# African Workshop on GNSS and Space Weather

### 5 - 6 October 2020 Online: http://indico.ictp.it/event/9124/

Space Weather refers to conditions on the Sun, in the solar wind, magnetosphere, ionosphere and thermosphere, which can influence the performance and reliability of a variety of space borne and ground-based technological systems. This Workshop is intended to provide the participants with an introduction to ionospheric physics and the science of Space Weather, including a basic knowledge on GNSS systems and their applications.

Space Weather is recognised as the cause of significant errors experienced by Global Satellite Navigation Systems (GNSS), and Satellite Based Augmentation Systems (SBAS). GNSS or SBAS signals, propagating from a satellite to the user receiver, pass through the ionosphere where they are subject to Space Weather effects. Under these conditions pseudorange errors and signals scintillations at user receiver level may be present. These effects are more critical at low latitudes, where most of the developing countries are located. The purpose of this workshop is to give an introduction to the physics of the ionosphere and to provide a basic knowledge on GNSS systems and their applications. Particular focus will be given to Space Weather research with GNSS data.

#### **Topics:**

- Introduction to GNSS
- GNSS Applications
- The Sun-Earth Connection

- Further information: Activity URL: http://indico.ictp.it/event/9124/
- Activity e-mail: smr3479@ictp.it Activity phone: +39 040 2240 284
- Activity Secretary: Elizabeth Brancaccio

#### **Directors:**

P. DOHERTY, Boston College S. GADIMOVA, UNOOSA-ICG B. NAVA, ICTP S. RADICELLA, ICTP

# Local Organizer:

A. EMRAN, CRASTE-LF, Morocco

#### **Speakers:**

- C. AMORY, Sorbonne University, France
- A. COSTER, MIT, USA
- P. DE SMET, EC
- P. DOHERTY, Boston College, USA
- S. GADIMOVA, UNOOSA-ICG
- K. GROVES, Boston College, USA
- **B. NAVA, ICTP**
- S. RADICELLA, ICTP
- J. RAQUET, Integrated Solutions for Systems, USA

- Space Weather
- Ionospheric Modeling
- Ionospheric Irregularities
- Ionospheric Total Electron Content

# How to apply:

Online application: http://indico.ictp.it/event/9124/

Female scientists are encouraged to apply.

#### **ICTP Scientific Contact:**

**B. NAVA, ICTP** 

# Deadline:

#### 25 September 2020









The Abdus Salam International Centre for Theoretical Physics

