

SHEELA DEVADAS

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EDUCATION

S.B. in Mathematics	Massachusetts Institute of Technology, Cambridge, MA	6/2015
Ph.D. in Mathematics	Stanford University, Stanford, CA	1/2021

RESEARCH EXPERIENCE

Ph.D. Research	Department of Mathematics Stanford University Stanford, CA	9/15-1/21
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- Thesis: Morphisms and cohomological comparison for Henselian schemes
- Advised by Prof. Brian Conrad

Representations of Cherednik Algebras	Undergraduate Research Opportunities Program Massachusetts Institute of Technology Cambridge, MA	9/14-6/15
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- Studied lowest-weight irreducible representations of a certain type of algebra
- Used computer code in Sage to generate data and conjectures
- Continuation of previous project from 2011-2013
- Supervised by/working with Yi Sun.

Linearity Testing	Undergraduate Research Opportunities Program Massachusetts Institute of Technology Cambridge, MA	1/13-9/14
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- Studied how to test algorithms that compute linear functions
- Created programs that run these tests
- Extended to functions of multiple variables
- Supervised by/working with Prof. Ronitt Rubinfeld.

TEACHING & MENTORING EXPERIENCE

Administrative Teaching Assistant	Linear Algebra, Multivariable Calculus. and Modern Applications	9/20-12/20
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- Scheduled office hours of course staff and quiz review sessions
- Organized online submission of homework and exams
- Held office hours for further instruction of students
- Course instructors were Dr. Christine Taylor and Dr. Saraswathi Venkatesh

Graduate Teaching Assistant Modern Mathematics: Discrete Methods **9/18-12/18**

- Led discussion sections to teach and review course material
- Discussion sections included proof sections teaching the writing of mathematical proofs.
- Held office hours for further instruction of students
- Course instructor was Prof. Jacob Fox

Lead Research Mentor Program in Mathematics for Young Scientists **7/18-8/18**
Boston University

- Mentored undergraduate counselors and high school students working on ten mathematics research projects in number theory, combinatorics, discrete probability, and other subfields
- Co-lead mentor with David Fried

Graduate Teaching Assistant Linear Algebra and Differential Calculus **9/17-12/17**
in Several Variables

- Led discussion sections for undergraduate students
- Reviewed course material and helps students solve problems related to material
- Held office hours for further instruction of students
- Course instructors were Prof. Ralph Cohen and Dr. Mark Lucianovic

Research Mentor Program for Research in Mathematics, **1/16-12/16**
Engineering, and Science for High School Students

- Mentored and guided a high school student in research in combinatorial geometry
- Supervised by Prof. Ravi Vakil.

UNDERGRADUATE PUBLICATIONS

- Devadas, S., & Sun, Y. (2017). The polynomial representation of the type A_{n-1} rational Cherednik algebra in characteristic $p \mid n$. *Communications in Algebra*, 45(5), 1926-1934. doi: 10.1080/00927872.2016.1226866.
- Devadas, S., & Rubinfeld, R. (2014). A Self-Tester for Linear Functions over the Integers with an Elementary Proof of Correctness. *Theory of Computing Systems*. doi: 10.1007/s00224-015-9639-z.
- Devadas, S., & Sam, S. V. (2014). Representations of rational Cherednik algebras of $G(m, r, n)$ in positive characteristic. *Journal of Commutative Algebra*, 6(4), 525-559. doi:10.1216/JCA-2014-6-4-525.

UNDERGRADUATE PRESENTATIONS & POSTERS

- Linearity Testing, presented at the MIT EECSCon Poster Session (4/2014)
- Modular representations of Cherednik algebras associated to symmetric groups, presented at the MAA Undergraduate Poster Session (1/2012)

FELLOWSHIPS & AWARDS

National Science Foundation Graduate Research Fellowship	National Science Foundation (NSF)	2015
Stanford Graduate Fellowship	Stanford University	2015
Enhancing Diversity in Graduate Education Doctoral Fellowship	Stanford University	2015
Alice T. Schafer Mathematics Prize for Excellence in Mathematics by an Undergraduate Woman	Association for Women in Mathematics	2015