

Jets

The figure displays two panels related to the groomed p_{TD2} distribution.

Top Panel: Shows the distribution of groomed p_{TD2} for CMS data (black squares) and several Pythia 6.428 models. The x-axis is labeled "groomed p_{TD2} " and ranges from 0 to 1. The y-axis is labeled "1/N dN/dln(p_{TD2})" and ranges from 0 to 1000. The legend includes:

- CMS (black squares)
- Pythia 6.428 355 (orange dashed line with stars)
- Pythia 6.428 356 (green dotted line with squares)
- Pythia 6.428 370 (red solid line with triangles)
- Pythia 6.428 379 (green dashed line with stars)
- Pythia 6.428 ambt1 (orange solid line with triangles)
- Pythia 6.428 z2 (green solid line with circles)

The distributions show a sharp peak around $p_{TD2} \approx 0.1$ and a long tail extending to $p_{TD2} = 1$. The Pythia models generally follow the CMS data, with some variations in the peak height and tail shape.

Bottom Panel: Shows the ratio of the Pythia models to the CMS distribution. The x-axis is labeled "groomed p_{TD2} " and ranges from 0 to 1. The y-axis is labeled "Ratio to CMS" and ranges from 0.5 to 2.0. The plot shows a green band around the ratio of 1.0, indicating that the Pythia models are generally consistent with the CMS data within the shown range.

mcplots.cern.ch [arXiv:1306.3436]

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groomed pTD2