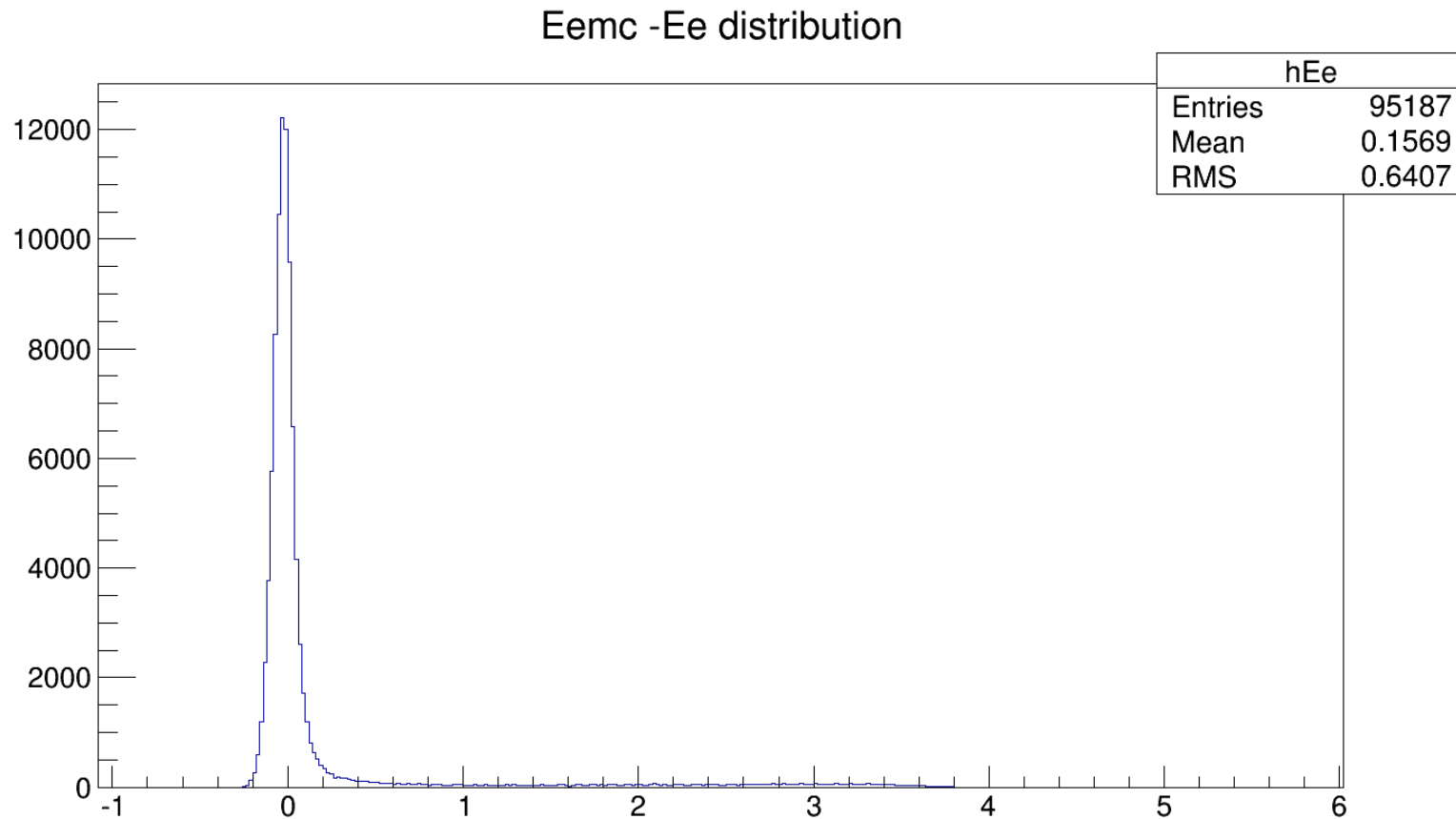


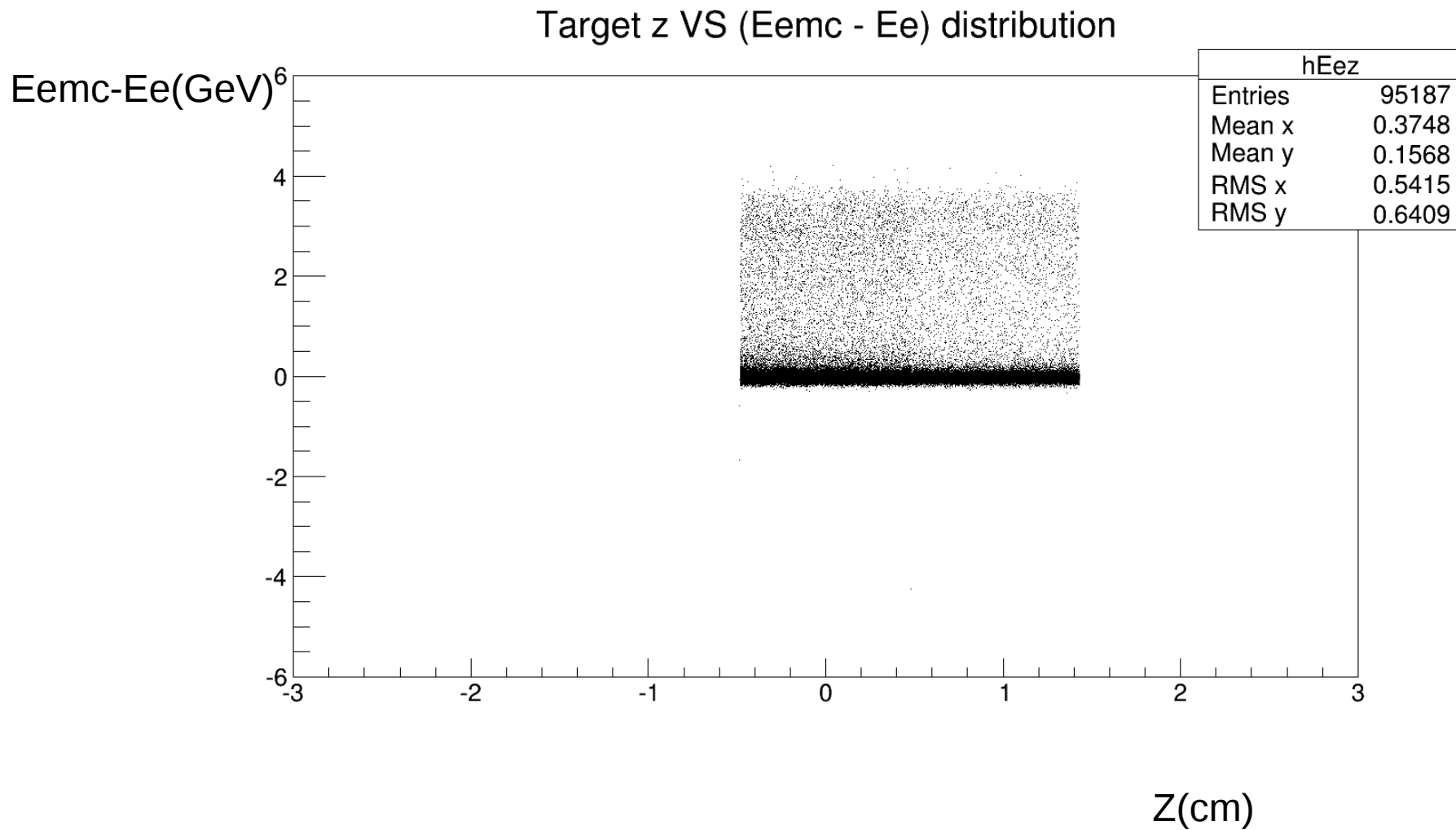
Compton MC simulation Analysis

1. data: 500k Klein-Nishina compton events generated in carbon target from Ilya
2. Reconstructed Z without cuts
3. Elasticity cuts study

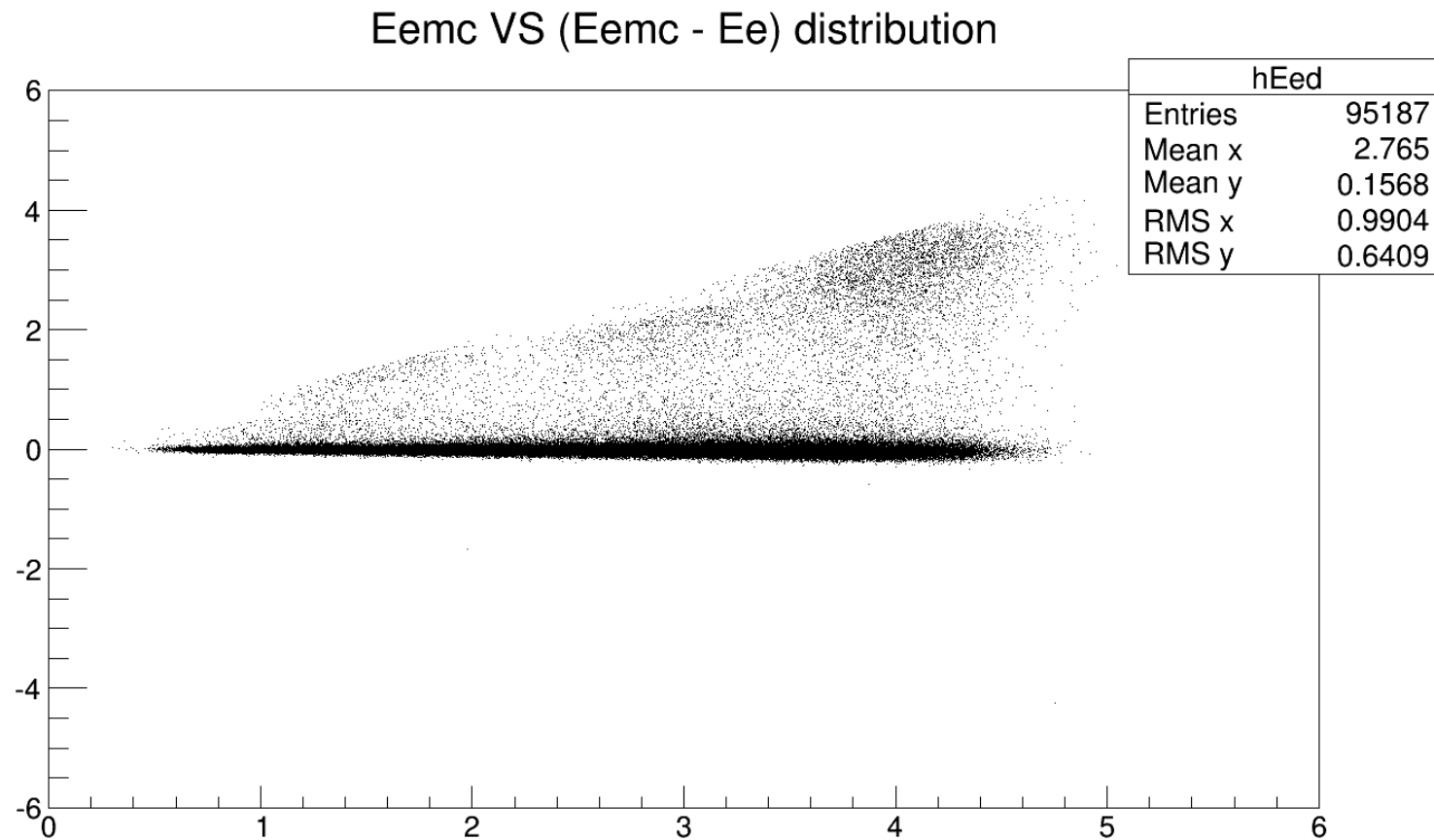
MC data / K-N compton events



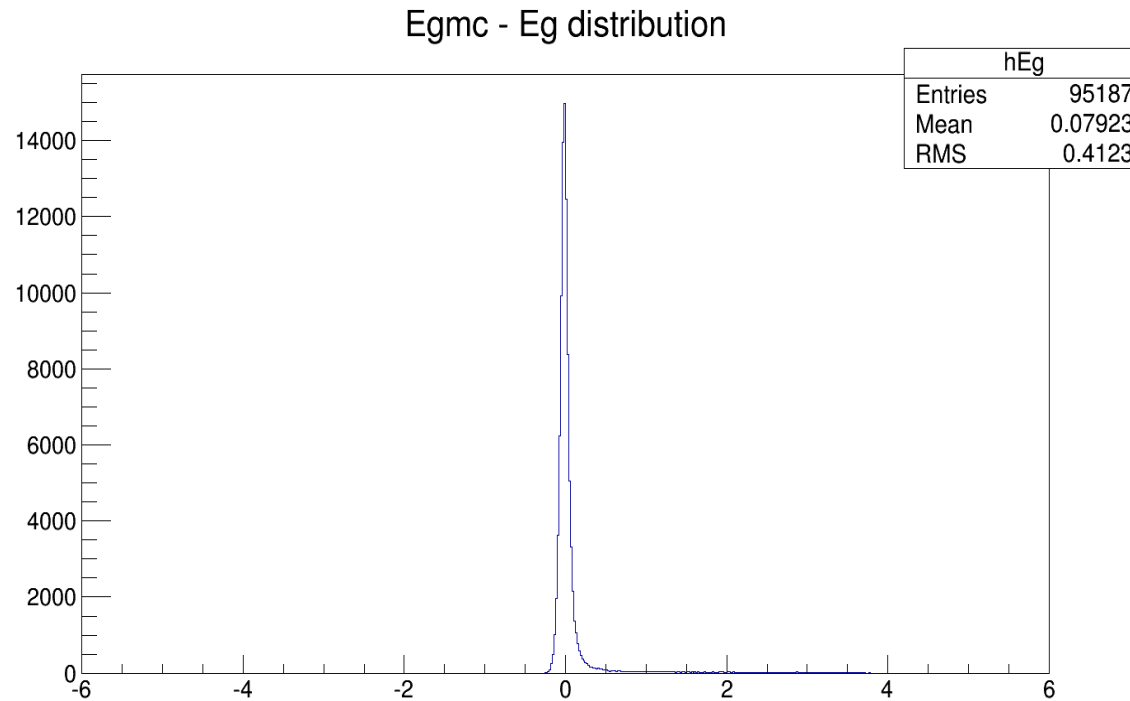
MC data / K-N compton events



MC data / K-N compton events

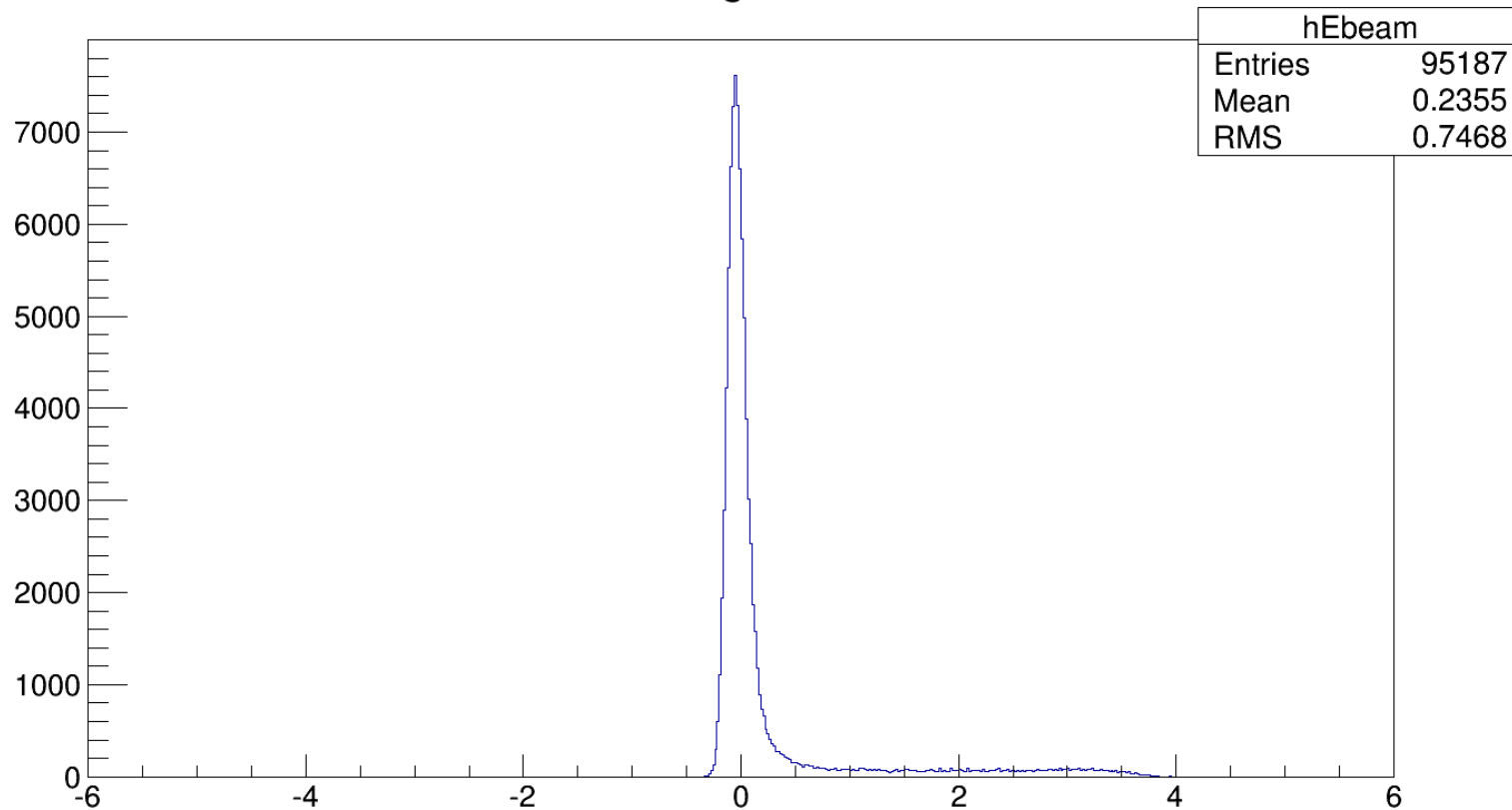


MC data / K-N compton events

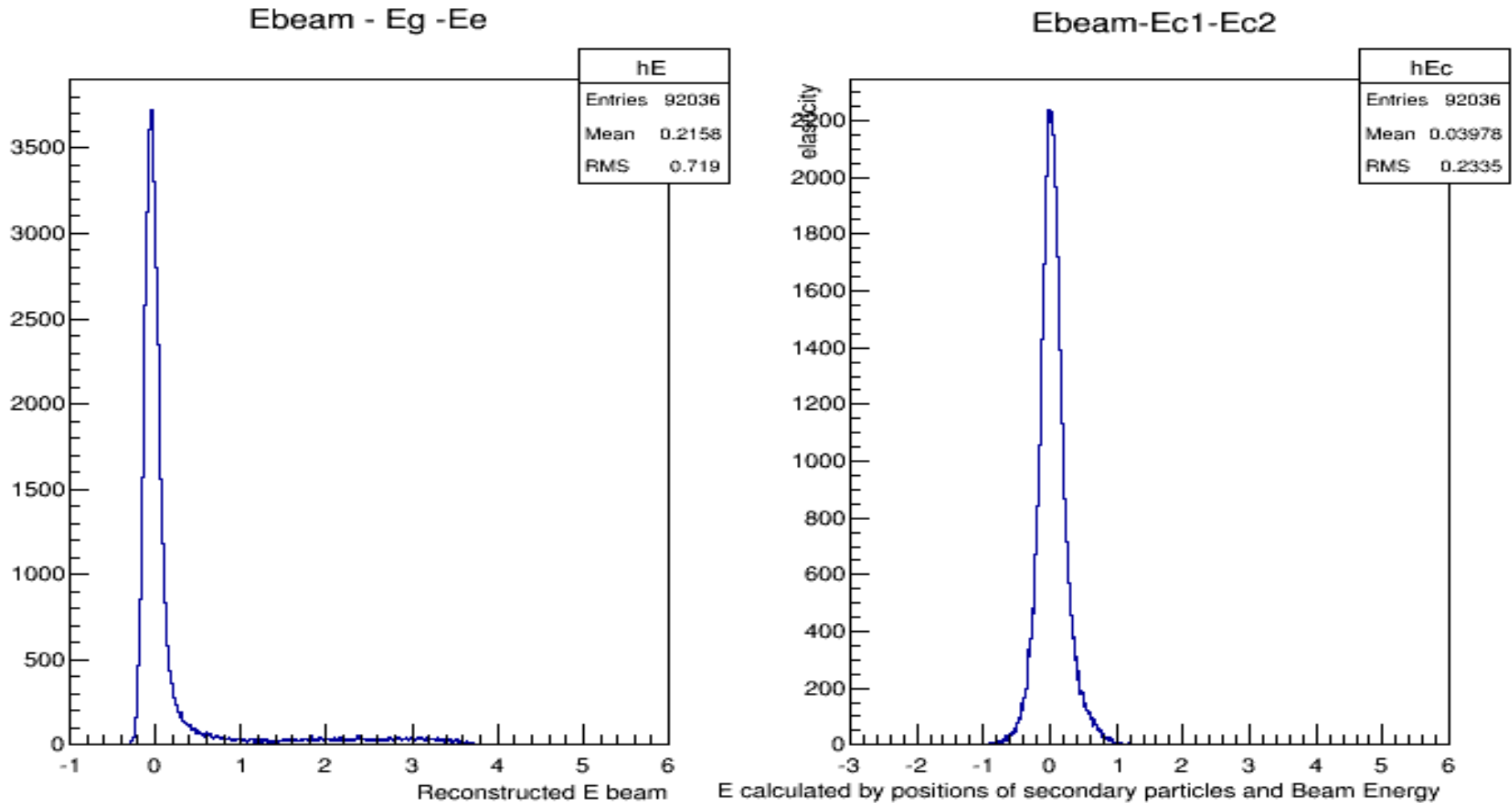


MC data / K-N compton events

EbeamMC - Eg-Ee distribution



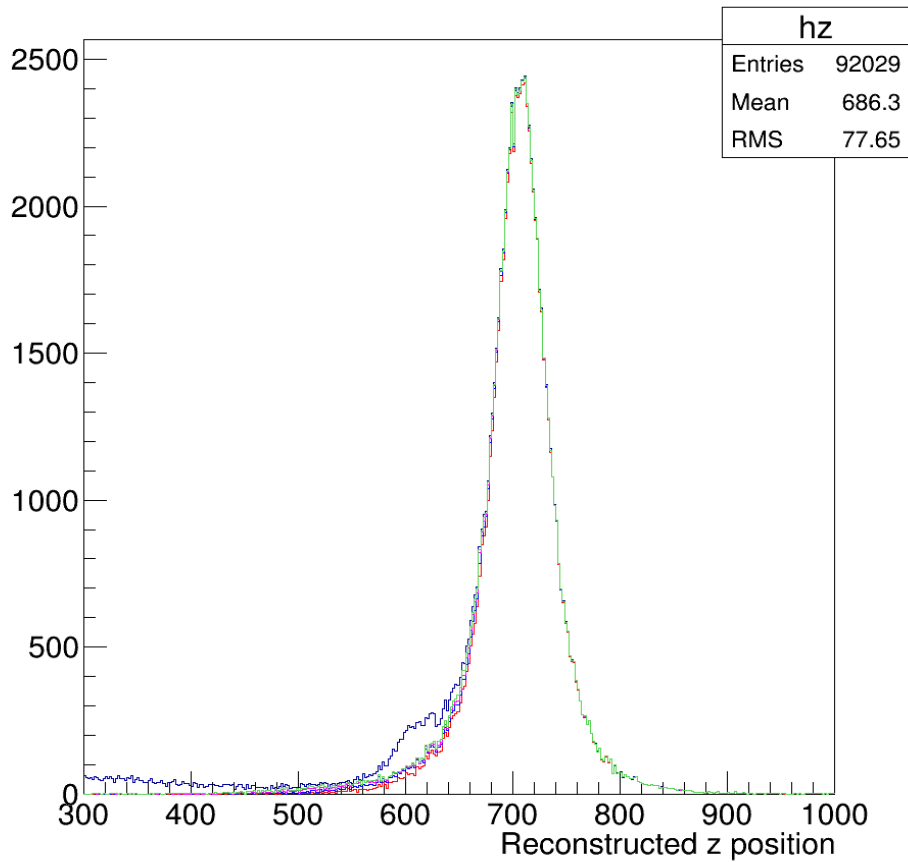
MC data / K-N compton events



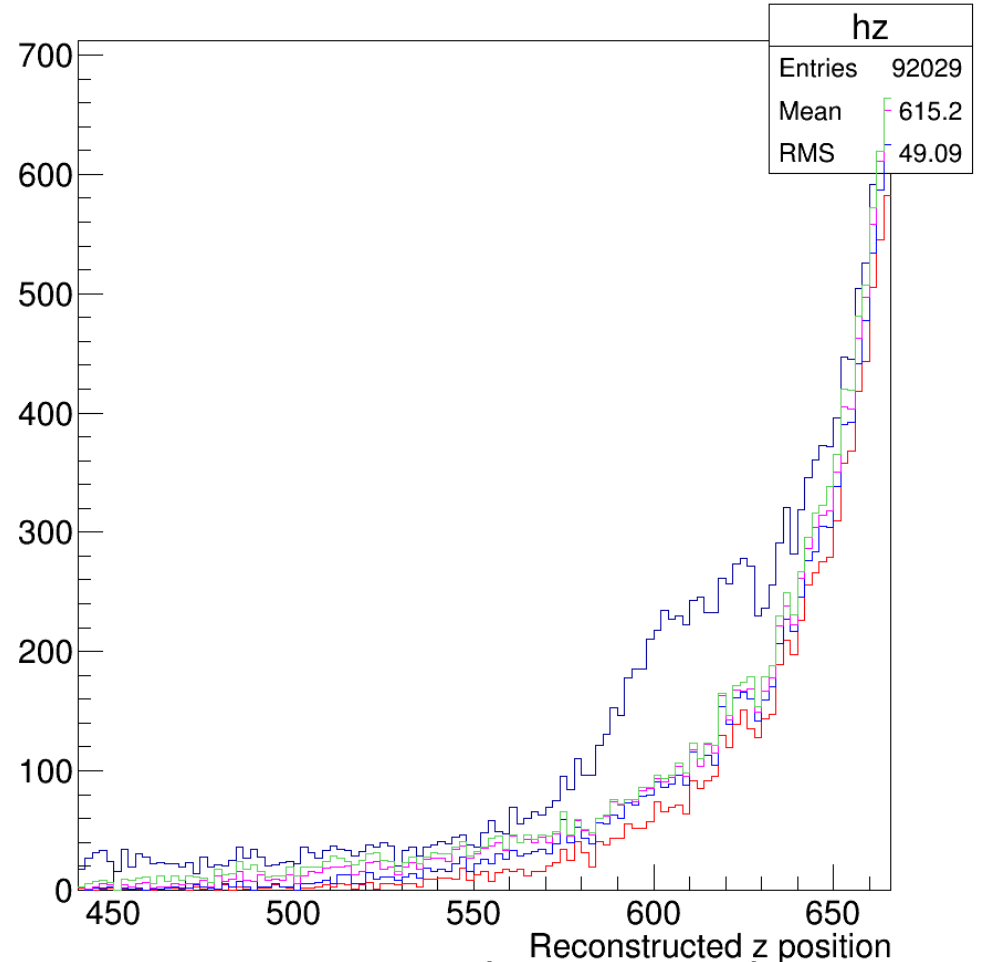
Cuts: $|\text{fai}-180| < 25^\circ$, Crystal part of Hycal with inner and outer 1 layer out.

Reconstructed Z

Z recon by energies of secondary particles

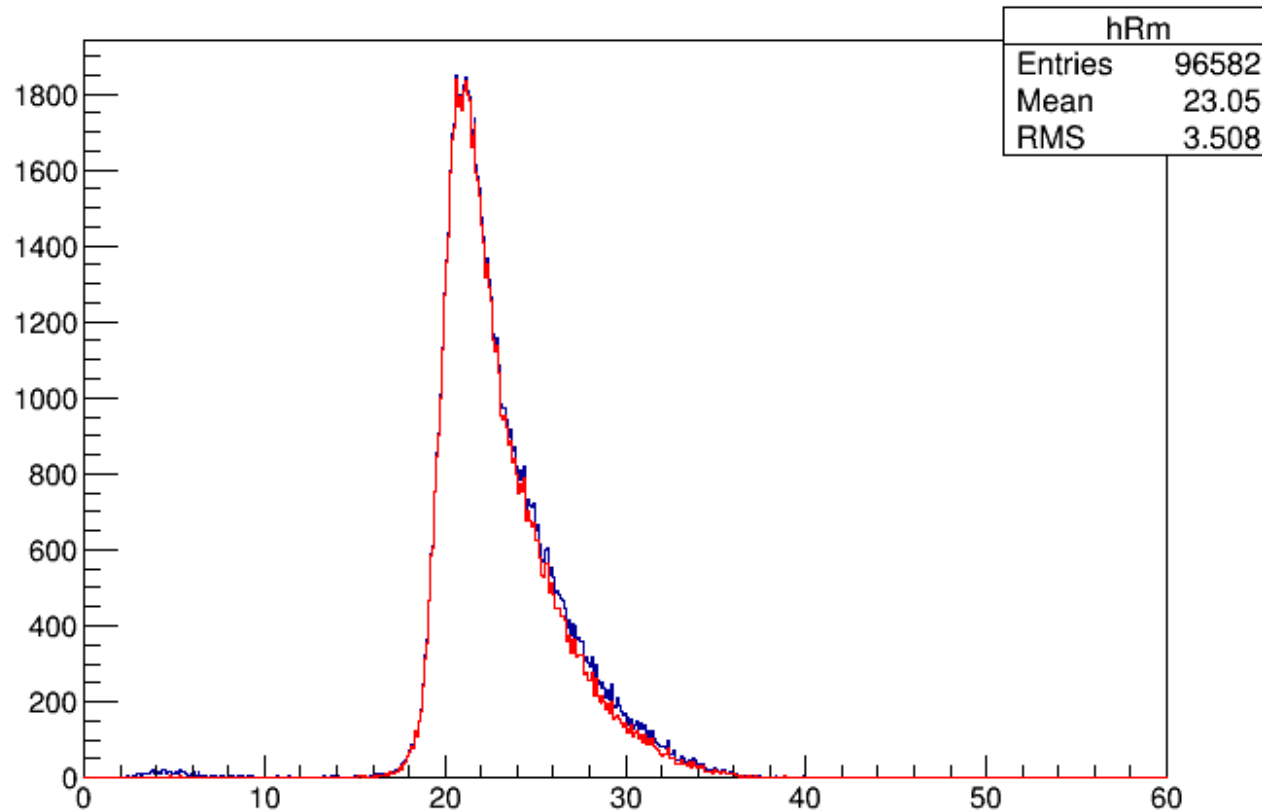


Z recon by energies of secondary particles

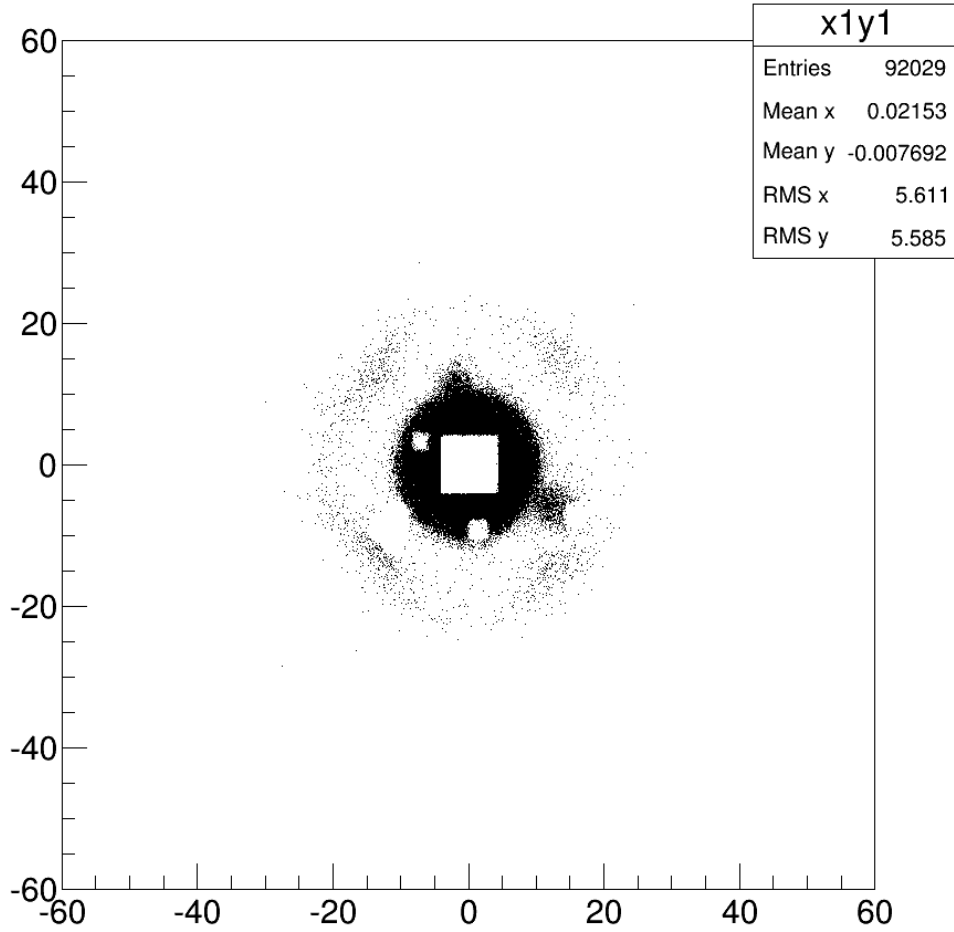


Up to down: elasticity cuts : 1.no cuts,2. 9Sgma,3.5sgm,4.3sgm (see page 11)

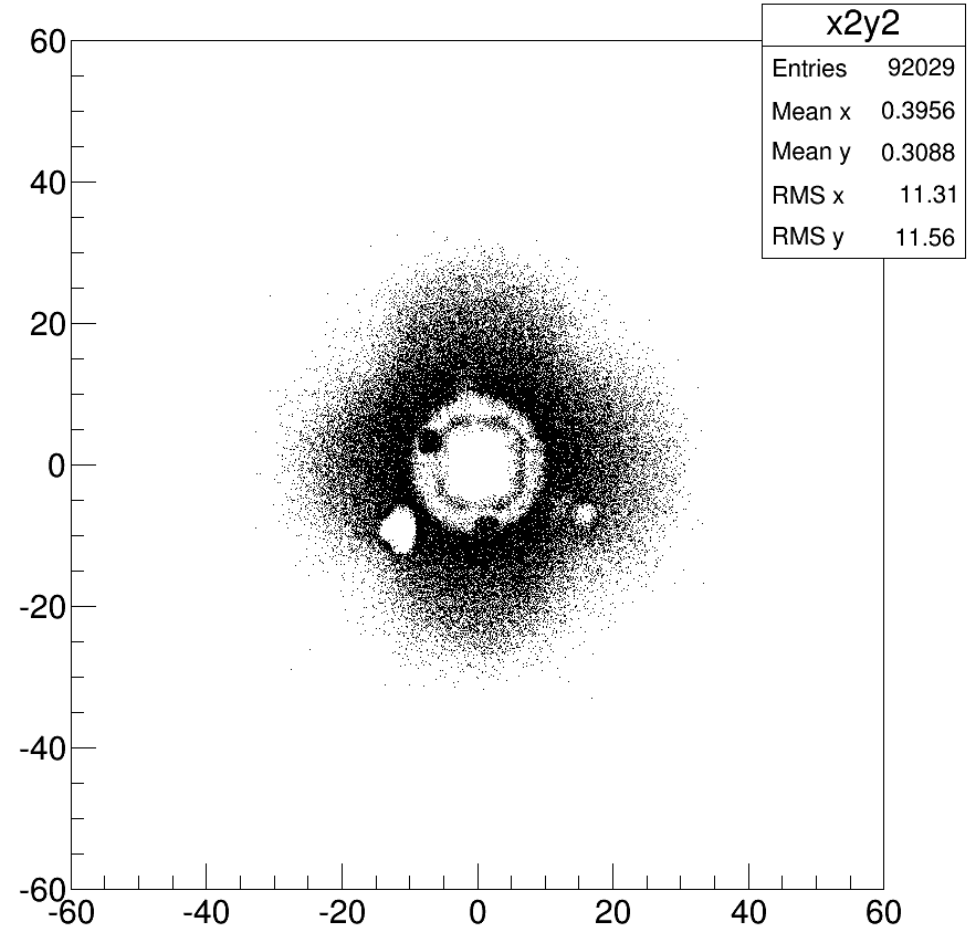
Electron gamma distance (only crystal cuts)



x1y1



x2y2



Elasticity Cut

$ E_{\text{beam}} - E_1 - E_2 < n$ sgm	Compton events number from Z reconstructed	Relative change	
3sgm / 0.36GeV	80144	N/a	
4sgm / 0.48GeV	81440	1.6%	
5sgm / 0.60GeV	82240	.98%	
6sgm / 0.72GeV	82918	.82%	
7sgm / 0.84GeV	83395	.6%	
8sgm / 0.96GeV	83811	.5%	
9sgm / 1.08GeV	84144	.4%	

Next move

- Constraint P ,E
- Acceptance (Mcdata)
- Flux
- Target thickness
- CS for Tcounters1-11