Seventeenth Marcel Grossmann Meeting



Contribution ID: 308

Type: Invited talk in a parallel session

Beyond ANTARES: the future of neutrino telescopes, a short review

Thursday, 11 July 2024 18:05 (25 minutes)

The observation of neutrinos of cosmic origin opens a whole new field for neutrino astrophysics. This quest has been paved by pioneering experiments in the second half of the 20th century and is now at the dawn of a new era thanks to numerous new proposals.

In this talk, I will review the continuation of neutrino astronomy following the ANTARES era by providing an overview of some of the planned Cherenkov-based neutrino detectors.

The designs of the KM3NeT neutrino telescope, currently under construction in the Mediterranean Sea, as well as other promising neutrino telescopes such as Baikal-GVD, IceCube-Gen2, P-ONE, and TRIDENT, will be described, and their main scientific objectives will be presented.

Additionally, I will briefly address some alternative detection methods suitable for the observation of extremely high-energy neutrinos, including radio detection and air-shower imaging.

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Session Classification: ANTARES - 15 years of multi-messenger astronomy in the sea

Track Classification: Neutrinos (NU): ANTARES - 15 years of multi-messenger astronomy in the

sea