

Investigating nHcal Energy Resolution

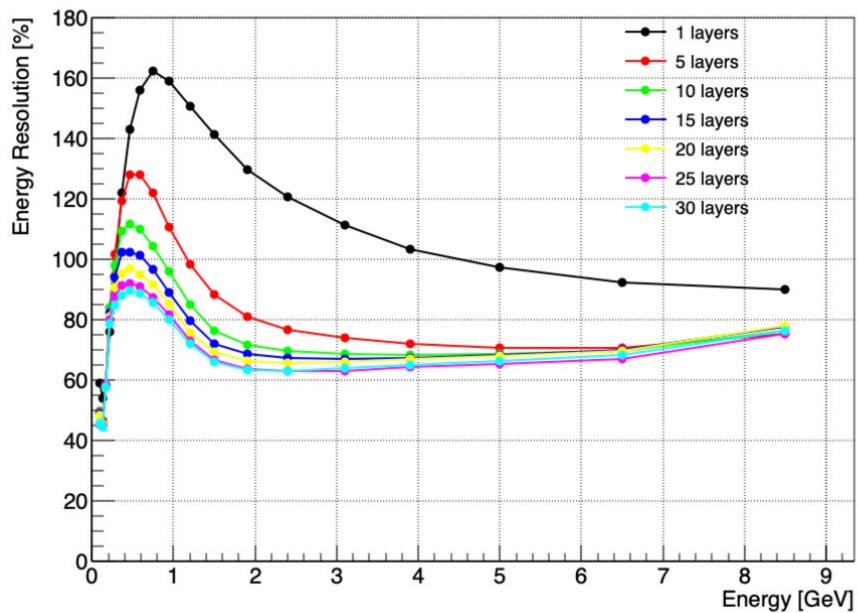
Nicholas Jindal

Setup

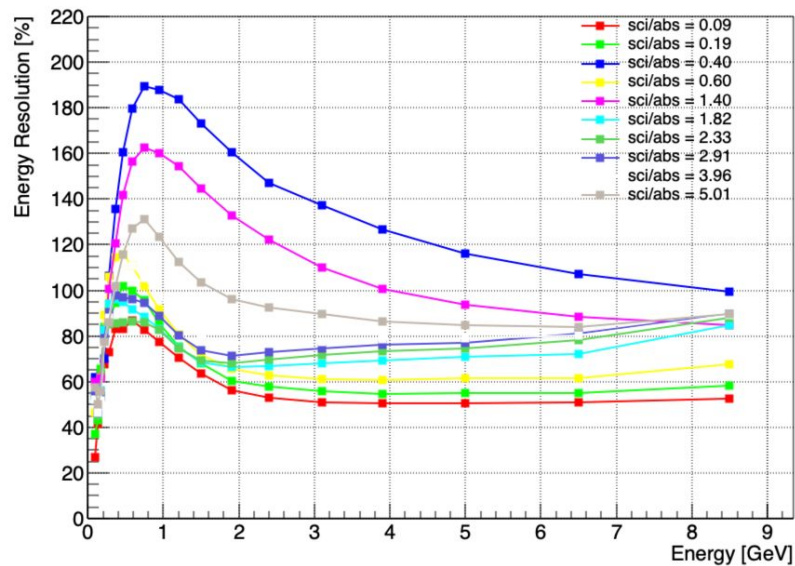
- Npsim for neutrons using a variety of geometries
- Varying number of layers and scintillator and absorber geometries
- Investigate energy resolution as a function of energy for both number of layers and scintillator to absorber ratio

Energy Resolution Plots

Energy Resolution vs Energy

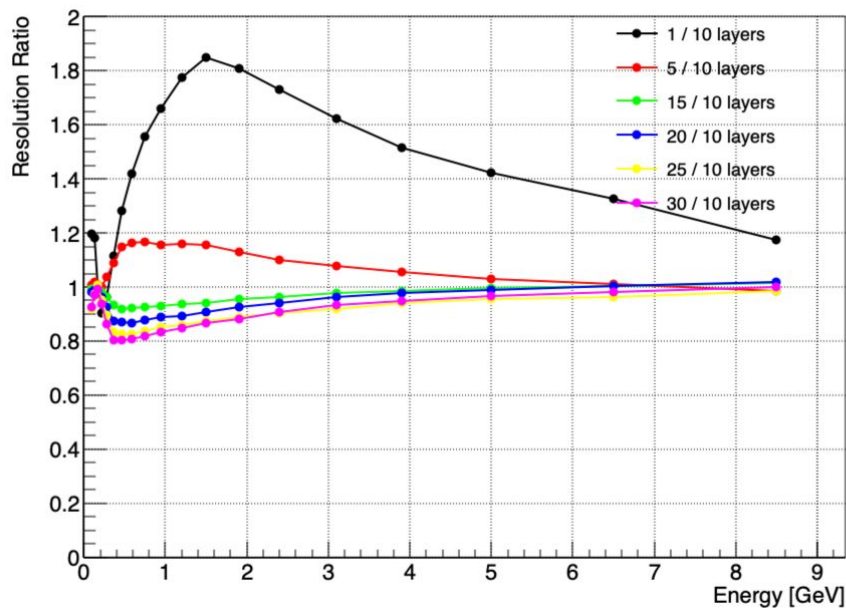


Energy Resolution vs Energy (Grouped by Sci/Abs Ratio)

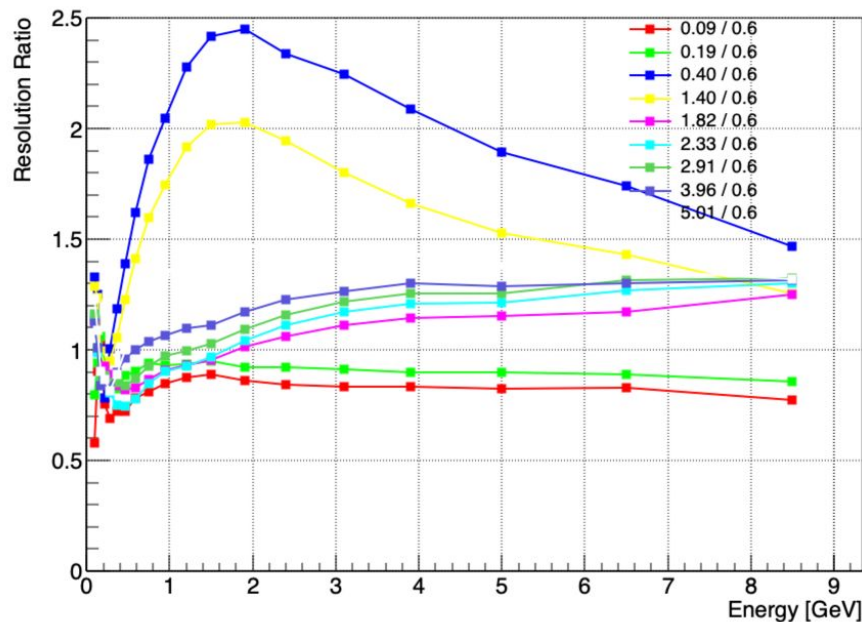


Ratios with Respect to Chosen Geometry

Energy Resolution Ratio vs Energy (Layers / 10 layers)

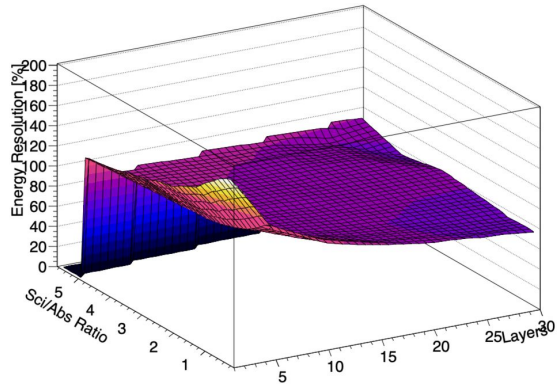


Energy Resolution Ratio vs Energy (Sci/Abs / 0.6)

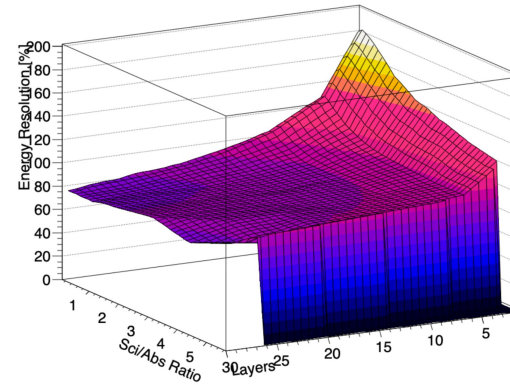


3D contour for 0.95 GeV Neutrons

Energy Resolution (0.95 GeV)



Energy Resolution (0.95 GeV)



Energy Resolution (0.95 GeV)

