

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

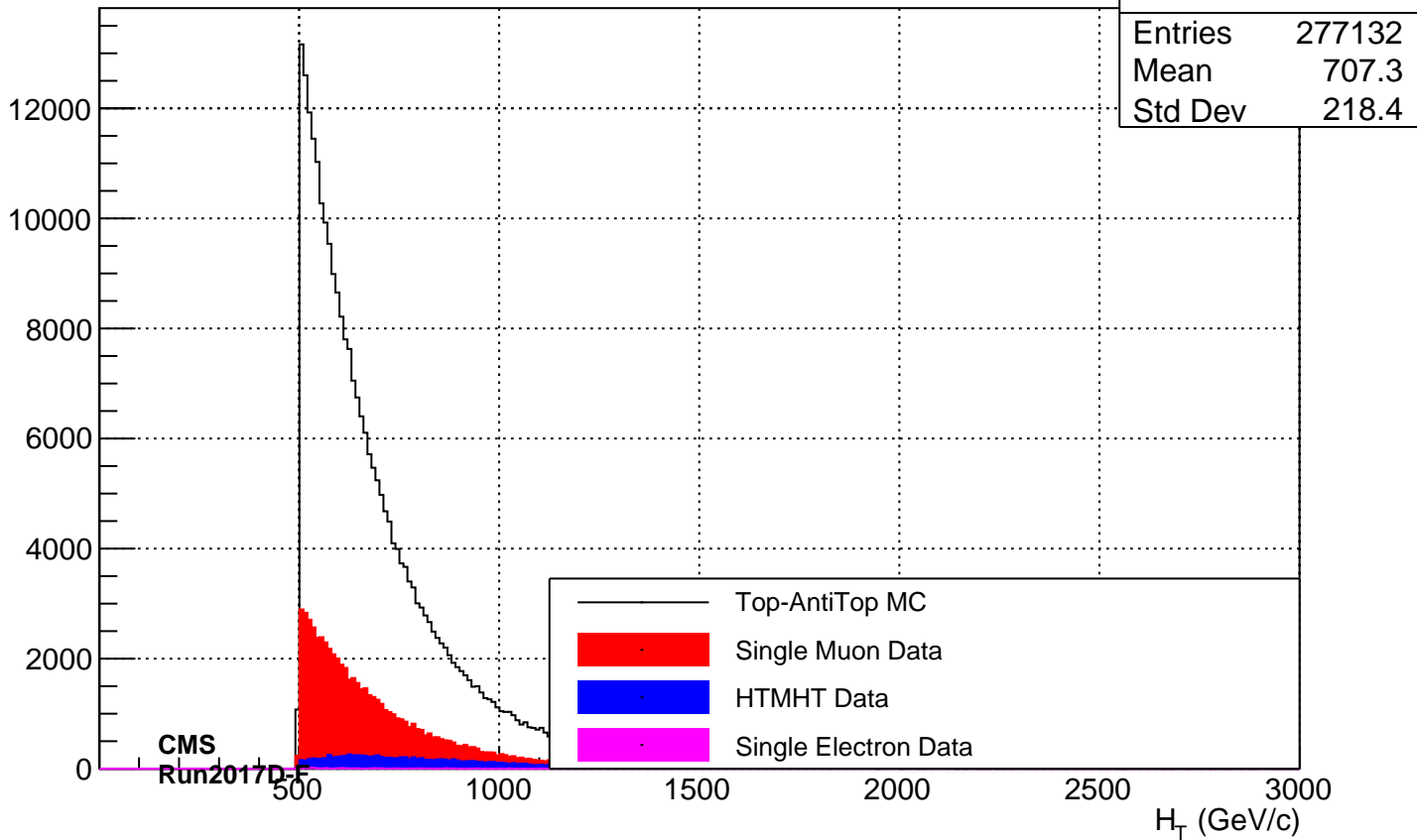
- **Jets:** number  $> 5$
- **Muons plus Electrons:** number  $> 0$

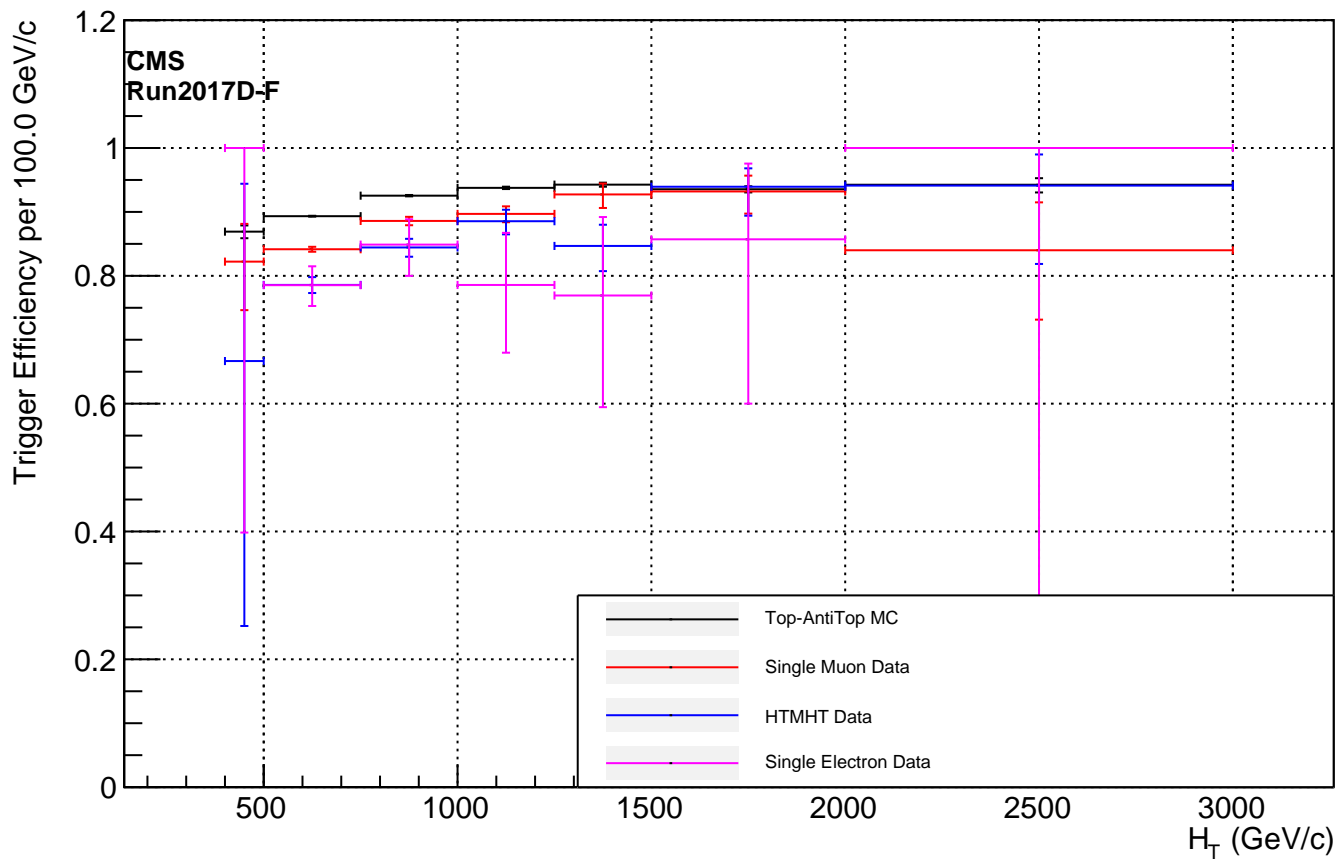
**Event Limit:** None (see last page)

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

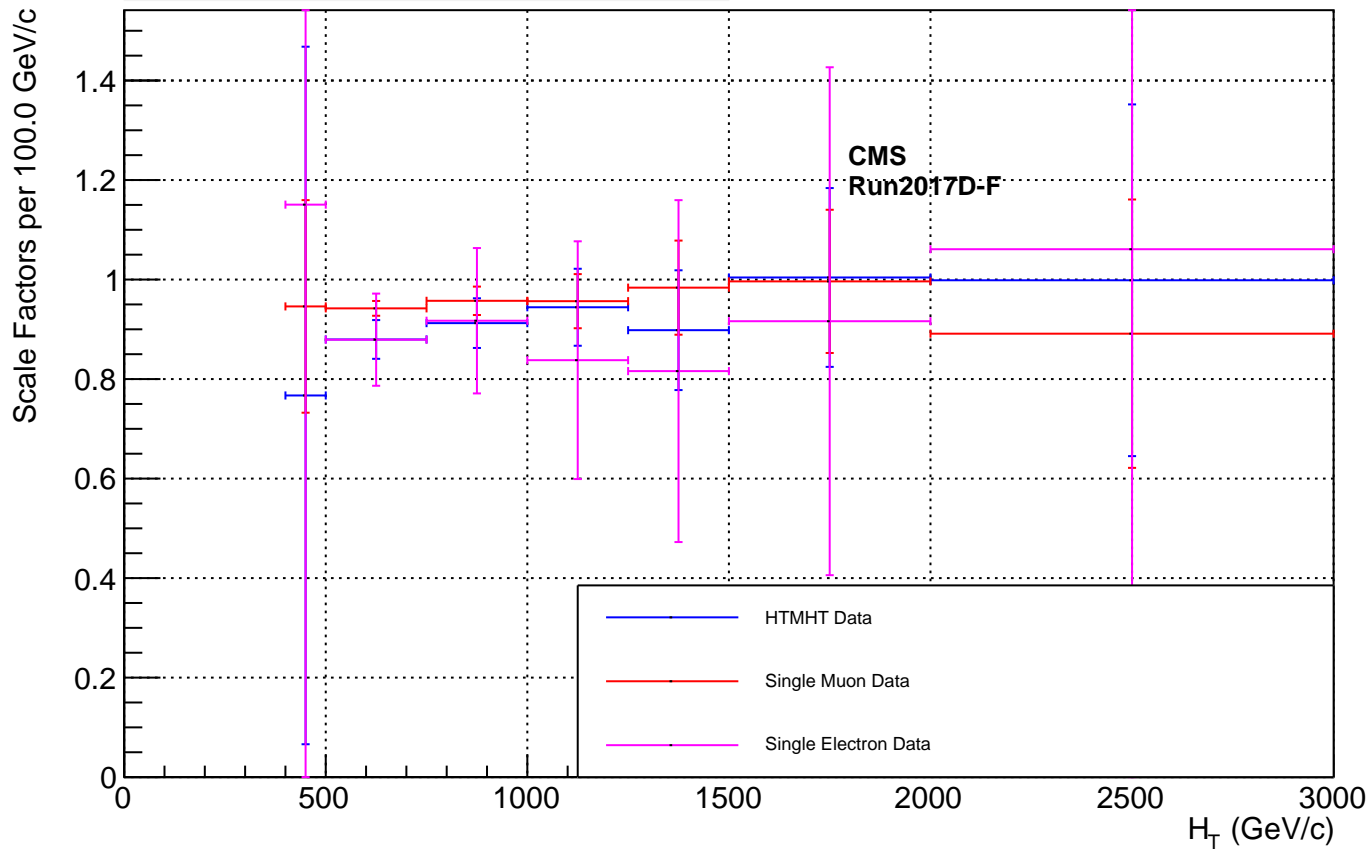
- **Jets:**  $\text{jetId} > 2$  ,  $p_T > 30$  and  $|\eta| < 2.4$  (for at least 6 jets)  
 $\text{btagDeepFlavB} > 0.7489$  (for at least one jet)
- **Muons:** has  $\text{tightId}$ ,  $|\eta| < 2.4$  and  $\text{miniPFRelIso\_all} < 0.15$  (for at least 1)

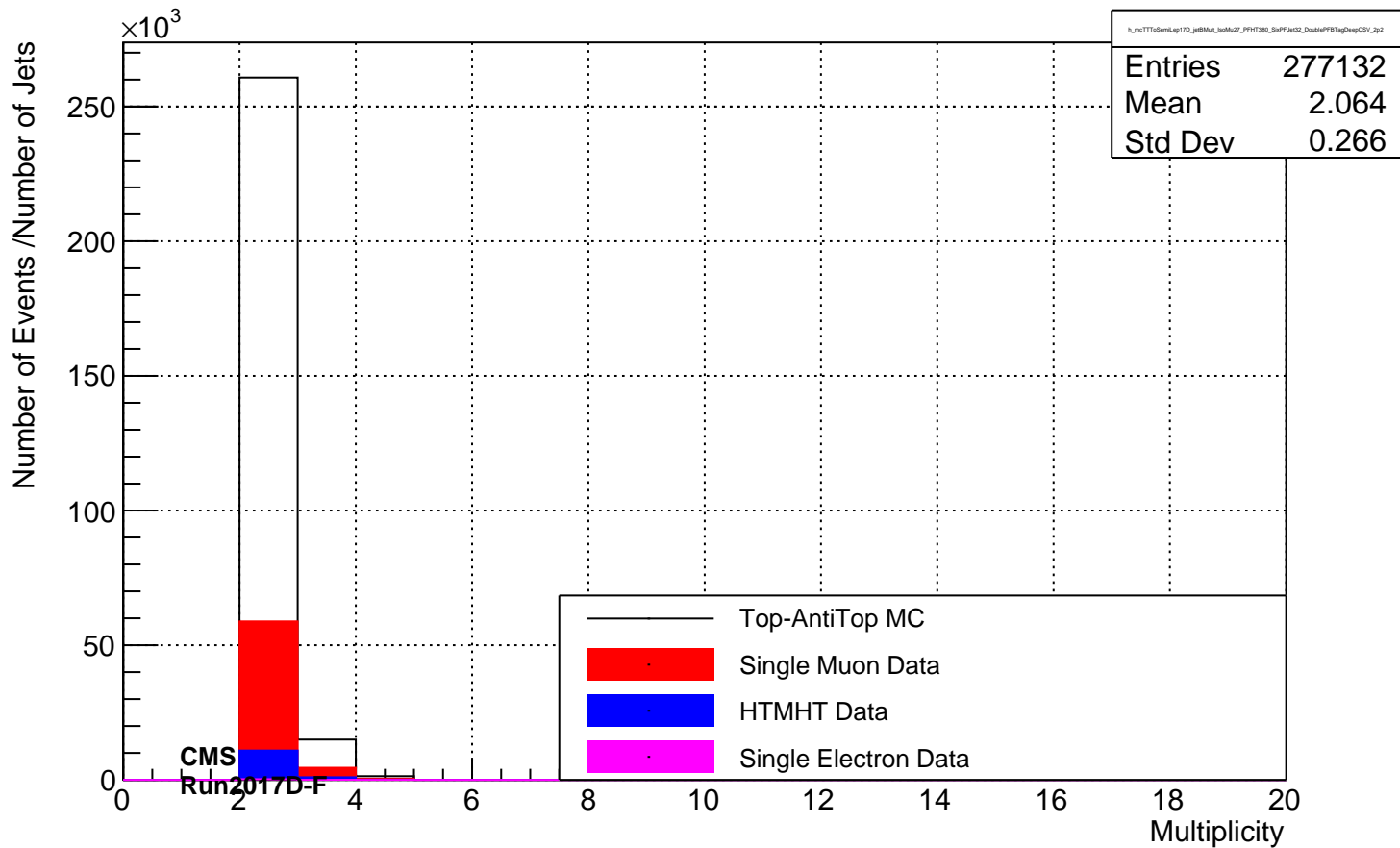
Number of Events per 10 GeV/c

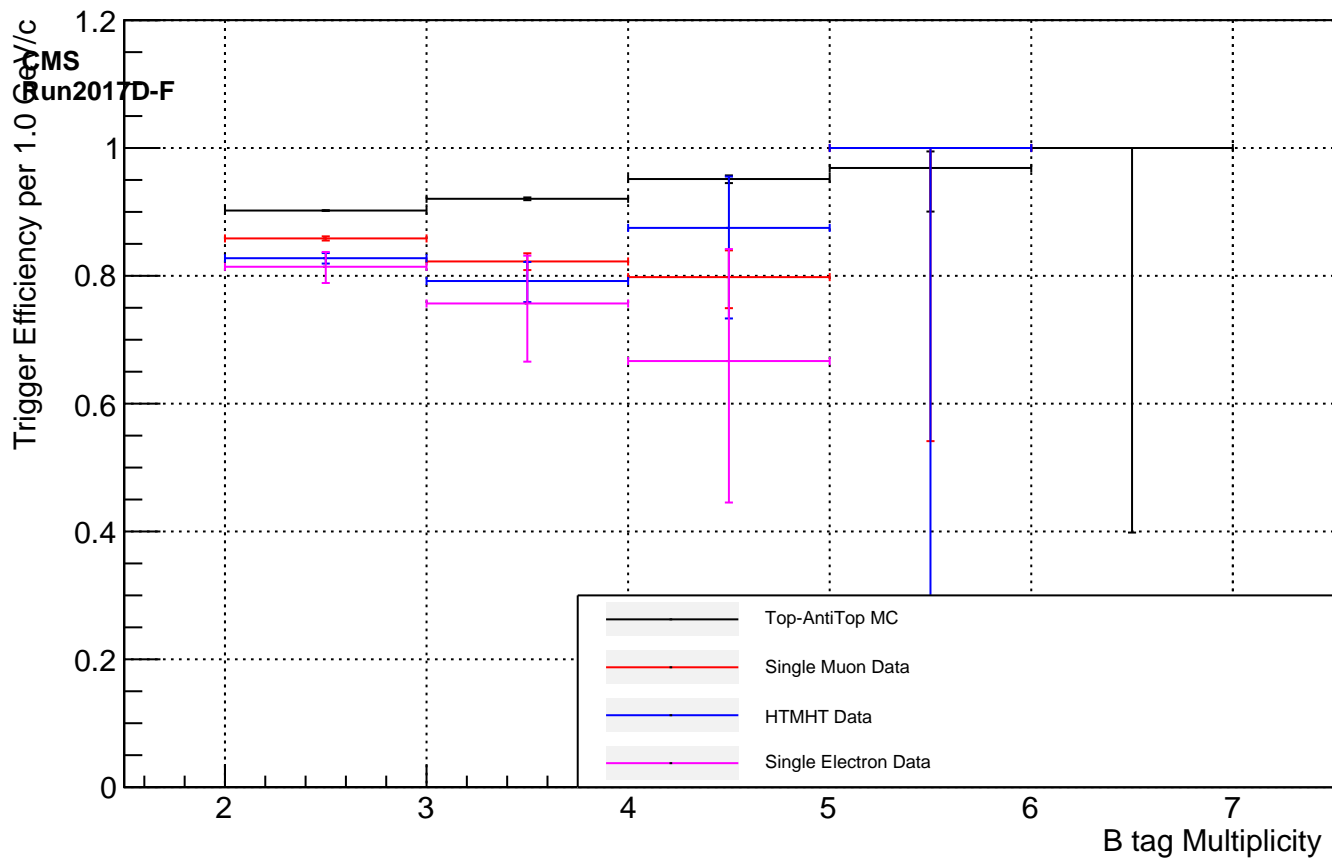




IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

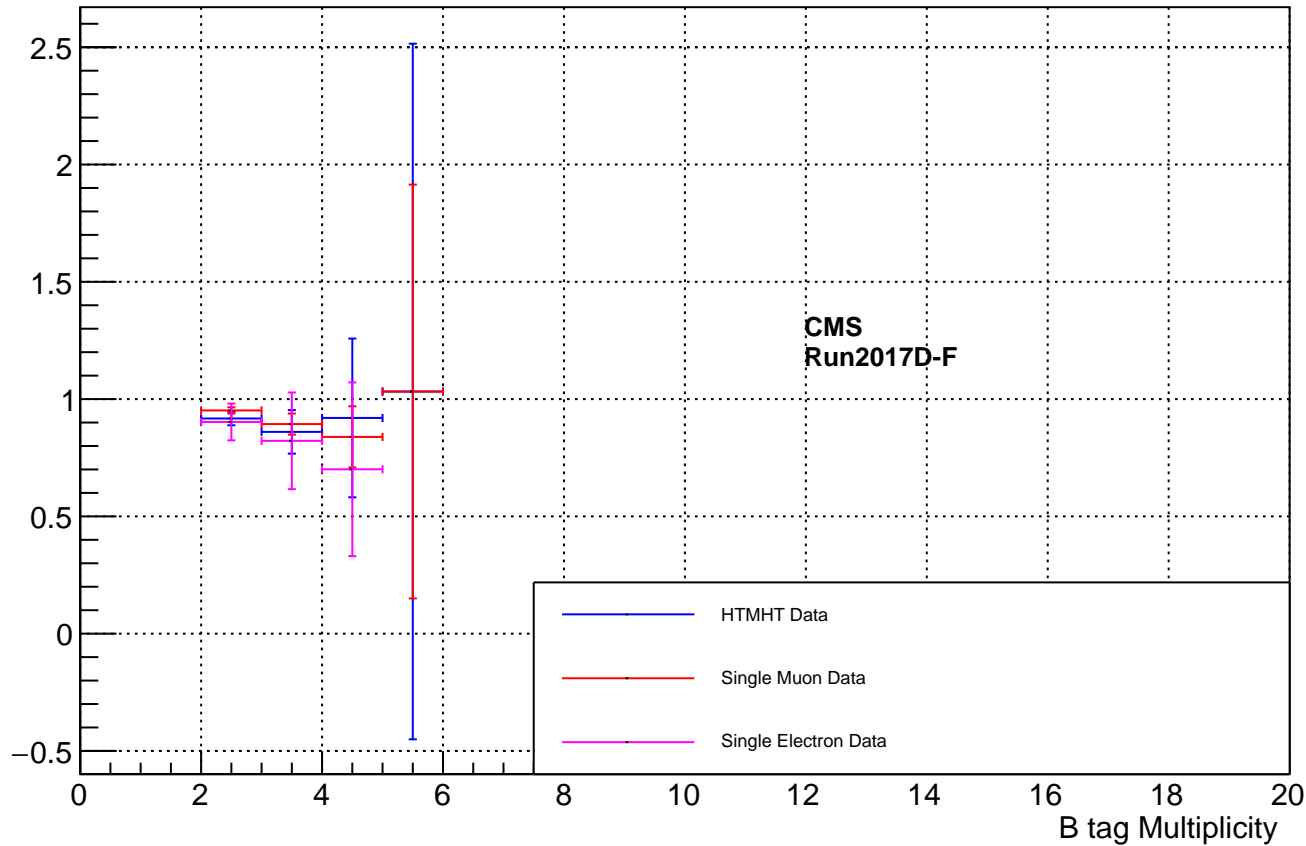




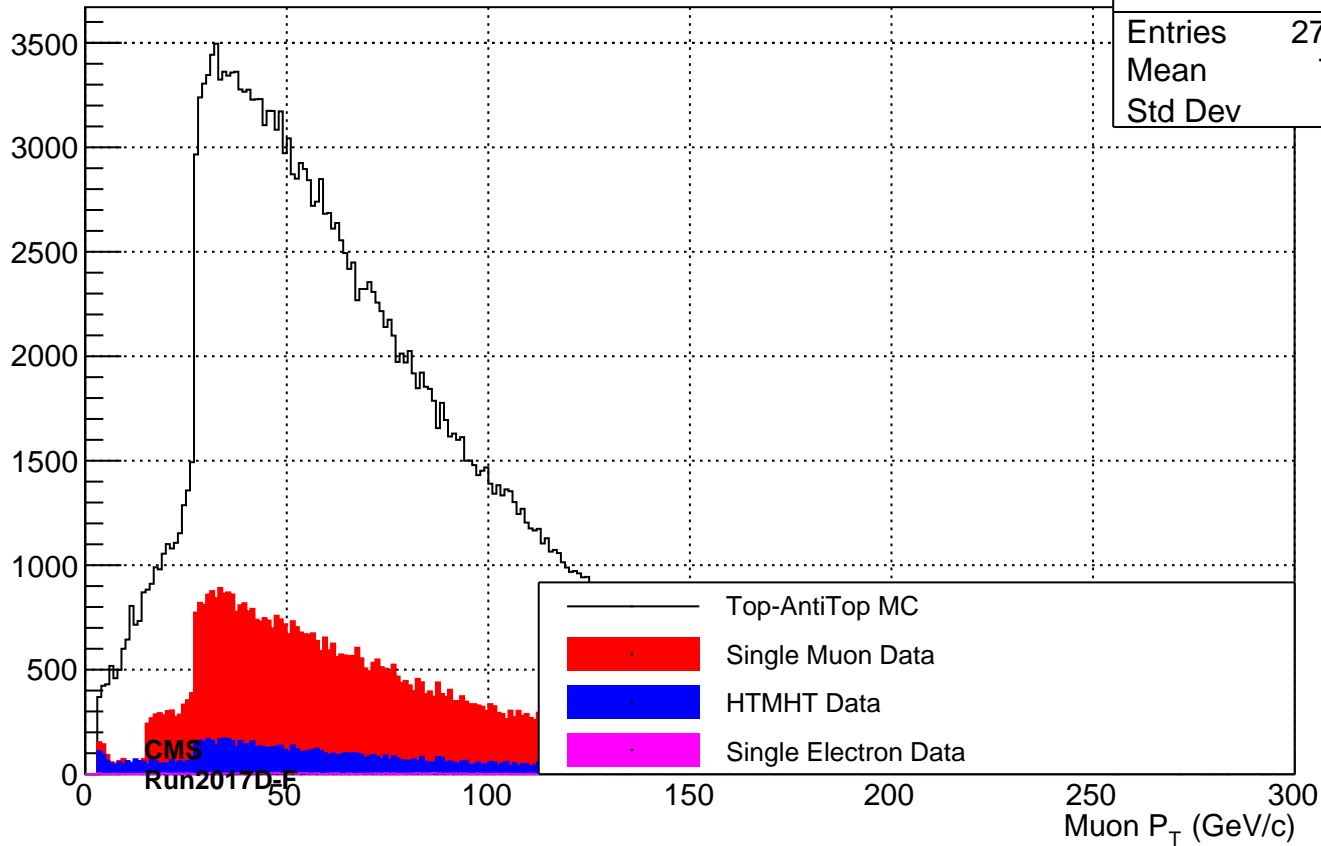


# IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

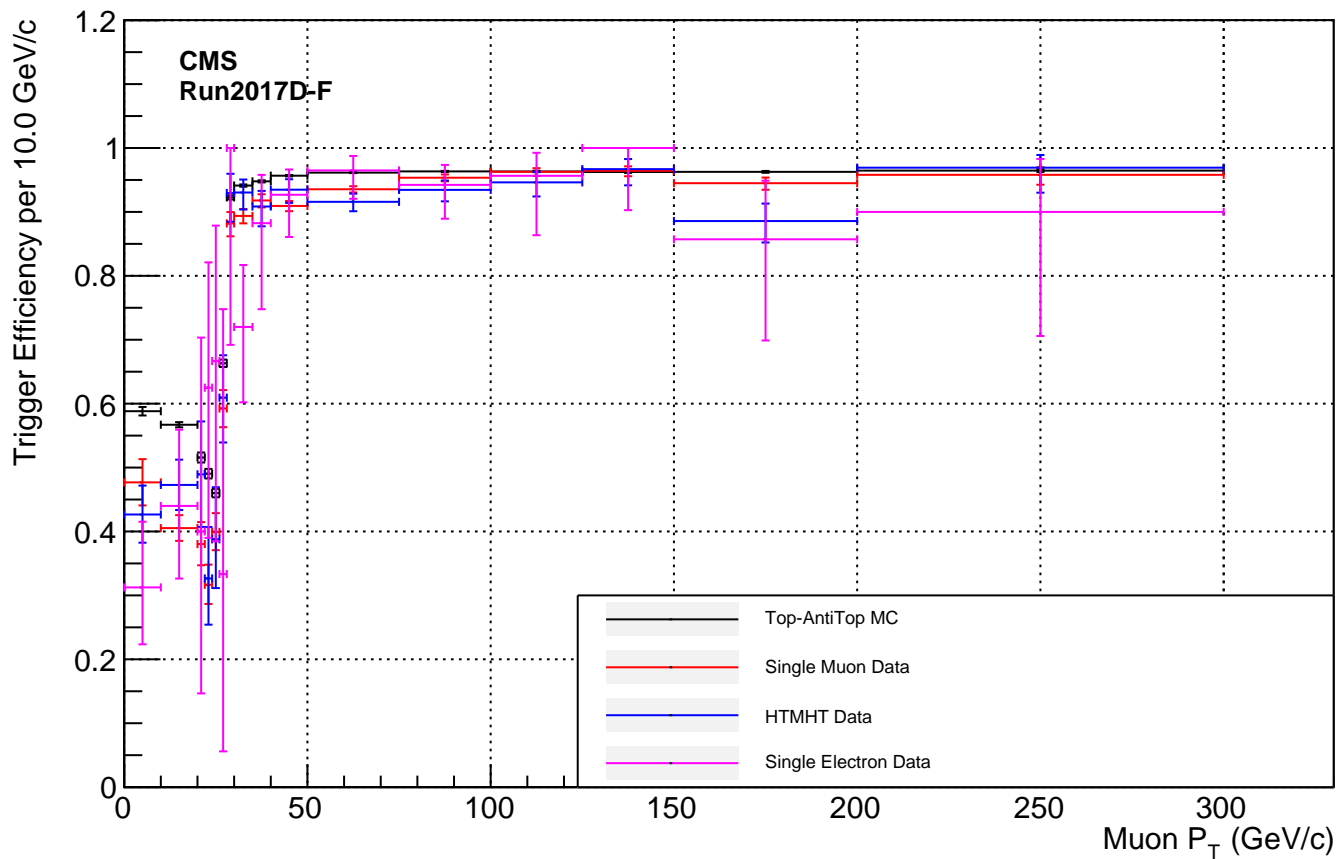
Scale Factors per 1.0 GeV/c



Number of Events per 1 GeV/c







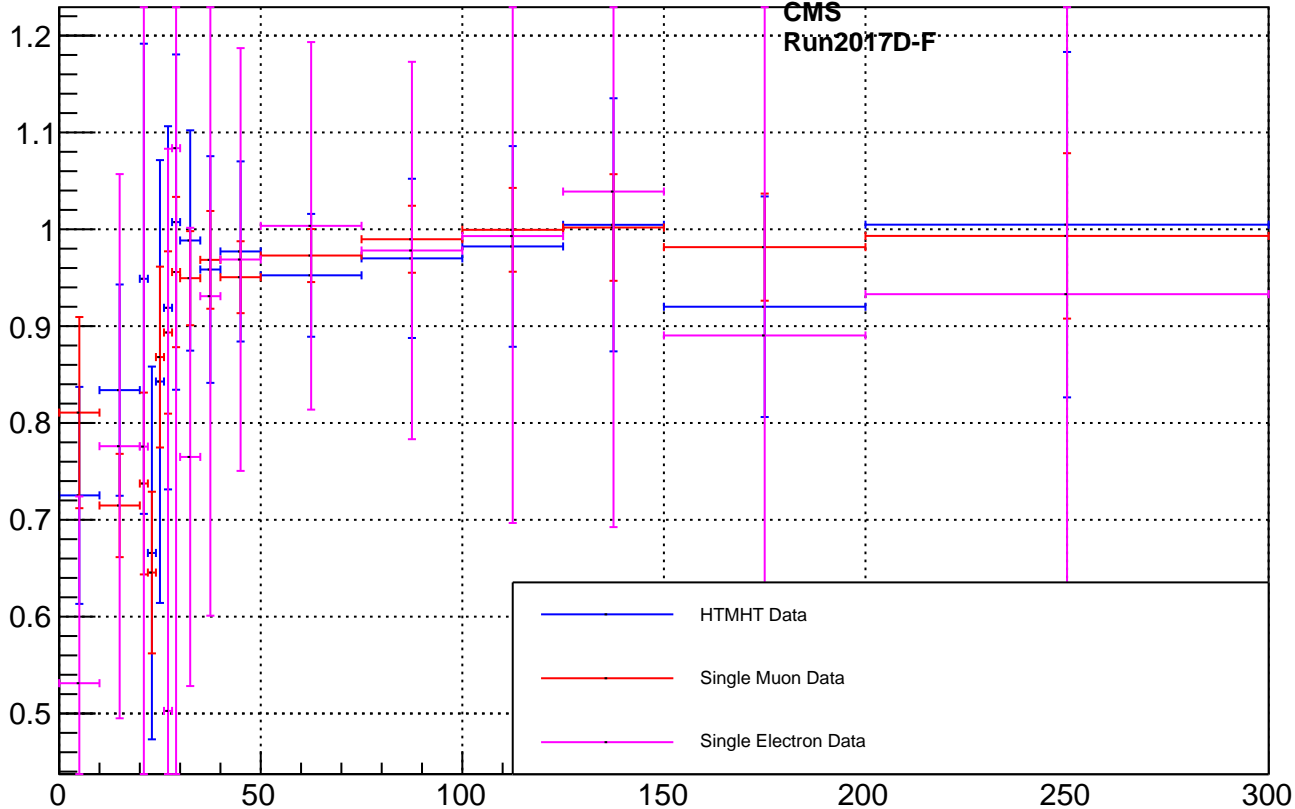
# IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

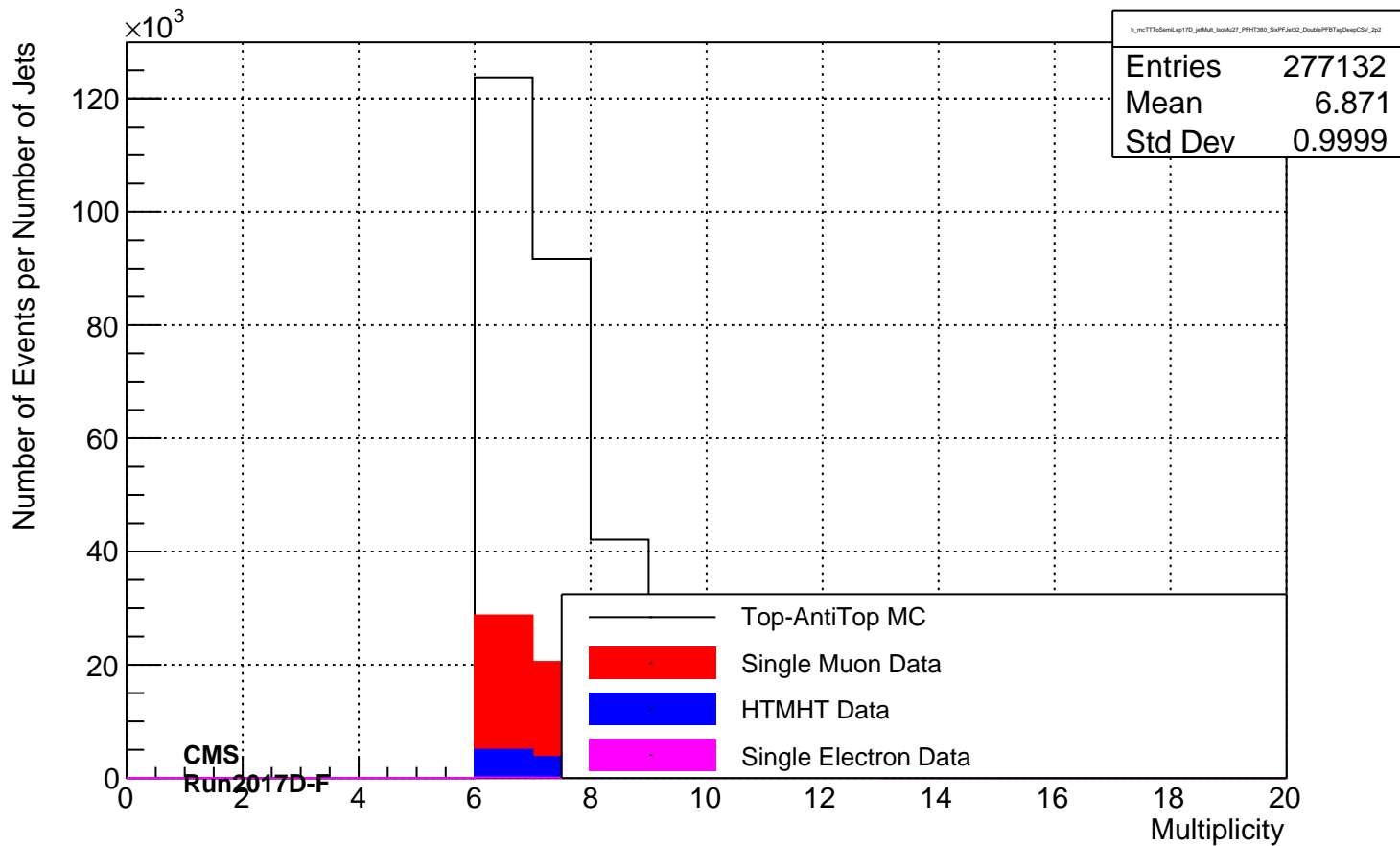
Scale Factors per 10.0 GeV/c

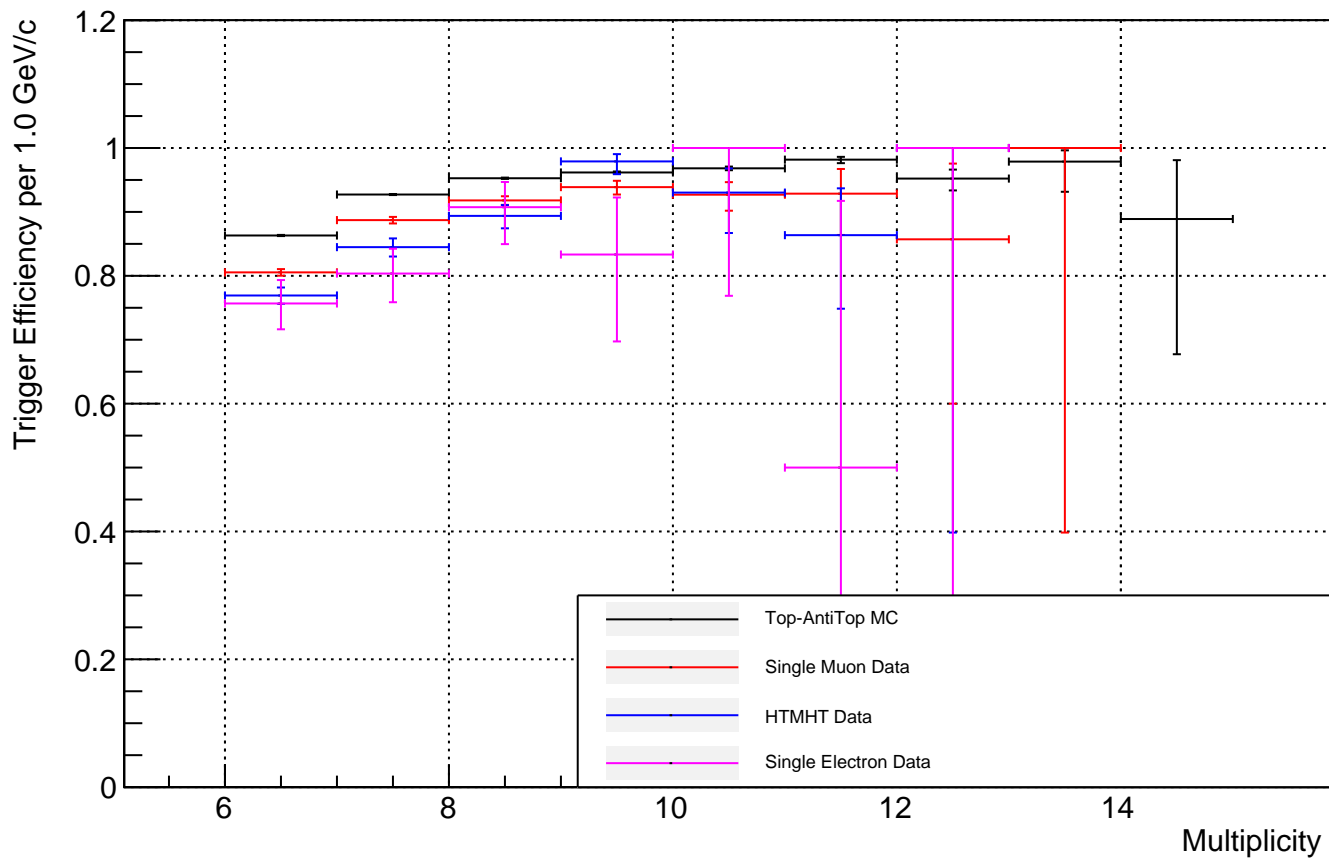
CMS  
Run2017D-F

- HTMHT Data
- Single Muon Data
- Single Electron Data

Muon  $P_T$  (GeV/c)







IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

Scale Factors per 1.0 GeV/c

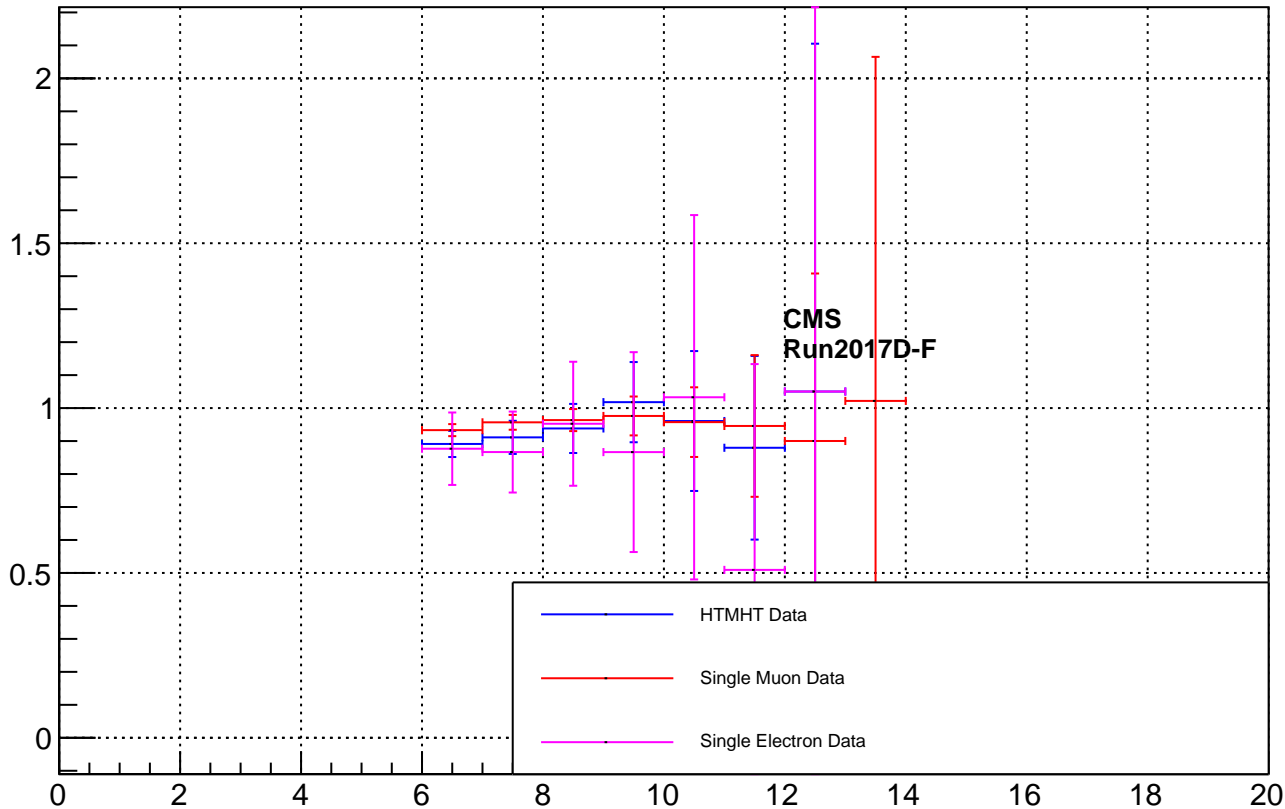
CMS  
Run2017D-F

HTMHT Data

Single Muon Data

Single Electron Data

Multiplicity



IsoMu27\_PFHT380\_SixPFJet32\_DoublePFBTagDeepCSV\_2p2

Scale Factors per 1.0 GeV/c

