

Gap fraction

Gap fraction vs  $\Delta y$  (FB) ( $210 < p_T < 240$  ( $Q_0 = \bar{p}_T$ ))

- ATLAS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.205 default
- - ◆ Sherpa 2.1.0 default

2

1.5

1

0.5

0

ATLAS\_2011\_S9126244

Rivet 3.1.0,  $\geq 100k$  events

mcplots.cern.ch [arXiv:1306.3436]

Ratio to ATLAS

2

1

0.5

2

0.5

0

2

4

6

$|\Delta y|$

The figure displays two panels sharing a common x-axis representing the rapidity difference  $|\Delta y|$  from 0 to 6. The top panel plots the 'Gap fraction' (y-axis, 0 to 2) against  $|\Delta y|$ . The bottom panel plots the 'Ratio to ATLAS' (y-axis, 0.5 to 2) against  $|\Delta y|$ . Both panels include data points with error bars for ATLAS (black squares), Herwig 7.2.0 default (green dashed line with squares), Pythia 8.205 default (blue solid line with triangles), and Sherpa 2.1.0 default (red dotted line with diamonds). A horizontal line is drawn at 1.0 in both panels. The bottom panel also features a 2D histogram in the background, colored in shades of green and yellow, representing the distribution of the ratio to ATLAS across different  $|\Delta y|$  bins.