

# Fun4All Calorimeter Plots – EEMC with crystal ball fit

Simran  
Lokesh Kumar  
Panjab University, Chandigarh, INDIA

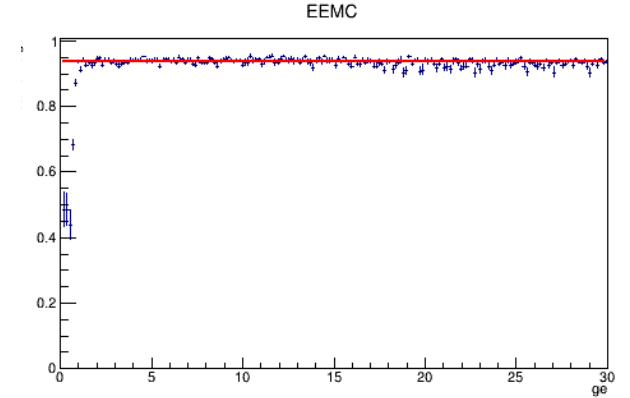
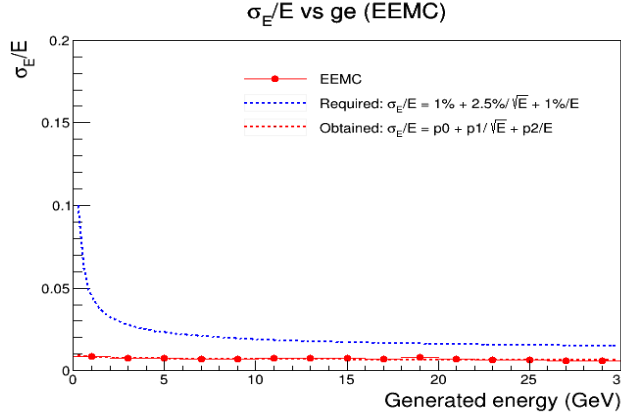
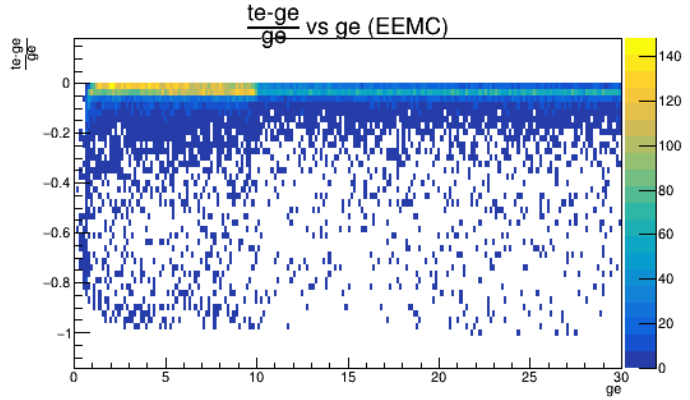
June 14, 2021

# Details:

- Particle: e-
- Statistics: 100000 (0-30 GeV) + 50000 (0-10 GeV)
- geta range: -4 to 4
- Cuts employed:
  - **Tower energy cut: 100 MeV**
  - Detector-wise geta cuts
  - Circular cuts on dphi and dtheta: for manual clustering
- Photon digitization: turned off

# Before recalibration: EEMC

$\eta = -3.5$  to  $-1.7$

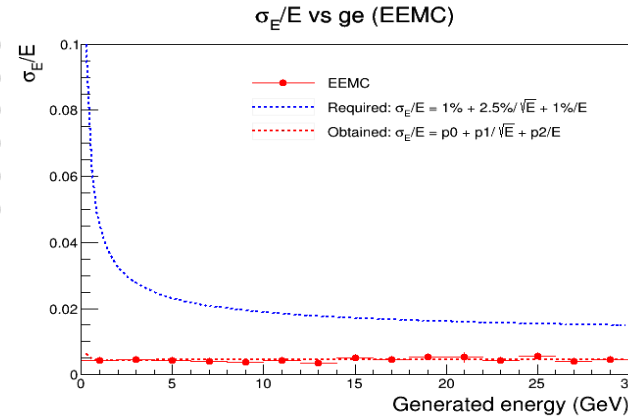
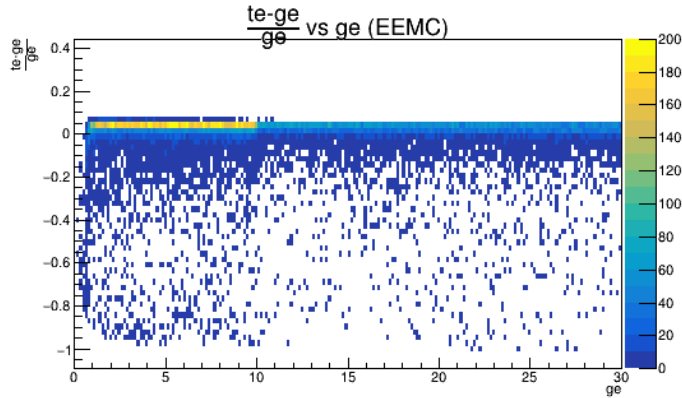


$p_0=0.00586027$ ;  $p_1=0.00355051$ ;  $p_2=-0.000994373$

(pol0 fit)

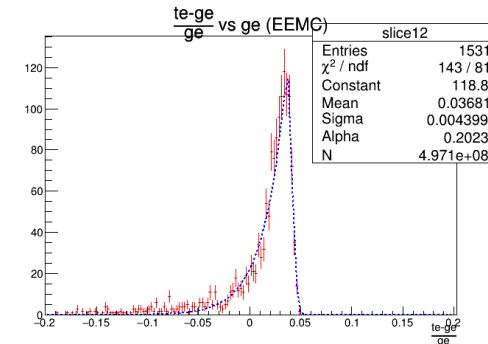
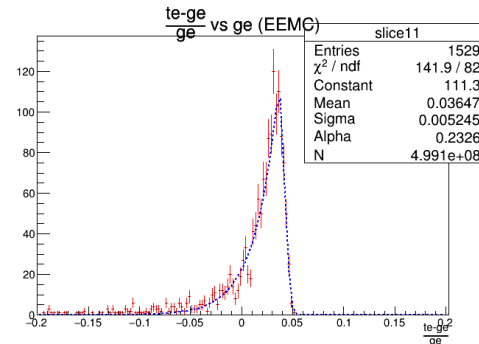
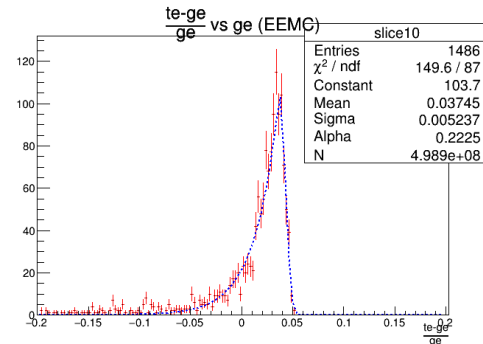
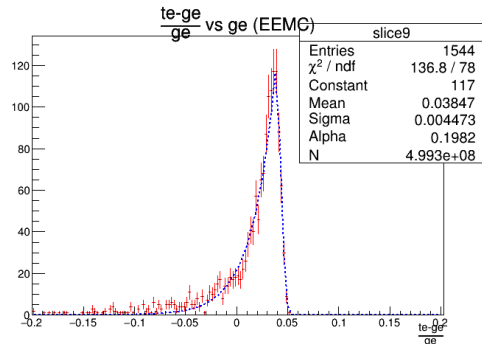
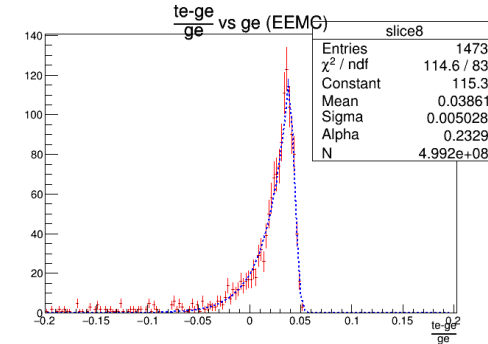
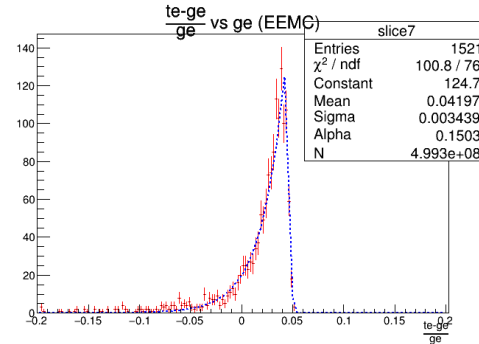
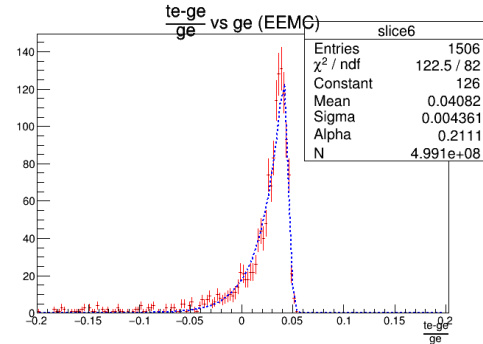
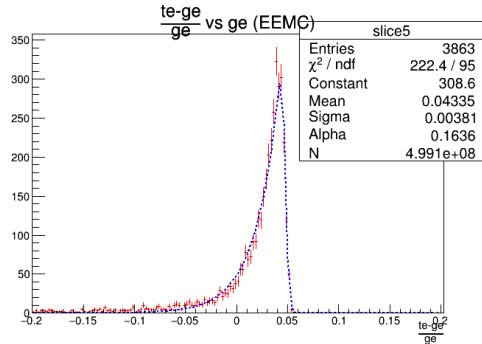
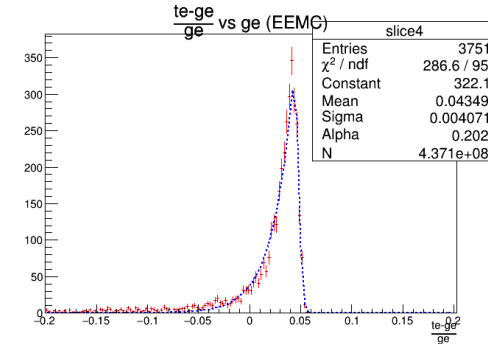
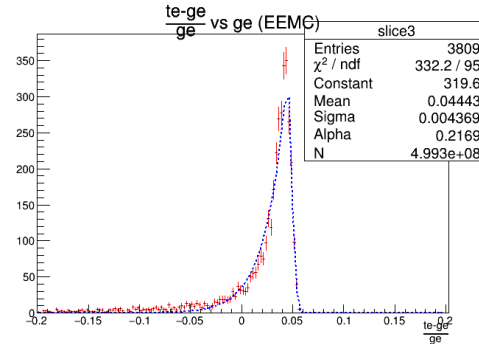
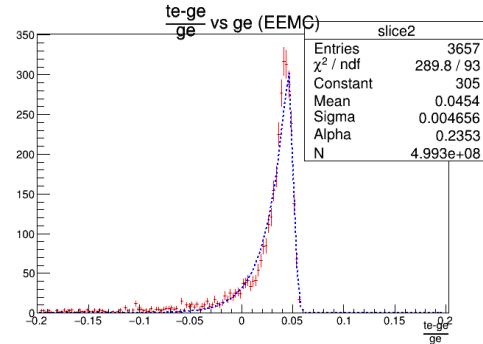
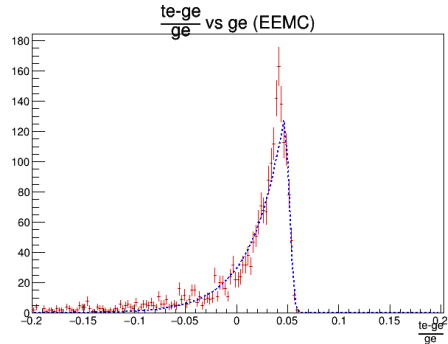
$p_0 = 0.939041$

## Recalibration using pol0 fit : Crystal ball fitting for slices

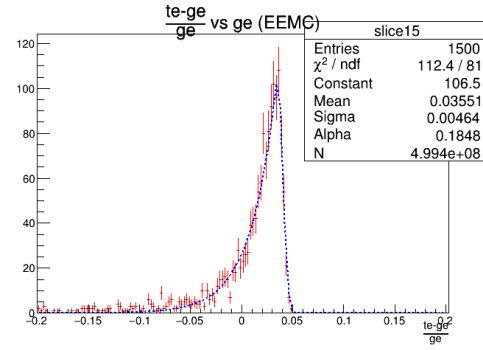
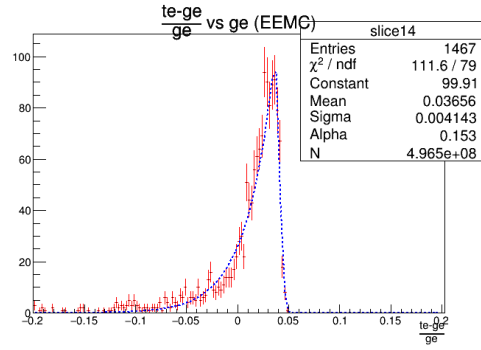
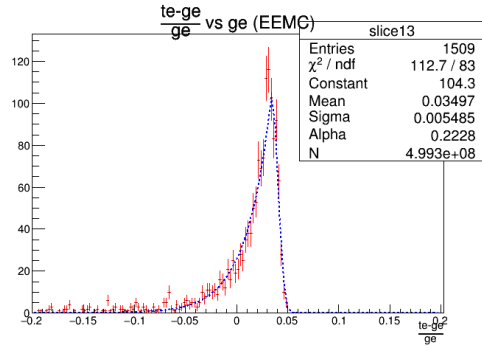


$p_0=0.00493094$ ;  $p_1=-0.00162239$ ;  $p_2=0.00117333$

# EEMC Crystal ball fits (after calibration):



# EEMC Crystal ball fits (after calibration):



**THE END**