

Resolution plots for calorimeters

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Lokesh Kumar
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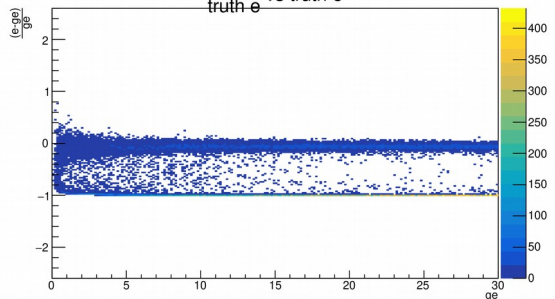
SPECIFICATIONS:

- Particles: e^- , π^- , K^-
- Momentum range: 0-30 GeV
- Eta range: -4 to 4
- Number of events: 100000

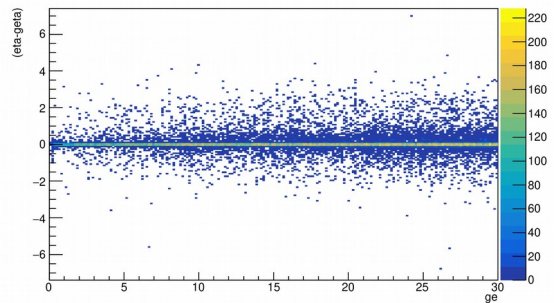
BARREL: CEMC

Electron

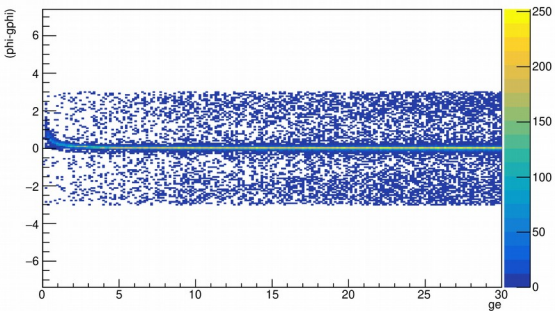
$\frac{\Delta e}{\text{truth } e}$ vs truth e



$\Delta \eta$ vs ge

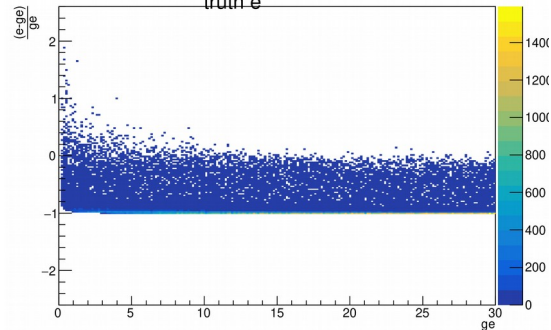


$\Delta \phi$ vs ge

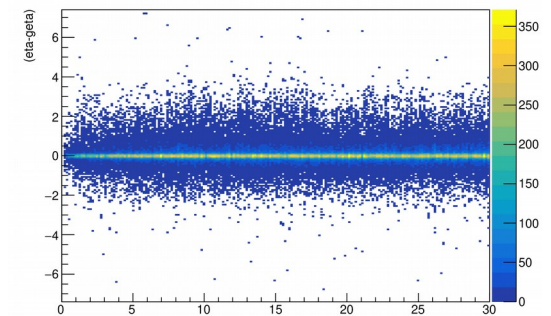


Pion

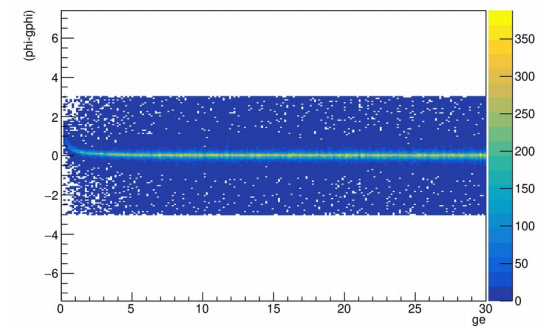
$\frac{\Delta e}{\text{truth } e}$ vs truth e



$\Delta \eta$ vs ge

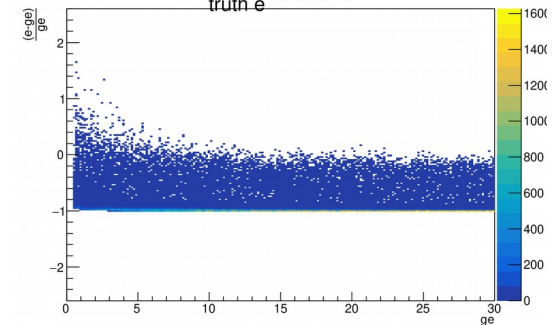


$\Delta \phi$ vs ge

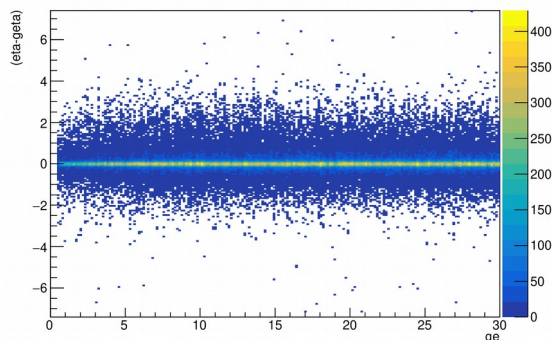


Kaon

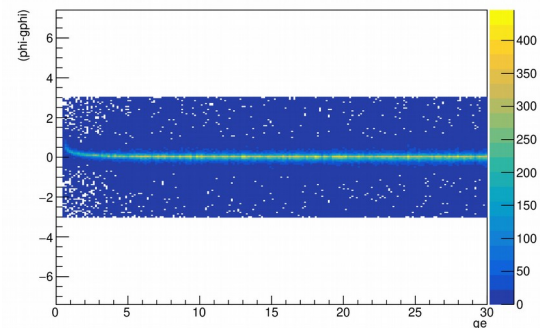
$\frac{\Delta e}{\text{truth } e}$ vs truth e



$\Delta \eta$ vs ge

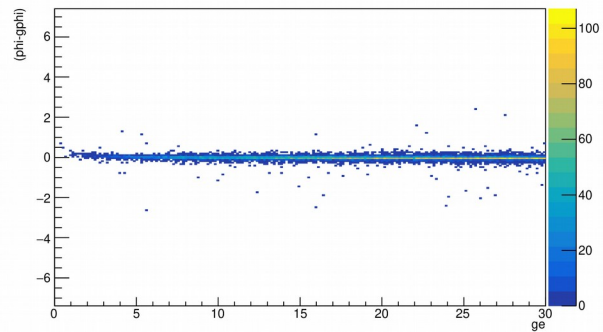
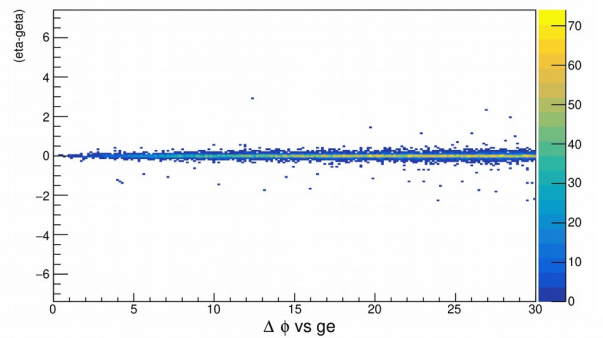
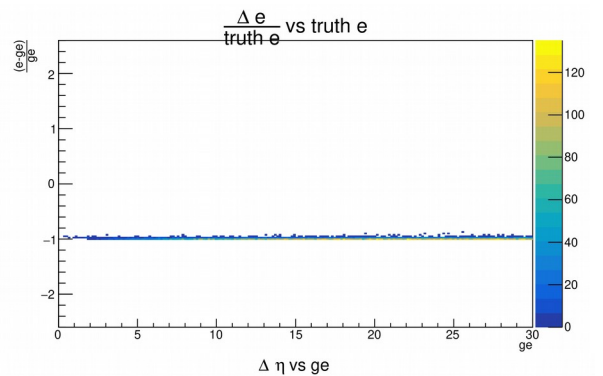


$\Delta \phi$ vs ge

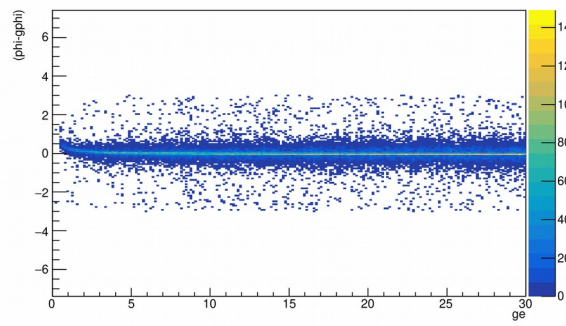
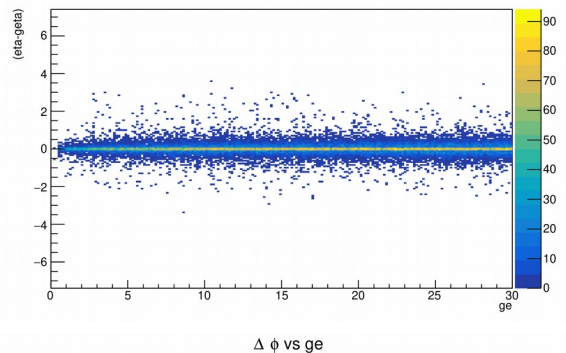
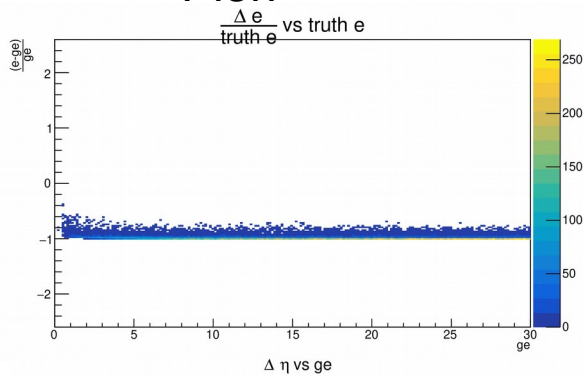


BARREL: HCALIN

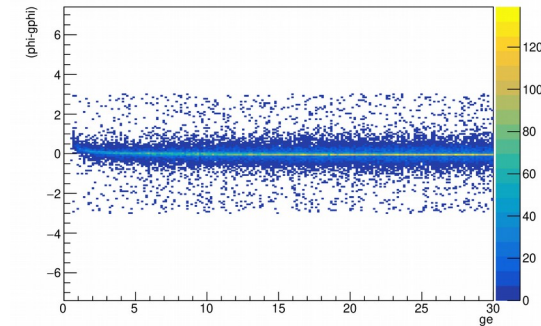
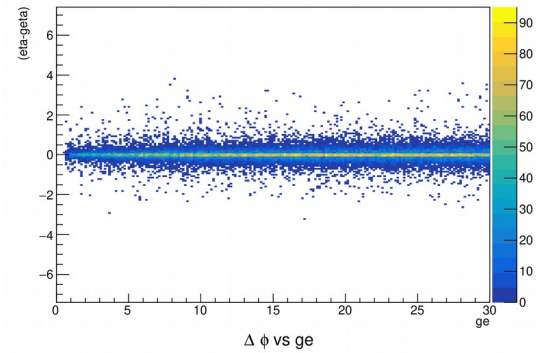
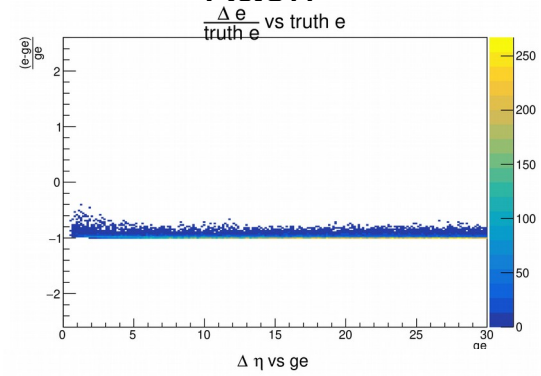
Electron



Pion

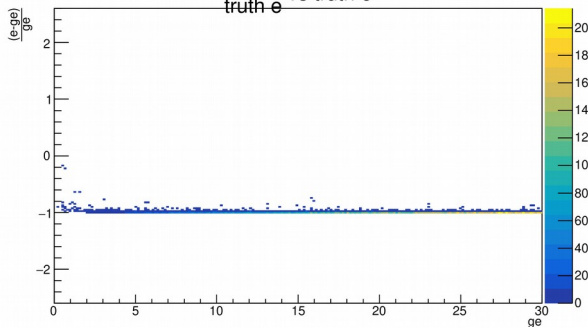


Kaon

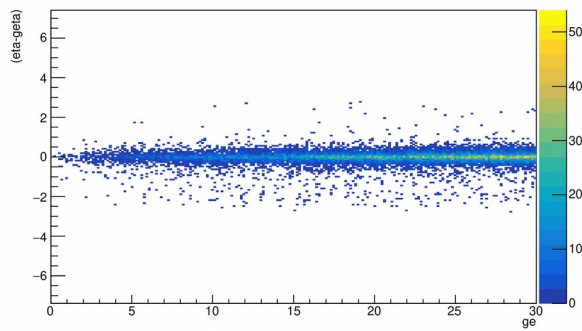


Electron

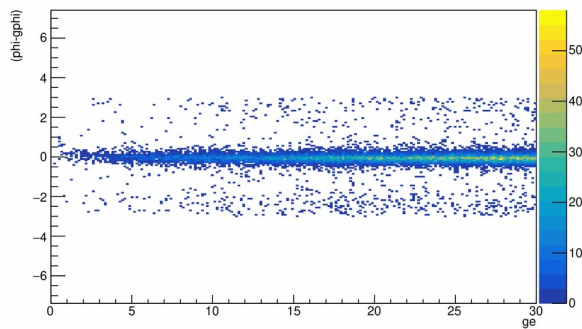
$\frac{\Delta e}{\text{truth } e}$ vs truth e



$\Delta \eta$ vs ge



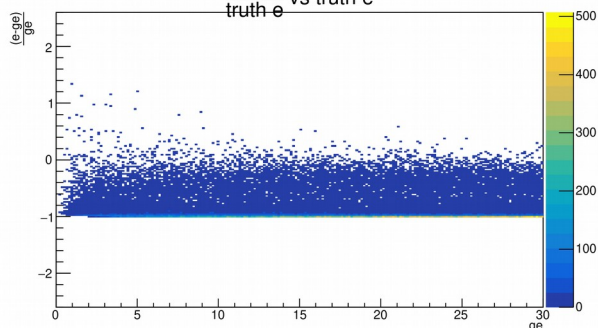
$\Delta \phi$ vs ge



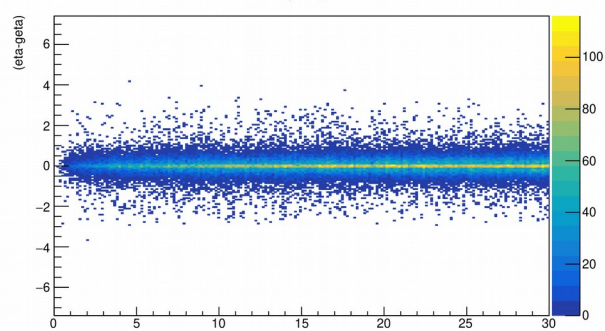
BARREL: HCALOUT

Pion

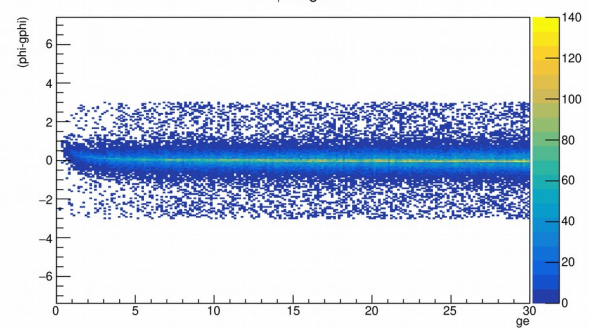
$\frac{\Delta e}{\text{truth } e}$ vs truth e



$\Delta \eta$ vs ge

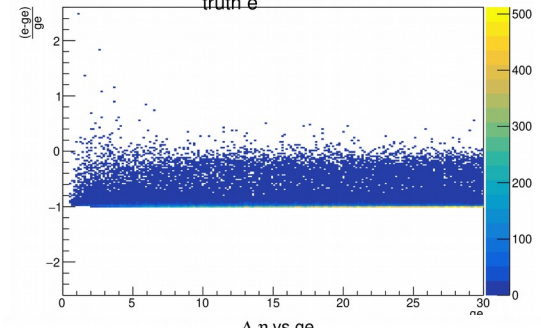


$\Delta \phi$ vs ge

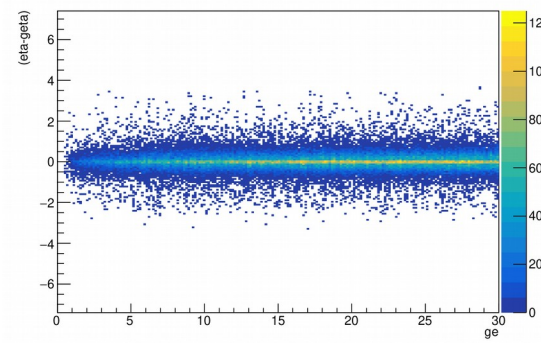


Kaon

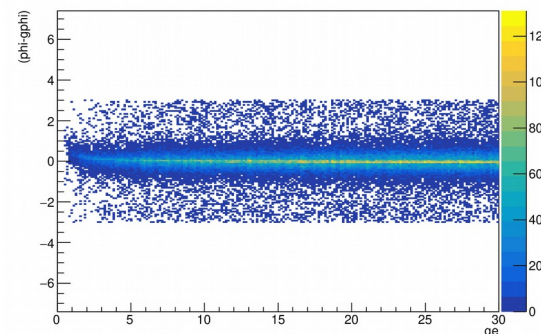
$\frac{\Delta e}{\text{truth } e}$ vs truth e



$\Delta \eta$ vs ge

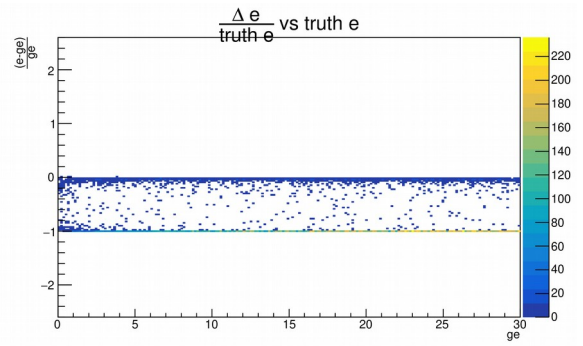


$\Delta \phi$ vs ge

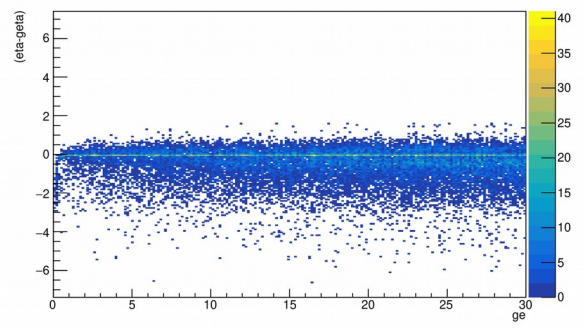


FORWARD: EEMC

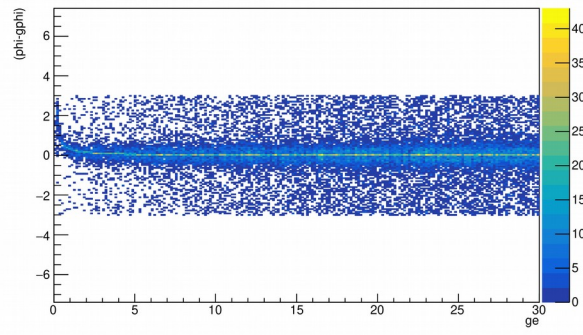
Electron



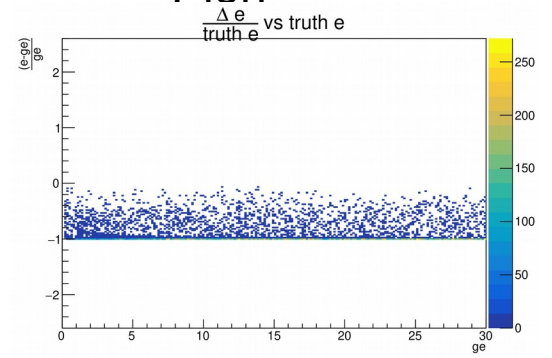
$\Delta \eta$ vs ge



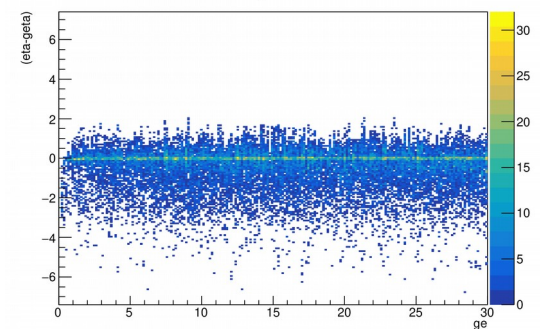
$\Delta \phi$ vs ge



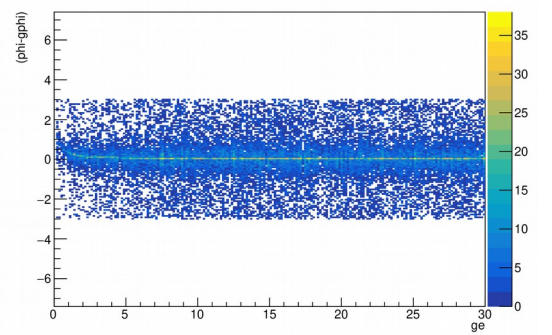
Pion



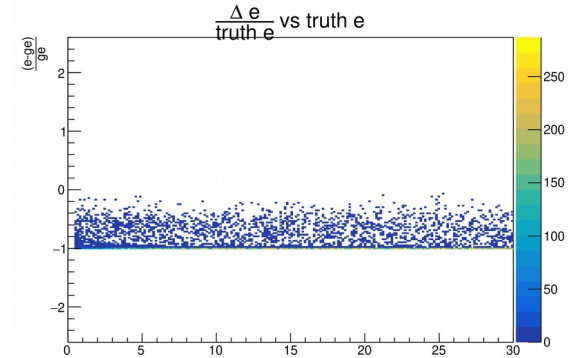
$\Delta \eta$ vs ge



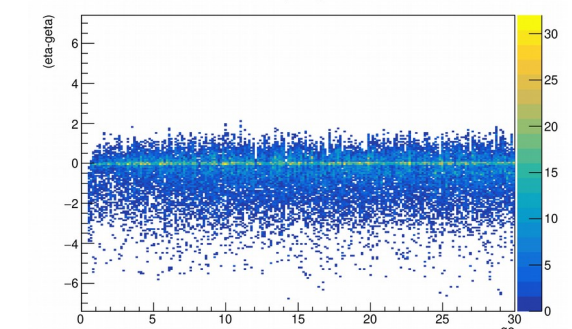
$\Delta \phi$ vs ge



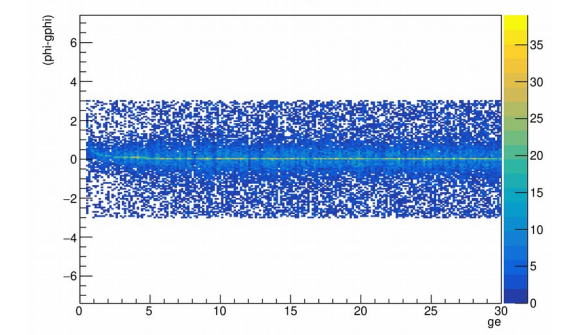
Kaon



$\Delta \eta$ vs ge

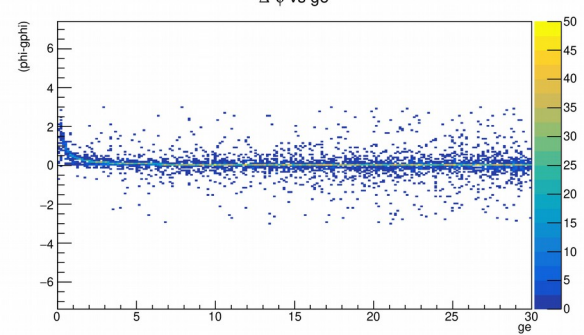
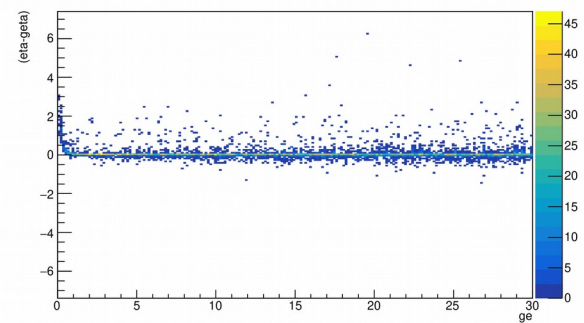
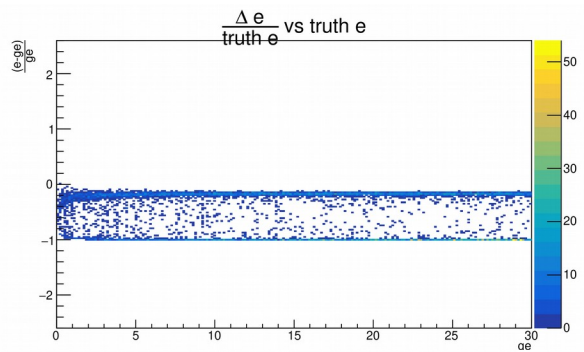


$\Delta \phi$ vs ge

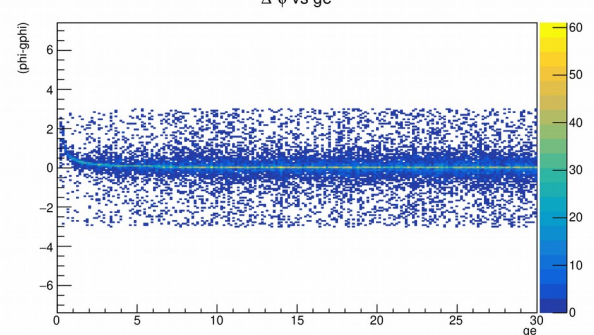
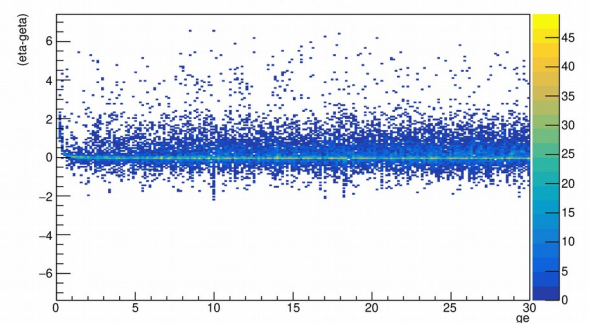
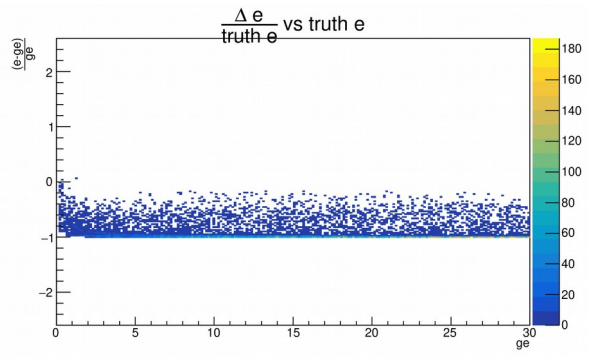


FORWARD: FEMC

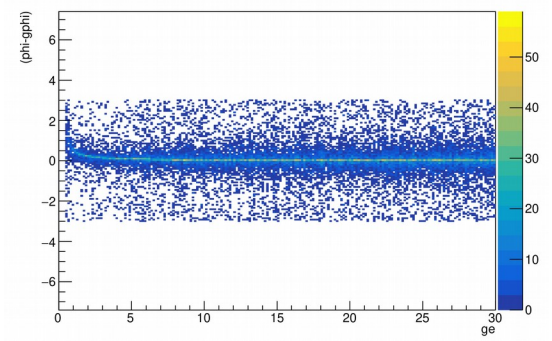
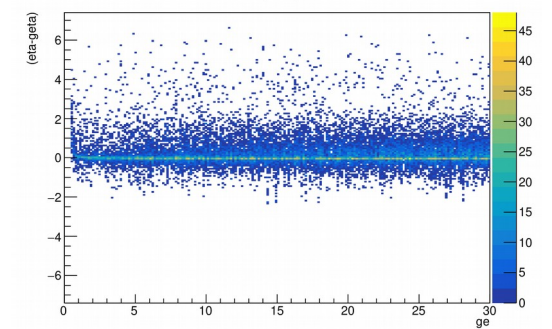
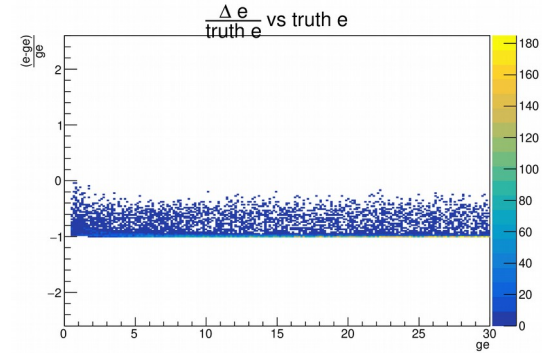
Electron



Pion

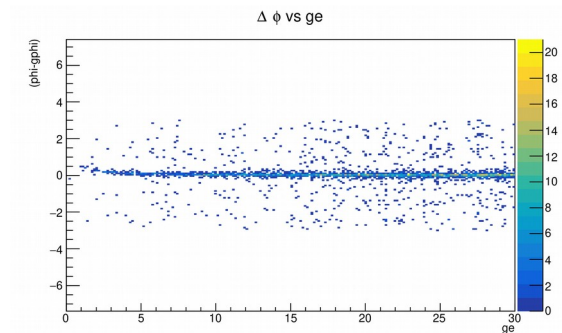
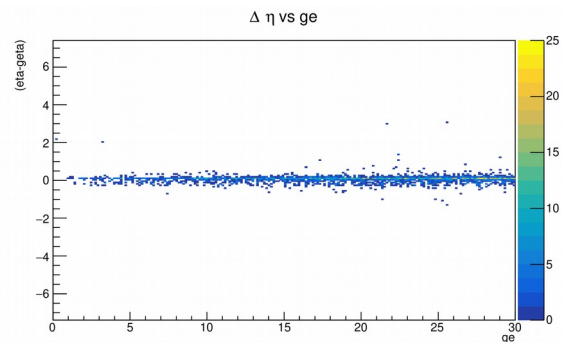
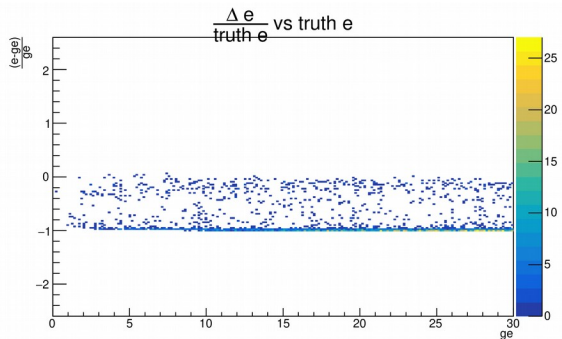


Kaon

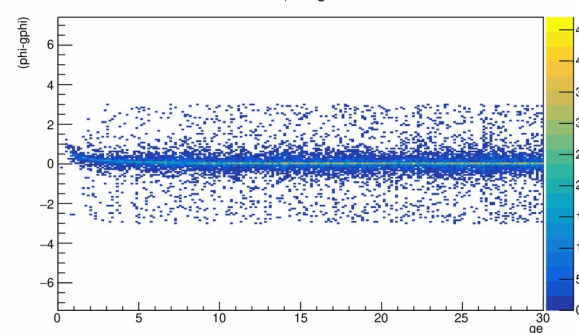
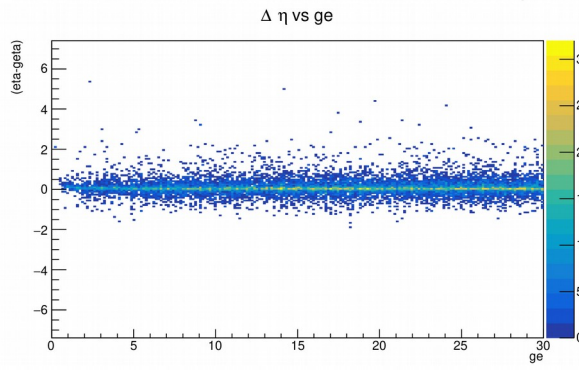
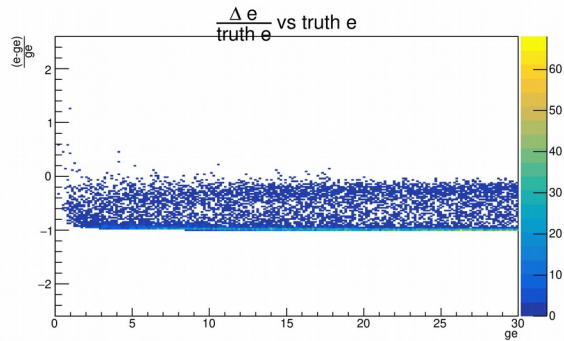


FORWARD: FHICAL

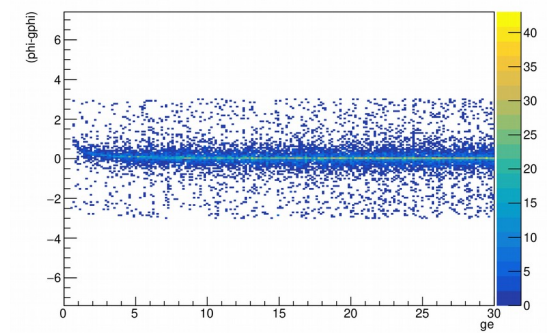
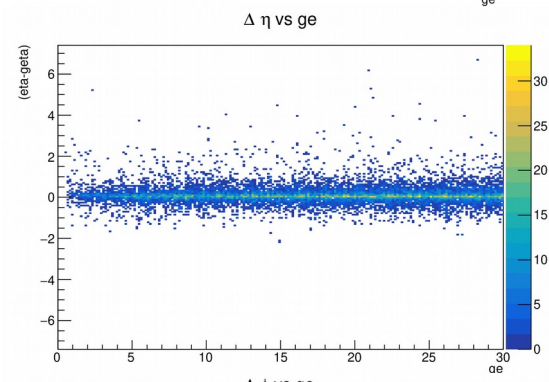
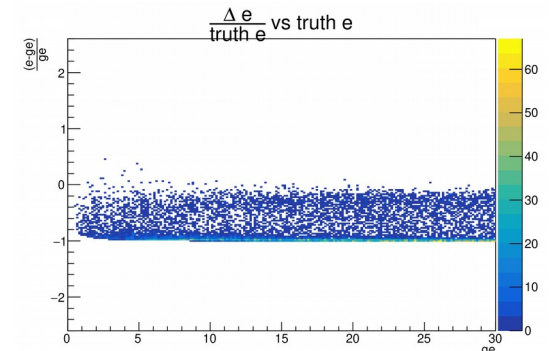
Electron



Pion



Kaon



Tree containing the various plots

- Following tree contains all the plots for calorimeters. They can be found at following locations:

*gpfs02/eic/simrankaur/Electron/
resolution_plots_"calorimeter name".root*

*gpfs02/eic/simrankaur/Pion/
resolution_plots_"calorimeter name".root*

*gpfs02/eic/simrankaur/Kaon/
resolution_plots_"calorimeter name".root*

- The macro used to make these plots can also be found in the above directories by name of res.C.

