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Christian Bessiere (Ed.)

Principles and Practice of Constraint Programming – CP 2007

13th International Conference, CP 2007
Providence, RI, USA, September 23-27, 2007
Proceedings

Volume Editor

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Preface

The 13th International Conference on Principles and Practice of Constraint Programming (CP 2007) was held in Providence, RI, USA, September 23–27, 2007, in conjunction with the International Conference on Automated Planning and Scheduling (ICAPS). Held annually, the CP conference series is the premier international conference on constraint programming. The conference focuses on all aspects of computing with constraints. The CP conference series is organized by the Association for Constraint Programming (ACP). Information about the conferences in the series can be found on the Web at <http://www.cs.ualberta.ca/~ai/cp/>. Information about ACP can be found at <http://www.a4cp.org/>.

CP 2007 launched two calls for contributions: a call for research papers, describing novel contributions in the field, and a call for application papers, describing applications of constraint technology in the industrial world. The research track received 143 submissions and the application track received 22 submissions. Research papers were reviewed under a double-blind scheme. They received three reviews that the authors had the opportunity to see and to react to before the papers and their reviews were discussed extensively by the members of the Program Committee. Application papers were reviewed by a separate Application Committee. The Program Committee and the Application Committee then selected 43 research papers and 9 application papers to be published in full in the proceedings, and an additional 14 research papers to be published as short papers. The full papers were presented at the conference in two parallel tracks and the short papers were presented in a poster session. The paper “Solution Counting Algorithms for Constraint-Centered Search Heuristics,” by Alessandro Zanarini and Gilles Pesant, was selected by a subcommittee—consisting of Javier Larrosa, Christophe Lecoutre, Christian Schulte and myself—to receive the best paper award. This subcommittee also selected the paper “Propagation = Lazy Clause Generation,” by Olga Ohrimenko, Peter J. Stuckey and Michael Codish, to receive ACP’s best student paper award.

The Program Committee invited two prominent researchers, Fahiem Bacchus and Matt Ginsberg, to give guest lectures. Their summary is included in the proceedings. The program also contained a talk by Rina Dechter, recipient of the “Award for Research Excellence in Constraint Programming.” This award was given by the ACP during the conference. The tutorial chair selected four tutorials to be part of the program: “Ants and Constraint Programming,” by Christine Solnon, “SAT solving,” by Inês Lynce, “ECLIPSE by example,” by Joachim Schimpf, and a final tutorial in which recent CP solvers were presented. The conference hosted a panel, organized by Barry O’Sullivan, where people from the industry discussed their use of CP technology and gave feedback on the strengths and weaknesses of current solvers. Lastly, I would like to emphasize

the fact that all the sessions of the conference were held in parallel to ICAPS sessions and that CP and ICAPS participants could freely attend any session they wanted. In addition, there were joint CP-ICAPS sessions.

CP 2007 continued the tradition of the CP doctoral program, in which PhD students presented their work, listened to tutorials on career issues, and discussed their work with senior researchers via a mentoring scheme. This year, the doctoral program received 37 submissions and selected 30 of them for financial support.

The first day of the conference was devoted to satellite workshops tackling some of the important directions of research in constraint programming. This year, seven workshops were held, one of which was joined with ICAPS. The complete list of workshops is provided below. Each workshop printed its own proceedings.

In conclusion, I would like to thank all the people who, by their hard work, made this conference a great success. Thank you to Laurent Michel and Meinolf Sellmann, the Conference Chairs, who had the huge task of organizing, budgeting and planning the whole event. Thank you to Brahim Hnich and Kostas Stergiou, the Doctoral Program Chairs, for having set up a fantastic program for the students. Thank you to Pedro Meseguer, the Workshop and Tutorial Chair, for the energy he put into creating an excellent workshop and tutorial program. Thank you to Carmen Gervet, the Publicity Chair, who worked hard designing a logo and who was always mindful of the aesthetic quality of the conference Web site. Thank you to Guillaume Verger, who helped me in the final rush of collecting all the material for the proceedings. Thank you to Javier Larrosa, Christophe Lecoutre and Christian Schulte, the members of the Best Paper Committee, who accepted the intensive task of reading all candidate papers in a few days, in addition to their work as Program Committee members. Thank you to all the members of the Program Committee and Application Committee. Not only did they review all their assigned papers on time, but they participated intensively in online discussions for selecting the papers. The quality of the technical program is largely due to their terrific work. Thank you to Barry O'Sullivan and Helmut Simonis for their many ideas on the kind of event we could run to fill the gap between industrial applications and academic research. We implemented only a few of their great ideas. Thank you to Barry O'Sullivan, the Sponsor Chair and Conference Coordinator, who worked hard in close collaboration with the Conference Chairs to produce a balanced budget (thanks to the numerous sponsors they attracted). Thank you to all the institutions (listed below) that supported the conference. Thank you to Frdric Benhamou, Francesca Rossi and Peter van Beek for their helpful advice on how to deal with the stressful job of being Program Chair, and thank you to the Executive Committee of the ACP for having chosen me to carry out this exciting job!

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Workshops

Autonomous Search
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Constraint Modelling and Reformulation
Local Search Techniques in Constraint Satisfaction
Constraint Programming for Graphical Applications
Constraint Satisfaction Techniques for Planning and Scheduling Problems
Symmetry and Constraint Satisfaction Problems

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Table of Contents

Invited Lectures

Caching in Backtracking Search	1
<i>Fahiem Bacchus</i>	
Of Mousetraps and Men: A Cautionary Tale	2
<i>Matt Ginsberg</i>	

Application Papers

Estimation of the Minimal Duration of an Attitude Change for an Autonomous Agile Earth-Observing Satellite	3
<i>Grégory Beaumet, Gérard Verfaillie, and Marie-Claire Charneau</i>	
Solving an Air Conditioning System Problem in an Embodiment Design Context Using Constraint Satisfaction Techniques	18
<i>Raphaël Chenouard, Patrick Sébastien, and Laurent Granvilliers</i>	
Solving the Salinity Control Problem in a Potable Water System	33
<i>Chiu Wo Choi and Jimmy H.M. Lee</i>	
Exploring Different Constraint-Based Modelings for Program Verification	49
<i>Hélène Collavizza and Michel Rueher</i>	
An Application of Constraint Programming to Generating Detailed Operations Schedules for Steel Manufacturing	64
<i>Andrew Davenport, Jayant Kalagnanam, Chandra Reddy, Stuart Siegel, and John Hou</i>	
An Efficient Model and Strategy for the Steel Mill Slab Design Problem	77
<i>Antoine Gargani and Philippe Refalo</i>	
Constraint-Based Temporal Reasoning for E-Learning with LODE	90
<i>Rosella Gennari and Ornella Mich</i>	
Scheduling for Cellular Manufacturing	105
<i>Roman van der Krogt, James Little, Kenneth Pulliam, Sue Hanhilarhami, and Yue Jin</i>	

Full Research Papers

A Constraint Store Based on Multivalued Decision Diagrams	118
<i>H.R. Andersen, T.Hadzic, J.N. Hooker, and P. Tiedemann</i>	
GAC Via Unit Propagation	133
<i>Fahiem Bacchus</i>	
Solution Directed Backjumping for QCSP	148
<i>Fahiem Bacchus and Kostas Stergiou</i>	
Reformulating CSPs for Scalability with Application to Geospatial Reasoning	164
<i>Kenneth M. Bayer, Martin Michalowski, Berthe Y. Choueiry, and Craig A. Knoblock</i>	
A Generic Geometrical Constraint Kernel in Space and Time for Handling Polymorphic k -Dimensional Objects	180
<i>N. Beldiceanu, M. Carlsson, E. Poder, R. Sadek, and C. Truchet</i>	
Local Symmetry Breaking During Search in CSPs	195
<i>Belaïd Benhamou and Mohamed Réda Saïdi</i>	
Encodings of the SEQUENCE Constraint	210
<i>Sebastian Brand, Nina Narodytska, Claude-Guy Quimper, Peter Stuckey, and Toby Walsh</i>	
On Inconsistent Clause-Subsets for Max-SAT Solving	225
<i>Sylvain Darras, Gilles Dequen, Laure Devendeville, and Chu-Min Li</i>	
An Abstract Interpretation Based Combinator for Modelling While Loops in Constraint Programming	241
<i>Tristan Denmat, Arnaud Gotlieb, and Mireille Ducassé</i>	
Tradeoffs in the Complexity of Backdoor Detection	256
<i>Bistra Dilkina, Carla P. Gomes, and Ashish Sabharwal</i>	
Model-Driven Visualizations of Constraint-Based Local Search	271
<i>Grégoire Doooms, Pascal Van Hentenryck, and Laurent Michel</i>	
Dealing with Incomplete Preferences in Soft Constraint Problems	286
<i>Mirco Gelain, Maria Silvia Pini, Francesca Rossi, and K. Brent Venable</i>	
Efficient Computation of Minimal Point Algebra Constraints by Metagraph Closure	301
<i>Alfonso Gerevini and Alessandro Saetti</i>	
MUST: Provide a Finer-Grained Explanation of Unsatisfiability	317
<i>Éric Grégoire, Bertrand Mazure, and Cédric Piette</i>	

An Integrated White+Black Box Approach for Designing and Tuning Stochastic Local Search	332
<i>Steven Halim, Roland H.C. Yap, and Hoong Chuin Lau</i>	
Limitations of Restricted Branching in Clause Learning	348
<i>Matti Järvisalo and Tommi Junntila</i>	
Dynamic Management of Heuristics for Solving Structured CSPs	364
<i>Philippe Jégou, Samba Ndojh Ndiaye, and Cyril Terrioux</i>	
A Compression Algorithm for Large Arity Extensional Constraints	379
<i>George Katsirelos and Toby Walsh</i>	
Valid Inequality Based Lower Bounds for WCSP	394
<i>Mohand Ou Idir Khemmoudj and Hachemi Bennaceur</i>	
Advisors for Incremental Propagation	409
<i>Mikael Z. Lagerkvist and Christian Schulte</i>	
Breaking Symmetry of Interchangeable Variables and Values	423
<i>Y.C. Law, J.H.M. Lee, Toby Walsh, and J.Y.K. Yip</i>	
Path Consistency by Dual Consistency	438
<i>Christophe Lecoutre, Stéphane Cardon, and Julien Vion</i>	
Exploiting Past and Future: Pruning by Inconsistent Partial State Dominance	453
<i>Christophe Lecoutre, Lakhdar Sais, Sébastien Tabary, and Vincent Vidal</i>	
Scheduling Conditional Task Graphs	468
<i>Michele Lombardi and Michela Milano</i>	
Towards Robust CNF Encodings of Cardinality Constraints	483
<i>Joao Marques-Silva and Inês Lynce</i>	
AND/OR Multi-valued Decision Diagrams for Constraint Optimization	498
<i>Robert Mateescu, Radu Marinescu, and Rina Dechter</i>	
Parallelizing Constraint Programs Transparently	514
<i>Laurent Michel, Andrew See, and Pascal Van Hentenryck</i>	
MiniZinc: Towards a Standard CP Modelling Language	529
<i>Nicholas Nethercote, Peter J. Stuckey, Ralph Becket, Sebastian Brand, Gregory J. Duck, and Guido Tack</i>	
Propagation = Lazy Clause Generation	544
<i>Olga Ohrimenko, Peter J. Stuckey, and Michael Codish</i>	

Boosting Probabilistic Choice Operators	559
<i>Matthieu Petit and Arnaud Gotlieb</i>	
A Multi-engine Solver for Quantified Boolean Formulas	574
<i>Luca Pulina and Armando Tacchella</i>	
Decomposing Global Grammar Constraints.....	590
<i>Claude-Guy Quimper and Toby Walsh</i>	
Structural Relaxations by Variable Renaming and Their Compilation for Solving MinCostSAT	605
<i>Miquel Ram��rez and Hector Geffner</i>	
Bound-Consistent Deviation Constraint	620
<i>Pierre Schaus, Yves Deville, and Pierre Dupont</i>	
Constructive Interval Disjunction	635
<i>Gilles Trombettoni and Gilles Chabert</i>	
An LP-Based Heuristic for Optimal Planning	651
<i>Menkes van den Briel, J. Benton, Subbarao Kambhampati, and Thomas Vossen</i>	
A Cost-Based Model and Algorithms for Interleaving Solving and Elicitation of CSPs	666
<i>Nic Wilson, Diarmuid Grimes, and Eugene C. Freuder</i>	
On Universal Restart Strategies for Backtracking Search	681
<i>Huayue Wu and Peter van Beek</i>	
Hierarchical Hardness Models for SAT	696
<i>Lin Xu, Holger H. Hoos, and Kevin Leyton-Brown</i>	
SATzilla-07: The Design and Analysis of an Algorithm Portfolio for SAT.....	712
<i>Lin Xu, Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown</i>	
Filtering for Subgraph Isomorphism	728
<i>St��phane Zampelli, Yves Deville, Christine Solnon, S��bastien Sorlin, and Pierre Dupont</i>	
Solution Counting Algorithms for Constraint-Centered Search Heuristics	743
<i>Alessandro Zanarini and Gilles Pesant</i>	
Min-Domain Ordering for Asynchronous Backtracking	758
<i>Roie Zivan, Moshe Zazone, and Amnon Meisels</i>	

Short Research Papers

Answer Set Optimization for and/or Composition of CP-Nets: A Security Scenario	773
<i>Stefano Bistarelli, Pamela Peretti, and Irina Trubitsyna</i>	
Uncertainty in Bipolar Preference Problems	782
<i>Stefano Bistarelli, Maria Silvia Pini, Francesca Rossi, and K. Brent Venable</i>	
An Analysis of Slow Convergence in Interval Propagation	790
<i>Lucas Bordeaux, Youssef Hamadi, and Moshe Y. Vardi</i>	
The Expressive Power of Valued Constraints: Hierarchies and Collapses	798
<i>David A. Cohen, Peter G. Jeavons, and Stanislav Živný</i>	
Eligible and Frozen Constraints for Solving Temporal Qualitative Constraint Networks	806
<i>Jean-François Condotta, Gérard Ligozat, and Mahmoud Saade</i>	
The Log-Support Encoding of CSP into SAT	815
<i>Marco Gavanelli</i>	
Groupoids and Conditional Symmetry	823
<i>I.P. Gent, T. Kelsey, S.A. Linton, J. Pearson, and C.M. Roney-Dougal</i>	
Sampling Strategies and Variable Selection in Weighted Degree Heuristics	831
<i>Diarmuid Grimes and Richard J. Wallace</i>	
A Case for Simple SAT Solvers	839
<i>Jinbo Huang</i>	
CP-Based Local Branching	847
<i>Zeynep Kiziltan, Andrea Lodi, Michela Milano, and Fabio Parisini</i>	
Strong Controllability of Disjunctive Temporal Problems with Uncertainty	856
<i>Bart Peintner, Kristen Brent Venable, and Neil Yorke-Smith</i>	
Exploiting Single-Cycle Symmetries in Branch-and-Prune Algorithms ...	864
<i>Vicente Ruiz de Angulo and Carme Torras</i>	
Constraint Symmetry for the Soft CSP	872
<i>Barbara M. Smith, Stefano Bistarelli, and Barry O'Sullivan</i>	
Breaking Value Symmetry	880
<i>Toby Walsh</i>	
Author Index	889