

# Higgs searches in final states with tau leptons

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We present a search for the standard model Higgs boson in events with two tau leptons in p-pbar collisions at a center-of-mass energy of  $\sqrt{s} = 1.96$  TeV. The search is made using the latest amount of data collected by the CDF detector at the Fermilab Tevatron. We search in the final state of two tau leptons plus two jets. This final state is sensitive to WH and ZH where one boson decays to two jets, the other to two tau leptons, but also sensitive to vector boson fusion production of Higgs boson and gluon fusion processes, with a Higgs decaying to two tau leptons, plus two jets in the final state. We use a multivariate discriminant to distinguish Higgs signal from backgrounds, and set limits on standard model Higgs production.

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