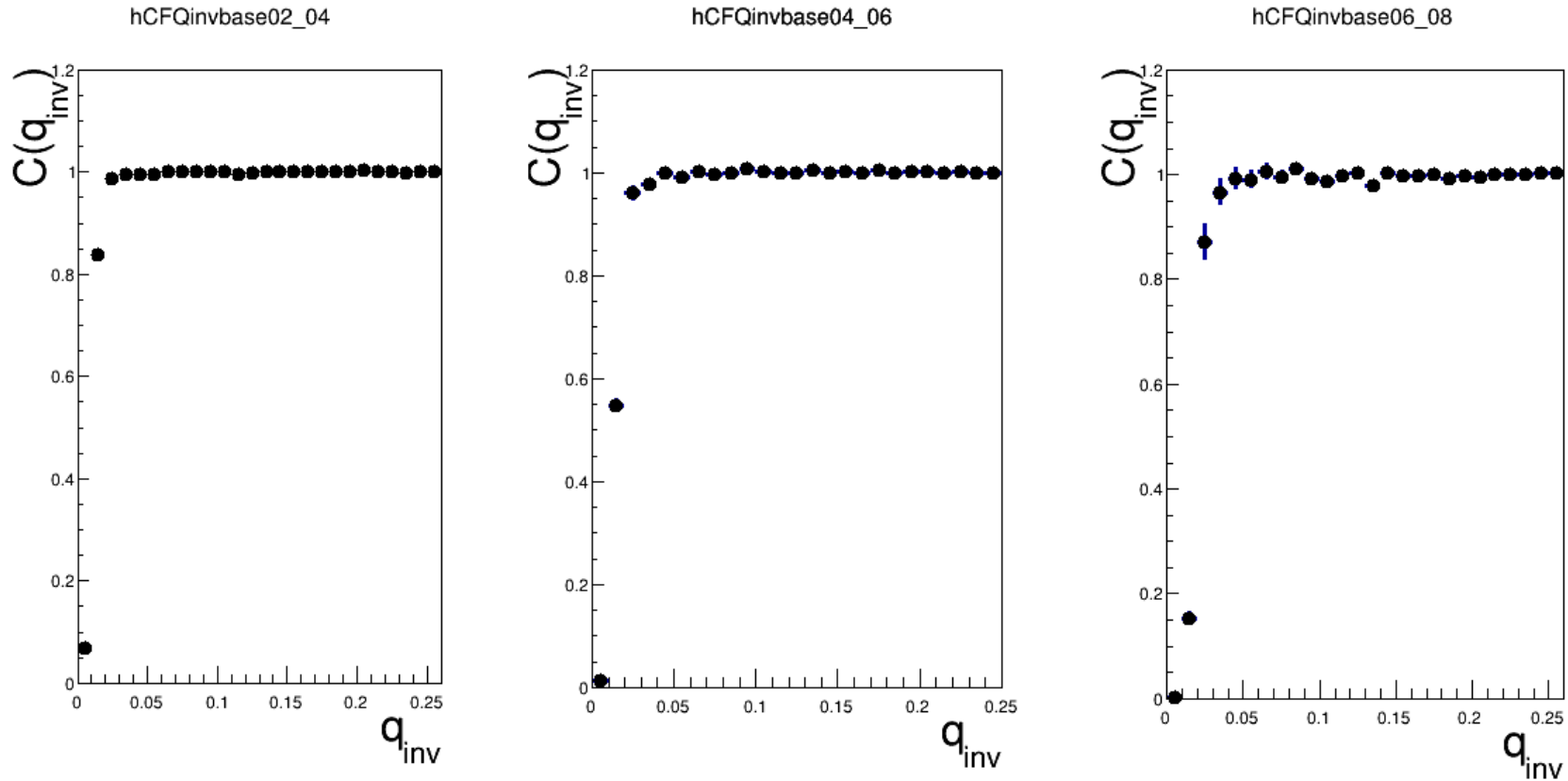


Outline

- MC production (vHLLÉ+GEANT+reconstruction) Au+Au
 - Statistics: $\sim 7e5$ $\sqrt{s_{NN}}=11.5$ GeV 0-5%
 - $|Z_{\text{vert}}| < 50$ cm, $|\eta| < 1$, number of TPC hits > 20 , $p_T > 0.2$ GeV/c
 - Pdg = 211

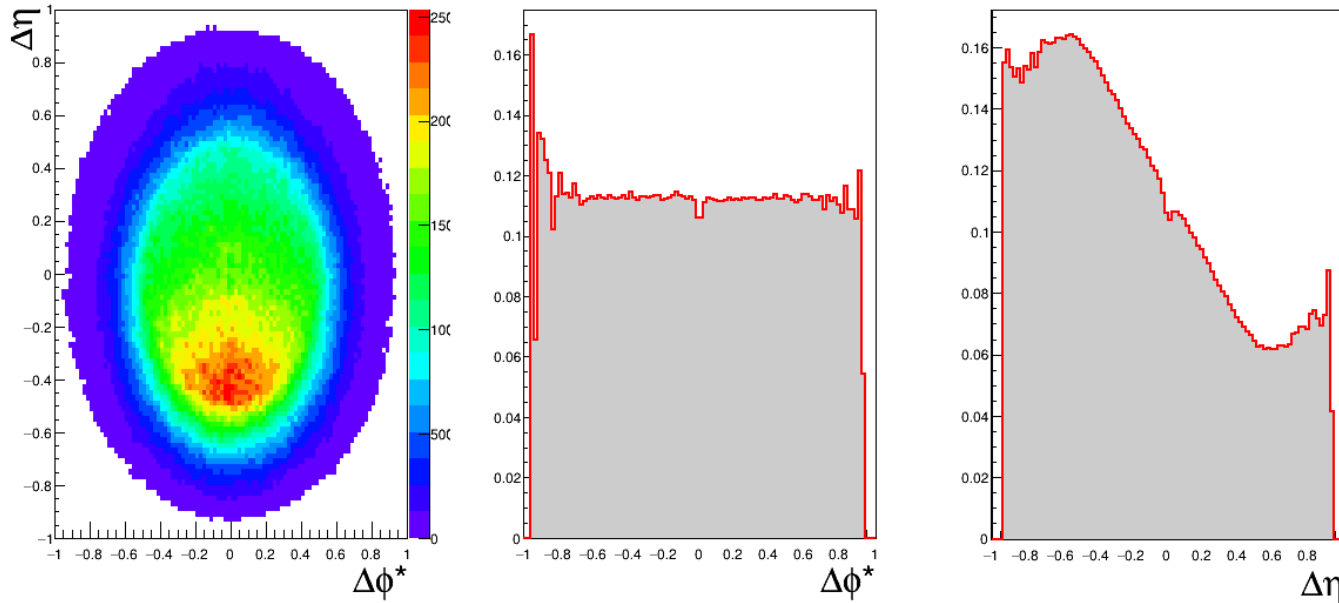
No Two Tracks Cuts (TTC)



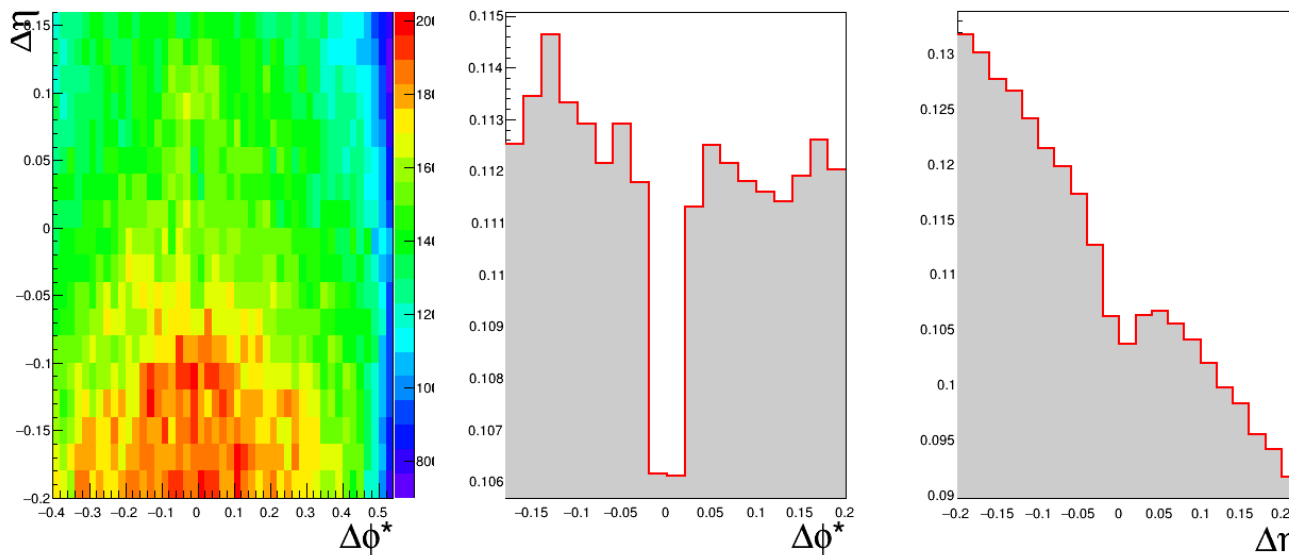
- Strong merging effect becomes wide with increase of kT

Delta Eta Delta phi* : AuAu $\sqrt{s}_{NN}=11.5$ GeV 0-5% (vHLL+GEANT+Rec)

No cuts

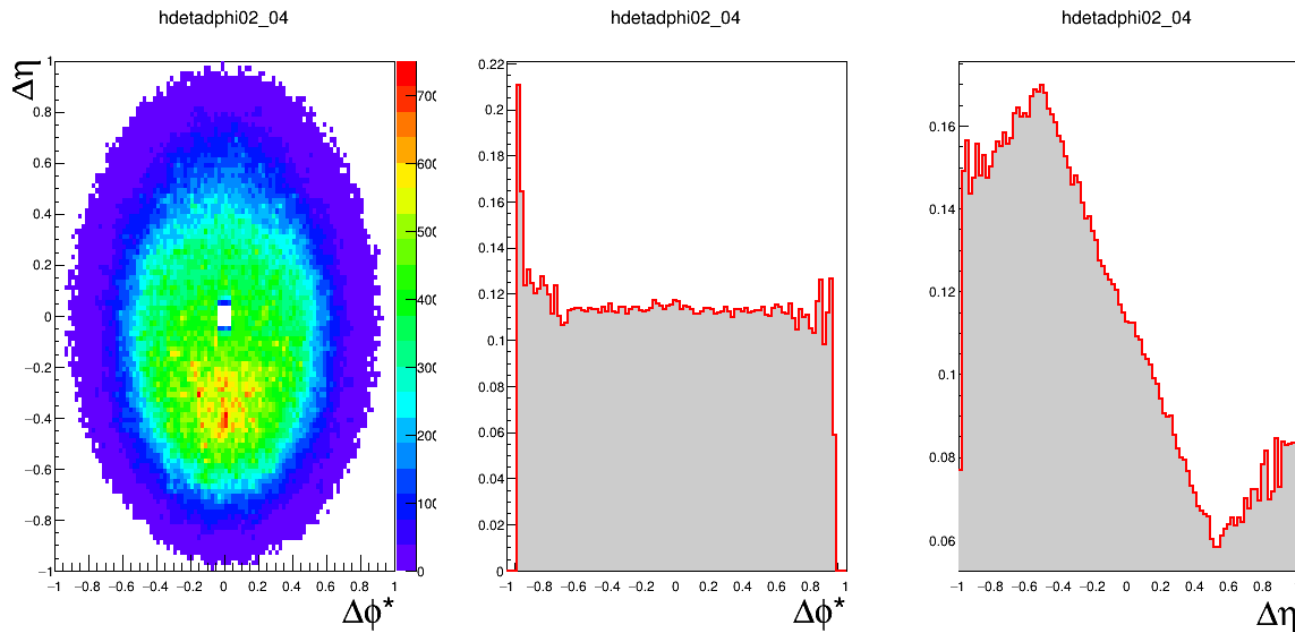


No cuts (zoomed)



- Ratio of Delta Eta-Delta Phi* from same event to the one from different events calculated at $r_{mag}=1.0$ m within TPC for $q_{inv}<0.2$ GeV/c
- Slope of delta Eta is due to absence of randomization (to be done)
- Minimum in Delta phi* <0.02
Delta eta <0.02
- Suggested Cuts :
Delta phi* <0.04
Delta eta <0.02

After cuts application

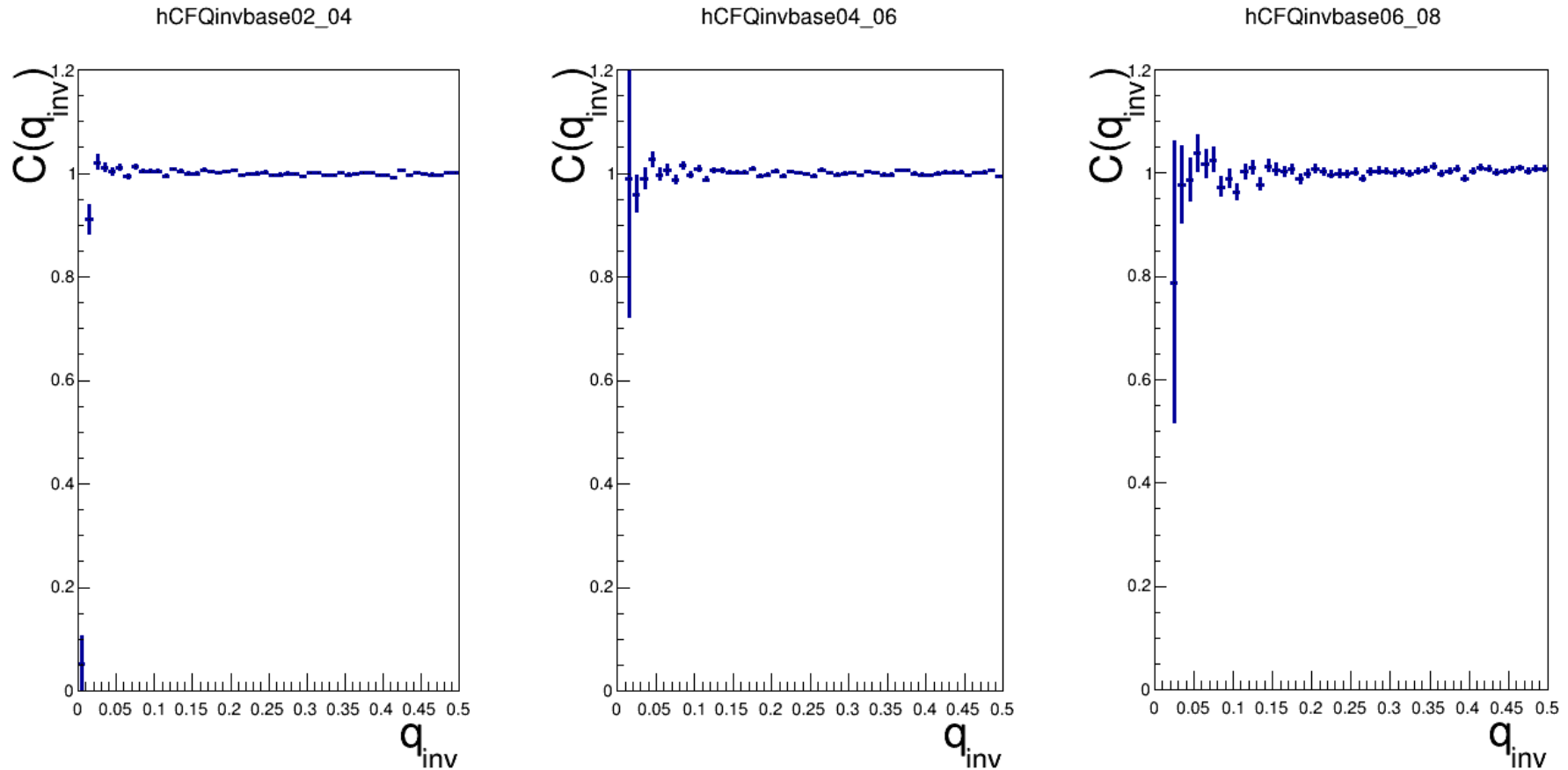


- Ratio of Delta Eta-Delta Phi* from same event to the one from different events calculated at $r_{mag}=1.0$ m within TPC for $q_{inv}<0.2$ GeV/c

- Hole in Delta phi* < 0.04
Delta eta < 0.02

due to cuts application to Numerator (same events) and Denominator (mixed events) the same hole in Numerator and Denominator

After Two Tracks Cuts (TTC)



- Merging effect not completely killed by Delta Eta Delta Phi* cuts
- I was trying to use different variants (e.g, check Delta Eta Delta Phi 8 each 2 cm
- Within TPC)

Backup slides