

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**Measurement of the Top Quark Pair Production Cross Section in the Electron+Muon+Jets Channel at DØ** KIRTI RANJAN, University of Delhi, India, 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 electron+muon+jets final state and discuss the selection criteria, efficiencies and background contributions.

Sharon Hagopian  
Florida State University

Date submitted: 13 Jan 2005

Electronic form version 1.4