

The workshop "*Mathematical models in Photoacoustic Tomography*"

January 19, 2015,

*Institute of Mathematics, University of Lübeck,
Ratzeburger Allee 160, Lübeck*

Room 73, House 64, 3 floor



9:30 Opening

- 9:35-9:45 *Ralf Brinkmann (MLL / BMO Insitute, UniLübeck),*
Introduction of Medical Laser Center Lübeck and the Institute for Biomedical Optics.
- 9:50-10:30 *Jens Horstmann (MLL / BMO Insitute, UniLübeck),*
Photoacoustic Tomography - A non-contact approach.
- 10:35-11:05 *Christian Buj and Michael Münter (MLL / BMO Insitute, UniLübeck),*
Photoacoustic Reconstruction based on surface displacement data.
- 11:15-12:00 *Wolfgang Erb (Institute of Math, UniLübeck),*
Mathematical Methods for Magnetic Particle Imaging: a project overview.

Lunch 12:00-13:00

- 13:10-13:30 *Dmytro Sadovyi (Taras Shevchenko National University of Kyiv),*
Asymptotic approximation of a solution of a semi-linear elliptic boundary-value problem in a thick junction.
- 13:40-14:00 *Ievgen Verbytskyi (Kyiv Polytechnic Institute),*
Signal spectrum optimization problem for power converters of electrical energy.
- 14:10-14:30 *Illya Karabash (IAMM of NAS of Ukraine and Institute of Math, UniLübeck),*
Structural optimization of resonators in Optics and Mechanics.

Coffee break 14:30-15:00

- 15:00- Discussion of open problems.

Program committee:

Ralf Brinkmann, Jürgen Prestin
Wolfgang Erb

Organizers:

Illya Karabash
Jens Horstmann

Technical organizers:

Ievgen Verbytskyi, Dmytro Sadovyi
Yuri Kolomoitsev, Tetiana Lomako

Organizing institutes:

The Institute of Mathematics of the University of Lübeck, Germany
Medical Laser Center Lübeck Ltd., Germany
The Institute for Biomedical Optics of the University of Lübeck, Germany
The Institute of Applied Mathematics and Mechanics of NASU, Ukraine
The Department of Applied Problems in Contemporary Analysis of the Institute of Mathematics of NASU, Ukraine

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"EU-Ukrainian Mathematicians for Life Sciences (EUMLS)".**