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## Searches for neutrino physics beyond the standard model with KM3NeT/ORCA6

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Upcoming neutrino experiments will not only constrain oscillation parameters with an unprecedented precision, but also will search for physics beyond the Standard Model. KM3NeT/ORCA is an atmospheric neutrino detector currently under construction, sensitive to energies from a few GeV to around 100 GeV and with a great potential to explore new physics. A high-purity neutrino sample from data taken with the first 6 Detection Units deployed has been selected. This sample has been analysed to probe sub-dominant effects in the oscillation patterns of atmospheric neutrinos propagating through the Earth, as invisible neutrino decay and Non-Standard Interactions (NSI). In this contribution, the bounds obtained in the decay parameter,  $\alpha_3 = m_3/\tau_3$ , and in the flavour violating interaction parameters,  $\epsilon_{\alpha\beta}$ , will be shown together with future sensitivity perspectives with ten years of data taking with the final ORCA configuration of 115 Detection Units.

### In-person participation

Yes

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