

Hermann-von-Helmholtz-Symposium Berlin, 14. Juni 2005

Physikalisch-Technische Bundesanstalt
z.H. Dr. Markus Bär
Abbestr. 2-12

D-10587 Berlin

Venue

Physikalisch-Technische Bundesanstalt
Hermann-von-Helmholtz-Bau, Lecture Hall
Fraunhoferstr. 11-12
10587 Berlin-Charlottenburg
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for accomodation and further information about
Berlin see: <http://www.berlin.de>



Konto des Helmholtz-Fonds:
Deutsche Bank München
BLZ 700 700 10
Konto-Nr.: 1732387

Helmholtz-Symposium

In memory of its first president PTB organizes annually the Hermann-von-Helmholtz-Symposium with the aim to introduce an up-to-date topic of basic research with particular relation to metrology.

On this occasion the interchange of contacts and ideas between PTB and other research institutes shall be vitalized.

On this years topic

The Helmholtz-Symposium 2005 will emphasize the potential and importance of mathematics for modern metrology. It is intimately linked to the creation of the new PTB department 8.4 „Mathematical Modeling and Data Analysis“ in 2004. The Helmholtz-Symposium takes place on the same day as the inauguration of the new Konrad-Zuse-Building, that will be the joint home to department 8.4 as well as the information technology group IB.TI of PTB Berlin.

Leading experts in the fields of mathematical modelling, data analysis and computer science will present reviews and newest research results. The understanding of complex measurement processes often requires advanced numerical modelling methods or sophisticated data analysis. The main goal of this symposium is to introduce these tools to a wider audience of scientists in- and outside of PTB. Main themes are partial differential equations and methods of data analysis as well as their applications in material science, technology and medicine, and grid computing.

Program

Beginning: 09:45

Opening

Ernst O. Göbel

President of Physikalisch-Technische Bundesanstalt

Session 1: Technological Applications

The DFG Research Center MATHEON in Berlin – Structure, Mission, Selected Projects

Peter Deuflhard

Konrad-Zuse-Zentrum für Informationstechnik & Freie Universität Berlin

Modelling the Formation and Growth of Polycrystals

James A. Warren

Center for Theoretical and Computational Material Science at NIST, Gaithersburg (USA)

Indirect Measurements and Inverse Data Analysis for Monitoring Technical Systems

Peter Maass

Fachbereich Mathematik, Universität Bremen

Session 2: Medicine, Complex Systems and Information Technology

Computational Physiology and the IUPS Physiome Project

Peter Hunter

Bioengineering Institute, University of Auckland, New Zealand

Synchronization Analysis in Complex Systems and its Applications

Jürgen Kurths

Institut für Physik, Universität Potsdam

Data Grids: Challenges in World-Wide Data Management

Alexander Reinefeld

Konrad-Zuse-Zentrum für Informationstechnik & Humboldt Universität Berlin

Ending: 16:00

16.15: Inauguration Ceremony

Konrad-Zuse-Bau of PTB Berlin

Please send a reply note to

- opposite address or
- fax: +49 30 3481 509 or
- e-mail: maria.erhard-elsner@ptb.de

I intend to participate at the Hermann-von Helmholtz-Symposium on June 14th, 2005 in Berlin

Name, surname, title:

Affiliation/address:.....

Tel., fax, e-mail:.....