Contribution ID: **608** Type: **Parallel session talk**

Measurement of atmospheric neutrino oscillations with KM3NeT/ORCA

Thursday 18 July 2024 15:15 (15 minutes)

KM3NeT/ORCA is a water-Cherenkov neutrino telescope currently under construction in the Mediterranean sea, with the goal of measuring atmospheric neutrino oscillations and determining the neutrino mass ordering. The detector is located 40 km off-shore Toulon, France, and consists of a three-dimensional grid of detection units equipped with 18 digital optical modules, hosting 31 photo-multiplier tubes each. By inspecting the arrival direction of GeV-neutrinos crossing the Earth, ORCA can effectively constrain the oscillation parameters Δm^2_{31} and θ_{23}, and can additionally be used to search for deviations from the Standard Model in neutrino interactions, the so-called Non-Standard neutrino Interactions (NSI).
This presentation covers the most up-to-date results from the ORCA detector on neutrino oscillations and NSI, which improve on previous ORCA measurements and benefit from increased exposure, refined event selections and optimised reconstruction algorithms.

Alternate track

1. Beyond the Standard Model

I read the instructions above

Yes

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Session Classification: Neutrino Physics

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