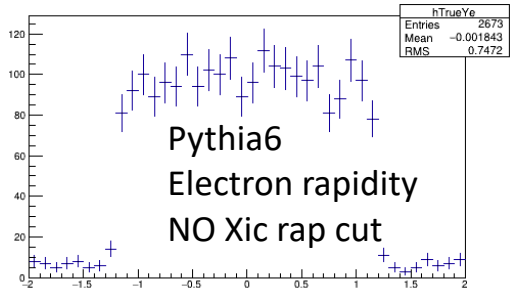
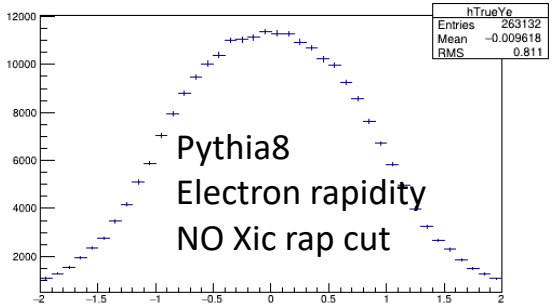
Xic Meeting

Jan 14th 2021

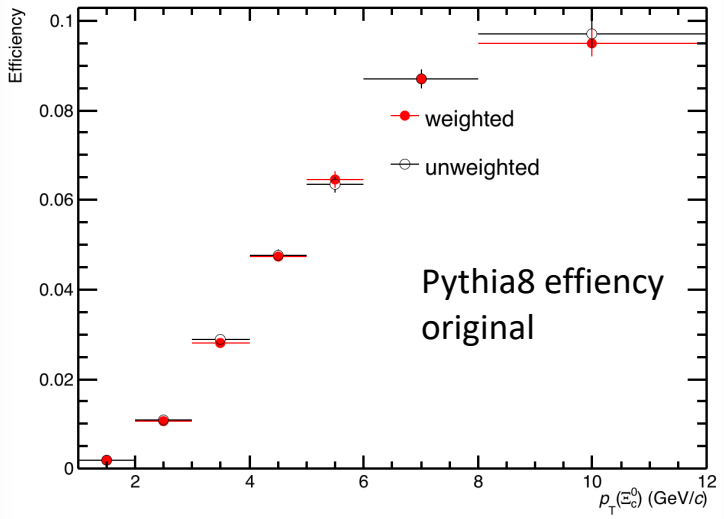
Jeongsu Bok

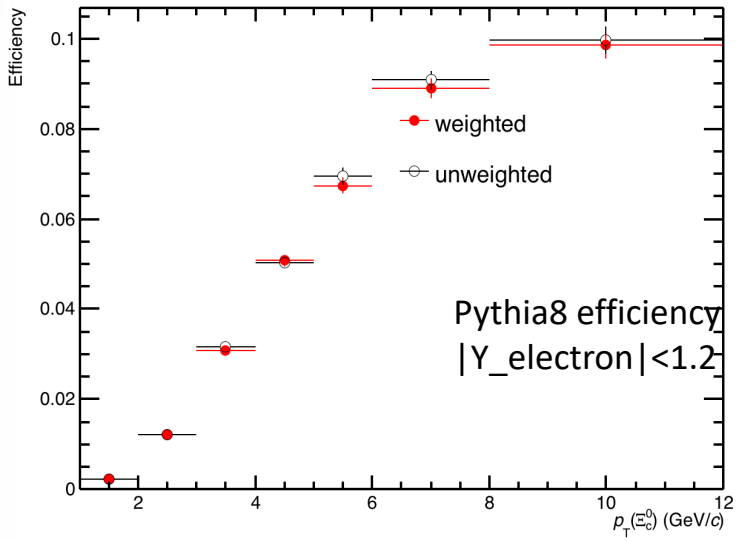
Test with electron rapidity cut in pythia8



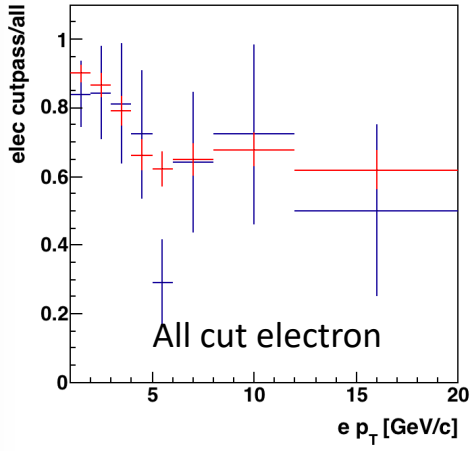


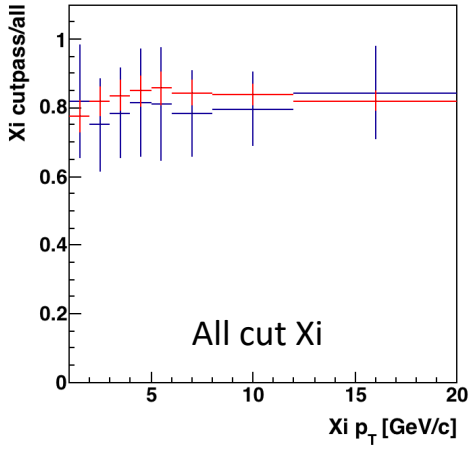
- Electron |y|~<1.2 in pythia6
- |y(electron)|~<1.2 in pythia8 is slightly higher than the original.

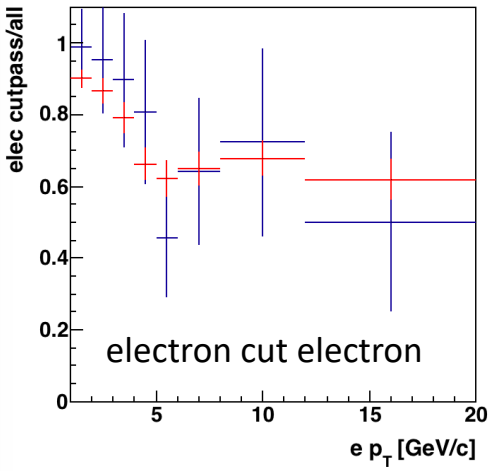


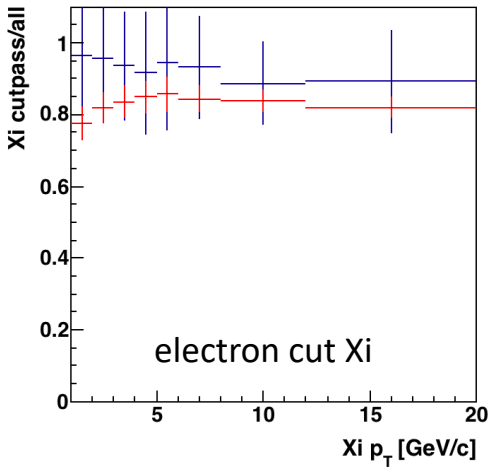


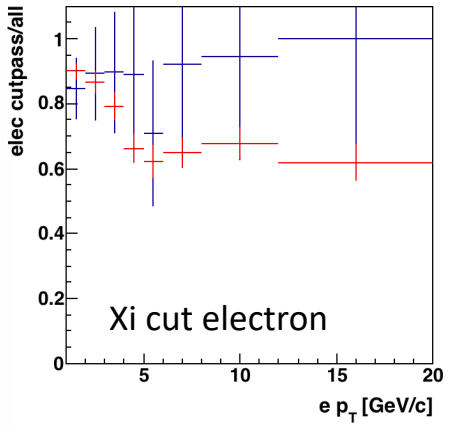
1/7 Cut passing ratio

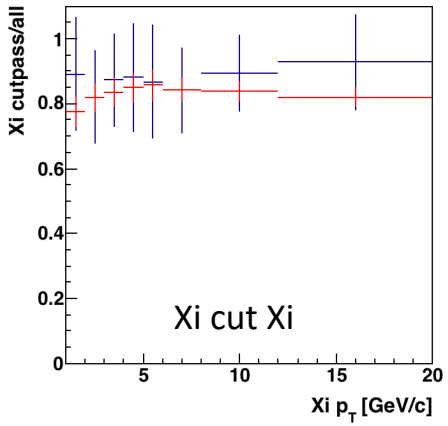


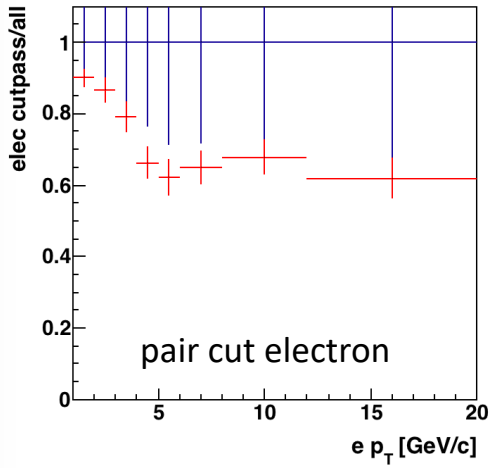


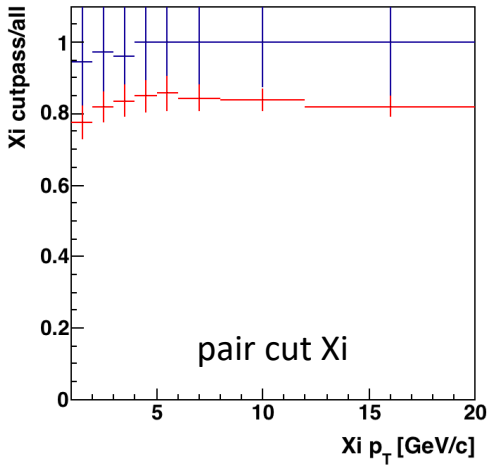






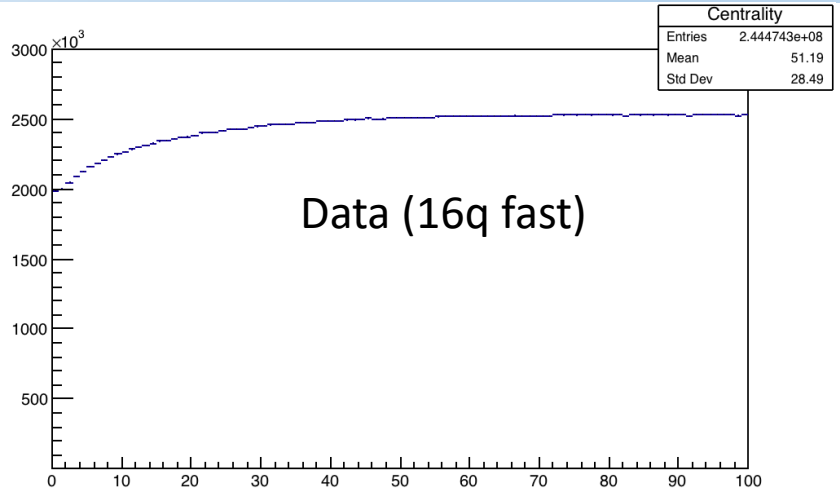


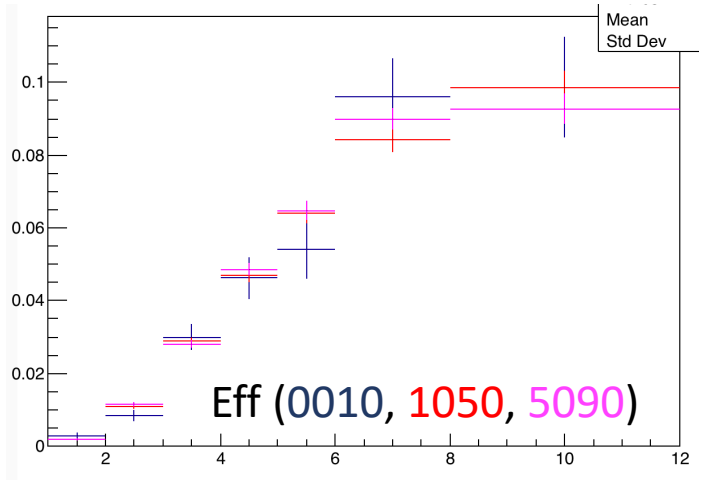


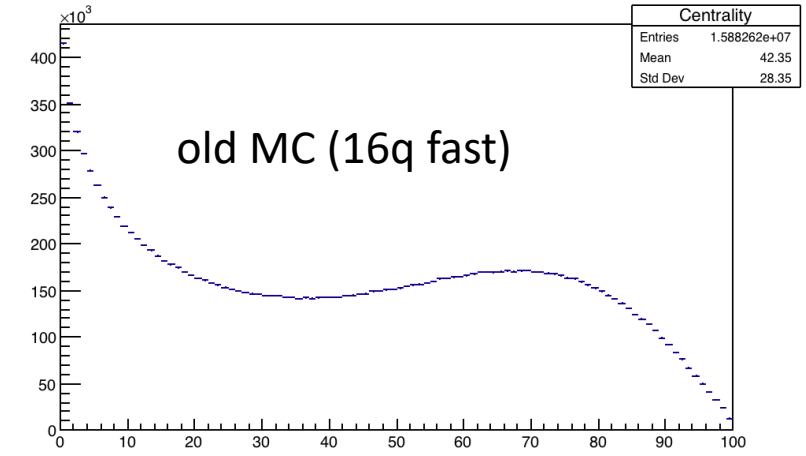


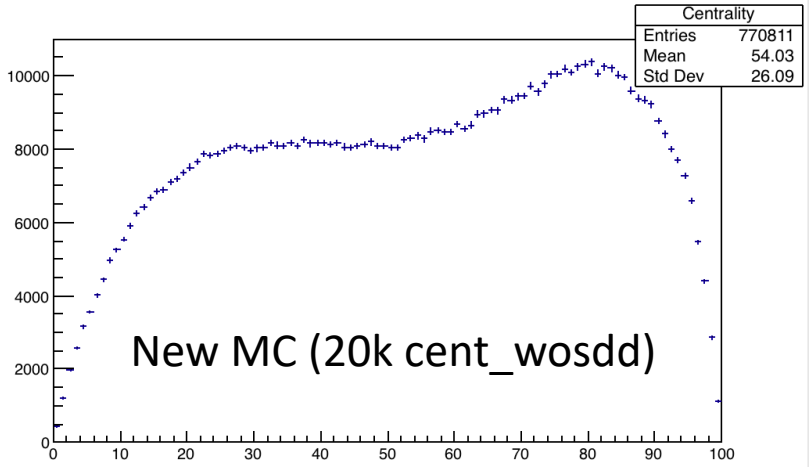
- Ratio of passing all standard cuts
  - Left: electron right: Xi. Black: old MC Red: new MC
- 1TopLeft: all cut. 2TopRight: ecut 3BottomLeft: Xicut. 4BottomRight: pair cut
  - 4BottomRight: pair cut does not cut in old MC, but does affect new MC
  - The red(new) points looks similar in all panels, but they are different.

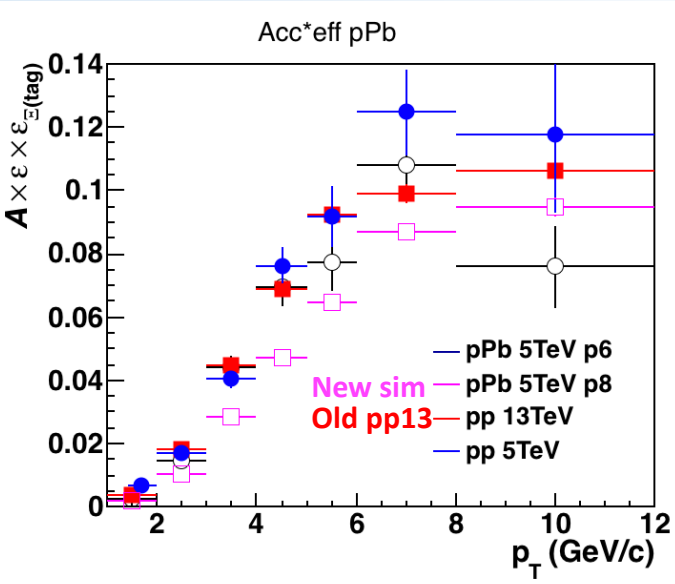
1/7 centrality check











- Efficiency vs Centrality in new MC
  - Unweighted, but unweighted&weighted are similar
  - Similar within uncertainty for all centrality
  - Still far from pp and pPb pythia6
- To do list
  - Check efficiency with electron daughter cut in old(pythia6)
  - Check HIJING condition in pythia6&8

LHC16q

265422, 265377, 265381, 265378, 265383, 265384, 2654

265426, 265425, 265499, 265435, 265500, 265521, 2655

Event Selection: Vertex position |z| < 10.0 cm + Physics selected (Minimum Bias: kMB/kINT7) + At least 1 contributor to PV

Backup : Efficiency issue

- Test with Jinjoo's code
- lower ~30% relatively
- Rapidity cut does not change cross section
- Looking at cut variables