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## Search for dark matter signatures in ANTARES neutrino data

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Extraterrestrial neutrinos can be used as messengers to probe the presence of dark matter particles in our Galaxy. Indeed, sizable fluxes of high-energy neutrinos are expected from pair annihilation and decay of dark matter in regions where it accumulates to a high density. Massive celestial bodies such as the Sun and the very large reservoir at the centre of the Milky Way were inside the field of view of the ANTARES neutrino telescope, which was operated underwater in the Mediterranean Sea for 16 years and was recently decommissioned. ANTARES could trace the arrival direction of neutrinos with a precision of half a degree. A search for signatures of Weakly Interacting Massive Particles (WIMPs) has been performed in 14 years of all-flavour neutrino data, yielding competitive upper limits on the strength of WIMP annihilation. Other non-WIMP landscapes, such as model predicting heavy dark matter candidates, have been tested with dedicated searches in ANTARES data. Indirect dark matter searches are being continued with the KM3NeT telescopes, currently in construction in the Mediterranean Sea.

### In-person participation

Yes

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