

Abstract Submitted
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Measurement of the $t\bar{t}$ Production Cross Section in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Using Lepton Plus Jets Events with Soft Muon b-Tagging ULYSSES GRUNDLER, University of Illinois — We present a measurement of the $t\bar{t}$ production cross section in $\sim 200\text{pb}^{-1}$ of CDF Run 2 data using events with a high transverse momentum electron or muon, 3 or more jets, and missing E_T . Events consistent with $t\bar{t}$ decay are found by identifying jets containing candidate heavy-flavor semileptonic decays to muons. Backgrounds are computed from a combination of Run 2 data and simulation. Signal acceptance is determined from Run 2 $t\bar{t}$ PYTHIA Monte Carlo. Based on 20 candidate events with 3 or more jets and an expected background of 9.6 events, a production cross section of $5.2^{+2.9}_{-1.9} {}^{+1.3}_{-1.0}$ pb is measured.

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