

Jets

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

Top Panel: The y-axis is labeled $\frac{dN}{d\ln \lambda_2^1}$ and ranges from 0 to 10,000. The plot shows the thrust distribution for various Pythia models compared to CMS data. The legend indicates:

- CMS:** Black squares.
- Pythia 6.428 345:** Red dashed line with open circles.
- Pythia 6.428 346:** Yellow dotted line with open squares.
- Pythia 6.428 370:** Red solid line with open triangles.
- Pythia 6.428 default:** Orange dashed line with open squares.
- Pythia 8.308 default:** Blue solid line with solid triangles.

 The distribution peaks at low thrust values (around 0.05) and then decreases rapidly. The Pythia 8.308 default model shows the highest peak, while the CMS data points are clustered at the bottom of the plot.

Bottom Panel: The y-axis is labeled 'Ratio to CMS' and ranges from 0.5 to 2.0. This panel shows the ratio of the Pythia models to the CMS data. A solid black line is drawn at a ratio of 1.0. Shaded regions represent uncertainty bands:

- Yellow band:** Represents the ratio of Pythia 6.428 345 to CMS.
- Green band:** Represents the ratio of Pythia 6.428 346 to CMS.
- Blue band:** Represents the ratio of Pythia 6.428 370 to CMS.
- Orange band:** Represents the ratio of Pythia 6.428 default to CMS.
- Dark blue band:** Represents the ratio of Pythia 8.308 default to CMS.

 The ratios are generally close to 1.0, with some variation at low thrust values.

Text labels within the plot area include 'Thrust λ_2^1 (CMS jet substructure)' at the top, 'CMS_2021_I1920187' in the middle of the top panel, and 'Rivet 3.1.10, ≥ 2.6 M events' on the right side.

CMS_2021_I1920187

mcplots.cern.ch [arXiv:1306.3436]

Rivet 3.1.10, ≥ 2.6 M events