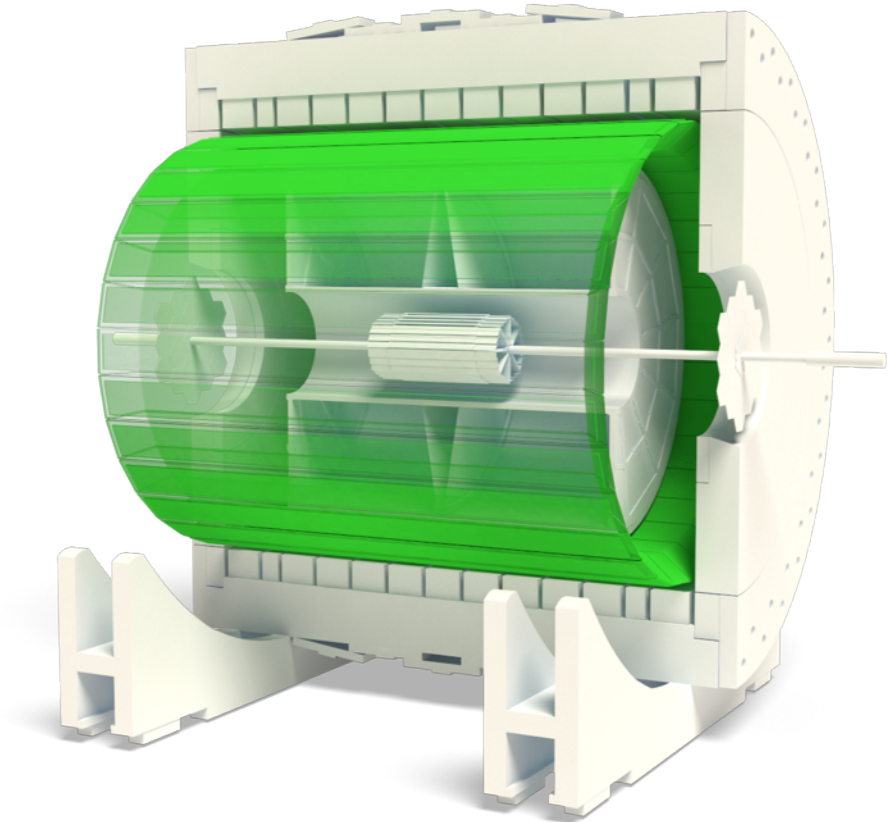
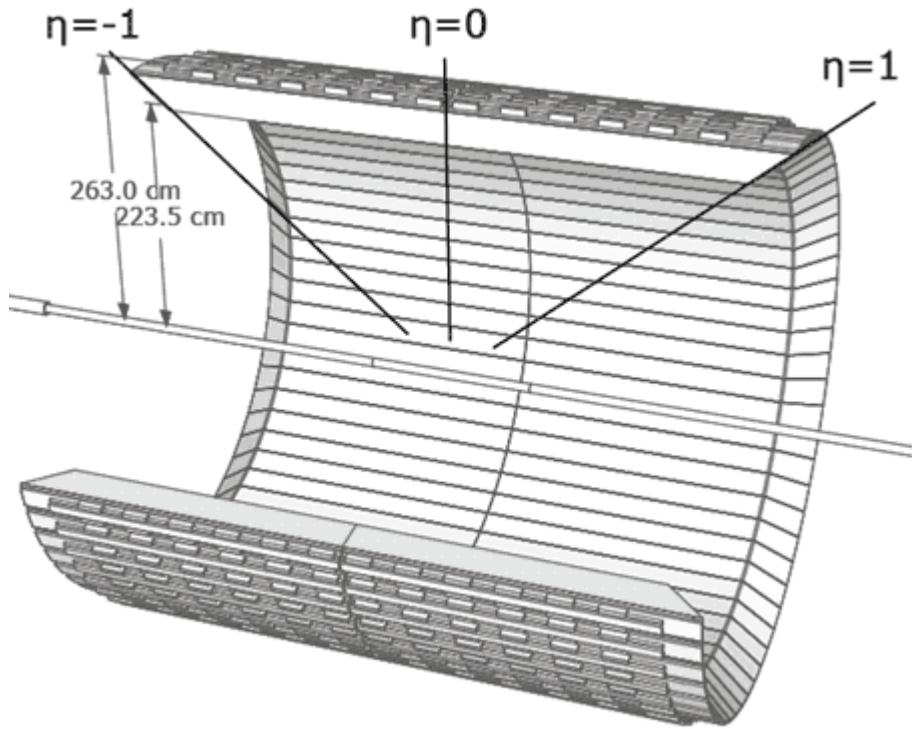


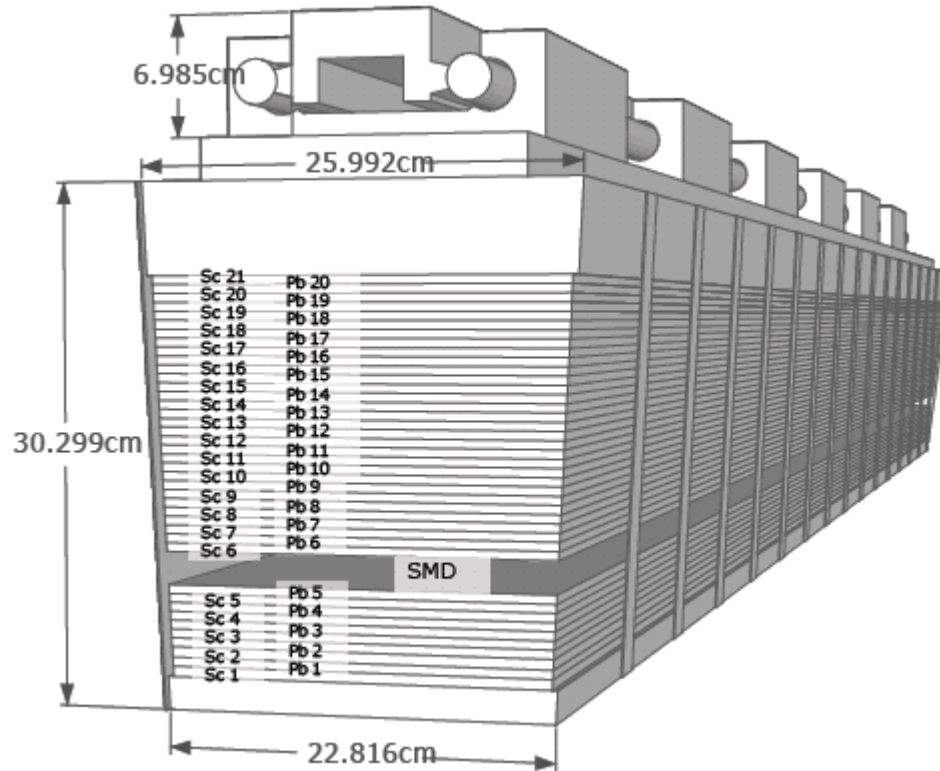
STAR BEMC Monte Carlo Simulation (June 13, 2025)

Rylen Latosky

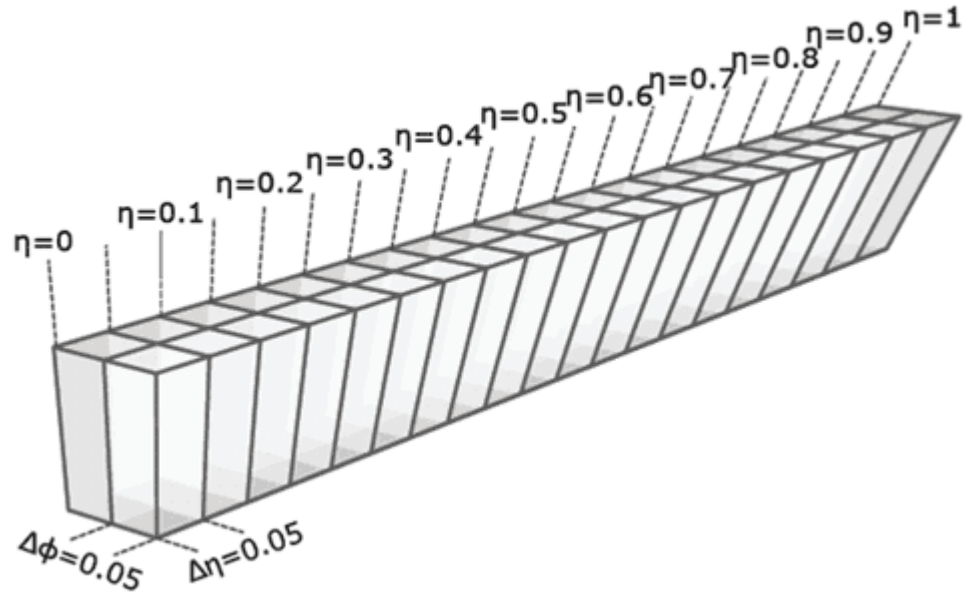
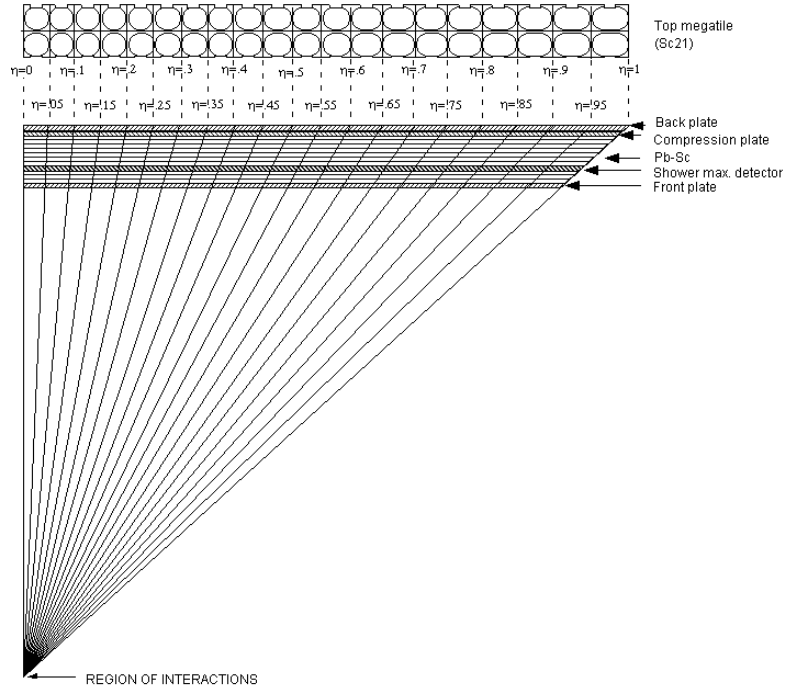
Geometry



Geometry (Cont)

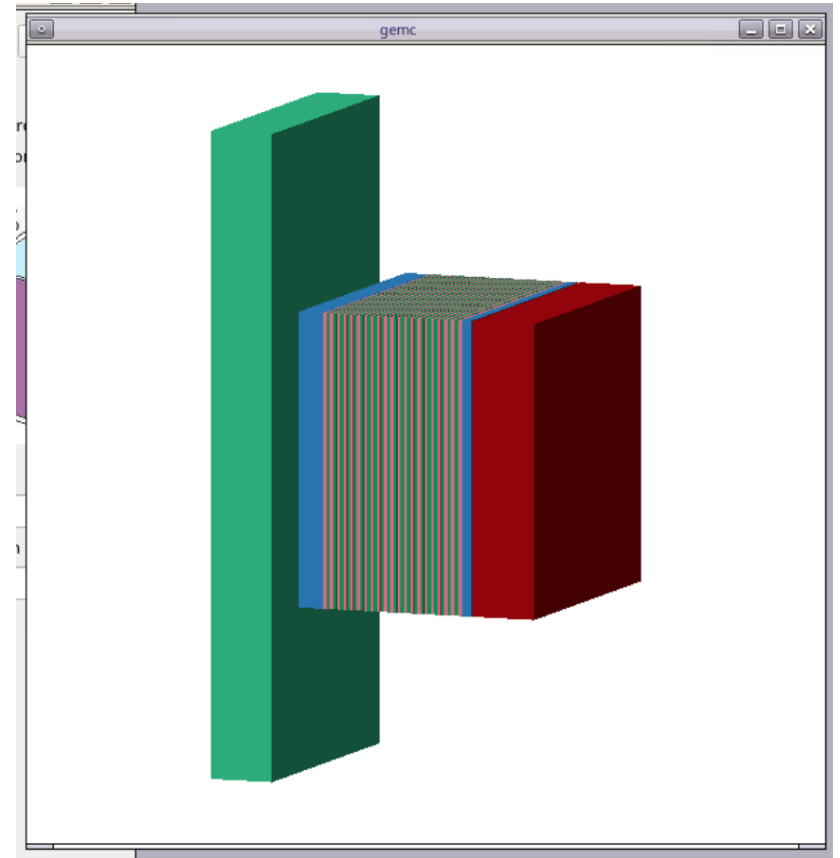


Geometry (Cont)

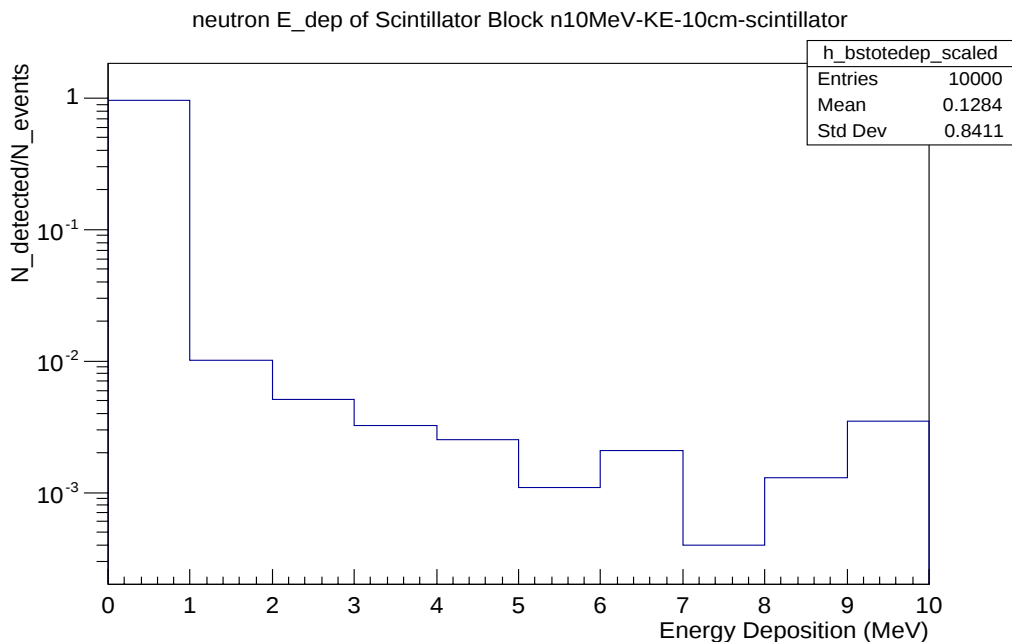


Simulation Setup

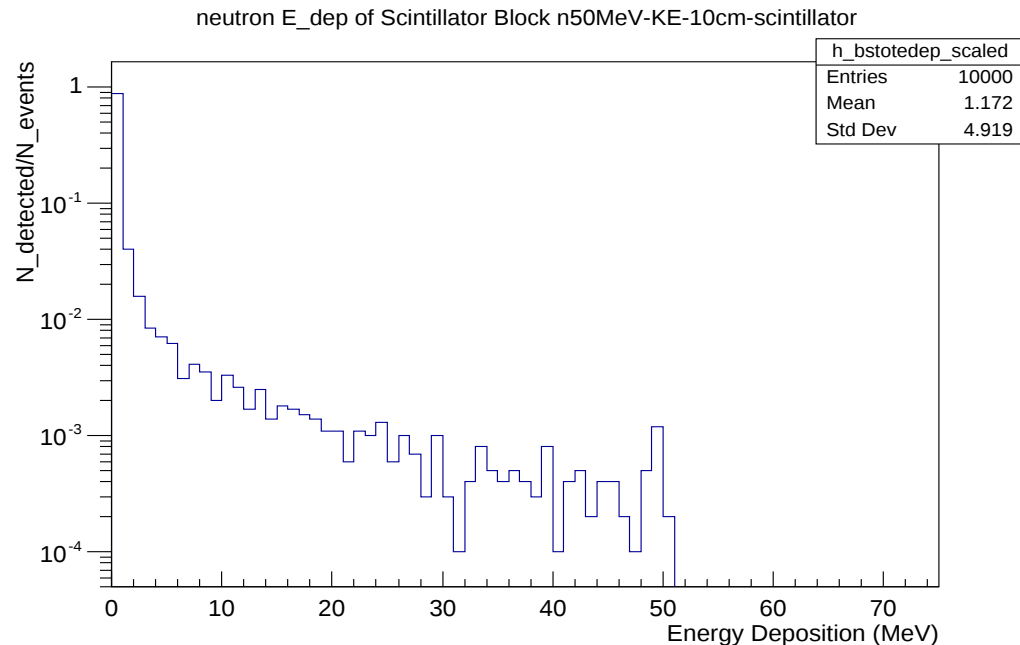
- Add a 10 cm Scintillator block in the back of the detector
- Ran simulations using kinetic energies:
 - 10, 50, 100, 500 MeV
 - Neutron beam
 - Only counted energy deposition in the scintillator block



Neutron 10/50 MeV KE E_dep (Scaled)

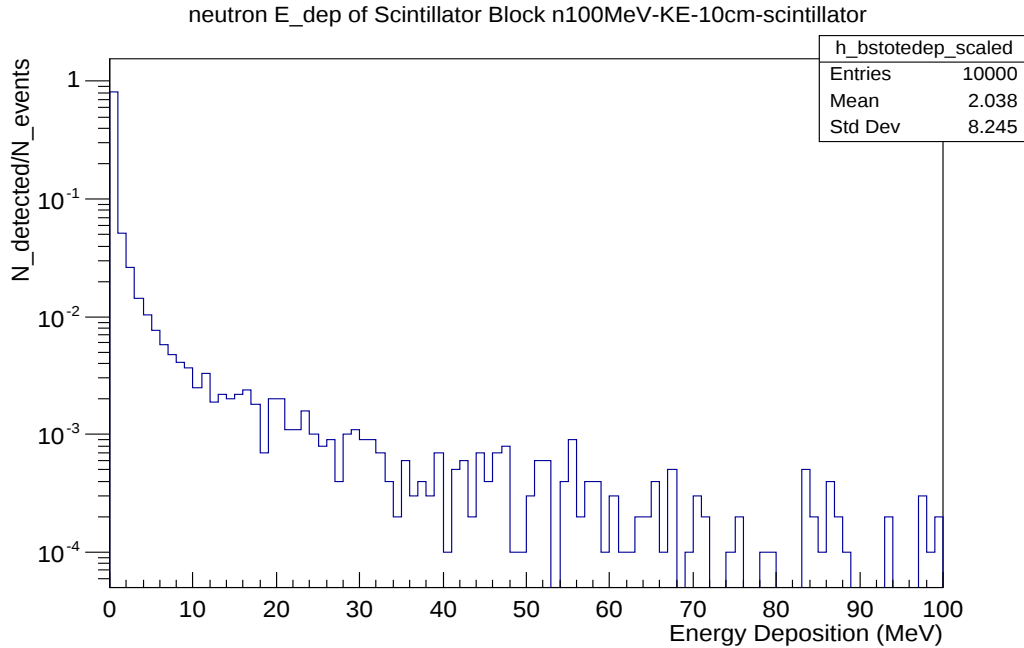


10 MeV KE

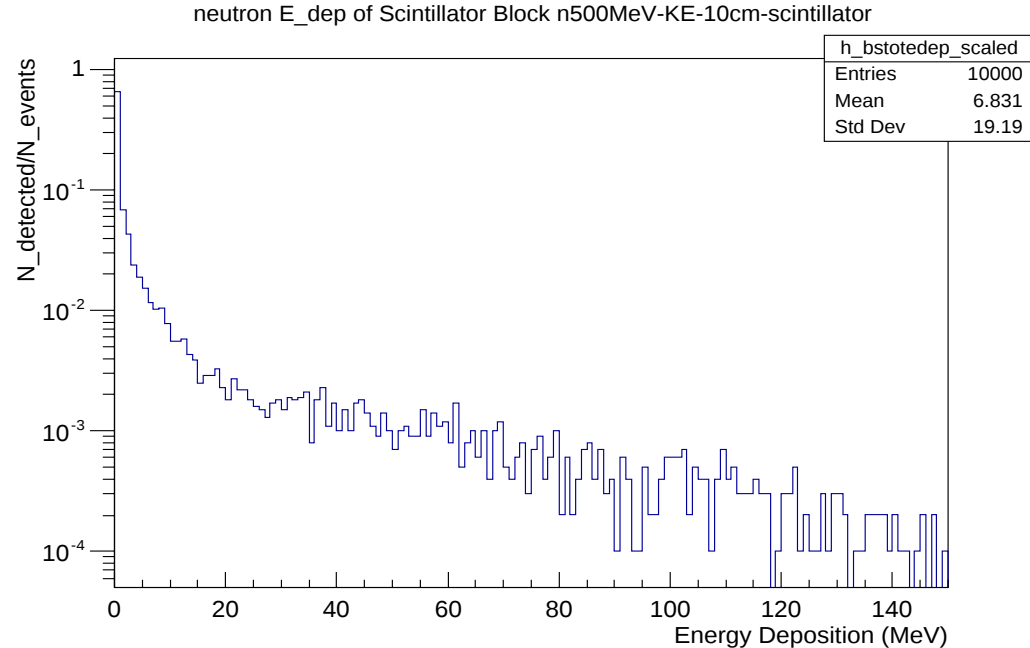


50 MeV KE

Neutron 100/500 MeV KE E_dep (Scaled)



100 MeV KE



500 MeV KE