Contribution ID: 122 Type: not specified

Status and Prospects of the KM3NeT-ORCA experiment

Tuesday, 31 May 2016 17:10 (20 minutes)

Summary

The KM3NeT experiment is under construction in the Mediterranean Sea. The ORCA part of the experiment was designed to measure the Neutrino Mass Hierarchy (NMH) using atmospheric neutrinos. ORCA will consist of a 6 Mton water Cherenkov detector densely instrumented with over 64000 PMTs. This configuration will enable high statistics measurements of atmospheric neutrinos in the energy range where resonant neutrino flavour transitions are expected and which depend on the NMH. In this talk I will describe the latest developments on the KM3NeT-ORCA project, including the construction and deployment plans, design optimisations, and the expected sensitivity of the experiment to the NMH and other oscillation parameters.

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Session Classification: Neutrinos