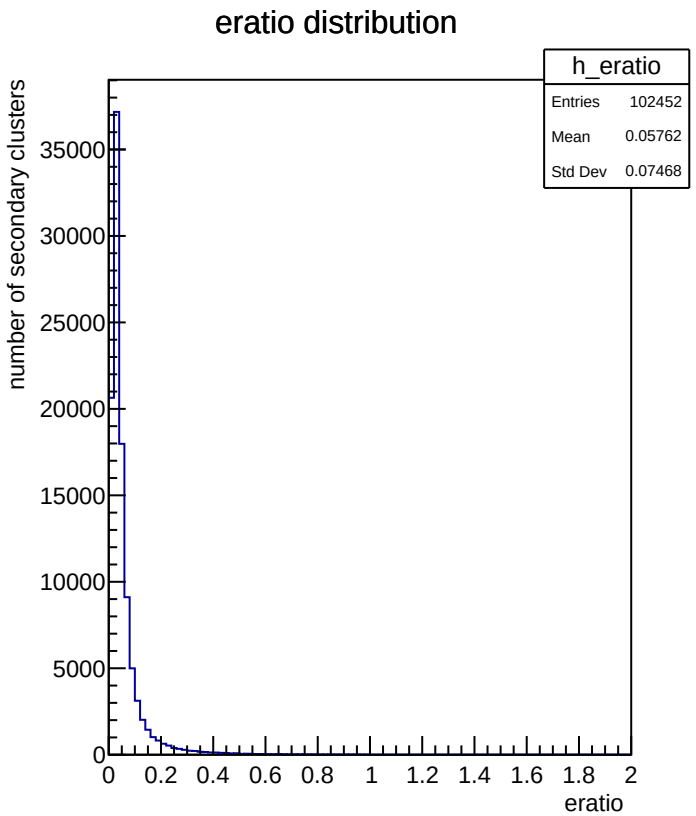
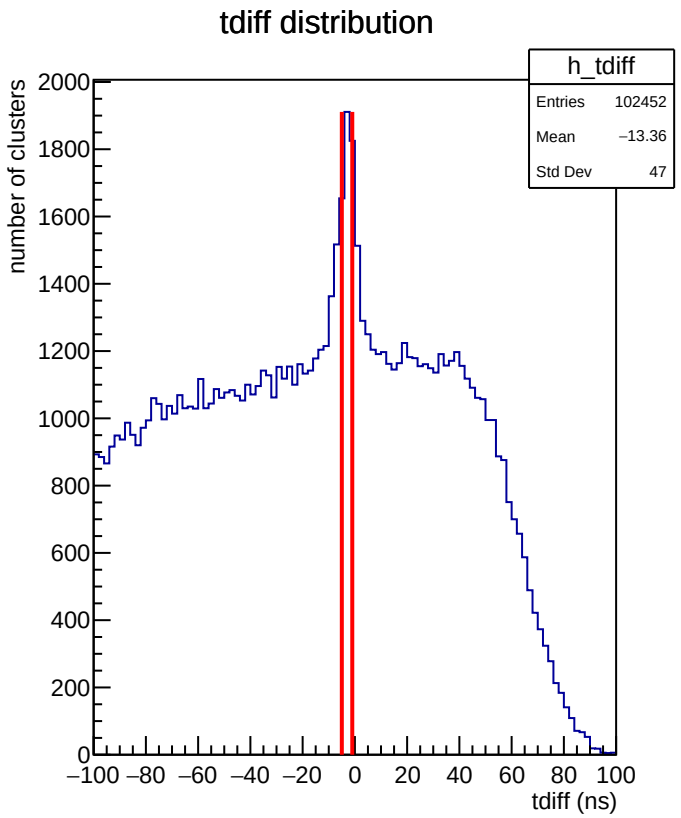
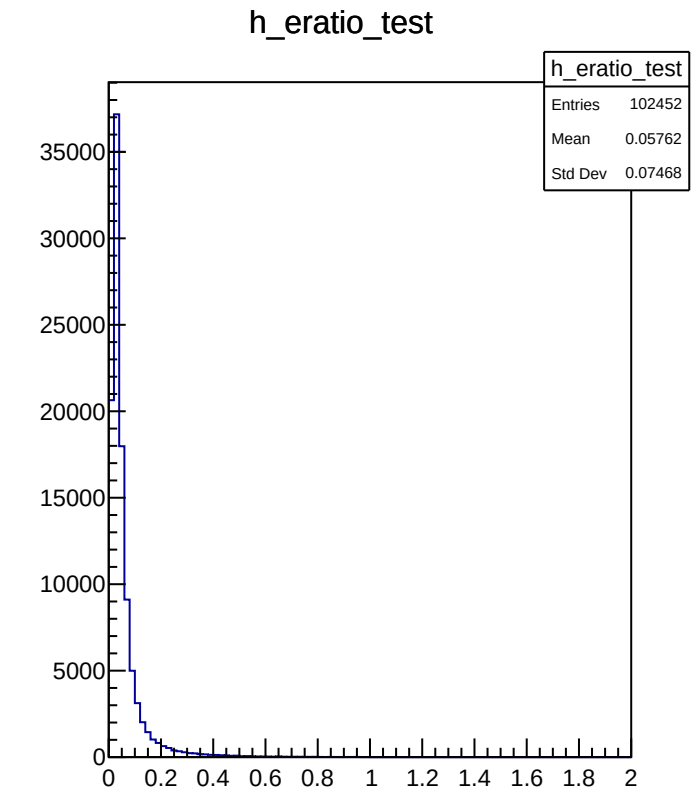
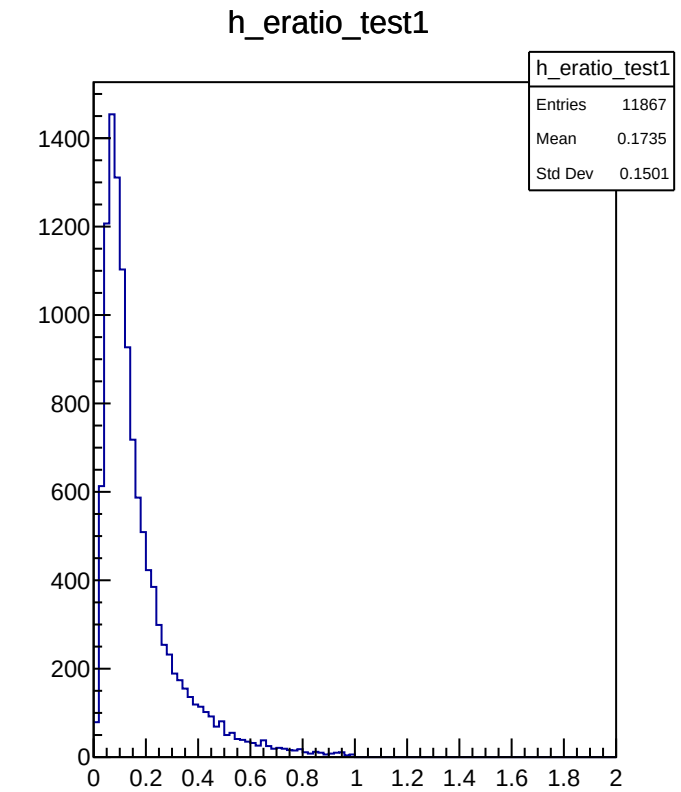
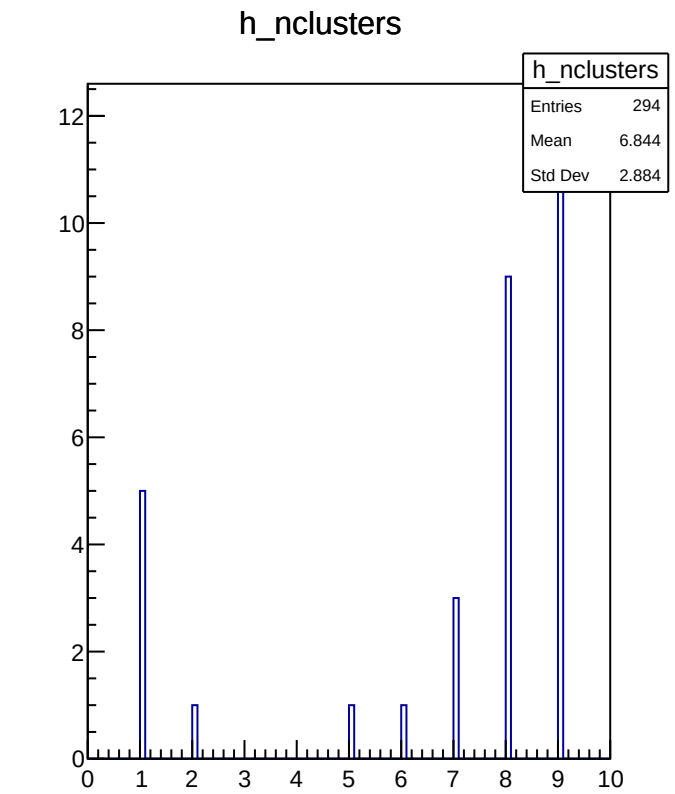
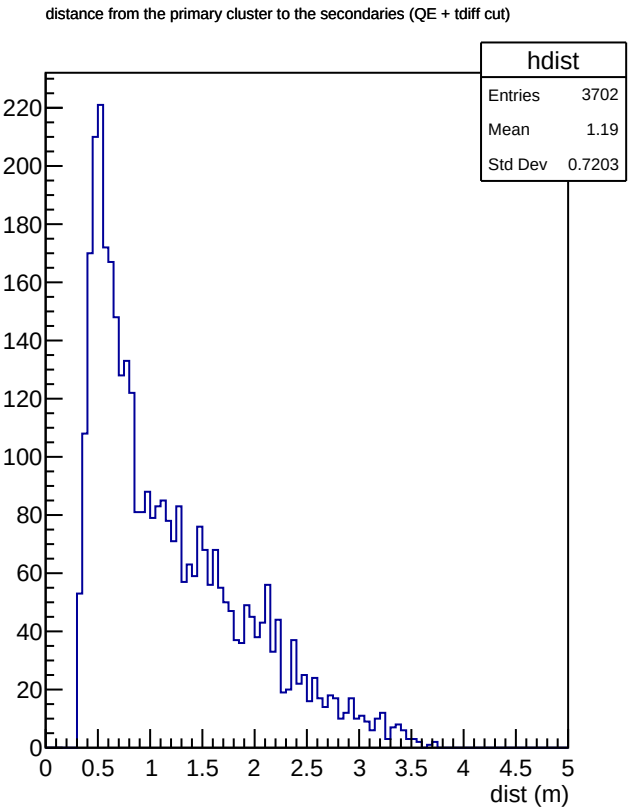

eratio distribution
h_eratio
Entries 102452
Mean 0.05762
Std Dev 0.07468
number of secondary clusters
eratio

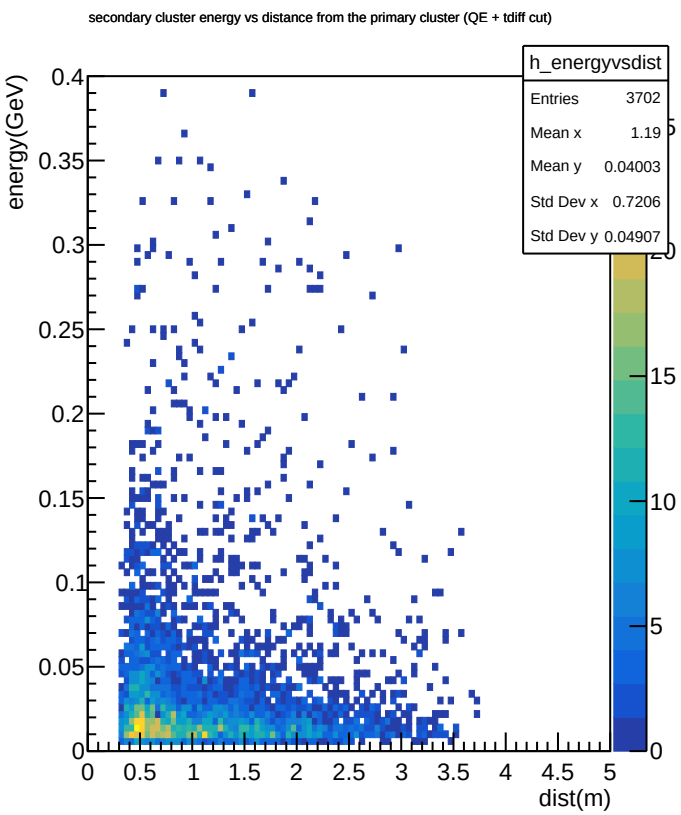

tdiff distribution
h_tdiff
Entries 102452
Mean −13.36
Std Dev 47
number of clusters
tdiff (ns)

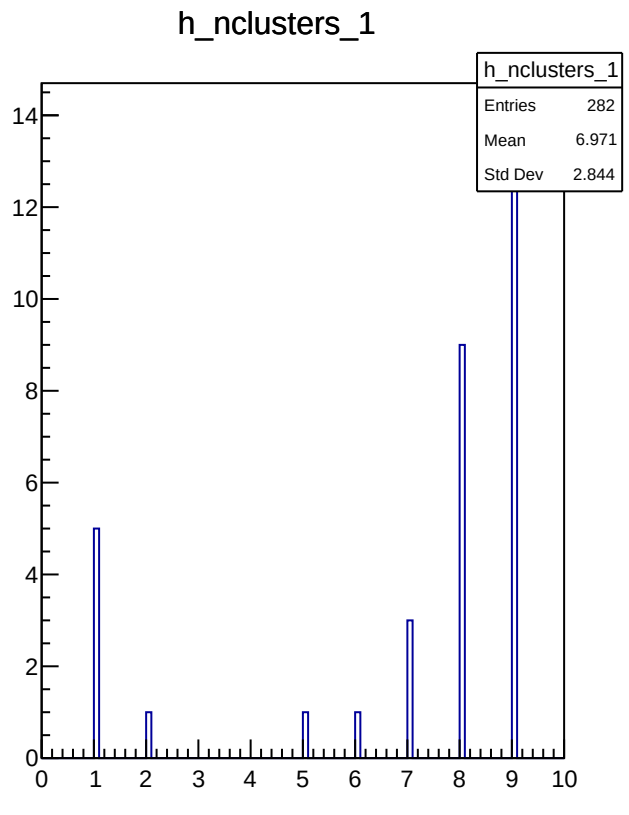

h_eratio_test
h_eratio_test
Entries 102452
Mean 0.05762
Std Dev 0.07468

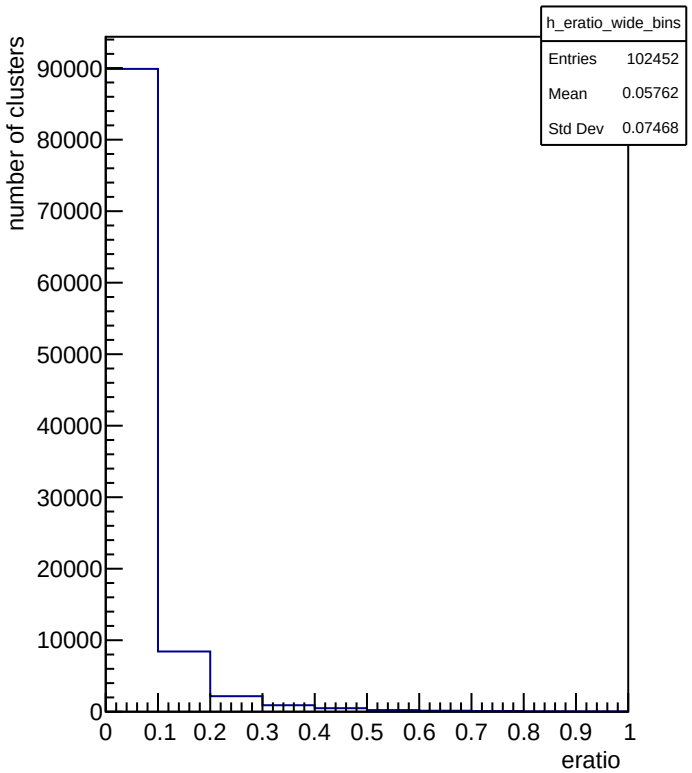

h_eratio_test1
h_eratio_test1
Entries 11867
Mean 0.1735
Std Dev 0.1501

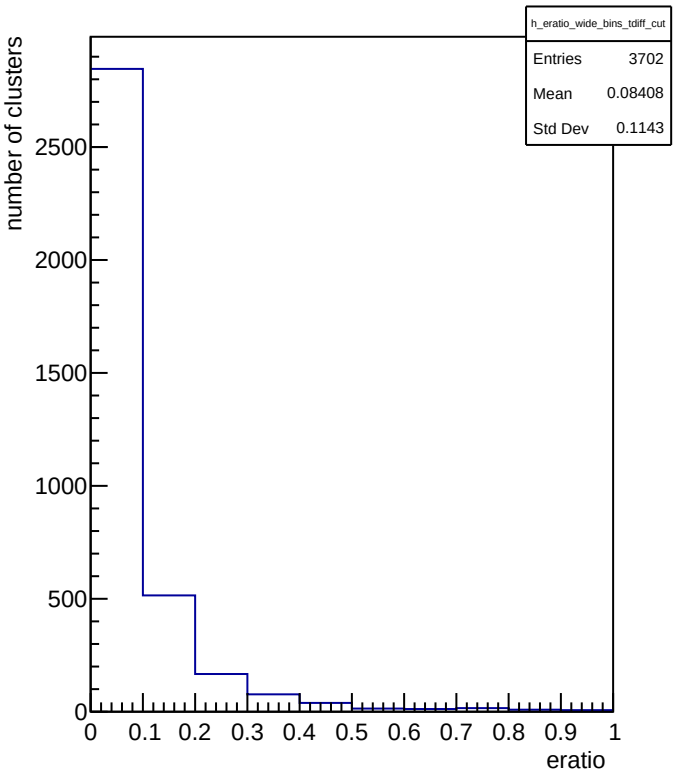

h_nclusters
h_nclusters
Entries 294
Mean 6.844
Std Dev 2.884

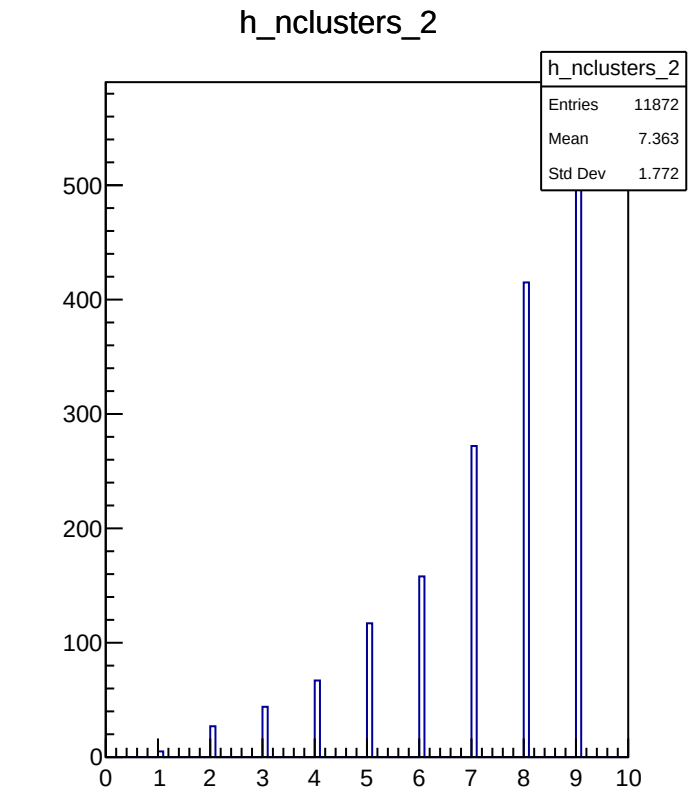

distance from the primary cluster to the secondaries (QE + tdiff cut)
hdist
Entries 3702
Mean 1.19
Std Dev 0.7203
dist (m)

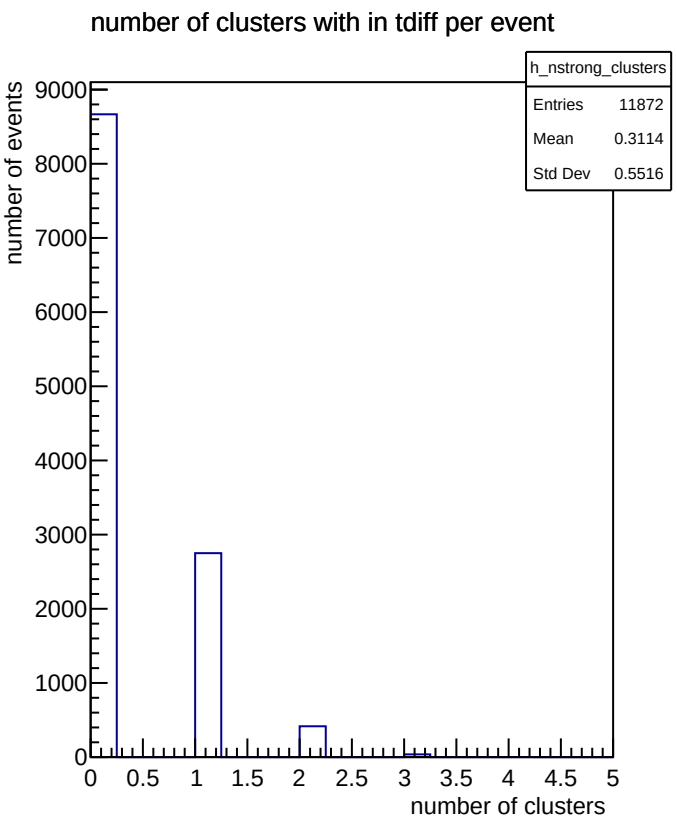

secondary cluster energy vs distance from the primary cluster (QE + tdiff cut)
h_energyvsdist
Entries 3702
Mean x 1.19
Mean y 0.04003
Std Dev x 0.7206
Std Dev y 0.04907
energy(GeV)
dist(m)

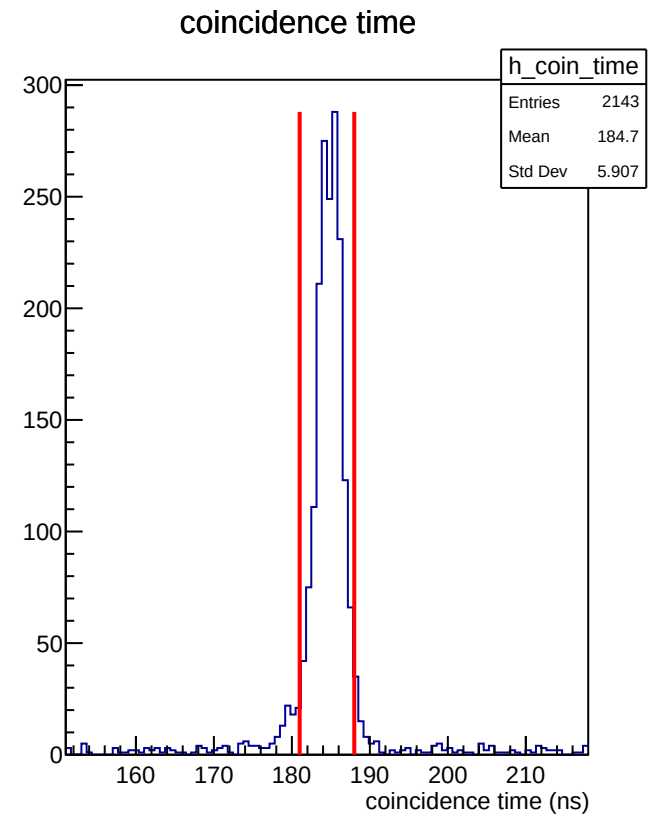

h_nclusters_1
h_nclusters_1
Entries 282
Mean 6.971
Std Dev 2.844

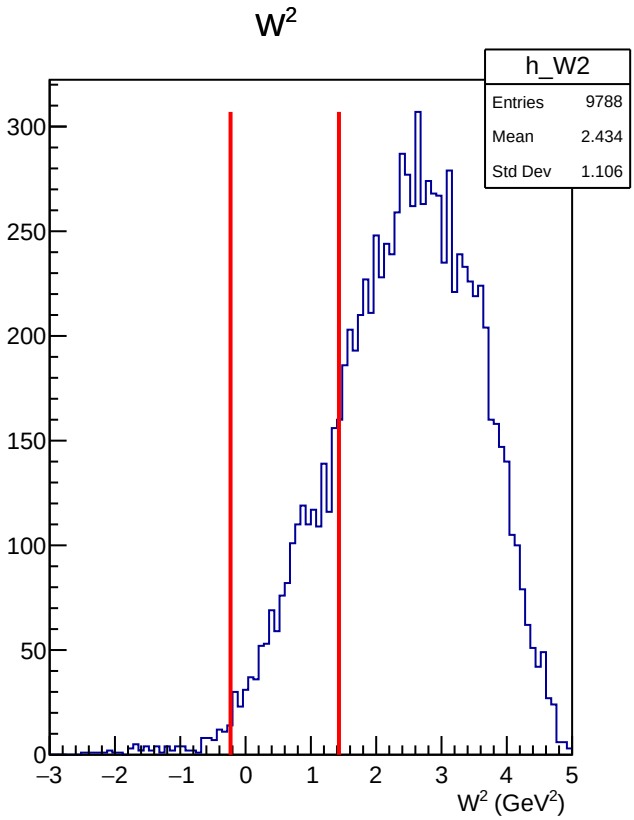

eratio distribution
h_eratio_wide_bins
Entries 102452
Mean 0.05762
Std Dev 0.07468
number of clusters
eratio

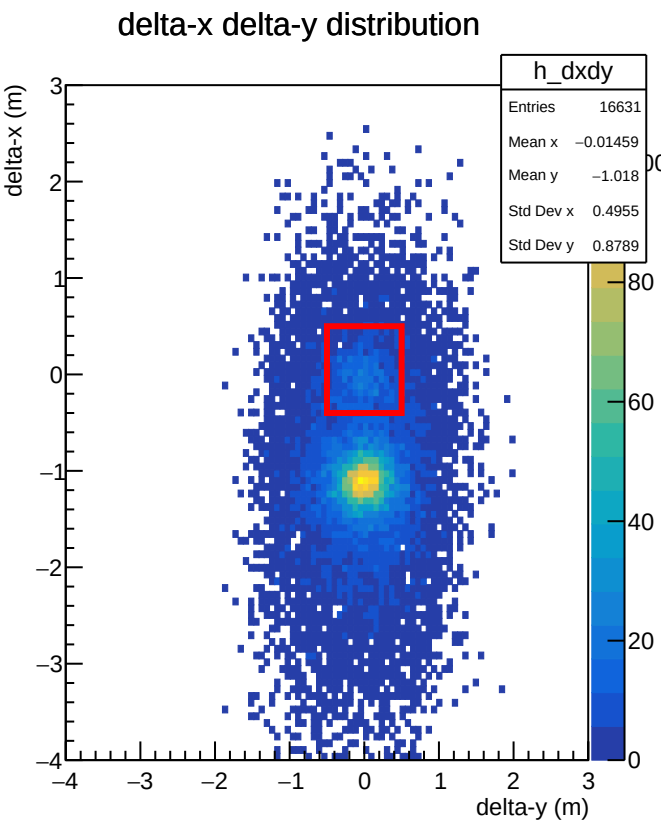

eratio distribution with a tdiff cut
h_eratio_wide_bins_tdiff_cut
Entries 3702
Mean 0.08408
Std Dev 0.1143
number of clusters
eratio


h_nclusters_2
h_nclusters_2
Entries 11872
Mean 7.363
Std Dev 1.772

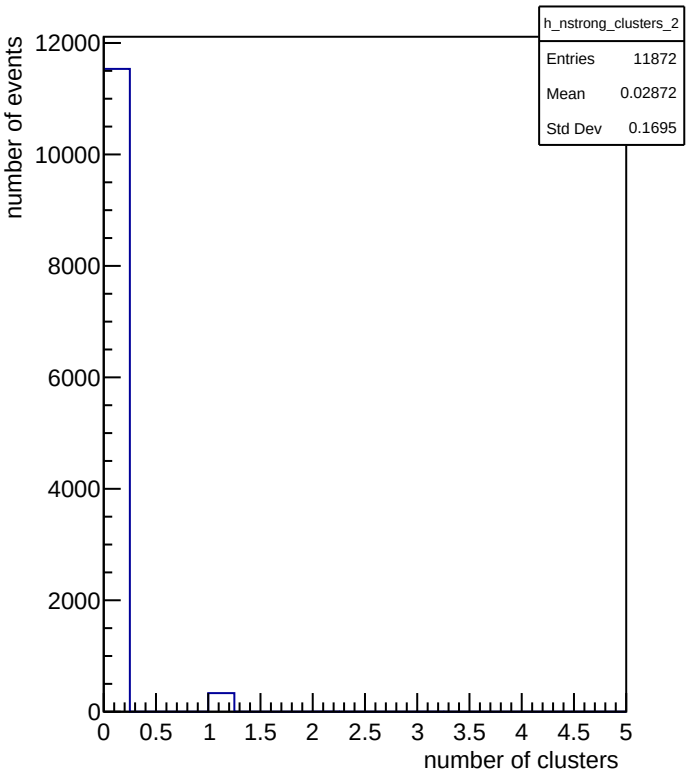

number of clusters with in tdiff per event
h_nstrong_clusters
Entries 11872
Mean 0.3114
Std Dev 0.5516
number of events
number of clusters


coincidence time
h_coin_time
Entries 2143
Mean 184.7
Std Dev 5.907
300
250
200
150
100
50
0
160
170
180
190
200
210
coincidence time (ns)

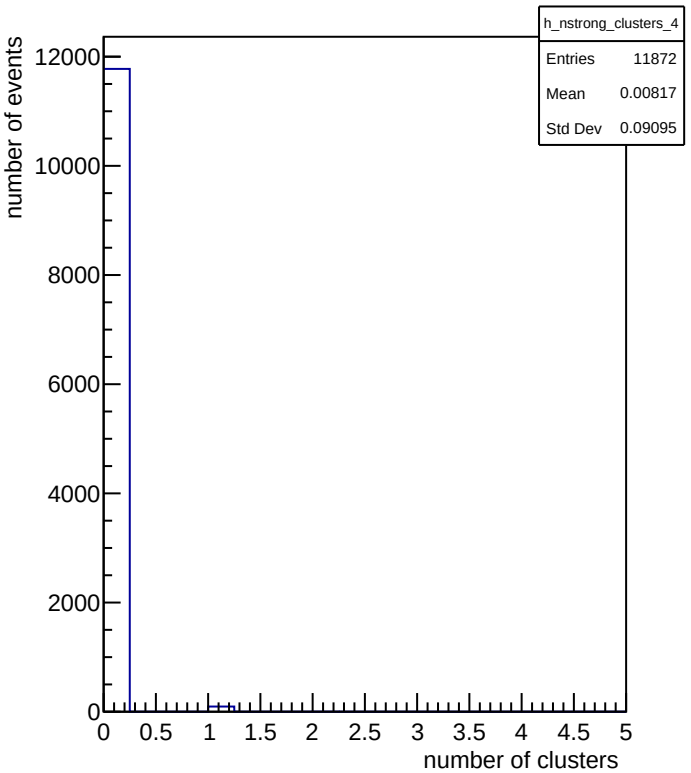

W2
h_W2
Entries 9788
Mean 2.434
Std Dev 1.106
300
250
200
150
100
50
0
−3
−2
−1
0
1
2
3
4
5
W2 (GeV2)


delta-x delta-y distribution
h_dxdy
Entries 16631
Mean x −0.01459
Mean y −1.018
Std Dev x 0.4955
Std Dev y 0.8789
delta-x (m)
delta-y (m)
80
60
40
20
0

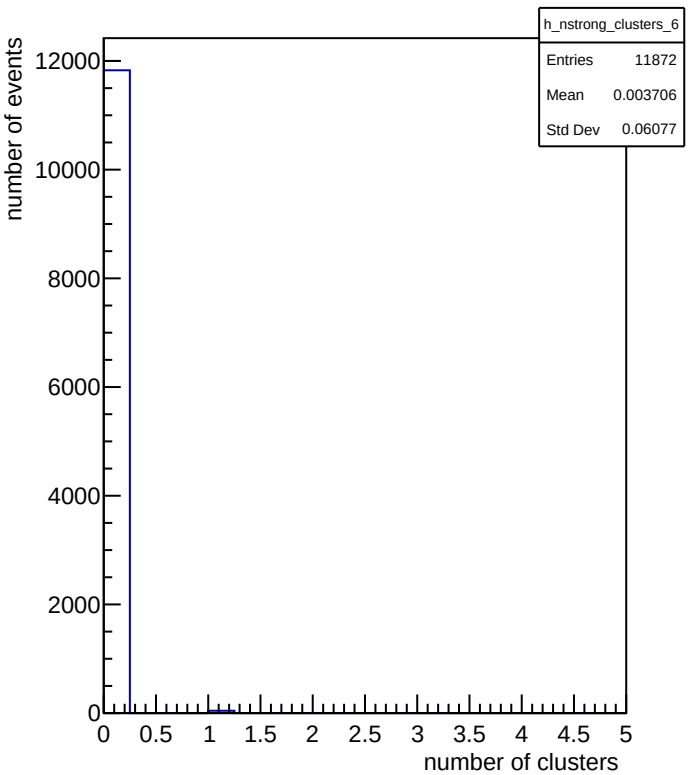
number of clusters with in tdiff with eratio>0.2 per event



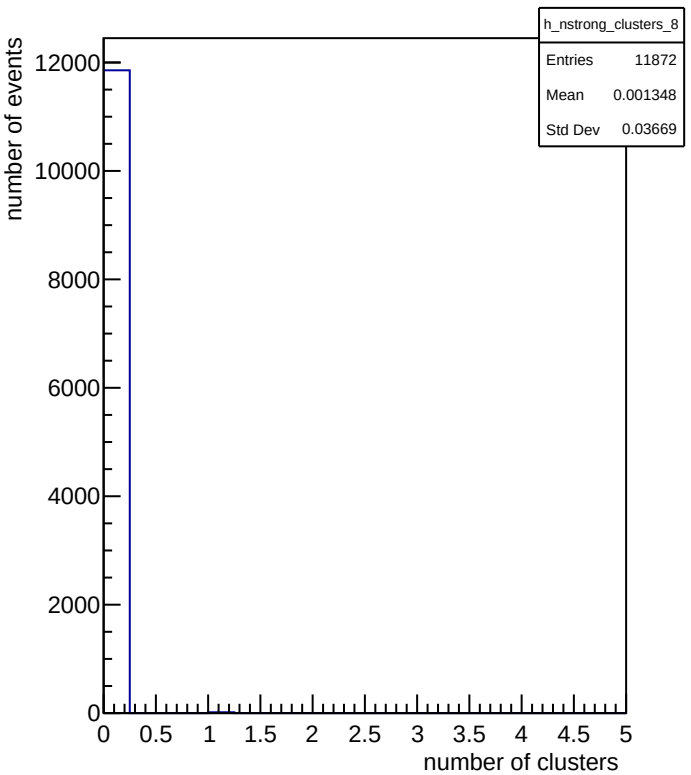
number of clusters with in tdiff with eratio>0.4 per event

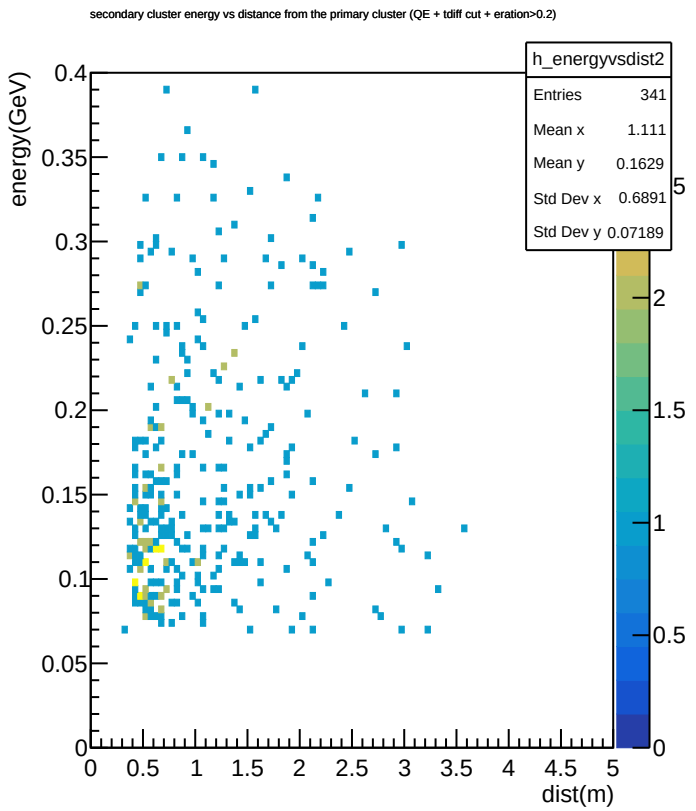


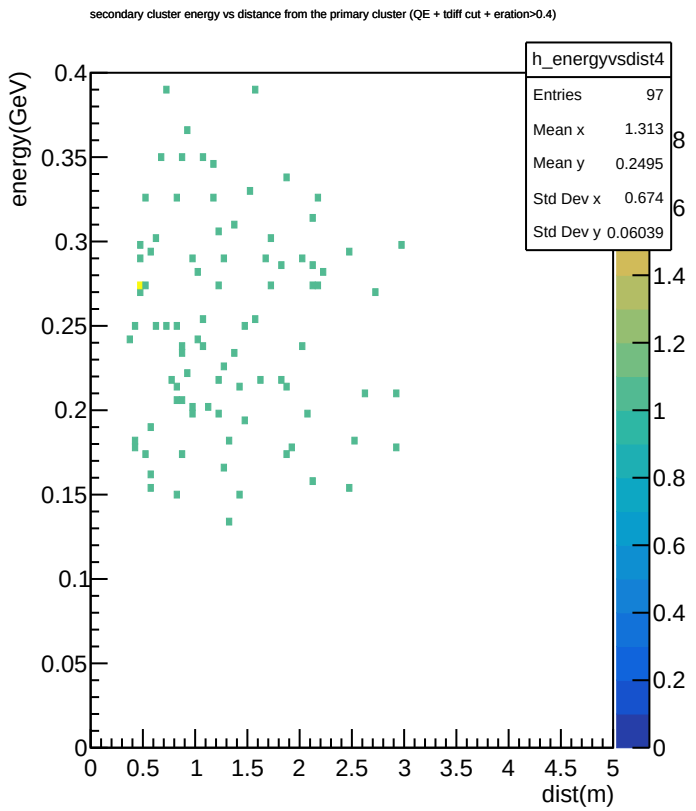
number of clusters with in tdiff with eratio>0.6 per event

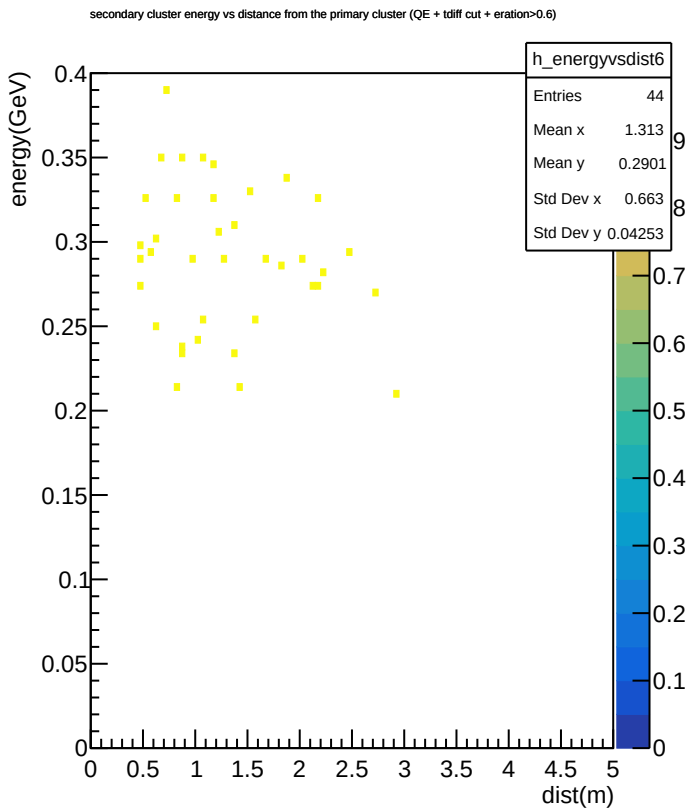


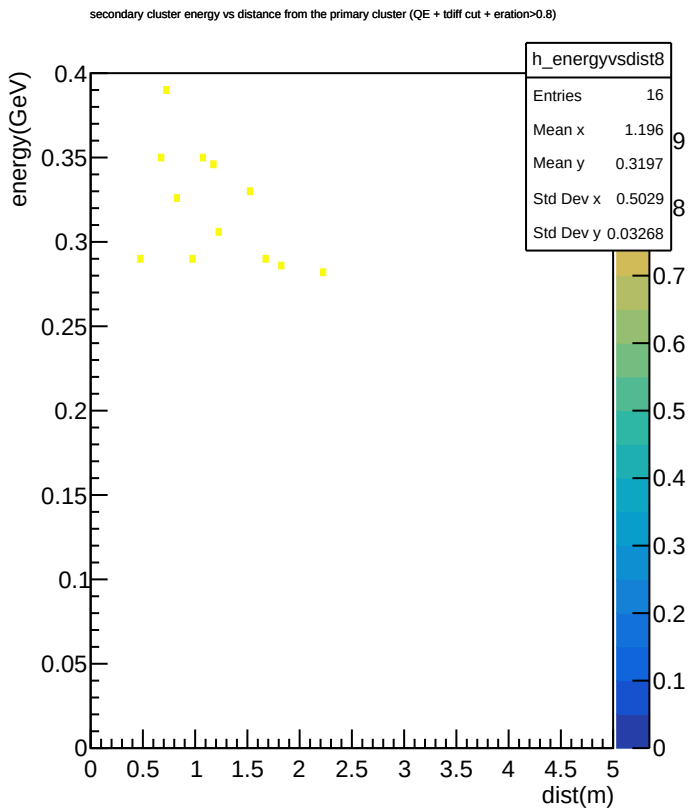
number of clusters with in tdiff with eratio>0.8 per event



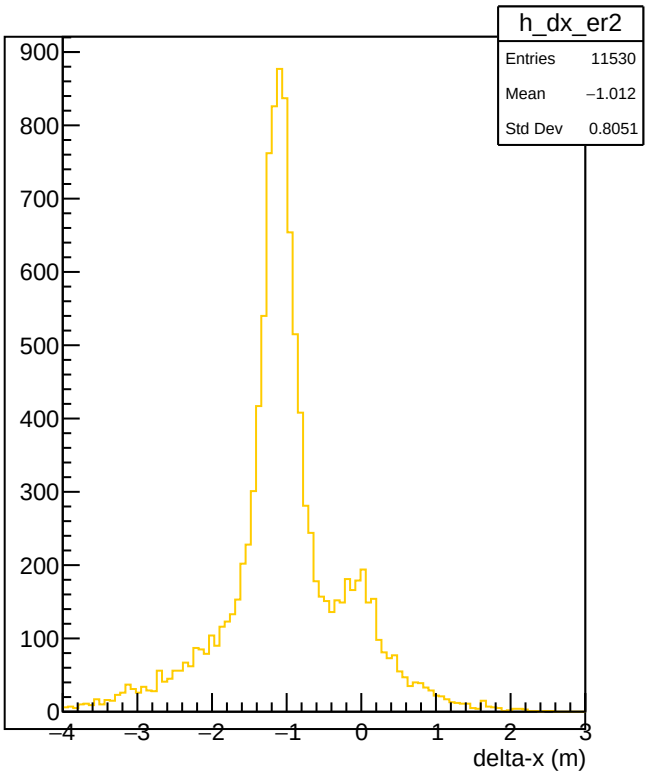

secondary cluster energy vs distance from the primary cluster (QE + tdiff cut + eration>0.2)
h_energyvsdist2
Entries 341
Mean x 1.111
Mean y 0.1629
Std Dev x 0.6891
Std Dev y 0.07189
energy(GeV)
dist(m)


secondary cluster energy vs distance from the primary cluster (QE + tdiff cut + eration>0.4)
h_energyvsdist4
Entries 97
Mean x 1.313
Mean y 0.2495
Std Dev x 0.674
Std Dev y 0.06039
energy(GeV)
dist(m)

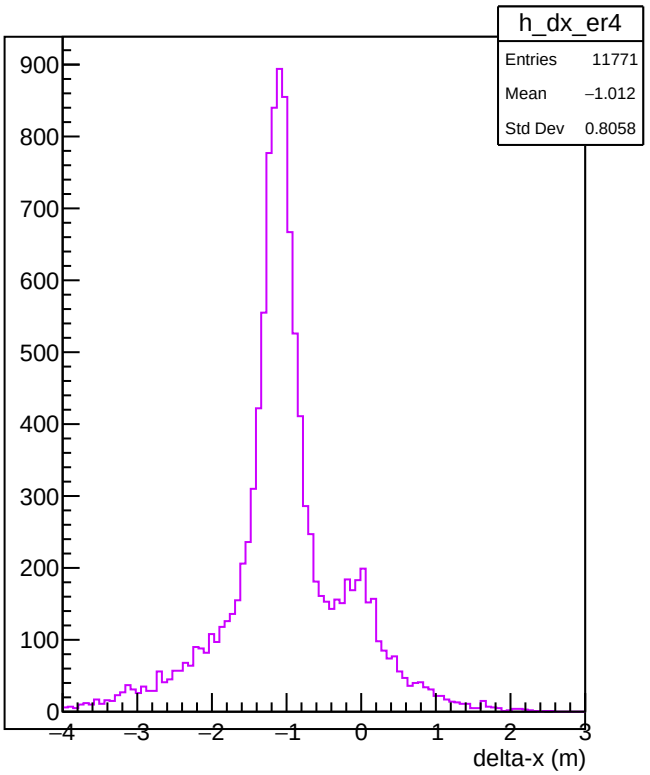

secondary cluster energy vs distance from the primary cluster (QE + tdiff cut + eration>0.6)
h_energyvsdist6
Entries 44
Mean x 1.313
Mean y 0.2901
Std Dev x 0.663
Std Dev y 0.04253
energy(GeV)
dist(m)


secondary cluster energy vs distance from the primary cluster (QE + tdiff cut + eration>0.8)
h_energyvsdist8
Entries 16
Mean x 1.196
Mean y 0.3197
Std Dev x 0.5029
Std Dev y 0.03268
energy(GeV)
dist(m)

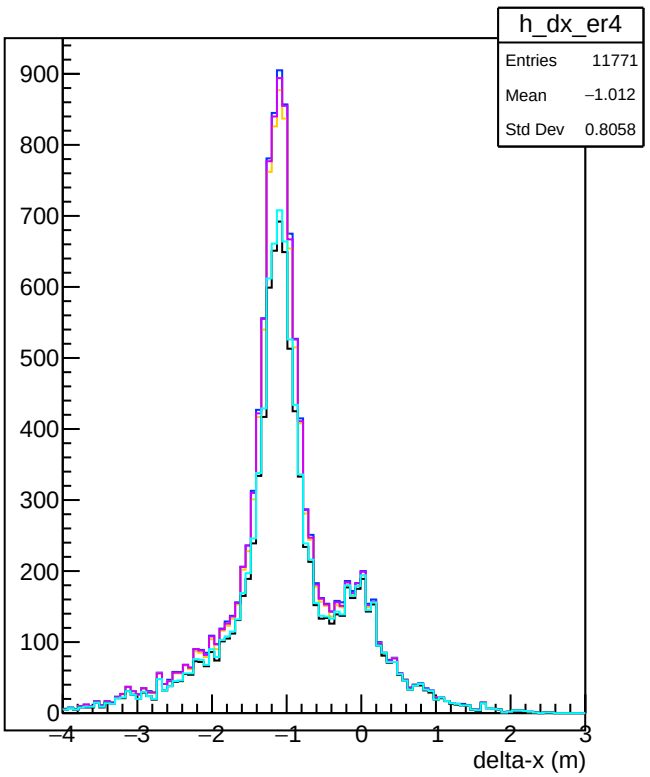
delta-x distribution for eratio<0.2 with other QE cuts



delta-x distribution for eratio<0.4 with other QE cuts



delta-x distribution with QE cuts

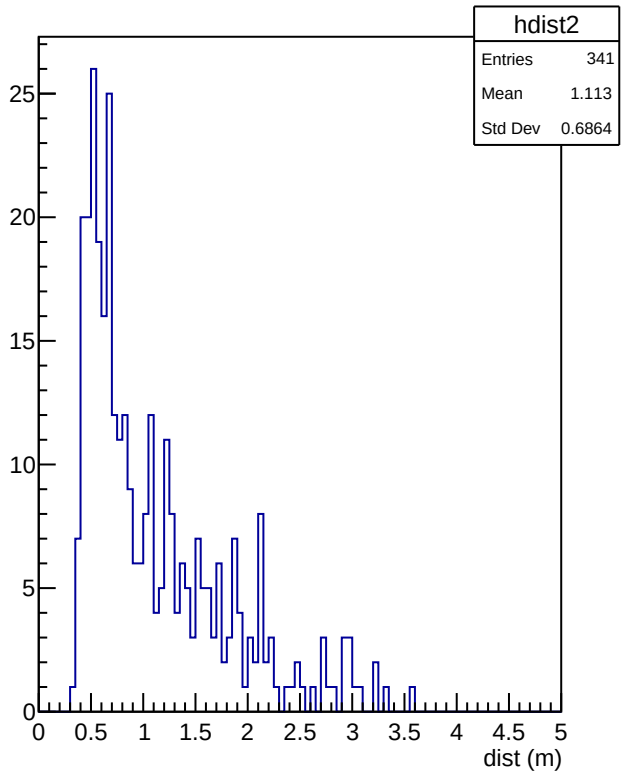


primary clusters

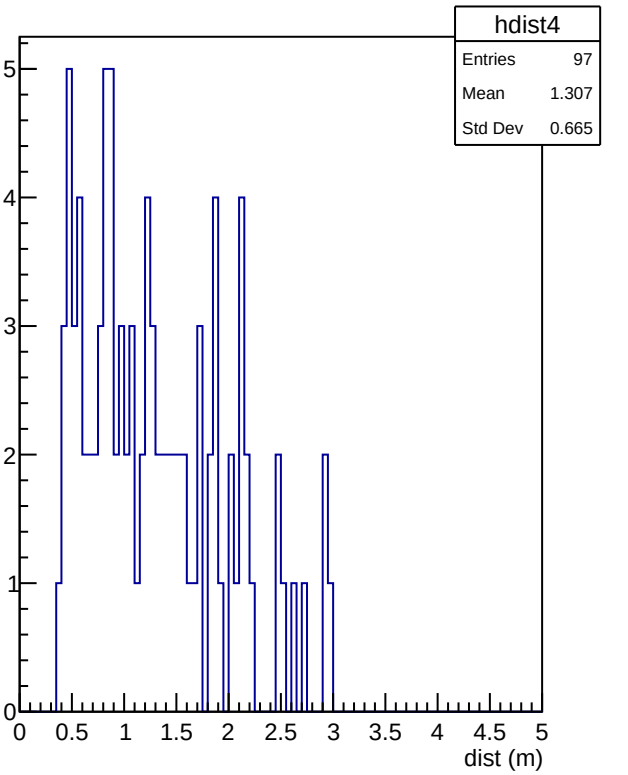
$E_{sec}/E_{prim} > 0.2$

$E_{sec}/E_{prim} > 0.4$

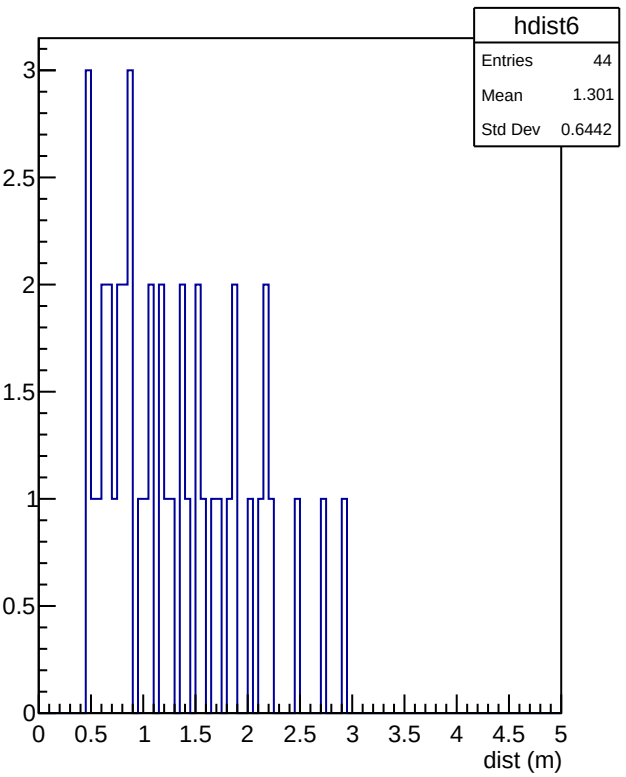
distance from the primary cluster to the secondaries (QE + tdiff cut + eration>0.2)



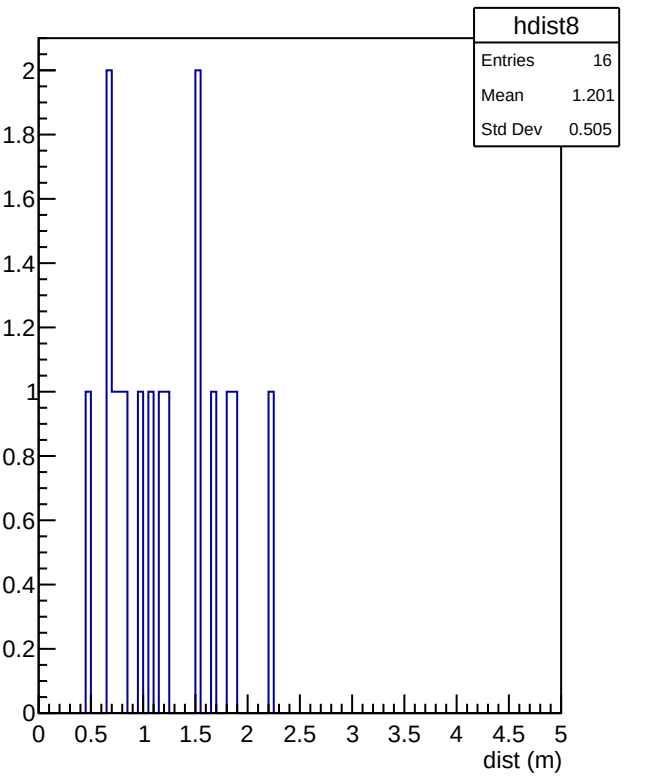
distance from the primary cluster to the secondaries (QE + tdiff cut + eration>0.4)

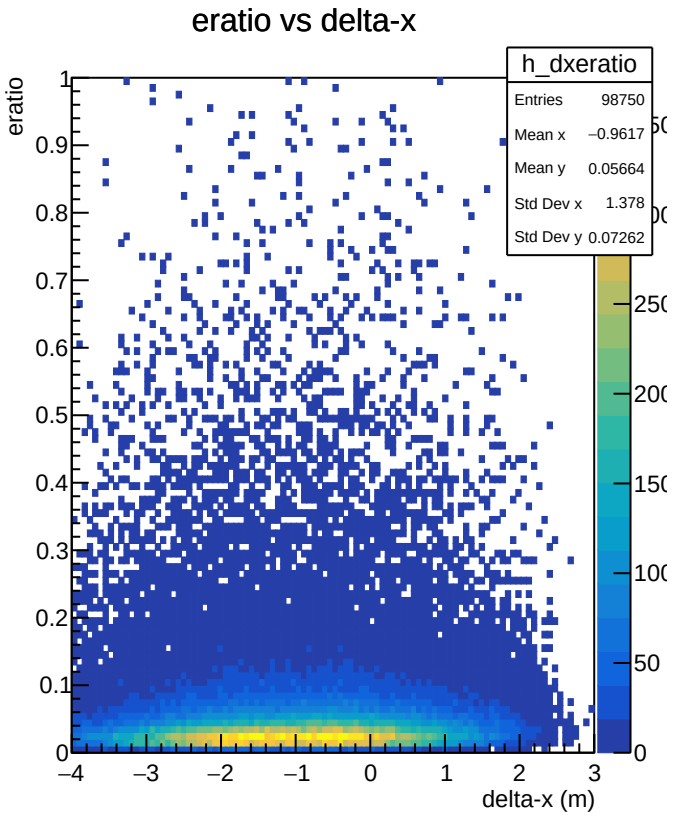


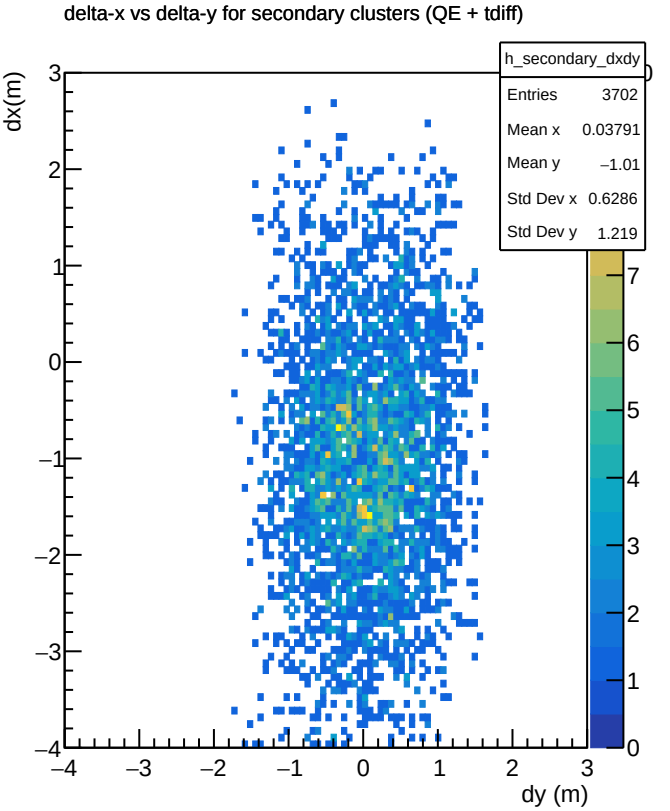
distance from the primary cluster to the secondaries (QE + tdiff cut + eration>0.6)

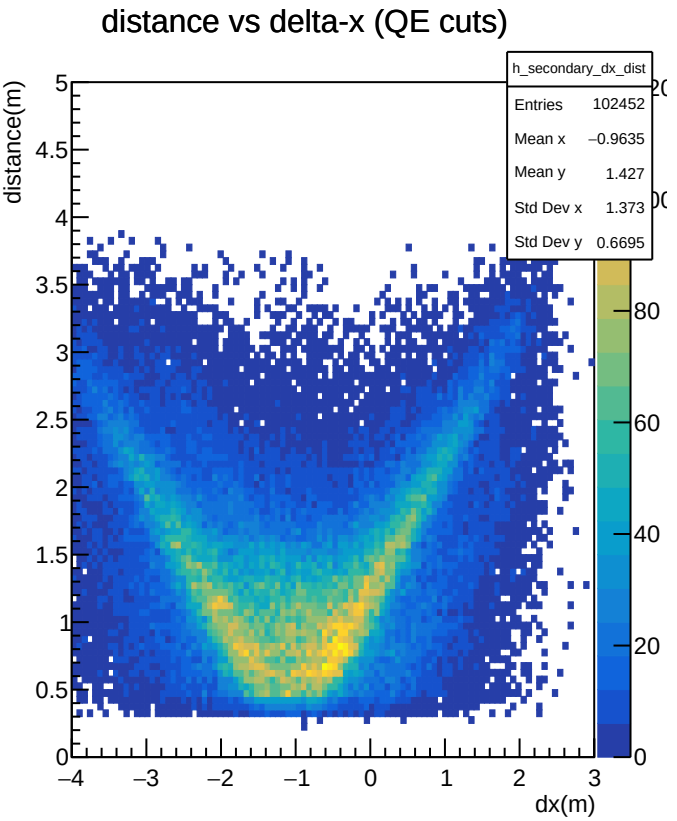


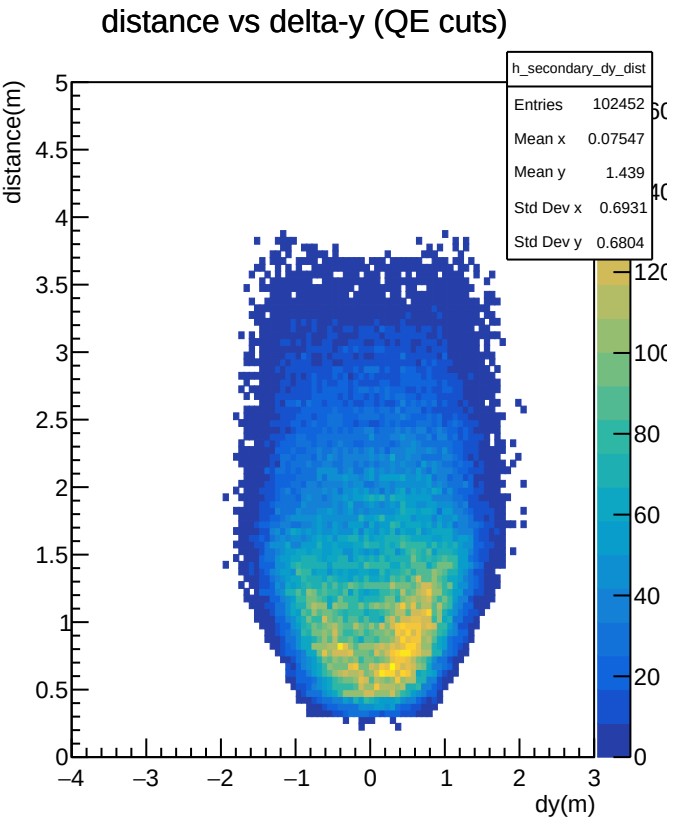
distance from the primary cluster to the secondaries (QE + tdiff cut + eration>0.8)

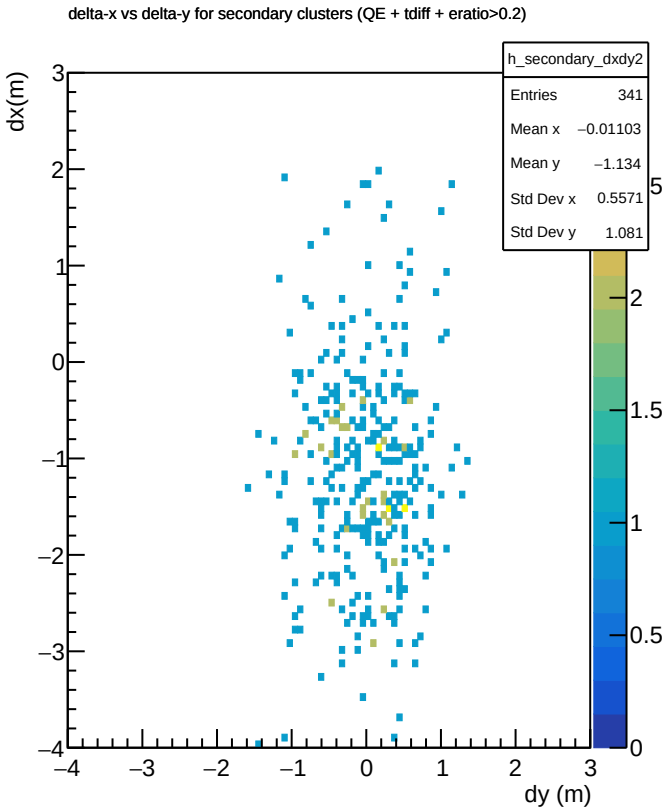


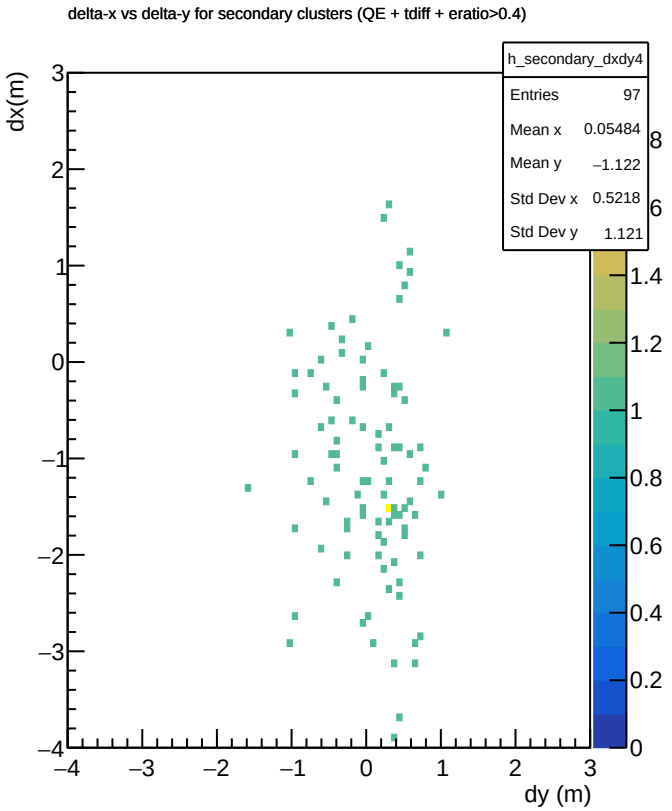

eratio vs delta-x
h_dxeratio
Entries 98750
Mean x −0.9617
Mean y 0.05664
Std Dev x 1.378
Std Dev y 0.07262
eratio
delta-x (m)

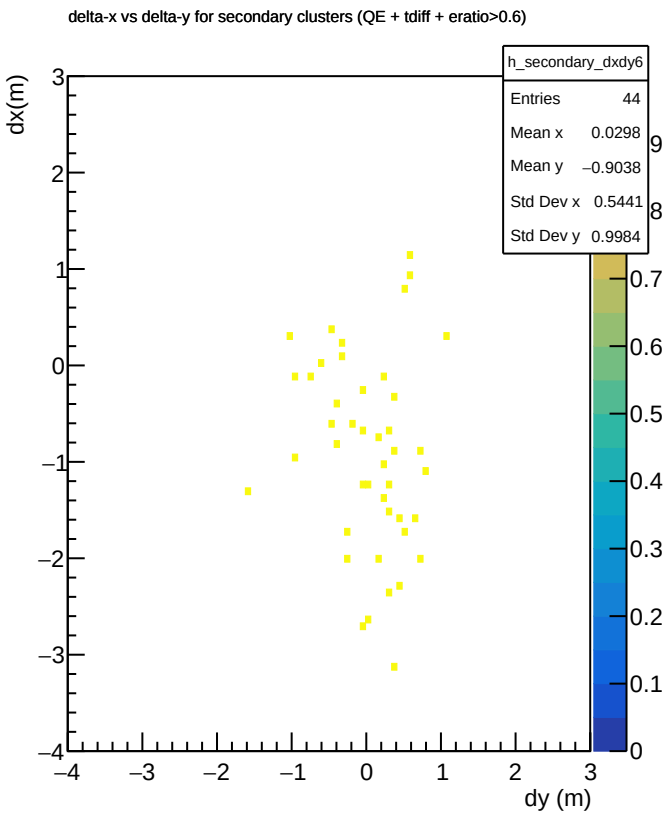

delta-x vs delta-y for secondary clusters (QE + tdiff)
h_secondary_dxdy
Entries 3702
Mean x 0.03791
Mean y −1.01
Std Dev x 0.6286
Std Dev y 1.219
dx(m)
dy (m)

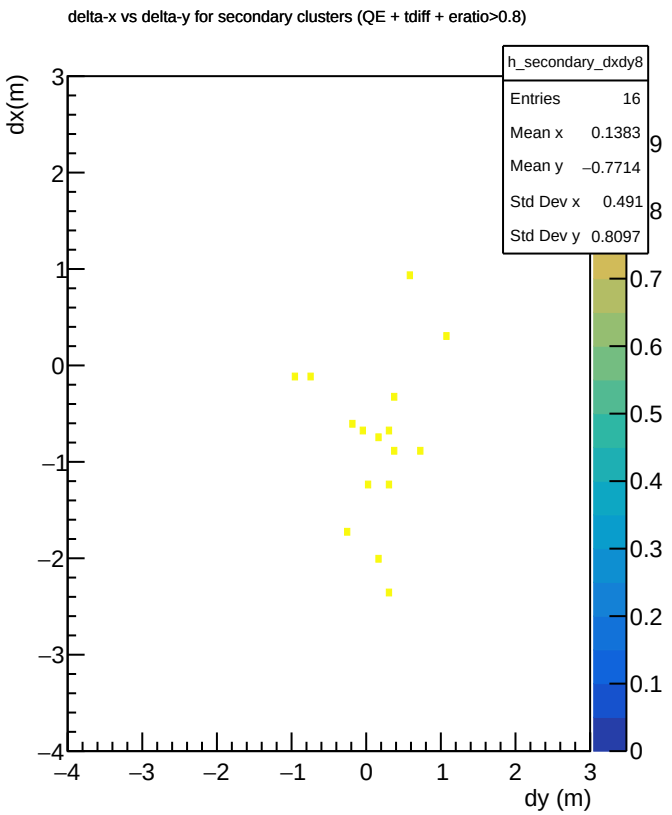

distance vs delta-x (QE cuts)
h_secondary_dx_dist
Entries 102452
Mean x −0.9635
Mean y 1.427
Std Dev x 1.373
Std Dev y 0.6695
distance(m)
dx(m)

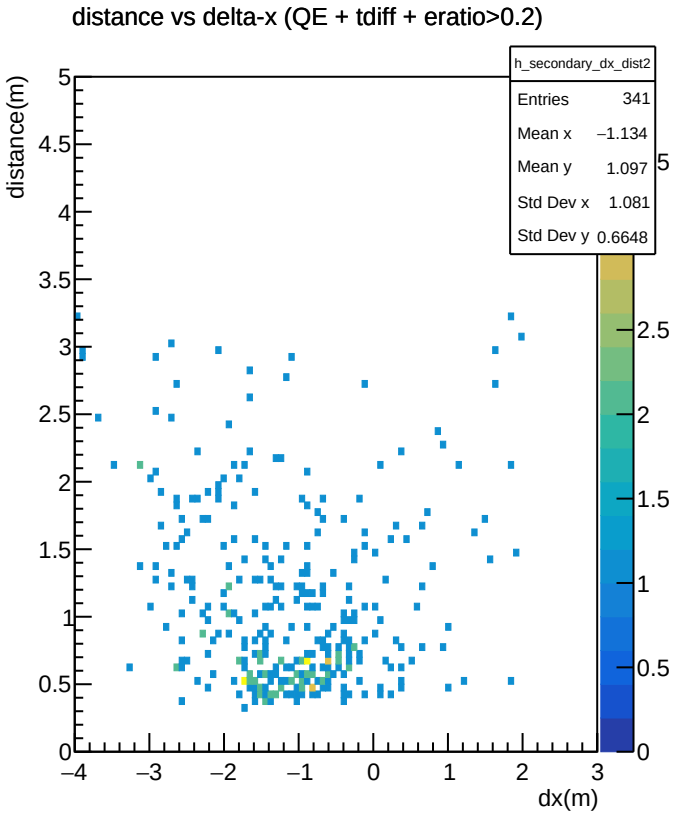

distance vs delta-y (QE cuts)
h_secondary_dy_dist
Entries 102452
Mean x 0.07547
Mean y 1.439
Std Dev x 0.6931
Std Dev y 0.6804
distance(m)
dy(m)

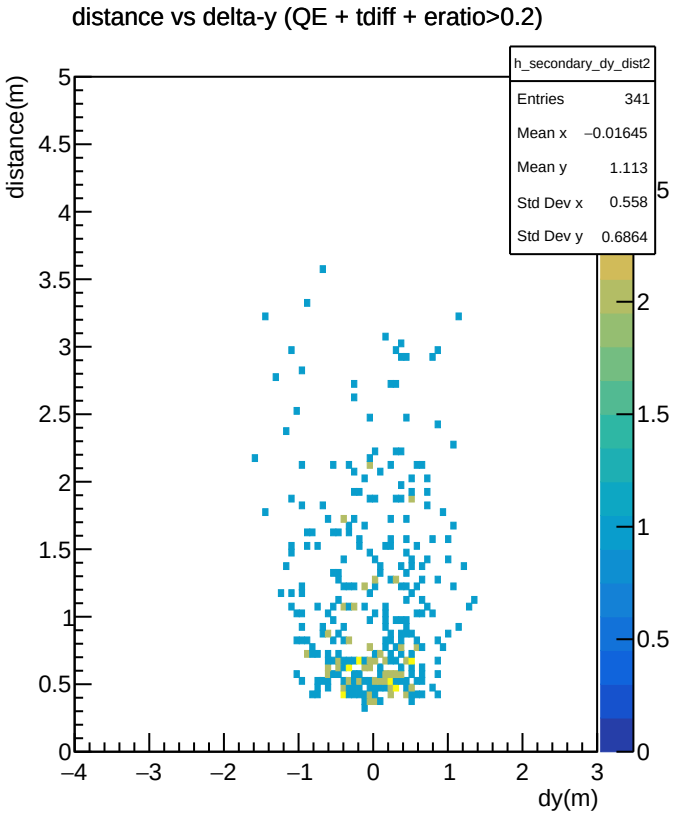

delta-x vs delta-y for secondary clusters (QE + tdiff + eratio>0.2)
h_secondary_dxdy2
Entries 341
Mean x −0.01103
Mean y −1.134
Std Dev x 0.5571
Std Dev y 1.081
dx(m)
dy (m)

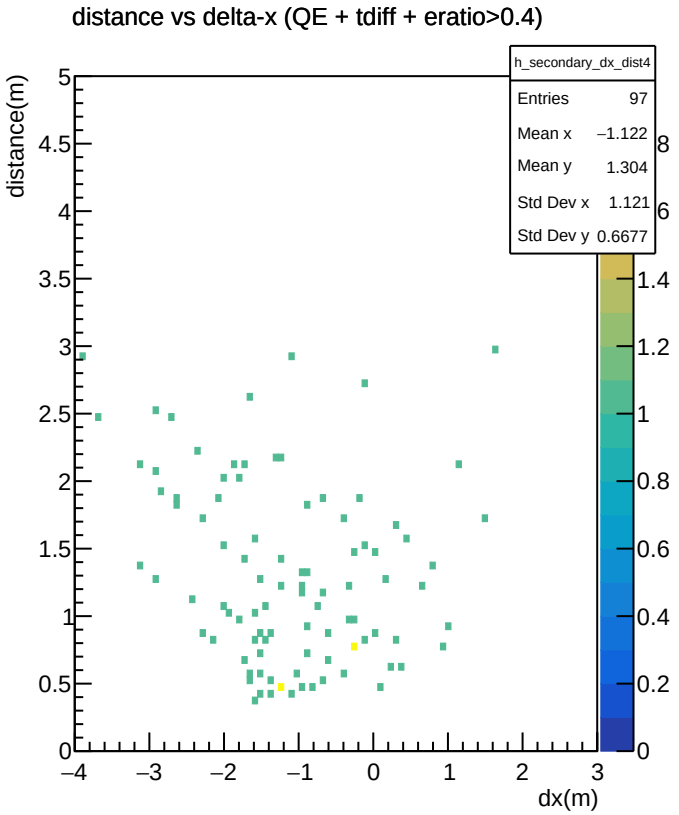

delta-x vs delta-y for secondary clusters (QE + tdiff + eratio>0.4)
h_secondary_dxdy4
Entries 97
Mean x 0.05484
Mean y −1.122
Std Dev x 0.5218
Std Dev y 1.121
dx(m)
dy (m)

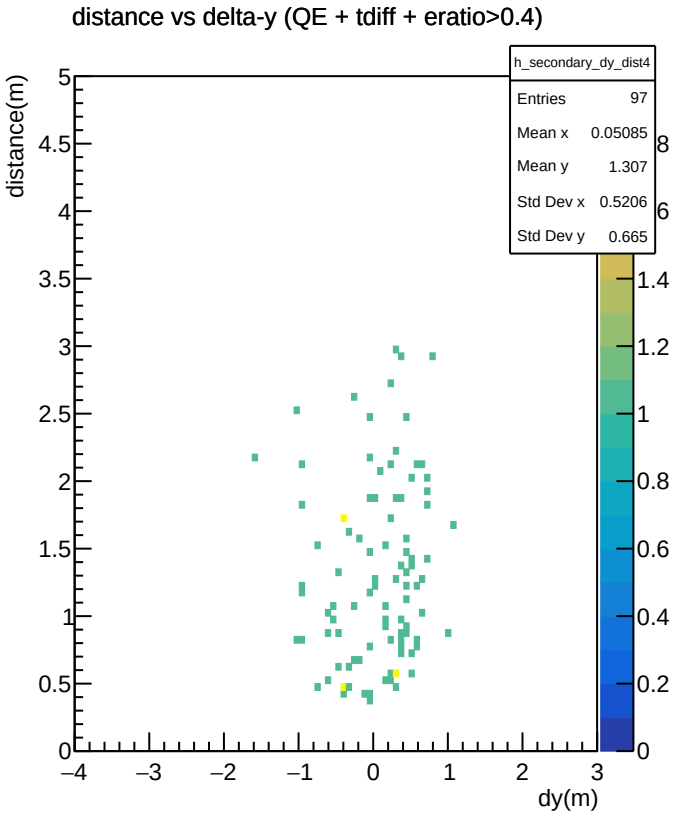

delta-x vs delta-y for secondary clusters (QE + tdiff + eratio>0.6)
h_secondary_dxdy6
Entries 44
Mean x 0.0298
Mean y −0.9038
Std Dev x 0.5441
Std Dev y 0.9984
dx(m)
dy (m)

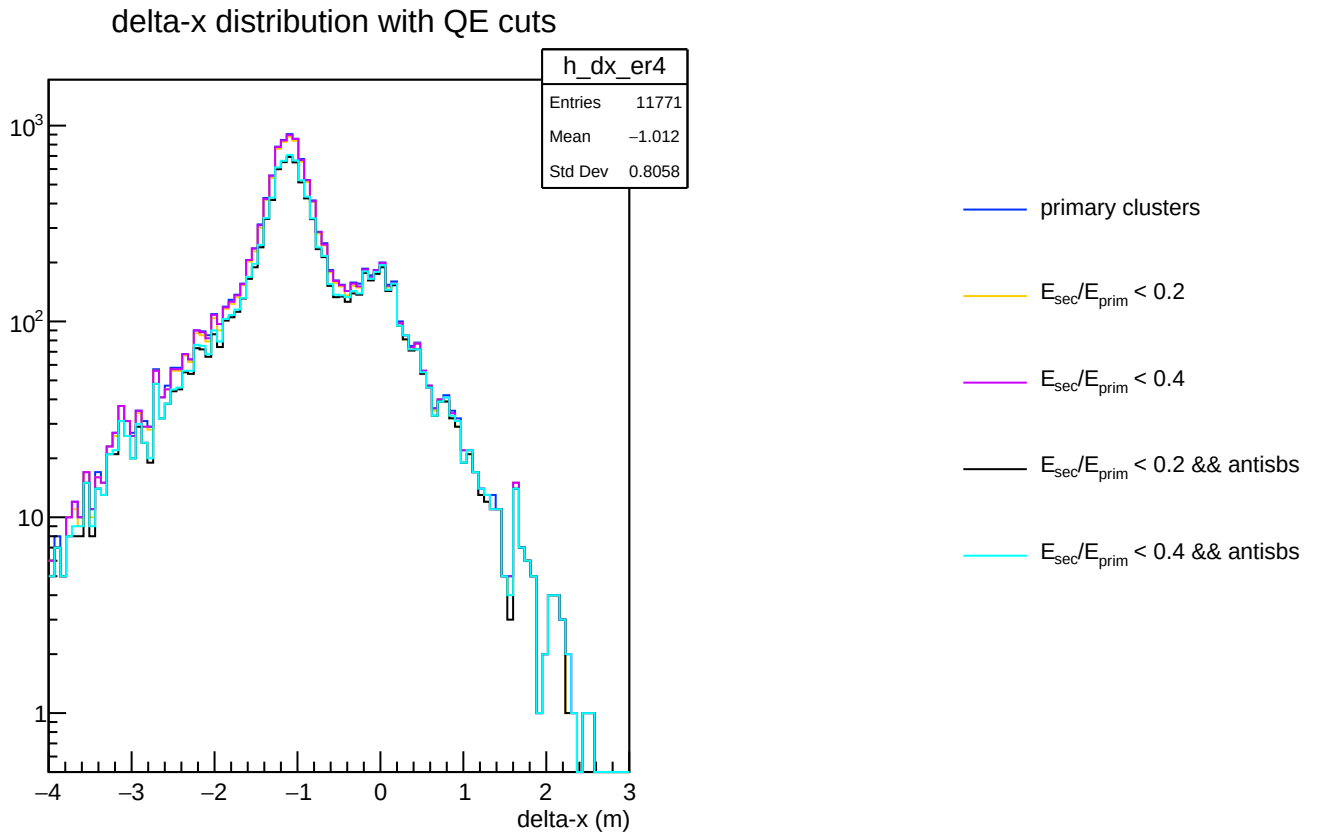

delta-x vs delta-y for secondary clusters (QE + tdiff + eratio>0.8)
h_secondary_dxdy8
Entries 16
Mean x 0.1383
Mean y −0.7714
Std Dev x 0.491
Std Dev y 0.8097
dx(m)
dy (m)


distance vs delta-x (QE + tdiff + eratio>0.2)
h_secondary_dx_dist2
Entries 341
Mean x −1.134
Mean y 1.097
Std Dev x 1.081
Std Dev y 0.6648
distance(m)
dx(m)


distance vs delta-y (QE + tdiff + eratio>0.2)
h_secondary_dy_dist2
Entries 341
Mean x −0.01645
Mean y 1.113
Std Dev x 0.558
Std Dev y 0.6864
distance(m)
dy(m)


distance vs delta-x (QE + tdiff + eratio>0.4)
h_secondary_dx_dist4
Entries 97
Mean x −1.122
Mean y 1.304
Std Dev x 1.121
Std Dev y 0.6677
distance(m)
dx(m)


distance vs delta-y (QE + tdiff + eratio>0.4)
h_secondary_dy_dist4
Entries 97
Mean x 0.05085
Mean y 1.307
Std Dev x 0.5206
Std Dev y 0.665
distance(m)
dy(m)


delta-x distribution with QE cuts
h_dx_er4
Entries 11771
Mean −1.012
Std Dev 0.8058
10^3
10^2
10
1
−4
−3
−2
−1
0
1
2
3
delta-x (m)
primary clusters
$E_{sec}/E_{prim} < 0.2$
$E_{sec}/E_{prim} < 0.4$
$E_{sec}/E_{prim} < 0.2$ && antisbs
$E_{sec}/E_{prim} < 0.4$ && antisbs