# Amir Azarmehr

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## Education

**Ph.D. in Computer Science** 2022–Present
Northeastern University Anticipated Graduation: 05/2027
Advisor: Soheil Behnezhad

**B.Sc. in Computer Science** 2017–2022
Sharif University of Technology

**B.Sc. in Mathematics** 2017–2022
Sharif University of Technology

## Visits and Internships

**Research Intern at Toyota Technological Institute at Chicago** Summer 2025
Hosts: Avrim Blum and Ali Vakilian

**Visiting Graduate Student at Simons Institute, UC Berkeley** Summer 2024
Program: Sublinear Algorithms

## Papers

*Half-Approximating Maximum Dicut in the Streaming Setting*
Amir Azarmehr, Soheil Behnezhad, Shane Ferrante, and Mohammad Saneian
In Proceedings of the 58th Annual ACM Symposium on Theory of Computing ..... **STOC 26**

*Lower Bounds for Non-adaptive Local Computation Algorithms*
Amir Azarmehr, Soheil Behnezhad, Alma Ghafari, and Madhu Sudan
In Proceedings of the 66th IEEE Symposium on Foundations of Computer Science ..... **FOCS 25**

*Tight Pair Query Lower Bounds for Matching and Earth Mover's Distance*
Amir Azarmehr, Soheil Behnezhad, Mohammad Roghani, and Aviad Rubinstein
In Proceedings of the 66th IEEE Symposium on Foundations of Computer Science ..... **FOCS 25**

*Stochastic Matching via In-n-Out Local Computation Algorithms*
Amir Azarmehr, Soheil Behnezhad, Alma Ghafari, and Ronitt Rubinfeld
In Proceedings of the 57th Annual ACM Symposium on Theory of Computing ..... **STOC 25**

*Massively Parallel Minimum Spanning Tree in General Metric Spaces*
Amir Azarmehr, Soheil Behnezhad, Rajesh Jayaram, Jakub Łącki, Vahab Mirrokni, and Peilin Zhong
In Proceedings of the 36th Annual ACM-SIAM Symposium on Discrete Algorithms ..... **SODA 25**

*Bipartite Matching in Massive Graphs: A Tight Analysis of EDCS*
Amir Azarmehr, Soheil Behnezhad, Mohammad Roghani
In Proceedings of the 41st International Conference on Machine Learning ..... **ICML 24**

*Fully Dynamic Matching:* $(2-\sqrt{2})$*-Approximation in Polylog Update Time*
Amir Azarmehr, Soheil Behnezhad, and Mohammad Roghani
In Proceedings of the 35th Annual ACM-SIAM Symposium on Discrete Algorithms ..... **SODA 24**

*Robust Communication Complexity of Matching: EDCS Achieves 5/6 Approximation*
Amir Azarmehr and Soheil Behnezhad
In Proceedings of the 50th International Colloquium on Automata, Languages, and Programming ..... **ICALP 23**

## Honors and Awards

International Olympiad in Informatics (IOI), *Silver medal* 2017
Asian Pacific Informatics Olympiad (APIO), *Silver medal* 2017
Iranian National Olympiad in Informatics (INOI), *Gold medal* 2016

## Academic Services

**Journal/Conference Reviewer:**
ICALP 2026, STOC 2026, SOCG 2026, STACS 2026, ITCS 2026, SOSA 2026, SODA 2026, FOCS 2025, Algorithmica 2025, ESA 2025, SODA 2025, FOCS 2024, ICALP 2024, PODS 2024, SODA 2024, SOSA 2024, ESA 2023

**Teaching Assistant**, Northeastern University:
Algorithms (2023)
Advanced Algorithms (2025)

## Talks

**MIT Algorithms and Complexity Seminars (Invited Speaker, 2026):**
Half-Approximating Maximum Dicut in the Streaming Setting

**Workshop on Local Algorithms (WOLA, 2025):**
Stochastic Matching via In-n-Out Local Computation Algorithms

**Sublinear Algorithms Reunion (Simons Institute, 2025):**
Stochastic Matching via In-n-Out Local Computation Algorithms

**CMU Theory Lunch (Invited Speaker, 2025):**
Stochastic Matching via In-n-Out Local Computation Algorithms

**Symposium on Discrete Algorithms (SODA, 2025):**
Massively Parallel Minimum Spanning Tree in General Metric Spaces

**Sublinear Algorithms Program (Simons Institute, 2024):**
Fully Dynamic Matching: $(2-\sqrt{2})$-Approximation in Polylog Update Time

**MIT Graph Simplification Reading Group (Invited Speaker, 2024):**
Sparsification for Maximum Matching: EDCS and Robust Communication Complexity

**Symposium on Discrete Algorithms (SODA, 2024):**
Fully Dynamic Matching: $(2-\sqrt{2})$-Approximation in Polylog Update Time

**International Colloquium on Automata, Languages, and Programming (ICALP, 2023):**
Robust Communication Complexity of Matching: EDCS Achieves 5/6 Approximation