

Z+Jet

Figure 1 consists of two panels. The top panel is a plot of the distribution of the width of the first jet substructure, λ_1 , in units of the transverse momentum of the first jet, p_T^1 . The x-axis is labeled "width" and ranges from 0 to 1. The y-axis is labeled "dN/dln width" and ranges from 0 to 1000. The plot shows the CMS data (black squares) and three Herwig++ models: Herwig++ 2.7.1 default (orange dashed line with open circles), Herwig 7.2.1 default (green dashed line with open squares), and Herwig 7.2.1 softTune (blue solid line with solid triangles). The CMS data shows a peak around width 0.15. The Herwig++ models show a peak around width 0.2. The bottom panel is a plot of the ratio of the width of the first jet substructure to the width of the first jet substructure in the CMS data. The x-axis is labeled "width" and ranges from 0 to 1. The y-axis is labeled "Ratio to CMS" and ranges from 0.5 to 2. The plot shows the ratio of the width of the first jet substructure to the width of the first jet substructure in the CMS data for the three Herwig++ models. The ratio is mostly between 0.8 and 1.2, with a slight increase for the Herwig 7.2.1 softTune model at higher widths.

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

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

width