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# IceCube at the frontier of macroscopic dark matter direct detection

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For a class of macroscopic dark matter models, inelastic scattering of dark matter off a nucleus can generate electromagnetic signatures with GeV-scale energy. The IceCube detector, with its kilometer-scale size, is ideal for directly detecting such inelastic scattering. Based on the slow particle trigger for the DeepCore detector, we perform a detailed signal and background simulation to estimate the discovery potential. For order 1 GeV deposited energy in each interaction, we find that IceCube can probe the dark matter masses up to one gram.

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