

ESMTB Infoletter

November 2009



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, 16th of November 2009

News

Deadline for Reinhart Heinrich Doctoral Thesis Award 2009 EXTENDED

Please note that the nominations deadline for the Reinhart Heinrich Doctoral Thesis Award has been extended to November 30, 2009. Please inform suitable candidates about the award.

<http://www.impan.pl/~ecmtb11/>

The European Conference on Mathematical and Theoretical Biology 2011

The European Conference on Mathematical and Theoretical Biology - ECMTB 2011 - brings together scientists and students from all over the world to discuss recent advances in mathematical and theoretical biology. The conference will be held at Kraków (Poland) June 28 - July 2, 2011.

<http://www.impan.pl/~ecmtb11/>

Conferences

Symposium on Theory of Modeling and Simulation (DEVS'10) at Orlando, FL., United States

Date: 2010-04-12 to 2010-04-15

Sponsored by The Society for Modeling and Simulation International in cooperation with ACM/SIGSIM

The purpose of this symposium is to provide a forum to discuss most recent advancements in Theory of Modeling and Simulation. The main focus is on theory of modeling, methodology, practice and toolkits, as well as lessons learned and challenges. The Symposium will focus on bridging different areas in the Theory of Modeling and Simulation, including formal modeling, model-checking, graph transformation, modeling methodologies and tools. All papers will be included in the conference proceedings and archived in both the the ACM Digital Library; Full Papers will be also printed in hard copy.

Important Dates

Paper Submission: 15 Oct 2009
Notification: 15 Nov 2009
Final Paper: 2 Feb 2009

Submission Procedures

The conference committee will accept three types of papers submitted to the conference website (<http://www.softconf.com/scs/DEVS10/>).

DEVS AWARD

This year, the Symposium will hold the First Bernard P. Zeigler DEVS M&S Award, to recognize high-impact innovations in M&S methods, applications and tools (sponsored by RTSync - Chair: Doohwan Kim).

<http://www.sce.carleton.ca/faculty/wainer/DEVS10>

15th International Conference Mathematical Modelling and Analysis (MMA2010) at Druskininkai, Lithuania

Date: 2010-05-26 to 2010-05-29

The Conference focuses on various aspects of mathematical modelling and usage of finite difference and finite element methods for numerical solution of modern problems of science and engineering. It aims, in particular, at fostering a cooperation among practitioners and theoreticians in this field. Another very important goal of the MMA meetings is to assist in the creation and maintenance of contacts between scientists from the West and the East. Working language of the Conference is English.

Topics:

Analysis of numerical methods for solving problems of mathematical physics; Application of numerical methods to industrial and engineering problems; Parallel algorithms and parallel computing; Analysis and applications of ODE and PDE problems; Scientific computation; Financial mathematics and mathematics in economics

The scientific program includes invited plenary talks (40 min) and contributed talks (20 min). We also invite participants to organize mini-symposiums. The format for a mini-symposium might be a principal lecture and a number of communications of 15-20 minutes given by the other speakers. The mini-symposia will be scheduled in parallel sessions.

<http://www.vgtu.lt/mma/mma2010/>
<mailto:mma2010@vgtu.lt>

Tenth International Conference on Computational Science (ICCS 2010) at Amsterdam, The Netherlands

Date: 2010-05-31 to 2010-06-02

The International Conference on Computational Science 2010 (ICCS 2010) aims to bring together researchers and scientists from mathematics and computer science as basic computing disciplines, researchers from various application areas who are pioneering advanced application of computational methods to sciences such as physics, chemistry, life

sciences, and engineering, arts and humanitarian fields, along with software developers and vendors, to discuss problems and solutions in the area, to identify new issues, and to shape future directions for research, as well as to help industrial users apply various advanced computational techniques.

Since its beginnings in 2001, ICCS has attracted increasingly higher quality and numbers of attendees and papers. Average attendance each year is about 400 participants. The proceedings series have become a major intellectual resource for computational science researchers and serve to both define and advance the state of the field.

The theme for ICCS 2010 in Amsterdam is "Advancing Computational Thinking", to mark several decades of progress in computational science theory and practice, leading to greatly improved applications in science. This conference will be a unique event focusing on recent developments in methods and modelling of complex systems for diverse areas of science, scalable scientific algorithms, advanced software tools, computational grids, advanced numerical methods, and novel application areas where the above novel models, algorithms and tools can be efficiently applied such as physical systems, computational and systems biology, environmental systems, finance, and others.

<http://www.iccs-meeting.org/>
<mailto:G.D.vanAlbada@uva.nl>

New Trends on Growth And Form at Agay, France

Date: 2010-06-20 to 2010-06-25

We are glad to announce the conference "New Trends On Growth And Form", organized in the honour of Yves Couder, which will be held in Agay (French Riviera) in June 2010. The conference aims at spotlighting recent achievements and rising directions in nonlinear and out-of-equilibrium physics. It covers morphogenesis and biomimetics, singularities and cross-scale problems in continuum mechanics, and out-of-equilibrium processes.

In the last decades, this field has been tremendously successful in generating powerful concepts related to instabilities, pattern formation and spatio-temporal chaos in continuum mechanics.

These concepts and methods are now widely used in fields ranging from condensed matter to geophysics. In the last few years, physicists with this background culture have spread in many different domains, which has led to the emergence of new questions and concepts. The conference aims at gathering experienced scientists from all over the world, who contributed by their work to the successes of non-linear physics, with younger researchers working in emergent domains. The conference will focus on (i) morphogenesis and biomimetics, (ii) singularities and cross-scale problems in continuum mechanics, and (iii) out-of-equilibrium processes, as appearing in different physical and living systems. As an underlying line, the conference will show how the theory of model systems and table-top experiments can provide new concepts and ideas.

<http://www.pmmh.espci.fr/mephy/ogaf/>

Workshops

Interdisciplinary Workshop on Pattern Formation in Morphogenesis at Marilyn and James Simons Conference Centre, IHES, France

Date: 2010-01-11 to 2010-01-14

Pattern formation in morphogenesis - the most intriguing process in living organisms - is a source of many mathematical problems. We plan, at this workshop, to generate an interdisciplinary space in which embryologists, geneticists and molecular biologists will interact with mathematicians and computer scientists. Most 45 min lectures will be delivered by biologists and some by mathematicians. Invited mathematicians will be encouraged to participate in discussions, partly within groups working on specific questions raised in biology presentations. The results of the work of each group will be presented on the last day of the workshop. Information and registration (except for speakers, invited participants, organisers and scientific committee members) on the website.

http://www.ihes.fr/jsp/site/Portal.jsp?page_id=62

Schools

CAMBAM 2010 Summer School - Non-linear Dynamics in Biological Networks at McGill University, Montreal, Canada

Date: 2010-05-17 to 2010-05-28

The past decade has witnessed a renaissance in the biological sciences with a new and almost insatiable desire for interdisciplinary research with the physical and mathematical sciences. The life sciences have been propelled into the quantitative era. There is a demand in academia, government, and industry for people who speak the languages of the mathematical, physical, and biological sciences. The CAMBAM/MBI summer school is precisely aimed at satisfying this demand by providing the knowledge needed to boost the move from one side of this divide to the other with a special emphasis on the non-linear dynamics of biological networks.

Applicants are encouraged from the mathematical, physical and the life sciences. Though at least one year of calculus is needed, a first course in differential equations is highly desirable. Each day will consist of morning lectures followed by computational lab work in the afternoon. The laboratories are aimed at solidifying the concepts taught in the morning lectures, and additionally student groups will work on a project that they select from a list provided by the organizers and lecturers. The ultimate goal of the new biology, which has been loosely termed Systems Biology, is to produce a computational model of a biological system which allows accurate, experimentally verifiable prediction in the laboratory or field. The CAMBAM/MBI summer school will provide a solid introduction to the fundamental science on which Systems Biology is based. Each lecture will explore the concepts and basic mathematical ideas of a different strand of Systems Biology and will be illustrated with examples from recently published research. Participants will develop a set of tools and a vocabulary which should allow them to discuss and become actively involved in problems in quantitative biology. They will become familiar with the powerful MATLAB programming language as well as the (free) XPPAUT software package.

Topics to be covered will include linear and non-linear systems, chaos, bifurcation theory, stochastic systems, differential delay equations, Boolean models, and cellular automata. Applications will range from the molecular level (e.g., bacterial operon regulation) to the cellular level (e.g., neural signal propagation) to the systems level (e.g., cardiology, neural control, sensory transduction, ecology, epidemiology). Each lecture will be delivered by an expert working in the field and at the end of the course participants will be familiar with several of the research directions available in quantitative Systems Biology.

http://www.mcgill.ca/cambam/cambam_events/summer_school/

Open Positions

Postdoc position in mathematical ecology at University of Helsinki, Finland

Deadline for applications: 2009-12-31

The Biomathematics Group of the Department of Mathematics, University of Helsinki, Finland, is looking for a highly motivated candidate with background in mathematical modelling and prior work in mathematical ecology/evolution to join our group as a postdoc. PhD in mathematics or PhD in a related field with strong and demonstrated mathematical background is required. Applicants with their own research programme proposal are at an advantage.

The position is available within the Finnish Centre of Excellence in Analysis and Dynamics Research for 1 year with the possibility of a 2-year extension, supervised by Prof. Mats Gyllenberg and one of the senior group members Stefan Geritz, Eva Kisdi, Yi Wang and Ping Yan. Salary and social benefits according to the standard Finnish University Salary System, starting salary 2838 - 3148 euros. The starting date is negotiable.

Our research areas include structured population dynamics, adaptive dynamics, dynamical systems, and applications thereof. We offer an international research environment and wide-ranging possibilities to cooperate with experts in mathematical physics, geometric measure theory, operator theory, stochastic differen-

tial equations etc. in the Centre of Excellence in Analysis and Dynamics. For more information, see <http://mathstat.helsinki.fi/research/biomath/> (Biomathematics Group), <http://wiki.helsinki.fi/display/huippu/> (Centre of Excellence), and <http://mathstat.helsinki.fi/english/> (Department of Mathematics); with specific queries, contact Eva Kisdi at eva.kisdi@helsinki.fi.

Applications including a CV, list of publications, a letter of motivation or research proposal, and two reference addresses are to be sent to eva.kisdi@helsinki.fi with a cc to mats.gyllenberg@helsinki.fi. Please write "Application for postdoc position in biomathematics" in the subject line. Evaluation will start immediately and continue until the position is filled.

Please contact: [Eva Kisdi](mailto:Eva.Kisdi)

Postdoctoral Fellows and PhD Students at BCAM Basque Center for Applied Mathematics, Bilbao, Spain

Deadline for applications: 2009-11-20

There are positions at every level in several areas of Applied Mathematics, including Mathematical Biology. Applicants should visit the website <http://www.bcamath.org/joboffers> and complete the application form and upload the required documentation (cover letter, curriculum vitae, a list of publications, a statement describing current and planned research) and provide the name and e-mail address of two referees (the system will automatically ask for these reference letters). Referees who are unable to submit their letters electronically may mail them to the following address: join_us@bcamath.org, indicating the name of the candidate they are supporting.

*Please contact: join_us@bcamath.org
<http://www.bcamath.org/joboffers>*

PhD Studentships in Mathematics & Statistics Applied to Biomedical Problems at School of Mathematical Sciences, University of Nottingham, UK

Deadline for applications: 2009-12-31

The Centre for Mathematical Medicine and Biology invites applications for fully-funded PhD Studentships, starting September 2010. Potential projects involve the application of mathematics and/or statistics to problems in a range of areas, including physiology, tumour growth, regenerative medicine, neuroscience and population health. Students should have, or expect to obtain, a first or upper second class degree in mathematics, statistics or a closely related subject. The studentships available include MRC-funded ones that carry an enhanced stipend and are subject to residence requirements. Informal enquiries may be addressed to Mrs Cathie Shipley (email: cathie.shipley@nottingham.ac.uk). Further details of the projects and application procedure are available at: <http://www.maths.nottingham.ac.uk/cmmb/>.

Please contact: [Cathie Shipley](mailto:cathie.shipley@nottingham.ac.uk)
<http://www.maths.nottingham.ac.uk/cmmb/>

IGTC fellowship for 2010-2011 academic year at Pacific Institute for Mathematical Sciences (PIMS), British Columbia, Canada

Deadline for applications: 2010-02-05

The PIMS International Graduate Training Centre in Mathematical Biology invites applicants for the IGTC fellowship for 2010-2011 academic year. Fellowships are worth up to \$20K a year and are for students working in mathematical biology at Pacific Institute for Mathematical Sciences (PIMS) universities (Alberta, British Columbia, Calgary, Regina, Saskatchewan, Simon Fraser and Victoria).

There are also opportunities for students to enroll in the programme. All students can benefit from IGTC graduate training elements including annual research summits, summer courses, new term-time courses, seminars, graduate student exchanges, and international visitors.

Full details of the IGTC Programme and application process can be found here: www.pims.math.ca/scientific/igtc/mathematical-biology. If you have further questions, please contact the IGTC coordinator, Maryna Yaskina at igtcmathbio@math.ualberta.ca or Programme Director Mark Lewis at mlewis@math.ualberta.ca.

Application deadline is February 5, 2010.

Please contact: [Maryna Yaskina](mailto:igtcmathbio@math.ualberta.ca)
<http://www.pims.math.ca/scientific/igtc/mathematical-biology>