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Search for trilepton chargino-neutralino signal at CDF MARCELO

VOGEL, MICHAEL GOLD, JOHN STROLOGAS, University of New Mexico — The production of chargino-neutralino and their subsequent leptonic decay is one of the most promising supersymmetry (SUSY) signatures at the Tevatron collider. We present the status of a CDF search for trilepton and missing transverse energy final states. To increase our sensitivity to SUSY signals (or any other new phenomena) we include low- p_T electrons and muons ($p_T > 5 \text{ GeV}/c$), low dilepton masses ($M_{\ell\ell} > 10 \text{ GeV}/c^2$), forward leptons ($|\eta| > 1$), isolated tracks, and tau-jets from hadronic tau decays. Special care is taken for the light-flavor and heavy-flavor QCD background that is significant in some of the kinematic regions we explore.

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