

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 $\frac{1}{\#} \frac{dN}{dp_T} \frac{d\lambda}{dp_T}$ and ranges from 10^{-1} to 10^1 . The x-axis is labeled 'groomed pTD2' and ranges from 0 to 1. The plot displays data from CMS (black squares) and several Pythia 6.428 models: 370 (red triangles), atlas-csc (red dashed line with open circles), d6t (green asterisks), default (orange squares), dw (green downward triangles), and p0 (black circles). 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 displays the ratio for the same Pythia models, with shaded regions indicating the uncertainty bands. The legend in the top panel identifies the models: CMS (black square), Pythia 6.428 370 (red triangle), Pythia 6.428 atlas-csc (red dashed line with open circle), Pythia 6.428 d6t (green asterisk), Pythia 6.428 default (orange square), Pythia 6.428 dw (green downward triangle), and Pythia 6.428 p0 (black circle). The text '(CMS_2021_I1920187)' is present in the bottom panel.