

Z+Jet

Figure 1 consists of two panels. The top panel is a plot of the charged-particle multiplicity distribution, showing $\frac{1}{N} \frac{dN}{d \ln(p_T^D)^2 \lambda_0^2}$ versus p_{TD2} (charged-only). The x-axis ranges from 0 to 1, and the y-axis ranges from 0 to 1000. The plot compares CMS data (black squares) with several Pythia 6.428 models: 355 (orange dashed line with stars), 356 (green dotted line with squares), 370 (red solid line with triangles), 379 (green dashed line with stars), ambt1 (orange solid line with triangles), and z2 (green solid line with circles). The distributions show a peak around $p_{TD2} \approx 0.2$. The bottom panel shows the ratio of the distributions to the CMS distribution, with a horizontal line at 1.0. The ratio is mostly between 0.5 and 1.5, with some regions above 1.5. The x-axis is the same as the top panel, and the y-axis ranges from 0.5 to 2.0.

CMS 2021-11920187

mcplots.cern.ch [arXiv:1306.3436]

Rivet 3.1.10, $\geq 2.3\text{M}$ events