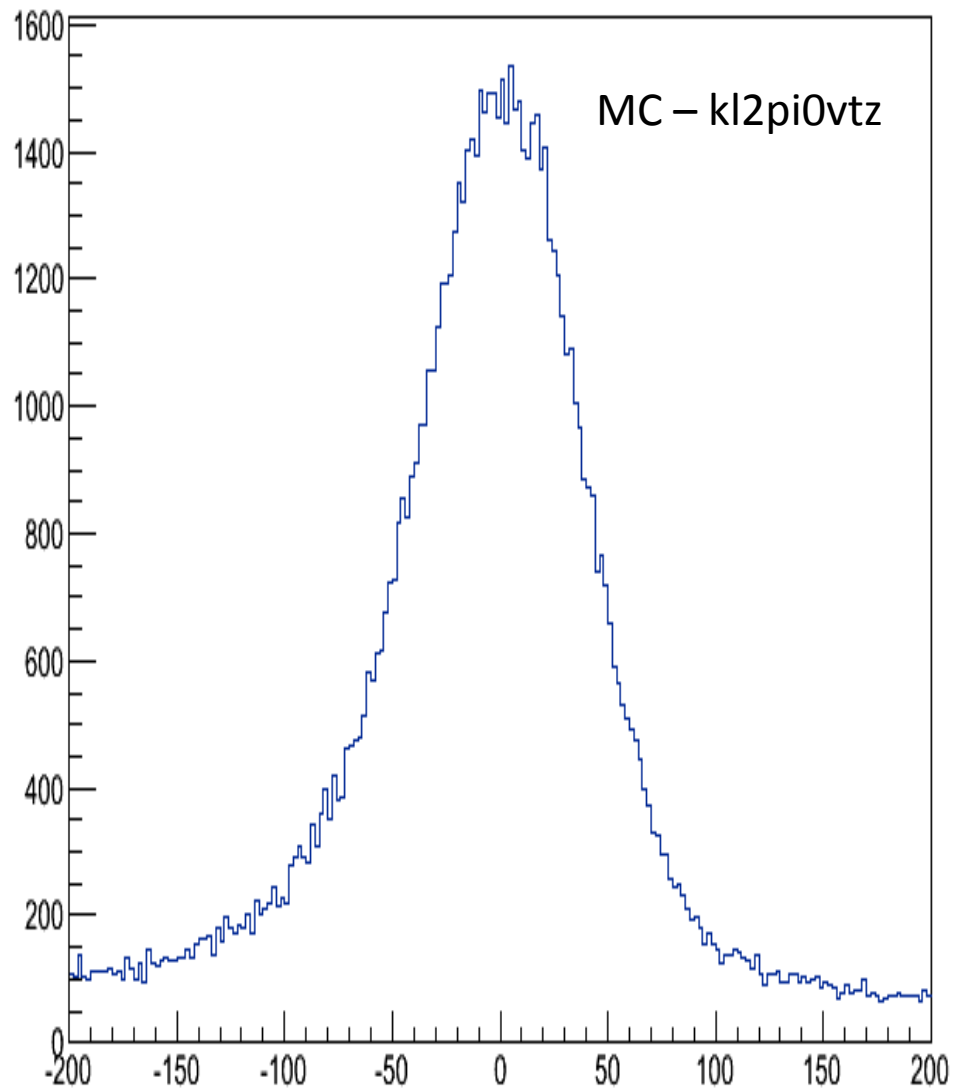
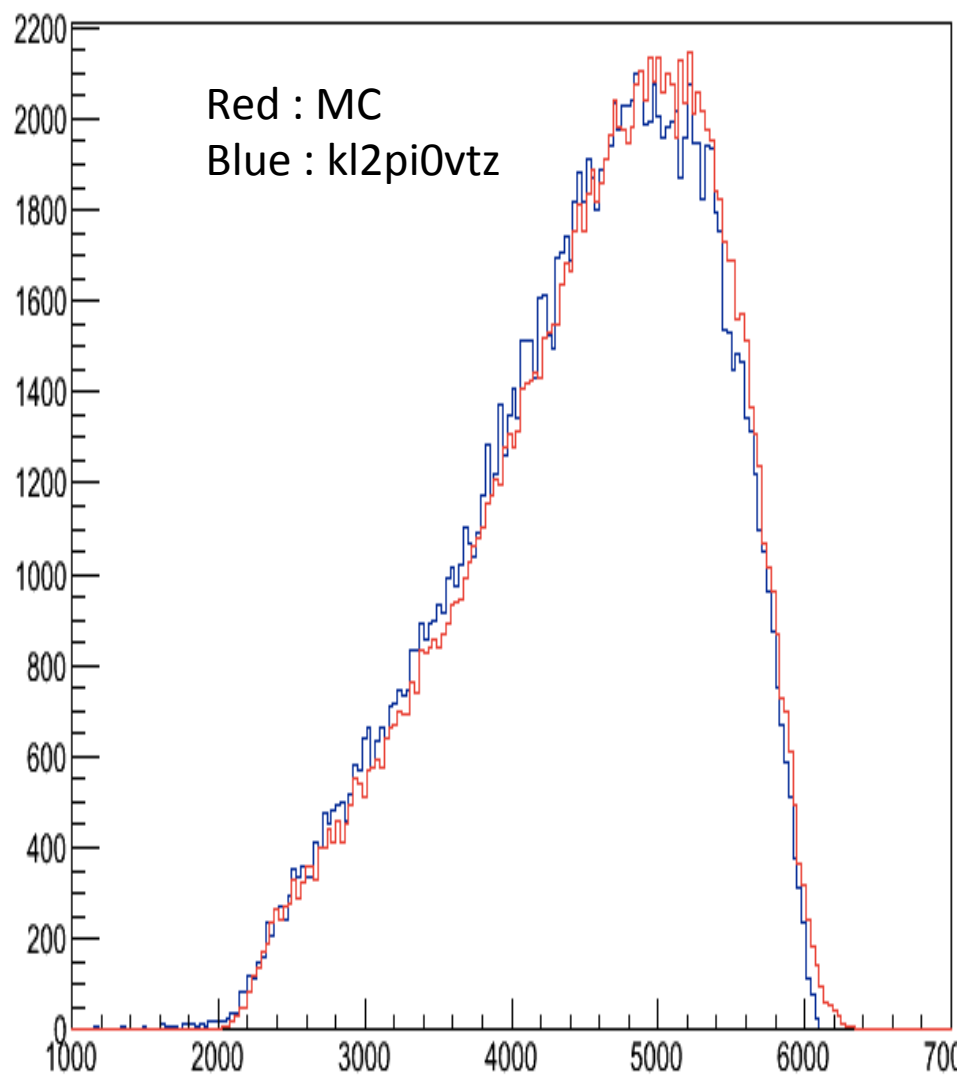


e14g5ana

E14g5ana (kl3pi0 MC data, no accidental overlay)

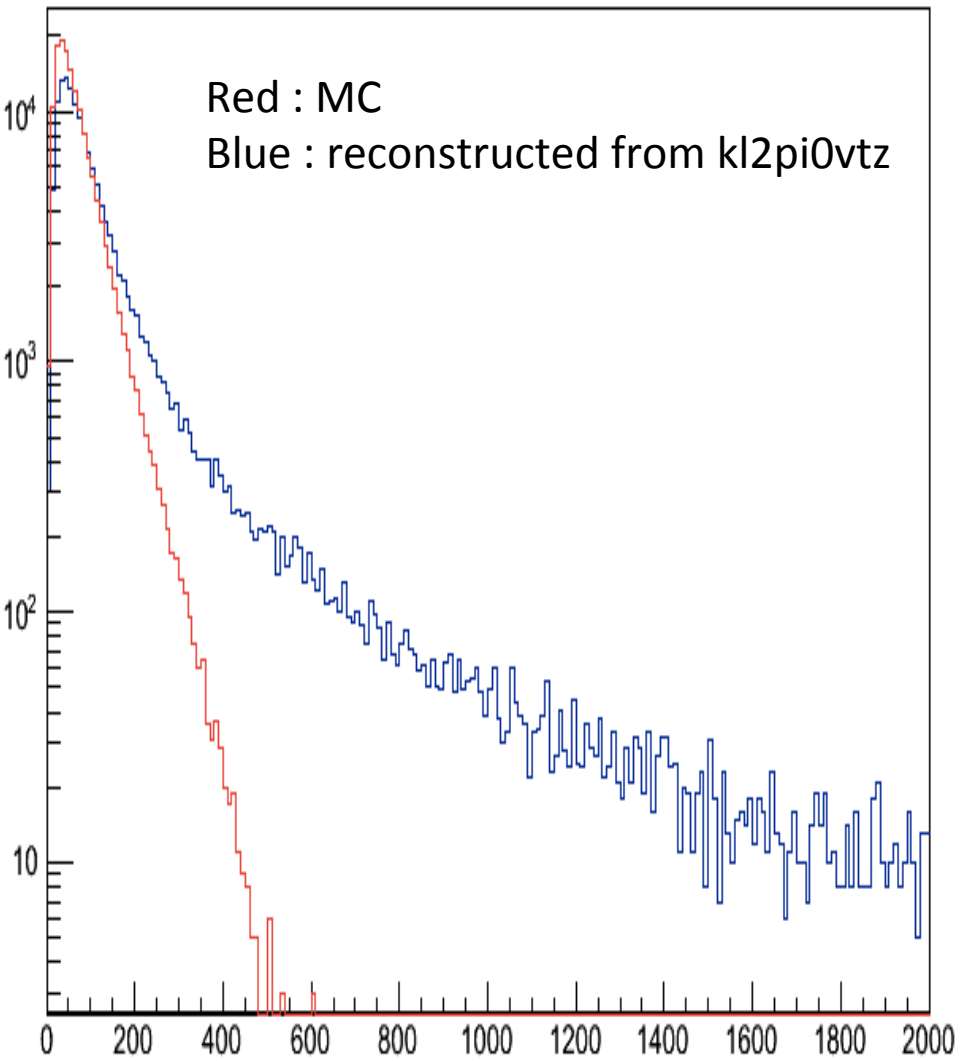
- Get vertex from kl2pi0
- Calculate position of 1 missing gamma
 - I used true MC value.
- Calculate energy
- Get invariant mass of 6g
- Kinematic cut

vtz

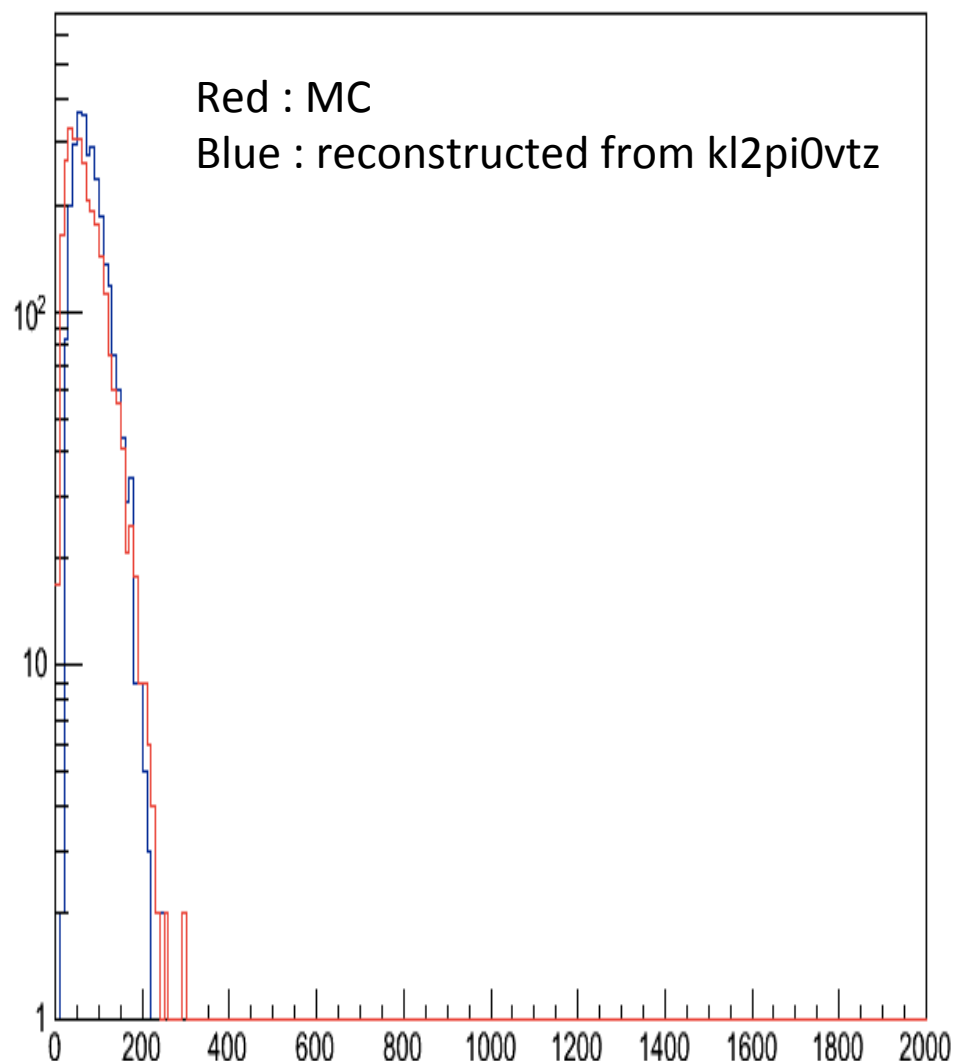


Energy of missing gamma

Before selections



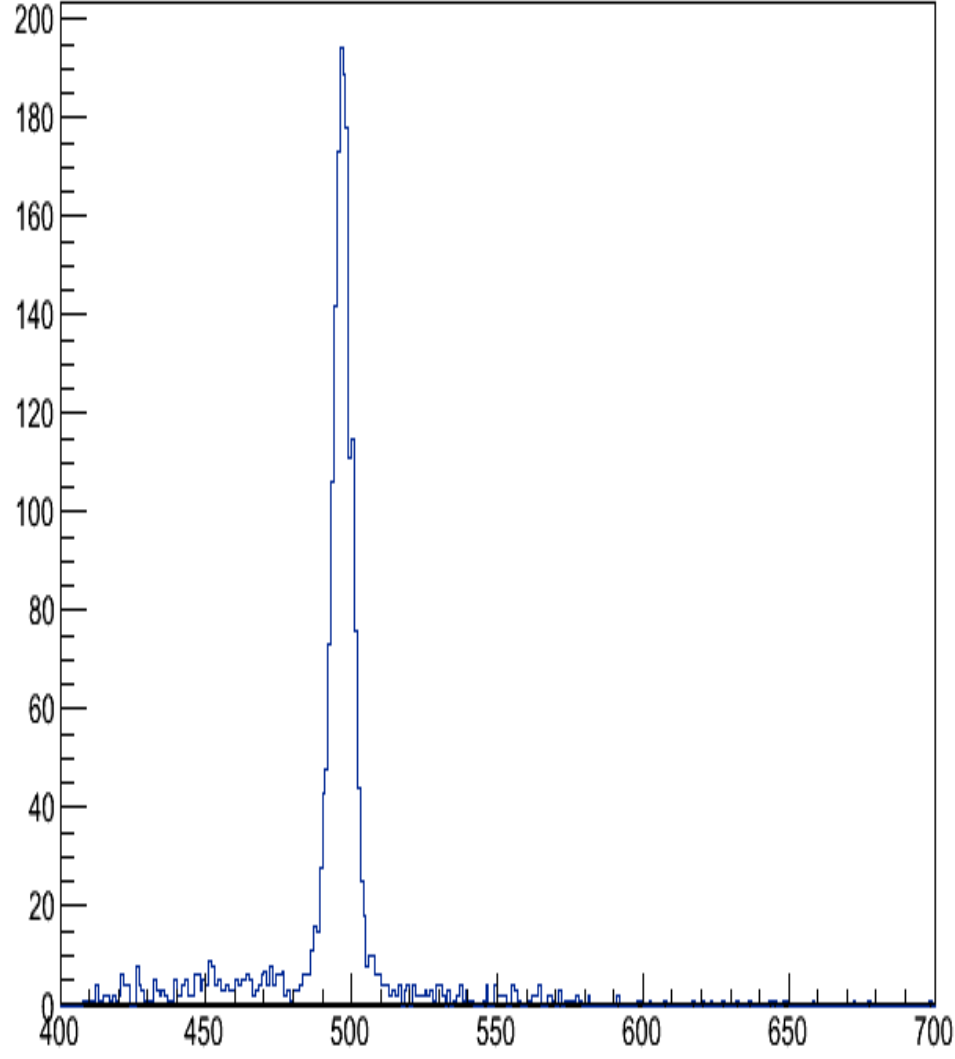
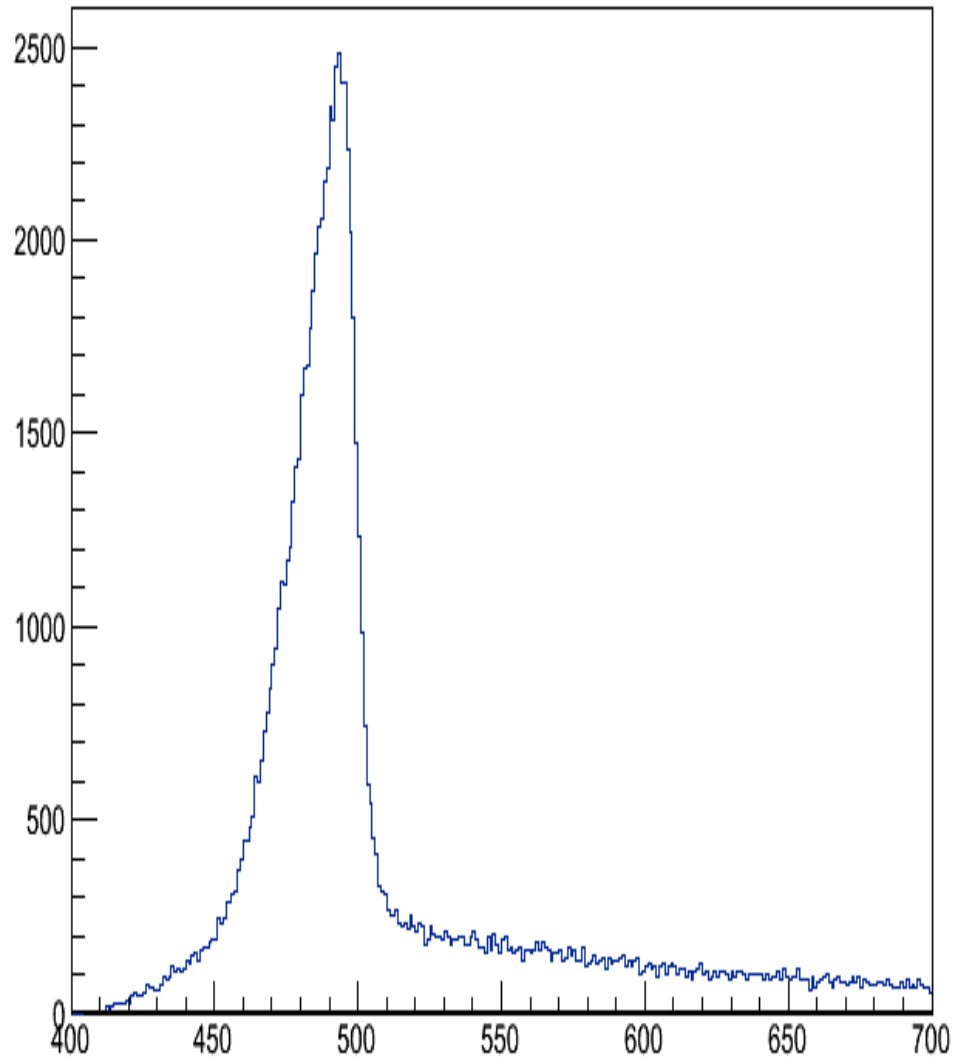
After selections



Invariant mass

Before selections

After selections

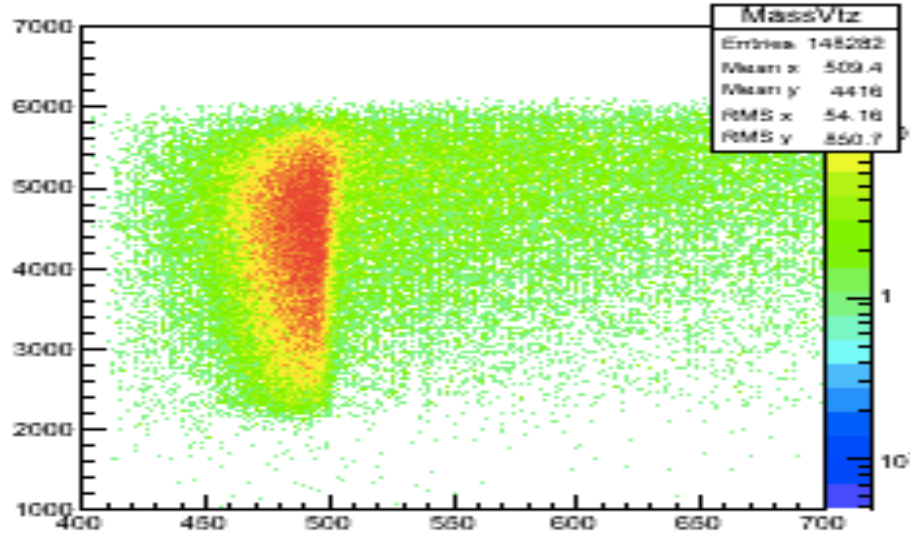


Selections (kinematic cut)

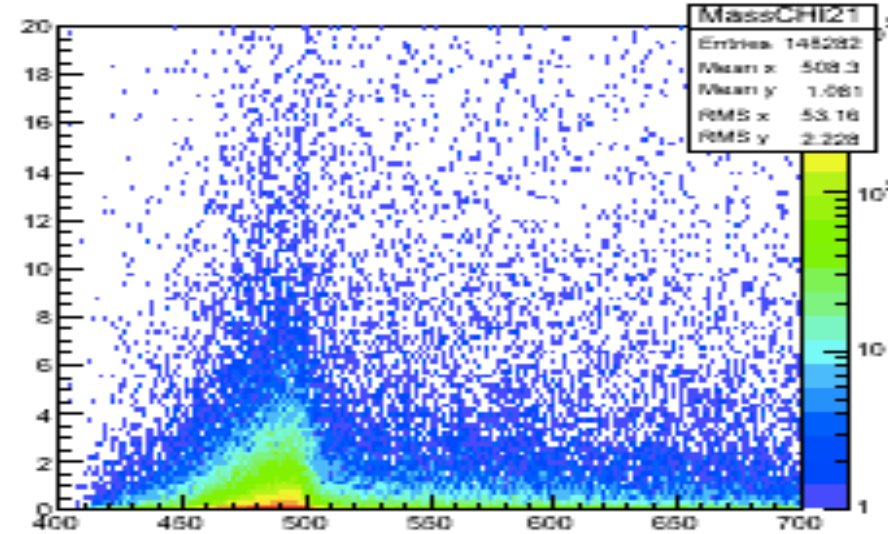
- 1) vertex cut
- 2) 1st chi2 of kl2pi0vtz
- 3) 2nd chi2 of kl2pi0vtz
- 4) KlongPt

2d histograms CutVar vs Mass

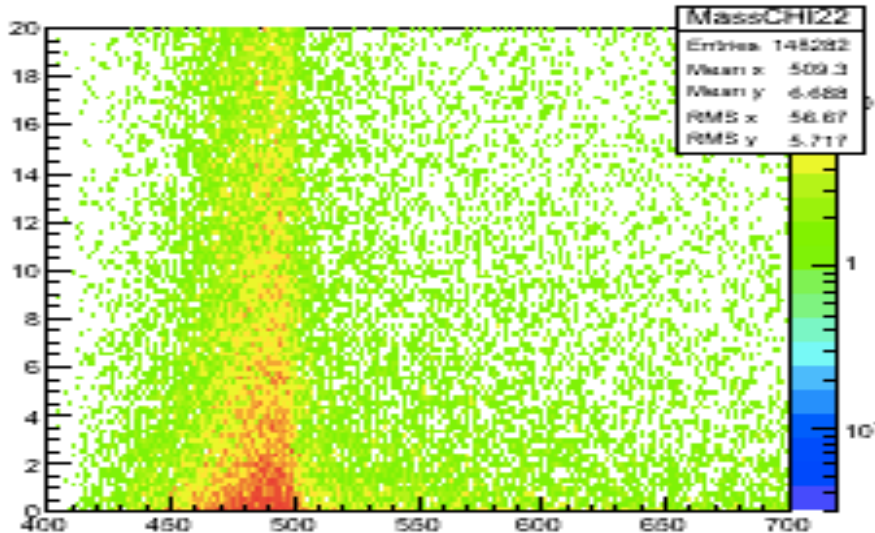
MassViz



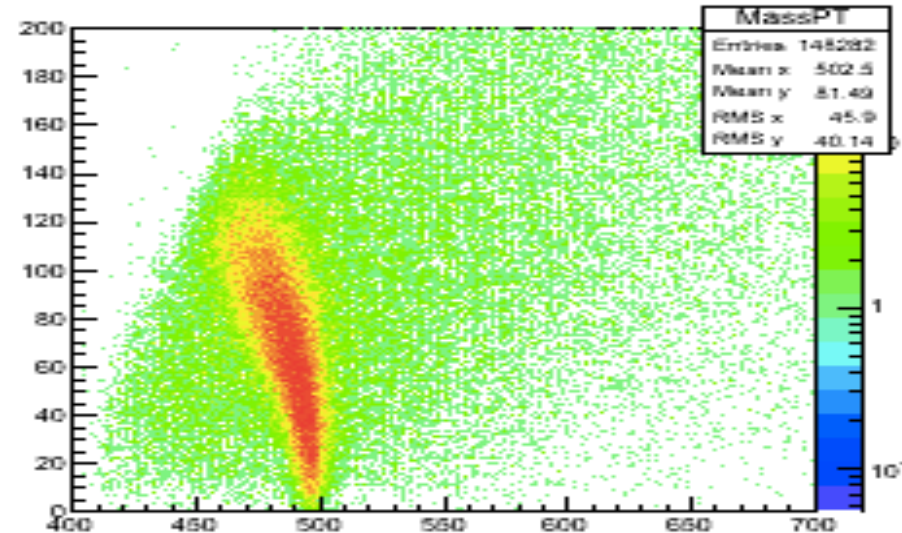
MassCHI21



MassCHI22

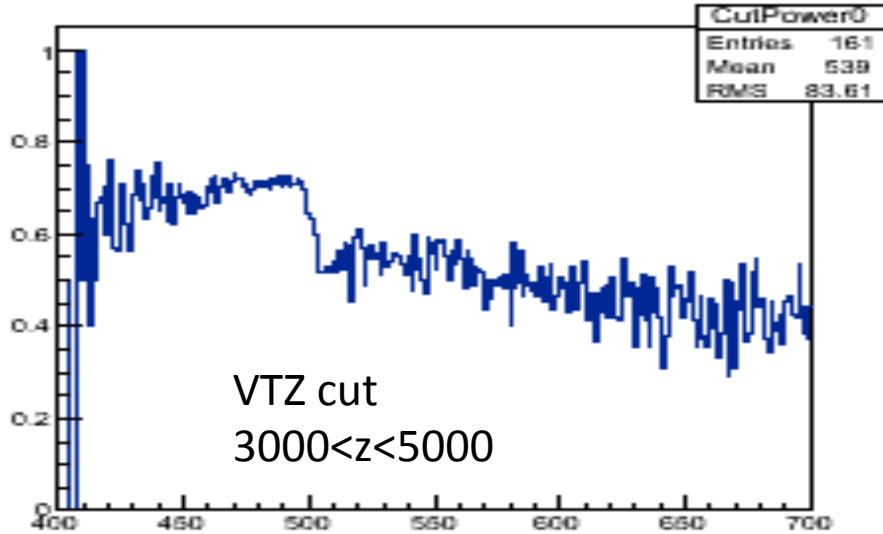


MassPT

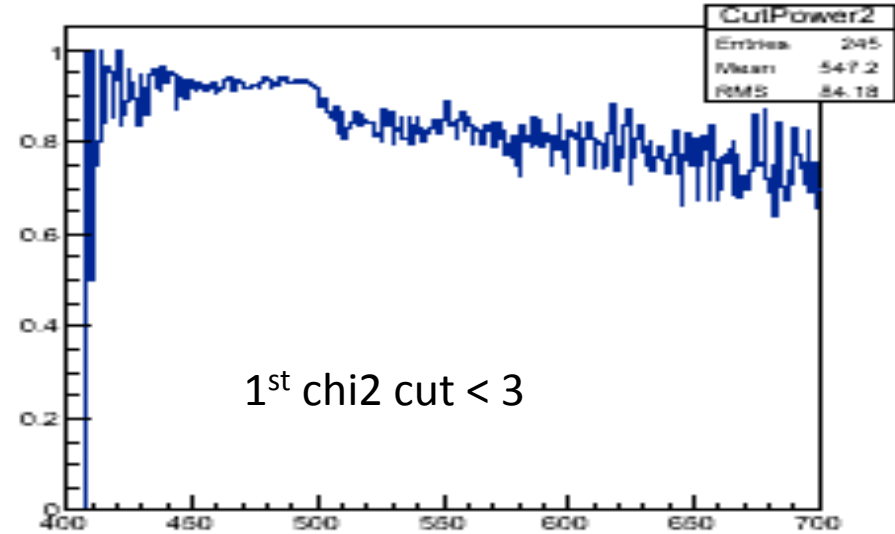


Cut power = (MassCut/MassOrig)

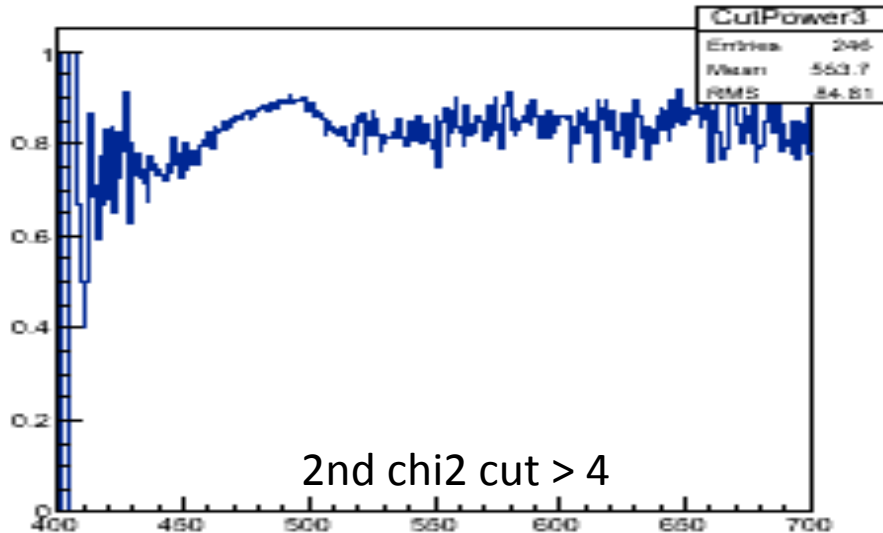
CutPower0



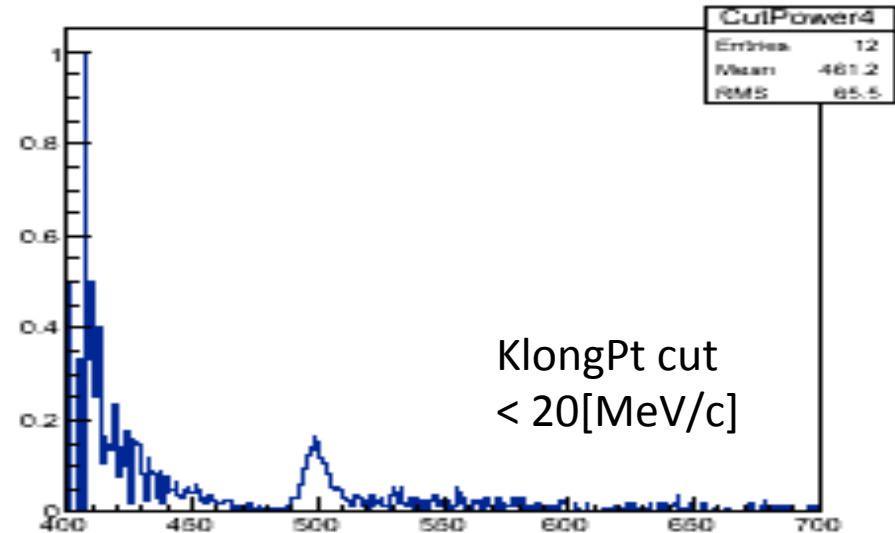
CutPower2



CutPower3



CutPower4

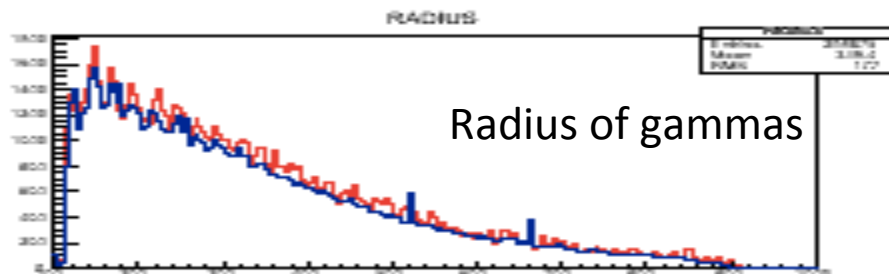
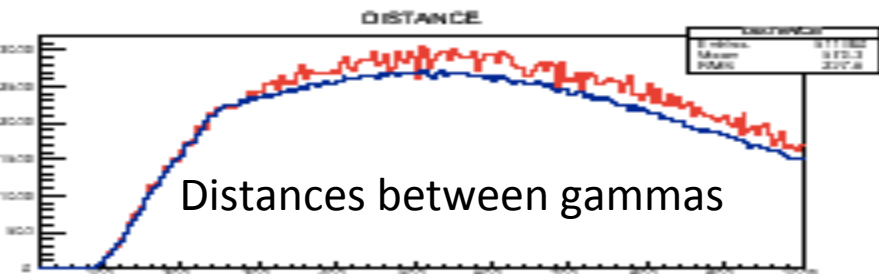
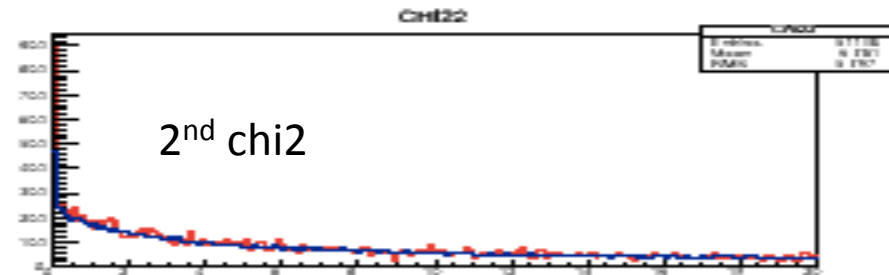
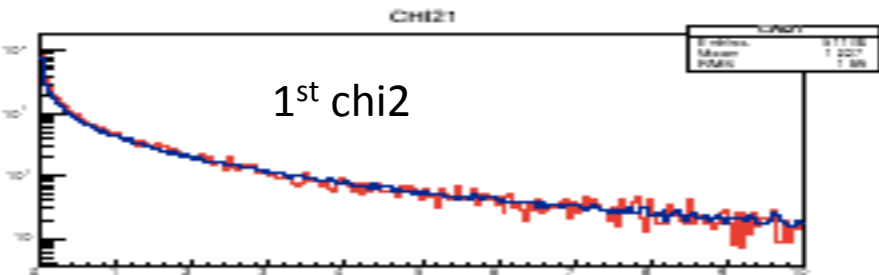
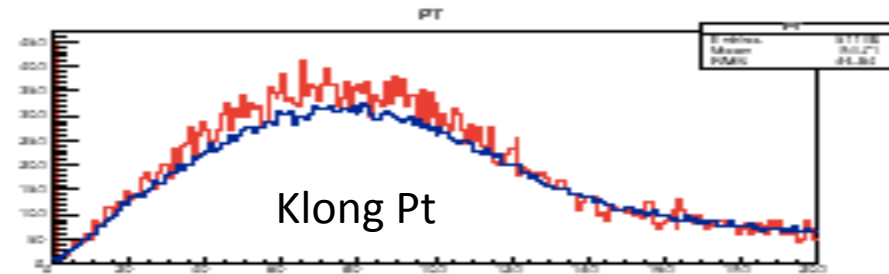
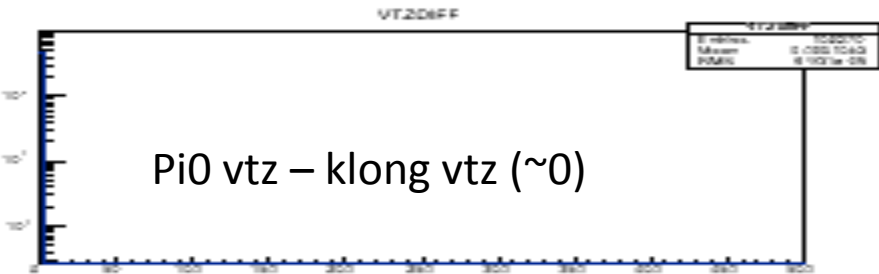
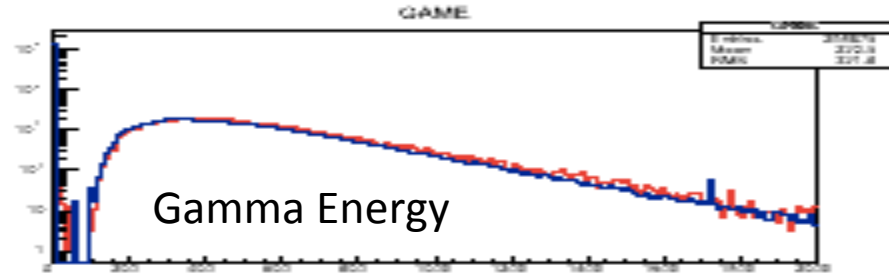
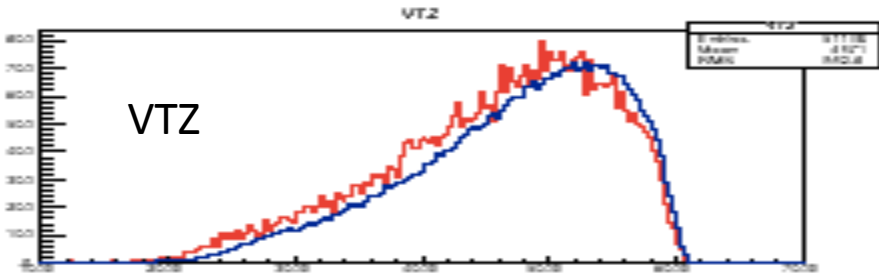


data vs MC

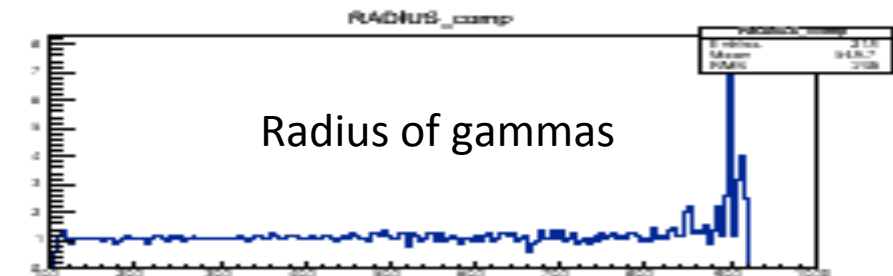
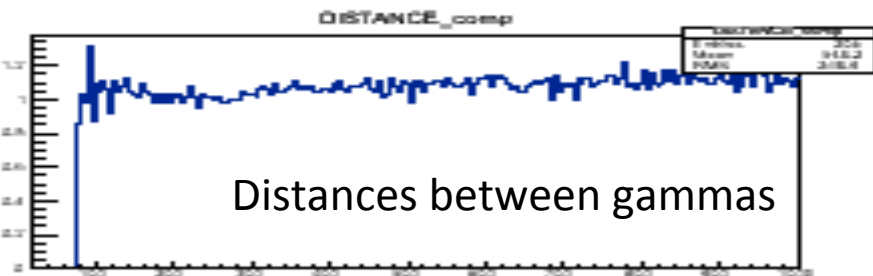
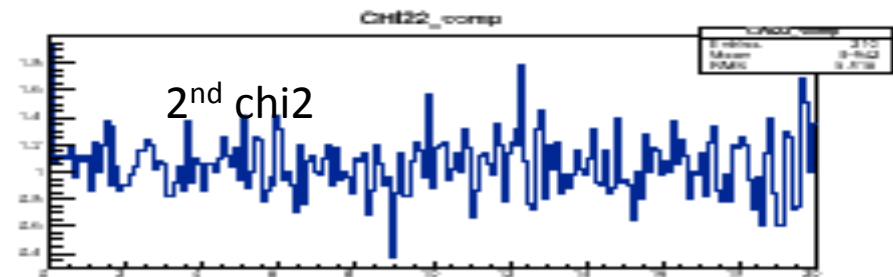
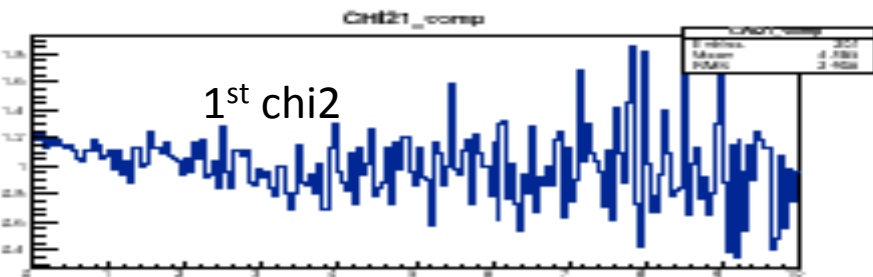
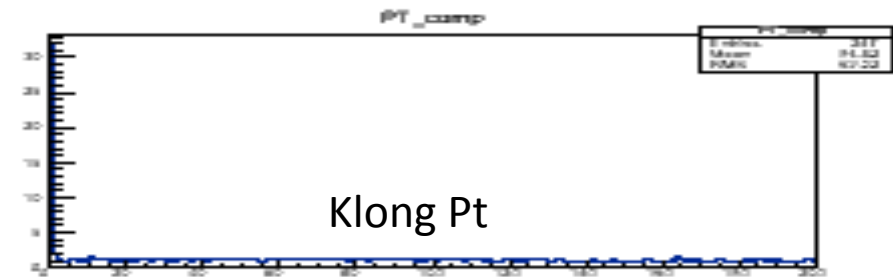
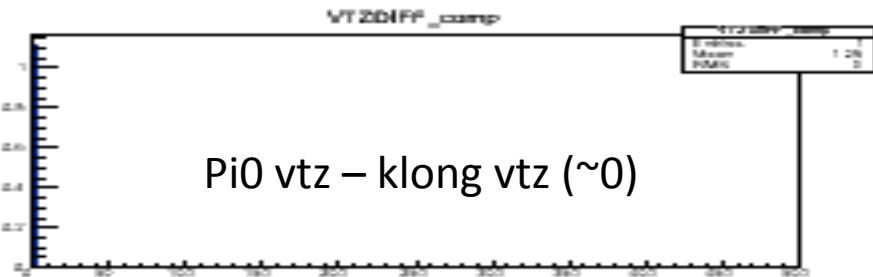
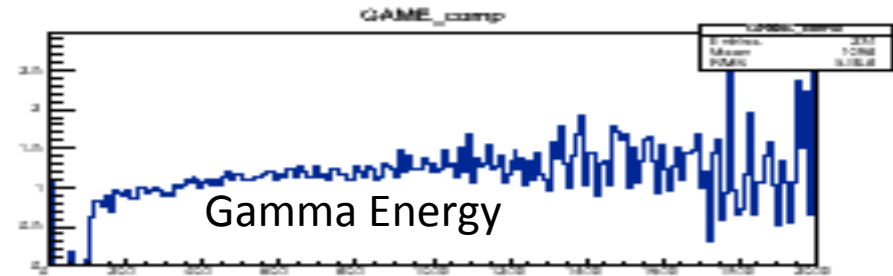
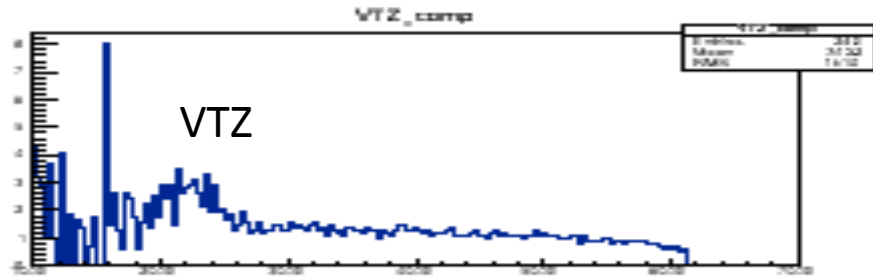
- Incident P.O.T. (data)
 - $4.253e15$ (minimum bias)
- MC
 - Add accidental overlay
 - KL default
 - $2.778e14$ P.O.T with $(2e14/3.6e7)$

Cut Variables

Blue : data
Red : mc

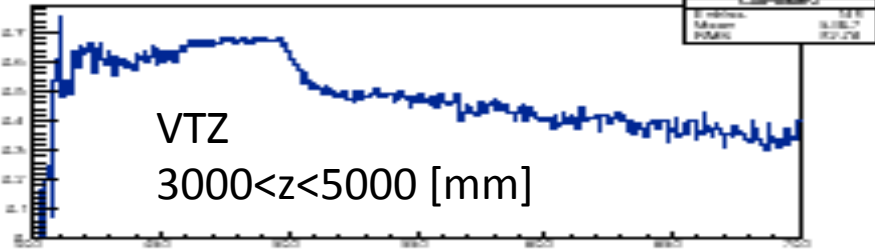


Cut Variable ratio (MC/run62)

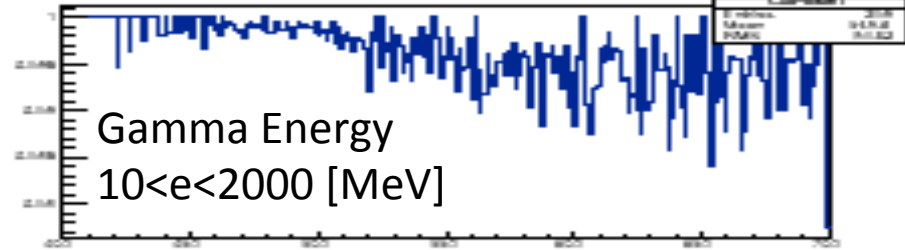


Cut Power (data)

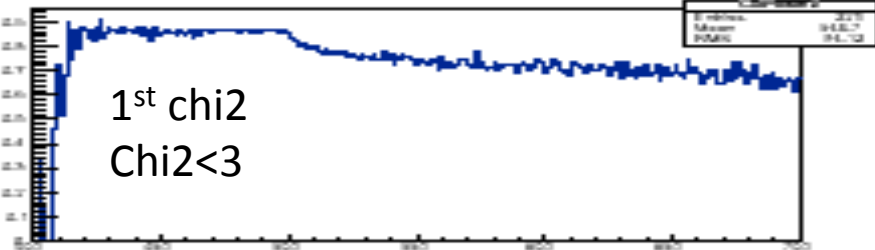
CutPower0



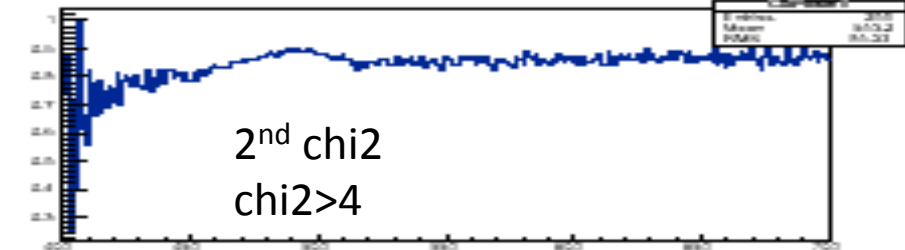
CutPower1



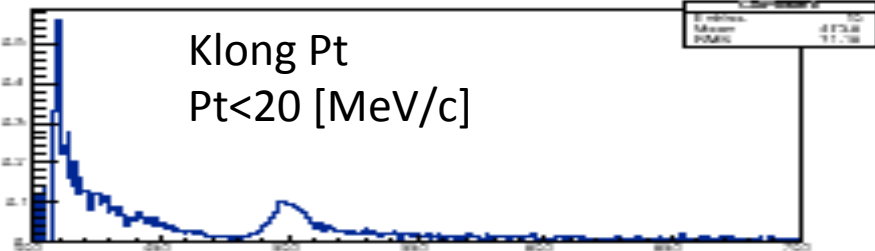
CutPower2



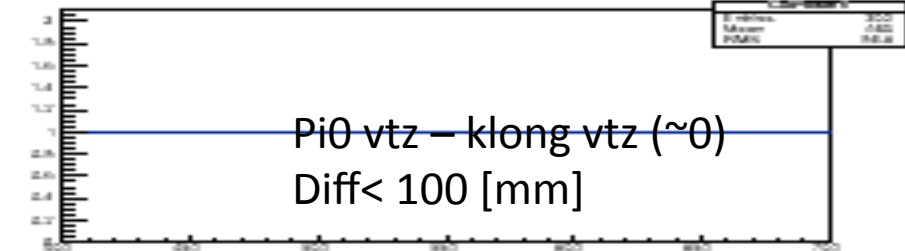
CutPower3



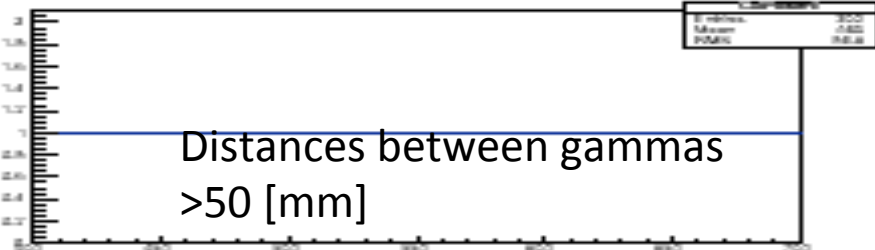
CutPower4



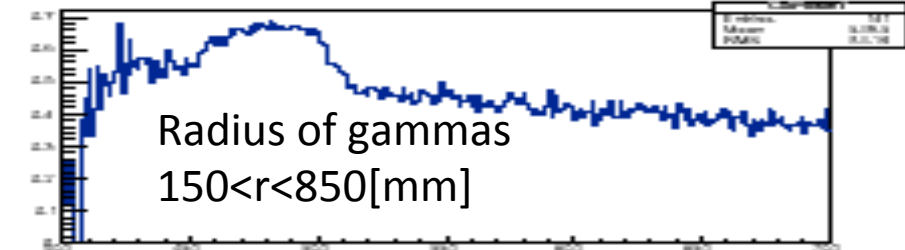
CutPower5



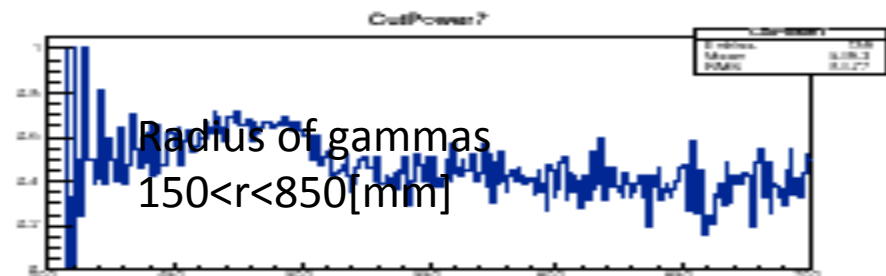
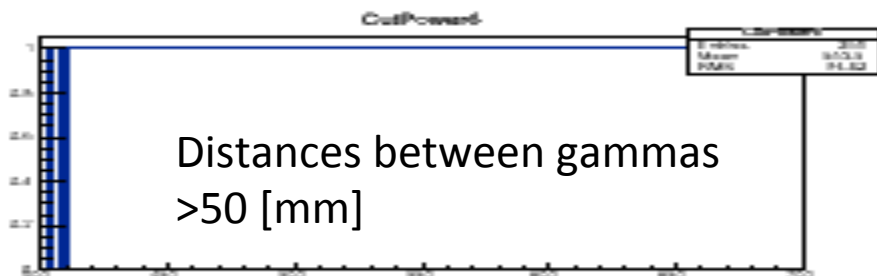
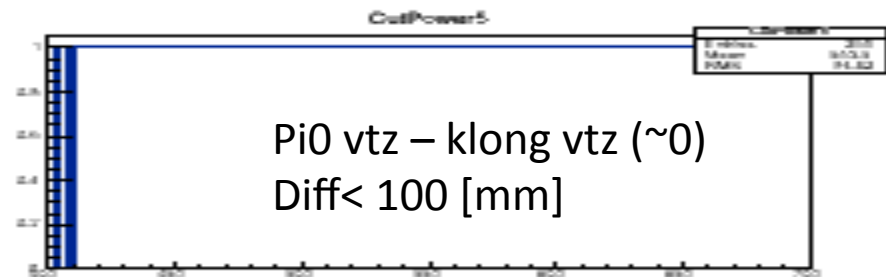
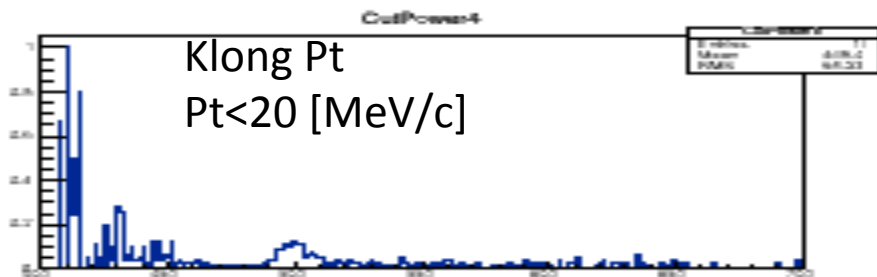
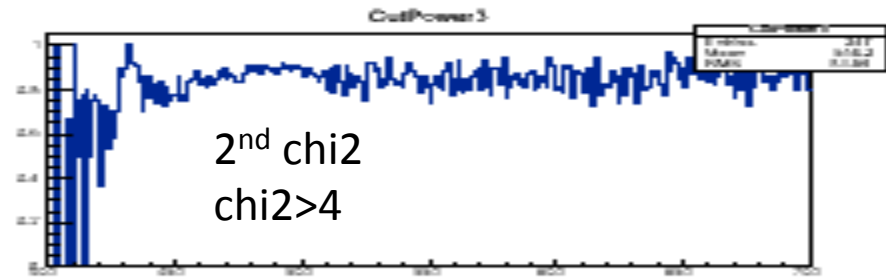
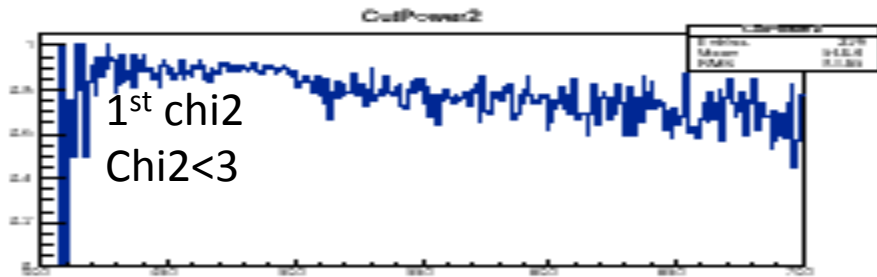
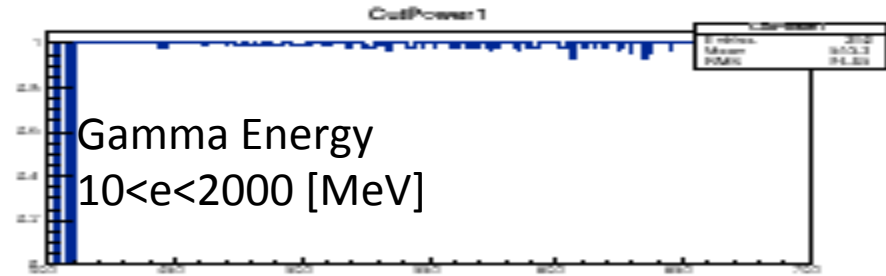
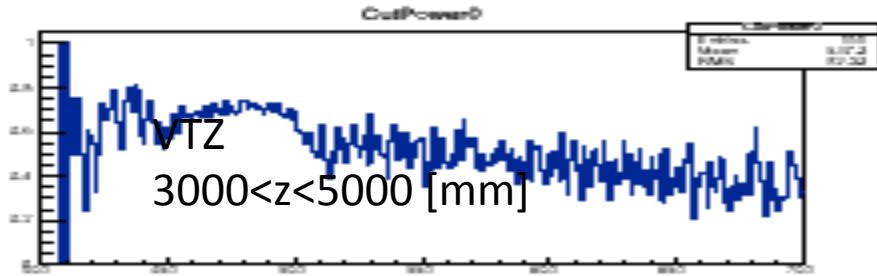
CutPower6



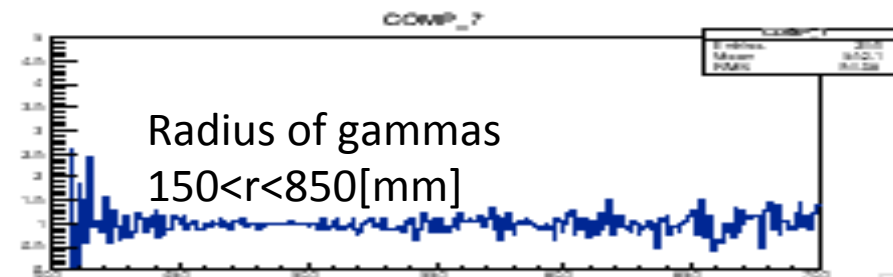
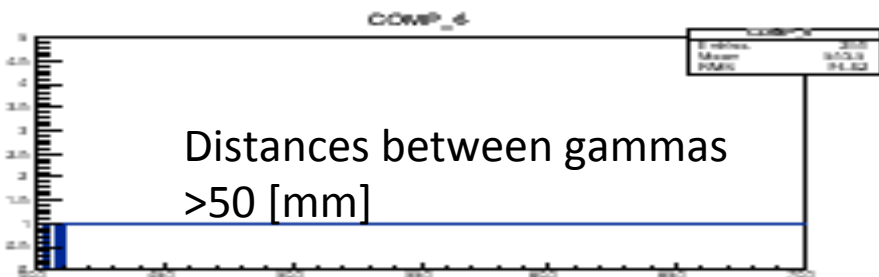
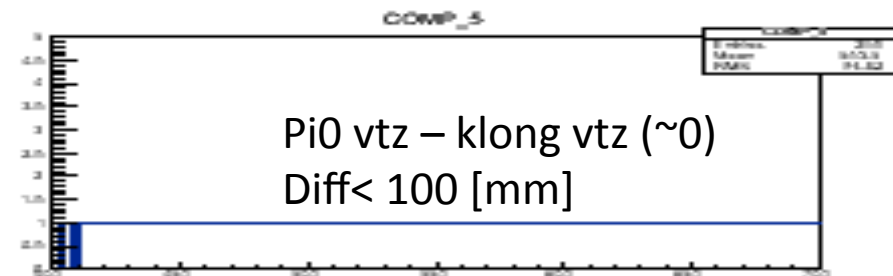
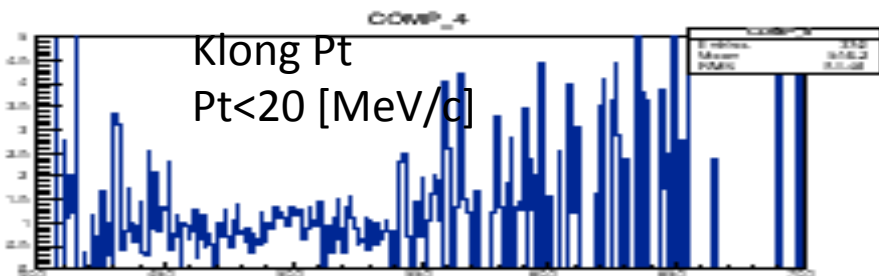
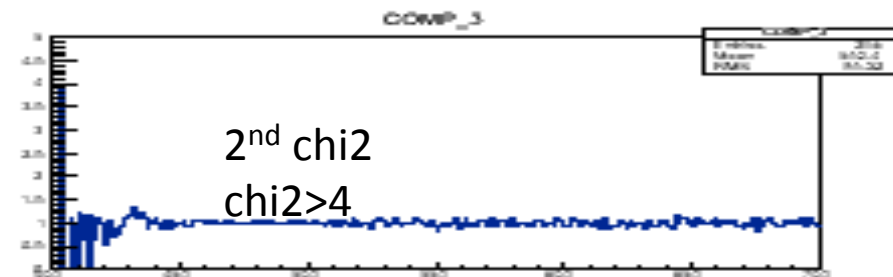
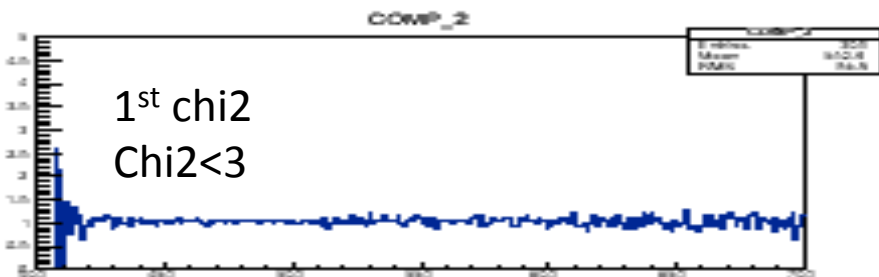
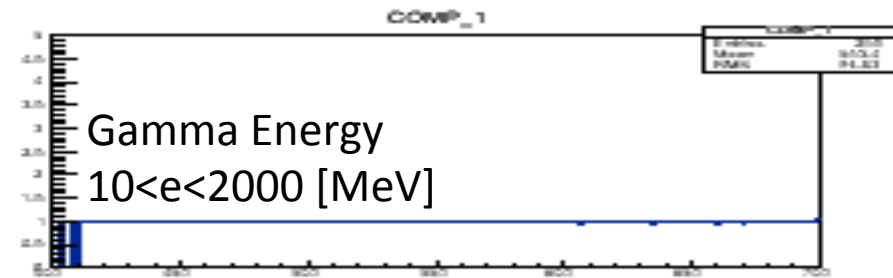
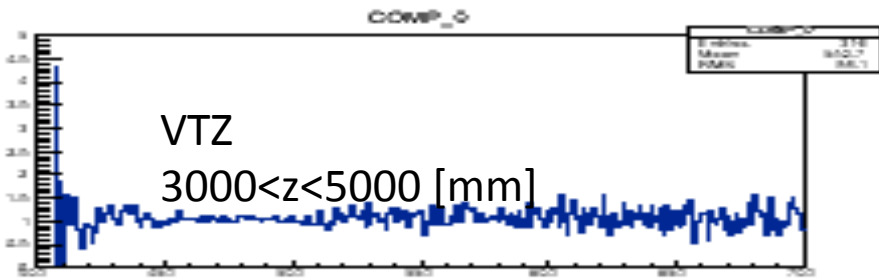
CutPower7



Cut Power (MC)



Cut Power ratio (MC/run62)



KLmass

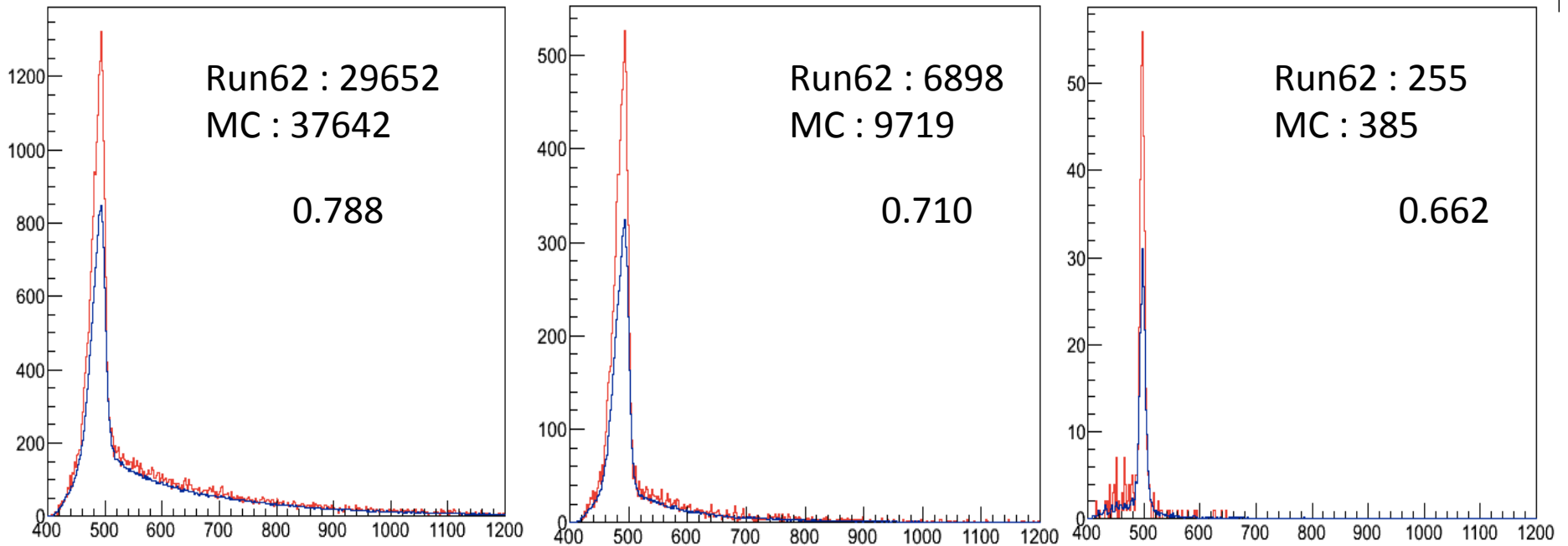
Blue : Run62

Red : MC

No cut

After cut expect Klong Pt cut

After all cut



Big discrepancy -> CsI Suppression? (no suppression on MC, 2MeV suppression on Data
thing to check