

SCHOOL and CONFERENCE on ANALYTICAL and COMPUTATIONAL ASTROPHYSICS

14 - 25 November 2011
Miramare - Trieste, Italy

Brief Description:

Theoretical Astrophysics of the 21st century is a truly multidisciplinary field of natural sciences, which employs a broad range of analytical and computational tools from various branches of theoretical, mathematical and computational physics. The goal of the Organizers is to provide a comprehensive introduction to Theoretical Astrophysical Fluid Dynamics with special emphasis on Dynamics of Astrophysical Flows. All Organizers will act as Lecturers for the main course. We will have experts of Computational Astrophysics organizing afternoon training sessions. Conference Speakers will give lectures throughout the School schedule.

Topics:

- **Magnetic Field/Vorticity Generation in Astrophysical Systems**
- **Numerical Methods and Applications in Astrophysics**
- **Solar Wind - Theory and Simulations**
- **Coronal Mass Ejections (CMEs) - Initiation and Early Evolution**
- **Interaction of CMEs with Earth Magnetosphere**
- **Accretion Phenomena in Astrophysics**
- **Astrophysical Outflows: Observations, Theory and Simulations**
- **Analytical and Semi-analytical Stationary Models of Outflows**
- **Stability of Inflows and Outflows in Astrophysics**
- **Physics of Galaxy Formation: Theoretical and Computational Issues**

Conference:

Within the framework of the School a two-day Conference dedicated to "Dynamics of Astrophysical Flows" will be held.

Poster Session:

For young participants a poster session will be organized.

Participation:

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the School. 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. Such support is available only for those who attend the entire activity. There is no registration fee.

How to Apply:

The "On-line Application" form can be accessed at the **ICTP activity website:**

http://cdsagenda5.ictp.trieste.it/full_display.php?ida=a10225

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

Activity Secretariat

SCHOOL and CONFERENCE on ANALYTICAL and COMPUTATIONAL ASTROPHYSICS

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Directors and Course

Lecturers

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Silvano Massaglia

Università degli Studi di Torino, Turin, Italy

Stefaan Poedts

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Andria Rogava

CTA, Iliia State University, Tbilisi, Georgia

Local Organizers

Annalisa Celotti, SISSA, Trieste, Italy

Ravi Sheth, ICTP, Trieste, Italy

Advisory Board and Conference Speakers

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University of Tokyo, Graduate School of
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Deadline

1 July, 2011

ICTP Home page:

<http://www.ictp.it/>