

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

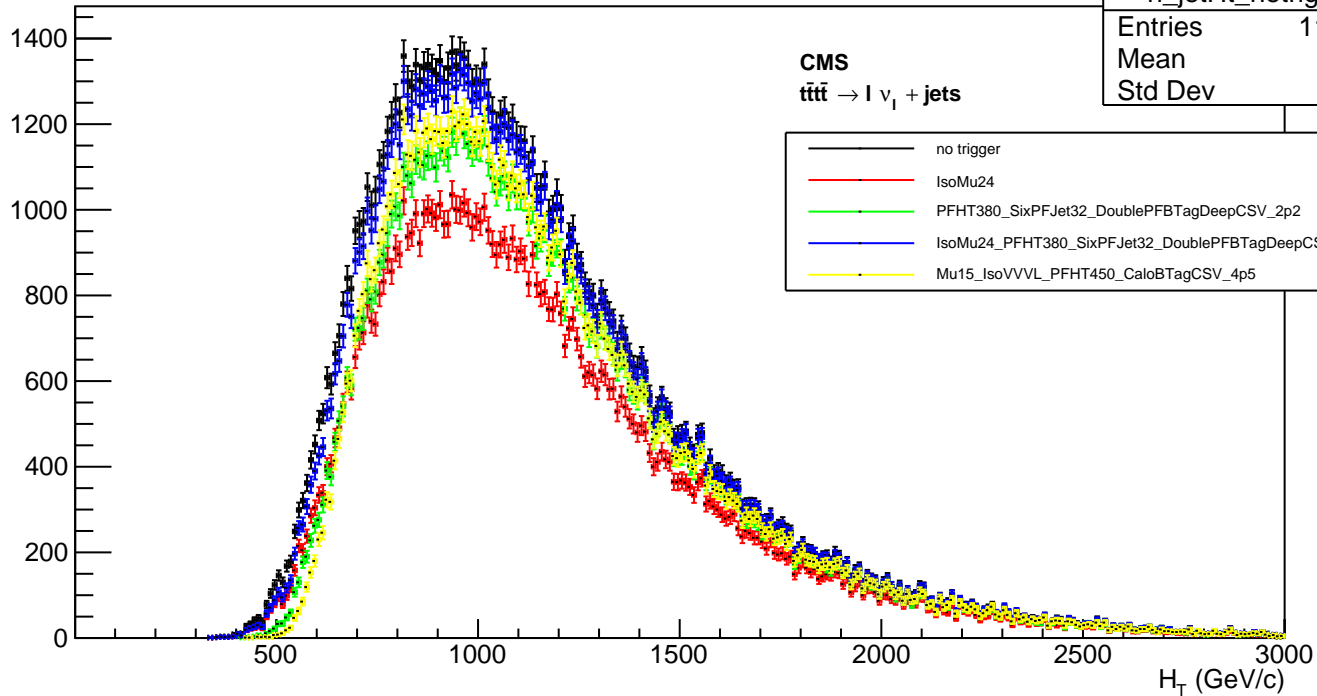
- **Jets:** number  $> 5$
- **Muons plus Electrons:** number  $> 0$

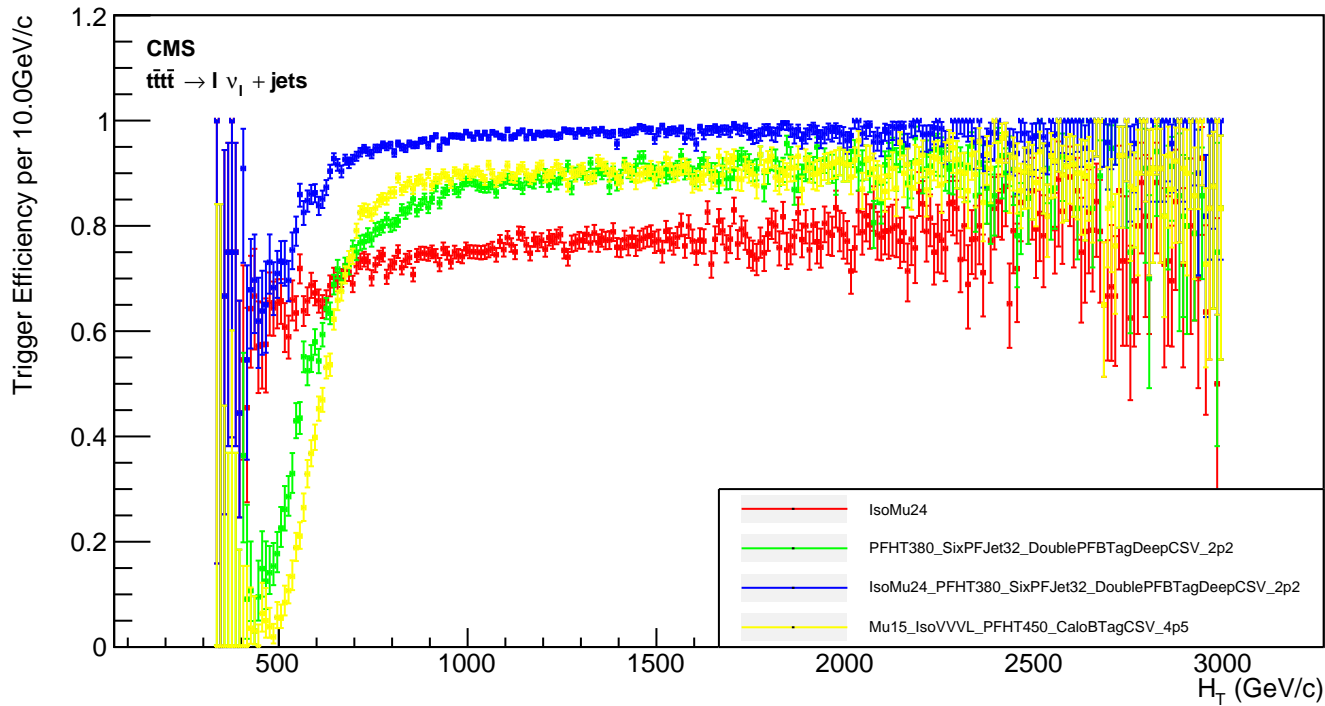
**Event Limit:** None (see last page)

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

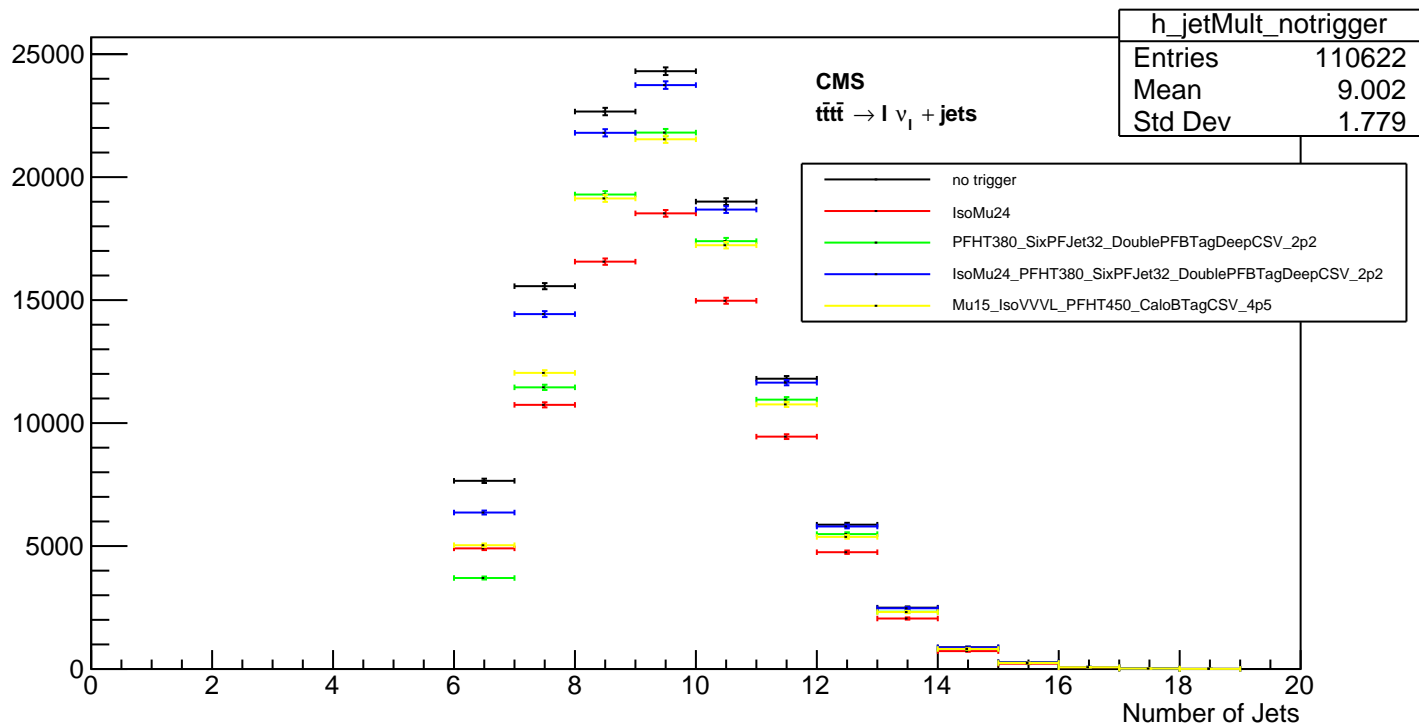
- **Jets:**  $\text{jetId} > 2$  ,  $p_T > 30$  and  $|\eta| < 2.4$  (for at least 6 jets)  
 $\text{btagDeepFlavB} > 0.7489$  (for at least one jet)
- **Muons:** has tightId,  $|\eta| < 2.4$  and  $\text{miniPFRellso\_all} < 0.15$  (for at least 1)

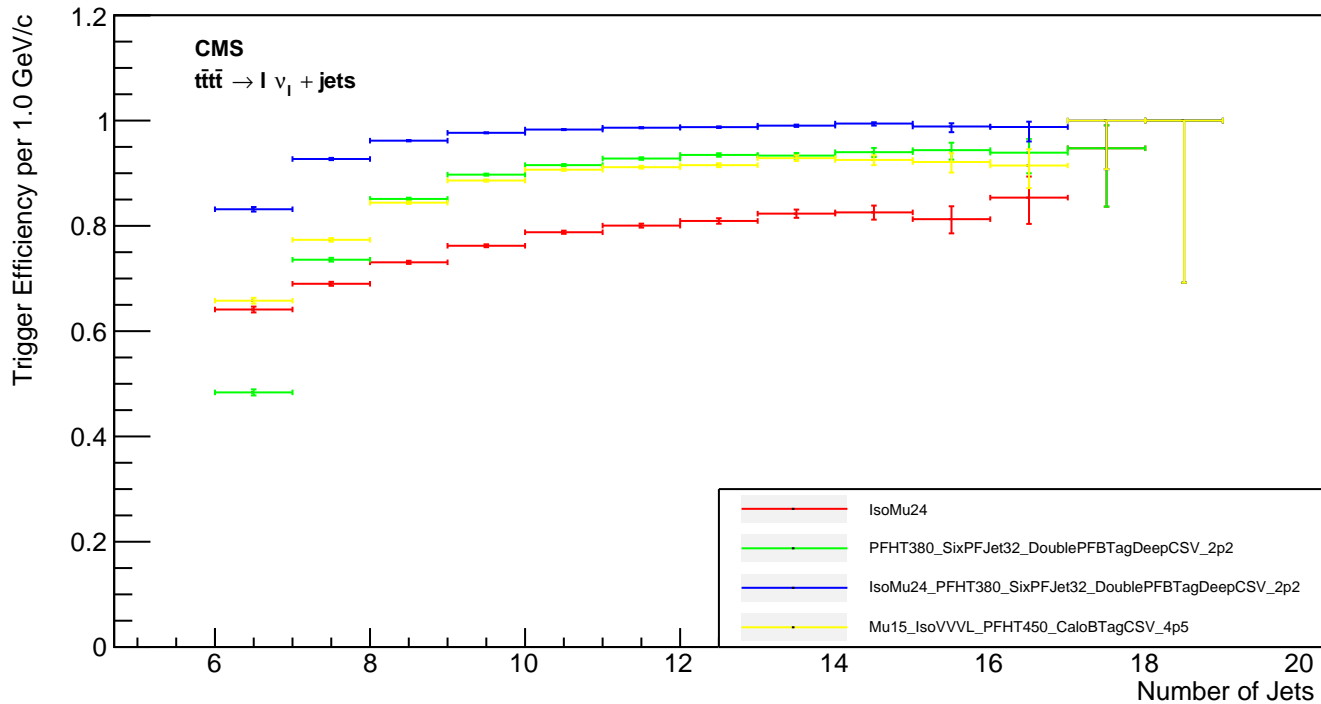
Number of Events per 10 GeV/c



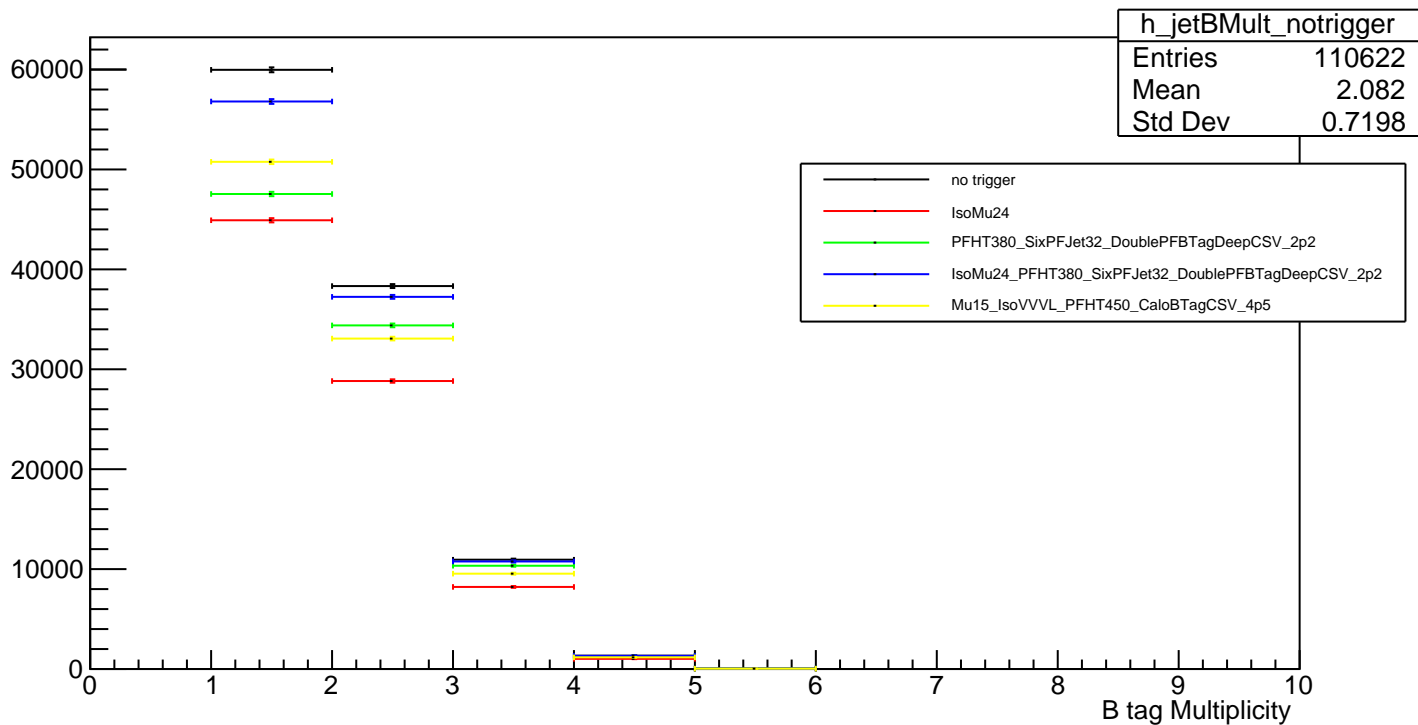


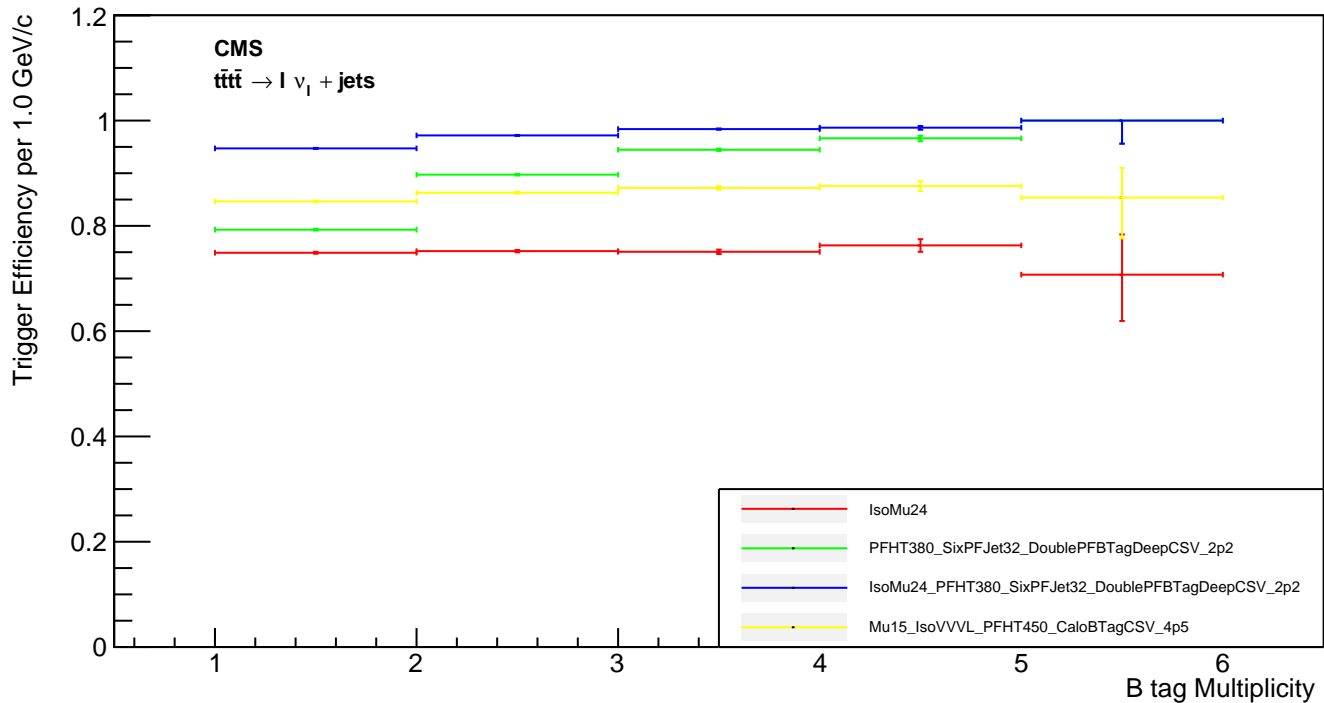
Number of Events per Number of Jets

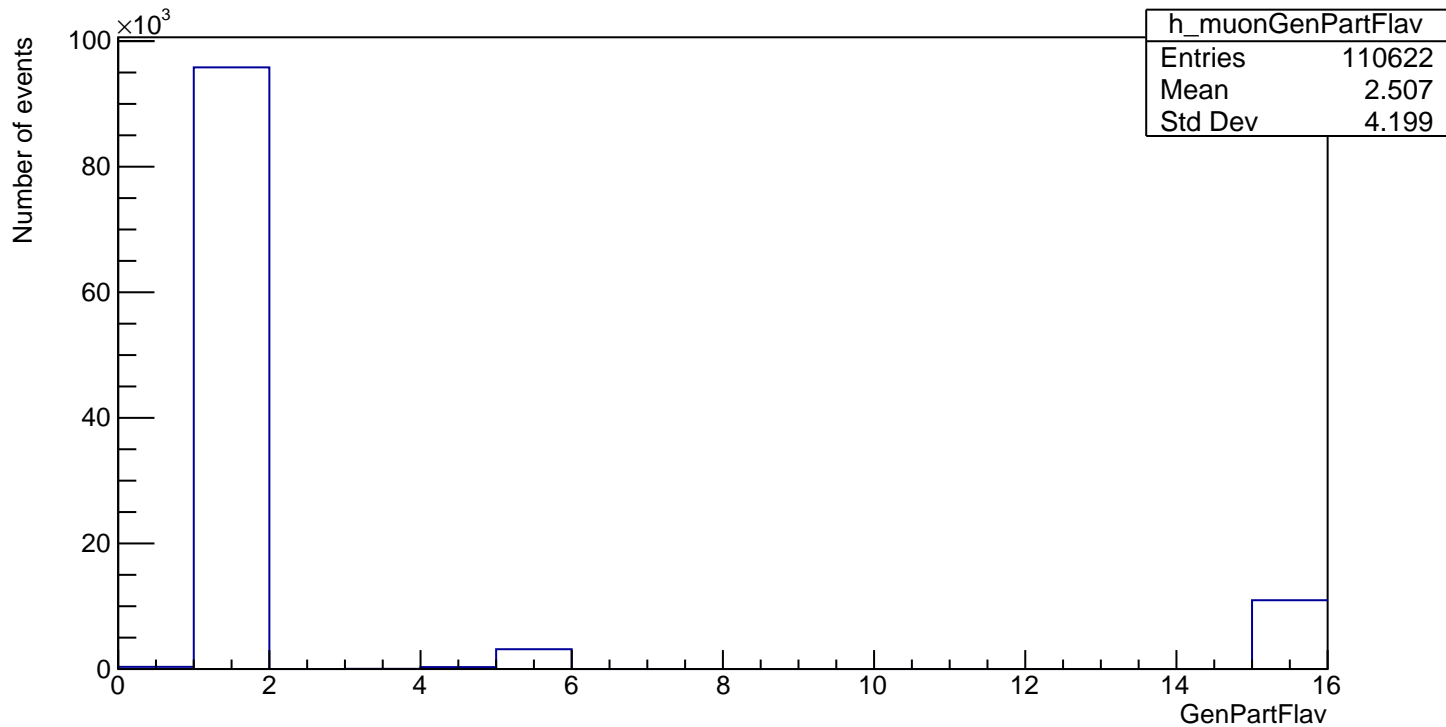




Number of Events per Number of Jets

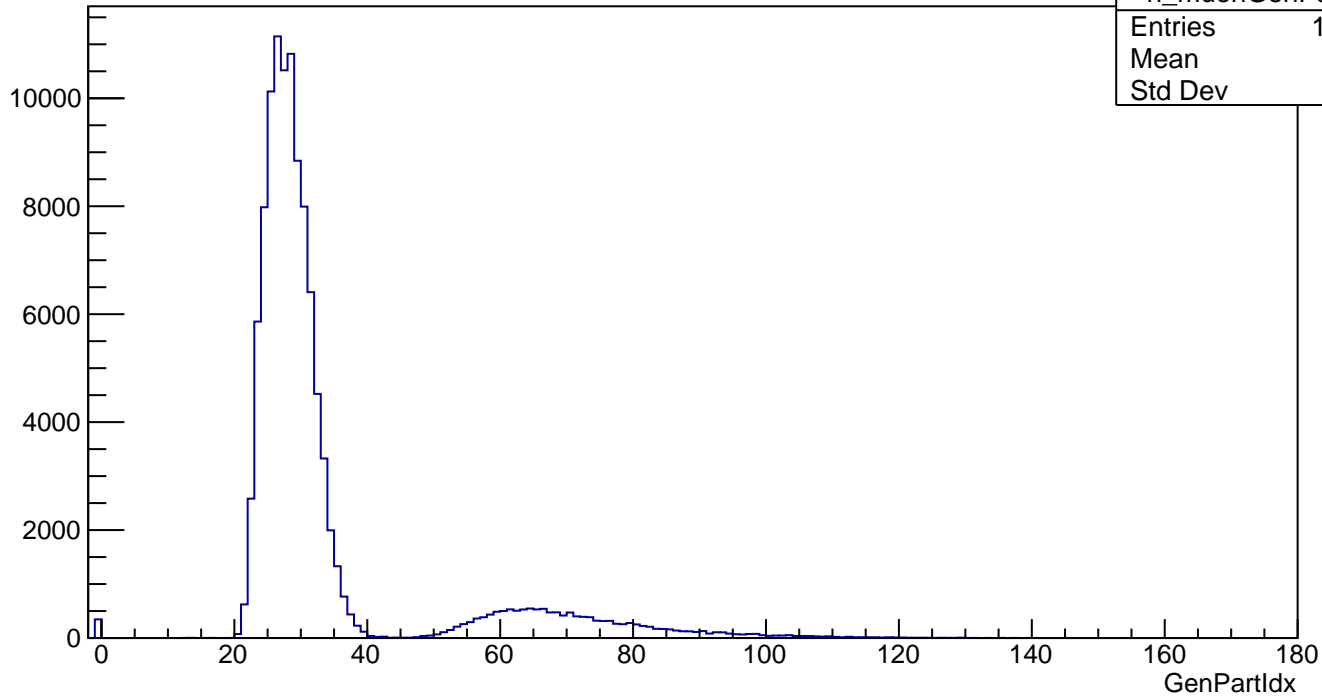


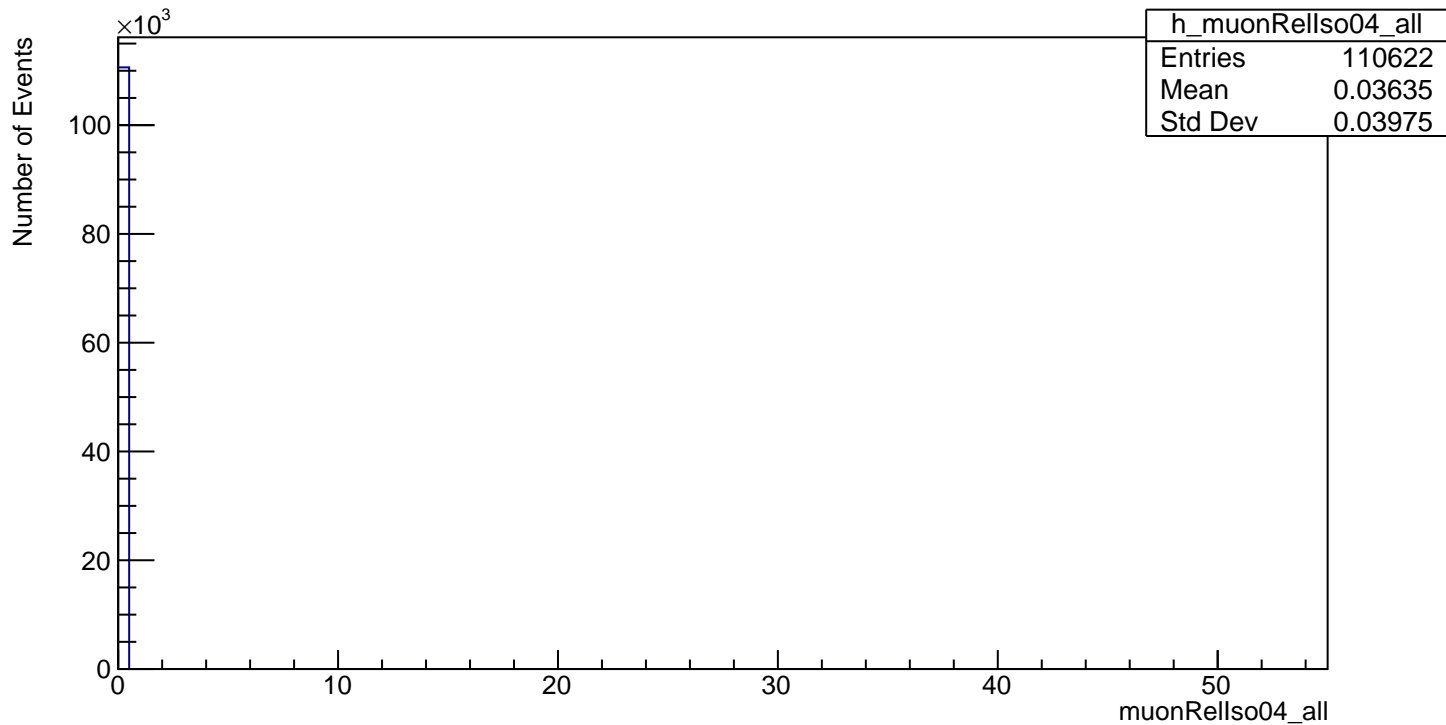




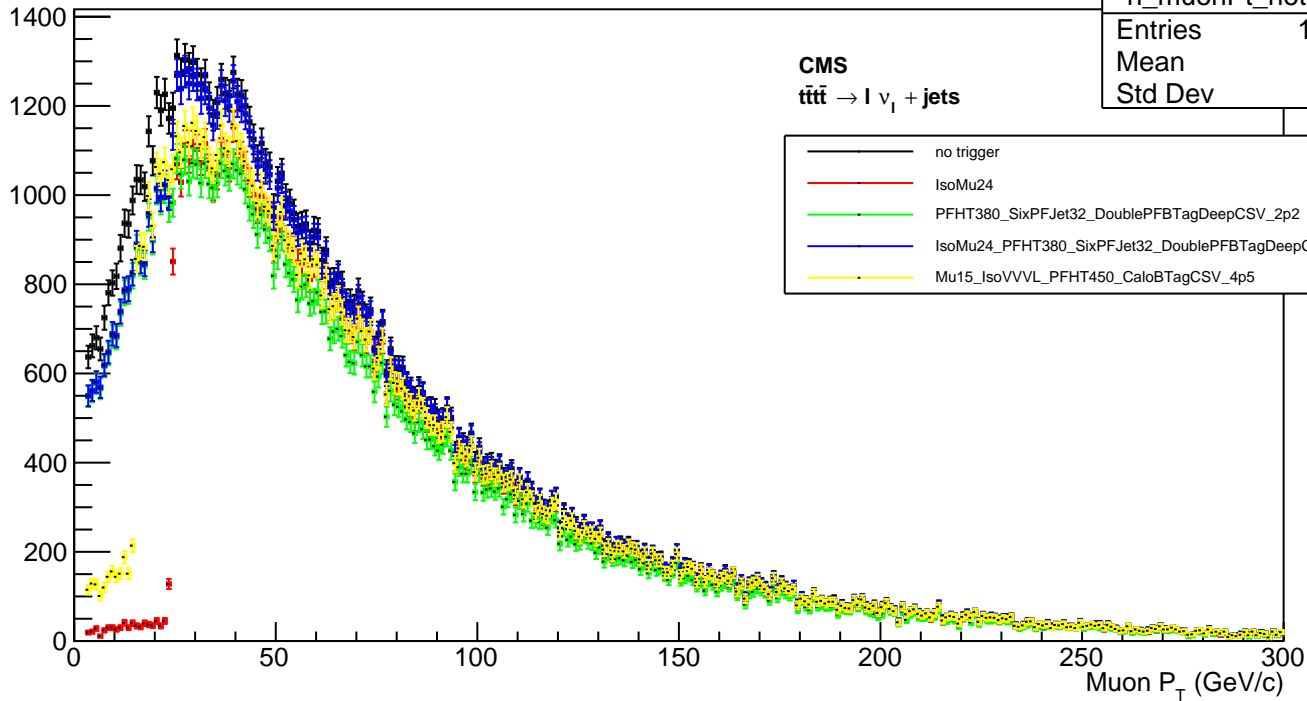


Number of events



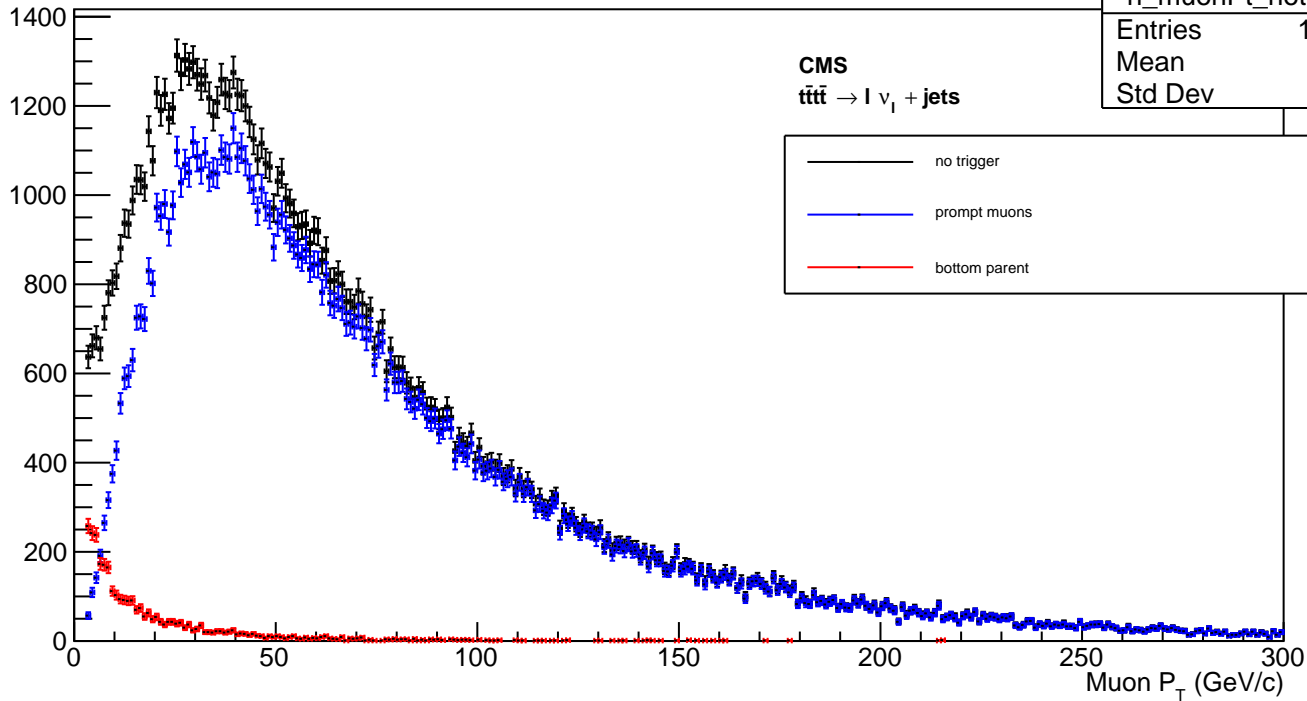


Number of Events per 1 GeV/c

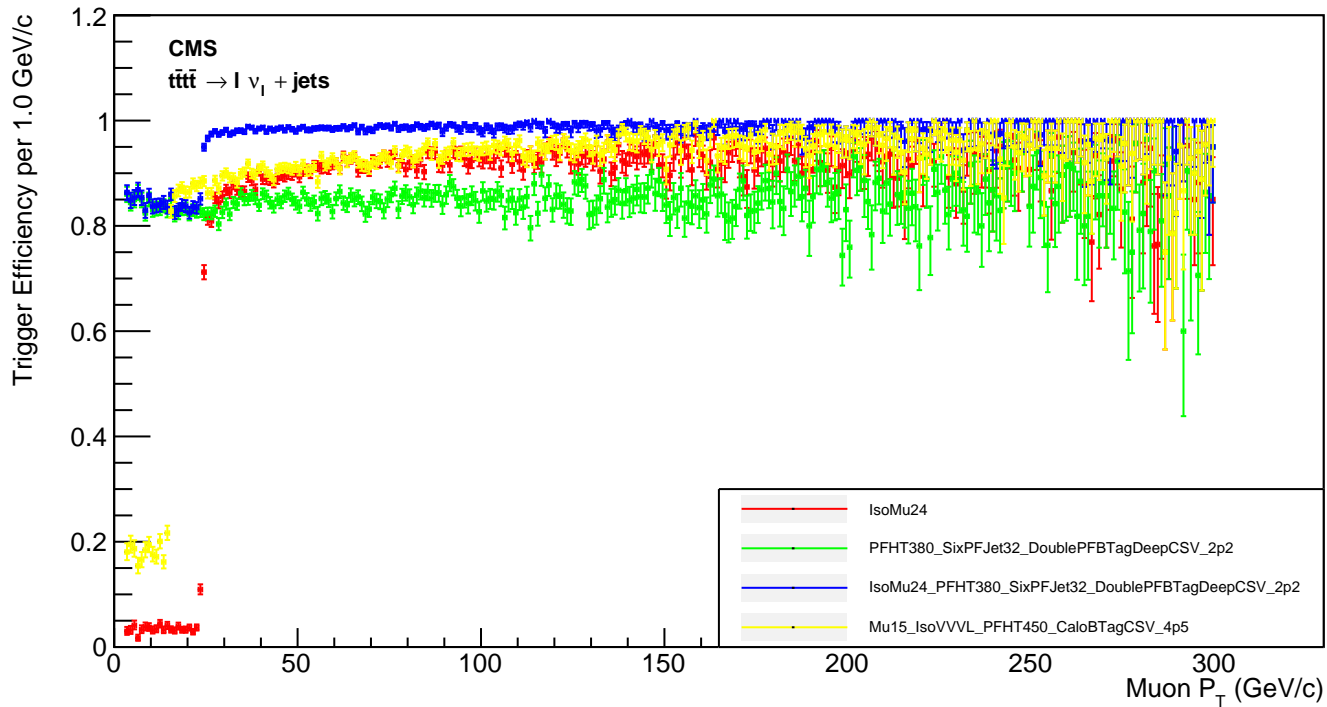


h_muonPt_notrigger	
Entries	110622
Mean	68.62
Std Dev	53.53

Number of Events per 1 GeV/c



h_muonPt_notrigger	
Entries	110622
Mean	68.62
Std Dev	53.53



Number of Events per 1 GeV/c

**CMS**

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

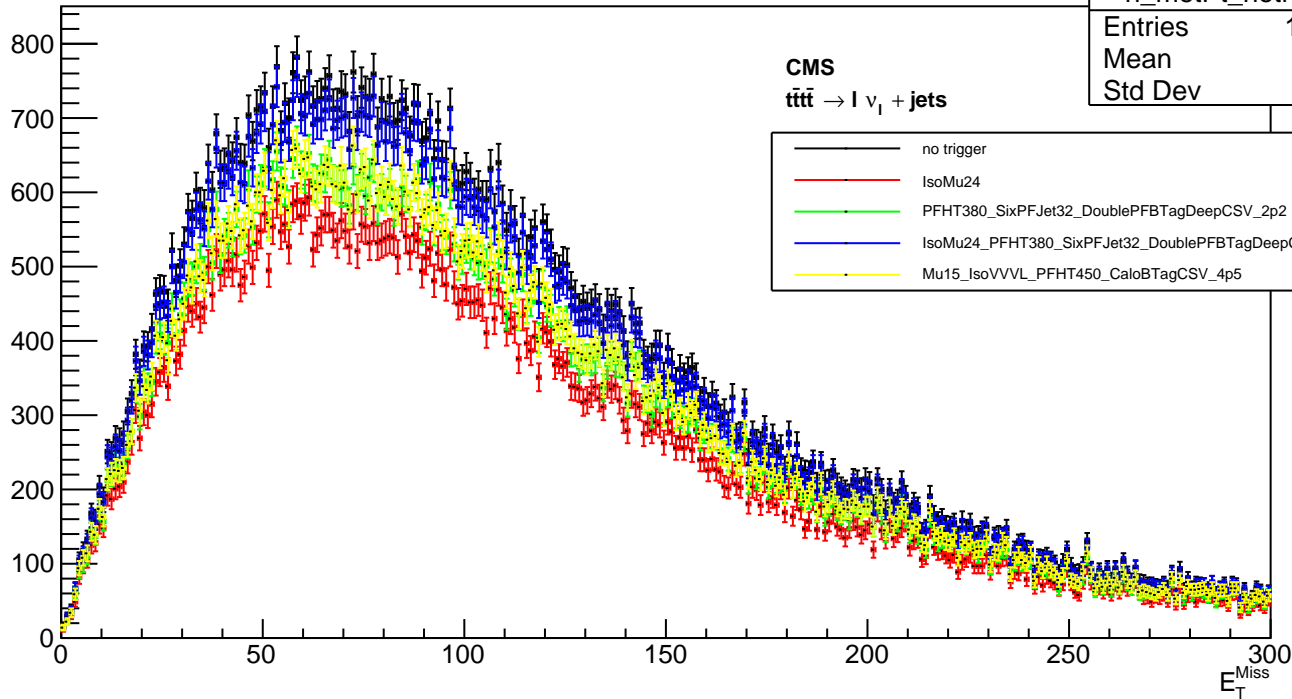
h\_metPt\_notrigger

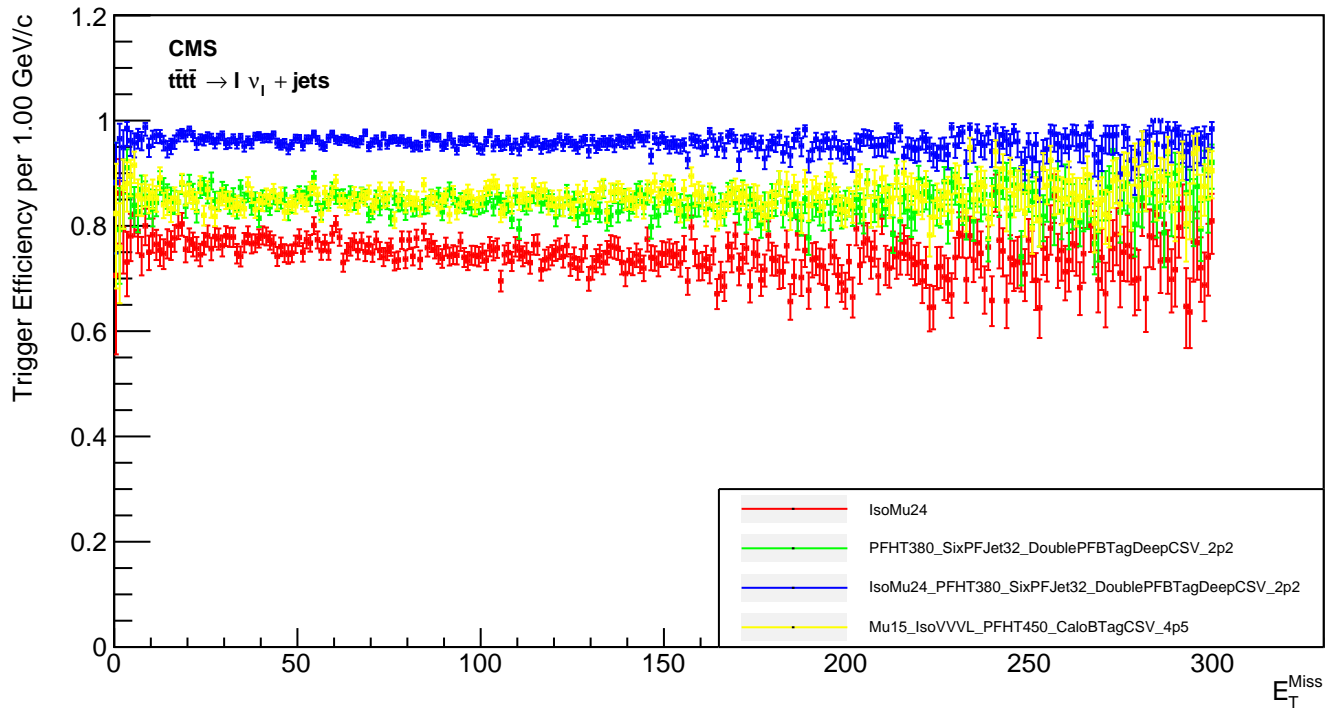
Entries 110622

Mean 107.3

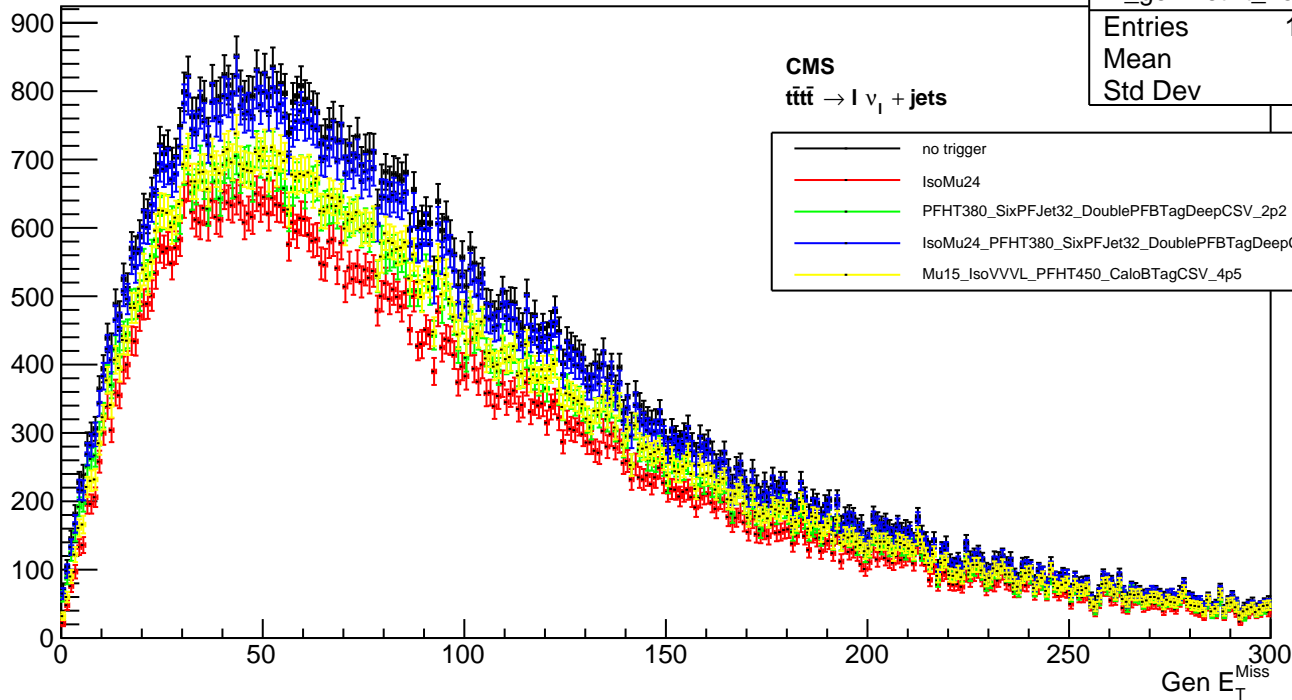
Std Dev 64.66

- no trigger
- IsoMu24
- PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2
- IsoMu24\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2
- Mu15\_IsoVVVL\_PFHT450\_CaloBTagCSV\_4p5

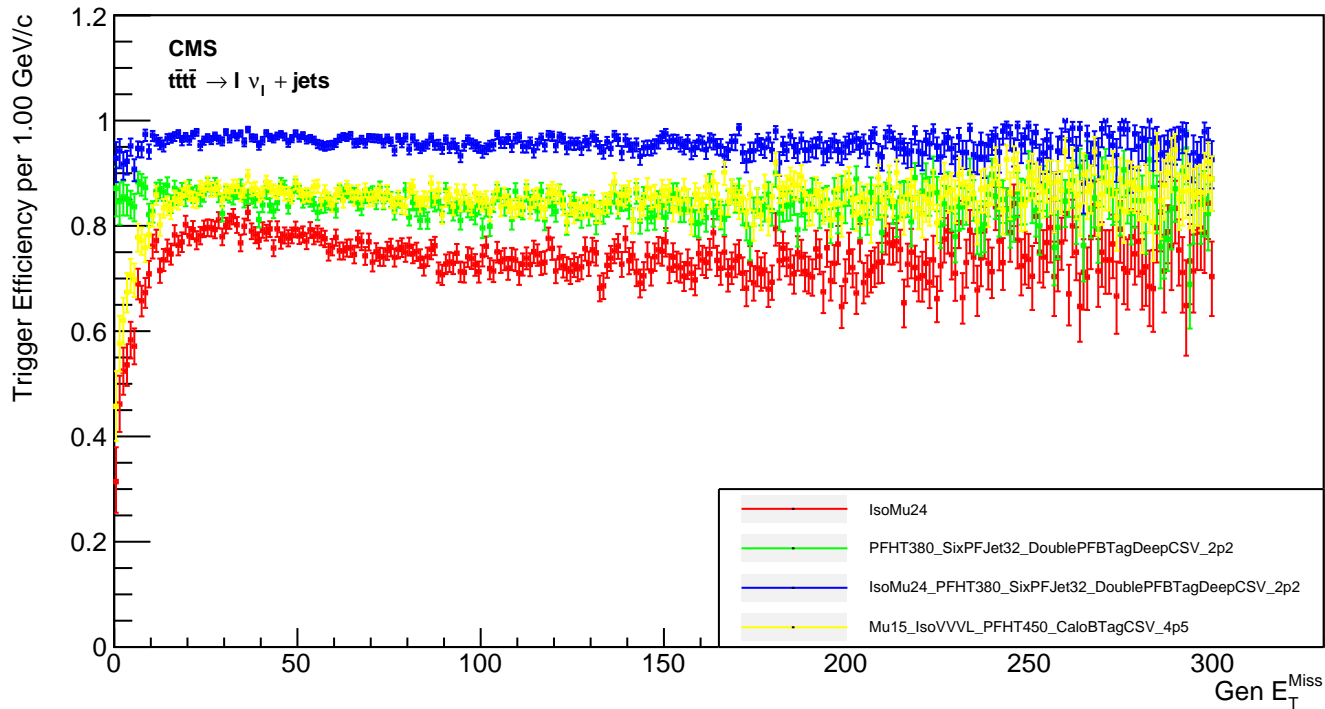




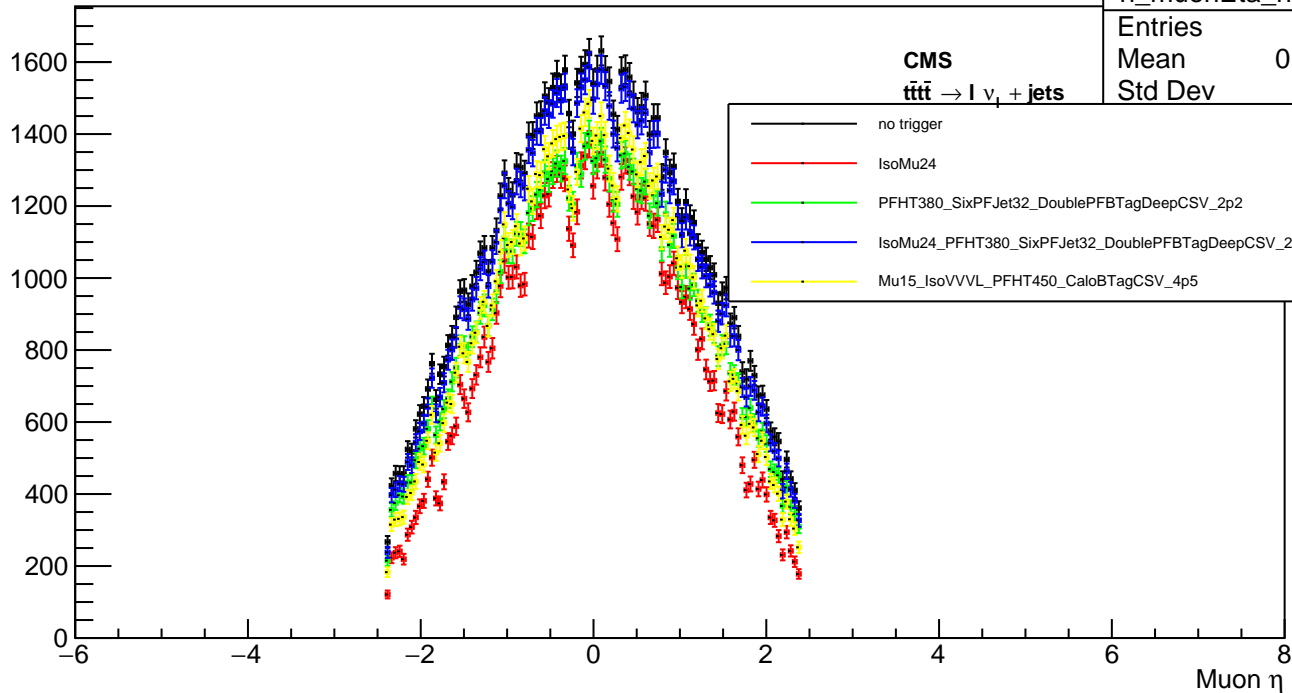
Number of Events per 1GeV/c







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



**CMS**

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

h\_muonEta\_notrigger

Entries 110622

Mean 0.003636

Std Dev 1.148

Trigger Efficiency per 0.0466666666667 GeV/c

