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Search for single top quark production at CDF using neural networks at CDF JI-EUN JUNG, KCHEP, CDF COLLABORATION — We present a search for electroweak single top quark production in proton-antiproton collisions using 2 fb^{-1} of data collected by the CDF II detector at the Fermilab Tevatron. Single top quarks are expected to be produced via virtual W boson exchange in t-channel and s-channel processes. We select events with one charged lepton, missing transverse energy, and two or three jets, at least one of which is identified as containing a B hadron. Bayesian neural networks are used to further separate the signal from the backgrounds. Results are presented for s-channel and t- channel single top quark production as well as the combined process.

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