Main Topics

Nonlinear Dynamics of Nanoscopic Systems: Scaling, Stochasticity, and Quantum Mechanics

Organization

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Conference Location

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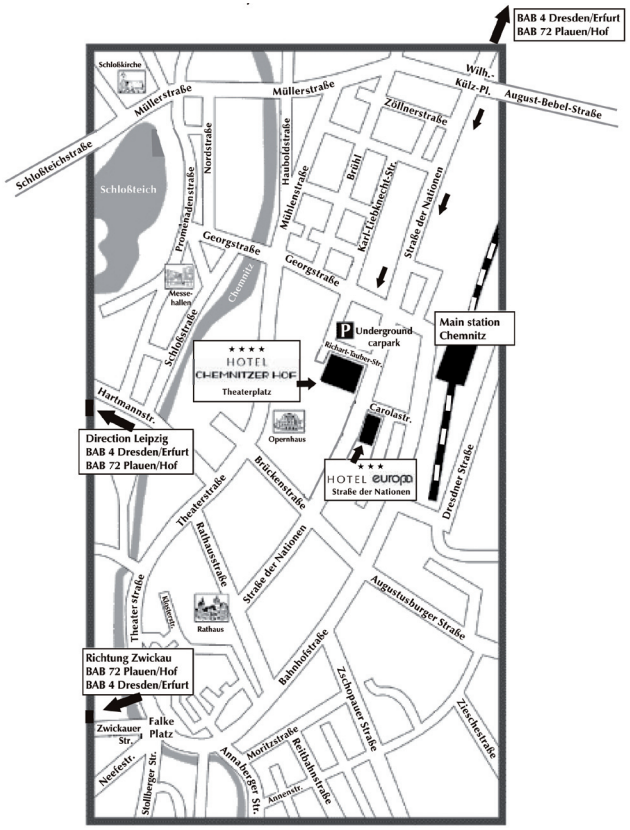
Travel Information



The hotel Chemnitzer Hof is located in the inner city of Chemnitz near the main station, the opera house, and König-Albert-Museum - the City Art Gallery.

Conference Program

(Updated August 23, 2006)

International Symposium

Nonlinear Dynamics of Nanosystems

August 28-30, 2006
Chemnitz, Germany

Nonlinear Dynamics of Nanosystems
Chemnitz 2006

CHEMNITZ UNIVERSITY OF TECHNOLOGY

VolkswagenStiftung

Sunday, August 27, 2006

18.00 Welcome Buffet

Monday, August 28, 2006

8.00 Registration

8.30 **Welcome and Greeting Words**
Heinz Georg Schuster, University of Kiel
Dieter Happel, Prorector of Chemnitz University of Technology
Franz Dettenwanger, VolkswagenStiftung

Plenary Talks

9.00 **Nonlinearity: The Key to Creating and Detecting Mechanical Quanta**
Andrew Cleland, UC Santa Barbara

9.50 **The Duffing Nonlinearity in Nanomechanical Systems**
Sequoyah Aldridge, Caltech, Pasadena

10.40 Coffee Break

11.10 **Metastability and Structural Dynamics of Metal Nanowires**
Jérome Bürki, University of Arizona, Tucson

12.00 **Nonlinear Response of Driven Nanoscale Conductors**
Sigmund Kohler, University of Augsburg

12.50 Lunch

14.20 **Dynamics of Nonlinear Coupled Nanomechanical Resonators**
Ron Lifshitz, Tel Aviv University

15.10 **Bonds that Strengthen under Force**
Viola Vogel, ETH Zürich

16.00 Coffee Break

16.30 **Short Poster Announcements**

19.00 Dinner

Tuesday, August 29, 2006

Plenary Talks

9.00 **Excited-State Dynamics in Carbon Nanostructures**
David Tománek, Michigan State University, East Lansing

9.50 **The Stochastic Dynamics of Arrays of Micro and Nanoscale Cantilevers in a Viscous Fluid - Fluctuations from Dissipation**
Mark Paul, Virginia Tech, Blacksburg

10.40 Coffee Break

11.10 **The Fluctuation and NonEquilibrium Free Energy**
Theorems - Theory and Experiment
Denis Evans, The Australian National University, Canberra

12.00 **Nonequilibrium Nanosystems**
Pierre Gaspard, Universite Libre de Bruxelles

12.50 Lunch

14.20 **Ultrasensitive Magnetic Resonance Detection with Micromechanical Cantilevers**
Chris Hammel, Ohio State University, Columbus

15.10 **High-Frequency Dynamics and Phase Locking in Spin Transfer Nano-Oscillators**
Steve Russek, National Institute of Standards and Technology, Boulder

16.00 Coffee Break

16.30 **Poster Session**

19.00 Conference Dinner

Wednesday, August 30, 2006

Plenary Talks

9.00 **Nanoscale Fluid Dynamics**
David Erickson, Cornell University

9.50 **Nonlinear Dynamics of Electromigration-Driven Crystal Steps**
Joachim Krug, University of Cologne

10.40 Coffee Break

11.10 **Casimir Forces and Geometry of Nanomechanical Systems**
Thorsten Emig, Universite Paris Sud

12.00 **Pattern Formation and Control at the Nano-Scale**
Eckehard Schöll, Technical University of Berlin

12.50 Lunch

14.20 **Nanoplasmonics: Generation and Control of Nanoscale Optical Fields**
Mark I. Stockman, Georgia State University, Atlanta

15.10 **Biomolecules as Nonlinear Oscillators: Life-Enabling Dynamics**
Igor Mezic, UC Santa Barbara

16.00 Coffee Break

16.30 **Round Table**

19.00 Dinner