

13000 GeV pp

Z (Drell-Yan)

 $p_T$  spectrum (ATLAS UE in Z production)

- ATLAS
- ▲ Pythia 8.308 default
- ◆ Sherpa 1.4.5 default

 $1/N_{ev} dN_{ev}/dN_{ch}/d\eta d\phi$ 8  
7  
6  
5  
4  
3  
2  
1  
0Rivet 3.1.10,  $\geq 300k$  events  
mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2  
1  
0.52  
1  
0.5

0

2

4

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