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Measurement of the Top Quark Pair Production Cross Section in the Di-Muon+Jets Channel at DØ JESSICA LEVEQUE, University of Arizona, DZERO COLLABORATION — Measurement of the top quark pair $(t\bar{t})$ production cross section at hadron colliders can be used to test perturbative QCD predictions. Within the Standard Model, the top quark almost always decays to a W boson and a b quark. We present a measurement of the $t\bar{t}$ production cross section at $\sqrt{s}=1.96$ TeV in $p\bar{p}$ collisions using data collected by the DØ experiment during Run II of the Fermilab Tevatron collider. We consider the di-muon+jets final state and discuss the selection criteria, efficiencies and background contributions.

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