



The Abdus Salam
**International Centre
for Theoretical Physics**



The International Reference Ionosphere and NeQuick – Improving the Representation of the Real-Time Ionosphere

Description:

With more and more of our daily life depending on space technology it is critically important to have an accurate and reliable representation of Earth's geospace environment. The ionosphere is a particularly important part because of the detrimental impact it can have on many technical infrastructures, such as satellite communications and positioning systems.

MORE INFORMATION:

Any technique that uses a probing signal traveling through this region needs to account for the retarding and refractive effect that the ionosphere imposes on the signal. Accurate remote sensing of Earth parameters from space depends on such signals, as well as satellite navigation, telecommunication, and the GNSS technology. Predicting the real-time ionosphere has been a special focus of recent research and will be a central part of the workshop. Assimilation of ground and space measurements into models are helping to achieve this goal and several presentations at the workshop are expected to discuss and report on this topic. The objective of this two-week training and capacity building workshop is to teach attendees the basics of ionospheric monitoring and modelling and familiarize the students with IRI and NeQuick ionospheric models and with the most important online data bases of ionospheric ground and space data.

TOPICS:

- Ionosphere monitoring and modelling
- Ionosphere real-time predictions and forecast
- Usage of ionospheric models
- Model evaluation and assessment
- Assimilation of data into ionospheric models
- Updating ionospheric models to real-time conditions



29 September - 10 October 2025



Trieste, Italy



Application and Deadlines:

30 May 2025 for "students"

11 July 2025 for "experts"

DIRECTORS:

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LOCAL ORGANISER:

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FURTHER INFORMATION:

E-mail: smr4105@ictp.it

Web: <https://indico.ictp.it/event/10870/>

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.

