

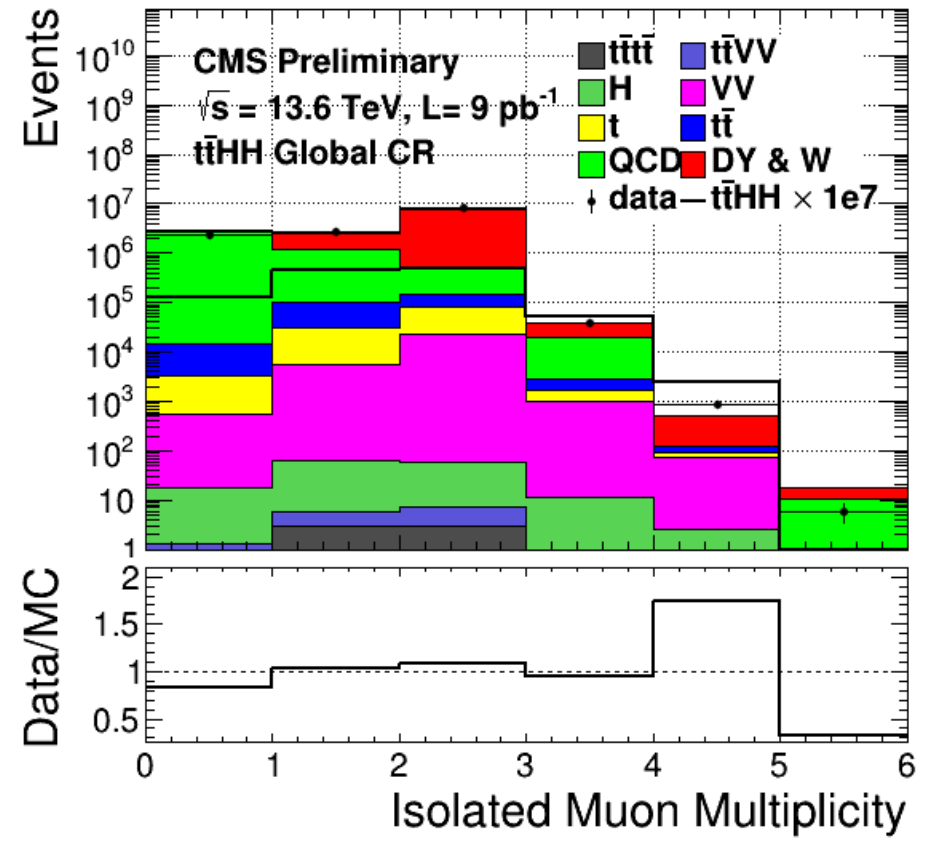
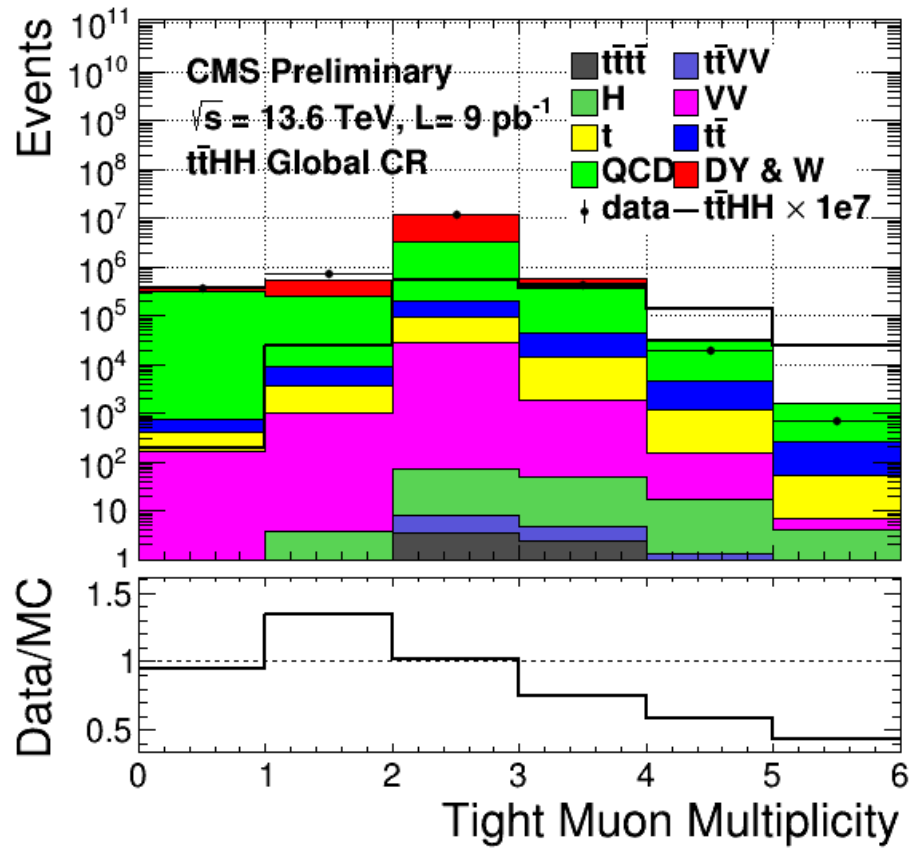
TODO list

- Too low stats: Need to loosen the p_T cut in the muon. Now in looking at the Muons with only trigger threshold.
- Found unmatching in single-Muon region, need to validate the multiplicity first in the global control region.
- To add samples missed:
 - ttZ, ttW samples
 - Multi-leptons samples: WZto3LNu, ZZto4L
 - Diboson samples: GluGluToContinto2ZtonEmMu
 - Photon contribution (?): DYGto2LG, WGtoLNuG
 - Higgs contribution: THQ, THW

Relaxed Muon condition

- Global CR selection:
 - Only requires pass the Di-Muon trigger
HLT_Mu17_TrkIsoVVL_Mu8_TrkIsoVVL_DZ_Mass3p8
- Muon selection:
 - Tight Muon: $|\eta| < 2.4$, Muon_tightID
 - Isolated Muon: $|\eta| < 2.4$, Muon_tightID and Muon_pfRelIso04_all<0.15
- B-jet selection:
 - $p_T > 30$ GeV, $|\eta| < 2.4$, Jet_jetId == 6
 - Jet_btagPNetB > 0.1917

Muon multiplicity



b-Jet multiplicity

