

Jets

The figure displays the thrust distribution for λ_2^1 (CMS jet substructure) in $\sqrt{s} = 13.6$ TeV pp collisions. The top panel shows the differential event rate $\frac{dN}{d\ln \lambda_2^1}$ versus thrust, comparing CMS data (black squares) with Pythia 8.170 default (blue triangles) and Pythia 8.170 tune-4cx (orange squares) models. The bottom panel shows the ratio of the models to the CMS data, with a green cross indicating the ratio at low thrust and a horizontal line at 1.0 for higher thrust values.

Top Panel: Thrust λ_2^1 (CMS jet substructure)

Y-axis: $\frac{dN}{d\ln \lambda_2^1}$ (log scale, 1000 to 10000)

X-axis: thrust (0 to 1)

Legend:

- CMS
- ▲ Pythia 8.170 default
- Pythia 8.170 tune-4cx

Bottom Panel: Ratio to CMS

Y-axis: Ratio to CMS (0.5 to 2)

X-axis: thrust (0 to 1)

Legend:

- CMS
- ▲ Pythia 8.170 default
- Pythia 8.170 tune-4cx

Source: CMS_2021_I1920187

Rivet 3.1.10, $\geq 200k$ events

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

thrust