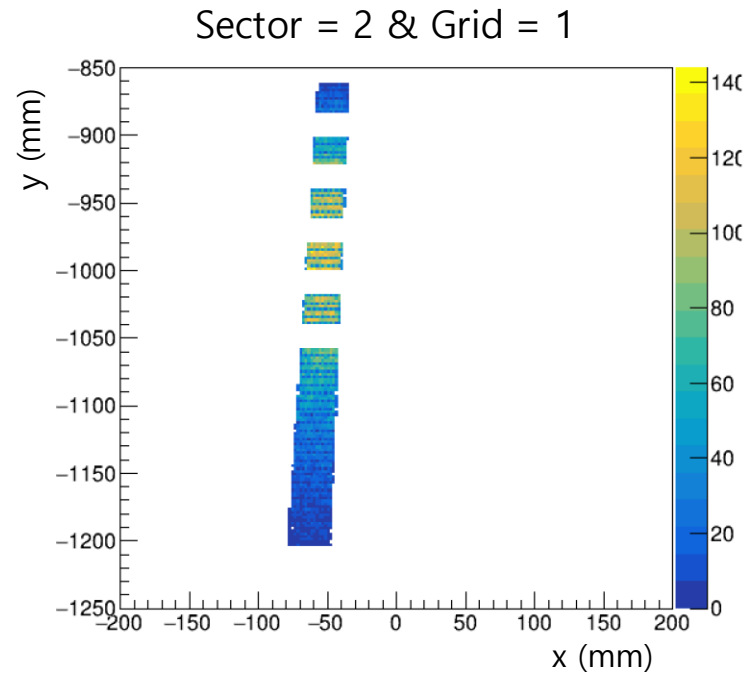
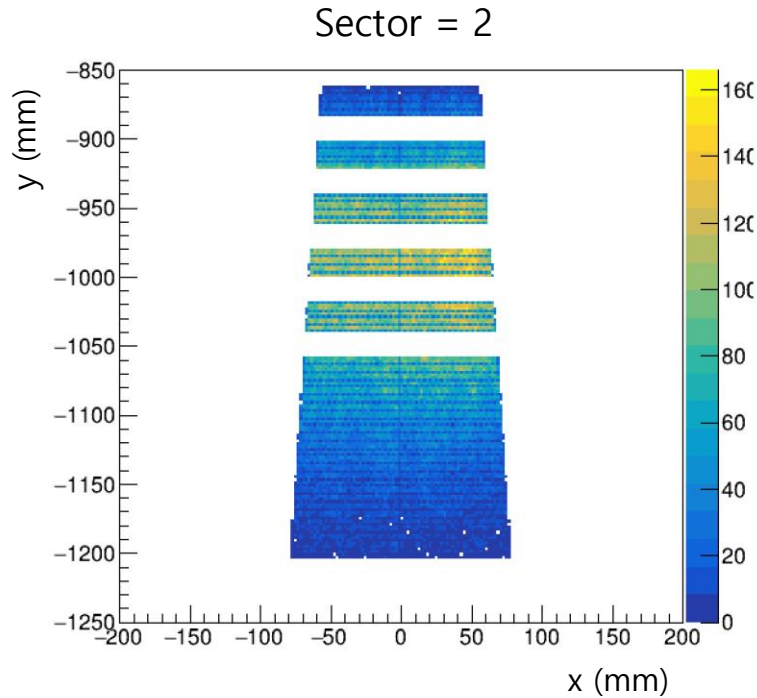


Status report for the realistic energy reconstruction

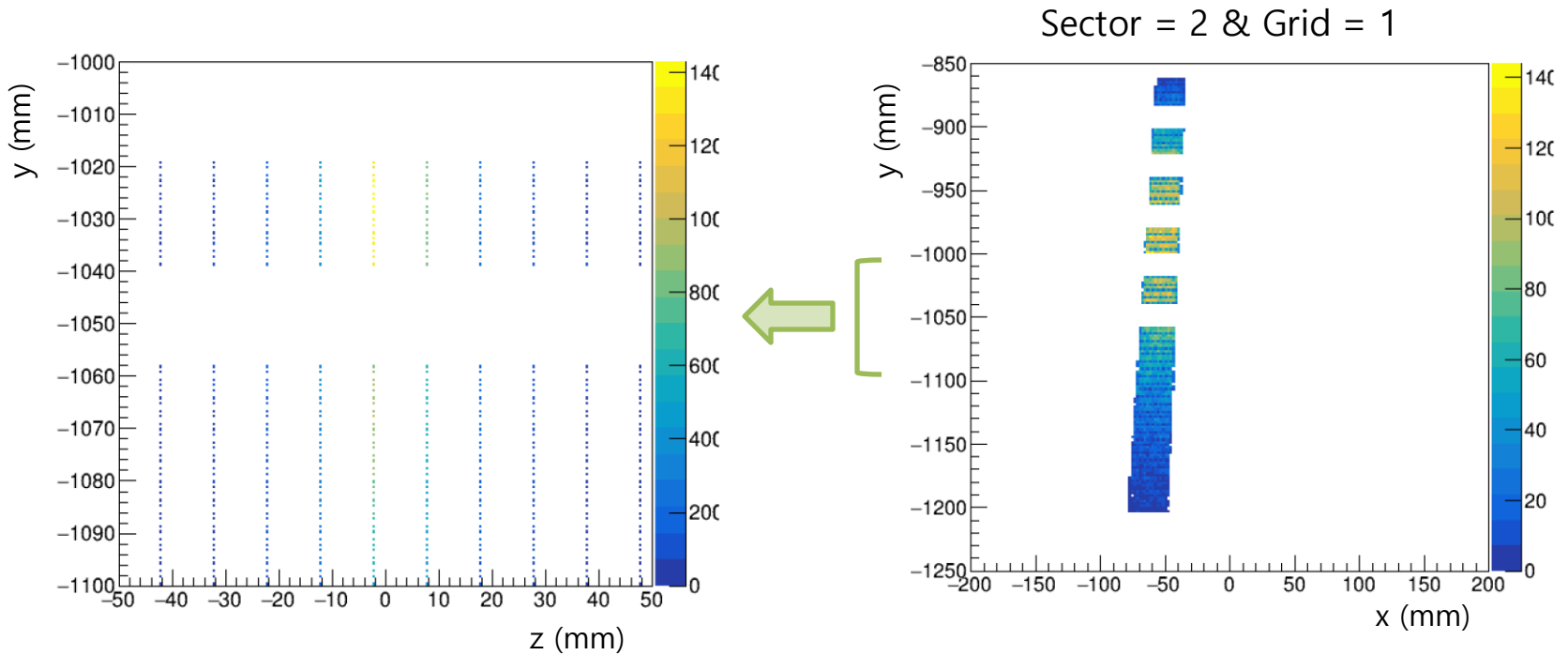
Nov 22 (Fri)
Minho Kim

EcalBarrelScFiHits



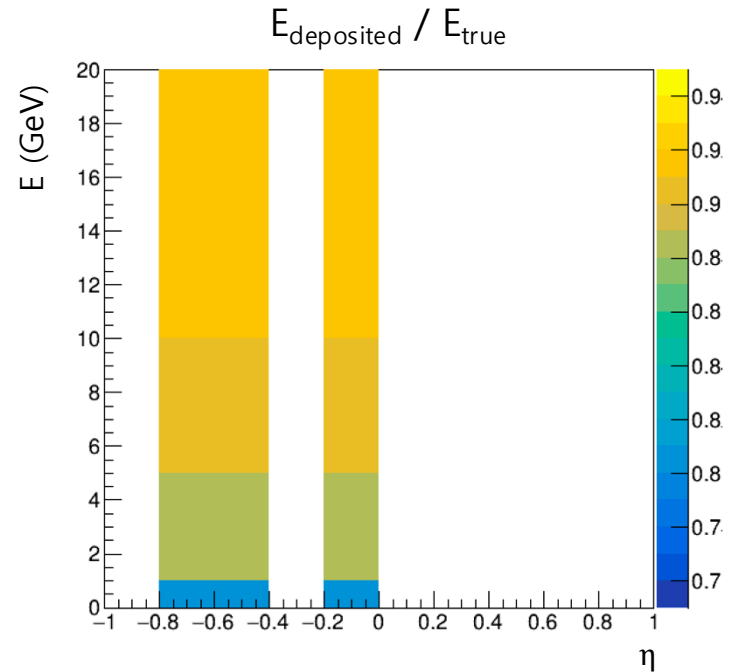
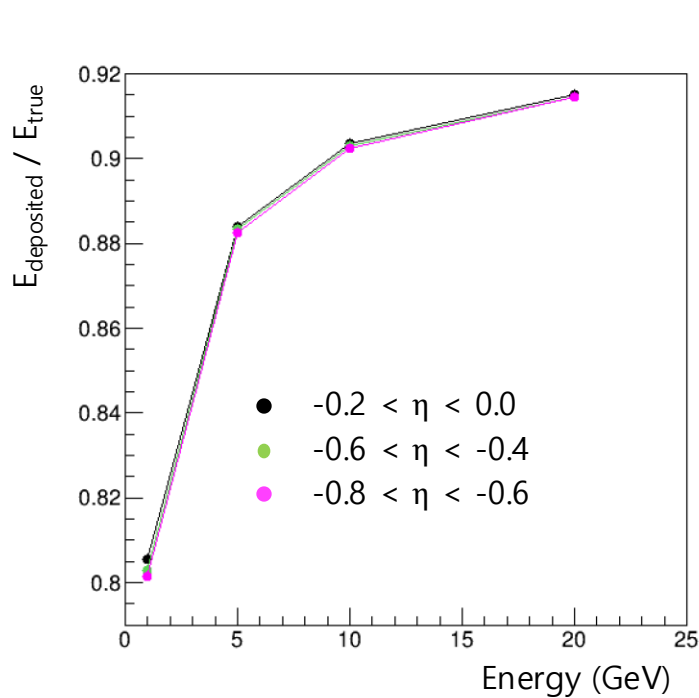
- The edm4hep files is being used for this study.
- The sector, layer, and grid information was obtained from the cellID and the energies of the hits were added up for each grid in each layer and sector.

Attenuation effect



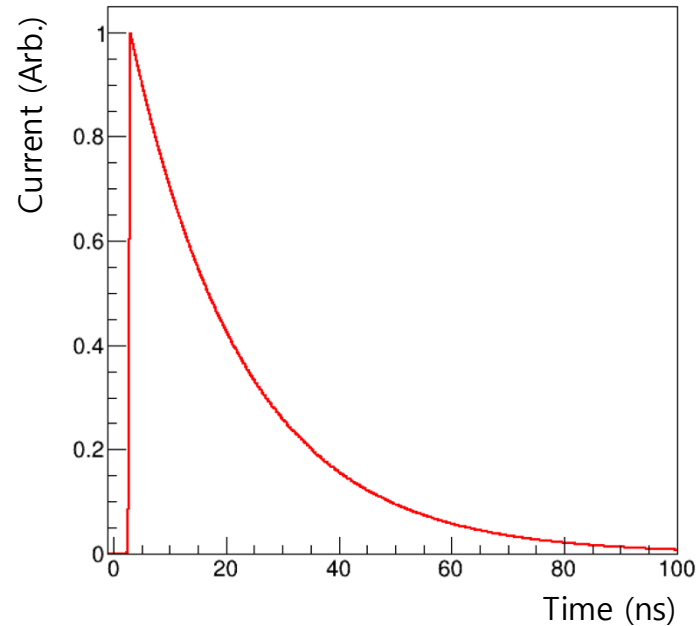
- The attenuation effect of the Kuraray Single Clad was applied using z positions of the hits. → It will be updated by the layer-dependent one.
- Attenuation effect → Adding up for each grid → Threshold of 5 Npe → Poisson smearing

Energy- and η -dependent sampling fraction



- A constant sampling fraction makes the $E_{\text{deposited}} / E_{\text{true}}$ energy- and η -dependent. \rightarrow This dependence will be corrected by generating 2-dimensional $E_{\text{deposited}} / E_{\text{true}}$ distribution and using Interpolate() method.
- The E and η will be updated to the measured ones.
- It might be better to use θ rather than η taking into account the linearity.

Pulse shape



- What the pulse shape looked like was understood.
- Quantities measured by H2GCROC will also be considered for the realistic energy reconstruction.