Measurement of the top quark pair production cross section with early ATLAS data

BABAK ABI, Oklahoma State University, ATLAS COLLABORATION — We present a measurement of the ttbar production cross section at a center of mass energy of 7 TeV performed by the ATLAS Collaboration. We select events with only one charged lepton (electron or muon), large transverse missing energy, and at least 3 jets. The data used for this analysis corresponds to integrated luminosity of 35 pb$^{-1}$. The likelihood method is used to distinguish the ttbar production from background. We also use information about the presence of b-quark jets to improve the separation between signal and background.