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In the last decade, few experimental results, like the detection of GW170817 and the detailed study of its electromagnetic counterpart, have endorsed the so-called multi-messenger (MM) astronomy.
The IceCube observation of the high-energy neutrino event IC170922A, allowed to identify a known gamma-source, the flaring blazar TXS 0506+056, as the source of neutrino events.

As one of the instruments to be used for the MM astronomy, neutrinos not only can observe the extreme part of the Universe, but can allow to get information on the nature and the acceleration processes inside astrophysical sources.
The IceCube detector, in the ice of the South Pole, has been leading neutrino astronomy research over the last decades and, at present, is still the main observatory to detect high-energy astrophysical neutrinos.
ANTARES, observing the neutrino sky from the Northern hemisphere, has complemented, even with reduced effective area, the IceCube results.
The Giant Volume Detector (Baikal-GVD) under construction in the Baikal lake, in Siberia, aims to reach the sensitivity for the identification of astrophysical high energy neutrino sources.
No point-like astrophysical neutrino source has been identified so far directly by these Telescopes.
KM3NeT is a large European research infrastructure, in construction in the Mediterranean Sea, consisting of a network of underwater Cherenkov detectors: ARCA offshore Italy at 3.5 km depth, and ORCA offshore France at 2.5 km depth. The mission of KM3NeT is to implement and operate, with improved sensitivity and in a multi-messenger contest, a world leading open observatory hunting for cosmic neutrinos and for neutrino sources.

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