

High energy neutrinos from the Sun

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Dark matter annihilation in the center of the Sun may imply a flux of high energy neutrinos observable at neutrino telescopes. This signal, however, faces an important background: secondary neutrinos produced in the showers of high-energy cosmic rays that reach the surface of the Sun. We argue that this Solar neutrino flux is correlated with the cosmic-ray shadow of the Sun measured by HAWC, and we show that it is well above the flux of atmospheric neutrinos.

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