

13000 GeV pp

Z (Drell-Yan)

 $\langle N_{\text{ch}} \rangle$ vs p_{T}^{Z} (ATLAS UE in Z production)

- ATLAS
- △ Herwig++ Powheg 2.7.1 default
- MadGraph5 2.7.2.atlas3 lo
- ◆ Sherpa 2.1.1 default

Rivet 3.1.10, ≥ 300k events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2019_I1736531

 $\langle N_{\text{ch}} \rangle / d\eta d\phi$

Ratio to ATLAS

Z p_{T} [GeV]