

13000 GeV pp

Z (Drell-Yan)

Average $\Sigma(p_T)$ (ATLAS UE in Z production)

- ATLAS
- Herwig 7.2.1 default
- MadGraph5 2.7.2.atlas3 lo
- ▲ Pythia 8.170 default
- ◆ Sherpa 2.2.9 default

 $\langle \text{sum } p_T / d\eta d\phi \rangle$ [GeV]60
50
40
30
20
10
0
2
1
0.5Rivet 3.1.10, $\geq 400k$ events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2019_I1736531

Ratio to ATLAS

2
1
0.50 200 400 $Z p_T$ [GeV]