# Young Investigator's Workshop on Photon Detection for Medical Applications – Final Circular –

Dear participant Nov 12, 2019

Time flies and our workshop is just ahead of us now. This is why I would like to provide you with some last information and reminders.

The workshop will start on Monday 2<sup>nd</sup> of December at 8:45 am. Location: Universität Siegen, Adolf-Reichwein-Straße 2, Room number HB-0204. Laptop and projector are provided as well as walls for DIN A0-sized posters. Please bring your presentation either on a USB stick or send it to me in advance via email (PDF preferred!).

There will be food vouchers for lunch so that only the conference dinner is payed by yourselves and of course coffee breaks are for free:)

In case you have not booked a hotel yet, there are several options online (see URL below). If you would like to be paired up with someone to share a room and reduce travel expenses, we can still try to make arrangements for that.

Please, also have one last look at the time table and check for correct names, title and affiliation.

#### All Information Available Online

All documents regarding the workshop and organizing matters like descriptions on public transport and maps of the event locations are also available online using the following URL:

https://www.hep.physik.uni-

siegen.de/~bayerlein/Workshop 2019/youngInvestigatorWS.php

Please do not hesitate to ask for help.

I am very much looking forward to welcoming you all in Siegen.

Best regards

M.Sc. Reimund Bayerlein

Supported by:

MediNet

#### Contact:

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### Young Investigator's Workshop -- Monday

Time	ltem	Presenter	Details	Affiliation
08:45	Opening	R. Bayerlein	About the Workshop and Organizing Matters	Uni Siegen
09:00	Welcome Talk	P. Thirolf	Introduction and MediNet	LMU Munich
09:30 10:00 10:30	PET and TOF based range verification in particle therapy	I. Ozoemelam M. Jacquet T. Rodriguez	Towards real-time PET-based range verification in particle radiotherapy  A 3D TOF detection system for online range-monitoring in hadron therapy  Experimental measurement of the production yields of the short lived beta+ emitters 12N, 29P and 38mK for online PET verification in proton therapy	KVI Groningen Uni Grenoble University of Sevilla
11:00	Coffee Break			
11:30 12:00 12:30	Compton Camera (CC)	T. Binder H. Bäcker N. Kohlhase	Characterization of a second generation monolithic Compton camera absorber Investigation of the feasibility of a Compton camera using Cherenkov light from Compton scattered electrons using Geant4 Simulations Image reconstruction approaches for Compton cameras towards range verification in particle therapy	LMU Munich Uni Siegen Uni Lübeck
13:00	Lunch Time		Food at the local Mensa	
14:00 14:30	SiFi-CC experiment – new design for online range verification	J. Kasper K. Rusiecka	The SiFi-CC experiment – a new design for a Compton camera for online range verification in proton therapy  Investigation of heavy inorganic-scintillator for a fiber-based detector (SiFi-CC)	Aachen University Institute Krakow
15:00	Poster Session with Coffee and Cake	R. Bayerlein O. Allegrini F. Permatasari P. Teubig	Gamma ray detection using Cherenkov light from Compton scattered electrons  Tests and characterization of BGO blocks for gamma detection in medicine  Phase Oscillations Influence Timing Measurements at Medical Treatment Facilities  Detection of high-energy photons with the electromagnetic calorimeter CALIFA	Uni Siegen Institute Lyon OncoRay Dresden Lisbon
16:15	Plenary Talk With a Round of Discussions	T. Kögler	Range Verification in Particle Therapy – From Physics in the Lab Towards Clinical Applications	OncoRay Dresden
17:45	End of the Official Part			
19:00	Conference Dinner		Local Food and Beer at Früh Kölsch	

### Young Investigator's Workshop -- Tuesday

Time	Item	Presenter	Details	Affiliation
09:30 10:30	Further Developments in Prompt Gamma (PG) Detection	C. LaTessa G. Traini	Enhancing gamma production for online dose verification in proton therapy PAPRICA: a pair-production chamber for prompt gamma detection in Particle Therapy	University Trento INFN Milan
11:00	Coffee Break			_
11:30 12:00 12:30	PET and TOF-PET (Session 1)	L. Yin V. Nadig F. Müller	Evaluation of RF shielding materials for highly-integrated PET/MRI systems  Update on Multi-channel experiments featuring the TOFPET2 ASIC  Evaluation and Optimization of a Semi-Monolithic detector providing intrinsic DOI-encoding and TOF-capabilities for Clinical Applications	RWTH Aachen RWTH Aachen RWTH Aachen
13:00	Lunch Time		Food at the local Mensa	
14:00 14:30 15:00	PET and TOF-PET (Session 2)	K. Krüger S. Seeger W. Adi	Implementation of sorting algorithms in FPGAs for positron emission tomography detector data MERMAID - Radioisotope imaging of small aquatic animals  Development and Characterization of detectors for measurements of production cross sections of PET-Isotopes for applications in Ion-beam therapy with preliminary simulation results	RWTH Aachen Uni Lübeck Uni Gießen
15:30	Discussion and Summary		Final Discussions, Summary Feedback round and official farewell	
16:30	End of the Workshop			
18:30	Evening Program		Visiting the City Center and the Christmas market afterwards (open end)	
	(For those, traveling back on Wednesday)		visiting the City Center and the Christmas market alterwards (open end)	

## **Map of the Workshop Location**



M: Mensa (for Lunch)

W: Workshop Location. Address:

Adolf-Reichwein-Straße 2, Building HB, Room 0204 (in the basement)

B: Bus Stop (Weidenau Adolf-Reichwein-Str.)