Dorna Abdolazimi

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University of Washington

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Research Interests

- Markov Chains

- Approximation Algorithms

- Spectral Graph Theory

Education

- **University of Washington** — 2019 - Present
  PhD in Theoretical Computer Science

- **Sharif University of Technology**, Iran — 2014 - 2019
  B.Sc. in Computer Engineering (Software)
  B.Sc. in Mathematics and Applications

Publications

Dorna Abdolazimi, Kuikui Liu, and Shayan Oveis Gharan. A matrix trickle-down theorem on simplicial complexes and applications to sampling colorings. In *FOCS*, 2022. doi: 10.1109/FOCS52979.2021.00024

Preprints

Dorna Abdolazimi, Anna R. Karlin, Nathan Klein, and Shayan Oveis Gharan. Matroid partition property and the secretary problem. 2021. URL https://arxiv.org/abs/2111.12436

Dorna Abdolazimi and Shayan Oveis Gharan. An improved trickle-down theorem for partite complexes, 2022. URL https://arxiv.org/abs/2208.04486

Invited Talks

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
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

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

Honors and Awards

- Awarded fellowship from National Elites Foundation, Iran, 2014 - 2015

- Ranked 73 in National Exam for University Entrance among more than 200,000 participants, Iran, 2014