

Search for flavor changing neutral currents in rare top decays

Models beyond the Standard Model with extra scalars have been highly motivated by the recent discovery of a Higgs boson. The Two Higgs Doublet Model Type III considers the most general case for the scalar potential, allowing mixing between neutral CP-even and CP-odd scalar fields. This work presents the results of the study on the $t \rightarrow c\gamma$, $t \rightarrow cZ$, and $t \rightarrow c$ gluon decays at one loop level if neutral flavor changing is generated by top-charm-Higgs coupling given by the Yukawa matrix.

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Track Classification: STARS2017