Registration and Further Information

Registration

Early bird registration (until December 20, 2013):	340 €
Full registration:	390 €
Full Student registration:	170 €
Student registration (without Evening Event):	140 €
Tutorials (not included in the registration):	
One tutorial	50 €
Both tutorials	80 €
Additional copy of Book of Abstracts:	30 €
Additional voucher for Evening Event:	96 €

The registration includes the Welcome Reception and the Evening Event.

Contact

MEDISERT GmbH
c/o University of Lübeck
Ratzeburger Allee 160
23562 Lübeck, Germany
E-mail: info@iwmpi.org

Further Information

For further information please contact the workshop chairs or secretary and consult our conference homepage at: **http://www.iwmpi.org**

Publication, Technical Program

Publication

The Book of Abstracts will be available at the workshop. Additional publishing of the proceedings by IEEE is under negotiation.

Call for Papers

Authors are requested to submit an abstract of not more than 500 words using the online form at www.iwmpi.org before November 4, 2013. The abstracts will be reviewed by two referees. With notification of acceptance the authors will be asked to submit a full paper.

Important Dates

Deadline for submission of abstracts:	Nov. 04, 2013
Notification of acceptance:	Dec. 13, 2013
Deadline for reduced-rate registration:	Dec. 20, 2013
Deadline for full manuscripts:	Feb. 10, 2014

Time Schedule

Thursday, March 27, 2014
Registration, Tutorials, Welcome Reception

Friday, March 28, 2014
Oral and Poster Sessions,
Evening Event and Poster Award

Saturday, March 29, 2014
Oral and Poster Sessions, Wrapping Up

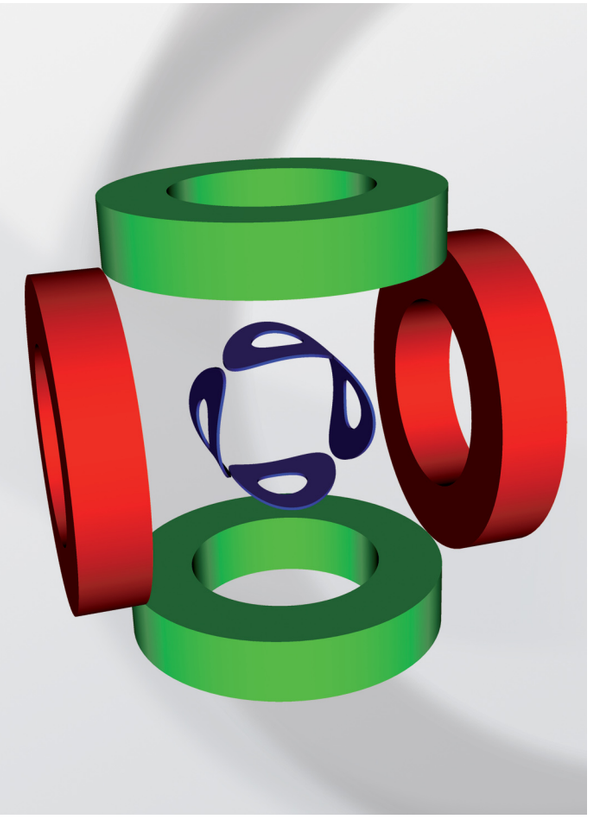
Sponsoring, Exhibition, Support

The 4th International Workshop on MPI is supported by the following organizations.

and more

HealthCapital Berlin Brandenburg

Medisert Technologie- und Wissenstransfer BioMedTec Wissenschaftscampus



4th International Workshop on Magnetic Particle Imaging

March 27-29, 2014
Berlin, Germany

Call for Papers

The Workshop

Magnetic Particle Imaging (MPI) is a novel imaging modality which uses various static and oscillating magnetic fields, as well as tracer materials made from iron oxide nanoparticles to perform background-free measurements of the particles' local concentration. The method exploits the nonlinear remagnetization behavior of the particles and has the potential to surpass current methods for the detection of iron oxide in sensitivity and spatio-temporal resolution.

The workshop aims at covering the status and recent developments of both, the instrumentation and the tracer material, as each of them is equally important in designing a well performing MPI.

Furthermore, the workshop focuses at presenting results from recent and ongoing studies, both in the pre-clincal and medical field, as well as from non-medical applications, e.g. materials testing.

Started in 2010 at the University of Lübeck, the workshop takes place for the 4th time after visiting Berkeley in 2013 and Lübeck in 2012. The workshop will provide the opportunity to present research work, results, but also new ideas and directions in the field of Magnetic Particle Imaging to a highly interested audience of scientific, medical and application experts from university, clinical and commercial sites active in the field.

Topics, Organization

Workshop topics include (but are not limited to):
- Medical, pre-clinical, and non-medical applications
- Coil and field generator design
- Data acquisition and signal pre-processing
- Signal generation, amplification and filter design
- Magnetic field simulation and system modeling
- Magnetic particle spectroscopy (MPS)
- Nanoparticle development
- Particle physics and simulations
- Reconstruction methods
- Sequences, acquisition protocols and spatial coding
- Physiological compatibility, SAR and PNS
- Scanner geometries and system design

Workshop Chairs

Thorsten M. Buzug, University of Lübeck
Jörn Borgert, Philips Research Europe – Hamburg

Local Chairs

Matthias Taupitz, Charité Berlin
Lutz Trahms, PTB Berlin

Organization

Kanina Botterweck, Medisert Lübeck
Helmut Kunze, HealthCapital Berlin Brandenburg

Commitee

G. Adam, UKE Hamburg; **C. Alexiou,** University of Erlangen; **J. Barkhausen,** UKSH Lübeck; **V. Behr,** University of Würzburg; **J. Borgert,** Philips Research Europe, Hamburg; **J. Bulte,** John Hopkins University, Baltimore; **T. Buzug,** University of Lübeck; **S. M. Conolly,** University of California, Berkeley; **O. Dössel,** University of Karlsruhe; **S. Dutz,** IPHT Jena; **M. Ferguson,** University of Washington; **D. Finas,** EVKB Bielefeld ; **B. Gleich,** Philips Technology GmbH, Hamburg; **P. W. Goodwill,** University of California, Berkeley; **M. Griswold,** Case Western Reserve University, Cleveland; **U. Häfeli,** University of British Columbia, Vancouver; **J. Haueisen,** Ilmenau University of Technology; **M. Heidenreich,** Bruker BioSpin, Ettlingen, **U. Heinen,** Bruker BioSpin, Ettlingen; **Y. Ishihara,** Meiji University; **P. Jakob,** University of Würzburg; **F. Kießling,** University of Aachen; **T. Knopp,** Thorlabs, Lübeck; **K. Krishnan,** University of Washington; **F. Ludwig,** TU Braunschweig; **M. Magnani,** University of Urbino, **S. Odenbach,** TU Dresden; **Q. Pankhurst,** Davy-Faraday Research Laboratory, London; **U. Pison,** Charité Berlin; **J. Rahmer,** Philips Technology GmbH, Hamburg; **A. Samia,** Case Western Reserve University, Cleveland; **E. U. Saritas,** University of California, Berkeley; **M. Schilling,** Braunschweig University of Technology; **I. Schmale,** Philips Technology GmbH, Hamburg; **J. Schnorr,** Charité Berlin; **G. Schütz,** Bayer HealthCare Pharmaceuticals, Berlin; **M. Taupitz,** Charité Berlin; **B. ten Haken,** University of Twente; **L. Trahms,** PTB Berlin; **J. Weaver,** Dartmouth-Hitchcock Medical Center, Lebanon; **J. Weizenecker,** Karlsruhe University of Applied Sciences; **H. Weller,** CAN Hamburg; **F. Wiekhorst,** PTB Berlin

Tutorials

The workshop will start on Thursday, March 27 with a set of tutorials to provide a thorough introduction both to instrumentation and tracer aspects to those new in the field of Magnetic Particle Imaging.
The tutorials will take place at the Physikalisch-Technische Bundesanstalt (PTB) and are followed by a Welcome Reception to open the workshop.
Tutorials are separately bookable. They are publicly available and don't have to be combined with a workshop registration.

Introduction to MPI

This tutorial will be divided into two parts. The first part will focus on field design and instrumentation. Different scanner topologies, methods for coil design and the concept for the signal chain will be illustrated and discussed.
The second part will concentrate on the image reconstruction process. Here, model-based and measurement-based image-reconstruction techniques will be derived and discussed in terms of spatial and temporal resolution as well as sensitivity and SNR.

Magnetic Tracer Materials

The tutorials on tracer materials for MPI will be held in two parts: Part one will focus on the chemical, biochemical, and physiological aspects of synthesizing and formulating tracer materials, whereas part two will focus on the physics of magnetic tracer materials and the modelling of their magnetic properties.