

Preface

It is our pleasure to provide you with the volume containing the proceedings of the 5th International Conference on Parallel Processing and Applied Mathematics, which was held in Częstochowa, a Polish city famous for its Jasna Gora Monastery, on September 7–10, 2003. The first PPAM conference was held in 1994 and was organized by the Institute of Mathematics and Computer Science of the Częstochowa University of Technology in its hometown. The main idea behind the event was to provide a forum for researchers involved in applied and computational mathematics and parallel computing to exchange ideas in a relaxed atmosphere. Conference organizers hoped that this arrangement would result in cross-pollination and lead to successful research collaborations. In addition, they hoped that the initially mostly Polish conference would grow into an international event. The fact that these assumptions were correct was proven by the growth of the event. While the first conference consisted of 41 presentations, the conference reached 150 participants in Nałęczów in 2001. In this way the PPAM conference has become one of the premiere Polish conferences, and definitely the most important one in the area of parallel/distributed computing and applied mathematics.

This year's meeting gathered almost 200 participants from 32 countries. A strict refereeing process resulted in the acceptance of approximately 150 contributed presentations, while the rejection rate was approximately 33%. Regular tracks of the conference covered such important fields of parallel/distributed computing and applied mathematics as

- parallel and distributed architectures
- scheduling and load balancing
- performance analysis and prediction
- parallel and distributed non-numerical algorithms
- parallel and distributed programming
- tools and environments for parallel and distributed processing
- numerical and non-numerical applications of parallel and distributed computing
- evolutionary and soft computing
- data and knowledge management
- mathematical and computer methods in mechanics and material processing, biology and medicine, physics and chemistry, environmental modeling and seismology, and financial engineering

The plenary and invited talks were presented by S.B. Baden, C. Kesselman, B. Chapman, J. Dongarra, S. Gortlatch, J. Kaufman, M. Livny, T. Stricker, V. Sunderam, B.K. Szymański, D. Trystram, J. Węglarz, and Z. Zlatev.

An important and integral part of the PPAM 2003 conference was the workshops and special sessions:

- Application Grid Workshop – AGW 2003
- International Workshop on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Networks – HeteroPar 2003
- Workshop on High Performance Numerical Algorithms
- Workshop on Large Scale Scientific Computations
- Special Session on Parallel and Distributed Bioinformatic Applications

Finally, the meeting began with two half-day tutorials

- Globus Toolkit version 3, by Ewa Deelman
- Load distribution strategies for HPC applications on clusters of symmetric multiprocessors, by Peter Luksch

that proved to be very successful, attracting a large number of participants.

We would like to express our gratitude to our sponsors: Intel Corp., IBM Corp., Optimus S.A., Solidex S.A. We would also like to say thank you to all members of the International Program Committee who worked diligently refereeing the submissions. Finally, we would like to thank all of the local organizers, including the Ph.D. students from the Czestochowa University of Technology, who helped us run the event very smoothly.

We hope that this volume will be useful to you. We would also like everyone who reads it to feel invited to the next conference, which will take place in Poland in 2005.

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