

Combined search for dark matter with the ANTARES and IceCube neutrino telescopes

Most of the matter of the Universe appears to be “dark matter”, the properties of which we only know very incompletely. The effort to identify this new kind of matter has to be multi-front, since we do not know which is the best way to proceed. An important player in this quest are neutrino telescopes, since they offer unique advantages that complement other searches. Examples of this are the limits of IceCube for the DM-nucleon spin-dependent cross section for searches in the Sun or the limits set by ANTARES for the DM annihilation cross section for the Galactic Centre, which in both cases are the best in the world for some mass ranges. In this presentation we will show an analysis carried out by these collaborations on the potential of combining data from both detectors to improve these limits.

Authorship annotation

for the ANTARES and IceCube collaborations

Session and Location

Wednesday Session, Poster Wall #133 (Hölderlin-Room)

Poster included in proceedings:

yes

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Track Classification: Poster (participating in poster prize competition)