

Dark Matter

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We have strong evidence that about 83% of matter in our Universe is dark, revealing its presence only by its gravitational attraction. If the dark matter is made up of Weakly Interacting Massive Particles (WIMPs), it can be directly detected via elastic scattering from nuclei in ultra-low background, deep underground detectors. WIMPs arise naturally in many beyond-Standard-Model theories, a popular example being the neutralino, or the lightest supersymmetric particle. After an introduction to the direct-detection method, I will review the current techniques to search for these hypothetical particles. The focus will be on recent results, and on the most promising techniques for the near future.

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