Contribution ID: **325** Contribution code: **S05-HEP-114**   Type: **Oral presentation**

The CMS High Level Trigger System

Tuesday, August 30, 2022 2:45 PM (10 minutes)

The CMS experiment at CERN uses a two-level triggering system that is composed of the Level-1 (L1), instrumented by custom-designed electronics with an output rate of 100 kHz, and the High Level Trigger (HLT), streamlined version of the offline software reconstruction running on a computer farm, with around 1.5 kHZ of physics rate stored for further analysis. New trigger algorithms and also new features, as well as optimized trigger menu at the HLT are essential in order to be able to successfully record the events at higher data loads due to increasing luminosity and pileup at the LHC in Run 3 that is just starting. Many measurements and searches will profit from the updates implemented in the CMS trigger. The highlights of Run 2 CMS trigger results will be given in this talk, together with improvements for Run 3.

Primary author: DORDEVIC, Milos (Vinca Institute of Nuclear Sciences, National Institute of the Republic of Serbia, University of Belgrade)

Co-author: ON BEHALF OF THE CMS COLLABORATION

Presenter: DORDEVIC, Milos (Vinca Institute of Nuclear Sciences, National Institute of the Republic of Serbia, University of Belgrade)

Session Classification: S05 High Energy Physics (Particles and Fields)

Track Classification: Scientific Sections: S05 High Energy Physics (Particles and Fields)