



Summer School in Medical Physics on "Imaging for Radiotherapy"

April 01st – April 03rd 2019

During our Summer School about "Imaging for Radiotherapy" we would like to focus on different imaging modalities like CT, PET and MRI that are used in modern radiation therapy. The first day is designed as refresher course dedicated to the physical basics of the stated imaging modalities. During the second day the specificity and limitations for clinical use will be discussed in more details as well as misinterpretations during clinical routine and specific limitations of CT and MR imaging for radiotherapy. We will continue with MR spectroscopy and hybrid devices so that we can conclude our summer school by case presentations and discussion of imaging datasets in order to offer enough time for critical discussions and learner-centered sessions.

Our lectures are experts in their respected fields and come from the German Cancer Research Center (DKFZ) Heidelberg, Germany, from the Pontificia Universidad Católica de Chile (UC) as well as from the Heidelberg University Hospital, Germany.

Organizers:

- [German Cancer Research Center \(DKFZ\).](#)
- [Medical Faculty Heidelberg, Heidelberg University](#)
- [University Clinic Heidelberg.](#)
- [Heidelberg Center for Latin America](#)

Venue:

Heidelberg Center for Latin America (HCLA)

Program:

Program see end of the pdf file.

Language:

The language of the summer school will be English.

Target audience:

Medical technicians, physicists and medical doctors, who are working currently in the area of Radiotherapy, as well as scientists and students interested in this area.

Application deadline:

March 29th 2019

Application deadline for scholarship:

March 20th 2019. Decision will be made until March 25th 2019. Please include the following documents to your application for a scholarship:

- tabular CV (in Spanish or English)
- motivation letter in **English**
- copy of your Bachelor's or Master's degree



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dkfz.

GERMAN
CANCER RESEARCH CENTER
IN THE HEIMHOFF ASSOCIATION

Research for a Life without Cancer

Study fees (in CLP):

Medical doctors:

\$ 120.000

Physicists and medical technicians:

\$ 80.000

Master's or PhD students and students of residency programs:

\$ 30.000

Information and registration:

Heidelberg Center para América Latina

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**Summer School Medical Physics „Imaging for Radiotherapy“
Program**

Monday April 01st 2019

Time	Topic	Speaker
9:00	Registration	Barthold/Schäfer
9:15-9:30	Opening remarks and welcome	Barthold/Schäfer
9:30-11:00	CT – Refresher	Karla Torzok, FALP
11:00-11:30	Coffee Break	
11:30-13:00	MRI – Refresher	Online: Philipp Mann, DKFZ
13:00-14:00	Lunch Break	
14:00-15:00	PET – Refresher	Yannick Berker/ Clarissa Gillmann, DKFZ
15:00-15:30	Coffee Break	
15:30-17:00	PET CT	Clarissa Gillmann, DKFZ
17:00-18:15	PET MR	Yannick Berker, DKFZ
18:15-18:30	Course revision	All
18:45	Get Together at HCLA	All

Tuesday April 02nd 2019

Time	Topic	Speaker
9:00	Registration	
9:15-10:00	Dual Energy CT	Fernando Gonzalez, Clinica Alemana
10:00-11:30	Specificity of different imaging modalities	Kristin Lang, University Hospital Heidelberg
11:30-12:00	Coffee Break	
12:00-12:45	Negative interpretations of Image data sets	Kristin Lang, University Hospital Heidelberg
12:45-13:45	Lunch Break	
13:45-15:15	Artefacts in CT Imaging, Iterative reconstruction. Dose reduction	Daniella Fabri, UC
15:15-15:45	Coffee Break	
15:45-17:15	MR for RT and Limitations of MR Imaging	Clarissa Gillmann/Yannick Berker, DKFZ
17:15-18:15	Cone Beam CT (kV and MV Imaging)	Oliver Jäkel, DKFZ
18:15-18:30	Course revision	All

Wednesday April 03rd 2019

Time	Topic	Speaker
9:00	Registration	
9:10-10:45	MR-Linac: Concept and Devices	Oliver Jäkel, DKFZ
10:45-11:15	Coffee Break	
11:15-12:45	CT for RT and Limitations of CT Imaging	Karla Torzok, FALP
12:45-13:45	Lunch Break	
13:45-14:45	Medical image processing: current technologies and topics	Marco Nolden, DKFZ
14:45-15:30	MR Spectroscopy	Heinz Schlemmer, DKFZ
15:30-16:00	Coffee Break	
16:00-16:45	Case presentations of imaging datasets	Kristin Lang, University Hospital Heidelberg
16:45-17:00	Course revision and closing	All



Summer School Medical Physics „Imaging for Radiotherapy“

Speakers:

- Yannick Berker, PhD
German Cancer Research Center (DKFZ) Heidelberg, Germany
- Daniella Fabri Genskowsky, PhD
Facultad de Física, Pontificia Universidad Católica de Chile (UC), Chile
- Clarissa Gillmann, PhD
German Cancer Research Center (DKFZ) Heidelberg, Germany
- Fernando Gonzalez, MD
Clinica Alemana, Santiago de Chile
- Prof. Oliver Jäkel, PhD
German Cancer Research Center (DKFZ) Heidelberg, Germany
- Kristin Lang, MD
Heidelberg University Hospital, Heidelberg, Germany
- Philipp Mann, PhD
German Cancer Research Center (DKFZ) Heidelberg,
- Marco Nolden, PhD
German Cancer Research Center (DKFZ) Heidelberg, Germany
- Prof. Heinz Schlemmer, PhD
German Cancer Research Center (DKFZ) Heidelberg, Germany
- Karla Torzok, PhD
Fundación Arturo López Pérez (FALP) Santiago, Chile

Venue and Contact

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