

Calibration and Performance of the CMS Electromagnetic Calorimeter in LHC Run2

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The CMS electromagnetic calorimeter (ECAL) is a fundamental instrument for these analyses and its energy resolution is crucial for the Higgs boson mass measurement. Recently the energy response of the calorimeter has been precisely calibrated exploiting the full Run2 data, aiming at a legacy reprocessing of the data. A dedicated calibration of each detector channel has been performed with physics events exploiting electrons from W and Z boson decays, photons from π^0/η decays, and from the azimuthally symmetric energy distribution of minimum bias events. This talk presents the calibration strategies that have been implemented and the excellent performance achieved by the CMS ECAL with the ultimate calibration of Run II data, in terms of energy scale stability and energy resolution.

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