

Regit vs Regit with HiDetchedTripletStep



**Emilien, Songkyo, Geonhee,
Prashant, Vineet**

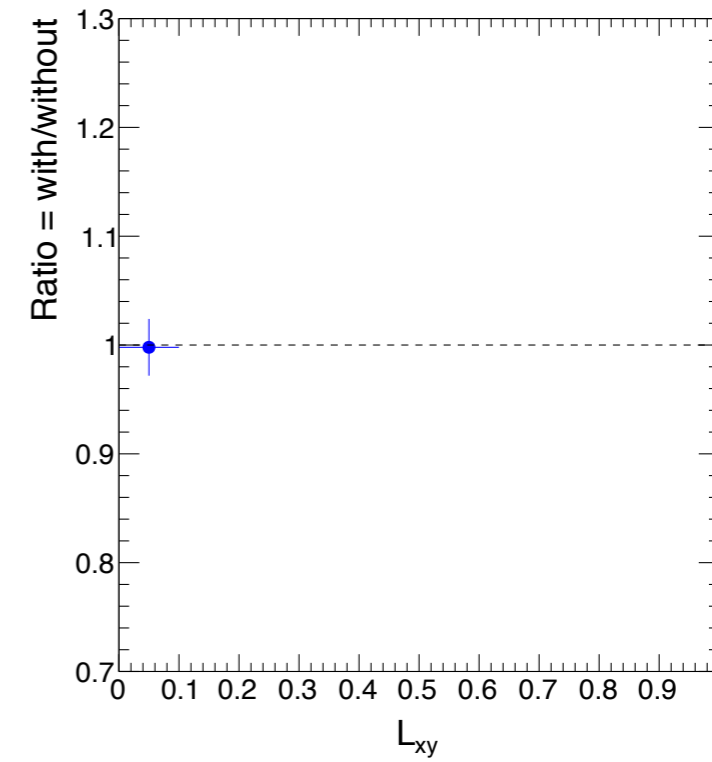
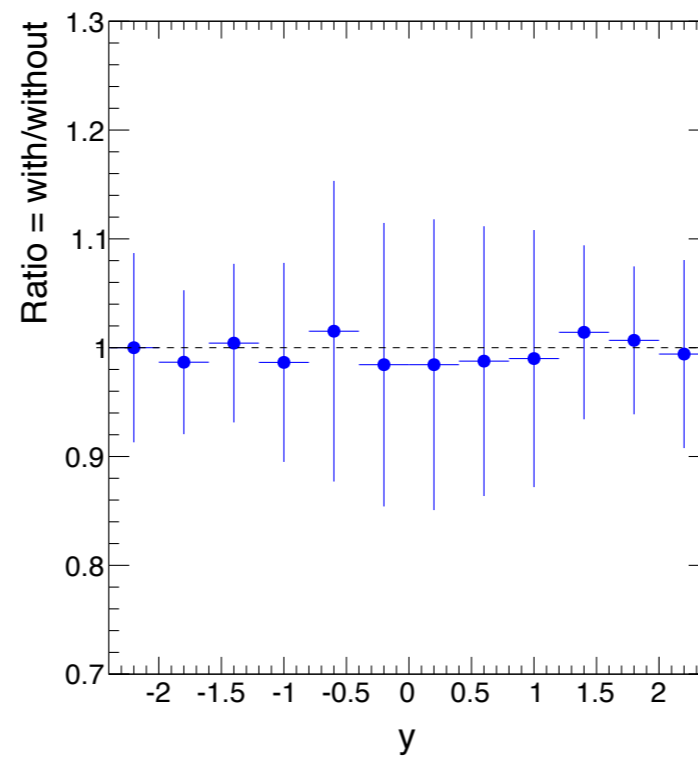
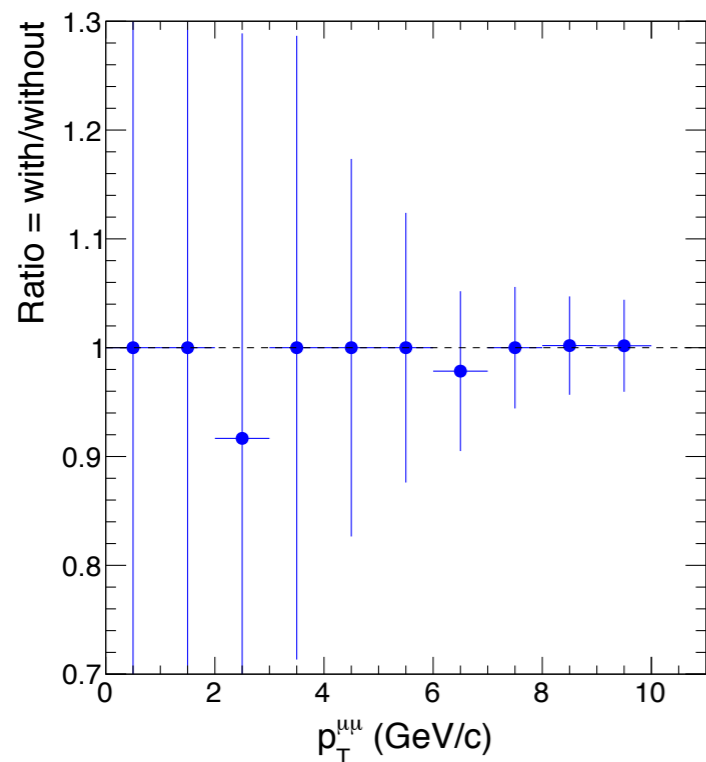
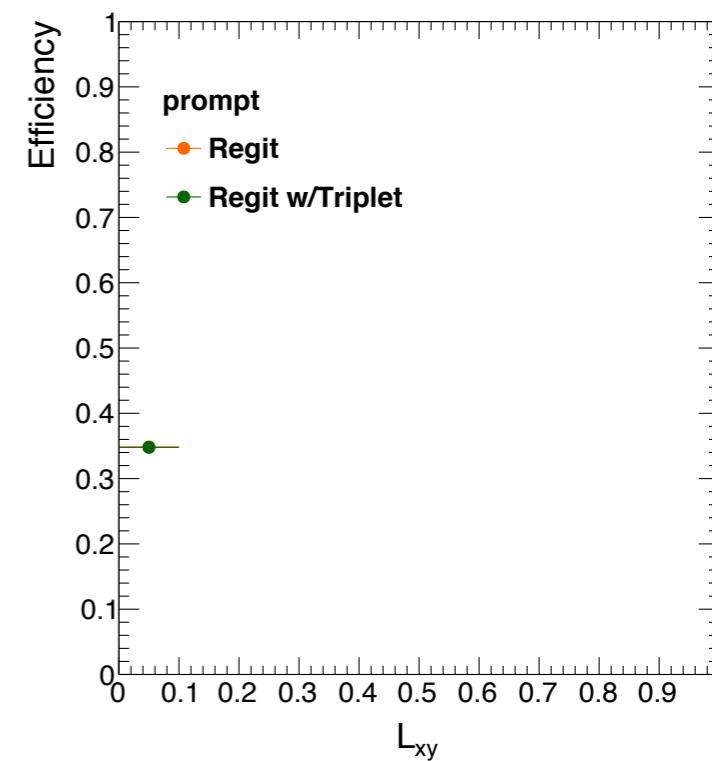
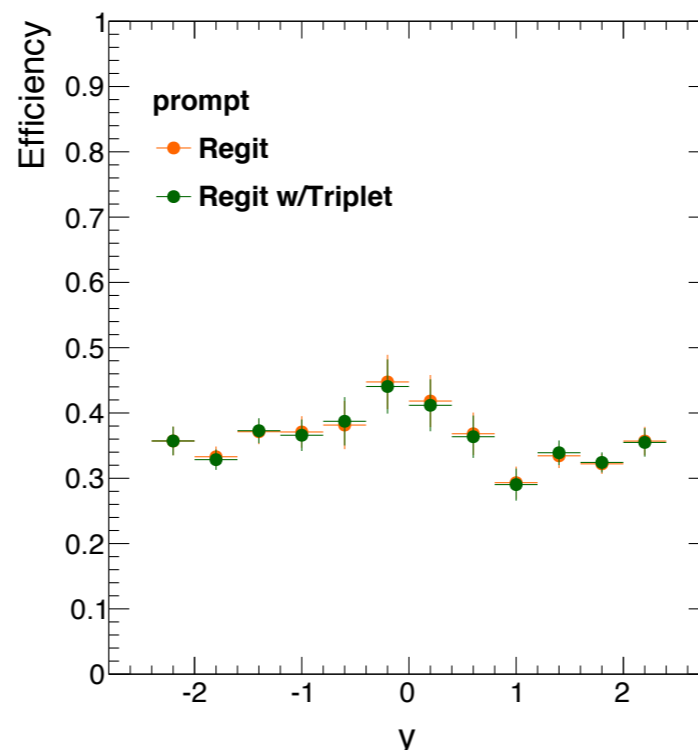
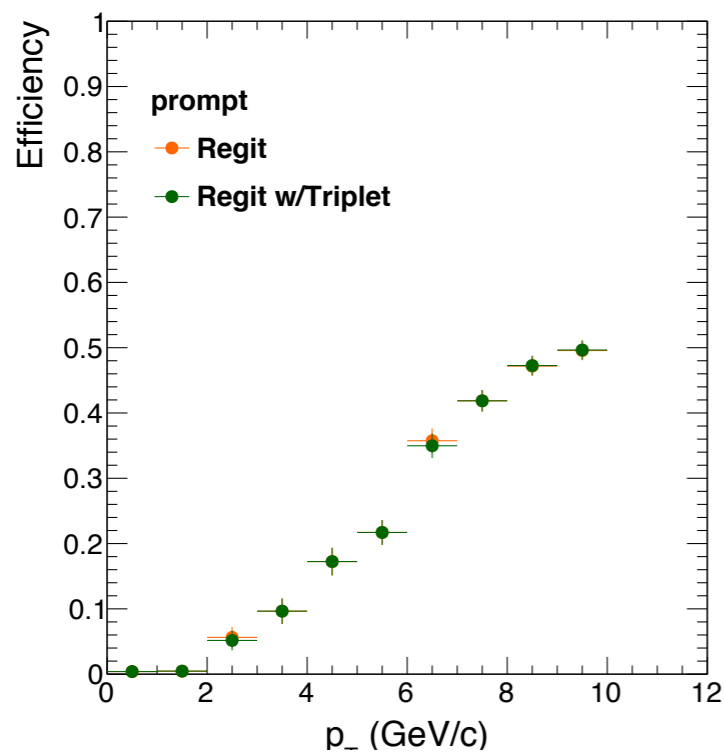


After following the instruction for regit in 740pre3

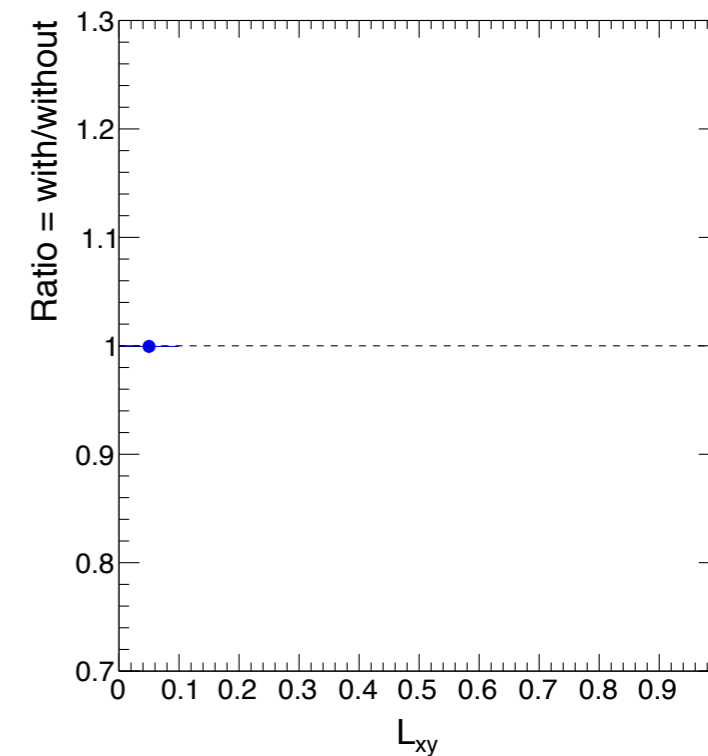
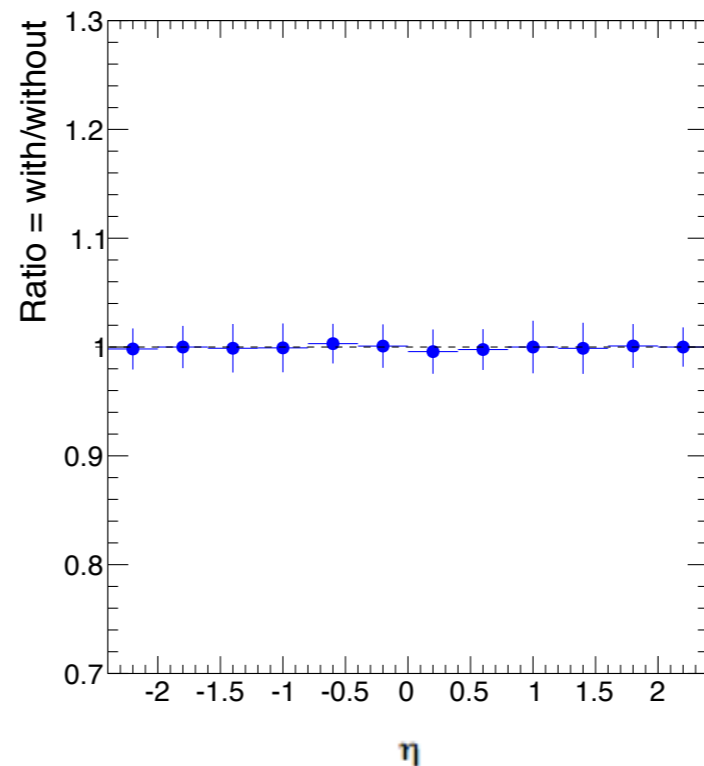
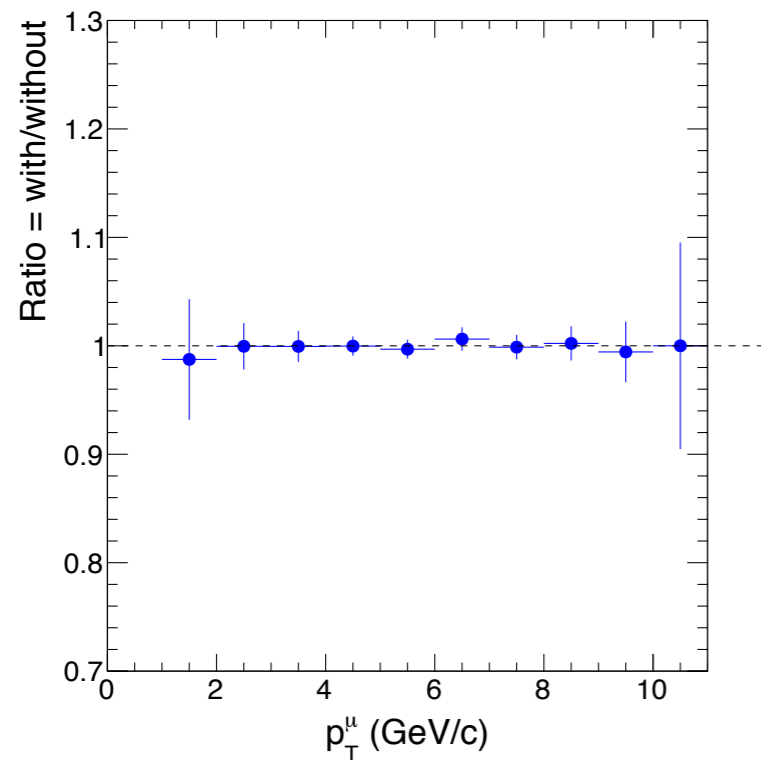
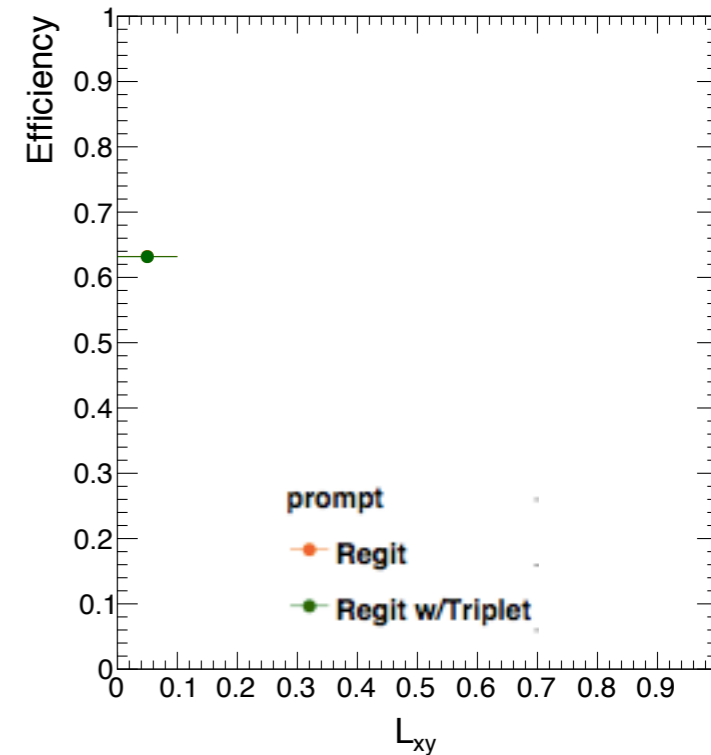
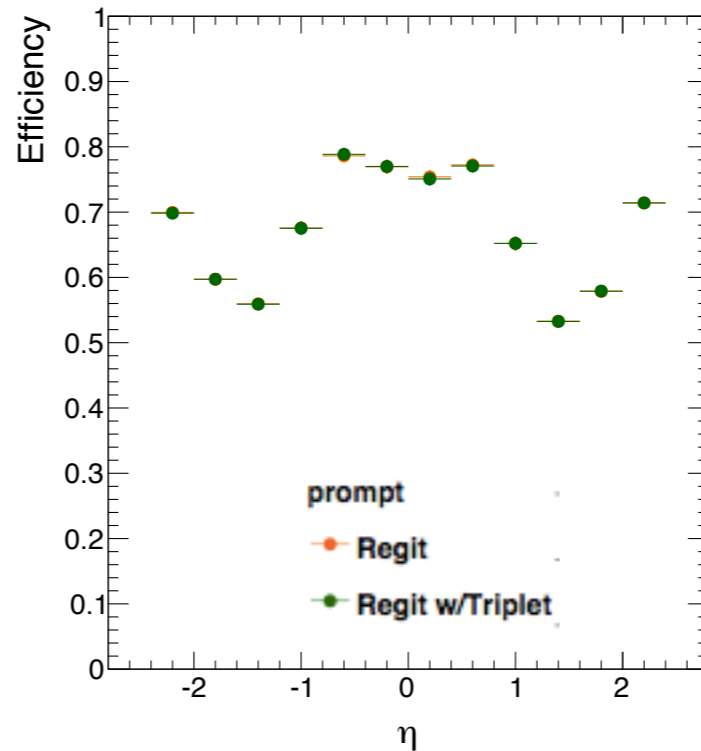
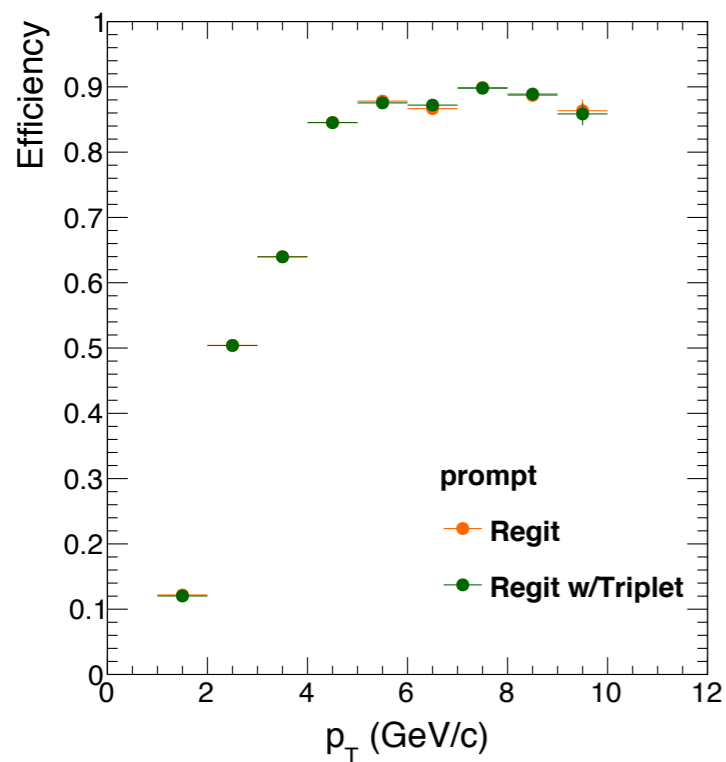
-] cms-addpkg RecoHI/HiTracking
-] git cherry-pick a69d7293ccce1a33d907262fc3406fbbce16edb2
-] git cherry-pick 1ce5a6dc47849a8fc96a69162a49746242b1c9d8
-] git cherry-pick 94e518c4bd9d138ded9f9bd49dc5a006f759cbad
-] scram b

```
[kyolee@lxplus0035 src]$ git cms-addpkg RecoHI/HiTracking
Checking out package RecoHI/HiTracking
[kyolee@lxplus0035 src]$ git cherry-pick a69d7293ccce1a33d907262fc3406fbbce16edb2
error: addinfo_cache failed for path 'HLTrigger/HLTcore/src/TriggerExpressionL1Reader.cc'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/src/TriggerExpressionHLReader.cc'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/interface/TriggerExpressionL1Reader.h'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/interface/TriggerExpressionHLReader.h'
error: addinfo_cache failed for path 'DataFormats/JetReco/interface/CATopJetTagInfo.h'
[from-CMSSW_7_4_0_pre3 2defd3b] hiDetachedTripletStep added
Author: Stanislav <istaslis@gmail.com>
4 files changed, 215 insertions(+), 6 deletions(-)
create mode 100644 RecoHI/HiTracking/python/hiDetachedTripletStep_cff.py
[kyolee@lxplus0035 src]$ git cherry-pick 1ce5a6dc47849a8fc96a69162a49746242b1c9d8
error: addinfo_cache failed for path 'HLTrigger/HLTcore/src/TriggerExpressionL1Reader.cc'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/src/TriggerExpressionHLReader.cc'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/interface/TriggerExpressionL1Reader.h'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/interface/TriggerExpressionHLReader.h'
error: addinfo_cache failed for path 'DataFormats/JetReco/interface/CATopJetTagInfo.h'
[from-CMSSW_7_4_0_pre3 85dc77d] Parameters updated
Author: Stanislav <istaslis@gmail.com>
1 file changed, 5 insertions(+), 6 deletions(-)
[kyolee@lxplus0035 src]$ git cherry-pick 94e518c4bd9d138ded9f9bd49dc5a006f759cbad
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error: addinfo_cache failed for path 'HLTrigger/HLTcore/src/TriggerExpressionHLReader.cc'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/interface/TriggerExpressionL1Reader.h'
error: addinfo_cache failed for path 'HLTrigger/HLTcore/interface/TriggerExpressionHLReader.h'
error: addinfo_cache failed for path 'DataFormats/JetReco/interface/CATopJetTagInfo.h'
[from-CMSSW_7_4_0_pre3 74e4512] Update hiDetachedTripletStep_cff.py
Author: mandrenguyen <matthew.nguyen@cern.ch>
1 file changed, 1 insertion(+), 1 deletion(-)
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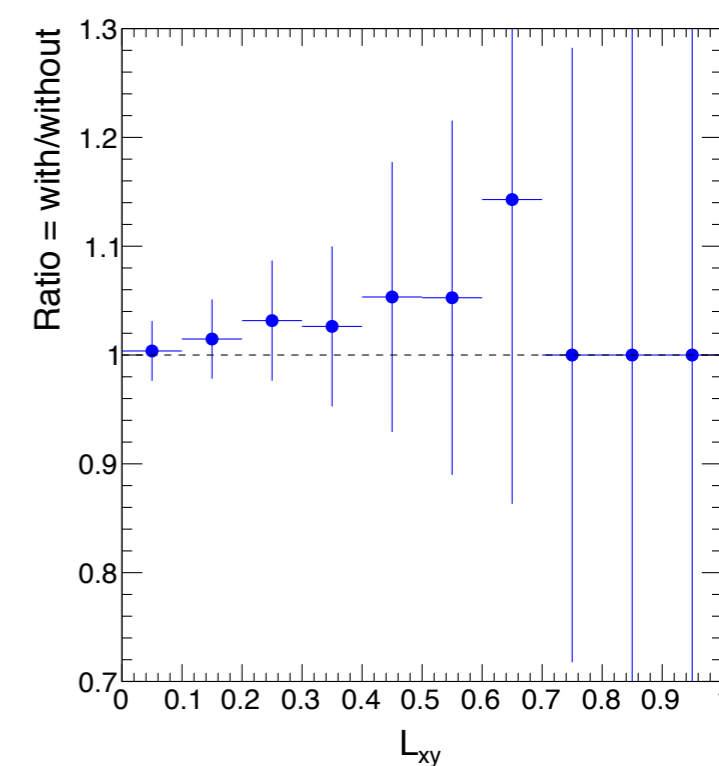
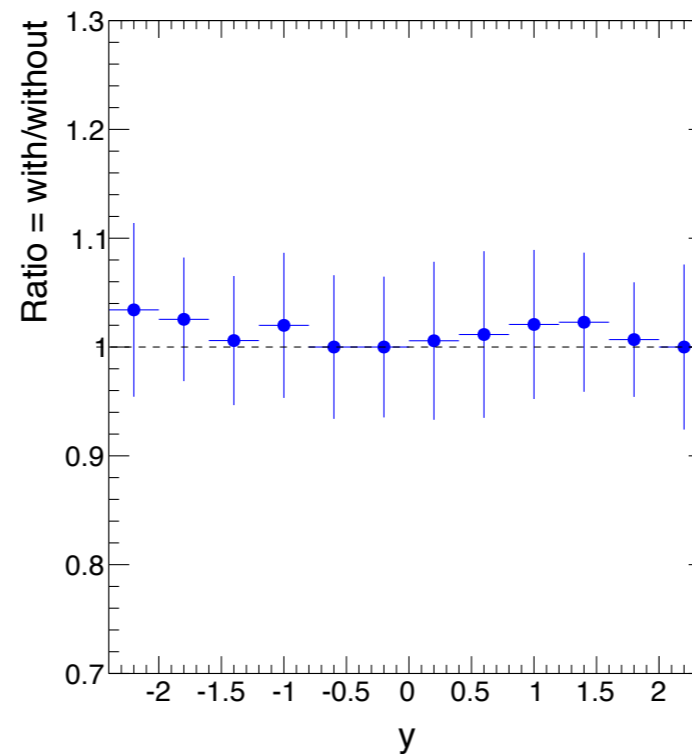
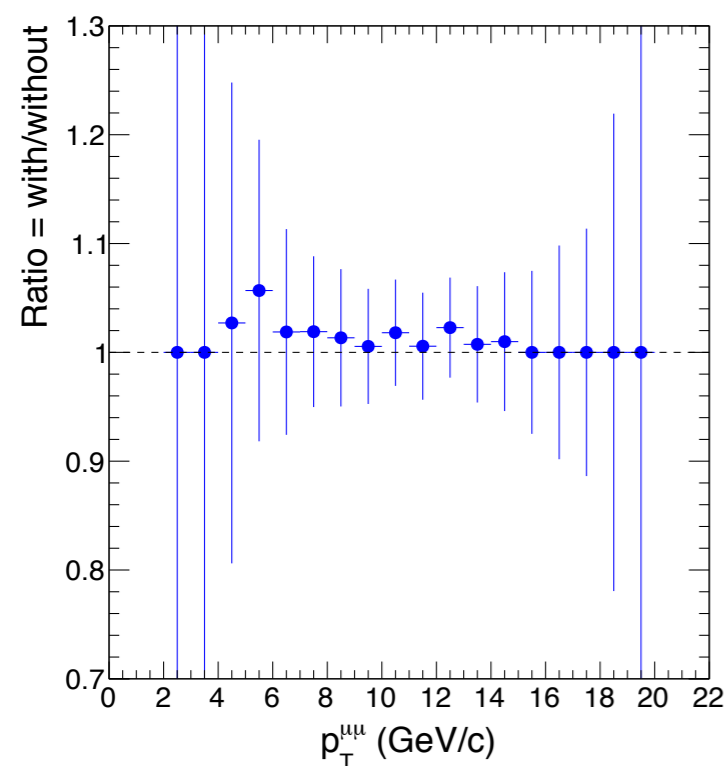
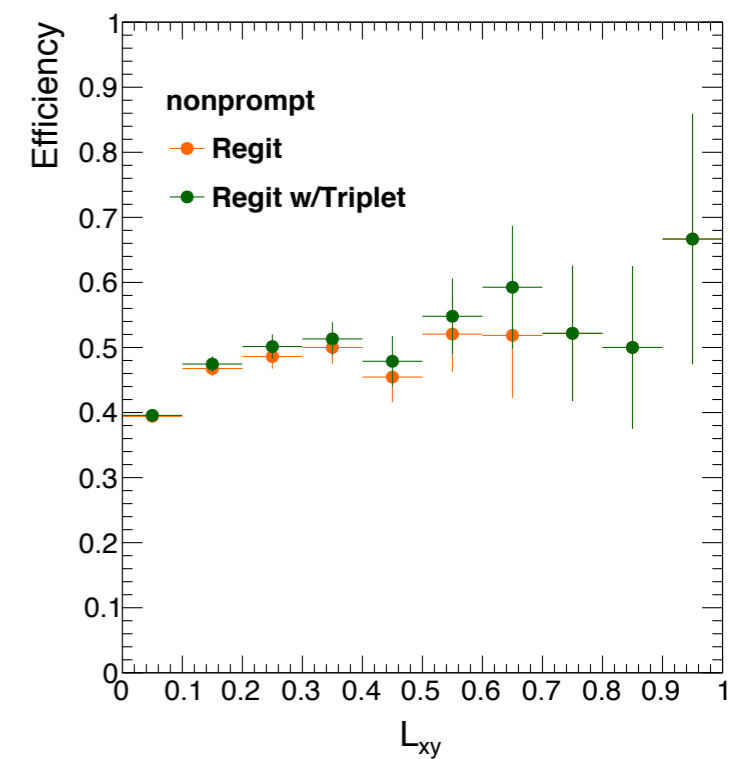
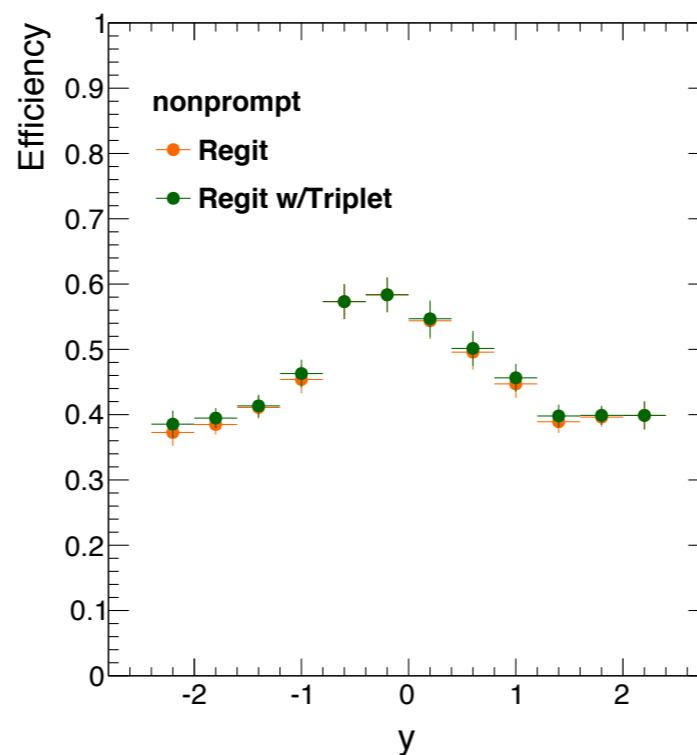
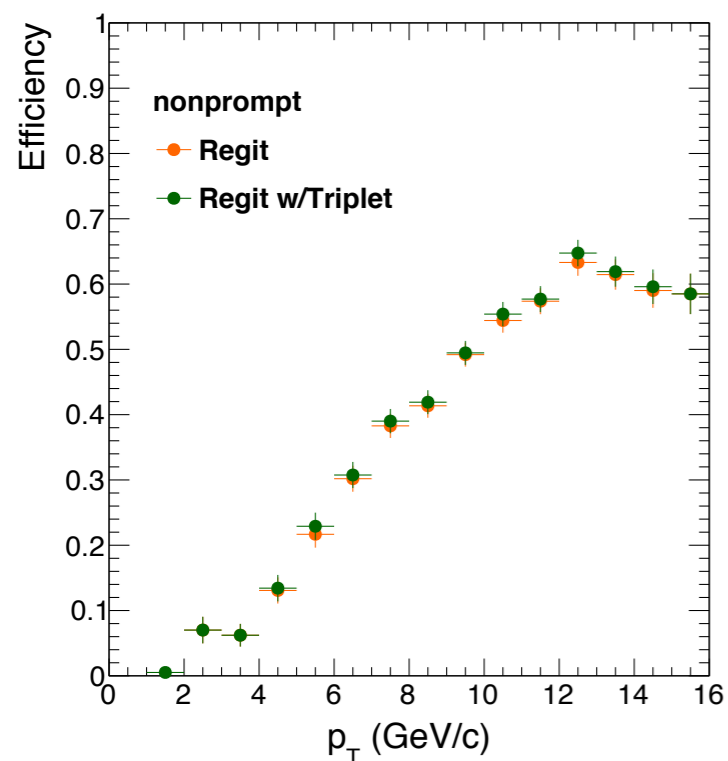
Ⓜ Prompt J/psi (dimuon pairs)



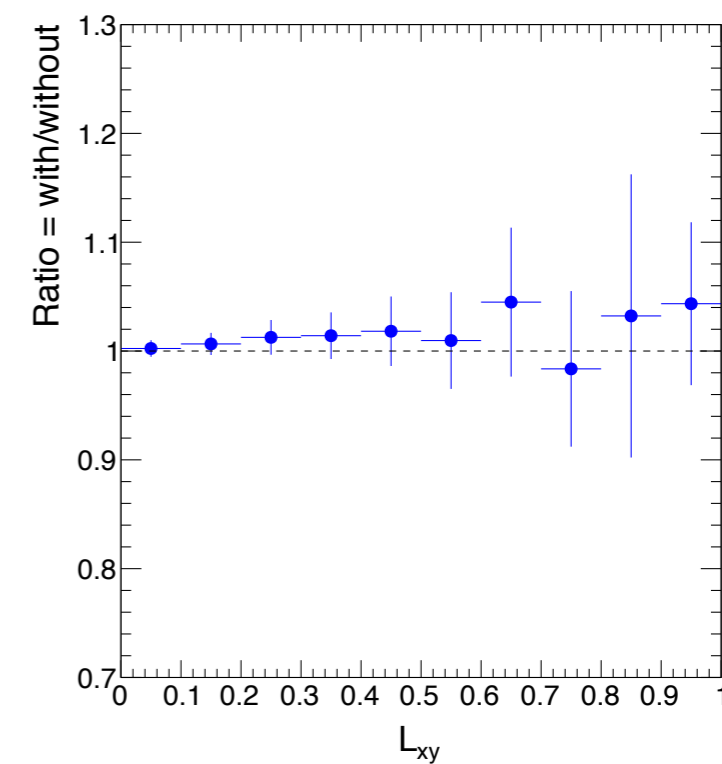
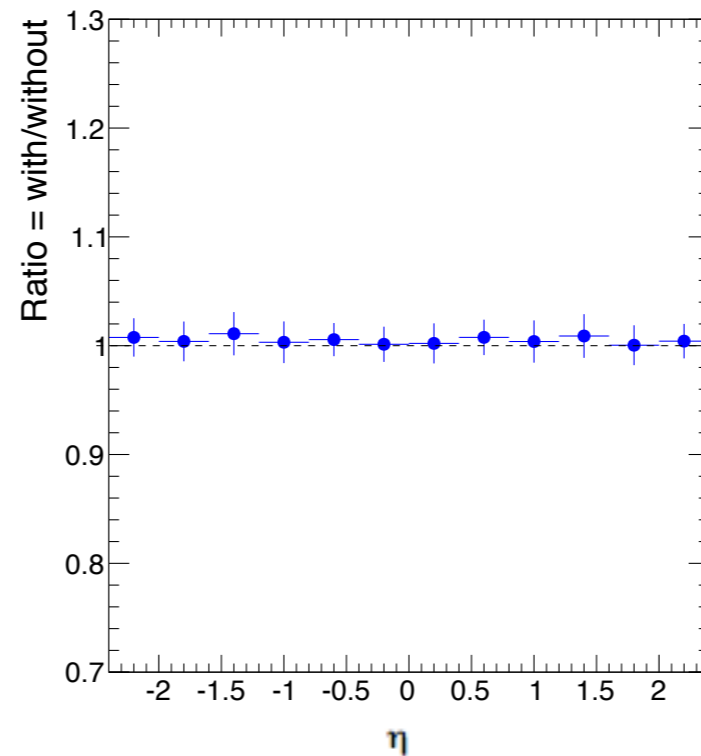
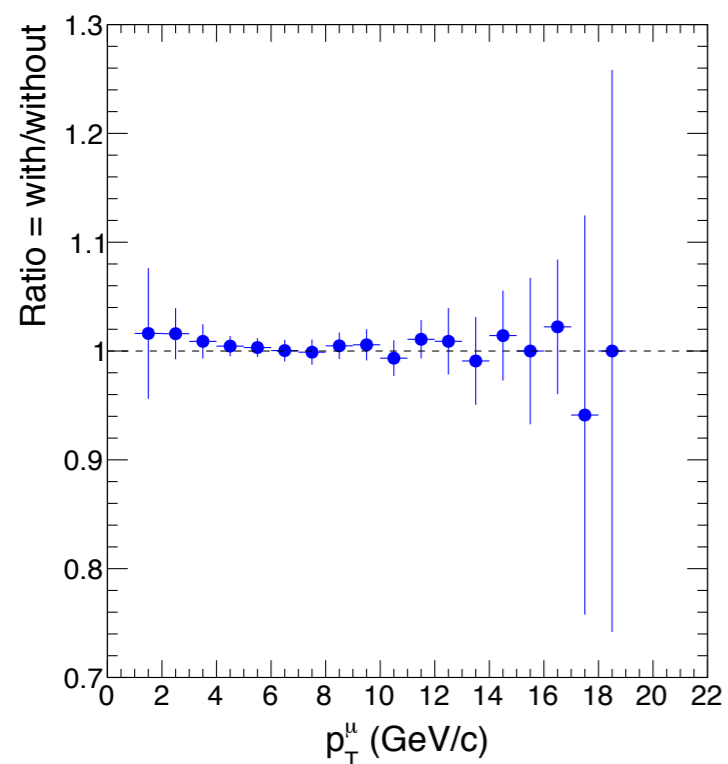
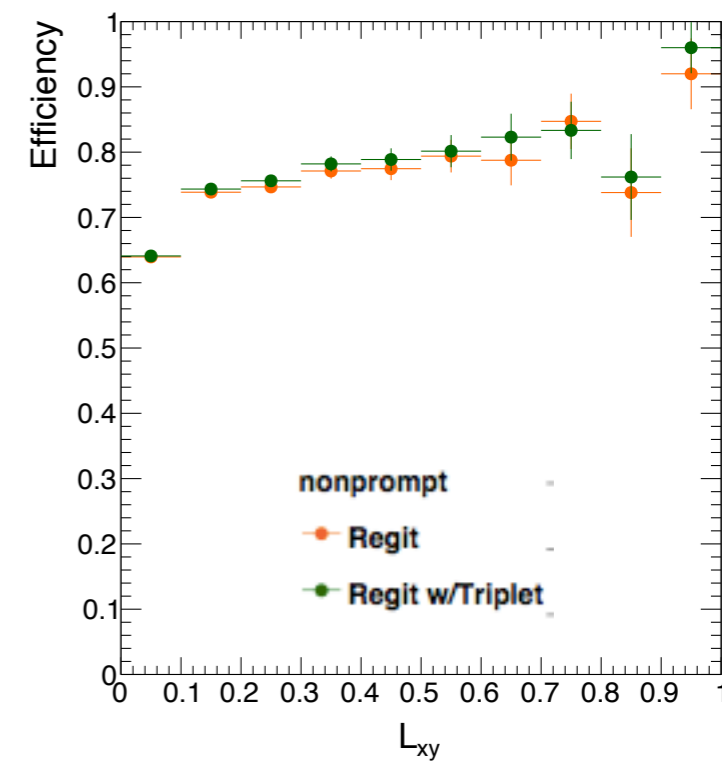
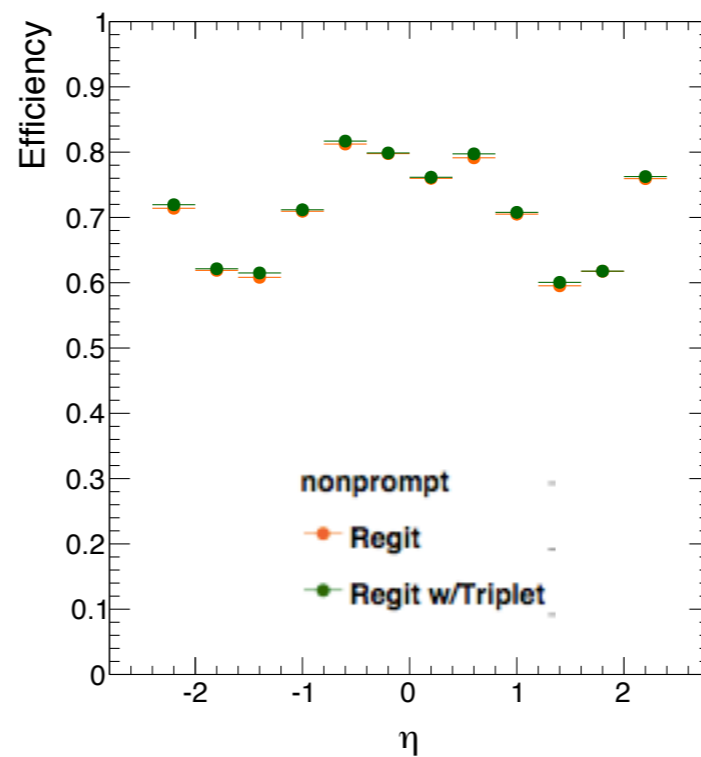
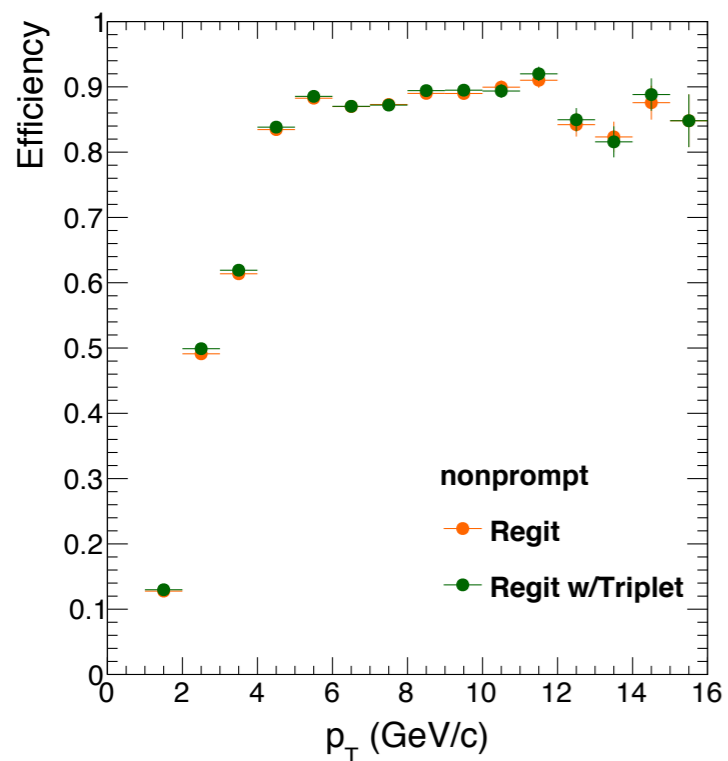
Ⓜ Prompt J/psi (single tracks)



⊕ B to J/psi (dimuon pairs)



Ⓢ B to J/psi (single tracks)





BACK UP



embedded samples in 740_pre3



Ⓜ used MC samples

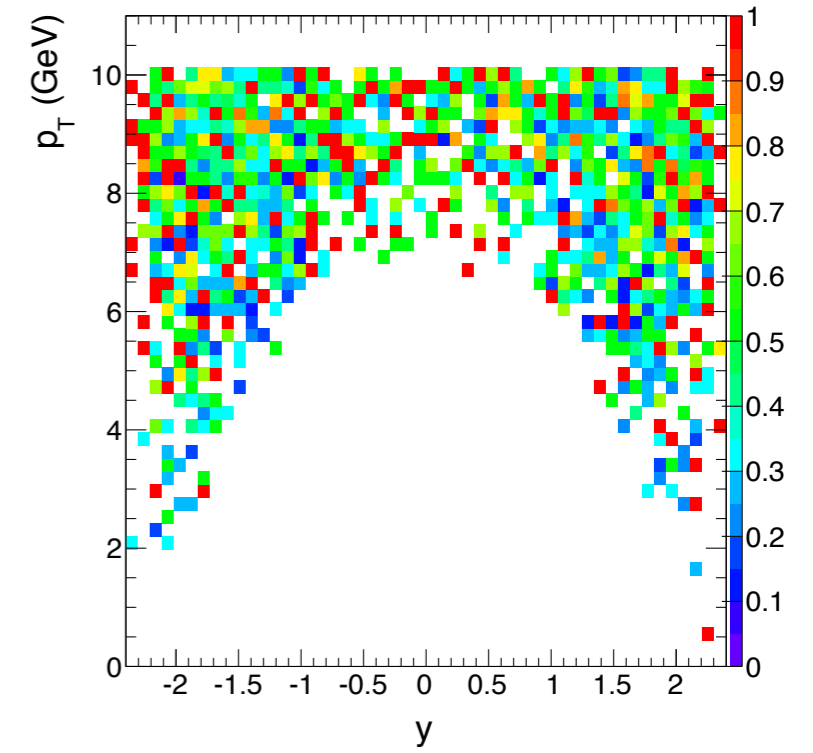
- https://twiki.cern.ch/twiki/bin/viewauth/CMS/HIRegitMu2014#MC_samples_AN1
- embedded prompt J/psi : $3 < p_T < 10$ GeV
- embedded non-prompt J/psi : $p_T < 20$ GeV

Ⓜ used macros

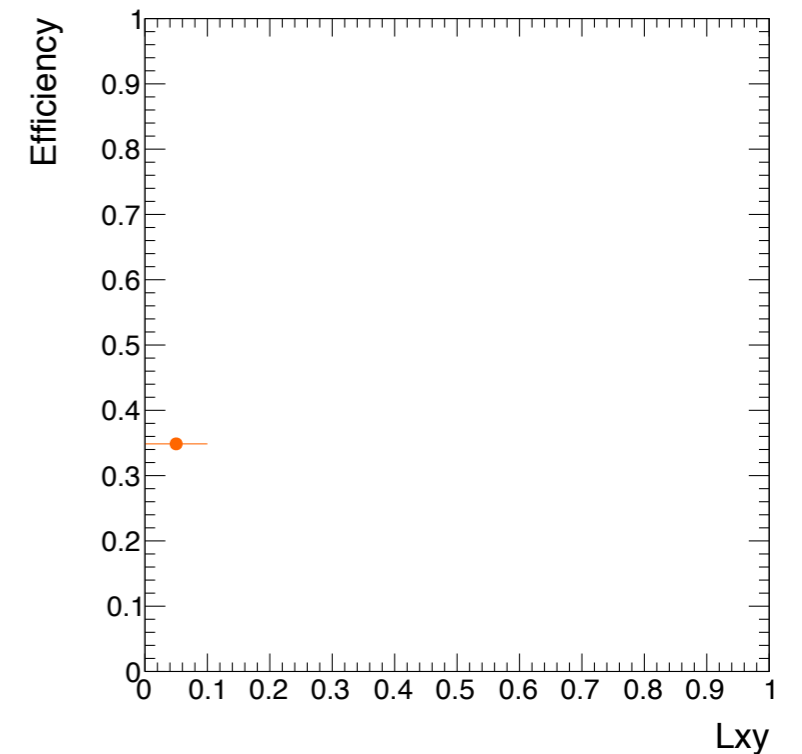
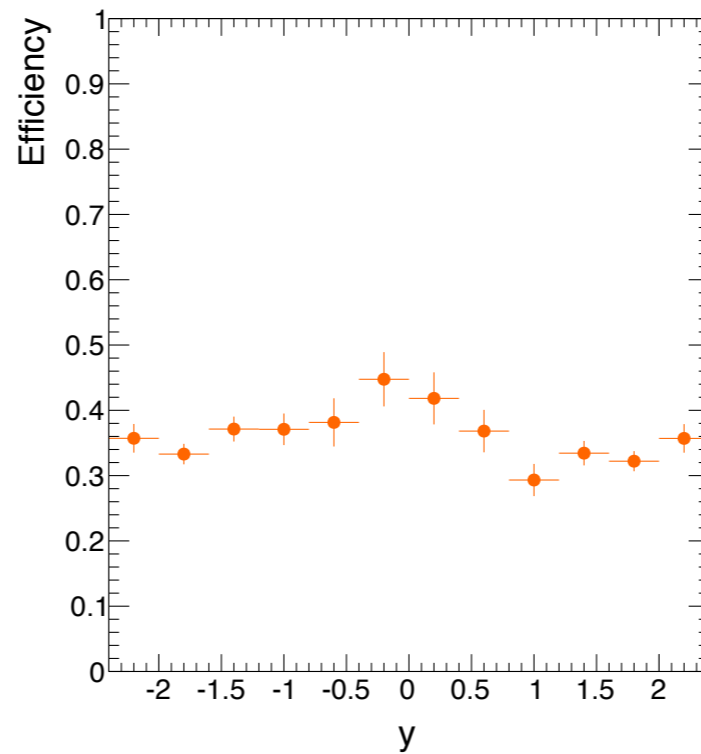
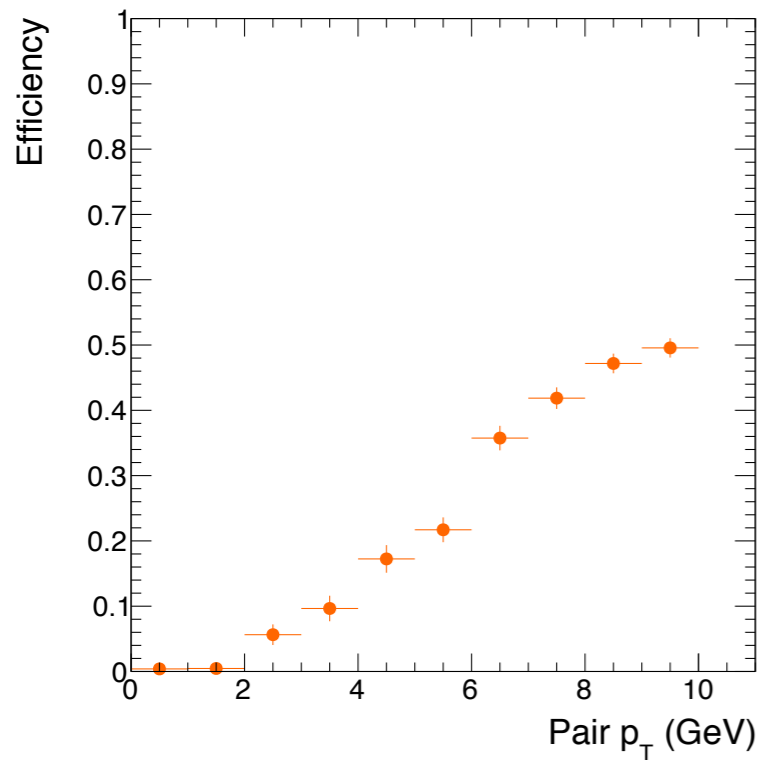
- <https://github.com/CmsHI/pPbJPsiAnalysis/tree/master/regit>
- JpsiStyle.C and KYOcommonOpt.h are just for drawing
- makeEfficiency_74X_setBr.C
 - :60, set “isPtCut” and “doWeight” as false
 - > “isPrompt” true or false = prompt or non-prompt
 - > “isPair” true or false = pair or track
 - > “isEmbedded” true or 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 pT vs y efficiency plots :

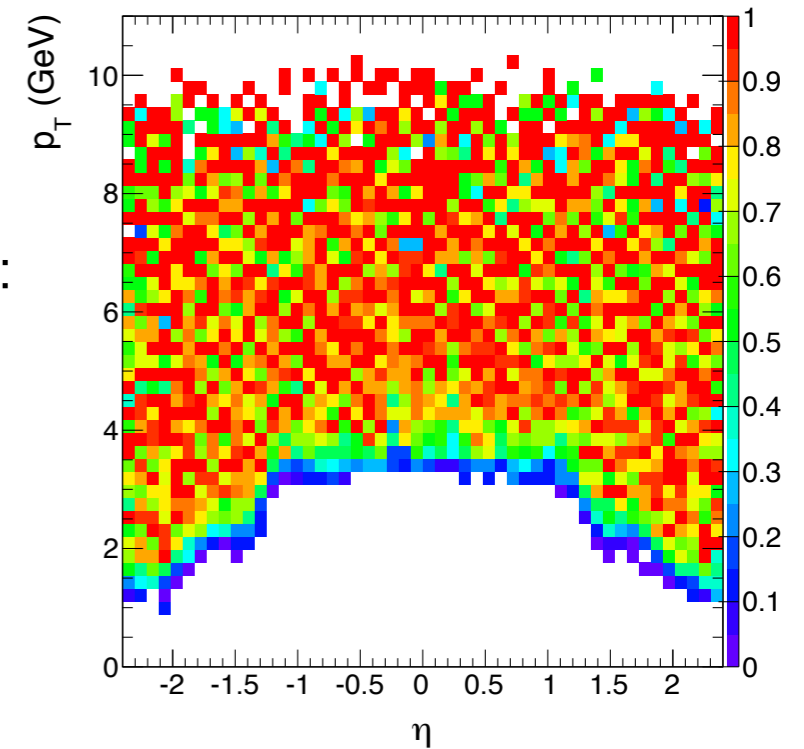


- 1D : Efficiency vs pT, y, and Lxy

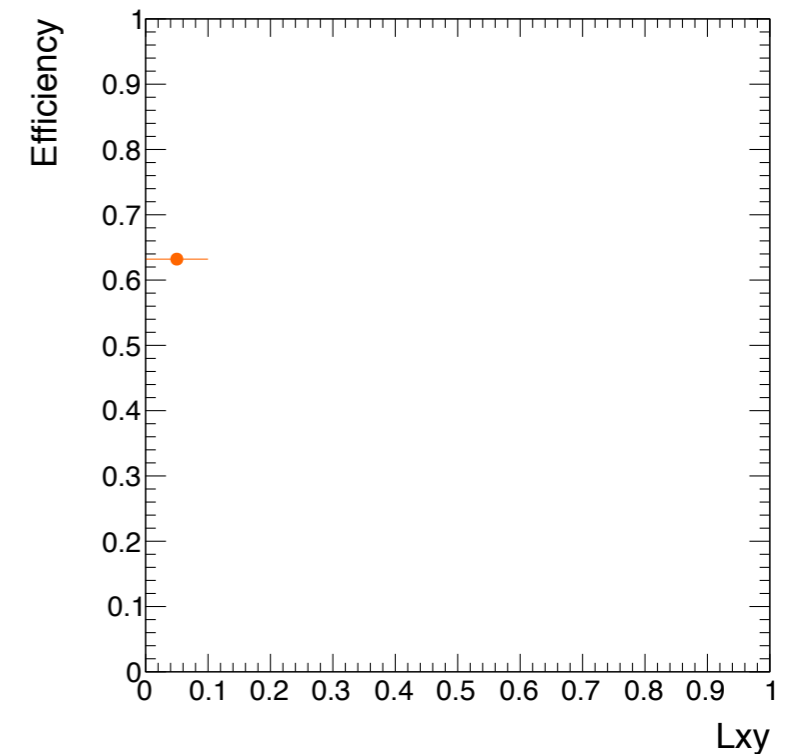
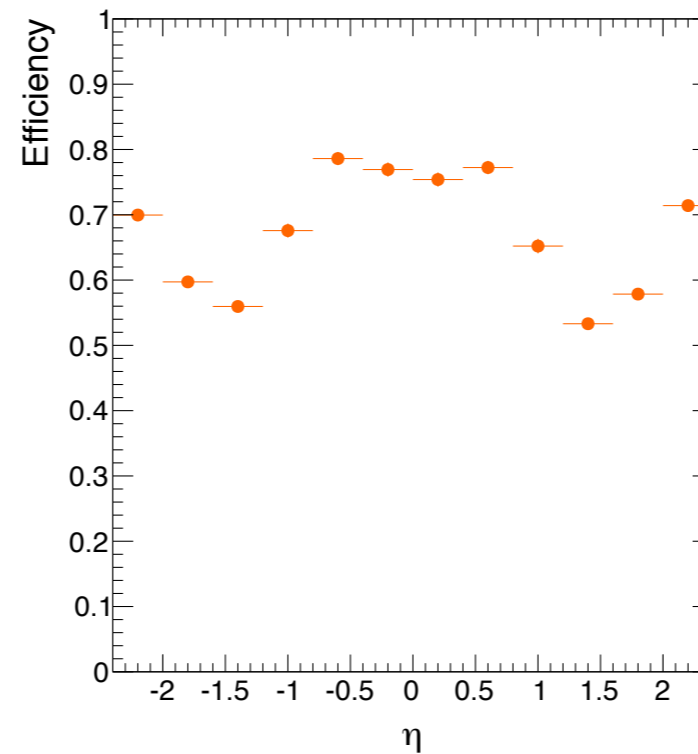
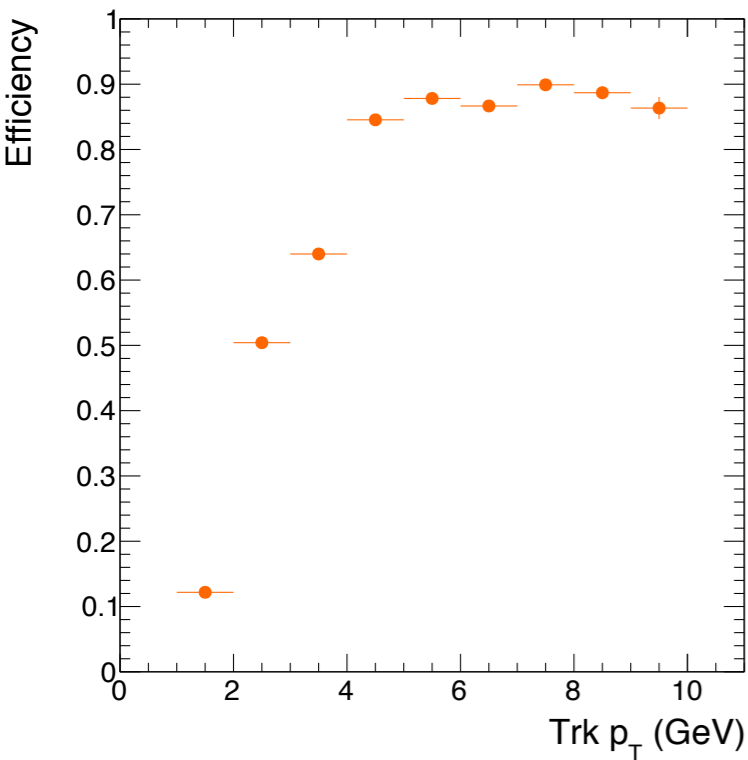


⊕ **Prompt J/psi (single tracks)**

- 2D pT vs eta efficiency plots :

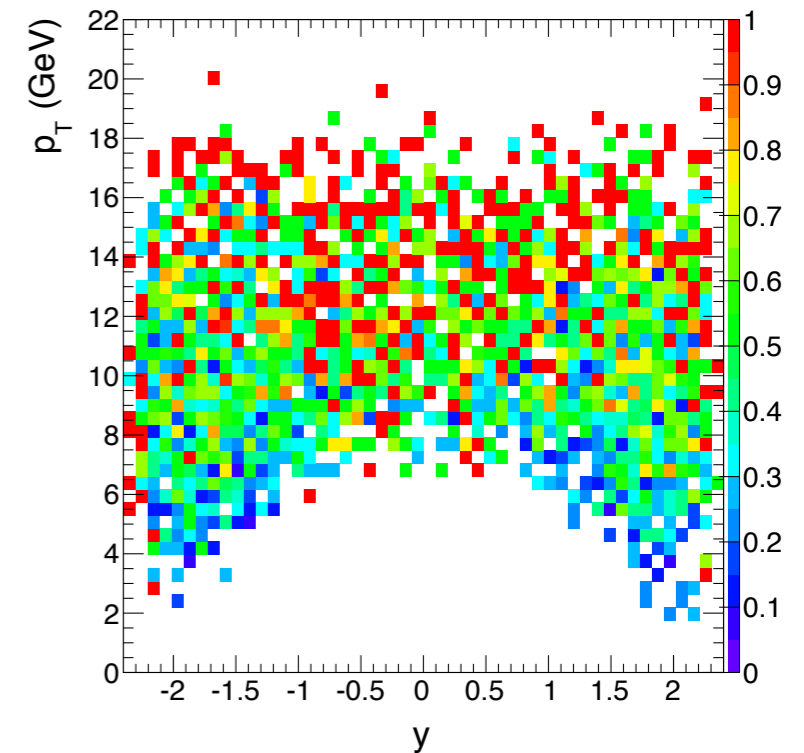


- 1D : Efficiency vs pT, eta, and Lxy

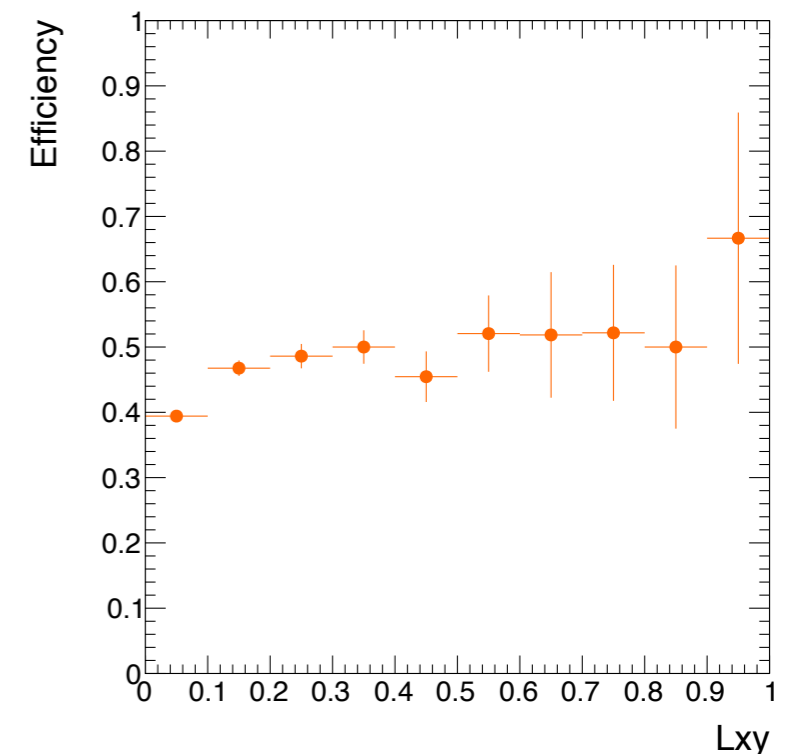
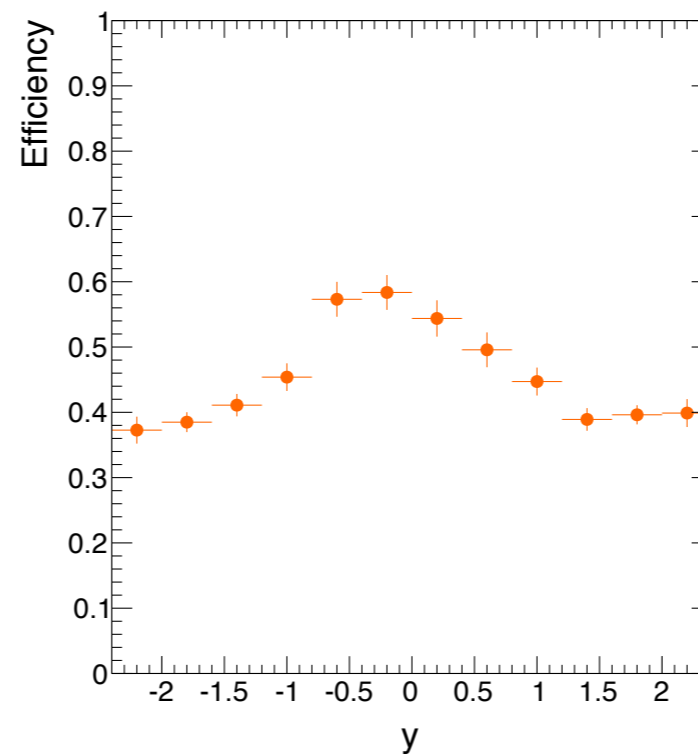
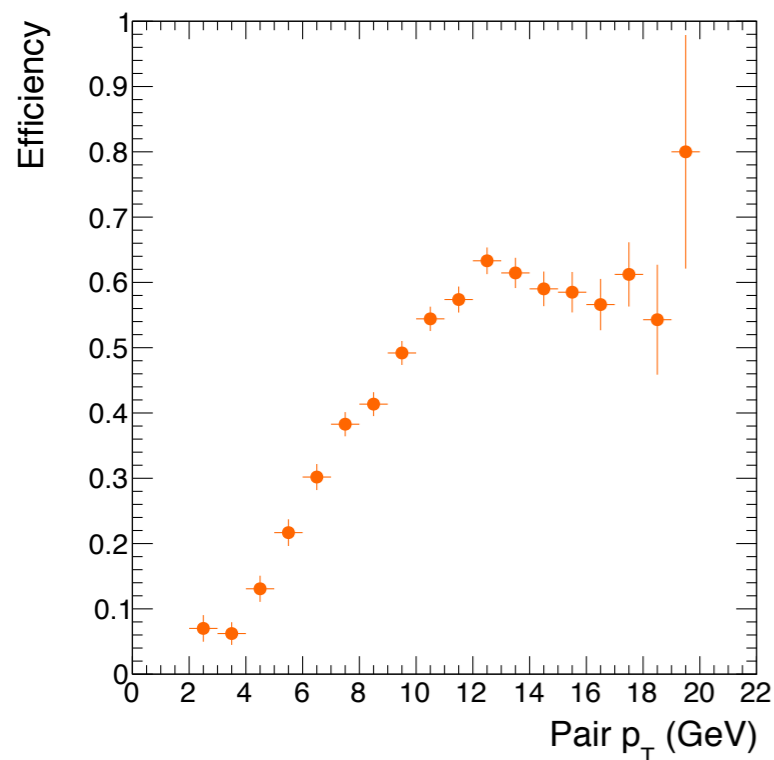


⊕ **B to J/psi (dimuon pairs)**

■ 2D pT vs y efficiency plots :

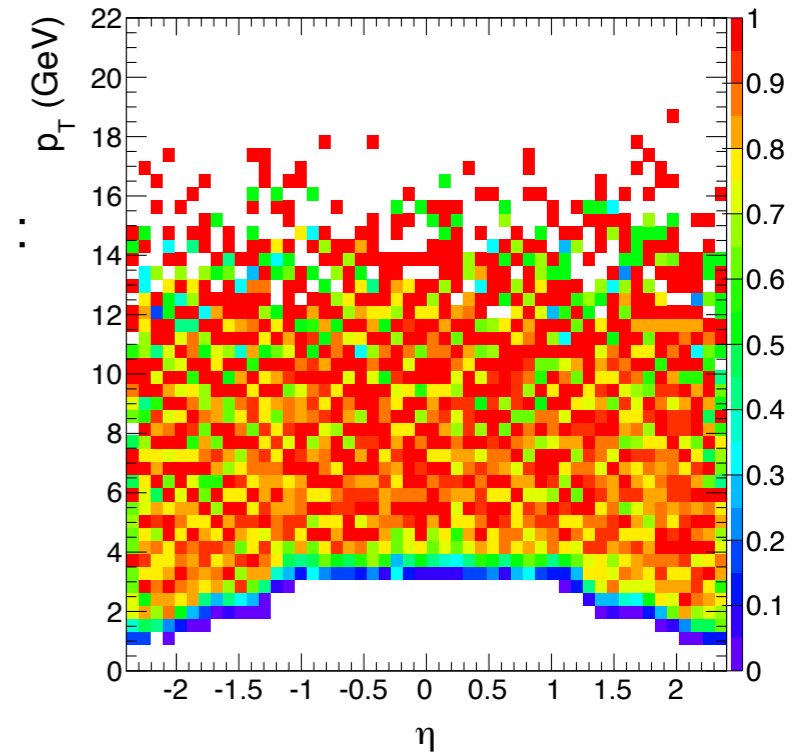


■ 1D : Efficiency vs pT, y, and Lxy



⊕ **B to J/psi (single tracks)**

- 2D pT vs eta efficiency plots :



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

