

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

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

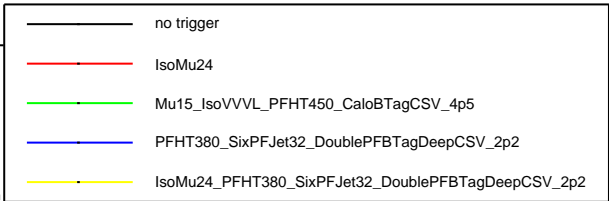
**Event Limit:** None (see last page)

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

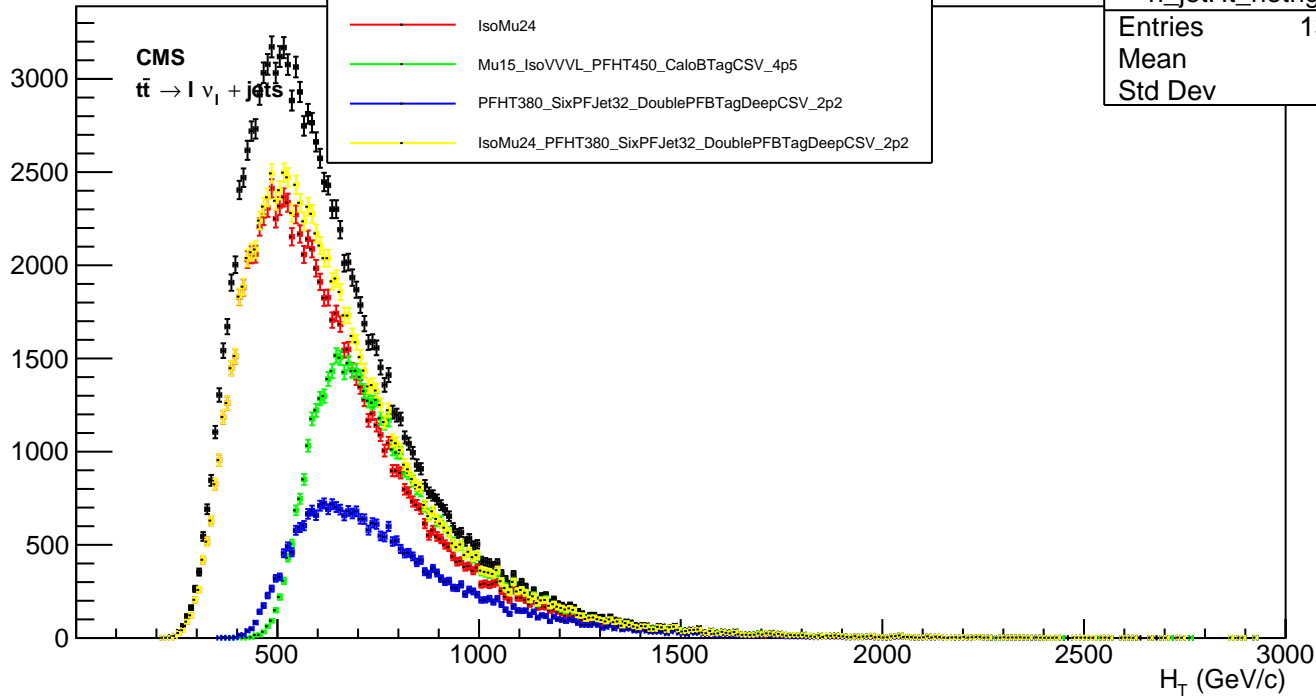
- **Jets:**  $\text{jetId} > 2$  ,  $p_T > 30$  and  $|\eta| < 2.4$  (for at least 6)  
 $\text{btagDeepFlavB} > 0.7489$  (for at least one jet)
- **Muons:** has tightId,  $|\eta| < 2.4$  and  $\text{miniPFRellso\_all} < 0.15$  (for at least 1)

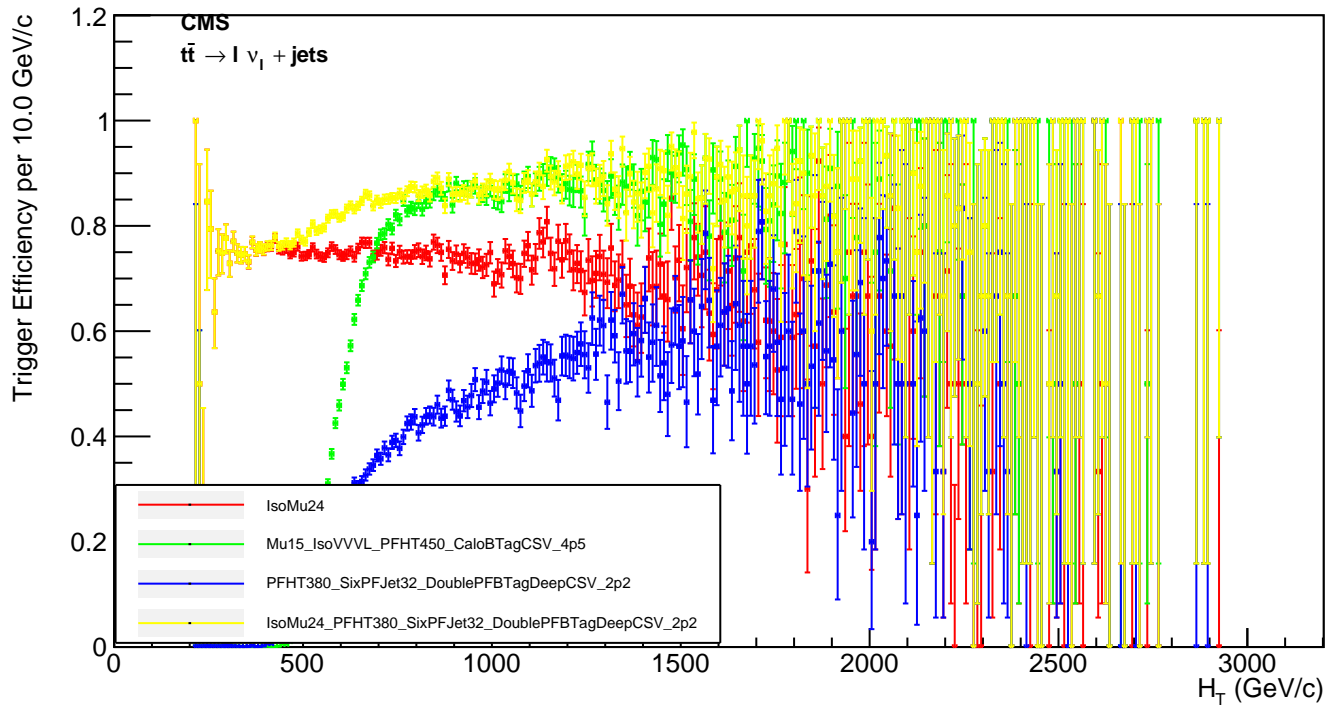
Number of Events per 10 GeV/c

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



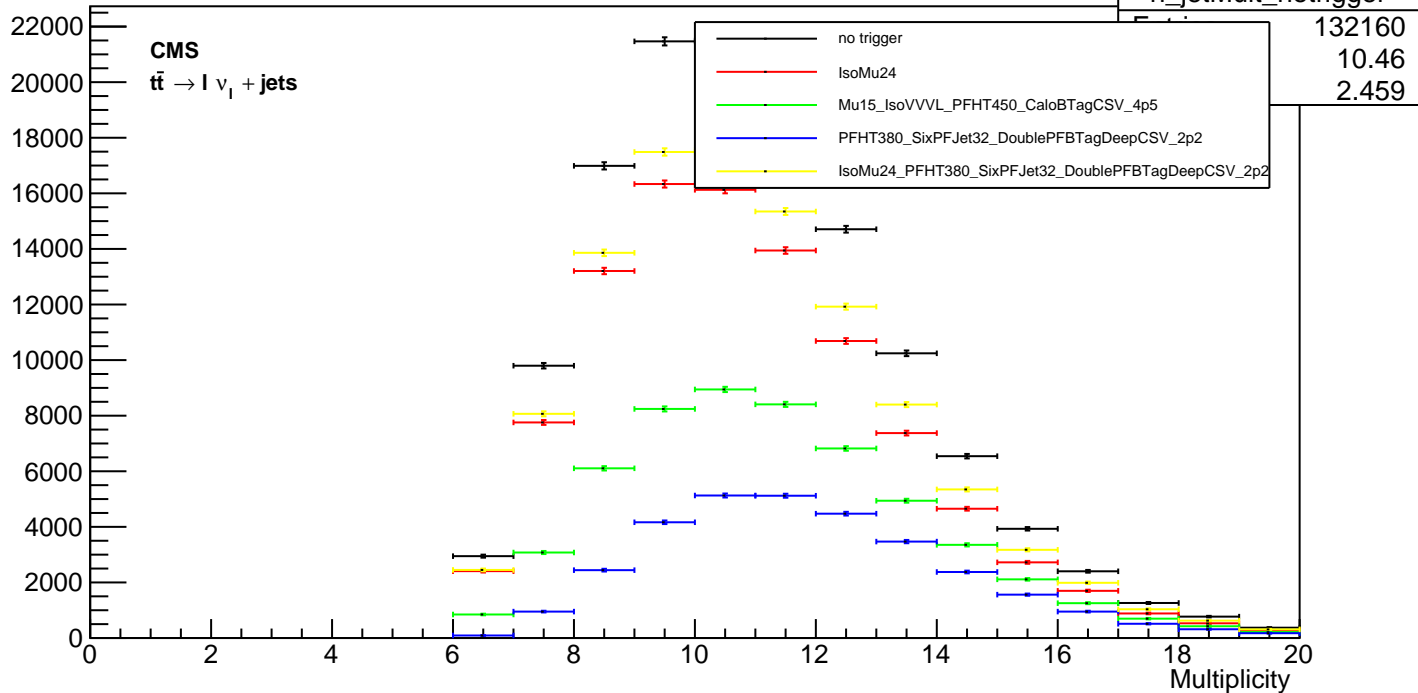
h_jetHt_notrigger	
Entries	132160
Mean	640.9
Std Dev	242.4



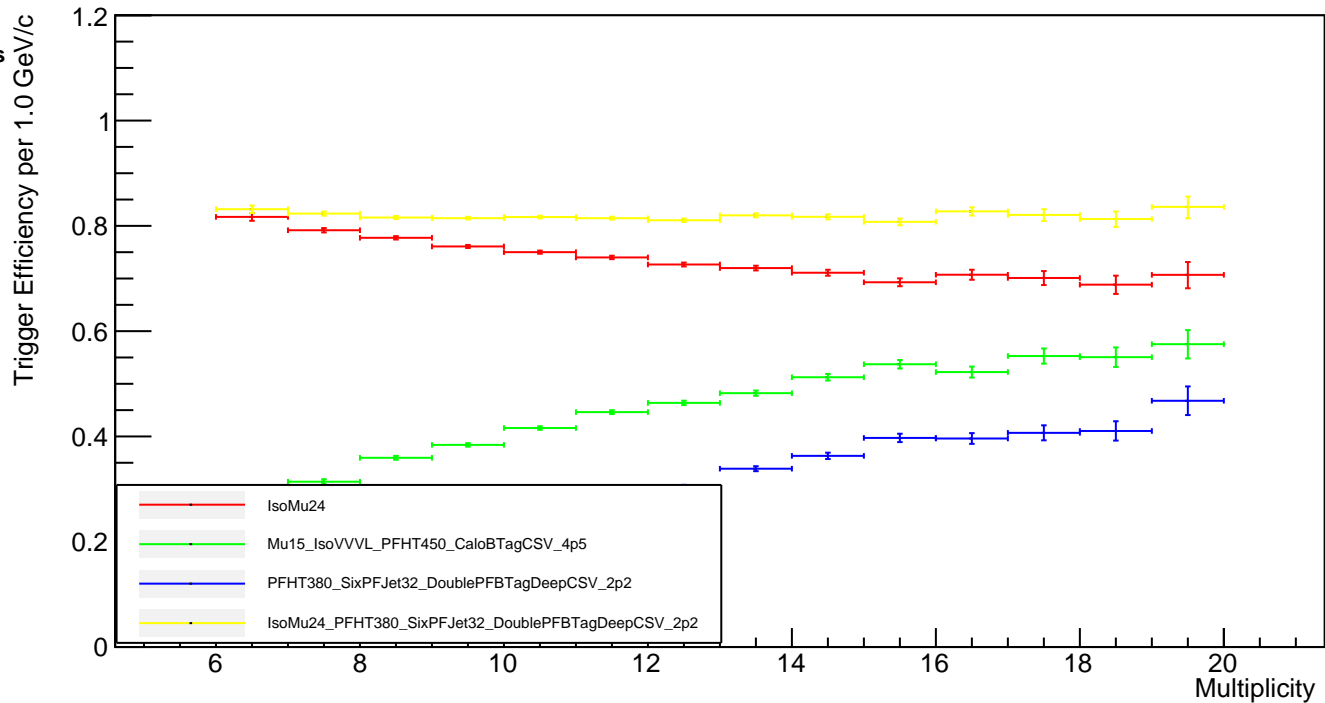


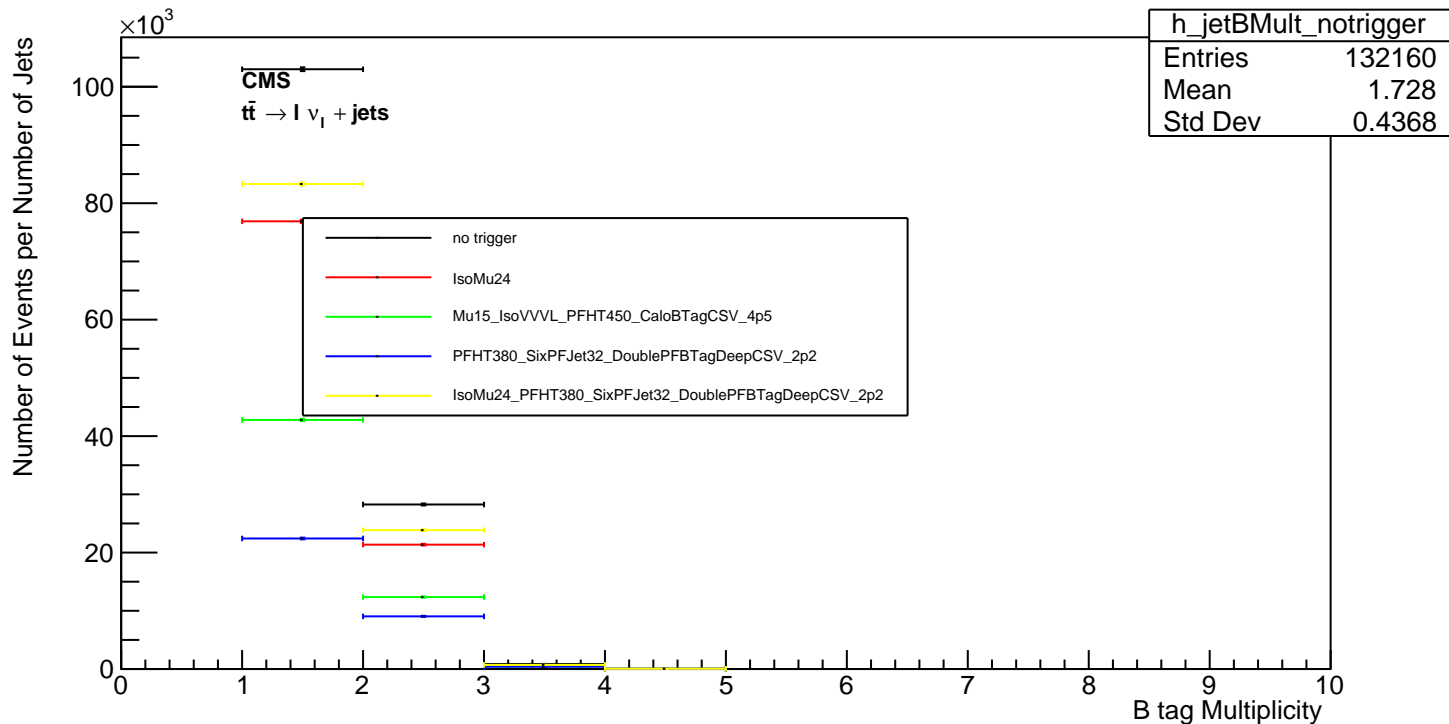
Number of Events per Number of Jets

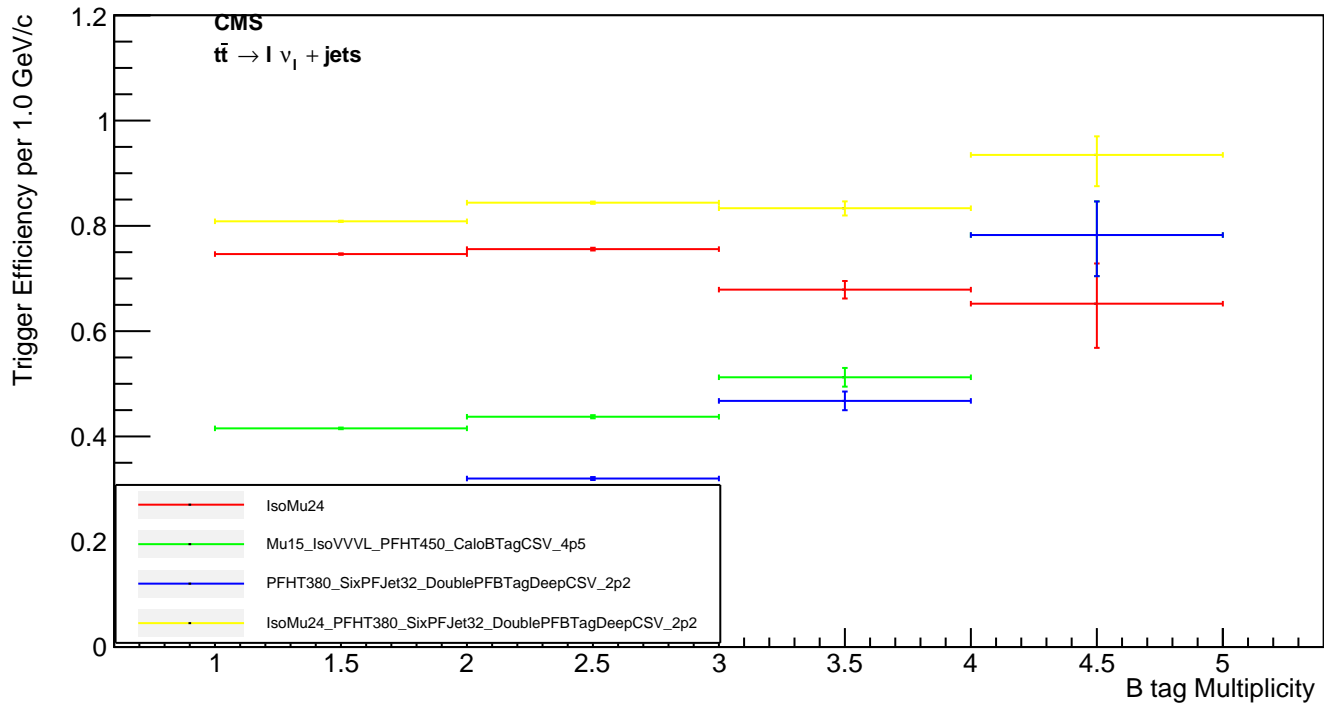
**CMS**  
 **$t\bar{t} \rightarrow l \nu_l + \text{jets}$**



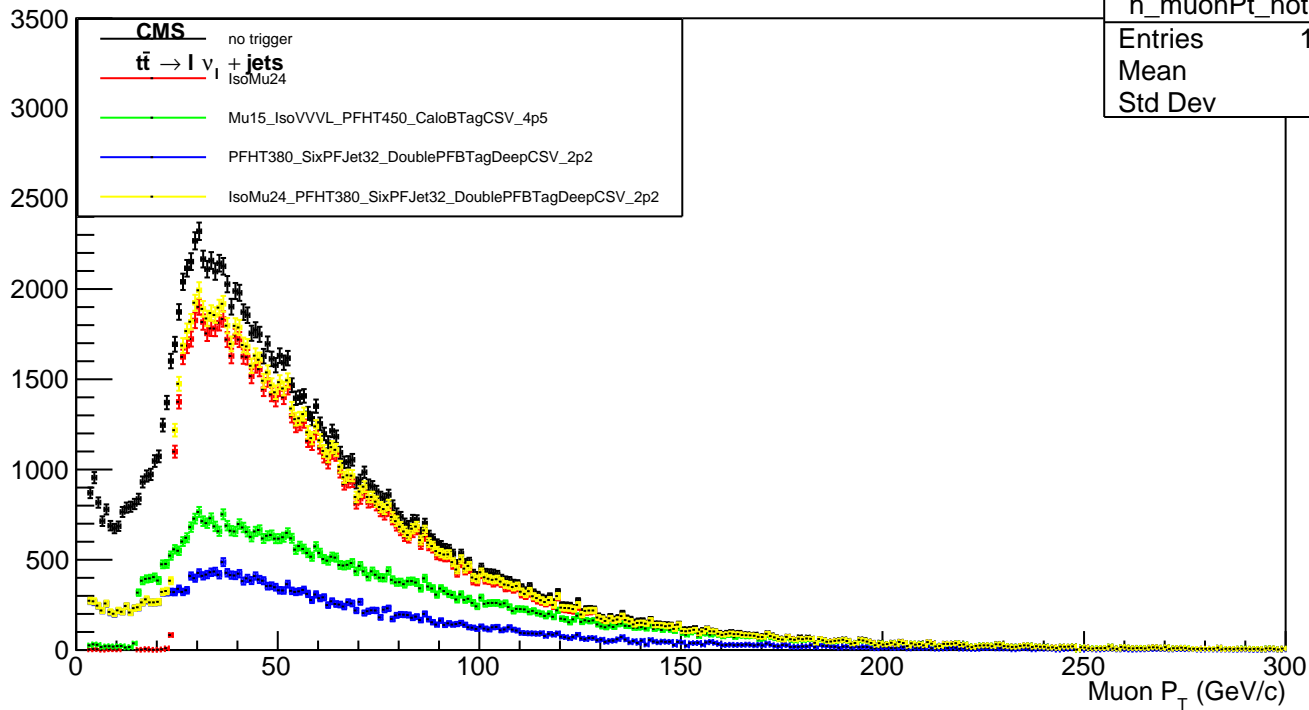
jets



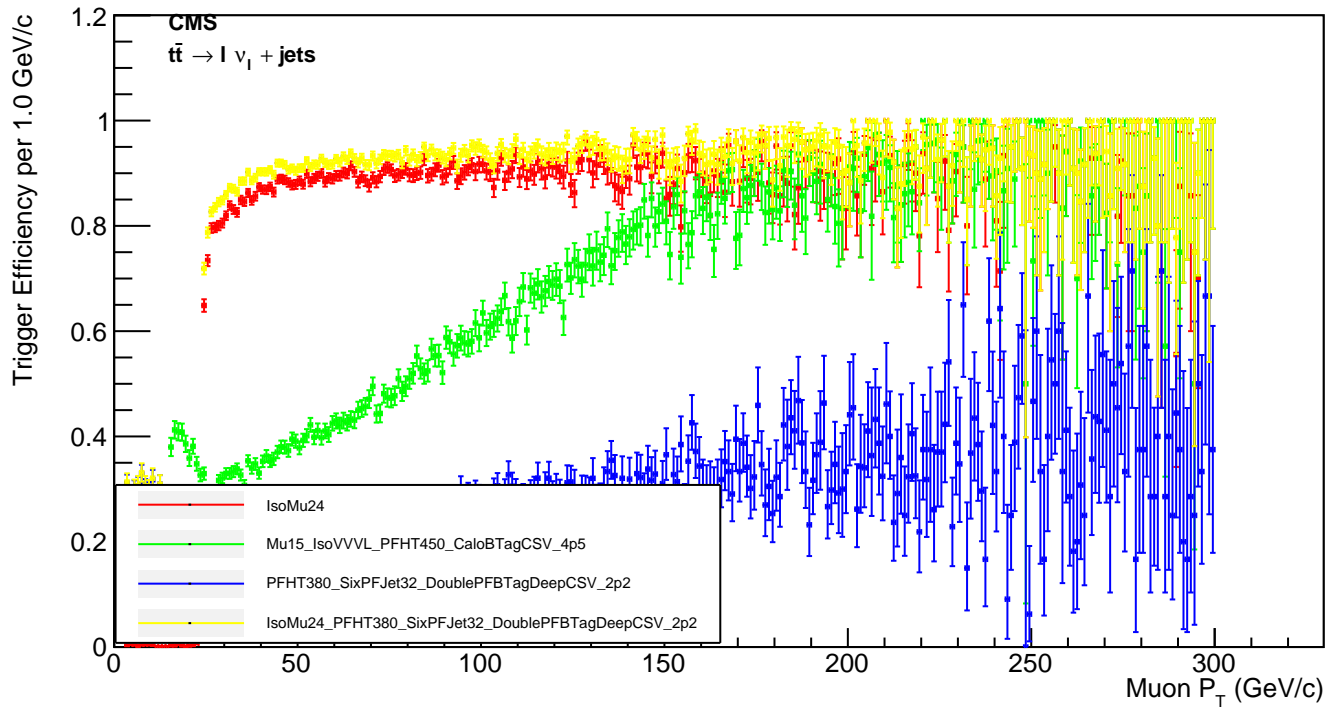




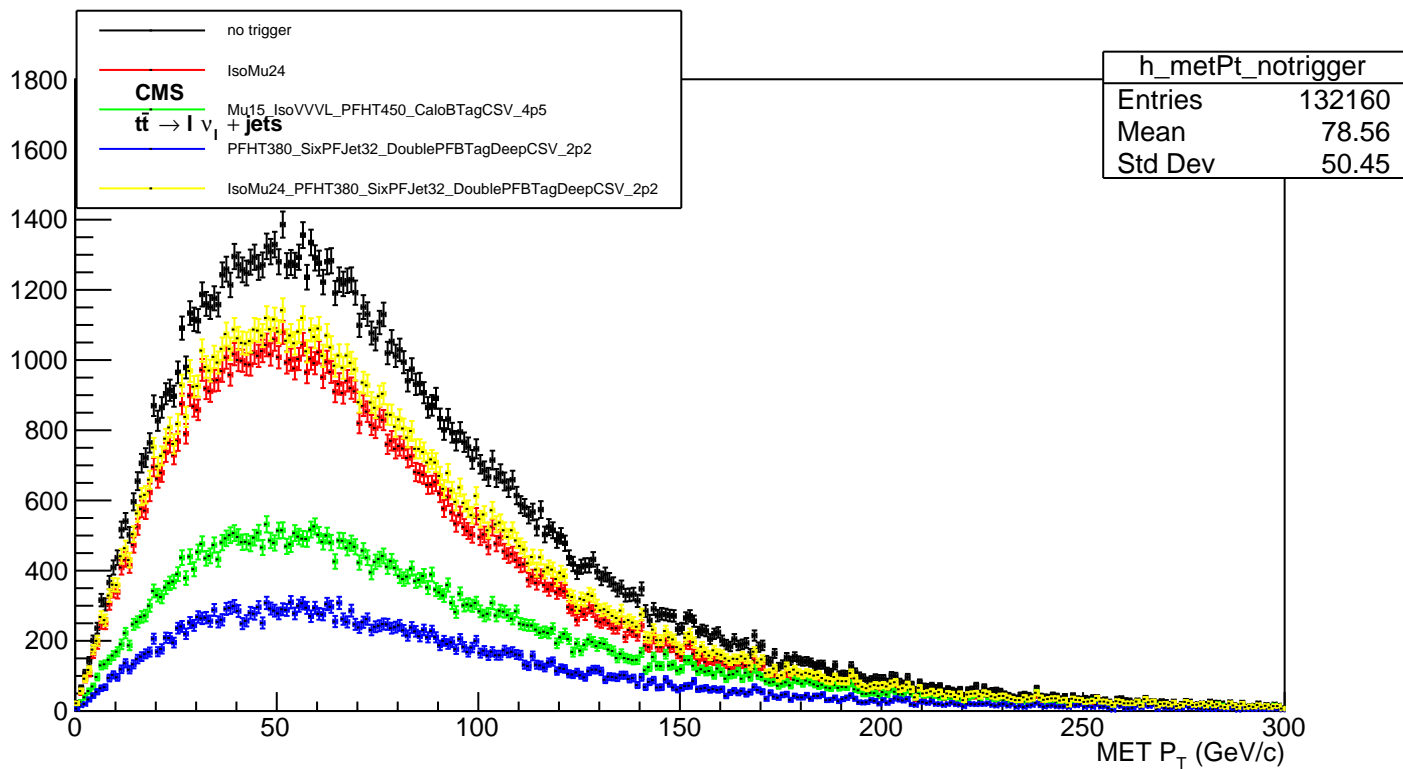
Number of Events per 1 GeV/c

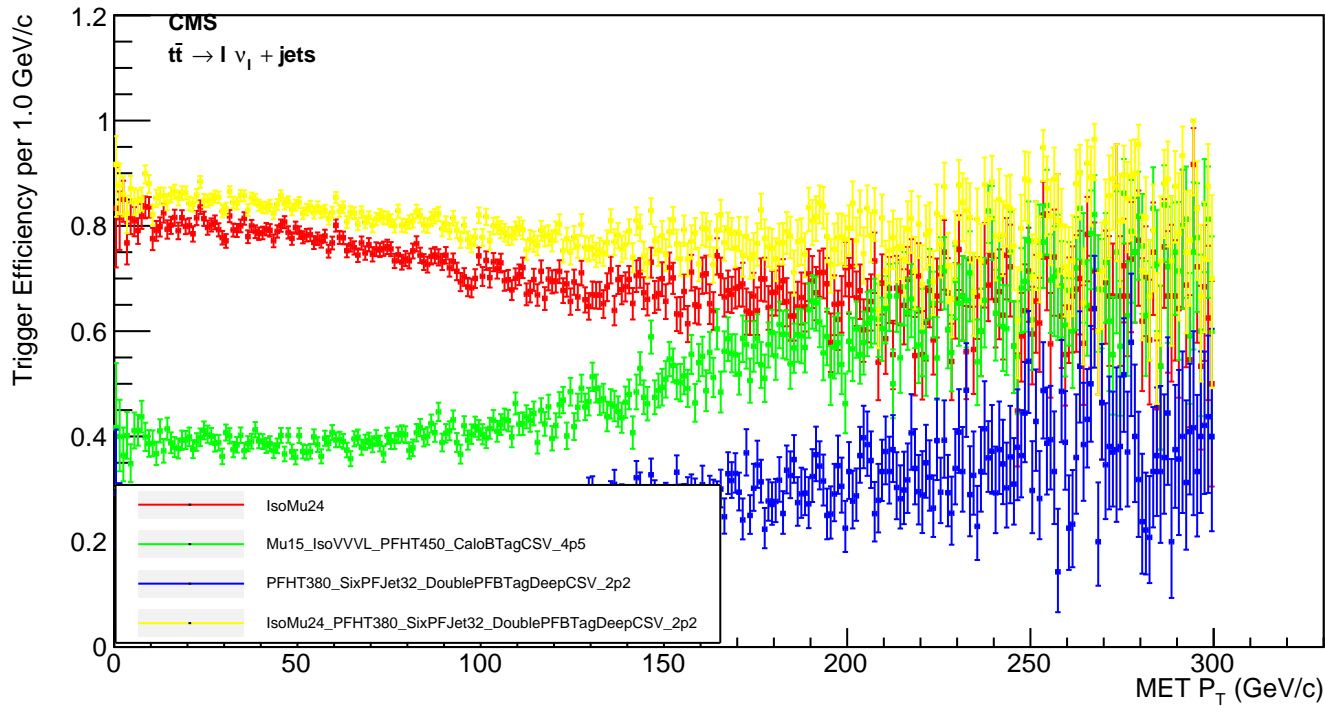






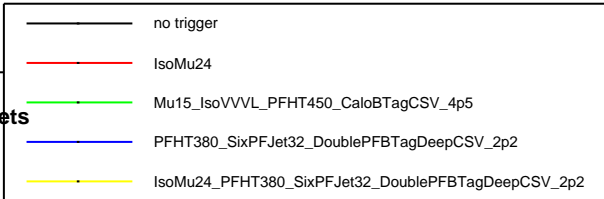
Number of Events per 1 GeV/c



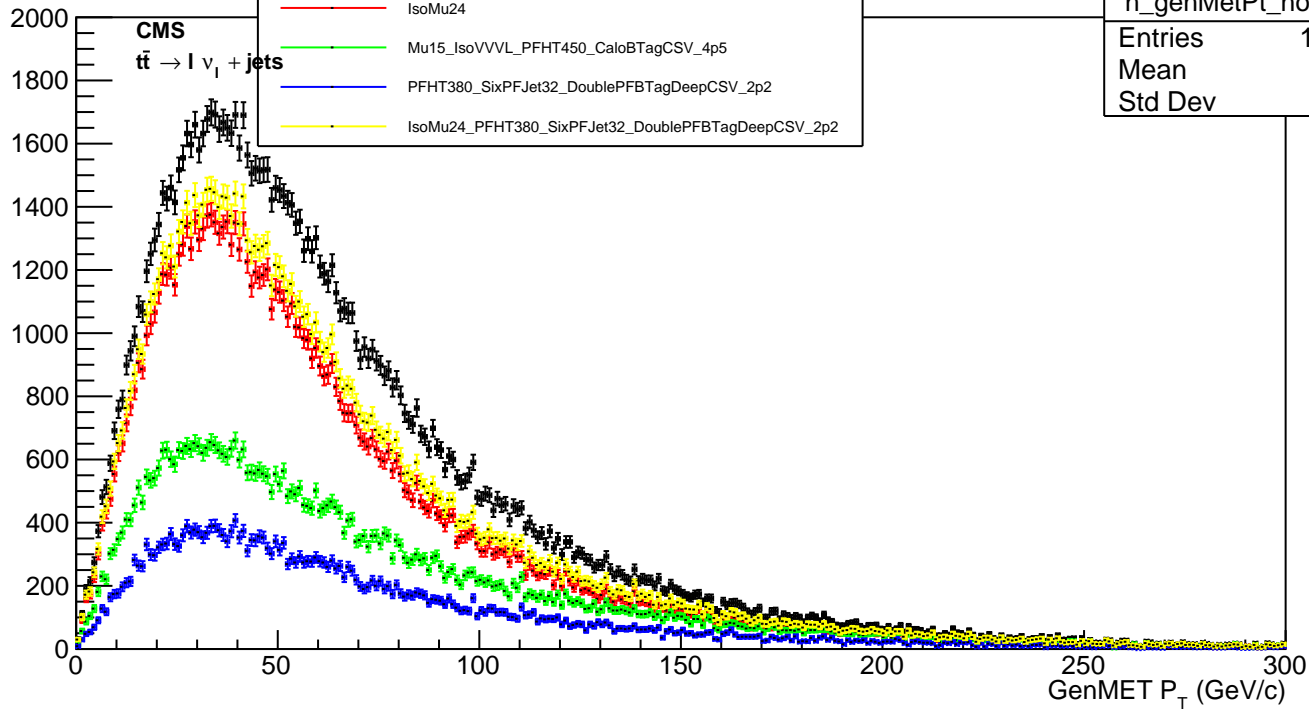


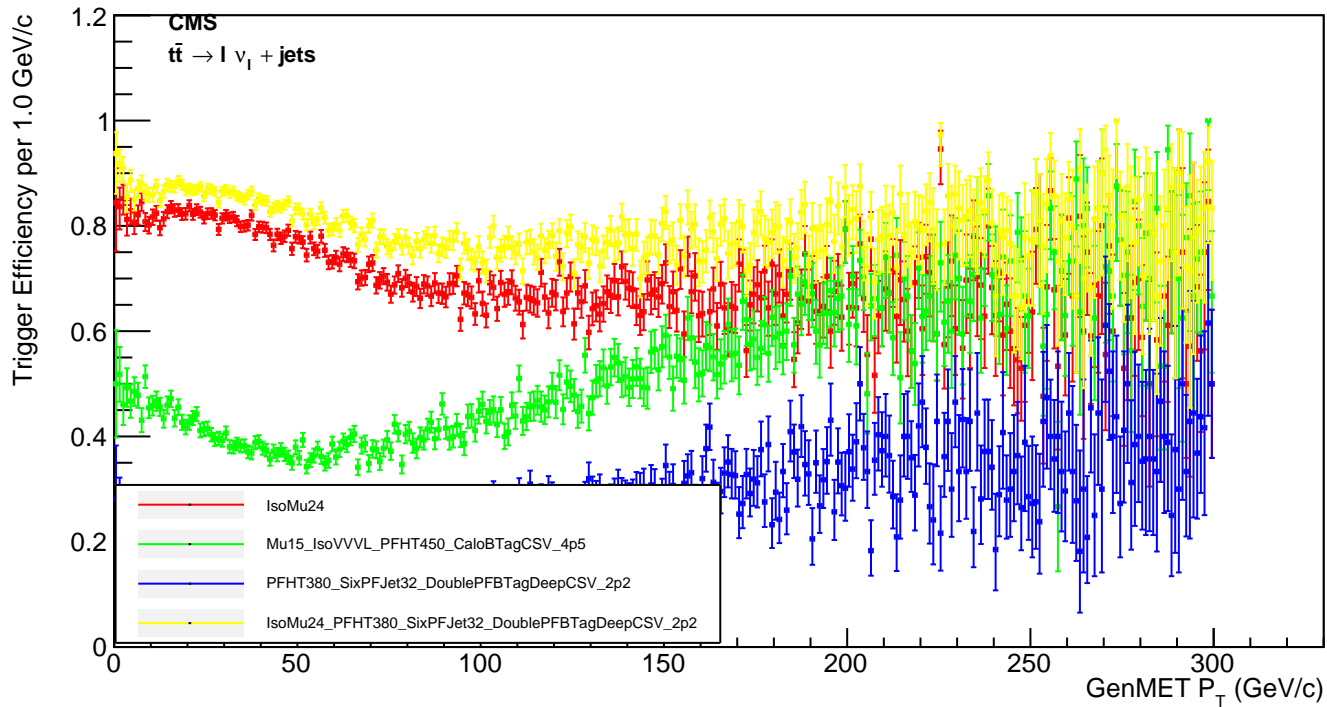
Number of Events per 1GeV/c

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

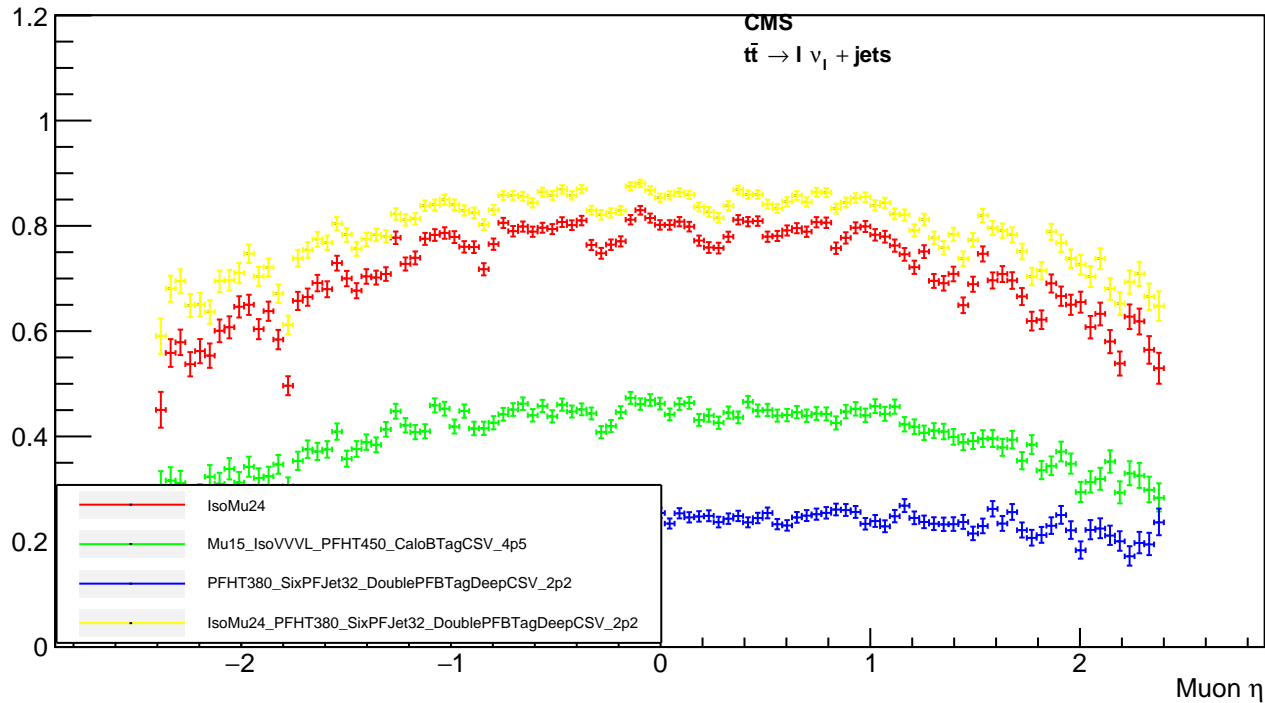


h_genMetPt_notrigger	
Entries	132160
Mean	66
Std Dev	47.76



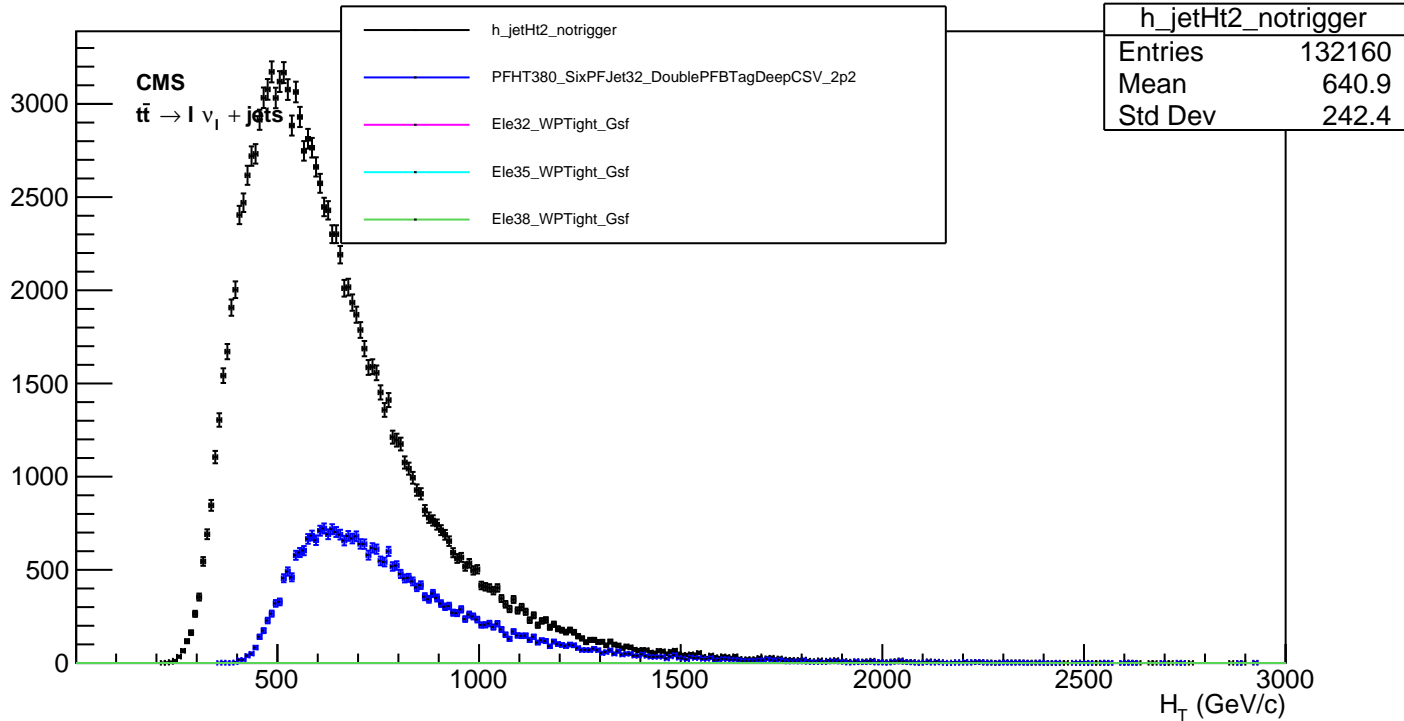


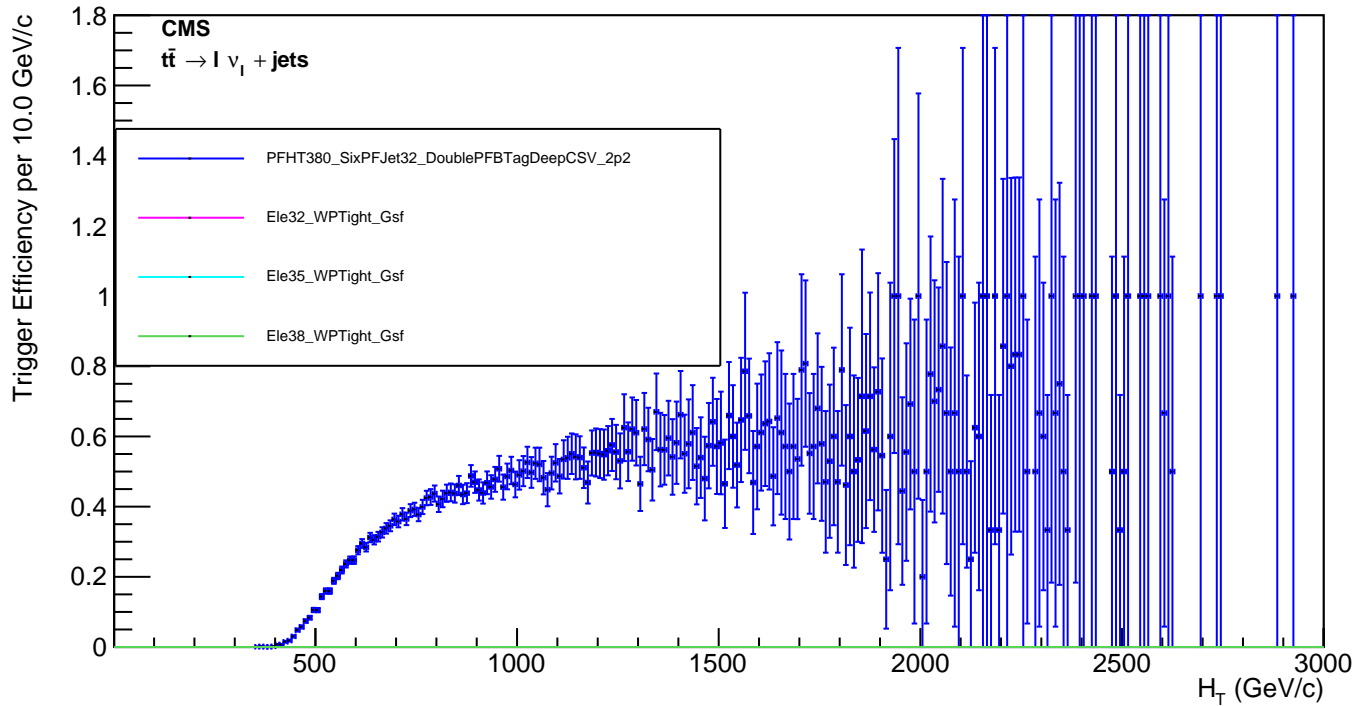
Trigger Efficiency per 0.0466666666666667 GeV/c



Number of Events per 10 GeV/c

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

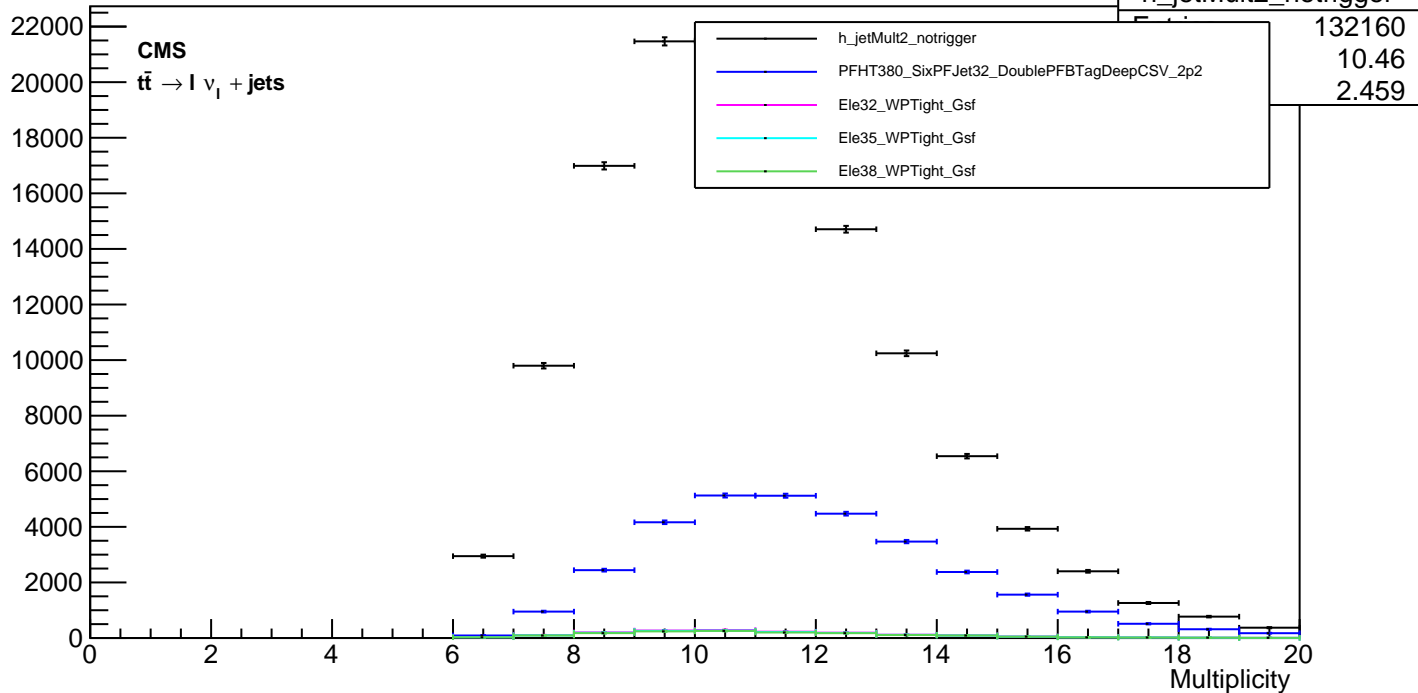


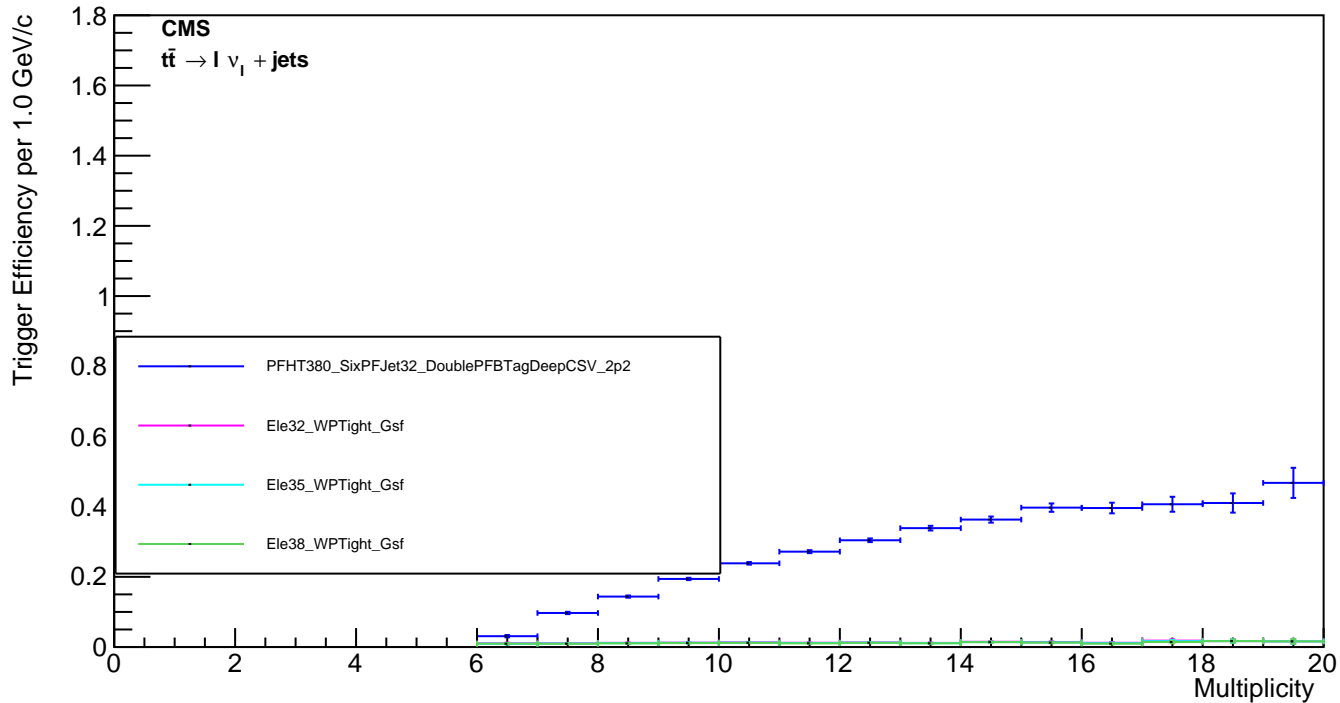


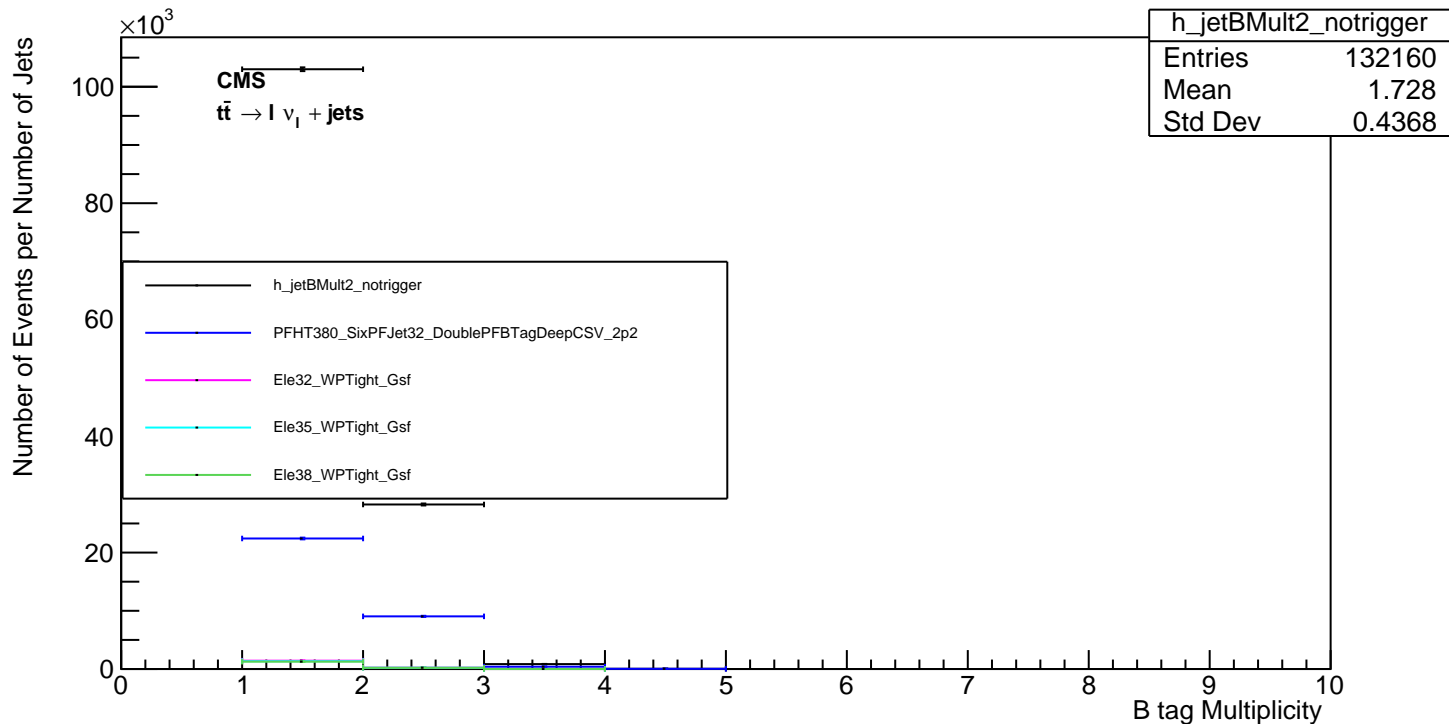


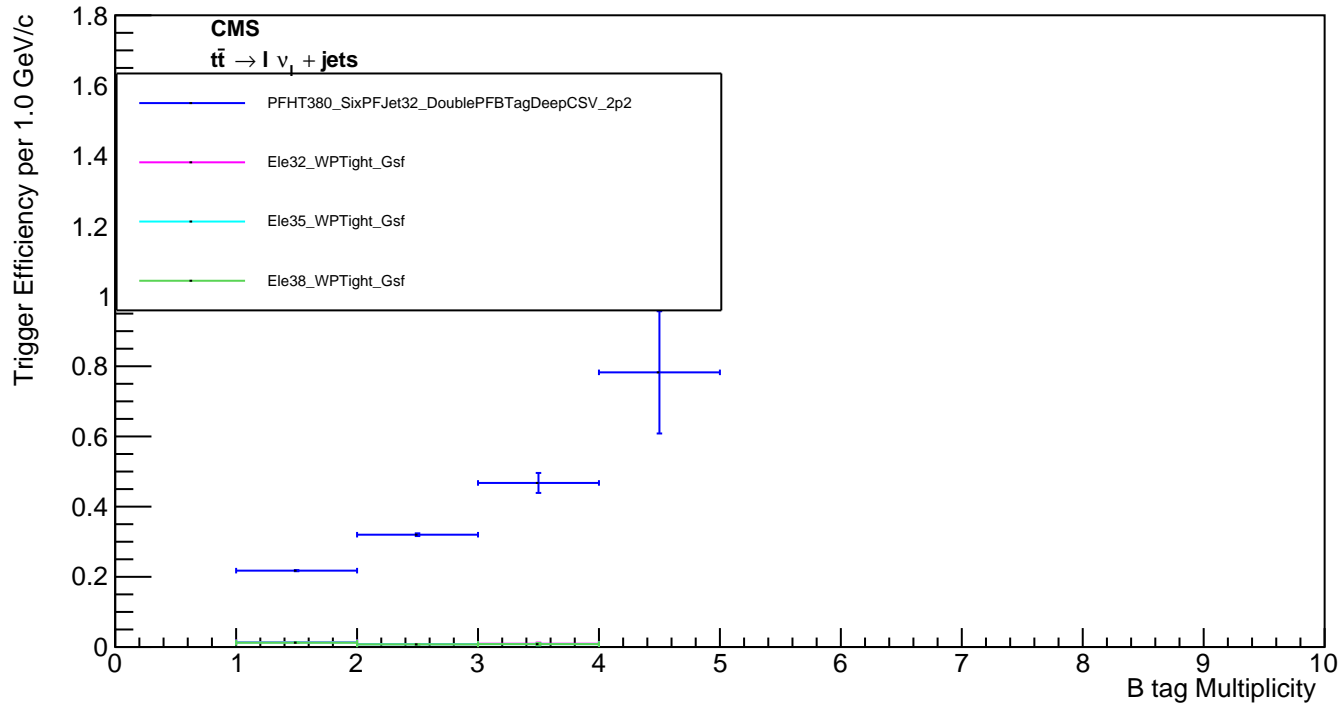
Number of Events per Number of Jets

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

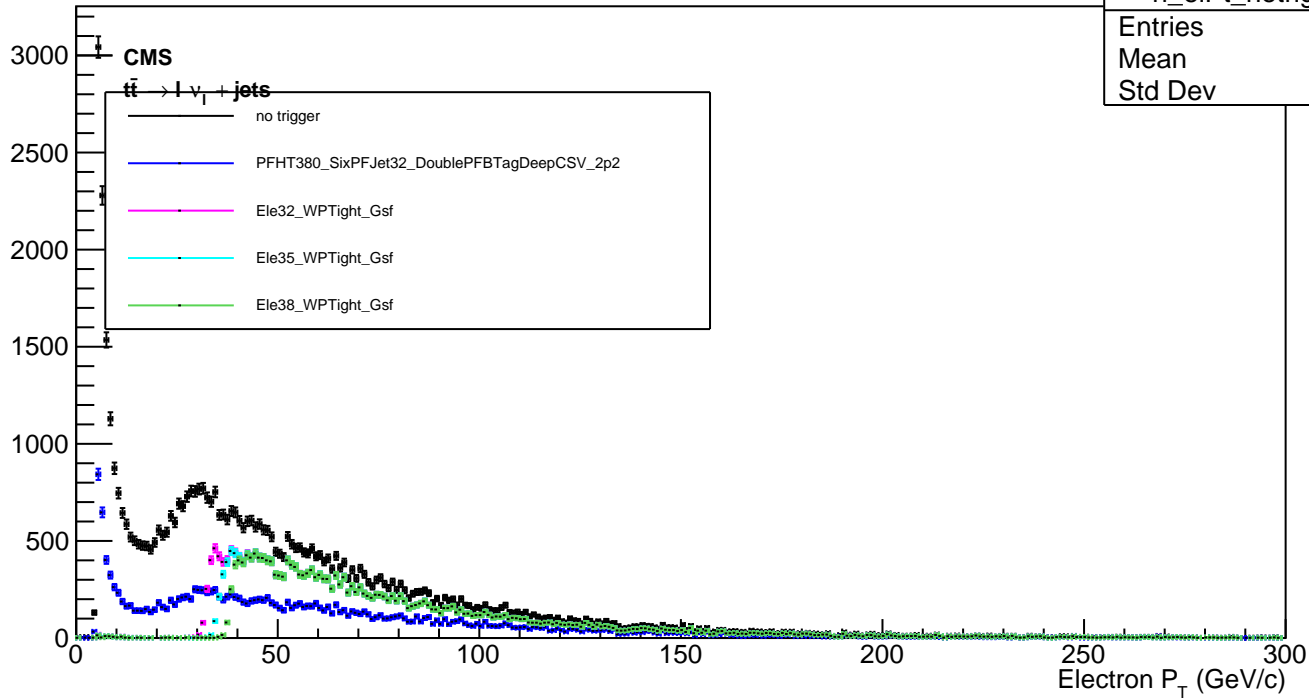






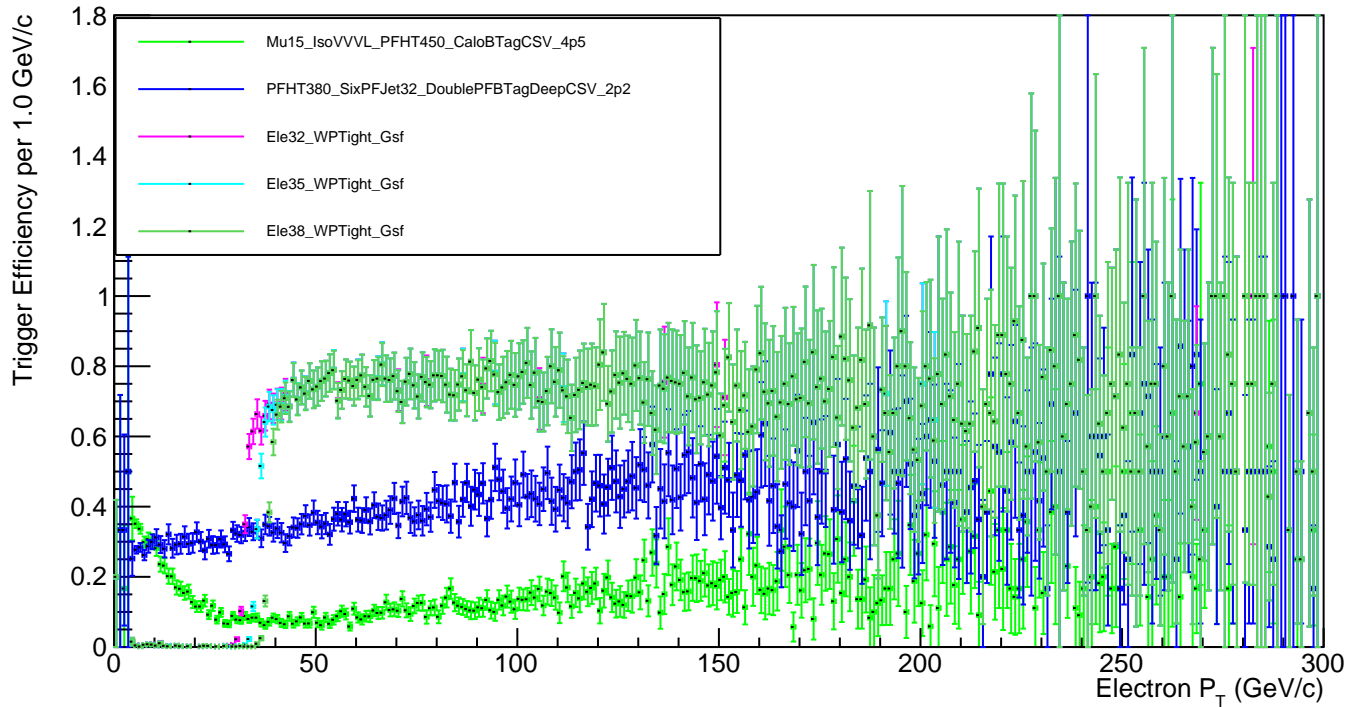


Number of Events per 1 GeV/c



h\_elPt\_notrigger

Entries	55794
Mean	51.54
Std Dev	44.57



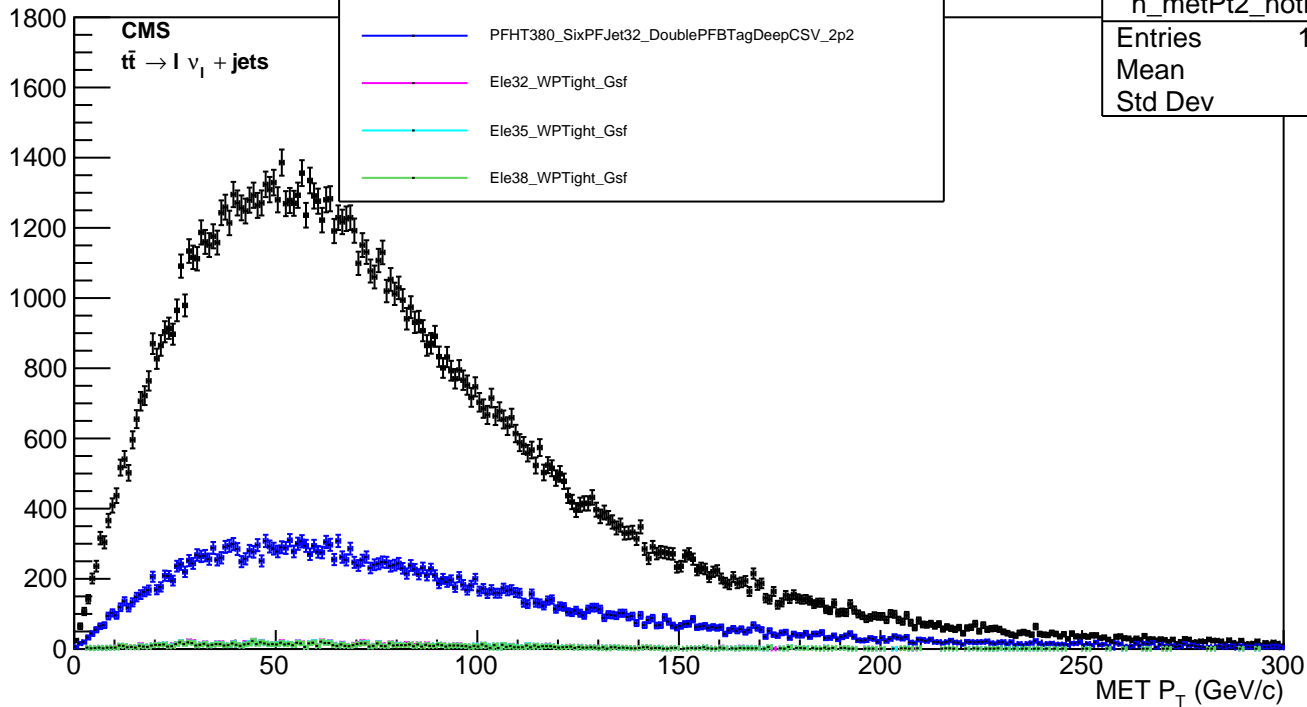
Number of Events per 1 GeV/c

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

h\_metPt2\_nottrigger  
PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2  
Ele32\_WPTight\_Gsf  
Ele35\_WPTight\_Gsf  
Ele38\_WPTight\_Gsf

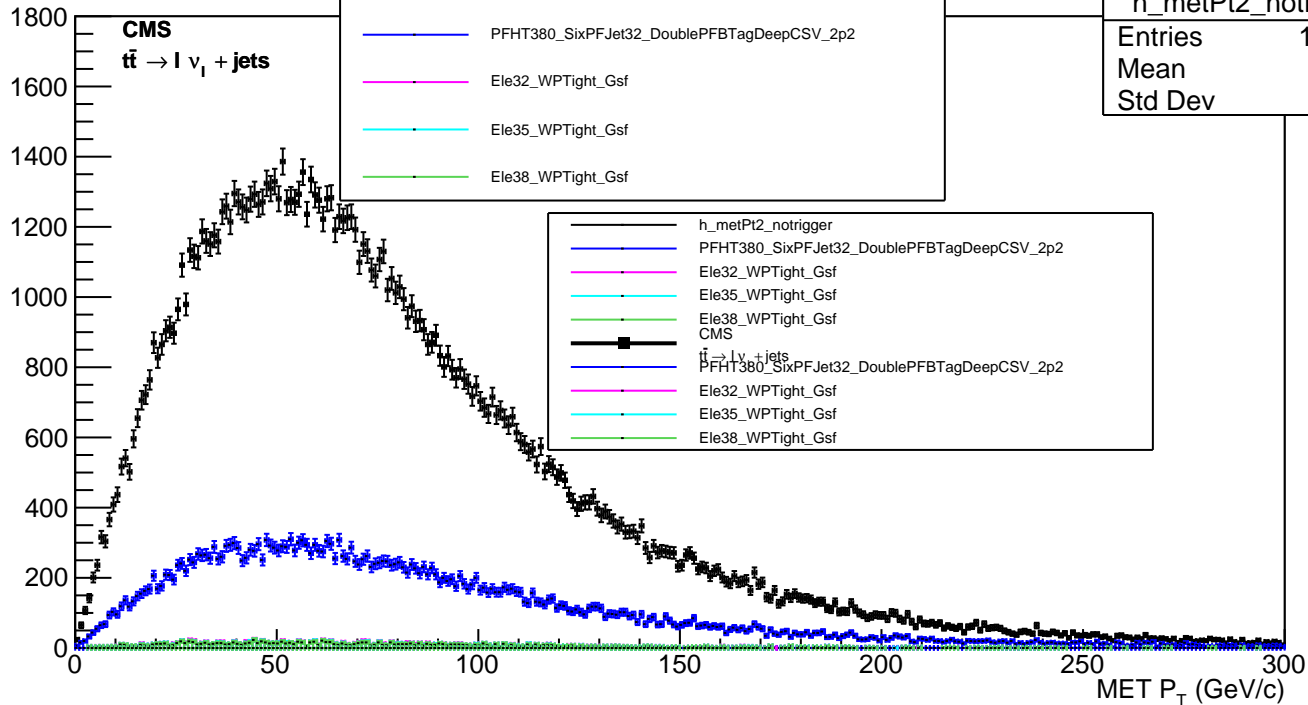
h\_metPt2\_nottrigger

Entries	132160
Mean	78.56
Std Dev	50.45



Number of Events per 1 GeV/c

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



h\_metPt2\_notrigger

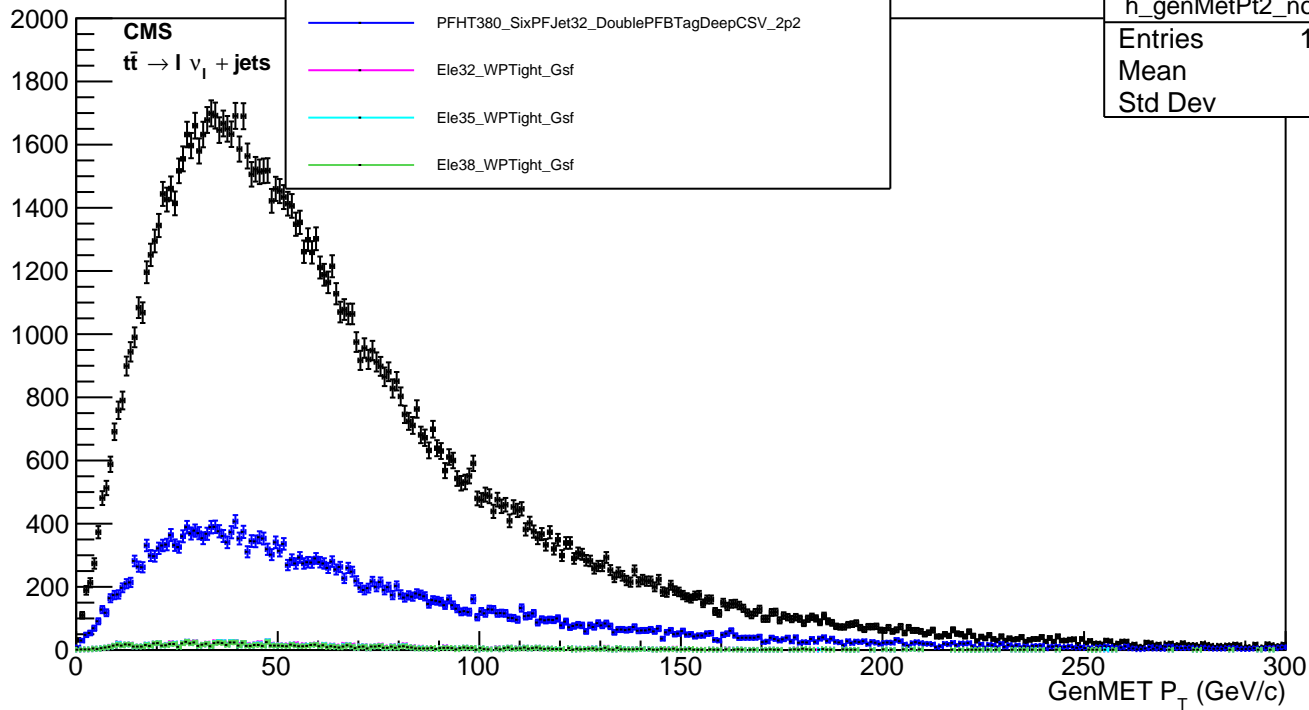
Entries 132160

Mean 78.56

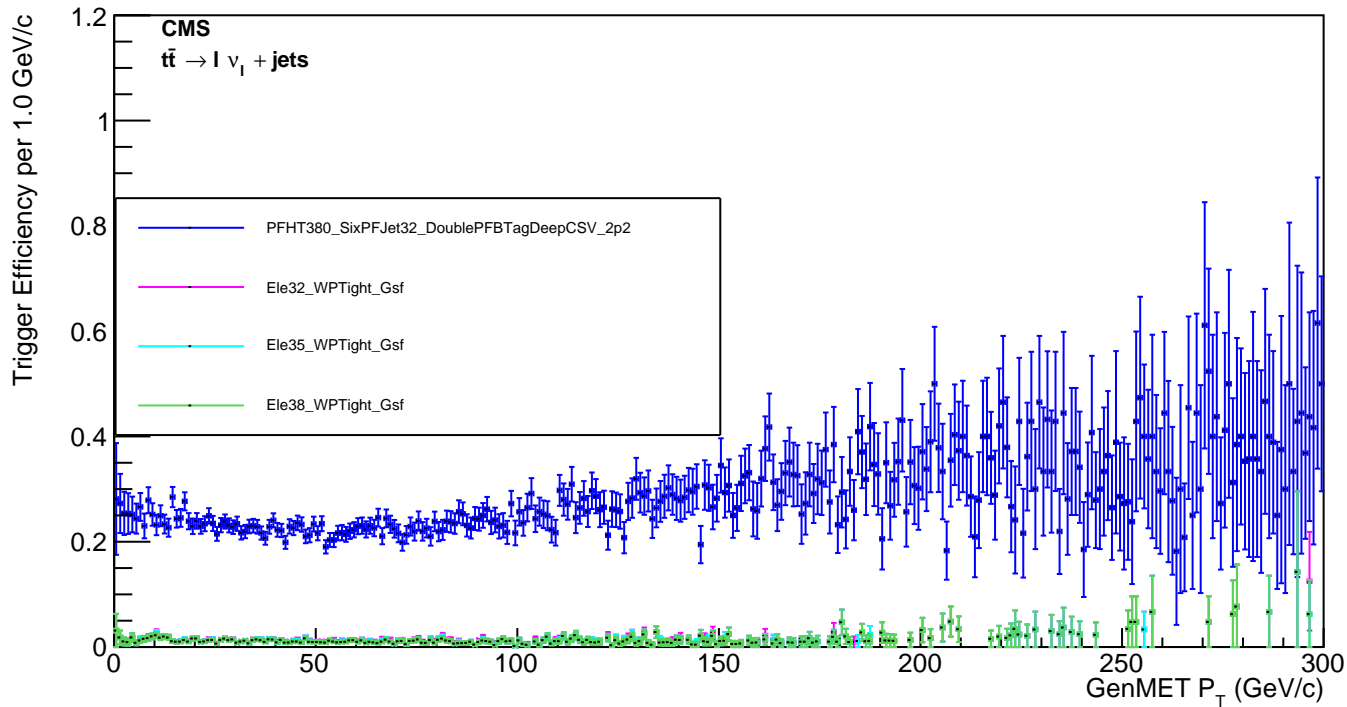
Std Dev 50.45



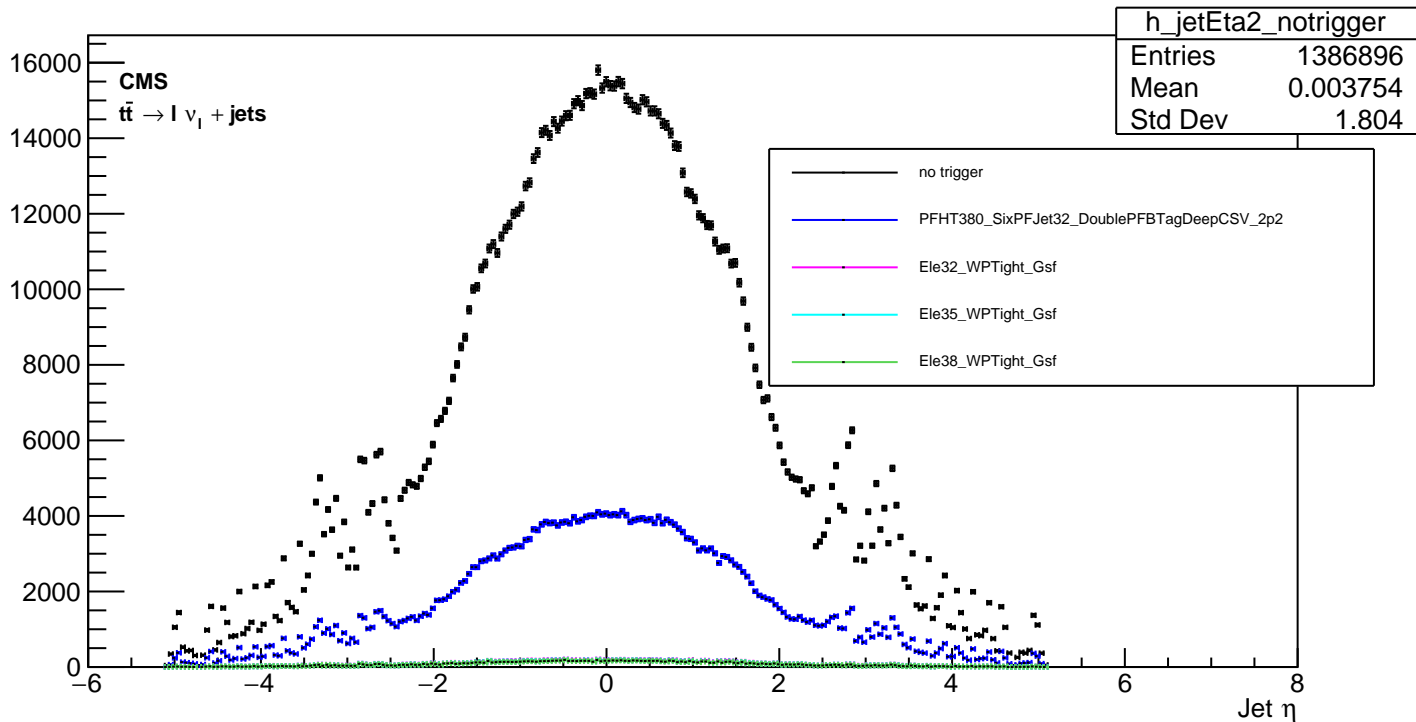
Number of Events per 1GeV/c



h_genMetPt2_notrigger	
Entries	132160
Mean	66
Std Dev	47.76



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



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

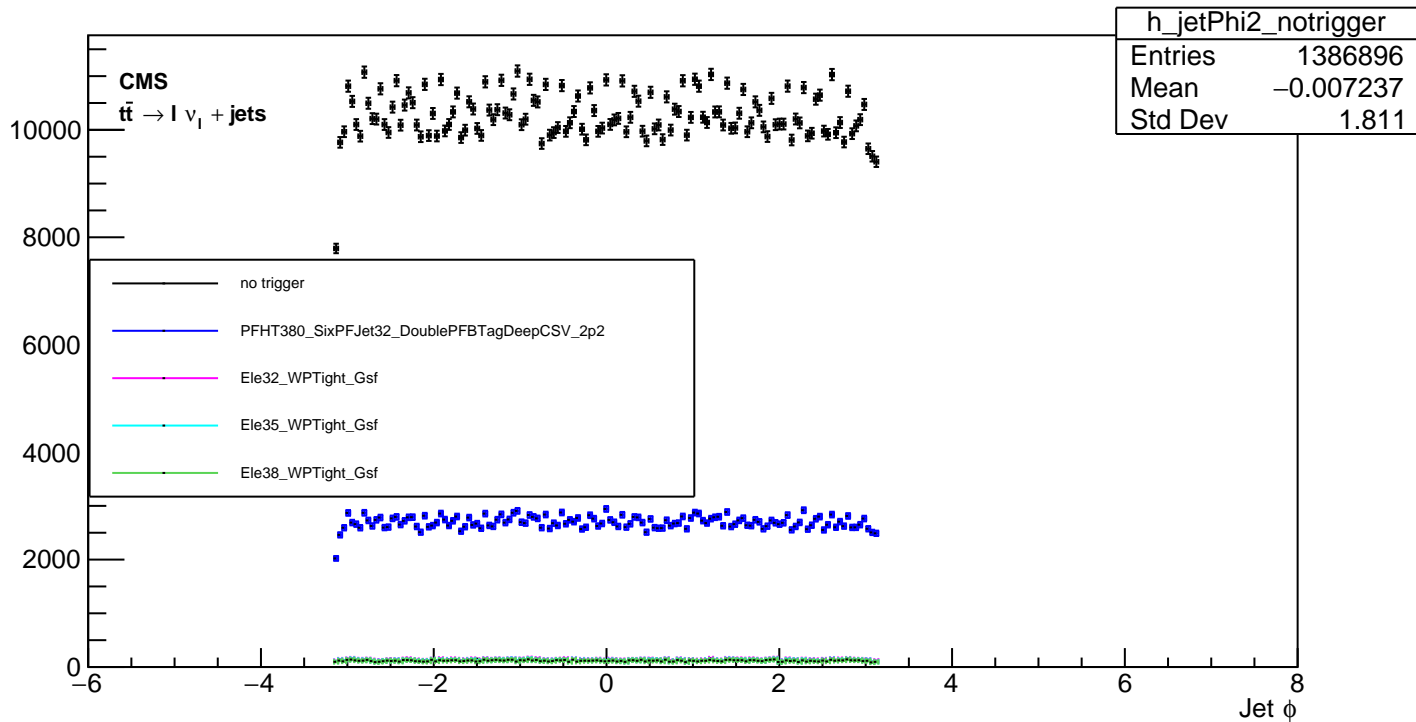
**CMS**  
 **$t\bar{t} \rightarrow l \nu_l + \text{jets}$**

h_elEta_notrigger	
Entries	55794
Mean	0.01223
Std Dev	1.26

- no trigger
- PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2
- Ele32\_WPTight\_Gsf
- Ele35\_WPTight\_Gsf
- Ele38\_WPTight\_Gsf

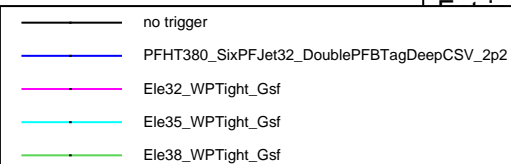
Electron  $\eta$

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



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

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



h\_elPhi\_notrigger

55794

-0.001397

1.816

