

VENUE

The School will be held at the Centre for Scientific Culture "Ettore Majorana" in Erice, a small town of Sicily in the South of Italy with a great tradition of hosting high quality scientific meetings (<u>http://www.ccsem.infn.it</u>/).

The arrival of participants should be on Sunday July 3 and the departure will be scheduled on Sunday July 10.

REGISTRATION

The total fee for the meeting, which includes full board and lodging (arranged by the E. Majorana Centre) and the local transportation, is 750 Euro. A limited number of fellowships will be available to cover in part the cost of attendance. Interested individuals are kindly requested to attach a curriculum to their applications. Persons interested in attending the course should complete the enclosed application form and send it to:

Dr. Paolo Pasini

INFN Sezione di Bologna Via Irnerio 46 40126 BOLOGNA Italy

email: pasini@bo.infn.it

EARLY APPLICATION IS STRONGLY ENCOURAGED

Closing date for application: April 15th, 2011.

Liquid crystal nanostructures and self-assembling: from organic electronics to metamaterials

2nd School of the Italian Liquid Crystal Society

APPLICATION FORM

Surname
Name
Date and place of birth
Present nationality
Degree and other academics qualifications
Present position and place of work
Address
Zip City
Country
TelFax
E-mail
Current research interests
List of publications (enclosed)

I am willing to present a contribution (poster only) : yes [] Tentative title: no []



2nd School of Italian Liquid Crystal Society

Erice, 3 - 10 July 2011



Liquid crystal nanostructures and self-assembling: from organic electronics to metamaterials

Directors:

A. d'Alessandro, P. Pasini and C. Zannoni

Supported by the European Office of Aerospace Research & Development and technically sponsored by









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Purpose of the School

The SICL Schools are aimed to Ph.D. students and young Post-Docs in Physics, Chemistry, Mathematics and Engineering who are interested in widening their knowledge in the fields of Liquid Crystals and related fields with particular focusing in nanoscience and nanotechnology.

The objective of the second SICL School is to provide a state-of-the-art review of the rapidly evolving experimental and theoretical techniques employed in the study of these fields. After an introduction on LC physics and chemistry, the contents of this second SICL School will cover the state-of-the-art of the rapidly evolving experimental, theoretical and computational techniques, which interface novel liquid crystal and nanocomposite molecular organization to the emerging fields of organic electronics and metamaterials through self-assembly. The School will consist of 6 working days with 15-17 lecturers.

The number of participants will be limited to about 50 to allow a wide opportunity to take part fully in the proceedings and discussions of the Course. Updated information can be found at www-th.bo.infn.it/islc.

Topics

- Introduction to LC optics and photonics
- Introduction to LC defects
- Introduction to synthesis of LC and novel biaxial compounds
- Negative index dielectrics using LC
- Traditional and novel NMR techniques for LC systems
- NMR studies of solutes in LC
- Description of molecular organizations in LC
- Modelling techniques for LC
- Optical metamaterials: from basic physics to applications
- Nanostructured LC assemblies of nanoparticles
- Liquid crystal semiconductors and applications
- Discotic liquid crystals and organic electronics
- Self assembling and molecular packing properties
- · Chirality and self-assembled nanostructures
- X-ray techniques for LC investigations
- Chemistry of Self-Organized Nanocomposites for negative refractive index materials
- Chiral nematic colloids
- Ferroelectric nanoparticles

Lecturers

Philippe Barois, CNRS, Université de Bordeaux 1, France Valentina Domenici, University of Pisa, Italy Bertrand Donnio, Université de Strasbourg, France James Emsley, University of Southampton, UK Dean Evans, Air Force Research Laboratories, USA Daniele Finotello, National Science Foundation, USA Attilio Golemme, , University of Calabria, Italy Randy Kamien, University of Pennsylvania, USA Iam-Choon Khoo, University of Pennsylvania, USA Georg Mehl, University of Hull, UK Mary O'Neill, University of Hull, UK Giuseppe Strangi, University of Calabria, Italy Epifanio Virga, University of Pavia, Italy Claudio Zannoni, University of Bologna, Italy Slobodan Zumer, University of Ljubljana, Slovenia

Scientific Committee:

G. Assanto, A. d'Alessandro, G. De Luca, P. Pasini, G. Strangi, E. Virga, C. Zannoni