

ESTRO 2024 - Physics Pre-meeting course

Clinical Translation of CT Innovations in Radiotherapy

Friday, 3 May 2024, from 08:30 to 17:00

Course directors:

- Vicki Trier Taasti, Department of Radiation Oncology (Maastrro), Maastricht (NL)
- Patrick Wohlfahrt, Siemens Healthineers – Cancer Therapy Imaging, Forchheim (DE)

Faculty:

- Christian Richter, Medical Physicist, OncoRay - National Center for Radiation Research in Oncology (DE)
- Jochen Cammin, Medical Physicist, University of Maryland (US)
- Hillary Kelly, Radiologist, Harvard Medical School/Massachusetts General Hospital/Massachusetts Eye and Ear (US)
- Antje Knopf, Medical Physicist, University of Applied Sciences and Arts Northwestern Switzerland (FHNW) (CH)
- René Werner, Physicist, University Medical Center Hamburg-Eppendorf, Hamburg (DE)
- Paul Keall, Medical Physicist, Image X Institute, University of Sydney (AU)
- Esther Bär, Medical Physicist, University College London Hospital (UK)
- Jessica Miller, Medical Physicist, University of Wisconsin-Madison, Madison, WI (US)
- Evelien Bogaert, Medical Physicist, Ghent University Hospital (BE)
- Elisabeth Steiner, Medical Physicist, Landeskrankenhaus Wiener Neustadt (AT)
- Stephanie Tanadini-Lang, Medical Physicist, University Hospital Zurich (CH)

Programme

Time slot	Title	Teacher
08:30 - 08:40	Welcome & Get-together	
08:40 - 08:50	Introduction	
08:50 - 10:30	<i>Session 1: Current status of CT in radiotherapy</i>	
08:50 - 09:10	Overview of current CT applications in radiotherapy	C. Richter (DE)
09:10 - 09:30	Commissioning & quality assurance and its impact on treatment planning	J. Cammin (US)



09:30 - 09:50	Learning from diagnostic imaging: CT workflows and optimal contrast administration	H. Kelly (US)
09:50 - 10:10	Panel discussion with questions & answers	
10:10 - 10:30	Interactive corner	
10:30 - 11:00	<i>COFFEE BREAK</i>	
11:00 - 11:20	Session 2: CT motion management in image-guided radiotherapy	
11:00 - 11:20	Overview of clinical CT motion management techniques in image-guided radiotherapy	A. Knopf (CH)
11:20 - 11:40	Respiratory 4DCT: clinical workflows and innovations	R. Werner (DE)
11:40 - 12:00	Image guidance of moving targets in radiotherapy today and in the future	P. Keall (AU)
12:00 - 12:30	Panel discussion with questions & answers	
12:30 - 14:00	<i>LUNCH BREAK</i>	
14:00 - 15:30	Session 3: Clinical use of dual-energy CT in radiotherapy	
14:00 - 14:20	Overview of dual-energy CT for delineation and photon/proton dose calculation	E. Bär (UK)
14:20 - 14:40	Clinical use cases of dual-energy CT in radiotherapy and requirements for quality assurance	J. Miller (US)
14:40 - 15:00	Clinical introduction of dual-energy CT workflows in radiotherapy departments	E. Bogaert (BE) & E. Steiner (AT)
15:00 - 15:30	Panel discussion with questions & answers	
15:30 - 16:00	<i>COFFEE BREAK</i>	
16:00 - 17:00	Session 4: The future of CT in radiotherapy	
16:00 - 16:20	Photon-counting CT to advance radiotherapy	S. Tanadini-Lang (CH)
16:20 - 16:50	Panel discussion with questions & answers	
16:50 - 17:00	Wrap up & closing	

