

Z+Jet

Figure 1 consists of two panels. The top panel is a plot of the multiplicity distribution of jets in CMS data and Monte Carlo models. The x-axis is labeled 'multiplicity' and ranges from 0 to 40. The y-axis is labeled 'mathrm d N / mathrm d p_T mathrm d lambda' and ranges from 0 to 240. The legend indicates three data series: CMS (black squares), Herwig 7.2.1 softTune (blue triangles), and Pythia 6.428 370 (red triangles). The CMS data shows a sharp peak at multiplicity 0. The Herwig and Pythia models show a broader distribution with peaks around multiplicity 12-13. The bottom panel shows the ratio of the Monte Carlo models to the CMS data. The y-axis is labeled 'Ratio to CMS' and ranges from 0.5 to 2. A horizontal line at 1.0 indicates the ratio is 1. A green band between 0.9 and 1.1 indicates the ratio is within 10%. A yellow band between 0.8 and 1.2 indicates the ratio is within 20%.

Rivet 3.1.10, $\geq 2.2\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.

multiplicity