

Probes of light dark matter in relativistic regime

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Dark matter interactions are traditionally probed in the non-relativistic regime characteristic of cold DM in the present-day universe. However, this strategy is insufficient for probing a class of important thermal DM targets for which non-relativistic scattering rates are highly suppressed. This opens an unexplored region of parameter space and motivates the development of detection strategies specifically tailored to low-mass dark matter. In this talk, I will discuss examples of such models and outline novel detection strategies designed to probe them — either directly, or indirectly through the detection of light dark-sector mediators.

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