

VBF Higgs to Invisible Trigger Efficiencies

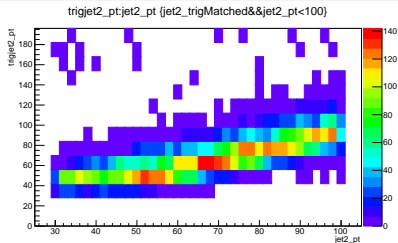
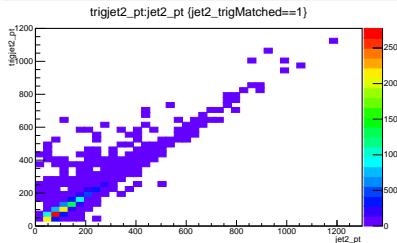
P. Dunne on behalf of the $H \rightarrow \text{invisible}$ analysis group

Reminder

- ▶ Presented trigger efficiency measurements using 1.28 fb^{-1} to H-Exo last week
- ▶ Suggested to look at jet turn on in jet only trigger
 - Added pass/fail information for HLT_DiPFJetAve40 and HLT_PFHT750_4JetPt50
- ▶ Also wanted to look at offline vs online jet p_T
 - Added HLT pf jets matched to offline leading jets
 - Added calo jets matched to offline leading jets
 - Trigger objects only present when event passes trigger
- ▶ Light trees with calo information only came back this morning so plots are a bit rough

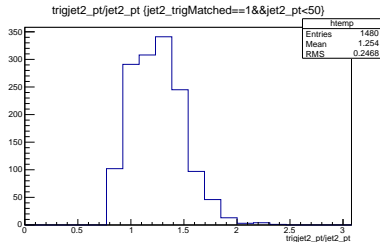
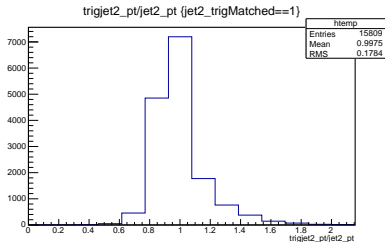
Offline to online resolution: PF

- ▶ Compare offline and online jet p_T
- ▶ Trigger cut is at 40 GeV



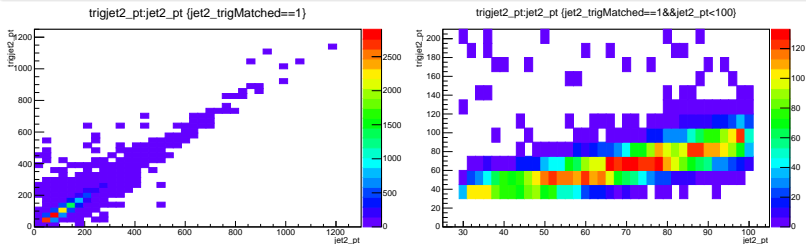
Offline to online resolution: PF

- ▶ Compare offline and online jet p_T
 - Left plot is for all jets right is for $p_T < 50$ GeV
- ▶ Trigger cut is at 40 GeV



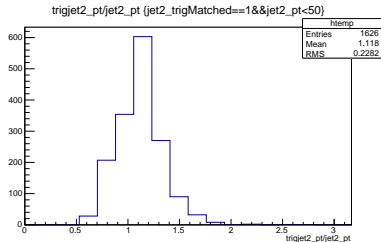
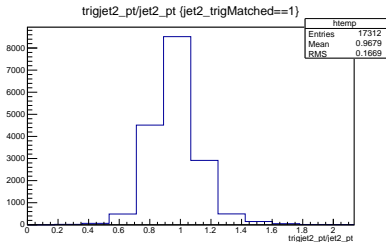
Offline to online resolution: Calo

- ▶ We have a calo jet prefilter at 30 GeV
- ▶ It has been found that the wrong JEC was used at HLT in Run2015
 - [Slides here](#)
 - this would have a larger effect on calo as the corrections are larger



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Summary

- ▶ More things to investigate
 - Jet trigger turn on in a pure jet trigger
 - Study PF and calo offline to online response in more detail
- ▶ Latest golden JSON being processed now: 1.56 fb^{-1}
- ▶ CSC halo filter v1 list of veto events came out over the weekend: need to switch to this

Backup

