

# **ANTARES: the first operational neutrino telescope in the Mediterranean sea**

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ANTARES is the first high energy neutrino detector deployed in the deep-sea in the Northern hemisphere. It is composed of 12 strings deployed at 2475 m below the sea surface 40 km off-shore Toulon and is equipped with 885 photomultiplier tubes. The detector in its final configuration is taking data continuously since 2008. The telescope is optimized for the search of high energy (TeV) muon neutrinos from galactic and extragalactic sources. The deep sea research infrastructure hosting the telescope is also an important node for long term, continuous measurements in earth and marine scientific research. Geophysics studies are also foreseen.

The ANTARES telescope detects neutrinos by measuring the Cherenkov light emitted by charged secondary particles produced in neutrino interactions with the sea water or the rock beneath. The direction of the incoming neutrino can be reconstructed with the telescope and its energy estimated. The detector will be described and the main results presented.