

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- Herwig++ 2.7.1 default
- △- Herwig++ Powheg 2.7.1 default
- ▽- Herwig++ Powheg 2.7.1 LHC-UE-EE-4
- Herwig 7.2.1 default

Rivet 3.1.10,  $\geq 2.7\text{M}$  events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2

1

0.5

 $p_T$  [GeV]