

The figure consists of two panels. The top panel is a log-linear plot showing the differential event rate  $\frac{1}{\#} \frac{dN}{d\lambda} \frac{d\lambda}{dp_T}$  versus groomed width. The y-axis is logarithmic, ranging from  $10^{-2}$  to  $10^2$ . The x-axis is linear, ranging from 0 to 1. The plot displays data from CMS (black squares) and several Pythia 6.428 models: 350 (yellow squares), 370 (red triangles), 380 (green triangles), p0 (black circles), and p2010 (black dashed line with squares). The bottom panel shows the ratio of the groomed width distribution to the CMS distribution,  $\text{Ratio to CMS}$ , on a linear scale from 0.5 to 2.0. The same models and data points are shown. A horizontal line at 1.0 indicates the ratio of 1. The background of the bottom panel is shaded in yellow and green, representing different regions of the groomed width distribution.

(CMS\_2021\_I1920187)

Rivet 4.1.0,  $\geq 100\text{k}$  events

mcplots.cern.ch [arXiv:2401.10621]

2

1

0.5

groomed width