

Z+Jet

■ CMS
▲ Pythia 8.308 default

CMS_2021_I1920187

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

groomed pTD2

The figure consists of two panels sharing a common x-axis labeled "groomed pTD2" ranging from 0 to 1.

Top Panel: The y-axis is labeled $\frac{1}{N} \frac{dN}{d\lambda_0^2}$ and ranges from 0 to 1000. It shows the distribution of groomed pTD2 for CMS data (black squares) and Pythia 8.308 default simulation (blue triangles). The Pythia distribution peaks at approximately 0.15 for groomed pTD2, while the CMS data is much lower and flatter. A text label "Groomed $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure)" is present at the top.

Bottom Panel: The y-axis is labeled "Ratio to CMS" and ranges from 0.5 to 2. It shows the ratio of the Pythia distribution to the CMS data. The ratio is mostly between 0.8 and 1.2, with a green band indicating the ratio range. A horizontal line is drawn at a ratio of 1.0. A text label "Ratio to CMS" is present on the left.

Legend: The legend is located in the top panel and includes "CMS" (black square) and "Pythia 8.308 default" (blue triangle).

Text Labels: The top panel has a title "Groomed $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure)". The bottom panel has a label "Ratio to CMS".

Axis Labels: The x-axis for both panels is "groomed pTD2". The y-axis for the top panel is $\frac{1}{N} \frac{dN}{d\lambda_0^2}$. The y-axis for the bottom panel is "Ratio to CMS".