

$\overline{N}_{\text{jet}}$ N_{jet} vs p_T (LJ) ($3 < \Delta y < 4$)

- ATLAS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.240 default
- - ◆ Sherpa 1.2.3 default

6

5

4

3

2

1

0

2

1

0.5

Rivet 3.1.0, $\geq 5.4\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

ATLAS_2011_S9126244

Ratio to ATLAS

2

1

0.5

\overline{P}_T [GeV]

The figure displays two panels sharing a common x-axis representing the average transverse momentum of jets, \overline{P}_T [GeV], ranging from 50 to 500 GeV. The top panel shows the mean number of jets, $\overline{N}_{\text{jet}}$, on the y-axis (0 to 6). The bottom panel shows the ratio of the mean number of jets to the ATLAS result, 'Ratio to ATLAS', on the y-axis (0.5 to 2.0). Both panels include data points for ATLAS (black squares) and three Monte Carlo models: Herwig 7.2.0 (green dashed line with squares), Pythia 8.240 (blue solid line with triangles), and Sherpa 1.2.3 (red dotted line with diamonds). The ATLAS data points are accompanied by vertical error bars. The Monte Carlo models are shown as lines connecting their respective data points. A horizontal line is drawn at a ratio of 1.0 in the bottom panel. The bottom panel also features a stacked histogram with yellow and green regions, likely representing the distribution of the ratio to ATLAS. The text 'ATLAS_2011_S9126244' is present in the top panel, and 'Rivet 3.1.0, $\geq 5.4\text{M}$ events' and 'mcplots.cern.ch [arXiv:1306.3436]' are on the right side.