

Abstract Submitted
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Search for WZ/ZZ diboson production in the jets plus missing transverse energy final state at CDF SID NARAYANAN, University of Chicago, CDF COLLABORATION — We perform a search for $WZ/ZZ \rightarrow$ missing E_T + jets in 8.9 fb^{-1} of data from CDF, using Tevatron 1.96 TeV $p\bar{p}$ collisions. Specifically, we look for events where a W or Z boson decays into two quarks and the other decays into two neutrinos (Z) or a lepton and neutrino (W). We select events with large missing transverse energy and at least two quark jets. We limit the number of reconstructed leptons to mitigate top quark backgrounds. We can not completely reduce W/Z + jets and QCD multi-jet backgrounds, so we use data-driven models to estimate their contribution to the event sample along with the associated systematic uncertainties. Finally, to limit the WW contribution, we split the analysis into two channels. We consider all events with two bottom-quark tagged jets (2-tag channel) and all other events (no-tag channel). We perform a simultaneous fit in both channels and set an upper limit on WW/WZ production of 1.6 times the standard model expectation at the 95% confidence level.

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