

Abstract Submitted  
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**Measurement of the top quark pair production cross section in  $pp$  collisions at 7 TeV center of mass energy using electrons, jets and  $b$ -tags** YAO WENG, Cornell University, CMS COLLABORATION — We present a measurement of top quark pair production cross section using  $36 \text{ pb}^{-1}$  of data collected by the CMS detector in  $pp$  collisions at a center-of-mass energy of 7 TeV. We select events containing one isolated electron, high missing transverse energy and at least three energetic jets. Data driven methods are used to estimate the amount of QCD and  $W$ +jets in our preselected data, and these backgrounds are then suppressed through the identification of the  $b$ -jets by reconstructing secondary vertices. The cross section is extracted from the excess of tagged events with at least three jets over the background prediction.

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