

The figure consists of two panels. The top panel shows the distribution of the groomed pTD2 variable on a logarithmic scale. The y-axis is labeled $\frac{1}{\#} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ and ranges from 10^{-1} to 10^2 . The x-axis is labeled 'groomed pTD2' and ranges from 0 to 1. The plot shows data from CMS (black squares) and several Pythia 6.428 models: 370 (red triangles), atlas-csc (red circles), d6t (green asterisks), default (orange squares), dw (green downward triangles), and p0 (black circles). The distributions are peaked around 0.1 and then decrease. The bottom panel shows the ratio of the groomed pTD2 distribution to the CMS distribution. The y-axis is labeled 'Ratio to CMS' and ranges from 0.5 to 2. The x-axis is the same as the top panel. The plot shows the ratio for the same Pythia models, with shaded regions indicating the uncertainty bands. The ratios are generally close to 1, with some deviations at low pTD2 values.

Top Panel: $\frac{1}{\#} \frac{dN}{dp_T} \frac{d\lambda}{d\lambda}$ vs groomed pTD2. Bottom Panel: Ratio to CMS vs groomed pTD2.

Legend for Top Panel:

- CMS
- △ Pythia 6.428 370
- Pythia 6.428 atlas-csc
- * Pythia 6.428 d6t
- Pythia 6.428 default
- ▽ Pythia 6.428 dw
- Pythia 6.428 p0

Text in top panel: (CMS_2021_I1920187)

Text in bottom panel: (CMS_2021_I1920187)

Text in top panel: CMS, 13 TeV, AK4 jets, central dijet region, $614 < p_T^{\text{dijet}} < 800$ GeV

Text in bottom panel: Ratio to CMS

Text in top panel: Rivet 4.1.0, ≥ 100 k events

Text in bottom panel: mcplots.cern.ch [arXiv:1306.3436]

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0.5