

ESMTB Infoletter

June 2007



www.esmtb.org

Dear colleague

with this ESMTB Infoletter you receive information about conferences, workshops, schools and open positions. Please send relevant information to be included in the next ESMTB infoletter to info@esmtb.org.

Best regards, Andreas Deutsch
Dresden, 29 June 2007

Conferences

British Antarctic Survey Conference - Natural Complexity: Data and Theory in Dialogue at Clare College, Cambridge

Date: 2007-08-13 to 2007-08-17

At the beginning of the 21st century, mankind faces environmental challenges as diverse as climate change, natural hazards (disease, droughts, earthquakes, floods, hurricanes, volcanoes), the loss of biodiversity and the need for sustainable development. At first sight complexity science seems a natural way to address environmental issues because it is designed to explain the properties and behaviours of systems with many interacting parts. Classic signatures of complexity in the earth system include nonlinear response, long ranged correlation and teleconnections, heavy tailed fluctuations and enhanced likelihood of extreme events.

The Meeting will begin with a 1-day symposium, introducing major, current earth-system challenges and their intersection points with complexity science. The emphasis throughout the 5 days will be on the relationship of complexity theory to real-world observations and problems. We anticipate that both experts and non-experts in complexity will attend, so to aid dialogue each day will start with a tutorial that collectively will cover some of the essential concepts and tools of complexity.

<http://www.antarctica.ac.uk/Meetings/2007/complexity2007/index.html>

Foundations of Systems Biology in Engineering Conference (FOSBE) at University of Stuttgart

Date: 2007-09-09 to 2007-09-12

FOSBE 2007 (Foundations of Systems Biology in Engineering) is the second in a series of a conferences to address the emerging challenges in the field of Systems Biology. The conference is unique in that it addresses not only current research problems, but also the curricular developments and industrial needs and challenges in this important intersection of biology and engineering.

FOSBE 2007 will bring together researchers from biochemical engineering, systems engineering, complex systems research, computational biologists, computer science, and experimental biologists. Furthermore, the audience will include academic researchers and experts from industry (including pharmaceutical, biotech, and biomedical products) to discuss the advances, challenges, and emerging opportunities in systems biology.

<http://www.fosbe.org/>
<mailto:mailto:fosbe2007@ist.uni-stuttgart.de>

Workshops

Workshop on Mathematical Neuroscience 2007 at Université de Montréal, Montréal, Canada

Date: 2007-09-16 to 2007-09-19

The goal of this workshop is to provide an overview of the current state of research in mathematical

approaches to neuroscience. This vibrant area, seeded by successes in understanding nerve action potentials, dendritic processing, and the neural basis of EEG, has moved on to encompass increasingly sophisticated tools of modern applied mathematics. Included among these are Evans functions techniques for studying wave stability and bifurcation in tissue level models of synaptic and EEG activity, heteroclinic cycling in theories of olfactory coding, the use of geometric singular perturbation theory in understanding rhythmogenesis, stochastic differential equations describing inherent sources of neuronal noise, spike-density approaches to modelling network evolution, weakly nonlinear analysis of pattern formation, and the role of canards in organising neural dynamics.

http://www.crm.umontreal.ca/Neuro07/index_e.shtml

Open Positions

Postdoc Position in Modelling, Analysis and Simulation of Complex Systems at Universidad Carlos III de Madrid

Deadline for applications: 2007-07-16

The GISC group (Interdisciplinary Group of Complex Systems) is seeking to hire a postdoc within the MOSAICO (Modelling, Analysis and Simulation of Complex Systems) project. The positions would start on or before October 1, 2007. Full information available at the pdf.

Please contact: [Angel \(Anxo\) Sanchez](mailto:Angel (Anxo) Sanchez)
<http://gisc.uc3m.es/~anxo>
 Download PDF [here](#)

A Postdoc Position on Modelling of Natural Phenomena at Non-Linear Dynamics Group, IST

Deadline for applications: 2007-09-01

We offer a Postdoc position (from 6 Months to

2 years) in Mathematical Modelling of Natural Phenomena (beginning September-October 2007). The candidates must have strong interests on modelling of biological phenomena, and have a background in physics, mathematics and computer programming. Good knowledge of dynamical system theory is also preferable. Part of the work will be related with the development of software for the analysis of genetic regulatory networks, and is included in a European funded project. The second part of the work will be devoted to the analysis and modelling of specific biological or physical non-linear systems. This can include morphogenesis problems and continuum physics problems, depending on the interests of the applicant. The candidates should send their CV and a description of the work they would like to do.

Please contact: Rui Dilão
<http://sd.ist.utl.pt/>

Associate professor in theoretical physics at University of Aarhus

Deadline for applications: 2007-10-31

For more information, please read the PDF.

Please contact: Hans Fogedby
<http://www.phys.au.dk/~fogedby/>
 Download PDF [here](#)

Doktorandenstelle, Singuläre Phänomene und Skalierung in mathematischen Modellen at Universität Bonn

Deadline for applications: 2007-07-24

For more information, please read the PDF.

Please contact: Prof. Wolfgang Alt
<http://www.theobio.uni-bonn.de/>
 Download PDF [here](#)