

Jets

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

Top Panel: The y-axis is labeled $\frac{dN}{d\ln(\text{thrust})}$ and ranges from 0 to 10,000. The plot title is 'Thrust λ_2^1 (CMS jet substructure)'. The legend indicates four data series:

- CMS:** Black squares representing experimental data points.
- Pythia 6.428 370:** Red line with open triangles.
- Pythia 6.428 default:** Orange dashed line with open squares.
- Pythia 8.170 default:** Blue solid line with solid triangles.

 The Pythia models show a sharp peak at low thrust values (around 0.05) and then decay, while the CMS data points are more spread out at low thrust.

Bottom Panel: The y-axis is labeled 'Ratio to CMS' and ranges from 0.5 to 2.0. It shows the ratio of the Pythia models to the CMS data. A solid black line represents the ratio, which is mostly flat at 1.0. Shaded regions in yellow and green represent the uncertainty bands for the different models. The text 'CMS_2021_I1920187' is visible in the plot area.

CMS_2021_I1920187

mcplots.cern.ch [arXiv:1306.3436]

Rivet 3.1.10, $\geq 400\text{k}$ events

2

1

0.5

thrust