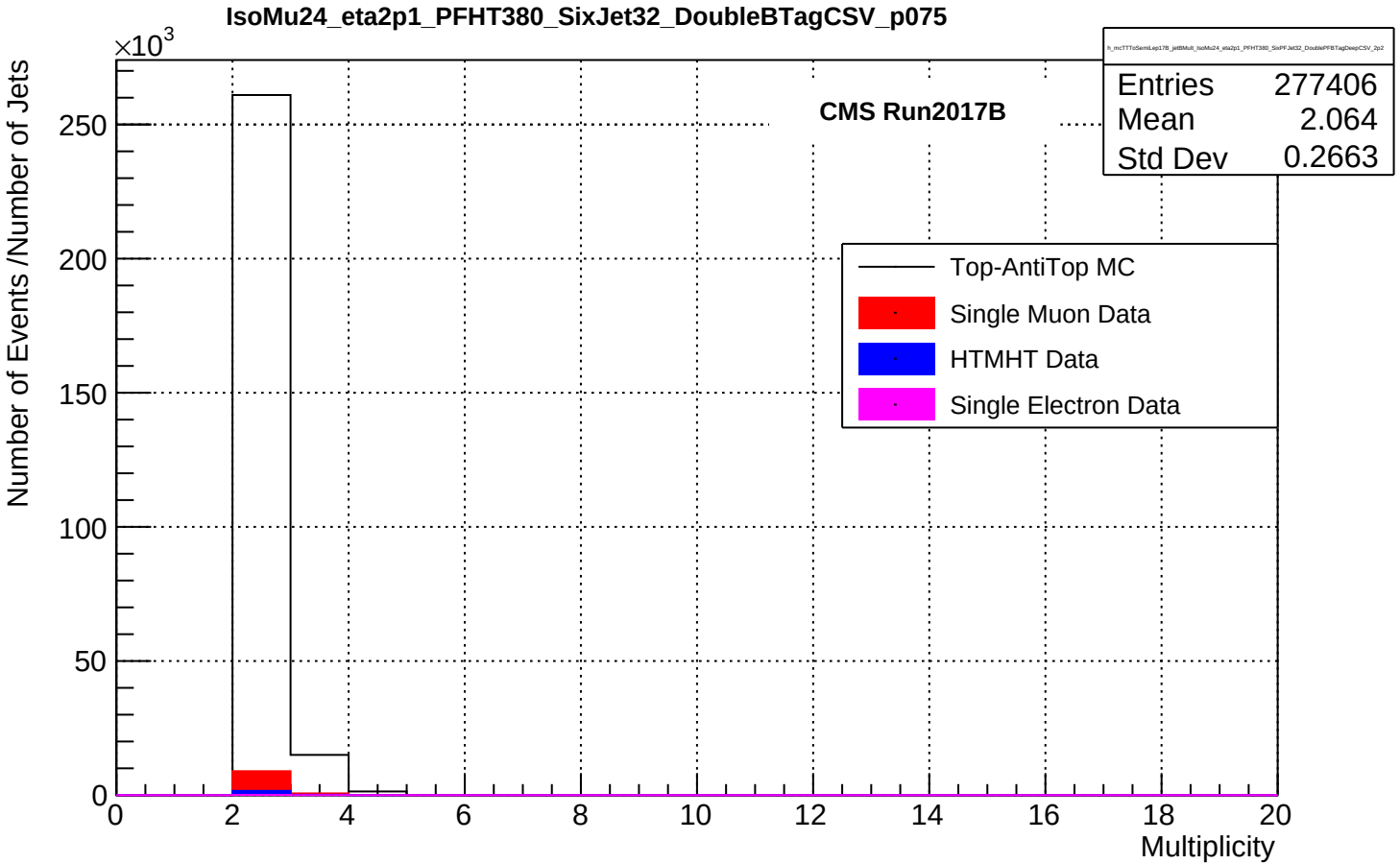
Pre-selection Requisites for:

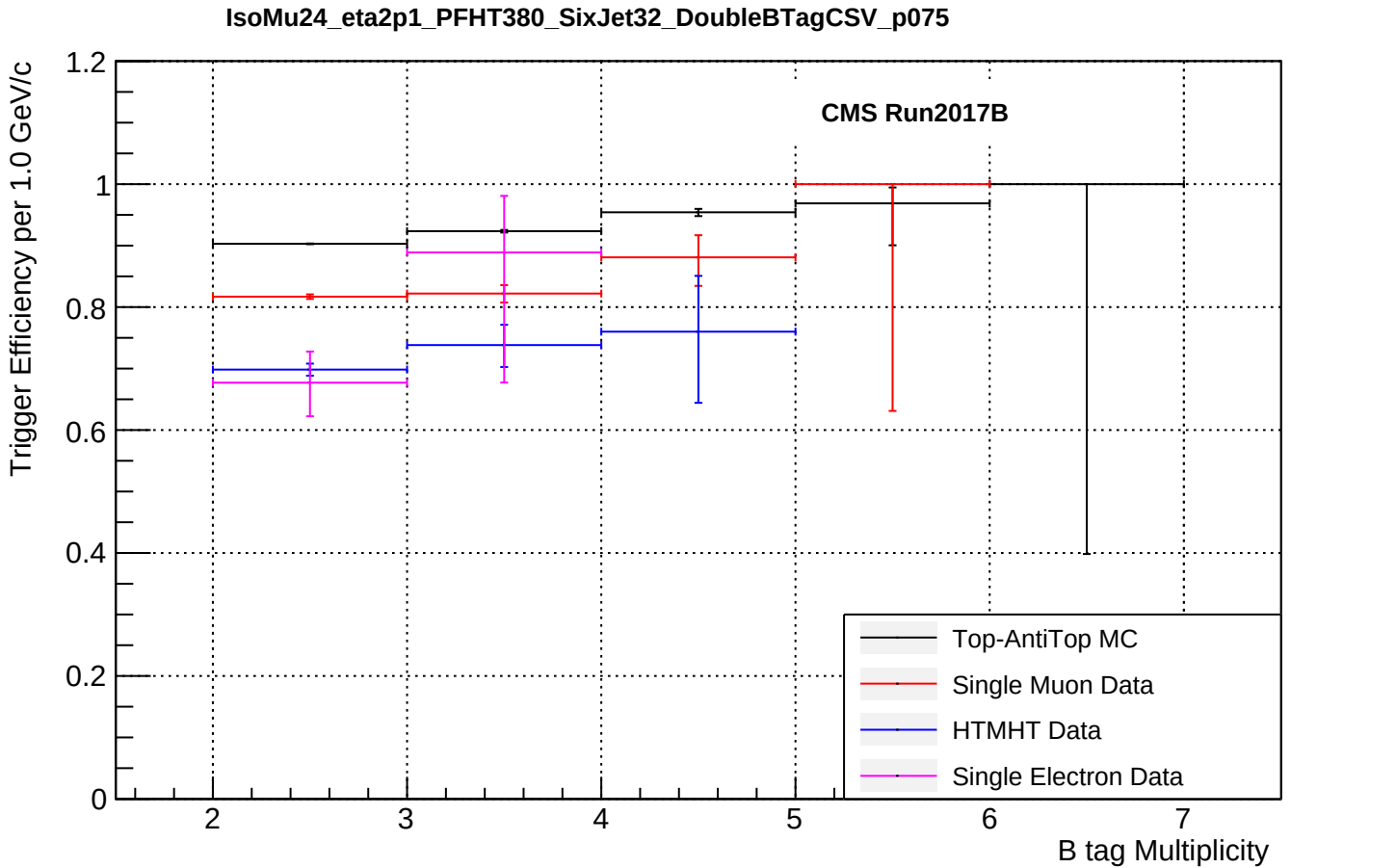
- **Jets:** number > 5
- **Leptons (Muons or Electrons):** number > 0

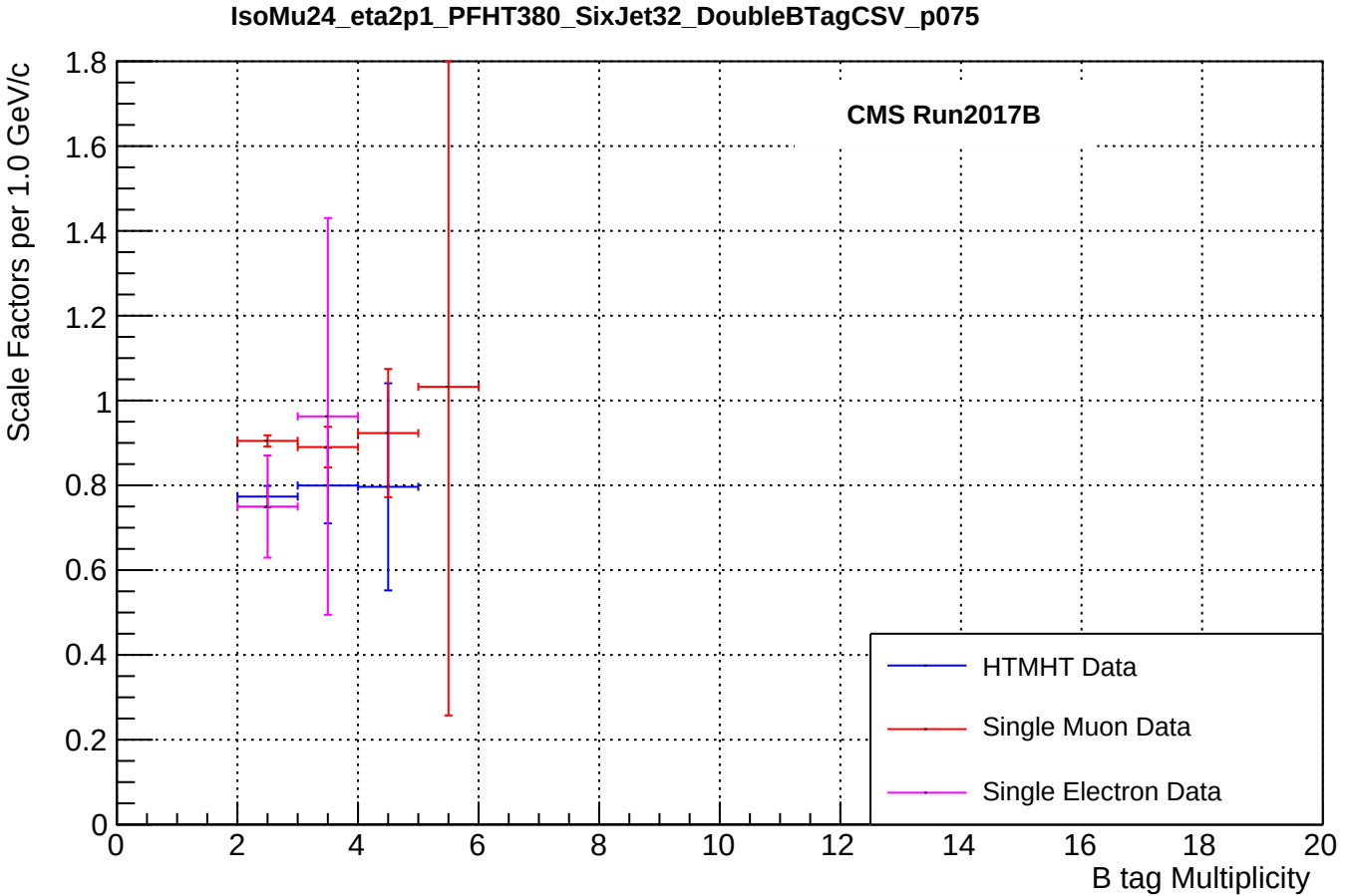
Event Limit: None (see last page)

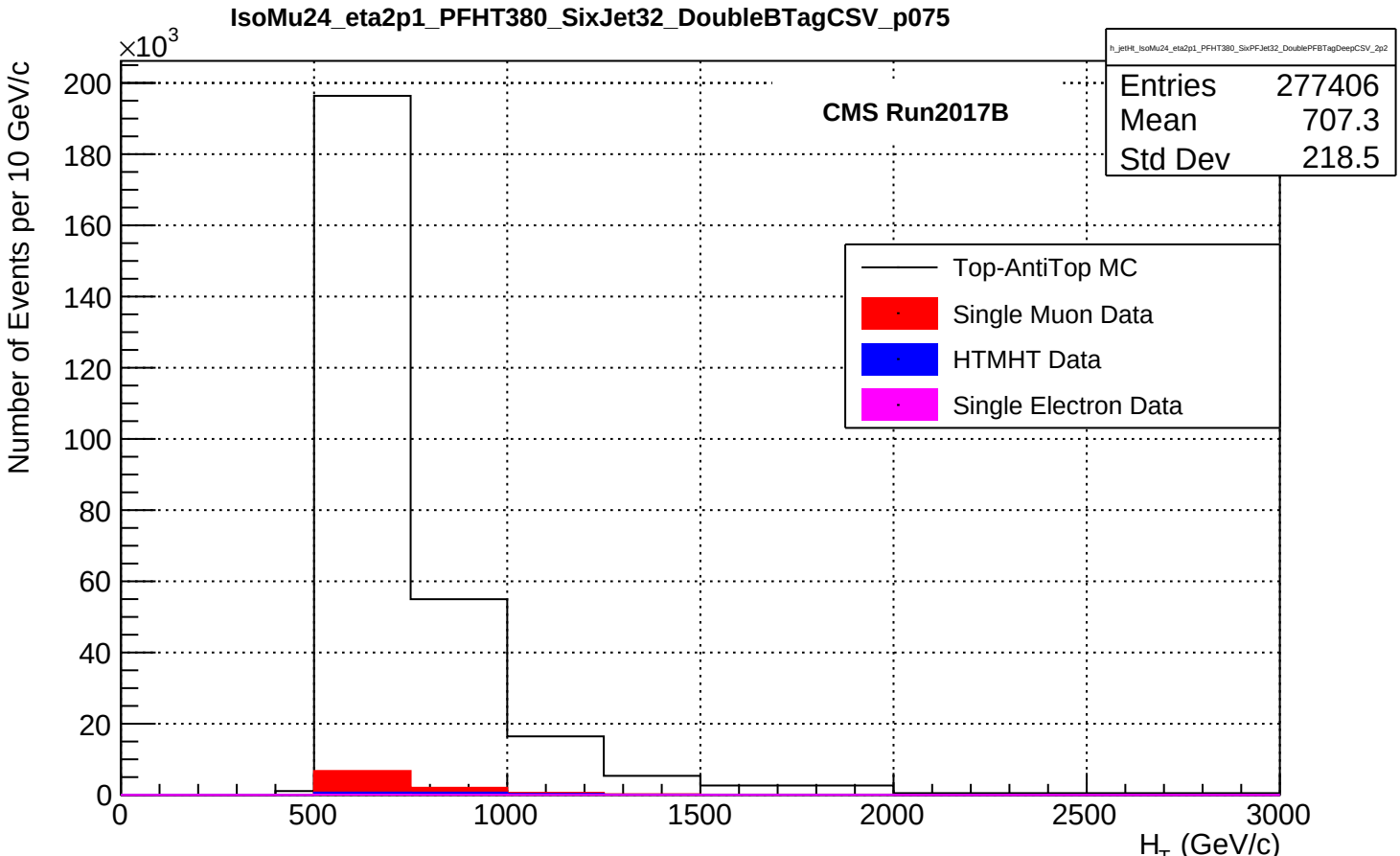
Baseline selection Requisites for:

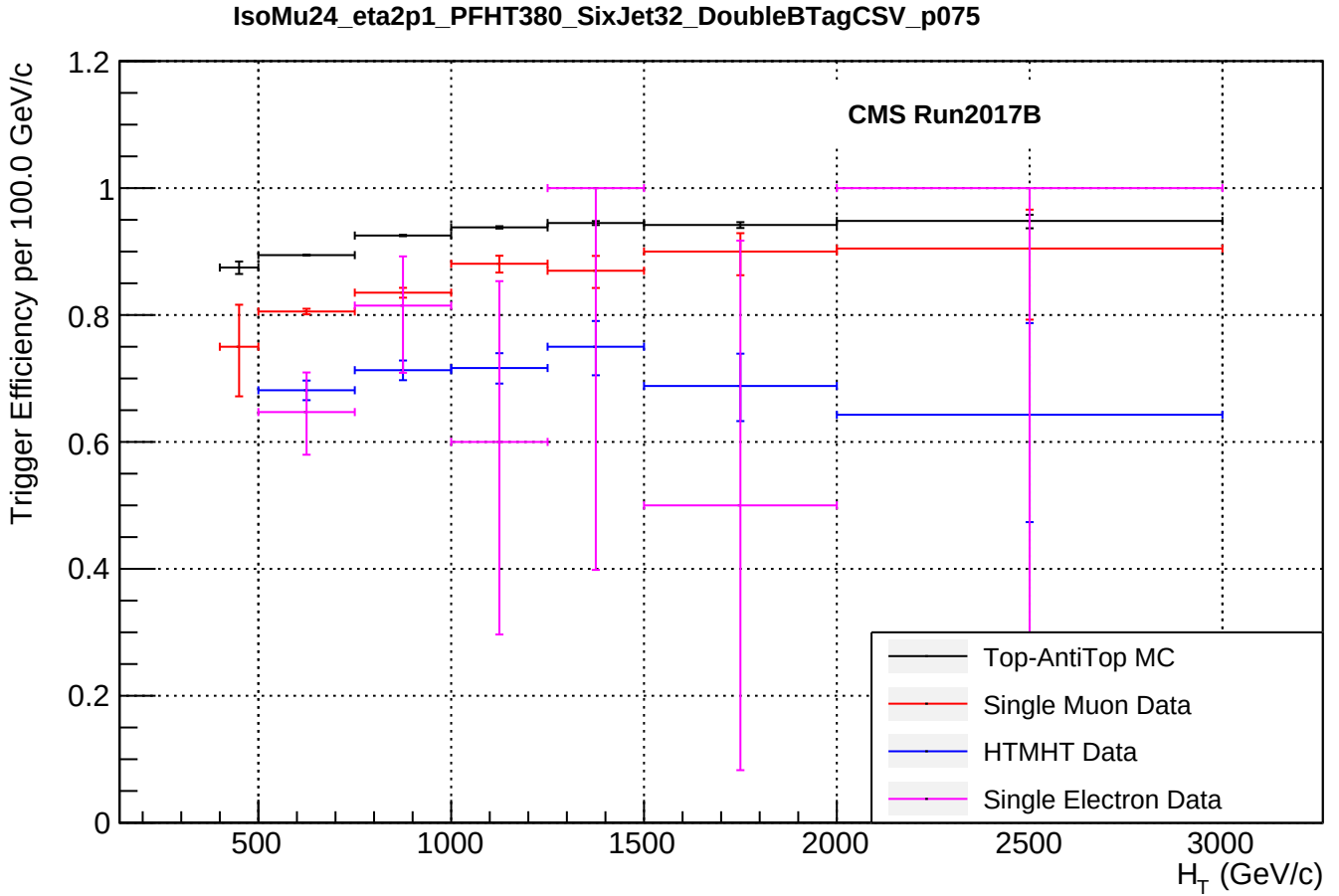
- **Jets:** jetId > 2 , p_T > 30 and |η|<2.4 (for at least 6 jets)
  btagDeepFlavB > 0.7489 (for at least one jet)
- **Muons:** has tightId, |η|<2.4 and PFRelIso_all<0.15 (for at least 1)
- HT >500 GeV

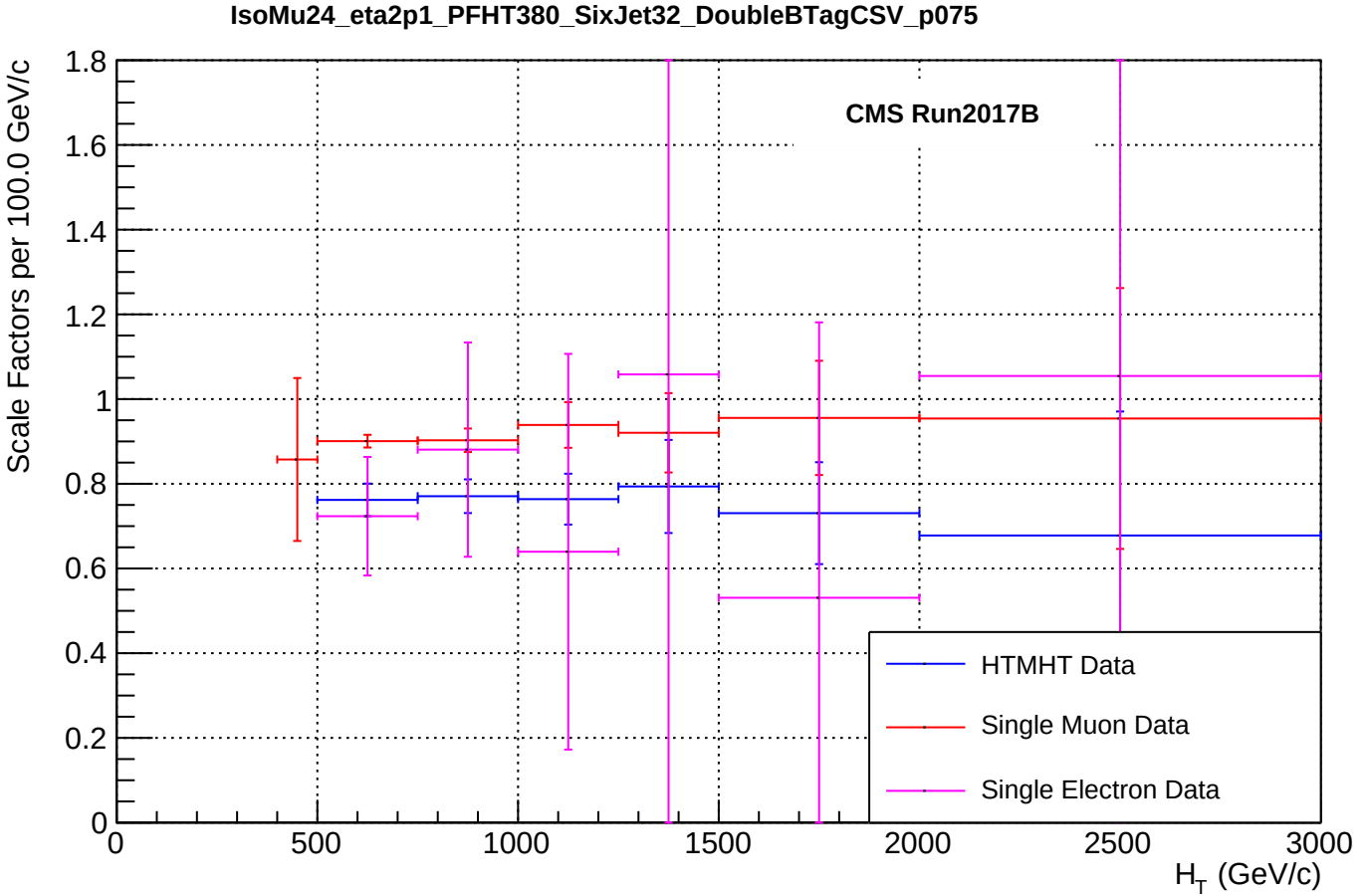

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Entries 277406
Mean 2.064
Std Dev 0.2663
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data
Number of Events /Number of Jets
Multiplicity
×10^3
0
50
100
150
200
250
0
2
4
6
8
10
12
14
16
18
20

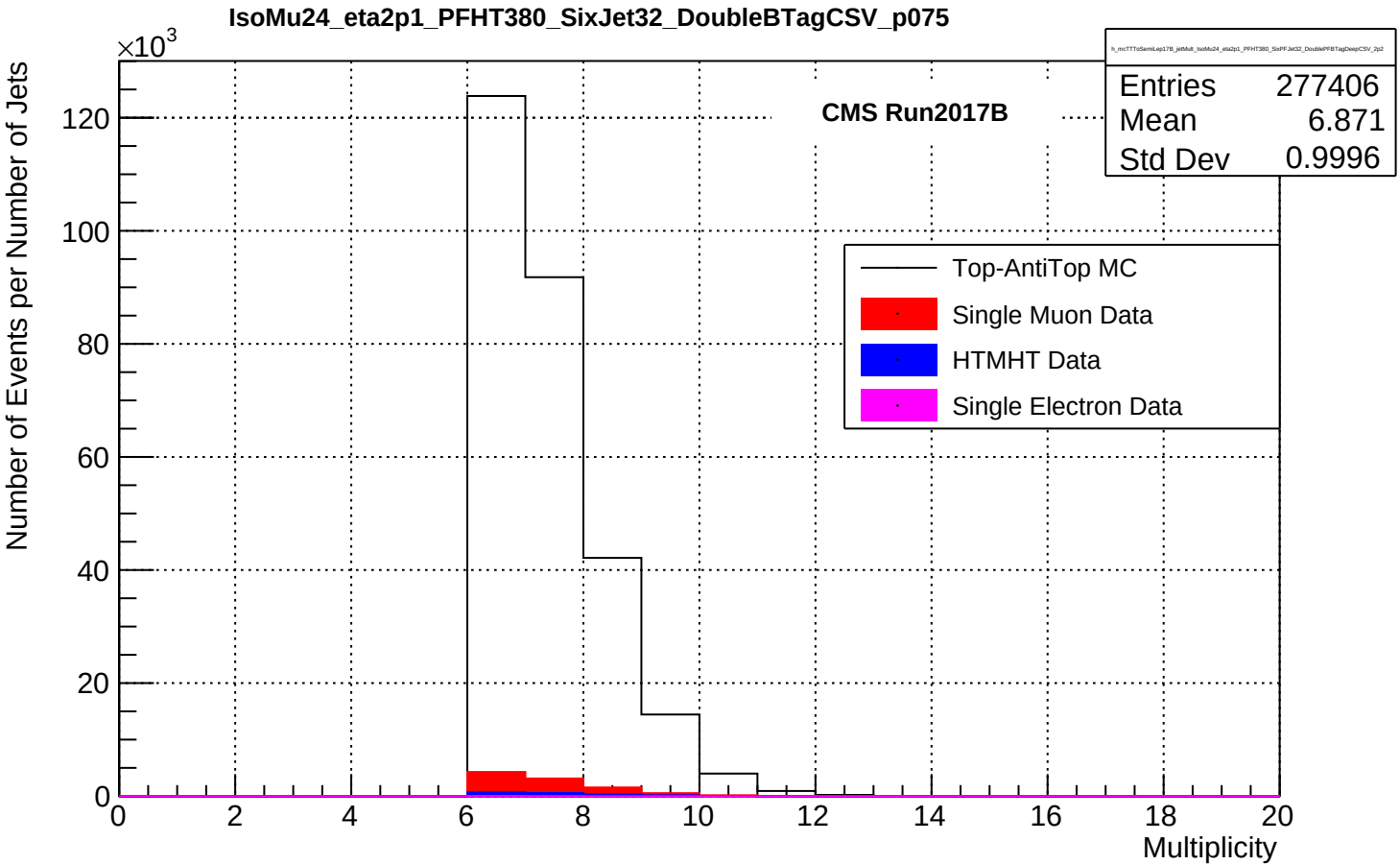

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Trigger Efficiency per 1.0 GeV/c
B tag Multiplicity
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data
0
0.2
0.4
0.6
0.8
1
1.2
2
3
4
5
6
7

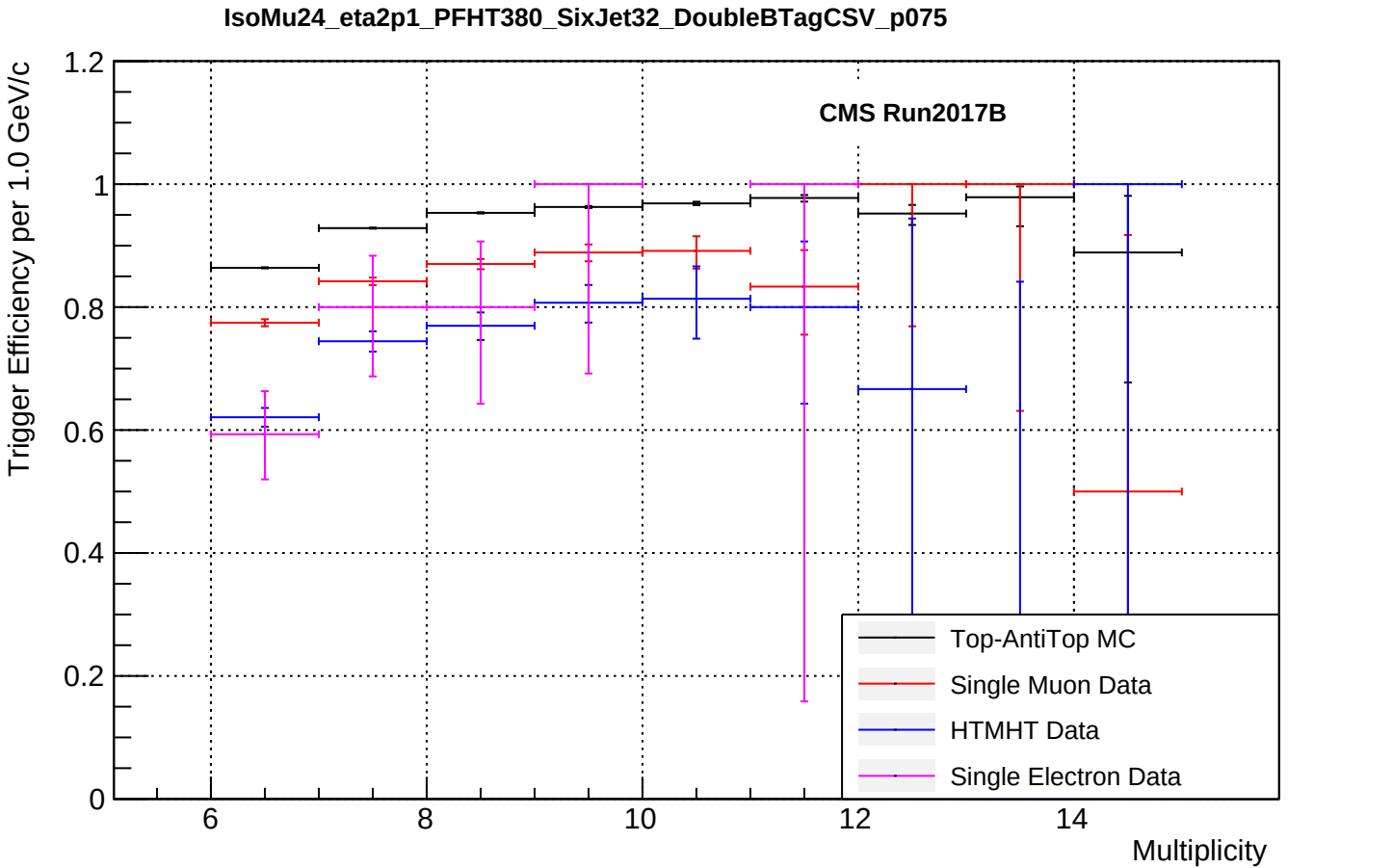

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Scale Factors per 1.0 GeV/c
B tag Multiplicity
HTMHT Data
Single Muon Data
Single Electron Data
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
0
2
4
6
8
10
12
14
16
18
20

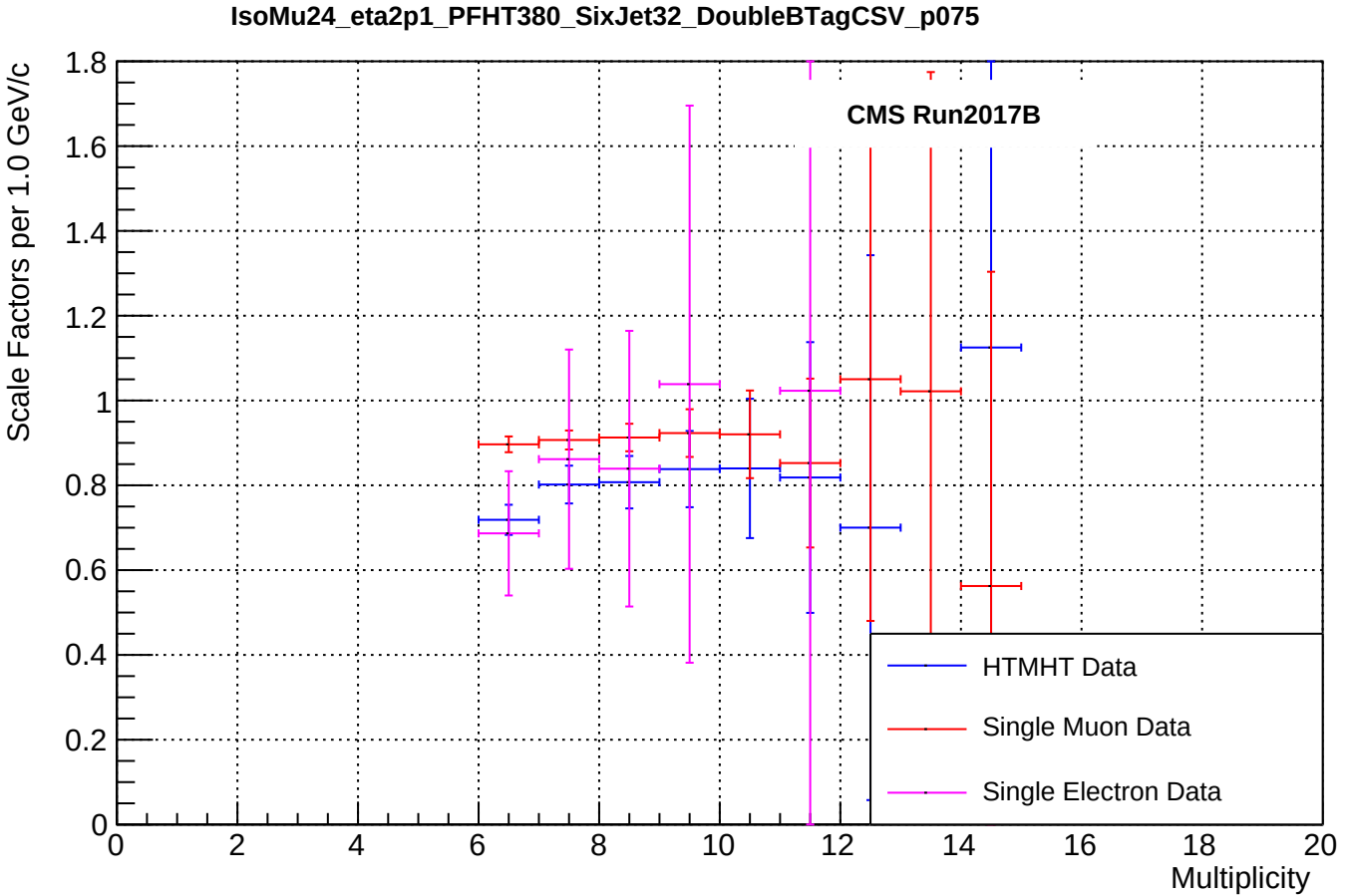

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
×10^3
Number of Events per 10 GeV/c
200
180
160
140
120
100
80
60
40
20
0
0
500
1000
1500
2000
2500
3000
H_T (GeV/c)
CMS Run2017B
h_jetHt_IsoMu24_eta2p1_PFHT380_SixPFJet32_DoublePFBTagDeepCSV_2p2
Entries 277406
Mean 707.3
Std Dev 218.5
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data

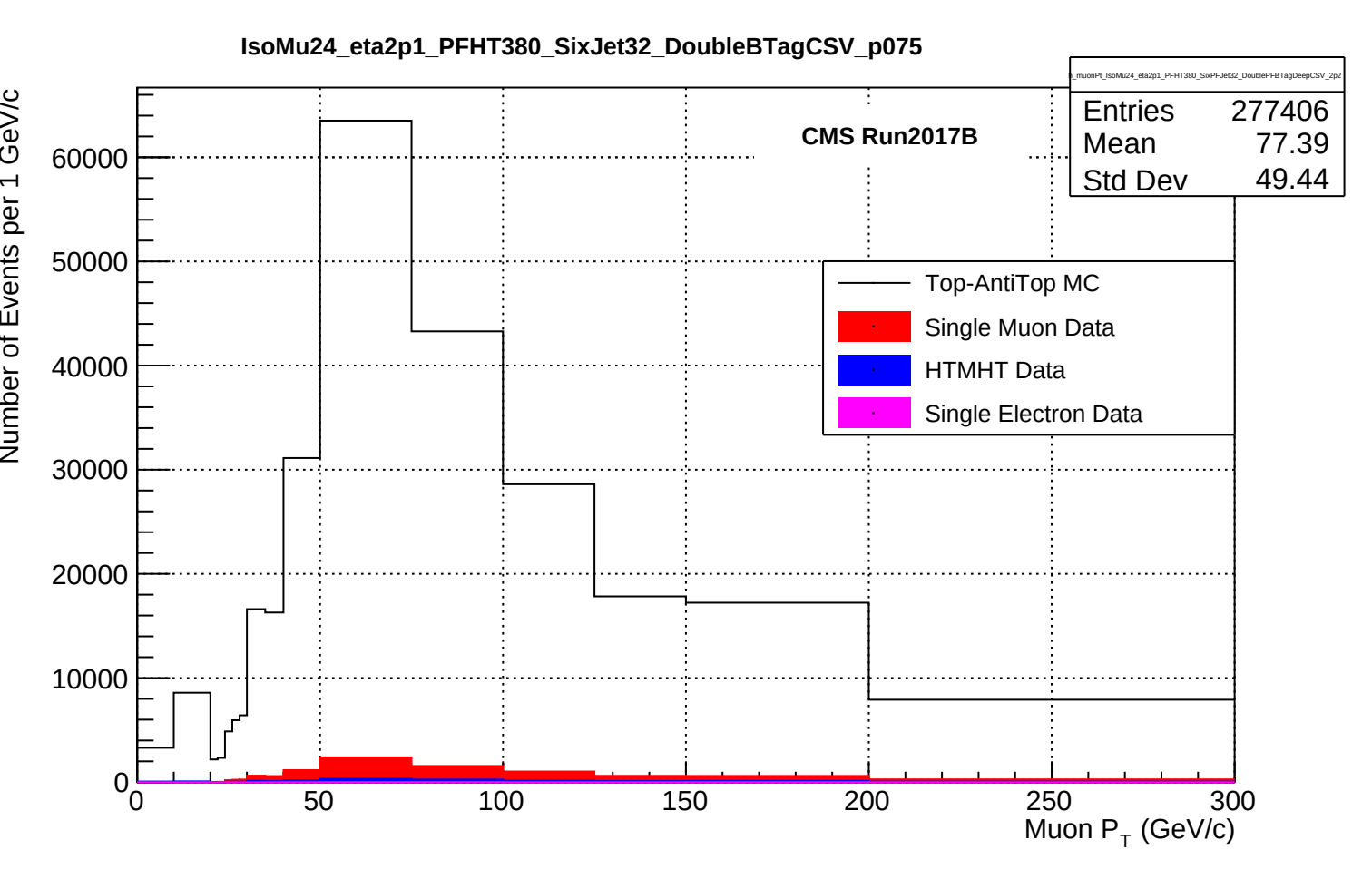

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Trigger Efficiency per 100.0 GeV/c
1.2
1
0.8
0.6
0.4
0.2
0
500
1000
1500
2000
2500
3000
H_T (GeV/c)
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data

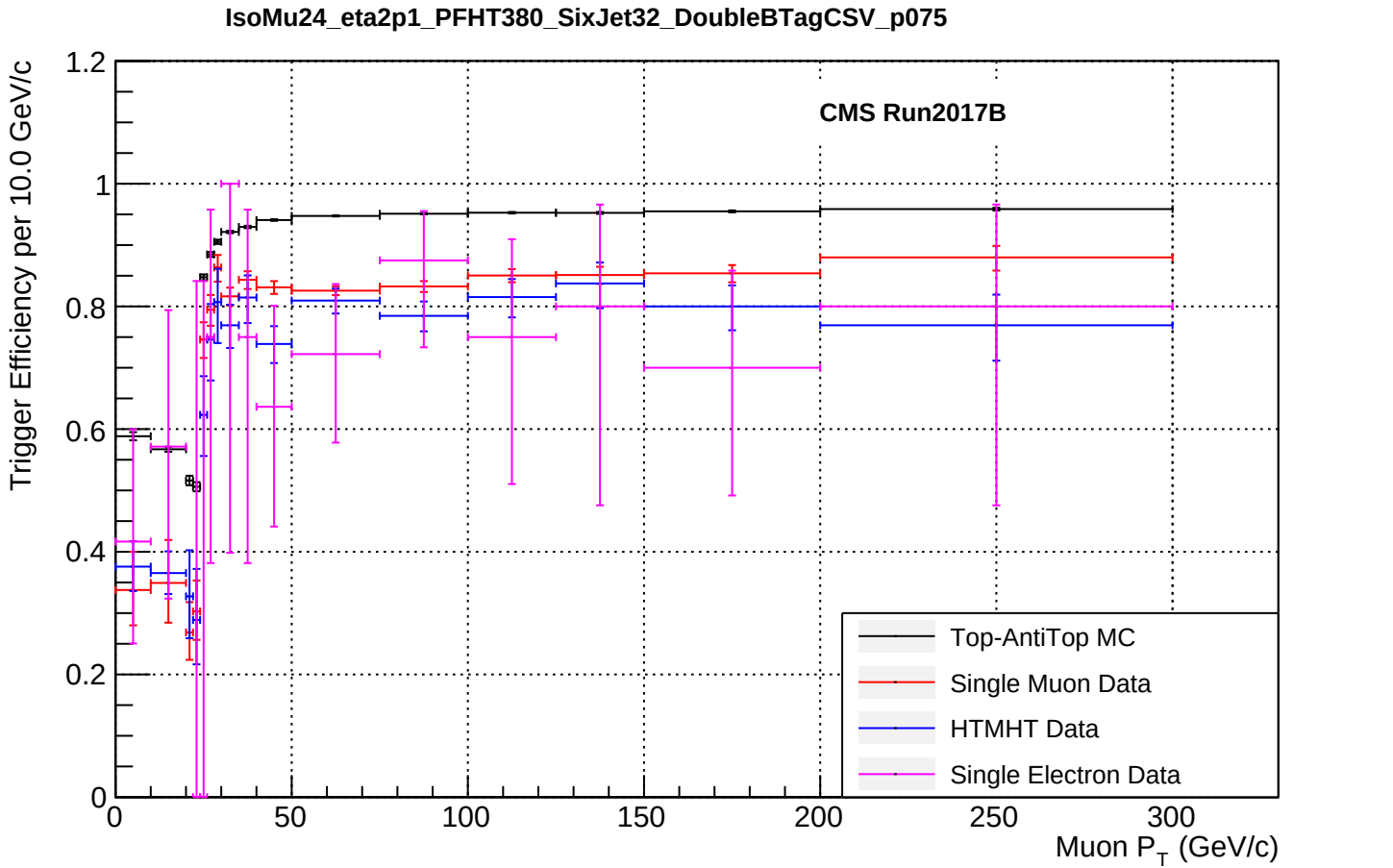

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Scale Factors per 100.0 GeV/c
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
500
1000
1500
2000
2500
3000
H_T (GeV/c)
HTMHT Data
Single Muon Data
Single Electron Data

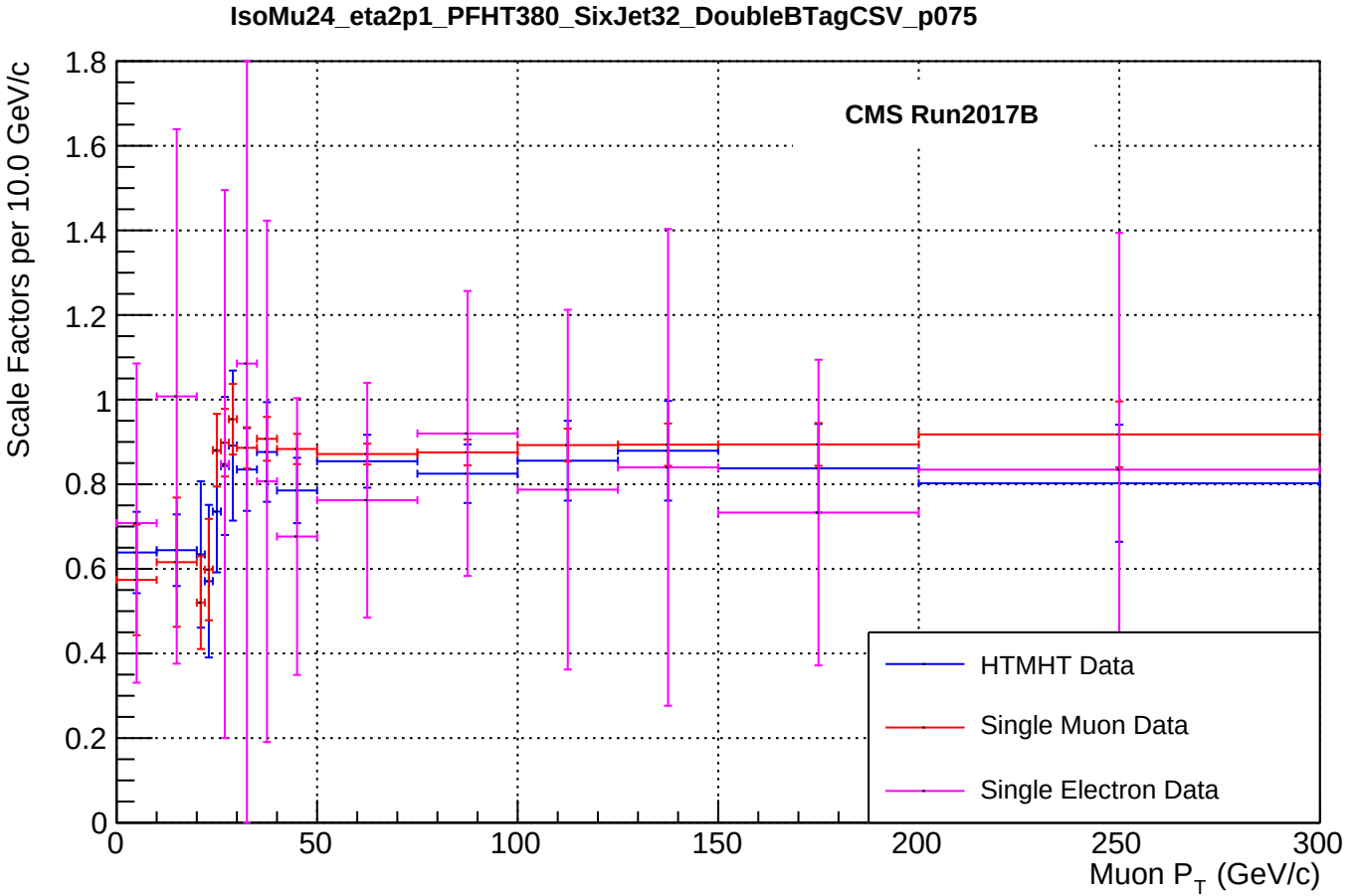

IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Entries 277406
Mean 6.871
Std Dev 0.9996
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data
Number of Events per Number of Jets
×10^3
Multiplicity
0
20
40
60
80
100
120
0
2
4
6
8
10
12
14
16
18
20


IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Trigger Efficiency per 1.0 GeV/c
Multiplicity
0
0.2
0.4
0.6
0.8
1
1.2
6
8
10
12
14
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data


IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Scale Factors per 1.0 GeV/c
Multiplicity
HTMHT Data
Single Muon Data
Single Electron Data
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
0
2
4
6
8
10
12
14
16
18
20


IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Entries 277406
Mean 77.39
Std Dev 49.44
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data
Number of Events per 1 GeV/c
Muon P_T (GeV/c)
0
10000
20000
30000
40000
50000
60000
0
50
100
150
200
250
300


IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Trigger Efficiency per 10.0 GeV/c
Muon P_T (GeV/c)
Top-AntiTop MC
Single Muon Data
HTMHT Data
Single Electron Data
0
0.2
0.4
0.6
0.8
1
1.2
0
50
100
150
200
250
300


IsoMu24_eta2p1_PFHT380_SixJet32_DoubleBTagCSV_p075
CMS Run2017B
Scale Factors per 10.0 GeV/c
Muon P_T (GeV/c)
HTMHT Data
Single Muon Data
Single Electron Data
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
0
50
100
150
200
250
300

Values coming soon