

Z+Jet

■ CMS
 ▲ Pythia 8.170 default

CMS_2021_I1920187

Rivet 3.1.10, 400k events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

The figure displays two panels related to the width of the first charged jet (λ_1^1) in CMS jet substructure.

Top Panel: Shows the distribution of λ_1^1 (charged only) (CMS jet substructure) for CMS data (black squares) and Pythia 8.170 default simulation (blue triangles). The x-axis is labeled "width (charged-only)" and ranges from 0 to 1. The y-axis is labeled "dN/dln width" and ranges from 0 to 1000. The Pythia 8.170 default distribution is significantly higher than the CMS data, peaking around 0.15. A label "CMS_2021_I1920187" is present near the data points.

Bottom Panel: Shows the ratio of the Pythia 8.170 default distribution to the CMS data. The y-axis is labeled "Ratio to CMS" and ranges from 0.5 to 2. The x-axis is the same as the top panel. The ratio is mostly between 0.8 and 1.2, with a green shaded band indicating the ratio range. A horizontal line is drawn at a ratio of 1.0.