

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- ▲ Pythia 8.308 default
- -▲ Pythia 8.308 default-CD
- -▲ Pythia 8.308 default-DL
- ⋯▲ Pythia 8.308 default-MBR

Rivet 3.1.10,  $\geq 3.3\text{M}$  events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

0.5

1

2

0.5

1

2

0

200

400

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