Measurement of the top quark mass with the template method in the tt - lepton + jets channel using ATLAS data

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Abstract

The top quark mass has been measured using the template method in the top antitop -> lepton + jets channel based on data recorded in 2011 with the ATLAS detector at the LHC. The data were taken at a proton-proton centre-of-mass energy of sqrt(s) = 7 TeV and correspond to an integrated luminosity of 1.04/fb. The analyses in the electron + jets and muon + jets decay channels yield consistent results. The top quark mass is measured to be $m_{top} = 174.5 + 0.6$ stat +/- 2.3_syst GeV.