International Workshop on Semiconductor Pixel Detectors for Particles and Imaging (PIXEL2014)

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Physics Performance with the CMS Pixel Detector

Monday, 1 September 2014 09:40 (25 minutes)

This talk presents the results of searches for various physics channels in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV delivered by the LHC and collected with the CMS detector. Many obtained results crucially depend on the performance of the CMS pixel detector. Among others b- and tau-tagging as well as primary and secondary vertex reconstruction algorithms are discussed. Application of these algorithms for searches of the Higgs boson and measurements of branching ratio of $\mathrm{B} \to \mu^+\mu^-$ will be presented.

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Session Classification: Hybrid Pixel Experience