

The figure consists of two panels. The top panel shows the distribution of the groomed pTD2 (charged-only) for various Monte Carlo models. The y-axis is the differential cross-section $\frac{1}{\sigma} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ on a logarithmic scale from 10^{-2} to 10^2 . The x-axis is the groomed pTD2 (charged-only) from 0 to 1. The models shown are: 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), Pythia 8.315 default (blue solid line with solid triangles), Pythia 8.315 vincia-default (cyan dashed line with solid triangles), and Sherpa 2.2.9 default (red dotted line with solid diamonds). The bottom panel shows the ratio of the groomed pTD2 distribution to the CMS distribution. The y-axis is the ratio from 0.5 to 2. The x-axis is the same as the top panel. The ratio is shown for the same models as the top panel. The ratio is generally close to 1, with some deviations at low pTD2 values. Shaded regions in the bottom panel indicate the ratio of the groomed pTD2 distribution to the CMS distribution for the different models.

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Ratio to CMS

groomed pTD2 (charged-only)