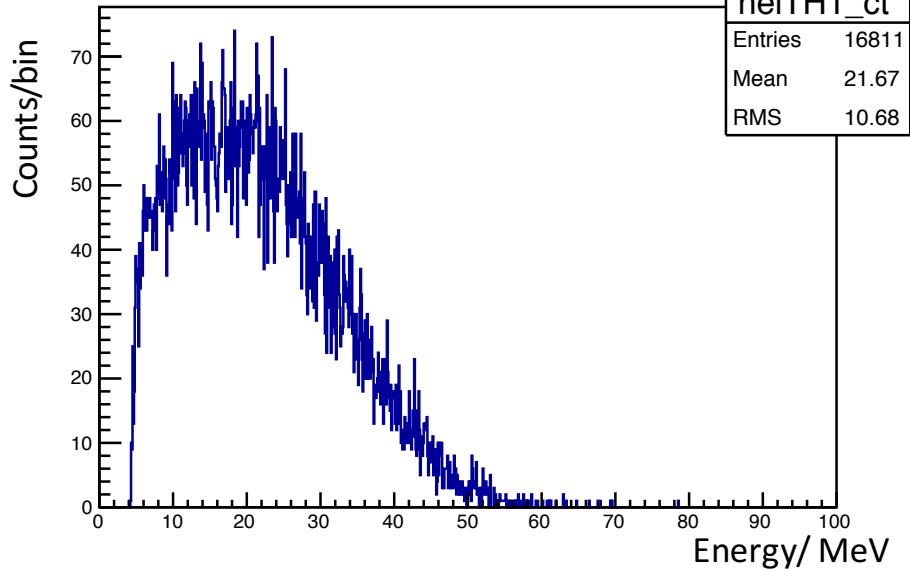


Analysis Progress

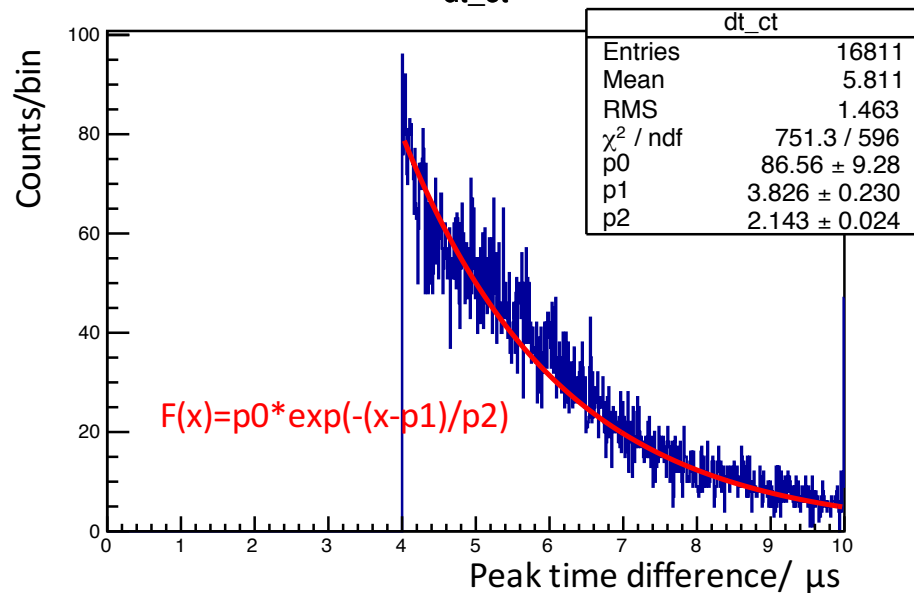
E36 CsI Calibration Using cosmic muons

H. Ito
Chiba Univ.
2016.04.20

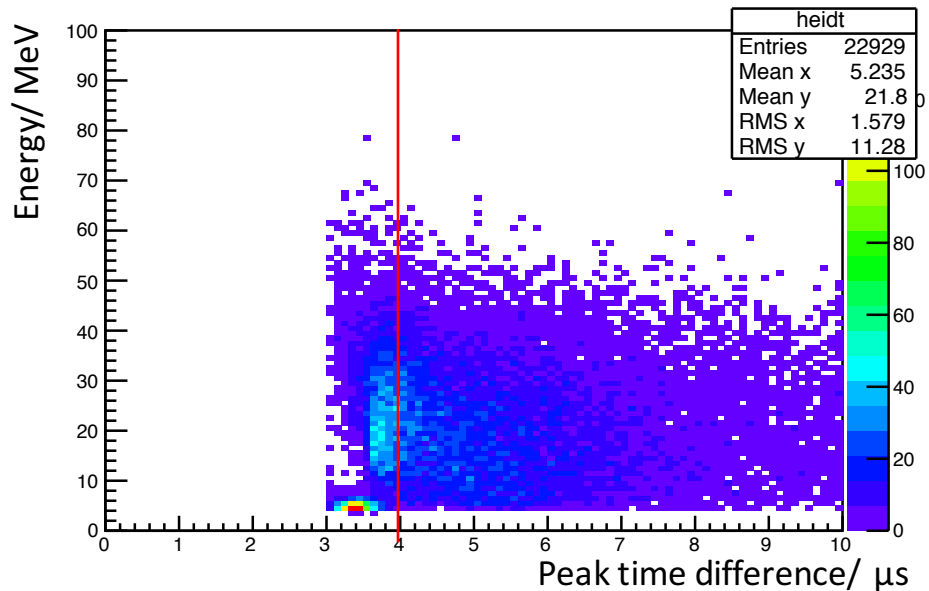
heiTH1_ct



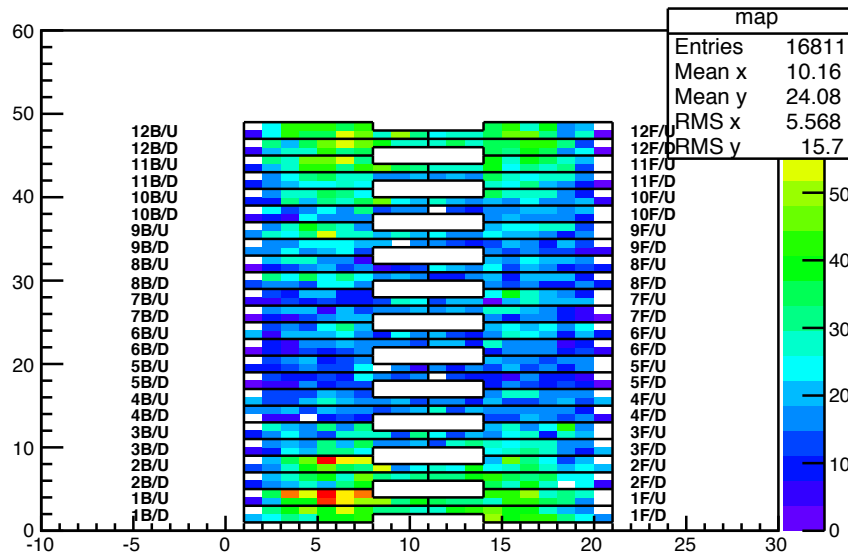
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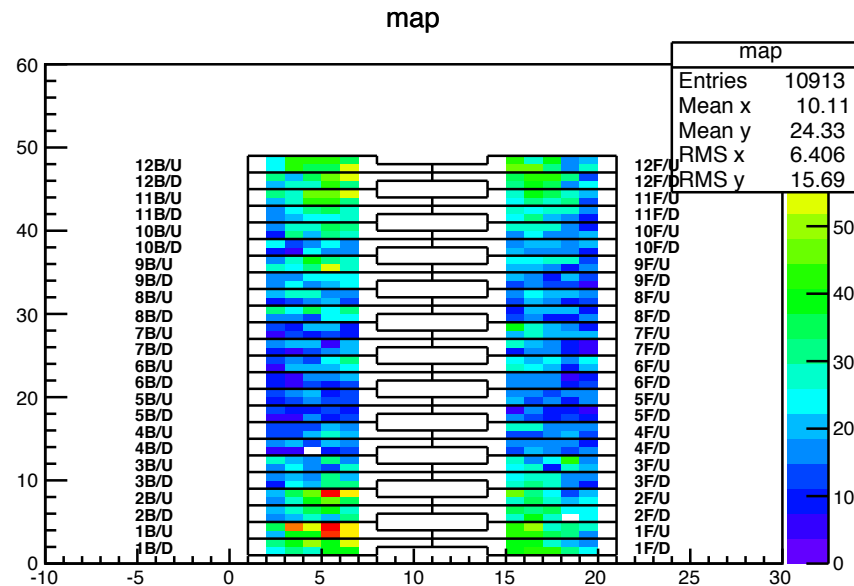
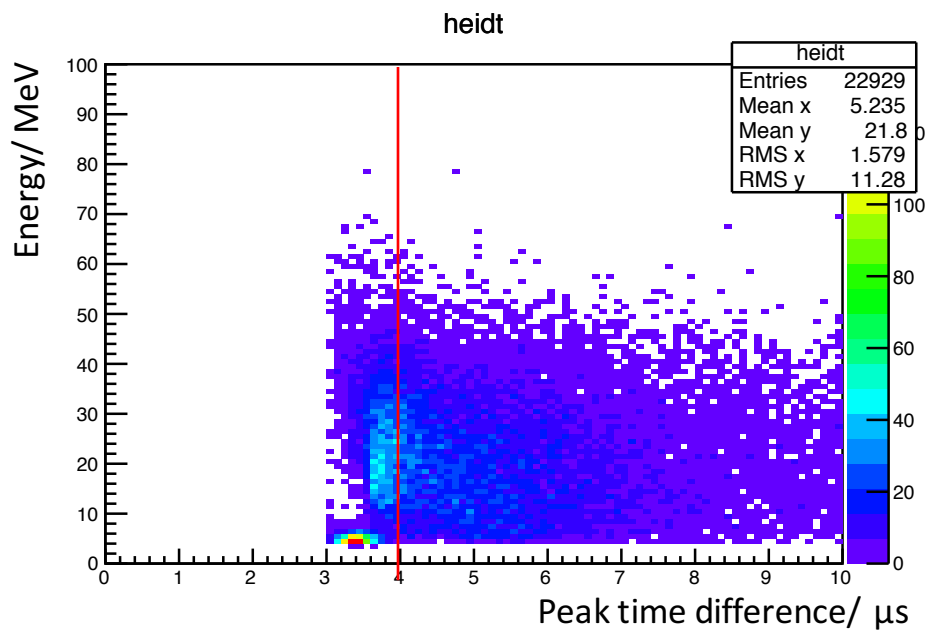
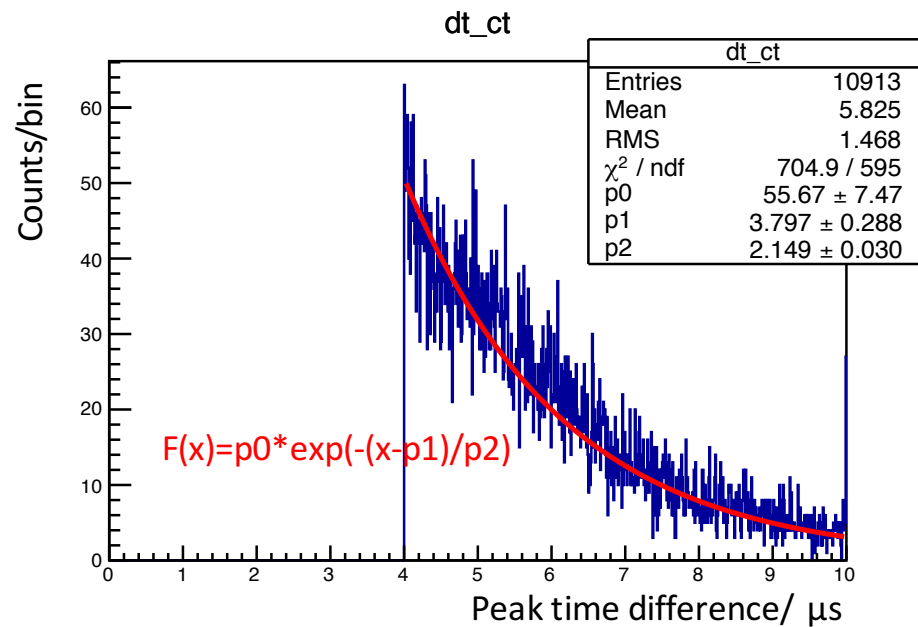
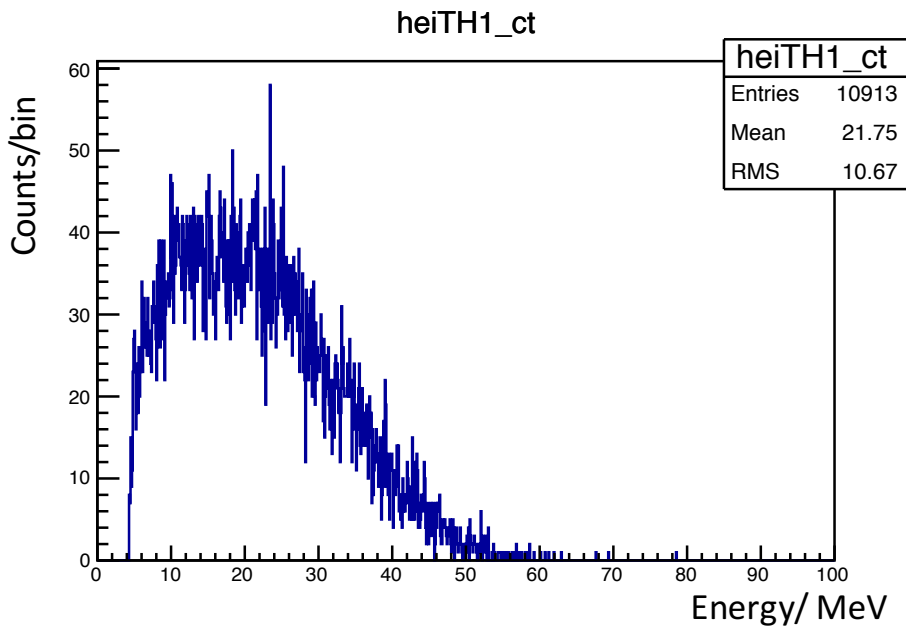


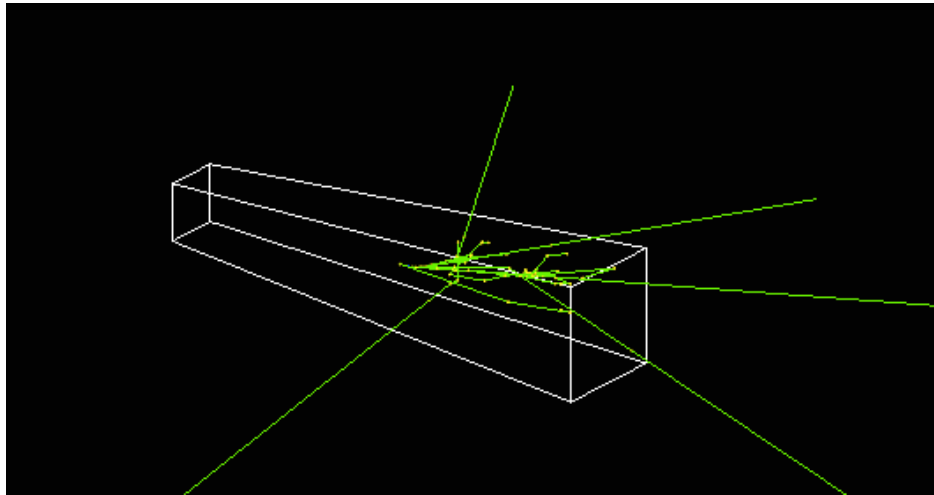
heidt



map







Simulation code: Geant4.10.02

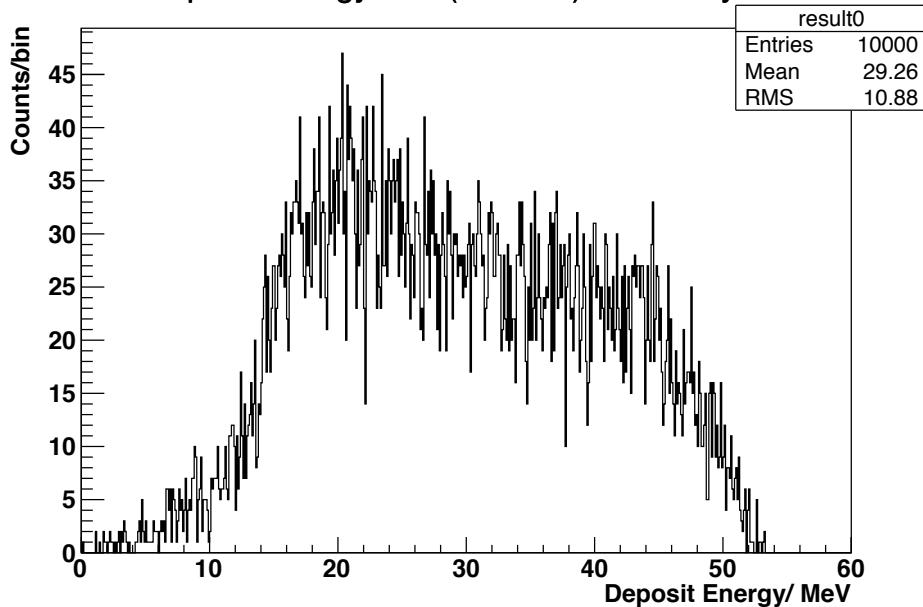
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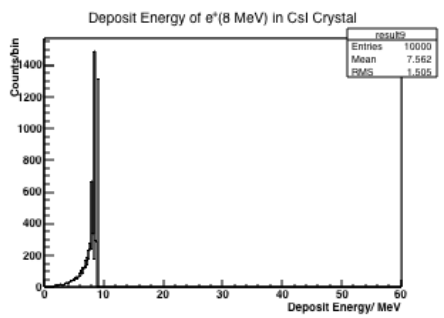
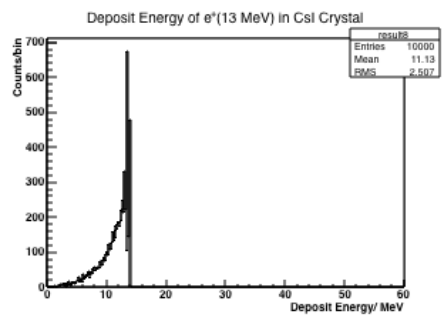
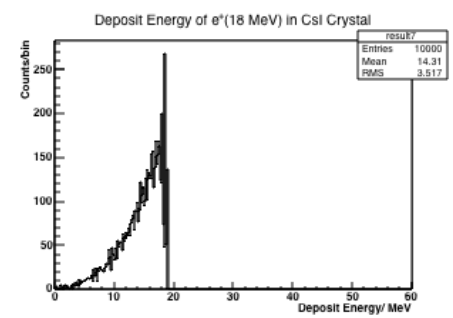
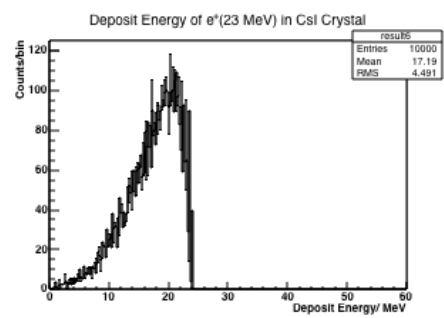
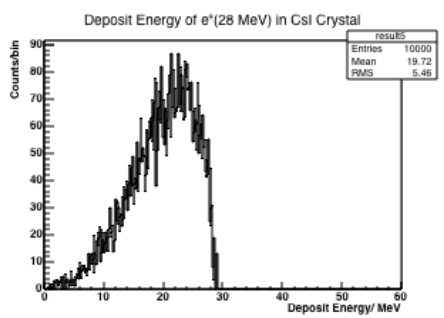
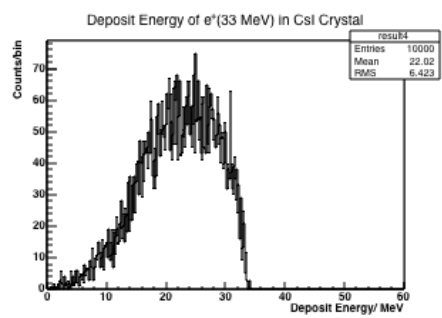
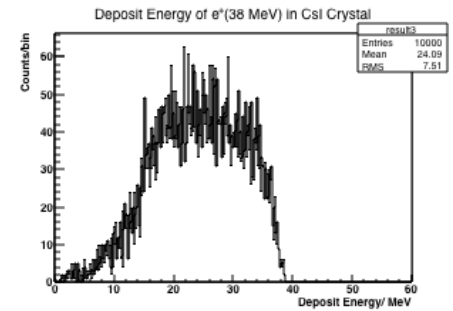
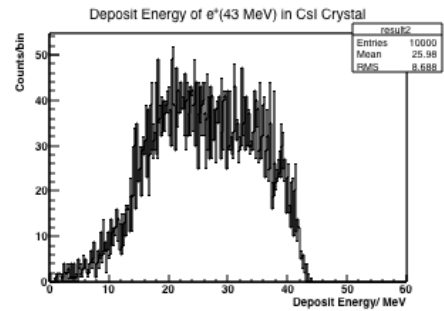
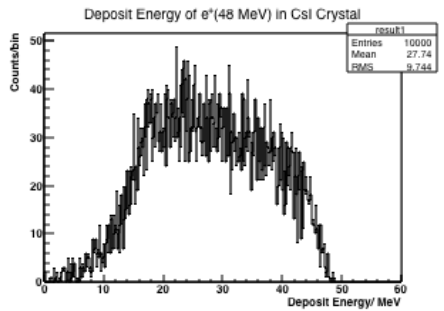
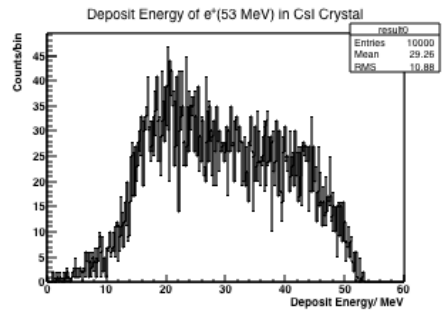
- Crystal CsI, $\rho=4.51$ g/cm³
Solid: G4Trd
S1=3x3, S2=6x6, h=25 [cm]
- particle: e⁺
K = 53 MeV
Incident position (0,0,0)
incident direction: Isotropic

Statics:

- 10,000 events

Deposit Energy of e⁺(53 MeV) in CsI Crystal





まとめ

$\mu \rightarrow e^+ \nu_\mu \bar{\nu}_e$ による e^+ の損失エネルギー分布がミツシエルスペクトラムに近似できないことは

「 e^+ はCslから結構抜けている」

で説明できる？

e^+ エネルギーはスペクトラムの乱数で評価(今後)

e^+ 発生位置は固定ではなく、一様乱数？

実際のエネルギー分布と一致する？

e^+ のKをミツシエルスペクトラムで乱数振ってシミュレーションかけた損失エネルギーの分布からエンドポイントを導くことができる？