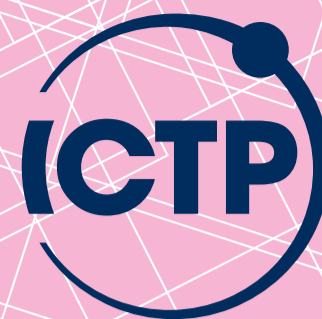


# Extended Workshop on Space Weather Effects on GNSS Operations

**22 May - 2 June 2017**  
**Trieste, Italy**



Further information:

Activity URL: <http://indico.ictp.it/event/7964/>

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Space weather is the solar, magnetospheric, ionospheric and thermospheric conditions that can affect space-borne and ground-based technological systems. Space weather is the cause of the most significant errors experienced by satellite navigation systems (GNSS) and their users.

## Description:

GNSS signals, propagating from satellite to user receivers, pass through the ionosphere where they are subject to the damaging effects of space weather. Under these conditions pseudo-range errors and signal scintillations at the user receiver level can be introduced. The effects are global but still more critical at low latitudes where most of the developing countries are located.

The purpose of the proposed workshop is to give theoretical and practical training on the physics of space weather and its main effects on the GNSS operations with particular emphasis on the low latitudes ionospheric processes.

This workshop continues the series of activities in the field carried out since 2009 by the ICTP T/ICT4D in partnership with the Institute for Scientific Research (ISR) of Boston College done in this field with the collaboration of the International Committee on GNSS of the UN Office of Outer Space Affairs.

## Topics:

- Introduction to satellite navigation and positioning;
- GNSS: systems and operations;
- Introduction to space weather;
- Continuous and transient transport of energy from the Sun to the Earth;
- Ionosphere and its response to space weather;
- Space weather effects on GNSS operations;
- Computer Laboratory exercises on the use of space weather data for GNSS operations.

## Directors:

P. DOHERTY, ISR, Boston College, USA

S. M. RADICELLA, ICTP, Italy

## Local Organizer:

B. NAVA, ICTP, Italy

## Speakers:

P. DOHERTY, ISR Boston College, USA

K. GROVES, ISR Boston College, USA

S. M. RADICELLA, ICTP

B. NAVA, ICTP

C. AMORY-MAZUDIER, ICTP and CNRS, France

A. COSTER, MIT, USA

T. WALTER, Stanford University, USA

N. JAKOWSKI, DLR, Germany

## How to apply:

Online application:

<http://indico.ictp.it/event/7964/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Deadline:

**15 February 2017**



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