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Status of the KM3NeT project

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KM3NeT is a research infrastructure hosting neutrino telescopes in the Mediterranean Sea. Two detectors with the same technology but different granularity are foreseen: ARCA at a depth of 3500 m offshore Capo Passero, Italy and ORCA at a depth of 2500 m offshore Toulon, France. Both consist of a 3D array of optical sensors modules, equally spaced along flexible vertical lines, the detection units, anchored at the seabed.

The ARCA telescope is designed to discover and observe high-energy neutrinos (TeV \div PeV) of cosmic origin. It will be the next generation of the underwater kilometre-cube scale neutrino telescopes. Thanks to its geographical location, it will allow for surveying a large part of the sky, including most of the Galactic Plane and the Galactic Centre.

The ORCA detector, with an instrumented volume of a few Mton, is optimized to measure neutrinos with energies at the GeV scale. With ORCA, the focus will be the studies of oscillations of atmospheric neutrinos with the main objective of determining the neutrinos mass hierarchy.

The KM3NeT Collaboration has started the construction of both detectors. The first detection units were deployed and the analysis is on going to validate the detector performances.

In this talk, the status of the ARCA and ORCA detectors and the future prospects of the project will be presented.

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