Message from the General Co-Chairs

Welcome to the 20th International Parallel and Distributed Processing Symposium (IPDPS 2006), in the beautiful Island of Rhodes, Greece. It is a great honor for us to serve the international scientific community by organizing this major event of parallel and distributed computing, bringing together researchers, scientists, and students, from academia, research laboratories and industry. The Research Academic Computer Technology Institute (CTI) is proud to host this year's IPDPS.

These proceedings present the outstanding technical program of IPDPS 2006. We thank Program Chair Arnold L. Rosenberg, University of Massachusetts Amherst, USA, for all of his hard and excellent work in assembling this high quality program, in cooperation with his able Program Vice-Chairs: for "Algorithms" - Mikhail J. Atallah, Purdue University, USA; for "Applications" - David A. Bader, Georgia Institute of Technology, USA; for "Architectures" - Allan Gottlieb, New York University, USA; and for "Software" - Laxmikant Kale, University of Illinois, Urbana-Champaign, USA. We also thank the Program Committee members and external reviewers, listed elsewhere in these proceedings, who assisted the paper review and selection process.

We acknowledge the efforts of the authors of papers submitted to IPDPS 2006, without whom this conference series would not be possible. Due to the very competitive selection this year, many strong papers could not be included in the final program. We hope that authors will continue to view IPDPS as the premiere event for the dissemination of their novel, high quality research in parallel and distributed computing.

For the special speakers, we want to add our thanks to those expressed by the Program Chair in his message. In particular, we thank the four keynotes speakers: William Dally, Manish Gupta, Yves Robert, and Horst Simon.

We are grateful to the members of the IPDPS 2006 organizing committee. General Vice-Chair, Sotiris Nikolet-seas, University of Patras and CTI, Greece, envisioned holding IPDPS 2006 in Greece, prepared and presented the corresponding proposal and co-cordinated several local organization aspects. General Vice-Chair Chip Weems, University of Massachusetts at Amherst, USA, has assisted with many aspects of the conference by offering his valuable experience, including provision of guidance to the Workshop Chairs.

A collection of 19 workshops planned to collocate with IPDPS this year have been co-ordinated through the efforts of Workshop Chair Alan Sussman, University of Maryland, USA, and Workshops Vice-Chair Yuanyuan Yang, State University of New York, Stony Brook, USA. We acknowledge the hard work of the organizers of each workshop, listed elsewhere in these proceedings. These workshops offer an opportunity to explore a great variety of special topics related to parallel and distributed computing, and are an important part of the IPDPS events.

There will be interesting commercial exhibits and talks by IPDPS 2006 industrial sponsors, through the efforts of the Commercial Presentations and Exhibits Chair John K. Antonio, University of Oklahoma, USA, and the Co-Chair Theodoros Komninos, Computer Technology Institute, Greece. The Proceedings Chair Shoukat Ali, University of Missouri-Rolla, USA, has done a great job in preparing the program/abstract book and the conference proceedings, including handling the camera-ready manuscripts for the conference and the associated workshops. We also appreciate the dissemination efforts of the Publicity Coordinators Bo Hong, Drexel University, USA (Americas), Cho-Li Wang, University of Hong Kong, China (Asia/Pacific RIM), and Ioannis Chatzigiannakis, Computer Technology Institute, Greece (Europe/Africa). We thank Anna Brown (www.mediagirl.com) for maintaining the IPDPS web page.

Sally Jelinek, Bill Pitts, and Susamma Barua are three perennial members of the IPDPS organizing committees. Myriad important administrative details are handled by them with great skill and experience. Our job as General Co-

Chairs would have been unbearably difficult without them. Sally Jelinek, Electronic Design Associates, Inc., USA, is the Production Chair, and manages the logistical arrangements, oversees publicity, is responsible for our web site, produces the call for papers, pulls together the front matter for the proceedings, helps construct the program and abstract book distributed at the conference etc., etc., etc. Local Arrangements Co-Chair Susamma Barua, California State University, Fullerton, USA, works on the conference all year managing the detailed arrangements for a variety of local aspects such as the hotel contract, meeting room space, audio-visual equipment, registration, wireless internet, and signage. The Finance Chair, Bill Pitts, Toshiba America Information Systems, Inc., USA, prepares an accurate and detailed conference budget, tracks all income and expenses, and produces the final fiscal report at the highest level of financial integrity. We are very grateful to Sally, Bill, and Susamma for shielding us from these time-consuming and important chores that in most conferences the General Co-Chairs would have to handle. This year two senior staff members of the Computer Technology Institute, Greece, Rozina Efstathiadou (head of the administrative and financial department) and Lena Gourdoupi (public relations and conference organization), contributed significantly to various, important local organization aspects, with hard work and professionalism.

Finally, we thank the IPDPS Steering Committee Co-Chairs, Viktor K. Prasanna, University of Southern California, USA, and George Westrom, Future Scientists & Engineers of America, USA, for their dedication and leadership of IPDPS. It is to their credit that this meeting has become the premiere international conference for parallel and distributed computing. In addition, we thank the rest of the Steering Committee, listed elsewhere in these proceedings, for their guidance and contributions to this meeting.

IPDPS is sponsored by the IEEE Computer Society, and held in cooperation with the ACM. Furthermore, IPDPS is the flagship activity of the IEEE Computer Society's Technical Committee on Parallel Processing (TCPP). If you are not already a member, please consider joining TCPP. For more information about TCPP, please see www.computer.org/tab/tclist/tcpp.htm.

As mentioned earlier, the Research Academic Computer Technology Institute (CTI) is hosting IPDPS 2006. CTI was founded in 1985, with head offices in Patras, Greece. It is a non-profit, financially and administratively independent institution, under the supervision of the Ministry of Education and Religious Affairs. Its workforce averages at about 260 persons, including experienced researchers, University faculty members, computer engineers and technicians, scientific staff specialized in other fields, post-graduate students and administrative staff. CTI establishes collaborative networks with a host of academic and research institutes, companies and institutions at an international, European and national level. At the same time, at the scientific level, CTI's researchers develop scientific collaborations in issues concerning basic and applied research with scientists and research centres belonging to the global scientific community. CTI's chief priority is research and development, focusing on certain areas of strategic importance, of both basic and applied nature. The research endeavours of the institute are stimulated by the framework and the objectives for research policy set by the European Union, in conjunction with the technological needs of the country. Please learn more about the activities at CTI from its web site: www.cti.gr. We thank CTI for hosting this year's IPDPS meeting.

We hope you find these proceedings very informative and useful. We encourage you to look also at past and future IPDPS proceedings.

IPDPS 2006 General Co-Chairs
Paul Spirakis, University of Patras and CTI, Greece
H. J. Siegel, Colorado State University, USA