

Contents

Preface..... v

Contributors ix

The Ten Years of CPAIOR: A Success Story 1
Michela Milano and Pascal Van Hentenryck

Hybrid Modeling 11
John N. Hooker

Global Constraints: A Survey 63
Jean-Charles Régin

**Decomposition Techniques for Hybrid MILP/CP Models
applied to Scheduling and Routing Problems**.....135
Pedro M. Castro, Ignacio E. Grossmann, and Louis-Martin
Rousseau

Hybrid Solving Techniques169
Tobias Achterberg and Andrea Lodi

Over-Constrained Problems191
Willem-Jan van Hoeve

**A Survey on CP-AI-OR Hybrids for Decision Making Under
Uncertainty**227
Brahim Hnich, Roberto Rossi, S. Armagan Tarim,
and Steven Prestwich

Constraint Programming and Local Search Hybrids271
Paul Shaw

Hybrid Metaheuristics	305
Christian Blum, Jakob Puchinger, Günther Raidl, and Andrea Roli	
Learning in Search	337
Philippe Refalo	
What Is Autonomous Search?	357
Youssef Hamadi, Eric Monfroy, and Frédéric Saubion	
Software Tools Supporting Integration	393
Tallys Yunes	
Connections and Integration with SAT Solvers: A Survey and a Case Study in Computational Biology	425
Fabien Corblin, Lucas Bordeaux, Eric Fanchon, Youssef Hamadi, and Laurent Trilling	
Bioinformatics: A Challenge to Constraint Programming	463
Pedro Barahona, Ludwig Krippahl, and Olivier Perriquet	
Sports Scheduling	489
Michael A. Trick	
Stimuli Generation for Functional Hardware Verification with Constraint Programming	509
Allon Adir and Yehuda Naveh	



<http://www.springer.com/978-1-4419-1643-3>

Hybrid Optimization

The Ten Years of CPAIOR

van Hentenryck, P.; Milano, M. (Eds.)

2011, XII, 560 p., Hardcover

ISBN: 978-1-4419-1643-3