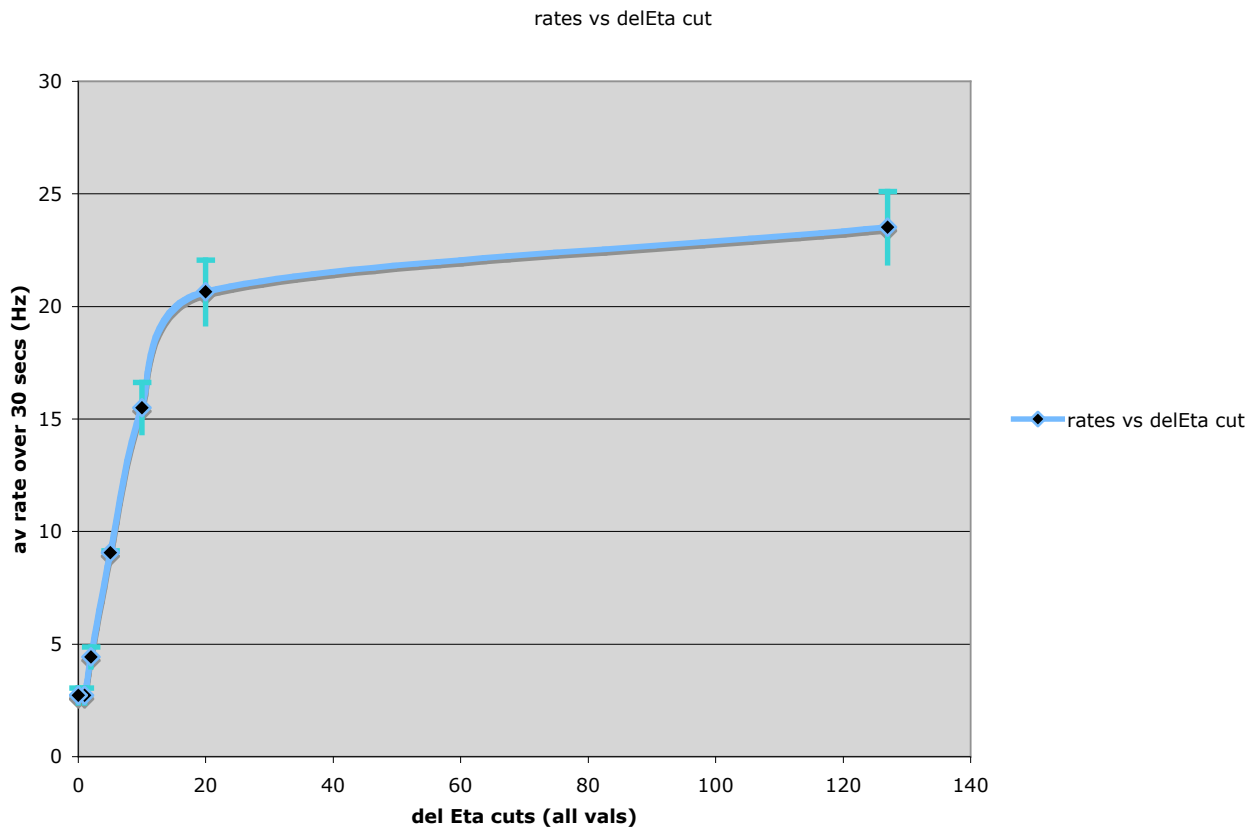
Basic Plots::

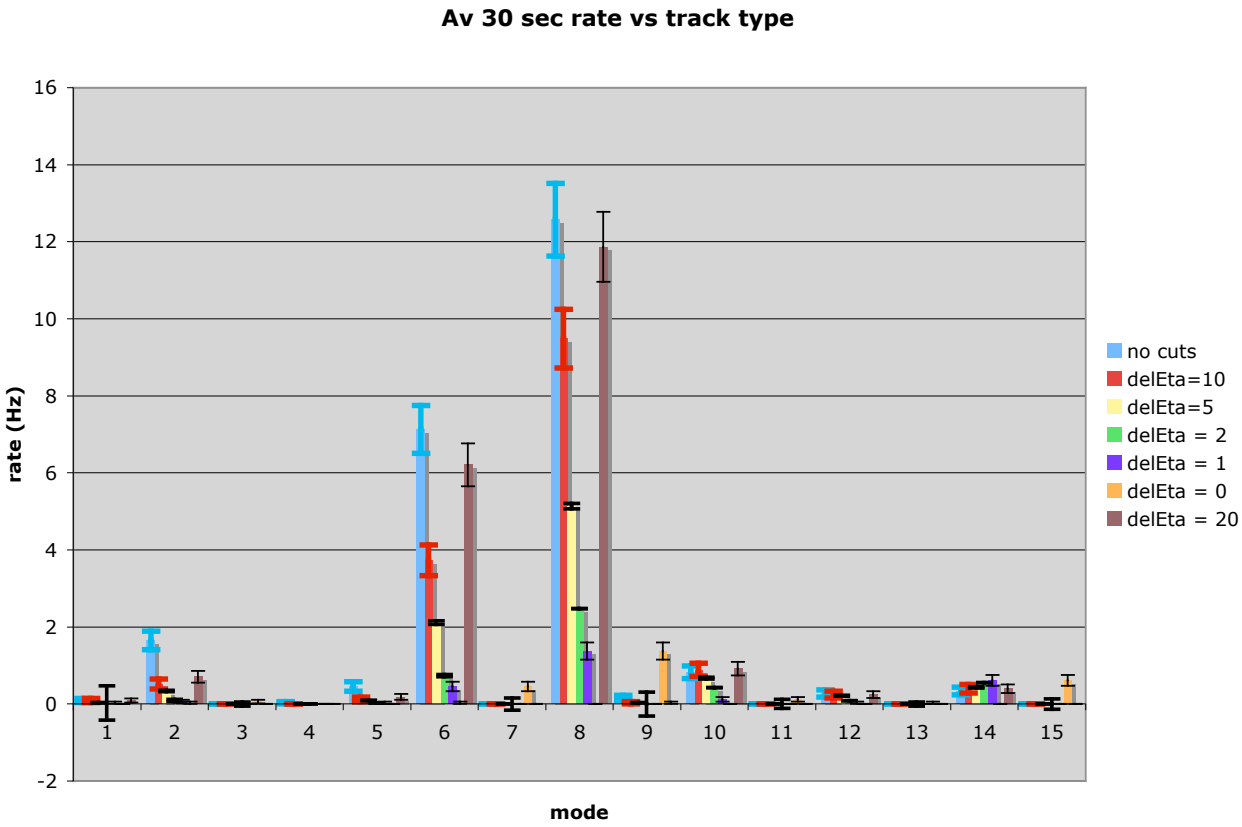
Plot below shows the average rate you would see over ~30 secs of running as a function of various eta-window cuts (same cut applied to all 6 extrapolations). Errors are sys (generator) + stat in quad to 1-sigma. eta-win values are 0,1,2,3,5,10,20,127



****

Note;
mode 2 = ME 1->2->3 or 1->2->3->4
mode 6 = ME 1->2
mode 8 = ME 2->3

Next plot below shows the average rate you would see over ~30 secs of running for the different track types. Different bars represent different values of the “EtaWindow” cut. It is evident that in the limit of very tight delta-eta cuts, actually some track types are more frequent since before track had preferentially been triggered as a different type.

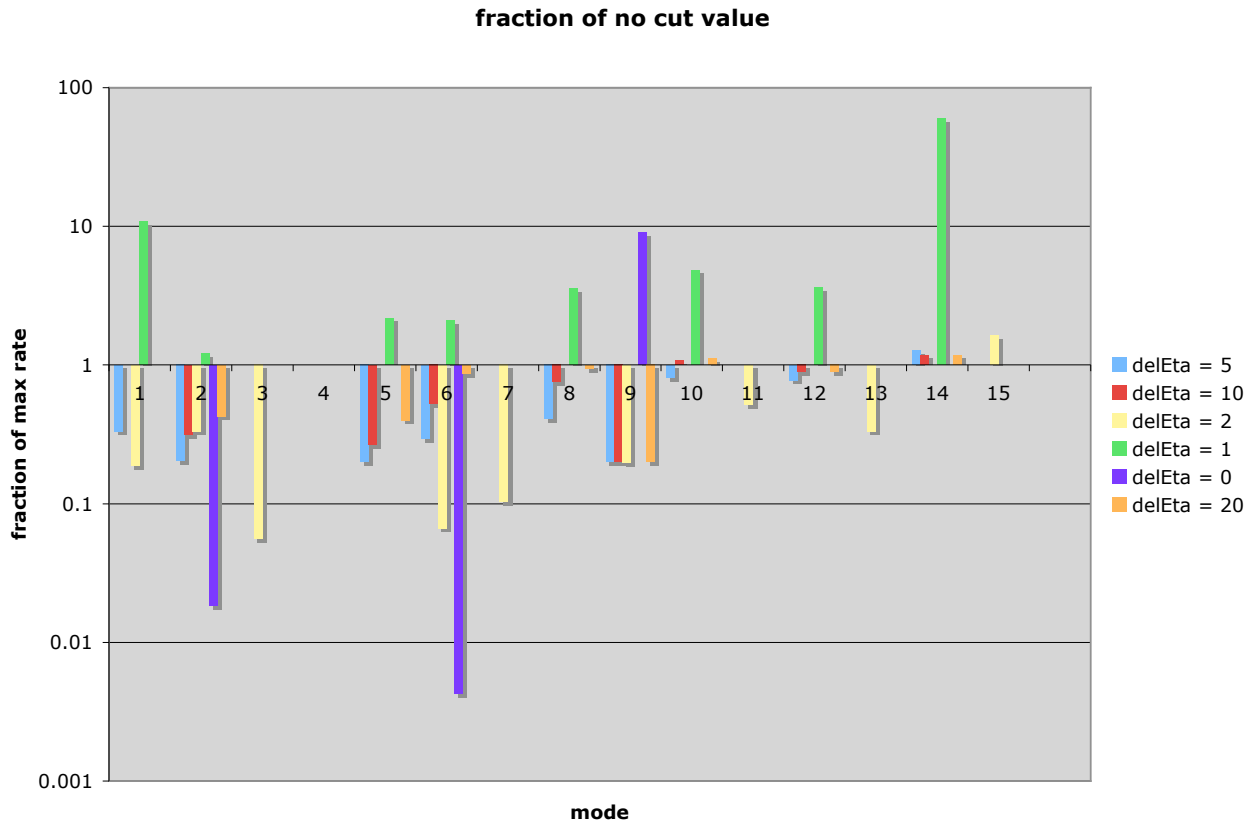


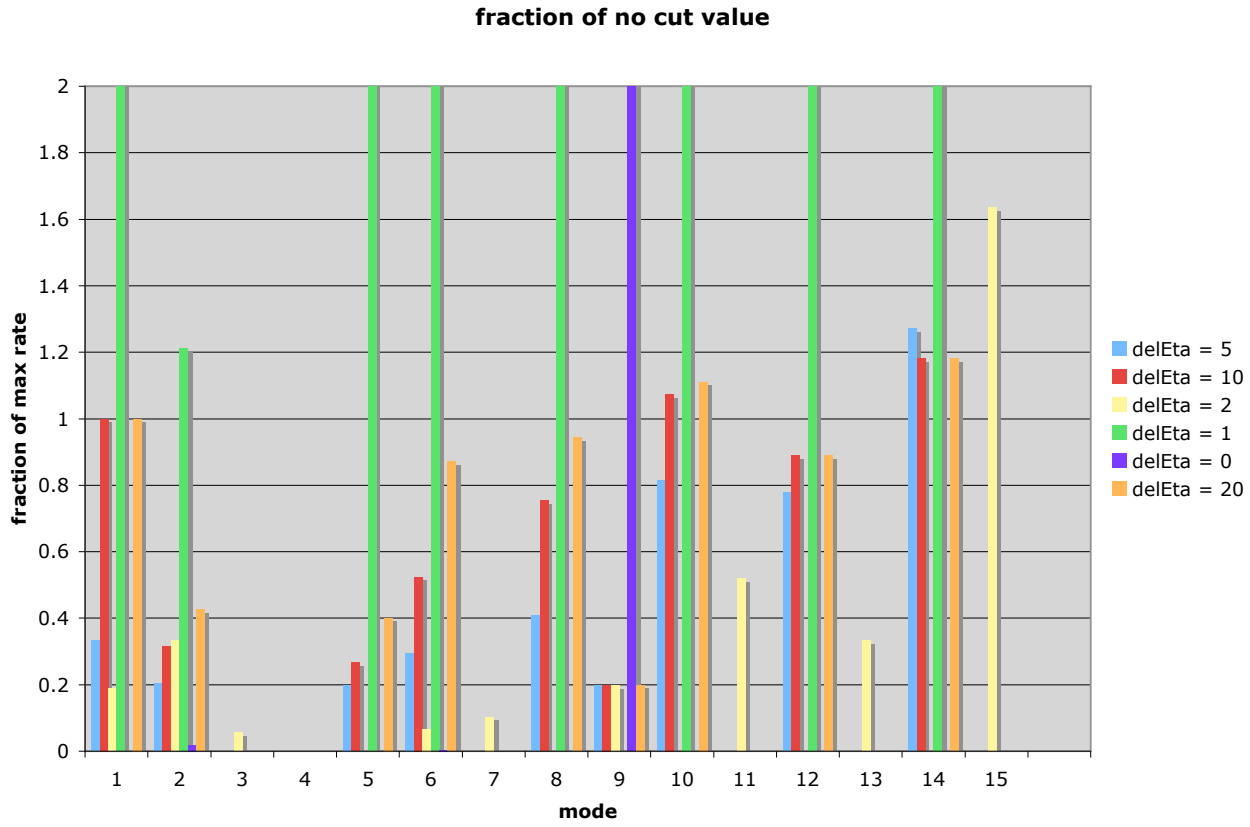
Errors are sys (generator) + stat in quad.

****

Next two plots show the fraction of events for each track type compared to the open wondows value. (eg if i see 10 events for this value of delta eta for a given track type and 100 events for for the same track type with no eta window cut then i enter 0.1.)

First plot is log y scale, second is linear with max 2.0

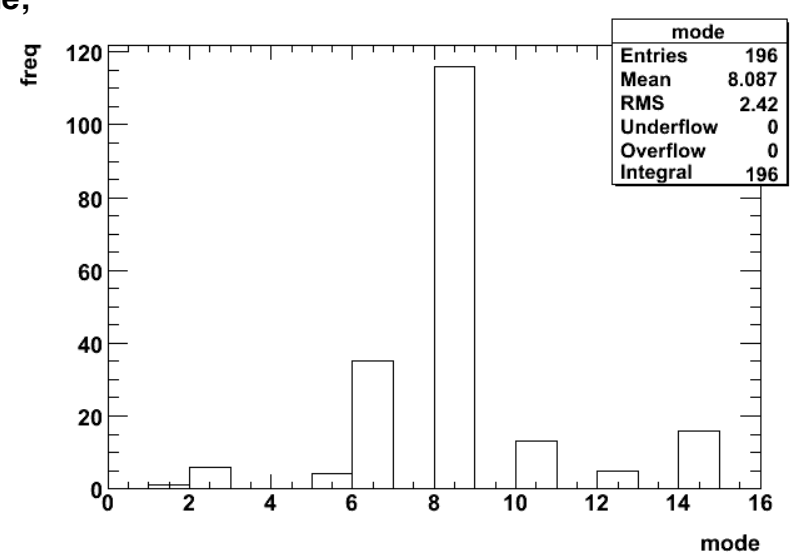

fraction of no cut value
100
10
1
0.1
0.01
0.001
fraction of max rate
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
mode
delEta = 5
delEta = 10
delEta = 2
delEta = 1
delEta = 0
delEta = 20

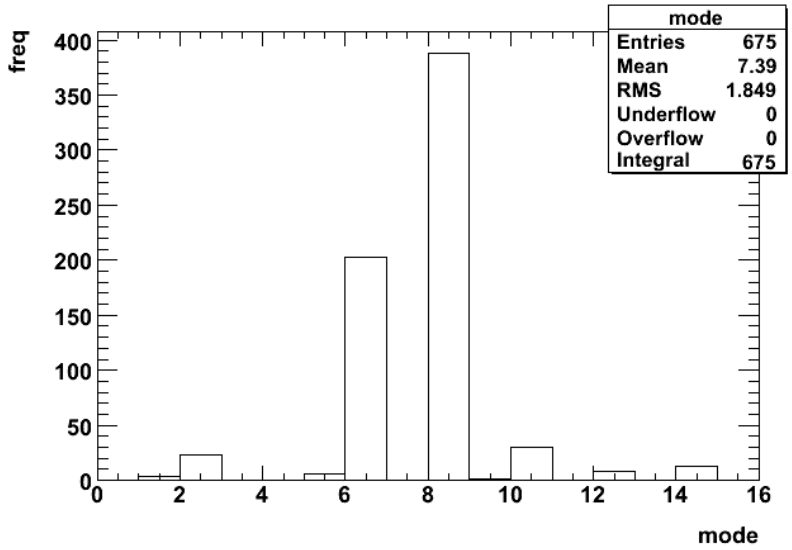

fraction of no cut value
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
fraction of max rate
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
mode
delEta = 5
delEta = 10
delEta = 2
delEta = 1
delEta = 0
delEta = 20

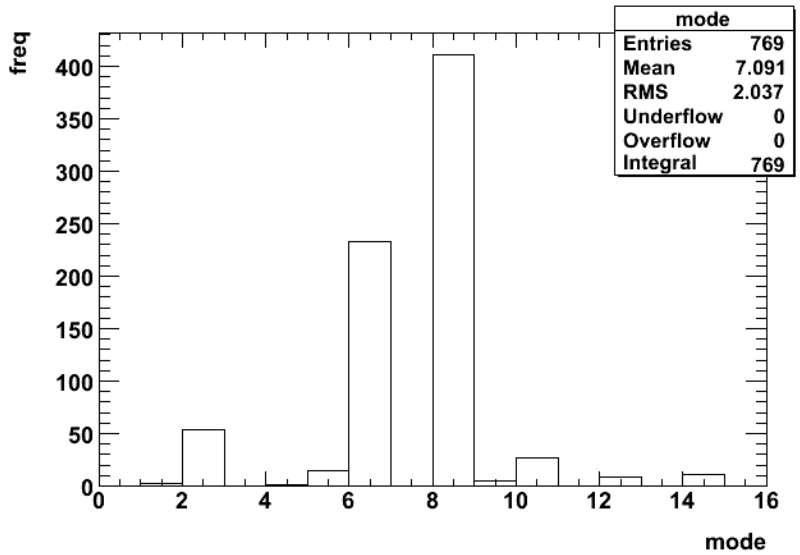
****

What follow are some basic plots for ‘delta-eta’ cut values 3, 20, 127(open)

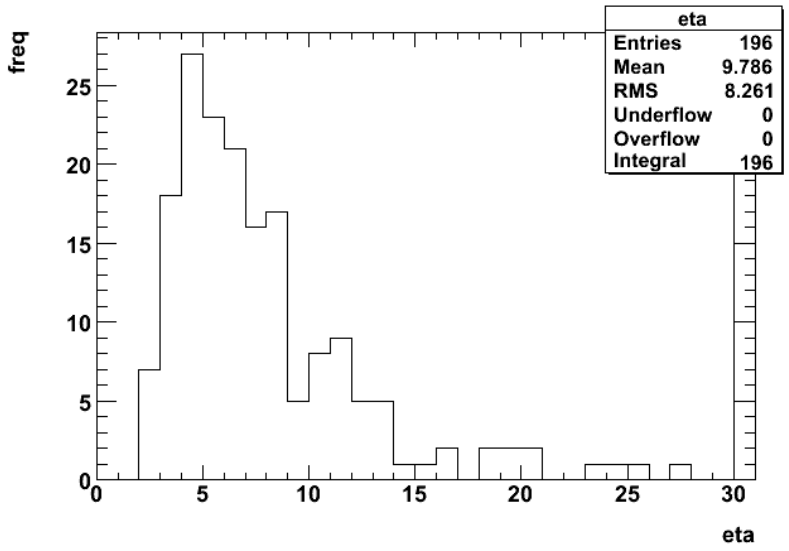
Mode;

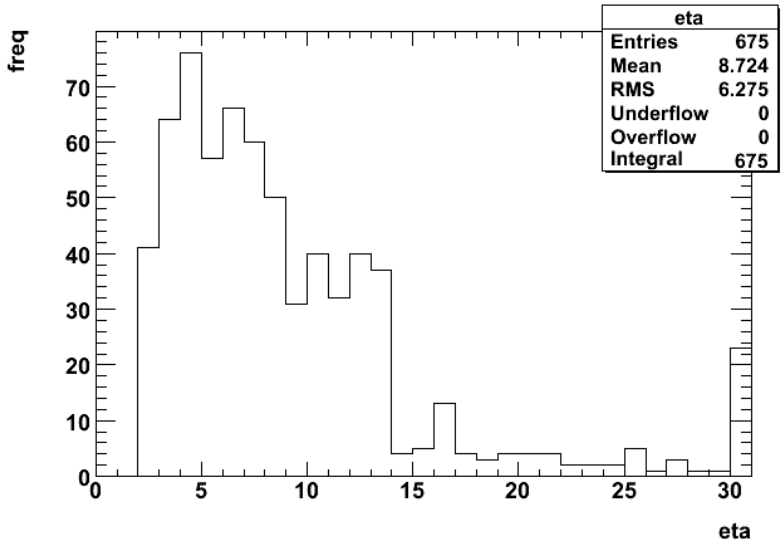


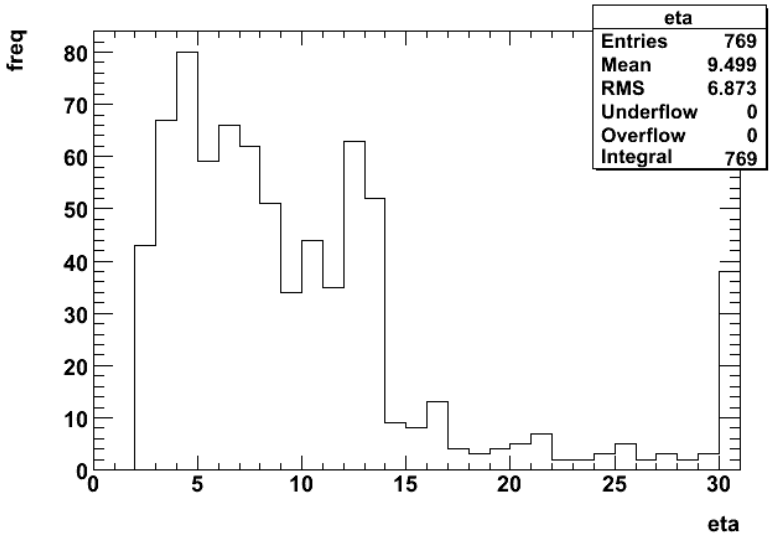




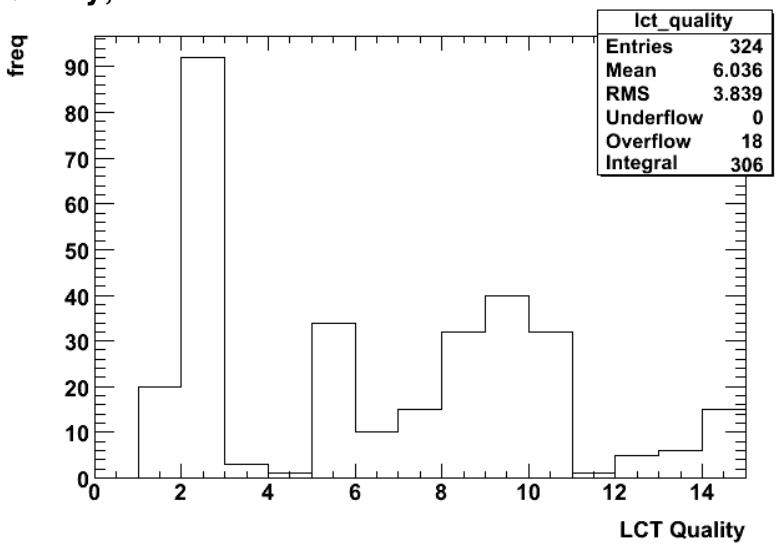
Eta

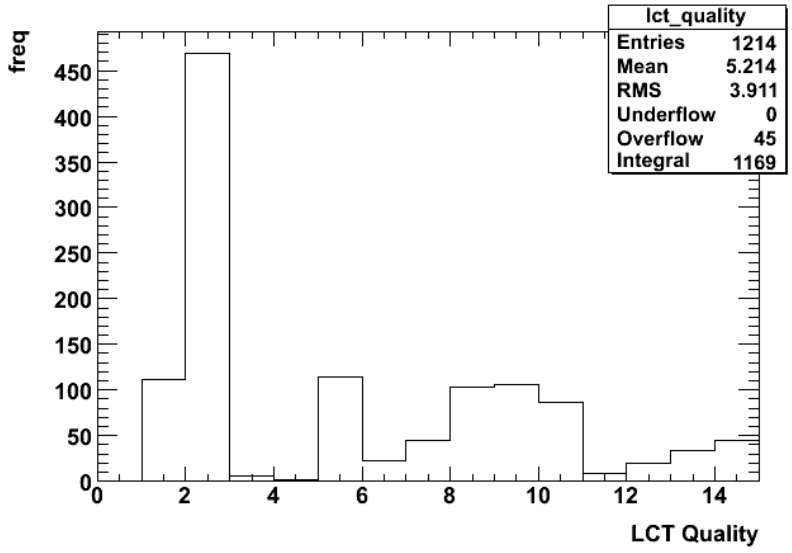

eta
Entries 196
Mean 9.786
RMS 8.261
Underflow 0
Overflow 0
Integral 196
freq
eta

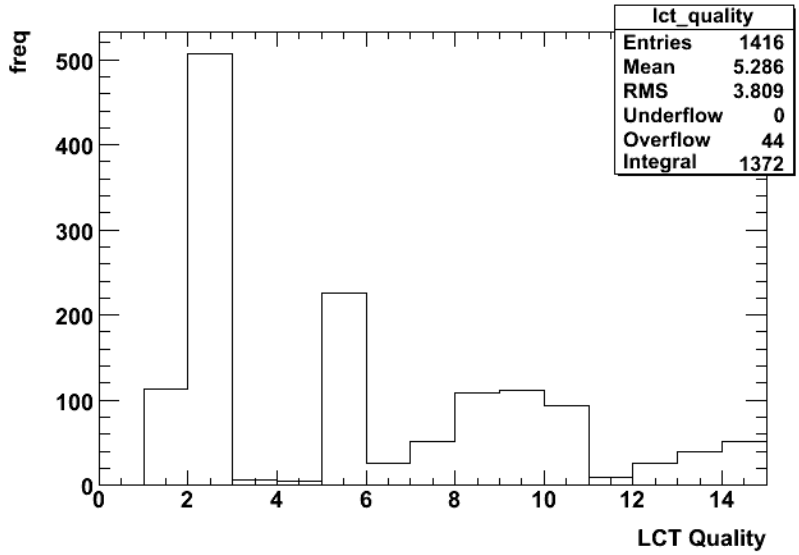

eta
Entries 675
Mean 8.724
RMS 6.275
Underflow 0
Overflow 0
Integral 675
freq
eta


eta
Entries 769
Mean 9.499
RMS 6.873
Underflow 0
Overflow 0
Integral 769
freq
eta

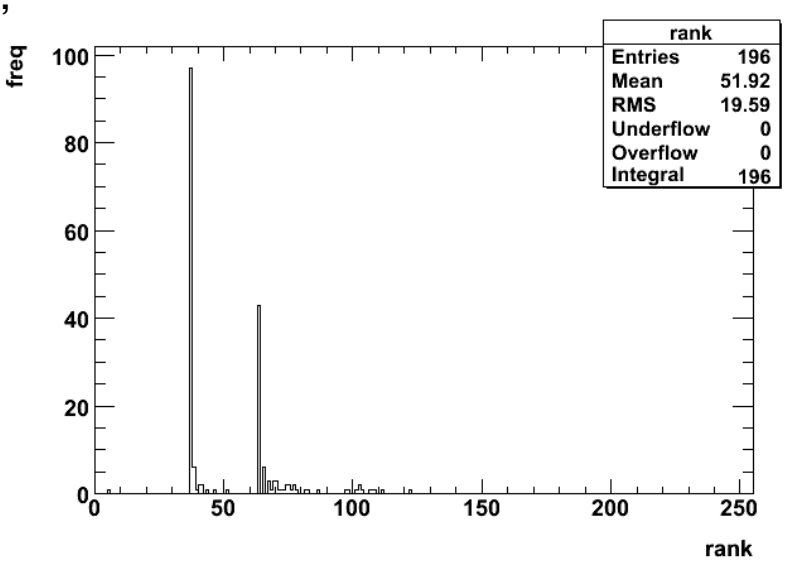
LCT Quality;

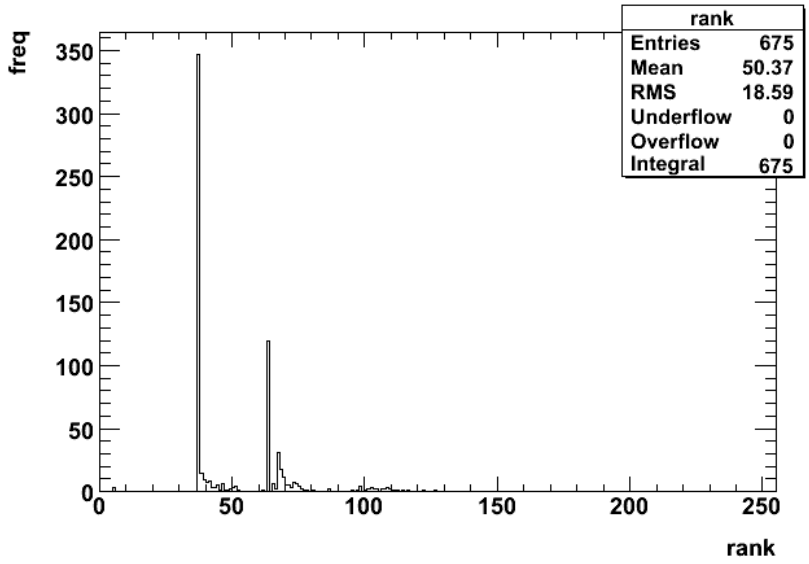

lct_quality
Entries 324
Mean 6.036
RMS 3.839
Underflow 0
Overflow 18
Integral 306
freq
LCT Quality

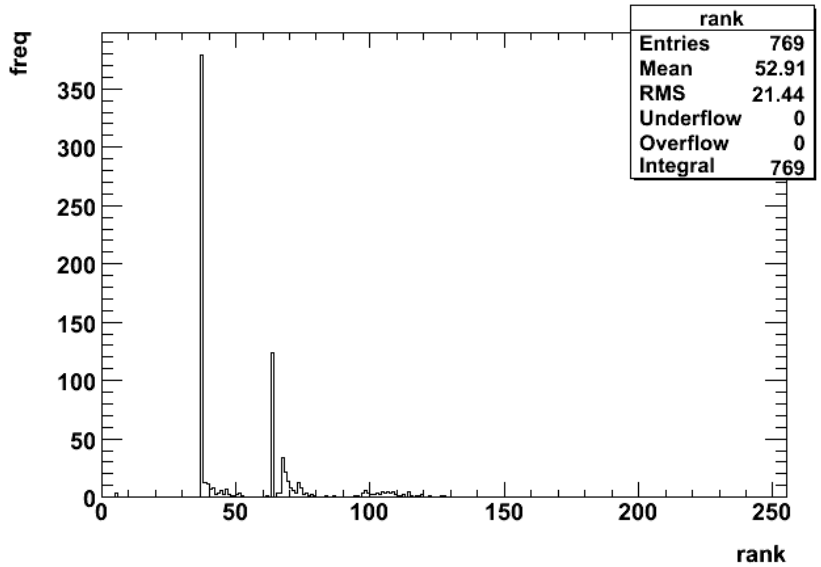

lct_quality
Entries 1214
Mean 5.214
RMS 3.911
Underflow 0
Overflow 45
Integral 1169
freq
LCT Quality


lct_quality
Entries 1416
Mean 5.286
RMS 3.809
Underflow 0
Overflow 44
Integral 1372
freq
LCT Quality

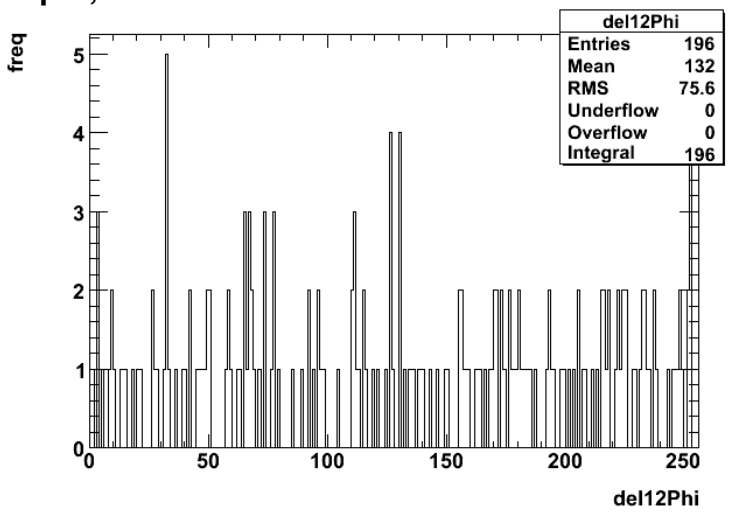
Rank;

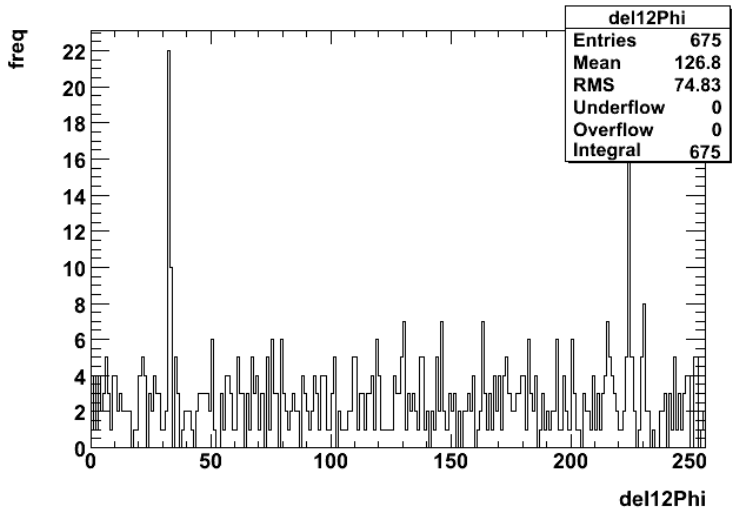

rank
Entries 196
Mean 51.92
RMS 19.59
Underflow 0
Overflow 0
Integral 196
freq
rank

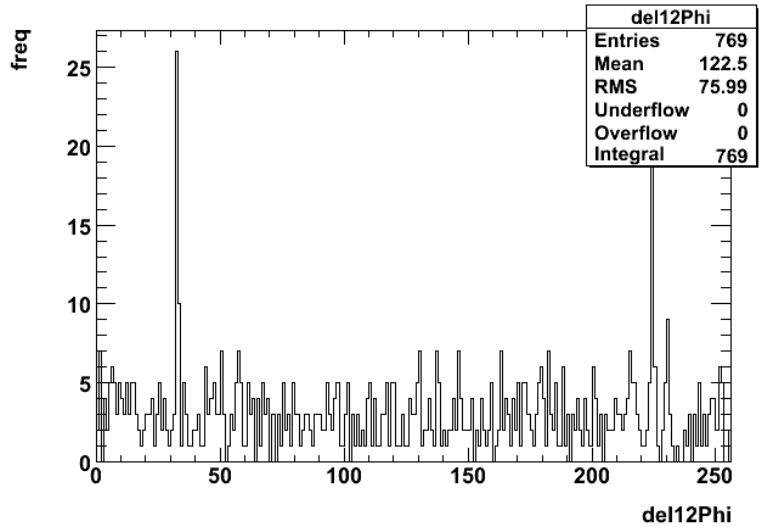

rank
Entries 675
Mean 50.37
RMS 18.59
Underflow 0
Overflow 0
Integral 675
freq
rank


rank
Entries 769
Mean 52.91
RMS 21.44
Underflow 0
Overflow 0
Integral 769
freq
rank

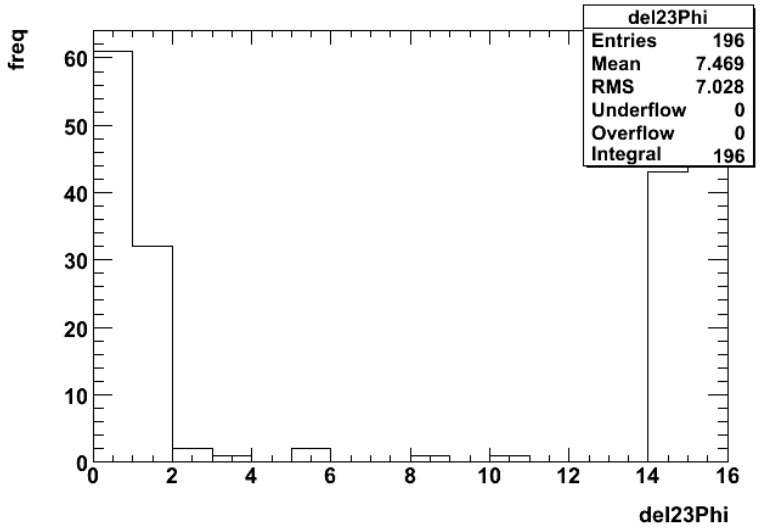
del 1-2 phi;

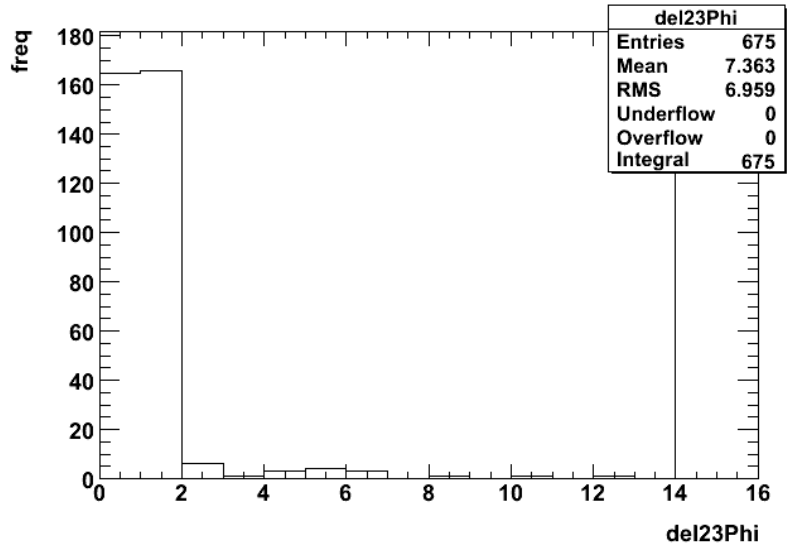

del12Phi
Entries 196
Mean 132
RMS 75.6
Underflow 0
Overflow 0
Integral 196
freq
del12Phi

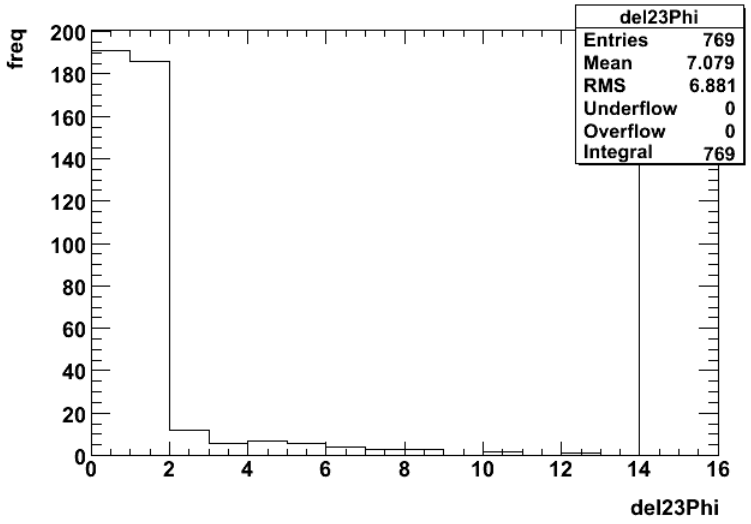

del12Phi
Entries 675
Mean 126.8
RMS 74.83
Underflow 0
Overflow 0
Integral 675
freq
del12Phi


del12Phi
Entries 769
Mean 122.5
RMS 75.99
Underflow 0
Overflow 0
Integral 769
freq
del12Phi

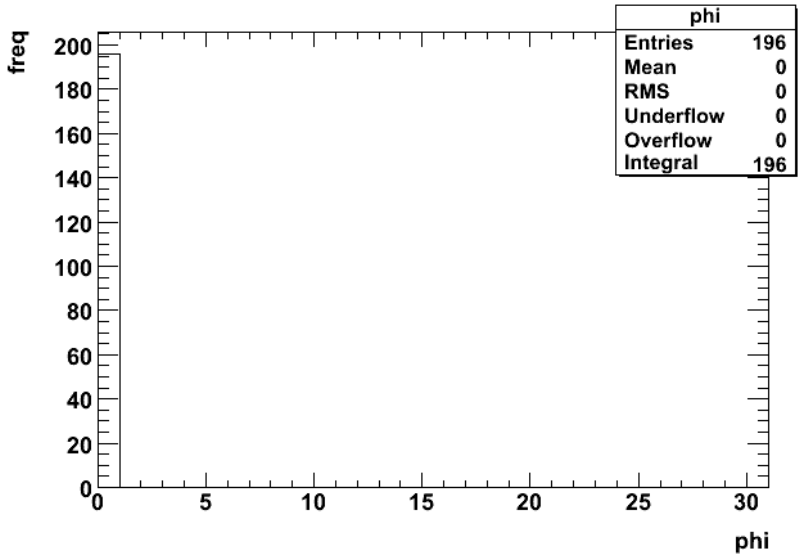
del 2-3 phi

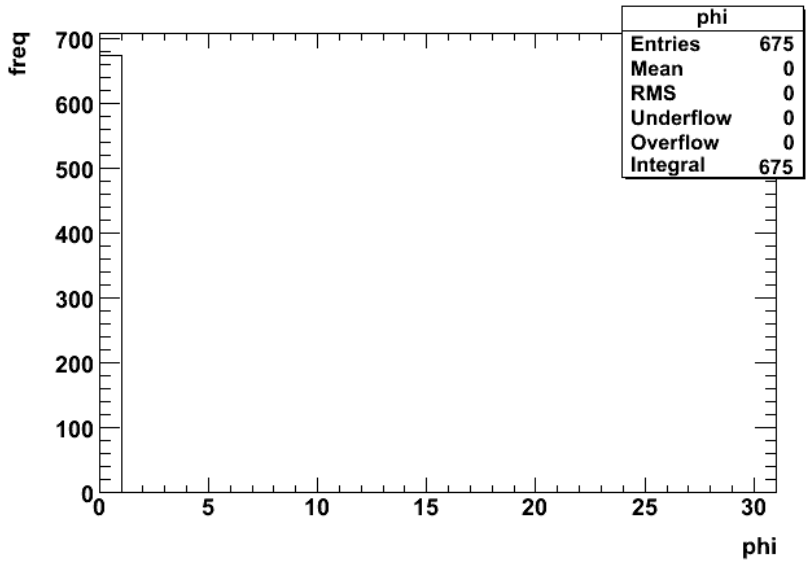

del23Phi
Entries 196
Mean 7.469
RMS 7.028
Underflow 0
Overflow 0
Integral 196
freq
del23Phi

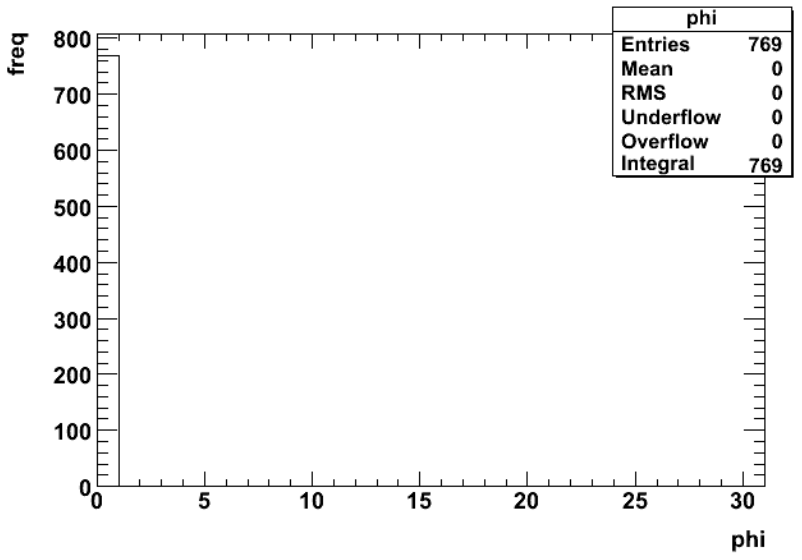

del23Phi
Entries 675
Mean 7.363
RMS 6.959
Underflow 0
Overflow 0
Integral 675
freq
del23Phi


del23Phi
Entries 769
Mean 7.079
RMS 6.881
Underflow 0
Overflow 0
Integral 769
freq
del23Phi

Phi;


phi
Entries 196
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 196
freq
phi


phi
Entries 675
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 675
freq
phi


phi
Entries 769
Mean 0
RMS 0
Underflow 0
Overflow 0
Integral 769
freq
phi