

Dorna Abdolazimi

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RESEARCH INTERESTS

- Markov Chains
- Approximation Algorithms
- Spectral Graph Theory

EDUCATION

- **University of Washington** 2019 - Present
Ph.D. in Theoretical Computer Science
- **Sharif University of Technology, Iran** 2014 - 2019
B.S. Double Major: Computer Engineering, Mathematics.

PUBLICATIONS

- [1] Dorna Abdolazimi, Kasper Lindberg, and Shayan Oveis Gharan. On optimization and counting of non-broken bases of matroids. In *Random*, 2023.
- [2] Dorna Abdolazimi and Shayan Oveis Gharan. An improved trickle-down theorem for partite complexes. In *CCC*, 2023.
- [3] Dorna Abdolazimi, Anna R. Karlin, Nathan Klein, and Shayan Oveis Gharan. Matroid partition property and the secretary problem. In *ITCS*, 2023.
- [4] Dorna Abdolazimi, Kuikui Liu, and Shayan Oveis Gharan. A matrix trickle-down theorem on simplicial complexes and applications to sampling colorings. In *FOCS*, 2022.

PREPRINTS

Dorna Abdolazimi and Shayan Oveis Gharan. Complete log concavity of coverage-like functions *arXiv preprint arXiv:2303.03741*, 2023.

INVITED TALKS

Matroid Partition Property and the Secretary Problem

ITCS Conference, MIT, Cambridge, MA, January 2022

Matrix Trickle Down Theorem and Applications to Partite Complexes

Summer School on New Tools for Optimal Mixing of Markov Chains: Spectral Independence and Entropy Decay, UC Santa Barbara, Santa Barbara, CA, August 2022

A Matrix Trickle-Down Theorem on Simplicial Complexes and Applications to Sampling Colorings

FOCS Conference, Virtual, February 2022

Univeristy of Washington CSE Theory Seminar, Seattle, WA, June 2021

TEACHING ASSISTANCE

University of Washington

Modern Spectral Graph Theory, Winter 2022

Randomized Algorithms and Probabilistic Analysis, Winter 2021

Design and Analysis of Algorithms, Fall 2019, Fall 2022

Sharif University of Technology

Artificial Intelligence, Spring 2018

Engineering Probability and Statistics, Fall 2017

Theory of Machines and Languages, Spring 2017, Fall 2017

Discrete Mathematics, Spring 2017

Data Structures and Algorithms, Spring 2017

SERVICE

External Review For:

SODA 2021, ICALP 2022, SODA 2023

AWARDS AND HONORS

- Selected to give **Rising Stars** Talk at the TCS for All Spotlight workshop, 2023.
- Recipient of the grant for undergraduate studies from the Iranian National Elites Foundation for **Outstanding Academic Success**, 2014 - 2015.
- **Ranked 73** in Iranian National Exam for University Entrance among **more than 200,000** participants, 2014.