

Abstract Submitted  
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**Improved search for a Higgs boson in the  $H \rightarrow \tau\tau$  decay channel at CDF** ANDREY ELAGIN, Texas A&M University, CDF COLLABORATION — We present an improved search for a Higgs boson in the channel  $gg \rightarrow H \rightarrow \tau\tau$  based on data collected with the CDF detector at the Tevatron collider. Improvements include optimization of the signal fitting procedure and increased signal acceptance resulting from a better identification technique for hadronic  $\tau$  lepton decays. The latter is based on a likelihood-based algorithm which gives superior energy resolution, better definition of other identification variables such as jet invariant mass, and a direct estimate of the uncertainty in the energy measurement for each individual hadronic  $\tau$  candidate.

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