

International Seminar and Workshop on  
**Constructive Role of Noise in Complex Systems**

June 26 - July 21, 2006

*Scientific coordinators:*

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Noise is inevitably present in any dissipative systems and all living organisms operate in the noisy environment. Understanding the role of noise is crucial both in fundamental research in nonlinear physics, and in many applications in engineering, biology and medicine. Recent developments in statistical physics and nonlinear dynamics have shed light on a new, sometimes counter-intuitive role which noise plays in nonlinear systems: in a wide range of systems random forces may bring a system to a more ordered state. The phenomena of noise-induced transitions, stochastic resonance, noise-enhanced transport and noise-sustained synchronization are just few examples. These phenomena were observed in diverse range of systems in physics, chemistry, biology, and medicine.

The meeting, a three-week seminar (June 26 - July 14) followed by a one-week workshop (July 17-21), will focus on recent developments in the field of noise and fluctuations in complex nonlinear systems as well as on applications of new noise-mediated phenomena and theoretical methodologies in experimental physics, biological physics, neuroscience and medicine.

We bring together theoretical physicists and specialists on applications in engineering, solid state physics, biological physics, neuroscience and other fields in an attempt to facilitate exchange of new ideas, establish new collaborations and provide tutorials for students and young researchers given by experts in the field.

INVITED SPEAKERS INCLUDE (\* TO BE CONFIRMED):

Vadim Anishchenko (Saratov)	Dean Astumian (Orono, Maine)	Sergey Bezrukov (Bethesda)
Christian van den Broeck (Limburg)	Markus Buettiker* (Geneve)	Adi Bulsara (San Diego)
Horacio Castillo* (Athens, Ohio)	Brent Dorion (New York)	Alexander Dubkov (Nizhny Novgorod)
Werner Ebeling (Berlin)	Udo Erdmann (Berlin)	Martin Falke (Berlin)
Ulrike Feudel (Oldenburg)	Jordi Garcia Ojalvo (Barcelona)	Igor Goychuk (Augsburg)
Peter Hänggi (Augsburg)	Peter Jung* (Ohio)	Frank Jülicher (Dresden)
Laszlo Kish (College Station)	Pavel Krapivsky (Boston)	Benjamin Lindner (Dresden)
Andre Longtin (Ottawa)	Dmitry Luchinsky (Lancaster)	Eric Lutz (Ulm)
Kirone Mallick (Saclay)	Peter McClintock (Lancaster)	Frank Moss (St. Louis)
Juan Parrondo (Madrid)	Dmitry Postnov (Saratov)	Peter Reimann (Bielefeld)
Lutz Schimansky-Geier (Berlin)	Eckehard Schöll (Berlin)	Michael Shlesinger (Arlington)
Igor Sokolov (Berlin)	Nigel Stocks* (Coventry)	Wokyung Sung* (Pohang)
Peter Talkner (Augsburg)	Peter Tass (Jülich)	Lev Tsimring (San Diego)
Alexey Zaikin (Potsdam)		

**Applications** are welcome and should be made by using the application form on the conference web page. Please note that the number of attendees is limited. The registration fee is €100, costs for accommodation and meals will be covered by the Max Planck Institute. In exceptional cases, limited funding is available to partly cover travel expenses.

**Deadline for applications is March 15, 2006.**



For further information please contact:  
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