## **Preface**

The Seventh International Conference on Principles and Practice of Constraint Programming (CP 2001) provided an international forum for cutting edge research into constraints. There were several important innovations at the conference this year. Most important of these were the Innovative Applications program, the Doctoral Program, and co-location with the 17th International Conference on Logic Programming (ICLP 2001).

The Innovative Applications (IA) Program showcased the very best applications of constraint technology. It provided a forum for practitioners and end users, and an interface between them and academic researchers. It took over the task previously performed by the Conference on the Practical Application of Constraint Technologies and Logic Programming (PACLP). I am especially gratefully to Edward Tsang, who was to be Chair of PACLP 2001, for chairing this section of the conference.

The second innovation, the Doctoral Program allowed PhD students to present their work and to receive feedback from more senior members of the community. I am especially grateful to Francesca Rossi who chaired this section of the conference, and who raised enough sponsorship to support the participation of over two dozen students.

This volume contains the papers accepted for presentation at CP 2001. The conference attracted a record number of 135 submissions. Of these, 37 papers were accepted for presentation in the Technical Program. A further 9 papers were accepted into the Innovative Applications Program. In addition, 14 papers were accepted as short papers and presented as posters during the Technical Program.

We were privileged to have three distinguished invited speakers this year: Peter van Beek (University of Waterloo), Eugene Freuder (Cork Constraint Computation Center), and Moshe Vardi (Rice University). We also had a large number of workshops and tutorials organized by Thomas Schiex, the Workshop and Tutorial Chair.

Finally, I would like to thank Antonis Kakas, the Local Chair who did a great job organizing both CP 2001 and ICLP 2001. I would also like to thank again Edward Tsang and Francesca Rossi, as well as Thomas Schiex, and last but not least Ian Miguel, the Publicity Chair.

September 2001 Toby Walsh

# Conference Organization

Conference Chair: Toby Walsh (University of York, UK)

Local Chair:

Chair of IA Program:

Chair of Doctoral Program:

Antonis Kakas (University of Cyprus, Cyprus)

Edward Tsang (University of Essex, UK)

Francesca Rossi (University of Padova, Italy)

Workshop and Tutorial Chair: Thomas Schiex (INRA, France)
Publicity Chair: Ian Miguel (University of York, UK)

## **Program Committee**

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### **Prizes**

### Best Paper (Technical Program)

Hybrid Benders Decomposition Algorithms in Constraint Logic Programming, Andrew Eremin and Mark Wallace.

 $Branch-and-Check: A\ Hybrid\ Framework\ Integrating\ Mixed\ Integer\ Programming\ and\ Constraint\ Logic\ Programming,\ Erlendur\ S.\ Thorsteinsson.$ 

## Best Paper (Innovative Applications Program)

Fast Optimal Instruction Scheduling for Single-Issue Processors with Arbitrary Latencies, Peter van Beek and Kent Wilken.

# **Sponsors**

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UK Constraints Network (EPSRC)
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