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Top Quark Mass Measurement in Lepton+Jets Channel using a Multivariate Technique at CDF JOHN FREEMAN, University of California - Berkeley — We present a measurement of the top quark mass using the Run II data collected with the CDF detector at Fermilab. The $t\bar{t}$ events produced in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV are reconstructed in the lepton+jets channel. Using a matrix element method designed to account for imperfect resolution of a given event's kinematic measurements, we calculate a likelihood for each event to be a top candidate over a range of possible top masses. Adding a novel method to account for background employing additional kinematics variables we derive a value for the top mass.

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