«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE TO PAYA PERMANENT TRIBUTE TO ARCHIMEDES AND GALILEO GALILEI, FOUNDERS OF MODERN SCIENCE AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



# INTERNATIONAL SCHOOL OF LIQUID CRYSTALS

# 25th Workshop: A SCIENTIFIC JOURNEY IN THE WORLD OF LIQUID CRYSTALS AND BEYOND

A Workshop to Celebrate Claudio Zannoni's 70th Birthday

ERICE-SICILY: 7 – 10 OCTOBER 2018

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

### PROGRAMME AND LECTURERS

Liquid crystals at biomolecular interfaces

• N.L. ABBOTT, University of Wisconsin-Madison, Madison, WI, US An exterior problem for liquid crystals

• J.M. BALL, University of Oxford, Oxford, UK

Nematics with quenched disorder: The scientific history of a collaboration

• T. BELLINI, University of Milan, Milan, IT

Organic bioelectronics, anisotropy, ions: how Claudio's teaching is important in unforeseen scenarios 30 years after

• F. BISCARINI, University of Modena and Reggio Emilia, Modena, IT NMR of orientationally ordered short-chain hydrocarbons

• E. BURNELL, University of British Columbia, Vancouver, BC, CA

LXNMR Lab at the University of Calabria: Conformational studies, molecular field models, computer simulations... When liquid crystals crossed our lives (many years ago) and what we are doing now

• G. CELEBRE, Università della Calabria, Arcavacata di Rende, Cosenza IT UNIBOlar transport in supramolecular architectures

• J. CORNIL, University of Mons, Mons, BE

Low power photonic devices based on electrically controlled nematic liquid crystals embedded in Poly(dimethylsiloxane)

• A. d'ALESSANDRO, Sapienza University, Rome, IT

Effect of confinement on nematic liquid crystals: Computer simulations and elastic

• L.R. EVANGELISTA, State University of Maringá, Maringá, BR

From liquid crystals to crystals

• Y.H. GEERTS, Free University of Brussels, Brussels, BE

Cellulose-based chiral structures

• M.H. GODINHO, CENIMAT, Universidade Nova de Lisboa, PT

Stacking the dishes and the bowls

• J.W. GOODBY, University of York, York, UK

Uncanny of photonics possibilities with liquid crystalline photonic crystals

• I.-C. KHOO, Penn State University, State College, PA, US

Photomobile polymer materials: Toward light-driven micro soft robots

• T. IKEDA, Chuo University, Tokyo, JP

The twist-bend nematic phase: Structure-property relationships

• C.T. IMRIE, University of Aberdeen, Aberdeen, UK

Electrically powered 3D solitary waves or director bullets in nematics

• O.D. LAVRENTOVICH, Kent State University, Kent, OH, US

Carrier transport and device applications of liquid-crystalline non-peripheral octaalkylphthalocyanine

• M. OZÁKI, Osaka University, Osaka, JP

Contributions of repulsive and attractive interactions to nematic order

• P. PALLFY-MUHORAY, Kent State University, Kent, OH, US

Atomistic simulations of nematic phases formed by cyano-biphenyl dimers

• D. PHOTINOS, University of Patras, Patras, GR

Targeting the polymer self-assembling through nanoscale simulations and chirality indexes

• A. PIETROPAOLO, Catanzaro University, Catanzaro, IT

Using liquid crystals to control surface plasmons

• V. RESHETNYAK, National Taras Shevchenko University of Kyiv, Kyiv, UA

Crossover phenomena in 2-dimensional liquid crystal models

V.S.S. SASTRY, University of Hyderabad, Hyderabad, TG, IN

Nonlinear optics of liquid crystals: Overview and recent advances

• F. SIMONI, Università Politecnica delle Marche, Ancona, IT Elastocaloric effect in liquid crystal elastomers from molecular simulations

• G. SKACEJ, University of Ljubljana, Ljubljana, SI

Distorsions, dislocations, disclinations: Historical remarks on defects in solids and liquid crystals

• T.J. SLUCKIN, University of Southampton, Southampton, UK

Azodendrimers as a photoactive interface for liquid crystals • H. TAKEZOE, Tokyo Institute of Technology, Tokyo, JP

A command layer for anisotropic plasmonic photothermal effects in liquid crystal

• C. UMETON, Università della Calabria, Arcavacata di Rende, Cosenza IT

Multi-functional photonic crystals

• J. WANG, Chinese Academy of Science, Beijing, CN

Self-assembled nanostructures formed from chromonic mesogens: Insights from molecular simulations at atomistic and coarse-grained levels

• M.R. WILSON, Durham University, Durham, UK

Generating and manipulating disclination lines by topologically patterned surface alignment

• H. YOKOYAMA, Kent State University, Kent, OH, US

Skyrmion lattices stabilized in thin BP films by patterned surfaces

• S. ZUMER, University of Ljubljana, Ljubljana, SI

## PURPOSE OF THE WORKSHOP

On October 31", 2018 Claudio Zannoni will have his 70th birthday, and at the same time will retire as Professor of Bologna University, after more than forty years of intense research and teaching activity. In this occasion, we would like to celebrate Claudio's achievements by bringing together many of his friends, colleagues and collaborators at a short scientific meeting. The Workshop organized by A. Arcioni, R. Berardi, C. Chiccoli, L. Muccioli, S. Orlandi and P. Pasini, will take place on the premises of the Ettore Majorana Centre, and will consist in two full days of short presentations given by all the invited participants.

#### APPLICATIONS

Persons wishing to attend the Workshop should apply writing to:

Paolo PASINI

INFN of Bologna, Bologna, Italy E-mail: Paolo Pasini@bo.infn.it

#### PLEASE NOTE

Participants are expected to arrive in Erice on October 7, no later than 5 p.m.

More information about the other activities of the "ETTORE MAJORANA" FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE can be found on the WWW at the following address: http://www.ccsem.infn.it

## 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 Sicanians 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 Anchise, by his son Enea, 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.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.