

XX International Workshop on Neutrino Telescopes



Monday, October 23, 2023 - Friday, October 27, 2023

Istituto Veneto di Scienze, Lettere ed Arti

Scientific Program

The program of the conference will be distributed along four main tracks:

Neutrino Properties
Neutrino Telescopes & Multi-messenger
Neutrino Theory & Cosmology
Data Science and Detector R&D

Neutrino Properties

Topics include the current status of experimental measurements of oscillation parameters (mixing angles, squared mass differences, CP violation phase), searches for the mass ordering, the neutrino absolute mass scale, a resume of recent results and developments in neutrinoless double beta decay, measurements of neutrino cross sections, searches for heavy neutrinos at colliders, the state of the art in the search for light sterile neutrinos.

Neutrino Telescopes & Multi-messenger

Topics include neutrinos from galactic and extragalactic astrophysical sources, telescopes and detector arrays for observing them, recent results of cosmic rays, gamma rays, gravitational waves and neutrinos (multi-messenger astrophysics), searches for Dark Matter and Axion-like particles, Physics Beyond the Standard Model with neutrino telescopes, open issues concerning the interpretation and modeling of recent results, an outlook on future observatories and observation strategies.

Neutrino Theory & Cosmology

Topics include the phenomenology of lepton CP Violation, the phenomenology of sterile neutrinos, the role of neutrino physics in cosmological models, the phenomenological summary of neutrino properties, and theoretical models for neutrino properties.

Data Science and Detector R&D

Topics include technological developments in detector systems, data analysis techniques and software frameworks in the neutrino science area.