

## Dark matter searches at ATLAS using only trigger-level objects

The LHC delivers an unprecedented number of proton-proton collisions to its experiments. However, in kinematic regimes first studied by earlier generations of collider experiments, the online/offline processing and offline storage of the data can be limiting factors for a deeper probing of new physics.

In this contribution, we describe a strategy that the ATLAS experiment employs to overcome these limitations and make the most of LHC data during Run-2 and Run-3. We present a compact data stream involving trigger-level objects, recorded at a far higher rate than is possible for full event data. We discuss the challenges and the results of the 2016 data, and the changes made for the latest and ongoing Run-3 analysis. Both demonstrate the competitiveness and complementarity with traditional data streams.

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