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Measurements of the top quark mass using the ATLAS detector at the LHC

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The latest measurements of the top quark mass using the ATLAS experiment are presented. A measurement based on a multi-dimensional template fit that can constrain the uncertainties on the energy measurements of jets is presented and combined with a measurement using dilepton events. A measurement in the all-hadronic channel is also reported. In addition an analysis of the top quark mass using leptonic kinematic variables is discussed. The measurement uses a novel technique to measure the top quark mass with minimal dependence on hadronic jets. Measurements that use precision theoretical QCD calculations for both inclusive $t\bar{t}$ production and $t\bar{t}$ production with an additional jet are also presented to extract the top quark mass in the pole-mass scheme.

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