

13000 GeV pp

Z (Drell-Yan)

 $p_T$  spectrum (ATLAS UE in Z production)

- ATLAS
- Herwig 7.2.1 default
- MadGraph5 2.7.2.atlas3 lo
- ▲ Pythia 8.308 default
- ◆ Sherpa 1.4.5 default

Rivet 3.1.10,  $\geq 300k$  events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2

1

0.5

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