



# KM3NET DATA PROCESSING AND MONTE CARLO SIMULATIONS: THE PATH TO COSMIC NEUTRINO EVENT

The KM3NeT collaboration is building two underwater neutrino detectors in the Mediterranean Sea; KM3NeT-ORCA, offshore the French Mediterranean Coast, which will have a detection volume of a few Mtons and is aimed to be used to exploit neutrino properties and KM3NeT-ARCA, offshore Portopalo di Capo Passero on Sicily, Italy, which will be aiming at discovering high energy neutrino sources from cosmic accelerators, having, at its final phase, a detection volume of ca. 1 km<sup>3</sup>. KM3NeT's innovation is based on the design of the DOM, which houses 31 3" PhotonMultipliers (PMTs), providing a signal coverage of the full sky. KM3NeT detectors are expected to improve our particle physics knowledge and contribute to the exciting field of neutrino astronomy. Dr. Anna Sinopoulou is a post-doctoral research fellow of the INFN - Sezione di Catania and is working as co-convenor of the Data Processing and Data Quality (DPDQ) working group of the whole KM3NeT experiment. In her talk, she will present the most up-to-date activities of the DPDQ working group and results from the data of the first deployed detection units. Outline: ☒

- Neutrino Astronomy. ☒
- KM3NeT: ORCA and ARCA. New window on our Universe. ☒
- We are getting there! Already 28 KM3NeT/ARCA DUs in place

**ESPRESSO SEMINARS**

22 NOVEMBRE 2023 | ORE 15:00

AULA AZZURRA - LNS

