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## NLO QCD corrections to $pp \rightarrow t \bar{t} b \bar{b}$

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The production of  $t \bar{t} b \bar{b}$  final states represents one of the most important background processes for Higgs production in association with top-quark pairs at the LHC. A good background control is indispensable for an analysis of the  $t\bar{t}H(\rightarrow b\bar{b})$  signal, requiring next-to-leading order (NLO) predictions for both signal and background. The talk describes a recently completed NLO QCD calculation for  $pp \rightarrow t\bar{t}b\bar{b}$  at the LHC, a calculation that is at the calculational frontier of NLO predictions for so-called multi-leg processes. Moreover, results from a phenomenologically driven analysis are discussed.

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