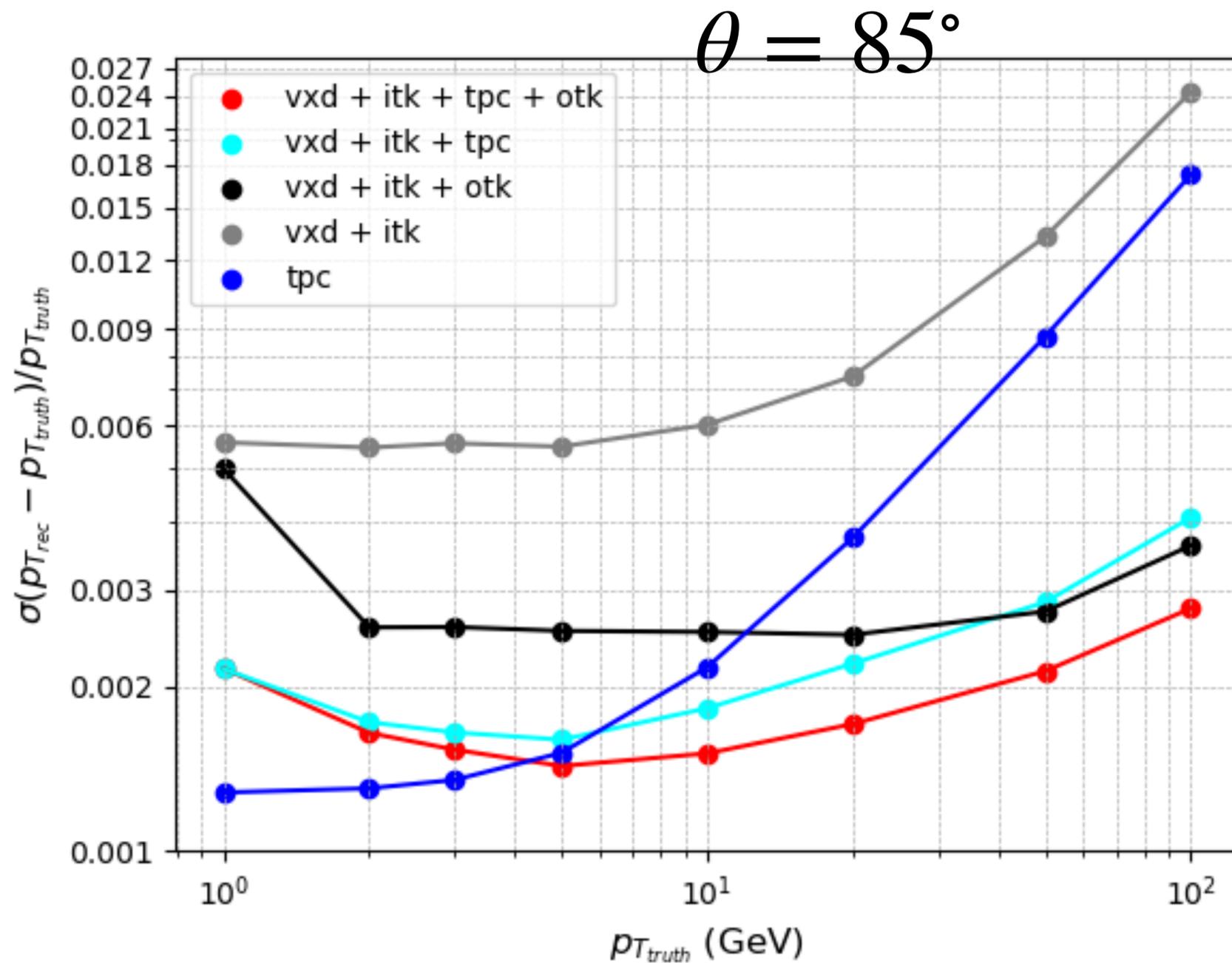


# **Trk Resol. for Sub-det.**

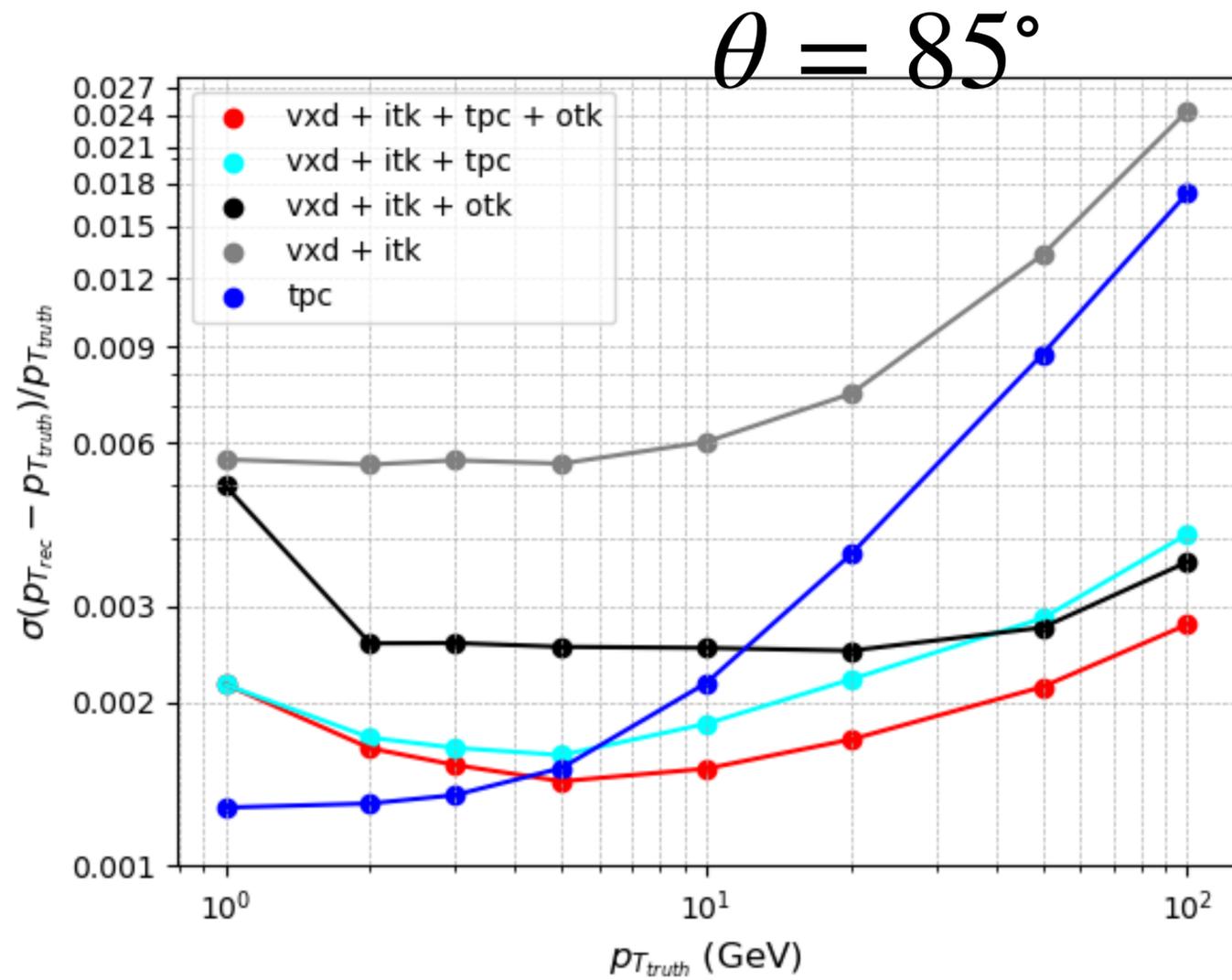
C.Zhang/06Nov2024

# Intro.

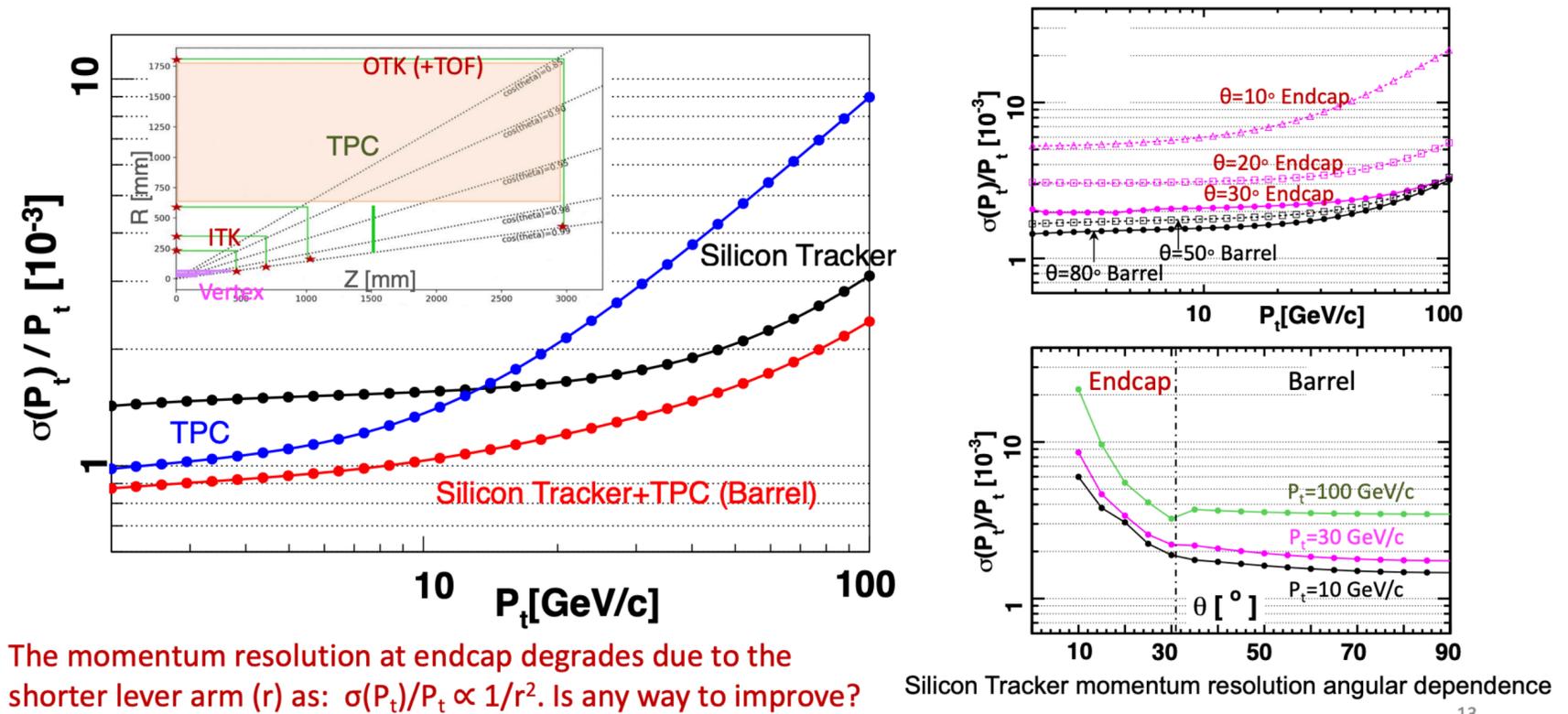


- SW release 24.10.0
- Particle gun muons ( no FSR effects )
- Remove muons with  $N_{trk} > 1$
- Fit distribution of  $\frac{Rec_{p_T} - Gen_{p_T}}{Gen_{p_T}}$  in a sub-range of 2 sigma with Gaussian

# To Ref.



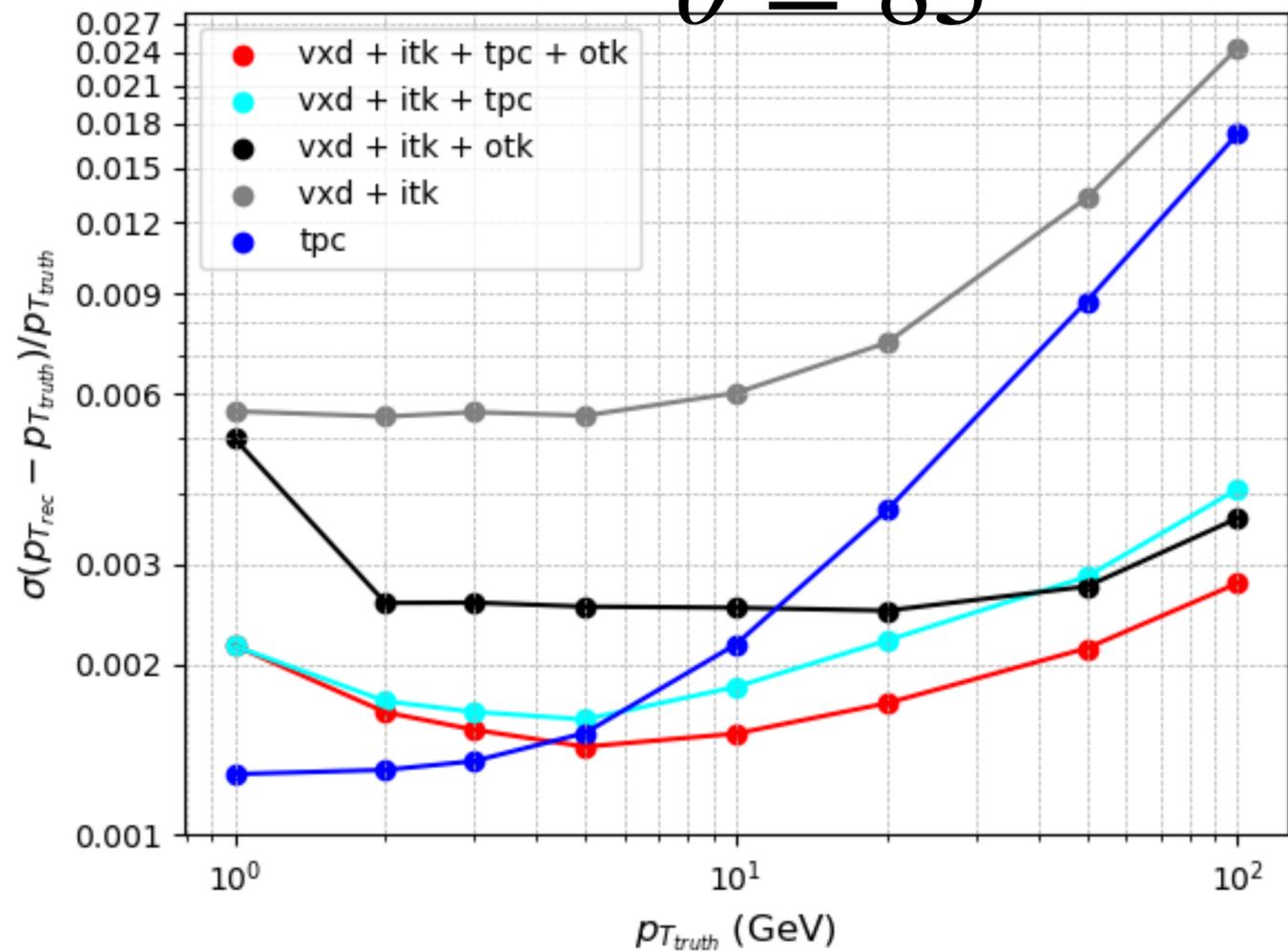
## CEPC Tracker Performance from Simulation: Momentum Resolution



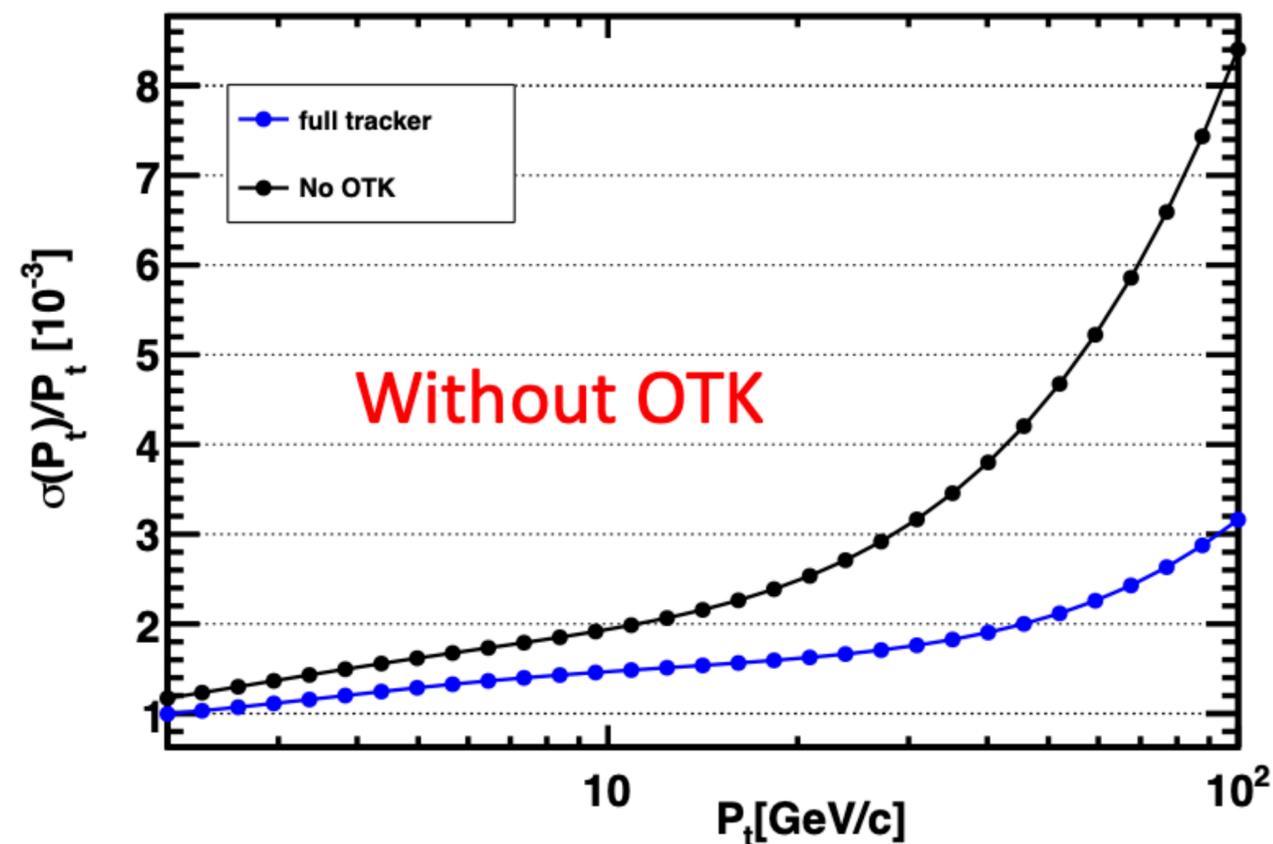
- Globally, slightly worse than Ref.

# To Ref.

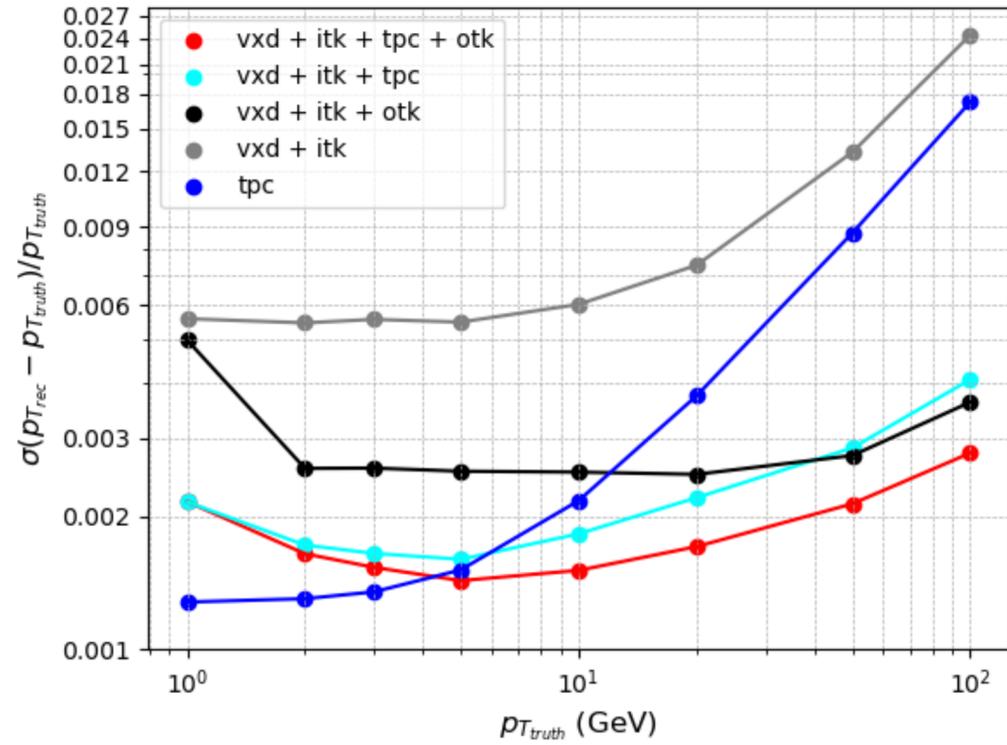
$\theta = 85^\circ$



$\theta = 85^\circ$

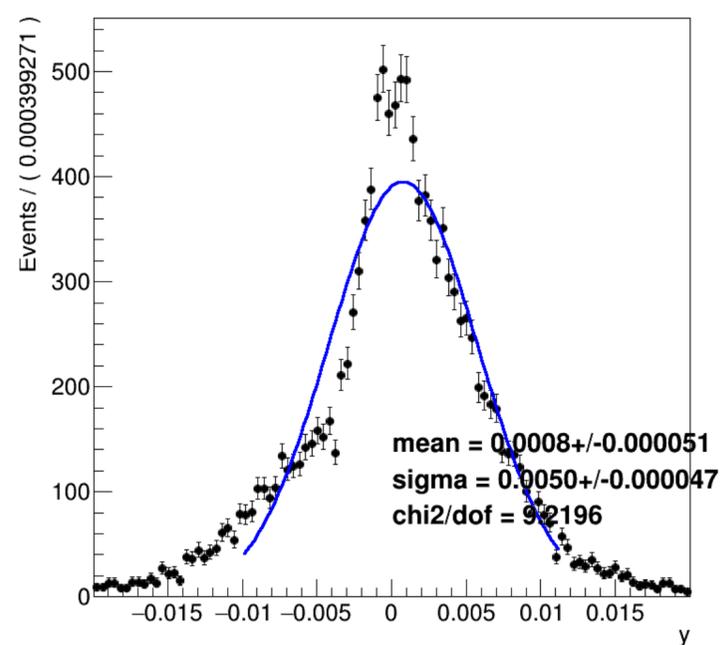


# Multiple peaks

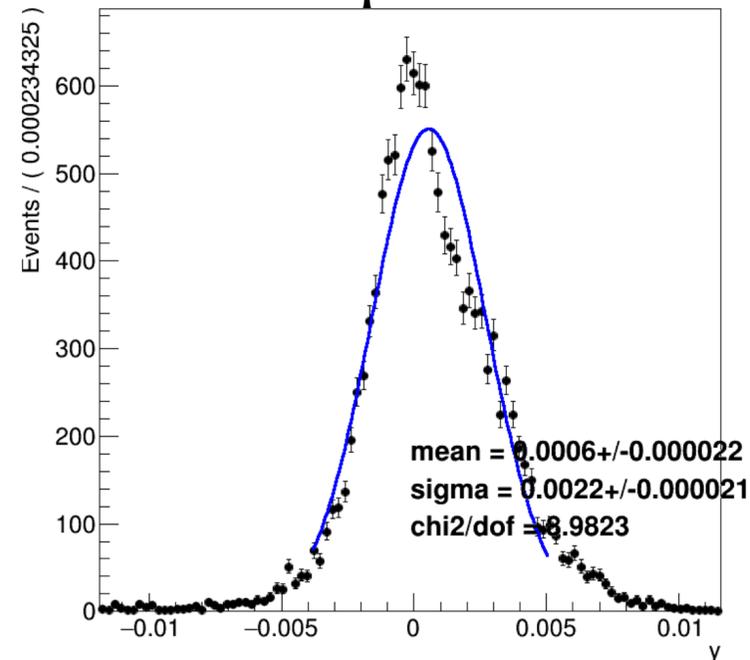


- Multi-peaks problem always exists on the distribution , usually the distribution generally remains Gaussian shape ( plot 4 )
- Sometime the distribution changes from Gaussian a lot ( plot 1-3 )

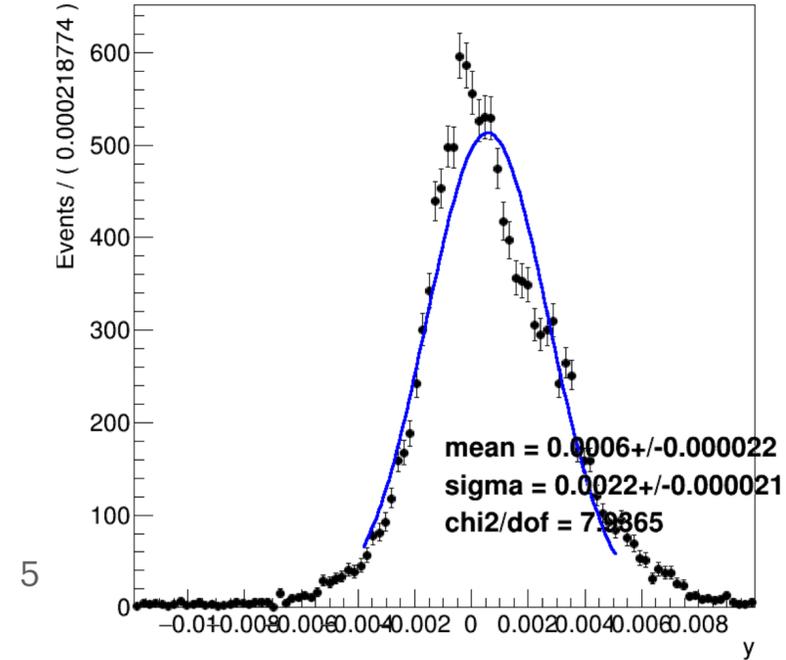
First back point  
Full silicon track



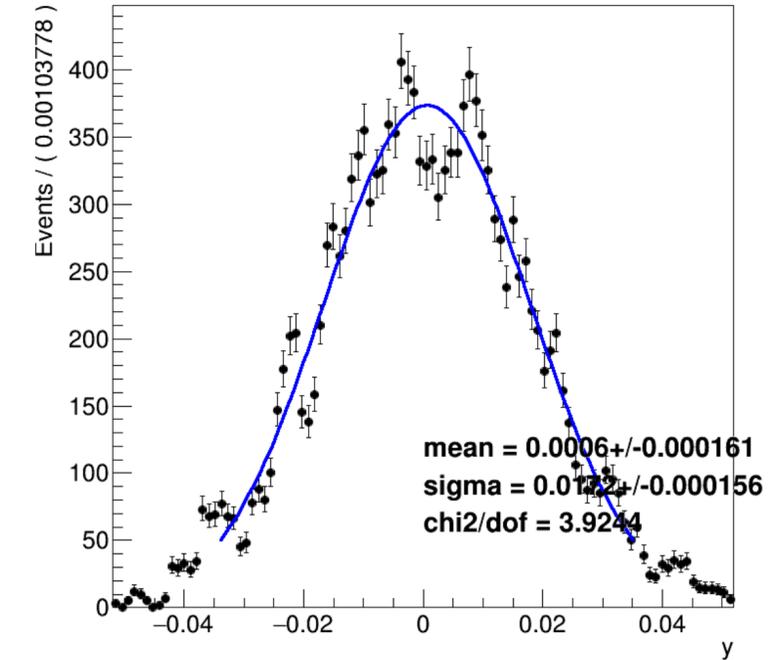
First red point  
Complete track



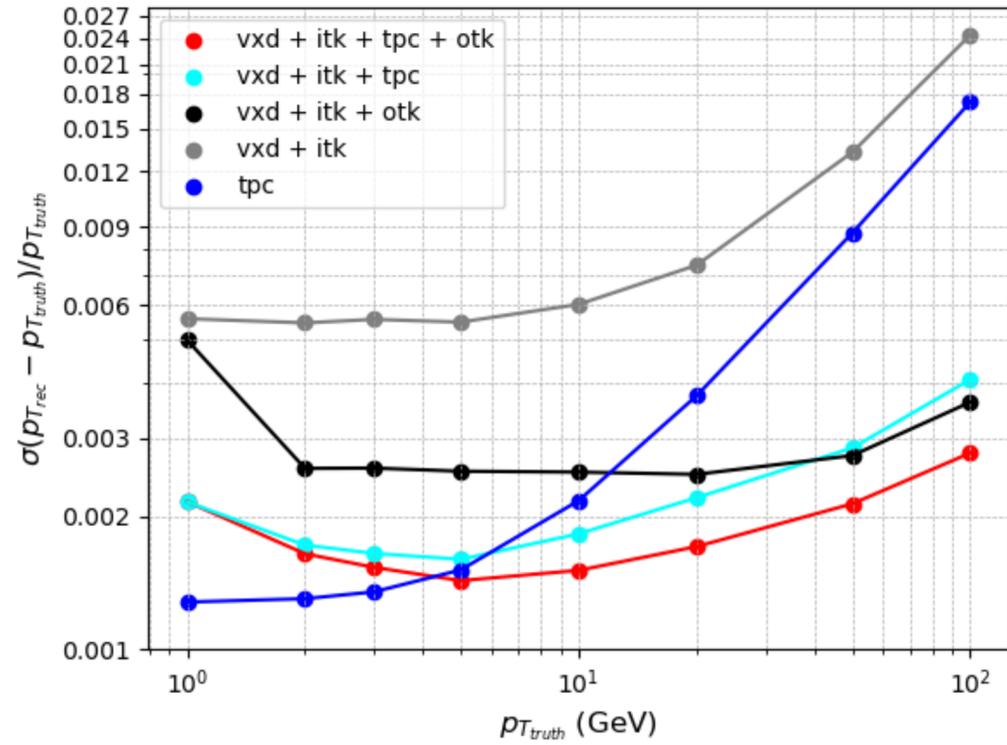
First cyan point  
Complete without OTK



Last blue point  
TPC track

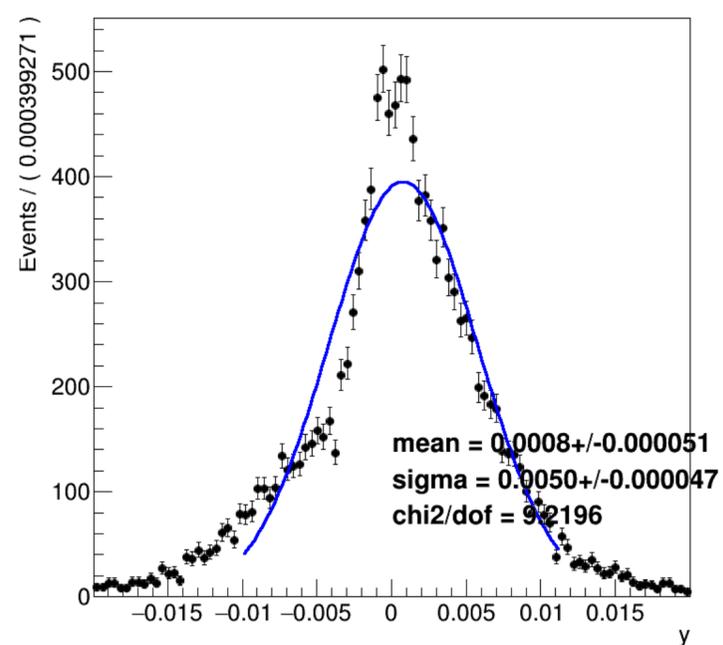


# To do

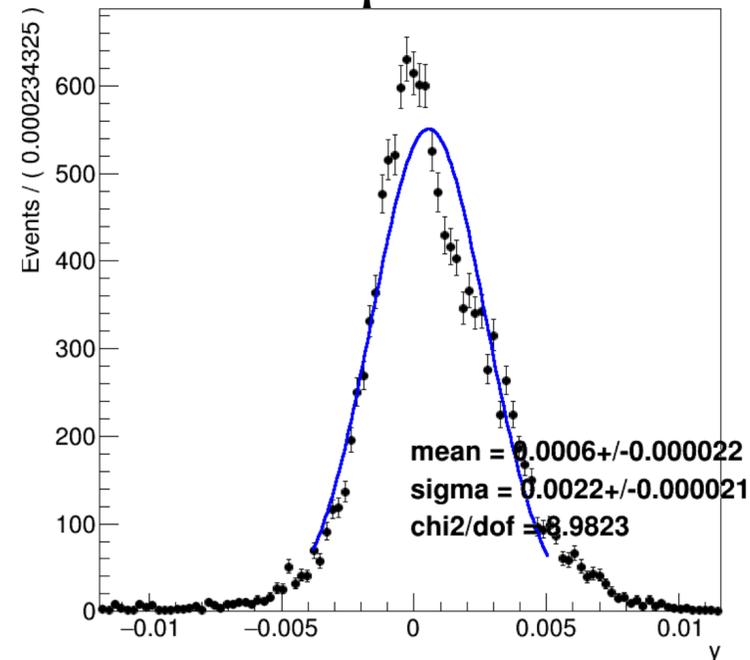


- Multi-peaks problem always exists on the distribution , usually the distribution generally remains Gaussian shape ( plot 4 )
- Sometime the distribution change from Gaussian a lot ( plot 1-3 )

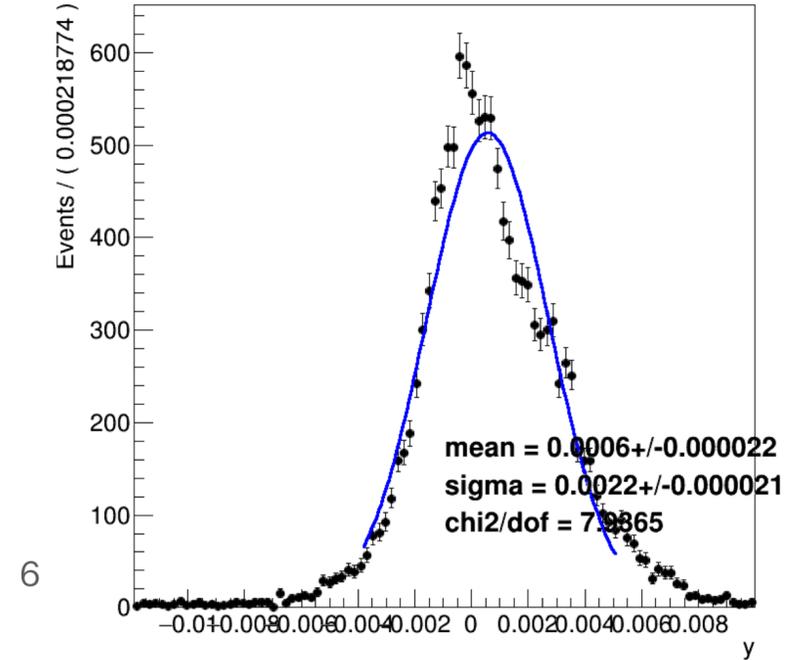
First back point  
Full silicon track



First red point  
Complete track



First cyan point  
Complete without OTK



Last blue point  
TPC track

