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neutrino flux from dark matter annihilation and decay

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Indirect searches for signatures of corpuscular dark matter have been performed using all cosmic messengers: gamma rays, cosmic rays, and neutrinos. The search for dark matter from neutrinos is of particular importance since they are the only courier that can reach detectors from dark matter processes in dense environments, such as the core of the Sun or Earth, or from the edge of the observable Universe. I would like to introduce χαρον, a software that bridges the dark sector and Standard Model by predicting neutrino fluxes from different celestial dark matter agglomerations. This package includes neutrino production coupled to a new calculation of electroweak corrections and neutrino propagation to observer's location.

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