



CALL FOR PAPERS

The IASTED International Conference on Computational and Systems Biology (CASB 2006)

**November 13-15, 2006
Dallas, Texas, USA**

SPONSORS

The International Association of Science and Technology for Development (IASTED)

CONFERENCE CHAIR

Prof. Ding-Zhu Du – University of Texas at Dallas, USA

Keynote Speaker

Prof. Daniel Gusfield – University of California - Davis, USA

PURPOSE

In the ever-evolving field of computational biology, it is essential that researchers and industry stay on top of changes in applications and techniques in mathematical, statistical and computational science. Current issues related to this topic involve advancements in bioinformatics including microarray data analysis, functional genomics, and computational proteomics.

The IASTED International Conference on Computational and Systems Biology (CASB 2006) will provide an opportunity for scientists and specialists to discuss current research and exchange new ideas in these areas. All papers submitted to this conference will be peer evaluated by at least two reviewers. Acceptance will be based primarily on originality and contribution.

CASB 2006 will be held in conjunction with the IASTED International Conference on:
Software Engineering and Applications (SEA 2006)
Parallel and Distributed Computing and Systems (PDCS 2006)

LOCATION

Dubbed the "Silicon Prairie," Dallas is among the largest high technology employment centers in the U.S. The information sector, which includes computer companies, telecommunications firms, and publishers, is one of the region's fastest-growing industries. The thriving economy

fuels the city's commitment to art and culture. Dallas has turned itself into a sprawling showcase of first-rate paintings, sculptures and architecture. The Dallas Arts District, a 60-acre development, is the largest urban arts district in the country, anchored by the Dallas Museum of Art, the Morton H. Meyerson Symphony Center, and the new Nasher Sculpture Garden. Dallas has more restaurants per capita than New York City, and the servings are always Texas sized. Hungry for music? Dallas has a thriving local music scene, with over 110 live performances every night. Catch the excitement and tradition of the Mesquite Championship Rodeo, just 15 minutes from downtown Dallas. Nature enthusiasts can go for a bike ride or hike through White Rock Lake Park.

SCOPE

The relevant topics for this conference include, but are not limited to, the following:

Biological Issues

Microarray Data Analysis

Micro RNA and RNAi

Pathways and Networks

Biomedical Applications:

 Therapeutic Applications of Computational Biology

Computational Drug Discovery

Computational Proteomics

Microbial Community Analysis

Synthetic Biological Systems

Evolution and Phylogenetics

Sequence Motifs, Alignments, and families

Gene Structure, Regulation, and Modeling:

 Functional Genomics

 Promoter Analysis and Discovery, Recognition of Regulatory Elements

 Comparative Genomics and Annotation

Genetic Variation (SNPs and Haplotyping, etc.)

Development Control

Measuring Cellular Metabolism and Cellular Signaling

Computational Neurobiology

Computational Ecology

Mathematical and Quantitative Models of Cellular and Multicellular Systems

Computational Techniques

Biological Data Mining

Biomedical Literature Text Mining

Data Visualization

High Performance Biocomputing

Parallel Computation

Machine Learning

Pattern Recognition

Knowledge Representation

Databases

Combinatorics

Stochastic Modeling

String and Graph Algorithms

Linguistic Methods

Robotics

Constraint Satisfaction
Information Theory and Statistical Analysis
Hidden Markov Model
Ontologies and Semantic Web Systems for Biology
Clinical Informatics
Neural Networks
Time Series Analysis
Sequencing and Arrangement Algorithms
SWARM

Interdisciplinary issues

Bioinformatics Project Management (Data Management Methods and Systems)
International Cooperation in Bioinformatics Research
Philosophy, Ethics of Bioinformatics
Future Trends of Bioinformatics

INTERNATIONAL PROGRAM COMMITTEE

T. Akutsu – Kyoto University, Japan
C. Anderson – Colorado State University, USA
R. Backofen – University of Freiburg, Germany
A. Baranova – George Mason University, USA
D. Chen – Uniformed Services University of the Health Sciences, USA
J. Chen – Purdue University, USA
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B. Gaeta – University of New South Wales, Australia
J.M. Garibaldi – University of Nottingham, UK
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S. Kumara – Pennsylvania State University, USA
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M. Li – University of Waterloo, Canada
Y. Liu – University of Texas at Dallas, USA
E. Merényi – Rice University, USA
M. Mofrad – University of California Berkeley, USA
S. Mooney – Indiana University, USA
K.R.K. Murthy – Genome Institute of Singapore, Singapore
G. Narasimhan – Florida International University, USA
Y. Pan – Georgia State University, USA
G. Pandurangan – Purdue University, USA
P.M. Pardalos – University of Florida, USA
H. Park – Georgia Institute of Technology, USA
P. Ren – University of Texas at Austin, USA
L. Sheng – Drexel University, USA

F. Slack – Yale University, USA
J. Stelling – Institute of Computational Science, Switzerland
T.W. Tan – National University of Singapore, Singapore
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L. Wang – City University of Hong Kong, PRC
W. Wu – University of Texas at Dallas, USA
G. Xue – Arizona State University, USA
J.-S. Zhang – Xi'an Jiaotong University, PRC
X. Zhang – Institute of Applied Mathematics, PRC
Y. Zhao – University of Missouri at Rolla, USA
S.Q. Zheng – University of Texas at Dallas, USA

SUBMISSION OF PAPERS

Initial Papers

Submit your paper via our website at:

<http://www.iasted.org/conferences/2006/dallas/submit-540.htm>.

All submissions should be in Adobe Acrobat (.pdf), Postscript (.ps), or MS Word (.doc) format. The IASTED Secretariat must receive your paper by **June 15, 2006**. Receipt of paper submission will be confirmed by email.

Authors are responsible for having their papers checked for style and grammar prior to submission to IASTED. Papers may be rejected if the language is not satisfactory.

Complete the online initial paper submission form designating an author who will attend the conference and providing four key words to indicate the subject area of your paper. One of the key words must be taken from the list of topics provided under Scope. Initial paper submissions should be approximately six pages. Formatting instructions are available at: <http://www.iasted.org/formatting-initial.htm>.

Notification of acceptance will be sent via email by **August 1, 2006**. Final manuscripts are due by **September 1, 2006**. Registration and final payment are due by **September 15, 2006**. Late registration fees or paper submissions will result in the papers being excluded from the conference proceedings.

Final Papers

Send your final manuscripts via email to: finalpapers@iasted.org. The subject line for the final manuscript submission must include your six-digit paper number. The formatting instructions can be found at: <http://www.iasted.org/formatting-final.htm> and must be strictly followed. The page limit for final papers is six single-spaced pages in 10 point Times New Roman font. Only one paper of up to six pages is included in the regular registration fee. There will be an added charge for extra pages and additional papers.

TUTORIALS

Proposals for three-hour tutorials should be submitted online by **June 15, 2006**. Tutorials are to be submitted via the following website address:

<http://www.iasted.org/conferences/2006/dallas/tutorialsubmit-540.htm>. A tutorial proposal should clearly indicate the topic, background knowledge expected of the participants,

objectives, time allocations for the major course topics, and the qualifications of the instructor(s).

SPECIAL SESSIONS

Persons wishing to organize a special session should submit a proposal via email to: calgary@iasted.org. Proposals should include a session title, a list of the topics covered, and the qualifications and brief biography of the session organizer(s). Papers submitted to the special session must be received by **June 15, 2006**, unless otherwise stipulated by the Special Session Organizer. A minimum of five papers must be registered and fully paid in order for this session to be included in the conference program. More information on special sessions is available at: <http://www.iasted.org/conferences/2006/dallas/sessionsubmit-540.htm>.

JOURNALS

Expanded and enhanced versions of papers published in the conference proceedings can also be considered for inclusion in one of the IASTED journals. Information on the submission of papers to journals is available at <http://www.actapress.com/SubmissionInfo.aspx>.

Whole proceedings as well as single papers can now be purchased online. Please visit ACTA Press: <http://www.actapress.com>.

IMPORTANT DEADLINES

Submission due	June 15, 2006
Notification of acceptance	August 1, 2006
Final manuscript due	September 1, 2006
Registration and full payment	September 15, 2006

For more information, or to be placed on our mailing list, please contact:

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