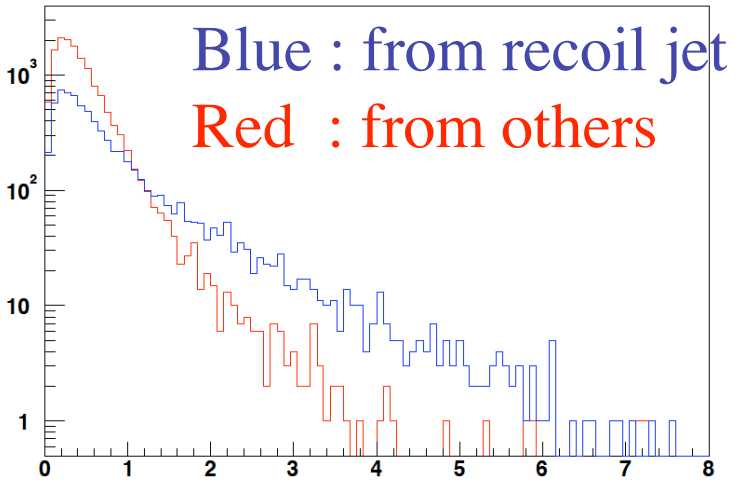
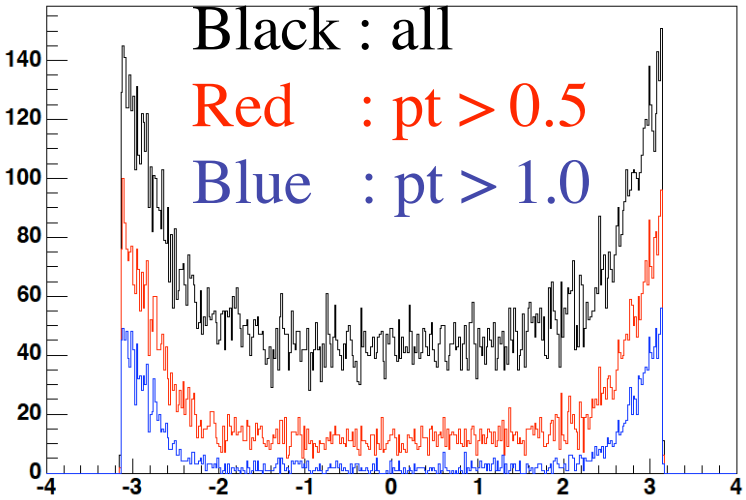
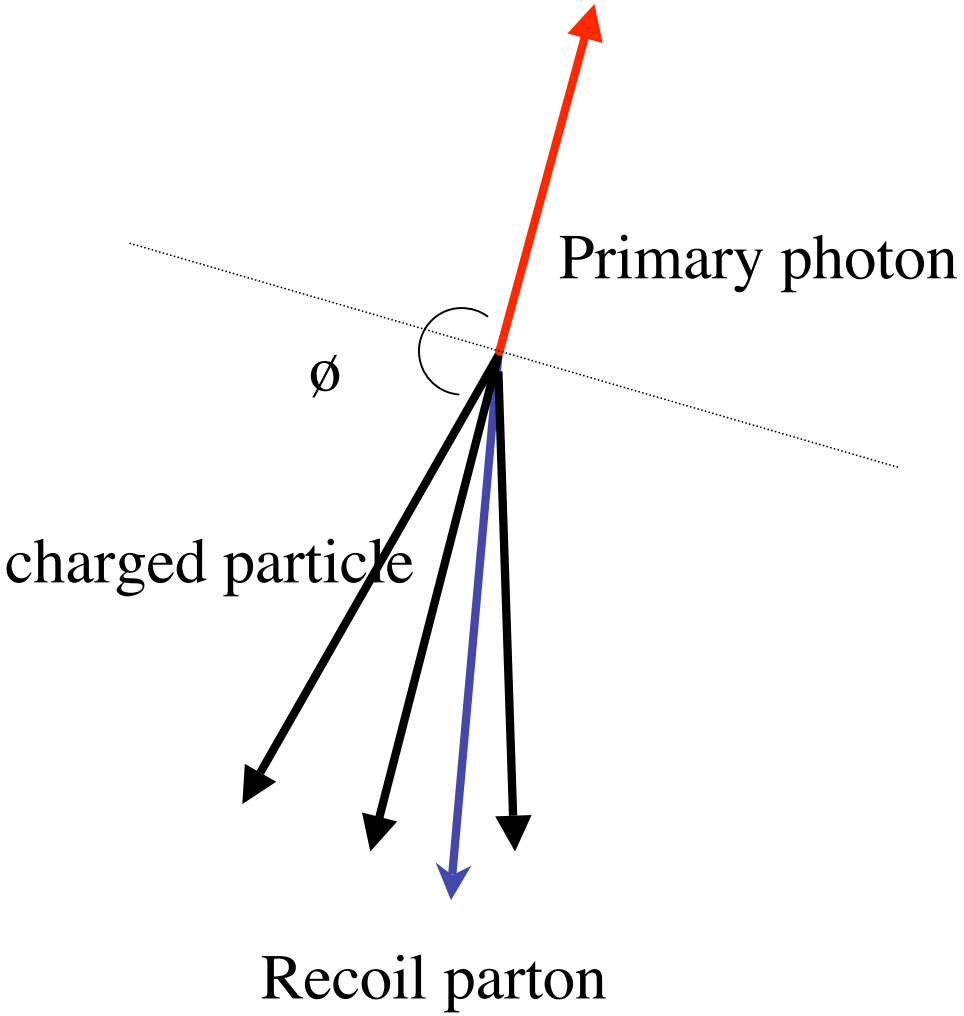
Gamma jet simulation (2)

silicon meeting 2003/08/20 M.Togawa







How to reconstruct jet axis

- Apply pt cut and

  first cut : pt > 1.0 (GeV)

  Remaining particles (1~3 particles remain)

  calculate jet axis taking average

  <eta> <ø> -> first jet axis

- Second cut

  Calculate cone radius R defined as

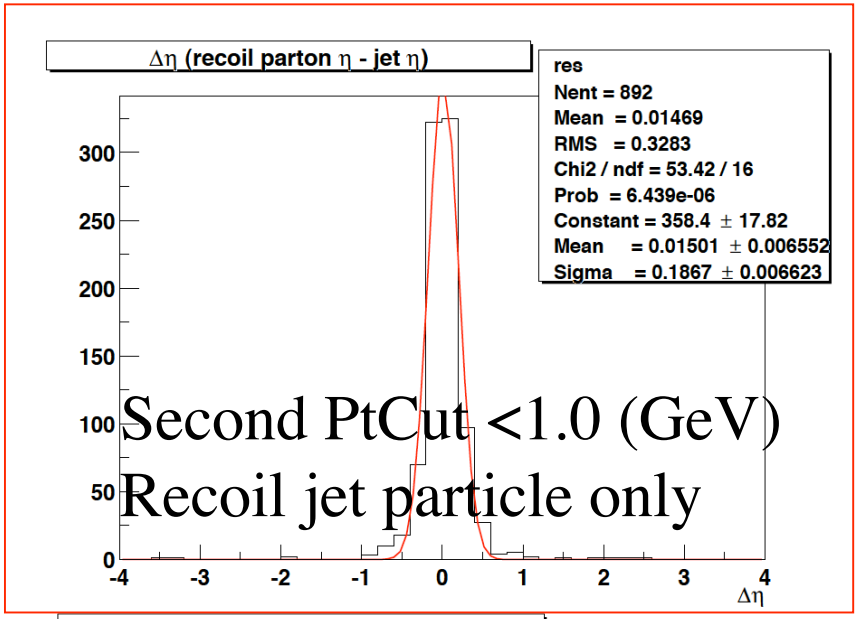
  $$R = \sqrt{(\square\square)^2 + (\square\square)^2}$$

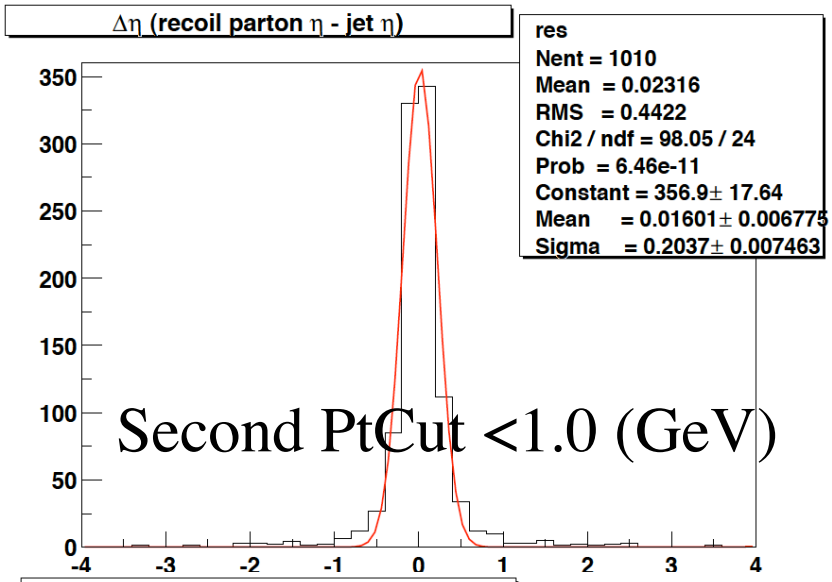
  apply second cut “R<0.5 and pt >1.0”

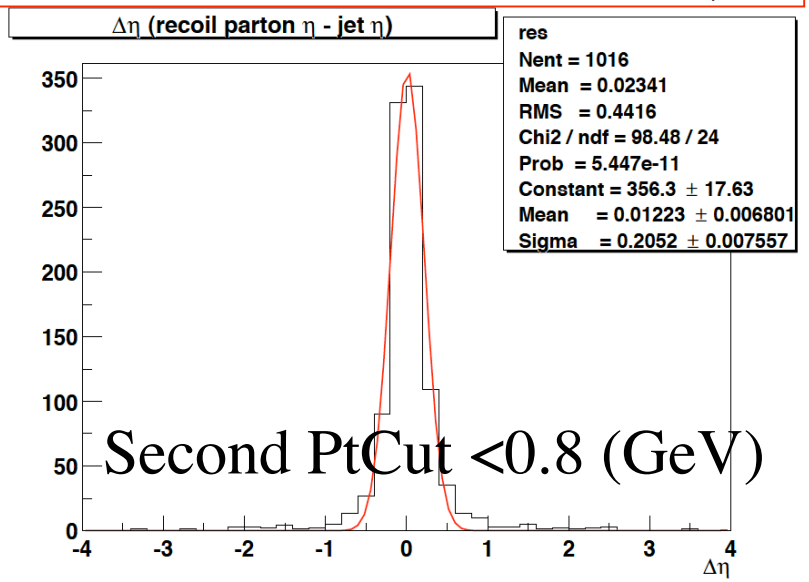
  and calculate jet axis

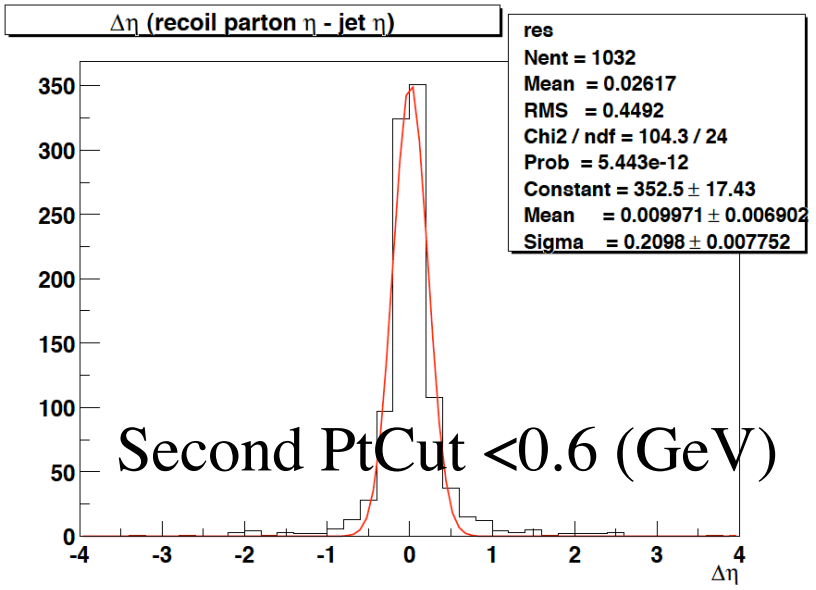
  -> go to “second cut” … iteration

Cone R~0.5 Δeta

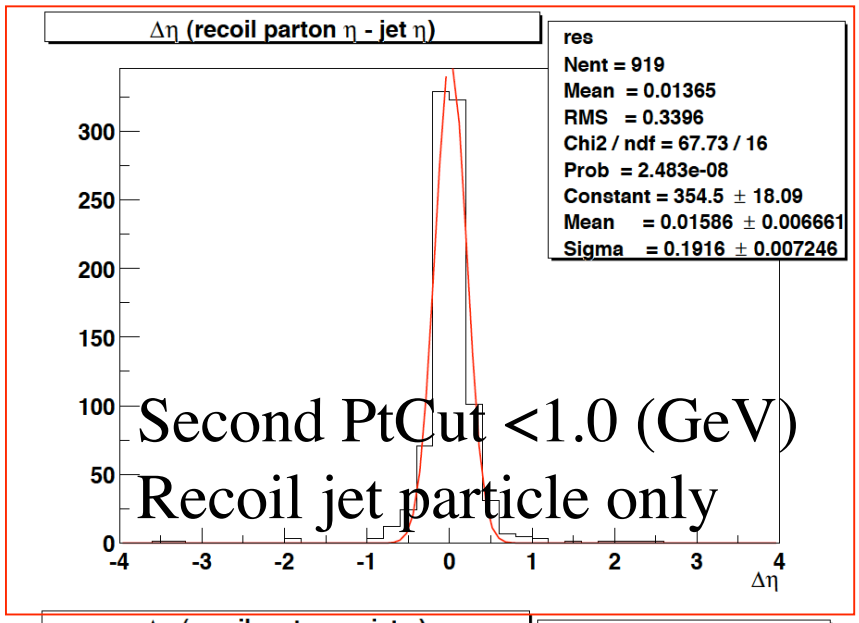


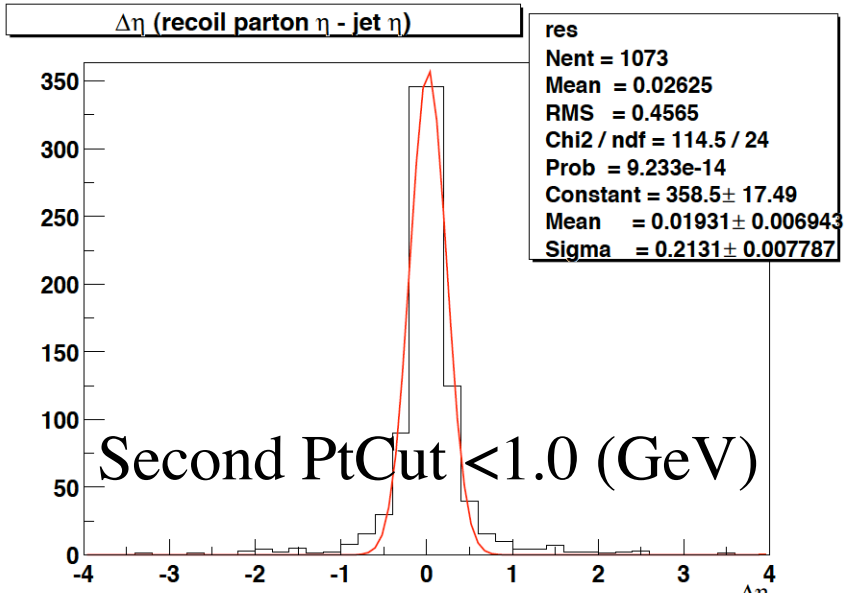


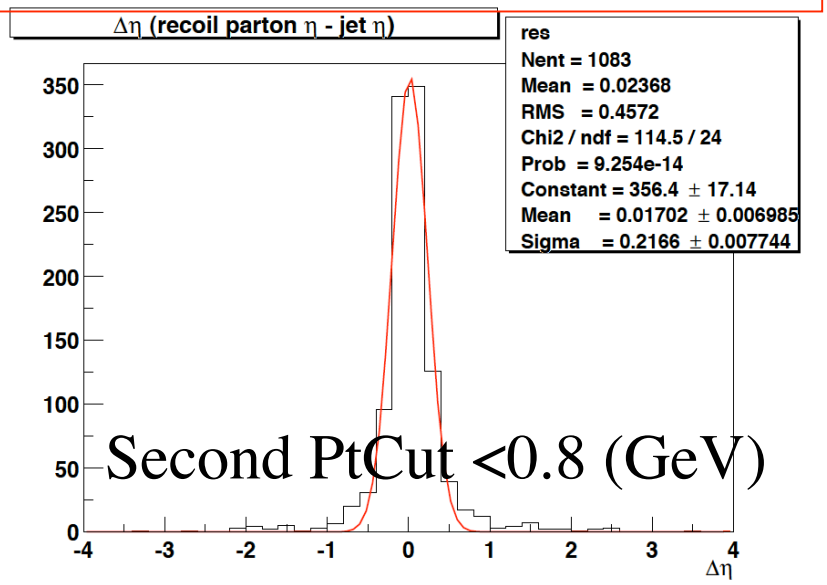


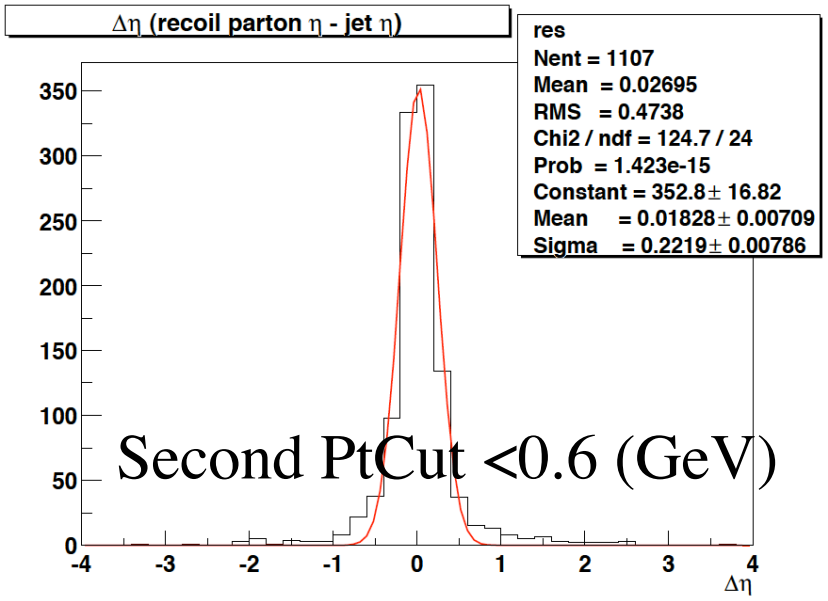


Cone R~0.7 Δeta

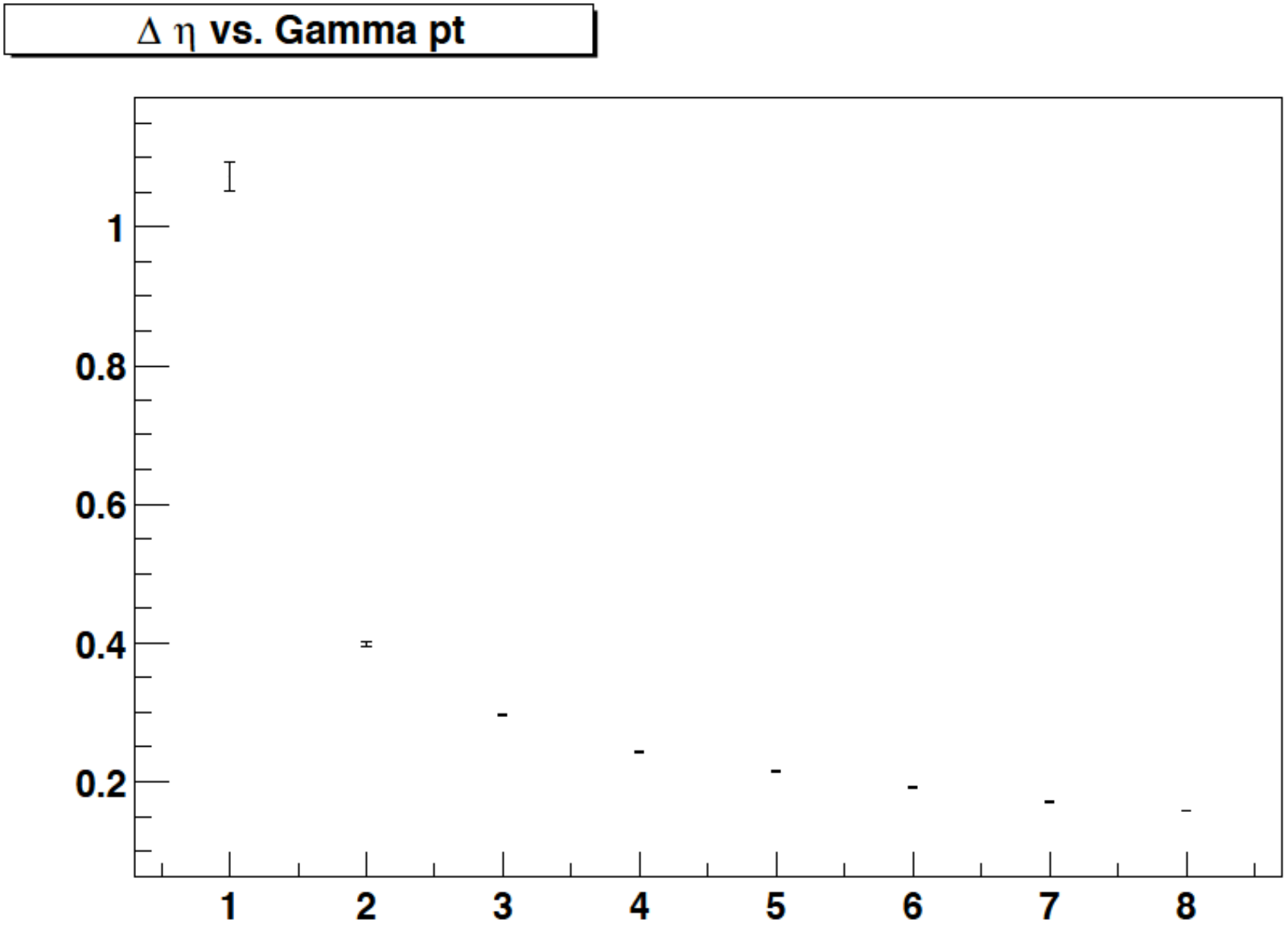


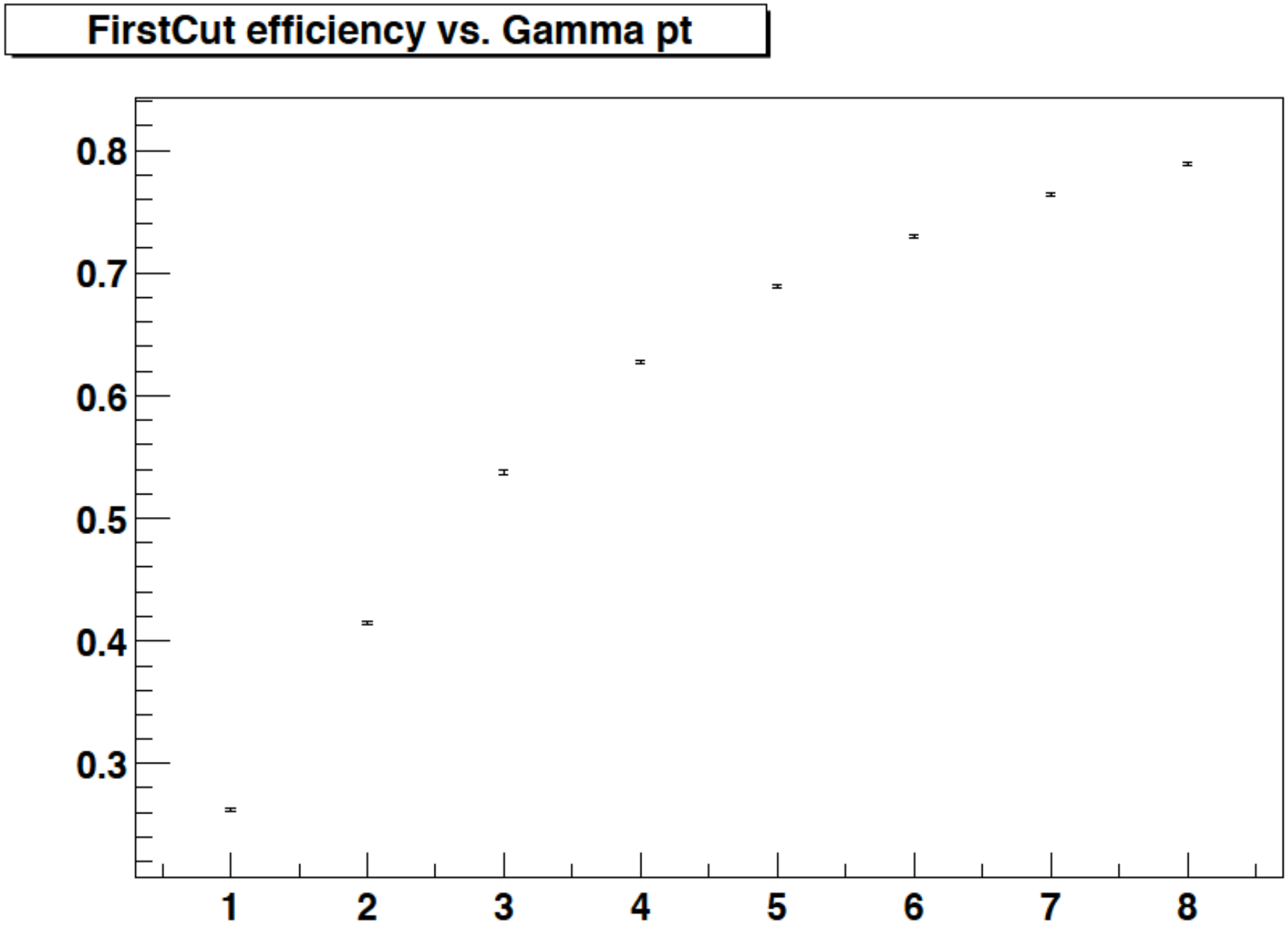


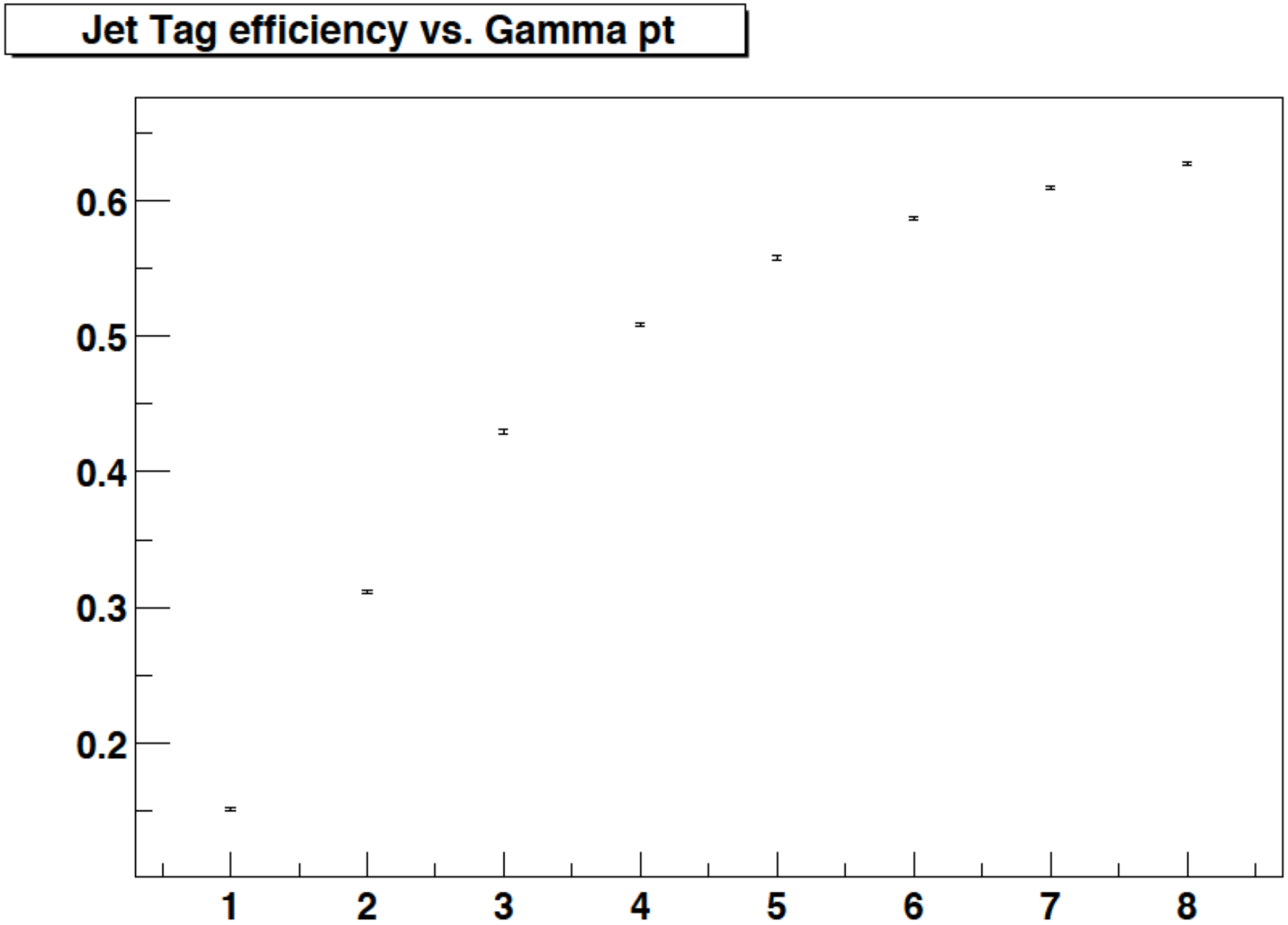




First : pt >1(GeV) and second R<0.5 && pt>1(GeV)




FirstCut efficiency vs. Gamma pt
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8


Jet Tag efficiency vs. Gamma pt
0.6
0.5
0.4
0.3
0.2
1
2
3
4
5
6
7
8