Parallel Bio–Computing 2013

Workshop on Parallel Computational Biology
September 8–11, 2013, Warsaw, Poland

Bioinformatics is the science of managing, mining, and extracting knowledge from biological data. Since the last PBC workshop in 2011 the field has witnessed two growing paradigm shifts: improved third generation sequencing technology and cloud computing. Because of the flood of digital biological data in many more institutions, application of diverse HPC techniques to solve bioinformatics problems has become even more crucial to the success of the field.

The goal of this Workshop is to present the latest research in high-performance computing applied to bioinformatics. We are especially interested in parallel and distributed algorithms, memory efficient algorithms, and design of high-performance software for clusters, grids and clouds. Submission of articles dealing with parallelization of applications on multi-/many-core, massively parallel systems, accelerator architectures and large distributed systems are specifically encouraged. Topics of interest include but are not limited to:

- Bioinformatics databases
- Computational genomics and proteomics
- DNA assembly, clustering, and mapping
- Gene expression and microarrays
- Gene identification and annotation
- Molecular sequence analysis
- Phylogeny reconstruction algorithms
- Protein structure prediction and modeling
- Parallel algorithms for biological analysis
- Parallel architectures for biological applications
- System tools that support large scale high-performance bio-computing

The PBC Workshop (http://pbc.ppam.pl) will be held in conjunction with the Tenth International Conference on Parallel Processing and Applied Mathematics PPAM 2013, Warsaw, Poland, September 8-13, 2013 (http://www.ppam.pl).

Paper Submission and Publication

The workshop will consist of dedicated sessions containing selected papers. Papers will be refereed and accepted on the basis of their originality, scientific merit and relevance to the Workshop topics. Papers presented during the workshop will be included into the proceedings of PPAM and published after the conference by Springer–Verlag in the LNCS series.

The only allowed paper format is Springer LaTeX style. To ensure reasonable quality and consistency of preparation, please be sure to adhere closely to the LNCS Author and Volume Editor Instructions. All papers should be prepared as a PDF or PS file, and should be submitted using the Paper Submission link. Papers should not exceed 10 pages.

Important Dates

Submission of Papers:	April 30, 2013 (23:59 CET)
Notification of Acceptance:	June 15, 2013
Camera–ready Papers:	November 15, 2013

Programme Committee

David A. Bader, Georgia Tech., USA – *workshop chair*
Jaroslaw Zola, Iowa State Univ., USA – *workshop chair*

Bertil Schmidt, Univ. of Mainz – *program chair*

Umit Catalyurek, Ohio State Univ., USA
Scott Emrich, Univ. of Notre Dame, USA
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