

Abstract Submitted
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A matrix element analysis measurement of the top quark mass in the lepton + jets channel with an in situ jet energy scale measurement
DARYL HARE, Rutgers University, CDF COLLABORATION — We measure the top quark mass from $p\bar{p}$ collisions at 1.96 TeV at CDF in the lepton + jets channel with at least 3 fb^{-1} of data. Events require a single lepton, missing transverse energy, and 4 jets of which at least one must be tagged as a b jet. We use a 2D unbinned likelihood fit based on per-event probabilities calculated from leading-order signal ($t\bar{t}$) and background (W +jets) matrix elements. Our measurement is dependent upon the energy scale of calorimeter jets, so we measure this scale in-situ by constraining the invariant mass of the two jets from to the W boson mass.

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