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Dark Matter searches with the ATLAS Detector

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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 their signature. The ATLAS detector has developed a broad and systematic search program for dark matter production in LHC collisions. The results of these searches on 13 TeV pp data, their interpretation, and the design and possible evolution of the search program, including prospects for the HL-LHC, will be presented.

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