

13000 GeV pp

Z (Drell-Yan)

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

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

Rivet 3.1.10,  $\geq 2.4\text{M}$  events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2

1

0.5

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