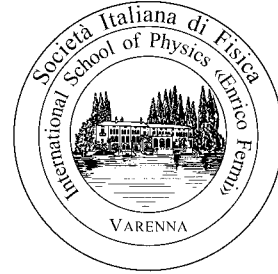


SOCIETÀ ITALIANA DI FISICA



**INTERNATIONAL SCHOOL OF PHYSICS
"ENRICO FERMI"**

with the sponsorship of

ISTITUTO NAZIONALE DI FISICA NUCLEARE

SUMMER COURSES 2009

**VILLA MONASTERO
VARENNA, LAKE COMO**

APPLICATION FORM

CLXXIII COURSE
NANO OPTICS AND ATOMICS:
TRANSPORT OF LIGHT AND MATTER WAVES

23 June–3 July

in collaboration with International Cold Atom Network (INTERCAN)

Topics:

- Wave transport in disordered structures
- Anderson localization of light, sound and matter waves
- Ultracold atoms, bosonic and fermionic superfluidity
- Nanoscale plasmon propagation
- Lévy flights and photonic (quasi-) crystals
- Transport in low-dimensional systems
- Quantum simulation

Lecturers and Seminar Speakers:

A. ASPECT – Groupe d’Optique Atomique, Laboratoire Charles Fabry, UMR 8501 CNRS, Institut d’Optique Théorique et Appliquée, CNRS et Université de Paris-Sud XI, Palaiseau (France)

B. BARNES – School of Physics, University of Exeter (UK)

I. BLOCH – Institut für Physik, Johannes Gutenberg Universität, Mainz (Germany)

J. DALIBARD – Laboratoire Kastler Brossel, Paris (France)

A. DEREUX – Institut Carnot de Bourgogne, UMR 5209 CNRS, Département Nanosciences, Université de Bourgogne, Dijon (France)

M. FINK – Laboratoire Ondes et Acoustique, Ecole Supérieure de Physique et de Chimie Industrielle de la Ville de Paris, Université Denis Diderot, UMR 7587 CNRS, Paris (France)

R. HULET – Physics and Astronomy Department, Rice University, Houston, TX (USA)

M. INGUSCIO – European Laboratory for Non-linear Spectroscopy (LENS), Università di Firenze, Sesto Fiorentino, FI (Italy)

J. KLAFTER – School of Chemistry, Tel Aviv University (Israel)

G. MARET – Fachbereich Physik, Universität Konstanz (Germany)

J. PAGE – Ultrasonics Research Laboratory, Department of Physics and Astronomy, University of Manitoba, Winnipeg (Canada)

P. STEINHARDT – Center for Theoretical Science, Princeton University, NJ (USA)

P. WÖLFLE – Institut für Theorie der Kondensierten Materie, Universität Karlsruhe (Germany)

E. YABLONOVITCH – Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, CA (USA)

A. YODH – Department of Physics and Astronomy, University of Pennsylvania, Philadelphia, PA (USA)

Directors of the Course:

R. KAISER – Institut Non Linéaire de Nice, UMR 6618 CNRS, Valbonne (France)

D. S. WIERSMA – European Laboratory for Non-linear Spectroscopy (LENS), INFN-CNR, Sesto Fiorentino, FI (Italy)

Scientific Secretary:

L. FALLANI – European Laboratory for Non-linear Spectroscopy (LENS), Università di Firenze, Sesto Fiorentino, FI (Italy)

Deadline for application: April 20th, 2009

Correspondence and application forms should be sent to:

L. FALLANI
European Laboratory for Non-linear Spectroscopy (LENS)
Università di Firenze
Via Nello Carrara 1, 50019 Sesto Fiorentino, FI (Italy)
Tel.: ++39-055-4572458 Fax: ++39-055-4572451
fallani@lens.unifi.it

Opening of the Course: Tuesday, June 23rd, 2009 – 9.00 a.m.

Closing of the Course: Friday, July 3rd, 2009 – 12.30 p.m.

Participation fee:

€1.300,00 (for attendance, full board, lodging and Proceedings)

CLXXIV COURSE
PHYSICS WITH MANY POSITRONS

7–17 July

Topics:

- Intense positron sources
- Slow positron beams, positron manipulation, focusing and bunching
- Positron accumulation and plasma physics
- Positronium formation and cooling
- Positronic molecules and many-positron systems
- Positronium and hydrogen spectroscopy
- Anti-hydrogen production and storage
- Anti-hydrogen CPT and gravity experiments
- 2d-ACAR with intense positron sources
- Application of intense beams of positrons in advanced methods of surface analysis

Lecturers and Seminar Speakers:

A. ALAM – Department of Physics, University of Bristol (UK)

D. CASSIDY – Department of Physics and Astronomy, University of California, Riverside, CA (USA)

M. CHARLTON – School of Physical Sciences, Swansea University (UK)

H. CHEN – Lawrence Livermore National Laboratory, Livermore, CA (USA)

M. GIAMMARCHI – INFN, Sezione di Milano (Italy)

G. KÖGEL – Institut für Angewandte Physik und Messtechnik, Universität der Bundeswehr München (Germany)

R. KRAUSE-REHBERG – Institut für Physik, Martin-Luther-Universität Halle-Wittenberg, Halle (Germany)

L. LISZKAY – DSM/IRFU/SACM/LEDA, CEA-Saclay, Gif-sur-Yvette (France)

E. LODI RIZZINI – Dipartimento di Chimica e Fisica per l’Ingegneria e per i Materiali, INFN e Università di Brescia (Italy)

K. G. LYNN – Department of Physics and Astronomy, Washington State University, Pullman, WA (USA)

D. SCHRADER – Department of Chemistry, Marquette University, Milwaukee, WI (USA)

C. M. SURKO – Department of Physics, University of California, San Diego, La Jolla, CA (USA)

J. WALZ – Quanten- Atom- und Neutronenphysik, Johannes Gutenberg Universität, Mainz (Germany)

A. WEISS – Department of Physics, University of Texas at Arlington, TX (USA)

Directors of the Course:

A. DUPASQUIER – Dipartimento di Fisica, Politecnico di Milano (Italy)

A. P. MILLS JR – Department of Physics and Astronomy, University of California, Riverside, CA (USA)

Scientific Secretary:

R. S. BRUSA – Dipartimento di Fisica e INFN, Università di Trento, Povo, TN (Italy)

Deadline for application: April 30th, 2009

Correspondence and application forms should be sent to:

R. S. BRUSA
Dipartimento di Fisica e INFN, Università di Trento
Via Sommarive 14, 38100 Povo, TN (Italy)
Tel.: ++39-0461-881552 Fax: ++39-0461-881696
brusa@science.unitn.it

Opening of the Course: Tuesday, July 7th, 2009 – 9.00 a.m.

Closing of the Course: Friday, July 17th, 2009 – 12.30 p.m.

Participation fee:

€1.300,00 (for attendance, full board, lodging and Proceedings)

CLXXV COURSE
RADIATION AND PARTICLE DETECTORS
20–25 July

Topics:

- Detectors for HEP
- Detectors for medical physics
- Detectors for hadrontherapy
- A gravitational wave detector: the Virgo interferometer
- Art of calorimetry
- Detection setups for cultural heritage
- Underwater detectors for neutrinos
- The CMS detector
- Detectors in fundamental and applied physics
- PAMELA and detectors for astrophysics

Lecturers:

M. G. BISOGNI – Dipartimento di Fisica, Università di Pisa (Italy)
G. CUTTONE – INFN, Laboratori Nazionali del Sud, Catania (Italy)
M. LIVAN – Dipartimento di Fisica Nucleare e Teorica, Università di Pavia (Italy)
P. A. MANDÓ – Dipartimento di Fisica, Università di Firenze, Sesto Fiorentino, FI (Italy)
J. MARQUE – European Gravitational Observatory, S. Stefano a Macerata - Cascina, PI (Italy)
M. MULDER – CERN, Genève (Switzerland)
N. RANDAZZO – INFN, Sezione di Catania (Italy)
A. STEFANINI – Dipartimento di Fisica, Università di Pisa (Italy)
A. VACCHI – INFN, Sezione di Trieste (Italy)

Directors of the Course:

S. BERTOLUCCI – CERN, Genève (Switzerland)
U. BOTTIGLI – Dipartimento di Fisica, Università di Siena (Italy)

Scientific Secretary:

P. OLIVA – Struttura Dipartimentale di Matematica e Fisica, Università di Sassari (Italy)

Deadline for application: May 10th, 2009

Correspondence and application forms should be sent to:

P. OLIVA
Struttura Dipartimentale di Matematica e Fisica
Università di Sassari
Via Vienna 2
07100 Sassari (Italy)
Tel.: ++39-079-229484 Fax: ++39-079-229482
oliva@df.unipi.it

Opening of the Course: Monday, July 20th, 2008 – 9.00 a.m.

Closing of the Course: Saturday, July 25th, 2008 – 19.00 p.m.

Participation fee:

€900,00 (for attendance, full board, lodging and Proceedings)

GENERAL INFORMATION

A) – In addition to the official lectures, several seminars on related subjects will be held by visiting scientists.

B) – The scientific organization and direction of the Course are entrusted to the Directors.

C) – The number of students at each Course is limited to about 60. Students are requested to attend all lectures and seminars.

D) – Whoever may be interested in attending the Course and is not entitled—for his age or other reasons—to be considered a student, may follow the Course as observer. *Registration fee charged to observers is €500,00.* Observers should provide for their board and lodging; if required, the School may take care of their hotel accommodation.

E) – Applicants will be informed of the decision on their admittance within 30 days from the beginning of each Course.

F) – Owing to the limited number of places available in the lecture hall, it will not be possible to allow any person not selected by the Committee of the School to follow the Courses.

G) – Students are requested to arrive at Varenna the day preceding the opening of the Course, *i.e. respectively on Monday, June 22nd (1st Course), Monday, July 6th (2nd Course), Sunday, July 19th (3rd Course).* Accommodation for the students will be provided in rooms with 2 beds in hotels at Varenna. Meals will be served at the hotels.

H) – Fees should be paid by students and observers *following the instruction and within the date indicated in the letter of admittance.*

I) – Scholarships may be granted to deserving students who need financial help. Such requests must be specified in the application and justified in the recommendation letter. Scholarships will be assigned by the President of the Italian Physical Society.

J) – Students should avoid being accompanied by relatives. In view of the holiday season local accommodation is very limited. Quite exceptionally the School could see to the accommodation of members of students' families in local hotels. Hotel expenditure for students' relatives will be payable separately and directly to the hotel management.

The President
Società Italiana di Fisica
LUISA CIFARELLI

SOCIETÀ ITALIANA DI FISICA
Via Saragozza 12
40123 BOLOGNA, Italy
Tel.: ++39-051-331554 — Fax: ++39-051-581340
sif@sif.it — <http://www.sif.it>

INTERNATIONAL SCHOOL OF PHYSICS "ENRICO FERMI"

APPLICATION FORM

COURSE CLXXIII "Nano Optics and Atomics: Transport of Light and Matter Waves"
COURSE CLXXIV "Physics with Many Positrons"
COURSE CLXXV "Radiation and Particle Detectors"

To be sent to:

COURSE CLXXIII

L. FALLANI
European Laboratory for Non-linear
Spectroscopy (LENS)
Università di Firenze
Via Nello Carrara 1
50019 SESTO FIORENTINO (FI)
(Italy)
Tel.: ++39-055-4572458
Fax: ++39-055-4572451
fallani@lens.unifi.it

Closing date for application:
April 20th, 2009

COURSE CLXXIV

R. S. BRUSA
Dipartimento di Fisica
e INFN
Università di Trento
Via Sommarive 14
38100 POVO (TN)
(Italy)
Tel.: ++39-0461-881552
Fax: ++39-0461-881696
brusa@science.unitn.it

Closing date for application:
April 30th, 2009

COURSE CLXXV

P. OLIVA
Struttura Dipartimentale di Matematica
e Fisica
Università di Sassari
Via Vienna 2
07100 SASSARI
(Italy)
Tel.: ++39-079-229484
Fax: ++39-079-229482
oliva@df.unipi.it

Closing date for application:
May 10th, 2009

Name and surname _____

Place and date of birth _____

Nationality _____

Male Female

Degree _____

Date and place of acquisition _____

Present activity _____

Affiliation with complete postal address _____

Tel. _____ Fax _____

e-mail _____

Recommended by _____

(enclose a letter of reference from your research group leader or professor testifying to your qualifications and interest in participating in the Course; enclose also list of publications)

I request student status I request observer status

Date _____ Signature _____