

Indirect Dark Matter searches towards the Sun with ANTARES neutrino telescope

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Dark matter particles, produced in astrophysical sources and gravitationally captured in massive celestial objects, can be indirectly detected through their annihilation into Standard Model particles.

The centre of those massive objects is, therefore, a place where to look for a possible neutrino excess from dark matter annihilations, using neutrino telescopes.

The deep-sea neutrino telescope ANTARES, located in the Mediterranean Sea, has shown to be very competitive on the quest for dark matter WIMPs produced in the Galactic Center.

The closest promising DM source is the Sun, where it is possible to have a very clean signal since the background from astrophysical sources is not expected.

In this work we show the results on the search for dark matter WIMPs from the Sun, using 13 years of data collected by ANTARES.

Reference to paper (DOI or arXiv)

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