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Search for W' Production at CDF CLARK CULLY, University of Michigan — We present results from a search for W' production in 1  $fb^{-1}$  of  $p\bar{p}$ data from the CDF-II detector at the Tevatron. Many standard model extensions involve additional gauge bosons. A new heavy charged boson with standard modellike couplings (W') would decay prominently to  $t\bar{b}$ . We search for the semi-leptonic final state of this decay in events with a high transverse momentum lepton, large missing transverse energy, and two or three high transverse momentum jets, where one of the jets contains a secondary vertex consistent with the fragmentation of a bparton. Kinematic discriminants are used to observe or exclude a W'-like resonance in the mass range from 400 to 950  $GeV/c^2$ .

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