

Gap fraction

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

- ATLAS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.205 default
- - ◆ Sherpa 2.2.8 default

2

1.5

1

0.5

0

ATLAS_2011_S9126244

Rivet 3.1.0, ≥ 100 k 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 absolute rapidity difference $|\Delta y|$ from 0 to 6. The top panel displays the 'Gap fraction' on the y-axis (0 to 2). It includes data points with error bars for ATLAS (black squares) and three Monte Carlo models: Herwig 7.2.0 (green dashed line with open squares), Pythia 8.205 (blue solid line with solid triangles), and Sherpa 2.2.8 (red dotted line with solid diamonds). The bottom panel displays the 'Ratio to ATLAS' on the y-axis (0.5 to 2). It shows the same data points and lines as the top panel, but with a horizontal line at a ratio of 1.0. A background histogram is overlaid, colored in shades of green and yellow, representing the distribution of the ratio to ATLAS. The histogram shows a peak around $|\Delta y| = 5$ with a ratio between 0.5 and 2.0.