

Winter College on Optics: Extreme Nonlinear Optics, Attosecond Science and High-field Physics



5 - 16 February 2018
Trieste, Italy

Further information:
<http://indico.ictp.it/event/8295/>
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The aim of the Winter College is to offer PhD students a broad training on extreme light science, from ultra short and ultra intense laser pulse generation, to attosecond and Free Electron Laser (FEL) technology, focusing on applications of attosecond pulse generation in atomic and molecular physics, photo-chemistry and nanoscience, and the application of extreme light sources to matter-radiation interactions in general. FELs will be viewed during visits to the FERMI FEL and the Elettra Sincrotrone facility located in Trieste. In addition to lectures, there will be tutorials on simulation tools for ultrashort pulse and nonlinear optics modelling as well as hands-on laboratory sessions. An ICTP Preparatory School will be organized the week before the College (from 29 January to 3 February 2018) for a limited number of selected participants. Posters are encouraged from all participants and prizes will be sponsored by the International Society for Optics and Photonics (SPIE).

Topics:

- Ultrashort laser pulse generation and characterization
- Ultrafast non-linear optics and ultrabroadband parametric amplification
- Novel low-cost mode-locked laser systems
- Principles of attosecond technology: generation and metrology
- XUV optics for attosecond beamlines
- Attosecond electron dynamics in atoms and molecules
- Attosecond spectroscopy of nanoparticles and nanostructures
- Strong field physics phenomena and high-intensity laser technologies
- Free Electron Lasers: physics, properties and recent advances

How to apply:

Online application:
<http://indico.ictp.it/event/8295/>

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:

D. Blaschke

(University of Wroclaw, Poland - JINR Dubna and NRNU Moscow, Russia)

F. Calegari

(DESY, Germany & IFN-CNR, Italy)

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Z. Wei

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Local Organizer:

J. Niemela (ICTP, Italy)

Deadline:

20 October 2017



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