

Measurement of MET, HT and other global distributions in top pair events

Tuesday 9 April 2013 09:09 (12 minutes)

A differential cross section measurement of top quark pair production with respect to missing transverse energy (MET) is presented using 5.1 fb⁻¹ of data collected with the CMS detector at the LHC at a centre of mass energy of 7 TeV. The analysis selects events with a single isolated high energy electron or muon, which is assumed to come from one of the W bosons produced in the decay of a top quark pair. The differential cross section is measured in bins of missing transverse energy. The analysis technique is applied for other global distributions, including hadronic transverse energy (HT), total transverse energy (ST) and transverse mass of the leptonic W boson (MT). The MET results based on a centre of mass energy of 7 TeV are consistent with the predictions of simulation, the 8 TeV results including the additional variables are expected soon.

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Session Classification: Track 2

Track Classification: Parallel Track 2