MAX-PLANCK-INSTITUT FÜR PHYSIK KOMPLEXER SYSTEME DRESDEN

International Workshop and Seminar on

Disordered Dynamical Systems
Dresden

Workshop • 2 - 6 March, 1998
Seminar • 9 March - 9 April, 1998

Scientific Coordinator:

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WORKSHOP PROGRAM

Sunday, 1 March

Arrival

19:00 Welcome (Cafeteria at the Max Planck Institute)

Monday, 2 March

09:30 - 10:00	**Peter Fulde** (Dresden) **Günter Radons** (Kiel) *Opening address*
10:00 - 11:00	**Leonid Bunimovich** (Atlanta) *Space-time chaos in nonlinear wave equations*
11:00 - 11:30	Coffee
11:30 - 12:30	**Rudolf Hilfer** (Stuttgart) *Correlated disorder and transport in porous media*
12:30 - 14:00	Lunch
14:00 - 15:00	**Henk van Beijeren** (Utrecht) *Chaos and transport in low-density systems*
15:00 - 16:00	**Ramses van Zon** (Utrecht) *Connection between dynamical systems theory and non-equilibrium statistical mechanics*
16:00 - 16:30	Coffee
16:30 - 17:30	**Harald Posch** (Vienna) *Fractal phase space structures in non-equilibrium systems*
18:00	Supper

Tuesday, 3 March

09:00 - 10:00	**Pierre Gaspard** (Bruxelles) *Chaos and transport in diffusion-reaction systems*
10:00 - 10:30	Coffee
10:30 - 11:30	**Andreas Engel** (Magdeburg) *Multifractral phase space of neural networks*
11:30 - 12:30	**Rainer Klages** (Bruxelles) *Deterministic transport, fractal transport coefficients, and random perturbations*
12:30 - 14:00	Lunch
14:00 - 15:00	**Klaus W. Kehr** (Jülich) *Random walks in systems with uncorrelated disorder*
15:00 - 16:00	**Matthias Gundlach** (Bremen) *Products of random rectangular matrices for random walks in random environments*
16:00 - 16:30	Coffee
16:30 - 17:30	**Peter Hänggi** (Augsburg) *Reaction rates when barriers fluctuate*
18:00	Supper

Wednesday, 4 March

09:00 - 10:00	**Dieter Weiss** (Regensburg) *Transport experiments in periodic and random electric and magnetic fields*
10:00 - 10:30	Coffee
10:30 - 11:30	**Herbert Spohn** (München) *Magnetotransport of the 2D Lorentz gas*
11:30 - 12:30	**Andreas Knauf** (Leipzig) *Motion in periodic potentials*
12:30 - 14:00	Lunch
14:00 - 15:00	**Tyll Krüger** (Leipzig) *Self-organized criticality and dynamical systems*
15:00 - 16:00	**Ga'bor Vattay** (Budapest) *Periodic orbit theory of chaotic, noisy and quantum systems*
16:00 - 16:30	Coffee
16:30 - 17:30	**Otto E. Rössler** (Tübingen) *Reversibility-based irreversibility and evolution*
18:00	Supper

Thursday, 5 March

09:00 - 10:00	**Charles M. Newman** (New York) *Stochastic dynamics for (disordered) lattice spin systems*
10:00 - 10:30	Coffee
10:30 - 11:30	**Jean-Marc Luck** (Gif-sur-Yvette) *Aging in simple systems*
11:30 - 12:30	**Lester Coyle** (Baltimore) *Random walks in a random potential*
12:30 - 14:00	Lunch
14:00 - 15:00	**Theo Geisel** (Göttingen) *Anomalous wave packet spreading and correlation decay*
15:00 - 16:00	**Pal Rujan** (Oldenburg) *Phase transitions in randomly driven spin systems*
16:00 - 16:30	Coffee
16:30 - 17:30	**Tamas Tel** (Budapest) *Random maps in modelling chaotic flows*
19:00	Workshop Dinner

FRIDAY, 6 MARCH

09:00 - 10:00	**Conrad Perez-Vincente** (Barcelona) *Recent contributions on the Kuramoto model*
10:00 - 10:30	COFFEE
10:30 - 11:30	**Heinz Horner** (Heidelberg) *Slow dynamics and aging in glasses and spin-glasses*
11:30 - 12:30	**Sergej Flach** (Dresden) *Discrete breathers - localization without disorder*
12:30 - 14:00	LUNCH
14:00 - 15:00	**Walter Zimmermann** (Jülich) *Heterogeneties in pattern formation*
15:00 - 16:00	**Joachim Krug** (Essen) *Phase transitions in disordered exclusion models*
16:00 - 16:30	COFFEE
16:30 - 17:30	**Itamar Procaccia** (Rehovot) *Instability and noise in flame propagations:* *dynamics in the complex plane*
18:00	SUPPER

SATURDAY, 7 MARCH - FREE

SUNDAY, 8 MARCH - EXCURSIONS

SEMINAR PROGRAM - next page

SEMINAR PROGRAM

MARCH 9 - APRIL 9, 1998

SPEAKERS TENTATIVELY SCHEDULED FOR THE 1ST AND 2ND SEMINAR WEEK INCLUDE

Hailemariam Ambaye (Jülich)
Connection b/n Disspersive Transport and statistics of extrem events

Johannes Berg (Magdeburg)
Statistical mechanics of zero-sum games

Tseren Davaadorj (Köln)
Synchranisation of time-delay coupled chaotic relaxational oscillators

Reza Ejtehadi (Tehran)
Shape transition of polyampholytes in two dimensions

Andreas Engel (Magdeburg)
to be announced

Hans Groeneveld (Utrecht)
to be announced

George Guria (Moscow)
Spatio-temporal dynamics of fibrin polymerization in the process of blood coagulation

Moma Jovanovic (Nis)
Transition to complex spatio-temporal regimes in nonlinear wave interactions in plasmas

Klaus W. Kehr (Jülich)
Random walks in random environments

Rainer Klages (Bruxelles)
Simple deterministic dynamical systems with drift:
Negative currents and suppression of diffusion

Andreas Knauf (Leipzig)
The number-theoretical spin chain

Heiko Rieger (Jülich)
Aging in disordered systems

Pal Rujan (Oldenburg)
Disordered spin models for information processing

Jan C. Stiller (Kiel)
Dynamics of nonlinear oscillators with random interactions

Balint Toth (Budapest)
to be announced

Martin Weigt(Magdeburg)
Replica theory of one-dimensional disordered systems
Multifractal phase space of neural networks

DURING THE LAST SEMINAR WEEK (APRIL 1 - 9)

PROFESSOR IMRE KONDOR (BUDAPEST)

WILL GIVE A SERIES OF LECTURES ON

'THE FIELD THEORY OF SPIN GLASSES AND/
OR STATIC CHAOS IN SPIN GLASSES'