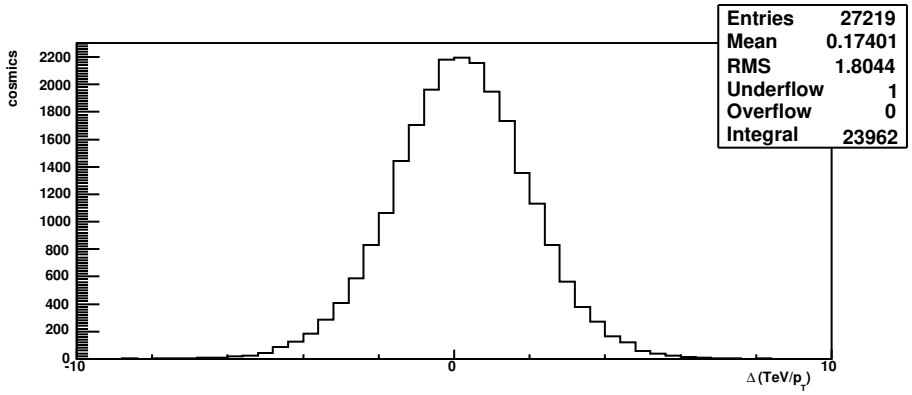
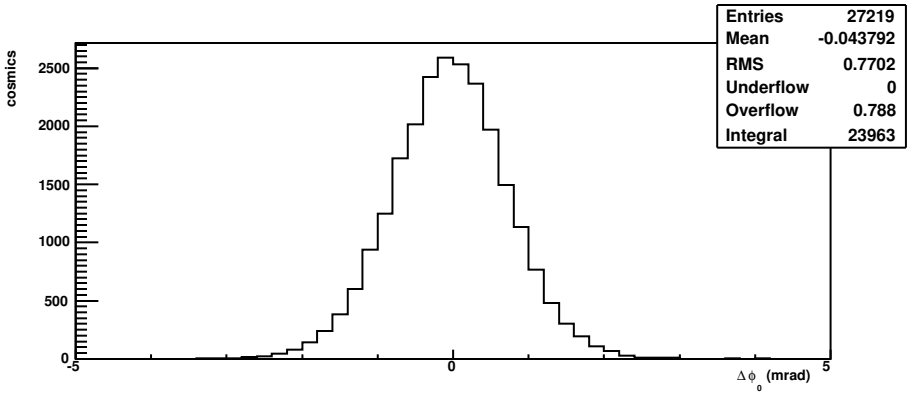
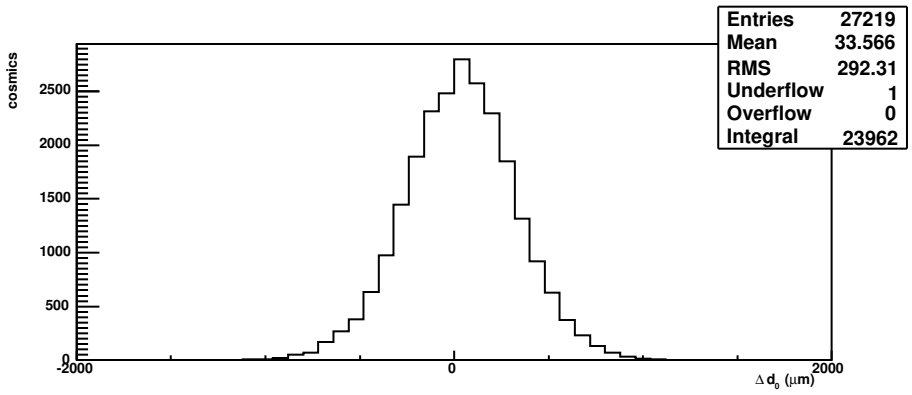
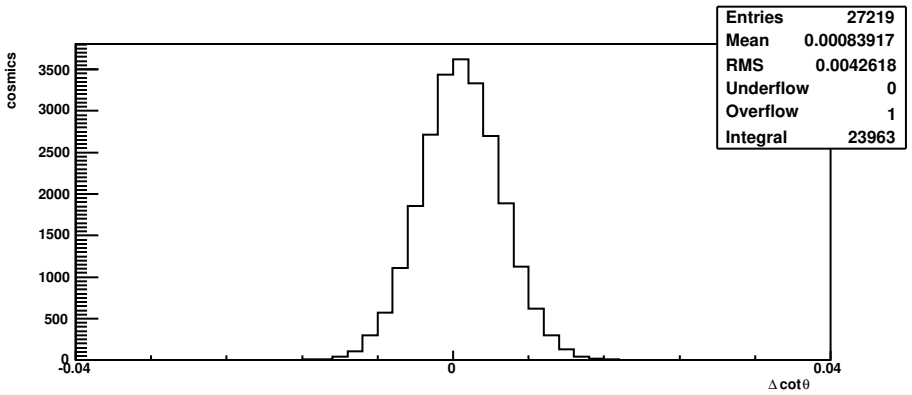
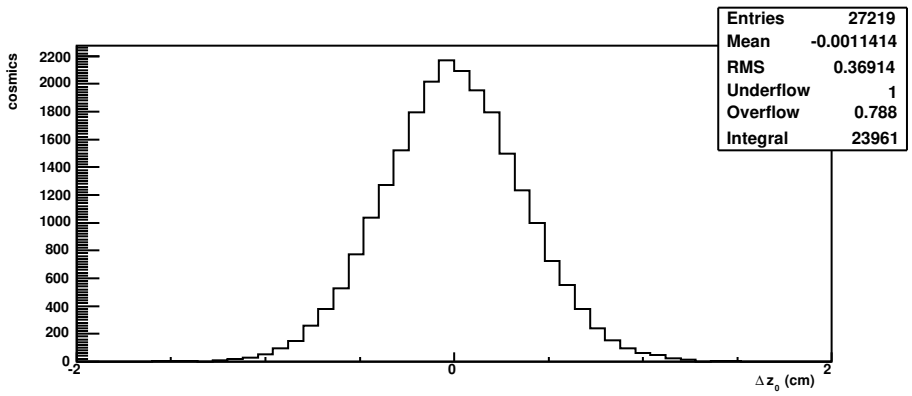
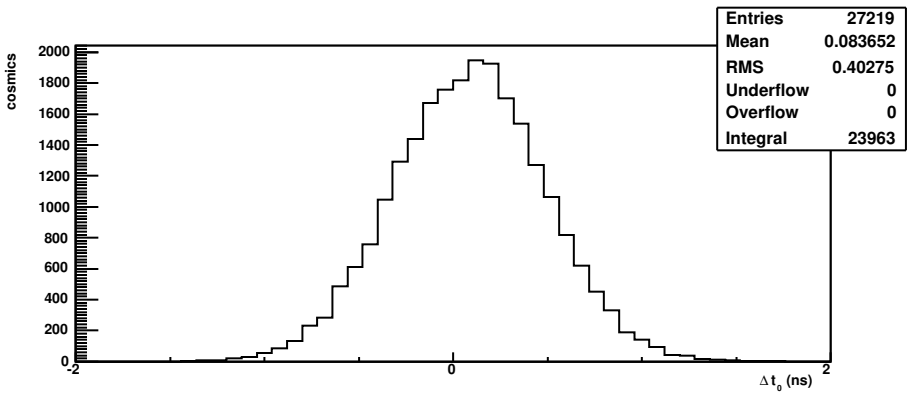

Entries 27219
Mean 0.17401
RMS 1.8044
Underflow 1
Overflow 0
Integral 23962
cosmics
Δ(TeV/p_T)

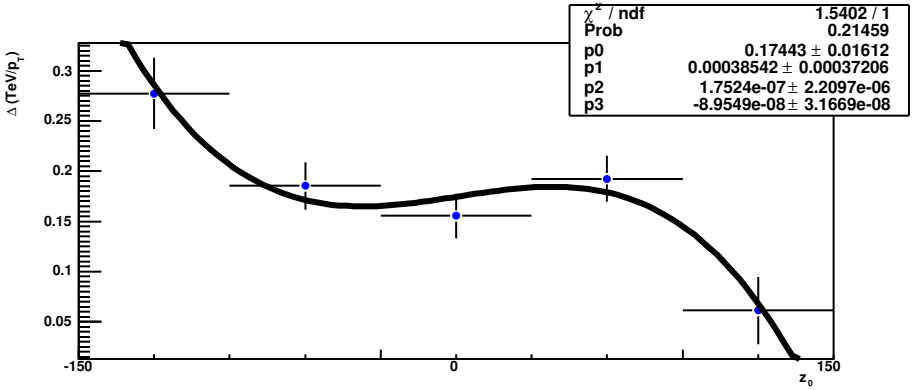

Entries 27219
Mean -0.043792
RMS 0.7702
Underflow 0
Overflow 0.788
Integral 23963
cosmics
Δφ_0 (mrad)

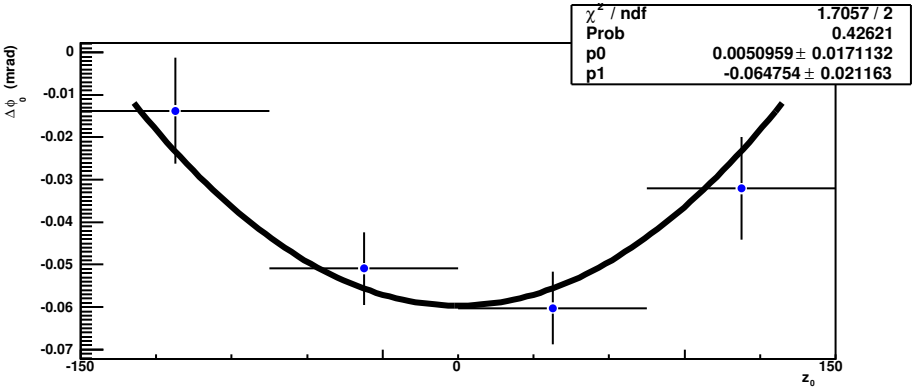

Entries 27219
Mean 33.566
RMS 292.31
Underflow 1
Overflow 0
Integral 23962
cosmics
Δd_0 (μm)

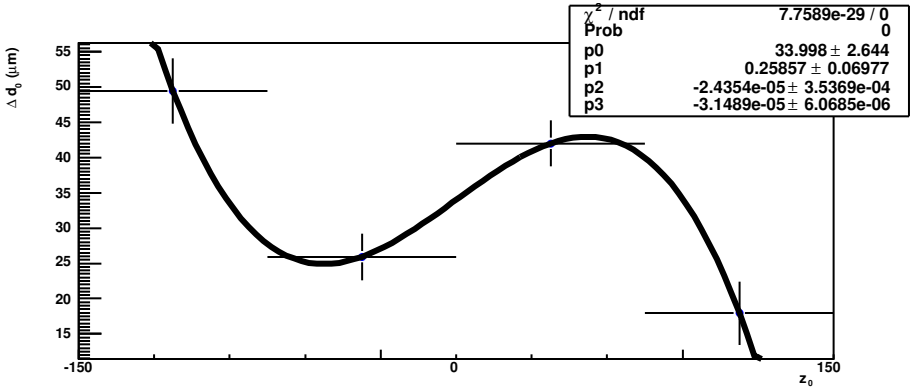

Entries 27219
Mean 0.00083917
RMS 0.0042618
Underflow 0
Overflow 1
Integral 23963
cosmics
Δcotθ

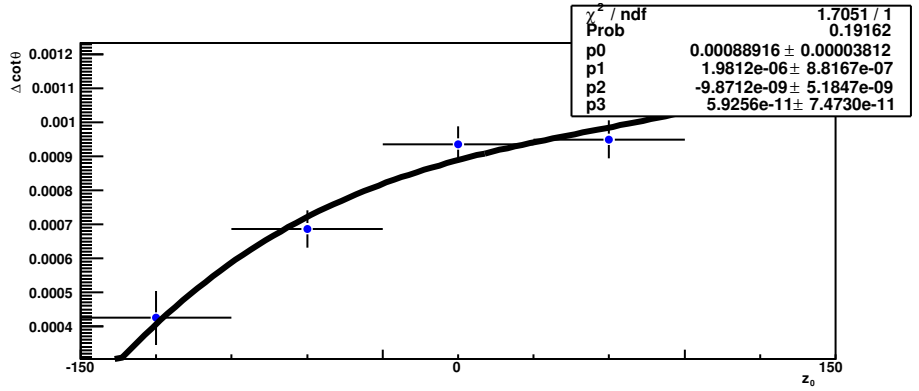

Entries 27219
Mean -0.0011414
RMS 0.36914
Underflow 1
Overflow 0.788
Integral 23961
cosmics
Δz_0 (cm)

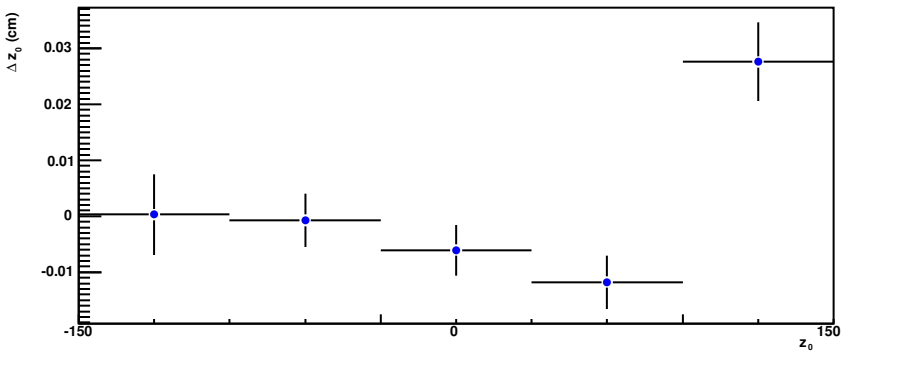

Entries 27219
Mean 0.083652
RMS 0.40275
Underflow 0
Overflow 0
Integral 23963
cosmics
Δt_0 (ns)

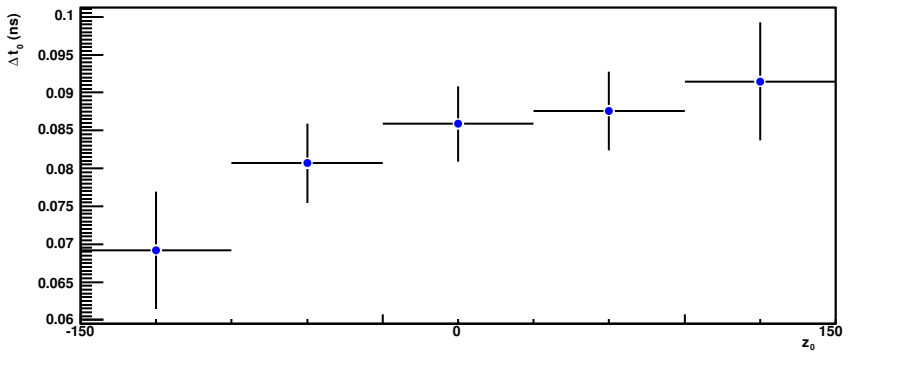

χ^2 / ndf 1.5402 / 1
Prob 0.21459
p0 0.17443 ± 0.01612
p1 0.00038542 ± 0.00037206
p2 1.7524e-07 ± 2.2097e-06
p3 -8.9549e-08 ± 3.1669e-08
$\Delta(\mathrm{TeV}/p_T)$
z_0

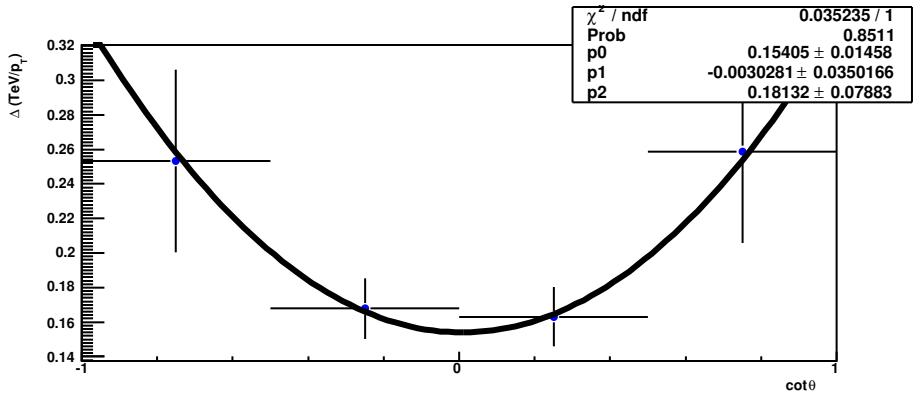

χ^2 / ndf 1.7057 / 2
Prob 0.42621
p0 0.0050959 ± 0.0171132
p1 -0.064754 ± 0.021163
$\Delta\phi_0$ (mrad)
z_0

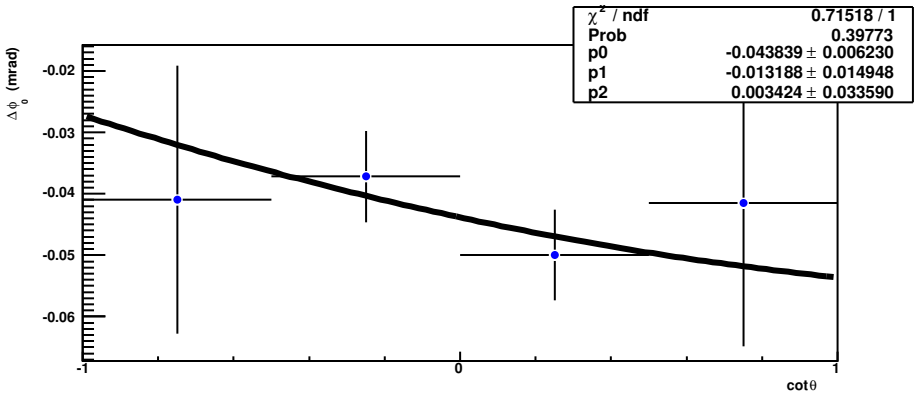

χ^2 / ndf 7.7589e-29 / 0
Prob 0
p0 33.998 ± 2.644
p1 0.25857 ± 0.06977
p2 -2.4354e-05 ± 3.5369e-04
p3 -3.1489e-05 ± 6.0685e-06
Δd_0 (μm)
z_0

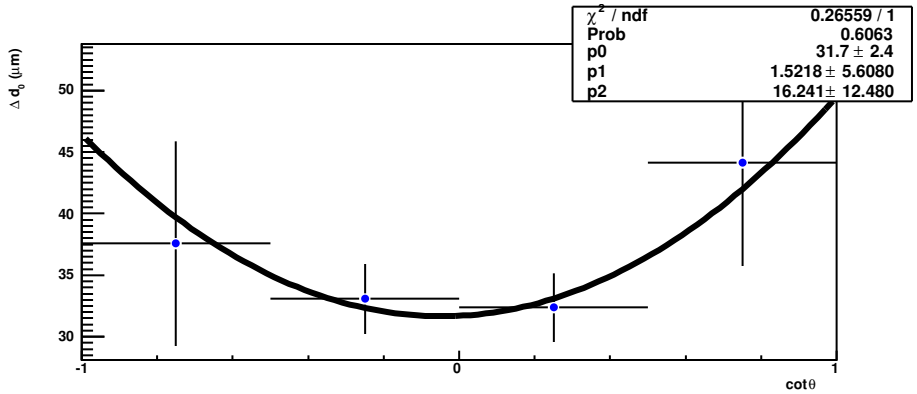

χ^2 / ndf 1.7051 / 1
Prob 0.19162
p0 0.00088916 ± 0.00003812
p1 1.9812e-06 ± 8.8167e-07
p2 -9.8712e-09 ± 5.1847e-09
p3 5.9256e-11 ± 7.4730e-11
$\Delta\cot\theta$
z_0

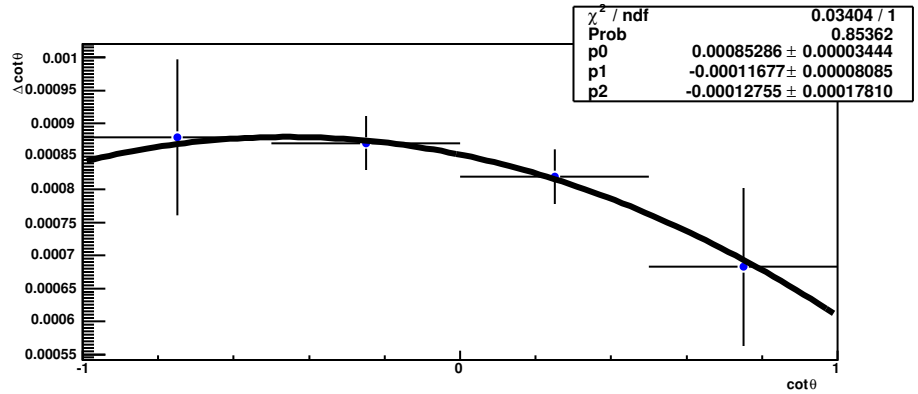

Δz_0 (cm)
z_0

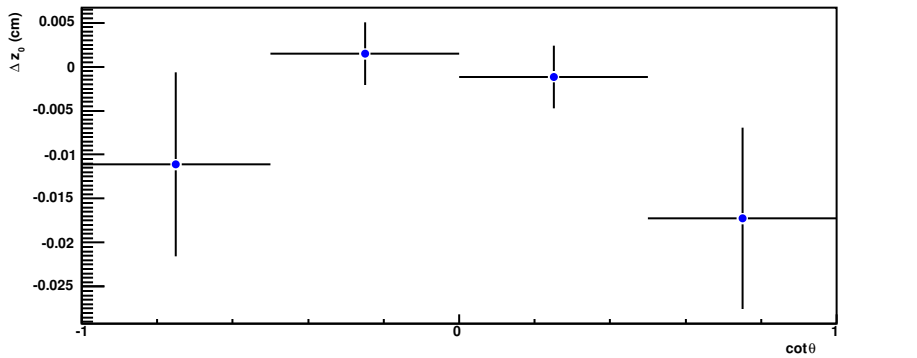

Δt_0 (ns)
z_0

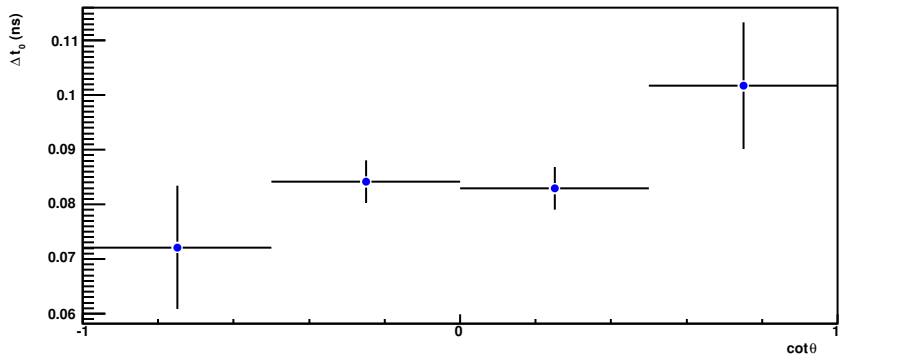

χ² / ndf 0.035235 / 1
Prob 0.8511
p0 0.15405 ± 0.01458
p1 -0.0030281 ± 0.0350166
p2 0.18132 ± 0.07883
Δ (TeV/p_T)
cotθ

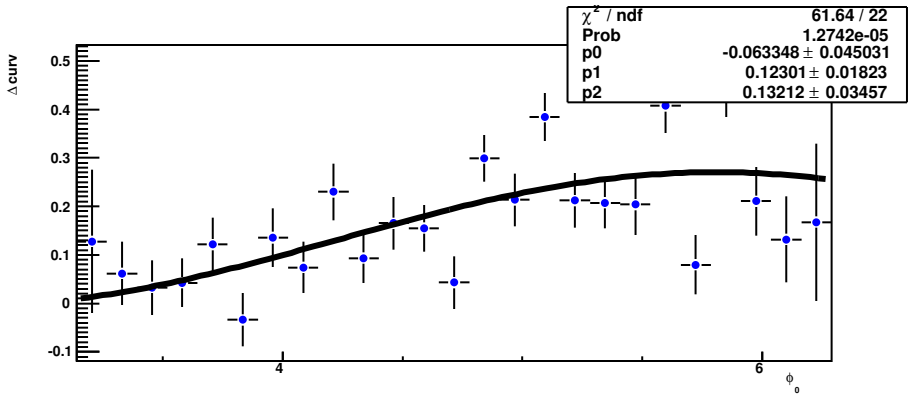

χ² / ndf 0.71518 / 1
Prob 0.39773
p0 -0.043839 ± 0.006230
p1 -0.013188 ± 0.014948
p2 0.003424 ± 0.033590
Δφ0 (mrad)
cotθ

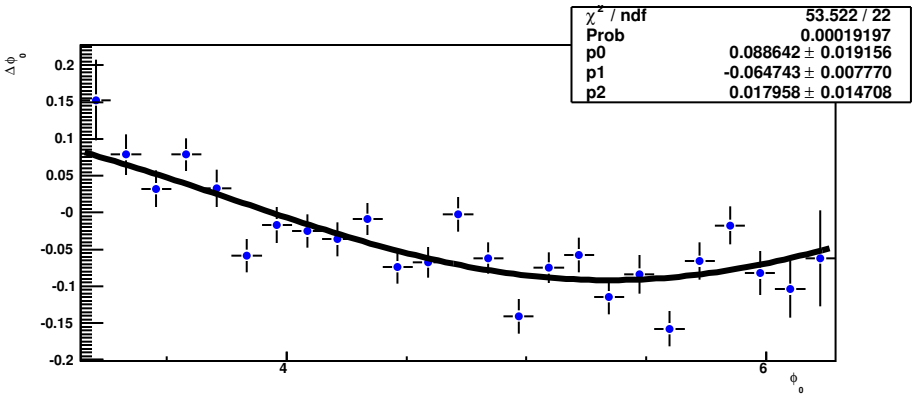

χ² / ndf 0.26559 / 1
Prob 0.6063
p0 31.7 ± 2.4
p1 1.5218 ± 5.6080
p2 16.241 ± 12.480
Δ d0 (μm)
cotθ

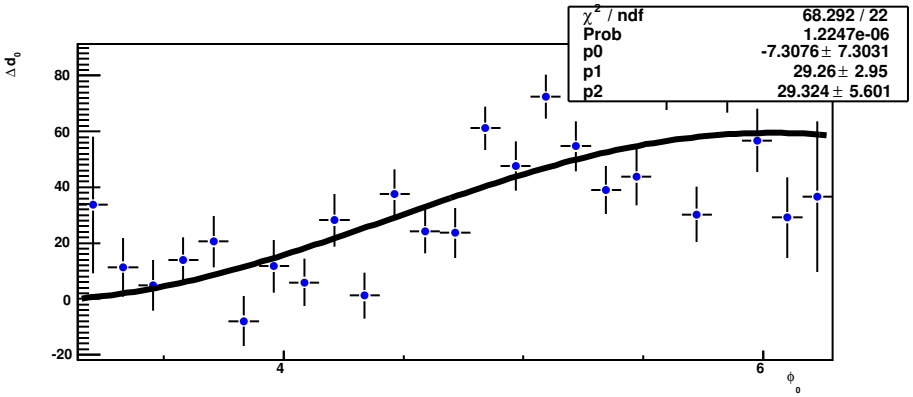

χ² / ndf 0.03404 / 1
Prob 0.85362
p0 0.00085286 ± 0.00003444
p1 -0.00011677 ± 0.00008085
p2 -0.00012755 ± 0.00017810
Δcotθ
cotθ

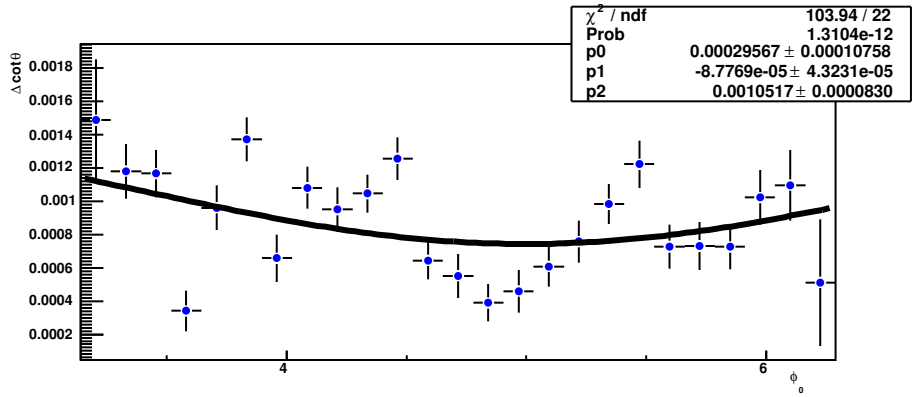

Δ z0 (cm)
cotθ

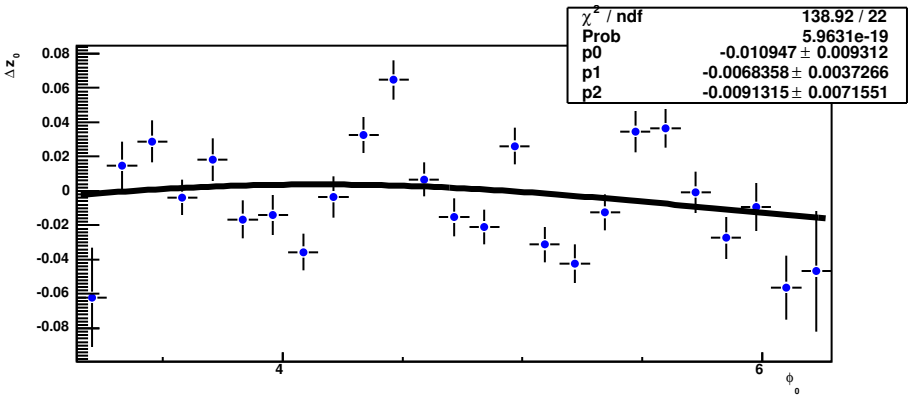

Δ t0 (ns)
cotθ

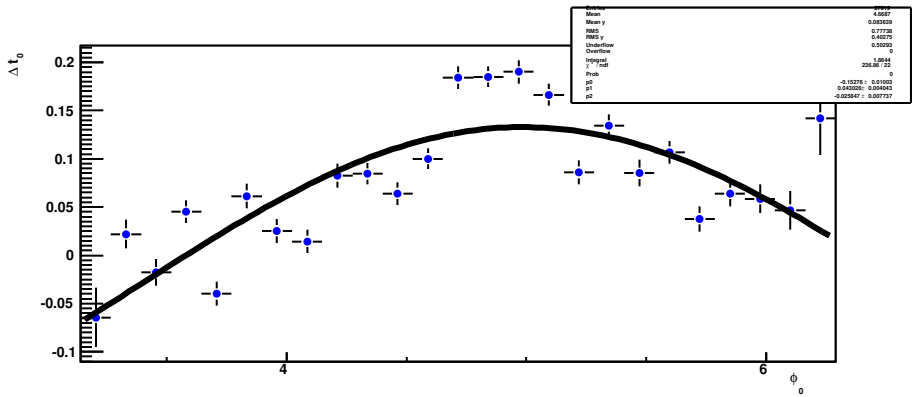

χ² / ndf 61.64 / 22
Prob 1.2742e-05
p0 -0.063348 ± 0.045031
p1 0.12301 ± 0.01823
p2 0.13212 ± 0.03457
Δ curv
φ0

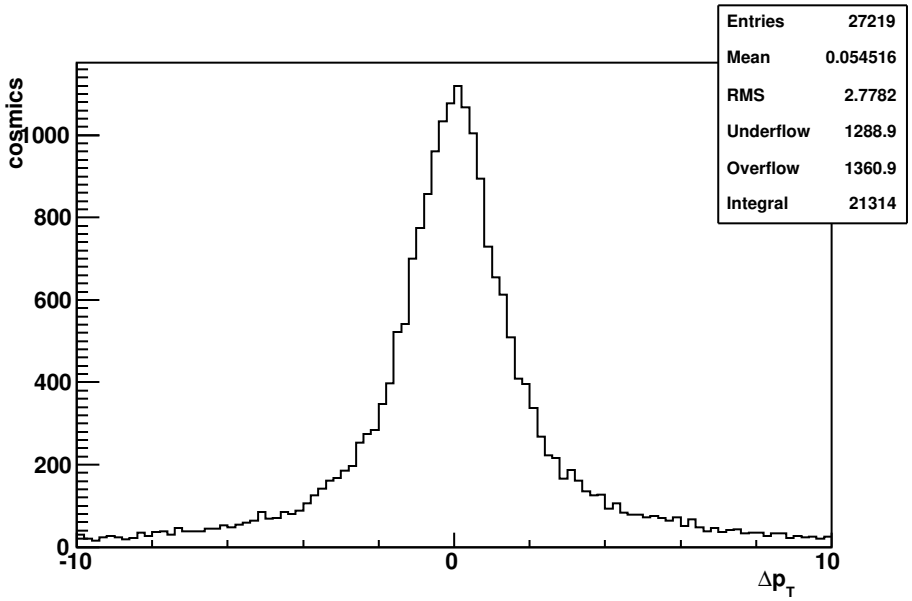

χ² / ndf 53.522 / 22
Prob 0.00019197
p0 0.088642 ± 0.019156
p1 -0.064743 ± 0.007770
p2 0.017958 ± 0.014708
Δ φ0
φ0

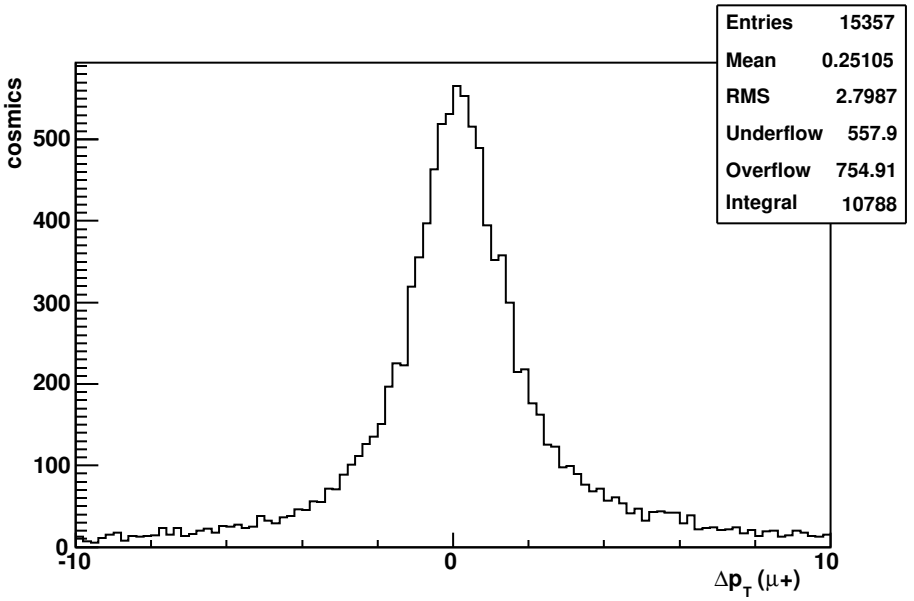

χ² / ndf 68.292 / 22
Prob 1.2247e-06
p0 -7.3076 ± 7.3031
p1 29.26 ± 2.95
p2 29.324 ± 5.601
Δ d0
φ0

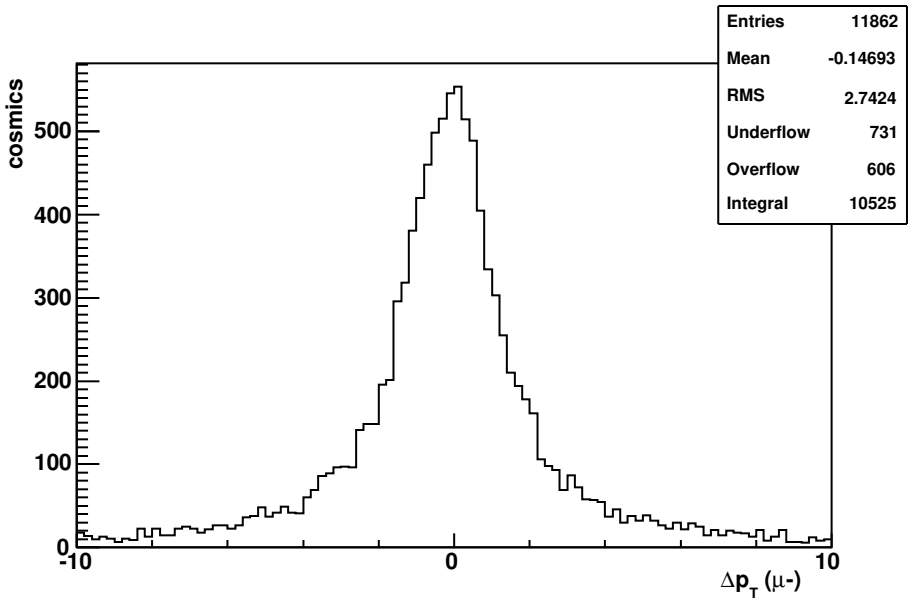

χ² / ndf 103.94 / 22
Prob 1.3104e-12
p0 0.00029567 ± 0.00010758
p1 -8.7769e-05 ± 4.3231e-05
p2 0.0010517 ± 0.0000830
Δ cotθ
φ0

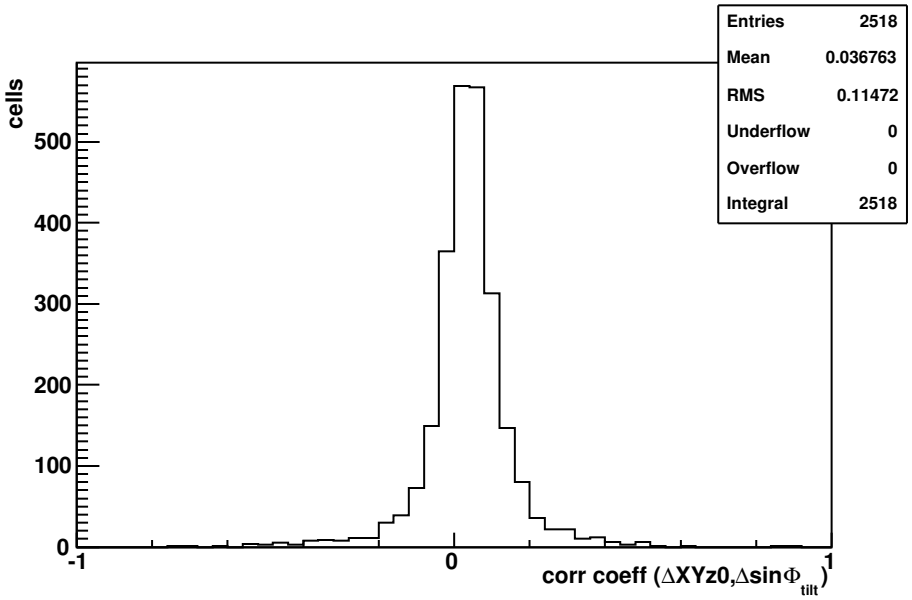

χ² / ndf 138.92 / 22
Prob 5.9631e-19
p0 -0.010947 ± 0.009312
p1 -0.0068358 ± 0.0037266
p2 -0.0091315 ± 0.0071551
Δ z0
φ0

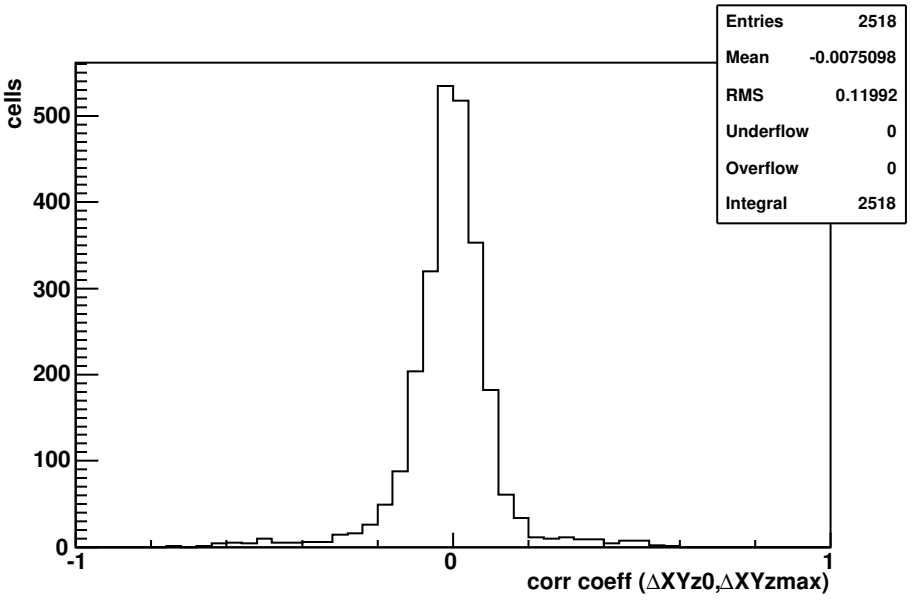

Δ t0
φ0

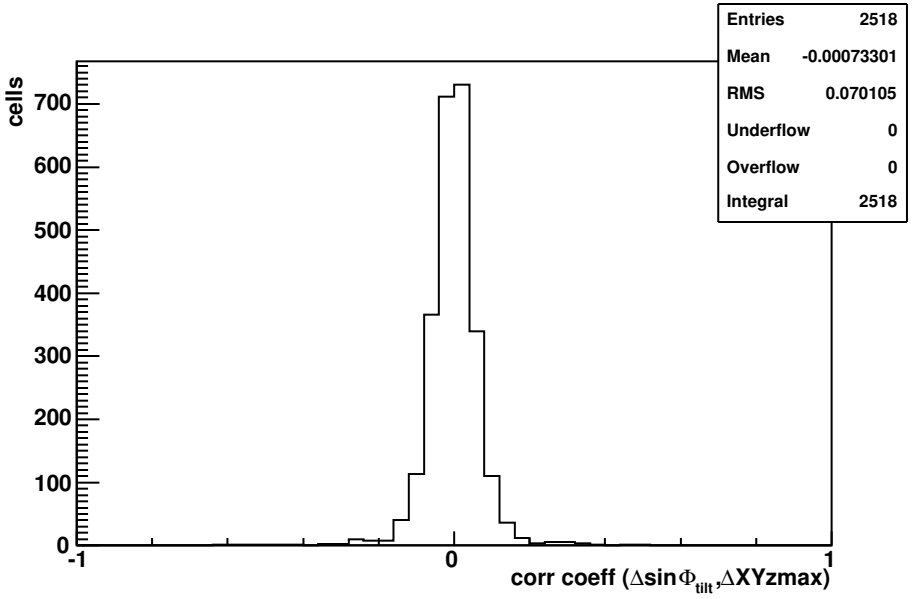

cosmics
Entries 27219
Mean 0.054516
RMS 2.7782
Underflow 1288.9
Overflow 1360.9
Integral 21314
1000
800
600
400
200
0
-10
0
10
Δp_T

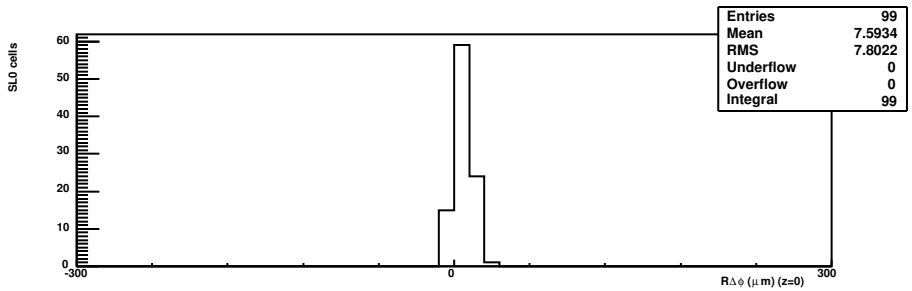

cosmics
Entries 15357
Mean 0.25105
RMS 2.7987
Underflow 557.9
Overflow 754.91
Integral 10788
500
400
300
200
100
0
-10
0
10
Δp_T (μ+)

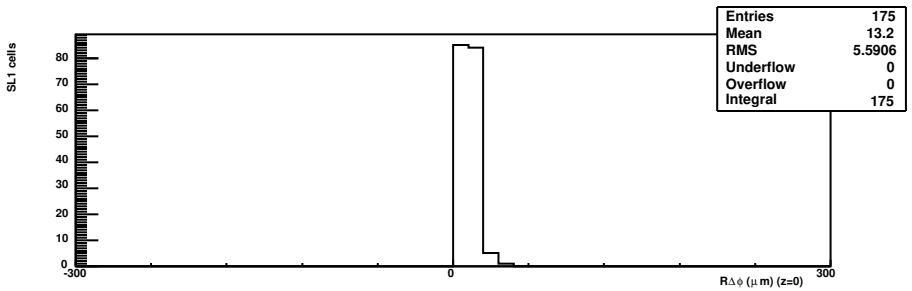

cosmics
Entries 11862
Mean -0.14693
RMS 2.7424
Underflow 731
Overflow 606
Integral 10525
500
400
300
200
100
0
-10
0
10
Δp_T (μ-)

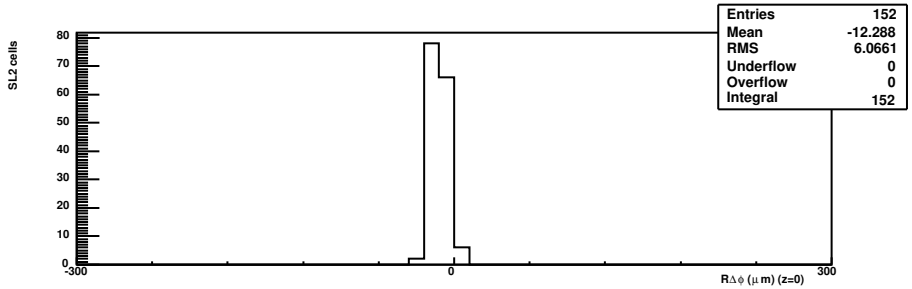

Entries 2518
Mean 0.036763
RMS 0.11472
Underflow 0
Overflow 0
Integral 2518
cells
corr coeff (ΔXYz0,ΔsinΦ_{tilt})

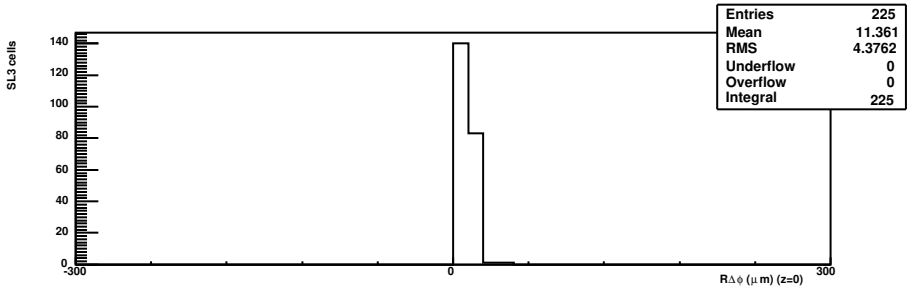

Entries 2518
Mean -0.0075098
RMS 0.11992
Underflow 0
Overflow 0
Integral 2518
cells
corr coeff (ΔXYz0,ΔXYzmax)

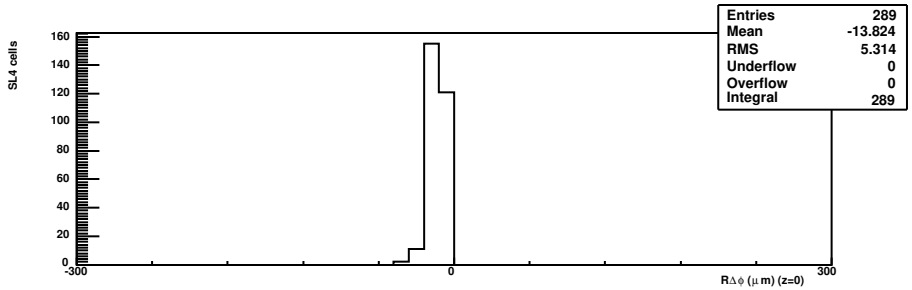

Entries 2518
Mean -0.00073301
RMS 0.070105
Underflow 0
Overflow 0
Integral 2518
cells
corr coeff (ΔsinΦ_{tilt},ΔXYzmax)

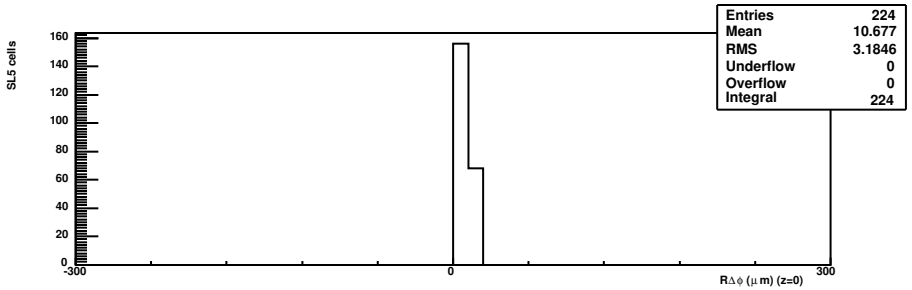

SL0 cells
Entries 99
Mean 7.5934
RMS 7.8022
Underflow 0
Overflow 0
Integral 99
RΔφ (μm) (z=0)

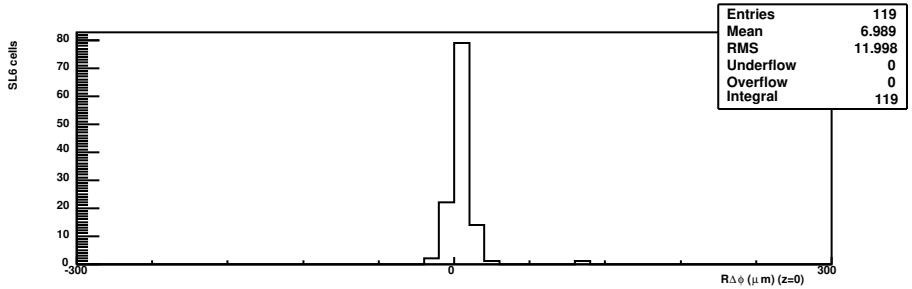

SL1 cells
Entries 175
Mean 13.2
RMS 5.5906
Underflow 0
Overflow 0
Integral 175
RΔφ (μm) (z=0)

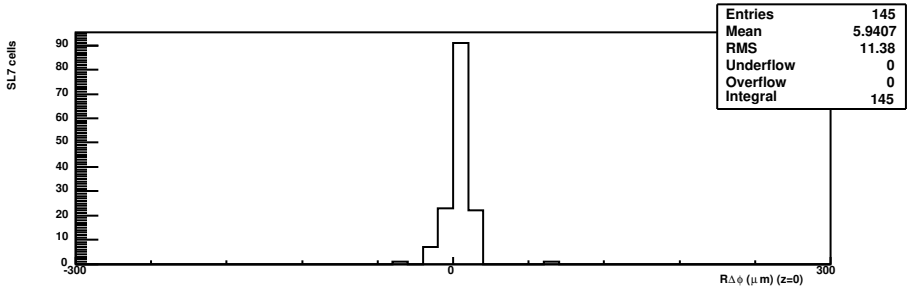

SL2 cells
Entries 152
Mean -12.288
RMS 6.0661
Underflow 0
Overflow 0
Integral 152
RΔφ (μm) (z=0)

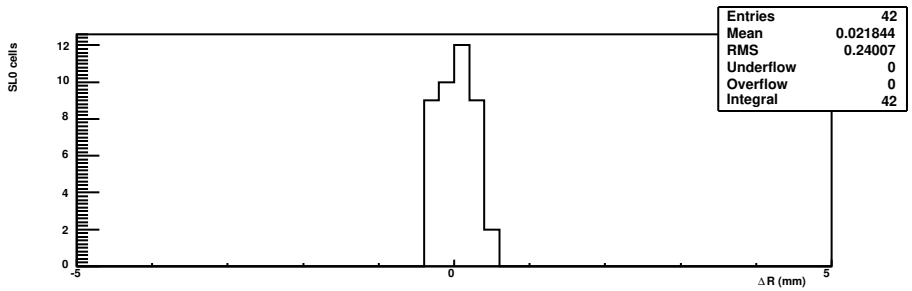

SL3 cells
Entries 225
Mean 11.361
RMS 4.3762
Underflow 0
Overflow 0
Integral 225
RΔφ (μm) (z=0)

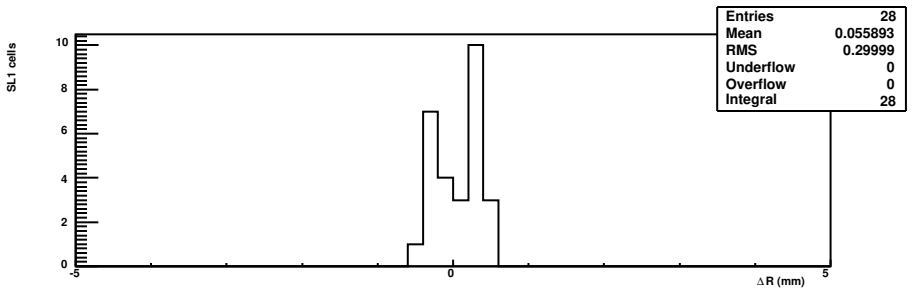

SL4 cells
Entries 289
Mean -13.824
RMS 5.314
Underflow 0
Overflow 0
Integral 289
RΔφ (μm) (z=0)

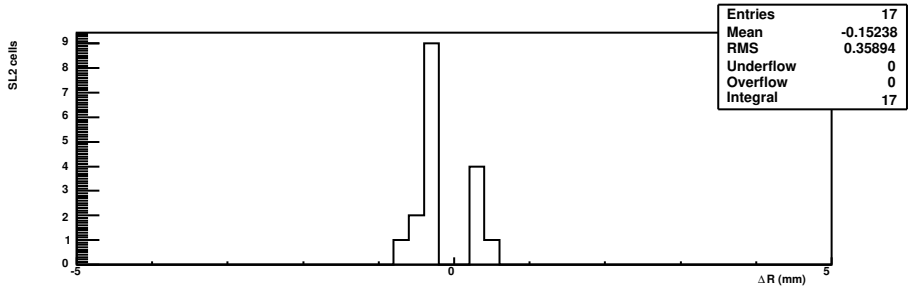

SL5 cells
Entries 224
Mean 10.677
RMS 3.1846
Underflow 0
Overflow 0
Integral 224
RΔφ (μm) (z=0)

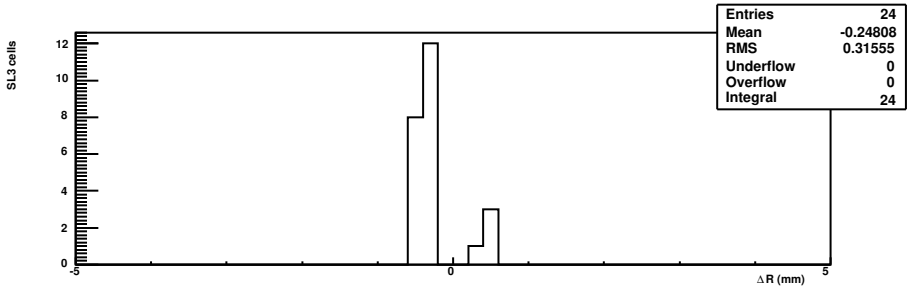

SL6 cells
Entries 119
Mean 6.989
RMS 11.998
Underflow 0
Overflow 0
Integral 119
RΔφ (μm) (z=0)

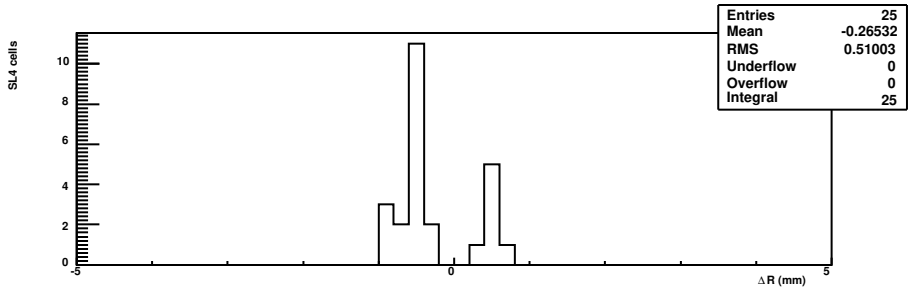

SL7 cells
Entries 145
Mean 5.9407
RMS 11.38
Underflow 0
Overflow 0
Integral 145
RΔφ (μm) (z=0)

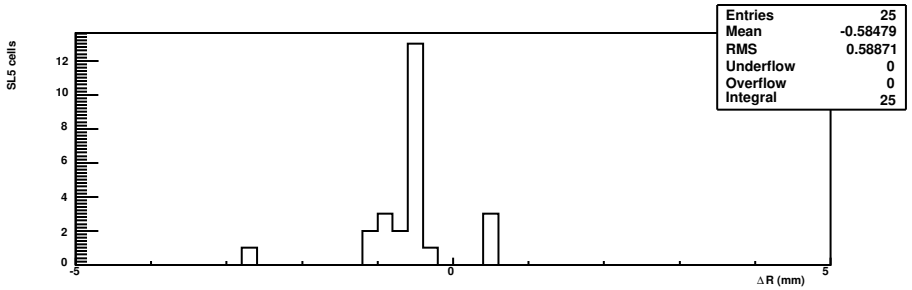

SL0 cells
ΔR (mm)
Entries 42
Mean 0.021844
RMS 0.24007
Underflow 0
Overflow 0
Integral 42

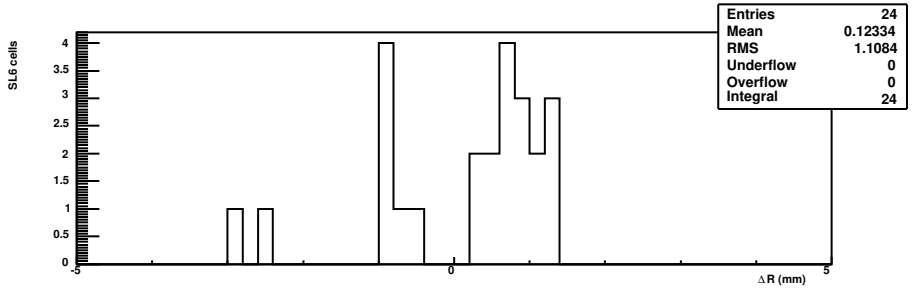

SL1 cells
ΔR (mm)
Entries 28
Mean 0.055893
RMS 0.29999
Underflow 0
Overflow 0
Integral 28

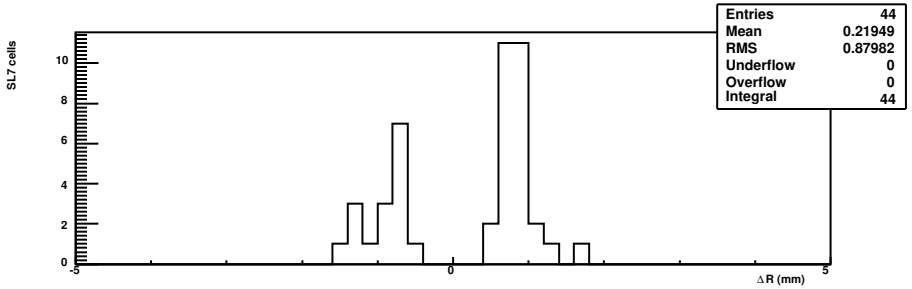

SL2 cells
ΔR (mm)
Entries 17
Mean -0.15238
RMS 0.35894
Underflow 0
Overflow 0
Integral 17

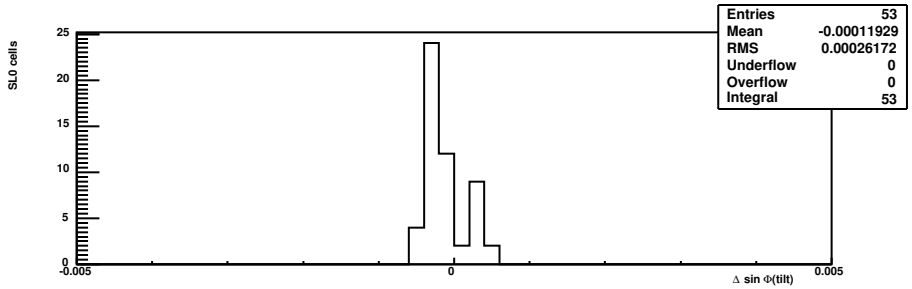

SL3 cells
ΔR (mm)
Entries 24
Mean -0.24808
RMS 0.31555
Underflow 0
Overflow 0
Integral 24

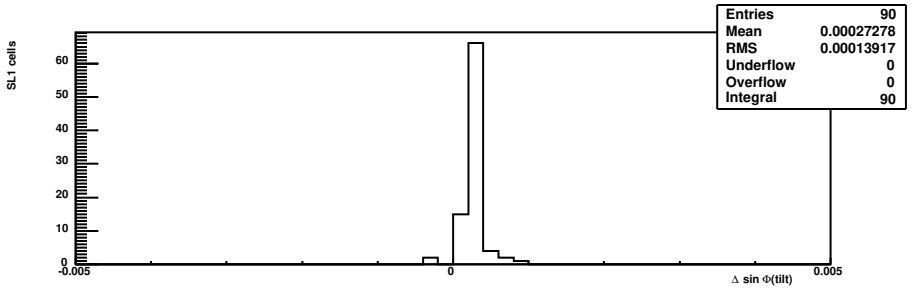

SL4 cells
ΔR (mm)
Entries 25
Mean -0.26532
RMS 0.51003
Underflow 0
Overflow 0
Integral 25

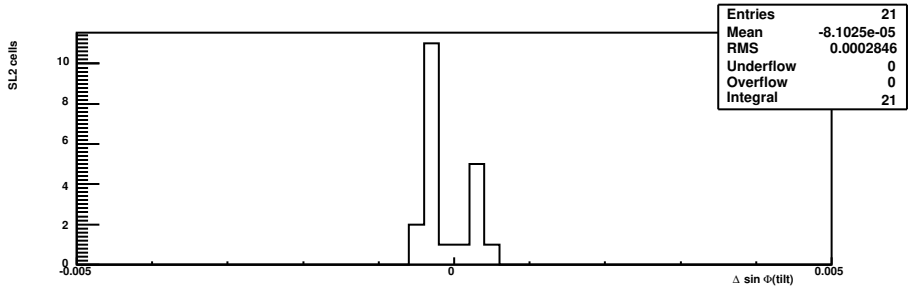

SL5 cells
ΔR (mm)
Entries 25
Mean -0.58479
RMS 0.58871
Underflow 0
Overflow 0
Integral 25

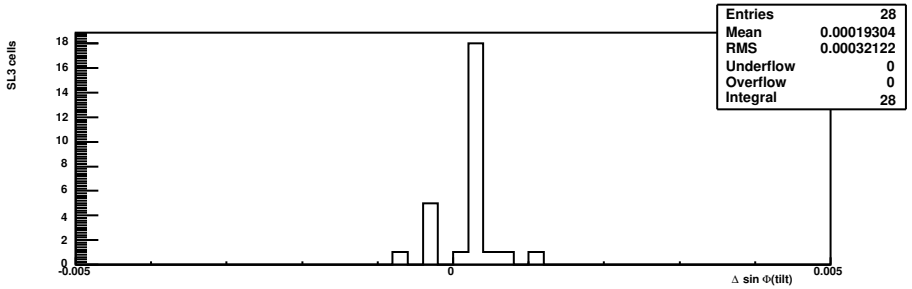

SL6 cells
ΔR (mm)
Entries 24
Mean 0.12334
RMS 1.1084
Underflow 0
Overflow 0
Integral 24

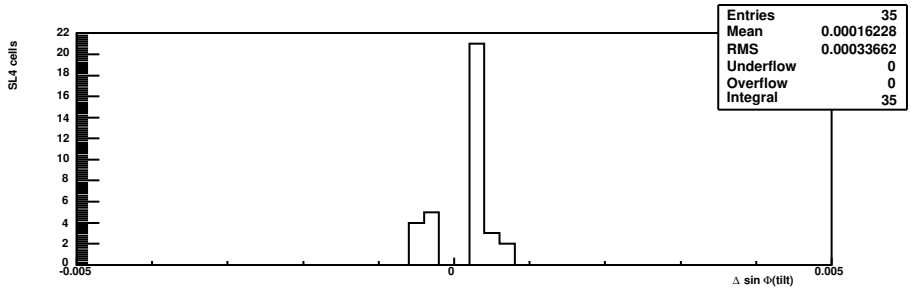

SL7 cells
ΔR (mm)
Entries 44
Mean 0.21949
RMS 0.87982
Underflow 0
Overflow 0
Integral 44

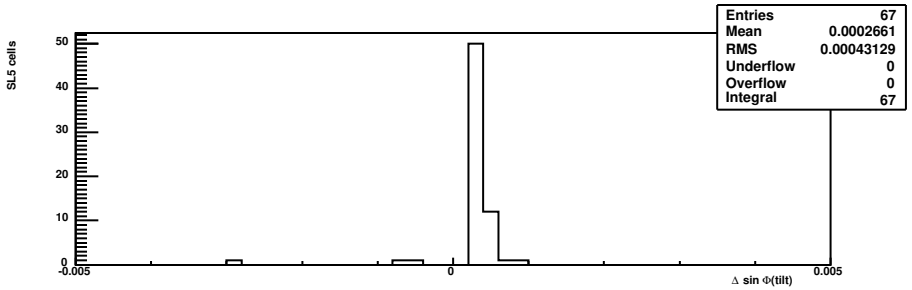

SL0 cells
Entries 53
Mean -0.00011929
RMS 0.00026172
Underflow 0
Overflow 0
Integral 53
Δ sin Φ(tilt)

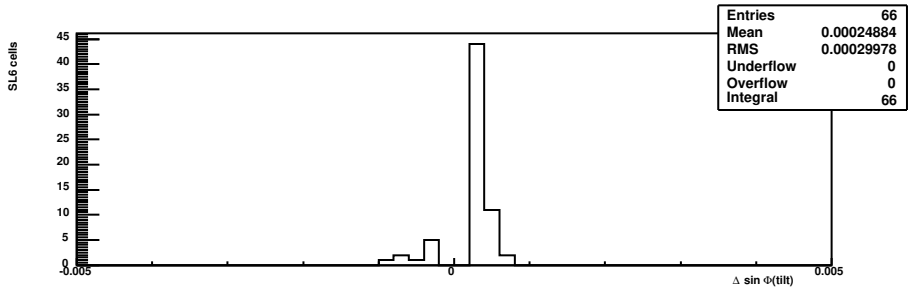

SL1 cells
Entries 90
Mean 0.00027278
RMS 0.00013917
Underflow 0
Overflow 0
Integral 90
Δ sin Φ(tilt)

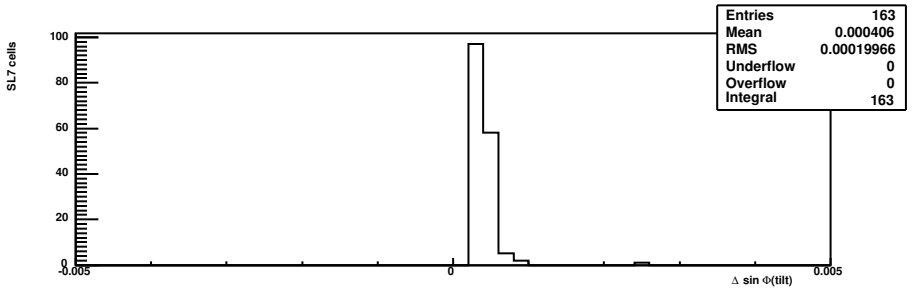

SL2 cells
Entries 21
Mean -8.1025e-05
RMS 0.0002846
Underflow 0
Overflow 0
Integral 21
Δ sin Φ(tilt)

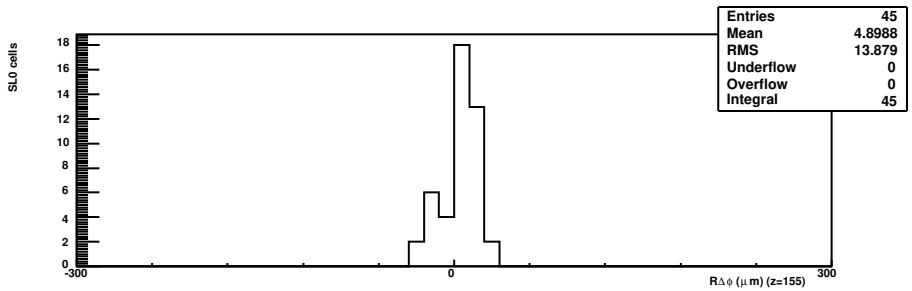

SL3 cells
Entries 28
Mean 0.00019304
RMS 0.00032122
Underflow 0
Overflow 0
Integral 28
Δ sin Φ(tilt)

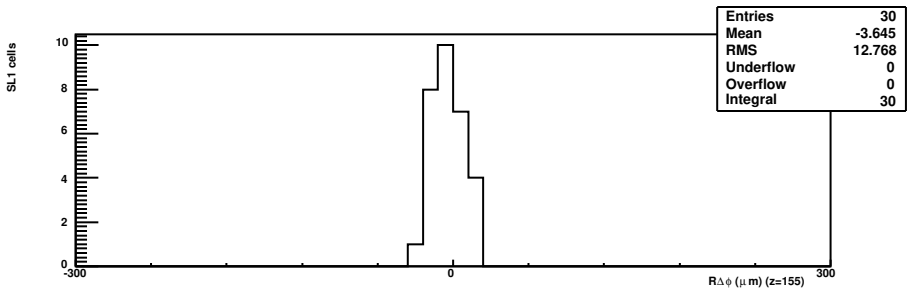

SL4 cells
Entries 35
Mean 0.00016228
RMS 0.00033662
Underflow 0
Overflow 0
Integral 35
Δ sin Φ(tilt)

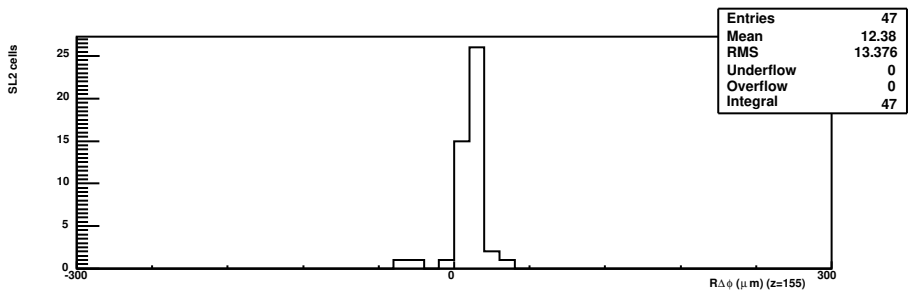

SL5 cells
Entries 67
Mean 0.0002661
RMS 0.00043129
Underflow 0
Overflow 0
Integral 67
Δ sin Φ(tilt)

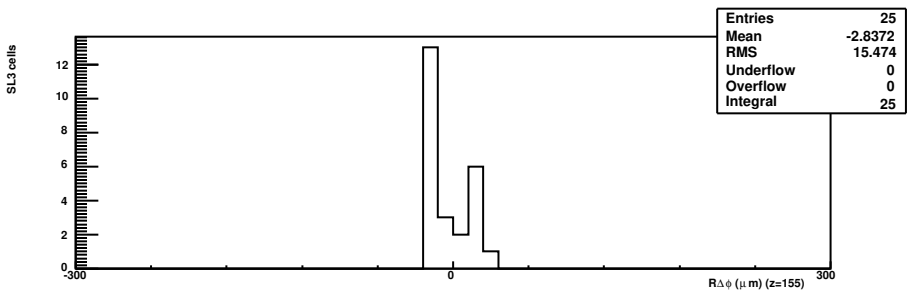

SL6 cells
Entries 66
Mean 0.00024884
RMS 0.00029978
Underflow 0
Overflow 0
Integral 66
Δ sin Φ(tilt)

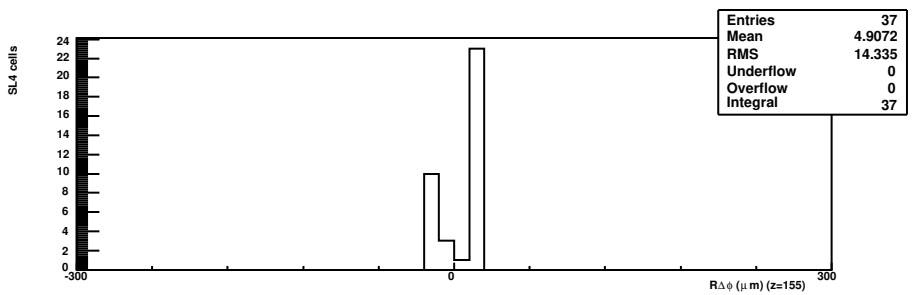

SL7 cells
Entries 163
Mean 0.000406
RMS 0.00019966
Underflow 0
Overflow 0
Integral 163
Δ sin Φ(tilt)

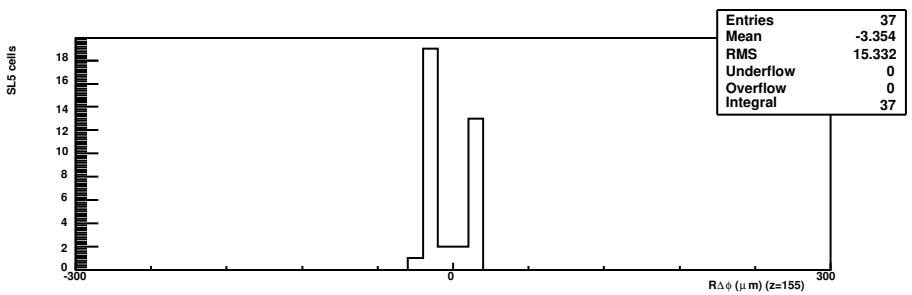

SL0 cells
Entries 45
Mean 4.8988
RMS 13.879
Underflow 0
Overflow 0
Integral 45
RΔφ (μm) (z=155)

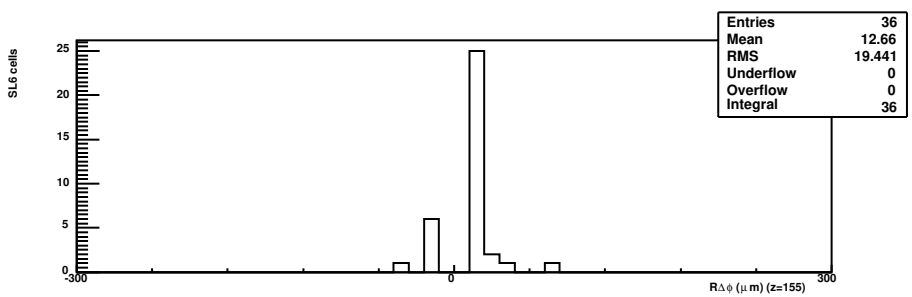

SL1 cells
Entries 30
Mean -3.645
RMS 12.768
Underflow 0
Overflow 0
Integral 30
RΔφ (μm) (z=155)

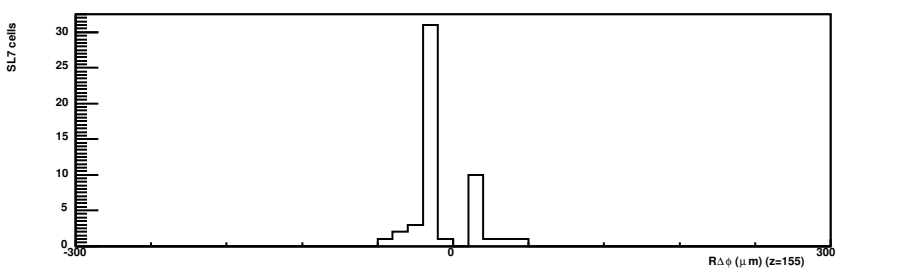

SL2 cells
Entries 47
Mean 12.38
RMS 13.376
Underflow 0
Overflow 0
Integral 47
RΔφ (μm) (z=155)

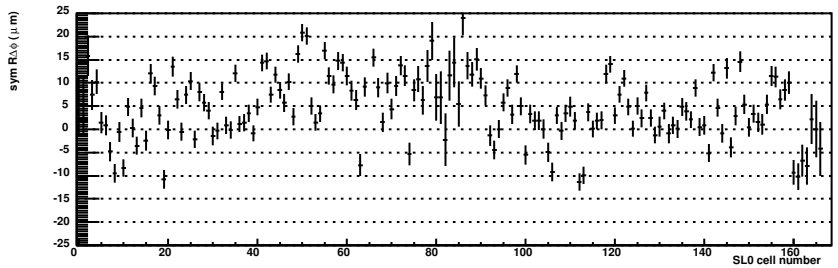

SL3 cells
Entries 25
Mean -2.8372
RMS 15.474
Underflow 0
Overflow 0
Integral 25
RΔφ (μm) (z=155)

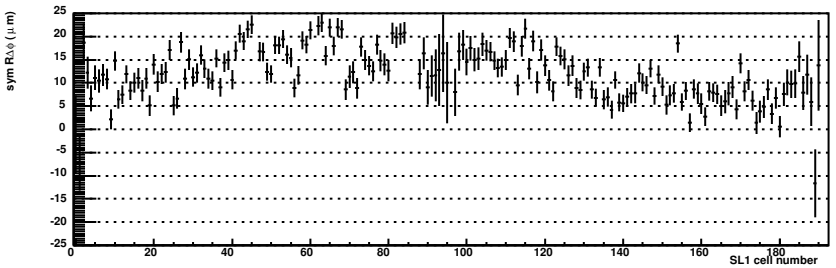

SL4 cells
Entries 37
Mean 4.9072
RMS 14.335
Underflow 0
Overflow 0
Integral 37
RΔφ (μm) (z=155)

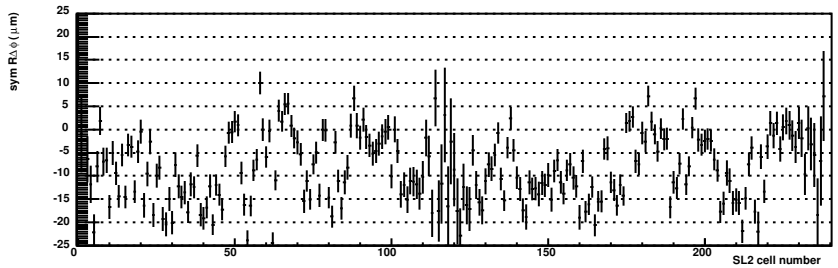

SL5 cells
Entries 37
Mean -3.354
RMS 15.332
Underflow 0
Overflow 0
Integral 37
RΔφ (μm) (z=155)

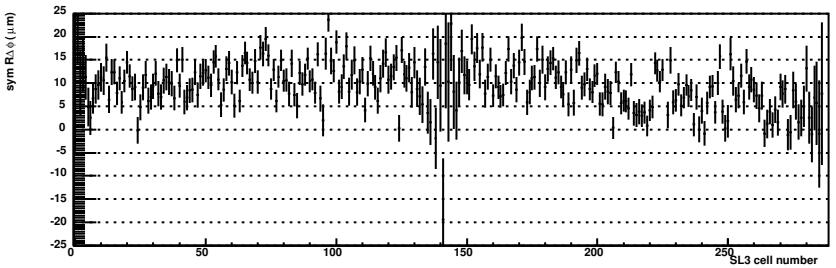

SL6 cells
Entries 36
Mean 12.66
RMS 19.441
Underflow 0
Overflow 0
Integral 36
RΔφ (μm) (z=155)

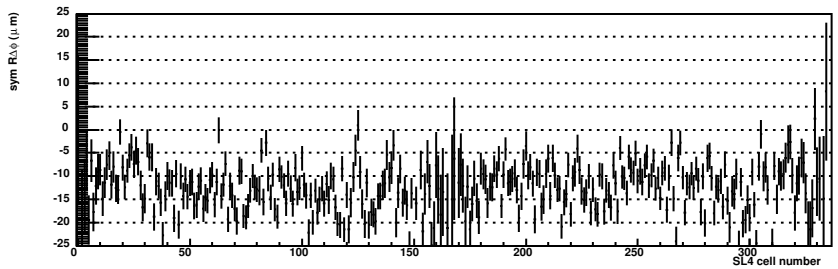

SL7 cells
RΔφ (μm) (z=155)

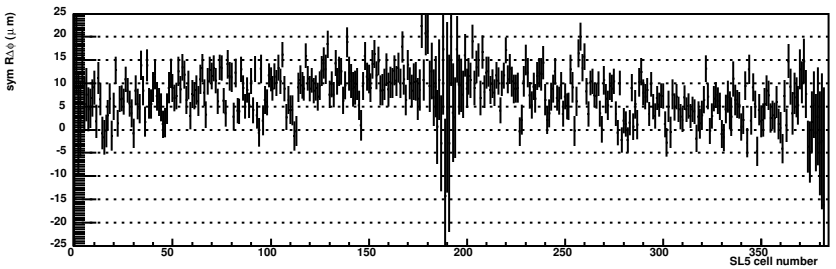

sym RΔφ (μm)
SL0 cell number

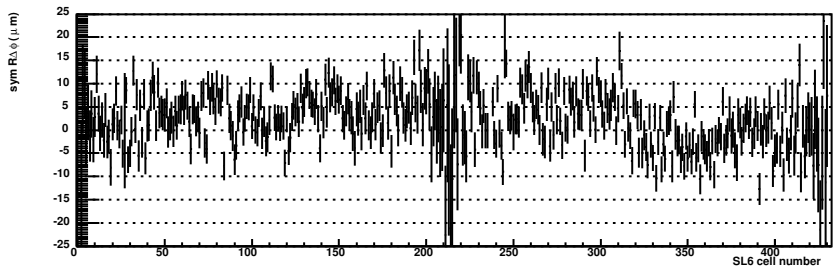

sym RΔφ (μm)
SL1 cell number

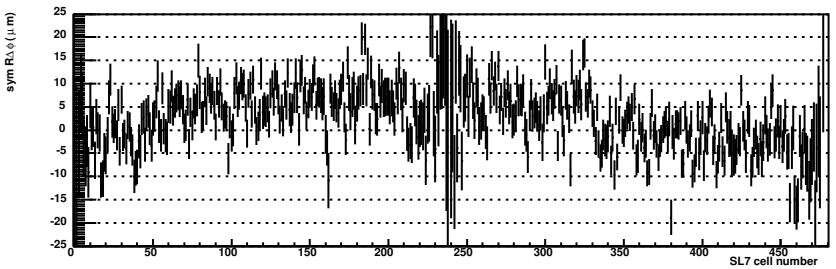

sym RΔφ (μm)
SL2 cell number

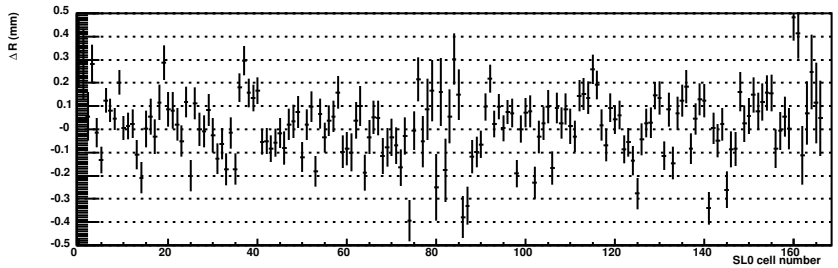

sym RΔφ (μm)
SL3 cell number

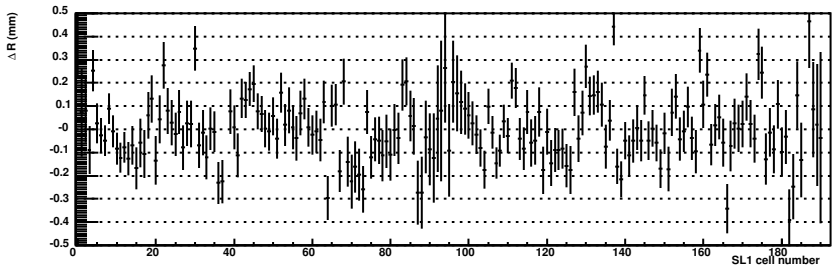

sym RΔφ (μm)
SL4 cell number

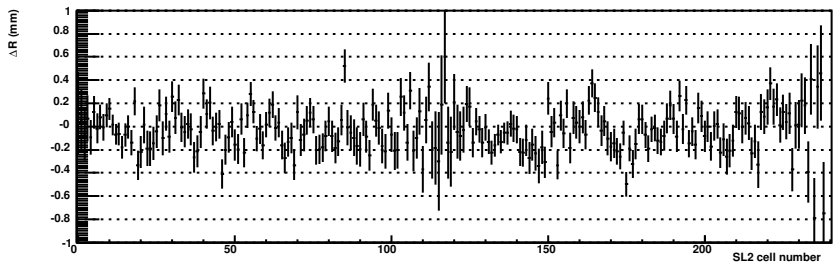

sym RΔφ (μm)
SL5 cell number

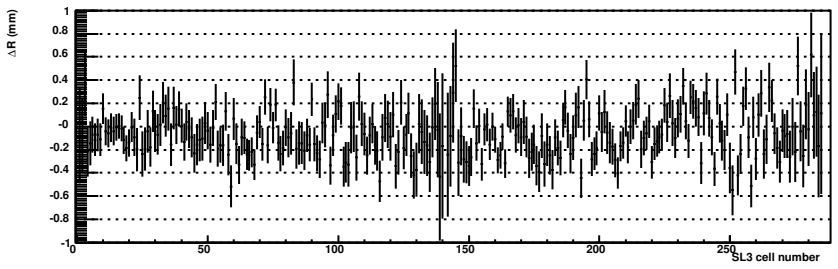

sym RΔφ (μm)
SL6 cell number

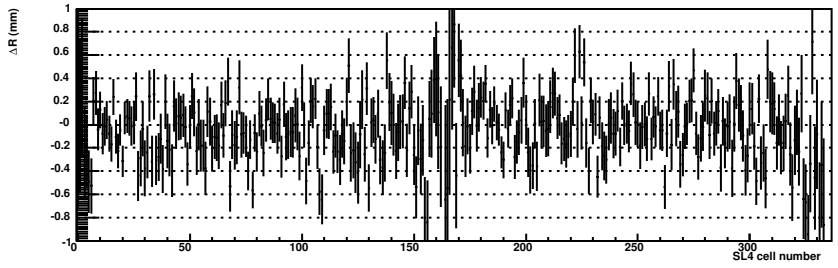

sym RΔφ (μm)
SL7 cell number

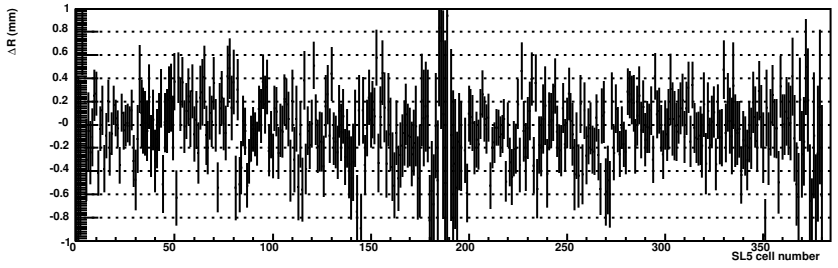

ΔR (mm)
SL0 cell number

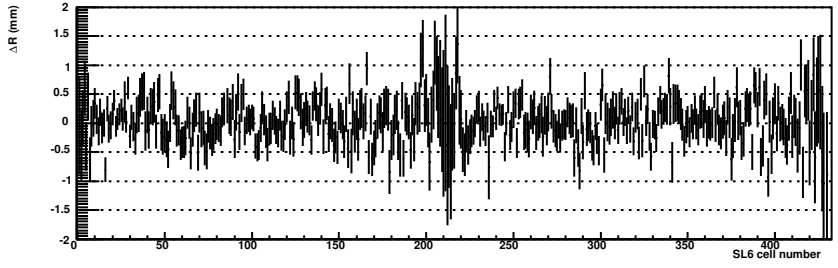

ΔR (mm)
SL1 cell number

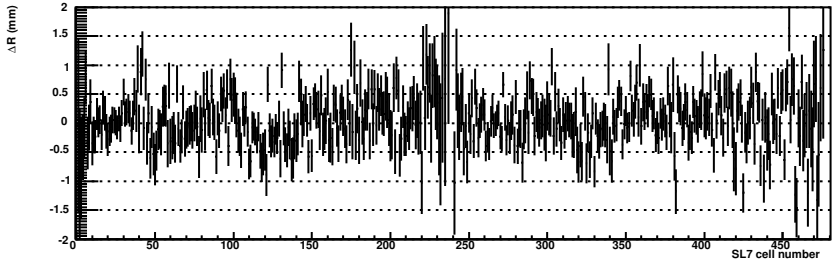

ΔR (mm)
SL2 cell number

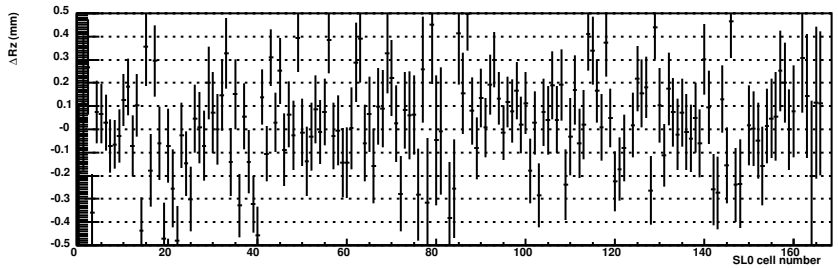

ΔR (mm)
SL3 cell number

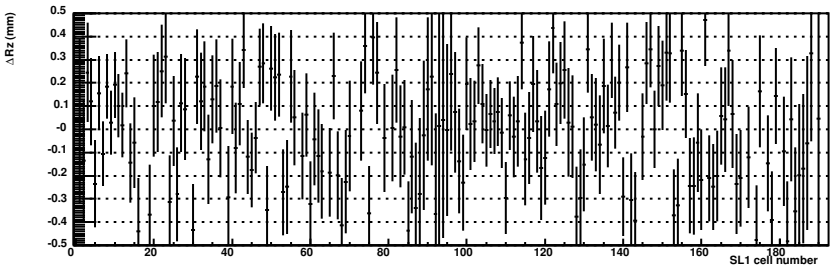

ΔR (mm)
SL4 cell number

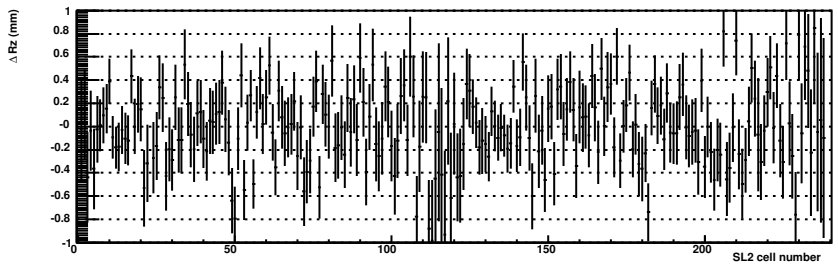

ΔR (mm)
SL5 cell number

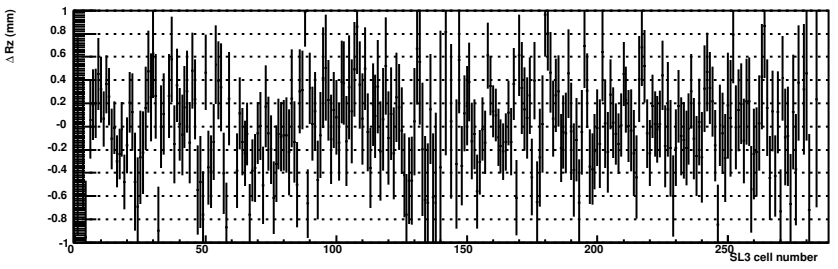

ΔR (mm)
SL6 cell number

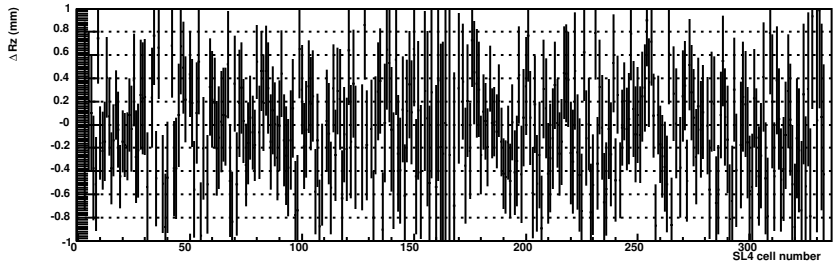

ΔR (mm)
SL7 cell number

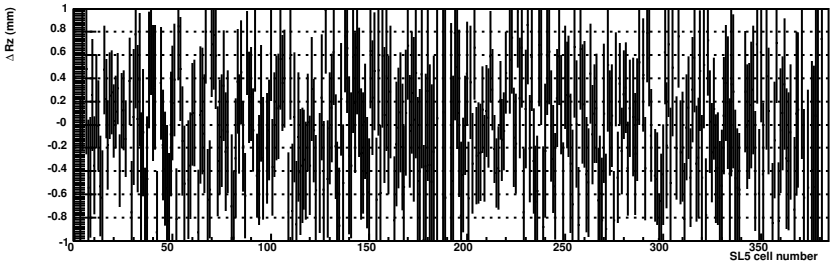

ΔRz (mm)
SL0 cell number

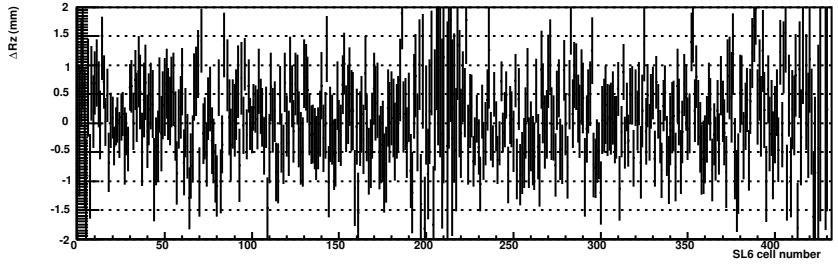

ΔRz (mm)
SL1 cell number

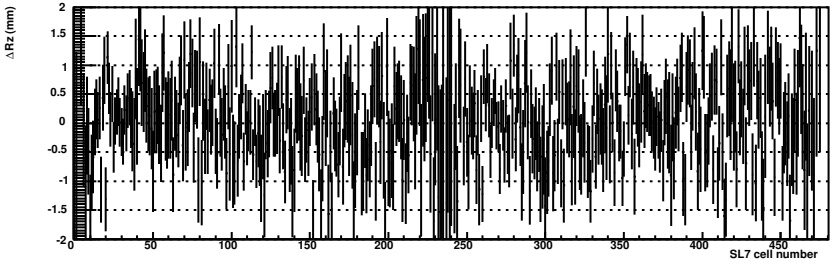

ΔRz (mm)
SL2 cell number

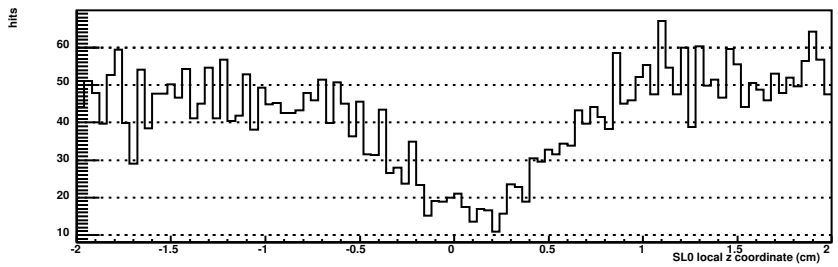

ΔRz (mm)
SL3 cell number

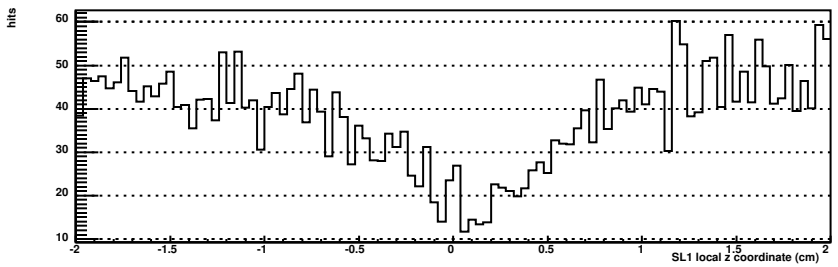

ΔRz (mm)
SL4 cell number

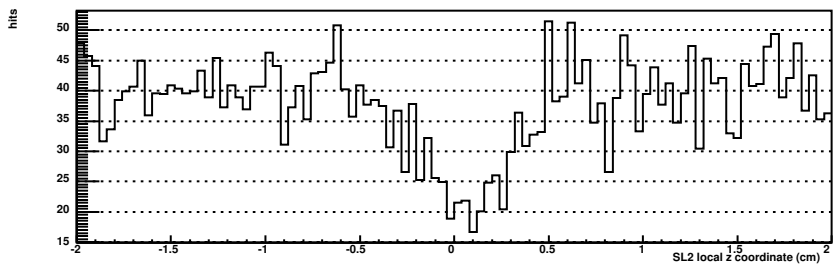

ΔRz (mm)
SL5 cell number

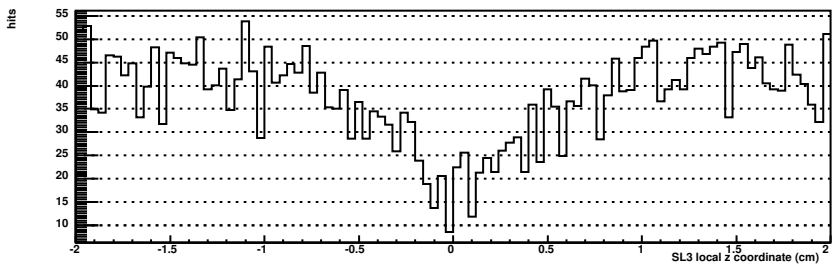

ΔRz (mm)
SL6 cell number

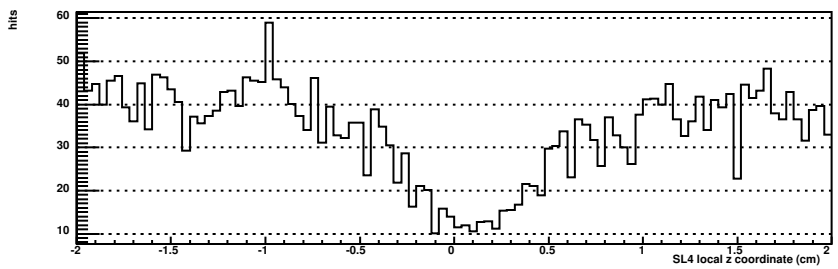

ΔRz (mm)
SL7 cell number

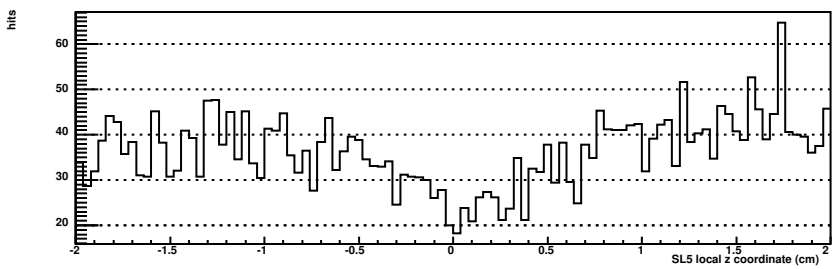

hits
SL0 local z coordinate (cm)

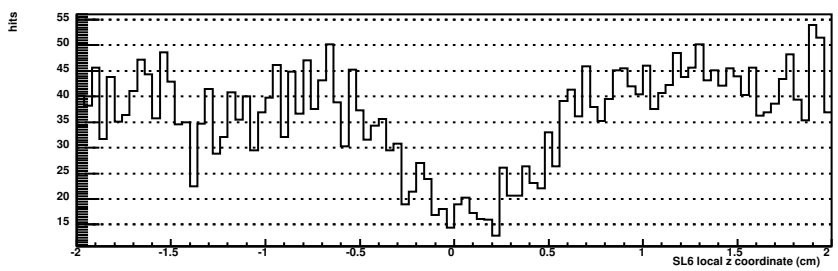

hits
SL1 local z coordinate (cm)

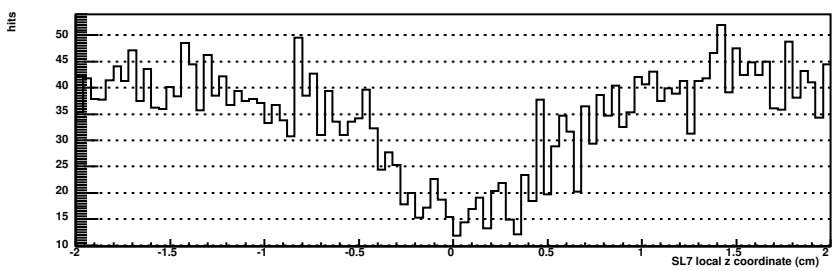

hits
SL2 local z coordinate (cm)

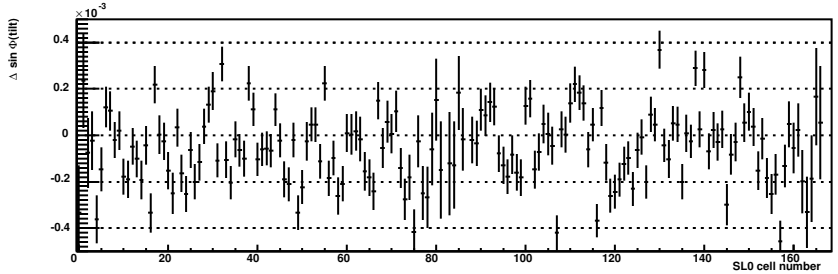

hits
SL3 local z coordinate (cm)

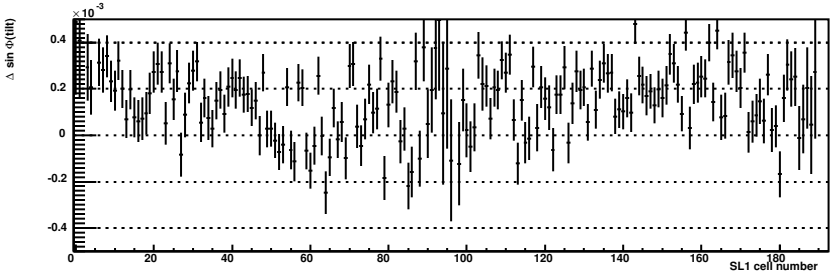

hits
SL4 local z coordinate (cm)

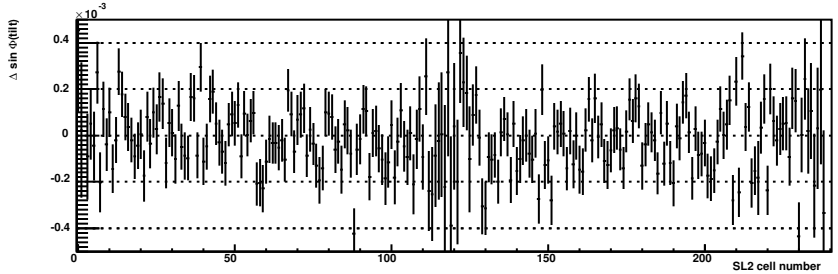

hits
SL5 local z coordinate (cm)

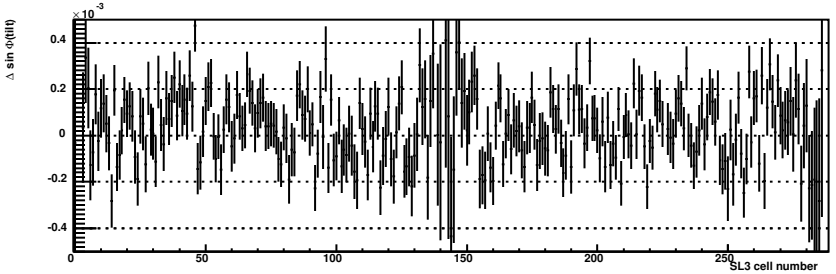

hits
SL6 local z coordinate (cm)

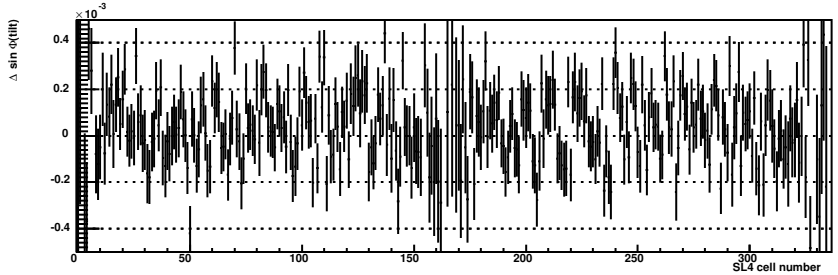

hits
SL7 local z coordinate (cm)

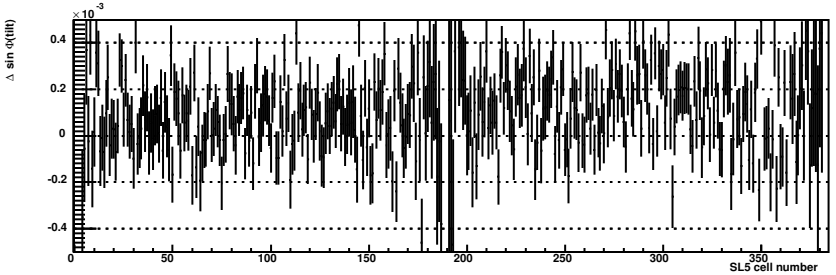

×10^-3
Δ sin Φ(tilt)
SL0 cell number

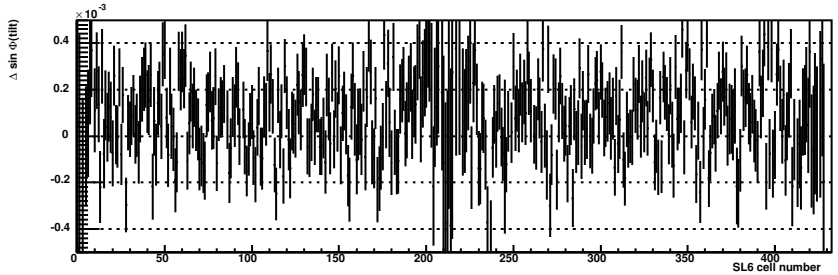

×10^-3
Δ sin Φ(tilt)
SL1 cell number

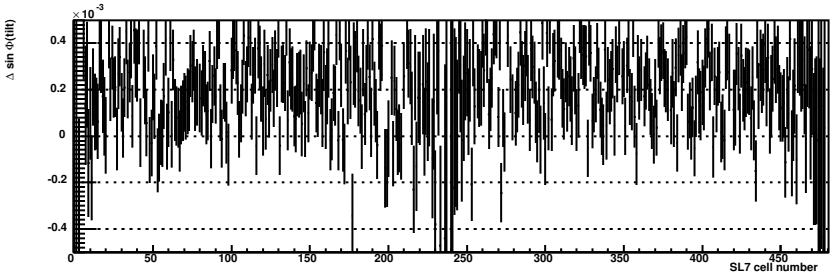

×10^-3
Δ sin Φ(tilt)
SL2 cell number

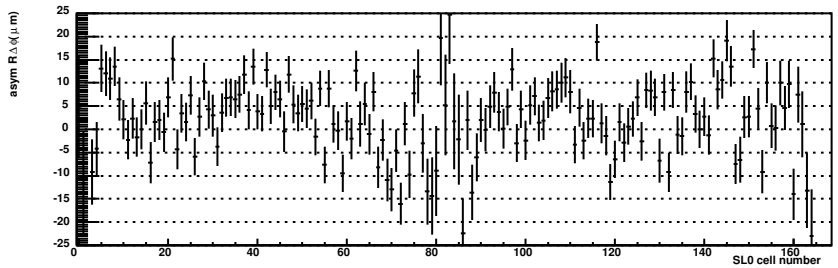

×10^-3
Δ sin Φ(tilt)
SL3 cell number

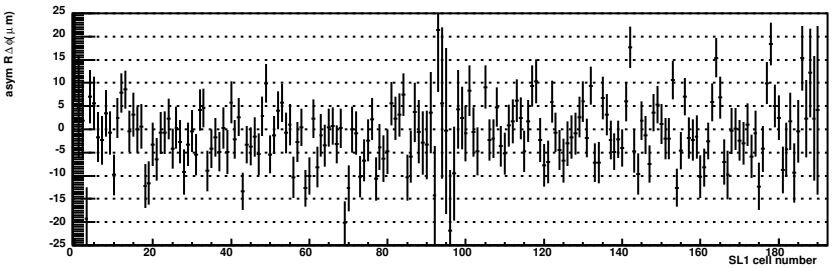

×10^-3
Δ sin Φ(tilt)
SL4 cell number

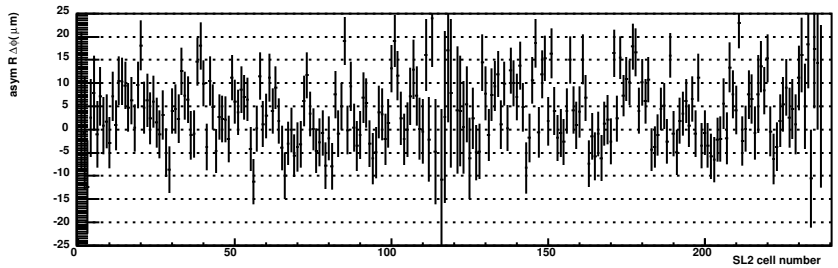

×10^-3
Δ sin Φ(tilt)
SL5 cell number

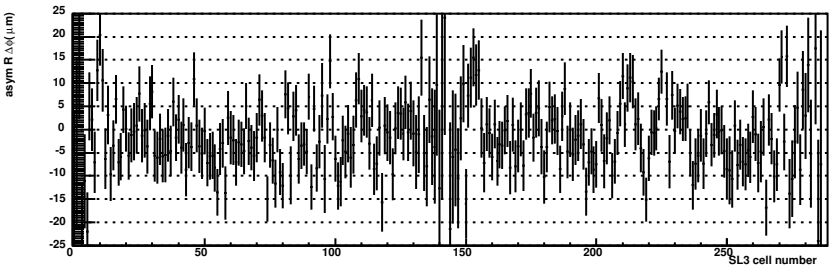

×10^-3
Δ sin Φ(tilt)
SL6 cell number

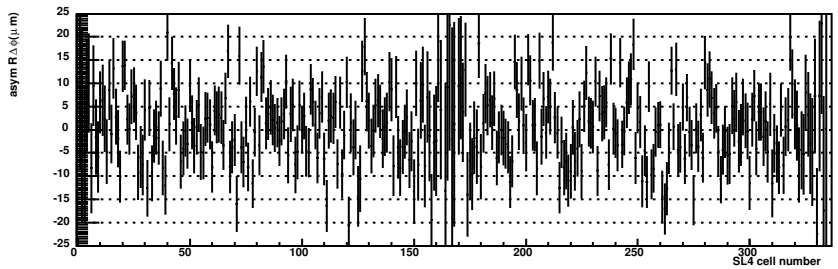

×10^-3
Δ sin Φ(tilt)
SL7 cell number

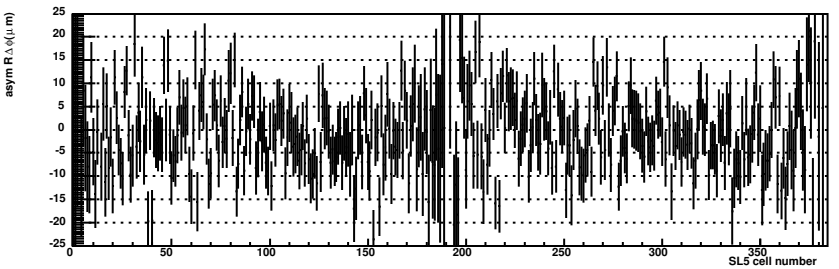

asym R Δ𝜙(μm)
SL0 cell number

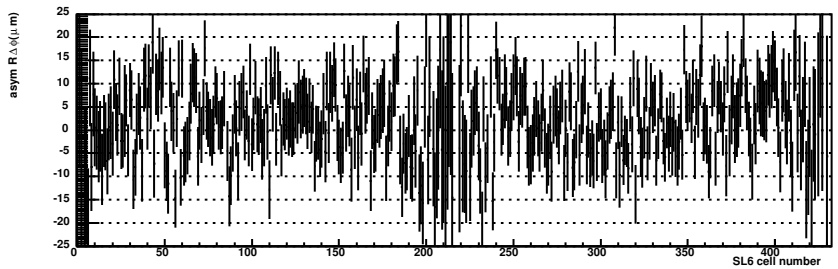

asym R Δ𝜙(μm)
SL1 cell number

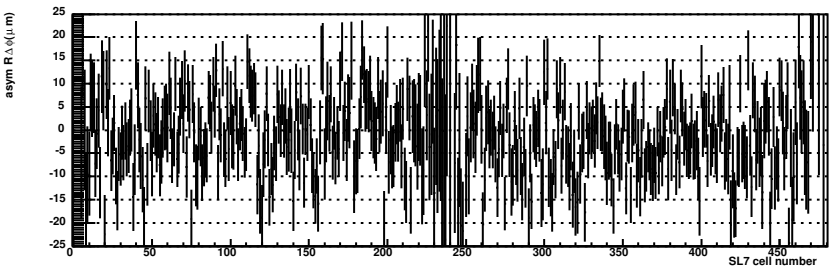

asym R Δ𝜙(μm)
SL2 cell number

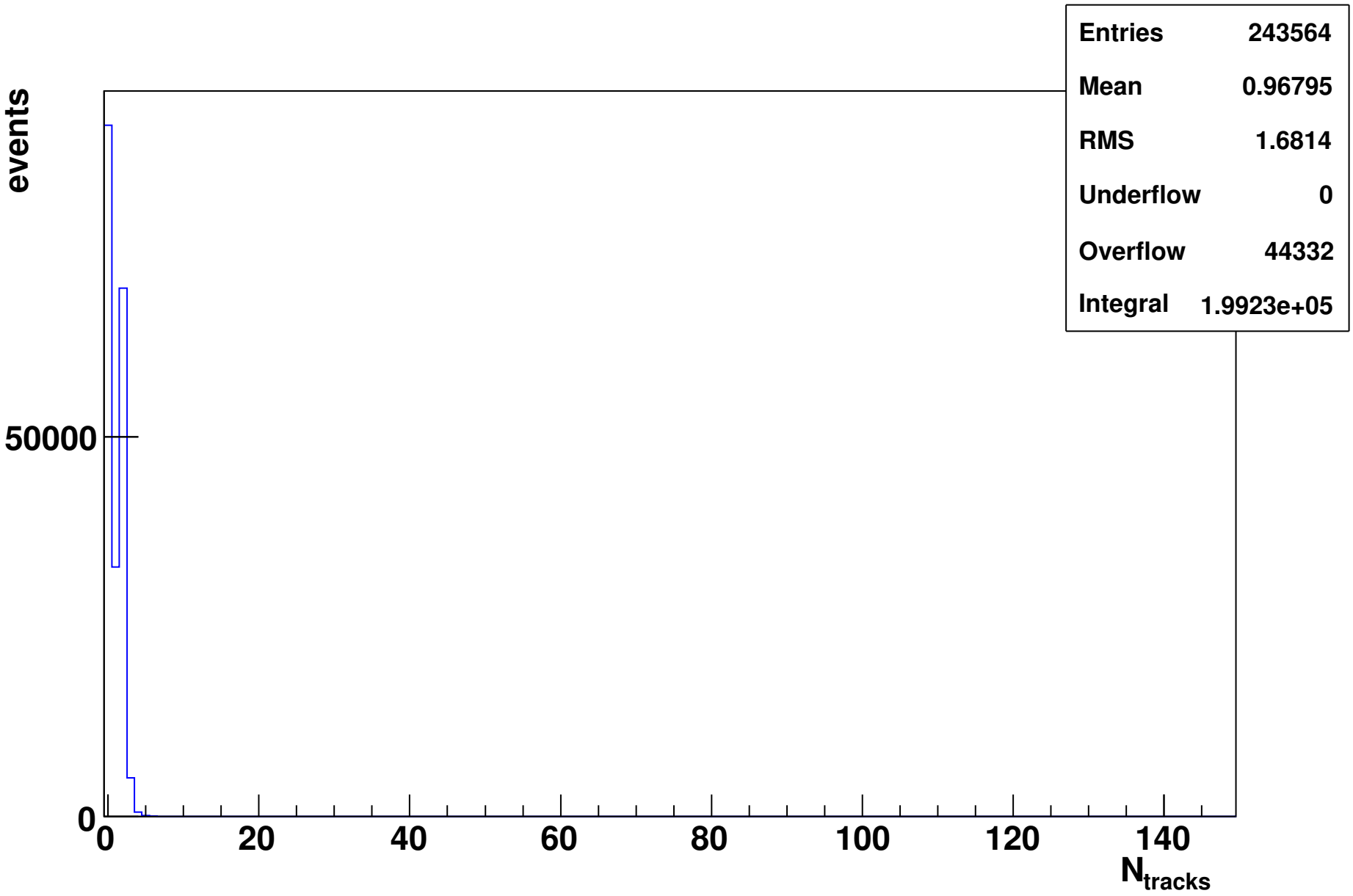

asym R Δ𝜙(μm)
SL3 cell number

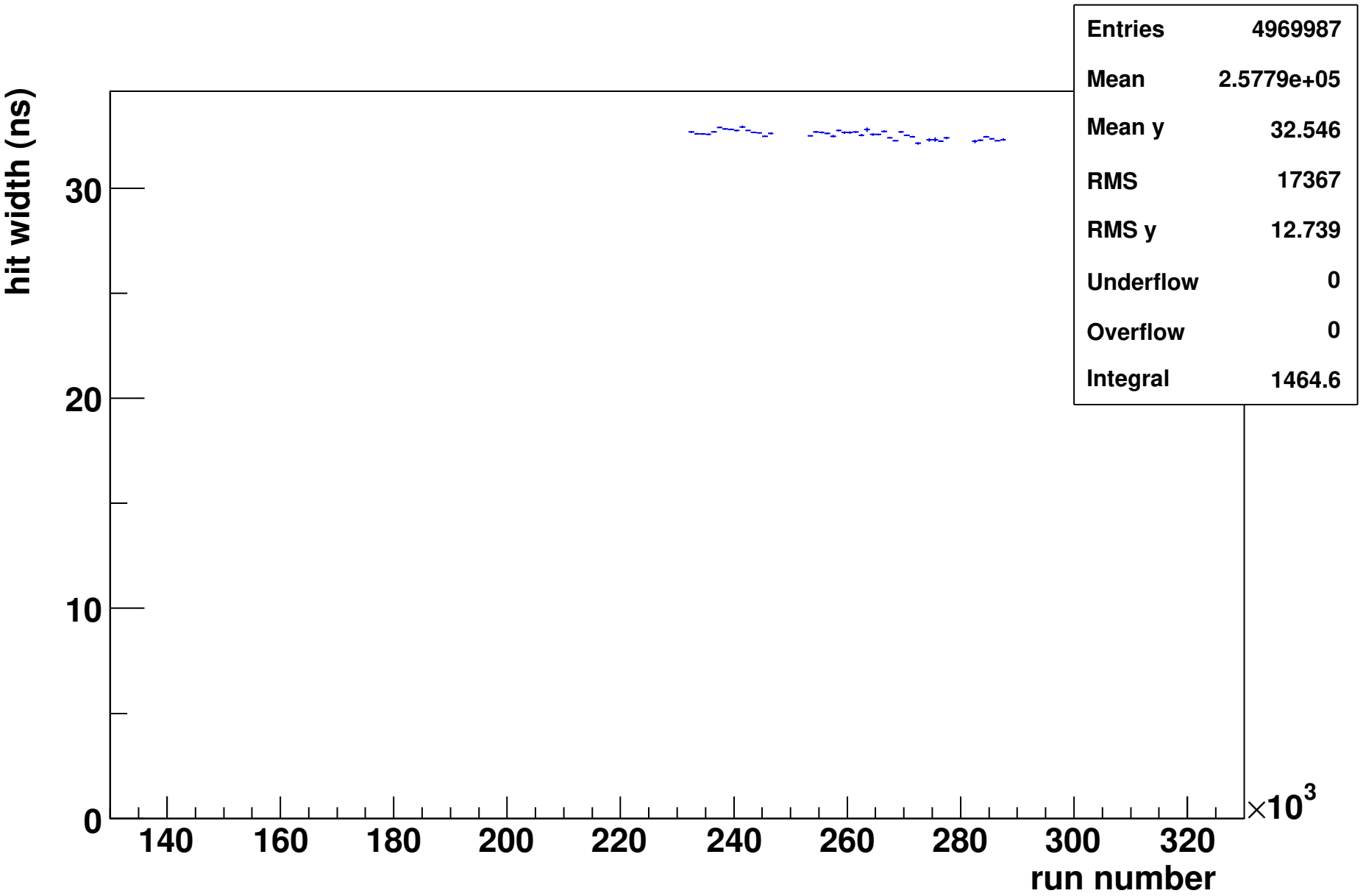

asym R Δ𝜙(μm)
SL4 cell number

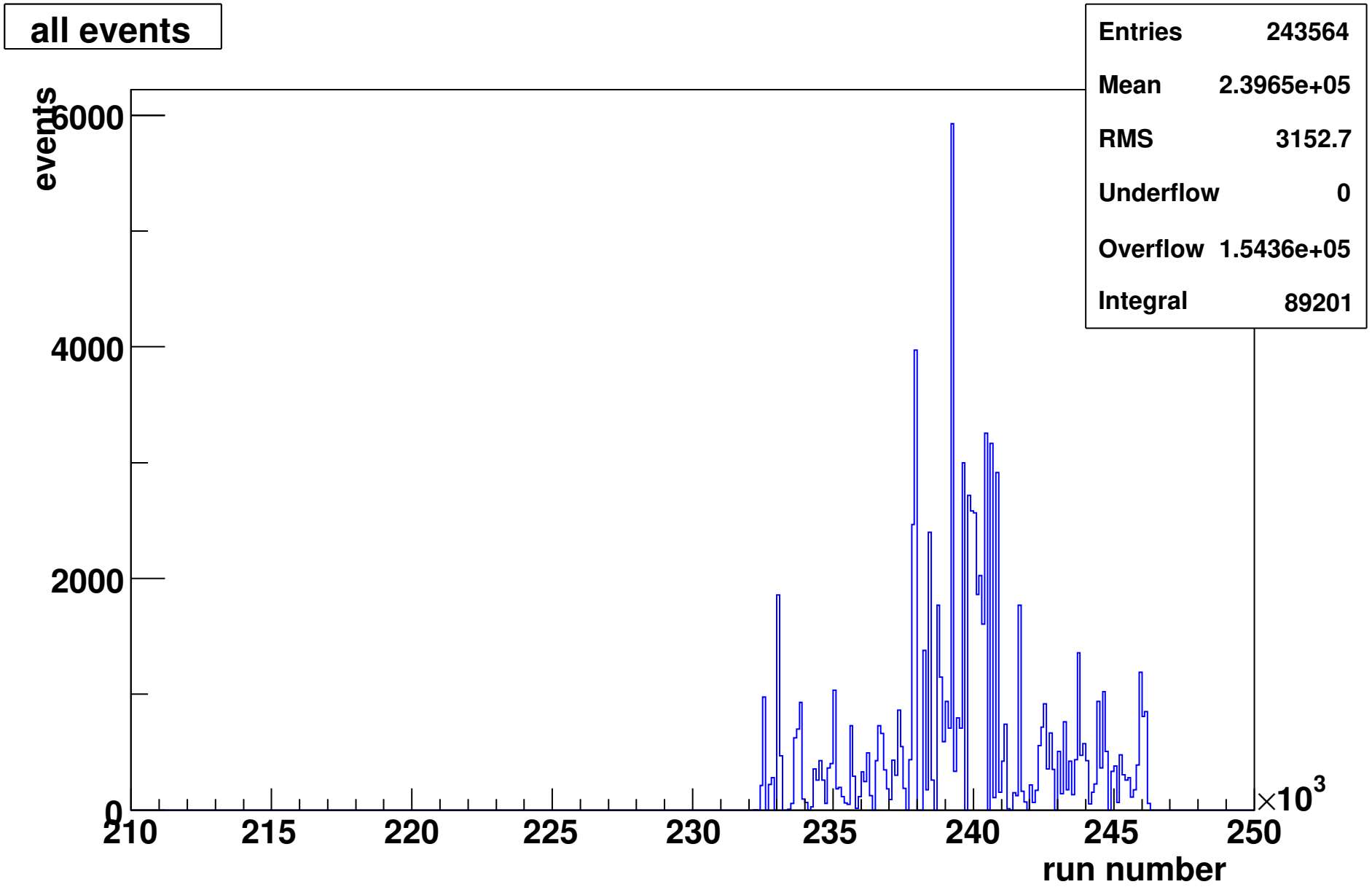

asym R Δ𝜙(μm)
SL5 cell number

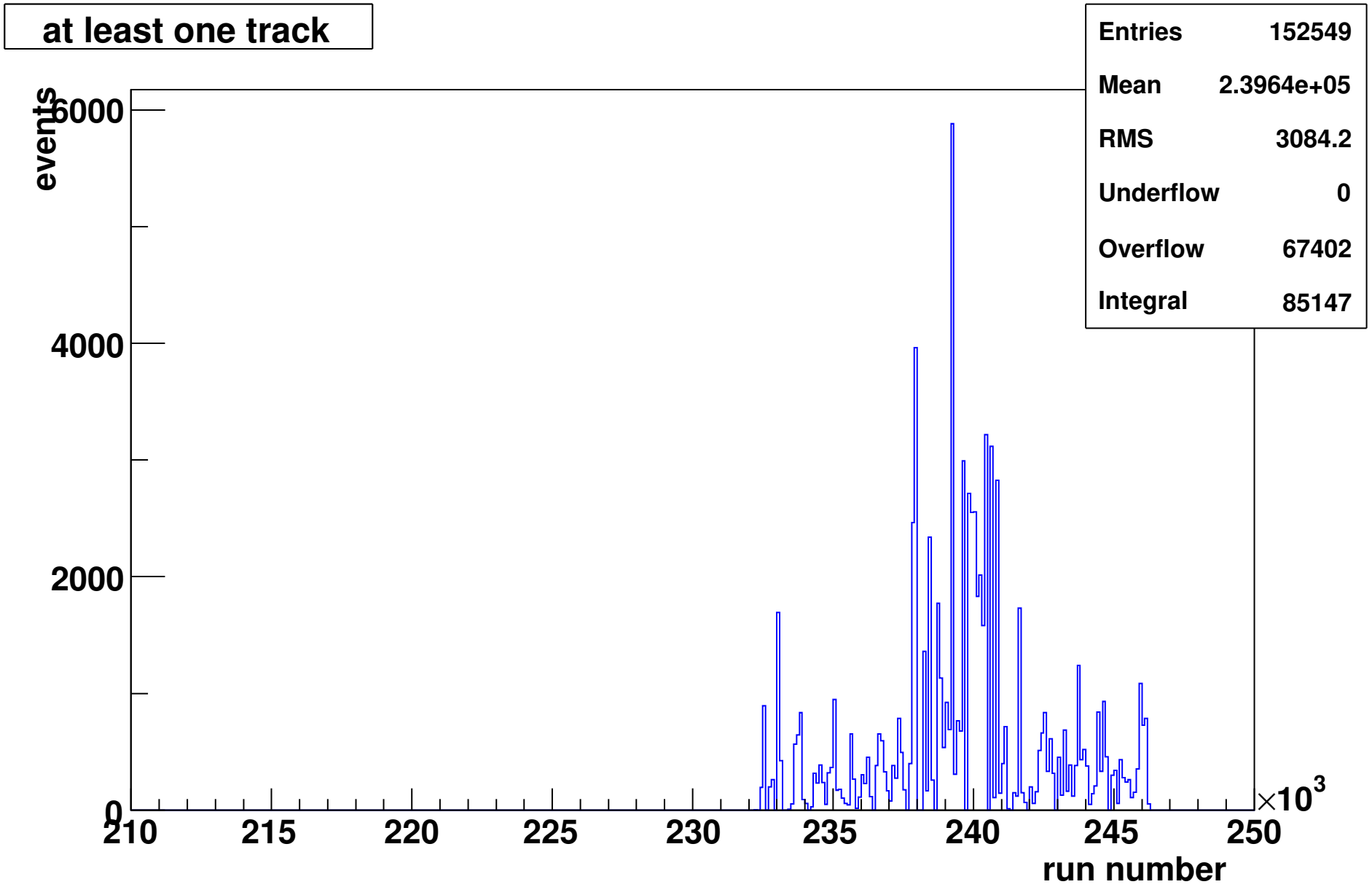

asym R Δ𝜙(μm)
SL6 cell number

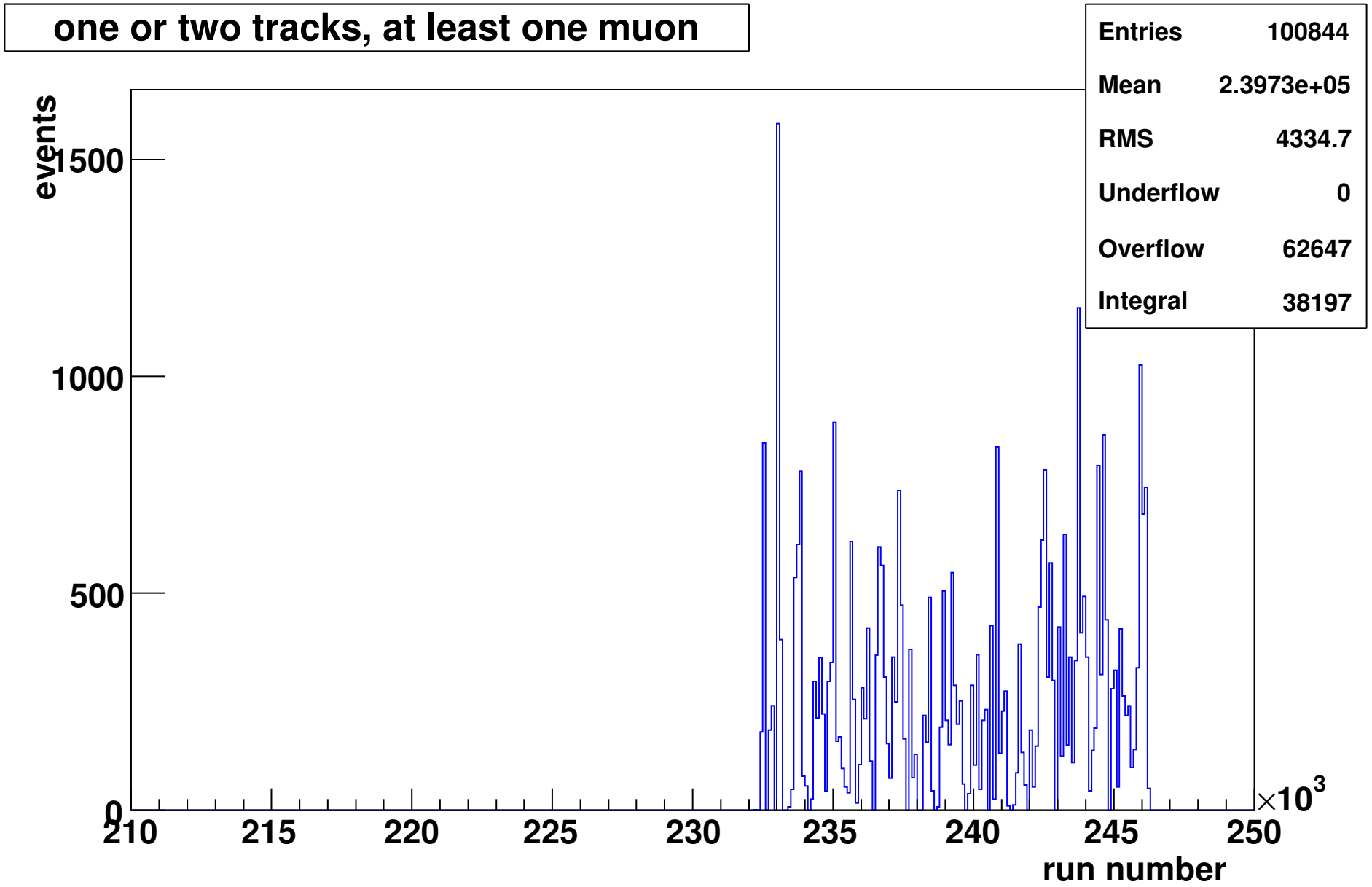

asym R Δ𝜙(μm)
SL7 cell number

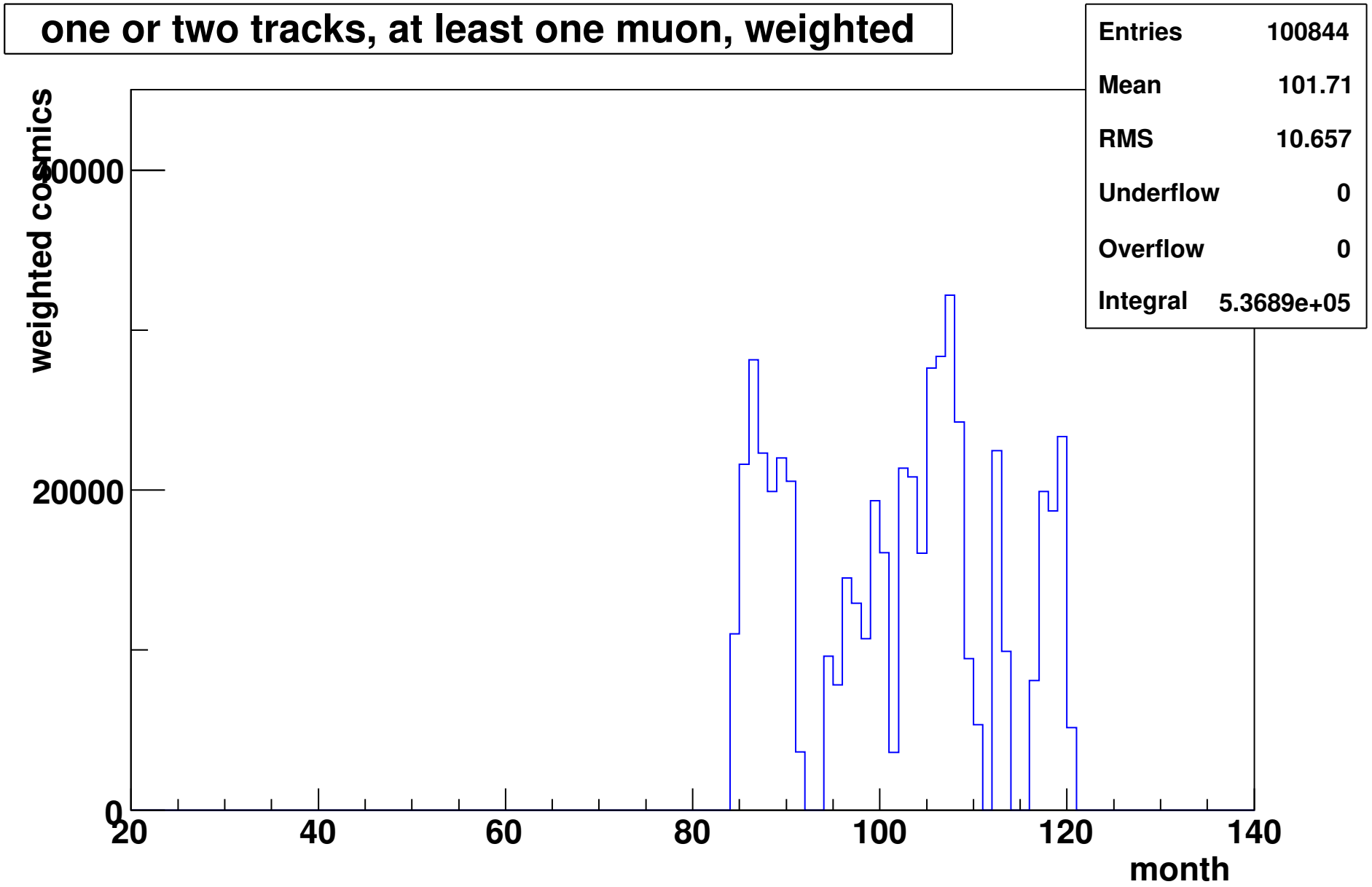

Entries 243564
Mean 0.96795
RMS 1.6814
Underflow 0
Overflow 44332
Integral 1.9923e+05
events
50000
0
0
20
40
60
80
100
120
140
N_tracks

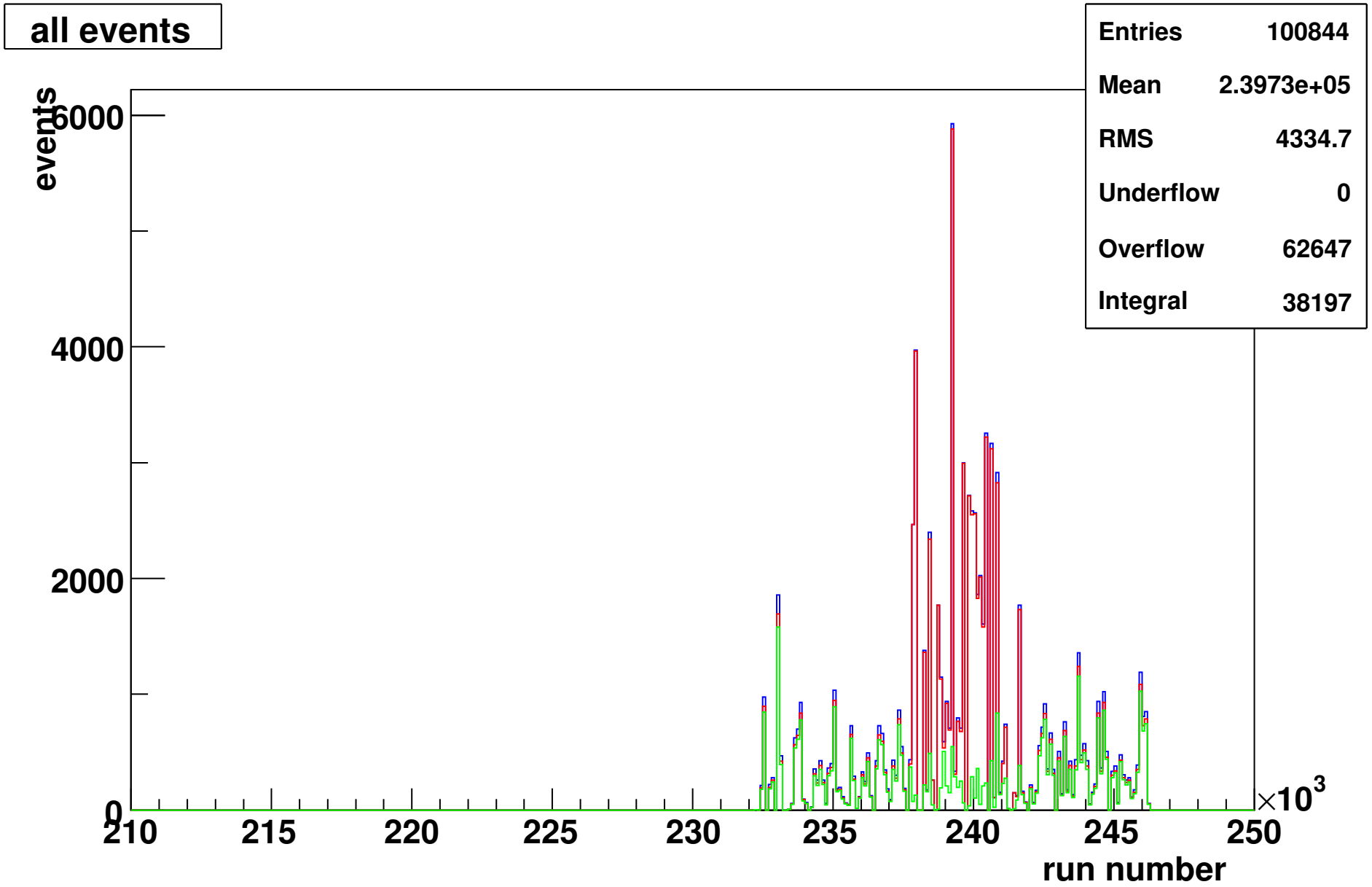

Entries 4969987
Mean 2.5779e+05
Mean y 32.546
RMS 17367
RMS y 12.739
Underflow 0
Overflow 0
Integral 1464.6
hit width (ns)
0
10
20
30
140
160
180
200
220
240
260
280
300
320
×10^3
run number

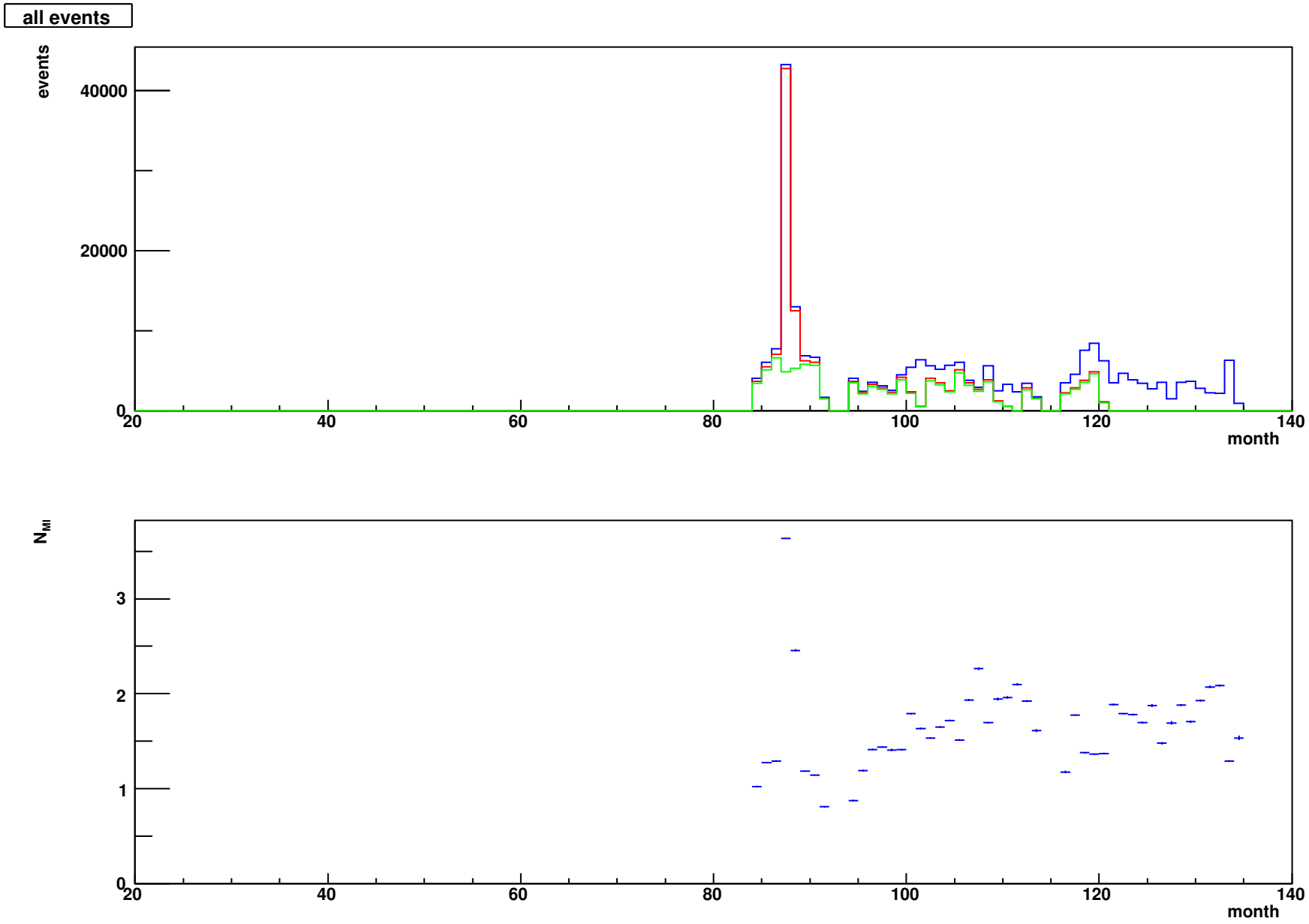

all events
Entries 243564
Mean 2.3965e+05
RMS 3152.7
Underflow 0
Overflow 1.5436e+05
Integral 89201
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

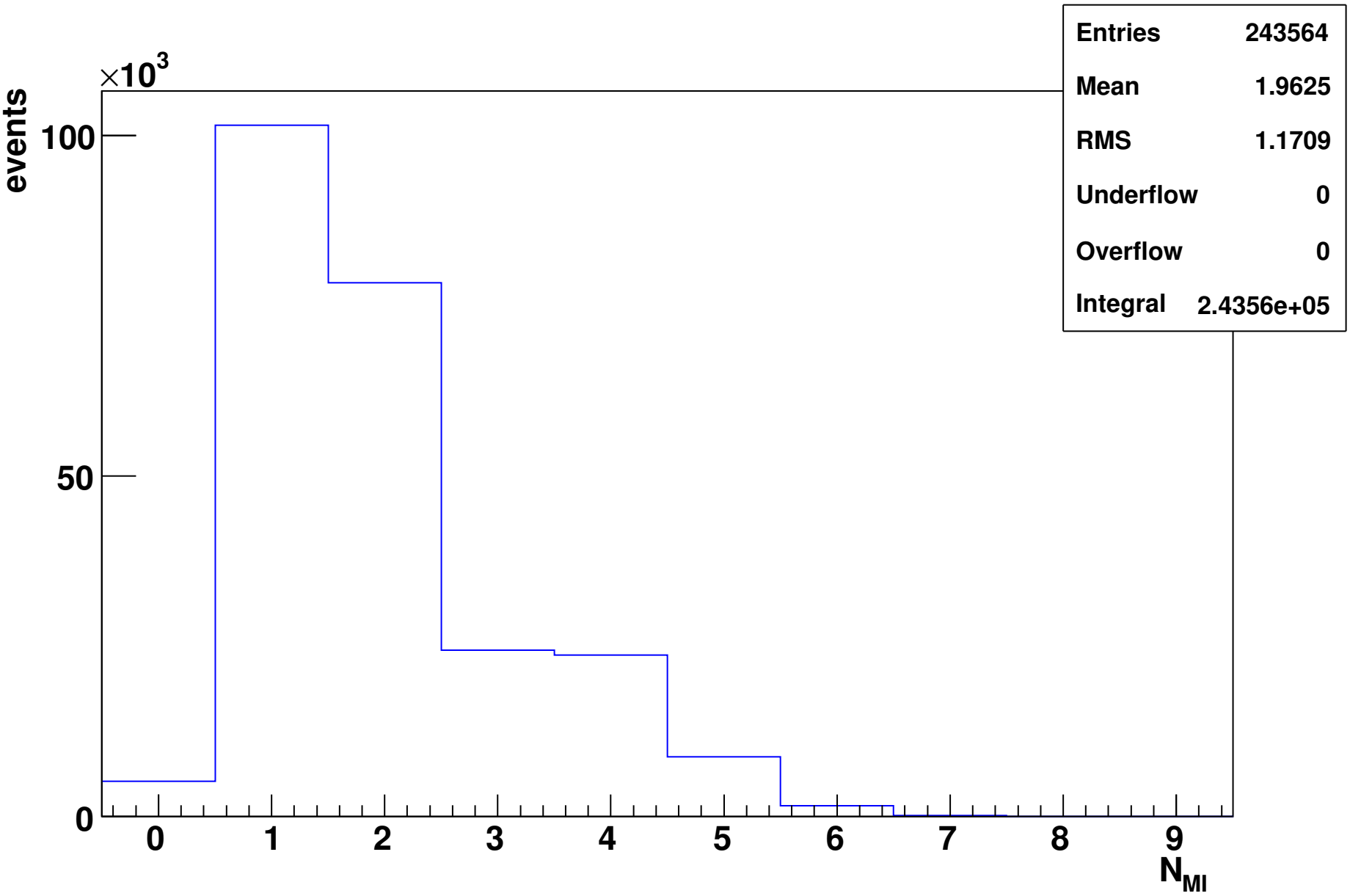

at least one track
Entries 152549
Mean 2.3964e+05
RMS 3084.2
Underflow 0
Overflow 67402
Integral 85147
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

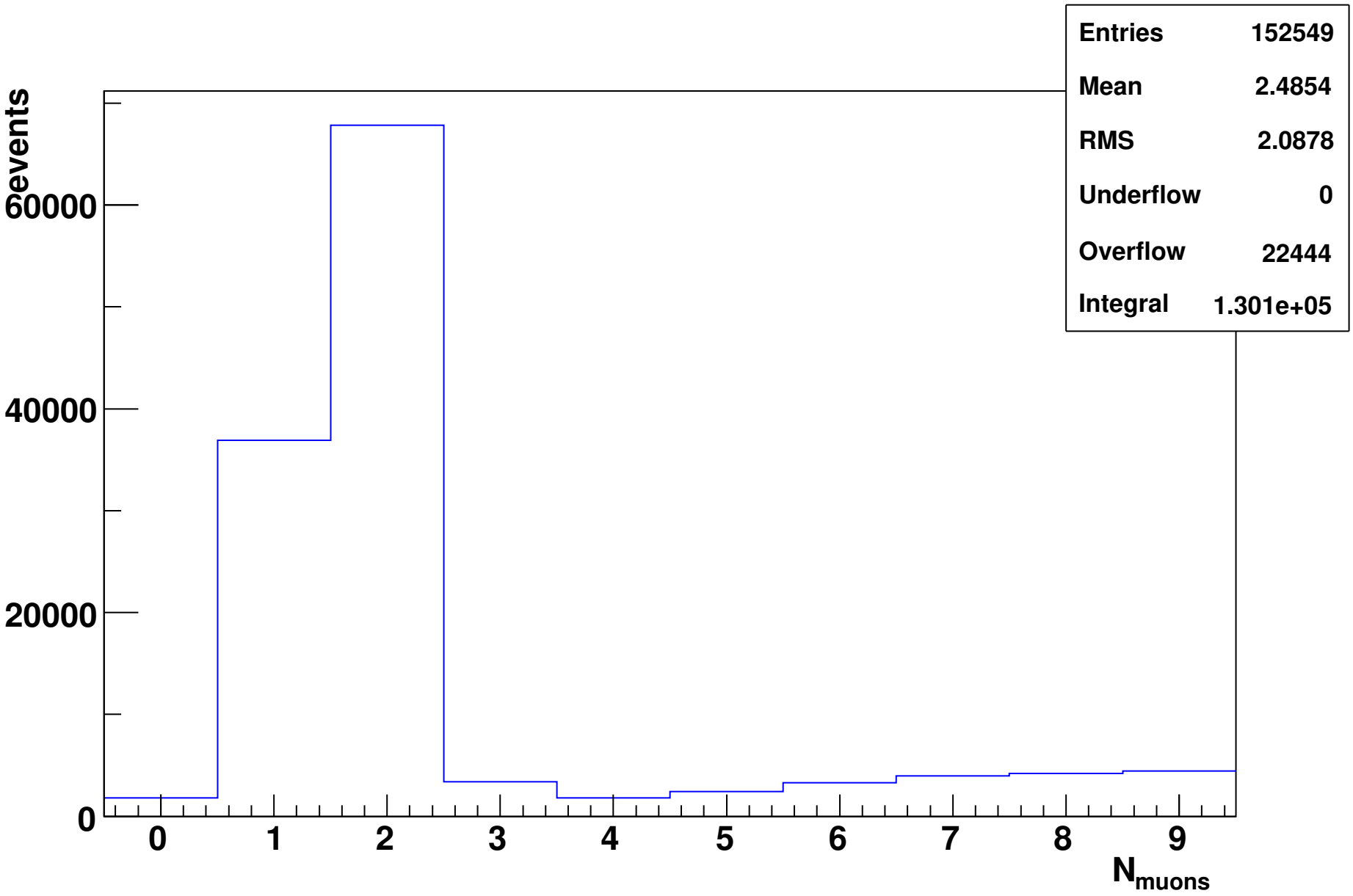

one or two tracks, at least one muon
Entries 100844
Mean 2.3973e+05
RMS 4334.7
Underflow 0
Overflow 62647
Integral 38197
events
1500
1000
500
0
210
215
220
225
230
235
240
245
250
×10^3
run number

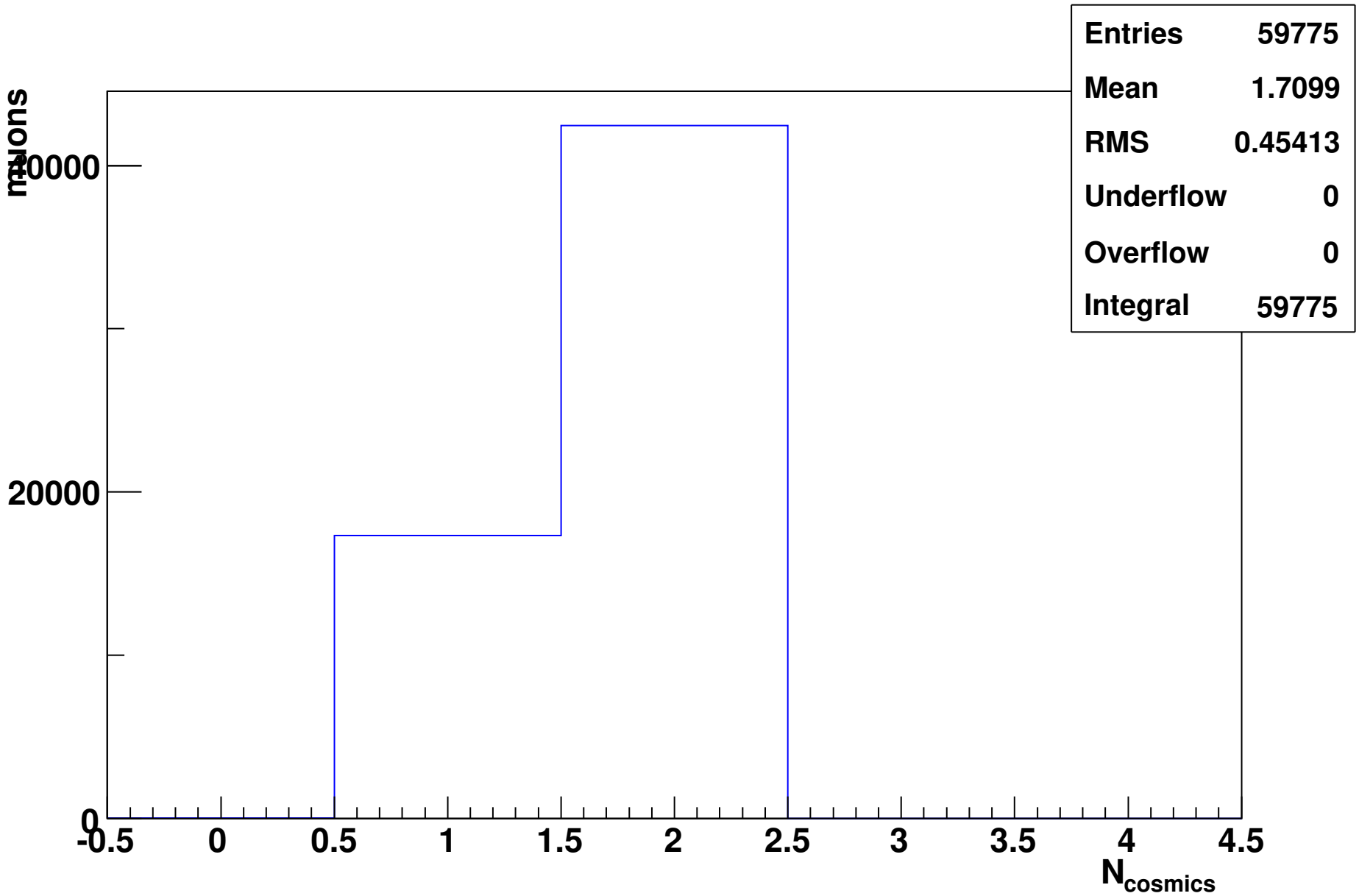

one or two tracks, at least one muon, weighted
Entries 100844
Mean 101.71
RMS 10.657
Underflow 0
Overflow 0
Integral 5.3689e+05
weighted cosmics
40000
20000
0
20
40
60
80
100
120
140
month

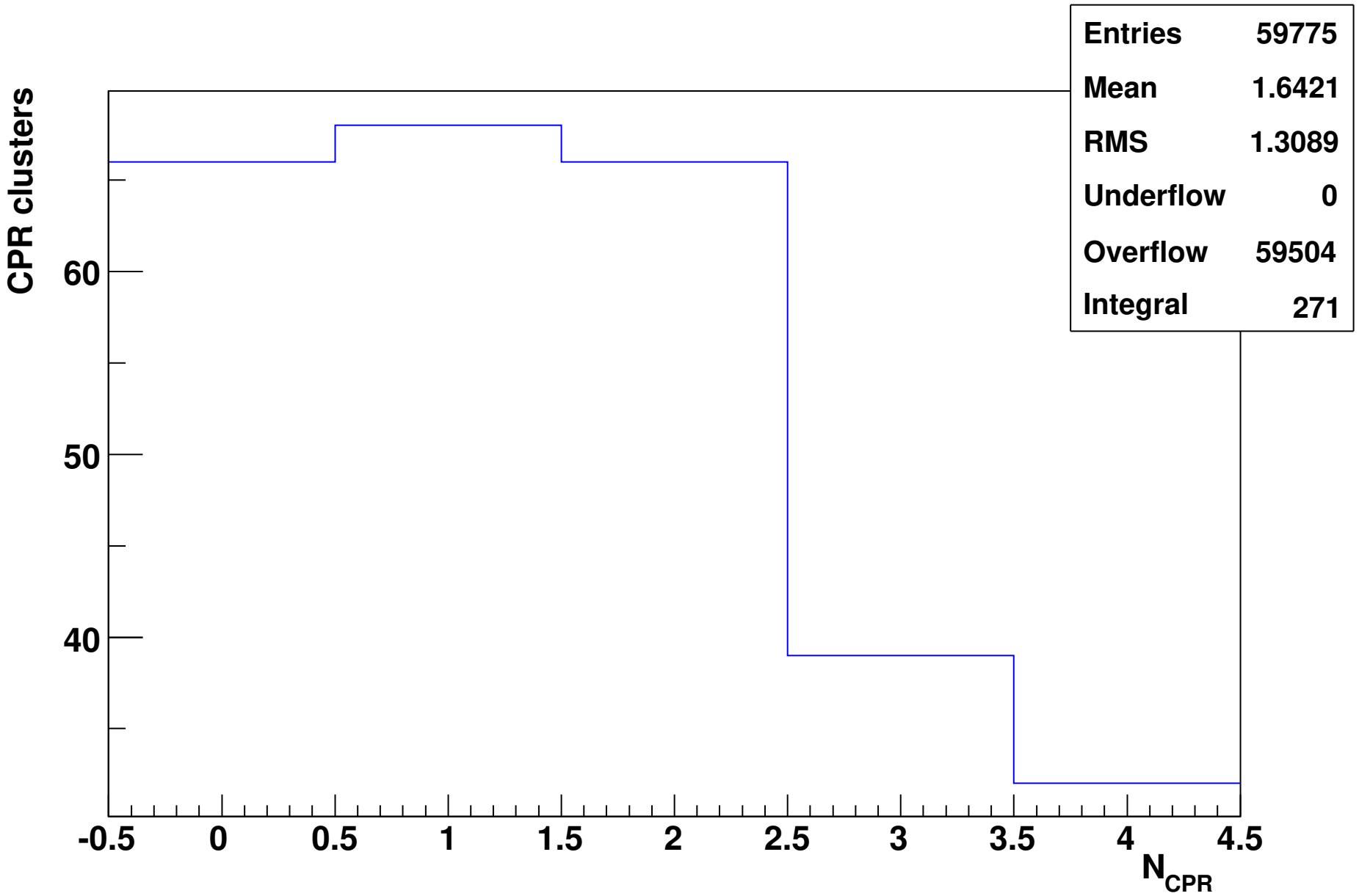

all events
Entries 100844
Mean 2.3973e+05
RMS 4334.7
Underflow 0
Overflow 62647
Integral 38197
events
6000
4000
2000
0
210
215
220
225
230
235
240
245
250
×10^3
run number

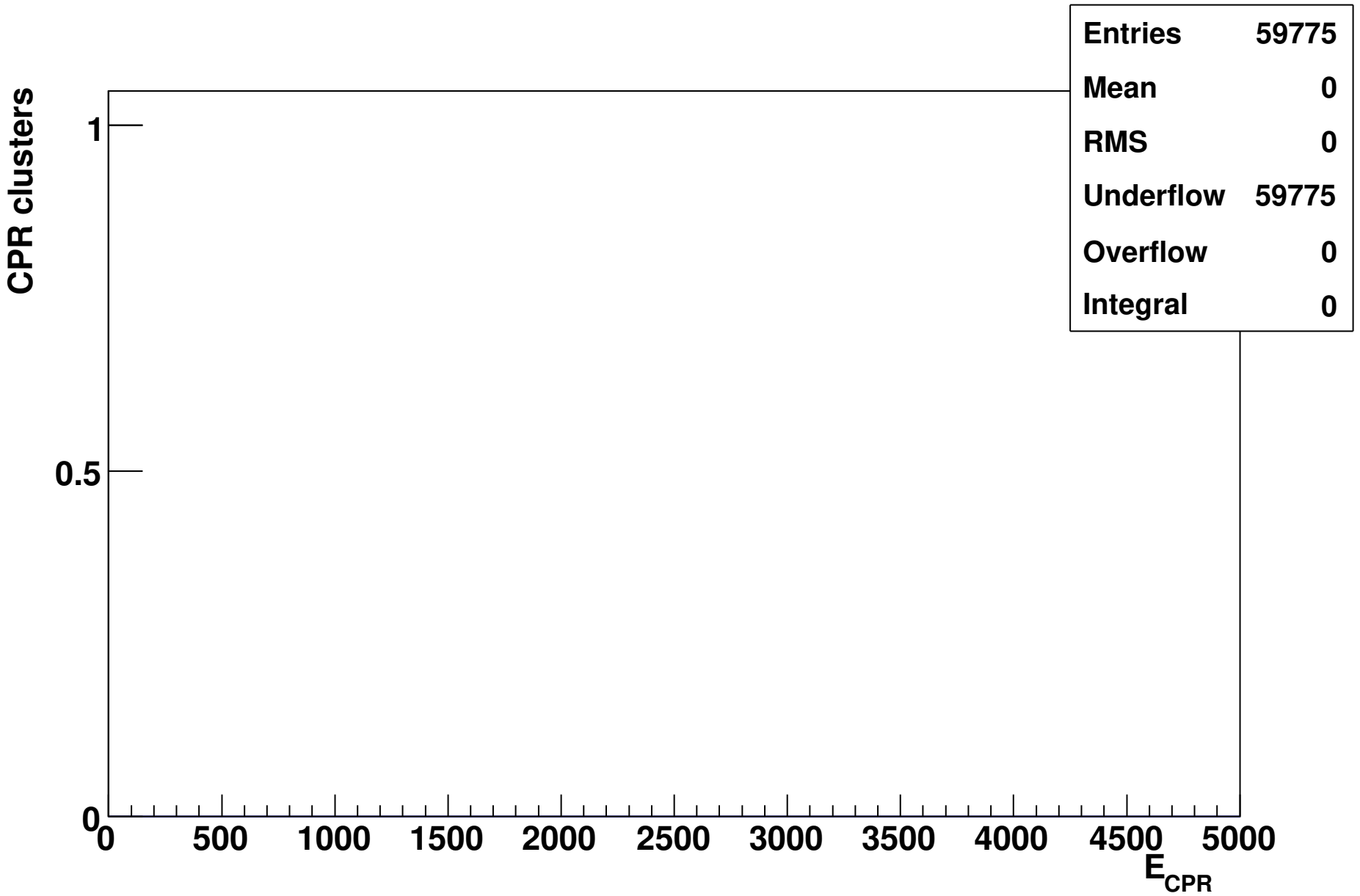

all events
events
40000
20000
0
20
40
60
80
100
120
140
month
N_{MI}
3
2
1
0
20
40
60
80
100
120
140
month

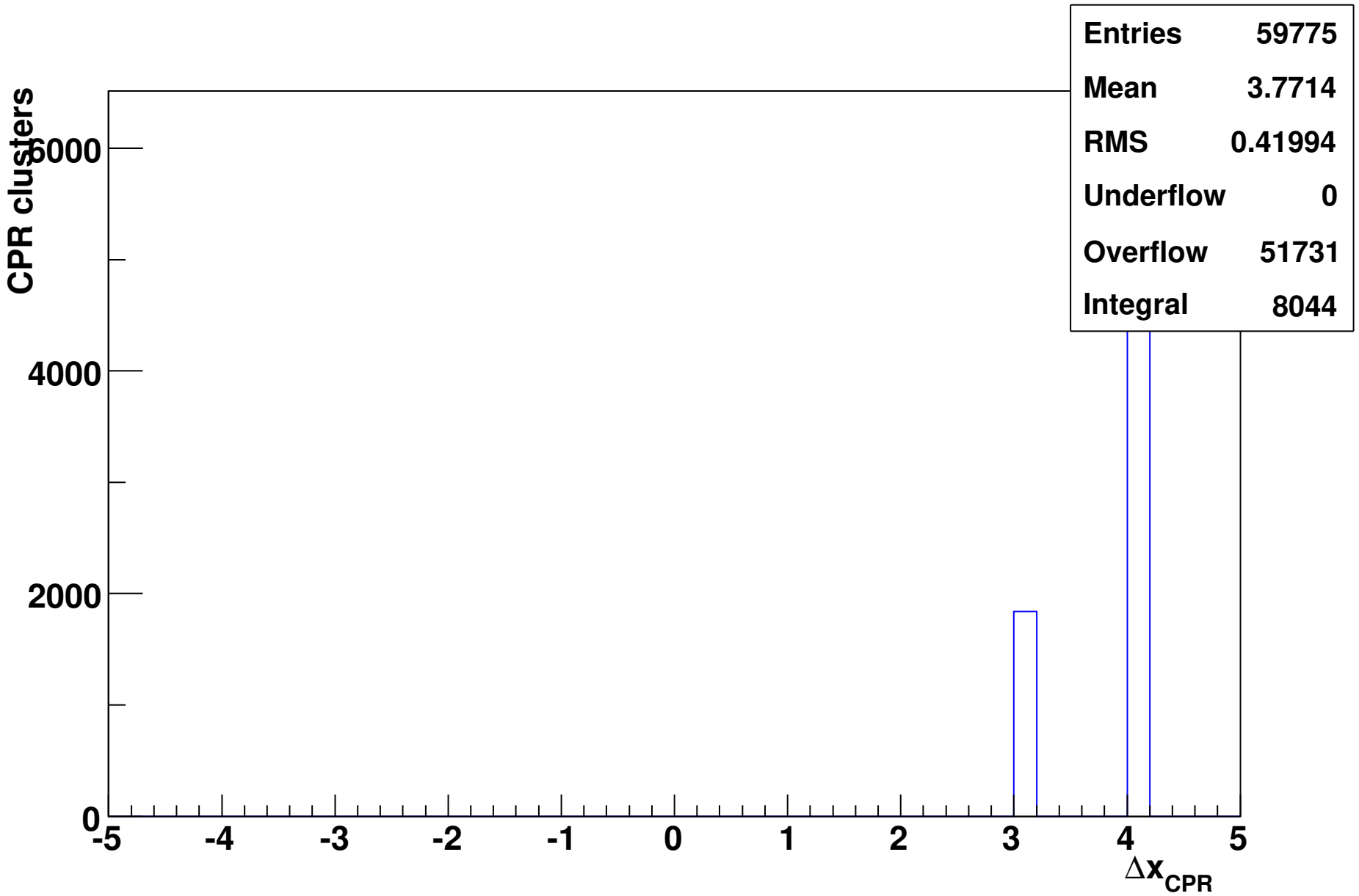

Entries 243564
Mean 1.9625
RMS 1.1709
Underflow 0
Overflow 0
Integral 2.4356e+05
×10^3
events
100
50
0
0
1
2
3
4
5
6
7
8
9
N_MI

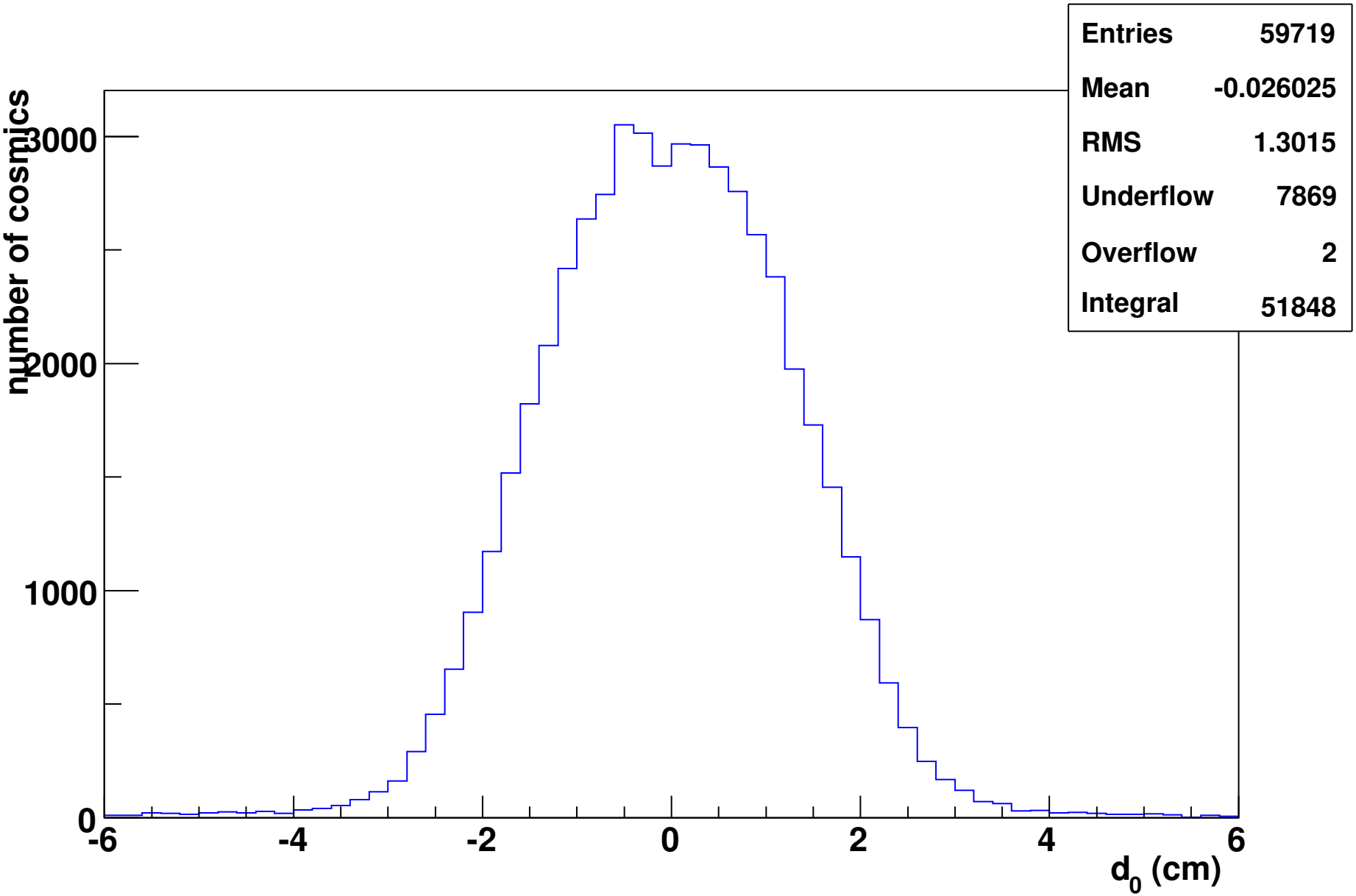

Entries 152549
Mean 2.4854
RMS 2.0878
Underflow 0
Overflow 22444
Integral 1.301e+05
events
60000
40000
20000
0
0
1
2
3
4
5
6
7
8
9
N muons

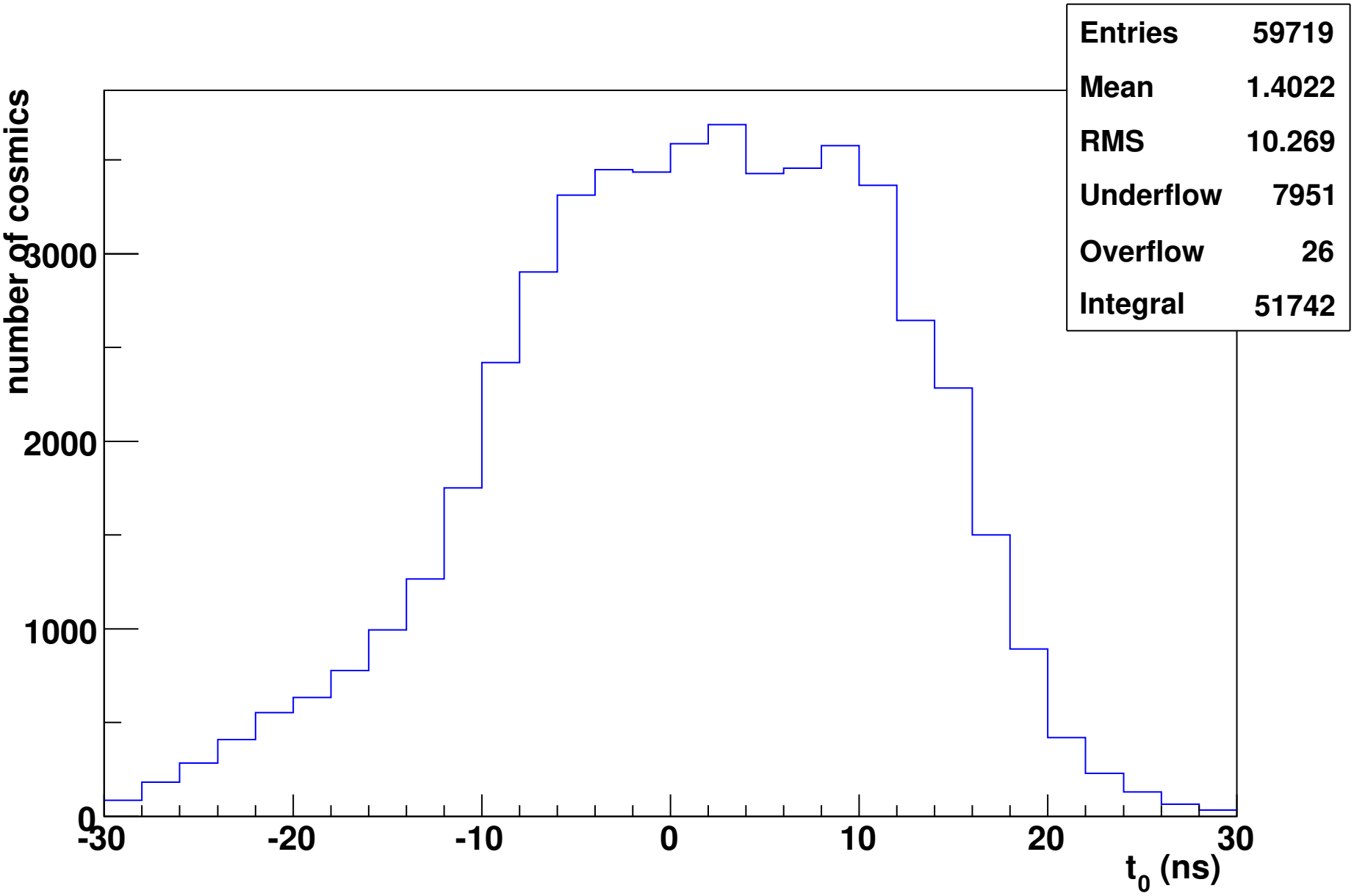

Entries 59775
Mean 1.7099
RMS 0.45413
Underflow 0
Overflow 0
Integral 59775
muons
40000
20000
0
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N cosmics

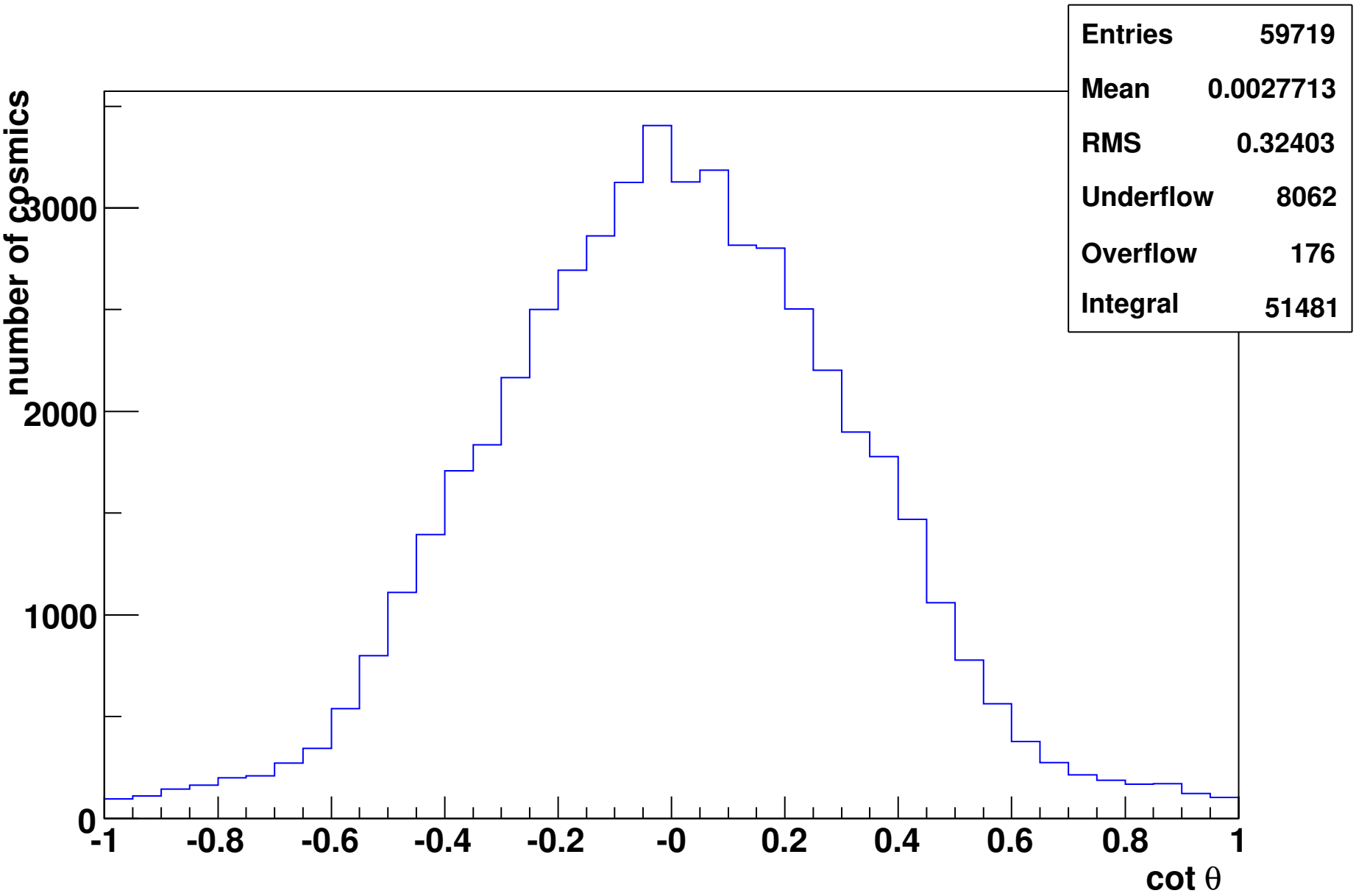

CPR clusters
60
50
40
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
N_CPR
Entries 59775
Mean 1.6421
RMS 1.3089
Underflow 0
Overflow 59504
Integral 271

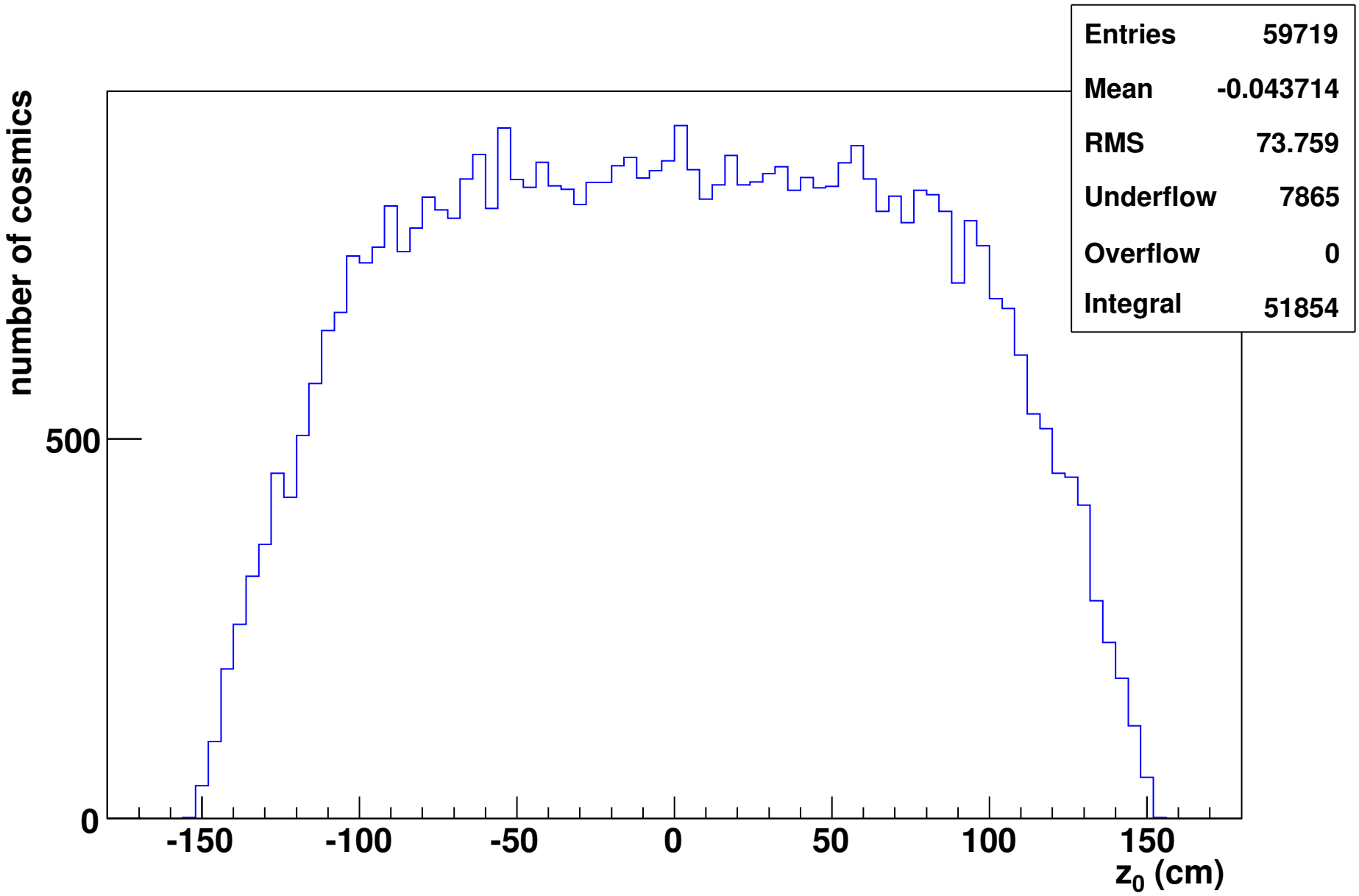

Entries 59775
Mean 0
RMS 0
Underflow 59775
Overflow 0
Integral 0
CPR clusters
1
0.5
0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
E_CPR

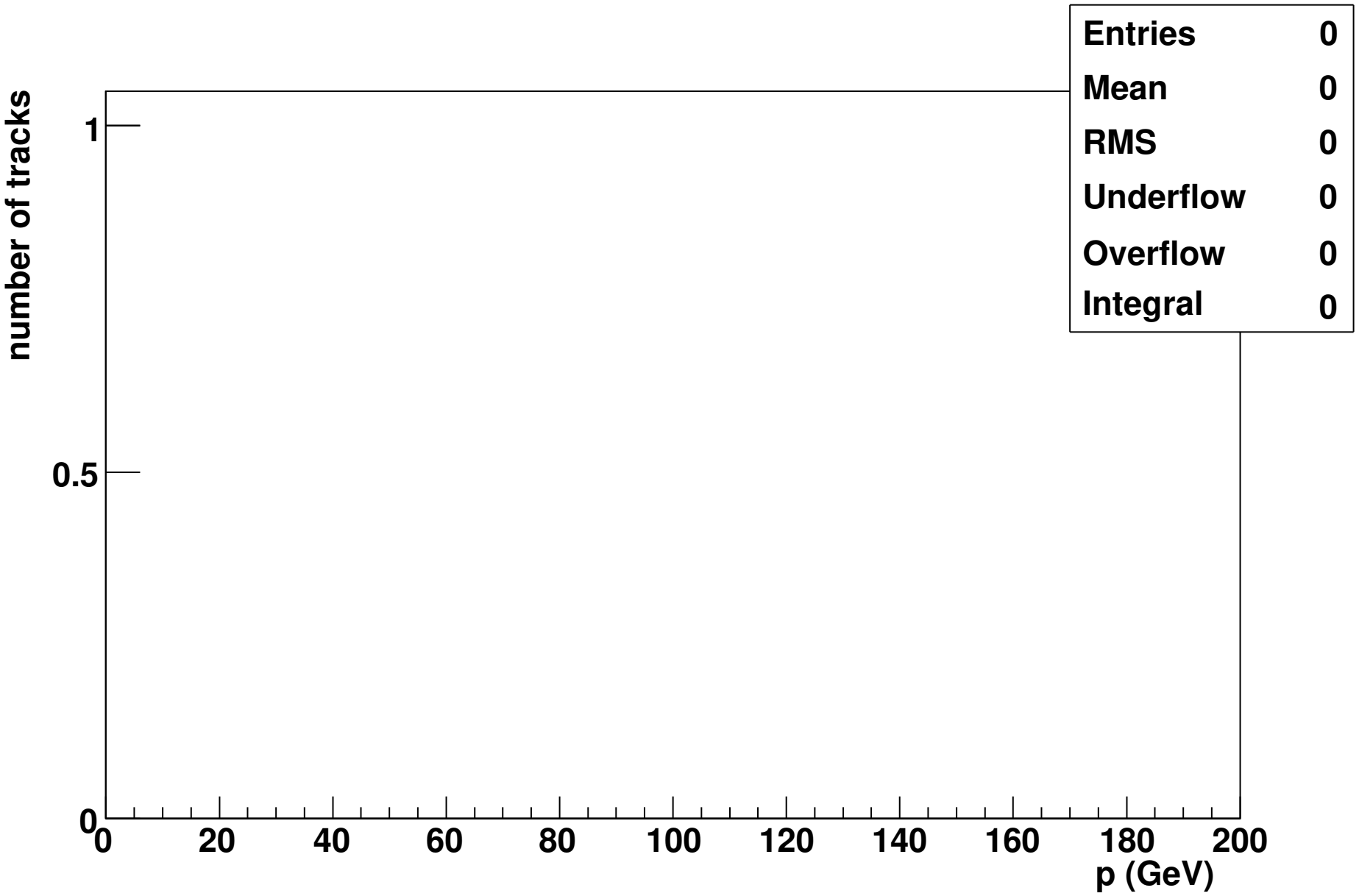

Entries 59775
Mean 3.7714
RMS 0.41994
Underflow 0
Overflow 51731
Integral 8044
CPR clusters
6000
4000
2000
0
-5
-4
-3
-2
-1
0
1
2
3
4
5
Δx_CPR

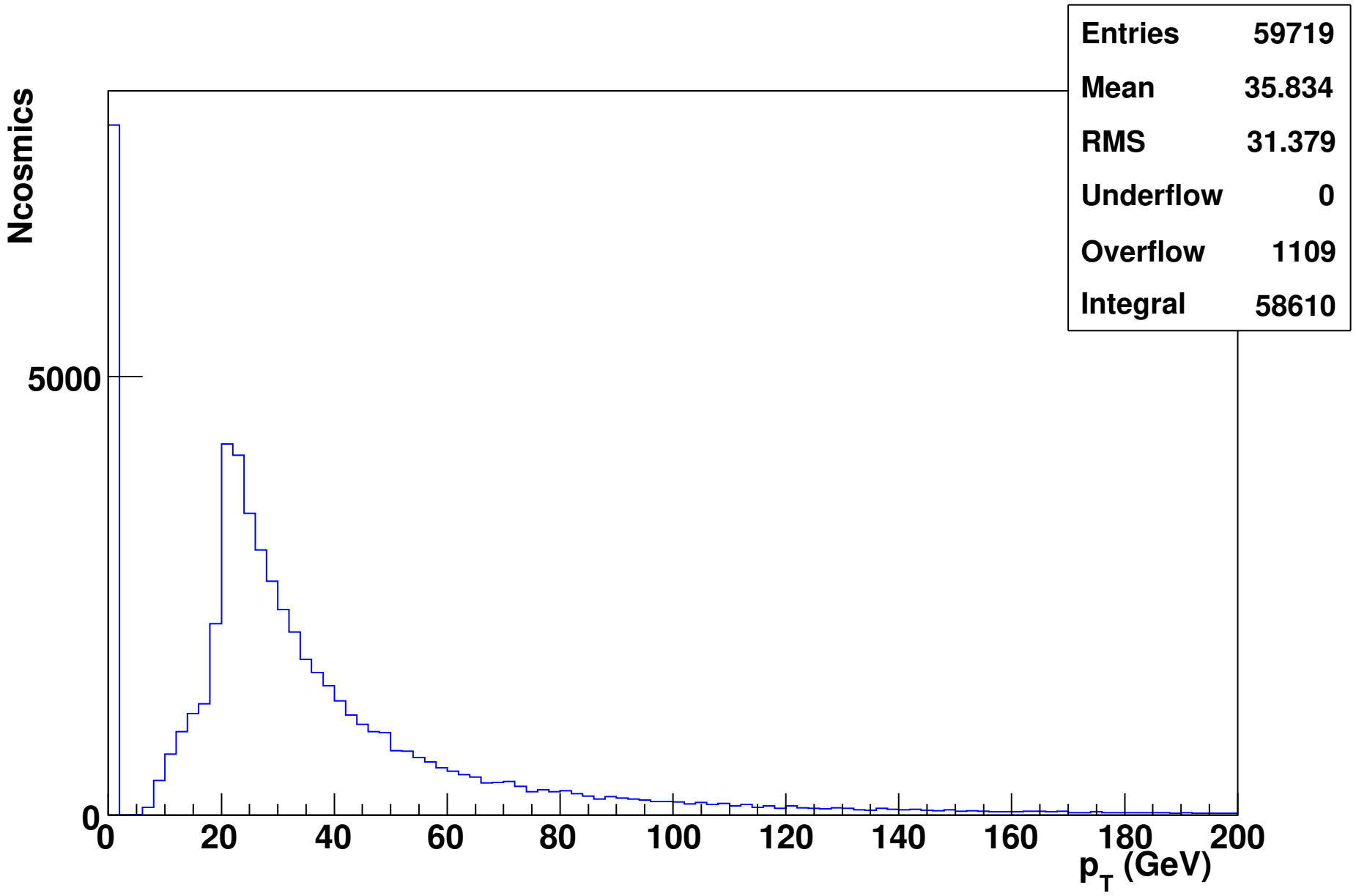

Entries 59719
Mean -0.026025
RMS 1.3015
Underflow 7869
Overflow 2
Integral 51848
number of cosmics
3000
2000
1000
0
-6
-4
-2
0
2
4
6
d_0 (cm)

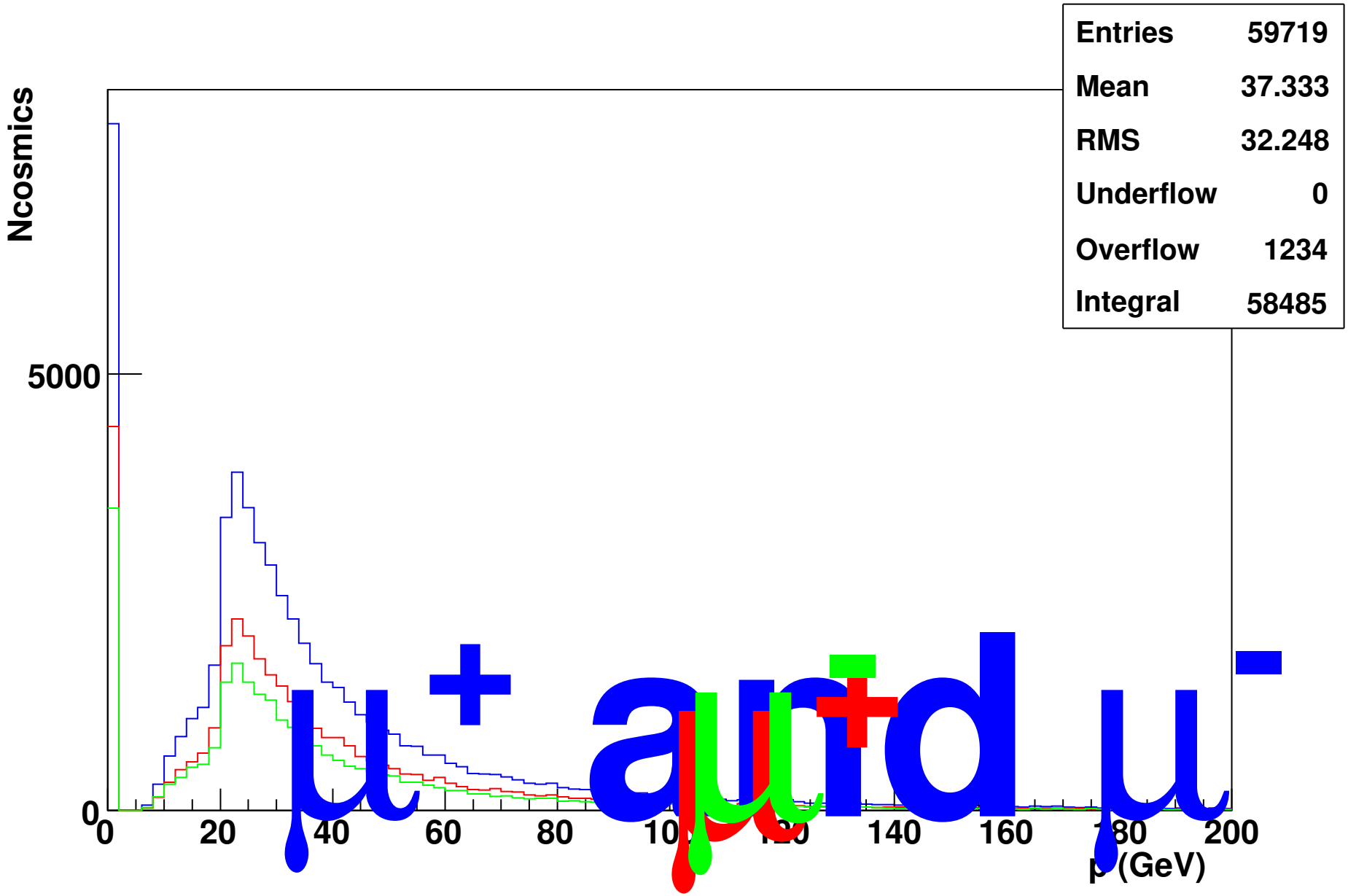

Entries 59719
Mean 1.4022
RMS 10.269
Underflow 7951
Overflow 26
Integral 51742
number of cosmics
3000
2000
1000
0
-30
-20
-10
0
10
20
30
t0 (ns)

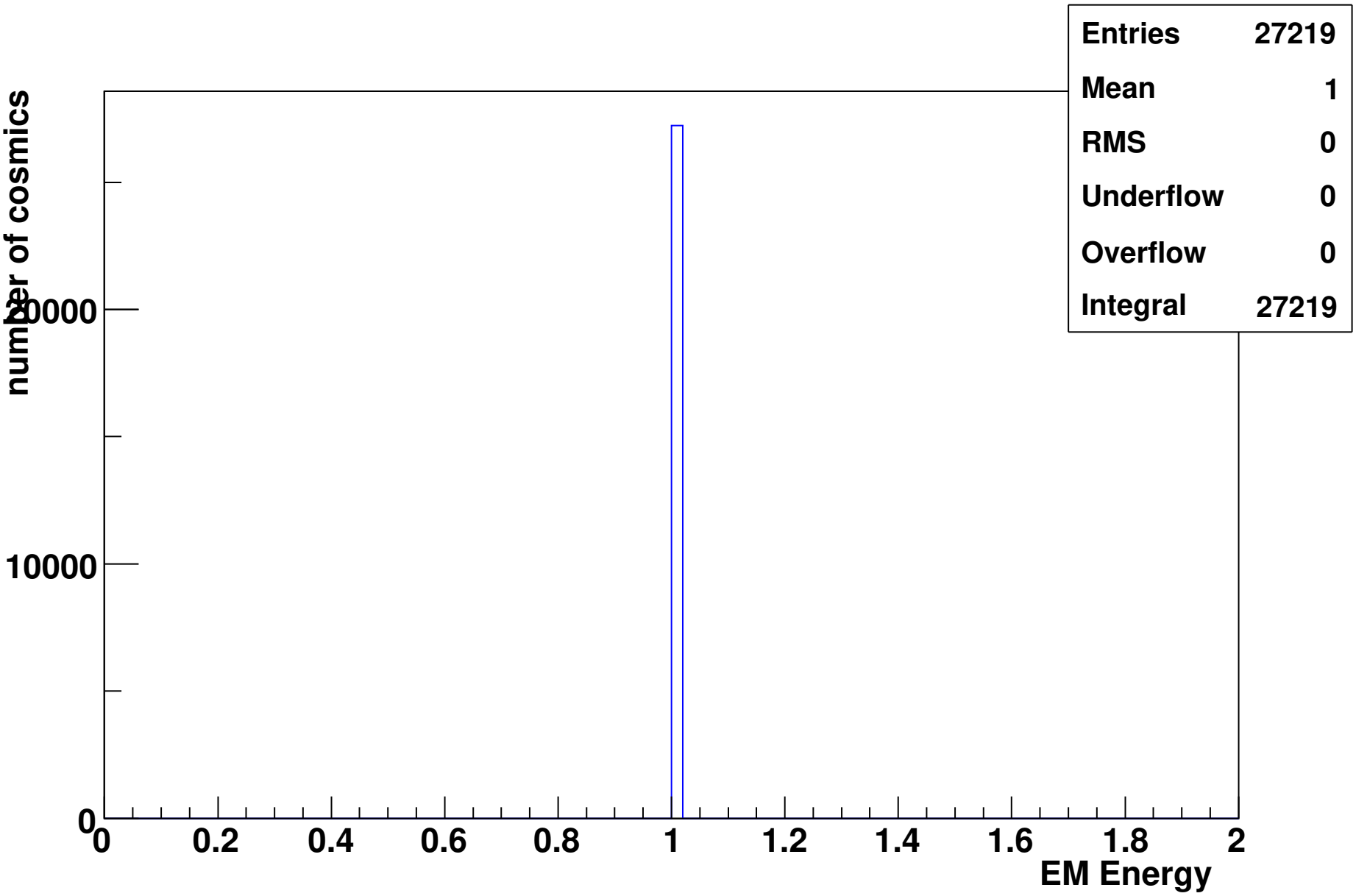

Entries 59719
Mean 0.0027713
RMS 0.32403
Underflow 8062
Overflow 176
Integral 51481
number of cosmics
3000
2000
1000
0
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
cot θ

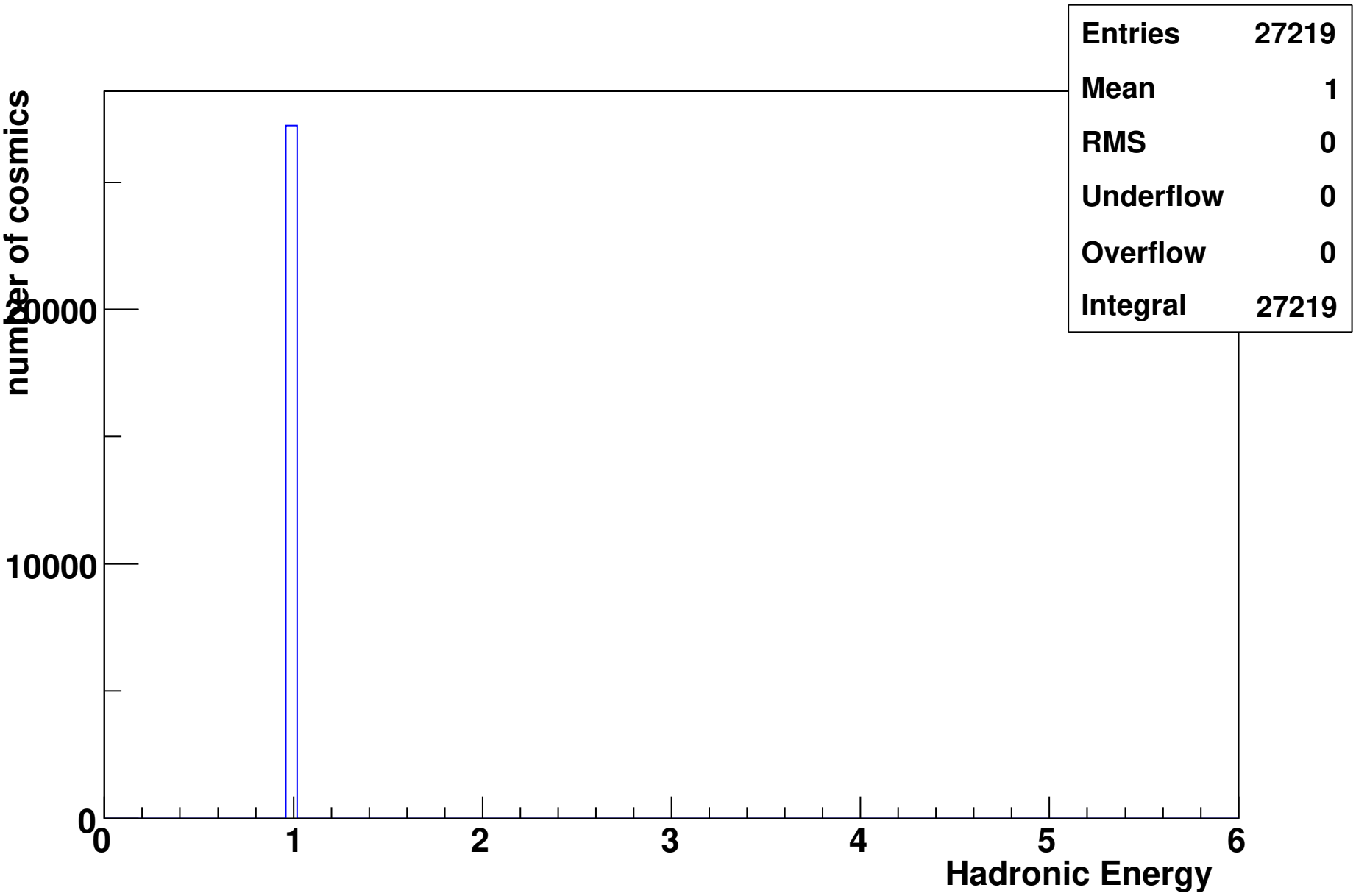

Entries 59719
Mean -0.043714
RMS 73.759
Underflow 7865
Overflow 0
Integral 51854
number of cosmics
500
0
-150
-100
-50
0
50
100
150
z_0 (cm)

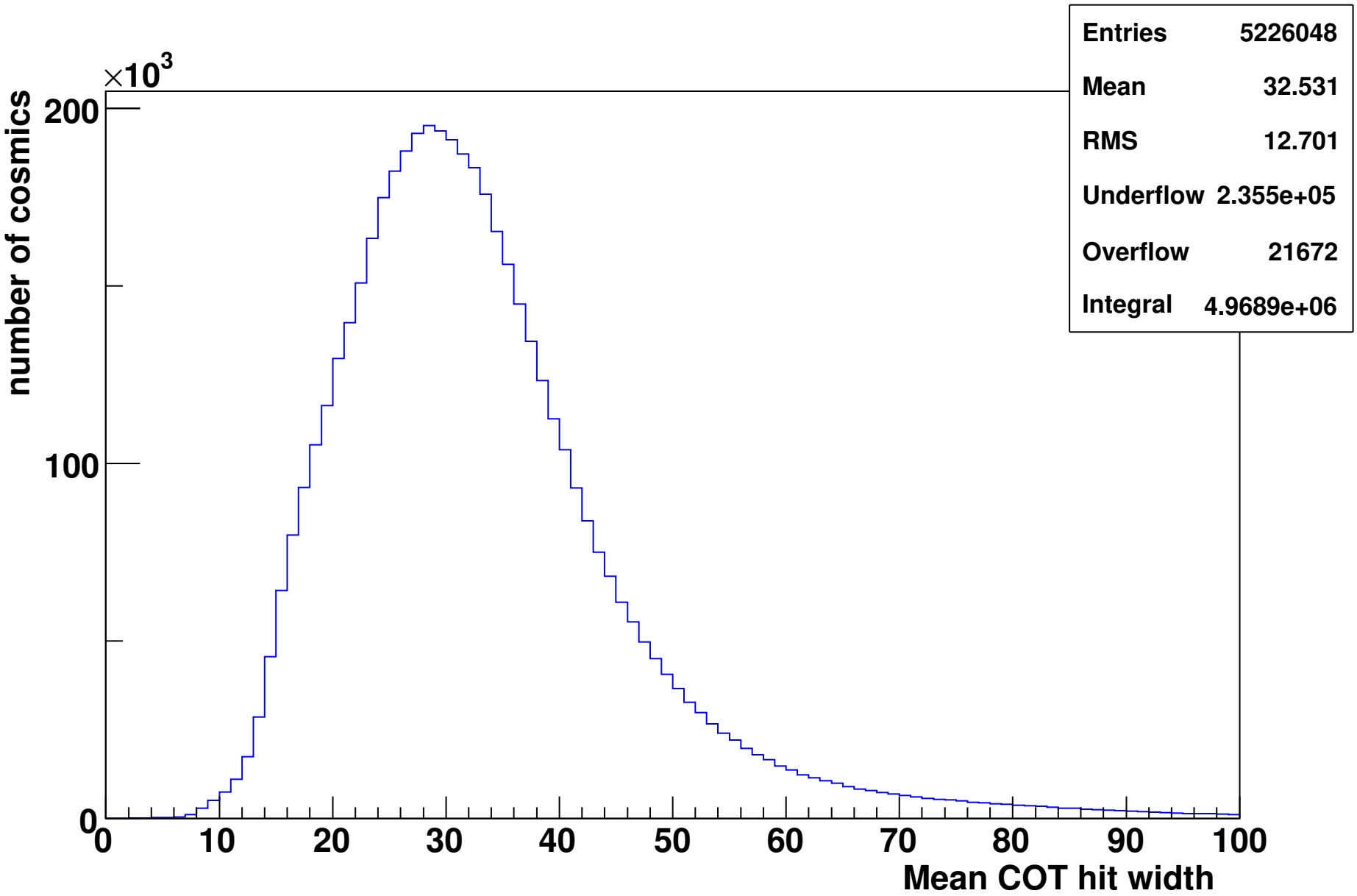

Entries 0
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 0
number of tracks
1
0.5
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)

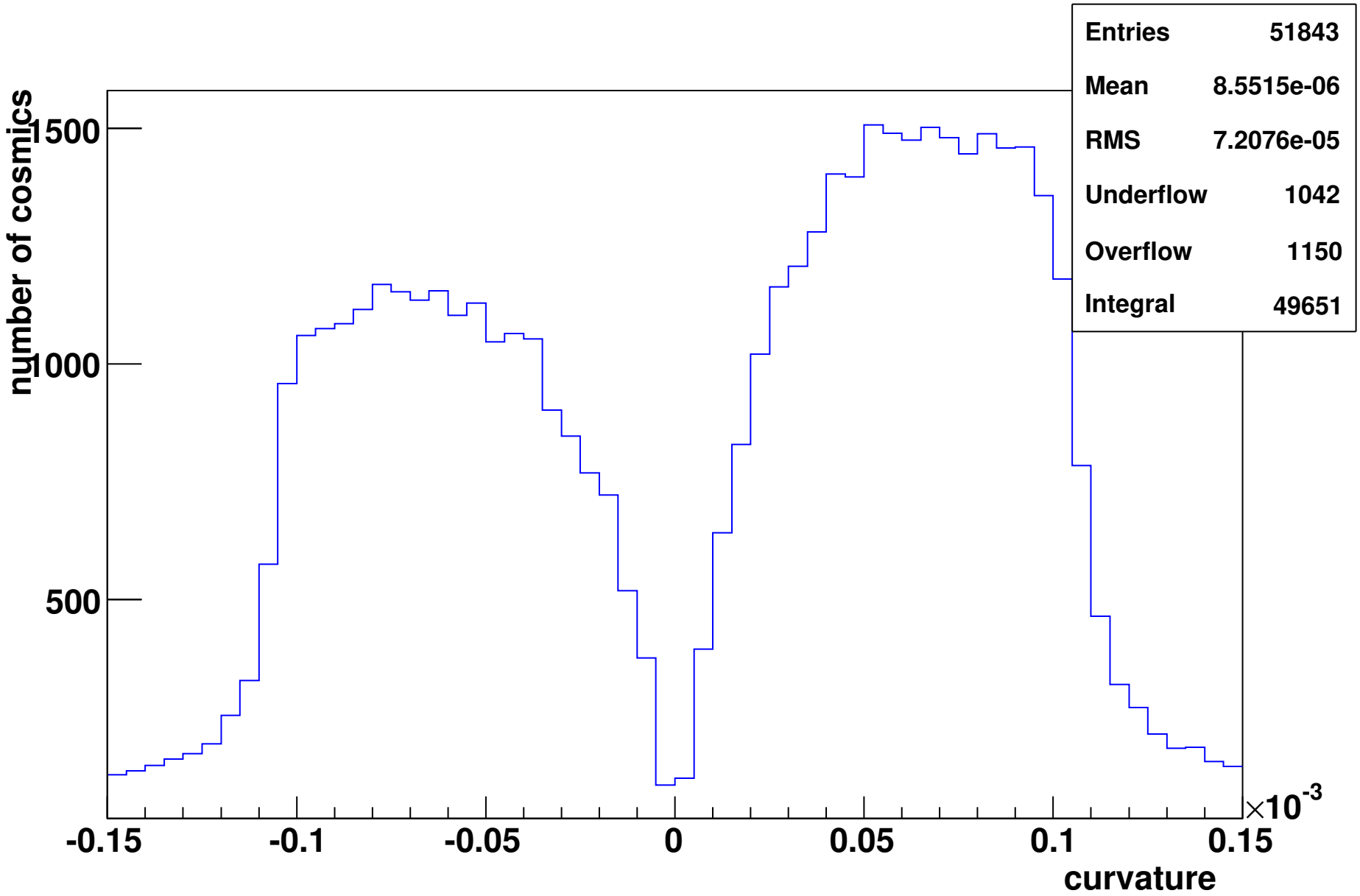

Entries 59719
Mean 35.834
RMS 31.379
Underflow 0
Overflow 1109
Integral 58610
Ncosmics
5000
0
0
20
40
60
80
100
120
140
160
180
200
p_T (GeV)

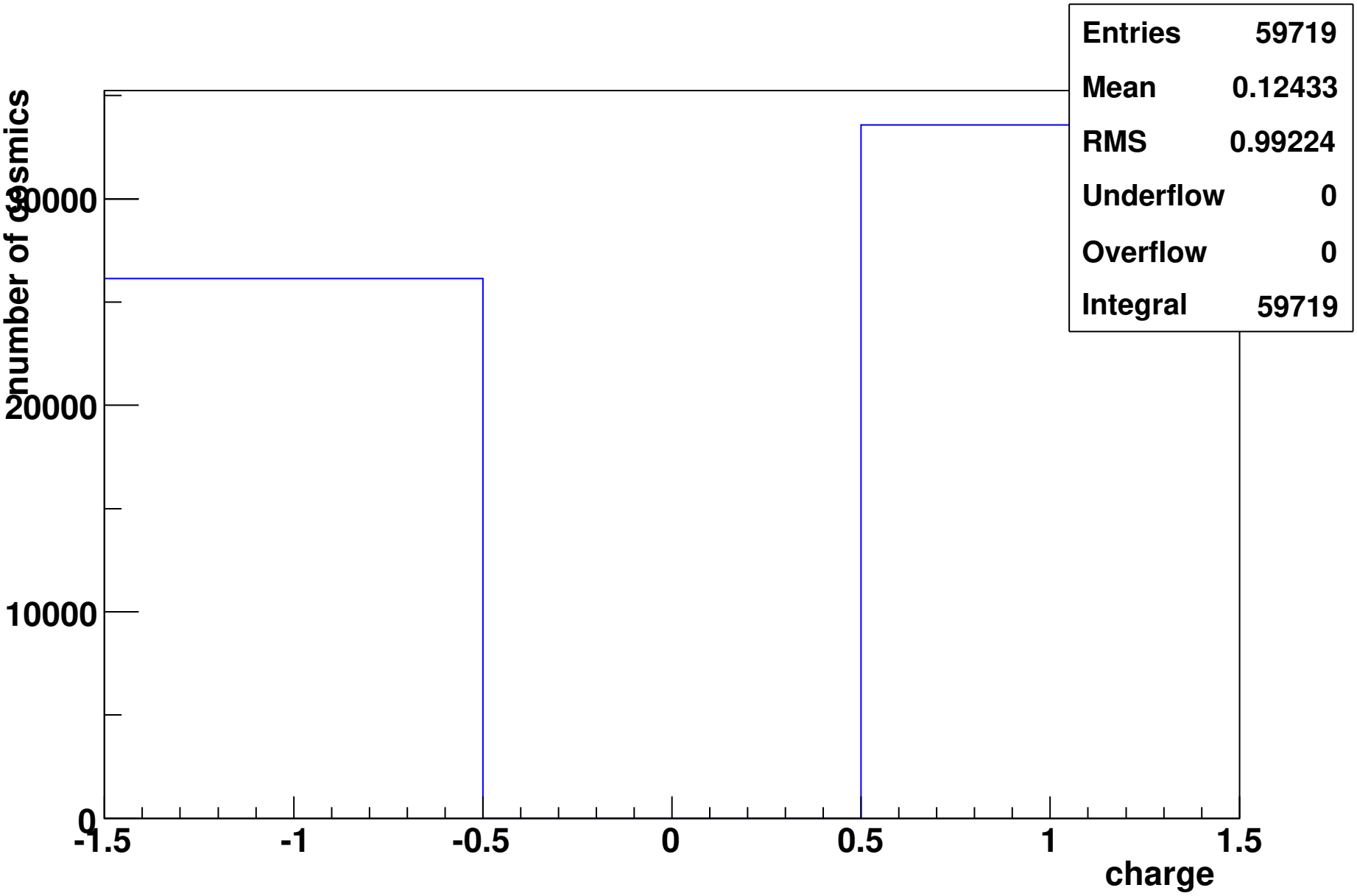

Entries 59719
Mean 37.333
RMS 32.248
Underflow 0
Overflow 1234
Integral 58485
Ncosmics
5000
0
0
20
40
60
80
100
120
140
160
180
200
p (GeV)
μ+ and μ-

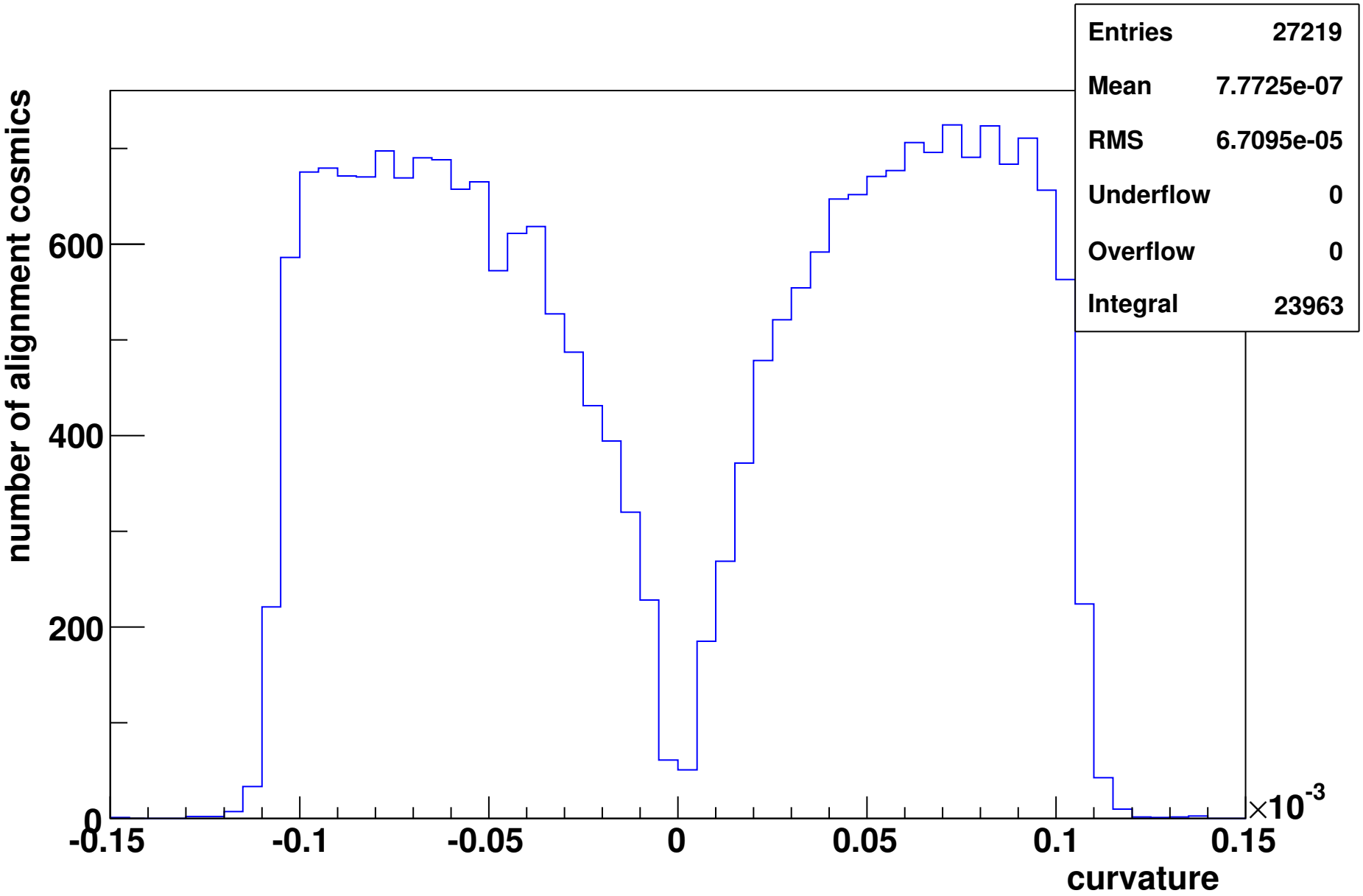

Entries 27219
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 27219
number of cosmics
20000
10000
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
EM Energy

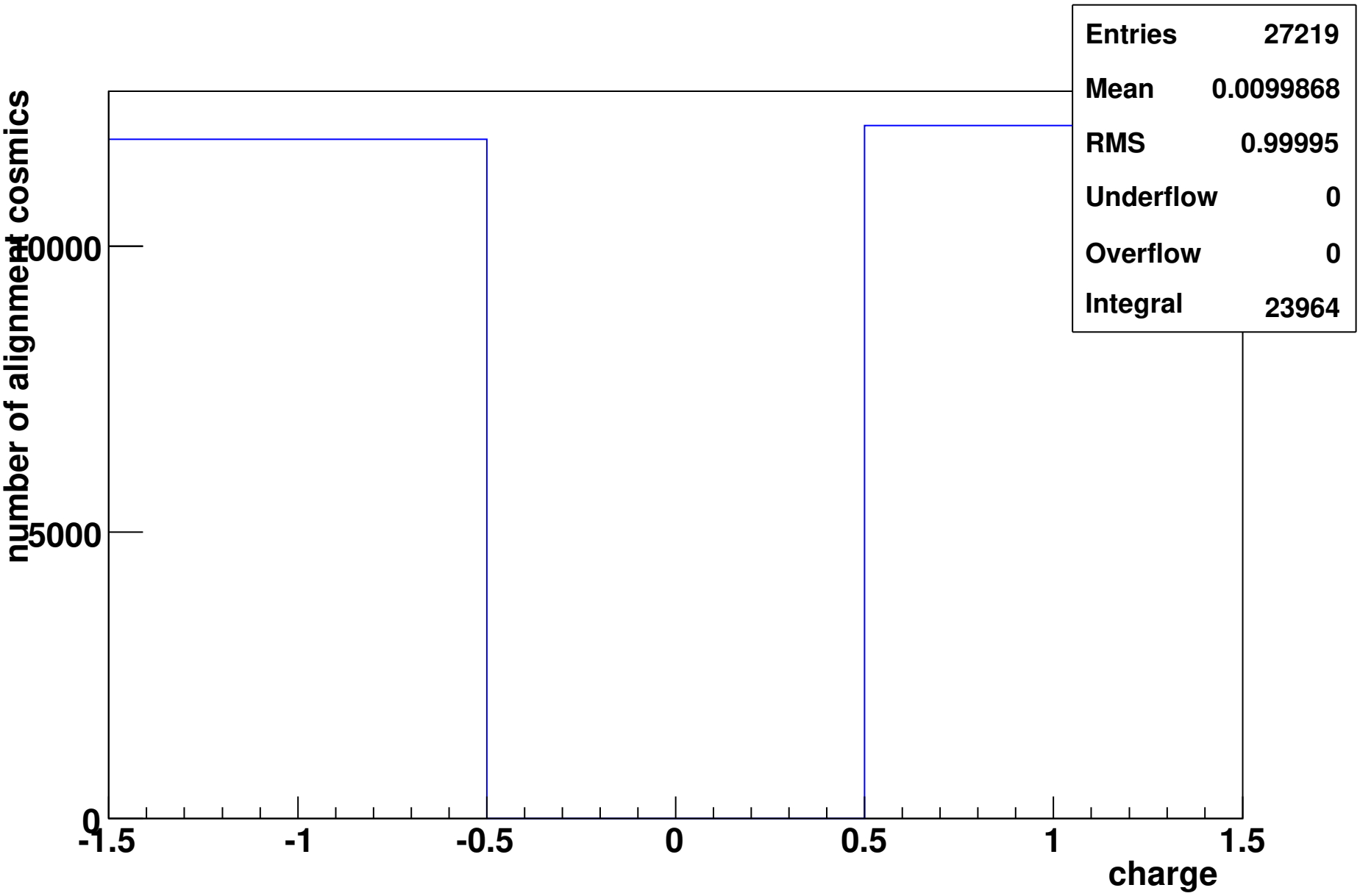

Entries 27219
Mean 1
RMS 0
Underflow 0
Overflow 0
Integral 27219
number of cosmics
20000
10000
0
0
1
2
3
4
5
6
Hadronic Energy

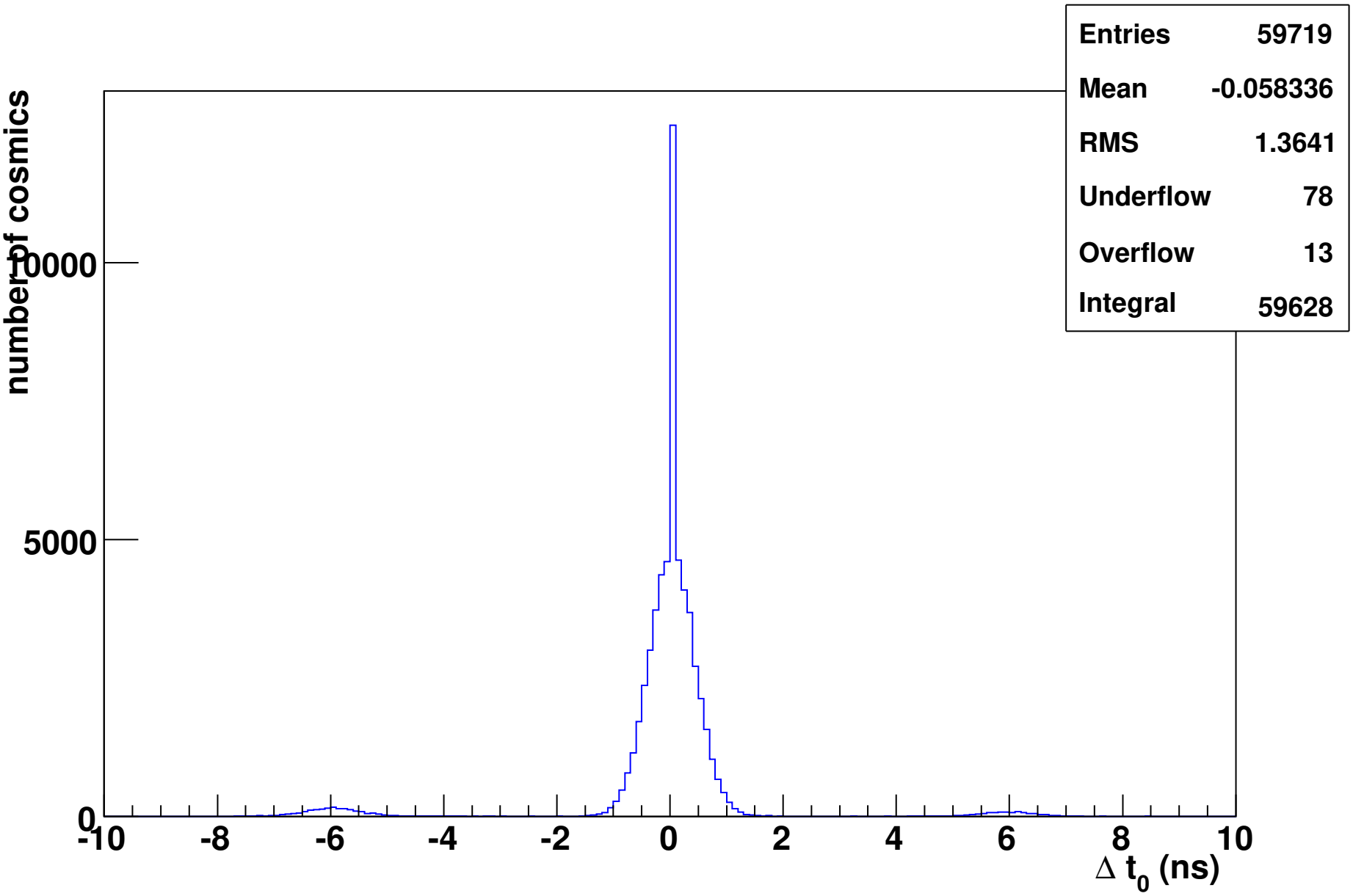

Entries 5226048
Mean 32.531
RMS 12.701
Underflow 2.355e+05
Overflow 21672
Integral 4.9689e+06
×10^3
number of cosmics
200
100
0
0
10
20
30
40
50
60
70
80
90
100
Mean COT hit width


Entries 51843
Mean 8.5515e-06
RMS 7.2076e-05
Underflow 1042
Overflow 1150
Integral 49651
number of cosmics
1500
1000
500
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

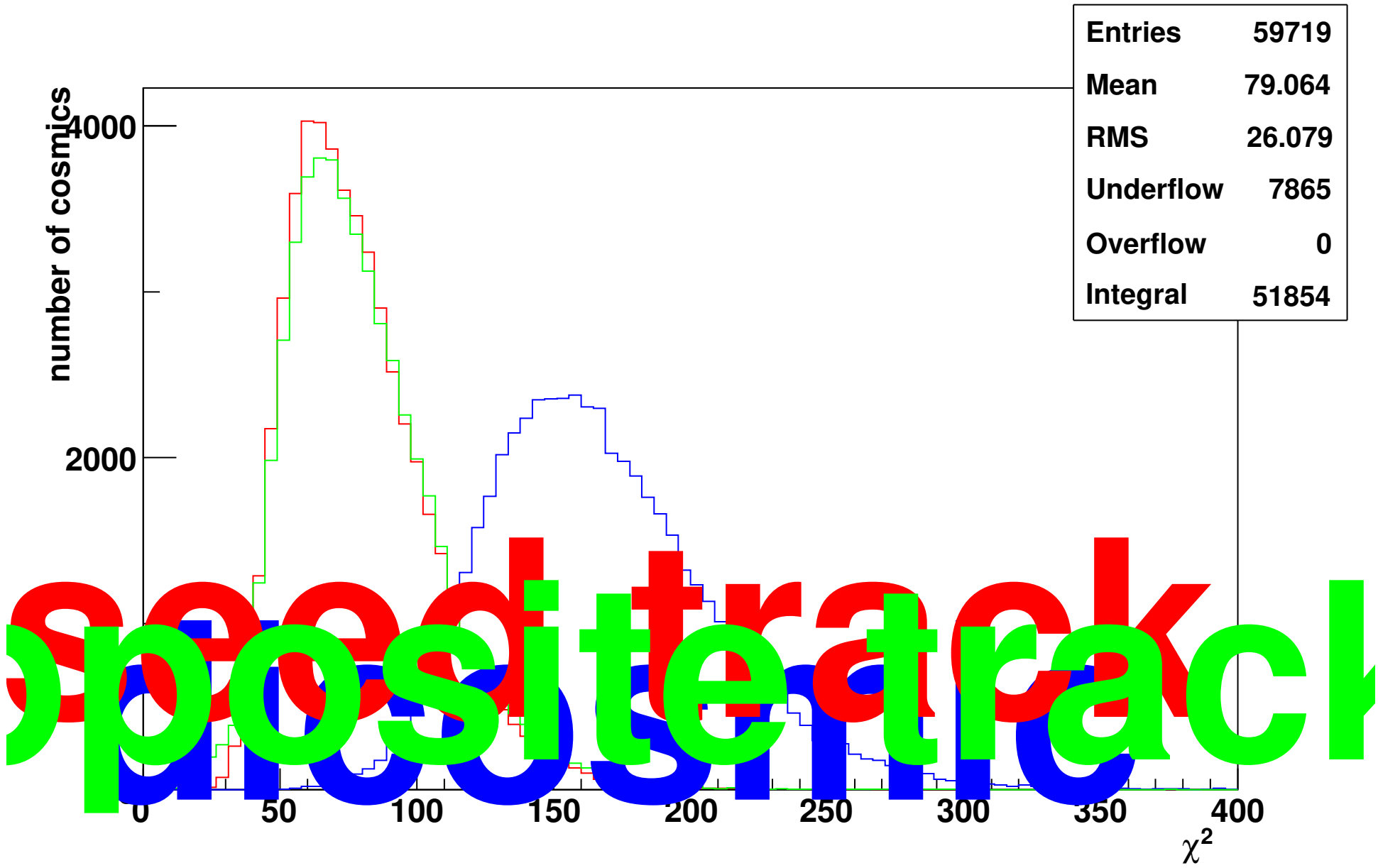

Entries 59719
Mean 0.12433
RMS 0.99224
Underflow 0
Overflow 0
Integral 59719
number of cosmics
30000
20000
10000
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 27219
Mean 7.7725e-07
RMS 6.7095e-05
Underflow 0
Overflow 0
Integral 23963
number of alignment cosmics
600
400
200
0
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
×10^-3
curvature

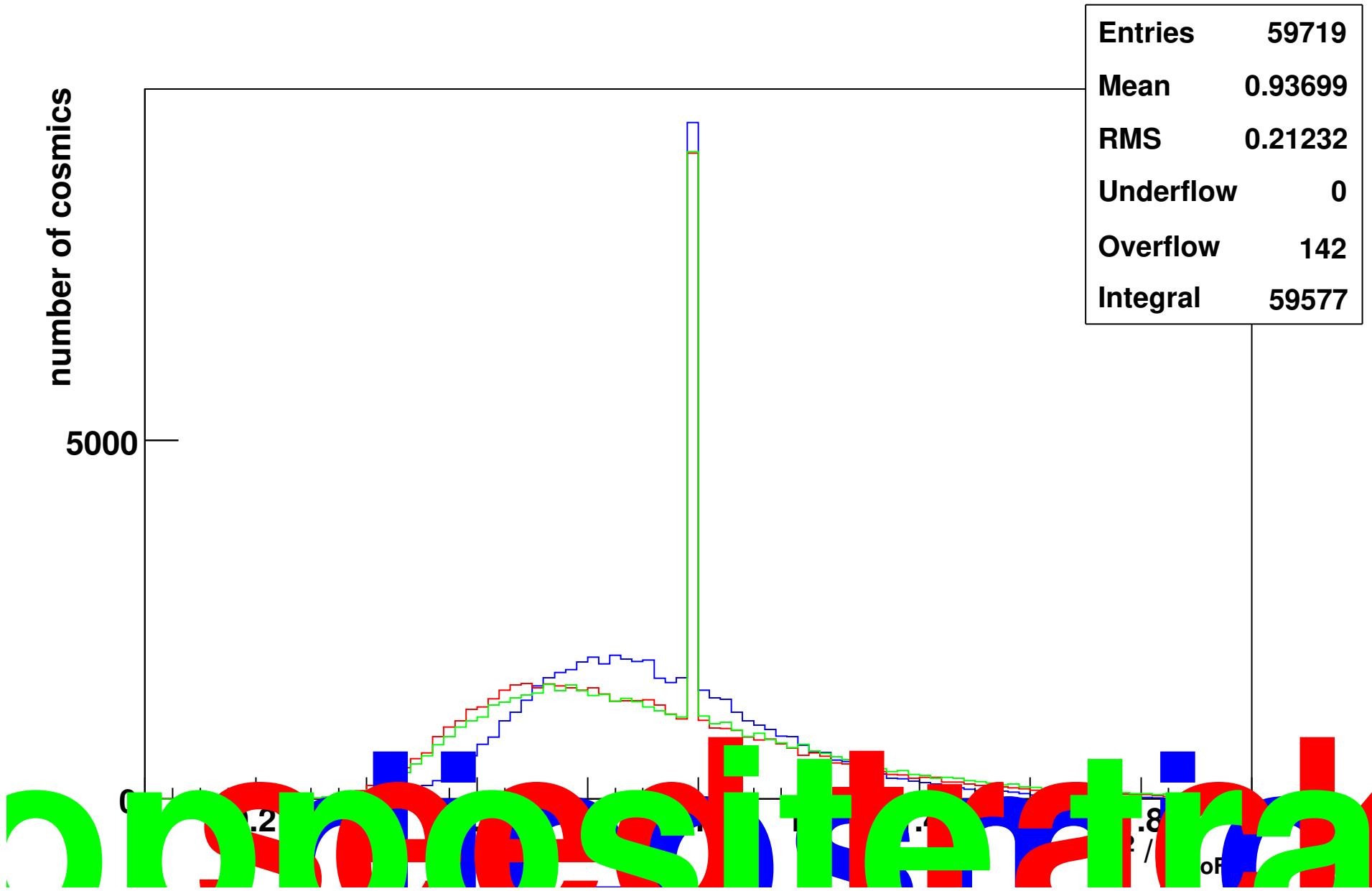

Entries 27219
Mean 0.0099868
RMS 0.99995
Underflow 0
Overflow 0
Integral 23964
number of alignment cosmics
10000
5000
0
-1.5
-1
-0.5
0
0.5
1
1.5
charge


Entries 59719
Mean -0.058336
RMS 1.3641
Underflow 78
Overflow 13
Integral 59628
number of cosmics
10000
5000
0
-10
-8
-6
-4
-2
0
2
4
6
8
10
Δ t0 (ns)

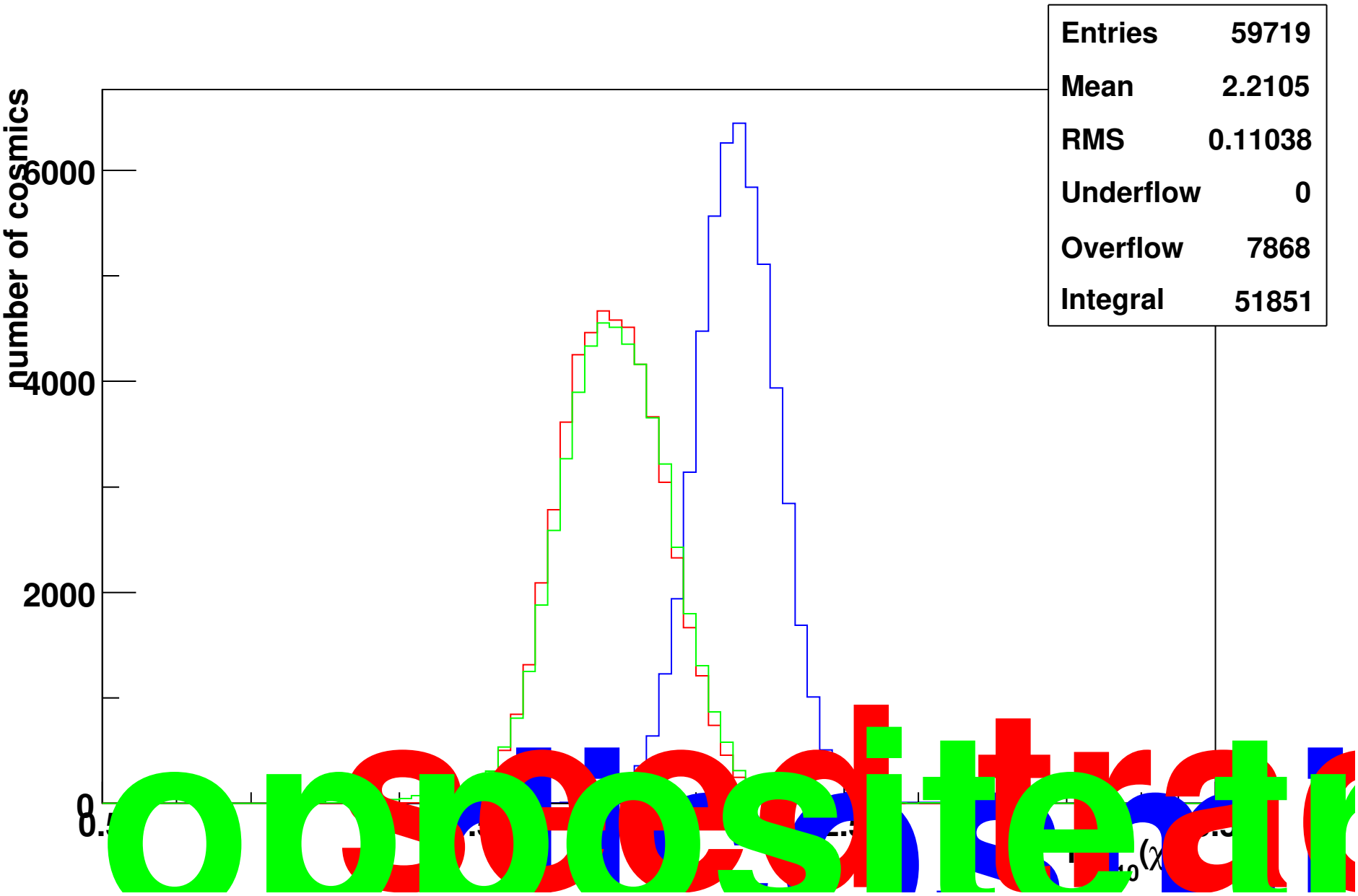
Entries 59719
Mean 9.1725e-05
RMS 0.014009
Underflow 7904
Overflow 39
Integral 51776
number of cosmics
30000
20000
10000
0.15



Entries 59719
Mean 79.064
RMS 26.079
Underflow 7865
Overflow 0
Integral 51854
number of cosmics
4000
2000
0
50
100
150
200
250
300
350
400
χ^2



Entries 59719
Mean 0.93699
RMS 0.21232
Underflow 0
Overflow 142
Integral 59577
number of cosmics
5000
0
.2
.8
oF


Entries 59719
Mean 2.2105
RMS 0.11038
Underflow 0
Overflow 7868
Integral 51851
number of cosmics
6000
4000
2000
0
opposite

Entries 59719

number of ditracks

10^4

10^3

10^2

10

1

-0.5 0 0.5 1 2 2.5 4 4.5

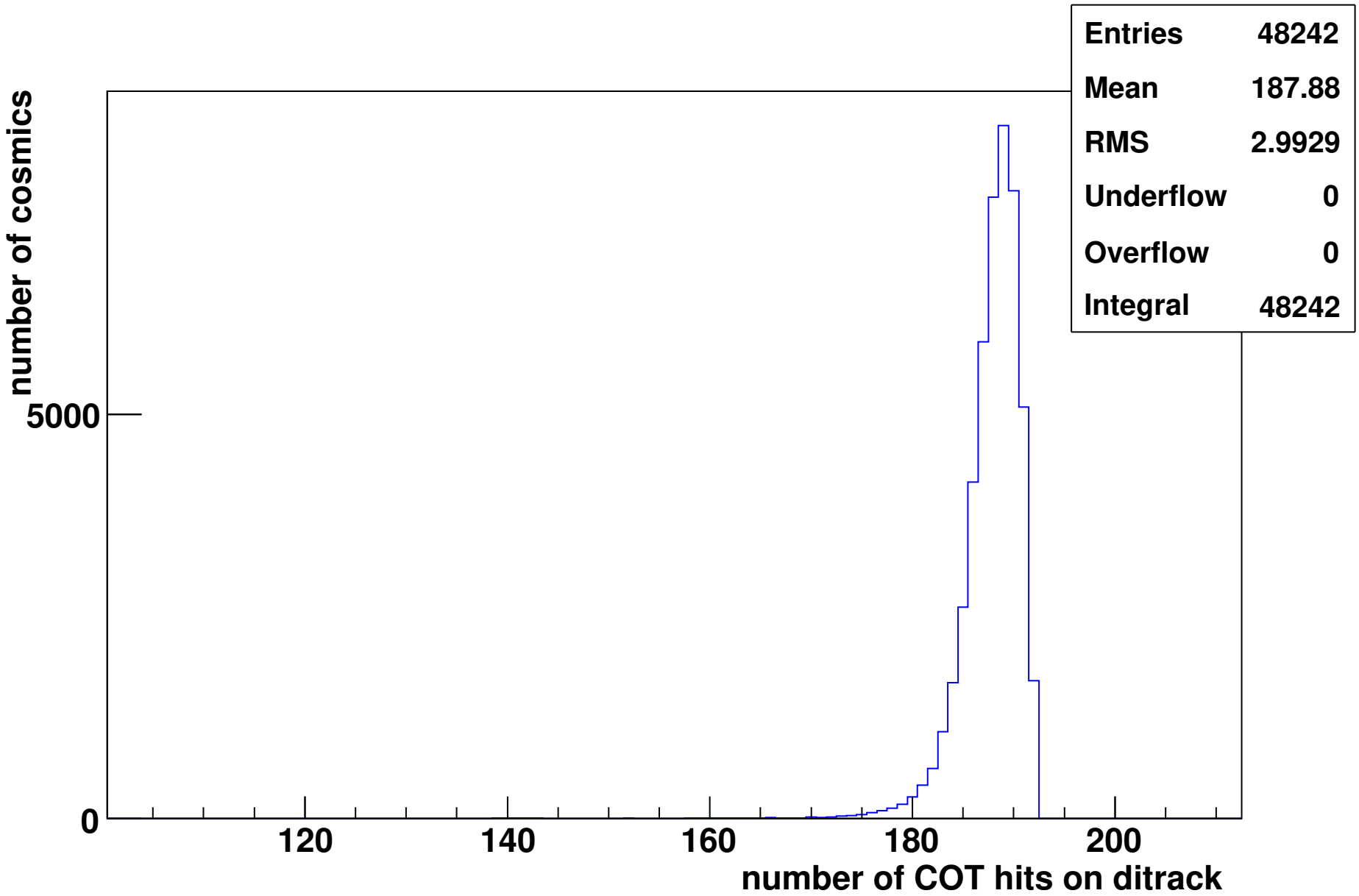
ditrack type

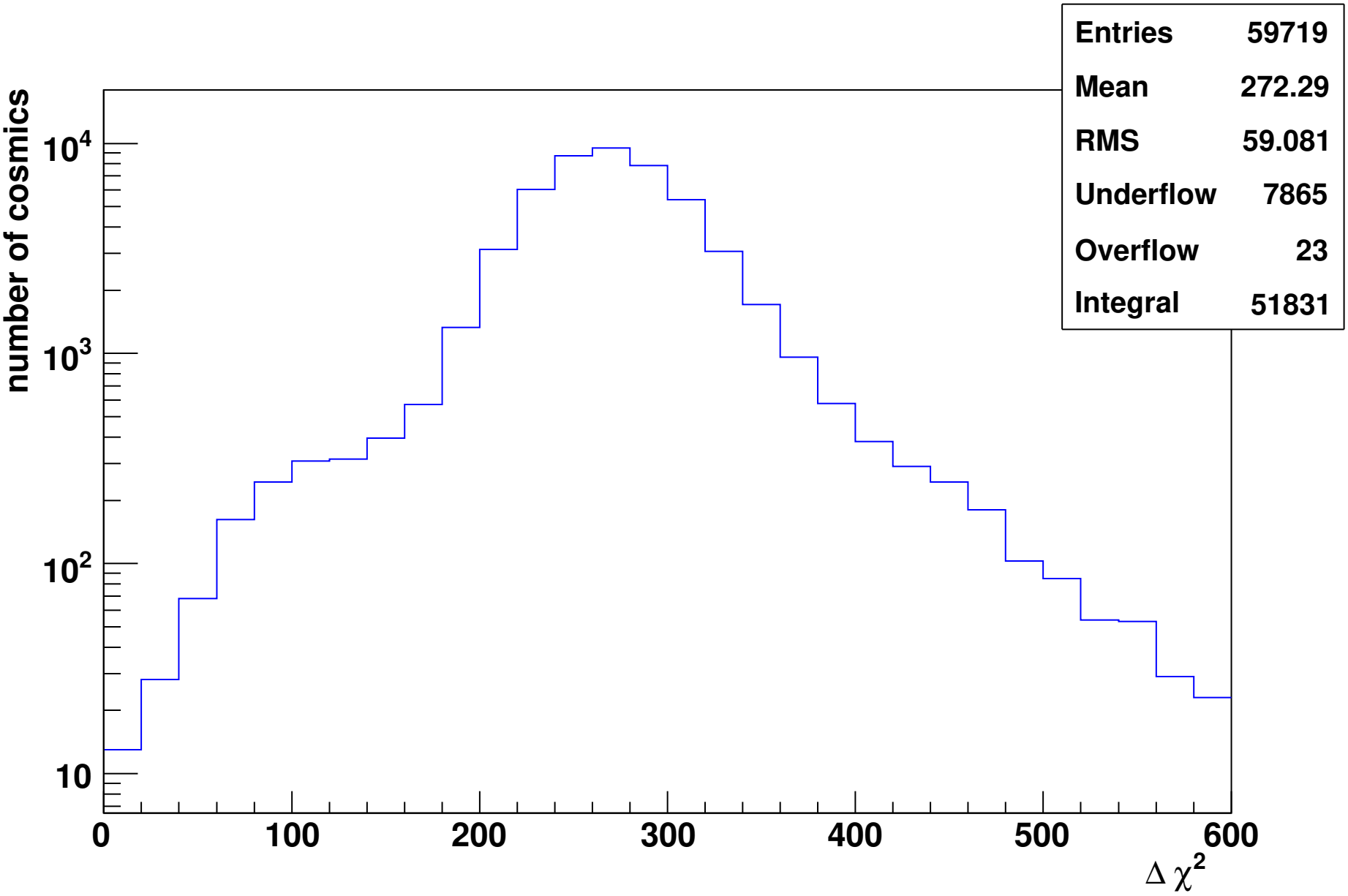
ng cosm

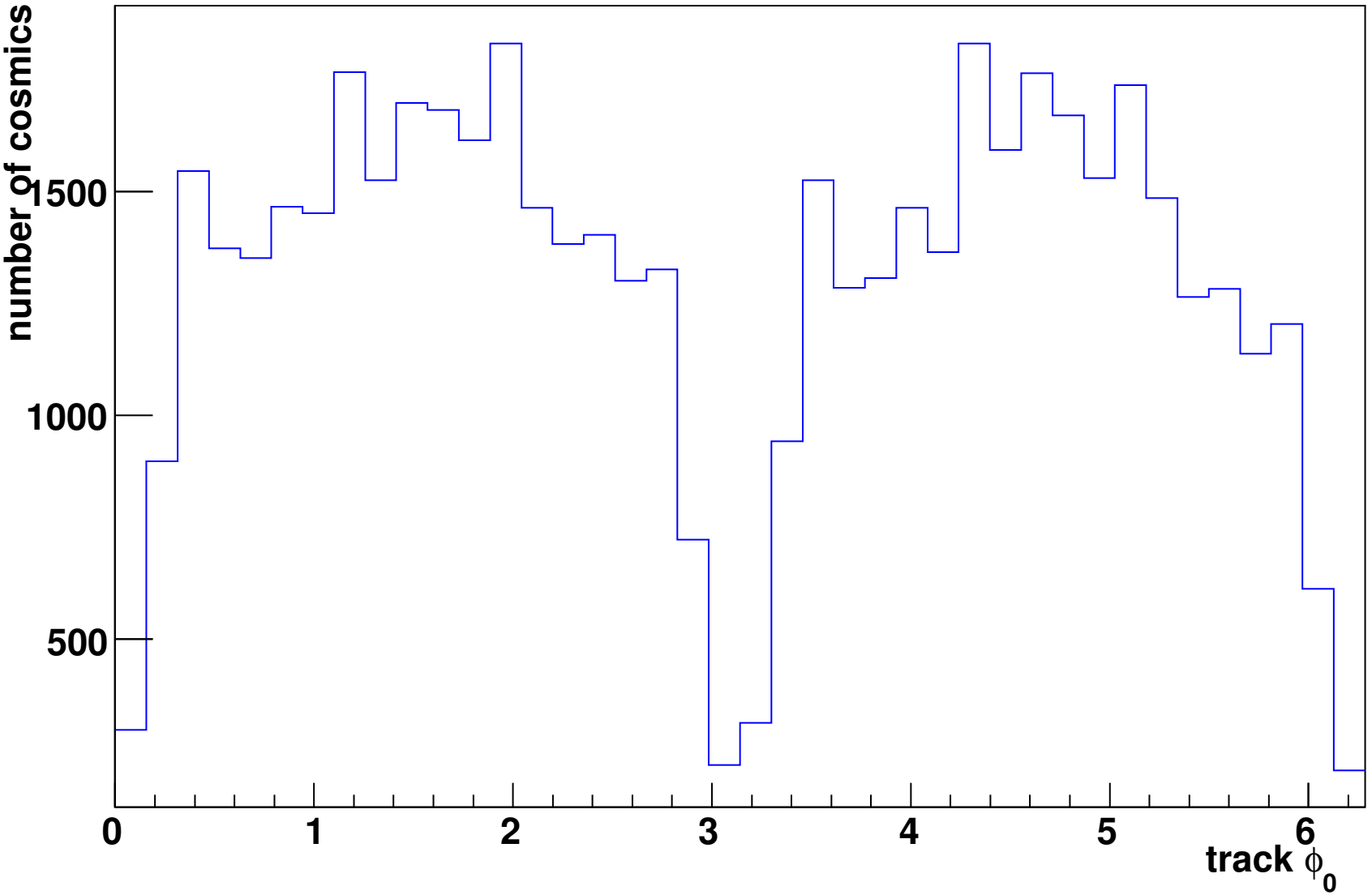
ng cosm

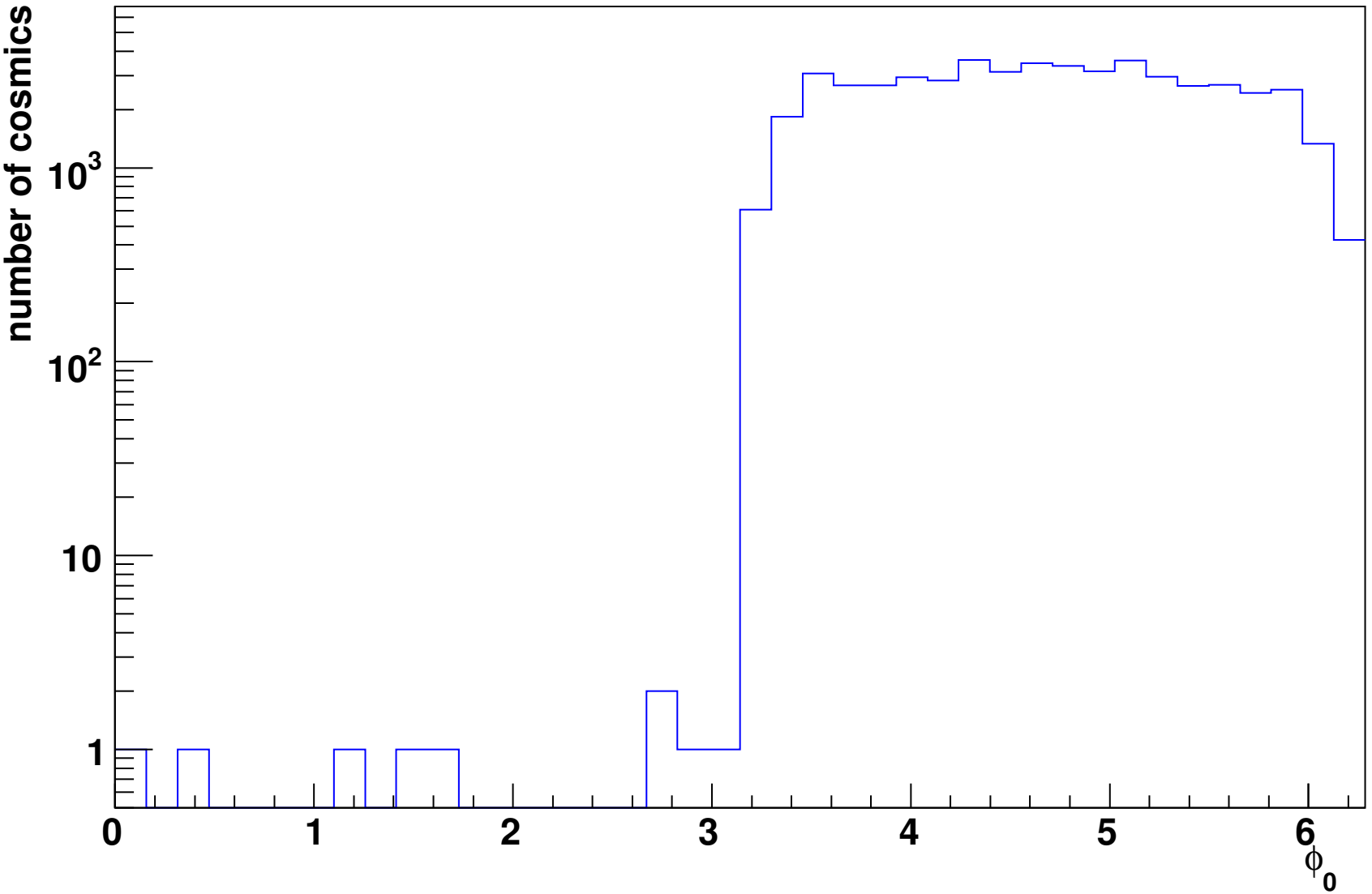
ng pair

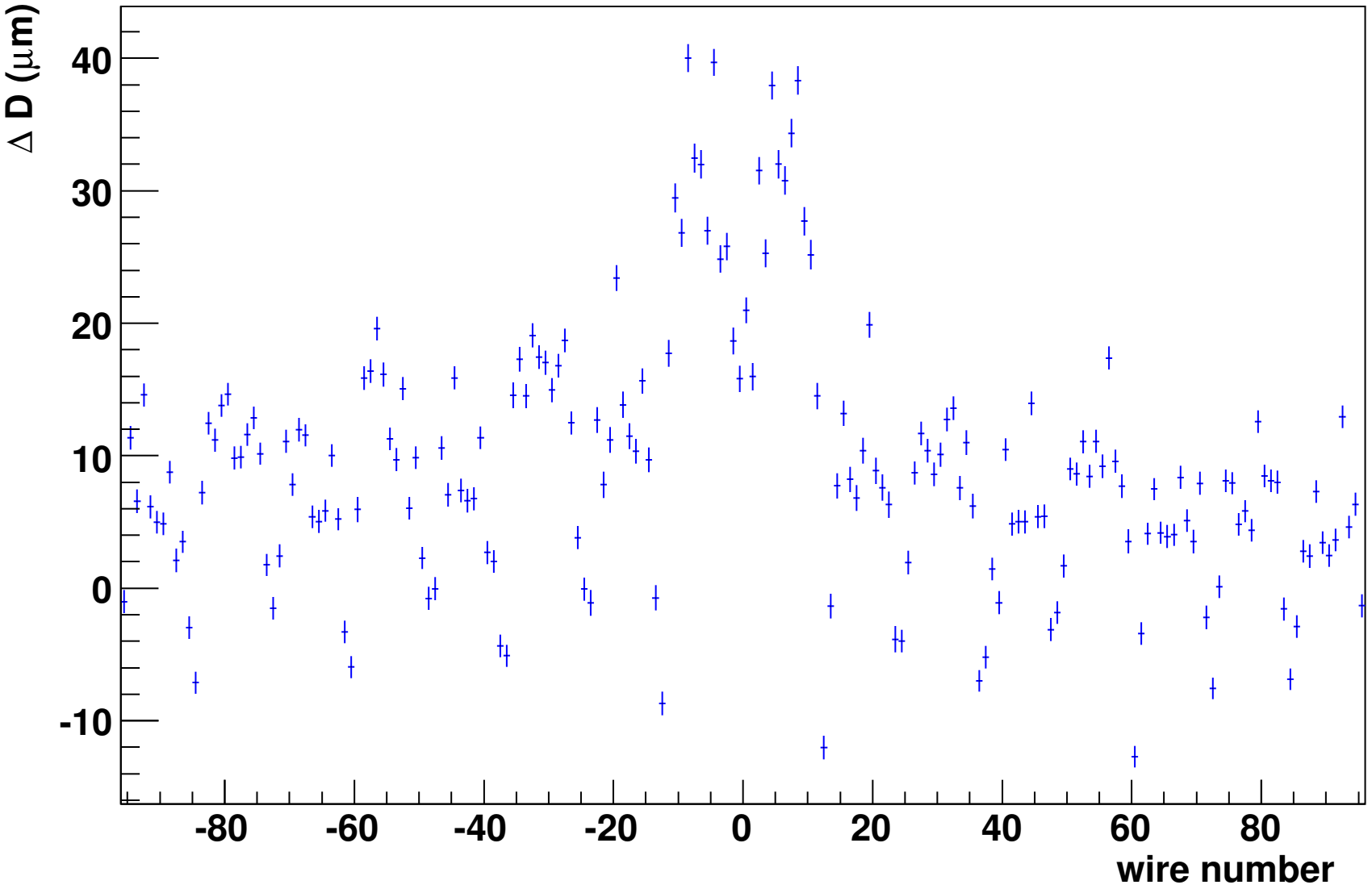
ing pair

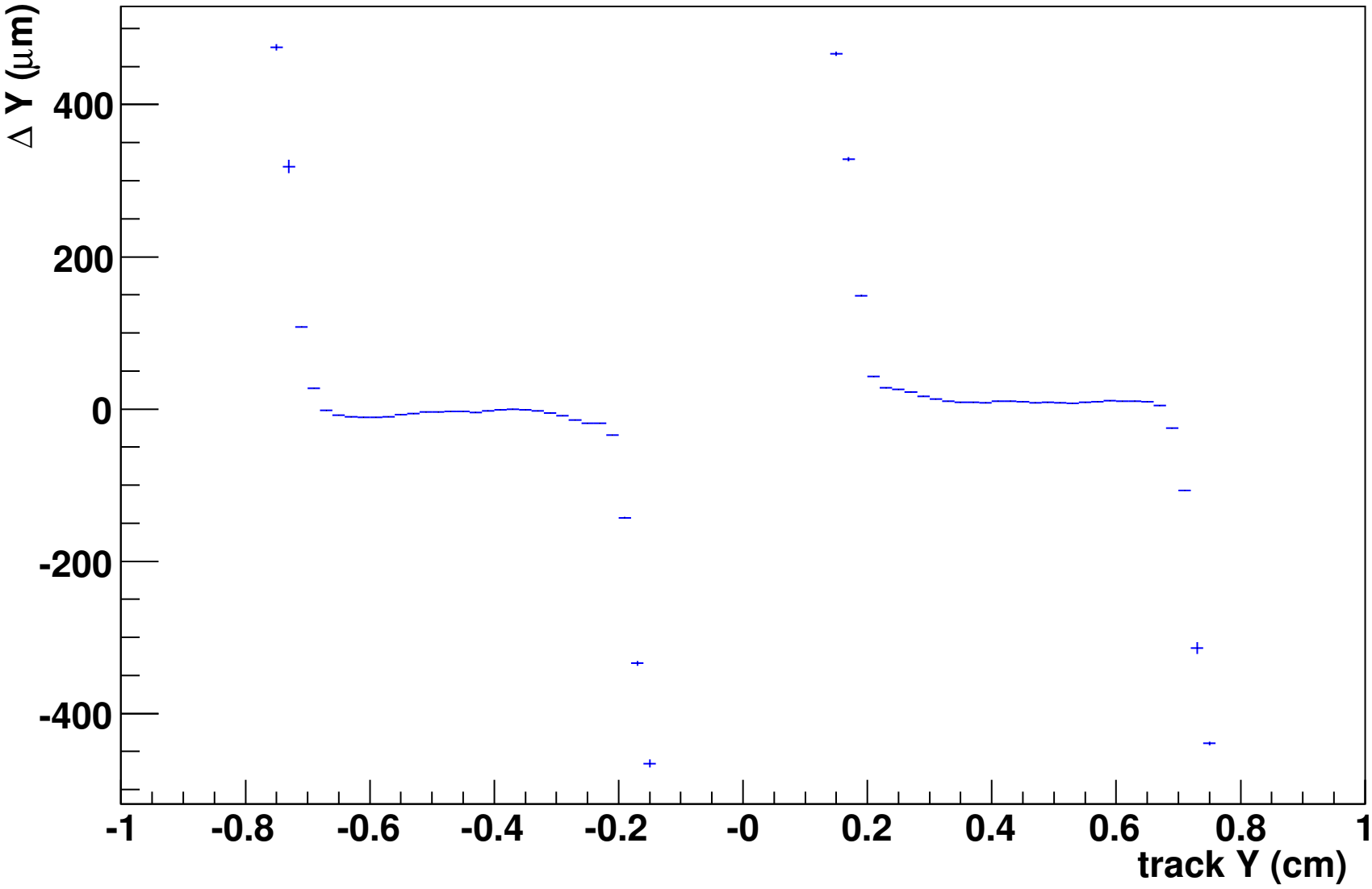

Entries 48242
Mean 187.88
RMS 2.9929
Underflow 0
Overflow 0
Integral 48242
number of cosmics
5000
0
120
140
160
180
200
number of COT hits on ditrack

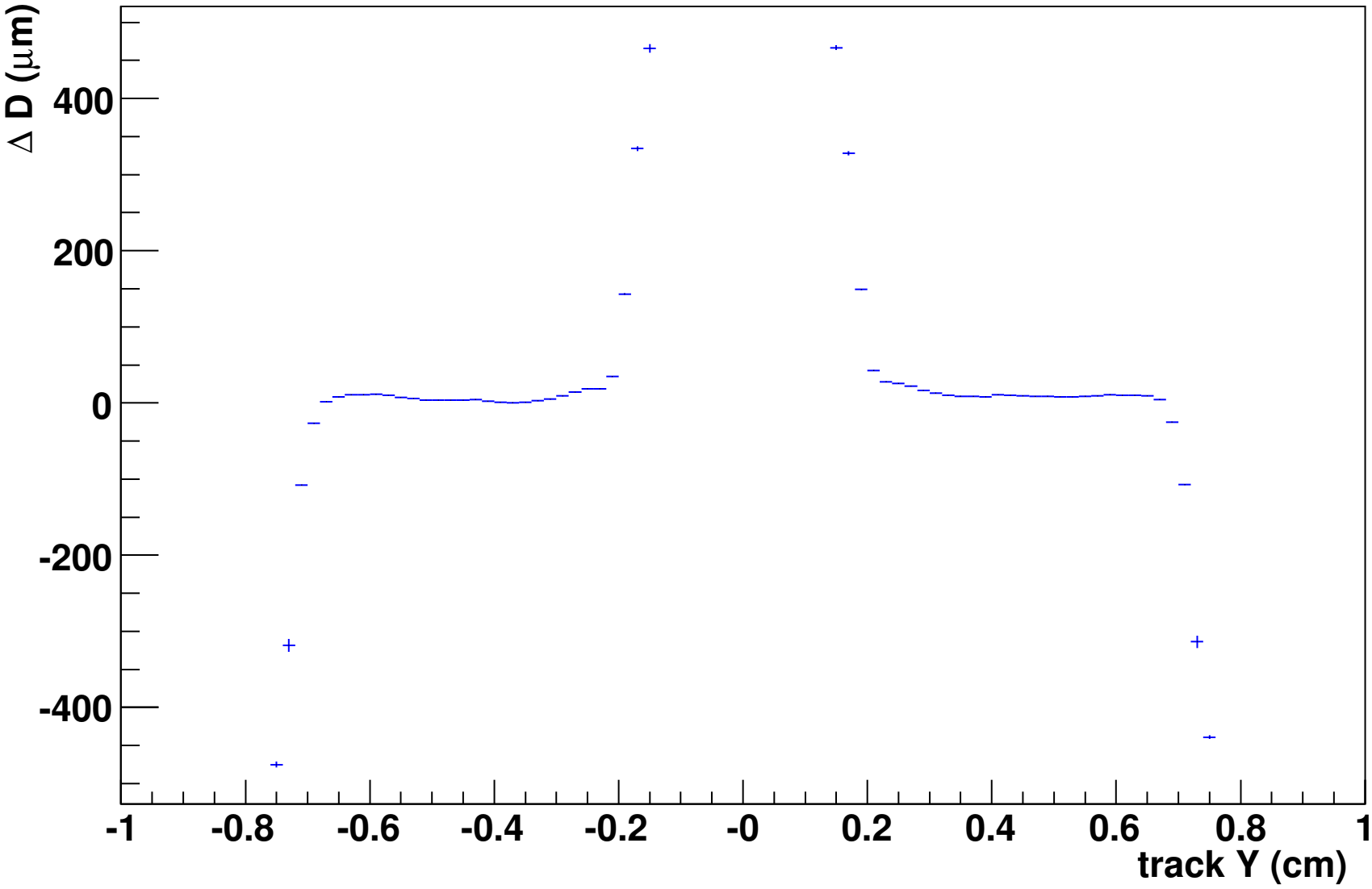

Entries 59719
Mean 272.29
RMS 59.081
Underflow 7865
Overflow 23
Integral 51831
number of cosmics
10^4
10^3
10^2
10
0
100
200
300
400
500
600
$\Delta\ \chi^2$

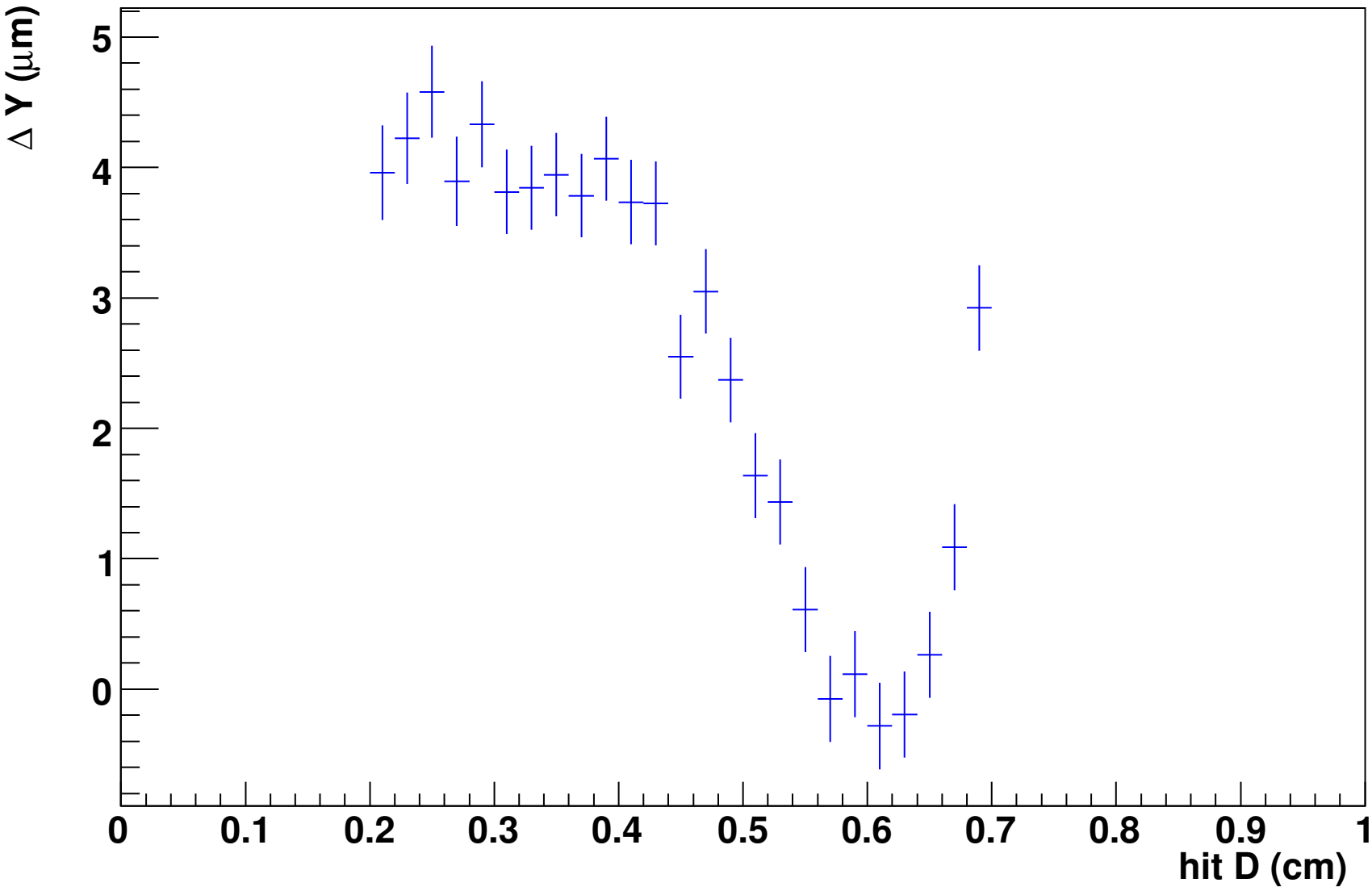

number of cosmics
1500
1000
500
0
1
2
3
4
5
6
track ϕ_0

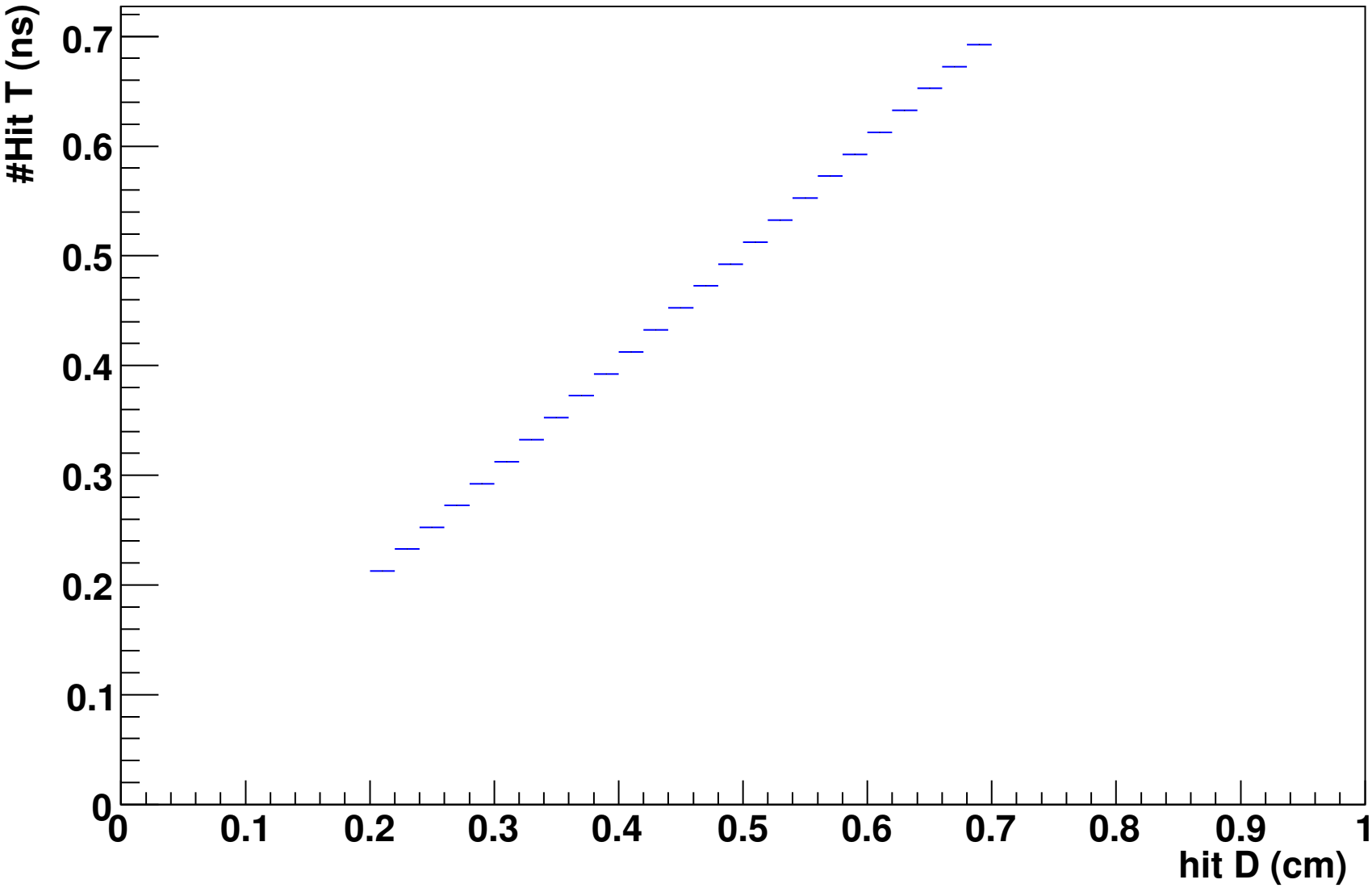

number of cosmics
10^3
10^2
10
1
0
1
2
3
4
5
6
ϕ_0

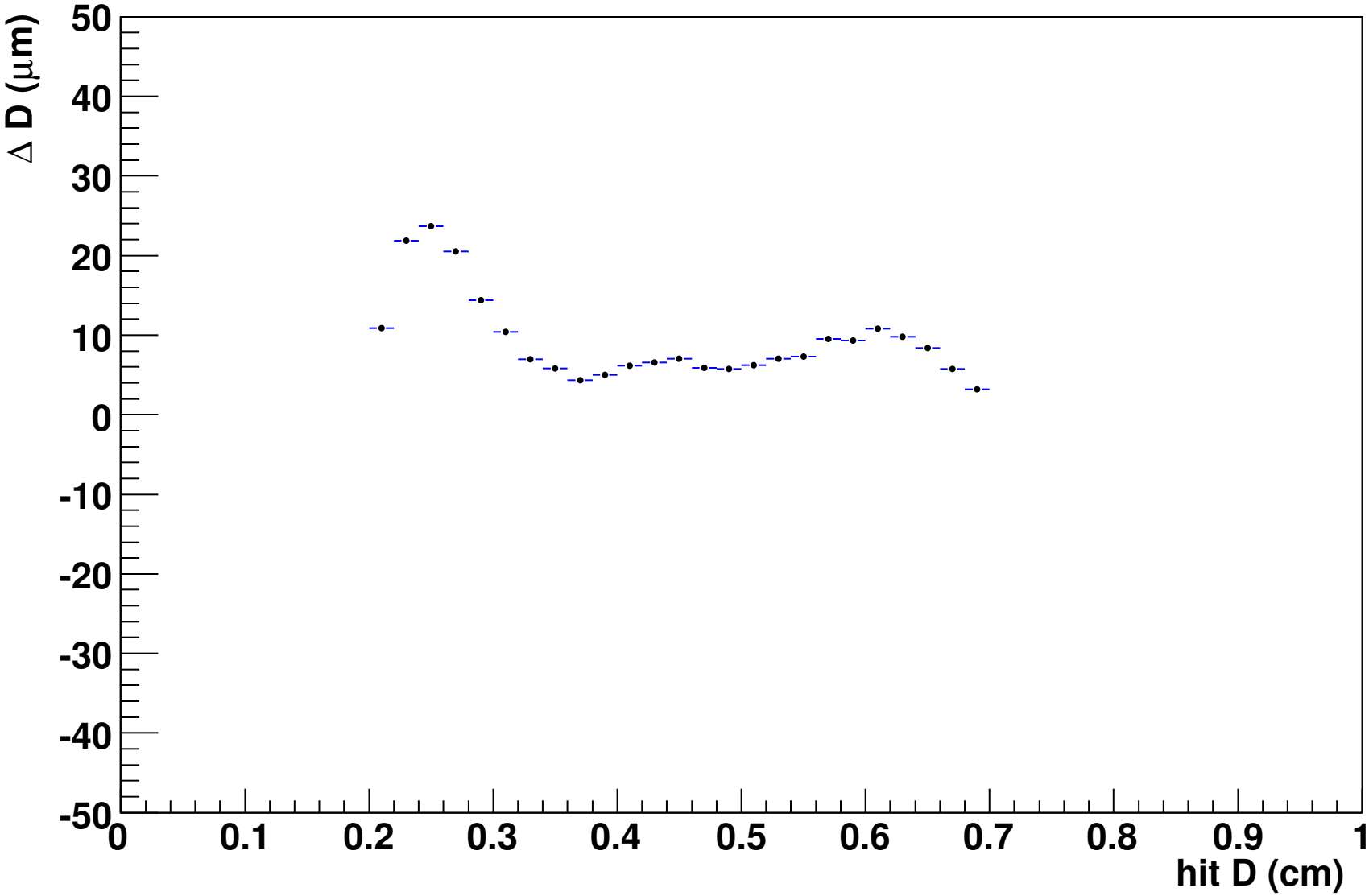

Δ D (μm)
40
30
20
10
0
-10
-80
-60
-40
-20
0
20
40
60
80
wire number

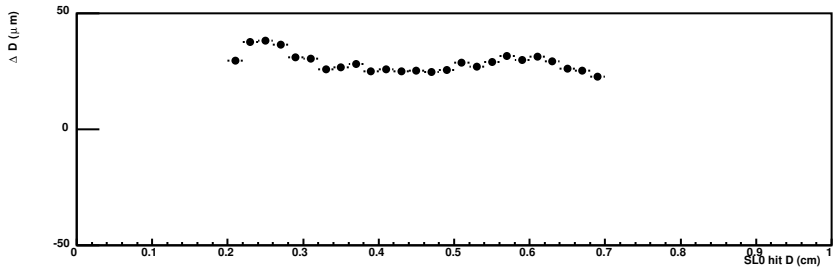

Δ Y (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

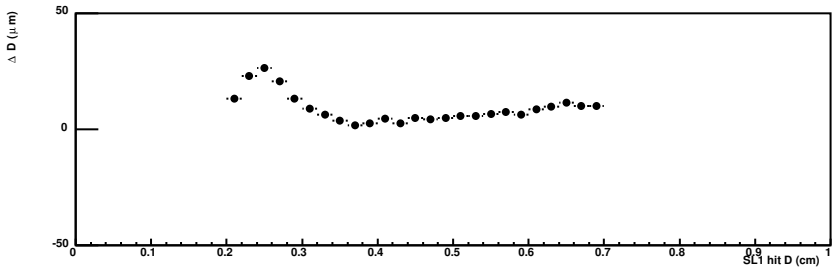

Δ D (μm)
400
200
0
-200
-400
-1
-0.8
-0.6
-0.4
-0.2
-0
0.2
0.4
0.6
0.8
1
track Y (cm)

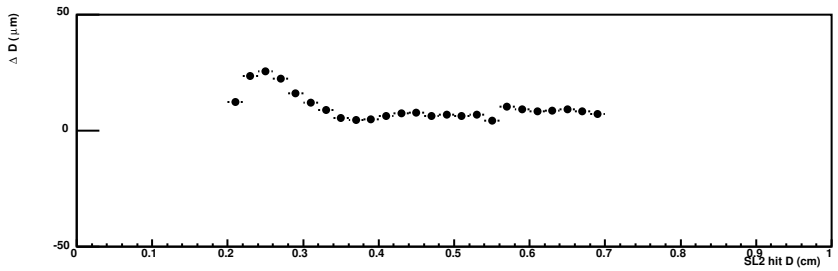

Δ Y (μm)
5
4
3
2
1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

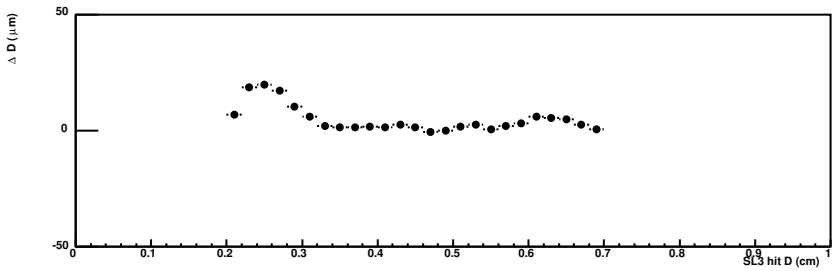

#Hit T (ns)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

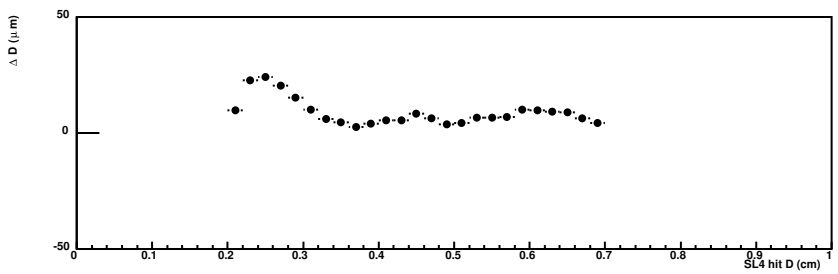

Δ D (μm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
hit D (cm)

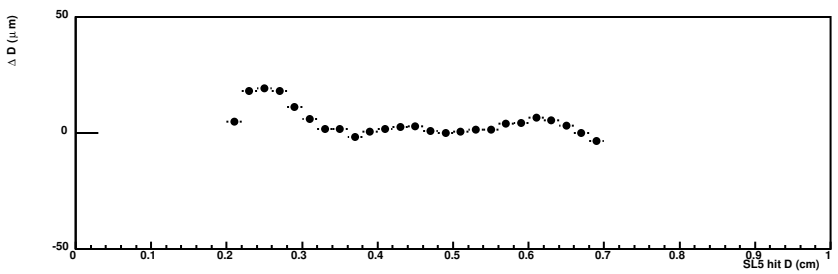

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL0 hit D (cm)

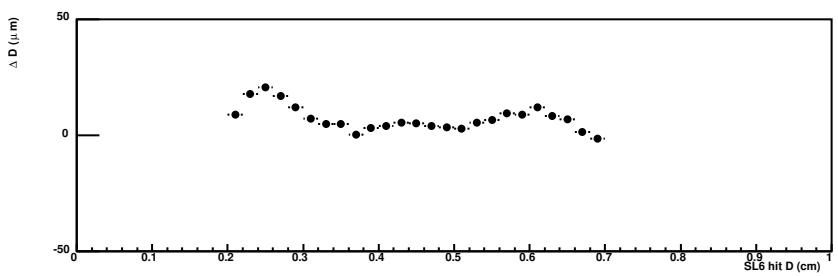

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL1 hit D (cm)

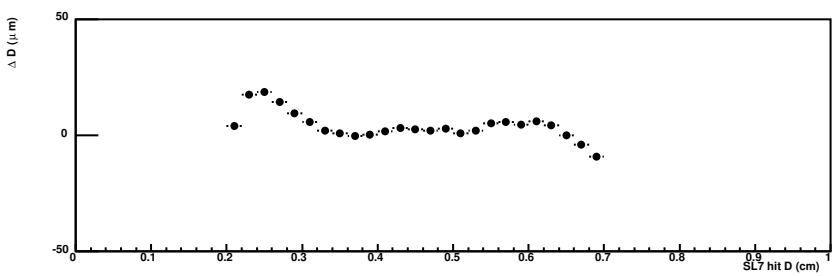

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL2 hit D (cm)

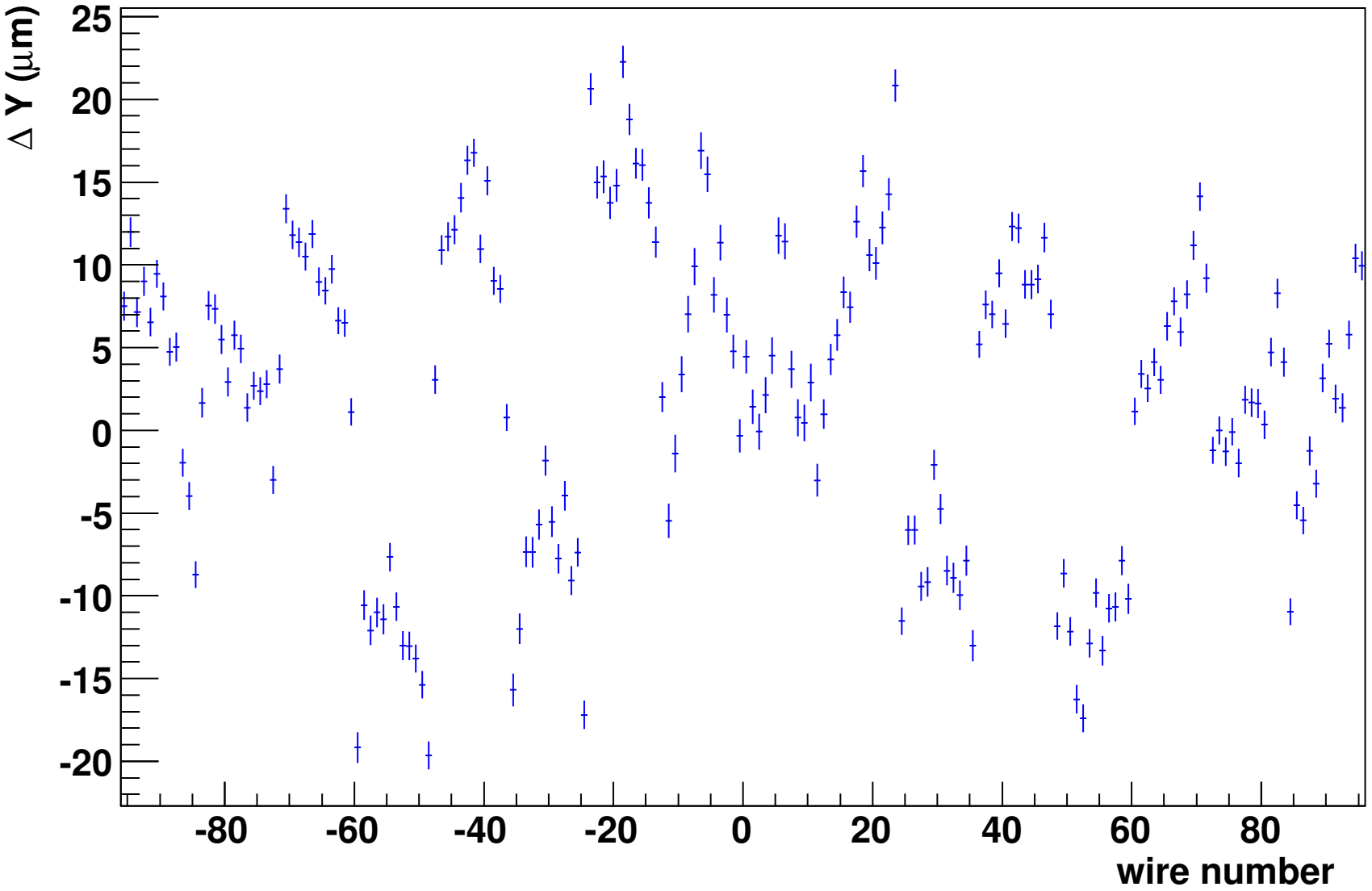

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL3 hit D (cm)

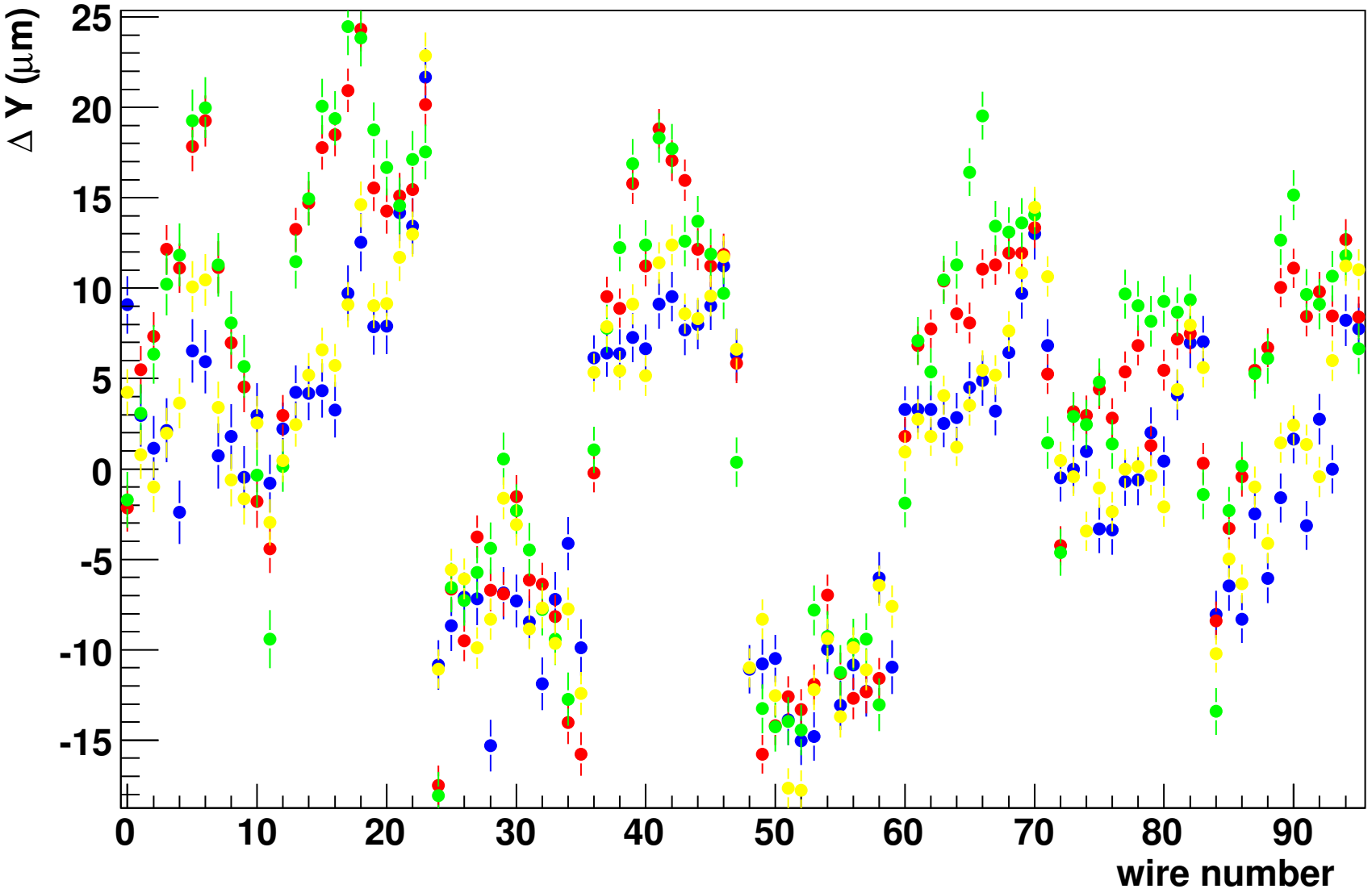

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL4 hit D (cm)

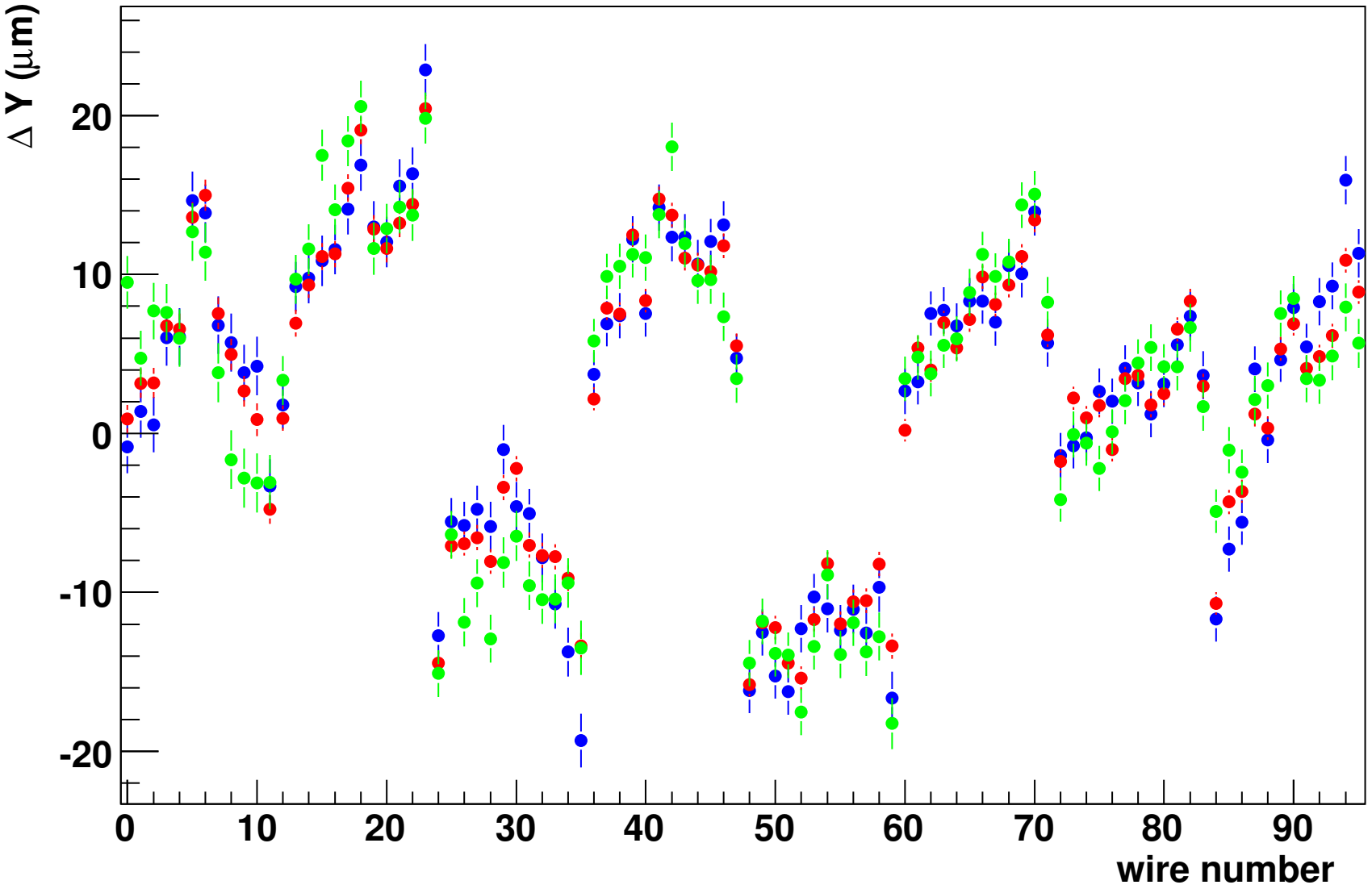

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL5 hit D (cm)

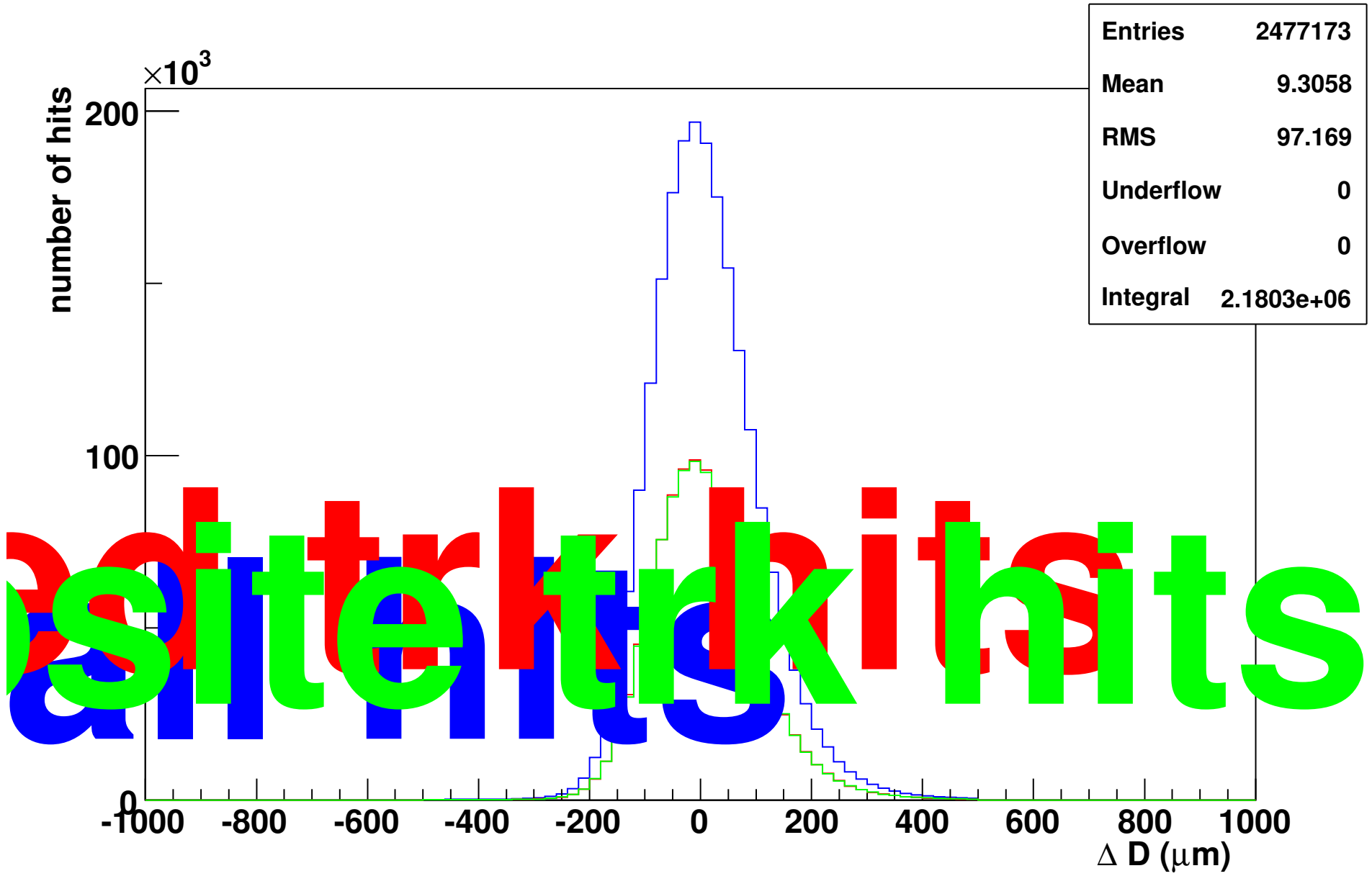

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL6 hit D (cm)

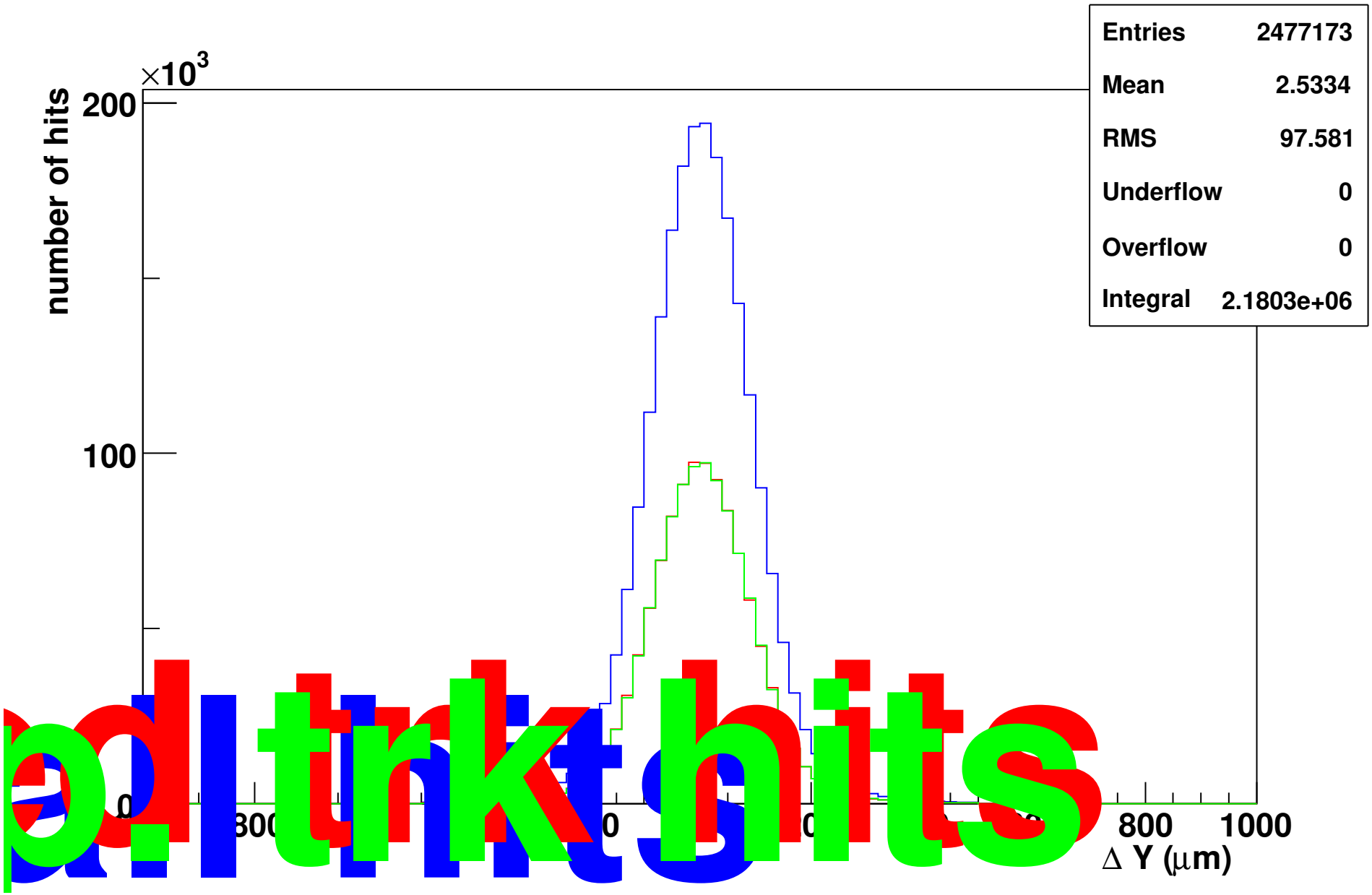

Δ D (μm)
50
0
-50
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
SL7 hit D (cm)


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


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

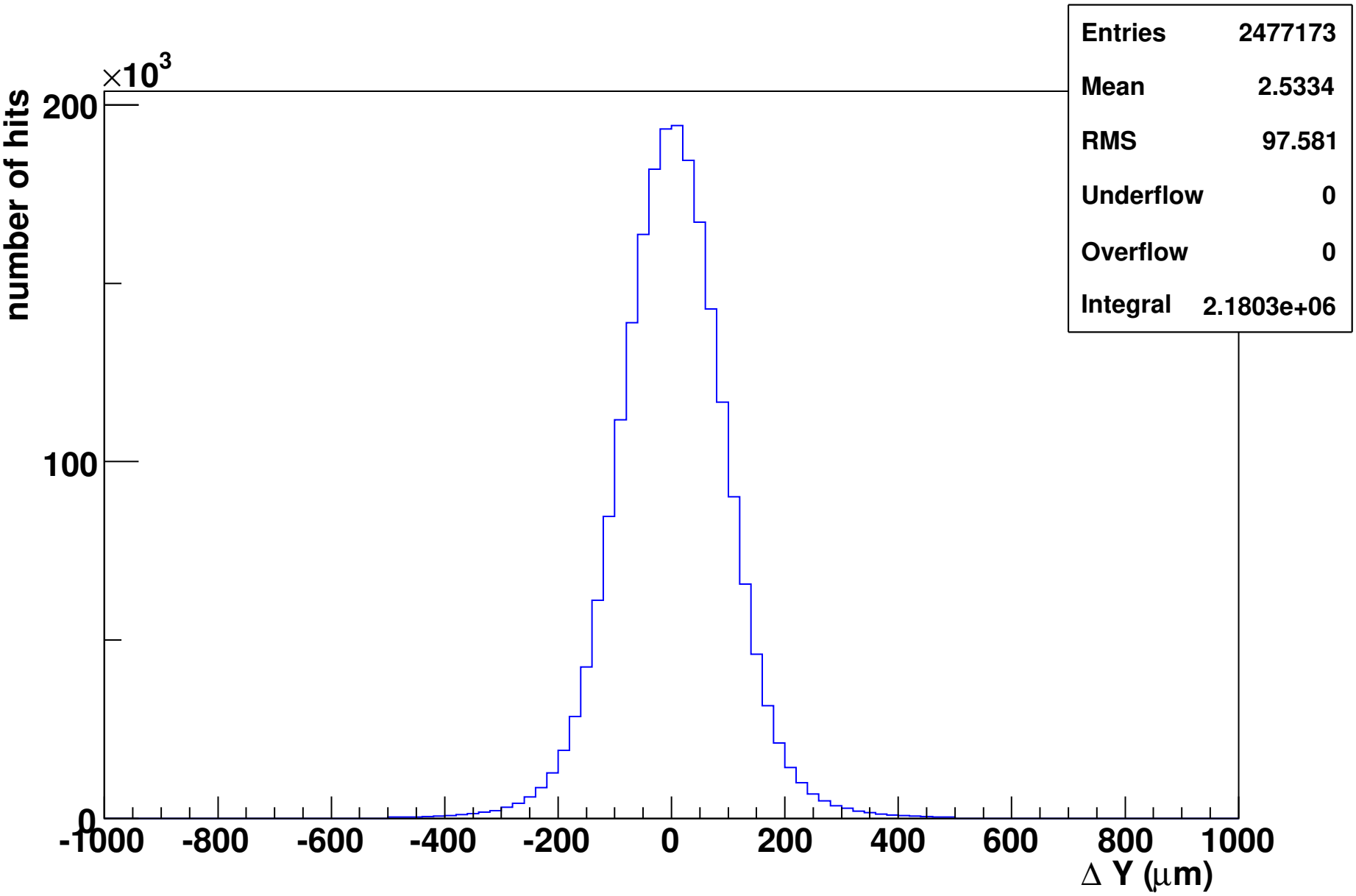

Δ Y (μm)
20
10
0
-10
-20
0
10
20
30
40
50
60
70
80
90
wire number


Entries 2477173
Mean 9.3058
RMS 97.169
Underflow 0
Overflow 0
Integral 2.1803e+06
number of hits
×10^3
200
100
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ D (μm)
scattered hits



Entries 2477173
Mean 2.5334
RMS 97.581
Underflow 0
Overflow 0
Integral 2.1803e+06
number of hits
×10^3
200
100
0
800
1000
Δ Y (μm)

pd trk hits


Entries 2477173
Mean 2.5334
RMS 97.581
Underflow 0
Overflow 0
Integral 2.1803e+06
×10^3
number of hits
200
100
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000
Δ Y (μm)