

Status of the Strip Clustering

K. Koteru, Shinshu university

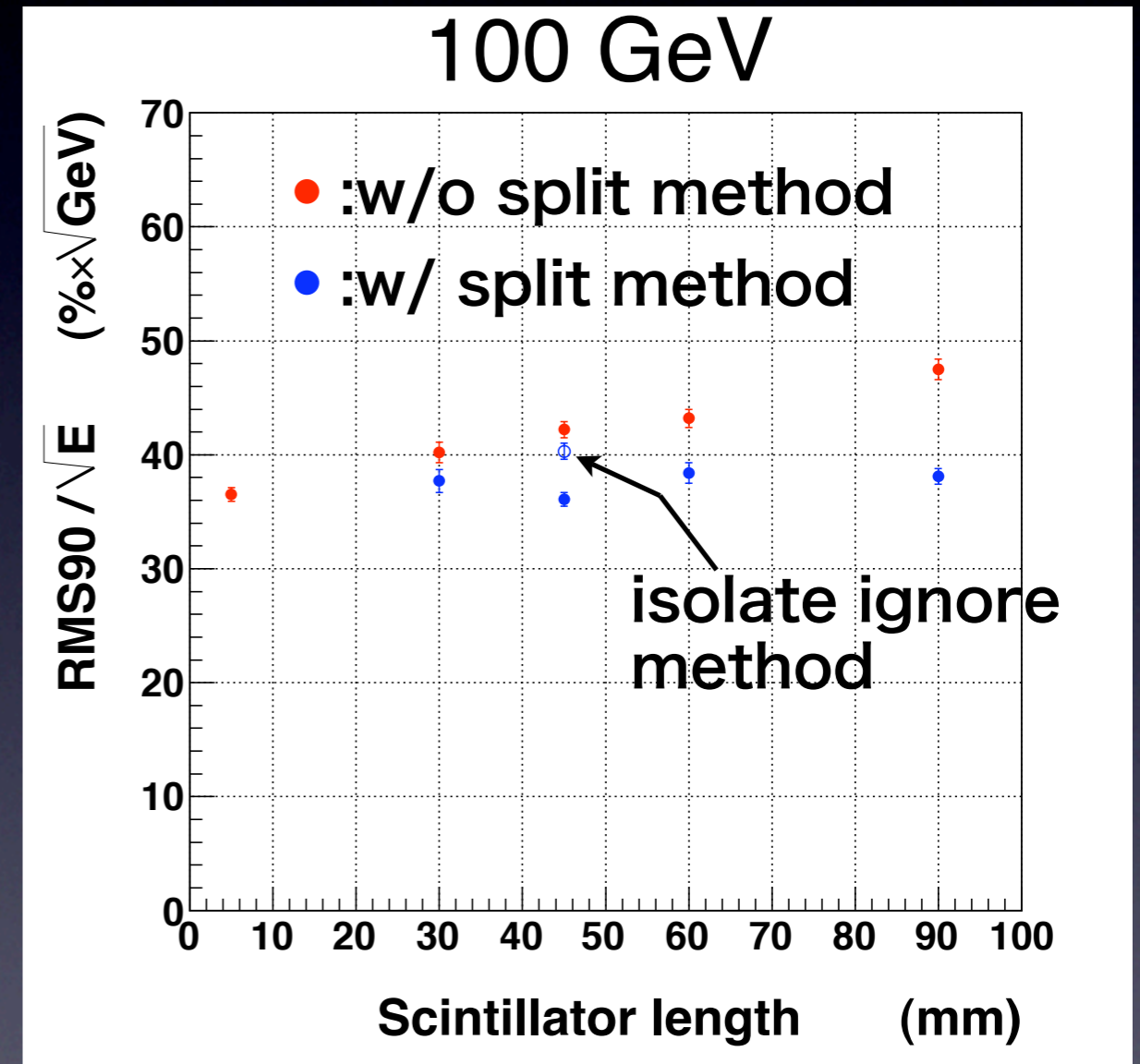
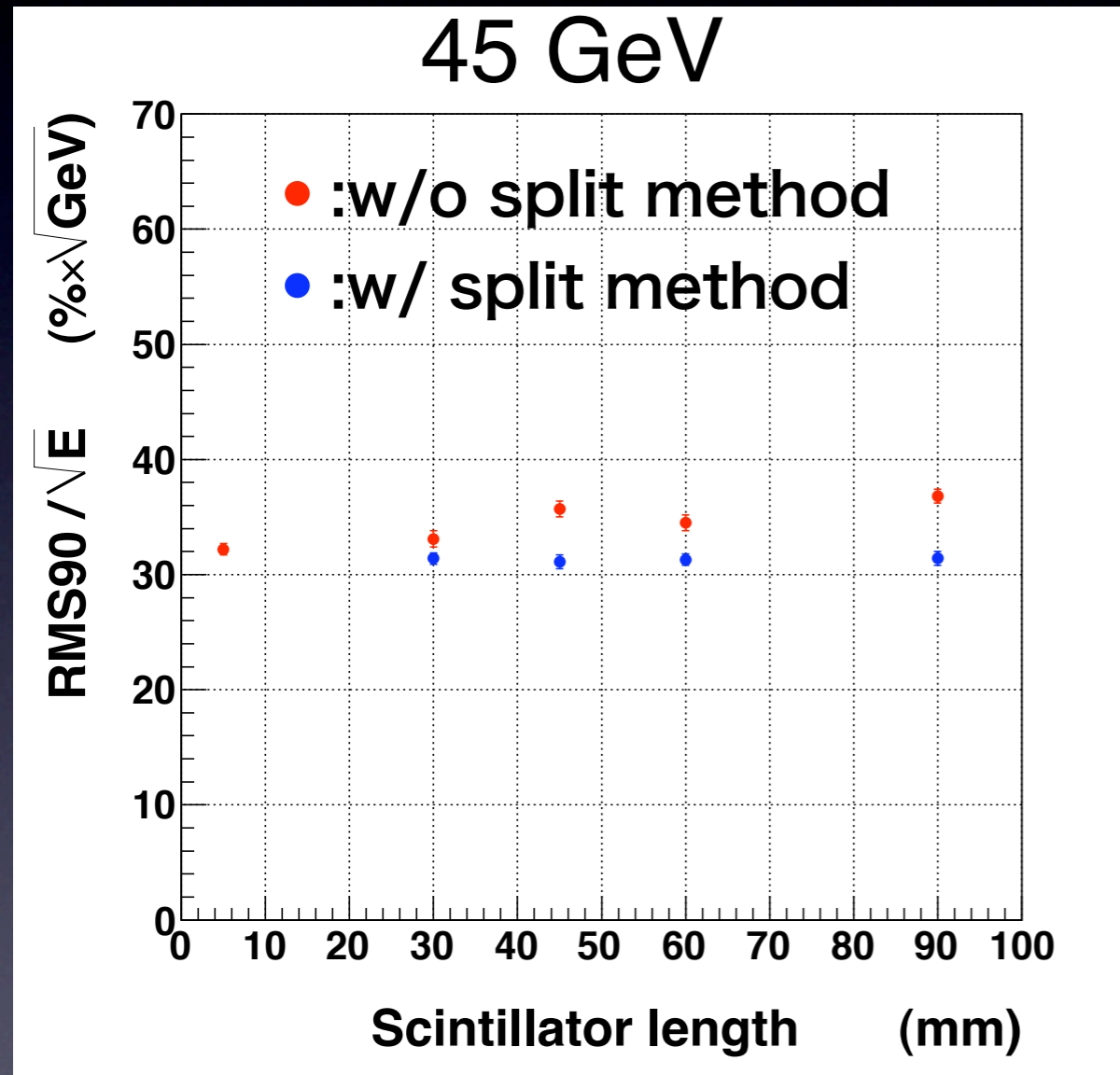
CALICE-ASIA meeting

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Sc. length dependence of the Jet energy resol.n

Scintillator width = 5 mm

Using "Center method": Energies in isolate hits are put on the center of strip.



- For 45 GeV Jets, the energy resolution (JER) is kept with split method for 90 mm scintillator strips.
- 30 mm, 60 mm, and 90 mm length scintillators are separated in even number of cells. This probably can make degrading of JER.

summary of this talk

- 45 mm x 5 mm strip ScECAL with Split method has the same energy resolution (JER) as the one with 5 mm x 5 mm the square ScECAL not only for $\sqrt{s} = 91$ GeV but also for $\sqrt{s} = 200$ GeV.
- 30 mm, 60 mm, and 90 mm length scintillators has rather degrading JER for $\sqrt{s} = 200$ GeV.
- One of candidate of reason:
 - They are separated in even number of 5 mm x 5 mm square cell. In this case isolate hits are put on two center cells, while the isolate hits are put on the one center cell in the case of 45 mm (9 separated cells).

ToDo

- Go into $\sqrt{s} = 360$ GeV, 500 GeV(Flavor tag processor make some crash in runs.)
- To see the limit length of strip to keep the best JER (depending on \sqrt{s})
- Tune PandoraPFA parameters to get same or better Jet energy resolution as the M. Thomson's analyses. 30% / 25%
- Fix the problem with Druid (calorimeter hits after split method cannot be seen in Druid, even PFOs are reconstructed)
- Write code for the Endcap hits
- Boundary treatment
 - Stave - Stave, Module - Module, Endcap - Barrel
- Fine Tune of Split method (to try some new ideas)
- Check the performance of Triplet method
- Use new Mokka (it intrinsically has strip shape ...)

Sc. length dependence of the Jet energy resol.n

