

Gap fraction

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

- ATLAS
- △— Pythia 6.427 370
- - -■- - Pythia 6.427 default
- ▲— Pythia 8.301 default

2

1.5

1

0.5

0

Rivet 3.1.0, $\geq 100k$ events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2011_S9126244

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 plots the gap fraction, which decreases from approximately 0.9 at $|\Delta y| = 0.5$ to about 0.2 at $|\Delta y| = 5.5$. The bottom panel shows the ratio of the gap fraction to the ATLAS measurement, with a horizontal line at 1.0. The data points are compared against four models: ATLAS (black squares), Pythia 6.427 370 (red triangles), Pythia 6.427 default (orange squares), and Pythia 8.301 default (blue triangles). A shaded region in the bottom panel, colored yellow and green, highlights the range of ratios between approximately 0.5 and 2.0 for $|\Delta y| > 4$.