

Search for the SM Higgs Boson in lepton tau Final States

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We present a search based on D0 data for the standard model Higgs boson in final states of two tau leptons and at least two jets, with one of the tau's decaying to an electron and the second decaying hadronically. A number of Higgs production and decay processes contribute in different proportions as a function of Higgs boson mass. The identification of hadronically decaying tau leptons is discussed, as well as multivariate techniques used, and the ratio of 95% C.L. Higgs cross section lower limits from the data to that expected in the standard model is obtained.

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