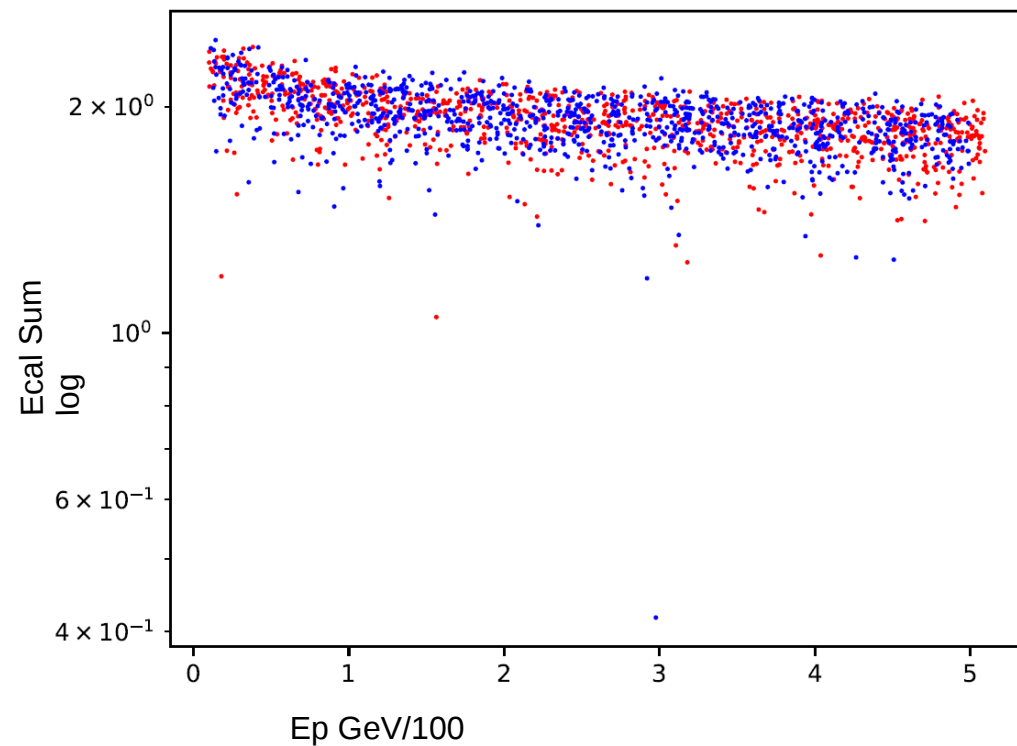
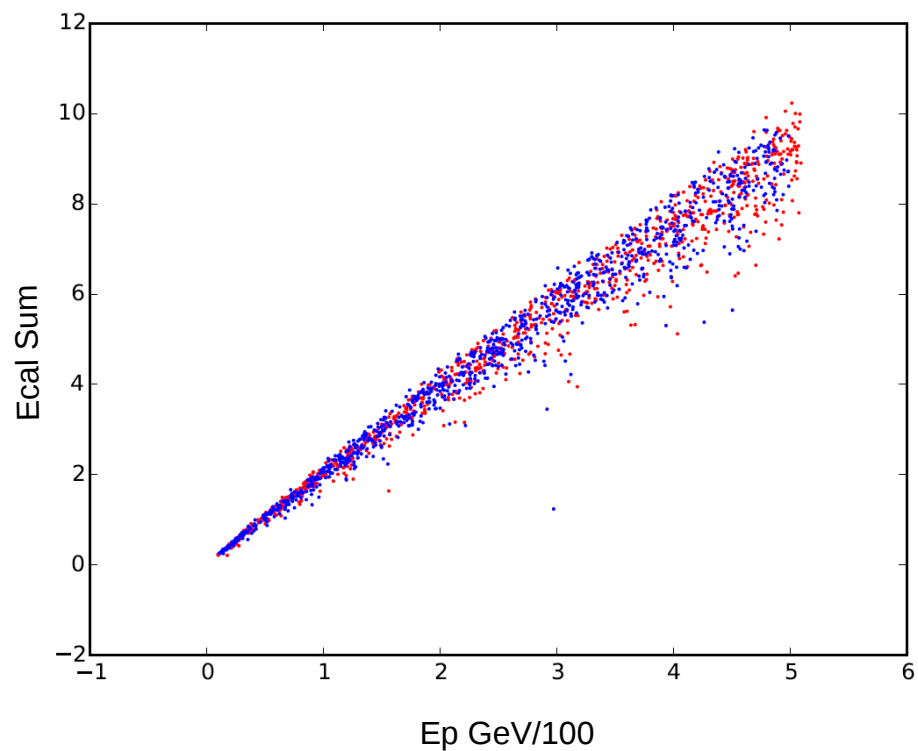


3D GAN Updates

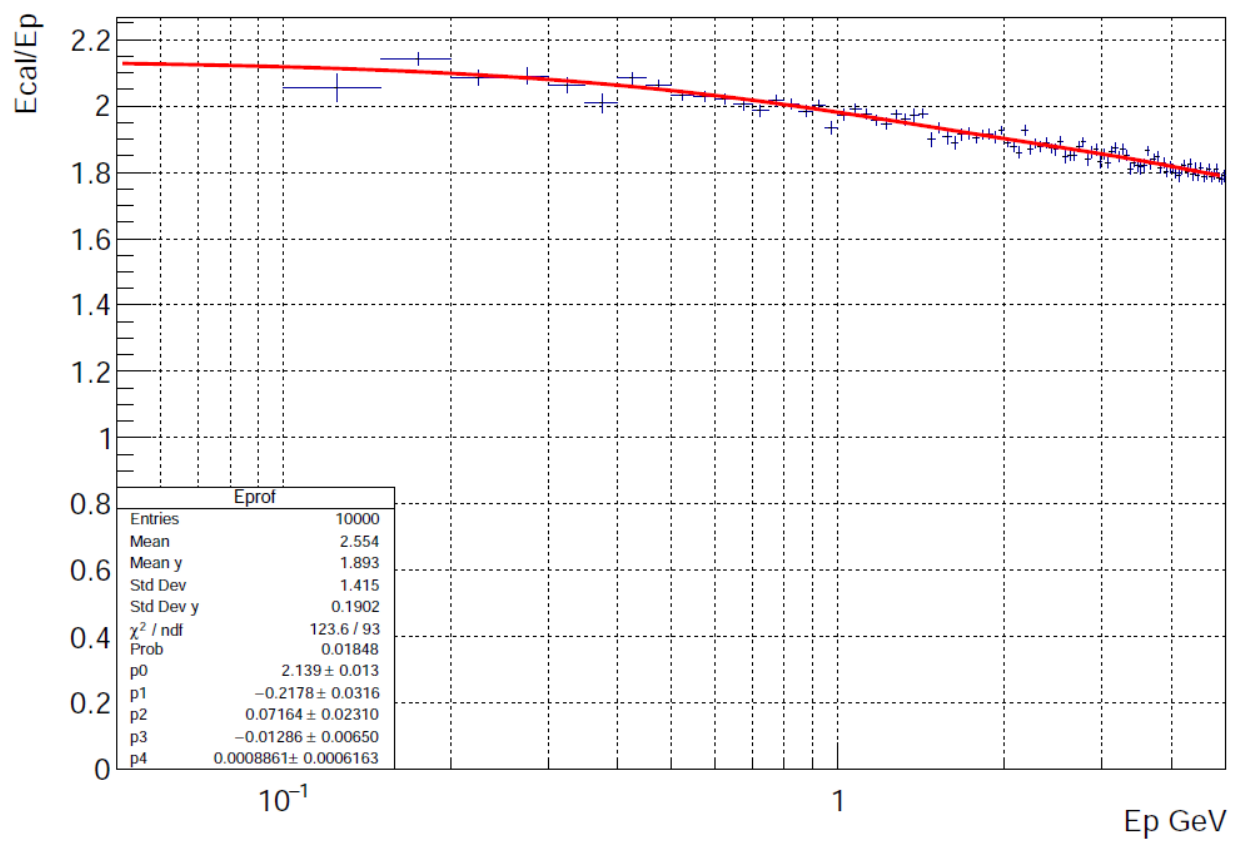
Pion Ecal Sum vs. Ep

Electron ●
Pion ●



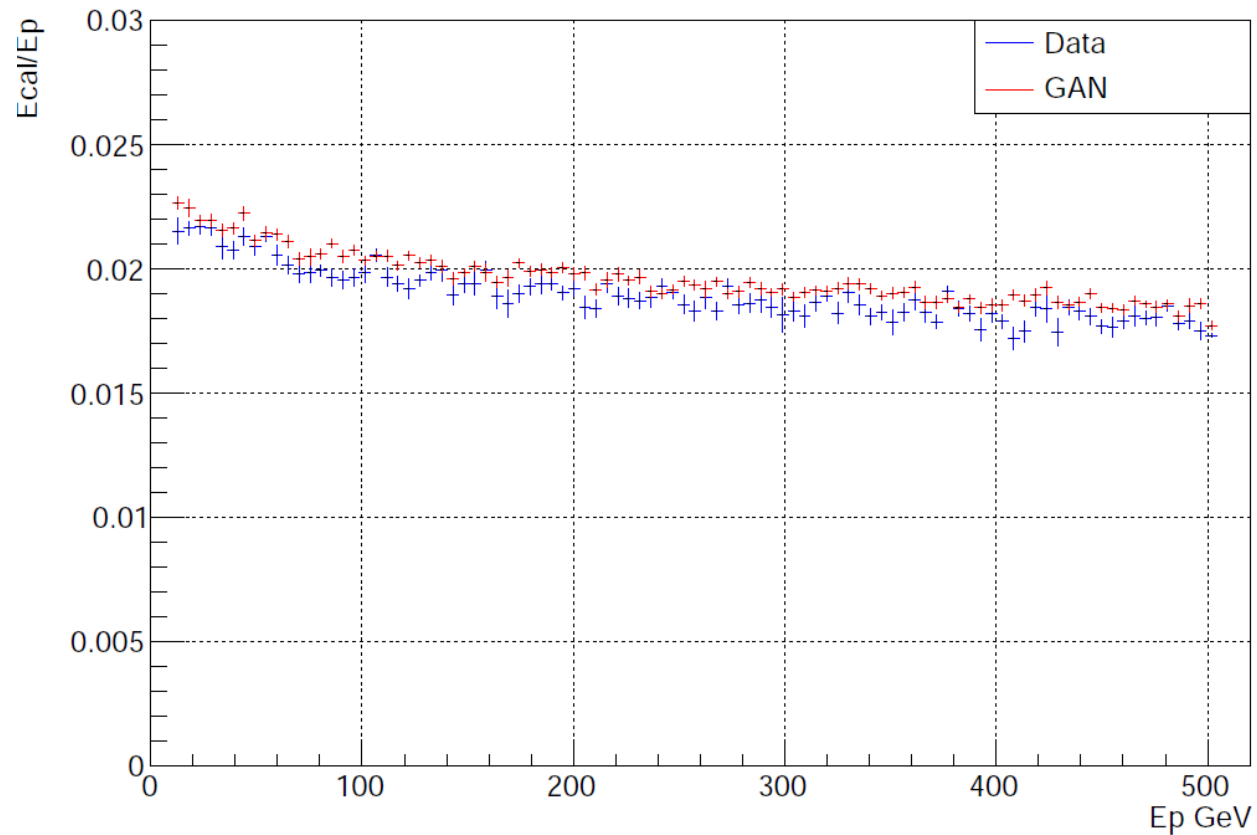
Pion Fit

Ecal/Ep versus Ep

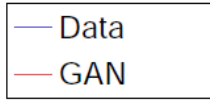
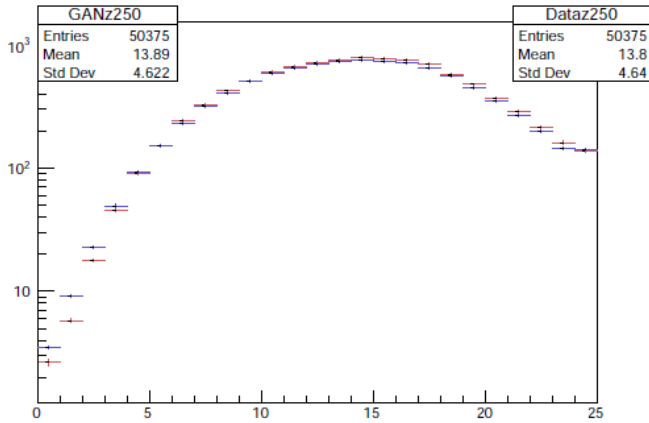
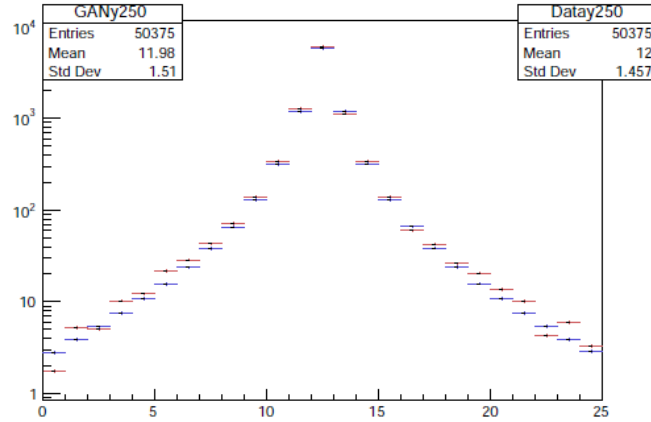
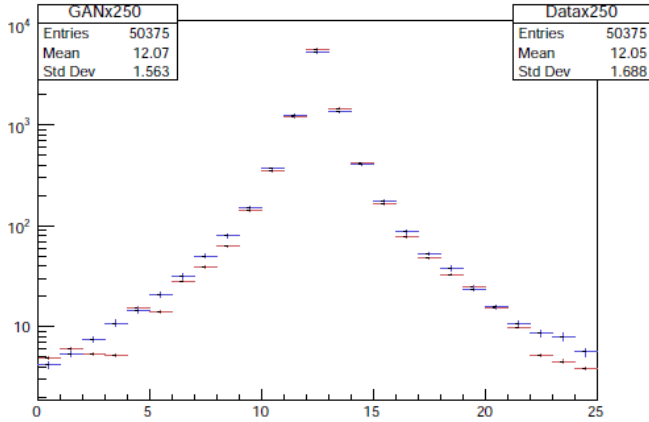


Ecal sum vs. Ep for Generated Samples

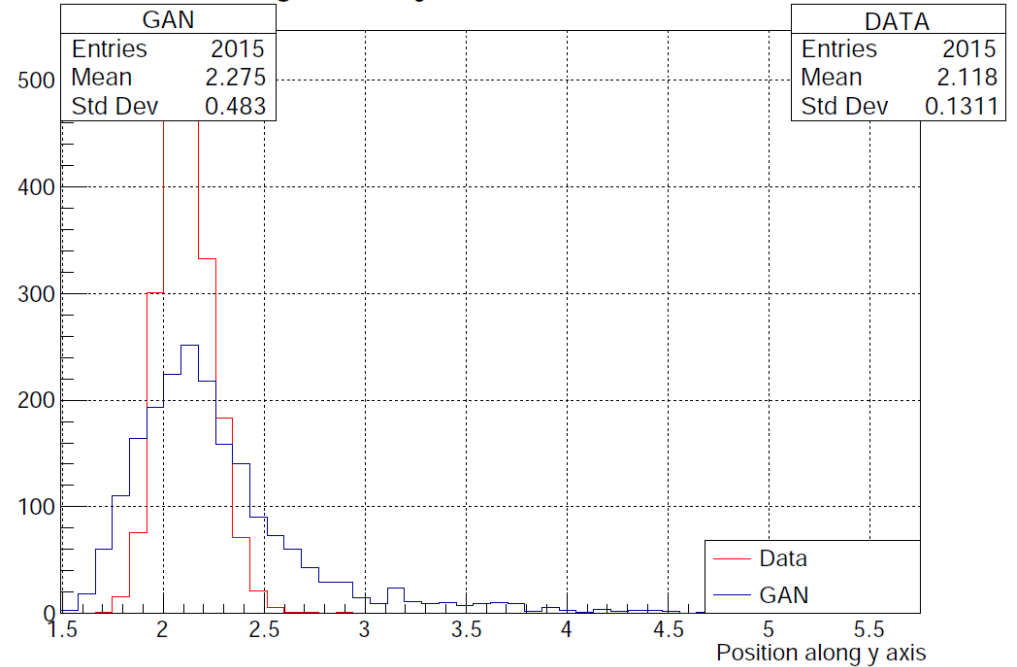
Ratio of Ecal and Ep



Shower Shapes

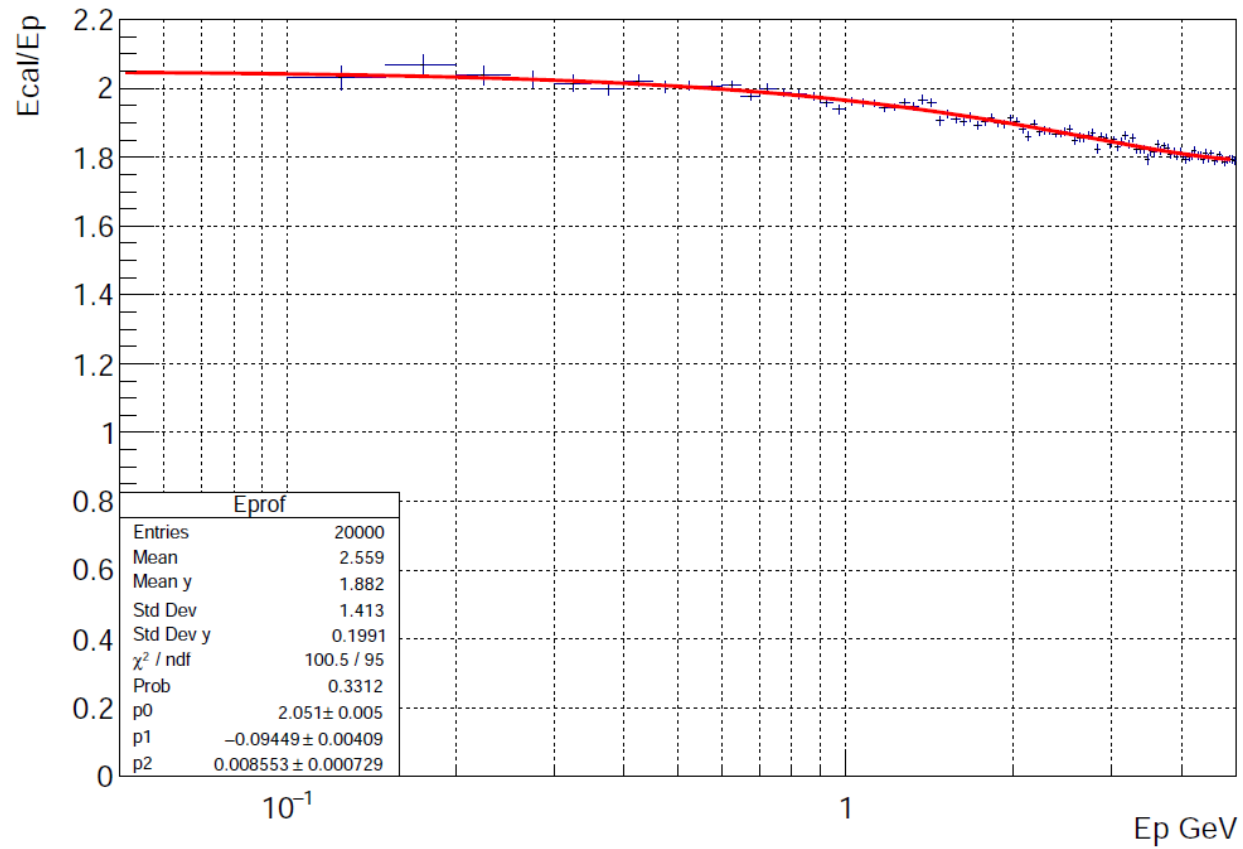


Histogram for y 2 Moment for 250 GeV



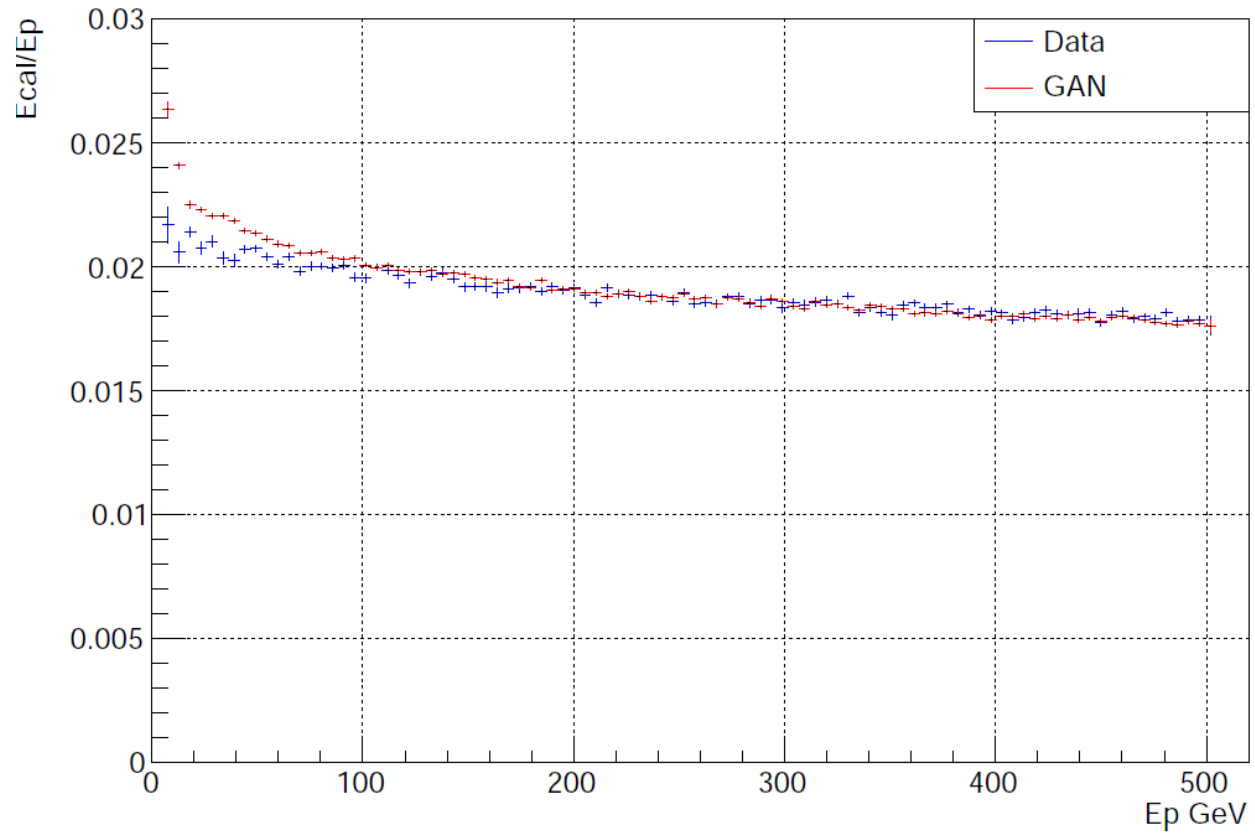
Another Fit

Ecal/Ep versus Ep

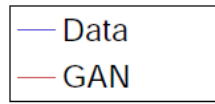
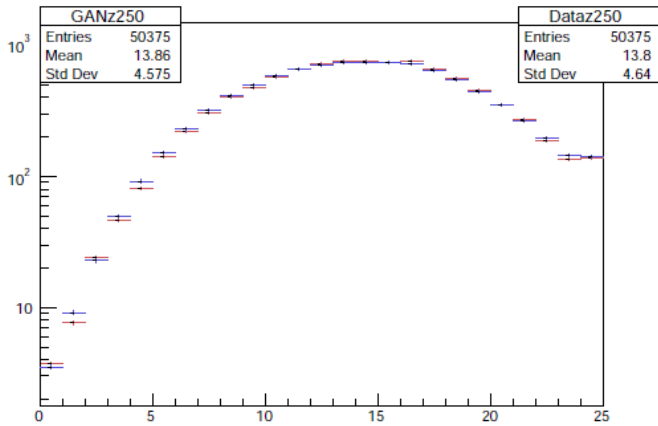
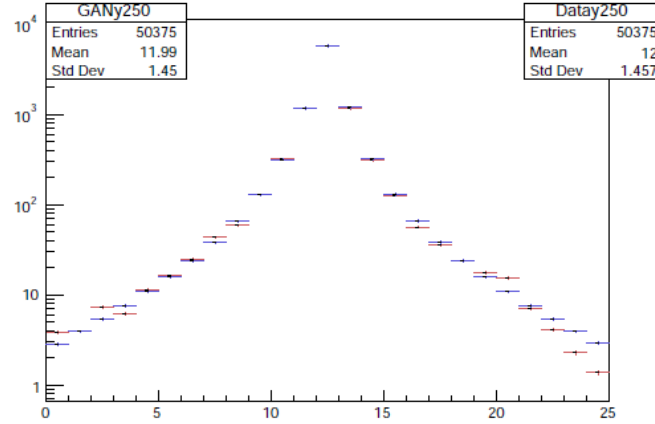
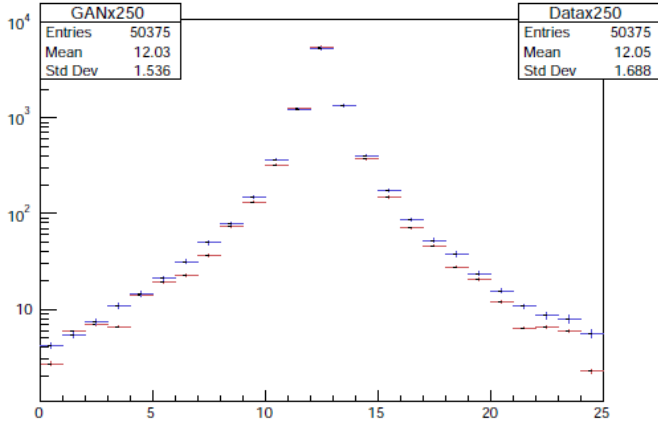


ECAL Sum vs. E_p

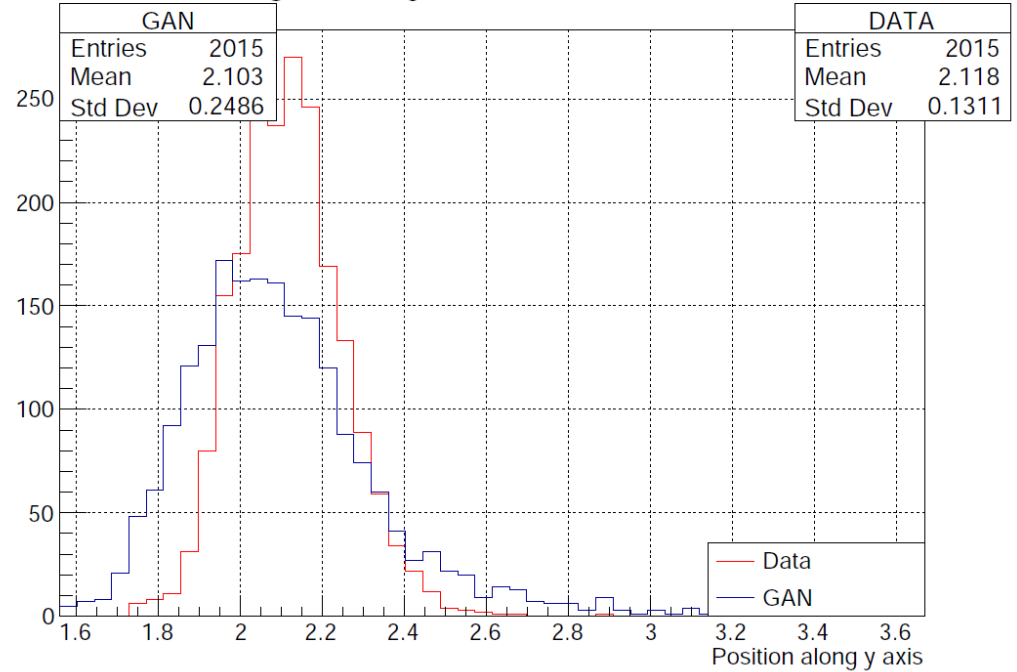
Ratio of Ecal and E_p



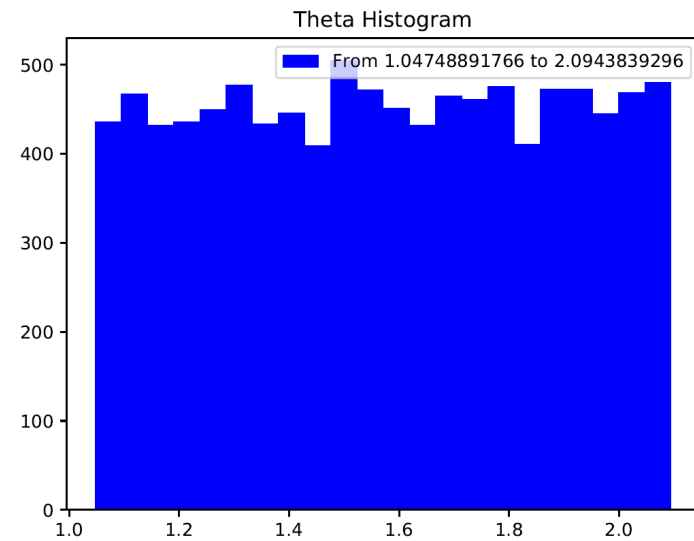
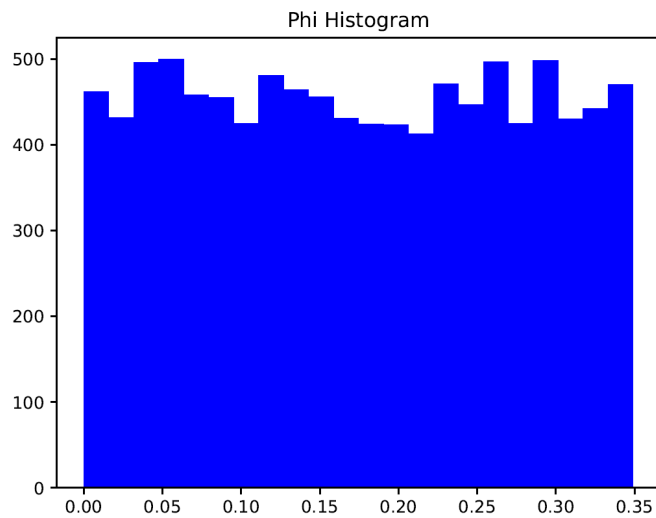
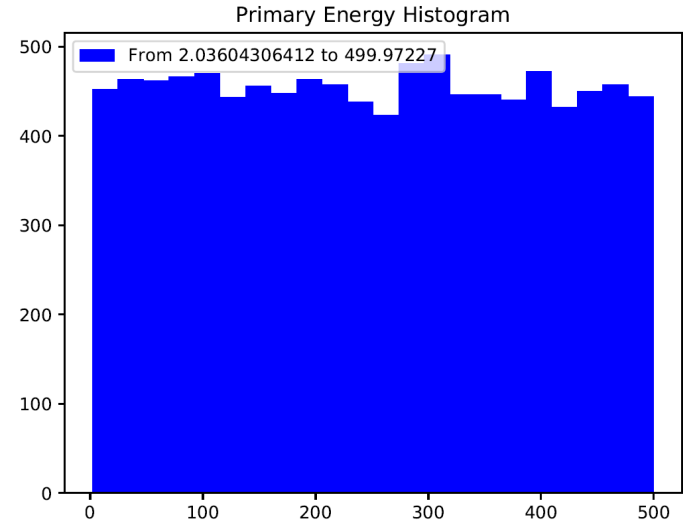
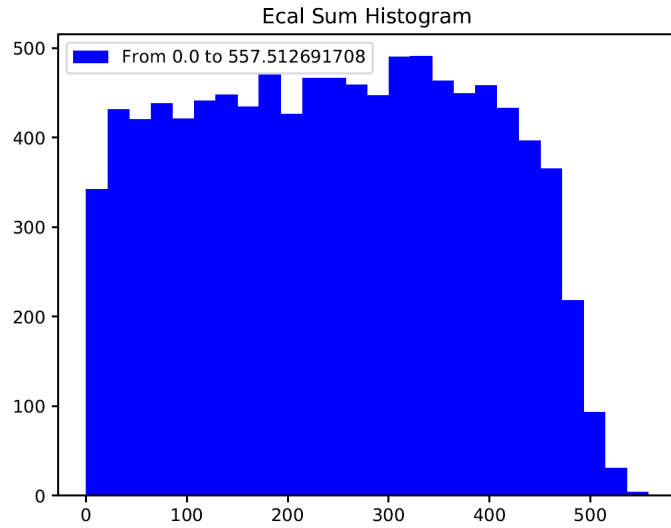
Shower Shapes



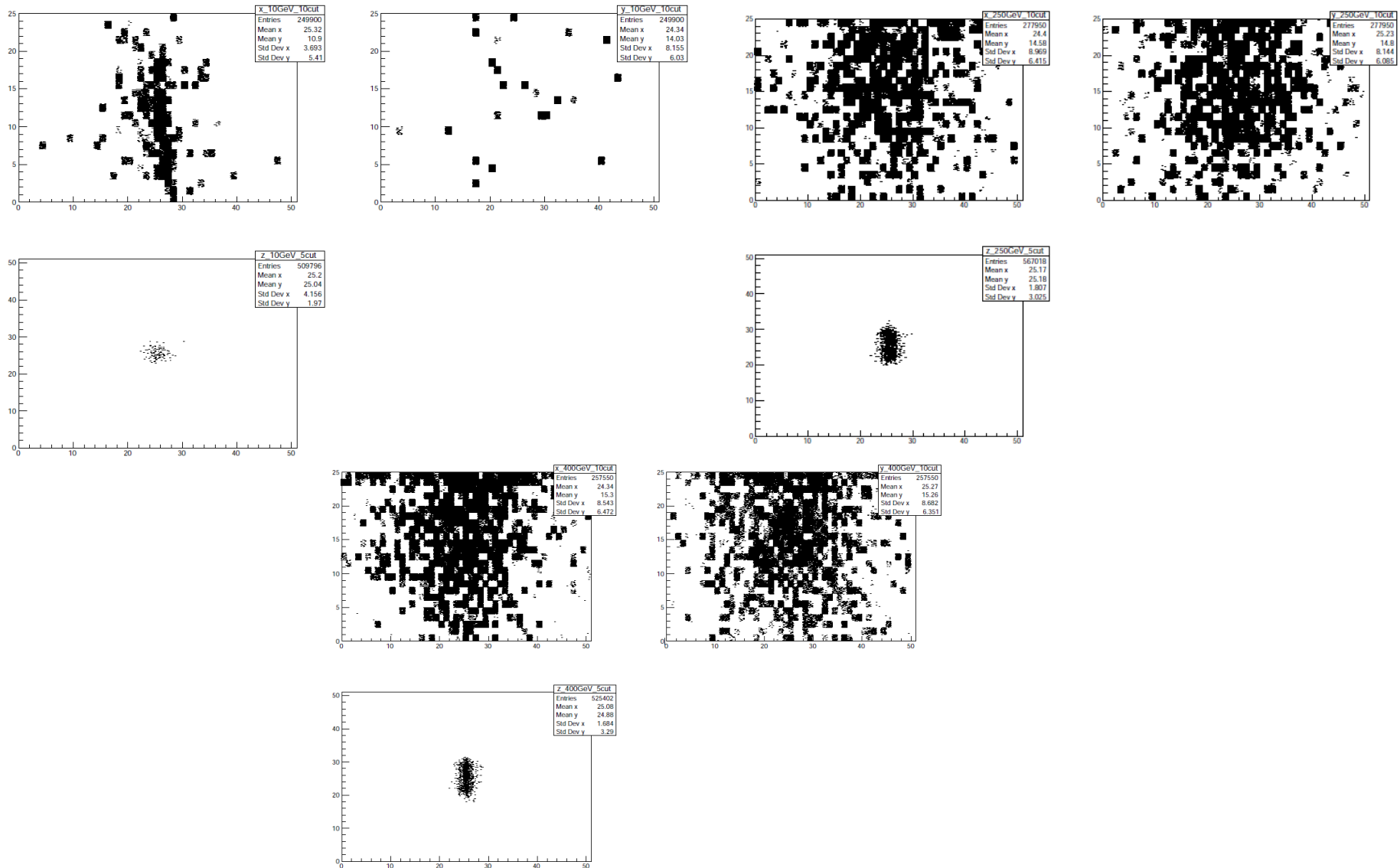
Histogram for y 2 Moment for 250 GeV



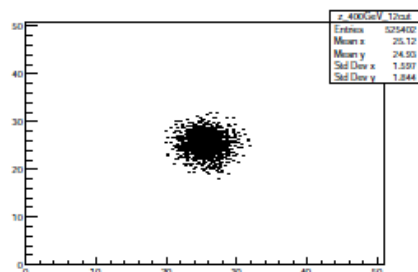
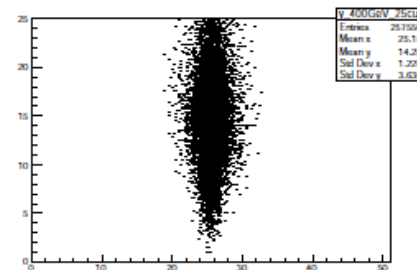
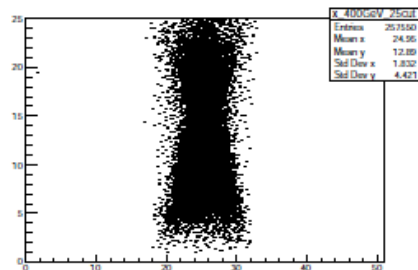
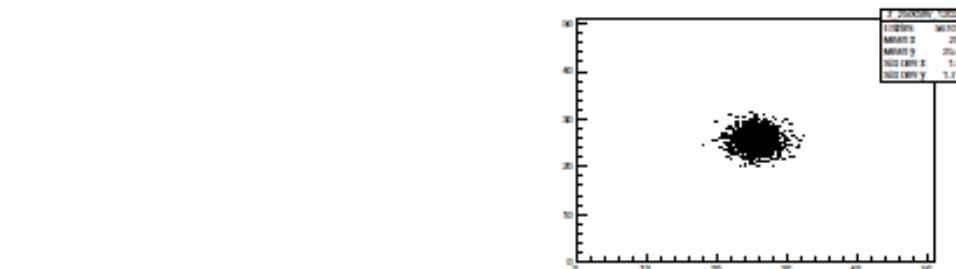
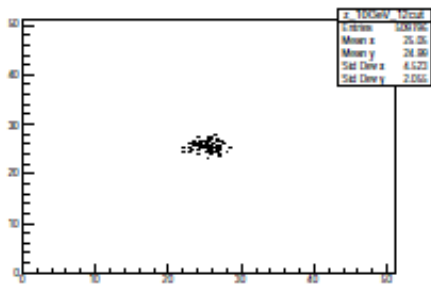
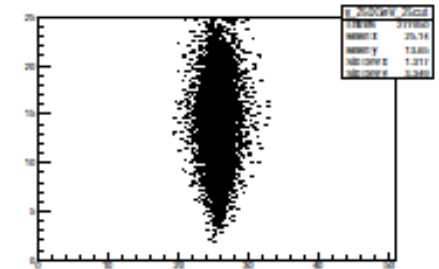
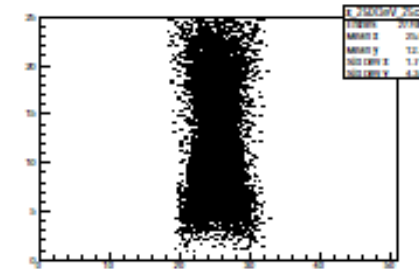
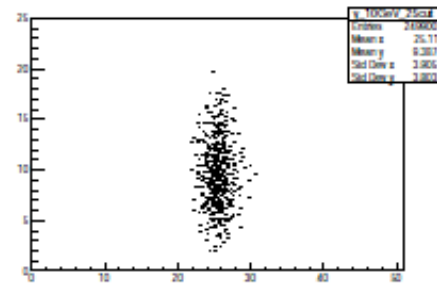
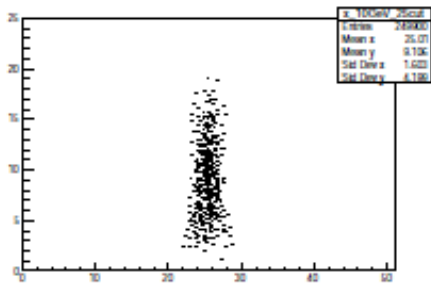
Variable Angle



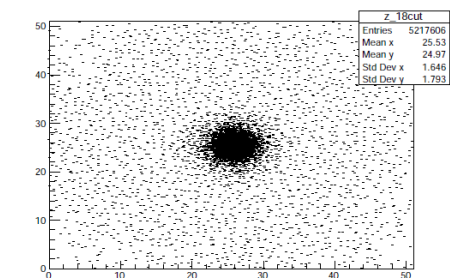
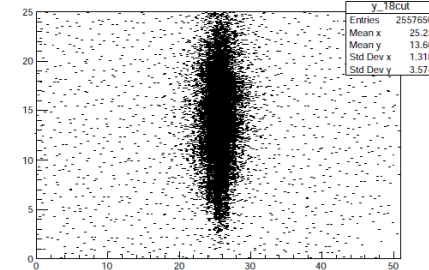
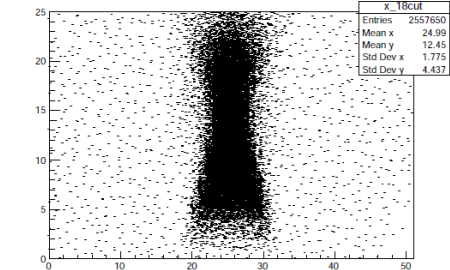
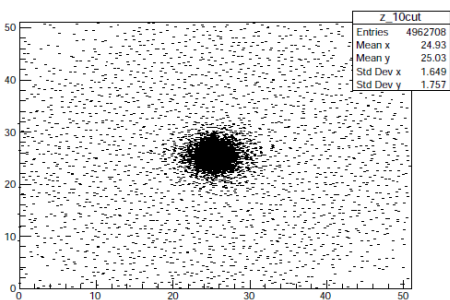
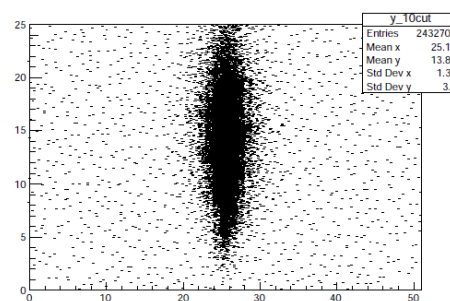
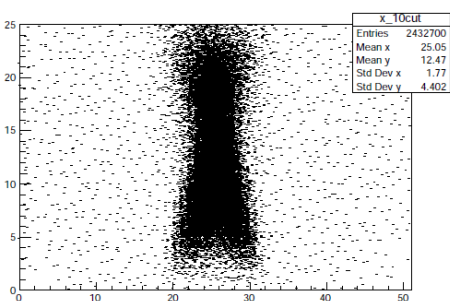
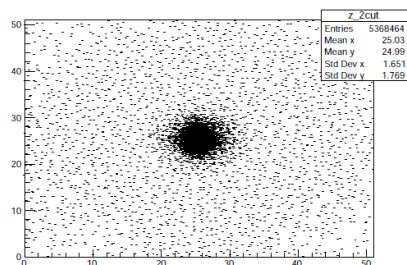
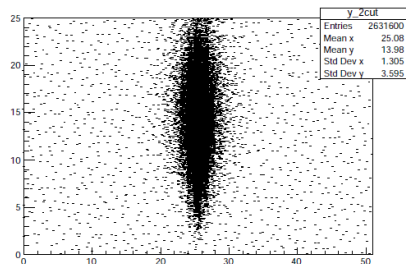
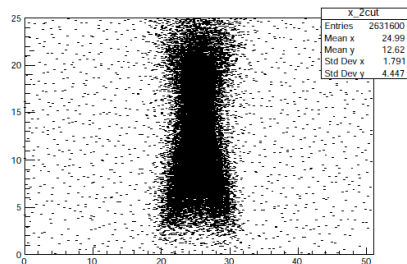
2D Hist Cut at position=(10, 10, 5) for 10GeV, 250 GeV and 400 GeV



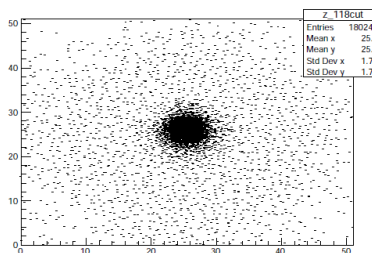
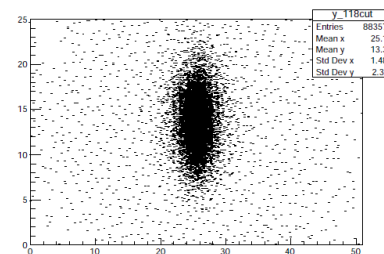
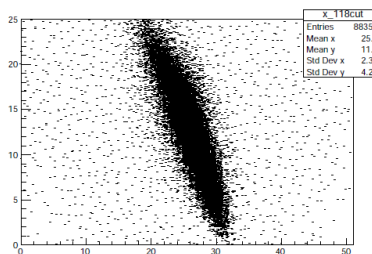
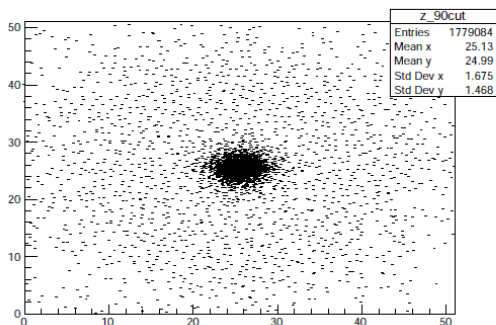
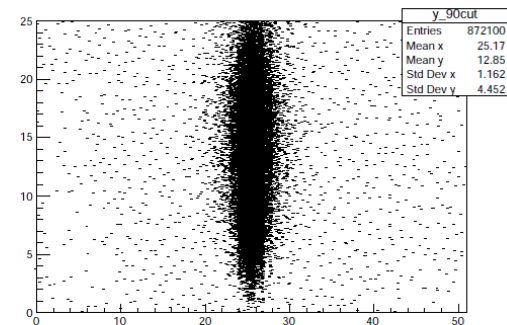
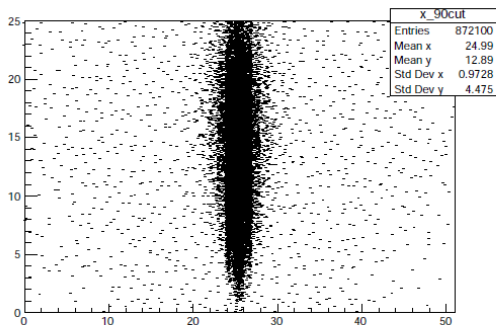
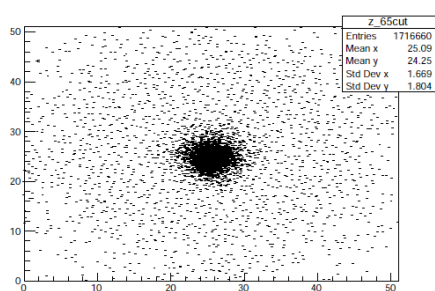
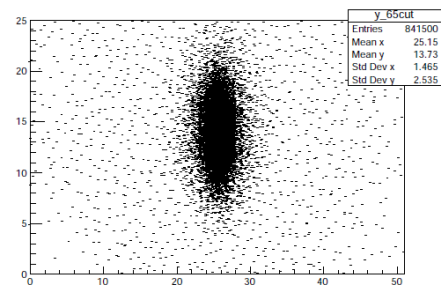
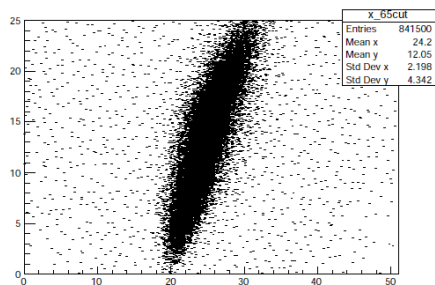
Cut at (25, 25, 12) for 10GeV, 250 GeV and 400 GeV



Phi cut at 2, 10 and 18 degrees



Theta cut at 65, 90 and 118 degrees



Conditional 3DGan

- Multiply condition to latent noise.
- 2D latent space
- Multiply each parameter/condition by a row
- Increased image size results in memory error.
- Simplification of network still fails in training for large number of events.
- Memory profiling needed.
- Alternate method to reduce network complexity.