«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE

TO PAY A PERMANENT TRIBUTE TO GALILEO GALILEI, FOUNDER OF MODERN SCIENCE AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES

INTERNATIONAL SCHOOL OF QUANTUM ELECTRONICS

47th Course ***ADVANCES ON NANOPHOTONICS III: Plasmonics and Energy Efficiency***

ERICE-SICILY: JULY 11-18 - 2010

Sponsored by: Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government • SIOF • EU Network of Excellence Nanophotonics for Energy Efficiency • COST MP0702 • EOS

Lecturers and Topics

P. Lagoudakis – *Converting Photons to Energy*
University of Southampton – UK

A. Polman – *Plasmonic Applications to Photovoltaic*
FOM-Institute AMOLF – NL

V. Klimov – *Solar Photophysics*
Los Alamos National Laboratory – USA

R. Fusco – *Tuning the Solar Spectrum: How to Maximize PV Cell Efficiency*
ENI – I

F.A. Bovino – *Introduction to Quantum Information*
Elsag Datamat

M. Lukin – *Quantum Plasmonics*
Harvard –USA

M. Kauranen – *Nonlinear Optics with Metals*
Tampere University of Technology – FI

N. Van Hulst – *Plasmon Emitters*
ICFO The Institute of Photonic Sciences– ES

A. Zayats – *Nonlinear Plasmonics*
The Queen's University of Belfast – UK

A. Passaseo – *Introduction to Q-dots*
CNR-NNL – I

F. Raineri – *Nonlinear Photonic Crystals*
Lab. de Photonique et de Nanostructures – Marcoussis – F

I. Rendina – *Nanophotonics Bio Applications*
CNR-IMM – I

L. Solymar – *Progress in Metamaterials*
University of Oxford – UK

Seminars

O. Wright – *Nanoscale Thermal Transport*
Hokkaido University – JP

B. Jaskorzynska – *Si and Plasmon Waveguides for Integrated Nanophotonics*
Royal Institute of Technology (KTH) – S

50 Years of Laser

Historical Overview

M. Bertolotti – Università di Roma La Sapienza- Roma-I

Pushing the Laser to the Extreme: prospective of short wavelength FEL

L. Palumbo – INFN- I

ABOUT ERICE

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 less than one hour's drive from Erice.

More information about Erice and the «Ettore Majorana» Foundation and Centre for Scientific Culture can be found at www.ccsem.infn.it

PURPOSE OF THE WORKSHOP

Nanophotonics is a broad field of research, having fascinating aspects both from the fundamental point of view and with regard to future applications in photonic devices and materials. The scope of the school is to introduce participants to the concepts, methods, applications and the current state of the art in nanophotonics. The school will focus on both the theoretical and experimental aspects of plasmonics and nanophotonics, with a special focus on energy efficiency. Lectures will be given by internationally renowned scientists in the field. A special event, supported by SIOF, to celebrate 50 years of Laser is also planned.

For more information about the school and venue go to:
http://w3.uniroma1.it/nanophotonic/

APPLICATIONS

The school is aimed at advanced graduate students and postdoctoral researchers in photonics, nano-optics, nanophotonics, plasmonics, nano-materials and nanosciences. The number of attendees will be limited to 60. Persons wishing to attend the Course should apply in writing to:

Professor Concita Sibilia
Università di Roma "La Sapienza",
Dipartimento di Energetica, Via Scarpa, 16, ROMA, Italia
e-mail: *concita.sibilia@uniroma1.it*

specifying:
i) full name, address, age, nationality;
ii) academic qualification, present position and affiliation; and
iii) specific interest in the summer school.

Students should include a short C.V. in addition to a letter of recommendation from the head of their research group or from a senior scientist active in the field.

Application deadline : May 31, 2010