



ETTORE MAJORANA FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE
1963–2023
60th ANNIVERSARY OF ACTIVITIES



INTERNATIONAL SCHOOL OF LIQUID CRYSTALS

26th Workshop: BIOPHOTONICS AT NANOSCALE: FROM SMART NANOMATERIALS TO ADVANCED OPTICAL TECHNOLOGIES FOR LIFE, ENVIRONMENTAL SCIENCE AND NANOMEDICINE

ERICE-SICILY: 26 – 31 AUGUST 2023

Sponsored by the: • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government

PROGRAMME AND LECTURERS

Photonic biosensing technologies

Liquid crystal biosensors

Chip for biomedical application

Photonics in liquid crystals and biosystems

Imaging and spectroscopy

Industrial applications and issues

- T. BELLINI, University of Milano, IT
- F. BRAGHERI, CNR, Milano, IT
- N. CENAMO, University of Campania “Luigi Vanvitelli”, Napoli, IT
- G. CINCOTTI, University of Rome TRE, IT
- V. COUDERC, Université de Limoges, FR
- A. CUTOLO, “Federico II” University of Naples, IT

- A. D’ALESSANDRO, Sapienza University of Rome, IT
- L. DE SIO, Sapienza University of Rome, IT
- M. DE VITTORIO, University of Lecce, IT
- P. FERRARO, CNR, Napoli, IT
- O. LAVRETOVICH, Kent State University, OH, US
- L. LUCCHETTI, Polytechnic University of Marche, IT
- L. PAVESI, University of Trento, IT
- R. PINI, IFAC – CNR, Firenze, IT
- Y. MIN SONG, Gwangju Institute of Science and Technology, KR
- G. STRANGI, UNICAL, Cosenza, IT
- A. VANNUCCI, Photonics-42, Milano, IT
- C. ZANNONI, University of Bologna, IT

PURPOSE OF THE WORKSHOP

The IEEE Photonics School is organized in collaboration with the Italian Liquid Crystal Society (SICL) as the 26th Course of the International School of Liquid Crystals, one of the scientific advanced Schools established at the “Ettore Majorana” Centre in Erice, in the frame of its regular activities. The School of the Italian Chapter of IEEE Photonics Society is aimed at PhD students and Post-docs in engineering, physics, material science and photonic technologies. The Workshop topics encompass advanced material properties, device design, technologies, and photonics applications in life science, environmental science, and high precision medicine (i.e., nanomedicine). The School is mainly devoted to advanced nanotechnologies and biotechnologies in which photonics is the key enabling tool. Advanced nanomaterials, including molecular composite materials with their optical properties, will be among the School's topics. A specific focus will be devoted to device and system technologies for bio-imaging and microscopy, chemical, biochemical and physical sensors, fiber sensors, lab-on-chip, optogenetics, optofluidics, image sensors. Industrial point of view will also be considered. Lectures will be given by international first-class scientists from prestigious Italian and foreign universities, research centres and industrial laboratories. Purpose of the Workshop is also to provide a forum for triggering new cultural exchanges and fostering new collaborations in Photonics. The School will provide a platform for interfacing basic science with applied engineering to track down a new frontier in biophotonics. Students are encouraged to submit a scientific contribution to be presented in a poster during the Workshop.

APPLICATIONS

Persons wishing to attend the Workshop should send an application, by electronic mail, to:

Dr. Paolo Pasini email: pasini@bo.infn.it

Specifying: i) Date and place of birth together with present nationality ii) Present position and place of work iii) An abstract, if they wish to give a contribution (oral or poster)

• PLEASE NOTE

Participants must arrive in Erice no later than 12 a.m. on 26th August 2023.

POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «*After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.*»

This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchises, by his son Aeneas, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

More information about the activities of the Ettore Majorana Foundation can be found on the WWW at the following address:
<https://ettoremajoranafoundation.it>