BHAVYA AGRAWALLA

Address ◇ Cambridge, Massachusetts, United States

Google Scholar Link ◇ **Email:** bhavya@mit.edu, bhavyaagrawalla@gmail.com

EDUCATION

Massachusetts Institute of Technology *September 2021 - May 2024*
Candidate for Bachelors of Science in Mathematics (Course 18)
Candidate for Bachelors of Science in AI and Decision Making (Course 6-4) GPA: 4.9/5.0

Indian Institute of Science, Bangalore *September 2020 - July 2021*
Transferred to MIT after first year CGPA: 9.1/10.0

AWARDS AND RECOGNITION

Silver Medal at the International Mathematical Olympiad 2019 *2019*
60th IMO 2019 held at Bath, United Kingdom, Official Result Link

MIT Outstanding Undergraduate Researcher Award 2023, Nominee *2023*
For contributions to Designing Imaging Systems using Reinforcement Learning (DISeR)

RESEARCH EXPERIENCE (PI = PRINCIPAL INVESTIGATOR)

Adaptive Generalised Advantage Estimation *04/23 - Present*
Bhavya Agrawalla, Idan Shenfeld, Prof. Pulkit Agrawal (**PI**)
In progress paper

Designing Imaging Systems using Reinforcement Learning (DISeR) *09/22 - 06/23*
Tzofi Klinghoffer, Kushagra Tiwary, Nikhil Behari, **Bhavya Agrawalla**, Prof. Ramesh Raskar (**PI**)
Paper published at *International Conference on Computer Vision (ICCV) 2023*, https://arxiv.org/abs/2309.13851

High Dimensional Central Limit Theorem for Linear Functionals of Online Least-Squares SGD *02/22 - 02/23*
Bhavya Agrawalla, Prof. Krishnakumar Balasubramaniam (**PI**), Prof. Promit Ghosal (**PI**)
Paper in submission to *IEEE Transactions on Information Theory* journal, https://arxiv.org/abs/2302.09727

Harrison Homology and Quillen Cohomology of Commutative Monoids *09/21 - 06/22*
Bhavya Agrawalla, Nasief Khlaif, Prof. Haynes Miller (**PI**)
Paper accepted at *Semigroup Forum* journal, https://arxiv.org/abs/2211.01536

CLASS PROJECTS

Fourier Bi-linear Value Networks
Computational Sensorimotor Learning Final Project, Project Report

Controlling Stable Diffusion with Binary Segmentation Maps
Advances in Computer Vision Final Project, Project Report

REFERENCES

Prof. Krishnakumar Balasubramaniam (kbala@ucdavis.edu)
Prof. Pulkit Agrawal (pulkitag@mit.edu)
Prof. Ramesh Raskar (a2ramesh@media.mit.edu), Kushagra Tiwary (ktiwary@media.mit.edu)

Prof. Haynes Miller (hrm@math.mit.edu)
Prof. Promit Ghosal (promit@brandeis.edu)