

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
—▲ Pythia 8.170 default

 $1/N_{\text{ev}} dN_{\text{ev}}/dN_{\text{ch}}/d\eta d\phi$

12

10

8

6

4

2

0

ATLAS_2019_I1736531

Rivet 3.1.10, 400k events

mcplots.cern.ch [arXiv:1306.3436]

Ratio to ATLAS

2

1

0.5

2

1

0.5

0

200

400

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