

ESMTB Infoletter

December 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, 20th of December 2010

Conferences

XII International Congress on Molecular Systems Biology at Lleida (Spain)

Date: 2011-05-08 to 2011-05-13

It is our pleasure to announce the XIIth International Congress on Molecular Systems Biology, which will be held in Lleida, during the week of May 8th to May 13th 2011.

The meeting has a central theme: Identification of Design Principles in molecular networks. We encourage participants to present their work in this area and to participate in the lively discussions that will be held during the event.

We would like this congress to be a fruitful meeting place to do both, report on the latest advanced and plan the next steps to improve our understanding of the different subject areas. In addition, this meeting is also dedicated to celebrate Michael Savageau's contributions to Systems Biology, on his 70th birthday and on the 40th anniversary of his seminal papers on the power-law formalism.

We have planed the meeting to potentiate the opportunities for interaction and open discussion. Talks should emphasize and discuss both, examples and the conceptual problems related to the identification, understanding, and evolutionary emergence of design principles. They should also focus on the technical aspects that can help in studying such principles.

Keynote speakers will be asked to prepare their contributions well in advance and to distribute an informative summary. We will post these summaries and will provide links to the main refer-

ences. Special invited speakers will be asked to discuss these contributions and provide support or criticism to those presentations. Complementary talks will be selected from submitted abstracts for further contributing to the discussion of the points raised by the keynote speakers. Two poster evenings with discussion sessions will be scheduled to provide everyone an opportunity to contribute to the meeting.

The meeting will be a four days event, with an additional welcoming day before we start. Each of the days will focus mostly on a theme. Thus, we will have four main subjects:

- Day 1: Modularity, Design Principles & Evolution.
- Day 2: Optimization and evolution.
- Day 3: Model building, network reconstruction and parameter estimation.
- Day 4: From design principles to synthetic biology. Possible industrial applications

The meeting will have a limited capacity. To make sure we can accommodate you, please send us an expression of interest (pre-registration) to attend no later than December 15. Places will be reserved on a first come-first served basis. The key dates are the following:

- Abstract submission deadline: January 15th 2011
- Decision and provisional program: February 15th 2011
- Early registration: Until March 15th
- Regular registration: Until the starting of the meeting

<http://icmsb.systemsbiology.cat/index.php>.

Workshops

Calcium dynamics in neuronal and glial cells: experiments and models at University of Warwick (UK)

Date: 2011-04-04 to 2011-04-04

This workshop will focus on the important role of calcium in controlling a great variety of neuronal and glial processes and on the bidirectional communication between glia and neurons. It will bring together experimentalists and theoreticians working in the fields of neuroscience and cell biology for a critical discussion of recent results and future directions.

Invited Speakers

- Tomas Bellamy (School of Biomedical Sciences, Nottingham)
- Eshel Ben-Jacob (School of Physics and Astronomy, Tel Aviv University)
- Nigel Emptage (Department of Pharmacology, Oxford)
- Victor Kazantsev (Institute of Applied Physics, Nizhny Novgorod)
- Mark van Rossum (School of Informatics, Edinburgh)
- Kirill Volynski (Institute of Neurology, UCL)

http://www2.warwick.ac.uk/fac/cross_fac/comcom/people/staff/timofeeva/calcium_workshop2011/

Schools

Lipari CompBio 2011: Biological Sequence Analysis and High Throughput Technologies at Lipary (Italy)

Date: 2011-07-02 to 2011-07-09

The dramatic rising of data being generated by high-throughput technologies, such as microarrays, ChIP-chip, ChIP-Seq data are opening a new universe of problems that will certainly provide great challenges in the coming years. The theme of the School: Biological Sequence Analysis and High Throughput Technologies will describe and highlight a few of techniques and methods for the data analysis in the era of the Personalized Genomics.

The main lectures will focus on the following key topics: methods for high-throughput and parallel sequencing, data Integration and knowledge inference from high-throughput Genomic Experiments. Three special lectures will survey applications in the field of human diseases and cellular development. A series of tutorial will be also given, with the intent to complement the main lectures. These will provide snapshots of other areas that are perceived of relevance to the theme of the School. They range from introductory topics to sequence analysis to structural biology. As it is clear from the enclosed abstracts and bibliography, the selected themes have received much attention in the scholarly literature that ranges from Science, Nature, to BMC Bioinformatics, NAR and Bioinformatics. As a whole, the planned summer school will allow young researchers interested in bioinformatics and biomedicine to be exposed to cutting edge results in an area that is among the most exciting in Post-Genomic Biology.

Participants will be arranged in a comfortable hotel at very special rates. The conference room (in the same hotel) is air-conditioned and equipped with all conference materials. Special areas are reserved to students for the afternoon coursework and study. The island of Lipari can be easily reached from Milazzo, Palermo, Naples, Messina and Reggio Calabria by ferry or hydrofoil (50 minutes from Milazzo).

Two kinds of participants are welcome. Students: Participants who are expected to do afternoon courseworks and take a final exam (The grades will be given following the ECTS grading scale). The course will involve a total of 24 hours of teaching. According to our university rules passing the final exam gives right to an equivalent of 6 ECTS credits in any Ph.D. program. Auditors: participants who are not interested in taking the final exam. Registration fee is 450 Euros. The fee covers the course material, bus+hydrofoil Catania airport-Lipari-Catania airport, social event. Late registration is 550 Euros.

Deadline for application is May 1, 2011 (admission notification will start on March 1st according to registration time). Applicants must include a short curriculum vitae and specify two professors whom letters of recommendation will be asked to, if deemed necessary. Applicants will be notified

about admission by May 10, 2011.

<http://lipari.dmi.unict.it/LipariSchool/Bio/index.php>

<mailto:school@dm.unict.it>

1st European PhD School on "Mathematical Modelling of Complex Systems" at Patras (Greece)

Date: 2011-07-18 to 2011-07-29

In the framework of the European research and training activities in Complexity Science we announce the organization of a series of annual Ph.D. Schools on Mathematical Modeling of Complex Systems. The first such event will take place in Patras, Greece, in the summer of 2011:

Time: 18-29 July, 2011

Location: Patras House of Knowledge and Science in collaboration with the University of Patras, Greece.

This Ph.D. School is intended for postgraduate students from all over Europe and offers four coherent lecture courses, taught by experts in each field, on:

1. Mathematical Foundations of Complexity,
2. Physics of Complex Systems,
3. Complexity in Biology and Neuronal Dynamics,
4. Complex Systems in Economics and Sociology.

<http://www.math.upatras.gr/~phdsch11/>

<mailto:tassos50@otenet.gr>

Open Positions

Research Fellow in Mathematical Neuroscience/Computational Biology at Department of Computer Science and Centre for Complexity Science, University of Warwick (UK)

Deadline for applications: 2010-12-20

Fixed Term Contract for 3 years with start Date 1 February 2011 (or as soon as possible thereafter)

You will work on a project funded by the BB-SRC that aims to investigate the role of calcium

dynamics in neuronal computation underlying important brain functions. The project will be led by Dr Y Timofeeva and run in collaboration with experimentalists at Oxford and Cambridge.

Your working environment will be at the Warwick Centre for Complexity Science (<http://go.warwick.ac.uk/complexity>).

You should have a PhD, or equivalent, in applied mathematics/theoretical physics or a related discipline and a strong interest in mathematical and/or computational biology. Programming skills and previous experience of research in theoretical/computational neuroscience or computational biology are highly desirable. Some knowledge of reaction-diffusion systems would be an advantage.

Deadline for applications: 20th December 2010

Please contact:

<https://secure.admin.warwick.ac.uk/webjobs/jobs/research/job3214.html>

Postdoc / PhD student position available in mathematical epidemiology and delay differential equations at Bolyai Institute, University of Szeged (Hungary)

Deadline for applications: 2010-12-31

Applications are welcome to the newly established EPIDELAY research group at the Bolyai Institute, University of Szeged, Hungary. Bolyai Institute is one of the major mathematical research centers in Central Europe. A strong group, led by Tibor Krisztin, already works on nonlinear functional differential equations. Applications in epidemiology will add a new research direction. The EPIDELAY team is funded by ERC and led by Gergely Rost. The main goal of this research group is to build and strengthen bridges between functional differential equations and practical epidemiology, thus applicants are welcome from both directions. Salaries are set to Hungarian scale, starting date is negotiable. CV and the contact information of two reference persons are to be submitted to epidelay@math.u-szeged.hu

Deadline 2010 December 31

Please contact: epidelay@math.u-szeged.hu

**Research Fellow Fixed-term for 36 months
at Warwick Systems Biology Centre (UK)**

Deadline for applications: 2011-01-31

Warwick Systems Biology Centre is seeking a highly creative and motivated postdoctoral research fellow to participate in a Leverhulme Trust funded research project on the analysis of protein energetics and protein folding using statistical machine learning and Bayesian computation.

Candidates should have a Ph.D. in computational biophysics/biochemistry or a relevant quantitative field such as theoretical physics, applied mathematics, statistics etc and a strong interest in

molecular biology.

Programming skills in C are essential and previous experience in any of the following would be advantageous: stochastic computation/simulation, Bayesian methods, protein structure and folding.

For informal discussions, and applications, please contact Prof. David Wild (D.L.Wild@warwick.ac.uk) in the first instance.

Applicants should include a full CV and accompanying letter outlining their interests and previous work.

Applications are also invited for a related 3 year PhD studentship from suitably qualified candidates.

Please contact: D.L.Wild@warwick.ac.uk
http://www2.warwick.ac.uk/fac/sci/systemsbiology/staff/david_wild/