

7000 GeV pp

Jets

Gap fraction

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

- ATLAS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.209 default
- - ◆ Sherpa 1.4.5 default

2.5

2

1.5

1

0.5

0

Rivet 3.1.0,  $\geq 100$ k events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS\_2011\_S9126244

Ratio to ATLAS

2

1

0.5

2

1

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 the y-axis ranging from 0 to 2.5. The bottom panel shows the ratio of the gap fraction to the ATLAS measurement, with the y-axis ranging from 0.5 to 2.5. The ATLAS data is represented by black squares, Herwig 7.2.0 by green squares, Pythia 8.209 by blue triangles, and Sherpa 1.4.5 by red diamonds. Error bars are included for all data points. A shaded region in the bottom panel, colored in yellow and green, represents the ATLAS data distribution. The text 'ATLAS\_2011\_S9126244' is visible in the top panel.

$ \Delta y $	ATLAS (Gap Fraction)	Herwig 7.2.0 (Gap Fraction)	Pythia 8.209 (Gap Fraction)	Sherpa 1.4.5 (Gap Fraction)
0.2	1.0	1.0	1.0	1.0
0.8	0.95	1.0	0.95	0.95
1.4	0.95	0.95	0.85	0.95
1.8	0.9	0.9	0.85	0.9
2.2	0.9	0.85	0.85	0.9
2.6	0.85	0.85	0.85	0.85
3.0	0.8	0.75	0.75	0.8
3.4	0.8	0.65	0.7	0.8
3.8	0.75	0.65	0.7	0.75
4.2	0.7	0.65	0.65	0.75
4.6	0.45	0.4	1.0	0.65
5.0	0.3	-	1.0	-
5.4	0.0	-	-	-