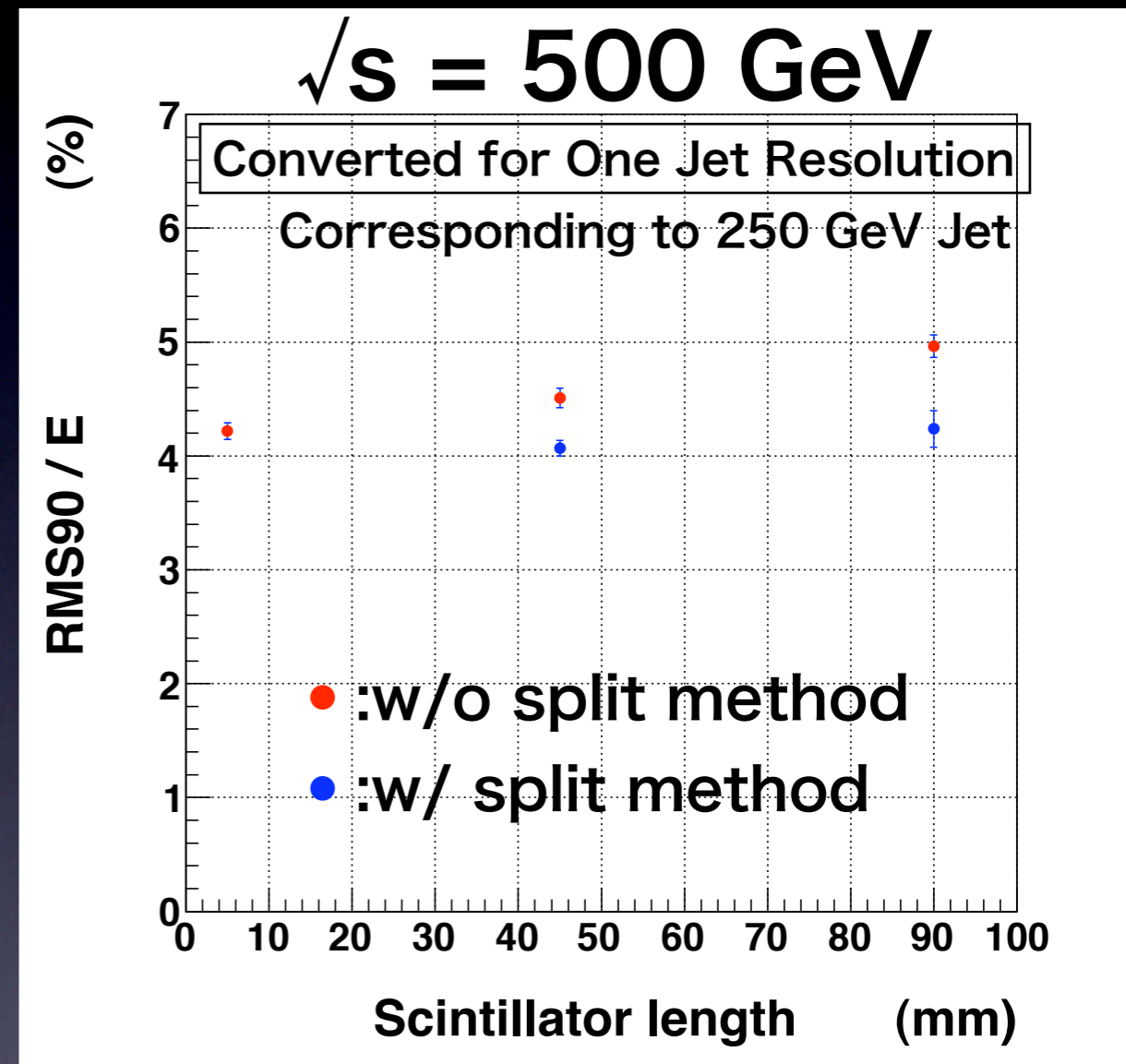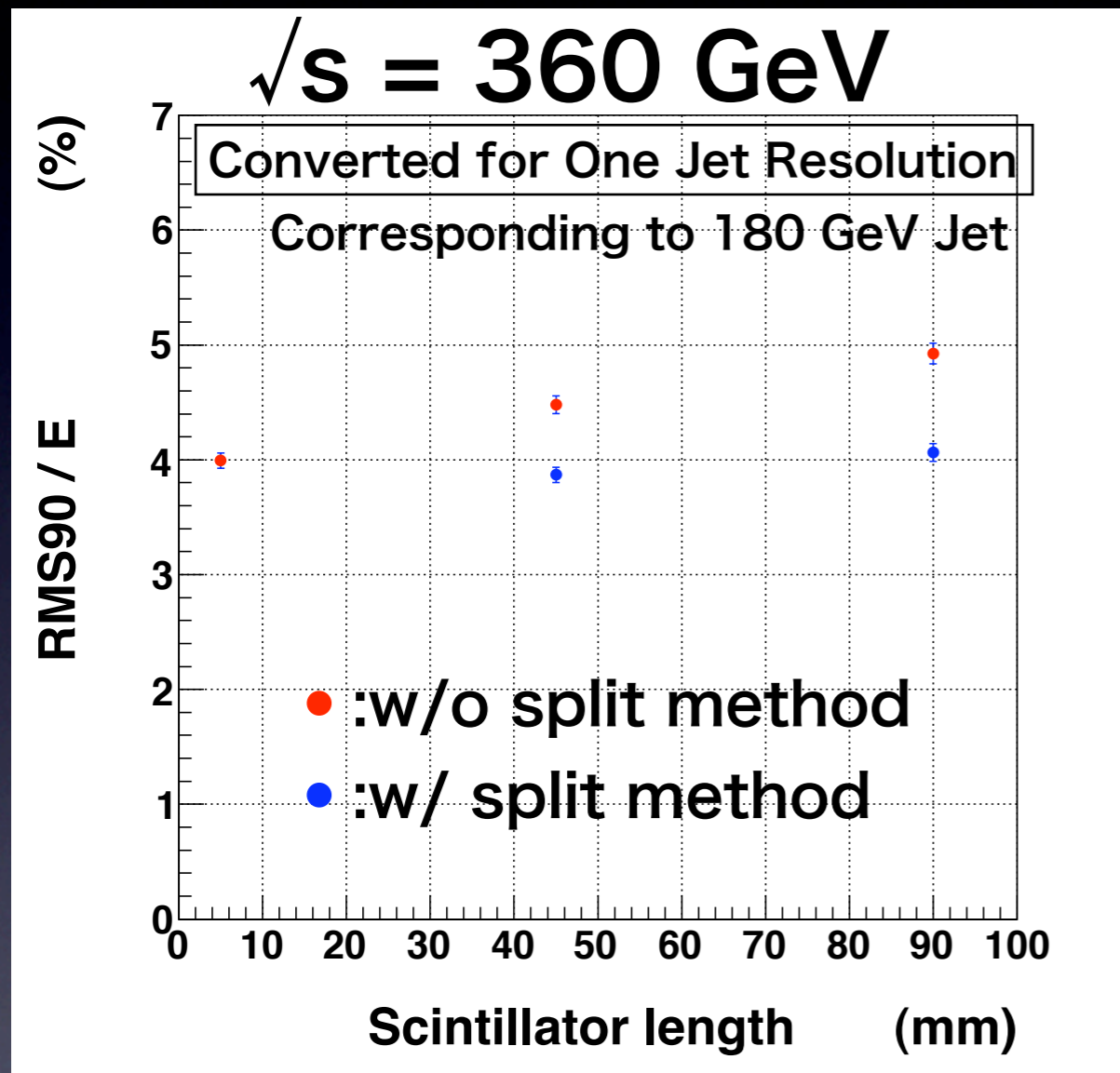# Status of Strip Clustering

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ILD-Asia Physics-Software meeting

17th September 2010
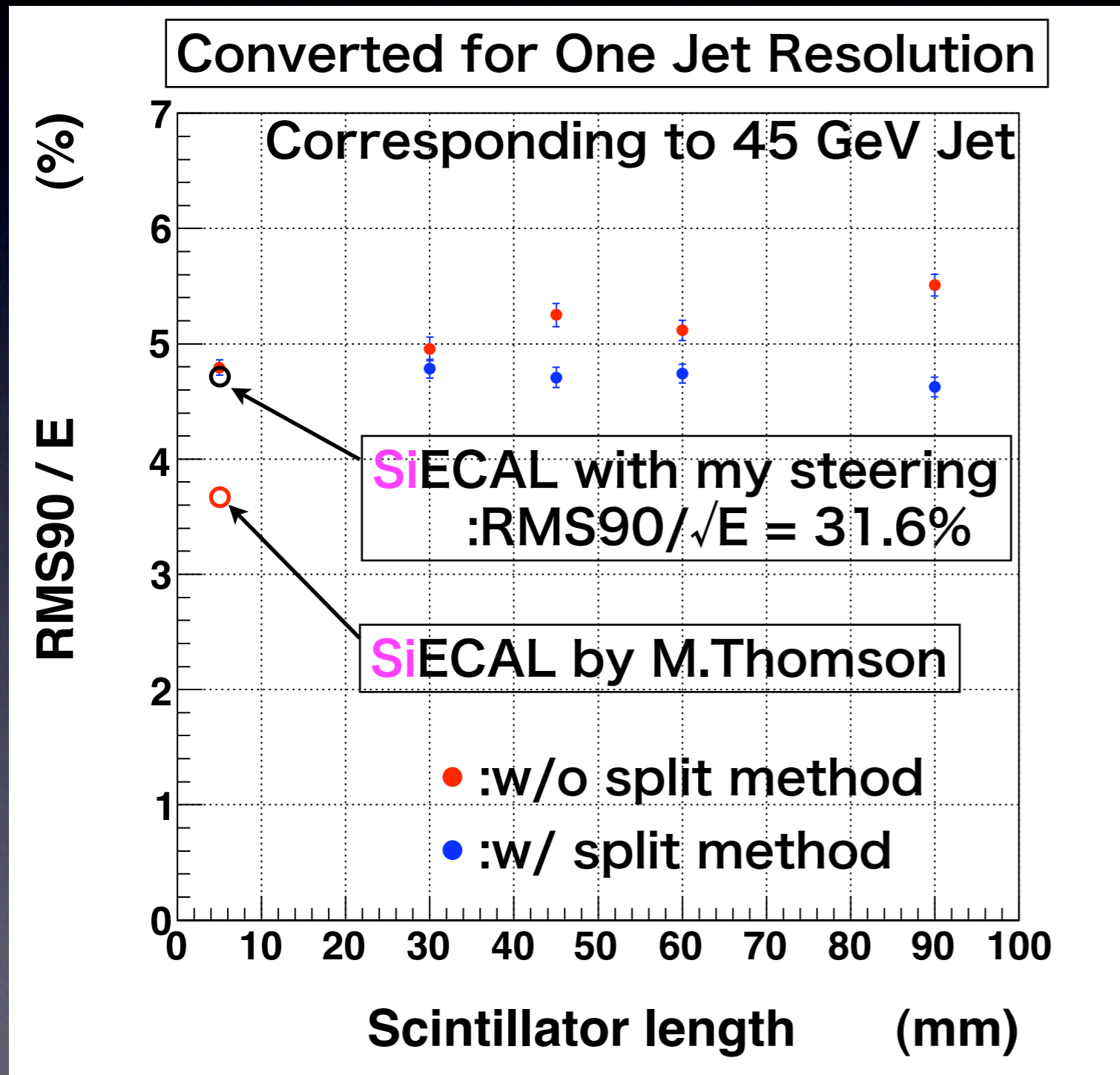
Sc. length dependence of the Jet energy resol.n

√s = 360 GeV

Converted for One Jet Resolution

Corresponding to 180 GeV Jet

● :w/o split method
● :w/ split method

RMS90 / E (%)

Scintillator length (mm)

√s = 500 GeV

Converted for One Jet Resolution

Corresponding to 250 GeV Jet

● :w/o split method
● :w/ split method

RMS90 / E (%)

Scintillator length (mm)

Split method still makes the similar performance for √s = 500 GeV as that tile ScECAL(5 mm x 5 mm) makes.

Sc. length dependence of the Jet energy resol.n

√s = 91 GeV, Scintillator width = 5 mm

Converted for One Jet Resolution

Corresponding to 45 GeV Jet

SiECAL with my steering :RMS90/√E = 31.6%

SiECAL by M.Thomson

● :w/o split method

● :w/ split method

RMS90 / E (%)

Scintillator length   (mm)

Performance of 27 layers of ScECAL with PandoraPFA.

cos(thrust angle) < 0.4

for one jet resolution, (RMS90/E for two jet) x √2

90 mm strip ScECAL still has the similar JER as that 5 mm x 5 mm square cell ECAL

With my steering file (PFA parameters) SiECAL (20+10 layers) also does not have enough performance comparing with M.Thomson's study.
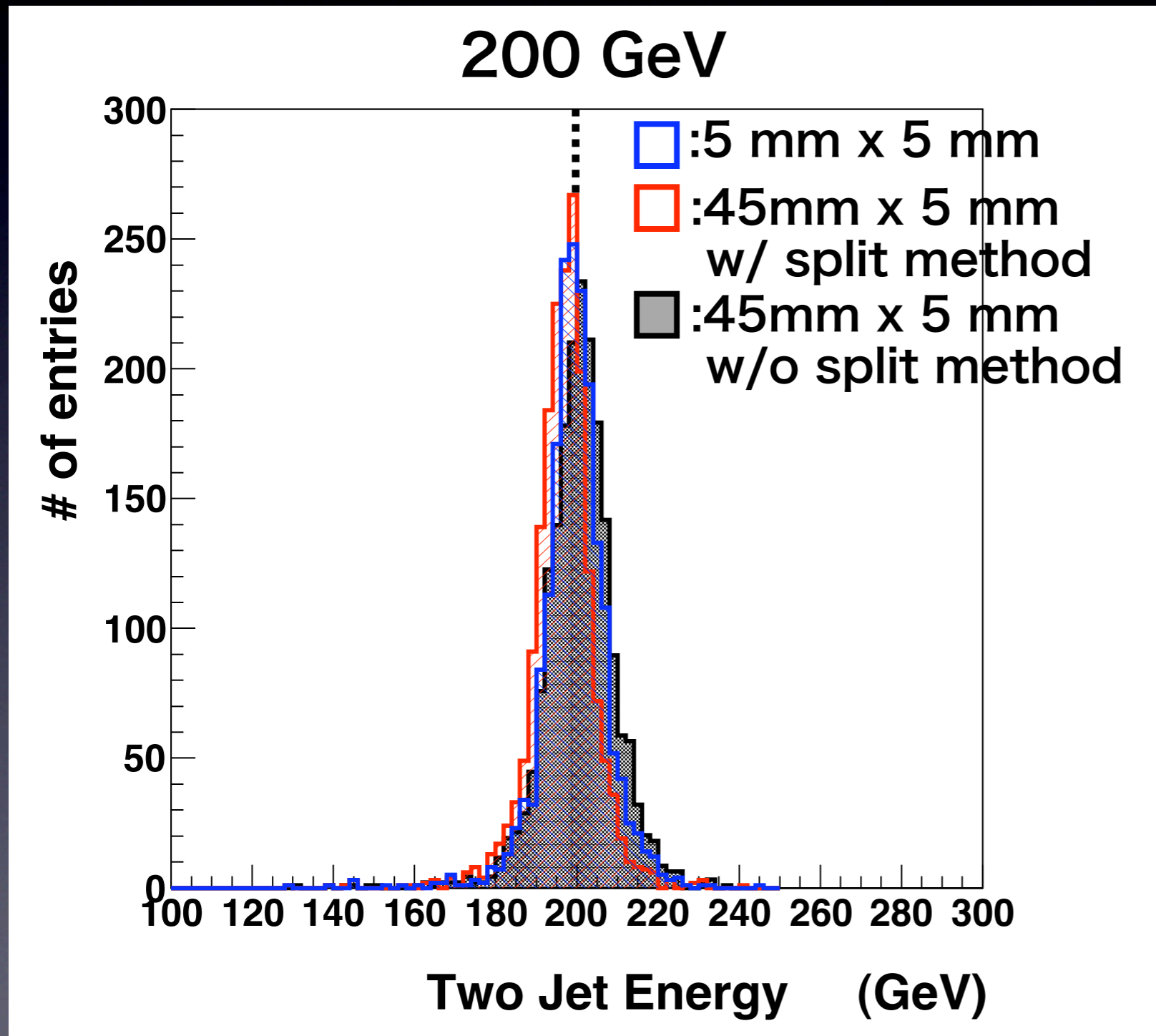
Energy dependence of the Jet energy resol.n
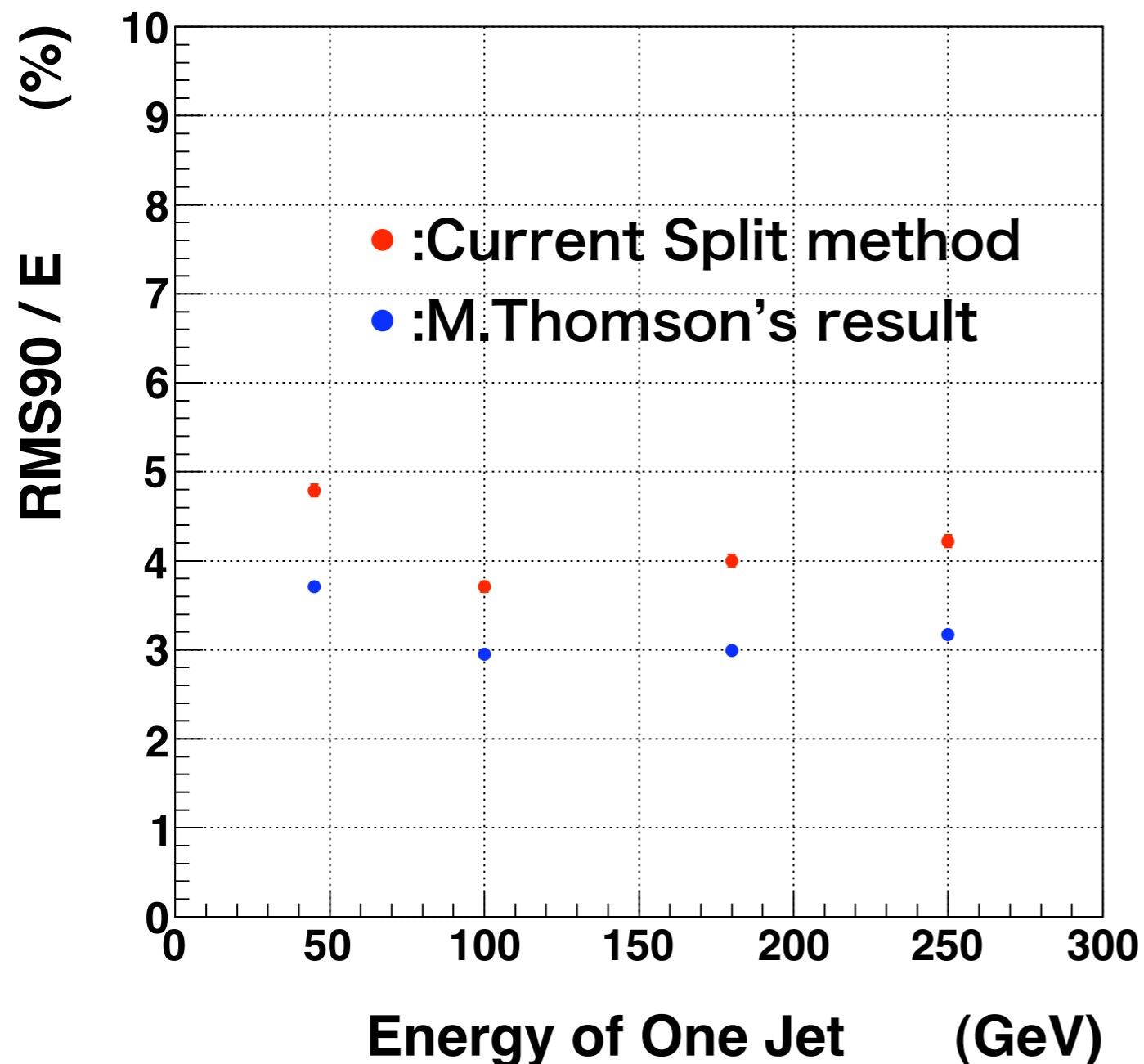
The Energy dependence of the Jet energy resolution with the split method is the similar as the M.Thomson's result.

On going

- ilcsoft - v01-08 with a module "splitStrip"

- default analysis with SiECAL

- NewPandoraPFA

Sc. length dependence of the Jet energy

√s = 200 GeV, Scintillator width = 5 mm

Hatched histogram, with 45 mm x 5 mm ScECAL without Split method, has broader shape than others