

Top Panel: Differential event rate $\frac{1}{\lambda} \frac{dN}{d\lambda}$ versus groomed width. The y-axis is logarithmic, ranging from 10^{-2} to 10^2 . The x-axis ranges from 0 to 1. The plot shows CMS data (black squares) and several Pythia 6.426 models: 359 (red dashed line with squares), a (blue solid line with triangles up), dw (blue dashed line with triangles down), p0 (black solid line with circles), and pro-q2o (red dotted line with stars). The models generally follow the CMS data, with some variations at higher groomed widths.

Bottom Panel: Ratio of the event rate to the CMS data versus groomed width. The y-axis is linear, ranging from 0.5 to 2. The x-axis ranges from 0 to 1. The plot shows the ratio of the event rate to the CMS data for the same models as the top panel. The ratios are mostly between 0.5 and 2.0, with a horizontal line at 1.0 indicating perfect agreement. Shaded regions (yellow and green) represent the uncertainty bands for the models.

Legend for Top Panel:

- CMS
- Pythia 6.426 359
- ▲— Pythia 6.426 a
- ▼— Pythia 6.426 dw
- Pythia 6.426 p0
- ☆— Pythia 6.426 pro-q2o

Text in Top Panel: CMS, 13 TeV, AK4 jets, Z+jet region, $150 < p_T^{\text{jet}} < 186$ GeV

Text in Bottom Panel: Ratio to CMS

X-axis label: groomed width

Y-axis label: $\frac{1}{\lambda} \frac{dN}{d\lambda}$

Y-axis label: Ratio to CMS

Text in Bottom Panel: (CMS_2021_I1920187)

Text in Bottom Panel: mcplots.cern.ch [arXiv:1306.3436]

Text in Bottom Panel: Rivet 4.1.0, $\geq 100k$ events

(CMS_2021_I1920187)

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

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

groomed width