

Studying anomalous top-gluon couplings at Tevatron/LHC

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Through top-quark pair productions at Tevatron/LHC, we study possible effects of anomalous top-gluon couplings yielded by $SU(3)\times SU(2)\times U(1)$ invariant dimension-6 effective operators. We calculate the total cross section and also some distributions for $pp/ppbar \rightarrow t\bar{t} X$ as functions of two anomalous-coupling parameters, i.e., the chromoelectric and chromomagnetic moments of the top. We show that we get a much stronger constraint on these couplings by combining the Tevatron and LHC data than the one from Tevatron data alone.

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