

# High Level Trigger tracking at CMS - b and tau identification

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The CMS detector is a general purpose experiment for the LHC. At the designed maximum luminosity more than 109 events/second will be produced, while the data acquisition system will be able to manage 100 Hz bandwidth. The trigger strategy for CMS is organised in 2 steps: a first level hardware trigger is implemented taking advantage of the fast response detectors, as the mu-chambers and the calorimeter systems; the event rate in this step will be reduced by a factor 104. The second level step, called the High Level Trigger (HLT), is based only on software algorithms; the aim is to reduce the event rate to 100 Hz. In the HLT process all the CMS subdetectors participate with a very fast reconstruction of the relevant physics objects, thus allowing the possibility to select a large number of specific final states. In this talk we will concentrate on the performances reached for the lepton-tau and the quark-b identification, that are very important for several future physics studies.

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