

## IMPRS Interdisciplinary Symposium “New Frontiers in Science” 2010

Thursday 11 November 2010

Max Planck Institute of Physics • Föhringer Ring 6, 80805 Munich

*-Program subject to change-*

- 9:30 – 9:50 Words of welcome  
**IMPRS Student**
- 9:50 – 10:30 Heisenberg and his role models  
**Prof. Helmut Rechenberg**  
*MPI of Physics, Munich*
- 10:30 – 11:10 Sound and Light – the perfect match for remote sensing of the ocean  
**Prof. Thomas Walther**  
*Institute for Applied Physics, Technical University Darmstadt*
- 11:10 – 11:40 Coffee Break
- 11:40 – 12:20 On the close connection between quantum physics and classical optics  
**Prof. Gerd Leuchs**  
*Director, MPI for the Science of Light, Erlangen*
- 12:20 – 13:00 Thinking flies – functional brain science in a model organism  
**Prof. Martin Heisenberg**  
*Department of Genetics and Neurobiology, University of Würzburg*
- 13:00 – 14:20 Lunch
- 14:20 – 15:00 The neurobiological basis of empathy: the mirror neuron system  
**Prof. Joachim Bauer**  
*Albert-Ludwigs-University, Freiburg*
- 15:00 – 15:40 The social analysis of science  
**Prof. Harry Collins**  
*Cardiff School of Social Sciences, Cardiff University, UK*
- 15:40 – 16:20 Coffee Break
- 16:20 – 17:00 The public misunderstanding of science?  
**Prof. Ernst Peter Fischer**  
*History of Science Department, University of Constance*
- 17:00 – 17:40 The scientists’ misunderstanding of the public?  
**Prof. Ana María Cetto**  
*International Atomic Energy Agency, Vienna*
- 17:40 – 19:00 Panel Discussion: The role of science in society  
Moderator: **Prof. Karl-Heinz Maurer**  
*Henkel KGaA, Düsseldorf*

**IMPRS Interdisciplinary Symposium “New Frontiers in Science” 2010**  
Friday 12 November 2010  
Ludwig-Maximilians-University, Aula • Geschwister-Scholl-Platz 1, 80539 Munich  
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- 9:45 – 10:00 Words of welcome  
**IMPRS Student**
- 10:00 – 10:40 Proteomics in the post-genomic age  
**Prof. Matthias Mann**  
*Director, MPI of Biochemistry, Martinsried*
- 10:40 – 11:20 Crystallographic knowledge in drug design strategies  
**Prof. Michael Groll**  
*Department of Chemistry, Technical University Munich (TUM)*
- 11:20 – 12:00 Seeing is believing: real-time observation of the microcosm  
**Prof. Ferenc Krausz**  
*Director, MPI of Quantum Optics, Garching*
- 12:00 – 13:40 Lunch Break
- 13:40 – 14:20 Microstructured light  
**Prof. Philip St.J. Russell**  
*Director, MPI for the Science of Light, Erlangen*
- 14:20 – 15:00 The Large Hadron Collider project – the dawn of new physics?  
**Prof. Siegfried Bethke**  
*Director, MPI of Physics, Munich*
- 15:00 – 15:40 Novel materials made of ultracold atoms  
**Prof. Wolfgang Ketterle**  
*Massachusetts Institute of Technology, Cambridge*
- 15:40 – 16:20 Coffee Break
- 16:20 – 17:00 Nucleic acids as molecular structures, devices and computational units  
**Prof. Friedrich Simmel**  
*Physics of Biomolecular Systems and Bionanotechnology, TUM*
- 17:00 – 17:40 Sustainable energy for the future  
**Prof. Günther Hasinger**  
*Director, MPI for Plasma Physics, Garching*
- 17:40 – 18:20 Biodiversity as health insurance for the 21st century  
**Prof. M.D. Aaron Bernstein**  
*Center for Health and the Global Environment, Harvard Medical School, Boston*
- 18:20 – Concluding remarks