

Photoproduction of the η meson

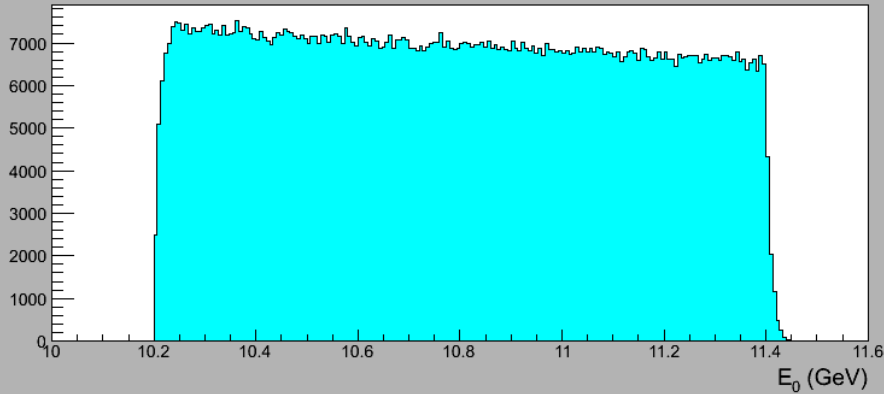
Pawel Ambrozewicz

NC A&T

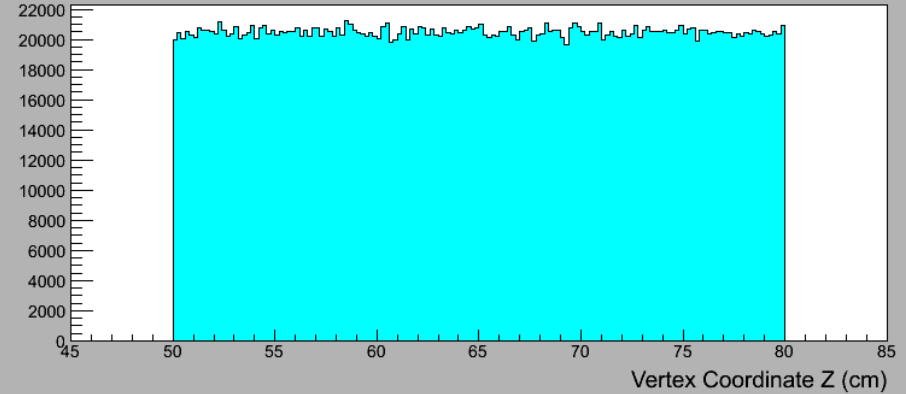
- Two prong analysis/simulations
 - Signal – Radiative Width Fit
 - Backgrounds

Target Vertex

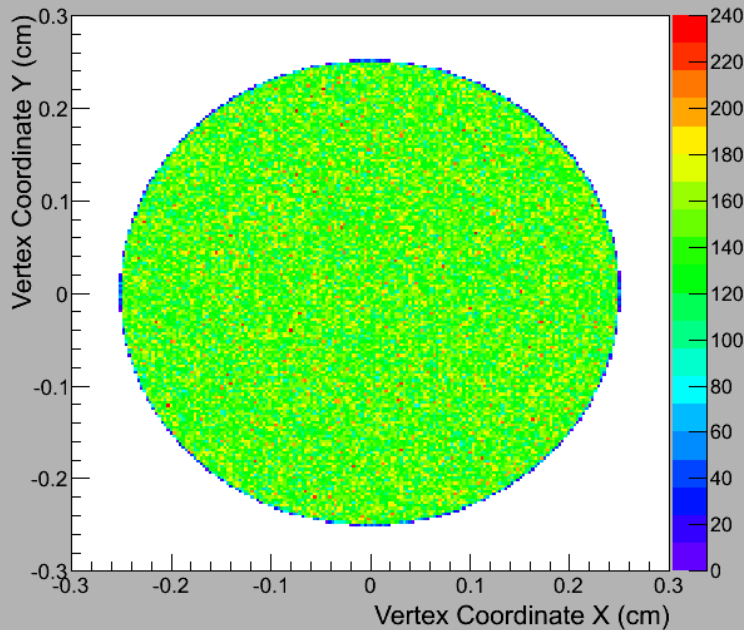
Initial γ Energy



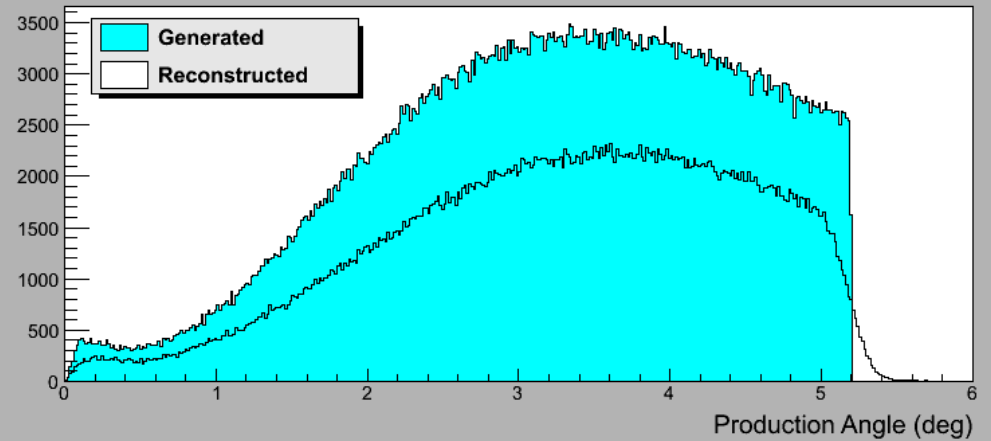
Generated Interaction Vertex - Z



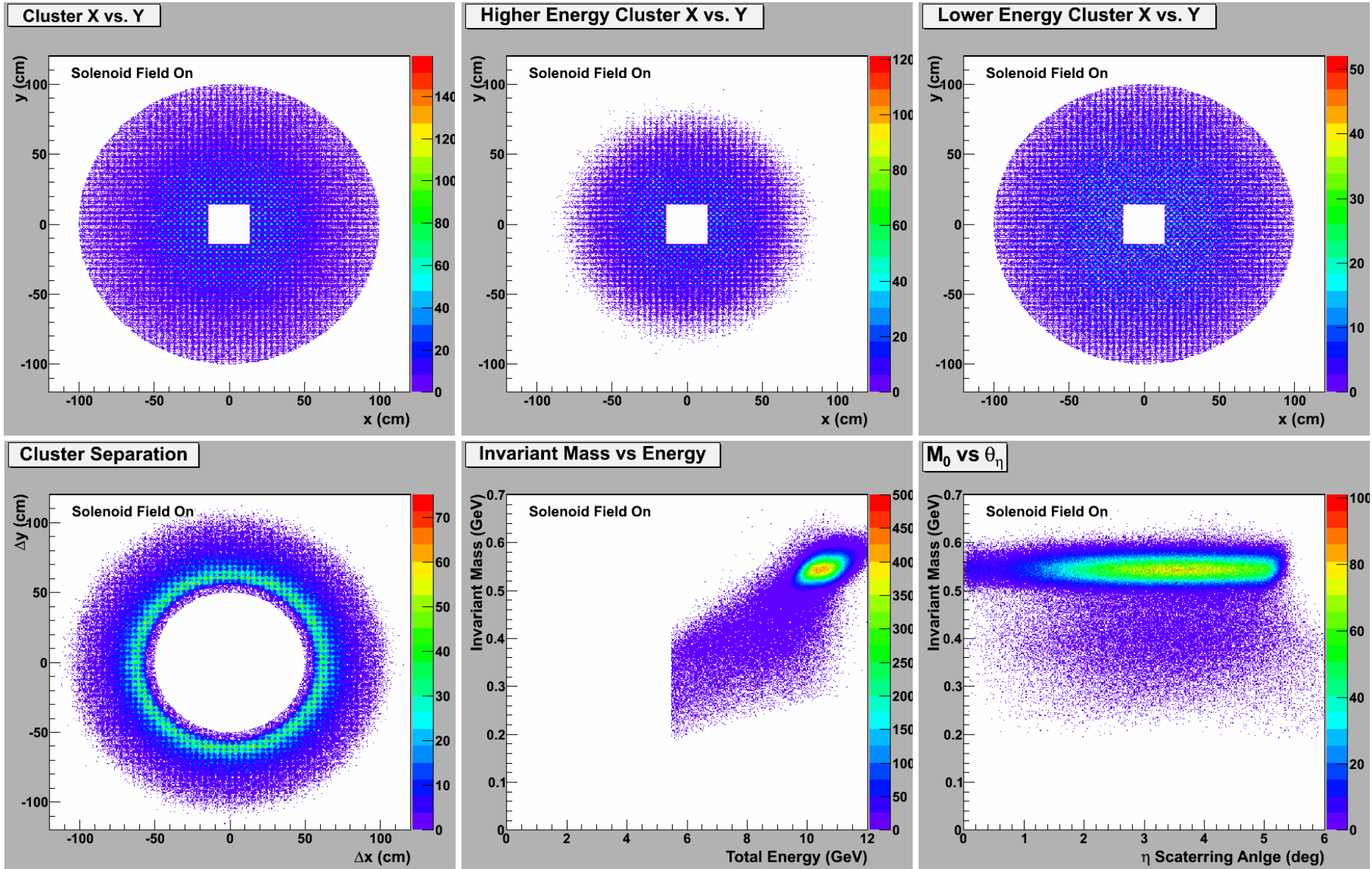
Generated Interaction Vertex - X vs. Y



η Production Angle

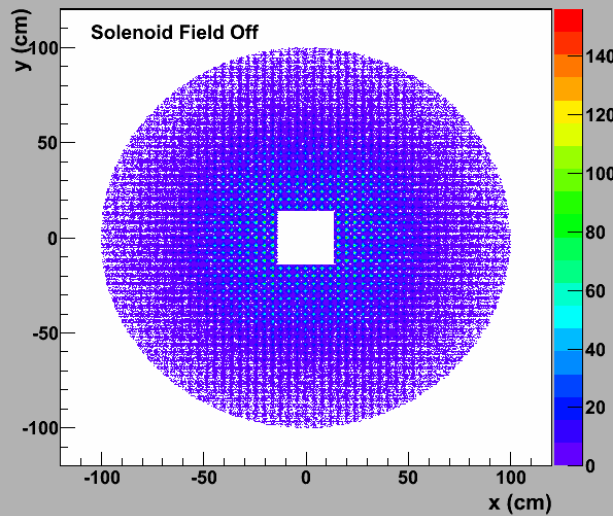


Data Selection – Solenoid Field On

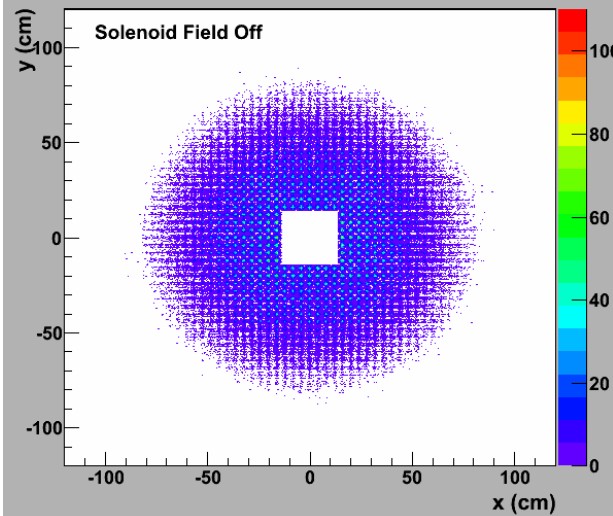


Data Selection – Solenoid Field Off

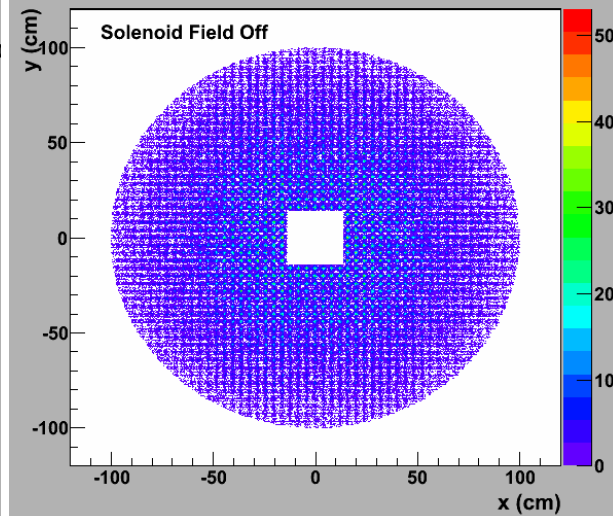
Cluster X vs. Y



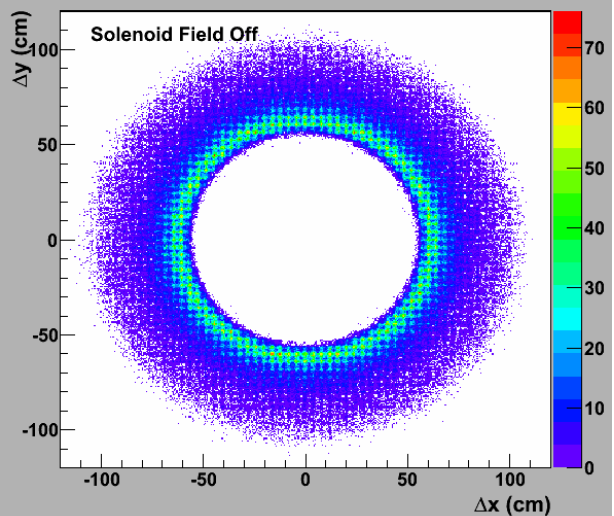
Higher Energy Cluster X vs. Y



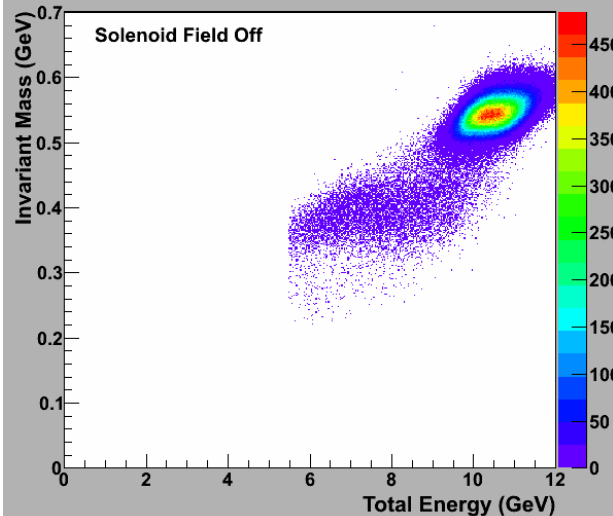
Lower Energy Cluster X vs. Y



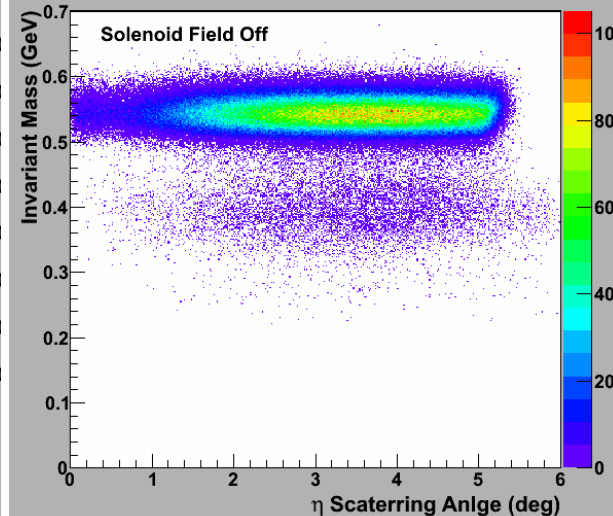
Cluster Separation



Invariant Mass vs Energy

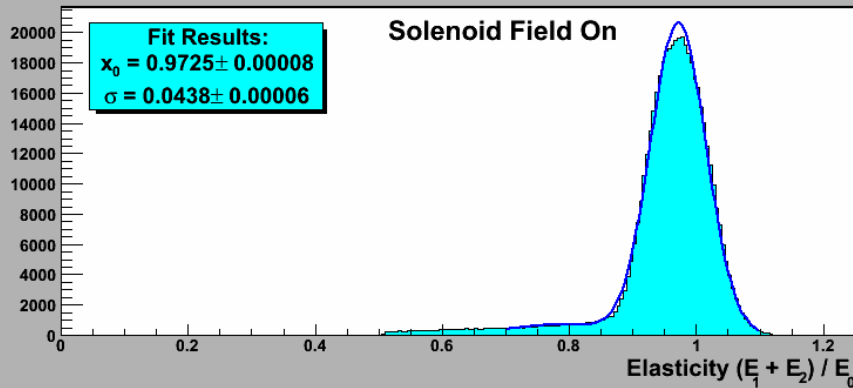


M_0 vs θ_η

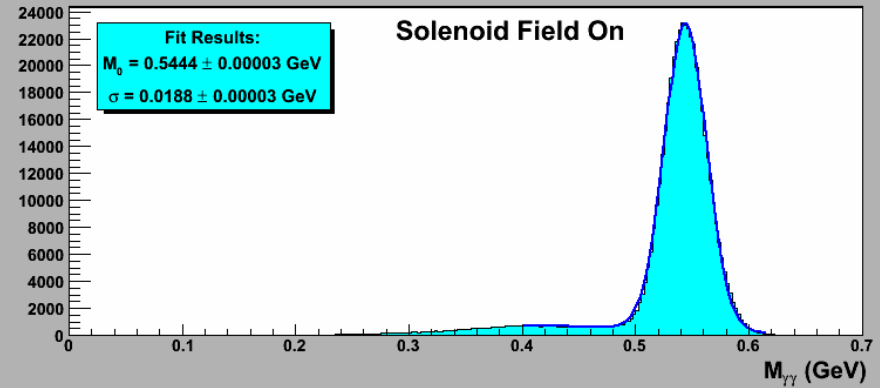


Fit Results – Magnetic Field On

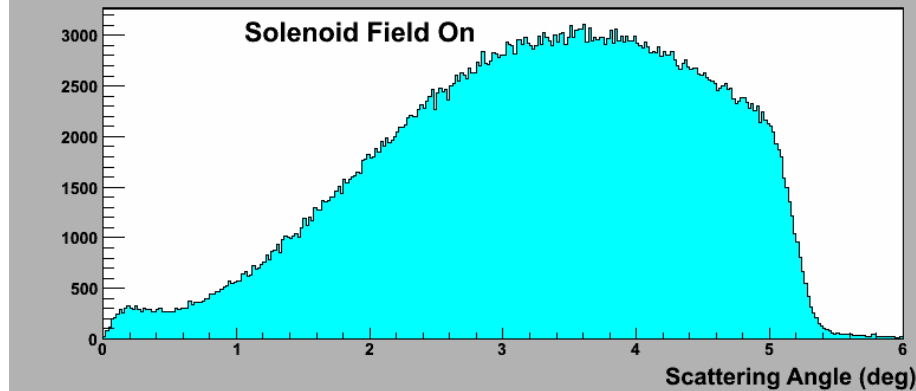
Elasticity $(E_1 + E_2)/E_0$



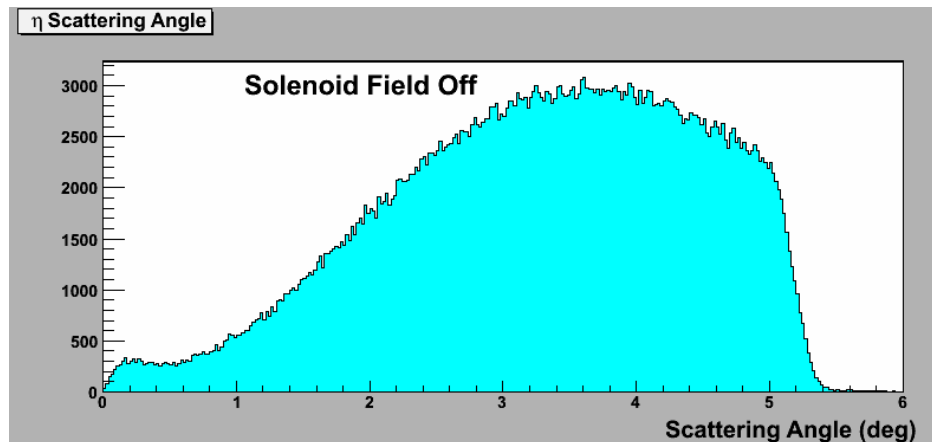
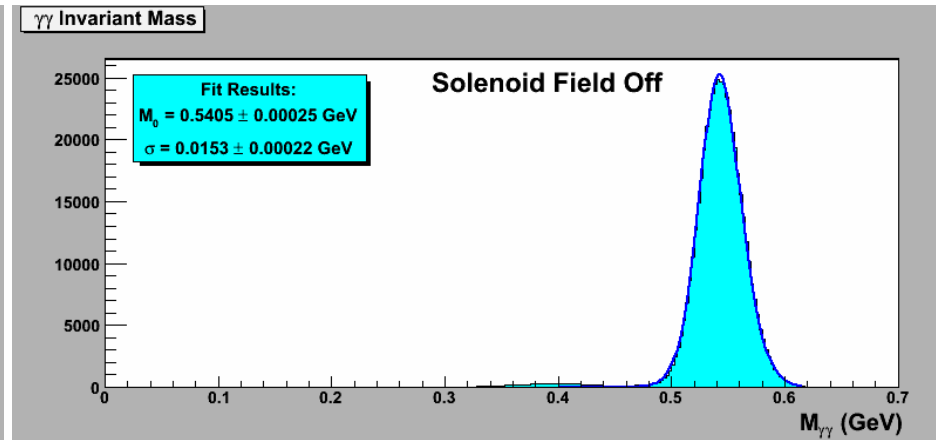
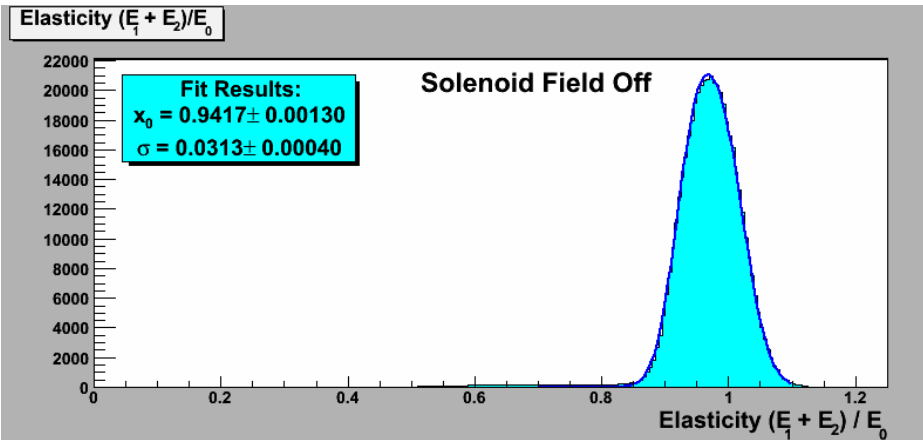
$\gamma\gamma$ Invariant Mass



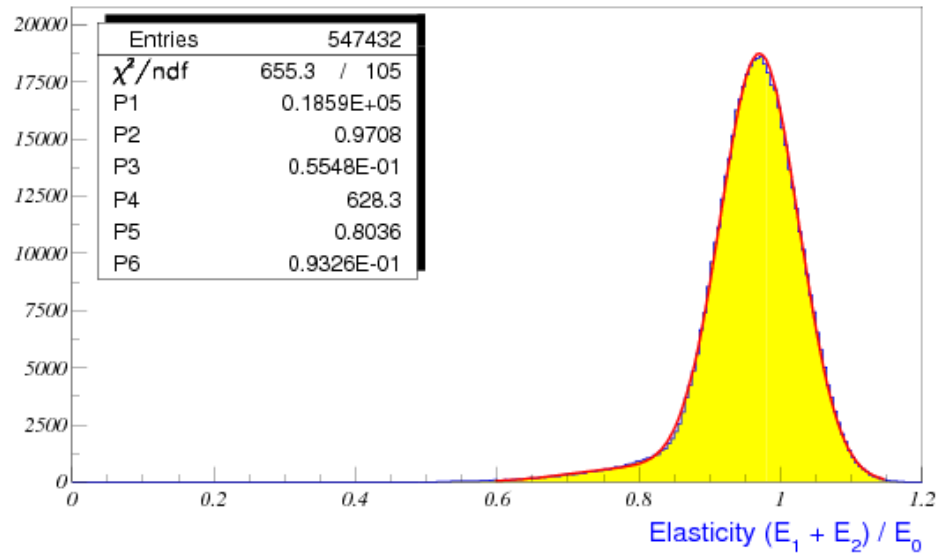
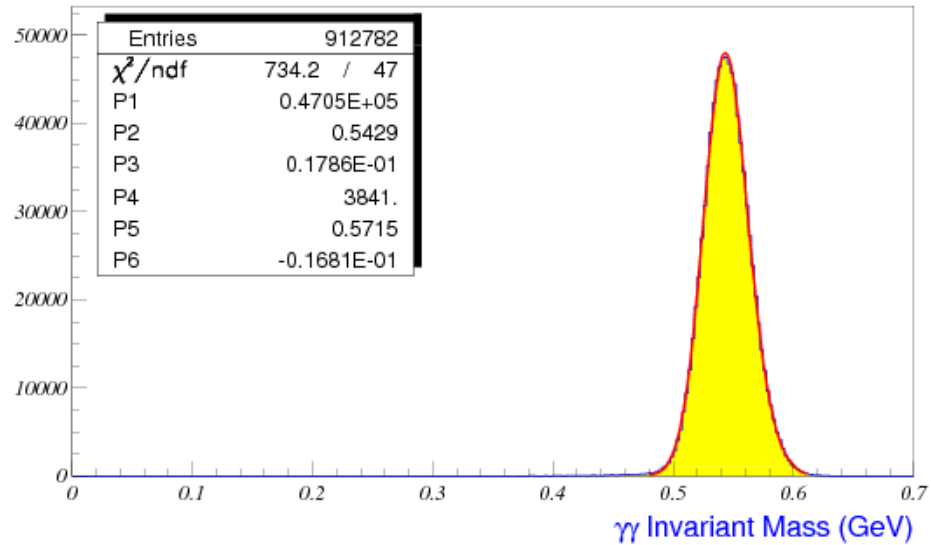
η Scattering Angle



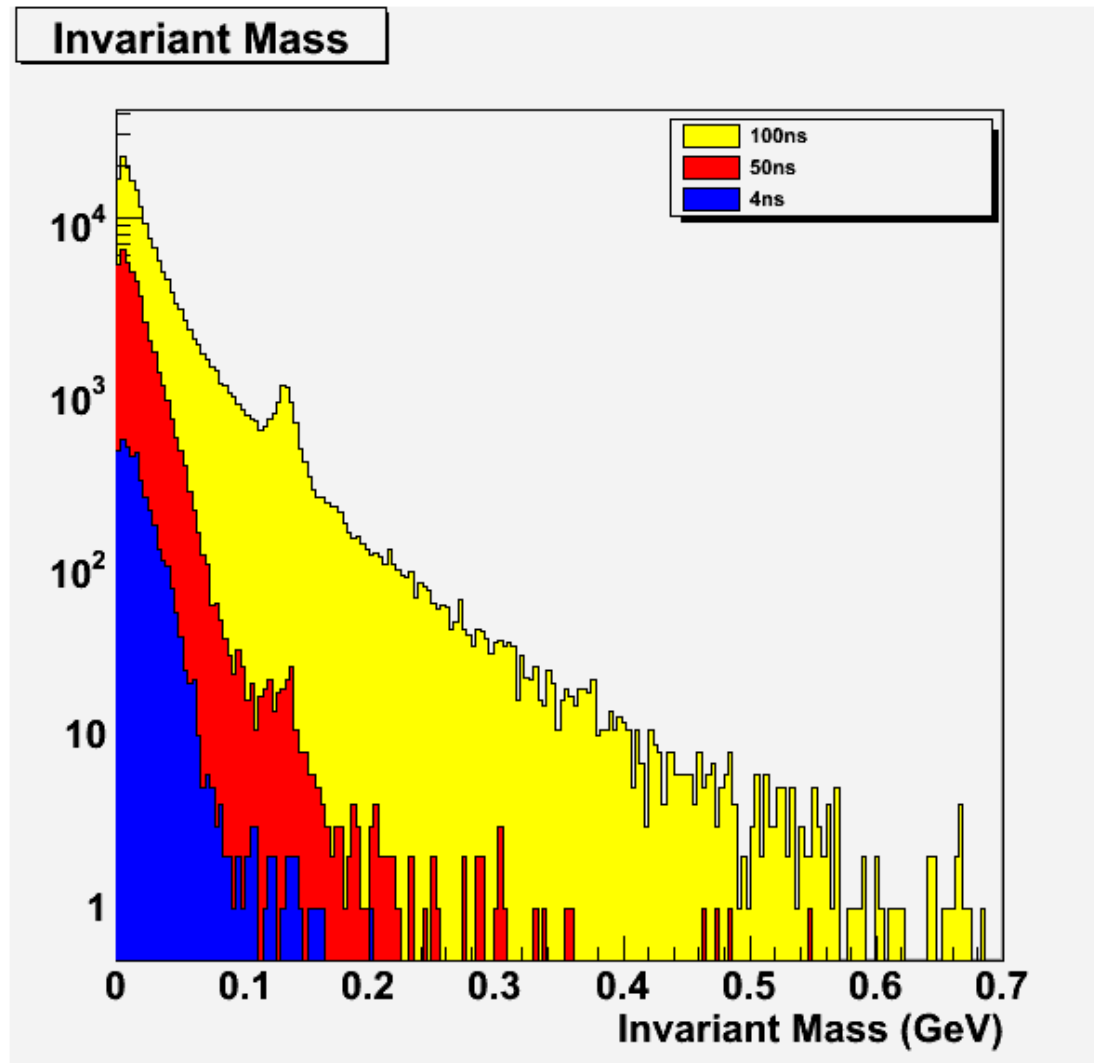
Fit Results – Magnetic Field Off



Analysis Tools



Electromagnetic Background



FCAL Energy Resolution

