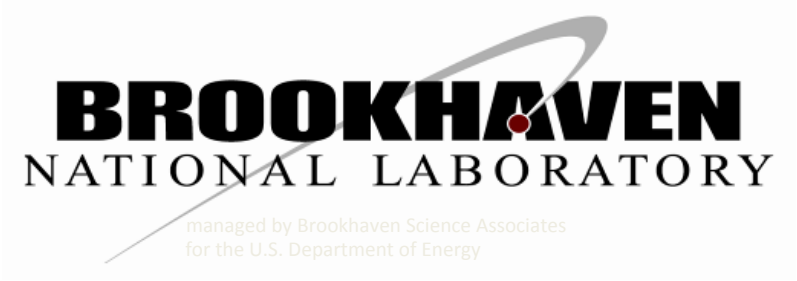


Snowmass EWK ssWW

Jessica Metcalfe, Marc-Andre Pleier

ssWW

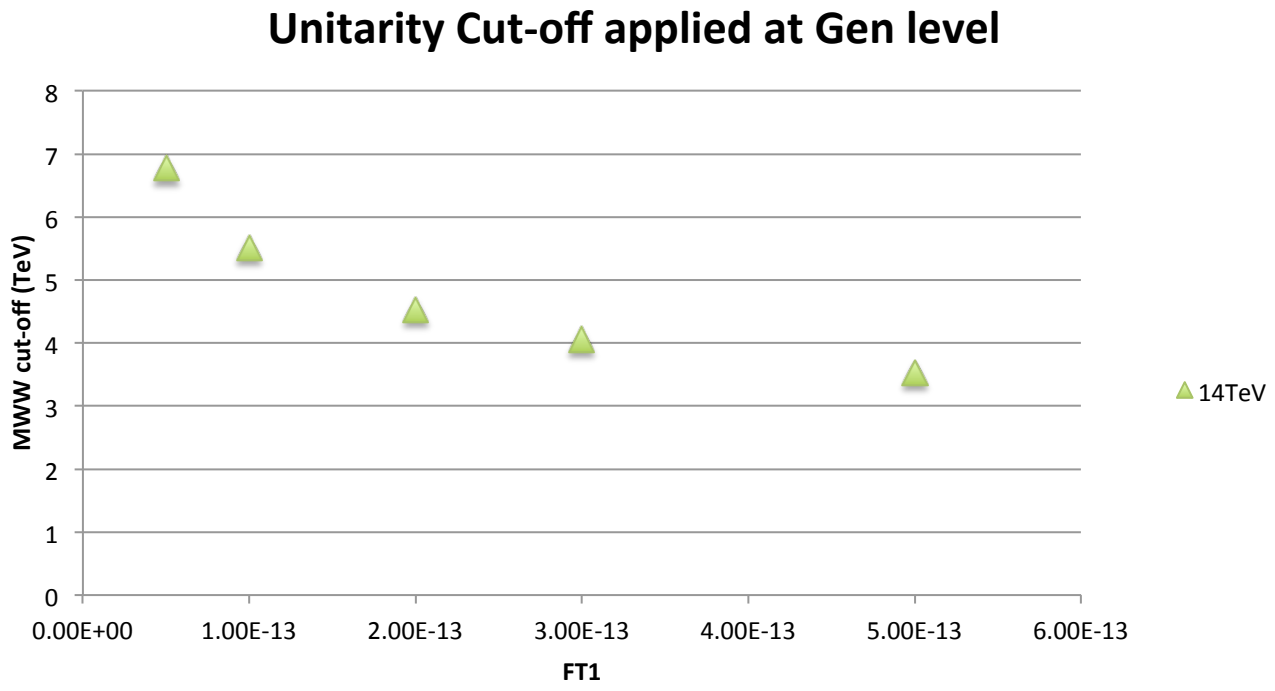
Progress:

- First limit results for non-ATLAS snowmass
  - 14 TeV for 0, 140 pileup
    - FT1, (FS0)
  - 100 TeV for 0 pileup

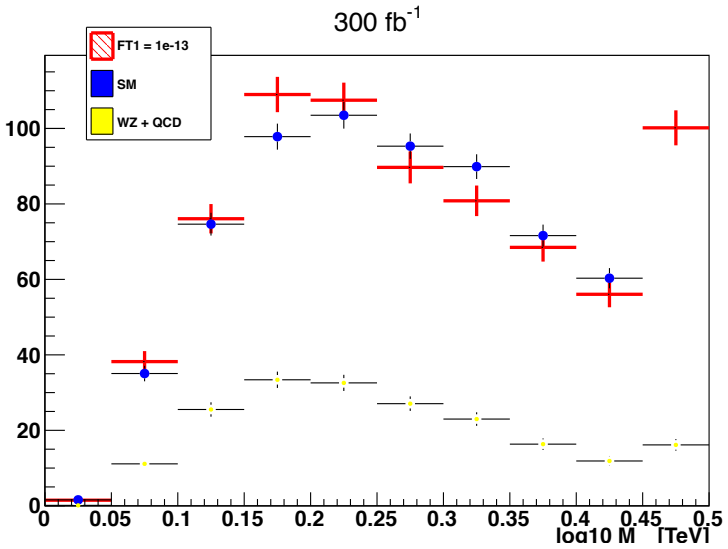
Analysis Cuts:

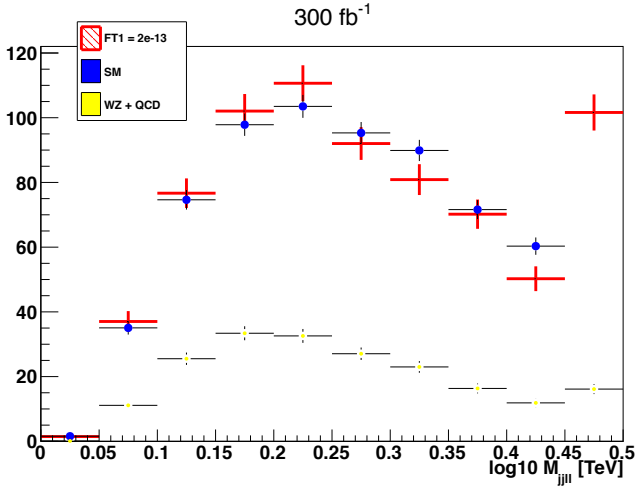
- Applied same cuts as in ATLAS note

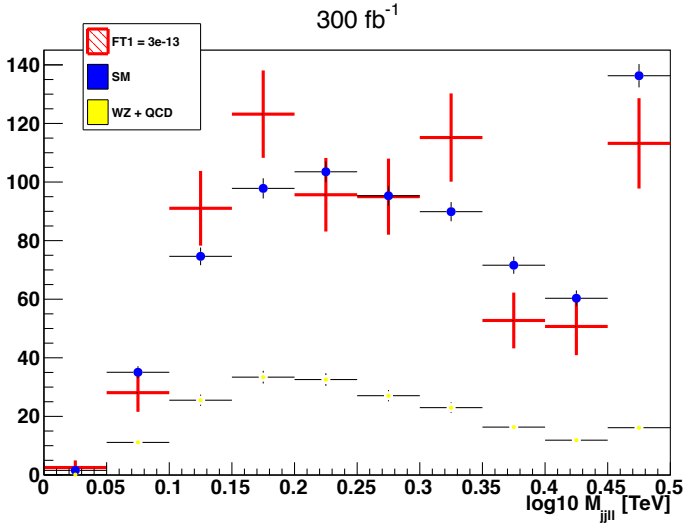
- Applied Unitarity violation cut-off value determined from vbfnlo calculator
  - Applied at gen level on BSM samples

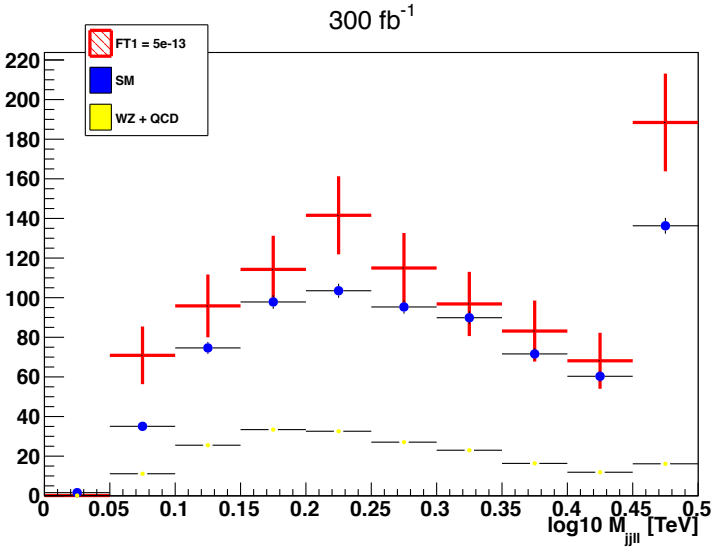


14 TeV results: 0 pileup

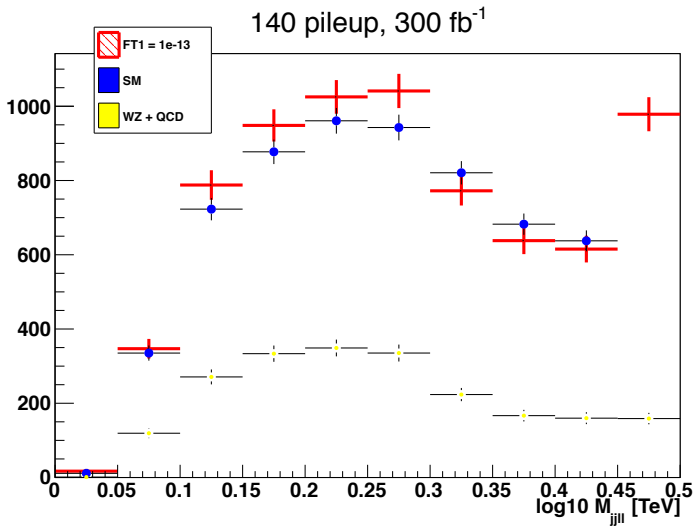


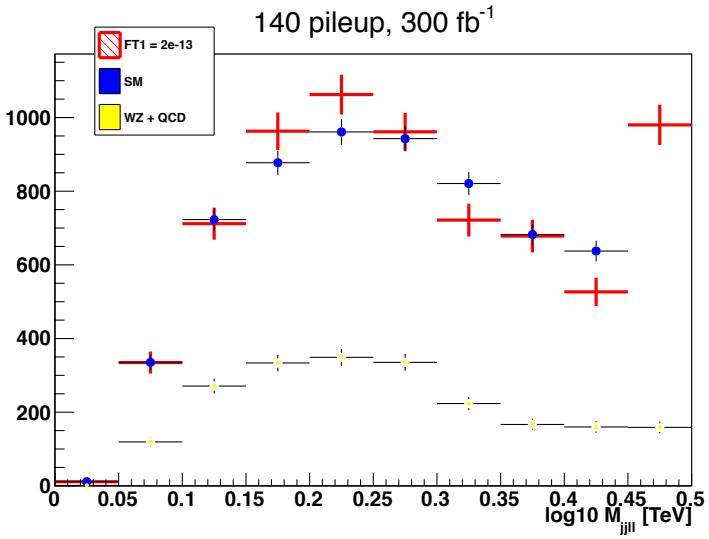


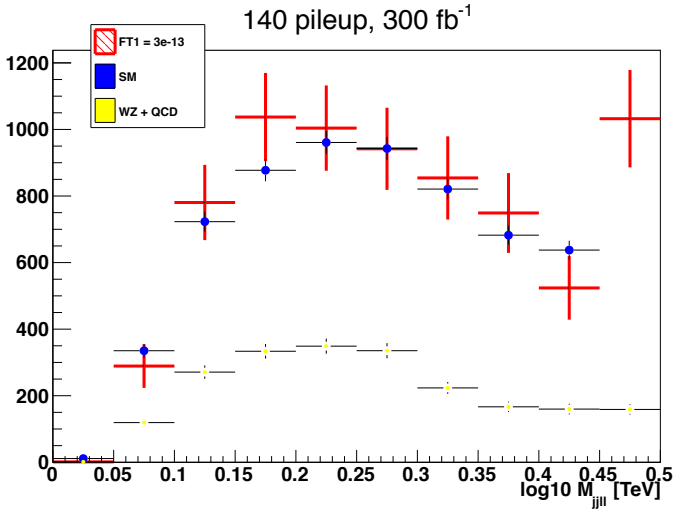


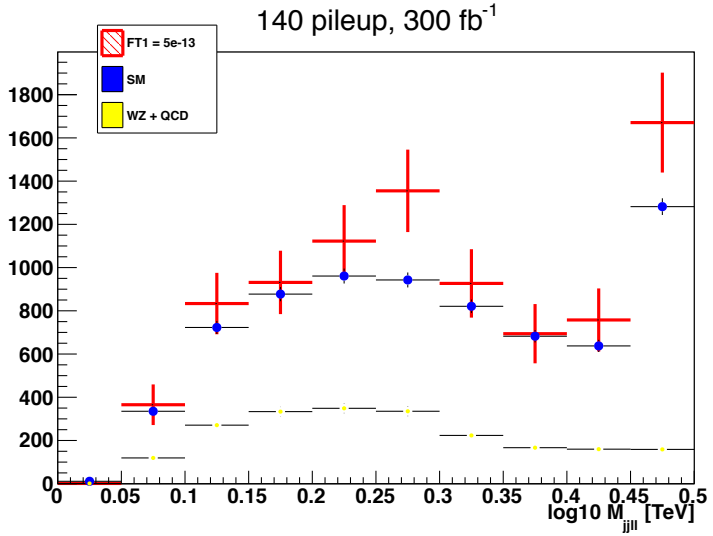


14 TeV results: 140 pileup, 3 ab^{-1}



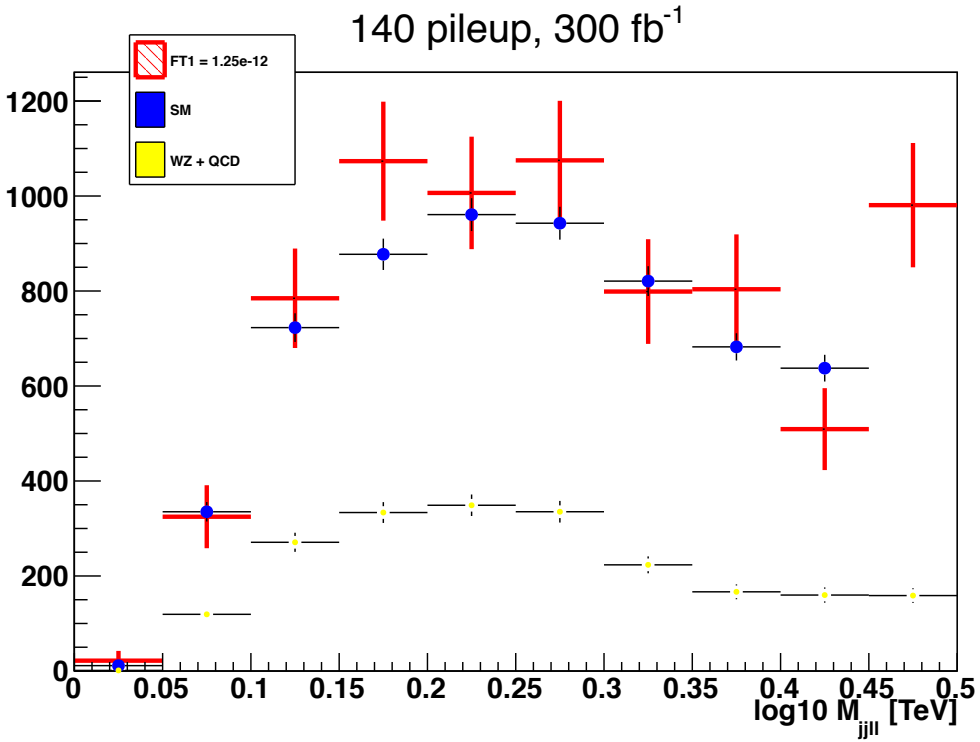






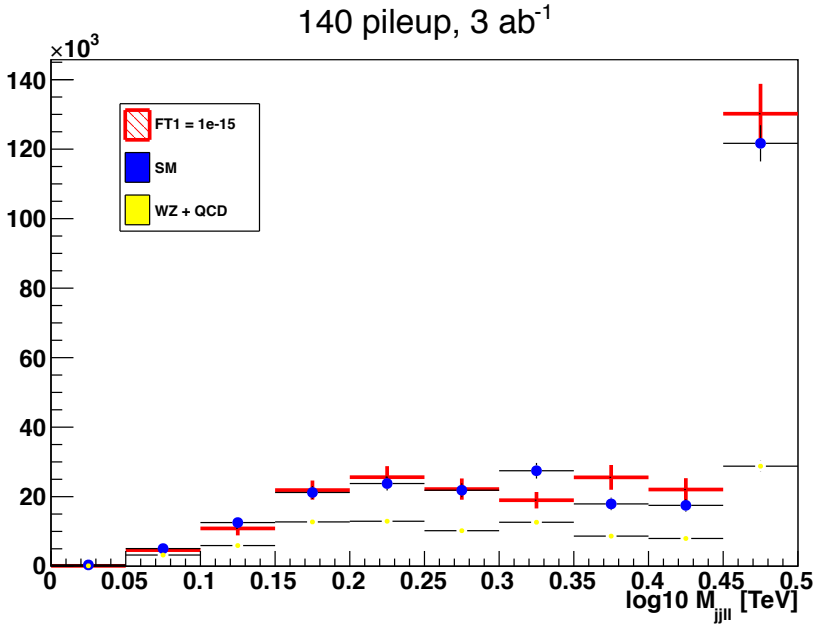
ssWW

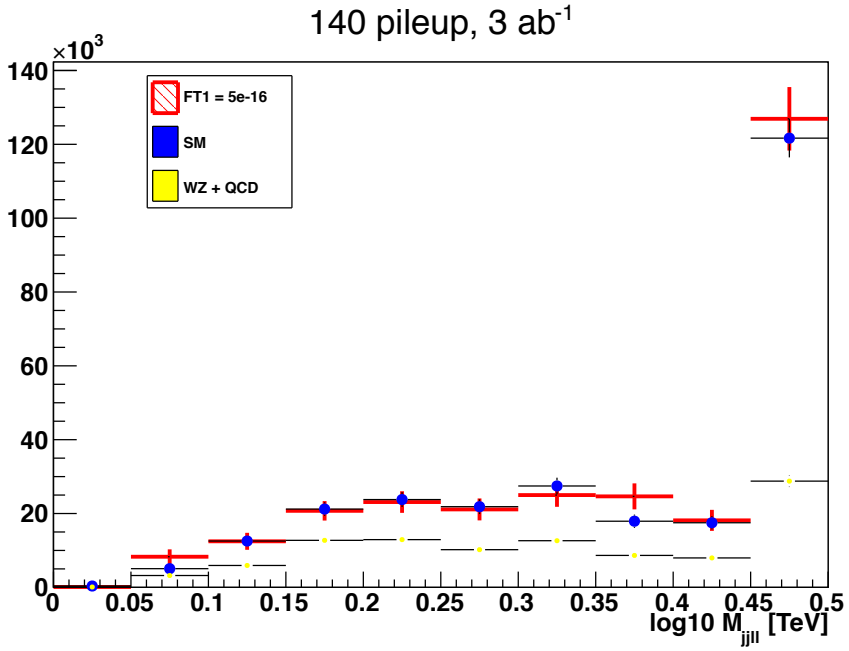
14 TeV FS0, 3 ab-1



Nsigma:
300 fb-1 -> 4.2
3 ab-1 -> 14

100 TeV results: 0 pileup

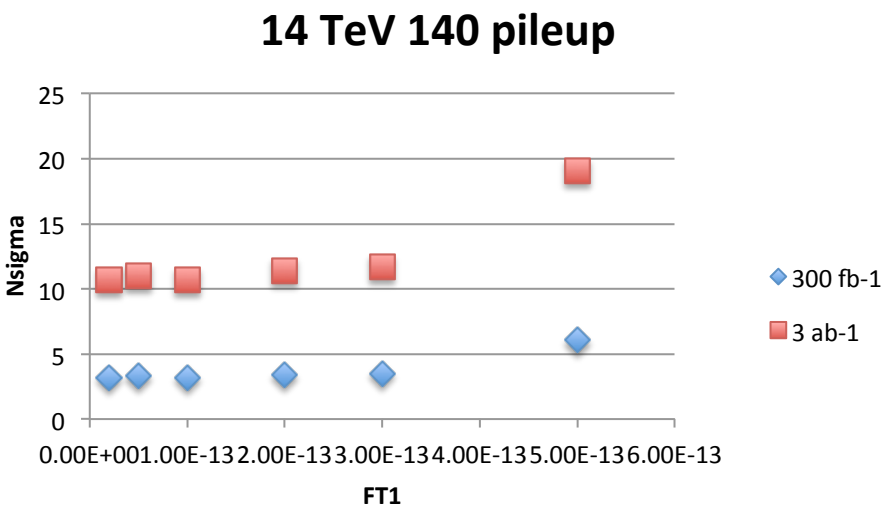


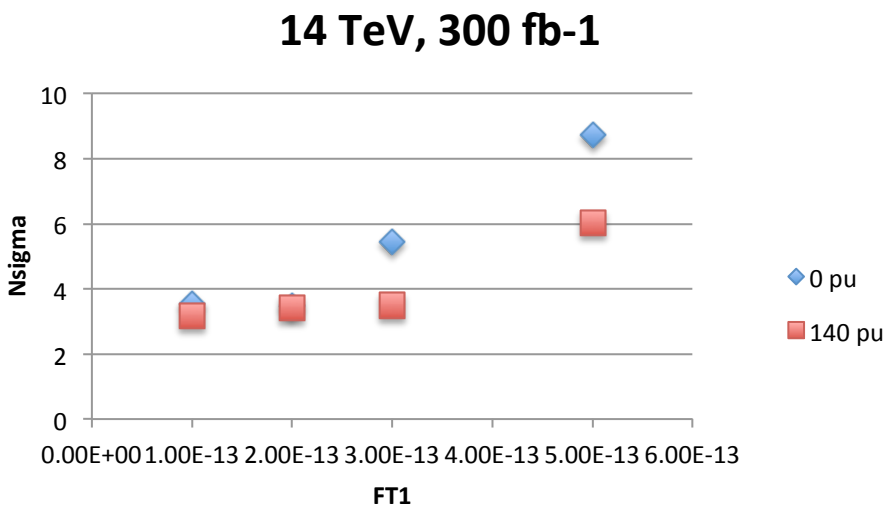


LLR, Nsigma = 69

LLR, Nsigma = 91

Confidence Limits for 14 TeV:





- Still need lower FT1 points for 3 ab-1
- Also running more statistics

- Pileup may not be negligible

Work in Progress:

- Filling in values for 14 TeV analysis
  - Running more statistics for lower FT1 values
- Ran FS0 = 1.25e-12 for comparison to ATLAS

- 100 TeV samples with pileup are still showering
- Also started running some lower values to get closer to 5 sigma significance

- What should be the highest priority jobs to continue with?