Contribution ID: **324** Type: **not specified**

Measurement of top-quark cross sections and properties with the ATLAS detector at the LHC

Monday 21 February 2022 10:30 (15 minutes)

The remarkably large integrated luminosity collected by the ATLAS detector at the highest proton-proton collision energy provided by LHC allows to use the large sample of top quark events to test theoretical predictions with unprecedented precision. Using data taken with the ATLAS detector at the LHC, recent measurements of total and differential top-quark cross sections as well properties of top-quark production are shown, including new measurements of the spin polarisation in single-top-quark production, of differential cross sections for top-quark pair production with high-momentum top quarks and of the energy asymmetry in top-quark pair events. Several measurements are interpreted within the Standard Model Effective Field Theory, yielding stringent bounds on Wilson coefficients.

Summary

Presenter: KEMPSTER, Jacob Julian (University of Birmingham (GB))

Session Classification: Monday