The Abdus Salam International Centre for Theoretical Physics

IAEA International Atomic Energy Agency

unesco United Nations Educational, Scientific and Cultural Organization

Joint ICTP-IAEA Workshop on Dose Management Systems: from Setting Up to Quality Assurance

DESCRIPTION:

The workshop will aim to strengthen the capacity of medical physicists in patient dose management, optimization, and quality assurance in medical imaging. It will provide focused training on the implementation and quality assurance of DMS, including acceptance testing and routine QC.

MORE INFORMATION:

The workshop will strengthen the capacity of medical physicists to use digital tools and DMS for quality assurance, patient dose management and optimization in medical imaging. It will provide practical training on DICOM, PACS and image/data management, including the principles and practical steps for developing an open-source PACS environment. Particular emphasis will be placed on Dose Management Systems (DMS), including implementation, acceptance testing and routine quality control. Through lectures, demonstrations and hands-on exercises, participants will explore how digital tools can support reliable data collection, interoperability, quality assurance, optimization and continuous improvement in clinical practice. Emerging applications of AI, big data and digital analytics will also be introduced.

TOPICS:

- DICOM and medical imaging data
- PACS architecture and interoperability
- Building an open-source PACS environment
- Digital tools for imaging QA and optimization
- Dose Management Systems and clinical applications
- DMS acceptance testing and quality control
- Data analytics, dashboards and benchmarking
- AI and emerging digital tools in medical physics

SPEAKERS:

Ehsan Samei, Duke University, USA

Jonas Anderson, EFOMP, Umea University, Sweden

Mika Kortesiemi, IOMP, University of Helsinki, Finland

Humberto Romano, Institute of Nuclear Technologies for Health, Argentina

Annalisa Trianni, Santa Chiara Hospital, Italy

12 - 16 April 2027

Trieste, Italy

Deadline:
15 December 2026

DIRECTORS:

Virginia Tsapaki, IAEA
Marco Esposito, ICTP

LOCAL ORGANIZER:

Marco Esposito, ICTP, Italy

FURTHER INFORMATION:

E-mail: smr4347@ictp.it

Web: https://indico.ictp.it/event/11421/

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:

IOMP

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EFOMP EUROPEAN FEDERATION OF ORGANISATIONS FOR MEDICAL PHYSICS

