

## Search for Higgs boson in final states with lepton, missing energy, and at least two jets using b-jet identification in $9.7 \text{ fb}^{-1}$ of Tevatron data

We present a search for the Higgs boson in final states with a charged lepton missing energy, and two or three jets using b-jet identification in data corresponding to  $9.7 \text{ fb}^{-1}$  of integrated luminosity collected with the D0 detector at the Fermilab Tevatron. The search is primarily sensitive to WH to lvbb production, though all Higgs contributions are considered. For  $M_H = 115 \text{ GeV}$  we set a 95% C.L. upper limit on the production of a standard model Higgs boson of  $3.96 \times \text{SM}$  cross section, while we expect a set a limit of  $3.15 \times \text{SM}$  cross section.

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