

13000 GeV pp

Z (Drell-Yan)

 $\langle p_T \rangle$ vs p_T^Z (ATLAS UE in Z production) $\langle \text{mean } p_T / d\eta d\phi \rangle$ [GeV]

- ATLAS
- Herwig 7.2.1 default
- MadGraph5 2.7.2.atlas3 lo
- ▲ Pythia 8.308 default
- ◆ Sherpa 2.2.9 default

Rivet 3.1.10, ≥ 2.4 M events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2019_I1736531

Ratio to ATLAS

2

1

0.5

 $Z p_T$ [GeV]