

Phenomenology 2025 Symposium



Contribution ID: 105

Type: **not specified**

ATLAS results on top quark mass and properties

Monday 19 May 2025 17:00 (15 minutes)

The top-quark mass is one of the key fundamental parameters of the Standard Model that must be determined experimentally. Its value has an important effect on many precision measurements and tests of the Standard Model. The Tevatron and LHC experiments have developed an extensive program to determine the top quark mass using a variety of methods. In this contribution, the top quark mass measurements by the ATLAS experiment are reviewed. These include measurements in two broad categories, the direct measurements, where the mass is determined from a comparison with Monte Carlo templates, and determinations that compare differential cross-section measurements to first-principle calculations. In addition, new ATLAS results on top-quark properties are shown. This includes the first observation of quantum entanglement in top-quark pair events and tests of lepton-flavour universality.

Mini Symposia (Invited Talks Only)

Plenary (Invited talks only)

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Session Classification: Electroweak

Track Classification: Electroweak, Higgs, and Top Quark Physics