

Search for dark matter with the monophoton final state using full Run2 data at CMS

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A search is conducted for dark matter pair-production using the Dark Matter simplified model and for graviton production predicted by the ADD large extra dimensions model in a final state with a photon and missing transverse energy in pp collisions at $\sqrt{s} = 13$ TeV. Data taken by the CMS experiment at the CERN LHC in Full Run2, corresponding to an integrated luminosity of 137.2 fb⁻¹, is analyzed. We find no deviation from the Standard Model prediction for this final state and achieve an extension of the current limits on parameter space.

Track type

Dark Matter

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