

Jets

The figure consists of two panels sharing a common x-axis labeled "groomed thrust" ranging from 0 to 1.

The top panel shows the differential event rate $\frac{dN}{d\ln \lambda_2^1}$ on the y-axis, ranging from 0 to 10000. The legend indicates four data series:

- CMS**: Black squares representing experimental data.
- Pythia 8.308 default**: Blue line with upward-pointing triangles.
- Pythia 8.308 tune-4c**: Red dashed line with stars.
- Pythia 8.308 tune-4cx**: Orange dotted line with squares.

 The theoretical curves closely follow the CMS data points, showing a sharp peak at low groomed thrust values and then decaying towards zero as the thrust increases.

The bottom panel displays the "Ratio to CMS" on the y-axis, ranging from 0.5 to 2.0. This panel shows the ratio of the theoretical models to the CMS data. A solid green line represents the central ratio, which remains very close to 1.0. A yellow shaded band around the green line indicates the uncertainty or spread of the ratios across the different models and the data points.

Pythia 8.308 tune-4cx

CMS_2021_I1920187

Ratio to CMS

mcplots.cern.ch [arXiv:1306.3436]

Rivet 3.1.10, $\geq 2.9\text{M}$ events