CURRICULUM VITAE

RASMUS KYNG

DECEMBER 2025

CONTACT	EMAIL: kyng@inf.ethz.ch, WEB: https://kyng.inf.ethz.ch and http://rasmuskyng.com	
ACADEMIC POSITIONS	ETH Zurich, Department of Computer Science Assistant Professor, tenure track	Zurich, Switzerland Fall 2019–present
	Harvard University, Theory of Computation Group at SEAS Postdoctoral Fellow	Cambridge, U.S.A. Spring 2018–Spring 2019
	UC Berkeley, Simons Institute for Theoretical Computer Science Postdoctoral Research Fellow	Berkeley, U.S.A. Fall 2017
EDUCATION	Yale University, Department of Computer Science Ph.D.	New Haven, U.S.A. 2011–2017
	University of Cambridge, Department of Computer Science BA Hons Computer Science, First Class Honors	Cambridge, United Kingdom 2008–2011
	Risskov Gymnasium, upper secondary school Highest GPA in national exams	Aarhus, Denmark 2005–2008

AWARDS		
	The ETH Zurich Latsis Prize	2025
	ICBS Frontiers of Science Award: Best papers in theoretical computer science '18-'22	2023
	The FOCS Best Paper Award	2022
	The FOCS Machtey Award for Best Student Paper	2017
	Simons Institute Postdoctoral Research Fellowship	2017

GRANTS	Swiss National Science Foundation Starting Grant[1] 1.8 mio. CHF, grant no. TMSGI2 218022 Title: A New Paradigm for Flow and Cut Algorithms	2024-2030
	Swiss National Science Foundation Project Grant 682 kCHF, grant no. 200021 204787 Title: Algorithms and Complexity for High-Accuracy Flows and Convex Optimization	2021-2025

NEWS COVERAGE	Quanta Magazine: "Researchers Achieve 'Absurdly Fast' Algorithm for Network Flow" CACM: "Maximum Flow Through a Network: A Storied Problem and a Groundbreaking Solution" ETH News: "Researchers at ETH Zurich develop the fastest possible flow algorithm" The Simons Institute Newsletter: "Theory at the Institute and Beyond"	

CURRENT GROUP	Maximilian Probst Gutenberg, Oberassistent	Fall 2020–present
	Simon Meierhans, Ph.D. candidate	Fall 2021–present
	Aurelio Sulser, Ph.D. candidate	Fall 2023–present
	Wuwei Yuan, direct doctorate student	Fall 2024–present
	Weixuan Yuan, Ph.D. candidate	Spring 2025–present
	Christoph Grunau, postdoc	Spring 2025–present
	Gernot Zöcklein, Ph.D. candidate	Fall 2025–present
	Yves Baumann, Ph.D. candidate	Fall 2025–present
	Ioannis Dorkofikis, Ph.D. candidate	Fall 2025 –present
GROUP ALUMNI	Ming Ding, Ph.D. candidate → quant at QRT	Fall 2020–Spring 2025
	Tianyi Zhang, postdoc → APTT at Nanjing University	Fall 2024–Summer 2025
	Federico Soldà, Ph.D.	Fall 2020–Fall 2024
	Abdolahad Zehmankan, postdoc → APTT at ANU	Spring 2020–Fall 2020
	Silvia Casacuberta, predoc intern → Oxford MSc, Stanford PhD	Summer 2020–Fall 2020
	Pratyai Mazumder, predoc intern → ETH PhD	Fall 2023–Spring 2024
ITS JUNIOR FELLOW MENTEES	Deeksha Adil, postdoc	Spring 2023–present
	Weiming Feng, postdoc → APTT HKU	Spring 2024–Fall 2024
SELECTED GROUP AWARDS	Simon Meierhans: ETH Medal for MSc thesis, Google PhD Fellowship 2024	
	Silvia Casacuberta: CRA Outstanding Undergraduate Research Award	

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[1]Switzerland was excluded from the ERC for a period of time and introduced this as a replacement.

EXTENDED CV CONTENTS

TALKS

INVITED TALKS AND PEER-REVIEWED CONFERENCE PRESENTATIONS	The Simons Institute Program on Complexity Linear Algebra *A Tutorial on Approximate Cholesky Factorization*	2025
	Cargese Workshop on Combinatorial Optimization *A Course on Almost-Linear Time Algorithms for Partially Dynamic Graphs*	2025
	MFCS Invited Plenary Talk, Warsaw *Almost-Linear Time Algorithms for Partially Dynamic Graphs*	2025
	Data Structures and Optimization for Fast Algorithms Reunion Workshop The Simons Institute, UC Berkeley *Almost-Linear Time Algorithms for Partially Dynamic Graphs*	2025
	Oberwolfach Combinatorial Optimization Workhop *Almost-Linear Time Algorithms for Partially Dynamic Graphs*	2024
	Informal Blackboard Talks, the Simons Institute, UC Berkeley *Almost-Linear Time Algorithms for Incremental Graphs*	2023
	Georgia Tech College of Computing Seminar *Robust and Practical Solution of Laplacian Equations* *by Approximate Elimination*	2023
	ICALP Invited Plenary Talk *An Almost-Linear Time Algorithm for Maximum Flow and More*	2023
	Dagstuhl Seminar on Scalable Data Structures *Dynamic Spanners*	2023
	DIMACS Workshop on Modern Techniques in Graph Algorithms *Tutorial: Graph Algorithms via Continuous Optimization and Data Structures*	2023
	Perspectives on Matrix Computations: Theoretical Computer Science Meets Numerical Analysis BIRS Workshop *Robust and Practical Solution of Laplacian Equations* *by Approximate Elimination*	2023
	EFPL & ETHZ Swiss Winter School on Theoretical Computer Science *Fast Graph Algorithms Using Optimization and Data Structures (four lectures)*	2023
	Columbia University Theory Seminar *Maximum Flow and Minimum-Cost Flow in Almost-Linear Time*	2022
	Yale University Department of Computer Science Colloquium *Maximum Flow and Minimum-Cost Flow in Almost-Linear Time*	2022
	Bernoulli Center Workshop: Modern Trends in Combinatorial Optimization EPFL *Maximum Flow and Minimum-Cost Flow in Almost-Linear Time*	2022
	Milan Theory Workshop: Spectral and Convex Optimization Techniques in Graph Algorithms Bocconi University *Maximum Flow and Minimum-Cost Flow in Almost-Linear Time*	2022
	Algorithms and Foundations for Data Science Workshop CMU/Nanyang Technological University *Scalar and Matrix Chernoff Bounds from ℓ_∞-Independence*	2022
	European Meeting on Algorithmic Challenges of Big Data University of Warwick/University of Warsaw *Almost-Linear Time Algorithms for Maximum Flow and More*	2022
	TCS+ Talk *Almost-Linear Time Algorithms for Maximum Flow and More*	2022

Approximation and Relaxation Workshop Hausdorff Program on Discrete Optimization *Two-Commodity Flow is as Hard as Linear Programming*	2021
INFORMS Session on Bridging Discrete and Continuous Optimization *A Numerical Analysis Approach to Convex Optimization*	2021
Continuous Approaches to Discrete Optimization Workshop Hausdorff Program on Discrete Optimization *A Numerical Analysis Approach to Convex Optimization*	2021
Complexity of Matrix Computations Panel NCSU/UC Berkeley/University of Oxford/Cornell/Caltech *Laplacian solvers*	2021
Workshop on Algorithms for Large Data (WALD(O)) CMU/Google Research *Hardness Results for Structured Linear Equations and Programs*	2021
Max Planck Advanced Course on the Foundations of Computer Science (ADFOCS) *Graphs, Sampling, and Iterative methods (three lectures)*	2021
SIAM Annual Meeting *Two-Commodity Flow is as Hard as Linear Programming*	2021
Georgetown University Computer Science Colloquium *A Numerical Analysis Approach to Convex Optimization*	2021
Hebrew University Theory Seminar *A Numerical Analysis Approach to Convex Optimization*	2021
EPFL Theory Seminar *A Numerical Analysis Approach to Convex Optimization*	2020
ICCOPT, Berlin *Optimization on Graphs*	2019
Workshop on Fine Grained Approximation Algorithms & Complexity, Bertinoro *Hardness Results for Structured Linear Systems*	2019
UT Austin Theory Seminar *A Numerical Analysis Approach to Convex Optimization*	2019
Harvard Theory of Computation Seminar *A Numerical Analysis Approach to Convex Optimization*	2019
Beyond Randomized Rounding and the Probabilistic Method Workshop, Geometry of Polynomials Program at the Simons Institute, UC Berkeley *A Matrix Chernoff Bound for Strongly Rayleigh Distributions* *and Spectral Sparsifiers from a few Random Spanning Trees*	2019
SODA, San Diego *Iterative Refinement for ℓ_p-norm Regression*	2019
Bridging Continuous and Discrete Optimization Reunion Workshop The Simons Institute, UC Berkeley *Iterative Refinement for ℓ_p-norm Regression*	2018
Caltech Theory Seminar *Approximate Gaussian Elimination*	2018
Northwestern Quarterly Theory Workshop *Analysis Using Matrix Martingales*	2018
FOCS, Paris *A Matrix Chernoff Bound for Strongly Rayleigh Distributions* *and Spectral Sparsifiers from a few Random Spanning Trees*	2018
FOCS, Paris *Solving Directed Laplacians in Nearly Linear Time through Sparse LU Factorizations*	2018

Laplacians 2.0 Workshop, FOCS, Paris 2018
Analysis Using Matrix Martingales

Randomized Numerical Linear Algebra and Applications Workshop, 2018
Foundations of Data Science Program at the Simons Institute, UC Berkeley
Analysis Using Matrix Martingales

High-Performance Graph Algorithms Seminar, Dagstuhl 2018
Optimization on Graphs

Discrepancy and Integer Programming Workshop, CWI Amsterdam 2018
Matrix Approximation by Row Sampling

Graphs Across Domains Workshop, UC Berkeley 2018
Optimization on Graphs

Michael Cohen Memorial Symposium, the Simons Institute, UC Berkeley 2017
Michael Cohen and Directed Laplacians

Stanford Theory Seminar 2017
Approximate Gaussian Elimination

FOCS, Berkeley 2017
Hardness Results for Structured Linear Systems

UC Berkeley Theory Seminar 2017
Hardness Results for Structured Linear Systems

Google Research Seminar, Mountain View 2017
Hardness Results for Structured Linear Systems

Yale Department of Statistics and Data Science, YPNG Seminar 2017
Approximate Gaussian Elimination

MSR Redmond 2017
Regression, Elimination, and Sampling on Graphs

University of Copenhagen Theory Seminar 2017
Approximate Gaussian Elimination

CMU Theory Seminar 2016
Approximate Gaussian Elimination

Georgia Tech Theory Seminar 2016
Approximate Gaussian Elimination

UC Berkeley Math Dept. Seminar 2016
Approximate Gaussian Elimination

Google Research NYC 2016
Approximate Gaussian Elimination

FOCS, New Brunswick 2016
Approximate Gaussian Elimination

MIT A&C Seminar 2016
Approximate Gaussian Elimination

Aarhus University Theory Seminar 2016
Lipschitz Learning on Graphs

China Theory Week, Hong Kong 2016
Approximate Gaussian Elimination

SIAM Annual Meeting, Boston 2016
Approximate Cholesky Factorization

STOC, Boston 2016
Sparsified Cholesky and Multigrid Solvers for Connection Laplacians

IT University of Copenhagen Theory Seminar 2015
Lipschitz Learning and Isotonic Regression on Graphs

COMMUNITY INVOLVEMENT

ACADEMIC SERVICE SERVICE	Program Committee, Symposium on Theory of Computing (STOC) 2026
	Program Committee, Symposium on Discrete Algorithms (SODA) 2026
	Program Committee, Symposium on Theory of Computing (STOC) 2025
	Reviewer, ERC Consolidator Grant 2024
	Program Committee, International Colloquium on Automata, Languages and Programming (ICALP) 2024
	Program Committee, Symposium on Discrete Algorithms (SODA) 2024
	Program Committee, Symposium on Simplicity in Algorithms (SOSA) 2024
	Program Committee, Symposium on Theory of Computing (STOC) 2023
	Program Committee, Symposium on Discrete Algorithms (SODA) 2023
	Program Committee for Track S, European Symposium on Algorithms (ESA) 2022
	Program Committee, Symposium on Theory of Computing (STOC) 2022
	Program Committee, Symposium on Simplicity in Algorithms (SOSA) 2022
	Program Committee for Track A, European Symposium on Algorithms (ESA) 2021
	Program Committee, Innovations in Theoretical Computer Science (ITCS) 2020
	Conference reviews, 2024: STOC, ITCS, SODA, FOCS
	Journal reviews, 2023: SICOMP, JACM
	Conference reviews, 2023: FOCS, STOC, SODA, SOSA
	Journal reviews, 2022: Journal of Fourier Analysis and Applications, ACM Transactions on Computation Theory
	Conference reviews, 2022: STOC, ICALP, FOCS, ESA, SODA, ITCS
	Conference reviews, 2021: RANDOM, FOCS, SODA, ESA, SOSA
	Journal reviews, 2020: JACM
	Conference reviews, 2020: ITCS, STOC, FOCS, ISAAC, SODA
	Journal reviews, 2019: ToC
	Conference reviews, 2019: COLT, ICALP, FOCS, STOC, ITCS

CONFERENCE AND WORKSHOP ORGANIZING	Local Chair, Highlights of Algorithms (HALG) 2025	
	EFPL & ETHZ Swiss Winter School on Theoretical Computer Science	January 2025
	EFPL & ETHZ Swiss Winter School on Theoretical Computer Science	January 2024
	Venice Workshop on High-Dim. and Complex Data Algorithms	May 2025
	Workshop: Linear Systems and Eigenvalue Problems UC Berkeley Simons Institute Program on Complexity and Linear Algebra	Fall 2025
	Workshop: Optimization and Algorithm Design UC Berkeley Simons Institute Program on Data Structures and Optimization for Fast Algorithms	Fall 2023

ETH SERVICE	D-INFK Strategy Commission	Spring 2024–Fall 2025
	Board of the Institute for Theoretical Studies	Fall 2024–Spring 2029
	ETH Hiring Commissions	Fall 2023 (direct hire), Spring 2024
	ETH Research Commission	Spring 2023
	D-INFK Teaching Commission	Spring 2020-Fall 2021, Spring 2025–present

RESEARCH SEMINARS	ETH Zurich Algorithms and Complexity Seminar	Fall 2020–present

INTER-DISCIPLINARY CENTERS	Member of the Foundations of Data Science Seminar	Fall 2020–present

PUBLICATIONS & MANUSCRIPTS

As is customary in the field of theoretical computer science, authors are listed alphabetically by surname. Members of my group (at the time of writing the paper) in **bold**.

REFEREED CONFERENCE PUBLICATIONS

1. *A Simple and Fast Reduction from Gomory-Hu Trees to Polylog Maxflows*
   R. Kyng, **M. Probst**, **W. Yuan**, and **W. Yuan**
   To appear in ACM-SIAM Symposium on Discrete Algorithms (SODA) 2026

2. *Deterministic Almost-Linear-Time Gomory-Hu Trees*
   A. Abboud, J. Li, **R. Kyng**, D. Panigrahi, **M. Probst**, T. Saranurak, **W. Yuan**, and **W. Yuan**
   IEEE Symposium on Foundations of Computer Science (FOCS) 2025

3. *Random-Shift Revisited: Tight Approximations for Tree Embeddings and ℓ_1-Oblivious Routings*
   R. Kyng, **M. Probst**, and **T. Rieder**
   IEEE Symposium on Foundations of Computer Science (FOCS) 2025

4. *Bootstrapping Dynamic APSP via Sparsification*
   R. Kyng, **S. Meierhans**, and **G. Zöcklein**
   European Symposium on Algorithms (ESA) 2025

5. *Faster ℓ_∞-Regression*
   D. Adil, S. Jiang, and **R. Kyng**
   EATCS International Colloquium on Automata (ICALP) 2025

6. *A Simple Dynamic Spanner via APSP*
   R. Kyng, **S. Meierhans**, and **G. Zöcklein**
   EATCS International Colloquium on Automata (ICALP) 2025

7. *Almost-Linear Time Algorithms for Decremental Graphs:*
   Min-Cost Flow and More via Duality
   J. Brand, L. Chen, **R. Kyng**, Y. Liu, **S. Meierhans**, **M. Probst**, and S. Sachdeva
   IEEE Symposium on Foundations of Computer Science (FOCS) 2024
   Featured in ETH News

8. *Almost-Linear Time Algorithms for Incremental Graphs:*
   Cycle Detection, SCCs, s-t Shortest Path, and Minimum-Cost Flow
   L. Chen, **R. Kyng**, Y. Liu, **S. Meierhans**, and **M. Probst**
   ACM SIGACT Symposium on Theory of Computing (STOC) 2024
   Featured in the Simons Institute Newsletter and ETH News

9. *A Dynamic Shortest Paths Toolbox:*
   Low-Congestion Vertex Sparsifiers and their Applications
   R. Kyng, **S. Meierhans**, and **M. Probst**
   ACM SIGACT Symposium on Theory of Computing (STOC) 2024

10. *Optimal Electrical Oblivious Routing on Expanders*
    C. Florescu, **R. Kyng**, **M. Probst**, and S. Sachdeva
    EATCS International Colloquium on Automata,
    Languages and Programming (ICALP) 2024

11. *A Framework for Parallelizing Approximate Gaussian Elimination*
    Y. Baumann and **R. Kyng**
    ACM Symposium on Parallelism in Algorithms and Architectures (SPAA) 2024

12. *Incremental Approximate Maximum Flow on Undirected Graphs*
    in Subpolynomial Update Time
    J. Brand, L. Chen, **R. Kyng**, Y. Liu, R. Peng, **M. Probst**, S. Sachdeva, and A. Sidford
    ACM-SIAM Symposium on Discrete Algorithms (SODA) 2024

13. *A Deterministic Almost-Linear Time Algorithm for Minimum-Cost Flow*
    J. Brand, L. Chen, **R. Kyng**, Y. Liu, R. Peng, **M. Probst**, S. Sachdeva, and A. Sidford
    IEEE Symposium on Foundations of Computer Science (FOCS) 2023

14 *Maintaining Expander Decompositions via Sparse Cuts*
Y. Hua, **R. Kyng**, **M. Probst**, and **Z. Wu**.
ACM-SIAM Symposium on Discrete Algorithms (SODA) 2023

15 *A Simple Framework for Finding Balanced Sparse Cuts via APSP*
L. Chen, **R. Kyng**, **M. Probst**, and S. Sachdeva.
SIAM Symposium on Simplicity in Algorithms (SOSA) 2023

16 *Maximum Flow and Minimum-Cost Flow in Almost-Linear Time*
L. Chen, **R. Kyng**, Y. Liu, R. Peng, **M. Probst**, and S. Sachdeva
IEEE Symposium on Foundations of Computer Science (FOCS) 2022
Won the FOCS Best Paper Award and ICBS Best Paper 2018-2022 Award
Featured in Quanta Magazine, CACM, the Simons Institute Newsletter, and ETH News
Invited to Highlights of Algorithms (HALG) 2023

17 *Derandomizing Random Walks in Almost-Linear Time*
R. Kyng, **S. Meierhans**, and **M. Probst**
IEEE Symposium on Foundations of Computer Science (FOCS) 2022

18 *Scalar and Matrix Chernoff Bounds from ℓ_∞-Independence*
T. Kaufman, **R. Kyng**, and **F. Solda**
ACM-SIAM Symposium on Discrete Algorithms (SODA) 2022

19 *Incremental SSSP for Sparse Digraphs Beyond the Hopset Barrier*
R. Kyng, **S. Meierhans**, and **M. Probst**
ACM-SIAM Symposium on Discrete Algorithms (SODA) 2022

20 *Two-Commodity Flow is as Hard as Linear Programming*
M. Ding, **R. Kyng**, and P. Zhang
EATCS International Colloquium on Automata,
Languages and Programming (ICALP) 2022

21 *Hardness Results for Laplacians of Simplicial Complexes via Sparse-Linear Equation Complete Gadgets*
M. Ding, **R. Kyng**, **M. Probst**, and P. Zhang
EATCS International Colloquium on Automata,
Languages and Programming (ICALP) 2022

22 *Faster Sparse Matrix Inversion and Rank Computation in Finite Fields*
S. Casacuberta and **R. Kyng**
Innovations in Theoretical Computer Science (ITCS) 2022

23 *On the Oracle Complexity of Higher-Order Smooth Non-Convex Finite-Sum Optimization*
N. Emmenegger, **R. Kyng**, and **A. Zehmakan**
International Conference on Artificial Intelligence and Statistics (AISTATS) 2022

24 *Almost-linear-time Weighted ℓ_p-norm Solvers in Slightly Dense Graphs via Sparsification*
D. Adil, B. Bullins, **R. Kyng**, and S. Sachdeva
EATCS International Colloquium on Automata,
Languages and Programming (ICALP) 2021

25 *Packing LPs are Hard to Solve Accurately, Assuming Linear Equations are Hard*
R. Kyng, D. Wang, and P. Zhang
ACM-SIAM Symposium on Discrete Algorithms (SODA) 2020

26 *Flows in Almost Linear Time via Adaptive Preconditioning*
R. Kyng, R. Peng, S. Sachdeva, and D. Wang
ACM SIGACT Symposium on Theory of Computing (STOC) 2019

27 *Iterative Refinement for ℓ_p-norm Regression*
R. Kyng, D. Adil, R. Peng, and S. Sachdeva
ACM-SIAM Symposium on Discrete Algorithms (SODA) 2019

28 *A Matrix Chernoff Bound for Strongly Rayleigh Distributions and Spectral Sparsifiers from a few Random Spanning Trees*
R. Kyng and Z. Song
IEEE Symposium on Foundations of Computer Science (FOCS) 2018

29   *Solving Directed Laplacians in Nearly Linear Time through Sparse LU Factorizations*
     M.B. Cohen, J. Kelner, **R. Kyng**, J. Peebles, R. Peng, A.B. Rao, and A. Sidford
     IEEE Symposium on Foundations of Computer Science (FOCS) 2018

30   *Incomplete Nested Dissection*
     R. Kyng, R. Peng, R. Schwieterman, and P. Zhang
     ACM SIGACT Symposium on Theory of Computing (STOC) 2018

31   *Hardness Results for Structured Linear Systems*
     R. Kyng and P. Zhang
     IEEE Symposium on Foundations of Computer Science (FOCS) 2017
     Won the FOCS Machtey Award for Best Student Paper

32   *Sampling Random Spanning Trees Faster than Matrix Multiplication*
     D. Durfee, **R. Kyng**, J. Peebles, A.B. Rao, and S. Sachdeva
     ACM SIGACT Symposium on Theory of Computing (STOC) 2017

33   *A Framework for Analyzing Resparsification Algorithms*
     R. Kyng, J. Pachocki, R. Peng, and S. Sachdeva
     ACM-SIAM Symposium on Discrete Algorithms (SODA) 2017

34   *Approximate Gaussian Elimination for Laplacians: Fast, Sparse, and Simple*
     R. Kyng and S. Sachdeva
     IEEE Symposium on Foundations of Computer Science (FOCS) 2016
     Invited to Highlights of Algorithms (HALG) 2017

35   *Sparsified Cholesky and Multigrid Solvers for Connection Laplacians*
     R. Kyng, Y.T. Lee, R. Peng, S. Sachdeva, and D.A. Spielman
     ACM SIGACT Symposium on Theory of Computing (STOC) 2016

36   *Fast, Provable Algorithms for Isotonic Regression in all ℓ_p-norms*
     R. Kyng, A. Rao, and S. Sachdeva.
     Conference and Workshop on Neural Information Processing Systems (NeurIPS) 2015

37   *Algorithms for Lipschitz Learning on Graphs*
     R. Kyng, A. Rao, S. Sachdeva, and D.A. Spielman
     Conference on Learning Theory (COLT) 2015

38   *Solving SDD Linear Systems in Nearly $m \log^{1/2} n$ Time*
     M.B. Cohen, **R. Kyng**, G.L. Miller, J.W. Pachocki, R. Peng, A. Rao, and S.C. Xu
     ACM SIGACT Symposium on Theory of Computing (STOC) 2015

REFEREED JOURNAL PUBLICATIONS

39   *AC(k): Robust Solution of Laplacian Equations*
     by Randomized Approximate Cholesky Factorization
     Y. Gao, **R. Kyng**, and D. Spielman
     To appear in the SIAM Journal on Scientific Computing (SISC)

40   *Assessing GPT Performance in a Proof-Based University-Level Course Under Blind Grading*
     M. Ding, **R. Kyng**, **F. Solda**, and **W. Yuan**
     EATCS Bulletin, Vol 146, 2025

41   *Maximum Flow and Minimum-Cost Flow in Almost-Linear Time*
     L. Chen, **R. Kyng**, Y. Liu, R. Peng, **M. Probst**, and S. Sachdeva
     Journal of the ACM (JACM), Volume 72, Issue 3, 2025

42   *Fast Algorithms for ℓ_p-Regression*
     D. Adil, **R. Kyng**, R. Peng, and S. Sachdeva
     Journal of the ACM (JACM), 2024, issue forthcoming

43   *Four Deviations Suffice for Rank 1 Matrices*
     R. Kyng, K. Luh, and Z. Song
     Advances in Mathematics, Volume 375, 2 December 2020

44   *Hardness Results for Structured Linear Systems*
     R. Kyng and Peng Zhang
     SIAM Journal on Computing (SICOMP), Special Section FOCS 2017 (2020)

DOCTORAL THESIS

45   *Approximate Gaussian Elimination*
     R. Kyng
     Doctoral thesis, Yale University Department of Computer Science, 2017

SELECTED MANUSCRIPTS

46   *Weighted p-norm Flows in Almost-Linear-Time*
     and Fully Dynamic Low-Stretch Spanning Trees
     L. Chen, **R. Kyng**, Y. Liu, **M. Probst**, and S. Sachdeva
     Subsumed by 16