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Detecting dark matter with IceCube

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IceCube, a cubic kilometer neutrino telescope under construction at the South Pole, is a successor to the AMANDA neutrino telescope designed to search for astrophysical neutrino sources. When completed, it will consist of over 5000 optical modules buried in the Antarctic ice. The detector, which is currently 90% complete, includes an infill array known as DeepCore, improving sensitivity to neutrinos at energies below 100 GeV. IceCube can be used to indirectly probe the spin-dependent dark matter scattering and annihilation cross-section. I will present the current status of the IceCube dark matter analyses, as well as estimates for future IceCube sensitivity.

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