

Novel constraints on light dark matter via solar reflection and acceleration by cosmic rays

Wednesday, 27 October 2021 22:35 (30 minutes)

Light (e.g. sub-GeV) WIMPs might be a viable model if the Standard Model is extended by new dark sector degrees of freedom. Many of these dark matter candidates would fall below the thresholds of direct detection experiments. I present new results on (almost) model-independent constraints on properties of dark matter that utilize A. Acceleration of light dark matter via collision with energetic particles such as solar electrons and cosmic rays, B. the most sensitive data on direct detection that comes from the Xe-based line-up of dark matter direct detection experiments.

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Session Classification: Plenary