Conference on Computing in High Energy and Nuclear Physics



Contribution ID: 174

Type: Talk

The ATLAS Trigger System

Monday 21 October 2024 13:48 (18 minutes)

The ATLAS experiment in the LHC Run 3 uses a two-level trigger system to select events of interest to reduce the 40 MHz bunch crossing rate to a recorded rate of up to 3 kHz of fully-built physics events. The trigger system is composed of a hardware based Level-1 trigger and a software based High Level Trigger. The selection of events by the High Level Trigger is based on a wide variety of reconstructed objects, including leptons, photons, jets, b-jets, missing transverse energy, and B-hadrons in order to cover the full range of the ATLAS physics programme. We will present an overview of improvements in the reconstruction, calibration, and performance of the different trigger objects, as well as computational

and performance of the different trigger objects, as well as computational performance of the High Level Trigger system.

Primary authors: TDAQ, ATLAS; MERLASSINO, Claudia (Universita degli Studi di Udine (IT))

Presenter: MERLASSINO, Claudia (Universita degli Studi di Udine (IT))

Session Classification: Parallel (Track 2)

Track Classification: Track 2 - Online and real-time computing