

7000 GeV pp

Underlying Event

 $N_{\text{chg}}$  density vs.  $\Delta\phi$ ,  $p_T^{\text{trk1}} > 5.0 \text{ GeV}$ ,  $\sqrt{s} = \{7 \text{ TeV}\}$ 

- ATLAS
- +— Epos 1.99.crmc.1.6.0 lhc
- - □ - - Herwig 7.2.1 default
- △ - Pythia 6.427 370
- ▲ - Pythia 8.315 default
- ... ♦ ... Sherpa 2.2.9 default

Rivet 4.1.0, ≥ 100k events

mcplots.cern.ch [arXiv:1306.3436]

(ATLAS\_2010\_I879407)

Ratio to ATLAS

 $|\phi|$  (w.r.t. leading track) [rad]