

International School and Workshop on Space Weather

DESCRIPTION:

This workshop aims to provide a comprehensive perspective on the scientific and technological applications related to Space Weather phenomena, with a special focus on the ionosphere and its effects on space-borne and ground-based technological systems. This initiative seeks to strengthen national competencies and enhance ionospheric and Space Weather research particularly in Africa.

MORE INFORMATION:

Space Weather refers to the interaction between the Sun and the Earth's near-space environment and has far-reaching impacts on various technologies. Phenomena such as cosmic radiation, solar flares, coronal mass ejections, and geomagnetic storms can significantly affect modern technological infrastructures.

The workshop will address research in the field of Space Weather, examining the properties and interactions of the coupled Magnetosphere-Ionosphere-Thermosphere (MIT) system and its forcing by energy inputs from the Sun, the underlying atmosphere and the solid Earth. The objective of the different lectures is to introduce the ionosphere and plasmasphere up to the plasmopause, including magnetic fields, solar radiation and solar wind. Particular attention will be devoted to the study of Space Weather effects on services and infrastructures related to satellite communication, Global Navigation Satellite Systems (GNSS)-based positioning, aviation, satellite operations, Earth observation, and power-grid management.

TOPICS:

- Space Weather and MIT coupling
- GNSS fundamentals
- Ionospheric irregularities
- Ionospheric monitoring and modelling
- Impact of Geomagnetic Disturbances on Power Transmission Networks



14 - 18 September 2026



Trieste, Italy



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FURTHER INFORMATION:

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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.



Co-Sponsors:

