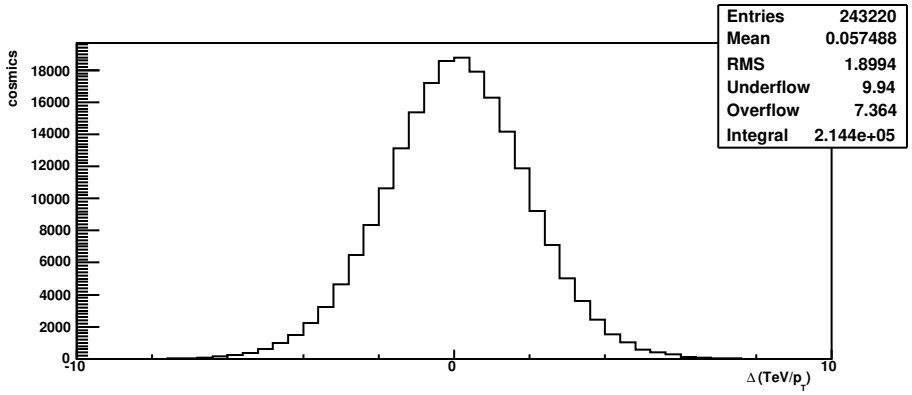
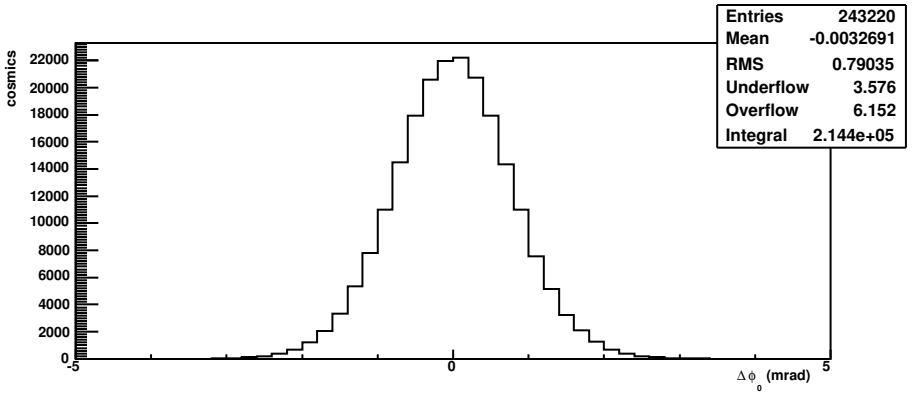
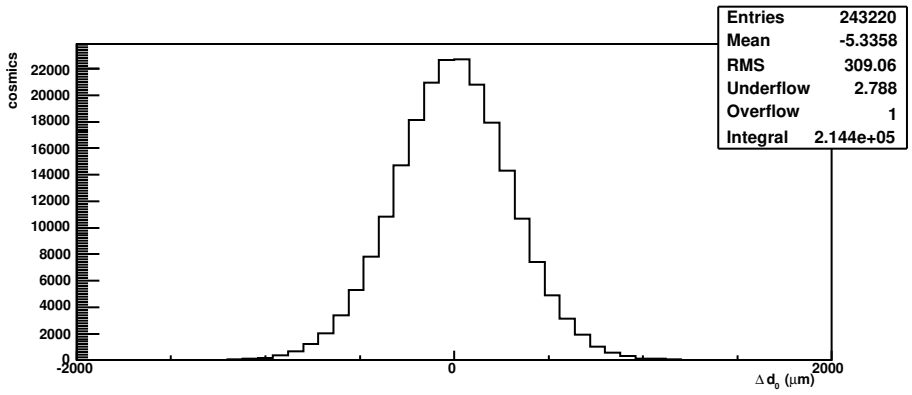
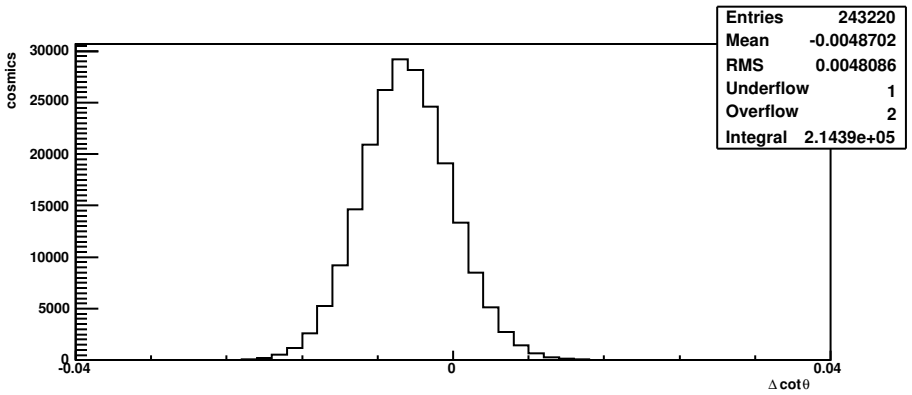
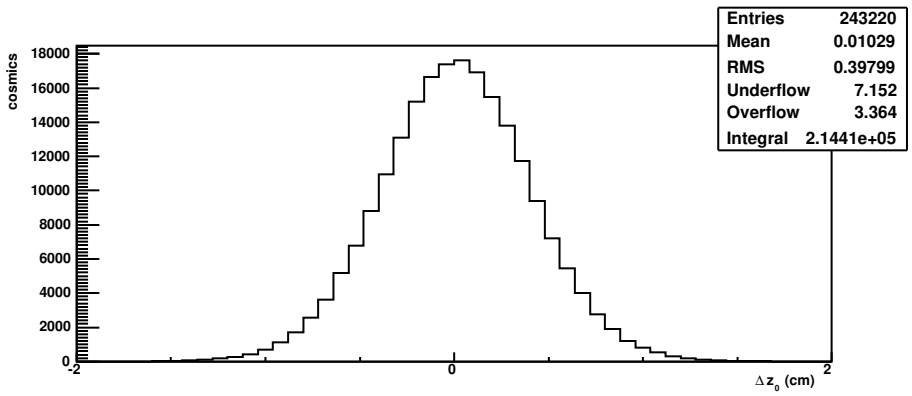
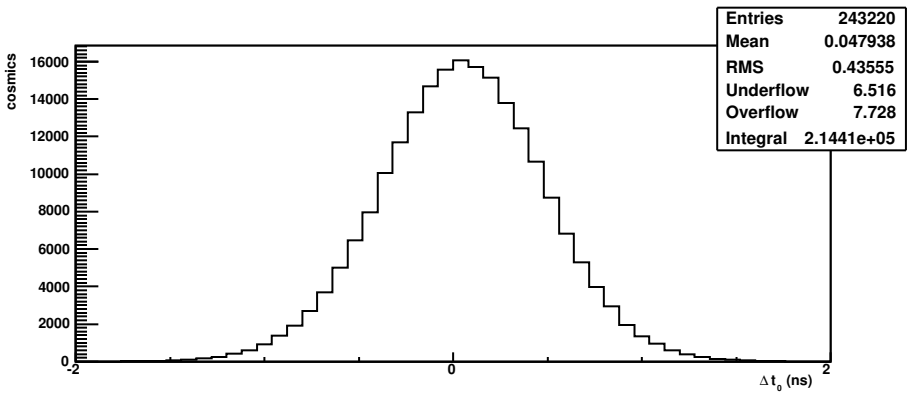

cosmics
Entries 243220
Mean 0.057488
RMS 1.8994
Underflow 9.94
Overflow 7.364
Integral 2.144e+05
Δ(TeV/p_T)

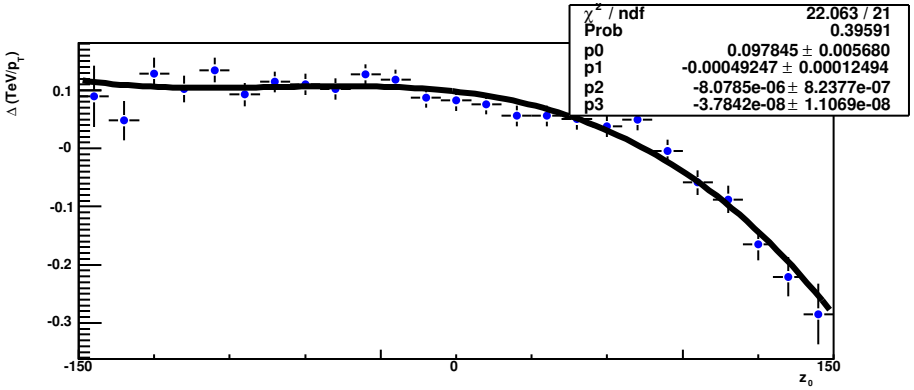

cosmics
Entries 243220
Mean -0.0032691
RMS 0.79035
Underflow 3.576
Overflow 6.152
Integral 2.144e+05
Δφ_0 (mrad)

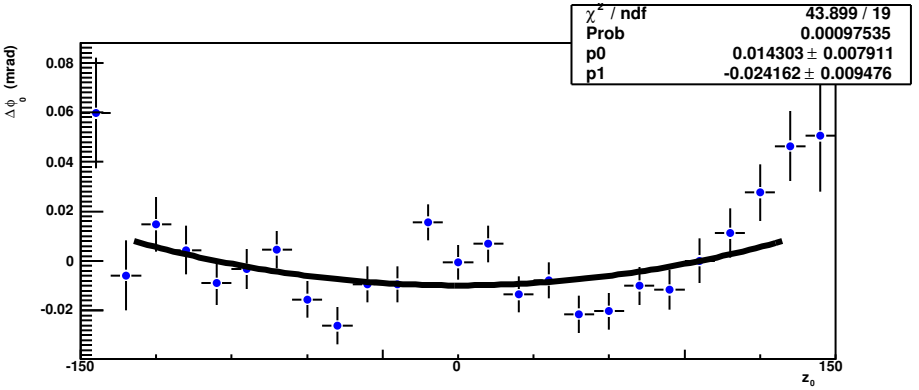

cosmics
Entries 243220
Mean -5.3358
RMS 309.06
Underflow 2.788
Overflow 1
Integral 2.144e+05
Δd_0 (μm)

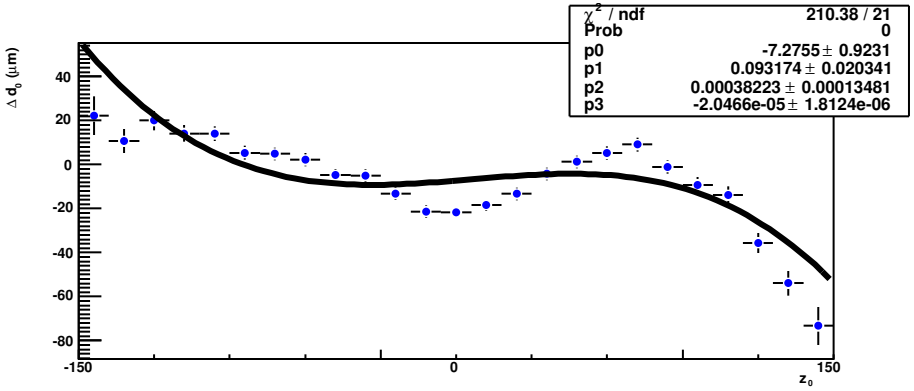

cosmics
Entries 243220
Mean -0.0048702
RMS 0.0048086
Underflow 1
Overflow 2
Integral 2.1439e+05
Δcotθ

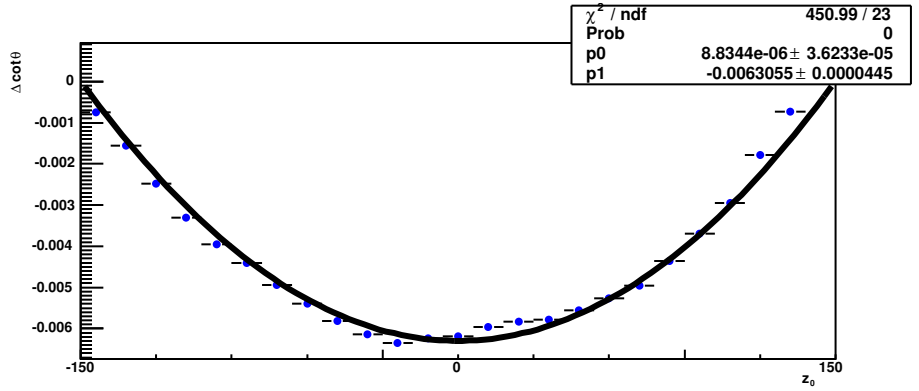

cosmics
Entries 243220
Mean 0.01029
RMS 0.39799
Underflow 7.152
Overflow 3.364
Integral 2.1441e+05
Δz_0 (cm)

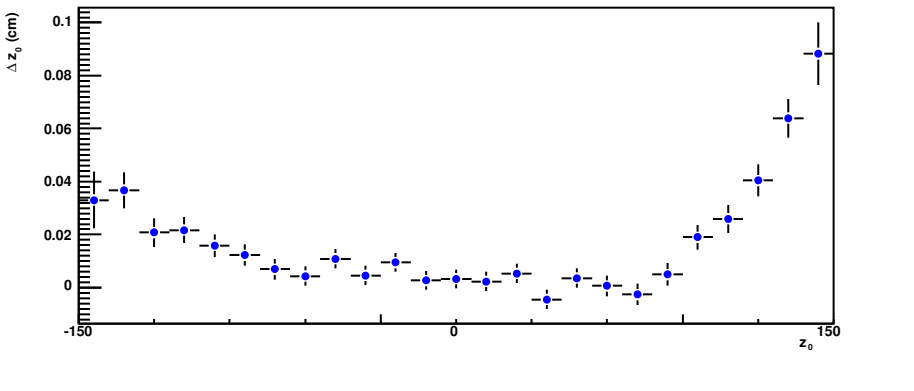

cosmics
Entries 243220
Mean 0.047938
RMS 0.43555
Underflow 6.516
Overflow 7.728
Integral 2.1441e+05
Δt_0 (ns)

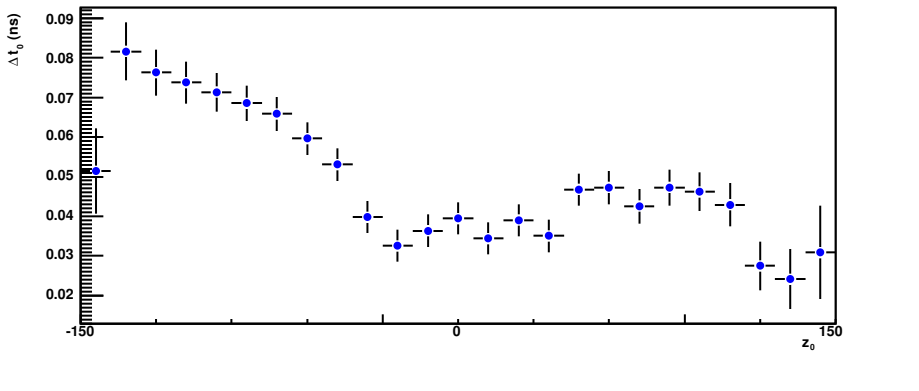

χ² / ndf 22.063 / 21
Prob 0.39591
p0 0.097845 ± 0.005680
p1 -0.00049247 ± 0.00012494
p2 -8.0785e-06 ± 8.2377e-07
p3 -3.7842e-08 ± 1.1069e-08
Δ (TeV/p_T)
z_0

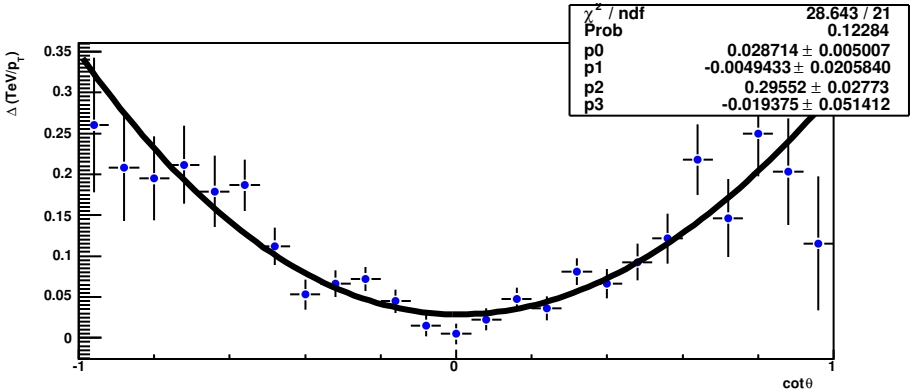

χ² / ndf 43.899 / 19
Prob 0.00097535
p0 0.014303 ± 0.007911
p1 -0.024162 ± 0.009476
Δφ_0 (mrad)
z_0

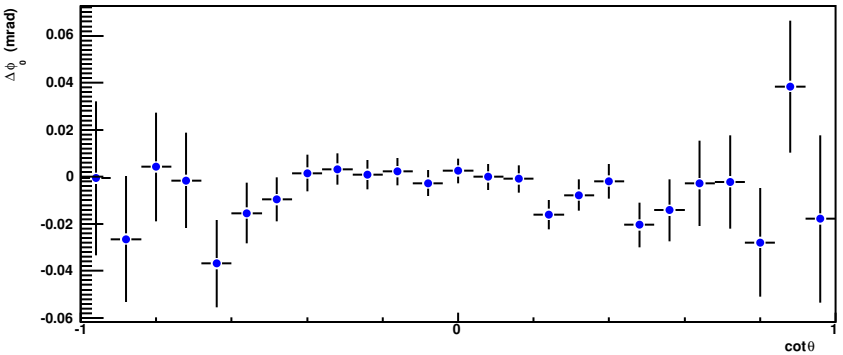

χ² / ndf 210.38 / 21
Prob 0
p0 -7.2755 ± 0.9231
p1 0.093174 ± 0.020341
p2 0.00038223 ± 0.00013481
p3 -2.0466e-05 ± 1.8124e-06
Δ d_0 (μm)
z_0

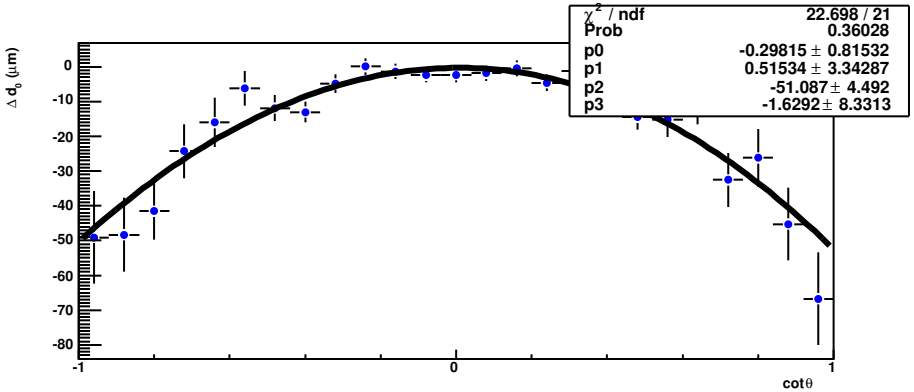

χ² / ndf 450.99 / 23
Prob 0
p0 8.8344e-06 ± 3.6233e-05
p1 -0.0063055 ± 0.0000445
Δ cotθ
z_0

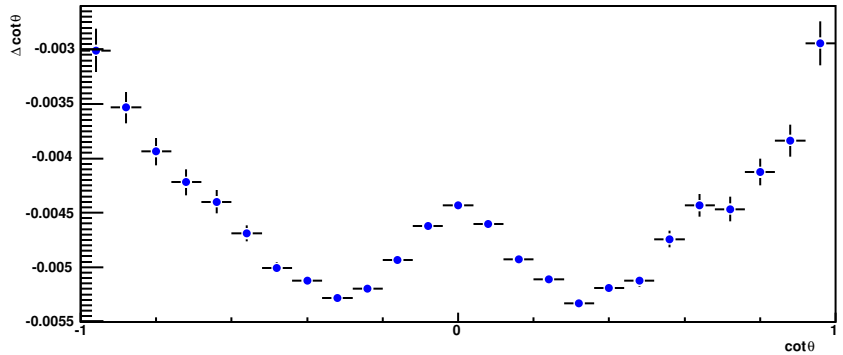

Δ z_0 (cm)
z_0

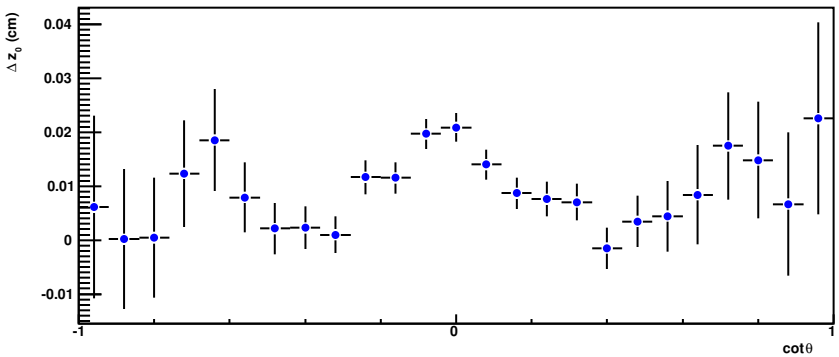

Δ t_0 (ns)
z_0

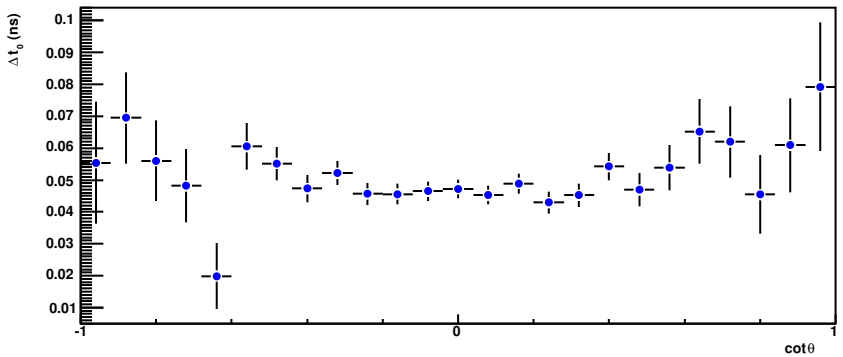

χ^2 / ndf 28.643 / 21
Prob 0.12284
p0 0.028714 ± 0.005007
p1 -0.0049433 ± 0.0205840
p2 0.29552 ± 0.02773
p3 -0.019375 ± 0.051412
Δ (TeV/p_T)
cotθ

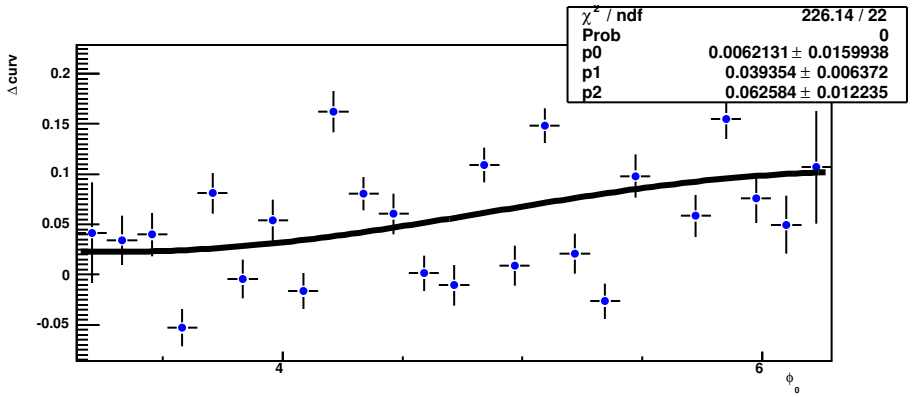

$\Delta\phi_0$ (mrad)
cotθ

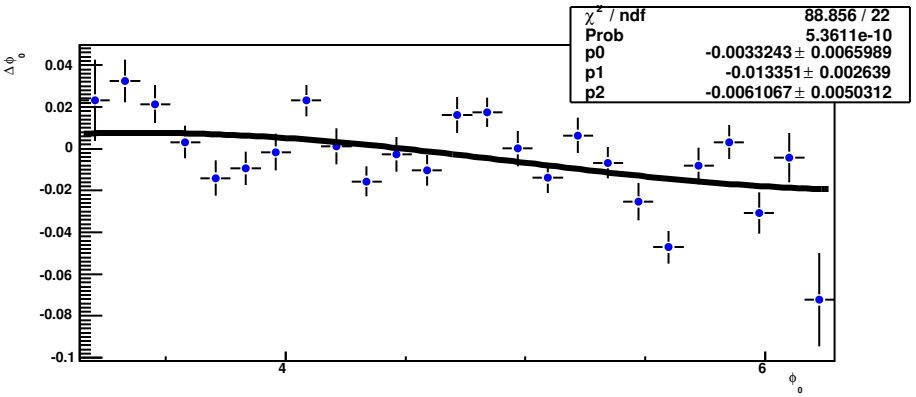

χ^2 / ndf 22.698 / 21
Prob 0.36028
p0 -0.29815 ± 0.81532
p1 0.51534 ± 3.34287
p2 -51.087 ± 4.492
p3 -1.6292 ± 8.3313
Δd_0 (μm)
cotθ

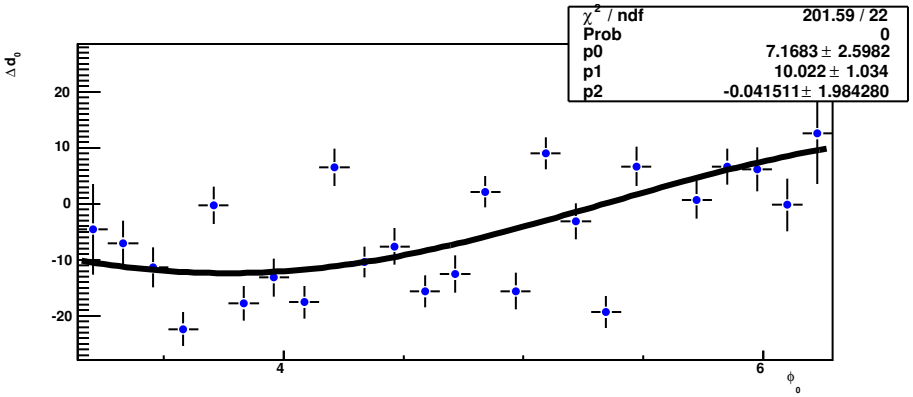

Δ cotθ
cotθ

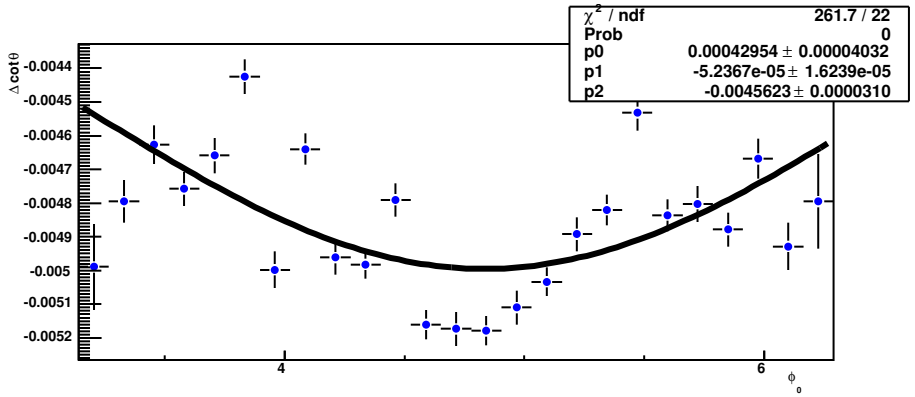

Δz_0 (cm)
cotθ

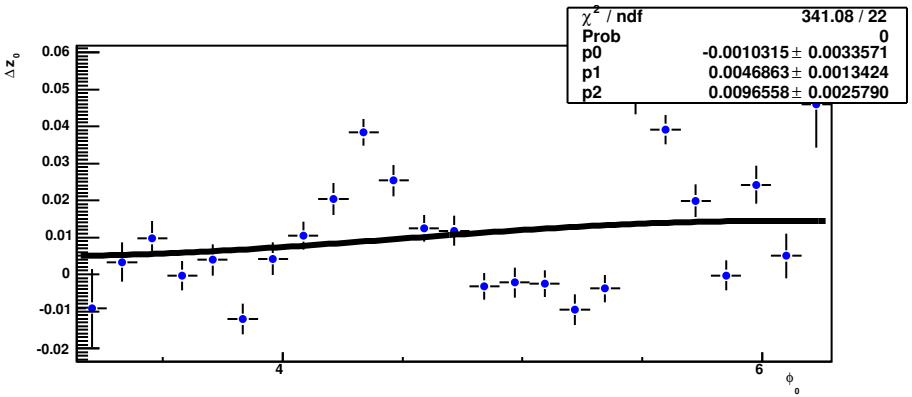

Δt_0 (ns)
cotθ

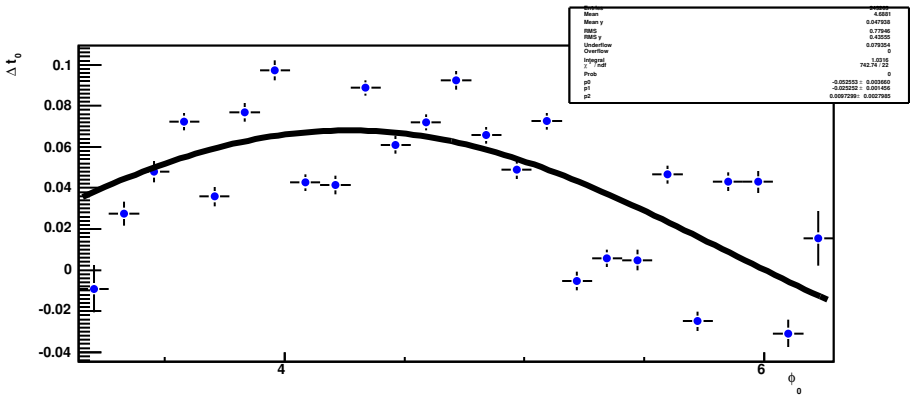

χ² / ndf 226.14 / 22
Prob 0
p0 0.0062131 ± 0.0159938
p1 0.039354 ± 0.006372
p2 0.062584 ± 0.012235
Δ curv
φ0

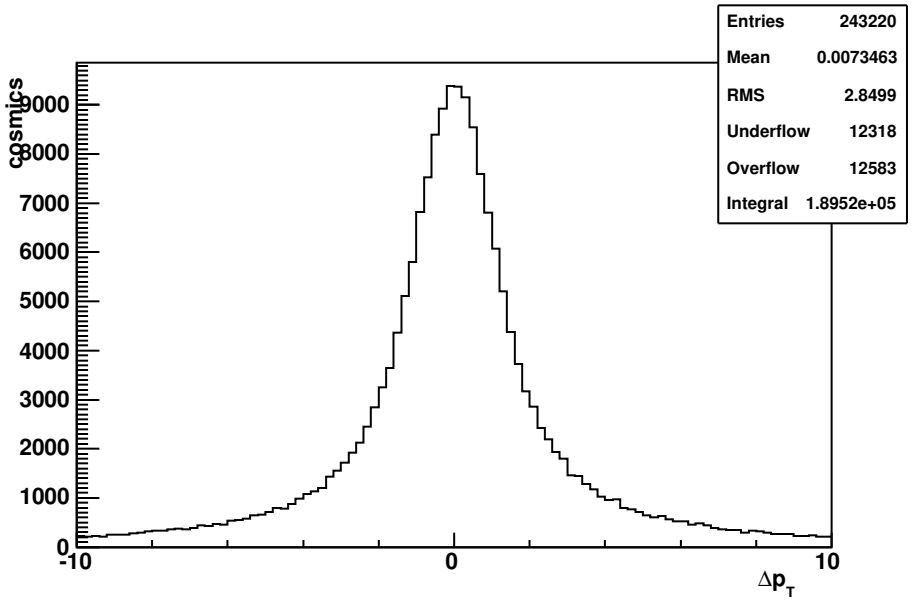

χ² / ndf 88.856 / 22
Prob 5.3611e-10
p0 -0.0033243 ± 0.0065989
p1 -0.013351 ± 0.002639
p2 -0.0061067 ± 0.0050312
Δ φ0
φ0

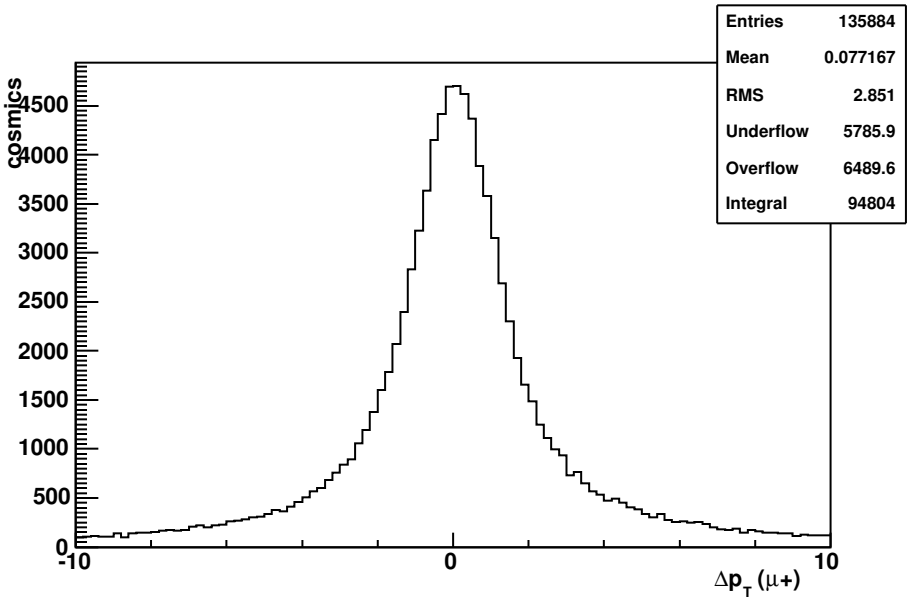

χ² / ndf 201.59 / 22
Prob 0
p0 7.1683 ± 2.5982
p1 10.022 ± 1.034
p2 -0.041511 ± 1.984280
Δ d0
φ0

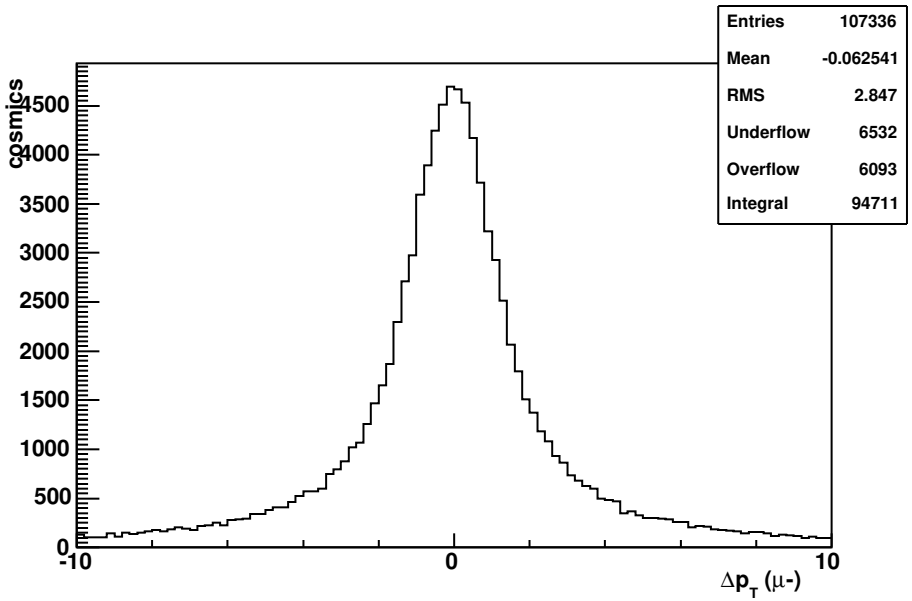

χ² / ndf 261.7 / 22
Prob 0
p0 0.00042954 ± 0.00004032
p1 -5.2367e-05 ± 1.6239e-05
p2 -0.0045623 ± 0.0000310
Δ cotθ
φ0

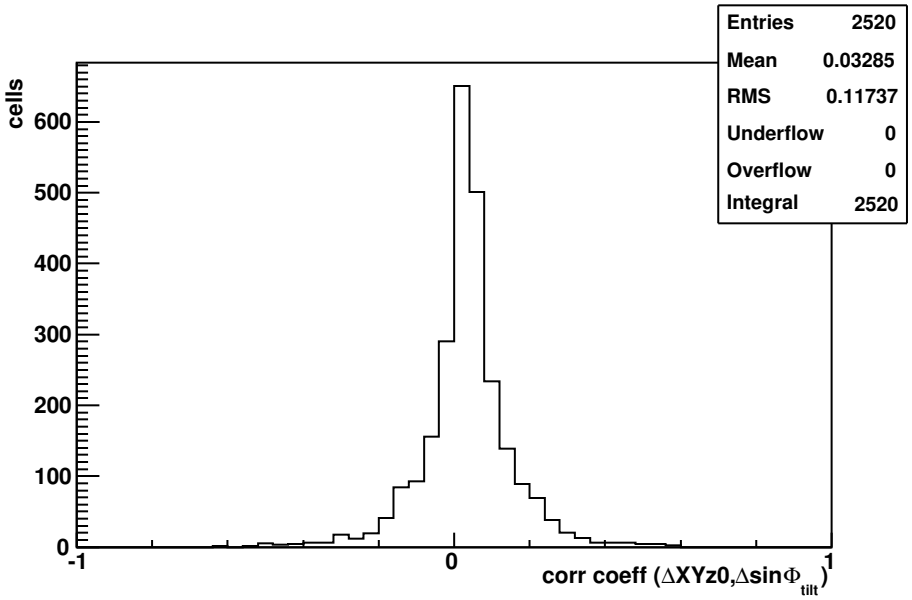

χ² / ndf 341.08 / 22
Prob 0
p0 -0.0010315 ± 0.0033571
p1 0.0046863 ± 0.0013424
p2 0.0096558 ± 0.0025790
Δ z0
φ0

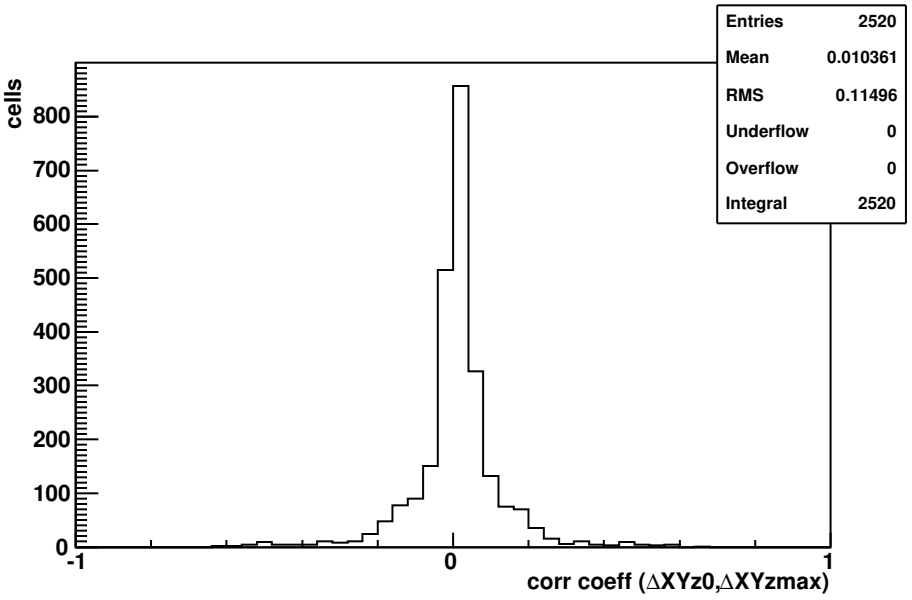

Δ t0
φ0

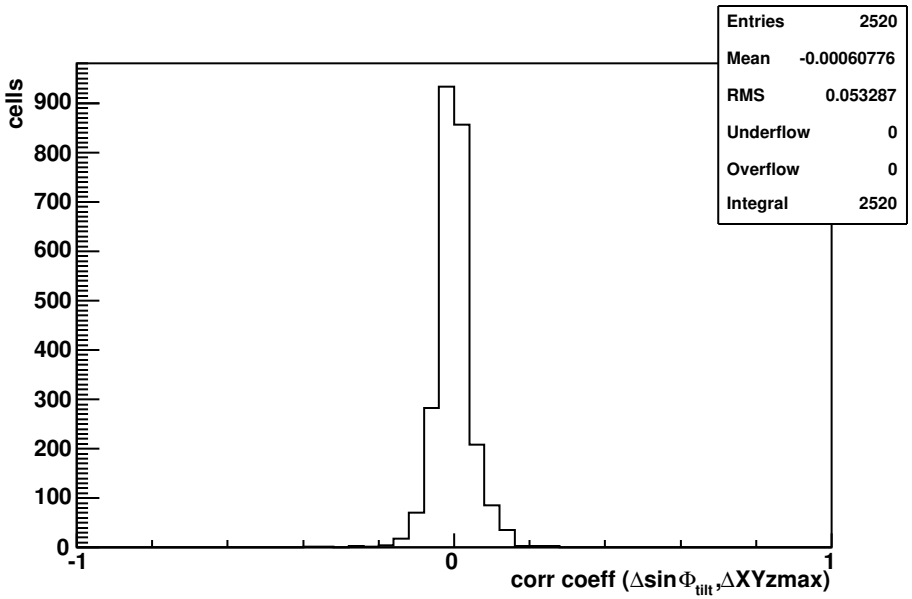

Entries 243220
Mean 0.0073463
RMS 2.8499
Underflow 12318
Overflow 12583
Integral 1.8952e+05
cosmics
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-10
0
10
Δp_T

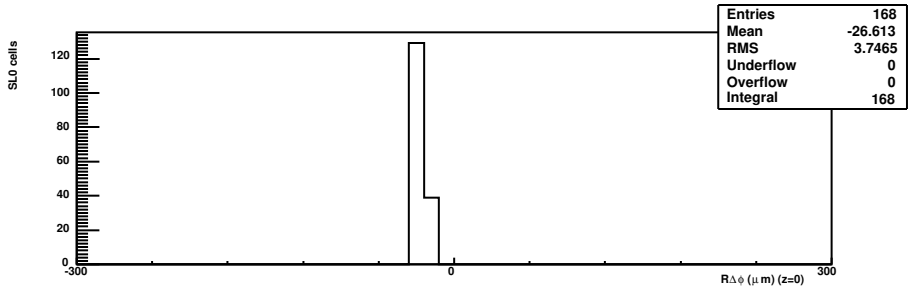

Entries 135884
Mean 0.077167
RMS 2.851
Underflow 5785.9
Overflow 6489.6
Integral 94804
cosmics
4500
4000
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ+)

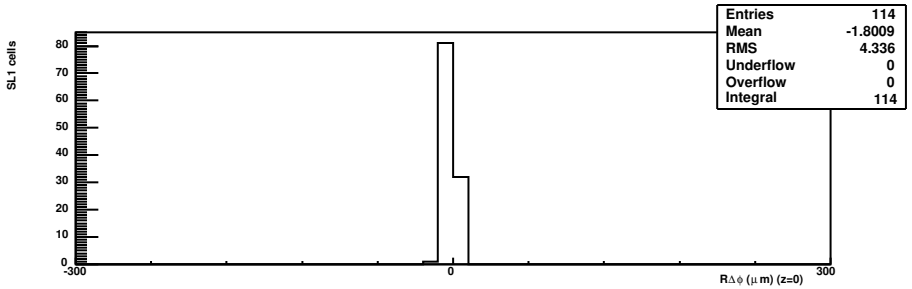

Entries 107336
Mean -0.062541
RMS 2.847
Underflow 6532
Overflow 6093
Integral 94711
cosmics
4500
4000
3500
3000
2500
2000
1500
1000
500
0
-10
0
10
Δp_T (μ-)

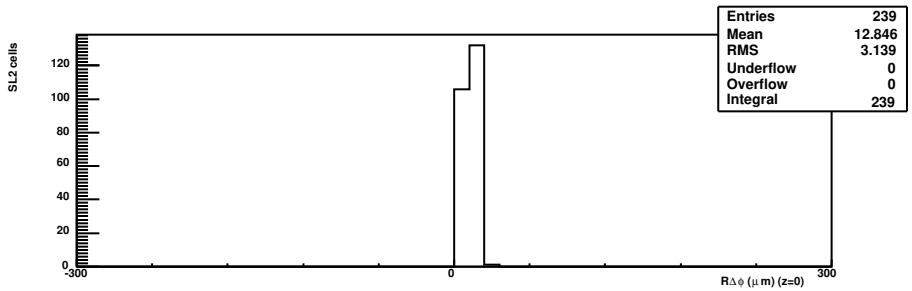

Entries 2520
Mean 0.03285
RMS 0.11737
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔsinΦ_{tilt})

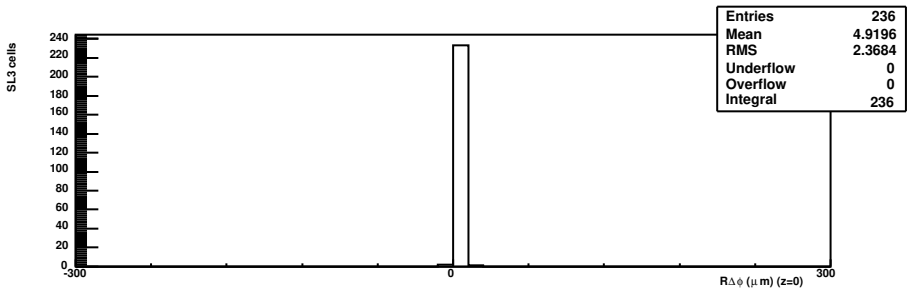

Entries 2520
Mean 0.010361
RMS 0.11496
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔXYz0,ΔXYzmax)

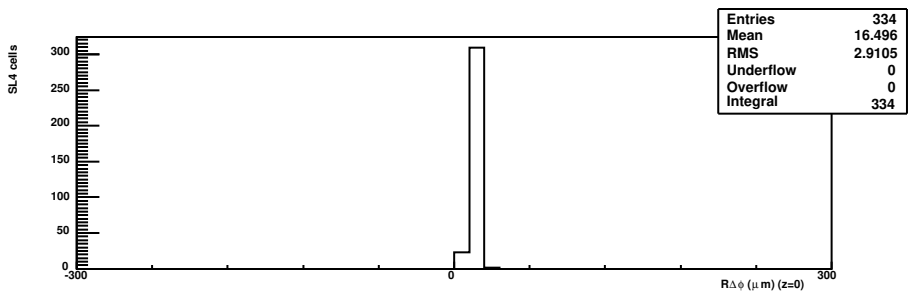

Entries 2520
Mean -0.00060776
RMS 0.053287
Underflow 0
Overflow 0
Integral 2520
cells
corr coeff (ΔsinΦ_{tilt},ΔXYzmax)

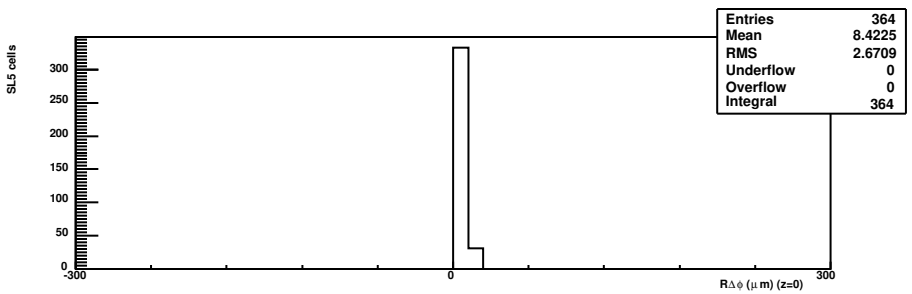

SL0 cells
Entries 168
Mean -26.613
RMS 3.7465
Underflow 0
Overflow 0
Integral 168
RΔφ (μm) (z=0)

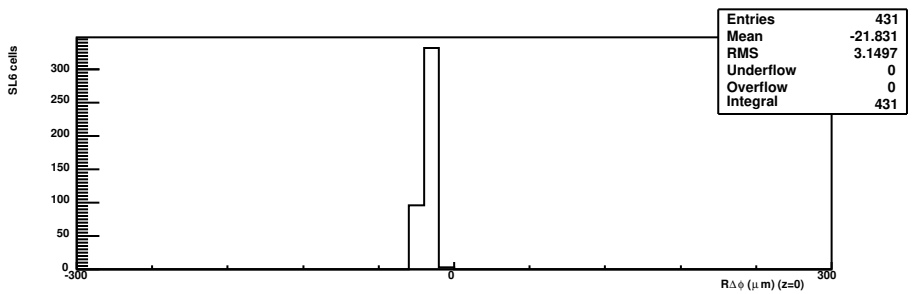

SL1 cells
Entries 114
Mean -1.8009
RMS 4.336
Underflow 0
Overflow 0
Integral 114
RΔφ (μm) (z=0)

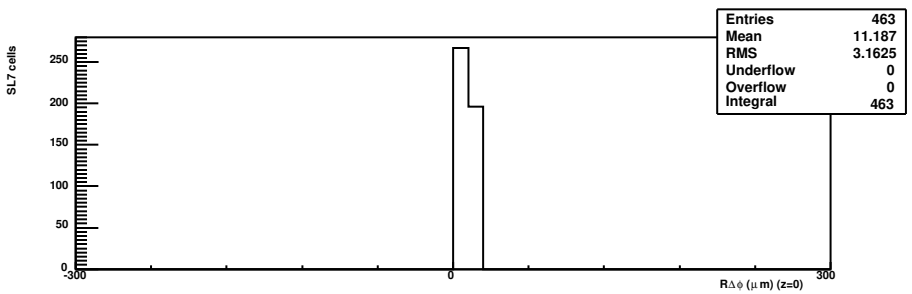

SL2 cells
Entries 239
Mean 12.846
RMS 3.139
Underflow 0
Overflow 0
Integral 239
RΔφ (μm) (z=0)

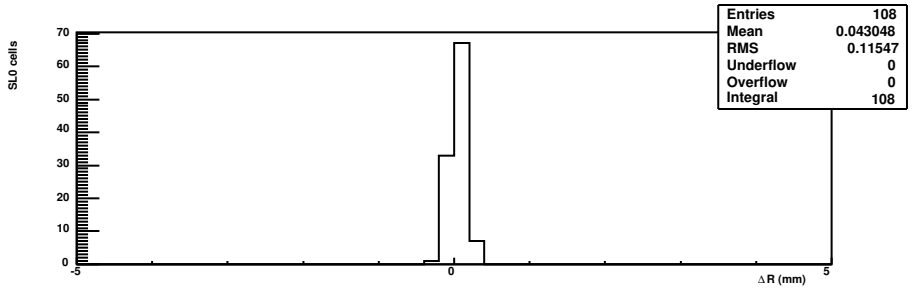

SL3 cells
Entries 236
Mean 4.9196
RMS 2.3684
Underflow 0
Overflow 0
Integral 236
RΔφ (μm) (z=0)

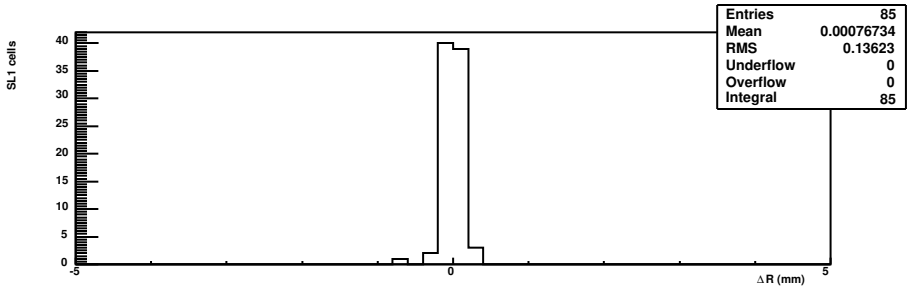

SL4 cells
Entries 334
Mean 16.496
RMS 2.9105
Underflow 0
Overflow 0
Integral 334
RΔφ (μm) (z=0)

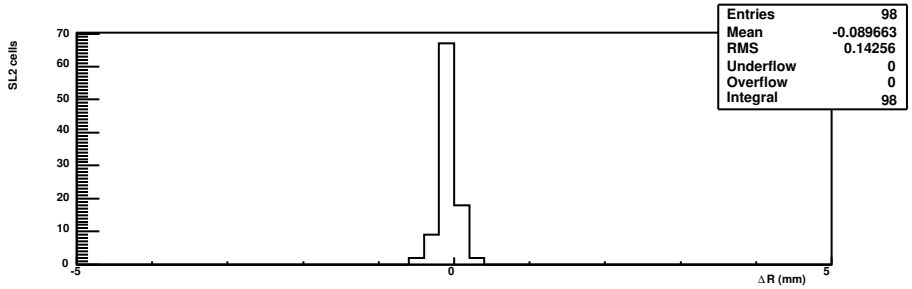

SL5 cells
Entries 364
Mean 8.4225
RMS 2.6709
Underflow 0
Overflow 0
Integral 364
RΔφ (μm) (z=0)

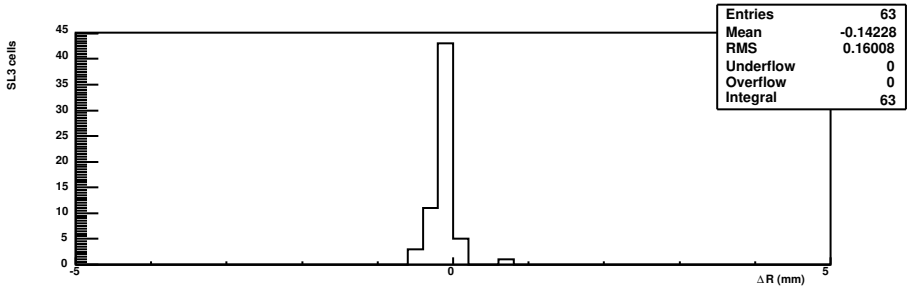

SL6 cells
Entries 431
Mean -21.831
RMS 3.1497
Underflow 0
Overflow 0
Integral 431
RΔφ (μm) (z=0)

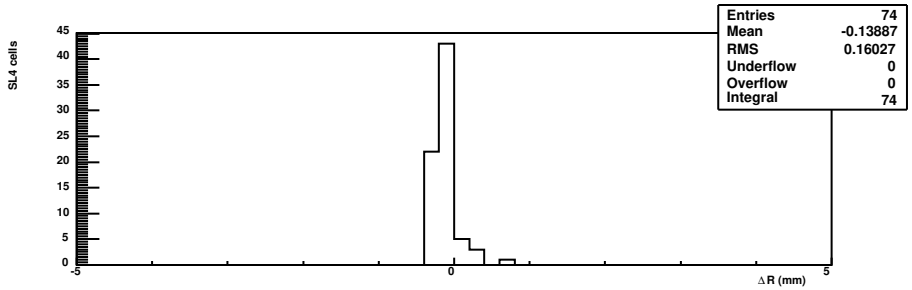

SL7 cells
Entries 463
Mean 11.187
RMS 3.1625
Underflow 0
Overflow 0
Integral 463
RΔφ (μm) (z=0)

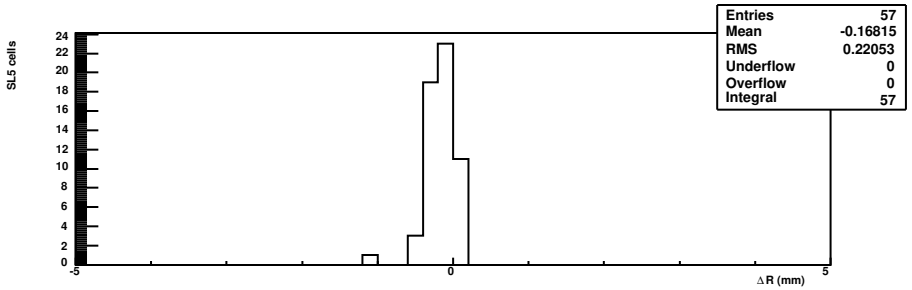

SL0 cells
Entries 108
Mean 0.043048
RMS 0.11547
Underflow 0
Overflow 0
Integral 108
ΔR (mm)

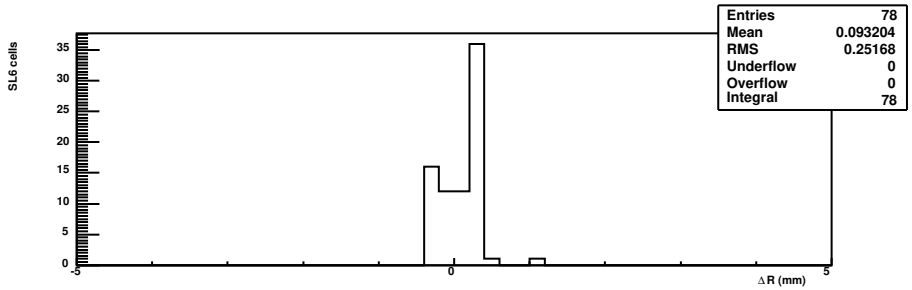

SL1 cells
Entries 85
Mean 0.00076734
RMS 0.13623
Underflow 0
Overflow 0
Integral 85
ΔR (mm)

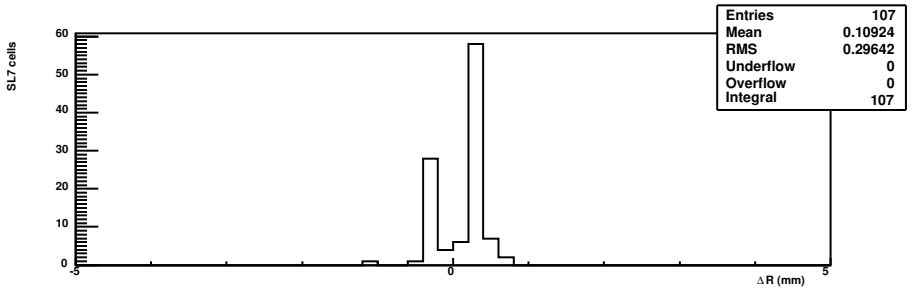

SL2 cells
Entries 98
Mean -0.089663
RMS 0.14256
Underflow 0
Overflow 0
Integral 98
ΔR (mm)

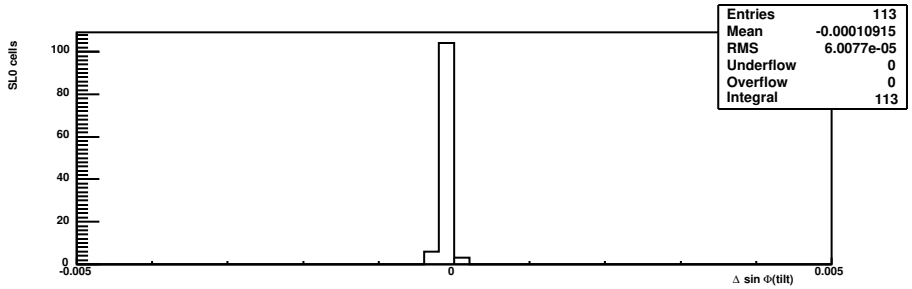

SL3 cells
Entries 63
Mean -0.14228
RMS 0.16008
Underflow 0
Overflow 0
Integral 63
ΔR (mm)

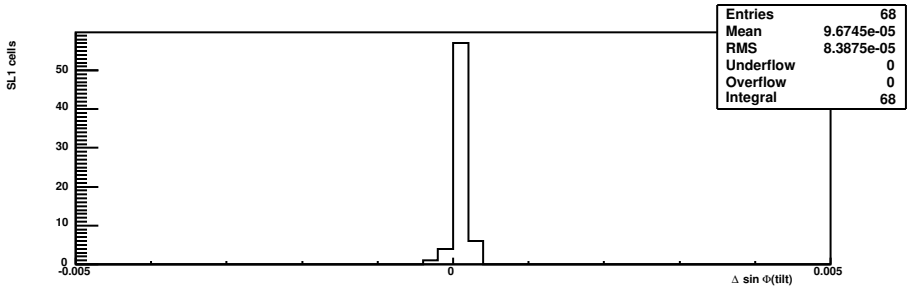

SL4 cells
Entries 74
Mean -0.13887
RMS 0.16027
Underflow 0
Overflow 0
Integral 74
ΔR (mm)

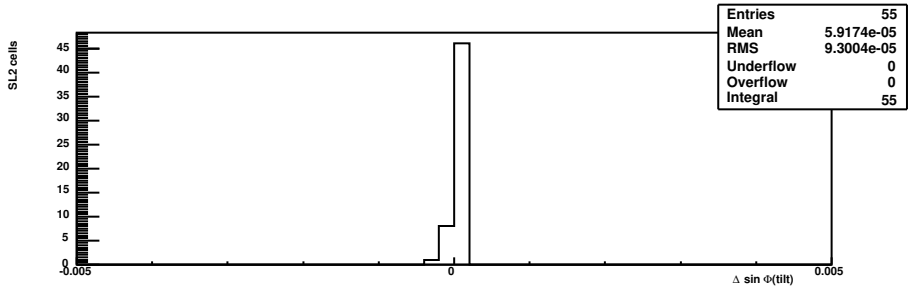

SL5 cells
Entries 57
Mean -0.16815
RMS 0.22053
Underflow 0
Overflow 0
Integral 57
ΔR (mm)

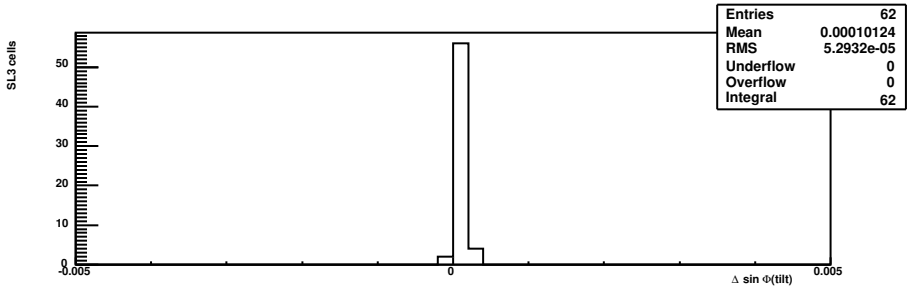

SL6 cells
Entries 78
Mean 0.093204
RMS 0.25168
Underflow 0
Overflow 0
Integral 78
ΔR (mm)

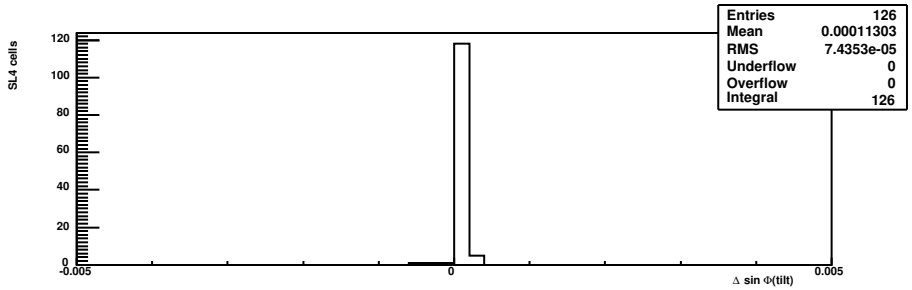

SL7 cells
Entries 107
Mean 0.10924
RMS 0.29642
Underflow 0
Overflow 0
Integral 107
ΔR (mm)

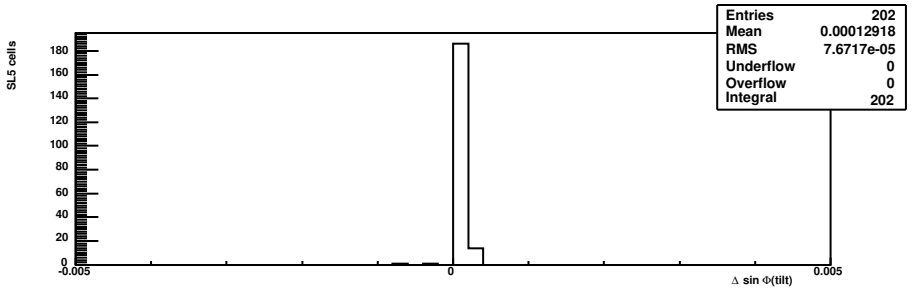

Entries 113
Mean -0.00010915
RMS 6.0077e-05
Underflow 0
Overflow 0
Integral 113
SL0 cells
Δ sin Φ(tilt)

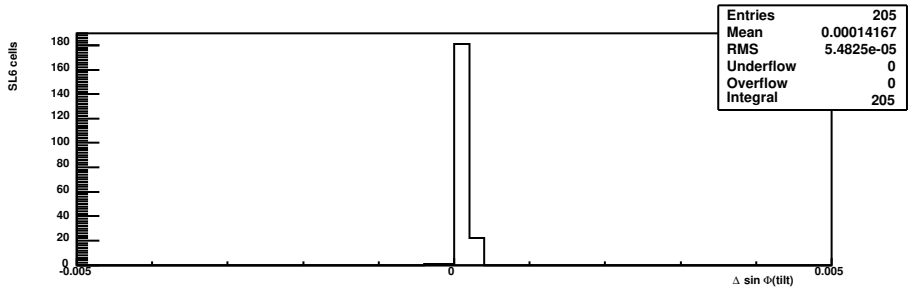

Entries 68
Mean 9.6745e-05
RMS 8.3875e-05
Underflow 0
Overflow 0
Integral 68
SL1 cells
Δ sin Φ(tilt)

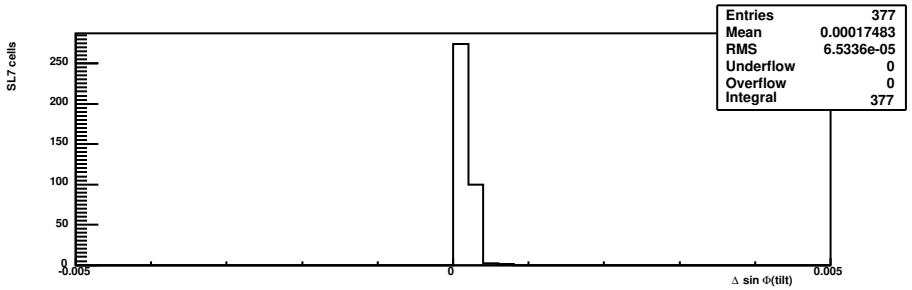

Entries 55
Mean 5.9174e-05
RMS 9.3004e-05
Underflow 0
Overflow 0
Integral 55
SL2 cells
Δ sin Φ(tilt)

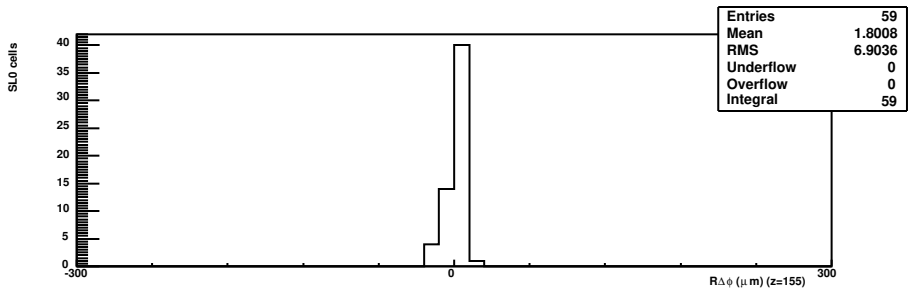

Entries 62
Mean 0.00010124
RMS 5.2932e-05
Underflow 0
Overflow 0
Integral 62
SL3 cells
Δ sin Φ(tilt)

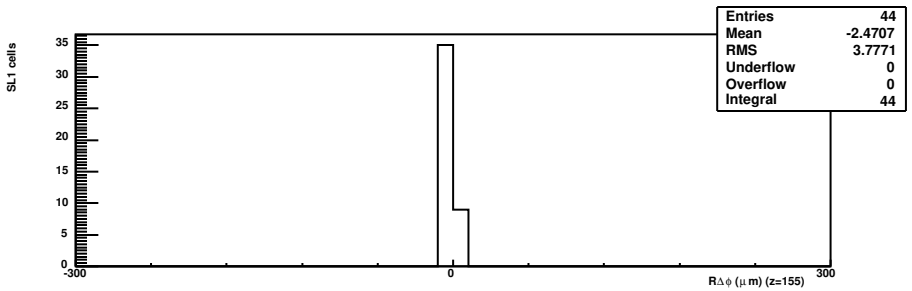

Entries 126
Mean 0.00011303
RMS 7.4353e-05
Underflow 0
Overflow 0
Integral 126
SL4 cells
Δ sin Φ(tilt)

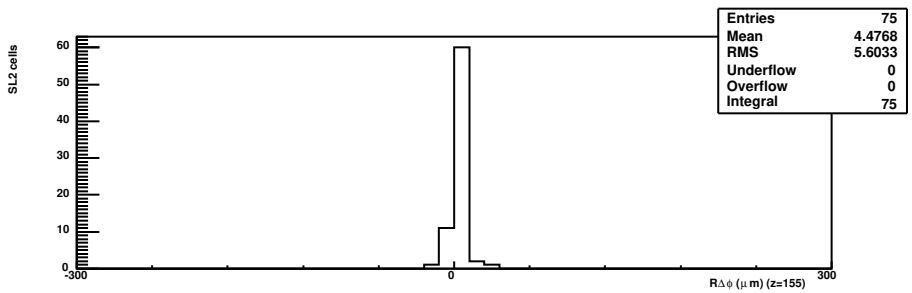

Entries 202
Mean 0.00012918
RMS 7.6717e-05
Underflow 0
Overflow 0
Integral 202
SL5 cells
Δ sin Φ(tilt)

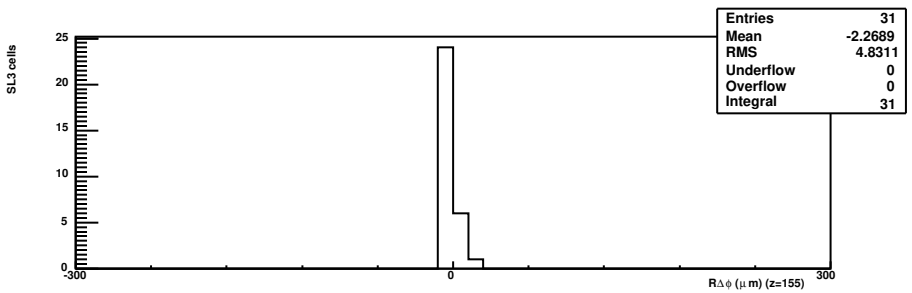

Entries 205
Mean 0.00014167
RMS 5.4825e-05
Underflow 0
Overflow 0
Integral 205
SL6 cells
Δ sin Φ(tilt)

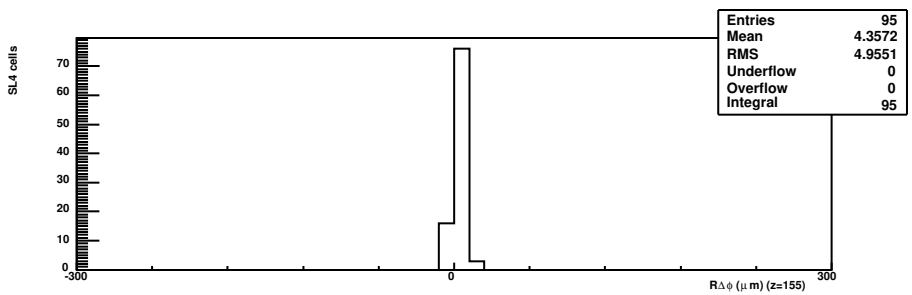

Entries 377
Mean 0.00017483
RMS 6.5336e-05
Underflow 0
Overflow 0
Integral 377
SL7 cells
Δ sin Φ(tilt)

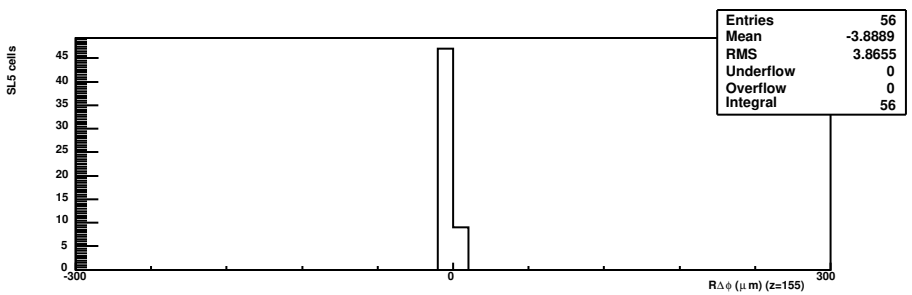

Entries 59
Mean 1.8008
RMS 6.9036
Underflow 0
Overflow 0
Integral 59
SL0 cells
RΔφ (μm) (z=155)

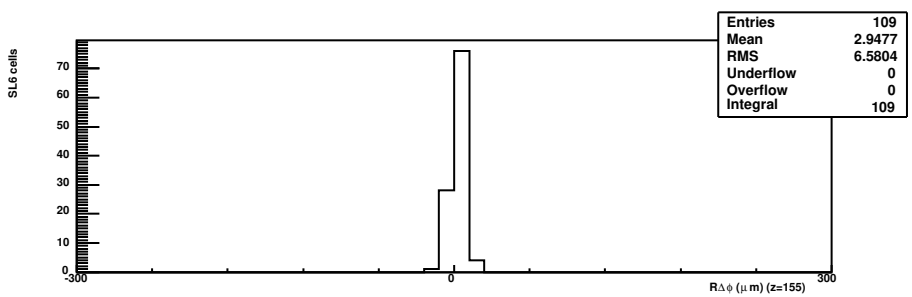

Entries 44
Mean -2.4707
RMS 3.7771
Underflow 0
Overflow 0
Integral 44
SL1 cells
RΔφ (μm) (z=155)

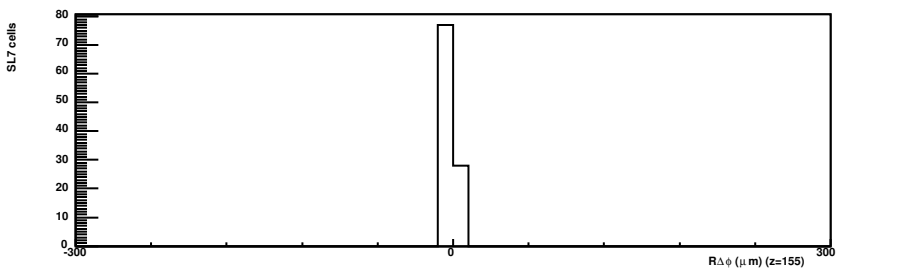

Entries 75
Mean 4.4768
RMS 5.6033
Underflow 0
Overflow 0
Integral 75
SL2 cells
RΔφ (μm) (z=155)

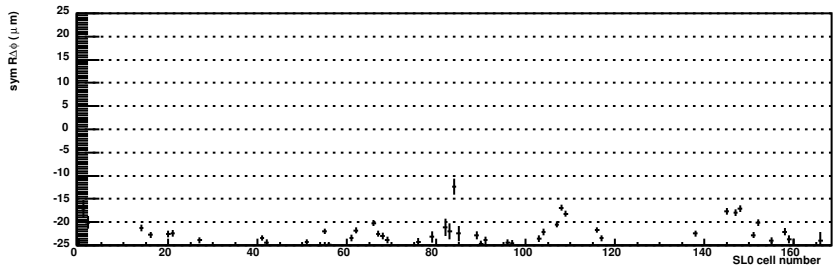

Entries 31
Mean -2.2689
RMS 4.8311
Underflow 0
Overflow 0
Integral 31
SL3 cells
RΔφ (μm) (z=155)

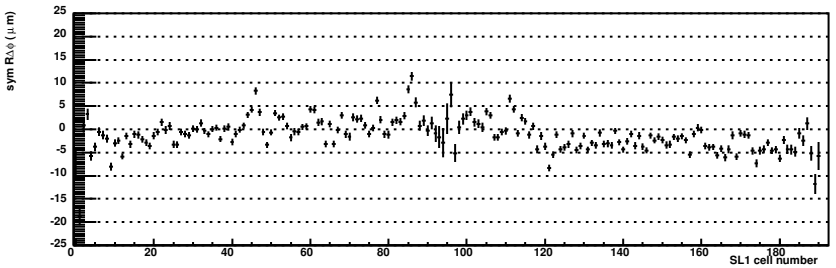

Entries 95
Mean 4.3572
RMS 4.9551
Underflow 0
Overflow 0
Integral 95
SL4 cells
RΔφ (μm) (z=155)

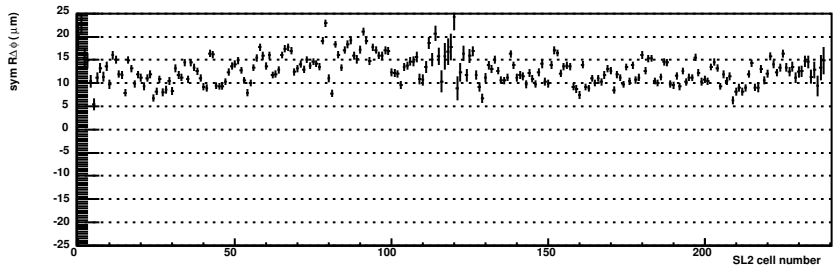

Entries 56
Mean -3.8889
RMS 3.8655
Underflow 0
Overflow 0
Integral 56
SL5 cells
RΔφ (μm) (z=155)

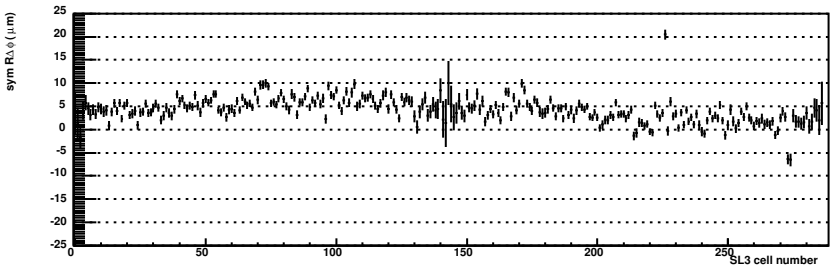

Entries 109
Mean 2.9477
RMS 6.5804
Underflow 0
Overflow 0
Integral 109
SL6 cells
RΔφ (μm) (z=155)

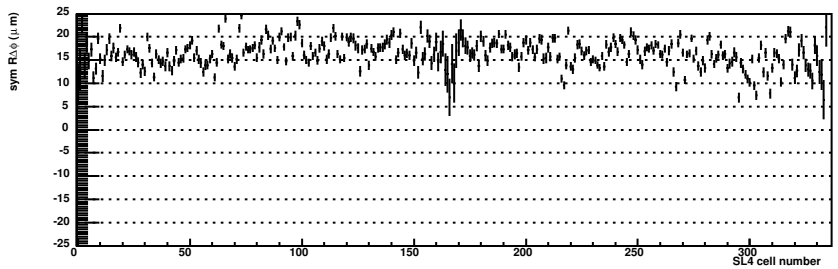

SL7 cells
RΔφ (μm) (z=155)

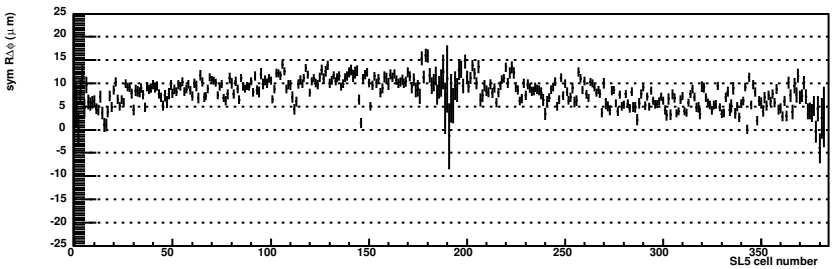

sym RΔφ (μm)
SL0 cell number

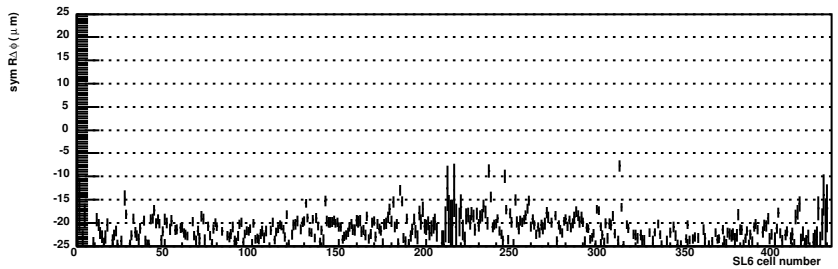

sym RΔφ (μm)
SL1 cell number

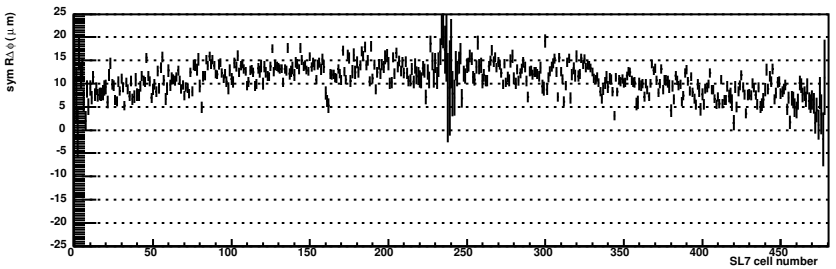

sym RΔφ (μm)
SL2 cell number

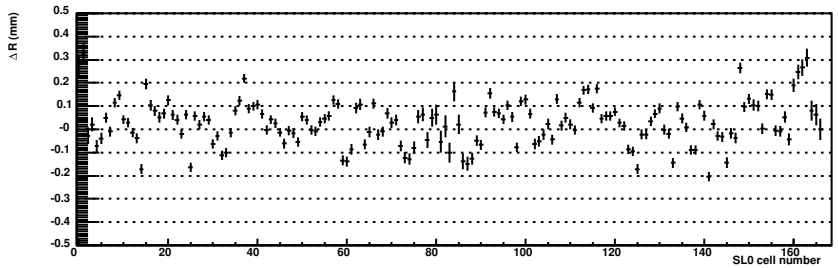

sym RΔφ (μm)
SL3 cell number

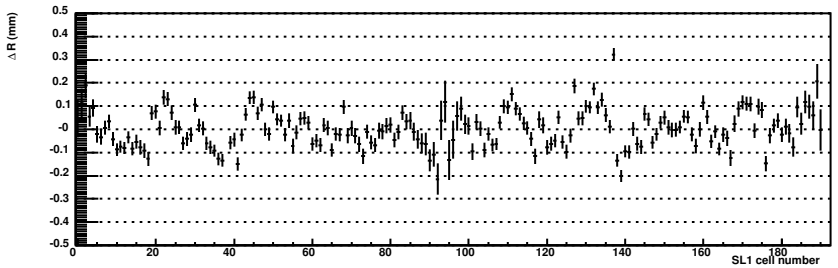

sym RΔφ (μm)
SL4 cell number

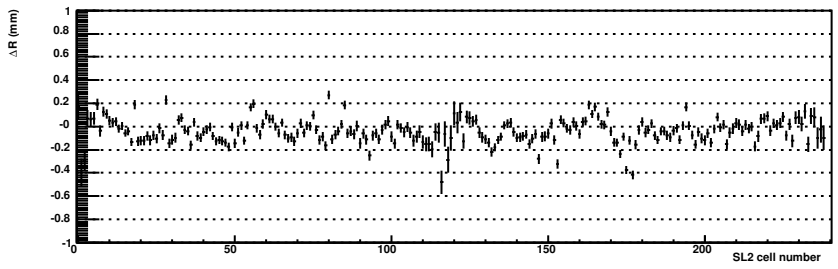

sym RΔφ (μm)
SL5 cell number

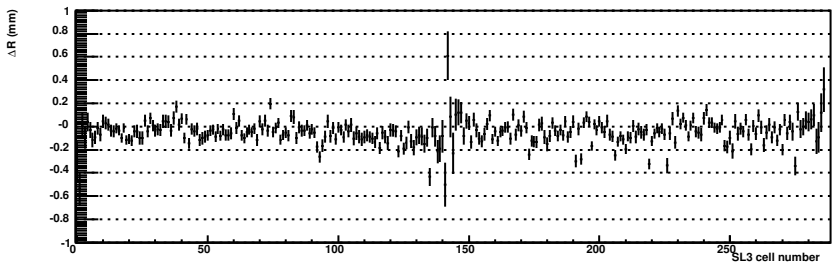

sym RΔφ (μm)
SL6 cell number

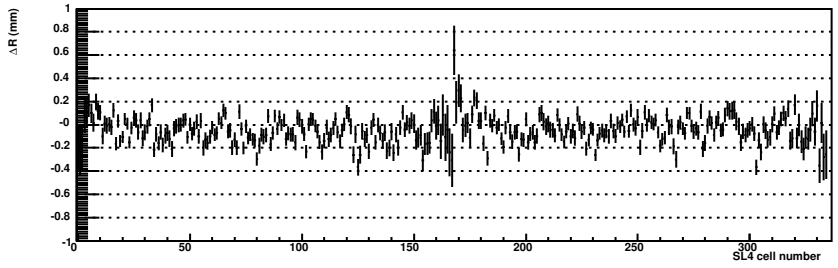

sym RΔφ (μm)
SL7 cell number

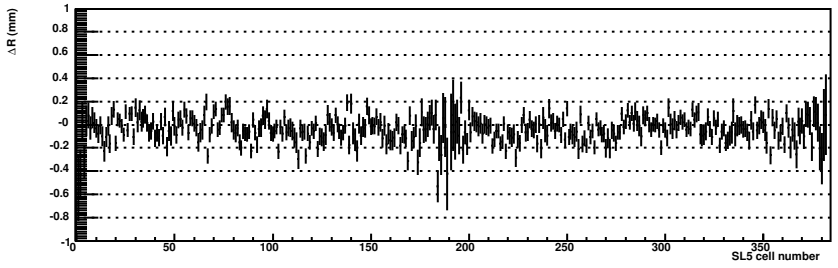

ΔR (mm)
SL0 cell number

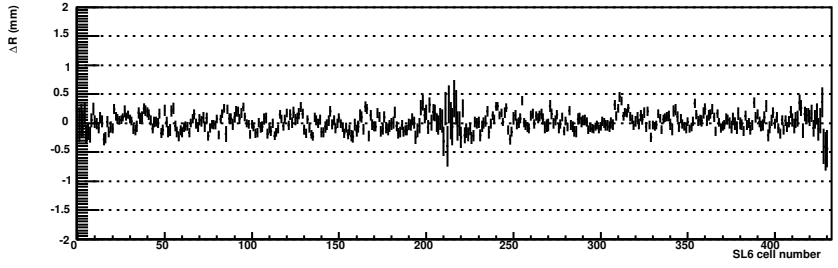

ΔR (mm)
SL1 cell number

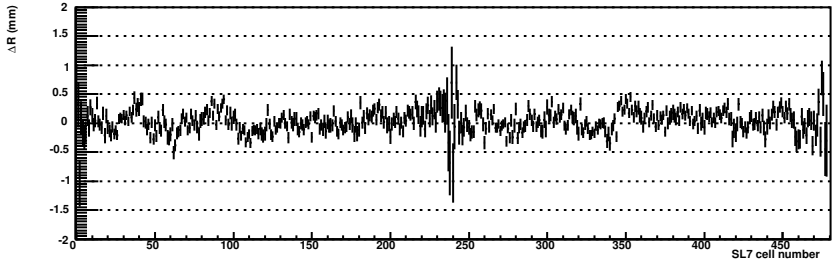

ΔR (mm)
SL2 cell number

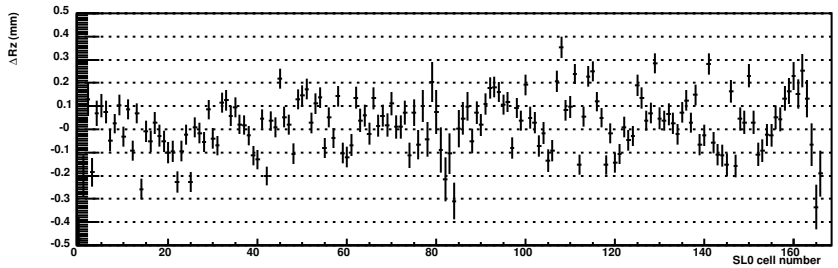

ΔR (mm)
SL3 cell number

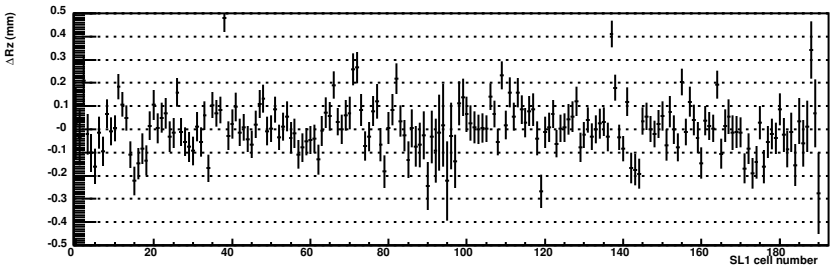

ΔR (mm)
SL4 cell number

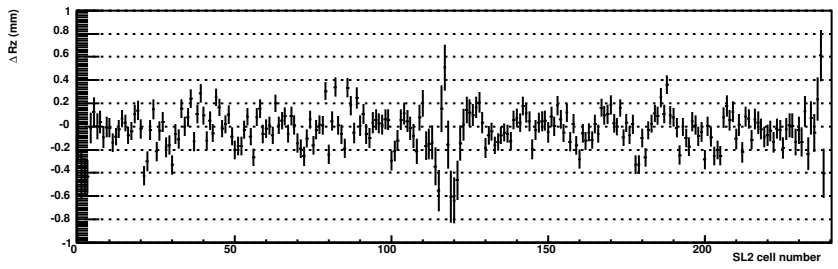

ΔR (mm)
SL5 cell number

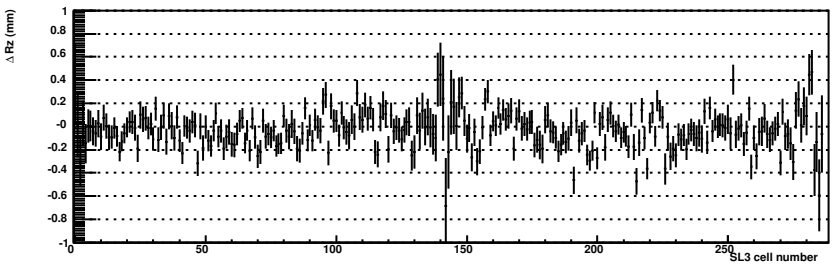

ΔR (mm)
SL6 cell number

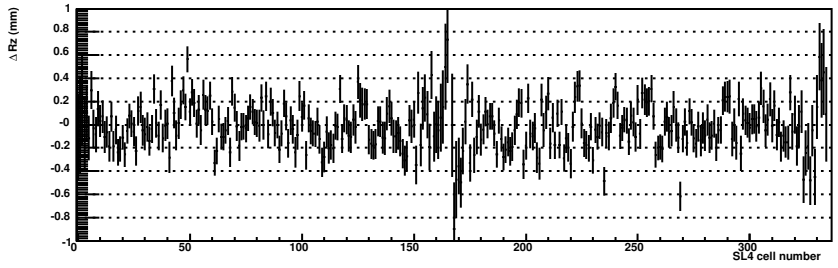

ΔR (mm)
SL7 cell number

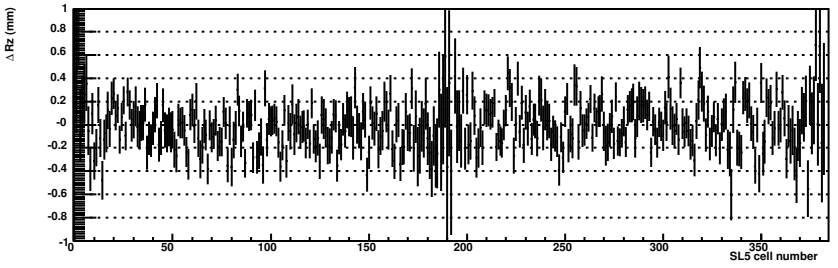

ΔRz (mm)
SL0 cell number

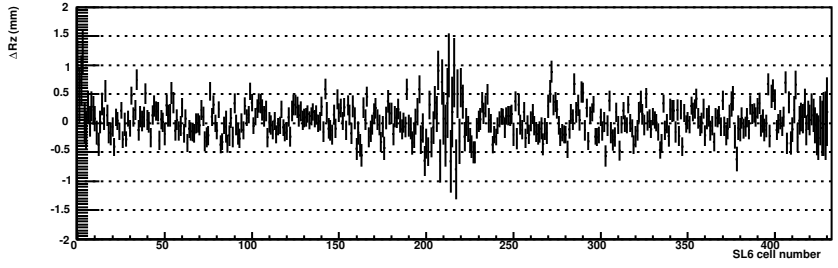

ΔRz (mm)
SL1 cell number

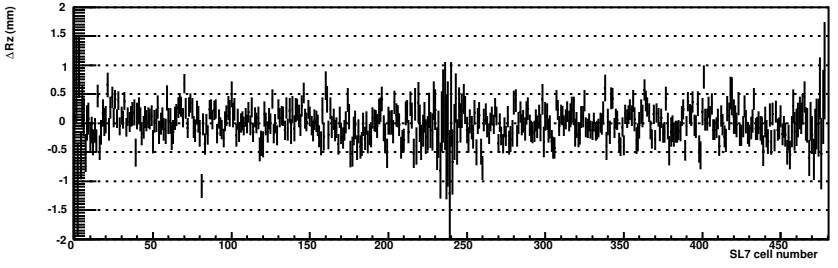

ΔRz (mm)
SL2 cell number

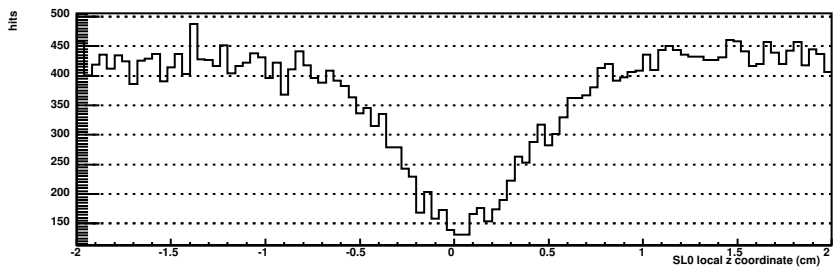

ΔRz (mm)
SL3 cell number

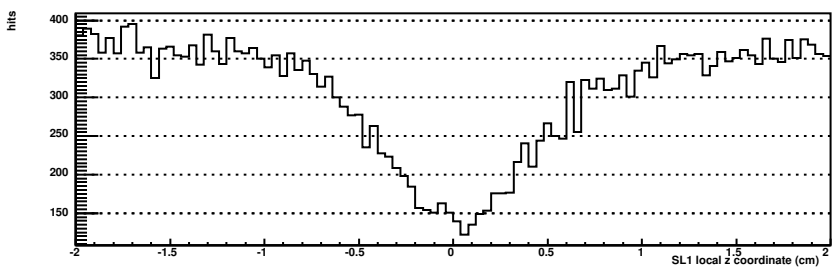

ΔRz (mm)
SL4 cell number

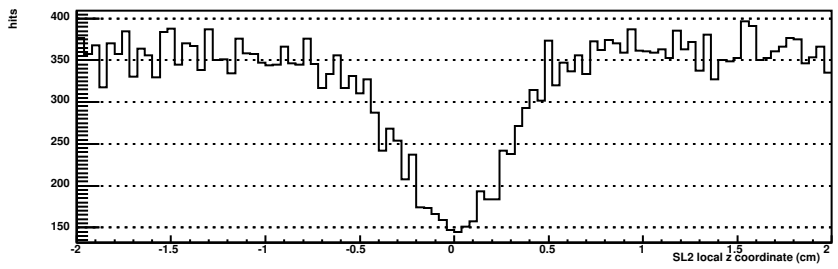

ΔRz (mm)
SL5 cell number

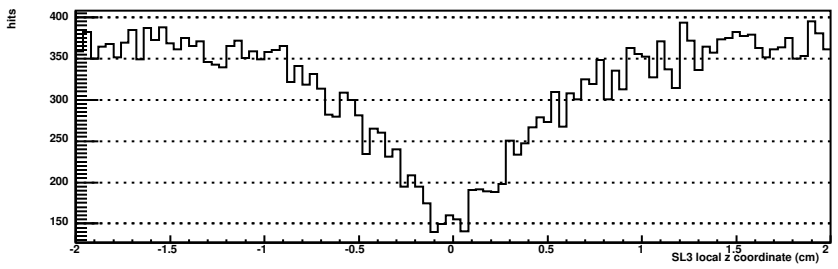

ΔRz (mm)
SL6 cell number

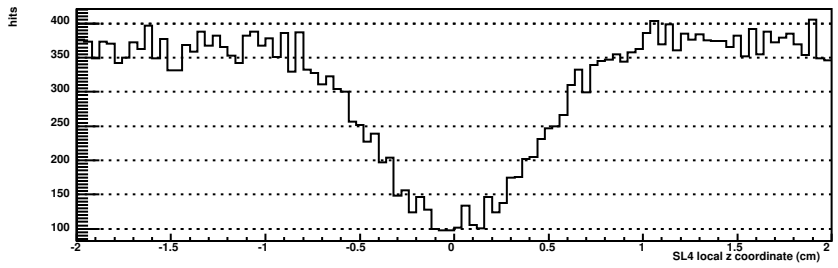

ΔRz (mm)
SL7 cell number

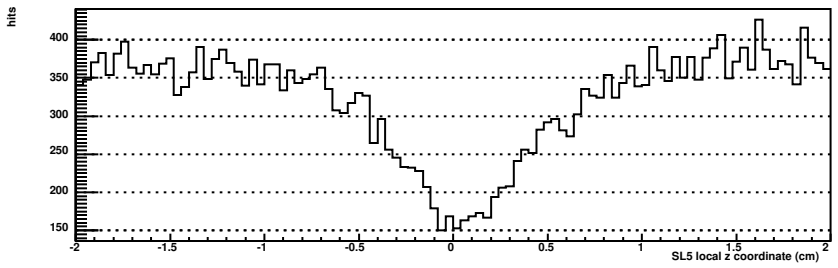

hits
SL0 local z coordinate (cm)

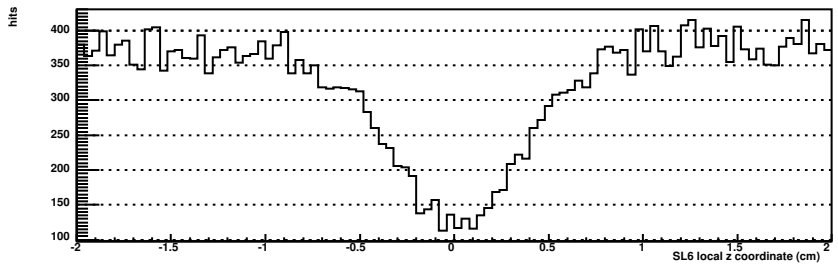

hits
SL1 local z coordinate (cm)

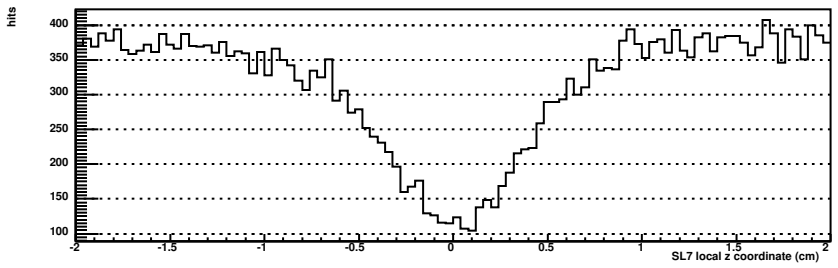

hits
SL2 local z coordinate (cm)

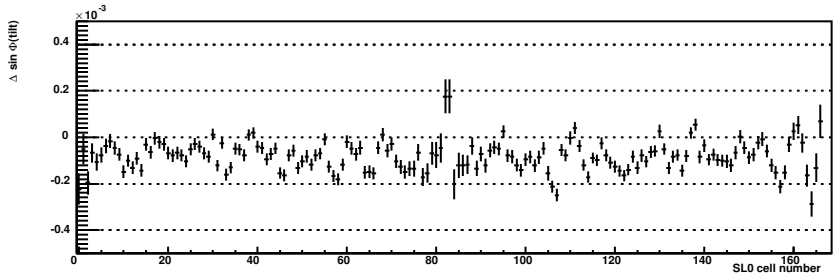

hits
SL3 local z coordinate (cm)

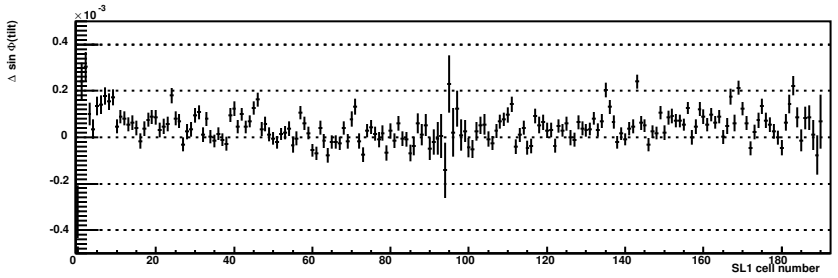

hits
SL4 local z coordinate (cm)

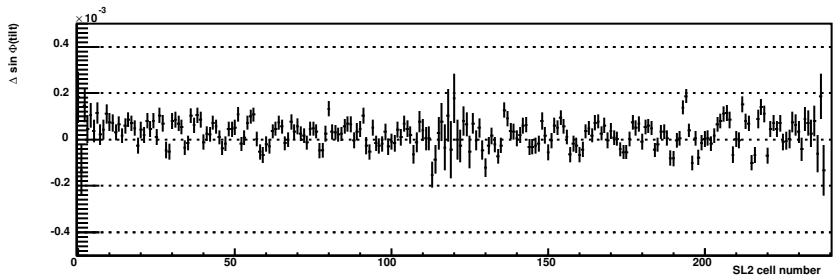

hits
SL5 local z coordinate (cm)

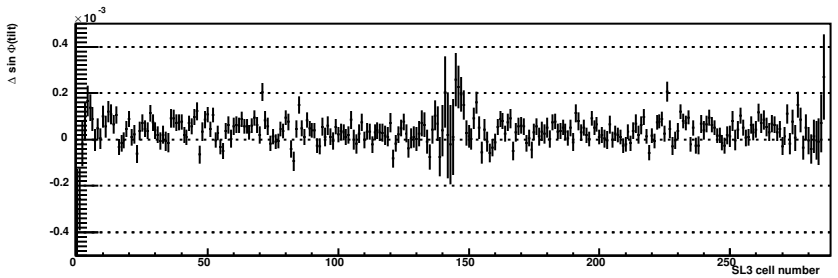

hits
SL6 local z coordinate (cm)

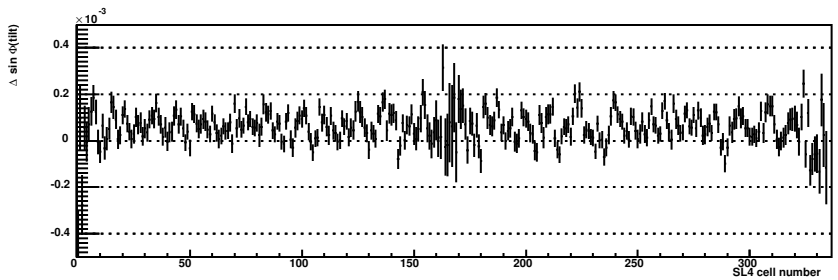

hits
SL7 local z coordinate (cm)

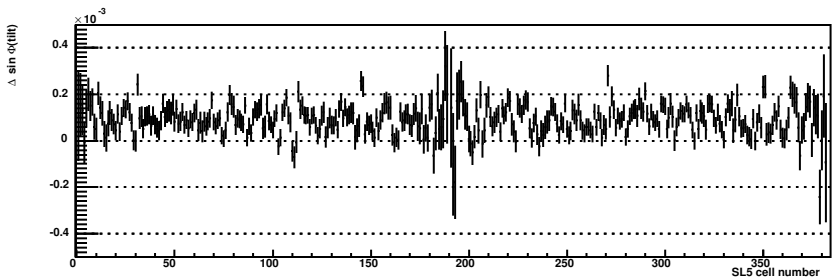

×10^-3
Δ sin Φ(tilt)
SL0 cell number

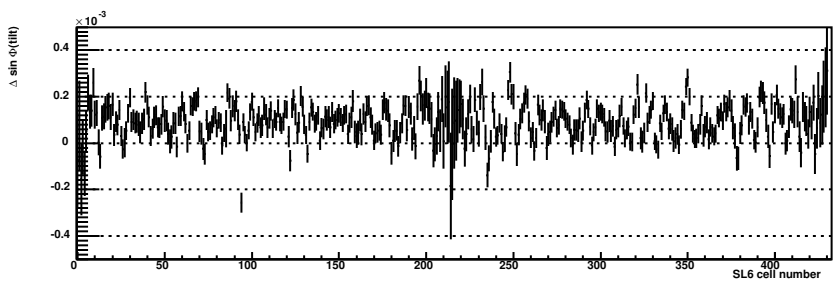

×10^-3
Δ sin Φ(tilt)
SL1 cell number

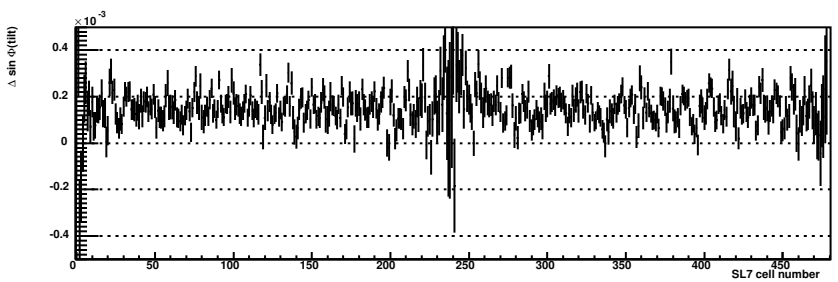

×10^-3
Δ sin Φ(tilt)
SL2 cell number

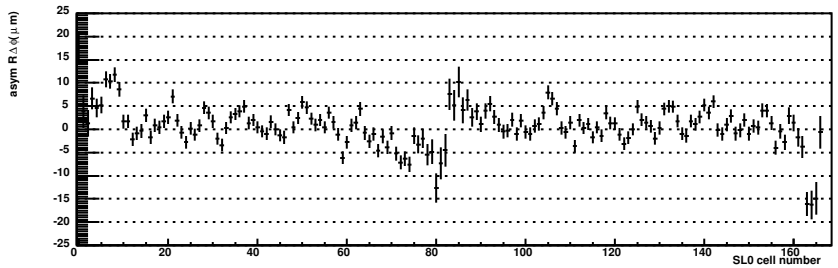

×10^-3
Δ sin Φ(tilt)
SL3 cell number

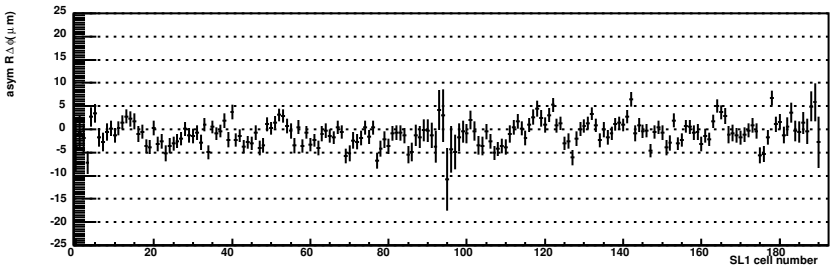

×10^-3
Δ sin Φ(tilt)
SL4 cell number

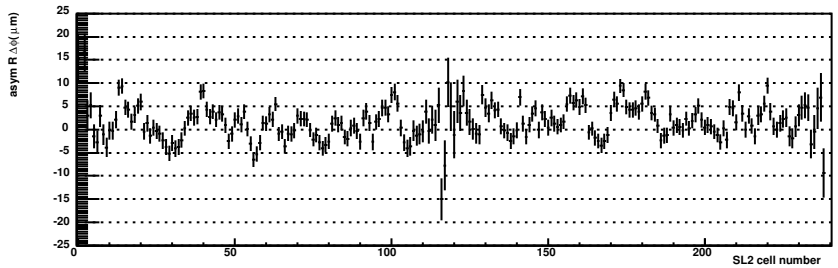

×10^-3
Δ sin Φ(tilt)
SL5 cell number

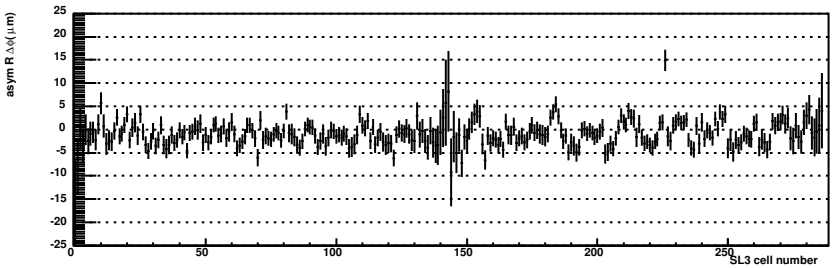

×10^-3
Δ sin Φ(tilt)
SL6 cell number

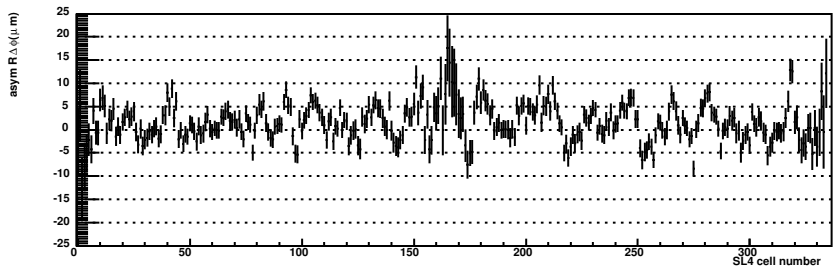

×10^-3
Δ sin Φ(tilt)
SL7 cell number

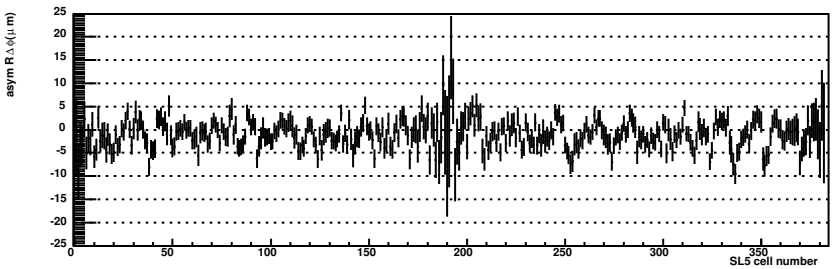

asym R Δφ(μm)
SL0 cell number

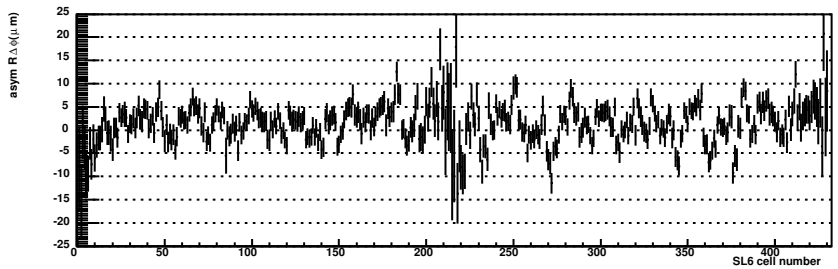

asym R Δφ(μm)
SL1 cell number

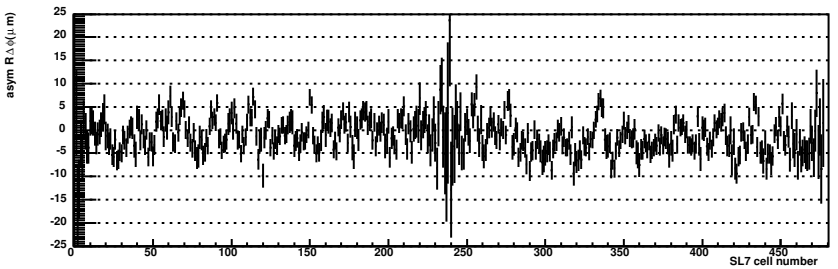

asym R Δφ(μm)
SL2 cell number

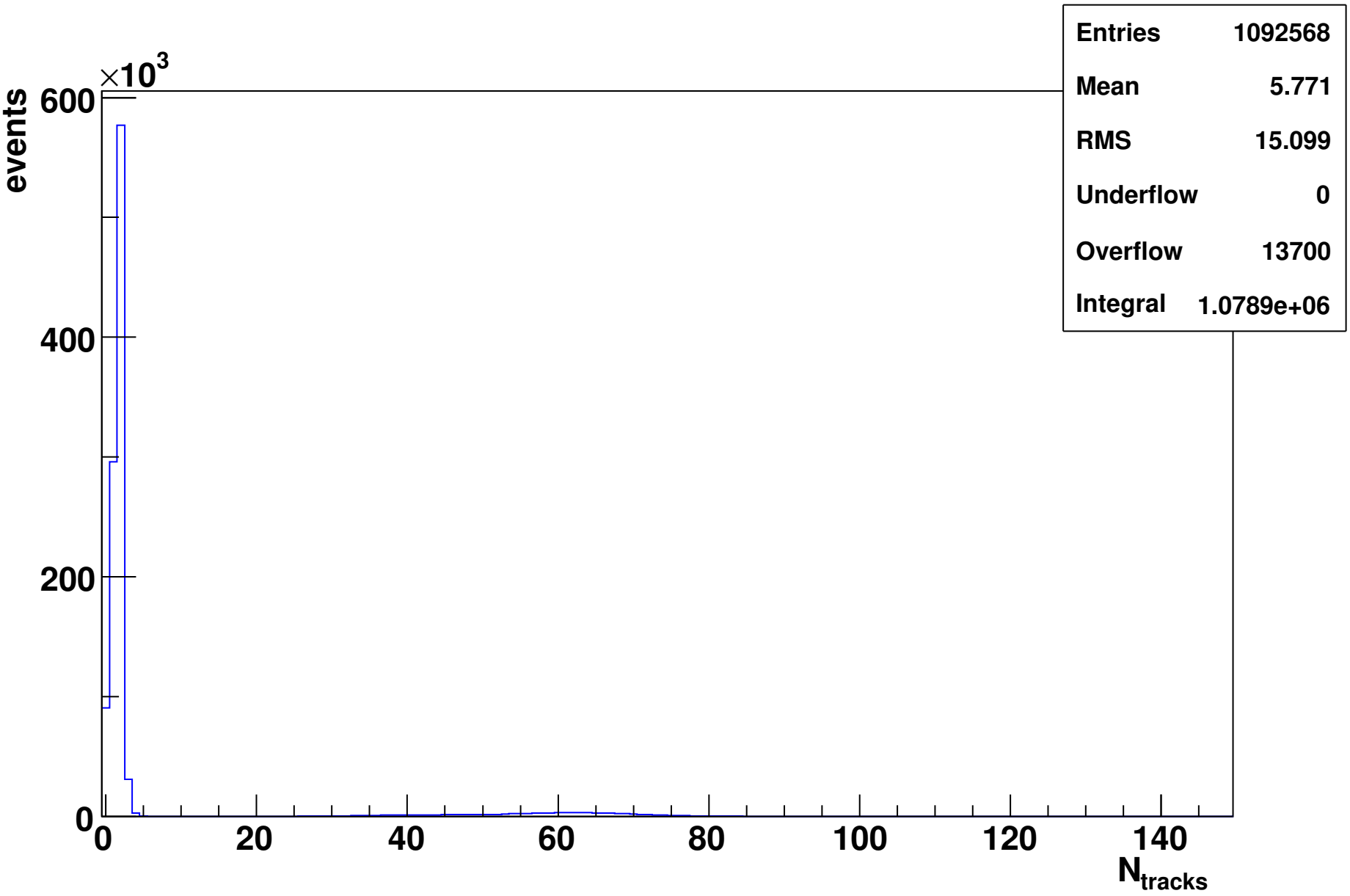

asym R Δφ(μm)
SL3 cell number

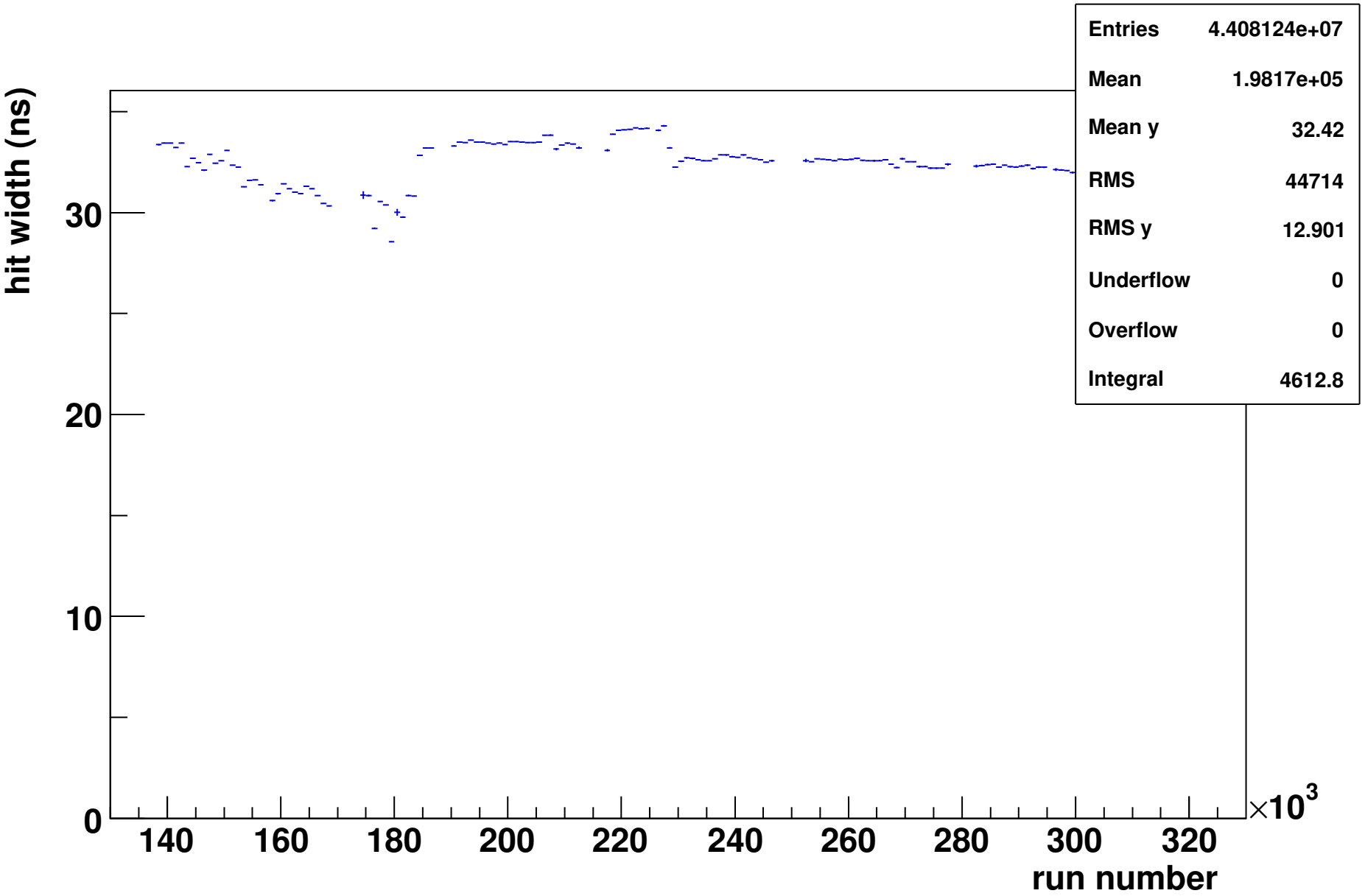

asym R Δφ(μm)
SL4 cell number

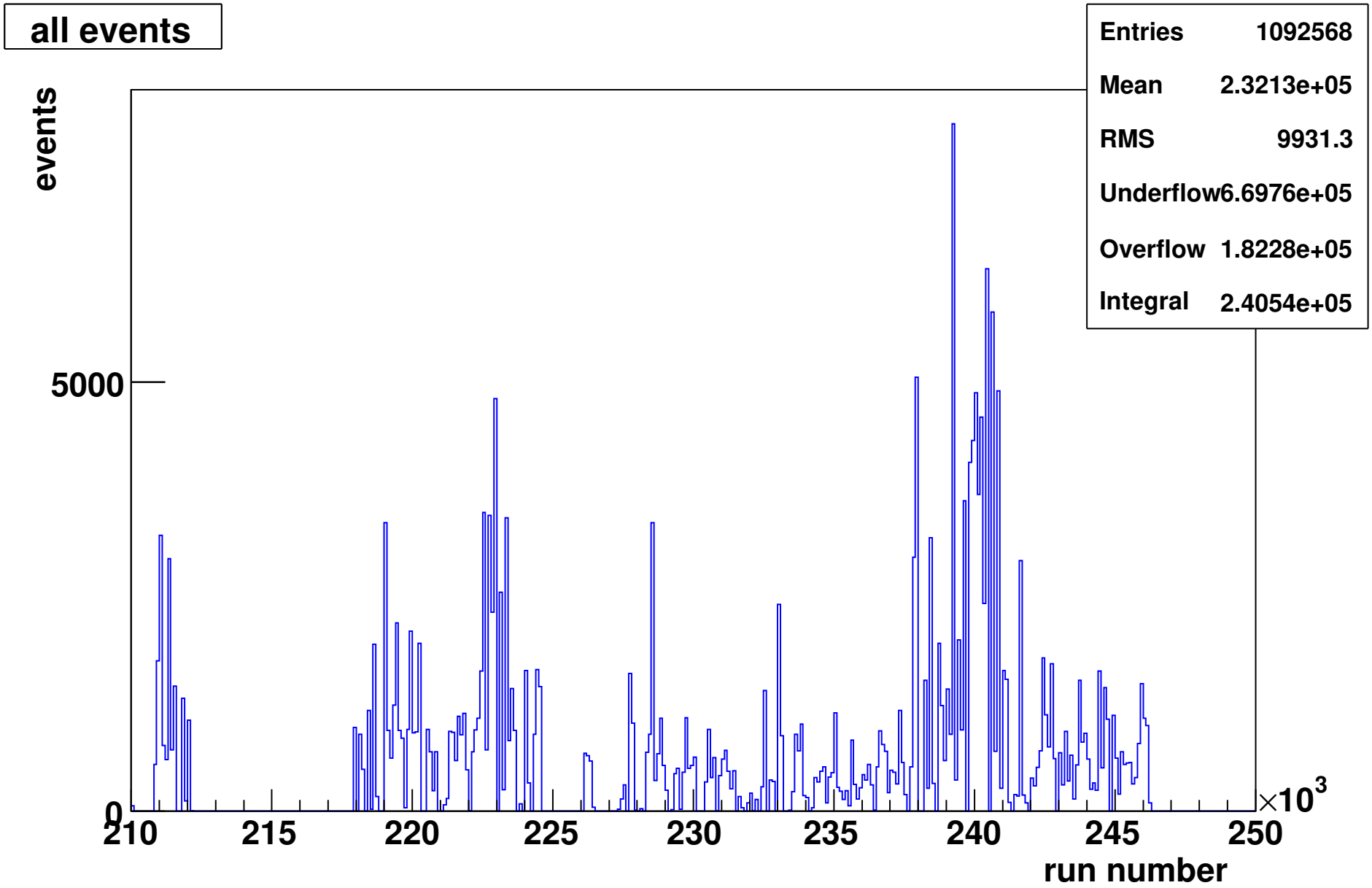

asym R Δφ(μm)
SL5 cell number

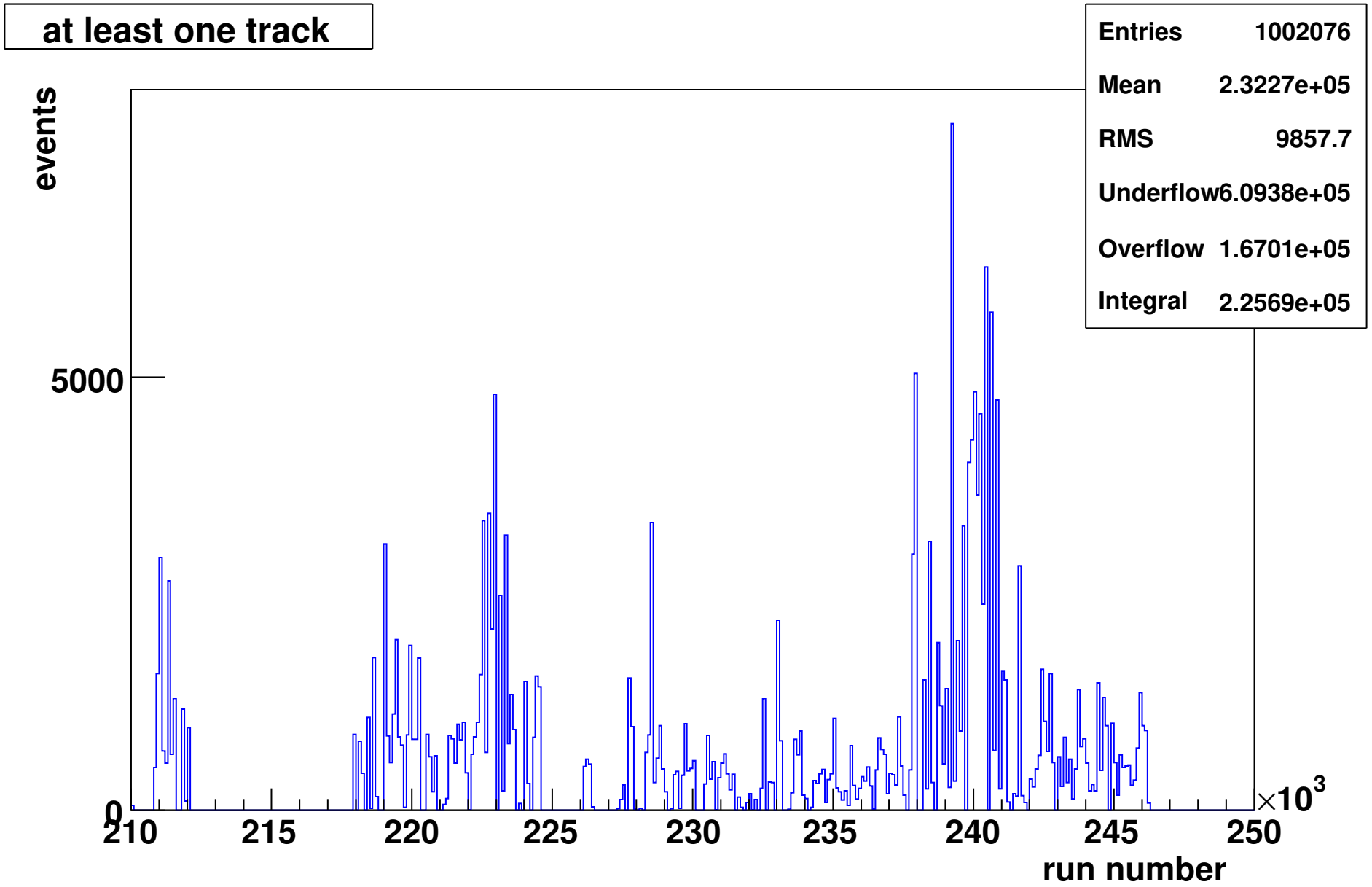

asym R Δφ(μm)
SL6 cell number

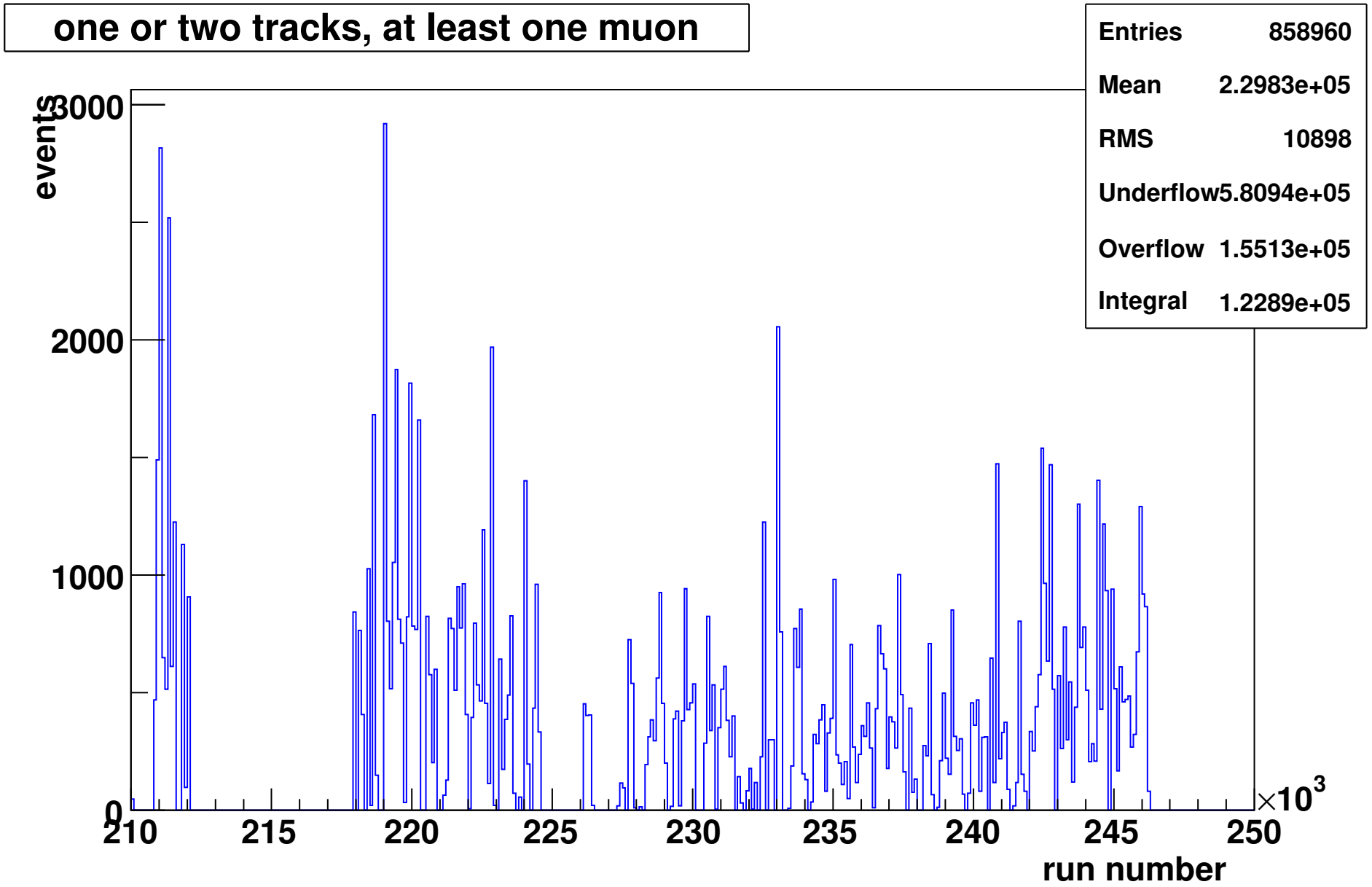

asym R Δφ(μm)
SL7 cell number

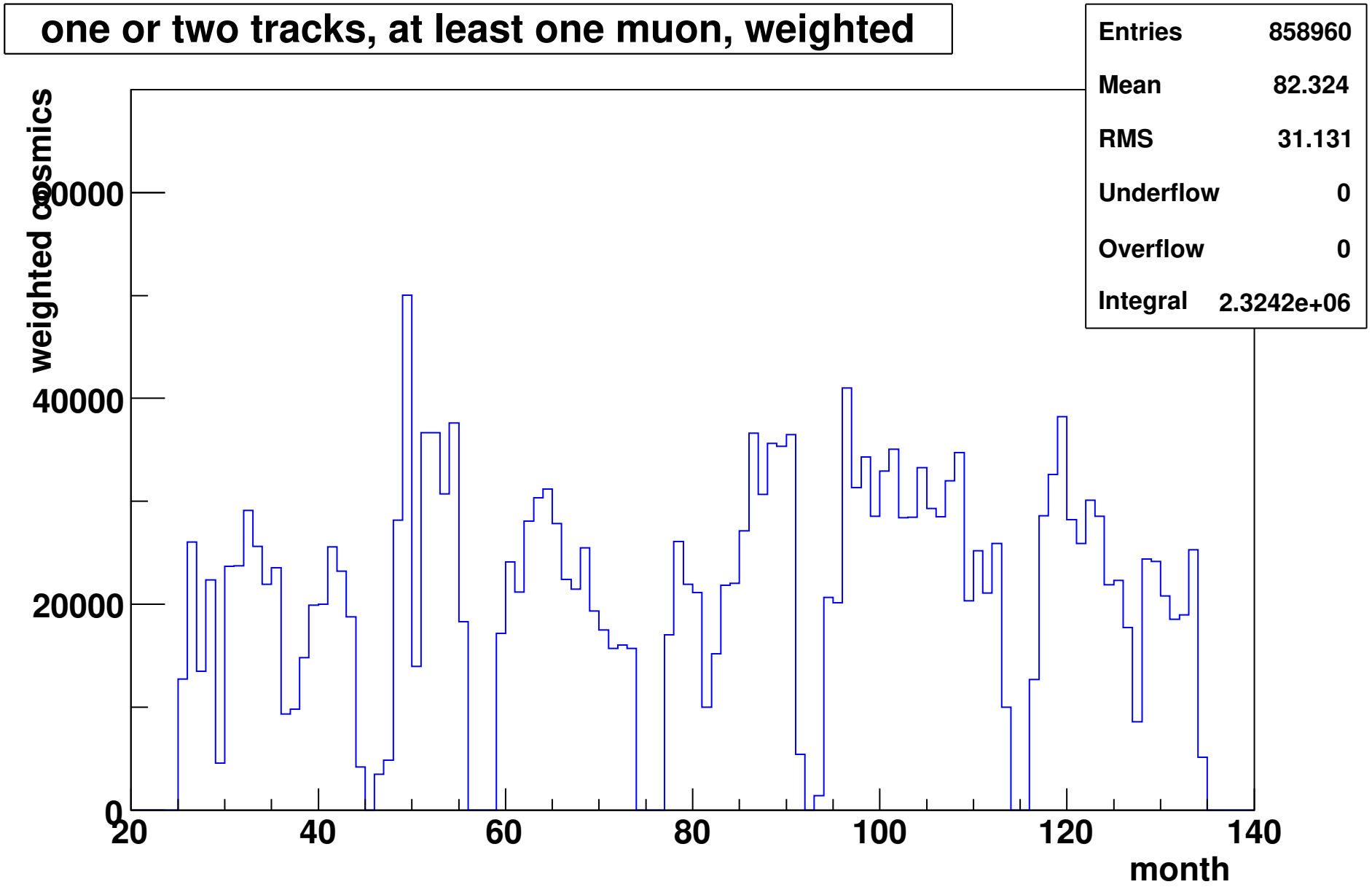

Entries 1092568
Mean 5.771
RMS 15.099
Underflow 0
Overflow 13700
Integral 1.0789e+06
events
×10^3
600
400
200
0
0
20
40
60
80
100
120
140
N_tracks

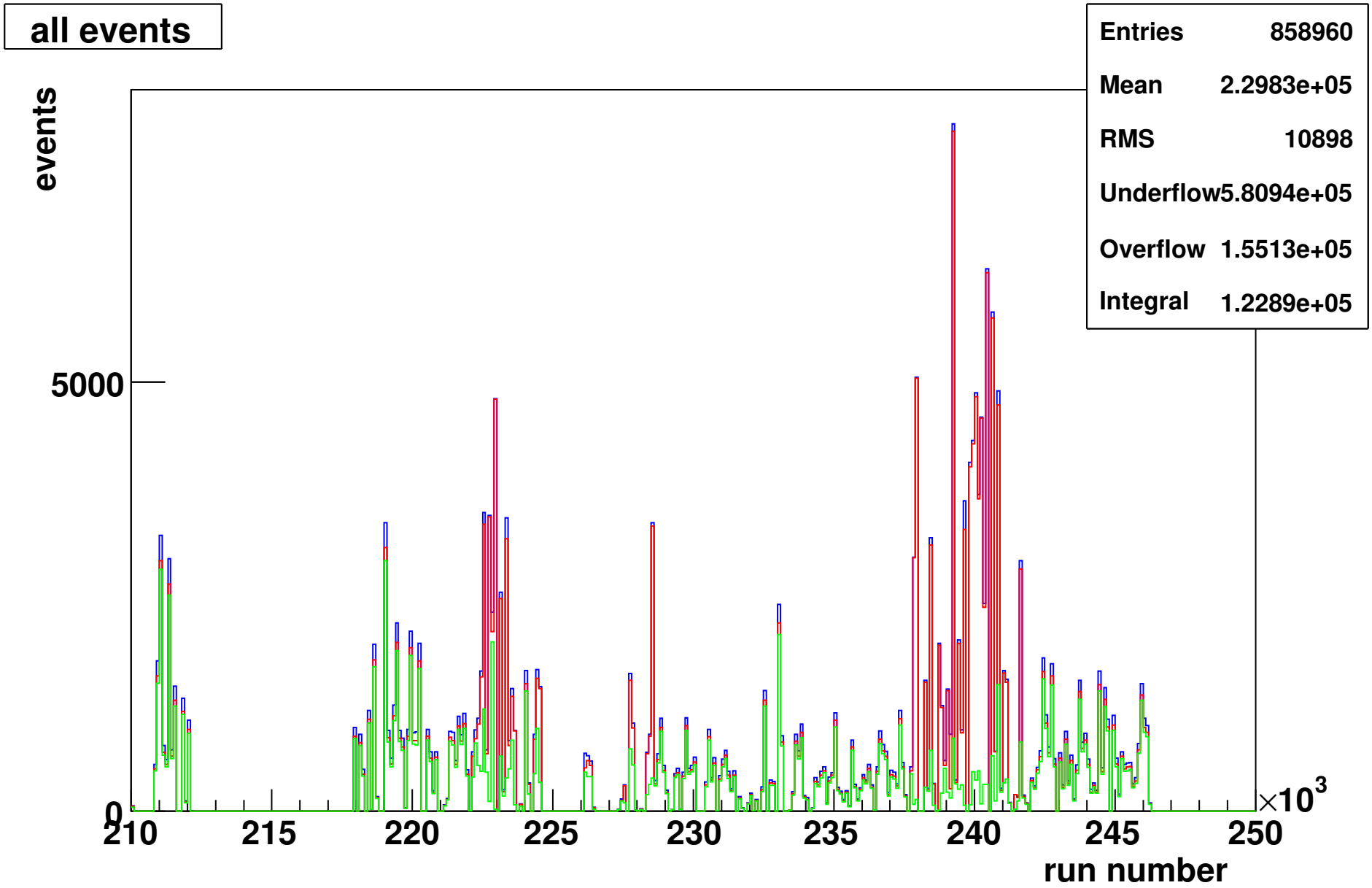

hit width (ns)
30
20
10
0
140
160
180
200
220
240
260
280
300
320
×10^3
run number
Entries 4.408124e+07
Mean 1.9817e+05
Mean y 32.42
RMS 44714
RMS y 12.901
Underflow 0
Overflow 0
Integral 4612.8

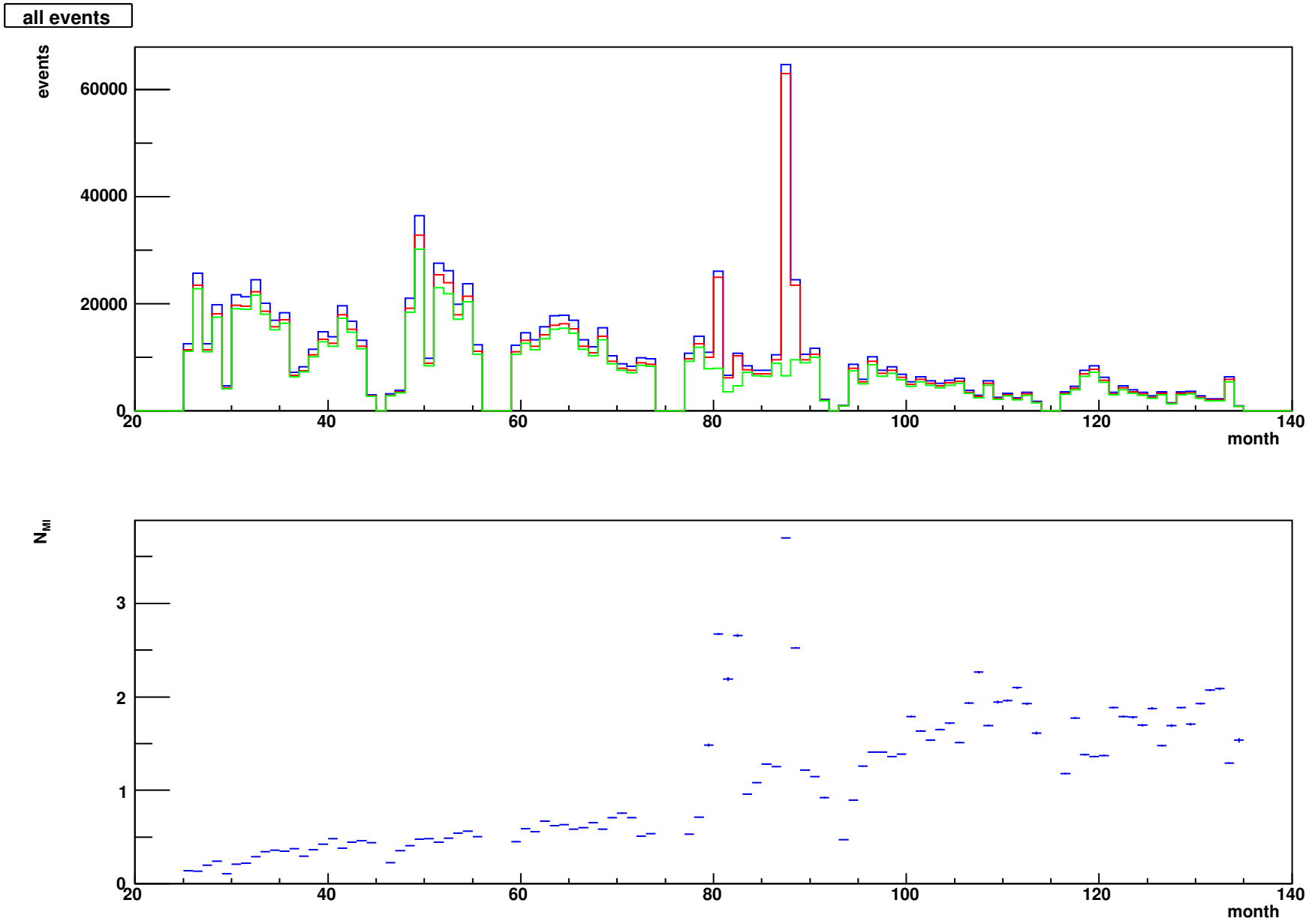

all events
Entries 1092568
Mean 2.3213e+05
RMS 9931.3
Underflow 6.6976e+05
Overflow 1.8228e+05
Integral 2.4054e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

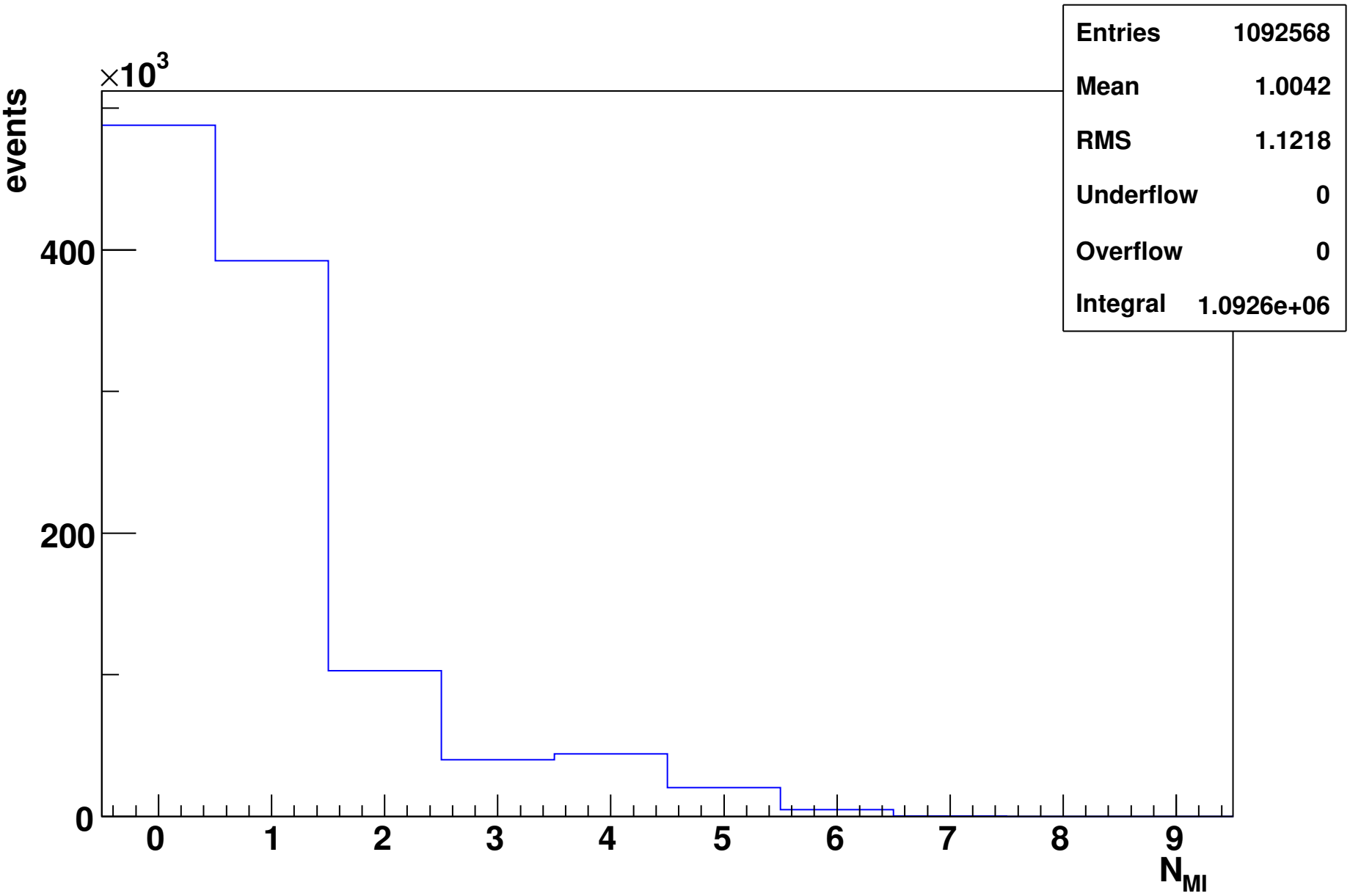

at least one track
Entries 1002076
Mean 2.3227e+05
RMS 9857.7
Underflow 6.0938e+05
Overflow 1.6701e+05
Integral 2.2569e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

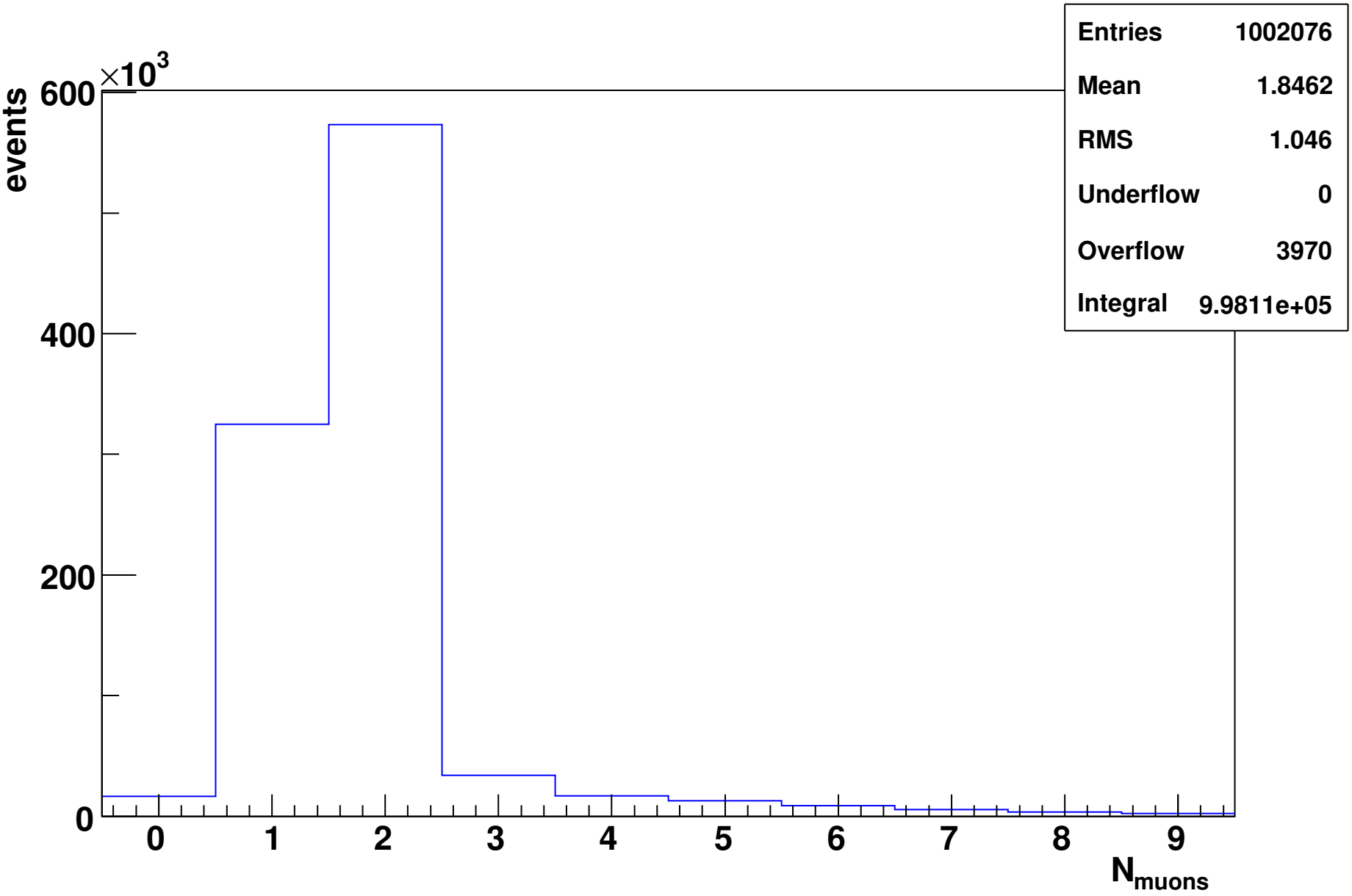

one or two tracks, at least one muon
Entries 858960
Mean 2.2983e+05
RMS 10898
Underflow 5.8094e+05
Overflow 1.5513e+05
Integral 1.2289e+05
events
3000
2000
1000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

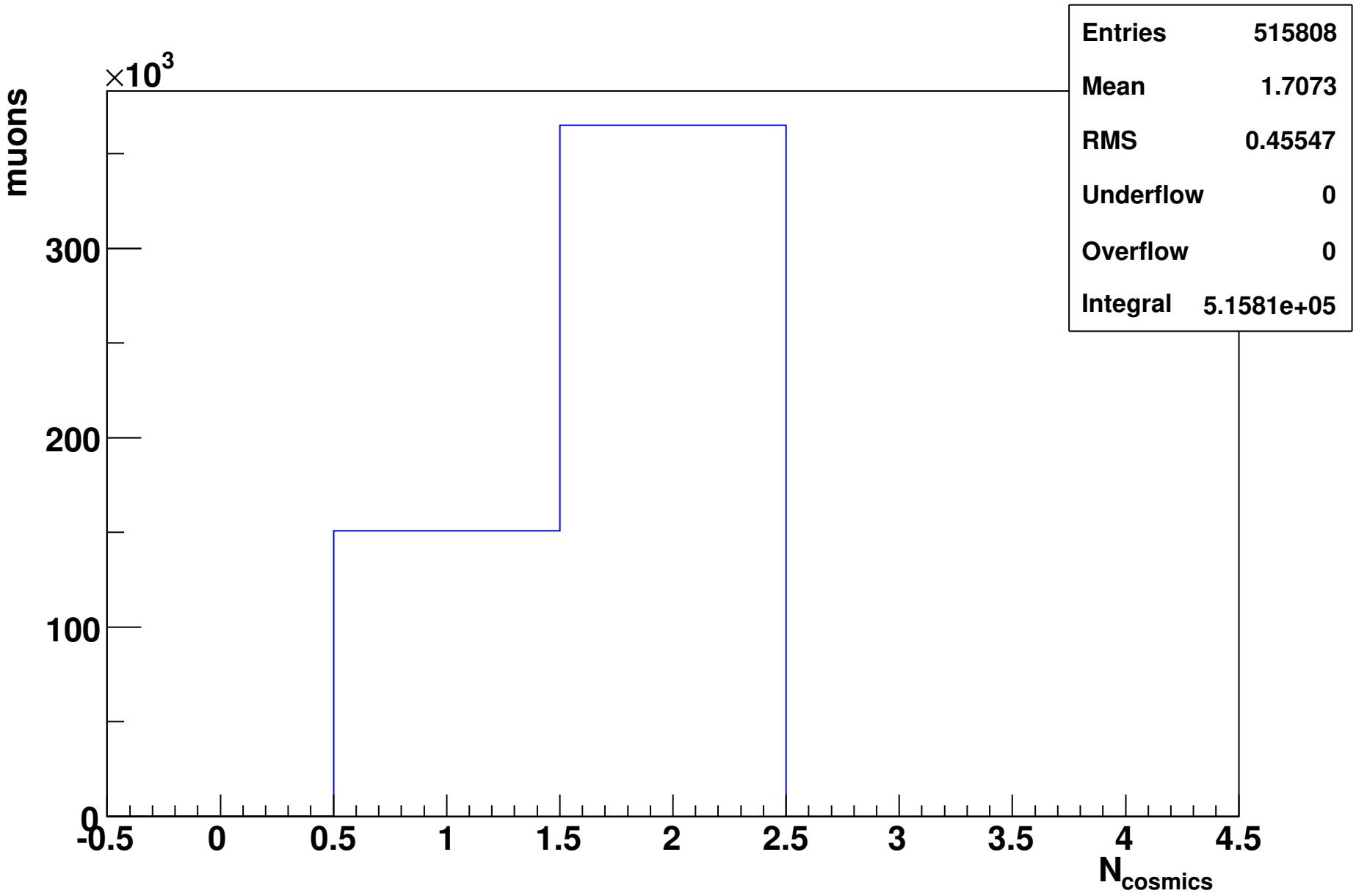

one or two tracks, at least one muon, weighted
Entries 858960
Mean 82.324
RMS 31.131
Underflow 0
Overflow 0
Integral 2.3242e+06
weighted cosmics
60000
40000
20000
0
20
40
60
80
100
120
140
month

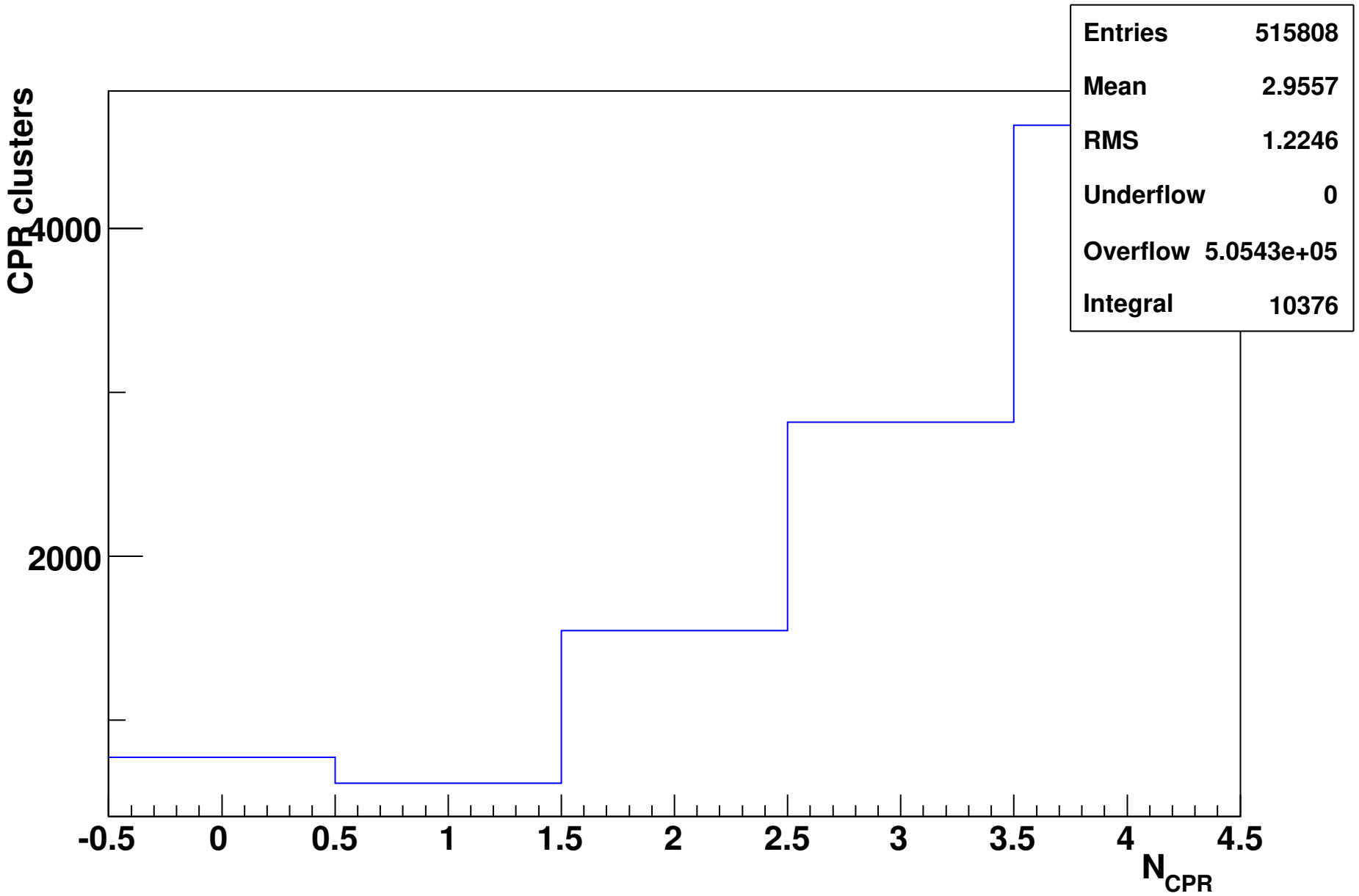

all events
Entries 858960
Mean 2.2983e+05
RMS 10898
Underflow 5.8094e+05
Overflow 1.5513e+05
Integral 1.2289e+05
events
5000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

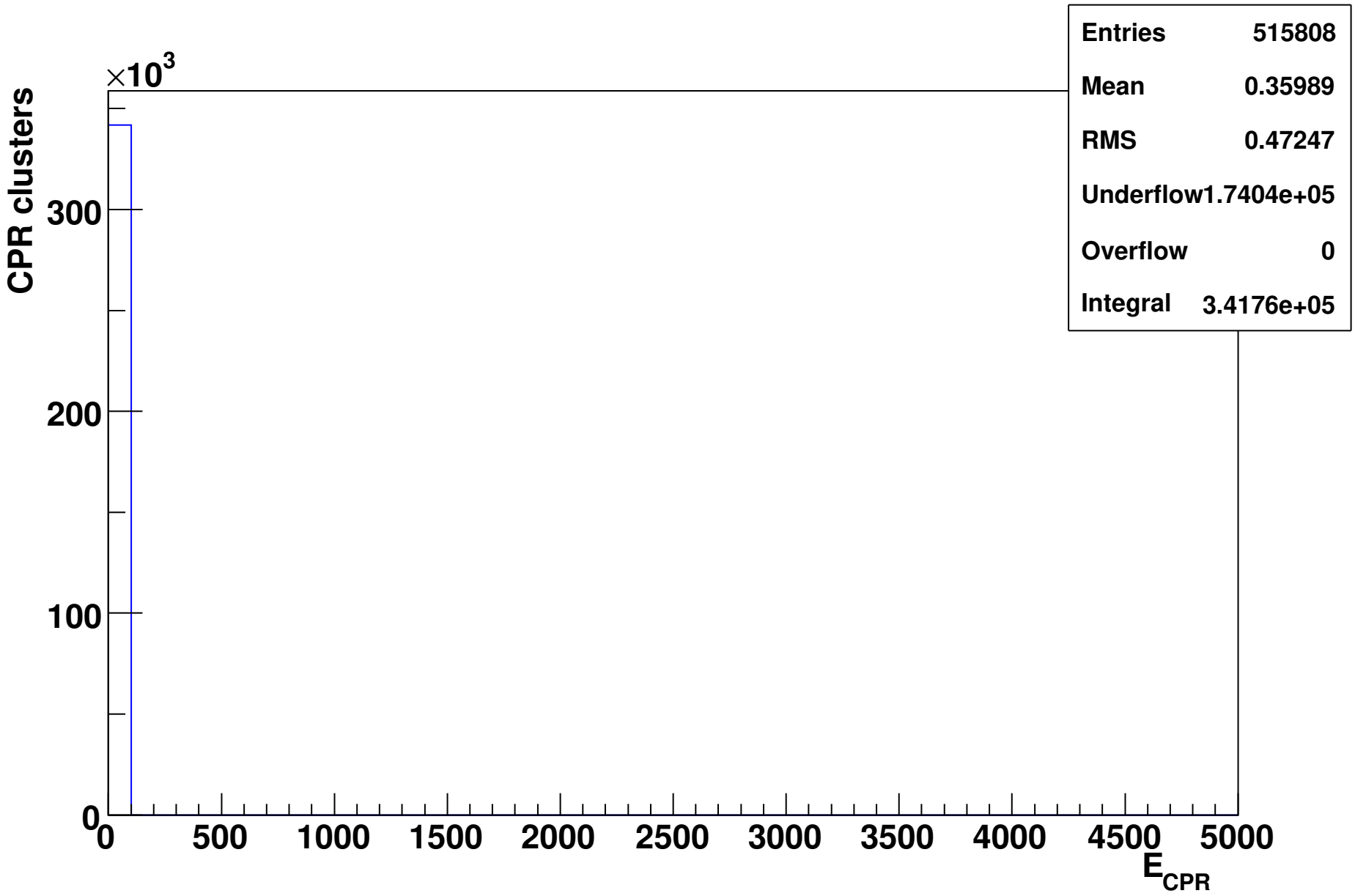

all events
events
60000
40000
20000
0
20
40
60
80
100
120
140
month
N_{MI}
3
2
1
0
20
40
60
80
100
120
140
month

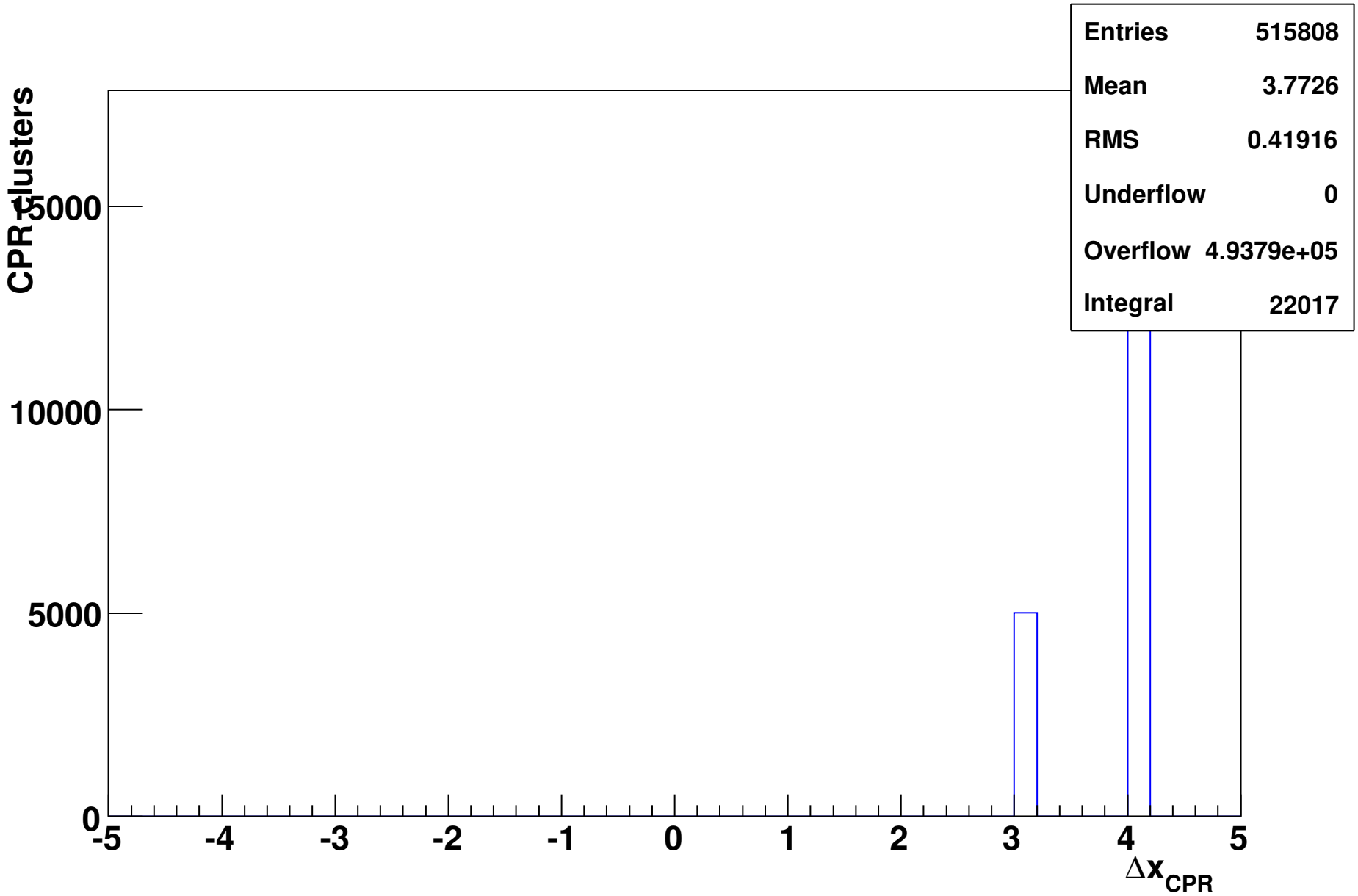

Entries 1092568
Mean 1.0042
RMS 1.1218
Underflow 0
Overflow 0
Integral 1.0926e+06
×10^3
events
400
200
0
0 1 2 3 4 5 6 7 8 9
N_MI

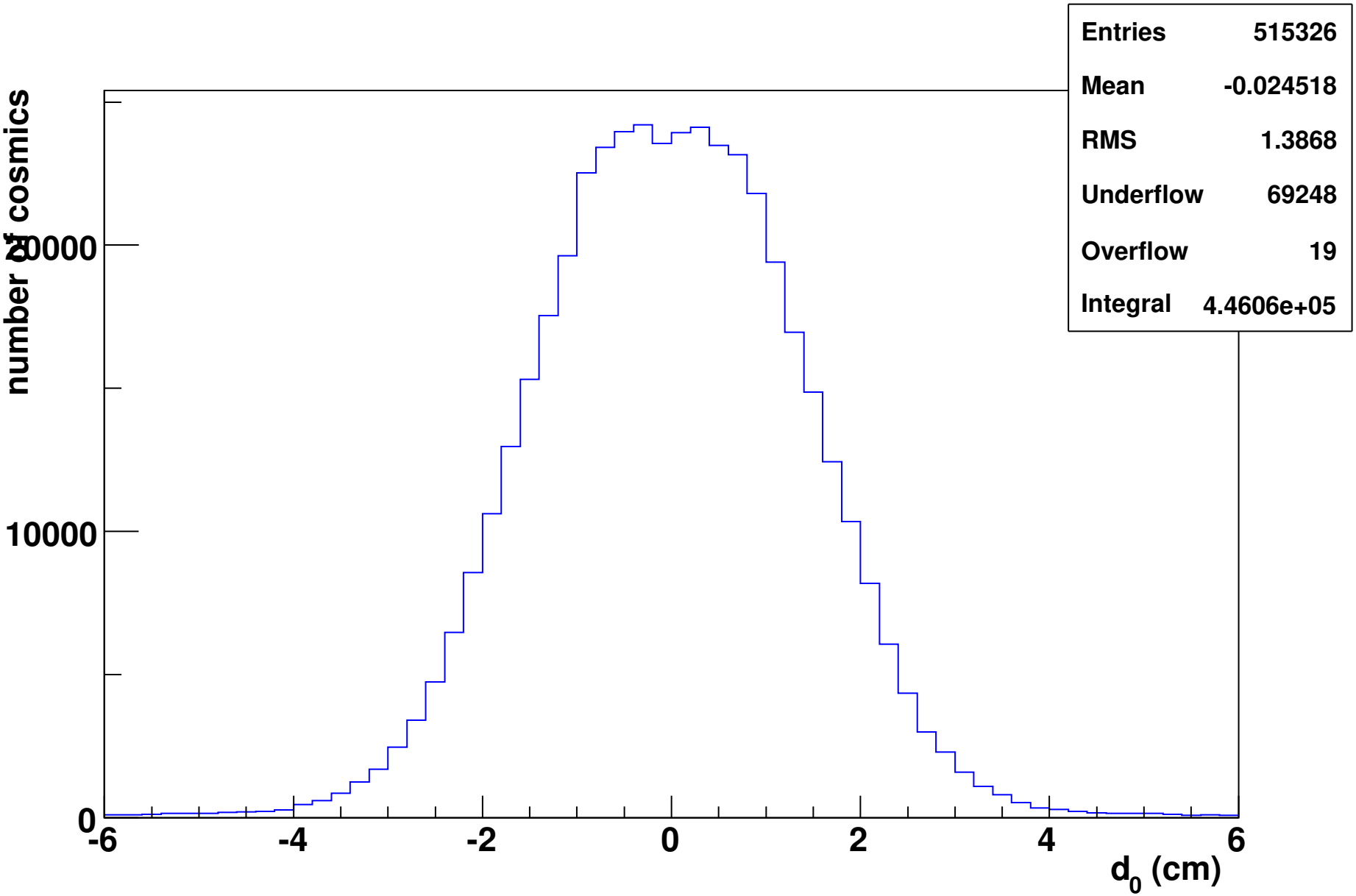

Entries 1002076
Mean 1.8462
RMS 1.046
Underflow 0
Overflow 3970
Integral 9.9811e+05
events
×10^3
600
400
200
0
0
1
2
3
4
5
6
7
8
9
N_muons

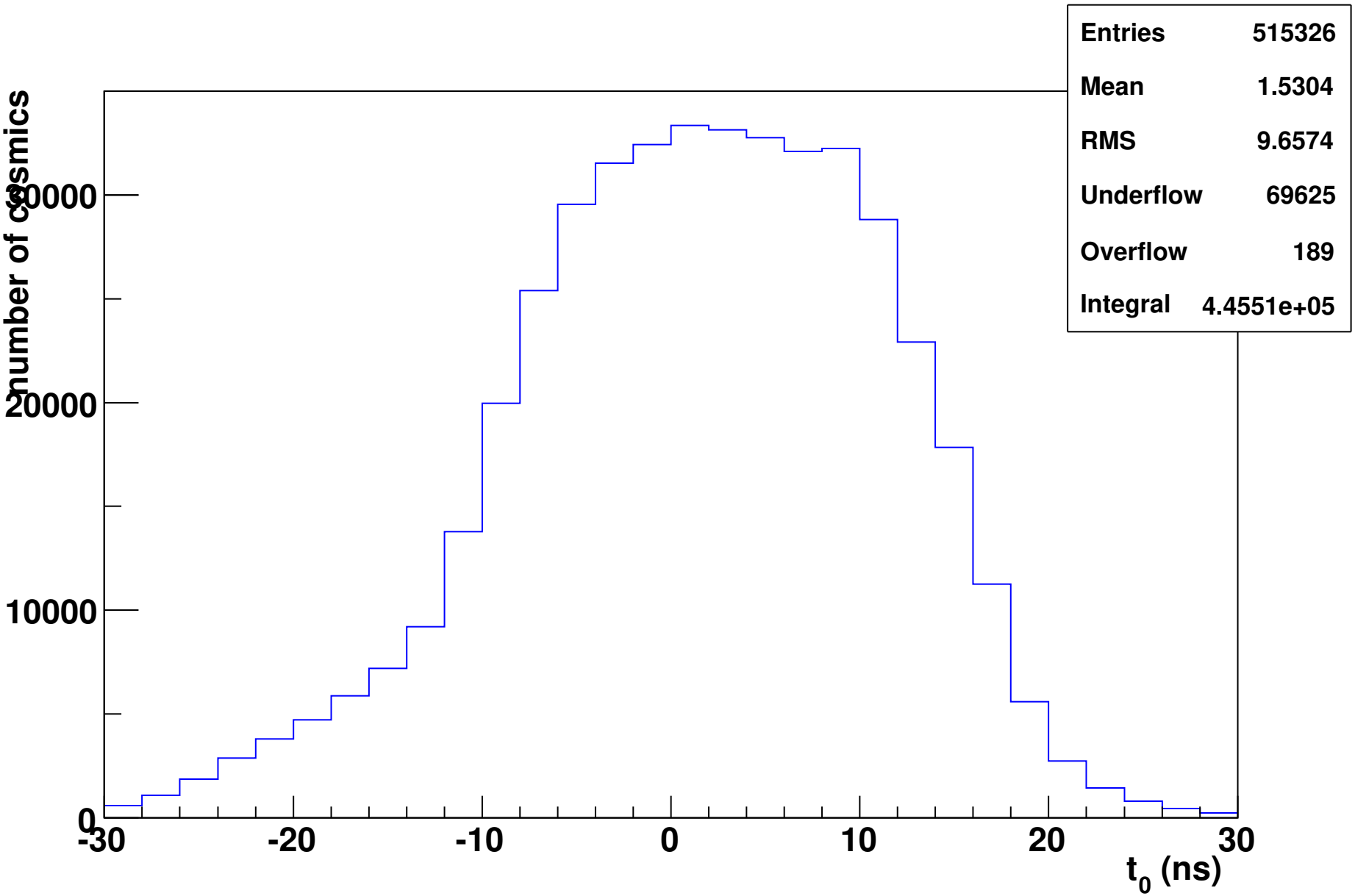

Entries 515808
Mean 1.7073
RMS 0.45547
Underflow 0
Overflow 0
Integral 5.1581e+05
muons
×10^3
300
200
100
0
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_cosmics

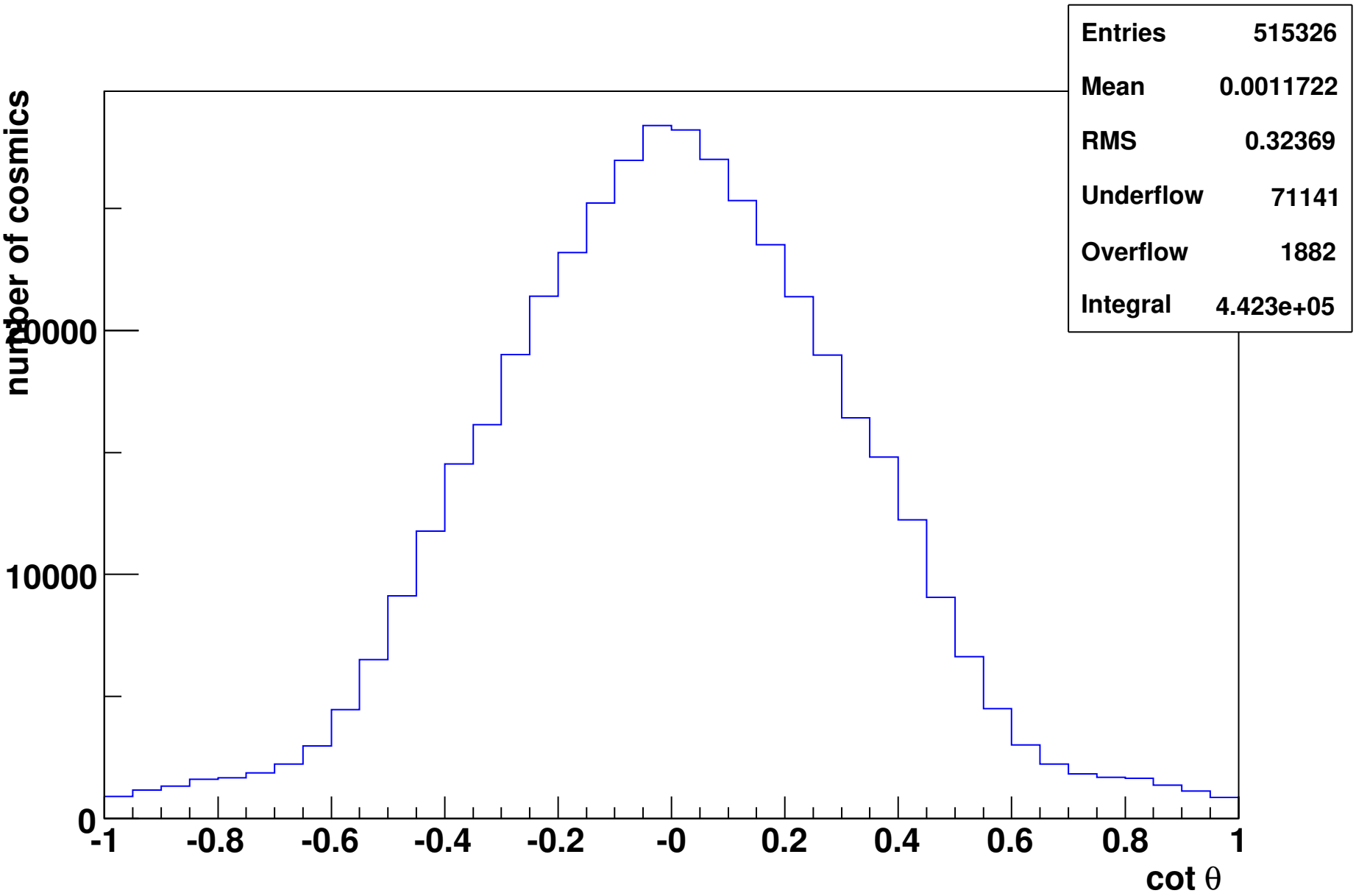

Entries 515808
Mean 2.9557
RMS 1.2246
Underflow 0
Overflow 5.0543e+05
Integral 10376
CPR clusters
4000
2000
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_CPR

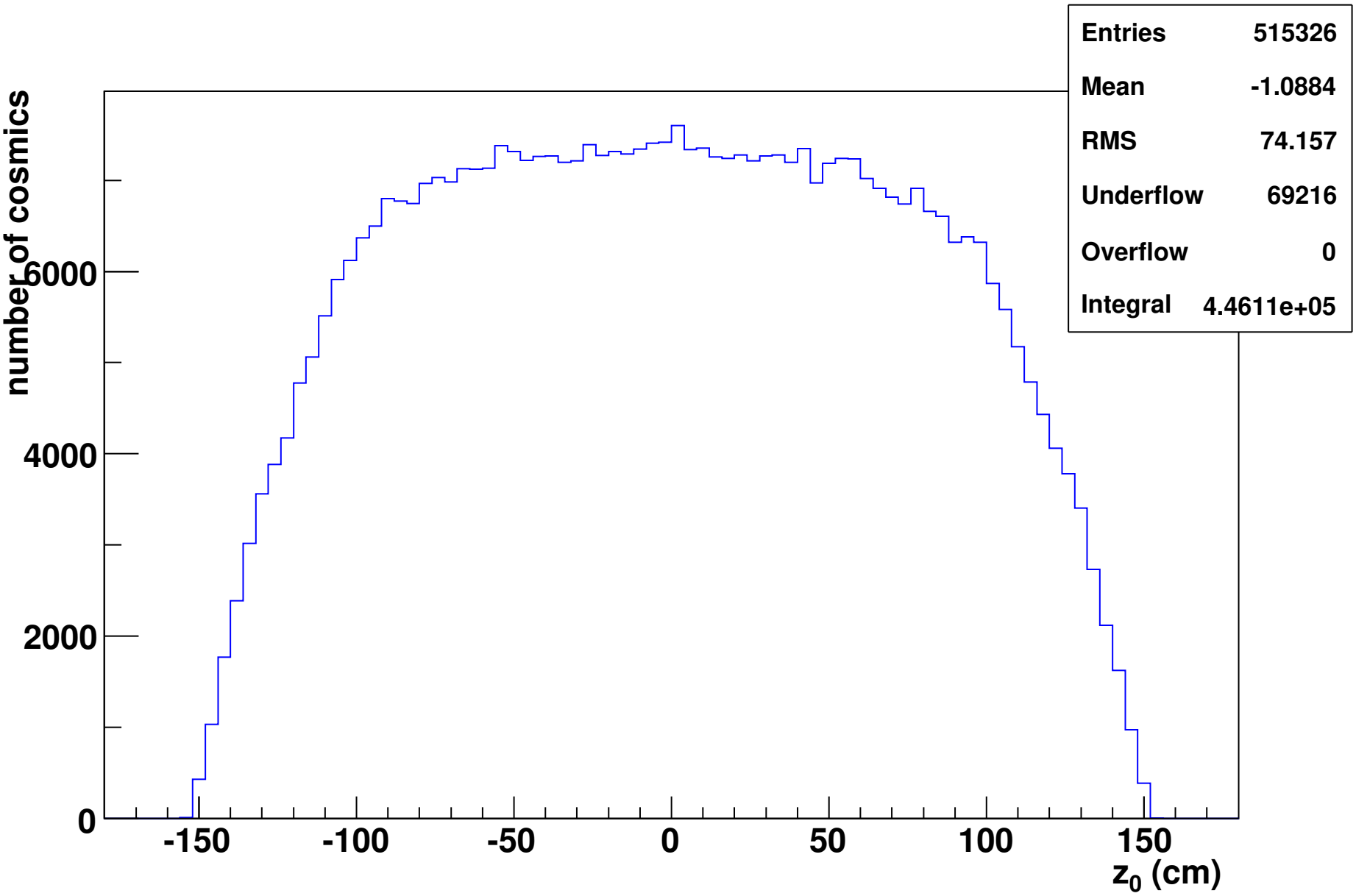

Entries 515808
Mean 0.35989
RMS 0.47247
Underflow 1.7404e+05
Overflow 0
Integral 3.4176e+05
×10^3
CPR clusters
300
200
100
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
E_CPR

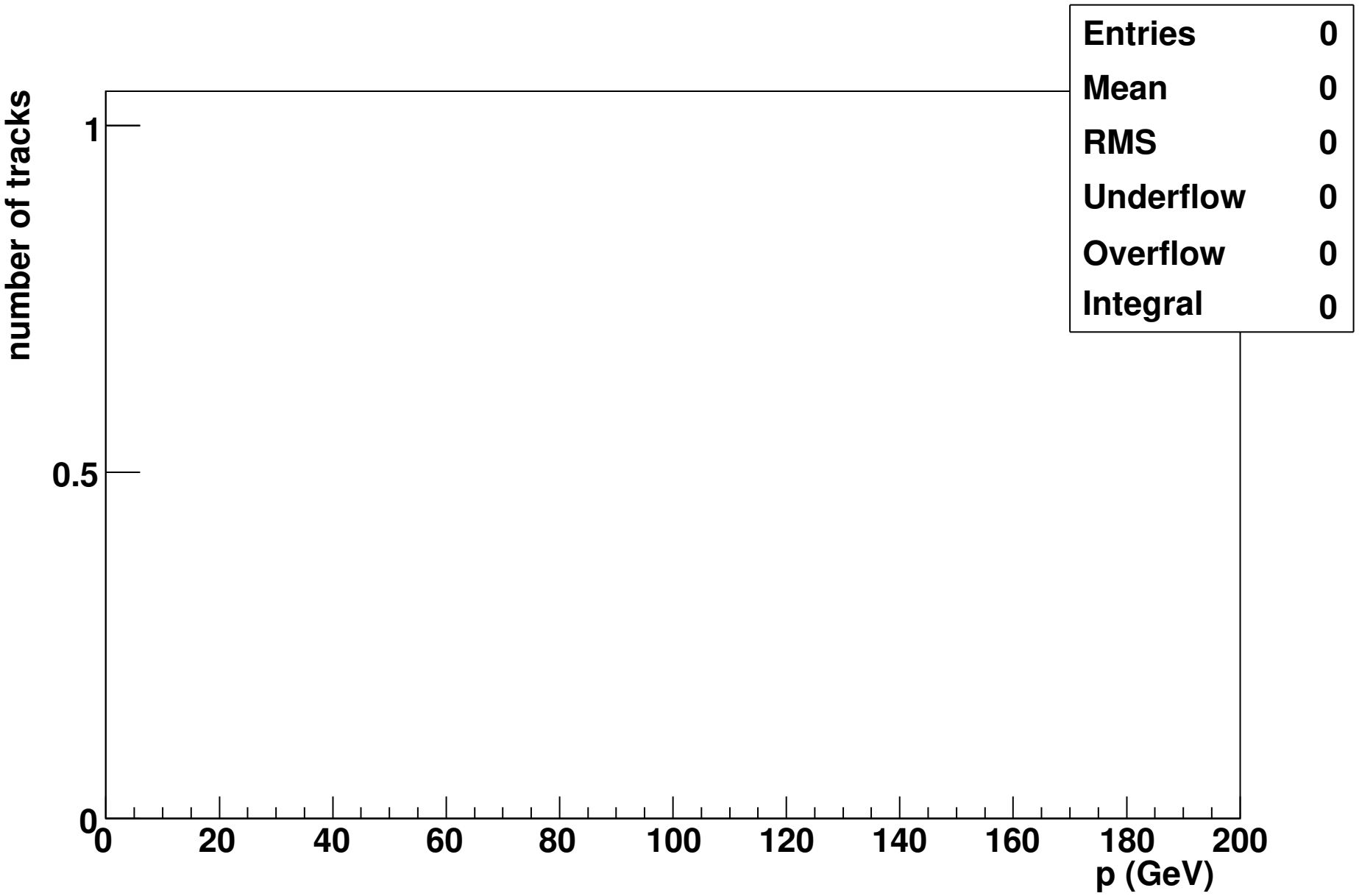

Entries 515808
Mean 3.7726
RMS 0.41916
Underflow 0
Overflow 4.9379e+05
Integral 22017
CPR clusters
15000
10000
5000
0
-5
-4
-3
-2
-1
0
1
2
3
4
5
Δx_CPR

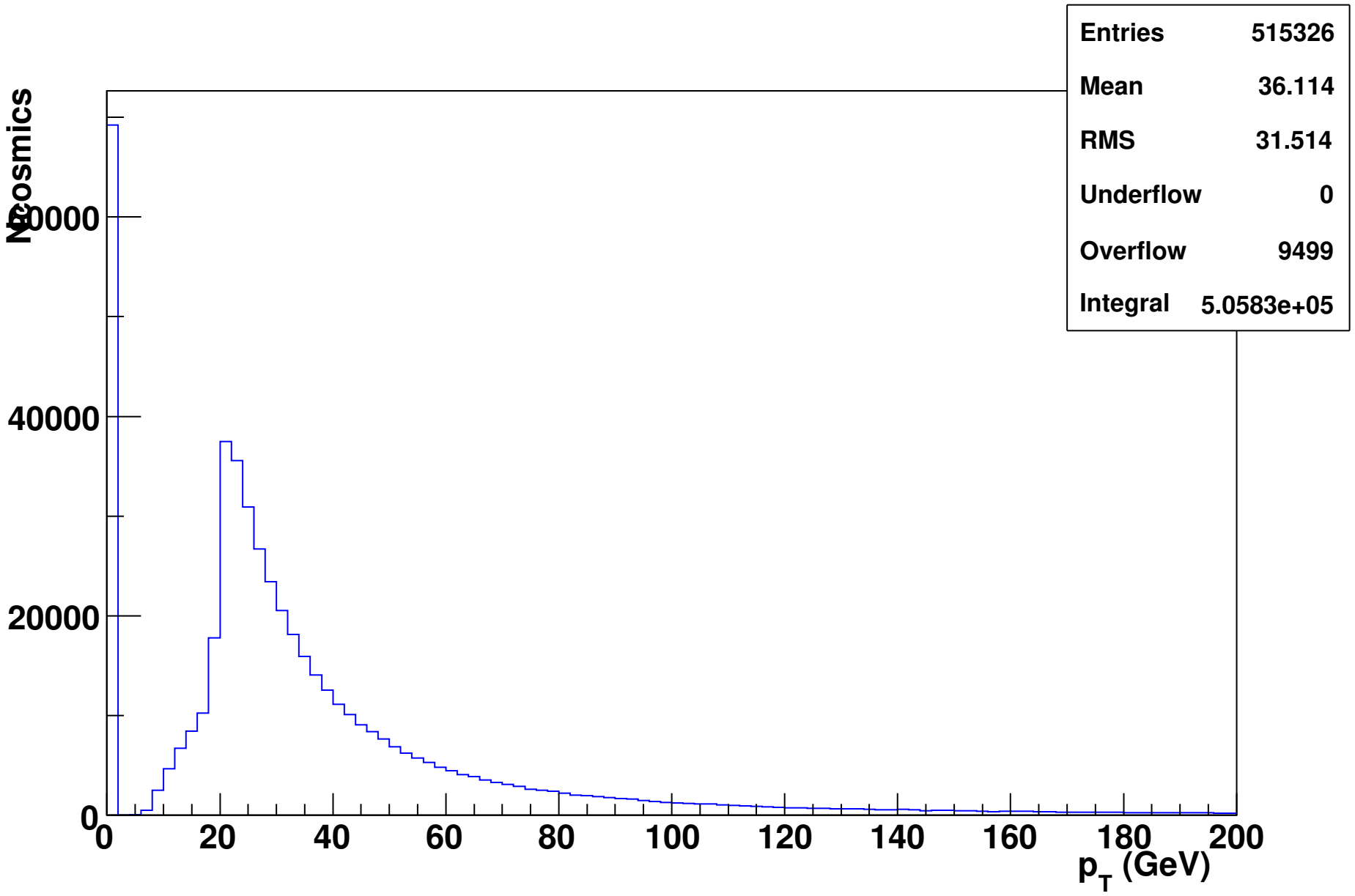

Entries 515326
Mean -0.024518
RMS 1.3868
Underflow 69248
Overflow 19
Integral 4.4606e+05
number of cosmics
20000
10000
0
-6
-4
-2
0
2
4
6
d_0 (cm)

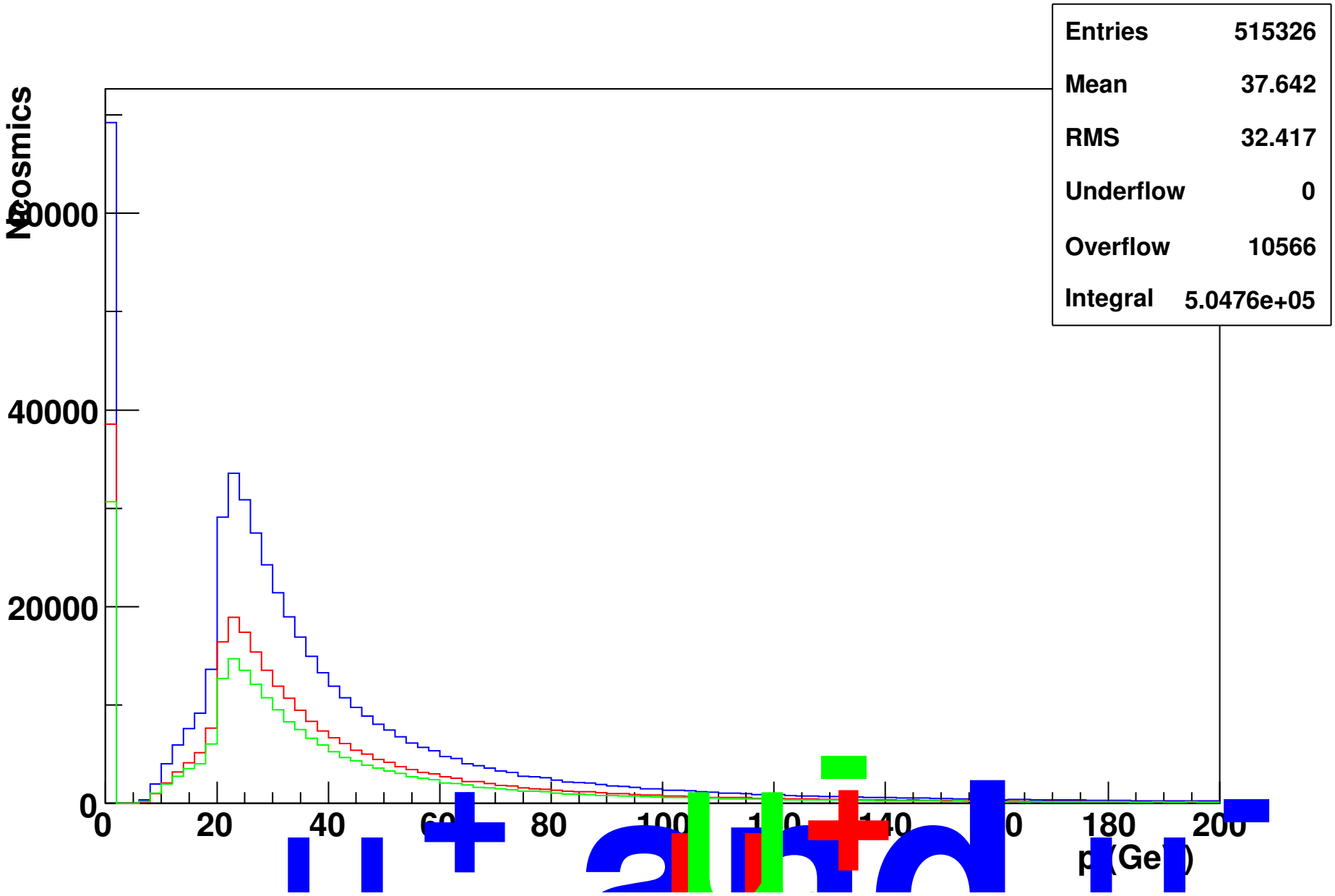

Entries 515326
Mean 1.5304
RMS 9.6574
Underflow 69625
Overflow 189
Integral 4.4551e+05
number of cosmics
30000
20000
10000
0
-30
-20
-10
0
10
20
30
t_0 (ns)


Entries 515326
Mean 0.0011722
RMS 0.32369
Underflow 71141
Overflow 1882
Integral 4.423e+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

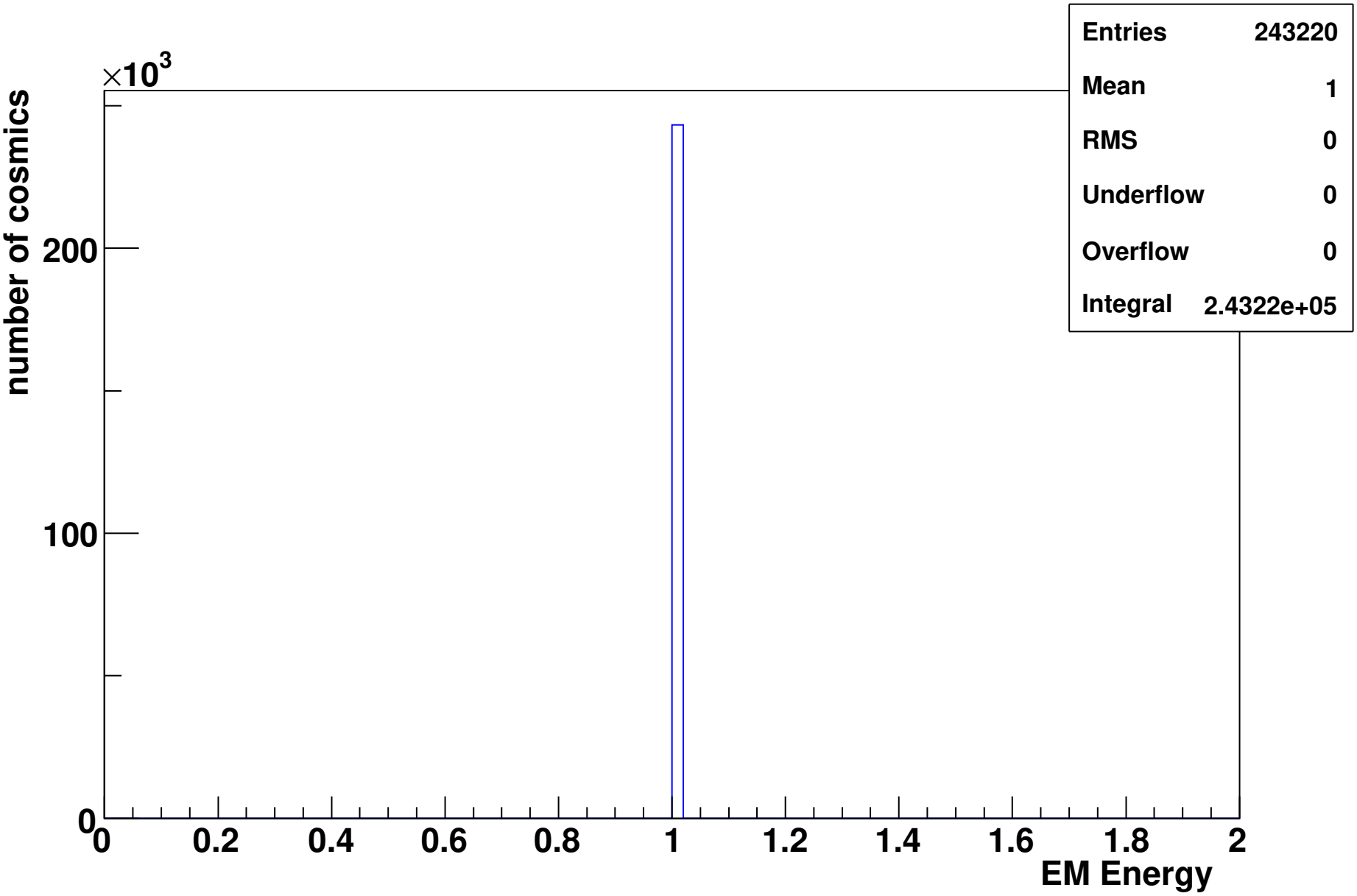

Entries 515326
Mean -1.0884
RMS 74.157
Underflow 69216
Overflow 0
Integral 4.4611e+05
number of cosmics
0
2000
4000
6000
-150
-100
-50
0
50
100
150
z_0 (cm)

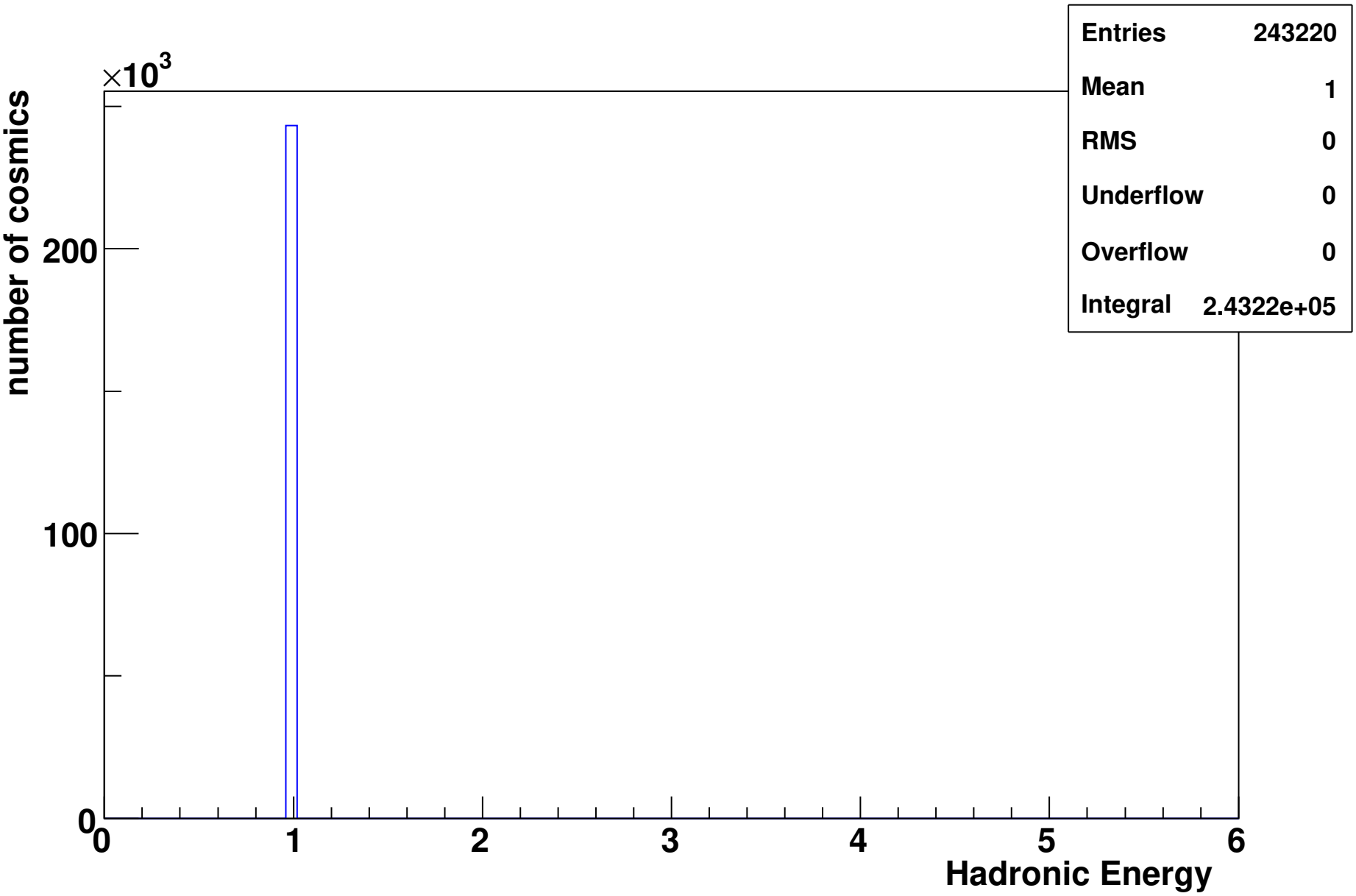

Entries 0
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 0
number of tracks
1
0.5
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

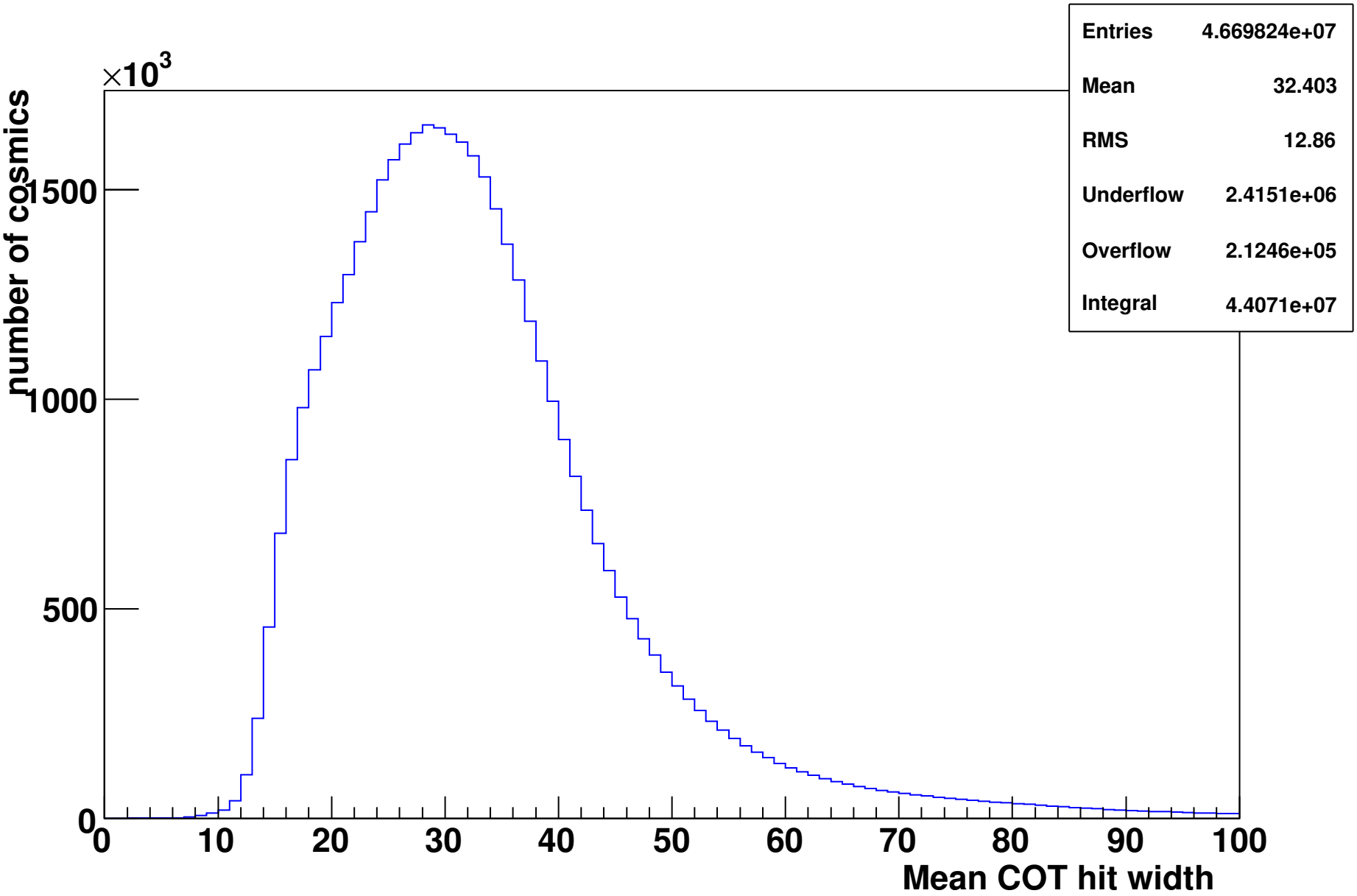

Entries 515326
Mean 36.114
RMS 31.514
Underflow 0
Overflow 9499
Integral 5.0583e+05
N cosmics
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p_T (GeV)

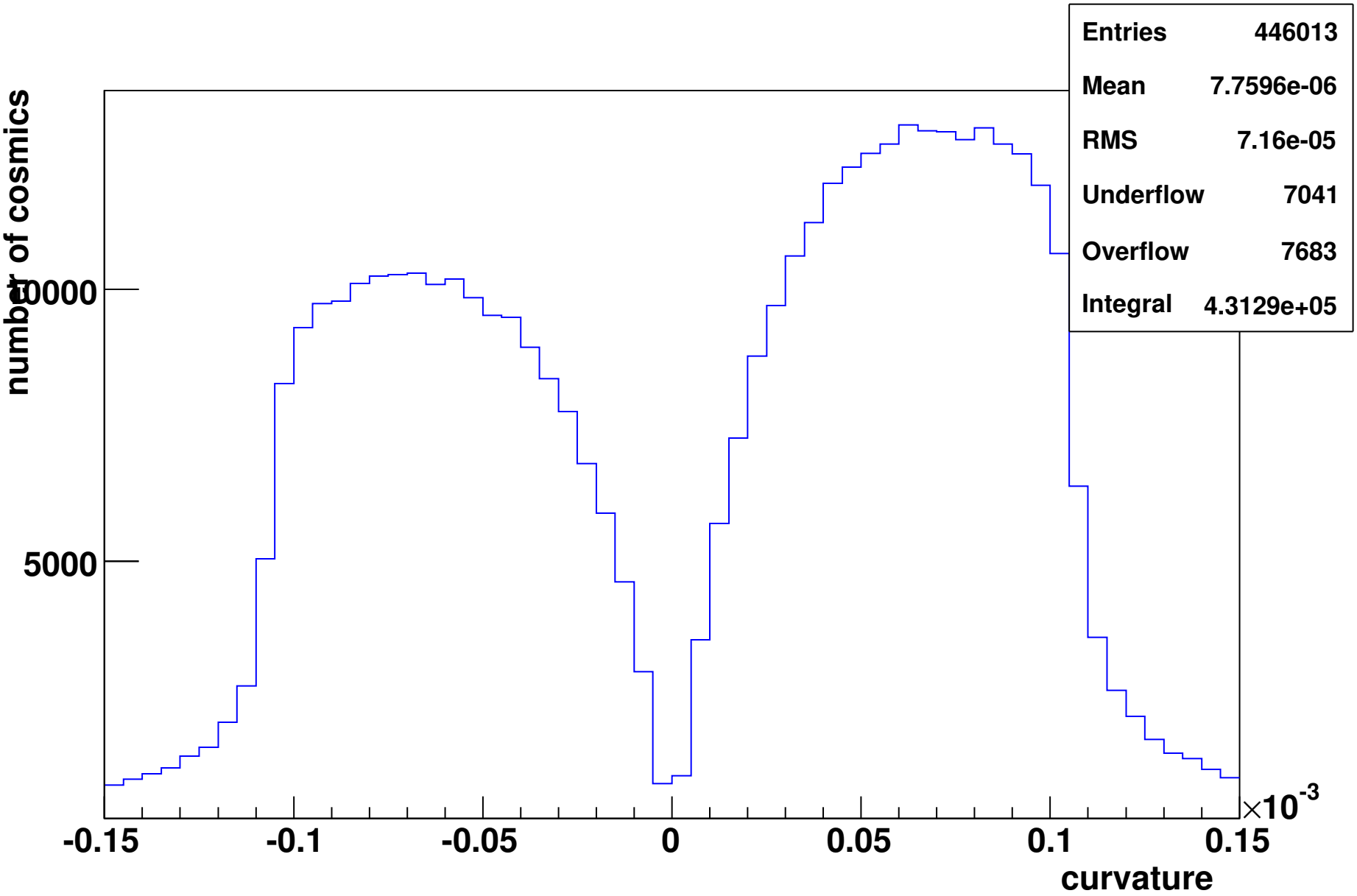


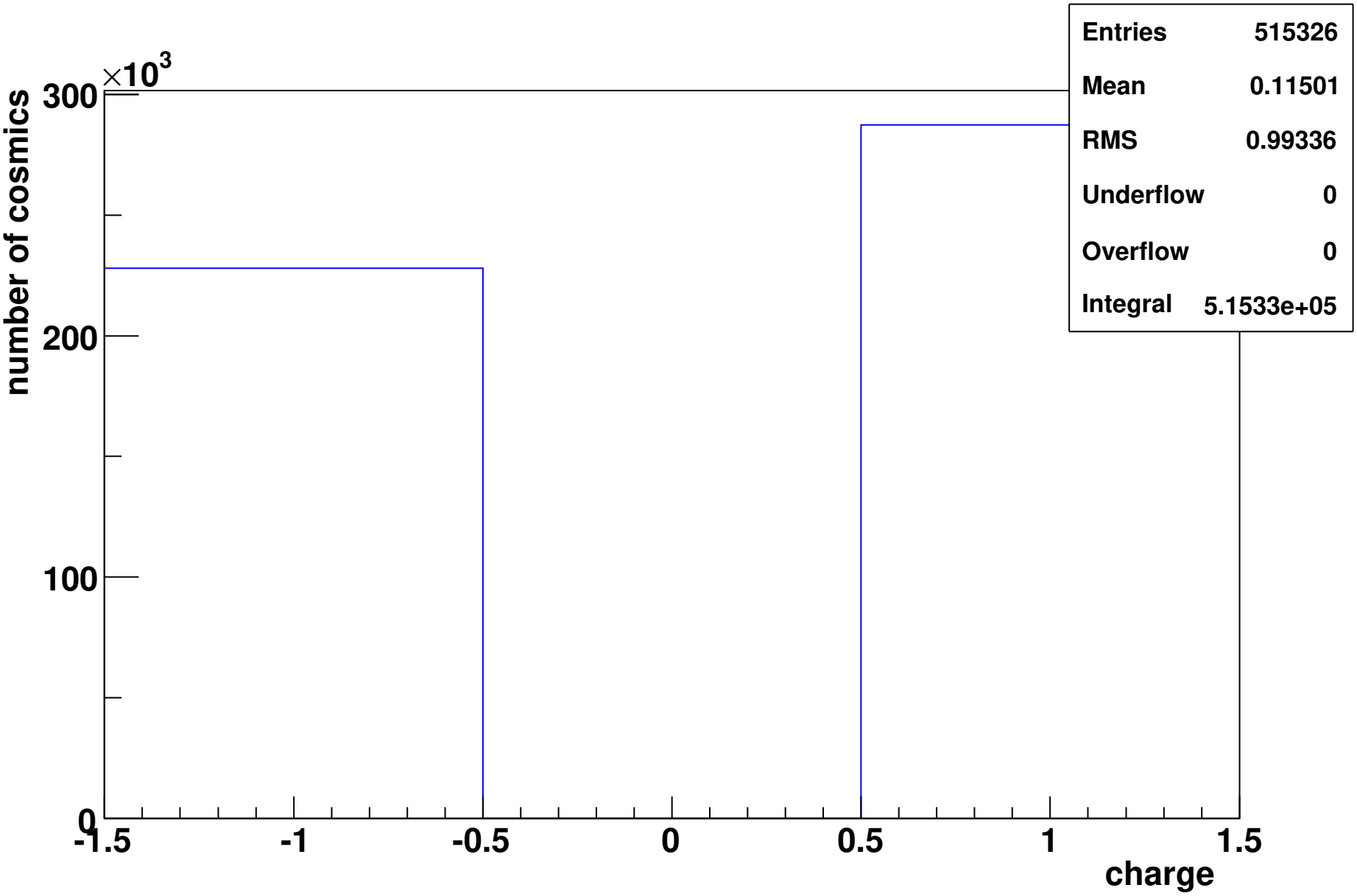
Entries 515326
Mean 37.642
RMS 32.417
Underflow 0
Overflow 10566
Integral 5.0476e+05
Ncosmics
60000
40000
20000
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

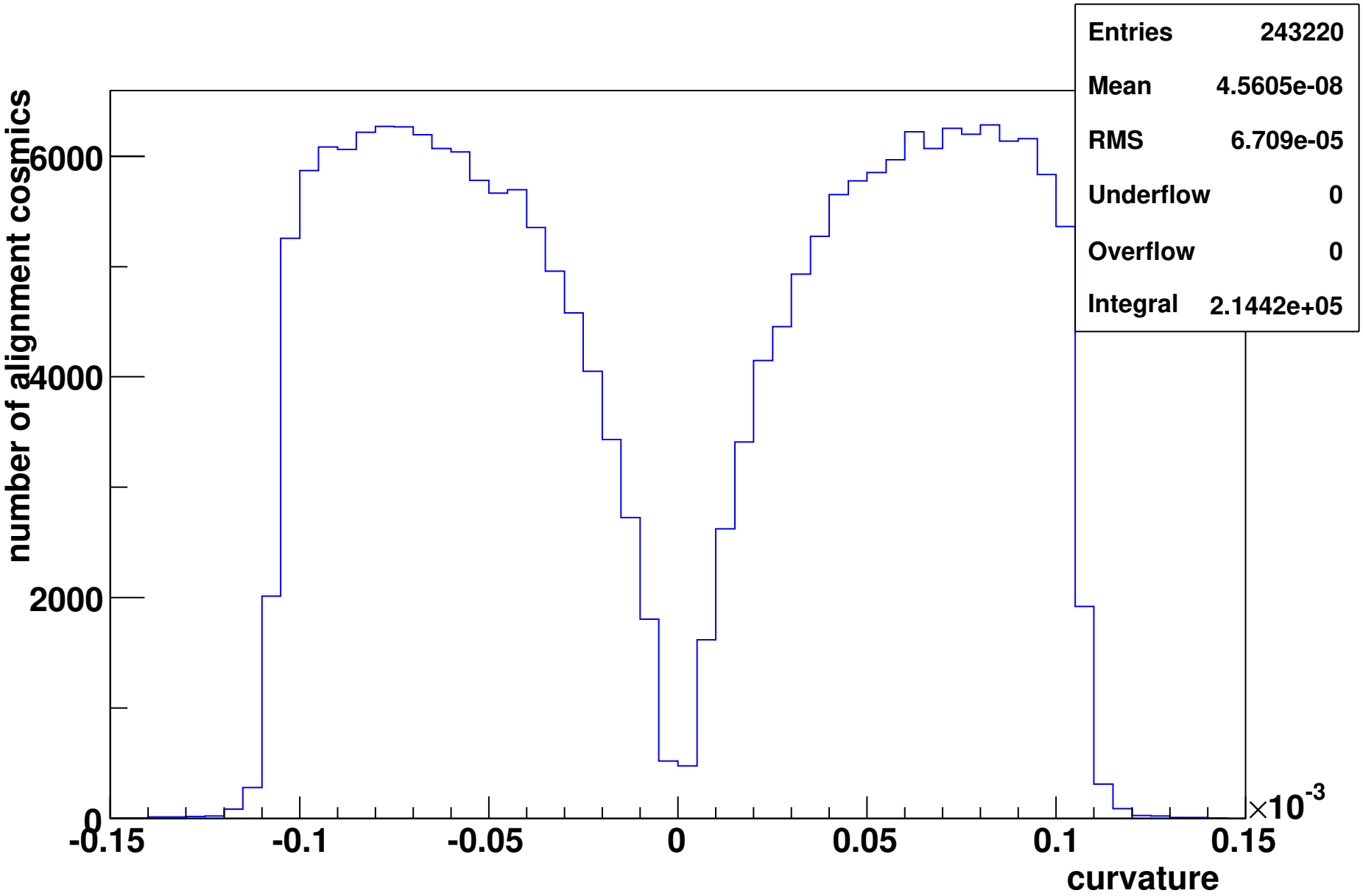

Entries 243220
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 2.4322e+05
×10^3
number of cosmics
200
100
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
EM Energy

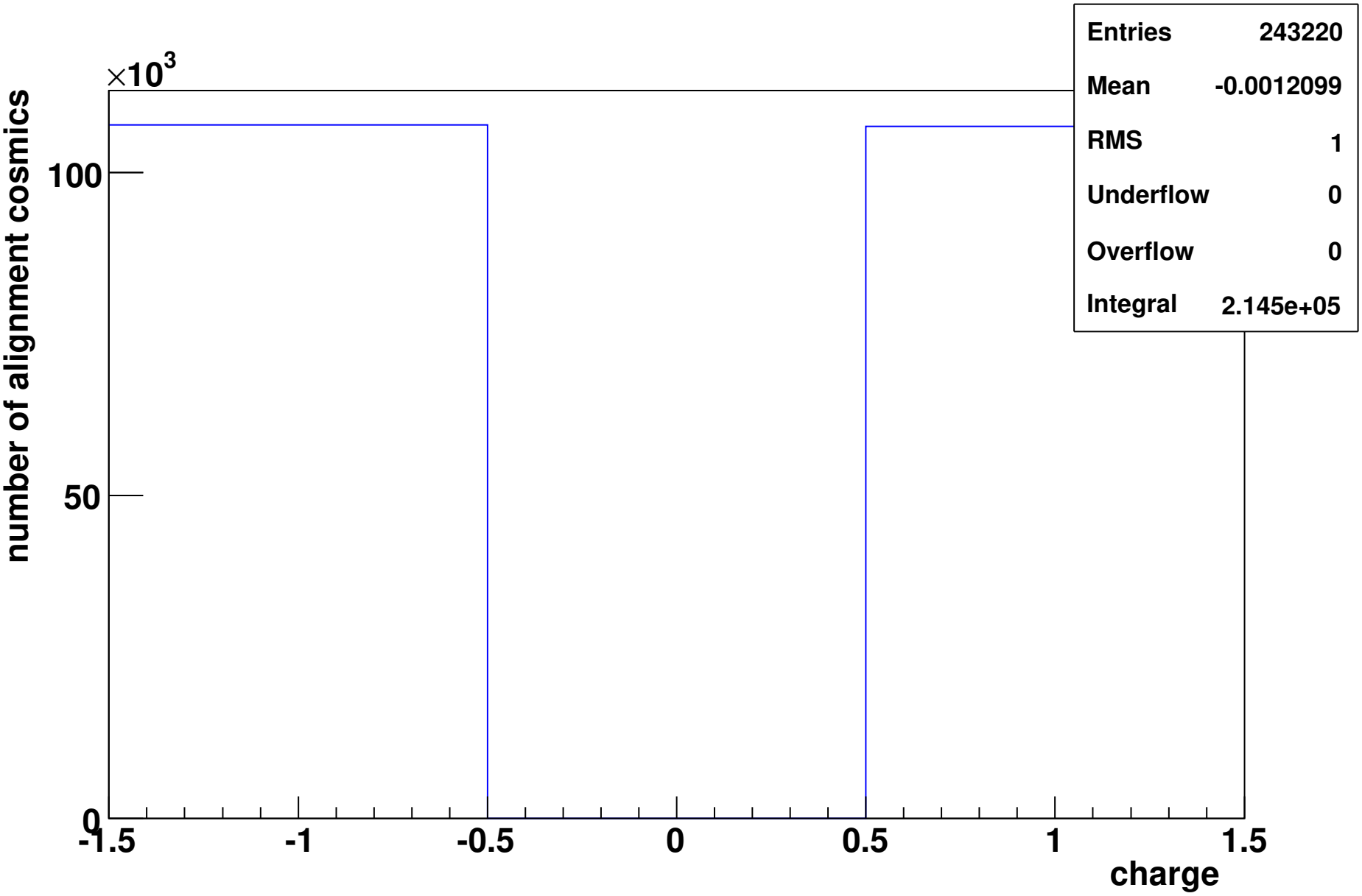

Entries 243220
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 2.4322e+05
×10^3
number of cosmics
200
100
0
0
1
2
3
4
5
6
Hadronic Energy

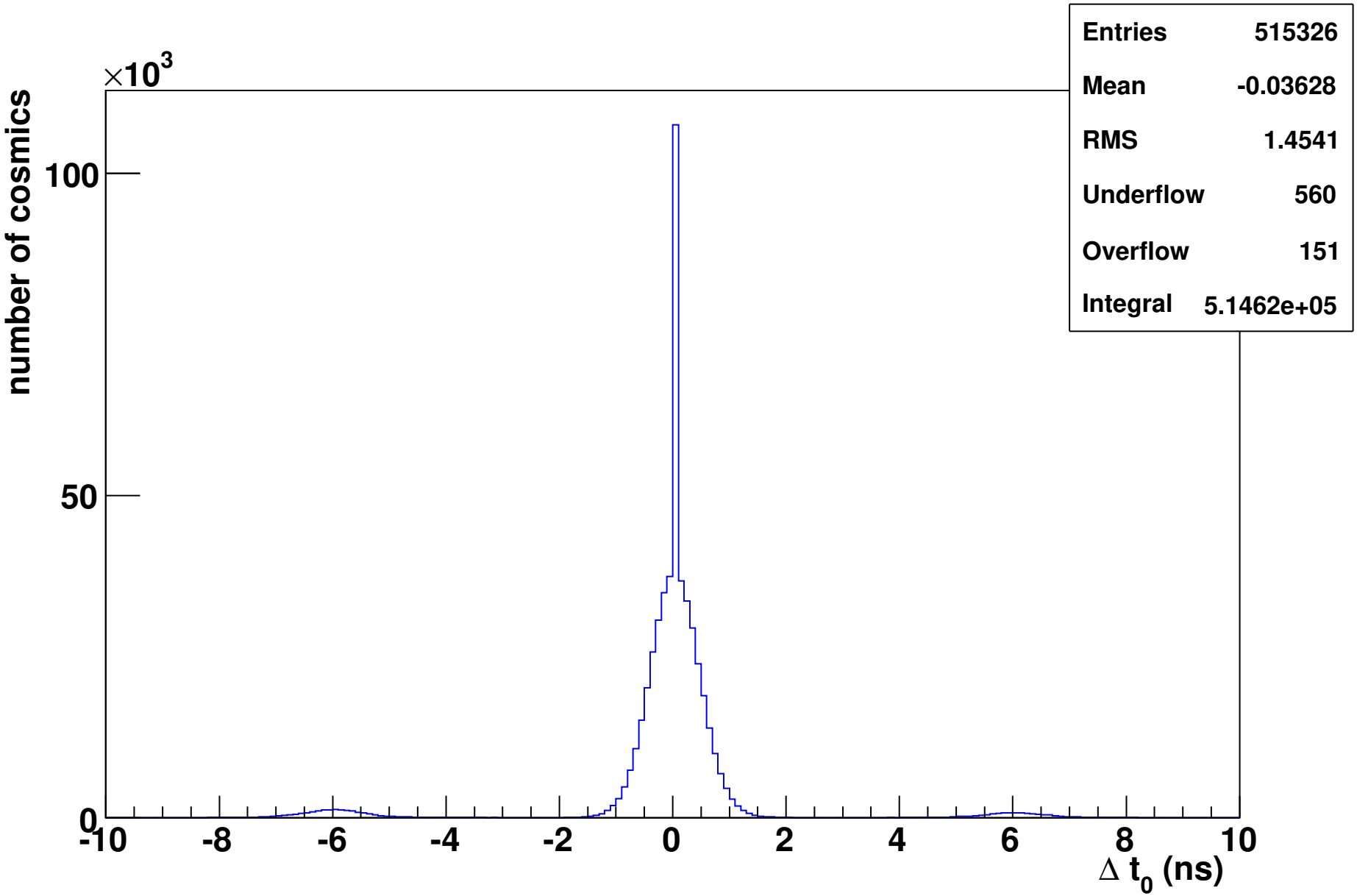

Entries 4.669824e+07
Mean 32.403
RMS 12.86
Underflow 2.4151e+06
Overflow 2.1246e+05
Integral 4.4071e+07
×10^3
number of cosmics
1500
1000
500
0
0
10
20
30
40
50
60
70
80
90
100
Mean COT hit width

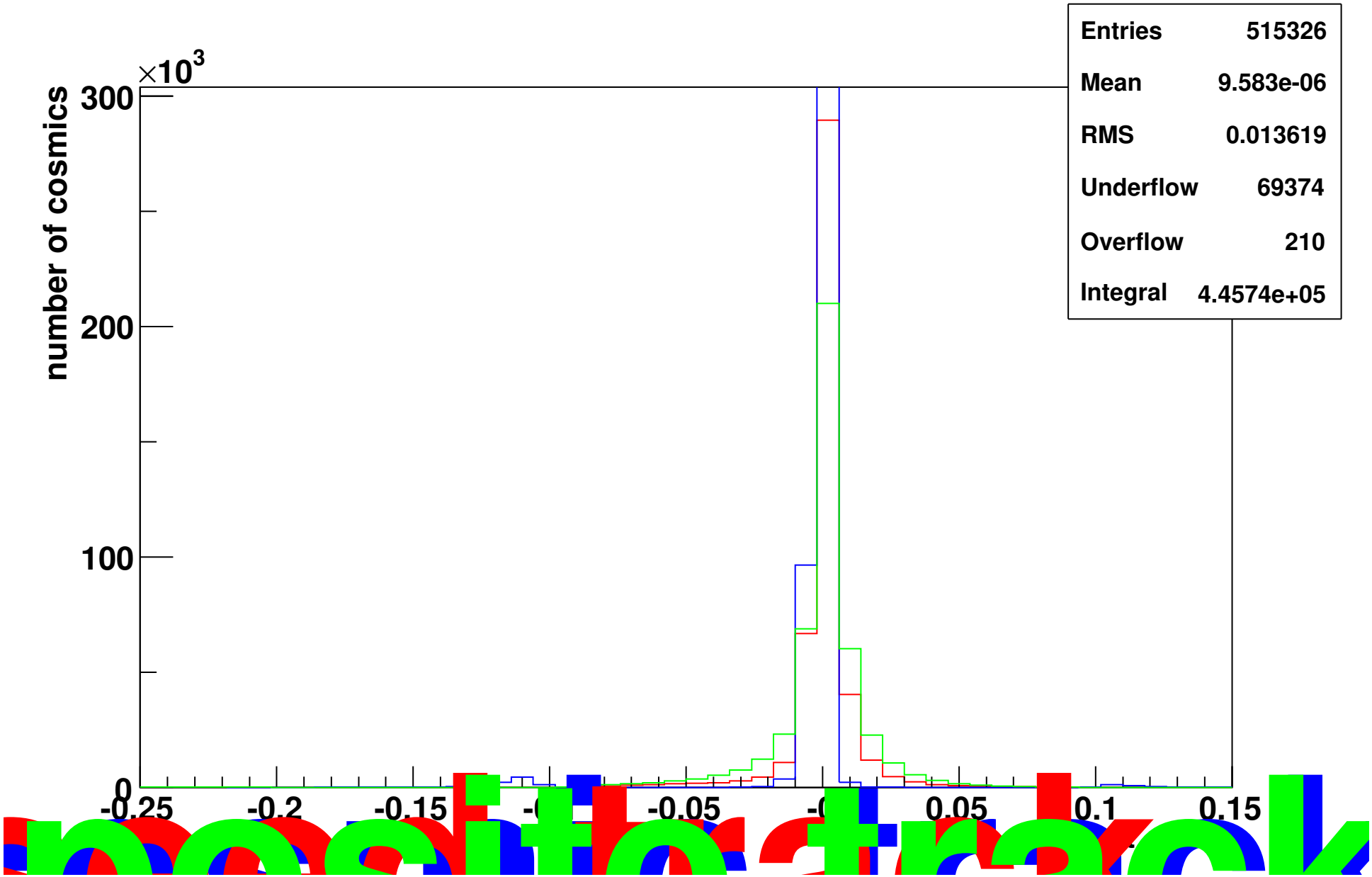

Entries 446013
Mean 7.7596e-06
RMS 7.16e-05
Underflow 7041
Overflow 7683
Integral 4.3129e+05
number of cosmics
10000
5000
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

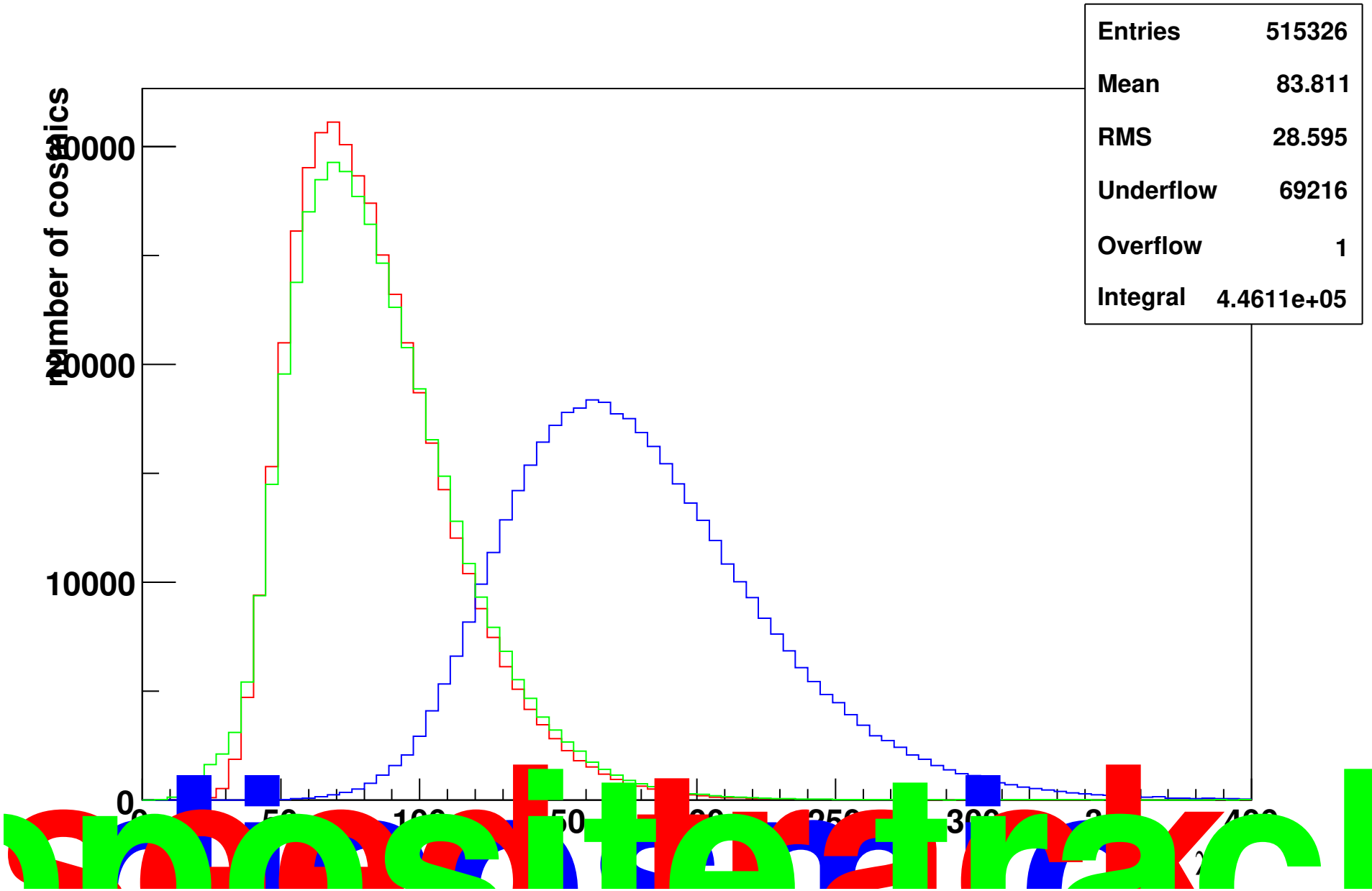

Entries 515326
Mean 0.11501
RMS 0.99336
Underflow 0
Overflow 0
Integral 5.1533e+05
number of cosmics
×10^3
300
200
100
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge

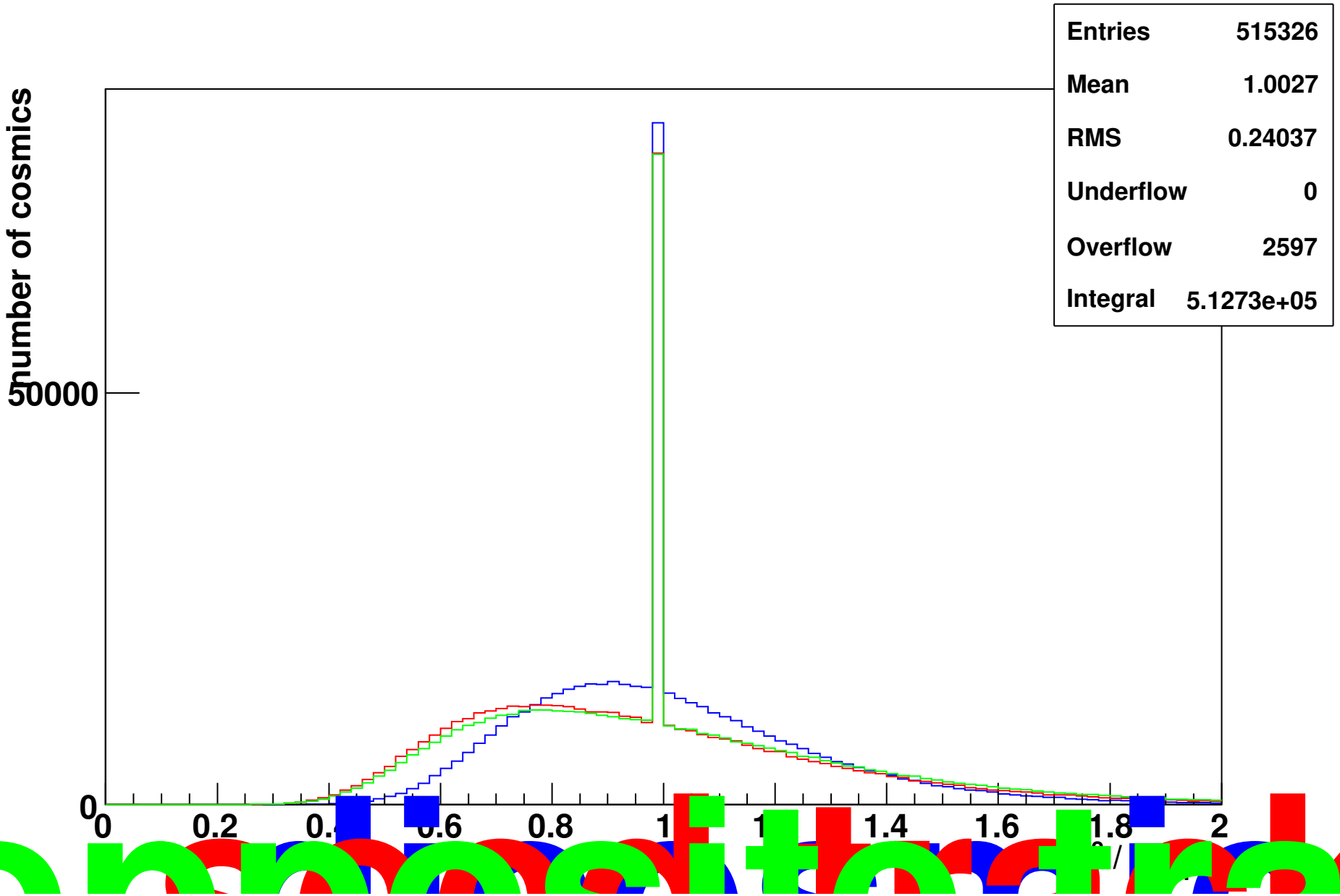

Entries 243220
Mean 4.5605e-08
RMS 6.709e-05
Underflow 0
Overflow 0
Integral 2.1442e+05
number of alignment cosmics
6000
4000
2000
0
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

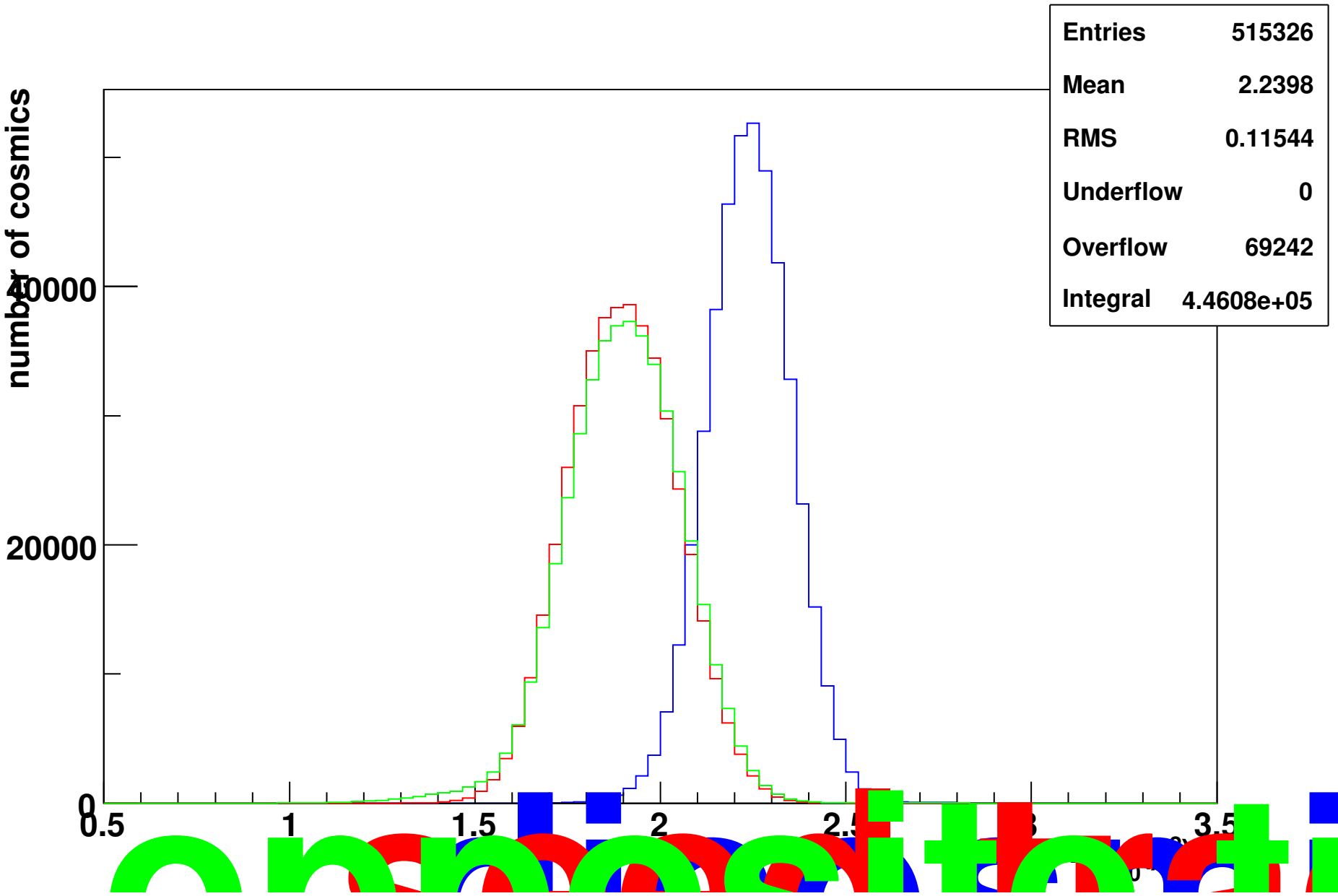

Entries 243220
Mean -0.0012099
RMS 1
Underflow 0
Overflow 0
Integral 2.145e+05
×10^3
number of alignment cosmics
100
50
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 515326
Mean -0.03628
RMS 1.4541
Underflow 560
Overflow 151
Integral 5.1462e+05
number of cosmics
×10^3
100
50
0
-10
-8
-6
-4
-2
0
2
4
6
8
10
Δ t0 (ns)


Entries 515326
Mean 9.583e-06
RMS 0.013619
Underflow 69374
Overflow 210
Integral 4.4574e+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 515326
Mean 83.811
RMS 28.595
Underflow 69216
Overflow 1
Integral 4.4611e+05
number of cosmics
20000
10000
0


Entries 515326
Mean 1.0027
RMS 0.24037
Underflow 0
Overflow 2597
Integral 5.1273e+05
number of cosmics
50000
0
0
0.2
0.6
0.8
1.4
1.6
1.8
2


Entries 515326
Mean 2.2398
RMS 0.11544
Underflow 0
Overflow 69242
Integral 4.4608e+05
number of cosmics
40000
20000
0
0.5
1
1.5
2
2.5
3.5

cosmic

cosmic

pair

pair

Entries 515326

number of ditracks

10^5

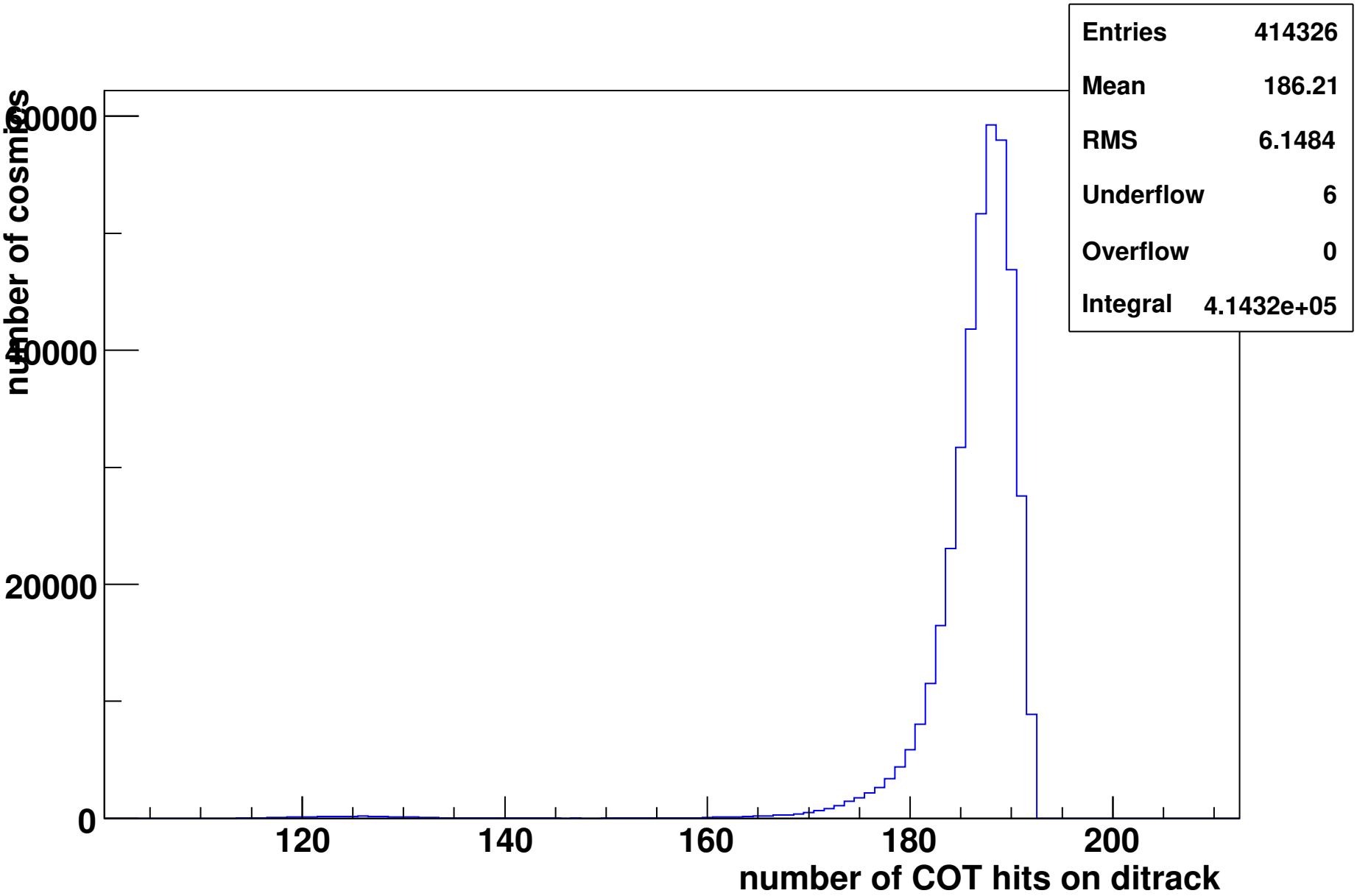
10^4

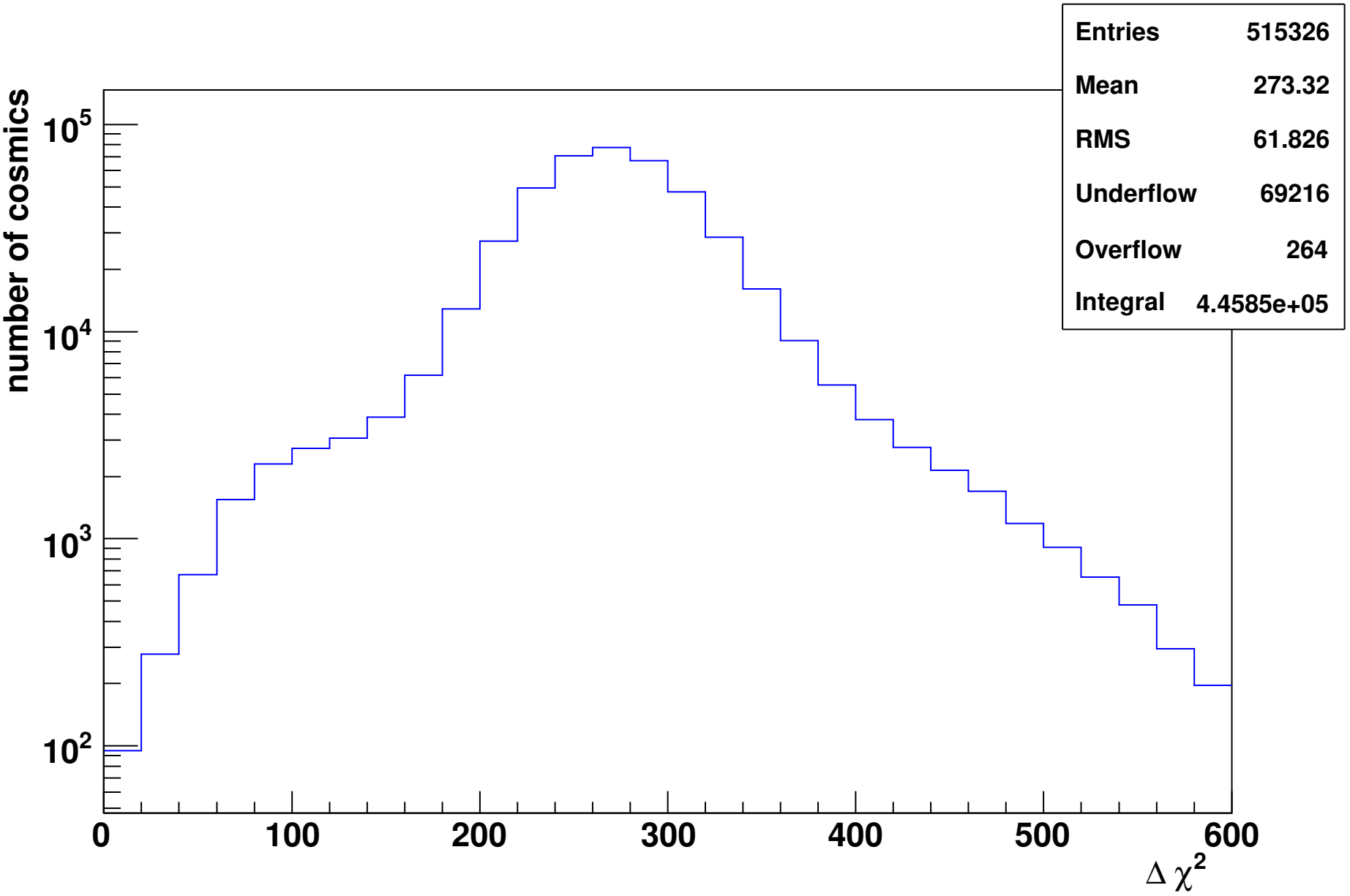
10^3

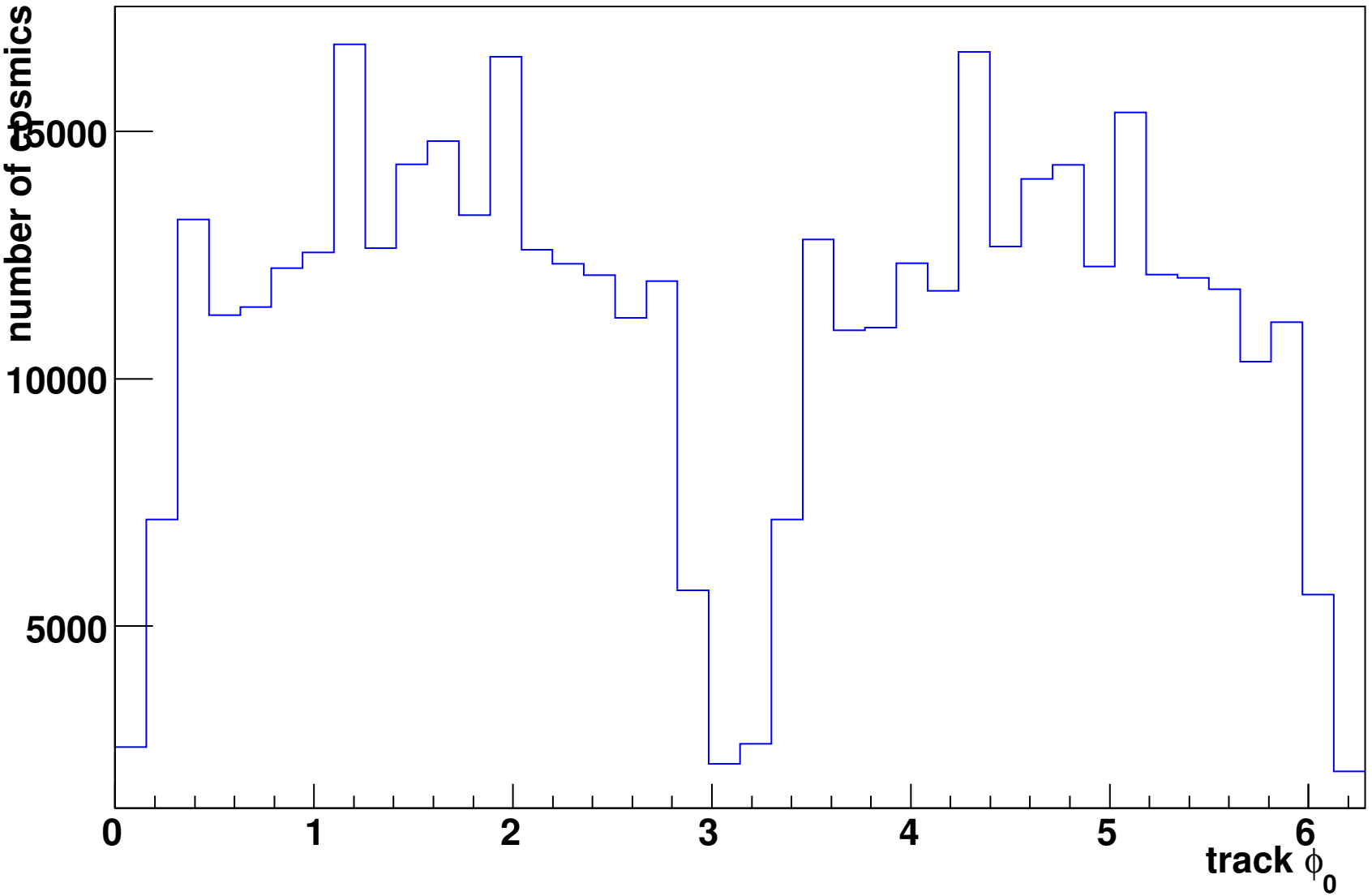
10^2

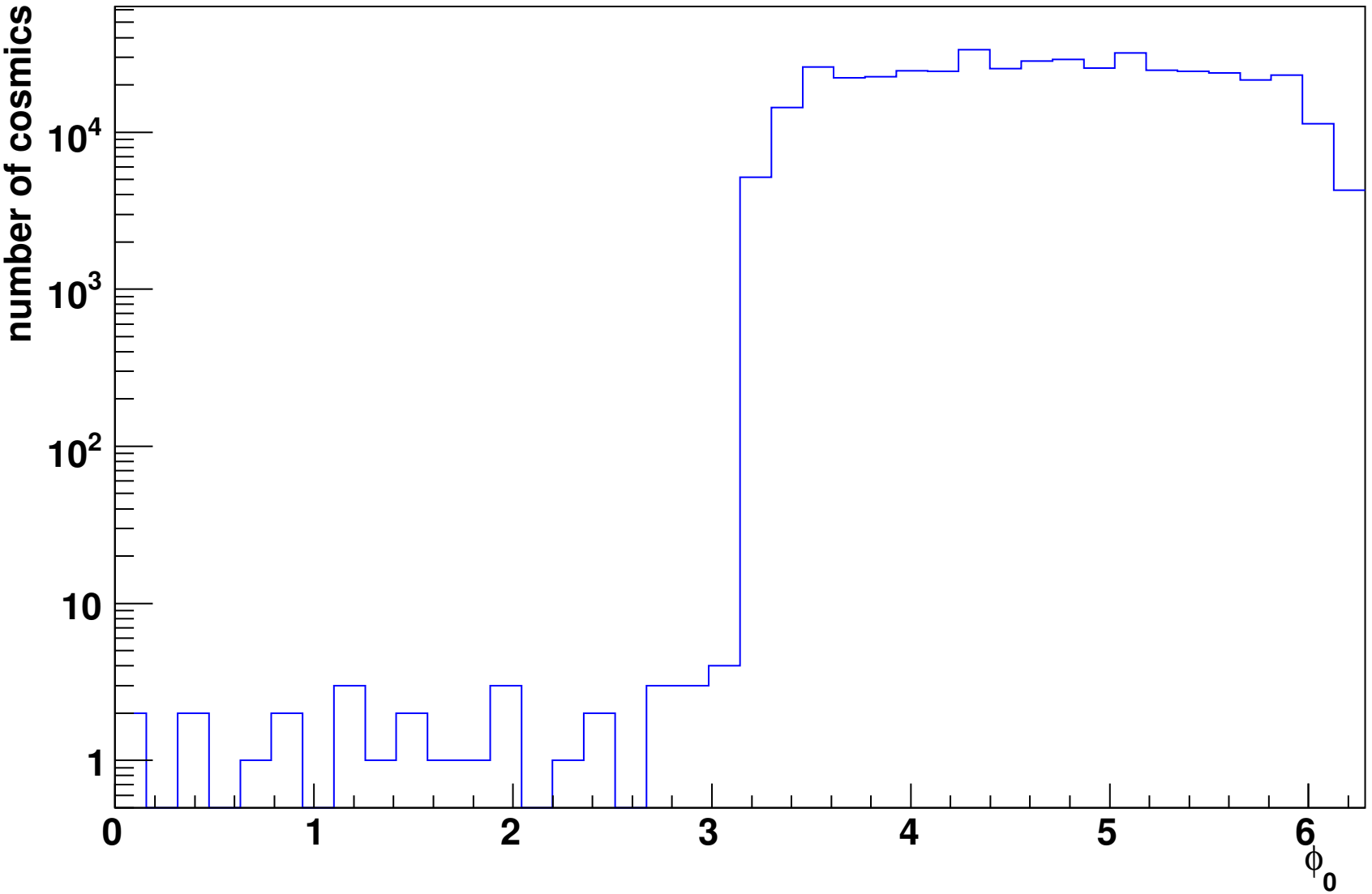
-0.5 0 0.5 1 1.5 2 2.5 3 3.5 4 4.5

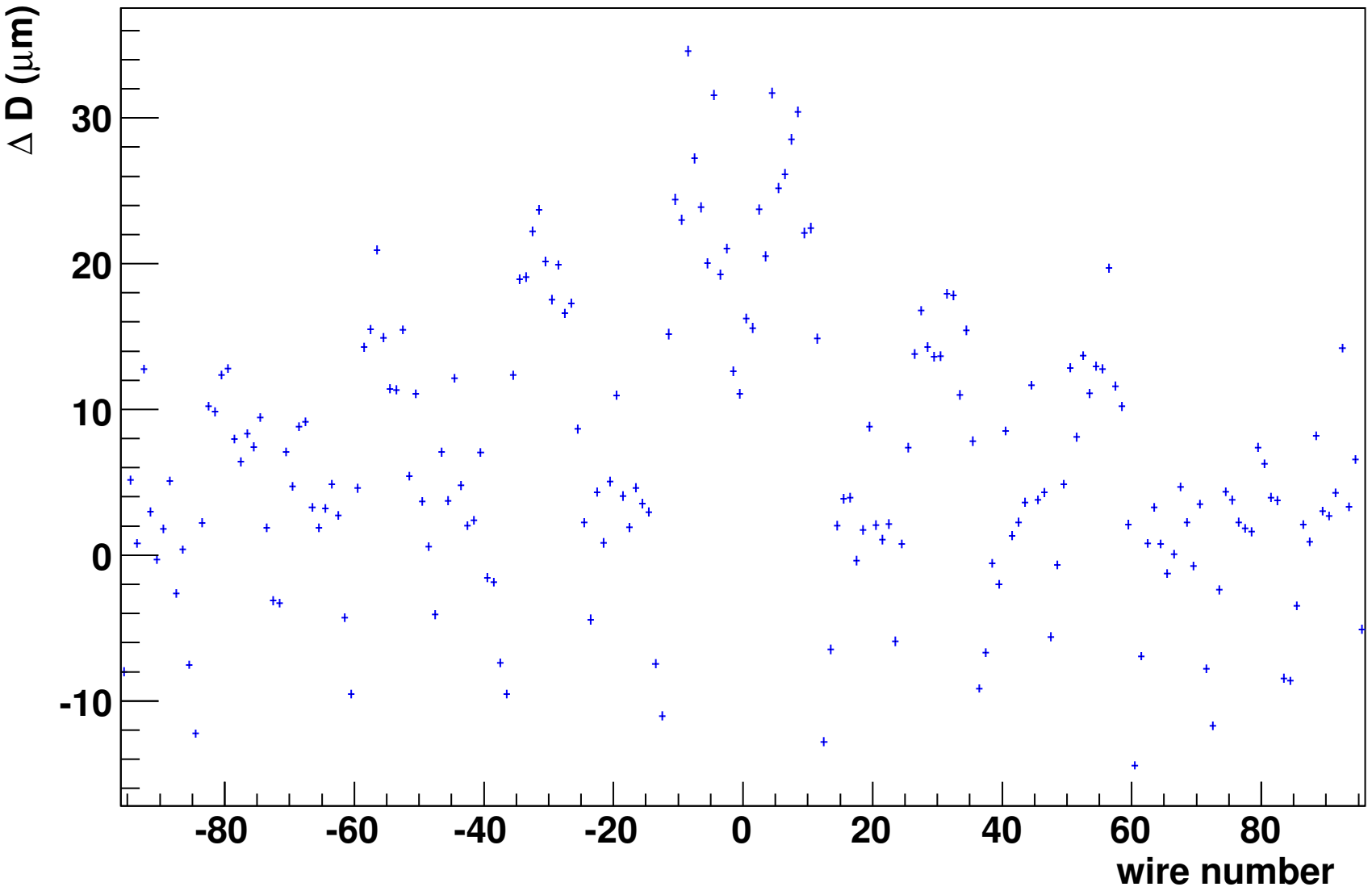
ditrack type

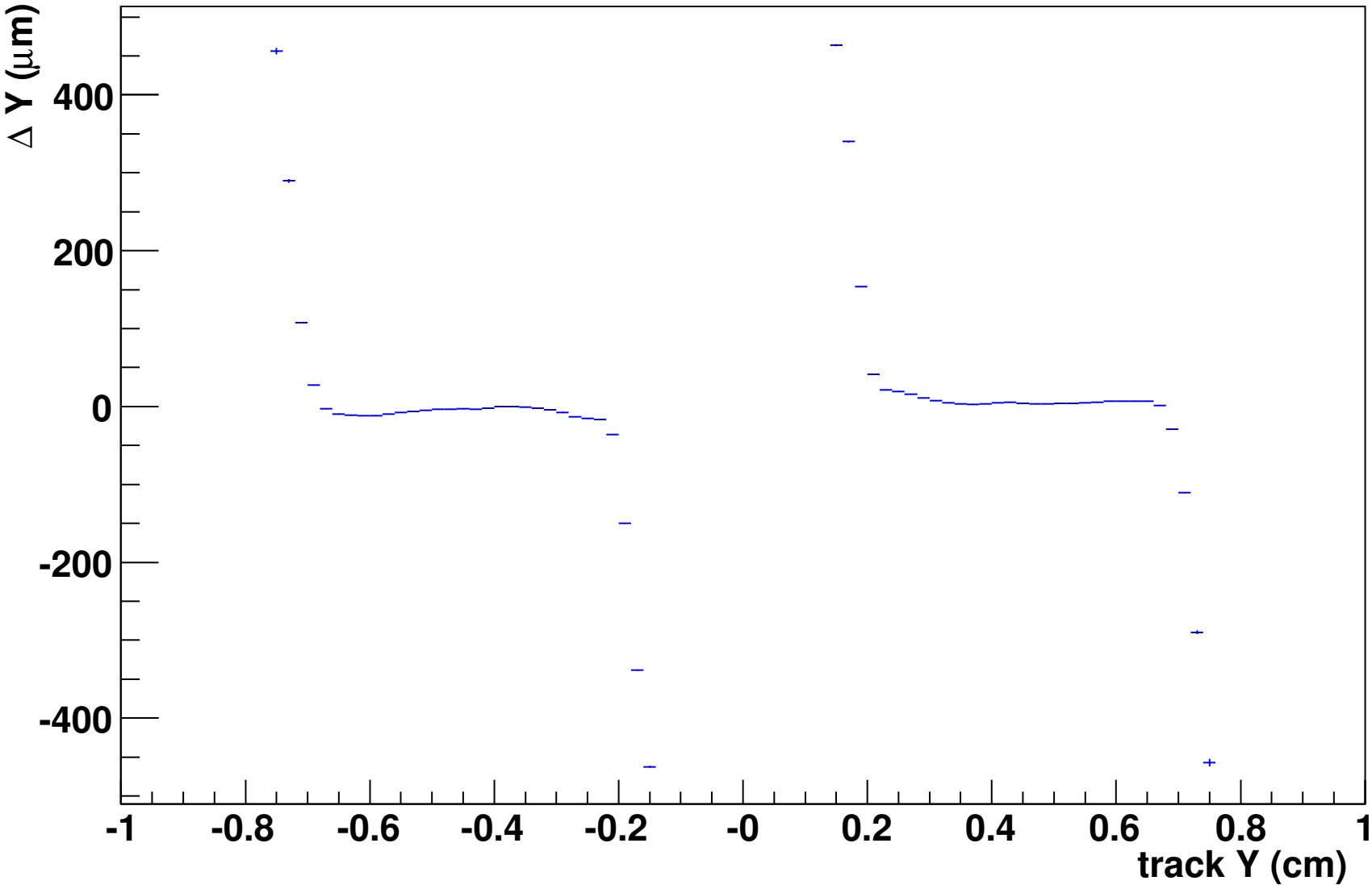

Entries 414326
Mean 186.21
RMS 6.1484
Underflow 6
Overflow 0
Integral 4.1432e+05
number of cosmics
40000
20000
0
120
140
160
180
200
number of COT hits on ditrack

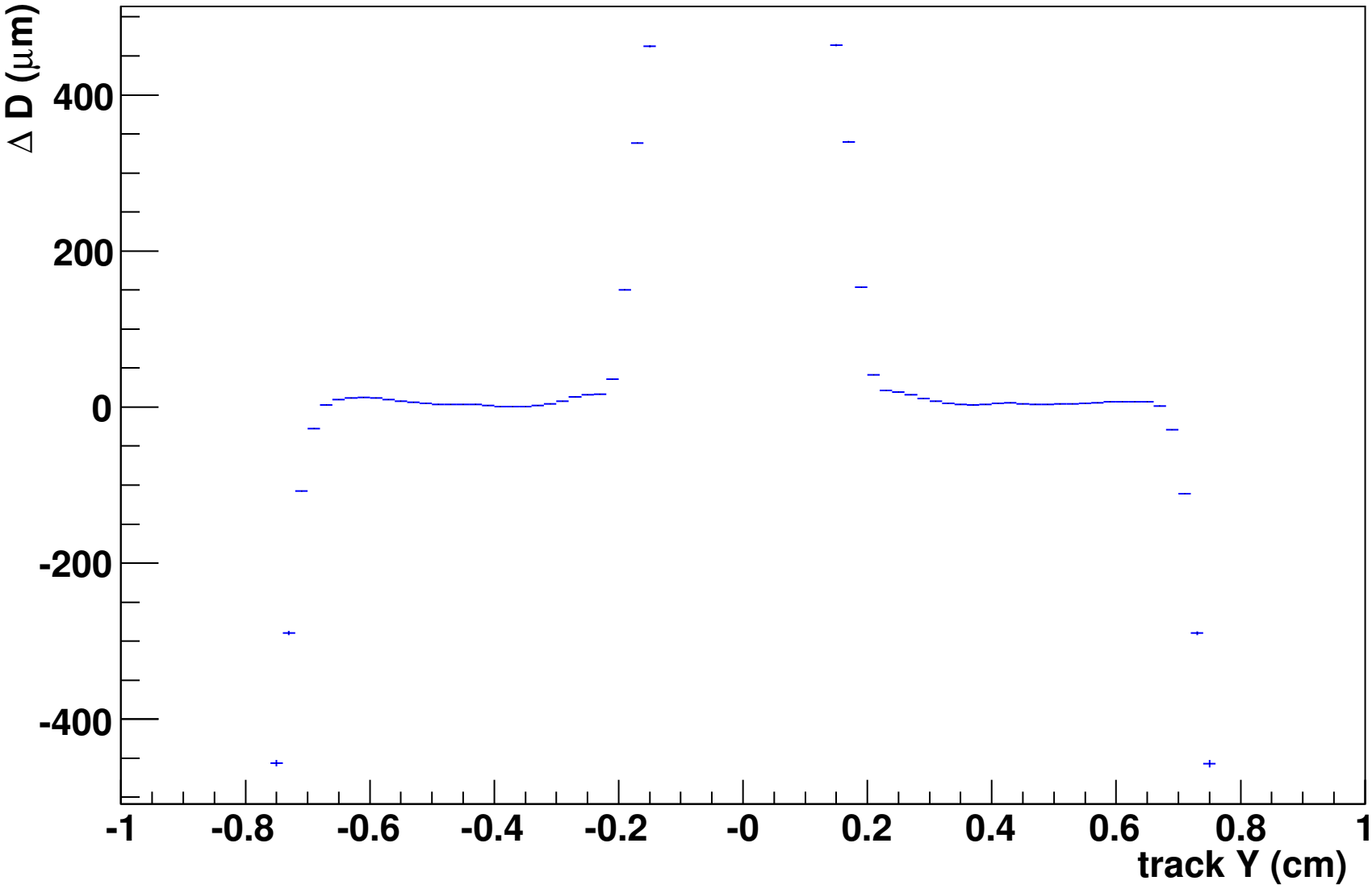

Entries 515326
Mean 273.32
RMS 61.826
Underflow 69216
Overflow 264
Integral 4.4585e+05
number of cosmics
10^5
10^4
10^3
10^2
0
100
200
300
400
500
600
$\Delta\ \chi^2$

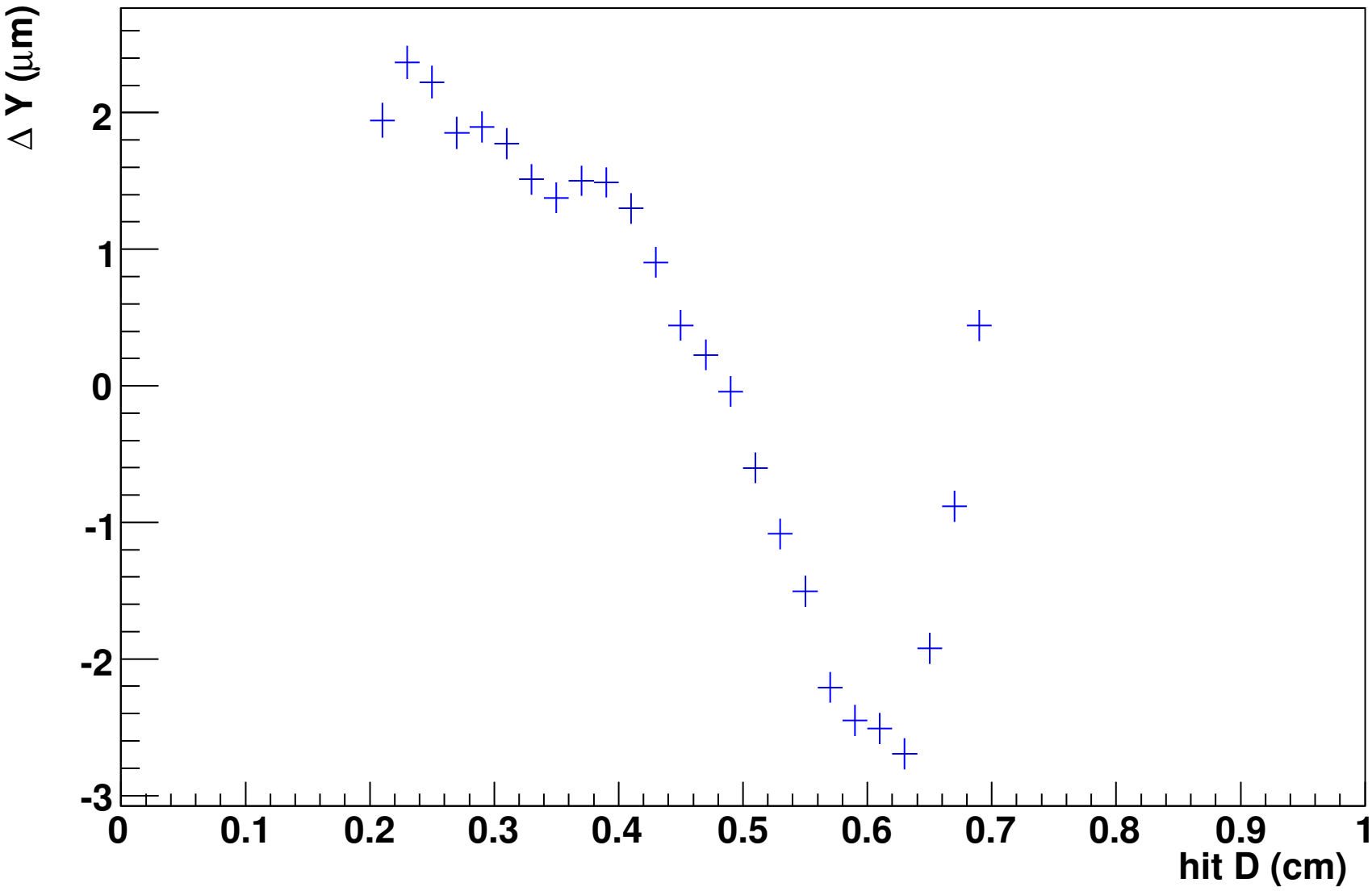

number of cosmics
15000
10000
5000
0
1
2
3
4
5
6
track ϕ_0

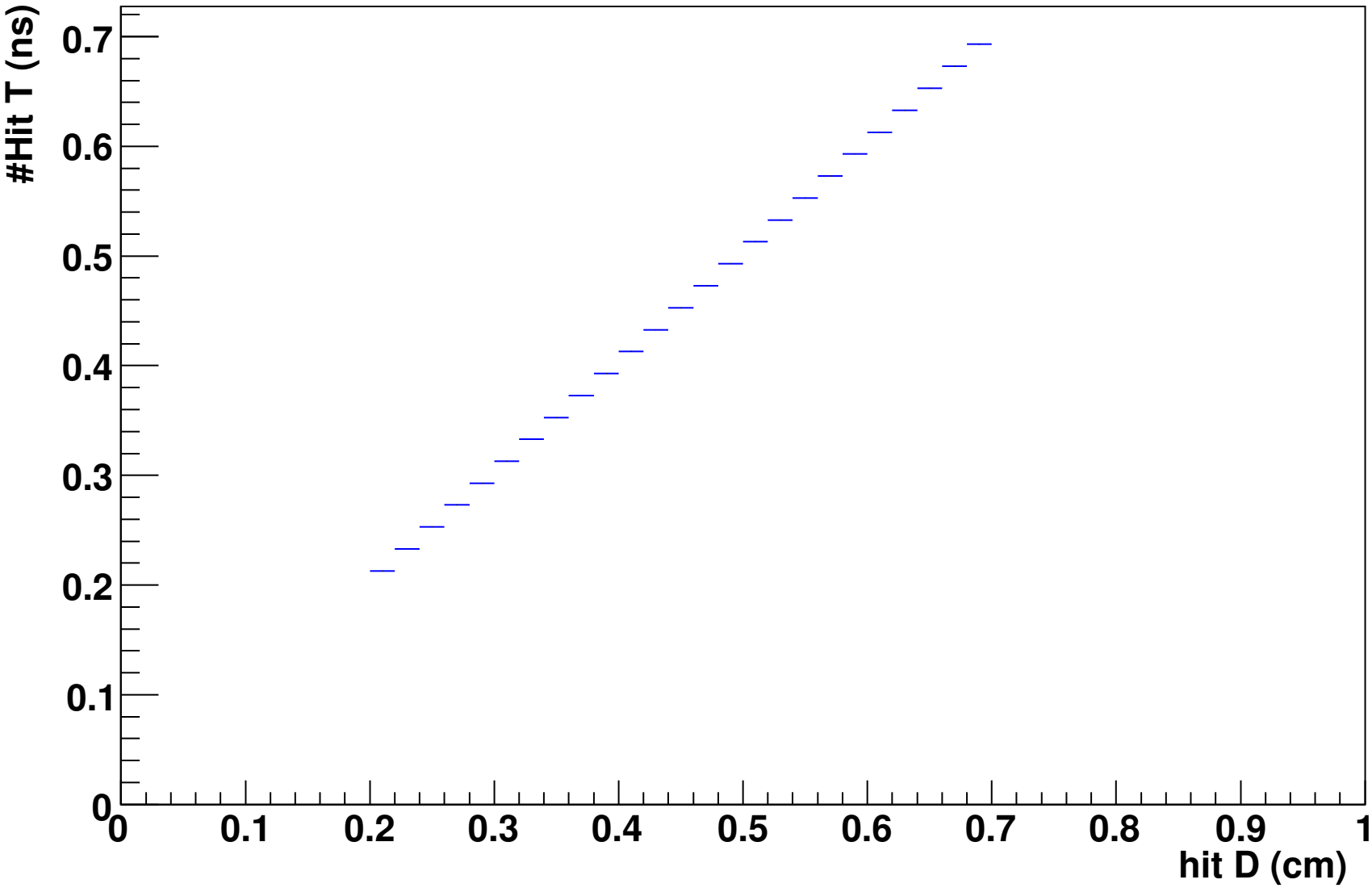

number of cosmics
10^4
10^3
10^2
10
1
0
1
2
3
4
5
6
ϕ_0

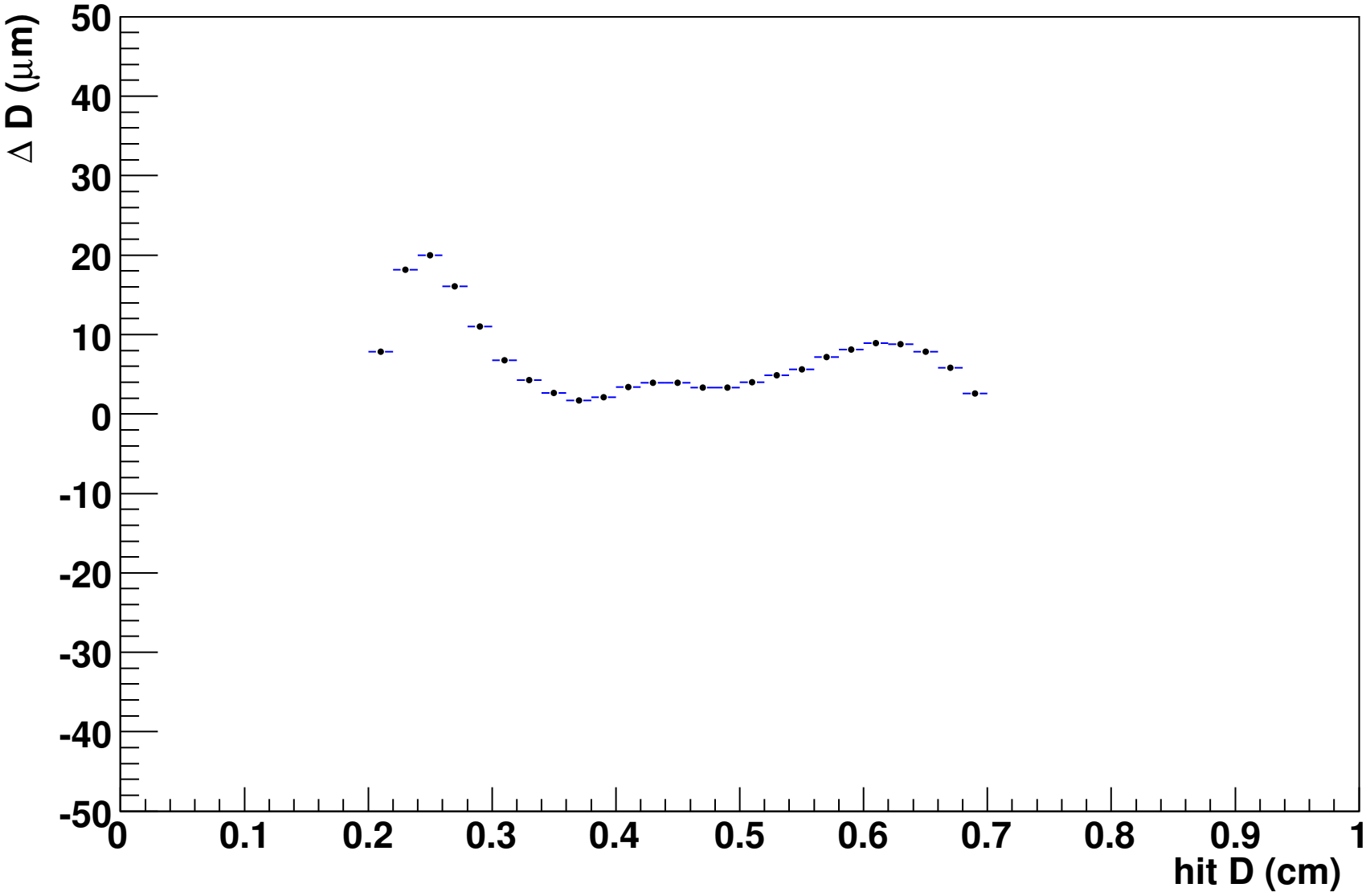

Δ D (μm)
30
20
10
0
-10
-80
-60
-40
-20
0
20
40
60
80
wire number

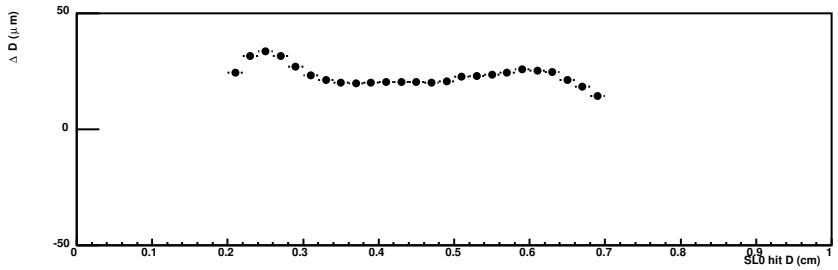

Δ Y (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

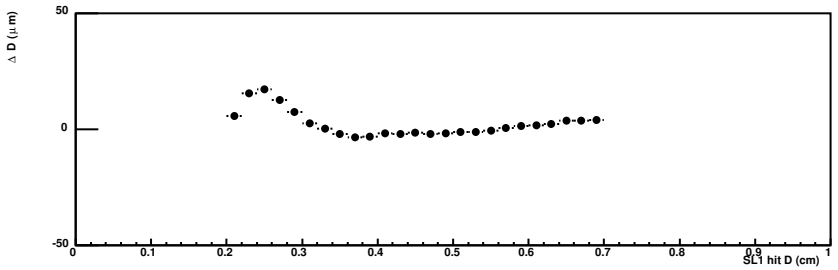

Δ D (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

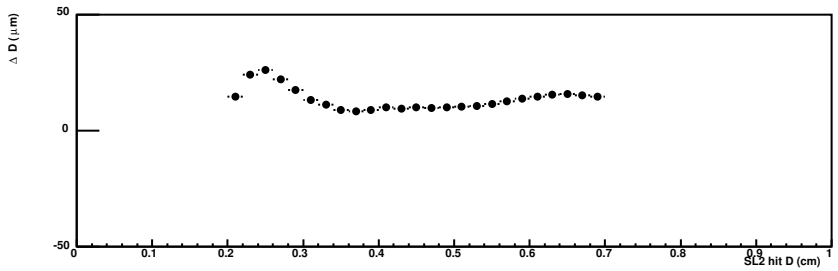

Δ Y (μm)
2
1
0
-1
-2
-3
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

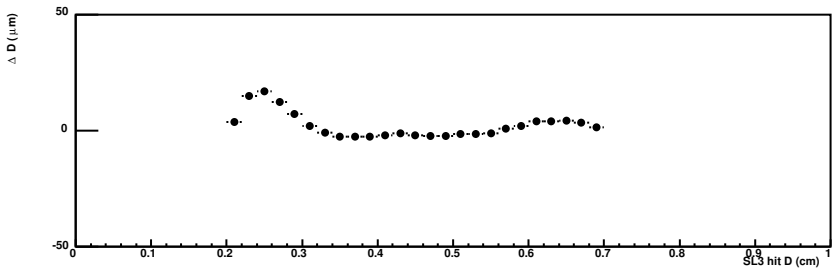

#Hit T (ns)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

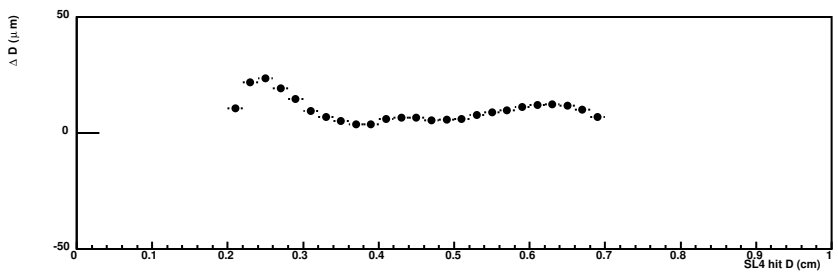

Δ D (μm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

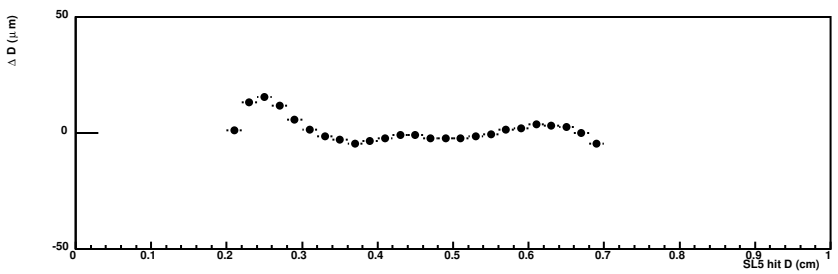

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL0 hit D (cm)

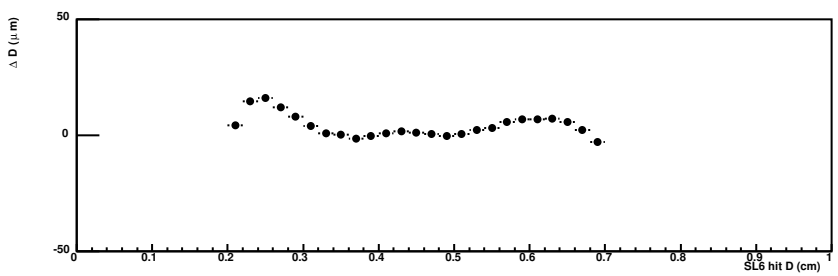

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL1 hit D (cm)

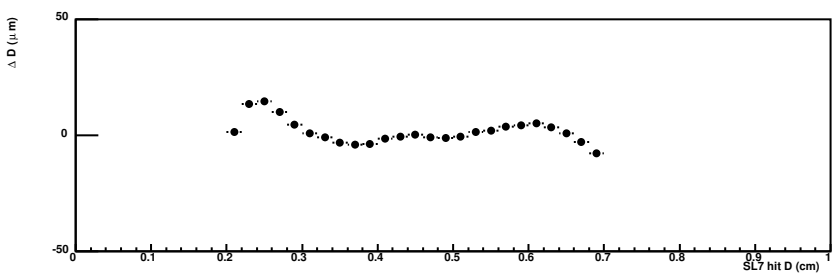

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL2 hit D (cm)

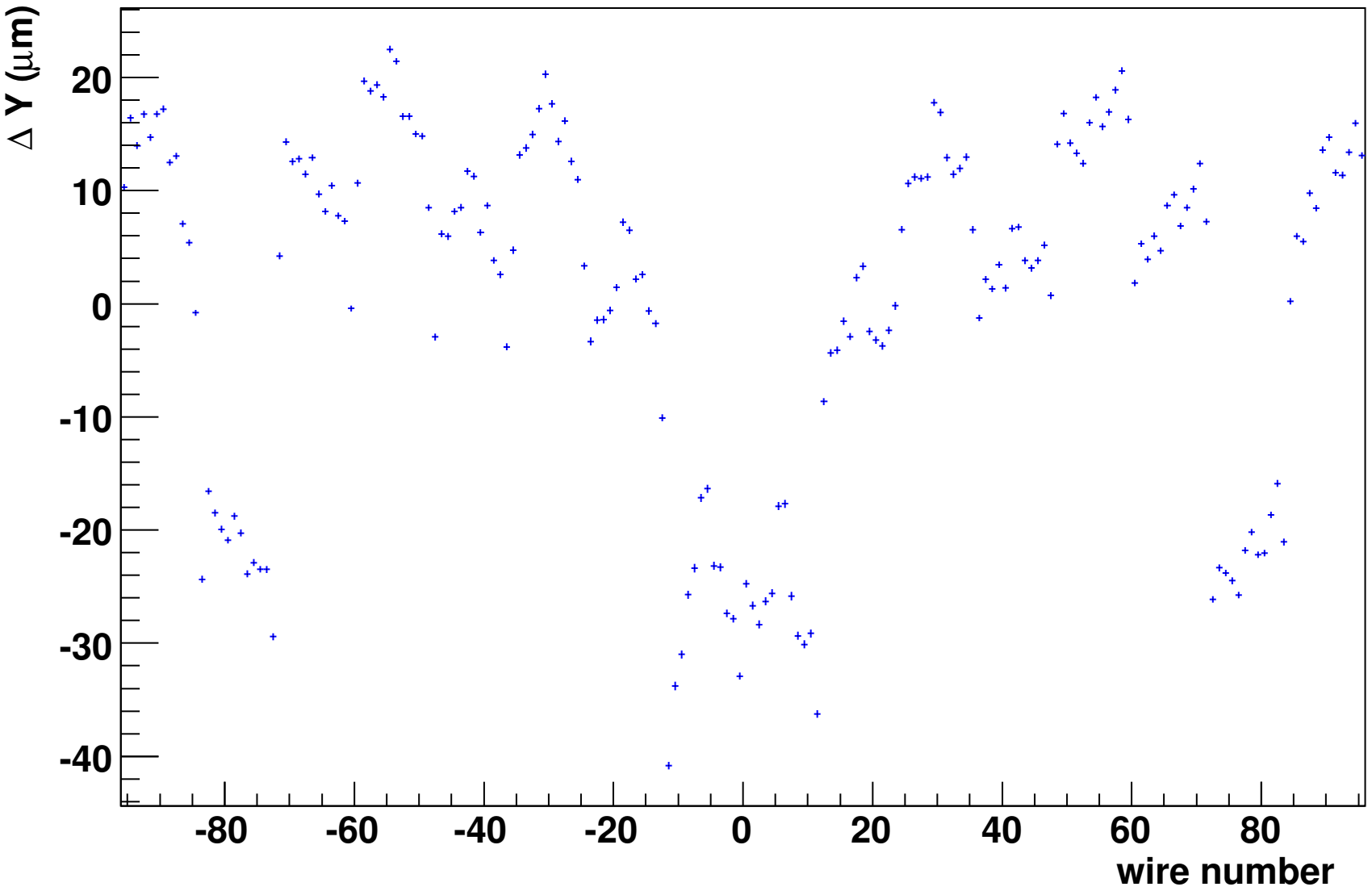

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL3 hit D (cm)

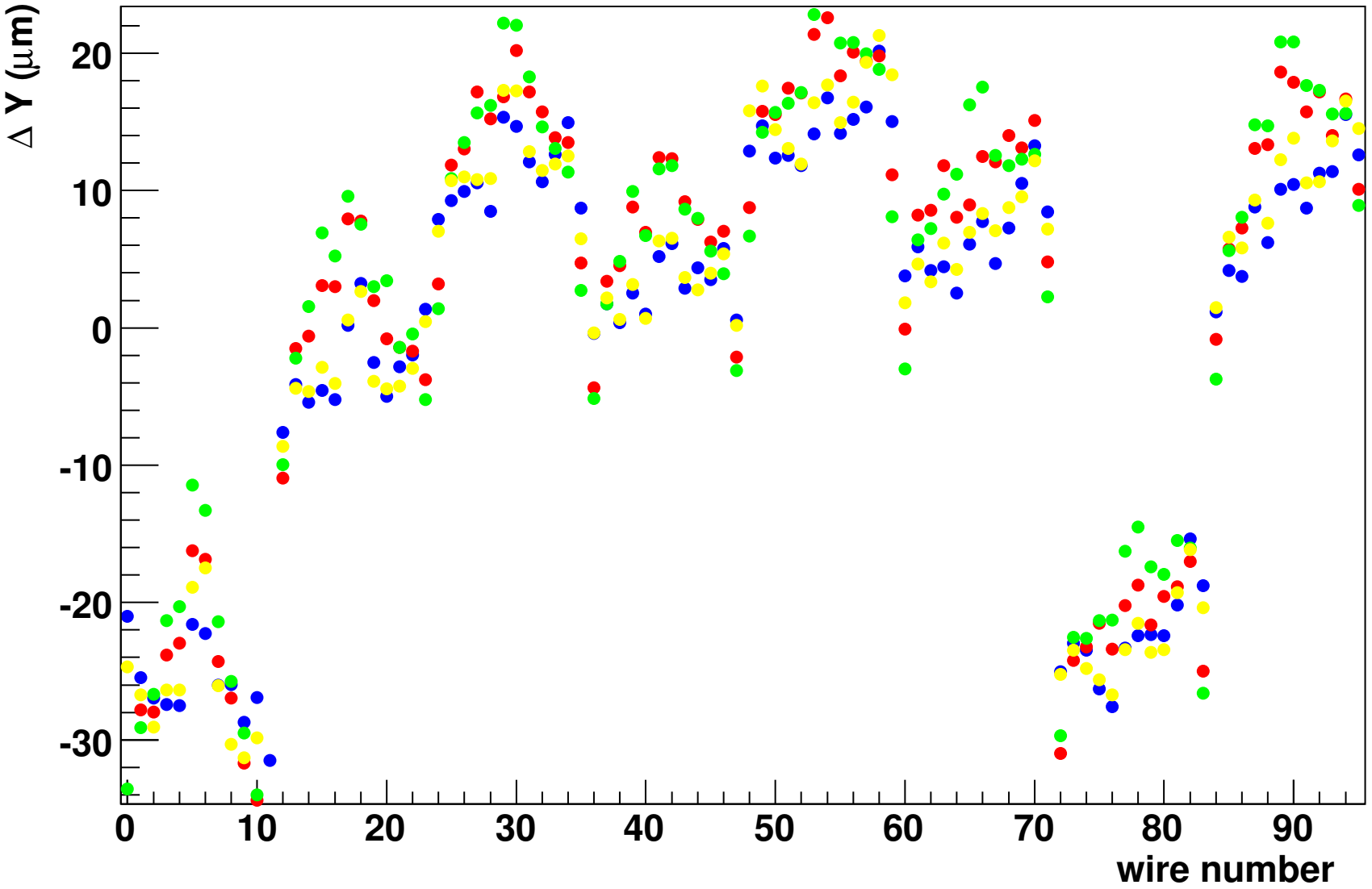

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL4 hit D (cm)

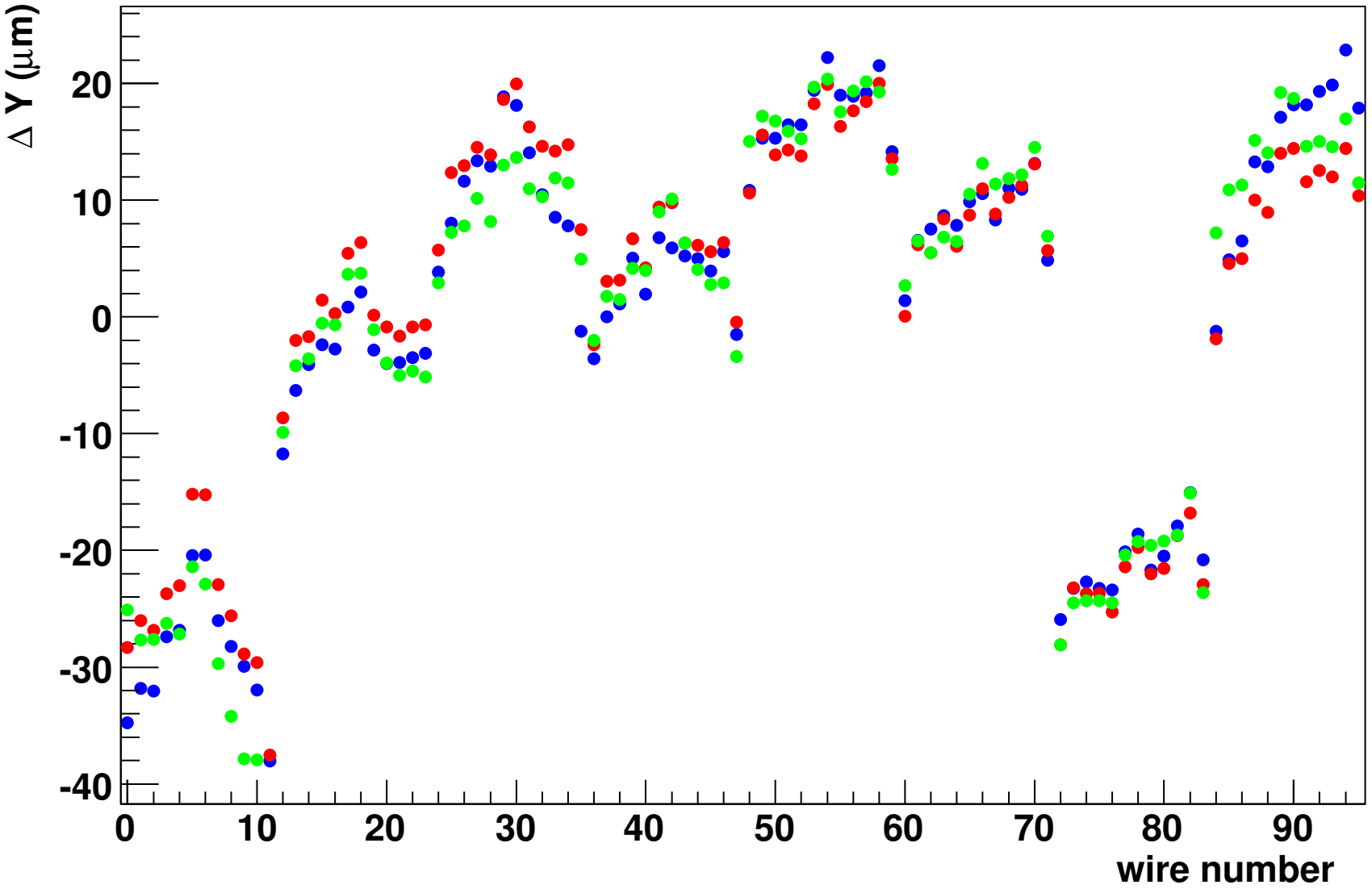

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL5 hit D (cm)

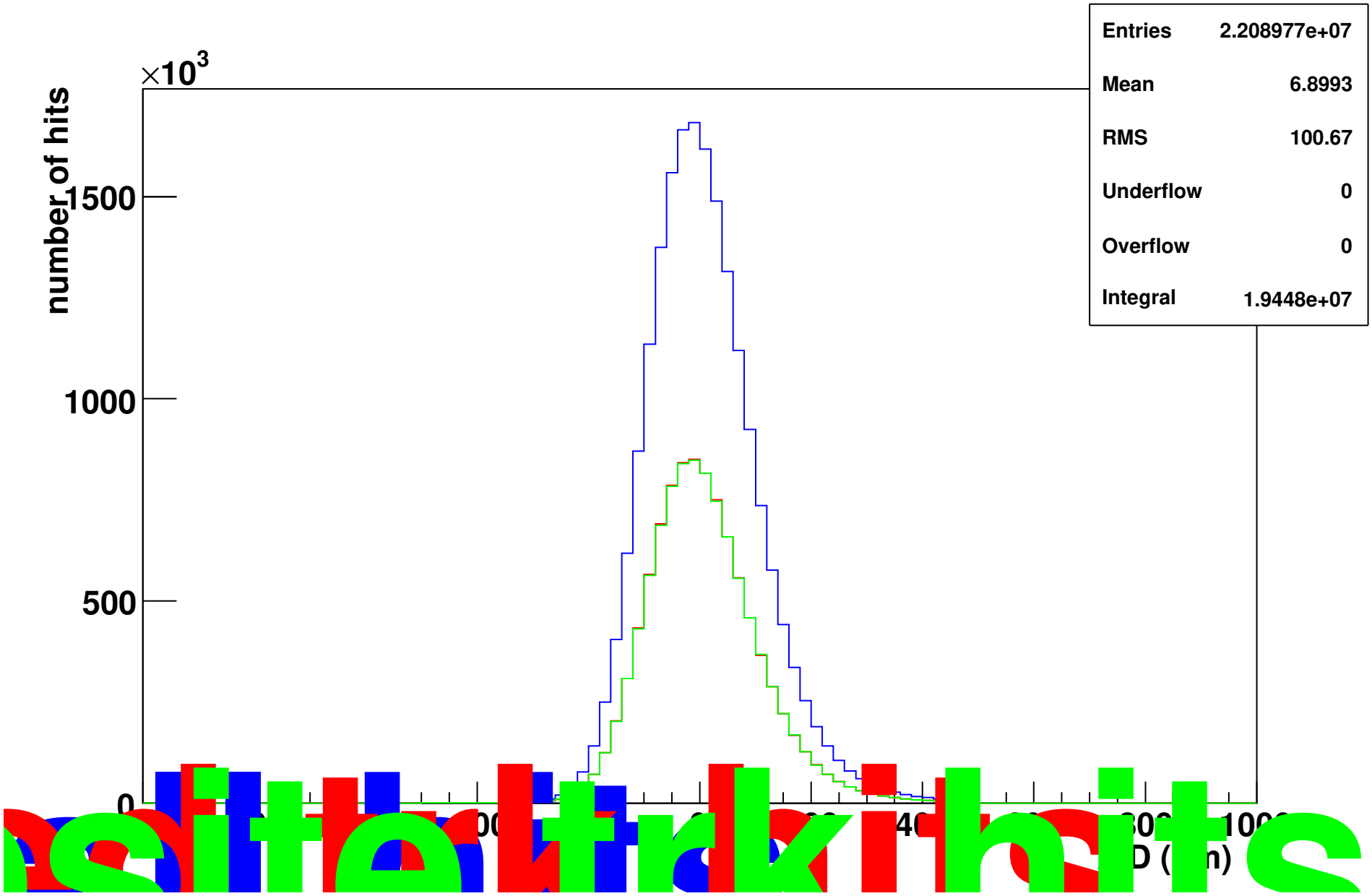

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL6 hit D (cm)


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

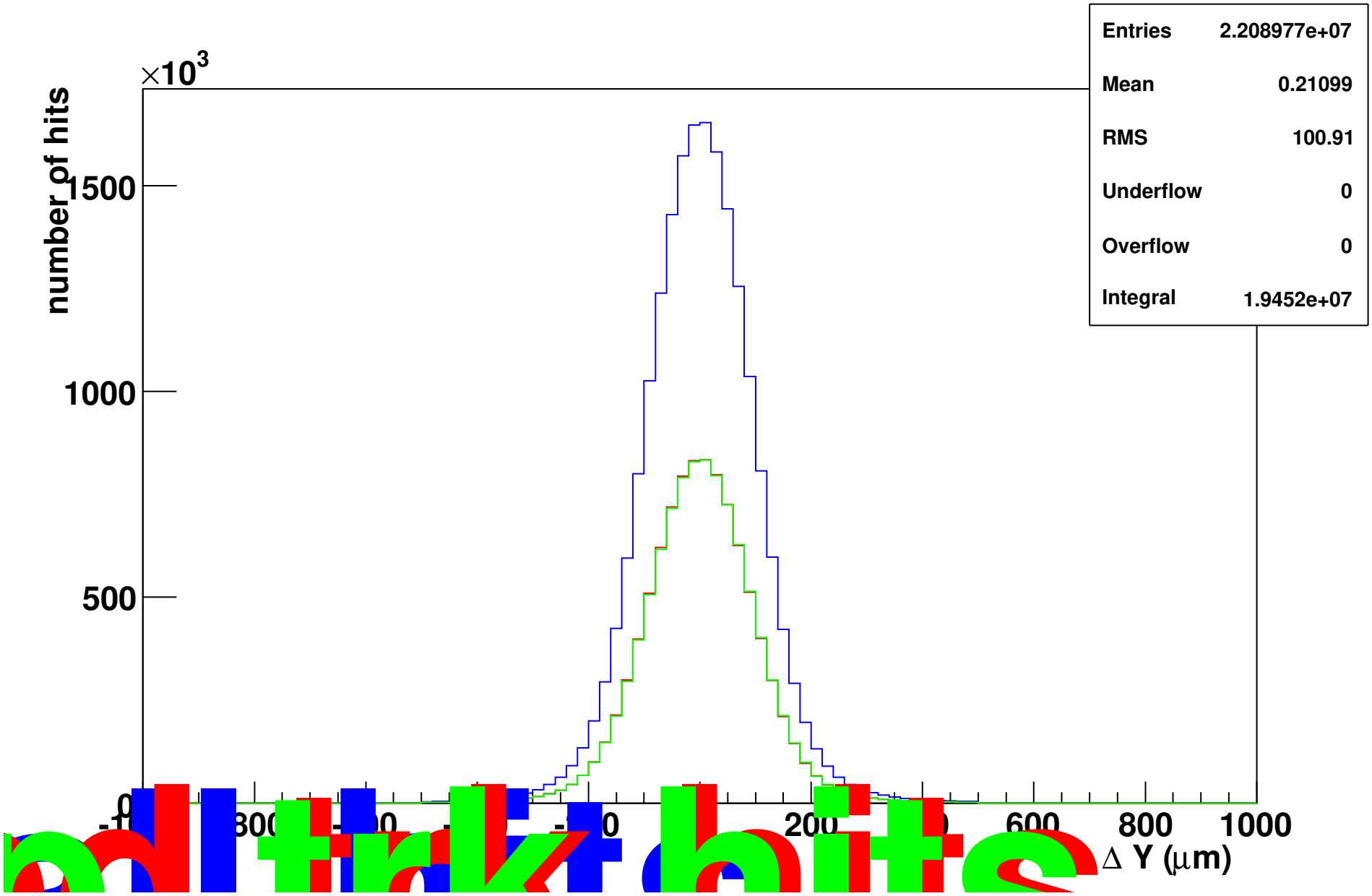

Δ Y (μm)
20
10
0
-10
-20
-30
-40
-80
-60
-40
-20
0
20
40
60
80
wire number


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

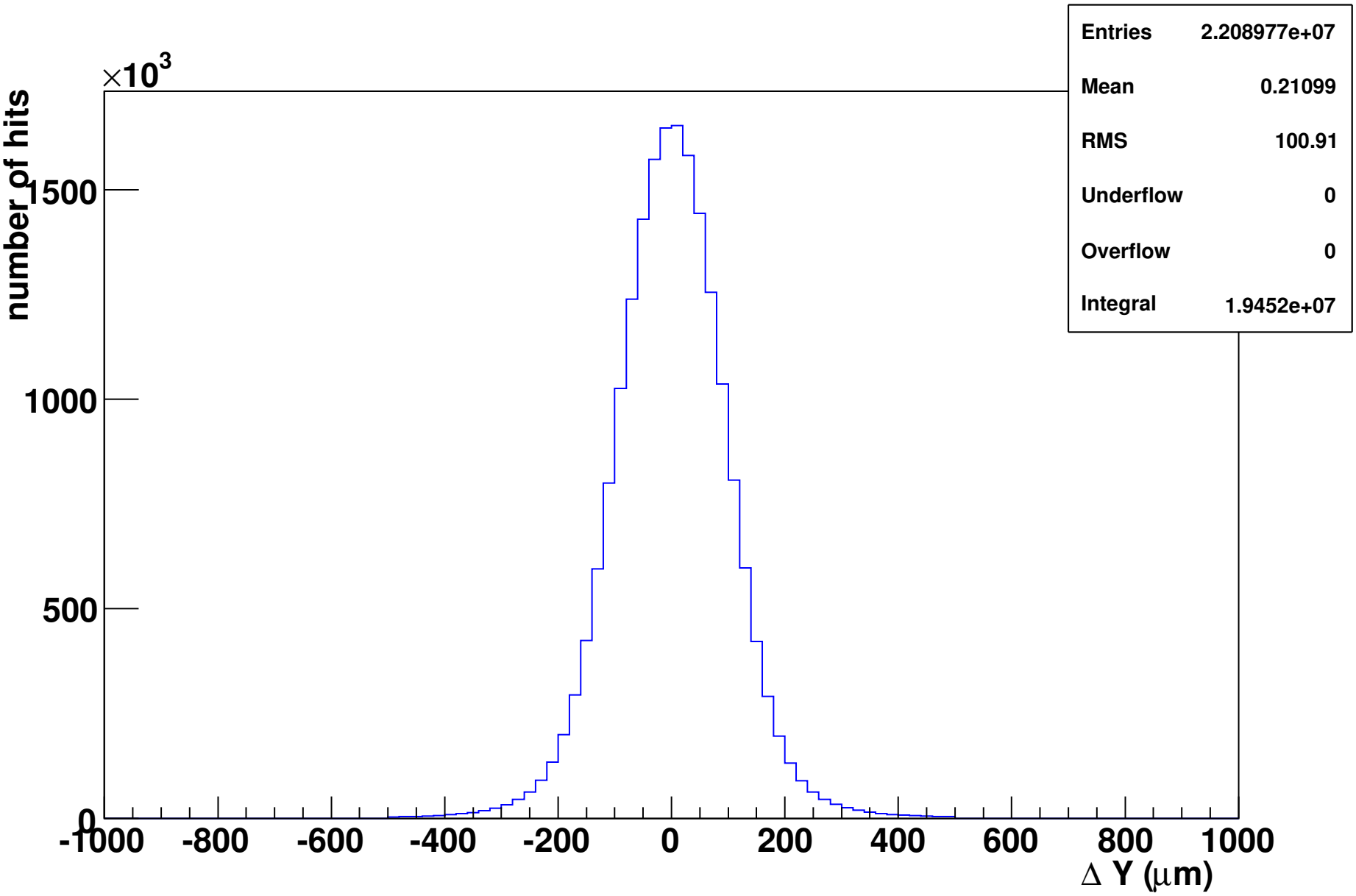

Δ Y (μm)
20
10
0
-10
-20
-30
-40
0
10
20
30
40
50
60
70
80
90
wire number



Entries 2.208977e+07
Mean 6.8993
RMS 100.67
Underflow 0
Overflow 0
Integral 1.9448e+07
number of hits
×10^3
1500
1000
500
0



Entries 2.208977e+07
Mean 0.21099
RMS 100.91
Underflow 0
Overflow 0
Integral 1.9452e+07
number of hits
×10^3
1500
1000
500
0
200
600
800
1000
Δ Y (μm)


Entries 2.208977e+07
Mean 0.21099
RMS 100.91
Underflow 0
Overflow 0
Integral 1.9452e+07
×10^3
number of hits
1500
1000
500
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ Y (μm)