

Preface

As computer science enters the new millennium, methods and languages for reasoning with constraints have come to play an important role, with both theoretical advances and practical applications. Constraints have emerged as the basis of a representational and computational paradigm that draws from many disciplines and can be brought to bear on many problem domains, including artificial intelligence, databases, and combinatorial optimization. The conference is concerned with all aspects of computing with constraints including algorithms, applications, environments, languages, models and systems.

The Sixth International Conference on Principles and Practice of Constraint Programming (CP2000) continues to provide an international forum for presenting and discussing state-of-the-art research and applications involving constraints. After a few annual workshops, CP'95 took place in Cassis, France; CP'96 in Cambridge, USA; CP'97 in Schloss Hagenberg, Austria; CP'98 in Pisa, Italy and CP'99 in Alexandria, USA. This year the conference is held in Singapore, from 18 through 21 September 2000.

This volume comprises the papers that were accepted for presentation at CP2000. From the 101 papers that were submitted, 31 papers were accepted for presentation in the plenary session and 13 papers were selected as posters and have a short version (five pages) in this volume. All papers were subjected to rigorous review three program committee members (or their designated reviewers) refereed each paper. Decisions were reached following discussions among reviewers and, in some instances, by e-mail consultation of the entire program committee. I believe the reader will find these articles to be of the highest quality, representing a significant contribution to the field.

Apart from the presentation of the technical papers and posters, we are very pleased to have three distinguished invited speakers: Alan Mackworth (University of British Columbia), David McAllester (AT&T Labs Research) and Alan Borning (University of Washington). The program included four tutorials presented by (1) George Gottlob and Francesco Scareello, (2) Thom Fruehwirth, (3) Michela Milano and (4) Joao Marques-Silva. The technical program was followed by five post-conference workshops on a variety of topics.

Last, but certainly not least, much is owed to the organizational skills of the CP2000 General Chairman Roland Yap. We are also indebted to Martin Henz, the Publicity Chair, and Toby Walsh, the Workshops and Tutorials Chair. Finally, I would like to thank Hong Zhao who was instrumental in setting up and running the web-based conference software and to Mario Espinoza for his dedicated help in assembling this volume.

Irvine, June 2000

Rina Dechter
Program Chair
CP2000

Conference Organization

Program Chair: Rina Dechter, University of California, USA
General Chair: Roland Yap, National University of Singapore
Publicity Chair: Martin Henz, National University of Singapore
Workshop and
Tutorial Chair: Toby Walsh, The University of York

Program Committee

Krzysztof Apt, CWI, The Netherlands
Roberto Bayardo, IBM Almaden Research Center, USA
Peter van Beek, University of Alberta, Canada
Alexander Bockmayr, LORIA, France
Alex Brodsky, George Mason University, USA
Philippe Codognet, University of Paris 6, France
Boi Faltings, LIA-EPFL, Switzerland
Ian Gent, University of St. Andrews, Scotland
John Hooker, Carnegie Mellon University, USA
Joxan Jaffar, National University of Singapore, Singapore
Peter Jeavons, Oxford University, England
Henry Kautz, AT&T Labs, USA
Manolis Koubarakis, Technical University of Crete, Greece
Michael Maher, Griffith University, Australia
Jean-François Puget, ILOG, France
Francesca Rossi, University of Padova, Italy
Christian Schulte, University of the Saarland, Germany
Helmut Simonis, Cosytec, France
Barbara Smith, University of Leeds, UK
Mark Wallace, IC-Parc, Imperial College, London
Makoto Yokoo, NTT,

Referees

Slim Abdennadher	Martin Henz	Jean-François Puget
Krzysztof Apt	John Hooker	Tom Richards
Roberto Bayardo	Joxan Jaffar	Christophe Ringeissen
Chris Beck	Peter Jeavons	Isla Ross
Peter Van Beek	Olli Kamarainen	Gianfranco Rossi
Frédéric Benhamou	Kalev Kask	Hani El Sakkout
Alexander Bockmayr	Thomas Kasper	Taisuke Sato
Alex Brodsky	Henry Kautz	Abdul Sattar
Matz Carlson	Hak-Jin Kim	Joachim Schimpf
Hoong Chuin Lau	Manolis Koubarakis	Christian Schulte
Philippe Codognet	Javier Larrosa	Marius Silaghi
David Cohen	Jonathan Lever	Josh Singer
Yannis Dimopoulos	Andrew Lim	Barbara Smith
J.S. Dong	Michael Maher	J.-C. Sogno
Fredrich Eisenbrand	Kim Marriott	Kostas Stergiou
François Fages	Shigeo Matsubara	Peter Stuckey
Boi Faltings	David McAllester	John Thornton
Sarah Fores	Pedro Meseguer	E. Thorsteinsson
Dan Frost	Bernd Meyer	Edward Tsang
Richard Gault	Michela Milano	Mark Wallace
Rosella Gennari	Eric Monfroy	Toby Walsh
Ian Gent	Tobias Muller	Limsoon Wong
Philippe Gerards	Joachim Niehren	Roland Yap
Nam Gi-Joon	Stefano Novello	Makoto Yokoo
Dina Goldin	Greger Ottosson	Y.L. Zhang
Warwick Harvey	Leszek Pacholski	Yuanlin Zhang
Nevin Heintze	Patrick Prosser	

CP Organizing Committee

Alan Borning, University of Washington, USA
Alex Brodsky, George Mason University, USA
Jacques Cohen, Brandeis University, USA
Alain Colmerauer, University of Marseille, France
Eugene Freuder, Chair, University of New Hampshire, USA
Hervé Gallaire, Xerox, France
Joxan Jaffar, National University of Singapore, Singapore
Jean-Pierre Jouannaud, University of Paris-Sud, France
Jean-Louis Lassez, New Mexico Institute of Technology, USA
Michael Maher, Griffith University, Australia
Ugo Montanari, University of Pisa, Italy
Anil Nerode, Cornell University, USA
Jean-François Puget, ILOG, France
Francesca Rossi, University of Padova, Italy
Vijay Saraswat, AT&T Research, USA
Gert Smolka, DFKI and University of the Saarland, Germany
Ralph Wachter, Office of Naval Research, USA

Sponsors

Support from the following institutions is gratefully acknowledged.

Advanced Object Technologies Ltd, Hong Kong
COSYTEC SA, France
ILOG Singapore, Singapore
National University of Singapore, Singapore
Office of Naval Research, USA
PSA Corporation Ltd, Singapore