

Jets

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

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

pTD2

 $\mathbf{d}^N$

→

Ratio to CMS

The figure displays the distribution of the observable $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure) for $\sqrt{s} = 13.6$ TeV pp collisions. The top panel shows the distribution $\frac{1}{N} \frac{dN}{d\ln(p_T^D)^2 \lambda_0^2}$ versus $(p_T^D)^2 \lambda_0^2$ (log scale). The bottom panel shows the ratio of the distribution to the CMS data, Ratio to CMS , versus p_{TD2} (log scale).

The top panel includes the following data series:

- CMS (Black squares)
- Pythia 6.428 350 (Yellow squares)
- Pythia 6.428 370 (Red triangles)
- Pythia 6.428 380 (Green triangles)
- Pythia 6.428 p0 (Black circles)
- Pythia 6.428 p2010 (Black dashed line)

The bottom panel shows the ratio of the distribution to the CMS data, with a green band indicating the ratio range. The ratio is generally close to 1, indicating good agreement between the models and the CMS data.