

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- Herwig++ 2.7.1 default
- Herwig++ 2.7.1 UE-EE-5
- Herwig 7.2.1 default

Rivet 3.1.10,  $\geq 2.2$ M events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

 $\langle \text{sum } p_{T_i} / d\eta d\phi \rangle$  [GeV]

Ratio to ATLAS

Z  $p_T$  [GeV]