

7000 GeV pp

Jets

Gap fraction

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

- ATLAS
- ▲ Pythia 8.308 default
- ◆ Sherpa 2.2.9 default

2

1.5

1

0.5

0

Rivet 3.1.10, $\geq 100k$ 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 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 shows the 'Gap fraction' on the y-axis (0 to 2). It features three data series: ATLAS (black squares), Pythia 8.308 default (blue triangles), and Sherpa 2.2.9 default (red diamonds). All series show a decreasing trend from $|\Delta y| \approx 0.5$ to $|\Delta y| \approx 3.5$, followed by a slight increase. The bottom panel shows the 'Ratio to ATLAS' on the y-axis (0.5 to 2). It features the same three data series, with shaded regions (green and yellow) representing uncertainty bands. A horizontal line is drawn at a ratio of 1.0. The text 'ATLAS_2011_S9126244' is centered in the top panel, and 'Rivet 3.1.10, $\geq 100k$ events' and 'mcplots.cern.ch [arXiv:1306.3436]' are on the right side.

$ \Delta y $	ATLAS Gap Fraction	Pythia 8.308 Gap Fraction	Sherpa 2.2.9 Gap Fraction	ATLAS Ratio to ATLAS	Pythia 8.308 Ratio to ATLAS	Sherpa 2.2.9 Ratio to ATLAS
0.5	0.95	0.95	0.95	1.0	1.0	1.0
1.0	0.80	0.80	0.80	1.0	1.0	1.0
1.5	0.65	0.65	0.65	1.0	1.0	1.0
2.0	0.55	0.55	0.55	1.0	1.0	1.0
2.5	0.45	0.45	0.45	1.0	1.0	1.0
3.0	0.40	0.40	0.40	1.0	1.0	1.0
3.5	0.35	0.35	0.35	1.0	1.0	1.0
4.0	0.35	0.35	0.35	1.0	1.0	1.0
4.5	0.35	0.35	0.35	1.0	1.0	1.0
5.0	0.35	0.50	0.50	1.5	1.5	1.5
5.5	0.00	-	-	-	-	-