

Jets

The figure displays two panels related to the groomed width distribution λ_1^1 (CMS jet substructure).

Top Panel: Shows the groomed width distribution λ_1^1 (CMS jet substructure) for CMS data (black squares) and Pythia 8.201 default simulation (blue triangles). The x-axis is groomed width (0 to 1), and the y-axis is $dN/d\ln\lambda_1^1$ (0 to 10000). The Pythia 8.201 default distribution is significantly higher than the CMS data, peaking around 0.1.

Bottom Panel: Shows the ratio of the Pythia 8.201 default distribution to the CMS data, labeled "Ratio to CMS". The x-axis is groomed width (0 to 1), and the y-axis is the ratio (0.5 to 2.0). The ratio is mostly close to 1.0, indicated by the green shaded band.

Source: CMS_2021_I1920187

CMS

Pythia 8.201 default

CMS_2021_I1920187

Ratio to CMS

groomed width