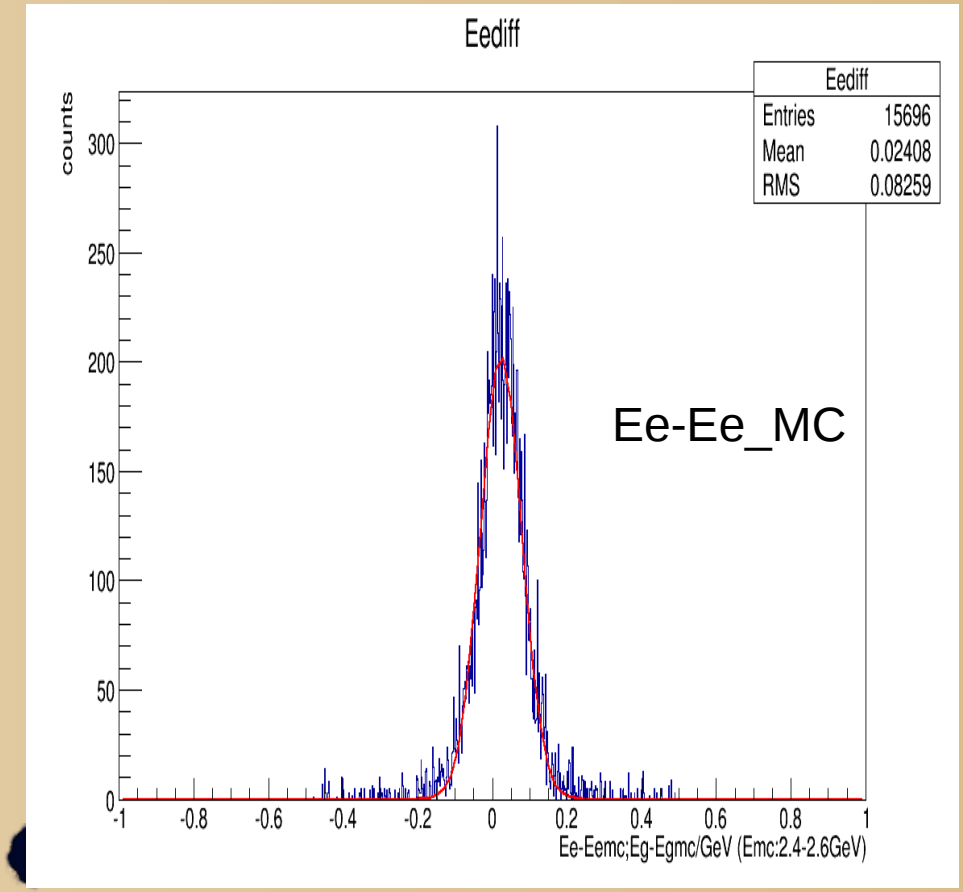
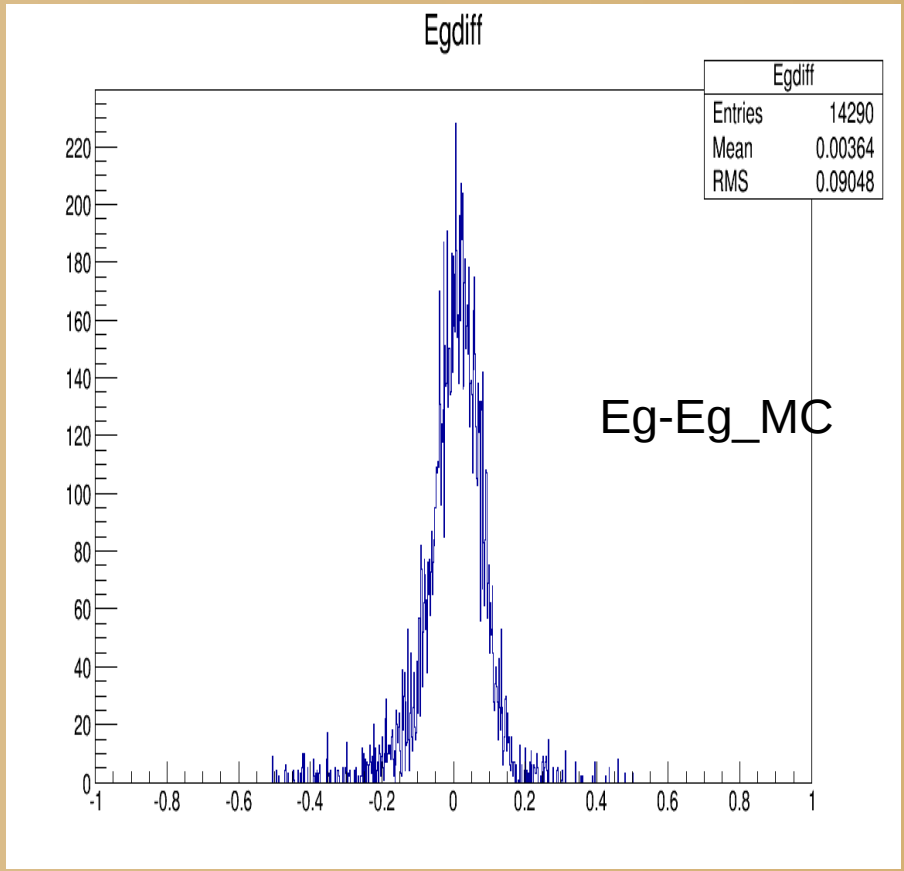
Electron and gamma difference on Hycal &compton background

1.e – g difference
2.background of compton

Difference of e & g

- Energy resolution

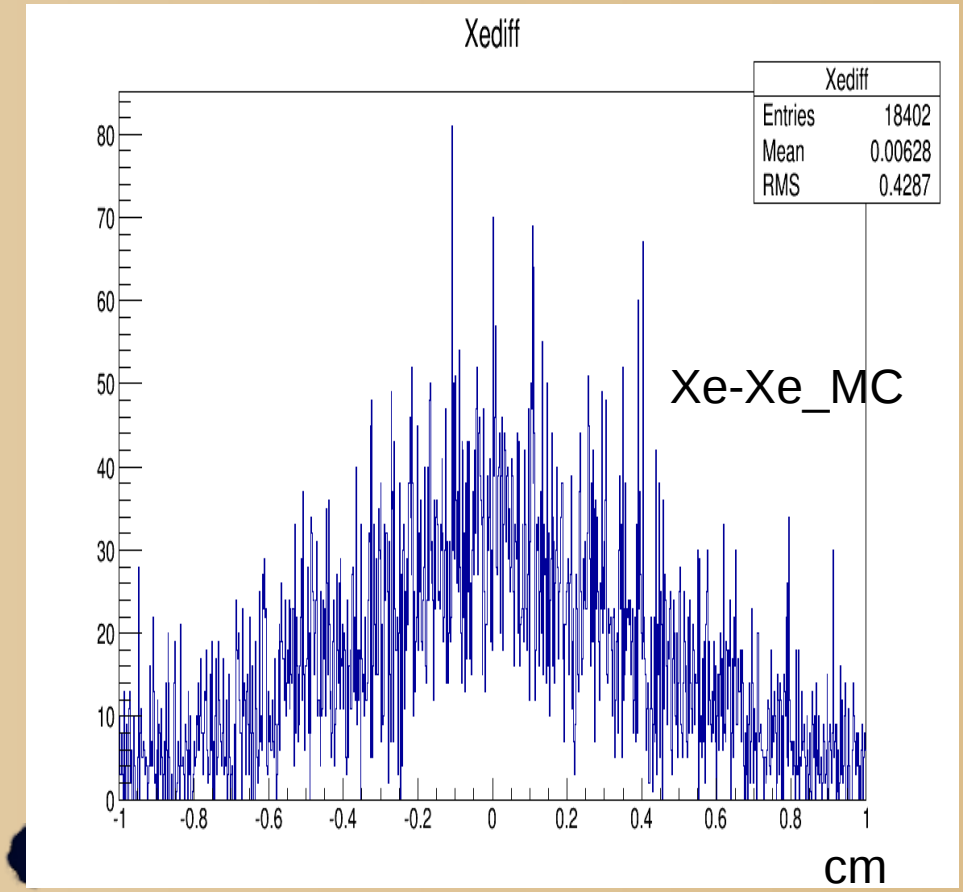


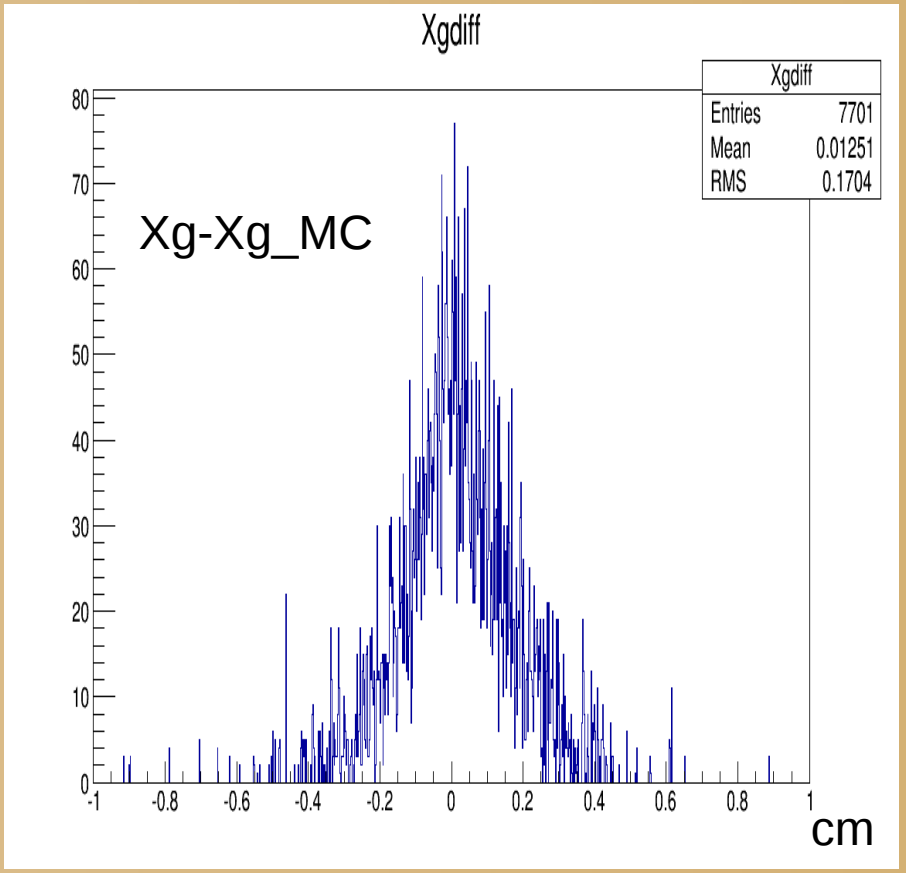


Didn't see difference for resolution

Difference of e & g

- position resolution

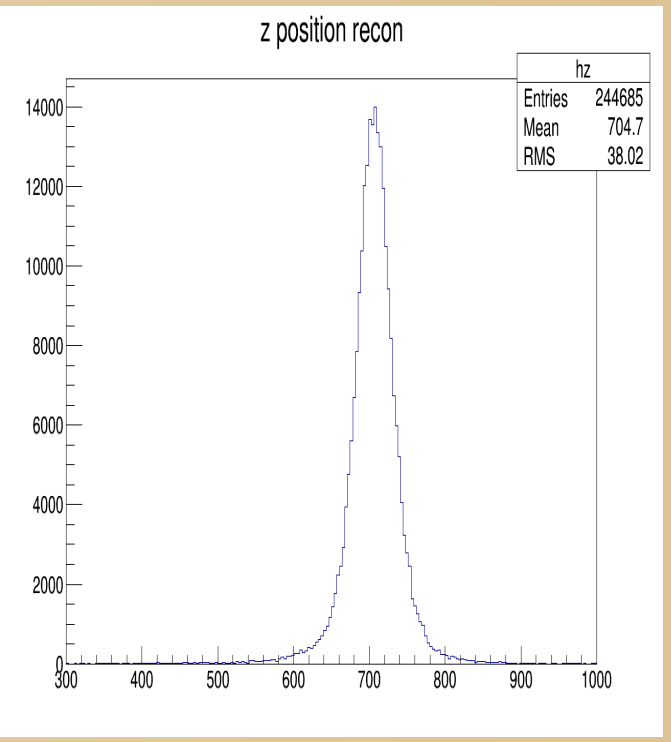


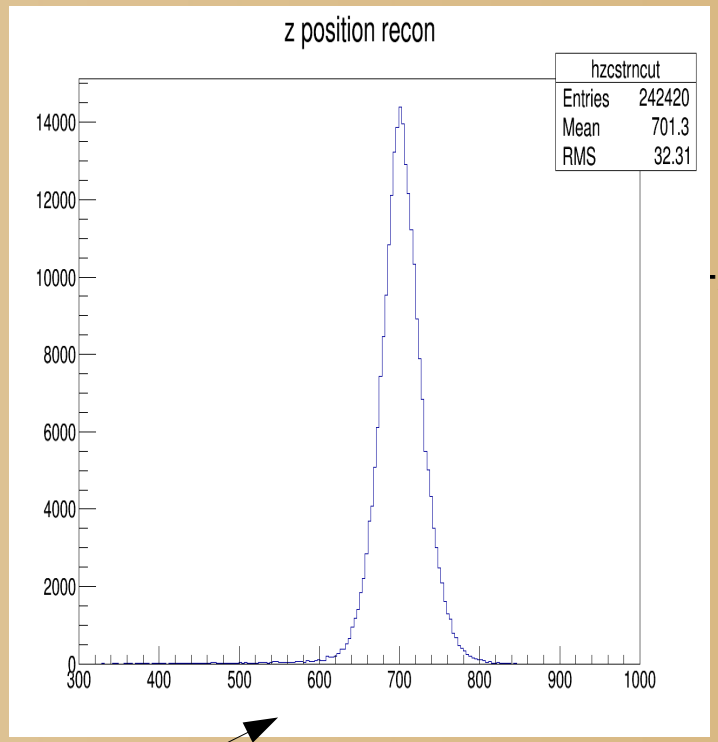


Electron's resolution is 2.5 times of gamma's because of scattering

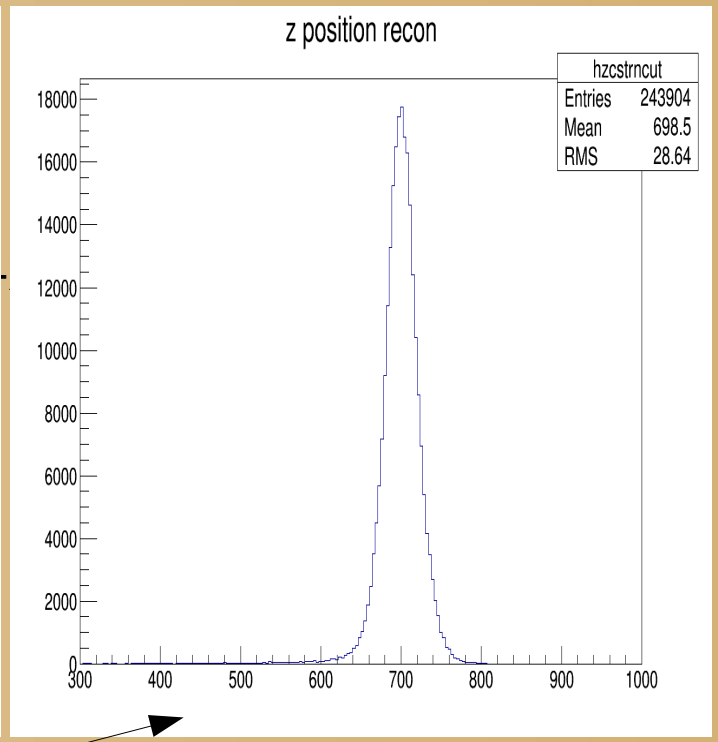
Difference of e & g

- If we use different position resolution for e & g in constraint





cm



cm

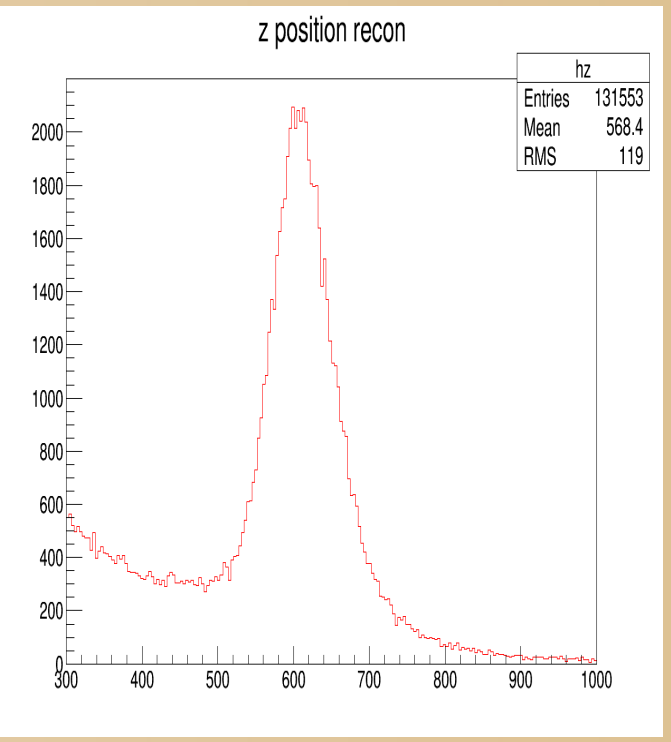
16% +11% improvement for resolution from RMS.

If feasible, Veto will help to improve resolution

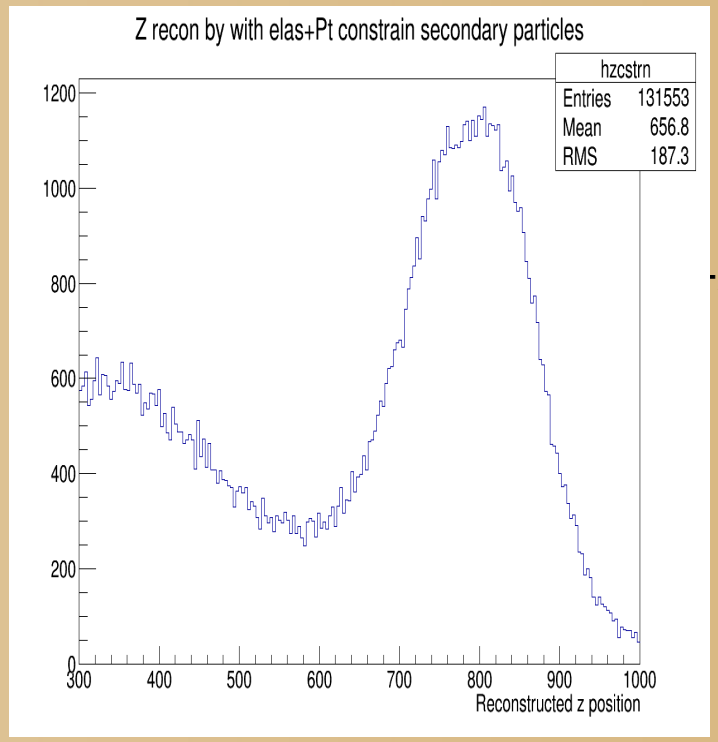
Background for Compton

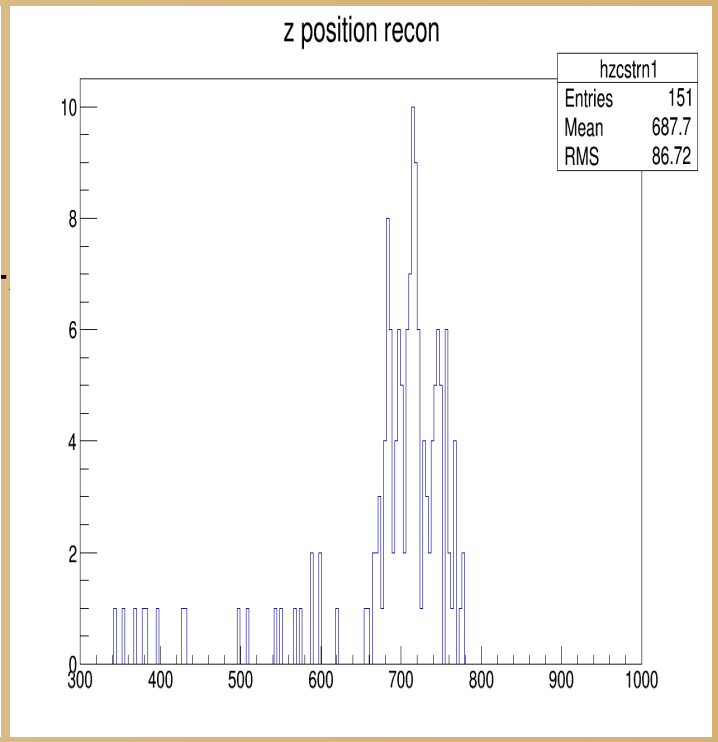
- from
- 1.accidental
  - (out of time to get the shape.Should be scaled by 9ns/50ns)
- 2.e+e-
- 3.empty target

accicental



cm

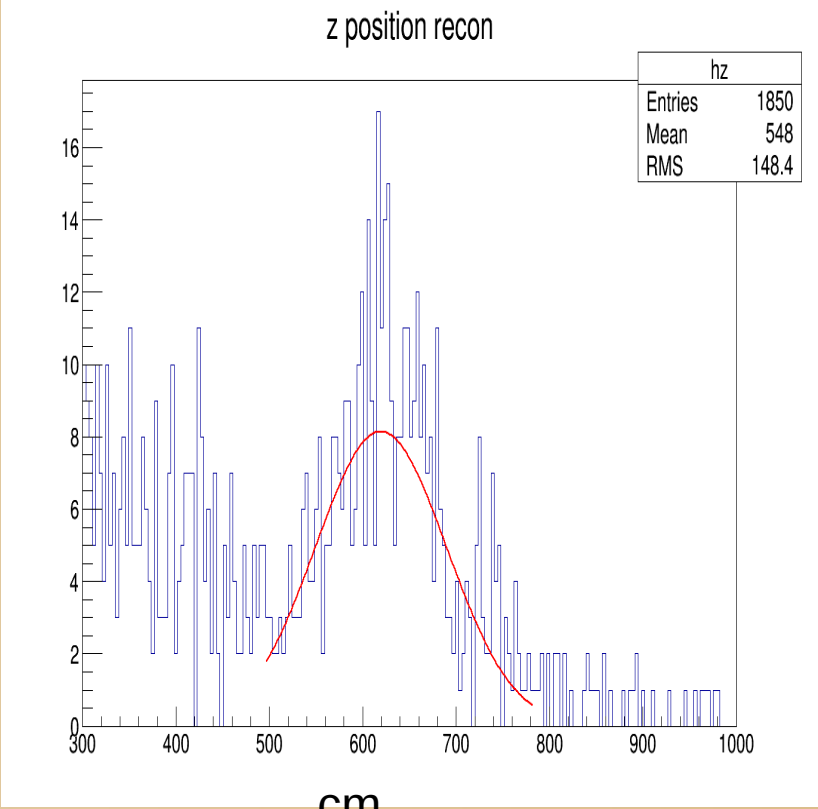




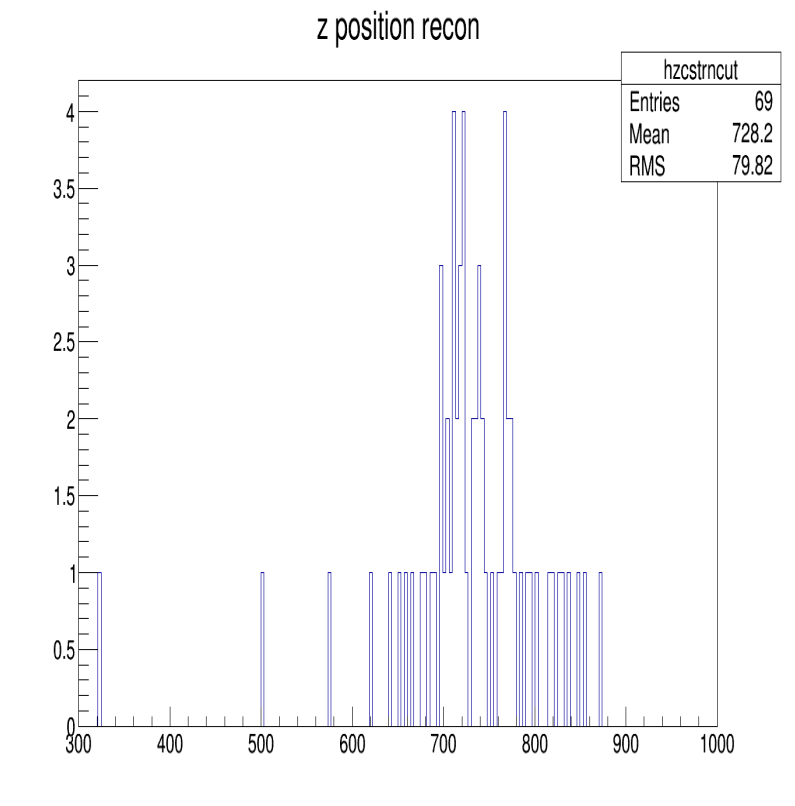
cm

~2% under peak ,substract error will much less

e+e-



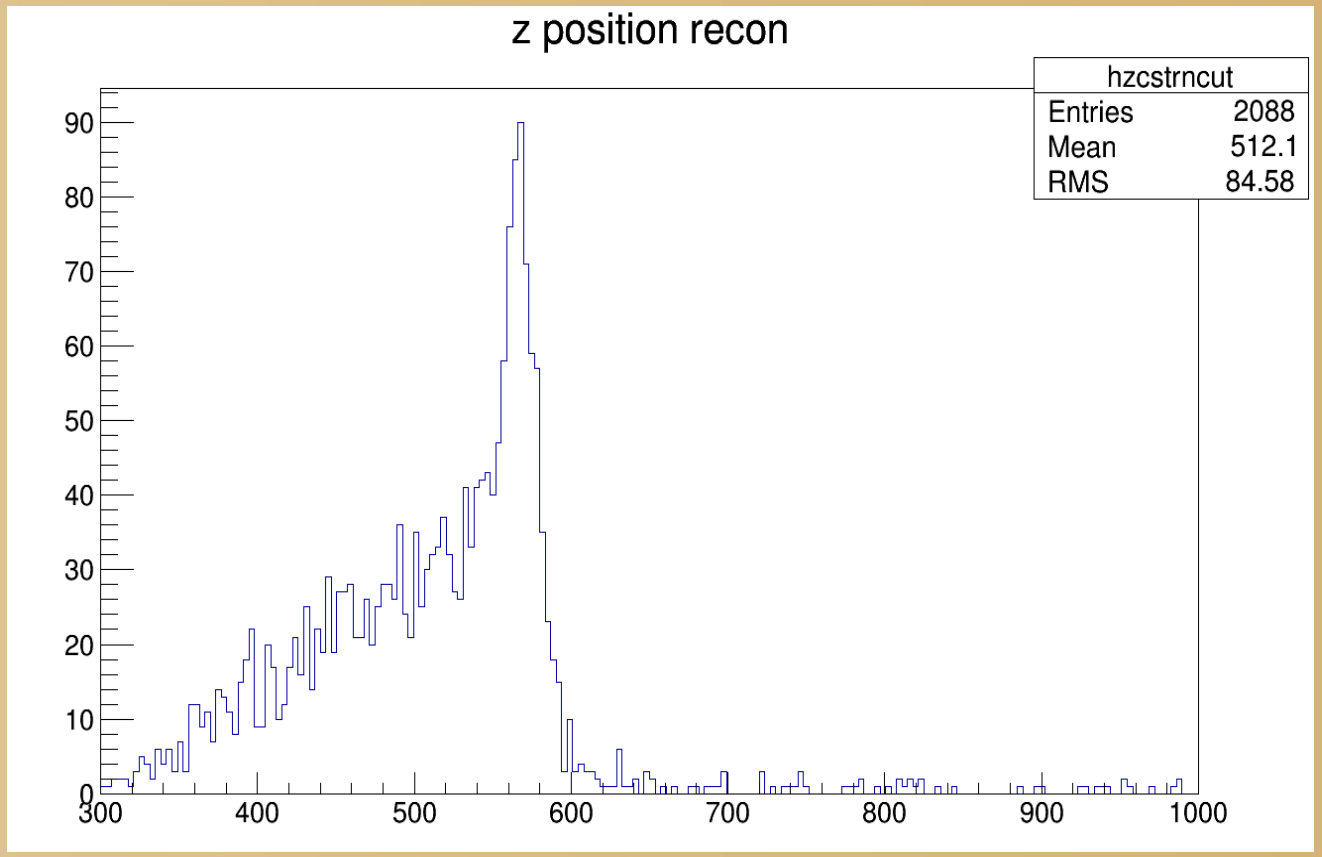
cm



cm

~0.01%
under peak

Empty target



No peak under compton peak

plan

- Refine z method
- Do fai method and compare with z