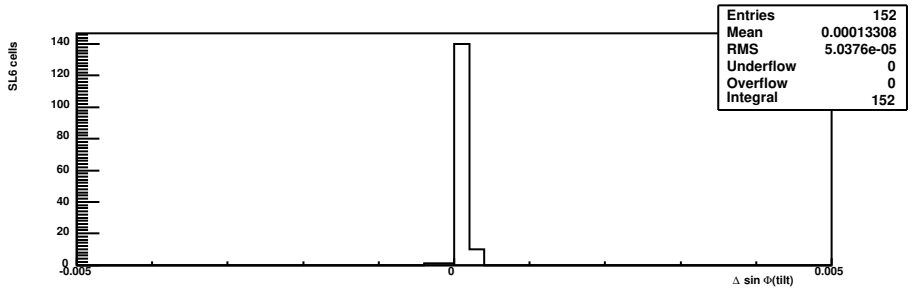

SL1 cells
Entries 67
Mean 9.4688e-05
RMS 7.8515e-05
Underflow 0
Overflow 0
Integral 67
Δ sin Φ(tilt)

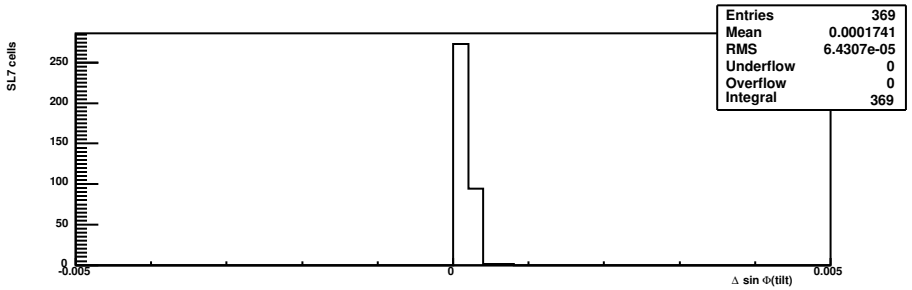

SL2 cells
Entries 54
Mean -6.4659e-05
RMS 8.4841e-05
Underflow 0
Overflow 0
Integral 54
Δ sin Φ(tilt)

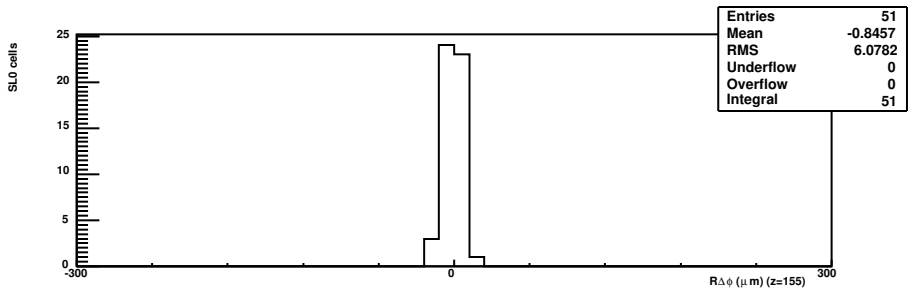

SL3 cells
Entries 58
Mean 9.3978e-05
RMS 7.4154e-05
Underflow 0
Overflow 0
Integral 58
Δ sin Φ(tilt)

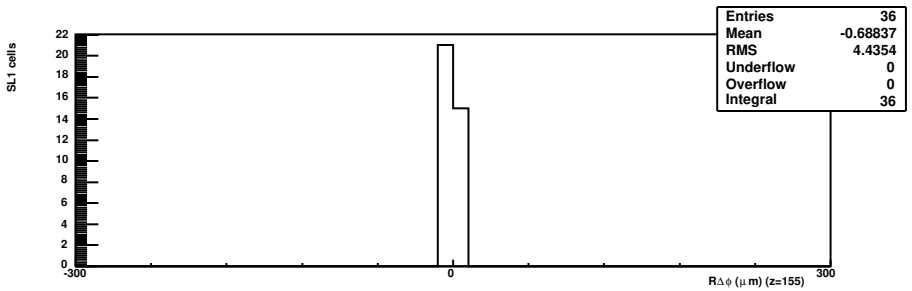

SL4 cells
Entries 163
Mean 0.00012616
RMS 6.0035e-05
Underflow 0
Overflow 0
Integral 163
Δ sin Φ(tilt)

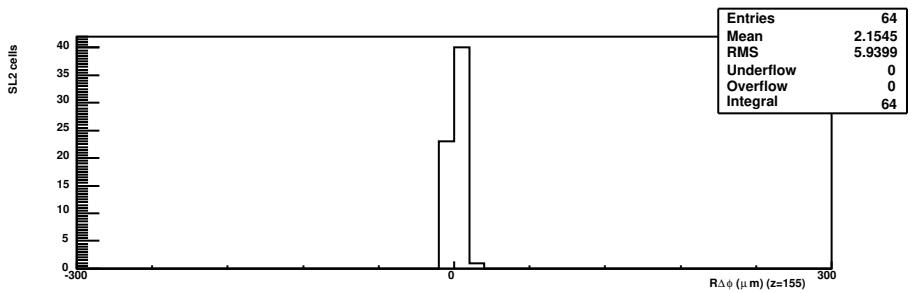

SL5 cells
Entries 194
Mean 0.00013189
RMS 7.7064e-05
Underflow 0
Overflow 0
Integral 194
Δ sin Φ(tilt)

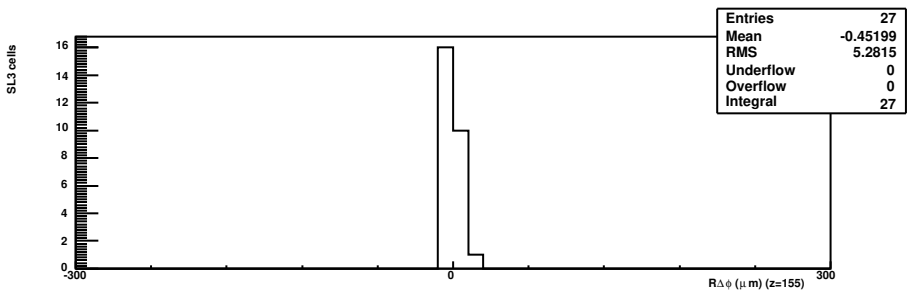

SL6 cells
Entries 152
Mean 0.00013308
RMS 5.0376e-05
Underflow 0
Overflow 0
Integral 152
Δ sin Φ(tilt)

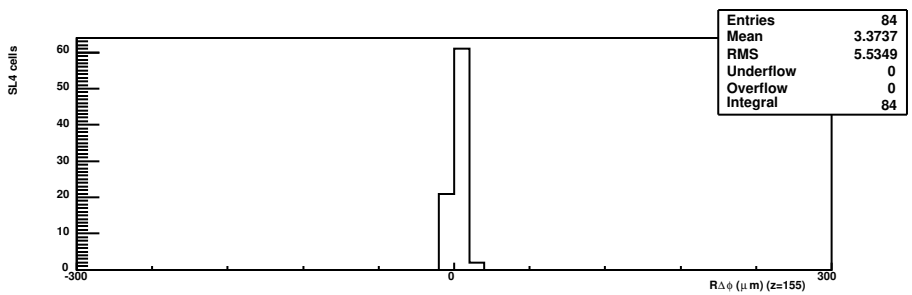

SL7 cells
Entries 369
Mean 0.0001741
RMS 6.4307e-05
Underflow 0
Overflow 0
Integral 369
Δ sin Φ(tilt)

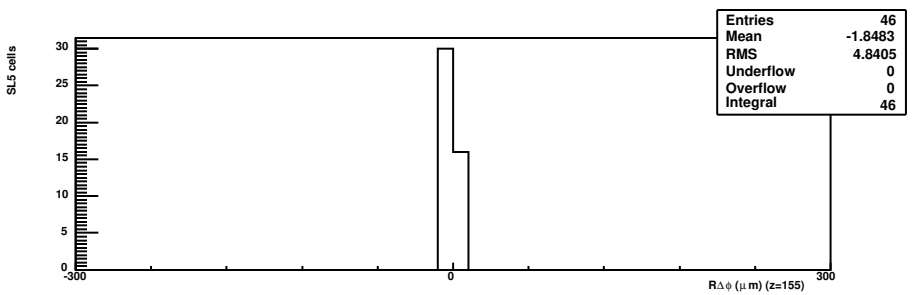

SL0 cells
Entries 51
Mean -0.8457
RMS 6.0782
Underflow 0
Overflow 0
Integral 51
RΔφ (μm) (z=155)

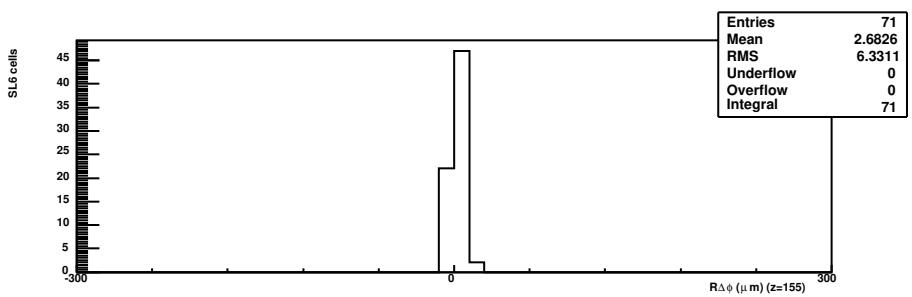

SL1 cells
Entries 36
Mean -0.68837
RMS 4.4354
Underflow 0
Overflow 0
Integral 36
RΔφ (μm) (z=155)

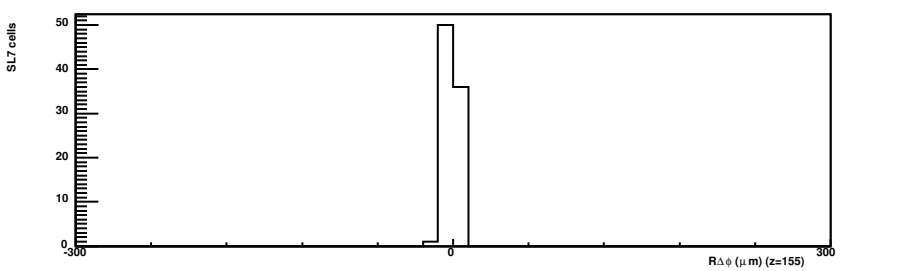

SL2 cells
Entries 64
Mean 2.1545
RMS 5.9399
Underflow 0
Overflow 0
Integral 64
RΔφ (μm) (z=155)

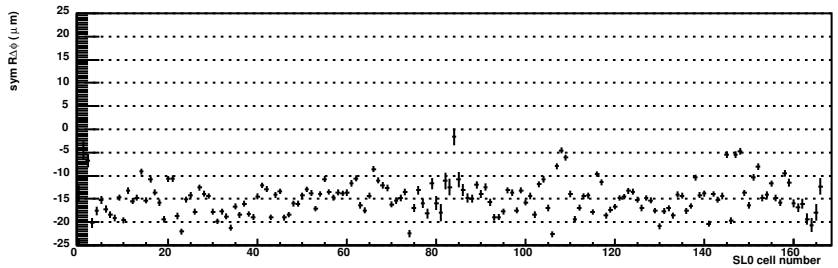

SL3 cells
Entries 27
Mean -0.45199
RMS 5.2815
Underflow 0
Overflow 0
Integral 27
RΔφ (μm) (z=155)

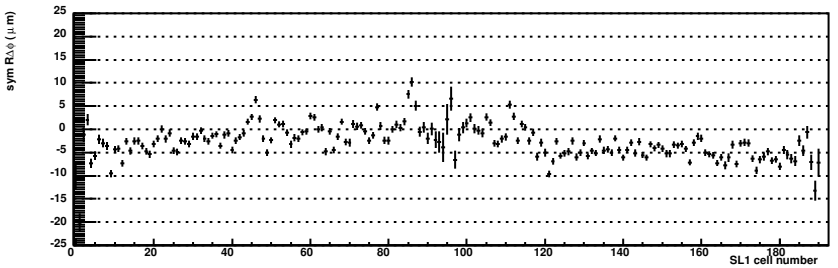

SL4 cells
Entries 84
Mean 3.3737
RMS 5.5349
Underflow 0
Overflow 0
Integral 84
RΔφ (μm) (z=155)

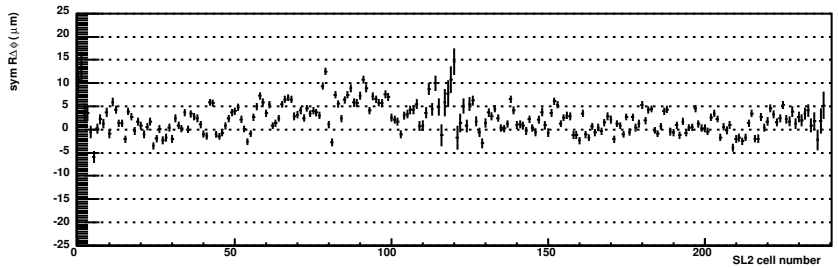

SL5 cells
Entries 46
Mean -1.8483
RMS 4.8405
Underflow 0
Overflow 0
Integral 46
RΔφ (μm) (z=155)

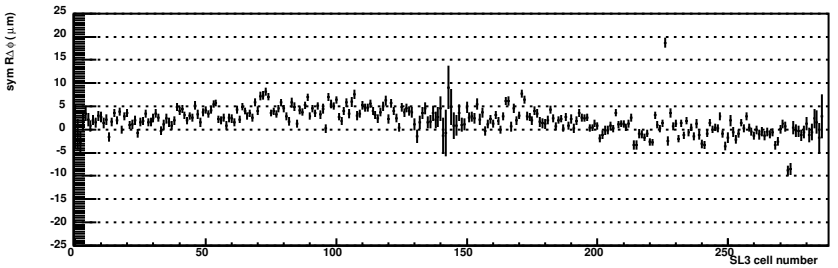

SL6 cells
Entries 71
Mean 2.6826
RMS 6.3311
Underflow 0
Overflow 0
Integral 71
RΔφ (μm) (z=155)

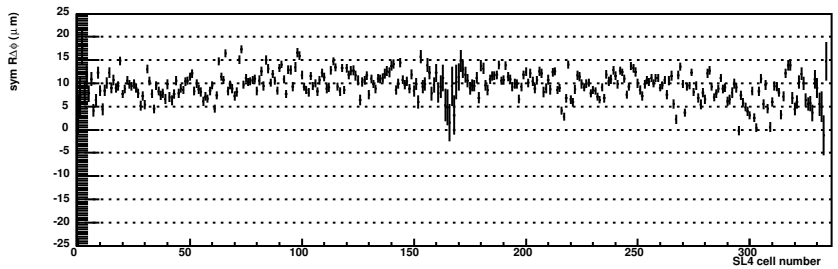

SL7 cells
RΔφ (μm) (z=155)

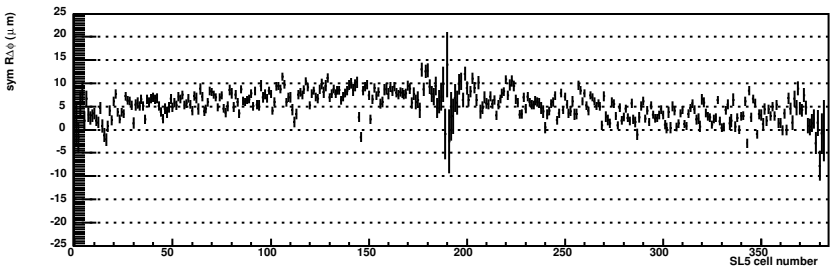

sym RΔφ (μm)
SL0 cell number

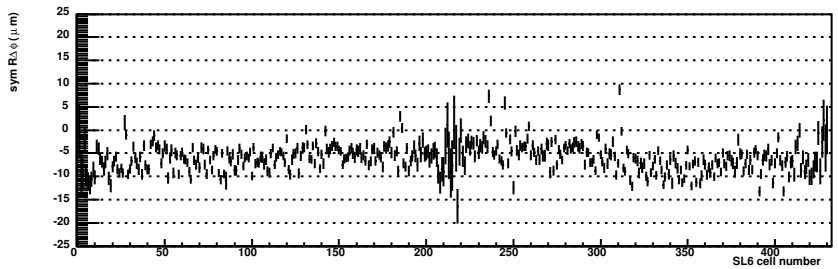

sym RΔφ (μm)
SL1 cell number

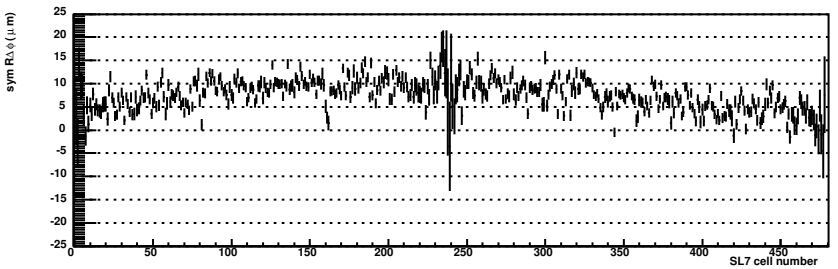

sym RΔφ (μm)
SL2 cell number

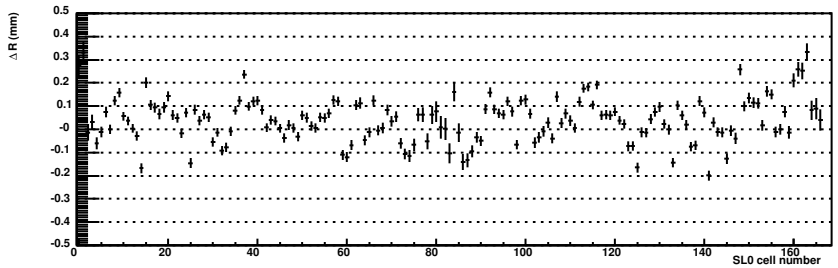

sym RΔφ (μm)
SL3 cell number

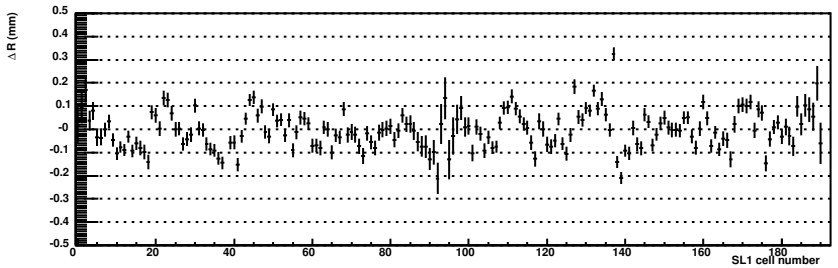

sym RΔφ (μm)
SL4 cell number

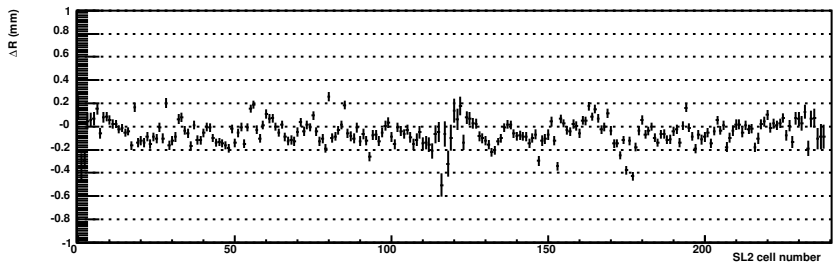

sym RΔφ (μm)
SL5 cell number

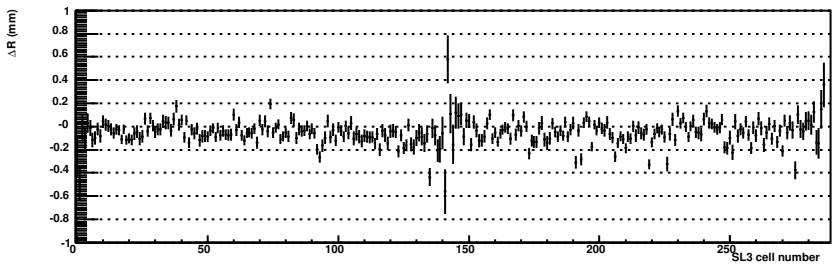

sym RΔφ (μm)
SL6 cell number

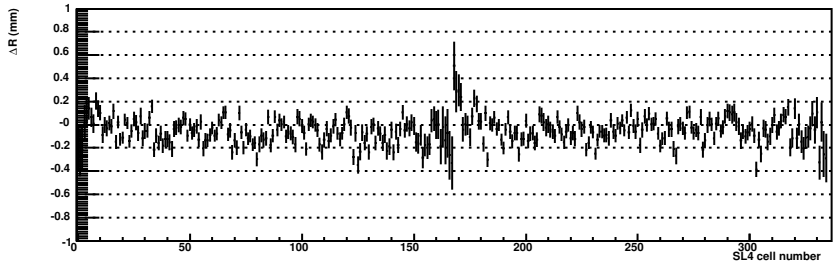

sym RΔφ (μm)
SL7 cell number

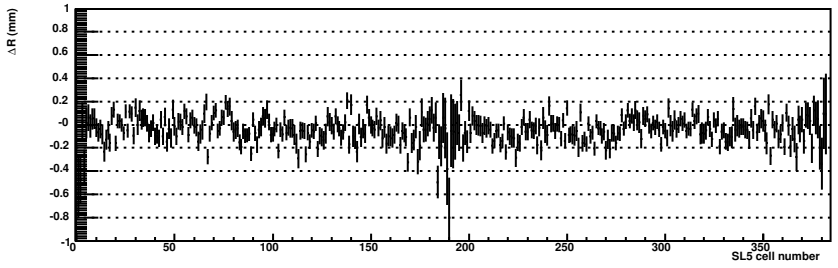

ΔR (mm)
SL0 cell number

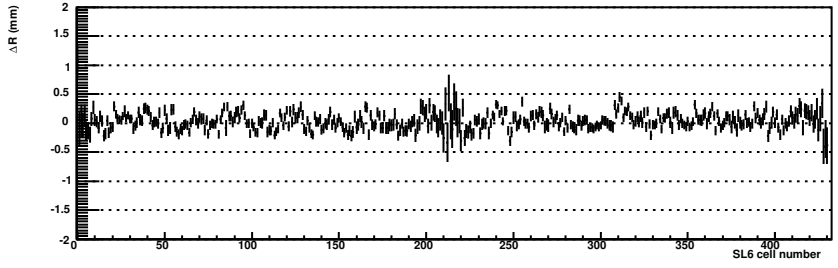

ΔR (mm)
SL1 cell number

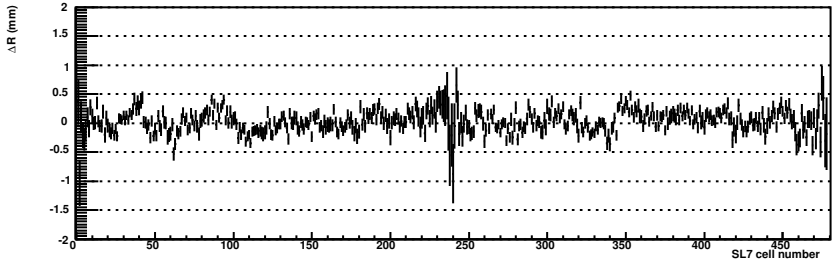

ΔR (mm)
SL2 cell number

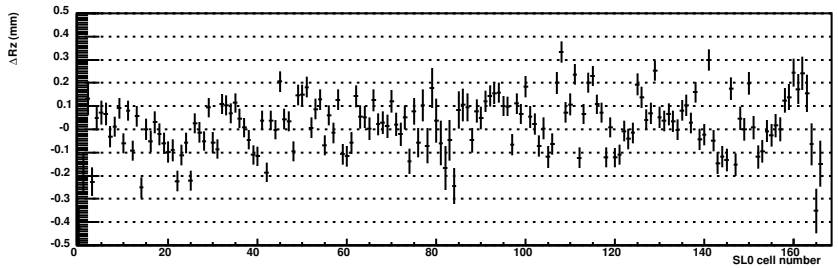

ΔR (mm)
SL3 cell number

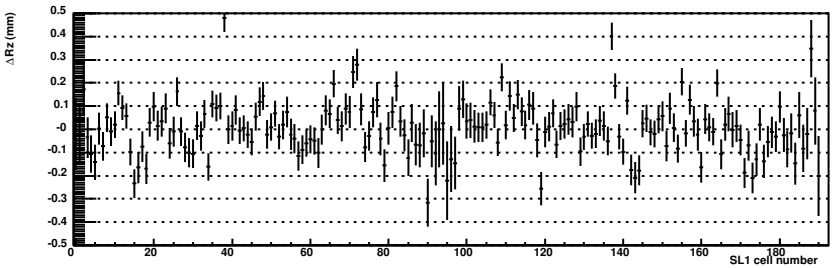

ΔR (mm)
SL4 cell number

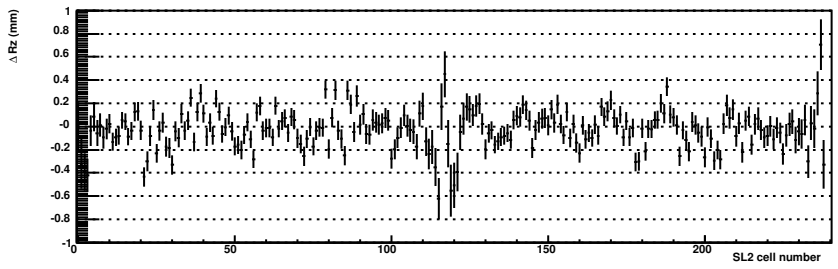

ΔR (mm)
SL5 cell number

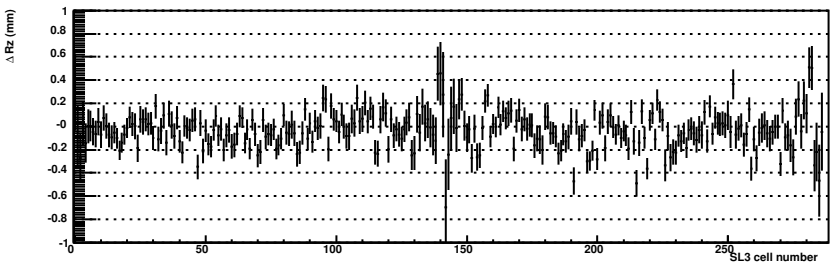

ΔR (mm)
SL6 cell number

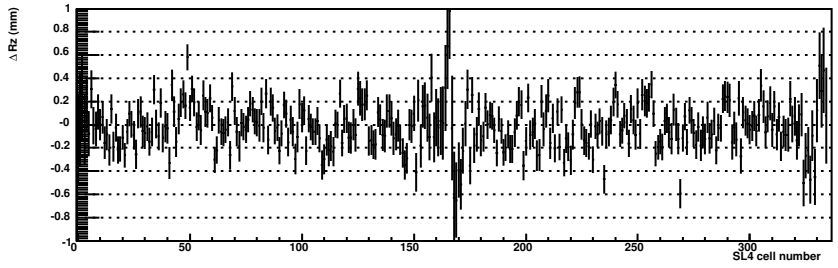

ΔR (mm)
SL7 cell number

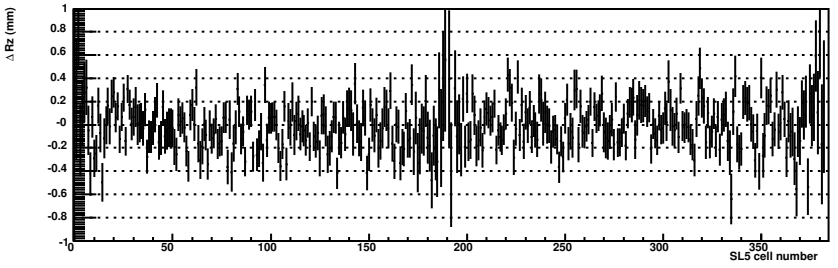

ΔRz (mm)
SL0 cell number

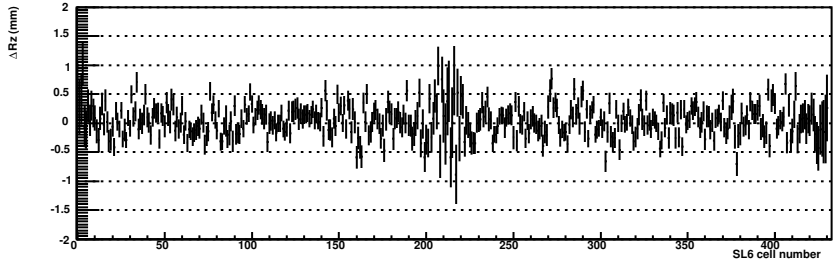

ΔRz (mm)
SL1 cell number

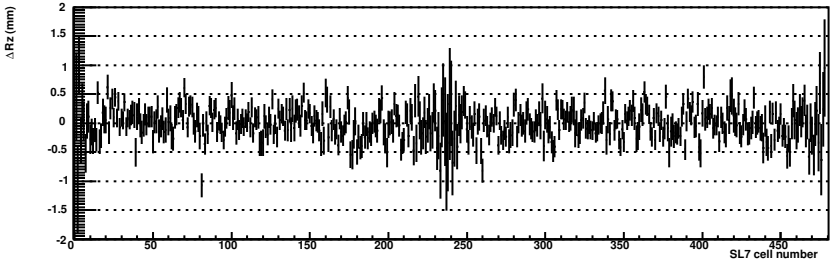

ΔRz (mm)
SL2 cell number

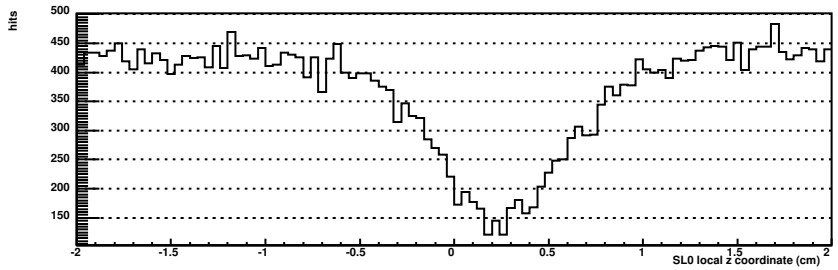

ΔRz (mm)
SL3 cell number

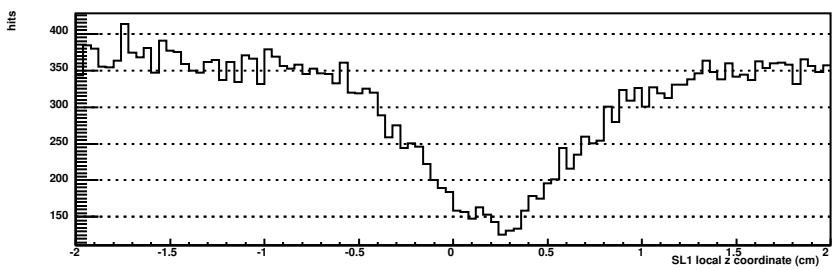

ΔRz (mm)
SL4 cell number

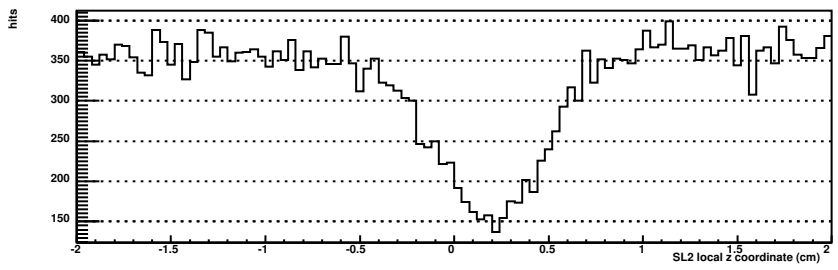

ΔRz (mm)
SL5 cell number

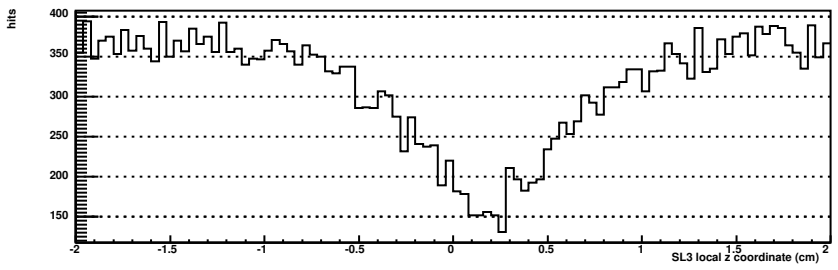

ΔRz (mm)
SL6 cell number

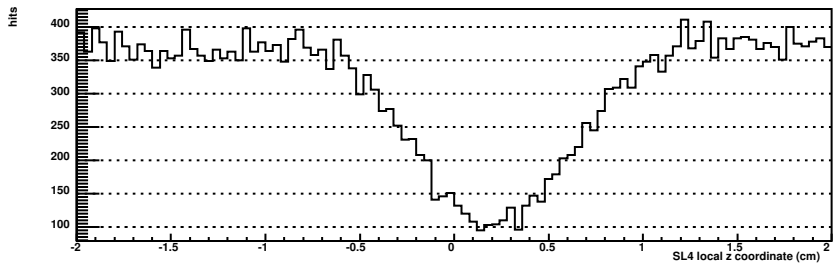

ΔRz (mm)
SL7 cell number

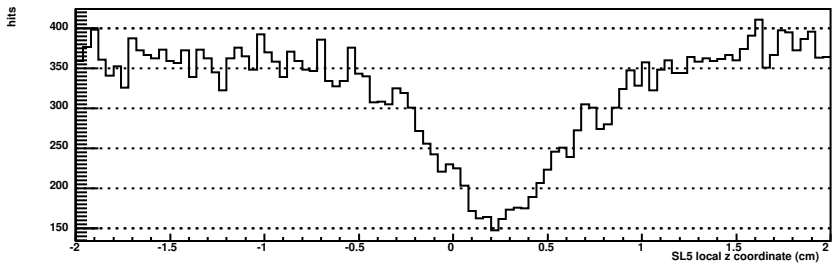

hits
SL0 local z coordinate (cm)

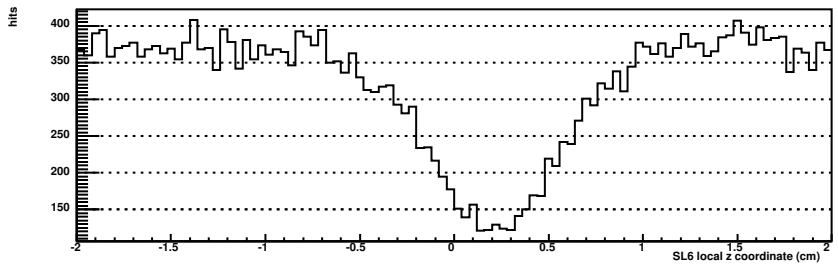

hits
SL1 local z coordinate (cm)

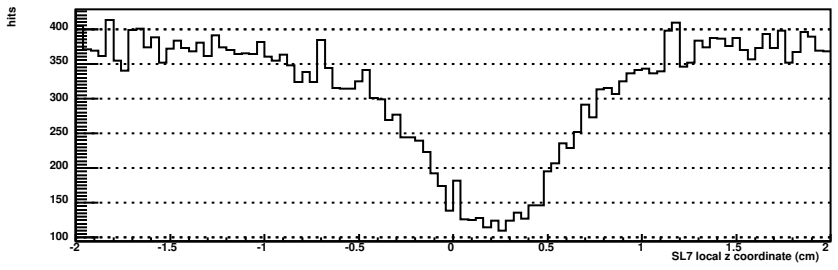

hits
SL2 local z coordinate (cm)

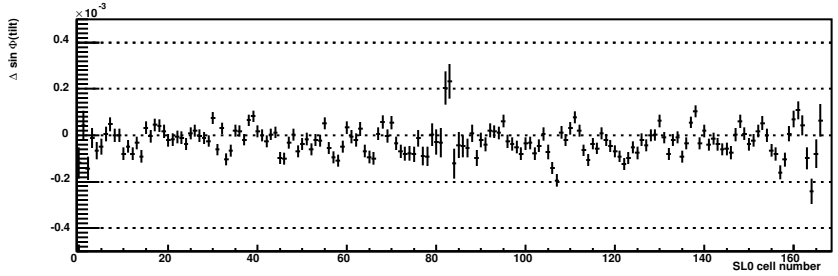

hits
SL3 local z coordinate (cm)

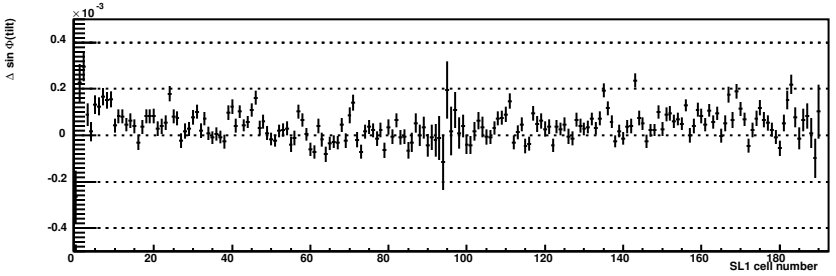

hits
SL4 local z coordinate (cm)

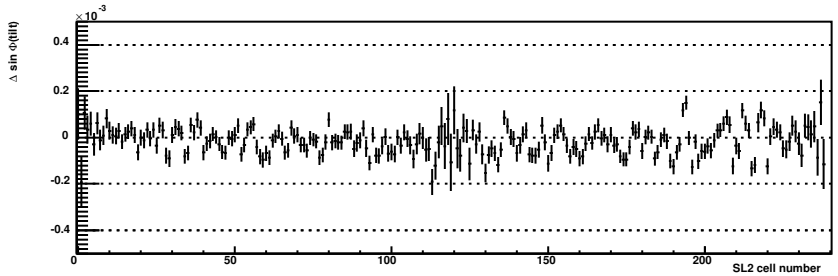

hits
SL5 local z coordinate (cm)

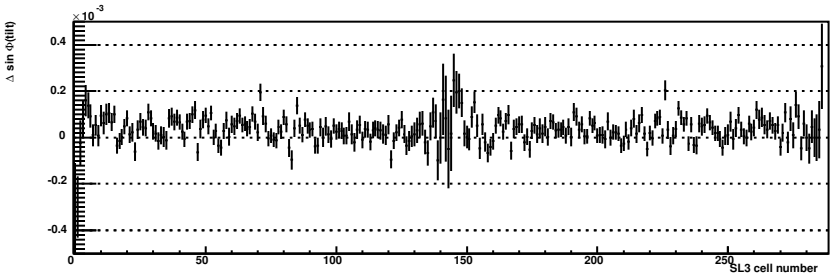

hits
SL6 local z coordinate (cm)

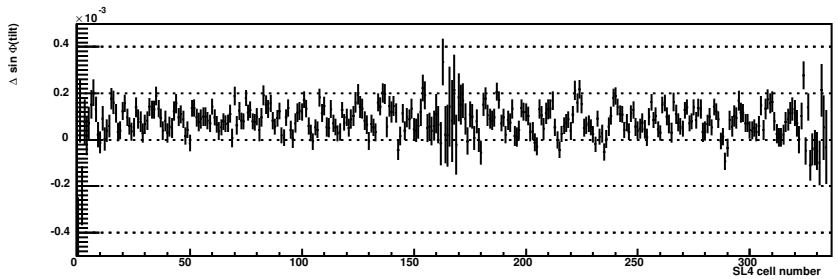

hits
SL7 local z coordinate (cm)

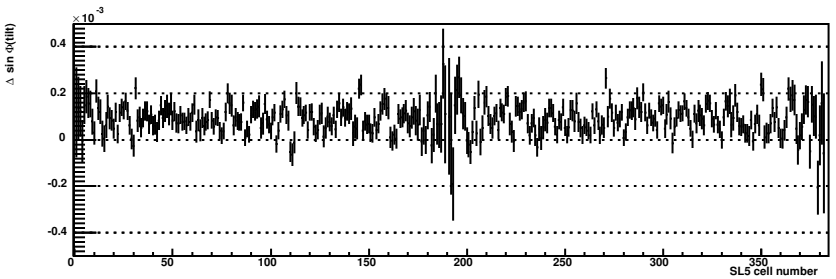

×10^-3
Δ sin Φ(tilt)
SL0 cell number

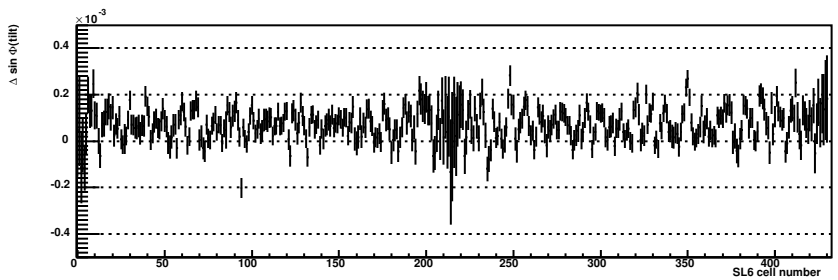

×10^-3
Δ sin Φ(tilt)
SL1 cell number

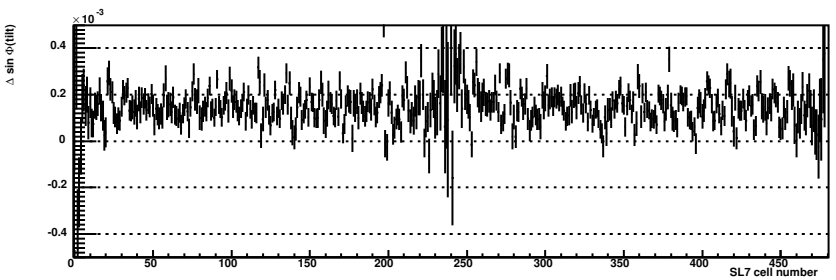

×10^-3
Δ sin Φ(tilt)
SL2 cell number

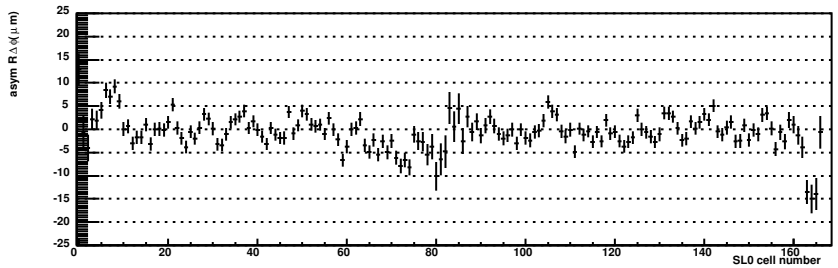

×10^-3
Δ sin Φ(tilt)
SL3 cell number

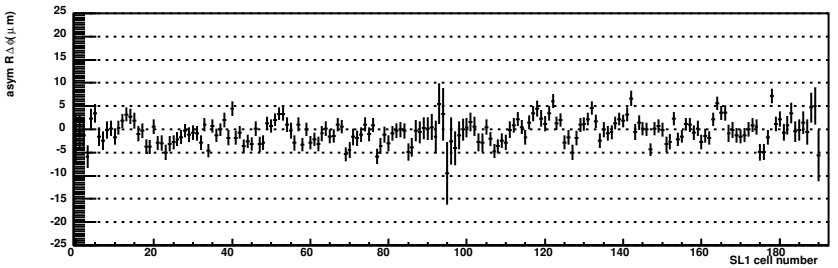

×10^-3
Δ sin Φ(tilt)
SL4 cell number

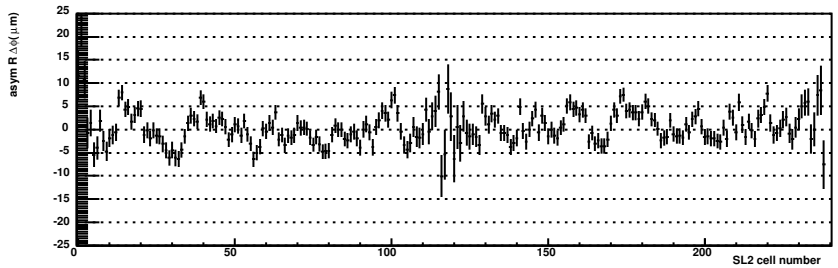

×10^-3
Δ sin Φ(tilt)
SL5 cell number

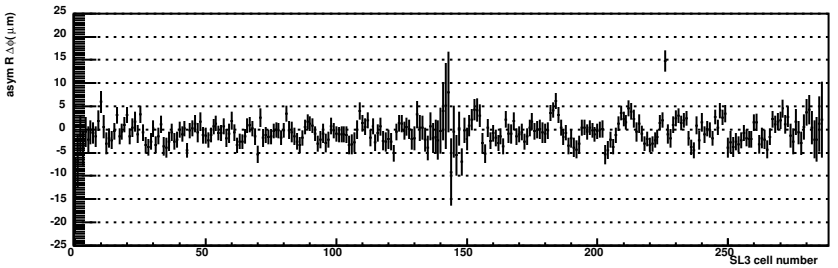

×10^-3
Δ sin Φ(tilt)
SL6 cell number

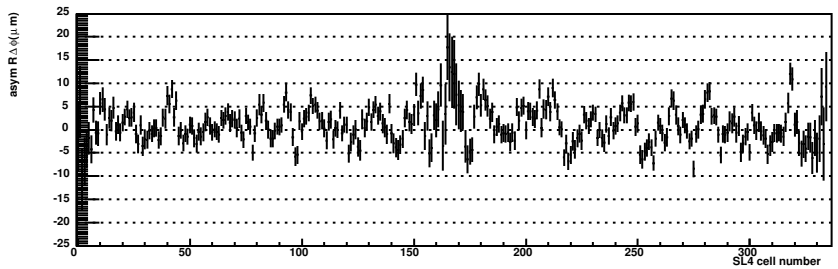

×10^-3
Δ sin Φ(tilt)
SL7 cell number

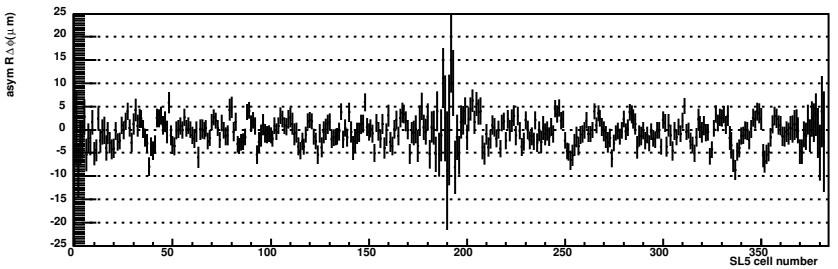

asym R Δφ(μm)
SL0 cell number

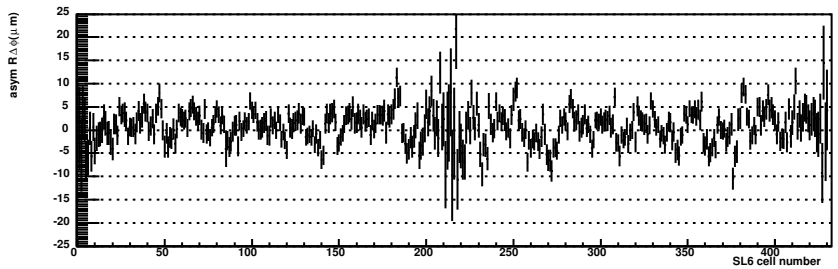

asym R Δφ(μm)
SL1 cell number

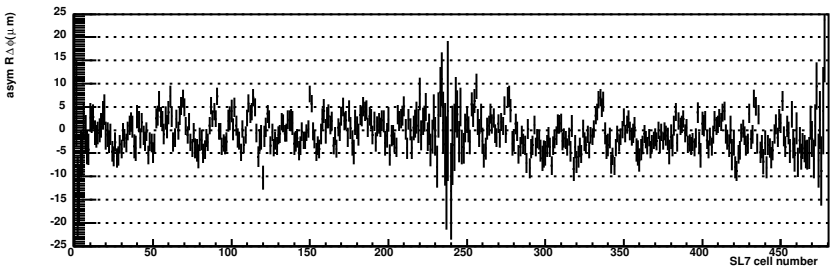

asym R Δφ(μm)
SL2 cell number

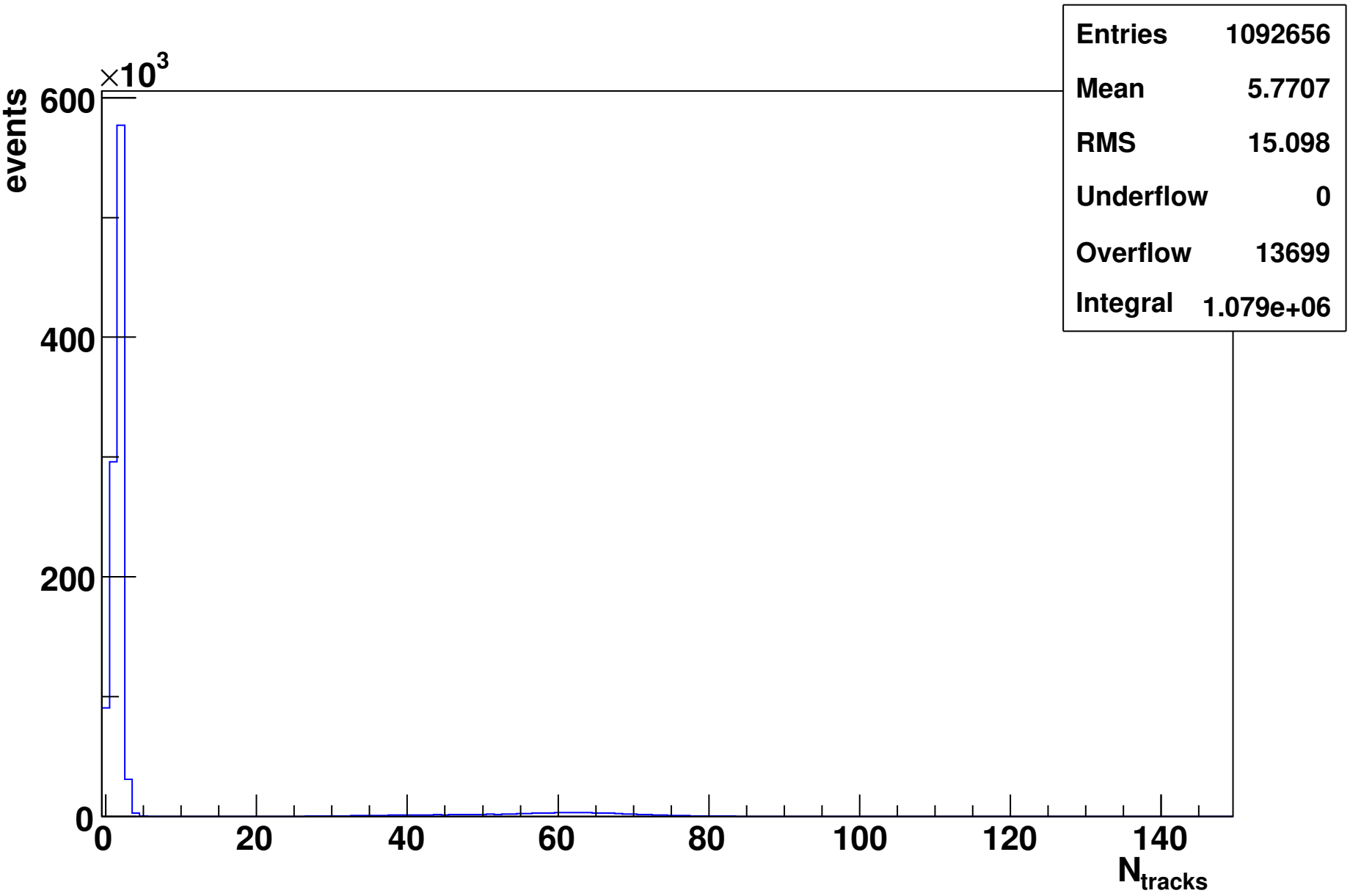

asym R Δφ(μm)
SL3 cell number

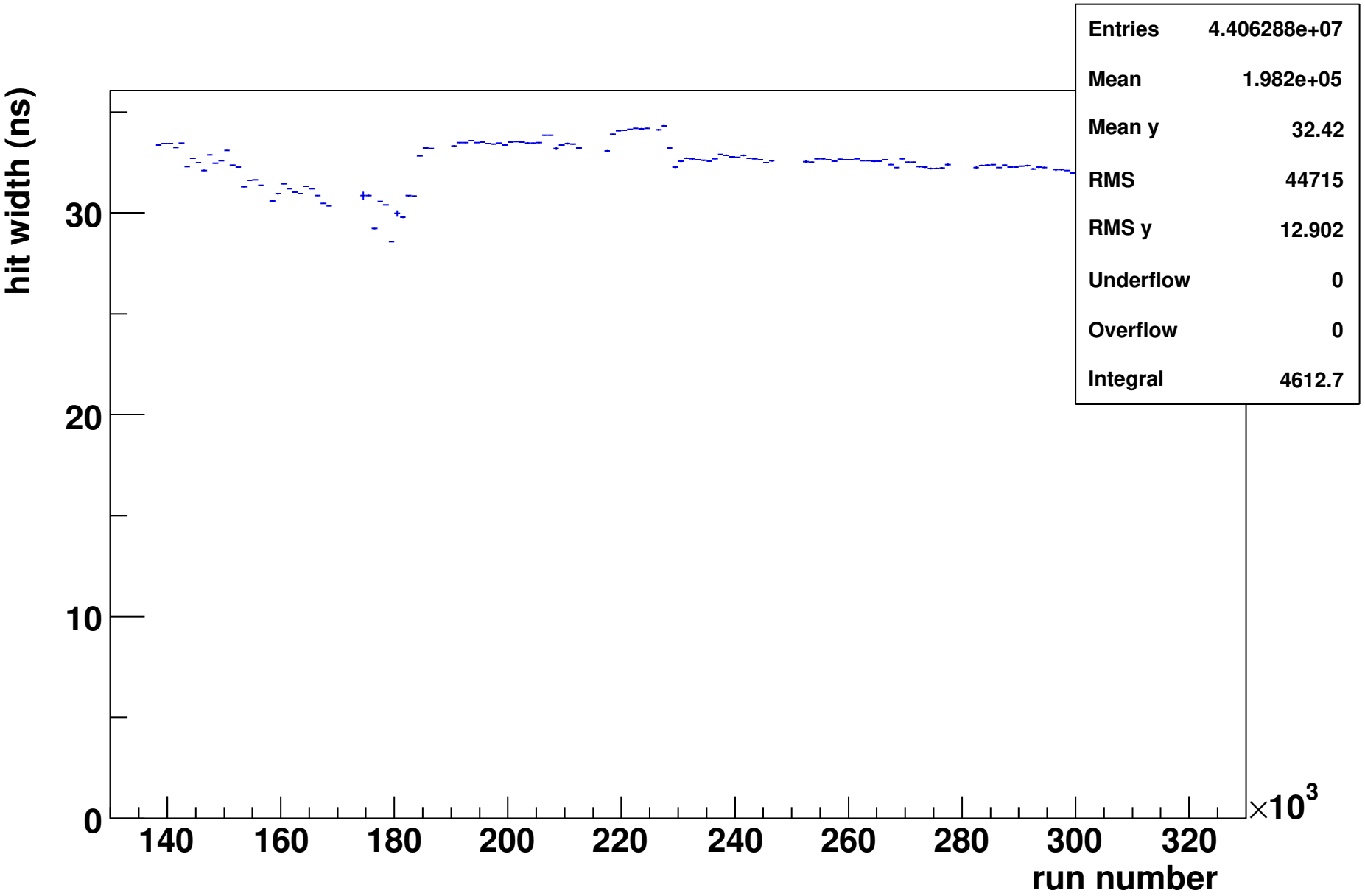

asym R Δφ(μm)
SL4 cell number

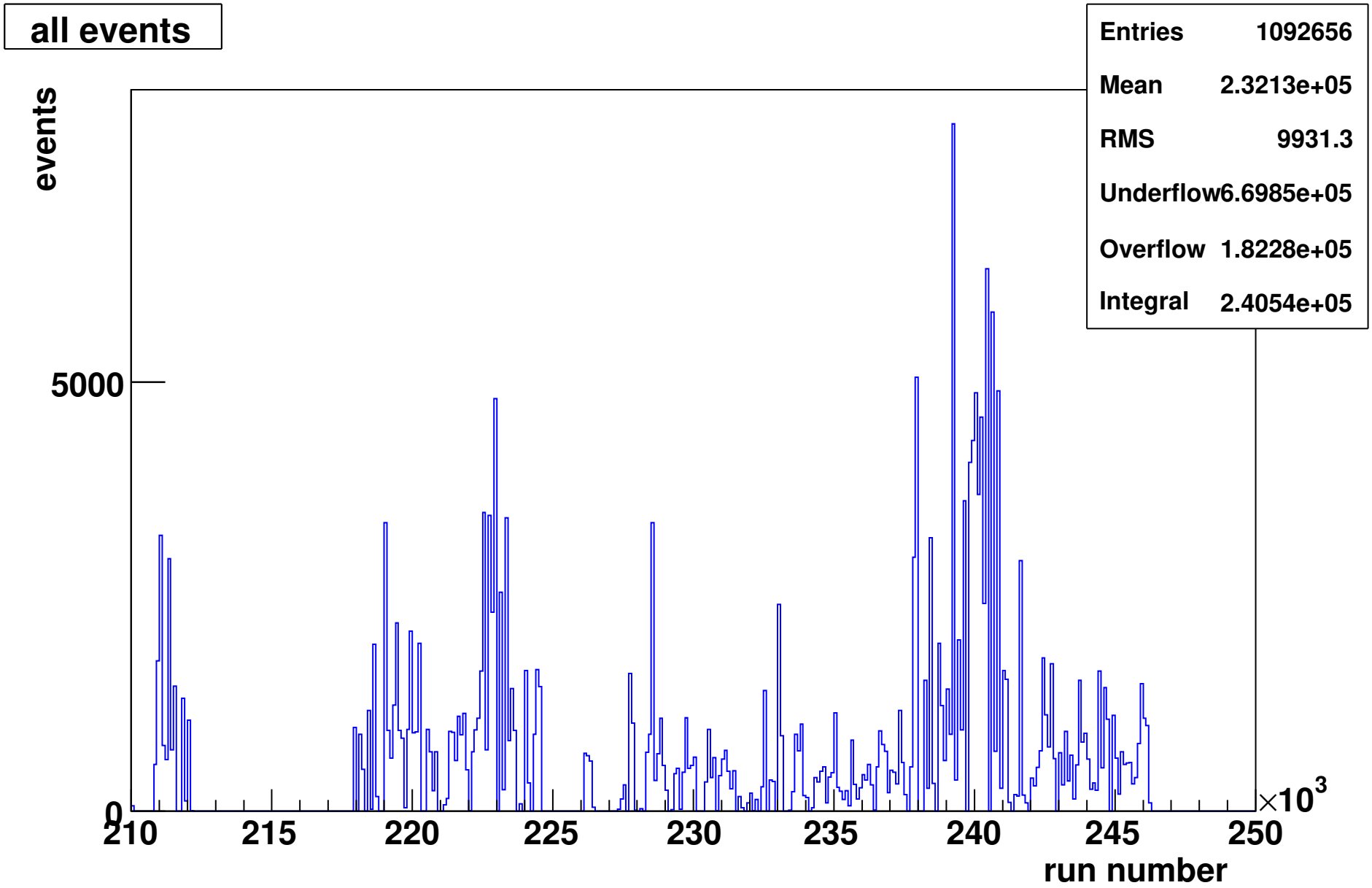

asym R Δφ(μm)
SL5 cell number

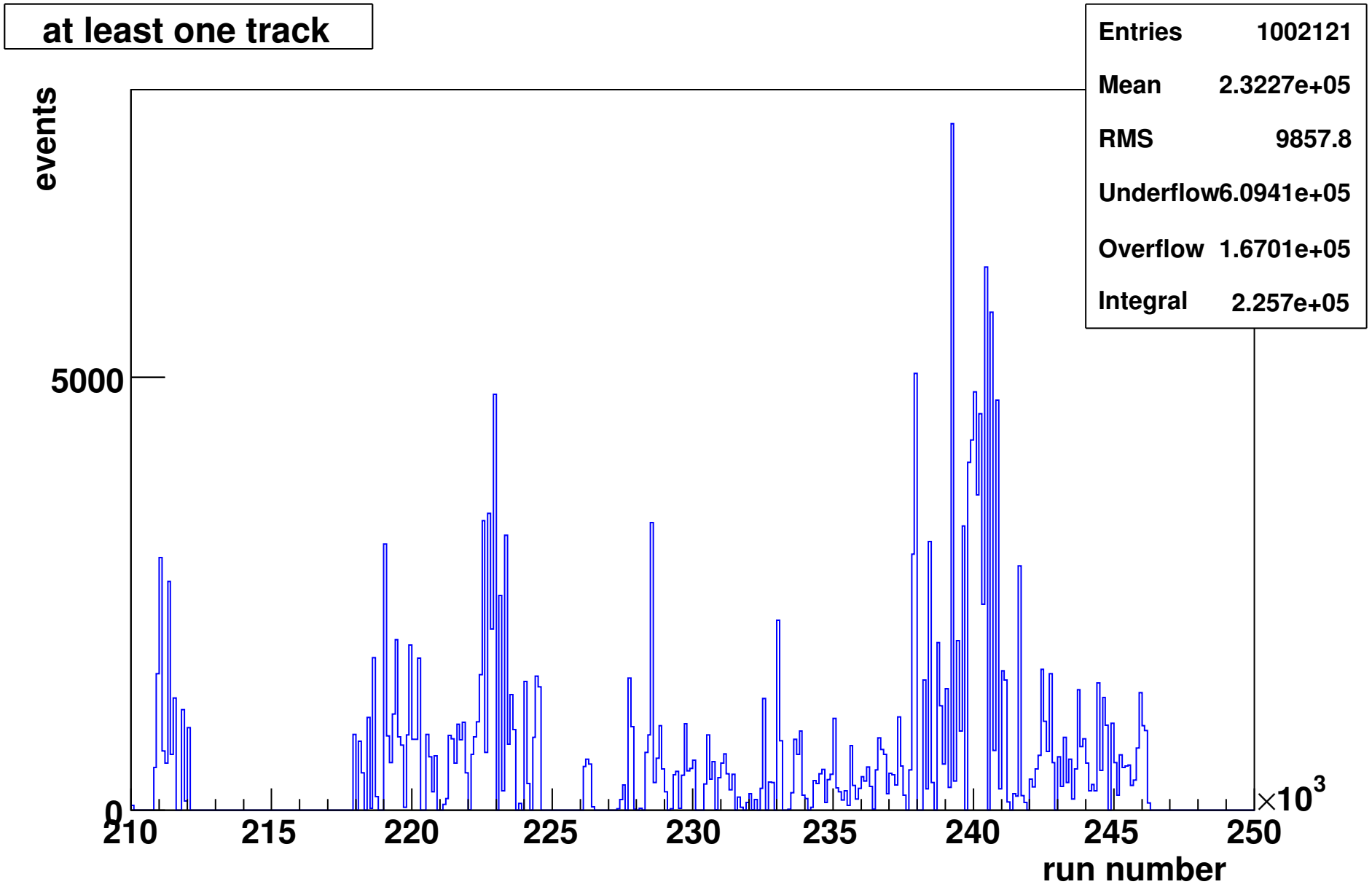

asym R Δφ(μm)
SL6 cell number

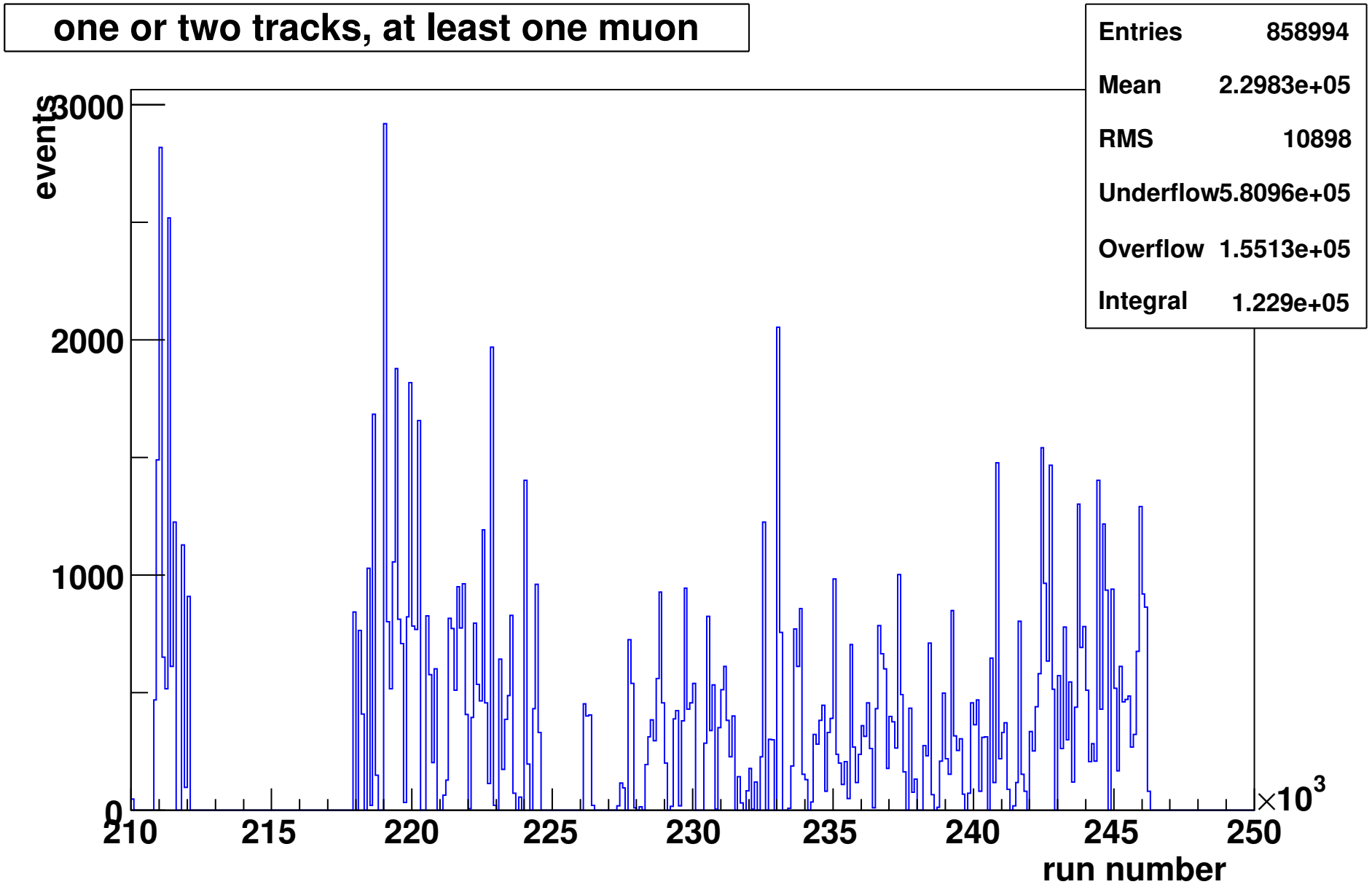

asym R Δφ(μm)
SL7 cell number

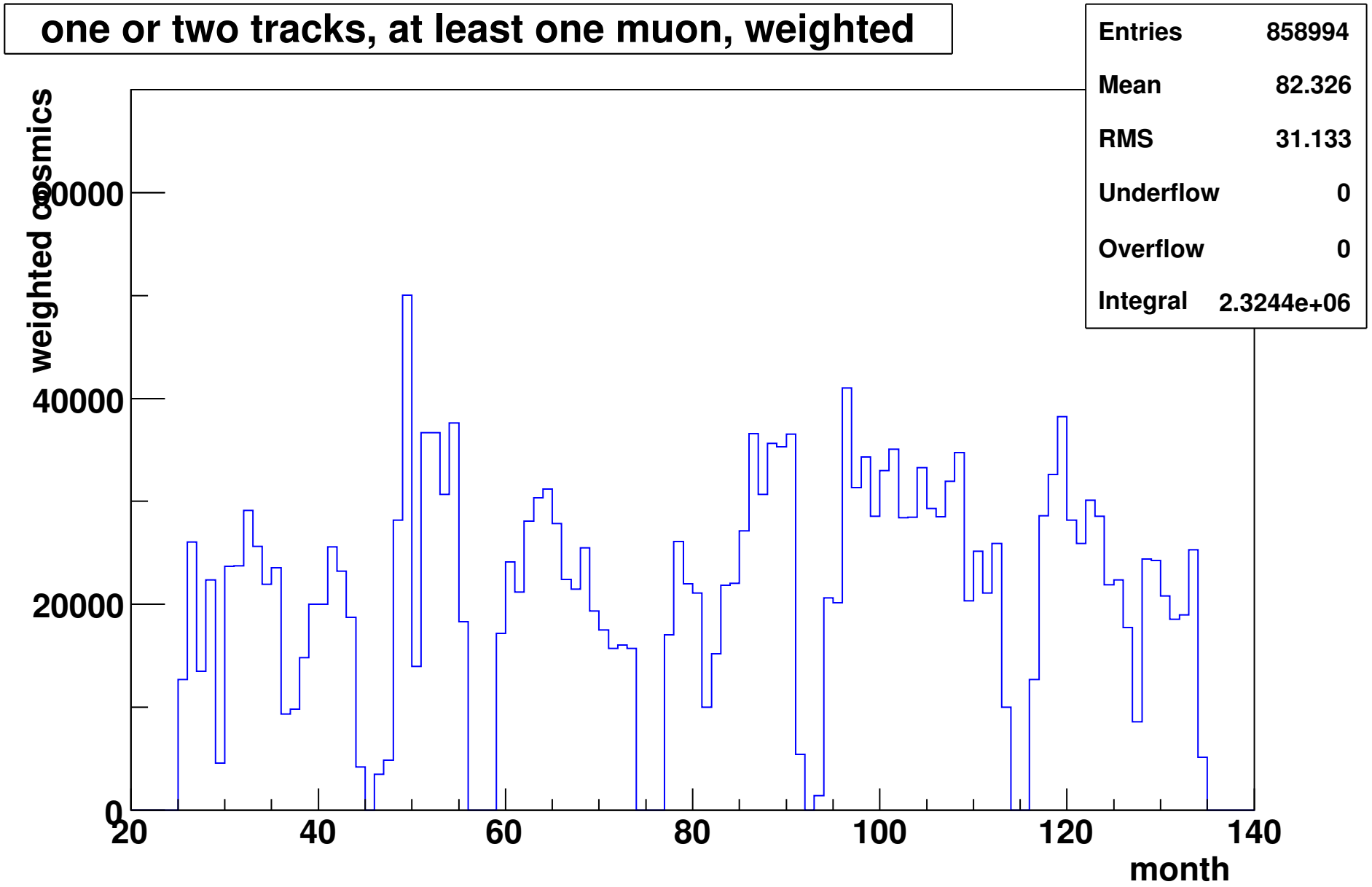

Entries 1092656
Mean 5.7707
RMS 15.098
Underflow 0
Overflow 13699
Integral 1.079e+06
events
×10^3
600
400
200
0
0
20
40
60
80
100
120
140
N_tracks

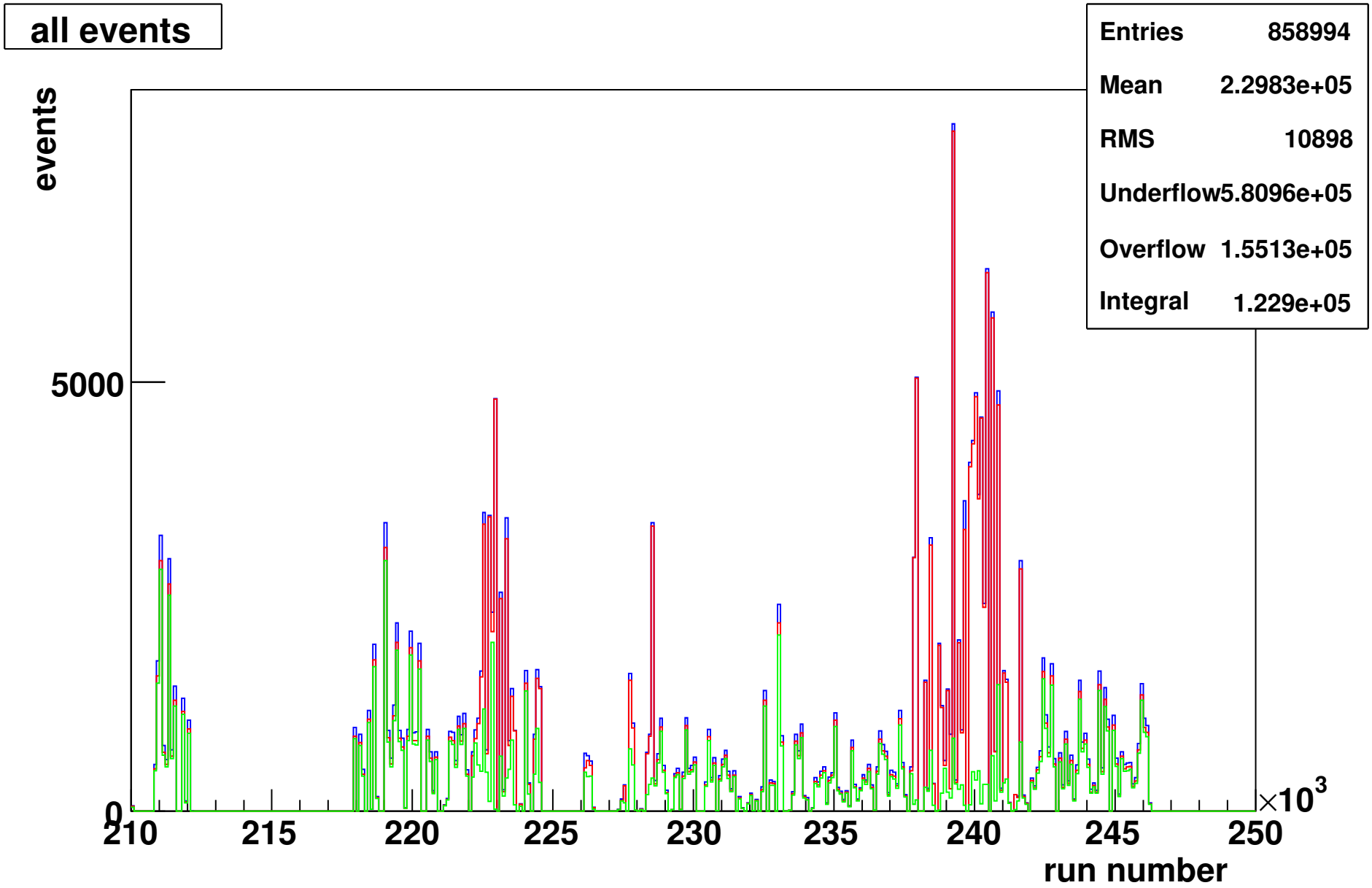

hit width (ns)
0
10
20
30
140
160
180
200
220
240
260
280
300
320
×10^3
run number
Entries 4.406288e+07
Mean 1.982e+05
Mean y 32.42
RMS 44715
RMS y 12.902
Underflow 0
Overflow 0
Integral 4612.7

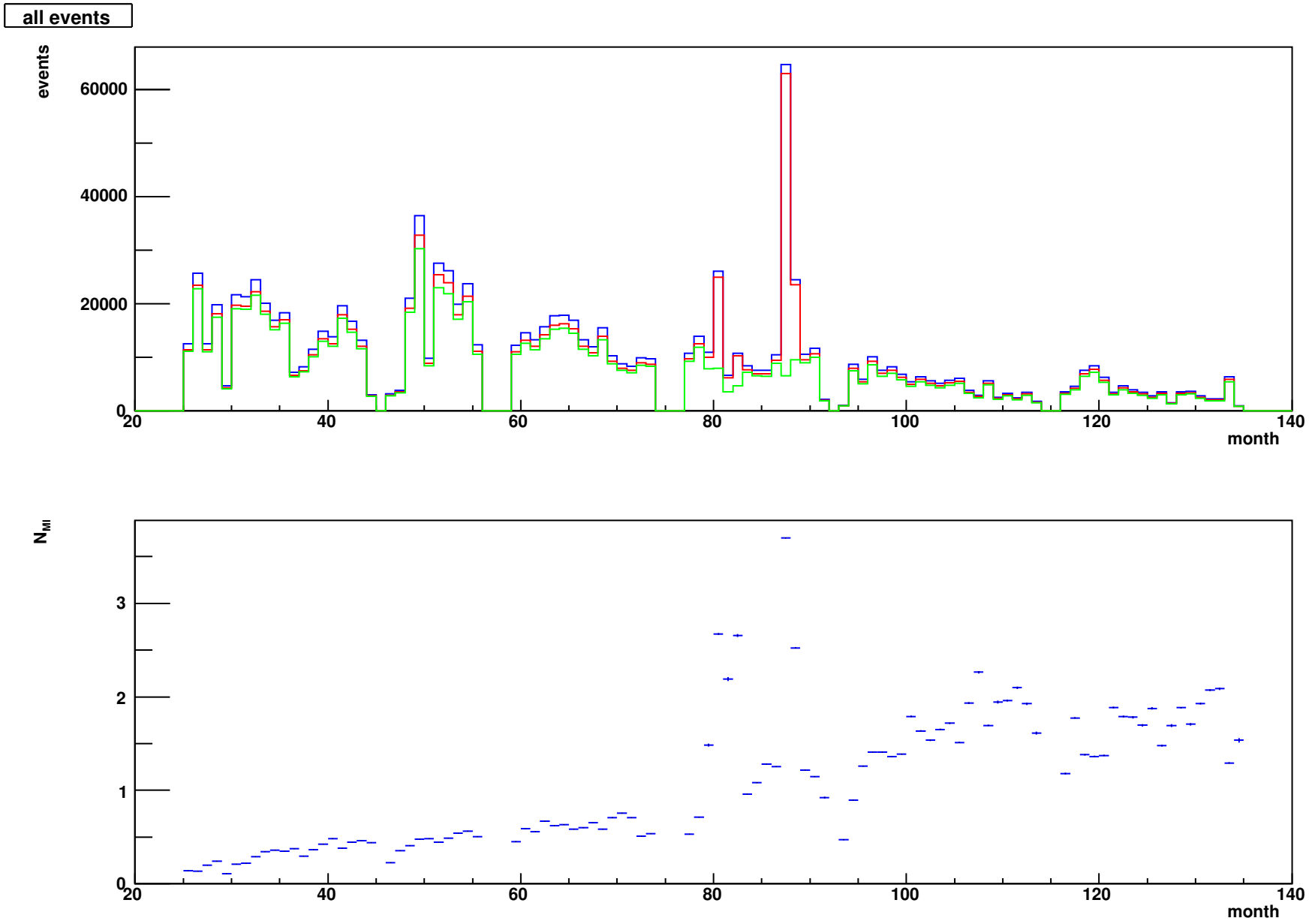

all events
Entries 1092656
Mean 2.3213e+05
RMS 9931.3
Underflow 6.6985e+05
Overflow 1.8228e+05
Integral 2.4054e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

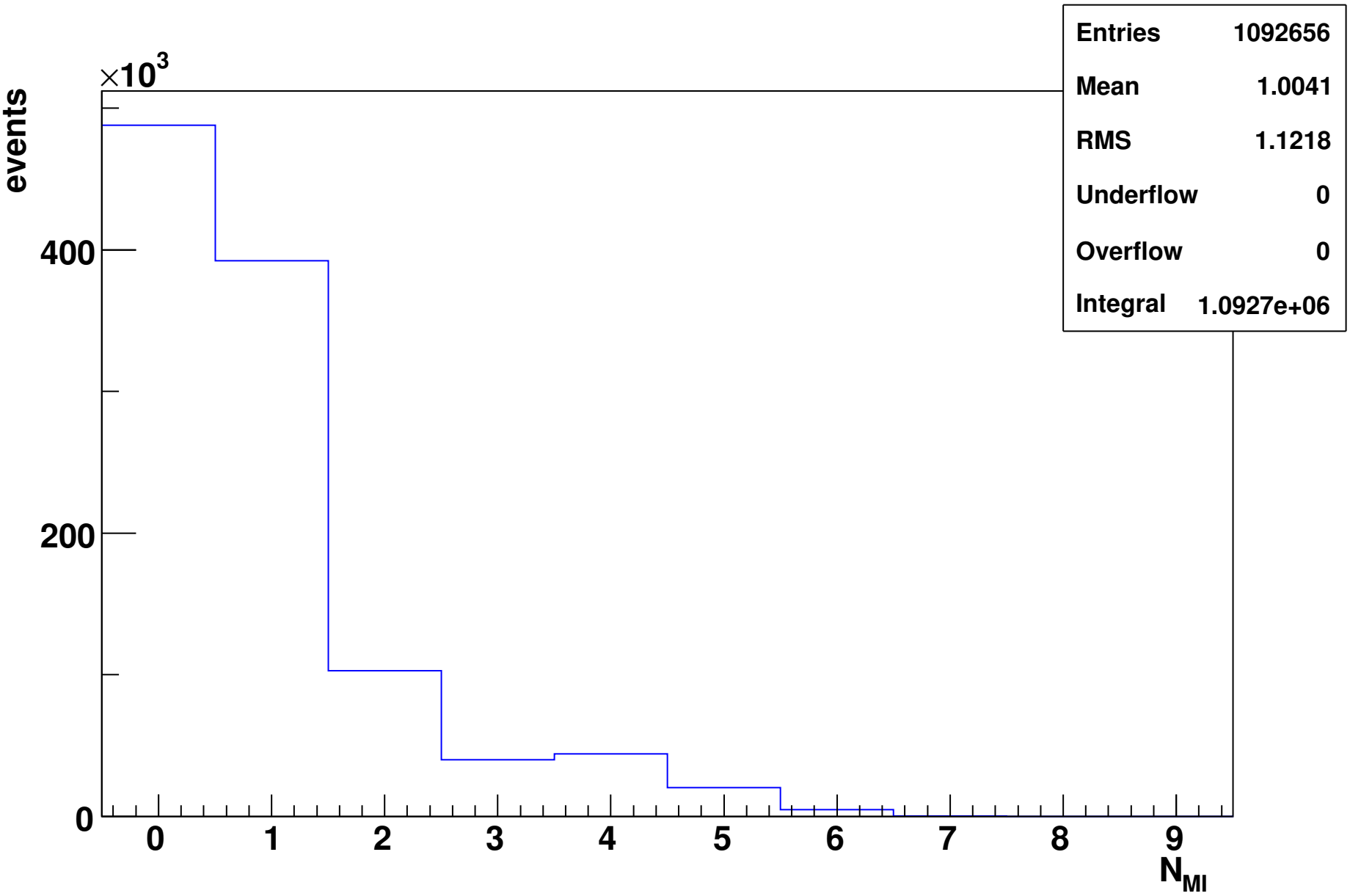

at least one track
Entries 1002121
Mean 2.3227e+05
RMS 9857.8
Underflow 6.0941e+05
Overflow 1.6701e+05
Integral 2.257e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

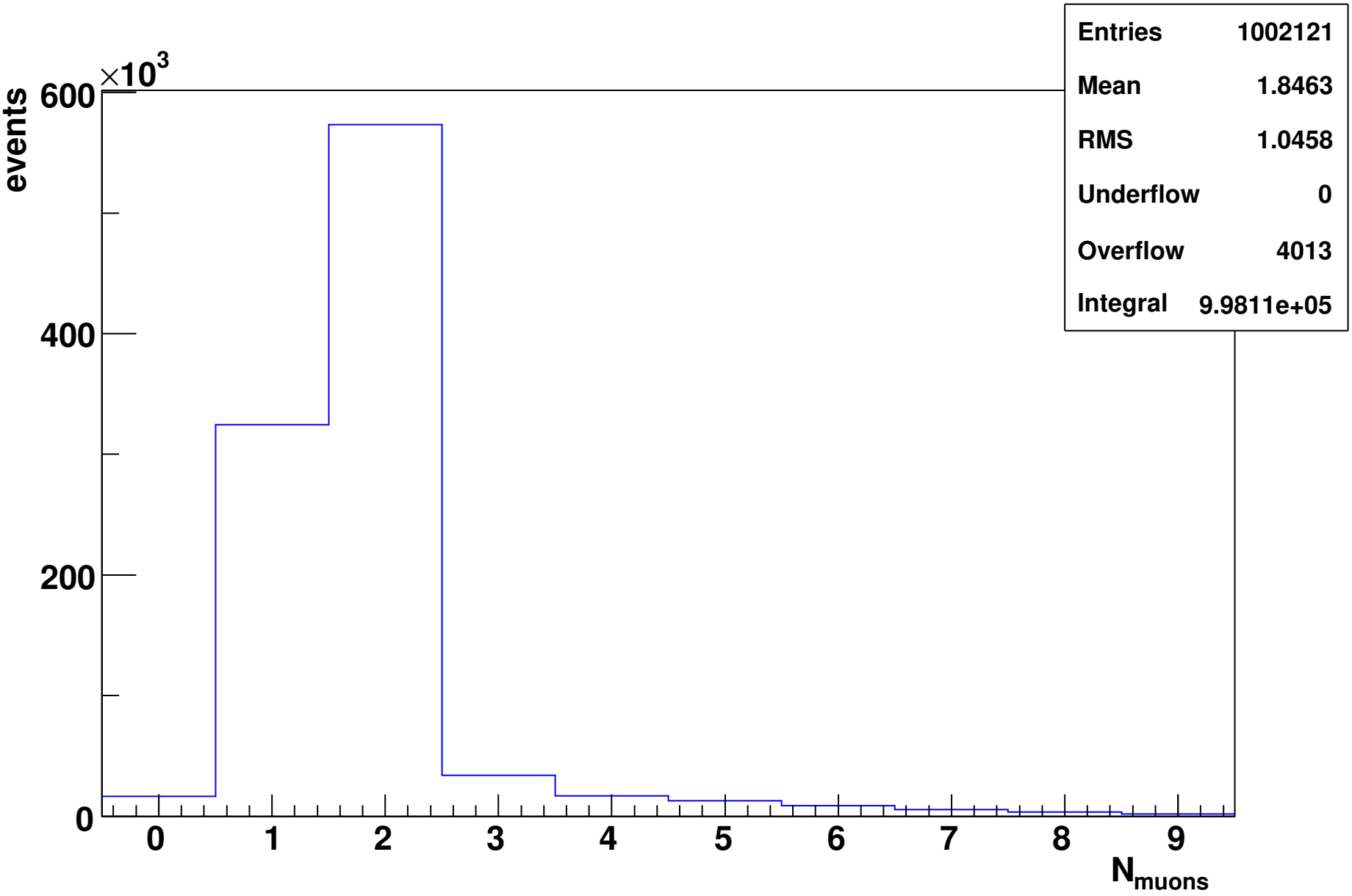

one or two tracks, at least one muon
Entries 858994
Mean 2.2983e+05
RMS 10898
Underflow 5.8096e+05
Overflow 1.5513e+05
Integral 1.229e+05
events
3000
2000
1000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

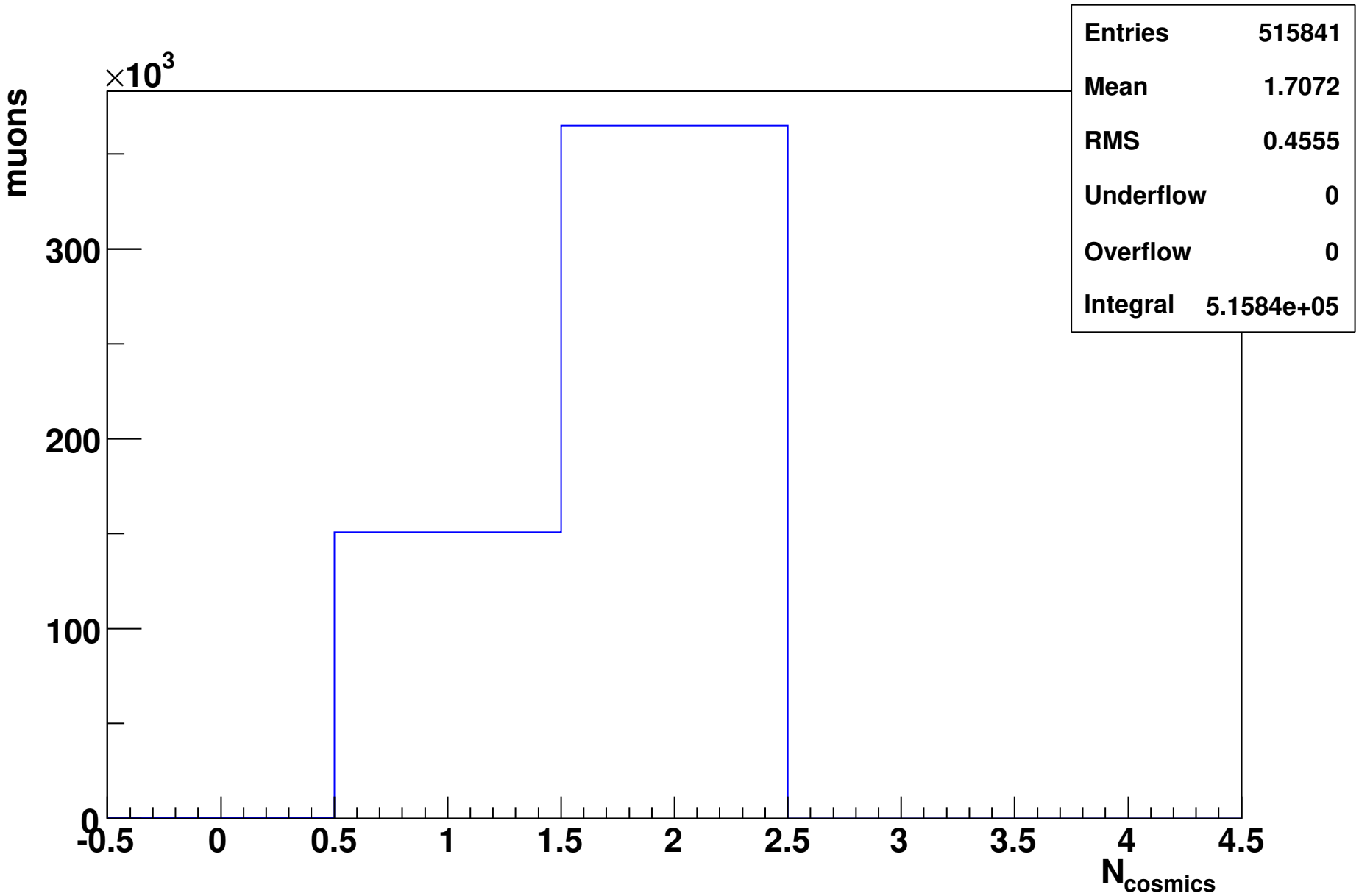

one or two tracks, at least one muon, weighted
Entries 858994
Mean 82.326
RMS 31.133
Underflow 0
Overflow 0
Integral 2.3244e+06
weighted cosmics
60000
40000
20000
0
20
40
60
80
100
120
140
month

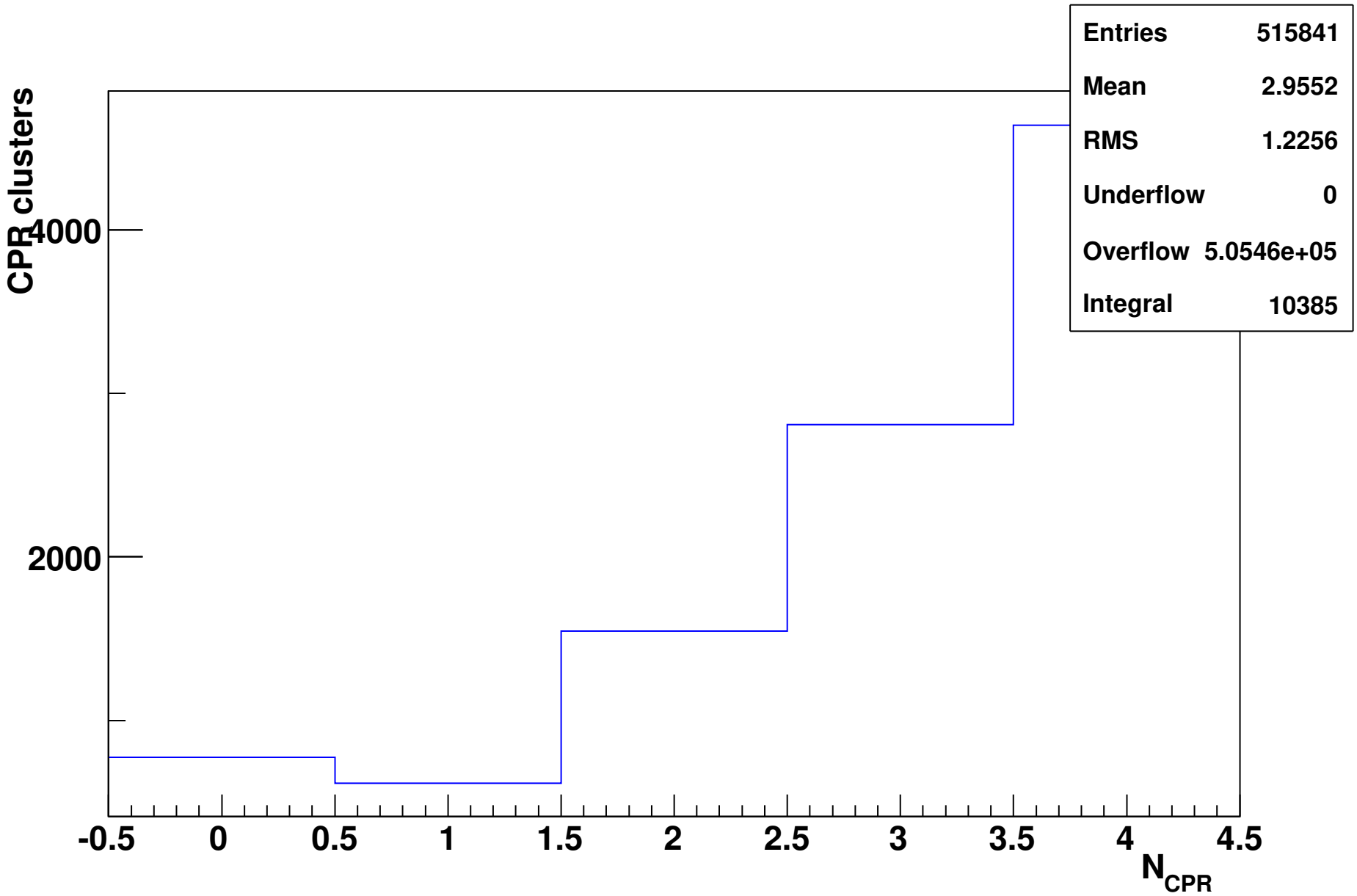

all events
Entries 858994
Mean 2.2983e+05
RMS 10898
Underflow 5.8096e+05
Overflow 1.5513e+05
Integral 1.229e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

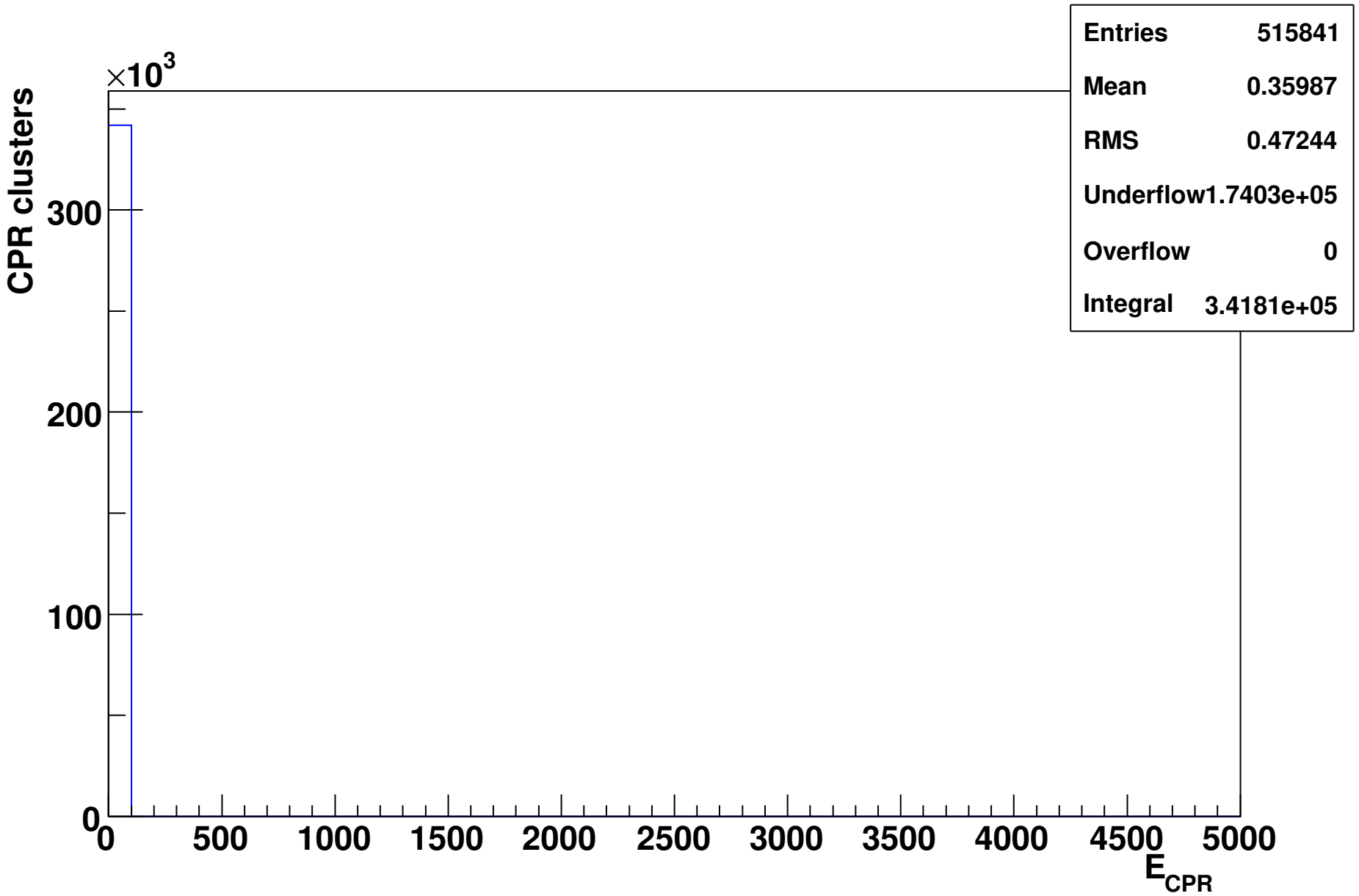

all events
events
60000
40000
20000
0
20
40
60
80
100
120
140
month
N_{MI}
3
2
1
0
20
40
60
80
100
120
140
month

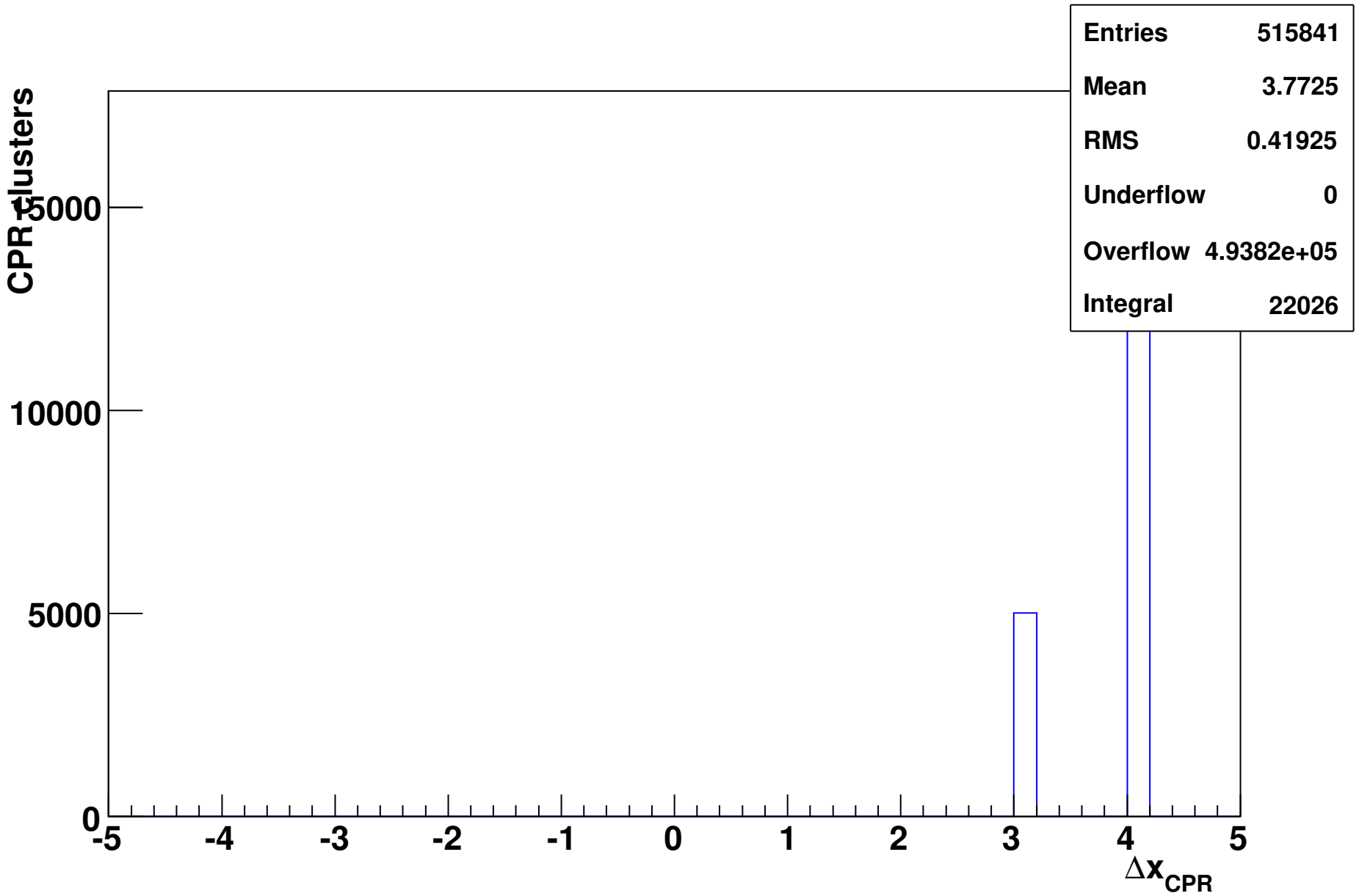

Entries 1092656
Mean 1.0041
RMS 1.1218
Underflow 0
Overflow 0
Integral 1.0927e+06
×10^3
events
400
200
0
0 1 2 3 4 5 6 7 8 9
N_MI

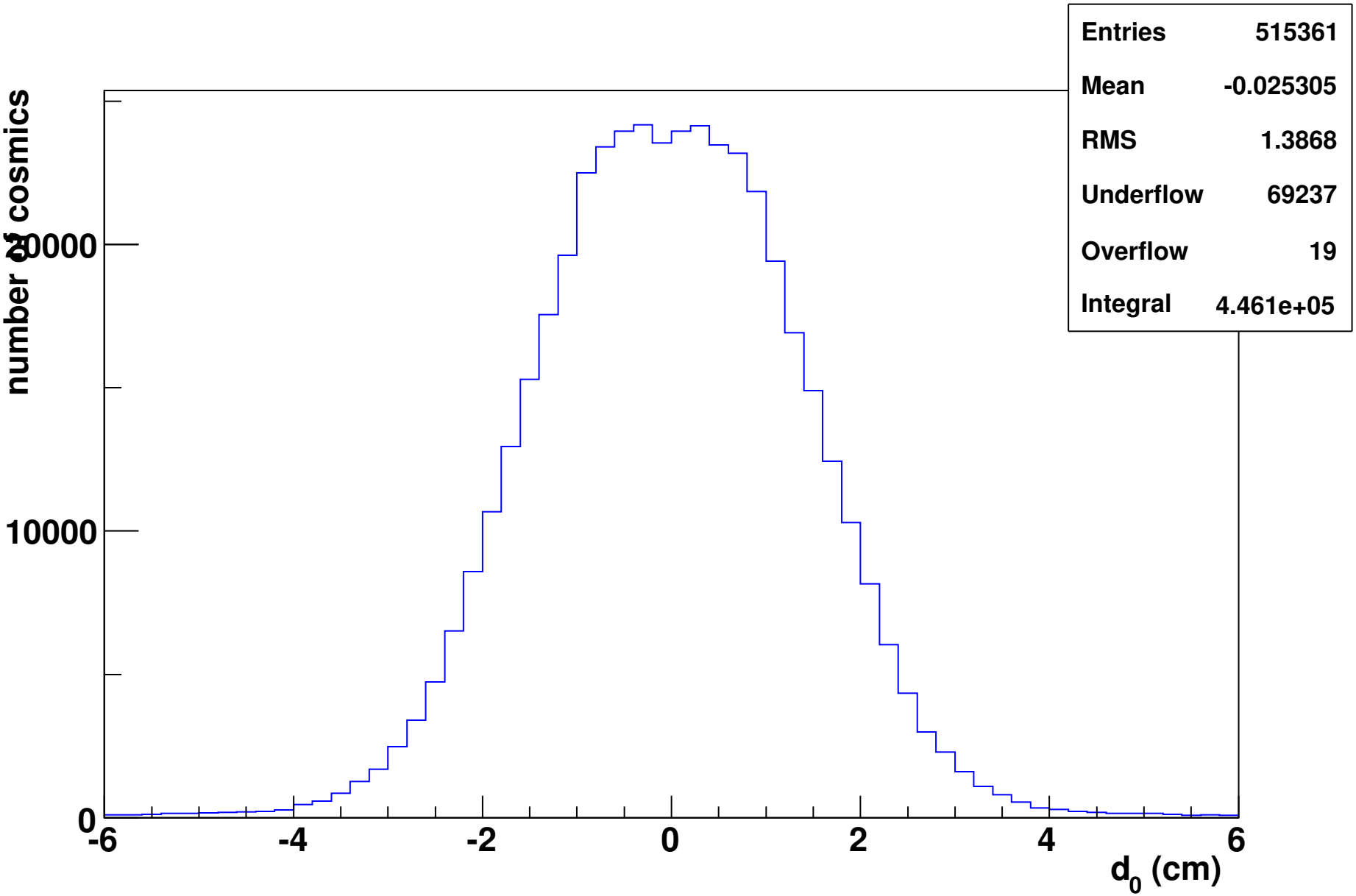

Entries 1002121
Mean 1.8463
RMS 1.0458
Underflow 0
Overflow 4013
Integral 9.9811e+05
events
×10^3
600
400
200
0
0
1
2
3
4
5
6
7
8
9
N_muons

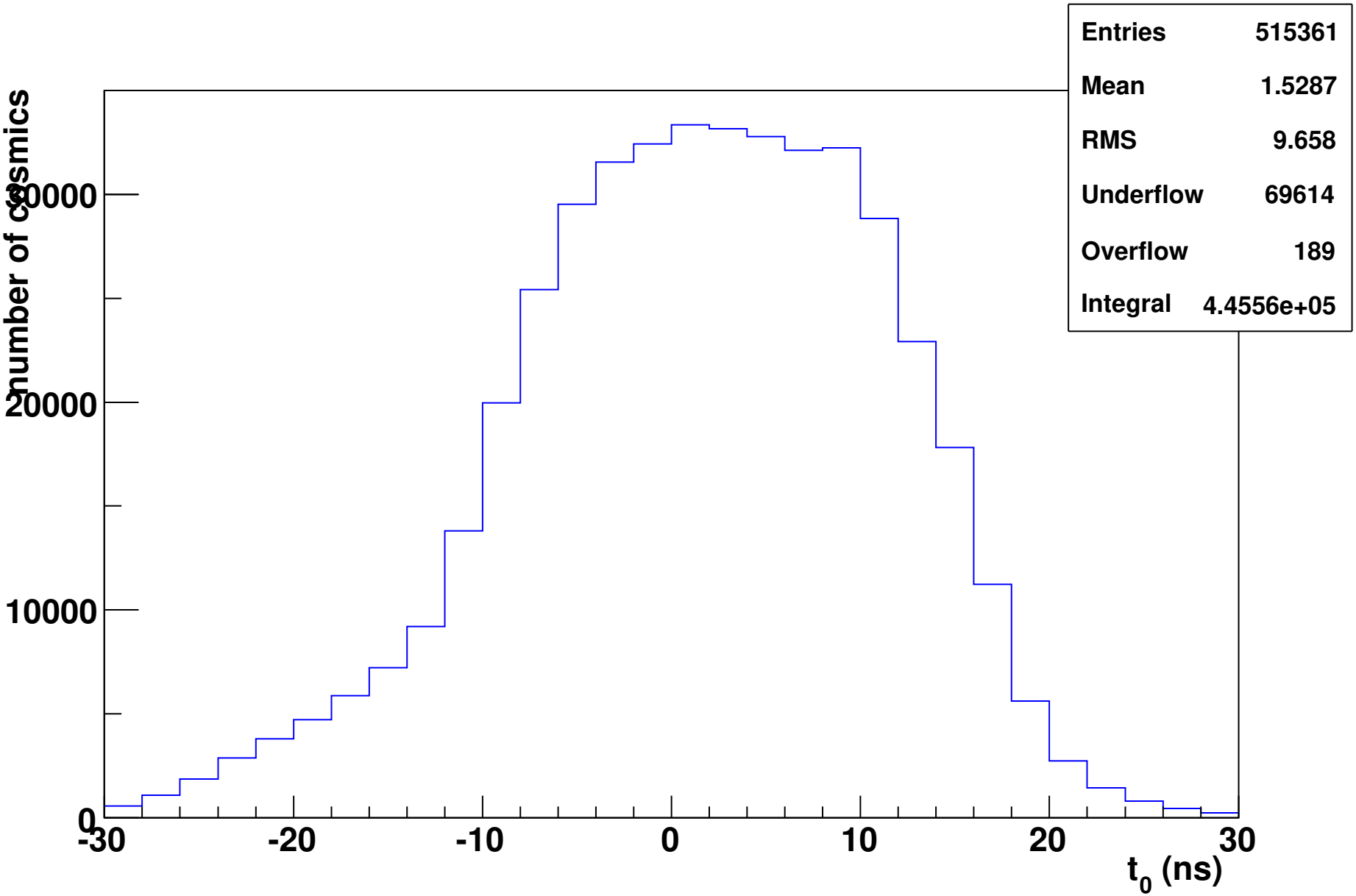

Entries 515841
Mean 1.7072
RMS 0.4555
Underflow 0
Overflow 0
Integral 5.1584e+05
muons
×10^3
300
200
100
0
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_cosmics

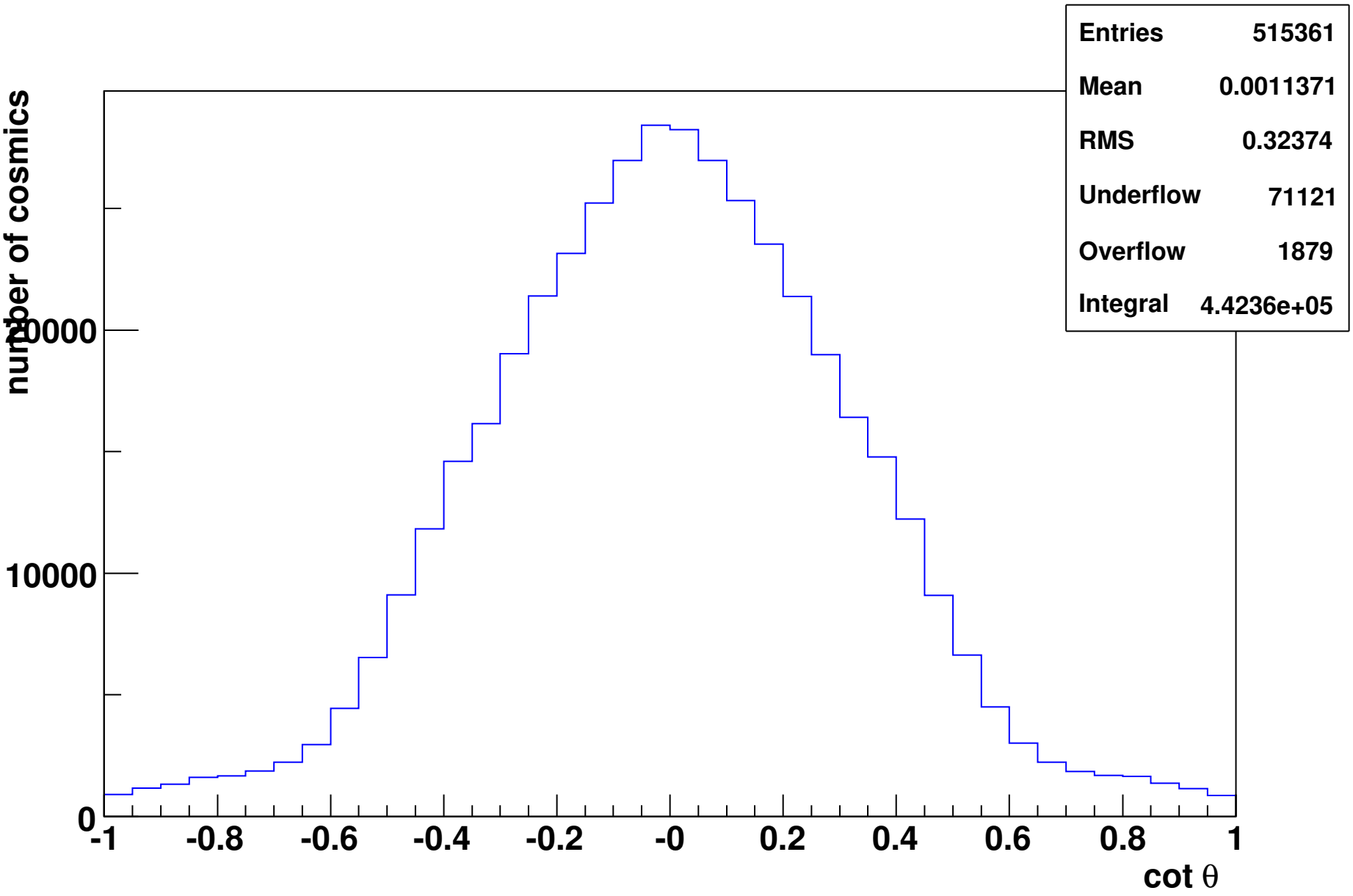

Entries 515841
Mean 2.9552
RMS 1.2256
Underflow 0
Overflow 5.0546e+05
Integral 10385
CPR clusters
4000
2000
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_CPR

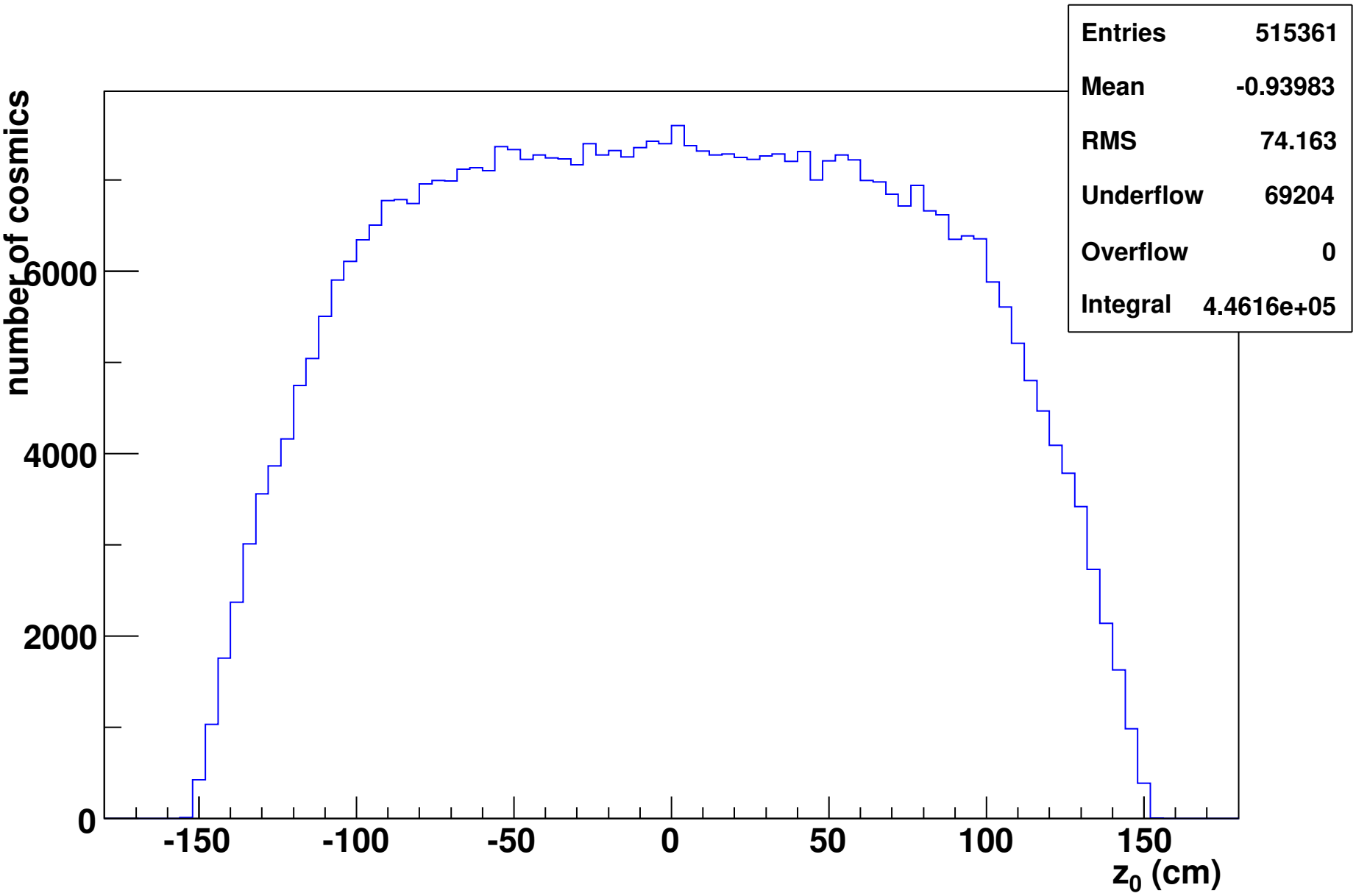

Entries 515841
Mean 0.35987
RMS 0.47244
Underflow 1.7403e+05
Overflow 0
Integral 3.4181e+05
×10^3
CPR clusters
300
200
100
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
E_CPR

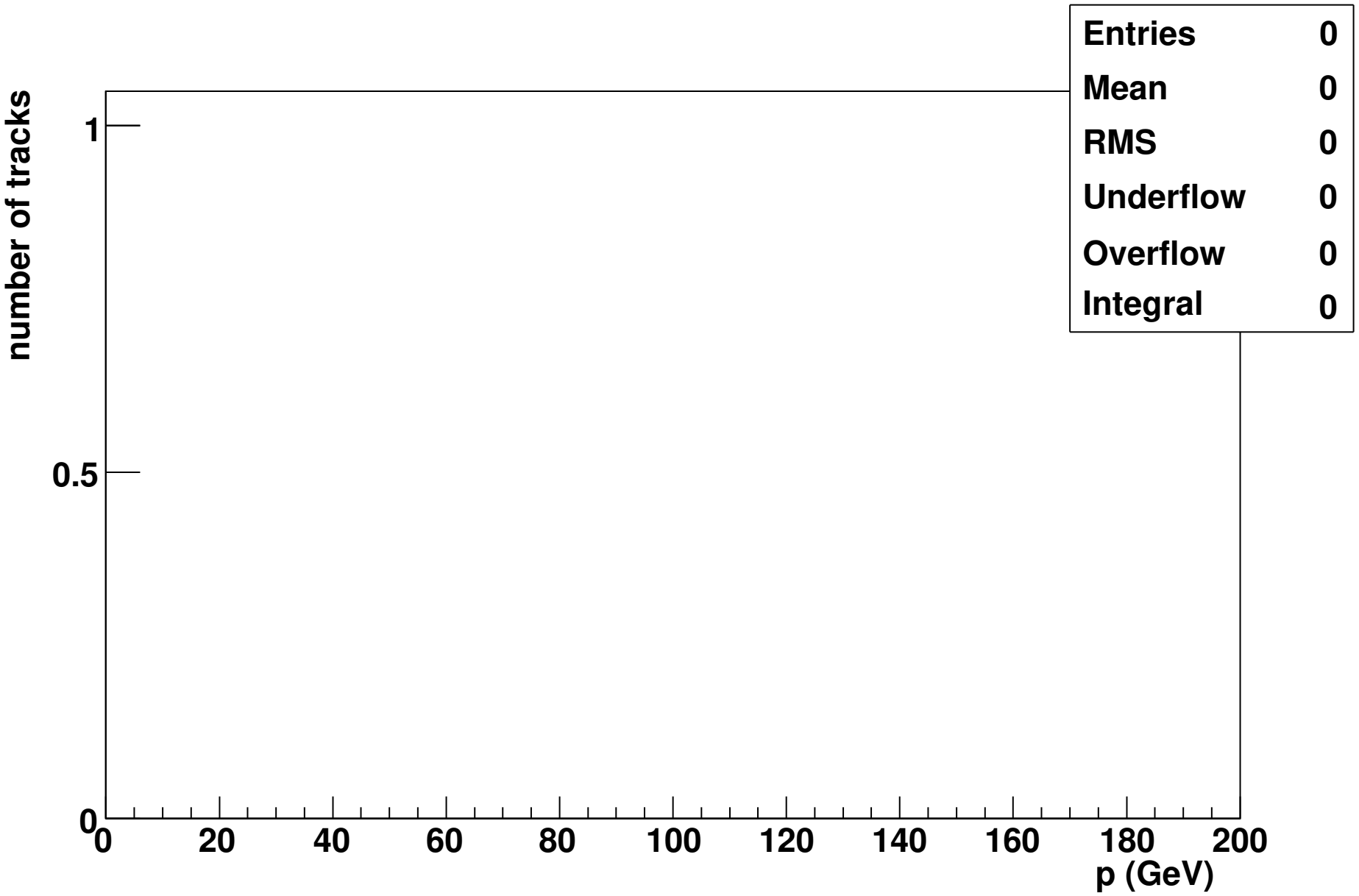

Entries 515841
Mean 3.7725
RMS 0.41925
Underflow 0
Overflow 4.9382e+05
Integral 22026
CPR clusters
15000
10000
5000
0
-5
-4
-3
-2
-1
0
1
2
3
4
5
Δx_CPR

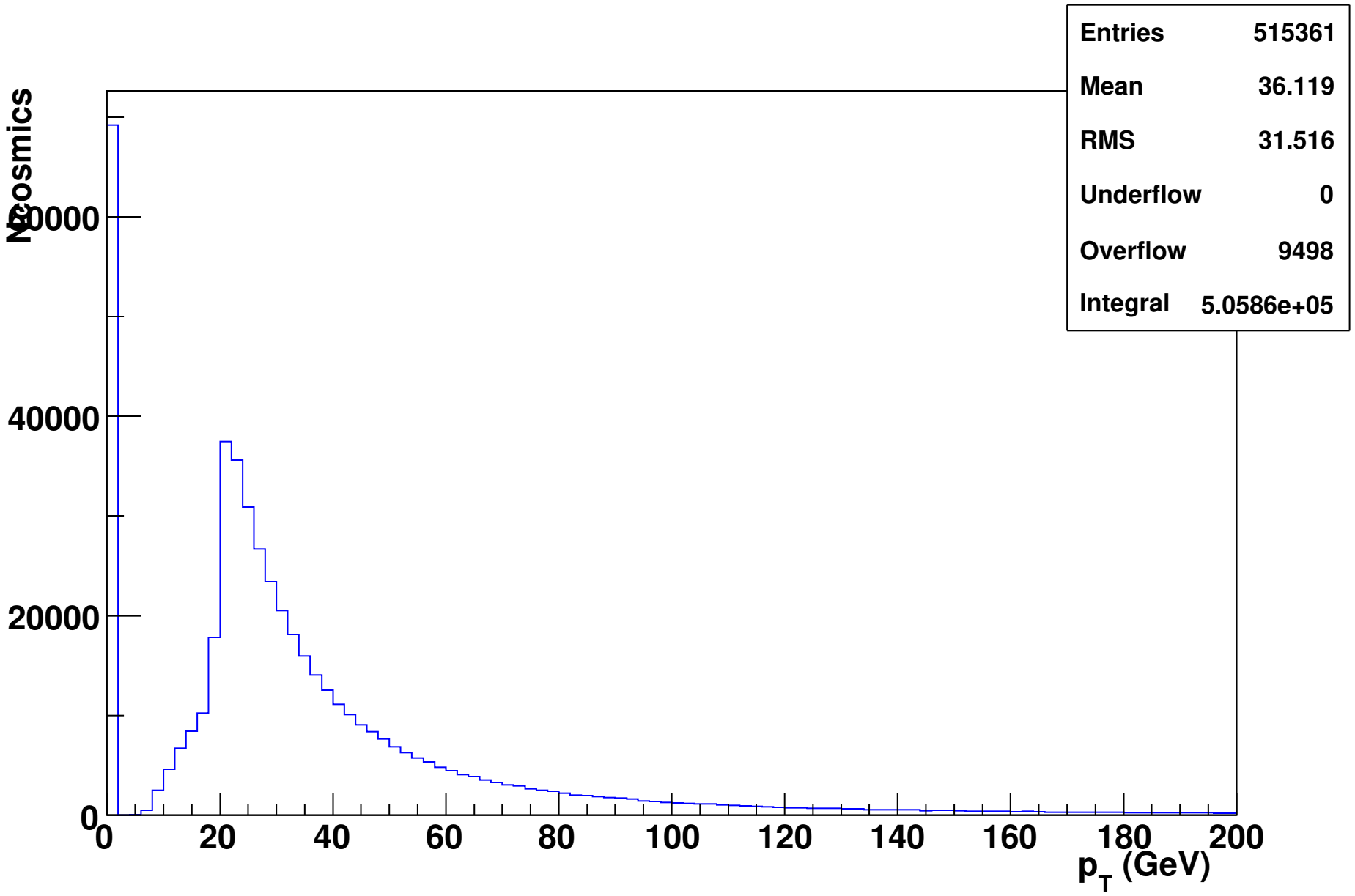

Entries 515361
Mean -0.025305
RMS 1.3868
Underflow 69237
Overflow 19
Integral 4.461e+05
number of cosmics
20000
10000
0
-6
-4
-2
0
2
4
6
d_0 (cm)

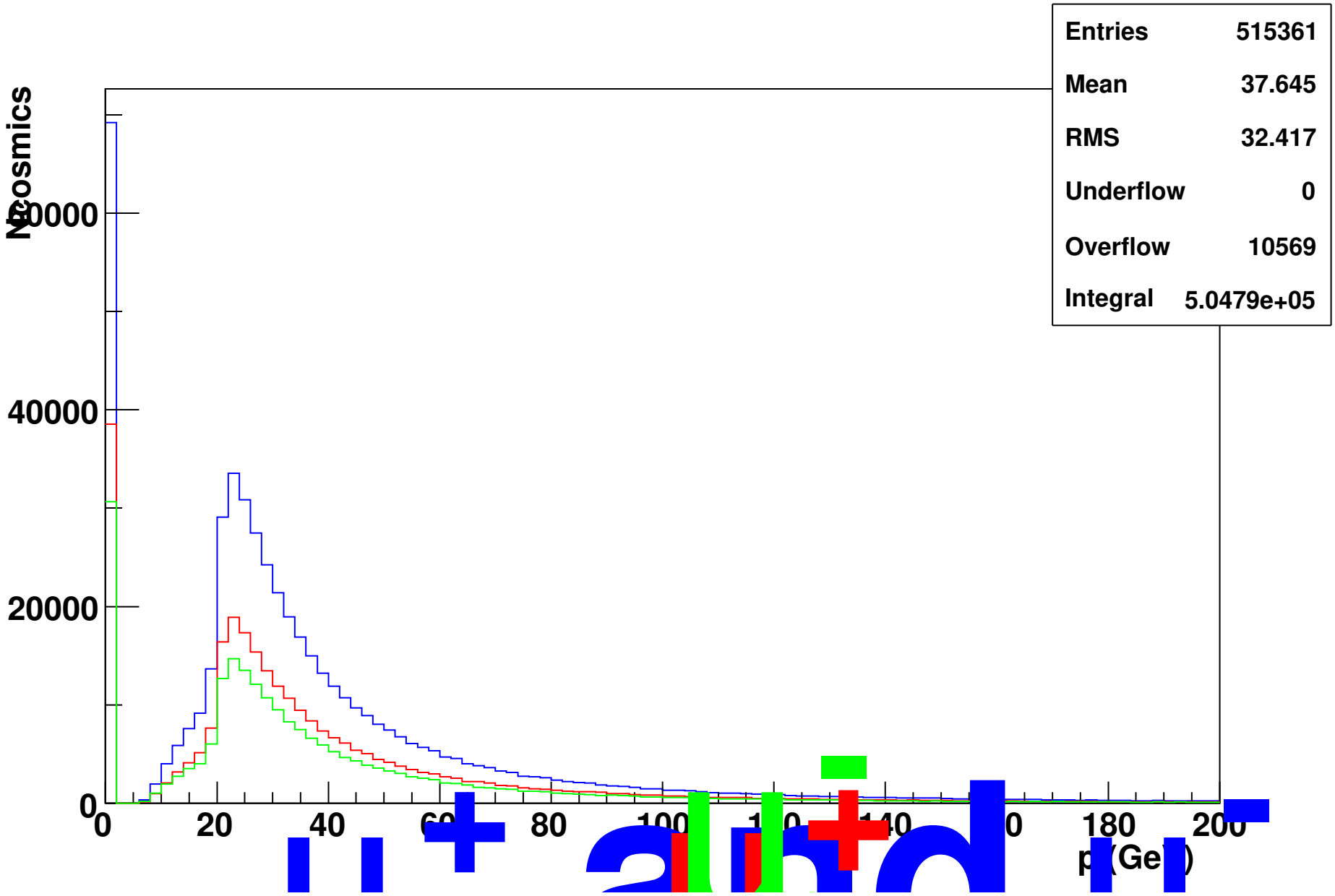

Entries 515361
Mean 1.5287
RMS 9.658
Underflow 69614
Overflow 189
Integral 4.4556e+05
number of cosmics
30000
20000
10000
0
-30
-20
-10
0
10
20
30
t_0 (ns)

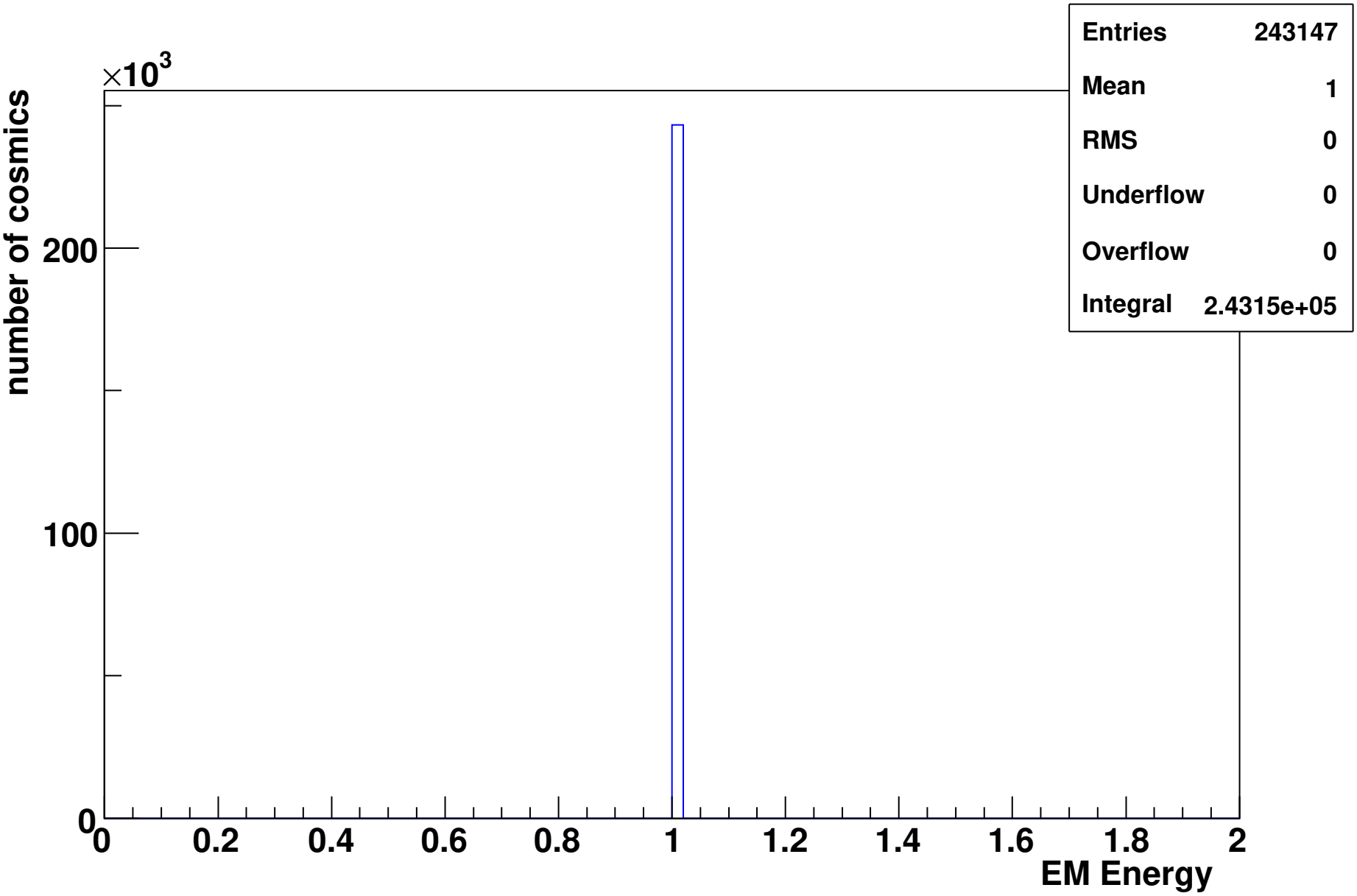

Entries 515361
Mean 0.0011371
RMS 0.32374
Underflow 71121
Overflow 1879
Integral 4.4236e+05
number of cosmics
20000
10000
0
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
cot θ

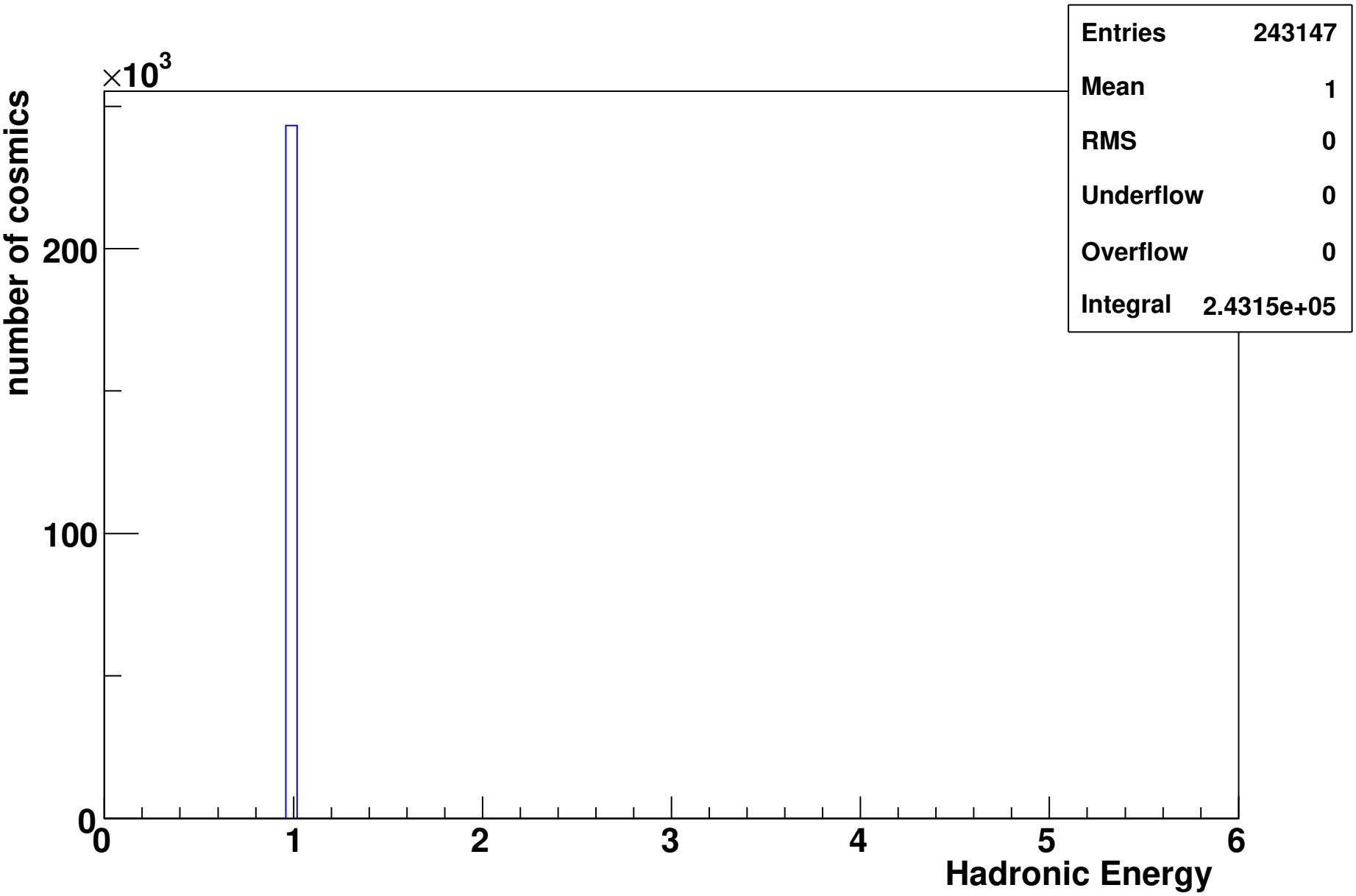

Entries 515361
Mean -0.93983
RMS 74.163
Underflow 69204
Overflow 0
Integral 4.4616e+05
number of cosmics
6000
4000
2000
0
-150
-100
-50
0
50
100
150
z_0 (cm)

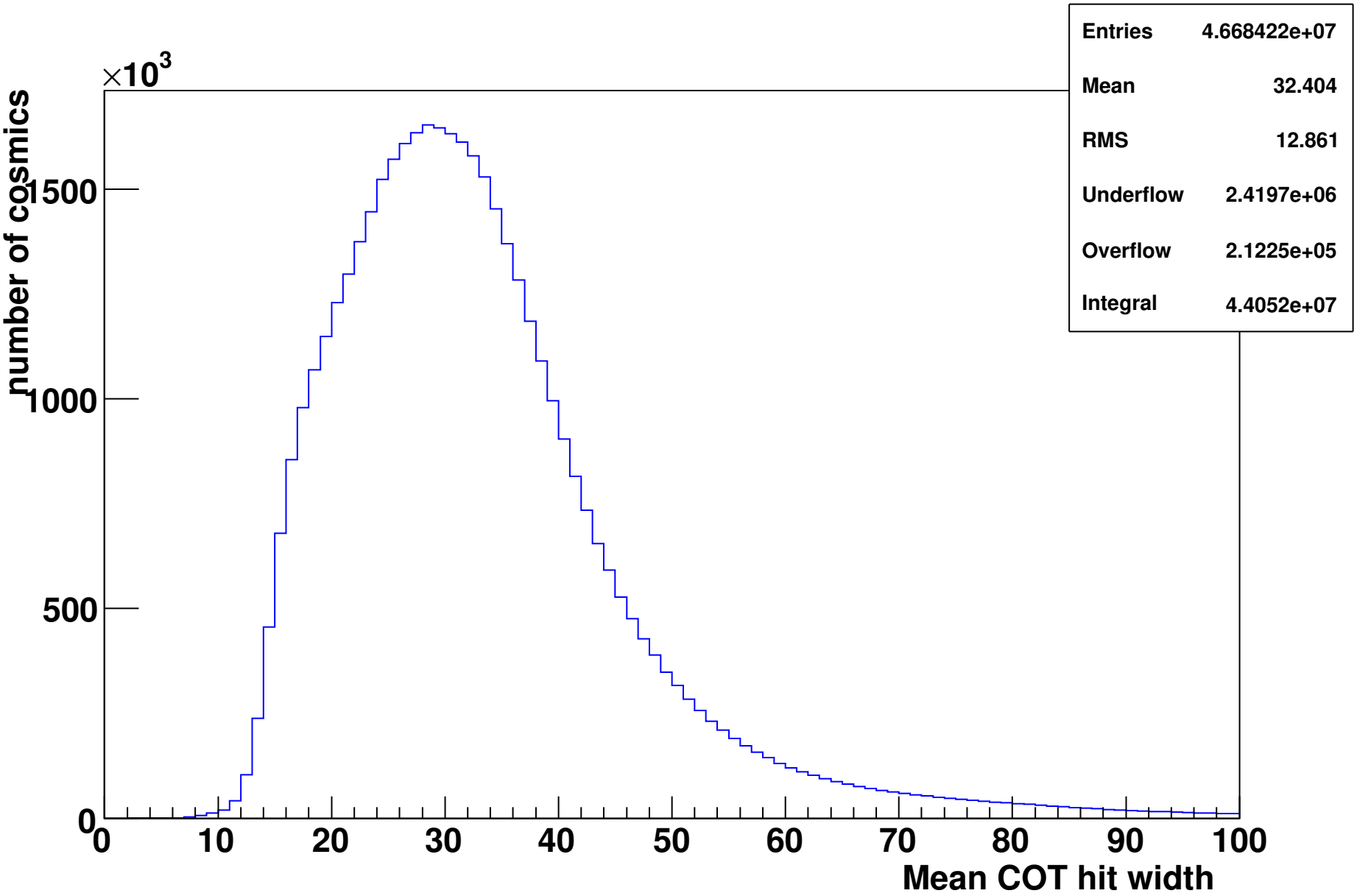

Entries 0
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 0
number of tracks
1
0.5
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

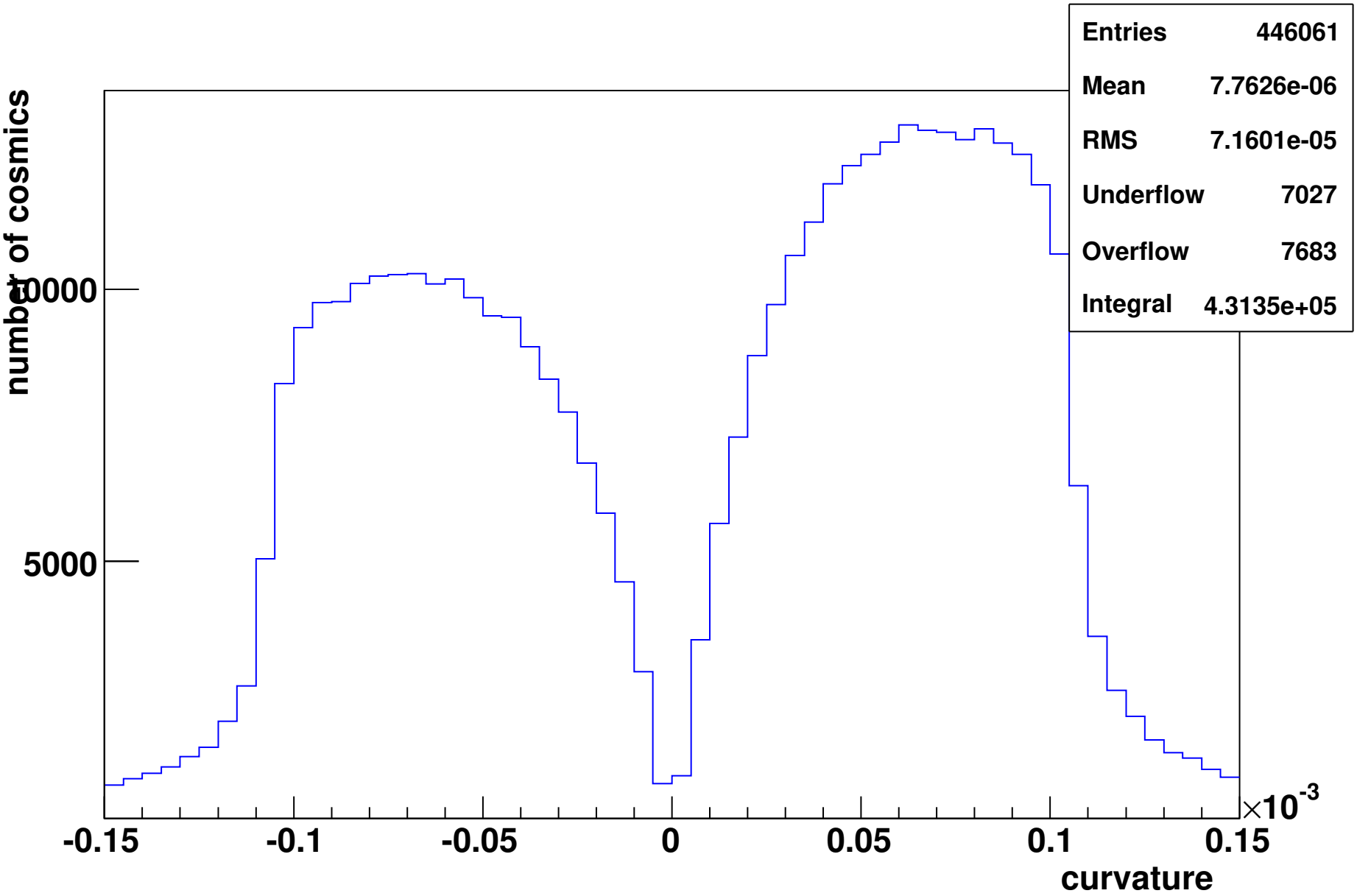

Entries 515361
Mean 36.119
RMS 31.516
Underflow 0
Overflow 9498
Integral 5.0586e+05
N cosmics
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p_T (GeV)

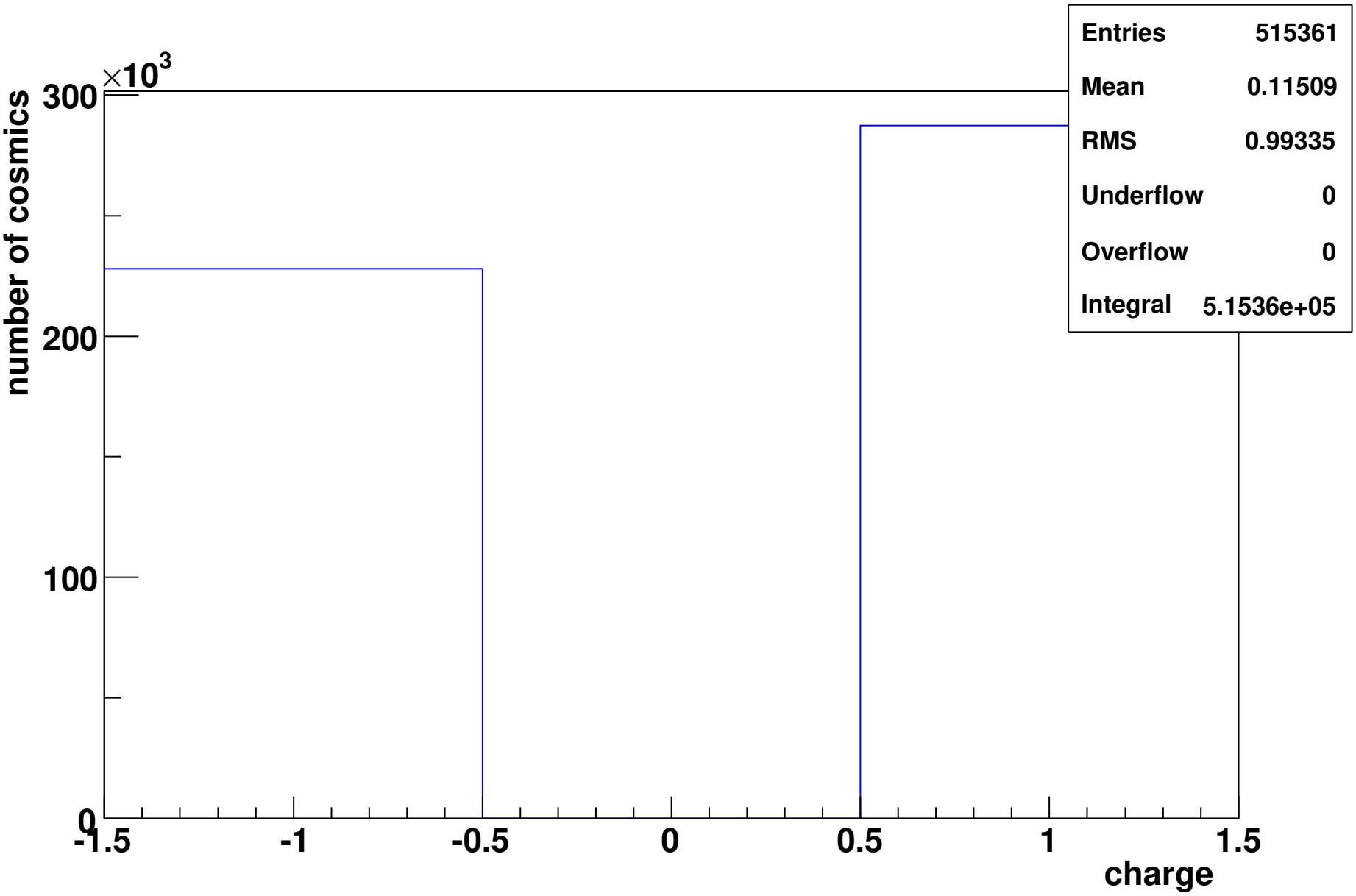

Entries 515361
Mean 37.645
RMS 32.417
Underflow 0
Overflow 10569
Integral 5.0479e+05
Nmuons
Ncosmics
60000
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

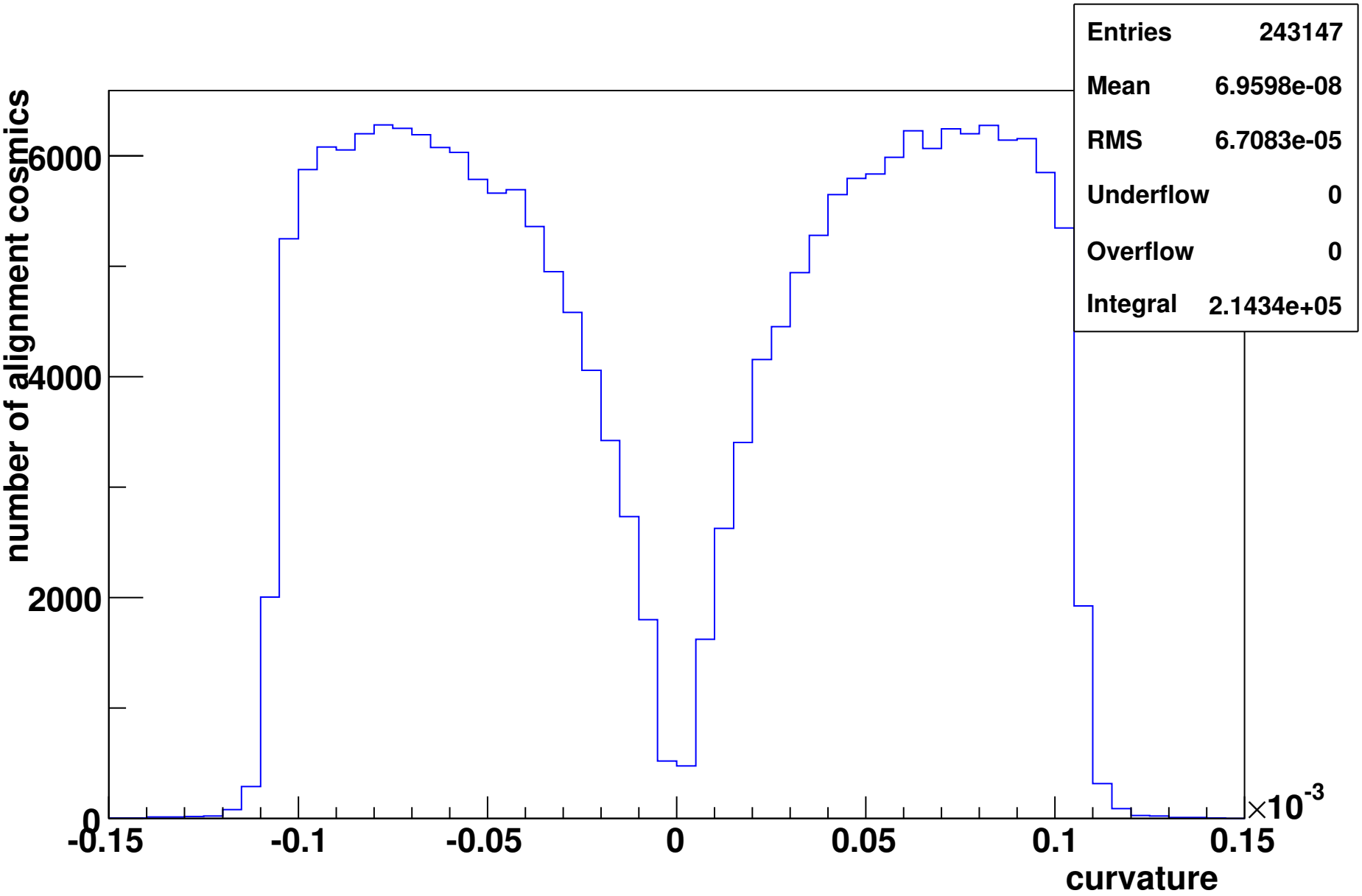

Entries 243147
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 2.4315e+05
×10^3
number of cosmics
200
100
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
EM Energy

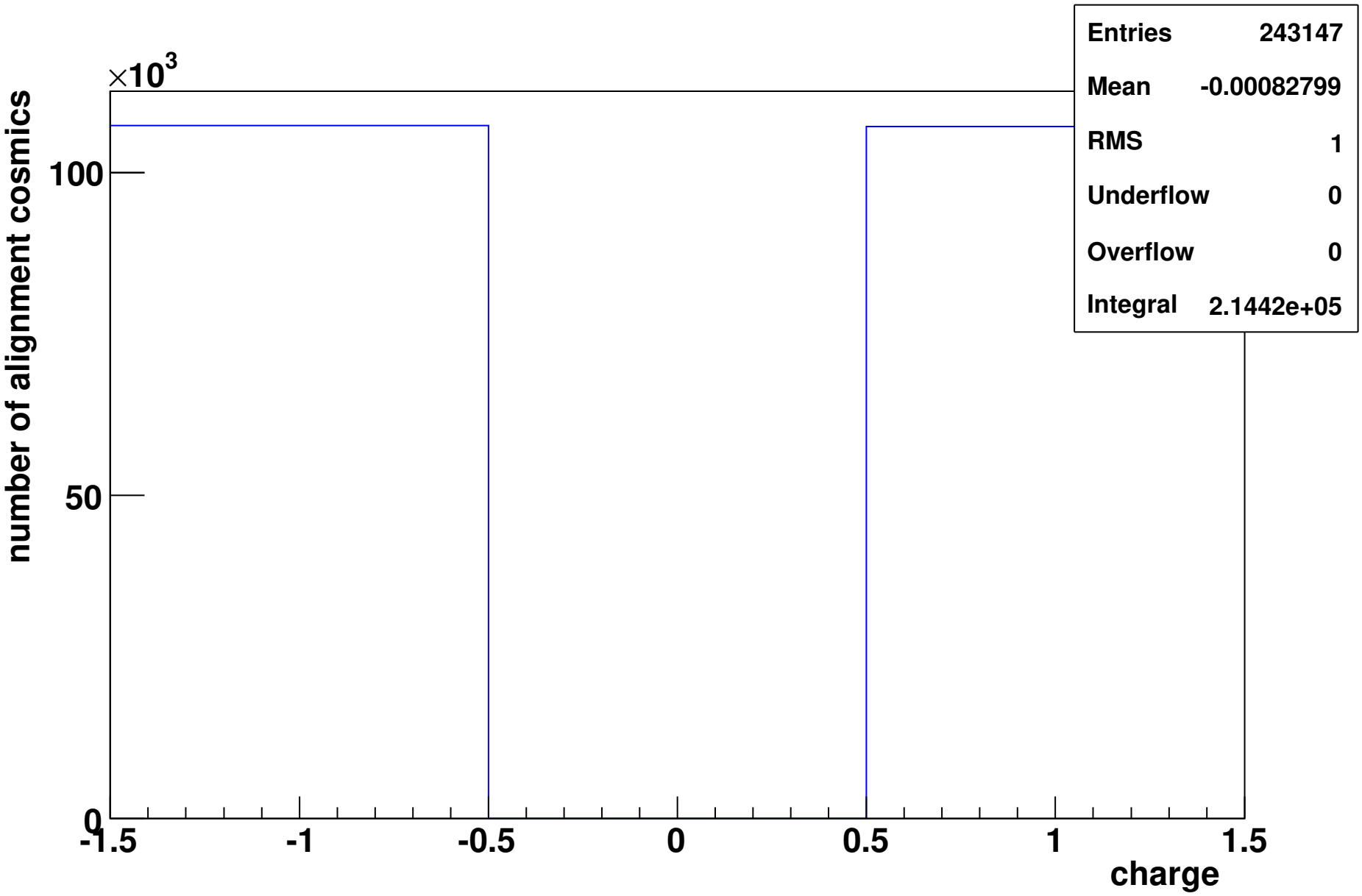

Entries 243147
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 2.4315e+05
×10^3
number of cosmics
200
100
0
0
1
2
3
4
5
6
Hadronic Energy

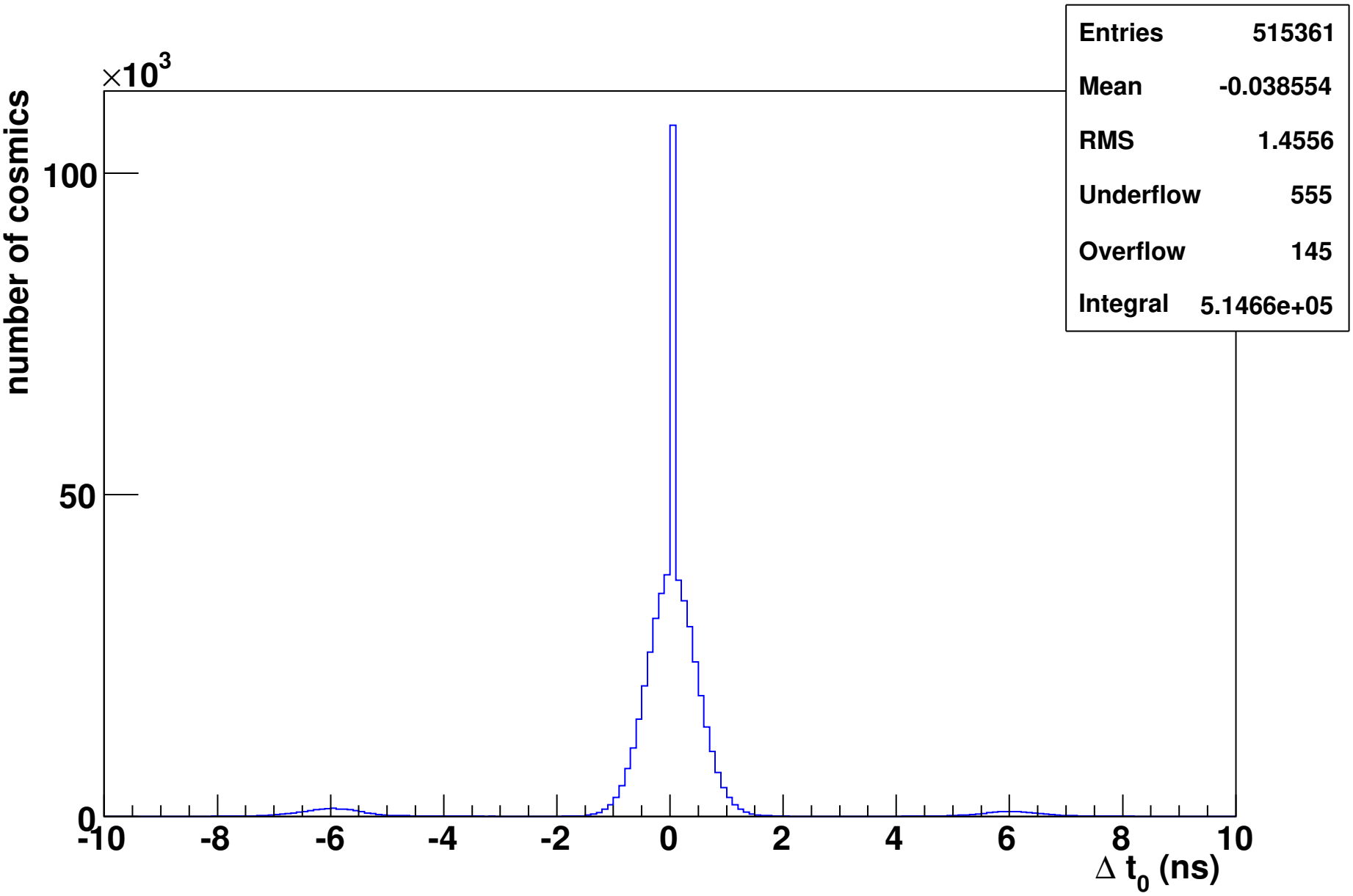

Entries 4.668422e+07
Mean 32.404
RMS 12.861
Underflow 2.4197e+06
Overflow 2.1225e+05
Integral 4.4052e+07
×10^3
number of cosmics
1500
1000
500
0
0
10
20
30
40
50
60
70
80
90
100
Mean COT hit width

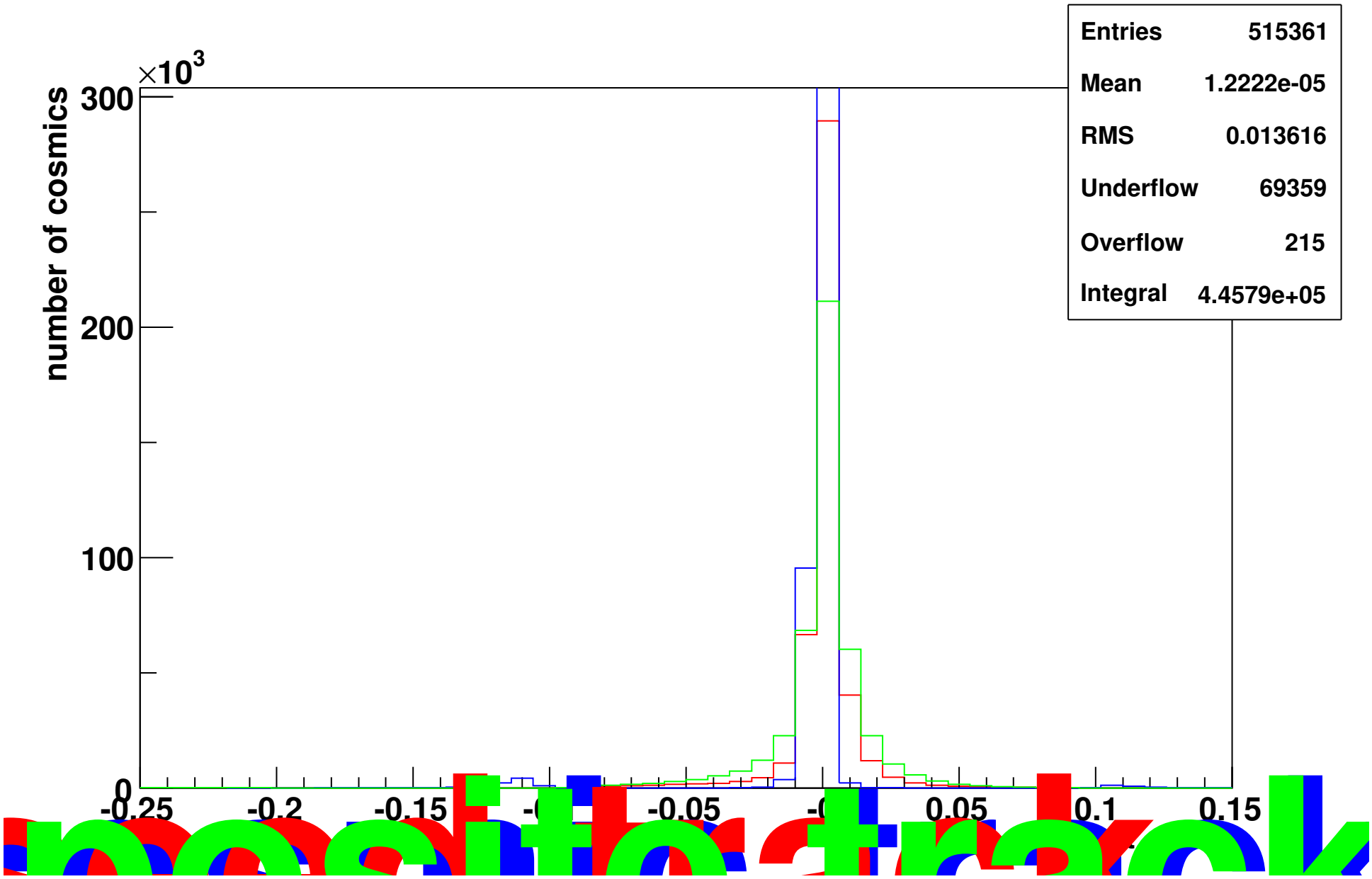

Entries 446061
Mean 7.7626e-06
RMS 7.1601e-05
Underflow 7027
Overflow 7683
Integral 4.3135e+05
number of cosmics
10000
5000
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

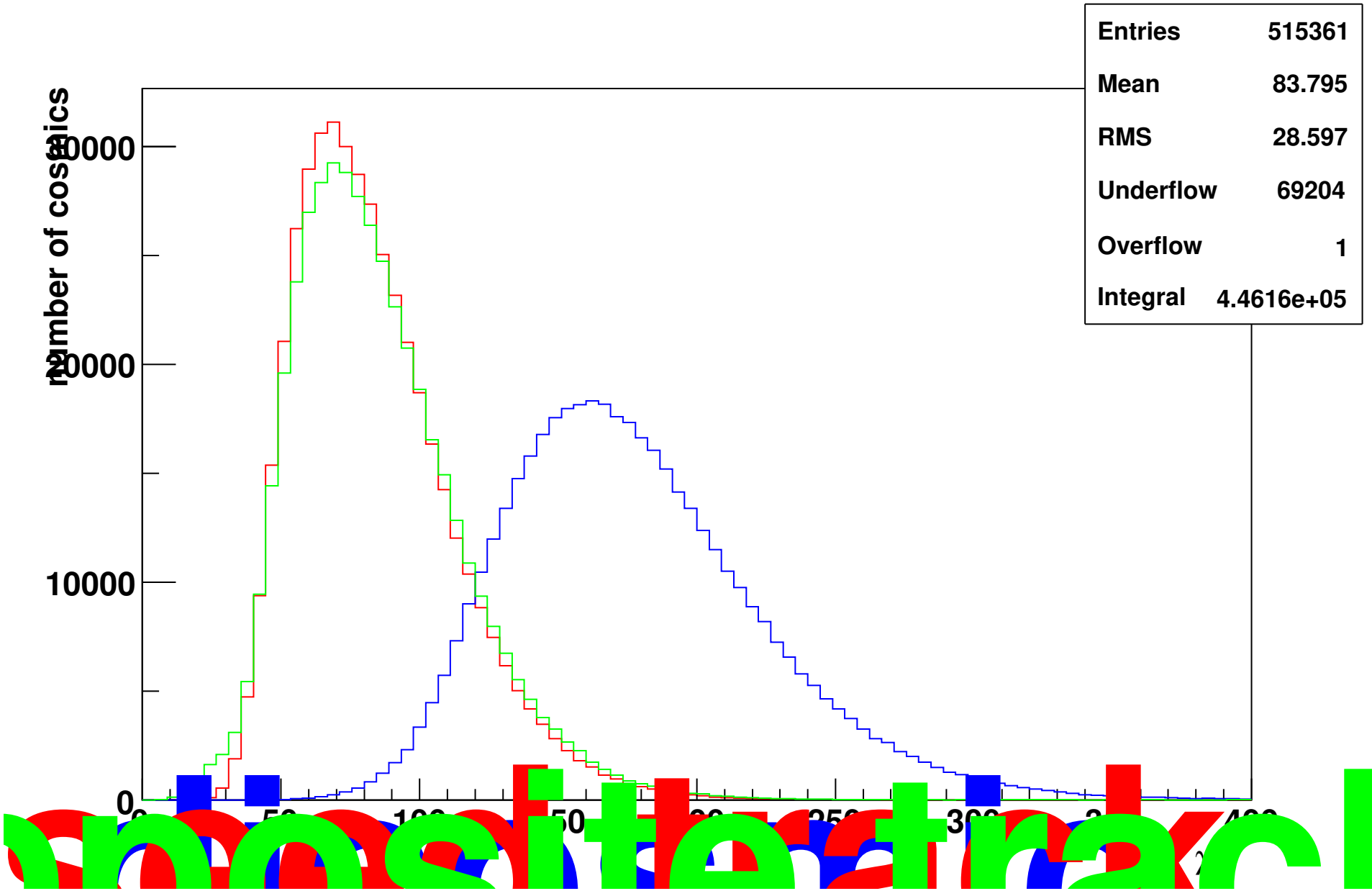

Entries 515361
Mean 0.11509
RMS 0.99335
Underflow 0
Overflow 0
Integral 5.1536e+05
×10^3
300
200
100
0
number of cosmics
-1.5
-1
-0.5
0
0.5
1
1.5
charge

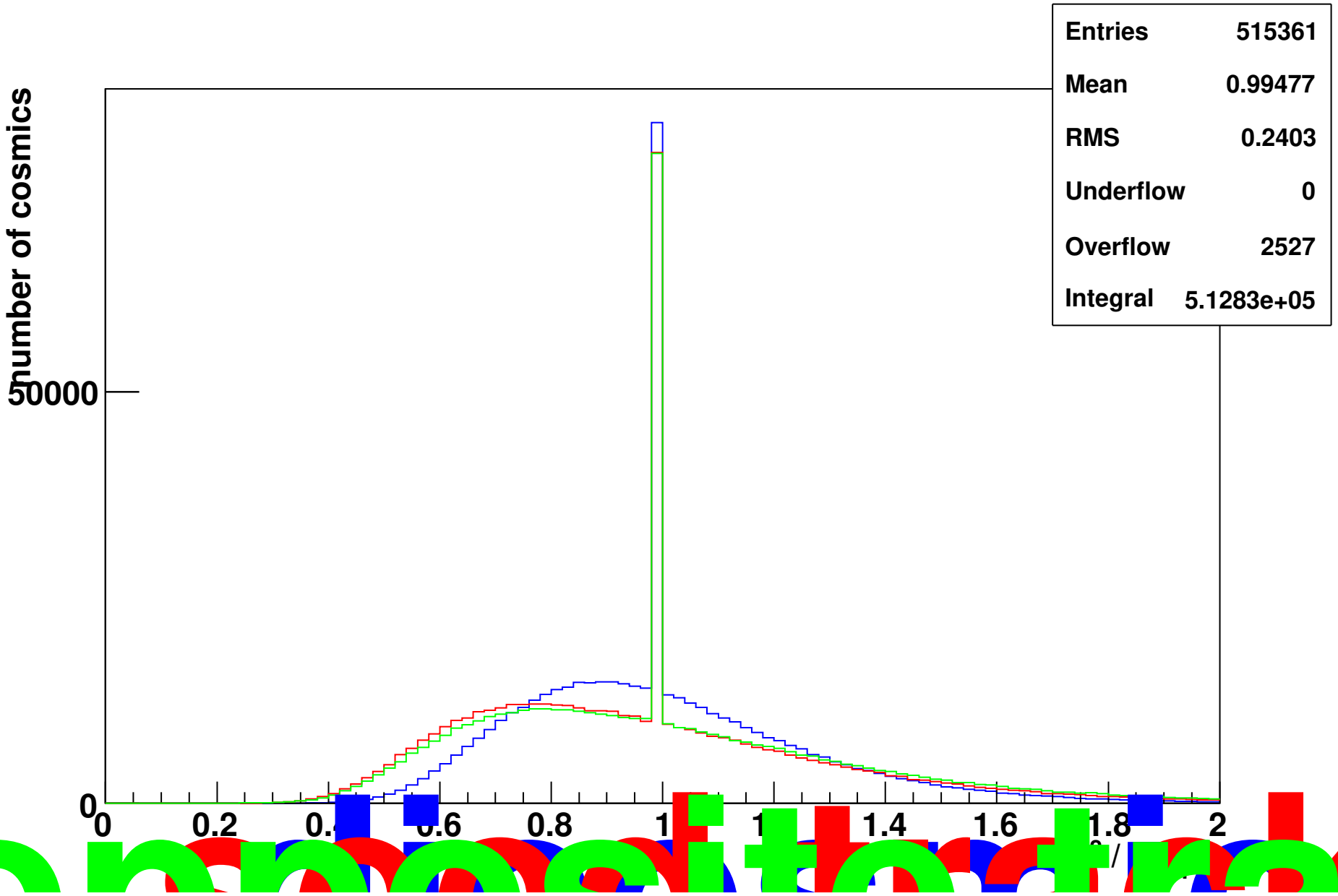

Entries 243147
Mean 6.9598e-08
RMS 6.7083e-05
Underflow 0
Overflow 0
Integral 2.1434e+05
number of alignment cosmics
6000
4000
2000
0
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

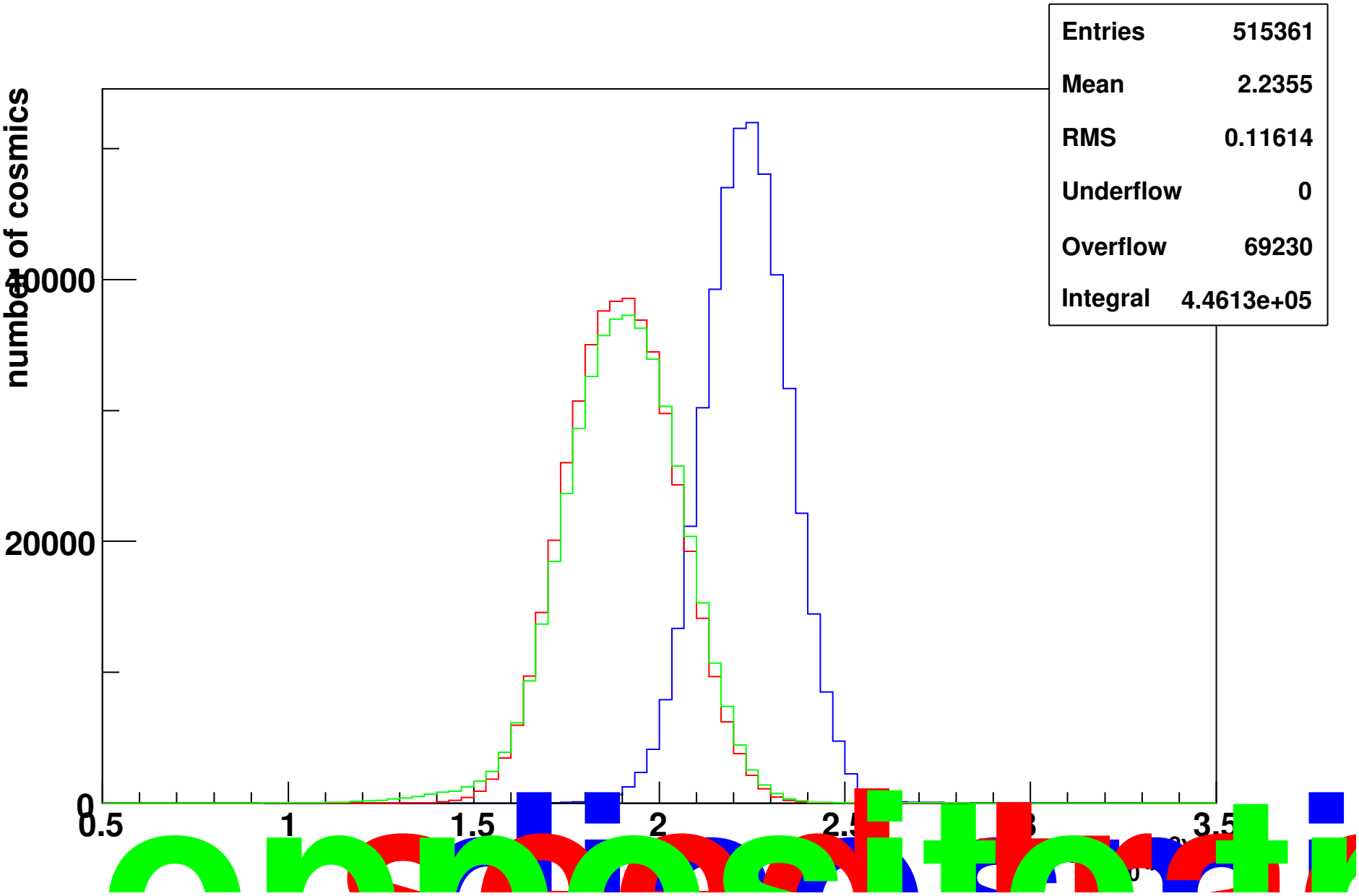

Entries 243147
Mean -0.00082799
RMS 1
Underflow 0
Overflow 0
Integral 2.1442e+05
×10^3
number of alignment cosmics
100
50
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 515361
Mean -0.038554
RMS 1.4556
Underflow 555
Overflow 145
Integral 5.1466e+05
×10^3
number of cosmics
100
50
0
-10
-8
-6
-4
-2
0
2
4
6
8
10
Δ t0 (ns)


Entries 515361
Mean 1.2222e-05
RMS 0.013616
Underflow 69359
Overflow 215
Integral 4.4579e+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 515361
Mean 83.795
RMS 28.597
Underflow 69204
Overflow 1
Integral 4.4616e+05
number of cosmics
20000
10000
0


Entries 515361
Mean 0.99477
RMS 0.2403
Underflow 0
Overflow 2527
Integral 5.1283e+05
number of cosmics
50000
0
0
0.2
0.6
0.8
1.4
1.6
1.8
2


Entries 515361
Mean 2.2355
RMS 0.11614
Underflow 0
Overflow 69230
Integral 4.4613e+05
number of cosmics
40000
20000
0
0.5
1
1.5
2
2.5
3.5

cosmic

cosmic

ng pair

ng pair

Entries 515361

number of ditracks

10^5

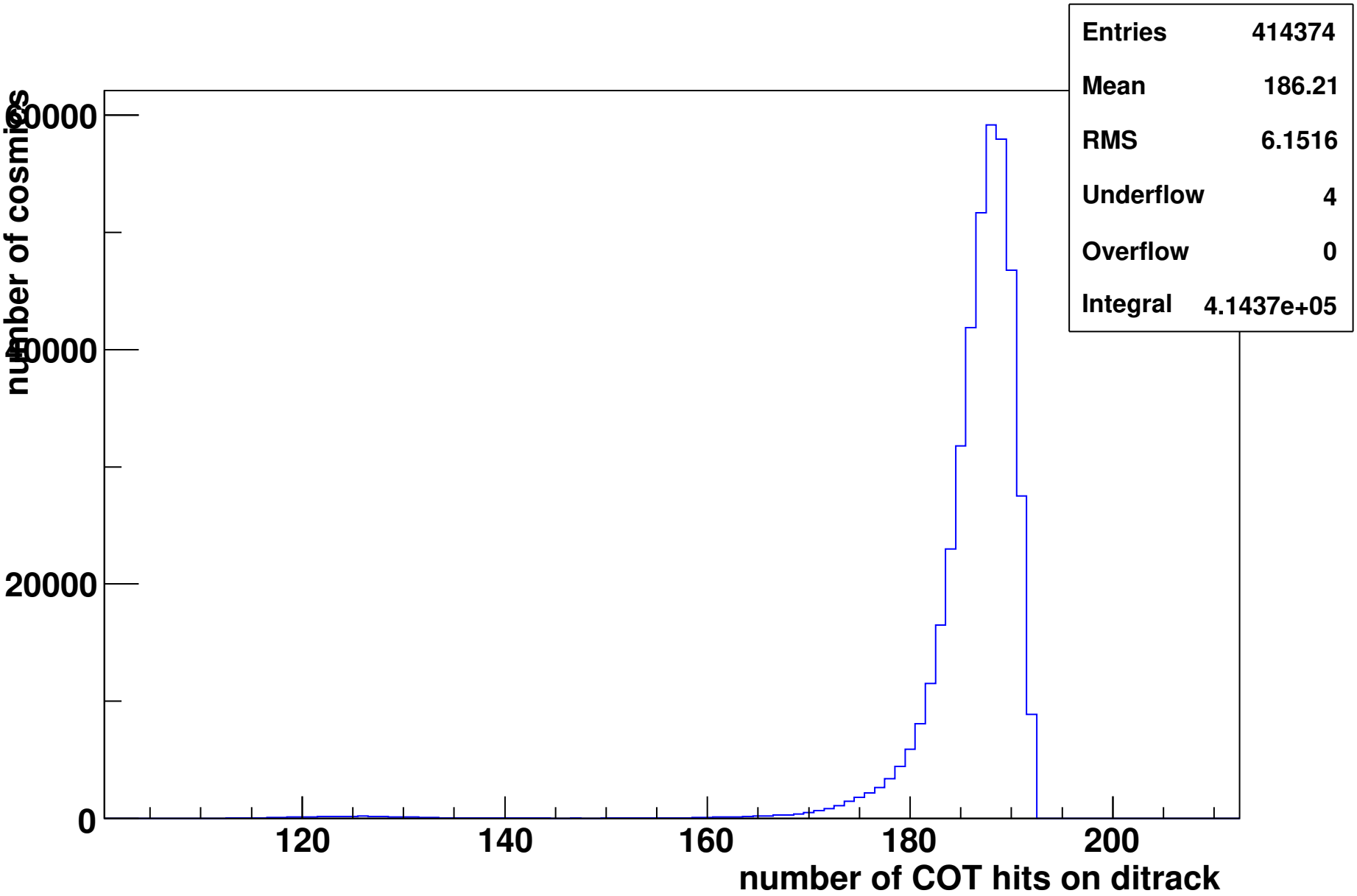
10^4

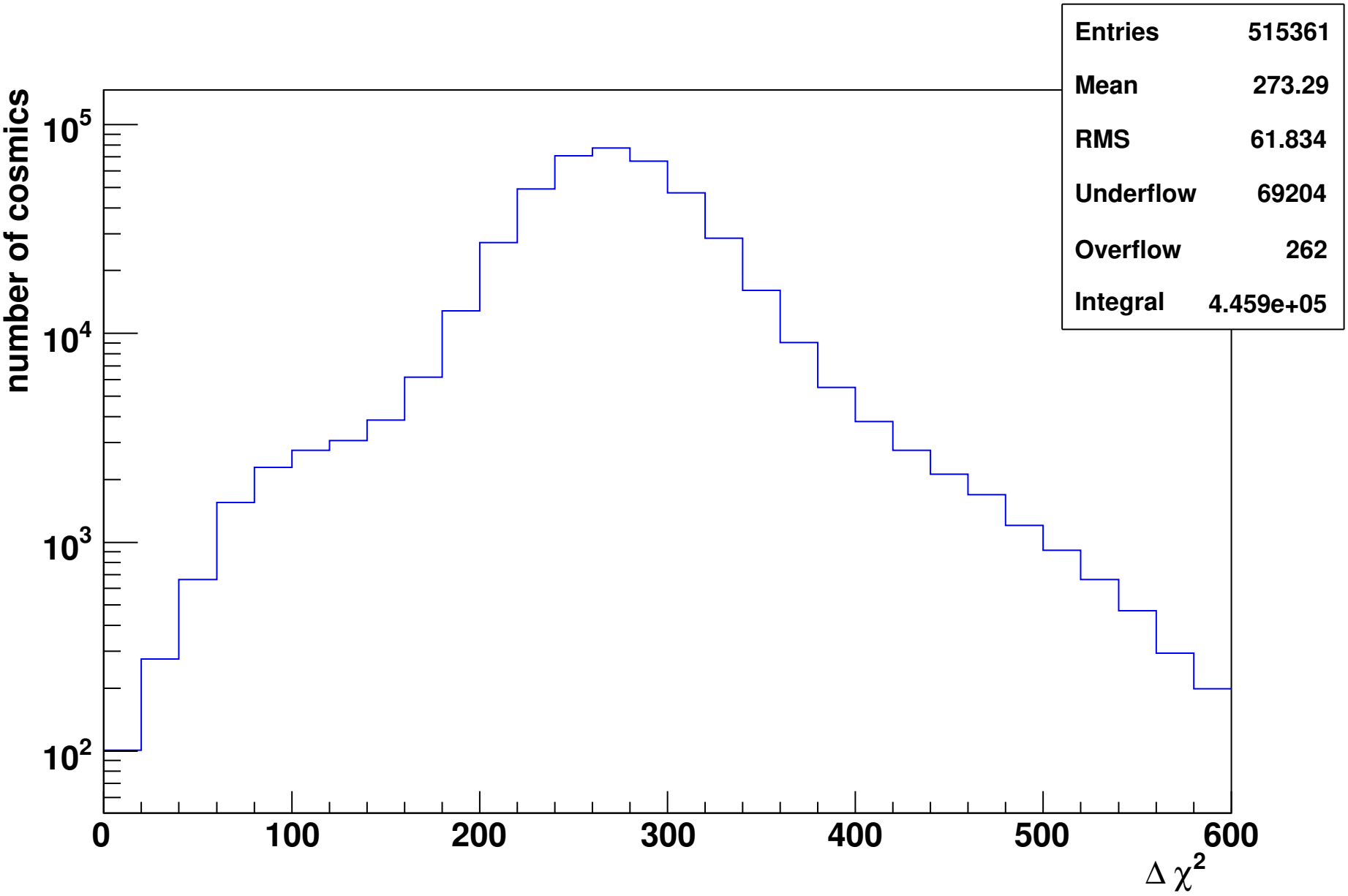
10^3

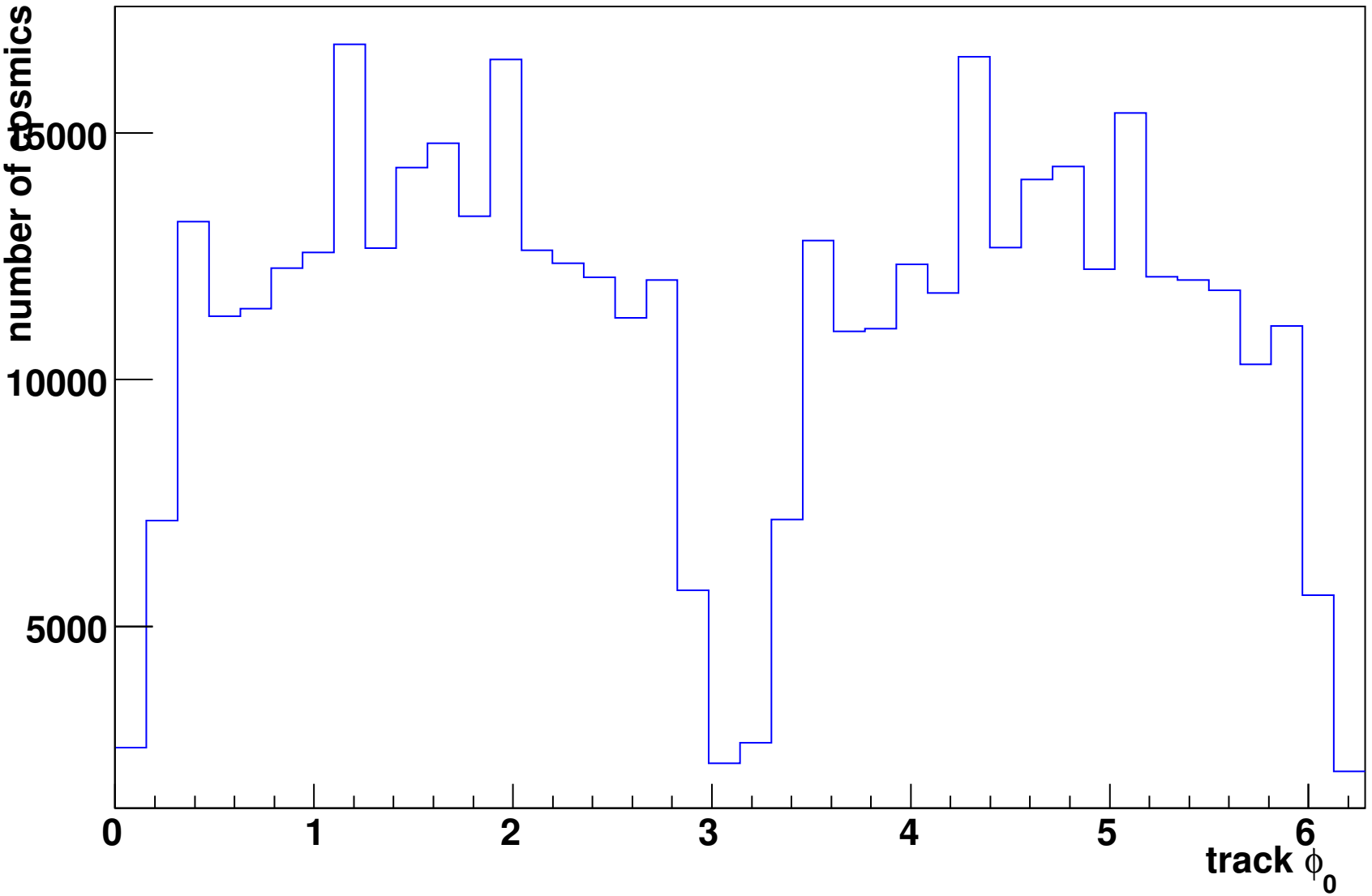
10^2

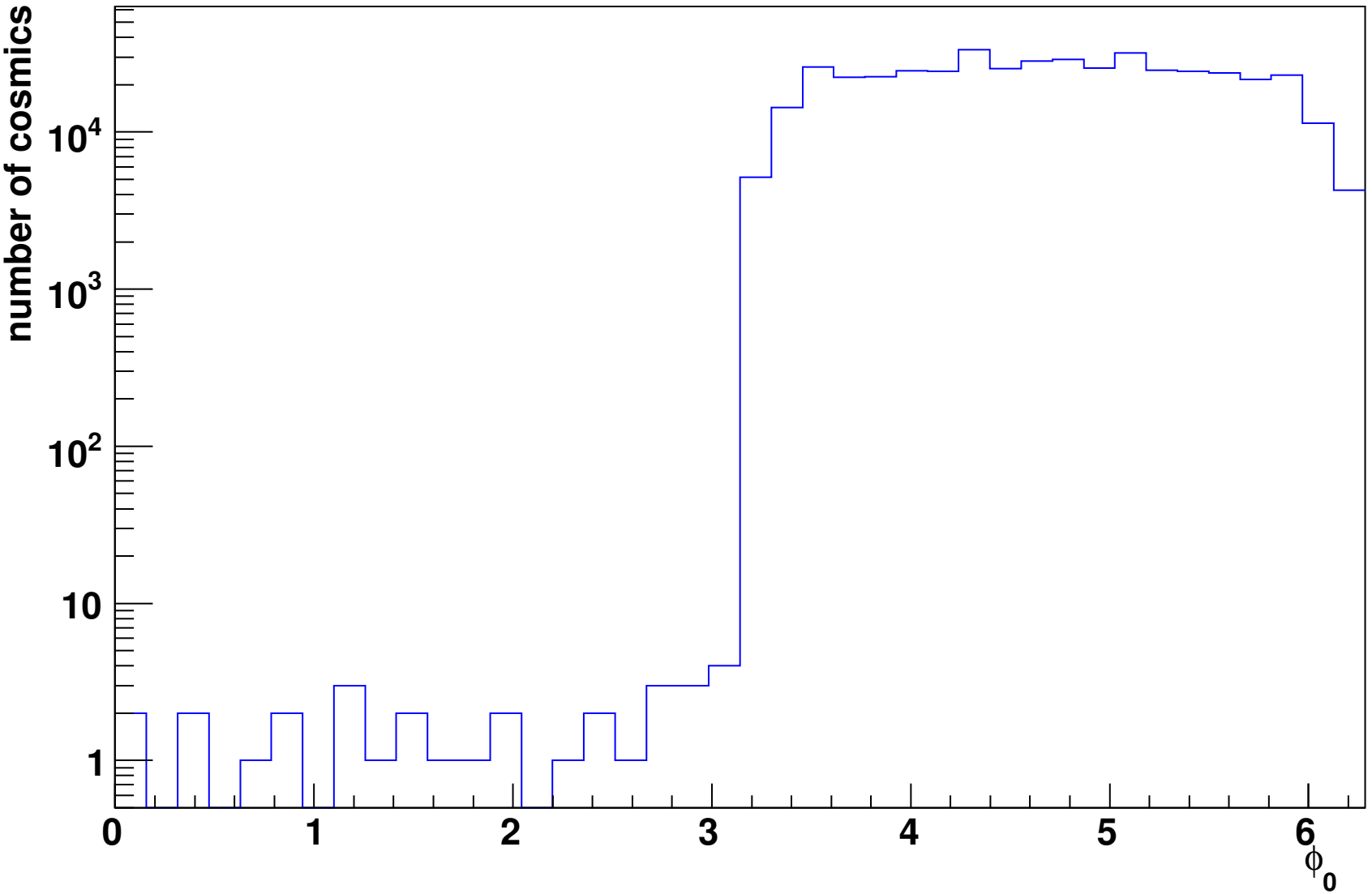
-0.5 0 0.5 1 1.5 2 2.5 3 3.5 4 4.5

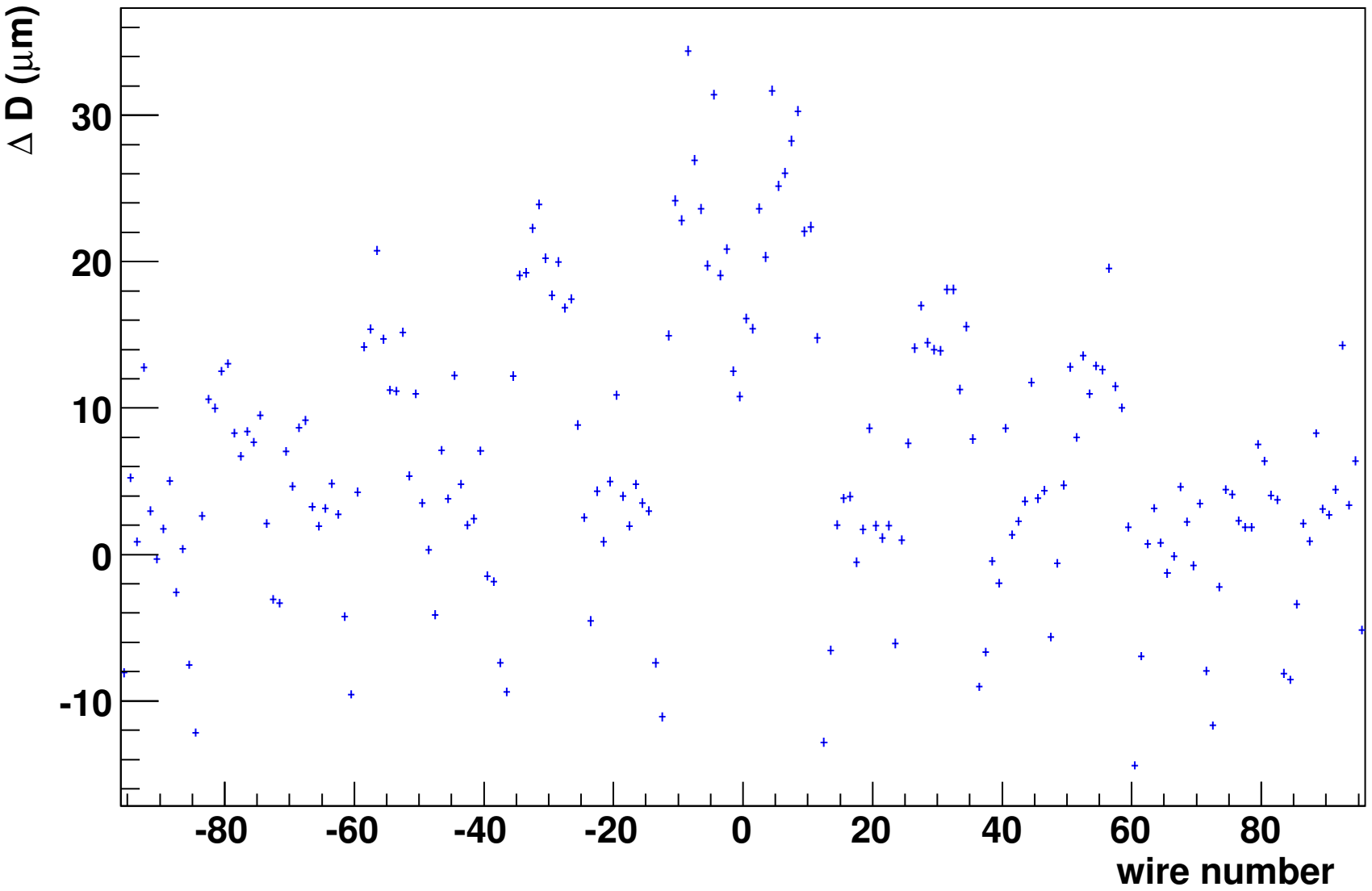
ditrack type

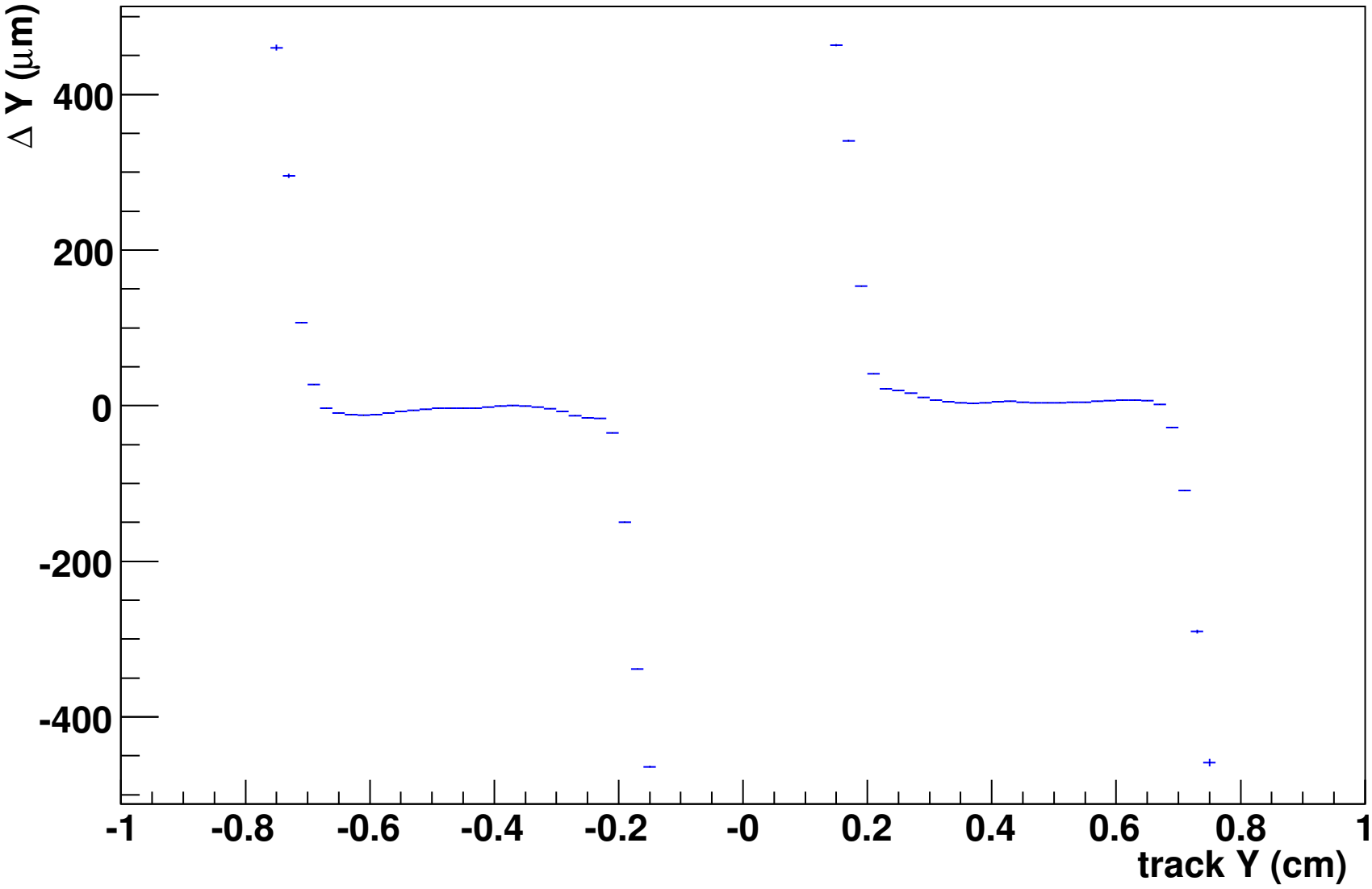

Entries 414374
Mean 186.21
RMS 6.1516
Underflow 4
Overflow 0
Integral 4.1437e+05
number of cosmics
60000
40000
20000
0
120
140
160
180
200
number of COT hits on ditrack

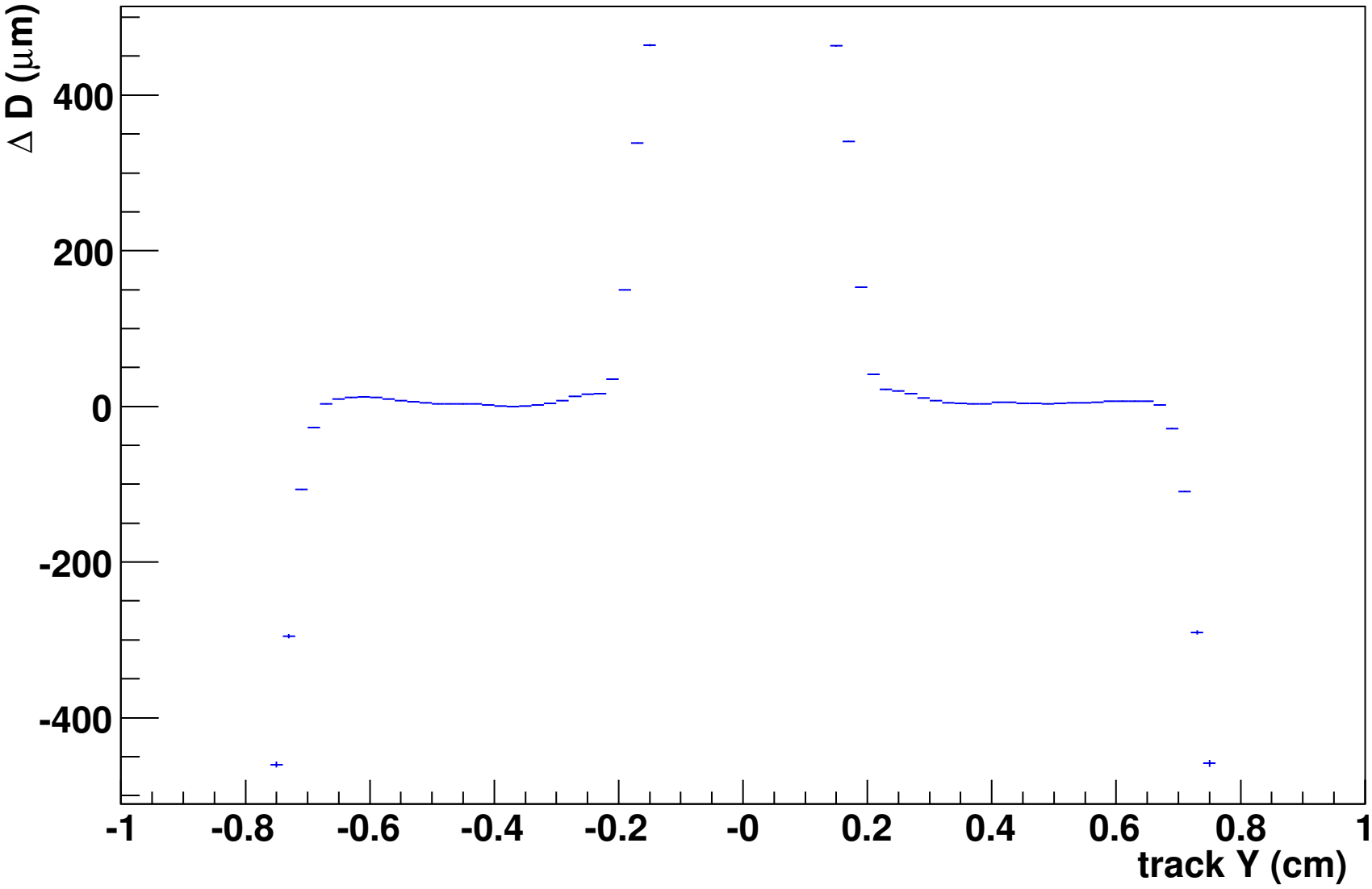

Entries 515361
Mean 273.29
RMS 61.834
Underflow 69204
Overflow 262
Integral 4.459e+05
number of cosmics
10^5
10^4
10^3
10^2
0
100
200
300
400
500
600
$\Delta\,\chi^2$

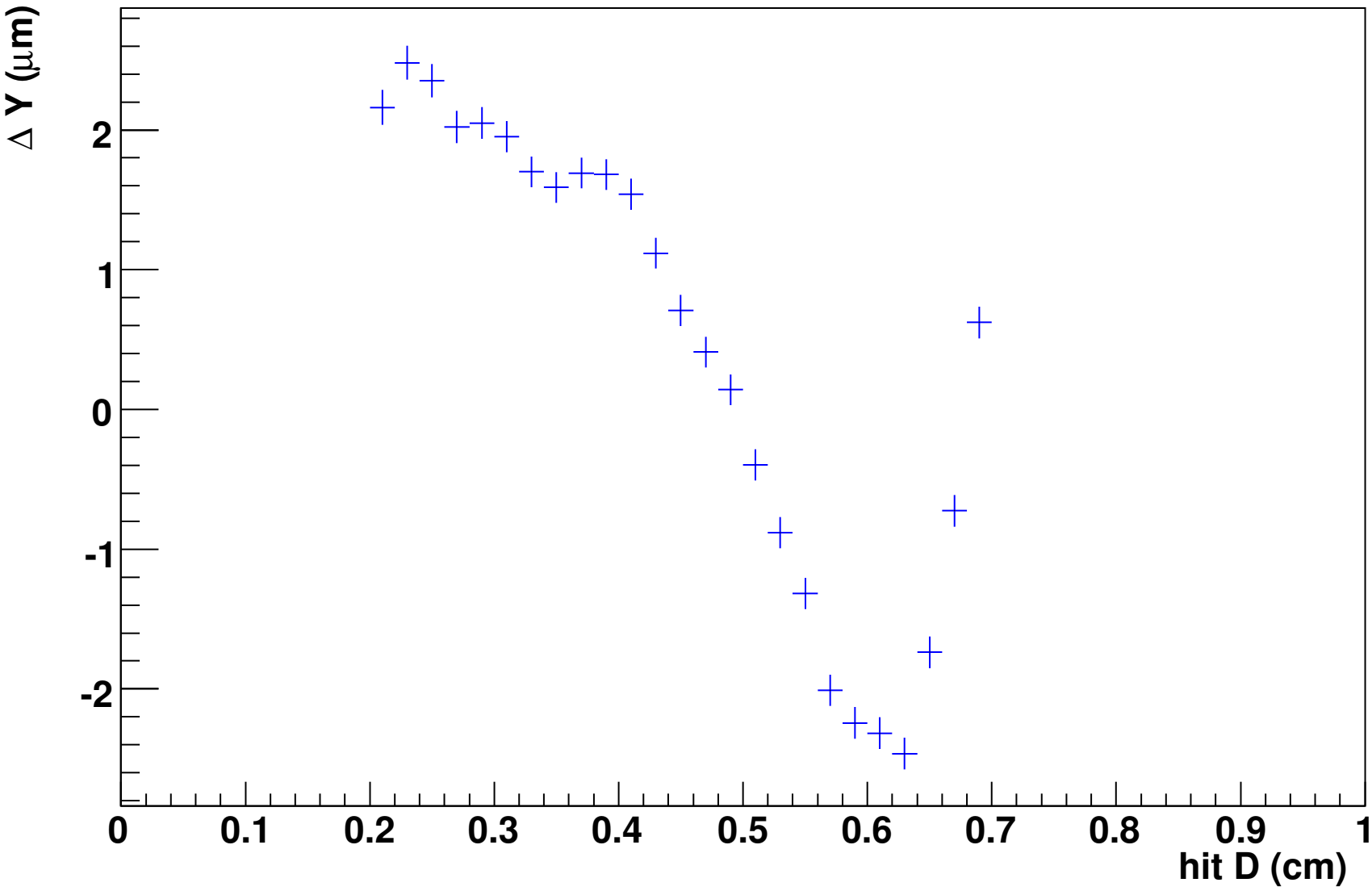

number of cosmics
15000
10000
5000
0
1
2
3
4
5
6
track ϕ_0

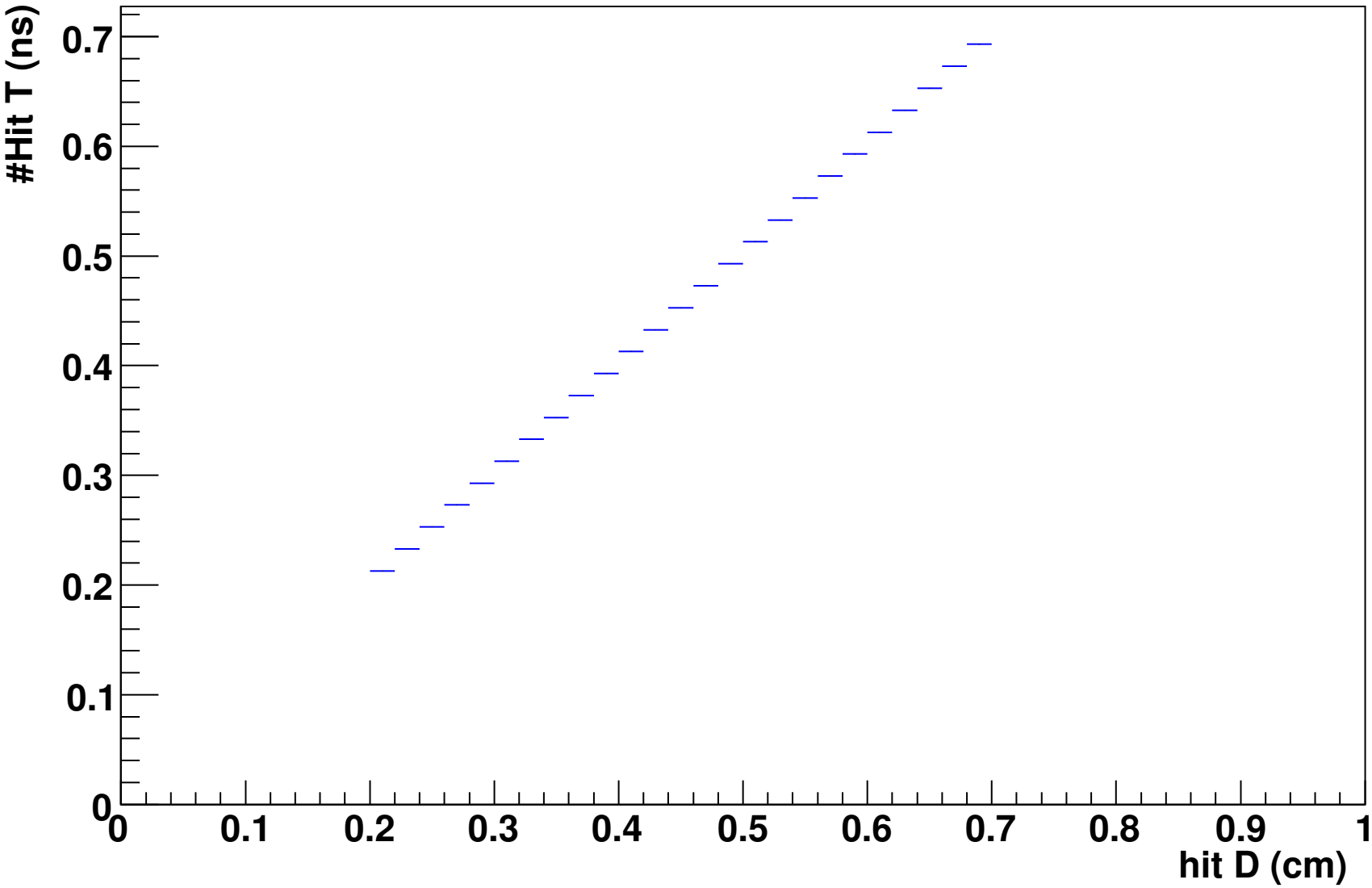

number of cosmics
10^4
10^3
10^2
10
1
0
1
2
3
4
5
6
ϕ_0

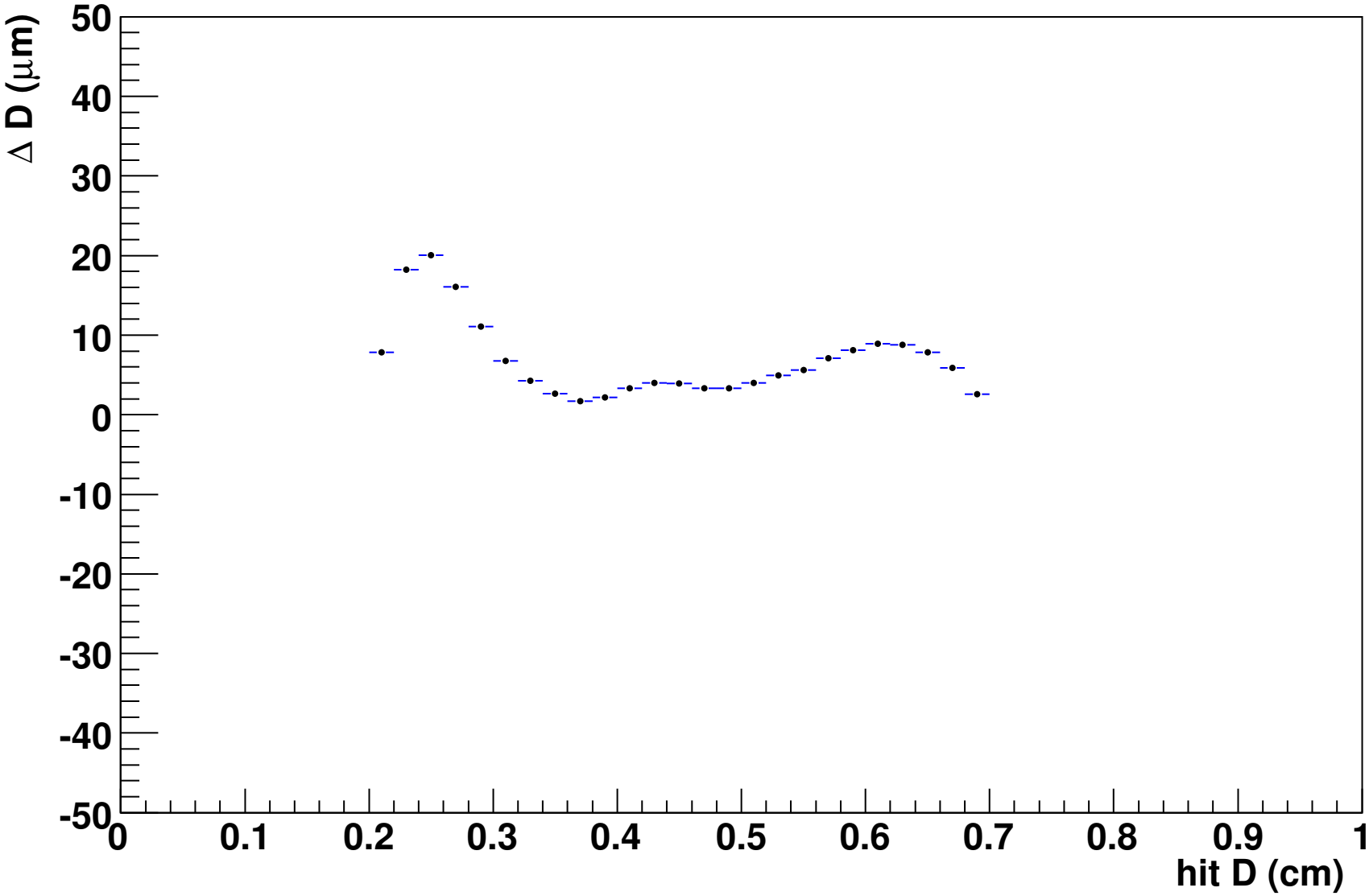

Δ D (μm)
30
20
10
0
-10
-80
-60
-40
-20
0
20
40
60
80
wire number

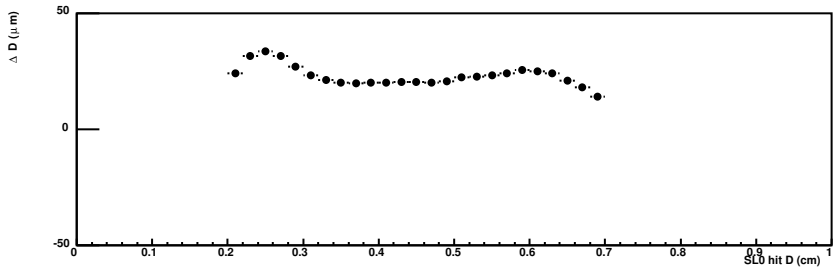

Δ Y (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

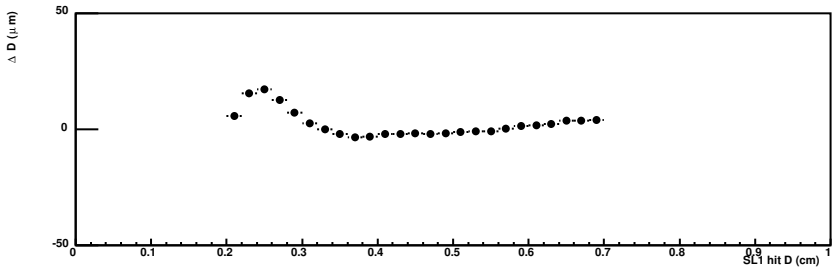

Δ D (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

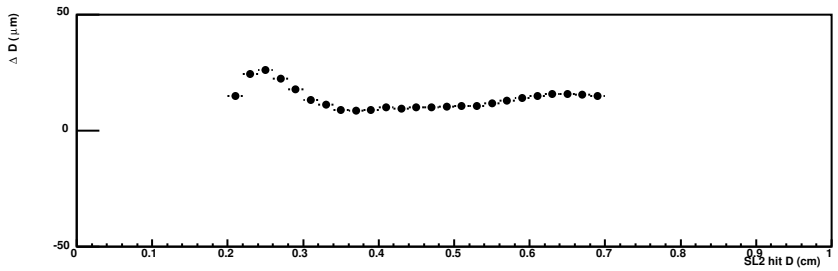

Δ Y (μm)
2
1
0
-1
-2
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

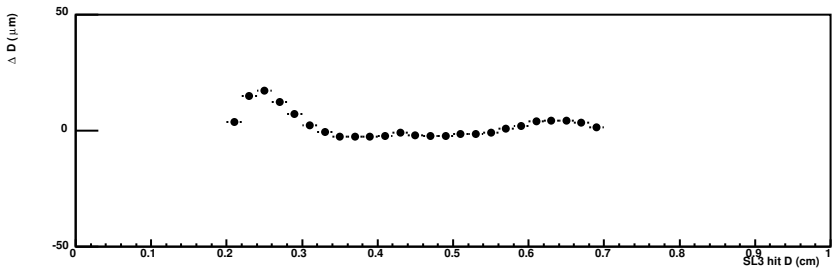

#Hit T (ns)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

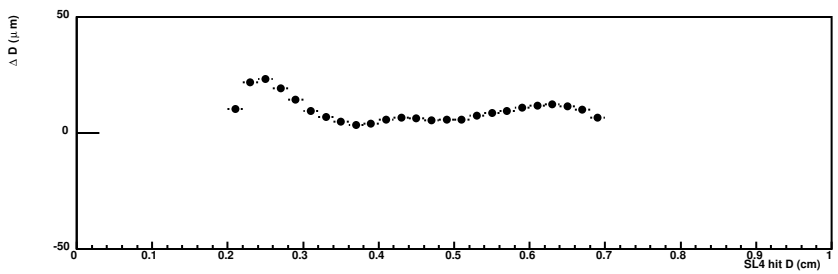

Δ D (μm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

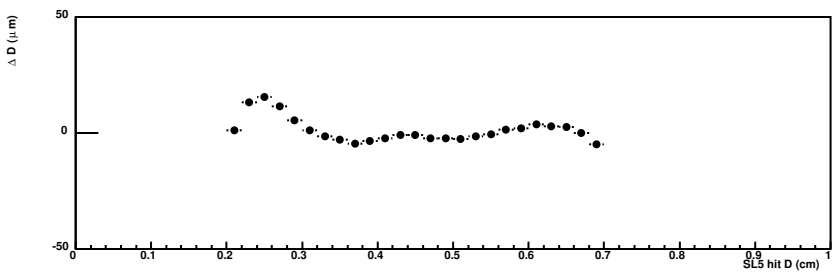

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL0 hit D (cm)

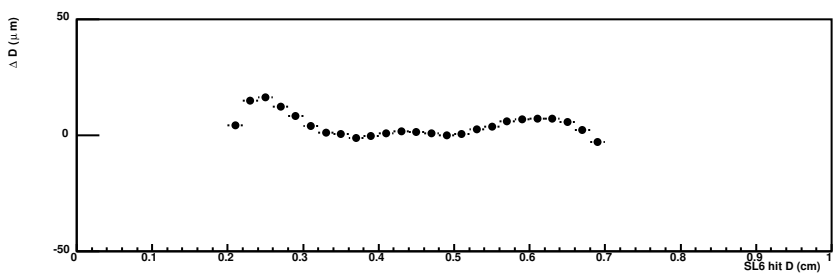

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL1 hit D (cm)

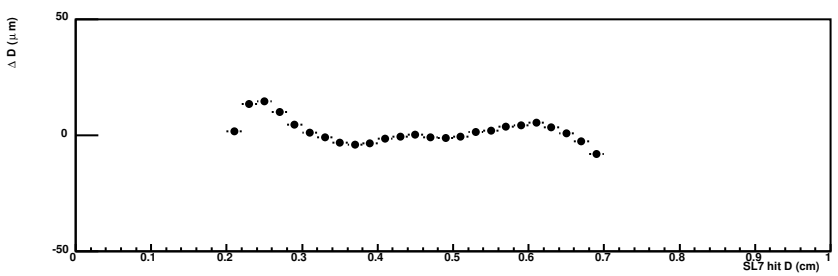

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL2 hit D (cm)

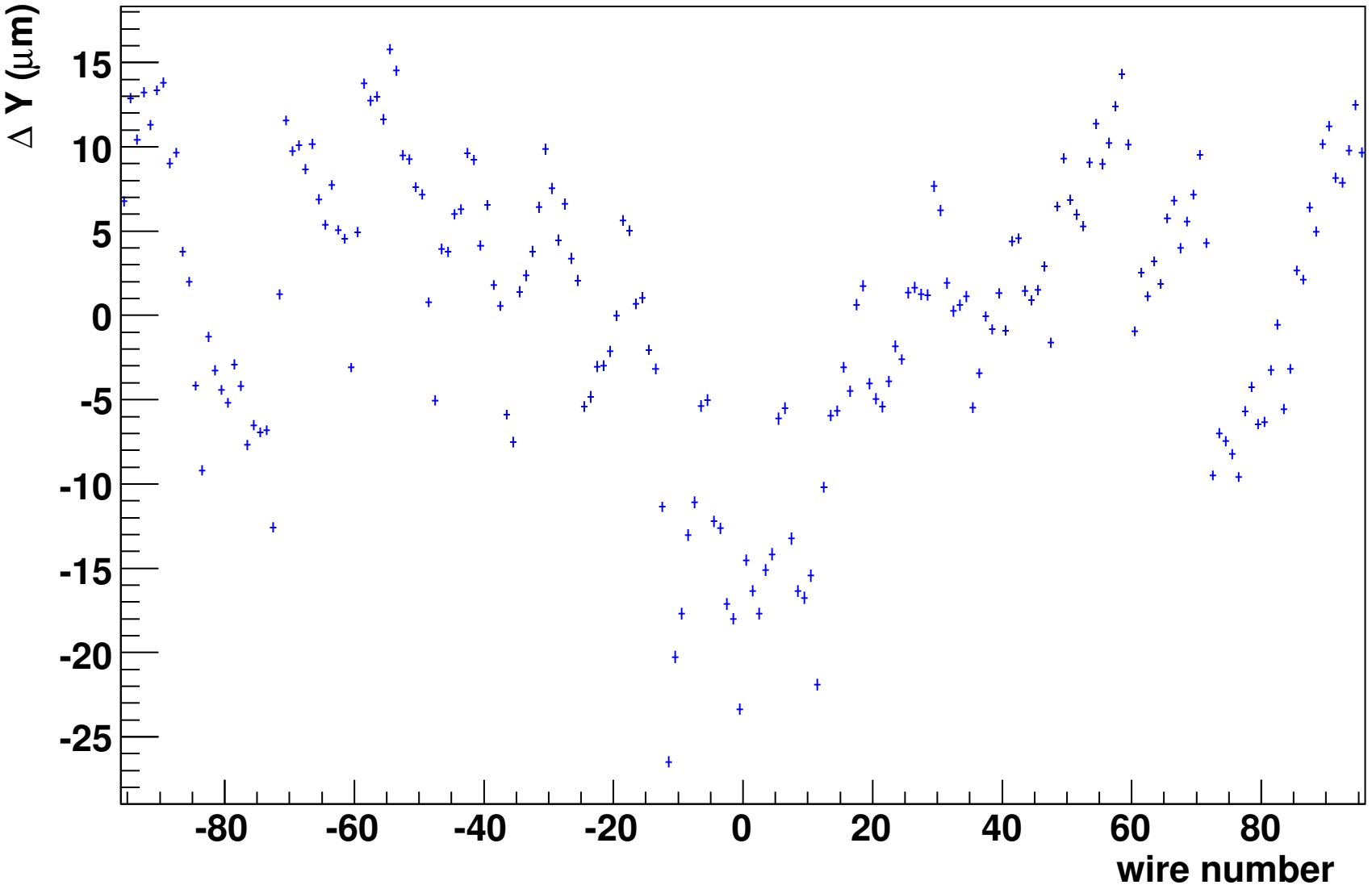

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL3 hit D (cm)

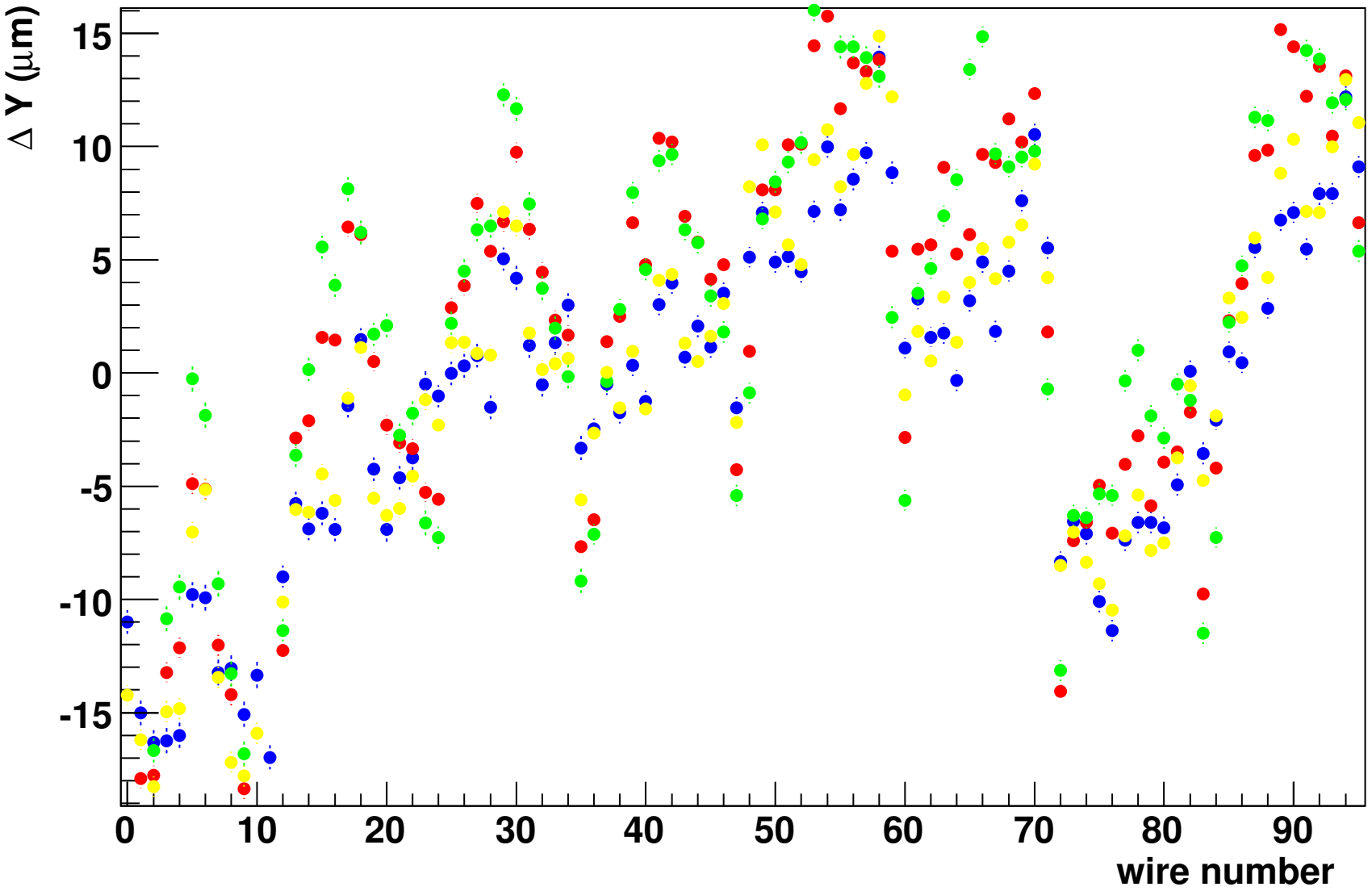

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL4 hit D (cm)

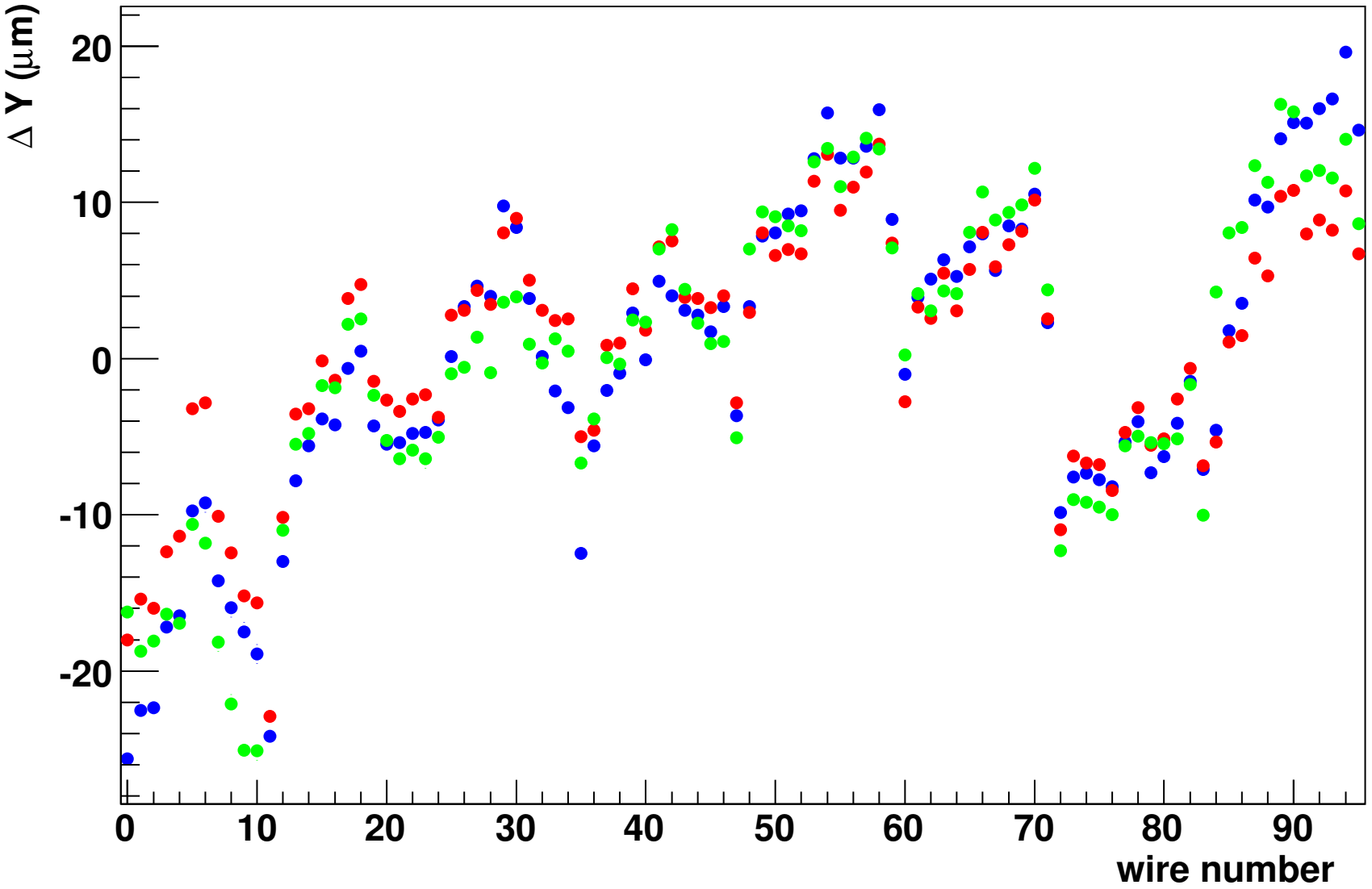

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL5 hit D (cm)

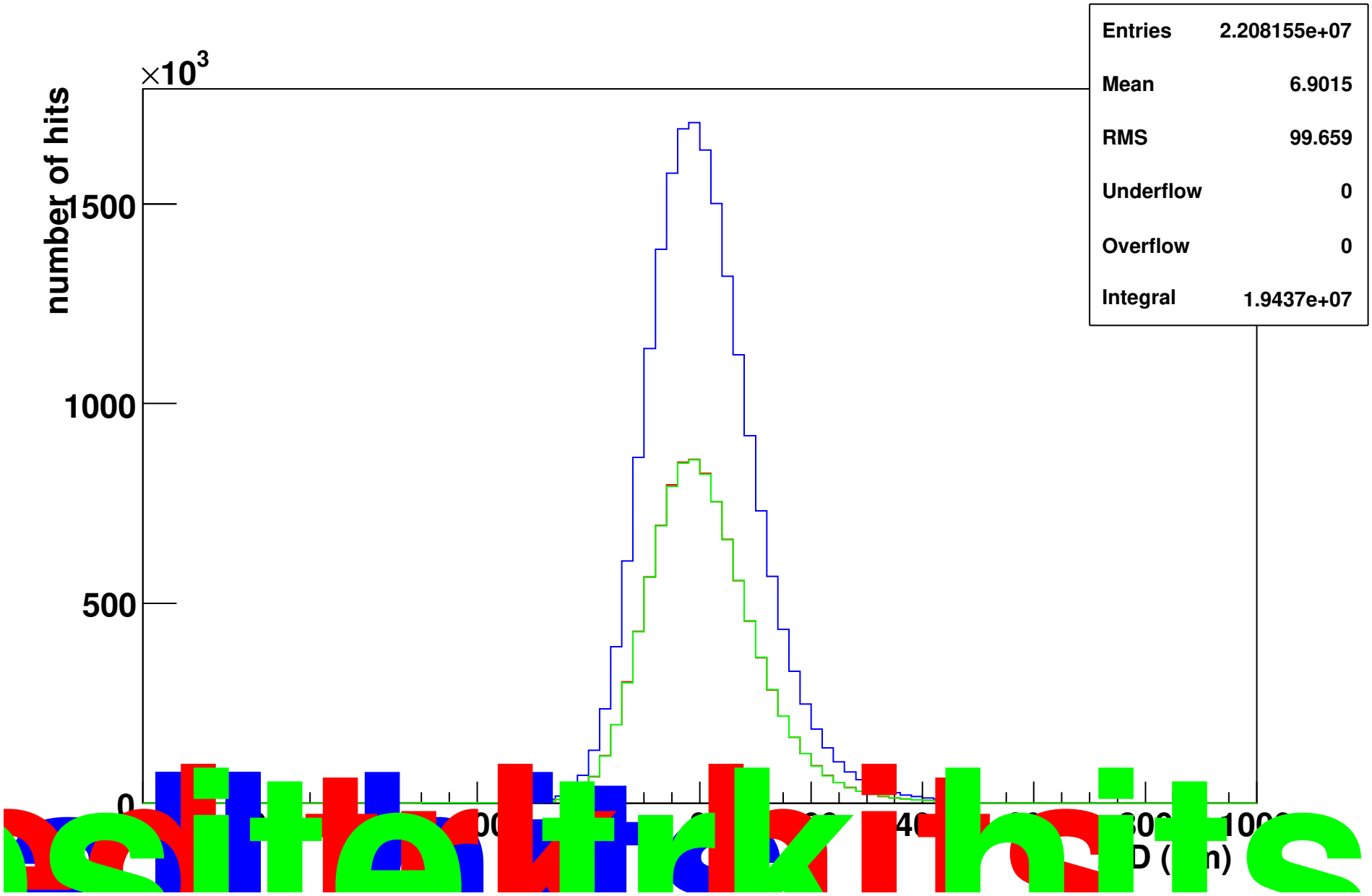

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL6 hit D (cm)

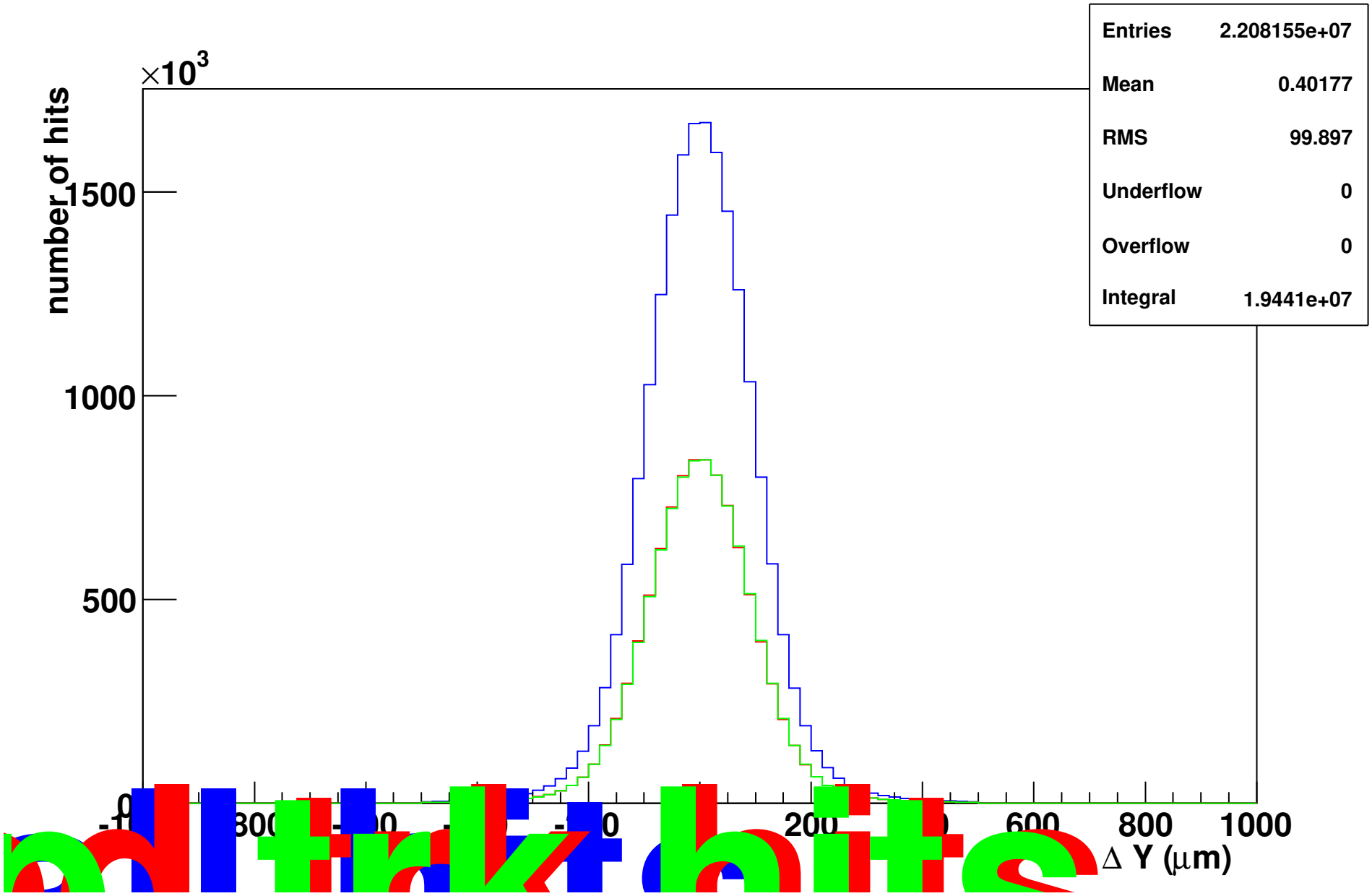

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL7 hit D (cm)


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

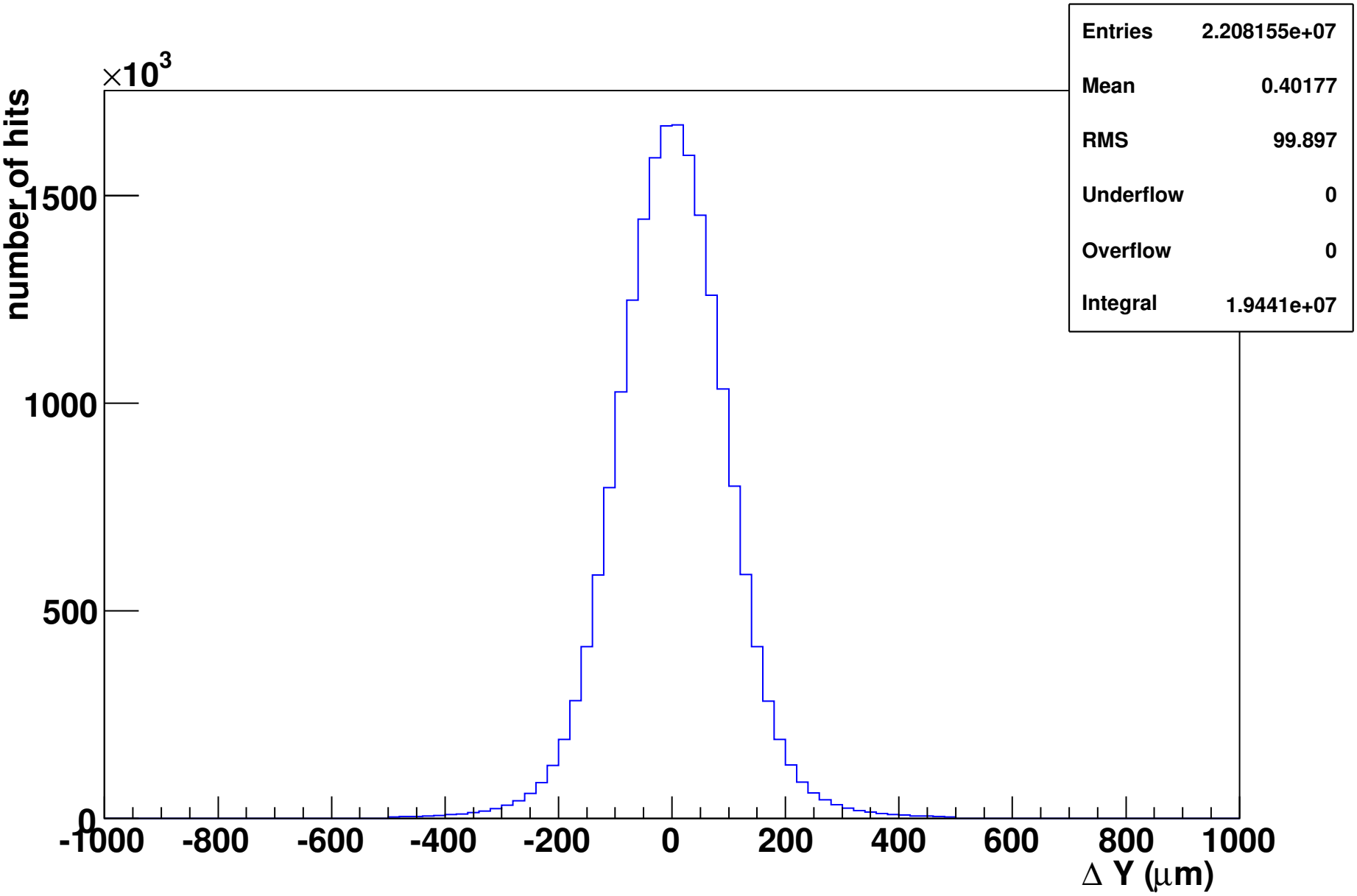

Δ Y (μm)
15
10
5
0
-5
-10
-15
0
10
20
30
40
50
60
70
80
90
wire number


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


Entries 2.208155e+07
Mean 6.9015
RMS 99.659
Underflow 0
Overflow 0
Integral 1.9437e+07
number of hits
×10^3
1500
1000
500
0



Entries 2.208155e+07
Mean 0.40177
RMS 99.897
Underflow 0
Overflow 0
Integral 1.9441e+07
number of hits
×10^3
1500
1000
500
0
200
600
800
1000
Δ Y (μm)


Entries 2.208155e+07
Mean 0.40177
RMS 99.897
Underflow 0
Overflow 0
Integral 1.9441e+07
×10^3
number of hits
1500
1000
500
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ Y (μm)