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The ANTARES Neutrino Telescope: status report

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Abstract content

ANTARES is a large volume, deep-sea, neutrino telescope currently under construction off La Seyne-sur-mer, France. Neutrino telescopes aims at detecting neutrinos as a new probe for a sky study at energies greater than 1 TeV. The detection principle relies on the observation, using photomultipliers, of the Cherenkov light emitted by charged leptons induced by neutrino interactions in the surrounding detector medium. Since January 2007, the ANTARES detector consists of 5 lines, comprising 75 optical detectors each, connected to the shore via an undersea cable from the site at a depth of 2475m. The data from these lines not only allow an extensive study of the detector properties but also the reconstruction of downward going cosmic ray muons and the search for the first upward going neutrino induced muons. The operation of these lines follows on from that of the ANTARES instrumentation line, which has provided data for more than a year on the detector stability and the environmental conditions. The full 12 line detector is planned to be fully operational in January 2008.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 5 (HE part 2), pages 1337-1340

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