

Experimental dark matter searches at masses below the GeV mass scale

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In the absence of a verifiable dark matter signal in traditional direct detection or collider experiments, parallel theoretical and experimental advancement has unlocked the possibility of searching for particle dark matter lighter than the proton. In the past decade, this has allowed for rapid development of charge detection in traditional materials with eV-scale band gaps. Ongoing detector R&D into novel materials and sub-eV thresholds further expands the phase space of direct detection. I will provide an overview of these experimental efforts to search for 'Light Dark Matter' below the GeV mass scale.

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