

Letters of Interest Submission



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Higgs portal vector dark matter interpretation: review of Effective Field Theory approach and ultraviolet complete models

The Higgs portal-vector dark matter interpretation of the spin-independent dark-matter nucleon elastic scattering cross section, using the invisible Higgs decay width measured at the LHC, is presented. The Effective Field Theory approach and ultraviolet complete models have been used and details description are discussed. Hence, the inclusion of these theoretical scenarios in LHC public results in comparison with direct detection results is proposed. We investigate the dark matter in the sub-GeV mass range as well.

Primary Category

Particle Physics

Secondary Category

Astrophysics & Cosmology

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