

13000 GeV pp

Z (Drell-Yan)

Scalar  $\Sigma(p_T)$  (ATLAS UE in Z production) $1/N_{\text{ch}} dN_{\text{ch}}/dp_T [\text{GeV}]$ 

- 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,  $\geq 2.4\text{M}$  events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2

1

0.5

 $p_T [\text{GeV}]$ 