

BIBM2013

Shanghai, China
Middle December, 2013

2013 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2013)

We are soliciting high quality original research papers (including significant work-in-progress) in any aspect of bioinformatics and biomedicine. New computational techniques and methods in machine learning; data mining; text analysis; pattern recognition; knowledge representation; databases; data modeling; combinatorics; stochastic modeling; string and graph algorithms; linguistic methods; robotics; constraint satisfaction; data visualization; parallel computation; reverse engineering molecular biological systems, data integration; medical informatics, healthcare informatics, modeling and simulation and their application in life science domain are especially encouraged. Relevant topics included, but are not limited to:

1. Genomics and Molecular Structure, Function and Evolution

- a) Next-Gen Sequencing and Metagenomics
- b) Evolution, Phylogeny, Comparative Genomics
- c) SNPs and haplotype analysis, GWAS
- d) Protein/RNA Structure, Function and Interactions
- f) Personal Genome Analysis

2. Computational Systems Biology

- a) Transcriptomics – RNA-Seq and Microarray Data Analysis
- b) Gene Regulation, Alternative Splicing, Network/Pathway Analysis
- c) Proteomics, PTMs, Metabolomics
- d) Epigenomics, non-coding RNA analysis, DNA methylation analysis

3. Medical Informatics and Translational Bioinformatics

- a) Biomedical Intelligence, Clinical Data Analysis, and Electronic Health Record
- b) Biomedical Signal/Image Analysis
- c) Genome-Phenome Analysis
- d) Biomarker Discovery

4. Cross-Cutting Computational Methods and Bioinformatics Infrastructure

- a) Biomedical Text Mining and Ontologies
- b) Biological Data Mining and Visualization
- c) Computational Modeling and Data Integration
- d) High Performance Computing

5. Healthcare Informatics

- a) Healthcare knowledge representation & reasoning
- b) Health data acquisition, analysis and mining
- c) Healthcare information systems
- d) Clinical Decision Support and Informatics

Conference Co-Chairs

Michael Hughes, Univ. of Surrey, UK

Baoyan Liu

China Academy of Chinese Medical
Science

Geoff McLachlan, Univ. of Queensland,
Australia

Program Co-Chairs:

Sunghoon Kim, Seoul Natl. Univ. Korea

Guo-Zheng Li, Tongji Univ. China

Habtom Resson, Georgetown Univ,
USA

Steering Committee Chair:

Xiaohua Tony Hu, Drexel Univ., USA

6-7 special issues will be published from the selected BIBM 2013 papers (IJDMB, BMC Bioinformatics, BMC Genomics, Proteomics, IEEE Transactions)

