

Dynamics and Relaxation in Complex Quantum and Classical Systems and Nanostructures

- Seminar July 24 - October 06, 2006 •
- Workshop July 24 - August 15, 2006 •

Scientific coordination:

Igor Aleiner Columbia University New York, USA	Boris L. Altshuler Princeton University Princeton, USA	Vladimir I. Falko Lancaster University Lancaster, UK	Andreas Ludwig University of California Santa Barbara, USA	Kay J. Wiese École Normale Supérieure Paris, France
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Organisation:

Claudia Pönisch
MPI für Physik komplexer Systeme
Dresden, Germany

This Seminar is devoted to quantum transport and field theories of quantum disorder, a fast-growing field of charge and spin dynamics in nanostructures (including manipulation of multi-qubit systems and spins in quantum dots), and to theories of disordered and strongly interacting classical systems. The programme will start with a three-week Workshop encompassing the above mentioned topics in application to the Luttinger liquid in quantum wires, Kondo effect and dynamical properties of quantum dots, nano-mechanical and electro-mechanical systems, spin transport in semiconductor structures, issues of phase coherence and de-coherence in qubits, coherent manipulation of cold atomic gases, non-adiabatic dynamics of quantum condensates, and interaction and localization in one and two dimensions. The final two weeks of the Seminar will be focused on quantum transport, correlations and quantum Hall effect in new systems, such as graphene monolayers and bilayers.

Invited participants:

Y. Alhassid (USA)	A. Altland (D)	N. d'Ambrumenil (UK)	T. Ando (J)
A. Andreev (USA)	L. Balents (USA)	D. Basko (USA)	C. Beenakker (NL)
R. Berkovits (IL)	A. Brataas (N)	L. Brey (E)	P. Brouwer (USA)
C. Bruder (CH)	A. Buzdin (F)	A. Castro-Neto (USA)	G. Catelani (USA)
N. Cooper (UK)	L. Cugliandolo (F)	S. Das-Sarma (USA)	J. von Delft (D)
V. Dotsenko (F)	P. Le Doussal (F)	K. Efetov (D)	F. Essler (UK)
G. Falci (I)	R. Fazio (I)	M. Feigelman* (RUS)	D. Feldman (USA)
A. Furusaki (J)	Y. Galperin (N)	Y. Gefen (IL)	L. Glazman (USA)
F. Guinea (E)	B. Halperin (USA)	W. de Heer (USA)	F. Hekking (F)
J. Jefferson (UK)	A. Kamenev* (USA)	P. Kim (USA)	B. Kramer (D)
V. Kravtsov (I)	A. Lanzara (USA)	I. Lerner (UK)	L. Levitov (USA)
P. Littlewood (UK)	D. Loss (CH)	T. Martin (F)	D. Maslov (USA)
E. McCann (UK)	J. Meyer (USA)	A. Middleton (USA)	A. Millis (USA)
B. Mouzykantsky (UK)	G. Mussardo (I)	N. Nagaosa* (J)	T. Nattermann (D)
Y. Nazarov (NL)	M. Ortuño (E)	E. Paladino (I)	N. Peres (P)
M. Pustilnik (USA)	A. Ramsak (SLO)	M. Salmhofer (D)	H. Schomerus (UK)
R. Shukhter (S)	A. Shytov* (USA)	S. Simon (USA)	B. Simons* (UK)
I. Smolyarenko (UK)	A. Stern (IL)	D. Stone* (USA)	Y. Tserkovnyak (USA)
A. Tsvelik (USA)	A. Varlamov (I)	M. Vavilov (USA)	V. Vinokur (USA)

(* to be confirmed)

Applications for participation and poster contributions are welcome and should be made by using the application form on the workshop web page (please see URL below). The number of attendees is limited. The **registration fee** for the programme is **100 €** and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute.

Deadline for registration is May 31, 2006.



For further information please contact:
Visitors Program - Claudia Pönisch
Max-Planck-Institut für Physik komplexer Systeme,
Nöthnitzer Str. 38, D-01187 Dresden, Germany
Tel.: +49-351-871-2198 / Fax: +49-351-871-2199
coqusy06@mpipks-dresden.mpg.de
<http://www.mpipks-dresden.mpg.de/~coqusy06>

