



11th International Parallel Processing Symposium

April 1 – 5, 1997 Geneva, Switzerland

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Message from the General Co-Chairs

Bienvenue!

Welcome to the 11th International Parallel Processing Symposium. The University of Geneva has made it possible to bring this event for the first time to Europe, and on behalf of the IPPS organization we take this opportunity to express our gratitude. Also, this joint message is our mutual statement of appreciation for the international effort that has made this possible and for a job well done on all continents.

The response to the call for participation was outstanding due in good part to the efforts of our program chair Allan Gottlieb who composed an impressive program committee and to the support of our program vice chairs: Malvin Kalos of Cornell University, Kai Li of Princeton University, Sartaj Sahni of University of Florida, and Hans Zima of University of Vienna. Allan and his co-chairs are to be praised for the exceptional work performed in conducting the review and selection of submissions which are part of the IPPS '97 technical program. We deeply appreciate their commitment to the success of this meeting.

We are especially grateful to John K. Antonio of Texas Tech University who with Helmar Burkhart from the University of Basel has once again most ably surmounted the logistical challenges of organizing the industrial track as well as commercial exhibits. As well, we are proud to present three engaging tutorials and on behalf of our tutorials chair Tao Yang of the University of California, Santa Barbara wish to acknowledge our tutorial presenters: Horst D. Simon; Anthony Skjellum & Andrew Lumsdaine; and Mani Chandy & John Thornley.

IPPS '97 workshops serve as a continuing forum for special interest topics and the opportunity to address new issues and conduct constructive dialogue. We are most grateful to the organizers of the 14 workshops to be presented on the first and last days of our meeting. Last but not least we commend the organizers of PARCON for arranging an impressive slate of invited talks by Frances F. Allen, Richard J. Lipton, and Wolfgang Paul as well as a panel discussion moderated by Anant Agarwal. Thank you for joining us in 1997.

Sally Jelinek coordinated the publicity and publication activities. We greatly value her contributions as well as the supporting publicity activities of C.P. Ravikumar, Ondrej Sykora, Assir Jihad, Cho-Li Wang, Nelson Maculan, Stephane Ubeda, and, in particular, D.N. Jayasimha who has been thoughtful and steadfast in assuring our goals for this meeting.

The IEEE Computer Society Conference Department staff has been a generous and professional resource to our efforts. Our thanks to Anne Marie Kelly, Maggie Johnson, Kerry Bedford, and Mary-Kate Rada; you are part of the equation that made this jaunt to Europe possible. We also have a good friend at the IEEE Computer Society Press in the person of Bob Werner who shepherded the publication of these proceedings. Also, we would like to thank Parity Computing for bringing out the electronic version of the proceedings of IPPS '96 and IPPS '97 on CD-ROM.

Bill Pitts, our finance chair, has done his usual good job of careful projections which facilitate event planning and keep us on target. Susamma Barua, our local arrangements chair, has once again organized

the variables of space, speakers, and exhibitors to make sure that everything happens as planned the week of the symposium - and to be there to fix any variations. We are glad to have them on our team.

Any acknowledgment of jobs well done would not be complete without special mention of the first-rate assistance of Prashanth Bhat, Karthik Kumar, and Neungsoo Park from the University of Southern California and Danuta Sosnowska and Erik Urand from the University of Geneva. Also, our assistants - Regina Morton, Rohini Montenegro, and Christine Contreras in the USA and Germaine Gusthiot in Switzerland - have entered into the international spirit of the symposium, going the extra distance to ensure good communication across continents. We thank them all for their support.

Finally, we want to thank George Westrom and members of the steering committee and advisory committee who have supported us through words and deeds in bringing IPPS '97 to Geneva.



Viktor K. Prasanna
Computer Engineering
Department of EE-Systems
University of Southern California



José D.P. Rolim
Centre Universitaire d'Informatique
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A special note from Viktor Prasanna: For myself and other members of the organizing committee, a personal thanks to my co-chair Jose Rolim, our University of Geneva host, for a most comfortable association enjoyed over the past year. We have relied on him throughout and he has not failed us. A job well done, Jose.

Message from the Program Chair

Welcome to Switzerland! It has been an honor and (mostly) a great pleasure to be the program chair for the 1997 Parallel Processing Symposium. My thanks to Viktor Prasanna and José Rolim, the symposium co-chairs, and George Westrom, the steering committee chair, for selecting me. Thanks are also extended to the program committee members (PCMs) who, almost without exception, handled the review process in an extremely professional manner, the key prerequisite for a successful technical conference like IPPS. Their names are listed in these Proceedings as are the names of the unsung heroes of any conference, the referees. Additional thanks are due to the Program Vice Chairs (VCs), Malvin Kalos (Applications), Kai Li (Architecture), Sartaj Sahni (Algorithms), and Hans Zima (Software), whose technical guidance was essential, and who were largely responsible for the difficult task of finally selecting the papers to be accepted. Of course the main ingredient for high-quality accepted papers is high-quality submissions, and the authors deserve much praise.

Special thanks to Judy Sonnenberg and Barbara Spielman, who pitched in with the not-so-much fun parts — like sealing envelopes and obliterating names of referees.

We received 298 papers for consideration of which 113 (38%) were accepted for oral presentation. One of the accepted papers was subsequently withdrawn by the author; the remaining 112 appear in these proceedings.

At a preliminary meeting in October, the VCs, Prasanna, and I assigned each submitted paper to one PCM, who then coordinated the review process for that paper and presented his or her recommendation to the appropriate VC. The VCs compiled the data received and came to a second meeting in December with their recommendations. At this second meeting, the VCs, Rolim, and I made the final decisions. The PCM and referees chosen for each paper were kept confidential, but authors were told the name of the VC supervising their paper. The refereeing was not blind, i.e. the authors' names appeared on the papers sent for review. The procedure outlined above is the one normally used at IPPS.

We received many excellent papers and I believe we have assembled a strong program. I hope you agree. So attend the talks, study the papers, and enjoy the beauty of Geneva.

Allan Gottlieb
NEC Research Institute and New York University

Message from the Steering Chair

In 1994 we dug out our passports and headed for Cancun, Mexico where we realized the largest IPPS attendance to date, exceeding all our expectations. During the next two years we drew in our international horns but stayed near the water by going to Santa Barbara and Hawaii. Emboldened by the continued growth of the symposium, our general chair, Viktor Prasanna, challenged our volunteerism by suggesting we become truly international by taking this event to Europe.

Any reluctance was quickly dispelled by our first meetings with José Rolim who commandeered the support of the University of Geneva to make it possible to hold IPPS'97 in one of the grandest cities in the world. The international cooperation that went into developing the 14 workshops reflects the extraordinary support José has extended in every part of planning and preparing for the symposium. Judging from the reports of the program chair, Allan Gottlieb, and the enthusiasm of our European counterparts, we are looking forward to an excellent turnout and an exciting program of papers, workshops, and speakers.

But there is more than the trip to Geneva to make this an exceptional year! As we announced last year, PARCON will join us in Geneva to present keynote speakers and a panel discussion on Friday, the fourth day of the symposium. This co-location is a major alteration in IPPS programming, so we will be interested in how this arrangement is received at IPPS'97 and welcome your comments.

Indeed, 1997 has been a year of change and challenge. Based on a proposal from the Symposium on Parallel and Distributed Processing (SPDP) we have agreed to merge. The always productive discussions we enjoyed with the SPDP "emissaries" were further facilitated by the fact that most of the key players have been involved in both events. Indeed, it is fitting that the program chair for the first joint event in 1998 will be Sartaj Sahni, who has served on the steering committees of both symposiums. Equally apt, the current SPDP chair Behrooz Shirazi with Viktor Prasanna will co-chair the merged 1998 IPPS/SPDP event.

We now have the opportunity to see the united symposiums become the premiere professional event in parallel and distributed computing. And I am looking forward to working with the SPDP members to bring together all of the volunteers who have contributed much to both events in the past. I am sure that Behrooz joins me in asking for everyone's support as we tie the knot this year.

For IPPS (soon to be IPPS/SPDP), each year is a new adventure. With the future in mind, I traveled to Orlando, Florida which may well be the quintessential family vacation capital of the world and where Spring 1998 IPPS/SPDP will be held. This location was selected for several reasons, one being that our program chair, Sartaj Sahni, is from the University of Florida.

Since Orlando is the site of Disney World, Epcot Center, and Universal Studios as well as other warm weather pastimes, we have made sure that accommodations will be priced to allow attendees to bring the whole family and that we are situated to fully enjoy the attractions. (We also want to show our appreciation to those who undertook the journey to Geneva.) We will look forward to seeing everyone again in Orlando and invite everyone to join us in the new undertaking with SPDP.

George Westrom
Odetics, Inc. and Future Scientists and Engineers of America

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