

Abstract Submitted
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Probing Dark Matter with Neutrinos INA SARCEVIC, University of Arizona — We evaluate the neutrino and muon flux from annihilation of the dark matter in the core of the Sun, in the core of the Earth, from the Galactic Center and from cosmic diffuse neutrinos produced in dark matter annihilation in the halos. We consider model-independent direct neutrino production and secondary neutrino production from the decay of taus produced in the annihilation of dark matter. We illustrate how muon energy distribution from dark matter annihilation has a very different shape than muon flux from atmospheric neutrinos. We consider both the upward muon flux, when muons are created in the rock below the detector, and the contained flux when muons are created in the (ice) detector. We comment on neutrino flavor dependence and their detection.

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