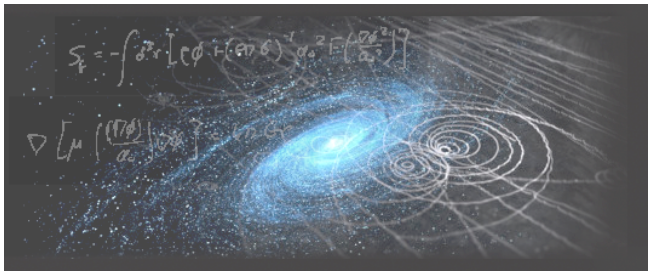

Contribution ID: **71** Type: **not specified**

Resonant or asymmetric: The status of sub-GeV dark matter

Monday, 21 October 2024 15:45 (15 minutes)

Sub-GeV dark matter (DM) has been gaining significant interest in recent years, since it can account for the thermal relic abundance while evading nuclear recoil direct detection constraints. However, sub-GeV DM is still subject to a number of constraints from laboratory experiments, and from astrophysical and cosmological observations. In this work, we compare these observations with the predictions of two sub-GeV DM models (Dirac fermion and scalar DM) within frequentist and Bayesian global analyses using the Global And Modular BSM Inference Tool (GAMBIT). We infer the regions in parameter space preferred by current data, and compare with projections of near-future experiments; providing a status update to sub-GeV DM.

Summary

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