

18th Workshop on Algorithm Engineering and Experiments 2016 (ALENEX16)

Arlington, Virginia, USA
10 January 2016

Editors:

**Michael Goodrich
Michael Mitzenmacher**

ISBN: 978-1-5108-1968-9

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by SIAM: Society for Industrial and Applied Mathematics
All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact SIAM: Society for Industrial and Applied Mathematics
at the address below.

SIAM
3600 Market Street, 6th Floor
Philadelphia, PA 19104-2688 USA

Phone: (215) 382-9800
Fax: (215) 386-7999

siambooks@siam.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

[Engineering Oracles for Time-Dependent Road Networks](#)
[Spyros Kontogiannis](#), [George Michalopoulos](#), [Georgia Papastavrou](#), [Andreas Paraskevopoulos](#), [Dorothea Wagner](#), and [Christos Zaroliagis](#)
pp. 1-14 (14 pages)

[Scalable Transfer Patterns](#)
[Hannah Bast](#), [Matthias Hertel](#), and [Sabine Storandt](#)
pp. 15-29 (15 pages)

[Experimental Evaluation of Distributed Node Coloring Algorithms for Wireless Networks](#)
[Fabian Fuchs](#)
pp. 30-38 (9 pages)

[Generating Massive Scale-Free Networks under Resource Constraints](#)
[Ulrich Meyer](#) and [Manuel Penschuck](#)
pp. 39-52 (14 pages)

[\$k\$ -way Hypergraph Partitioning via \$n\$ -Level Recursive Bisection](#)
[Sebastian Schlag](#), [Vitali Henne](#), [Tobias Heuer](#), [Henning Meyerhenke](#), [Peter Sanders](#), and [Christian Schulz](#)
pp. 53-67 (15 pages)

[Computing Top- \$k\$ Closeness Centrality Faster in Unweighted Graphs](#)
[Elisabetta Bergamini](#), [Michele Borassi](#), [Pierluigi Crescenzi](#), [Andrea Marino](#), and [Henning Meyerhenke](#)
pp. 68-80 (13 pages)

[An Algorithm for Online K-Means Clustering](#)
[Edo Liberty](#), [Ram Sriharsha](#), and [Maxim Sviridenko](#)
pp. 81-89 (9 pages)

[Graph Bisection with Pareto-Optimization](#)
[Michael Hamann](#) and [Ben Strasser](#)
pp. 90-102 (13 pages)

[Geometry Helps to Compare Persistence Diagrams](#)
[Michael Kerber](#), [Dmitriy Morozov](#), and [Arnur Nigmatov](#)
pp. 103-112 (10 pages)

[Fast Algorithms for Pseudoarboricity](#)
[Markus Blumenstock](#)
pp. 113-126 (14 pages)

[Real-Time k-bounded Preemptive Scheduling](#)
[Sivan Albagli-Kim](#), [Baruch Schieber](#), [Hadas Shachnai](#), and [Tami Tamir](#)
pp. 127-137 (11 pages)

[Finding Near-Optimal Independent Sets at Scale](#)
[Sebastian Lamm](#), [Peter Sanders](#), [Christian Schulz](#), [Darren Strash](#), and
[Renato F. Werneck](#)

pp. 138-150 (13 pages)

[A Novel Dual Ascent Algorithm for Solving the Min-Cost Flow Problem](#)

[Ruben Becker](#), [Maximilian Fickert](#), and [Andreas Karrenbauer](#)

pp. 151-159 (9 pages)

[A General Framework for Dynamic Succinct and Compressed Data Structures](#)

[Patrick Klitzke](#) and [Patrick K. Nicholson](#)

pp. 160-173 (14 pages)

[An Empirical Comparison of Graph Laplacian Solvers](#)

[Erik G. Boman](#), [Kevin Deweese](#), and [John R. Gilbert](#)

pp. 174-188 (15 pages)