

Jets

Rivet 3.1.10, 2.6M events

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

pTD2

The figure displays two panels related to the distribution of p_{TD2} and its ratio to CMS.

Top Panel: Shows the distribution of p_{TD2} (x-axis, ranging from 0 to 1) for two models: CMS (black squares) and Pythia 8.308 default (blue triangles). The y-axis represents the distribution, with labels $\frac{1}{N} \frac{dN}{dp_{TD2}}$ and $\frac{1}{N} \frac{dN}{dp_{TD2}}$ (Rivet 3.1.10, 2.6M events). The Pythia 8.308 default distribution is significantly higher than the CMS distribution, peaking around $p_{TD2} \approx 0.1$. The CMS distribution is very low and flat. A label $(p_T^D)^2 \lambda_0^2$ (CMS jet substructure) is present in the top right. A reference to CMS_2021_I1920187 is also visible.

Bottom Panel: Shows the ratio of the Pythia 8.308 default distribution to the CMS distribution (y-axis, ranging from 0.5 to 2). The ratio is plotted as a green shaded region, indicating the uncertainty or spread of the ratio. The ratio is mostly between 0.8 and 1.2, with a slight peak around $p_{TD2} \approx 0.1$. The x-axis is labeled p_{TD2} .