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Indirect search for Dark Matter with the ANTARES neutrino telescope

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The ANTARES undersea neutrino telescope consists of a 3D grid of 900 photomultiplier tubes arranged in 12 strings, at a depth of 2475 m in the Mediterranean Sea. After deployment of the first strings in 2006, half of the detector is now fully operational and the complete detector is foreseen to be finished in early 2008. Relic neutralinos produced after the Big Bang are favoured candidates for Dark Matter. They can accumulate at the centre of massive celestial objects like our Sun. Their annihilation can result in a high-energy neutrino flux that could be detectable as a localised emission with earth-based neutrino telescopes like ANTARES. A brief overview of the prospects of the indirect search for Dark Matter particles with the ANTARES detector will be given. The analysis method and expected performance for the detection of the expected neutrinos will be discussed.

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