

Z+Jet

The figure displays the groomed LHA distribution for CMS data and various Pythia models. The top panel shows the differential event rate $\frac{dN}{d\ln \lambda_{0.5}^1}$ versus the groomed LHA value. The bottom panel shows the ratio of the Pythia models to the CMS data, with a central line at 1.0 and shaded regions indicating the ratio range.

Top Panel: Groomed LHA $\lambda_{0.5}^1$ (CMS jet substructure)

Y-axis: $\frac{dN}{d\ln \lambda_{0.5}^1}$ (log scale, ranging from 1000 to 1000000)

X-axis: groomed LHA (ranging from 0 to 1)

Legend:

- CMS (Black squares)
- Pythia 6.428 345 (Red dashed line with open circles)
- Pythia 6.428 370 (Red solid line with open triangles)
- Pythia 6.428 ambt1 (Orange solid line with open triangles)
- Pythia 6.428 z2 (Green solid line with solid circles)

Bottom Panel: Ratio to CMS

Y-axis: Ratio to CMS (ranging from 0.5 to 2.0)

X-axis: groomed LHA (ranging from 0 to 1)

The bottom panel shows the ratio of the Pythia models to the CMS data. The central line represents the ratio of 1.0. The shaded regions indicate the ratio range for the different Pythia models.

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mcplots.cern.ch [arXiv:1306.3436]