

Results from the first ARCA and ORCA detector units

KM3NeT will be the largest underwater neutrino telescope employing the Cherenkov detection technique in the deep Mediterranean Sea. The infrastructure will consist of three detector building blocks: large 3D arrays of optical sensor modules arranged on vertical detection units anchored on the seabed. Two building blocks for KM3NeT/ARCA are optimised for the detection of TeV-PeV neutrinos in order to discover cosmic neutrino point sources, and one building block for KM3NeT/ORCA is optimised for the detection of few-GeV atmospheric neutrinos in order to determine the neutrino mass hierarchy.

The construction of the ARCA and ORCA detectors has started. Results from the first two ARCA detection units and the first ORCA detection unit will be shown. In particular, it will be presented how the measurement of the background atmospheric muon flux profits from the innovative multi-PMT design of the KM3NeT optical sensor module.

Authorship annotation

for the KM3NeT Collaboration

Session and Location

Wednesday Session, Poster Wall #193 (Ballroom)

Poster included in proceedings:

yes

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Track Classification: Poster (participating in poster prize competition)