

INFORMATION

ORGANIZERS

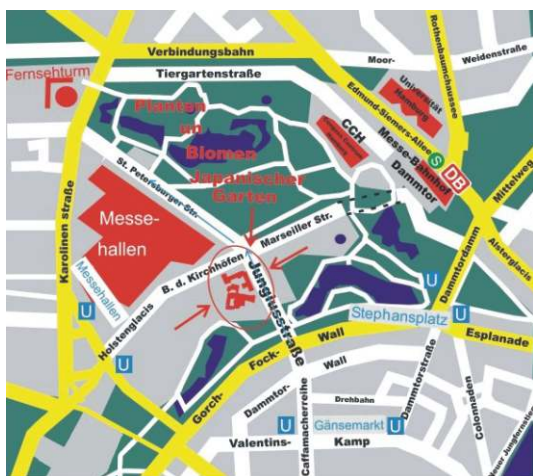
Center of Competence HanseNanoTec
at the University of Hamburg

CONGRESS FEE

No congress fee is charged.
Registration is required.

VENUE

University of Hamburg
Institute of Applied Physics
Jungiusstr. 11
20355 Hamburg



INFORMATION & ACCOMMODATION

Congress Office
Ute Brenger
Tel.: +49 - 40 - 42838 - 7045
Fax.: +49 - 40 - 42838 - 6959
ubrenger@physnet.uni-hamburg.de
www.hansenanotec.de

REGISTRATION

I want to attend the Symposium:

“Atom Manipulation,
Single Spins and Atomic Forces:
Novel Perspectives in the
Nanoscience Era”

14./15. Oct. 2004
University of Hamburg

Participation is free of charge.

Title: _____

First Name: _____

Last Name: _____

Company: _____

Department: _____

Street / P.O.Box: _____

Postal Code: _____ City: _____

email: _____

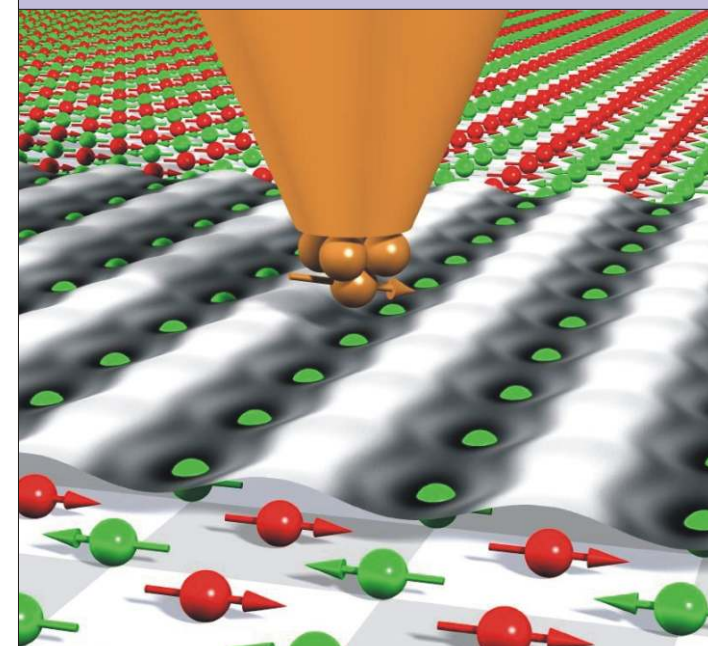
Date: _____ Signature _____

Return to congress office by fax:

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International SYMPOSIUM

“Atom Manipulation,
Single Spins and
Atomic Forces:
Novel Perspectives in
the Nanoscience Era”



Hamburg, 14./15.Oct.2004

RIS++ Hamburg



GEFÖRDET VOM



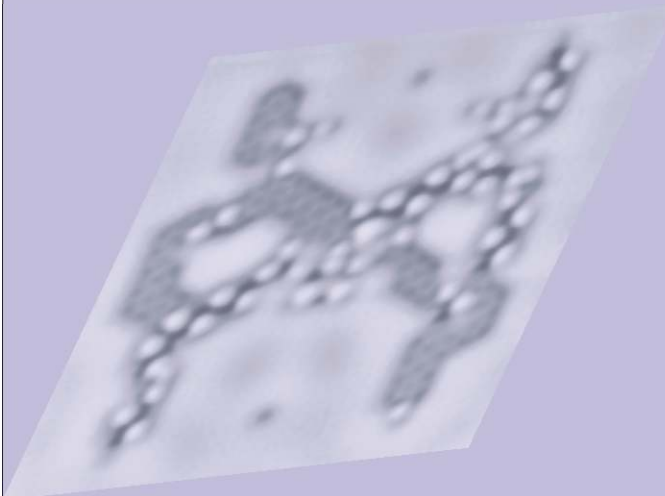
Bundesministerium
für Bildung
und Forschung



Universität Hamburg

PREAMBLE

The manipulation of atoms, the determination of magnetic moments, and the measurement of force fields of atoms and molecules have been in the focus of research since the development of quantum physics. With the invention of scanning tunnelling microscopy and atomic force microscopy, novel experimental tools have become available for investigations of charge and spin structures at the level of individual atoms. Even the controlled manipulation of electronic and spin states has become possible in recent years. This international symposium will focus on highlights of nanoscience research which will, ultimately, lead to a design of novel materials and devices on an atom-by-atom basis.



Programme

Thursday, 14.10.

- 9:00 **Opening**
R. Wiesendanger,
Hamburg University
- 9:15 **Welcome Address**
- 9:30 **Inelastic Tunneling Spectroscopy on the Atomic Scale**
A. Heinrich,
IBM Almaden (USA)
- 10:30 **Coffee Break**
- 10:45 **Listening to Atoms in Atom Manipulation and Autonomous Atom Assembly**
J. Stroscio,
NIST Gaithersburg (USA)
- 11:45 **STM-Manipulation of Atoms and Molecules: Principles and Applications**
K.-H. Rieder,
FU Berlin (D)
- 12:45 **Lunch Break**
- 14:00 **STM Investigations of ultrathin insulating Films: Interface States and atomic Manipulation**
G. Meyer,
IBM Rüschlikon (CH)
- 15:00 **Inelastic Tunneling Spectroscopy and Photon Emission**
R.-Berndt,
CAU Kiel (D)
- 16:00 **Coffee Break**
- 16:15 **Scanning Tunneling Spectroscopy of High- T_c Superconductors**
S. Pan,
University of Houston (USA)
- 17:15 **Spin-polarized STM: Achievements and Perspectives**
M. Bode,
University of Hamburg (D)

Programme

Friday, 15.10.

- 9:00 **Atomic force microscopy - entering the picometer resolution range**
F. Giessibl,
University of Augsburg (D)
- 10:00 **High Resolution Force Microscopy and Spectroscopy at Low Temperatures**
A. Schwarz,
University of Hamburg (D)
- 11:00 **Coffee Break**
- 11:15 **Single spin detection using magnetic resonance force microscopy**
J. Mamin
IBM Almaden (USA)
- 12:15 **General Meeting of the Network "HanseNanoTec"**
- 13:30 **Closing**

