

Jets

The figure displays the groomed pTD2 distribution for CMS data and several Pythia 6.428 models. The top panel shows the differential event rate $\frac{dN}{d\ln(p_{TD2})}$ on a logarithmic y-axis (from 1000 to 100,000) against groomed pTD2 on a logarithmic x-axis (from 0.05 to 1.0). The CMS data is represented by black squares, while the Pythia models are shown with various markers and line styles. A prominent peak is visible around $p_{TD2} \approx 0.1$. The bottom panel shows the ratio of the models to the CMS data, with a green band indicating the ratio is within 10% of the CMS data.

Top Panel: Groomed p_{TD2} Distribution

Y-axis: $\frac{dN}{d\ln(p_{TD2})}$ (log scale, 1000 to 100,000)

X-axis: groomed p_{TD2} (log scale, 0.05 to 1.0)

Legend:

- CMS
- Pythia 6.428 391
- + Pythia 6.428 393
- Pythia 6.428 394
- ▼ Pythia 6.428 395

Bottom Panel: Ratio to CMS

Y-axis: Ratio to CMS (0.5 to 2.0)

X-axis: groomed p_{TD2} (log scale, 0.05 to 1.0)

The bottom panel shows the ratio of the models to the CMS data. A green band indicates the ratio is within 10% of the CMS data. The ratio is generally close to 1.0, with some deviations at low p_{TD2} values.

Rivet 3.1.10, $\geq 1.7\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

groomed pTD2