

Gap fraction

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

- ATLAS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.135 default
- - ◆ Sherpa 2.2.6 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 shows the 'Gap fraction' on the y-axis (0 to 2), with ATLAS data points (black squares) and three Monte Carlo models: Herwig 7.2.0 (green dashed line with squares), Pythia 8.135 (blue solid line with triangles), and Sherpa 2.2.6 (red dotted line with diamonds). The bottom panel shows the 'Ratio to ATLAS' on the y-axis (0.5 to 2), with the same data series. A horizontal line is drawn at a ratio of 1.0. A shaded region in the bottom panel, consisting of yellow and green blocks, highlights the area for  $|\Delta y| > 4.5$ . The text 'ATLAS\_2011\_S9126244' is located in the top panel, and 'Rivet 3.1.0,  $\geq 100k$  events' and 'mcplots.cern.ch [arXiv:1306.3436]' are on the right side.