

**TITLE:** Measurement of the top quark pair production cross section using 7 TeV center of mass energy

**ABSTRACT:**

We present a measurement of top quark pair production cross section using 36 pb<sup>-1</sup> of data collected by the CMS detector in pp collisions at a center-of-mass energy of 7TeV. We select events containing one isolated muon, high missing transverse energy and at least three energetic jets. After using a data driven method to estimate the amount of QCD in our preselected data, further separation of the signal from the W boson background was attained through the identification of the b-jets in the events by reconstructing secondary vertices. The cross section is extracted from the excess of tagged events with at least three jets over the background prediction.