

Jets

Figure 1 displays the LHA $\lambda_{0.5}^1$ (CMS jet substructure) for the CMS data and several Pythia 6.428 models. The top panel shows the differential event rate $\frac{dN}{dp_T}$ as a function of $\lambda_{0.5}^1$ (ranging from 0 to 1). The bottom panel shows the ratio of the model rates to the CMS rate, with a horizontal line at 1 and shaded regions indicating uncertainty.

The top panel includes the following data series:

- CMS (Black squares)
- Pythia 6.428 355 (Orange stars)
- Pythia 6.428 356 (Green squares)
- Pythia 6.428 370 (Red triangles)
- Pythia 6.428 379 (Green stars)
- Pythia 6.428 ambt1 (Orange triangles)
- Pythia 6.428 z2 (Green circles)

The bottom panel shows the ratio of the model rates to the CMS rate, with a horizontal line at 1 and shaded regions indicating uncertainty.

Rivet 3.1.10, $\geq 1.8\text{M}$ events

mcplots.cern.ch [arXiv:1306.3436]

2

1

10

LHA