

Jets

Rivet 3.1.10, $\geq 300k$ events

mcplots.cern.ch [arXiv:1306.3436]

2

0.5

width

 $\mathbf{d}^N$

4

Ratio to CMS

Figure 1 consists of two panels. The top panel is a plot of the width of the first jet substructure, λ_1 , in CMS units. The x-axis is labeled 'width' and ranges from 0 to 1. The y-axis is labeled 'mathrm dN / mathrm d\lambda_1' and ranges from 0 to 1000. The plot shows three distributions: CMS (black squares), Pythia 8.170 default (blue triangles), and Pythia 8.170 tune-4cx (orange squares). The CMS distribution is a sharp peak at width 0. The Pythia 8.170 default distribution is a broader peak at width 0. The Pythia 8.170 tune-4cx distribution is a broader peak at width 0. The bottom panel is a plot of the ratio of the width to the CMS distribution. 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 a horizontal line at 1.0, with a yellow shaded region representing the ratio of the Pythia 8.170 default distribution to the CMS distribution, and a green shaded region representing the ratio of the Pythia 8.170 tune-4cx distribution to the CMS distribution.