

Jets

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

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

pTD2

Top Panel: Differential event rate $\frac{dN}{dp_T^D}$ vs p_{TD2} . The y-axis is logarithmic, ranging from 1000 to 10000. The x-axis is p_{TD2} , ranging from 0 to 1. The plot shows CMS data (black squares) and two theoretical models: Herwig 7.2.1 default (green dashed line with open squares) and Pythia 8.308 default (blue solid line with solid triangles). The models show a peak around $p_{TD2} \approx 0.1$.

Bottom Panel: Ratio of the models to CMS data vs p_{TD2} . The y-axis is linear, ranging from 0.5 to 2.0. The x-axis is p_{TD2} , ranging from 0 to 1. The plot shows a yellow band representing the ratio of the models to the CMS data, with a green line at 1.0. The ratio is generally close to 1.0, indicating good agreement between the models and the data.

Labels and Text:

- Top Panel: $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure)
- Legend: CMS, Herwig 7.2.1 default, Pythia 8.308 default
- Bottom Panel: Ratio to CMS
- Reference: CMS_2021_I1920187
- Source: Rivet 3.1.10, $\geq 2.1M$ events