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Neutrino Oscillation Studies Using KM3NeT/ORCA

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The Kilometer Cubic Neutrino Telescope (KM3NeT) is one of the leading European experiments on neutrino physics. One of its building blocks - Oscillation Research with Cosmics in the Abyss (ORCA) - is optimized for studies on neutrino oscillations based on measurements of atmospheric neutrinos in the energy range of 1-100 GeV. Due to its high modularity, ORCA can already be operated during its construction, using only a fraction of its final volume. In this talk, I will explore the evolution of the capabilities of ORCA in the field of neutrino oscillations with time. The tau neutrino sector is of particular interest as ORCA will accumulate an unprecedented tau neutrino sample and thus allow for highly competitive oscillation studies related to the third lepton family.

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