

Abstract Submitted
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Search for Higgs Boson Production via the Process $p\bar{p} \rightarrow ZH \rightarrow l^+l^-b\bar{b}$ at CDF BEN KILMINSTER, JONATHAN EFRON, BRIAN WINER, RICHARD HUGHES, Ohio State University, BEATE HEINEMANN, ANDREW MEHTA, Liverpool, CDF COLLABORATION — We are conducting a search for the Higgs boson via the process $p\bar{p} \rightarrow ZH \rightarrow l^+l^-b\bar{b}$ using $\sim 700 \text{ pb}^{-1}$ of data from CDF Run 2. The Higgs Boson is predicted by the Standard Model but has yet to be observed. The main background of this ZH signal is $Z + \text{jets}$, where the Z decays into two charged leptons. The signal is distinguished from the backgrounds using an artificial neural network. We will report on the status of the search and the future prospects using the anticipated large data samples from Run 2.

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