

FCCee detector and tracking validation

FCCee MDI Working Group – 5.7.2017
Emilia

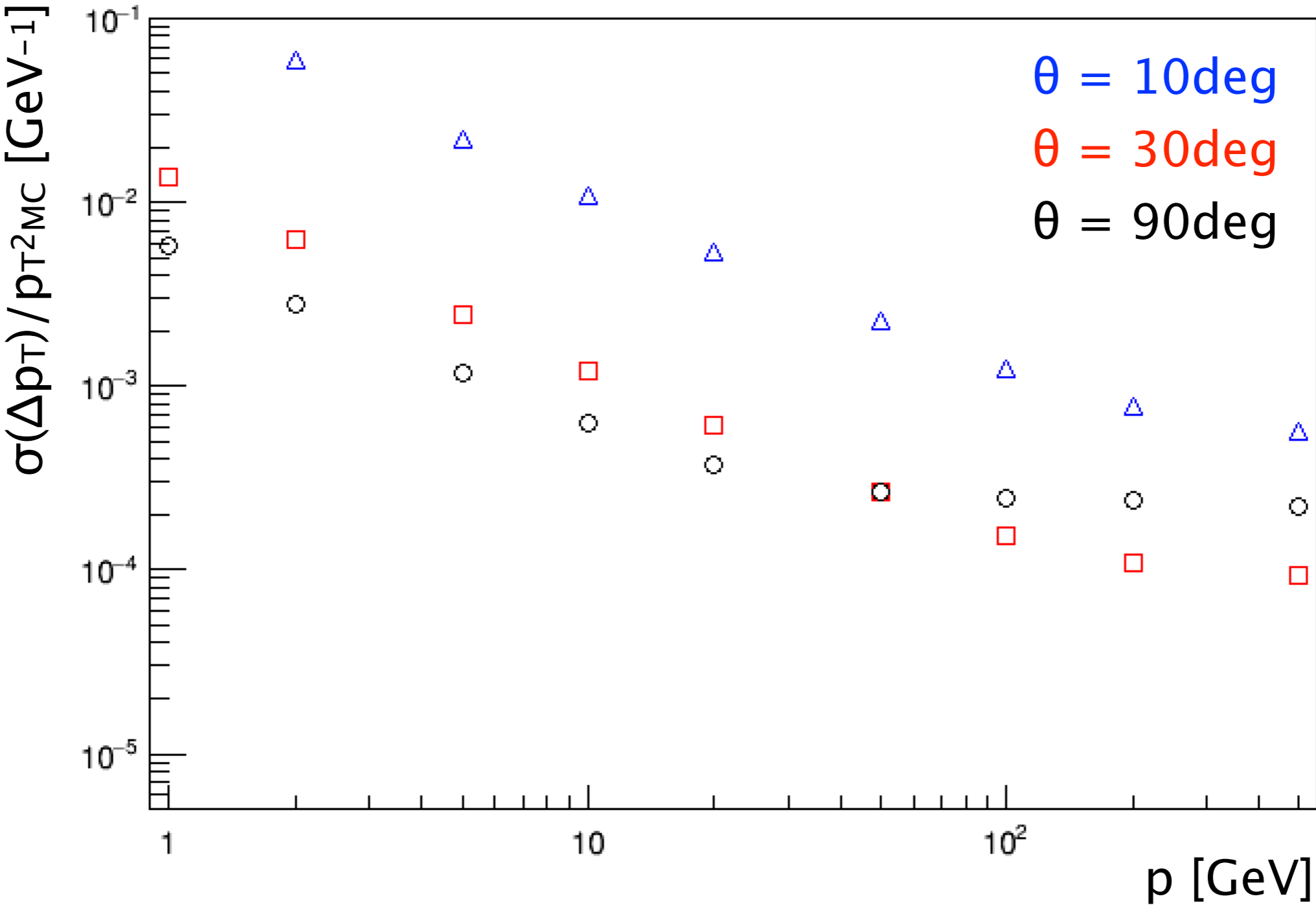
- iLCSoft HEAD release 21/6/2017
- FCCee_o5_v02 (latest) detector model
- Pattern recognition: Truth Tracking

Momentum resolution

Particle gun: muons

Resolution = sigma of Gaussian fit of the residual distribution

$$\frac{\sigma(p_{T, \text{reco}} - p_{T, \text{true}})}{p_{T, \text{true}}^2}$$

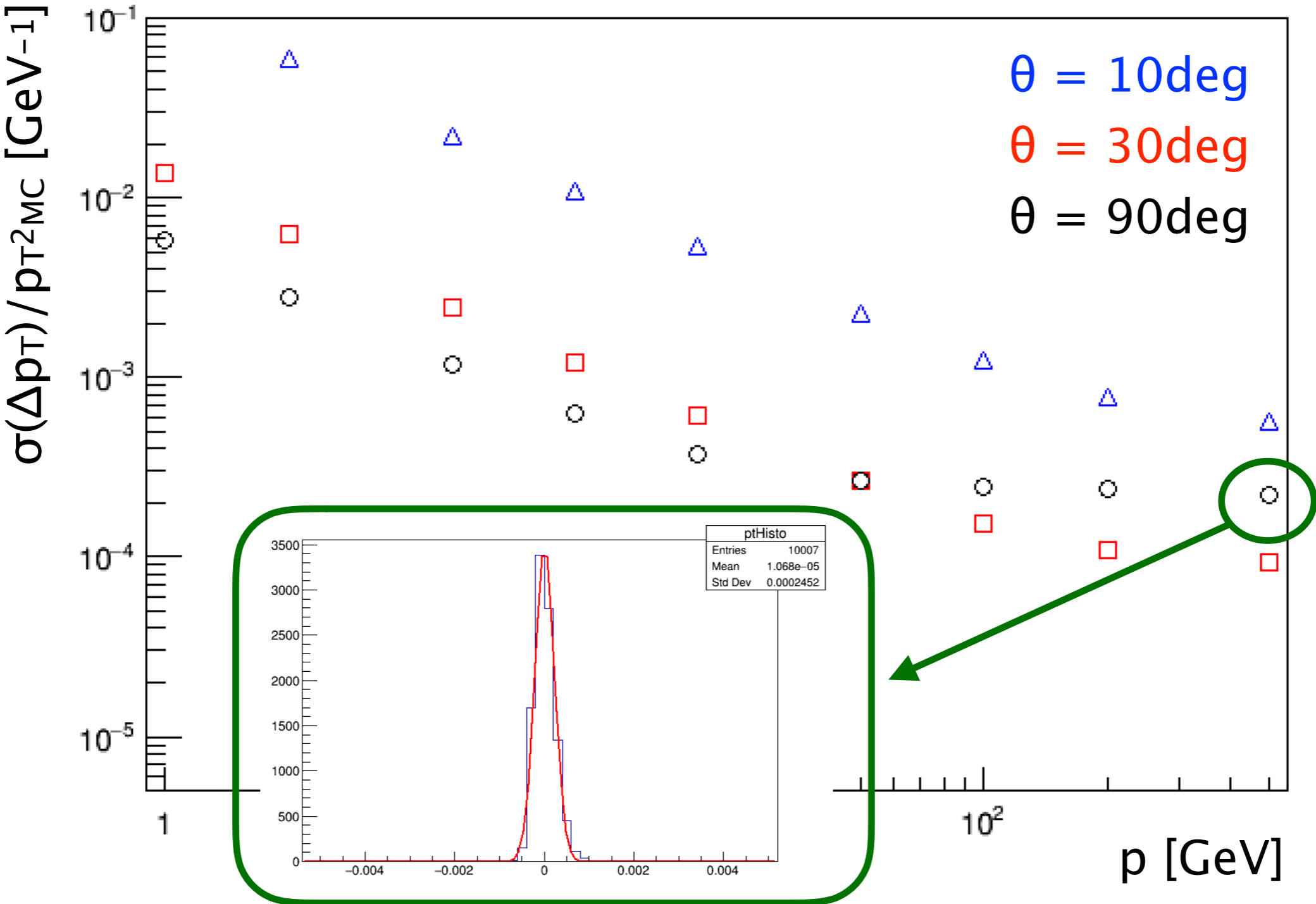


Momentum resolution

Particle gun: muons

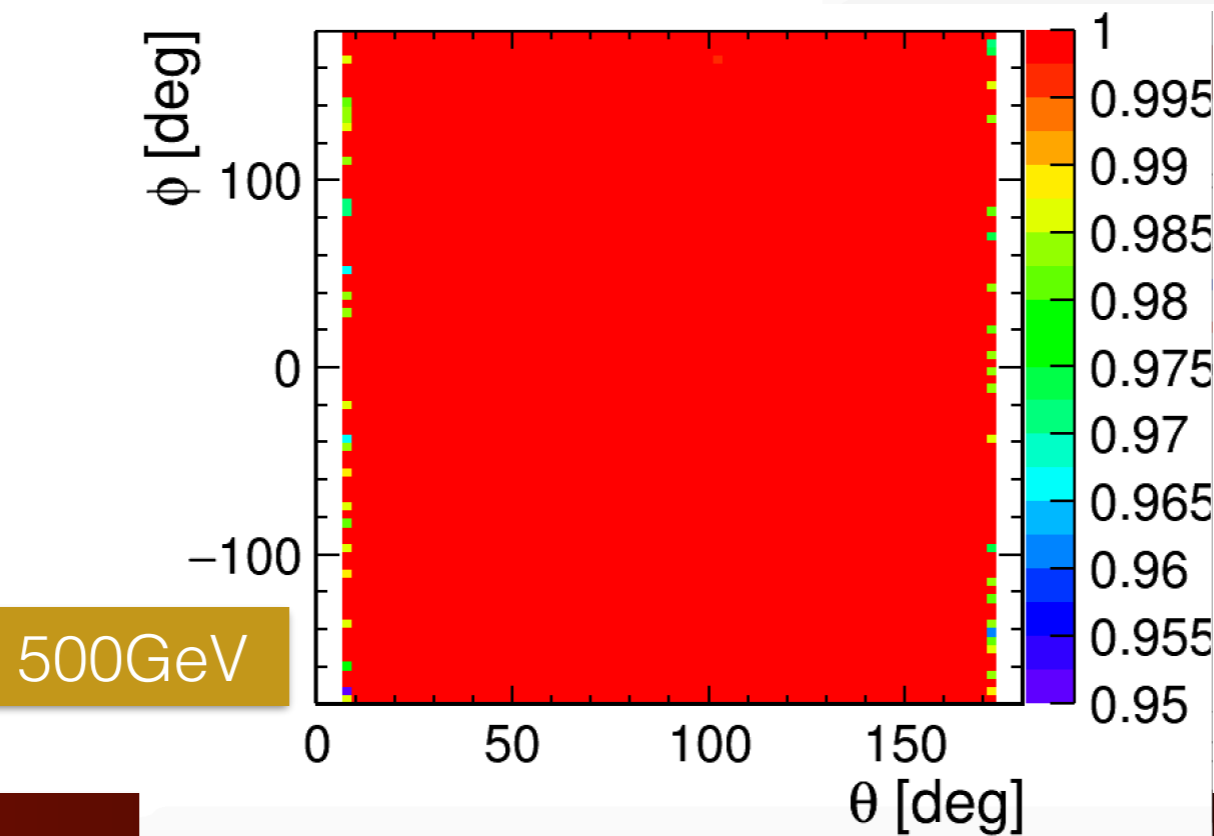
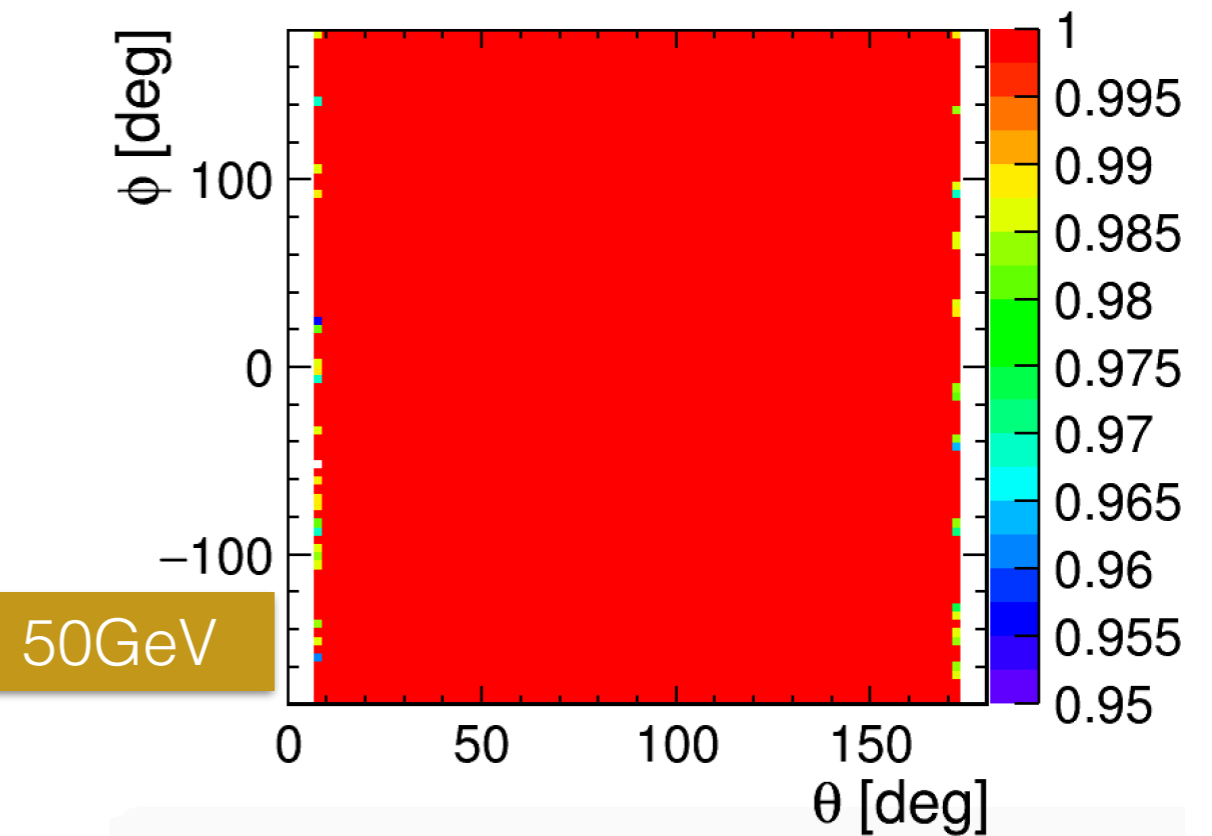
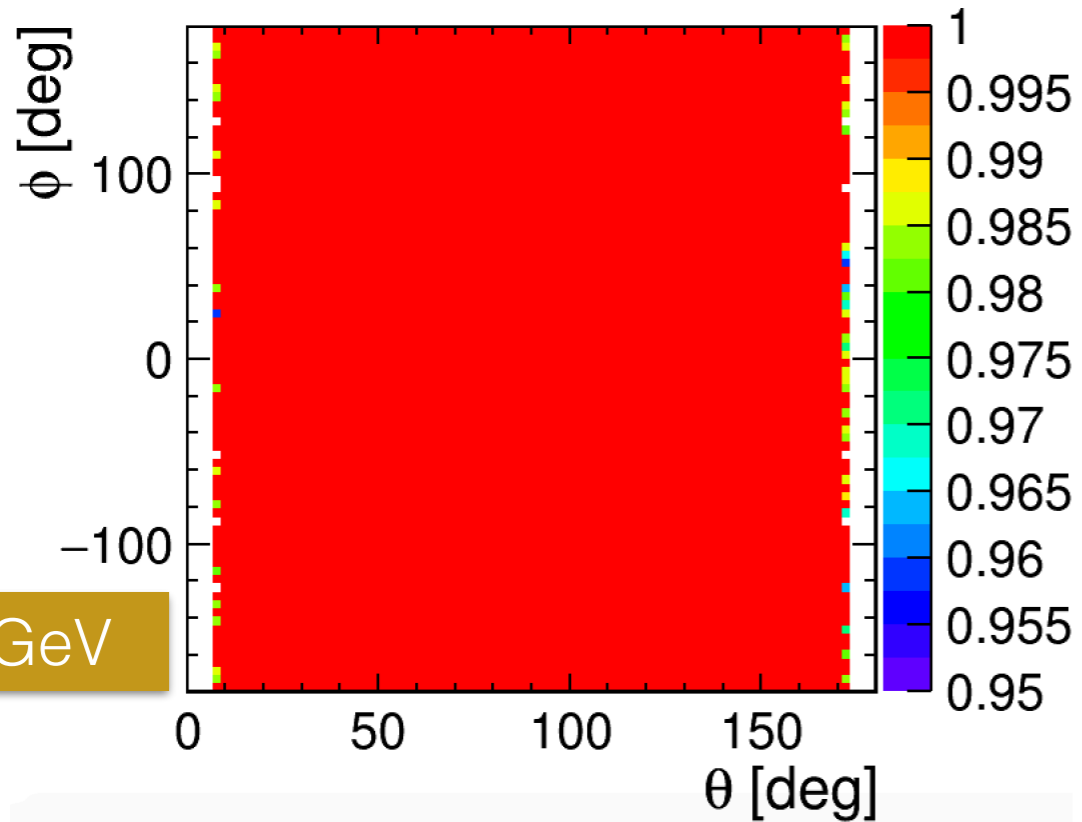
Resolution = sigma of Gaussian fit of the residual distribution

$$\sigma(\Delta p_T) / p_{T,true}^2$$



Tracking efficiency

Particle gun: muons, uniform θ distribution



- iLCSoft HEAD release 21/6/2017
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- iLCSoft HEAD release **4/7/2017** ?
 - background overlay events available
- FCCee_o5_v02 (latest) detector model
 - change position and thickness of vtx/trk layers
=> new performances
- Pattern recognition: **Conformal** Tracking
 - for this, also release from 4/7/2017 is recommended
(fixed memory leaks)

