

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- Herwig 7.2.1 default
- ▲ Pythia 8.170 default
- ◆ Sherpa 2.2.9 default

 $\langle N_{\text{ch}} \rangle / d\eta d\phi$ 

6

5

4

3

2

1

0

Rivet 3.1.10,  $\geq 400\text{k events}$ 

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2019\_I1736531

Ratio to ATLAS

2

1

0.5

2

1

0.5

0

200

400

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