

Jets

Rivet 3.1.10, $\geq 2.7\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

pTD2

The figure displays the distribution of the observable $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure) for 13 TeV pp collisions. The top panel shows the distribution $1/N \frac{dN}{d \ln(p_T^D)^2 \lambda_0^2}$ versus $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure). The bottom panel shows the ratio of the model distributions to the CMS data, Ratio to CMS , versus p_{TD2} .

Top Panel: Distribution of $(p_T^D)^2 \lambda_0^2$

The x-axis is $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure) on a logarithmic scale from 0 to 1. The y-axis is $1/N \frac{dN}{d \ln(p_T^D)^2 \lambda_0^2}$ on a logarithmic scale from 1000 to 10000. The legend indicates the following models:

- CMS (Black squares)
- Pythia 6.428 345 (Red dashed line with open circles)
- Pythia 6.428 346 (Yellow dotted line with open squares)
- Pythia 6.428 370 (Red solid line with open triangles)
- Pythia 6.428 default (Orange dashed line with open squares)
- Pythia 8.308 default (Blue solid line with filled triangles)

Bottom Panel: Ratio to CMS

The x-axis is p_{TD2} on a logarithmic scale from 0 to 1. The y-axis is the Ratio to CMS on a linear scale from 0.5 to 2. The plot shows a green band representing the ratio range and a horizontal line at 1.0.