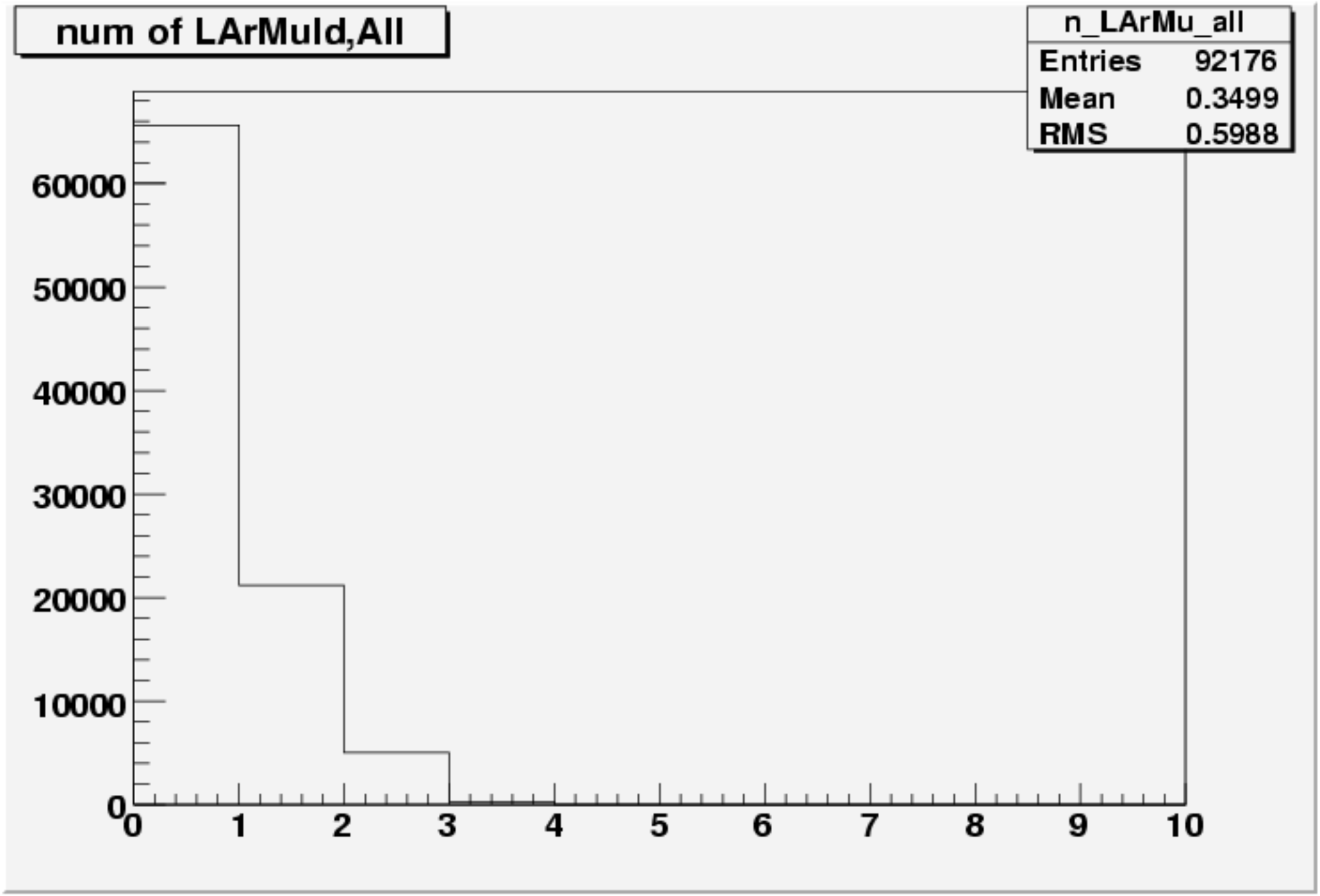
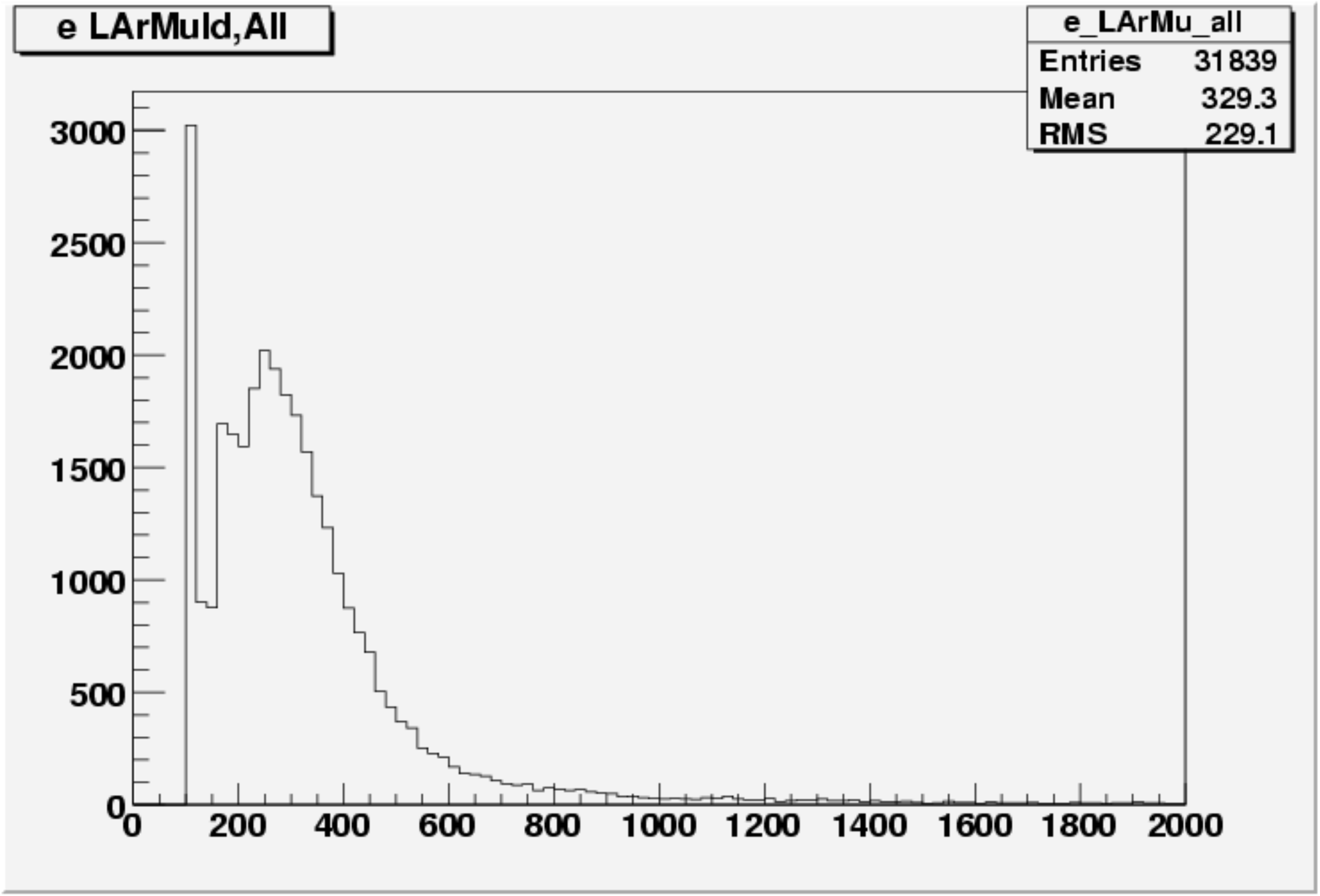
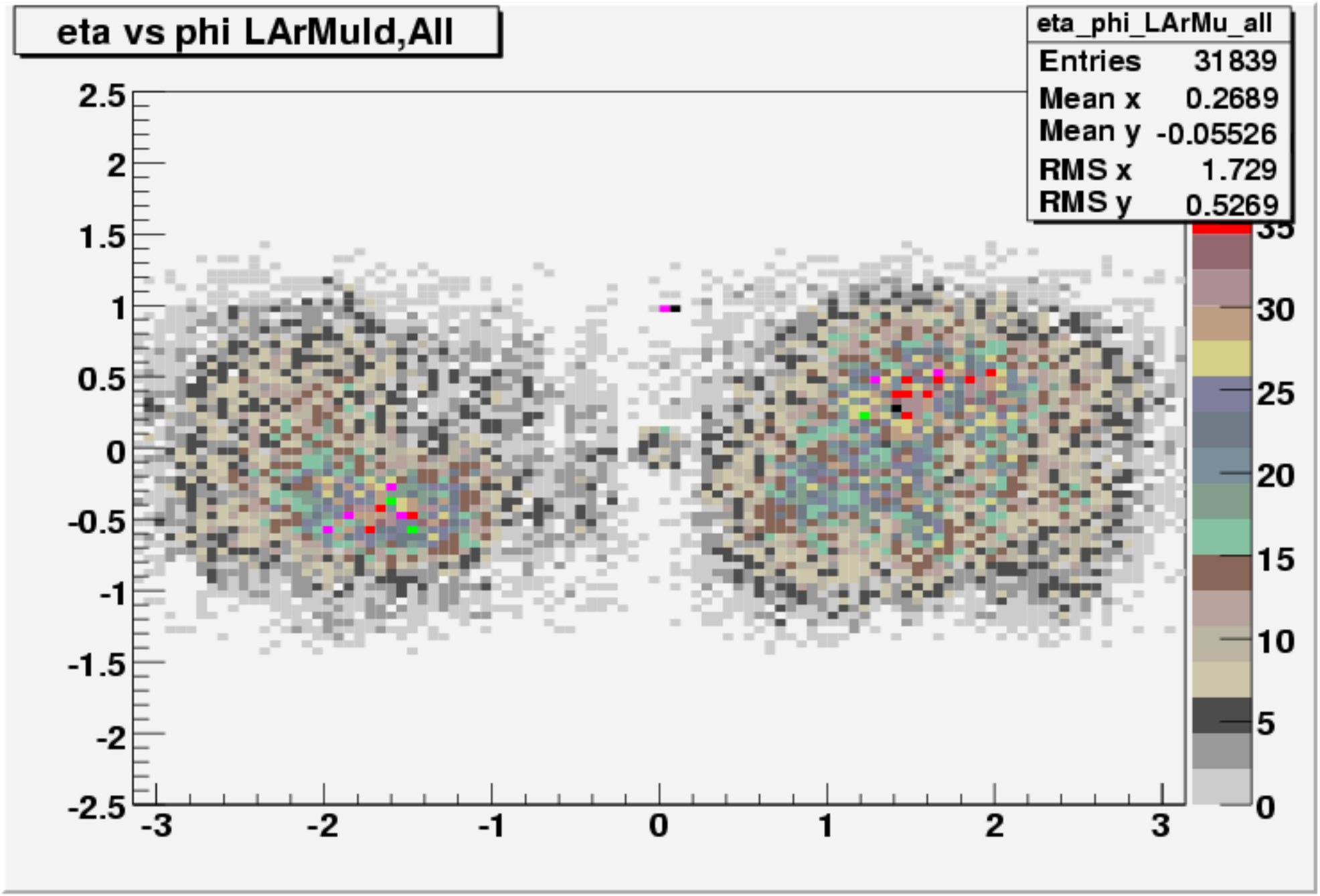
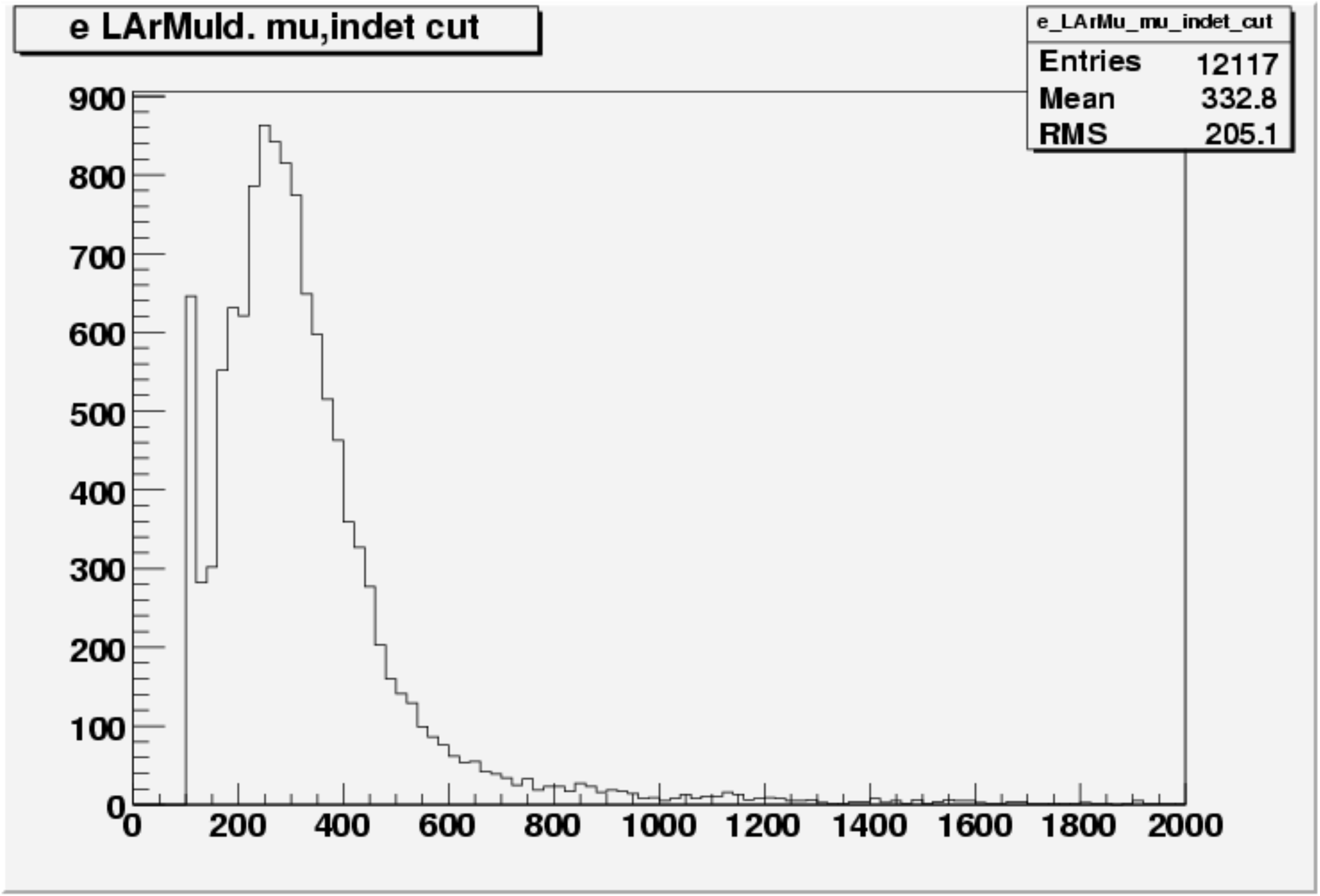
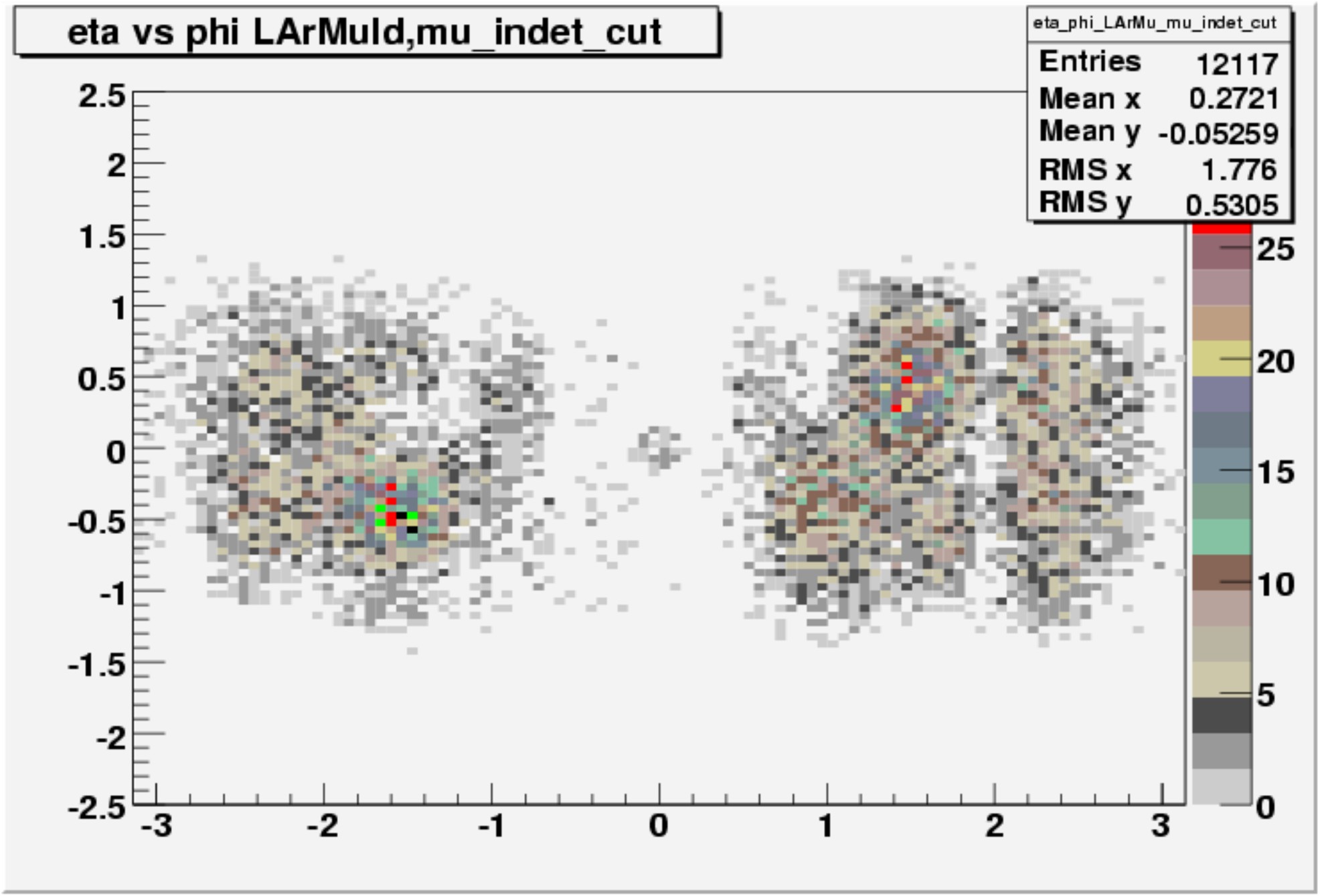
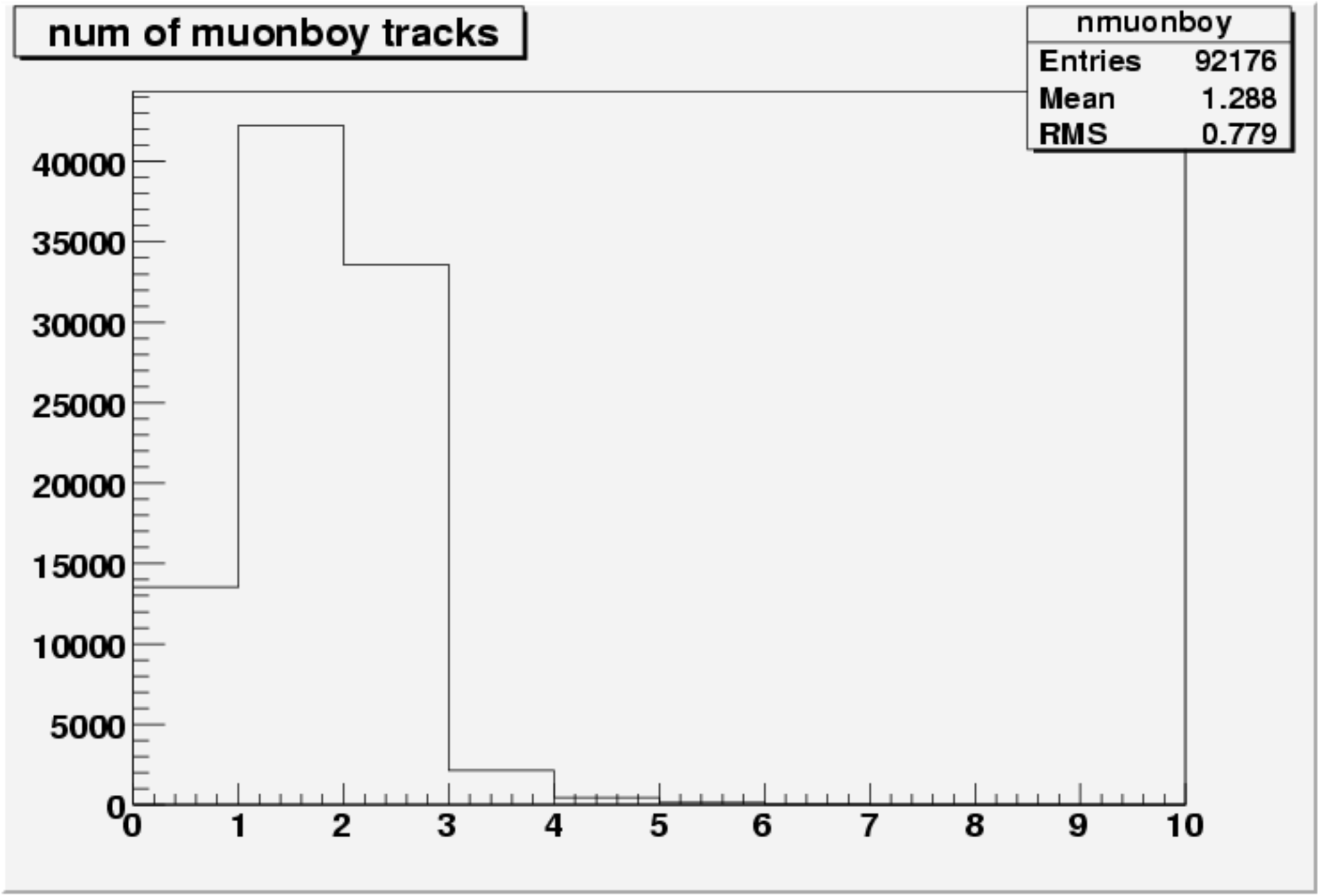

num of LArMuId,All
n_LArMu_all
Entries 92176
Mean 0.3499
RMS 0.5988
60000
50000
40000
30000
20000
10000
0
0
1
2
3
4
5
6
7
8
9
10

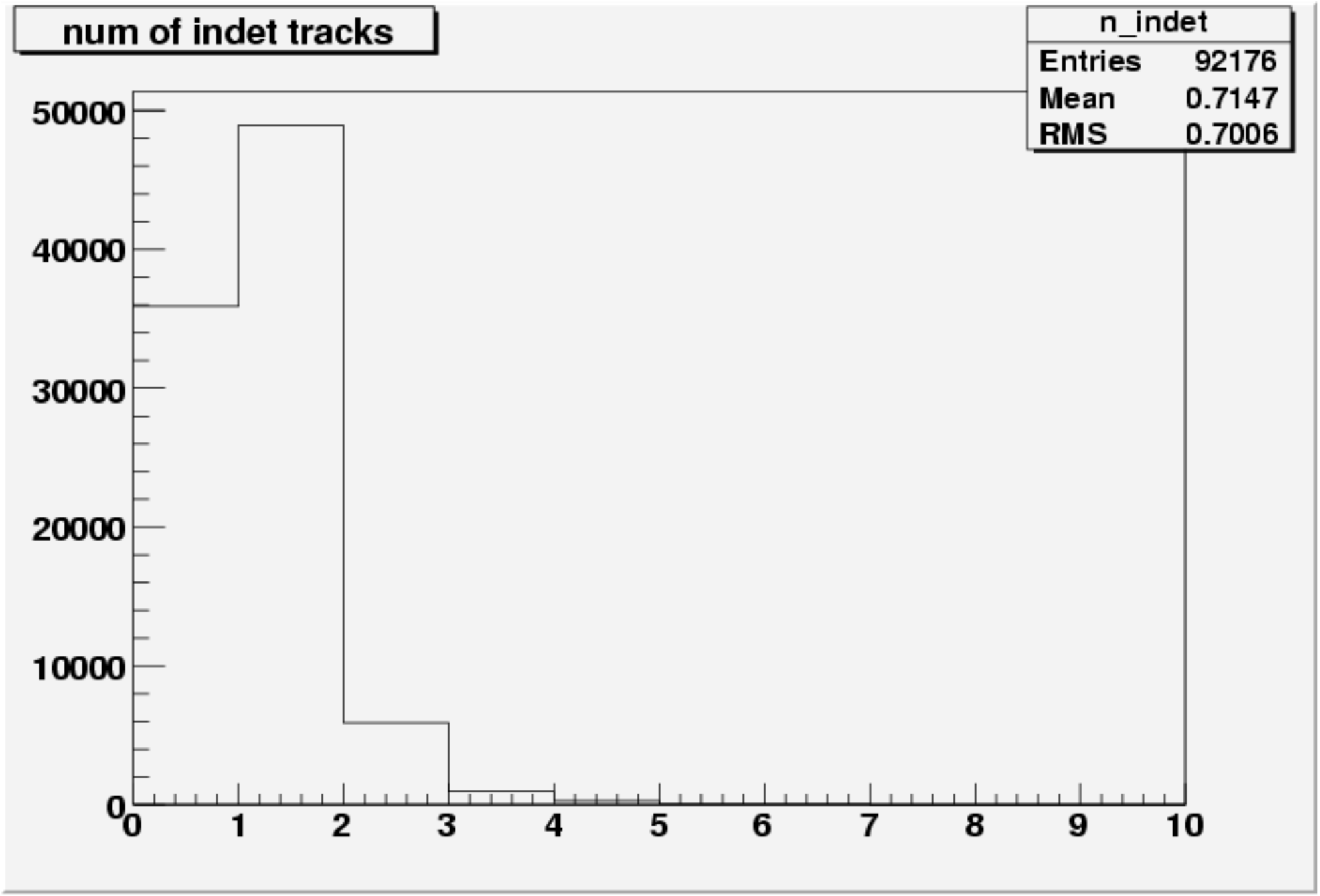

e LArMuId,All
e_LArMu_all
Entries 31839
Mean 329.3
RMS 229.1
3000
2500
2000
1500
1000
500
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000

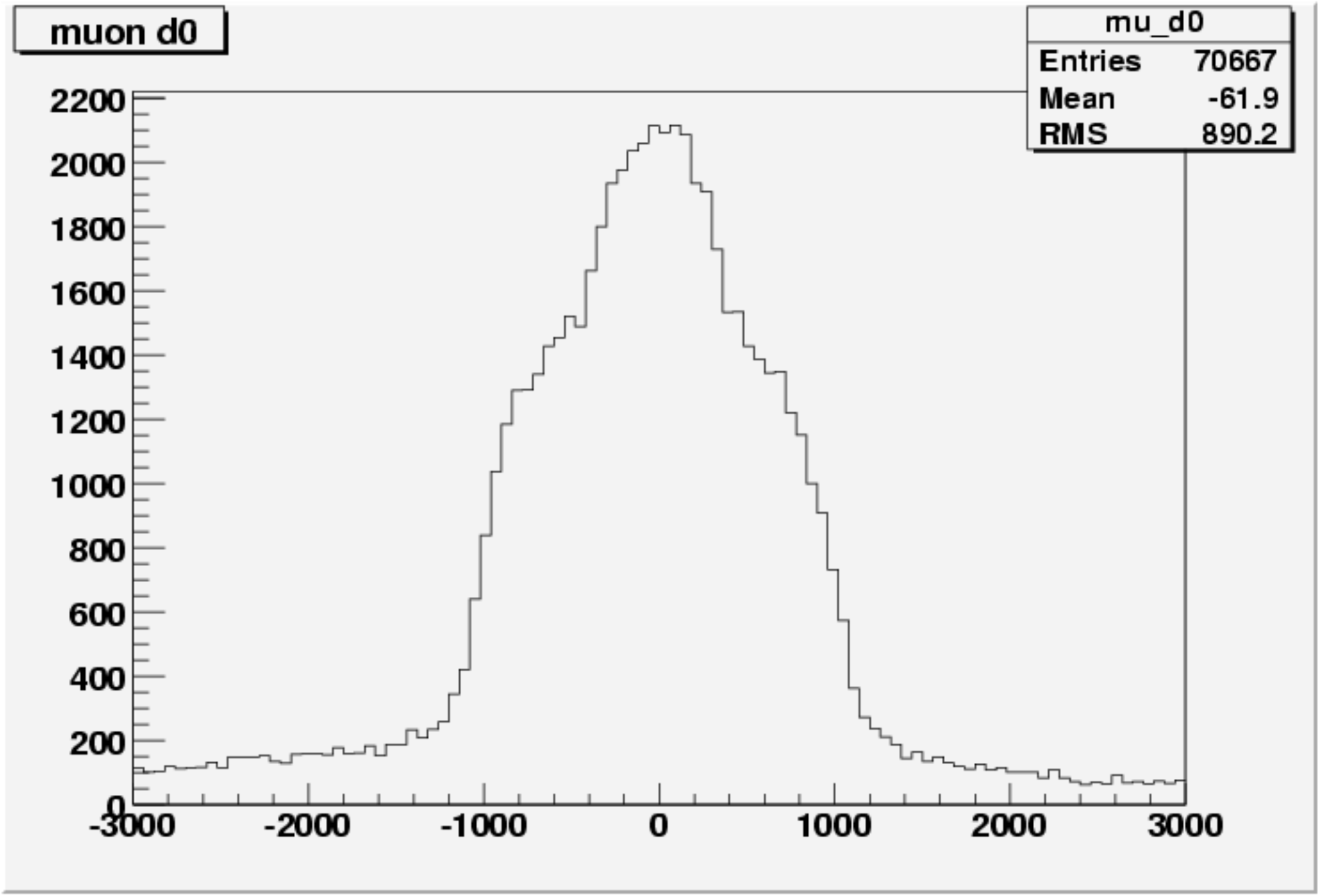

eta vs phi LArMuId,All
eta_phi_LArMu_all
Entries 31839
Mean x 0.2689
Mean y -0.05526
RMS x 1.729
RMS y 0.5269
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-2
-1
0
1
2
3
35
30
25
20
15
10
5
0

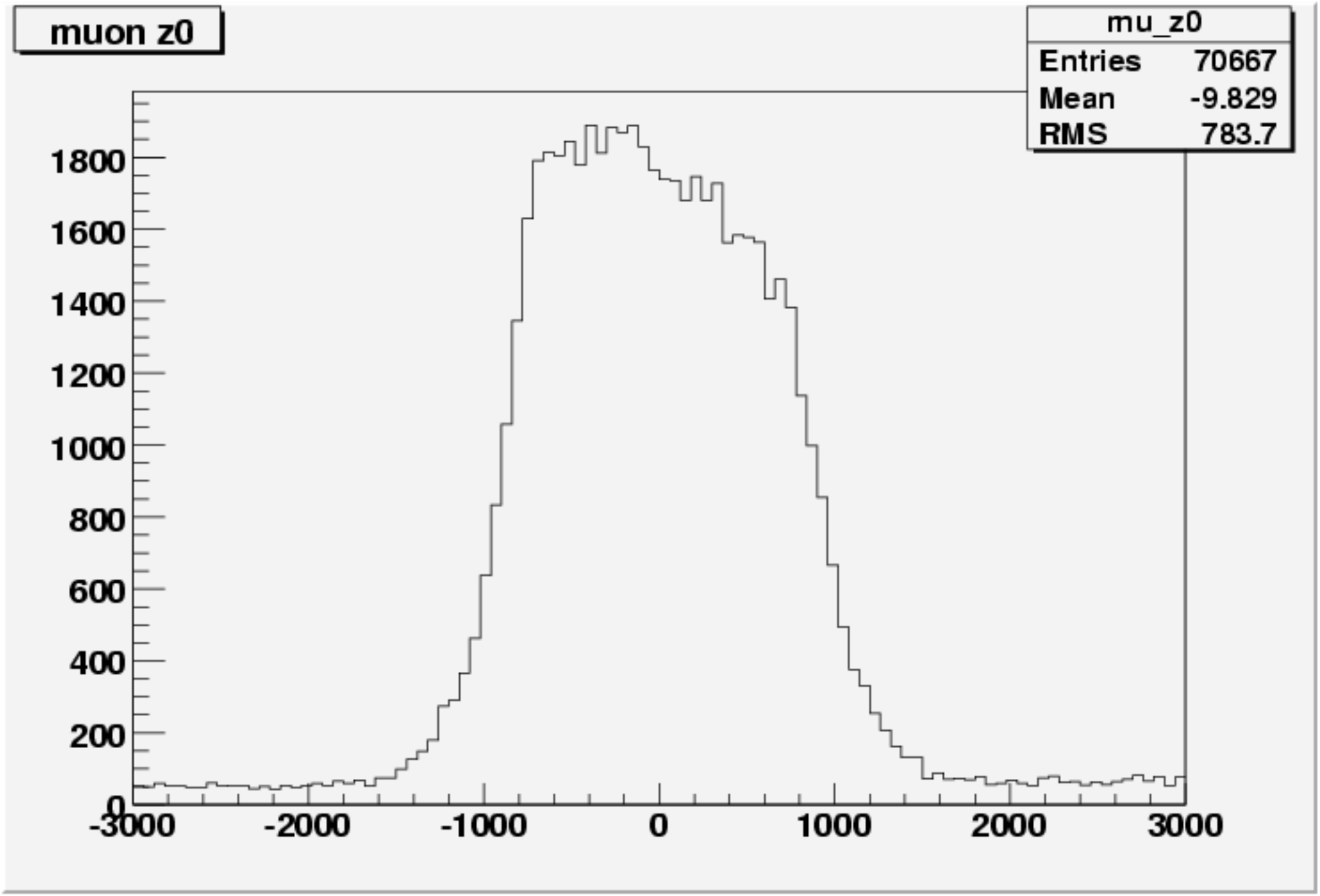

e LArMuld. mu,indet cut
e_LArMu_mu_indet_cut
Entries 12117
Mean 332.8
RMS 205.1
900
800
700
600
500
400
300
200
100
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000

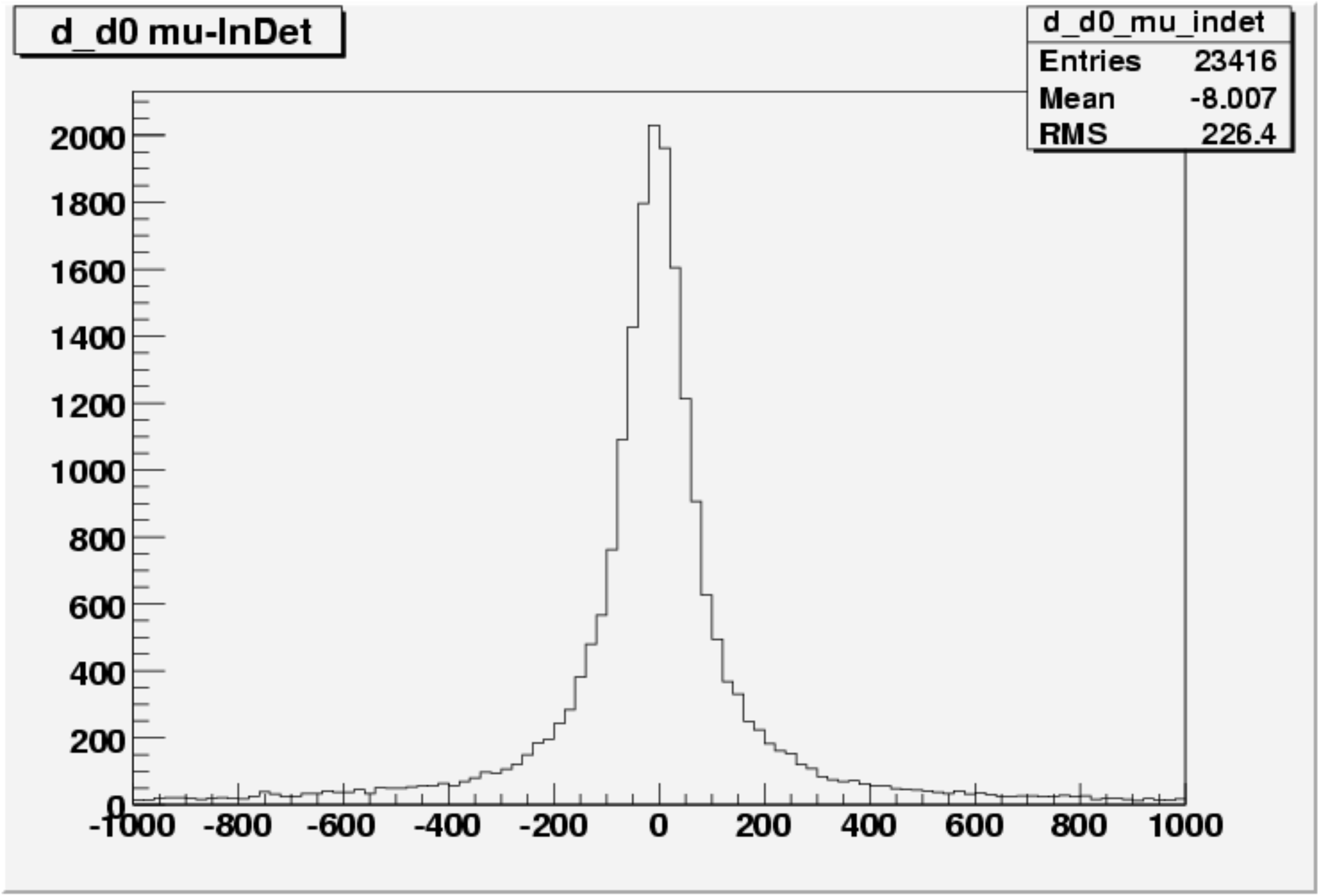

eta vs phi LArMuId,mu_indet_cut
eta_phi_LArMu_mu_indet_cut
Entries 12117
Mean x 0.2721
Mean y -0.05259
RMS x 1.776
RMS y 0.5305
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-2
-1
0
1
2
3
25
20
15
10
5
0

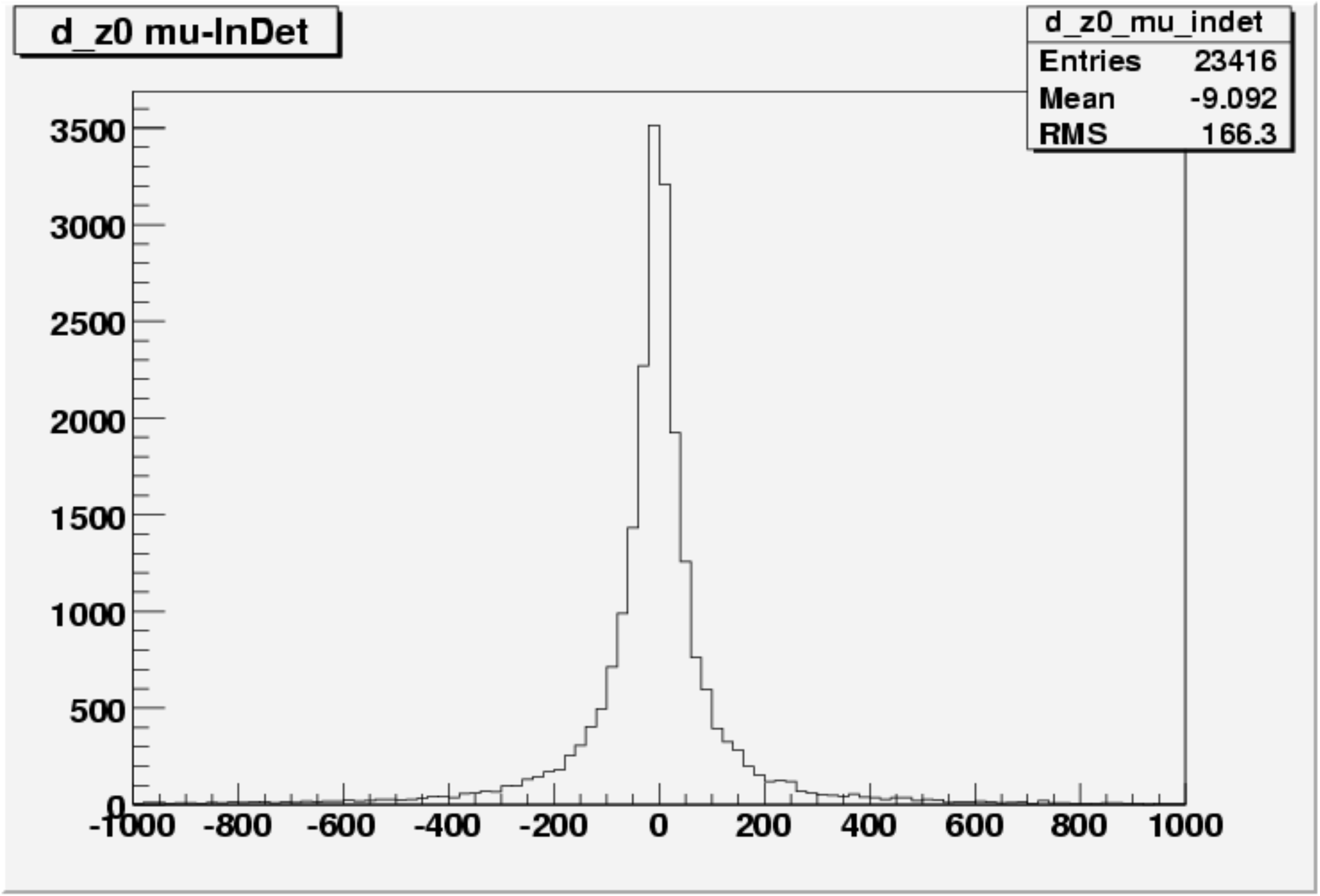

num of muonboy tracks
nmuonboy
Entries 92176
Mean 1.288
RMS 0.779
40000
35000
30000
25000
20000
15000
10000
5000
0
0
1
2
3
4
5
6
7
8
9
10

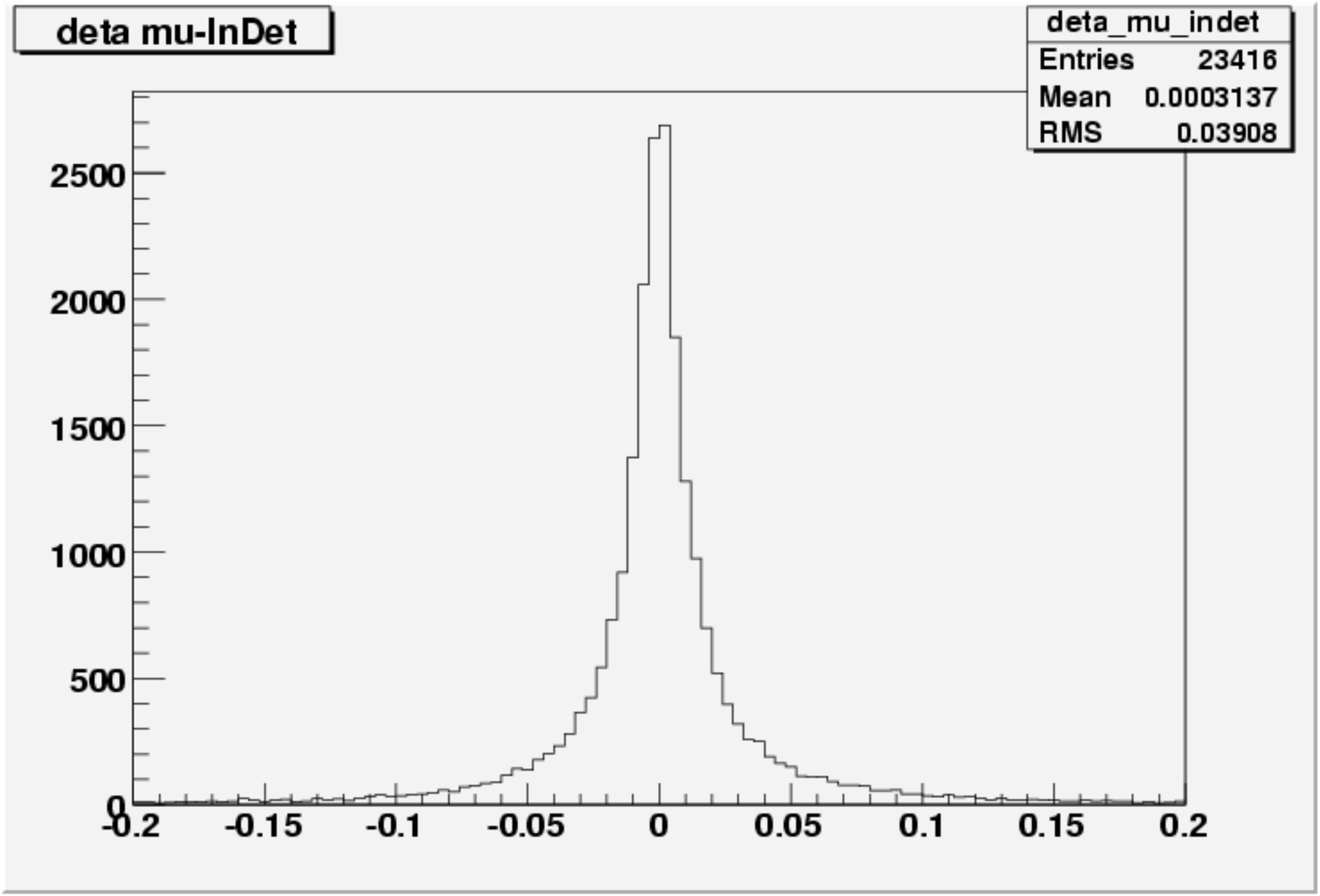

num of indet tracks
n_indet
Entries 92176
Mean 0.7147
RMS 0.7006
50000
40000
30000
20000
10000
0
0
1
2
3
4
5
6
7
8
9
10

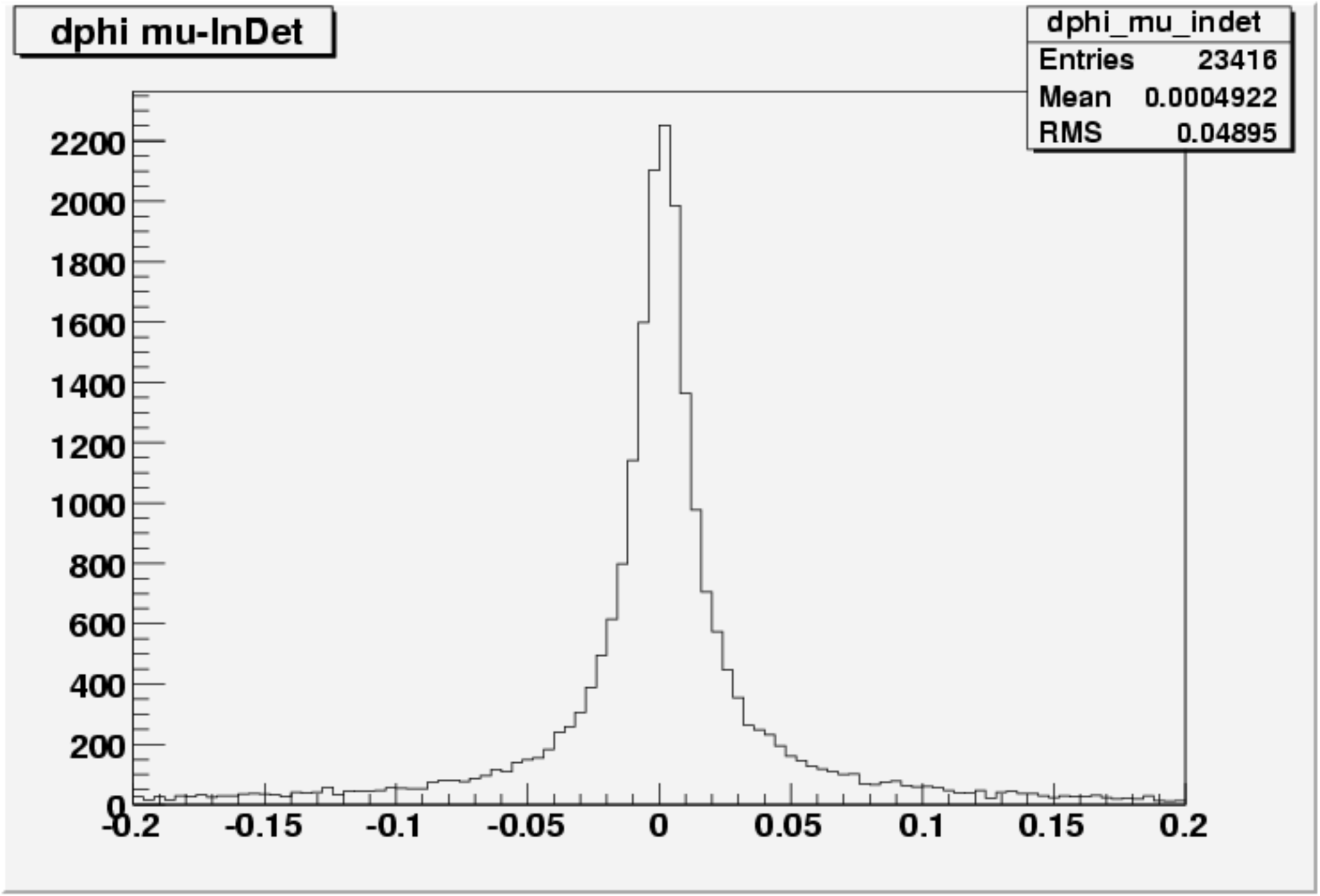

muon d0
mu_d0
Entries 70667
Mean -61.9
RMS 890.2
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
-3000
-2000
-1000
0
1000
2000
3000

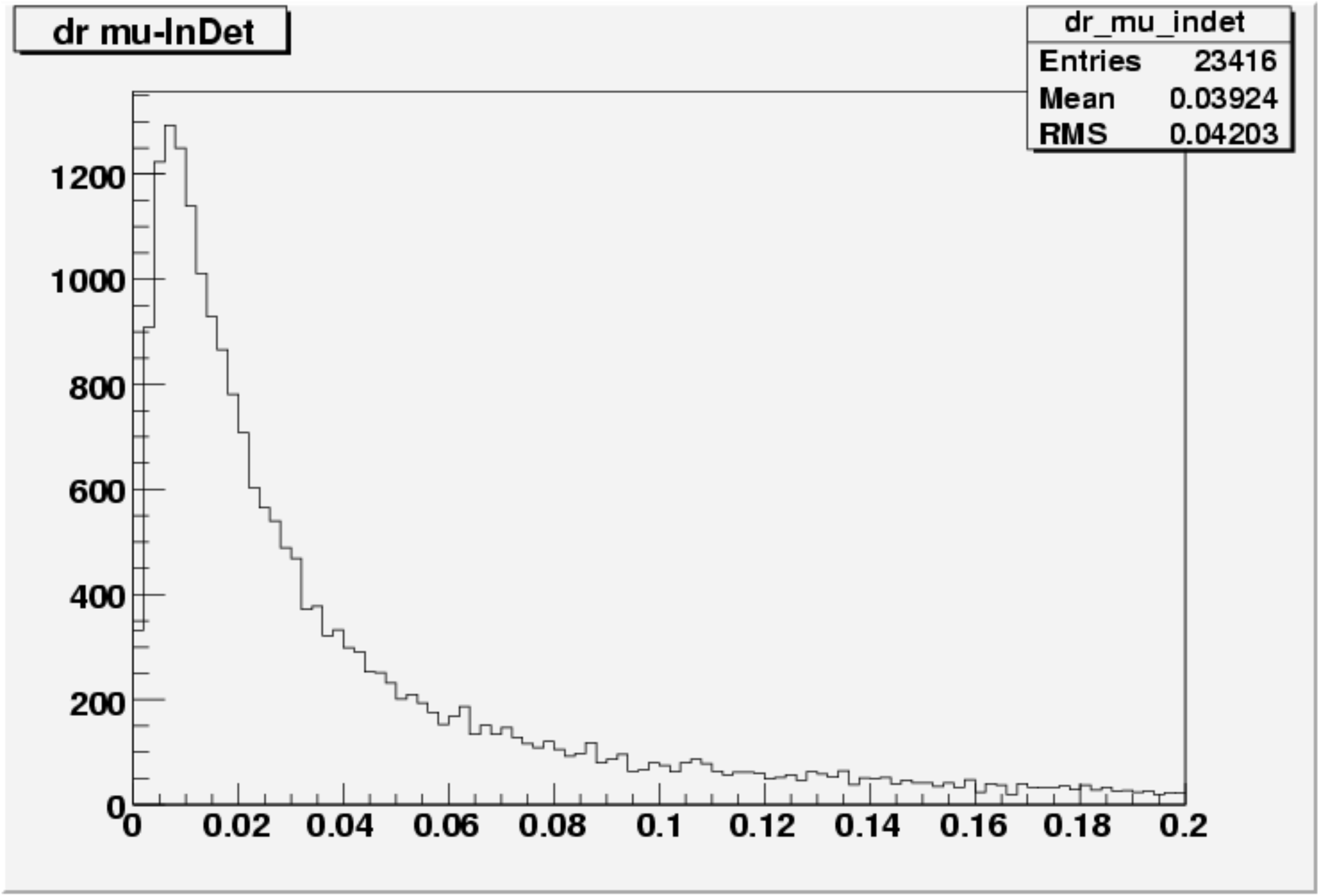

muon z0
mu_z0
Entries 70667
Mean -9.829
RMS 783.7
1800
1600
1400
1200
1000
800
600
400
200
0
-3000
-2000
-1000
0
1000
2000
3000

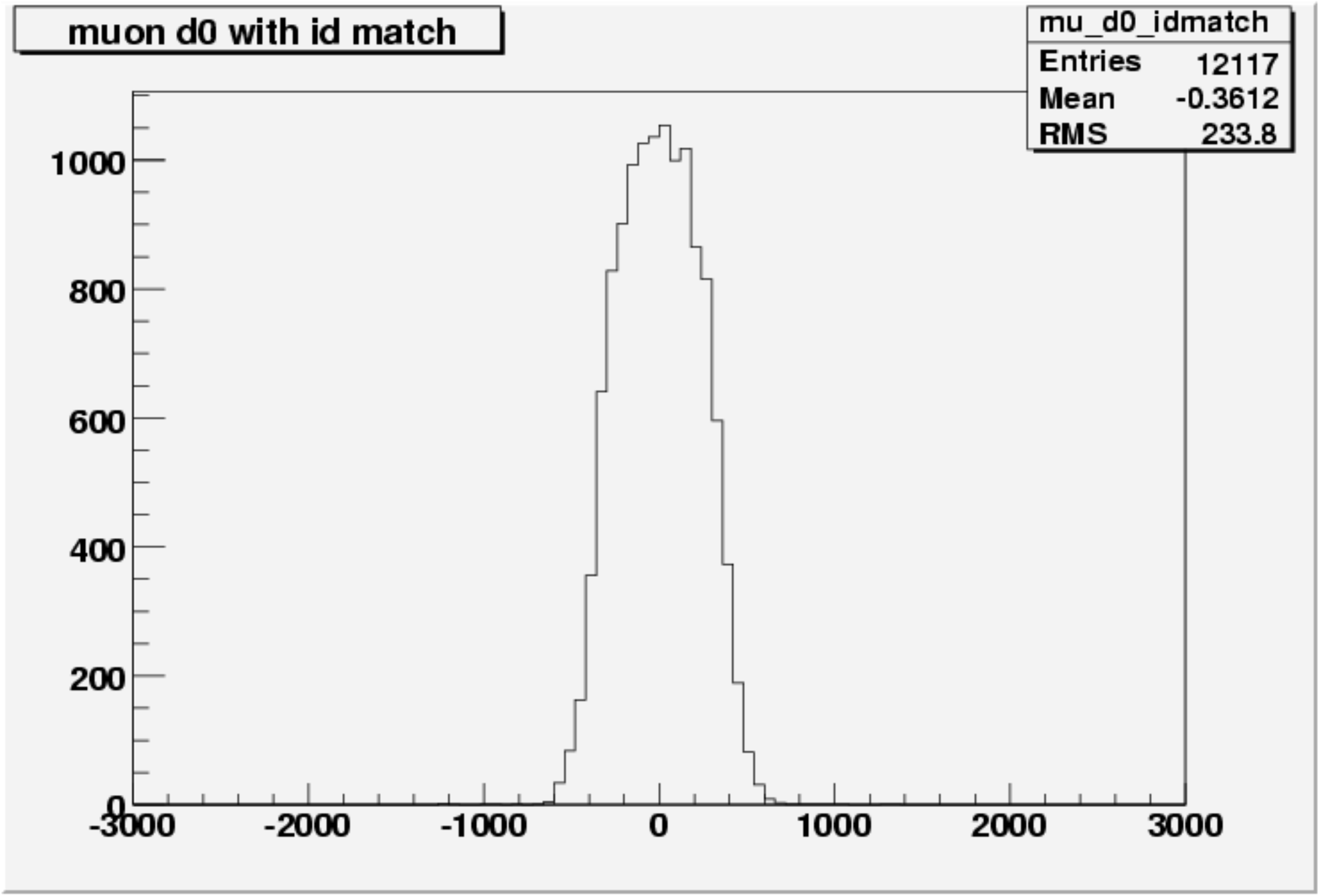

d_d0 mu-InDet
d_d0_mu_indet
Entries 23416
Mean -8.007
RMS 226.4
2000
1800
1600
1400
1200
1000
800
600
400
200
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000

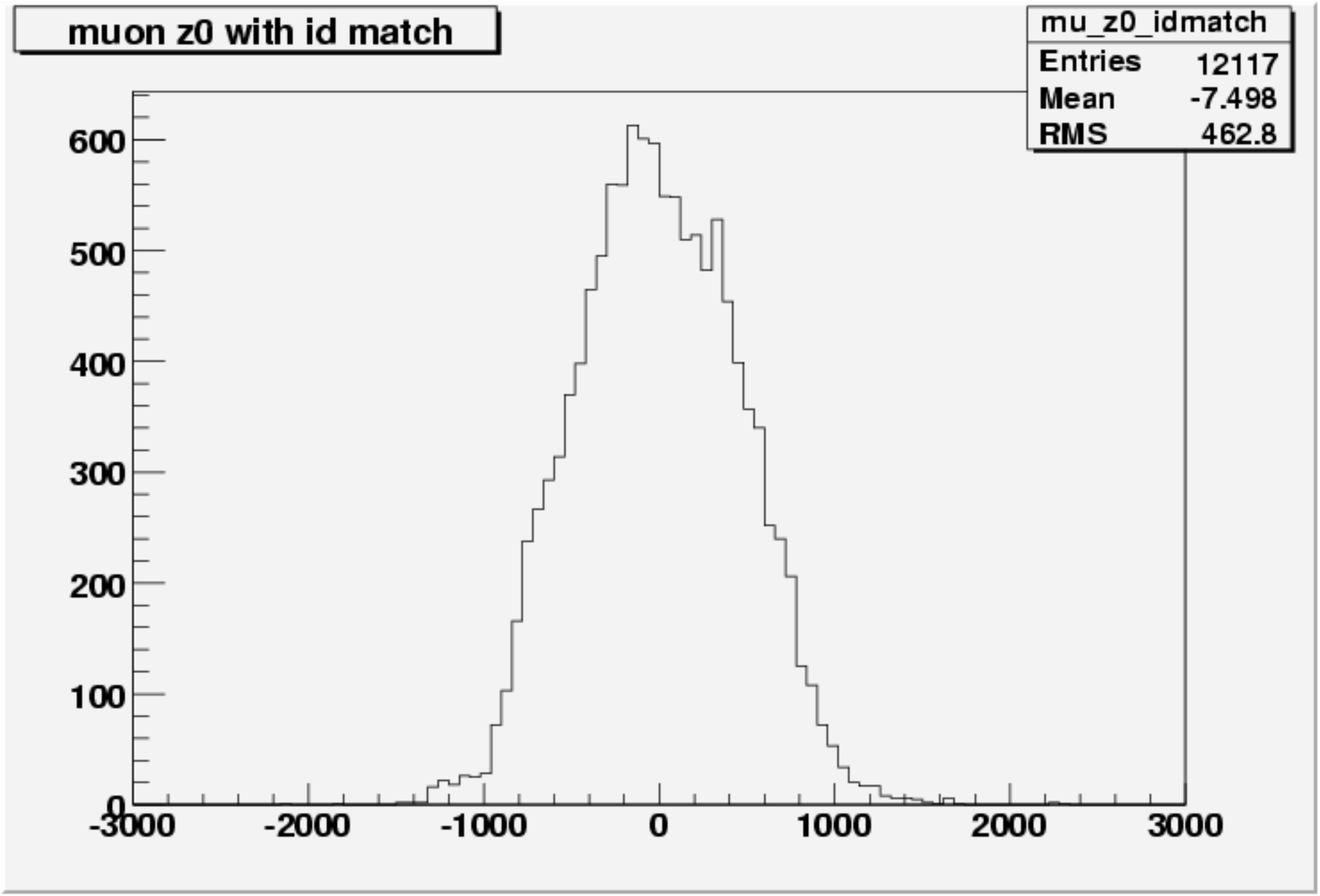

d_z0 mu-InDet
d_z0_mu_indet
Entries 23416
Mean -9.092
RMS 166.3
3500
3000
2500
2000
1500
1000
500
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000

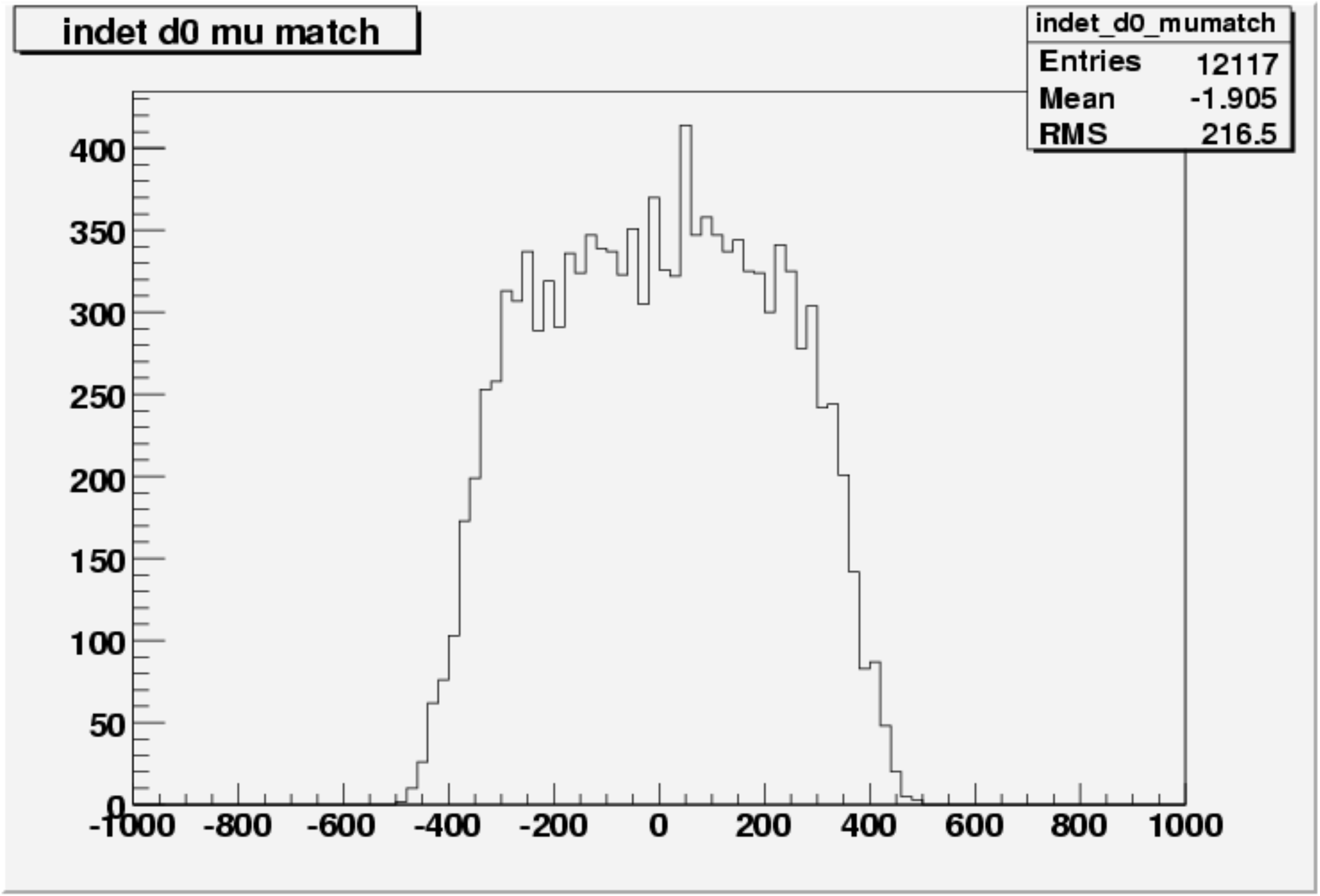

deta mu-InDet
deta_mu_indet
Entries 23416
Mean 0.0003137
RMS 0.03908
2500
2000
1500
1000
500
0
-0.2
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2

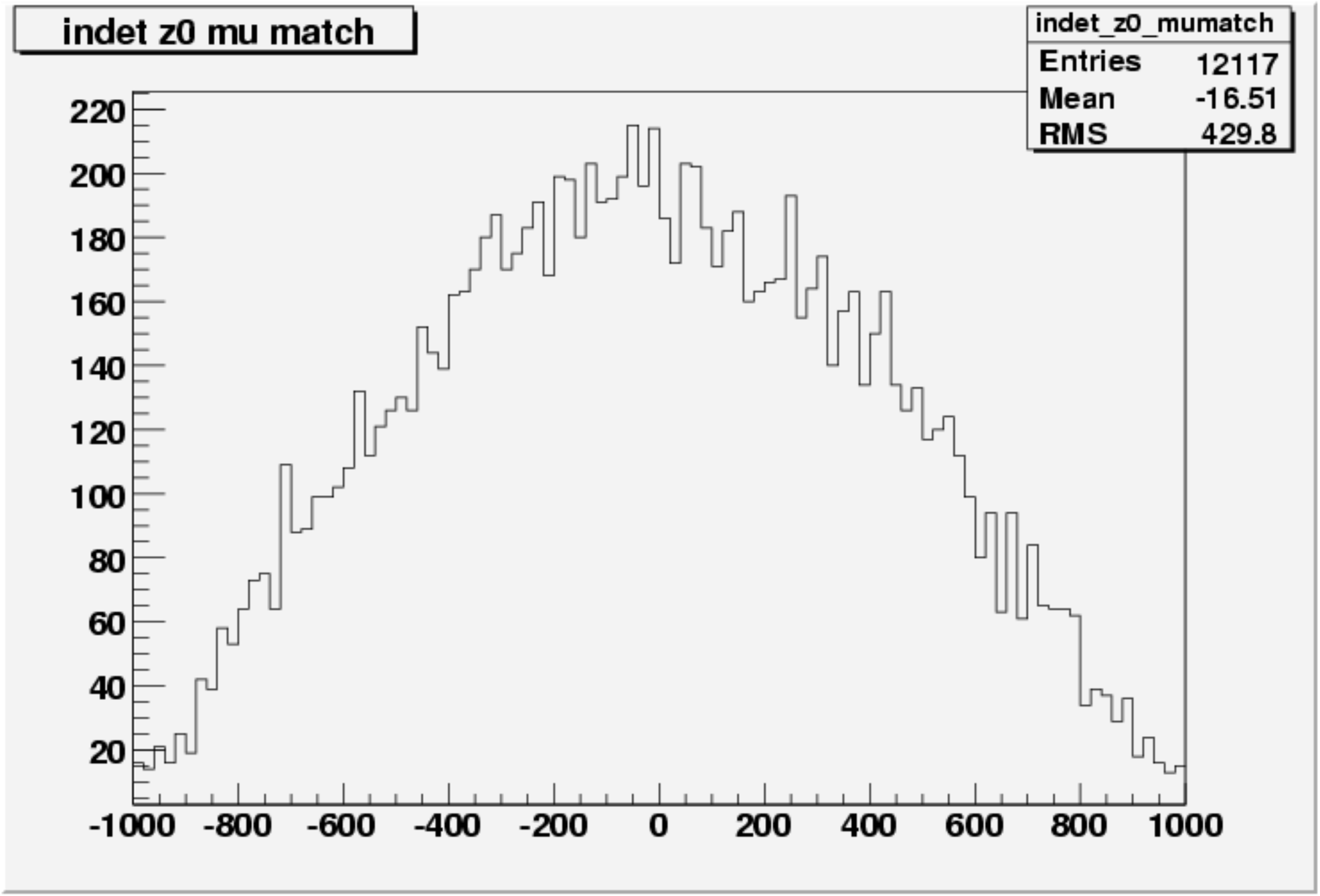

dphi mu-InDet
dphi_mu_indet
Entries 23416
Mean 0.0004922
RMS 0.04895
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
-0.2
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2

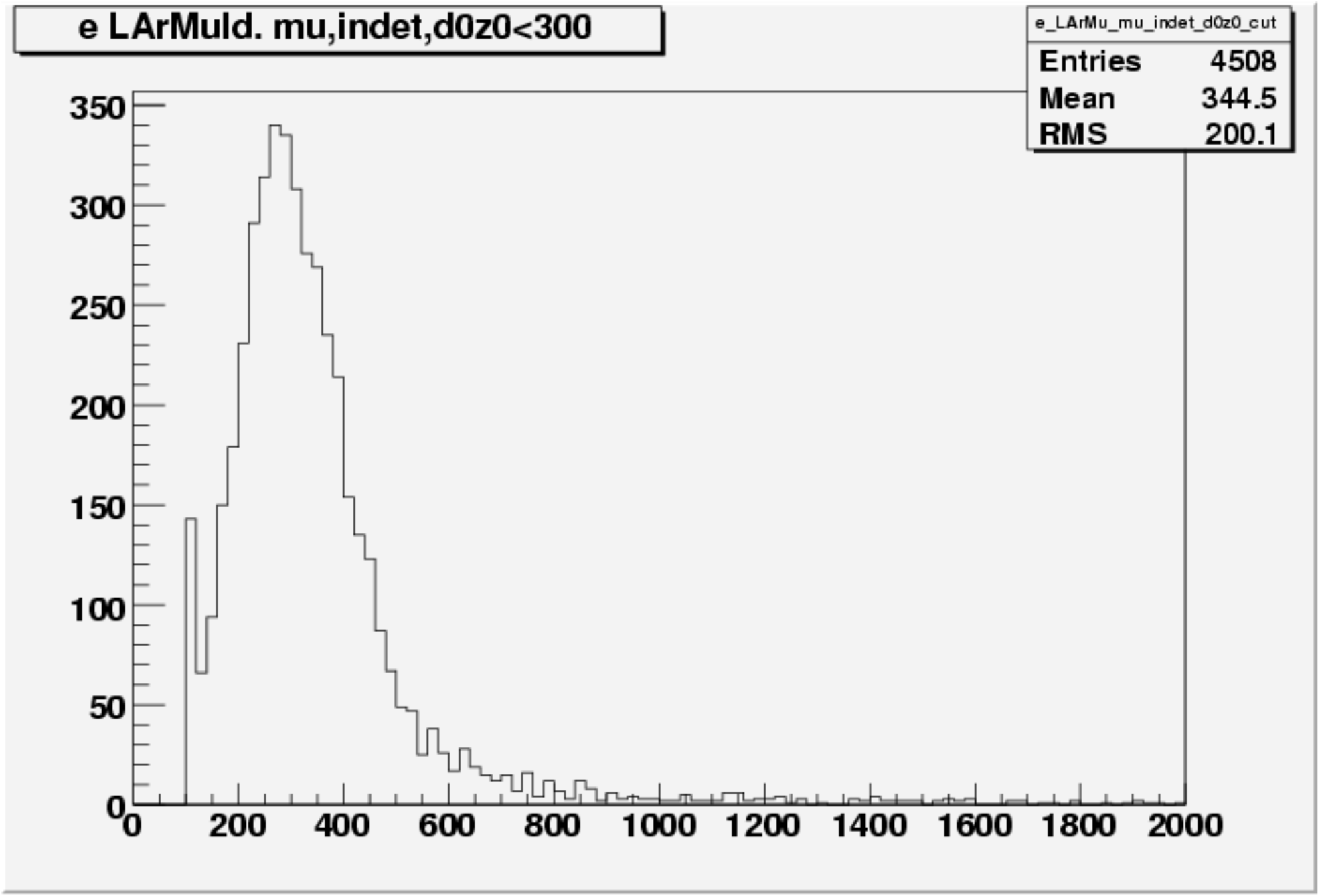

dr mu-InDet
dr_mu_indet
Entries 23416
Mean 0.03924
RMS 0.04203
1200
1000
800
600
400
200
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2

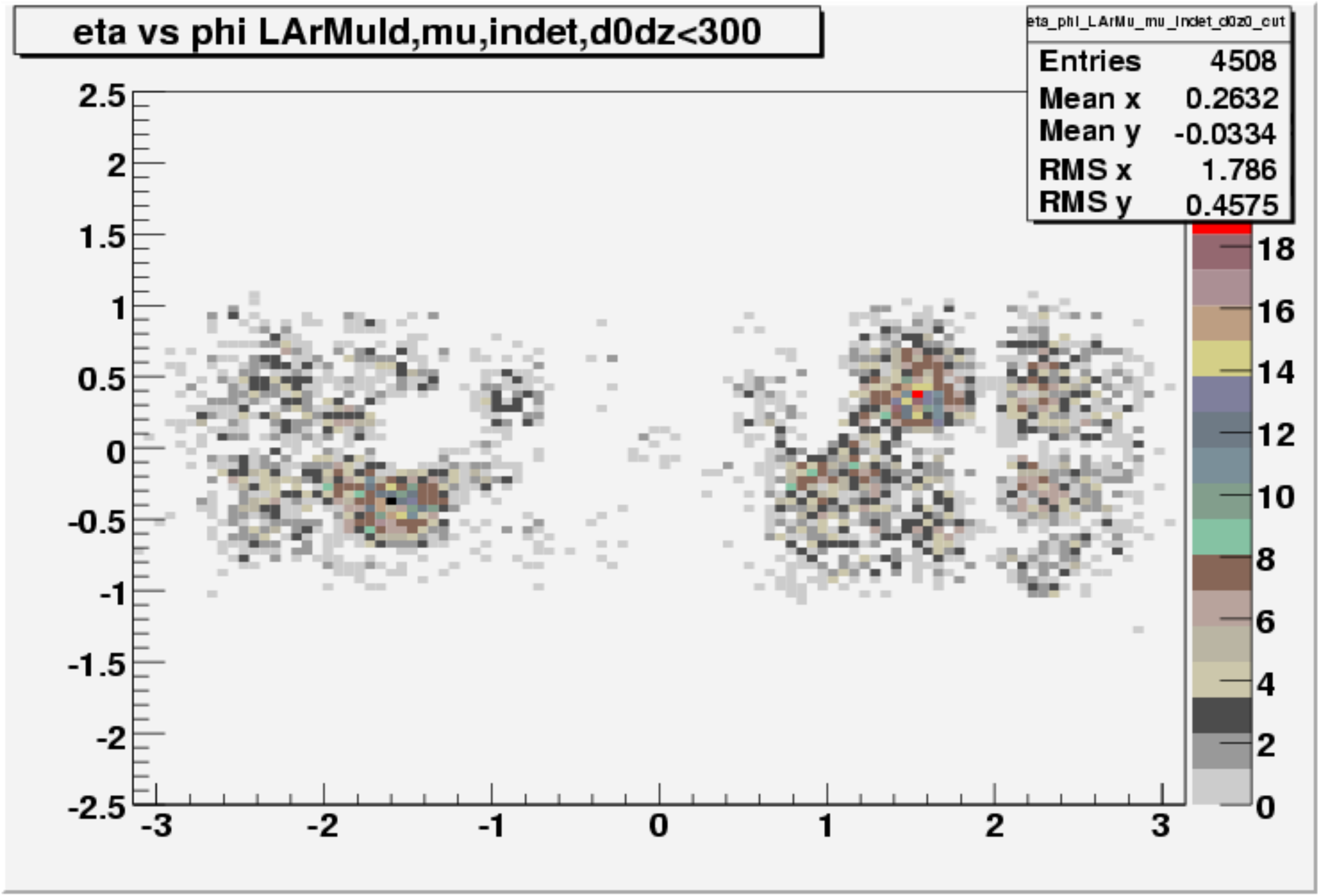

muon d0 with id match
mu_d0_idmatch
Entries 12117
Mean -0.3612
RMS 233.8
1000
800
600
400
200
0
-3000
-2000
-1000
0
1000
2000
3000

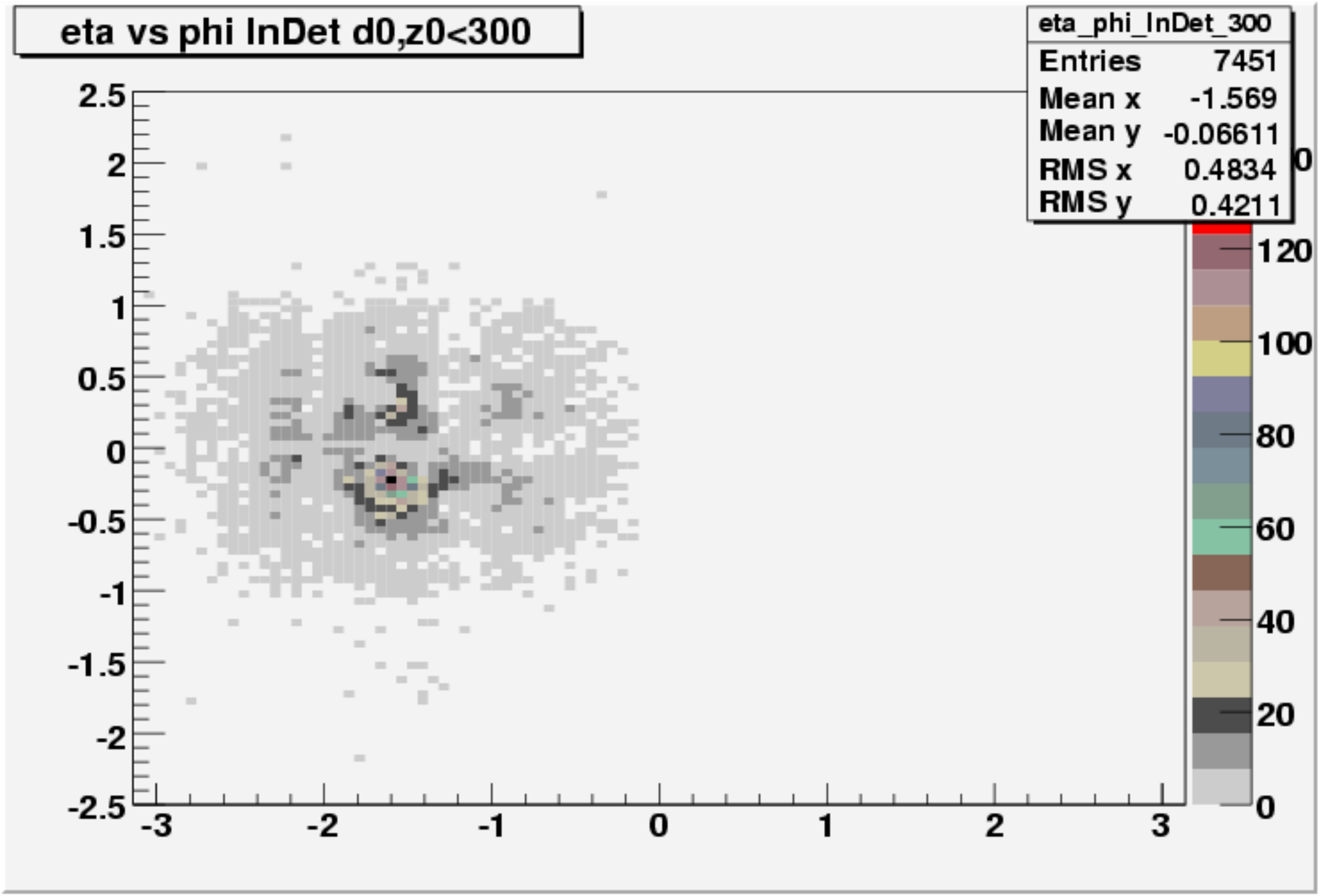

muon z0 with id match
mu_z0_idmatch
Entries 12117
Mean -7.498
RMS 462.8
600
500
400
300
200
100
0
-3000
-2000
-1000
0
1000
2000
3000


indet d0 mu match
indet_d0_mumatch
Entries 12117
Mean -1.905
RMS 216.5
400
350
300
250
200
150
100
50
0
-1000
-800
-600
-400
-200
0
200
400
600
800
1000


indet z0 mu match
indet_z0_mumatch
Entries 12117
Mean -16.51
RMS 429.8
220
200
180
160
140
120
100
80
60
40
20
-1000
-800
-600
-400
-200
0
200
400
600
800
1000


e LArMuld. mu,indet,d0z0<300
e_LArMu_mu_indet_d0z0_cut
Entries 4508
Mean 344.5
RMS 200.1
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000


eta vs phi LArMuld,mu,indet,d0dz<300
eta_phi_LArMu_mu_Indet_d0z0_cut
Entries 4508
Mean x 0.2632
Mean y -0.0334
RMS x 1.786
RMS y 0.4575
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-2
-1
0
1
2
3
18
16
14
12
10
8
6
4
2
0


eta vs phi InDet d0,z0<300
eta_phi_InDet_300
Entries 7451
Mean x -1.569
Mean y -0.06611
RMS x 0.4834
RMS y 0.4211
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-2
-1
0
1
2
3
120
100
80
60
40
20
0