



MR in RT

10th SYMPOSIUM

APRIL 3-5, 2024

FONDAZIONE POLICLINICO UNIVERSITARIO A. GEMELLI IRCCS

CENTRO CONGRESSI EUROPA
LARGO FRANCESCO VITO, 1
ROME - ITALY

SCIENTIFIC COORDINATORS: LUCA BOLDRINI, LORENZO PLACIDI

08:00 - 09:00 Registration

09:00 - 09:20 Institutional greetings (E. Sala, M.A. Gambacorta, M. De Spirito, Italy)

SESSION 1 – INTRODUCTION TO MRI IN RT

Chairs: Maria Antonietta Gambacorta (IT), Marco De Spirito (IT)

09:20-09:40 Building clinical value with MRI in cancer care (E. Sala, Italy)

09:40-10:00 How physicists see the future of MRI (U. van der Heide, The Netherlands)

10:00-10:20 MRI based radiotherapy: clinical principles (S. Corradini, Germany)

10:20-10:40 MRI based radiotherapy: physics principles (F. Mahmood, Denmark)

10:40-11:00 General discussion

11:00-11:15 *Coffee Break*

SESSION 2 – BIOMARKERS IN MRI

Chairs: Gian Carlo Mattiucci (IT), Gert Meijer (NL)

11:15-11:35 MRI biomarkers in clinical trials: challenges and solutions (P. van Houdt, The Netherlands)

11:35-11:55 MRI radiomics for radiotherapy (N. Dinapoli, Italy)

SESSION 3 - PROFFERED PAPERS 1

Chairs: James Balter (USA), Piercarlo Gentile (IT)

11:55-12:55 Mix proffered papers (6x10 min)

12:55-14:00 *Lunch*



SESSION 4 – CLINICAL OVERVIEW OF MRI TOOLS AND MRIGRT: PART 1

Chairs: Luca Boldrini (IT), Ramona Woitek (AU)

14:00-14:20 MRI tools for RT in CNS malignancies (S. Gaudino, Italy)

14:20-14:40 MRI tools for RT in H&N malignancies (A. Vidiri, Italy)

14:40-15:00 MRI tools for RT in CNS and H&N malignancies malignancies (R. Jena, UK)

15:00-15:20 MRIGRT for upper gastro intestinal malignancies (M. Chuong, USA)

SESSION 5 – CLINICAL OVERVIEW OF MRI TOOLS AND MRIGRT: PART 2

Chairs: Luigi Natale (IT), Minsong Cao (USA)

15:20-15:40 MRI tools for RT in lower gastro intestinal malignancies (M. Maas, The Netherlands)

15:40-16:00 MRIGRT for lower gastro intestinal malignancies (C. Gani, Germany)

16:00-16:20 MRI tools for RT in pelvic malignancies (S. Nougaret, France)

16:20-16:40 MRIGRT in pelvic malignancies (F. Alongi, Italy)

16:40-17:00 General discussion

17:00-17:40 Sponsored lecture 1
Chair: Matteo Nardini (IT) – Industry (2 vendors)



08:30-09:00

Teaching Lecture: Quantitative MRI in radiotherapy: AI tools for parameter estimation (O. Gurney-Champion, The Netherlands)

SESSION 6 – FROM PRE-CLINICAL EVIDENCE TO AI

Chairs: Daniel Low (USA), Stephanie Corradini (DE)

09:00-09:20

Preclinical evidence for biological MRI guided RT (H. Lyng, Norway)

09:20-09:40

The long history of MR guidance in brachytherapy (C. Kirisits, Austria)

09:40-10:00

Everything you need to know about DWI (M. Giannelli, Italy)

10:00-10:20

AI applications in MRgRT (D. Cusumano, Italy)

10:20-10:40

General discussion

10:40-11:00

Coffee Break

SESSION 7 - PROFFERED PAPERS 2

Chairs: Giuditta Chiloiri (IT), Kathrine Røe Redalen (NO)

11:00-12:20

Mix proffered papers (8x10 min)

SESSION 8 – Competing solutions for MRIGRT: discussion

12:20-12:50

Discussion: What's out in the market competing or surrogate of MRIGRT? (Shooter: Ludvig Muren (DK), James Good (UK))

12:50-14:00

Lunch



SESSION 9 – MRI GUIDED PROTON THERAPY

Chairs: Daniela Thorwarth (DE), Giovanna Gagliardi (SW)

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- 14:00-14:20 MRI guided proton therapy: prototype development and dosimetry (A. Hoffman, Germany)
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- 14:20-14:40 MRI-only based for particle therapy: planning, beam visualization and range verification (Y. Zang, Switzerland)
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- 14:40-15:00 General discussion

SESSION 10 - PROFFERED PAPERS 3

Chairs: Guillaume Landry (DE), Giuseppe Minniti (IT)

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- 15:00-16:00 Mix proffered papers (6x10 min)
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- 16:00-16:20 *Coffee Break*

SESSION 11 – MOTION MANAGEMENT AND MOVABLE TARGETS

Chairs: Davide Cusumano (IT), Faisal Mahmood (DK)

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- 16:20-16:40 4D MRI and Motion management tools in MRIGRT (Martin Fast, The Netherlands)
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- 16:40-17:00 MRIGRT for movable targets: iconic clinical cases (TBD)
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- 17:00-17:40 Sponsored lecture 12
Chair: A. Romano (IT) - Industry (2 vendors)
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19:00 SOCIAL EVENT



08:30-09:00

Teaching lecture: Clinical trials/studies for MR Linac: a review of the evidence (L. Nicosia, Italy)

SESSION 12 – INNOVATION IN MR

Chairs: Enis Özyar (TK), Luca Indovina (IT)

09:00-09:20

Ultra High Field MRI (M. Tosetti, Italy)

09:20-09:40

Ultra-low field MRI (Matthias Stuber, Switzerland)

09:40-10:00

Innovative clinical indications (N. Andratschke, Switzerland)

SESSION 13 - PROFFERED PAPERS 4

Chairs: Ruggero Ruggeri (IT), Sebastian Klüter (DE)

10:00-11:00

Selected Poster discussion (standing or 10x6 min)

11:00-11:20

Coffee Break

SESSION 14 – MRI VS CBCT: DISCUSSION

11:20-11:50

Discussion: MRI versus CBCT based: which is the real future for radiotherapy? (Shooters: Matthias Guckenberger (CH), Rob Tijssen (NL))

SESSION 15 - YOUNG SESSION

Chairs: Viola Salvestrini (IT), Marco Felisi (IT), M. Mancino (IT)

11:50-12:50

Young proffered papers (6x10 min)

12:50-13:05

Best young contribution award (V. Valentini, Italy)

SESSION 16 – CLOSING SESSION

Chairs: Luca Boldrini (IT), Lorenzo Placidi (IT)

13:00-13:20

Closing remarks

This program may be subject to minor changes.



FACULTY

Alongi F.	(IT)	Low D.	(USA)
Andratschke N.	(CH)	Mahmood F.	(DK)
Balter J.	(USA)	Maas M.	(NL)
Boldrini L.	(IT)	Mancino M.	(IT)
Cao M.	(USA)	Mattiucci G. C.	(IT)
Chiloiro G.	(IT)	Meijer G.	(NL)
Chuong M.	(USA)	Minniti G.	(IT)
Corradini S.	(DE)	Muren L.	(DK)
Cusumano D.	(IT)	Nardini M.	(IT)
De Spirito M.	(IT)	Natale L.	(IT)
Dinapoli N.	(IT)	Nicosia L.	(IT)
Fast M.	(NL)	Nougaret S.	(FR)
Felisi M.	(IT)	Özyar E.	(TK)
Gagliardi G.	(SW)	Placidi L.	(IT)
Gambacorta M.A.	(IT)	Røe Redalen K.	(NO)
Gani C.	(DE)	Romano A.	(IT)
Gaudino S.	(IT)	Ruggeri R.	(IT)
Gentile P.	(IT)	Sala E.	(IT)
Giannelli M.	(IT)	Salvestrini V.	(IT)
Good J.	(UK)	Stuber M.	(CH)
Guckenberger M.	(CH)	Thorwarth D.	(DE)
Gurney-Champion O.	(NL)	Tijssen R.	(NL)
Hoffman A.	(DE)	Tosetti M.	(IT)
Indovina L.	(IT)	Valentini V.	(IT)
Jena R.	(UK)	van der Heide U.	(NL)
Kirisits C.	(AT)	van Houdt P.	(NL)
Klüter S.	(DE)	Vidiri A.	(IT)
Landry G.	(DE)	Woitek R.	(AU)
Lyng H.	(NO)	Zang Y.	(CH)

Università Cattolica del Sacro Cuore
e-mail: raffaella.empler@unicatt.it

Information:

www.gemelliart.it
www.mrinrt2024.com
radioterapia@policlinicogemelli.it

The course is aimed at Doctors specialising in radiotherapy and radiodiagnostics, Medical Physicists

Abstracts selection for proffered papers session

For those interested, it is possible to register by March 22, 2024 on the website of the Catholic University of the Sacred Heart: www.unicatt.it, or, directly at these links:

http://fopecom-rm.unicatt.it/fopecomonline/default_eng.aspx?Edizione=1&IdEvento=10366

The registration fees for the course are:

- Early Bird Registration: € 200,00
- Regular Registration: € 250,00
- Registration for Students (Bachelor's, Master's and PhD students: certificate required): € 100,00