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KM3NeT/ORCA: status and plans

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Neutrinos created in interactions of Cosmic Rays with the atmosphere have already for a long time been exploited for measurements of several of the parameters characterizing neutrino oscillations. At low energies, around a few GeV, matter effects from the transition through the Earth are expected to imprint a distinct but also subtle signature on the oscillation pattern specific to the ordering of the neutrino masses which is still unknown.
KM3NeT/ORCA (Oscillations Research with Cosmics in the Abyss), a densely instrumented building block of the upcoming KM3NeT neutrino telescope, will be dedicated to measuring this signature in the Mediterranean Sea. The multi-PMT optical modules can take advantage of the excellent optical properties of deep seawater. An overview will be given how the challenges of accurate particle reconstruction, flavour identification and background rejection are mastered and how external uncertainties e.g. from the atmospheric flux and oscillation parameters are handled.
An outlook will be provided for the potential of KM3NeT/ORCA to determine the neutrino mass hierarchy and also for the new precision on several of the neutrino oscillation parameters which can be achieved in this measurement.

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