

ESMTB Infoletter

April 2008



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, 15th of April 2008

News

ESMTB supports travel to mathematical/theoretical biology meetings

Please read the pdf for more details.

Application Deadline for 2008: April 30, 2008

http://esmtb.org/downloads/ESMTB_support2008.pdf

Conferences

5th International Conference on Mesoscopic Methods in Engineering and Science 2008 at Amsterdam, The Netherlands

Date: 2008-06-16 to 2008-06-20

The focus of the Conference series is on mesoscopic/ kinetic methods (e.g. LBE, DVM, GKS, and SPH) for computational mechanics in its broadest sense. Specific areas include, but are not limited to, mesoscopic / kinetic methods applied for:

Computational Fluid Dynamics (CFD), including Direct Numerical Simulations (DNS), Large-Eddy Simulations (LES), and macroscopic as well as kinetic turbulence modelling; rheology for complex fluids, such as suspensions, multi-phase and multi-component fluids, non-Newtonian fluids, electro-rheological (ER) and magneto-rheological (MR) fluids (smart fluids) and bio-fluids; nano-scale phenomena involving non-continuum, surface-dominated, low-Reynolds-

number, non-Newtonian, multi-scale and multi-physics effects; computational mechanics of solids and structures; computational multi-physics dynamics, such as flow-structure interactions; algorithms for High Performance Computing (HPC) engineering applications.

OBJECTIVES

The objectives of the Conferences are

- to bring together researchers and practitioners from academia, research institutions and industry to exchange experiences, disseminate up-to-date information and explore new opportunities in the field
- to expose young or new researchers to the state of the art in the field by lectures and short courses of top international experts

<http://www.icmmes.org>
<mailto:info@icmmes.org>

5th European Congress of Mathematics (5ECM) at Amsterdam, The Netherlands

Date: 2008-07-14 to 2008-07-18

This is to inform you of the 5th European Congress of Mathematics, 5ECM, which will be held in Amsterdam from 14 - 18 July this summer, under the auspices of the European Mathematical Society. Incorporated in this Congress is the yearly Dutch Mathematical Congress of the Royal Dutch Mathematical Society (KWG).

The Scientific Committee has put together a wonderful program of plenary lectures, invited lectures, science lectures, minisymposia and other activities. The Prize Committee has selected 10 young rising stars from all over the field of mathematics. They

have all agreed to come. So join us, meet your colleagues and learn about the latest developments and the hot new issues in mathematics.

<http://www.5ecm.nl>

XIII International Conference on Medical Informatics & Technologies 2008 (MIT08) at Szczawnica, Poland

Date: 2008-10-16 to 2008-10-18

Developments in medical informatics and technology are progressing at great speed. New technology is in widespread use for the support of patient medical diagnosis and treatment, the assessment of the quality of care, and the enhancement of decision making, management, planning, and medical research.

Medical informatics and technology has both an applied and a theoretical dimension. These two aspects of the discipline have expanded dramatically during the last three decades and will continue to do so in the years to come. We are witnessing a radical change as technologies have been integrated into systems that address the core of medicine, including patient care in ambulatory and in-patient setting, disease prevention, health promotion, rehabilitation and home care.

Industry plays a vital role in converting concepts to actual products, engineered and manufactured to facilitate the practice of new technology and to provide safe and reliable performance in the clinical setting.

As a consequence, there is a need for a broad overview of the field. Contributors from research centers and industry are welcome to present their original results at scientific sessions, posters, and exhibits.

July 15, 2008: Submission of full papers
August 30, 2008: Notification of acceptance

<http://mit.us.edu.pl/>
<mailto:mit@zsk.tech.us.edu.pl>

Workshops

Biomat08 - Mathematics and Life Sciences: Tumor Dynamics, Pattern Formation & Signalling Pathways at Facultad de Ciencias, Universidad de Granada, Spain

Date: 2008-06-09 to 2008-06-13

Courses

The evolutionary dynamics of cancer
Robert Gatenby (University of Arizona)
Plant developmental biology: from genetic networks to patterns
Pablo Padilla (Universidad Autónoma de Mexico)
Stem cell assays and self-renewal: the uncertainty between property and entity
Ariel Ruiz i Altaba (Université de Genève)
Multiscale processes, stochastic differential equations, evolution phenomena in biology
Juan J. L. Velázquez (Universidad Complutense de Madrid)

Numerical laboratory
Cellular automaton modelling of biological pattern formation
Andreas Deutsch (Technische Universität Dresden)

Seminars

Human blood coagulation under flow conditions
Georgy Guria (National Center for Haematology, Moscow)
Mathematical models in signaling pathways
Michela Verbeni (Universidad de Granada)

<http://www.ugr.es/~kinetic/biomat/>

International Workshop on Challenges and Visions in the Social Sciences at Semper's lecture hall of ETH Zurich (Switzerland)

Date: 2008-08-18 to 2008-08-23

By means of more than 20 keynote talks by outstanding international scientists and interdisciplinary discussions, the workshop aims at identifying future trends in the social sciences, and problems that will have to be addressed. We want to come up with visionary ideas of what will be

the important topics over the next 10 or 20 years, and try to formulate a list of hard, ambitious, and important problems to be addressed by collaborative, international research projects. Contributions may be methodologically or problem oriented, but should always be of interest to a wider scientific community (which also implies to avoid special terminology in the talks, where possible, or otherwise to introduce it).

Some examples of possible subject areas are:

- Empirical challenges: What can we learn from new data sources (e.g. data from Web 2.0, neural imaging, combinations of surveys with behavioral experiments and/or biological data)?
- Methodological challenges: What is missing in current models and simulations of social phenomena?
- Practical challenges: How can we anticipate and respond to problems due to globalization, individualization, aging societies, environmental pollution, international conflicts and other socio-economically relevant changes?

The meeting will combine elements of an interdisciplinary workshop with a think tank and a summer school for young scientists. Further information will follow soon.

- July 15, 2008: Deadline for Early Registration
- April 30, 2008: Submissions of abstracts for oral or poster contributions or tutorials, early registration
- June 30, 2008: Notification of acceptance

<http://www.soms.ethz.ch/workshop2008>
<mailto:slozano@ethz.ch>

Bio-Inspired Computational Methods Used for Difficult Problems Solving. Development of Intelligent and Complex Systems (BICS 2008) at Tg. Mures, Romania

Date: 2008-11-05 to 2008-11-07

The purpose of the workshop is to bring together researchers working in the main areas of Complex Systems, Artificial Intelligence, Intelligent Systems and Natural Computing for presenting their recent results, exchanging ideas, and cooperating in a friendly framework.

The workshop will be held in Tirgu Mures on 5-7 November 2008. We hope that the participants will appreciate the beautiful venue of the workshop at the Petru Maior University of Tg. Mures.

You are cordially invited to submit a paper to the workshop.

Main topics of interest (but not limited to)

- Evolutionary Models
- Complex Systems
- Intelligent Systems
- Complex Systems Methods
- Evolutionary Computing
- Neural Computing
- DNA Computing
- Membrane Computing
- Evolutionary Software Tools
- Artificial Intelligence
- Computational Mathematics
- Natural Computing

Abstract submission deadline 21. May 2008.

Paper submission deadline 31. June 2008.

http://davos.science.uttgm.ro/bio_computation/
<mailto:ibarna@upm.ro>

Complexity and Intelligence of the Artificial and Natural Complex Systems (CANS 2008) at Tg. Mures, Romania

Date: 2008-11-08 to 2008-11-10

The purpose of the workshop is to bring together researchers working in the main areas of Complex Systems, Artificial Intelligence, Intelligent Systems, Medical Applications and Biomedical Computing for presenting their recent results, exchanging ideas, and cooperating in a friendly framework.

The workshop will be held in Tirgu Mures on 8-10.November.2008. We hope that the participants will appreciate the beautiful venue of the workshops at the Petru Maior University of Tg. Mures.

You are cordially invited to submit a paper to our workshop.

Main topics of interest (but not limited to)

- Self-organization Modelling
- Evolutionary Models

- Complex Modelling Methodology
- Complex Modell.for Decision Support Syst.
- Control and Synchr. of Chaotic Dyn. Systems
- Dynamics Control Through Invariant Properties
- Complex Systems
- Intelligent Systems
- Medical Applications
- Biomedical Computing
- Biological Modelling
- Social Modelling
- Bio-inspired Methods
- Complex Systems Methods
- Information Technology Modelling
- Cognition Modelling
- Network Modelling
- Model-based Verification and Validation
- Parallel and Distributed Computing
- Automata and Formal Language
- Informatics in Control
- Fuzzy Systems
- Medical Informatics
- Health and Medical Sciences
- Pharmaceutical Analysis

Abstract submission deadline 21. May 2008.

Paper submission deadline 31. June 2008.

http://davos.science.uttgm.ro/complex_systems/
<mailto:ibarna@upm.ro>

Schools

International School of Functional Genomics at Ragusa, Sicily, Italy

Date: 2008-07-05 to 2008-07-19

The successful sequencing of the human genome and that of many other organisms have set the scene for a new phase of life science. A variety of emerging tools and technologies are now enabling research to shift from structural genomics to functional genomics. The International School of Functional Genomics will provide a balanced view of genomic technologies and their applications. It will provide advanced training to students in genomic science and technology, particularly in utilizing bioinformatics techniques for genomic data analysis and interpretation. The school will incorporate a series of lectures, seminars and demonstrations.

Deadline for Early Registration: April 30, 2008

<http://www.functional-genomics.it/school/>

Stochastic Differential Equation Models with Applications to the Insulin-Glucose System and Neuronal Modeling at Middel-fart, Denmark

Date: 2008-08-03 to 2008-08-16

The BioMedMath 2008 is part of a series of 4 events from 2007 to 2010: each event consists of a summer school and associated workshop on modeling of human physiological systems with medical applications. The events are sponsored by the European Union under the program Marie Curie Conferences and Training Course.

Researchers that are interested in participating in the summer school and benefit from funding should apply no later than 2008, April 30.

<http://www.math.ku.dk/~susanne/SummerSchool2008/>
<mailto:SDEbioschool@math.ku.dk>

Open Positions

Research Fellowship in Mathematical Marine Ecology at Belfast, Northern Ireland

Deadline for applications: 2008-04-25

Applications are invited for this prestigious 7-year Fellowship in mathematical / computational ecology in support of the Ecosystem Approach to Fisheries Management. Based in Belfast, the position will be instrumental in building and evaluating multi-species size-spectrum models of specific sea areas. Much of the planned work will be highly innovative and often mathematically or computationally challenging. The Research Fellow will work closely with colleagues and research students in the Danish and Irish Marine Institutes (some time may be spent in those countries). The project is led by Dr Keith Farnsworth at Queen's University Belfast. We are looking for someone with at least 3 years recent relevant research experience and competence with systems of PDEs and stochastic differential equations; expertise in at

least one of: Mathematica, Matlab, or R (or one of its relatives) and experience with Unix. Experience of grid or parallel computing will be an advantage as well. Further information can be obtained from the School of Biological Sciences, Queen's University Belfast (sobb.office@qub.ac.uk).

Salary Scale: £27,466 - £35837 (including contribution points).

Closing Date: 4.00pm on Friday 25th April 2008.

It is anticipated that interviews for the position will be held on 15th May 2008.

Beaufort Marine Research Awards grant-aided by the Irish Government under the National Development Plan 2007-2013 (NDP).

Please contact: sobb.office@qub.ac.uk

<http://www.qub.ac.uk/sites/QUBJobVacancies/ResearchJobs/>