

DFG Nachwuchsakademie “MR-guided Radiotherapy”, Heidelberg

Monday February 9

Introduction

9:10 – 9:40	Jäkel/Debus	Welcome and introduction
9:40 – 10:20	Delorme	The interplay of imaging and therapy
10:20 – 10:40		<i>Coffee</i>
10:40 – 11:20	van Vulpen	MR-Linac: Clinical rationale and the clinical studies

Ion beam therapy state of the art

11:20 – 12:00	Bert	Status on 4D ion therapy planning / application
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Only for Nachwuchsakademie participants:

12:00	Lunch Bags		
12:15	Transfer to HIT – Heidelberg Ion Beam Therapy Center	12:15	Lunch
13:00	Jäkel: Guided Tour at HIT		
14:00	Transfer back to Molkenkur		

MRI-based planning

15:00 – 15:40	Edmund	Radiotherapy based on MRI as the sole modality: Why, how and when?
15:40 – 16:20	Nyholm	MR-only treatment planning
16:20 – 16:40		<i>Coffee</i>
16:40 – 17:20	Lomax	4D MRI-based proton treatment planning
17:20 – 18:00		<u>Industry presentation:</u> Philips, Deppe MR guidance for Radiation Oncology across the continuum of care
18:00 – 18:40		<u>Industry presentation:</u> Siemens, Requardt, Nioutsikou MRI in Radiation Therapy – routine integration and new developments
19:00		<i>Get together</i>

Program for symposium participants:

12:15	Lunch
13:15	

Tuesday February 10

Proton range imaging and interventional MRI

9:10 – 9:50	Seco	MRI based Dosimetric/Range Imaging during Proton Beam Therapy
9:50 – 10:30	Bock	Rapid Imaging and Tracking Techniques for Interventional MRI
10:30 – 10:50		<i>Coffee</i>

Offline MR-guidance approaches

10:50 – 11:30	Jaffray	A Facility for Magnetic Resonance-Guided Radiation Therapy
11:30 – 12:10	Sterzing and Pfaffenberger	Shuttle-based MRgRT: Chances and Challenges

12:10 – 12:50		<u>Industry presentation:</u> Elekta, Meedt Elekta’s MRI-Linac integration - a cooperative approach
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12:50 – 13:50		<i>Lunch</i>
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MR-imaging

13:50 – 14:30	Kachelrieß	New Methods of Attenuation Estimation and Motion Compensation
14:30 – 15:10	Ladd	Challenges and potential for MR imaging at 7 Tesla
15:10 – 15:50	Nagel	Multinuclear MR Imaging at High Magnetic Field Strengths
15:50 – 16:10		<i>Coffee</i>

Only for Nachwuchsakademie participants:

16:10	Transfer to the DKFZ	16:10	<u>Industry presentation:</u> Raysearch, Svensson
16:40	Maier-Hein & März/Nagel	16:30	Gentle radiotherapy – a Swedish national research project
18:40	Hands-on: Ultra-sound-guided intervention & Guided tour at 7T scanner at DKFZ	16:30	<u>Industry presentation:</u> Sun Nuclear, Götz
18:40	Transfer back to Molkenkur	16:50	QA & Patient Safety Tools designed for MR-guided radiation therapy systems

19:15

Conference Dinner

Wednesday February 11

Adaptive radiation therapy

9:10 – 9:50	Karger	Morphological and functional MRI for monitoring and modeling of the response to radiotherapy
9:50 – 10:30	Thorwarth	Functional MR/PET imaging for adaptive radiotherapy
10:30 – 10:50		<i>Coffee</i>
10:50 – 11:30	Oelfke	Fast plan adaption

Hybrid systems

11:30 – 12:10	Lagendijk	Making the MRI-linac a clinical system
12:10 – 12:40		<u>Industry presentation:</u> ViewRay, Dempsey: ViewRay’s Approach to MR-Guided Radiation Therapy

12:40 – 13:00	Kawrakow	Advanced algorithms for MRgRT
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13:00 – 14:00		<i>Lunch</i>
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14:00 – 14:30	Mutic	Clinical Experiences with the ViewRay System
14:30 – 15:10	Fallone	Development and usage of the whole-body rotating linac-MR system within our clinic

15:10 – 15:50	Keall	The Australian MRI-Linac project
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15:50 – 16:10		<i>Coffee</i>
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Concluding Session

16:10 – 17:40	Panel Discussion
17:40	Closing Remarks
19:10	<i>Dinner</i>

Scientific Symposium: February 9-11
DFG Nachwuchsakademie: February 9-13 (*application deadline for students November 15*)
Venue: Hotel Molkenkur Heidelberg
Information: www.dkfz.de/en/medphys/MRgRT/

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Donnerstag 12. Februar

(only Nachwuchsakademie participants)

9:10 – 10:40	Leidig Projekt- und Zeitmanagement – Teil I
10:40 – 11:10	<i>Kaffee</i>
11:10 – 11:40	Leidig Projekt- und Zeitmanagement – Teil II
11:40 – 12:10	Nüsslin Medizintechnik: Übersicht der Förderungslandschaft
12:10 – 12:40	Debus Wie schreibt man einen – erfolgsversprechenden – Drittmitteantrag?
12:40 – 13:40	<i>Mittagessen</i>
13:40 - 14:10	Renner DFG Förderung: von der Idee bis zum Antrag
14:10 – 18:15	Präsentation und Diskussion der Projektideen mit Experten – Teil I (mit Kaffeepause)
19:00	<i>Abendessen</i>

Freitag 13. Februar

(only Nachwuchsakademie participants)

9:10 – 12:40	Präsentation und Diskussion der Projektideen mit Experten – Teil II (mit Kaffeepause)
12:40 – 13:40	<i>Mittagessen</i>
13.40 – 15:10	Präsentation und Diskussion der Projektideen mit Experten – Teil III
15:10	Jäkel/Renner/Debus Verabschiedung/Ankündigung des Auswahlsymposiums

Faculty

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