

The figure displays two panels related to the dijet invariant mass distribution in the central dijet region ($408 < p_T^{\text{jet}} < 481$ GeV) from CMS data at 13 TeV, using AK8 jets.

Top Panel: Shows the differential cross-section $\frac{1}{\sigma} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ on a logarithmic scale (from 10^{-3} to 10^2) versus the width of the dijet invariant mass bin (from 0 to 1). The CMS data (black squares) is compared with several Pythia 6.428 models: 359 (cyan dashed line with squares), 370 (red solid line with triangles), a (green solid line with triangles), dw (green dashed line with triangles), p0 (black solid line with circles), and pro-q2o (green dotted line with stars). The models generally follow the CMS data, with some variations in the peak region.

Bottom Panel: Shows the ratio of the model predictions to the CMS data on a linear scale (from 0.5 to 2) versus the width. The ratio is mostly close to 1, indicating good agreement. Shaded regions (yellow and green) represent the uncertainty bands. The text "(CMS_2021_I1920187)" is present in the bottom panel.

(CMS_2021_I1920187)

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

width