

Algorithms and Computation

13th International Symposium, ISAAC 2002 Vancouver, BC, Canada, November 21-23, 2002, Proceedings

Bearbeitet von
Prosenjit K. Bose, Pat Morin

1. Auflage 2002. Taschenbuch. xiv, 662 S. Paperback
ISBN 978 3 540 00142 3
Format (B x L): 15,5 x 23,5 cm
Gewicht: 2060 g

Weitere Fachgebiete > EDV, Informatik > Datenbanken, Informationssicherheit,
Geschäftssoftware > Zeichen- und Zahlendarstellungen

Zu Leseprobe

schnell und portofrei erhältlich bei

The logo for beck-shop.de features the text 'beck-shop.de' in a bold, red, sans-serif font. Above the 'i' in 'shop' are three red dots of increasing size. Below the main text, 'DIE FACHBUCHHANDLUNG' is written in a smaller, red, all-caps, sans-serif font.

beck-shop.de
DIE FACHBUCHHANDLUNG

Die Online-Fachbuchhandlung beck-shop.de ist spezialisiert auf Fachbücher, insbesondere Recht, Steuern und Wirtschaft. Im Sortiment finden Sie alle Medien (Bücher, Zeitschriften, CDs, eBooks, etc.) aller Verlage. Ergänzt wird das Programm durch Services wie Neuerscheinungsdienst oder Zusammenstellungen von Büchern zu Sonderpreisen. Der Shop führt mehr als 8 Millionen Produkte.

Table of Contents

Session 1A

Biased Skip Lists	1
<i>Amitabha Bagchi, Adam L. Buchsbaum, Michael T. Goodrich</i>	
Space-Efficient Data Structures for Flexible Text Retrieval Systems	14
<i>Kunihiko Sadakane</i>	
Key Independent Optimality	25
<i>John Iacono</i>	

Session 1B

On the Comparison-Addition Complexity of All-Pairs Shortest Paths.....	32
<i>Seth Pettie</i>	
On the Clique-Width of Graphs in Hereditary Classes	44
<i>Rodica Boliac, Vadim Lozin</i>	
The Probability of a Rendezvous is Minimal in Complete Graphs	55
<i>Martin Dietzfelbinger</i>	

Session 2A

On the Minimum Volume of a Perturbed Unit Cube	67
<i>Jin-Yi Cai</i>	
Non-Delaunay-Based Curve Reconstruction	79
<i>Sumanta Guha, Paula Josiah, Anoop Mittal, Son Dinh Tran</i>	
Cutting a Country for Smallest Square Fit	91
<i>Marc van Kreveld, Bettina Speckmann</i>	

Session 2B

On the Emptiness Problem for Two-Way NFA with One Reversal-Bounded Counter	103
<i>Zhe Dang, Oscar H. Ibarra, Zhi-Wei Sun</i>	
Quantum Multi-prover Interactive Proof Systems with Limited Prior Entanglement	115
<i>Hirota Kobayashi, Keiji Matsumoto</i>	

Some Remarks on the L -Conjecture	128
<i>Qi Cheng</i>	

Session 3A

A Framework for Network Reliability Problems on Graphs of Bounded Treewidth	137
<i>Thomas Wolle</i>	
A Faster Approximation Algorithm for 2-Edge-Connectivity Augmentation	150
<i>Anna Galluccio, Guido Proietti</i>	
Tree Spanners on Chordal Graphs: Complexity, Algorithms, Open Problems	163
<i>A. Brandstädt, F.F. Dragan, H.-O. Le, V.B. Le</i>	

Session 3B

An Asymptotic Fully Polynomial Time Approximation Scheme for Bin Covering	175
<i>Klaus Jansen, Roberto Solis-Oba</i>	
Improved Approximation Algorithms for Max-2SAT with Cardinality Constraint	187
<i>Markus Bläser, Bodo Manthey</i>	
A Better Approximation for the Two-Stage Assembly Scheduling Problem with Two Machines at the First Stage	199
<i>Yoshiyuki Karuno, Hiroshi Nagamochi</i>	

Session 4A

Queaps	211
<i>John Iacono, Stefan Langerman</i>	
Funnel Heap – A Cache Oblivious Priority Queue	219
<i>Gerth Stølting Brodal, Rolf Fagerberg</i>	
Characterizing History Independent Data Structures	229
<i>Jason D. Hartline, Edwin S. Hong, Alexander E. Mohr, William R. Pentney, Emily C. Rocke</i>	

Session 4B

Faster Fixed Parameter Tractable Algorithms for Undirected Feedback Vertex Set	241
<i>Venkatesh Raman, Saket Saurabh, C. R. Subramanian</i>	

An $O(pn + 1.151^p)$ -Algorithm for p -Profit Cover and Its Practical Implications for Vertex Cover	249
<i>Ulrike Stege, Iris van Rooij, Alex Hertel, Philipp Hertel</i>	

Exponential Speedup of Fixed-Parameter Algorithms on $K_{3,3}$ -Minor-Free or K_5 -Minor-Free Graphs	262
<i>Erik D. Demaine, Mohammad Taghi Hajiaghayi, Dimitrios M. Thilikos</i>	

Session 5A

Casting a Polyhedron with Directional Uncertainty	274
<i>Hee-Kap Ahn, Otfried Cheong, René van Oostrum</i>	

Hierarchy of Surface Models and Irreducible Triangulation	286
<i>Siu-Wing Cheng, Tamal K. Dey, Sheung-Hung Poon</i>	

Algorithms and Complexity for Tetrahedralization Detections	296
<i>Boting Yang, Cao An Wang, Francis Chin</i>	

Session 5B

Average-Case Communication-Optimal Parallel Parenthesis Matching	308
<i>Chun-Hsi Huang, Xin He</i>	

Optimal F -Reliable Protocols for the Do-All Problem on Single-Hop Wireless Networks (Extended Abstract)	320
<i>Andrea E. F. Clementi, Angelo Monti, Riccardo Silvestri</i>	

New Results for Energy-Efficient Broadcasting in Wireless Networks	332
<i>Ioannis Caragiannis, Christos Kaklamanis, Panagiotis Kanellopoulos</i>	

Session 6A

An Improved Algorithm for the Minimum Manhattan Network Problem	344
<i>Ryo Kato, Keiko Imai, Takao Asano</i>	

Approximate Distance Oracles Revisited	357
<i>Joachim Gudmundsson, Christos Levcopoulos, Giri Narasimhan, Michiel Smid</i>	

Flat-State Connectivity of Linkages under Dihedral Motions	369
<i>Greg Aloupis, Erik D. Demaine, Vida Dujmović, Jeff Erickson, Stefan Langerman, Henk Meijer, Joseph O'Rourke, Mark Overmars, Michael Soss, Ileana Streinu, Godfried T. Toussaint</i>	

Session 6B

Project Scheduling with Irregular Costs: Complexity, Approximability, and Algorithms	381
<i>Alexander Grigoriev, Gerhard J. Woeginger</i>	
Scheduling of Independent Dedicated Multiprocessor Tasks	391
<i>Evrripidis Bampis, Massimiliano Caramia, Jiří Fiala, Alekssei V. Fishkin, Antonio Iovanella</i>	
On the Approximability of Multiprocessor Task Scheduling Problems	403
<i>Antonio Miranda, Luz Torres, Jianer Chen</i>	

Session 7A

Bounded-Degree Independent Sets in Planar Graphs (Extended Abstract)	416
<i>Therese Biedl, Dana F. Wilkinson</i>	
Minimum Edge Ranking Spanning Trees of Threshold Graphs	428
<i>Kazuhiro Makino, Yushi Uno, Toshihide Ibaraki</i>	
File Transfer Tree Problems	441
<i>Hiro Ito, Hiroshi Nagamochi, Yosuke Sugiyama, Masato Fujita</i>	

Session 7B

Approximation Algorithms for Some Parameterized Counting Problems	453
<i>V. Arvind, Venkatesh Raman</i>	
Approximating MIN k -SAT	465
<i>Adi Avidor, Uri Zwick</i>	
Average-Case Competitive Analyses for Ski-Rental Problems	476
<i>Hiroshi Fujiwara, Kazuo Iwama</i>	

Session 8A

On the Clique Problem in Intersection Graphs of Ellipses	489
<i>Christoph Ambühl, Uli Wagner</i>	
A Geometric Approach to Boolean Matrix Multiplication	501
<i>Andrzej Lingas</i>	
The Min-Max Voronoi Diagram of Polygons and Applications in VLSI Manufacturing	511
<i>Evanthia Papadopoulou, D. T. Lee</i>	

Session 8B

Improved Distance Oracles for Avoiding Link-Failure	523
<i>Rezaul Alam Chowdhury, Vijaya Ramachandran</i>	
Probabilistic Algorithms for the Wakeup Problem in Single-Hop Radio Networks.....	535
<i>Tomasz Jurdziński, Grzegorz Stachowiak</i>	
A Simple, Memory-Efficient Bounded Concurrent Timestamping Algorithm	550
<i>Vivek Shikaripura, Ajay D. Kshemkalyani</i>	

Session 9A

Crossing Minimization for Symmetries	563
<i>Christoph Buchheim, Seok-Hee Hong</i>	
Simultaneous Embedding of a Planar Graph and Its Dual on the Grid	575
<i>Cesim Erten, Stephen G. Kobourov</i>	
Meaningful Information (Extended Abstract)	588
<i>Paul Vitányi</i>	

Session 9B

Optimal Clearing of Supply/Demand Curves	600
<i>Tuomas Sandholm, Subhash Suri</i>	
Partitioning Trees of Supply and Demand	612
<i>Takehiro Ito, Xiao Zhou, Takao Nishizeki</i>	
Maximizing a Voronoi Region: The Convex Case	624
<i>Frank Dehne, Rolf Klein, Raimund Seidel</i>	

Invited Talks

Random Tries	635
<i>Luc Devroye</i>	
Expected Acceptance Counts for Finite Automata with Almost Uniform Input	636
<i>Nicholas Pippenger</i>	
Monotone Drawings of Planar Graphs	647
<i>János Pach, Géza Tóth</i>	

Author Index	655
---------------------------	-----