Regit vs
Regit with HiDetchedTripletStep

Emilien, Songkyo, Geonhee, Prashant, Vineet
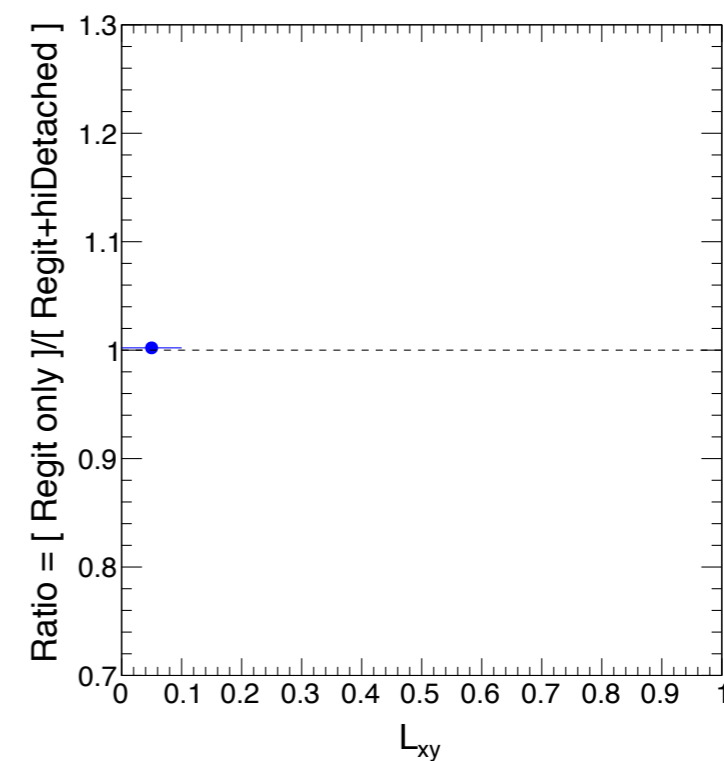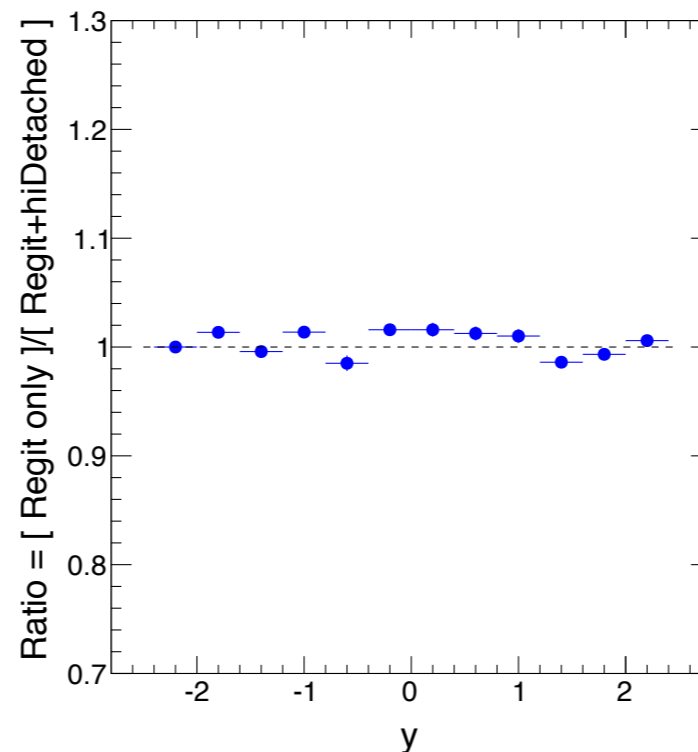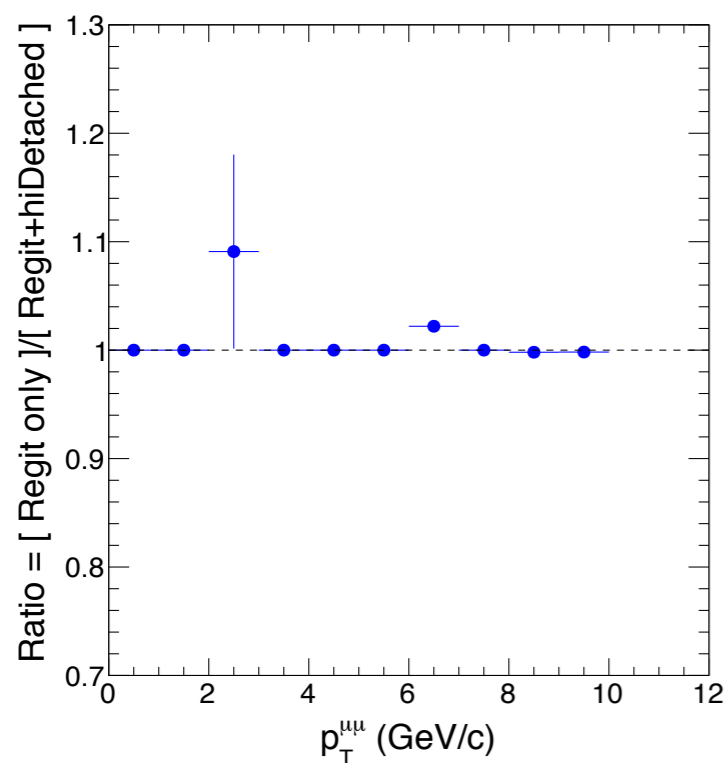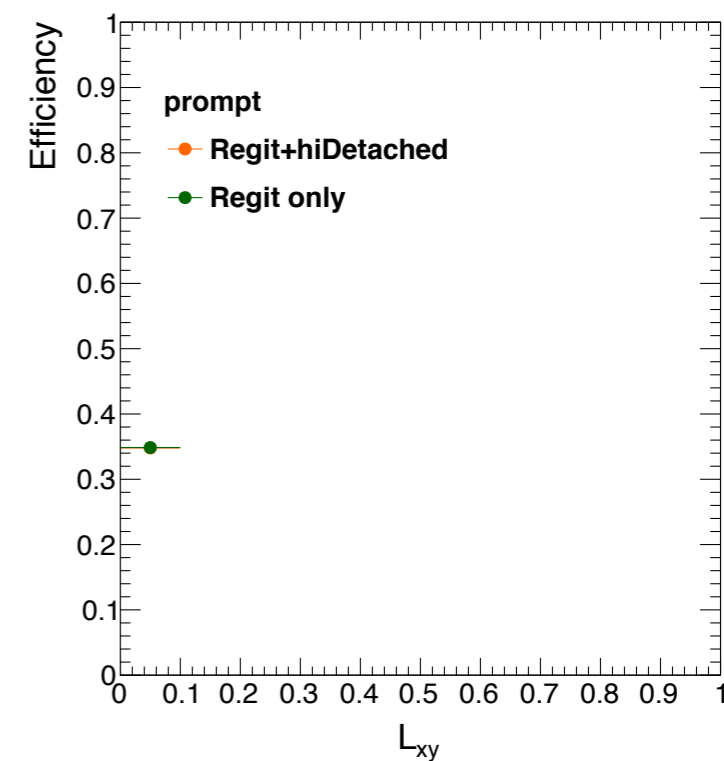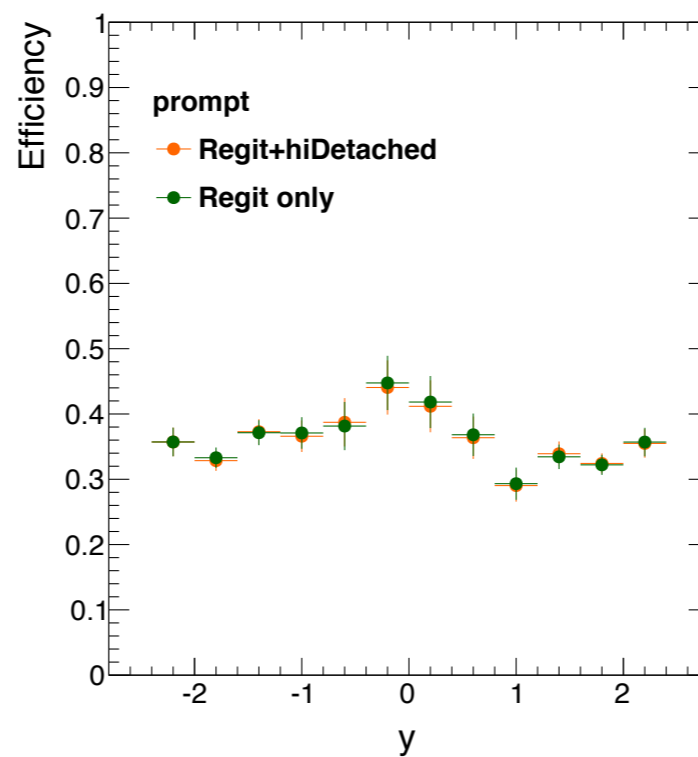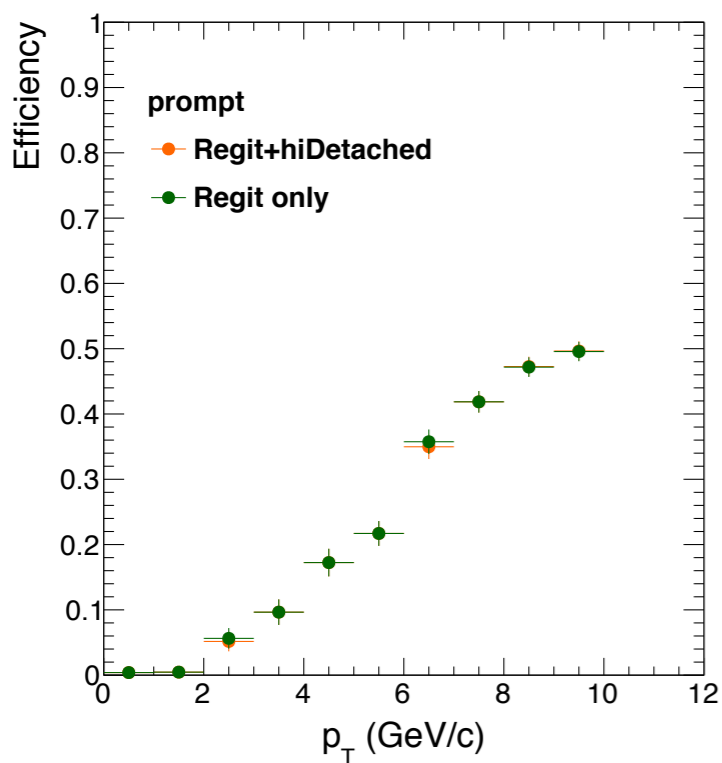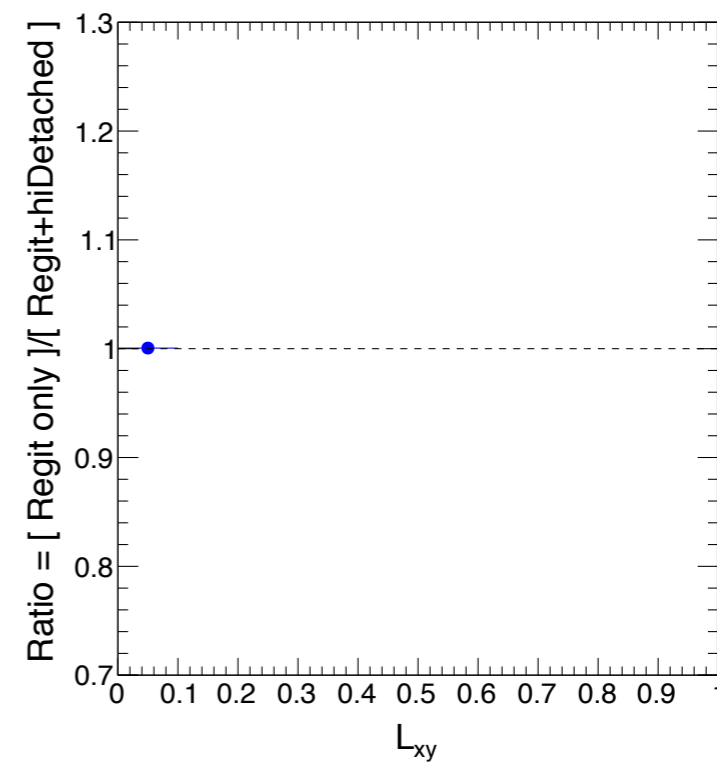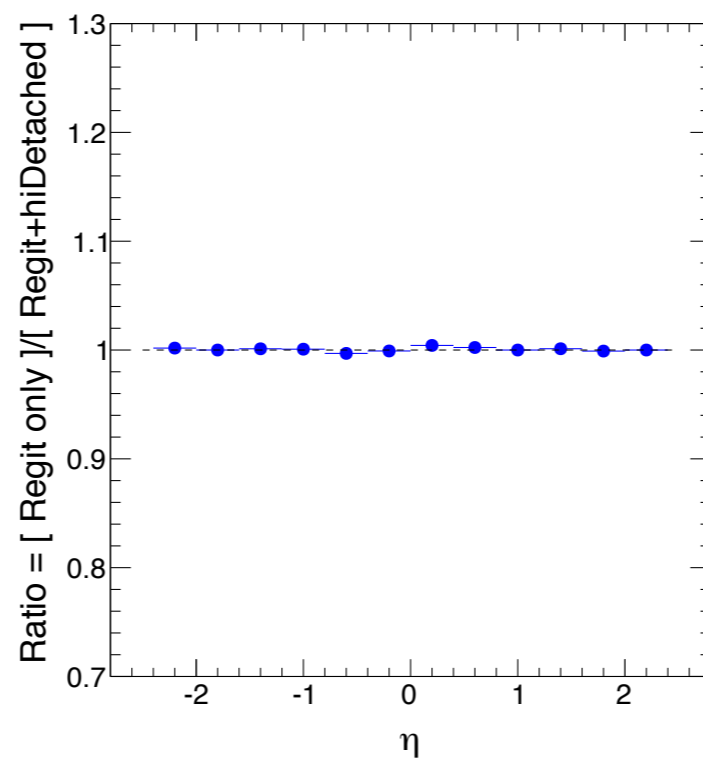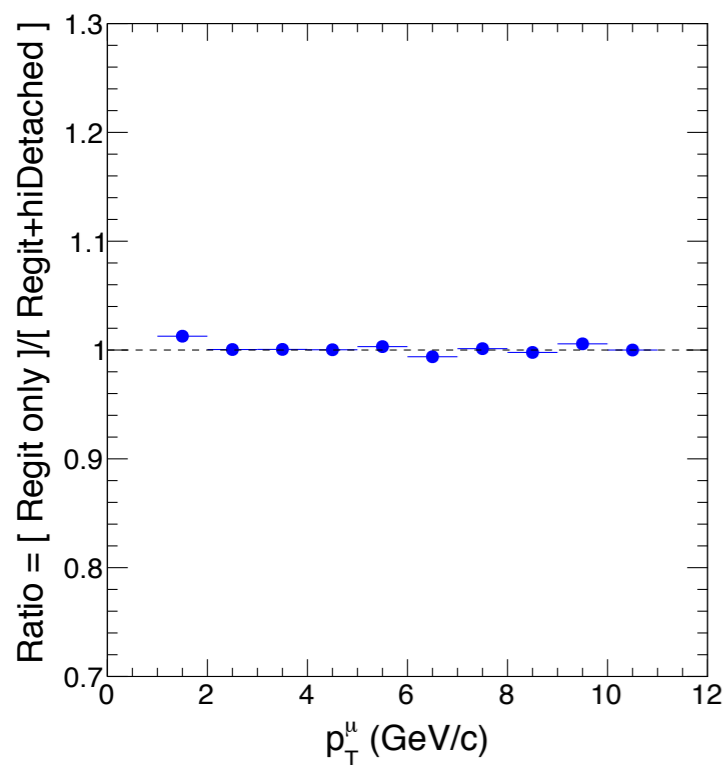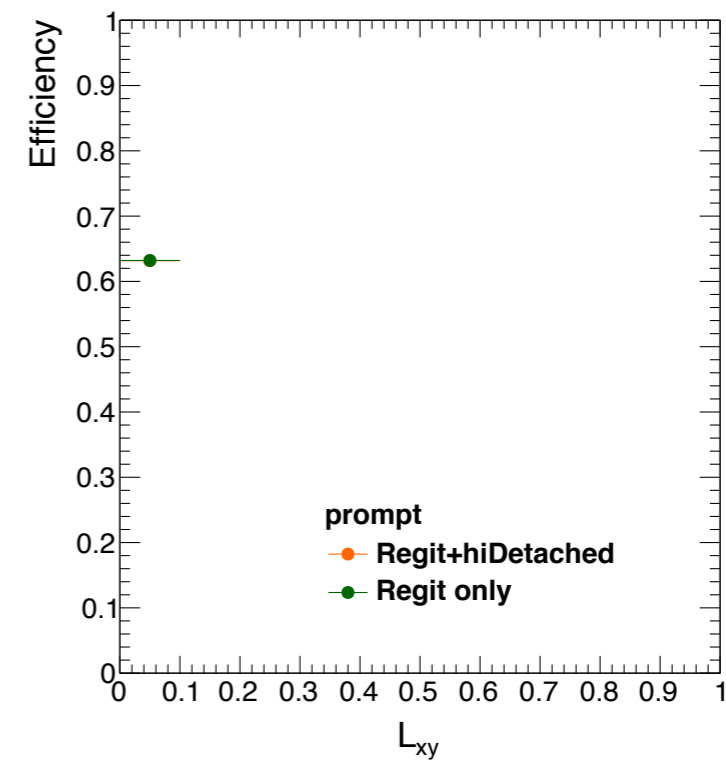
After following the instruction for regit in 740pre3
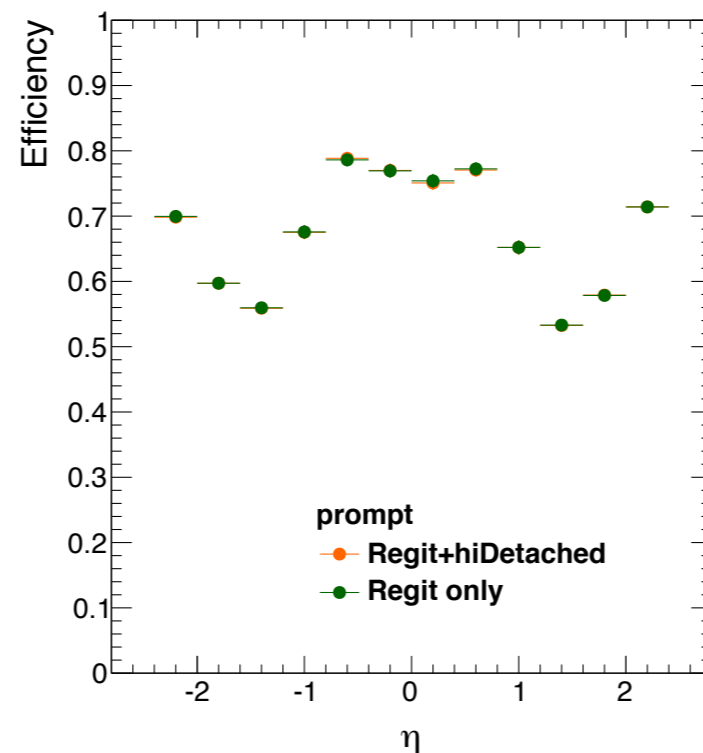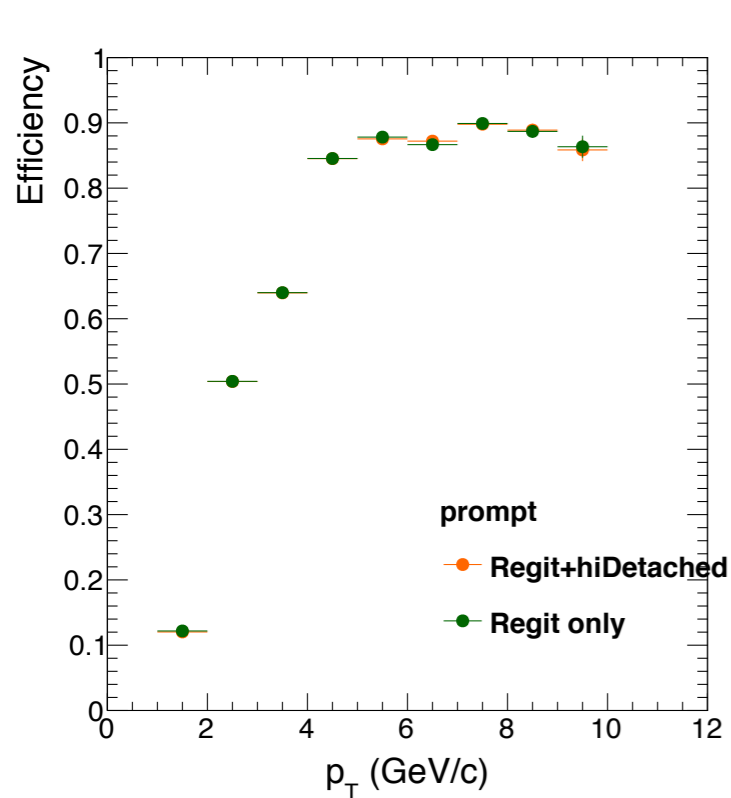
] cms-addpkg RecoHI/HiTracking
] git cherry-pick a69d7293ccce1a33d907262fc3406fbbce16edb2
] git cherry-pick 1ce5a6dc47849a8fc96a69162a49746242b1c9d8
] git cherry-pick 94e518c4bd9d138ded9f9bd49dc5a006f759cbad
] scram b

Prompt J/psi (dimuon pairs)

Prompt J/psi (single tracks)

B to J/psi (dimuon pairs)

B to J/psi (single tracks)

BACK UP

- **used MC samples**
  - **https://twiki.cern.ch/twiki/bin/viewauth/CMS/HIRegitMu2014#MC_samples_AN1**
  - embedded prompt J/psi : 3 < pT < 10 GeV
  - embedded non-prompt J/psi : pT< 20 GeV

- **used macros**
  - **https://github.com/CmsHI/pPbJPsiAnalysis/tree/master/regit**

  - JpsiStyle.C and KYOcommonOpt.h are just for drawing
  - makeEfficiency_74X_setBr.C
    - :60, set "isPtCut" and "doWeight" as false
      - -> "isPrompt" true or false = prompt or non-prompt
      - -> "isPair" true or false = pair or track
      - -> "isEmbedded" true of false = embedded or non-embedded
    - :317-370, is the acceptance cut and muon ID cut part
      - -> current cut is the same as makeEfficiency.C
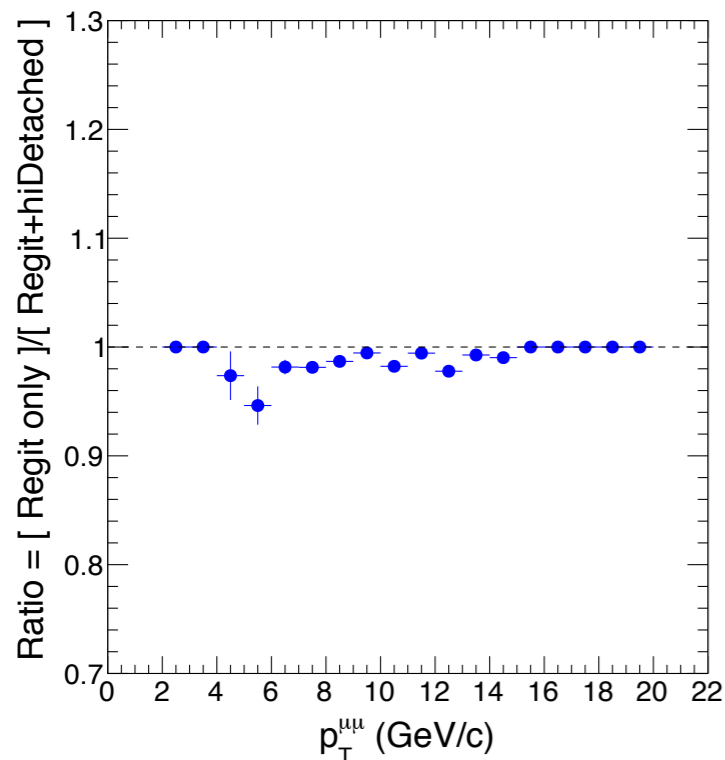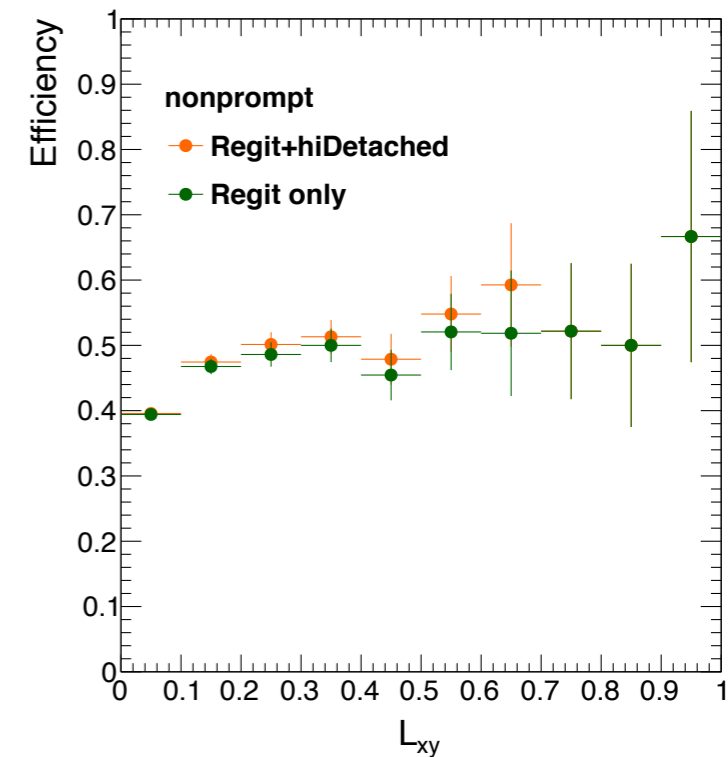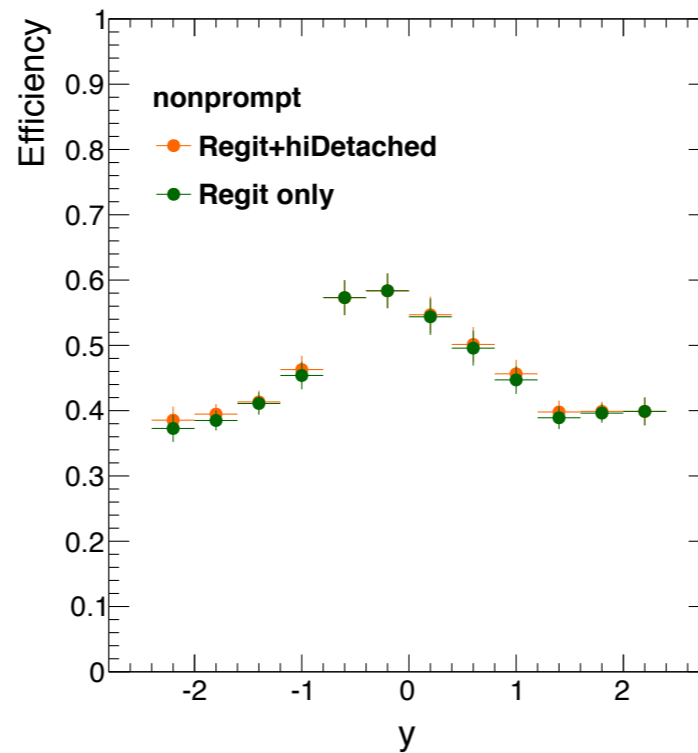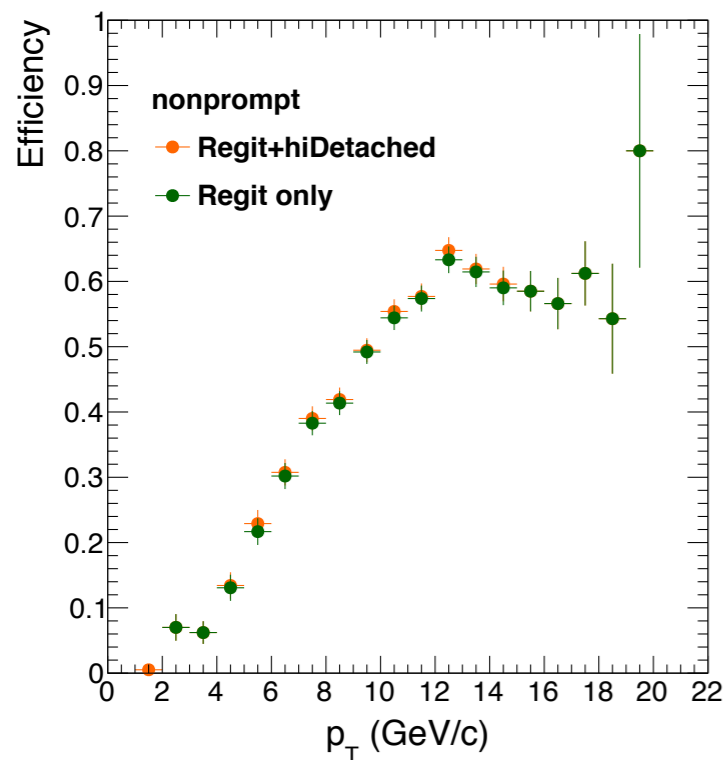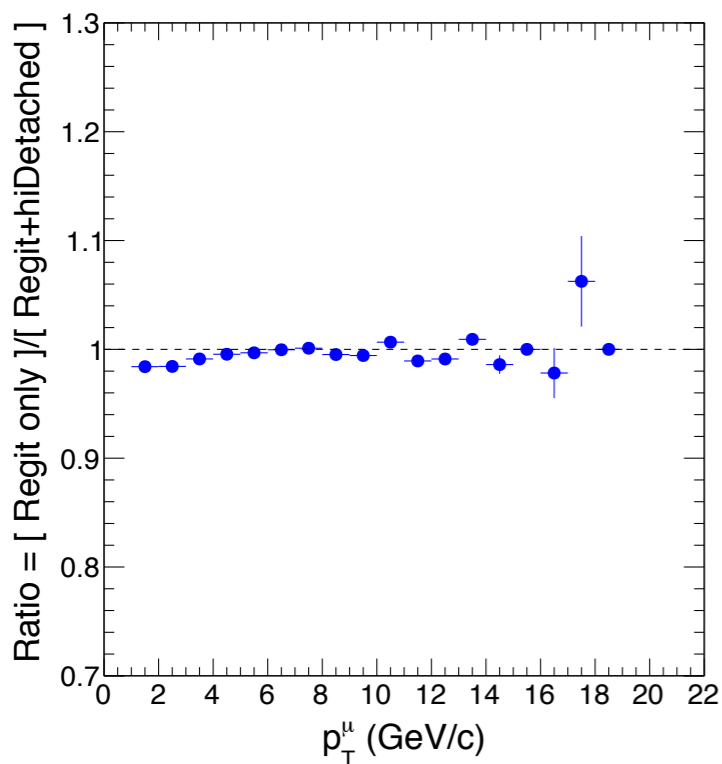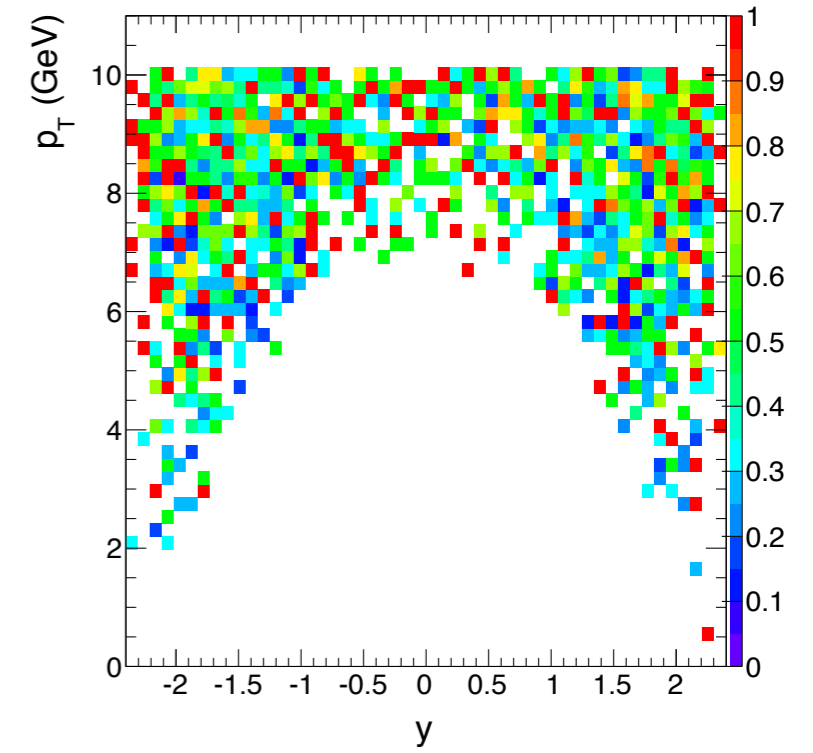   - :83, results (pdf and root files) will be saved in the dir. "strDir",
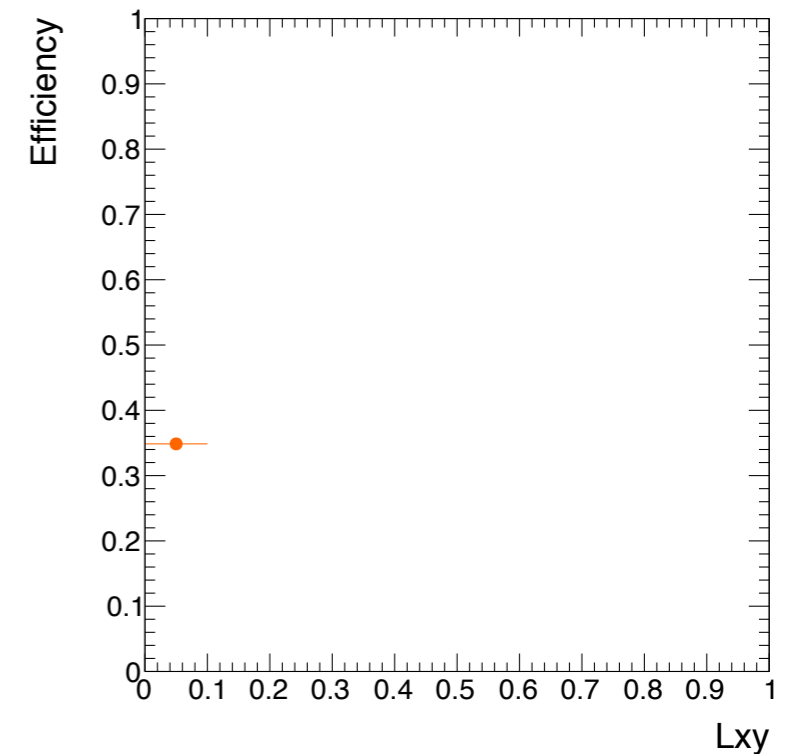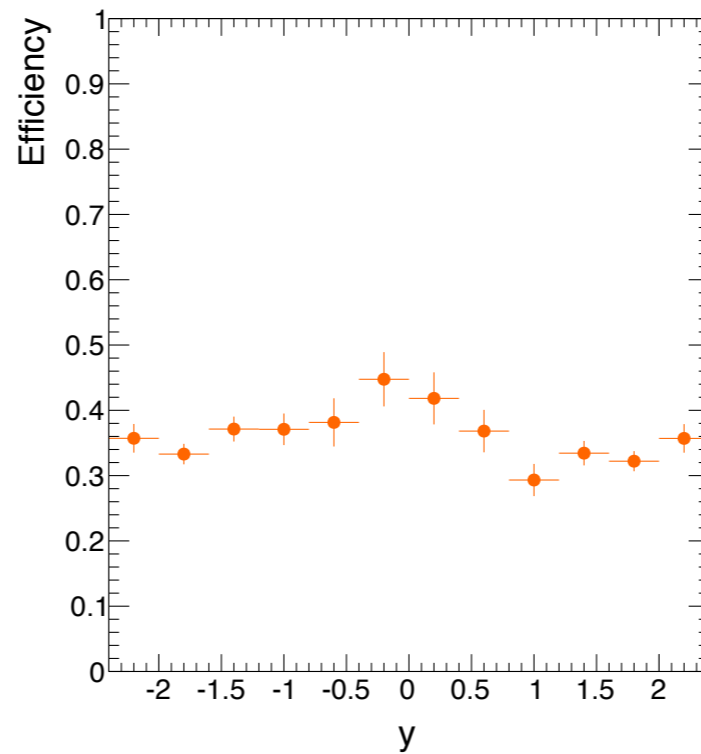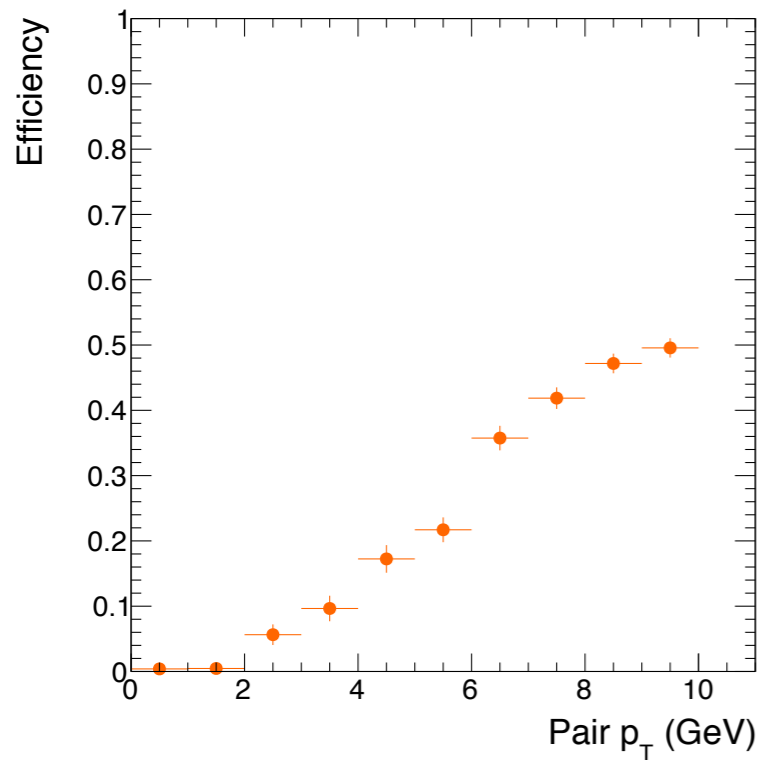   which you need to make before running the macro.

⊕ **Prompt J/psi (dimuon pairs)**
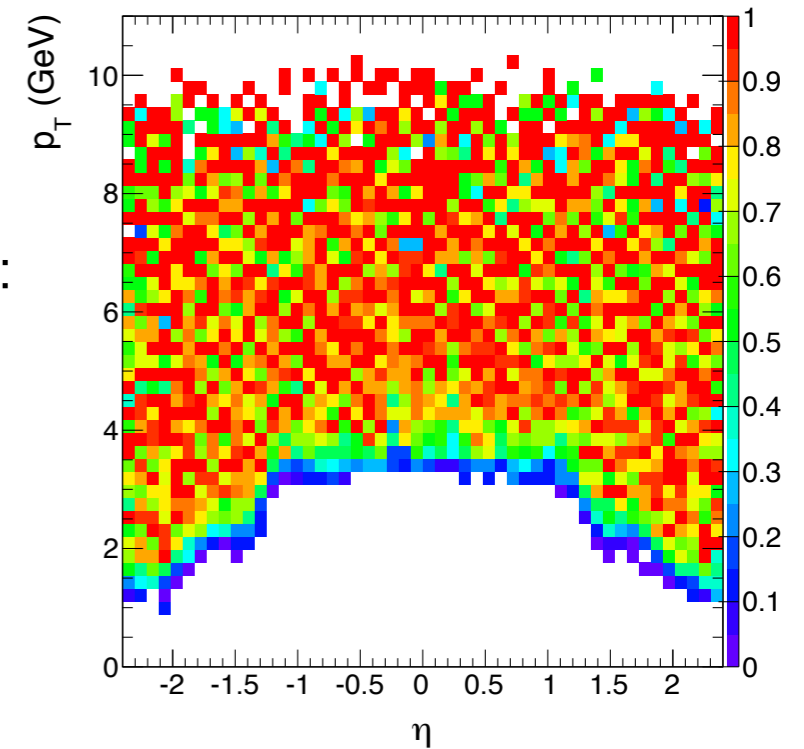
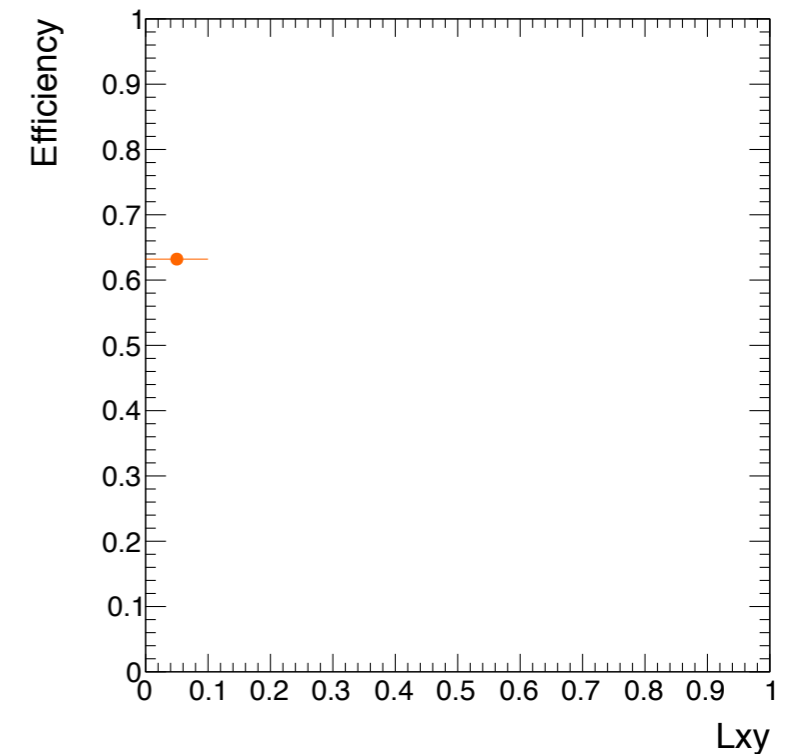- 2D p_T vs y efficiency plots :
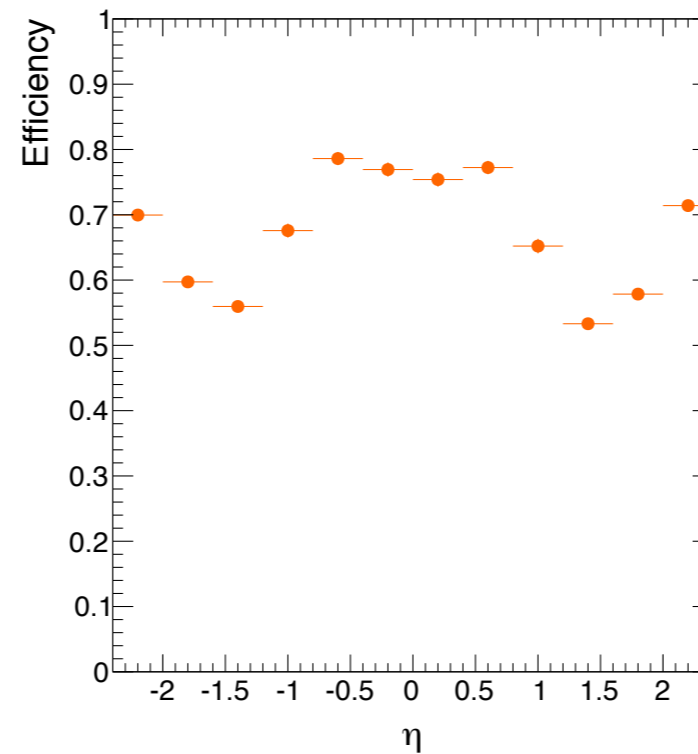
- 1D : Efficiency vs p_T, y, and Lxy

Prompt J/psi (single tracks)

- 2D pT vs eta efficiency plots :

- 1D : Efficiency vs pT, eta, and Lxy

⊕ **B to J/psi (dimuon pairs)**
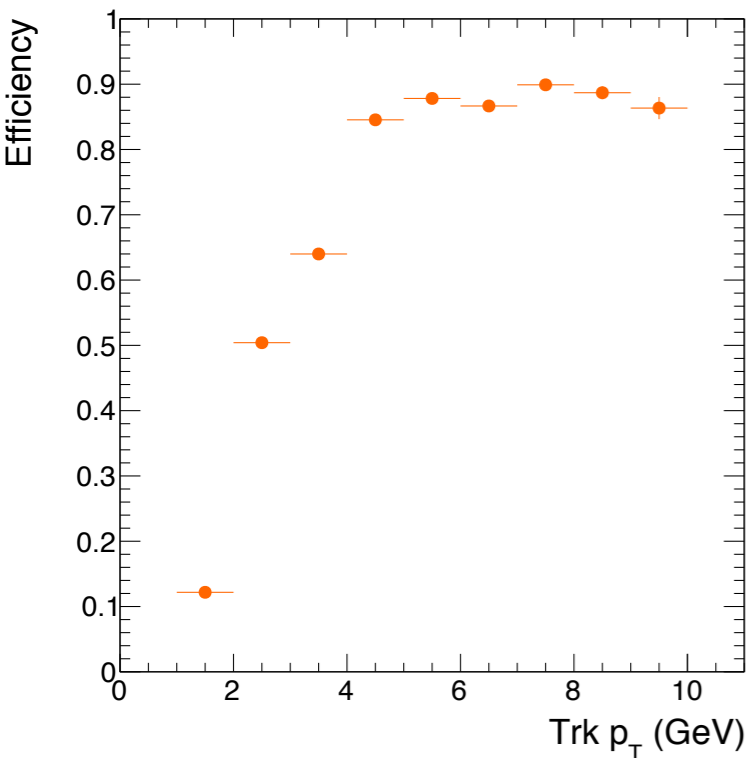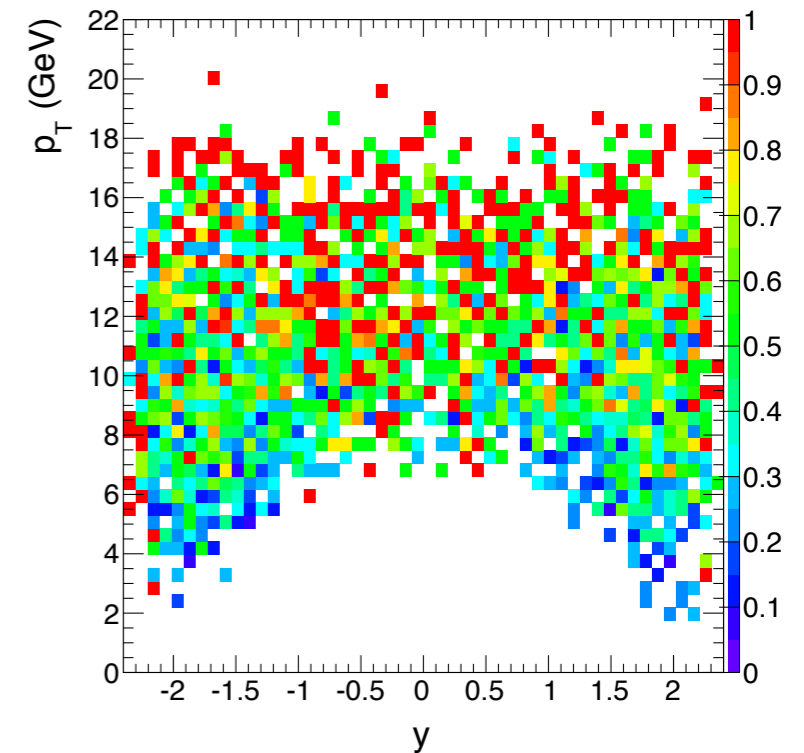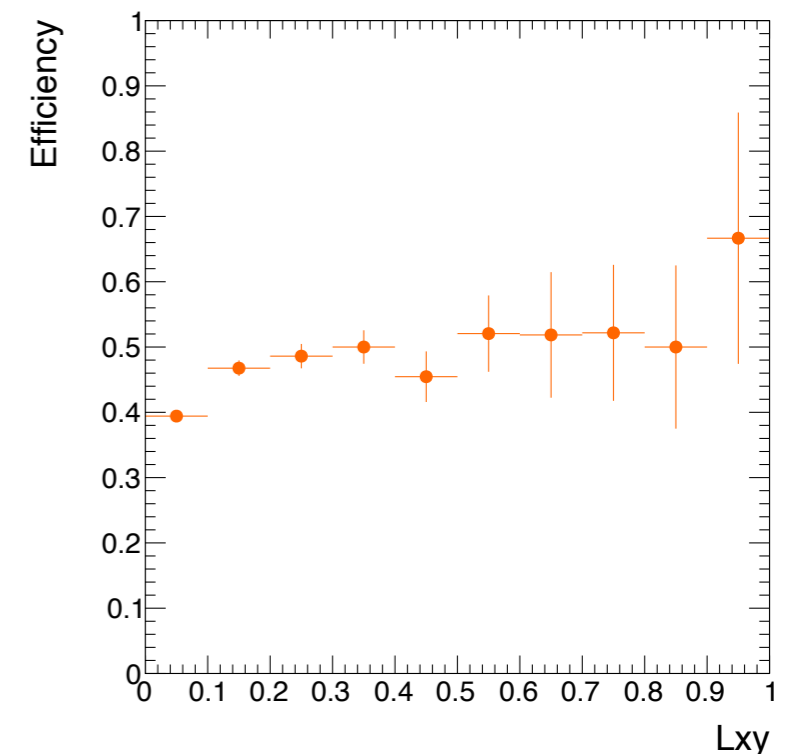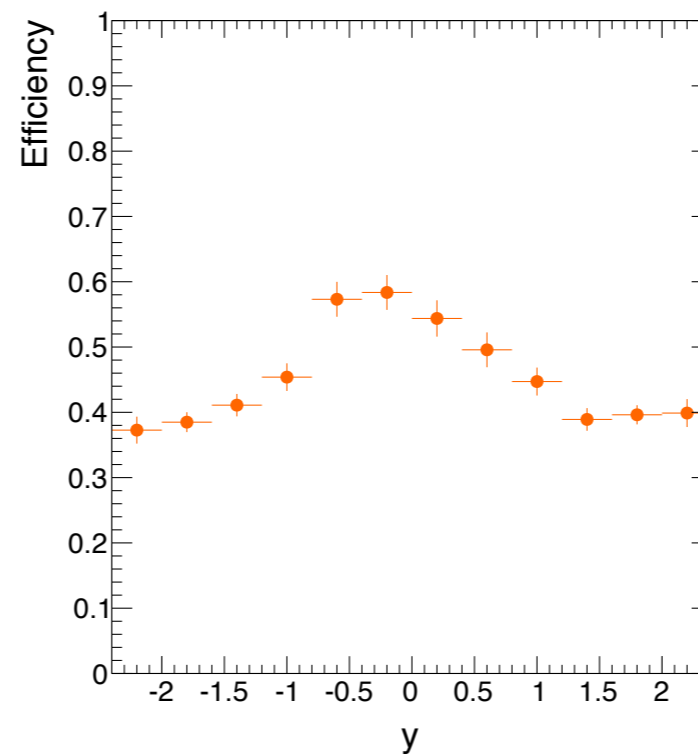

▪ 2D pT vs y efficiency plots :

▪ 1D : Efficiency vs pT, y, and Lxy

B to J/psi (single tracks)

- 2D pT vs eta efficiency plots :
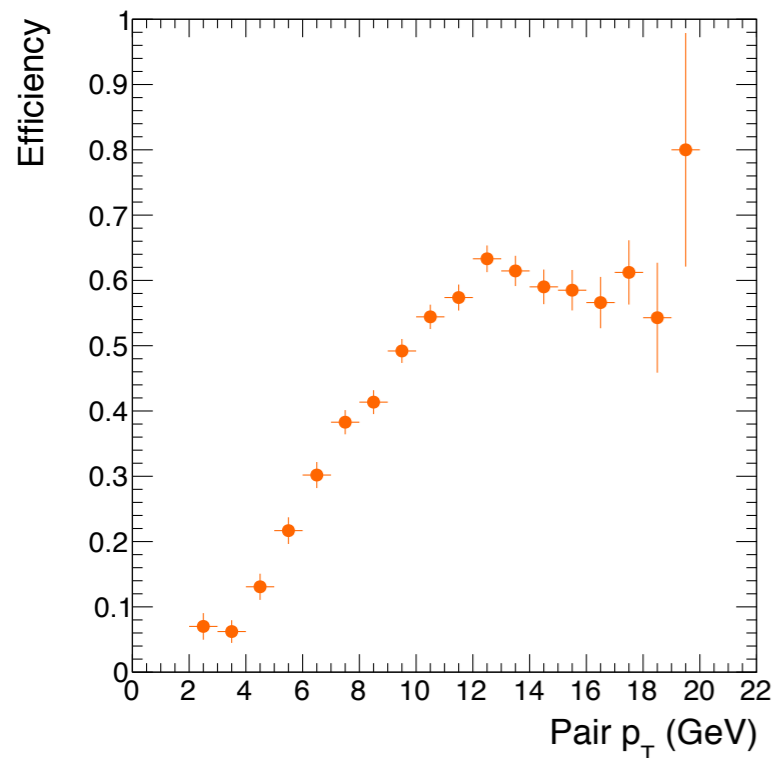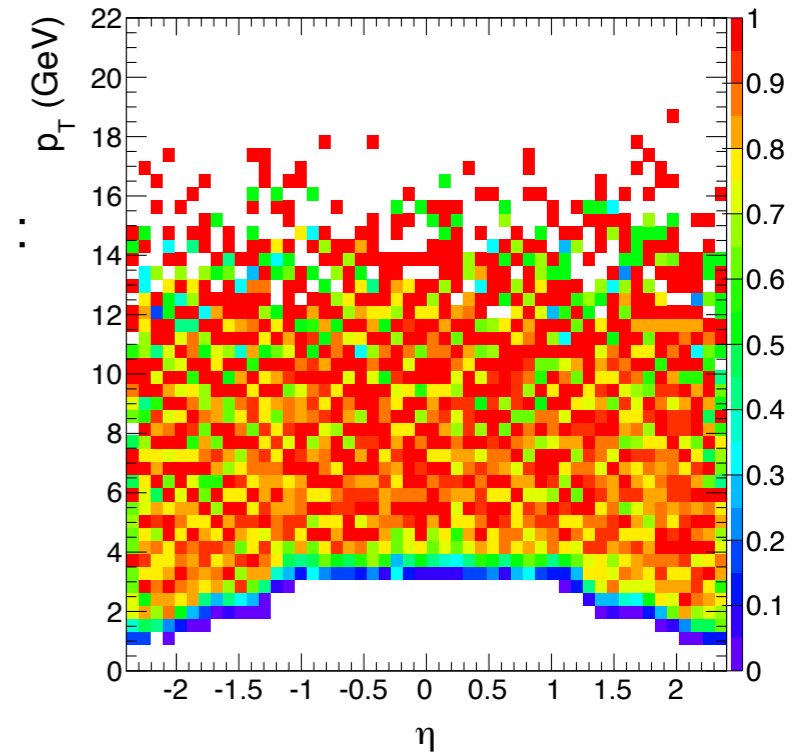

- 1D : Efficiency vs pT, eta, and Lxy