Max-Planck-Institut für Physik komplexer Systeme
Dresden, Germany

International Workshop

Classical and quantum barrier transport in complex systems

• Workshop: May 20 - 24, 2003

Scientific coordinators:

Joachim Ankerhold
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Germany

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Organisation: **Mandy Stiegler,** MPIPKS Dresden, Germany

Recent theoretical progress and spectacular experimental achievements have revealed the central role of transport in the presence of potential barriers for physical, chemical, and biological systems. Phenomena on scales ranging from ensembles of atoms to structures in biological cells have attracted an interdisciplinary community of scientists and their description—even though quite different in detail—has led to a remarkable exchange of concepts and methods between atomic, condensed matter, statistical, and chemical physics.

The aim of this workshop is to provide a platform for international experts and younger scientists to discuss the state of the art in the respective fields, take a look beyond their boundaries, and promote further collaborations. In particular, the focus will be on **(i)** classical/quantum mechanical dissipative transport across/through potential barriers, **(ii)** Brownian motors, molecular motors, ratchet systems, and **(iii)** deterministic quantum transport in periodic structures.

Confirmed Speakers include:

K. Alekseev (Finland)
C. Bruder (Switzerland)
A. Engel (Germany)
E. Frey (Germany)
H. Grabert (Germany)
M. Holthaus (Germany)
R. Kawai (USA)
K. Leo (Germany)
H.B. Majer (The Netherlands)
F. Müller (Germany)
P. Pechukas (USA)
J. Prost (France)
M. Rief (Germany)
W. Schleich (Germany)
F. Sols (Spain)
P. Talkner (Germany)
D. Van der Meer (The Netherlands)
U. Weiss (Germany)
R.D. Astumian (USA)
G. Buntkowsky (Germany)
K. Ensslin (Switzerland)
S. Flach (Germany)
P. Hamm (Switzerland)
J. Howard (Germany)
R. Ketzmerick (Germany)
H. Linke (USA)
F. Marchesoni (Italy)
U. Nienhaus (Germany)
E. Pollak (Israel)
E. Rabani (Israel)
H. Schanz (Germany)
M. Shapiro (Israel)
A.K. Sood (India)
M. Thoss (Germany)
A. Wallraff (USA)
C. Bechinger (Germany)
R. Eichhorn (Germany)
F.F. Falo (Spain)
I. Goychuk (Germany)
P. Hänggi (Germany)
F. Jülicher (Germany)
H.J. Korsch (Germany)
J. Luczka (Poland)
L. Mühlbacher (Germany)
A. Ott (Germany)
A. Pikovsky (Germany)
M. Raizen (USA)
L. Schimansky-Geier (Germany)
I. Sokolov (Germany)
G. Stock (Germany)
C. Van den Broeck (Belgium)
D. Weiss (Germany)

Applications are welcome and should be made by using the application form on the conference web page, however, the number of attendees is limited. The workshop's registration fee is €100. Costs for accommodation and meals will be covered by the Max Planck Institute. In exceptional cases, limited funding for travel expenses is available.

Deadline for applications is February 15, 2003.

For further information and application forms please contact:
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