

Jets

Rivet 3.1.10, $\geq 2.8\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

The figure displays two panels related to the distribution of p_{TD2} (charged-only) for CMS data and Pythia 8.308 models.

Top Panel: Shows the distribution of p_{TD2} (charged-only) for CMS data (black squares) and Pythia 8.308 default (blue triangles) and Pythia 8.308 default-noCR (grey triangles) models. The x-axis is p_{TD2} (charged-only) ranging from 0 to 1. The y-axis is $1/N \frac{dN}{dp_{TD2}}$ (charged-only) ranging from 0 to 1000. The distribution is peaked around $p_{TD2} \approx 0.15$. The Pythia 8.308 default model (blue triangles) closely follows the CMS data (black squares), while the Pythia 8.308 default-noCR model (grey triangles) shows a slightly higher peak and a broader distribution.

Bottom Panel: Shows the ratio of the Pythia 8.308 default model to the CMS data, labeled "Ratio to CMS". The x-axis is p_{TD2} (charged-only) ranging from 0 to 1. The y-axis is "Ratio to CMS" ranging from 0.5 to 2.0. The ratio is mostly close to 1.0, with a green band indicating the ratio and yellow bands indicating the uncertainty. The ratio is slightly higher than 1.0 for $p_{TD2} > 0.5$.