

33rd Annual European Symposium on Algorithms

ESA 2025, September 15–17, 2025, Warsaw, Poland

Edited by

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■ Contents

Preface	
<i>Anne Benoit, Haim Kaplan, Sebastian Wild, and Grzegorz Herman</i>	0:xv
Program Committees	
.....	0:xvii
External Reviewers	
.....	0:xix

Invited Talks

Graph Decompositions and Length-Constrained Expanders	
<i>Bernhard Haeupler</i>	1:1–1:2
Securing Dynamic Data: A Primer on Differentially Private Data Structures	
<i>Monika Henzinger and Roodabeh Safavi</i>	2:1–2:14

Regular Papers

Generalized Graph Packing Problems Parameterized by Treewidth	
<i>Bariş Can Esmer and Dániel Marx</i>	3:1–3:15
Optimal Quantum Algorithm for Estimating Fidelity to a Pure State	
<i>Wang Fang and Qisheng Wang</i>	4:1–4:12
External-Memory Priority Queues with Optimal Insertions	
<i>Gerth Stølting Brodal, Michael T. Goodrich, John Iacono, Jared Lo, Ulrich Meyer, Victor Pagan, Nodari Sitchinava, and Rolf Svenning</i>	5:1–5:14
On the Complexity of Knapsack Under Explorable Uncertainty: Hardness and Algorithms	
<i>Jens Schlöter</i>	6:1–6:15
Graph Modification of Bounded Size to Minor-Closed Classes as Fast as Vertex Deletion	
<i>Laure Morelle, Ignasi Sau, and Dimitrios M. Thilikos</i>	7:1–7:18
Fast Computation of k -Runs, Parameterized Squares, and Other Generalised Squares	
<i>Yuto Nakashima, Jakub Radoszewski, and Tomasz Waleń</i>	8:1–8:18
MorphisHash: Improving Space Efficiency of ShockHash for Minimal Perfect Hashing	
<i>Stefan Hermann</i>	9:1–9:16
Connected Partitions via Connected Dominating Sets	
<i>Aikaterini Niklanovits, Kirill Simonov, Shaily Verma, and Ziena Zeif</i>	10:1–10:14
Courcelle’s Theorem for Lipschitz Continuity	
<i>Tatsuya Gima, Soh Kumabe, and Yuichi Yoshida</i>	11:1–11:14

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Subtrajectory Clustering and Coverage Maximization in Cubic Time, or Better <i>Jacobus Conradi and Anne Driemel</i>	12:1–12:18
Tight Bounds for Some Classical Problems Parameterized by Cutwidth <i>Narek Bojikian, Vera Chekan, and Stefan Kratsch</i>	13:1–13:17
Testing Sumsets Is Hard <i>Xi Chen, Shivam Nadimpalli, Tim Randolph, Rocco A. Servedio, and Or Zamir</i> ..	14:1–14:16
Linear Layouts Revisited: Stacks, Queues, and Exact Algorithms <i>Thomas Depian, Simon D. Fink, Robert Ganian, and Vaishali Surianarayanan</i> ...	15:1–15:18
On Algorithmic Applications of $\mathcal{F}$ -Branchwidth <i>Benjamin Bergougnoux, Thekla Hamm, Lars Jaffke, and Paloma T. Lima</i>	16:1–16:17
Weighted Matching in a Poly-Streaming Model <i>Ahammed Ullah, S M Ferdous, and Alex Pothen</i>	17:1–17:18
Efficiency of Learned Indexes on Genome Spectra <i>Md. Hasin Abrar, Paul Medvedev, and Giorgio Vinciguerra</i>	18:1–18:18
On Finding ℓ -Th Smallest Perfect Matchings <i>Nicolas El Maalouly, Sebastian Haslebacher, Adrian Taubner, and Lasse Wulf</i>	19:1–19:15
Beeping Deterministic CONGEST Algorithms in Graphs <i>Paweł Garncarek, Dariusz R. Kowalski, Shay Kutten, and Miguel A. Mosteiro</i>	20:1–20:17
A Unified FPT Framework for Crossing Number Problems <i>Éric Colin de Verdière and Petr Hliněný</i>	21:1–21:18
Constructing Long Paths in Graph Streams <i>Christian Konrad and Chhaya Trehan</i>	22:1–22:19
Computing Largest Subsets of Points Whose Convex Hulls Have Bounded Area and Diameter <i>Gianmarco Picarella, Marc van Kreveld, Frank Staals, and Sjoerd de Vries</i>	23:1–23:16
Fréchet Distance in Unweighted Planar Graphs <i>Ivor van der Hoog, Thijs van der Horst, Eva Rotenberg, and Lasse Wulf</i>	24:1–24:16
Instance-Optimal Imprecise Convex Hull <i>Sarita de Berg, Ivor van der Hoog, Eva Rotenberg, Daniel Rutschmann, and Sampson Wong</i>	25:1–25:15
Faster Dynamic 2-Edge Connectivity in Directed Graphs <i>Loukas Georgiadis, Konstantinos Giannis, and Giuseppe F. Italiano</i>	26:1–26:16
Online Makespan Scheduling Under Scenarios <i>Ekin Ergen</i>	27:1–27:16
Sliding Squares in Parallel <i>Hugo A. Akitaya, Sándor P. Fekete, Peter Kramer, Saba Molaei, Christian Rieck, Frederick Stock, and Tobias Wallner</i>	28:1–28:17
The Tape Reconfiguration Problem and Its Consequences for Dominating Set Reconfiguration <i>Nicolas Bousquet, Quentin Deschamps, Arnaud Mary, Amer E. Mouawad, and Théo Pierron</i>	29:1–29:15

Reconstructing Random Graphs from Distance Queries <i>Michael Krivelevich and Maksim Zhukovskii</i>	30:1–30:17
An Optimal Algorithm for Shortest Paths in Unweighted Disk Graphs <i>Bruce W. Brewer and Haitao Wang</i>	31:1–31:8
Linear-Time Multilevel Graph Partitioning via Edge Sparsification <i>Lars Gottesbüren, Nikolai Maas, Dominik Rosch, Peter Sanders, and Daniel Seemaier</i>	32:1–32:20
Better Indexing for Rectangular Pattern Matching <i>Paweł Gawrychowski and Adam Górkiewicz</i>	33:1–33:7
On the Approximability of Train Routing and the Min-Max Disjoint Paths Problem <i>Umang Bhaskar, Katharina Eickhoff, Lennart Kautner, Jannik Matuschke, Britta Peis, and Laura Vargas Koch</i>	34:1–34:15
The Geodesic Fréchet Distance Between Two Curves Bounding a Simple Polygon <i>Thijs van der Horst, Marc van Kreveld, Tim Ophelders, and Bettina Speckmann</i> .	35:1–35:16
Efficient Contractions of Dynamic Graphs – With Applications <i>Monika Henzinger, Evangelos Kosinas, Robin Münk, and Harald Räcke</i>	36:1–36:14
Hardness of Computation of Quantum Invariants on 3-Manifolds with Restricted Topology <i>Henrique Ennes and Clément Maria</i>	37:1–37:16
Tight Guarantees for Cut-Relative Survivable Network Design via a Decomposition Technique <i>Nikhil Kumar, J. J. Nan, and Chaitanya Swamy</i>	38:1–38:18
Going Beyond Surfaces in Diameter Approximation <i>Michał Włodarczyk</i>	39:1–39:19
Maximum List r -Colorable Induced Subgraphs in kP_3 -Free Graphs <i>Esther Galby, Paloma T. Lima, Andrea Munaro, and Amir Nikabadi</i>	40:1–40:13
Min-Max Correlation Clustering via Neighborhood Similarity <i>Nairen Cao, Steven Roche, and Hsin-Hao Su</i>	41:1–41:18
(Multivariate) k -SUM as Barrier to Succinct Computation <i>Geri Gokaj, Marvin Künnemann, Sabine Storandt, and Carina Truschel</i>	42:1–42:19
Edge Clique Partition and Cover Beyond Independence <i>Fedor V. Fomin, Petr A. Golovach, Danil Sagunov, and Kirill Simonov</i>	43:1–43:16
Near-Optimal Vertex Fault-Tolerant Labels for Steiner Connectivity <i>Koustav Bhanja and Asaf Petruschka</i>	44:1–44:13
Bounded Weighted Edit Distance: Dynamic Algorithms and Matching Lower Bounds <i>Itai Boneh, Egor Gorbachev, and Tomasz Kociumaka</i>	45:1–45:16
Max-Distance Sparsification for Diversification and Clustering <i>Soh Kumabe</i>	46:1–46:14

Fast and Lightweight Distributed Suffix Array Construction <i>Manuel Haag, Florian Kurpicz, Peter Sanders, and Matthias Schimek</i>	47:1–47:18
The Support of Bin Packing Is Exponential <i>Klaus Jansen, Lis Piroton, and Malte Tutas</i>	48:1–48:16
Efficient Top-Down Updates in AVL Trees <i>Vincent Jugé</i>	49:1–49:15
Online Hitting Sets for Disks of Bounded Radii <i>Minati De, Satyam Singh, and Csaba D. Tóth</i>	50:1–50:16
Quantum Approximate k -Minimum Finding <i>Minbo Gao, Zhengfeng Ji, and Qisheng Wang</i>	51:1–51:15
Beating Competitive Ratio 4 for Graphic Matroid Secretary <i>Kiarash Banihashem, MohammadTaghi Hajiaghayi, Dariusz R. Kowalski, Piotr Krysta, Danny Mittal, and Jan Olkowski</i>	52:1–52:16
When Is String Reconstruction Using de Bruijn Graphs Hard? <i>Ben Bals, Sebastiaan van Krieken, Solon P. Pissis, Leen Stougie, and Hilde Verbeek</i>	53:1–53:16
Non-Boolean OMv: One More Reason to Believe Lower Bounds for Dynamic Problems <i>Bingbing Hu and Adam Polak</i>	54:1–54:16
Safe Sequences via Dominators in DAGs for Path-Covering Problems <i>Francisco Sena, Romeo Rizzi, and Alexandru I. Tomescu</i>	55:1–55:17
PLS-Completeness of String Permutations <i>Dominik Scheder and Johannes Tantow</i>	56:1–56:14
Improved Hardness-Of-Approximation for Token-Swapping <i>Sam Hiken and Nicole Wein</i>	57:1–57:16
Streaming Diameter of High-Dimensional Points <i>Magnús M. Halldórsson, Nicolaos Matsakis, and Pavel Veselý</i>	58:1–58:10
Improved Dominance Filtering for Unions and Minkowski Sums of Pareto Sets <i>Konstantinos Karathanasis, Spyros Kontogiannis, and Christos Zaroliagis</i>	59:1–59:17
Fast and Memory-Efficient BWT Construction of Repetitive Texts Using Lyndon Grammars <i>Jannik Olbrich</i>	60:1–60:19
ϵ -Net Algorithm Implementation on Hyperbolic Surfaces <i>Vincent Despré, Camille Lanuel, Marc Pouget, and Monique Teillaud</i>	61:1–61:18
Polynomial-Time Constant-Approximation for Fair Sum-Of-Radii Clustering <i>Sina Bagheri Nezhad, Sayan Bandyapadhyay, and Tianzhi Chen</i>	62:1–62:16
Connected k -Median with Disjoint and Non-Disjoint Clusters <i>Jan Eube, Kelin Luo, Dorian Reineccius, Heiko Röglin, and Melanie Schmidt</i>	63:1–63:14
A Dynamic Piecewise-Linear Geometric Index with Worst-Case Guarantees <i>Emil Toftegaard Gæde, Ivor van der Hoog, Eva Rotenberg, and Tord Stordalen</i> ...	64:1–64:18

From Theory to Practice: Engineering Approximation Algorithms for Dynamic Orientation	
<i>Ernestine Grossmann, Henrik Reinstädler, Eva Rotenberg, Christian Schulz, Ivor van der Hoog, and Juliette Vlieghe</i>	65:1–65:18
Bicriteria Approximation for k -Edge-Connectivity	
<i>Zeev Nutov and Reut Cohen</i>	66:1–66:17
Compact Representation of Semilinear and Terrain-Like Graphs	
<i>Jean Cardinal and Yelena Yuditsky</i>	67:1–67:19
Faster Algorithm for Second (s,t)-Mincut and Breaking Quadratic Barrier for Dual Edge Sensitivity for (s,t)-Mincut	
<i>Surender Baswana, Koustav Bhanja, and Anupam Roy</i>	68:1–68:19
Bandwidth vs BFS Width in Matrix Reordering, Graph Reconstruction, and Graph Drawing	
<i>David Eppstein, Michael T. Goodrich, and Songyu (Alfred) Liu</i>	69:1–69:17
Improved Parallel Derandomization via Finite Automata with Applications	
<i>Jeff Giliberti and David G. Harris</i>	70:1–70:17
Simpler Universally Optimal Dijkstra	
<i>Ivor van der Hoog, Eva Rotenberg, and Daniel Rutschmann</i>	71:1–71:9
Color Distance Oracles and Snippets: Separation Between Exact and Approximate Solutions	
<i>Noam Horowicz and Tsvi Kopelowitz</i>	72:1–72:17
Classical Algorithms for Constant Approximation of the Ground State Energy of Local Hamiltonians	
<i>François Le Gall</i>	73:1–73:19
Core-Sparse Monge Matrix Multiplication: Improved Algorithm and Applications	
<i>Paweł Gawrychowski, Egor Gorbachev, and Tomasz Kociumaka</i>	74:1–74:17
An Improved Bound for Plane Covering Paths	
<i>Hugo A. Akitaya, Greg Aloupis, Ahmad Biniaz, Prosenjit Bose, Jean-Lou De Carufel, Cyril Gavoille, John Iacono, Linda Kleist, Michiel Smid, Diane Souvaine, and Leonidas Theodorarous</i>	75:1–75:10
A 3.3904-Competitive Online Algorithm for List Update with Uniform Costs	
<i>Mateusz Basiak, Marcin Bienkowski, Martin Böhm, Marek Chrobak, Łukasz Jeż, Jiří Sgall, and Agnieszka Tatarczuk</i>	76:1–76:15
Tolerant Testers for Subgraph-Freeness	
<i>Reut Levi and Jonathan Meiri</i>	77:1–77:15
Testing Depth First Search Numbering	
<i>Artur Czumaj, Christian Sohler, and Stefan Walzer</i>	78:1–78:16
Semi-Streaming Algorithms for Hypergraph Matching	
<i>Henrik Reinstädler, S M Ferdous, Alex Pothén, Bora Uçar, and Christian Schulz</i>	79:1–79:19

Online Metric TSP <i>Christian Bertram</i>	80:1–80:9
An $O(n \log n)$ Algorithm for Single-Source Shortest Paths in Disk Graphs <i>Mark de Berg and Sergio Cabello</i>	81:1–81:15
Buffered Partially-Persistent External-Memory Search Trees <i>Gerth Stølting Brodal, Casper Moldrup Rysgaard, and Rolf Svenning</i>	82:1–82:18
Fault-Tolerant Matroid Bases <i>Matthias Bentert, Fedor V. Fomin, Petr A. Golovach, and Laure Morelle</i>	83:1–83:14
Property Testing of Curve Similarity <i>Peyman Afshani, Maike Buchin, Anne Driemel, Marena Richter, and Sampson Wong</i>	84:1–84:16
A Simple yet Exact Analysis of the MultiQueue <i>Stefan Walzer and Marvin Williams</i>	85:1–85:14
New Algorithms for Pigeonhole Equal Subset Sum <i>Ce Jin, Ryan Williams, and Stan Zhang</i>	86:1–86:12
Multicut Problems in Almost-Planar Graphs: the Dependency of Complexity on the Demand Pattern <i>Florian Hörsch and Dániel Marx</i>	87:1–87:13
Parameterized Approximability for Modular Linear Equations <i>Konrad K. Dabrowski, Peter Jonsson, Sebastian Ordyniak, George Osipov, and Magnus Wahlström</i>	88:1–88:15
A Simple Algorithm for Trimmed Multipoint Evaluation <i>Nick Fischer, Melvin Kallmayer, and Leo Wennmann</i>	89:1–89:11
Separating Two Points with Obstacles in the Plane: Improved Upper and Lower Bounds <i>Jack Spalding-Jamieson and Anurag Murty Naredla</i>	90:1–90:18
Near-Optimal Differentially Private Graph Algorithms via the Multidimensional AboveThreshold Mechanism <i>Laxman Dhulipala, Monika Henzinger, George Z. Li, Quanquan C. Liu, A. R. Sricharan, and Leqi Zhu</i>	91:1–91:20
Incremental Maximization for a Broad Class of Objectives <i>Yann Disser and David Weckbecker</i>	92:1–92:13
Recognizing and Realizing Temporal Reachability Graphs <i>Thomas Erlebach, Othon Michail, and Nils Morawietz</i>	93:1–93:18
Faster Algorithm for Bounded Tree Edit Distance in the Low-Distance Regime <i>Tomasz Kociumaka and Ali Shahali</i>	94:1–94:16
The Planted Orthogonal Vectors Problem <i>David Kühnemann, Adam Polak, and Alon Rosen</i>	95:1–95:17
Counting Small Induced Subgraphs: Scorpions Are Easy but Not Trivial <i>Radu Curticapean, Simon Döring, and Daniel Neuen</i>	96:1–96:16

A Fast and Simple Algorithm for the Resource Constrained Shortest Path Problem <i>Saman Ahmadi, Andrea Raith, and Mahdi Jalili</i>	97:1–97:15
Fine-Grained Classification of Detecting Dominating Patterns <i>Jonathan Dransfeld, Marvin Künnemann, and Mirza Redzic</i>	98:1–98:15
Engineering Minimal k -Perfect Hash Functions <i>Stefan Hermann, Sebastian Kirmayer, Hans-Peter Lehmann, Peter Sanders, and Stefan Walzer</i>	99:1–99:18
Cut-Query Algorithms with Few Rounds <i>Yotam Kenneth-Mordoch and Robert Krauthgamer</i>	100:1–100:14
Improved Algorithms for Quantum MaxCut via Partially Entangled Matchings <i>Anuj Apte, Eunou Lee, Kunal Marwaha, Ojas Parekh, and James Sud</i>	101:1–101:14
A Combinatorial Proof of Universal Optimality for Computing a Planar Convex Hull <i>Ivor van der Hoog, Eva Rotenberg, and Daniel Rutschmann</i>	102:1–102:13
On the Satisfiability of Random 3-SAT Formulas with k -Wise Independent Clauses <i>Ioannis Caragiannis, Nick Gravin, and Zhile Jiang</i>	103:1–103:17
Optimal Antimatroid Sorting <i>Benjamin Aram Berendsohn</i>	104:1–104:14
Parameterized Algorithms for Computing Pareto Sets <i>Joshua Marc Könen, Heiko Röglin, and Tarek Stuck</i>	105:1–105:15
On Estimating the Quantum ℓ_α Distance <i>Yupan Liu and Qisheng Wang</i>	106:1–106:19
Length-Constrained Directed Expander Decomposition and Length-Constrained Vertex-Capacitated Flow Shortcuts <i>Bernhard Haeupler, Yaowei Long, Thatchaphol Saranurak, and Shengzhe Wang</i>	107:1–107:17
Deterministic Approximation Algorithm for Graph Burning <i>Matej Lieskovský</i>	108:1–108:7
Combined Search and Encoding for Seeds, with an Application to Minimal Perfect Hashing <i>Hans-Peter Lehmann, Peter Sanders, Stefan Walzer, and Jonatan Ziegler</i>	109:1–109:18
Faster Exponential Algorithms for Cut Problems via Geometric Data Structures <i>László Kozma and Junqi Tan</i>	110:1–110:12
Hardness of Median and Center in the Ulam Metric <i>Nick Fischer, Elazar Goldenberg, Mursalin Habib, and Karthik C. S.</i>	111:1–111:17
A Faster Parametric Search for the Integral Quickest Transshipment Problem <i>Mariia Anapolska, Dario van den Boom, Christina Büsing, and Timo Gersing</i>	112:1–112:15
Bootstrapping Dynamic APSP via Sparsification <i>Rasmus Kyng, Simon Meierhans, and Gernot Zöcklein</i>	113:1–113:15
A Deterministic Partition Tree and Applications <i>Haitao Wang</i>	114:1–114:17

Smoothed Analysis of Online Metric Problems
 Christian Coester and Jack Umenberger115:1–115:14

Fast Gaussian Elimination for Low Treewidth Matrices
 Martin Fürer, Carlos Hoppen, and Vilmar Trevisan116:1–116:15

■ Preface

This volume contains the extended abstracts selected for presentation at ESA 2025, the 33rd European Symposium on Algorithms. The event was organized by the University of Warsaw, Poland, as a part of ALGO 2025, on September 15–17, 2025.

The scope of ESA includes original, high-quality, theoretical and applied research on algorithms and data structures. Since 2002, it has had two tracks: the Design and Analysis Track (Track A), for papers with a strong emphasis on the theoretical analysis of algorithms, and the Engineering and Applications Track (Track B), for papers reporting on the results of extensive experimental evaluations and/or providing original contributions to the engineering of algorithms for practical applications. In 2022, a Simplicity Track (Track S) was added, inviting submissions that prove or explain results, possibly already known, in a particularly clear, simple or elegant way.

In response to the call for papers for ESA 2025, 372 papers were submitted, 261 for Track A, 54 for Track B, and 57 for Track S (these numbers exclude 5 submissions that were later withdrawn). Paper selection was based on originality, technical quality, exposition quality, and relevance. Each paper received at least three reviews (apart from two exceptional cases).

Due to a substantial increase (+11% compared to last year) in the number of submissions and the strong quality of submitted results, the program committees selected 115 papers for inclusion in the program (also +11%): 83 from Track A, 16 from Track B, and 16 from Track S, yielding an overall acceptance rate of about 31%. The presentations of the accepted papers, together with two invited talks by Bernhard Haeupler (INSAIT, University of Sofia “St Kliment Ohridski” and ETH Zurich) and Monika Henzinger (Institute of Science and Technology Austria) promise to make up an exciting program.

The European Association for Theoretical Computer Science (EATCS) sponsored best paper awards. For Track A, the best paper award was given to Hans-Peter Lehmann, Peter Sanders, Stefan Walzer and Jonatan Ziegler for the paper *Combined Search and Encoding for Seeds, with an Application to Minimal Perfect Hashing*. For Track B, the best paper award was given to Ahammed Ullah, SM Ferdous and Alex Pothén for the paper *Weighted Matching in a Poly-Streaming Model*. For Track S, the best paper award was given to Ivor van der Hoog, Eva Rotenberg and Daniel Rutschmann for the paper *Simpler Universally Optimal Dijkstra*.

As a typical convention in the field is to list authors in alphabetical order, we randomized the order of papers in these proceedings to avoid biases.

We wish to thank all the authors who submitted papers for consideration, the invited speakers, the members of the program committees for their hard work, and the (exactly!) 600 external reviewers who assisted the program committees in the evaluation process. Special thanks go to the organizing committee, who helped us with the organization of the conference.

Information on past ESA symposia, including locations and proceedings, is maintained at <https://algo-conference.org/>.

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