

Abstract Submitted  
for the APR14 Meeting of  
The American Physical Society

**Preliminary measurement of the top quark pair production in the  $\tau + \text{jets}$  final state with  $20 \text{ fb}^{-1}$  of  $pp$  collision data recorded at  $\sqrt{s} = 8 \text{ TeV}$  with the ATLAS experiment<sup>1</sup>** AHMED HASIB, Univ of Oklahoma, CATRIN BERNIUS, Louisiana Tech University, PHILLIP GUTIERREZ, Univ of Oklahoma, ATLAS EXPERIMENT COLLABORATION — A preliminary measurement of the top quark pair production cross section in the final state containing a tau lepton that has decayed semi-hadronically and associated jets is presented. The signal events are required to have at least four jets with at least one that is a b-tagged jet. The analysis uses data with an integrated luminosity of  $20 \text{ fb}^{-1}$  recorded by the ATLAS experiment in proton-proton collisions at the Large Hadron Collider at a center-of-mass energy of 8 TeV.

<sup>1</sup>We acknowledge the support from the Department of Energy, USA

Ahmed Hasib  
Univ of Oklahoma

Date submitted: 06 Jan 2014

Electronic form version 1.4