CALL FOR PAPERS
8th International Workshop on
High Performance Computational Biology
HiCOMB 2009

May 25, 2009 - Rome, Italy

www.hicomb.org

Important Dates:
Submissions Due: **November 30, 2008**
Notification: December 25, 2008
Final Paper Due: February 15, 2009
Workshop: May 25, 2009

Location:
Rome, Italy
co-located with the International Parallel &
Distributed Processing Symposium (IPDPS)

Workshop Co-Chairs:
Srinivas Aluru (Iowa State U.)
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Jim Tisdall, DuPont
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    University of Maryland, College Park

Computational Biology is fast emerging as an important discipline for academic research and industrial application. The large size of biological data sets, inherent complexity of biological problems and the ability to deal with error-prone data all result in large run-time and memory requirements. The goal of this workshop is to provide a forum for discussion of latest research in developing high-performance computing solutions to problems arising from molecular biology. We are especially interested in parallel algorithms, memory-efficient algorithms, large scale data mining techniques, and design of high-performance software. The workshop will feature contributed papers as well as invited talks from reputed researchers in the field.

Topics of interest include but are not limited to:
• Bioinformatics databases
• Computational genomics
• Computational proteomics
• DNA assembly, clustering and mapping
• Gene expression and microarrays
• Gene identification and annotation
• Parallel algorithms for biological analysis
• Parallel architectures for biological applications
• Molecular evolution
• Molecular sequence analysis
• Phylogeny reconstruction algorithms
• Protein structure prediction and modeling
• String data structures and algorithms

Submission Guidelines:
Papers reporting original research (both theoretical and experimental) in all areas of bioinformatics and computational biology are sought. Surveys of important recent results and directions are also welcome. To submit a paper, upload a postscript or PDF copy of the paper from the workshop web page www.hicomb.org. The paper should not exceed 12 single-spaced pages (US Letter or A4 size) in 11pt font or larger. All papers will be reviewed. IEEE CS Press will publish the IPDPS symposium and workshop abstracts as a printed volume. The complete symposium and workshop proceedings will also be published by IEEE CS Press on CD-ROM and will also be available in the IEEE Digital Library.