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Descrizione fisica	1 online resource (XXVI, 788 p. 831 illus., 179 illus. in color.)
Collana	Programming and Software Engineering ; ; 11802
Disciplina	005.11 005.131
Soggetti	Mathematical logic Computer science—Mathematics Artificial intelligence Software engineering Arithmetic and logic units, Computer Mathematical Logic and Formal Languages Mathematics of Computing Artificial Intelligence Software Engineering/Programming and Operating Systems Arithmetic and Logic Structures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Technical Track -- Instance Generation via Generator Instances -- Automatic Detection of At-Most-One and Exactly-One Relations for Improved SAT Encodings of Pseudo-Boolean Constraints -- Exploring Declarative Local-Search Neighbourhoods with Constraint Programming -- Vehicle routing by learning from historical solutions -- On Symbolic Approaches for Computing the Matrix Permanent -- Towards the Characterization of Max-Resolution Transformations of UCSs by UP-Resilience -- Logic-Based Benders Decomposition for Super Solutions: an Application to the Kidney Exchange Problem -- Exploiting Glue Clauses to Design Effective CDCL Branching Heuristics -- Industrial Size Job-Shop Scheduling tackled by Present-Day CP Solvers -- Dual

Hashing-based Algorithms for Discrete Integration -- Techniques Inspired by Local Search for Incomplete MaxSAT and the Linear Algorithm: Varying Resolution and Solution-Guided Search -- A Join-Based Hybrid Parameter for Constraint Satisfaction -- An Incremental SAT-Based Approach to the Graph Colouring Problem -- Constraint-based Techniques in Stochastic Local Search MaxSAT Solving -- Trimming Graphs Using Clausal Proof Optimization -- Improved Job Sequencing Bounds from Decision Diagrams -- Integration of structural constraints into TSP models -- Representing fitness landscapes by valued constraints to understand the complexity of local search -- Estimating the Number of Solutions of Cardinality Constraints through range and roots Decomposition -- Understanding the Empirical Hardness of Random Optimisation Problems -- Guarded Constraint Models Define Treewidth Preserving Reductions -- Automatic Streamlining for Constrained Optimisation -- Compiling Conditional Constraints -- Training Binarized Neural Networks using MIP and CP -- Application Track -- Models for Radiation Therapy Patient Scheduling -- Constraint Programming-based Job Dispatching for Modern HPC Applications -- Scheduling of Mobile Robots using Constraint Programming -- Decomposition and Cut Generation Strategies for Solving Multi-Robot Deployment Problems -- Multi-agent and Parallel CP Track -- An Improved GPU-based SAT Model Counter -- Reducing Bias in Preference Aggregation for Multiagent Soft Constraint Problems -- Testing and Verification Track -- A Cube Distribution Approach to QBF Solving and Certificate Minimization -- Functional Synthesis with Examples -- SolverCheck: Declarative Testing of Constraints -- Encodings for Enumeration-Based Program Synthesis -- Lemma Synthesis for Automating Induction over Algebraic Data Types -- CP and Data Science Track -- Modeling Pattern Set Mining using Boolean Circuits -- Differential Privacy of Hierarchical Census Data: An Optimization Approach -- Generic Constraint-based Block Modeling using Constraint Programming -- Reward Potentials for Planning with Learned Neural Network Transition Models -- Exploiting Counterfactuals for Scalable Stochastic Optimization -- Structure-driven Multiple Constraint Acquisition -- Computational Sustainability Track -- Towards robust scenarios of spatio-temporal renewable energy planning: A GIS-RO approach -- Peak-hour Rail Demand Shifting with Discrete Optimisation -- CP and Life Sciences Track -- Functional significance checking in noisy gene regulatory networks.

Sommario/riassunto

This book constitutes the proceedings of the 25th International Conference on Principles and Practice of Constraint Programming, CP 2019, held in Stamford, CT, USA, France, in September/October 2019. The 44 full papers presented in this volume were carefully reviewed and selected from 118 submissions. They deal with all aspects of computing with constraints including theory, algorithms, environments, languages, models, systems, and applications such as decision making, resource allocation, scheduling, configuration, and planning. The papers were organized according to the following topics/tracks: technical track; application track; multi-agent and parallel CP track; testing and verification track; CP and data science track; computational sustainability; and CP and life sciences track.