

The figure consists of two panels. The top panel is a log-linear plot of the groomed thrust distribution, showing the differential event rate $\frac{1}{\#} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ versus groomed thrust λ . The y-axis is logarithmic, ranging from 10^{-3} to 10^4 . The x-axis is linear, ranging from 0 to 1. The plot compares CMS data (black squares) with three Monte Carlo models: Pythia 6.428 370 (red triangles), Pythia 6.428 default (orange squares), and Pythia 8.235 default (blue triangles). The bottom panel shows the ratio of the Monte Carlo models to the CMS data, Ratio to CMS , versus groomed thrust. The y-axis is linear, ranging from 0.5 to 2. The x-axis is linear, ranging from 0 to 1. The plot includes shaded regions representing the uncertainty bands for the Monte Carlo models: yellow for Pythia 6.428 370, green for Pythia 6.428 default, and blue for Pythia 8.235 default. A horizontal line at 1.0 indicates the ratio of 1.0.

(CMS_2021_I1920187)

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

groomed thrust