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Invisible neutrino decay at KM3NeT-ORCA

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Several theories of particle physics beyond the Standard Model consider that neutrinos can decay. I discuss the sensitivity of the upcoming neutrino telescope KM3NeT-ORCA to this scenario. I show that it could improve the current bounds coming from oscillation experiments, where three-neutrino oscillations have been considered, by roughly two orders of magnitude. I also discuss the robustness of the experiment to the standard oscillation parameters and the neutrino mass ordering in presence of invisible neutrino decay.

Collaboration name

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