



Advanced Imaging in Radiotherapy: Current use, Future developments, and the Integration of AI

29 – 31 January 2024 ONLINE

This online imaging course covers the basic concepts, best clinical practices, and technical innovations of MR, PET, and (CB)CT imaging in the modern radiotherapy workflow.

The use of imaging in radiotherapy is advancing rapidly. From MRI- and PET-based tumor delineation to online image guidance for daily adaptive treatment delivery; imaging is becoming increasingly important throughout the entire radiotherapy treatment chain. Innovations in the field of image acquisition (e.g., spectral CT, functional MRI, quantitative PET) as well as image processing (image registration, segmentation, and the use of Artificial Intelligence) are already changing the way we operate on a daily basis.

Target group

The course is aimed at radiation oncologists, medical physicists, radiation therapists (RTTs) and researchers who want to utilize imaging in the best possible way.

Course aim

The course aims to:

- Improve the understanding of the basic principles of MRI, PET and CT
- Cover current guidelines and best practices on using imaging hardware and image processing software
- Explain advanced imaging applications, such as 4D-(CB)CT, multiparametric MRI and PET
- Explore the future of imaging in radiotherapy by highlighting the latest developments in research

Course content

The course will cover the following topics:

- Basic principles of MRI, PET, and (CB)CT
- Clinical impact of imaging in radiotherapy
- How to best integrate imaging in the RT workflow, and how to QA
- The use of AI in imaging for radiotherapy
- Online imaging (CBCT & MR-linac) for adaptive radiotherapy
- Peer-to-peer sessions, Q&A sessions

Learning outcomes

By the end of this course participants:

- Understand the basics of MRI, PET, and CT
- Know the opportunities and pitfalls of (advanced) imaging in current clinical practice
- Have a clear idea about the direction of future developments in imaging for radiotherapy

Teaching methods

- 20 online webinars (40 minutes each)
- 4 hours of Q&A and peer-to-peer discussions

Prerequisites

Before commencing this course, participants should have a basic knowledge of the radiotherapy workflow.

Methods of Assessment

- Evaluation form

Key Words

- MRI
- PET
- CT
- AI

ROADMAP

- ◆ PHYSICISTS
- MEDICAL PHYSICISTS
- RADIATION THERAPISTS

COURSE DIRECTOR

Rob Tijssen, Physicist, (NL)

TEACHERS

Christian Richter, Physicist, (DE)
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PROJECT MANAGER

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WORKING SCHEDULE

Monday 29 January:
09:00 – 16:30
Tuesday 30 January:
09:00 – 16:00
Wednesday 31 January:
09:00 – 16:00

LANGUAGE

The course is conducted in English. No simultaneous translation will be provided.

COURSE ORGANISATION

For any further information, contact ESTRO:
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TECHNICAL EXHIBITION

Companies interested in exhibition opportunities during this teaching course should contact Karolina Kowalska, Project Manager
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PARTICIPANTS SHOULD REGISTER ONLINE [HERE](#)

These pages offer the guarantee of secured online payments.

The system will seamlessly redirect you to the secured website of OGONE (see www.ogone.be for more details) to settle your registration fee.

If online registration is not possible, please contact us:
ESTRO OFFICE: education@estro.org

Registration fees

Please check the registration deadline date on our website

Fees

	Early Rate	Late Rate
Non-Members	500 EUR	600 EUR
ESTRO Members	400 EUR	600 EUR
In-training members*	350 EUR	600 EUR

* *Members with specialty RadiationTherapist (RTT) may register at the In-Training fee*

Reduced fees

Members from emerging countries may register at a preferential rate of 350 Euro. Emerging country fee applies to individuals from low-income and lower-middle-income economies according to the World Bank listing here.

Additionally, all specialties from the following countries can benefit from this preferential rate: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Hungary, Macedonia, Moldova, Montenegro, Romania, Russian Federation, Serbia, Turkey, Ukraine. In addition, medical physicists from Cyprus can email education@estro.org to apply for this fee.

ESTRO

ESTRO GOES GREEN Please note that the course material will be available online. No printed course book will be provided during the courses.

Advance registration and payment are required.

On-site registration will not be available.

Since the number of participants is limited, late registrants are advised to contact the ESTRO office before payment, to inquire about availability of places. Access to Moodle and course material will become available upon receipt of full payment.

Insurance and cancellation

The organiser does not accept liability for individual medical, travel or personal insurance. Participants are strongly advised to take out their own personal insurance policies.

In case an unforeseen event would force ESTRO to cancel the meeting, the Society will reimburse the participants fully the registration fees. ESTRO will not be responsible for the refund of travel and accommodation costs.

In case of cancellation, full refund of the registration fee minus 15% for administrative costs may be obtained up to three months before the course and 50% of the fee up to one month before the course. No refund will be made if the cancellation request is postmarked less than one month before the start of the course.

**Don't miss the early registration deadline:
29 November 2023**

