

Abstract Submitted
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**Top Mass Measurement with a Matrix Element Technique using
the Dilepton Channel at CDF** BODHITHA JAYATILAKA, Duke University —

We present a measurement of the top quark mass in events in the dilepton channel using 1.2 fb^{-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 $t\bar{t}$ decay in the dilepton channel. 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.

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