# Divyarthi Mohan

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## CURRENT POSITION

**Tel Aviv University**                                                                AUGUST 2021 - Current
POSTDOCTORAL FELLOW, supervised by Michal Feldman

## 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, and Online Algorithms.

## PUBLICATIONS & MANUSCRIPTS

**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).

**Communicating with Anecdotes**
with Nika Haghtalab, Nicole Immorlica, Brendan Lucier, Markus Mobius
*In Submission*.

**Simple Mechanisms for Welfare Maximization in Rich Advertising Auctions**
with Gagan Aggarwal, Kshipra Bhawalkar, Aranyank Mehta, Alexandros Psomas
*In Submission*.

**Interdependent Public Projects**
with Avi Cohen, Michal Feldman, Inbal Talgam-Cohen
*In Submission.*

## Awards

**Siebel Scholar**, 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

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

## Invited Talks

**Communicating with Anecdotes**

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|---|---|
| Technion Game Theory Seminar | Apr 2022 |

**Simplicity and Optimality in Multi-Item Auctions**

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|---|---|
| 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**

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| Harvard EconCS Seminar | Nov 2021 |

**Approximation Schemes for Revenue Maximization via Symmetries**

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| Young Researcher Workshop on Economics and Computation, Tel Aviv | Jan 2020 |

## TEACHING

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| SPRING 2018 | Economics and Computation (COS 445)<br>Teaching Assistant |
| FALL 2017 | Advanced Algorithm Design (COS 521)<br>Teaching Assistant |

## SERVICE

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| **Program Committee** | WINE 2021, EC 2022, ESA 2022 |
| **Conference Reviewer** | ITCS, SODA, WINE, EC, ESA, ICALP, STOC |
| **Journal Reviewer** | Artificial Intelligence |

## LEADERSHIP

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|---|---|
| 2020 & 2019 | **Graduate College Housing Committee**, Princeton<br>Facilities Chair |
| 2017 - 2018 | **Association of South Asians at Princeton**<br>Events and Social Chair |
| 2017 - 2021 | **Research Inclusion Social Event**<br>Department of Computer Science, Princeton<br>Member and Volunteer |
| EC 2020 | **AGT Mentoring Workshop**<br>Conference on Economics and Computation (EC)<br>Student Mentor |
| WINE 2021 | **Mentorship Program**<br>Conference on Web and Internet Economics (WINE)<br>Mentor |