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Search for Neutral Supersymmetric Higgs Bosons in b$\tau\tau$ Final States in $p\bar{p}$ Collisions at $\sqrt{s}$=1.96 TeV SARAH SCHLOBOHM, University of Washington, ARAN GARCIA-BELLIDO, University of Rochester, D0 COLLABORATION — We present a search for Higgs bosons produced via the associated $p\bar{p} \to h + b \to \tau + \tau + b$ process at a center-of-mass energy of $\sqrt{s}$ =1.96 TeV using up to 4 fb^{-1} of data collected with the D0 detector at the Fermilab Tevatron collider. In supersymmetric models Higgs boson production cross sections can be significantly enhanced compared to the Standard Model; additionally the Higgs boson has a significant branching ratio to tau leptons at all masses. This hybrid "b-tau" channel complements the di-tau search channel, in particular providing sensitivity around the Z mass. Particular focus will be given to the case where one of the taus decays hadronically and the other to an electron.

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