

Jets

The figure displays two panels related to groomed multiplicity distributions.

Top Panel: A line plot showing the groomed multiplicity distribution, $\frac{1}{N} \frac{dN}{dp_T} \lambda_0^0$ (CMS jet substructure), versus groomed multiplicity. The y-axis ranges from 0 to 100. The x-axis ranges from 0 to 100. The plot compares four distributions:

- CMS:** Black squares, showing a very low, flat distribution near zero.
- Pythia 6.428 370:** Red line with open triangles, peaking at approximately 42 at multiplicity 10.
- Pythia 6.428 default:** Orange dashed line with open squares, peaking at approximately 45 at multiplicity 10.
- Pythia 8.170 default:** Blue solid line with filled triangles, peaking at approximately 48 at multiplicity 10.

A label "CMS 13821 11920187" is present near the x-axis at multiplicity 45.

Bottom Panel: A histogram showing the ratio of the distributions to the CMS distribution, Ratio to CMS , versus groomed multiplicity. The y-axis ranges from 0.5 to 2.0. The x-axis ranges from 0 to 100. The histogram is colored green for ratios between 0.5 and 1.0, and yellow for ratios between 1.0 and 2.0. A horizontal line is drawn at a ratio of 1.0.

mcplots.cern.ch [arXiv:1306.3436]

Rivet 3.1.10, $\geq 300k$ events