

Workshop on Mathematical Models of Climate Variability, Environmental Change, and Infectious Diseases

29 April - 10 May 2013
(Miramare – Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, will organize a **Workshop on Mathematical Models of Climate Variability, Environmental Change and Infectious Diseases** from **29 April – 10 May 2013**.
The Workshop is co-sponsored by IUGG.

The workshop will focus on providing participants with an introduction to mathematical models for infectious diseases and their application to the role of climate variability and climate change, also in the context of control and socio-economic development. These areas are relying heavily on mathematical models and modern computational methods of statistical inference. They are closely related to a number of key theoretical problems in the dynamics of nonlinear systems, the interaction of variability at different spatial and temporal scales, and the relevant scales of coupling of biological and physical systems.

Participants are expected to acquire a close acquaintance with the newest developments in theory, models, parameter inference and data analysis, not only as listeners to the lecture talks by experts working on human, wildlife and livestock diseases, but also by active participation in a series of computer laboratories (written primarily in R). In addition, group sessions will be organized in which participants from different regions of the world with complementary technical background will get together in small groups to address specific issues on the dynamics of infectious diseases. Each group will illustrate the outcome of their work to all the attendants in oral presentations at the end of the workshop for further exchange of opinions. Hence, a sound background in mathematics, or physics, or climate science, or statistics, or numerical computation is required.

The workshop will be run in collaboration with the preceding **School on Modelling Tools and Capacity Building in Climate and Public Health (15 April - 1 May, smr2453)**. Participants can also apply to attend this earlier School. Attendance at both workshops is not mandatory, each workshop is designed to be self-contained. However, during the first three days, the School and this Workshop will integrate by focusing the lectures on topics of common interest.

PARTICIPATION

Applied mathematicians, disease ecologists, epidemiologists, physicists, and economists from all developing countries who are Members of the United Nations, UNESCO or IAEA may apply. The Workshop will be conducted in English therefore participants must have an adequate working knowledge. Although the ICTP's main purpose is to help researchers from developing countries, through a programme of training activities within a framework of international cooperation, students and post-doctoral scientists from developed countries are also welcome to attend.

There is no workshop registration fee. As a rule, travel and subsistence expenses of the participants should be borne by the home institutions. However, a very limited number of participants who are nationals of and working in a developing country and who are not more than 45 years old, will be considered, upon request, for subsistence and travel support. Such support is available only for those who attend the entire activity.

The application form can be accessed at the activity website
<http://agenda.ictp.it/smr.php?2450>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form. Closing date for receipt of the applications is: **10 January 2013**.

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DEADLINE
For requesting participation:

10 January 2013