

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

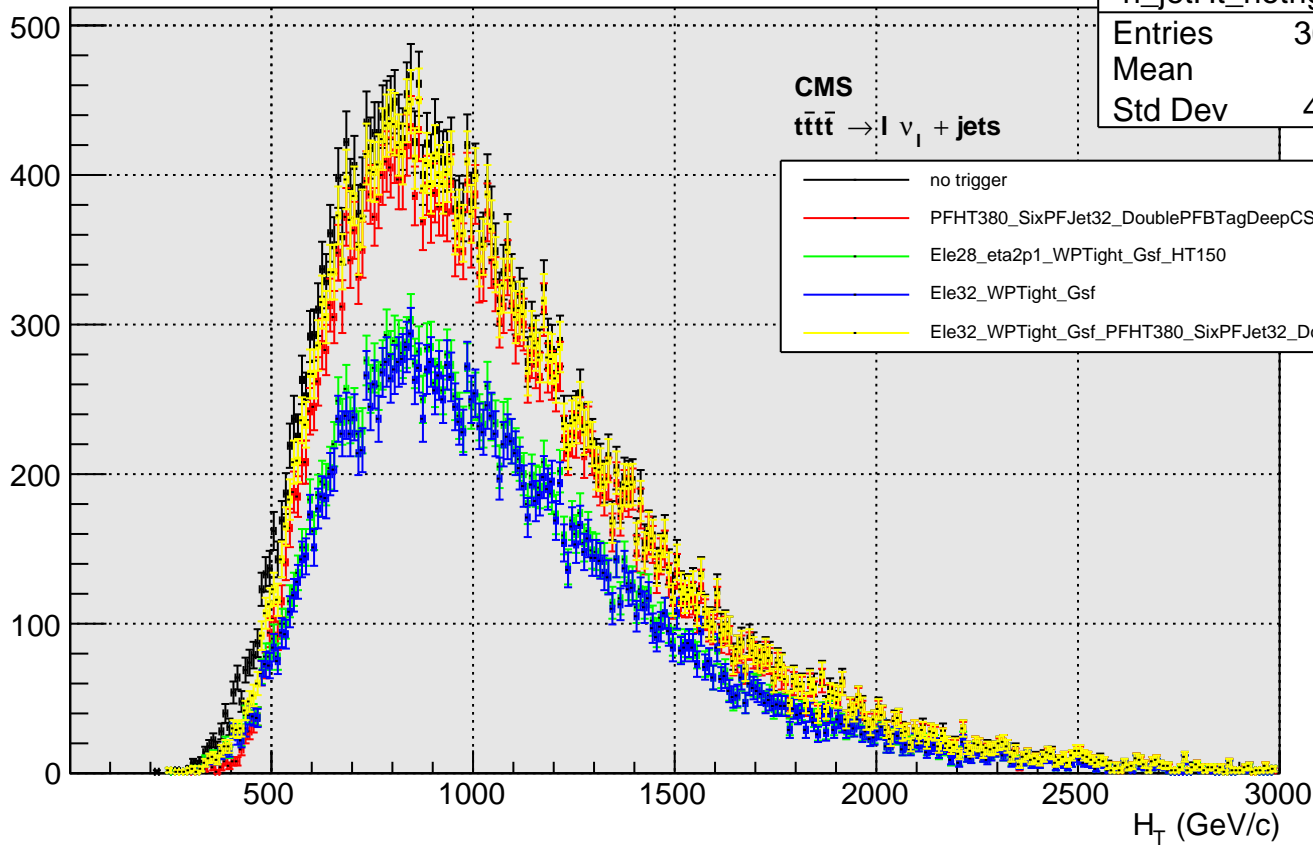
- **Jets:** number  $> 5$
- **Muons plus Electrons:** number  $> 0$

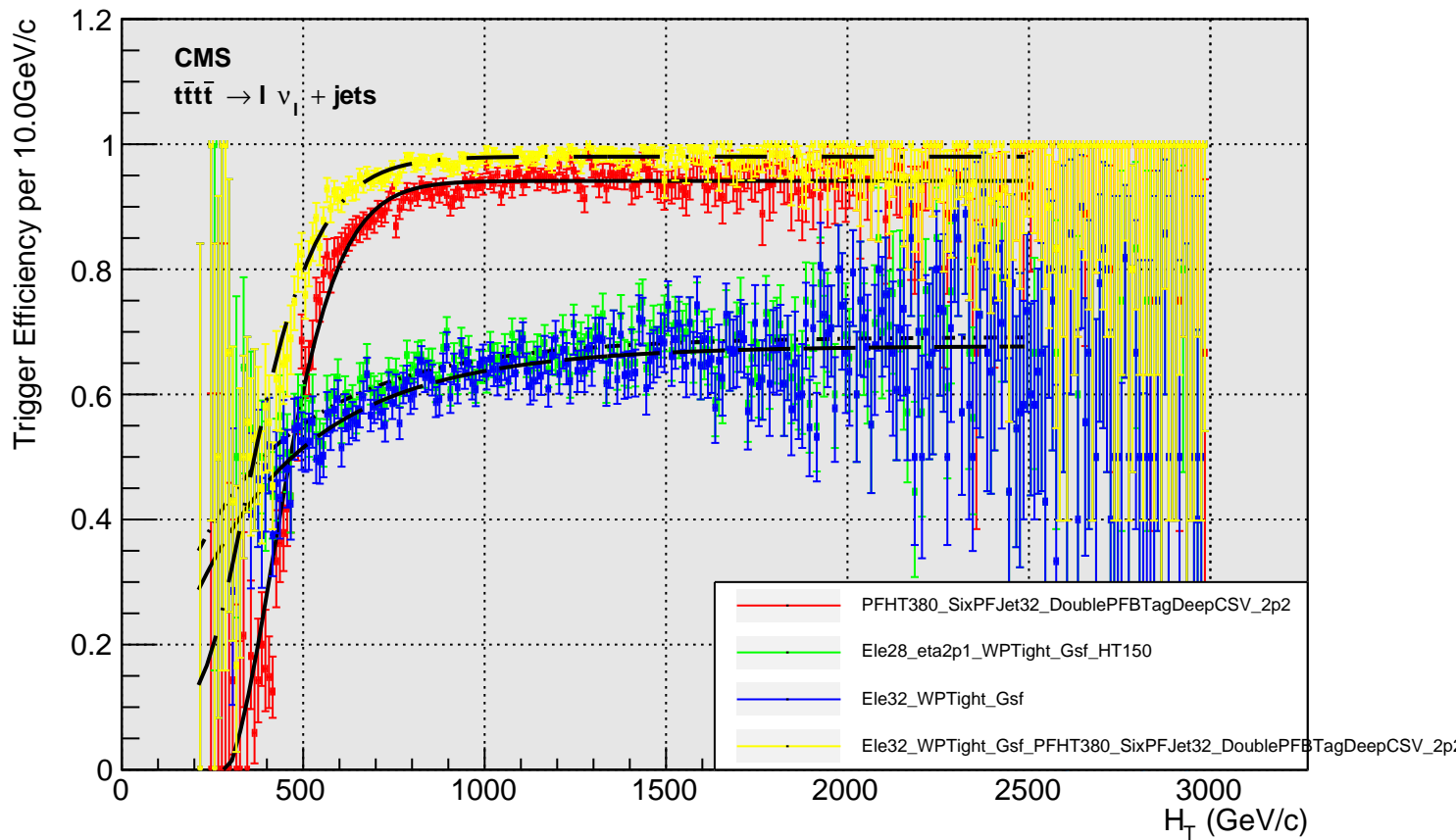
**Event Limit:** None (see last page)

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

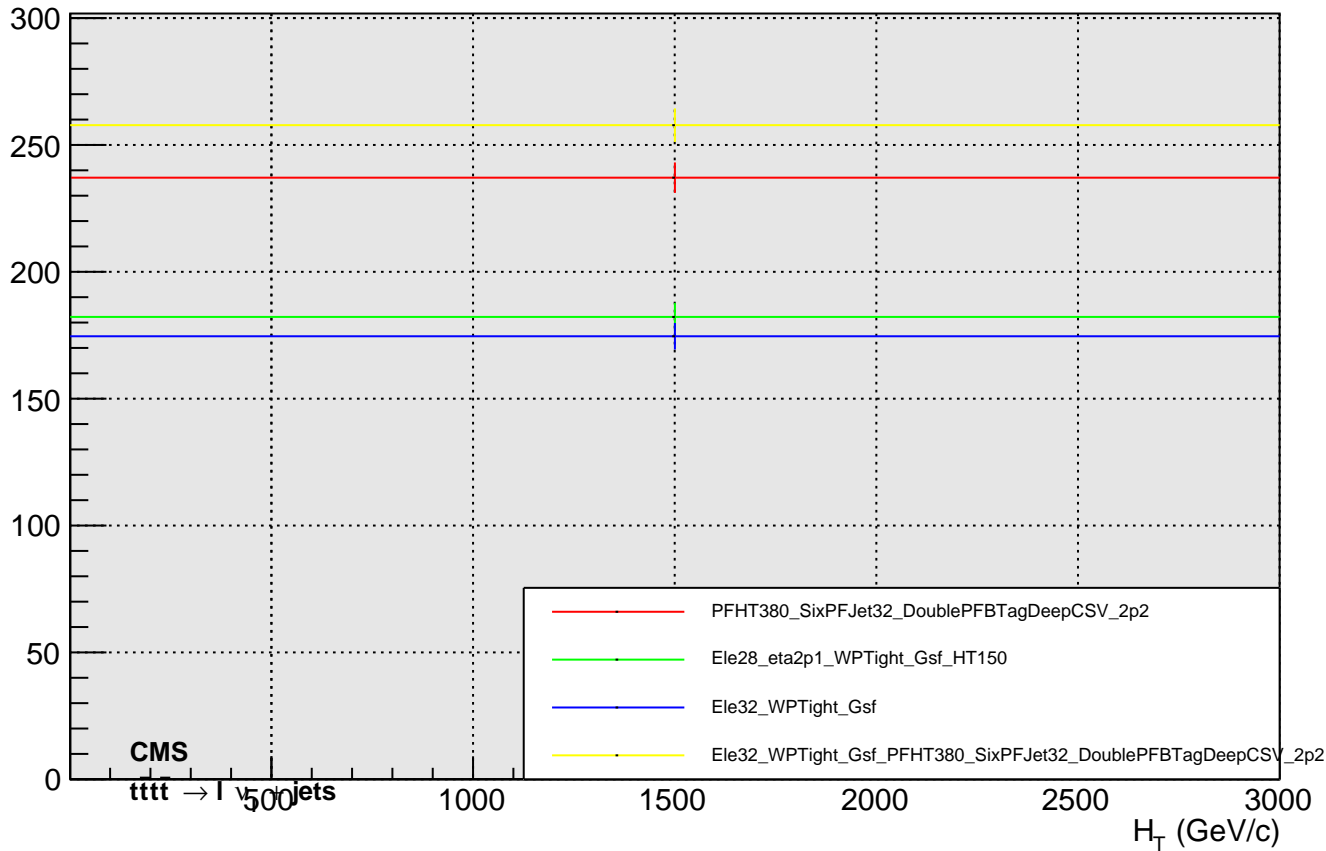
- **Jets:**  $\text{jetId} > 2$  ,  $p_T > 20$  and  $|\eta| < 2.4$  (for at least 6 jets)  
 $\text{btagDeepFlavB} > 0.7489$  (for at least one jet)
- **Electrons:** has  $\text{tightId}$ ,  $|\eta| < 2.4$  and  $\text{miniPFRelIso\_all} < 0.10$  (for

Number of Events per 10 GeV/c

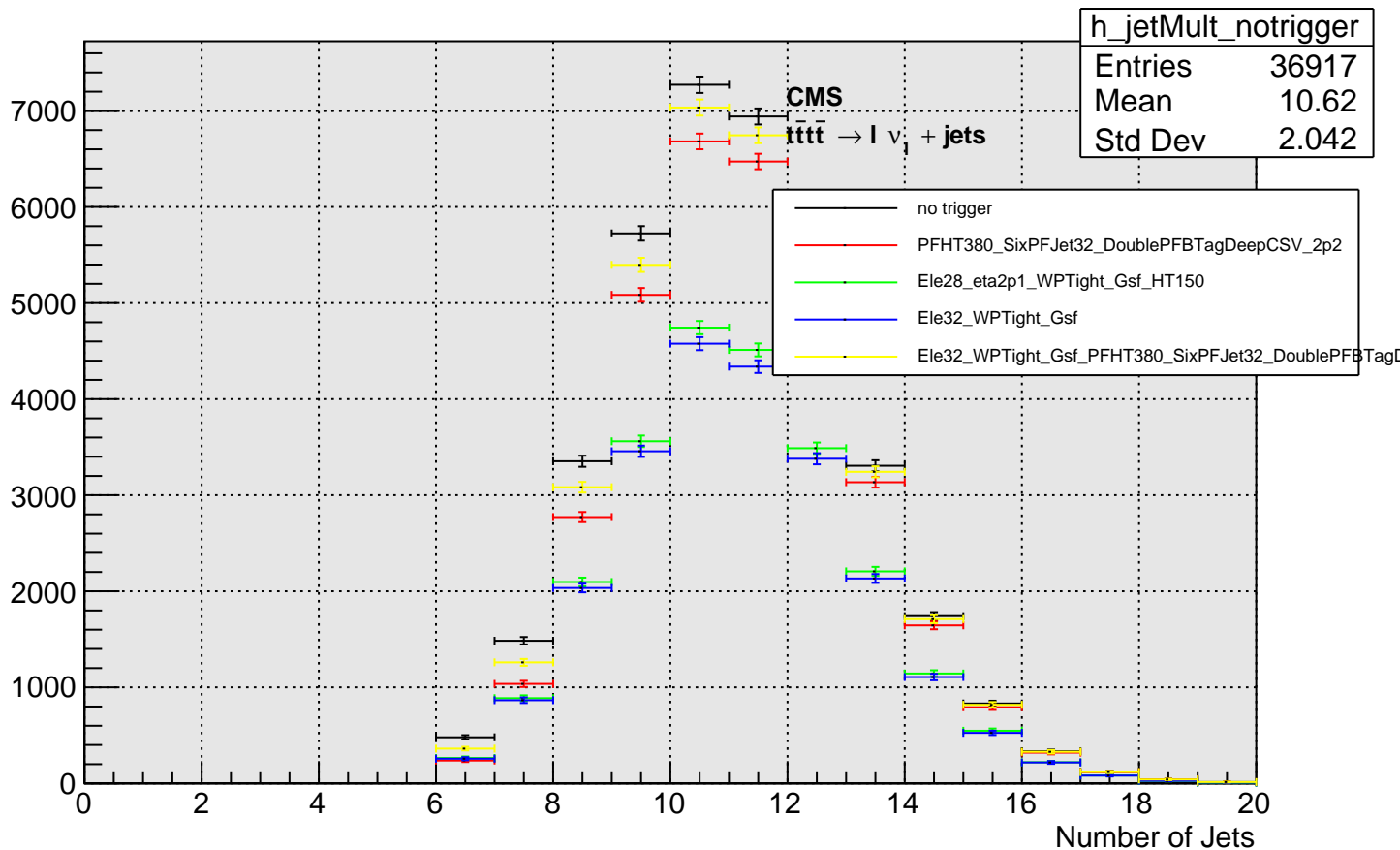


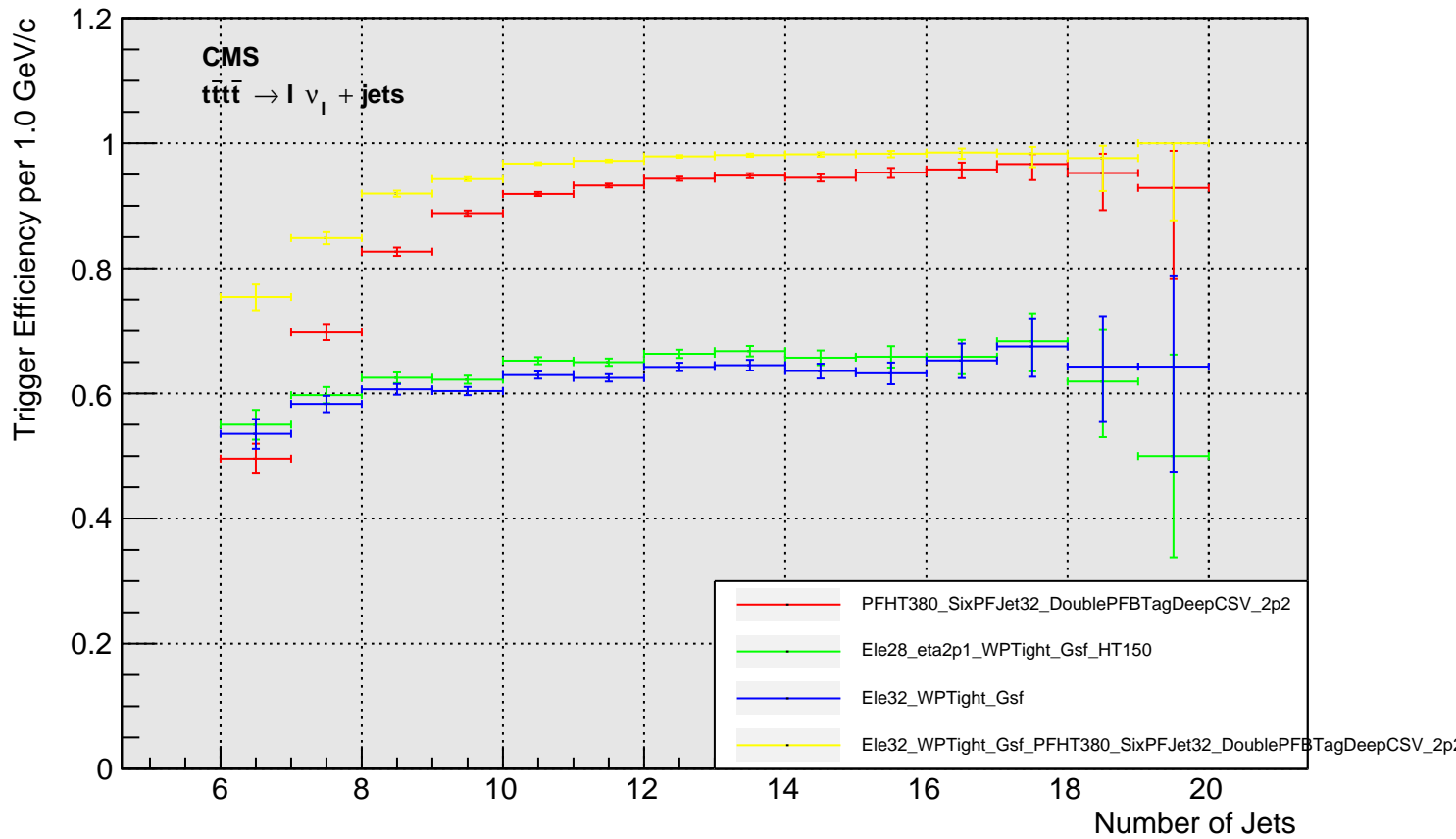


Trigger Efficiency per 10.0 GeV/c

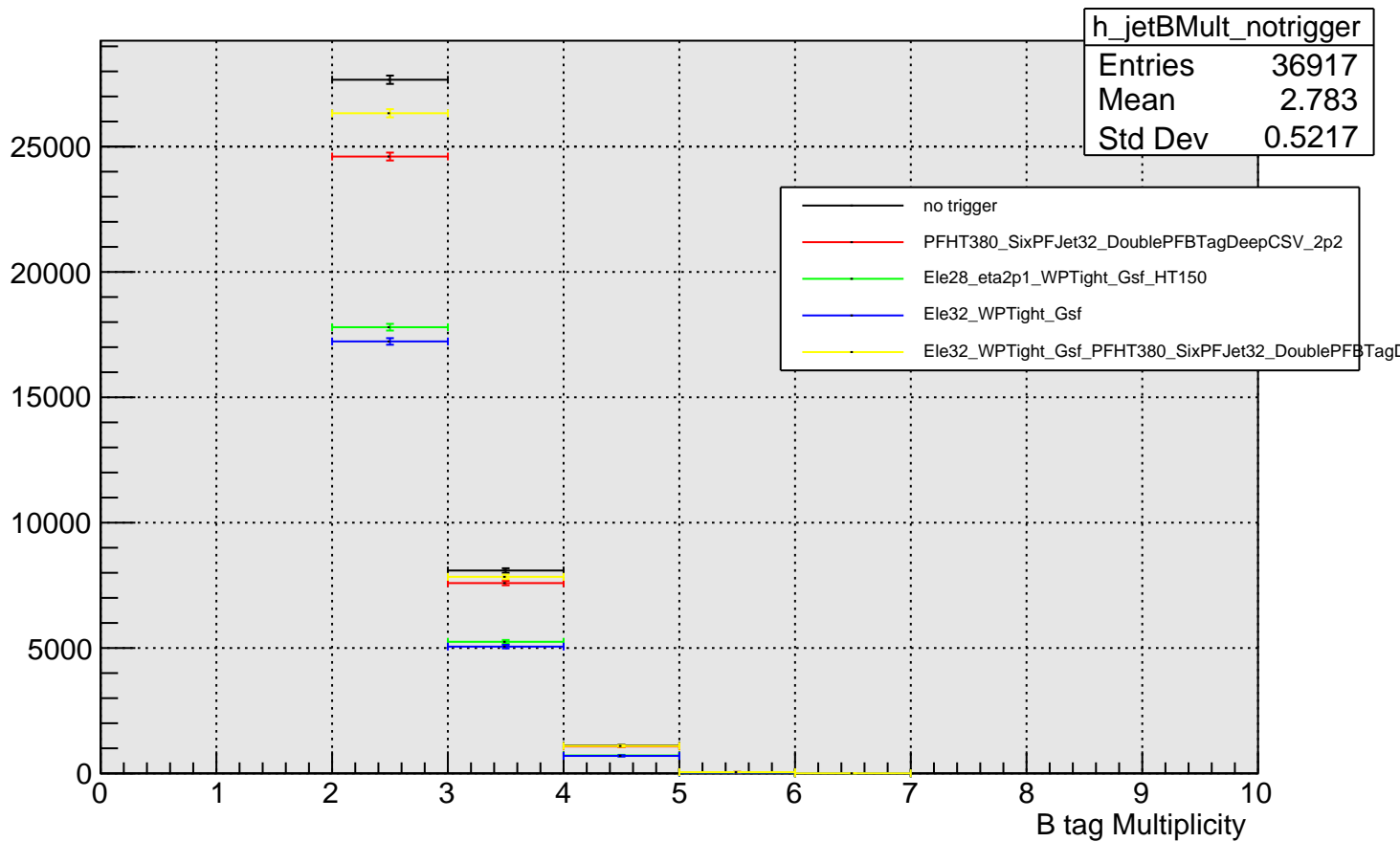


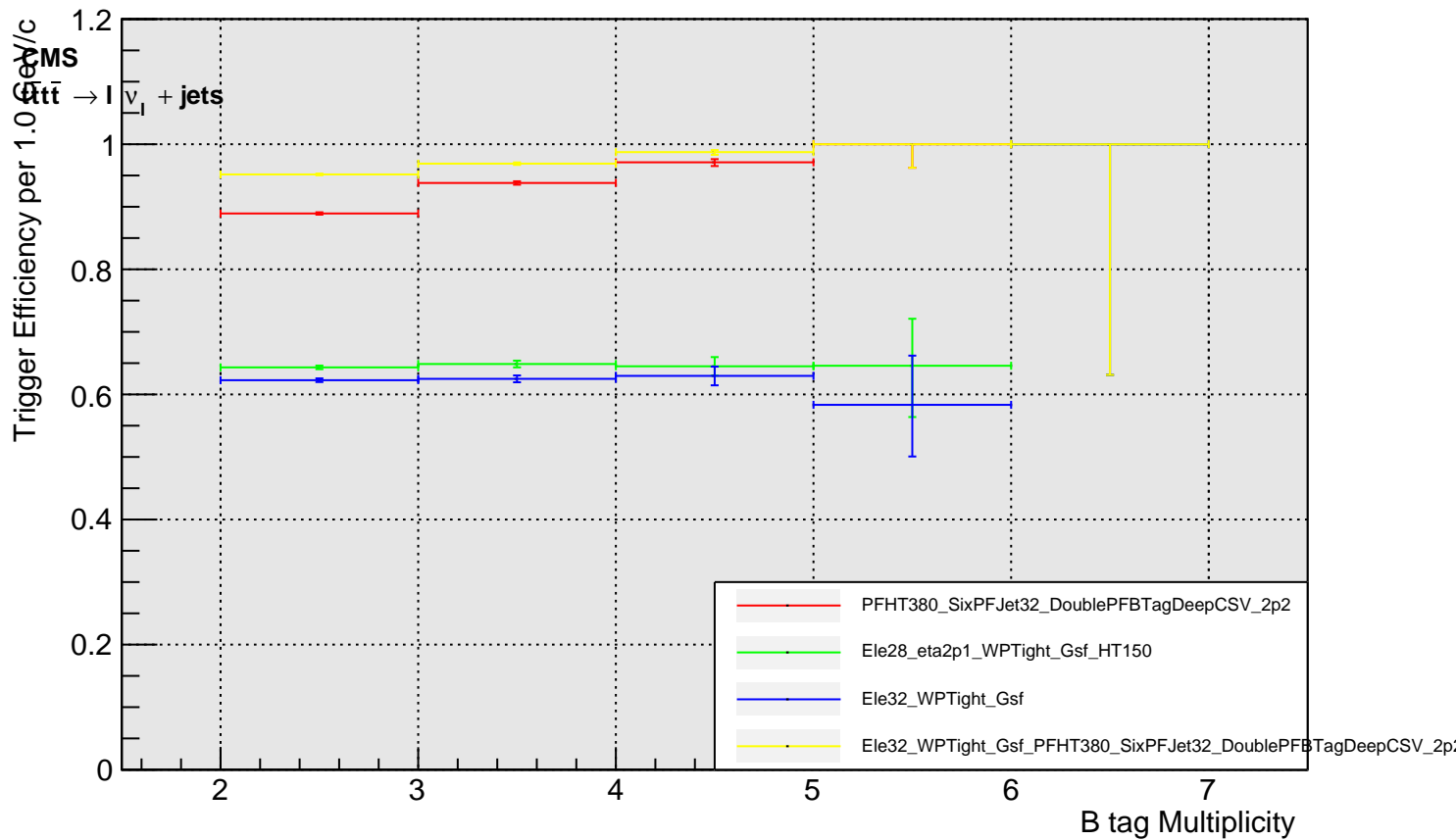
Number of Events per Number of Jets





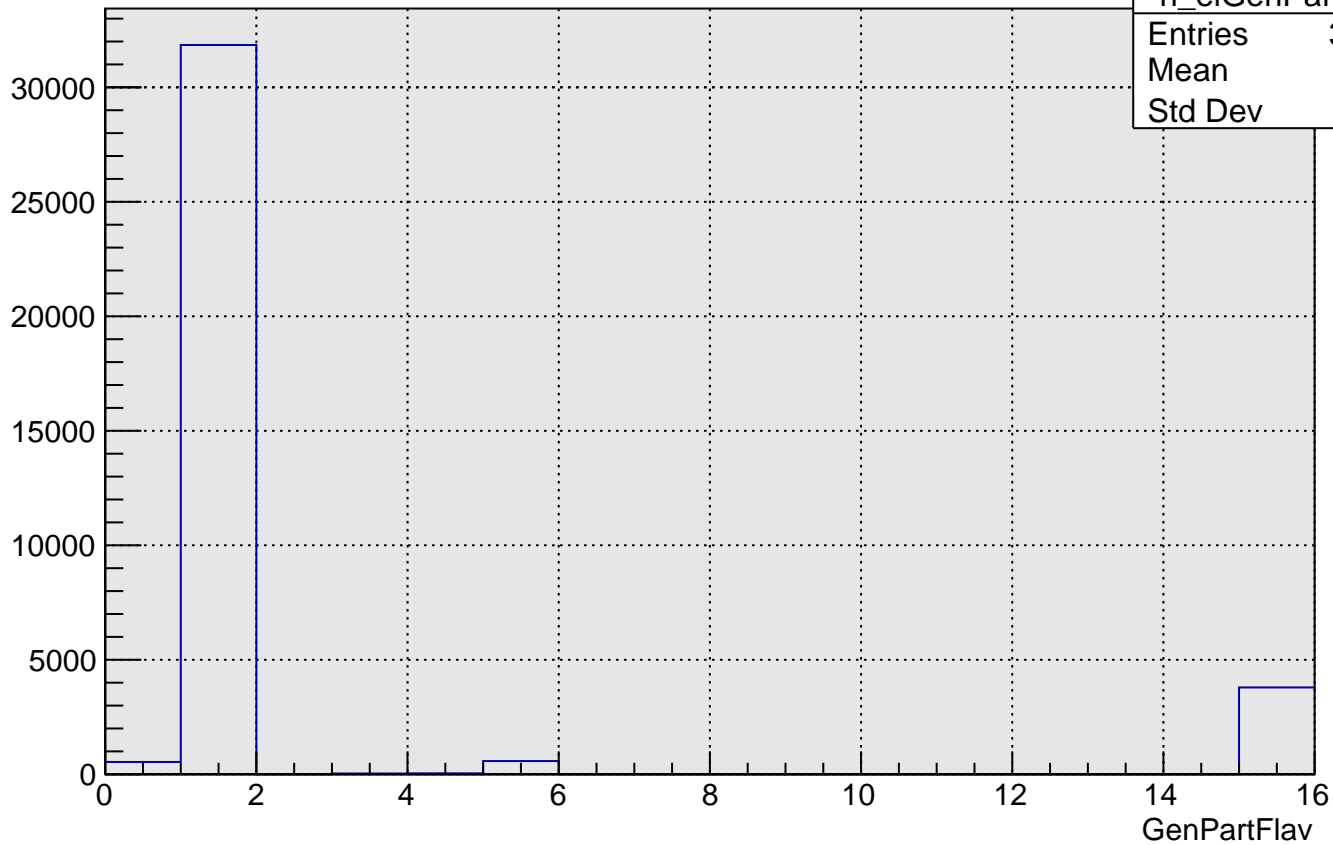
Number of Events per Number of Jets





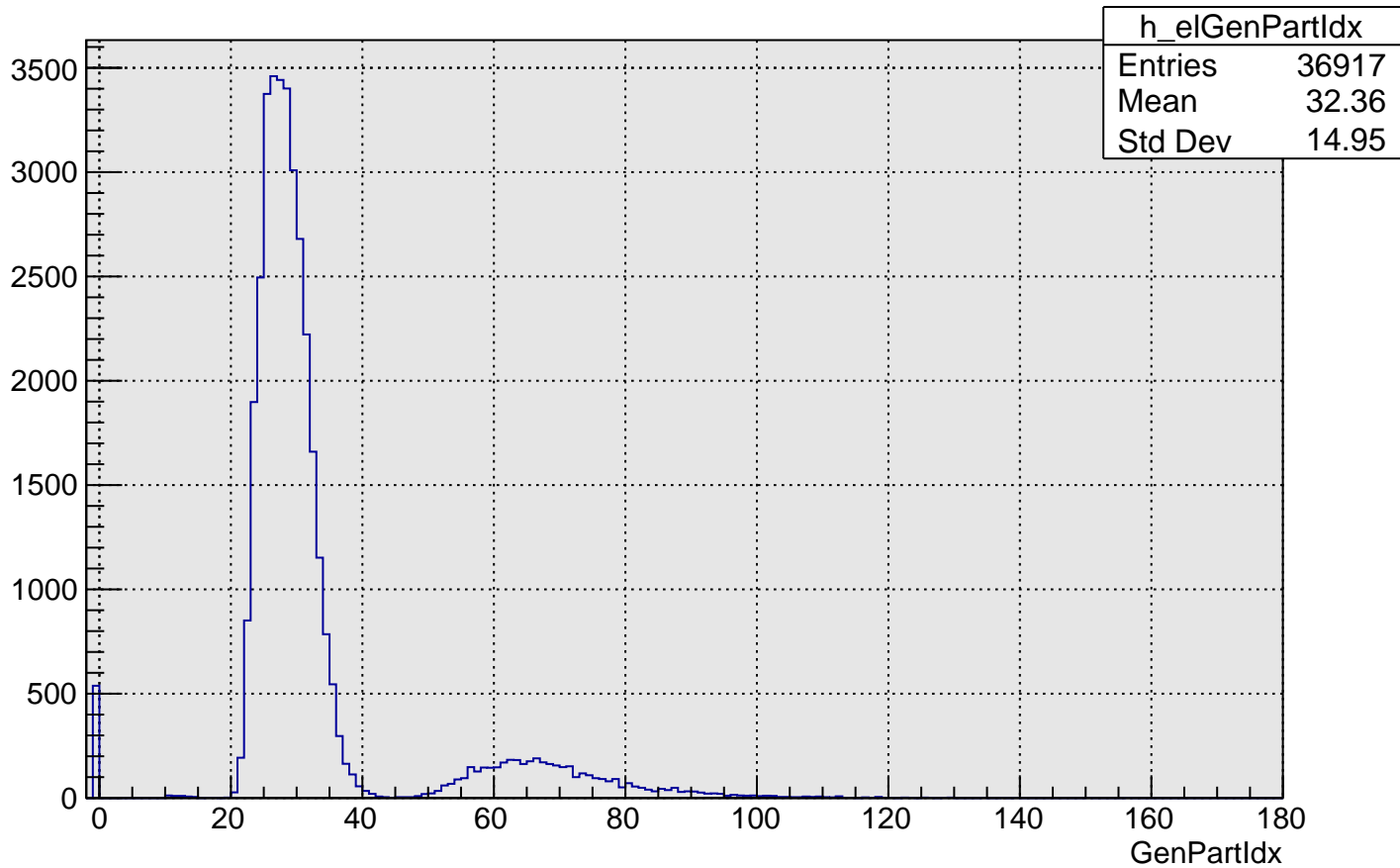


Number of events

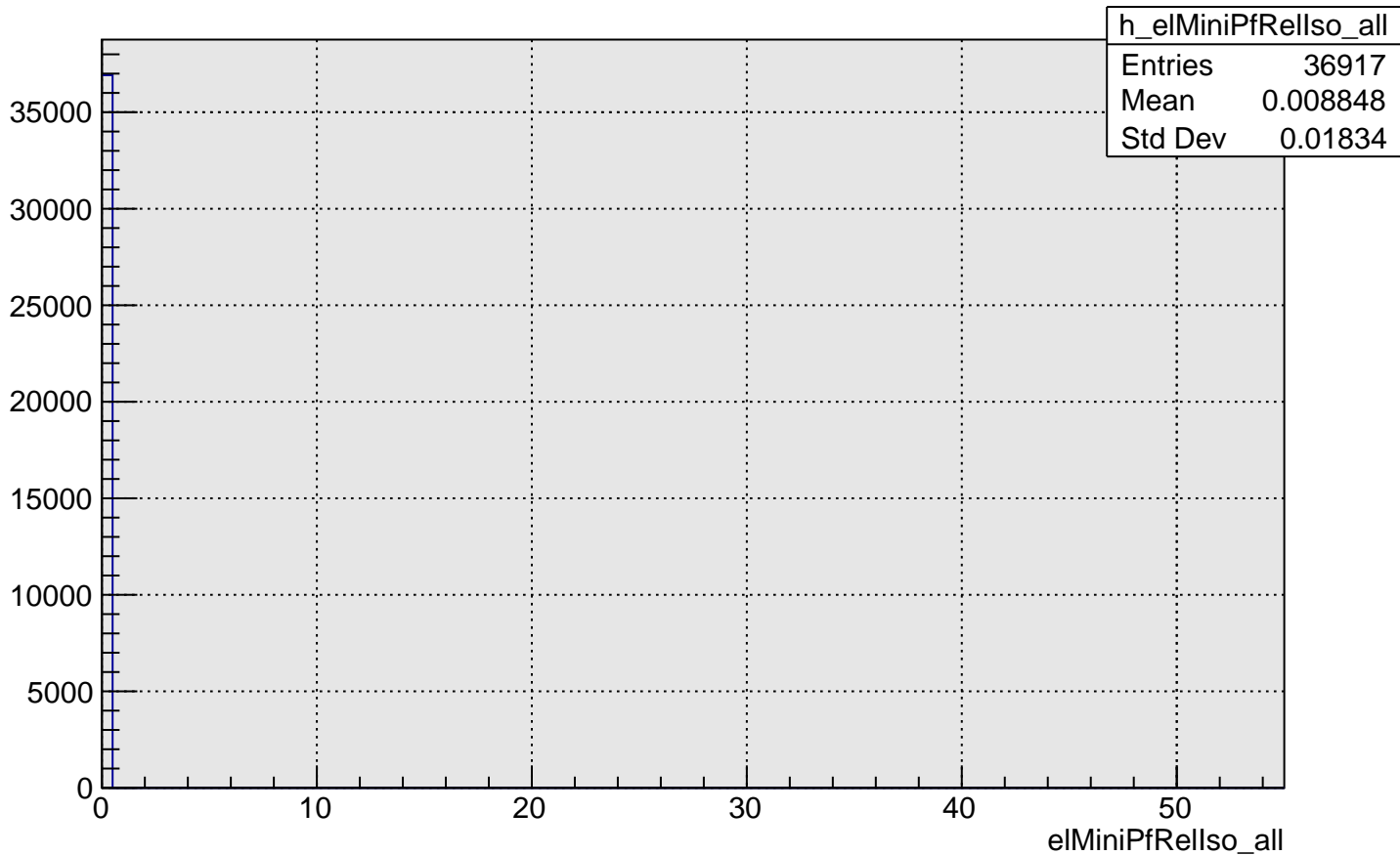


| h_elGenPartFlav |       |
|-----------------|-------|
| Entries         | 36917 |
| Mean            | 2.495 |
| Std Dev         | 4.269 |

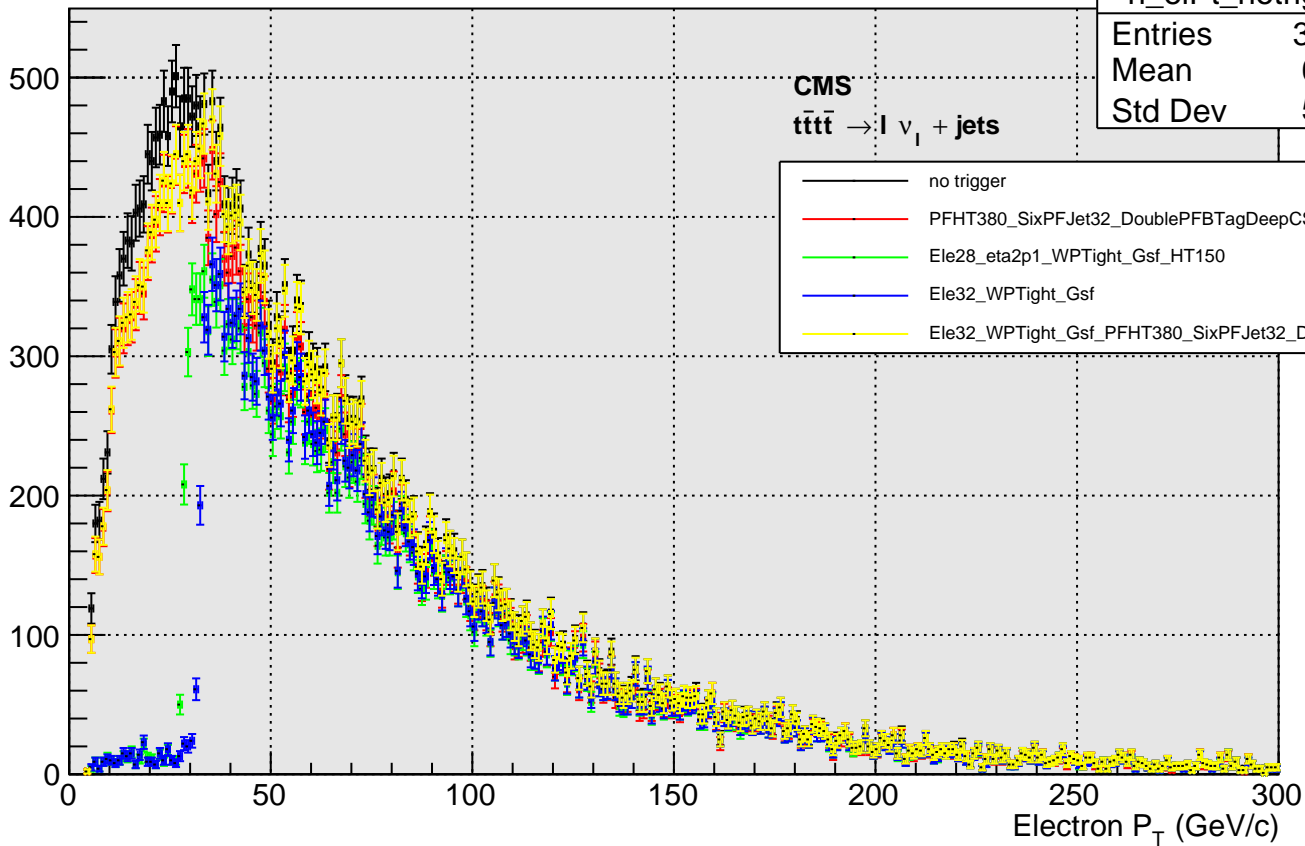
Number of events



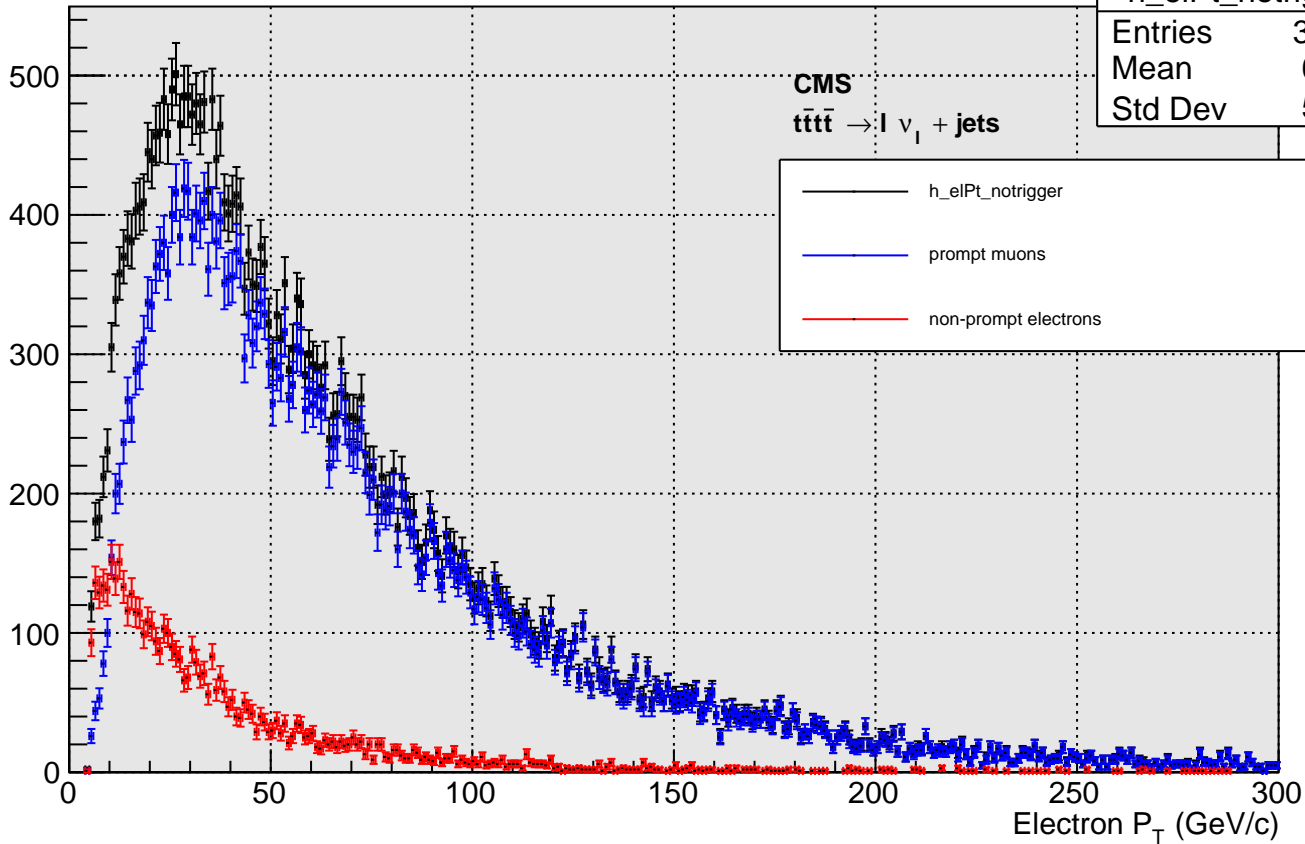
Number of Events

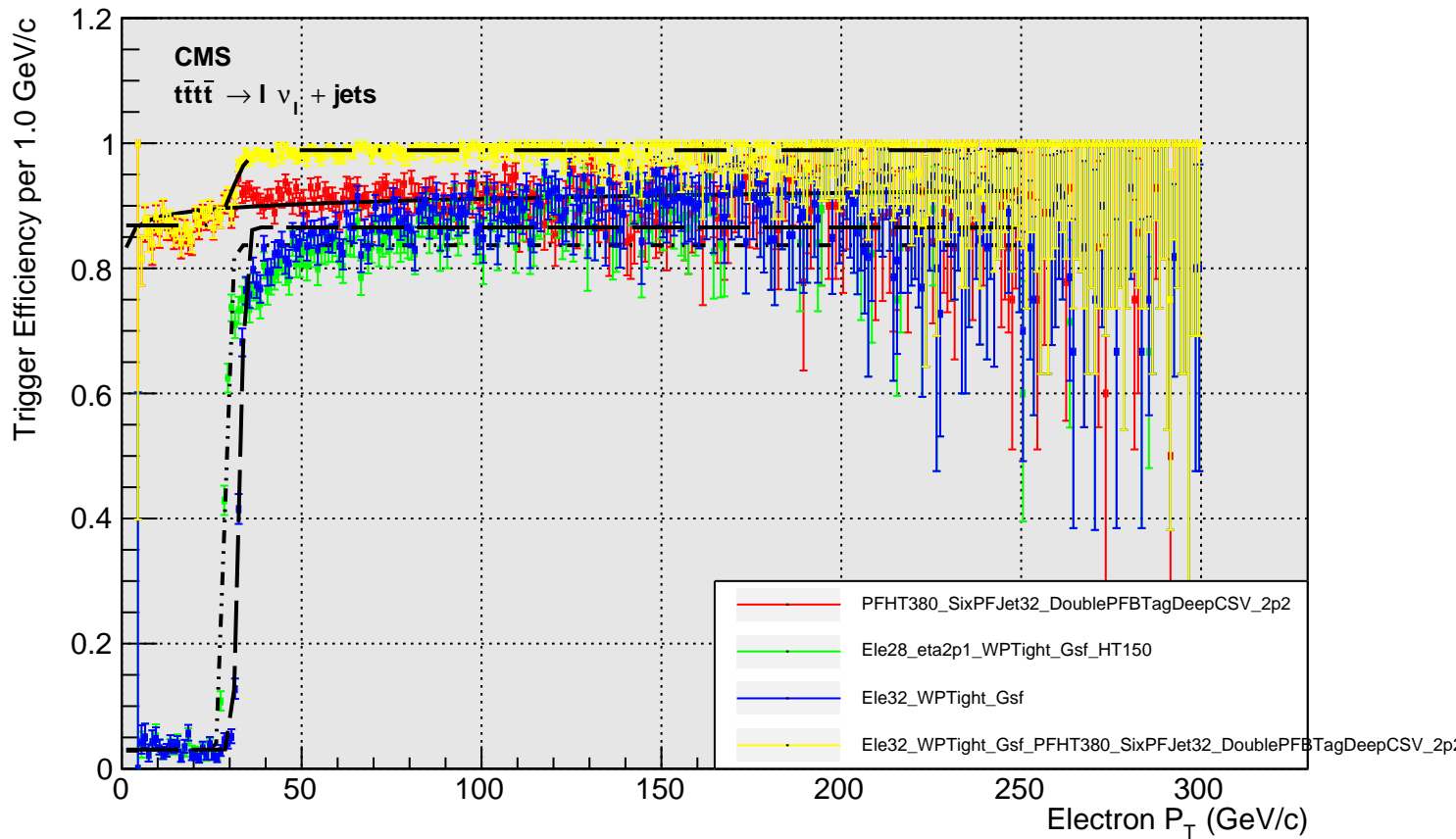


Number of Events per 1 GeV/c

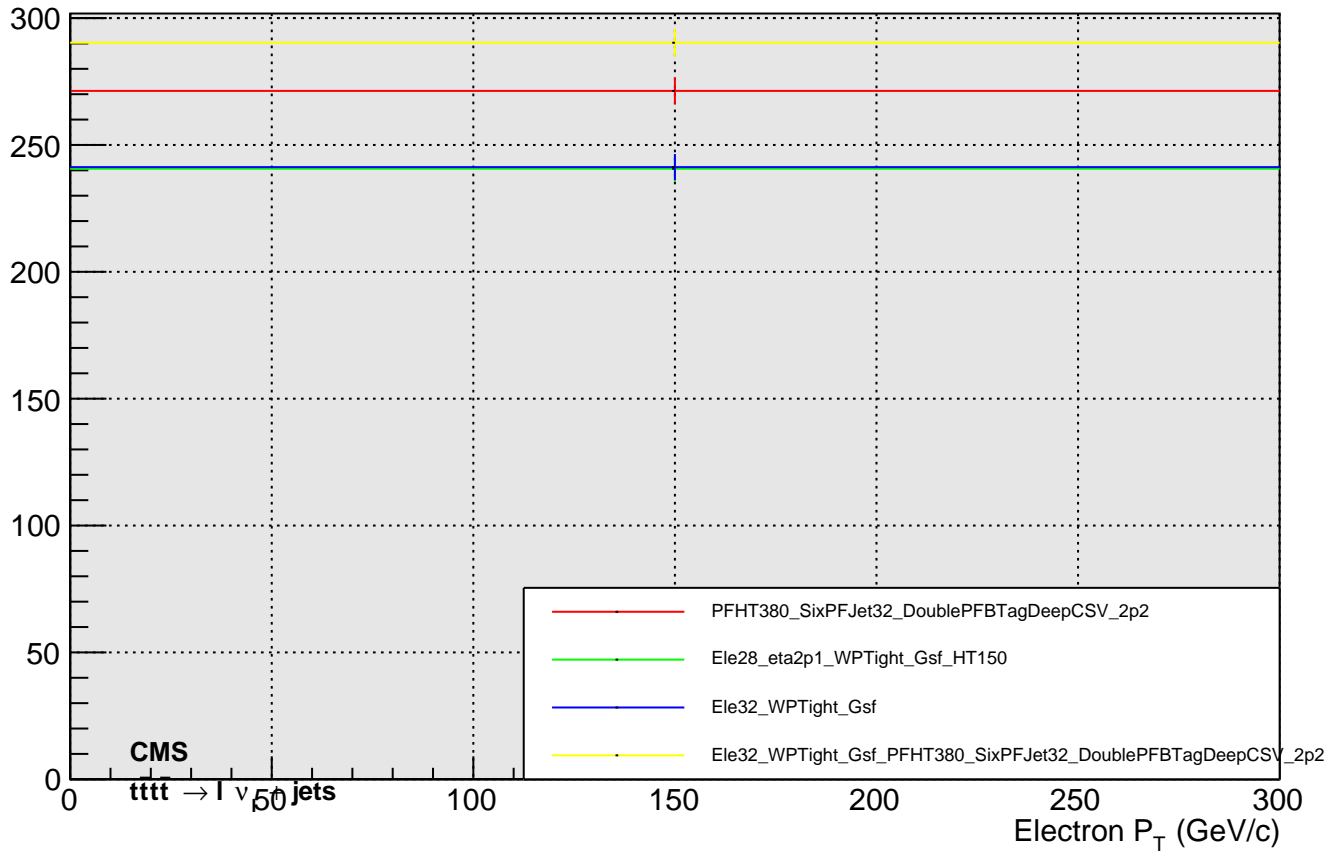


Number of Events per 1 GeV/c

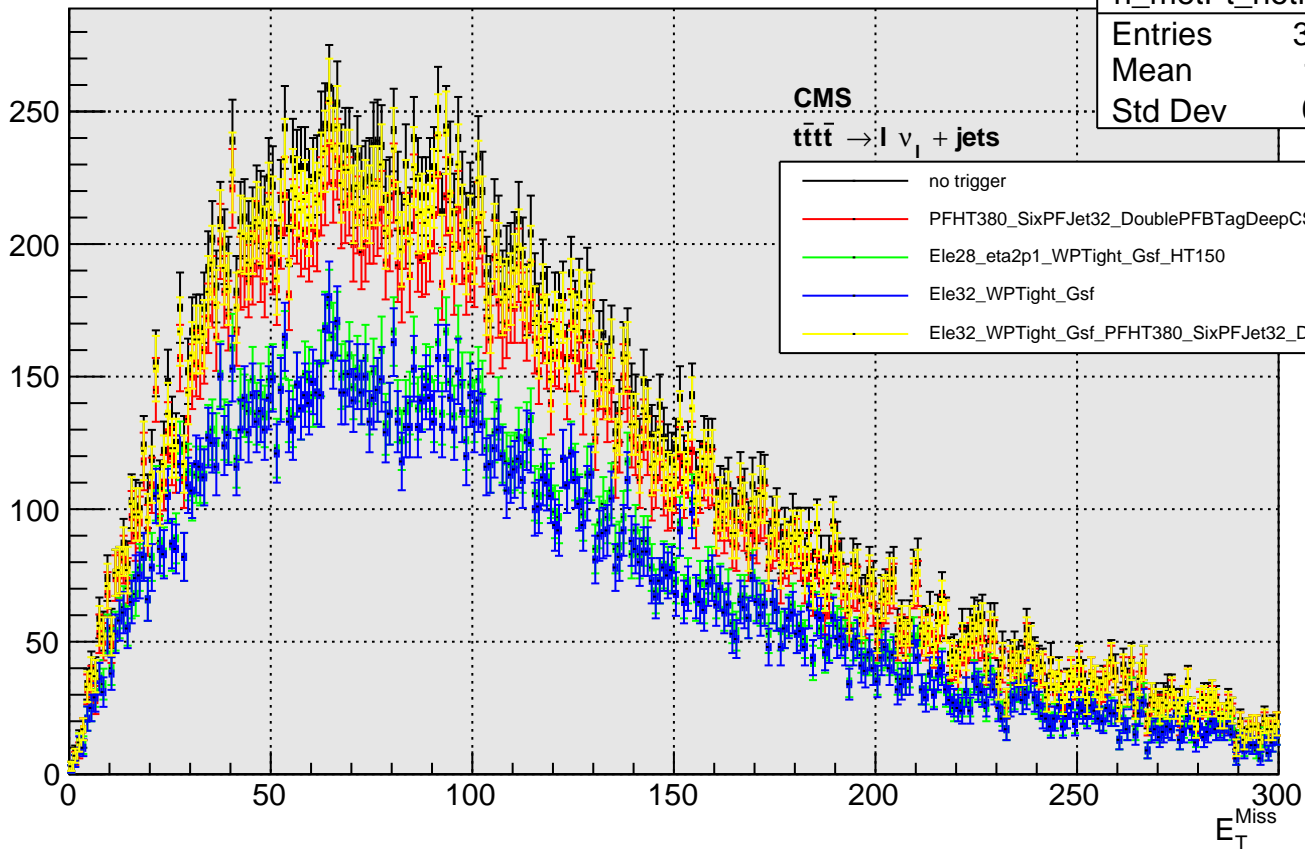




Trigger Efficiency per 1.00 GeV/c



Number of Events per 1 GeV/c



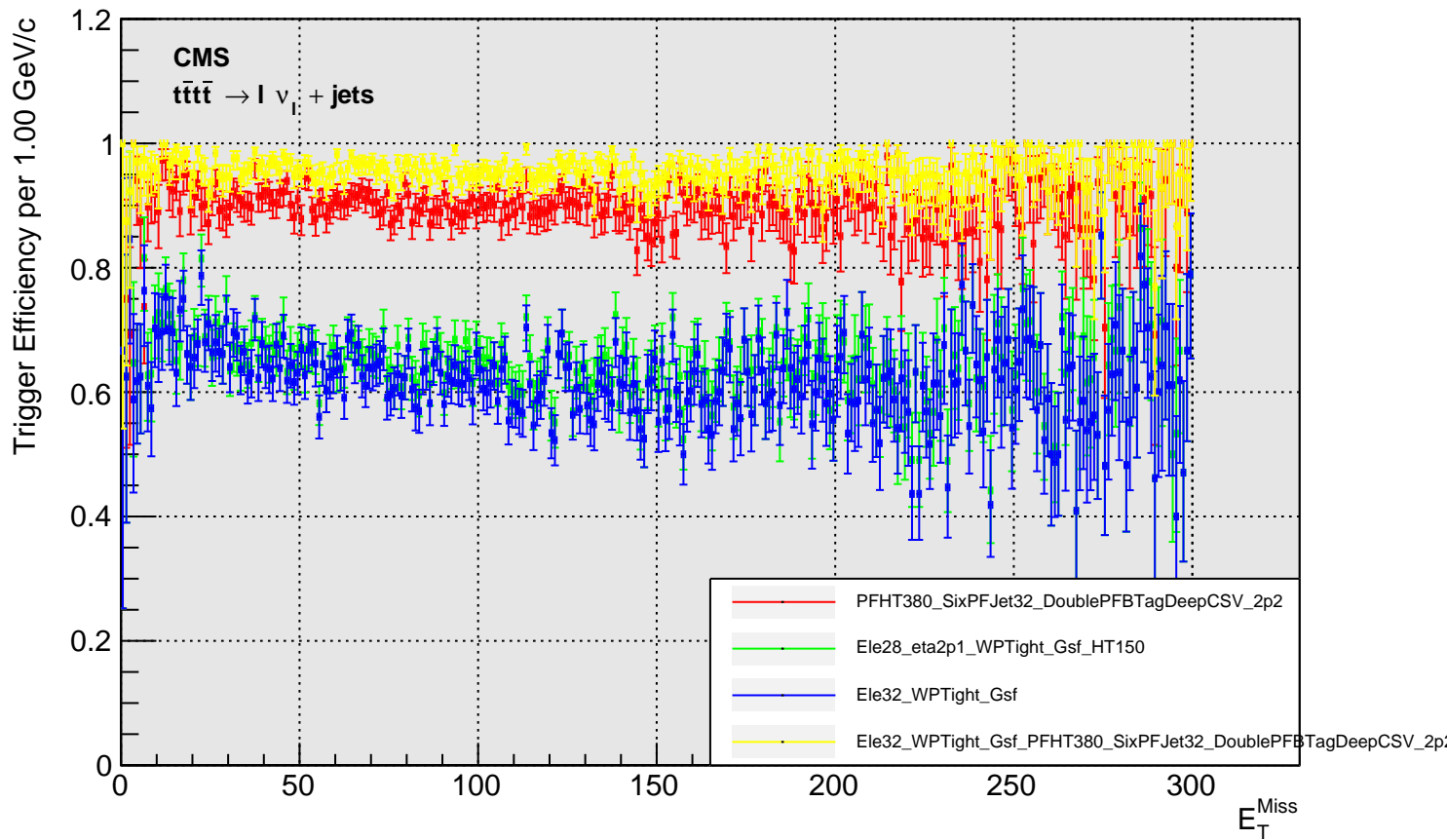
h\_metPt\_notrigger

Entries 36917

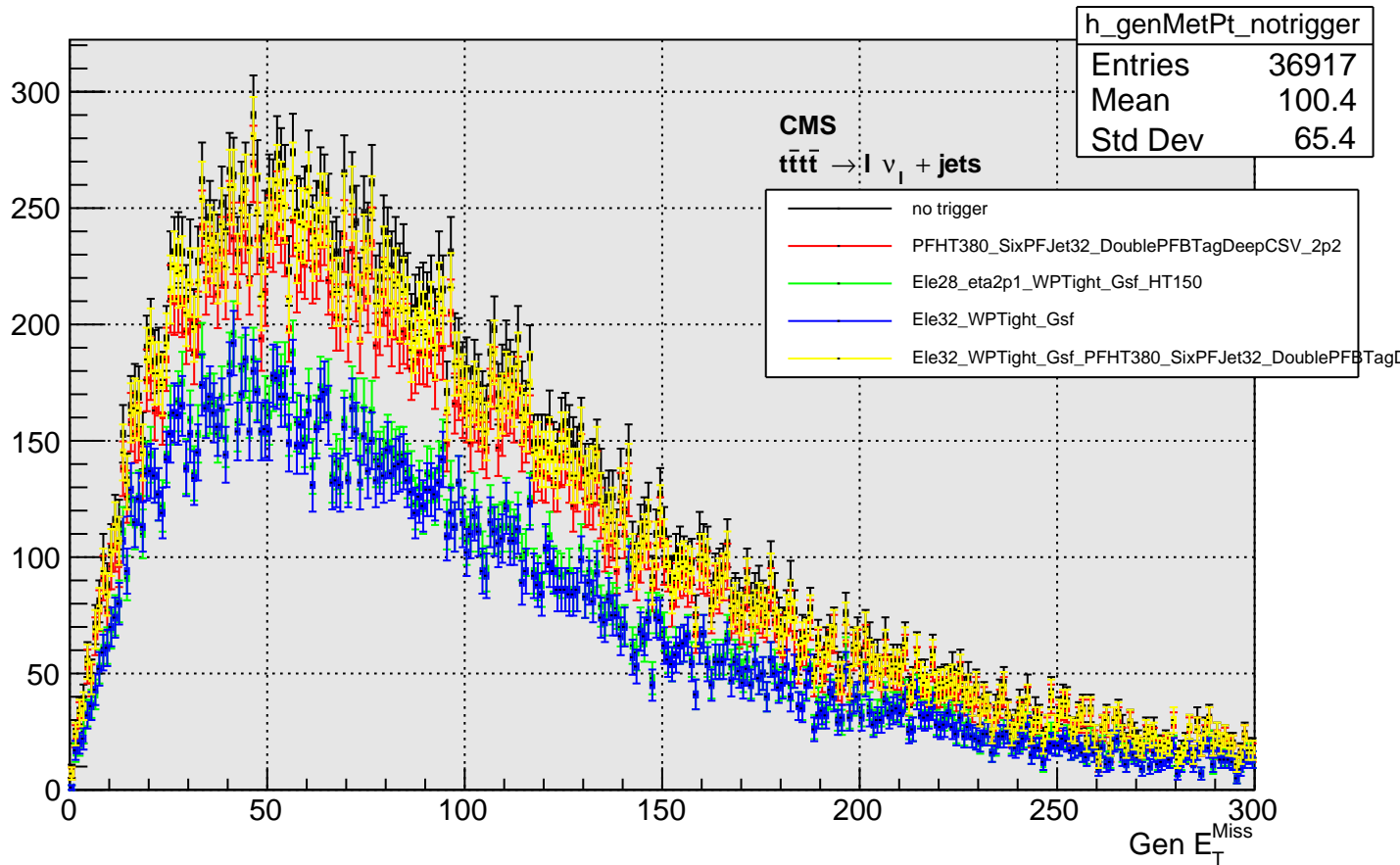
Mean 110.4

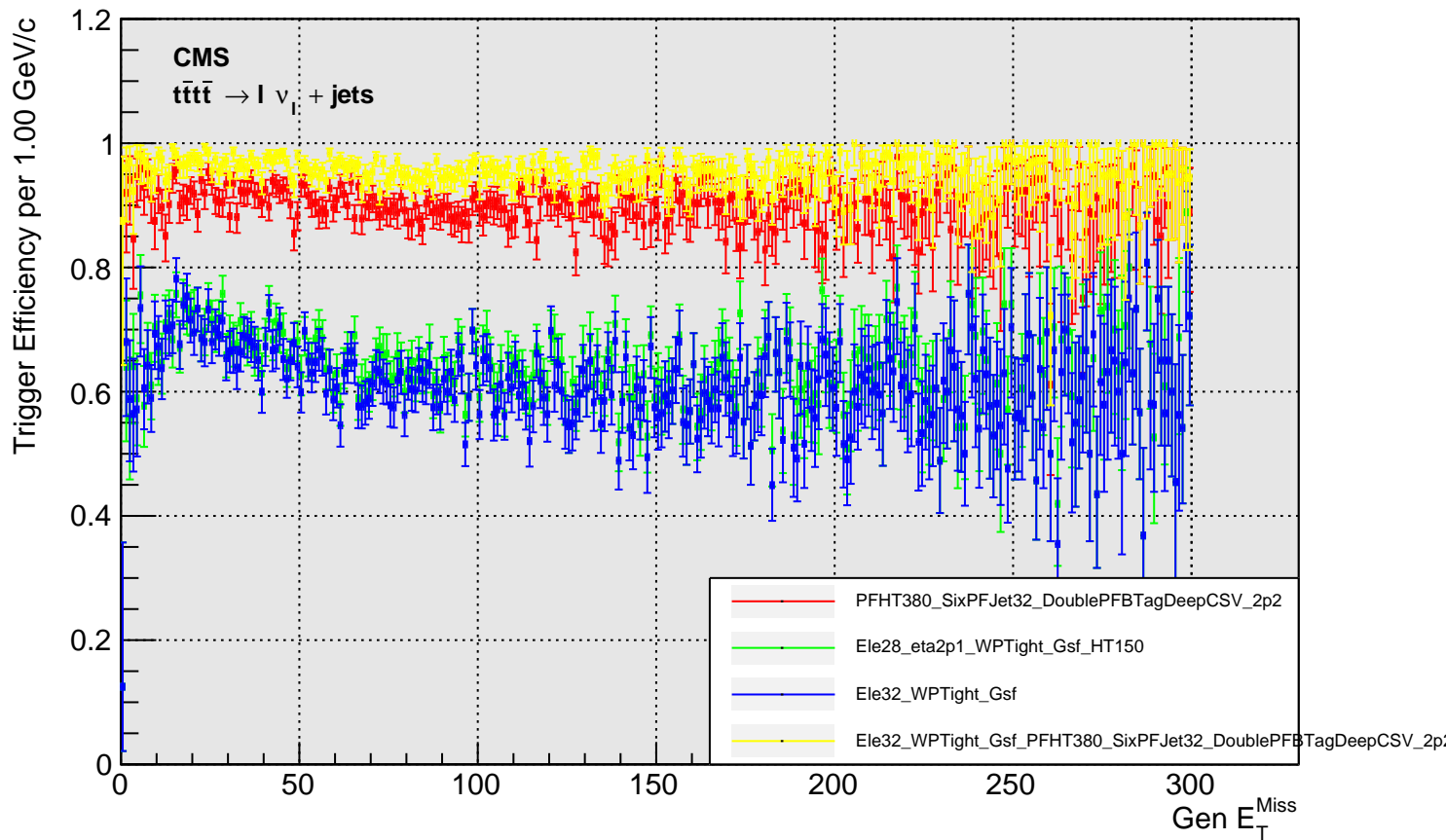
Std Dev 65.25



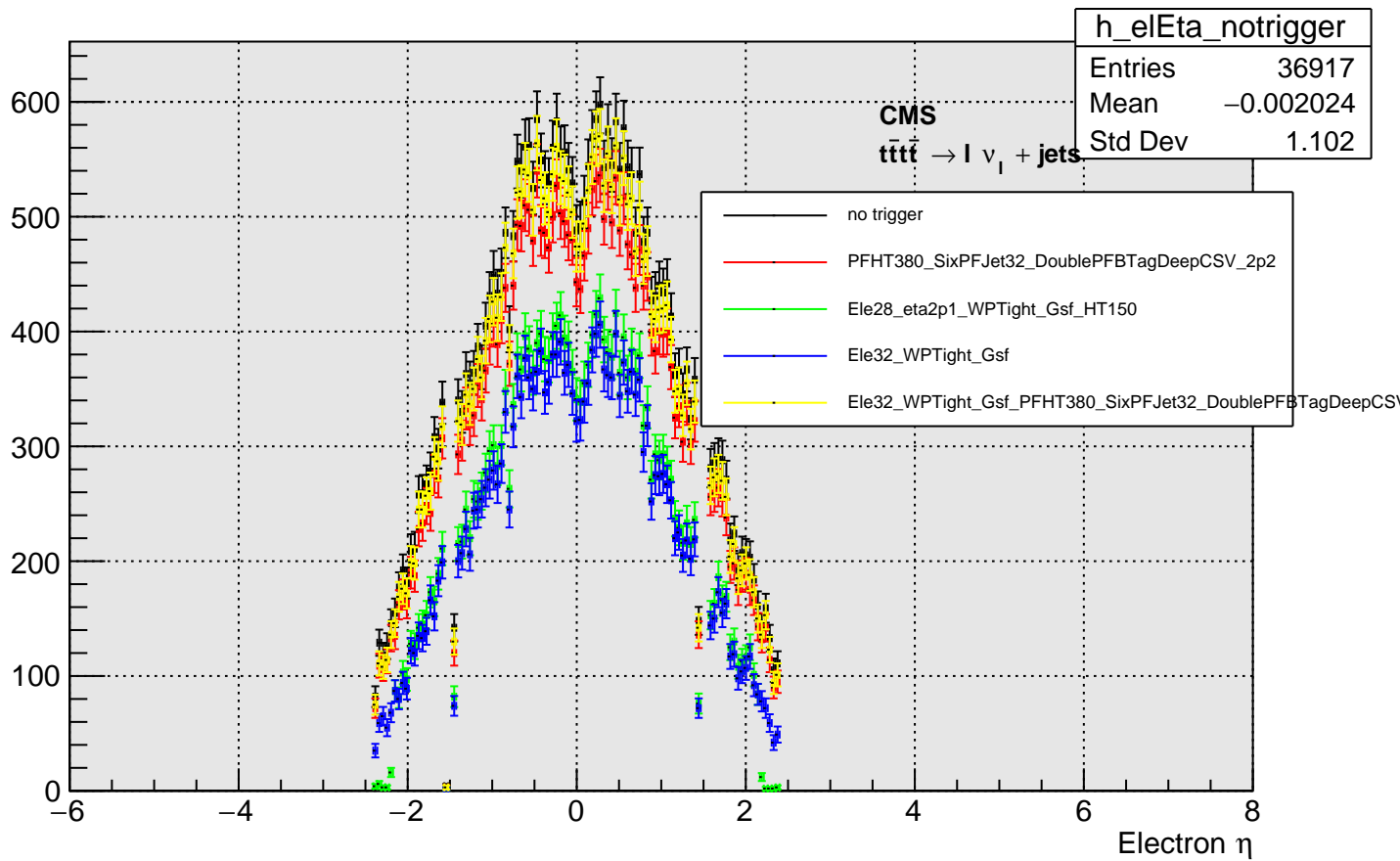


Number of Events per 1GeV/c





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



Trigger Efficiency per 0.046666666666667 GeV/c

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

- PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2
- Ele28\_eta2p1\_WPTight\_Gsf\_HT150
- Ele32\_WPTight\_Gsf
- Ele32\_WPTight\_Gsf\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

Electron  $\eta$

