



Contribution ID: 52

Type: Poster

## Measurement of the top quark pair production cross section with ATLAS in pp collisions at $\sqrt{s} = 7$ TeV using final states with an electron or a muon and a hadronically decaying tau lepton

*Monday 4 June 2012 16:00 (1 hour)*

We present a measurement of the top-quark pair production cross-section in the tau+lepton channel in proton-proton collisions at 7 TeV with the ATLAS detector at the Large Hadron Collider. Events with an isolated electron or muon and a tau lepton decaying hadronically are used. In addition, a large missing transverse momentum and two or more energetic jets are required. At least one of the jets must be identified as originating from a b quark. To identify tau leptons, the analysis uses a multivariate technique based on boosted decision trees.

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**Session Classification:** 1D: Poster Session and Coffee Break

**Track Classification:** Heavy Flavour Physics