

Phenomenology 2020 Symposium



Contribution ID: 1063

Type: **Parallel Talk**

Phenomenology of CP-Violating Higgs Portal Dark Matter

Monday 4 May 2020 15:45 (15 minutes)

The Galactic Center gamma-ray Excess (GCE) is one of the most statistically significant experimental anomalies to date, with one possible explanation in annihilating dark matter. In this talk we discuss a realization of a Higgs portal thermal relic, such as preferred by the GCE, with a CP-violating Yukawa coupling. The phase of this coupling sets the hierarchy between annihilation and scattering, allowing evasion of stringent direct detection constraints. We present phenomenology of the model and explore prospects of future detection.

Summary

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Session Classification: BSM I

Track Classification: BSM