## **Preface**

This volume is the conference record for the Eighth International Conference on Principles and Practice of Constraint Programming (CP 2002) held at Cornell University, Ithaca (USA) on September 9-13, 2002. The series of CP conferences deals with original papers on all aspects of computing with constraints. After a few annual workshops, the conferences were held at Cassis (France) in 1995, at Cambridge (USA) in 1996, in Schloss Hagenberg (Austria) in 1997, at Pisa (Italy) in 1998, at Alexandria (USA) in 1999, at Singapore in 2000, and at Paphos (Cyprus) in 2001.

One of the most appealling features of constraint programming is its multidisciplinary nature, which gives rise to a unique combination of theoretical and experimental research and which provides bridges between areas that are often thought of as separate and remote. The theme of CP 2002, which was chosen together with Carla Gomes (the conference chair), was to emphasize this multidisciplinary nature. CP 2002 tried to broaden the audience of the CP series and to reach out to a number of communities which are increasingly interested in CP, but do not (yet) participate in the CP conferences. The objective was to encourage cross-fertilization of ideas from various fields which have been looking at related problems from different, often complementary, angles. This theme was present in many aspects of the conference, including the program committee, the invited talks and tutorials, the computational symposium on graph coloring and generalizations and, of course, the papers that truly capture the wide variety of research encompassed under the umbrella of constraint programming.

About 146 papers were submitted in response to the call for papers. After the reviewing period and some online discussion, the program committee met physically at Brown University on June 14 and 15. The program committee decided to accept two types of papers: technical and innovative application papers. Both types of papers were reviewed rigourously and held to very high standards. The separation into two tracks crystallizes two fundamental ways to make significant advances to the field as it matures; it also acknowledges that the evaluation criteria ought to be different for each type of contribution. In particular, innovative application papers advance the state of the art by presenting innovative applications and systems, by providing insightful evaluations of constraint programming technology, and/or by enhancing and extending existing ideas to solve complex industrial problems. At the end of the two days, the program committee accepted 44 papers (6 of which are innovative applications), which is an acceptance ratio of around 30%. In addition, the program committee also accepted 16 posters, which were allocated 5 pages in these proceedings. In general, these posters were selected because the program committee felt that they contain a very promising, although somewhat premature, idea. Finally, CP 2002 continued the wonderful doctoral program initiated in previous years. This program makes it possible for students to present their work and receive feedback from more senior members

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of the community. CP 2002 featured 25 of these young promising researchers, each of whom was given one page in the proceedings to describe their ongoing research.

CP 2002 has been fortunate to attract outstanding invited talks and tutorials. Professors Edward Clarke, Rina Dechter, Jean-Louis Lassez, George Nemhauser, and David Schmoys all kindly accepted our invitation to speak at CP 2002. Nicolas Beldiceanu and Jean-Charles Régin, Frédéric Benhamou, Mats Carlsson and Christian Schulte, and John Hooker kindly agreed to give tutorials on global constraints, interval reasoning, constraint programming languages and systems, and the integration of constraint and integer programming. In addition, the doctoral program also featured a number of tutorials about research and career issues. Finally, we were lucky to have David Johnson, Anuj Mehrotra, and Michael Trick organize the symposium on graph coloring and generalizations in conjunction with the conference.

As constraint programming grows and matures, so does the organization of its conferences. I have been fortunate to work with many talented and dedicated individuals who made outstanding contributions to the conference. I am extremely grateful to Carla Gomes, the conference chair. In addition to her organization skills and her unlimited energy and passion, she helped define, shape, and implement the theme of the conference. She truly was an amazing ambassador for the conference. I also would like to thank the outstanding program committee who worked very hard under tight deadlines, Francesca Rossi for chairing the wonderful doctoral program whose integration in the technical program was as smooth as humanly possible, Peter van Beek for chairing and orchestrating the successful workshop program, Helmut Simonis for chairing the innovative applications program, and Ramon Bejar, the publicity chair. And, last but not least, I am deeply grateful to Lori Agresti and Laurent Michel for their work in the trenches in preparing, running, and concluding the PC meeting at Brown.

July 2002

Pascal Van Hentenryck

# Organization

Conference Chair: Carla Gomes, Cornell University, USA

Program Chair: Pascal Van Hentenryck, Brown University, USA

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Doctoral Program: Francesca Rossi, University of Padova, Italy
Workshop Chair: Peter van Beek, University of Waterloo, Canada

Publicity Chair: Ramon Bejar, Cornell University, USA Local Arrangements: Beth Howard, Cornell University, DK

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We gratefully acknowledge the support of AAAI, the Association for Logic Programming (ALP), CoLogNet, Cosytec, ILOG, and the Intelligent Information Systems Institute (IISI) at Cornell University.