

The figure consists of two panels. The top panel shows the dijet invariant mass distribution,  $\frac{1}{\sigma} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ , on a logarithmic scale from  $10^{-3}$  to  $10^2$ . The x-axis is the dijet invariant mass  $\sqrt{s_{jj}}$  in GeV, ranging from 0 to 1. The y-axis is the distribution, ranging from  $10^{-3}$  to  $10^2$ . The bottom panel shows the ratio of the distribution to the CMS data,  $\text{Ratio to CMS}$ , on a linear scale from 0.5 to 2. The x-axis is the same as the top panel. The y-axis is the ratio, ranging from 0.5 to 2. The legend indicates the following models and markers:

- CMS: Black solid line with square markers
- Pythia 6.428 345: Red dashed line with open circle markers
- Pythia 6.428 346: Yellow dotted line with open square markers
- Pythia 6.428 370: Red solid line with open triangle markers
- Pythia 6.428 ambt1: Yellow solid line with open triangle markers
- Pythia 6.428 z1: Red dotted line with solid circle markers
- Pythia 6.428 z2: Yellow solid line with solid circle markers

The top panel also includes a label "CMS, 13 TeV, AK8 jets, central dijet region,  $408 < p_T^{\text{jets}} < 481$  GeV" and a reference to "Rivet 4.1.0,  $\geq 100k$  events". The bottom panel includes a label "(CMS\_2021\_I1920187)".

(CMS\_2021\_I1920187)

mcplots.cern.ch [arXiv:2401.10621] Rivet 4.1.0,  $\geq 100k$  events

2

1

0.5

width