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Searches for long-lived particles in the CMS muon system

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Many scenarios beyond the standard model hypothesize the existence of new particles with long lifetimes. These long-lived particles (LLPs) decay significantly displaced from their initial production vertex, leading to unconventional signatures within the detector. This presentation focuses on searches with LLP decays within the CMS muon system. An innovative usage of the CMS muon detectors is exploited in this context to significantly boost the sensitivity of such searches. We present the results obtained using data recorded by the CMS experiment during the completed Run-2 of the LHC.

Mini Symposia (Invited Talks Only)

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