

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- ▲ Pythia 8.212 default
- Pythia 8.212 tune-A14-CTEQL1
- - - Pythia 8.212 tune-A14-MSTW2008LO
- ⋯ Pythia 8.212 tune-A14-NNPDF2.3LO
- - Δ Pythia 8.212 tune-CUETP8S1

Rivet 3.1.10, ≥ 400k events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2019_I1736531

Ratio to ATLAS

2

1

0.5

 $Z p_{\text{T}}$ [GeV]