

Latest calorimeter resolution plots for different particles

Simran
Lokesh Kumar

Specifications:

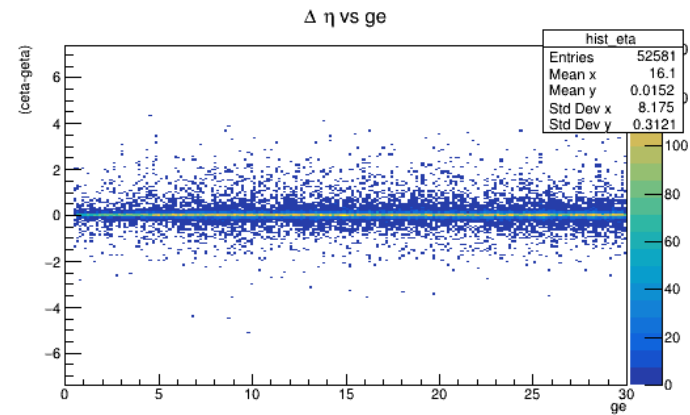
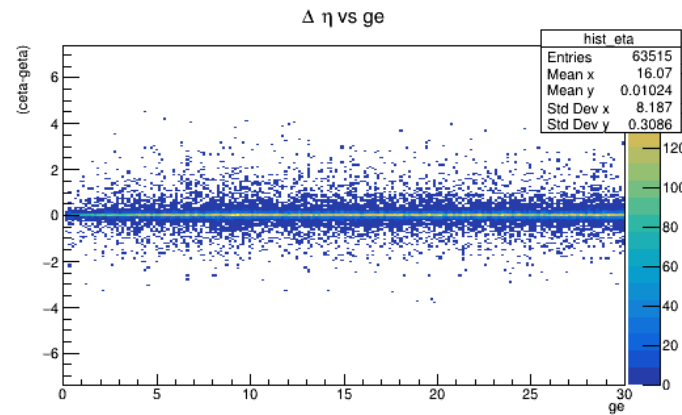
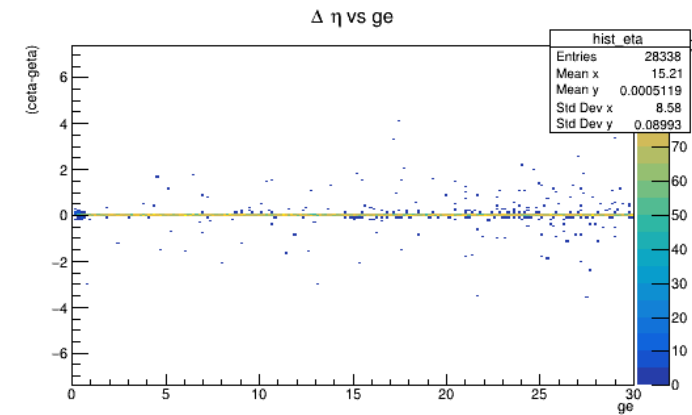
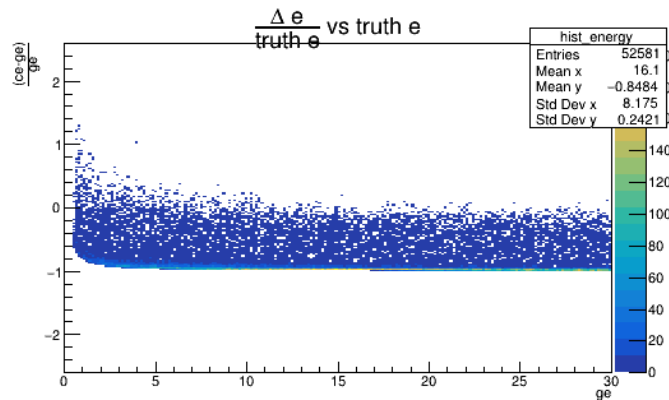
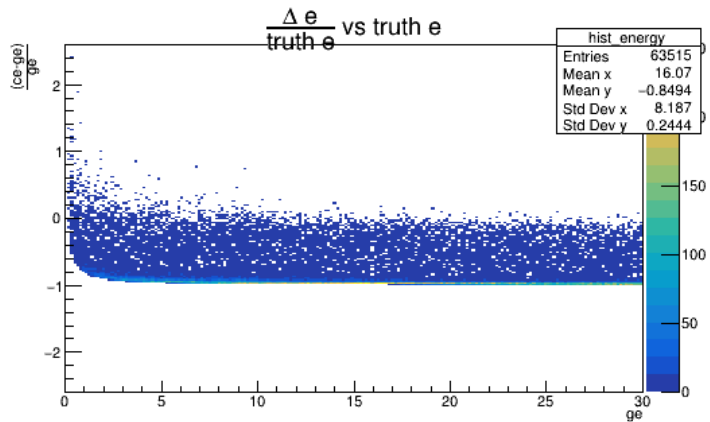
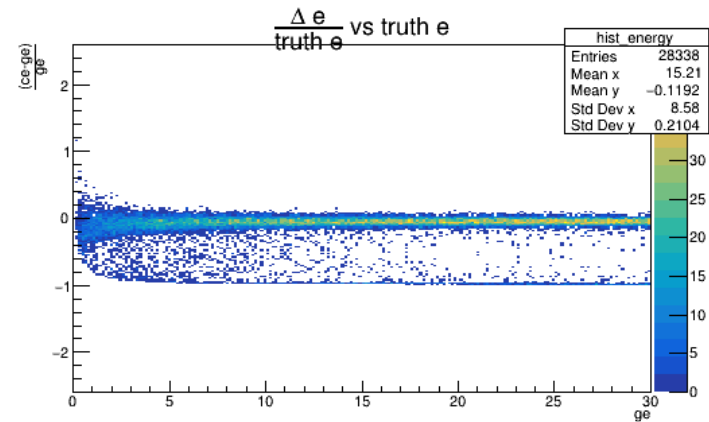
- Particles: e^- , π^- , K^-
- Momentum gp: 0 – 30 MeV
- Statistics: 100000
- Eta range: -4 to 4
- Reconstructed energy cut (ce): 200 MeV

CEMC

Electron

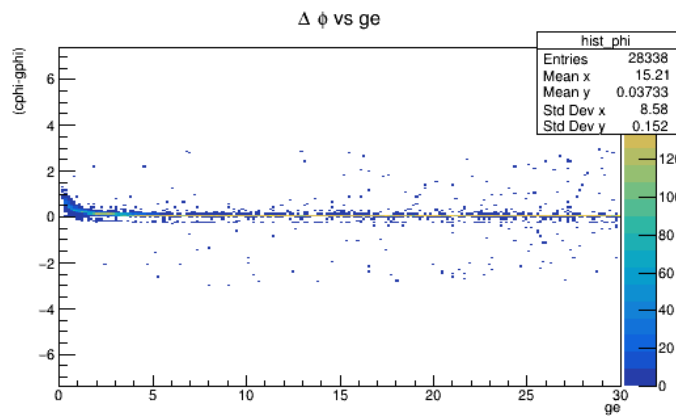
Pion

Kaon

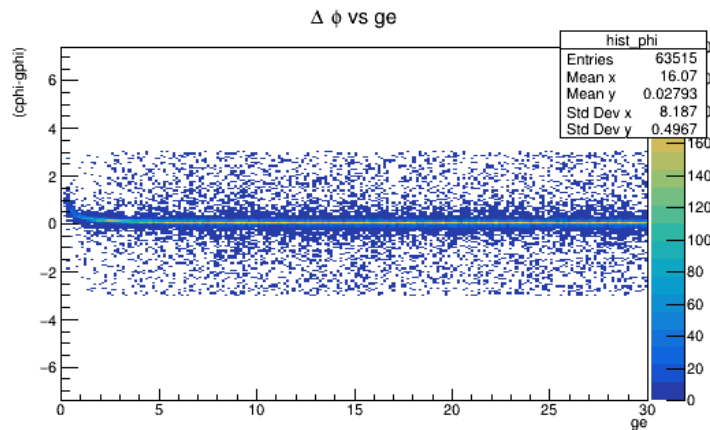


CEMC

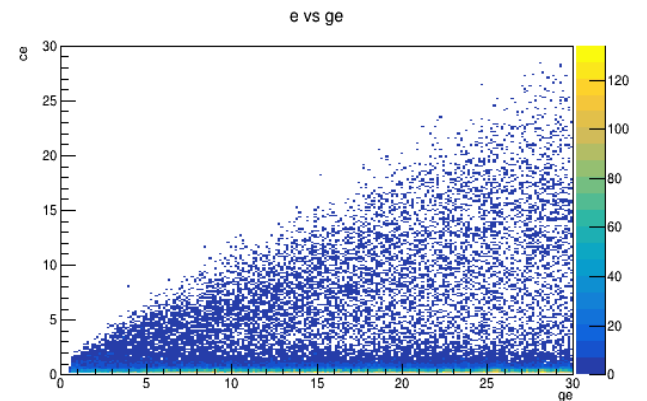
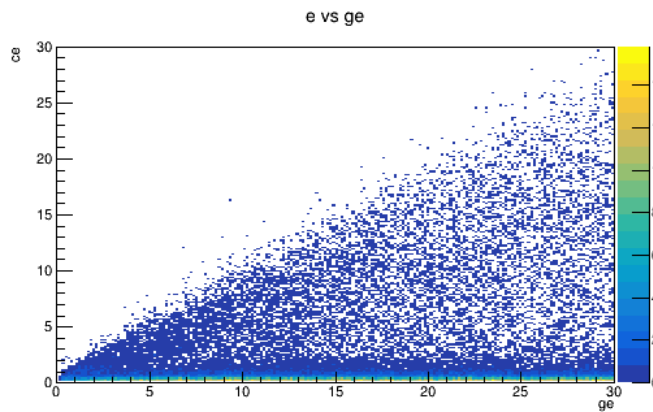
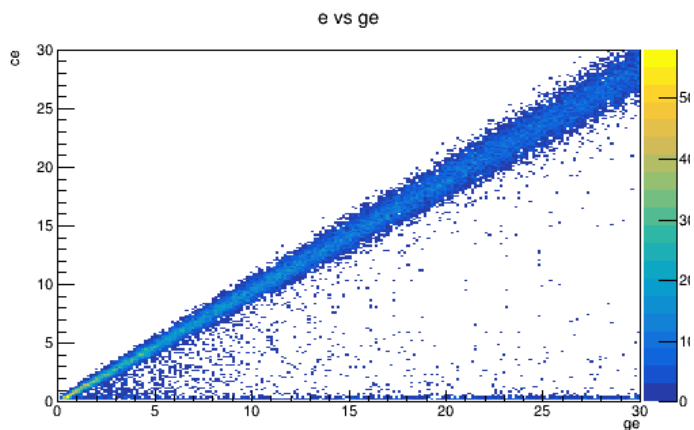
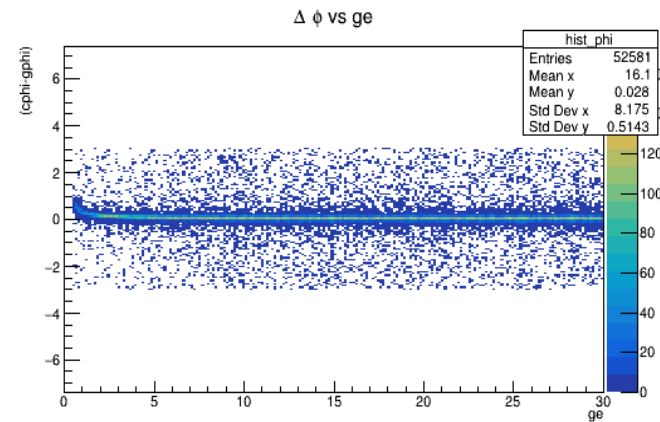
Electron



Pion

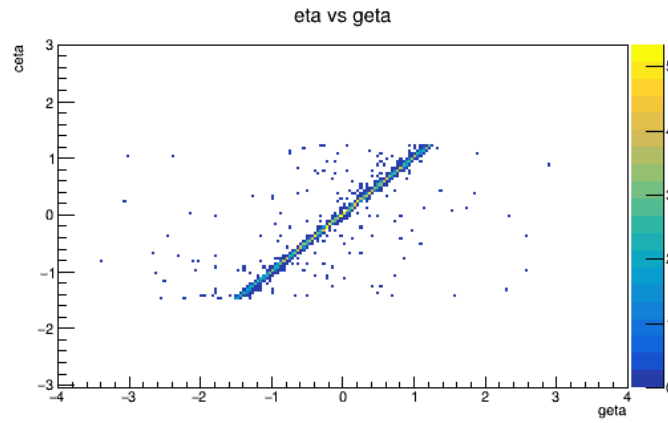


Kaon

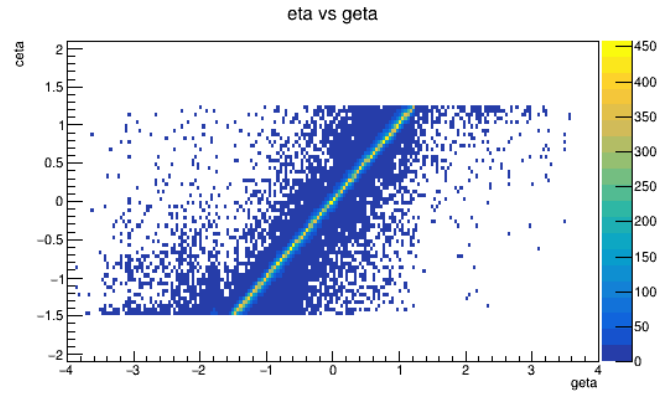


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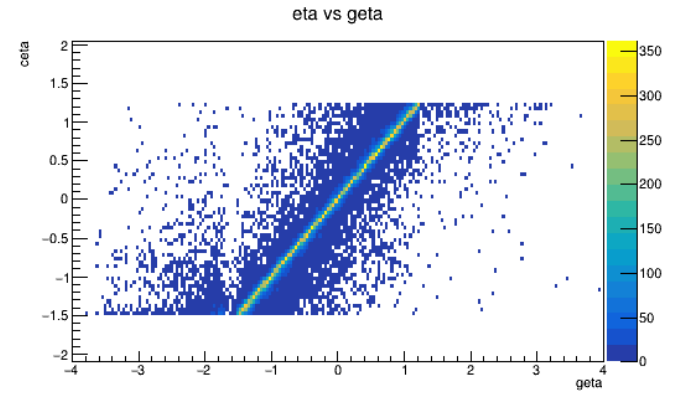
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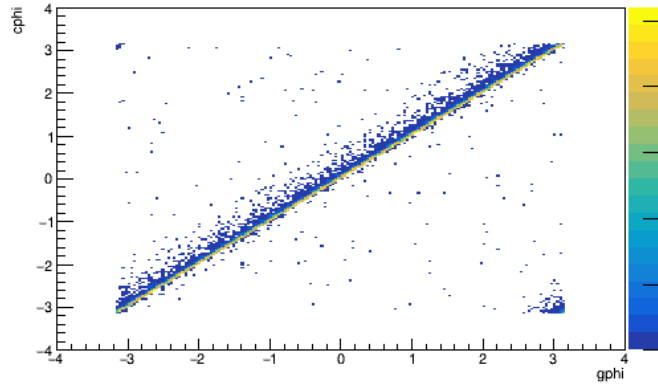
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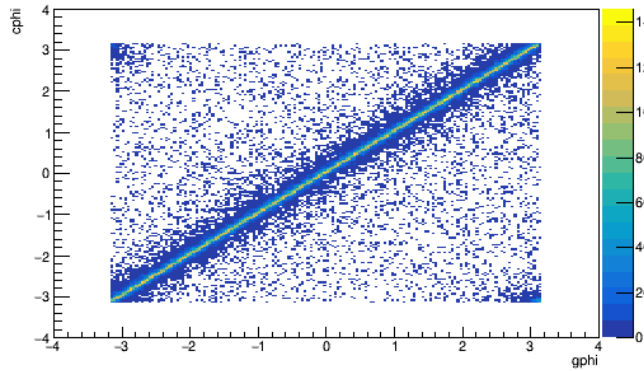
Kaon



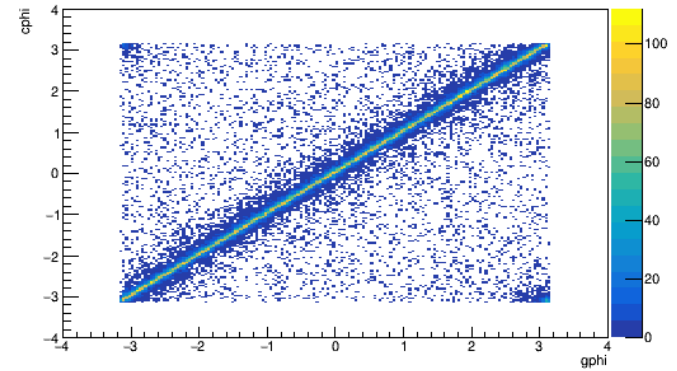
phi vs gphi



phi vs gphi



phi vs gphi

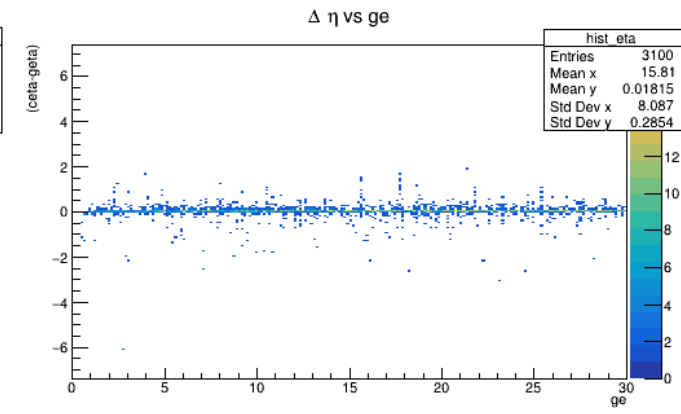
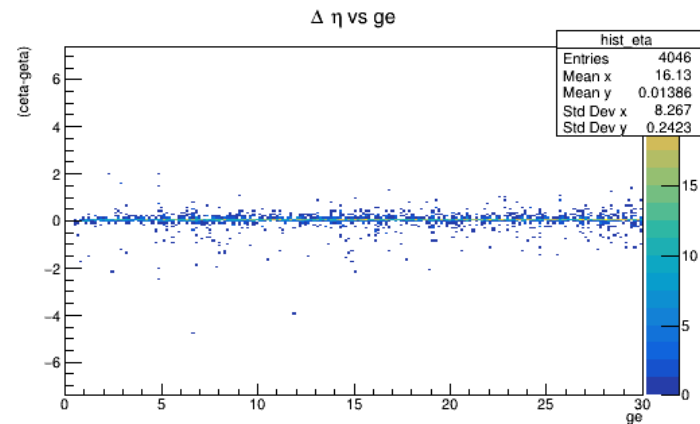
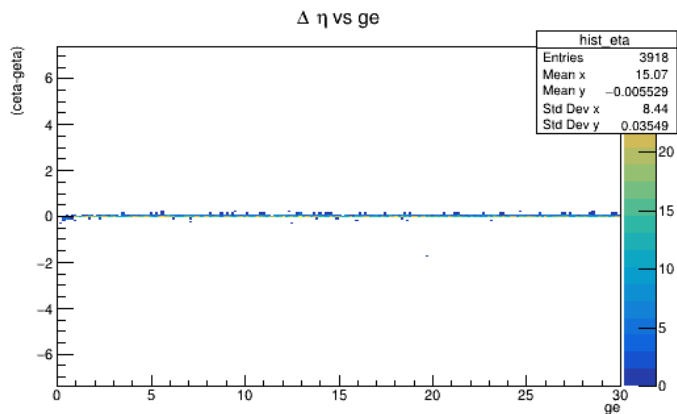
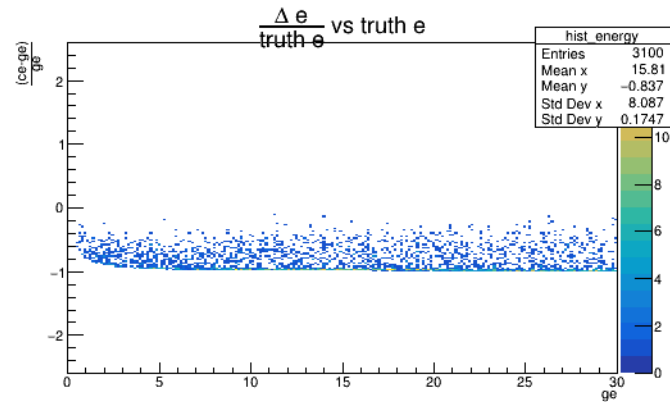
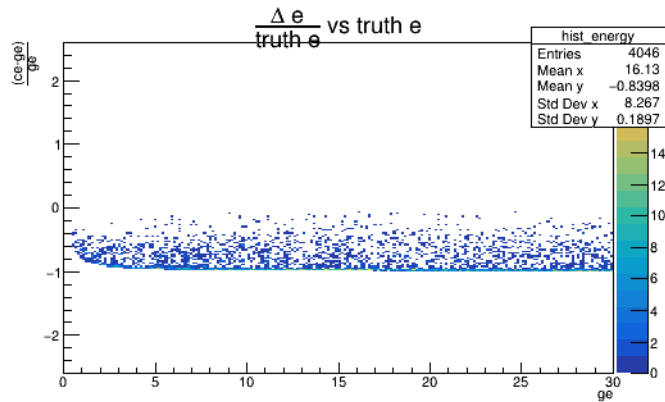
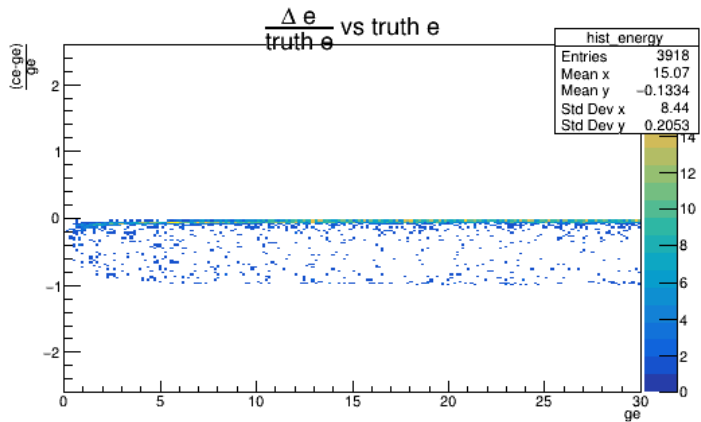


EEMC

Electron

Pion

Kaon



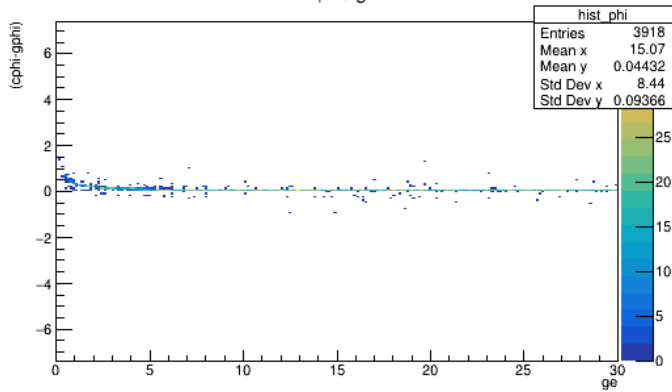
EEMC

Electron

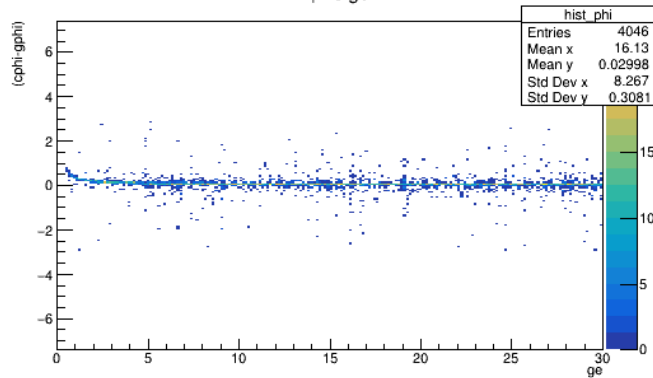
Pion

Kaon

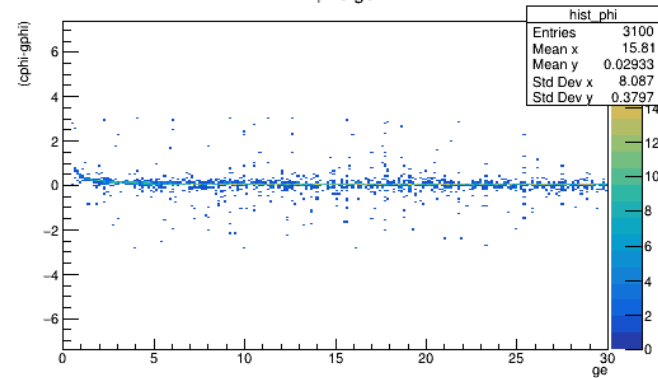
$\Delta \phi$ vs g_e



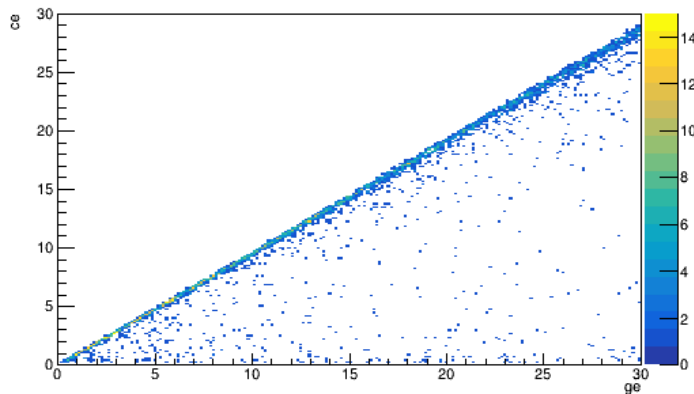
$\Delta \phi$ vs g_e



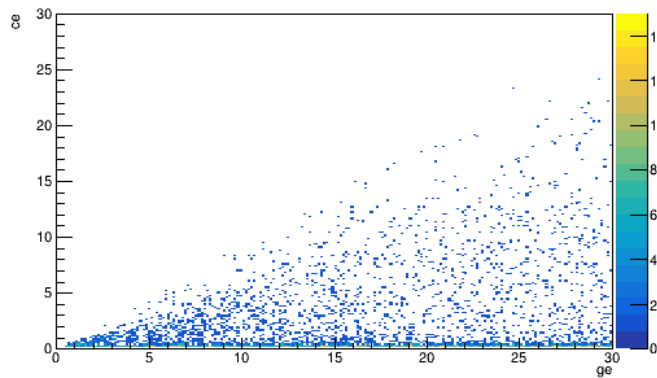
$\Delta \phi$ vs g_e



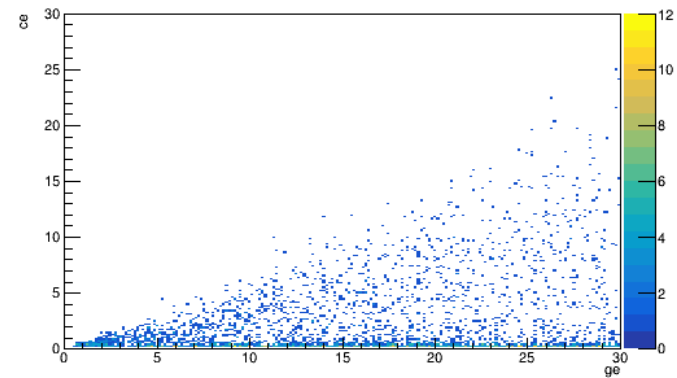
e vs g_e



e vs g_e



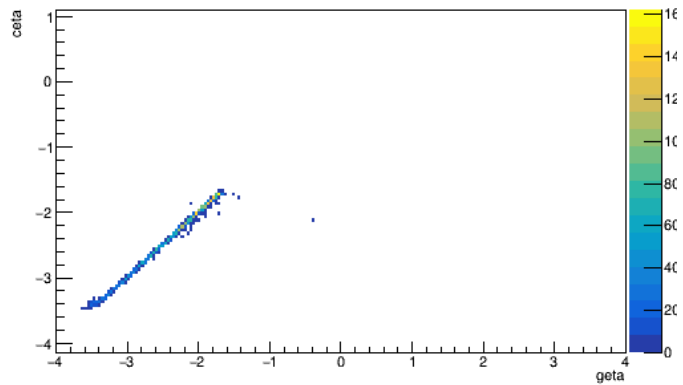
e vs g_e



EEMC

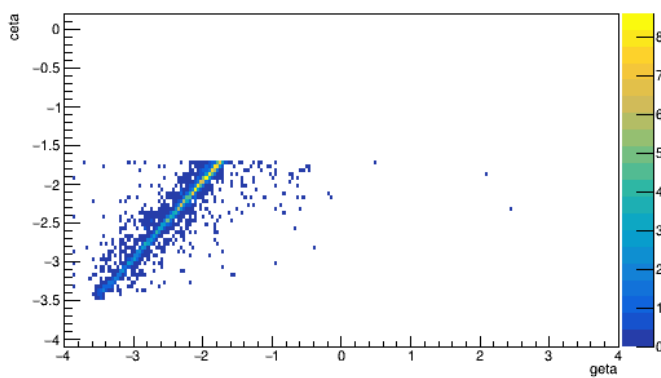
Electron

eta vs geta



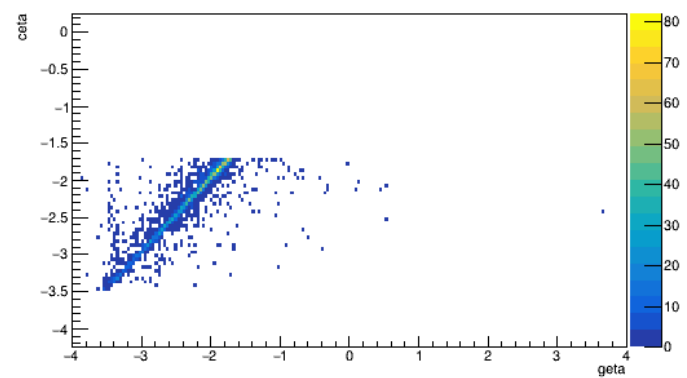
Pion

eta vs geta

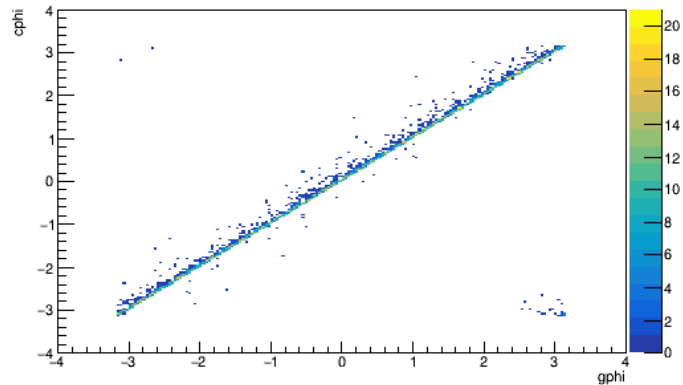


Kaon

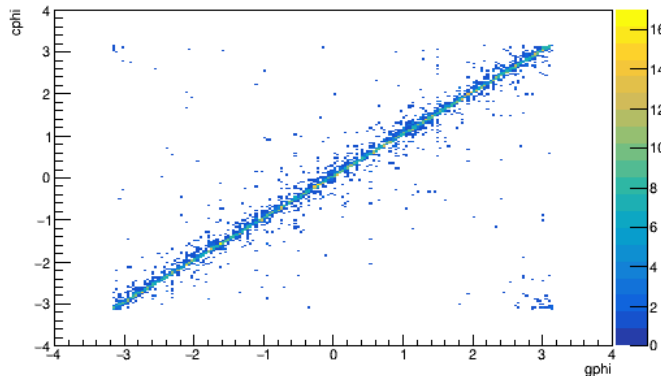
eta vs geta



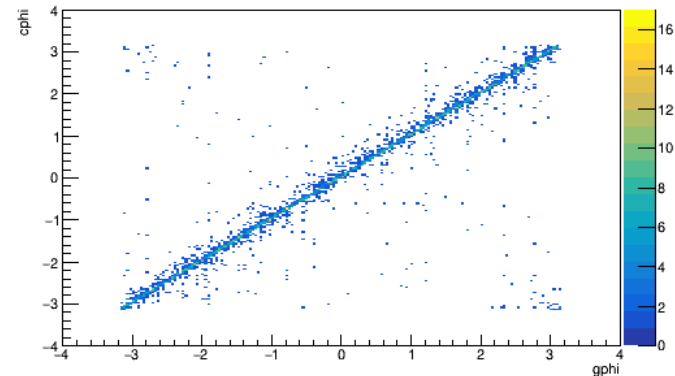
phi vs gphi



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phi vs gphi

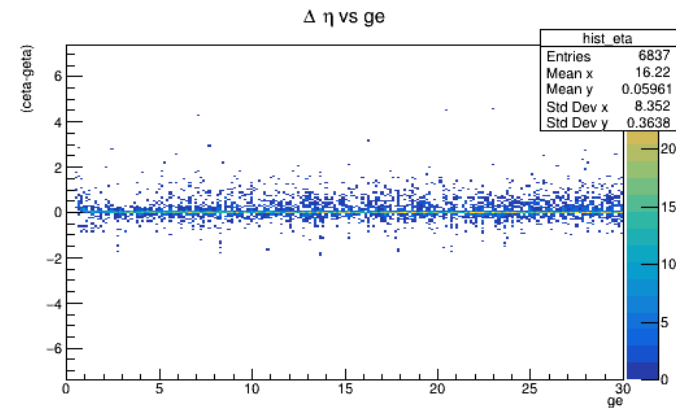
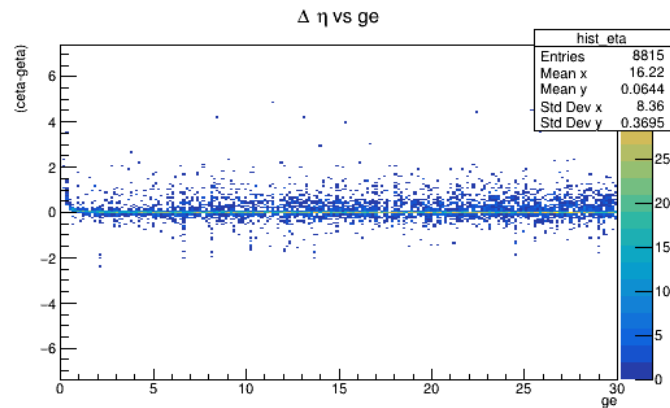
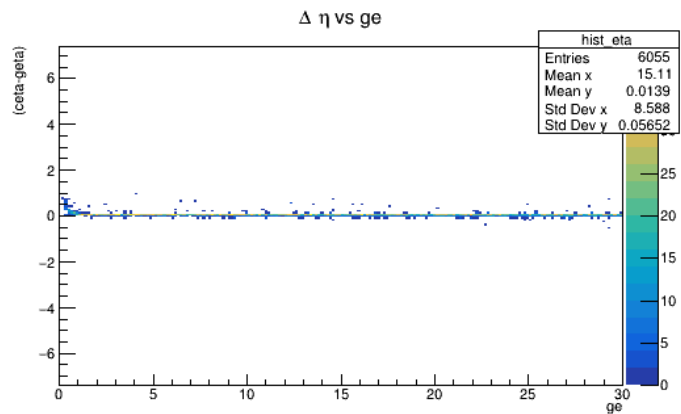
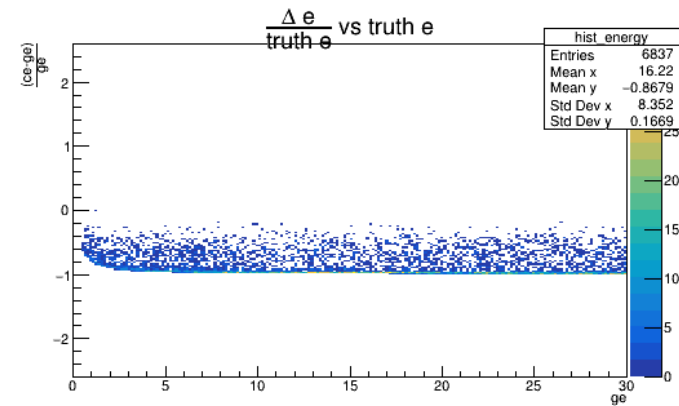
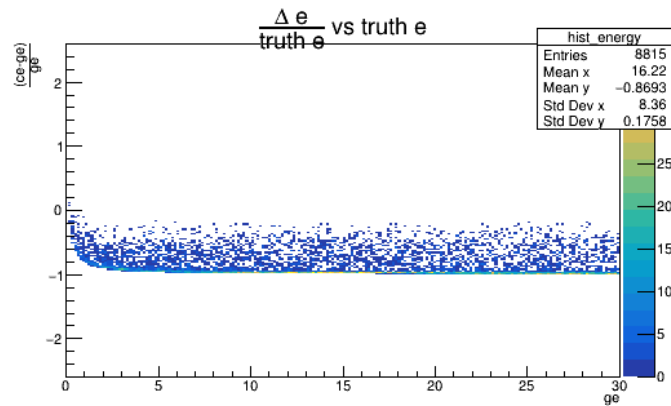
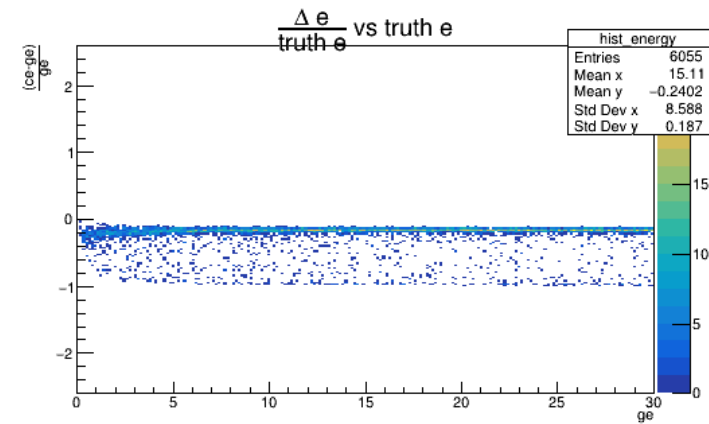


FEMC

Electron

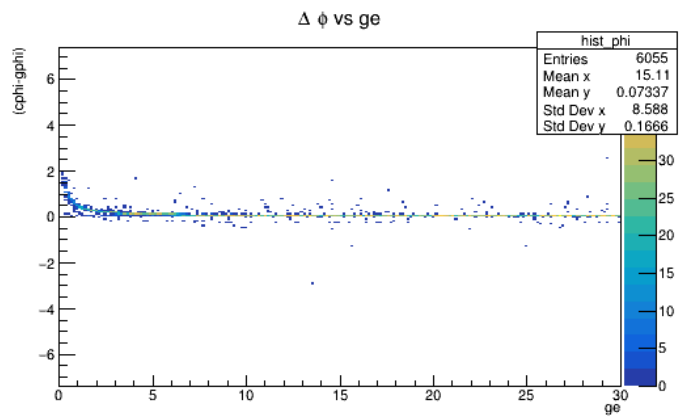
Pion

Kaon

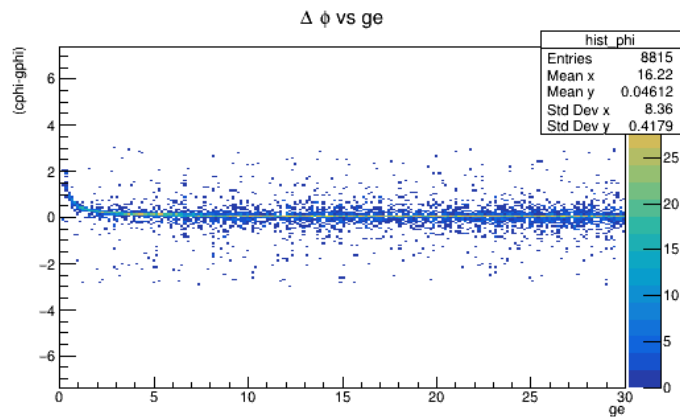


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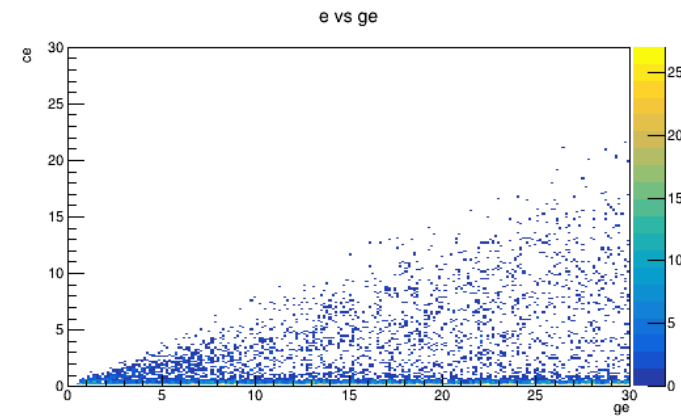
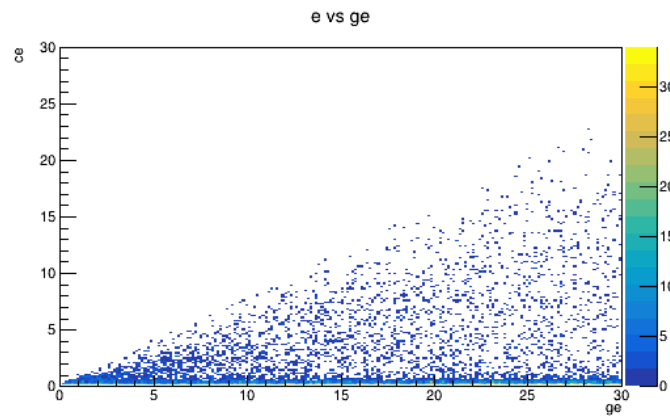
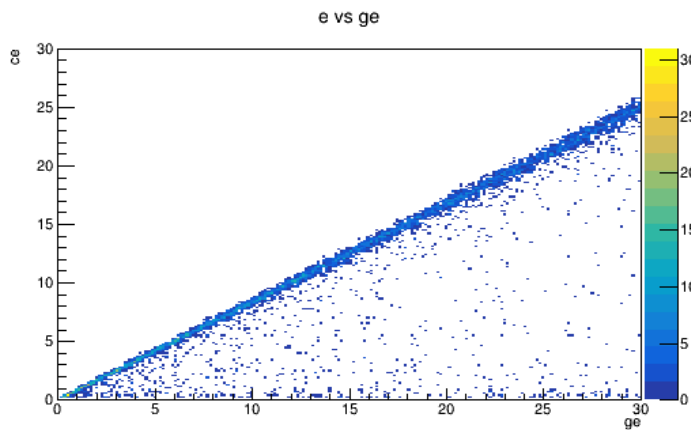
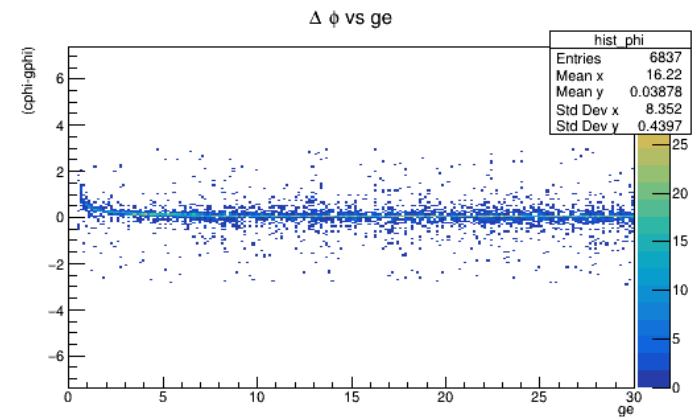
Electron



Pion

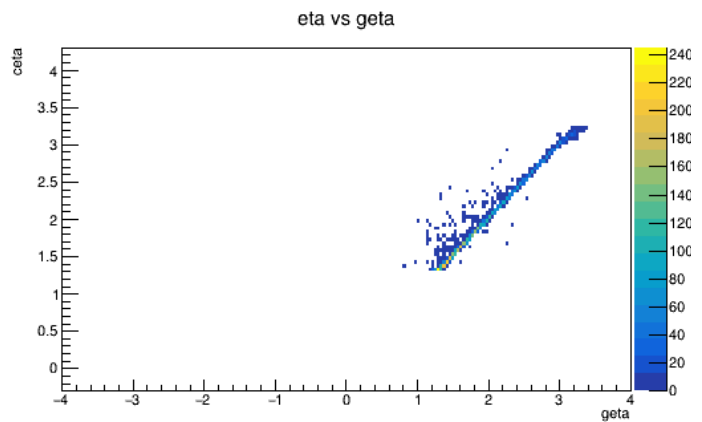


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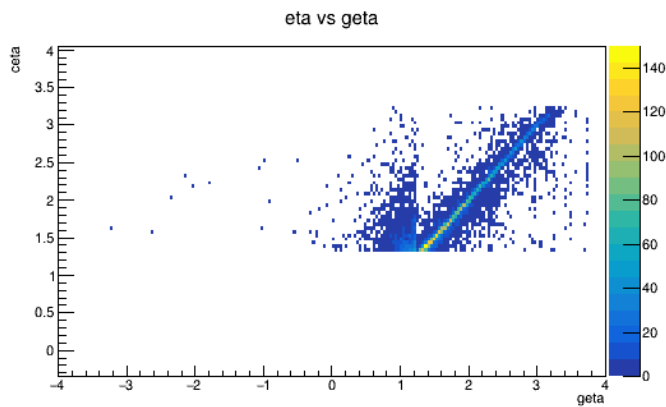


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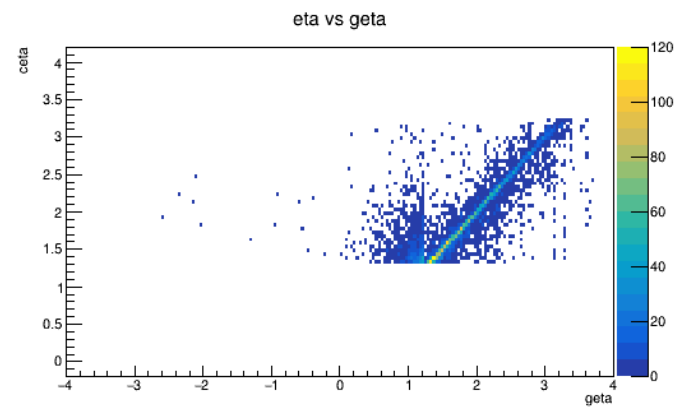
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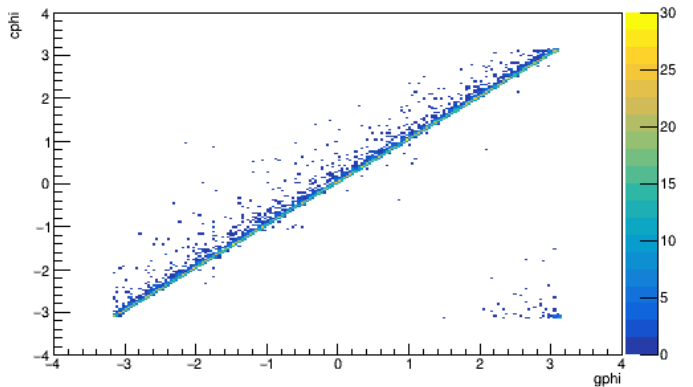
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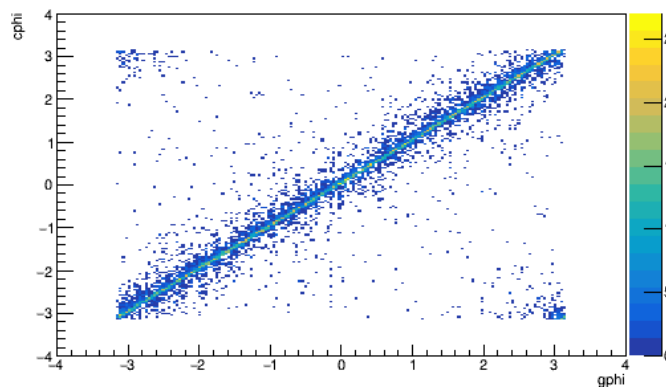
Kaon



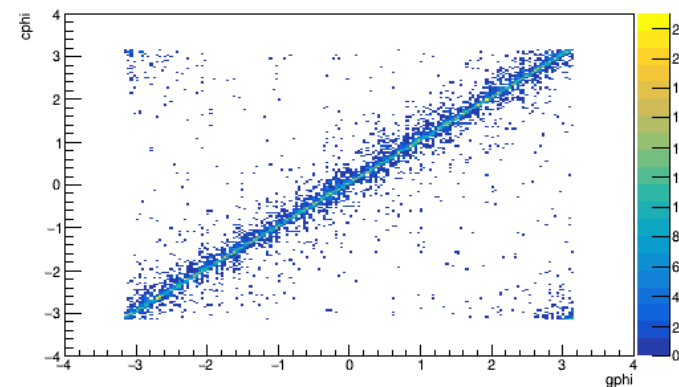
phi vs gphi



phi vs gphi



phi vs gphi

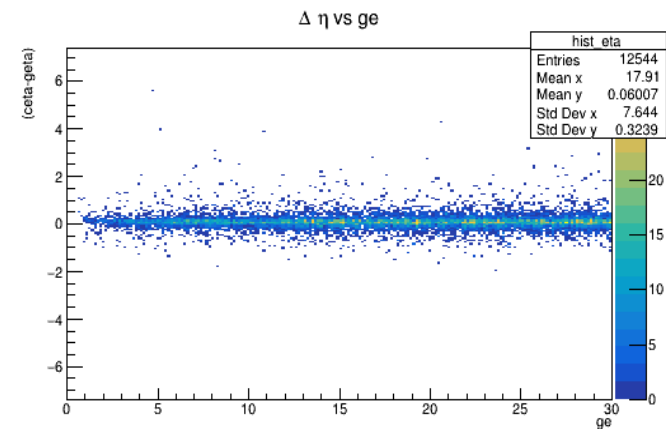
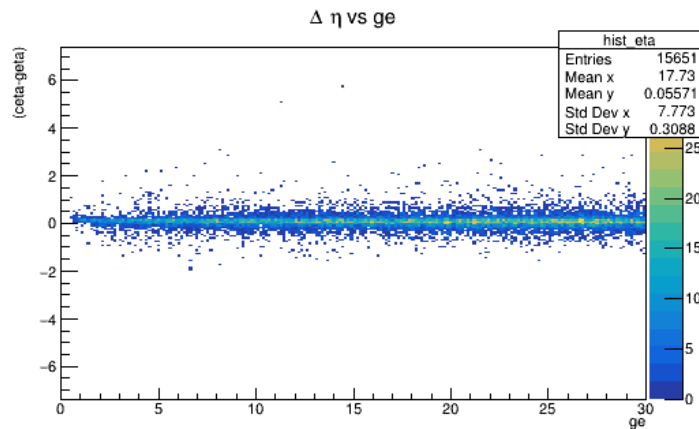
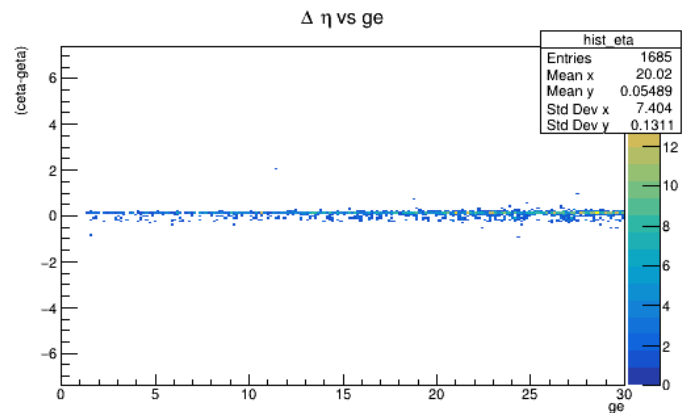
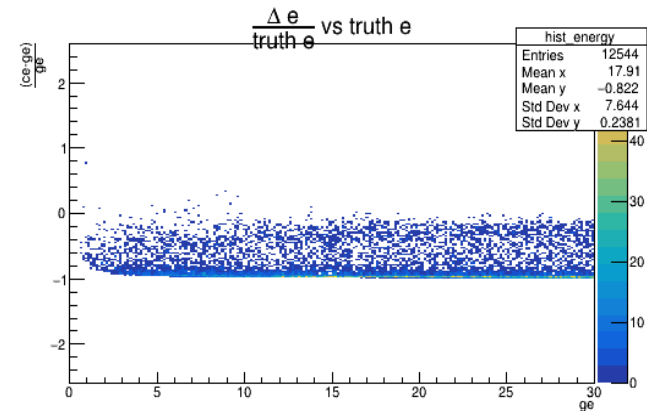
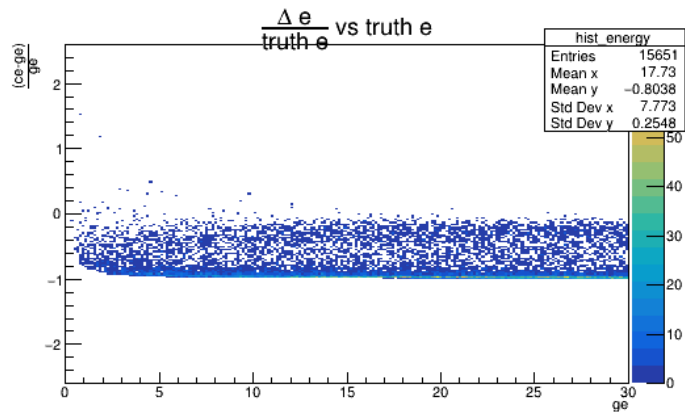
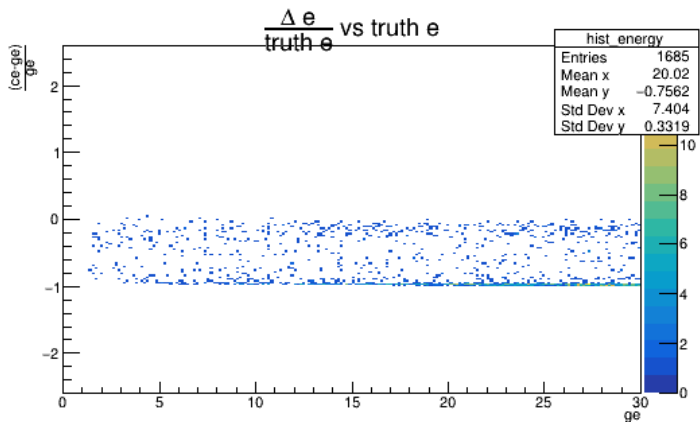


FHCAL

Electron

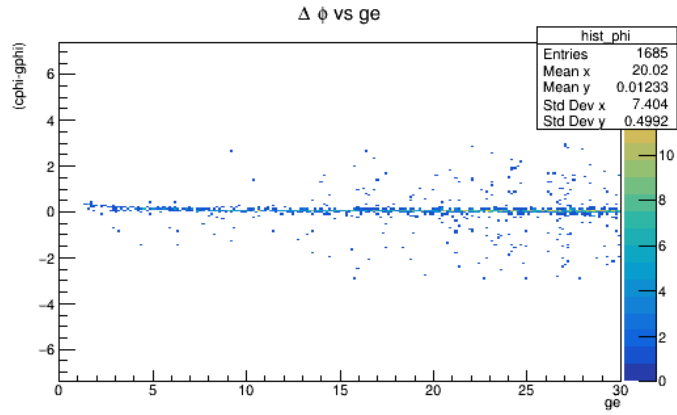
Pion

Kaon

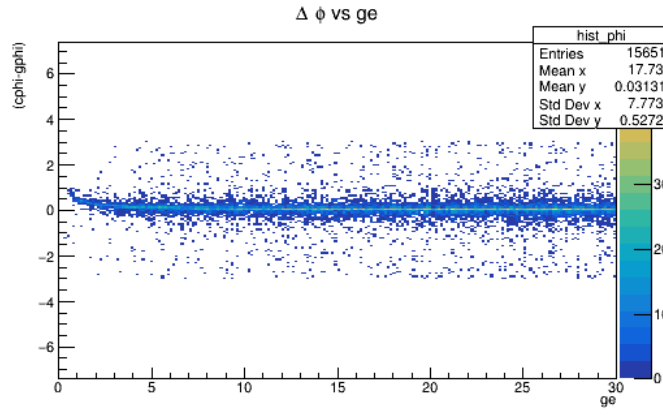


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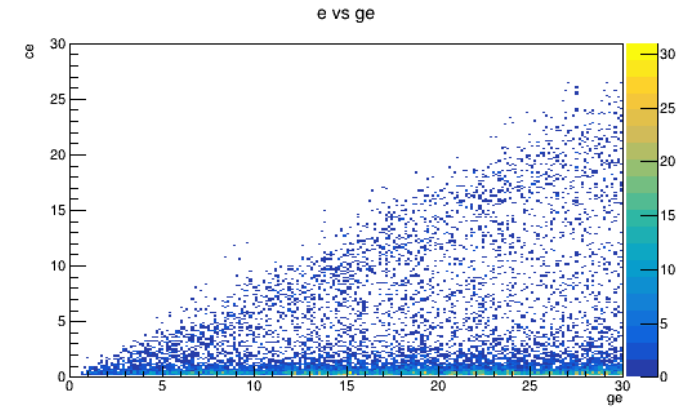
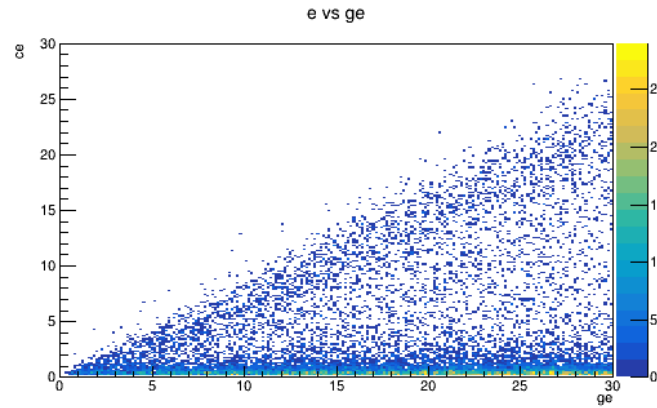
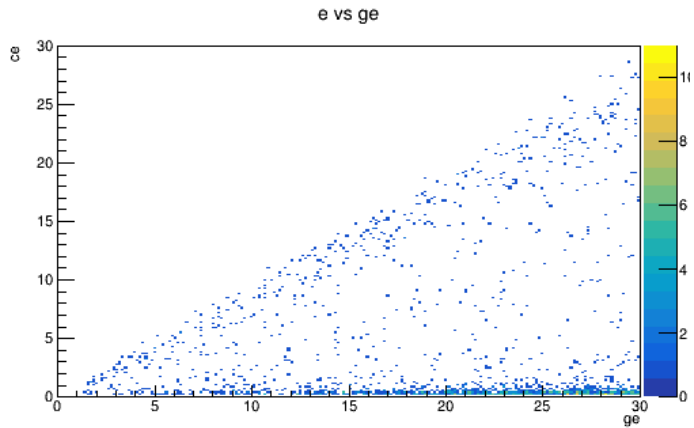
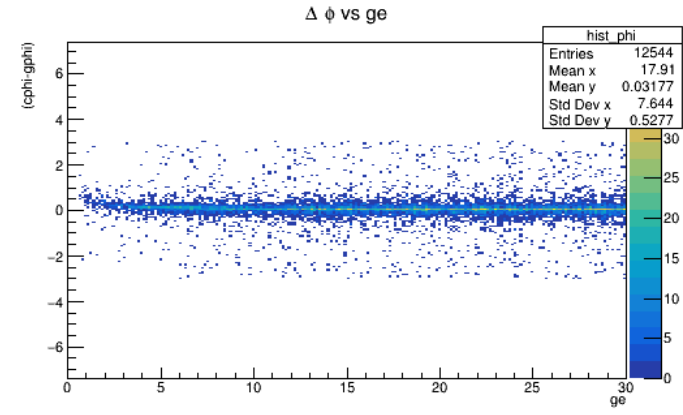
Electron



Pion



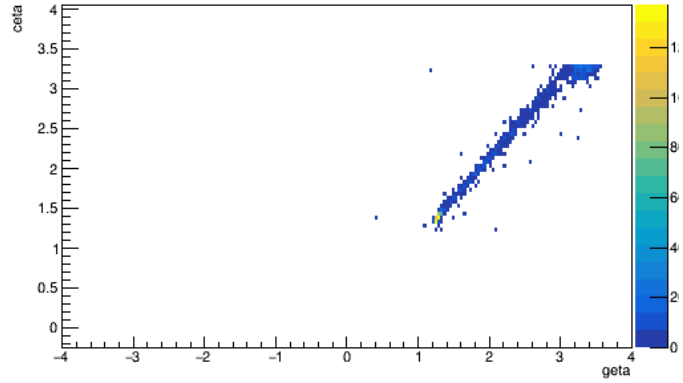
Kaon



FHCAL

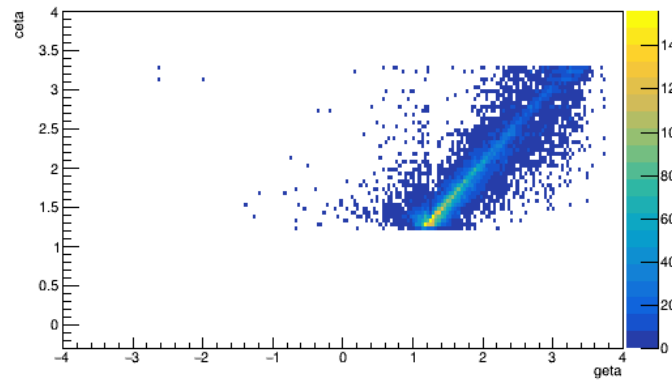
Electron

eta vs geta



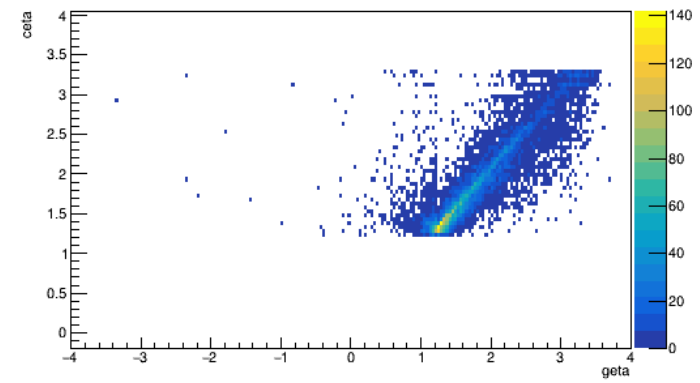
Pion

eta vs geta

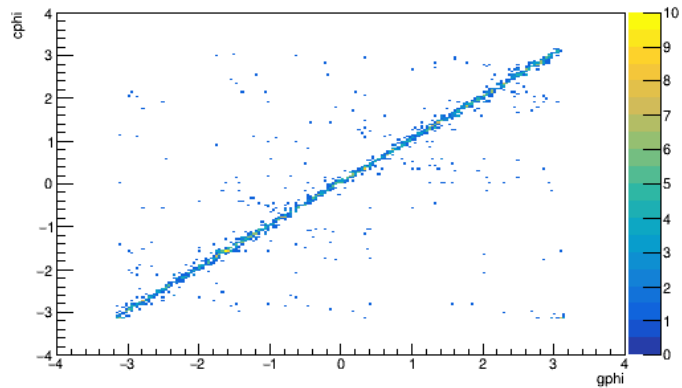


Kaon

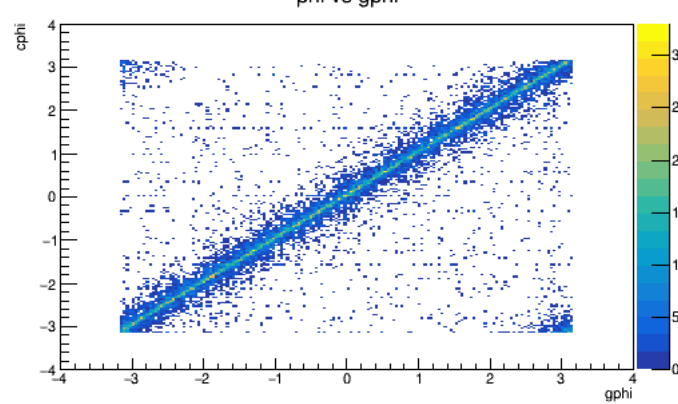
eta vs geta



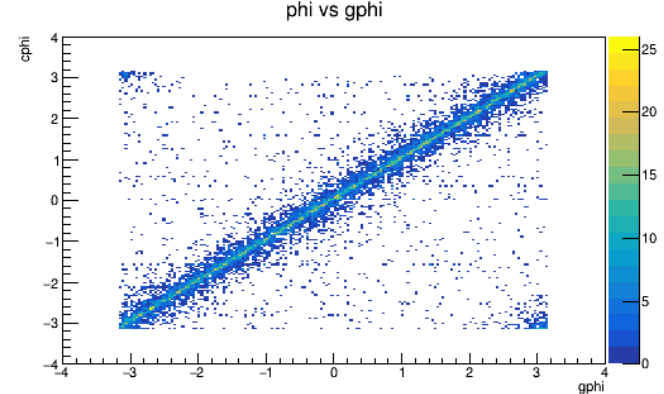
phi vs gphi



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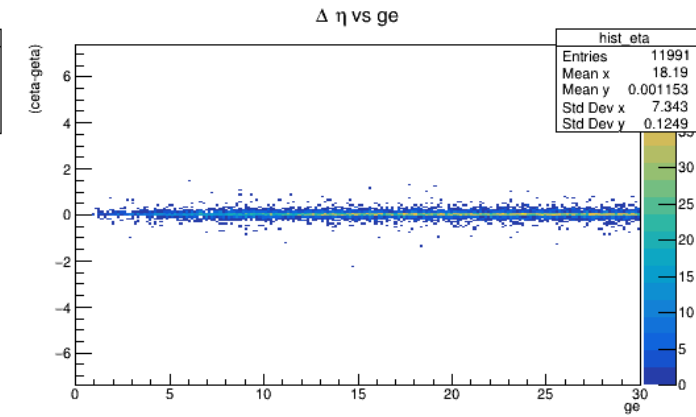
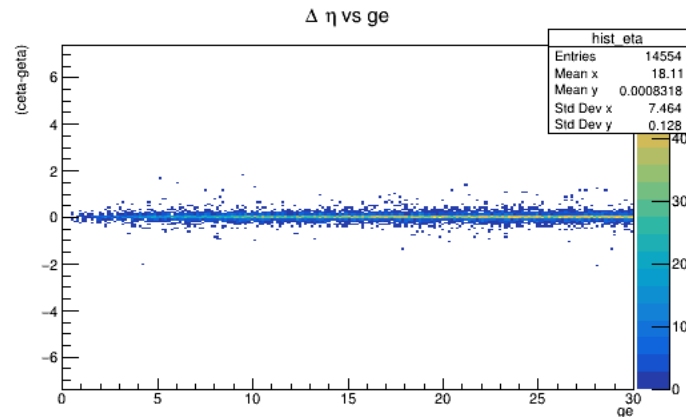
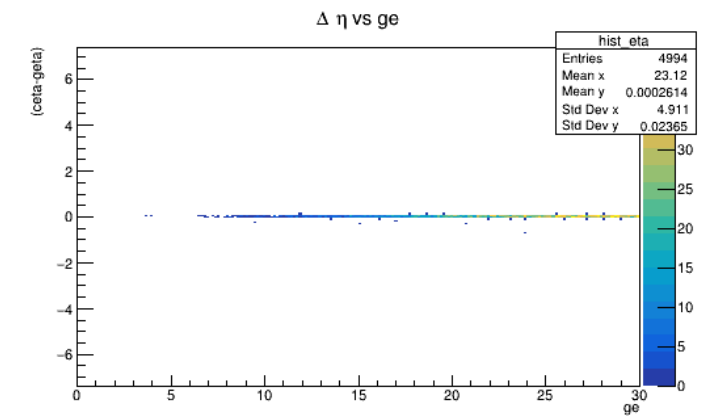
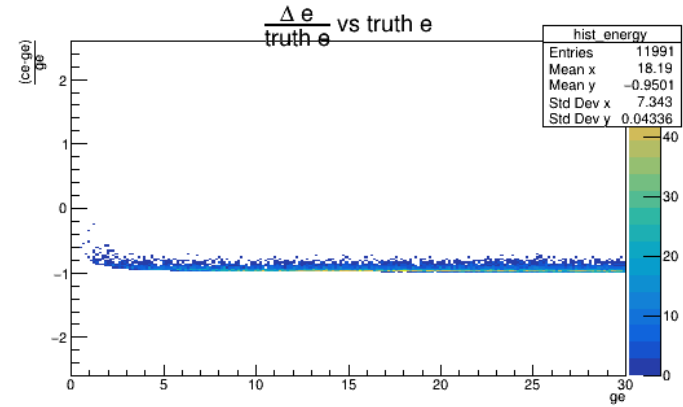
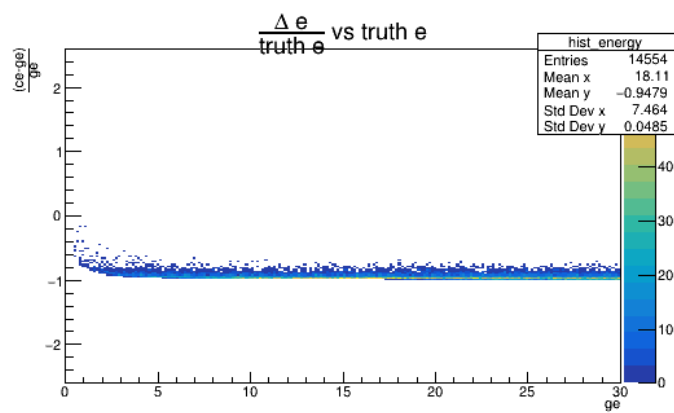
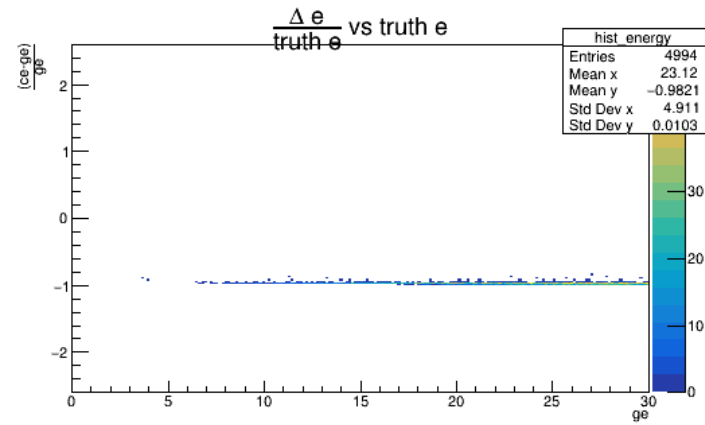


HCALIN

Electron

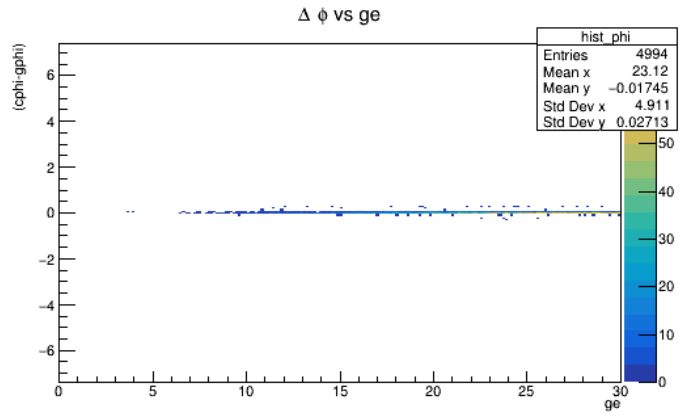
Pion

Kaon

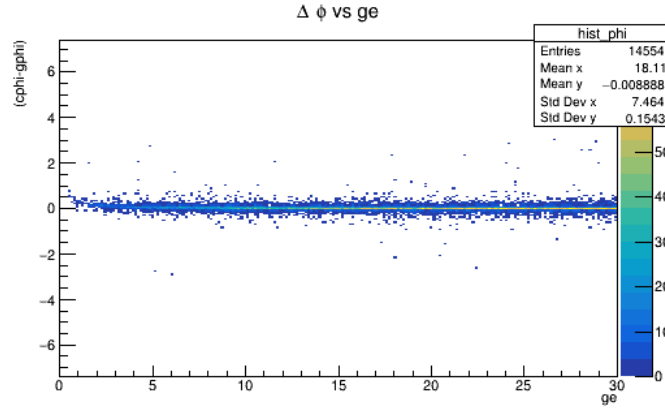


HCALIN

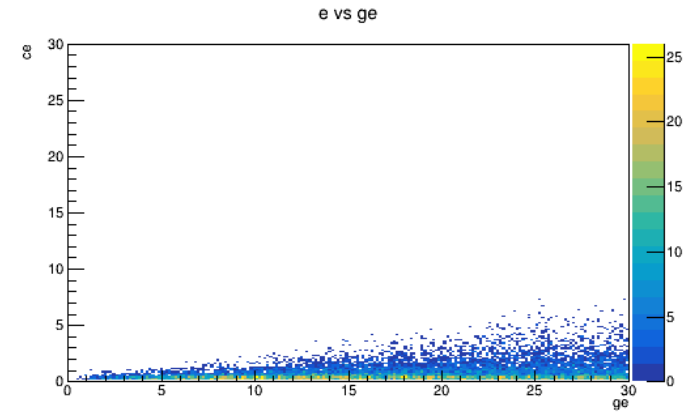
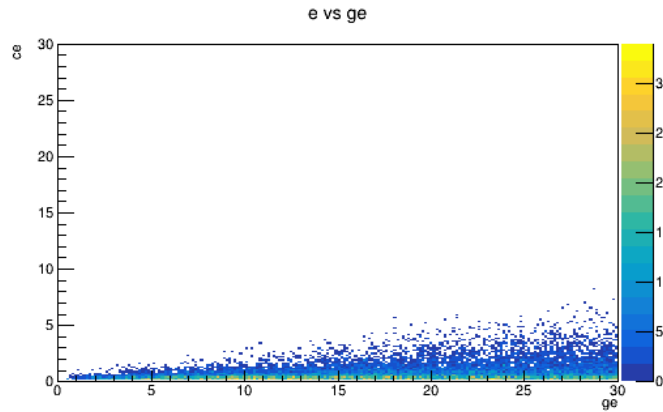
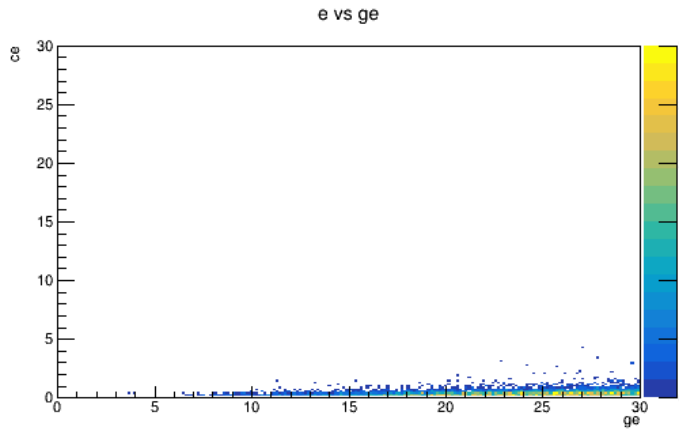
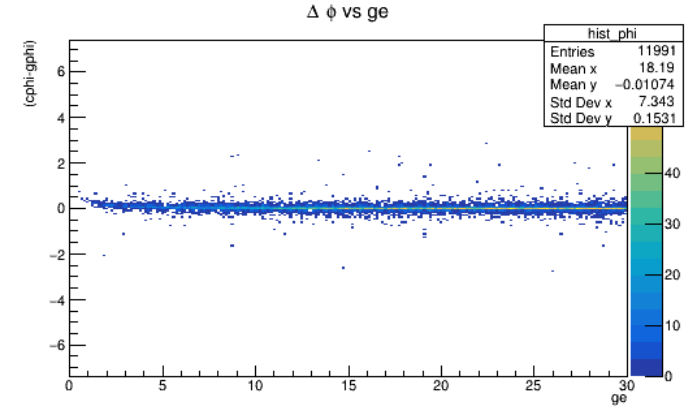
Electron



Pion



Kaon



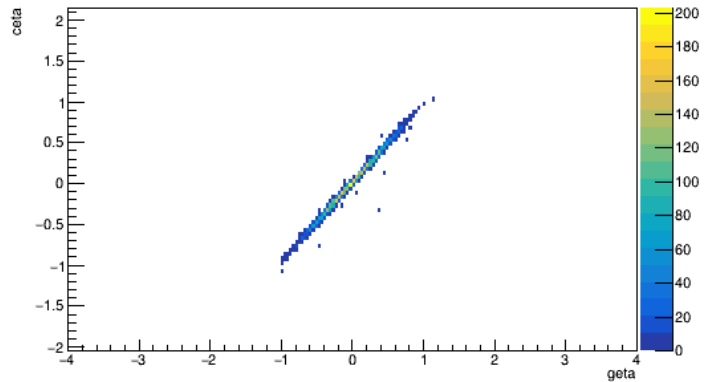
HCALIN

Electron

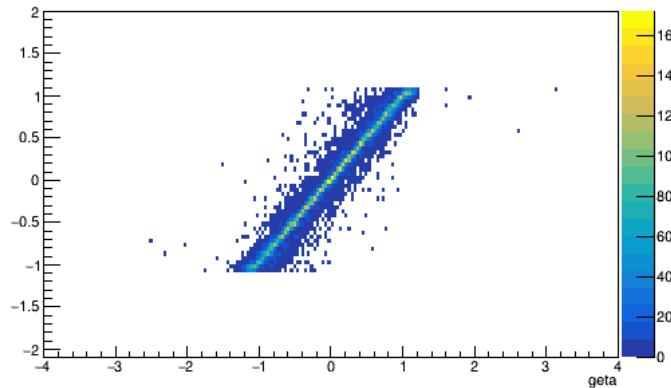
Pion

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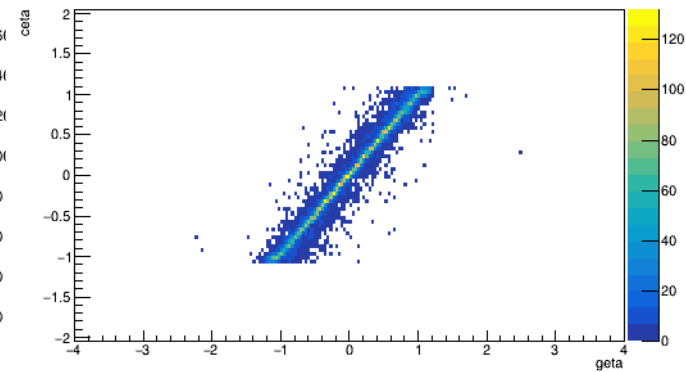
eta vs geta



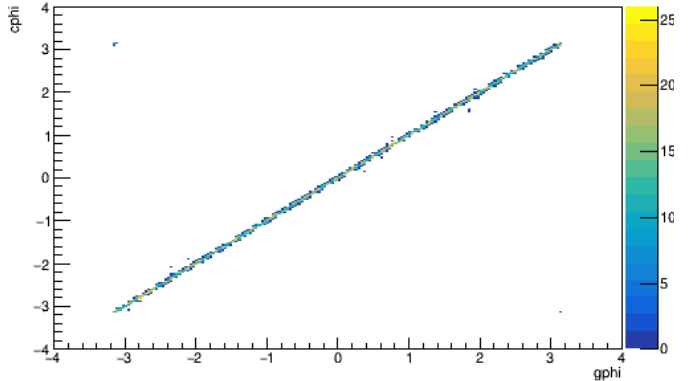
eta vs geta



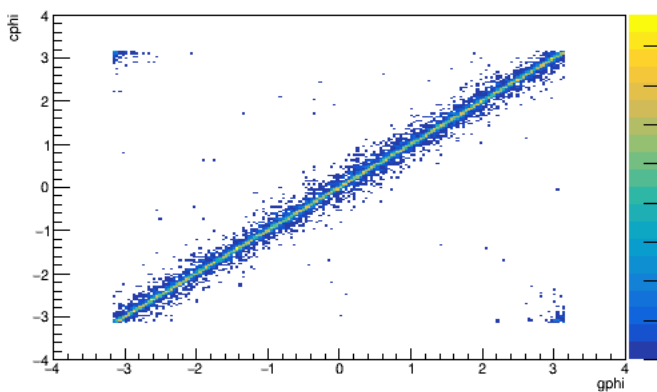
eta vs geta



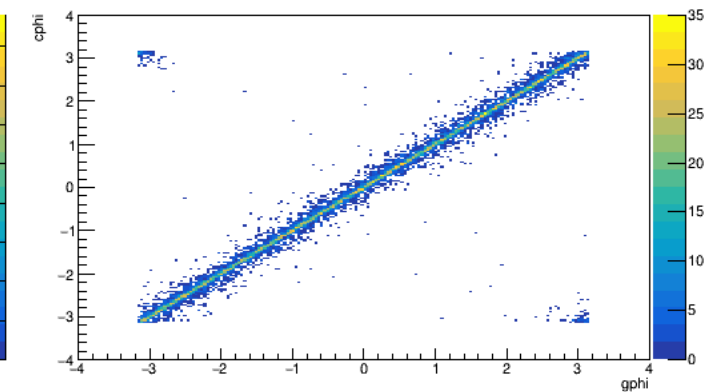
phi vs gphi



phi vs gphi



phi vs gphi

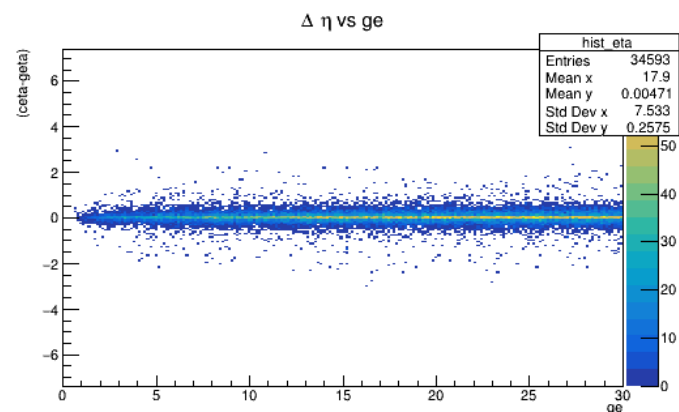
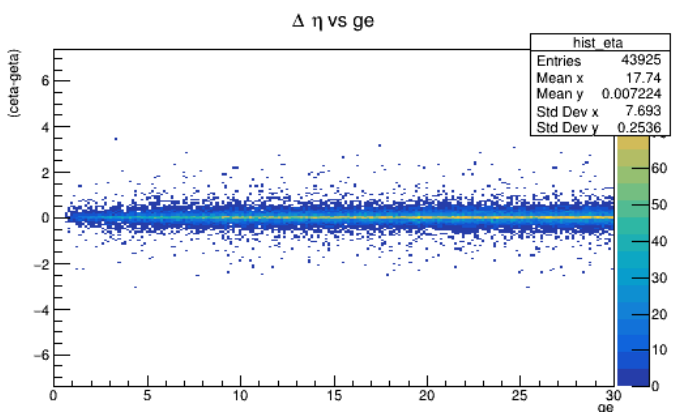
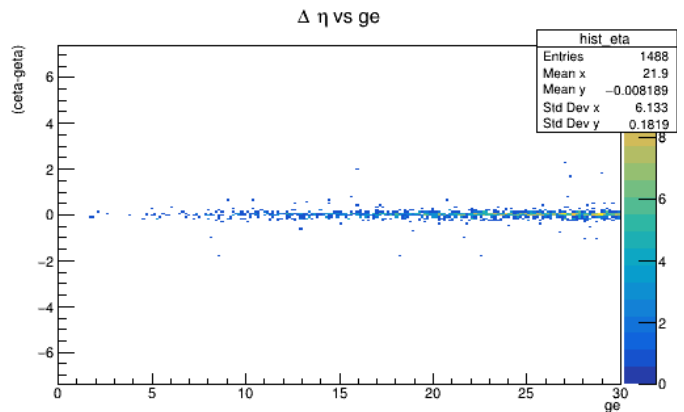
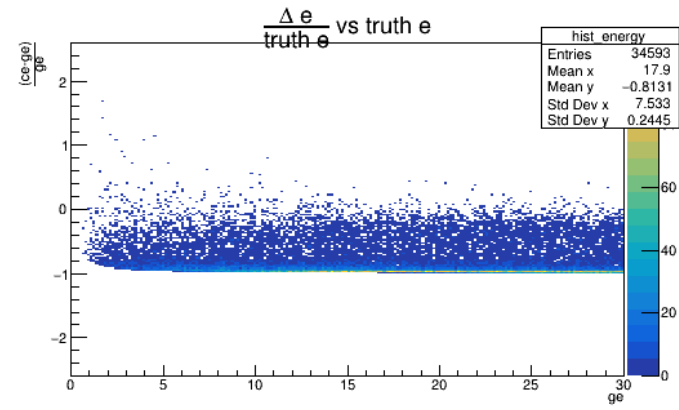
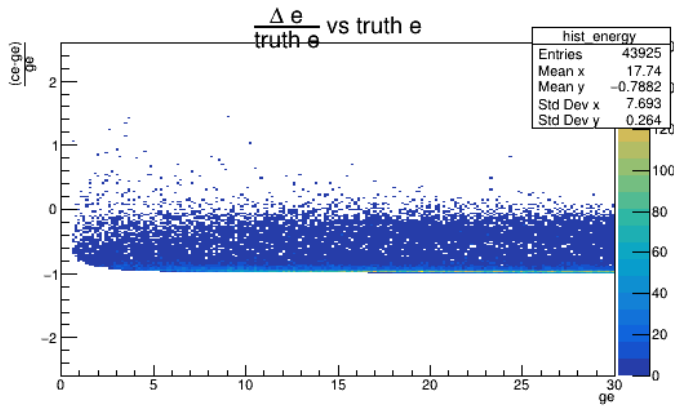
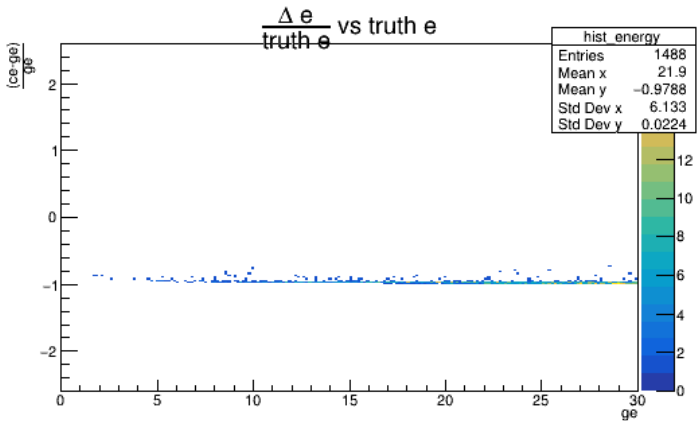


HCALOUT

Electron

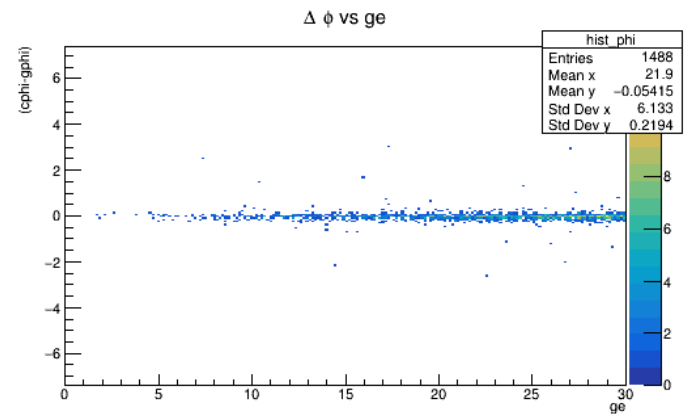
Pion

Kaon

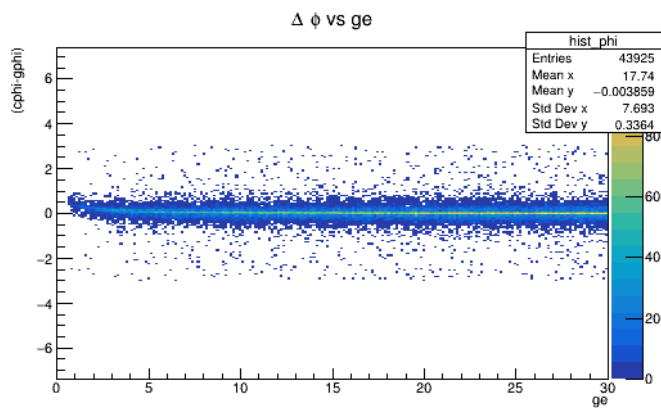


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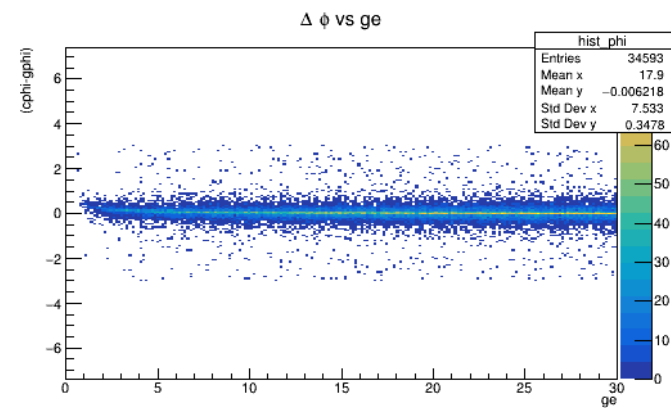
Electron



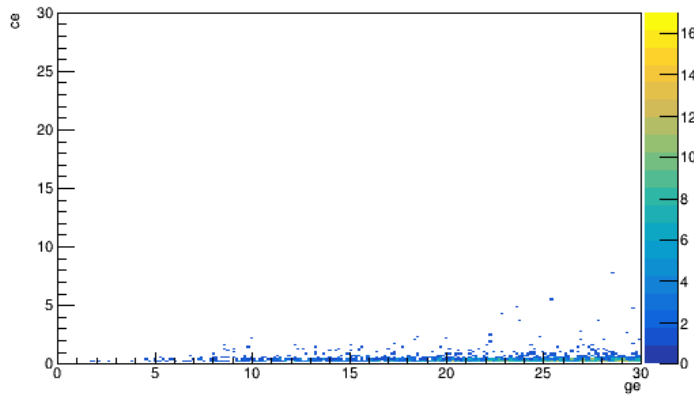
Pion



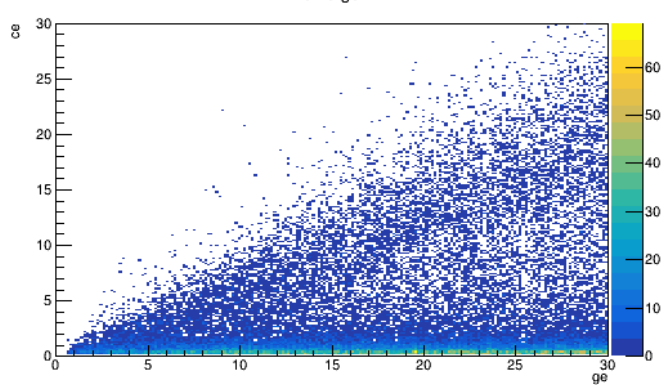
Kaon



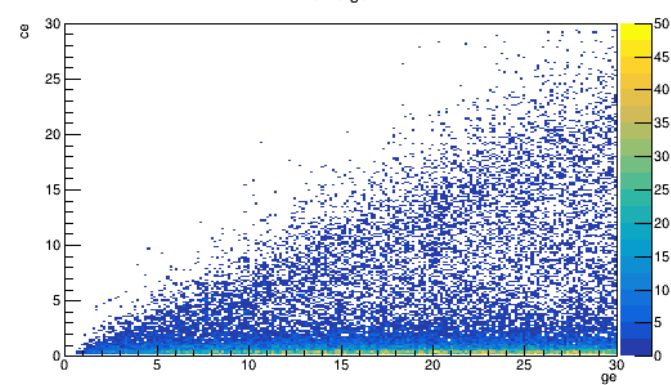
e vs g_e



e vs g_e



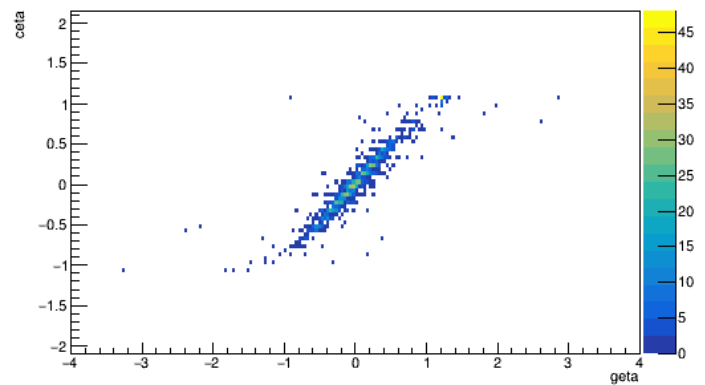
e vs g_e



HCALOUT

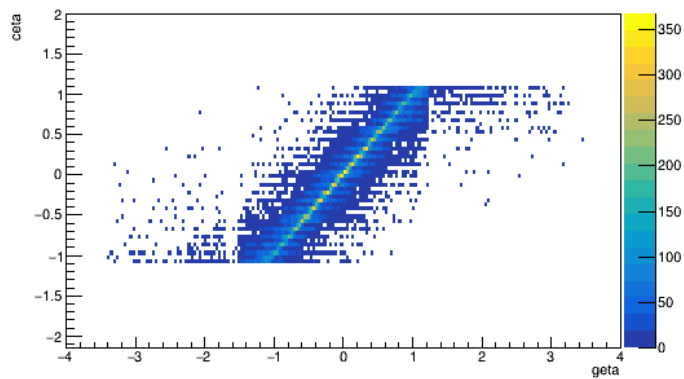
Electron

eta vs geta



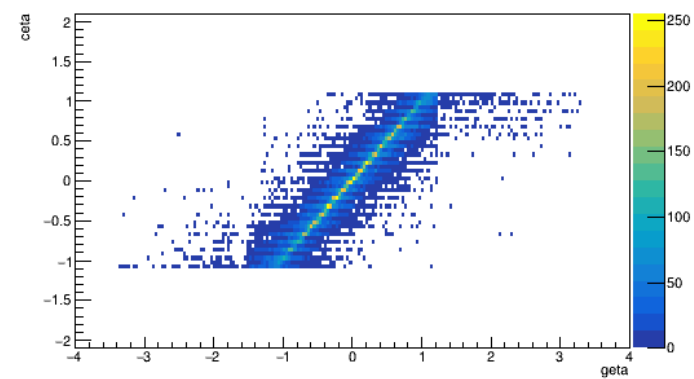
Pion

eta vs geta

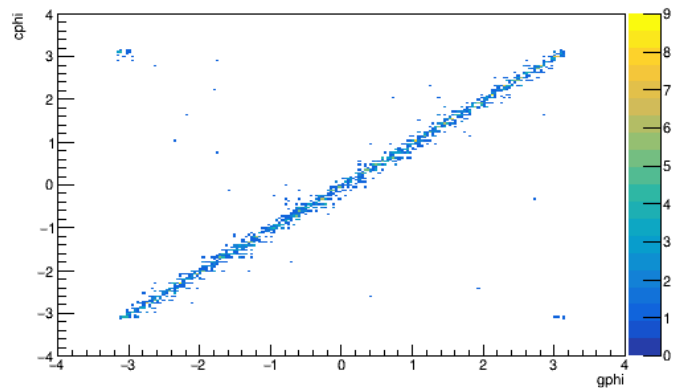


Kaon

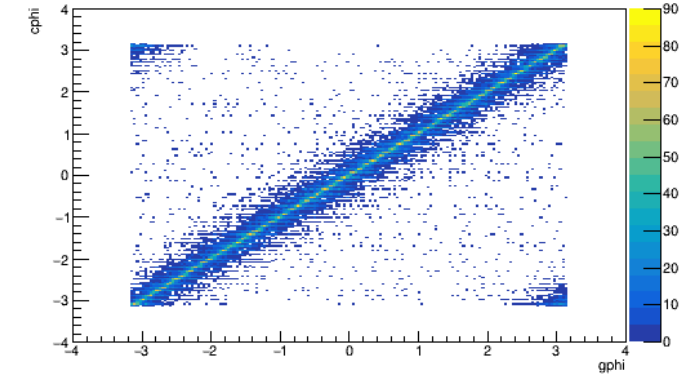
eta vs geta



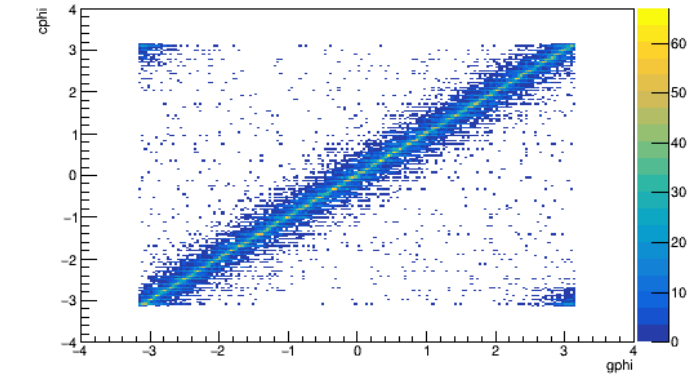
phi vs gphi



phi vs gphi



phi vs gphi



Remarks

- Trees containing calorimeter variables and the code used for making plots are available at:

`/gpfs02/eic/simrankaur/new/fun4all_eic_qa/macros/Electron/plots/cemc/CEMC_tree.root`

↑ ↑ ↑
Change particle & calorimeter name
(Pion, Kaon)

- Macro: LoopEval.C