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Search for WZ/ZZ diboson production in the dilepton + dijet final state at CDF WESLEY KETCHUM, University of Chicago, CDF COLLABORATION — We present the results of studies aimed at an experimental measurement of WZ/ZZ diboson production in the dilepton + dijet final state using data recorded with the CDF detector at the Fermilab Tevatron collider. We select events by identifying those that contain two charged leptons with a reconstructed invariant mass near the mass of the Z boson, two hadronic jets, and low transverse missing energy. To distinguish our desired signal from the dominant background, Z + jets production, we use an artificial neural network trained on variables related to the reconstructed jets including a new variable that reflects the spatial spread of the energy contained within a jet that offers some discrimination between hadronic jets originating from quarks and gluons.

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