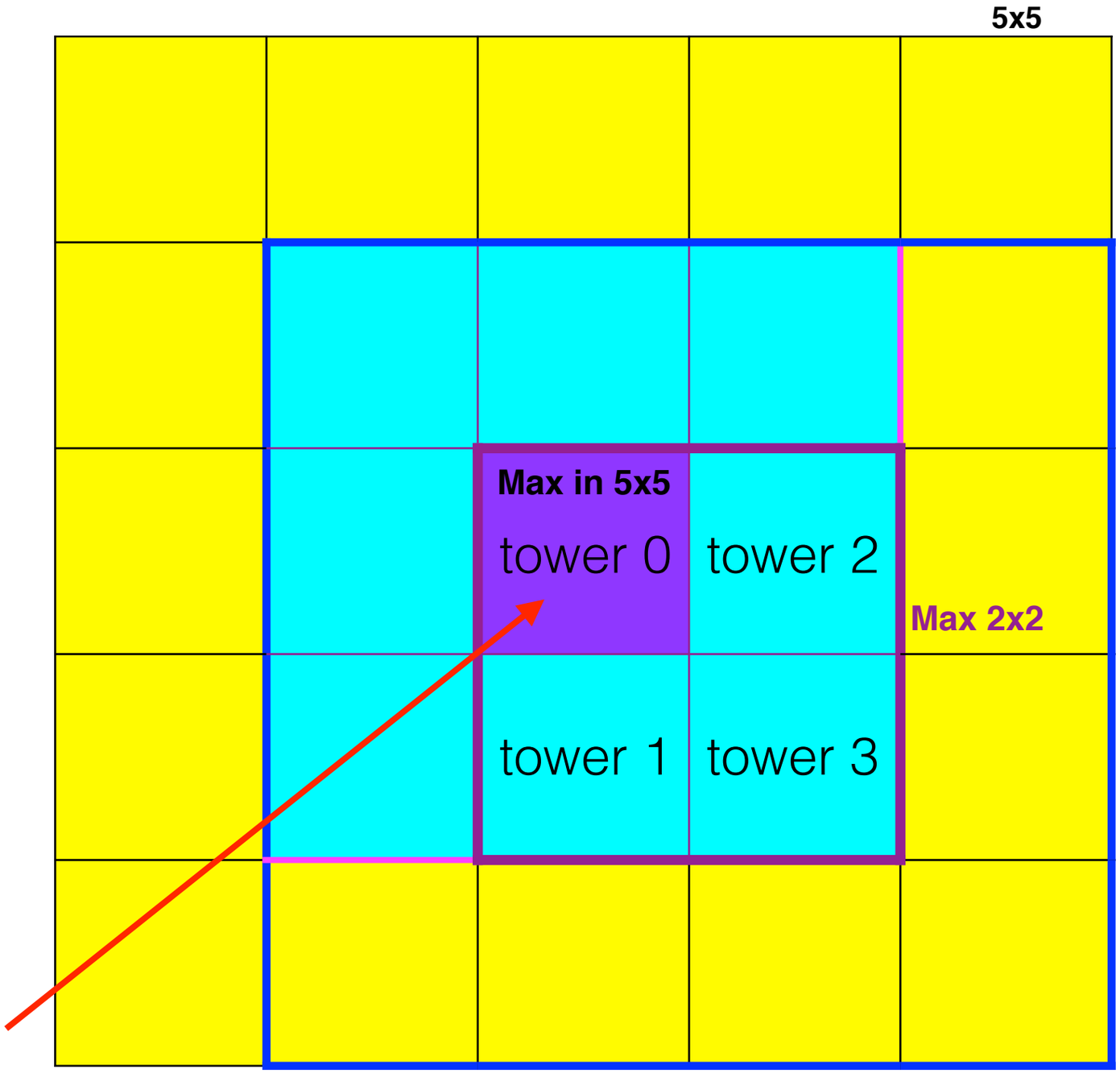
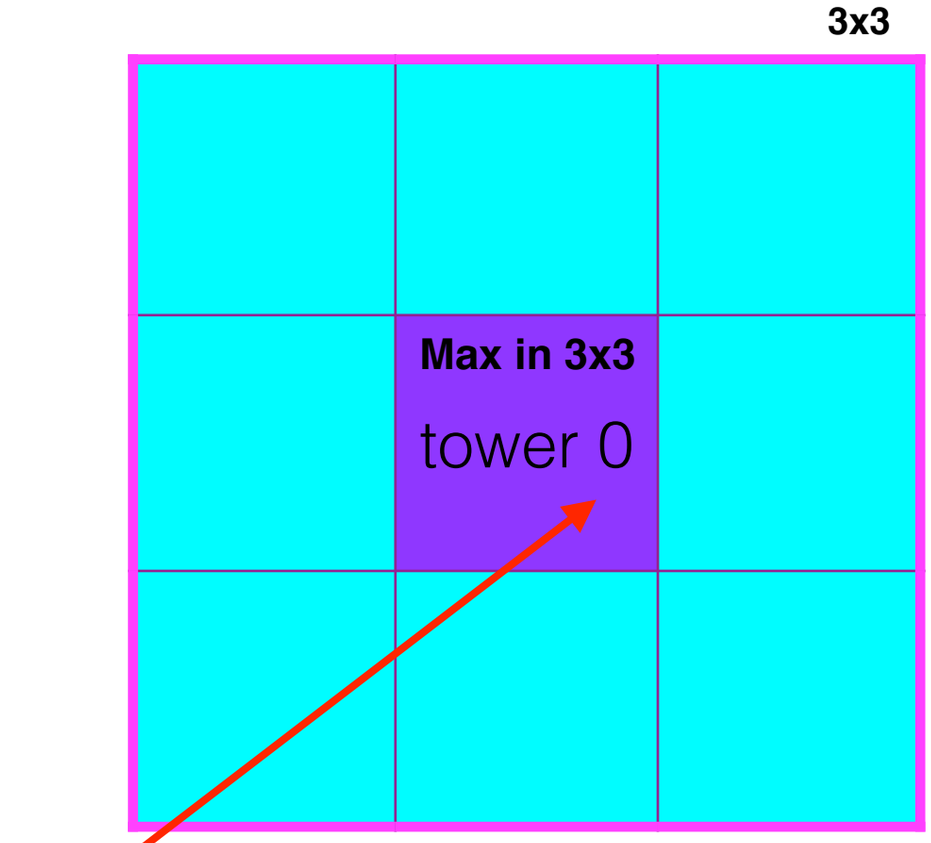
2x2 Cluster Energy Method

Cluster Energy



Isolation Ratio == Max 2x2 En / 4x4 En

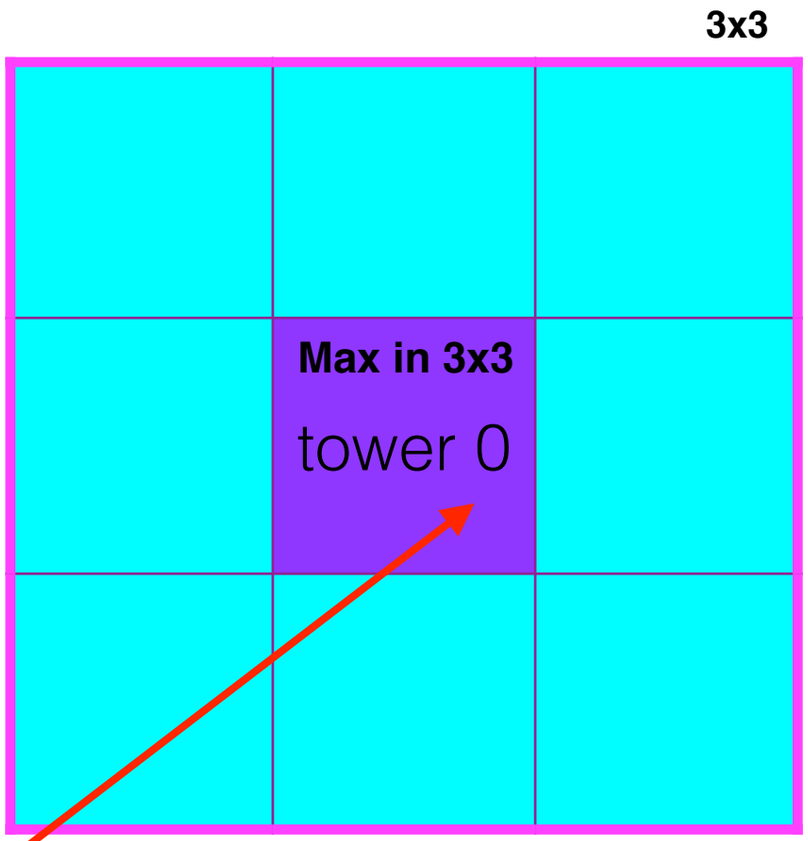
Tower Energy

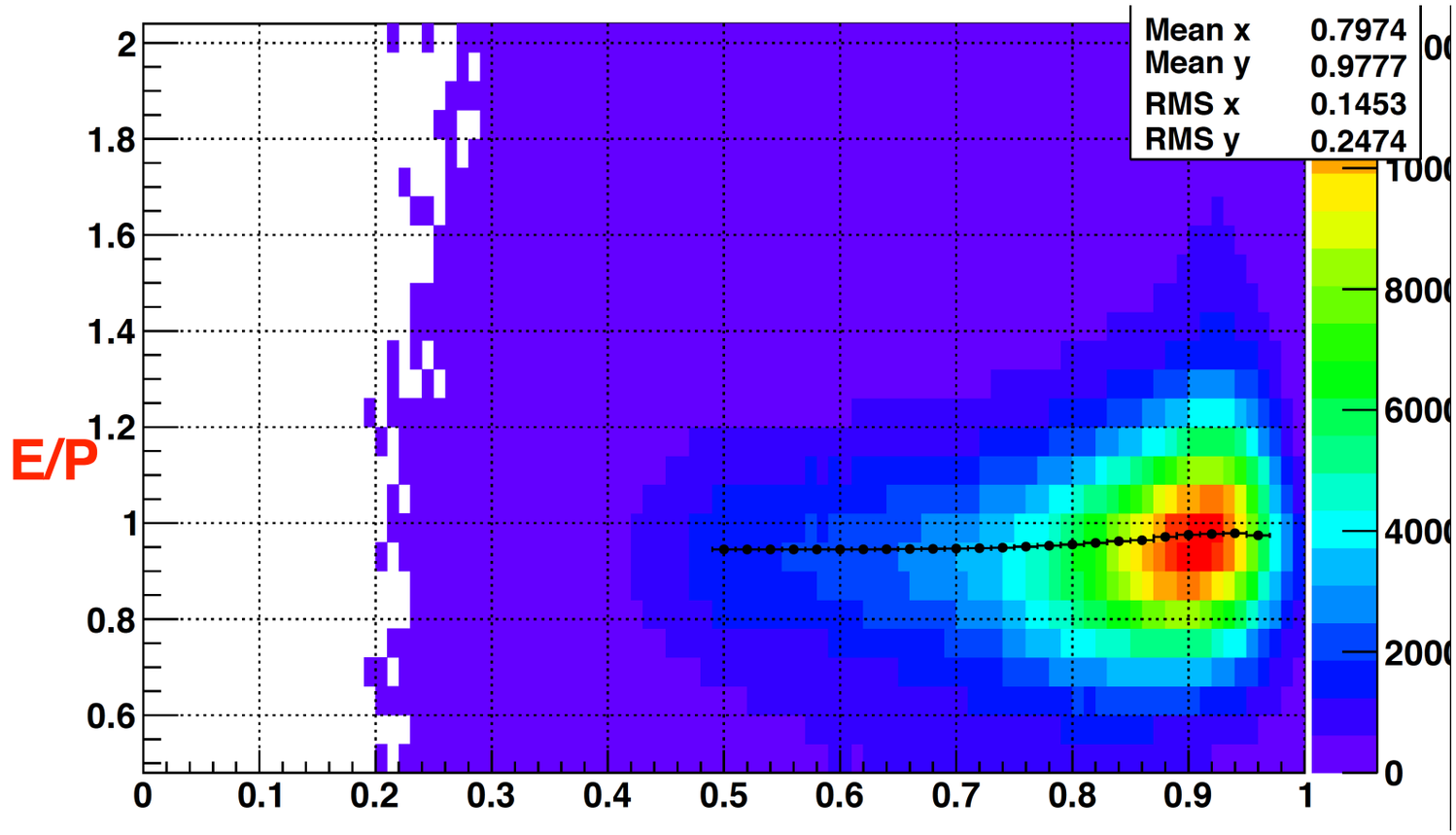


Isolation Ratio == Max towerEn / 3x3 En

E/P = Tower Energy / track P

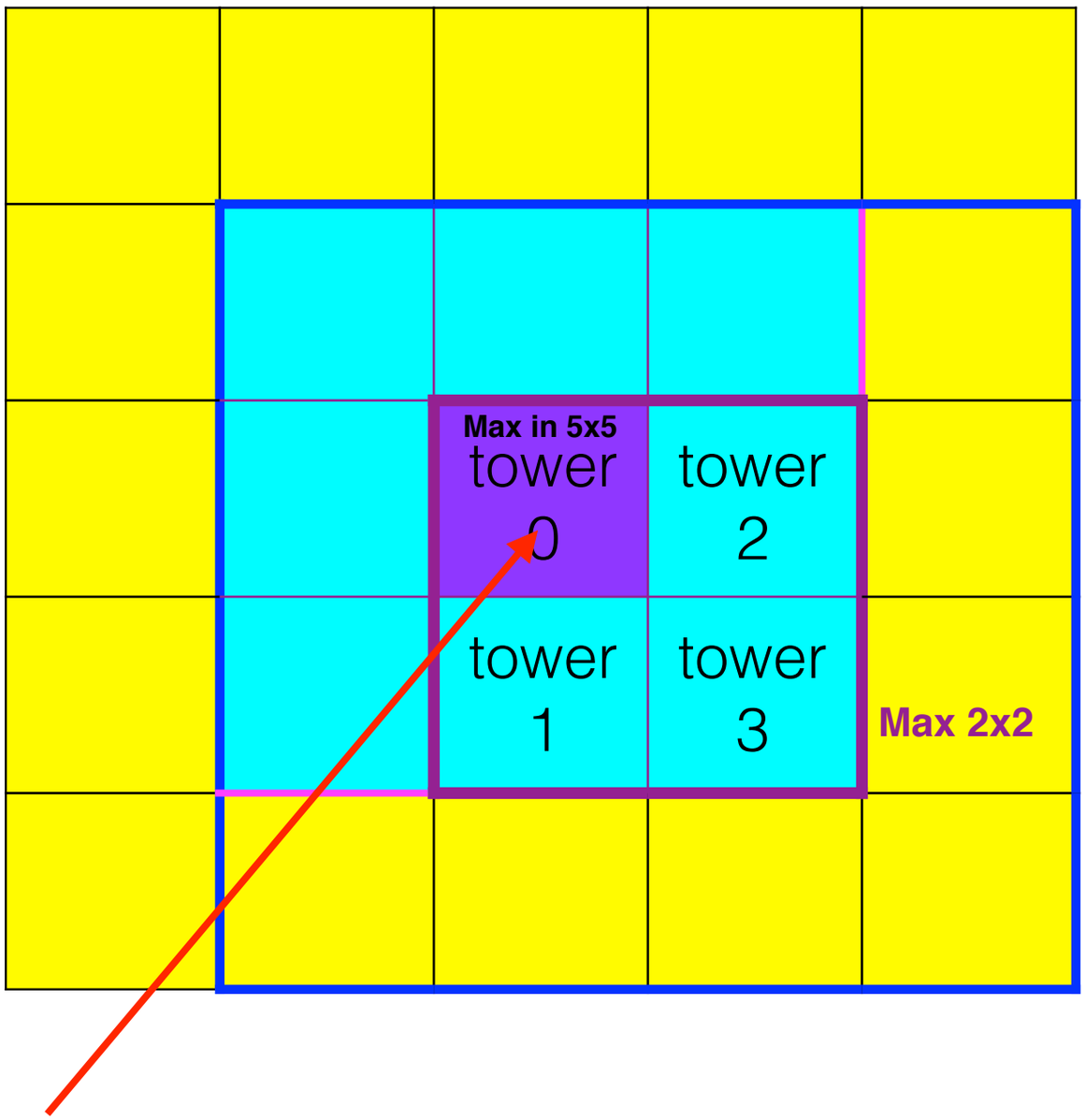
After GEANT energy correction is applied to tower Energy!!!!

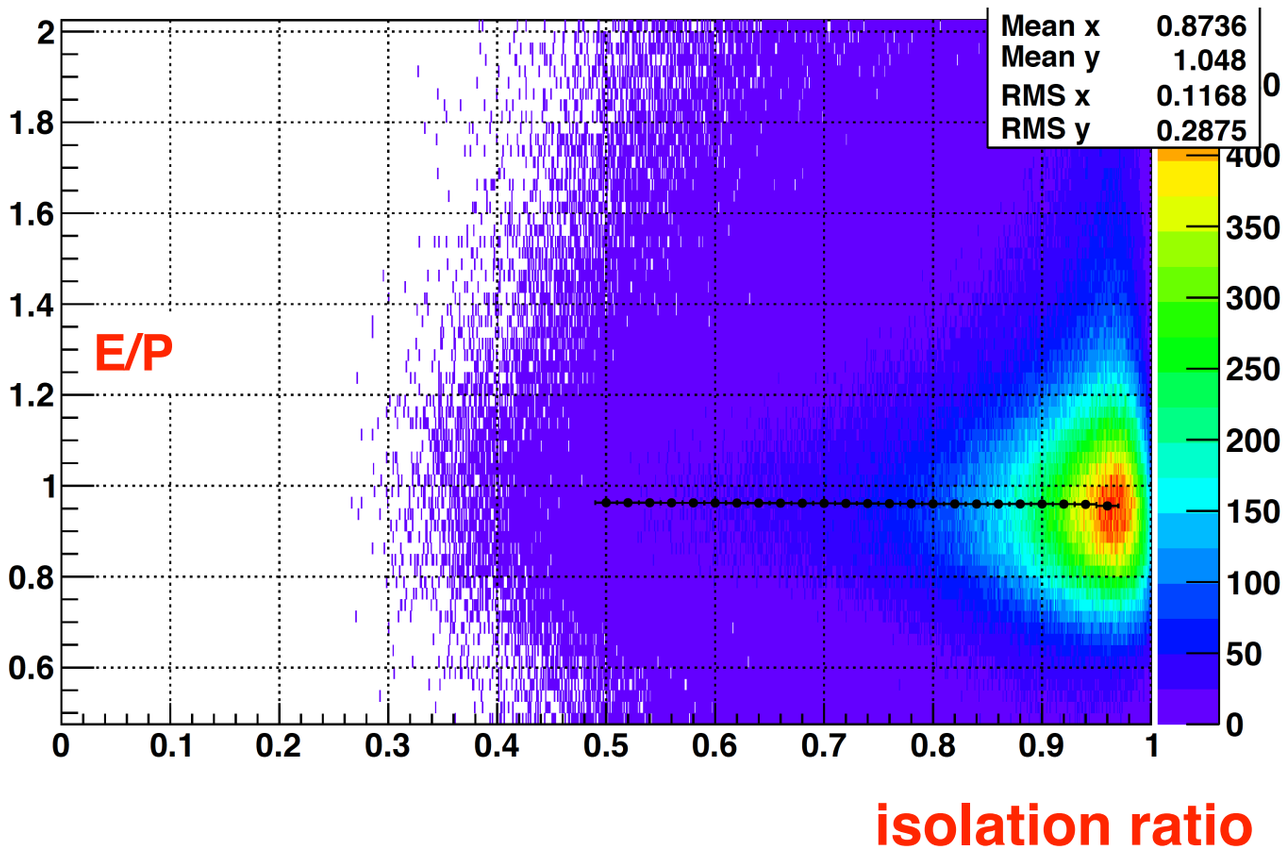




Isolation Ratio == Max towerEn / 3x3 En

E/P = 2x2 cluster energy / track P

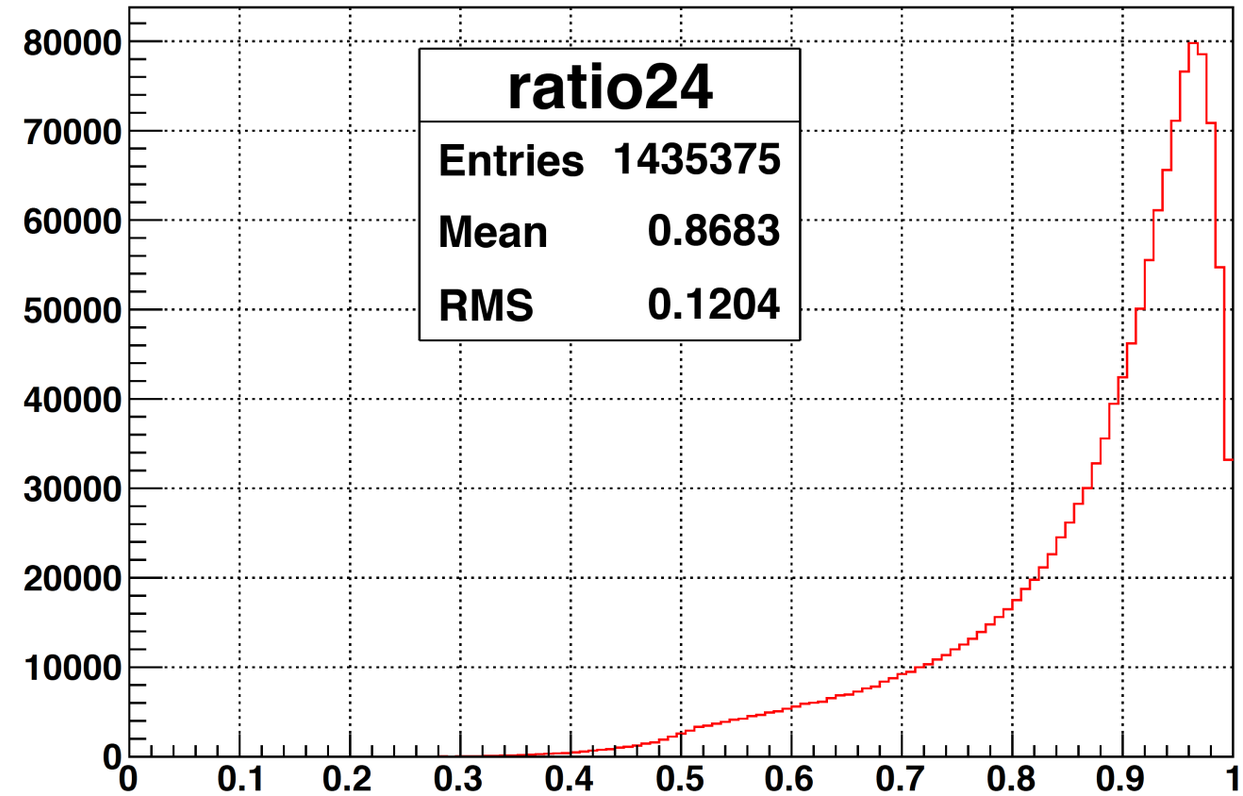




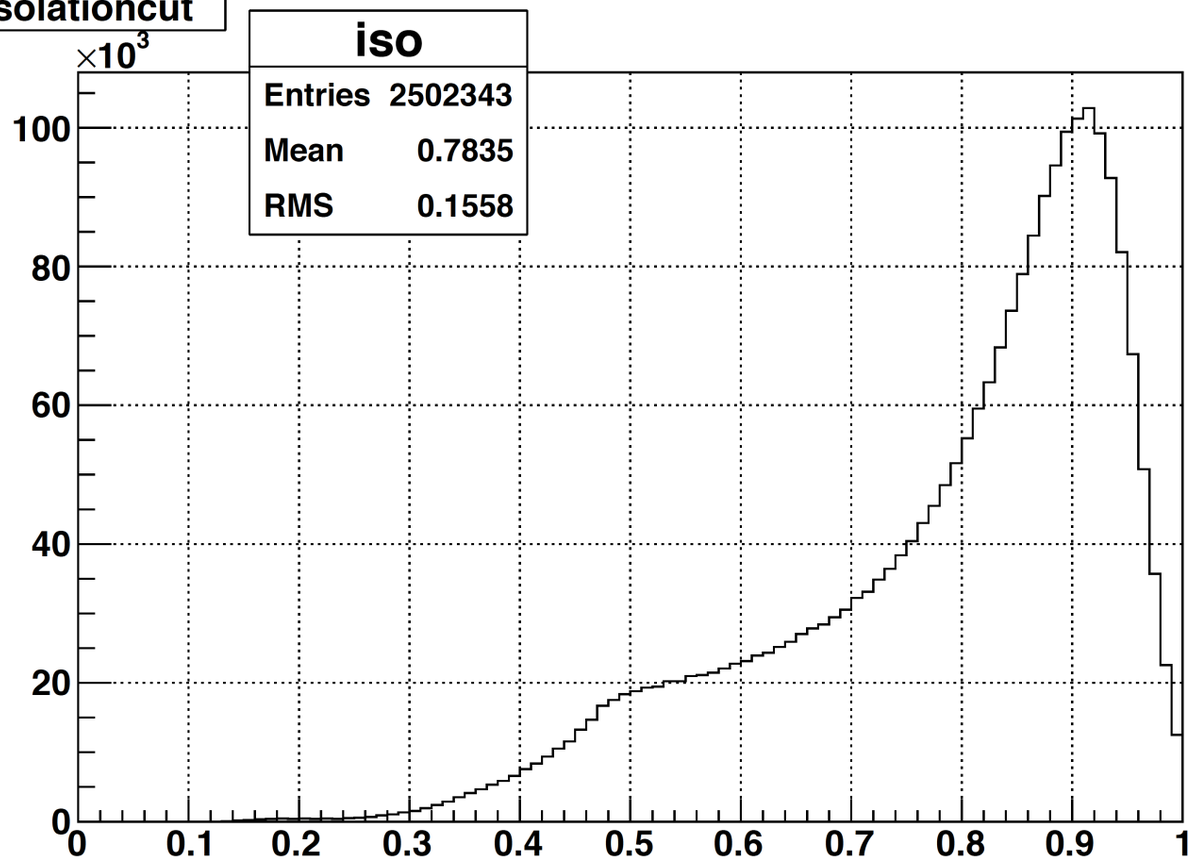
Isolation Ratio == Max 2x2 En / 4x4 En

1/3x3 Vs 2x2/4x4 Isolation ratios

2x2over4x4



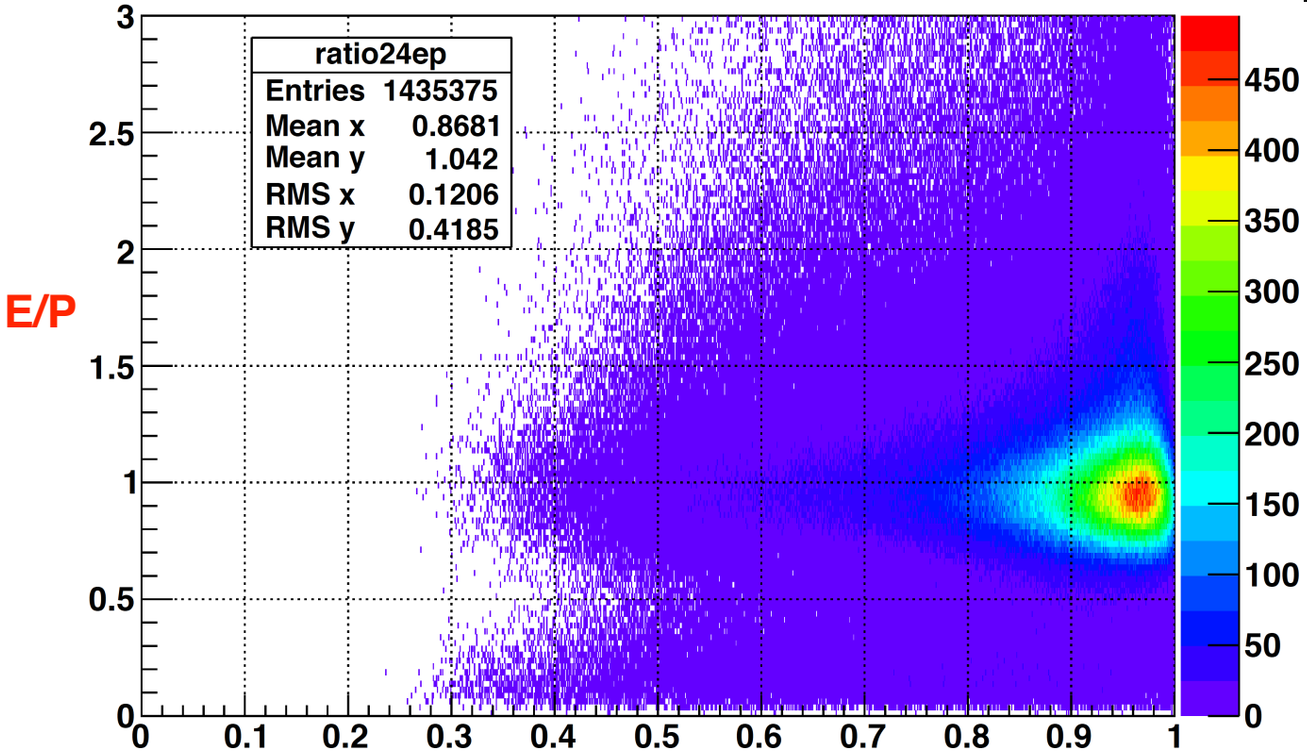
isolationcut



Wed Jul 29 09:29:20 2015

r24vsEoverP

2x2 / 4x4



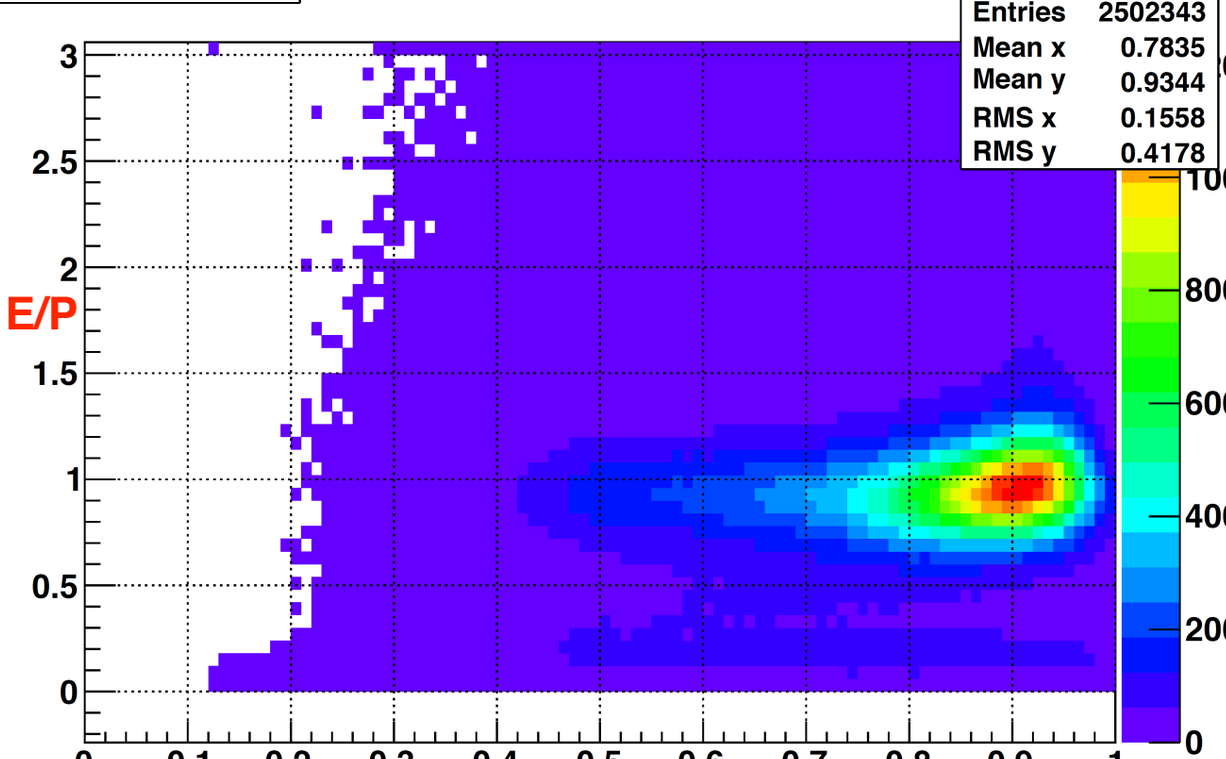
Wed Jul 29 09:32:36 2015

2x2 / 4x4

Tue May 12 09:12:45 2015

tower / 3x3

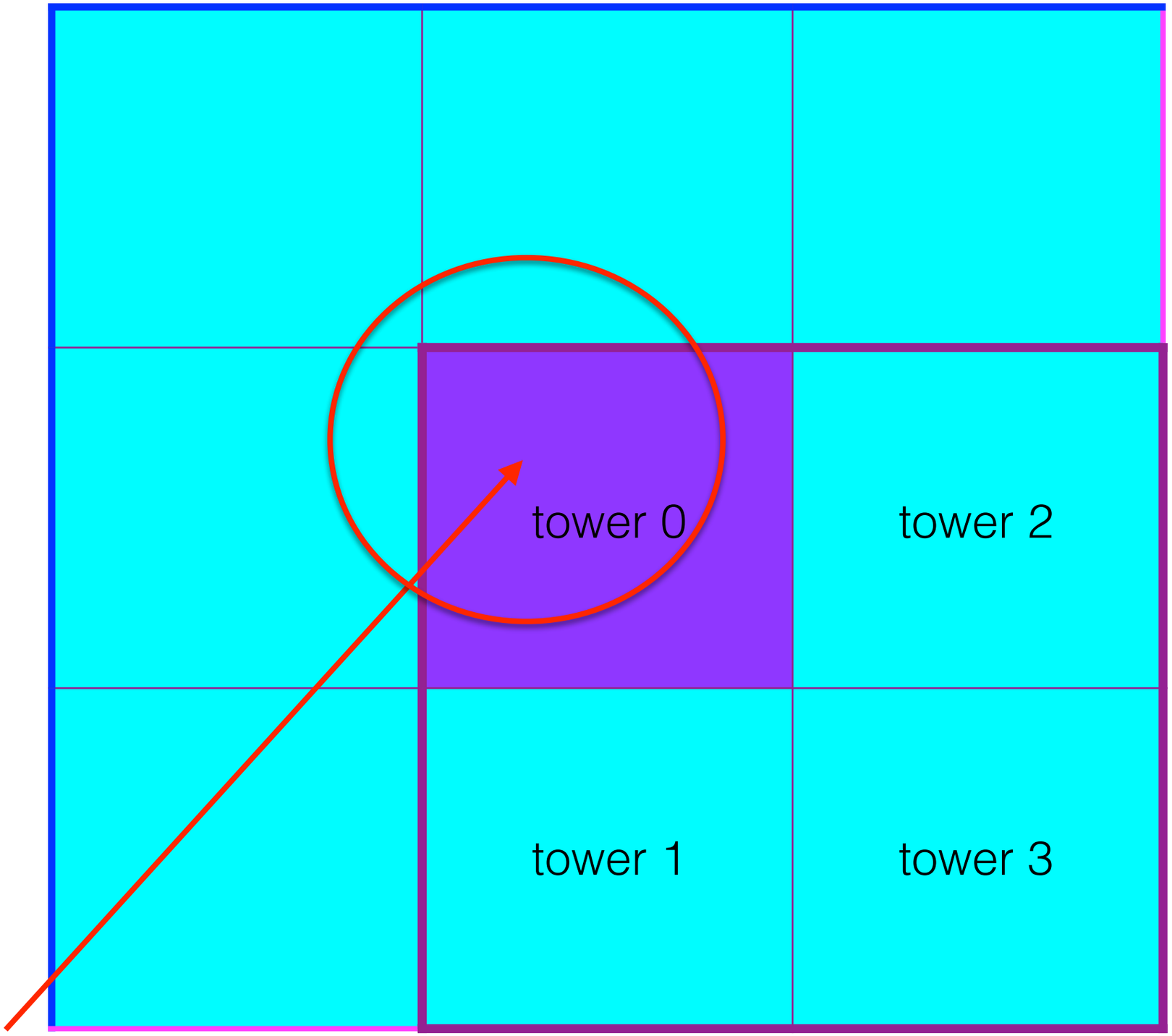
EoverPvsisocut



Tue May 12 09:15:00 2015

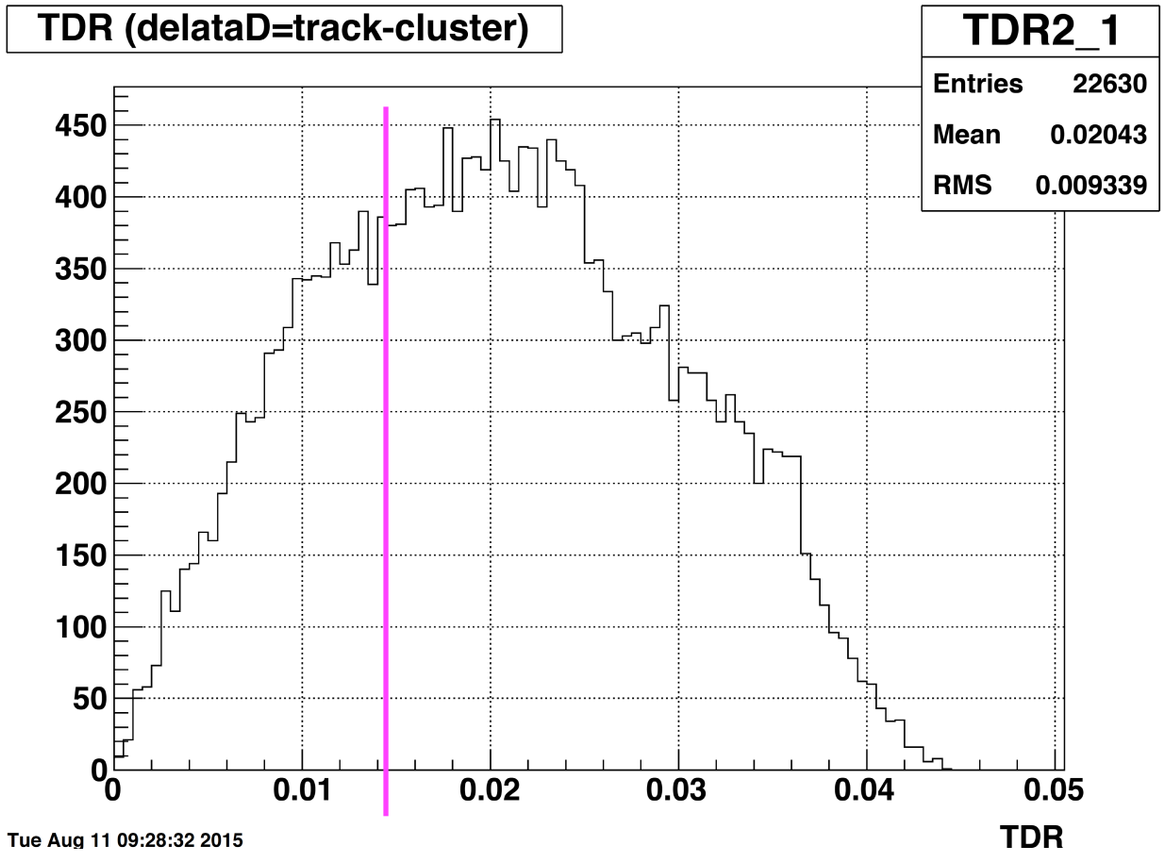
tower / 3x3

Track-cluster center —-> TDR

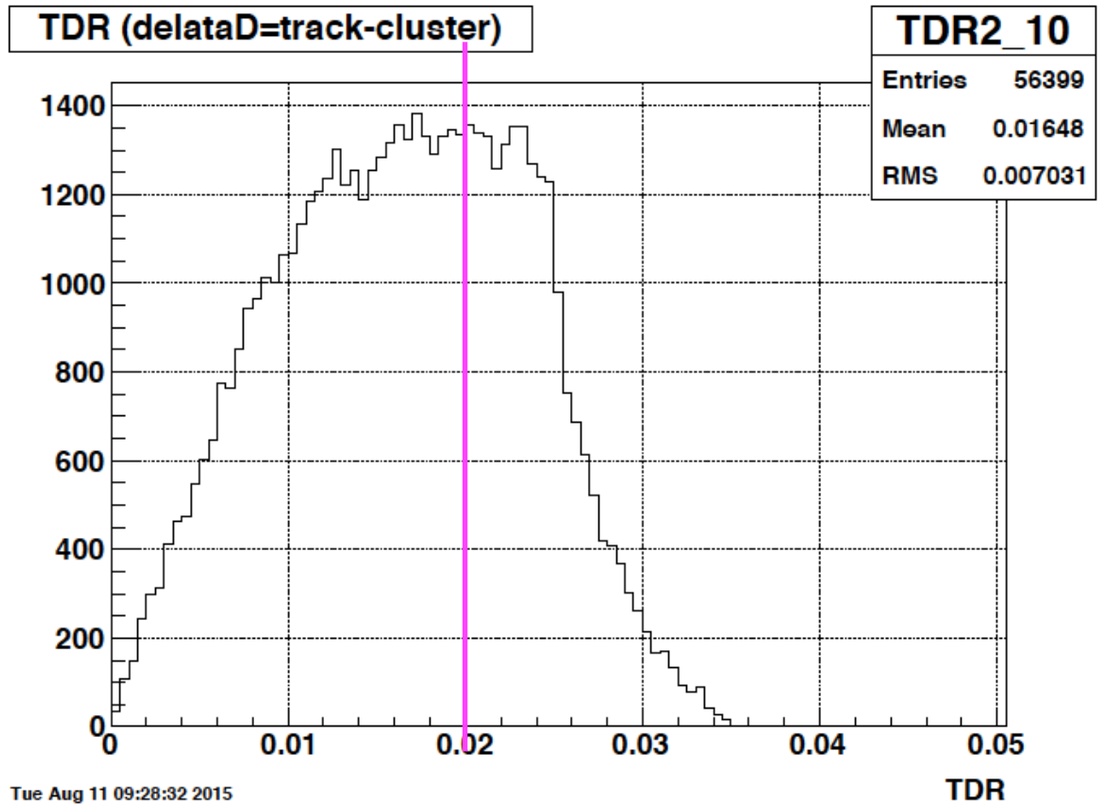


TDR distributions

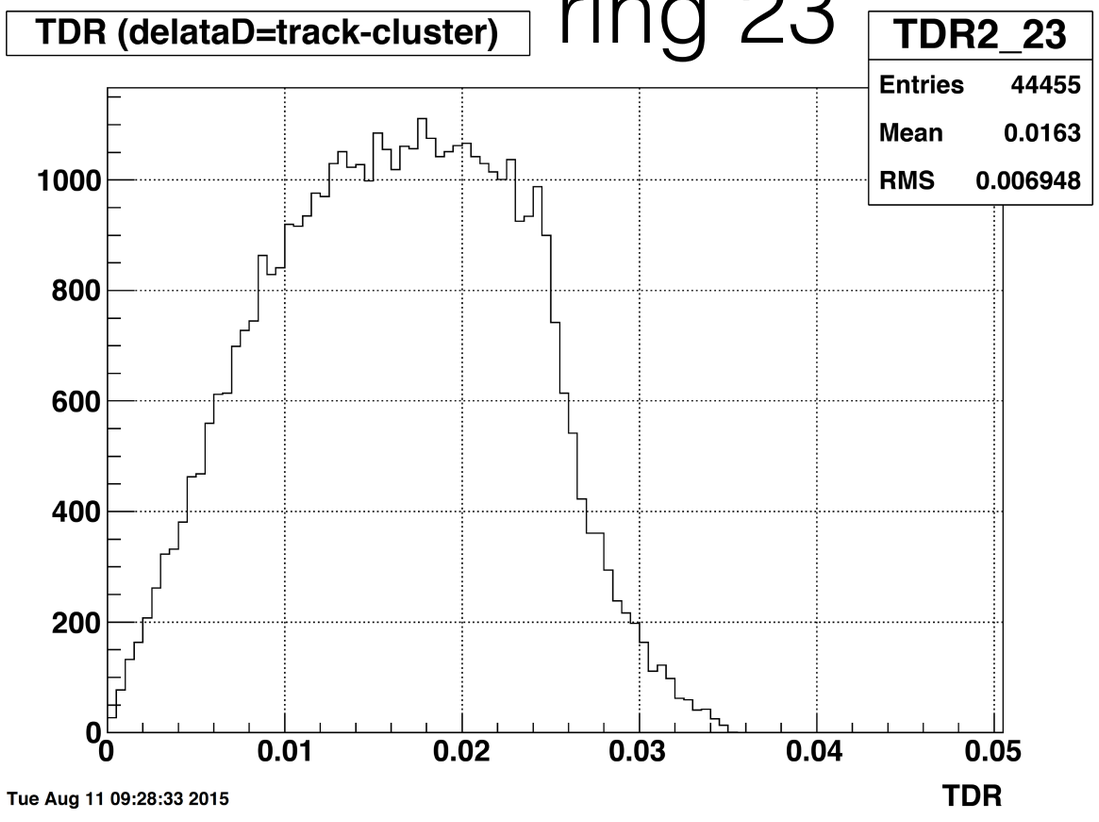
ring 1



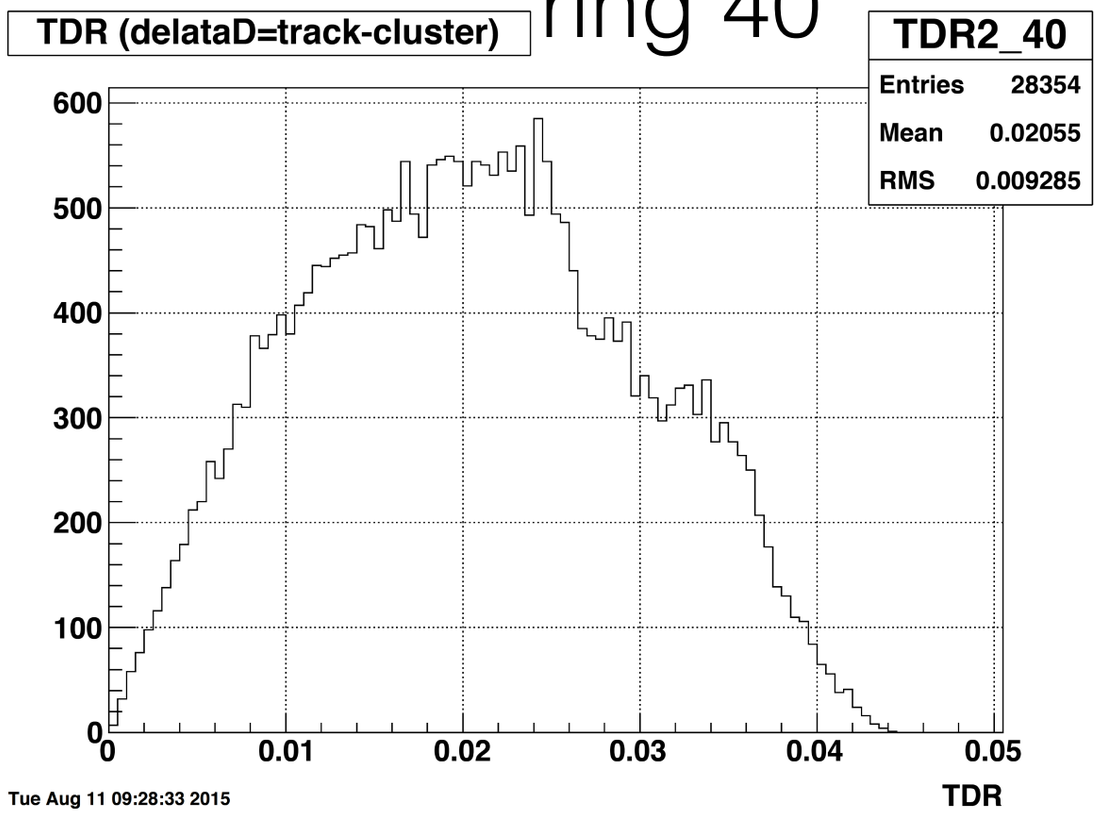
ring 10



ring 23

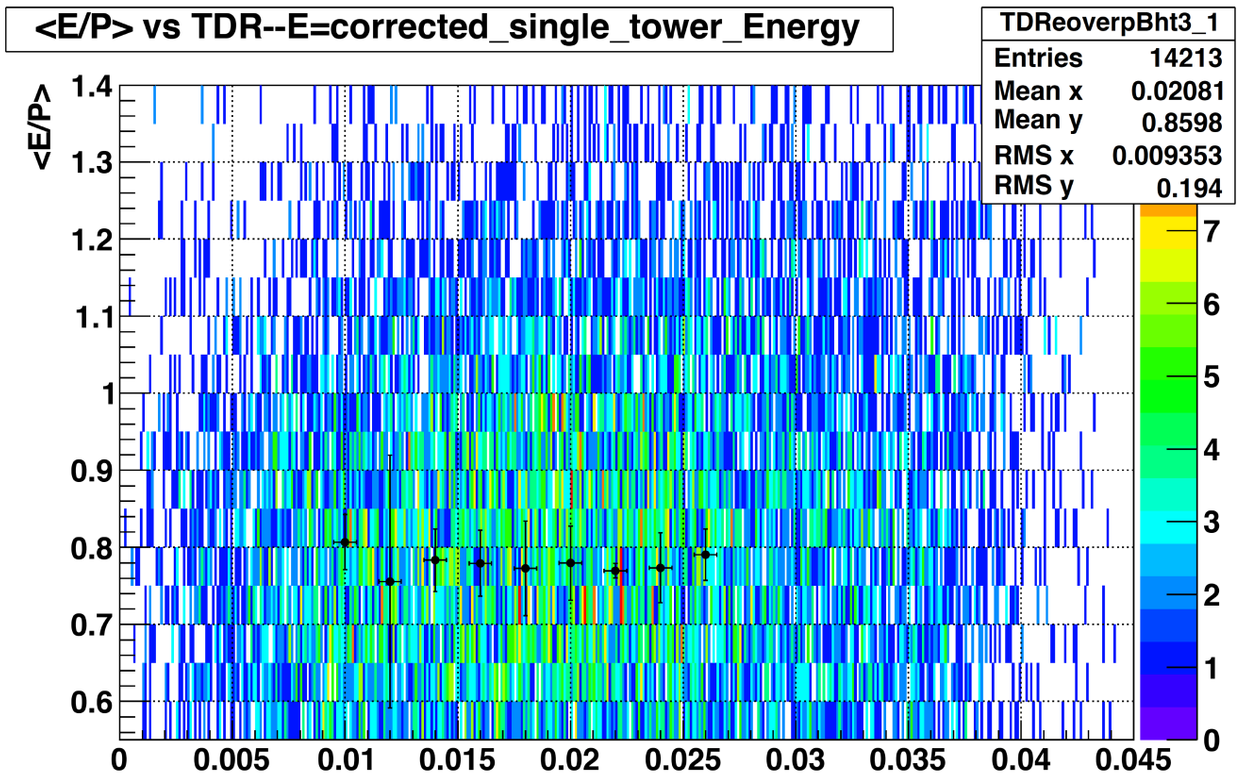


ring 40

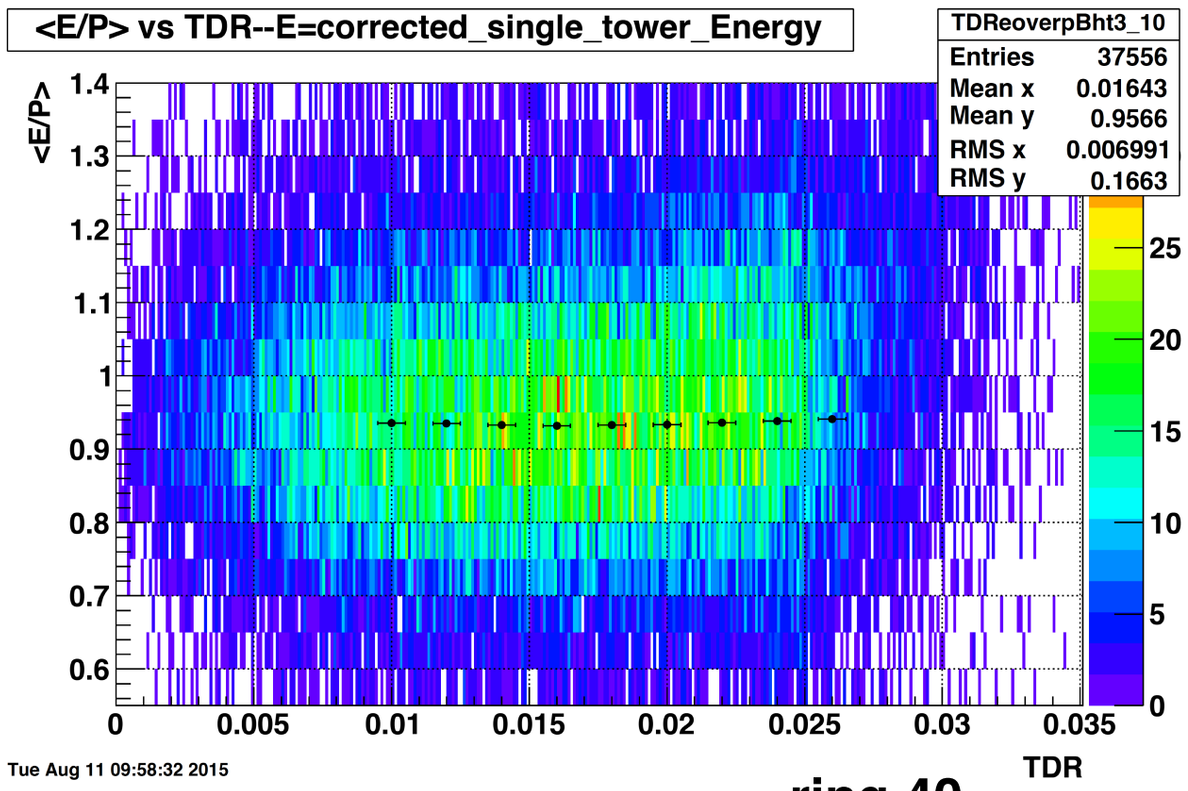


1E/P vs TDR cut

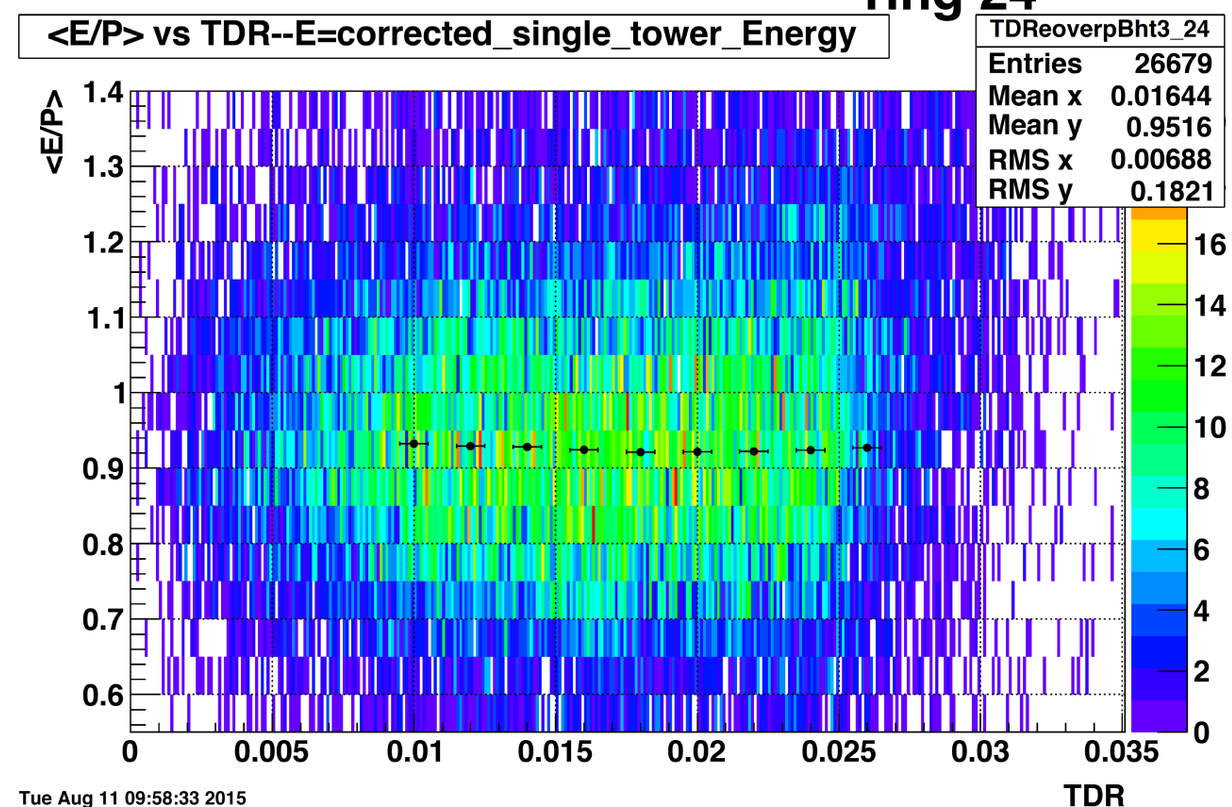
ring 1



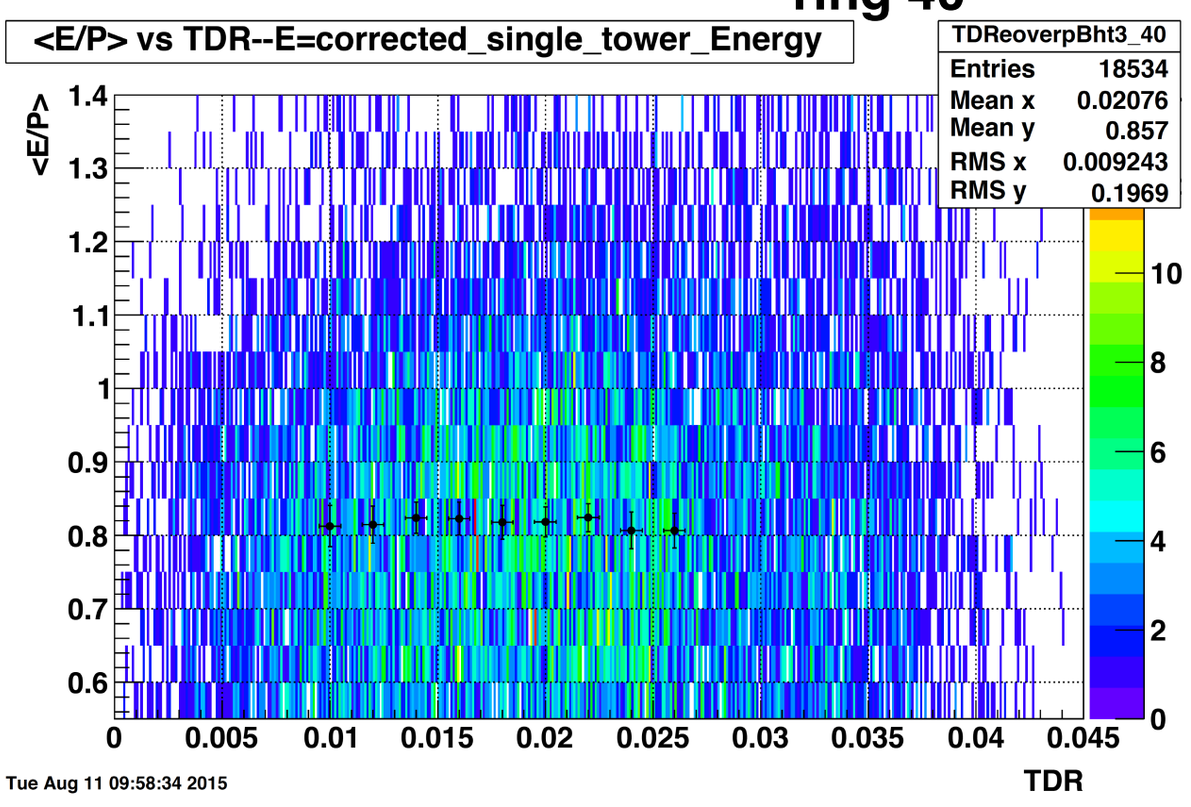
ring 10



ring 24



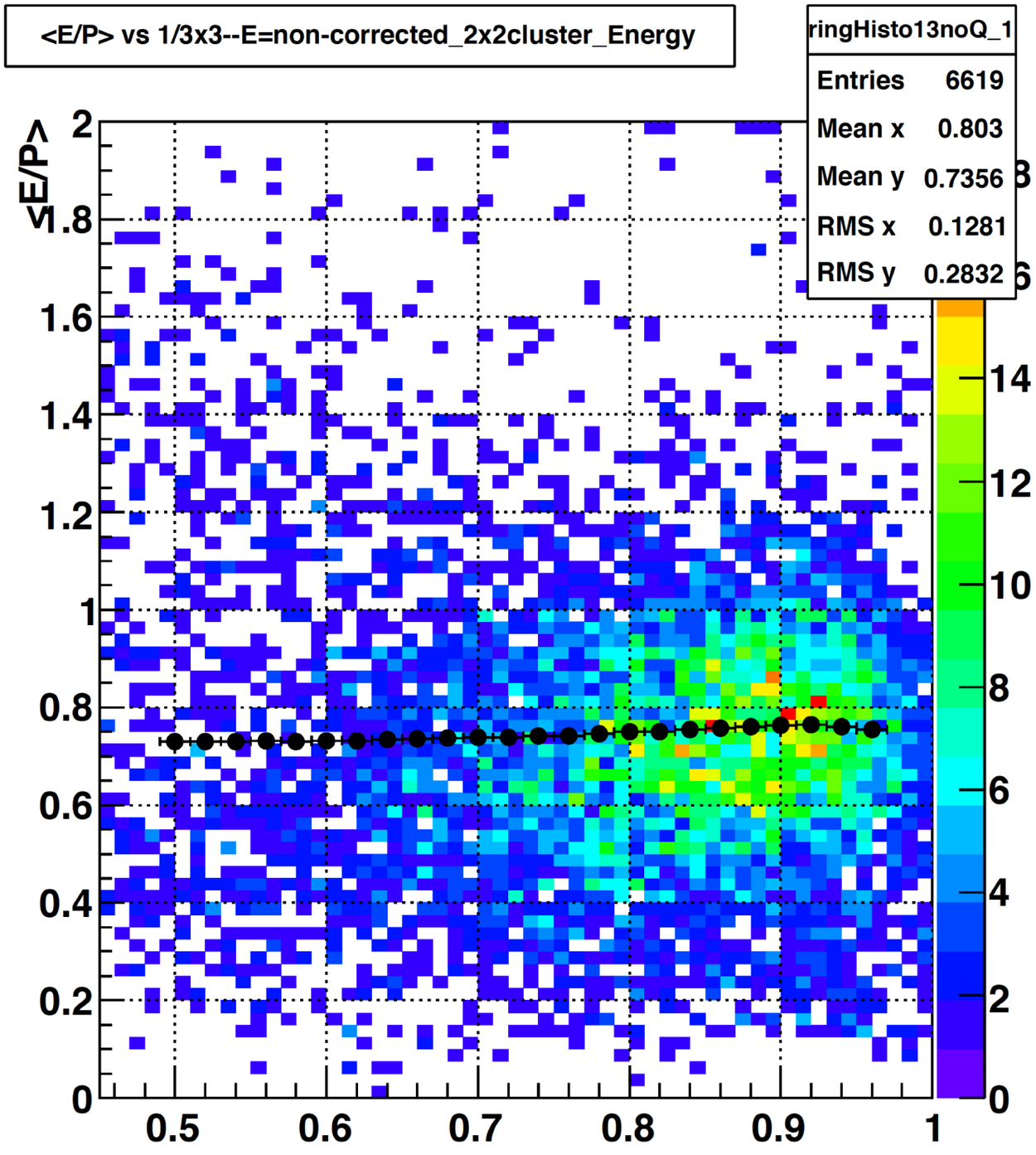
ring 40

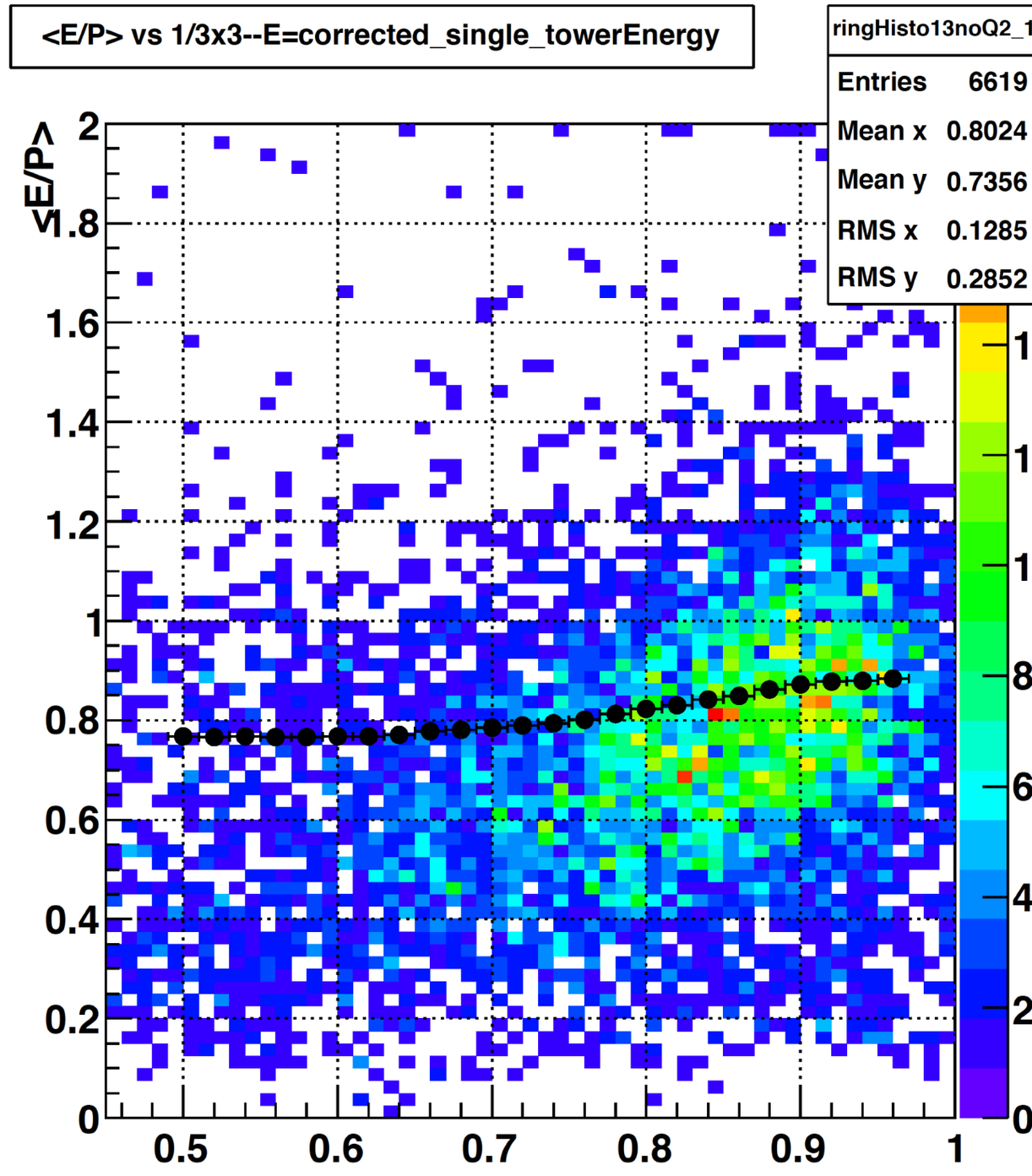


isolation ratio

ringID ==1

E/P vs 1/3x3 ratio

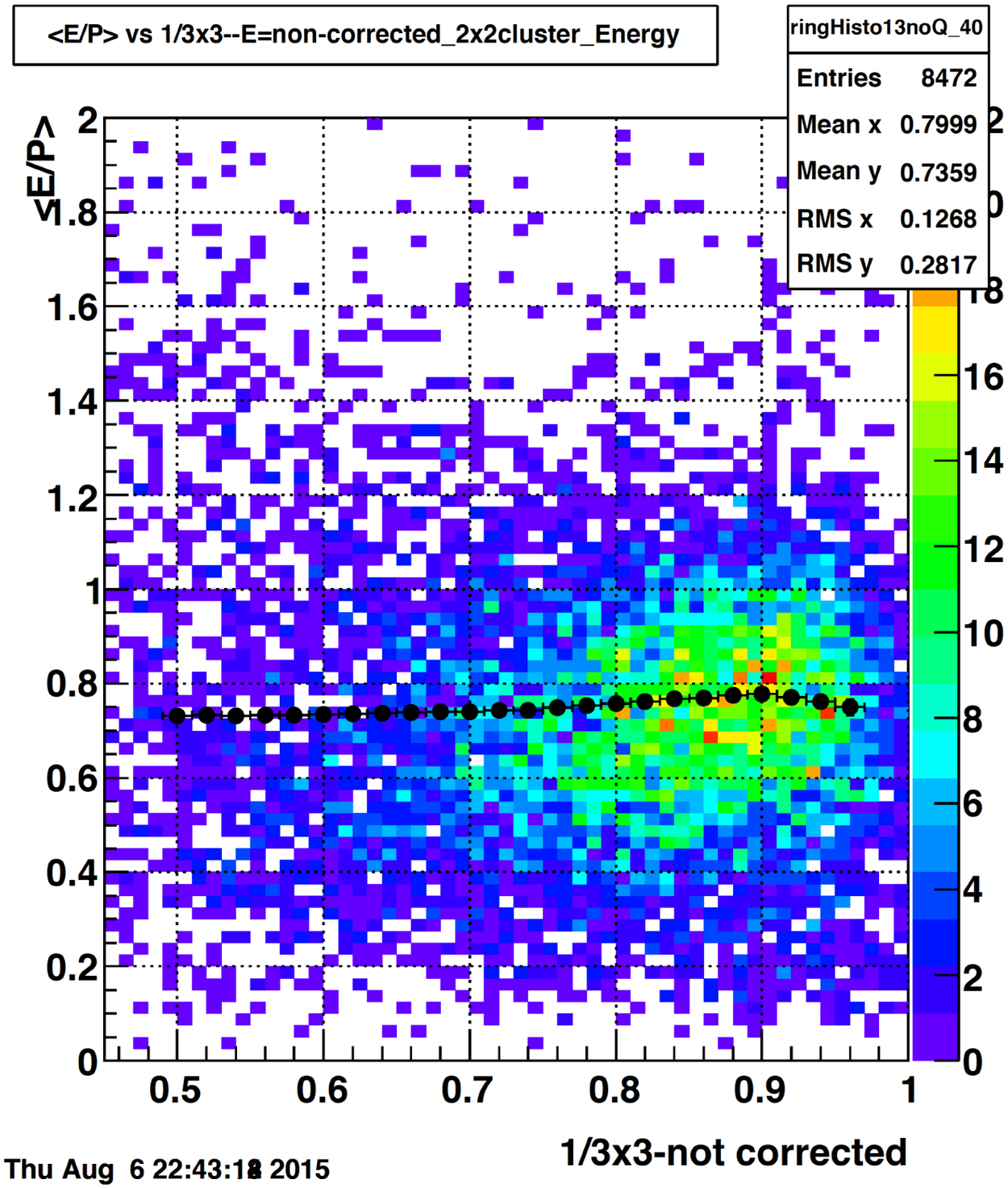


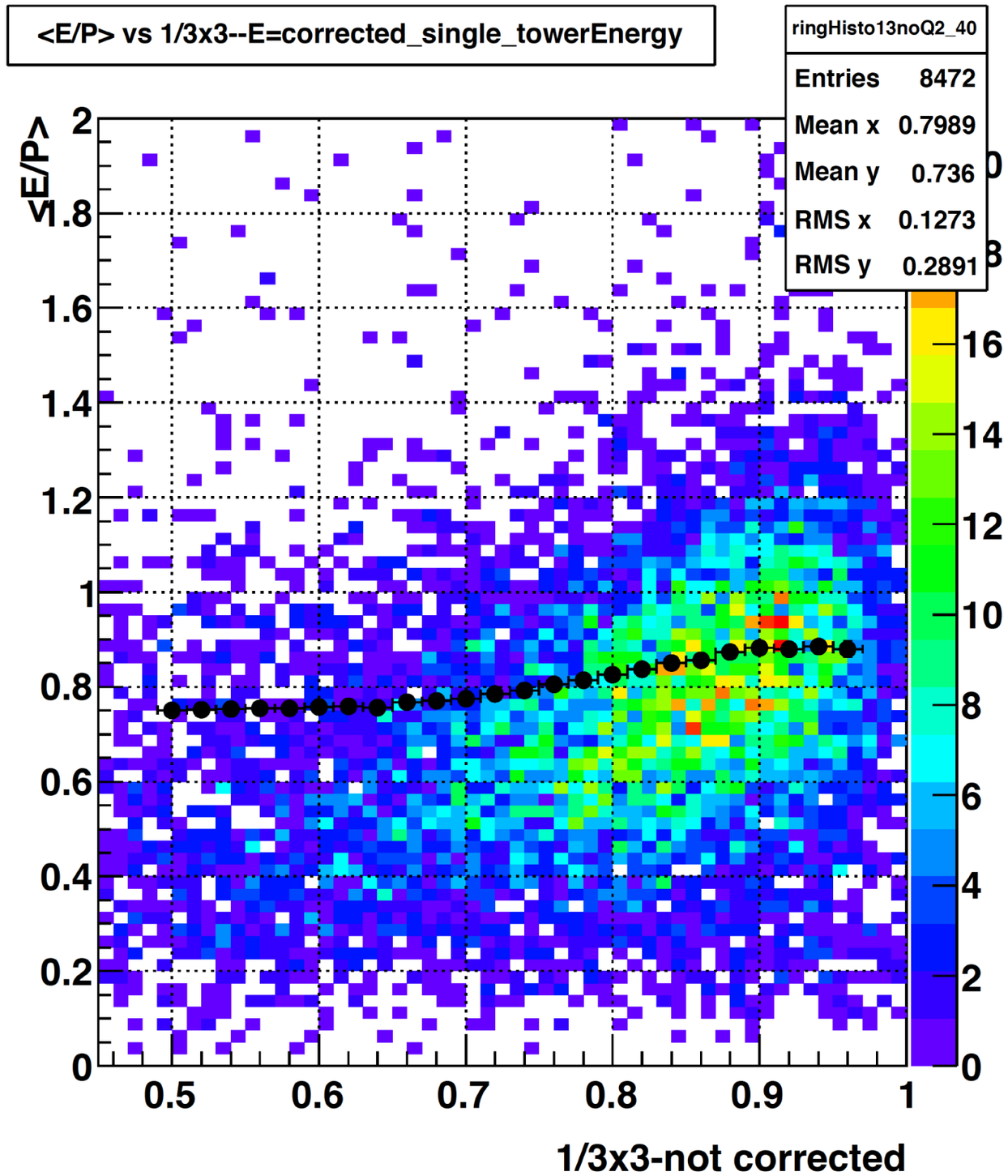


Thu Aug 6 22:36:10 2015

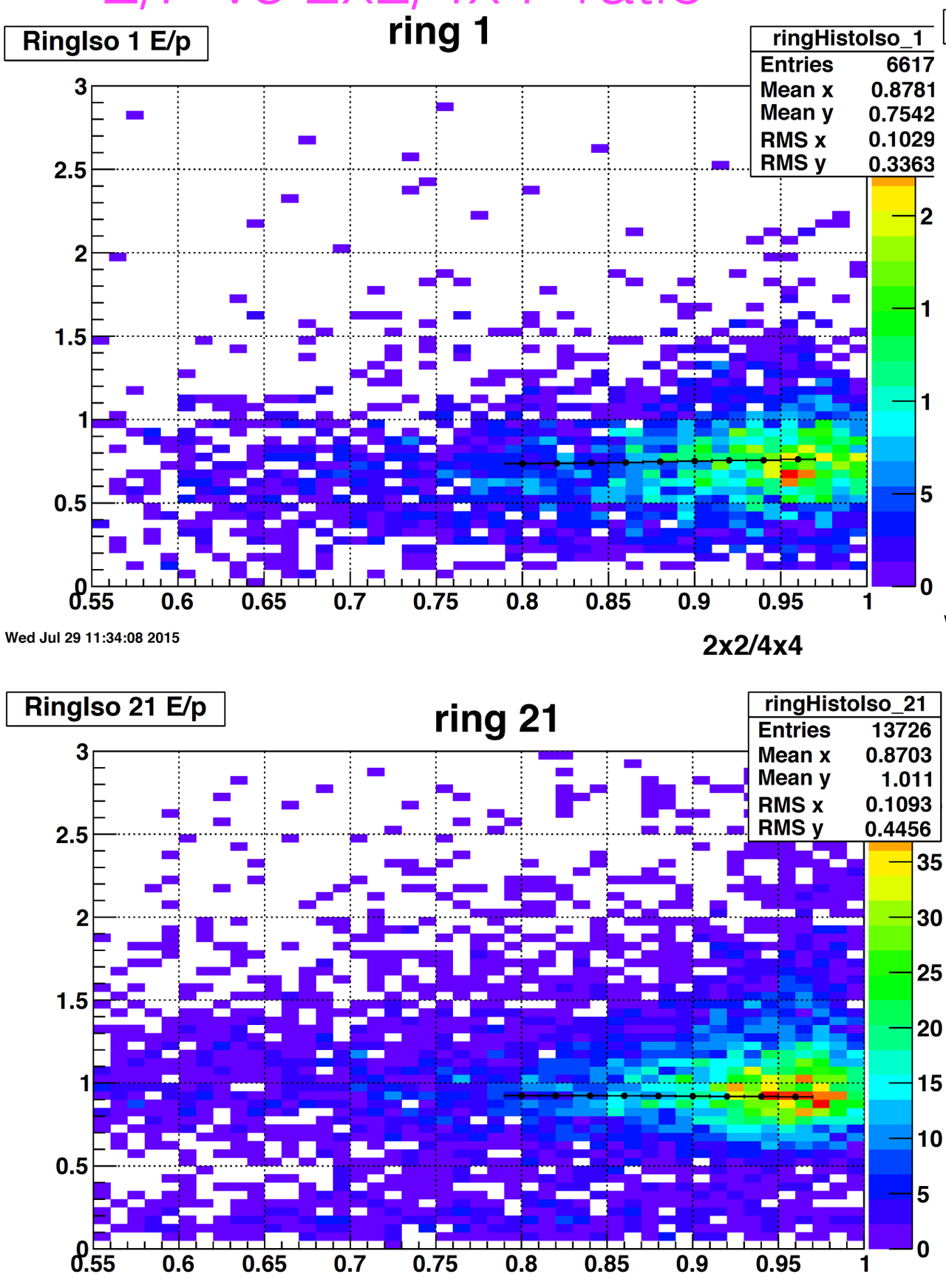
E/P vs 1/3x3 ratio

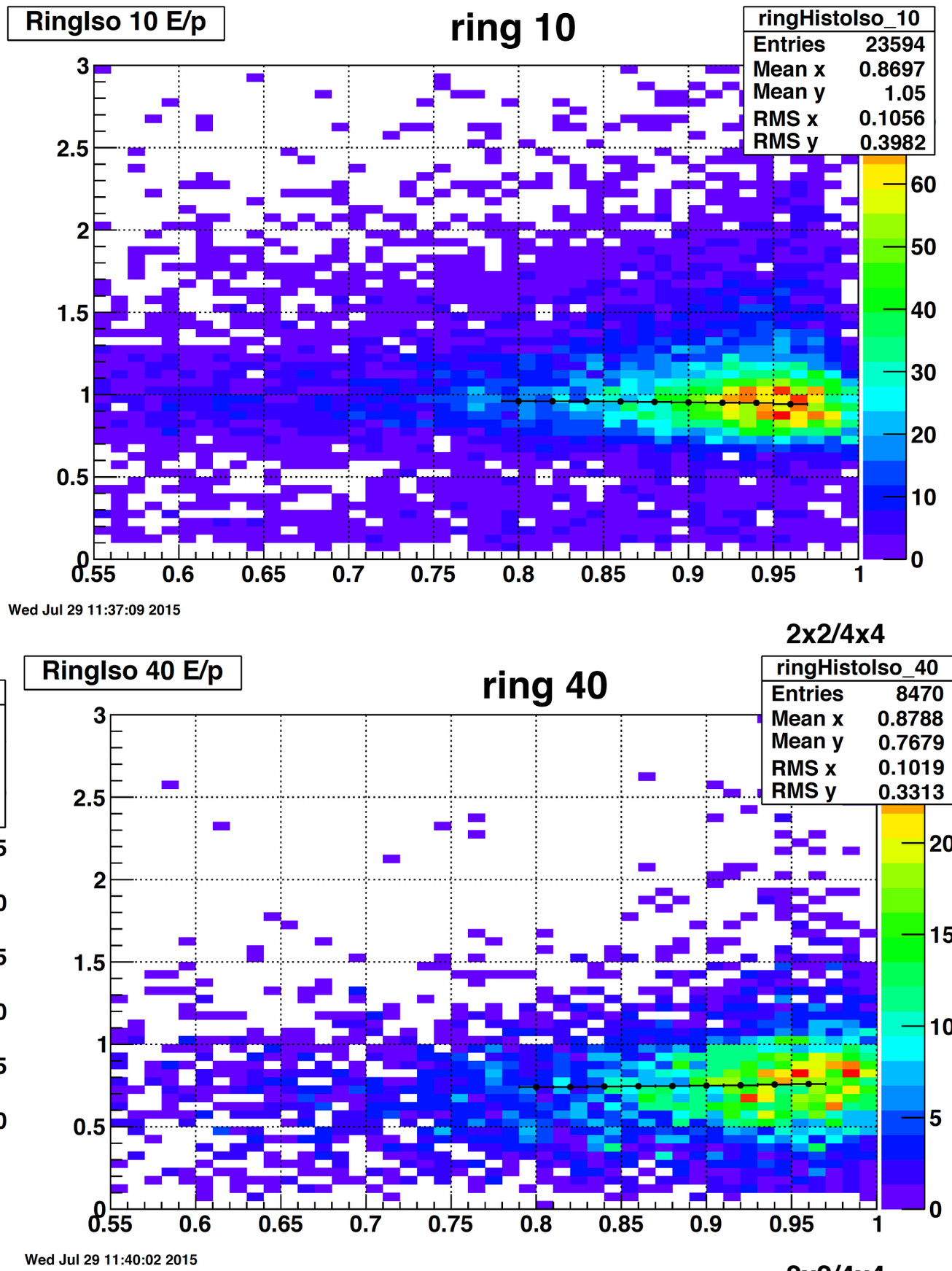
ringID ==40



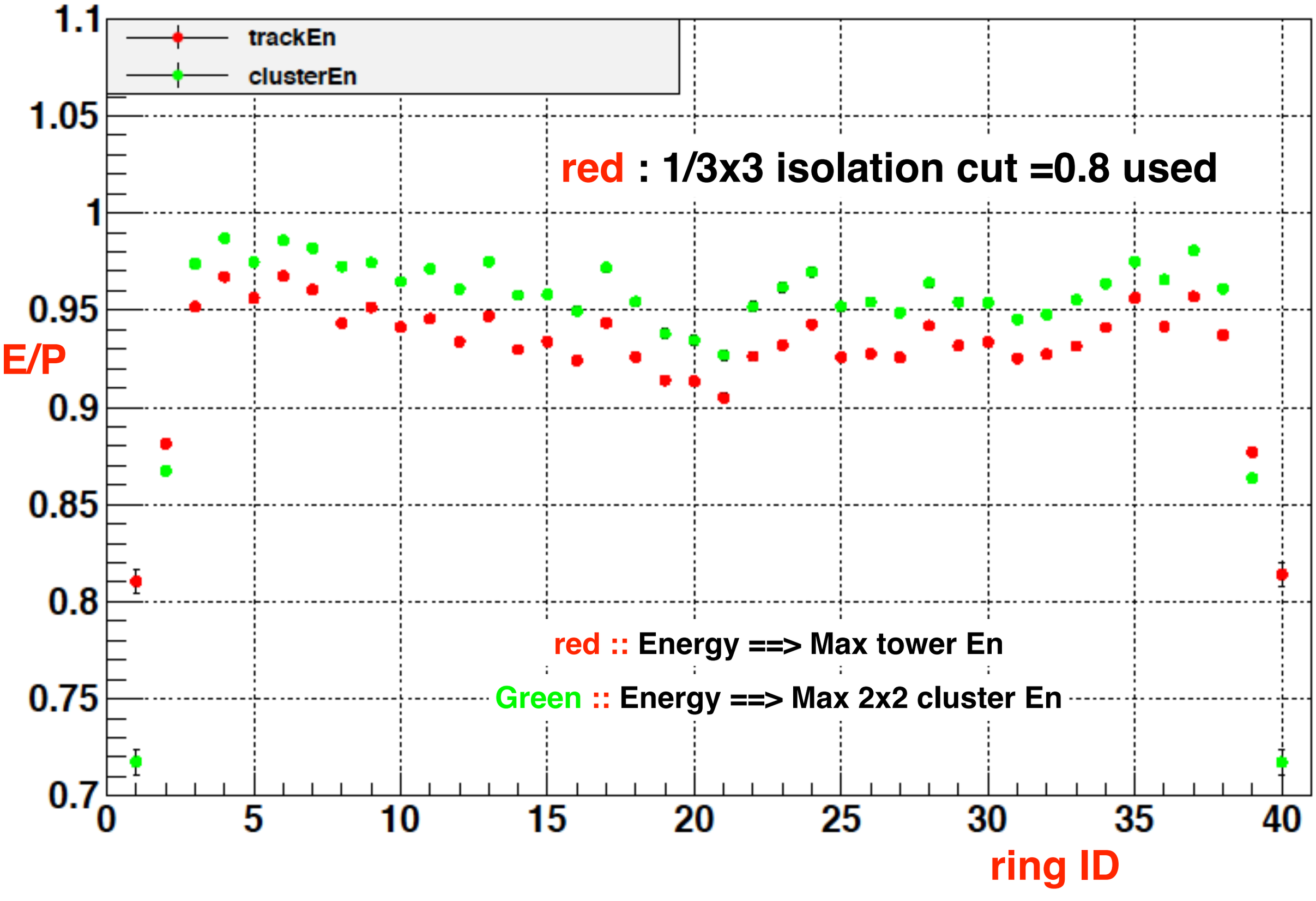


E/P vs 2x2/4x4 ratio

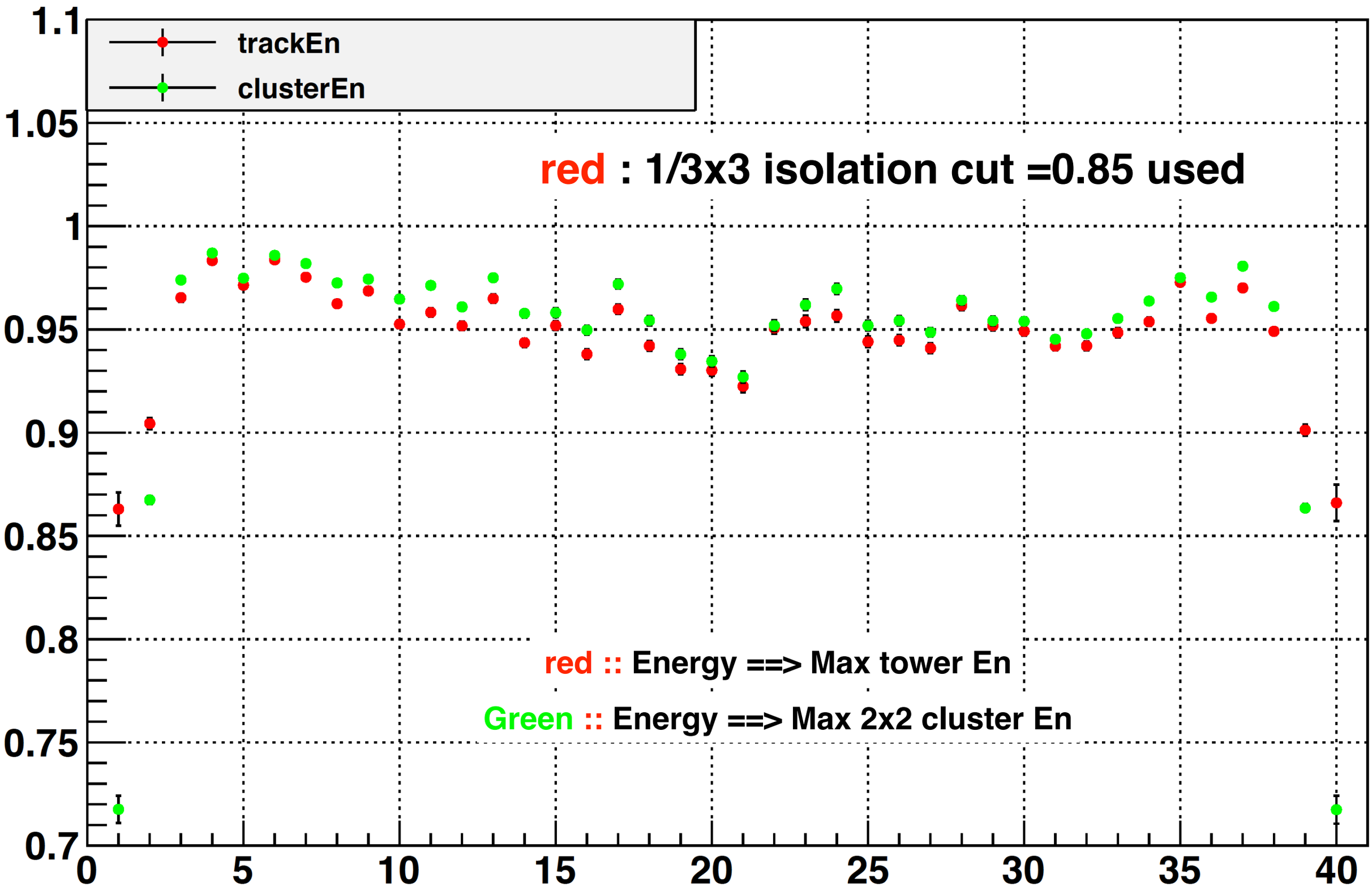




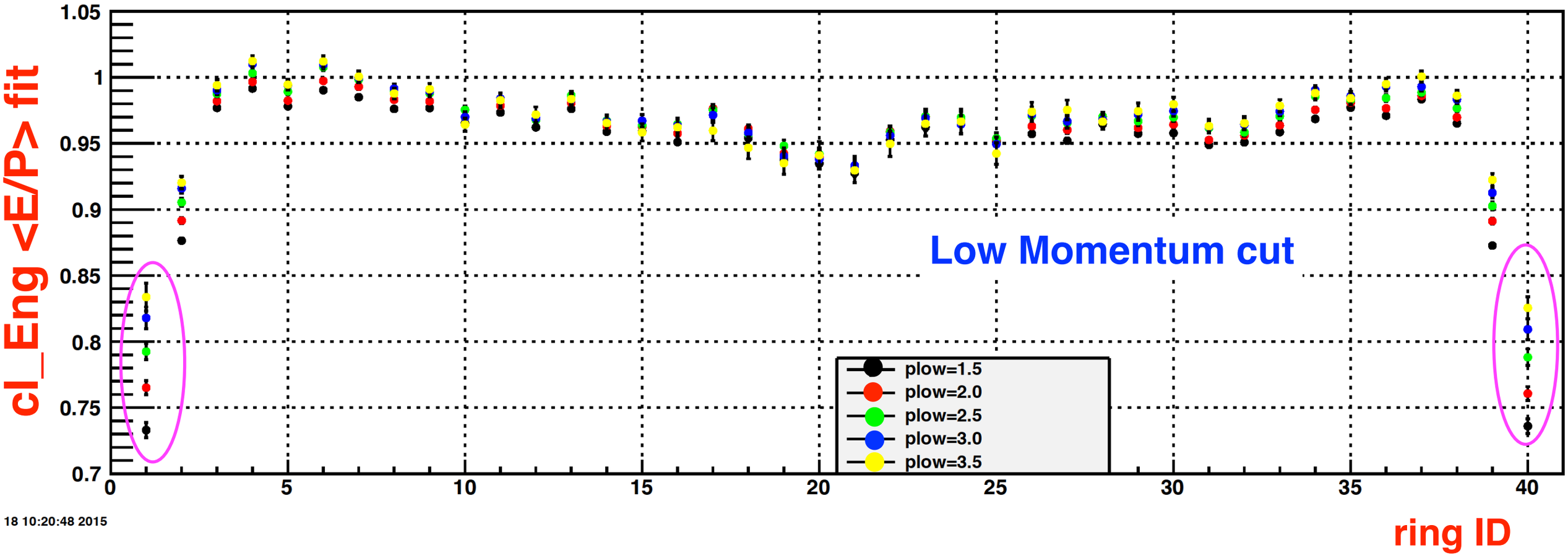
<E/P> with single tower energy and 2x2 cluster energy



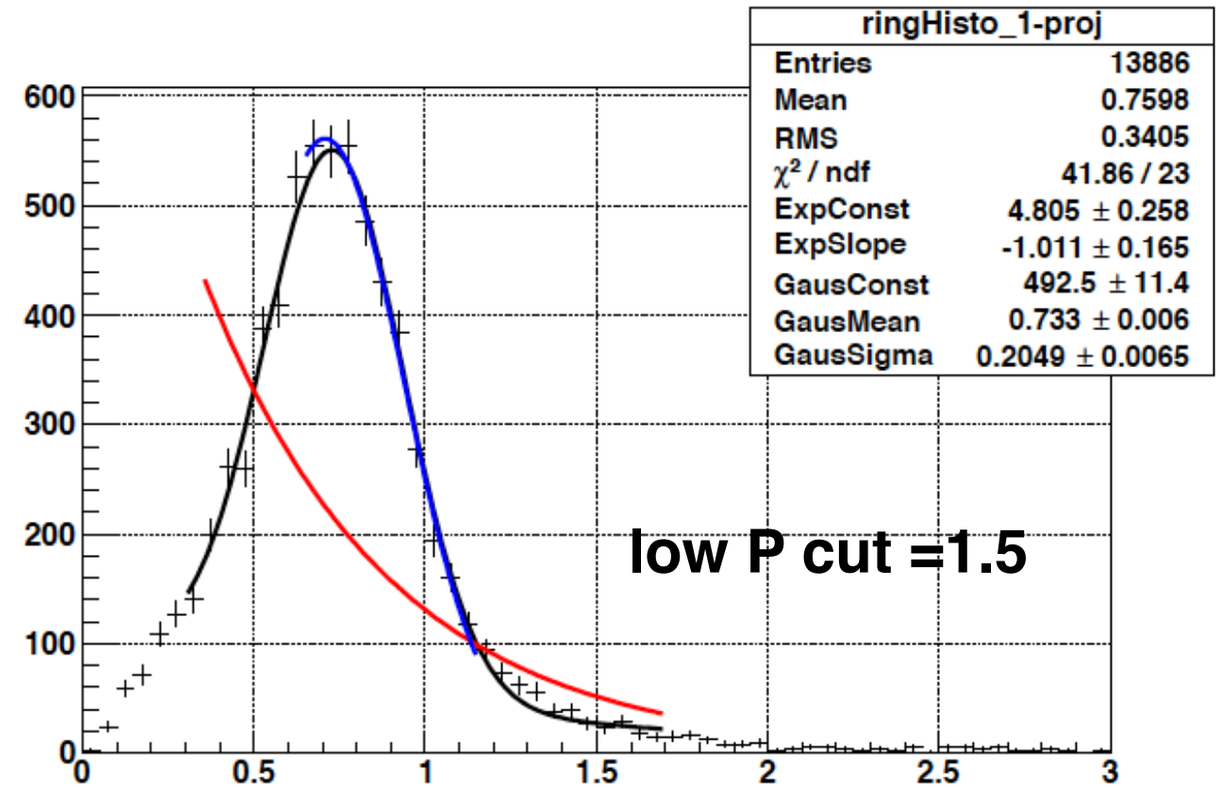
<E/P> with single tower energy and 2x2 cluster energy

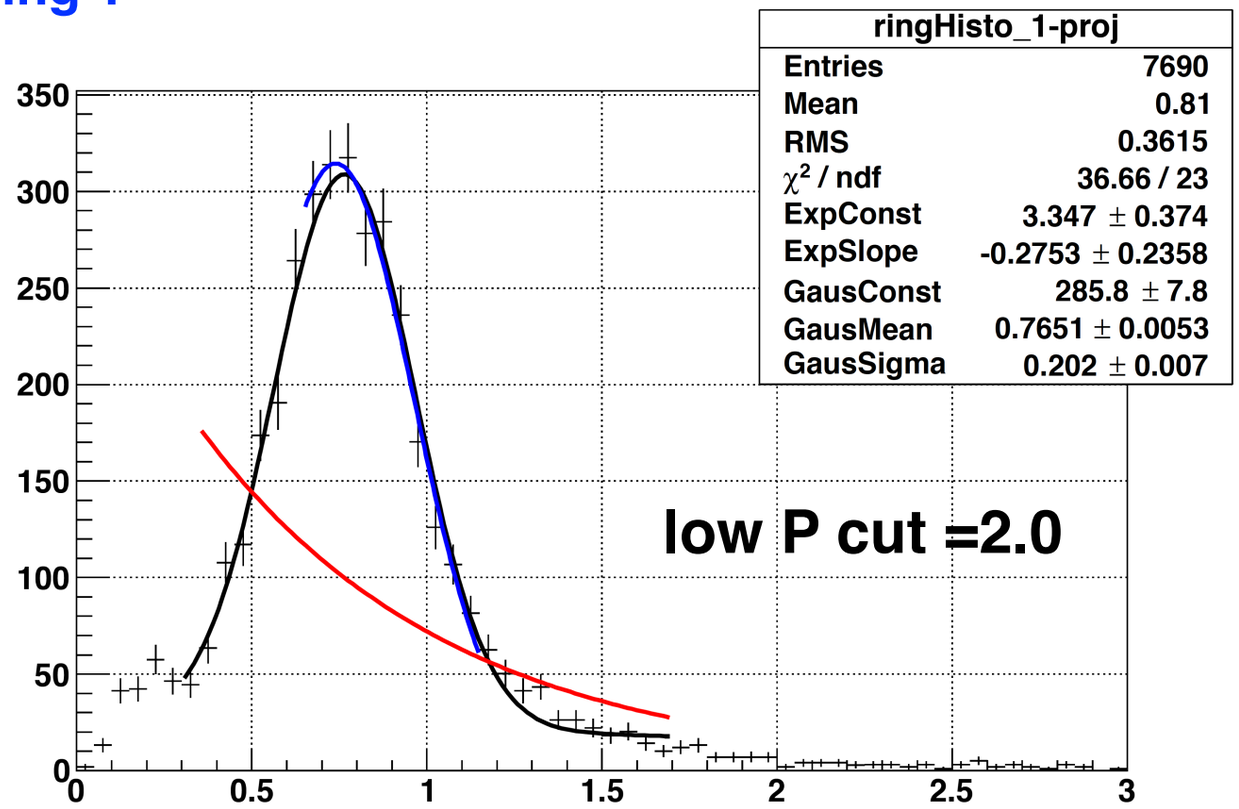


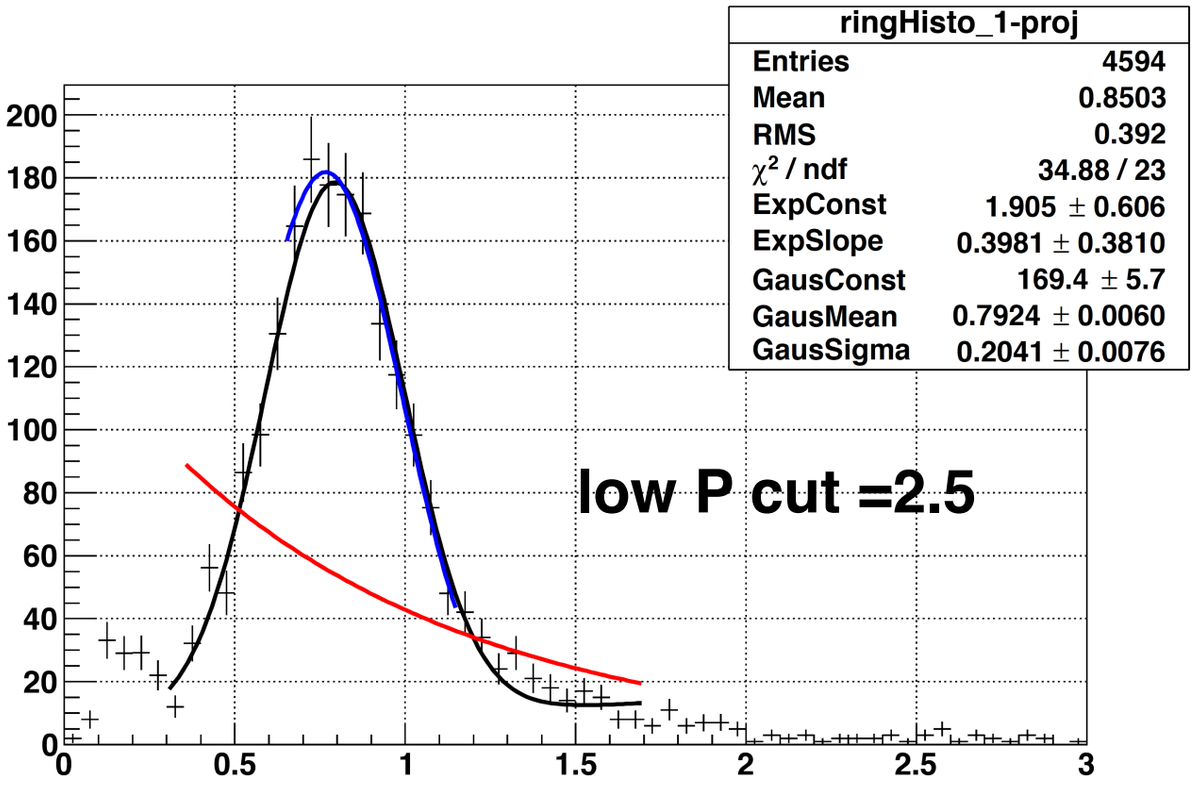
Low Momentum cut to reduce BG at outermost rings NOT isolation cuts

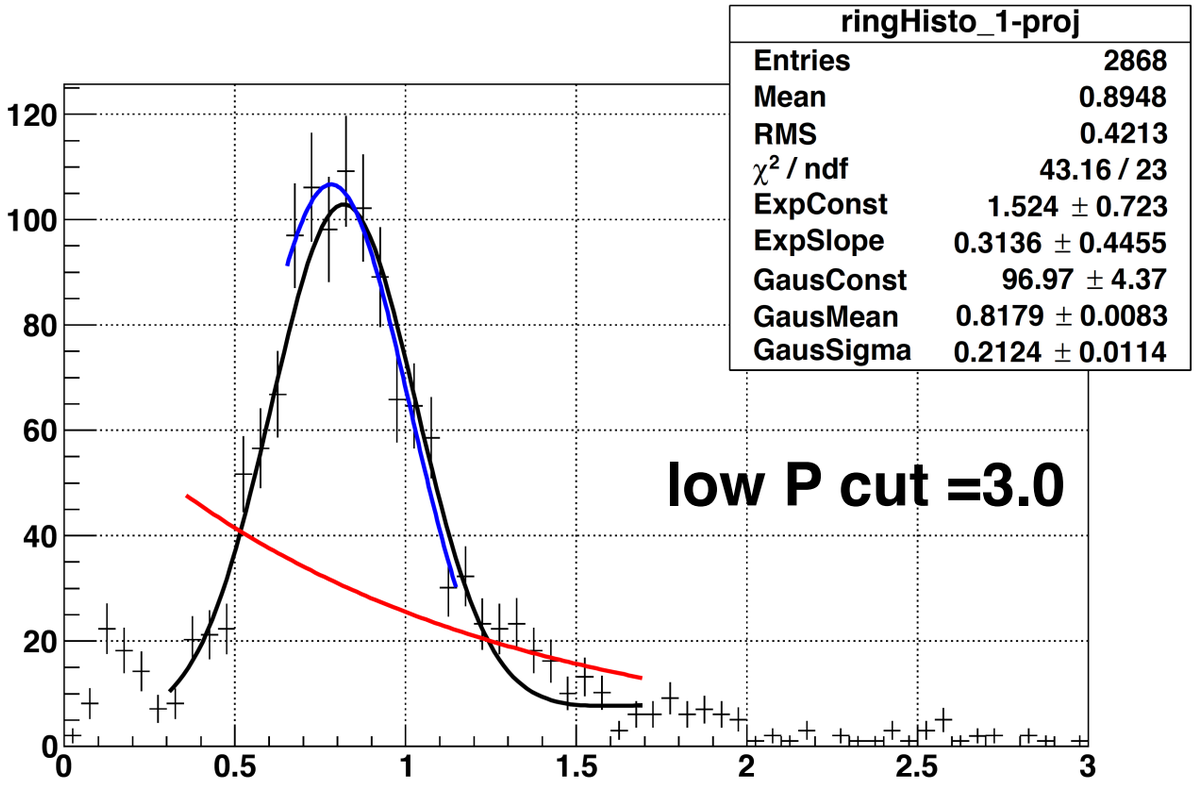


ring 1


ringHisto_1-proj
Entries 13886
Mean 0.7598
RMS 0.3405
χ² / ndf 41.86 / 23
ExpConst 4.805 ± 0.258
ExpSlope -1.011 ± 0.165
GausConst 492.5 ± 11.4
GausMean 0.733 ± 0.006
GausSigma 0.2049 ± 0.0065
low P cut =1.5


ringHisto_1-proj
Entries 7690
Mean 0.81
RMS 0.3615
χ² / ndf 36.66 / 23
ExpConst 3.347 ± 0.374
ExpSlope -0.2753 ± 0.2358
GausConst 285.8 ± 7.8
GausMean 0.7651 ± 0.0053
GausSigma 0.202 ± 0.007
low P cut =2.0


ringHisto_1-proj
Entries 4594
Mean 0.8503
RMS 0.392
χ² / ndf 34.88 / 23
ExpConst 1.905 ± 0.606
ExpSlope 0.3981 ± 0.3810
GausConst 169.4 ± 5.7
GausMean 0.7924 ± 0.0060
GausSigma 0.2041 ± 0.0076
low P cut =2.5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Entries 2868
Mean 0.8948
RMS 0.4213
χ² / ndf 43.16 / 23
ExpConst 1.524 ± 0.723
ExpSlope 0.3136 ± 0.4455
GausConst 96.97 ± 4.37
GausMean 0.8179 ± 0.0083
GausSigma 0.2124 ± 0.0114
low P cut =3.0