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Search for Associated Production of Z and Higgs Bosons in the $\nu\nu bb$ Final State in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV ABHINAV DUBEY, Delhi University, DZERO COLLABORATION — We present a search for a low mass Standard Model Higgs boson produced in association with a Z boson decaying invisibly into a pair of neutrinos at a center-of-mass energy of $\sqrt{s}$ =1.96 TeV with the D0 detector at the Fermilab Tevatron collider. The final state is characterized by the presence of two b-tagged jets from the Higgs boson decay and a large imbalance in the transverse energy of the event. This channel is very powerful because of the large $Z \to \nu\nu$ branching ratio, but is experimentally very challenging because of the large QCD backgrounds and absence of visible leptons in the final state. The result with a data set up to 5.2 fb^{-1} and recent improvements to the sensitivity will be discussed.

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