

The 3rd International Conference on Bioinformatics and Systems Biology (BSB 2010)



Chongqing, China, 12-14 July 2010

<http://siwn.org.uk/2010/BSB10.htm>

Systems Biology is concerned with the system-level study of complex interactions in biological systems and provides a quantitative systemic approach to understanding complex biological phenomena. On the other hand, the ultimate goal for the understanding and modeling of biological systems is at the synthesis and simulation of biological behaviors and functions, across which Bioinformatics plays an important underpinning role. Recent progresses in Bioinformatics and Systems Biology are extraordinarily exciting and are calling for even broader and further deep-stretching interdisciplinary research and collaboration.

BSB 2010 aims to provide a premier forum for stimulating exchange and in-depth discussion of advances, challenges and emerging areas in Bioinformatics and Systems Biology.

Topics

Topics of particular interest include (but not limited to) the following areas.

(1) Bioinformatics

- bioinformatics database integration and interoperation
- biological data mining and visualization
- biomedical image processing
- bio-ontology and semantics
- brain informatics
- computational drug discovery
- computational genomics
- computational neurobiology, neuroinformatics
- computational proteomics
- computational tools for sequence analysis
- grid computing and service-oriented architecture for biological or medical applications
- high-performance biocomputing
- ICT infrastructure for bioscience and biotechnology
- immunoinformatics
- integrative data and text mining approaches
- molecular databases / data warehouses
- semantic analysis and knowledge discovery for high-throughput biological data
- semantic webs and web services for medical or biological applications
- software agent and multi-agent technology for medical or biological applications
- structural bioinformatics
- synthetic biological systems
- visualization methods for computational biology

(2) Systems Biology

- biological morphology
- biomedical systems modeling, simulation and visualization
- computational modeling, analysis and simulation of complex biological systems
- developmental biology
- dynamic modeling of cell processes (signal pathway, gene regulation, metabolics, protein-protein interactions)
- dynamics of complex biological systems
- evolution of biological networks
- gene expression networks
- kinetic modeling using various imaging techniques
- microarray design and data analysis
- model-driven experimental design of biological systems
- multi-scale modeling of complex biological systems/networks (molecular, cellular, tissue, organism, living individual)
- parameter identification and validation of cell network models
- quantitative approaches to cell processes
- systems theoretical analysis/interpretation of biological mechanisms/phenomena
- topological analysis of gene regulation, signal transduction and metabolic networks

Submission

BSB 2010 only accepts manuscripts of original contributions. A manuscript for submission to the Conference should neither have been published nor have been under consideration for publication elsewhere. All manuscripts submitted will be sent to 3-4 members of the International Program Committees of the Conferences for peer reviews, based on which the acceptance decision will be made.

To make a submission of manuscript, please follow the online submission of BSB 2010 <http://www.easychair.org/conferences/?conf=bsb2010>

A manuscript for submission to the Conference should be prepared according to the Instructions for Authors of the Journal. Sample Word Doc and Latex file of Camera-Ready Versions (CRV) are available at <http://fatech.org.uk/press/ita.htm> There is a page limit of 8 formatted pages for the CRV of an accepted paper. Additional pages are subject to over-length charges.

Proceedings and Journal Publication

All accepted papers of the Conferences will be included in the electronic Proceedings of SIWN 2010, which will be available at the Conferences. At the same time, high-quality papers of the Conferences will be published in the International Journal <<Communications of SIWN>> (ISSN 1757-4439) (<http://fatech.org.uk/press/cosiwn/>) at the time of the Conferences. Decisions for the Proceedings and the Journal are solely based on the technical peer reviews conducted by the International Program Committees.

Program Chair

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Important Dates

9 April 2010 Submission of manuscripts
30 April 2010 Notification of acceptance
28 May 2010 Camera-Ready Version (CRV) due

Technical Support:

IEEE SMCS Technical Committee on Self-Organized Distributed and Pervasive Systems (TC-SODPS)
Foresight Academy of Technology