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Measurement of the Mass Difference between Top and Antitop MICHAEL WANG, University of Rochester, D0 COLLABORATION — We discuss a measurement of the mass difference (Δ_m) between t and \bar{t} quarks in lepton+jets final states of $t\bar{t}$ events in data collected with the D0 detector at Fermilab's Tevatron. Δ_m is measured using the Matrix Element approach developed at D0. We report the most likely Δ_m and an upper limit on Δ_m at 95% confidence. This is the first measurement of a mass difference between a quark and its antiquark.

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