

Abstract Submitted
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Top Quark Mass in Dilepton Channel¹ BO JAYATILAKA, Univ. of Michigan, CDF COLLABORATION — We present a measurement of the top quark mass in events in the dilepton channel produced in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV using 700 pb^{-1} of data collected at the CDF II detector. We extract the top quark mass from a probability that a given event is consistent with $t\bar{t}$ decaying to a final state including two leptons. The probability is evaluated using a differential cross-section for $t\bar{t}$ production and decay. The effect of background events in the sample is accounted for in the probability calculation by evaluating differential cross sections for major background processes. A previous measurement using this method yielded the most precise single measurement of the top quark mass in the dilepton channel to date.

¹For the CDF Collaboration

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