

Latest multi-messenger results of the KM3NeT real-time analysis framework

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Multi-messenger astronomy studies transient phenomena by combining the information provided by different cosmic messengers, such as neutrinos, photons, charged particles or gravitational waves. A coincident detection enhances the chances for the identification of new astrophysical sources, which motivates the distribution of external alerts and their follow-ups by multiple observatories worldwide.

The KM3NeT neutrino telescope is a Cherenkov deep-sea infrastructure currently taking data with partial configurations at the Mediterranean Sea. Two different arrays are being constructed: ORCA, on the shore of Toulon (France), and ARCA, on the shore of Sicily (Italy). In this contribution, the latest results of the neutrino searches conducted with the real-time multi-messenger analysis platform of the KM3NeT detectors will be summarised, including statistical significances and flux upper limits. These searches cover a wide neutrino energy range, from MeV up to a few of PeVs.

Alternate track

1. Neutrino Physics

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