

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

Top Panel: The y-axis is the differential event rate $\frac{1}{\#} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ on a logarithmic scale from 10^{-2} to 10^3 . The plot shows data from CMS (black squares) and two Pythia models: Pythia 6.423 default (orange dashed line with squares) and Pythia 8.315 default (blue solid line with triangles). The data points are connected by lines. The CMS data shows a sharp peak at low groomed thrust, while the Pythia models show a more gradual decrease. The text "CMS, 13 TeV, AK8 jets, forward dijet region, $408 < p_T^{\text{jets}} < 481$ GeV" is at the top right. A reference to "(CMS_2021_I1920187)" is at the bottom left of the top panel.

Bottom Panel: The y-axis is the "Ratio to CMS" on a linear scale from 0.5 to 2.0. It shows the ratio of the Pythia models to the CMS data. The Pythia 6.423 default model (orange dashed line with squares) shows a ratio that starts around 1.0, peaks slightly, and then drops significantly to around 0.6 at a groomed thrust of 0.6. The Pythia 8.315 default model (blue solid line with triangles) shows a ratio that starts around 1.0, peaks slightly, and then drops to around 0.8 at a groomed thrust of 0.6. A horizontal band with a green center and yellow edges is centered around a ratio of 1.0, indicating the expected range for a good fit.

(CMS_2021_I1920187)

mcplots.cern.ch [arXiv:1306.3436]

0.5

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