

Gap fraction

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

- ATLAS
- Herwig++ 2.5.2 default
- Herwig 7.2.0 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

0.5

0

2

4

6

$|\Delta y|$

The figure displays two panels sharing a common x-axis representing the absolute rapidity difference $|\Delta y|$ from 0 to 6. The top panel shows the gap fraction, with ATLAS data points (black squares) and two Monte Carlo model predictions: Herwig++ 2.5.2 default (orange dashed line with open circles) and Herwig 7.2.0 default (green dashed line with open squares). The bottom panel shows the ratio of the model predictions to the ATLAS data, with a shaded region representing the uncertainty. The shaded region is yellow for $|\Delta y| < 4.5$ and green for $4.5 < |\Delta y| < 6$. The text 'ATLAS_2011_S9126244' is located in the top panel, and 'Rivet 3.1.0, ≥ 100 k events' and 'mcplots.cern.ch [arXiv:1306.3436]' are on the right side.

$ \Delta y $	ATLAS Gap Fraction	Herwig++ 2.5.2 Ratio	Herwig 7.2.0 Ratio
0.5	1.0	1.0	1.0
1.0	0.95	1.0	1.0
1.5	0.9	1.0	0.95
2.0	0.9	1.0	0.9
2.5	0.85	0.95	0.85
3.0	0.8	0.85	0.75
3.5	0.8	0.8	0.65
4.0	0.7	0.3	0.65
4.5	0.45	0.5	0.4
5.0	0.3	0.5	0.4
5.5	0.0	0.5	0.4