CALOR 2018

CALOR 2018 - 18th International Conference on Calorimetry in Particle Physics May 21-25, 2018, Eugene, USA

Type: not specified

The ATLAS High-Level Calorimeter Trigger in Run-2

Wednesday 23 May 2018 08:55 (20 minutes)

The ATLAS Experiment uses a two-level triggering system to identify and record collision events containing a wide variety of physics signatures. It reduces the event rate from the bunch-crossing rate of 40 MHz to an average recording rate of 1 kHz, whilst maintaining high efficiency for interesting collision events. It is composed of an initial hardware-based level-1 trigger followed by a software-based high-level trigger. A central component of the high-level trigger is the calorimeter trigger. This is responsible for processing data from the electromagnetic and hadronic calorimeters in order to identify electrons, photons, taus, jets and missing transverse energy. In this talk I will present the performance of the high-level calorimeter trigger in Run-2, noting the improvements that have been made in response to the challenges of operating at high luminosity.

Secondary topics

Applications

Primary topic

Front-end readout and trigger

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