

Z+Jet

Figure 1 consists of two panels. The top panel shows the distribution of groomed LHA for CMS data (black squares) and four Pythia 6.428 models (391, 393, 394, 395) using different tunes. The y-axis is labeled $\frac{1}{N} \frac{dN}{d \ln LHA}$ and ranges from 0 to 10000. The x-axis is labeled 'groomed LHA' and ranges from 0 to 1. The bottom panel shows the ratio of the Pythia models to the CMS data, with yellow and green shaded regions indicating the uncertainty bands. The y-axis is labeled 'Ratio to CMS' and ranges from 0.5 to 2.0. The x-axis is the same as the top panel. A horizontal line at Ratio to CMS = 1.0 is shown. The legend for the top panel includes: Pythia 6.428 391 (red dashed line with open squares), Pythia 6.428 393 (blue dashed line with open circles), Pythia 6.428 394 (green dashed line with open triangles), and Pythia 6.428 395 (purple dashed line with open diamonds). The CMS data is represented by black squares. The text 'CMS_2021_11920187' is visible in the top panel.