

Dark Tools



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Direct dark matter detection: where are we and where are we going?

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The fundamental nature of dark or invisible matter remains one of the great mysteries of our time. A leading hypothesis is that dark matter is made of new elementary particles, with proposed masses and interaction cross sections spanning an enormous range. Among these, particles with masses in the MeV-TeV range could be directly observed via scatters with atomic nuclei or electrons in ultra-low background detectors operated deep underground. After an introduction to the principles of direct dark matter detection, I will discuss the most promising experimental techniques, addressing their current and future science reach, as well as their complementarity.

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