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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 6073
Altri autori (Persone)	BlumChristian <1972-> BattitiRoberto <1961->
Disciplina	005.1
Soggetti	Algorithms Computer science Artificial intelligence Computer networks Pattern recognition systems Computer science - Mathematics Discrete mathematics Theory of Computation Artificial Intelligence Computer Communication Networks Automated Pattern Recognition Discrete Mathematics in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Main Track (Regular Papers) -- A Column Generation Heuristic for the General Vehicle Routing Problem -- A Combination of Evolutionary Algorithm, Mathematical Programming, and a New Local Search Procedure for the Just-In-Time Job-Shop Scheduling Problem -- A Math-Heuristic Algorithm for the DNA Sequencing Problem -- A Randomized Iterated Greedy Algorithm for the Founder Sequence

Reconstruction Problem -- Adaptive "Anytime" Two-Phase Local Search -- Adaptive Filter SQP -- Algorithm Selection as a Bandit Problem with Unbounded Losses -- Bandit-Based Estimation of Distribution Algorithms for Noisy Optimization: Rigorous Runtime Analysis -- Consistency Modifications for Automatically Tuned Monte-Carlo Tree Search -- Distance Functions, Clustering Algorithms and Microarray Data Analysis -- Gaussian Process Assisted Particle Swarm Optimization -- Learning of Highly-Filtered Data Manifold Using Spectral Methods -- Multiclass Visual Classifier Based on Bipartite Graph Representation of Decision Tables -- Main Track (Short Papers) -- A Linear Approximation of the Value Function of an Approximate Dynamic Programming Approach for the Ship Scheduling Problem -- A Multilevel Scheme with Adaptive Memory Strategy for Multiway Graph Partitioning -- A Network Approach for Restructuring the Korean Freight Railway Considering Customer Behavior -- A Parallel Multi-Objective Evolutionary Algorithm for Phylogenetic Inference -- Convergence of Probability Collectives with Adaptive Choice of Temperature Parameters -- Generative Topographic Mapping for Dimension Reduction in Engineering Design -- Learning Decision Trees for the Analysis of Optimization Heuristics -- On the Coordination of Multidisciplinary Design Optimization Using Expert Systems -- On the Potentials of Parallelizing Large Neighbourhood Search for Rich Vehicle Routing Problems -- Optimized Ensembles for Clustering Noisy Data -- Stochastic Local Search for the Optimization of Secondary Structure Packing in Proteins -- Systematic Improvement of Monte-Carlo Tree Search with Self-generated Neural-Networks Controllers -- Special Session: LION-SWOP -- Grapheur: A Software Architecture for Reactive and Interactive Optimization -- The EvA2 Optimization Framework -- Special Session: LION-CCEC -- Feature Extraction from Optimization Data via DataModeler's Ensemble Symbolic Regression -- Special Session: LION-PP -- Understanding TSP Difficulty by Learning from Evolved Instances -- Time-Bounded Sequential Parameter Optimization -- Pitfalls in Instance Generation for Udine Timetabling -- Special Session: LION-MOME -- A Study of the Parallelization of the Multi-Objective Metaheuristic MOEA/D -- An Interactive Evolutionary Multi-objective Optimization Method Based on Polyhedral Cones -- On the Distribution of EMOA Hypervolumes -- Adapting to a Realistic Decision Maker: Experiments towards a Reactive Multi-objective Optimizer.

Sommario/riassunto

LION 4, the 4th International Conference on Learning and Intelligent Optimization, was held during January 18-22 in Venice, Italy. This meeting, which continues the successful series of LION conferences, was aimed at exploring the intersections and uncharted territories between machine learning, artificial intelligence, mathematical programming and algorithms for hard optimization problems. The main purpose of the event was to bring together experts from these areas to discuss new ideas and methods, challenges and opportunities in various application areas, general trends and specific developments. Despite the economical crisis in 2009, which visibly affected the submission numbers of many conferences and workshops, we received an impressive number of 87 submissions. As in previous years, we offered three different paper categories for submission: (1) regular papers on original and unpublished work, (2) short papers on original and unpublished work, and (3) works for oral presentation only. Accepted papers from the first two categories are published in the proceedings. From the 87 submissions that were received, 57 fell into the first category, 22 into the second one, and 8 into the last one. After a thorough reviewing process we accepted 19 regular papers (which amounts to an acceptance rate of 33%) and 11 short papers for

publication in the proceedings. Additionally, nine regular papers were accepted as shortpapers, and all eight submissions from the third category were accepted for presentation.
