

CEPC Remote Group Meeting

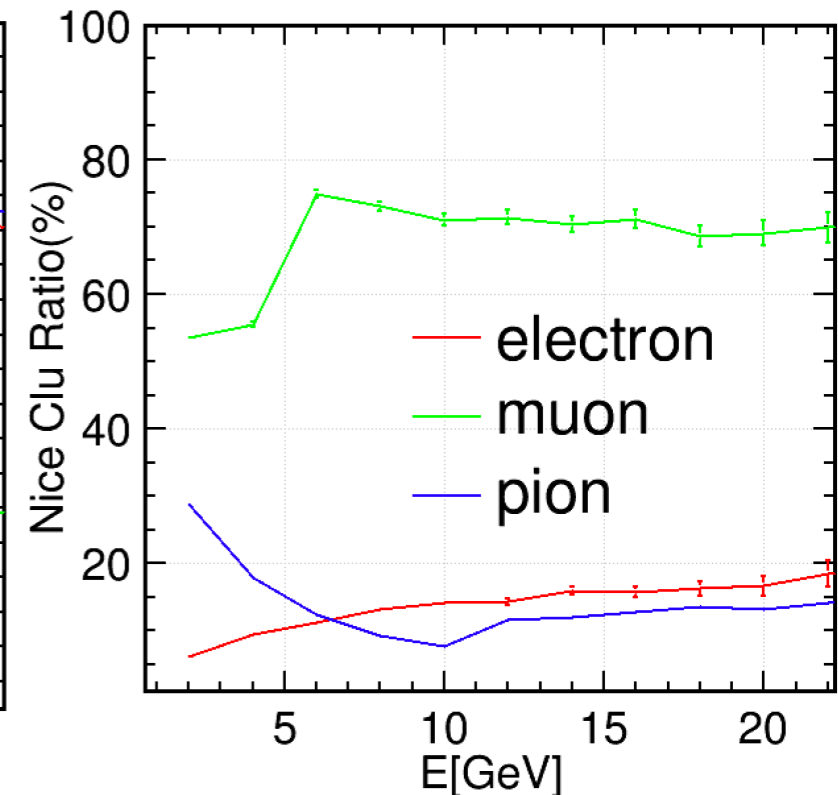
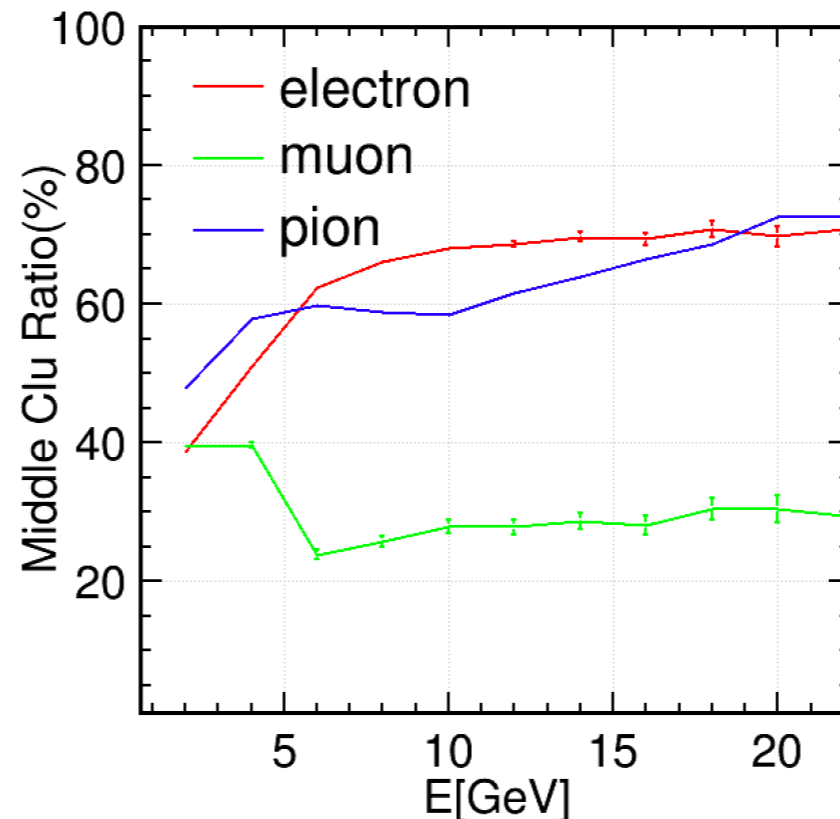
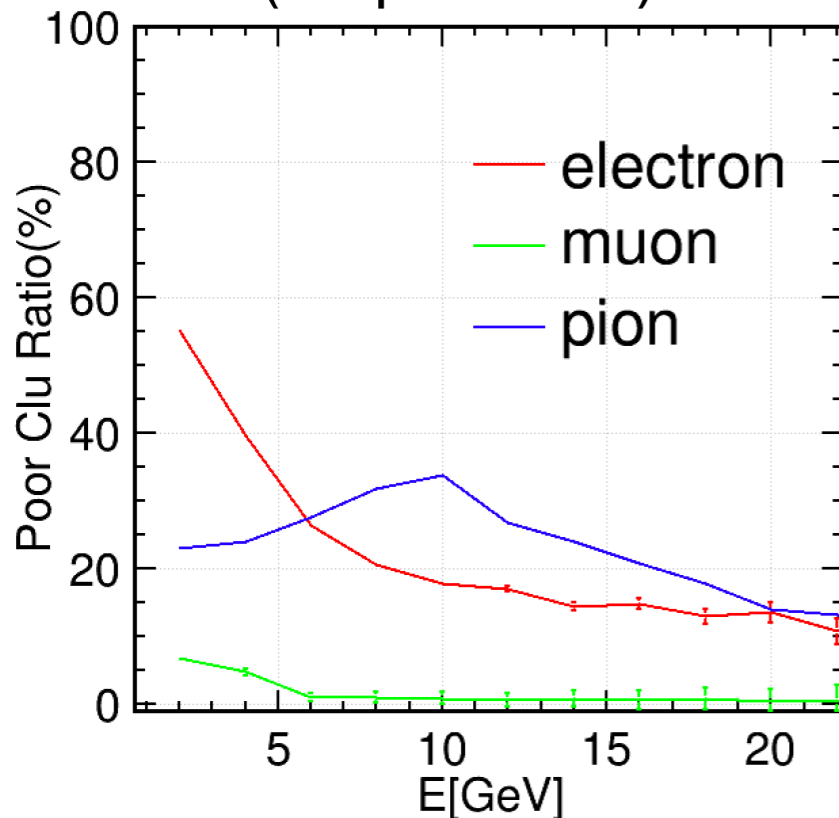
Dan YU

Lepton ID in jets

- use clustering performance

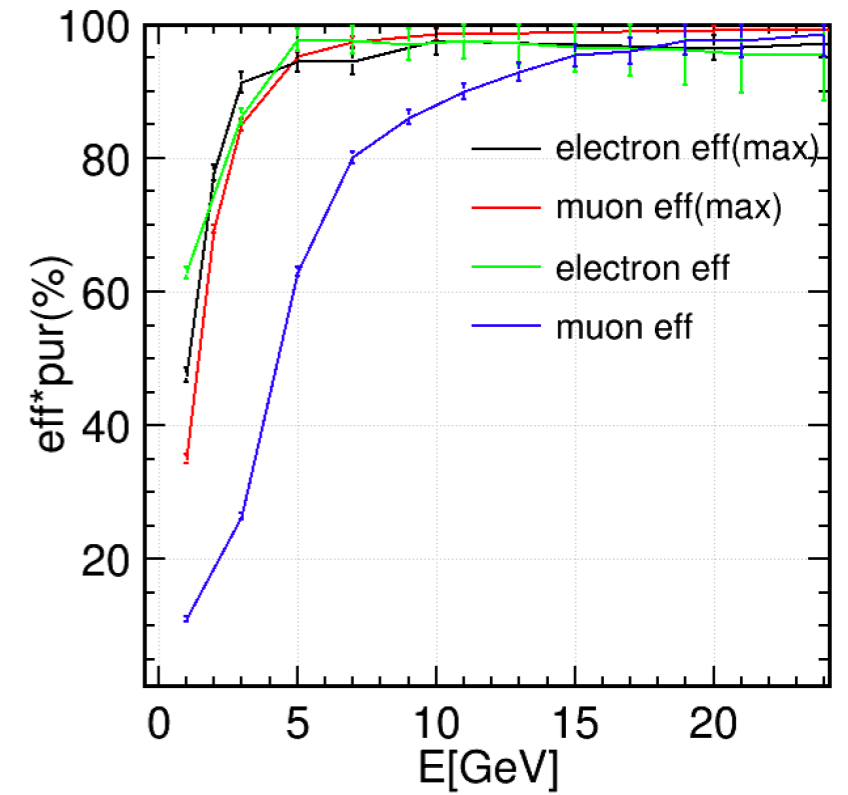
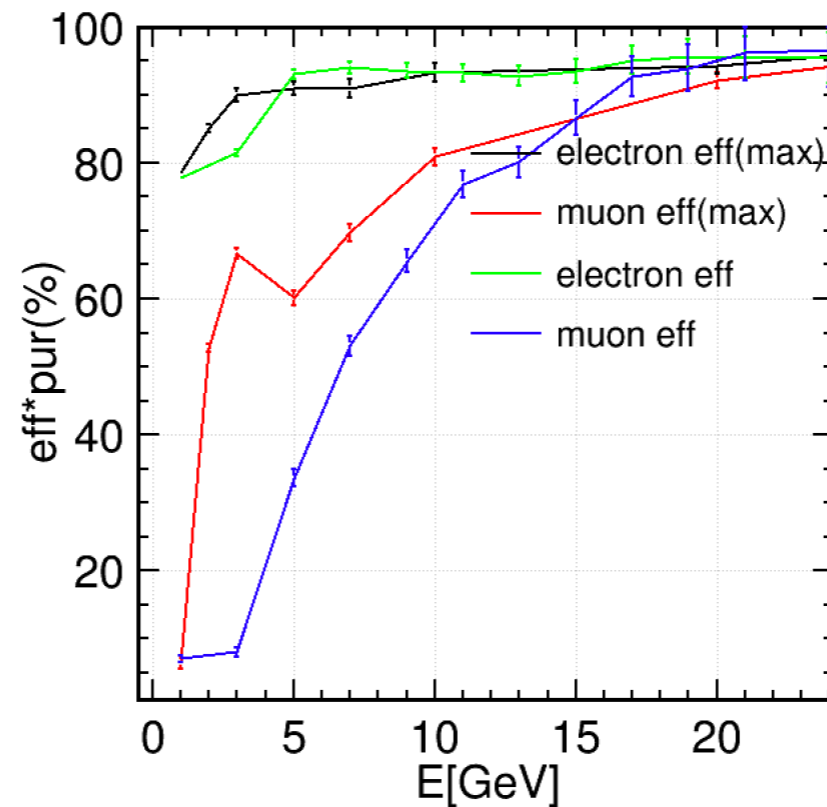
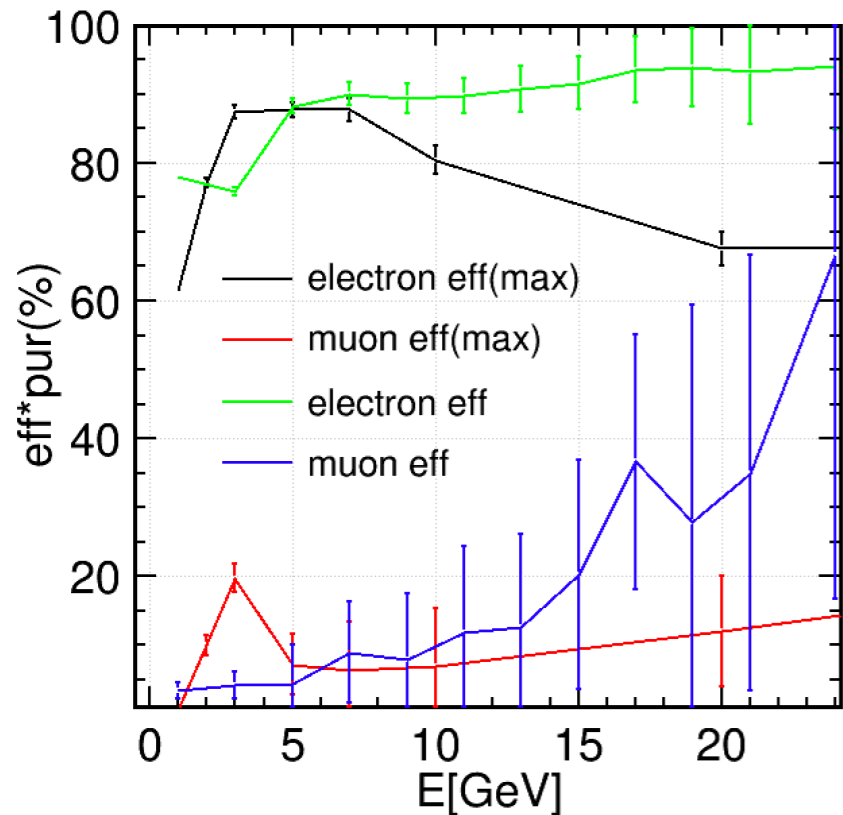


- 3 categories: poor($\text{eff} \cdot \text{pur} < 0.44$), middle($0.44 < \text{eff} \cdot \text{pur} < 0.92$), nice($\text{eff} \cdot \text{pur} > 0.92$)



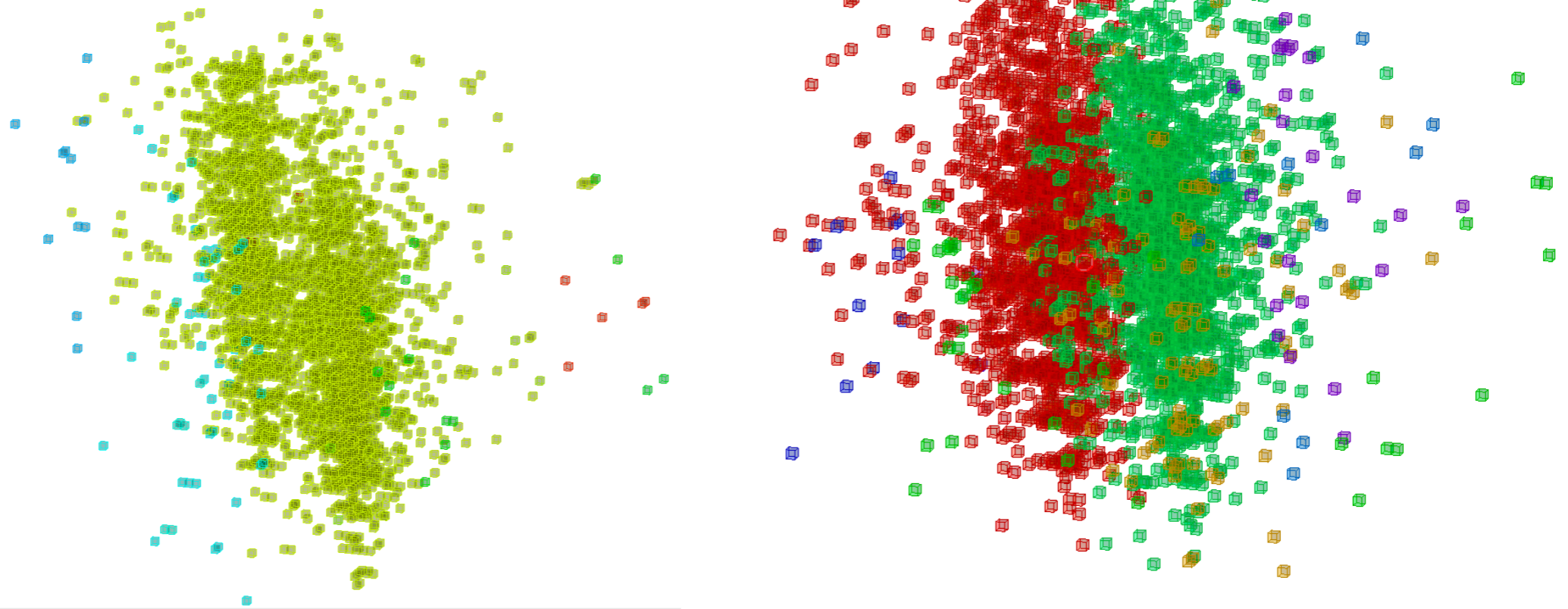
Performance

- compare with isolate performance convoluted with the statistics in each categories
- “nice” comparable to isolate case



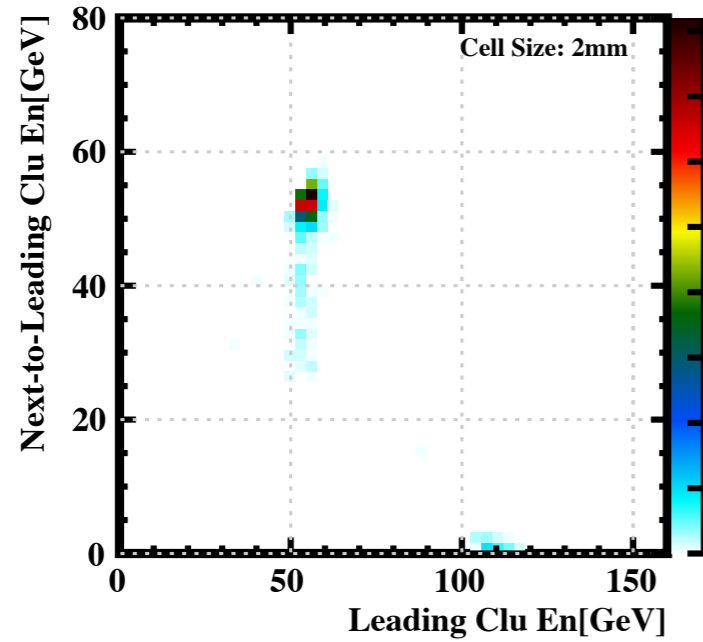
Photon separation

- mimic π^0 equally decay from 13m away
 - Energy vs Distance:
 - (100GeV 35mm), (140GeV 25mm), (170GeV 20mm), (230GeV 15mm), (350GeV 10mm)
- Effects:
 - Splitting
 - Merging
 - Splitting+Merging

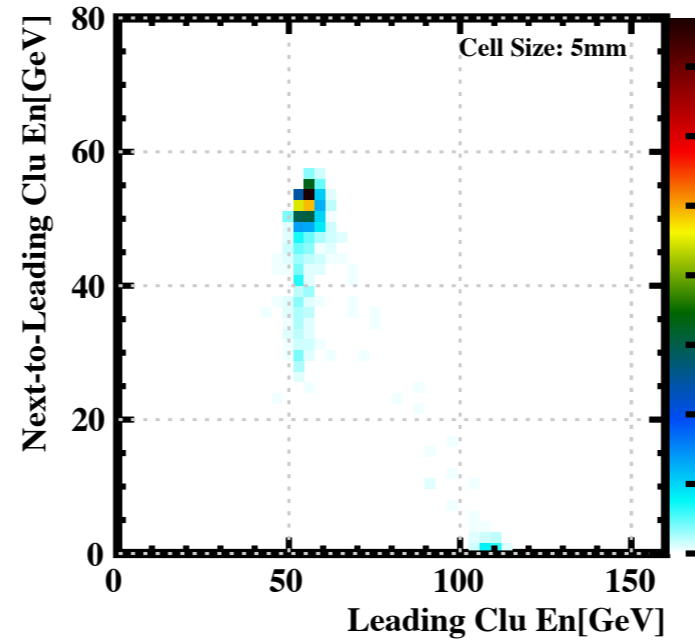


Performance

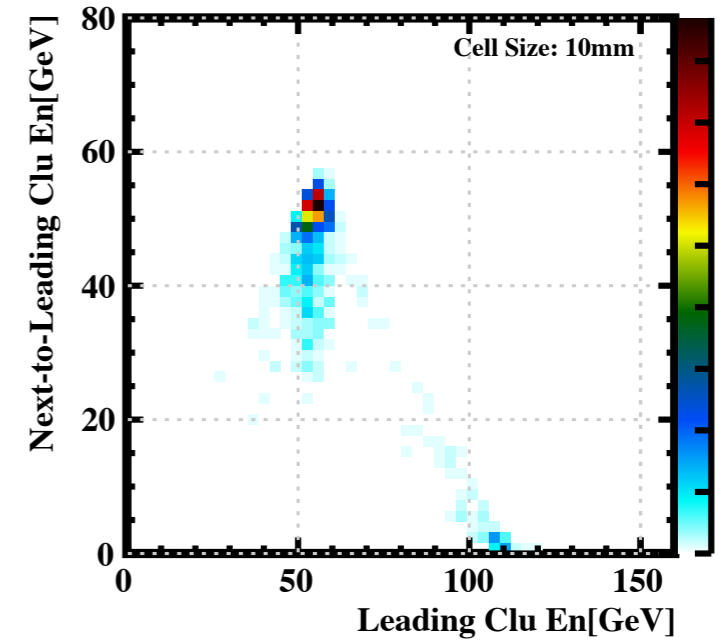
100 GeV pi0



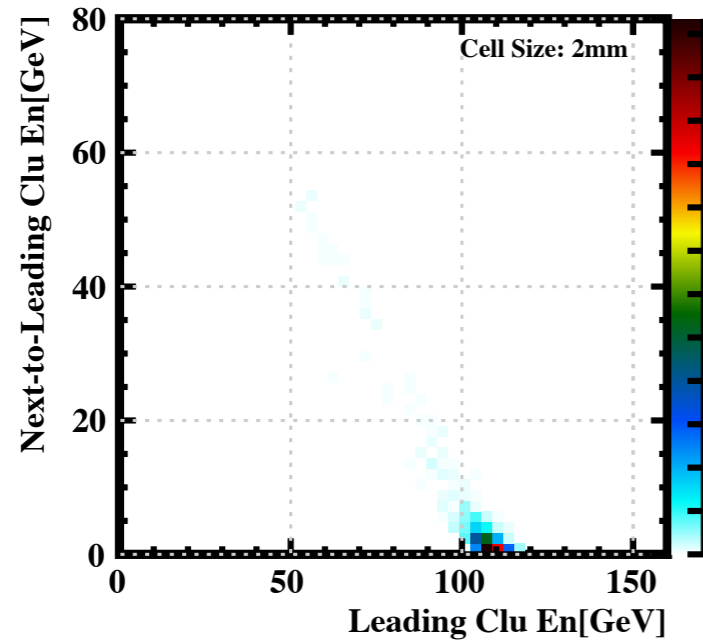
100 GeV pi0



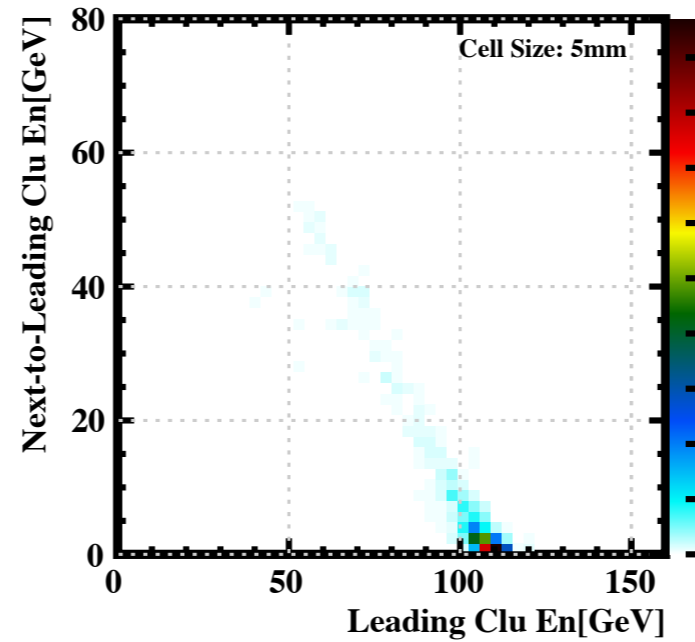
100 GeV pi0



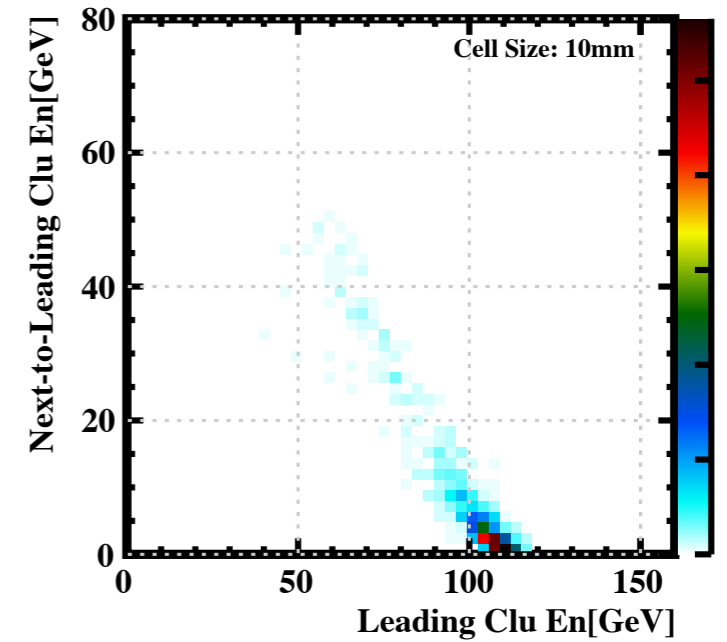
100 GeV photon



100 GeV photon

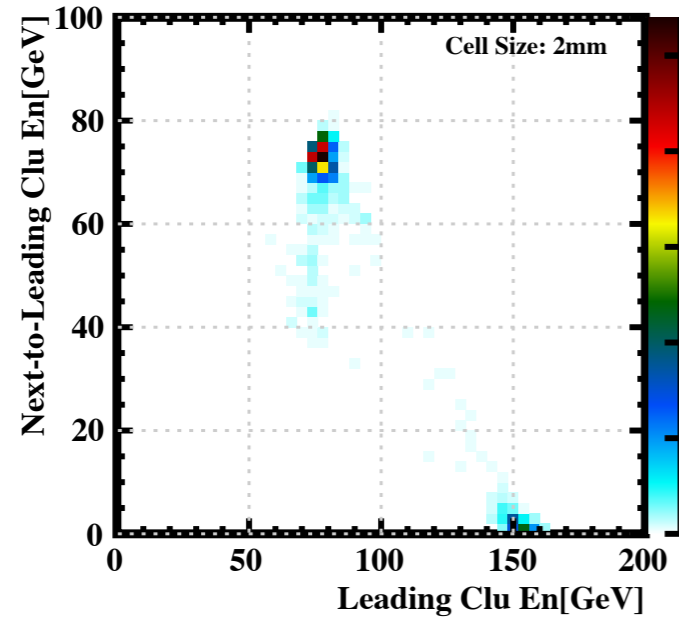


100 GeV photon

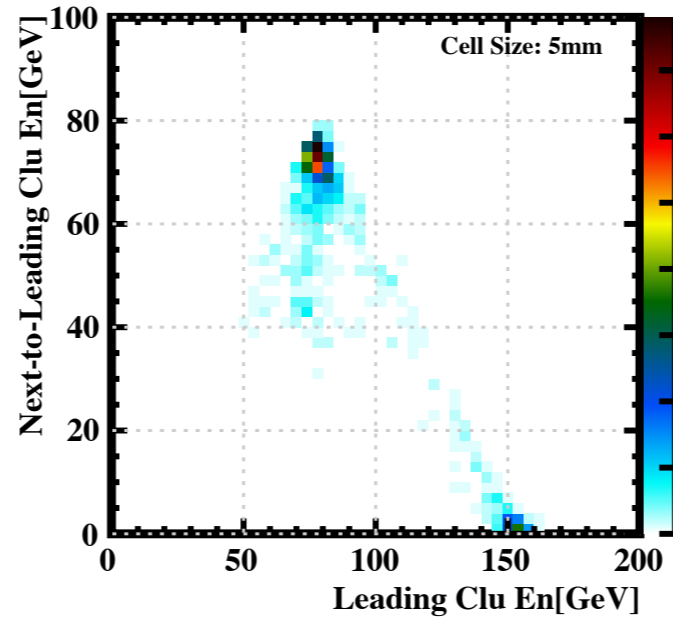


Performance

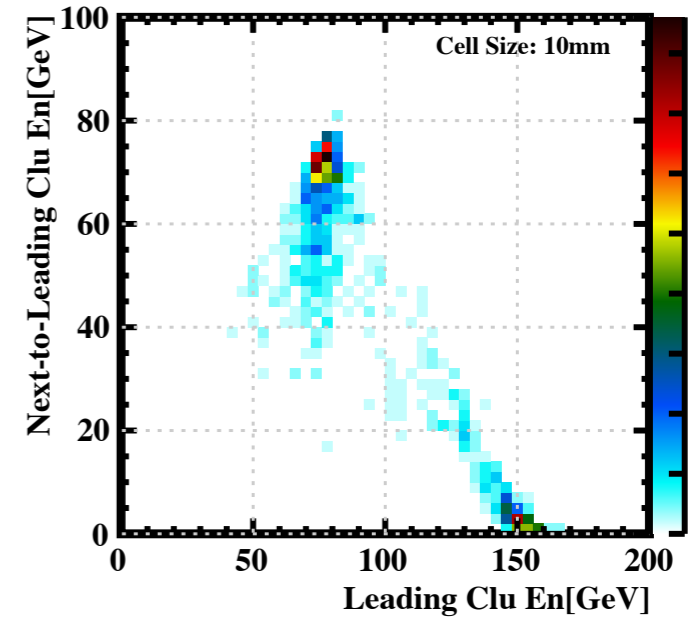
140 GeV pi0



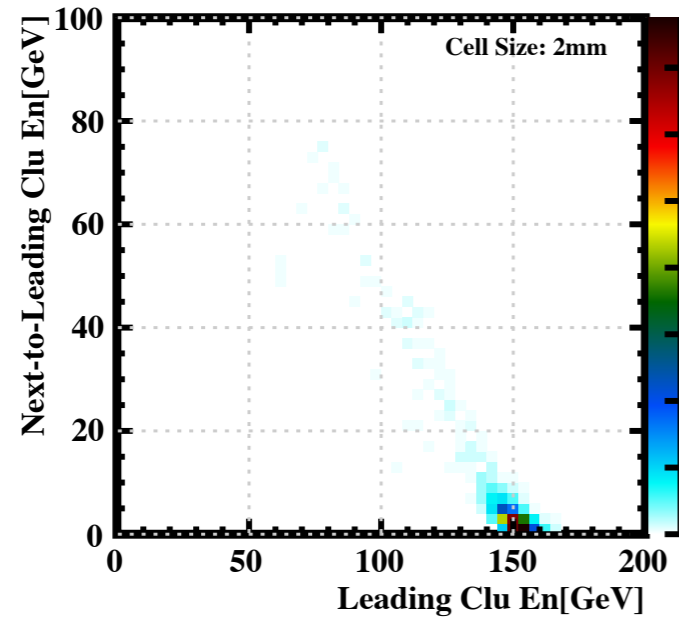
140 GeV pi0



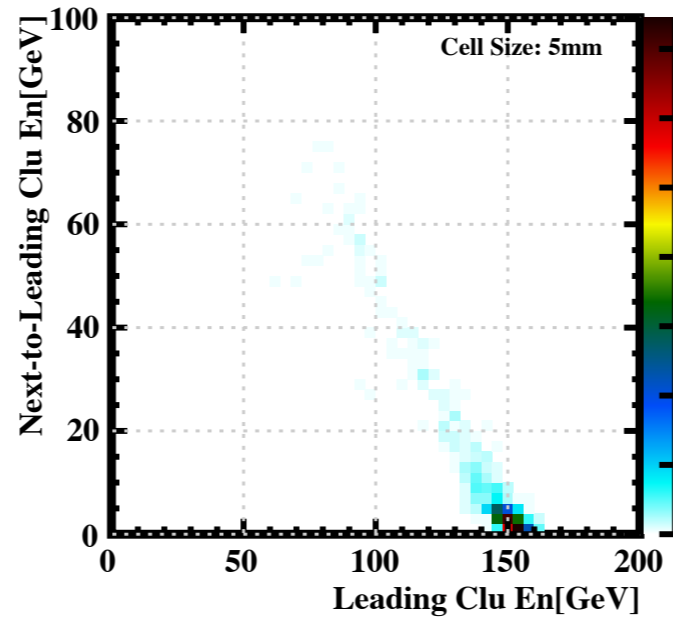
140 GeV pi0



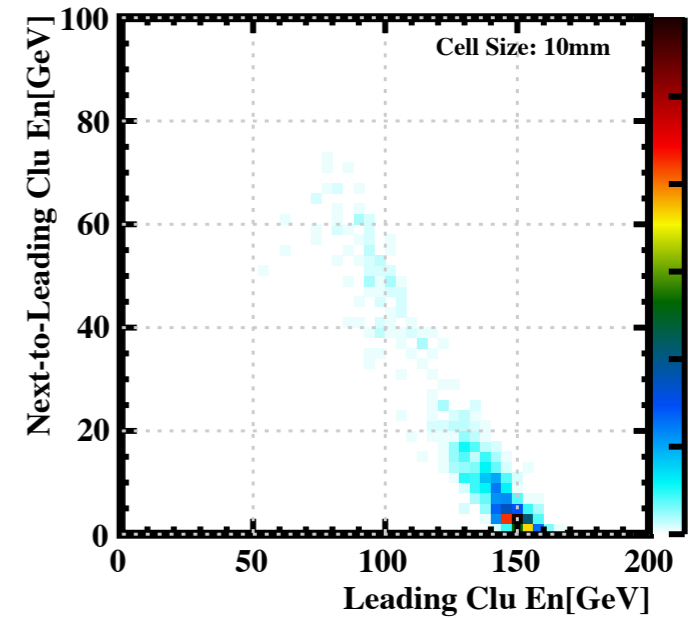
140 GeV photon



140 GeV photon

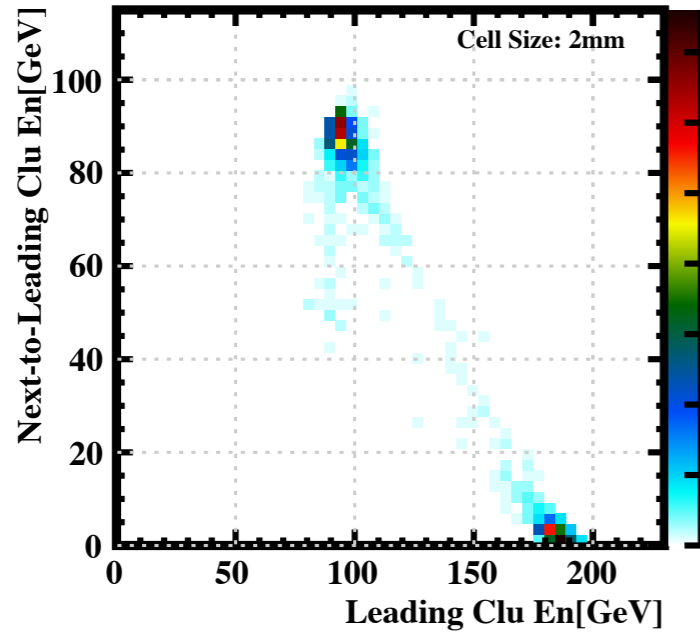


140 GeV photon

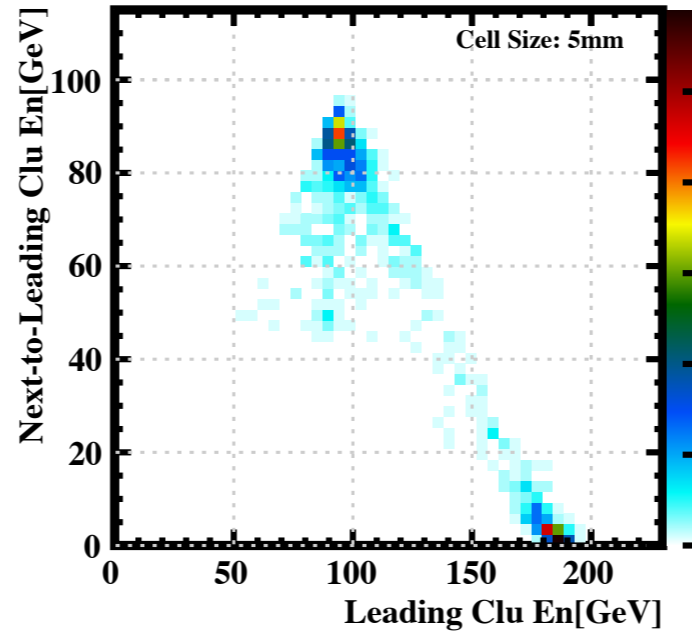


Performance

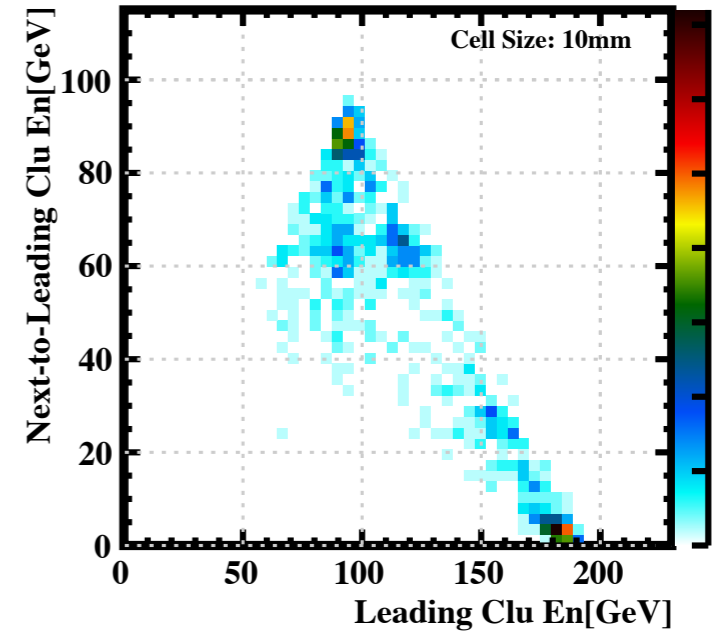
170 GeV pi0



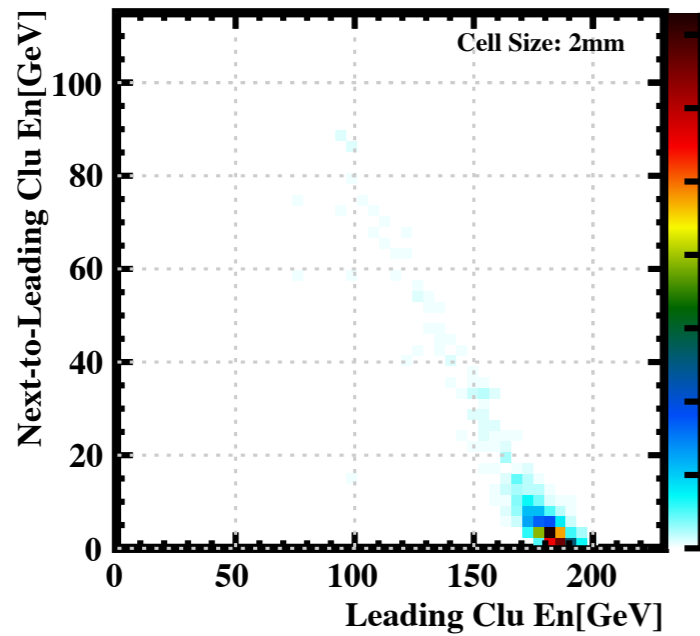
170 GeV pi0



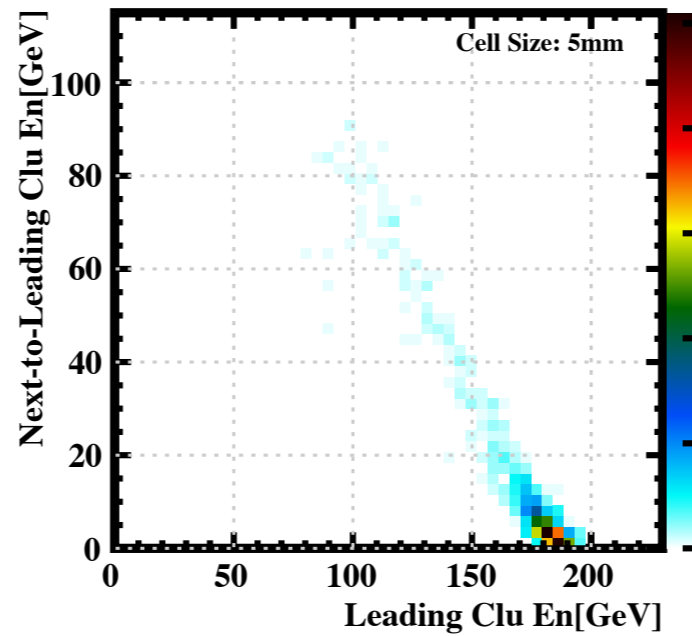
170 GeV pi0



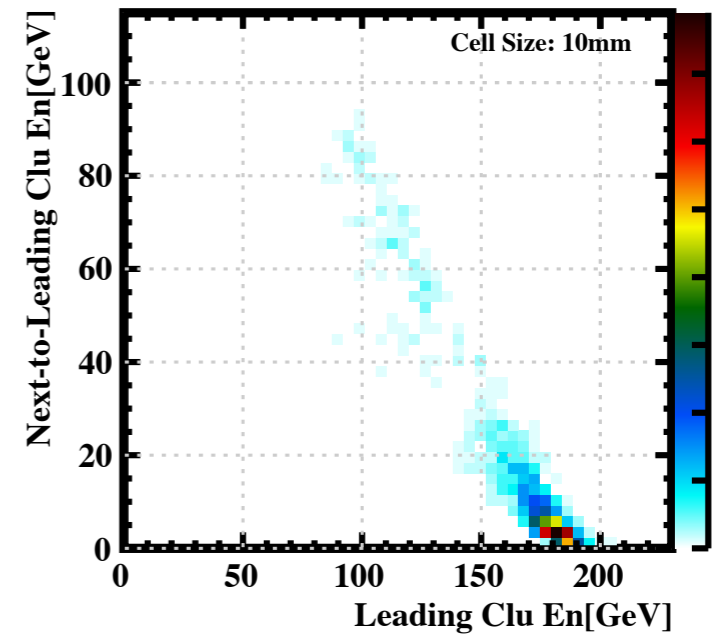
170 GeV photon



170 GeV photon

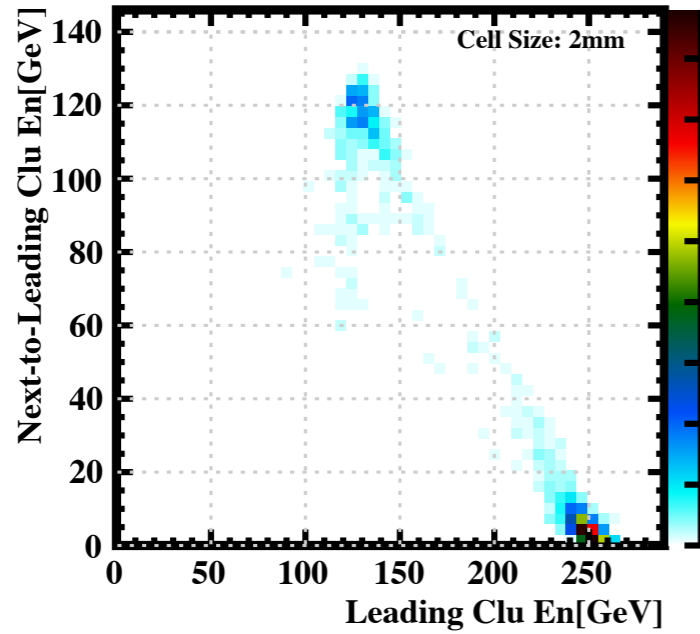


170 GeV photon

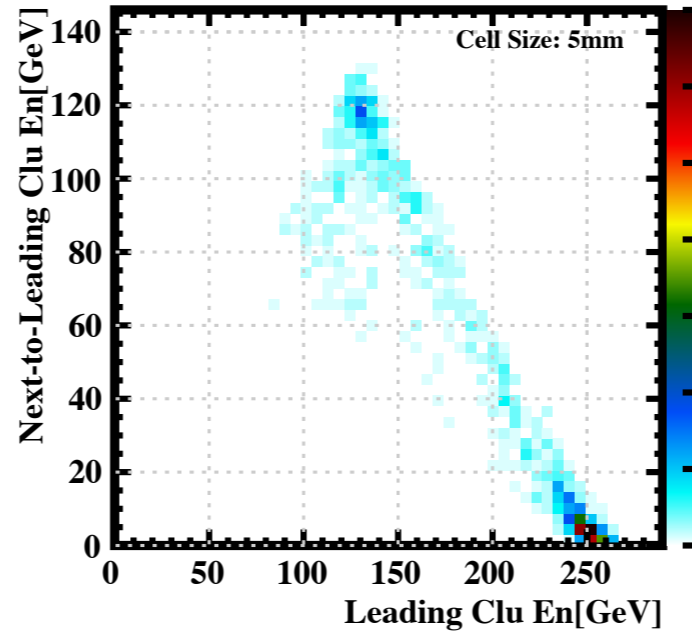


Performance

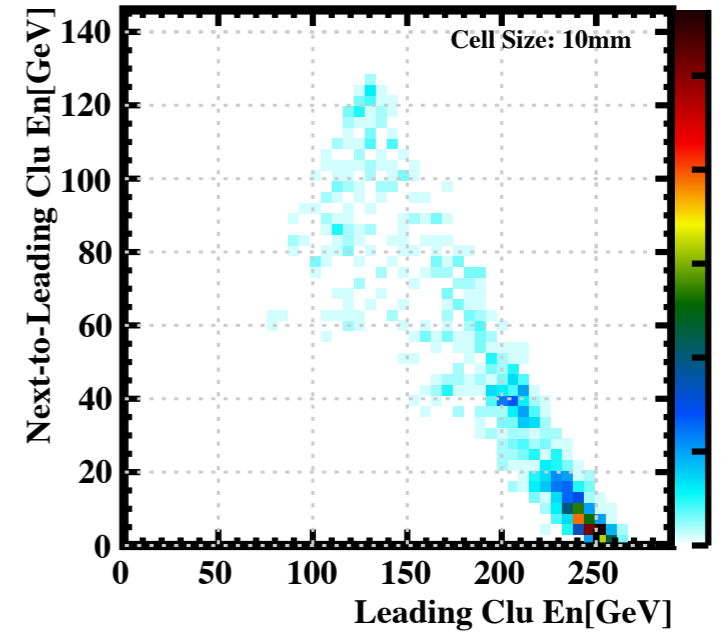
230 GeV pi0



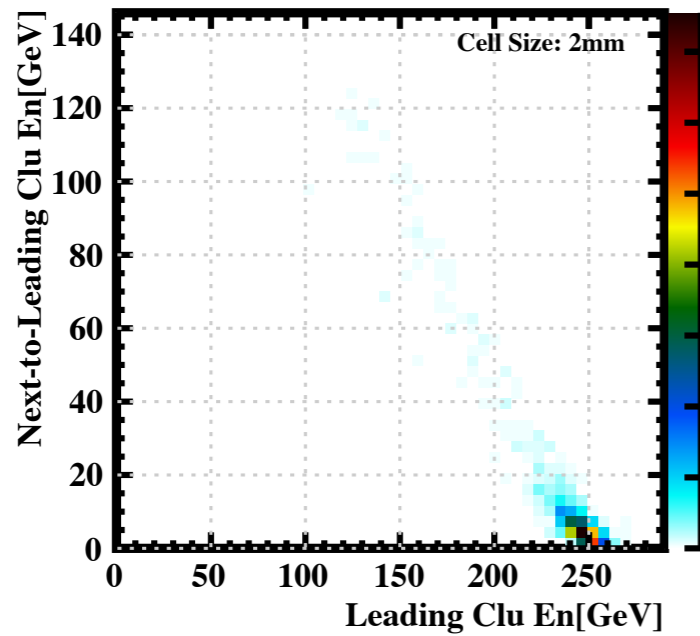
230 GeV pi0



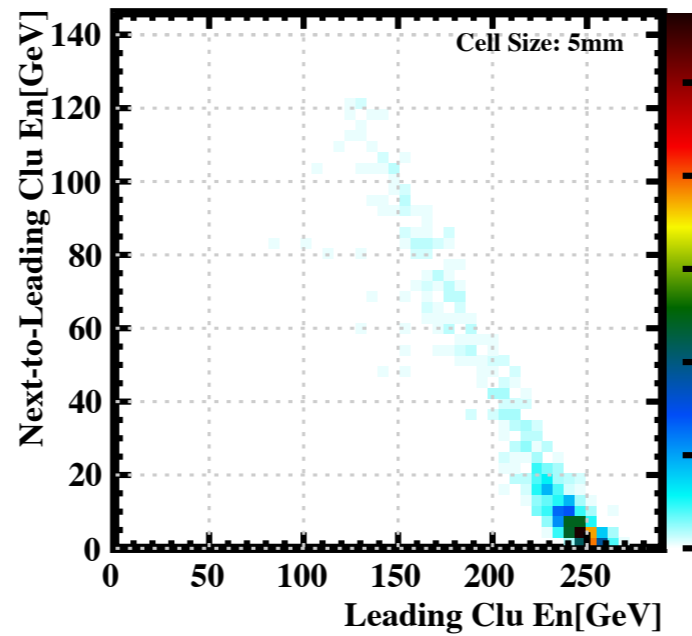
230 GeV pi0



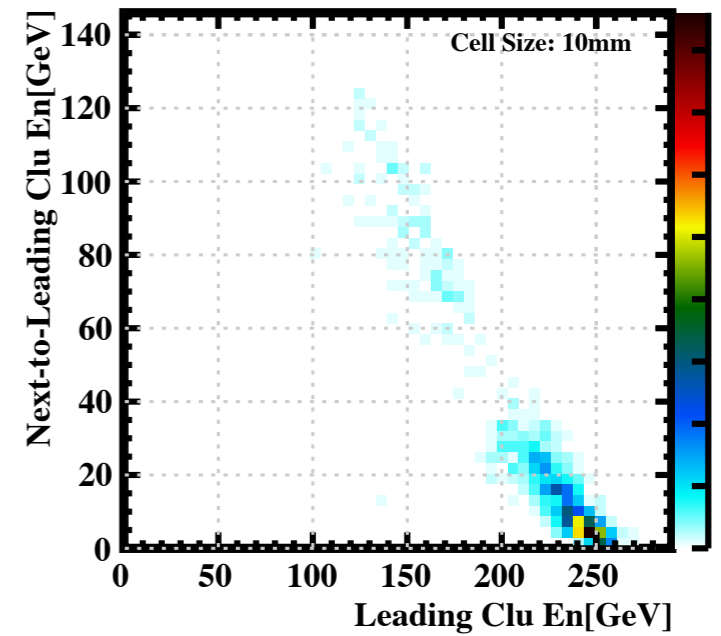
230 GeV photon



230 GeV photon

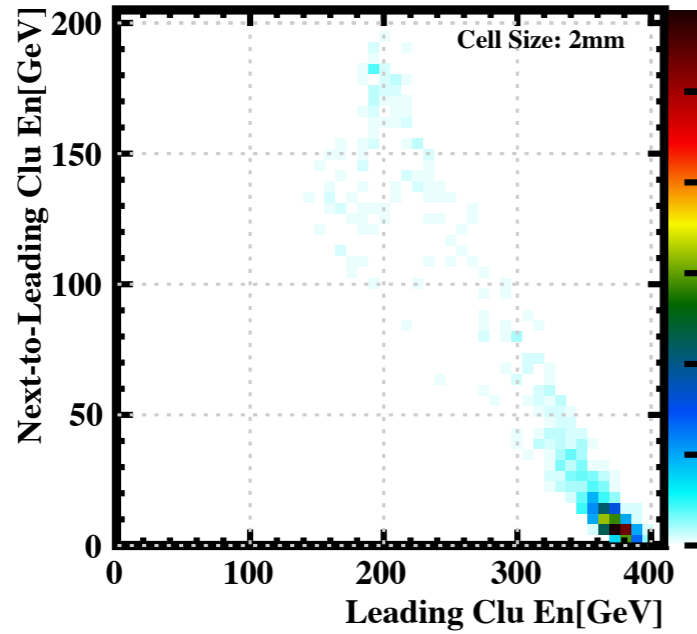


230 GeV photon

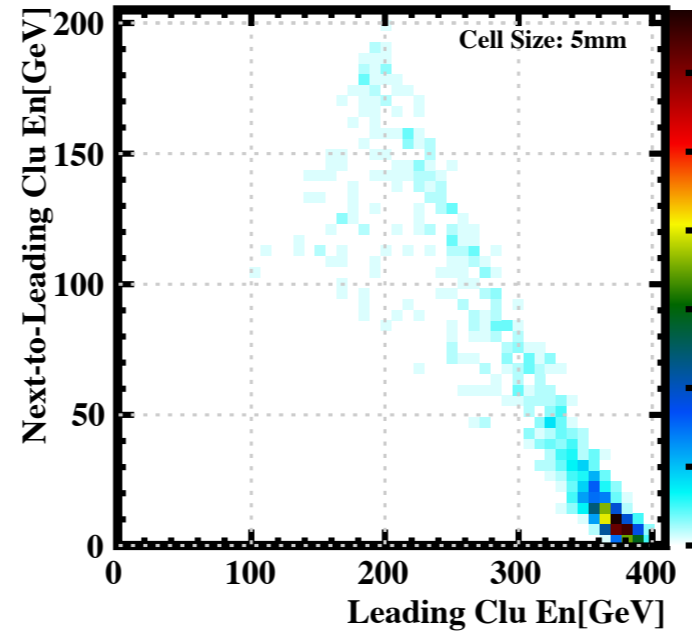


Performance

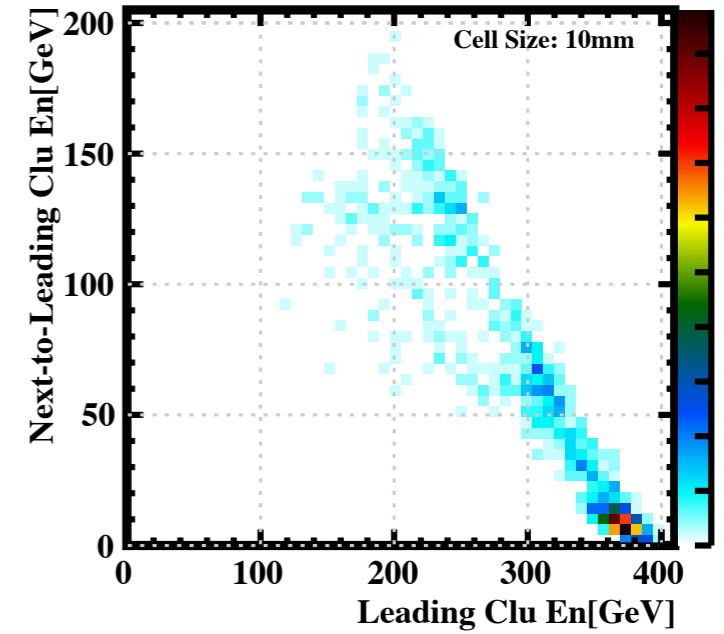
350 GeV pi0



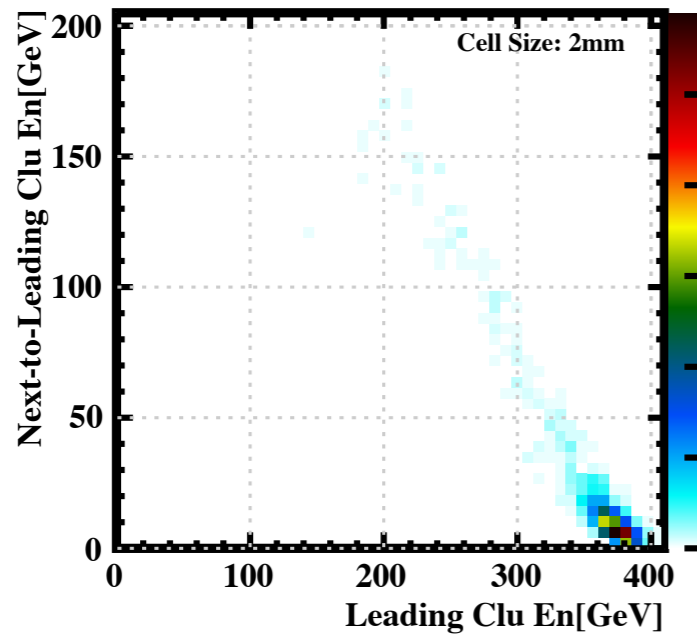
350 GeV pi0



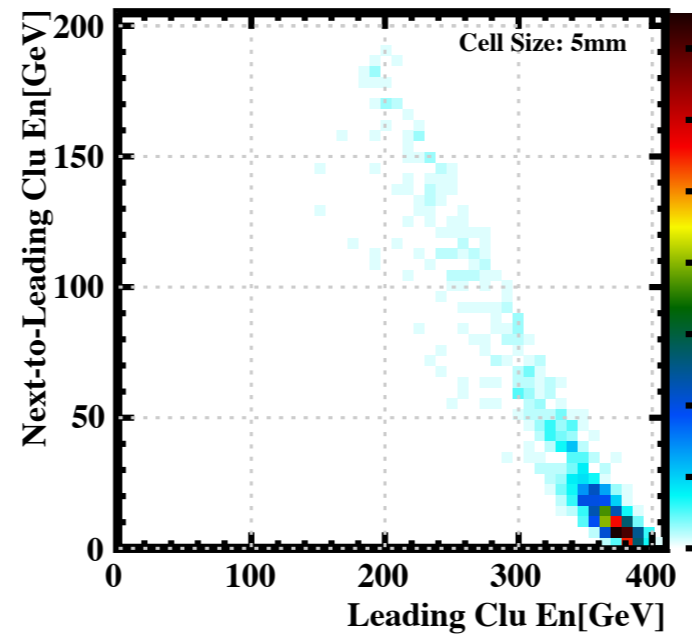
350 GeV pi0



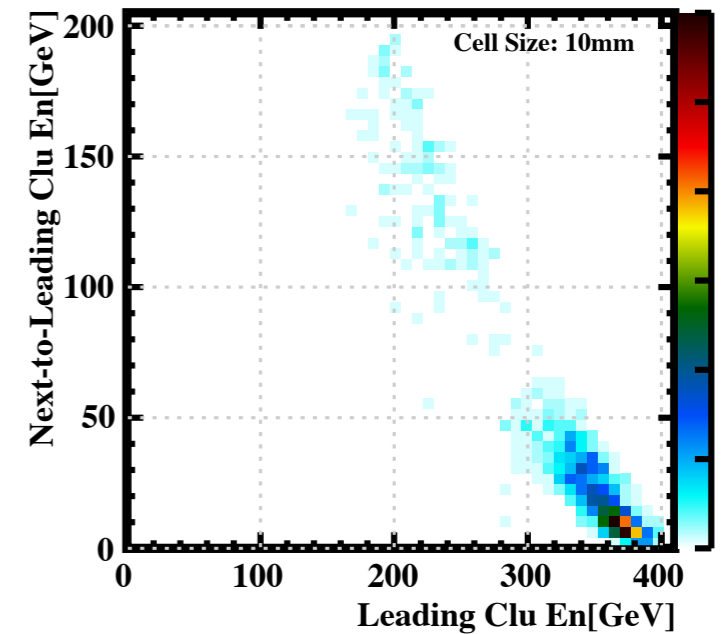
350 GeV photon



350 GeV photon

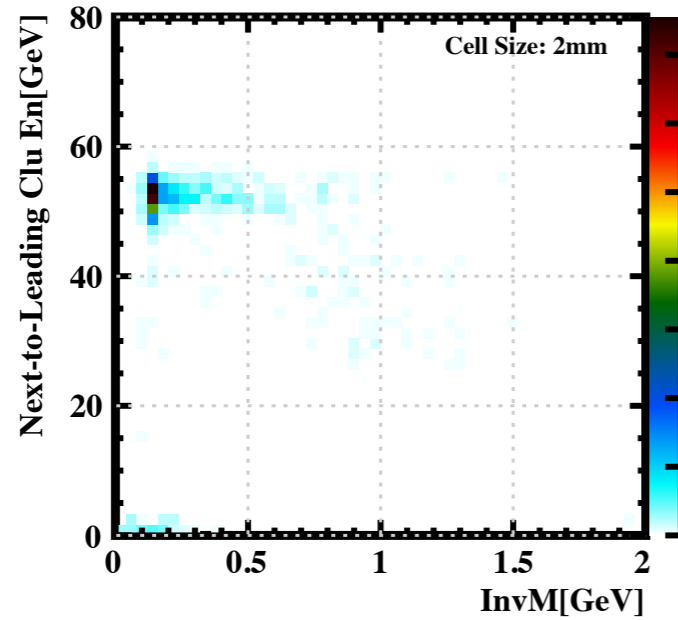


350 GeV photon

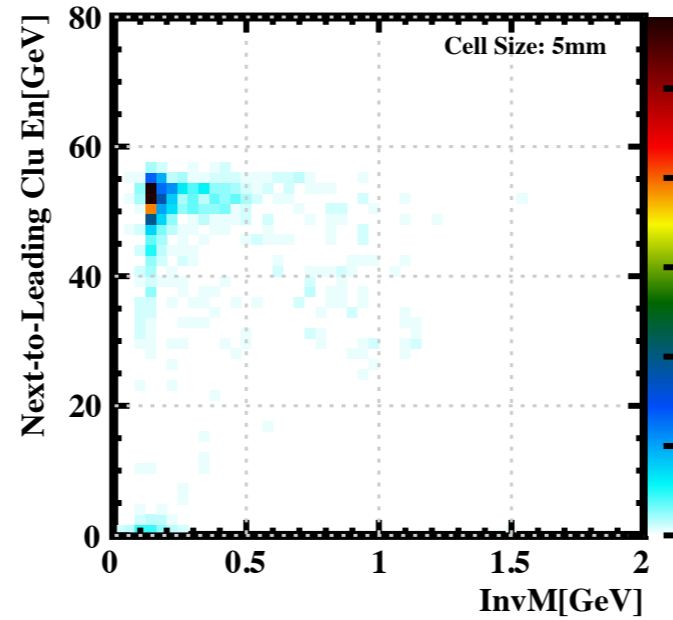


Performance

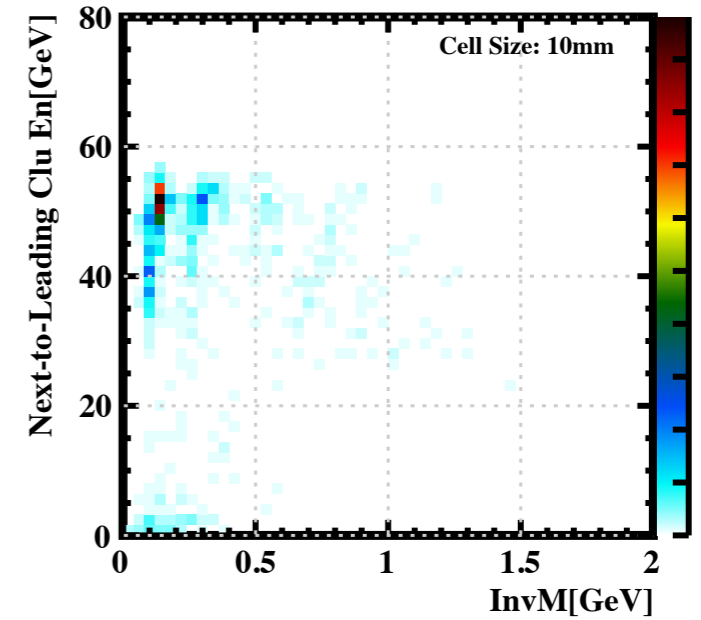
100 GeV pi0



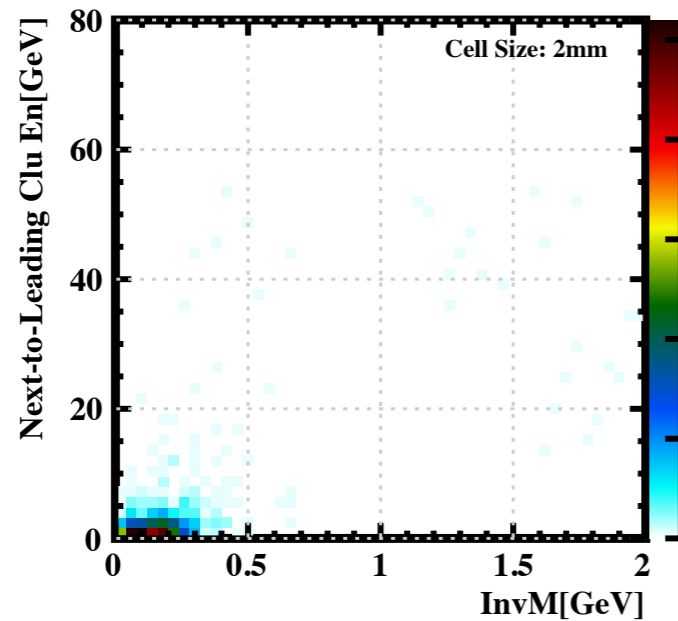
100 GeV pi0



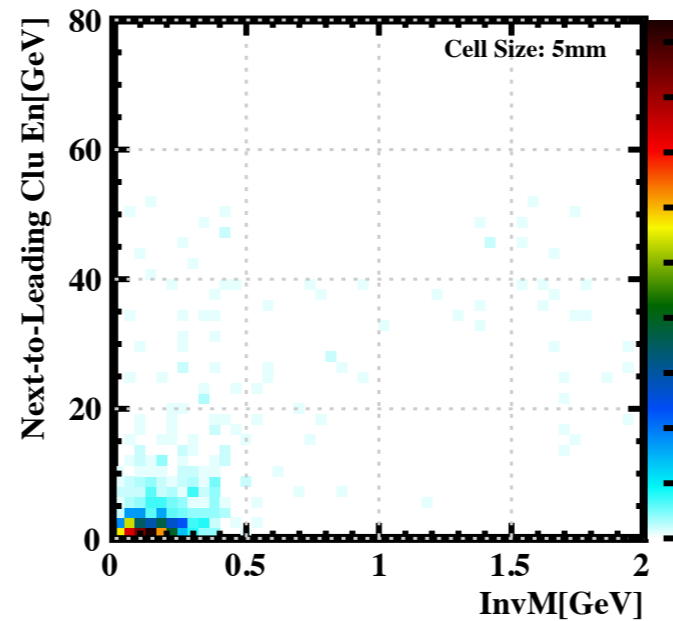
100 GeV pi0



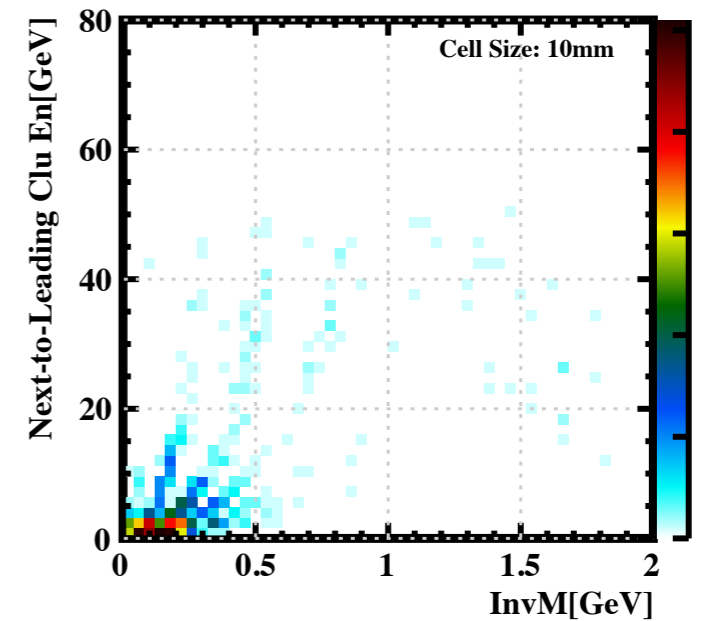
100 GeV photon



100 GeV photon

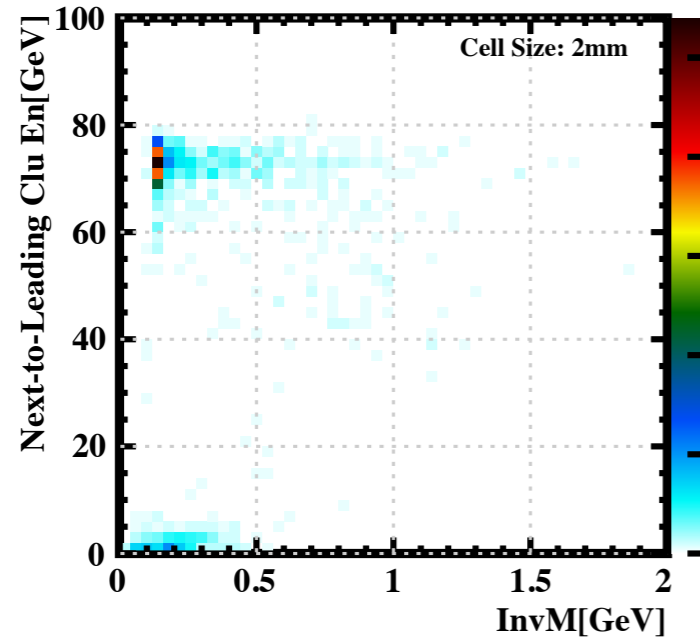


100 GeV photon

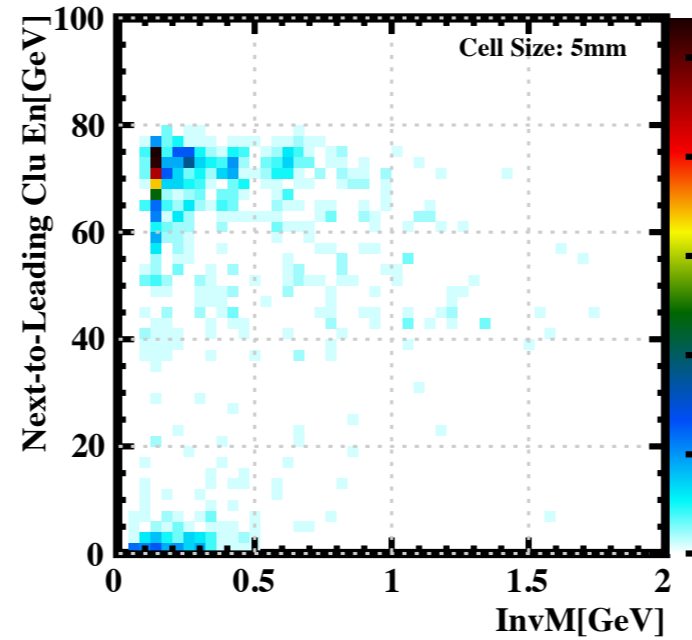


Performance

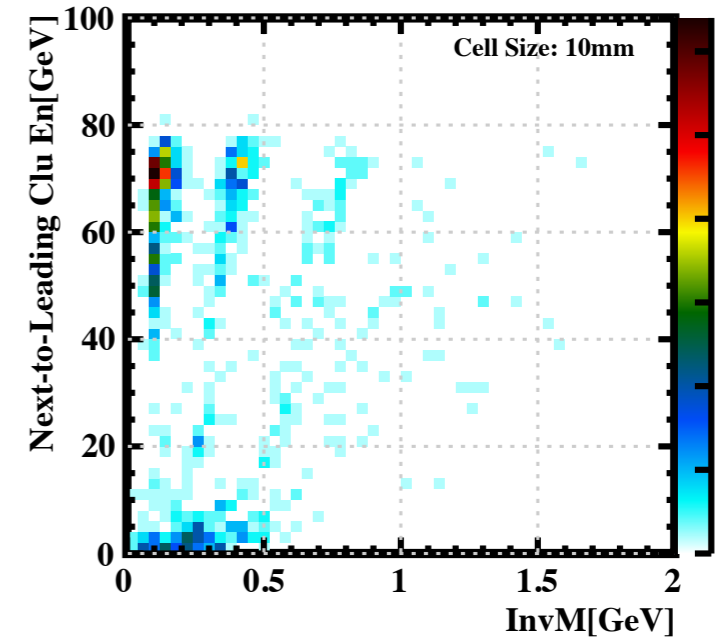
140 GeV pi0



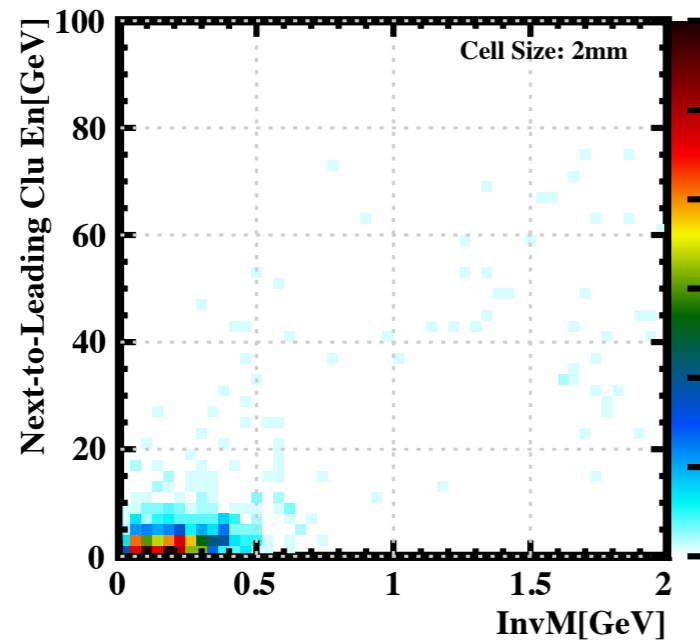
140 GeV pi0



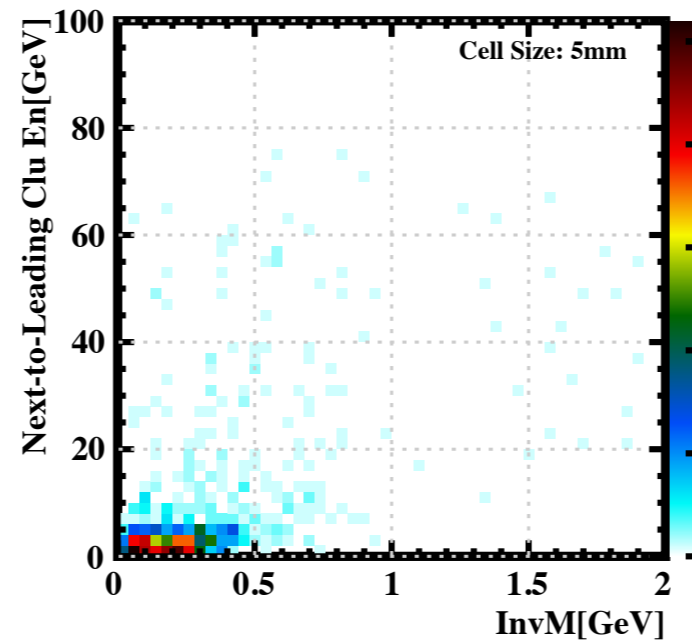
140 GeV pi0



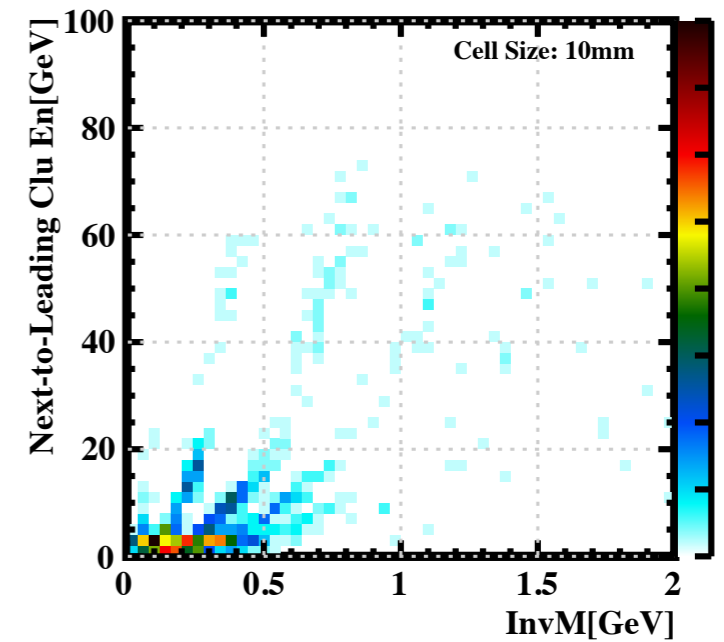
140 GeV photon



140 GeV photon

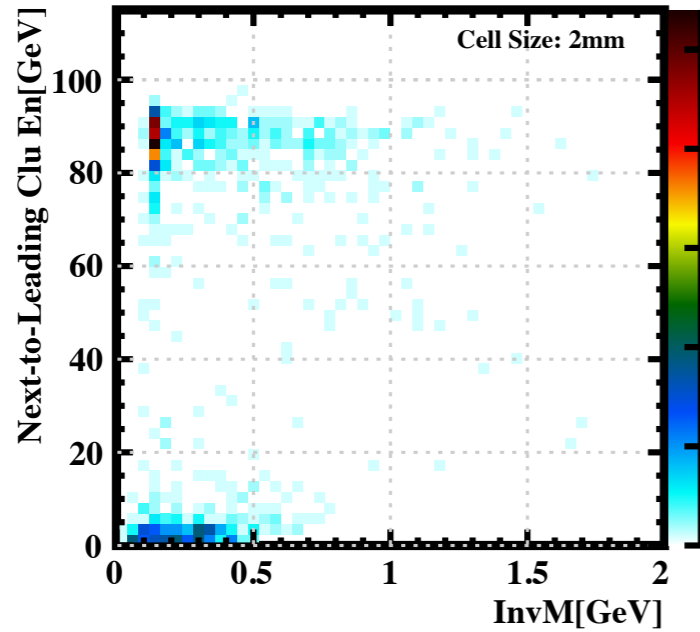


140 GeV photon

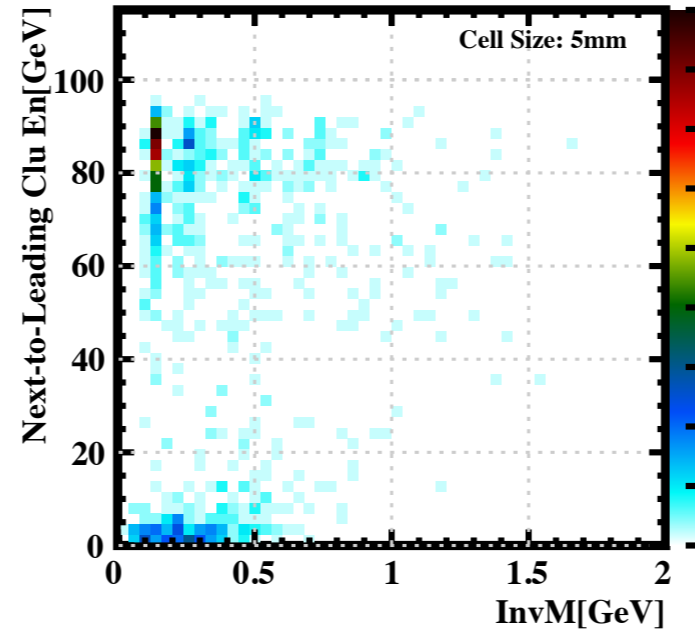


Performance

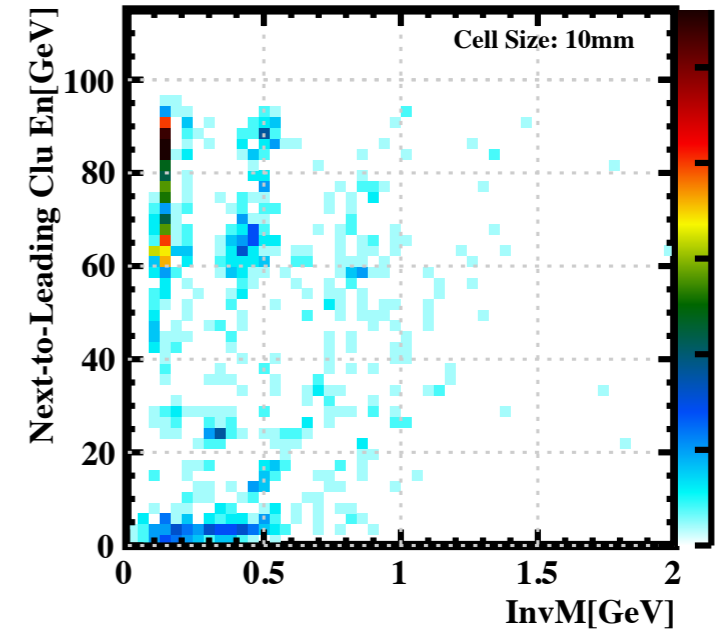
170 GeV pi0



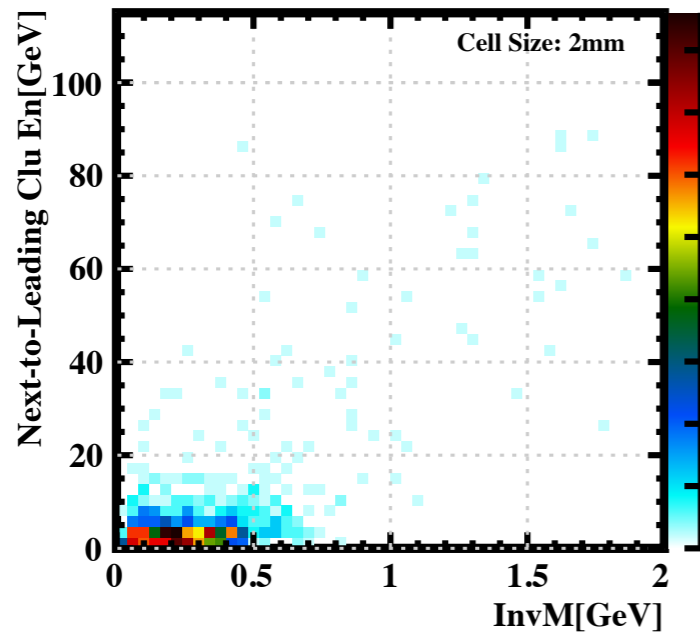
170 GeV pi0



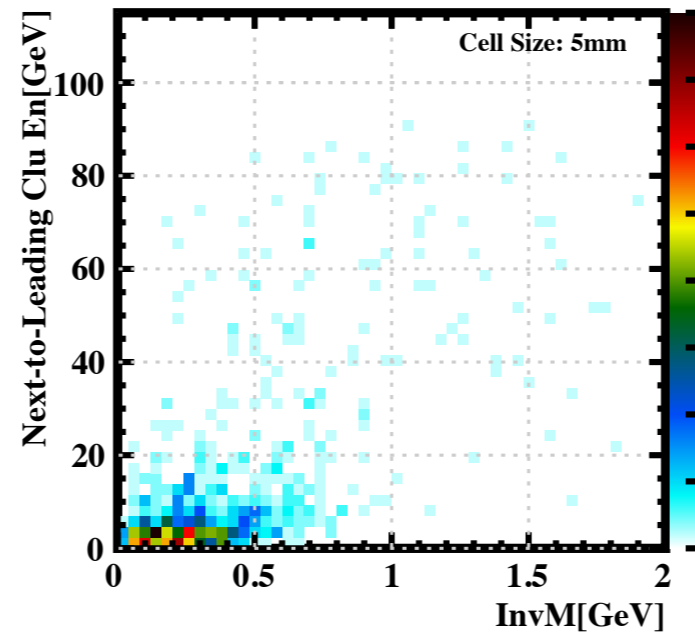
170 GeV pi0



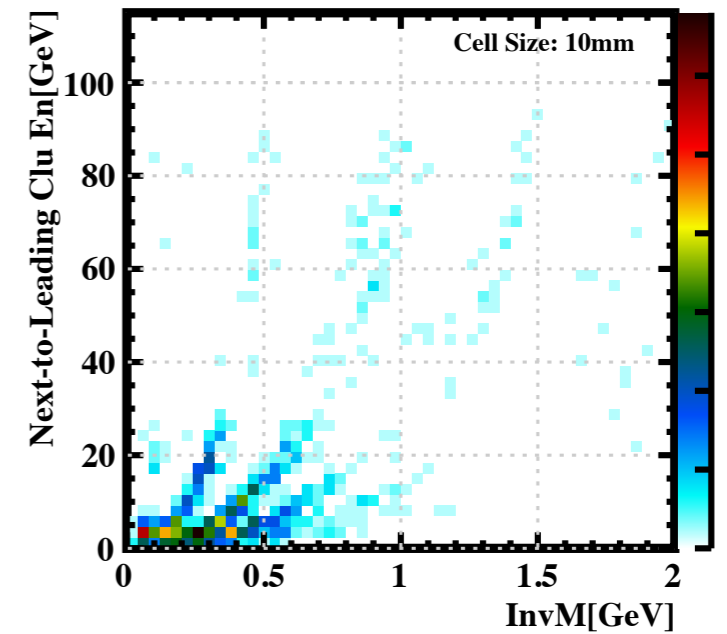
170 GeV photon



170 GeV photon

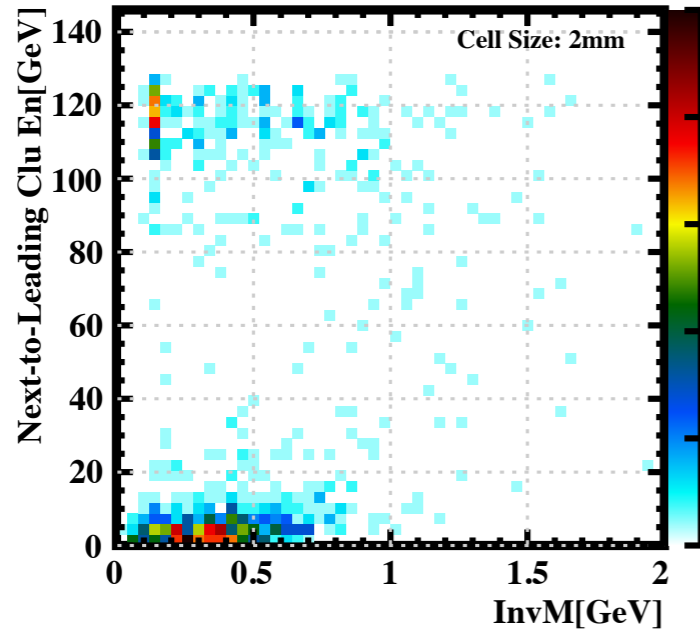


170 GeV photon

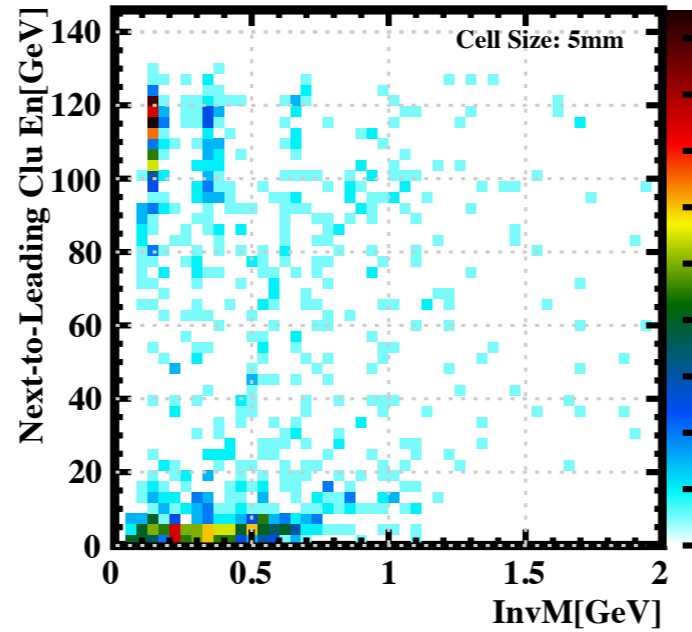


Performance

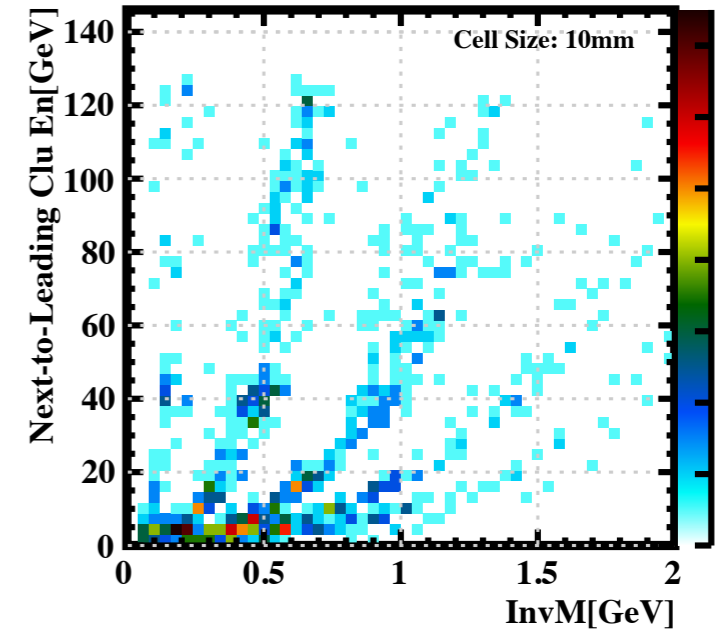
230 GeV pi0



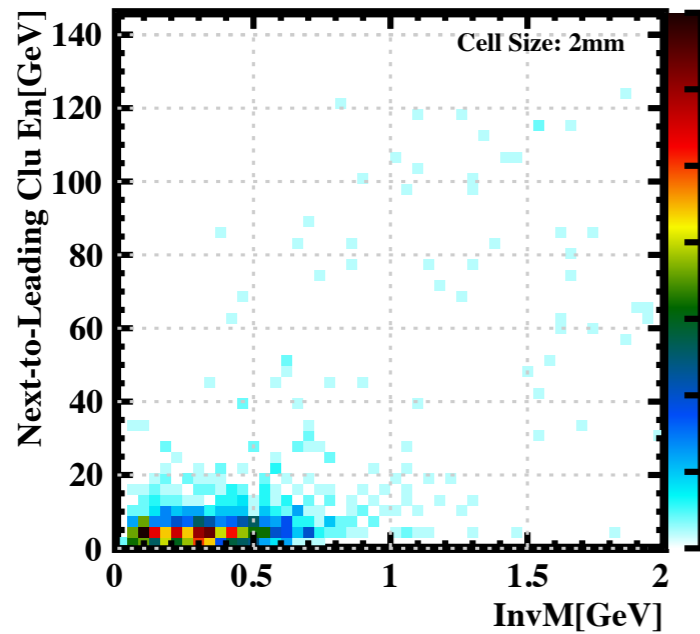
230 GeV pi0



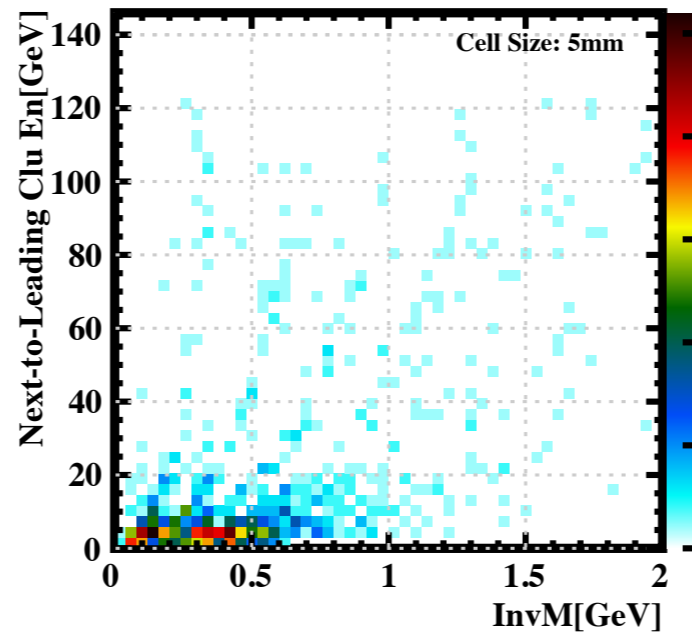
230 GeV pi0



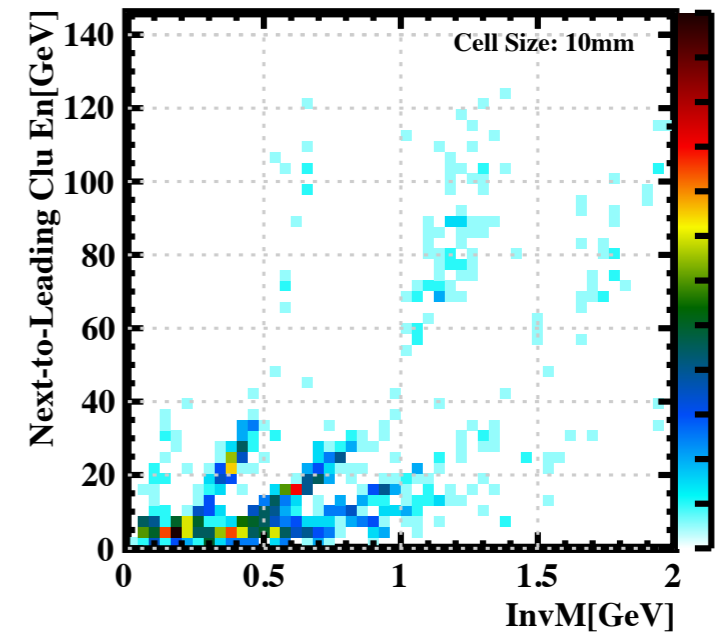
230 GeV photon



230 GeV photon

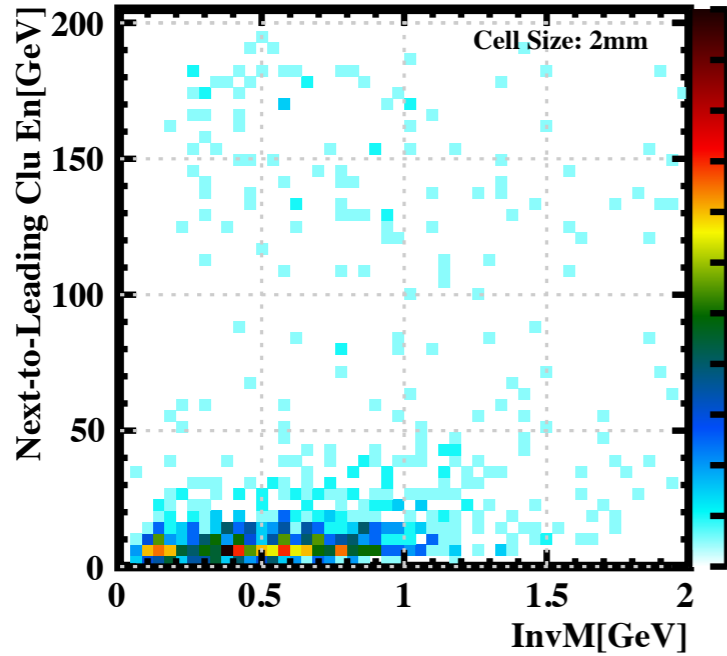


230 GeV photon

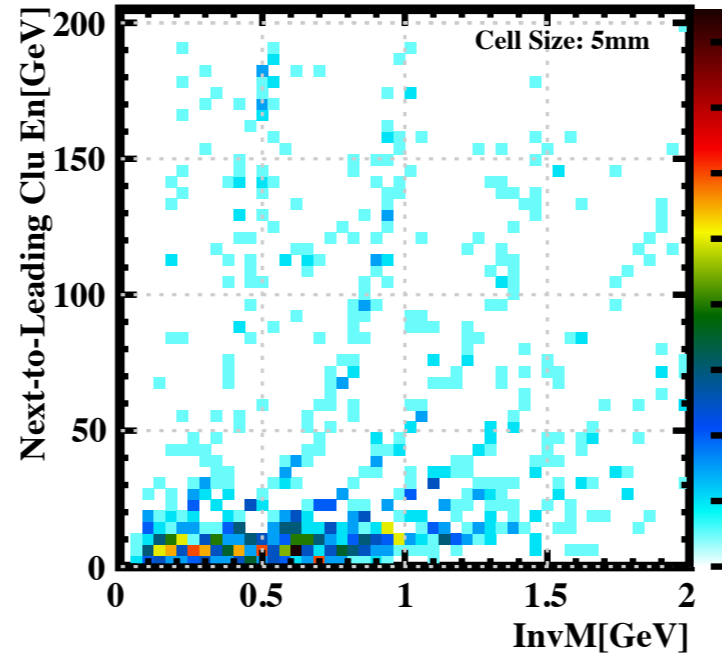


Performance

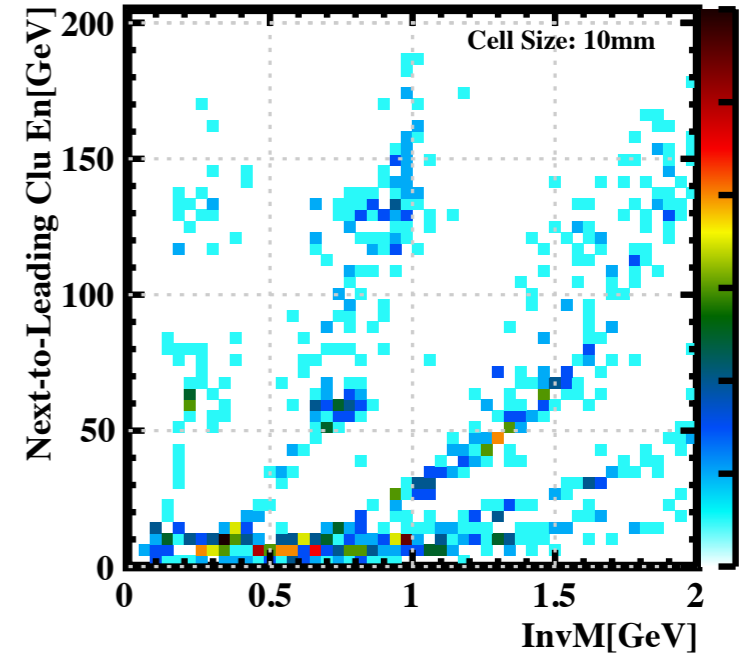
350 GeV pi0



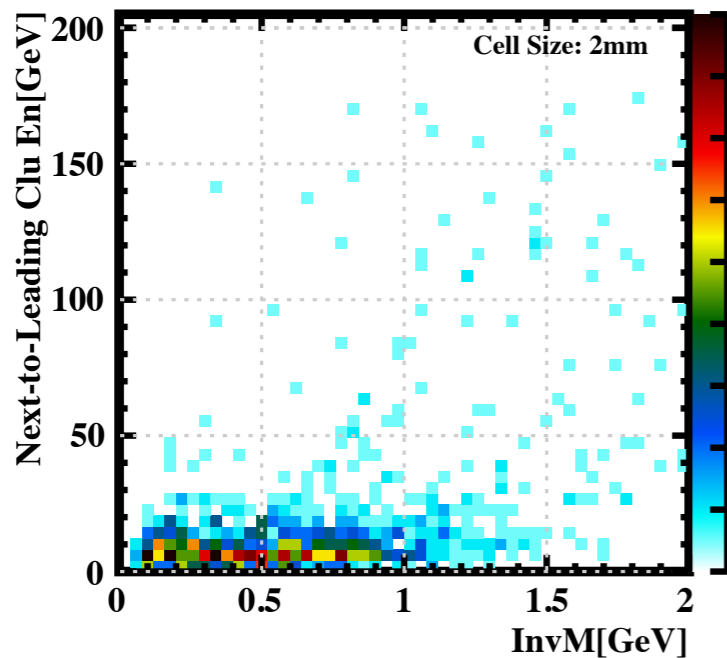
350 GeV pi0



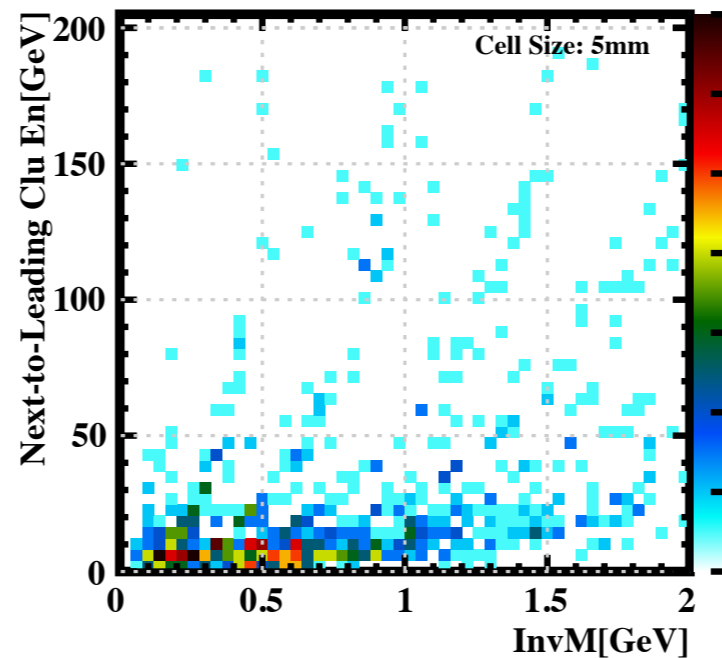
350 GeV pi0



350 GeV photon



350 GeV photon



350 GeV photon

