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Status and first results of the ANTARES neutrino telescope

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The ANTARES (Astronomy with a Neutrino Telescope and Abyss enviromental RESearch) Collaboration constructed and deployed the world's largest operational underwater neutrino telescope, optimised for the detection of Cherenkov light produced by neutrino-induced muons. The detector has an effective area of the order of 0.1 square km and it is a first step towards a kilometric scale detector.

The detector consists of a three-dimensional array of 885 photomultiplier tubes, arranged in 12 lines anchored at a depth of 2475 m in the Mediterranean Sea, 40 km offshore from Toulon (France). An additional instrumented line is used for environmental monitoring and for acoustic neutrino detection R&D.

ANTARES is taking data with its full twelve-line configuration since May 2008 and had been also doing so for more than a year before a five and ten-line setups.

The detector performance will be discussed.
First results obtained for the study of cosmic ray muons and atmospheric neutrinos will be presented.

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