

13000 GeV pp

Z (Drell-Yan)

 $p_T$  spectrum (ATLAS UE in Z production)

- ATLAS
- △ Herwig++ Powheg 2.7.1 default
- ◆ Sherpa 2.2.9 default

 $1/N_{ev} dN_{ev}/dN_{ch}/d\eta d\phi$ 4.5  
4  
3.5  
3  
2.5  
2  
1.5  
1  
0.5  
0Rivet 3.1.10, ≥ 2.6M events  
mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2  
1  
0.52  
1  
0.5

0

2

4

 $N_{ch}/d\eta d\phi$ 