

Jets

Rivet 3.1.10, $\geq 2.3\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

pTD2

Top Panel: Distribution of $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure) for $\sqrt{s} = 13$ TeV pp collisions. The plot shows the distribution for CMS (black squares) and three Monte Carlo models: Herwig 7.2.1 softTune (teal downward triangles), Pythia 6.428 370 (red upward triangles), and Pythia 8.308 default (blue upward triangles). The x-axis is logarithmic, ranging from 0.01 to 100. The y-axis is linear, ranging from 0 to 1000. The distribution peaks around 0.1.

Bottom Panel: Ratio of the distributions to the CMS distribution. The plot shows the ratio of the distributions to the CMS distribution for the same Monte Carlo models. The x-axis is the same as the top panel. The y-axis is linear, ranging from 0.5 to 2.0. The histogram is colored yellow and green, with a horizontal line at 1.0. The ratio is generally close to 1.0, indicating good agreement with the CMS data.

Labels: CMS_2021_I1920187, Rivet 3.1.10, ≥ 2.3 M events