

# Program

## Sunday, 27 November 2011

17:00 – 21:00 Registration  
from 18:30 *WELCOME BUFFET / informal get together*

## Monday, 28 November 2011

|               |   |  |
|---------------|---|--|
| 8:00          | <i>BREAKFAST</i>  |  |
| 8:45 – 9:00   | Scientific Organization                                     | <b>Welcome and opening remarks</b>   |
|               | Ernst Dreisigacker  | <b>About the Wilhelm and Else Heraeus Foundation</b>   |
| 9:00 – 10:00  | Jascha Repp   | <b>Scanning tunneling spectroscopy and atomic force microscopy of molecules on thin insulating films</b> |
| 10:00 – 11:00 | Leo Gross   | <b>The role of tip functionalization for high-resolution molecular imaging with AFM and STM</b>          |
| 11:00 – 11:30 | <i>COFFEE BREAK</i>   |  |
| 11:30 – 12:30 | Ivan Brihuega   | <b>Point defects in graphene systems</b>   |
| 12:30         | <b>Conference Photo</b> (in the front of the Physikzentrum) |  |
| 12:35         | <i>LUNCH</i>  |  |

# Program

**Monday, 28 November 2011**

|               |  |  |
|---------------|--|--|
| 14:00 – 15:00 | Pavel Jelinek  | <b>Theoretical understanding of Scanning probe microscopy</b>                                      |
| 15:00 – 16:00 | Jörg Kröger  | <b>Investigation into the spin-polarized electron transport through single atoms and molecules</b> |
| 16:00 – 16:30 | <i>COFFEE BREAK</i><br>Kirsten von Bergmann  | <b>Complex magnetic structures on the atomic scale revealed by spin-polarized STM</b>              |
| 16:30 – 17:30 |  |  |
| 17:30 – 18:30 | Stefan Heinze  | <b>Theory and models of spin-sensitive scanning probe microscopy</b>                               |
| 19:00         | <i>DINNER</i><br><i>Followed by a social evening on invitation of the Wilhelm and Else Heraeus Foundation in the Physikzentrum</i> |  |

# Program

**Tuesday, 29 November 2011**

|               |                              |  |
|---------------|------------------------------|--|
| 8:00          | <i>BREAKFAST</i>             |  |
| 9:00 – 10:00  | Markus Heyde                 | <b>Surface science approach to model catalysis by atomic force microscopy</b>              |
| 10:00 – 11:00 | Alexander Schwarz            | <b>Magnetic exchange force microscopy and spectroscopy</b>                                 |
| 11:00 – 11:30 | <i>COFFEE BREAK</i>          |  |
| 11:30 – 12:30 | Willi Auwärter               | <b>Nanochemistry with functional molecules – a 2D perspective</b>                          |
| 12:30         | <i>LUNCH</i>                 |  |
| 14:00 – 15:00 | Isabel Fernandez<br>Torrente | <b>Molecular charge transfer processes on metal/organic interfaces</b>                     |
| 15:00 – 16:00 | Hélène le Sueur              | <b>Tunneling spectroscopy of mesoscopic devices around 20mK</b>                            |
| 16:00 – 16:30 | <i>COFFEE BREAK</i>          |  |
|               | Christian Ast                | <b>Construction and first results of an STM operating at mK temperatures</b>               |
| 16:30 – 17:30 |                              |  |
| 17:30 – 18:30 | Martin Wenderoth             | <b>Scanning tunneling potentiometry: Mapping local transport field on the atomic scale</b> |
| 19:00         | <i>DINNER</i>                |  |
| from 20:00    | <b>Poster session I</b>      |  |

# Program

**Wednesday, 30 November 2011**

|               |                          |   |
|---------------|--------------------------|---|
| 8:00          | <i>BREAKFAST</i>         |   |
| 9:00 – 10:00  | Jens Wiebe               | <b>Magnetometry of single atoms and bottom-up nanostructures using spin-polarized STM</b> |
| 10:00 – 11:00 | Cyrus Hirjibehedin       | <b>Building a magnet one atom at a time: STM Studies of magnetic nanostructures</b>       |
| 11:00 – 11:30 | <i>COFFEE BREAK</i>      |   |
| 11:30 – 12:30 | Laurent Limot            | <b>Detecting spin transport across single objects</b>                                     |
| 12:30         | <i>LUNCH</i>             |   |
| 14:00 – 15:00 | Yuriy Mokrousov          | <b>Topological concepts in electronic transport</b>                                       |
| 15:00 – 16:00 | Maarten Wegewijs         | <b>Spin-quadrupoletronics: Transport of spin-anisotropy without spin current</b>          |
| 16:00 – 16:30 | <i>COFFEE BREAK</i>      |   |
| 16:30 – 17:30 | Guillaume Schull         | <b>Electronic and optical properties of molecular and atomic contacts</b>                 |
| 18:30         | <i>DINNER</i>            |   |
| from 19:30    | <b>Poster session II</b> |   |

# Program

Thursday, 1 December 2011

|               |                         |   |
|---------------|-------------------------|---|
| 8:00          | <i>BREAKFAST</i>        |   |
| 9:00 – 10:00  | Peter Wahl              | <b>Kondo effect in STM: From single impurity physics to quantum criticality</b> |
| 10:00 – 11:00 | Thomas Frederiksen      | <b>Quantum transport from first principles</b>                                  |
| 11:00 – 11:30 | <i>COFFEE BREAK</i>     |   |
| 11:30 – 12:30 | Sebastian Loth          | <b>Speeding up scanning tunneling microscopy into the nanosecond range</b>      |
| 12:30 – 12:45 | Scientific Organization | <b>Closing remarks and poster awards</b>  |
| 12:45         | <i>LUNCH</i>            |   |