

IWBBIO 2013

International Work-Conference on Bioinformatics and Biomedical Engineering
Granada, Spain; March 18-20, 2013

ORGANIZING COMMITTEE

Steering Committee:

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Marco Masseroli	Zoran Obradovic

Local Conference and Publicity Chairs:

Ignacio Rojas
Francisco Ortuño

SCOPE

The International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2013) seeks to provide a discussion forum for scientists, engineers, educators and students about the latest ideas and realizations in the foundations, theory, models and applications for interdisciplinary and multidisciplinary research encompassing disciplines of computer science, mathematics, statistics, biology, bioinformatics, and biomedicine.

The aims of IWBBIO 2013 is to create a friendly environment that could lead to the establishment or strengthening of scientific collaborations and exchanges among attendees, and therefore, IWBBIO 2013 solicits high-quality original research papers (including significant work-in-progress) on any aspect of Bioinformatics, Biomedicine and Biomedical Engineering.

New computational techniques and methods in machine learning; data mining; text analysis; pattern recognition; data integration; genomics and evolution; next generation sequencing data; protein and RNA structure; protein function and proteomics; medical informatics and translational bioinformatics; computational systems biology; modelling and simulation and their application in life science domain, biomedicine and biomedical engineering are especially encouraged.

PROGRAM COMMITTEE (tentative)

Akhilesh Pandey	Jose Luis Oliveira
Albert Zomaya	Jose M. Blanca
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Gloria Blanco	Rui Carlos Alves
Graziano Pesole	Rune Matthiesen
Guillermo de la Calle	Salvatore Orlando
Hans-Joachim Gabius	Santiago Vilar
Héctor Pomares	Saúl Ares
Ignacio Blanquer	Stefan Götz
Iñaki Inza	Sylvain Foissac
Jacques Colinge	Toni Gabaldón
James Sharpe	Vicente Conejero
Jaume Bacardit	Vicente Hernández
Javier De Las Rivas	Vicky Schneider
Javier Paz-Ares	Victor M. Maojo
Jean-Fred Fontaine	Victoria Martín Requena
John K. Field	Vladimir Shulaev
Jose Jesús Fernandez	Yvan Saeys

TOPICS

The topics of interest include, but are not limited to:

- Computational proteomics.** Analysis of protein-protein interactions. Protein structure modelling. Analysis of protein functionality. Quantitative proteomics and PTMs. Clinical proteomics. Protein annotation. Data mining in proteomics.
- Next generation sequencing and sequence analysis.** De novo sequencing, re-sequencing and assembly. Genomic data integration. Expression estimation. Alternative splicing discovery. Pathway Analysis. Chip-seq and RNA-Seq analysis. Metagenomics. SNPs prediction.
- High performance in Bioinformatics.** Parallelization for biomedical analysis. Novel architecture and technologies (GPU, P2P, Grid,...) for Bioinformatics. Biomedical and biological databases. Data mining and biological text processing. Large scale biomedical data integration. Biological and medical ontologies.
- Computational systems for modelling biological processes.** Inference of biological networks. Machine learning in Bioinformatics. Microarray Data Analysis. Classification for biomedical data. Simulation and visualization of biological systems. Molecular evolution and phylogenetic modelling.
- Bioinformatics for healthcare and diseases.** Computational support for clinical decisions. Image visualization and signal analysis. E-health and web services in health informatics. Genome-phenome analysis. Disease control and diagnosis. Biomarker identification. Drug design. Computational immunology.
- Biomedicine.** Biomedical Computing. Personalized medicine. Medical education. Nanomedicine. Collaborative medicine. Biomedical signal analysis. Biomedicine in industry and society. Electrotherapy and radiotherapy.
- Biomedical Engineering.** Computer-assisted surgery. Therapeutic engineering. Interactive 3D modelling. Clinical engineering. Telemedicine. Biosensors and data acquisition. Intelligent instrumentation. Biomedical robotics. Patient Monitoring. Bio-nanotechnology. Genetic engineering. Artificial organs.

IMPORTANT DATES

October 17, 2012	Submission of Special Session proposals
October 24, 2012	Submission of papers/abstracts by authors
December 7, 2012	Notification of provisional acceptance
December 15, 2012	Submission of final papers.
January 15, 2013	Early registration (special rates).
March 18-20, 2013	IWBBIO conference

SPECIAL ISSUES

COMPUTATIONAL AND STRUCTURAL BIOTECHNOLOGY JOURNAL
JCB: JOURNAL OF CLINICAL BIOINFORMATICS



THEORETICAL BIOLOGY
AND MEDICAL MODELLING

