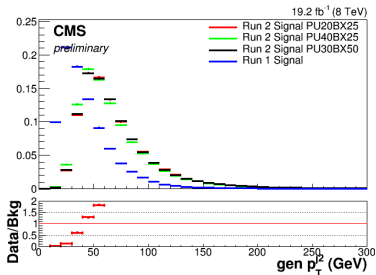
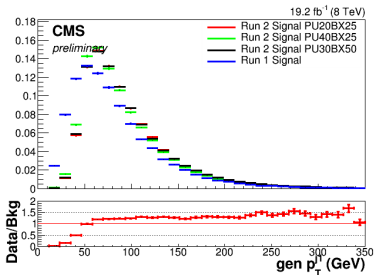


VBF Higgs to Invisible

Reminder

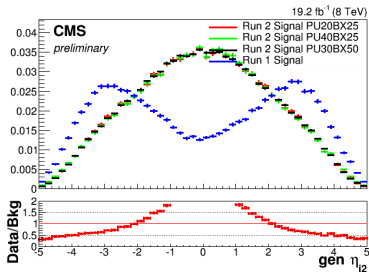
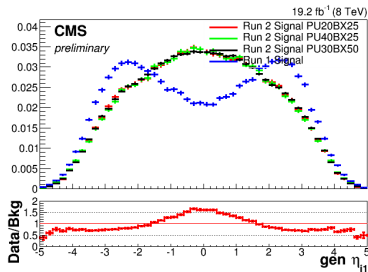
- ▶ Signal samples shown previously had some reco selection applied
- ▶ Light trees now made with no skimming applied
- ▶ Gen level information will be shown

Signal Comparison: run 1 vs run 2: Gen Jet p_T



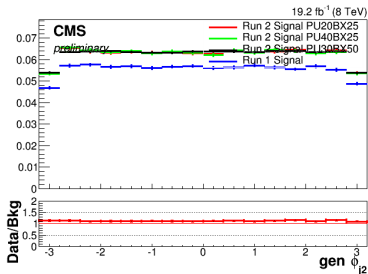
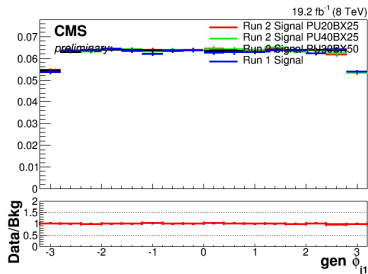
► More as expected, higher p_T in run 2

Signal Comparison: run 1 vs run 2: Gen Jet η



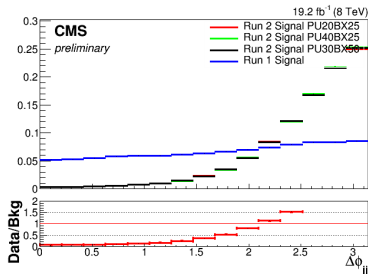
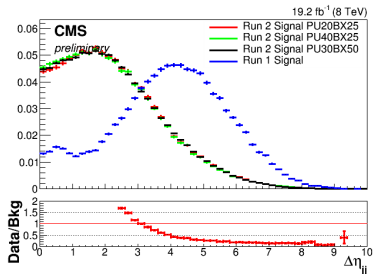
- Run 2 jets seem to have much lower η

Signal Comparison: run 1 vs run 2: Gen Jet ϕ



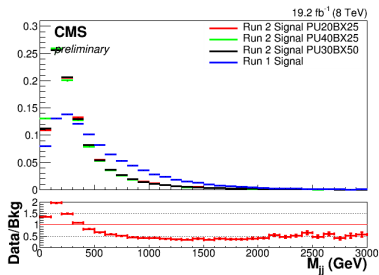
► ϕ is flat as expected

Signal Comparison: run 1 vs run 2: Gen Jet angle differences



- ▶ Run 2 jet angle differences are completely different
- ▶ This needs further study and should be checked in spring15 samples

Signal Comparison: run 1 vs run 2: Gen Jet Mass



- M_{jj} also very different, probably due to different angle distributions

Spring 15 samples

- ▶ MiniAOD now available for $m_H = 300$ GeV
- ▶ PU Jet ID can now be rerun if we want AK4PF jets
 - Should decide if we want to keep both AK4PF and AK4PFCHS
- ▶ We should decide whether to add mvaMET

Summary

- ▶ We need to understand angle differences in run 2 samples
- ▶ Spring 15 samples are becoming available
 - We should decide which objects to keep

Backup