

Abstract Submitted  
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**Search for the standard model Higgs boson in the  $\tau\tau q\bar{q}$  final state**

KATY TSCHANN-GRIMM, State University of New York, Stony Brook, DZERO COLLABORATION — We present a search for a low mass Standard Model Higgs boson in events with a final state containing two taus and two jets, in which one tau decays to either a muon or an electron and the other tau decays to hadrons. The search uses data from the D0 experiment with an integrated luminosity of  $5 \text{ fb}^{-1}$ . The final states are sensitive to a combination of associated production of a  $W/Z$  boson with a Higgs boson, vector boson fusion and gluon-gluon fusion production processes. No signal is yet detected, and upper limits are placed on the cross section times branching ratio of Standard Model Higgs production.

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