

Figure 10: A 2D histogram showing the distribution of  $y_J$  (vertical axis) versus  $y_{T\bar{T}Parton}$  (horizontal axis). The color scale represents the number of events, ranging from 0 (dark blue) to 1000 (yellow). The distribution is centered around  $(0, 0)$  with a peak value of 1045.29. Other significant values include 1014.72 at  $(-0.5, -0.25)$  and 640.81 at  $(-1, -0.5)$ .

