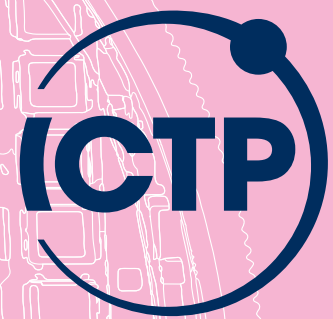


Joint ICTP-IAEA Workshop on Radiation Damage in Nuclear Systems: from Bohr to Young



11 – 22 May 2020
Trieste, Italy

Further information:

<http://indico.ictp.it/event/9088/>
smr3443@ictp.it

This two-week workshop provides early-stage career researchers with a quantitative understanding of the impact of radiation damage on materials for existing fission and proposed fusion reactors. The emphasis is on the conceptual progression of theoretical and experimental techniques across spatial and time scales from atomistic descriptions to the macroscopic behaviour of bulk material.

Topics:

- Irradiated material: defect production and damage metrics
- Dose-rate, damage energies, atomic displacement
- Neutron-induced defects: transmutation, activation, depletion
- Nuclear kinematics
- Primary damage and beyond: cascades, voids, swelling
- Correlation and prediction of material behaviour under irradiation
- Paradigms for irradiation testing
- Ion irradiation as a proxy for neutrons
- Multiscale modelling of defects in nuclear materials
- Evolution of surfaces under irradiation
- The effect of neutron and surrogate radiation on the properties of fusion-relevant materials
- Prospects for high-entropy alloys in nuclear materials applications
- Hydrogen isotope deposition, trapping and permeation

Directors:

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S. MARKELJ, Jožef Stefan Institute, Slovenia
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Local Organizer:

N. SERIANI, ICTP

Speakers:

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M. GILBERT, UK Atomic Energy Authority, UK
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How to apply:

Online application:
<http://indico.ictp.it/event/9088/>

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.

Deadline:

14 January 2020



The Abdus Salam
International Centre
for Theoretical Physics
www.ictp.it
Trieste, Italy

