

Abstract Submitted  
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**Search for a Higgs Boson Produced in Association with  $W$  Boson using a Neural Network Approach at CDF** YOSHIKAZU NAGAI, University of Tsukuba (Japan), CDF COLLABORATION — We present a search for a standard model Higgs boson produced in association with a  $W$  boson using data collected with the CDF II detector from  $p\bar{p}$  collisions at a  $\sqrt{s} = 1.96$  TeV. The search is performed in the  $WH \rightarrow \ell\nu b\bar{b}$  channel using a data sample corresponding to an integrated luminosity of  $2.7 \text{ fb}^{-1}$ . An artificial neural network is used to improve separation of signal and background. In the absence of an observed excess in data, we set an upper limit on the production rate times branching ratio.

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