

Jets

Rivet 3.1.10, $\geq 2.6\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

Figure 1: Comparison of charged-particle multiplicity distributions. The top panel shows the distribution of charged-particle multiplicity N for p_{TD2} (charged-only) in the range 0 to 1. The bottom panel shows the ratio of the multiplicity distribution to the CMS distribution. The top panel compares CMS data (black squares) with Herwig++ 2.7.1 default (orange dashed line with circles), Herwig 7.2.1 default (green dashed line with squares), and Herwig 7.2.1 softTune (blue solid line with triangles). The bottom panel shows the ratio of the multiplicity distribution to the CMS distribution, with a horizontal line at 1.0. The ratio is shown for the same four models. The x-axis for both panels is p_{TD2} (charged-only). The y-axis for the top panel is $1/N \cdot dN/d\ln(p_T \lambda_0^2)$ (charged only) (CMS jet substructure). The y-axis for the bottom panel is Ratio to CMS. The top panel has a logarithmic scale for the y-axis, ranging from 10^0 to 10^4 . The bottom panel has a linear scale for the y-axis, ranging from 0.5 to 2.0. The x-axis for both panels ranges from 0 to 1.0. The top panel is labeled "10000 GeV pp" and "Rivet 3.1.10, $\geq 2.6M$ events". The bottom panel is labeled "mcplots.cern.ch [arXiv:1306.3436]".