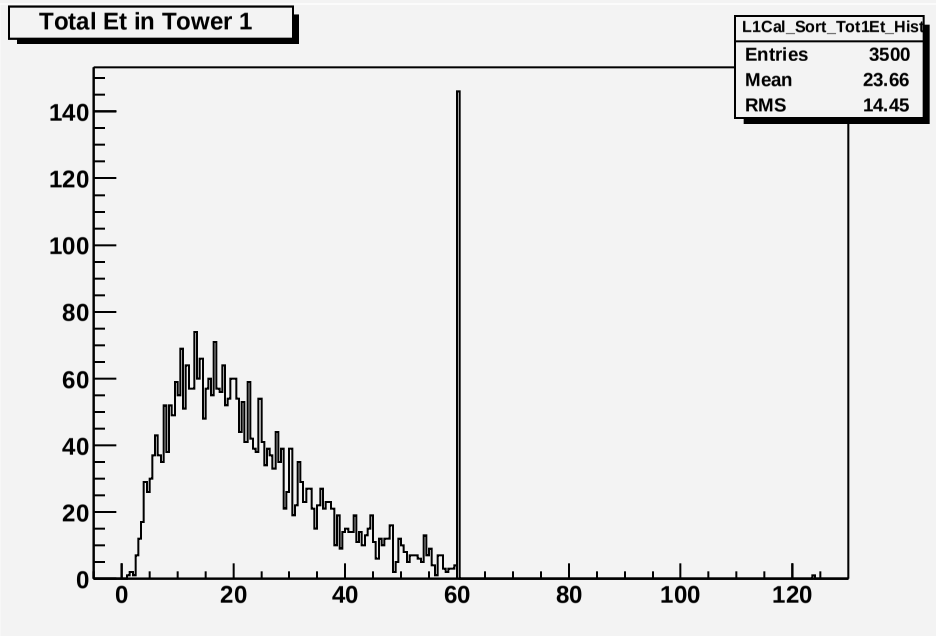
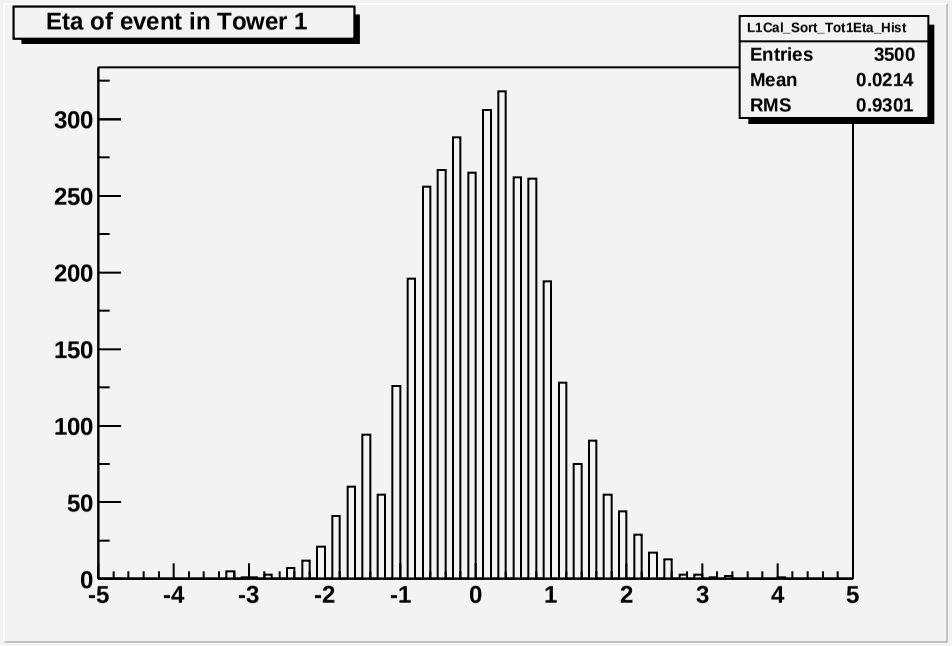
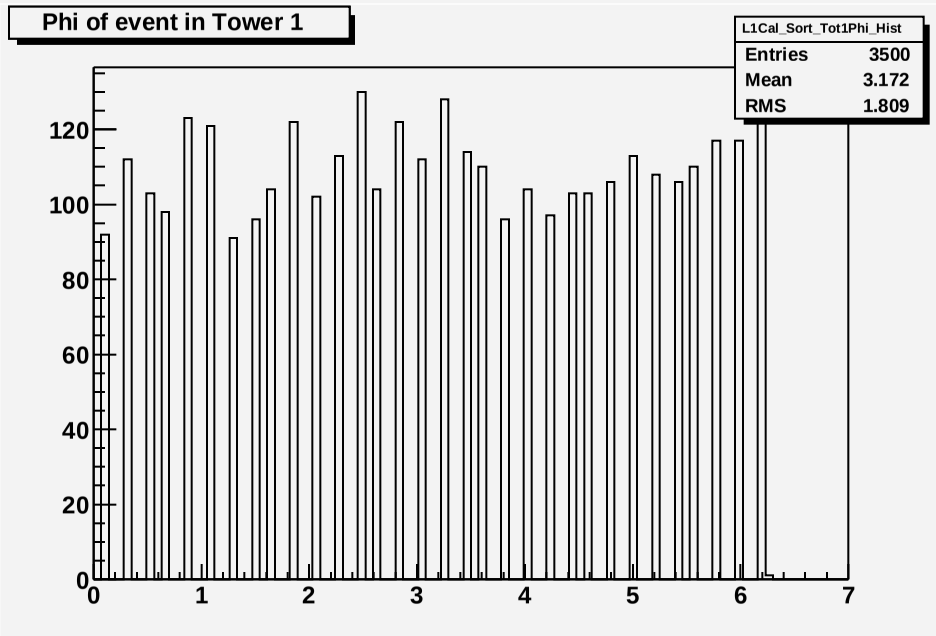
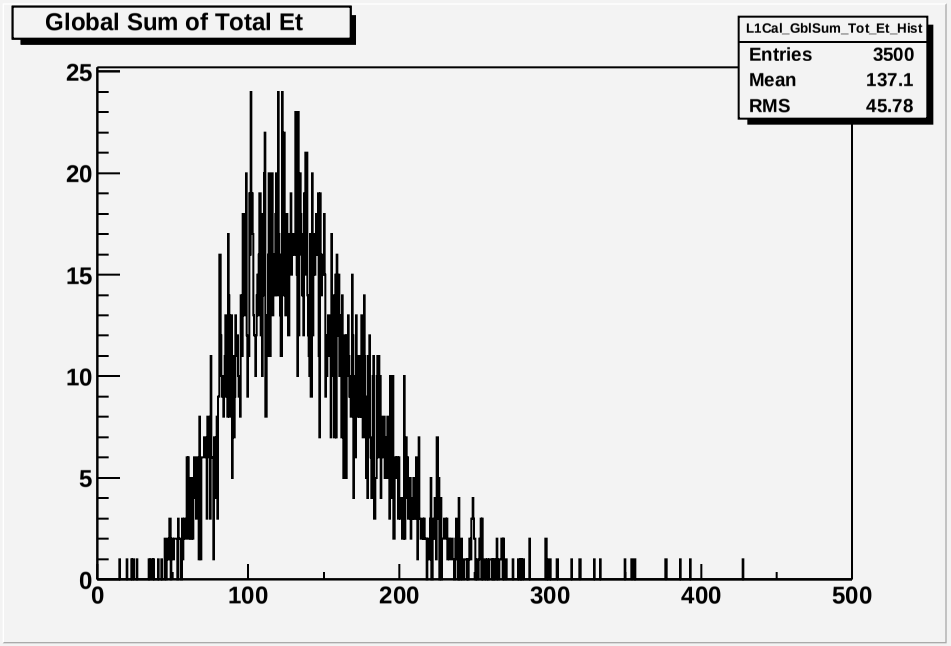
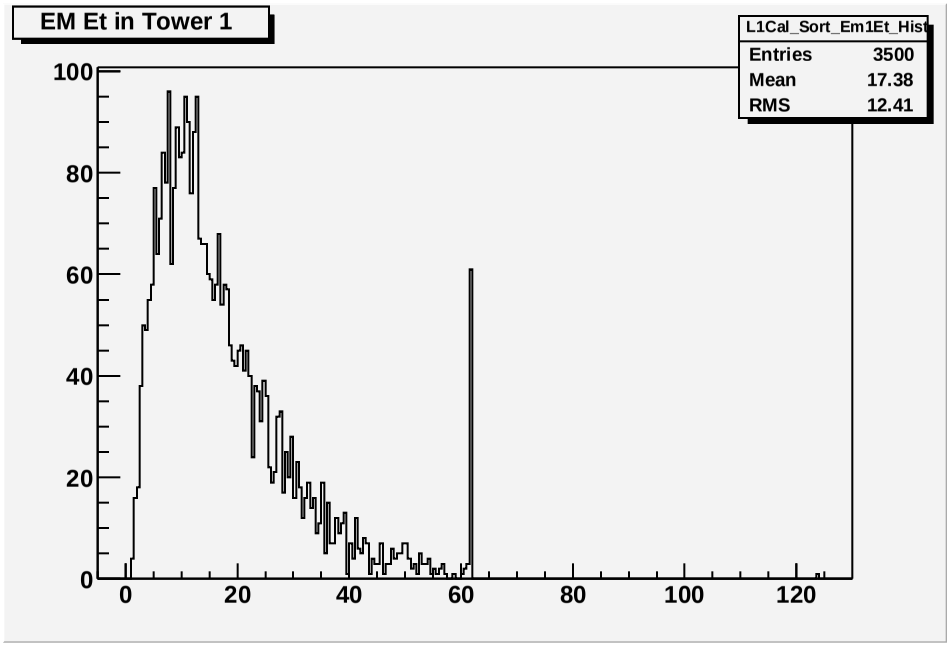
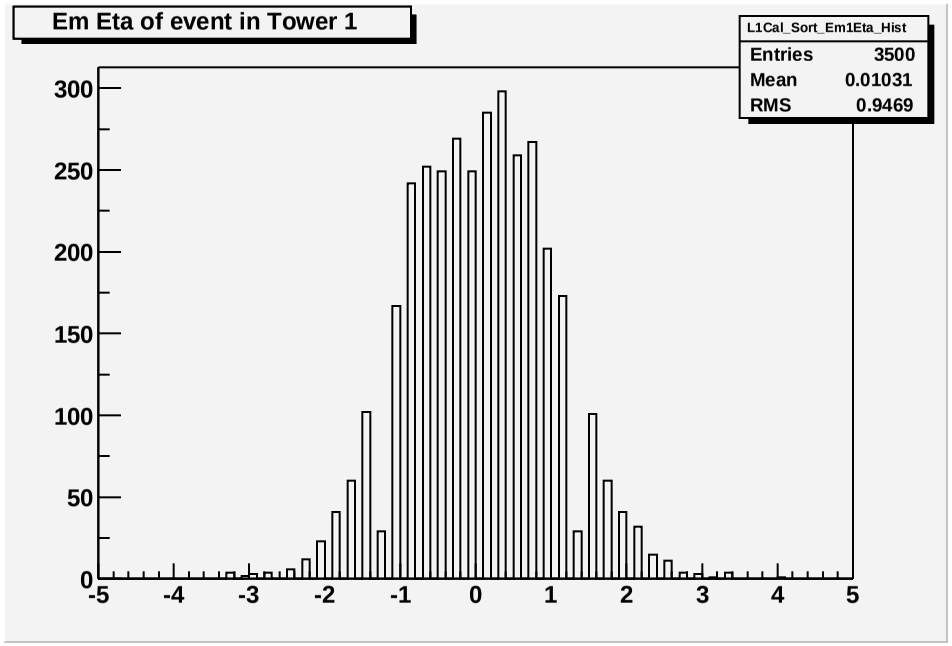

Total Et in Tower 1
L1Cal_Sort_Tot1Et_Hist
Entries 3500
Mean 23.66
RMS 14.45
0 20 40 60 80 100 120 140
0 20 40 60 80 100 120

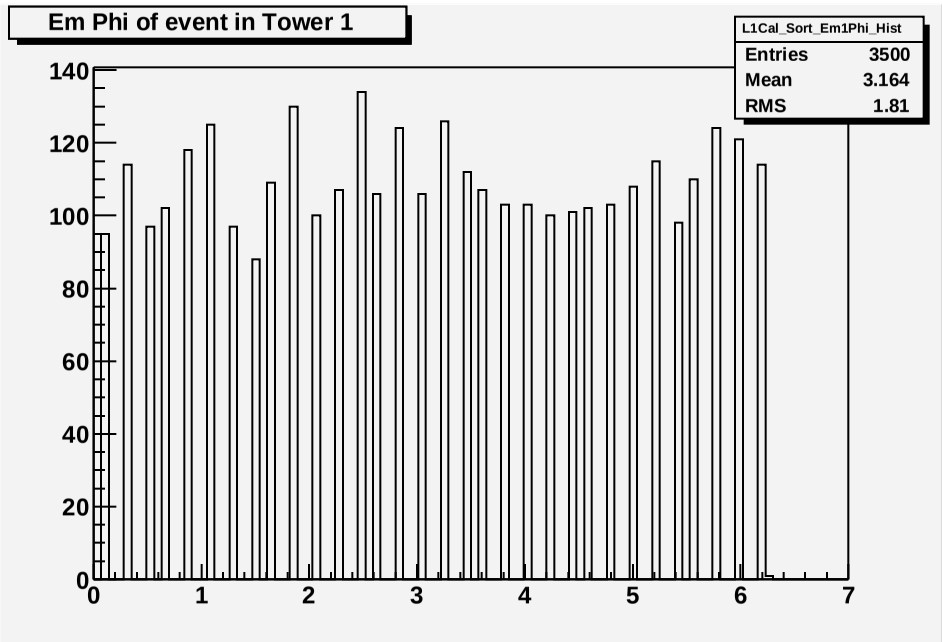

Eta of event in Tower 1
L1Cal_Sort_Tot1Eta_Hist
Entries 3500
Mean 0.0214
RMS 0.9301
0 50 100 150 200 250 300
-5 -4 -3 -2 -1 0 1 2 3 4 5

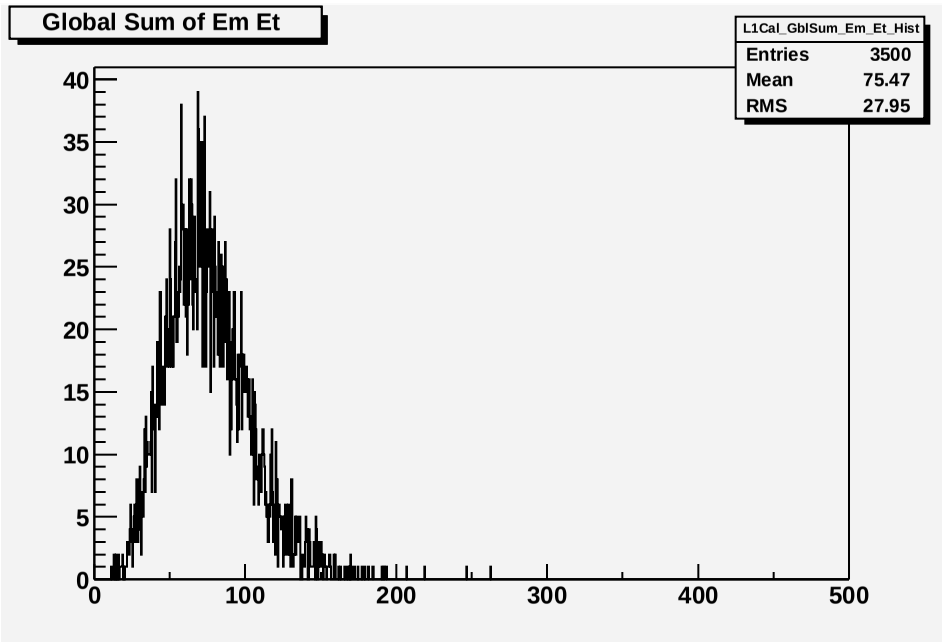

Phi of event in Tower 1
L1Cal_Sort_Tot1Phi_Hist
Entries 3500
Mean 3.172
RMS 1.809
0 20 40 60 80 100 120
0 1 2 3 4 5 6 7

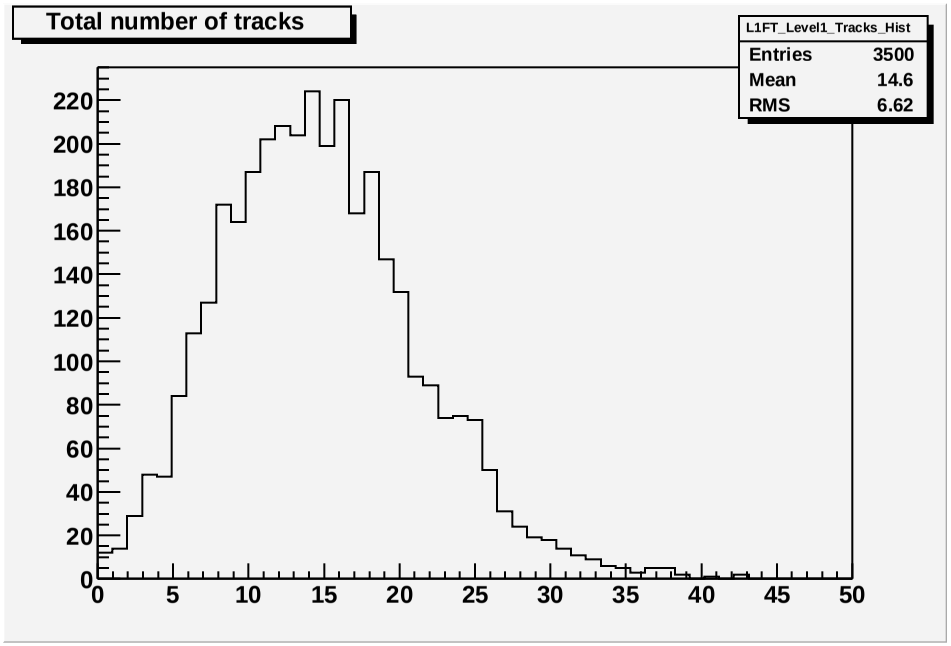

Global Sum of Total Et
L1Cal_GblSum_Tot_Et_Hist
Entries 3500
Mean 137.1
RMS 45.78
0 5 10 15 20 25
0 100 200 300 400 500

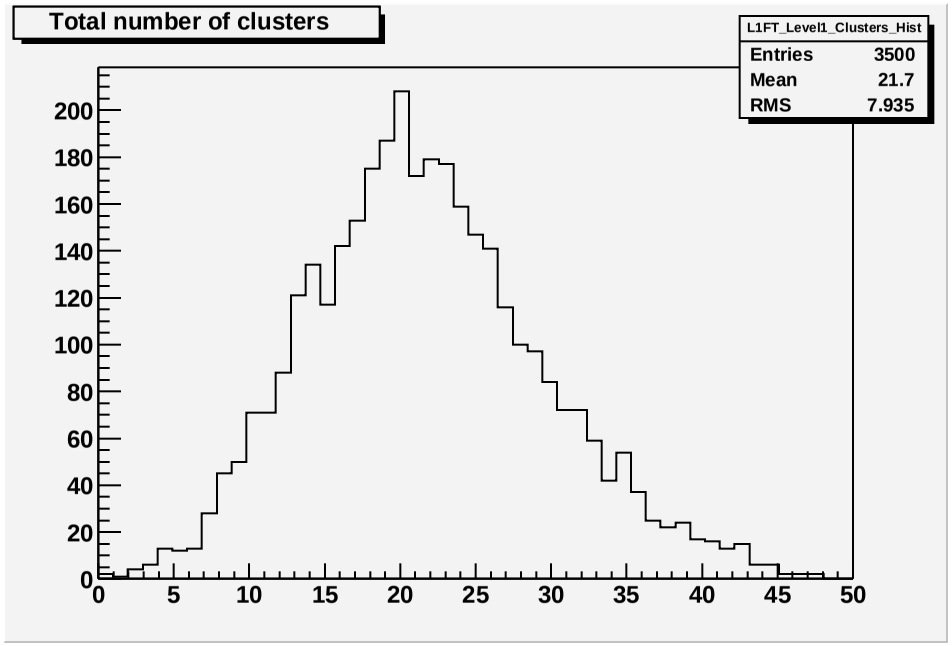

EM Et in Tower 1
L1Cal_Sort_Em1Et_Hist
Entries 3500
Mean 17.38
RMS 12.41
0
20
40
60
80
100
0
20
40
60
80
100
120

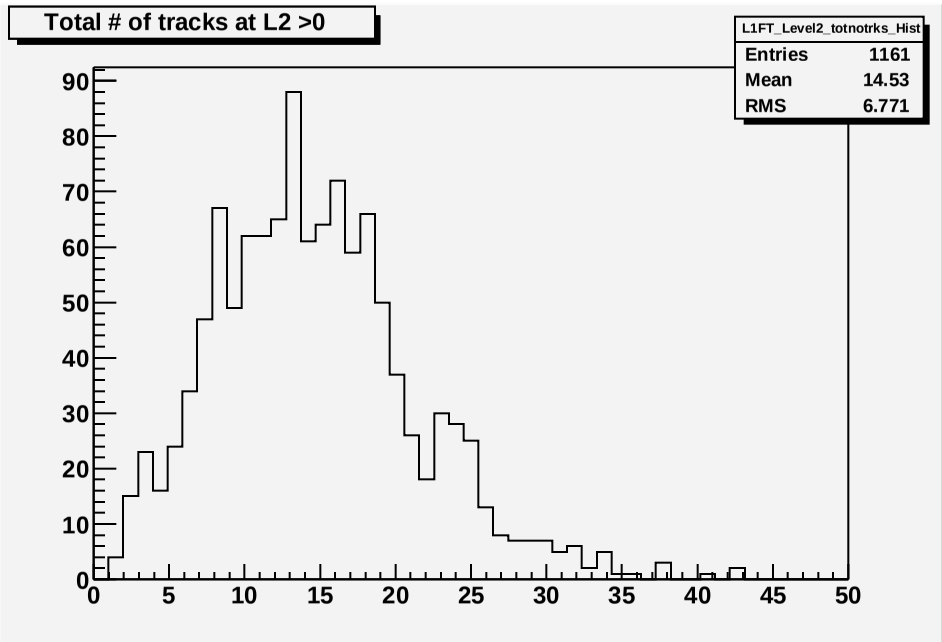

Em Eta of event in Tower 1
L1Cal_Sort_Em1Eta_Hist
Entries 3500
Mean 0.01031
RMS 0.9469
0
50
100
150
200
250
300
-5
-4
-3
-2
-1
0
1
2
3
4
5

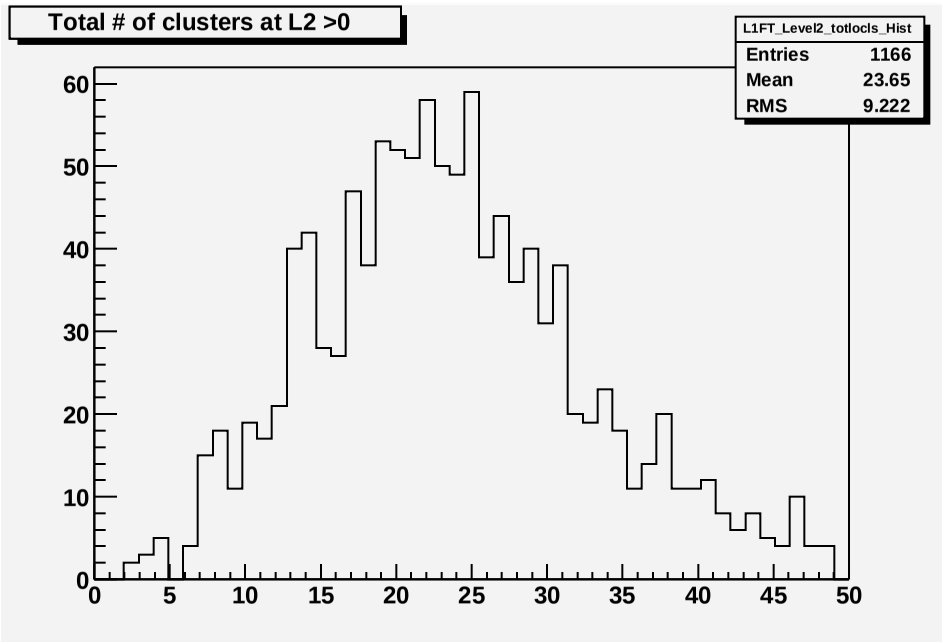

Em Phi of event in Tower 1
L1Cal_Sort_Em1Phi_Hist
Entries 3500
Mean 3.164
RMS 1.81
0
20
40
60
80
100
120
140
0
1
2
3
4
5
6
7

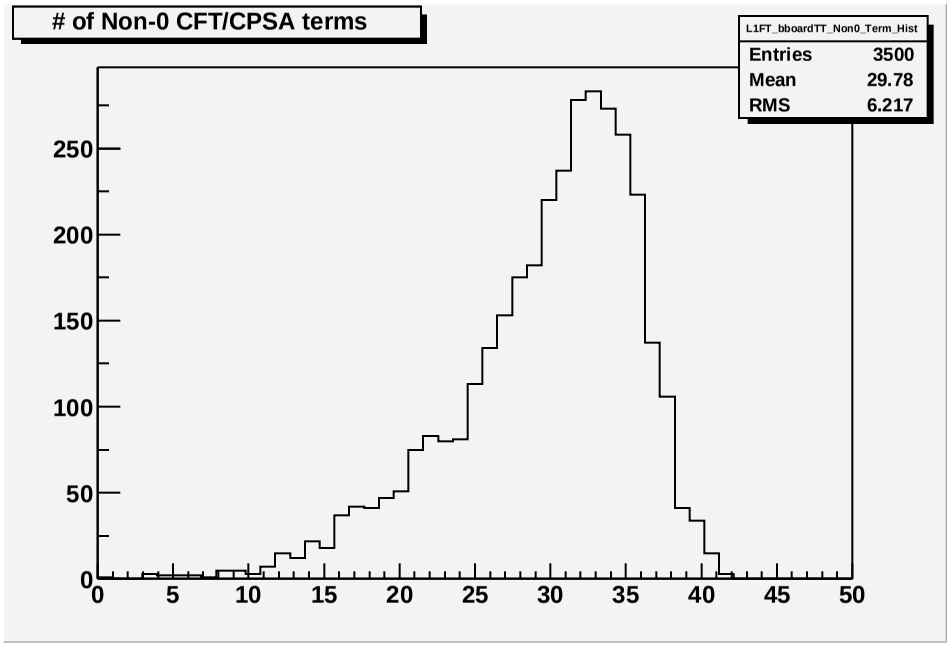

Global Sum of Em Et
L1Cal_GblSum_Em_Et_Hist
Entries 3500
Mean 75.47
RMS 27.95
0
5
10
15
20
25
30
35
40
0
100
200
300
400
500

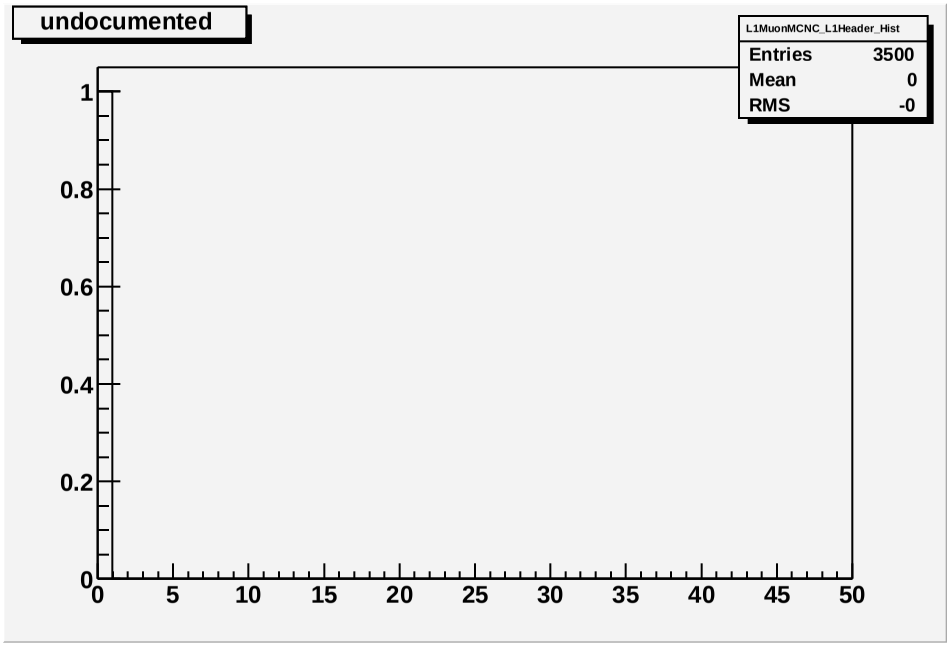

Total number of tracks
L1FT_Level1_Tracks_Hist
Entries 3500
Mean 14.6
RMS 6.62

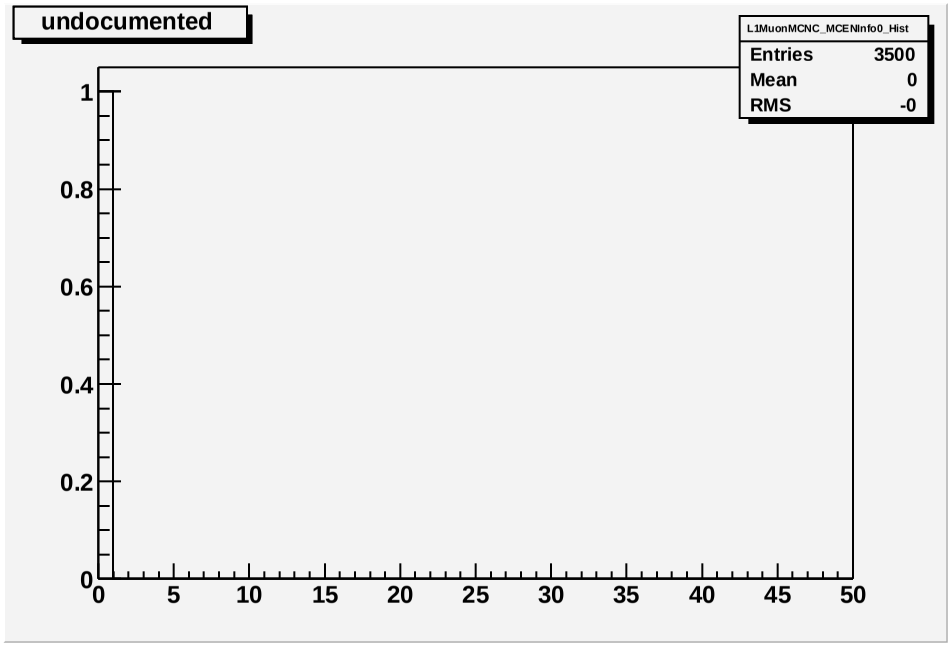

Total number of clusters
L1FT_Level1_Clusters_Hist
Entries 3500
Mean 21.7
RMS 7.935

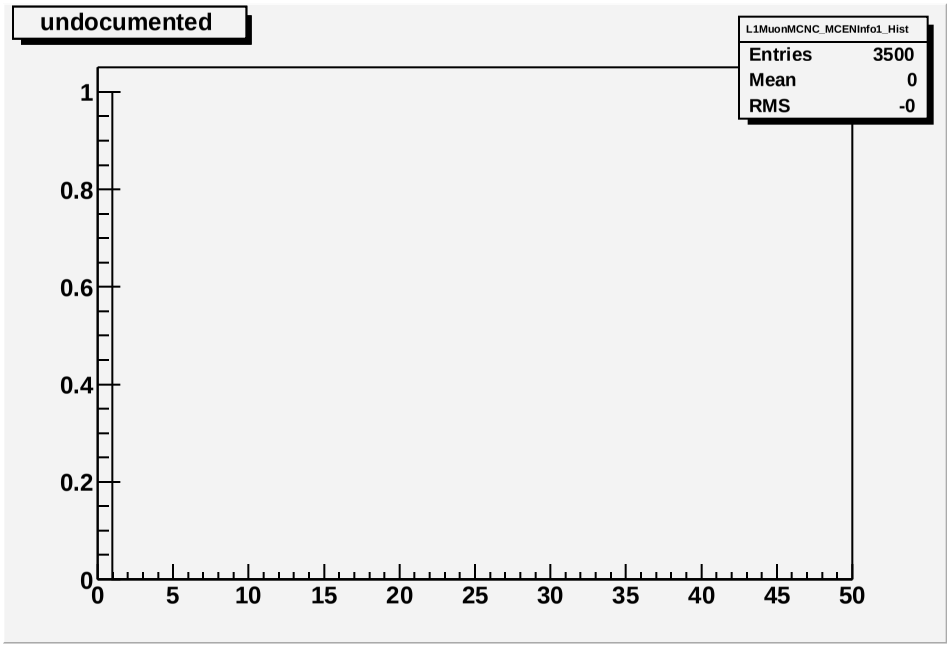

Total # of tracks at L2 >0
L1FT_Level2_totnotrks_Hist
Entries 1161
Mean 14.53
RMS 6.771

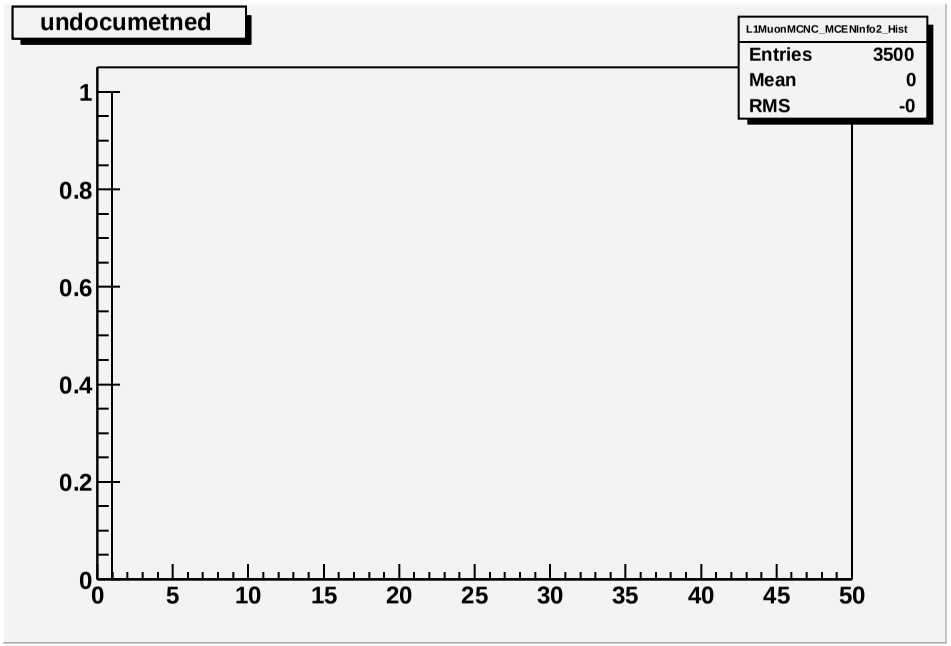

Total # of clusters at L2 >0
L1FT_Level2_totlocls_Hist
Entries 1166
Mean 23.65
RMS 9.222

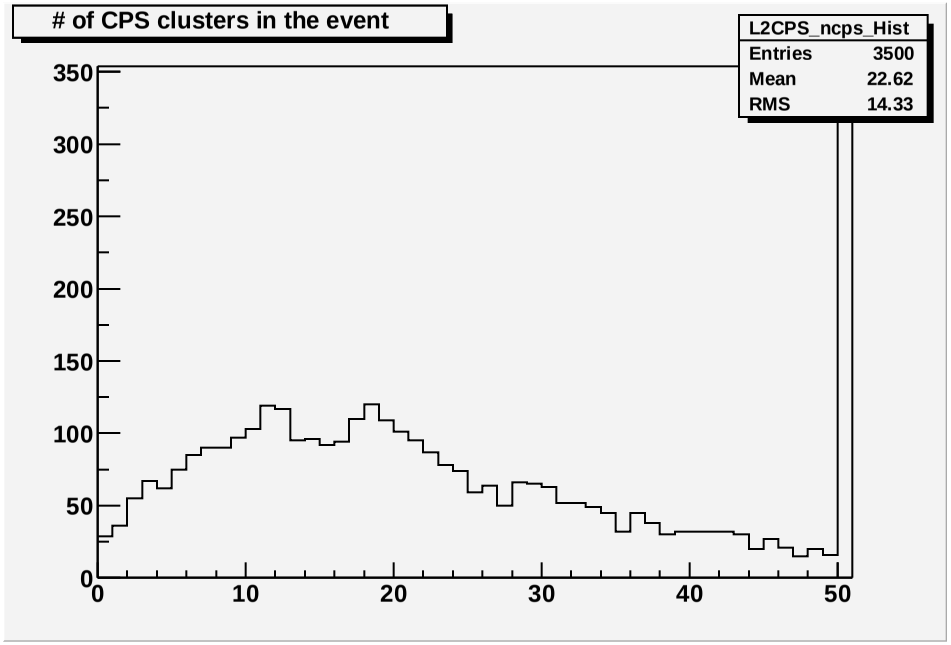

# of Non-0 CFT/CPSA terms
L1FT_bboardTT_Non0_Term_Hist
Entries 3500
Mean 29.78
RMS 6.217
0
50
100
150
200
250
0
5
10
15
20
25
30
35
40
45
50

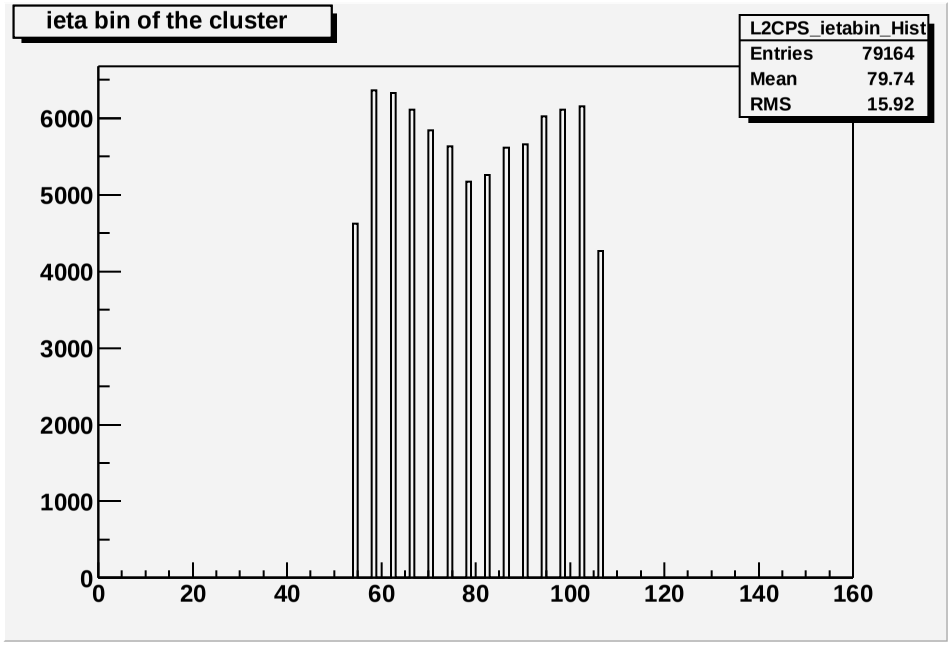

undocumented
L1MuonMCNC_L1Header_Hist
Entries 3500
Mean 0
RMS -0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40 45 50

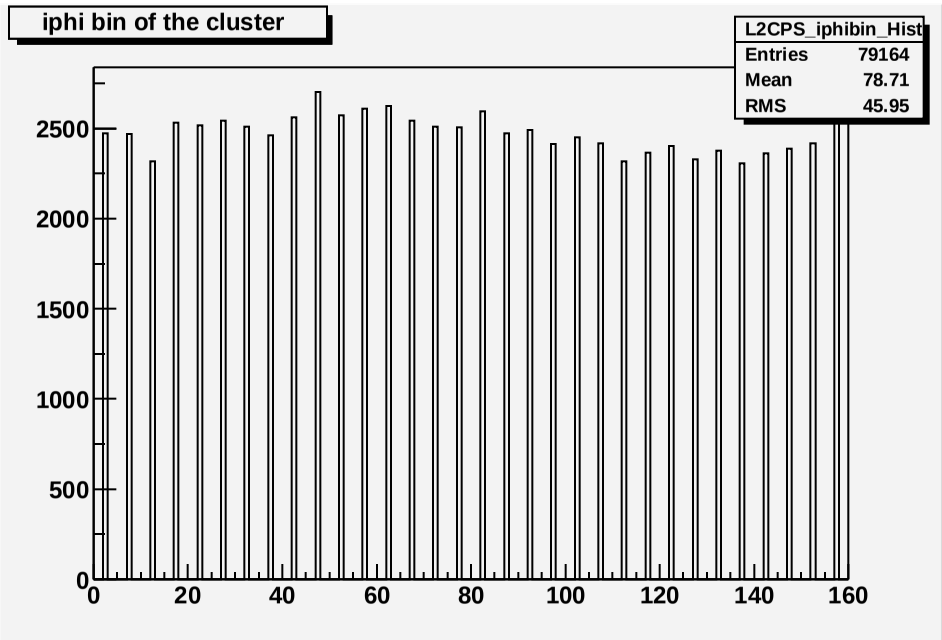

undocumented
L1MuonMCNC_MCENInfo0_Hist
Entries 3500
Mean 0
RMS -0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40 45 50

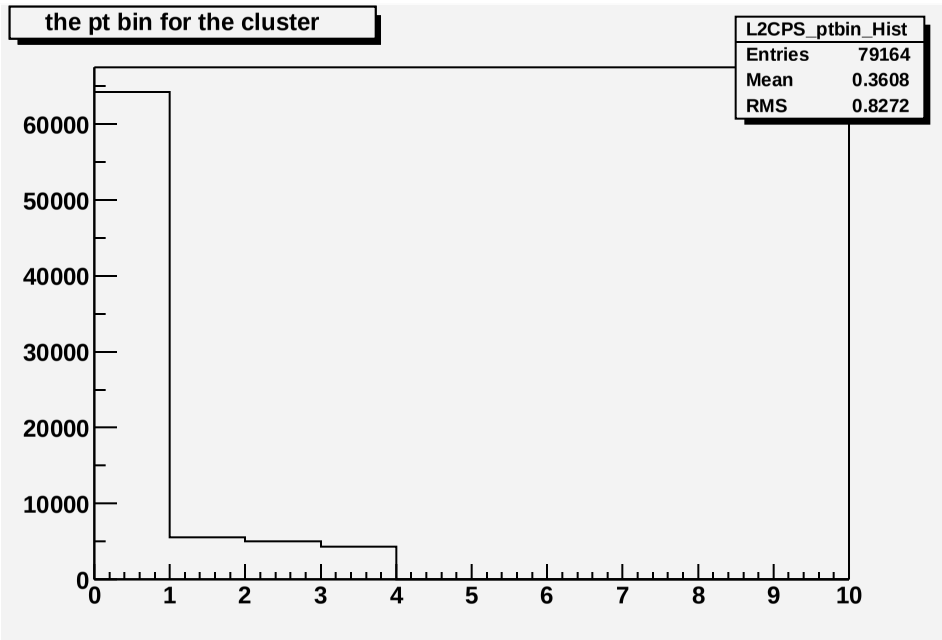

undocumented
L1MuonMCNC_MCENInfo1_Hist
Entries 3500
Mean 0
RMS -0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40 45 50


undocumetned
L1MuonMCNC_MCENInfo2_Hist
Entries 3500
Mean 0
RMS -0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40 45 50


# of CPS clusters in the event
L2CPS_ncps_Hist
Entries 3500
Mean 22.62
RMS 14.33
0
50
100
150
200
250
300
350
0
10
20
30
40
50


ieta bin of the cluster
L2CPS_ietabin_Hist
Entries 79164
Mean 79.74
RMS 15.92
0
1000
2000
3000
4000
5000
6000
0
20
40
60
80
100
120
140
160


iphi bin of the cluster
L2CPS_iphibin_Hist
Entries 79164
Mean 78.71
RMS 45.95
0
500
1000
1500
2000
2500
0
20
40
60
80
100
120
140
160


the pt bin for the cluster
L2CPS_ptbin_Hist
Entries 79164
Mean 0.3608
RMS 0.8272
0
10000
20000
30000
40000
50000
60000
0
1
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3
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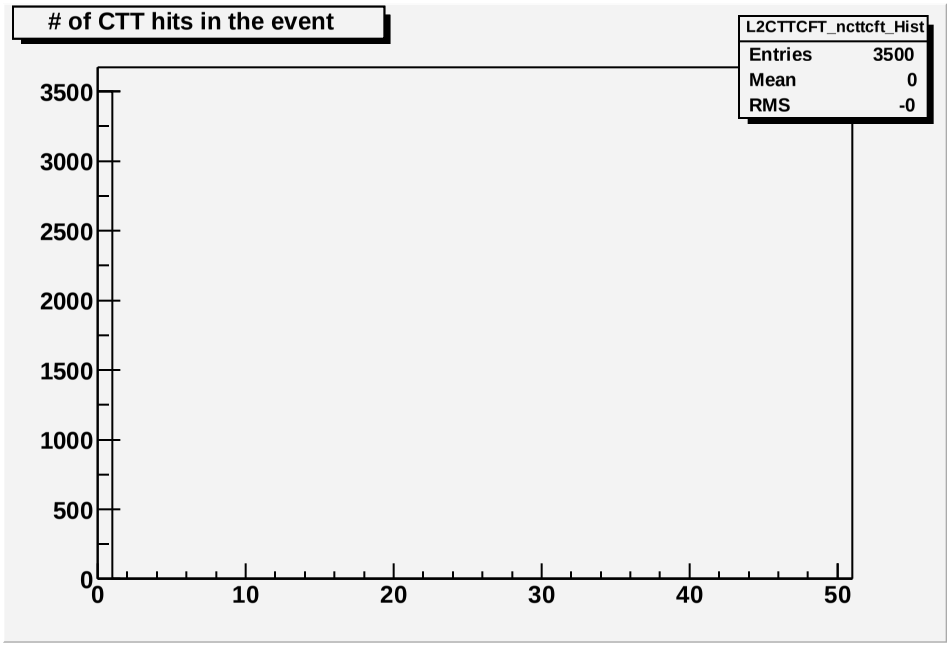
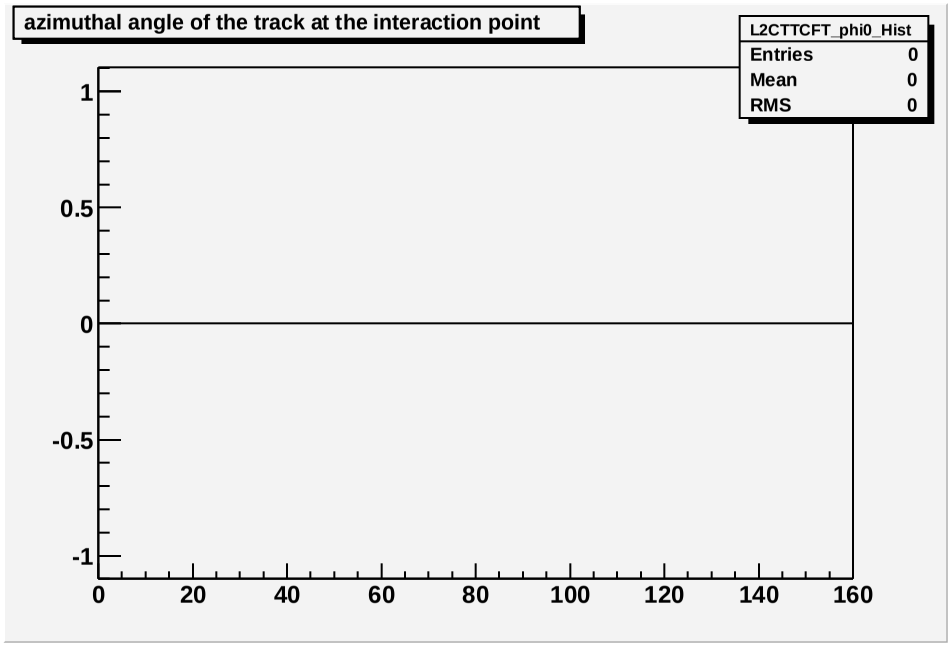
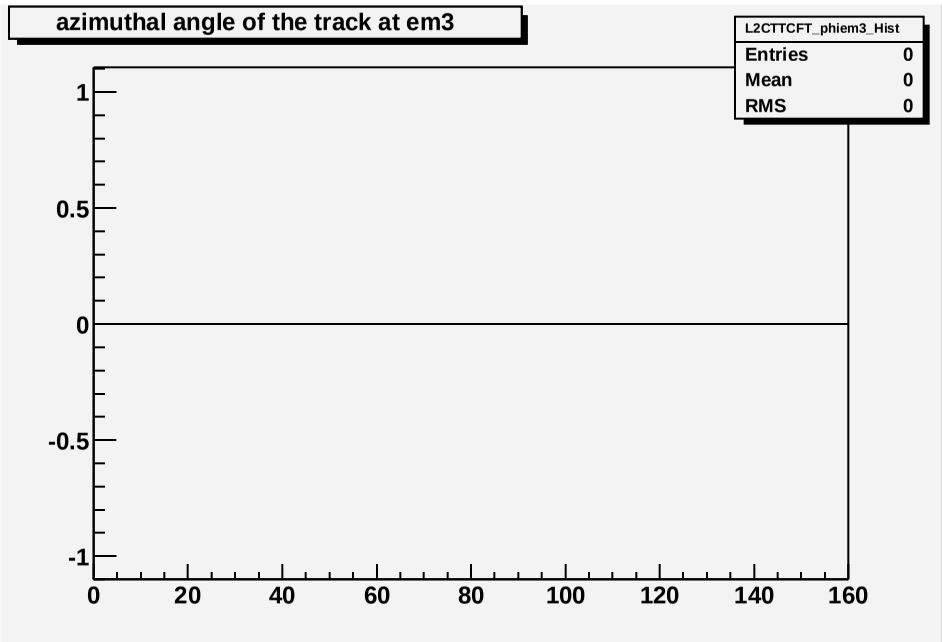
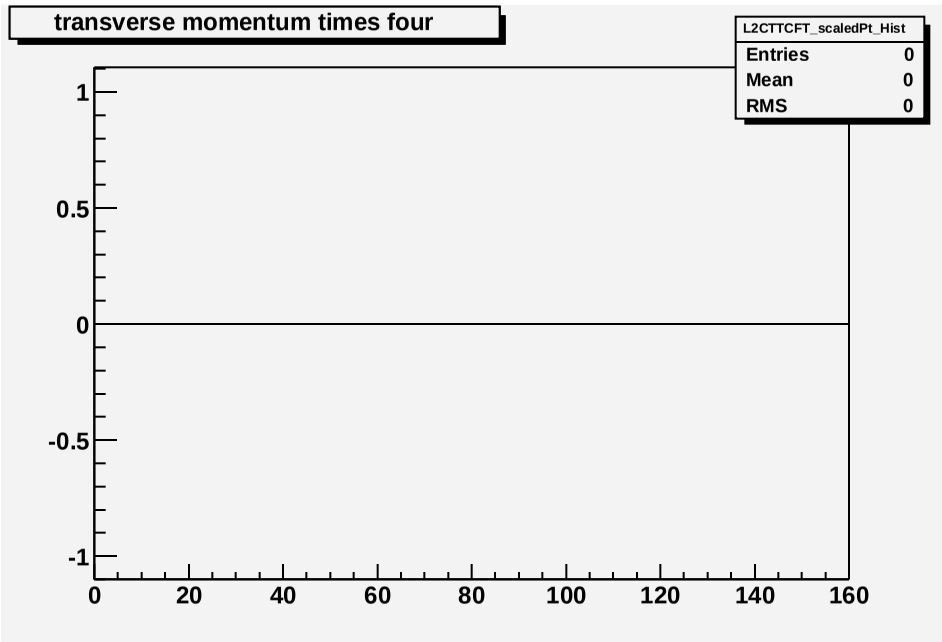
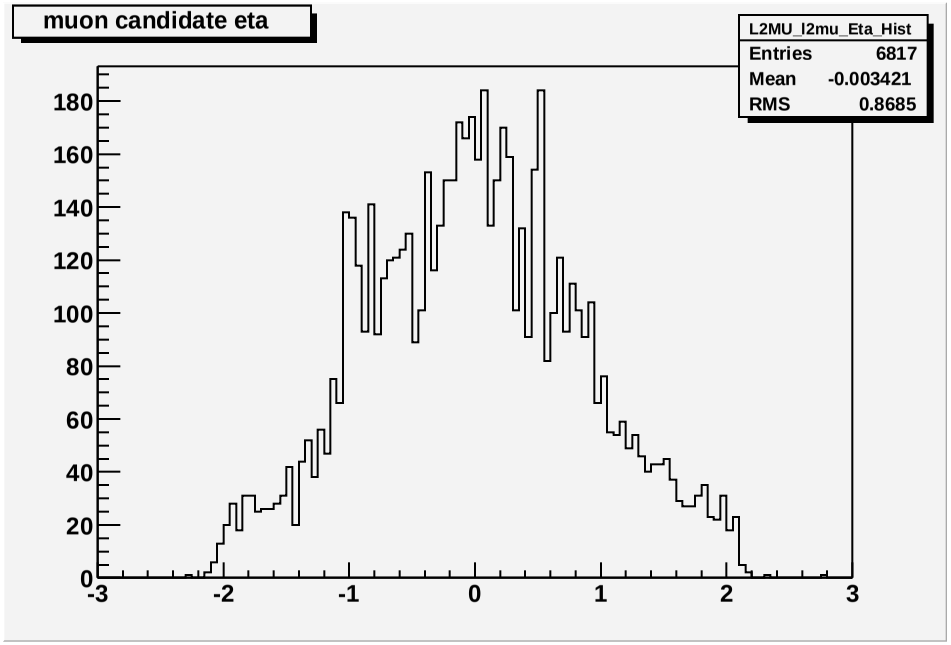
5
6
7
8
9
10

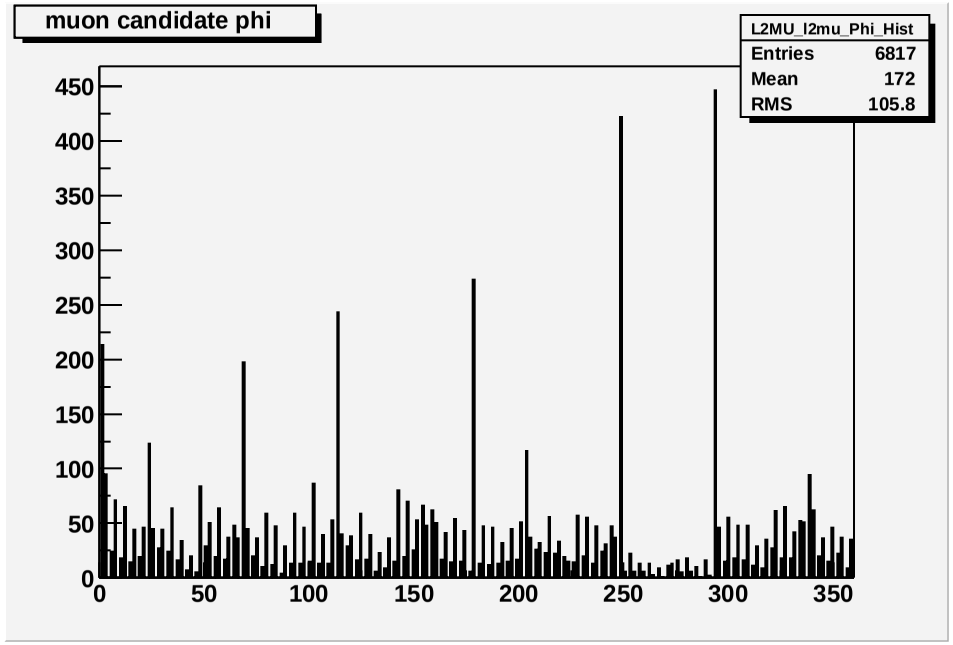

# of CTT hits in the event
L2CTTCFT_ncttcft_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0
10
20
30
40
50

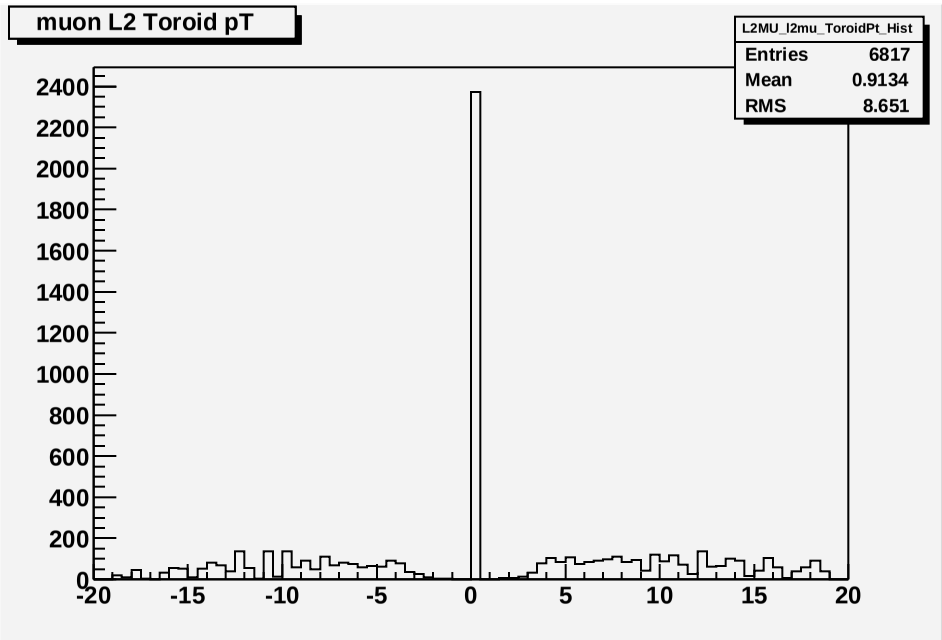

azimuthal angle of the track at the interaction point
L2CTTCFT_phi0_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0
20
40
60
80
100
120
140
160

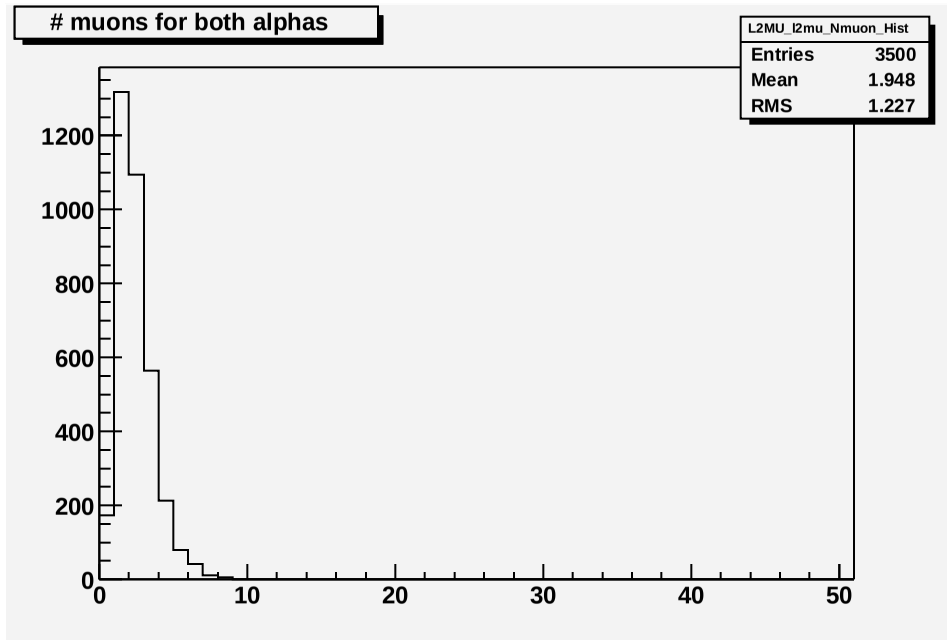

azimuthal angle of the track at em3
L2CTTCFT_phiem3_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0
20
40
60
80
100
120
140
160

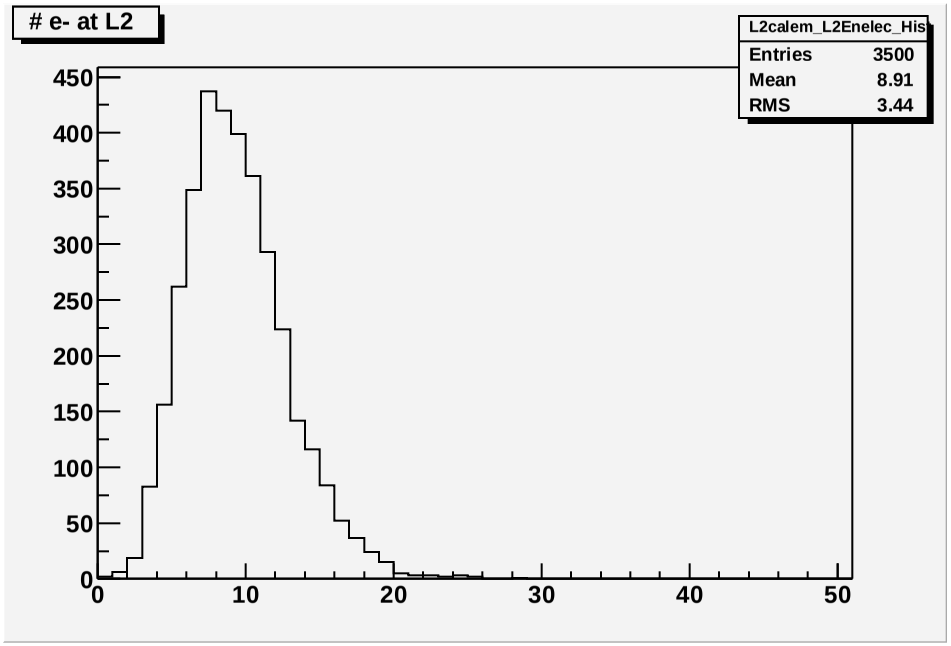

transverse momentum times four
L2CTTCFT_scaledPt_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0
20
40
60
80
100
120
140
160

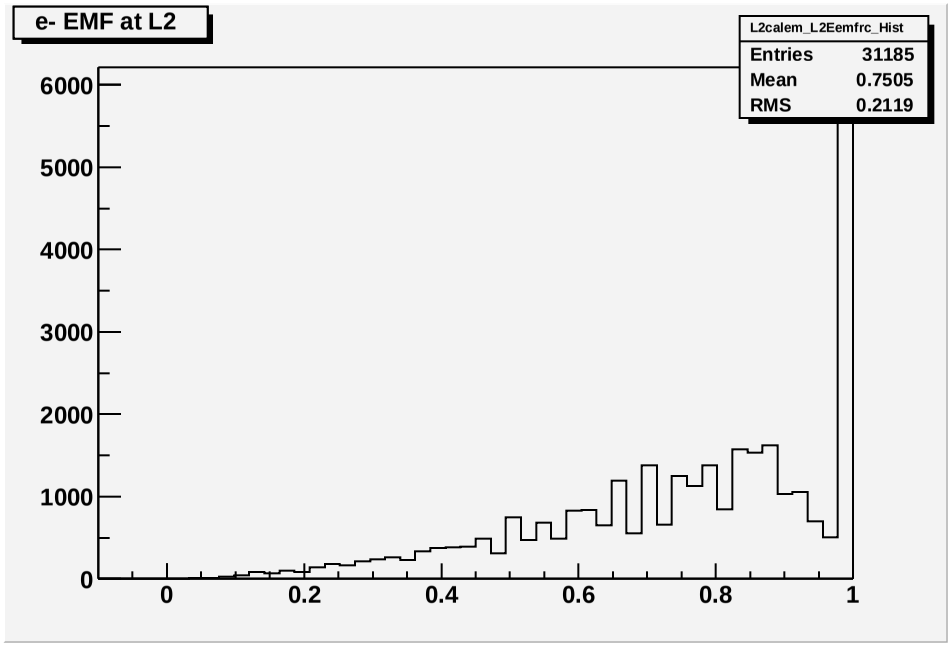

muon candidate eta
L2MU_l2mu_Eta_Hist
Entries 6817
Mean -0.003421
RMS 0.8685
0 20 40 60 80 100 120 140 160 180
-3 -2 -1 0 1 2 3

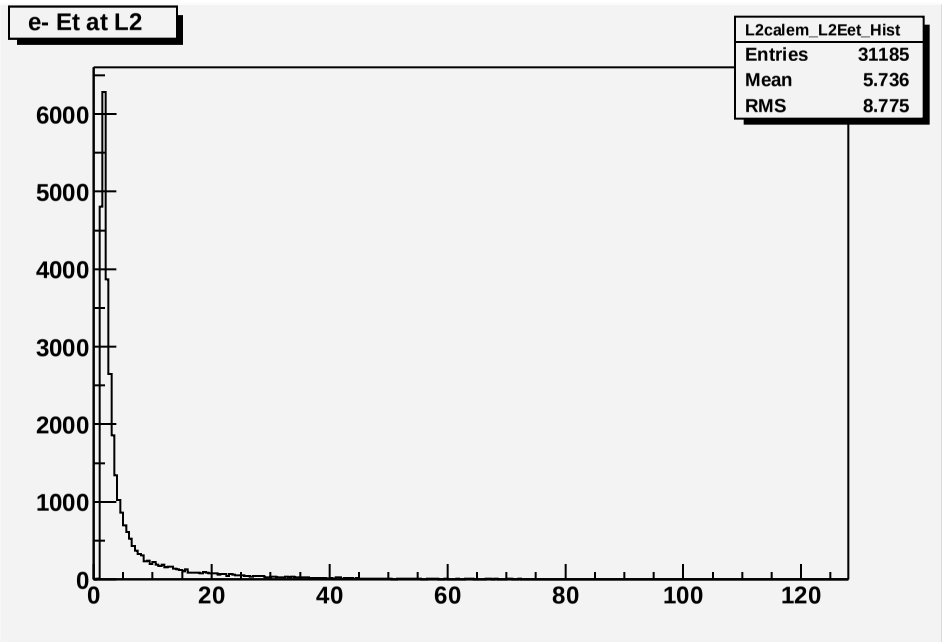

muon candidate phi
L2MU_l2mu_Phi_Hist
Entries 6817
Mean 172
RMS 105.8
0 50 100 150 200 250 300 350 400 450
0 50 100 150 200 250 300 350

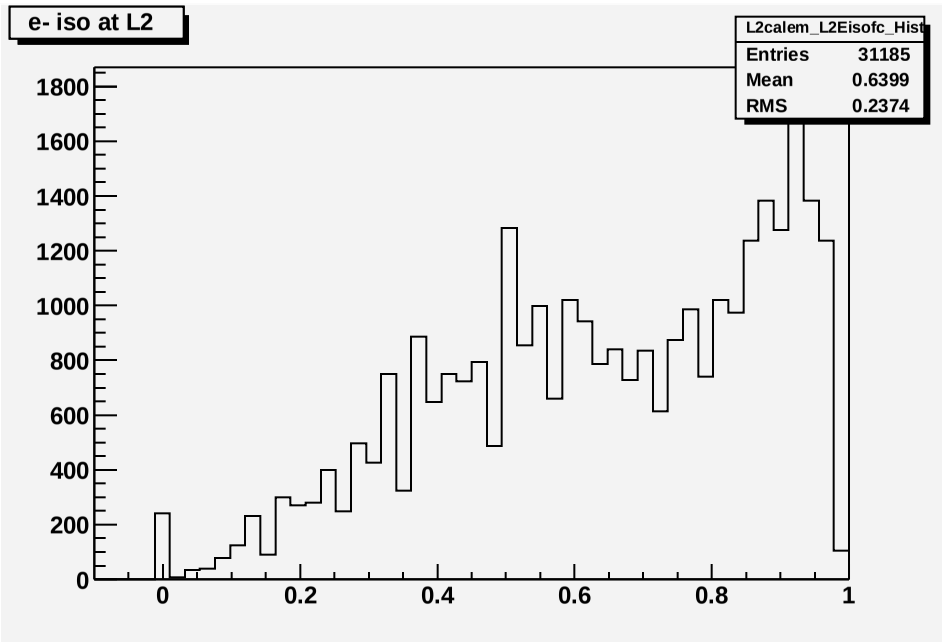

muon L2 Toroid pT
L2MU_l2mu_ToroidPt_Hist
Entries 6817
Mean 0.9134
RMS 8.651
0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400
-20 -15 -10 -5 0 5 10 15 20

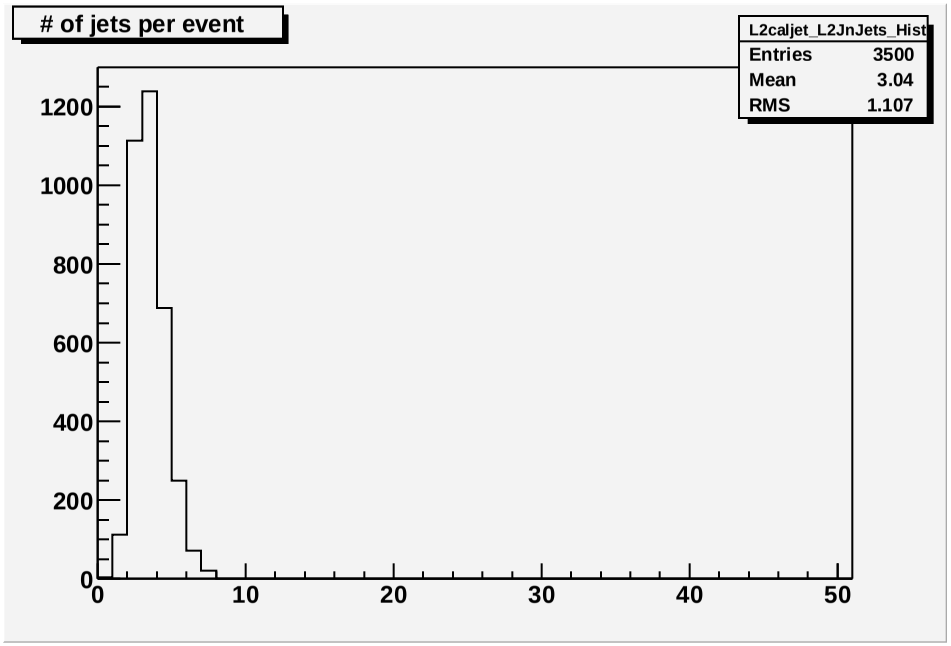

muons for both alphas
L2MU_l2mu_Nmuon_Hist
Entries 3500
Mean 1.948
RMS 1.227
0 200 400 600 800 1000 1200
0 10 20 30 40 50

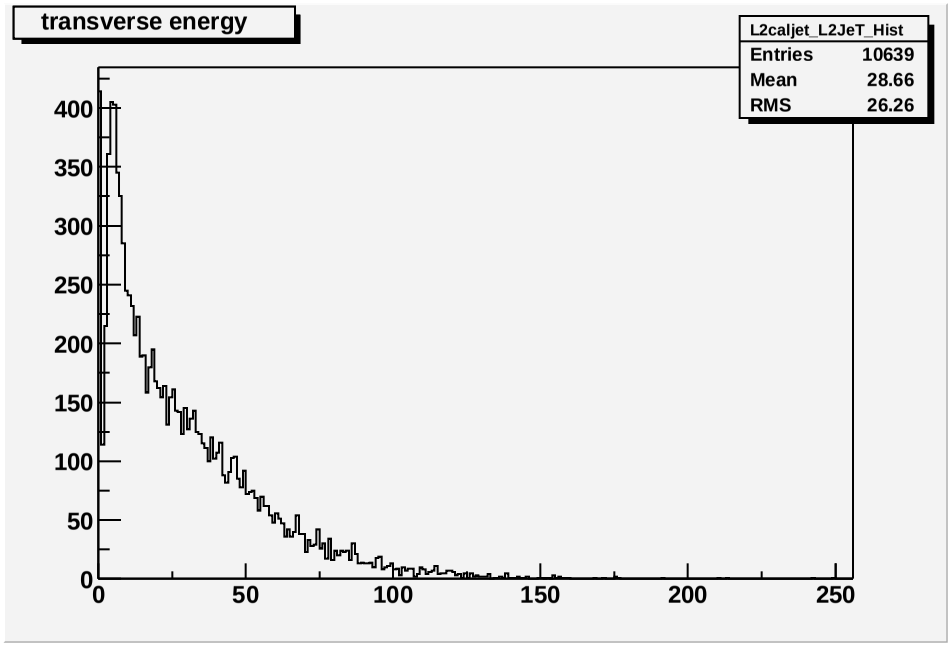

e- at L2
L2calem_L2Enelec_His
Entries 3500
Mean 8.91
RMS 3.44
0
50
100
150
200
250
300
350
400
450
0
10
20
30
40
50

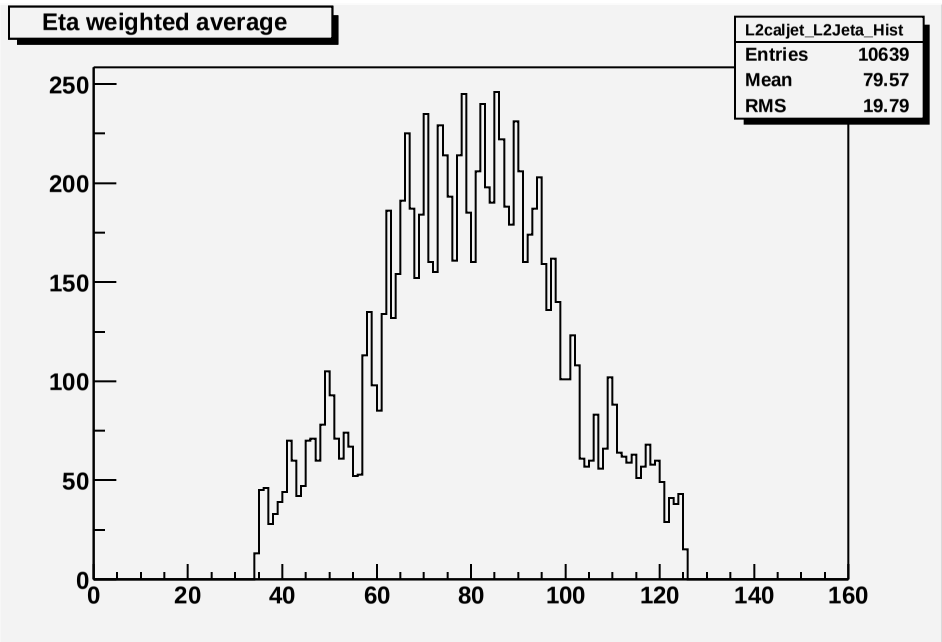

e- EMF at L2
L2calem_L2Eemfrc_Hist
Entries 31185
Mean 0.7505
RMS 0.2119
0
1000
2000
3000
4000
5000
6000
0
0.2
0.4
0.6
0.8
1

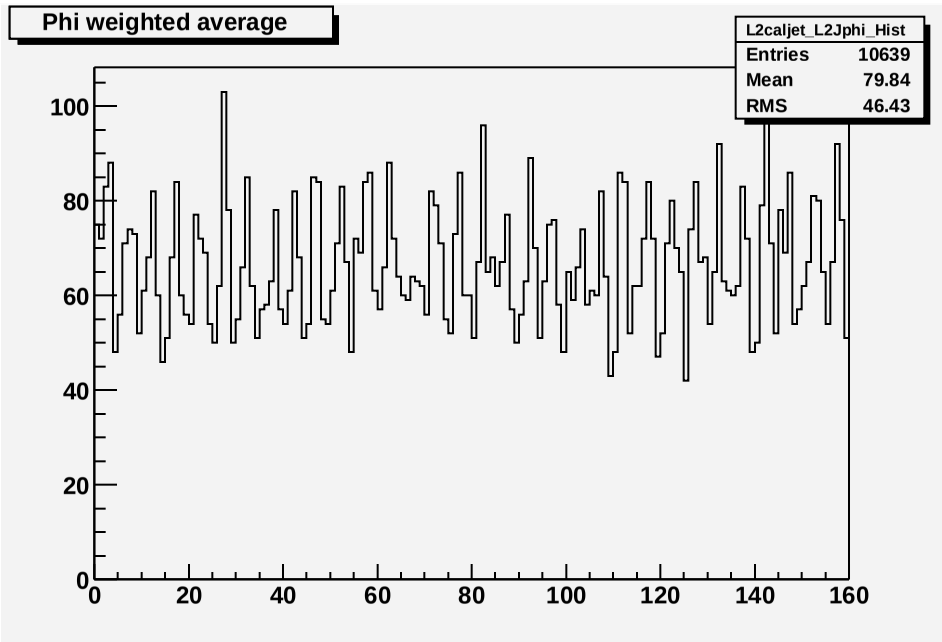

e- Et at L2
L2calem_L2Eet_Hist
Entries 31185
Mean 5.736
RMS 8.775
0
1000
2000
3000
4000
5000
6000
0
20
40
60
80
100
120

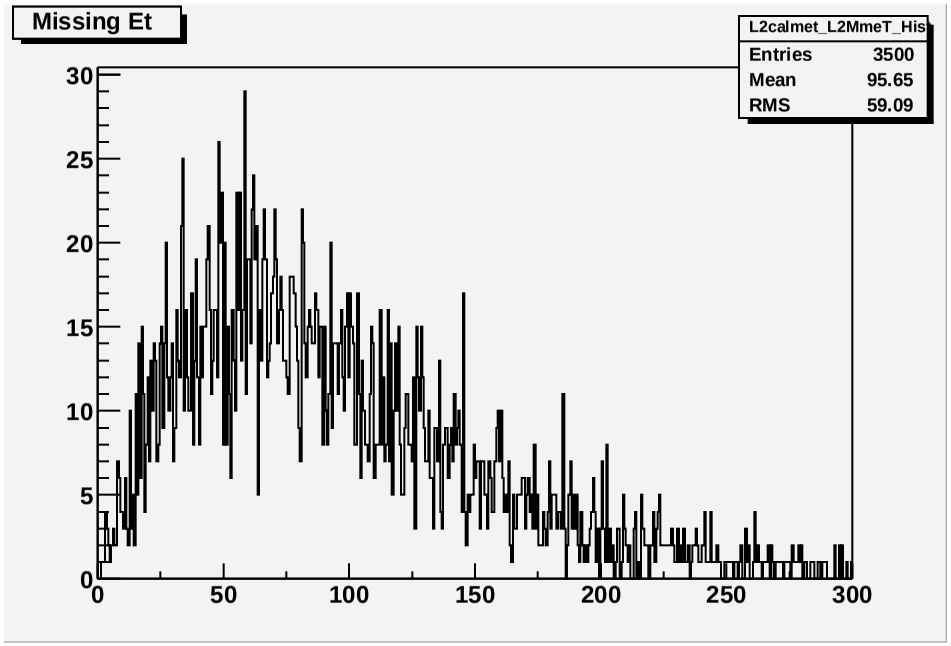

e- iso at L2
L2calem_L2Eisofc_Hist
Entries 31185
Mean 0.6399
RMS 0.2374
0
200
400
600
800
1000
1200
1400
1600
1800
0
0.2
0.4
0.6
0.8
1

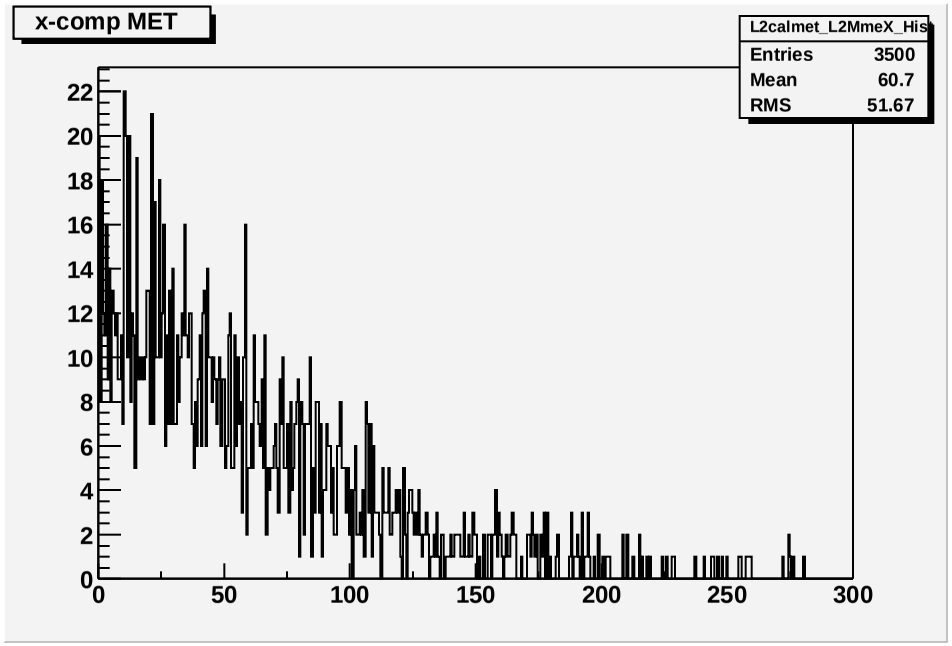

# of jets per event
L2caljet_L2JnJets_Hist
Entries 3500
Mean 3.04
RMS 1.107
0
200
400
600
800
1000
1200
0
10
20
30
40
50

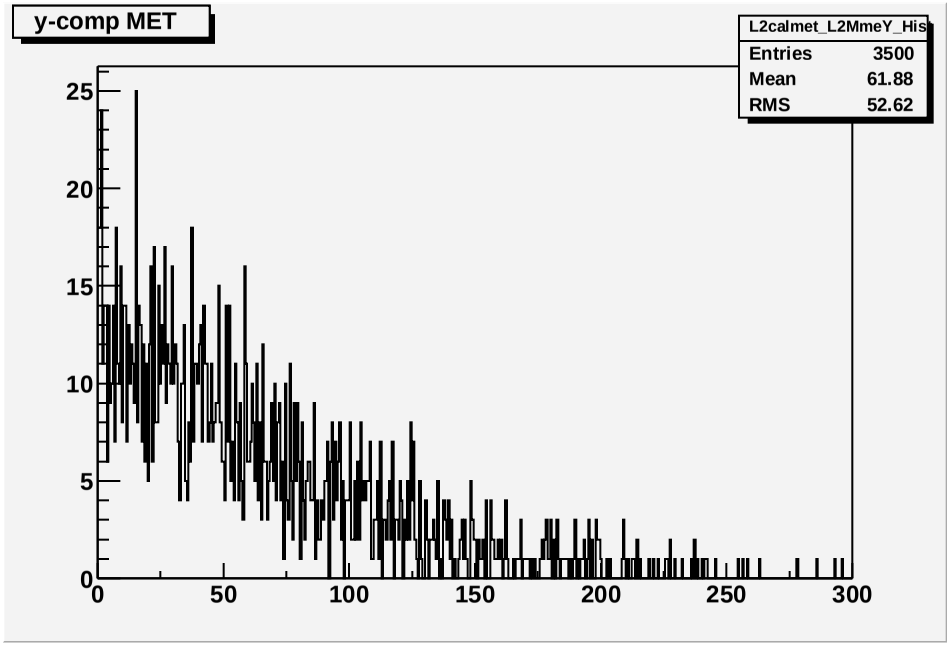

transverse energy
L2caljet_L2JeT_Hist
Entries 10639
Mean 28.66
RMS 26.26
0
50
100
150
200
250
300
350
400
0
50
100
150
200
250

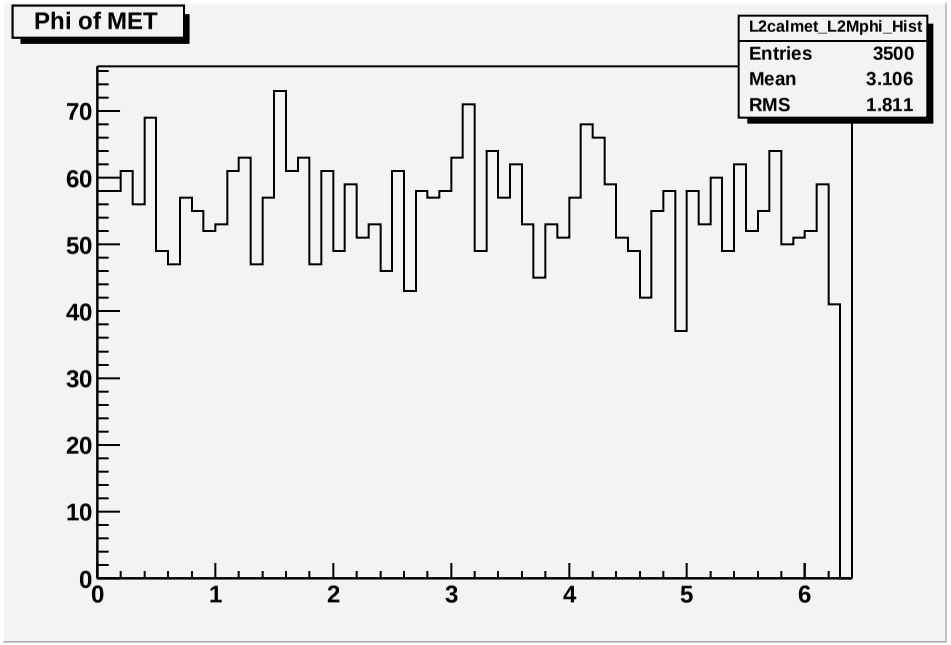

Eta weighted average
L2caljet_L2Jeta_Hist
Entries 10639
Mean 79.57
RMS 19.79
0
50
100
150
200
250
0
20
40
60
80
100
120
140
160

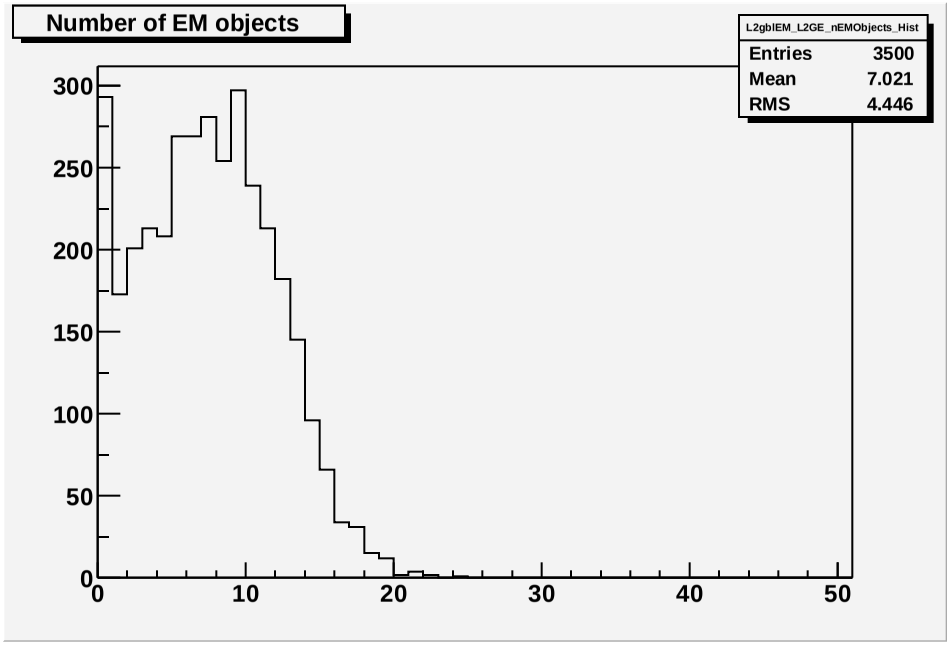

Phi weighted average
L2caljet_L2Jphi_Hist
Entries 10639
Mean 79.84
RMS 46.43
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160

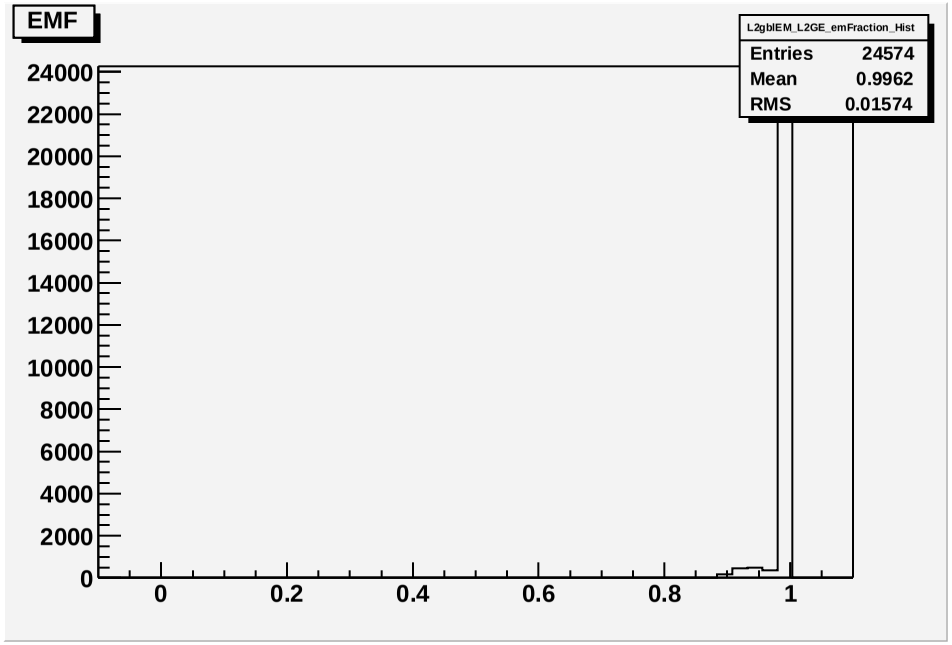

Missing Et
L2calmet_L2MmeT_His
Entries 3500
Mean 95.65
RMS 59.09

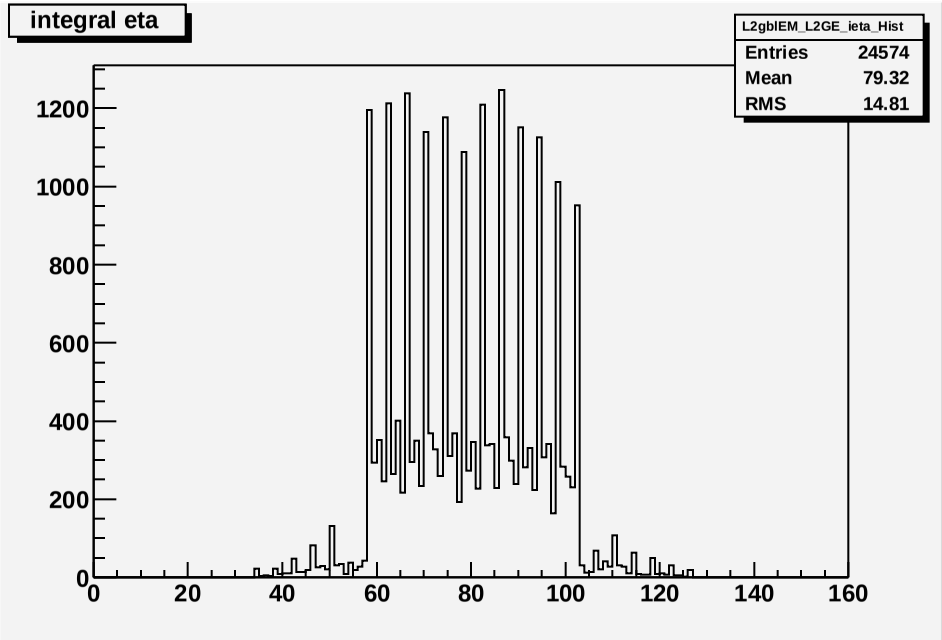

x-comp MET
L2calmet_L2MmeX_His
Entries 3500
Mean 60.7
RMS 51.67

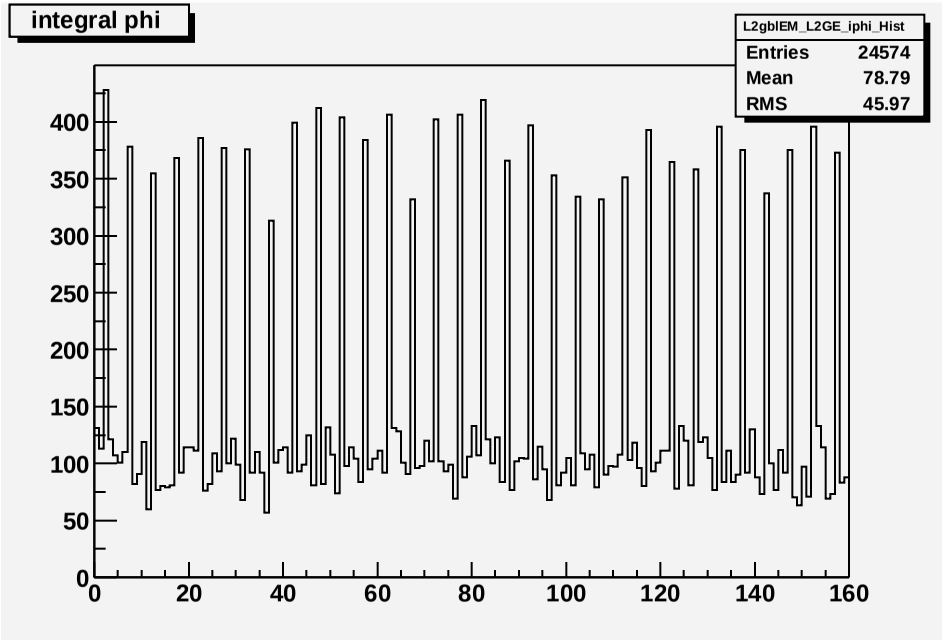

y-comp MET
L2calmet_L2MmeY_His
Entries 3500
Mean 61.88
RMS 52.62

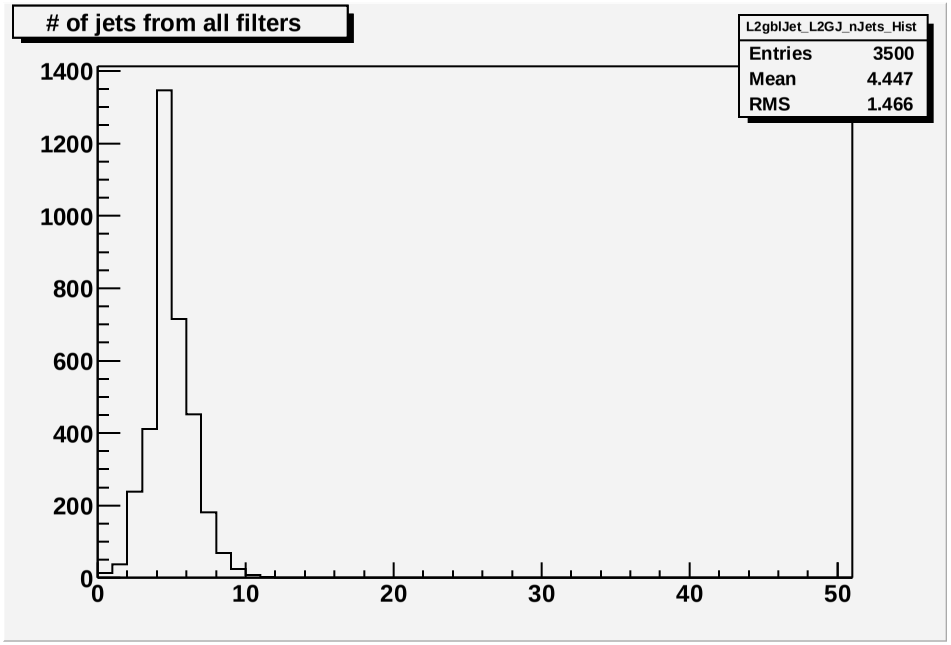

Phi of MET
L2calmet_L2Mphi_Hist
Entries 3500
Mean 3.106
RMS 1.811

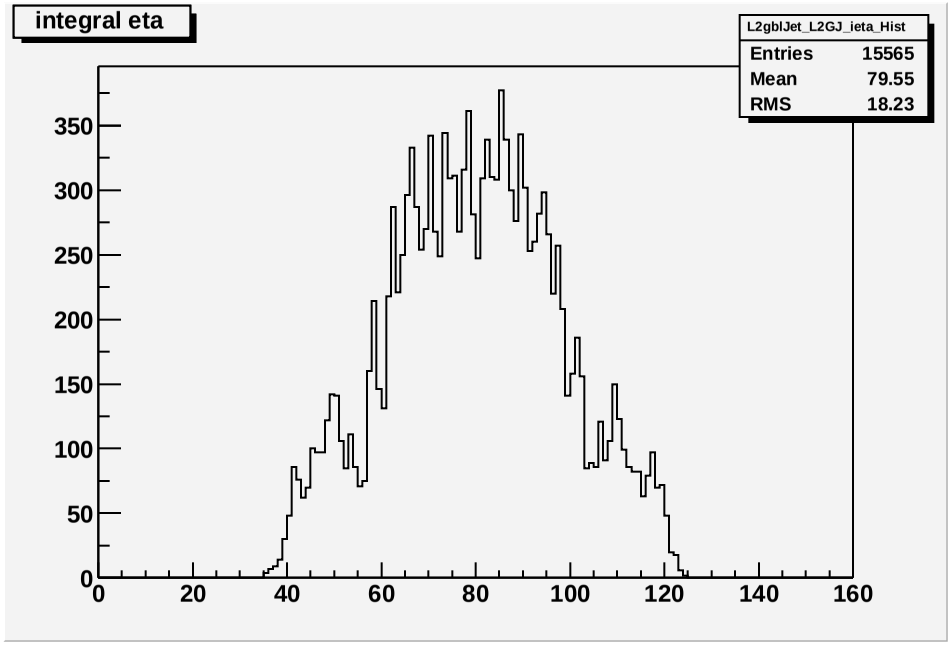

Number of EM objects
L2gbIEM_L2GE_nEMObjects_Hist
Entries 3500
Mean 7.021
RMS 4.446
0
50
100
150
200
250
300
0
10
20
30
40
50

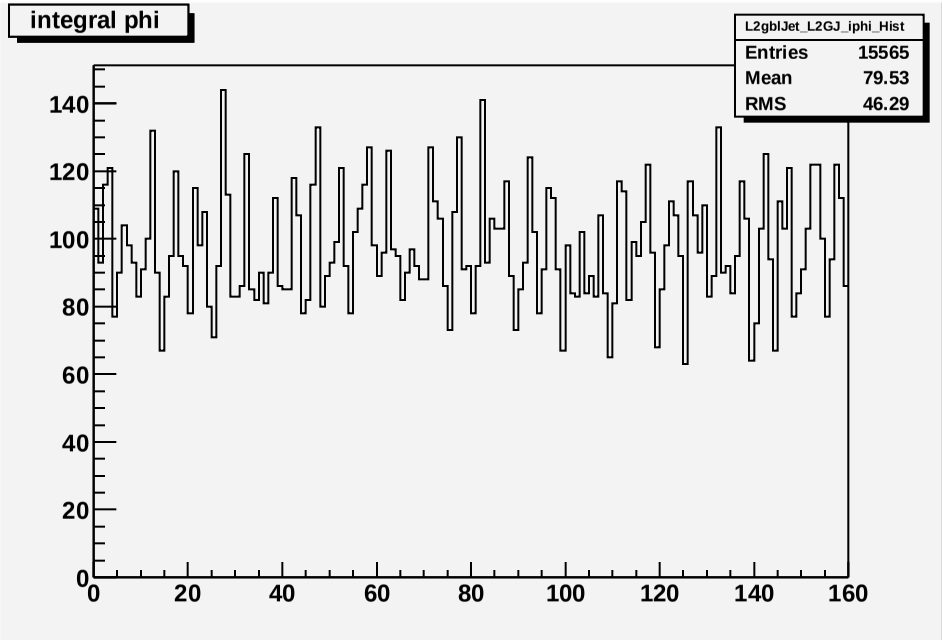

EMF
L2gbIEM_L2GE_emFraction_Hist
Entries 24574
Mean 0.9962
RMS 0.01574
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
20000
22000
24000
0
0.2
0.4
0.6
0.8
1

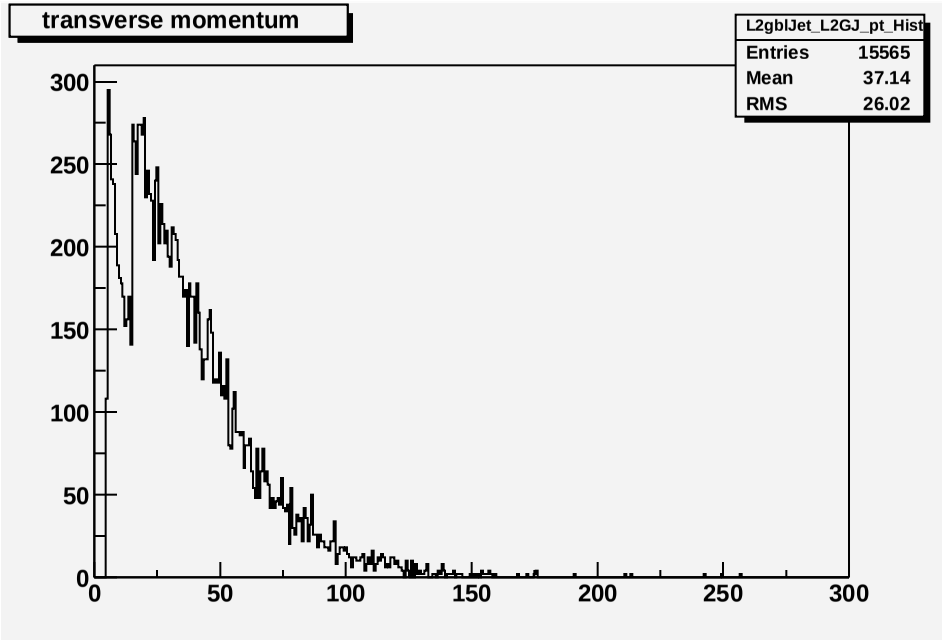

integral eta
L2gbIEM_L2GE_ieta_Hist
Entries 24574
Mean 79.32
RMS 14.81
0
200
400
600
800
1000
1200
0
20
40
60
80
100
120
140
160

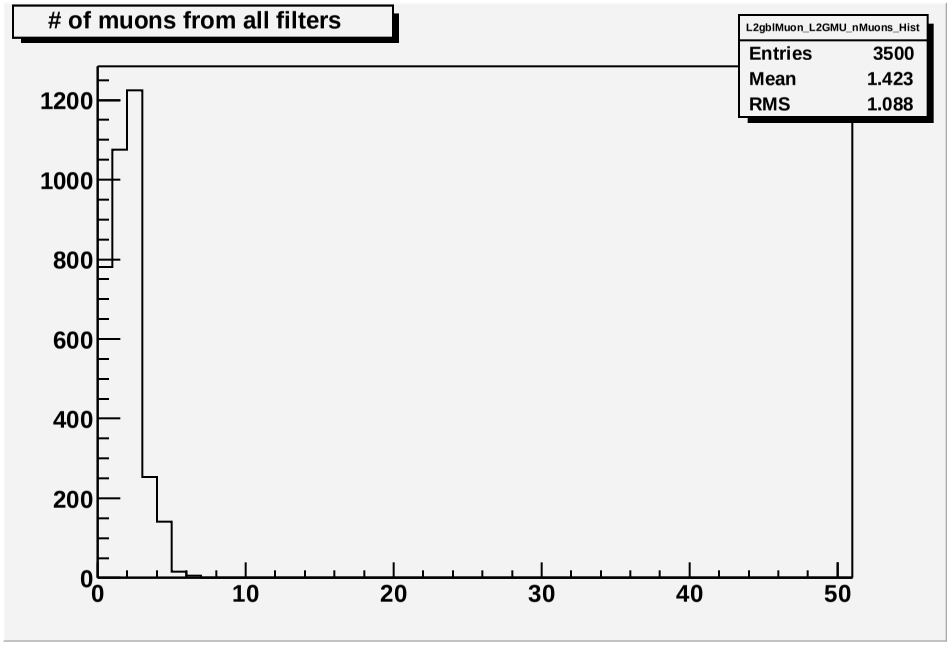

integral phi
L2gbIEM_L2GE_iphi_Hist
Entries 24574
Mean 78.79
RMS 45.97
0
50
100
150
200
250
300
350
400
0
20
40
60
80
100
120
140
160

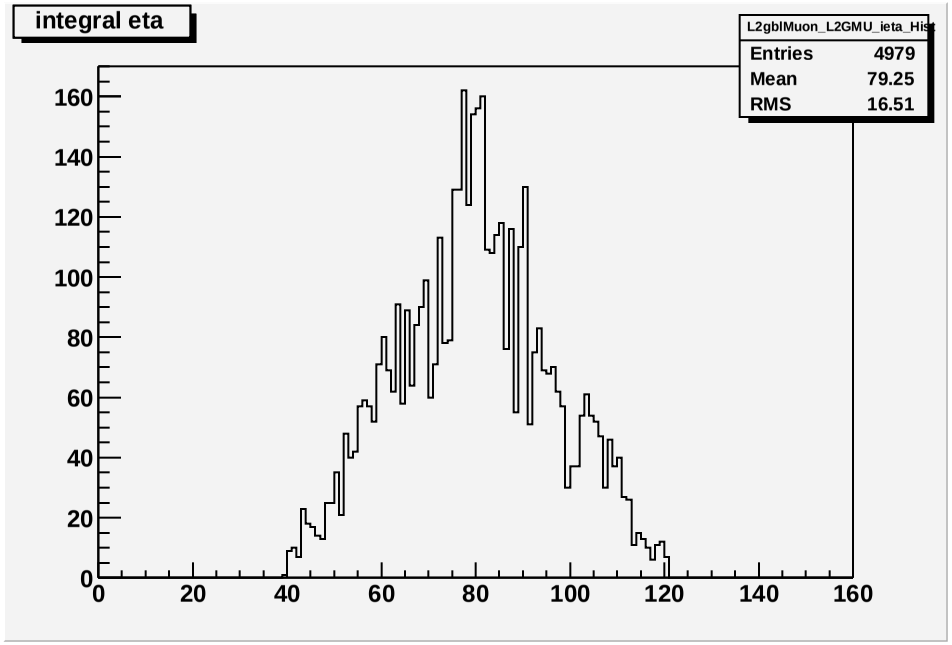

# of jets from all filters
L2gblJet_L2GJ_nJets_Hist
Entries 3500
Mean 4.447
RMS 1.466
0 200 400 600 800 1000 1200 1400
0 10 20 30 40 50

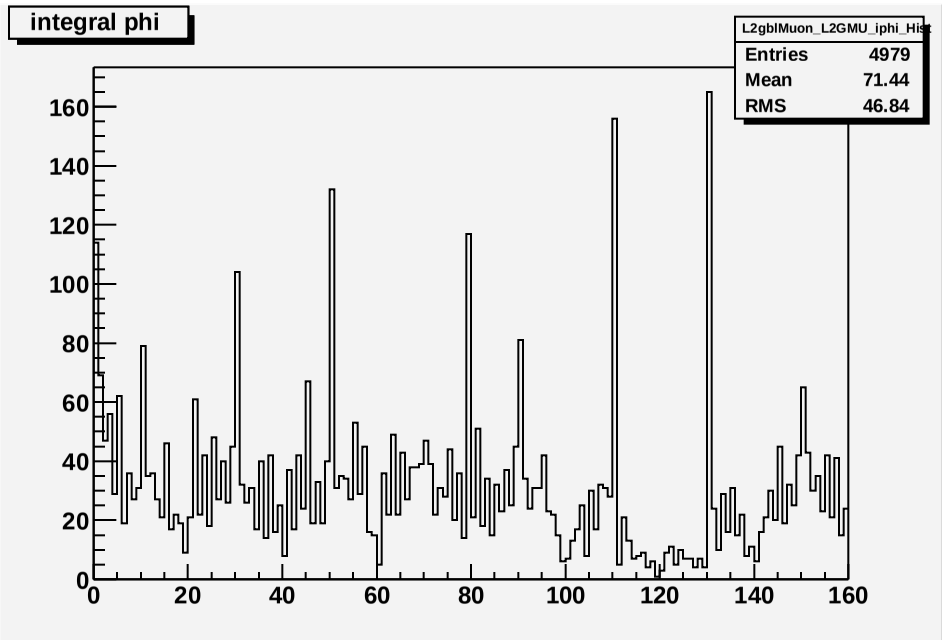

integral eta
L2gblJet_L2GJ_ieta_Hist
Entries 15565
Mean 79.55
RMS 18.23
0 50 100 150 200 250 300 350
0 20 40 60 80 100 120 140 160

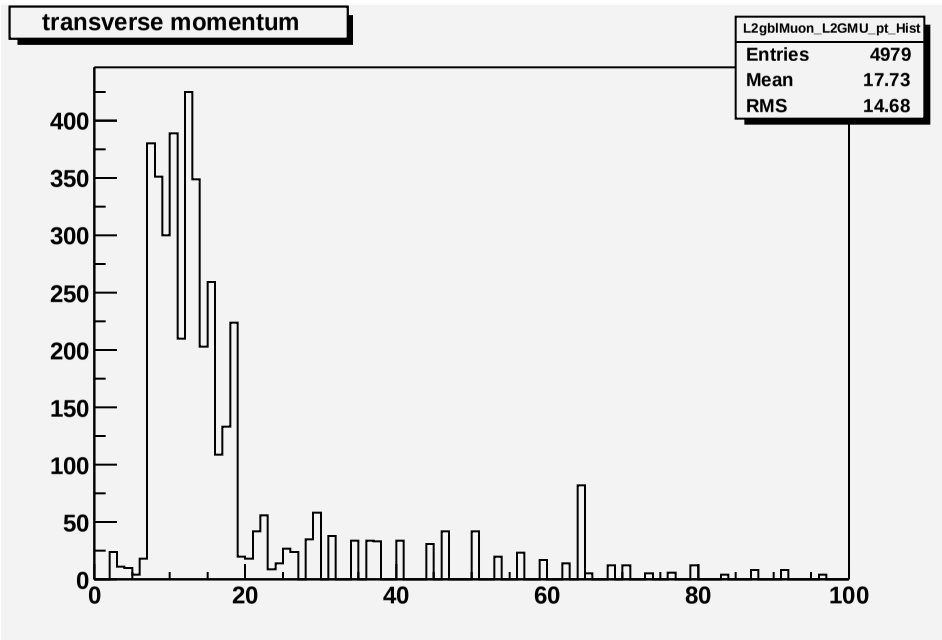

integral phi
L2gblJet_L2GJ_iphi_Hist
Entries 15565
Mean 79.53
RMS 46.29
0 20 40 60 80 100 120 140
0 20 40 60 80 100 120 140 160

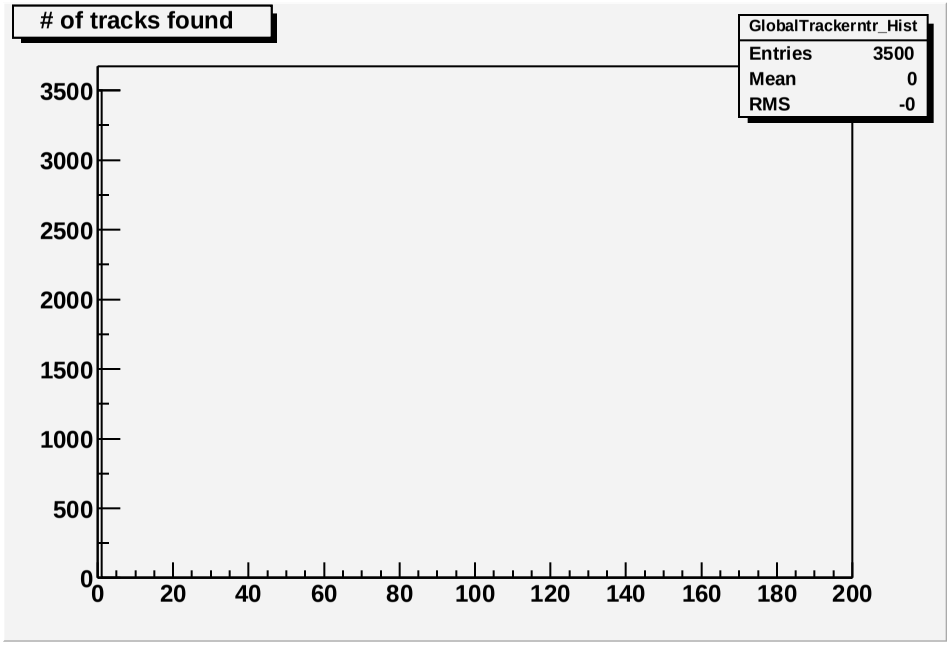

transverse momentum
L2gblJet_L2GJ_pt_Hist
Entries 15565
Mean 37.14
RMS 26.02
0 50 100 150 200 250 300
0 50 100 150 200 250 300

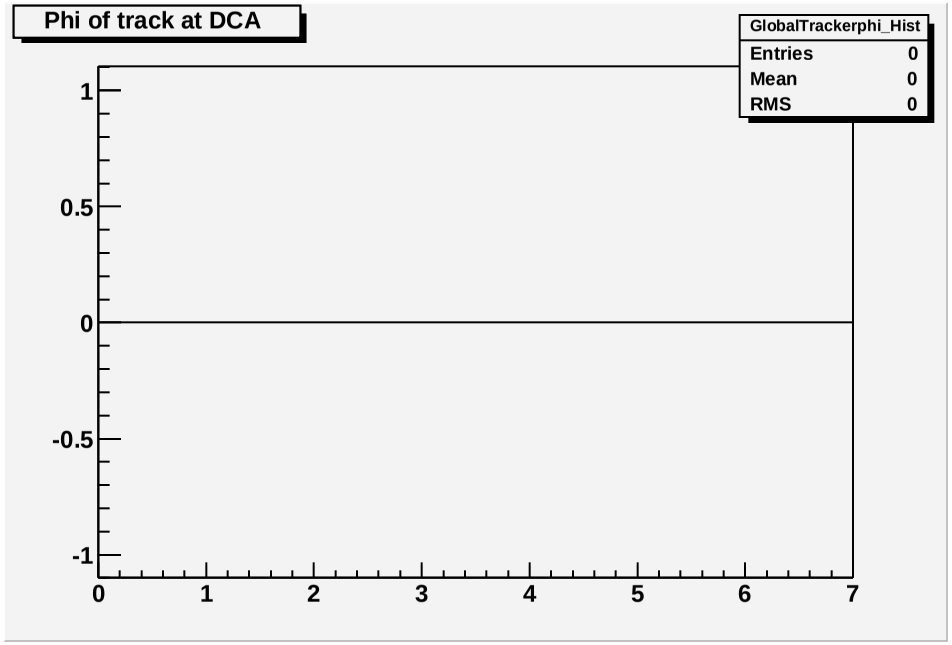

# of muons from all filters
L2gblMuon_L2GMU_nMuons_Hist
Entries 3500
Mean 1.423
RMS 1.088
0
200
400
600
800
1000
1200
0
10
20
30
40
50

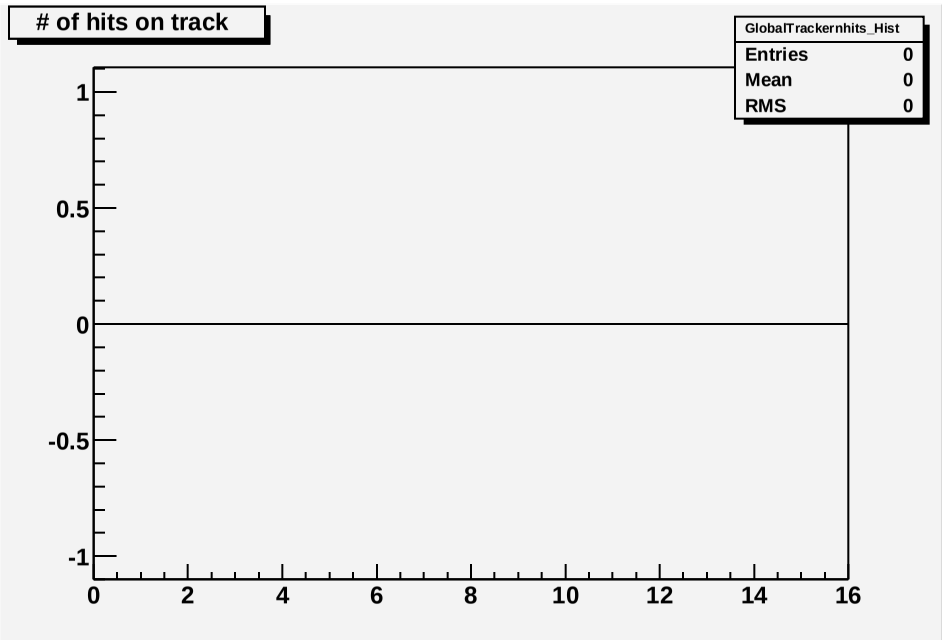

integral eta
L2gblMuon_L2GMU_ieta_Hist
Entries 4979
Mean 79.25
RMS 16.51
0
20
40
60
80
100
120
140
160
0
20
40
60
80
100
120
140
160

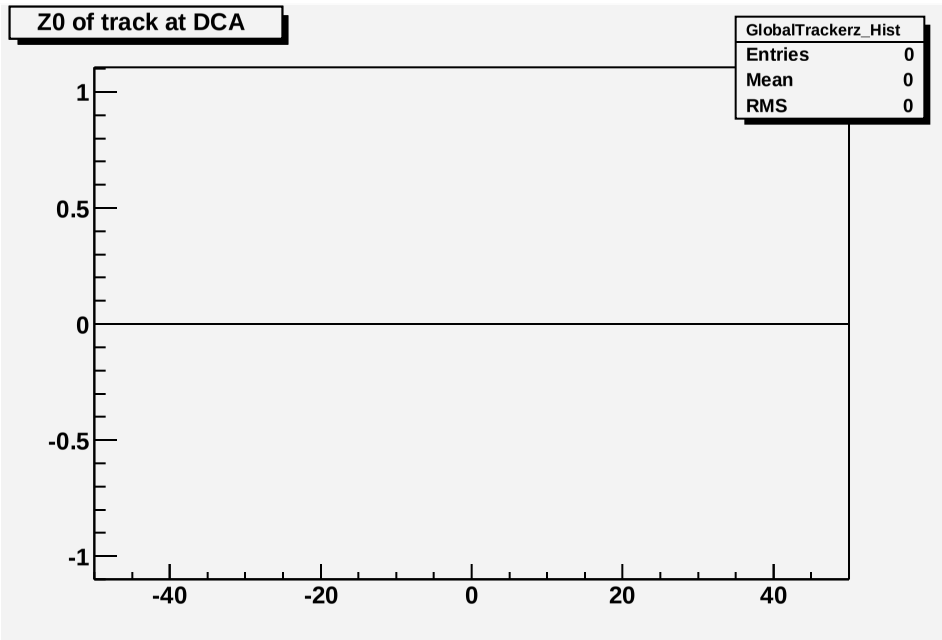

integral phi
L2gblMuon_L2GMU_iphi_Hist
Entries 4979
Mean 71.44
RMS 46.84
0
20
40
60
80
100
120
140
160
0
20
40
60
80
100
120
140
160

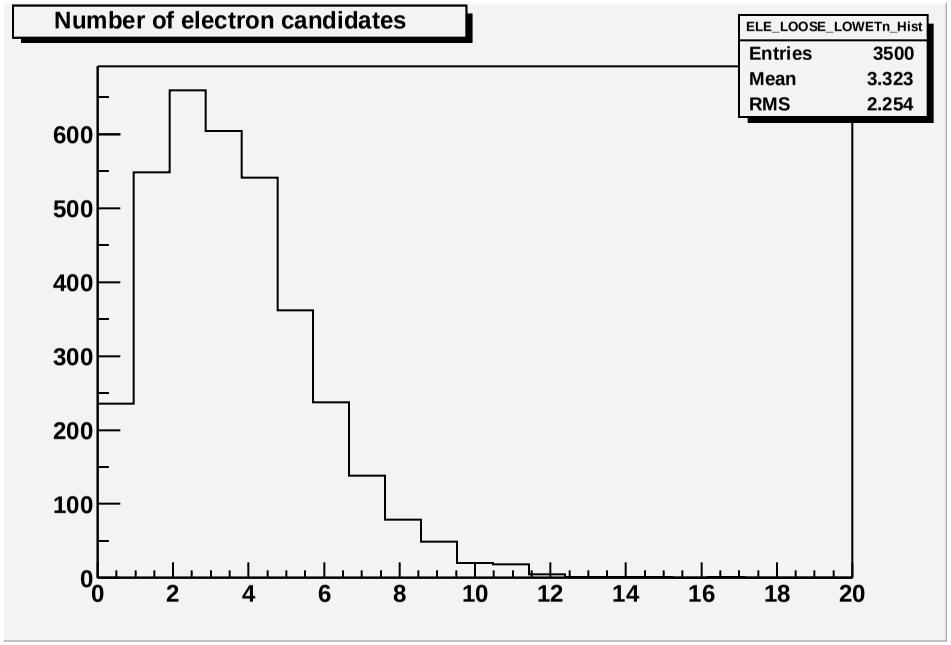

transverse momentum
L2gblMuon_L2GMU_pt_Hist
Entries 4979
Mean 17.73
RMS 14.68
0
50
100
150
200
250
300
350
400
0
20
40
60
80
100

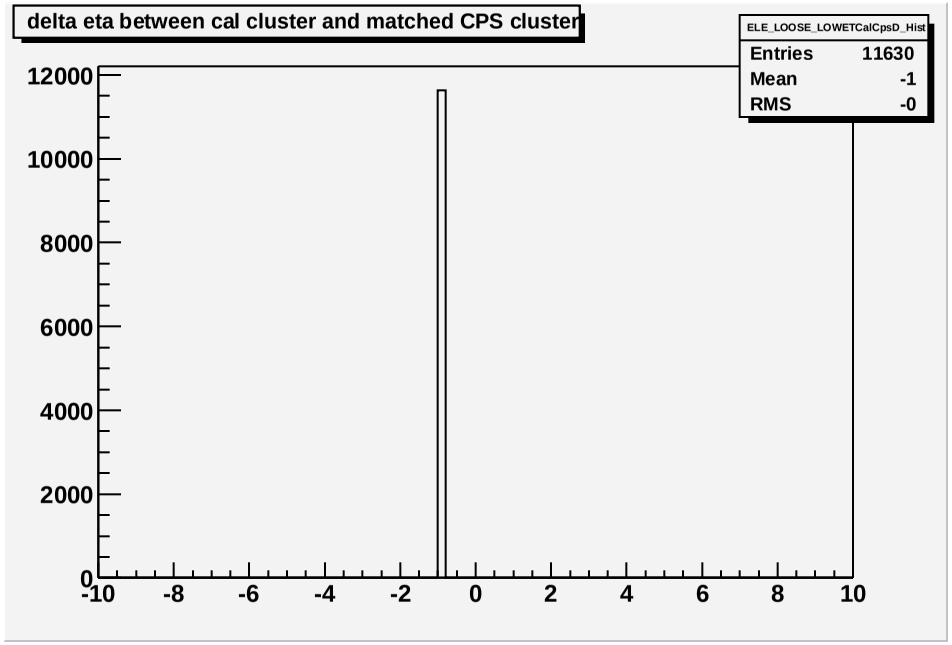

# of tracks found
GlobalTrackerntr_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 20 40 60 80 100 120 140 160 180 200

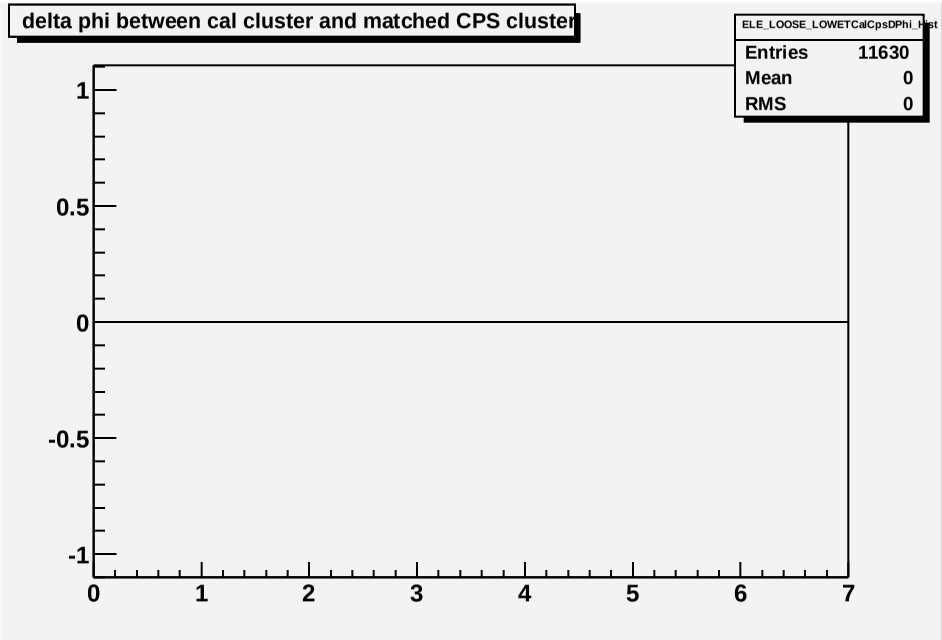

Phi of track at DCA
GlobalTrackerphi_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 1 2 3 4 5 6 7

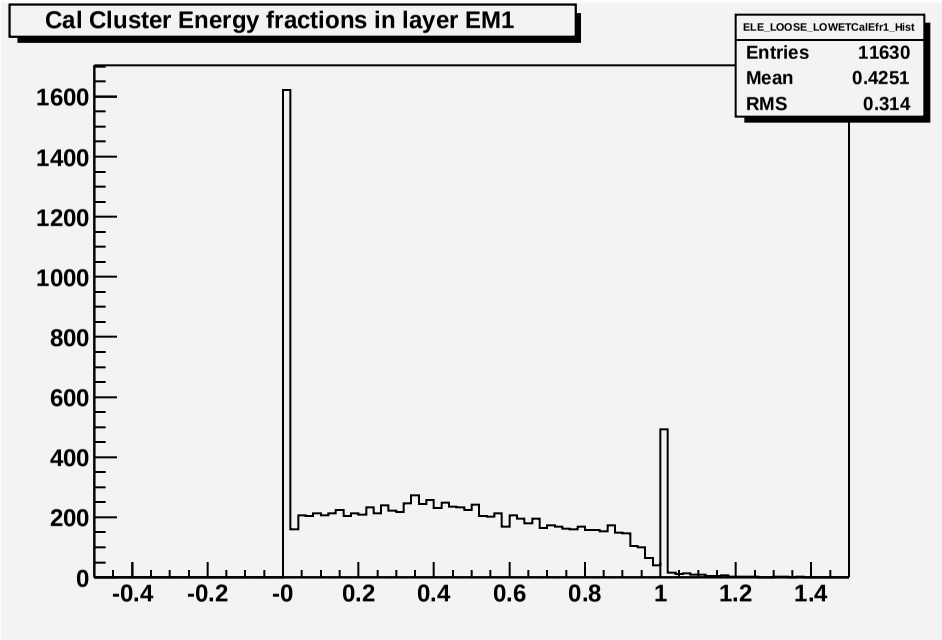

# of hits on track
GlobalTrackernhits_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 2 4 6 8 10 12 14 16

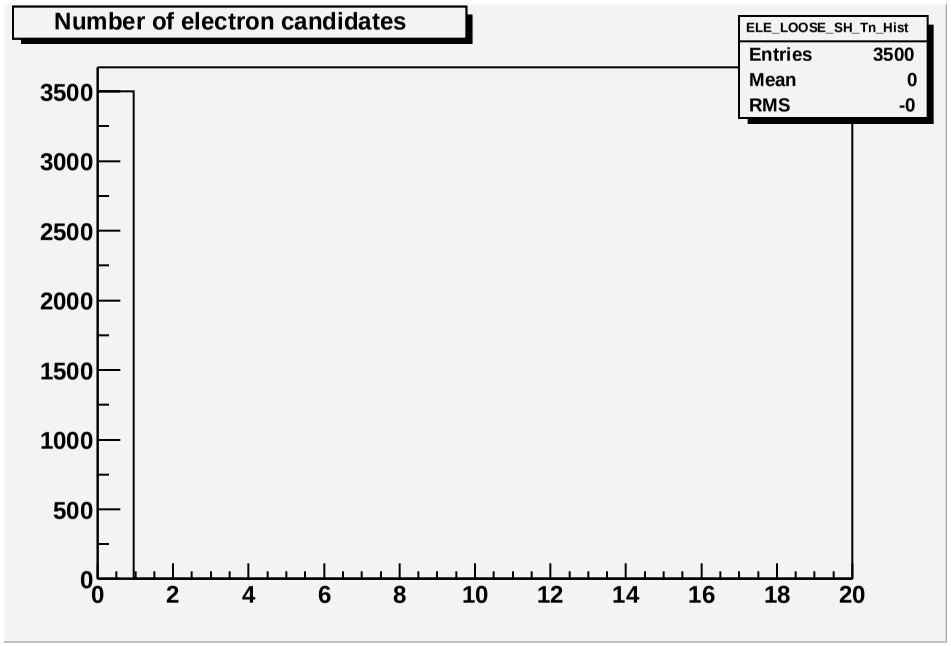

Z0 of track at DCA
GlobalTrackerz_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-40 -20 0 20 40

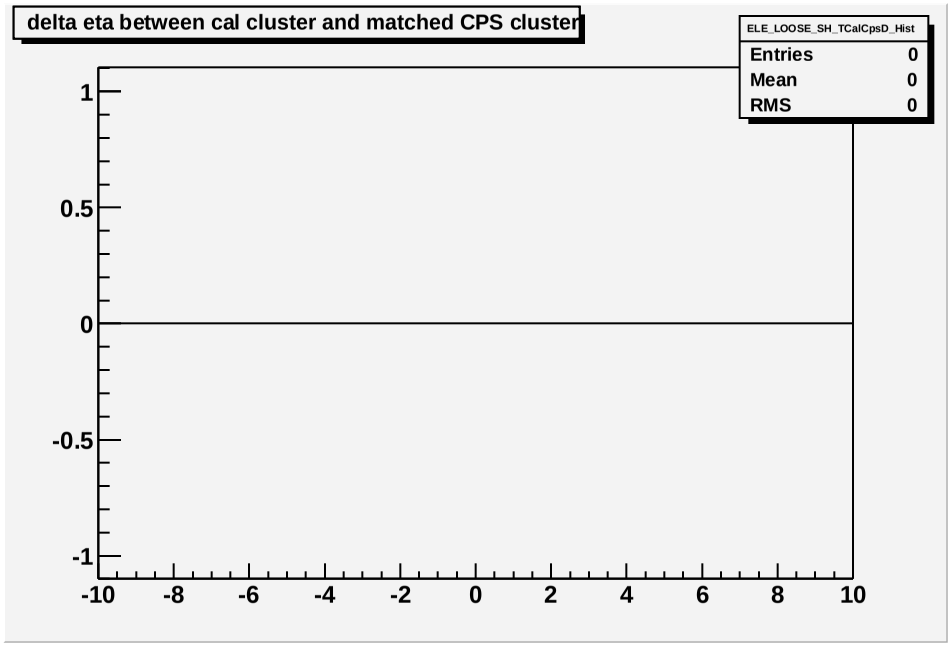

Number of electron candidates
ELE_LOOSE_LOWETn_Hist
Entries 3500
Mean 3.323
RMS 2.254

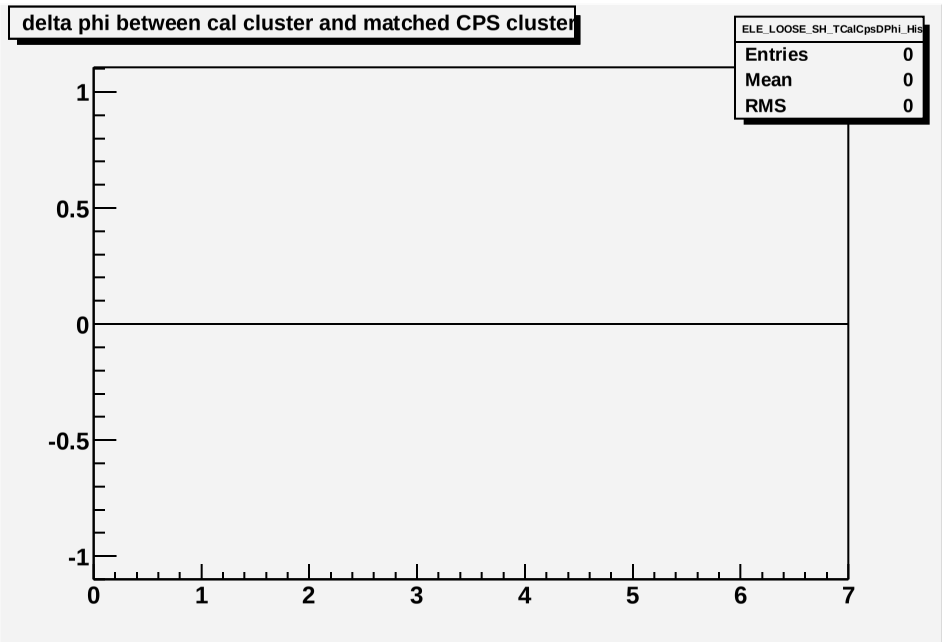

delta eta between cal cluster and matched CPS cluster
ELE_LOOSE_LOWETCalCpsD_Hist
Entries 11630
Mean -1
RMS -0

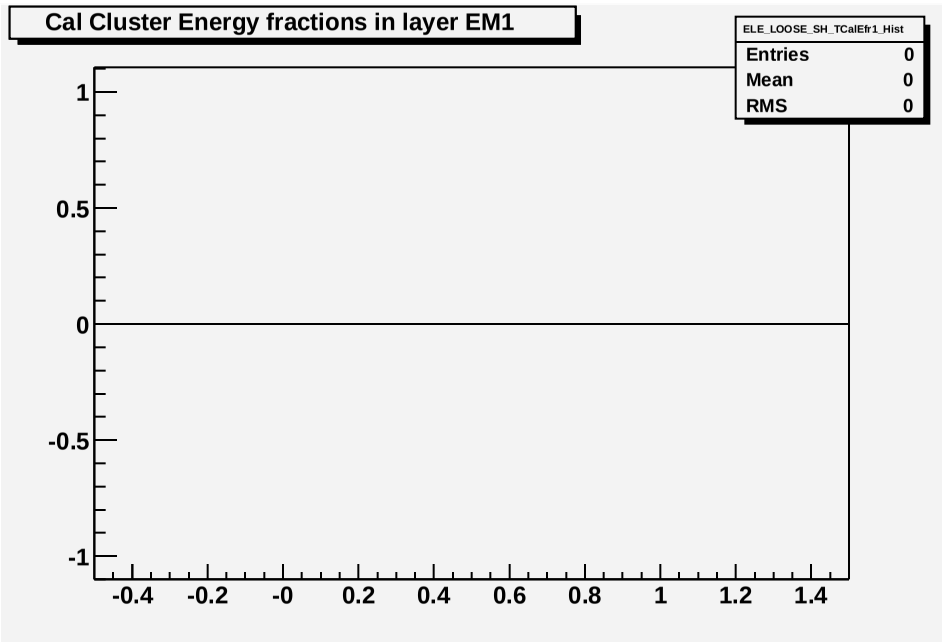

delta phi between cal cluster and matched CPS cluster
ELE_LOOSE_LOWETCalCpsDPhi_Hist
Entries 11630
Mean 0
RMS 0

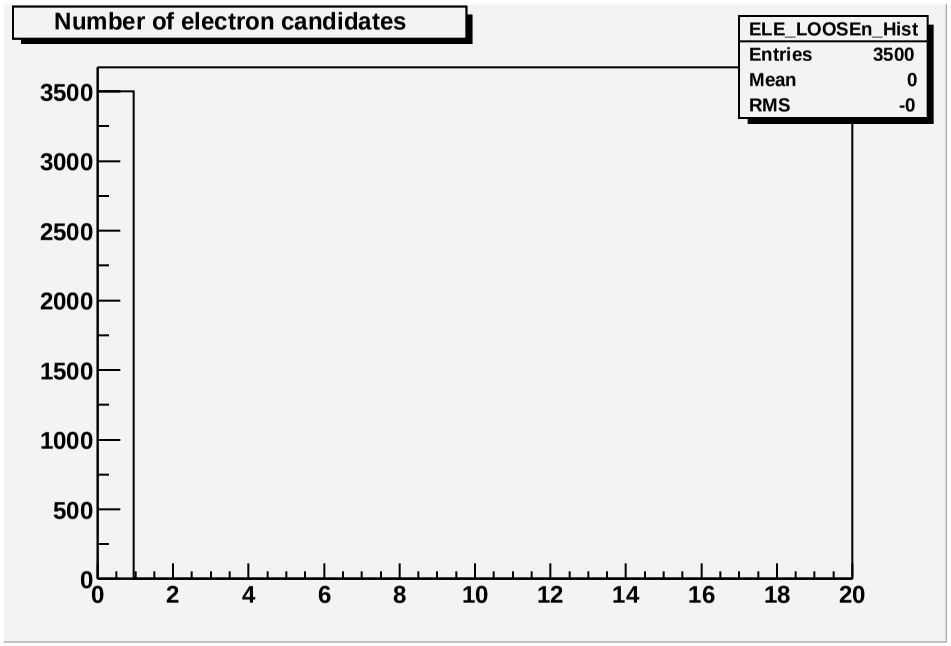

Cal Cluster Energy fractions in layer EM1
ELE_LOOSE_LOWETCalEfr1_Hist
Entries 11630
Mean 0.4251
RMS 0.314

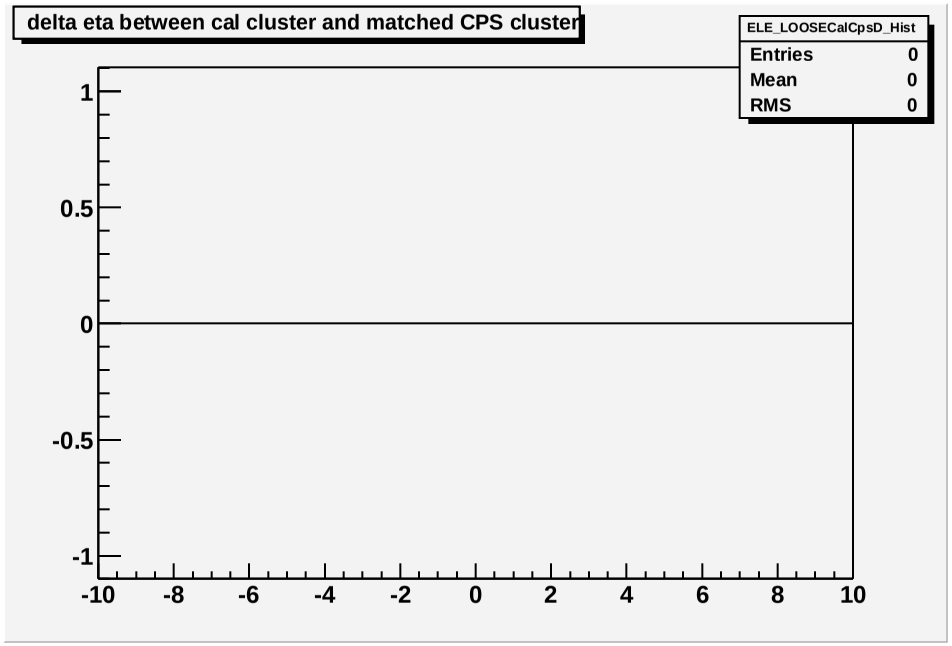

Number of electron candidates
ELE_LOOSE_SH_Tn_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 2 4 6 8 10 12 14 16 18 20

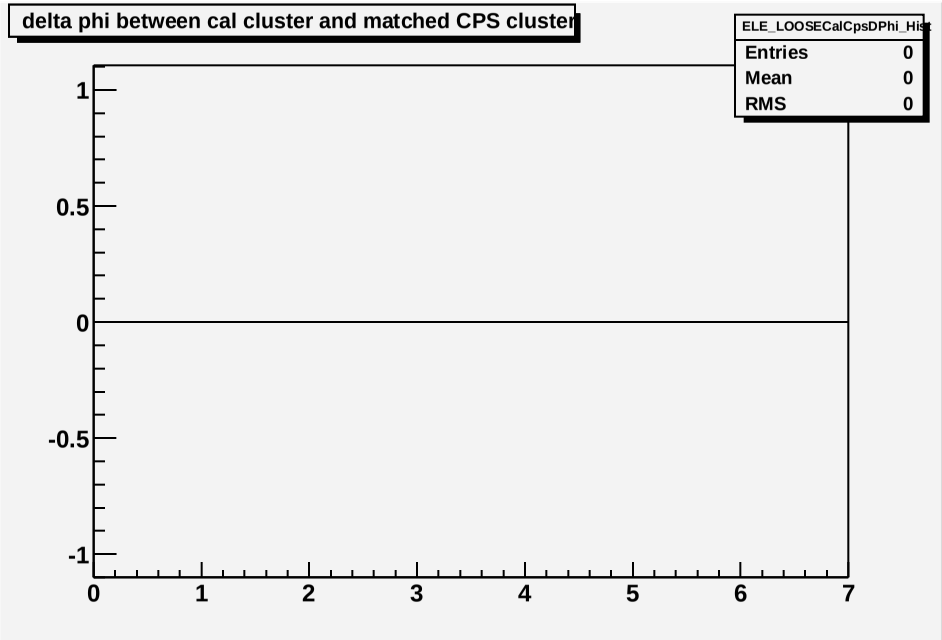

delta eta between cal cluster and matched CPS cluster
ELE_LOOSE_SH_TCalCpsD_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-10 -8 -6 -4 -2 0 2 4 6 8 10

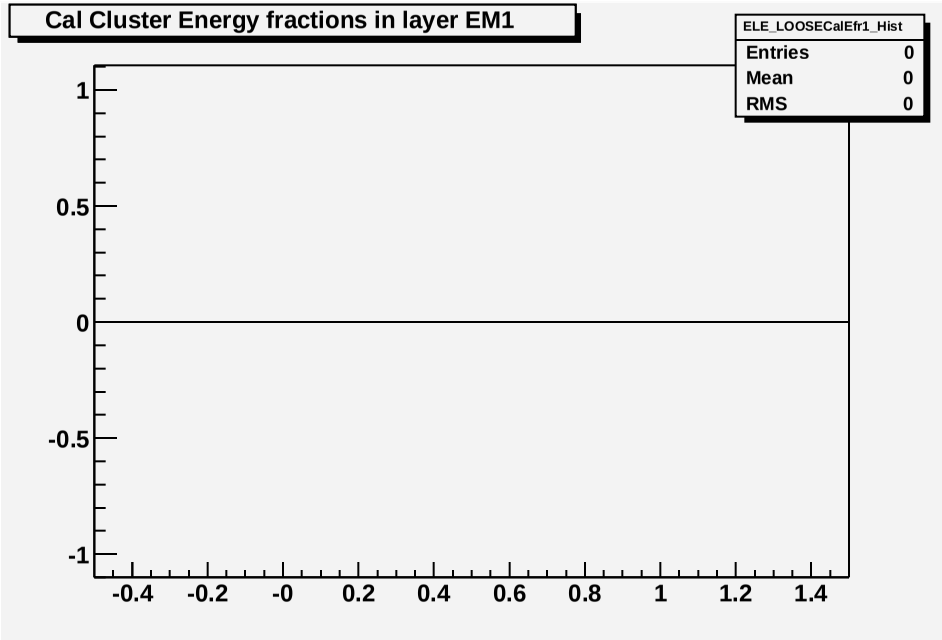

delta phi between cal cluster and matched CPS cluster
ELE_LOOSE_SH_TCalCpsDPhi_His
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 1 2 3 4 5 6 7

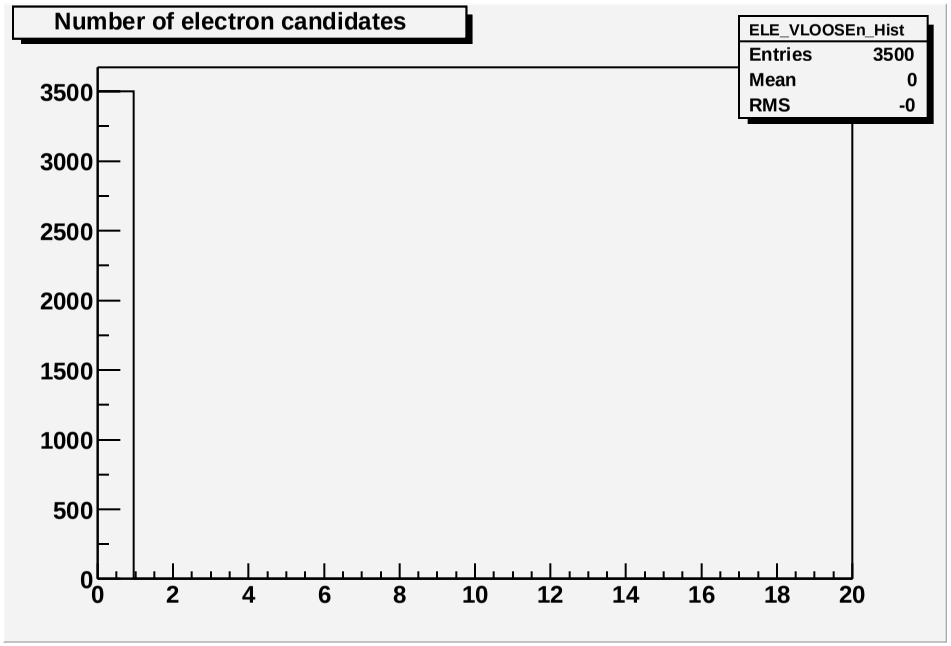

Cal Cluster Energy fractions in layer EM1
ELE_LOOSE_SH_TCalEfr1_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-0.4 -0.2 -0 0.2 0.4 0.6 0.8 1 1.2 1.4

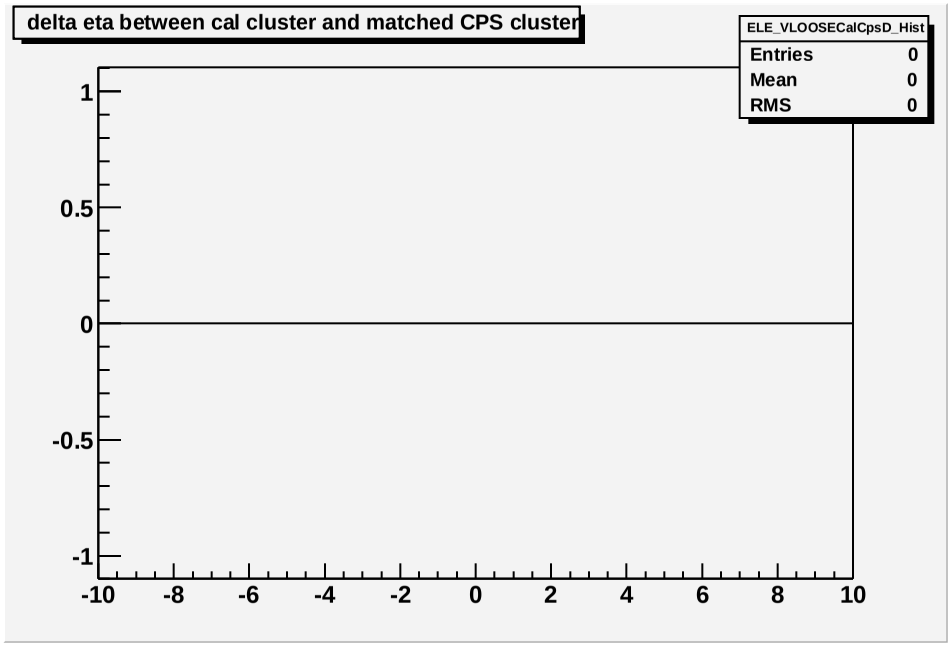

Number of electron candidates
ELE_LOOSEn_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 2 4 6 8 10 12 14 16 18 20

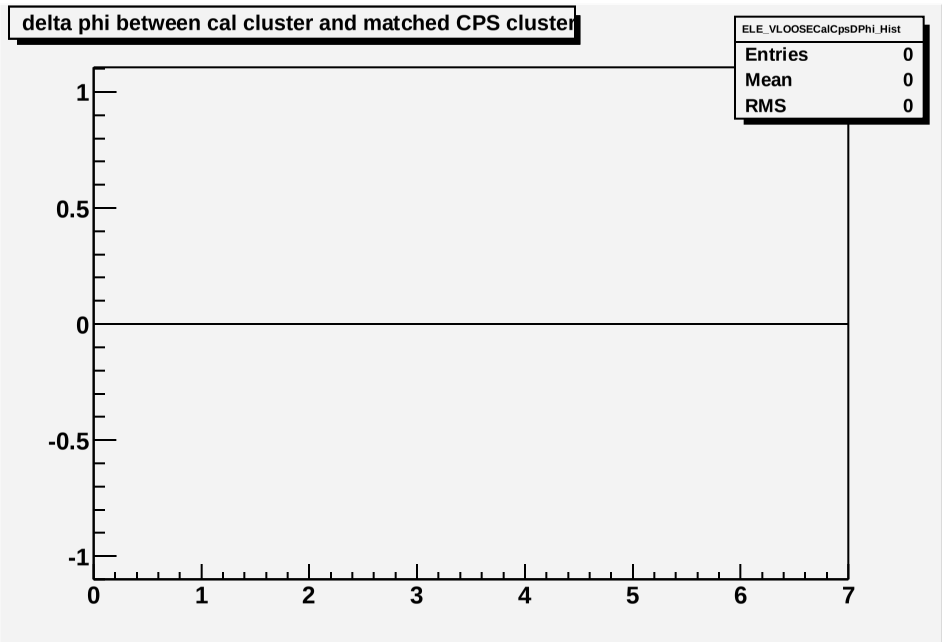

delta eta between cal cluster and matched CPS cluster
ELE_LOOSECalCpsD_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-10 -8 -6 -4 -2 0 2 4 6 8 10

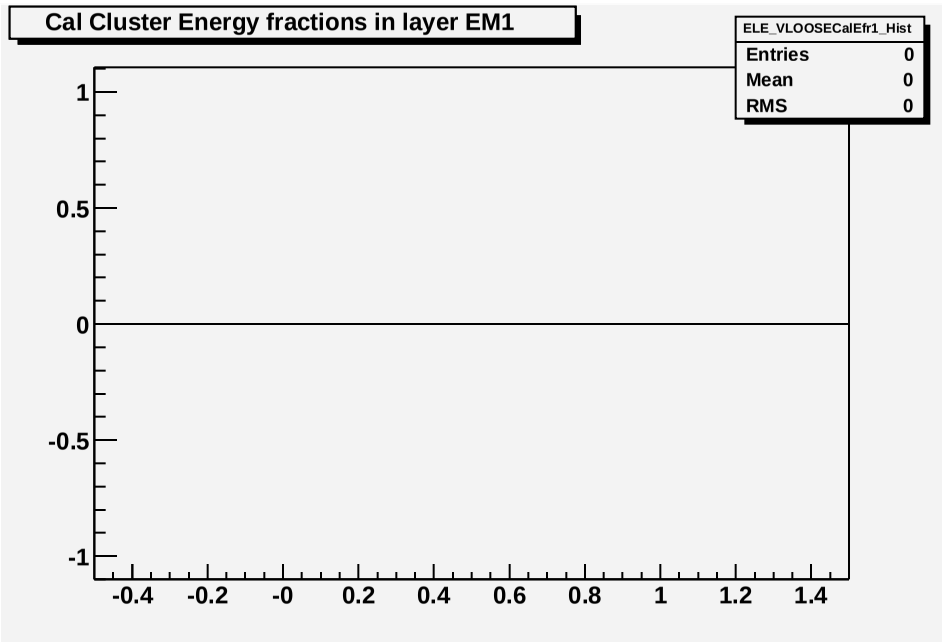

delta phi between cal cluster and matched CPS cluster
ELE_LOOSECalCpsDPhi_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 1 2 3 4 5 6 7

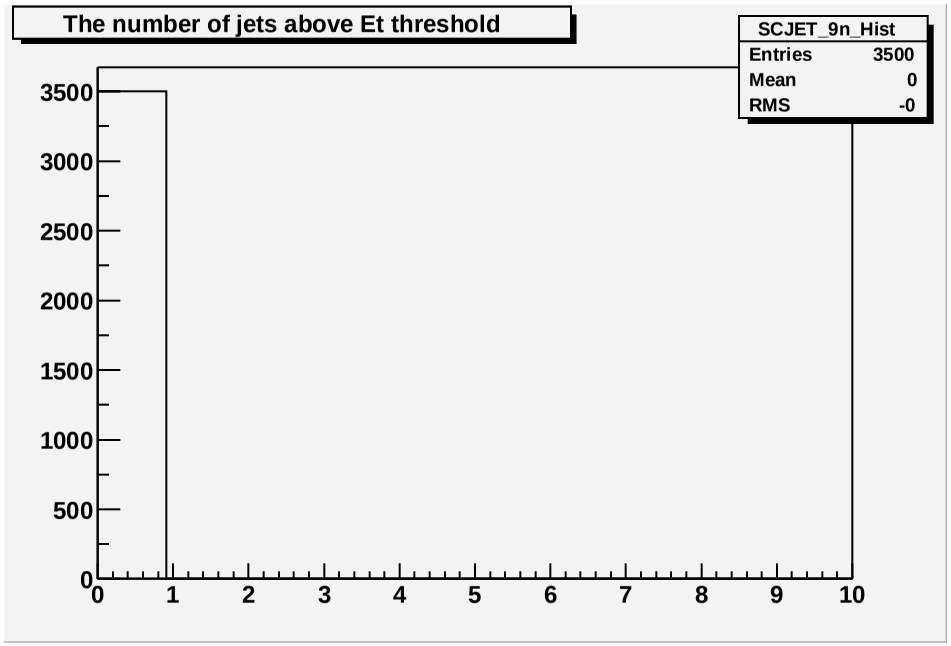

Cal Cluster Energy fractions in layer EM1
ELE_LOOSECalEfr1_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-0.4 -0.2 -0 0.2 0.4 0.6 0.8 1 1.2 1.4

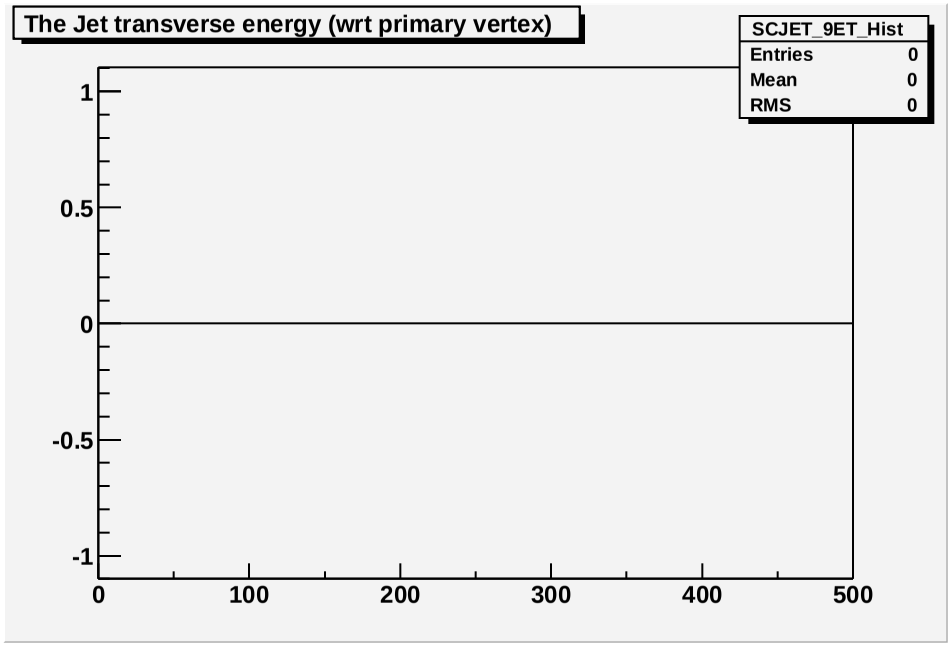

Number of electron candidates
ELE_VLOOSEn_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 2 4 6 8 10 12 14 16 18 20

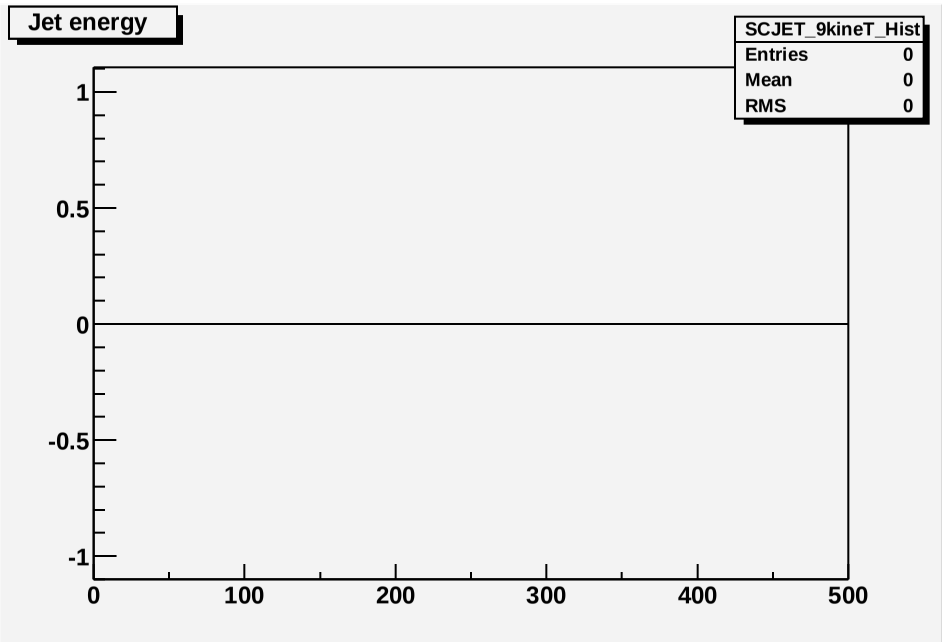

delta eta between cal cluster and matched CPS cluster
ELE_VLOOSECalCpsD_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-10 -8 -6 -4 -2 0 2 4 6 8 10

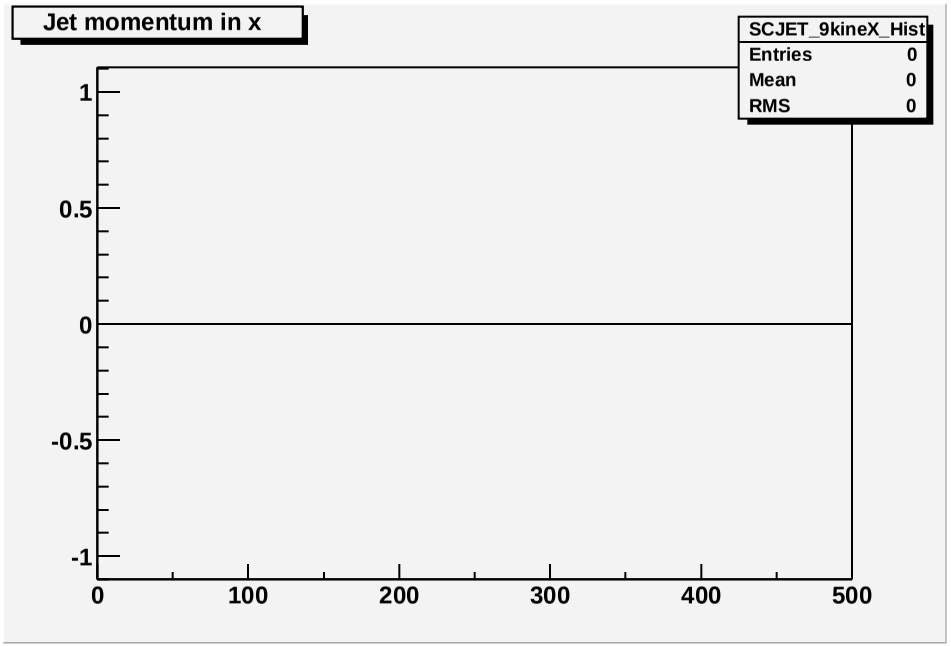

delta phi between cal cluster and matched CPS cluster
ELE_VLOOSECalCpsDPhi_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 1 2 3 4 5 6 7

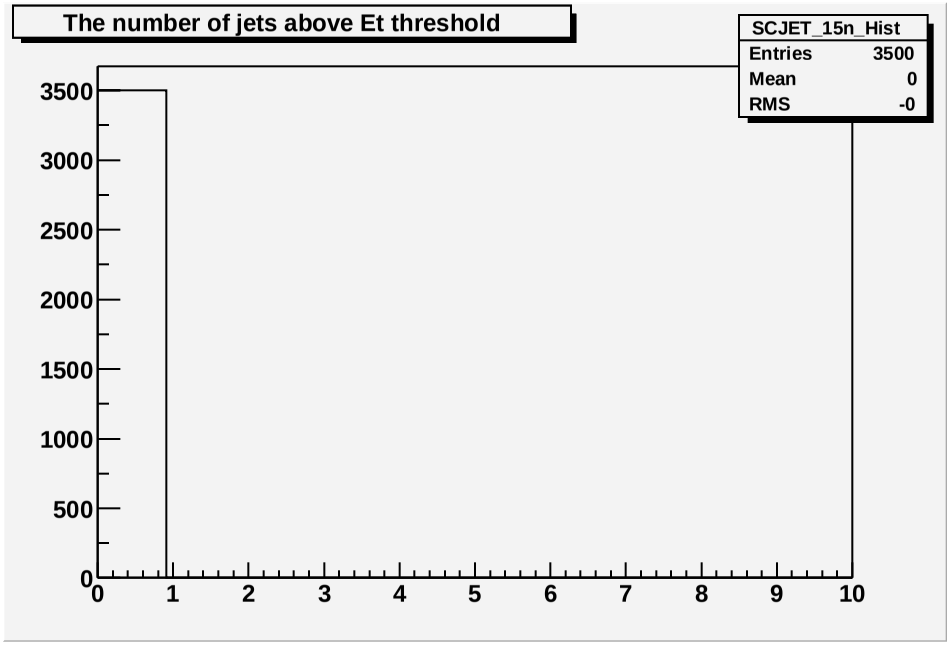

Cal Cluster Energy fractions in layer EM1
ELE_VLOOSECalEfr1_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
-0.4 -0.2 -0 0.2 0.4 0.6 0.8 1 1.2 1.4

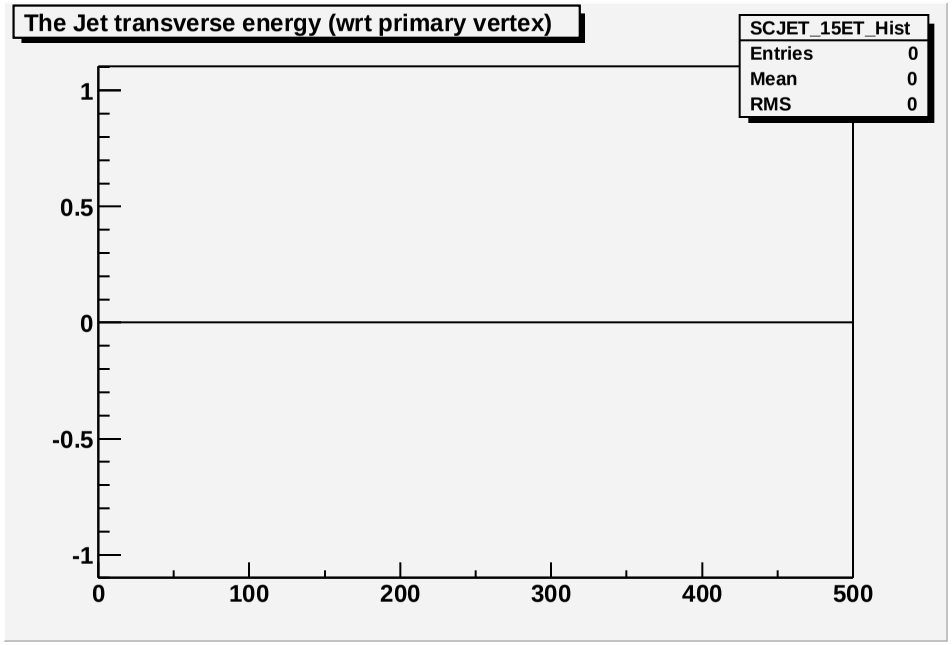

The number of jets above Et threshold
SCJET_9n_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 1 2 3 4 5 6 7 8 9 10

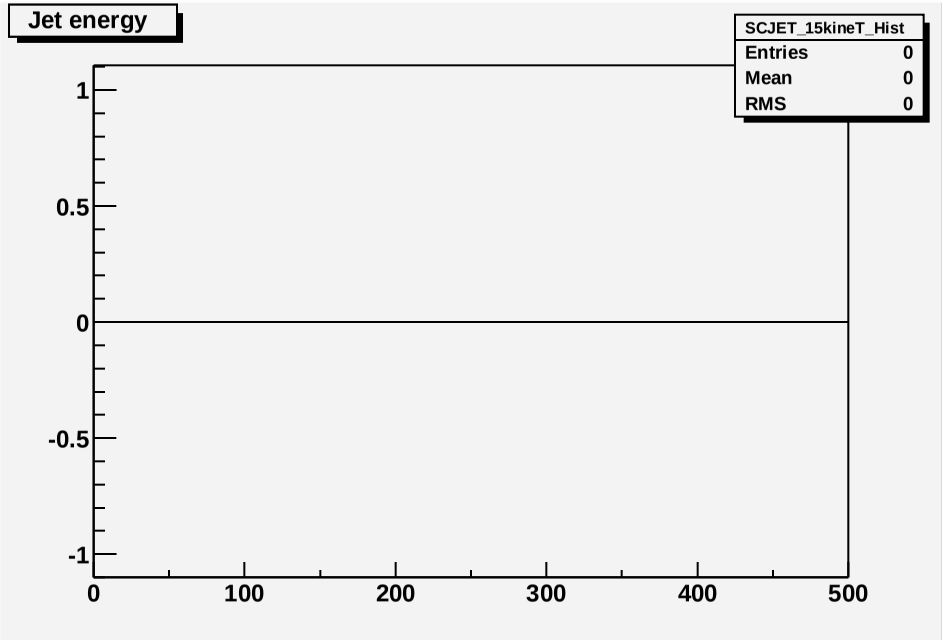

The Jet transverse energy (wrt primary vertex)
SCJET_9ET_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 100 200 300 400 500

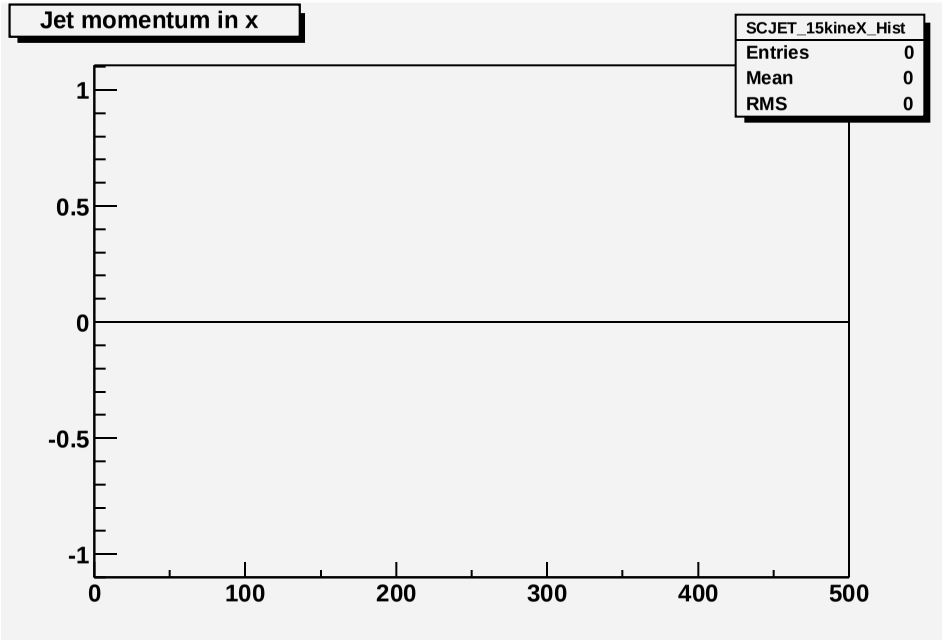

Jet energy
SCJET_9kineT_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 100 200 300 400 500

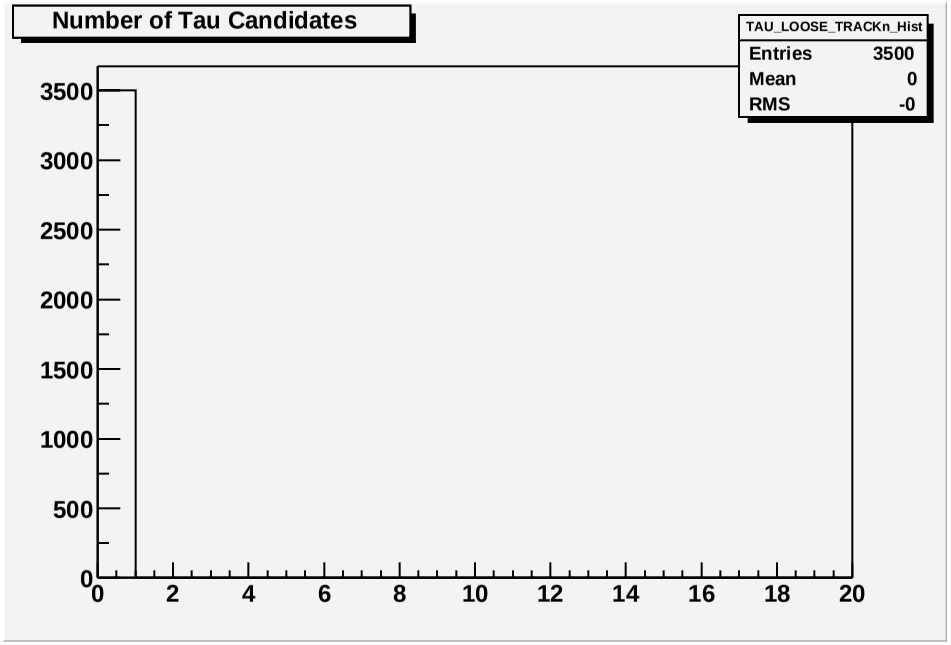

Jet momentum in x
SCJET_9kineX_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 100 200 300 400 500

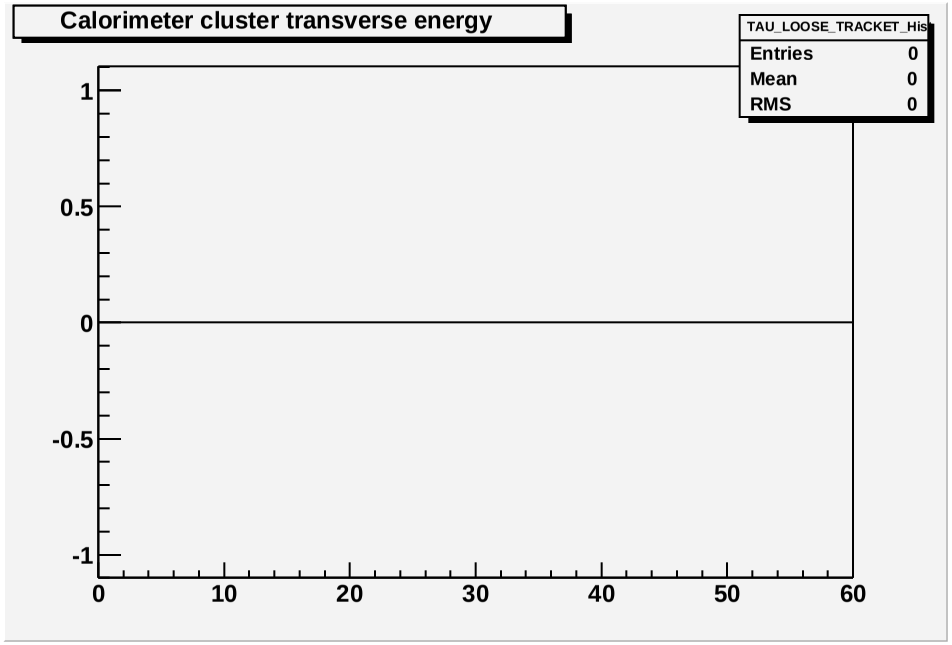

The number of jets above Et threshold
SCJET_15n_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 1 2 3 4 5 6 7 8 9 10

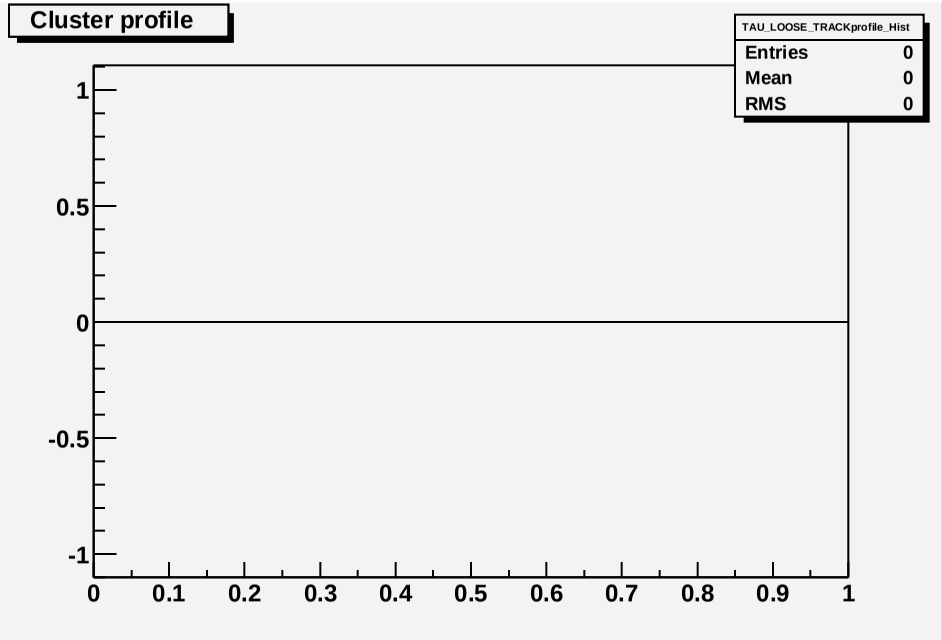

The Jet transverse energy (wrt primary vertex)
SCJET_15ET_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 100 200 300 400 500

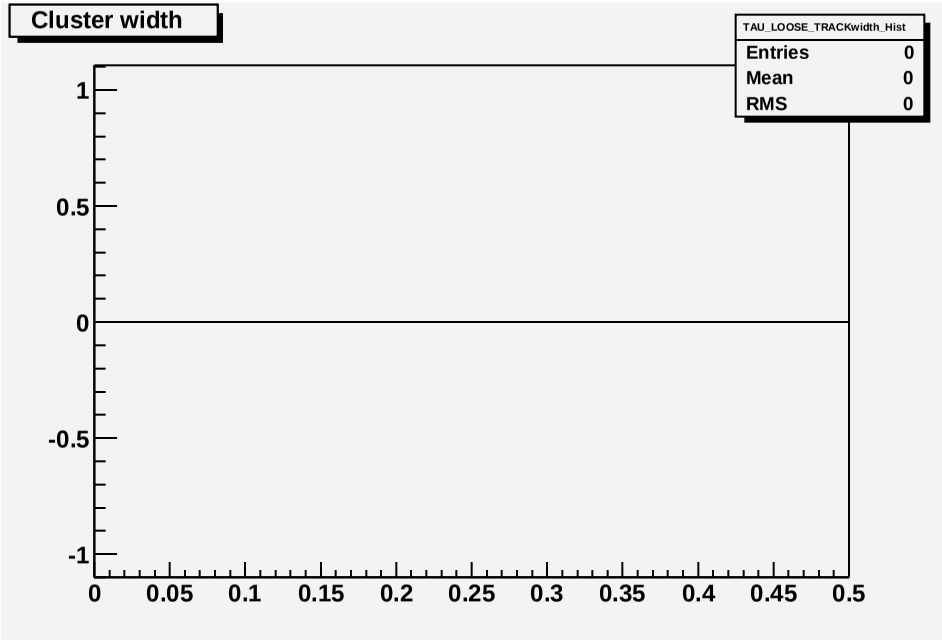

Jet energy
SCJET_15kineT_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 100 200 300 400 500


Jet momentum in x
SCJET_15kineX_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 100 200 300 400 500


Number of Tau Candidates
TAU_LOOSE_TRACKn_Hist
Entries 3500
Mean 0
RMS -0
3500
3000
2500
2000
1500
1000
500
0
0 2 4 6 8 10 12 14 16 18 20


Calorimeter cluster transverse energy
TAU_LOOSE_TRACKET_His
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 10 20 30 40 50 60


Cluster profile
TAU_LOOSE_TRACKprofile_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1


Cluster width
TAU_LOOSE_TRACKwidth_Hist
Entries 0
Mean 0
RMS 0
1
0.5
0
-0.5
-1
0 0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5