

New Directions in the Search for Light and Ultralight Dark Matter

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Dark matter candidates span the entire mass range from $\sim 10^{-22}$ eV up to the weak scale and beyond. Recently, the scope of dark matter searches has significantly expanded to include a variety of motivated candidates over much of this mass range. I will discuss new ideas and prospects to directly detect “light” (sub-GeV) and “ultralight” (sub-eV) dark matter, generalizing searches for WIMPs or axion dark matter. I will highlight several examples covering the meV–GeV mass range, including prospects for absorption of bosonic dark matter as well as proposals to detect scattering of sub-MeV dark matter.

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