# Divyarthi Mohan

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#### **ACADEMIC POSITIONS**

Tel Aviv University, CS Department

AUGUST 2021 - Current

POSTDOCTORAL FELLOW Host: Michal Feldman

Simons Institute for the Theory of Computing, Berkeley

AUGUST 2022 - Current

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 To appear in *Conference on 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	Ост 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	Ост 2022
Marketplace Innovation Workshop (MIW)	MAY 2022
Simplicity and Optimality in Multi-Item Auctions	
TTIC Talks	Ост 2022
UIUC Theory Seminar	Ост 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 Rutgers CS Theory Seminar Purdue CS Theory Seminar	Nov 2021 Nov 2021 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

<b>Program Committee</b>	WINE 2021, EC 2022, ESA 2022
<b>Conference Reviewer</b>	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	<b>Graduate College Housing Committee</b> , 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