

Minisymposium on HPC Applications in Physical Sciences

The Minisymposium will be a part of the 10th International Conference on Parallel Processing and Applied Mathematics PPAM 2013, organized in Warsaw, Poland, on September 8-11, 2013.

The Minisymposium is the continuation of the following events: a) International Seminar "Phase Transitions and Critical Phenomena", Poznań, Poland, on December 4-6, 1997; b) the Minisymposium "HPC Applications: Molecular Nanomagnets Simulations" organized within the PARA 2008 Workshop on State-of-the-Art in Scientific and Parallel Computing, Trondheim, Norway, on May 13-16, 2008.

MINISYMPOSIUM TOPICS

Modeling and numerical simulations have become important tools in physical sciences and materials design. Significant results have been achieved in simulations of static and dynamic properties of the condensed and soft matter systems using the HPC resources. The Minisymposium is devoted, but not limited, to HPC applications in physical sciences and aims at addressing the following topics:

- a) scalability of the simulation tools in the HPC environment;
- b) the overlap between the ab-initio and phenomenological modeling;
- c) non-classical dynamics in the low-dimensional magnetism;
- d) new approaches and simulations methods;
- e) new tools and environments in materials science computations.

Scientific success of this mini-symposium will result not only from an overview of high-performance computing in a variety of systems, but also from recognizing the limitations of the available theoretical tools and from the identification of challenging areas where new efforts will be required to further advance the field.

PAPER SUBMISSION AND PUBLICATION

Abstracts and original papers are invited for the Minisymposium. They should be prepared according to the Springer LNCS and PPAM 2013 rules and be submitted using the online submission system (see <http://ppam.pl/submission>). Submissions will be refereed and accepted on the basis of their scientific merit and relevance to the workshop topics. Only papers presented at PPAM 2013 will be included in the proceedings, to be published after the conference by Springer in the LNCS series.

IMPORTANT DATES:

Submission of abstracts and papers:	May 15, 2013
Notification of acceptance:	June 15, 2013
Camera-ready papers:	November 15, 2013

For specific information about this Minisymposium, please contact Grzegorz Kamieniarz (e-mail: gjk@amu.edu.pl) or Wojciech Florek (florek@amu.edu.pl)

MINISYMPOSIUM CHAIRS

Grzegorz Kamieniarz	A. Mickiewicz University in Poznan, (Poland)
Wojciech Florek	A. Mickiewicz University in Poznan, (Poland)

PROGRAM COMMITTEE

Bartosz Brzostowski, University of Zielona Góra, Poland
Stefano Carretta, University of Parma, Italy
Juan M Clemente-Juan, University of Valencia, Spain
Philippe Depond, Université Pierre et Marie Curie, Paris, France
Marc Drillon, University Louis Pasteur, Strasbourg, France
Andrzej Drzewiński, University of Zielona Góra, Poland
Larry Engelhardt, AMES Laboratory, USA
Jarosław S. Kłos, Leibniz Institute of Polymer Research Dresden, Germany
Leeor Kronik, Weizmann Institute of Science, Israel
Grzegorz Musiał, A. Mickiewicz University in Poznań, Poland
Beate Paulus, Freie Universität Berlin, Germany
Jürgen Schnack, University of Bielefeld, Germany
Federico Totti, University of Florence, Italy
Krzysztof Wojciechowski, Institute of Molecular Physics, Poland
Jacek Wojtkiewicz, Warsaw University, Poland