Light Hidden Fermionic Dark Matter In Neutrino Experiments

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We study, in a model-independent analysis, the possibility of direct detection of light fermionic dark matter in neutrino experiments. We consider all operators of dimension six or lower which can contribute to the process f p -> n e+, where f is a dark fermion, and place constraints on their coefficients via the dark matter lifetime. We then discuss limits on these interactions from neutrino experiments.

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