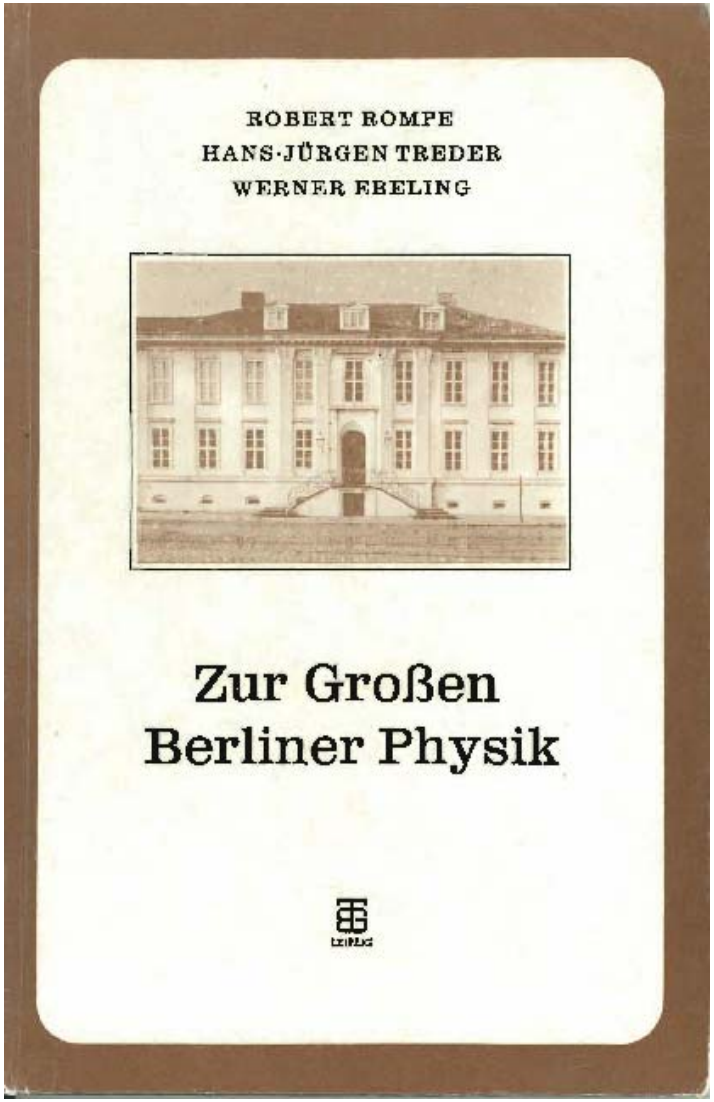
HU Berlin und Hänggi:
Eine vielseitige stochastische Wechselwirkung

Zur Großen Berliner Physik



Zur Geschichte der Thermodynamik in Berlin

Werner Ebeling

Die Thermodynamik, eine der Schlüsseldisziplinen der Physik, verdankt einige ihrer Fundamente dem Wirken einer Gruppe bedeutender Gelehrter, die mit Berlin unlösbar verbunden sind. Wir nennen an vorderer Stelle die Namen von fünf Wissenschaftlern, welche die Thermodynamik als ein Hauptfeld ihrer Tätigkeit in Forschung und Lehre gesehen haben.

Es sind dies:

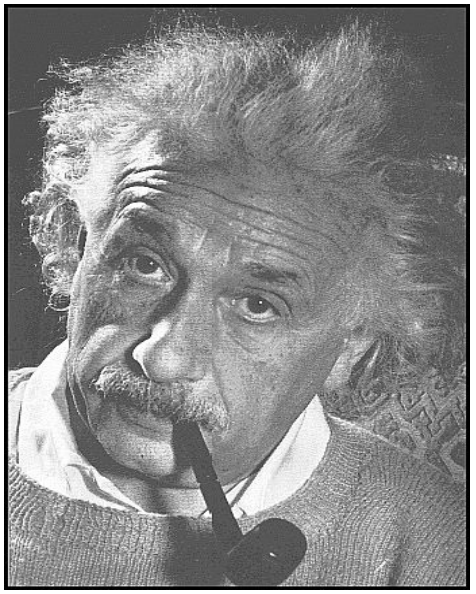
Hermann von Helmholtz	(1821 - 1894)
Rudolf Clausius	(1822 - 1888)
Max Planck	(1858 - 1947)
Jacobus Van't Hoff	(1852 - 1911)
Walter Nernst	(1854 - 1941)

Hermann von Helmholtz (1821 – 1894)

Rudolf Clausius (1822 – 1888)

Walter Nernst (1854 – 1941)

Max Planck
(1858 – 1947)



Albert Einstein
(1879 – 1955)

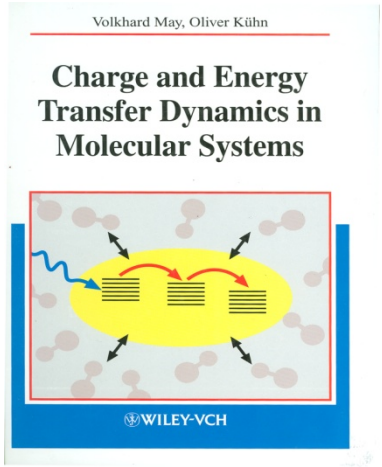
Erwin Schrödinger
(1887 – 1961)

Johann von Neumann
(1903 – 1957)

HU Berlin ⟷ **AUGSBURG**

Zusammenarbeit:
Augsburger
Rauscher
mit
Berliner
Rauschern
W. Ebeling
L. Schimansky-Geier
I. Sokolov

Elektronischer Transport durch Moleküle



Augsburger mit **V. May** und (E. Petrov)

Augsburg + HU Berlin

1. Gemeinsames Papier

Z. Phys. B – Condensed Matter 77, 471–483 (1989)

Condensed Matter
Zeitschrift für Physik B

Colored noise driven systems with inertia

L.H'walisz[1], P. Jung[1], P. Hänggi[1], P. Talkner[2], and L. Schimansky-Geier[3]
[1] Institut für Mathematik, Universität Augsburg, Federal Republic of Germany
[2] Institut für Theoretische Physik, Universität Basel, Switzerland
[3] Sektion Physik, Humboldt-Universität zu Berlin, German Democratic Republic

Received May 3, 1989; revised version July 13, 1989

13 Gemeinsame Arbeiten (2 submitted) mit dem Lehrstuhl Stochastische Prozesse/Stat. Physik

ISI
33

Most cited item
ISI: **48**

Mag ich am Liebsten:

PHYSICAL REVIEW E VOLUME 59, NUMBER 2 FEBRUARY 1999

Inertia ratchets: A numerical study versus theory

B. Lindner,[1] L. Schimansky-Geier,[1] P. Reimann,[2] P. Hänggi,[2] and M. Nagaoka[3]
[1]*Humboldt-University at Berlin, Invalidenstrasse 110, D-10115 Berlin, Germany*
[2]*University of Augsburg, Memminger Strasse 6, D-86135 Augsburg, Germany*
[3]*Institute for Fundamental Chemistry, 34-4 Takano, Nishihiraki-cho, Sakyo-ku, Kyoto 606-8103, Japan*
(Received 10 August 1998)

PHYSICAL REVIEW E, VOLUME 65, 051110

Oscillatory systems driven by noise: Frequency and phase synchronization

Lars Callenbach, Peter Hänggi, and Stefan J. Linz
Institut für Physik, Universität Augsburg, Universitätsstrasse 1, D-86135 Augsburg, Germany

Jan A. Freund and Lutz Schimansky-Geier
Institut für Physik, Humboldt Universität zu Berlin, Invalidenstrasse 110, D-10115, Berlin, Germany
(Received 24 December 2001; published 17 May 2002)

CHAOS VOLUME 13, NUMBER 1 MARCH 2003

Frequency and phase synchronization in stochastic systems

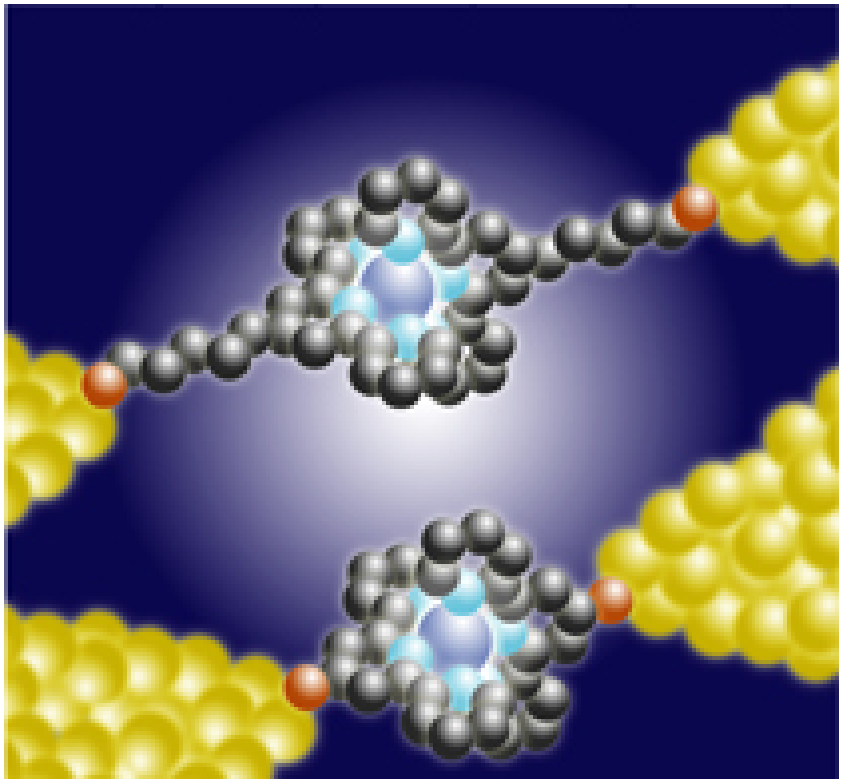
Jan A. Freund[a)] and Lutz Schimansky-Geier
Institut für Physik, Humboldt-Universität zu Berlin, Invalidenstr. 110, D-10115 Berlin, Germany

Peter Hänggi
Institut für Physik, Universität Augsburg, Universitätsstr. 1, D-86135 Augsburg, Germany

(Received 22 April 2002; accepted 25 June 2002; published 21 February 2003)

ISI: **35**

Hänggi ⟷ Molekulare Elektronik



7 publizierte Artikel mit V. May
Chem. Physics & J. Chem. Physics & Phys. Rev. B

JOURNAL OF CHEMICAL PHYSICS VOLUME 121, NUMBER 5 1 AUGUST 2004

Vibrational effects in laser-driven molecular wires

Jörg Lehmann and Sigmund Kohler
Institut für Physik, Universität Augsburg, Universitätsstraße 1, D-86135 Augsburg, Germany

Volkhard May
Institut für Physik, Humboldt-Universität zu Berlin, Newtonstraße 15, D-12489 Berlin, Germany

Peter Hänggi
Institut für Physik, Universität Augsburg, Universitätsstraße 1, D-86135 Augsburg, Germany

(Received 24 March 2004; accepted 12 May 2004)

Erste Kontakte

1) Besuch am Institut Invalidenstraße

Werner Ebeling was born in September 15, 1936 in Bad Suderode. He studied physics at the University of Rostock and at the Moscow State University; received his Diplom in Physics, his Dr. rer. nat. and Dr. habil. at the Rostock University (1959, 1963, 1968) under Professor Hans Falkenhagen. He has served at the Universities Riga, Torun, Paris, Bruxelles and Vera Cruz as Visiting Professor, as Professor at the W. Pieck University of Rostock and is now Professor of Theoretical Physics at the Humboldt-University Berlin. He is author (or coauthor) of four monographs on the statistical theory of plasmas and of the theory of selforganization and evolution far from equilibrium. Dr. Ebeling is Corresponding Member of the Academy of Sciences of the GDR at Berlin.

Yuri Klimontovich in one of the leading specialists in Noneequilibrium Statistical Physics. He was born September 28, 1924 in Moscow, received his Diplom in Physics in 1948 at the Moscow State University and later the degrees of a Candidate and of a Doctor of Science at the same University. He has served at several Soviet Universities, at the Université Libre de Bruxelles an at the W. Pieck University of Rostock as Visiting Professor and is currently Professor at the State University M. V. Lomonossov in Moscow. He is the author of three well-known monographs on the statistical theory of nonequilibrium processes in plasmas, nonideal systems and of electromagnetic processes. Further he wrote a textbook on statistical physics.

TEUBNER-TEXTE zur Physik

1. Auflage
VLN 394-375/56/84 LSV 1115
Lektor: Dr. rer. nat. Ingrid Lischke
Printed in the German Democratic Republic
Gesamtherstellung: Nationales Druckhaus, Berlin, Betrieb der VOB National
Bestell-Nr. 666 190 4

02450

Prof. Dr. Peter Hänggi
Lehrstuhl für Theoretische Physik
UNIVERSITÄT AUGSBURG
Memminger Straße 6
D - 8900 Augsburg

TEUBNER-TEXTE zur Physik · Band 2

Herausgeber/Editors: Werner Ebeling
Wolfgang Meiling
Armin Uhlmann
Bernd Wilhelmi

Werner Ebeling / Yuri Lvovich Klimontovich

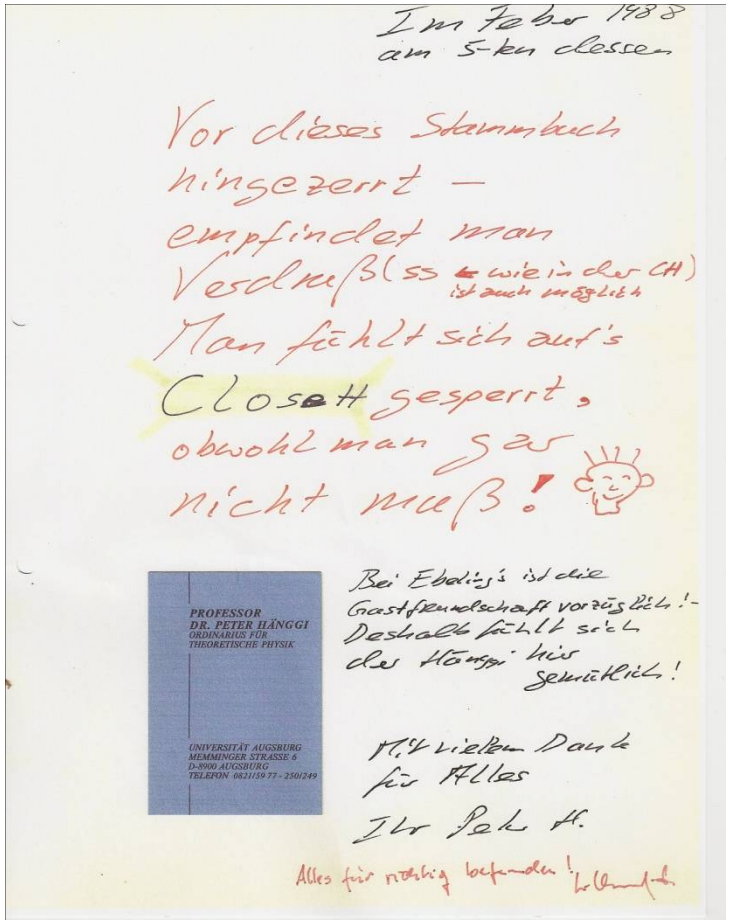
Selforganization and Turbulence in Liquids

Für Prof. Peter Hänggi
zur Erinnerung an den
Besuch in Berlin
Februar 88 Werner Ebeling

The book is devoted to the discussion of the relation between the theory of selforganization and the theory of turbulence phenomena in isothermal, incompressible liquids. As basic examples for self-organization processes the generation of selfsustained oscillations and the formation of stationary concentration patterns is analyzed. The deep analogy of these processes to turbulent structures especially in parallel flows is discussed. Methods from thermodynamics and statistical physics are used and special attention is devoted to the investigation of fluctuations.

Erste Kontakte

2) Konferenz in Rostock, Frühjahr 1989



Unvergessliches Konferenzdinner

- Klubhaus der Chemiefacharbeiter hinter dem Bahnhof in Rostock

1.Preis Russia-Armenia-„Pyramid“
1 Fl. Hochprozentiger Korn!

Horst Malchow was born in February 22, 1953 in Bonn. He studied physics at the Wilhelm-Pieck-University of Rostock and received his Diploma in Physics in 1978. After changing to the Humboldt University of Berlin he got his Dr. rer. nat. in 1982. His scientific master is Professor W. Ebeling. The working field of H. Malchow is the theory of pattern formation in nonequilibrium systems especially in deterministic and stochastic reaction-diffusion systems.

Lutz Schimansky-Geier was born in September 1, 1950 in Hettstedt. He studied physics at the State University of Yerevan. After receiving his Diploma in 1974 he worked at the Wilhelm-Pieck-University of Rostock under Professor W. Ebeling. Since 1979 he serves at the Humboldt University Berlin. He received his Dr. rer. nat. in 1981. He finished a post graduate study at the Moscow State University under the Professors Yu. M. Romanovskii and Yu. L. Klimontovich. His scientific field are stochastic nonlinear phenomena.

TEUBNER-TEXTE ZUR Physik · Band 5

1. Auflage
VLN 394-375/69/85 · LSV 1115
Lektor: Dr. rer. nat. Ingrid Lischke
Printed in the German Democratic Republic
Gesamtherstellung: Nationales Druckhaus, Berlin
Betrieb des VOB National, 1055 Berlin
Bestell-Nr. 666 271 2
02050

Peter Hänggi

TEUBNER-TEXTE zur Physik · Band 5

Herausgeber/Editors: Werner Ebeling, Berlin
Wolfgang Meiling, Dresden
Armin Uhlmann, Leipzig
Bernd Wilhelmi, Jena

Horst Malchow / Lutz Schimansky-Geier

Noise and Diffusion in Bistable Nonequilibrium Systems

Bistable behaviour is a wide-spread property of macroscopic nonequilibrium systems and a simple form of dissipative structure formation. In the deterministic theory the system has the possibility to reach two stable stationary states in dependence on the initial conditions. The inclusion of diffusion can lead to the formation of stable spatial and spatio-temporal structures. Transitions between the stable states and noiseinduced inhomogeneous distributions become possible by homogeneous and inhomogeneous macroscopic fluctuations in the stochastic theory. The results are developed by help of model systems from chemical kinetics, selection theory, morphogenesis and classical mechanics.

Statphys 17

S. Hess – P. Hänggi – W.Ebeling – W. Renz

NATO ADVANCED RESEARCH WORKSHOP ON

Rate Processes in Dissipative Systems: 50 Years After Kramers

under the auspices of the
Deutsche Physikalische Gesellschaft and the
Deutsche Bunsengesellschaft für Physikalische Chemie
sponsored by NATO and the Deutsche Forschungsgemeinschaft

September 10 – 13, 1990 in TUTZING (Lake Starnberg) Bavaria, FRG

This international workshop celebrates the 50th anniversary of Kramers' seminal paper on thermally activated barrier crossing rates. Experimentalists and theoreticians from the fields of Physics and Chemistry will report on recent progress and will discuss perspectives on classical and quantum rate processes in condensed media.

Organizing Committee:
B. J. Berne (New York), **H. Grabert** (Essen), **P. Hänggi** (Director, Augsburg), **E. Pollak** (Rehovot), **J. Troe** (Göttingen)

Congratulation to the very nice and important post-conference in GOSEN

Werner Ebeling

Nico van Kampen

↳ Kramers machte das alleine

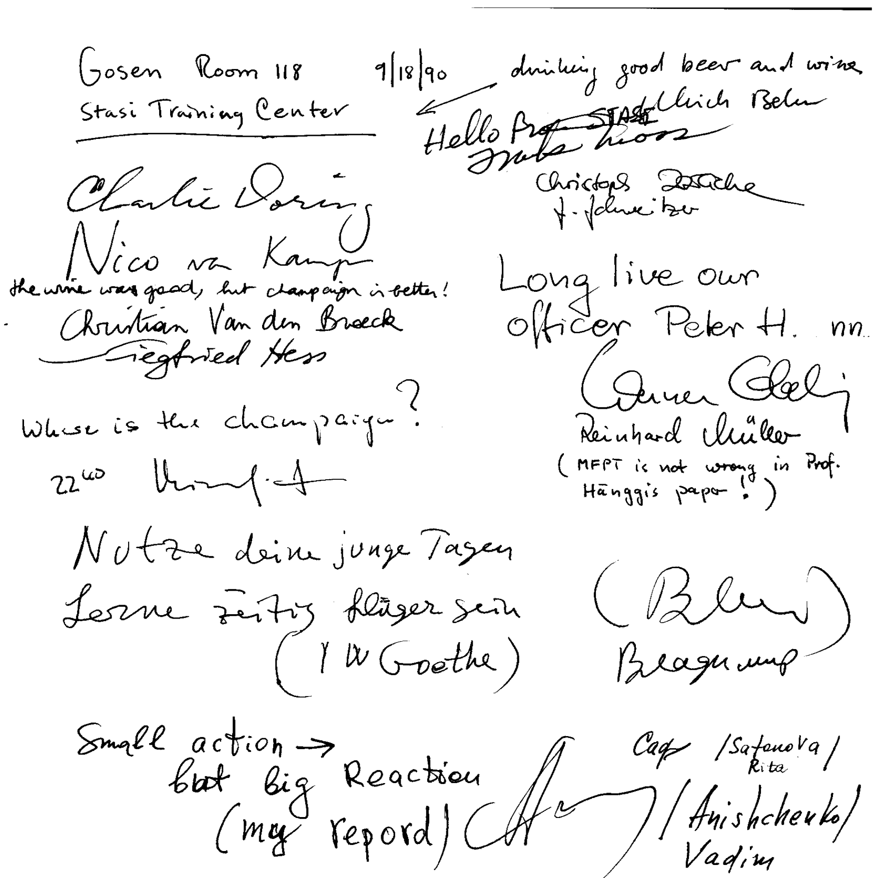
, Wir machen es zusammen

Denn wir sind nur kleine.

Konferenz in Gosen Sept. **1990**

101. Heraeus - Seminar:

Statistical Physics and Thermodynamics of Nonlinear Nonequilibrium Systems
16.09.-20.09.1990, Dr. habil. L. Schimansky-Geier, Prof. W. Ebeling (HU Berlin)



Gosen Room 118 9/18/90
Stasi Training Center

drinking good beer and wine
Hello Prof. STASI
Ulrich Behn

Christoph Zülicke

Charlie Doering
Nico van Kampen
the wine was good, but champaign is better!
Christian Van den Broeck
Siegfried Hess

Long live our officer Peter H. nn.

Where is the champaign?
22⁴⁰

Werner Ebeling
Reinhard Müller
(MFPT is not wrong in Prof. Hänggis paper!)

Nutze deine junge Tagen
Lerne zeitig klüger sein
(J W Goethe)

Small action → but big Reaction (my repord)

/Safonova/ Rita
/Anishchenko/ Vadim

1. Juni 1992

Statphys 18, Berlin, 02.08. 1992

In Berlin gibt es immer was zu feiern

Workshop

Nichtlineare Dynamik in Quantenmechanischen und Klassischen Systemen

16.8.1992 - 22.8.1992

in Sion

Dieser informative Workshop soll verschiedene Gruppen, die auf den Gebieten der klassischen nichtlinearen Dynamik(Bistabilität, Ratenprozesse, ...) sowie der dissipativen Quantenmechanik klassisch chaotischer Systeme arbeiten zusammenbringen.

Veranstalter: Prof. Dr. Peter Hänggi, Dr. Peter Jung
Institut für Physik, Universität Augsburg

Montag:

9^{00}	**G.L. Ingold:**	*Quanten Brownsche Bewegung-I*
10^{15}	Kaffeepause	
10^{45}	**G.L. Ingold:**	*Quanten Brownsche Bewegung-II*
12^{00}	Mittagspause	
16^{00}	**Kramer:**	*Untere Grenze für kritische Exponenten von Phasenübergängen*
17^{15}	Kaffeepause	
17^{45}	**Häusler:**	*Coulomb Wechselwirkung in Quantendots*
19^{00}	Abendessen	

Mittwoch

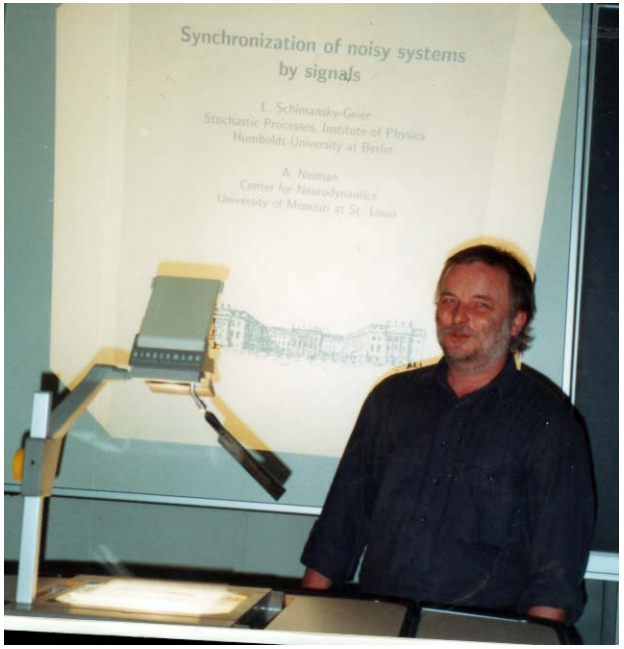
9^{00}	**Schirmacher:**	*Tunneln im Magnetfeld und der Hopping-Magnetwiderstand in dotierten Halbleitern-I*
10^{15}	Kaffeepause	
16^{00}	**Schirmacher:**	*Tunneln im Magnetfeld und der Hopping-Magnetwiderstand in dotierten Halbleitern-II*
12^{00}	Mittagspause	
16^{00}	**Dittrich:**	*Das Domino Billard*
17^{15}	Kaffeepause	
17^{45}	**Weinmann:**	*Wann ist ein Tunnelkontakt ein Kondensator?*
19^{00}	Abendessen	

Freitag

9^{00}	**Schimansky-Geier:**	*Strukturbildung fernab vom Gleichgewicht*
10^{15}		
11^{30}		
12^{30}	Programmende	

Workshop Sion 1992

in Augsburg
1991



in Augsburg
2002

1993: entspannt mit Frau Hänggi . . . . .

Ein weiteres historisches Meeting

147. Heraeus - Seminar:
Stochastische Dynamik in mesoskopischen Vielteilchensystemen

28.8. - 1.9.1995 in Schmerwitz

Organisatoren:
Schimansky-Geier (HU Berlin), Ebeling (HU Berlin), Kurths. Es nahmen ca. 80 Wissenschaftler aus 15 Ländern an dieser Veranstaltung teil: Stratonovich (Moskau), van Kampen (Utrecht), Doering (Los Alamos), Pollack (Rehovot), Hänggi (Augsburg)

…und mein lieber Herr „Spahn“ …wo sind die Bilder und der Film…!!!!!

Die Nikolaus-Meetings schon 10 !!

10. Nikolaustreffen: 19.-20.10.2007
Rauschen in nichtlinearen Systemen

Freitag, 19.10.2007

16:00-17:00 Uhr	P. Talkner *Quantum Fluctuation Theorems*
17:00-18:00 Uhr	S. Rüdiger *Modeling receptor domains and elementary calcium signals*
18:00-18:20 Uhr	Kaffeepause
18:20-19:20 Uhr	A. Ochab-Marcinek *Influence of noise on lactose metabolism in Escherichia coli*
	Abendessen

Samstag, 20.10.2007

10:00-11:00 Uhr	S. Burada *Entropic Barriers: Kinetics, Scaling and Control Mechanisms*
11:00-12:00 Uhr	D. Hennig *Directed ratchet-like transport in driven Hamiltonian systems*
12:00-12:20 Uhr	Kaffeepause
12:20-13:20 Uhr	J. Luczka *Unusual transport properties in driven Josephson junctions*
13:20-14:20 Uhr	I. Sokolov *Long times and power-laws in protein dynamics*

SFB 555
Komplexe Nichtlineare Systeme, L. Sch.-G.

Lutz ist krank → Meeting in Augsburg

… und weiter geht es zusammen

Goldene Doktorurkunde