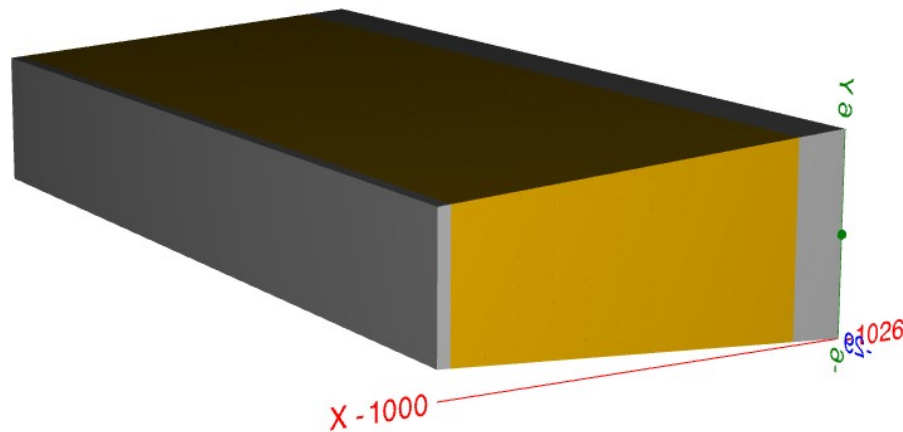
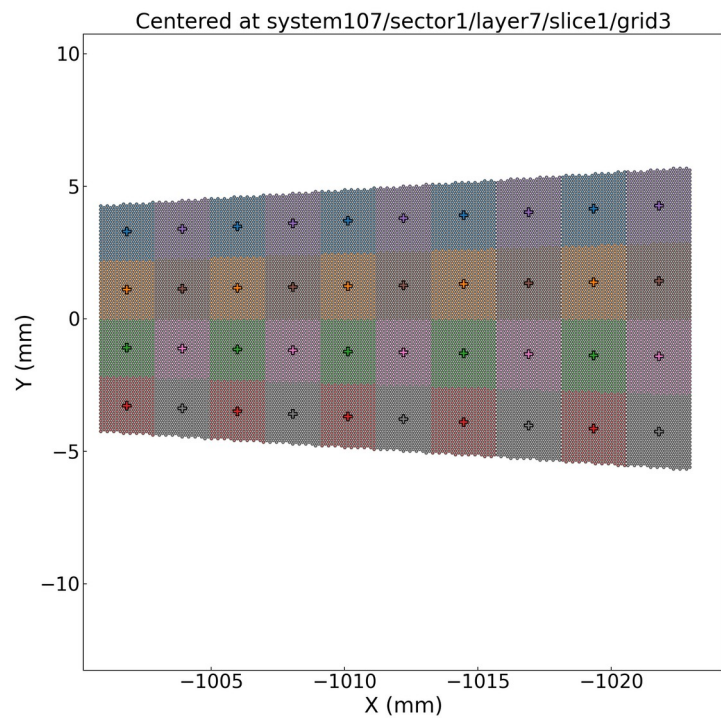


BabyBCal Simulation

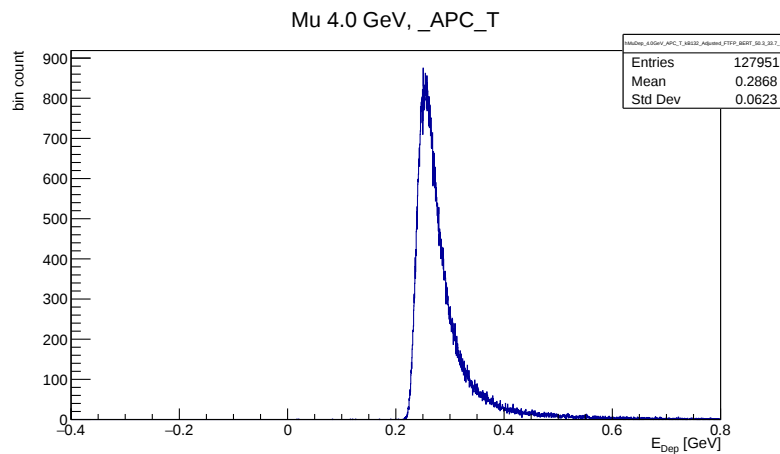
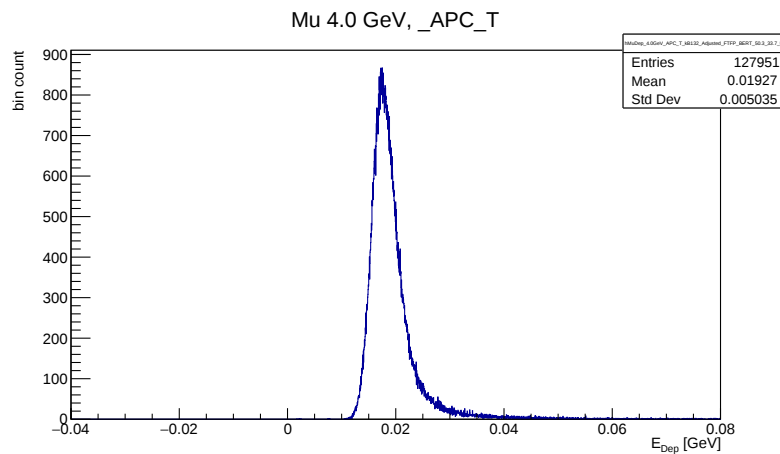
Sampling Fraction

FTBF June 2024

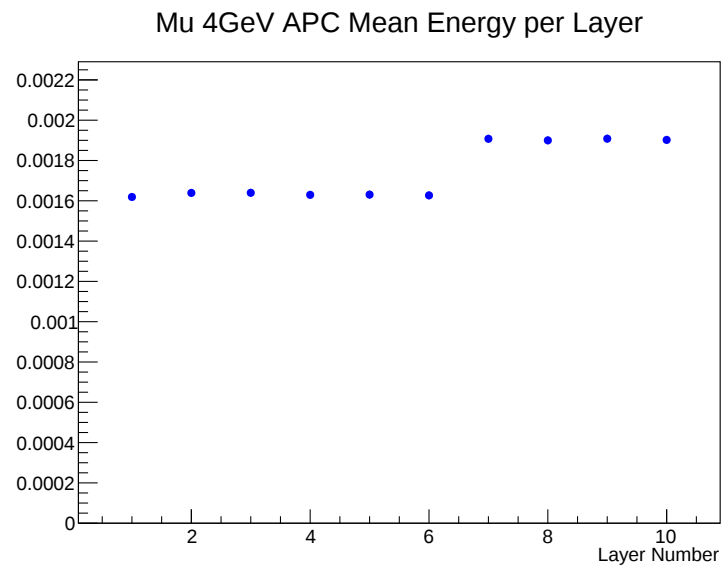
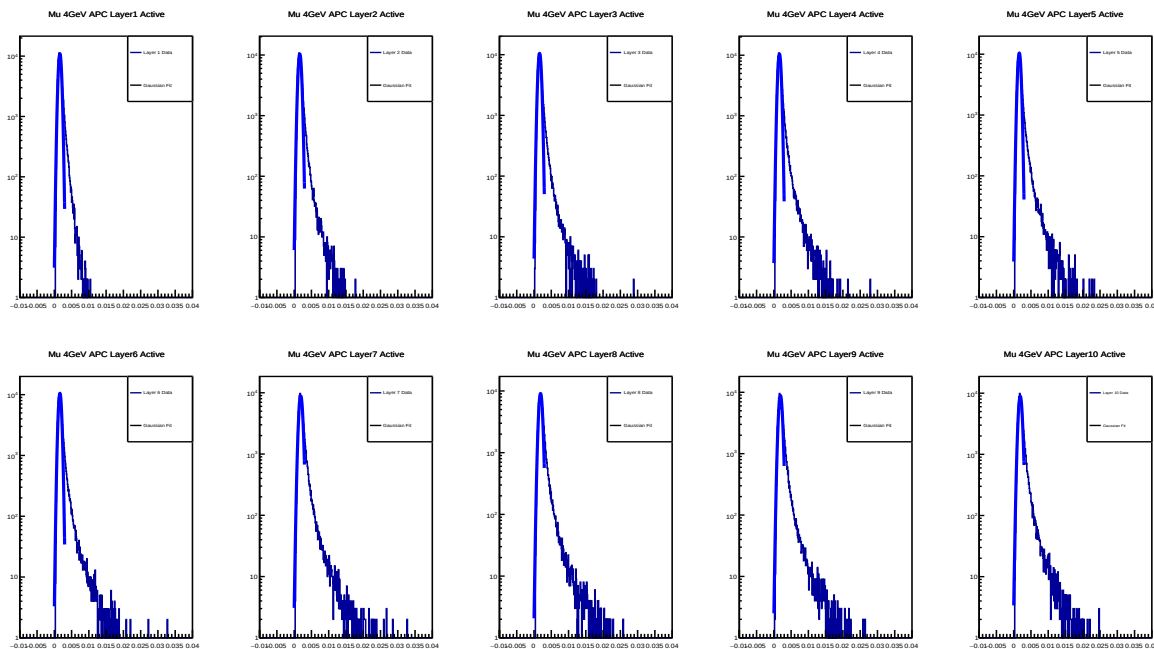
Geometry and Grid Fibers



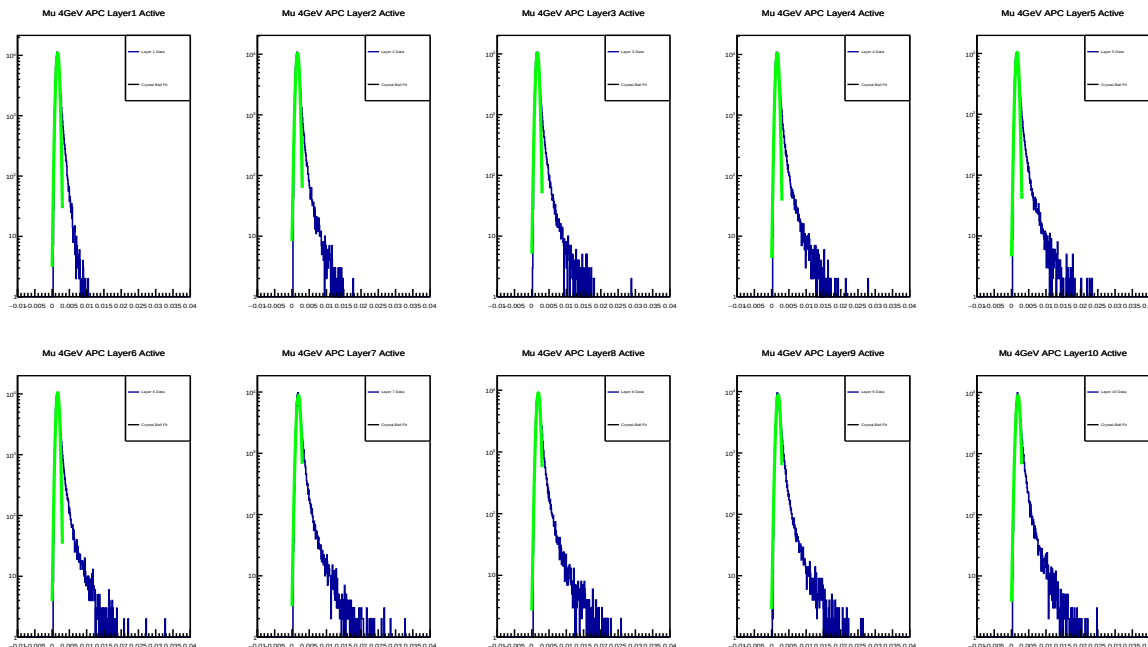
Entire BabyBCal



Fitting the BabyBCal Layers, Gaussian



Fitting the BabyBCal Layers, Crystal Ball



Layer 1: Mean = 0.001619 ± 0.000001
Layer 2: Mean = 0.001639 ± 0.000001
Layer 3: Mean = 0.001640 ± 0.000001
Layer 4: Mean = 0.001630 ± 0.000001
Layer 5: Mean = 0.001631 ± 0.000001
Layer 6: Mean = 0.001627 ± 0.000726
Layer 7: Mean = 0.001908 ± 0.000002
Layer 8: Mean = 0.001900 ± 0.000001
Layer 9: Mean = 0.001908 ± 0.000740
Layer 10: Mean = 0.001902 ± 0.000002

ToDo

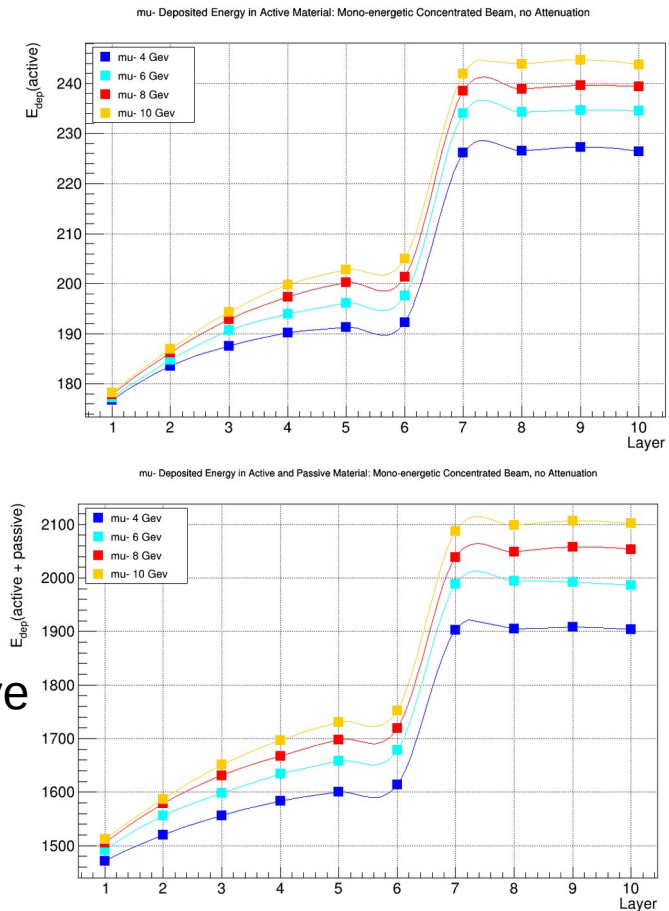
- Improve fits
- Use TF1 means to calculate muon fsam for 4, 6, and 8 GeV
- Upload working macros to LCRC, analyze Electron simulations, and calculate fsam for 4, 6, and 8 GeV

μ - Energy Deposit by Layer, “OLD” Example

Active

Total summed energy in each Layer for 100,000 Events...Not a fit mean for each layer

Active + Passive



mu- Sampling Fractions

