

MPEP 2024: AI in Imaging and Treatment Planning

Tuesday 12th November 2024 – Zoom, Online

9:00 – 9:30	Welcome and Introductions Dimitra Darambara, Head, Multimodality Molecular Imaging Instrumentation, The Institute of Cancer Research and The Royal Marsden NHS Foundation Trust
9:30 – 10:30	<i>AI Primer: Demystifying the Jargon</i> Richard Meades, Principal Nuclear Medicine Physicist, Royal Free London NHS FT
10:30 – 10:40	Break
10:40 – 11:40	<i>Causal Considerations in Medical Imaging AI</i> Ben Glocker, Professor in Machine Learning for Imaging, Imperial College London
11:40 – 11:50	Break
11:50 - 12:50	<i>AI in Radiotherapy, from Theory to Practice and Back Again</i> Raj Jena, Clinical Professor, University of Cambridge Department of Oncology
12:50 – 13:15	Panel Discussion/ Q+A Opportunity
13:15 – 14:00	Lunch

Programme subject to change

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	Imaging Stream	Radiotherapy Stream
14:00-14:30	<i>Automated Segmentation in Ultrasound</i>	<i>Implementing AI contouring for radiotherapy</i>
	James McLaughlan, Associate Professor, University of Leeds	Alison Starke, Principal Radiotherapy Physicist, NHS Greater Glasgow and Clyde and Niall MacDougall Head of Clinical Dosimetry, Barts Health NHS Trust
14:30-15:00	<i>Developing and Testing AI PET Algorithms</i>	<i>Implementing AI solutions for radiotherapy at Imperial College Healthcare NHS Trust</i>
	Daniel McGowan, Head of Education and Research, Consultant Clinical Scientist, Oxford University Hospitals NHS FT	Josh Mason, Principal Radiotherapy Physicist, Imperial College Healthcare NHS Trust
15:00 – 15:10	Break	Break
15:10 – 15:40	<i>Applications of AI in whole-body diffusion-weighted MRI: Segmentation, acceleration and uncertainty quantification</i>	<i>Medical Image Analysis: Auto – Segmentation and Radiomics in Breast Radiotherapy</i>
	Matthew Blackledge, Group Leader of Computational Imaging, The Institute of Cancer Research	Camarie Welgemoed, Imperial College Healthcare NHS Trust
15:40 – 15:50	Session Wrap Up/ Final Questions	Session Wrap Up/ Final Questions
15:50 – 16:00	Final thoughts (All streams)	

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