



The Abdus Salam
International Centre for Theoretical Physics


United Nations
Educational, Scientific
and Cultural Organization


International Atomic
Energy Agency

SUMMER COLLEGE ON PLASMA PHYSICS

“New Developments”

30 July - 24 August 2007

Miramare - Trieste, Italy

PURPOSE AND NATURE

Modern plasma physics constitutes cutting edge science full of intellectual challenges. It has emerged as an interdisciplinary branch of physics (spans fusion, space-astrophysics, cosmology, industry etc.), with conceptual and methodological overlaps with condensed matter physics, nonlinear dynamical systems, high energy density environments and particle physics. The Summer College will be devoted to the fundamentals: plasma waves, plasma instabilities, plasma heating, charge particle acceleration by strong fields, turbulence and self-organization at multi-scales, strong coupling of flows and fields, coherent nonlinear structures, and nonthermal particle and heat transport processes. These basic topics form an essential framework for understanding existing (and future) laboratory experiments and space plasma observations. An equally important aim is to bring together plasma physicists working in different areas for the purpose of reviewing and discussing the present state of the art of collective nonlinear interactions in plasmas. The Summer College shall be interactive; participants from the developing countries will have the opportunity of interacting among themselves as well as with other senior scientists/visitors.

PROGRAMME

The Summer College has a strong pedagogical component. The lectures will be an admixture of tutorials, reviews, and presentation of recent research. Active collaboration will be encouraged through classroom teaching and closely interacting working groups. It is hoped that, as in previous years, many participants will contribute to the poster sessions, and develop long-term working relations with the college lecturers and other participants.

PARTICIPATION

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the College. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend. As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee. The Application Form is obtainable from the ICTP WWW server:

http://cdsagenda5.ictp.trieste.it/full_display.php?agenda_id=2069 (which will be constantly up-dated) or from the activity Secretariat. It should be completed, signed and returned before **1 February 2007** by using **only one** of the following ways:

If sending an application by e-mail to smr1856@ictp.trieste.it please save and send file attachments in either PDF (preferably) or RTF zipped or Doc format.

If sending an application form by regular mail or courier please post it to:

Summer College on Plasma Physics (smr1856)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11, 34014 Trieste, Italy

(recent photograph and signature of the candidate are compulsory)

Activity Secretariat: Telephone: +39-040-2240544

Telefax: +39-040-2240585

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ICTP Home Page: <http://www.ictp.it/>

September 2006

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DEADLINE

for requesting participation

1 February 2007