

1. Record Nr.	UNINA9910728944303321
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
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (124 pages)
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.	UNINA9910768465703321
Titolo	Experimental and Efficient Algorithms : 4th International Workshop, WEA 2005, Santorini Island, Greece, May 10-13, 2005, Proceedings / / edited by Sotiris E. Nikolettseas
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2005
Edizione	[1st ed. 2005.]
Descrizione fisica	1 online resource (XVI, 628 p.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 3503
Altri autori (Persone)	NikolettseasSotiris
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 ? ????? ? 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  $\epsilon$ -Approximate Matching  
 with  $\epsilon$ -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.

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