

1. Record Nr.	UNISA996465760103316
Titolo	Data Mining and Constraint Programming [[electronic resource]] : Foundations of a Cross-Disciplinary Approach // edited by Christian Bessiere, Luc De Raedt, Lars Kotthoff, Siegfried Nijssen, Barry O'Sullivan, Dino Pedreschi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-50137-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XII, 349 p. 73 illus.)
Collana	Lecture Notes in Artificial Intelligence ; ; 10101
Disciplina	006.312
Soggetti	Artificial intelligence Application software Computer simulation Algorithms Database management Data mining Artificial Intelligence Information Systems Applications (incl. Internet) Simulation and Modeling Algorithm Analysis and Problem Complexity Database Management Data Mining and Knowledge Discovery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Combinatorial Optimisation in Numberjack -- Data Mining and Constraints: An Overview -- New Approaches to Constraint Acquisition -- ModelSeeker: Extracting Global Constraint Models from Positive Examples -- Learning Constraint Satisfaction Problems: An ILP Perspective -- Learning Modulo Theories -- Algorithm Selection for Combinatorial Search Problems: A Survey -- Adapting Consistency in Constraint Solving -- Modeling in MiningZinc -- Partition-Based Clustering Using Constraint Optimisation -- The Inductive Constraint

Programming Loop -- ICON Loop Carpooling Show Case -- ICON Loop Health Show Case -- ICON Loop Energy Show Case.

Sommario/riassunto

A successful integration of constraint programming and data mining has the potential to lead to a new ICT paradigm with far reaching implications. It could change the face of data mining and machine learning, as well as constraint programming technology. It would not only allow one to use data mining techniques in constraint programming to identify and update constraints and optimization criteria, but also to employ constraints and criteria in data mining and machine learning in order to discover models compatible with prior knowledge. This book reports on some key results obtained on this integrated and cross- disciplinary approach within the European FP7 FET Open project no. 284715 on “Inductive Constraint Programming” and a number of associated workshops and Dagstuhl seminars. The book is structured in five parts: background; learning to model; learning to solve; constraint programming for data mining; and showcases. .
