

Jets

Rivet 3.1.10, $\geq 2.1\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

pTD2

 $\mathbf{d}^N$

Ratio to CMS

Figure 1 displays the distribution of the observable $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure) for the $pp \rightarrow t\bar{t} + 2\text{ jets}$ process at $\sqrt{s} = 13$ TeV. The top panel shows the distribution $N/d\ln(p_T^D)^2 \lambda_0^2$ for the CMS data (black squares) and three Herwig++ models: Herwig++ 2.7.1 default (orange dashed line with circles), Herwig++ 2.7.1 UE-EE-5 (red solid line with circles), and Herwig 7.2.1 default (green dashed line with squares). The bottom panel shows the ratio of the Herwig++ models to the CMS distribution, with a green shaded band for the 2.7.1 models and a yellow shaded band for the 7.2.1 model. The x-axis is p_{TD2} (0 to 1) and the y-axis is $N/d\ln(p_{TD2})$ (0 to 10000).