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Search for stopped particles produced in pp collisions at CMS
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— Many extensions to the Standard Model predict heavy quasi-stable particles which would decay out-of-time with the collisions that produced them. We present the results of a search for such long-lived particles which have stopped in the Compact Muon Solenoid (CMS) detector after being produced in $\sqrt{s} = 8$ pp collisions from CERN's Large Hadron Collider (LHC). We looked for the subsequent decay of these particles during time intervals where there were no pp collisions in the CMS experiment. In particular, we searched for decays during gaps between crossings in the LHC beam structure. We recorded such decays with a dedicated calorimeter trigger yielding a dataset that is sensitive to an integrated luminosity of up to 19.0 fb^{-1} , depending on the gluino lifetime.

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