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Search for WZ in the $\ell\nu b\bar{b}$ Final State at CDF JUSTIN KEUNG, University of Pennsylvania, CDF COLLABORATION — An important search channel for the Higgs boson is associated WH production with subsequent decays of $W \to \ell\nu$ and $H \to b\bar{b}$. The resulting final state is shared with standard model WZ production which necessarily must be well-understood. We discuss an important cross-check of the WH search which is to apply the same techniques to measuring the WZ contribution to our event candidate sample. The identification of b-quark jets is an important component of searches for a Higgs boson with a mass below 130 GeV/c^2. We present results from an improved, artificial neural network b-quark jet identification algorithm. Two important quantities associated with the algorithm require calibration from data: the efficiency for identifying a b-quark jet and the corresponding rate of misidentification. These quantities are measured using a data sample heavily enriched in jets from semileptonic B hadron decays. The transverse momentum of the lepton relative to the jet is used to discriminate between b-quark jets and lighter quark jets.

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