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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 multidimensional template fit that can constrain the uncertainties on the energy measurements of jets is presented and combined with a measurement using dilepton events. A new measurement of the top quark mass using leptonic kinematic variables is presented. The measurement uses a novel technique to measure the top quark mass with minimal dependence on hadronic jets. In addition, measurements are presented that use precision theoretical QCD calculations for both inclusive $t\bar{t}$ production and $t\bar{t}$ production with an additional jet to extract the top quark mass in the polemass scheme.

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