

## Commissioning the CMS trigger with cosmic rays

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The CMS trigger system must reduce an input data rate from the LHC bunch-crossing frequency of 40 MHz to a rate which will be written to permanent storage. This online event selection is performed in two steps. At the first level (L1) the rate is reduced to 100 kHz, based on calorimeter and muon trigger subsystem information. Then the selected events are forwarded to the high level trigger (HLT), which further reduces the rate to 100 Hz using sophisticated software. The CMS experiment has collected over 300 million cosmic ray events. This has provided an excellent opportunity to test the trigger and prepare for the collision data. In this presentation, we show analysis results from the cosmic ray trigger data and discuss about the preparations for collision data taking.

**Primary author:** WYSLOUCH, Boleslaw (MIT)

**Presenter:** Dr MAKI, Tuula (CERN)

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