

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 , for CMS and Pythia 8.308 models. The x-axis is labeled 'width' and ranges from 0 to 1. The y-axis is labeled '1/N dN/dln λ_1 ' and ranges from 0 to 10000. The legend indicates four data series: CMS (black squares), Pythia 8.308 default (blue triangles), Pythia 8.308 default-noFsr (purple triangles), and Pythia 8.308 default-noRap (cyan triangles). The CMS distribution is a narrow peak at width ≈ 0.05. The Pythia 8.308 default distribution is a broader peak at width ≈ 0.05. The Pythia 8.308 default-noFsr distribution is a very narrow peak at width ≈ 0.05. The Pythia 8.308 default-noRap distribution is a broad peak at width ≈ 0.05. The bottom panel is a plot of the ratio of the width of the first jet substructure to the CMS distribution, 'Ratio to CMS', versus 'width'. 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 2.0. The plot shows a yellow shaded region for the ratio > 1 and a green shaded region for the ratio < 1. The ratio is 1 for width > 0.5.

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

CMS 2021 I1920187