

Z+Jet

Rivet 3.1.10, 2.9M events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

The figure displays two panels related to the distribution of p_{TD2} (charged-only).

Top Panel: Shows the distribution of $(p_T^D)^2 \lambda_0^2$ (charged only) (CMS jet substructure). The x-axis is p_{TD2} (charged-only) ranging from 0 to 1. The y-axis is $\frac{1}{N} \frac{dN}{dp_{TD2}}$ ranging from 0 to 1000. The plot compares CMS data (black squares) and Pythia 8.308 default simulation (blue triangles). The Pythia distribution shows a prominent peak around $p_{TD2} \approx 0.25$, while the CMS data is relatively flat. A label "CMS_2021_I1920187" is present near the data points.

Bottom Panel: Shows the ratio of the distribution to the CMS distribution, Ratio to CMS , ranging from 0.5 to 2.0. The x-axis is p_{TD2} (charged-only) ranging from 0 to 1. The plot compares the ratio of the Pythia distribution to the CMS distribution (yellow bars) and the ratio of the CMS data to the CMS distribution (green bars). The yellow bars show a peak around $p_{TD2} \approx 0.25$, while the green bars are relatively flat around 1.0.