# Snowmass EWK ssWW

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Insight into low invariant mass region on significance plots:
- A similar issue was noted in the 8 TeV analysis meeting between different generators. The main difference being that the vbfnlo was not showered.
- We used different showering for ATLAS results and snowmass…. Maybe this is the cause of the difference we see as well?

Comparison between Sherpa and VBFNLO

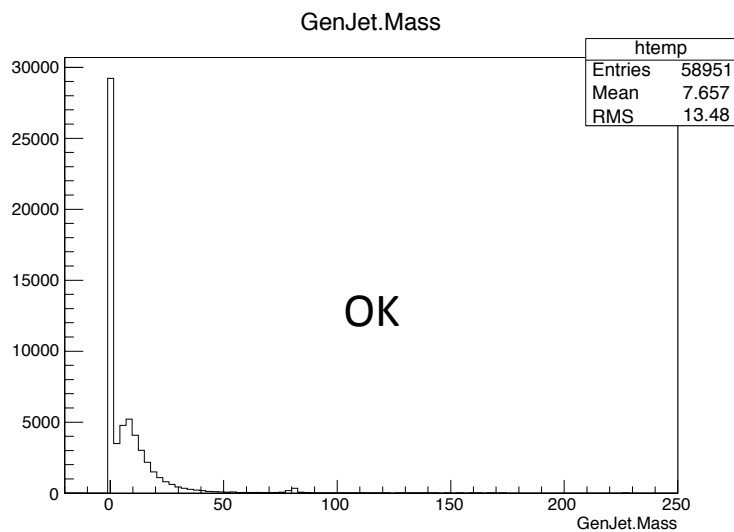This is how it looks when comparing to Whizard (also showered).

di-jet invariant mass

Philipp Anger TU Dresden   07/15/2013
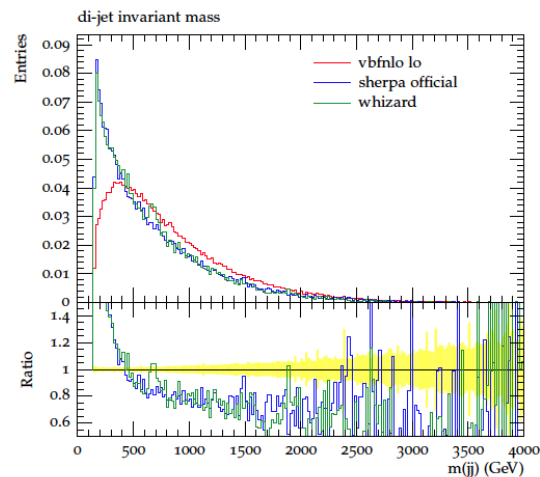
Technical Report:

- I had difficulty setting up the "analysis", i.e. after showering, the root code that applies cuts and creates proper histograms for limit setting input.
- My showered files crashed while Shu's files ran fine (same with my code and his, where my code is just adapted from Shu's, should be straight forward)
  - I noticed some differences in our root files from showering, particularly extra branches in my file like EFlowTrack (don't need)
  - I am rerunning now, but it looks like I used the VLHC Fast Simulation and Pileup Strategy (from snowmass website), while Shu used the instructions for Inclusive Samples
    - This fixes running on the analysis code!!
    - Next: rerun Madgraph since I used v1_5_10, which had a bug (Thanks Mandy!) –need to check the size of affect
    - ◆ Are we all being consistent in our prescription???

- Unitarization cut-off:
  - When do others apply the unitarization cut-off? Do you just throw events away above the threshold? Or are we doing something more fancy?

Another possible issue:
• Has anyone checked their jet mass distributions?

Before Showering:

After Showering: