

Abstract Submitted
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First observation of WZ production and the search for anomalous WWZ couplings at CDF RAMI VANGURI, SHIH-CHIEH HSU, ELLIOT LIPELES, MARK NEUBAUER, MATTHEW NORMAN, FRANK WURTHWEIN, University of California at San Diego, CDF COLLABORATION — We report the first observation of WZ production in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV at the Fermilab Tevatron using 1.1 fb^{-1} of integrated luminosity collected by the CDF II detector. We observe 16 WZ candidates passing the event selection with an expected background of 2.7 ± 0.4 . A fit to the missing transverse energy distribution indicates an excess of events compared to background expectations corresponding to a 6.0σ observation of WZ production. Additionally, we use the sample to set limits on anomalous triple gauge couplings and to search for new physics in the WZ final state.

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