RICAP-24 Roma International Conference on AstroParticle Physics



Contribution ID: 175 Type: oral

ANTARES recent results

Wednesday, 25 September 2024 11:20 (25 minutes)

The ANTARES telescope was the first operational Neutrino Telescope in the Mediterranean Sea built at a depth of 2500 m offshore of Toulon, France, searching for astrophysical neutrinos in the TeV- PeV energy range. Debuting in May 2008, the ANTARES neutrino observatory served a 15-year mission until February 2022. Nestled deep in the Mediterranean Sea, its exceptional angular resolution made it ideal for peering into the southern skies and unraveling the mysteries of cosmic neutrinos, particularly those originating within the Milky Way galaxy. The 15-year dataset collected by ANTARES continues to hold the potential for ground-breaking discoveries in high-energy cosmic neutrino sources and it is exploited carrying out several cosmic neutrino searches. These searches involve different key approaches, spanning from the searches for point-like neutrino sources and diffuse neutrino fluxes related to electromagnetic emission, to the investigation of promising source candidates listed in catalogs compiled by other experiments. In addition to its own searches, ANTARES has produced a wealth of scientific results through fruitful collaborations with the most important Collaborations in the world operating in the field of Neutrino Astronomy and Multimessenger Astronomy, leading to the enhance of ANTARES' discovery potential.

In this contribution the ANTARES' accomplishments and recent results in cosmic neutrino research are summarized.

Primary author: FERRARA, Giovanna (Istituto Nazionale di Fisica Nucleare)

Presenter: FERRARA, Giovanna (Istituto Nazionale di Fisica Nucleare)

Session Classification: IV Plenary