

Jets

Top Panel: $\frac{dN}{d\ln \lambda_2^1}$ vs. λ_2^1 (CMS jet substructure). The plot compares CMS data (black squares) with Herwig 7.2.1 default (green dashed line with open squares) and Pythia 8.308 default (blue solid line with triangles). The y-axis is logarithmic, ranging from 0.1 to 10,000. The x-axis is λ_2^1 , ranging from 0 to 1. The CMS data points are clustered around 1. The Herwig and Pythia models show a sharp peak at low λ_2^1 and then decay towards 1.

Bottom Panel: Ratio to CMS vs. λ_2^1 . The plot shows the ratio of the N-jet cross section to the CMS data. The y-axis is linear, ranging from 0.5 to 1.5. The x-axis is λ_2^1 , ranging from 0 to 1. A yellow shaded band represents the ratio to CMS, which is centered around 1. The ratio is highest at low λ_2^1 and decreases towards 1 as λ_2^1 increases.

mcplots.cern.ch [arXiv:1306.3436]

0.5