Contribution ID: **2** Type: **not specified**

Top B physics with the ATLAS experiment

Friday 18 November 2016 12:00 (1 hour)

The violation of the combined charge conjugation (C) and parity transformation (P) of particles and antiparticles implies that the laws of physics are not the same for matter and antimatter. Observations of CP violation are not sufficient to explain the matter–antimatter asymmetry in the universe, and it is believed that a source of new physics is required. The abundance of top quarks at the Large Hadron Collider are usually exploited to explore top properties or search for heavy resonances, however top decay products also provide a unique window for measurements of CP violation in b- and c-quarks. Utilising semileptonic b-decays, CP sensitive asymmetries may be built from lepton-pairs in the l+jets channel. The first analysis to use this technique is presented using data collected by the ATLAS detector.

Presenter: CERRITO, Lucio (ROMA2)