

Muon performance with the CMS detector in Run2 of the LHC

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The Compact Muon Solenoid (CMS) detector is one of the two multi-purpose experiments at the Large Hadron Collider (LHC) and has a broad physics program. Many aspects of this program depend on our ability to trigger, reconstruction and identify events with final state muons in a wide range of momenta, from few GeV to the TeV scale. Displaced muons can also be used as a benchmark for new new physics searches and do require special reconstruction techniques.

In this talk we present the full process of muon reconstruction in CMS, both offline and online. The identification and isolation strategies to discriminate prompt muons from background, and their performance with 13 TeV data collected with the CMS experiment. Finally, the performance on benchmark channels will be shown.

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