

NLO theoretical predictions for the cross-section ratio $t\bar{t}b\bar{b}/t\bar{t}j\bar{j}$ at the LHC

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Triggered by ongoing experimental searches at the LHC, we present updated NLO QCD predictions on the ratio of $t\bar{t}b\bar{b}$ and $t\bar{t}j\bar{j}$ production rates for present and future collider energies. We perform a detailed study of the kinematics and scale uncertainties of the two processes with the goal of assessing if and how much possible correlations help to reduce the theoretical uncertainty of the ratio, thus enhancing the predictive power of this observable.

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