

**On-line (pre-)selection Requisites for:**

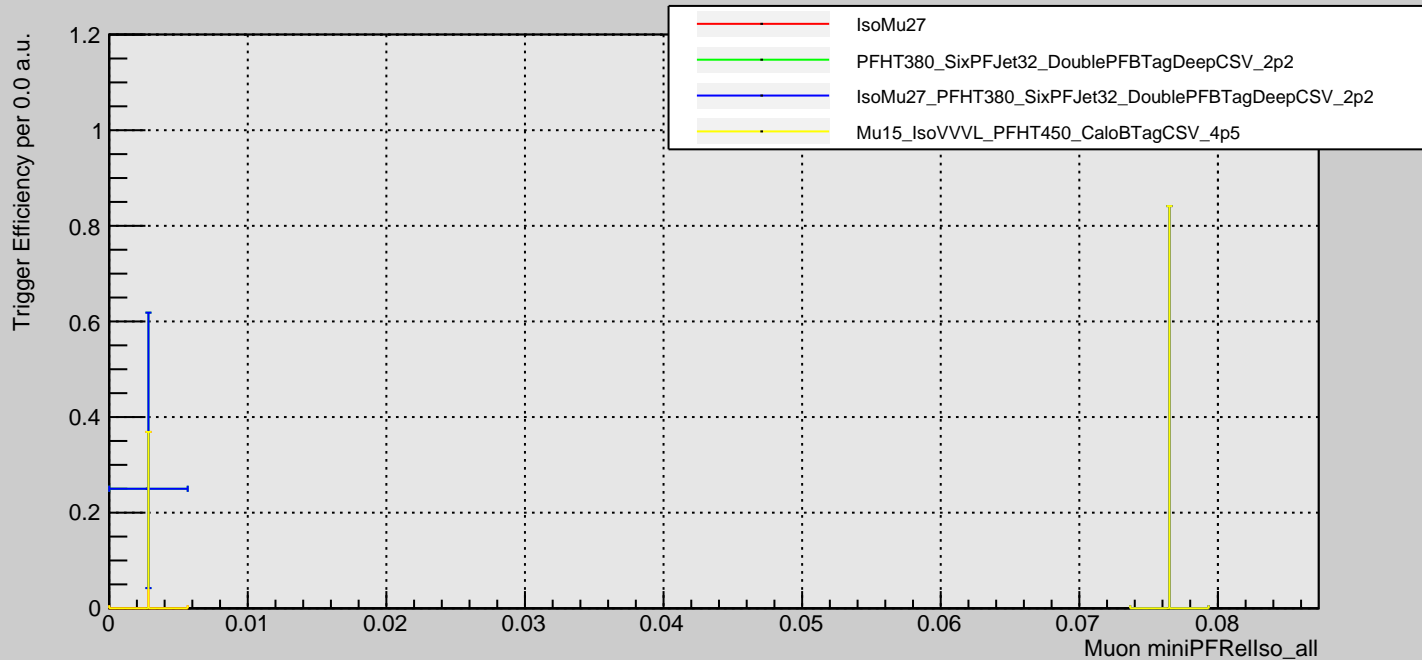
- **Jets:** number  $> 5$
- **Muons plus Electrons:** number  $> 0$

**Event Limit:** None (see last page)

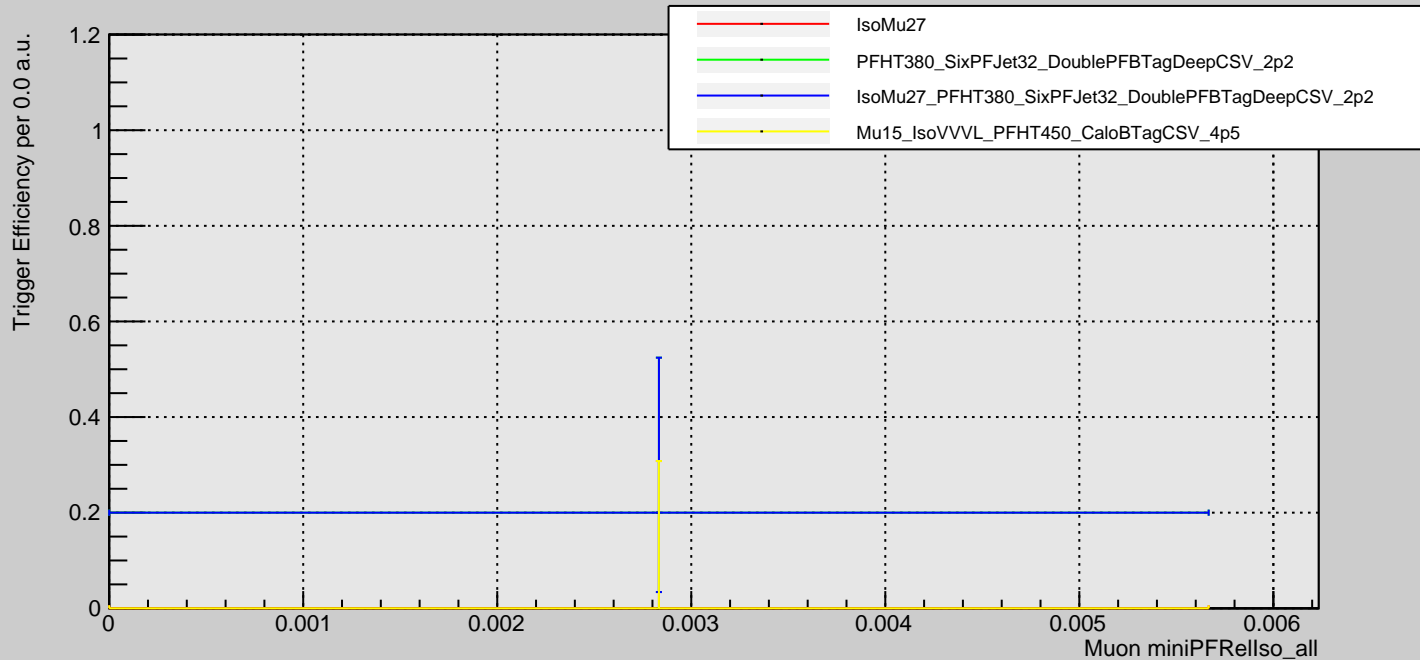
**Off-line (post-)selection Requisites for:**

- **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  $\text{tightId}$ ,  $|\eta| < 2.4$  and  $\text{PFRelIso\_all} < 0.15$  (for at least 1)

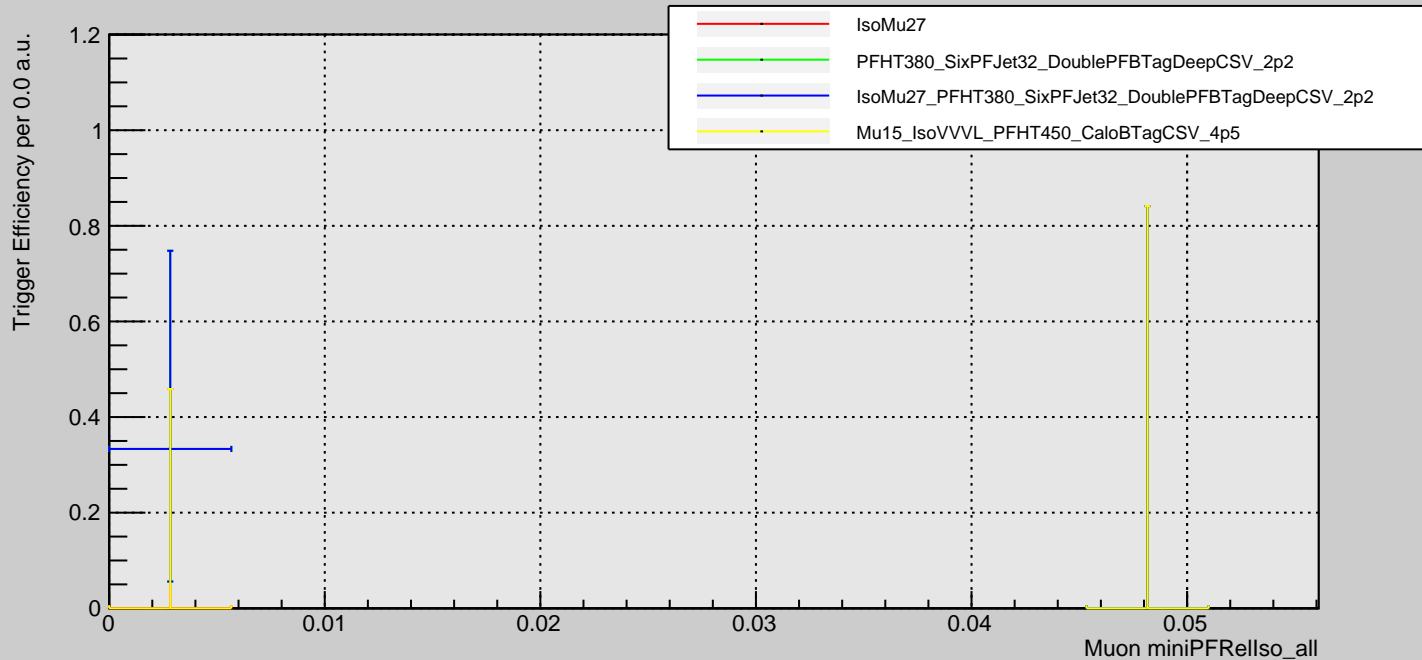
**Muon Pt = 5**



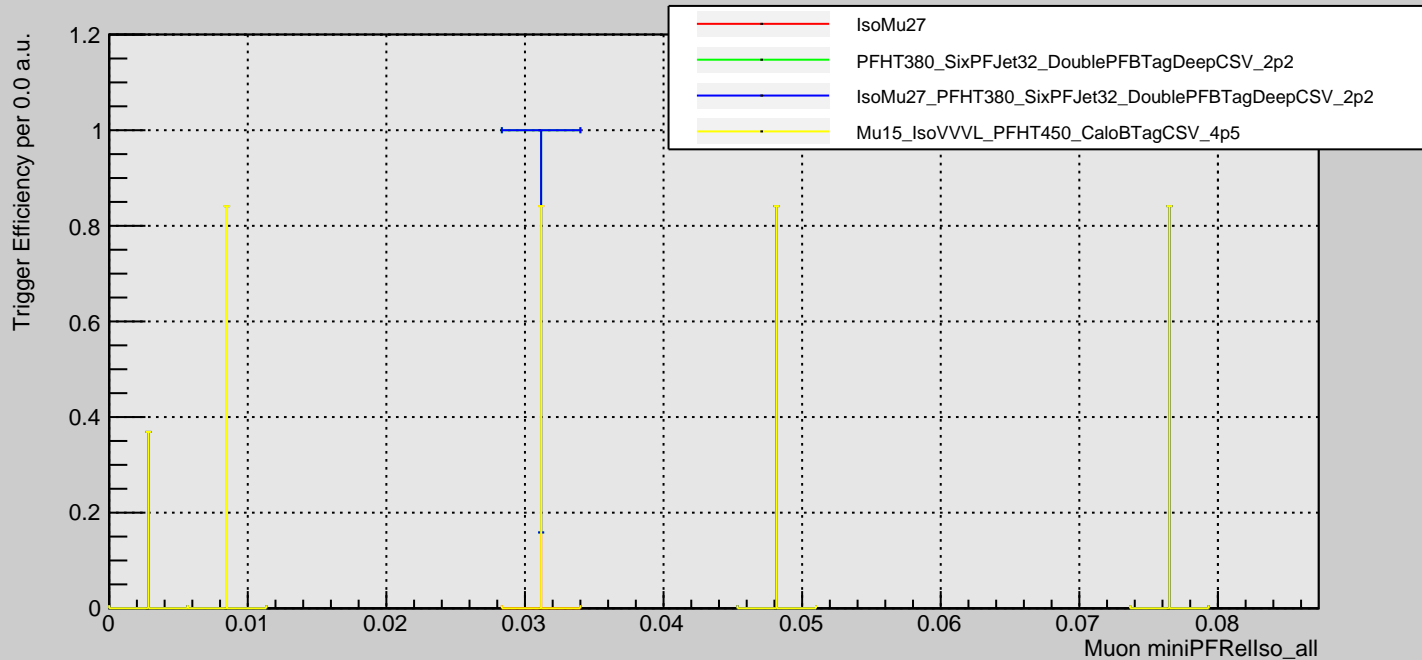
**Muon Pt = 10**



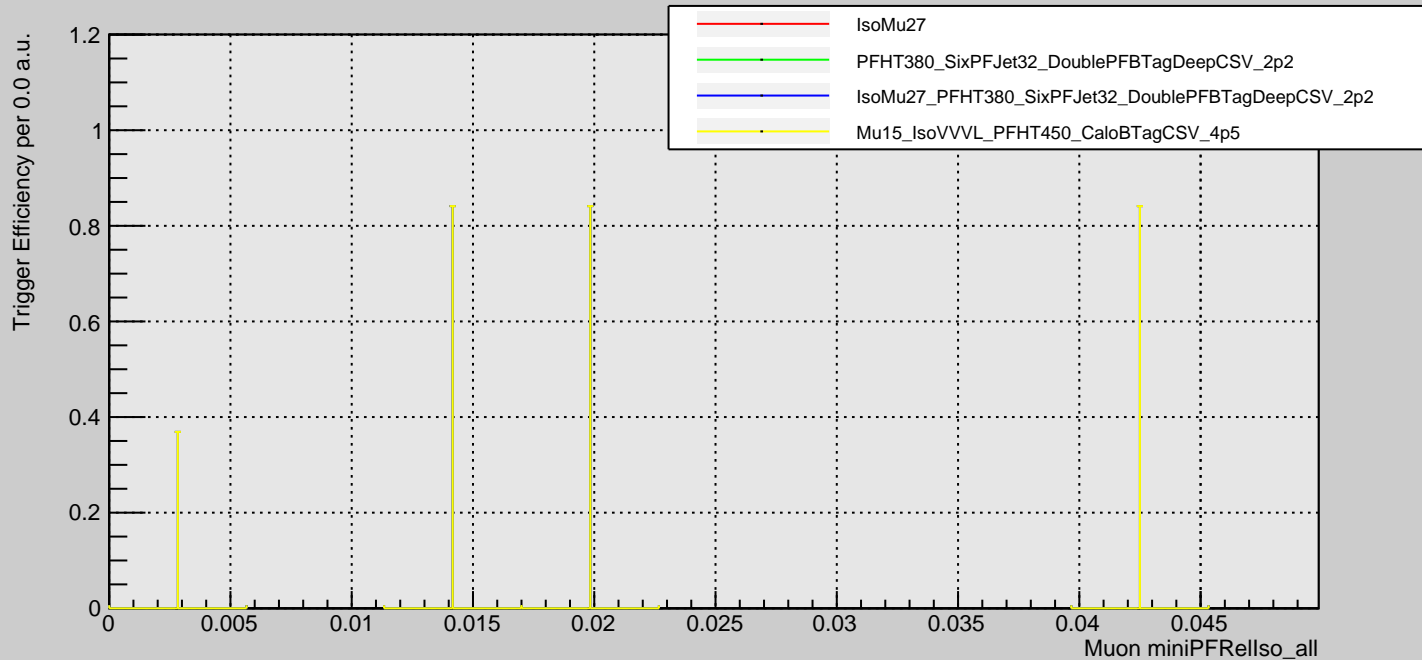
**Muon Pt = 15**



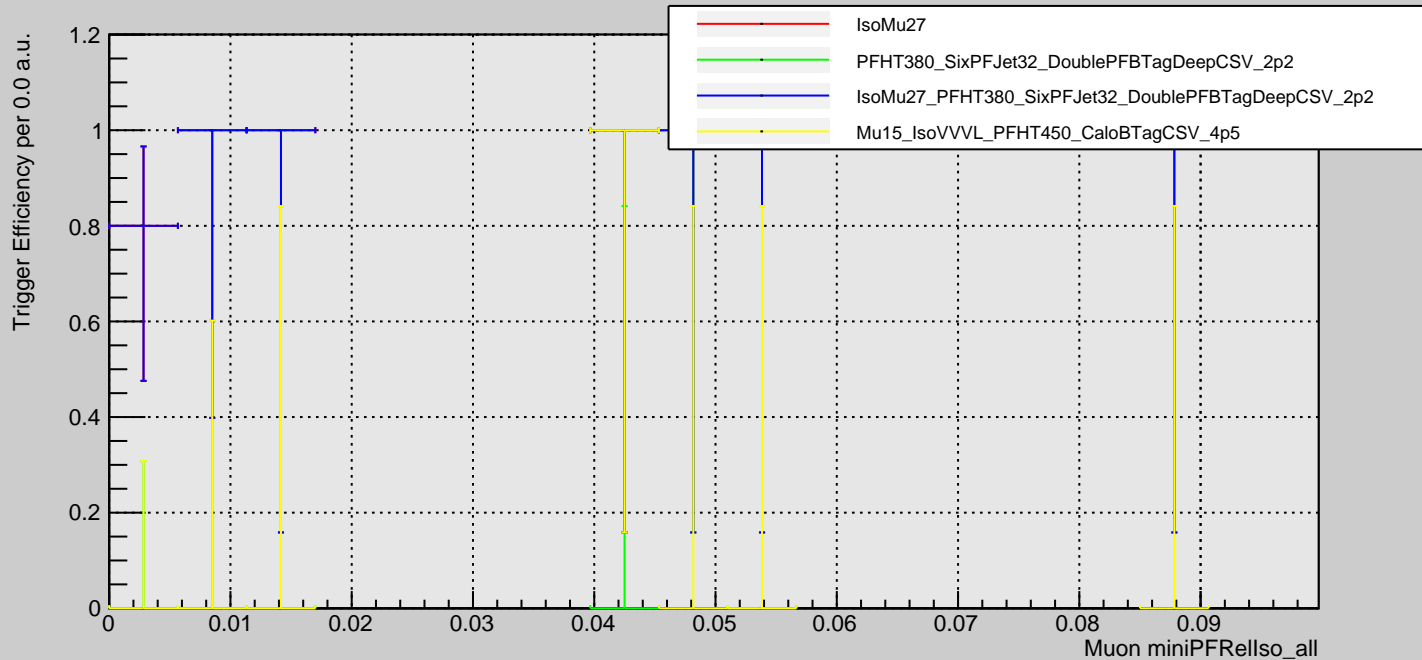
**Muon Pt = 20**



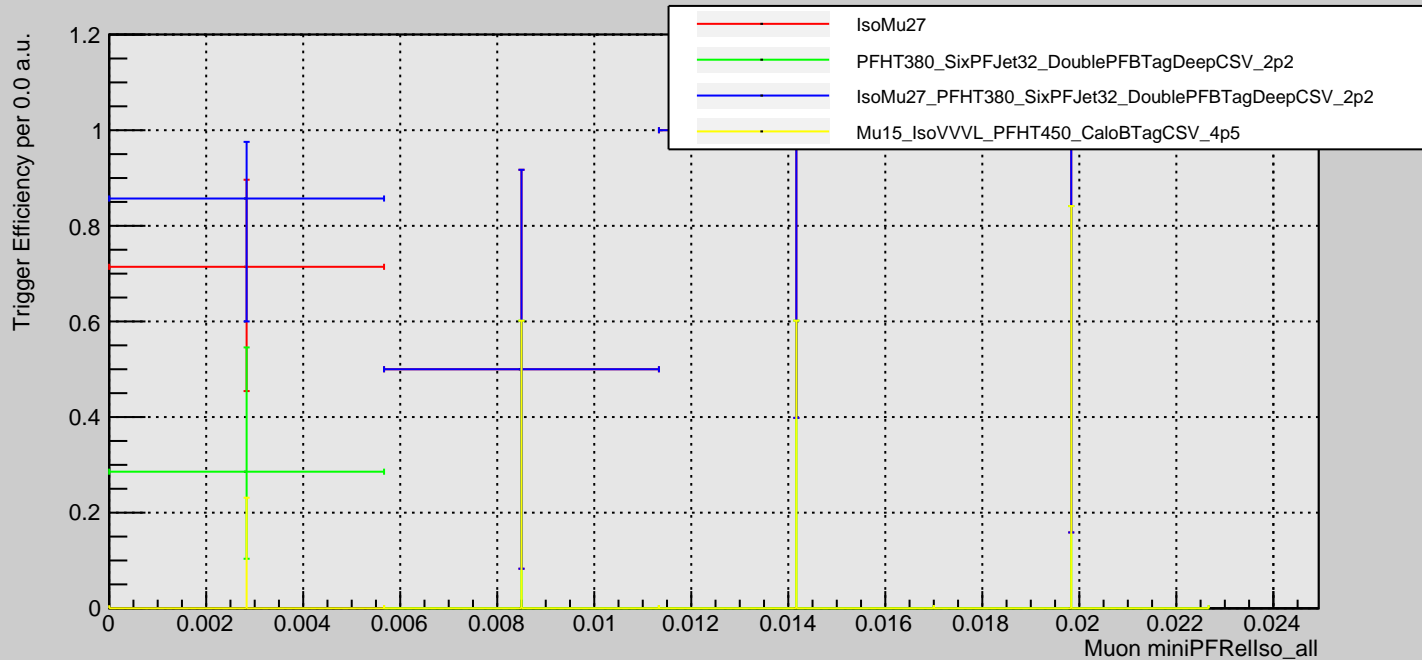
**Muon Pt = 25**



**Muon Pt = 30**

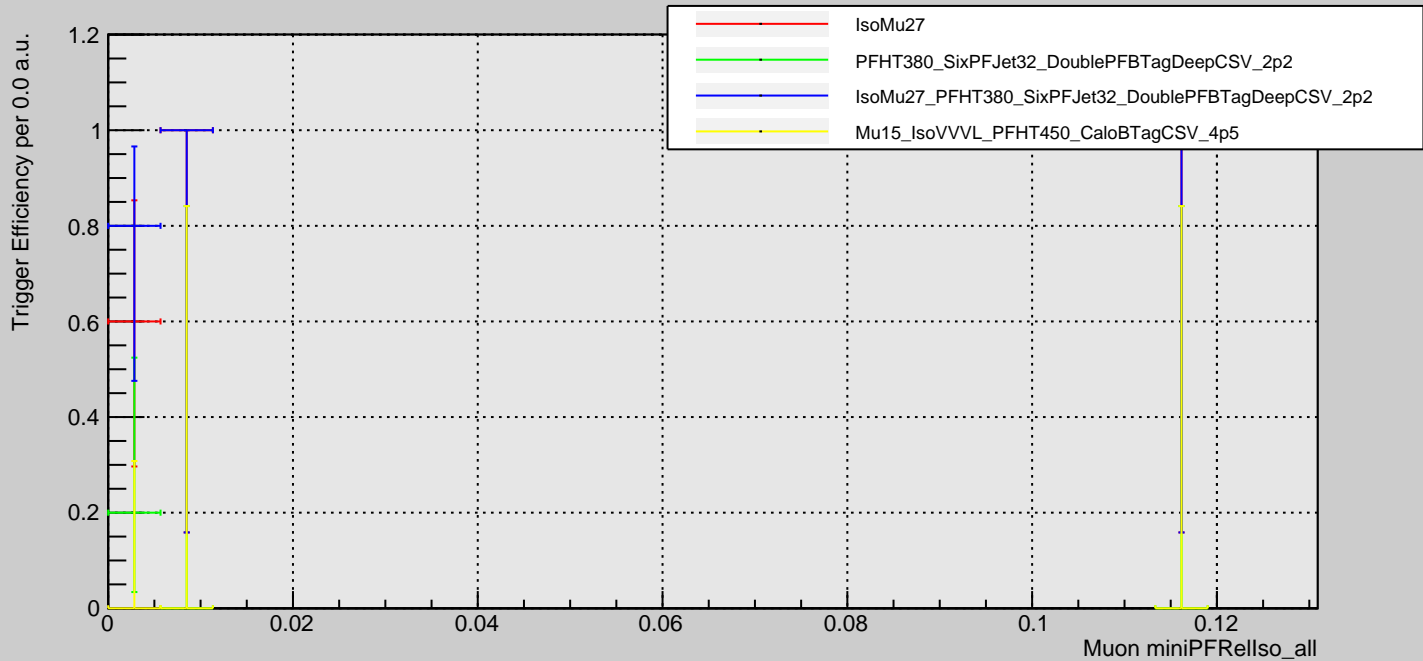


**Muon Pt = 35**

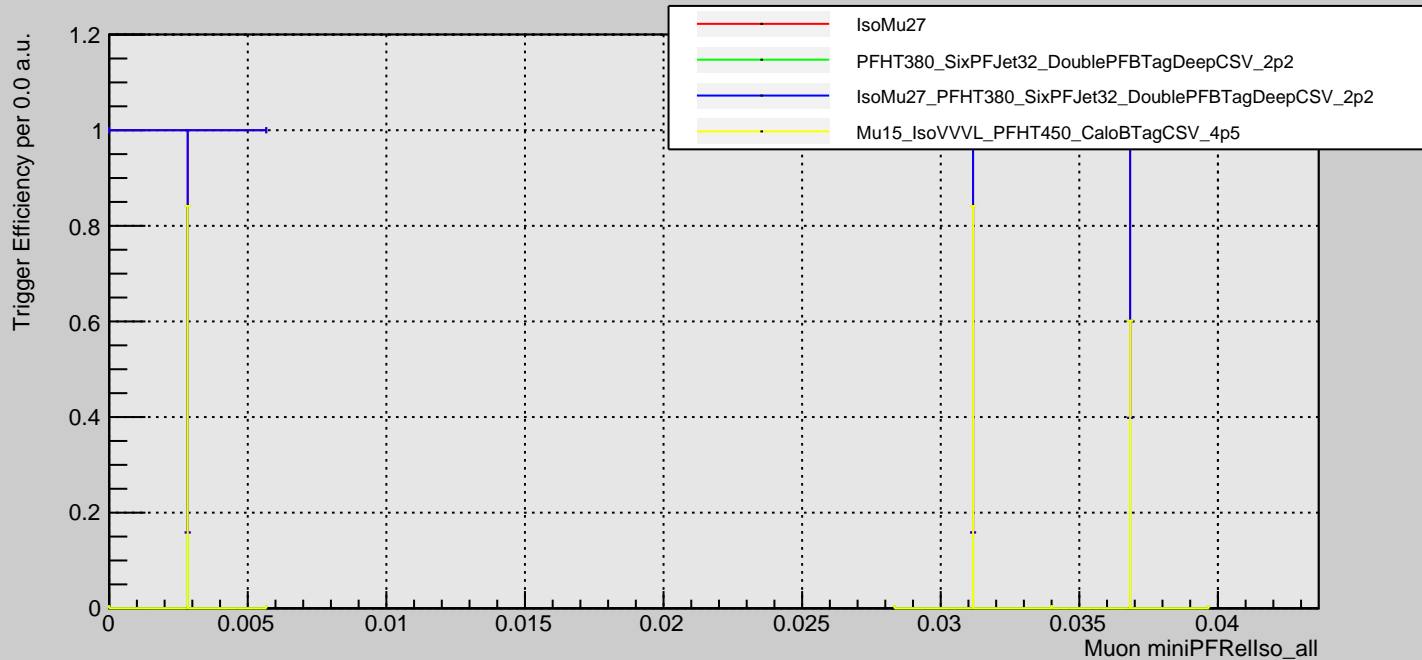




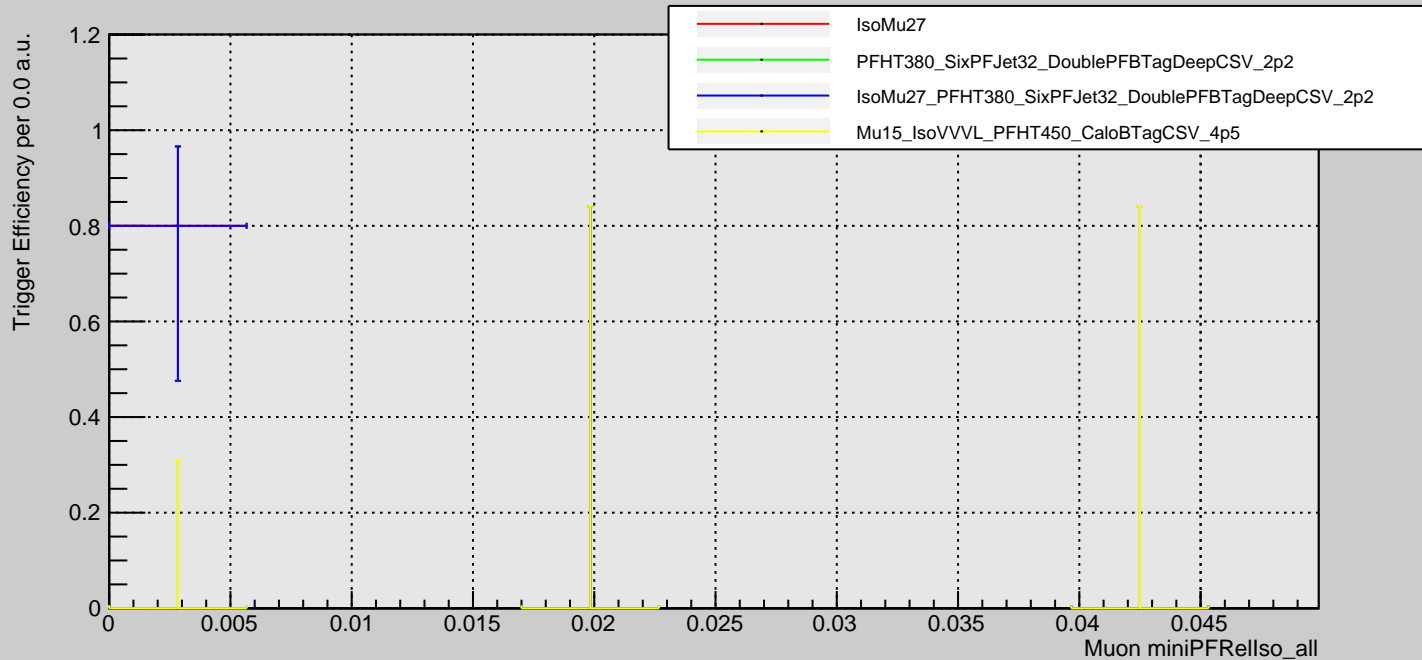
**Muon Pt = 40**



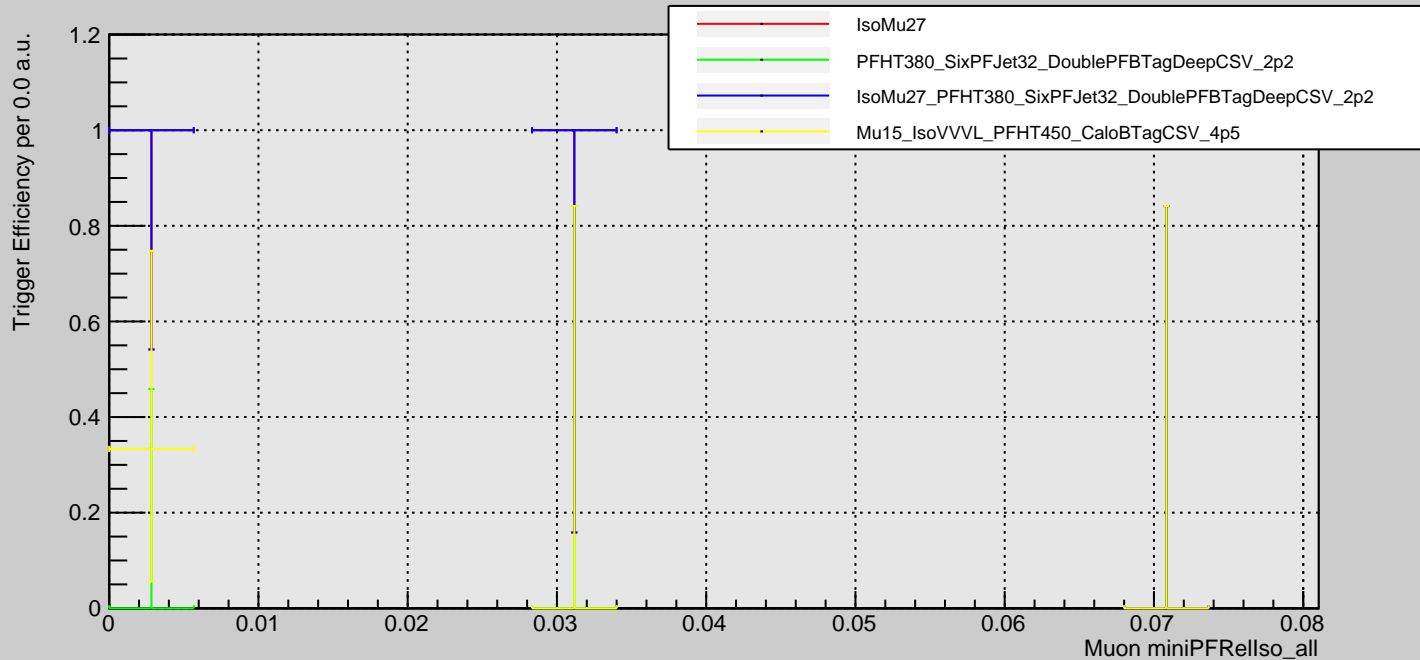
**Muon Pt = 45**



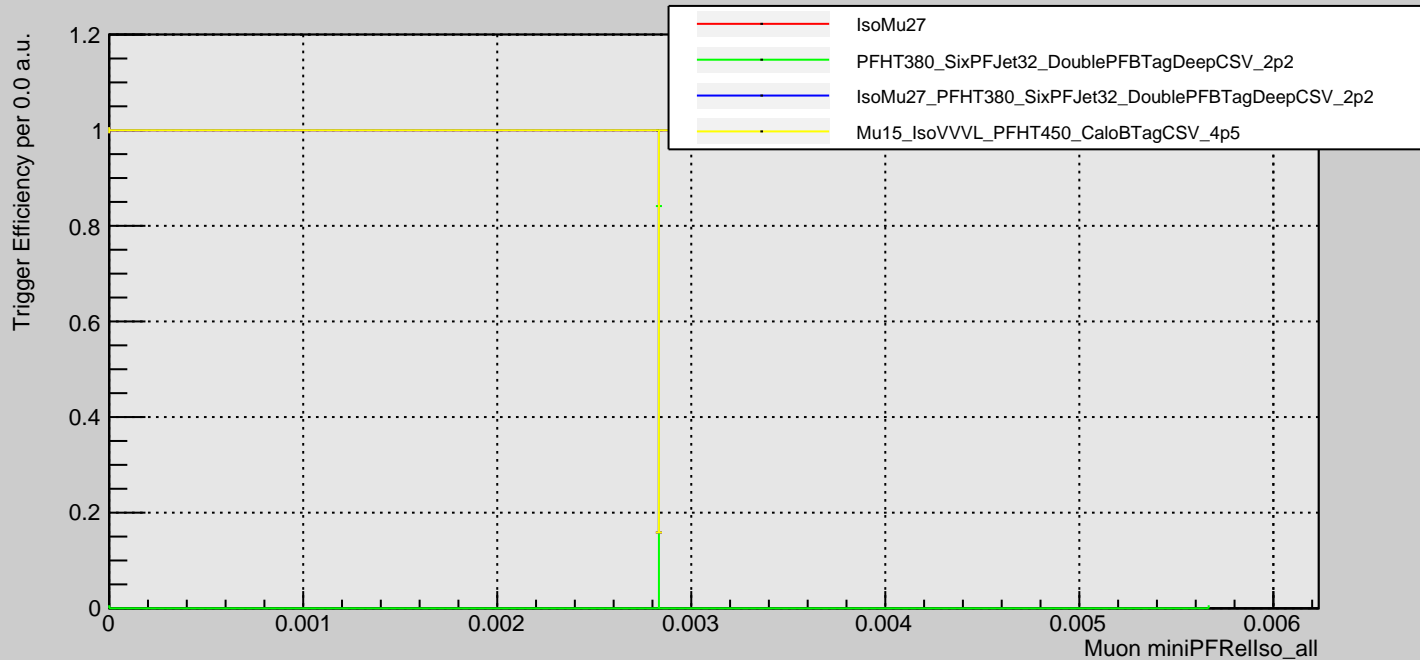
**Muon Pt = 50**



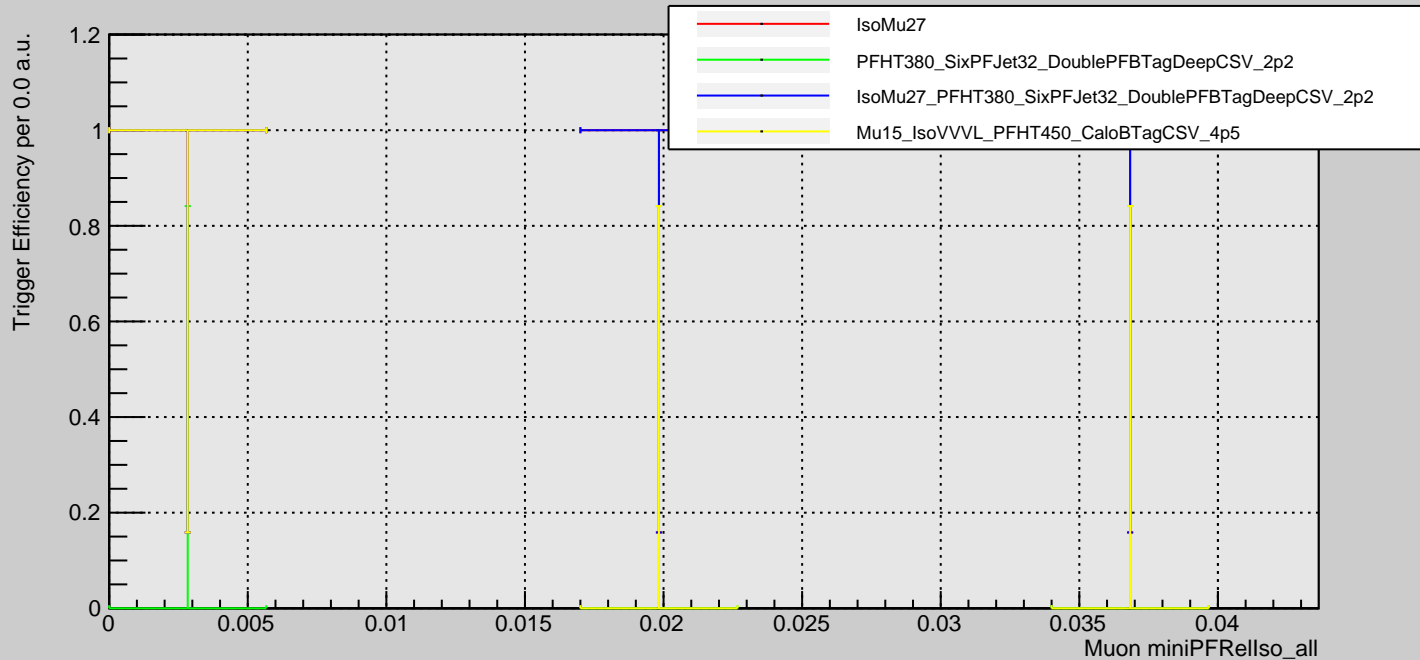
**Muon Pt = 55**



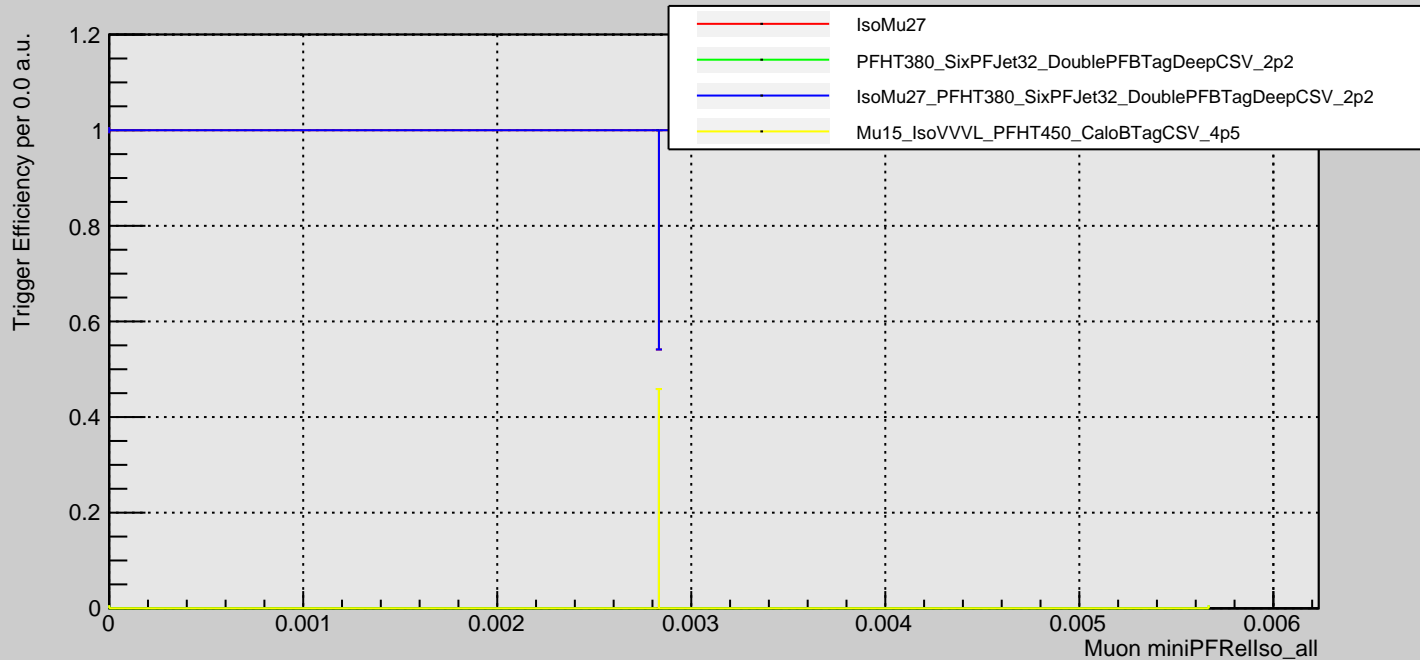
**Muon Pt = 60**



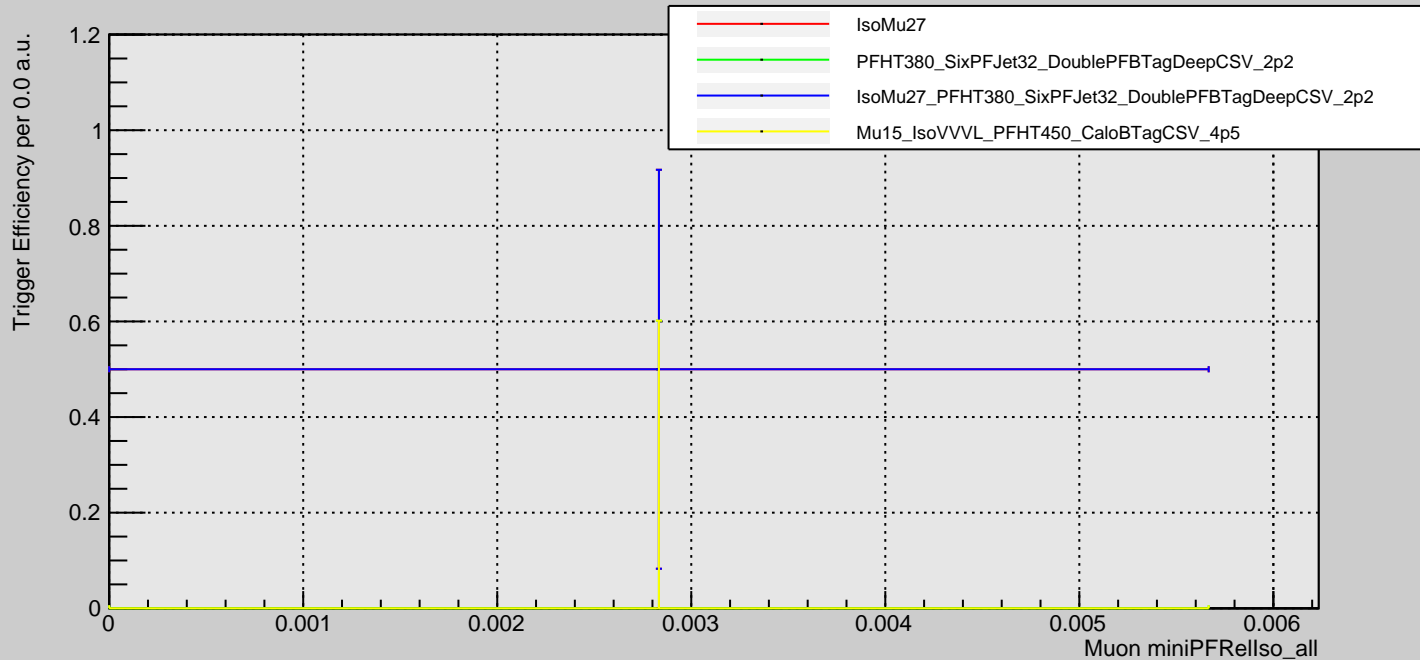
**Muon Pt = 65**



**Muon Pt = 70**



**Muon Pt = 75**





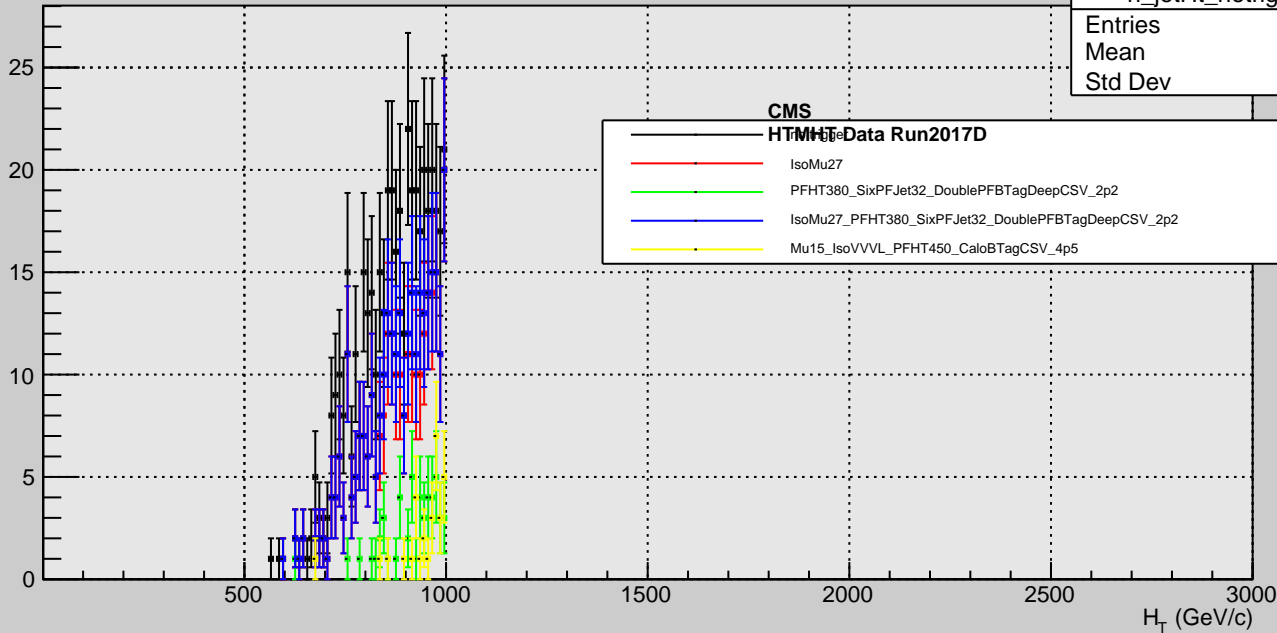
Number of Events per 10 GeV/c

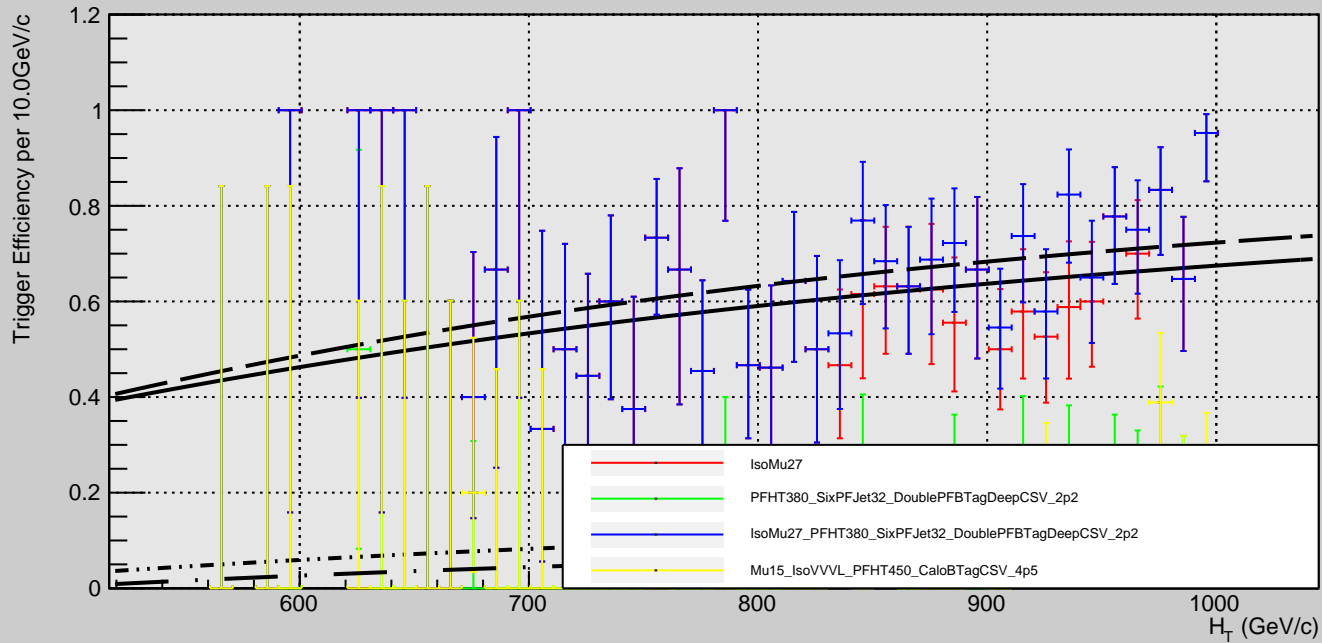
h_jetHt_nottrigger	
Entries	453
Mean	865.1
Std Dev	91.65

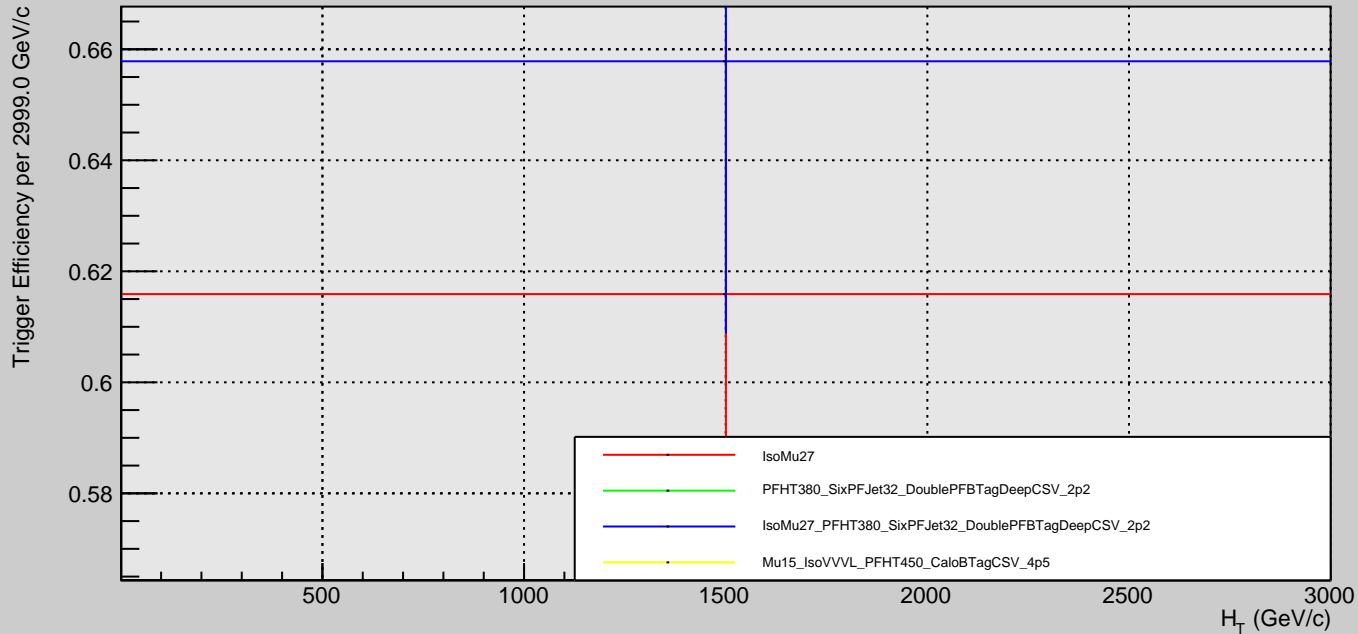
CMS

HT+HT Data Run2017D

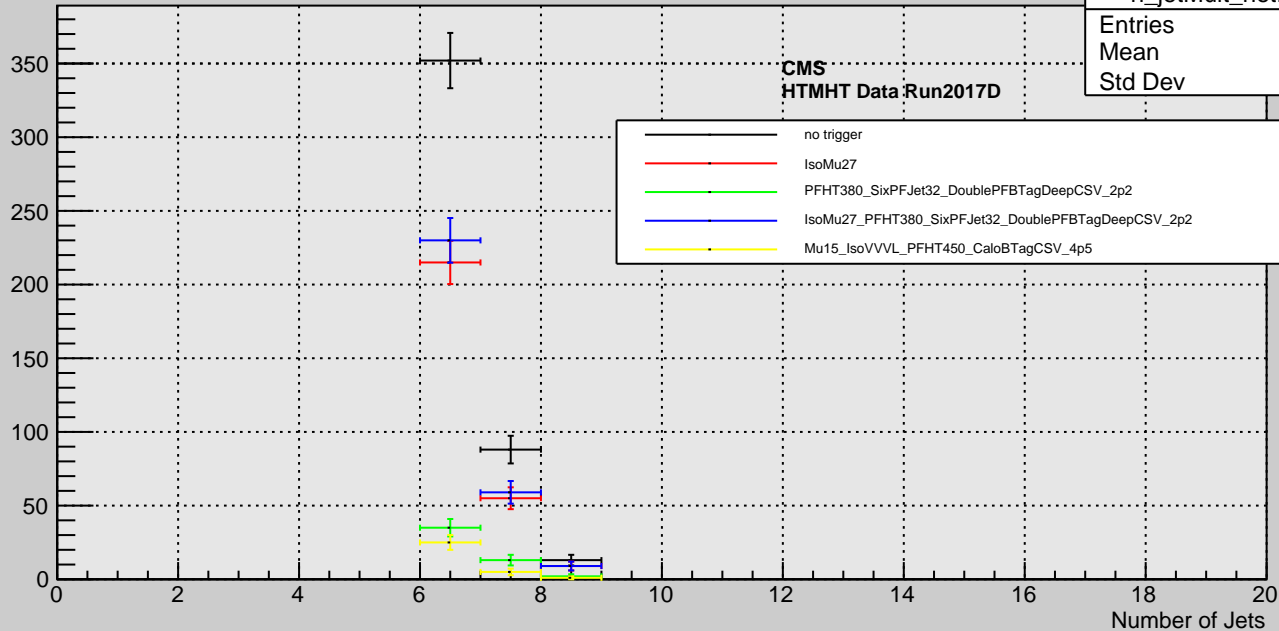
- HT+HT Data Run2017D
- IsoMu27
- PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2
- IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2
- Mu15\_IsoVVVL\_PFHT450\_CaloBTagCSV\_4p5







Number of Events per Number of Jets



h\_jetMult\_notrigger

Entries	453
Mean	6.252
Std Dev	0.4957

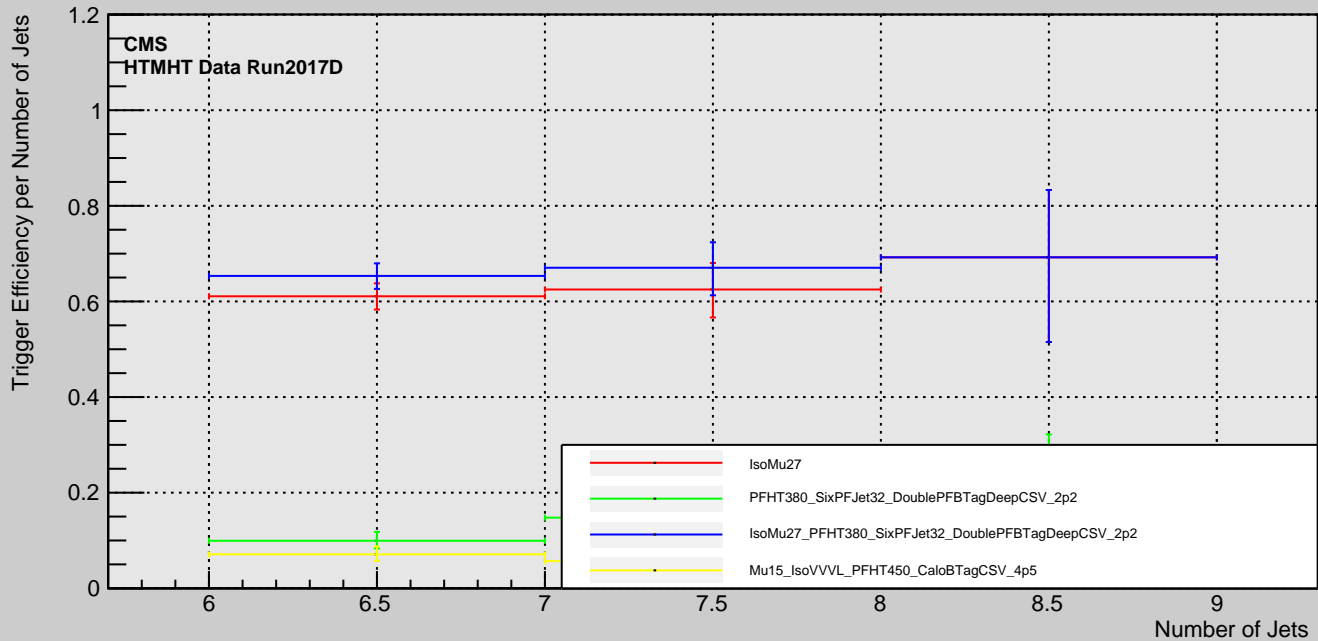
no trigger

IsoMu27

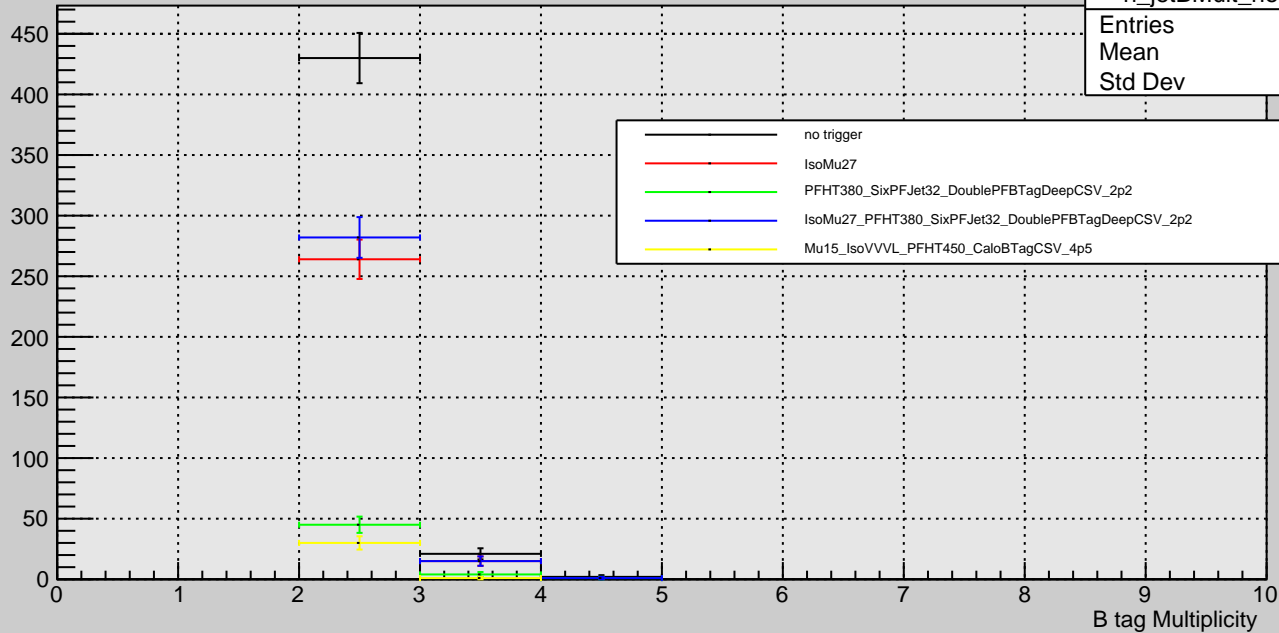
PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

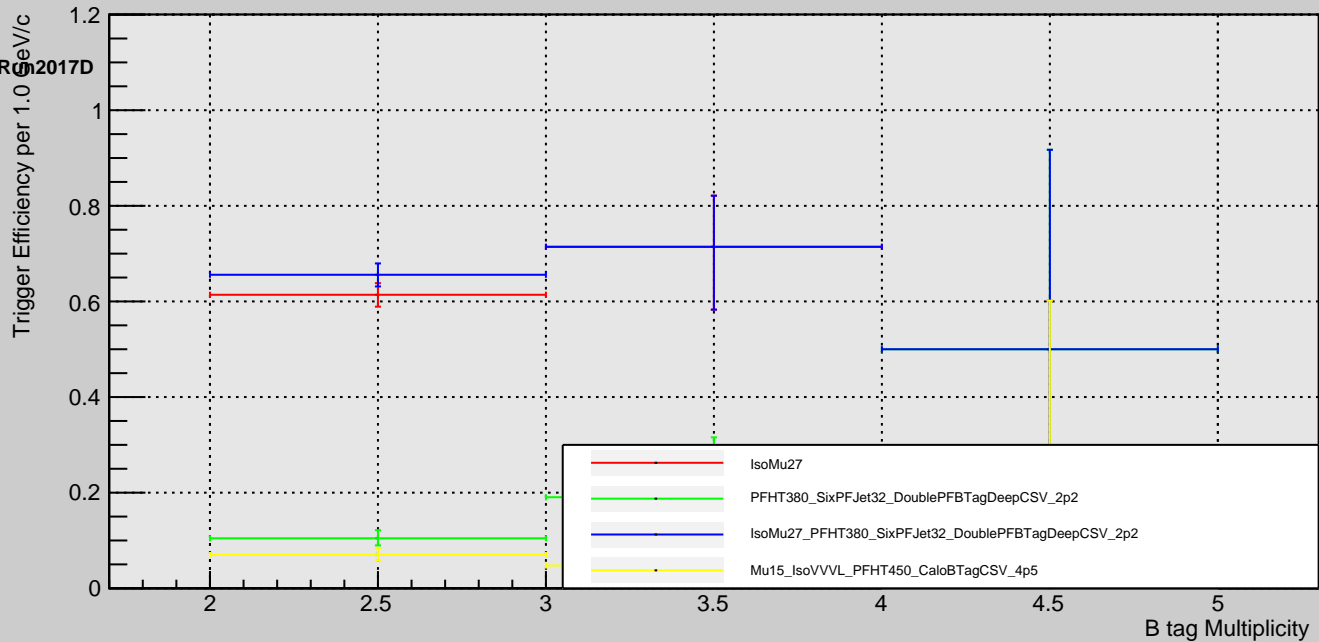
Mu15\_IsoVVVL\_PFHT450\_CaloBTagCSV\_4p5



Number of Events per Number of Jets

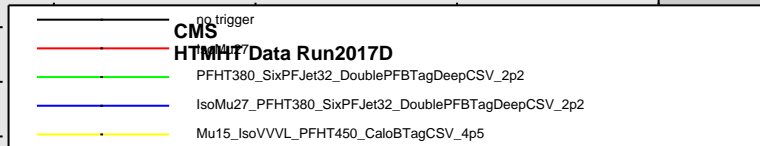


Data Run 2017D



Number of Events per 1 GeV/c

h_muonPt_nottrigger	
Entries	453
Mean	40.54
Std Dev	23.52

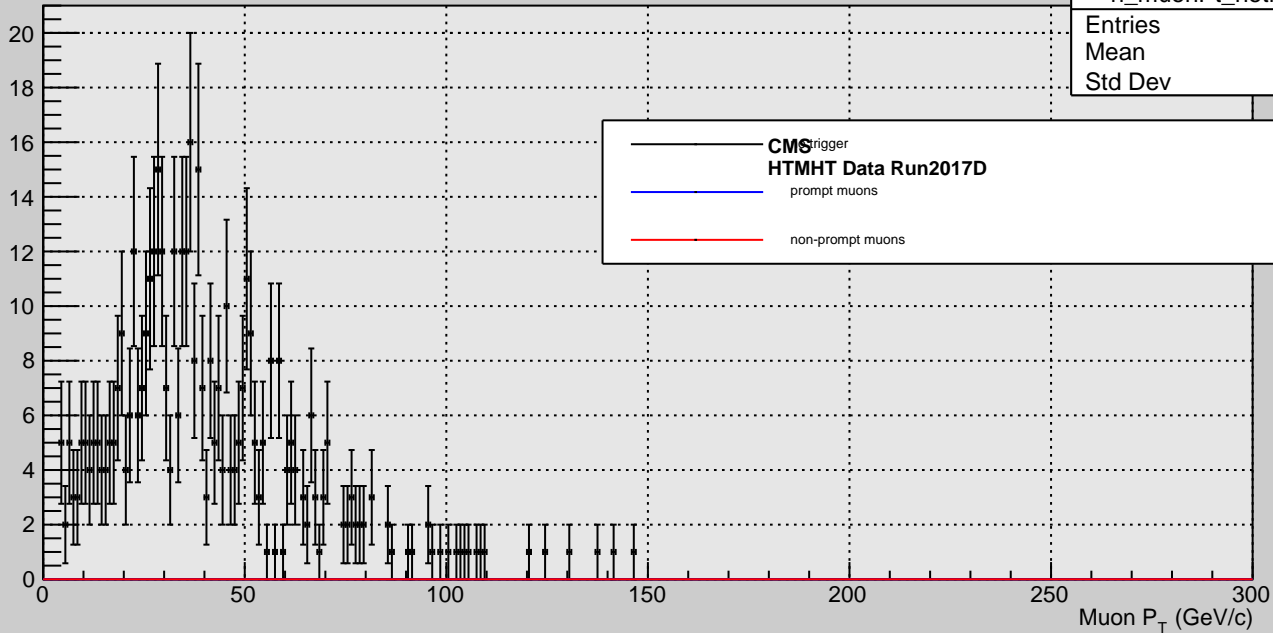
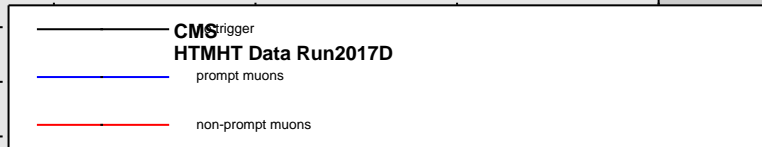


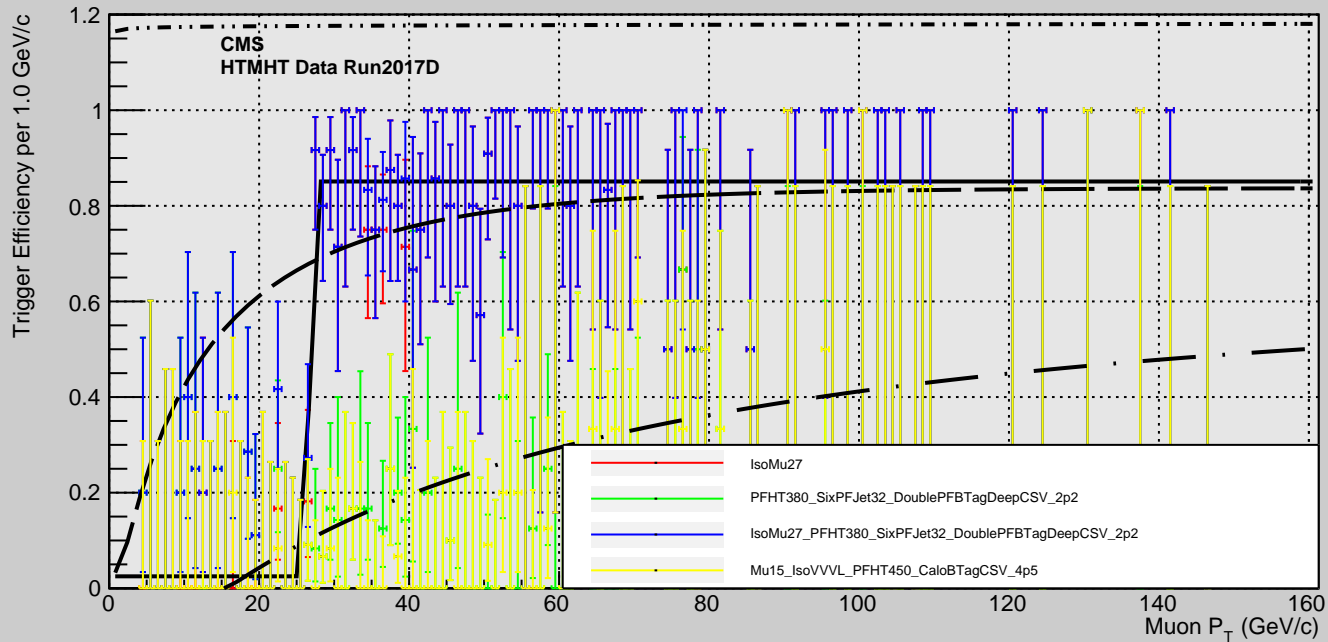
Muon  $P_T$  (GeV/c)

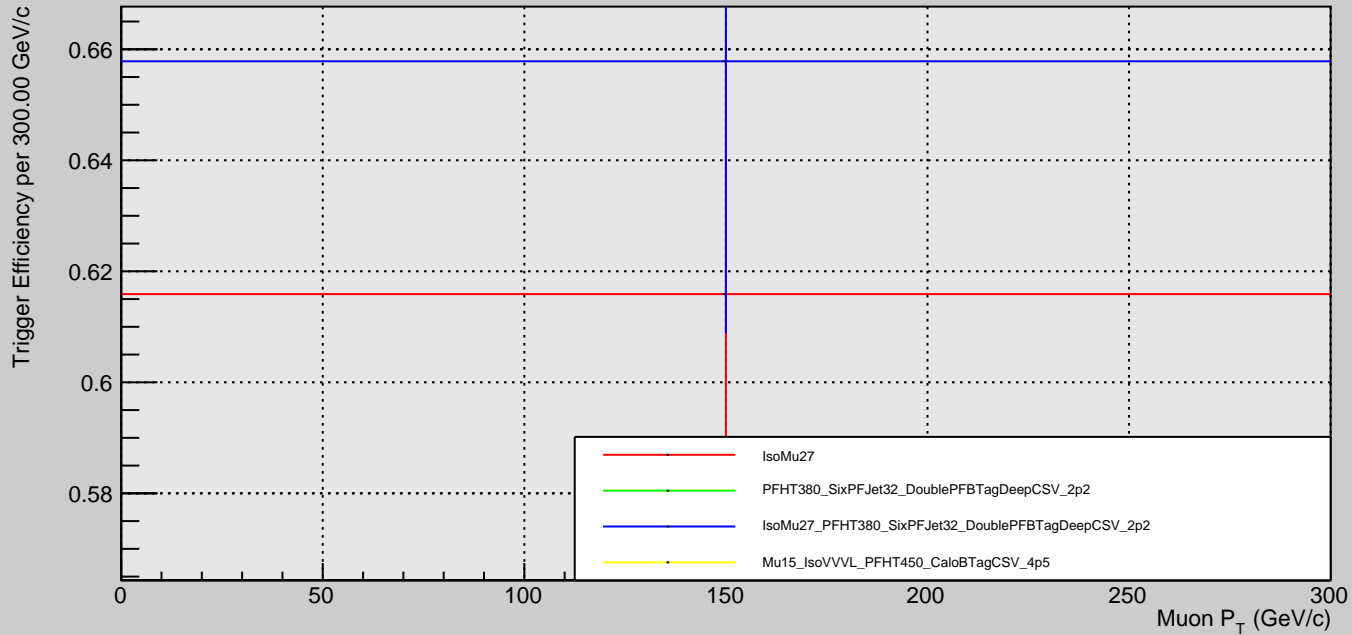


Number of Events per 1 GeV/c

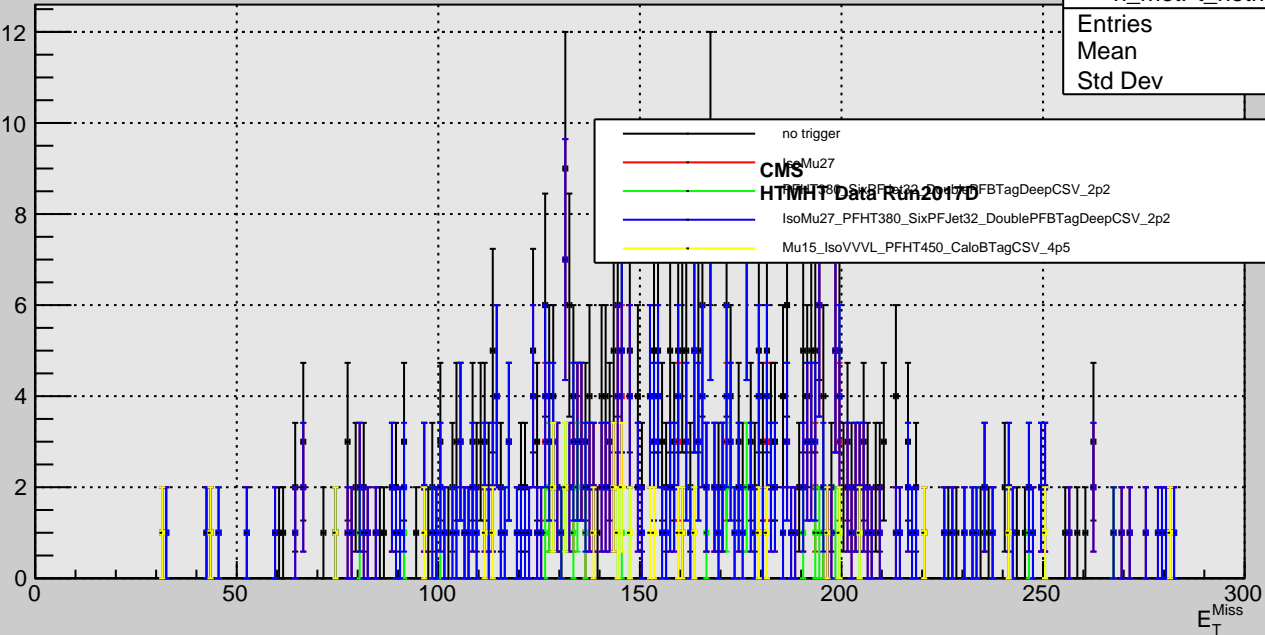
h_muonPt_notrigger	
Entries	453
Mean	40.54
Std Dev	23.52





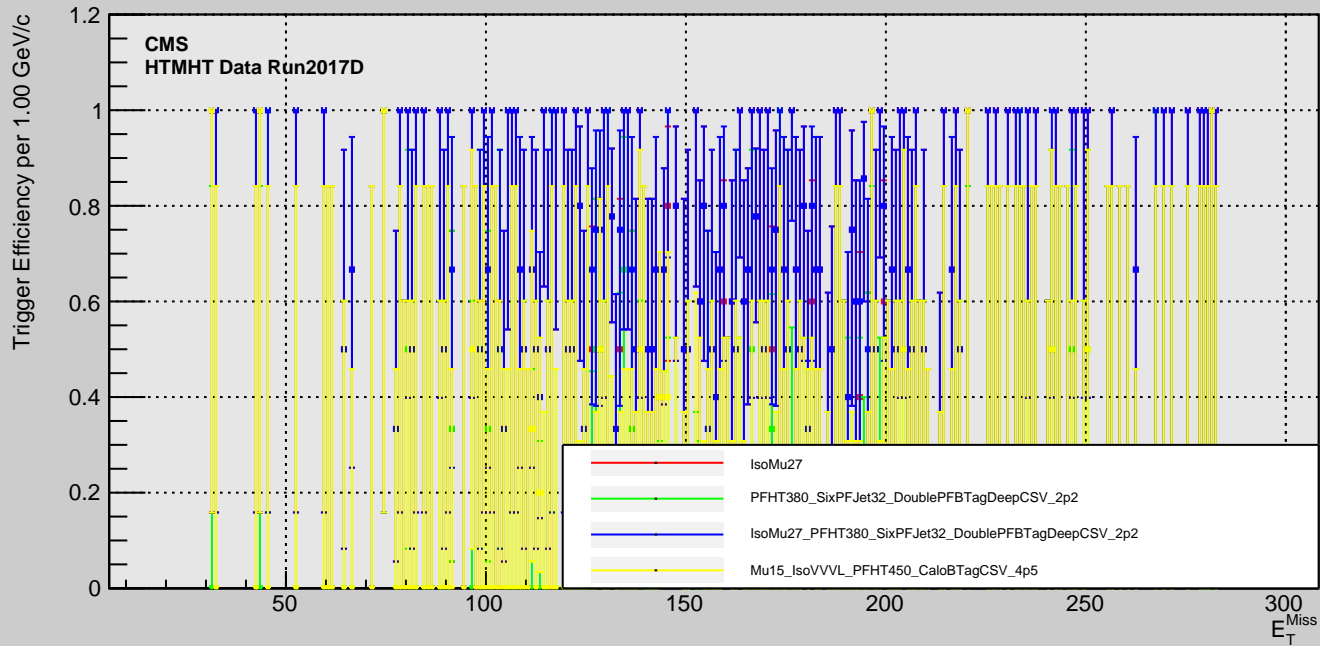


Number of Events per 1 GeV/c



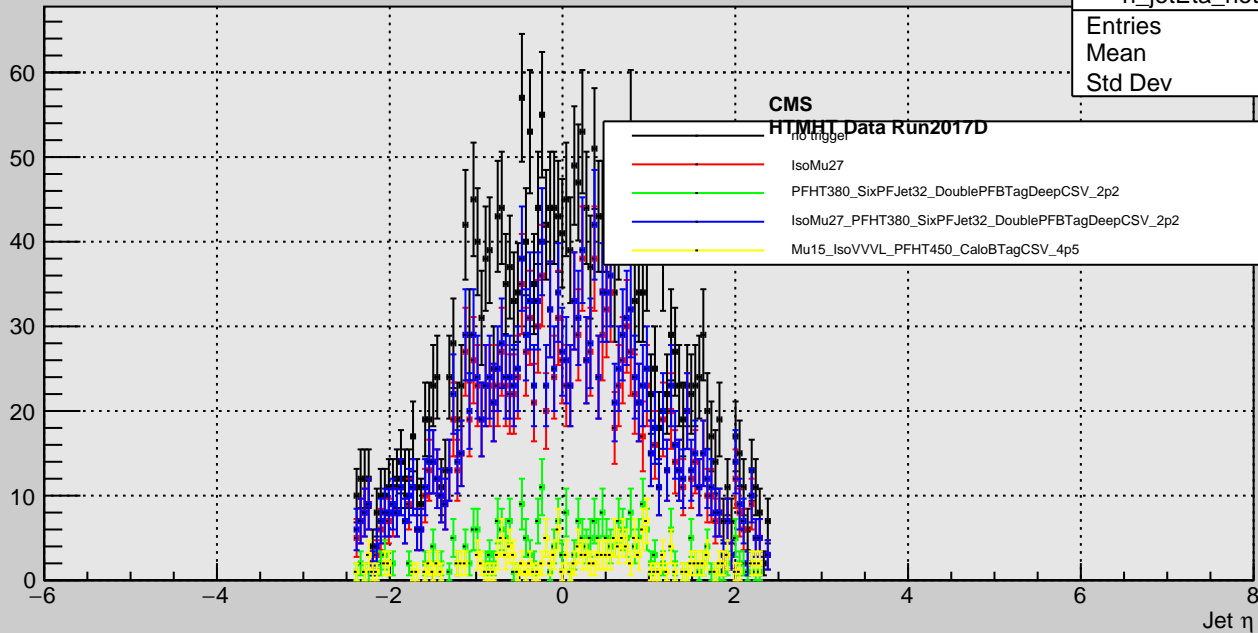
h\_metPt\_notrigger

Entries	453
Mean	159.6
Std Dev	47.78

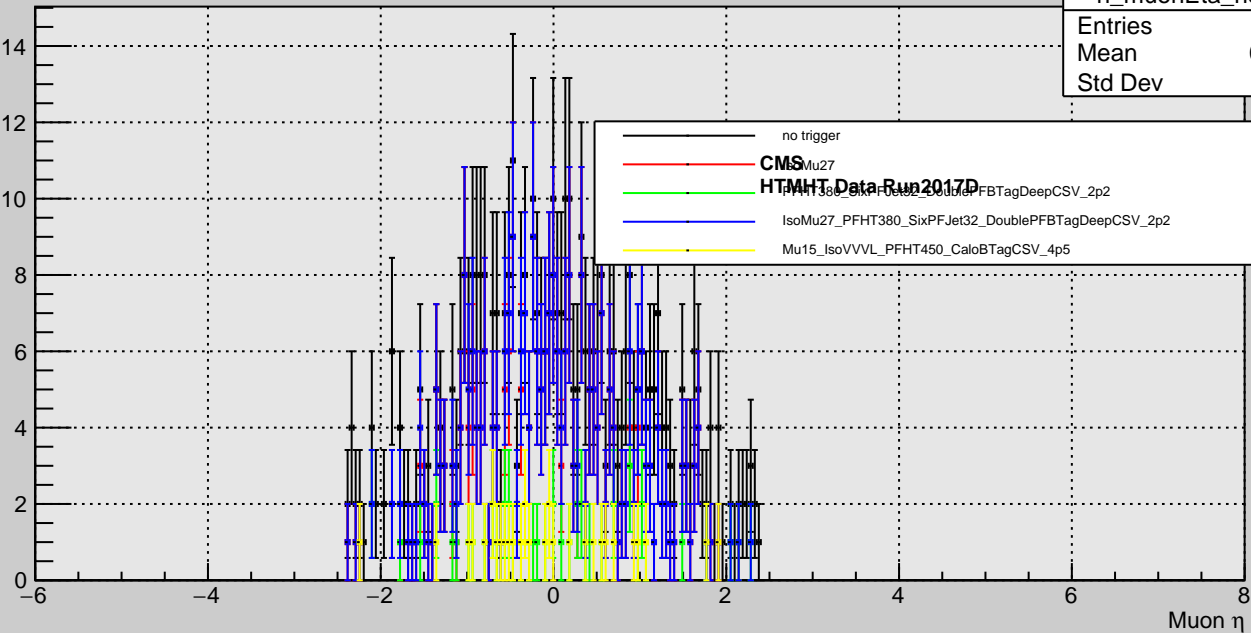


Number of Events per  $\delta\eta = 0.046$

h_jetEta_notrigger	
Entries	2832
Mean	0.02304
Std Dev	1.058

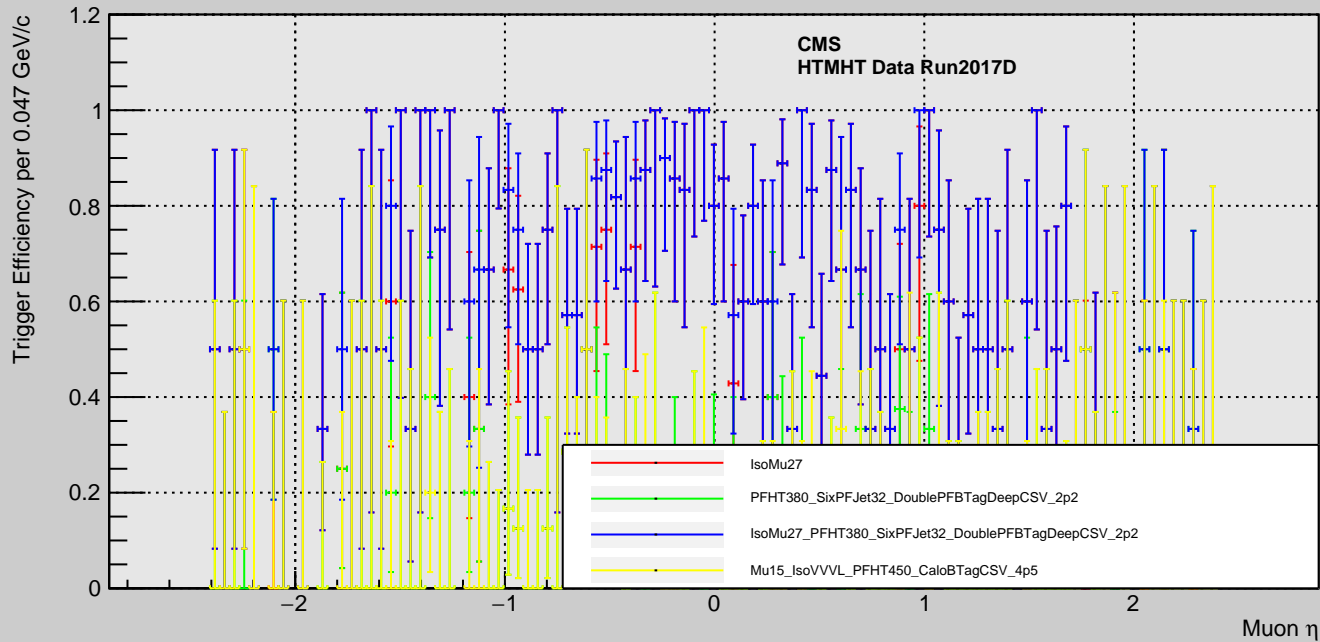


Number of Events per  $\delta\eta = 0.046$



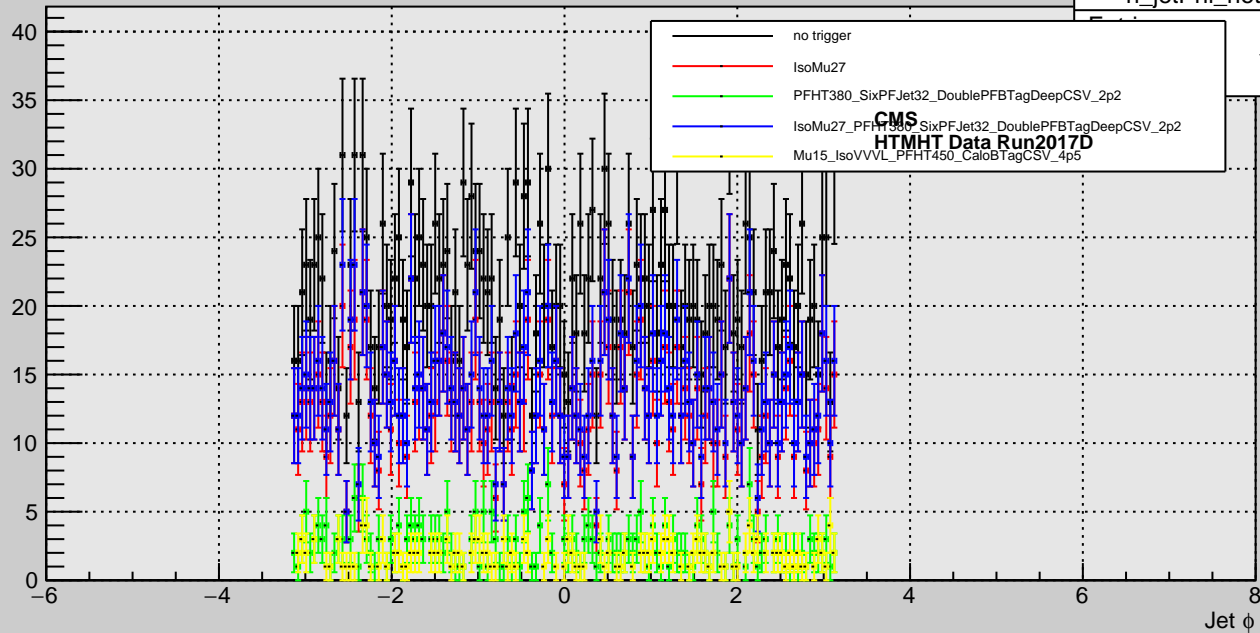
h\_muonEta\_notrigger

Entries	453
Mean	0.007912
Std Dev	1.09





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



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

