1. Record Nr. UNINA9910830751803321

Titolo	Trends in constraint programming / / edited by Frederic Benhamou, Narendra Jussien, Barry O'Sullivan
Pubbl/distr/stampa	Newport Beach, CA : , : ISTE USA, , 2007
ISBN	1-280-84786-7 9786610847860 0-470-61230-4 0-470-39494-3 1-84704-647-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (410 p.)
Collana	ISTE ; ; v.123
Disciplina	005.1 005.1/16 005.116
Soggetti	Constraint programming (Computer science)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Trends in Constraint Programming; Contents; Introduction; Part I. The Past, Present and Future of Constraint Programming; Chapter 1. Constraint Programming as Declarative Algorithmics; 1.1. The CHIP project; 1.2. The Numerica project; 1.3. The OPL project; 1.4. The Comet project; 1.5. The future of constraint programming; Chapter 2. Constraint Programming Tools; 2.1. Introduction; 2.2. Invited talks; 2.2.1. The development of an industrial CP tool; 2.2.1.1. Design goals; 2.2.1.2. The future; 2.2.2. System design: taking informed decisions; 2.2.2.1. Search; 2.2.2.2. Constraint propagation 2.2.2.3. Variables2.3. System presentations; 2.3.1. ECLiPSe; 2.3.2. SICStus FD; 2.3.3. G12; 2.3.4. DiSolver; 2.3.5.MINION; 2.3.6. Choco; 2.3.7. Gecode; 2.3.8. Comet; 2.3.9. JaCoP; 2.3.10. Borderwijk; 2.4. Panels; 2.5. Conclusion; 2.6. References; Chapter 3. The Next 10 Years of Constraint Programming; 3.1. Pedro Barahona; 3.2. Christian Bessiere; 3.3. Peter Jeavons; 3.4. Pedro Meseguer; 3.5. Gilles Pesant; 3.6. Francesca Rossi; 3.7. Thomas Schiex; 3.8. Christian Schulte; 3.9. Meinolf Sellmann; 3.10. Mark Wallace; 3.11. Toby Walsh; 3.12. Roland

Yap; 3.13. References
Chapter 4. Constraint Propagation and Implementation4.1. Filtering algorithms for precedence and dependency constraints; 4.1.1. Problem description and related works; 4.1.2. Filtering rules for precedence and dependency constraints; 4.1.3. Summary; 4.2. A study of residual supports in arc consistency; 4.3. Maintaining singleton arc consistency; 4.3.1. Mixed consistency; 4.3.2. Checking existential-SAC; 4.3.3. Conclusion; 4.4. Probabilistic singleton arc consistency; 4.5. Simplification and extension of the SPREAD constraint; 4.5.1. Filtering of ; 4.5.2. Filtering of X; 4.5.3. Conclusion
4.6. A new filtering algorithm for the graph isomorphism problem4.6.1. A global constraint for the graph isomorphism problem; 4.6.2. ILL-consistency and ILL-filtering; 4.6.3. Experimental results; 4.7. References; Chapter 5. On the First SAT/CP Integration Workshop; 5.1. The technical program; 5.1.1. The invited talk; 5.1.2. Contributions related to SMT and solver integration; 5.1.3. Contributions related to the use of SAT techniques to improve CSP/CP solvers; 5.1.4. Other contributions; 5.2. The panel session; 5.2.1. Are SAT and CP different or similar?
5.2.2. Why has SAT succeeded in reducing the tuning issue?5.2.3. How long can the current generation of SAT solvers evolve?; 5.2.4. Were performance issues correctly addressed by CP?; 5.2.5. Was CP too ambitious?; 5.2.6. Do we still need CP?; 5.3. Summary, future directions and conclusion; 5.4. References; Chapter 6. Constraint-Based Methods for Bioinformatics; 6.1. On using temporal logic with constraints to express biological properties of cell processes; 6.2. Modeling biological systems in stochastic concurrent constraint programming
6.3. Chemera: constraints in protein structural problems

Sommario/riassunto

This title brings together the best papers on a range of topics raised at the annual International Conference on Principles and Practice of Constraint Programming. This conference provides papers and workshops which produce new insights, concepts and results which can then be used by those involved in this area to develop their own work.