

First neutrino oscillation analysis using KM3NeT/ORCA
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What is this contribution about?

This contribution is about the first neutrino oscillation measurement done by the KM3NeT collaboration using the ORCA with 4 and 6 detection lines.

Why is it relevant / interesting?

The relevance comes from the fact that the first result using a partial detector is already in the same ball-park as competitors.

What have we done?

We have measured the neutrino oscillation parameters θ_{23} and Δm_{31}^2 .

What is the result?

The result is a 5.9σ rejection of no oscillations after 1 year of taking data, and a confidence contour of the oscillation parameters $\sin^2 \theta_{23}, \Delta m_{31}^2$ that shows the beginnings of competitive results compared to other experiments in the same field, such as IceCube, MINOS, NOvA, Super-K and T2K.