

ATLAS PUB note draft status aiming for Seattle workshop

- Pub note draft circulated to ATLAS collaboration last on Jun.14 with Bill and Zhijun's help:
 - <https://cds.cern.ch/record/1554610>
- Currently version 8 in ATLAS circulation:
 - Received many comments from James, Tom and Bill but **all of them are addressed or answered**
 - Beate has been appointed to be the final reviewer of our note, comments newly provided today. **Need to be responded**
 - Plan to be ready for sign off ASAP, hopefully today or tomorrow (version 9)
- Google document for comment response:
 - <https://docs.google.com/document/d/1QLrQyYNJbNek-ILsGs9zzxEk2oAlcvOs7-wk6hXK5OI/edit>

Roadmap towards Snow Mass

- Snow Mass Energy Frontier parametrized FastSimulation framework with INSTRUCTIONS:
 - http://www.snowmass2013.org/tiki-index.php?page=Energy_Frontier_FastSimulation
- **Need to provide the StdHEP file produced by MG5 (output by pythia)**

- EF Hadron collider facility list:
 - <http://snowmass2013.org/tiki-index.php?page=EF+Facilities+List>

Exercise For Seattle THIS WEEK:

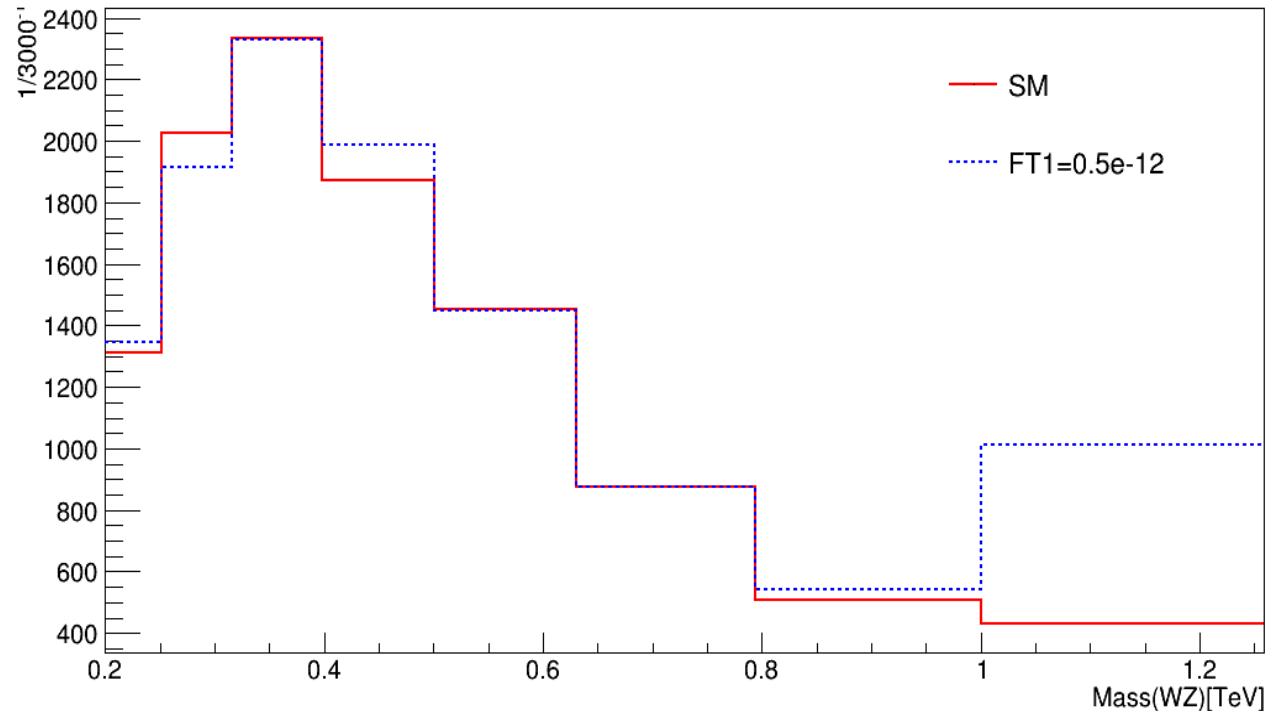
- LHC 14 TeV, 3000/fb (HL-LHC) , spacing: 25 ns, pileup: 140 events/crossing
- LHC 33 TeV, 3000/fb (HE-LHC) , spacing: 50 ns, pileup: 225 events/crossing
(Modify the MeanPileUp value from 140 to 225)
- Limit setting framework:
 - **Using Shih-Chieh's frequentist calculation WITH INSTRUCTION:**
 - <https://espace.cern.ch/project-SnowMass-EWK/Shared%20Documents/LLR.tgz>
 - **Two way to access p-Values:**
 - **The likelihood ratio significance by Chris Pollard**
 - **The frequentist significance calculation by Shih-Chieh Hsu**
 - **Run example: see test.sh**

WZjj 33TeV functional test

Assuming backgrounds are fully understood and no additional offline cuts yet

Pending:
Background samples Are still being processed by delphes

Need to update with more operating points and VV-QCD background



Rough estimate of Significance = $\sqrt{-2 \log \text{Likelihood Ratio}}$:
NSigma: 24.1382 p-val: 4.97015e-129

Frequentist significance results
NSigma: 5.19934 pval < 1e-07

Need to be understood?