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Search for WZ production in the $\ell\nu b\bar{b}$ final state at CDF JUSTIN KEUNG, University of Pennsylvania, CDF COLLABORATION — An important search channel for the standard model (SM) Higgs boson comes from associated WH production with subsequent decays of $W \to \ell\nu$ and $H \to b\bar{b}$. The resulting final state is shared with SM WZ diboson production which as a significant background necessarily needs to be well-constrained. Thus, using the same techniques as those used in the Higgs search analysis to measure the WZ contribution to our candidate sample serves as an important cross-check. The identification of jets originating from b-quarks is an important component of Higgs searches for mass values below 130 GeV/c^2. In the context of this search, we present results of an improved, artificial neural network algorithm used to identify b-quark jets.

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