

Message from the Chairs

International Workshop on High Performance Scientific and Engineering Computing (HPSEC-04)

Welcome to the 6th International Workshop on High Performance Scientific and Engineering Computing (HPSEC-04) in conjunction with the International Conference on Parallel Processing (ICPP-2004), Montreal, Canada, August 15-18, 2004.

High performance computing is one of the most exciting technologies to achieve prominence, whose development has been facilitated by the rapid advances in electronic and integrated circuit technologies, since the invention of computers in the 1940s. It is expected that the years to come will witness a proliferation of the use of parallel and distributed systems, or supercomputers. This kind of computing method has become a key technology which will play an important part in determining, or at least shaping, future research and development activities in many academic and industrial branches, especially when the solution of large and complex problem must cope with harder and harder timing schedules. This special workshop is to bring together computer scientists, applied mathematicians and researchers to present, discuss and exchange idea, results, work in progress and experience of research in the area of high performance computing for problems in science and engineering applications.

There were large number of paper submissions from Asia Pacific, Europe and North America. All submissions were reviewed by at least three committee members or external reviewers. It was extremely difficult to select the presentation for the workshop because there were many excellent and interesting submissions. In order to allocate as many papers as possible and keep the high quality of the workshop, we finally decide to accept 13 papers for oral technical presentation. We believe all of these papers and topics will not only provide novel ideas, new results, work in progress and state-of-the-art techniques in this field, but also stimulate the future research activities in the area of high performance computing for science and engineering applications.

The program for this workshop is the result of hard and excellent work of many others, reviewers and program committee members. We would like to express our sincere appreciation to all authors for their valuable contributions and to all program committee members and external reviewers (Ricolindo L Carino, Arturo Escribano, Hidehiro Fujio, Patricia Gonzalez, Brian Henz, Yuan Hong, Sascha Hunold, Dejiang Jin, Matthias Korch, Eun-Joo Lee, Jeonghwa Lee, Zhong-ze Li, Robert Reilein, Chi Shen, Wensheng Shen, Pedro Trancoso, Xiaofang Wang, Dexuan Xie, Geng Yang, Qingqing Zuo) for their cooperation in completing the workshop program under a very tight schedule. Last but not the least, we thank Prof. Yuanyuan Yang, ICPP-2004 Workshops Chair for helping and encouraging the inclusion of HPSEC-04 in ICPP-04.

HPSEC-04 Workshop Chairs

Prof. Laurence T. Yang, St. Francis Xavier University, Canada

Prof. Ruppa K. Thulasiram, University of Manitoba, Canada

Prof. Jun Zhang, University of Kentucky, USA

Prof. Parimala Thulasiraman, University of Manitoba, Canada