

ANTARES STATUS REPORT

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One of the main goal of Astroparticle-Physics for the present decade is the construction and the operation of a deep undersea neutrino detector. ANTARES collaboration aims at the construction of high energy neutrino undersea detector, with an effective area of 0.1 km² as a first phase towards a km³ detector. Its science mission includes neutrino astronomy, neutrino oscillations and non-baryonic matter in the form of neutralinos, heavy metastable relic particles and topological defects. Since 1996 ANTARES collaboration has conducted an extensive R&D program to measure relevant environmental properties of the selected site (30 km off the coast of Toulon, at ~2400m depth), to develop optical modules, mechanics (strings), electronics and detector deployment procedures. Measurements and surveys carried out confirm that the properties of the selected site satisfy the constraints of the ANTARES physics program. A demonstrator string with electro-optical transmission of analog signals to the shore has also been immersed and recorded site measurements and cosmic muons. The final detector is at present under construction, it's deployment in the Mediterranean Sea will start at the beginning of 2002 and completed by the end of 2004.