



The Abdus Salam
International Centre for Theoretical Physics



SUMMER COLLEGE on PLASMA PHYSICS

10 - 28 August 2009

Miramare - Trieste, Italy

PURPOSE AND NATURE

Investigations in Plasma Physics span a vast array of intellectually exciting areas; from deep mathematical structures to state of the art technology. This interdisciplinary branch of physics (fusion, space-astrophysics, cosmology, industry etc.), overlaps significantly with many fields, such as condensed matter physics, nonlinear dynamical systems, high energy density environments and particle physics, and is continually evolving, conceptually as well as methodologically. The Summer College will be an attempt to bring both the traditional and emerging aspects of this field to an audience from developing countries. Topics to be covered include plasma waves, instabilities and heating, charge particle acceleration by strong fields, turbulence and self-organization at multi-scales, strong coupling of flows and fields, coherent nonlinear structures, non-thermal particle and heat transport processes, and vortex theory. Newly developed energy-related applications will also be discussed. An important aim of the college 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. Input from participants from developing countries will be highly welcome and they 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.

HOW TO APPLY FOR PARTICIPATION

The application form can be accessed at the activity website:

<http://agenda.ictp.it/smr.php?2052>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

Activity Secretariat:

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January 2009

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DEADLINE

for requesting participation

10 April 2009

