

On-line (pre-)selection Requisites for:

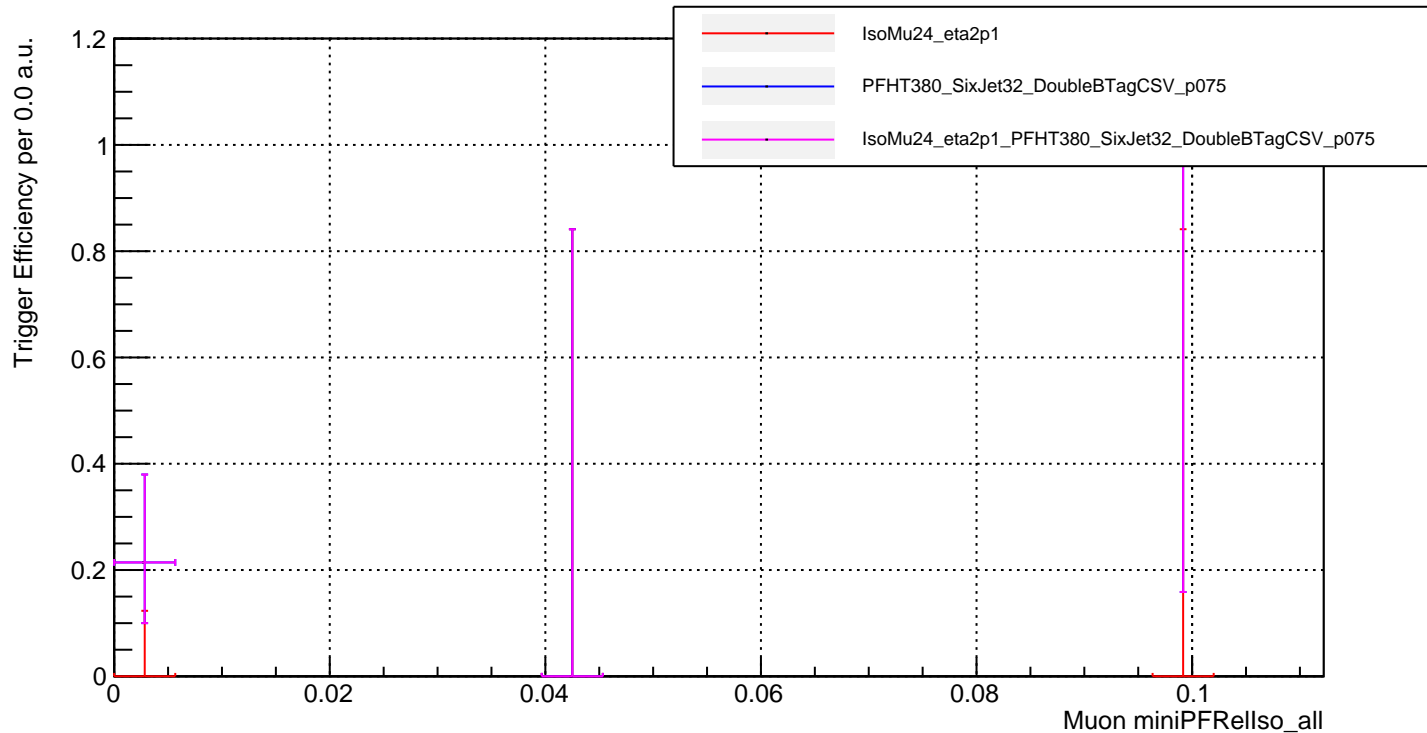
- **Jets:** number > 5
- **Muons plus Electrons:** number > 0

Event Limit: None (see last page)

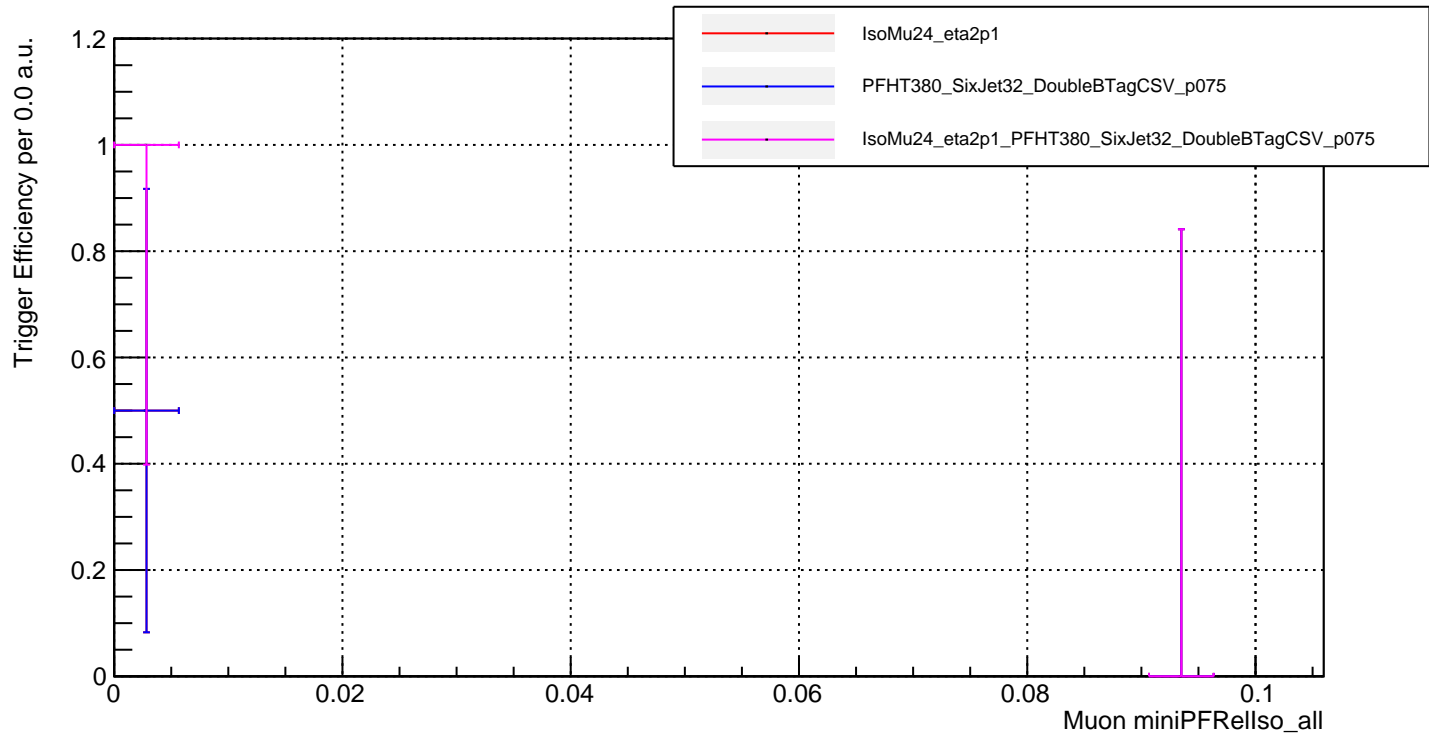
Off-line (post-)selection Requisites for:

- **Jets:** $\text{jetId} > 2$, $p_T > 30$ and $|\eta| < 2.4$ (for at least 6 jets)
 $\text{btagDeepFlavB} > 0.7489$ (for at least one jet)
- **Muons:** has tightId, $|\eta| < 2.4$ and $\text{PFRelIso_all} < 0.15$ (for at least 1)

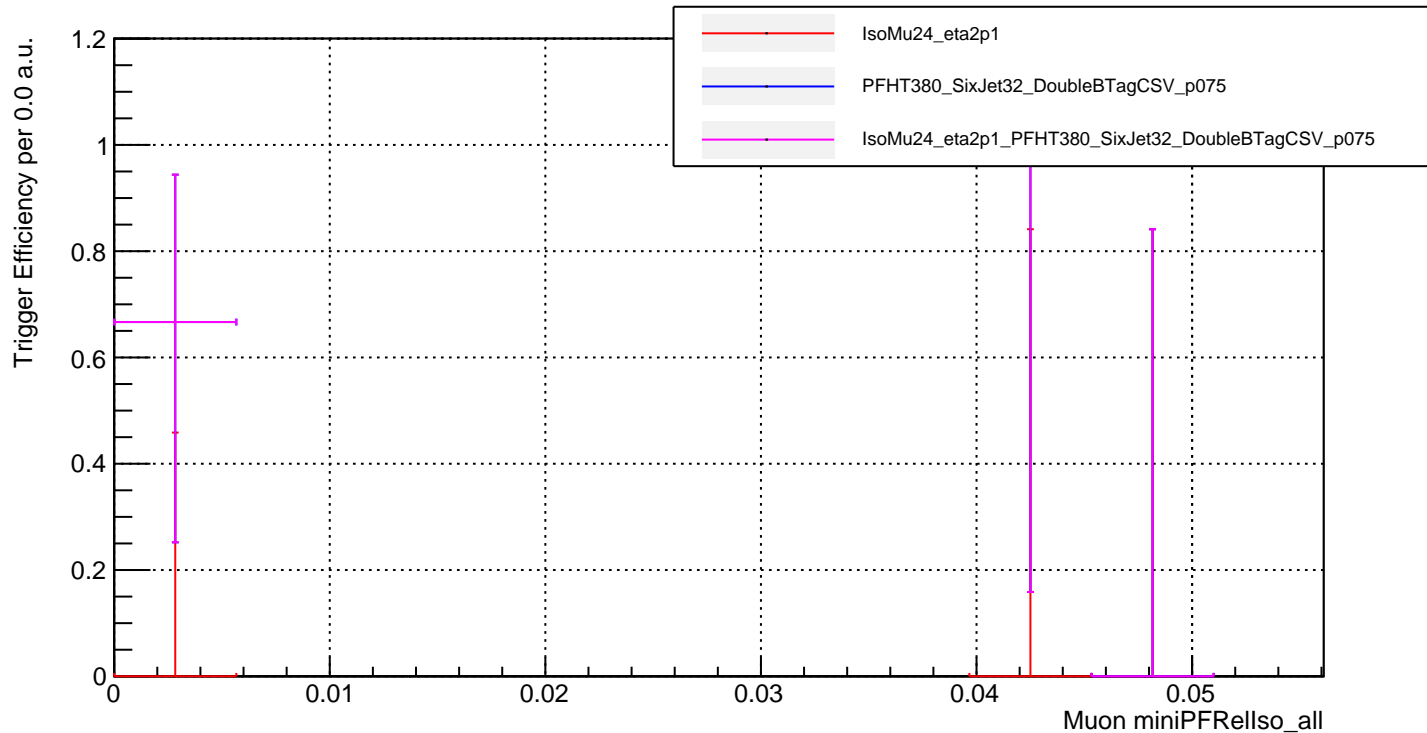
Muon Pt = 5



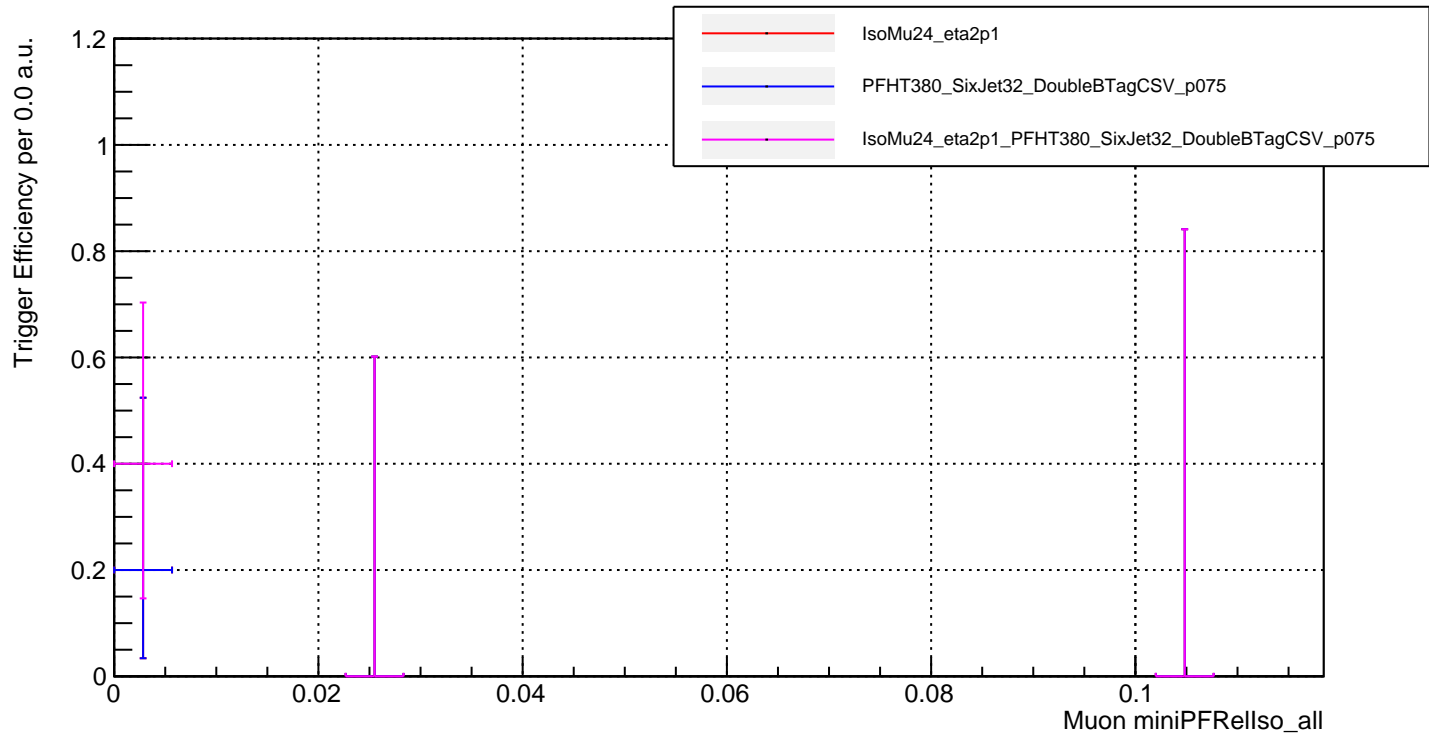
Muon Pt = 10



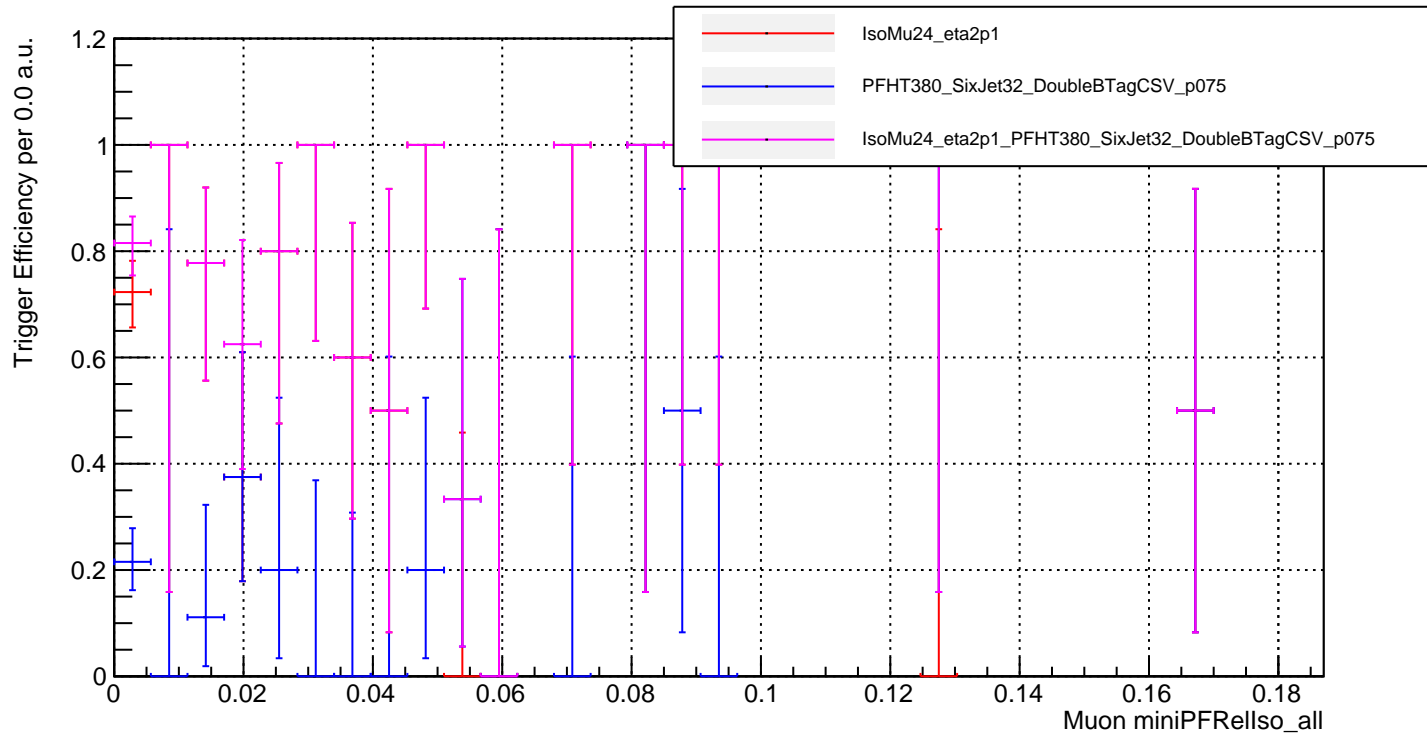
Muon Pt = 15



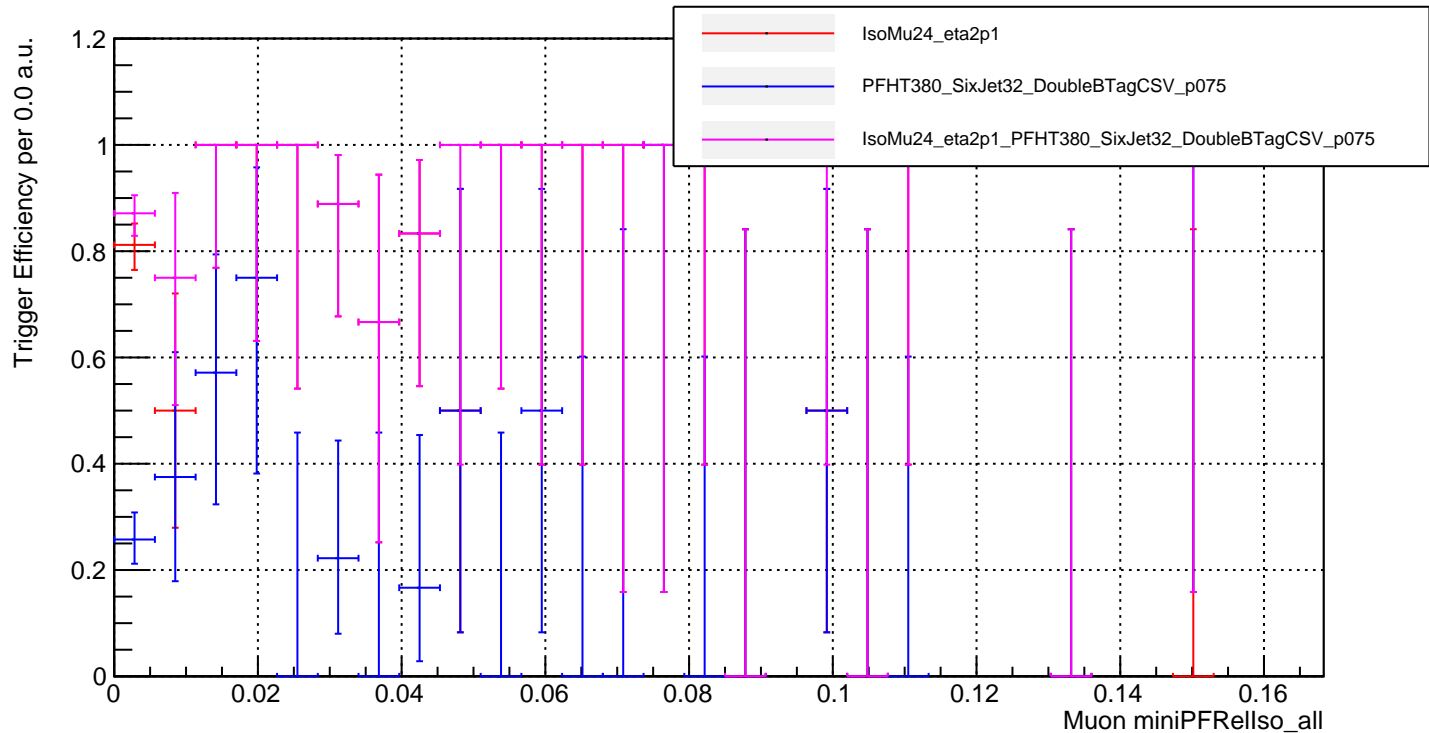
Muon Pt = 20



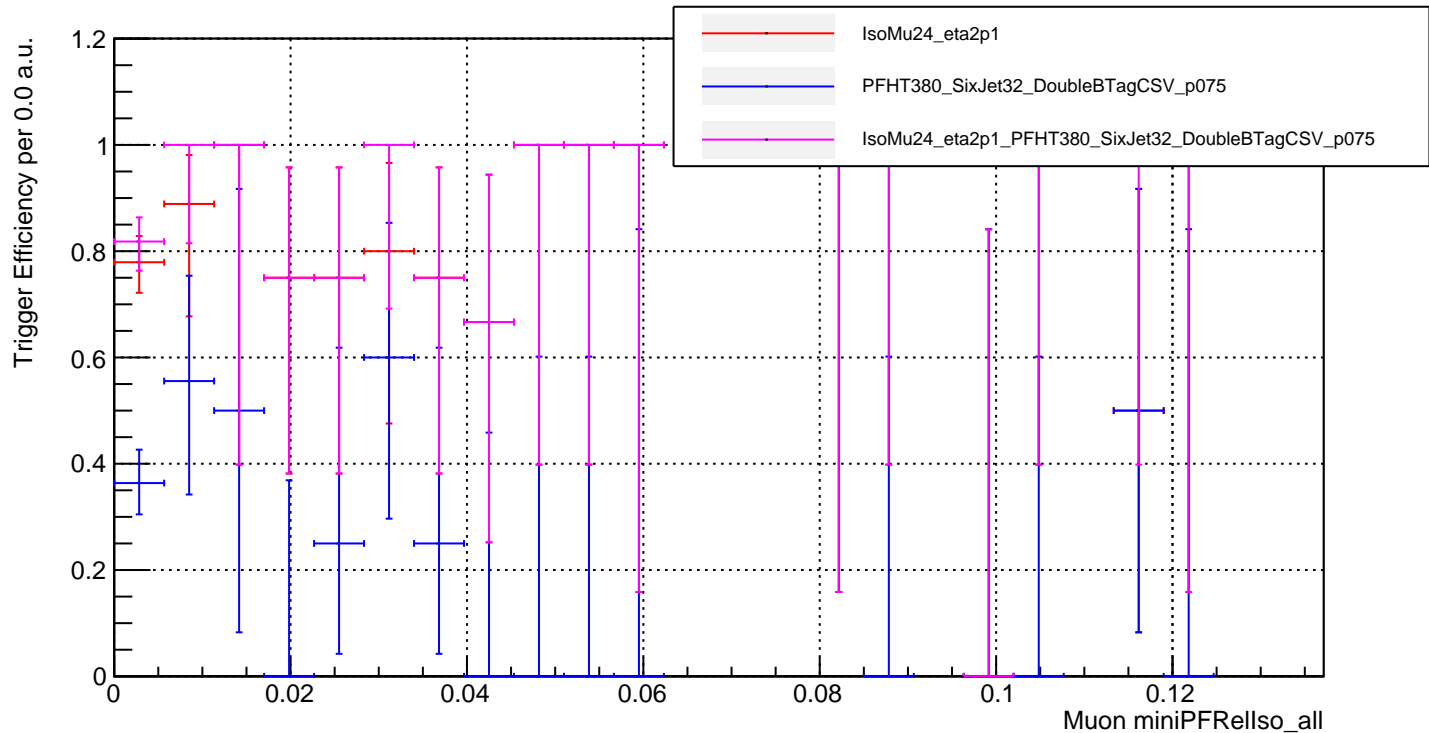
Muon Pt = 25



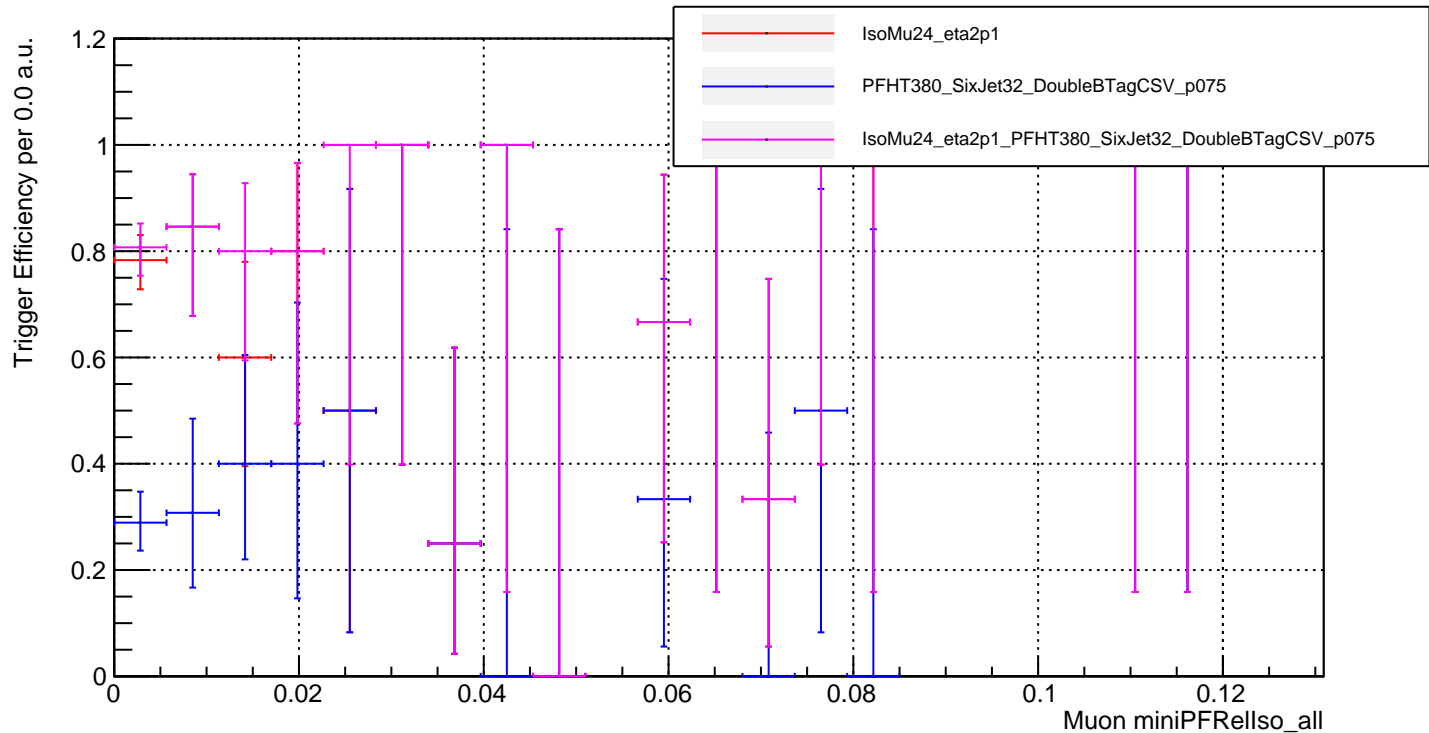
Muon Pt = 30



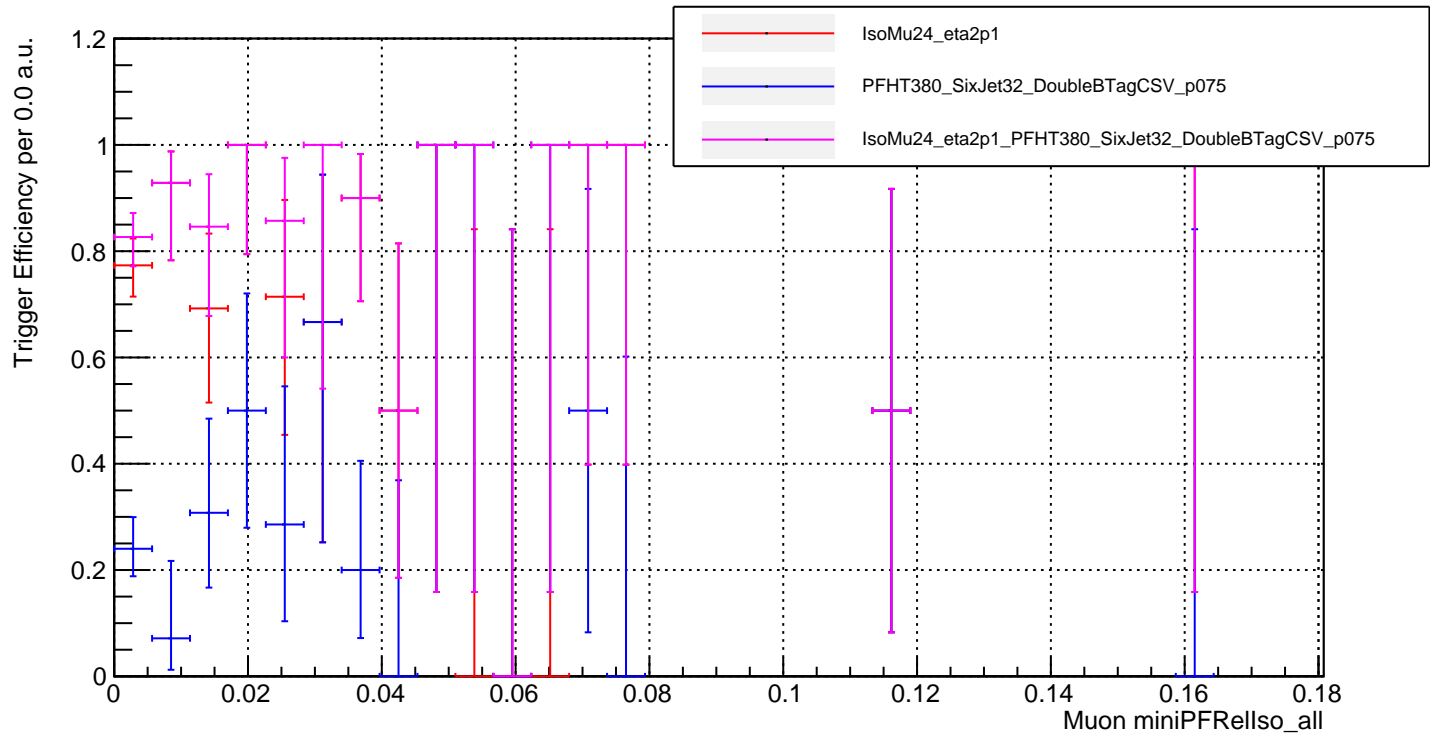
Muon Pt = 35



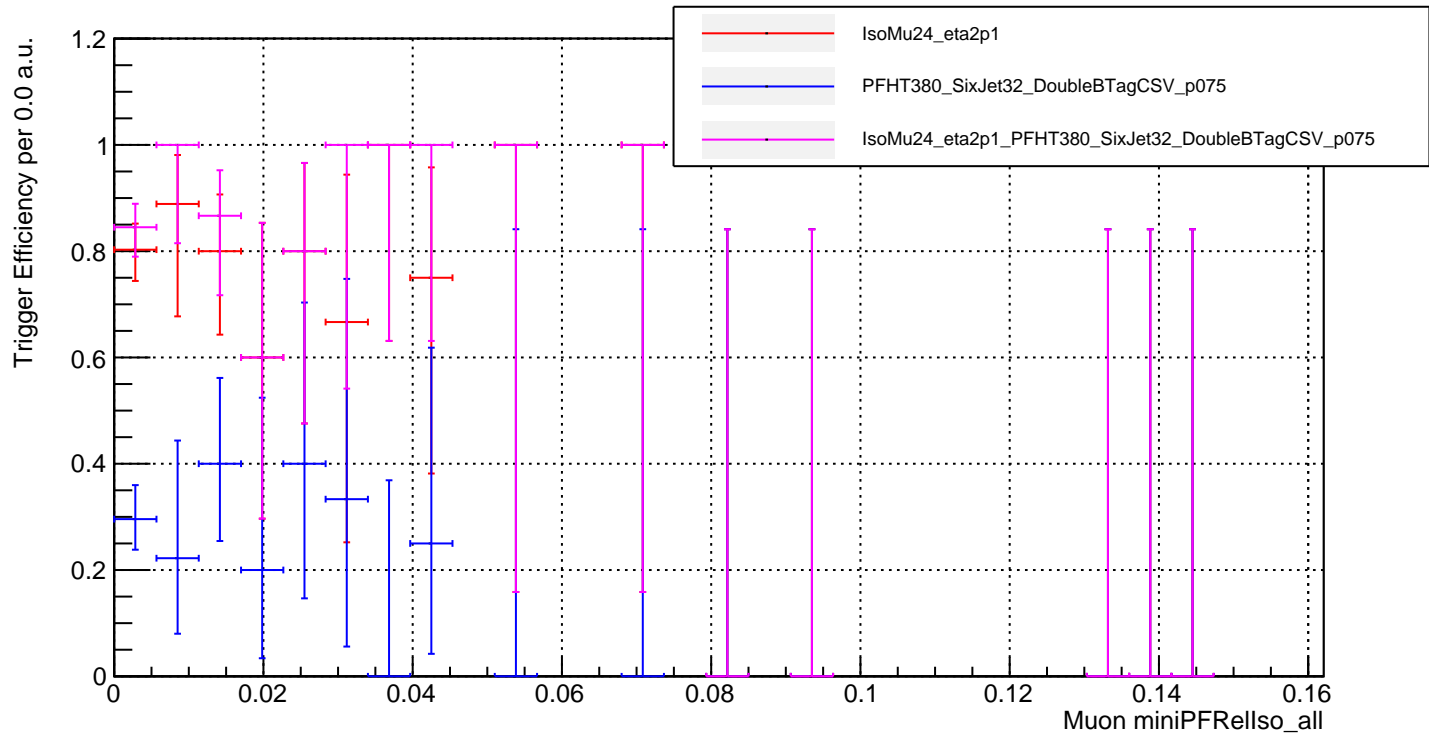
Muon Pt = 40



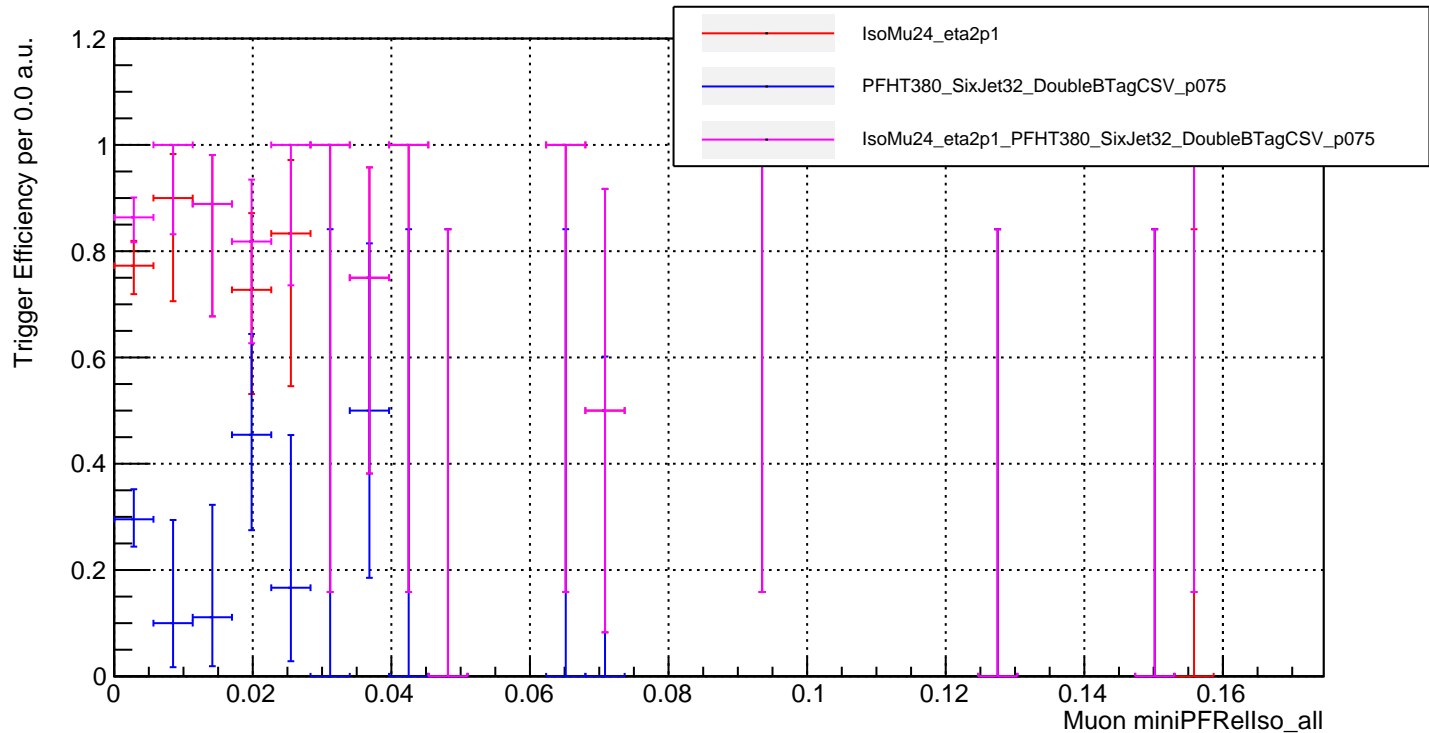
Muon Pt = 45



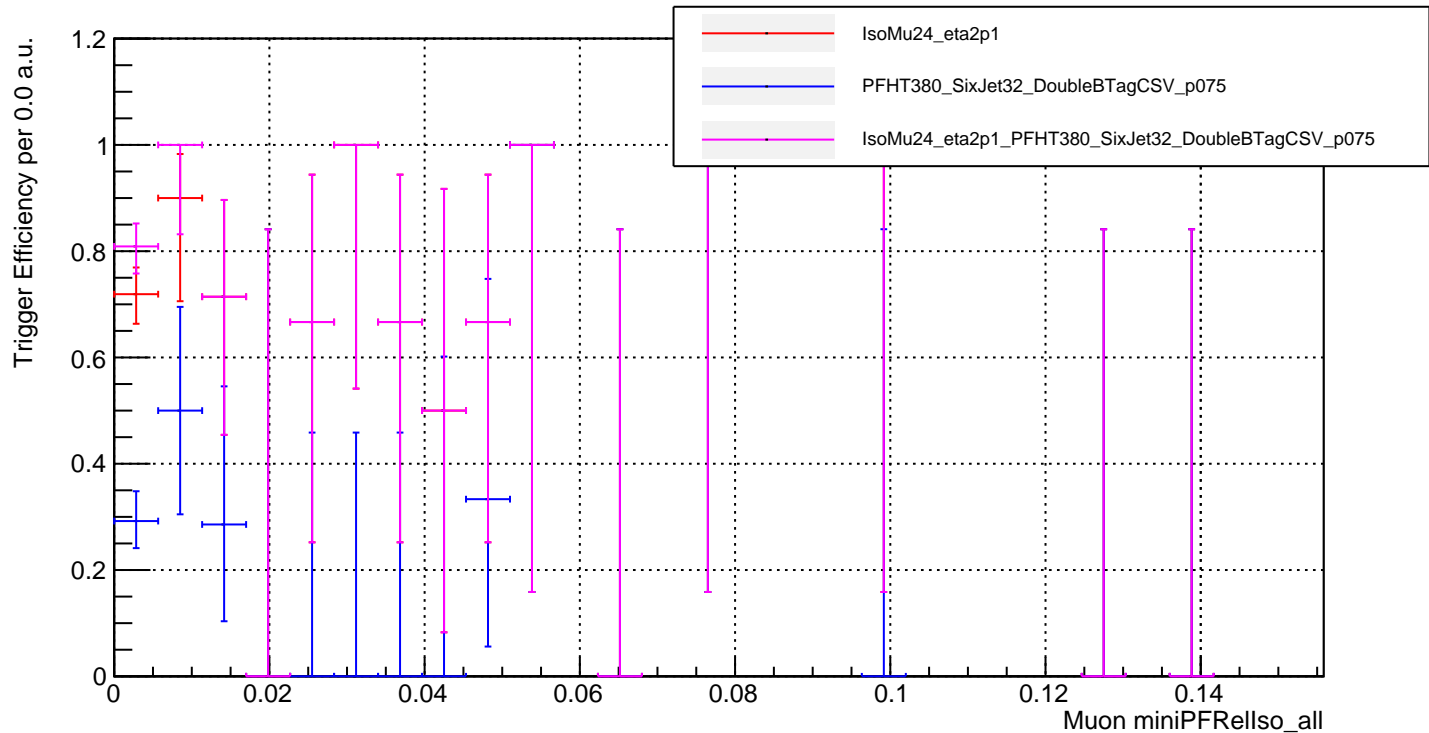
Muon Pt = 50



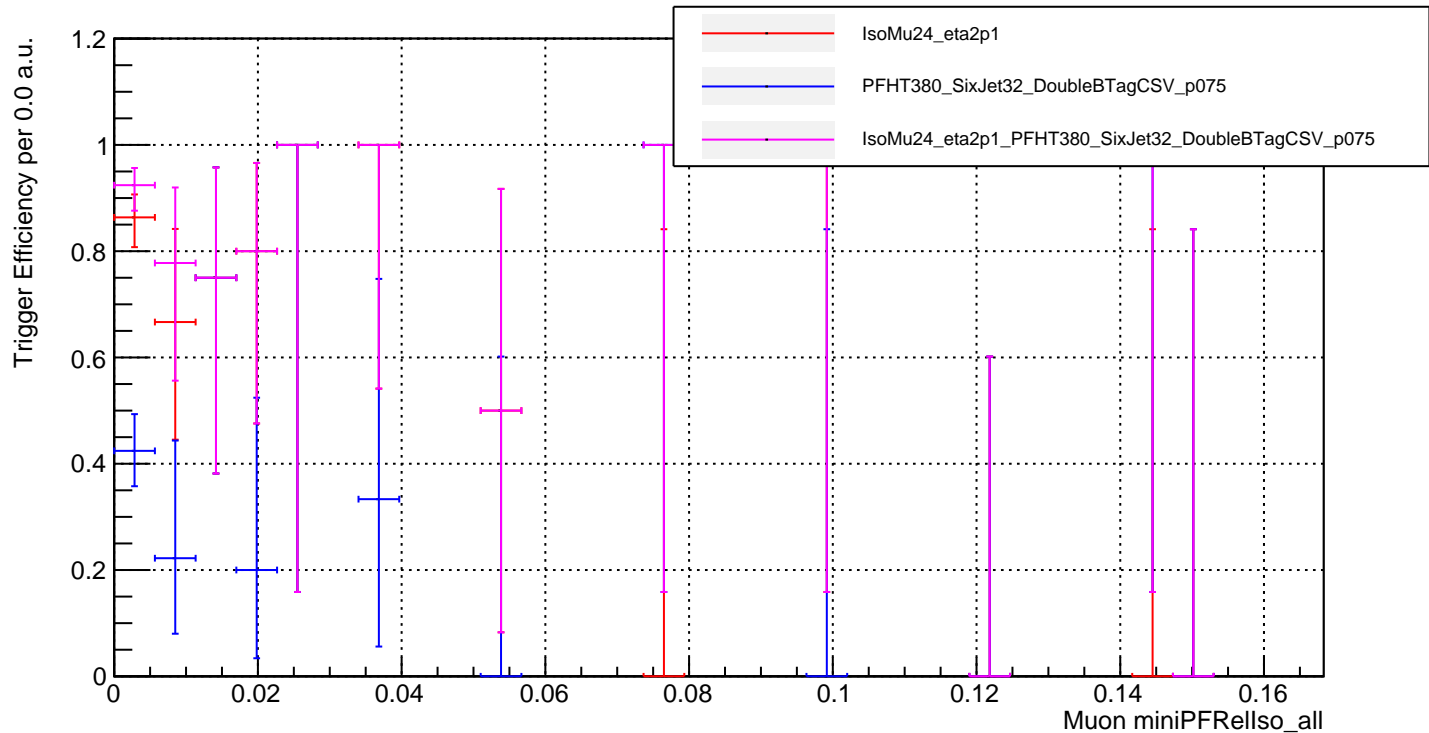
Muon Pt = 55



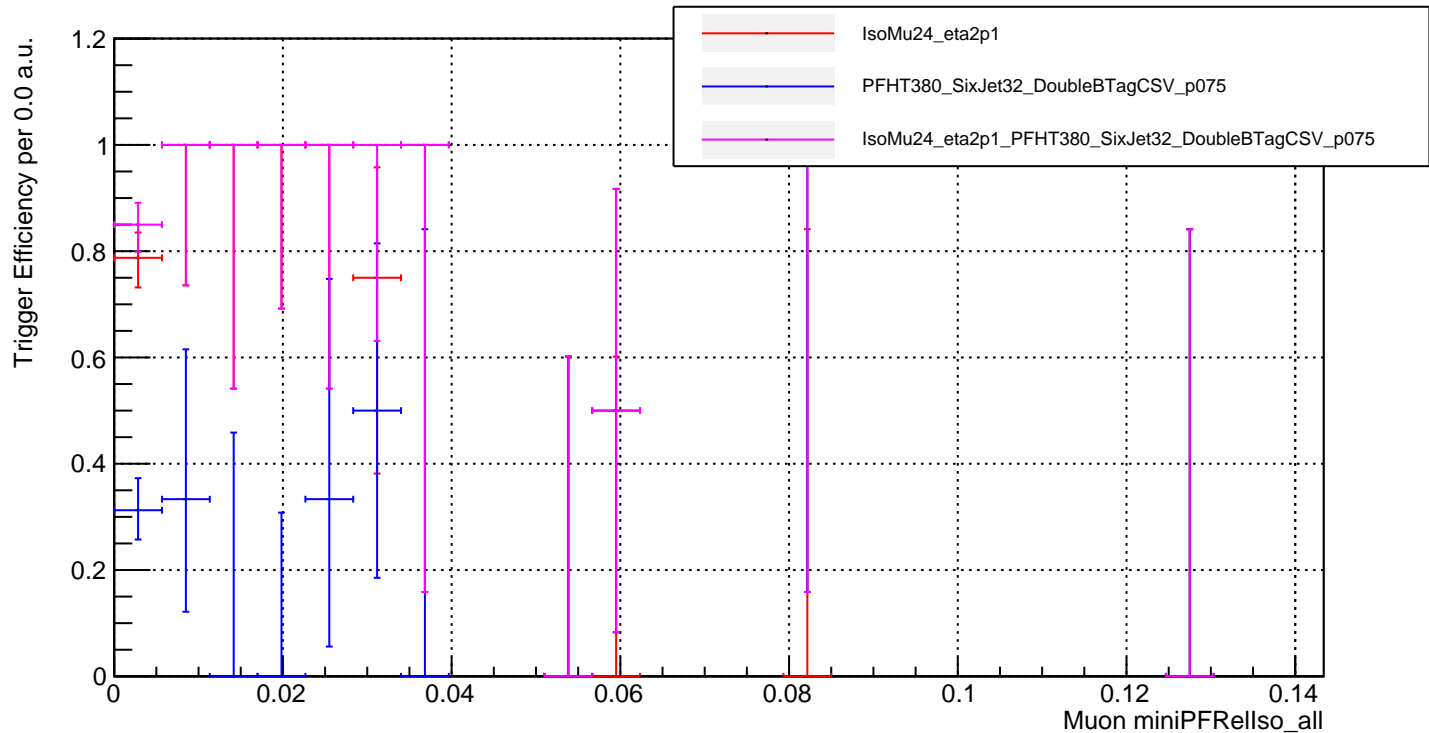
Muon Pt = 60



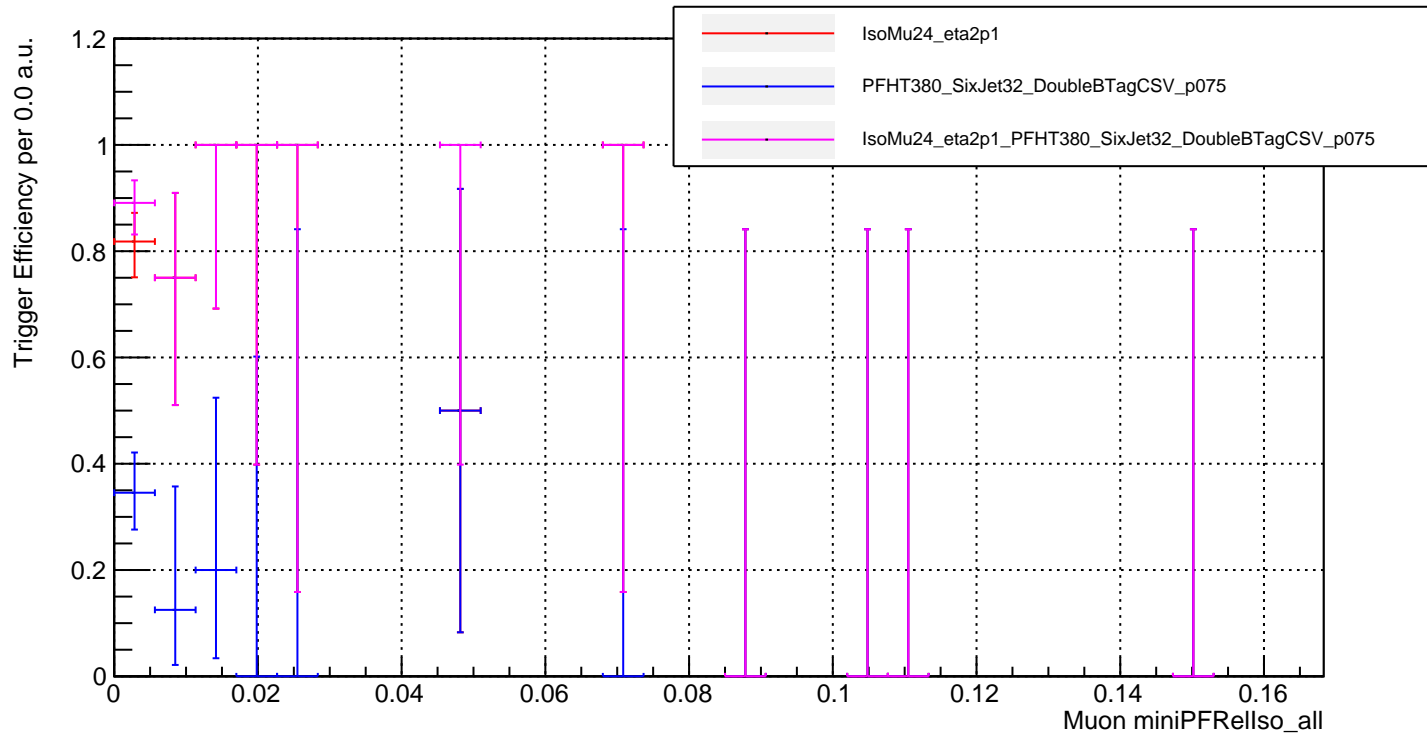
Muon Pt = 65



Muon Pt = 70



Muon Pt = 75

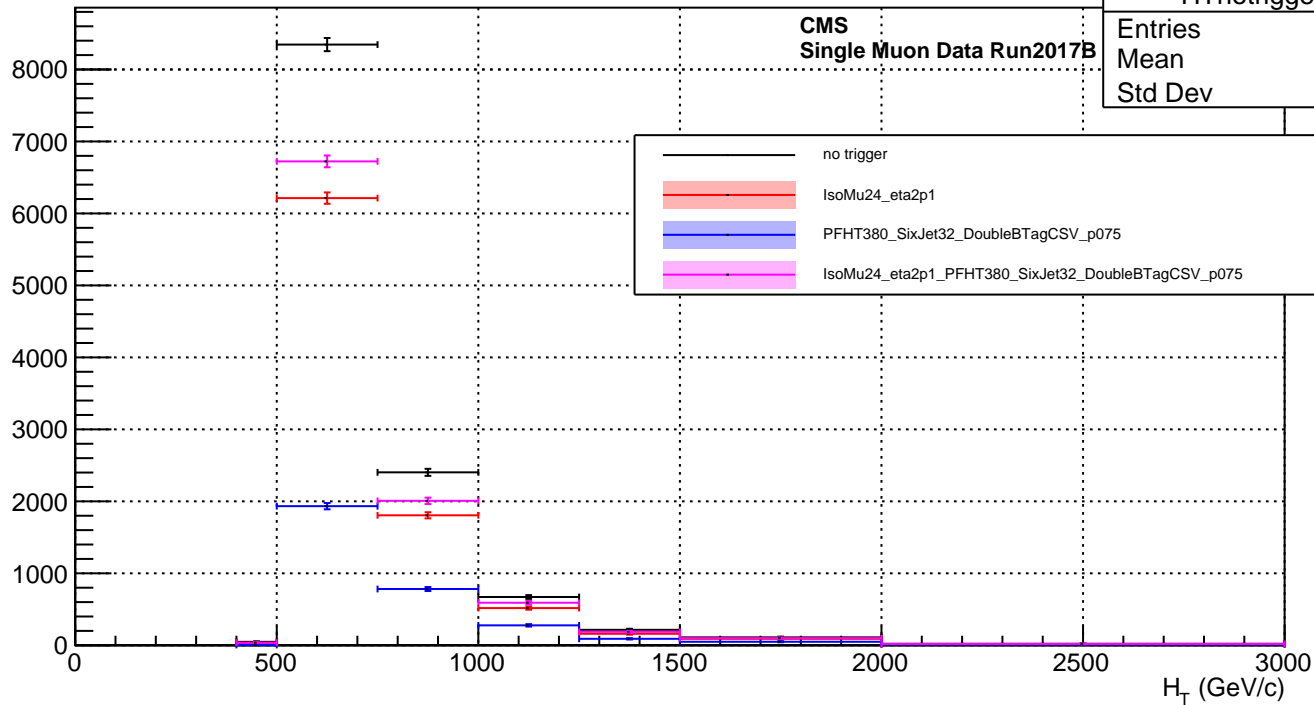
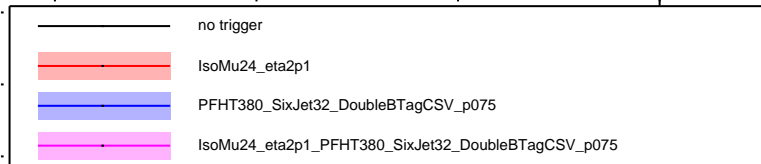


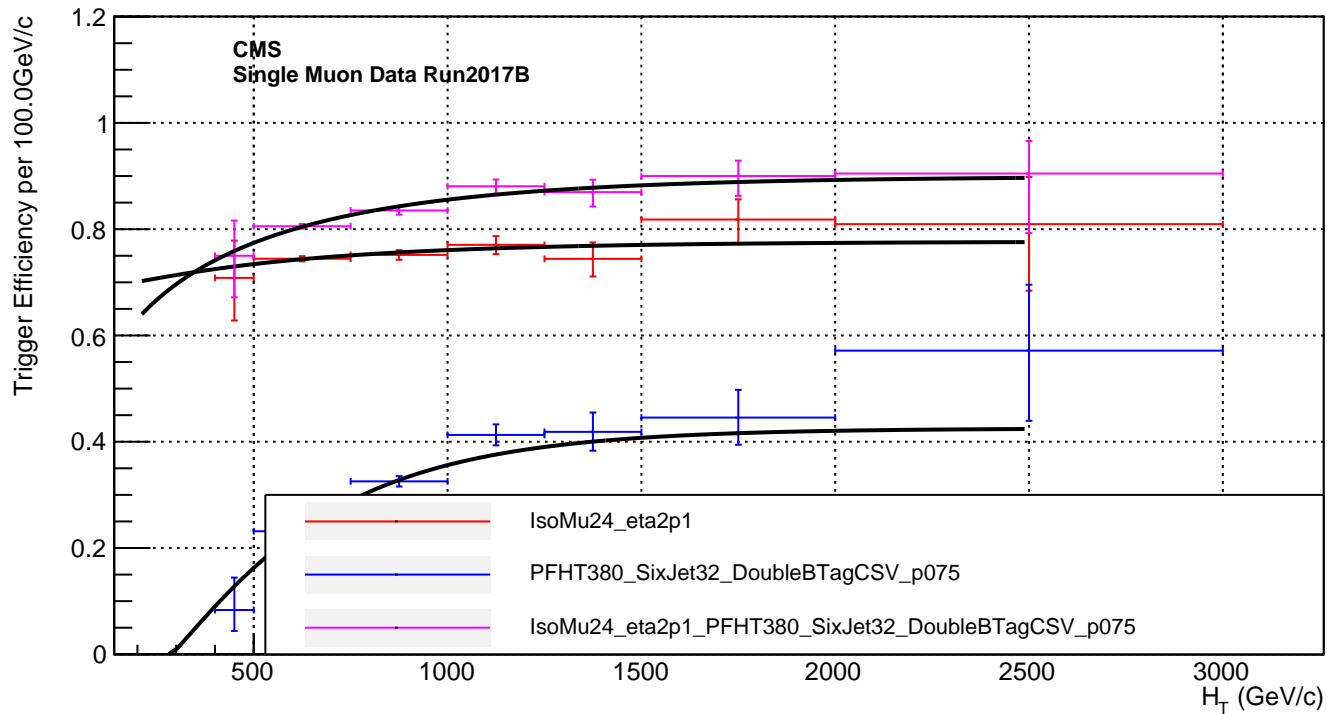
Number of Events per 10 GeV/c

CMS
Single Muon Data Run2017B

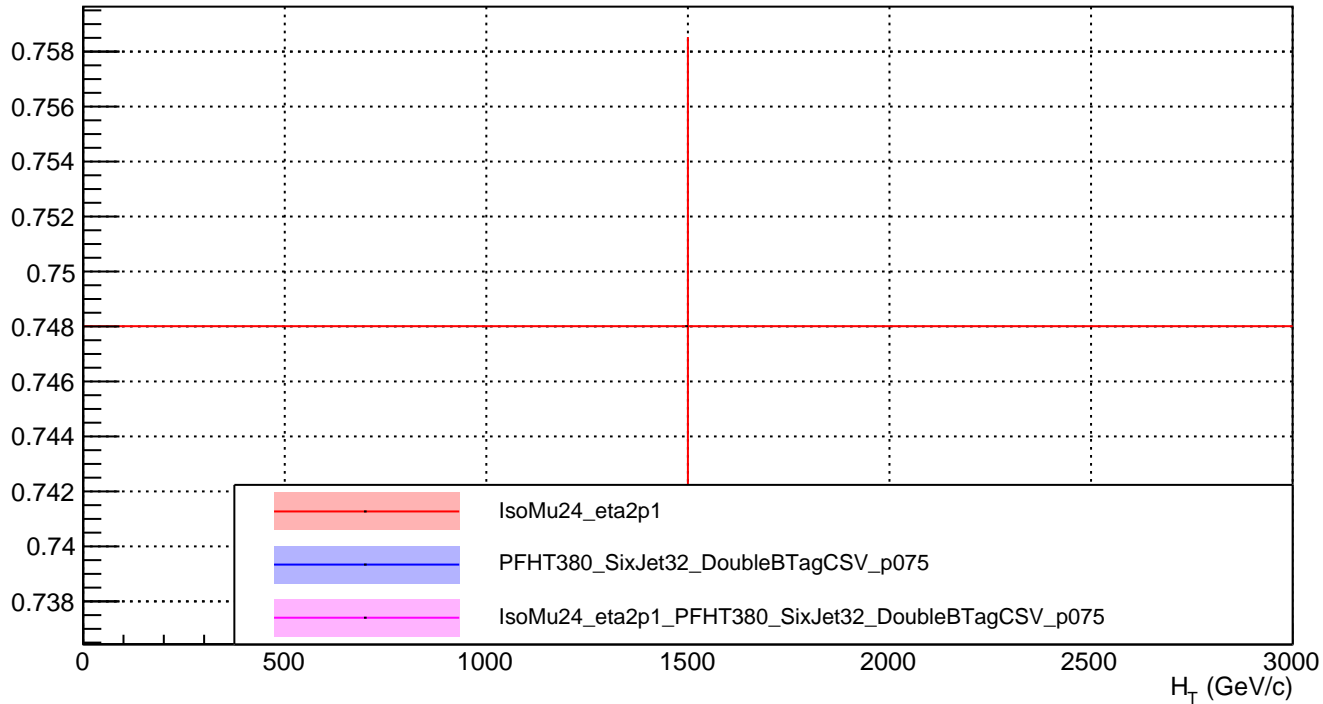
HTnottrigger

Entries	11815
Mean	705.5
Std Dev	215.8





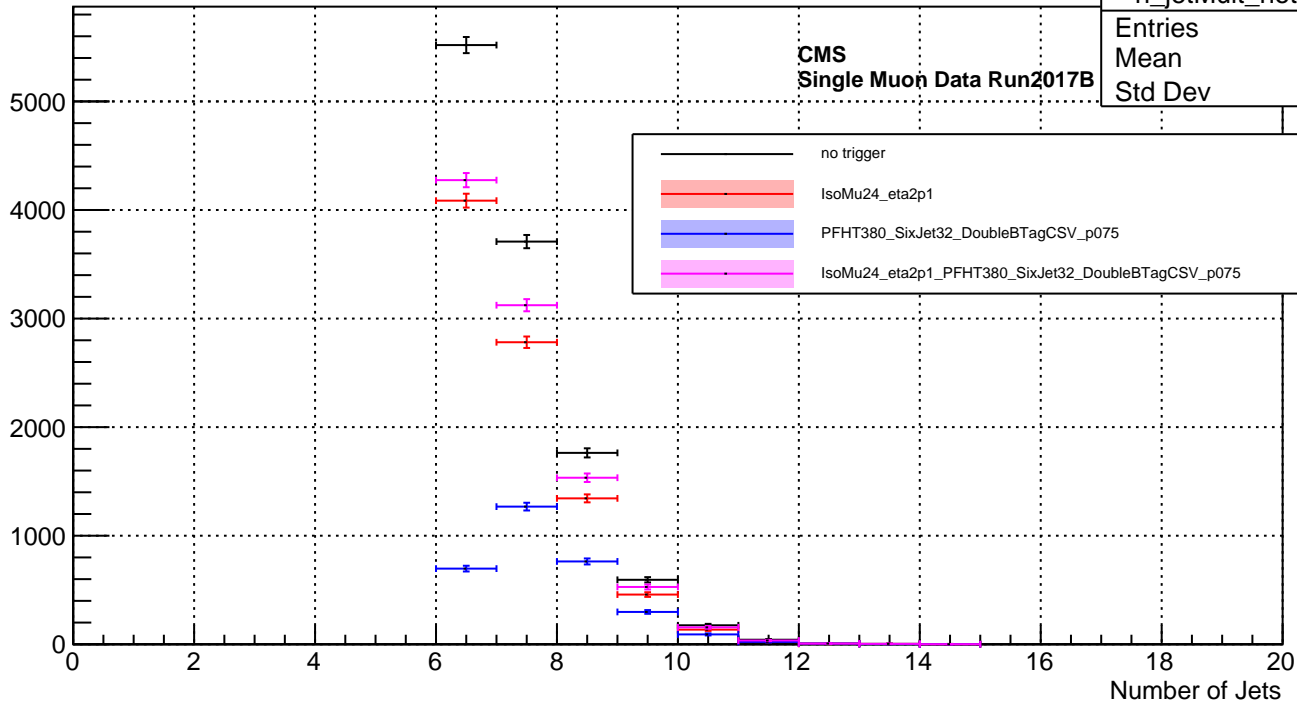
Trigger Efficiency per 3000.0 GeV/c

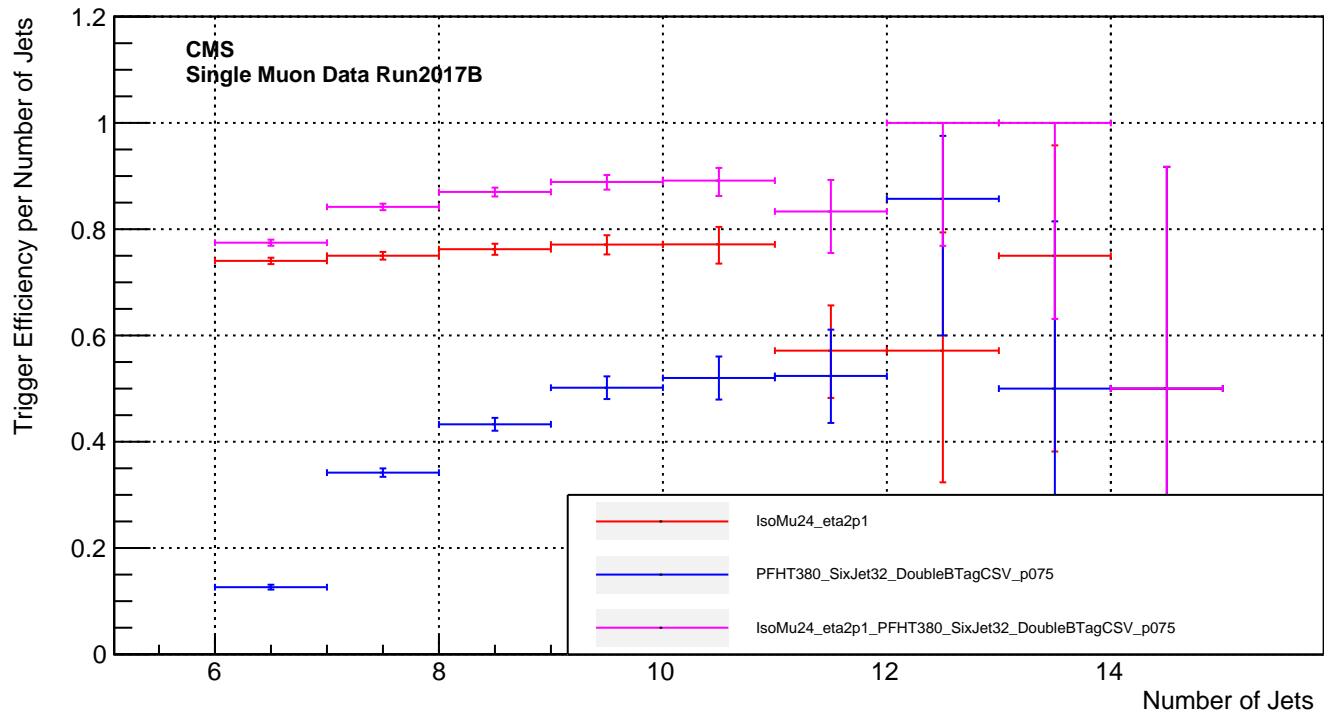


Number of Events per Number of Jets

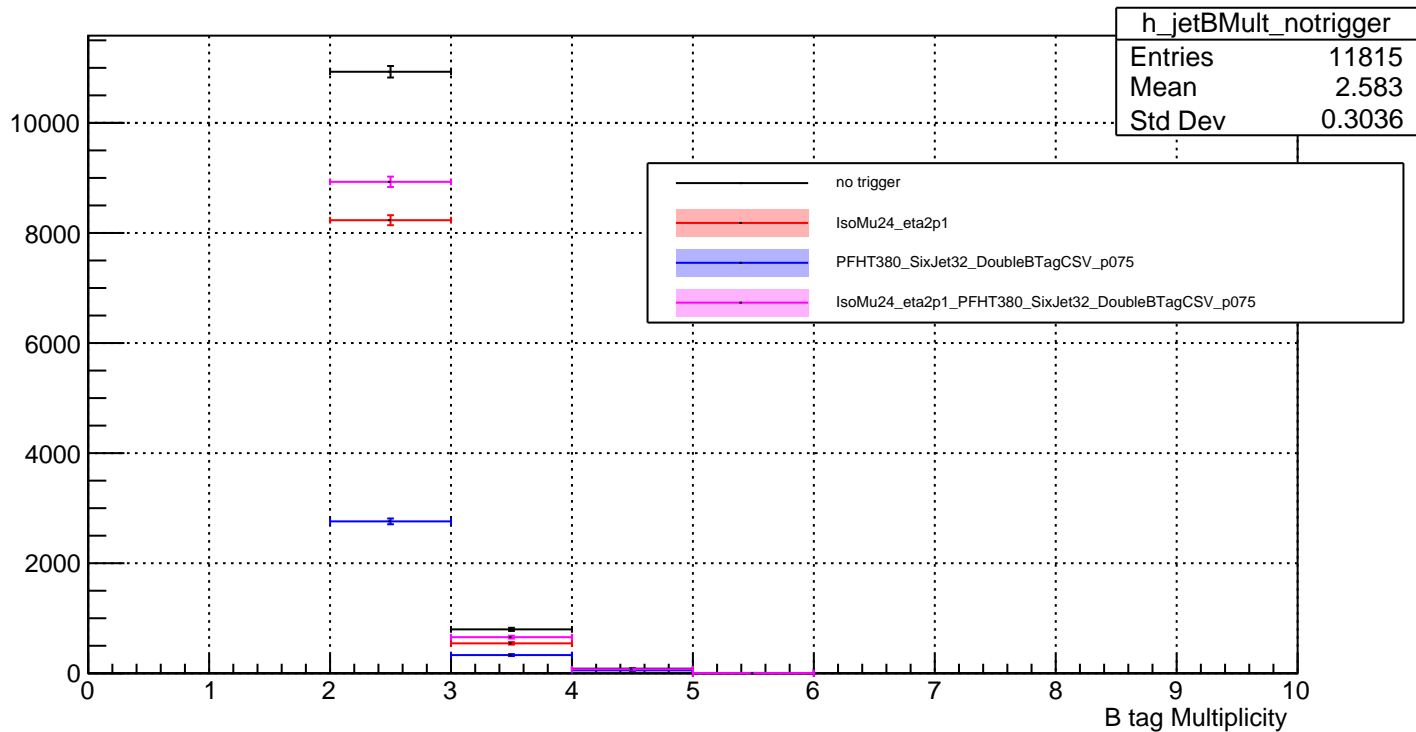
CMS
Single Muon Data Run2017B

h_jetMult_notrigger	
Entries	11815
Mean	6.847
Std Dev	1.01

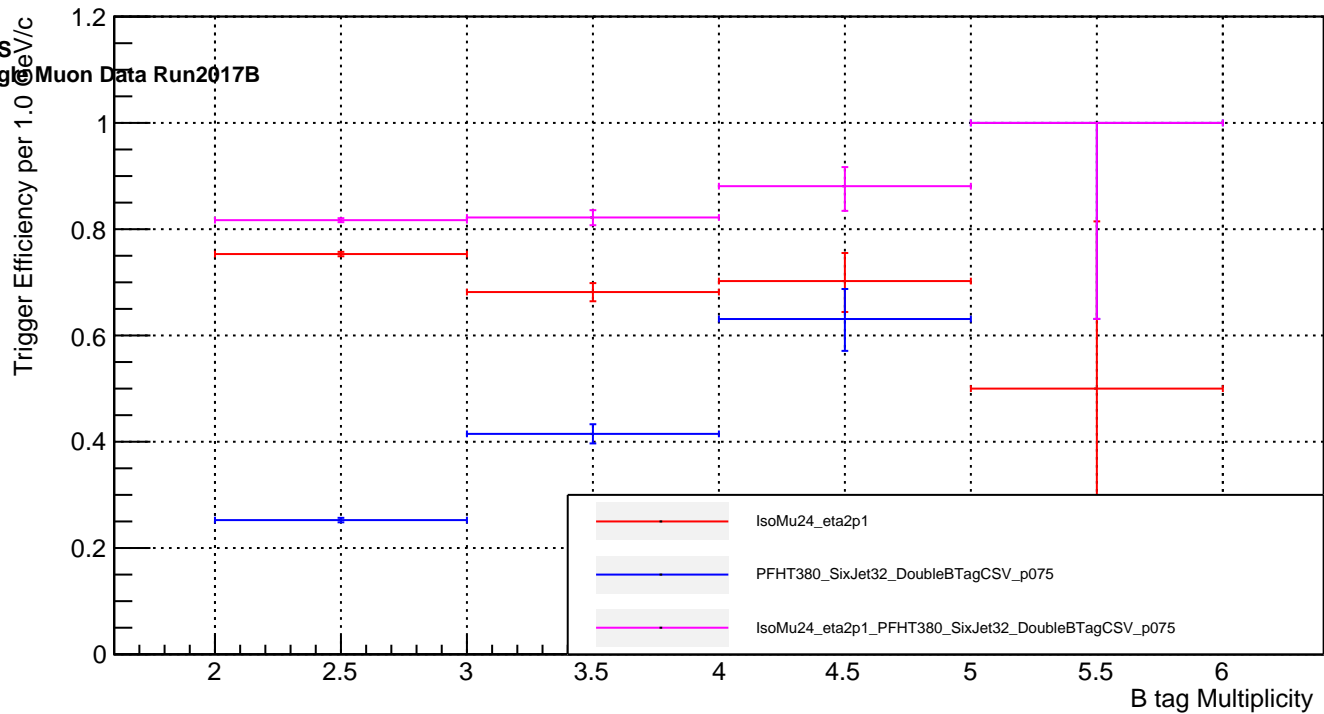




Number of Events per Number of Jets



CMS
Single Muon Data Run2017B

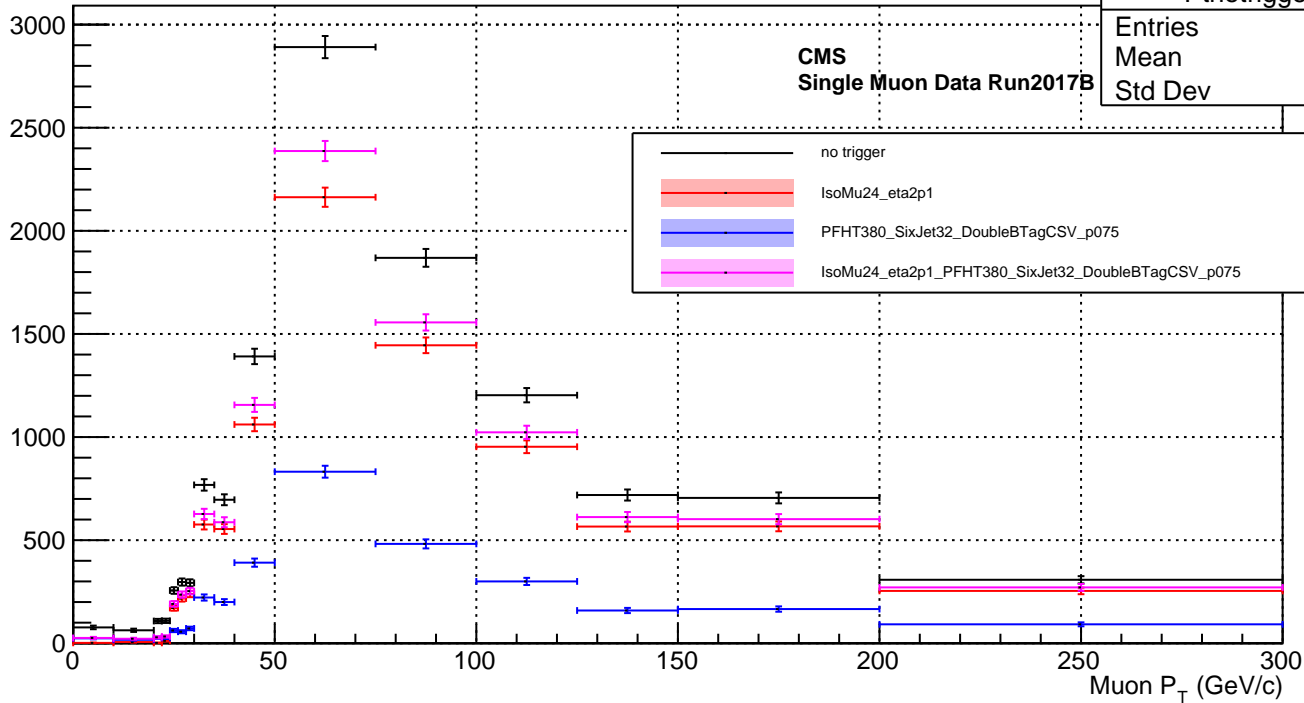
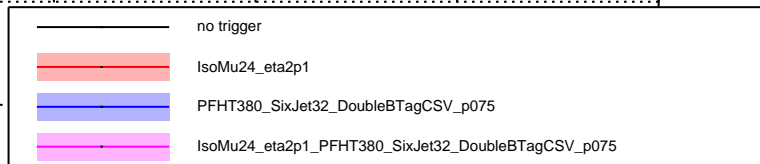


Number of Events per 1 GeV/c

CMS
Single Muon Data Run2017B

Ptnottrigger

Entries	11815
Mean	77.18
Std Dev	47.68



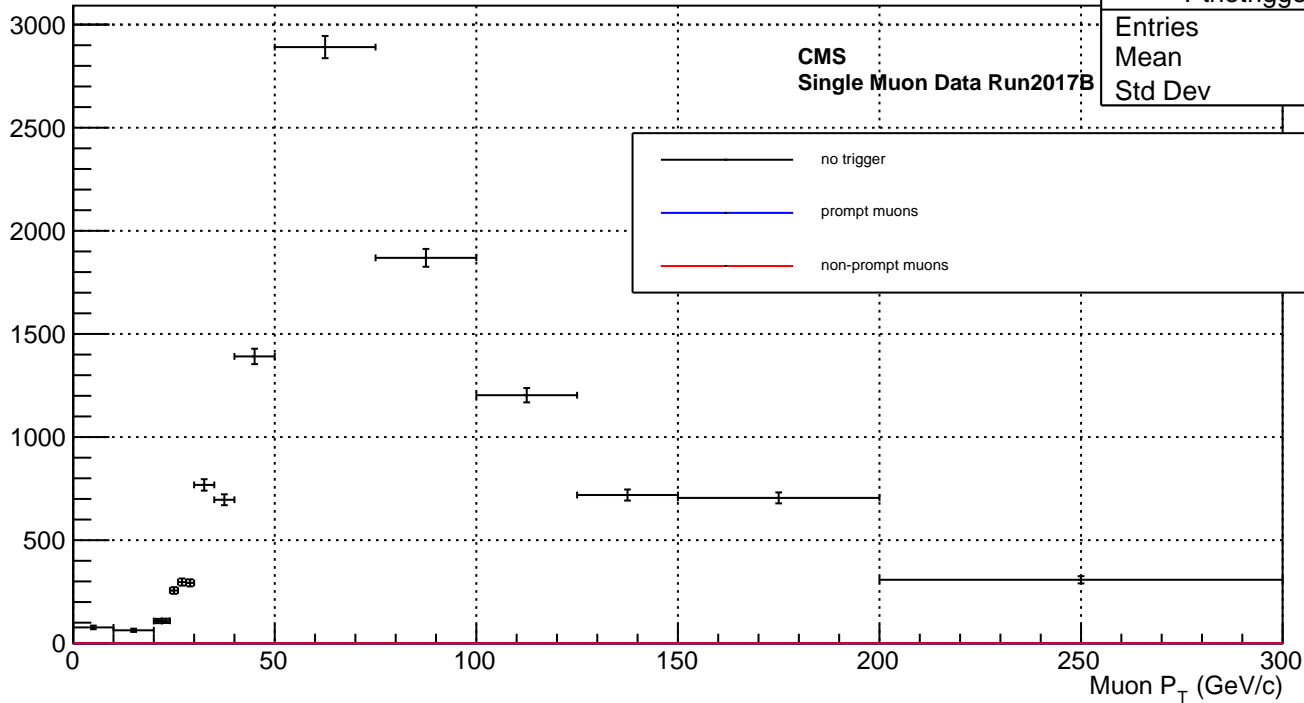
Number of Events per 1 GeV/c

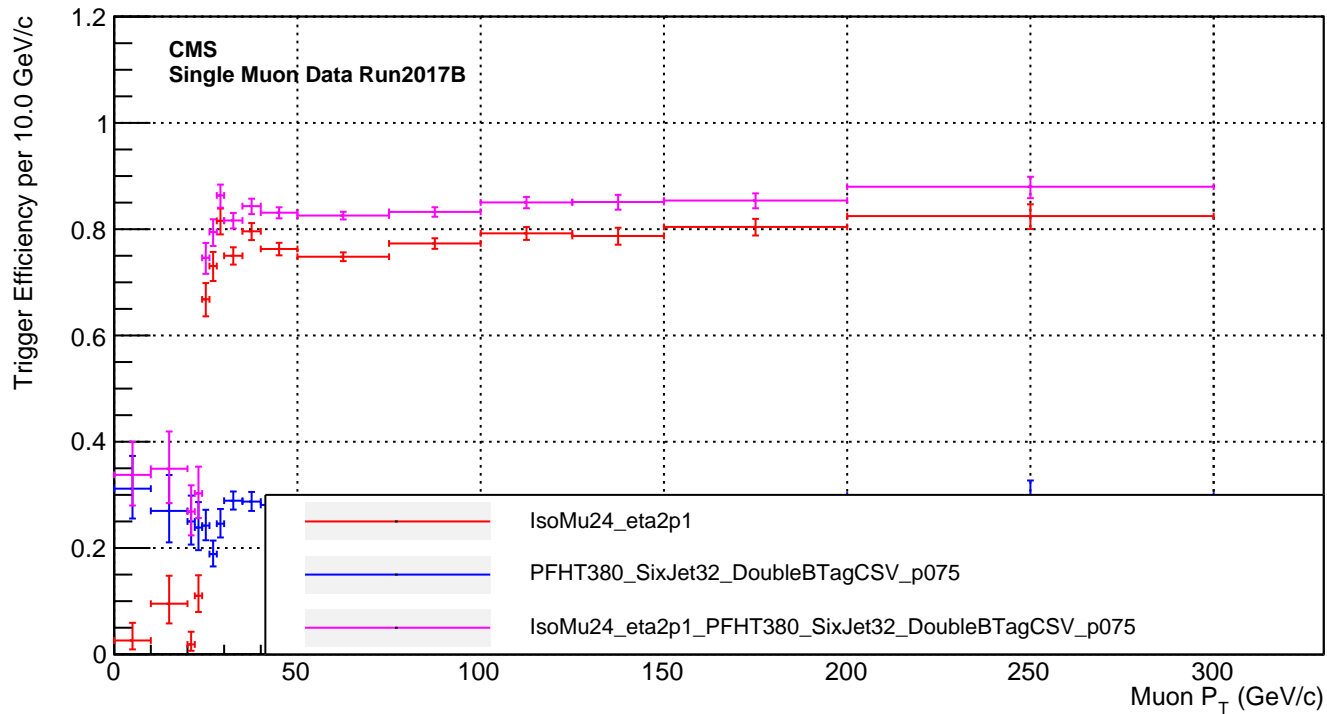
CMS
Single Muon Data Run2017B

Ptnottrigger

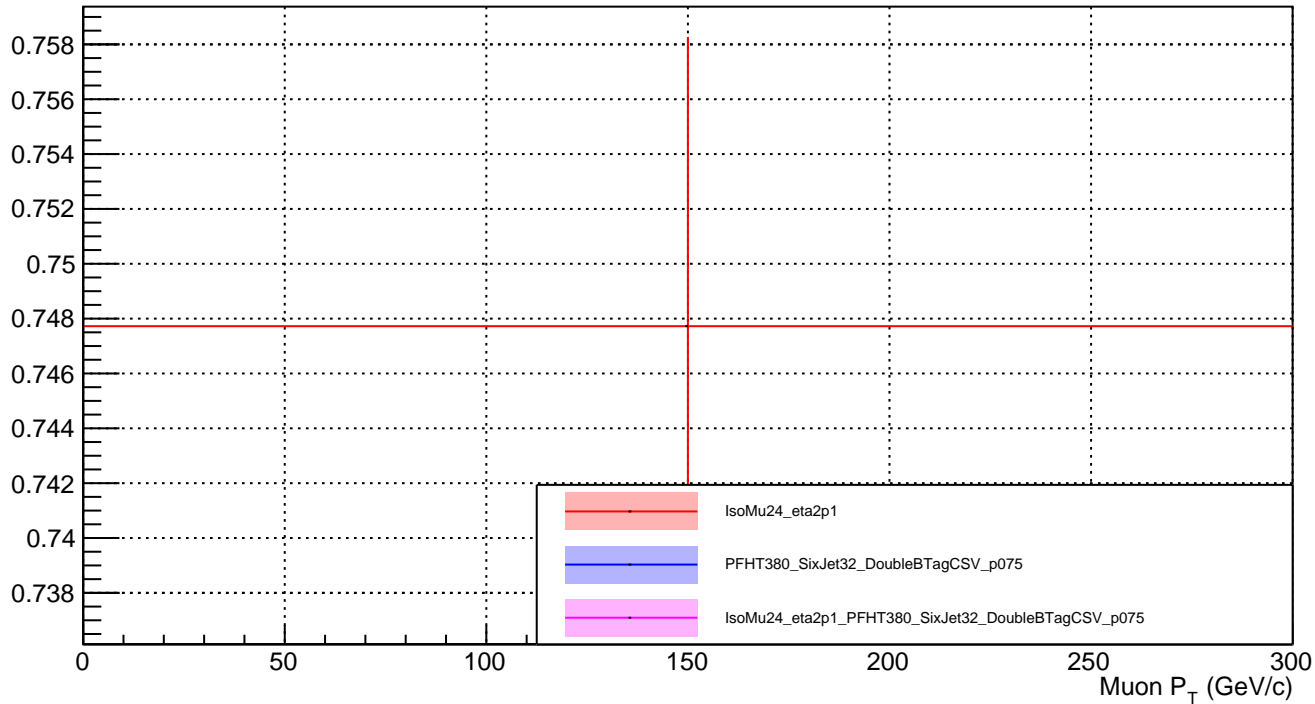
Entries	11815
Mean	77.18
Std Dev	47.68

no trigger
prompt muons
non-prompt muons

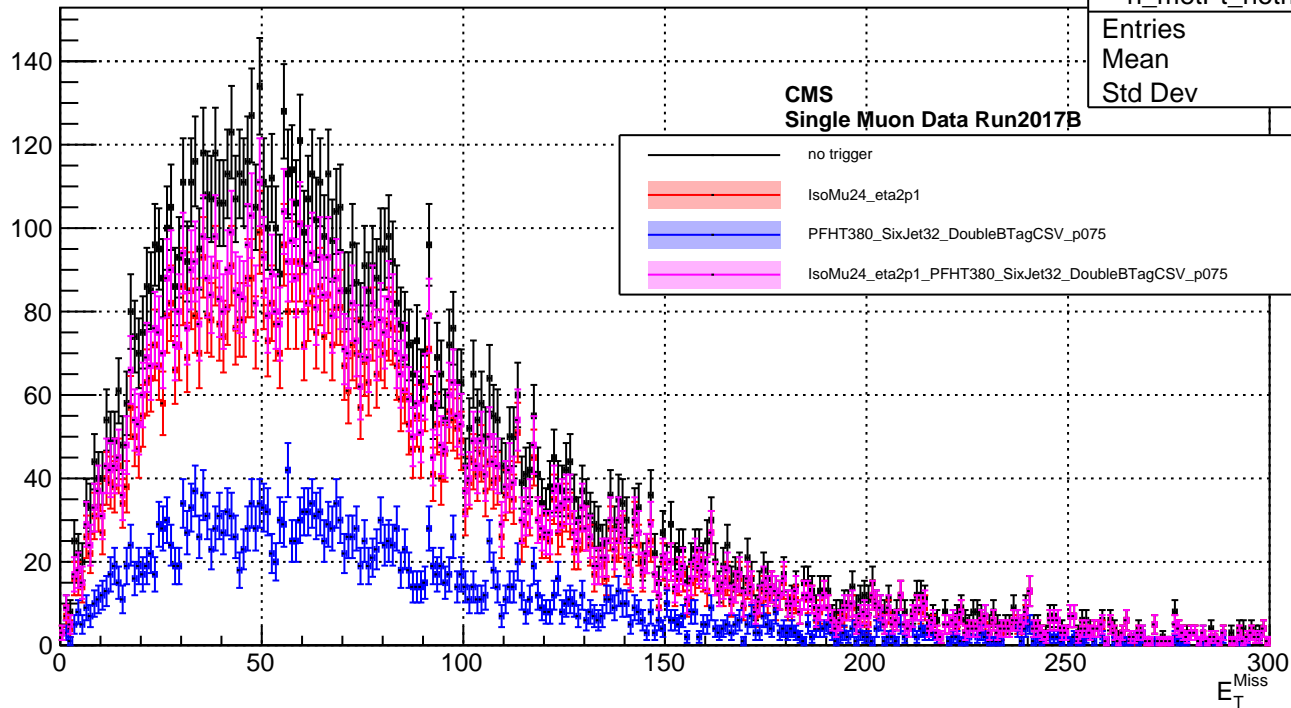




Trigger Efficiency per 300.00 GeV/c

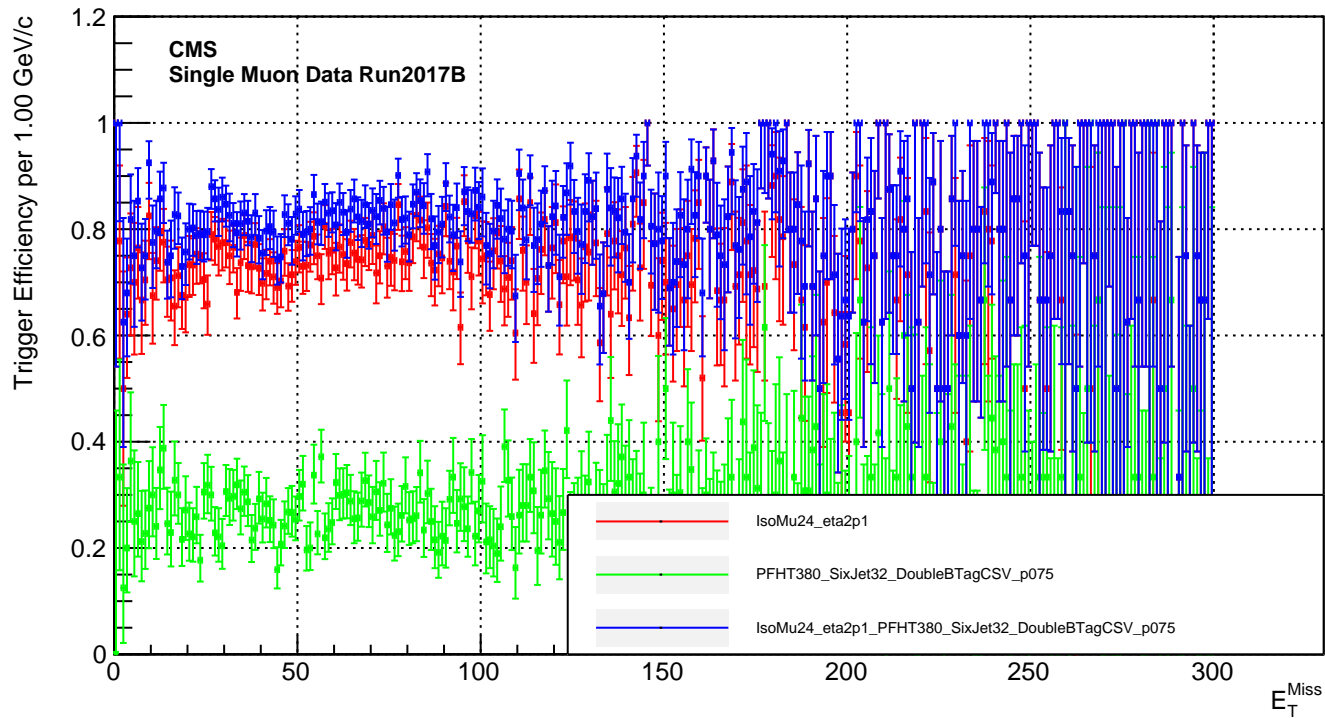


Number of Events per 1 GeV/c

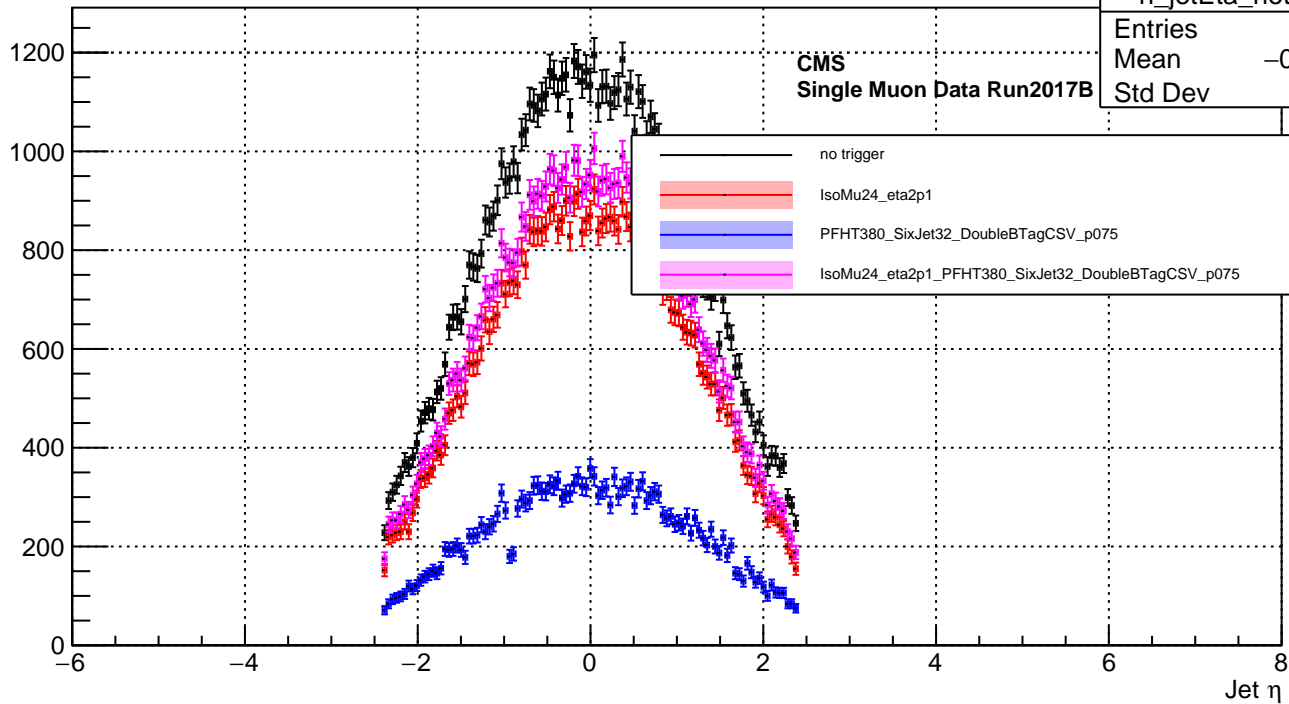


h_metPt_notrigger

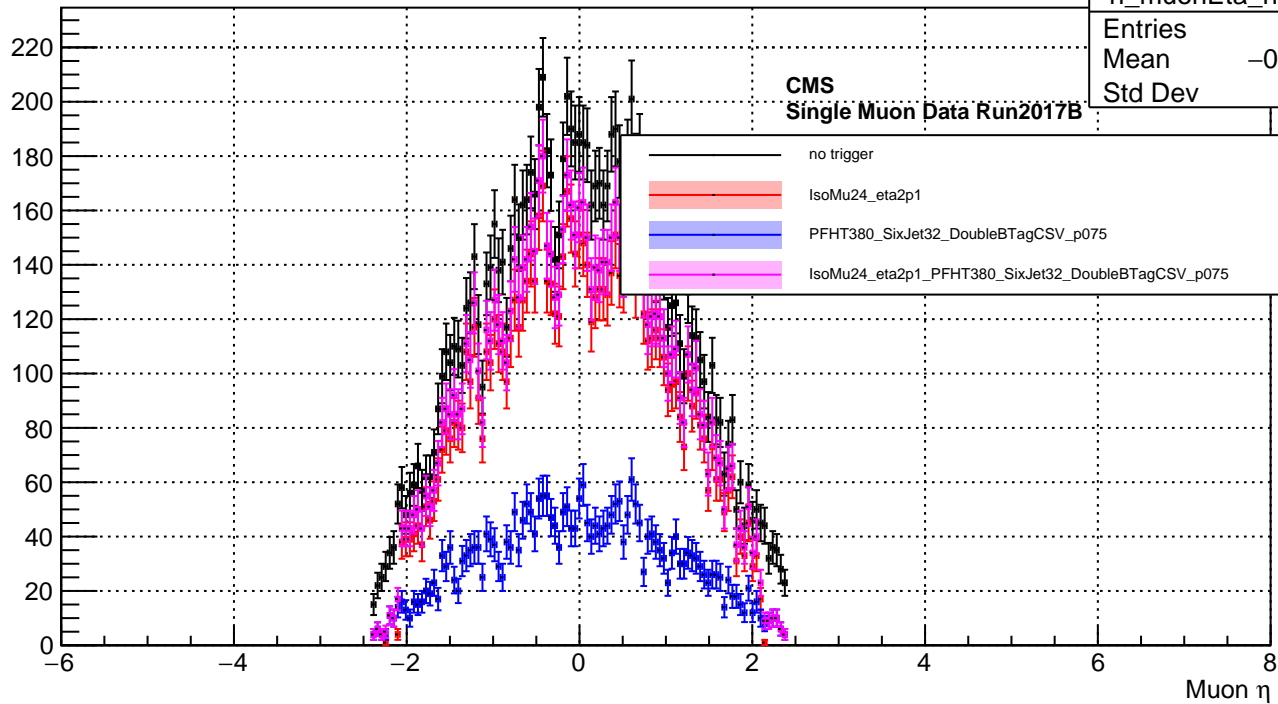
Entries	11815
Mean	80.44
Std Dev	54.49

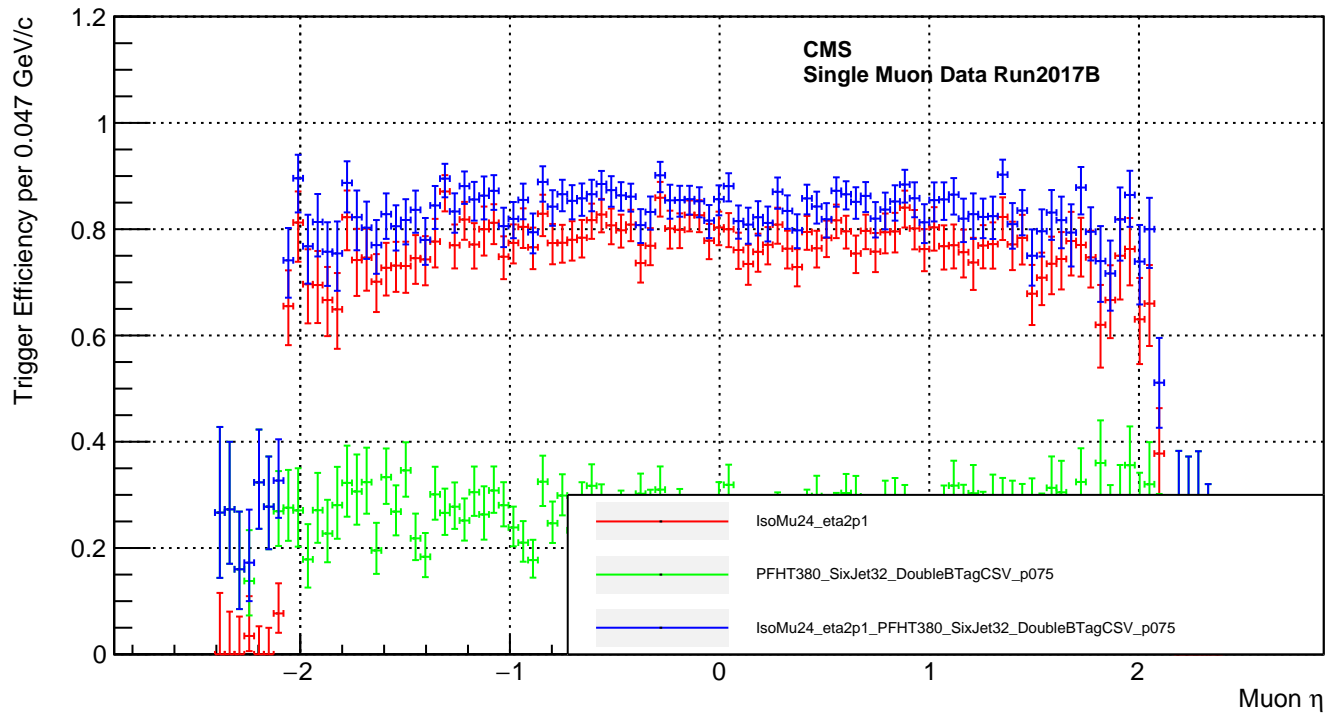


Number of Events per $\delta\eta = 0.046$

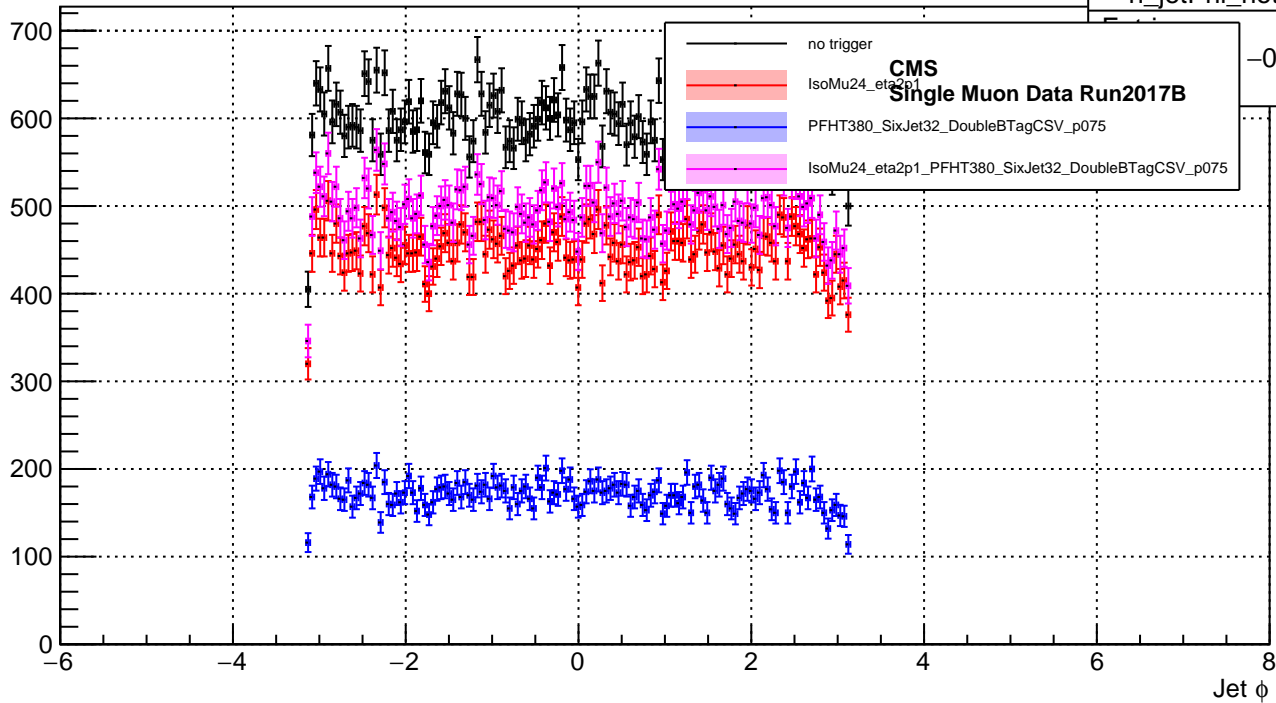


Number of Events per $\delta\eta = 0.046$





Number of Events per $\delta\phi = 0.046$



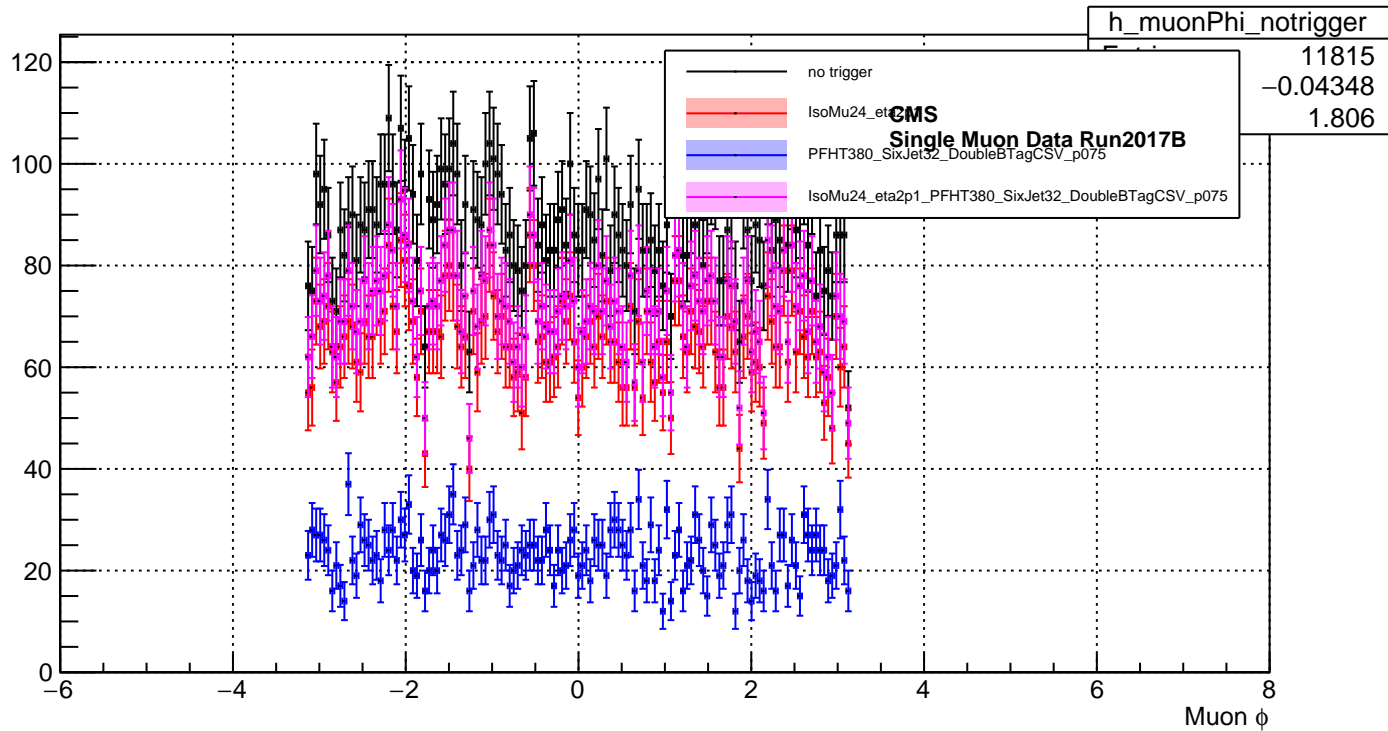
h_jetPhi_notrigger

80903

-0.008082

1.811

Number of Events per $\delta\phi = 0.046$



Muon ϕ

h_muonMap_IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075

Entries	9663
Mean x	-0.01385
Mean y	-0.04623
Std Dev x	1.014
Std Dev y	1.811

