

Antti Roeyskoe

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Switzerland, Zurich 8050

EDUCATION

ETH Zurich

PhD in Theoretical Computer Science
Advised by Bernhard Haeupler

April 2023 - Present
Expected Graduation: December 2026

ETH Zurich

Master of Science in Computer Science
Major: Theoretical Computer Science

September 2020 - March 2023

University of Helsinki

Bachelor of Science in Computer Science

August 2017 - August 2020

TEACHING

Advanced Algorithms (ETH Graduate Course)

Head Teaching Assistant

2023, 2024, 2025

Algorithms Lab (ETH Graduate Course)

Teaching Assistant

2025, 2026

PUBLICATIONS (ALPHABETICAL OR © RANDOM AUTHOR ORDER)

- [1] Petr Chmel, Bernhard Haeupler, Richard Hladík, Michal Koucký, Antti Roeyskoe, Václav Rozhon, Ondrej Sladký, and Robert E. Tarjan. “Splay trees are almost dynamically optimal”. *ArXiv Preprint 2026*.
- [2] Ioannis Dorkofikis, Bernhard Haeupler, Maximilian Probst Gutenberg, Antti Roeyskoe, Aurelio Sulser, and Gernot Zöcklein. “Low-Stretch Spanning Trees via Smoothed Analysis of Dijkstra’s Algorithm”. *ArXiv Preprint, to appear at SODA 2027*.
- [3] Bernhard Haeupler, Yaowei Long, Antti Roeyskoe, and Thatchaphol Saranurak. “A Constant-Approximation Distance Labeling Scheme under Polynomially Many Edge Failures”. *STOC 2026*.
- [4] Bernhard Haeupler, Antti Roeyskoe, and Zhijun Zhang. “Better Diameter Bounds for Efficient Shortcuts and a Structural Criterion for Constructiveness”. *ICALP 2026*.
- [5] Nick Fischer, Bernhard Haeupler, Rustam Latypov, Antti Roeyskoe, and Aurelio L. Sulser. “A Simple Parallel Algorithm with Near-Linear Work for Negative-Weight Single-Source Shortest Path”. *SOSA 2025*.
- [6] Bernhard Haeupler and Antti Roeyskoe. “Maintaining Routing Structures under Deletions via Self-Pruning”. *ArXiv Preprint 2025*.

- [7] Bernhard Haeupler, D. Ellis Hershkowitz, Jason Li, Antti Roeykoe, and Thatchaphol Saranurak. “Low-Step Multi-commodity Flow Emulators”. *STOC 2024*.
- [8] Bernhard Haeupler, Shyamal Patel, Antti Roeykoe, Cliff Stein, and Goran Zuzic. “Polylog-Competitive Deterministic Local Routing and Scheduling”. *STOC 2024*.
- [9] Goran Zuzic (r) Bernhard Haeupler (r) Antti Roeykoe. “Sparse Semi-Oblivious Routing: Few Random Paths Suffice”. *PODC 2023*.
- [10] Juha Harviainen (r) Antti Röyskö (r) Mikko Koivisto. “Approximating the Permanent with Deep Rejection Sampling”. *NeurIPS 2021*.
- [11] Mikko Koivisto and Antti Röyskö. “Fast Multi-Subset Transform and Weighted Sums over Acyclic Digraphs”. *SWAT 2020*.

COMPETITIVE PROGRAMMING

ACM International Collegiate Programming Contest World Finals 2021

Silver Medal, 5th Place, Europe Champions (with teammates Yuhao Yao and Marcel Bezdrighin)

MITIT Informatics Tournament 2024

Finalist

Helvetic Coding Contest 2024

1st place (with teammate Oleksandr Kulkov)

ACM International Collegiate Programming Contest World Finals 2018

Finalist (with teammates Hannes Ihalainen and Kalle Luopajaervi)

International Olympiad in Informatics 2017

Bronze Medal

Codeforces

Peak rating 3089 (Legendary Grandmaster)

Atcoder

Peak rating 2792

SERVICE

Conference Reviewing

ITCS 2026, SODA 2026, ICALP 2026, STOC 2026, ESA 2025, PODC 2025, ICALP 2025

European Girls Olympiad in Informatics 2021

Scientific Committee Member

MISC

Programming more than 10 years of competitive programming in C++
competent in Python and Java

Languages English (C2), Finnish (Native)