

13000 GeV pp

Z (Drell-Yan)

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

- ATLAS
- - □ Herwig 7.2.1 default
- ○ MadGraph5 2.7.2.atlas3 lo
- ▲ Pythia 8.301 default
- ◆ Sherpa 2.2.9 default

3

2.5

2

1.5

1

0.5

0

ATLAS\_2019\_I1736531

Ratio to ATLAS

2

1

0.5

0

200

400

 $Z p_{\text{T}}$  [GeV]Rivet 3.1.10,  $\geq 500\text{k}$  events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5