

Phenomenology 2015 Symposium



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Higgs portals to galactic center pulsar collapse

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Asymmetric fermionic dark matter coupled to the Standard Model through a MeV-scale Higgs portal mediator may be destroying pulsars at the center of the Milky Way. This talk reviews the recently uncovered galactic center missing pulsar anomaly, determines maximum pulsar age curves for asymmetric Higgs portal dark matter in the Milky Way (maximum pulsar age increases as dark matter halo density decreases), and looks at complementarity signals of pulsar collapsing dark matter at direct detection experiments and the LHC.

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