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Searching for light accelerated dark matter

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Low mass accelerated dark matter (DM) is very well motivated and has been a subject of much attention in the literature. These fast-moving particles can gain enough kinetic energy to surpass the energy thresholds of some Large volume terrestrial detectors. For instance, fast-moving DM can deposit sizable amounts of energy at both large volume neutrino detectors and dark matter direct detection experiments. In this talk, I will focus on searches for both multi-component “boosted” DM and cosmic-ray accelerated DM. I will present recent and on-going work which explores these accelerate DM scenarios using a variety of probes.

Keyword-1

dark matter, detection, theory

Keyword-2

neutrinos

Keyword-3

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