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Study of Top Quark Decays into Tau Leptons and Impact on the Higgs Search of the CDF Experiment MATTEO CORBO, FNAL, CDF COLLABORATION — The study of top quark pair production decaying in tau leptons represent a tool for testing the Standard Model and a probe to explore the existence of new physics beyond the Standard Model. We intend to the amplitude of the process with one tau decaying in hadrons and one tau in lighter leptons. The integrated luminosity of CDF RunII, soon 10 fb⁻¹, and new analysis tools, will allow to explore the possible contribution from the t->H+b, where H+ is the charged Higgs boson predicted by several supersymmetric of the Standard Model. The current status of the analysis will be presented, which is designed to the event selection efficiency obtained by previous studies. This is possible through the use of data by triggers with low energy and momentum thresholds, in combination to the latest techniques on tauidentification.

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