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Tracking performances in CMS

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The CMS tracker is the largest silicon detector ever built, covering 200 square meters and providing an average of 14 high-precision measurements per track. Tracking is essential for the reconstruction of objects like jets, electrons and tau leptons. Track reconstruction is widely used also at trigger level as it improves lepton and jet resolution and allows to pre-identify tau leptons and b-jets.

Tracking algorithms used in CMS will be described. The resolution and efficiency of the track, vertex, and beam line reconstruction, as measured in data, are compared to the results from simulation. The impact of tracking on CMS physics program will be discussed.

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Track Classification: Tracking Systems