

Gap fraction

Gap fraction vs Δy (LJ) ($240 < p_T < 270$)

- ATLAS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.150 default
- - ◆ Sherpa 2.1.1 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

1

0.5

0

2

4

6

$|\Delta y|$

The figure consists of two vertically stacked panels sharing a common x-axis representing the rapidity difference $|\Delta y|$ from 0 to 6. The top panel plots the 'Gap fraction' on the y-axis (0 to 2). It shows data points with error bars for ATLAS (black squares) and three Monte Carlo models: Herwig 7.2.0 (green squares), Pythia 8.150 (blue triangles), and Sherpa 2.1.1 (red diamonds). All series show a decreasing trend from approximately 0.95 at $|\Delta y| = 0.5$ to about 0.35 at $|\Delta y| = 4.8$. The bottom panel plots the 'Ratio to ATLAS' on the y-axis (0.5 to 2). It shows the same data points as the top panel, but the ratio values are generally close to 1.0. A shaded region in yellow and green is overlaid on the bottom panel, representing a range of ratios. 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.