

13000 GeV pp

Z (Drell-Yan)

 $\langle p_T \rangle$ vs p_T^Z (ATLAS UE in Z production)

- ATLAS
- ▲ Pythia 8.308 default
- ✱ Pythia 8.308 tune-4c
- Pythia 8.308 tune-4cx

Rivet 3.1.10, ≥ 2.4 M events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2019_I1736531

 $\langle \sum p_{T,i} / d\eta d\phi \rangle$ [GeV]

Ratio to ATLAS

 $Z p_T$ [GeV]