

Gap fraction

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

- ATLAS
- Herwig 7.2.0 default
- ▲ Pythia 8.209 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

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 shows the 'Gap fraction' on the y-axis (0 to 2), with data points and error bars for ATLAS (black squares), Herwig 7.2.0 (green dashed line with squares), Pythia 8.209 (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 and a horizontal line at 1.0. A shaded region in the bottom panel, composed of yellow and green horizontal bands, indicates the uncertainty or spread of the Monte Carlo models. The ATLAS data point at $|\Delta y| \approx 5.7$ is significantly lower than the others, with a ratio near 0.5.