

Z+Jet

Figure 1 consists of two panels. The top panel is a plot of the distribution of p_{TD2} (charged-only) for CMS data and several Pythia models. The x-axis is p_{TD2} (charged-only) ranging from 0 to 1. The y-axis is $1/N \frac{dN}{dp_T d\ln \lambda_0^2}$ (charged only) (CMS jet substructure) ranging from 0 to 10000. The legend indicates the following models: CMS (black squares), Pythia 6.428 390 (red circles), Pythia 6.428 391 (red squares), Pythia 6.428 392 (purple diamonds), Pythia 6.428 396 (teal stars), Pythia 6.428 397 (blue stars), and Pythia 6.428 398 (dark blue triangles). The bottom panel shows the ratio of the Pythia models to the CMS data, with a horizontal line at 1.0. The y-axis is 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 shows that the Pythia models generally overpredict the distribution at low p_{TD2} and underpredict it at high p_{TD2} .

Rivet 3.1.10, $\geq 2.5\text{M}$ events