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Search for a standard model Higgs boson in the $H \to WW \to l\nu jj$ final state at CDF YUJI SUDO, University of Tsukuba, CDF COLLABORATION — We present a search for standard model Higgs boson production in $p\bar{p}$ collisions at a center-of-mass energy of $\sqrt{s} = 1.96$ TeV. For this analysis, we use data collected with the CDF II detector. We consider H decay into two W bosons where one W decays into a lepton plus a neutrino and the other decays into two quark jets. This is the dominant decay mode for a Higgs with mass larger than 135 GeV/c^2. This decay mode has an important kinematic feature in that the W bosons have a spin correlation originating from the spin of Higgs which is zero. We employ a likelihood method with variables such as the angle between the lepton and an up-type jet to separate signals from backgrounds.

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