

Higher-order corrections to top-quark pair production in the SMEFT

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We present theoretical results at approximate NNLO in QCD for top-quark pair-production total cross sections and top-quark differential distributions at the LHC in the SMEFT. These approximate results are obtained by adding higher-order soft gluon corrections to the complete NLO calculations. The higher-order corrections are large, and they reduce the scale uncertainties. These improved theoretical predictions can be used to set stronger bounds on top-quark QCD anomalous couplings.

Alternate track

1. Top Quark and Electroweak Physics

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Yes

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