

Z+Jet

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

Top Panel: Shows the differential event rate $\frac{dN}{d\ln(p_{TD2})}$ versus $\ln(p_{TD2})$. The x-axis ranges from approximately -0.5 to 1.0. The y-axis ranges from 0 to 10,000. Data points are shown for CMS (black squares), Herwig++ 2.7.1 default (orange dashed line with open circles), Herwig 7.2.1 default (green dashed line with open squares), and Herwig 7.2.1 softTune (blue solid line with filled triangles). A vertical line at $\ln(p_{TD2}) \approx 0.6$ indicates the selection cut used in the study.

Bottom Panel: Shows the Ratio to CMS versus $\ln(p_{TD2})$. The x-axis is the same as the top panel. The y-axis ranges from 0.5 to 2.0. The ratio is plotted for the same four datasets. The CMS data is represented by black squares, while the other three models are represented by yellow shaded regions indicating uncertainty bands.

Both panels include a legend identifying the data sources and theoretical models.

mcplots.cern.ch [arXiv:1306.3436]

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