

Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Search for the Higgs Boson in WW Decays Involving Taus in $p\bar{p}$ Collisions at $\sqrt{s}=1.96$ TeV RUCHIKA NAYYAR, Delhi University, Delhi, India, D0 COLLABORATION — We present a search for the standard model Higgs boson produced via the $H \rightarrow WW^{(*)}$ process in which one of the W's decays to a hadronic tau and the other to a muon at a center-of-mass energy of $\sqrt{s} = 1.96$ TeV with the D0 detector at the Fermilab Tevatron collider. A Higgs particle with a mass greater than 140 GeV primarily decays into a pair of W-bosons and the leptonic decay channels of the W provide a clear signature. Additional sensitivity beyond that achieved with electron and muon decays can be achieved by considering tau decays. As well as the inclusion of the full data set, up to 4 fb^{-1} , improvements to the sensitivity will be discussed.

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Date submitted: 05 Jan 2009

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