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Autore	Stone Lawrence D
Titolo	Introduction to Bayesian Tracking and Particle Filters / / by Lawrence D. Stone, Roy L. Streit, Stephen L. Anderson
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	9783031322426 3031322428
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Collana	Studies in Big Data, , 2197-6511 ; ; 126
Altri autori (Persone)	StreitRoy L AndersonStephen L
Disciplina	620.00285 519.542
Soggetti	Engineering - Data processing Statistics Big data Data Engineering Bayesian Inference Big Data
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Bayesian Single Target Tracking -- Bayesian Particle Filtering -- Simple Multiple Target Tracking -- Intensity Filters.
Sommario/riassunto	This book provides a quick but insightful introduction to Bayesian tracking and particle filtering for a person who has some background in probability and statistics and wishes to learn the basics of single-target tracking. It also introduces the reader to multiple target tracking by presenting useful approximate methods that are easy to implement compared to full-blown multiple target trackers. The book presents the basic concepts of Bayesian inference and demonstrates the power of the Bayesian method through numerous applications of particle filters to tracking and smoothing problems. It emphasizes target motion models that incorporate knowledge about the target's behavior in a natural fashion rather than assumptions made for mathematical convenience. The background provided by this book allows a person to

quickly become a productive member of a project team using Bayesian filtering and to develop new methods and techniques for problems the team may face.

2. Record Nr.

Titolo

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Experimental and Efficient Algorithms : 4th International Workshop, WEA 2005, Santorini Island, Greece, May 10-13, 2005, Proceedings // edited by Sotiris E. Nikoletseas

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Edizione [1st ed. 2005.]

Descrizione fisica 1 online resource (XVI, 628 p.)

Collana Programming and Software Engineering, , 2945-9168 ; ; 3503

Altri autori (Persone) NikoletseasSotiris

Disciplina 005.1

Soggetti Algorithms
Artificial intelligence - Data processing
Computer science - Mathematics
Discrete mathematics
Numerical analysis
Computer graphics
Data Science
Discrete Mathematics in Computer Science
Numerical Analysis
Computer Graphics

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Includes index.

Nota di contenuto Invited Talks -- T? ??? ?í ? ??í?? ? The Interaction Between Algorithms and Game Theory -- Using an Adaptive Memory Strategy to Improve a Multistart Heuristic for Sequencing by Hybridization -- High-Performance Algorithm Engineering for Large-Scale Graph Problems and Computational Biology -- Contributed Regular Papers -- The "Real" Approximation Factor of the MST Heuristic for the Minimum Energy Broadcasting -- Implementing Minimum Cycle Basis Algorithms --

Rounding to an Integral Program -- Rectangle Covers Revisited
Computationally -- Don't Compare Averages -- Experimental Results for Stackelberg Scheduling Strategies -- An Improved Branch-and-Bound Algorithm for the Test Cover Problem -- Degree-Based Treewidth Lower Bounds -- Inferring AS Relationships: Dead End or Lively Beginning? -- Acceleration of Shortest Path and Constrained Shortest Path Computation -- A General Buffer Scheme for the Windows Scheduling Problem -- Implementation of Approximation Algorithms for the Multicast Congestion Problem -- Frequency Assignment and Multicoloring Powers of Square and Triangular Meshes -- From Static Code Distribution to More Shrinkage for the Multiterminal Cut -- Partitioning Graphs to Speed Up Dijkstra's Algorithm -- Efficient Convergence to Pure Nash Equilibria in Weighted Network Congestion Games -- New Upper Bound Heuristics for Treewidth -- Accelerating Vickrey Payment Computation in Combinatorial Auctions for an Airline Alliance -- Algorithm Engineering for Optimal Graph Bipartization -- Empirical Analysis of the Connectivity Threshold of Mobile Agents on the Grid -- Multiple-Winners Randomized Tournaments with Consensus for Optimization Problems in Generic Metric Spaces -- On Symbolic Scheduling Independent Tasks with Restricted Execution Times -- A Simple Randomizedk-Local Election Algorithm for Local Computations -- Generating and Radiocoloring Families of Perfect Graphs -- Efficient Implementation of Rank and Select Functions for Succinct Representation -- Comparative Experiments with GRASP and Constraint Programming for the Oil Well Drilling Problem -- A Framework for Probabilistic Numerical Evaluation of Sensor Networks: A Case Study of a Localization Protocol -- A Cut-Based Heuristic to Produce Almost Feasible Periodic Railway Timetables -- GRASP with Path-Relinking for the Weighted Maximum Satisfiability Problem -- New Bit-Parallel Indel-Distance Algorithm -- Dynamic Application Placement Under Service and Memory Constraints -- Integrating Coordinated Checkpointing and Recovery Mechanisms into DSM Synchronization Barriers -- Synchronization Fault Cryptanalysis for Breaking A5/1 -- An Efficient Algorithm for γ -Approximate Matching with γ -Bounded Gaps in Musical Sequences -- The Necessity of Timekeeping in Adversarial Queueing -- BDDs in a Branch and Cut Framework -- Parallel Smith-Waterman Algorithm for Local DNA Comparison in a Cluster of Workstations -- Fast Algorithms for Weighted Bipartite Matching -- A Practical Minimal Perfect Hashing Method -- Efficient and Experimental Meta-heuristics for MAX-SAT Problems -- Experimental Evaluation of the Greedy and Random Algorithms for Finding Independent Sets in Random Graphs -- Local Clustering of Large Graphs by Approximate Fiedler Vectors -- Almost FPRAS for Lattice Models of Protein Folding -- Vertex Cover Approximations: Experiments and Observations -- GRASP with Path-Relinking for the Maximum Diversity Problem -- How to Splay for $\log\log N$ -Competitiveness -- Distilling Router Data Analysis for Faster and Simpler Dynamic IP Lookup Algorithms -- Contributed Short Papers -- Optimal Competitive OnlineRay Search with an Error-Prone Robot -- An Empirical Study for Inversions-Sensitive Sorting Algorithms -- Approximation Algorithm for Chromatic Index and Edge-Coloring of Multigraphs -- Finding, Counting and Listing All Triangles in Large Graphs, an Experimental Study -- Selecting the Roots of a Small System of Polynomial Equations by Tolerance Based Matching -- Developing Novel Statistical Bandwidths for Communication Networks with Incomplete Information -- Dynamic Quality of Service Support in Virtual Private Networks.

talks presented at the 4th International Workshop of Efficient and Experimental Algorithms (WEA 2005), that was held May 10-13, on Santorini Island, Greece. The WEA events are intended to be an international forum for research on the design, analysis and especially the experimental implementation, evaluation and engineering of algorithms, as well as on combinatorial optimization and its applications. The first three workshops in this series were held in Riga (2001), Monte Verita (2003) and Rio de Janeiro (2004).

This volume contains 3 invited papers related to corresponding keynote talks: by Prof. Christos Papadimitriou (University of California at Berkeley, USA), Prof. David Bader (University of New Mexico, USA) and Prof. Celso Ribeiro (University of Rio de Janeiro, Brazil). This proceedings includes 54 papers (47 regular and 7 short), selected out of a record number of 176 submissions. Each paper was reviewed by at least 2 Program Committee members, while many papers got 3 or 4 reviews. A total number of 419 reviews were solicited, with the help of trusted external referees. In addition to the 54 papers included in this volume, 6 papers were accepted as poster presentations: these papers were published in a separate poster proceedings volume by CTI Press and a major publisher in Greece, "Ellinika Gramata." The presentation of these posters at the event was expected to create a fruitful discussion on interesting ideas.
