

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- ▲ Pythia 8.170 default
- ◻ Pythia 8.170 tune-4cx

Rivet 3.1.10, $\geq 300k$ events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2019_I1736531

 $\langle \text{mean } p_{T, \text{UE}} \rangle$ [GeV]

Ratio to ATLAS

 $Z p_T$ [GeV]