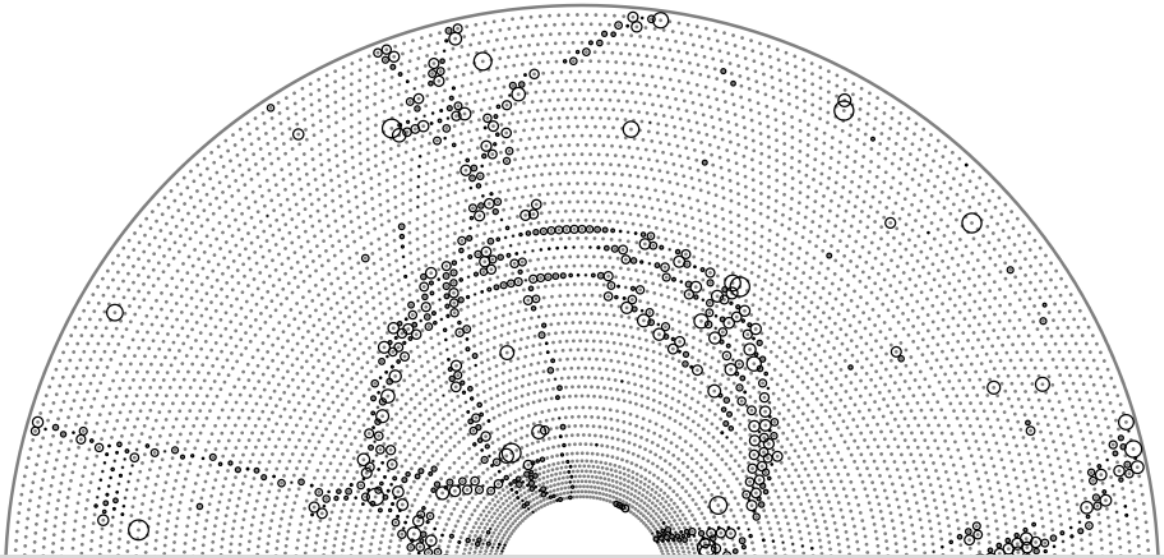
Performance of CDC Standalone Tracking (update)

Viktor Trusov

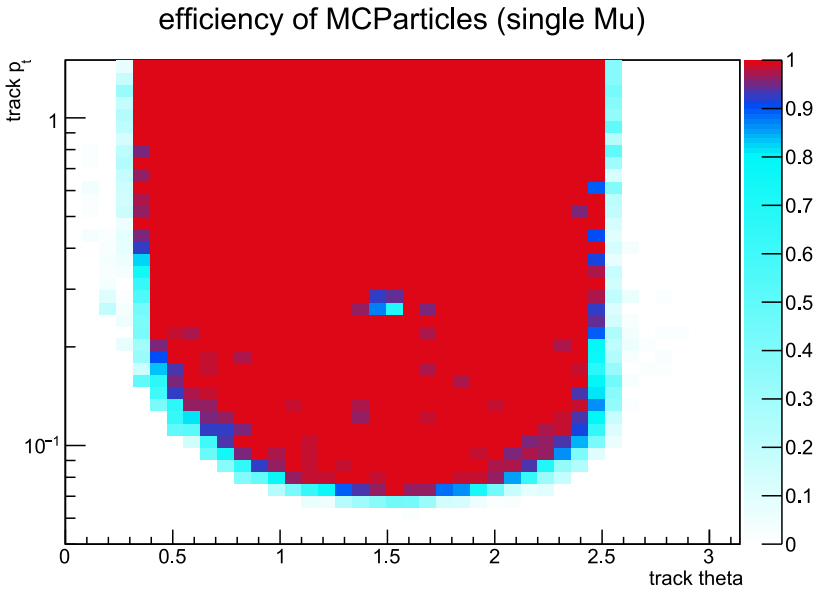
16.12.2016 | weekly tracking meeting

Karlsruhe Institute of Technology (KIT)

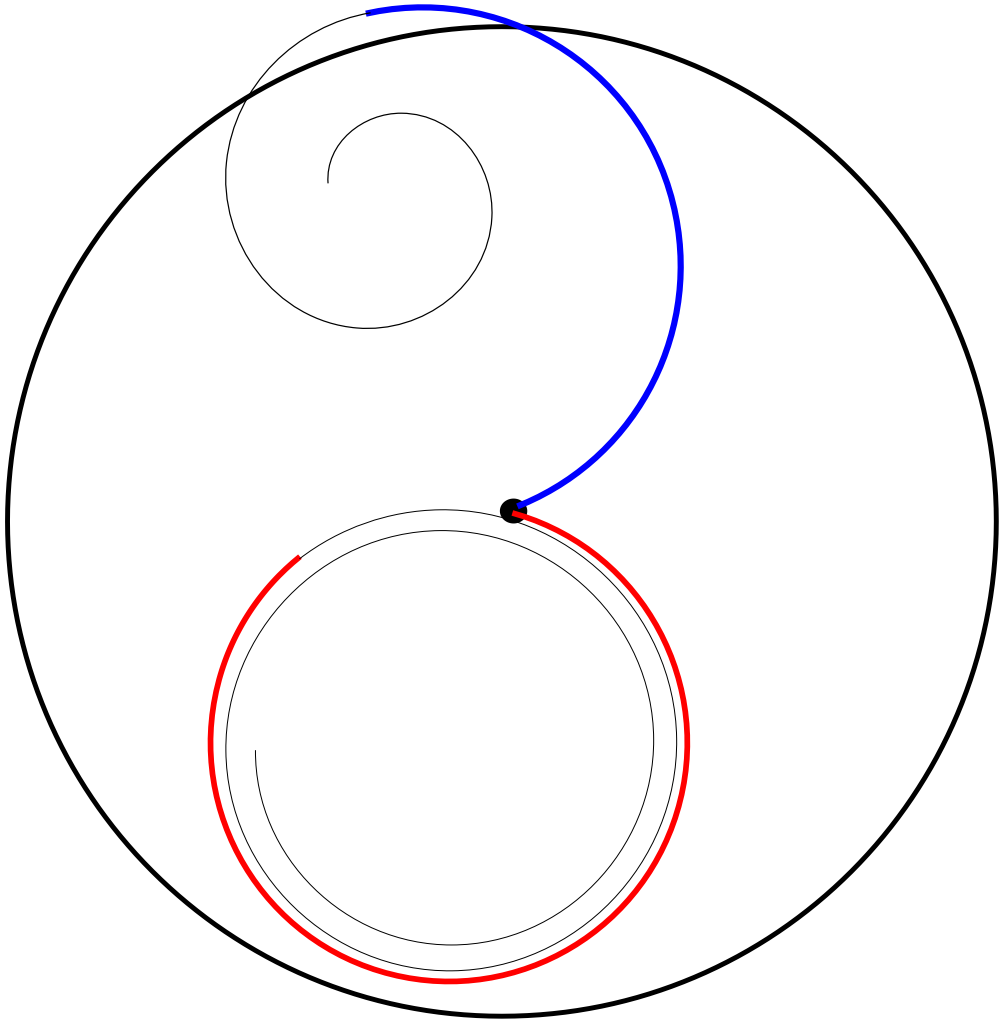


Introduction

- Standard CDC tracking reconstruction is used
- No GenFit -> only track candidates are considered
- Only relations between MCTracks and PRTracks were used, no kinematic matching
- Only one MCParticle per event generated and considered in the study
  - Daughters are skipped
- Problem – in case of long tracks we get wrong tracks matching

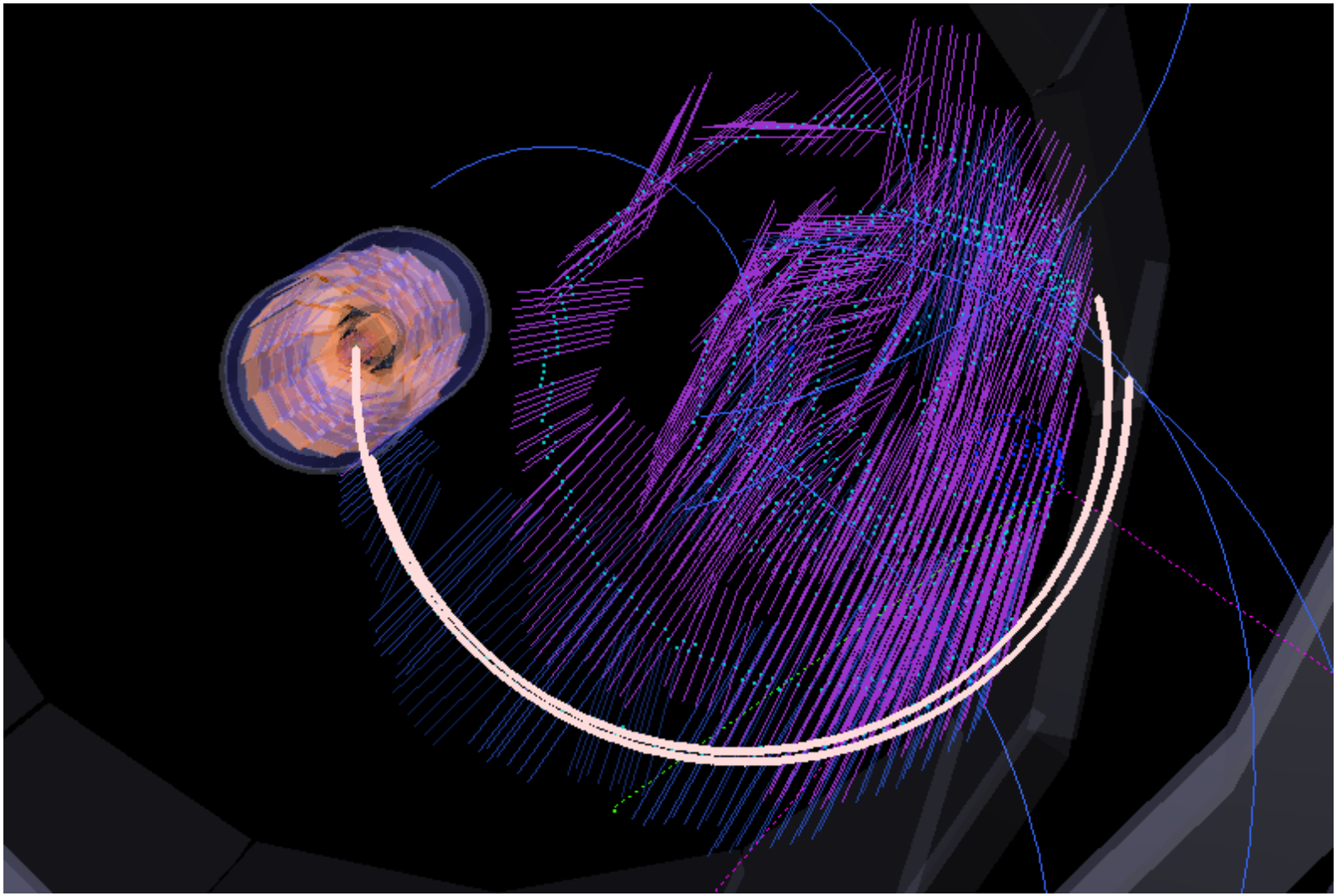


Event example

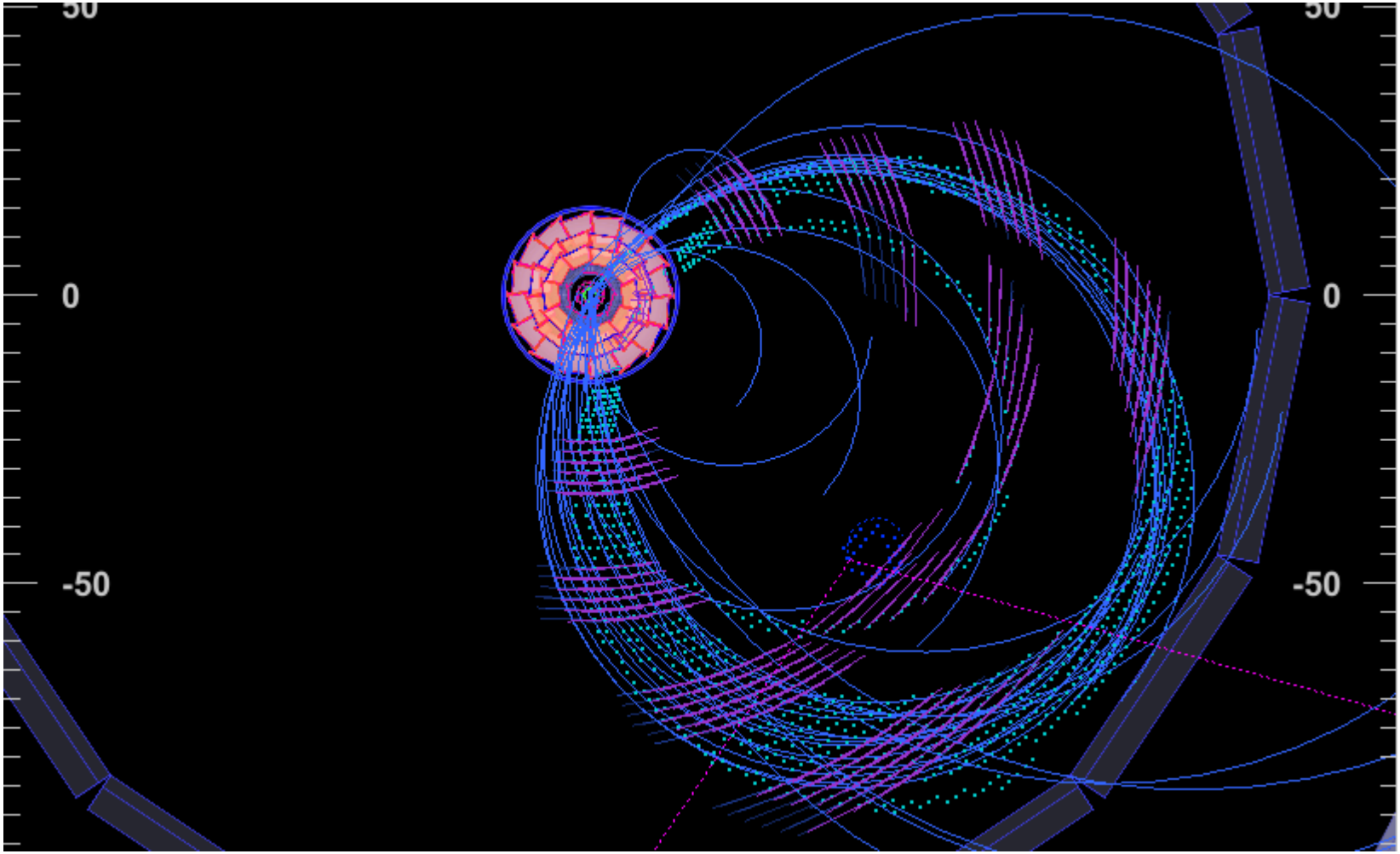


- Track reached the TOP detector and lost a lot of energy
- Track curls inside of the CDC

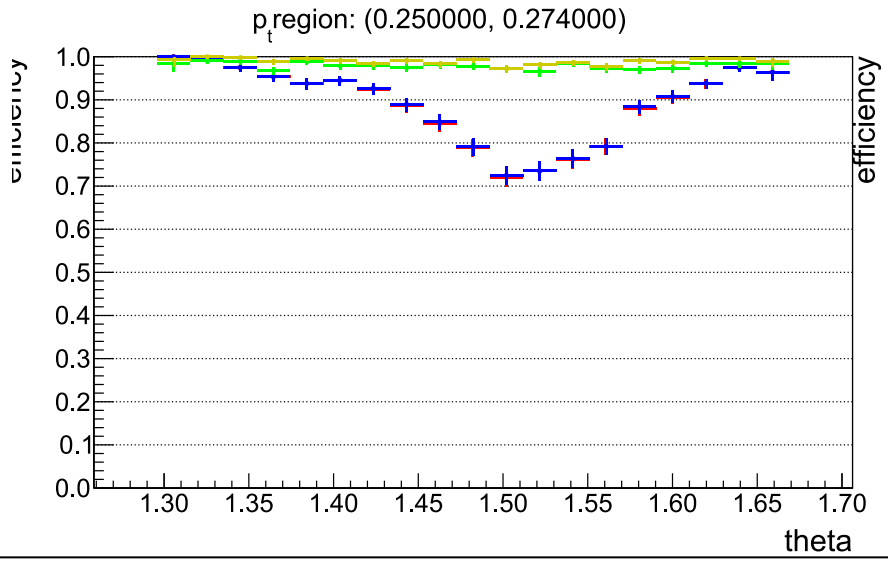
Event example

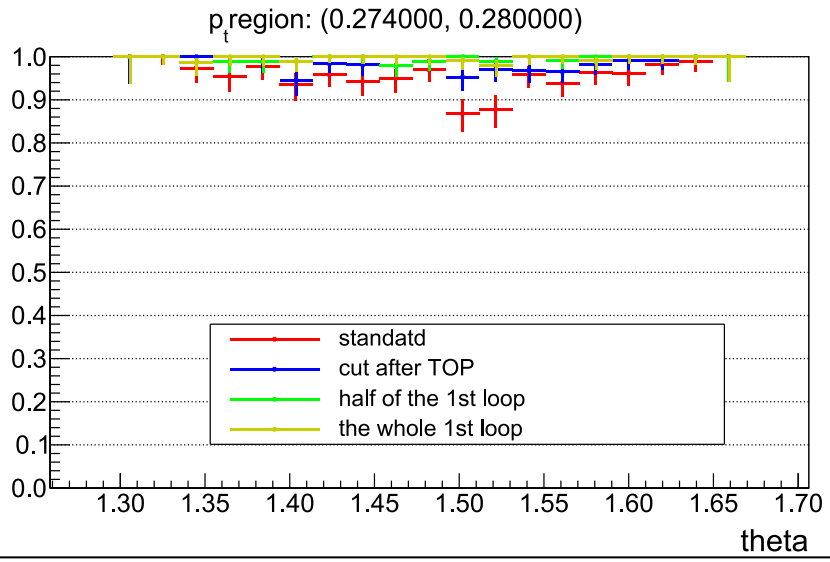


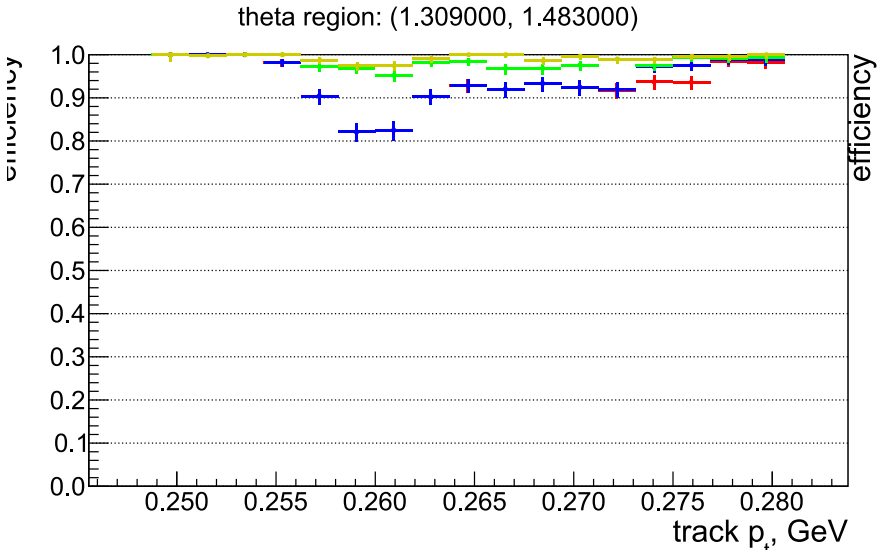
Event example

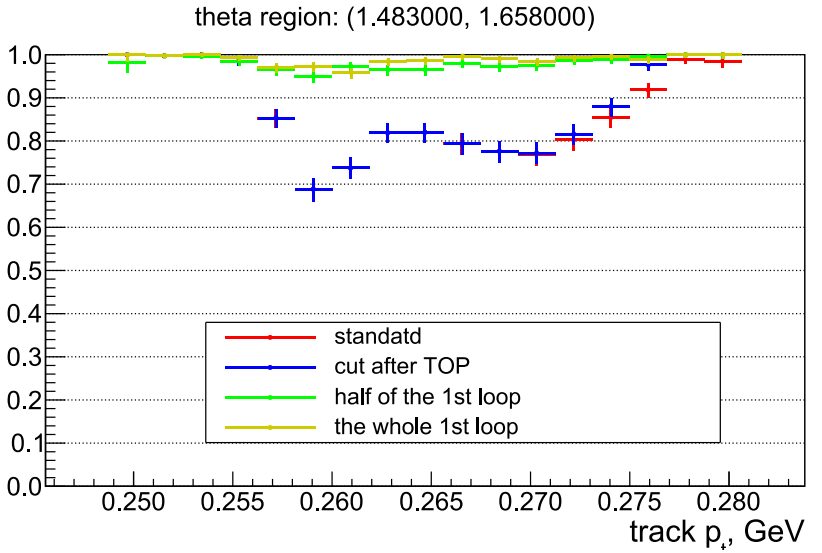


Shortening of the MC RecoTracks

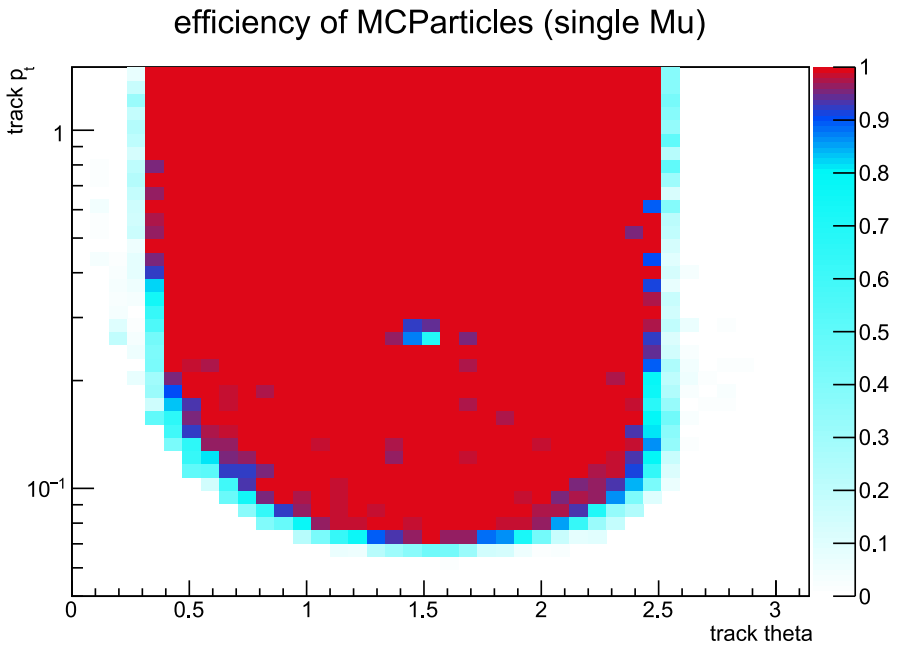




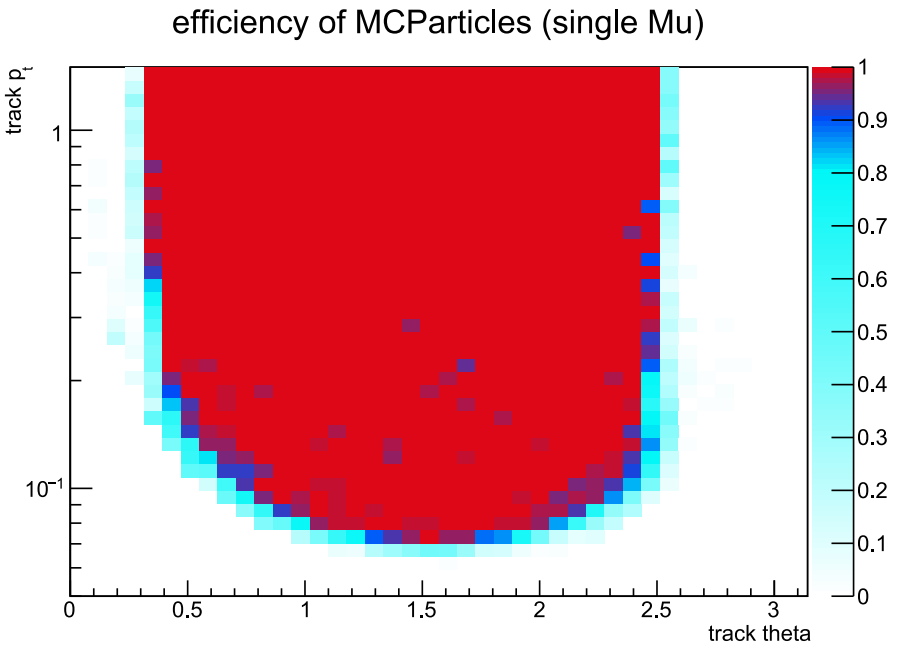




Efficiency

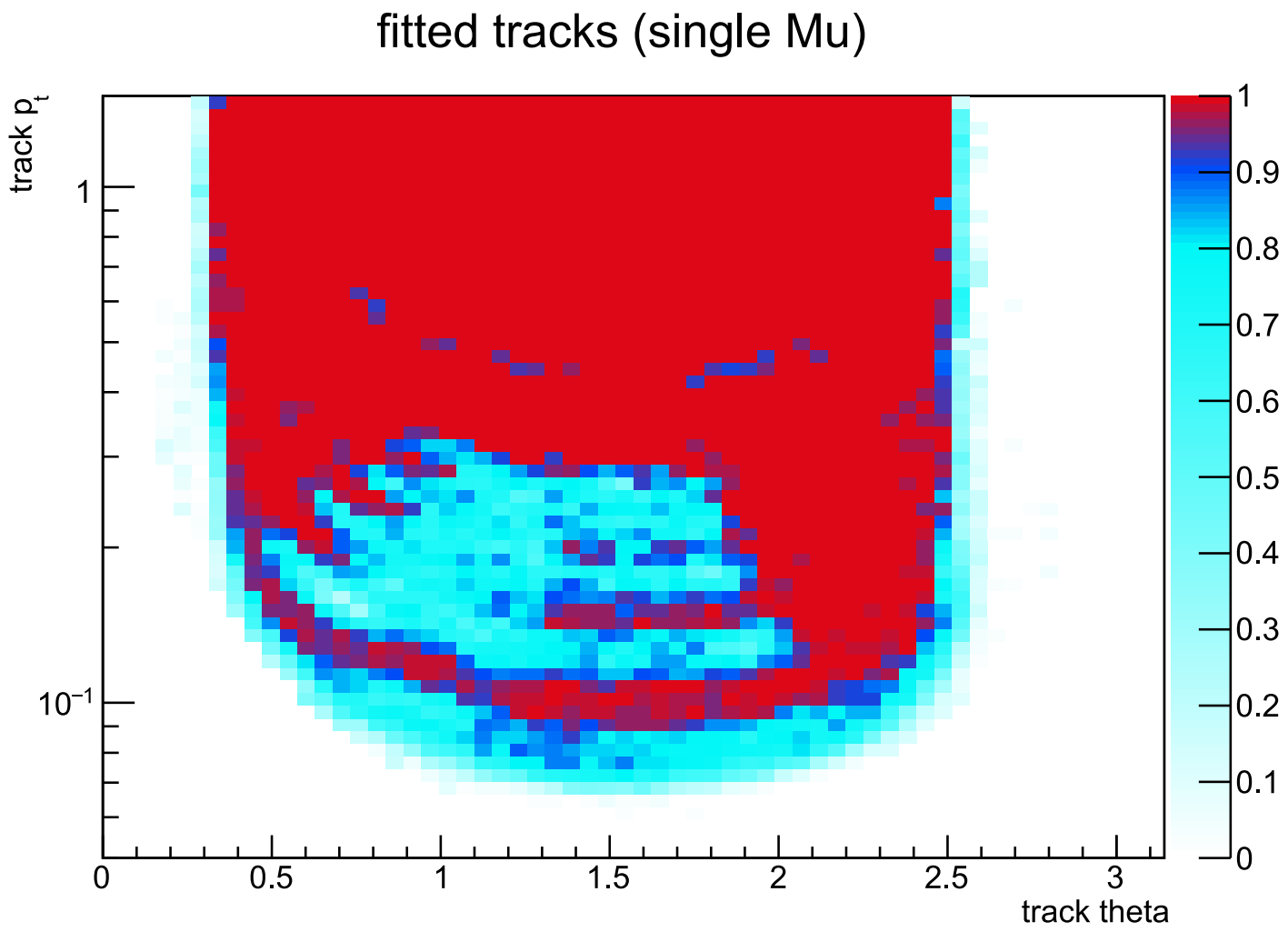


- Standard

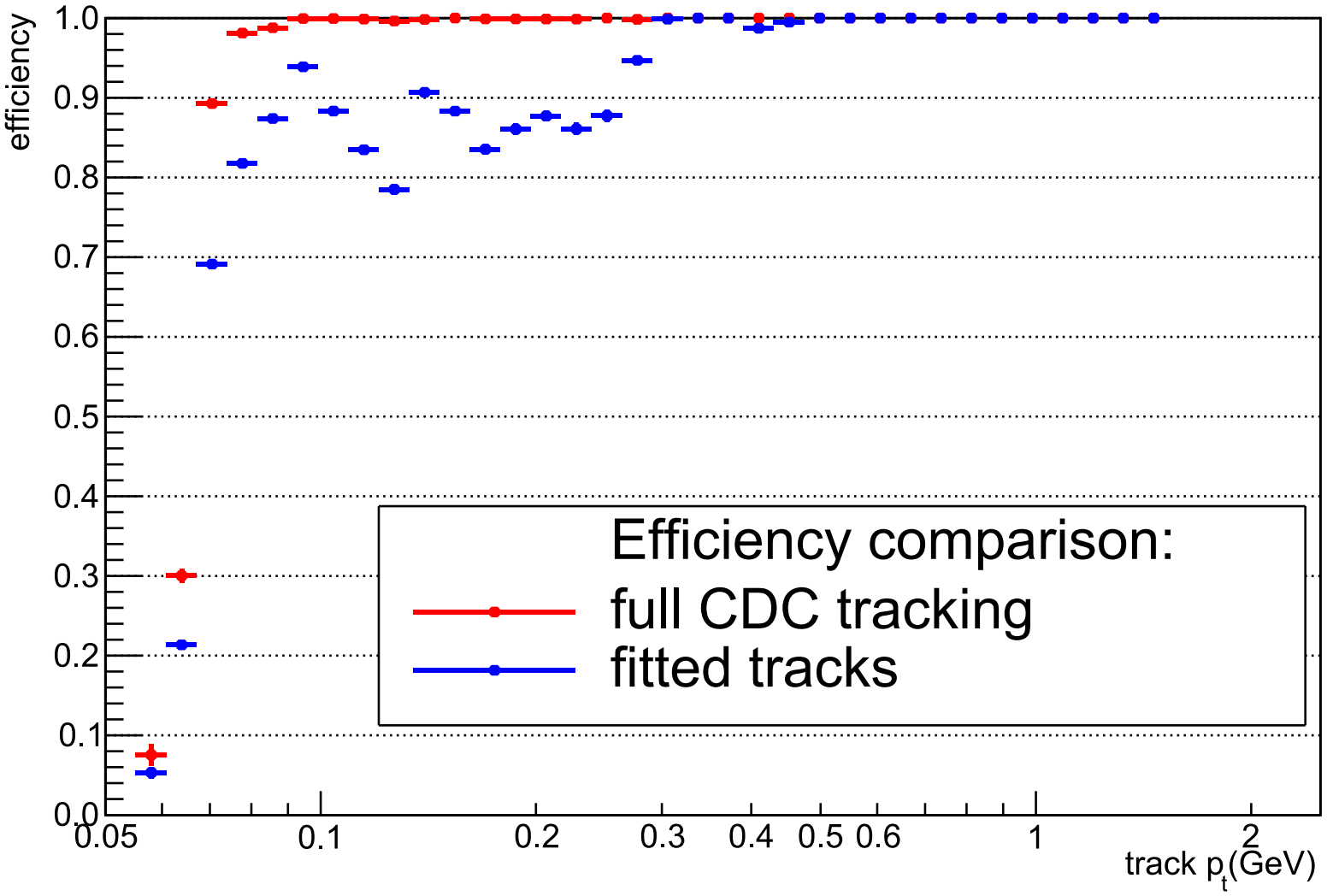


- Only the 1st loop in the MCTracks

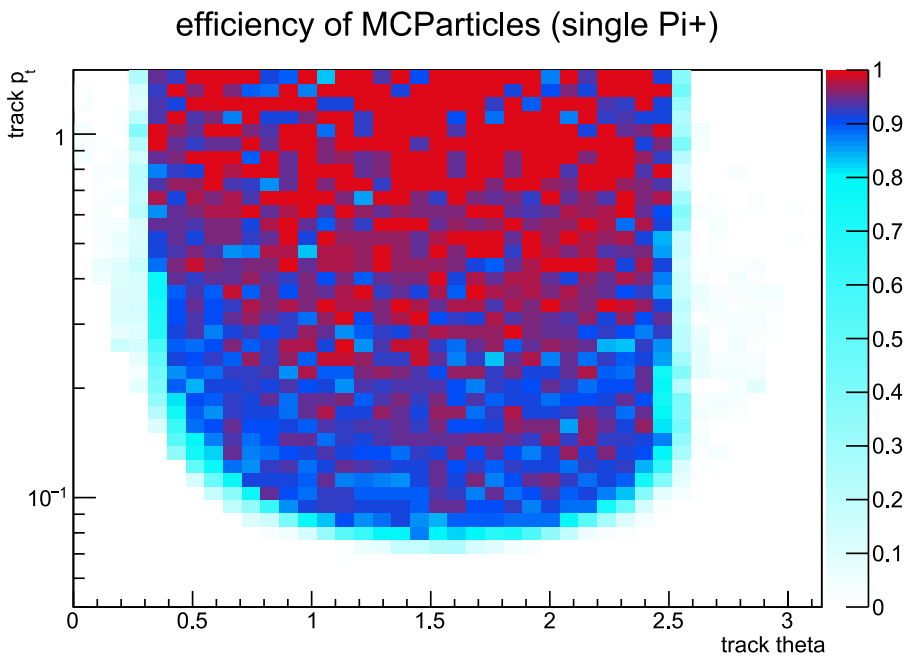
Efficiency after GenFit

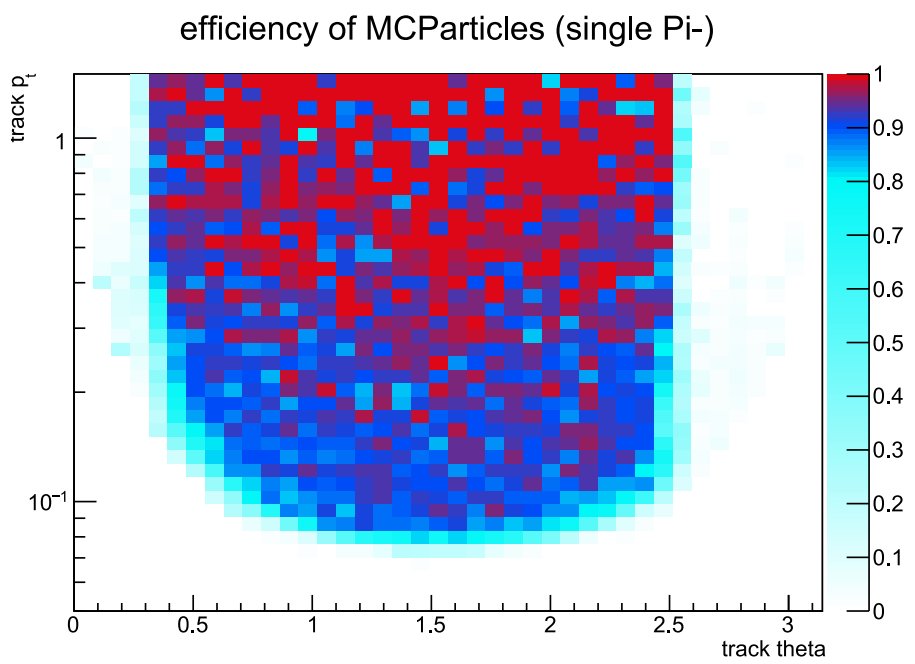


Efficiency after GenFit

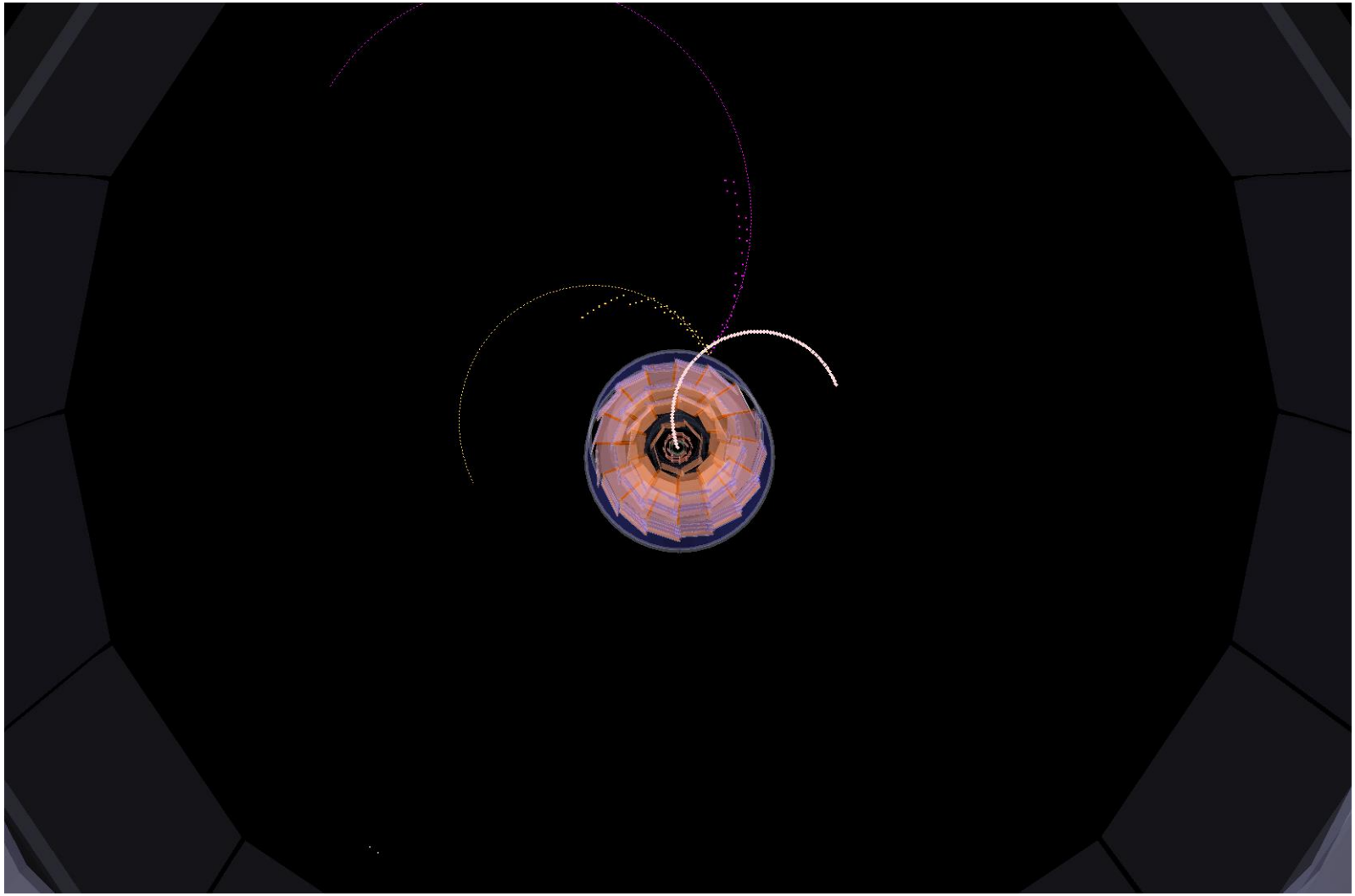


Material effects (pions)





Event examples



Event examples