Divyarthi Mohan

Tel Aviv University, Computer Science Department
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Academic Positions

Tel Aviv University, CS Department — Aug 2021 - Current
Postdoctoral Fellow
Host: Michal Feldman

Simons Institute for the Theory of Computing, Berkeley — Aug 2022 - Dec 2022
J.P. Morgan Research Fellow
Program: Graph Limits and Processes on Networks

Education

2016 - 2021 **Princeton University**
PhD in Computer Science
Advisor: S. Matthew Weinberg
Thesis: Simplicity and Optimality in Algorithmic Economics: Multi-Item Auctions and Social Learning

2014 - 2016 **Institute of Mathematical Sciences**, Chennai
Master of Science in Theoretical Computer Science
Advisor: Sayan Bhattacharya
Thesis: An Improved Dynamic Algorithm for Maximum b-Matching

2011 - 2014 **Indian Statistical Institute**, Bangalore
Bachelor of Mathematics (*Honours*)
First Class with Distinction

Research

I am broadly interested in Algorithms and Algorithmic Game Theory. My current research interests include Algorithmic Mechanism Design, Opinion Dynamics in Social Networks, Strategic Communication, and Online Algorithms.

Publications

Interdependent Public Projects
with Avi Cohen, Michal Feldman, Inbal Talgam-Cohen
To appear in the *Symposium on Discrete Algorithms* (SODA 2023).

Simple Mechanisms for Welfare Maximization in Rich Advertising Auctions
with Gagan Aggarwal, Kshipra Bhawalkar, Aranyank Mehta, Alexandros Psomas
Advances in Neural Information Processing Systems (NeurIPS 2022).

Asynchronous Majority Dynamics in Preferential Attachment Trees
with Maryam Bahrani, Nicole Immorlica, S. Matthew Weinberg
International Colloquium on Automata, Languages and Programming (ICALP 2020).

Approximation Schemes for a Unit-Demand Buyer with Independent Items via Symmetries
with Pravesh Kothari, Ariel Schvartzman, Sahil Singla, S. Matthew Weinberg
Symposium on Foundations of Computer Science (FOCS 2019).

Improved Algorithm for Dynamic b-Matching
with Sayan Bhattacharya, Manoj Gupta
European Symposium on Algorithm (ESA 2017).

Preprints

Communicating with Anecdotes
with Nika Haghtalab, Nicole Immorlica, Brendan Lucier, Markus Mobius
Preprint 2022.
(Persuading with Anecdotes, NBER working paper 2021)

Awards & Fellowships

Simons-Berkeley Research Fellowship, Fall 2022
The Simons Institute for the Theory of Computing

Siebel Scholarship, Class of 2021
Thomas and Stacey Siebel Foundation

SEAS Award for Excellence, 2019
School of Engineering and Applied Science, Princeton University

Graduate Student Teaching Award, 2018
Department of Computer Science, Princeton University

Internships & Long-Term Visits

Summer 2020	**Google**, Mountain View Research Intern Mentor: Kshipra Bhawalkar Project: Rich Ad Auctions
Sep - Oct 2019	**Simons Institute for the Theory of Computing**, Berkeley Visiting Graduate Student Program: Online and Matching-Based Market Design
Summer 2019	**Microsoft Research**, New England Research Intern Mentors: Nicole Immorlica and Brendan Lucier Project: Communication and Misinformation via Anecdotes

Invited Talks & Selected Presentations

Communicating with Anecdotes
INFORMS Annual Meeting — Oct 2022
The Simons Institute Meet the Fellows Workshop — Sep 2022
Technion Game Theory Seminar — Apr 2022

Simple Mechanisms for Welfare Maximization in Rich Advertising Auctions
Purdue CS Theory Seminar — Oct 2022
Marketplace Innovation Workshop (MIW) — May 2022

Simplicity and Optimality in Multi-Item Auctions
TTIC Talks — Oct 2022
UIUC Theory Seminar — Oct 2022
CMU Theory Lunch Seminar — Jan 2022
Georgia Tech ACO Student Seminar — Jan 2022
Tel Aviv University Algorithms Seminar — Dec 2021

The Israel Algorithmic Game Theory Seminar — Nov 2021
Rutgers CS Theory Seminar — Nov 2021
Purdue CS Theory Seminar — Oct 2021

Simplicity and Optimality in Multi-Item Auctions & Strategic Communication
Harvard EconCS Seminar — Nov 2021

Approximation Schemes for Revenue Maximization via Symmetries
Young Researcher Workshop on Economics and Computation, Tel Aviv — Jan 2020

Teaching

Spring 2018 — Economics and Computation (COS 445)
Teaching Assistant, Princeton University

Fall 2017 — Advanced Algorithm Design (COS 521)
Teaching Assistant, Princeton University

Summer 2015 — Data Structures Tutorials
Teaching Assistant, Institute of Mathematical Sciences

Service

Program Committee	WINE 2021, EC 2022, ESA 2022
Conference Reviewer	ITCS, SODA, WINE, EC, ESA, ICALP, STOC
Journal Reviewer	Artificial Intelligence, Management Science, Mathematics of Operations Research
SafeToC Advocate	EC

Mentorship

EC 2022 — **AGT Mentoring Workshop**
Conference on Economics and Computation
Mentor and Volunteer

WINE 2021 — **Mentorship Program**
Conference on Web and Internet Economics
Mentor

EC 2020 — **AGT Mentoring Workshop**
Conference on Economics and Computation
Mentor and Volunteer

Spring 2018 — **Undergraduate Independent Research** by Maryam Bahrani
Mentor

Leadership

2020 & 2019 — **Graduate College Housing Committee**, Princeton
Facilities Chair

2017 - 2018 — **Association of South Asians at Princeton**
Events and Social Chair

2017 - 2021 — **Research Inclusion Social Event**
Department of Computer Science, Princeton
Member and Volunteer