

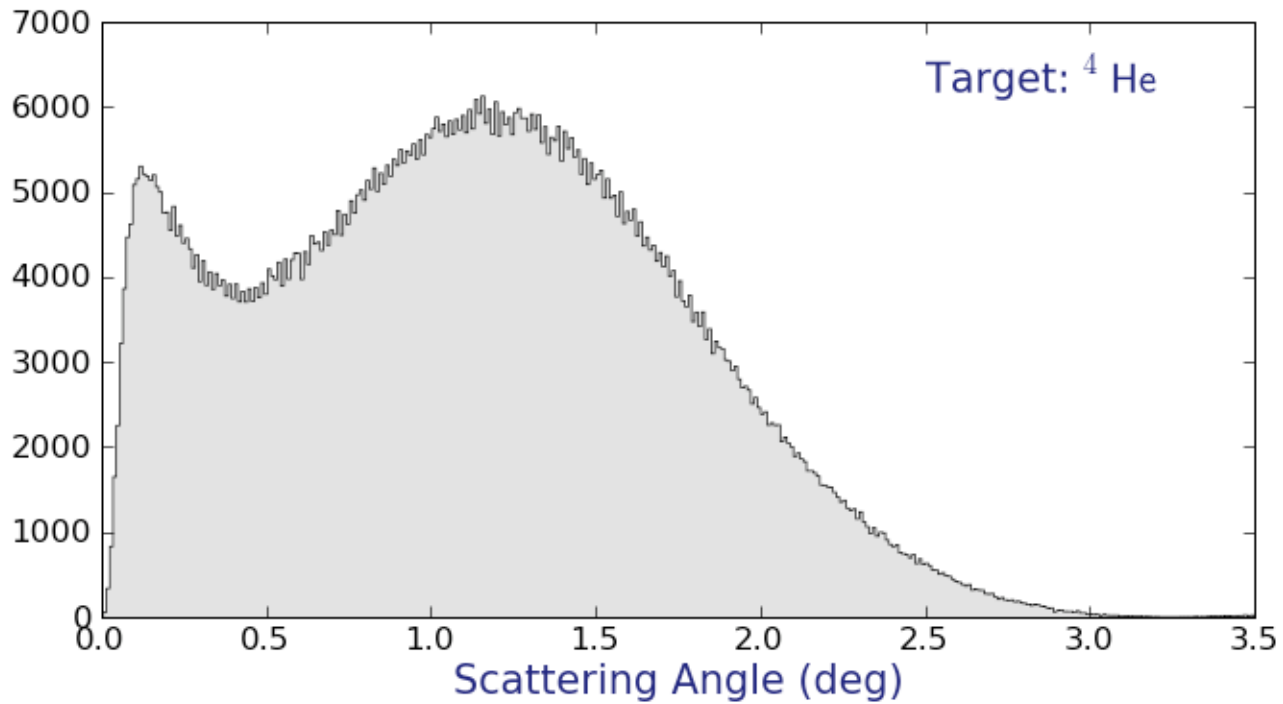
# Photoproduction of the $\eta$ meson

Pawel Ambrozewicz

NC A&T

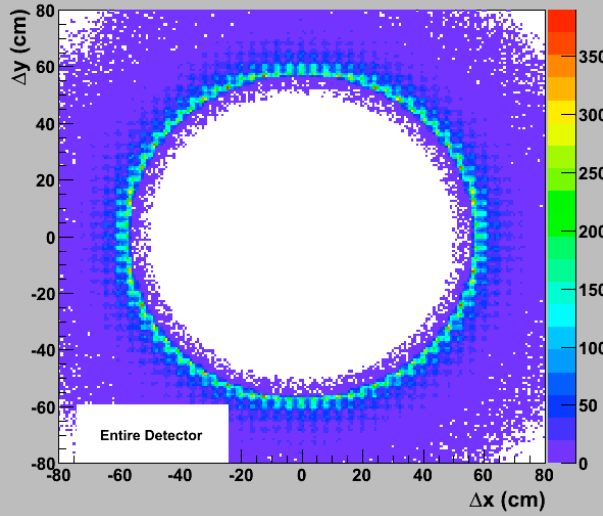
- Optimizing The Configuration
  - Helium Target
  - B Field On/Off
  - Angular Resolution Scans

# Helium Target

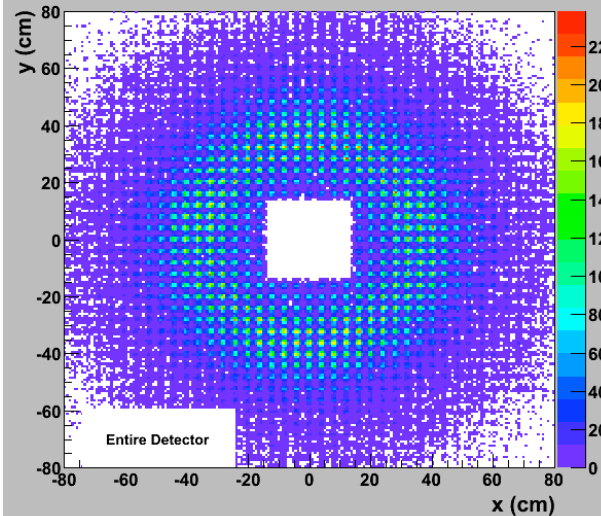


# Data Selection – Magnetic Field On

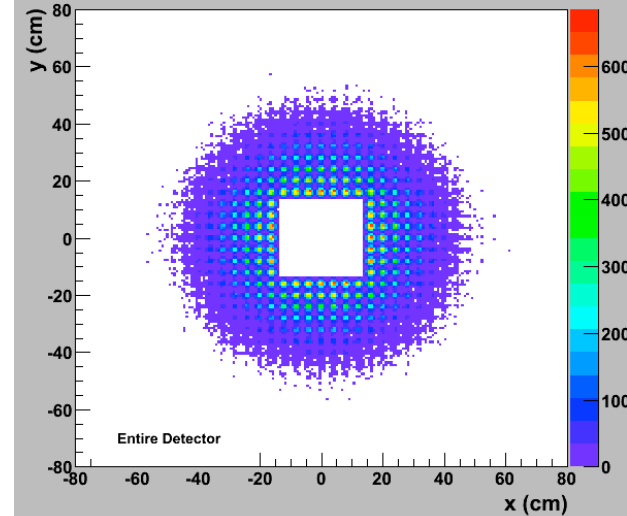
Cluster Separation



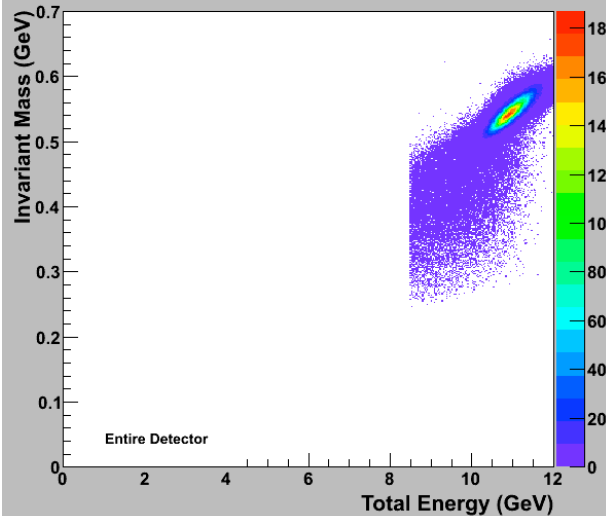
Lower Energy Cluster X vs. Y



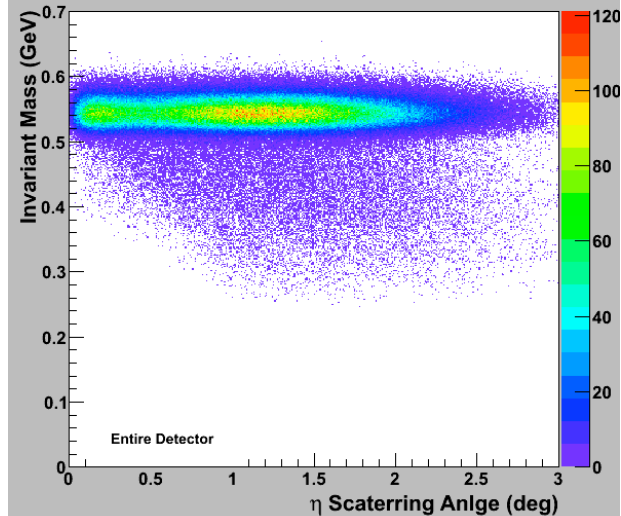
Higher Energy Cluster X vs. Y



Invariant Mass vs Energy

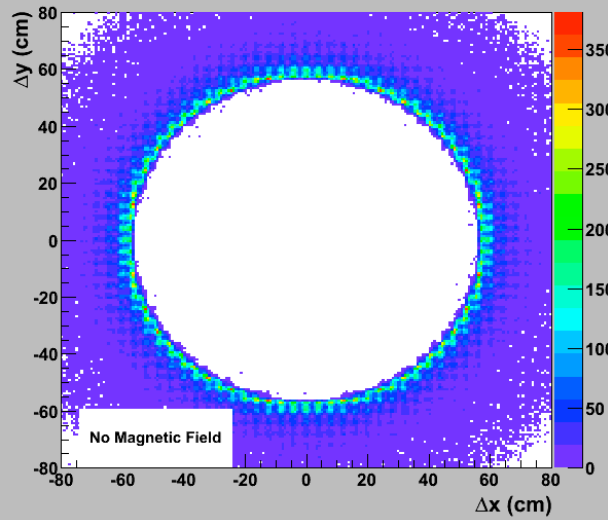


$M_0$  vs  $\theta_\eta$

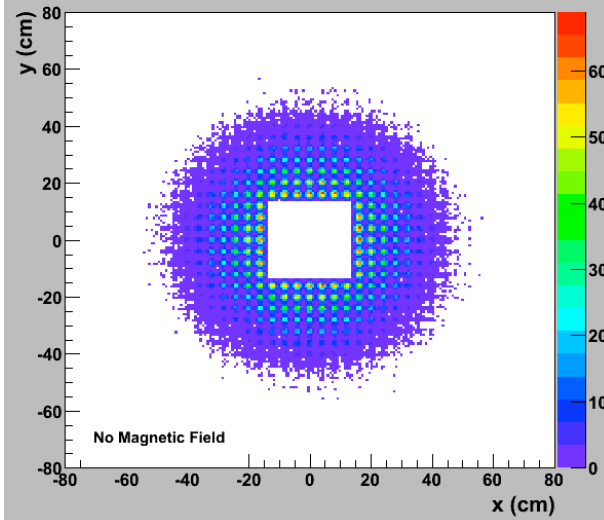


# Data Selection – Magnetic Field Off

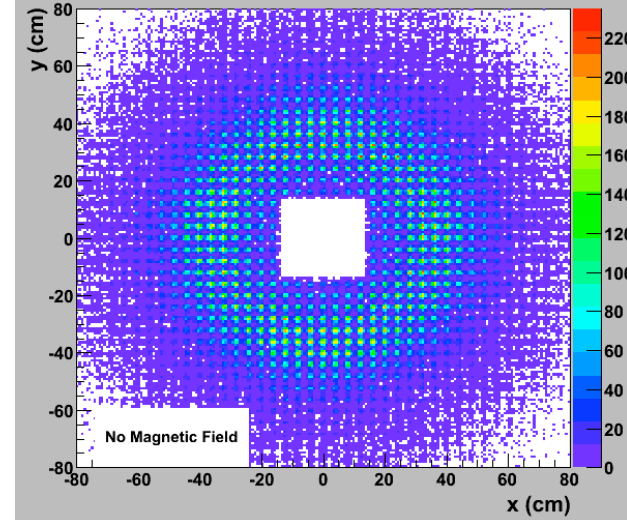
Cluster Separation



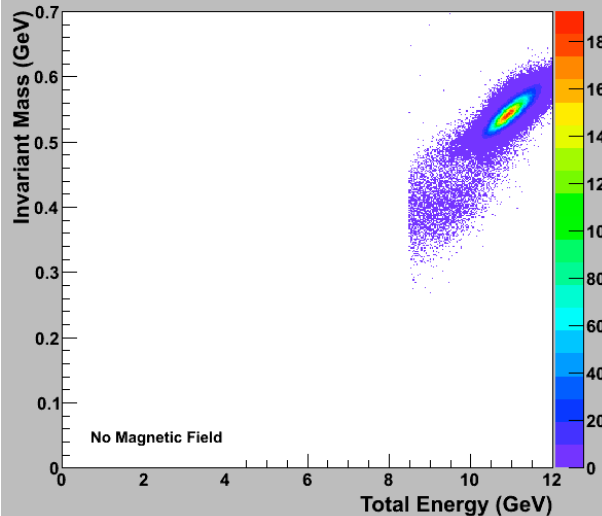
Higher Energy Cluster X vs. Y



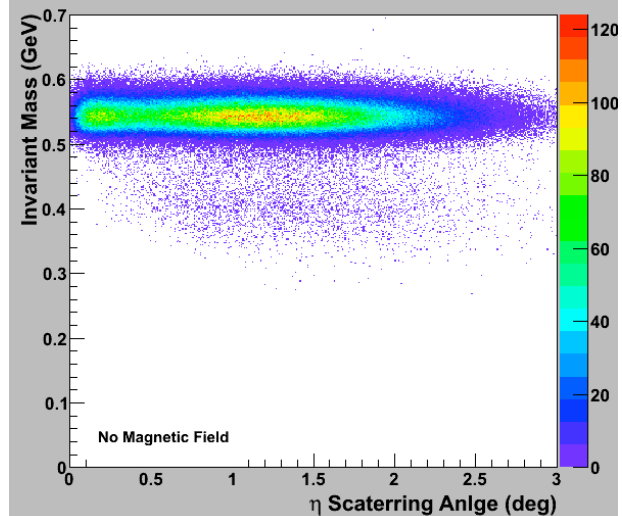
Lower Energy Cluster X vs. Y



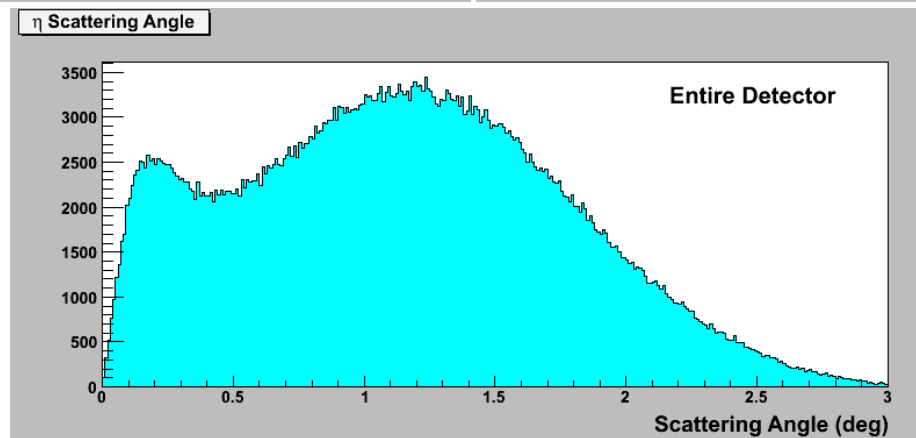
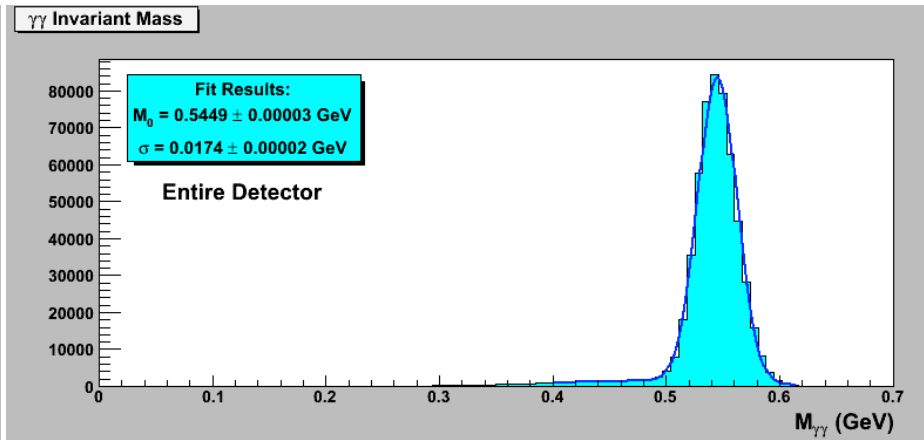
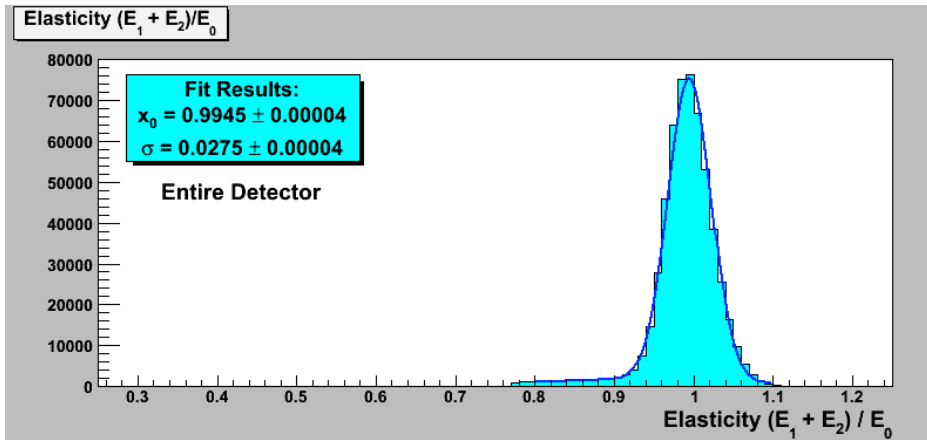
Invariant Mass vs Energy



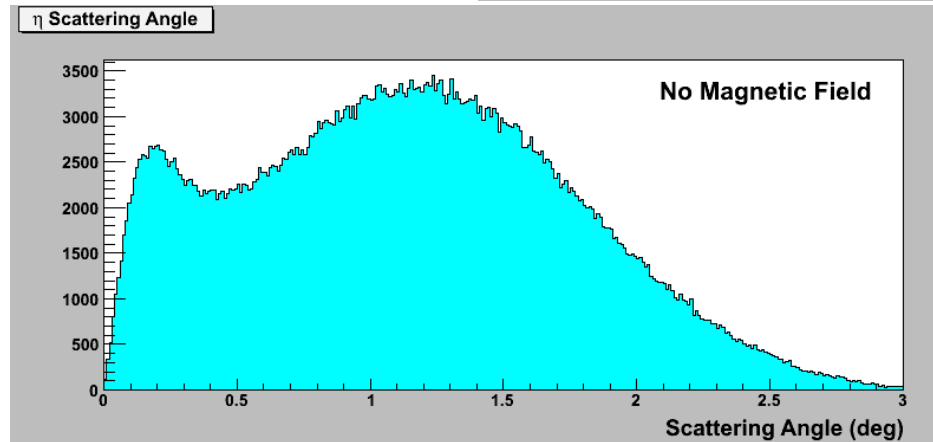
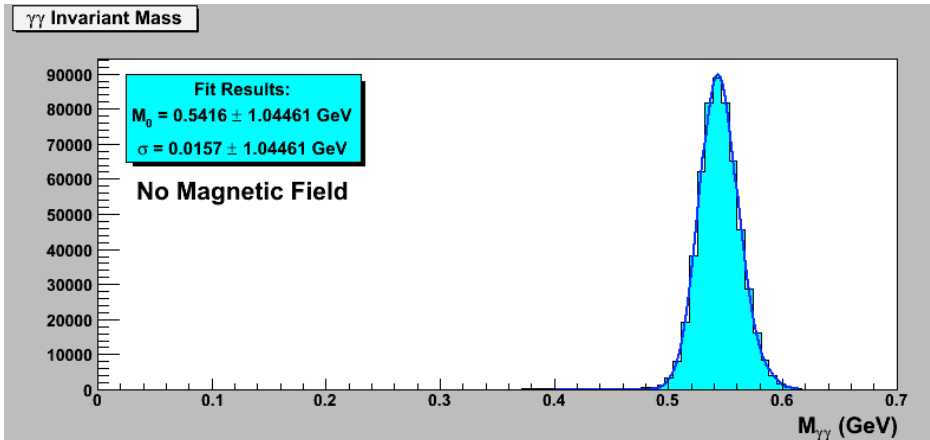
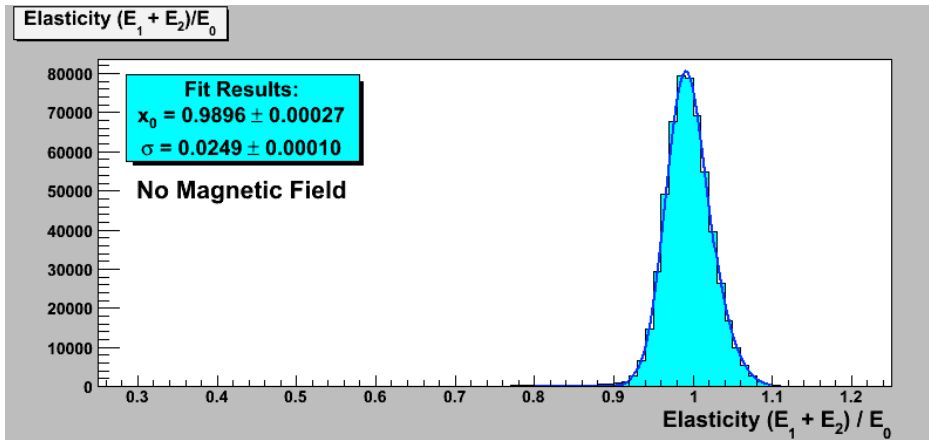
$M_0$  vs  $\theta_\eta$



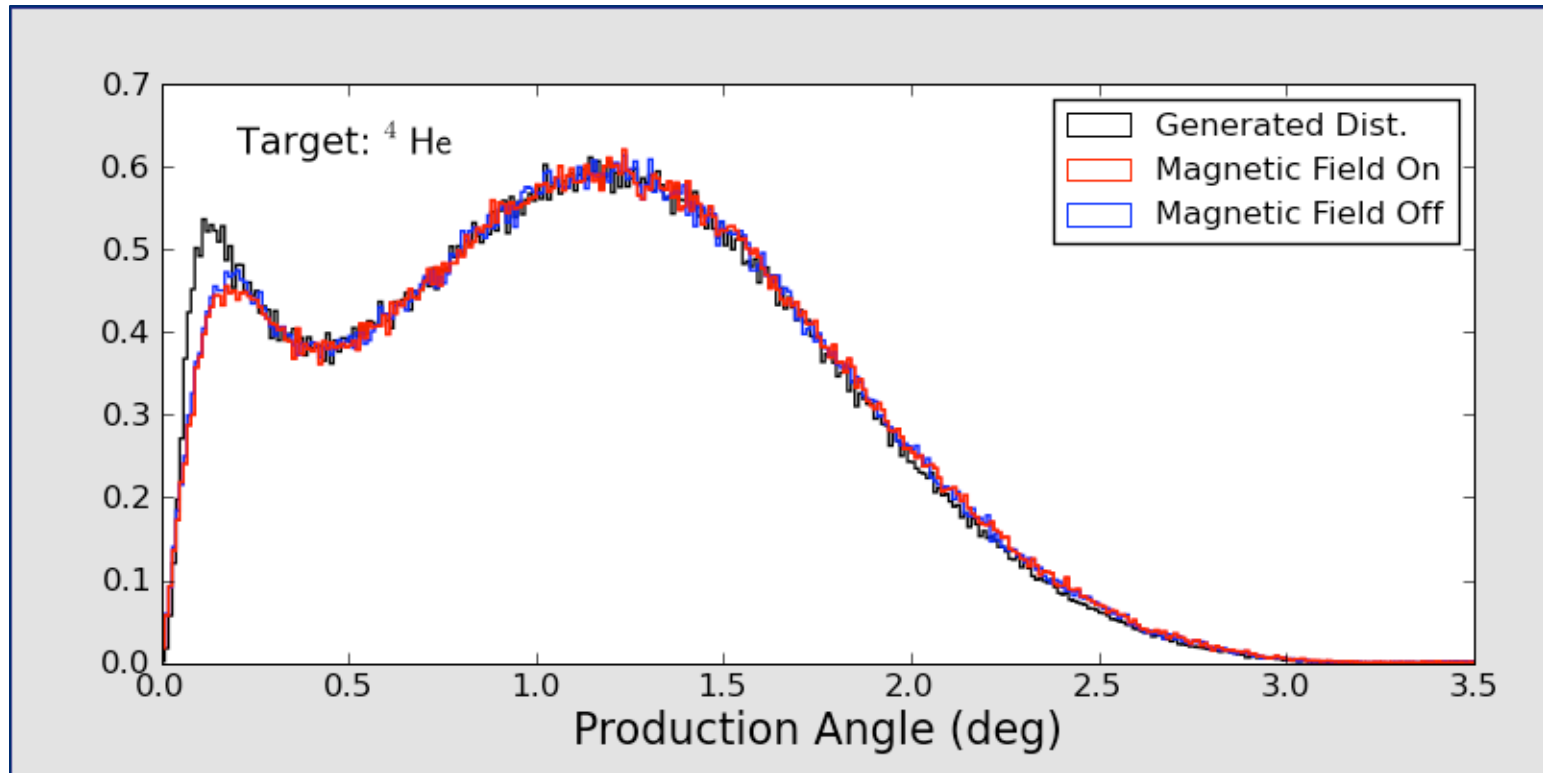
# Fit Results – Magnetic Field On



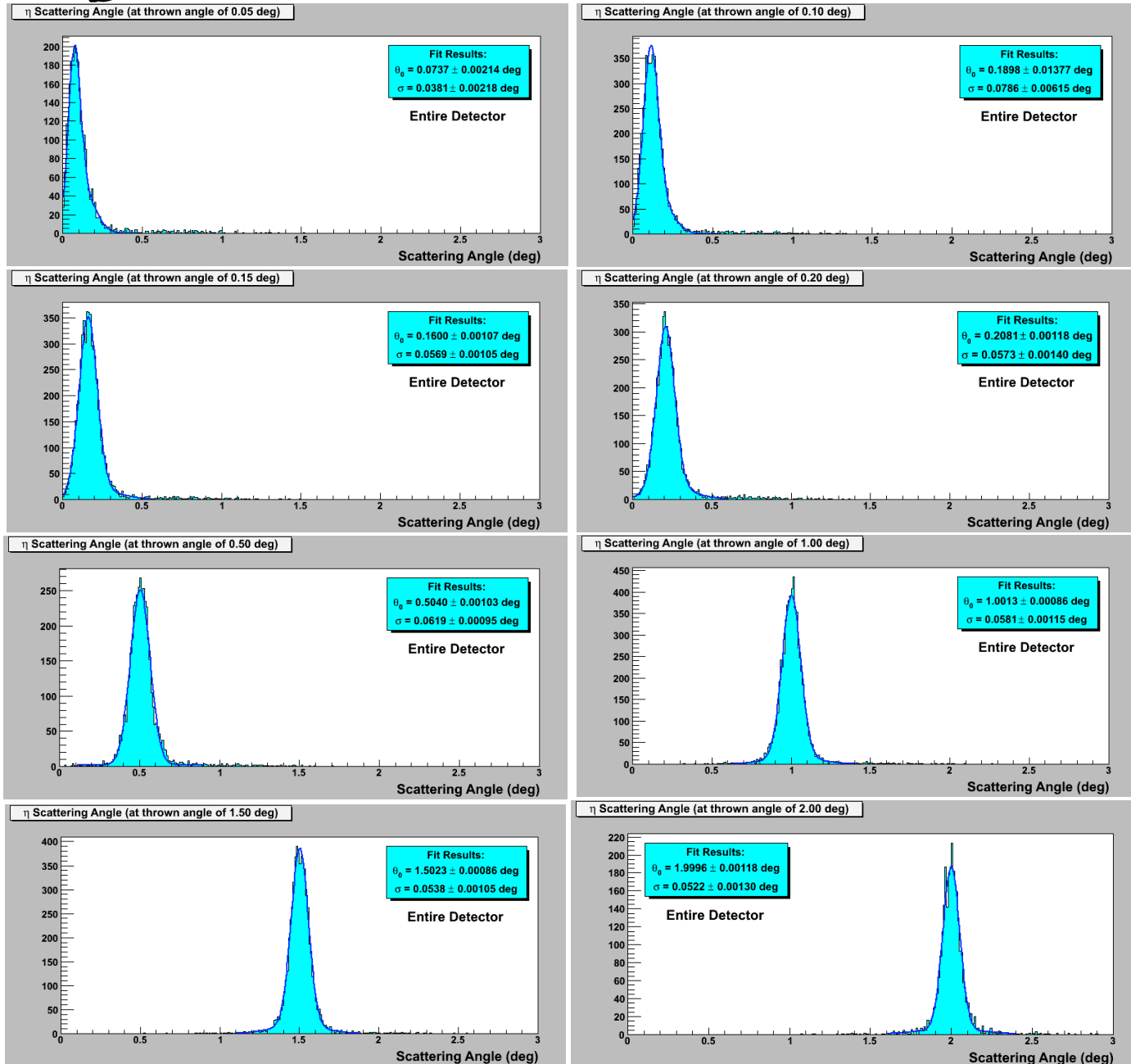
# Fit Results – Magnetic Field Off



# Yield Angular Distributions

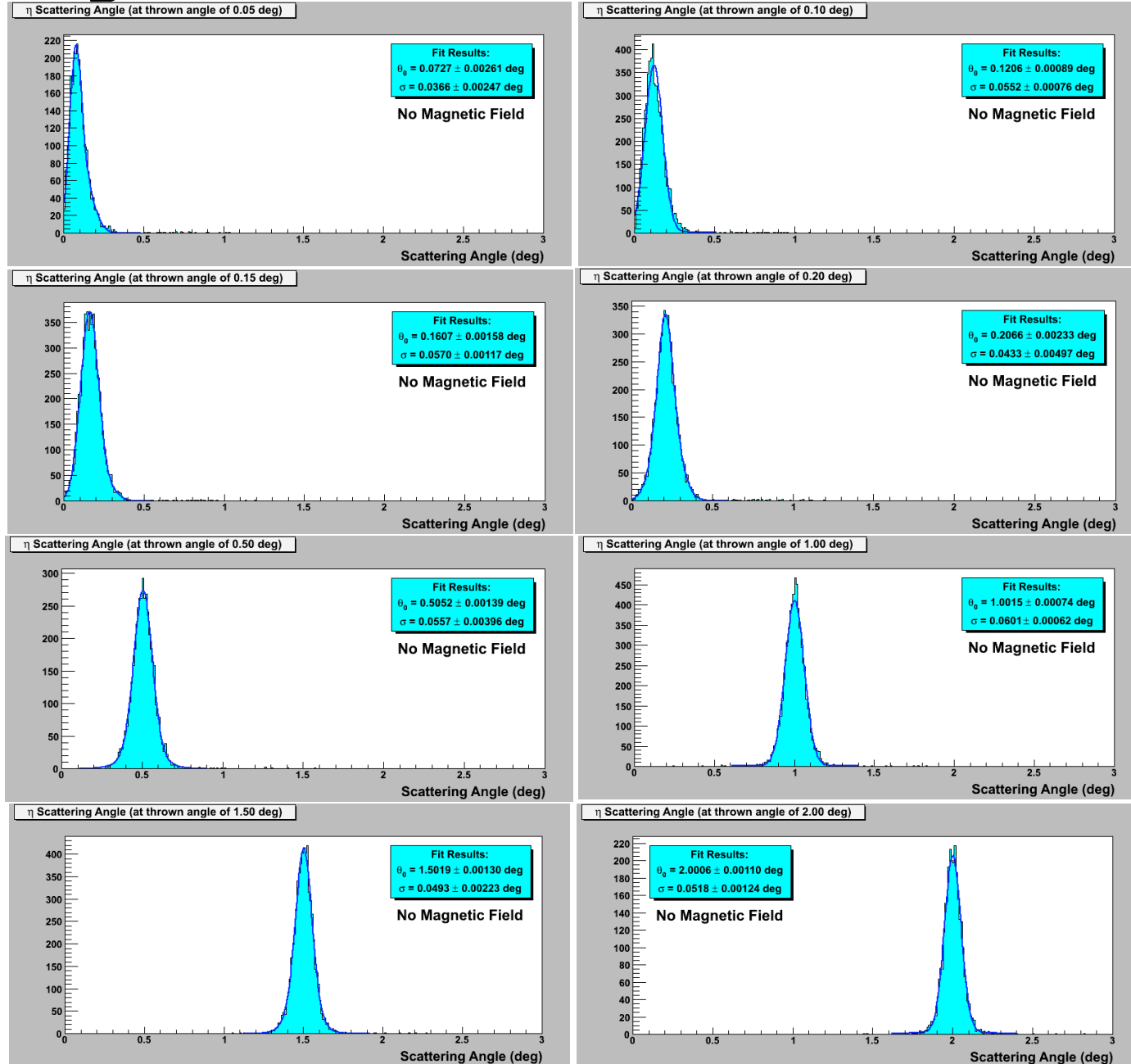


# Angular Resolution Scans – B On



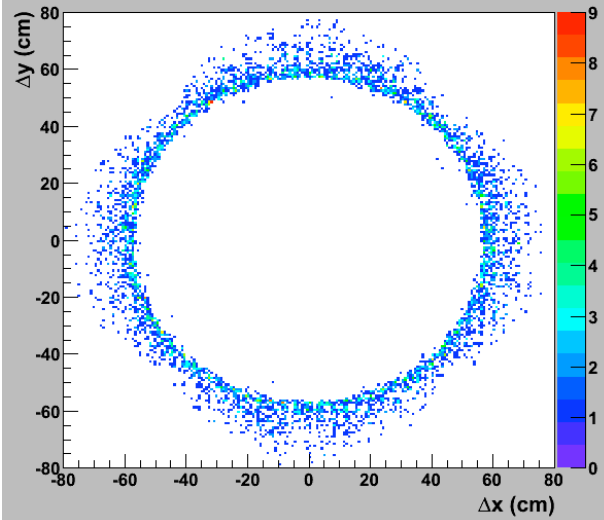


# Angular Resolution Scans – B Off

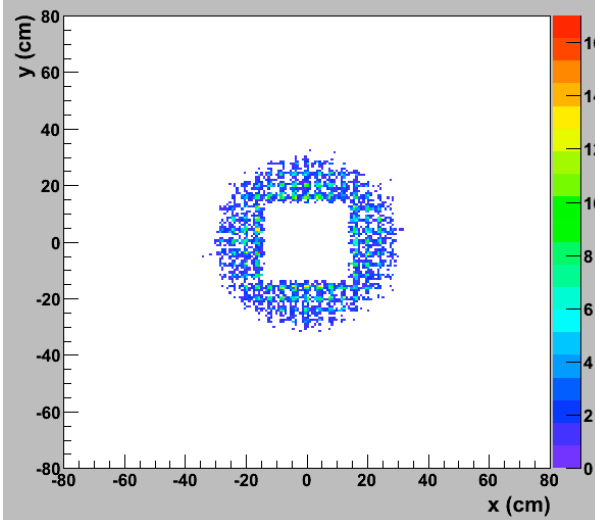


# Data Selection – Angular Scan w/B On

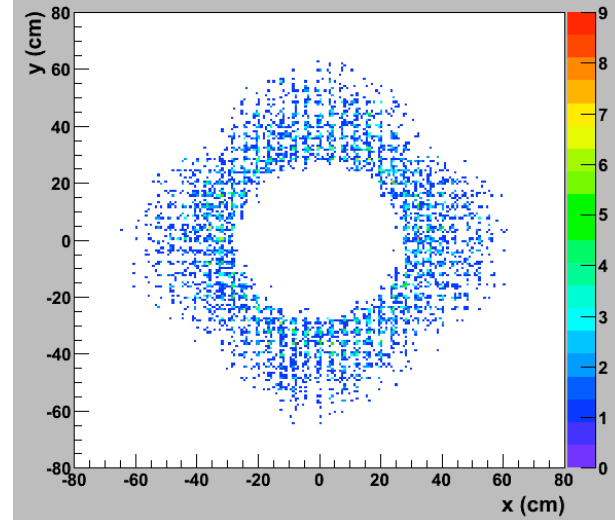
Cluster Separation



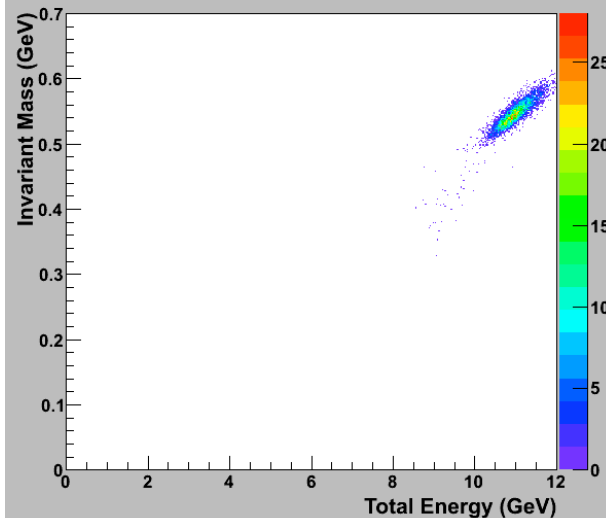
Higher Energy Cluster X vs. Y



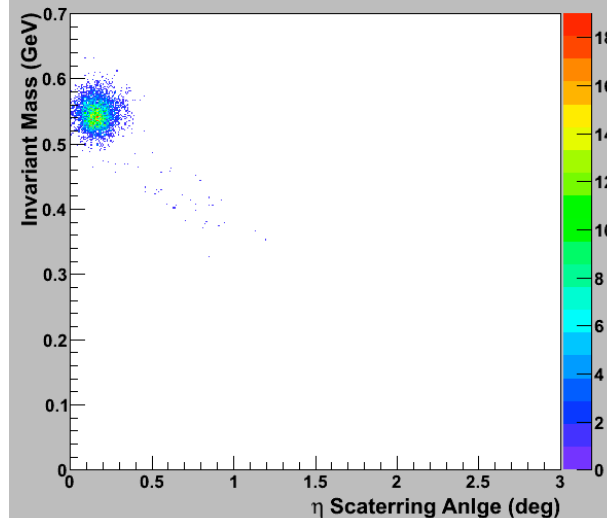
Lower Energy Cluster X vs. Y



Invariant Mass vs Energy



$M_0$  vs  $\theta_\eta$



# Resolution Scan Results

