



The Abdus Salam International Centre for Theoretical Physics


United Nations
Educational, Scientific
and Cultural Organization


International Atomic
Energy Agency



INTERNATIONAL ADVANCED SCHOOL ON SPACE WEATHER

2 - 19 May 2006
Miramare - Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP) will organize an "International Advanced School on Space Weather", to be held from 2 to 19 May 2006 in Trieste, Italy.

CO-SPONSORS

- COST Actions 724 and 296
- INAF-National Institute for Astrophysics
- SCOSTEP/CAWSES
- U.S. National Space Weather Program

DIRECTORS

Professor Jeffrey M. Forbes, University of Colorado, Boulder, CO, USA

Professor Mauro Messerotti, INAF-Trieste Astronomical Observatory, Trieste, Italy

Local Organizer: Professor Sandro M. Radicella, Aeronomy and Radiopropagation Laboratory, ICTP, Trieste, Italy

PURPOSE AND NATURE

Space Weather refers to the variable conditions of the interplanetary, geospace and planetary environments relevant to human activities. Societal impacts can take many forms, including robotic and manned space exploration; satellite operations; communications; navigation; electric power grids; pipeline operations; ozone and climate variations.

The Sun provides most of the initial energy driving space weather and modulates the energy input from sources outside the solar system, but this energy undergoes many transformations within the various components of the solar-terrestrial system, which is comprised of the solar wind, magnetosphere and radiation belts, the ionosphere, and the upper and lower atmospheres of Earth. The main focus of the School on Space Weather will be to follow the various pathways by which solar and outer space energy modifies the space and atmospheric environments of Earth, and impacts human activities. Topical areas will be covered with a view towards balanced treatment of basic physics, phenomenology, and data analyses. Students will learn how to access and use various models, databases and information technology tools for Sun-Earth scientific investigations. The societal impacts of solar variability will be introduced throughout. Since space weather is an interdisciplinary subject, tutorial lectures will be utilized to familiarize participants with subject matter fundamental to the more focused and applied lectures. In addition, students will have an opportunity to participate in assembly of a replica of Birkeland's Terrella experiment.

PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the School. Although the main purpose of the ICTP is to help researchers from developing nations through a programme of training activities within a framework of international cooperation, students and postdoctoral scientists from developed countries are also welcome to attend. As the School will be conducted in English, participants must have a good working knowledge of that language.

As a rule, travel and subsistence expenses of the participants are borne by the home institution. However, limited funds are available for some participants (not more than 45 years of age) from, and working in, developing countries, to be selected by the organizers. Such financial support is available only for those who attend the entire activity. Every effort should be made by candidates to secure support for their fare (or at least half fare) from their home country. There is no registration fee to attend the School.

The **Application Form and Brief Technical Questionnaire** obtainable also from the ICTP WWW server:
http://cdsagenda5.ictp.trieste.it/full_display.php?smr=0&ida=a05201 (under: **application_form**)

should be completed and returned before 15 January 2006:

either by post to:

International Advanced School on Space Weather
(c/o Ms. S. Tanaskovic - smr1749)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11, 34014 Trieste, Italy.

or

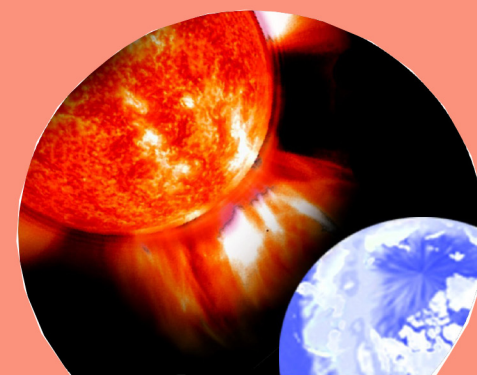
<mailto:smr1749@ictp.it>

(please send file attachments in either: RTF zipped format, or .doc, or .pdf)
(recent photograph & signature of the candidate are compulsory)

SCHOOL SECRETARIAT
Trieste, October 2005

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Sun-Earth Connections

MAIN TOPICS:

- ◆ BASIC PHYSICS OF MAGNETOPLASMAS
- ◆ THE SUN: PHYSICS, PHENOMENOLOGY, GEOEFFECTIVE DRIVERS
- ◆ COSMIC RAYS: ORIGIN, PROPAGATION, TERRESTRIAL EFFECTS
- ◆ THE EARTH'S MAGNETOSPHERE: PHYSICS AND SPACE WEATHER EFFECTS
- ◆ THE EARTH'S IONOSPHERE AND THERMOSPHERE
- ◆ IONOSPHERIC RADIO PROPAGATION, NAVIGATION AND COMMUNICATIONS ISSUES
- ◆ SOLAR RADIATION AND ITS INTERACTION WITH EARTH'S ATMOSPHERE
- ◆ SOLAR INFLUENCES ON OZONE AND CLIMATE
- ◆ SPACE WEATHER OF PLANETARY AND EXOPLANETARY ENVIRONMENTS
- ◆ TERRELLA EXPERIMENT
- ◆ SOLAR-TERRESTRIAL DATA SEARCH, RETRIEVAL AND HANDLING
- ◆ SPACE WEATHER MODELS AND PREDICTION TECHNIQUES

DEADLINE FOR REQUESTING PARTICIPATION:

15 January 2006

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