

SCIENTIFIC PROGRAMME

Course Director

Rob Tijssen (NL)

Faculty

Cihan Gani (DE)

Eirik Malinen (NO)

Cynthia Ménard (CA)

Christian Richter (DE)

Tufve Nyholm (SE)

Lars E. Olsson (SE)

- Important Note: the pre-recorded lectures will be available one week prior to the Q&A session. Students are expected to self-study the material in preparation for the Live Webinars.

DAY 1 – 14th April 2021 – WEDNESDAY

Time	Lecture	Topic	Speaker
17:00-17:45	Live Webinar	Welcome and introduction	All Teachers
17:45-18:30	Live Webinar	Breakout session: student assignment discussions	

DAY 2 – 21st April 2021 – WEDNESDAY

Time	Lecture	Topic	Speaker
50 min	Pre-recorded	MRI Basics : signal generation	Rob Tijssen, NL
50 min	Pre-recorded	MRI Basics: contrast formation	Tufve Nyholm, SE
50 min	Pre-recorded	MRI Basics: space encoding	Lars E. Olsson, SE
50 min	Pre-recorded	MRI Basics: hardware and safety	Rob Tijssen, NL
50 min	Pre-recorded	Adv. MR physics: geometrical artifacts	Tufve Nyholm, SE
17:00-18:30	Live Webinar	Questions and Answers (MRI) + open discussion	Tufve Nyholm, SE

DAY 3 – 28th April 2021 – WEDNESDAY

Time	Lecture	Topic	Speaker
50 min	Pre-recorded	CT for radiotherapy planning (including basics on CT)	Christian Richter, DE
50 min	Pre-recorded	CT-based in-room imaging	Christian Richter, DE
50 min	Pre-recorded	Dual-Energy CT for particle therapy planning and beyond	Christian Richter, DE
50 min	Pre-recorded	MRI Applications: MRI for treatment planning	Tufve Nyholm, SE
50 min	Pre-recorded	Adv. MR physics: acceleration methods	Rob Tijssen, NL
17:00-18:30	Live Webinar	Questions and Answers (CT) + open discussion	Christian Richter, DE

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DAY 4 – 5th May 2021 – WEDNESDAY

Time	Lecture	Topic	Speaker
50 min	Pre-recorded	Basic principles of PET	Eirik Malinen, NO
50 min	Pre-recorded	PET image reconstruction and quantification	Eirik Malinen, NO
50 min	Pre-recorded	PET tracers and applications	Eirik Malinen, NO
50 min	Pre-recorded	Recommendations for use of PET in radiotherapy	Eirik Malinen, NO
50 min	Pre-recorded	Adv. MR physics: EPI & diffusion	Rob Tijssen, NL
17:00-18:30	Live Webinar	Questions and Answers (PET) + open discussion	Eirik Malinen, NO

DAY 5 – 6th May 2021 – THURSDAY

Time	Lecture	Topic	Speaker
14:00-15:30	Live Webinar	Breakout sessions: student assignment discussions	All Teachers

DAY 6 – 12th May 2021 – WEDNESDAY

Time	Lecture	Topic	Speaker
50 min	Pre-recorded	Clinical lecture: MR and PET - What is going on? Where are we going?	Cihan Gani, DE
50 min	Pre-recorded	Clinical lecture: how to go from technical innovation to clinical impact	Cynthia Menard, CA
50 min	Pre-recorded	Clinical lecture: Current use of advanced imaging. Which are the success stories?	Cynthia Menard, CA
50 min	Pre-recorded	MRI Applications: functional MRI for prostate	Lars E. Olsson, SE
50 min	Pre-recorded	MRI Applications: MR-Linac system design	Rob Tijssen, NL
50 min	Pre-recorded	Clinical Lecture: Treating with the MR-Linac	Cihan Gani, DE
17:00-18:30	Live Webinar	Clinical: Tumor board	Cynthia Menard, CA & Cihan Gani, DE

DAY 7 – 19th May 2021 – WEDNESDAY

Time	Lecture	Topic	Speaker
14:00-18:30	Live Webinar	Online Student Symposium Online PUB QUIZ & Wrap up	Student presenters & all Teachers