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The CMS High-Level Trigger and Trigger Menus ARAM AVETISYAN, Brown University, CMS COLLABORATION — The CMS experiment is one of the two general-purpose experiments due to start operation soon at the Large Hadron Collider (LHC). The LHC will collide protons at a centre of mass energy of 14 TeV, with a bunch-crossing rate of 40 MHz. The online event selection for the CMS experiment is carried out in two distinct stages. At Level-1 the trigger electronics reduces the 40 MHz collision rate to provide up to 100 kHz of interesting events, based on objects found using its calorimeter and muon subsystems. The High Level Trigger (HLT) that runs in the Filter Farm of the CMS experiment is a set of sophisticated software tools that run in a real-time environment to make a further selection and archive few hundred Hz of interesting events. The coherent tuning of the HLT algorithms to accommodate multiple physics channels is a key issue for CMS, one that literally defines the reach of the experiment's physics program. In this presentation we will discuss the strategies and trigger configuration developed for startup physics program of the CMS experiment, up to a luminosity of 10^{31} $s^{-1}cm^{-2}$. Emphasis will be given to the full trigger menus, including physics and calibration triggers.

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