

Eastern Africa Capacity Building Workshop on Space Weather and Low-latitude Ionosphere



3 - 12 October 2023
Luigi Broglio - Malindi Space Centre, Kenya

Further information:
<http://indico.ictp.it/event/10216/smr3882@ictp.it>

Space Weather is a relatively new discipline of space science that investigates the effects of the Sun's activity and interactions on human technology, life and health. It is defined as the variations in the space environment induced by different phenomena occurring on the Sun's surface, like coronal mass ejections and solar flares, and disturbances resulting from interactions between the ionosphere-thermosphere system.

Description:

Modern technological infrastructures, such as GNSS and HF communication facilities, are susceptible to the adverse impacts of space weather, which can induce large errors in single-frequency GNSS positioning and even radio signal black-outs. Developing countries in Africa are predominantly located in equatorial/low latitudes, where space weather effects make the ionosphere more variable and highly unpredictable. However limited efforts have been made to study the impact of space weather in these regions owing to lack of the required infrastructure.

The NORISK project, a collaboration between INGV and Italian Space Agency, is contributing to fill this gap with the deployments of a new ionospheric observatory in Malindi, Kenya. This workshop, organized in the framework of the NORISK activities, aims to enhance capacity building in GNSS and HF technology for Space Weather monitoring over the Eastern African region. It is therefore planned to include lectures on the following topics.

Topics:

- Space Weather and Sun-Earth coupling
- GNSS fundamentals
- HF Systems generalities
- The Low latitude ionosphere
- Ionospheric monitoring, modelling and forecasting
- ICT infrastructure for space weather data sharing

How to apply:

Online application:
<http://indico.ictp.it/event/10216/>

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.

Directors:

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Deadline:

16 July 2023

