

On-line (pre-)selection Requisites for:

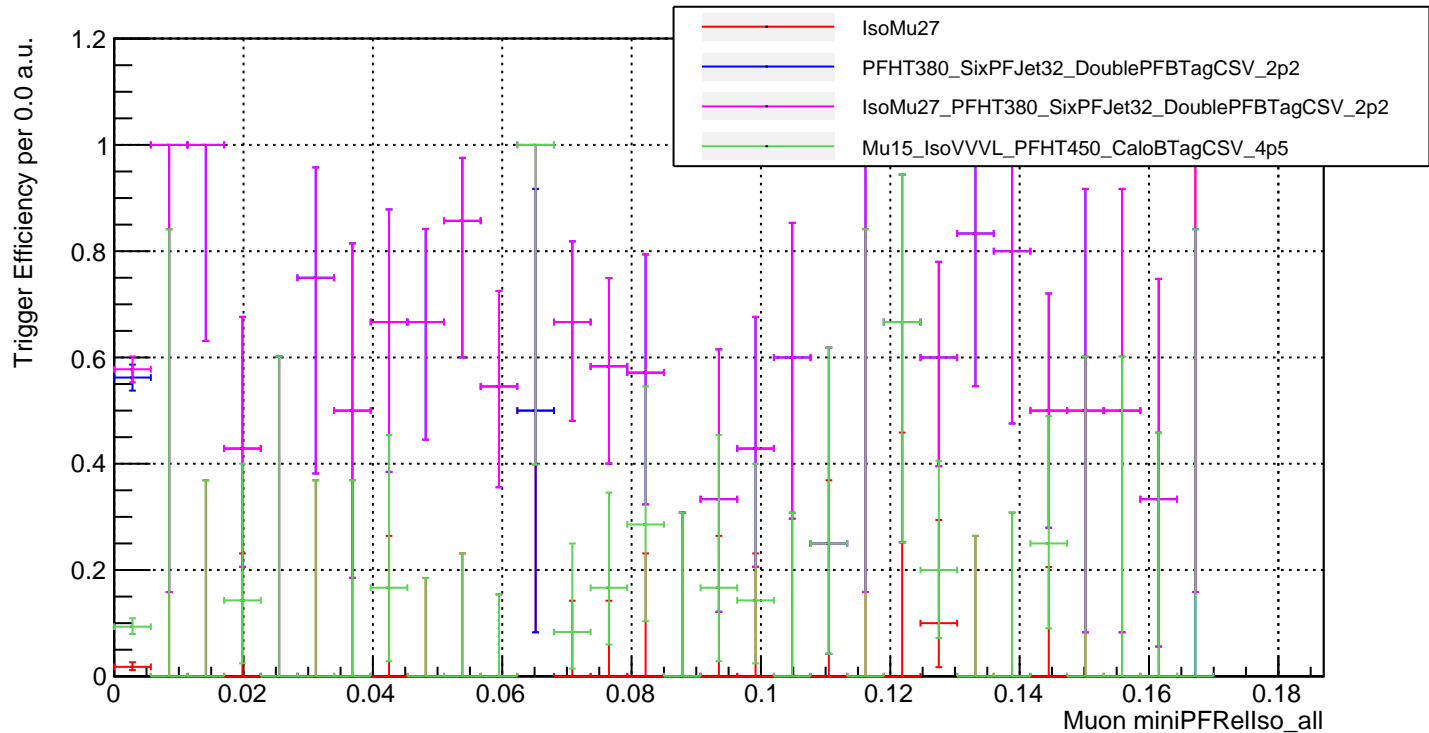
- **Jets:** number > 5
- **Muons plus Electrons:** number > 0

Event Limit: None (see last page)

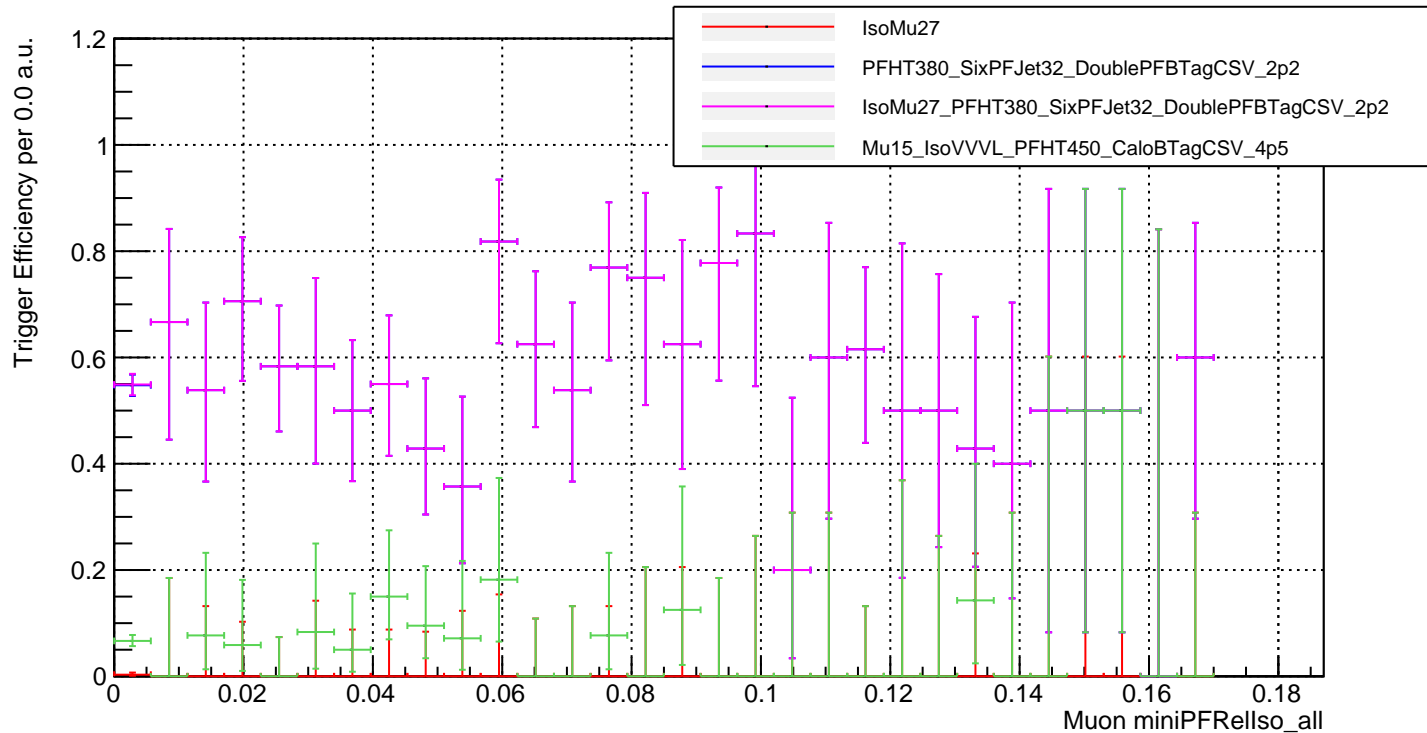
Off-line (post-)selection Requisites for:

- **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)

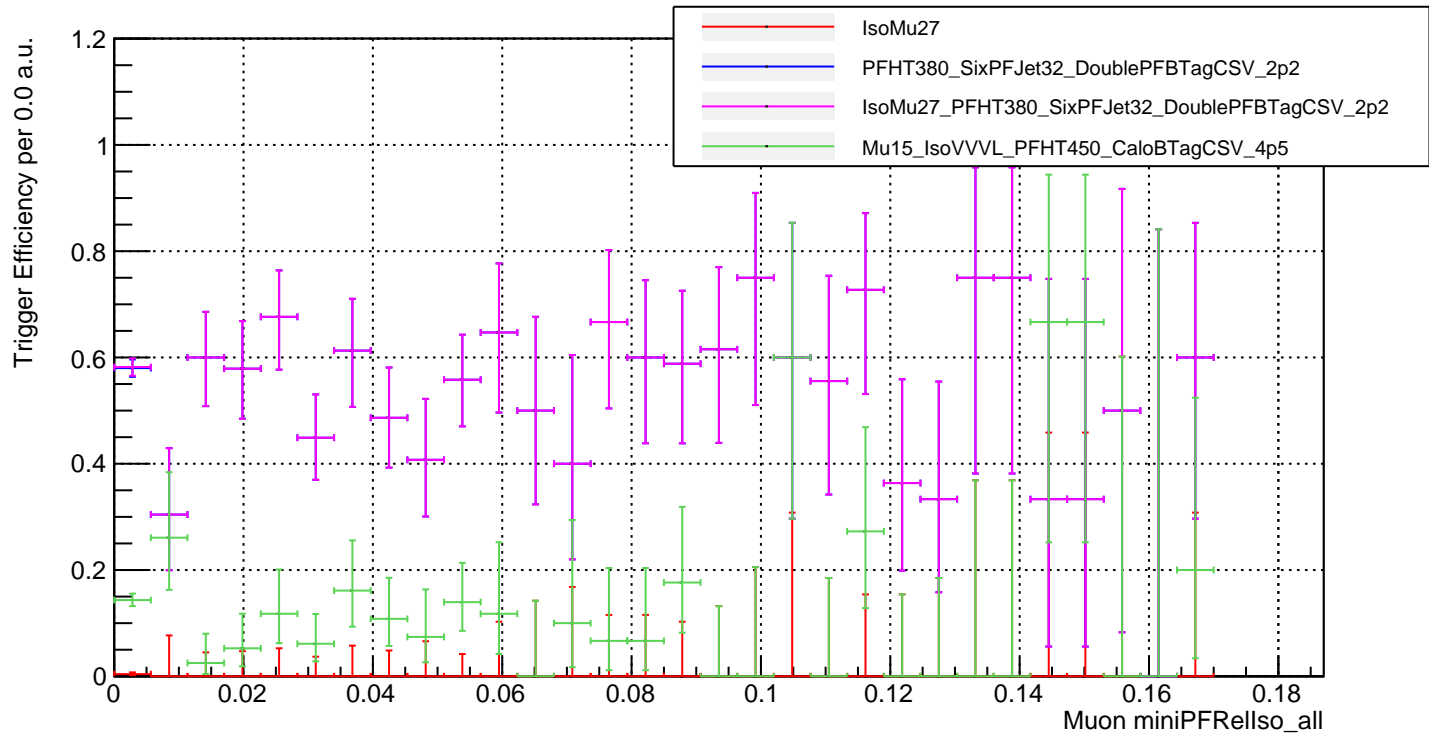
Muon Pt = 5



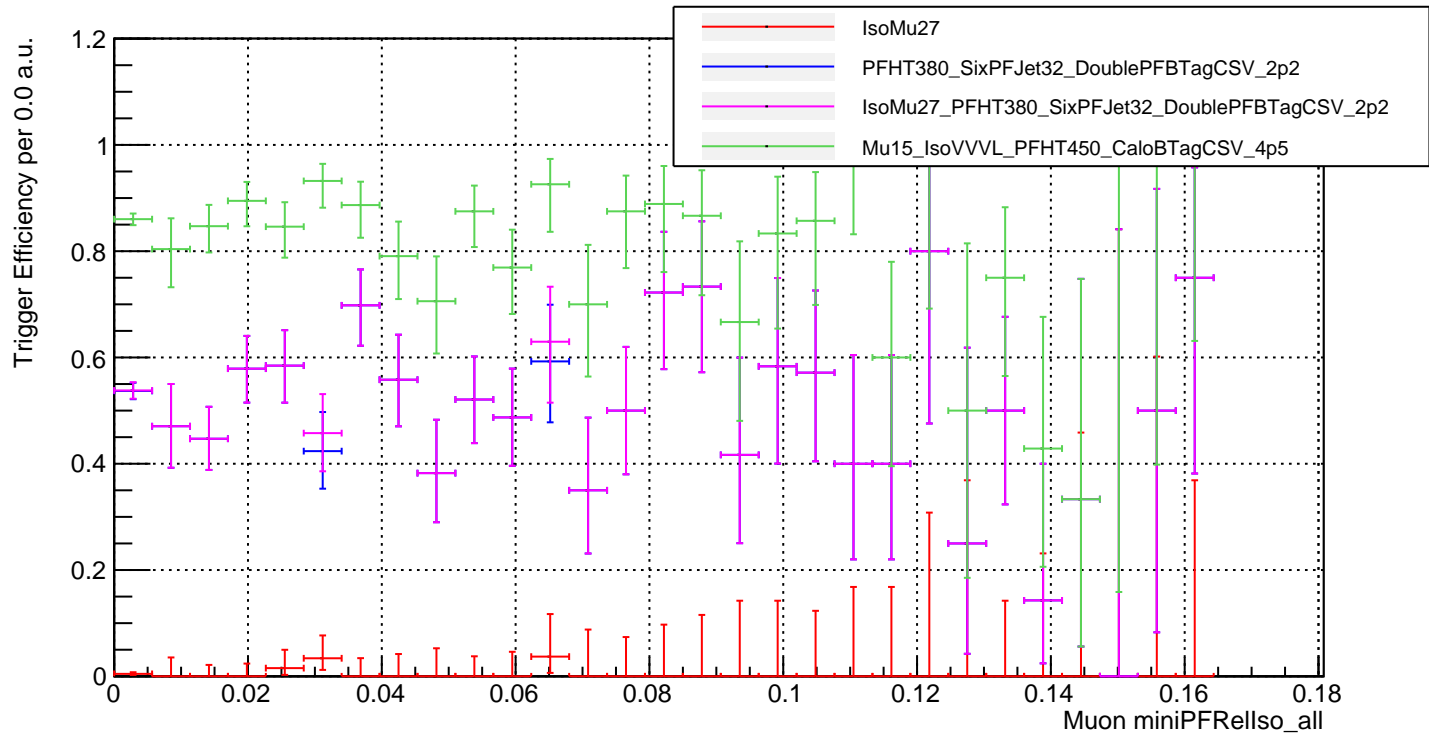
Muon Pt = 10



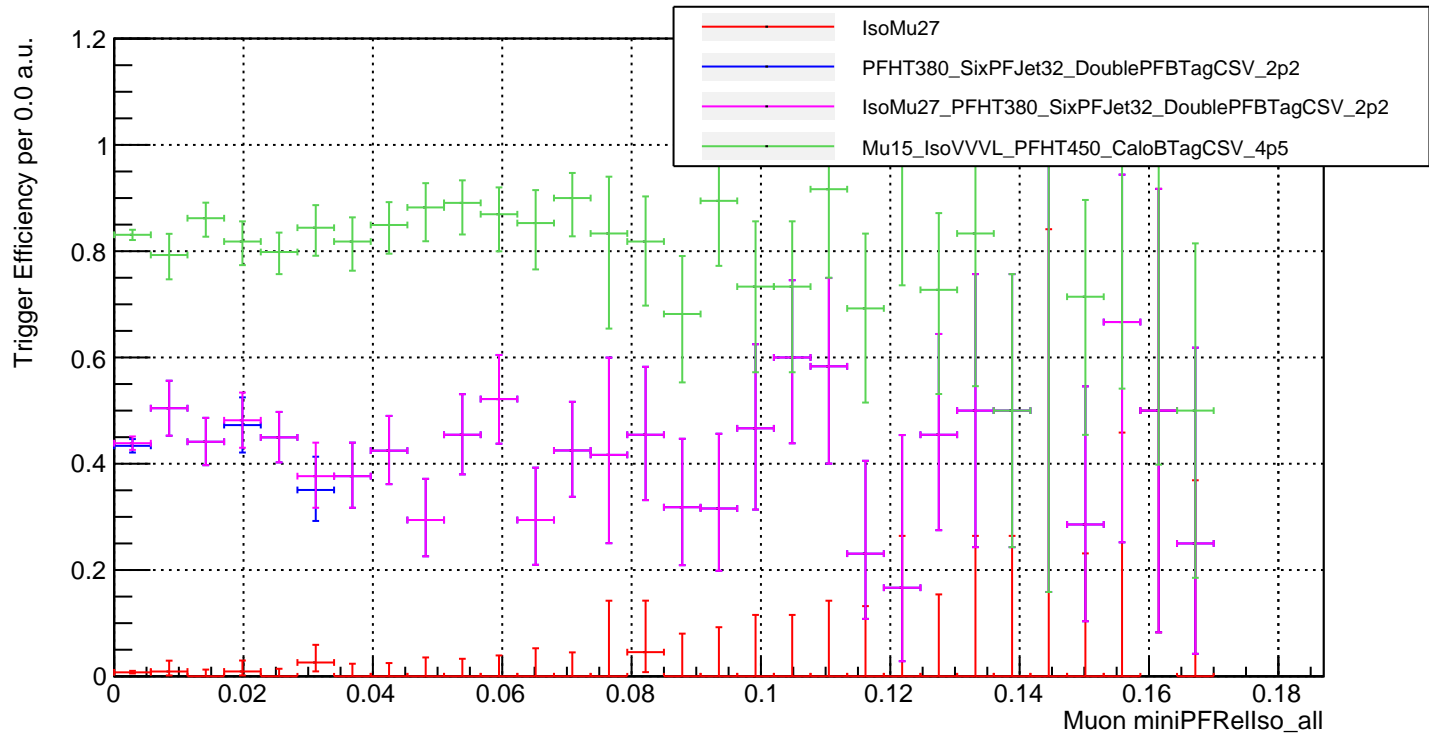
Muon Pt = 15



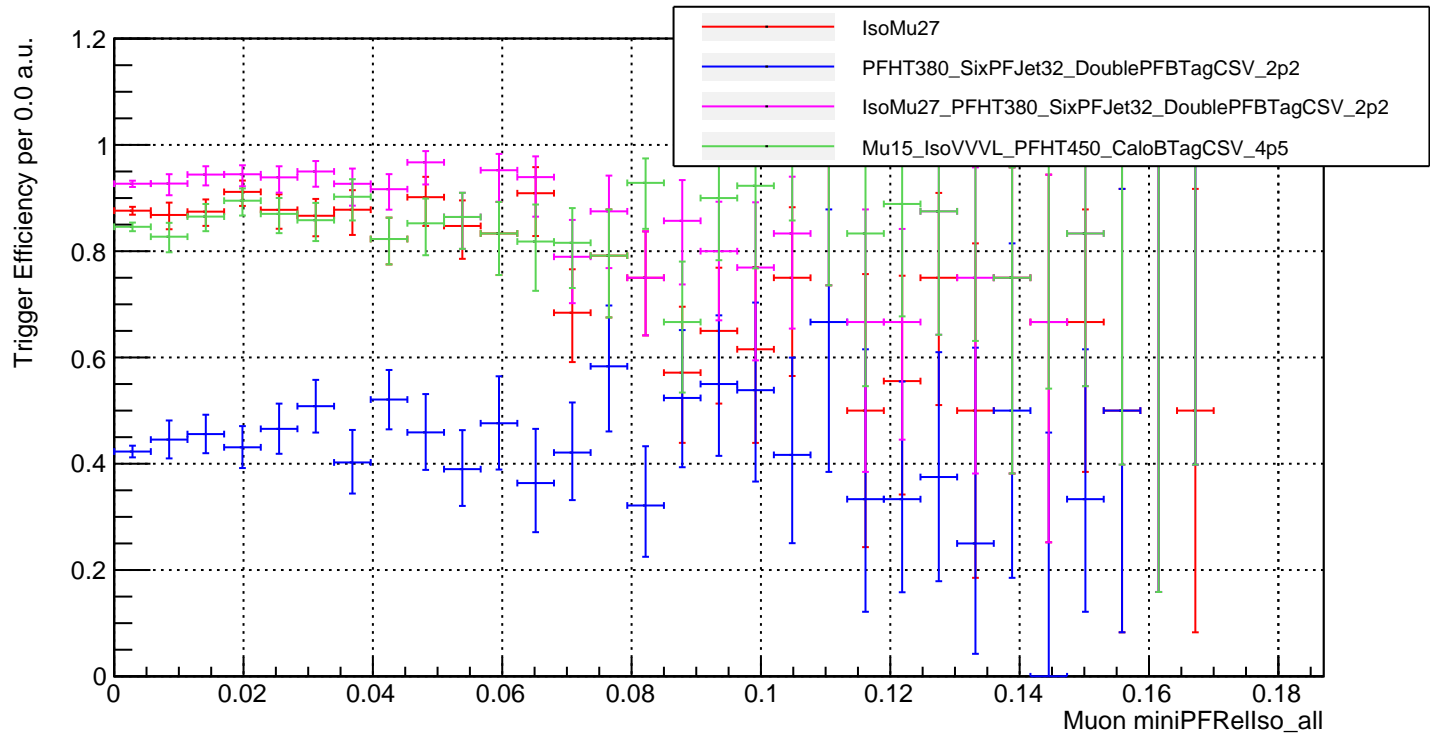
Muon Pt = 20



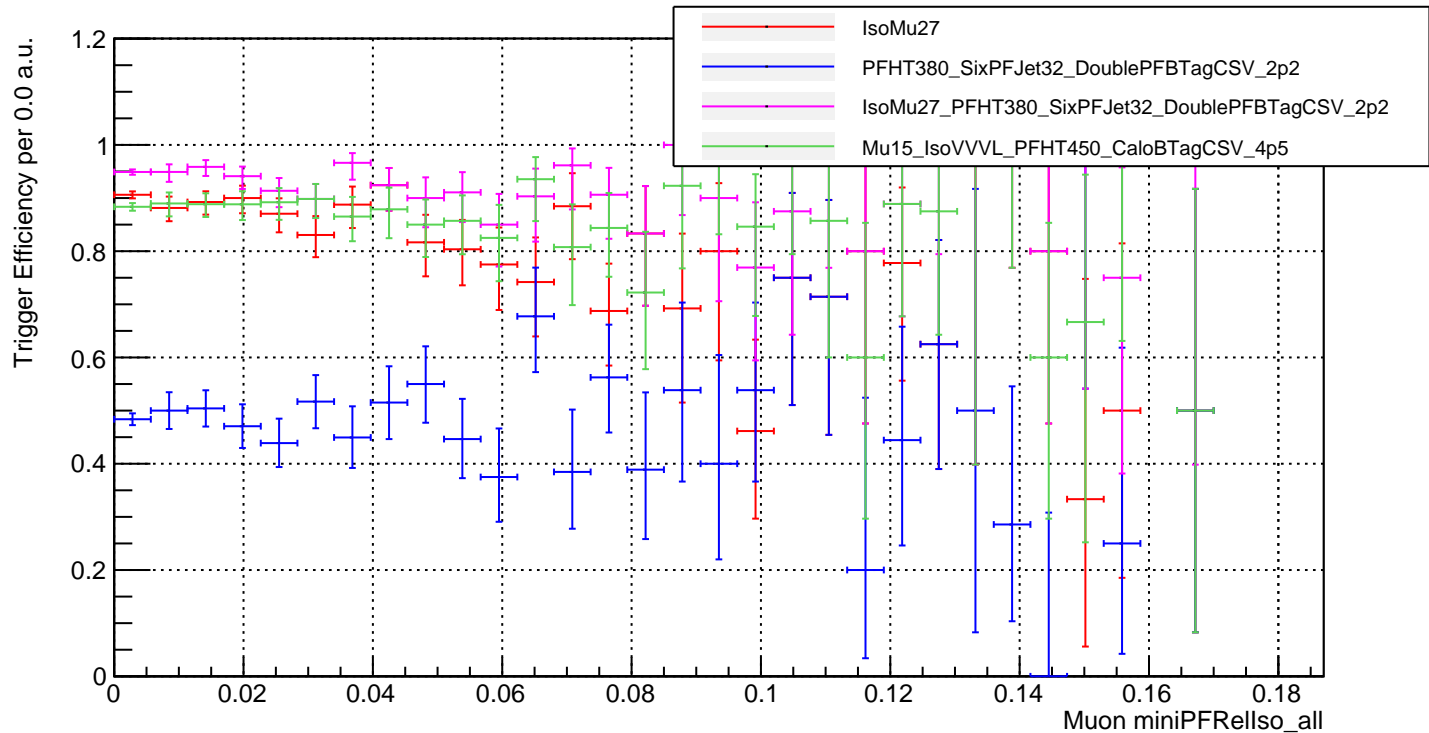
Muon Pt = 25



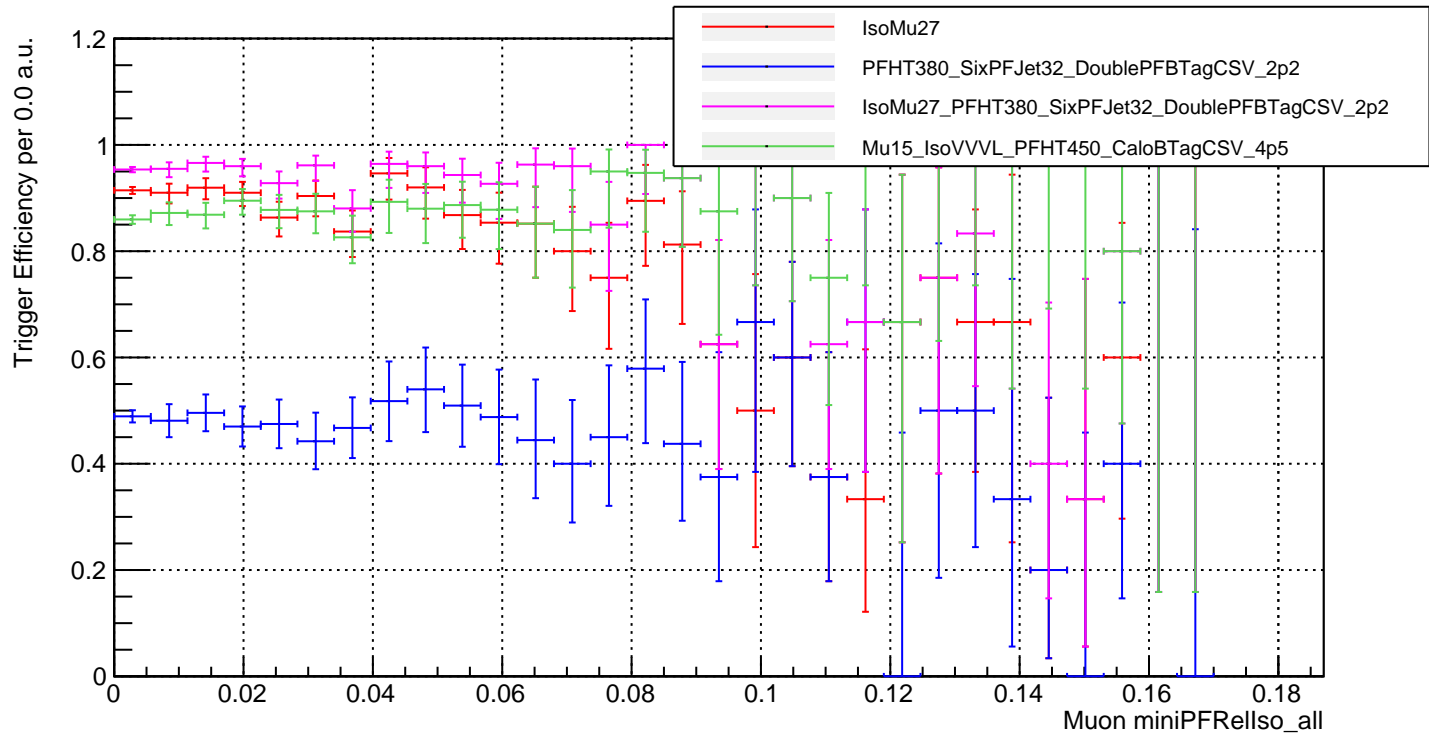
Muon Pt = 30



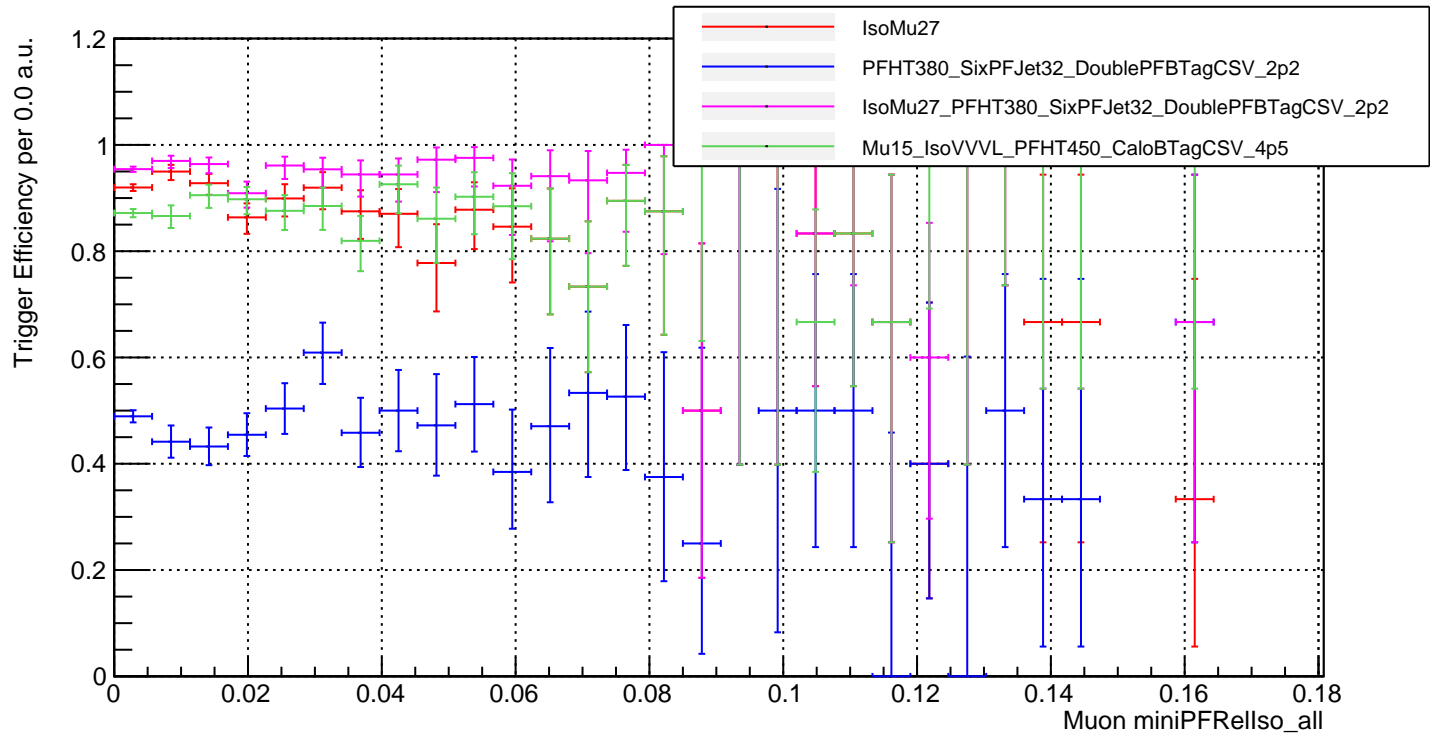
Muon Pt = 35



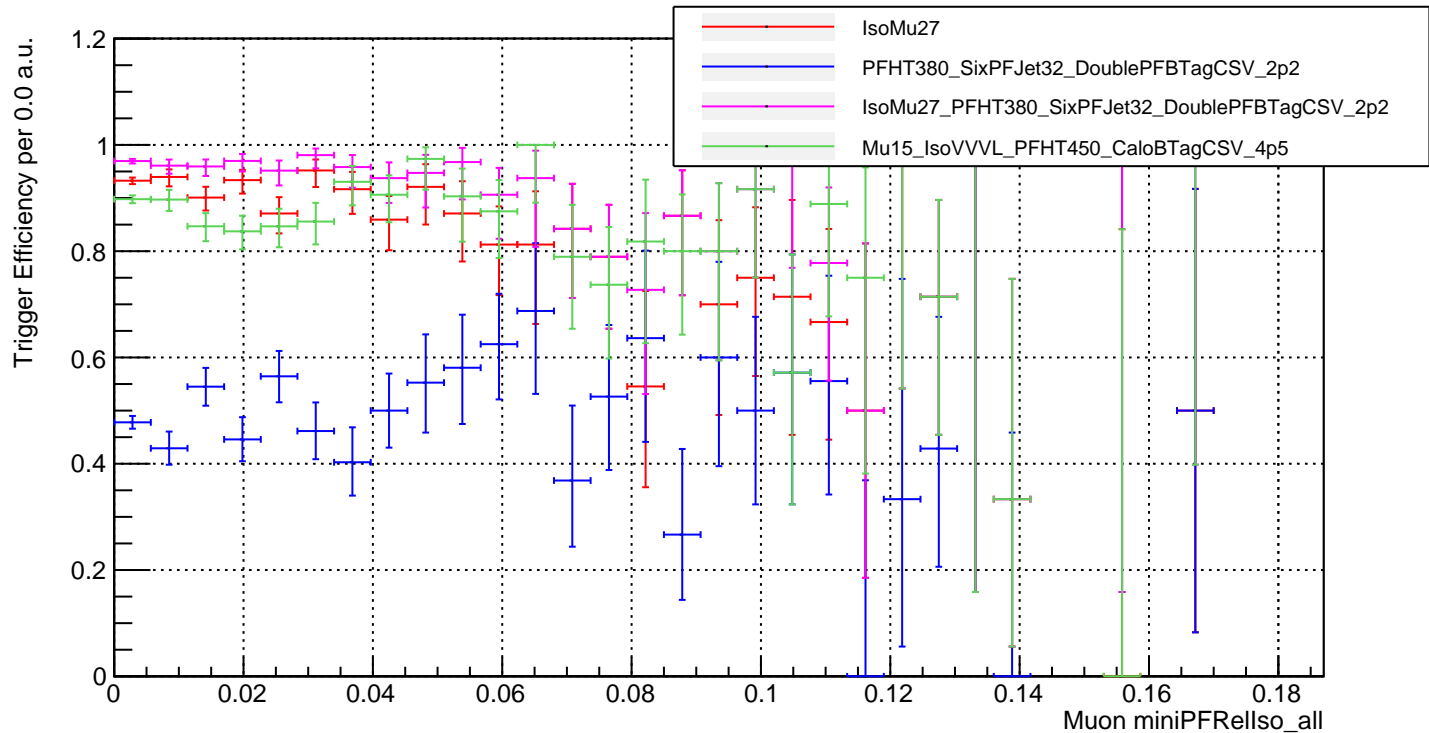
Muon Pt = 40



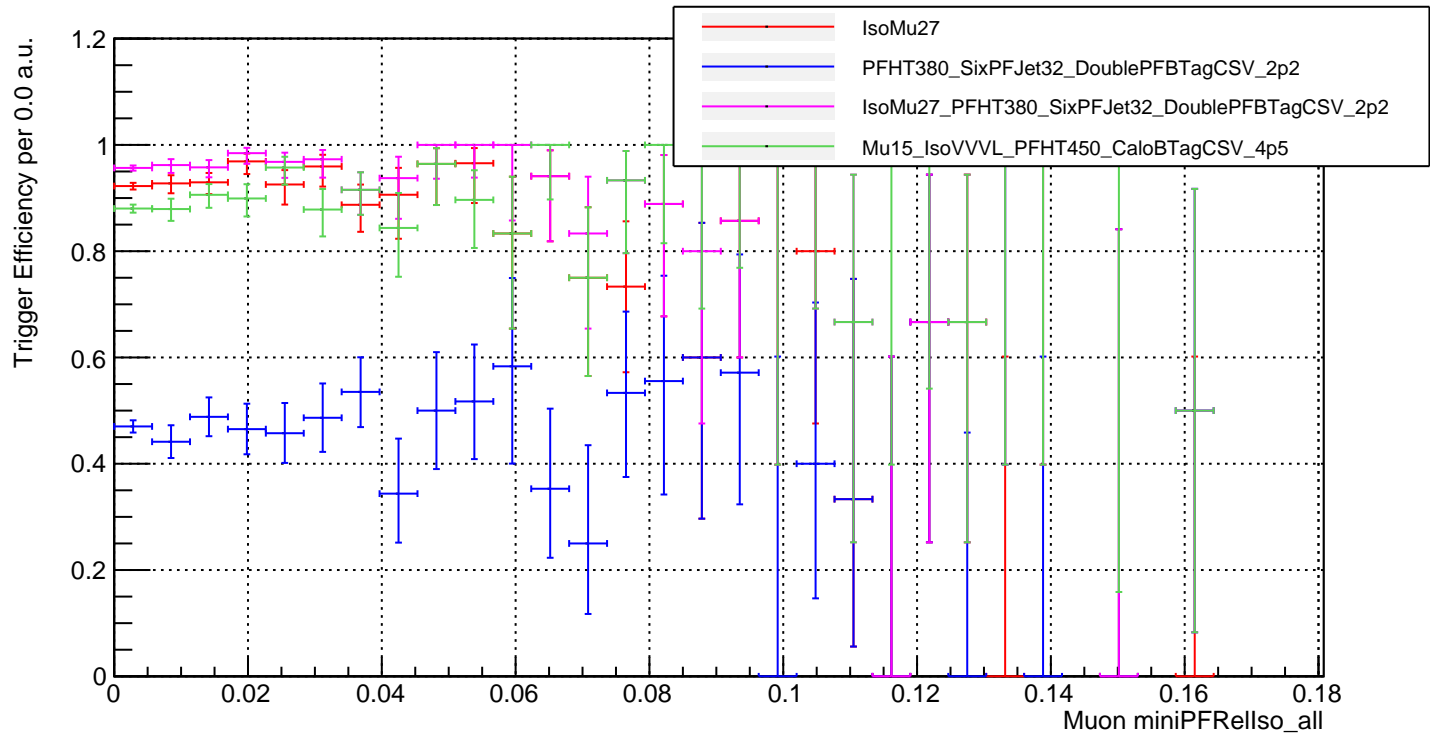
Muon Pt = 45



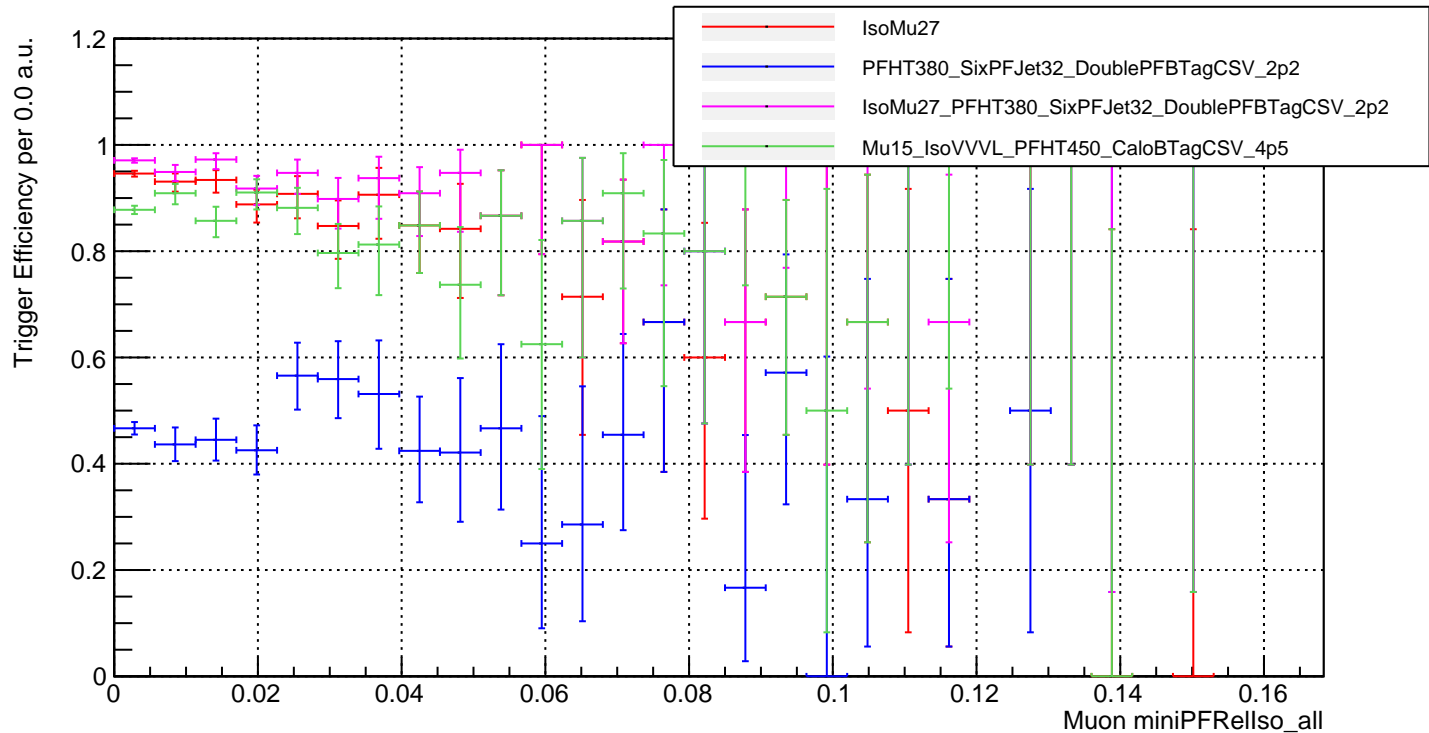
Muon Pt = 50



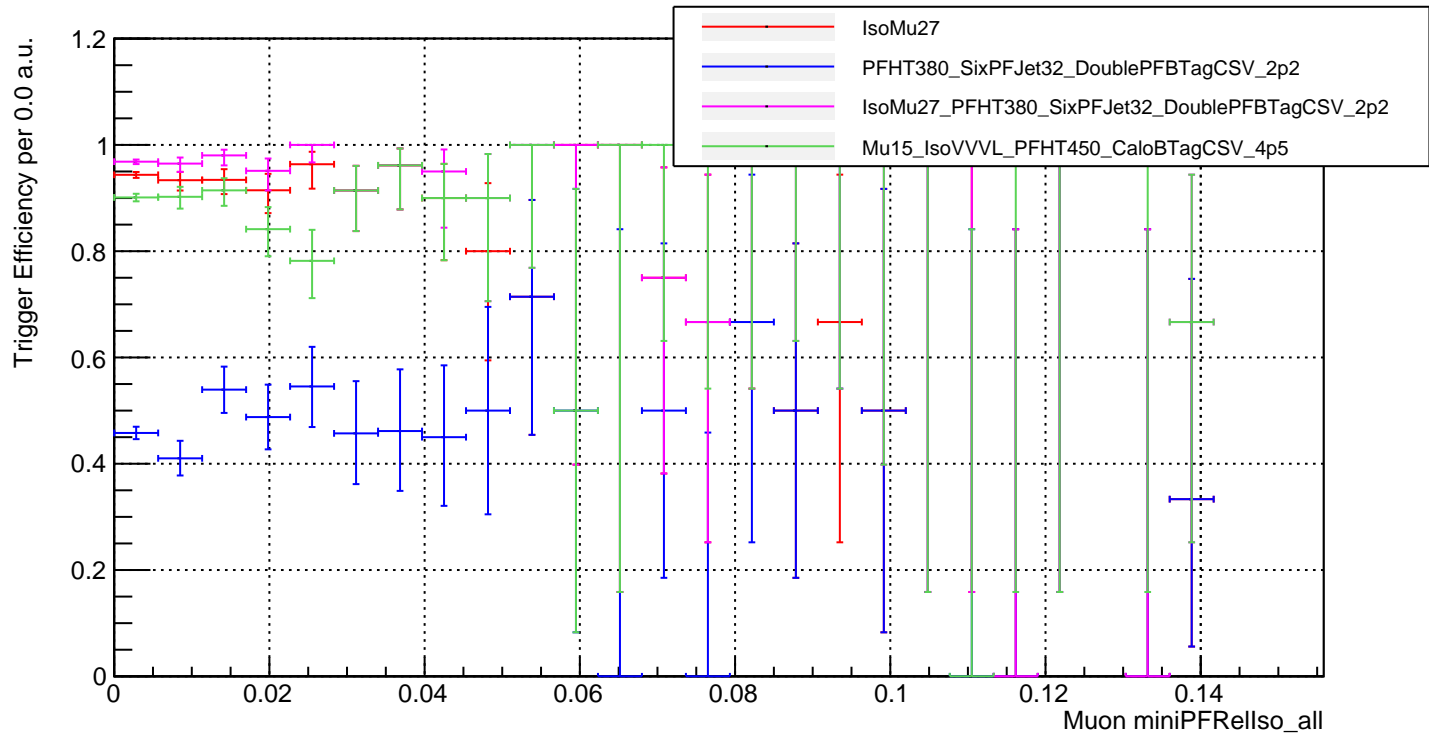
Muon Pt = 55



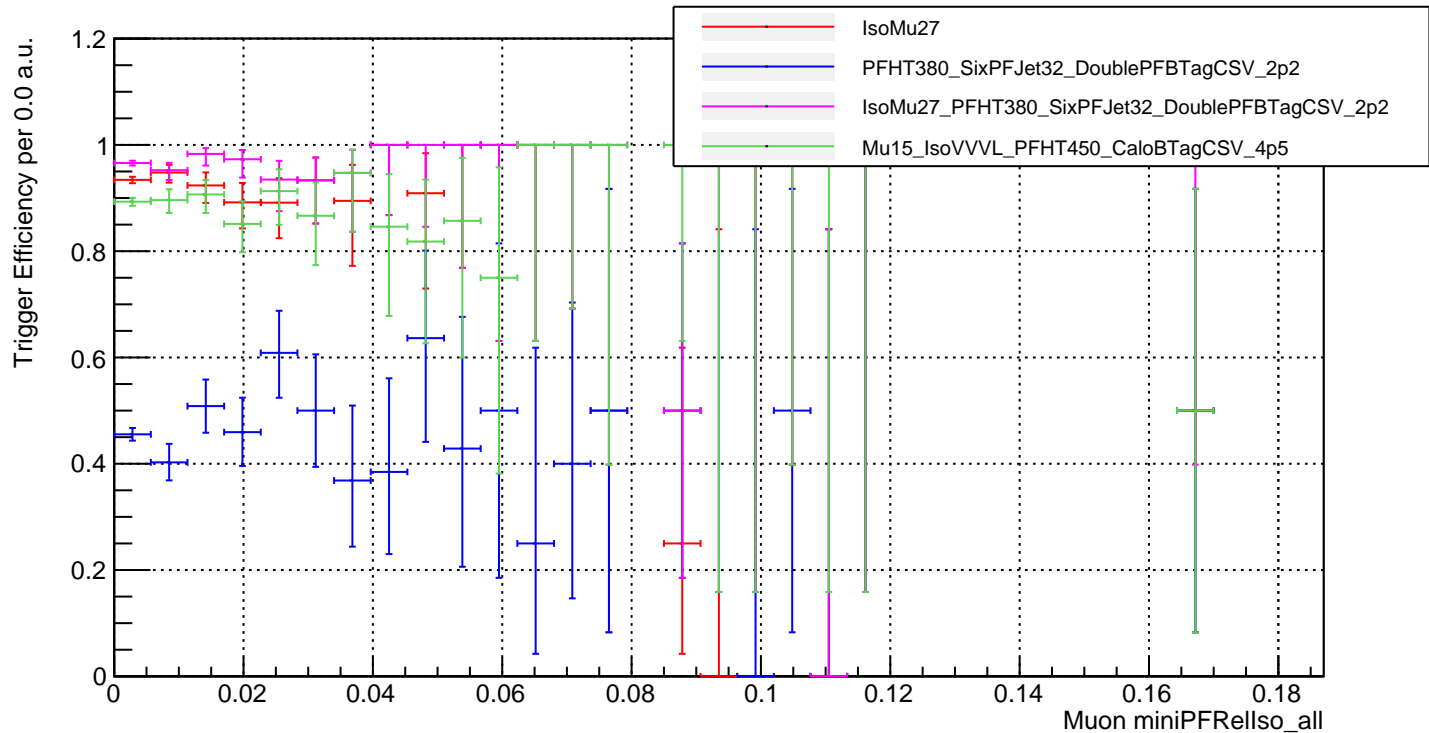
Muon Pt = 60



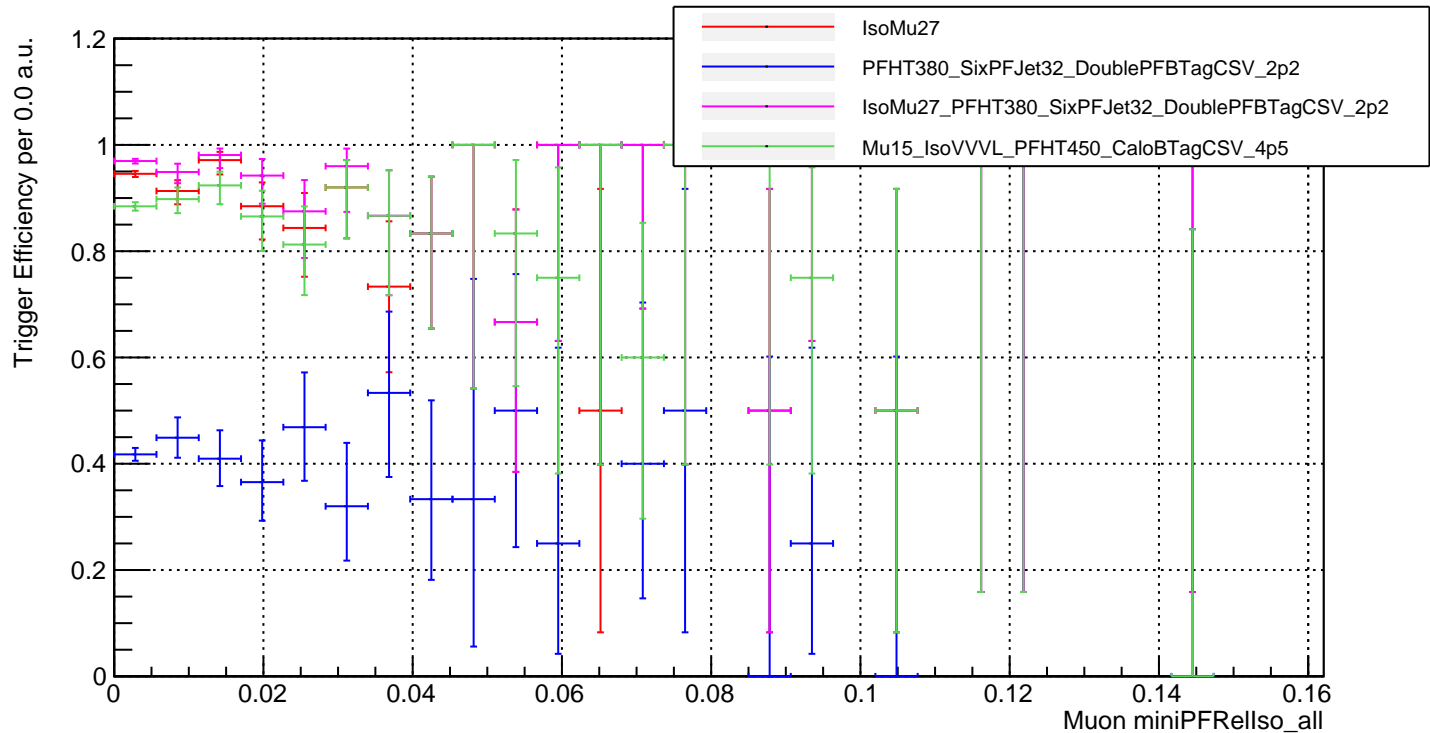
Muon Pt = 65

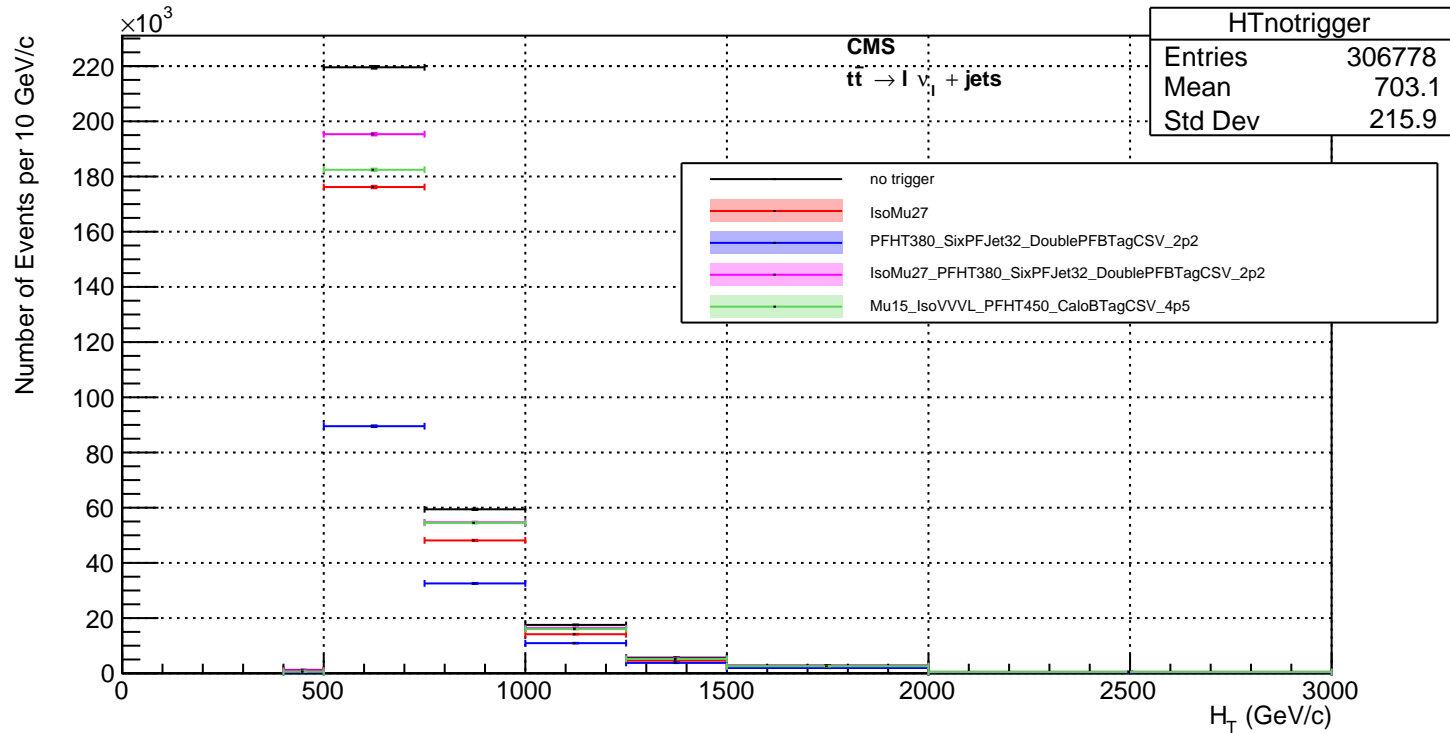


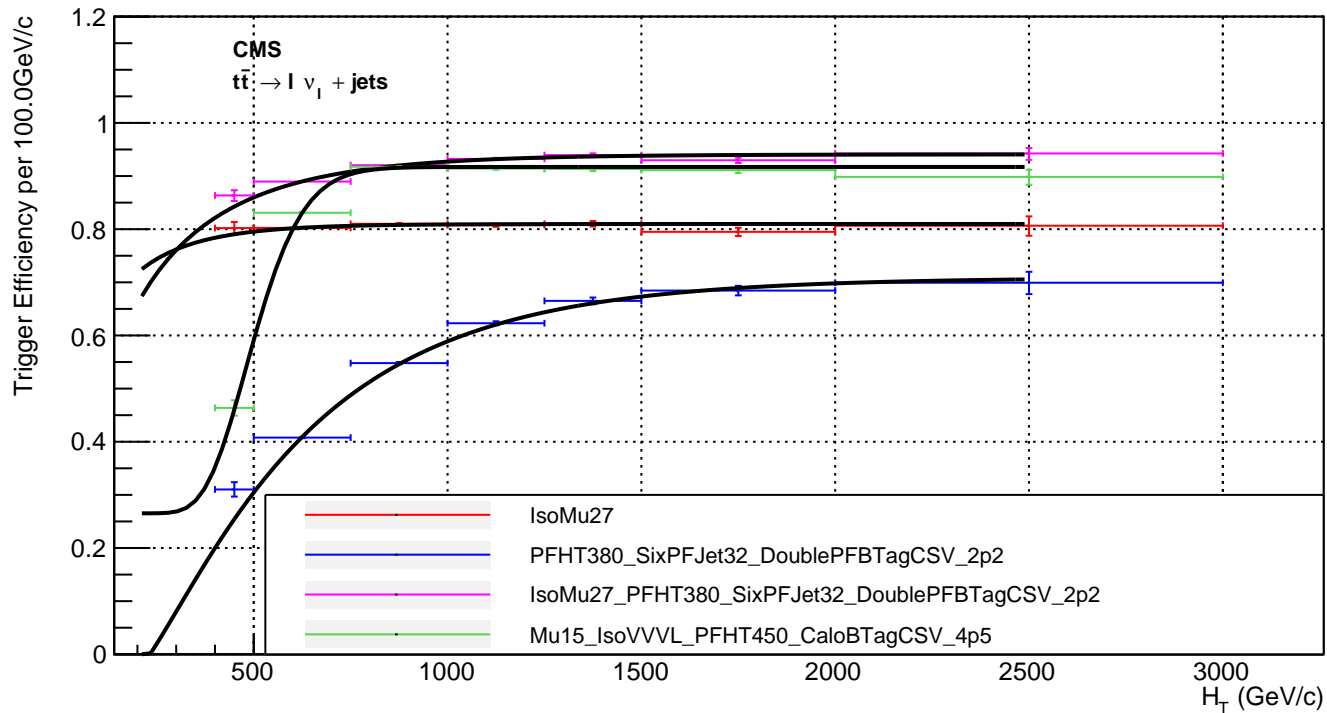
Muon Pt = 70



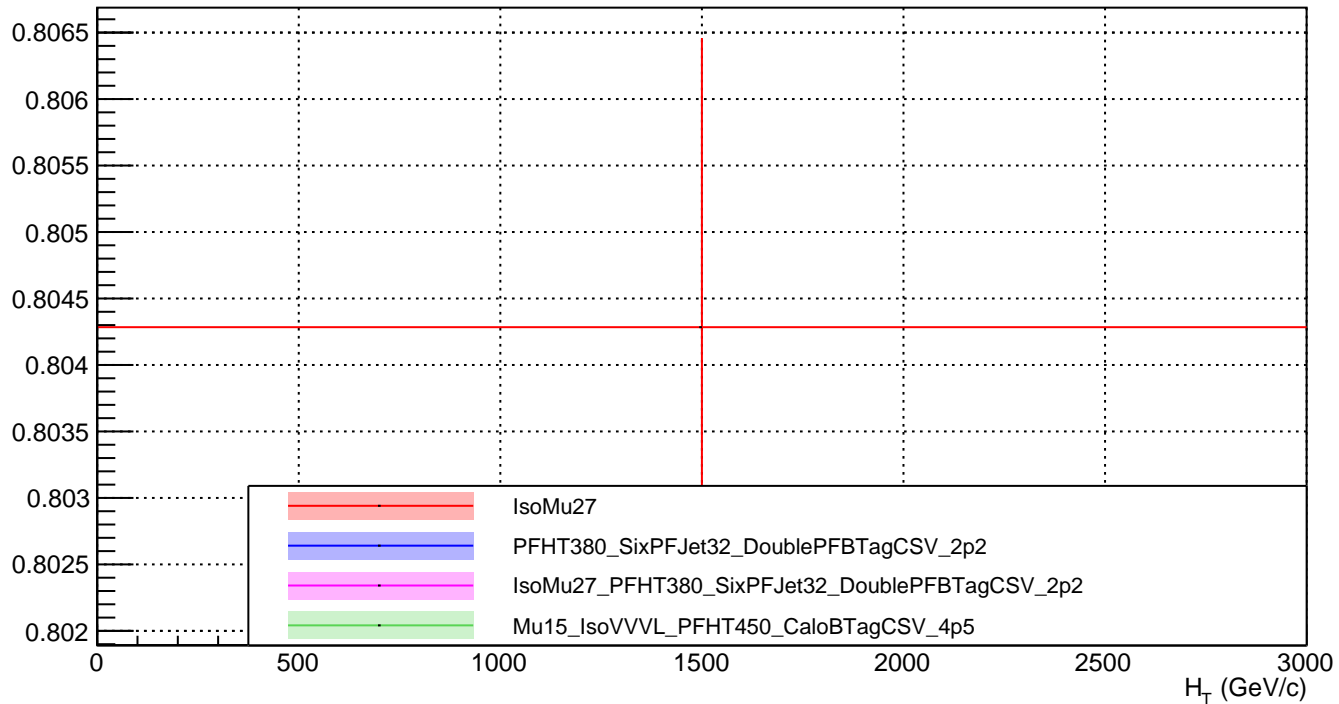
Muon Pt = 75

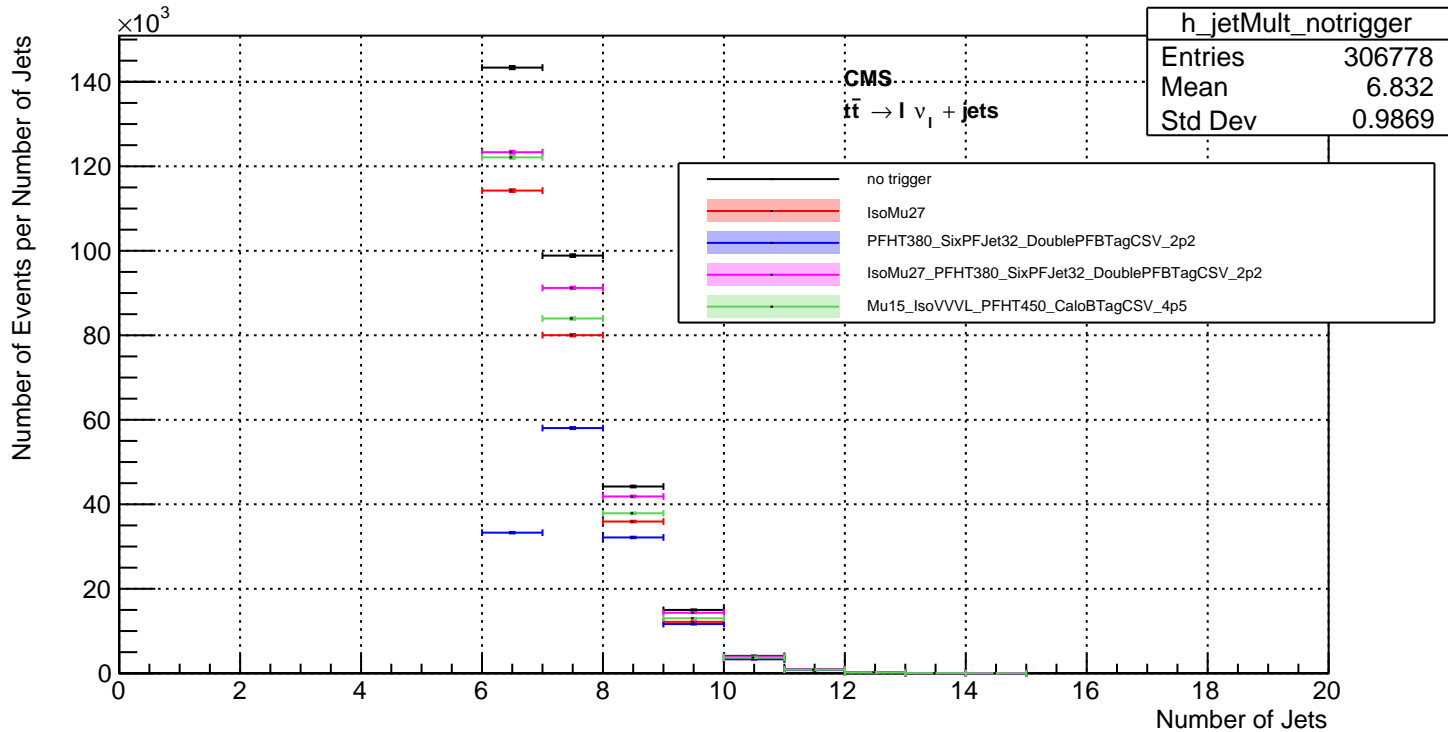


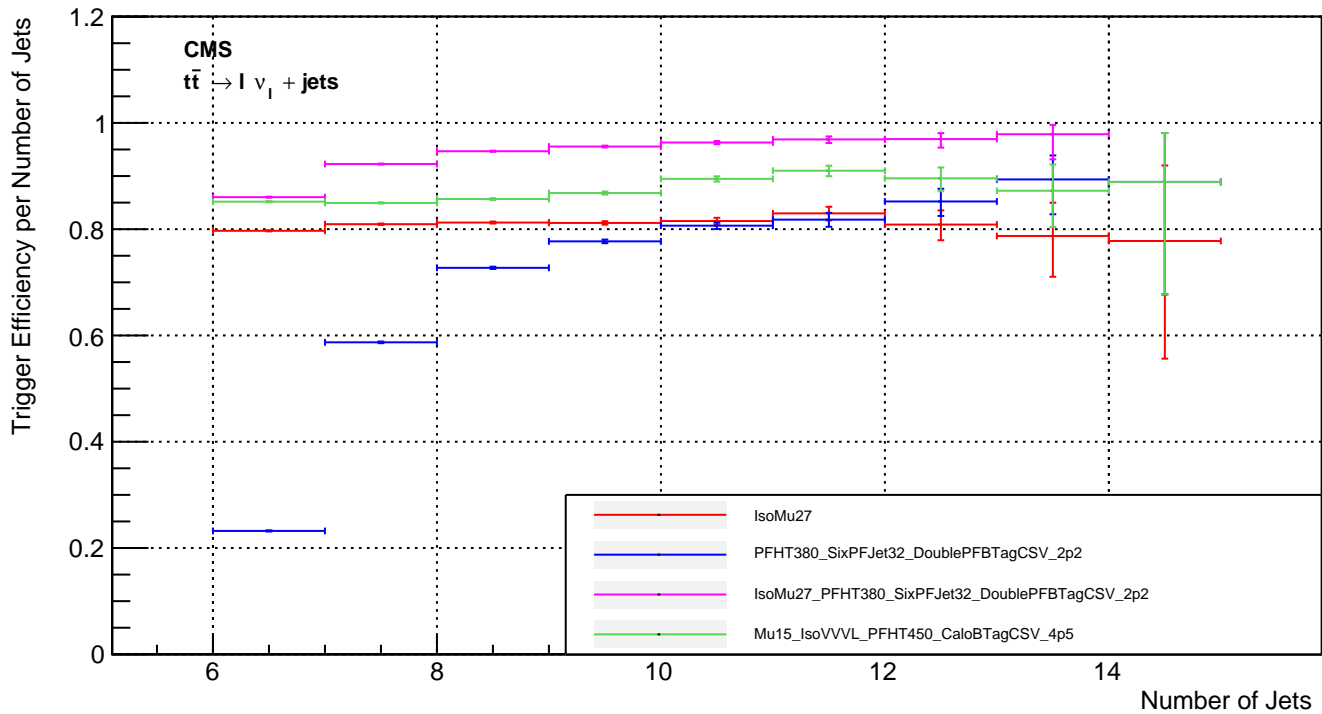


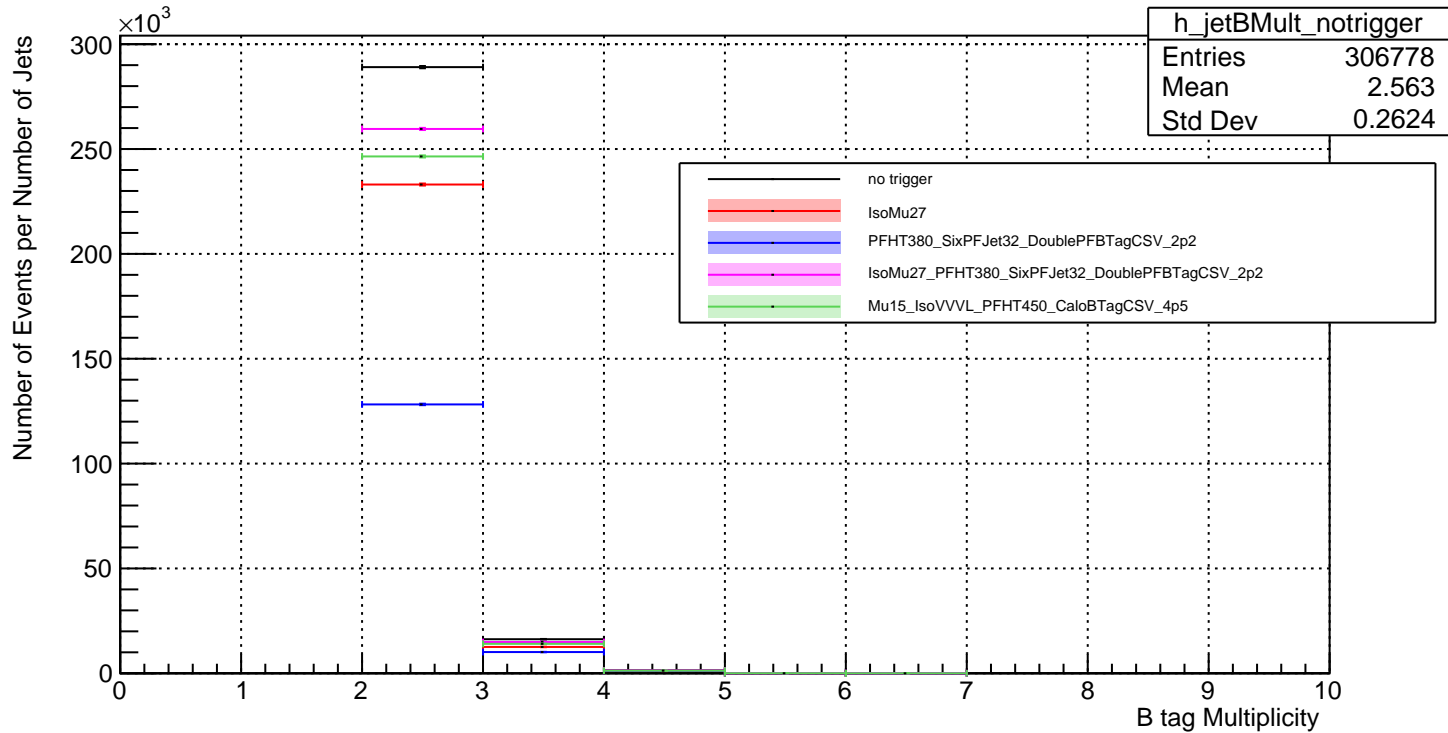


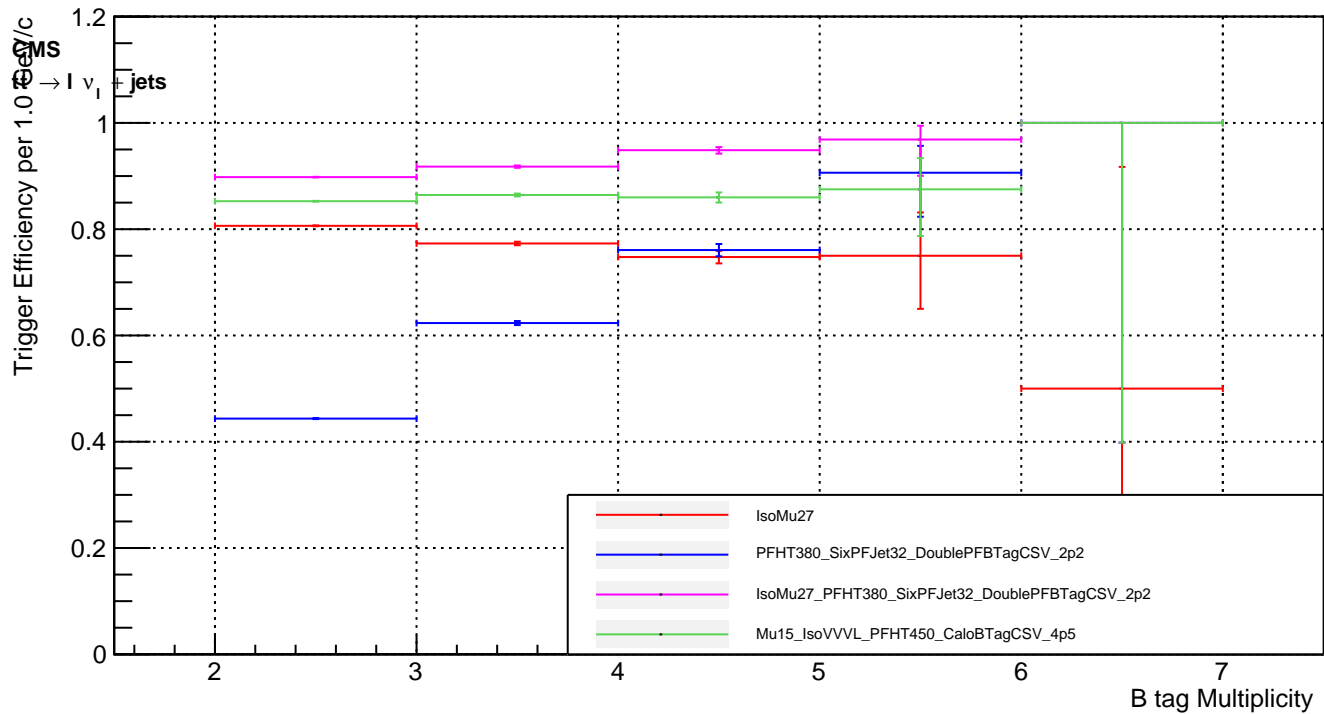
Trigger Efficiency per 3000.0 GeV/c



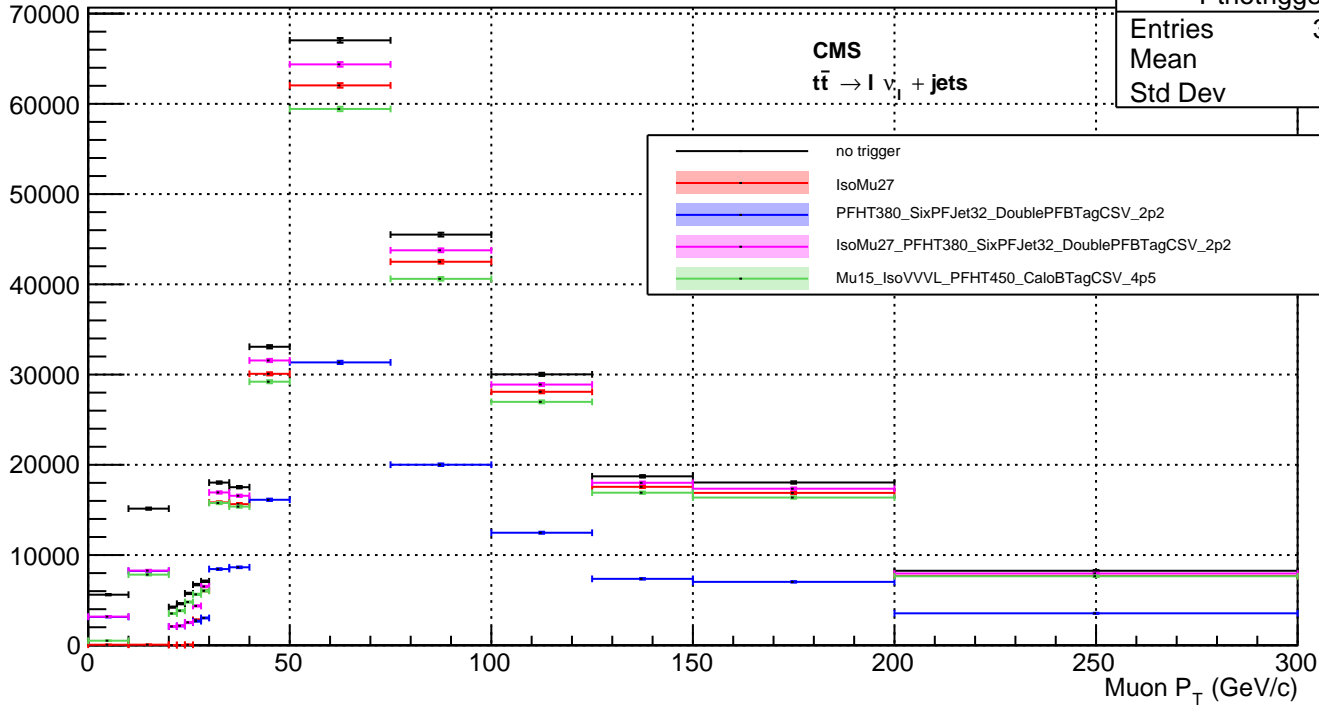




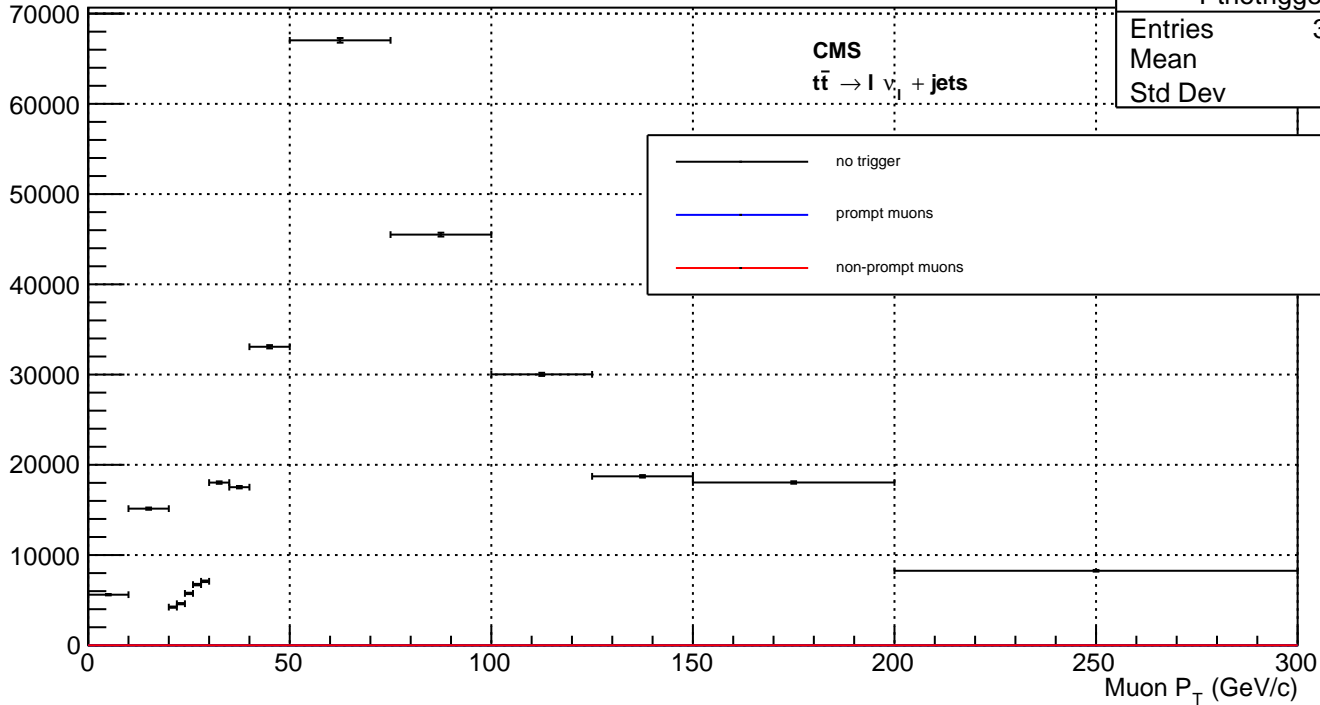


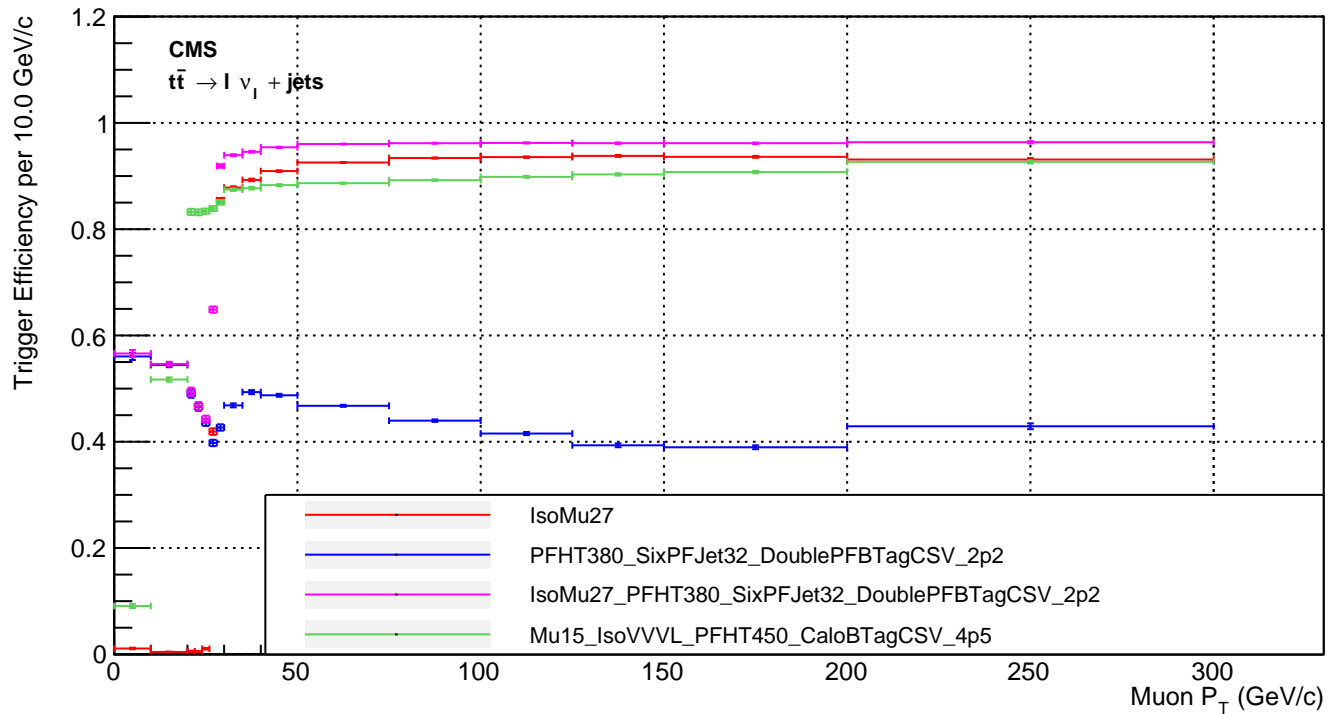


Number of Events per 1 GeV/c

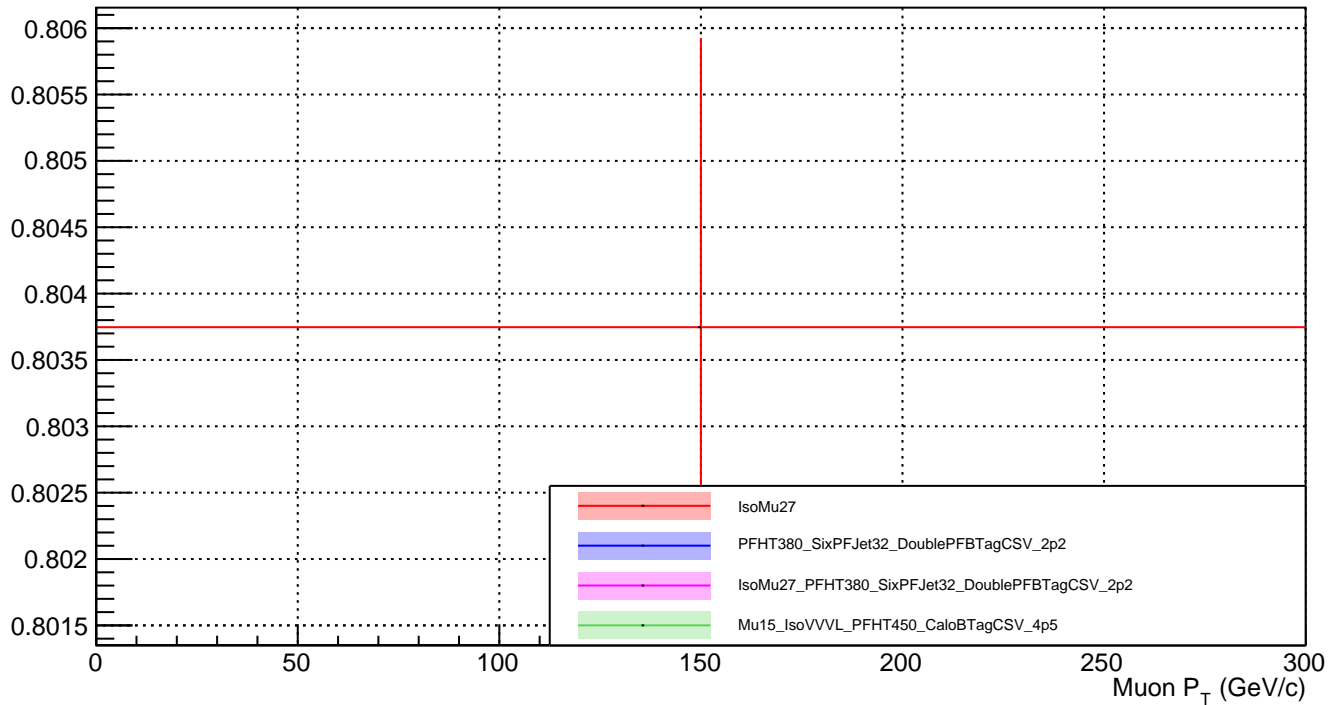


Number of Events per 1 GeV/c





Trigger Efficiency per 300.00 GeV/c



Number of Events per 1 GeV/c

CMS

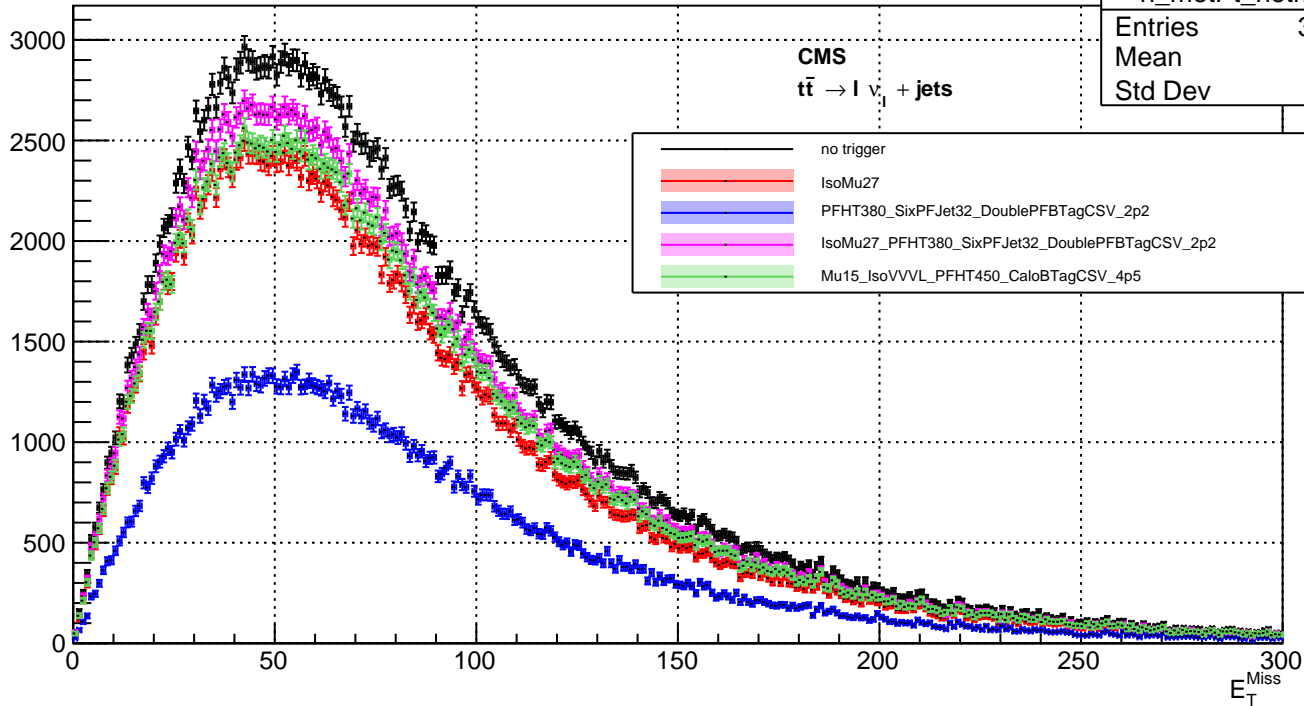
$t\bar{t} \rightarrow l \nu_l + \text{jets}$

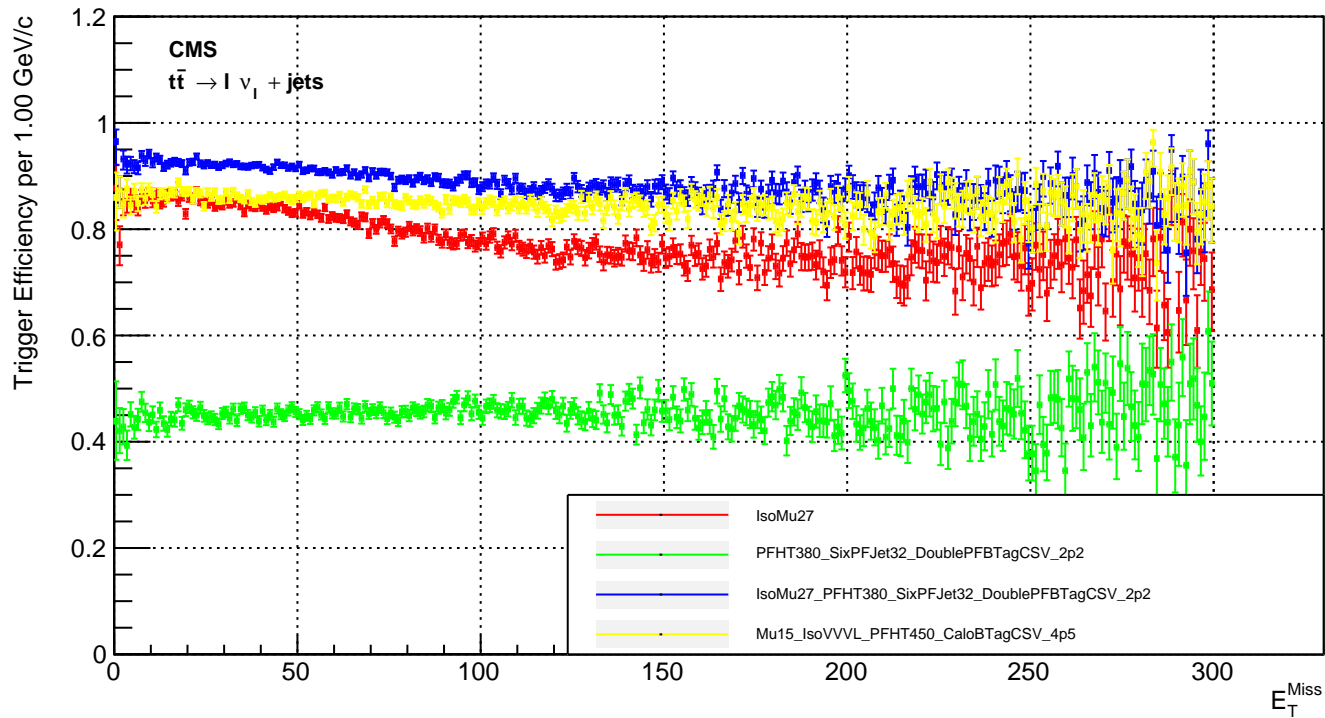
h_metPt_notrigger

Entries 306778

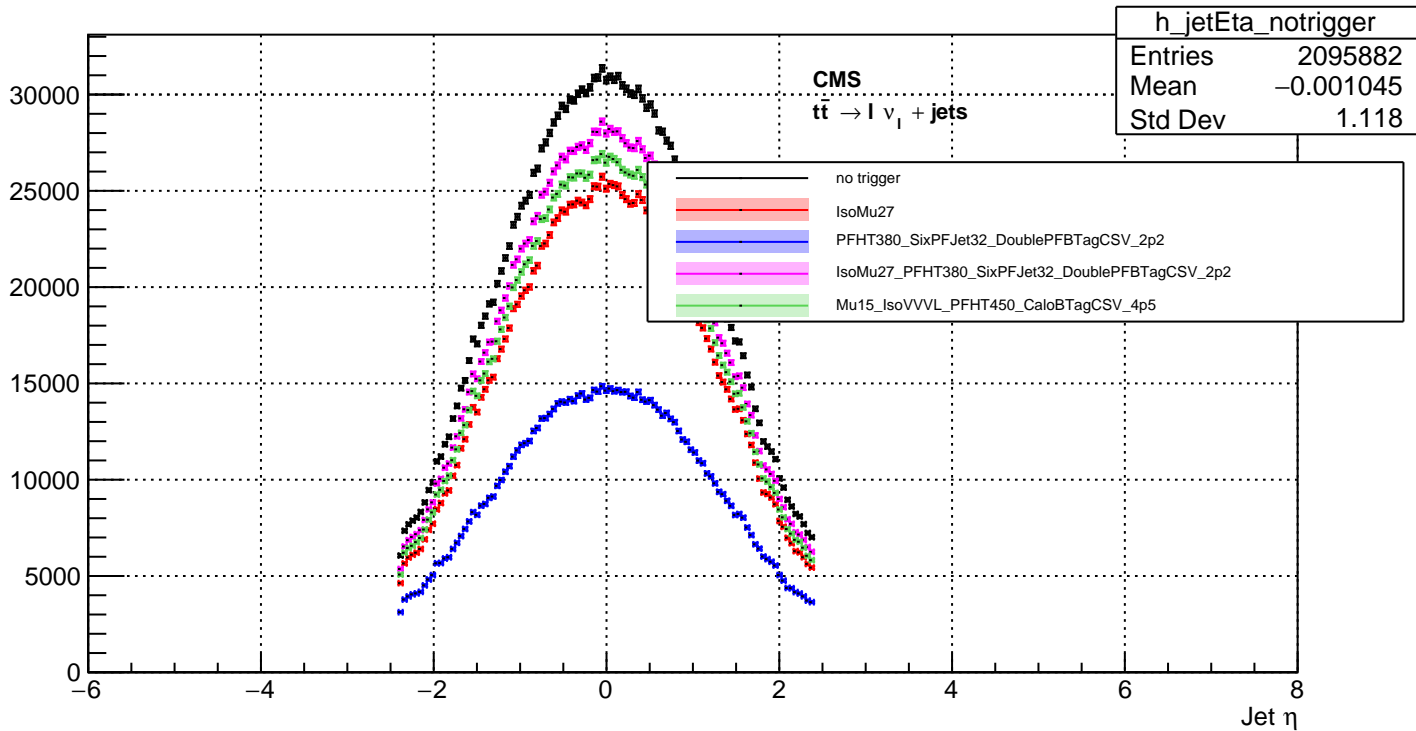
Mean 81.84

Std Dev 53.98

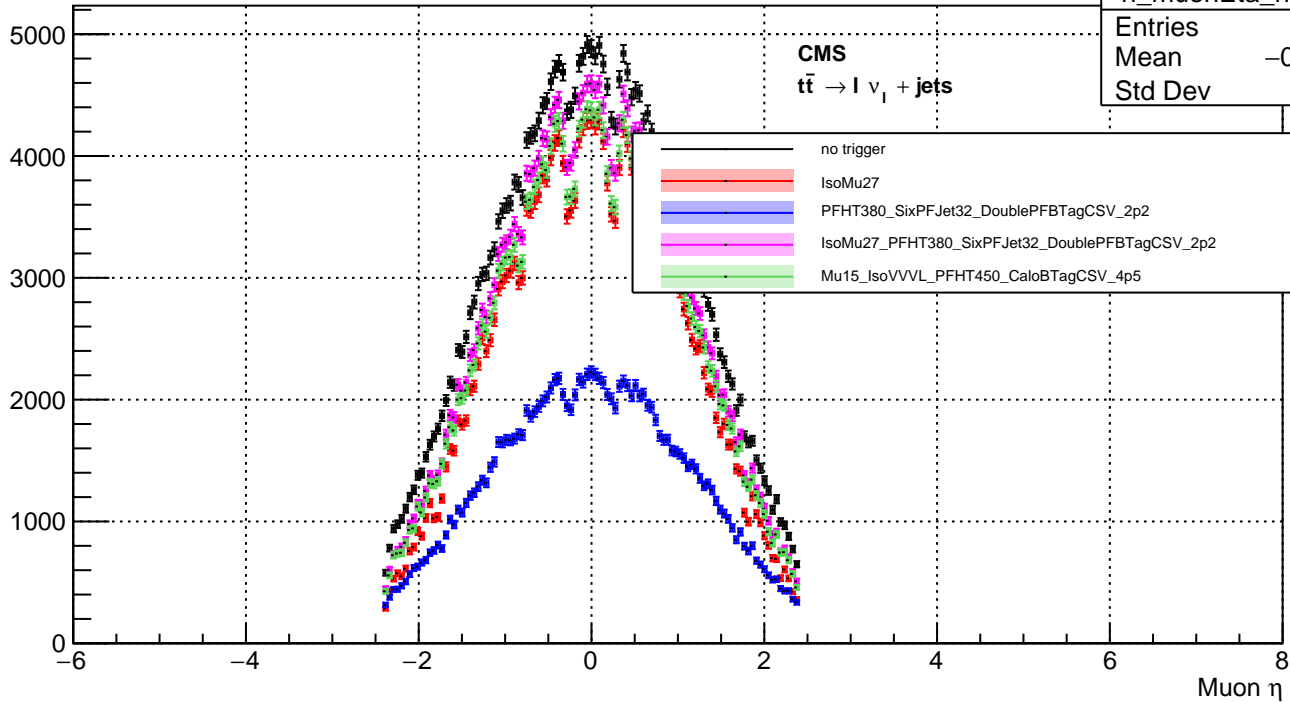




Number of Events per $\delta\eta = 0.046$



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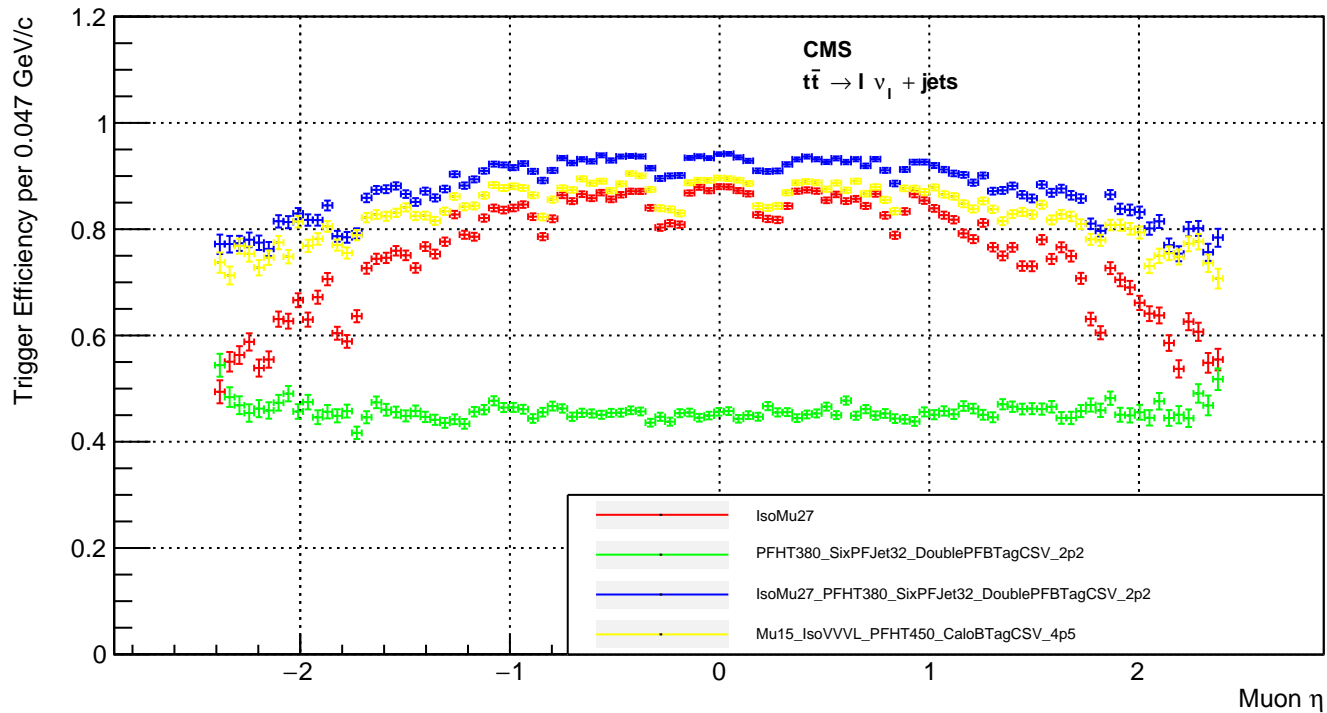


h_muonEta_notrigger

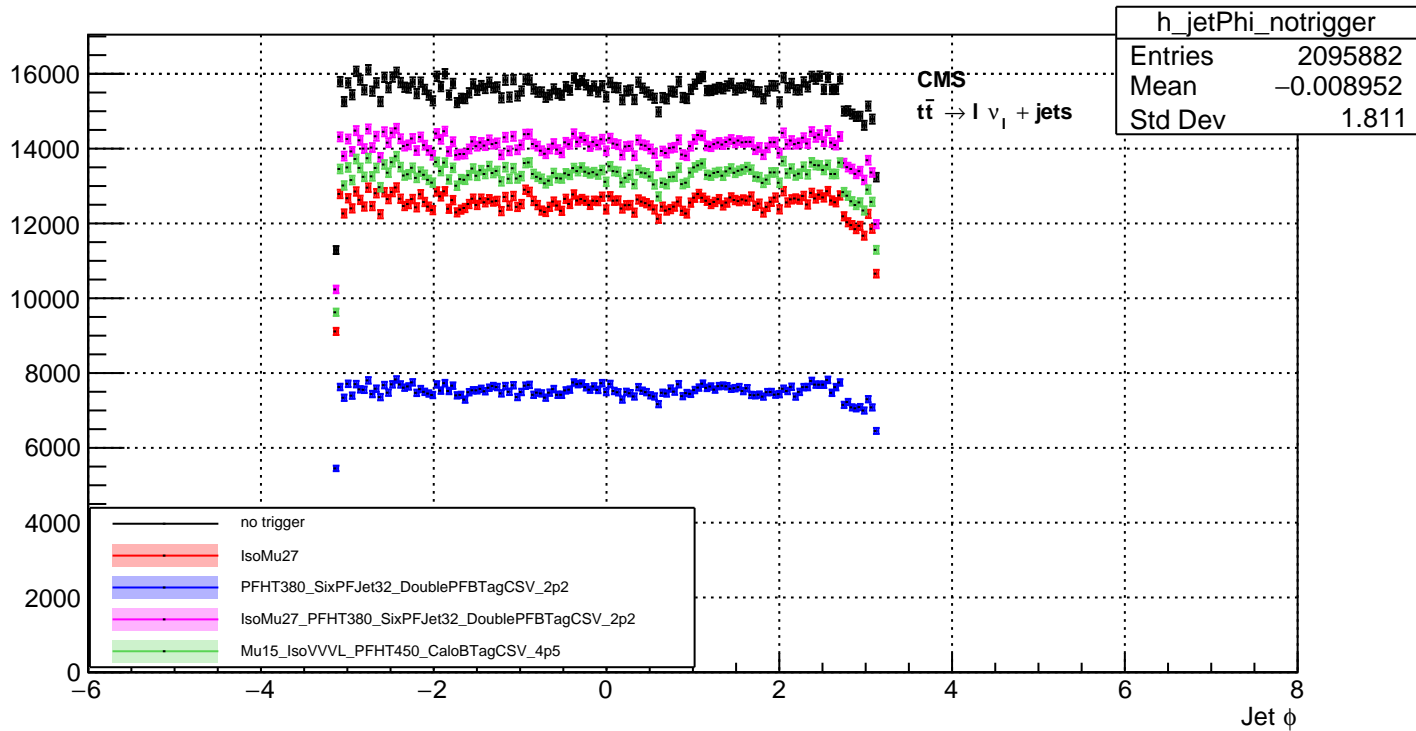
Entries 306778

Mean -0.005551

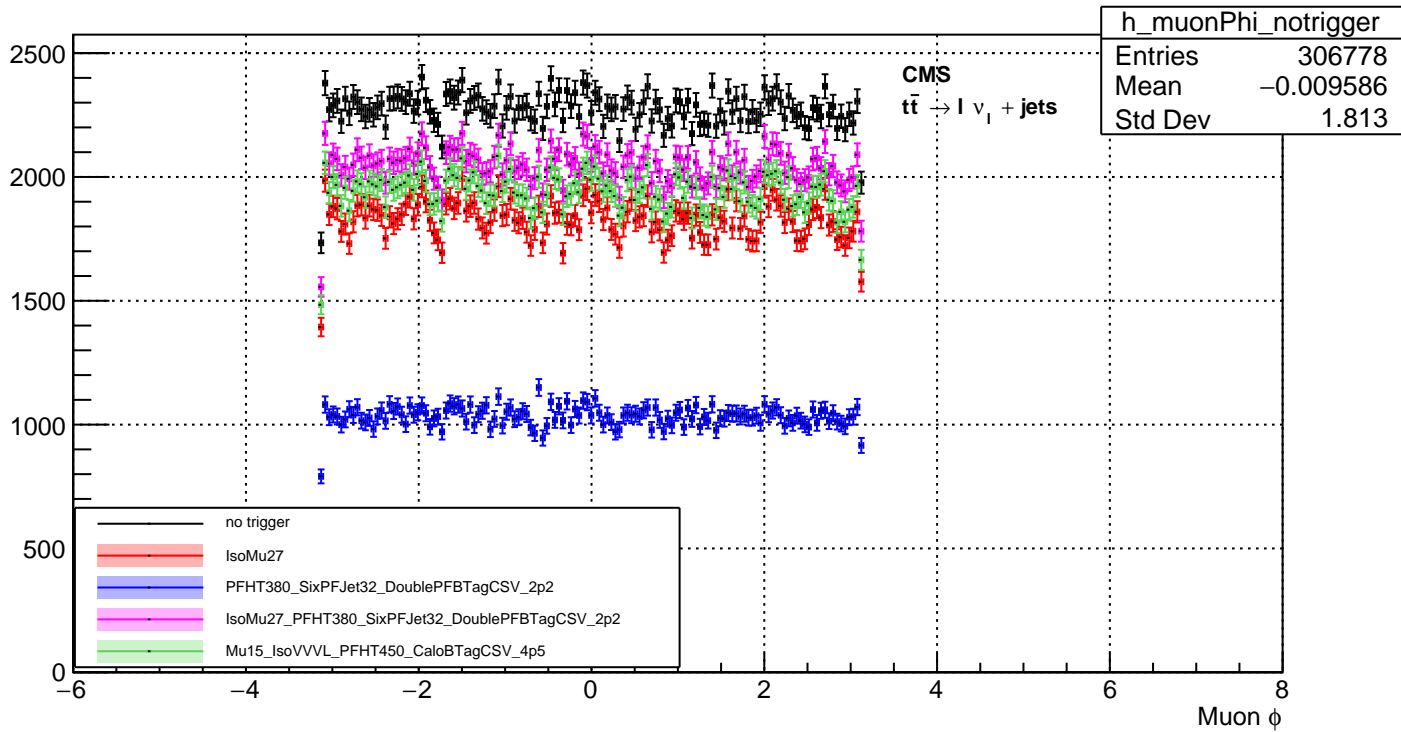
Std Dev 1.08



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



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



Muon ϕ

h_muonMap_Mu15_IsoVVVL_PFHT450_CaloBTagCSV_4p5

Entries	261779
Mean x	-0.004807
Mean y	-0.015
Std Dev x	1.055
Std Dev y	1.812

