

Gap fraction

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

- ATLAS
- - □ Herwig 7.2.0 default
- - ◆ Sherpa 2.2.0 default

2.5

2

1.5

1

0.5

0

Rivet 3.1.0,  $\geq 100k$  events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2011\_S9126244

Ratio to ATLAS

2

1

0.5

2

1

0.5

0

2

4

6

$|\Delta y|$

The figure consists of two vertically stacked panels sharing a common x-axis representing the absolute rapidity difference  $|\Delta y|$  from 0 to 6. The top panel shows the 'Gap fraction' on the left y-axis (0 to 2.5) and the number of events on the right y-axis (0 to 100k). It displays ATLAS data points (black squares) and two Monte Carlo models: Herwig 7.2.0 (green dashed line with open squares) and Sherpa 2.2.0 (red dotted line with filled diamonds). The bottom panel shows the 'Ratio to ATLAS' on the left y-axis (0.5 to 2) and the same event count on the right y-axis. It features a horizontal line at a ratio of 1.0, with Herwig and Sherpa data points overlaid. A yellow and green shaded region in the bottom panel indicates the uncertainty or spread of the data. The text 'ATLAS\_2011\_S9126244' is centered in the top panel, and 'Rivet 3.1.0,  $\geq 100k$  events' and 'mcplots.cern.ch [arXiv:1306.3436]' are on the right side.