

ESMTB Infoletter

April 2010



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 April 2010

Conferences

3rd Conference on Systems Biology of Mammalian Cells (SBMC) at Freiburg (Germany)

Date: 2010-06-03 to 2010-06-05

The 3rd Conference on Systems Biology of Mammalian Cells (SBMC) continues a series of conferences organized by the German HepatoSys Network. The first two meetings were held in Heidelberg 2006 and in Dresden 2008.

Understanding the molecular basis of complex biological processes requires both new experimental and conceptual approaches. Advancement of quantitative methods facilitates the comprehensive dissection of regulatory components that control decisions in mammalian cells. However, new computational, mathematical, engineering, and physical approaches are required to integrate such wealth of experimental information and develop mathematical models to reveal the design principles of biological systems and predict their behaviour in a patho-physiological context.

SBMC 2010 will present cutting-edge experimental, theoretical and computational approaches to unravel the design principles underlying a wide range of regulatory processes in mammalian cells, including metabolic pathways, genetic and signalling networks, and disease promoting mechanisms. SBMC 2010 spans the range from basic to biomedical research and towards industrial applications.

<http://sbmc2010.de/>

10th International Symposium on Mathematical and Computational Biology - BIOMAT 2010 at Rio de Janeiro (Brazil)

Date: 2010-07-24 to 2010-07-29

The SMB has been the leading international organization in mathematical biology for the past 30 years, with members from more than 50 countries. The Society carries out a wide variety of activities, and offers members an opportunity to participate in a rapidly changing field that is having influence on areas from public policy for health-related issues, to conservation of natural resources, to genomics and proteomics.

Deadline for Mini-Symposium Proposals: April 21

Call for Abstract Submissions of Contributed Talks
Deadline: April 26

<http://www.biomat.org/smb/smb2010.html>

First Conference of the Chinese Game Theory and Experimental Economics Association at Beijing (China)

Date: 2010-08-24 to 2010-08-26

The Chinese Game Theory and Experimental Economics Association (CGTEEA) is pleased to announce its inaugural conference in August 2010 in Beijing, China. Submissions in all fields of game theory and related areas are welcome.

<http://www.accessecon.com/pubs/CGTEEA/>

Frontiers of Multidisciplinary Research: Mathematics, Engineering and Biology at University of Exeter (Exeter, UK)

Date: 2010-09-21 to 2010-09-24

Current disciplinary boundaries do not encourage interaction between scientists; researchers from different fields usually occupy different buildings on university campuses, publish in journals specific to their field and attend different scientific meetings.

Existing scientific meetings usually fall into two categories; small meetings specializing on specific scientific questions, and large meetings covering a wide field. The former target a specific (and small) group of scientists who are already aware of each others work (and potentially collaborating), while the latter target a diverse group of scientists but usually do not allow specific interactions to develop due to their large size and a crowded presentation program.

The main objective of Frontiers of Multidisciplinary Research: Mathematics, Engineering and Biology is to maintain diversity in the attendees backgrounds and expertise, while at the same time encouraging the structural elements of the meeting that allow interaction.

More specifically, this conference will:

- bring together a carefully selected set of speakers from a diverse set of theoretical and experimental fields;
- allow almost all attendees to present their work as an oral or poster presentation;
- be structured to provide ample interaction and discussion time;
- use a single venue to host talks, poster sessions and lunch in order to facilitate interaction among attendees.

20 March 2010 Registration and abstract submission opens

1 June 2010 Registration and abstract submission closes

30 June 2010 Successful applicants contacted

1 July 2010 Announcement of accepted abstracts

www.exeter.ac.uk/frontiers
<mailto:frontiers@exeter.ac.uk>

7th International Congress on Industrial and Applied Mathematics - ICIAM 2011 at Vancouver, BC, Canada

Date: 2011-07-18 to 2011-07-22

From July 18 - 22, 2011, mathematical scientists from around the world will gather in Vancouver, BC, Canada for the 7th International Congress on Industrial and Applied Mathematics - ICIAM 2011.

ICIAM 2011 will highlight the most recent advances in the discipline and demonstrate their applicability to science, engineering and industry. In addition to the traditional, strong focus on applied mathematics, the congress will emphasize industrial applications and computational science. Industrial mathematics will be featured prominently through an integrated program which will highlight the many outstanding contributions of applied mathematics. ICIAM 2011 will also be an opportunity to demonstrate to young researchers and graduate students the vast potential of mathematics.

The Congress is being planned by the Canadian Applied & Industrial Mathematics Society (CAIMS), the Mathematics of Information Technology & Complex Systems (MITACS) and the Society for Industrial & Applied Mathematics (SIAM).

Special Focus Themes

- Computational and Modeling Challenges in Industry
- Control Theory and Applications
- Design and Verification of Complex Systems
- Dynamical Systems and its Applications
- Economics and Finance
- Environmental Science, including Ocean, Atmosphere, and Climate
- Fluid Mechanics
- Graphics, Visualization, and Computation
- Image and Signal Processing
- Materials Science
- Mathematical Biology
- Mathematical Medicine and Physiology
- Mathematical Physics
- Mathematical Programming and Industrial Applications
- Molecular Simulation: Quantum and Classical
- Numerical Analysis
- ODE, PDE, and Applications

- Scientific Computing
- Solid Mechanics
- Statistical Sciences

Deadlines to remember

- August 18, 2010: Early deadline for minisymposium proposals, Online registration opens
- September 17, 2010: Early decisions announced for minisymposium proposals
- October 4, 2010: Final submission deadline for minisymposium proposals
- October 29, 2010: Final decisions announced for minisymposium proposals
- December 15, 2010: Submission deadline - accepted minisymposia abstracts, Submission deadline - contributed paper abstracts
- January 14, 2011: Notifications sent to accepted contributed speakers
- February/March 2011: ICIAM 2011 program posted online

<http://www.iciam2011.com/>
<mailto:info@iciam2011.com>

Workshops

Modelling and Biology in Regenerative Medicine at University of Nottingham, UK

Date: 2010-04-26 to 2010-04-27

In this workshop, speakers from a range of disciplines will present recent research on topics and techniques underpinning tissue engineering, including the biology of stem cell differentiation, signalling and patterning in developing tissues, and the biomechanical environment of tissue constructs. The meeting is being sponsored through a collaborative award held between Mathematical Sciences, Pharmaceutical Sciences, the Medical School and the Institute of Cell Signalling at the University of Nottingham (www.maths.nottingham.ac.uk/mrm/).

Talks will take place in C17, Pope Building, on the University Park Campus.

Invited speakers and topics include Davide Ambrosi (Milan), Thomas Hofer (Heidelberg), Pierre-Francois Lenne (Marseille), Julian Lewis (CRUK), Sally Lowell (Edinburgh), Owen Sansom

(Glasgow), Bram Sengers (Southampton).

www.maths.nottingham.ac.uk/mrm/events
<mailto:Oliver.Jensen@nottingham.ac.uk>

Third Course on Individual-based Modelling of Microbial Interactions & Processes Using iDynoMiCS at University of Birmingham (Birmingham, UK)

Date: 2010-06-13 to 2010-06-18

In a nutshell, this course will give you hands-on experience focussed on individual-based modelling of biofilms. It will use our new software tool iDynoMiCS (individual-based Dynamics of Microbial Communities Simulator), but it will also cover mathematical modelling of biofilms, and modelling of non-biofilm systems more generally.

The course is intended for all students and researchers who have started to, or are considering to use, individual-based modelling for microbial systems. By the end of the course, participants will be able to independently use iDynoMiCS and apply it to their own work.

Candidates from the fields of environmental science, microbiology, microbial ecology, ecology, computer science, applied mathematics, engineering, and physics are encouraged to apply.

Apply to the course by sending Susanne Schmidt (s.schmidt [AT] bham [DOT] ac [DOT] uk) an email with

- a brief statement of research interest and level of experience in modelling/programming
- a brief CV
- a letter of support from your main advisor

<http://www.biosciences-labs.bham.ac.uk/kreftlab/course/index.html>

Spatio-temporal dynamics: challenges from biological fluorescence data at University of Warwick (Coventry, UK)

Date: 2010-07-13 to 2010-07-16

Single cell monitoring techniques using fluorescent probes have revealed a significant spatial-temporal

complexity underpinning even some of the simplest of cellular functions. Image acquisition and analysis pose a number of challenging problems at the interface of biology, physics and mathematics, whilst the emergence of high quality dynamic spatial data is allowing complex model systems to be fitted and verified for the first time. This multi-disciplinary workshop will bring together leading experts in modelling and data analysis, and experimentalists on key biological systems. Topics include super resolution and specialist microscopy techniques, state of the art image analysis and in vivo imaging. This workshop is part of an EPSRC Symposium on the Mathematics of Complexity Science and Systems Biology.

There is no registration fee. Accommodation on campus will be limited and given on a first come first served basis. We will try and cover accommodation costs for all participants that register before May 30th 2010. Some travel bursaries will also be available on request; priority will be given to PhD students, with supporting letters from their supervisors. Please send these requests to Yvonne Collins, Y.Collins@warwick.ac.uk. Decisions will be made towards the end of May. Note that the total number of workshop participants will be limited to 50. Warwick participants are therefore required to register as well.

<http://go.warwick.ac.uk/FLUO2010>
<mailto:T.Bretschneider@warwick.ac.uk>

Developing Multi-Scale, Multi-Cell Developmental and Biomedical Simulations with CompuCell3D and SBW at Indiana University (Bloomington, USA)

Date: 2010-08-02 to 2010-08-13

We are pleased to announce Joint User-Training Workshop "Developing Multi-Scale, Multi-Cell Developmental and Biomedical Simulations with CompuCell3D and SBW". It will focus on teaching the basics of multi-cell, multi-scale modeling using the open-source packages CompuCell3D and SBW. The workshop will be taught by many of the CompuCell3D and SBW developers. In addition to participating in lectures and hands-on exercises, each participant should prepare a 30 min presentation covering her/his area of research. Based on our previous experience such presentations lead to

many future collaborations as well as make the workshop more scientifically stimulating event.

The workshop will be held on the Indiana University, Bloomington campus from August 2nd -13th, 2010 and is appropriate for Experimental Biologists, Medical Scientists, Biophysicists, Mathematical Biologists and Computational Biologists of experience from advanced undergraduates to senior researchers.

By the completion of the Workshop, participants will have implemented a basic simulation of the particular biological problem involved in their research.

There is no registration fee and partial support for travel and hotel costs may be available. Priority will be given to student and postdoctoral participants. We will also provide lunches and all workshop materials.

Post-course support and collaboration to continue simulation development is available. If seeking support, please include a statement with your application that documents your need and amount you request.

Enrollment is by application only. Early enrollment is encouraged as workshop space is limited. To apply, please send a c.v. and brief statement of your current research interests and specific modeling problem(s). Students and postdocs should include a letter of support from their current adviser.

Deadline for applications is June 1st, 2010. All submissions must be by email to Dr. Maciej Swat (mswat@indiana.edu).

<http://www.compuCell3d.org>
<mailto:mswat@indiana.edu>

Schools

Mathematical Modelling of Cancer Growth and Treatment Summer School & Workshop at West Park Centre (Dundee, UK)

Date: 2010-08-15 to 2010-08-28

The Mathematical Biology Group at Dundee University is pleased to announce a summer school

and workshop on Cancer Modelling to be held at the West Park Conference Centre from Sunday the 15th until Saturday the 28th of August, 2010.

The summer school is intended for PhD-students and Post-Docs interested in cancer modelling. Potential participants with backgrounds in applied mathematics, bioengineering, or biomedicine are welcome. Acceptance to the school is competitive, aiming also at regional and gender balance. The school is mainly supported by the European Commission Marie Curie Program. Eligible candidates who are accepted (both from the EU and from outside the EU) will have complete financial support for living accommodations and possibly partial support for traveling to the school. Non-EU supported individuals may also participate by paying a School Fee. School participation includes tuition, social events and full board with accommodation starting Sunday evening, August 15th, 2010, until Saturday morning, August 28th, 2010.

Registration is now open, use the link at the top of the page to register by Friday 21st May, 2010. Notification of acceptance will be sent out on Friday 28th May, 2010

Cancer Modelling Summer School and Workshop

Mathematical modelling of cancer growth is now beginning to take into account experimental data and information over a wide range of spatial and temporal scales - genetic, intra-cellular, extra-cellular, cell-cell and cell-tissue interactions - in so-called multi-scale models. The summer school will focus on mathematical modelling and treatment of cancer across all the aforementioned scales. A workshop will take place on the final two days of the summer school.

<http://www.maths.dundee.ac.uk/summerschool2010>

Open Positions

Postdoctoral position in community/evolutionary ecology at University Pierre et Marie Curie (Paris, France)

Deadline for applications: 2010-04-20

A postdoctoral position is open within the "Ecology and Evolution" Laboratory at the University

Pierre et Marie Curie (Paris, France).

The postdoctoral position is focused on the understanding of how plant- herbivore coevolution affects community structure, at local and larger scales. Theoretical models will be developed, based on key plant traits (such as defense and tolerance) and herbivore generalism. The project involves collaborations with the Plant Science Center (Umea, Sweden) and the BIOEMCO laboratory (Paris) that will allow comparisons of the theoretical results with relevant empirical data sets.

Candidates should have a strong background in theoretical ecology, mathematics and modelling. Net salary ranges from 2000 to 2450 euros depending on the experience of the candidate. Contract is for one year, though funding for a second year will be sought to develop the project further. The postdoctoral fellow will be based at the University Pierre & Marie Curie (Paris) where the main contact will be Nicolas Loeuille (nicolas.loeuille@gmail.com).

Requests concerning the scientific project and applications should be directed to nicolas.loeuille@gmail.com. Applications should contain a CV with a list of publications, a summary of research interests, and a cover letter detailing the motivations for the proposed project. Two emails/letters of support should be sent separately.

starting date: between now and the end of 2010.
deadline for application: 20 april 2010.

Please contact: nicolas.loeuille@gmail.com

Tenure-track Assistant Professor position in quantitative physiology at Department of Physiology, McGill University (Montreal, Canada)

Deadline for applications: 2010-05-31

The Department of Physiology at McGill University invites applications for a tenure-track Assistant Professor position in quantitative physiology. Applicants are expected to be enthusiastic about multidisciplinary research approaches and to have demonstrated excellence in the application of quantitative sciences to understanding physiology at any level from molecules to integrated

systems. Individuals with experimental and theoretical backgrounds are particularly encouraged to apply, although we will also consider theorists who have strong existing collaborations with experimentalists. The successful candidate will be expected to build an externally funded research program, participate in teaching and administration, as well as interact with other departmental faculty. The Department of Physiology is located in the McIntyre Medical Sciences Building within the Life Sciences Complex and is currently home to two multi-disciplinary research centres committed to using quantitative techniques to investigate problems in physiology: the Centre for Nonlinear Dynamics in Physiology and Medicine (www.cnd.mcgill.ca) and the newly formed Centre for Applied Mathematics in Biosciences and Medicine (www.mcgill.ca/cambam/). The successful candidate is expected to closely integrate with existing members of these Centres.

Montreal is a multi-cultural city with a strong

academic community distributed over four universities. Applications should consist of a cover letter, a statement of research interests, a statement of teaching philosophy and interests, a current curriculum vitae, and copies of recent publications. Please submit documentation and C.V.s within 60 days of publication to:

John Orłowski, Ph.D.
Chair, Department of Physiology
McGill University
McIntyre Medical Sciences Bldg., Room 1001
3655 Promenade Sir-William-Osler
Montreal, Quebec H3G 1Y6
Email: annamaria.rossi@mcgill.ca

Candidates should also arrange for three letters of reference to be sent directly by e-mail to: annamaria.rossi@mcgill.ca.

Please contact: annamaria.rossi@mcgill.ca