



IEEE 7th International Symposium on BioInformatics & BioEngineering (IEEE BIBE2007)

(<http://www.cs.gsu.edu/BIBE07/>)

Cambridge - Boston, Massachusetts, USA, October 15-17, 2007

Call for Papers

Bioinformatics and bioengineering are complementary disciplines that hold great promise for the advancement of research and development in medicine, pharmaceuticals, public health, agriculture, and environmental studies. Combined research and development in bioinformatics and bioengineering is helping us understand living organisms at multiple levels, develop innovative implants and prosthetics, create new medical imaging technologies, and improve tools and techniques for the detection, prevention and treatment of diseases.

IEEE BIBE'07 will provide a platform for the cross fertilization of ideas, bridging these two important and complementary disciplines and helping shape knowledge and scientific achievements. The symposium solicits original contributions in the following areas:

Bioinformatics

Bio-molecular and Phylogenetic Databases, Bio-Languages, Interoperability in BioDBs, Bio-Ontology and Data Mining; Identification and Classification of Genes; Sequence Search and Alignment; Protein Structure Prediction and Molecular Simulation; Molecular Evolution and Phylogeny; Functional Genomics, Proteomics; Drug Discovery; Gene Expression Analysis; Bioinformatics Engineering; Bio-Data Visualization; Systems Biology; Algorithms, Modeling and Simulation of Bio-Sets; Biomarkers of Toxicity; Bio-Imaging; Signaling and Computation.

Bioengineering

Biological Systems and Models; Engineering Models in Bio-Medicine; Image Guide Radio Therapy; 4-D Images; Intensity Modulated Radiation Therapy; Intensity Modulated Proton Therapy; Dose Calculation and Optimization; Monte Carlo Simulation; Biological Modeling; Cancer Detection and Medical Images; Computer Assisted Intervention Systems and Medical Robotics; Biomedical and Biological Sensors; Cell Engineering; Molecular and Cellular Systems; Body's and Cell's Bio-Signatures; Tissue Engineering; Biomedical Image Processing/Analysis; Microarray Technologies; Biomedical Data Engineering; Biomaterials; Diagnosis-Discoveries for Disabled; Medical Devices for Disabled.

Interdisciplinary and Multidisciplinary

IEEE BIBE '07 will host sessions focusing on Interdisciplinary and Multidisciplinary research in order to foster collaboration between the bioinformatics and bioengineering domains.

Accepted papers will be published by IEEE/CS and indexed in EI. Selected papers can be included in Springer's LNCS Transactions on Computational Systems Biology and Journal of Supercomputing, Inderscience Publisher's International Journal of Bioinformatics Research and Applications ([IJBRA](#)) and International Journal of Data Mining and Bioinformatics ([IJDMB](#)), RIP's Journal of Computational Intelligent in Bioinformatics ([JCIB](#)) and BMC Bioinformatics, or the forthcoming International Journal of Bioinformatics & Bioengineering ([IJBB](#)). In addition, World Scientific Publisher's Journal of Bioinformatics and Computation Biology ([JBCB](#)) will warmly invite extended-version submission by selected authors based on recommendation by the BIBE07 PC chair. The symposium will award a limited number of travel fellowships for outstanding papers.

Invited Keynote Speakers:

Dr. Jay S. Loeffler, Harvard University

Dr. Jun Liu, Harvard Univ. & Broad Inst. of MIT-Harvard

Dr. Mary Qu Yang, Nat'l Human Genome Research Institute
NIH, U.S. DHHS – Oak Ridge, U.S. DOE

Dr. Yi Pan, Georgia State University

Dr. A. Keith Dunker, Indiana University - Purdue University

Important Dates

Submission deadline ([IEEE/CS Conference Format](#), 8-page maximum): May 15, 2007

Paper Notification: June 25, 2007

Camera-ready version deadline: July 10, 2007

Conference Organizers

General Chair: Dr. Nikolaos G. Bourbakis, Wright State University;

Program Chair & Coordinator: Dr. Jack Y. Yang, Harvard University;

Program Co-Chair & Bioinformatics Track Chair: Dr. Yanqing Zhang, Georgia State Univ.;

Program Co-Chair & Bioengineering Track Chair: Dr. George T. Y. Chen, Harvard University and MGH;

Program Co-Chair & Inter/Multidisciplinary Chair: Dr. Jun Ni, University of Iowa;

Workshop Chair: Dr. A. Keith Dunker, Indiana University-Purdue University; Dr. Ying Xu, University of Georgia -Oak Ridge;

Publicity Chair: Dr. Okan K. Ersoy, Purdue Univ.; Dr. Michael Folkert, MIT-Harvard; Dr. Yingshu Li, Georgia State Univ.

Sponsors / Collaborators

IEEE Computer Society and Biological and Artificial Intelligence Society, Wright State University, Purdue University, Georgia State University, University of Iowa, Massachusetts General Hospital, Harvard Medical School and Harvard University.