Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Application of expert discriminants to searches for a standard model Higgs boson in the missing transverse energy plus two b-quark final state at CDF JON WILSON, Ohio State University, CDF COLLABORATION — We present a search for the associated production of a W or Z boson and a standard model Higgs boson, where the final state consists of a large amount of missing transverse energy and two jets consistent with the decay of the Higgs boson ($H \to bb$). This channel is among the most sensitive for Higgs masses below 135 GeV/c^2. In the context of this search, we explore the use of expert discriminants, multivariate discriminants trained to distinguish the signal processes from individual backgrounds, and various methods for combining them into a final discriminant to improve the overall search sensitivity.

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Date submitted: 13 Jan 2011 Electronic form version 1.4