## 18th International Workshop on Top Quark Physics (TOP2025)



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## Top quark pair production + vector boson in ATLAS

The high center-of-mass energy of proton-proton collisions and the large available datasets at the CERN Large Hadron Collider allow the study of rare processes of the Standard Model with unprecedented precision. Measurements of rare SM processes provide new tests of the SM predictions with the potential to unveil discrepancies with the SM predictions or provide important input for the improvement of theoretical calculations. In this contribution, total and differential measurements of associated top-quark production are shown using data taken with the ATLAS Experiment at a center-of-mass-energy of 13 TeV. These measurements provide important bounds on the electroweak couplings of the top quark, often with Effective Field Theory interpretations and constrain backgrounds that are important in searches for Higgs production and for new phenomena beyond the SM.

Author: VERDUCCI, Monica (Universita & INFN Pisa (IT))

Presenter: VERDUCCI, Monica (Universita & INFN Pisa (IT))