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# Simulation of neutrino signal from dark matter annihilation for JUNO experiment

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Dark matter plays major role in the large-scale structure formation of the universe. The leading candidate for DM particle is generally called Weakly Interacting Massive Particles (WIMPs) for its properties inferred from astronomical observations. Such DM particle would only interact via weak interaction and could decay or self-annihilate into other standard model particles such as $\tau\bar{\tau}$,$u\bar{u}$,$e^-$ $e^{+}$,. In this work, we stimulate the final-state neutrino particles resulting from DM annihilations inside the SUN's core. The neutrino propagations and oscillations to Earth and expected signals at the Jiangmen Underground Neutrino Observatory (JUNO) are then calculated. We will present the preliminary results of our study, including comparisons with various other neutrino sources to be detected at JUNO.

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