New Technologies for Light Dark Matter

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The exploration of dark matter beyond the WIMP is of vital importance towards resolving the identity of dark matter. I will discuss new proposals for the direct detection of light dark matter which hold much promise. These include the use of superconducting nanowires, two-dimensional targets such as graphene, and heavy fermion materials. Considering dark matter interactions with these targets, I will demonstrate the potential of the light dark matter direct detection program in upcoming years.