

**Workshop on Physics  
Instrumentation for Cancer  
Diagnostics and Cancer  
Therapy**

**Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Introduction

*Tuesday, 24 September 2013 13:00 (10 minutes)*

**Presenter:** SCHULTZ-COULON, Hans-Christian (Heidelberg)

**Session Classification:** Workshop Introduction

Contribution ID: 1

Type: **not specified**

## **Overview: Medical Imaging & Instrumentation**

*Tuesday, 24 September 2013 13:10 (50 minutes)*

**Presenter:** LECOQ, Paul (CERN)

**Session Classification:** Workshop Introduction

Contribution ID: 2

Type: **not specified**

## Status of Positron Emission Tomography

*Tuesday, 24 September 2013 14:00 (30 minutes)*

**Presenter:** WEIRICH, Christoph (Jülich)

**Session Classification:** Positron Emission Tomography

Contribution ID: 3

Type: **not specified**

## **New developments on biomarkers**

*Tuesday, 24 September 2013 14:30 (30 minutes)*

**Presenter:** LOMBARDO, Dominique (Marseille)

**Session Classification:** Positron Emission Tomography

Contribution ID: 4

Type: **not specified**

## **The EndoTOFPET Project**

*Tuesday, 24 September 2013 15:00 (30 minutes)*

**Presenter:** SCHULTZ-COULON, Hans-Christian (Heidelberg)

**Session Classification:** Positron Emission Tomography

Contribution ID: 5

Type: **not specified**

## Combining CT/MRI/PET

*Tuesday, 24 September 2013 16:00 (30 minutes)*

**Presenter:** SCHLEMMER, Heinz-Peter (DKFZ)

**Session Classification:** Positron Emission Tomography

Contribution ID: 6

Type: **not specified**

## **PET Image Reconstruction**

*Tuesday, 24 September 2013 17:00 (30 minutes)*

**Presenter:** SCHEINS, Jürgen (FZ Jülich)

**Session Classification:** Positron Emission Tomography



Contribution ID: 7

Type: **not specified**

## **PET for Ion Beam Therapie Verification**

*Tuesday, 24 September 2013 16:30 (30 minutes)*

**Presenter:** PARODI, Katia (LMU Muenchen)

**Session Classification:** Positron Emission Tomography

Contribution ID: 8

Type: **not specified**

## **The Heidelberg Ion-Therapy Centre**

*Tuesday, 24 September 2013 17:30 (1 hour)*

**Presenter:** HABERER, Thomas (Heidelberg)

**Session Classification:** The Heidelberg Ion-Therapy Centre (keynote presentation)

Contribution ID: 9

Type: **not specified**

## High-Field MRI

*Wednesday, 25 September 2013 09:00 (30 minutes)*

**Presenter:** LADD, Mark (DKFZ)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: **10**

Type: **not specified**

## **Modern X-Ray Imaging**

*Wednesday, 25 September 2013 09:30 (30 minutes)*

**Presenter:** KOENIG, Thomas (KIT)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: 11

Type: **not specified**

## **Pixel Detectors for Ion Beam Imaging in Patients**

*Wednesday, 25 September 2013 10:00 (30 minutes)*

**Presenter:** MARTISIKOVA, Maria (Uni Heidelberg/DKFZ)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: 12

Type: **not specified**

## Multimodal Optical Imaging

*Wednesday, 25 September 2013 11:30 (30 minutes)*

**Presenter:** PETER, Joerg (DKFZ)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: 13

Type: **not specified**

## High-Intensity Focused Ultrasound

*Wednesday, 25 September 2013 12:00 (30 minutes)*

**Presenter:** JENNE, Jürgen (Bremen, Fraunhofer MEVIS)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: 14

Type: **not specified**

## Modern Image Reconstruction



Contribution ID: 15

Type: **not specified**

## Closing Remarks

*Wednesday, 25 September 2013 12:30 (15 minutes)*

**Presenter:** SCHULTZ-COULON, Hans-Christian (Heidelberg)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: 16

Type: **not specified**

## The SUBLIMA Project

*Wednesday, 25 September 2013 11:00 (30 minutes)*

**Presenter:** FISCHER, Peter (Heidelberg)

**Session Classification:** Development in Medical Imaging Technologies (beyond PET)

Contribution ID: 17

Type: **not specified**

## **Metal Artefact Corrections**

*Wednesday, 25 September 2013 14:00 (15 minutes)*

**Presenter:** KUNTZ, Jan

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: **18**

Type: **not specified**

## **Energy Resolved CT**

*Wednesday, 25 September 2013 14:15 (15 minutes)*

**Presenter:** FABY, Sebastian

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 19

Type: **not specified**

## Thermoluminescent Dosimetry

*Wednesday, 25 September 2013 14:30 (15 minutes)*

**Presenter:** HÄRING, Peter

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 20

Type: **not specified**

## Chemical Exchange Saturation Transfer

*Wednesday, 25 September 2013 14:45 (15 minutes)*

**Presenter:** ZAISS, Moritz

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 21

Type: **not specified**

## **Computer-aided Analysis of RF Coils and Compliance Testing by Means of EM Field Simulations**

*Wednesday, 25 September 2013 15:00 (15 minutes)*

**Presenter:** BITZ, Andreas

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 22

Type: **not specified**

## **From Helmholtz to Traveling Waves –Short Review of MRI Coil Design**

*Wednesday, 25 September 2013 15:15 (15 minutes)*

**Presenter:** REINER, Umathum

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)



Contribution ID: 23

Type: **not specified**

## Diffusion Weighted MR Imaging

*Wednesday, 25 September 2013 15:30 (15 minutes)*

**Presenter:** LAUN, Frederik

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 24

Type: **not specified**

## Quadrupolar X-Nuclei MR Imaging

*Wednesday, 25 September 2013 15:45 (15 minutes)*

**Presenter:** BENKHEDAH, Nadia

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 25

Type: **not specified**

## **TimePix Detector for Applications in Ion Beam Radiotherapy –Overview**

*Wednesday, 25 September 2013 16:30 (15 minutes)*

**Presenter:** MARTISIKOVA, Maria

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 26

Type: **not specified**

## **A Novel Approach to Ion Spectroscopy of Therapeutic Ion Beams**

*Wednesday, 25 September 2013 16:45 (15 minutes)*

**Presenter:** HARTMANN, Bernadette

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 27

Type: **not specified**

## **The Potential of Optical ToF Detectors**

*Wednesday, 25 September 2013 17:00 (15 minutes)*

**Presenter:** MERSMANN, Sven

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 28

Type: **not specified**

## **A Hybrid Detector for Co-Detection of Energy Deposition and Biological Response in Particle Therapy**

*Wednesday, 25 September 2013 17:15 (15 minutes)*

**Presenter:** NIKLAS, Martin

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 29

Type: **not specified**

## **Computerized Tomography with Ion Beams**

*Wednesday, 25 September 2013 17:30 (15 minutes)*

**Presenter:** RINALDI, Ilaria

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: **30**

Type: **not specified**

## **Photo Detectors in HEP**

*Wednesday, 25 September 2013 17:45 (15 minutes)*

**Presenter:** ECKERT, Patrick

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)



Contribution ID: 31

Type: **not specified**

## **Photodetectors in Preclinical Imaging: Application and Latest Developments**

*Wednesday, 25 September 2013 18:00 (15 minutes)*

**Presenter:** PAAR, Steffen

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)

Contribution ID: 32

Type: **not specified**

## **Radiation Tolerant Detectors**

*Wednesday, 25 September 2013 18:15 (15 minutes)*

**Presenter:** UWER, Uli

**Session Classification:** Present Research Activities in Heidelberg (extra session with DKFZ)