

Gap fraction

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

- ATLAS
- Herwig++ 2.7.0 default
- Herwig 7.2.0 default
- ▼- Herwig 7.2.0 softTune

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

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' on the y-axis, ranging from 0 to 2. It compares ATLAS experimental data (black squares) with three Herwig models: Herwig++ 2.7.0 default (orange dashed line with circles), Herwig 7.2.0 default (green dashed line with squares), and Herwig 7.2.0 softTune (blue solid line with triangles). All models show a decreasing trend in gap fraction as $|\Delta y|$ increases. The bottom panel shows the 'Ratio to ATLAS' on the y-axis, ranging from 0.5 to 2.0. It features a horizontal line at 1.0 and shaded regions representing the uncertainty bands for the Herwig++ 2.7.0 (yellow) and Herwig 7.2.0 (green) models. The ATLAS data points are also plotted here as black squares. 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.