

8000 GeV pp

Jets

Jet Charge Q_T ($\kappa=0.6$, $400 < p_T < 700$, $|\eta| < 1.5$)

- CMS
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.135 default

 $1/N \frac{dN}{dQ_{T,1}^{0.6}} [1/e]$

10

8

6

4

2

0

2

1

0.5

Rivet 3.1.0, ≥ 5.5 M events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

Ratio to CMS

$Q_{T,1}^{\kappa=0.6} [e]$

The figure displays the distribution of the jet charge $Q_{T,1}$ for jets with $400 < p_T < 700$ GeV and $|\eta| < 1.5$ in 8000 GeV pp collisions. The top panel shows the distribution $1/N \frac{dN}{dQ_{T,1}^{0.6}} [1/e]$ versus $Q_{T,1}^{\kappa=0.6} [e]$. The bottom panel shows the ratio of the distribution to the CMS data, Ratio to CMS , versus $Q_{T,1}^{\kappa=0.6} [e]$.

The top panel compares the CMS data (black squares) with the Herwig 7.2.0 default (green dashed line with squares) and Pythia 8.135 default (blue solid line with triangles) models. The bottom panel compares the Herwig 7.2.0 default (green shaded region) and Pythia 8.135 default (yellow shaded region) models to the CMS data (black squares). The ratio to CMS is shown as a blue solid line with triangles.

The x-axis for both panels is $Q_{T,1}^{\kappa=0.6} [e]$, ranging from approximately -0.7 to 0.7. The y-axis for the top panel is $1/N \frac{dN}{dQ_{T,1}^{0.6}} [1/e]$, ranging from 0 to 10. The y-axis for the bottom panel is Ratio to CMS , ranging from 0.5 to 2.0.