



Contribution ID: 467

Type: **Oral Presentation**

## Dark Matter searches with the ATLAS Detector

*Wednesday 31 July 2019 15:12 (18 minutes)*

The presence of a non-baryonic dark matter component in the Universe is inferred from the observation of its gravitational interaction. If dark matter interacts weakly with the Standard Model it would be produced at the LHC, escaping the detector and leaving a large missing transverse momentum as its signature. The ATLAS detector has developed a broad and systematic search program for dark matter production in LHC collisions. Recent results of these searches on 13 TeV  $pp$  data, along with the challenges and possible evolution of the search program, including prospects for the HL-LHC, will be presented.

**Author:** ROSTEN, Rachel Christine (The Barcelona Institute of Science and Technology (BIST) (ES))

**Presenter:** ROSTEN, Rachel Christine (The Barcelona Institute of Science and Technology (BIST) (ES))

**Session Classification:** Beyond Standard Model

**Track Classification:** Beyond Standard Model Physics