

Single Vector-Like quark production via chromo-magnetic moment at the LHC

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In many models that address the naturalness problem, top-quark partners are often postulated in order to cure the issue related to the quadratic corrections of the mass of the Higgs boson. In this work, we study alternative modes for the production of top- and bottom-quark partners (T and B), $pp \rightarrow B$ and $pp \rightarrow T\bar{t}$, via a chromo-magnetic moment coupling. We adopt the simplest composite Higgs effective theory for the top-quark sector incorporating partial compositeness, and investigate the sensitivity of the 14 TeV LHC

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