

CALL FOR PAPERS - IEEE-EMBC 2005
27TH ANNUAL INTERNATIONAL CONFERENCE
IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY
Theme 11: Computational Biology and Bioinformatics
Shanghai, China, September 1-4, 2005
<http://www.ee.cuhk.edu.hk/EMBC05shanghai>

The Annual Conference of IEEE Engineering in Medicine and Biology Society (EMBC)2005 provides a general forum for disseminating the latest developments in bioinformatics. The Computational Biology and Bioinformatics Theme of EMBC'05 brings together researchers and students from bioengineering, computer science, mathematics, statistics, molecular biology, and medicine. The scope includes computational problems in the analysis and understanding of biological information.

Relevant topics include: protein structure, protein function, genomics, comparative genomics, proteomics, molecular sequence analysis, evolution and phylogenetics, molecular interactions, molecular structure, structural bioinformatics, gene expression, gene network, microarray analysis, metabolic pathways, regulatory networks, systems systems biology.

Computational techniques of interest include: pattern recognition, machine learning, combinatorics, string and graph algorithms, data mining, text analysis, knowledge representation, databases, stochastic modeling, Bayesian modeling, mathematical programming, visualization, high performance computing, robotics, constraint satisfaction,

Technical Tracks and Chairs:

- Algorithm and software system for bioinformatics,
Chairs: Dong Xu (U Missouri) and Bhaskar DasGupta (U Illinois at Chicago),
- Computational genomics and proteomics, Chair: May Wang (Georgia Tech)
- Regulatory elements, gene networks and simulation of cell, Chair: Metin Akay (Dartmouth)
- Gene expression and microarray analysis, Chairs: Yang Dai (U Illinois at Chicago)
- Structural and functional bioinformatics,
Chairs: Jiandong Ding (Fudan U), Jie Liang (U Illinois at Chicago)
- Computational proteomics, Chair: Robert Kearney (McGill U)
- Novel technologies for computational biology and bioinformatics, Chairs: David Fenstermacher (U Penn)

Research papers are solicited in all of the above areas. Attendees are invited to submit papers for presentation at IEEE-EMBC05. Submitted papers should be a maximum of 4 pages.

The IEEE EMB Society also coordinates a paper and design competition for EMB Student Members (both undergraduate and graduate students are eligible) funded through the generous support of the IEEE-EMBS Foundation. See conference website for details. See <http://www.ee.cuhk.edu.hk/EMBC05shanghai/registration.htm> for submission guidelines.

Important Dates of Deadline:

May 2, 2005	June 1, 2005	July 15, 2005	August 1, 2005
Paper submissions	Notification of acceptance	Early registration	Hotel reservation

A special paper submission of **May 2, 2005** instead of April 8, 2005 has been granted for *Computational Biology and Bioinformatics*.

Theme Co-chairs:

Metin Akay (Dartmouth), Robert Kearney (McGill U), and Jie Liang (U Illinois at Chicago).