

Gap fraction

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

- ATLAS
- Herwig++ 2.6.2 default
- Herwig 7.1.0 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 displays the gap fraction, which decreases from approximately 1.0 at $|\Delta y| = 0.5$ to about 0.1 at $|\Delta y| = 5.5$. Data points are shown for ATLAS (black squares), Herwig++ 2.6.2 default (orange dashed line with open circles), and Herwig 7.1.0 default (green dashed line with open squares). The bottom panel shows the ratio of the gap fraction to the ATLAS data. Herwig++ (orange) is generally above the ratio of 1.0, while Herwig 7.1.0 (green) is below 1.0 for $|\Delta y| > 2$. Stacked histograms in the bottom panel show the distribution of these ratios, with yellow representing Herwig++ and green representing Herwig 7.1.0. A horizontal line is drawn at a ratio of 1.0. The text 'ATLAS_2011_S9126244' is located in the middle of the top panel.