

EDUCATION	Department of Mathematics, Cornell University <i>Ph.D. in Mathematics</i> • Advisor: Dr. David Zywna	Ithaca, New York, USA Aug 2015 - May 2021
	UM-DAE Centre for Excellence in Basic Sciences <i>Integrated M.Sc. in Mathematics</i> • Masters thesis advisor: Prof. Eknath Ghate	Mumbai, India Aug 2010 - May 2015

PROFESSIONAL EXPERIENCE	The University of Maine Orono, Maine, USA • Department of Mathematics, Assistant Professor	September 2025 -
	The University of Maine Orono, Maine, USA • Department of Mathematics, Lecturer	September 2024 - August 2025
	University of Pennsylvania Philadelphia, PA, USA • Department of Mathematics, Hans Rademacher Instructor	July 2021 - July 2024

RESEARCH	1. Rakvi , A Classification of genus 0 modular curves with a rational point, Ph.D. Thesis. <i>Mathematics of Computation</i> Vol. 93 (2024), 1859-1902	
	2. Jacob Mayle, Rakvi , Serre Curves Relative to Obstruction Modulo 2. <i>LuCaNT: LMFDB, Computation, and Number Theory, Contemp. Math.</i> Vol. 796 (2024), 103-128	
	3. G Yuwan Shankar, Rakvi , Possible torsion of elliptic curves over cyclic cubic fields of conductor between 1 to 100. <i>Involve</i> , to appear	
	4. Rakvi , On possibilities of 3-adic Galois images associated to isogeny-torsion graphs. <i>International Journal of Number Theory</i> , to appear, <i>arXiv:2307.04074</i>	
	5. Rakvi , A Classification of genus 0 prime power level modular curves over number fields with a point. <i>arXiv:2208.02452</i>	
	6. Rakvi , On Possible Genus 0 Galois Images of non CM Elliptic Curves over Rationals. <i>submitted</i> , <i>arXiv:2307.03302</i>	
	7. Michael Cerchia, Rakvi , Modular curves of prime-power level with infinitely many quadratic points. <i>submitted</i> , <i>arXiv:2509.22895</i>	
	8. Kate Finnerty, Tyler Genao, Jacob Mayle, Rakvi , The possible adelic indices for elliptic curves admitting a rational cyclic isogeny. <i>arXiv:2512.00652</i>	

AWARDS AND HONORS	• Hutchinson Fellowship , Department of Mathematics, Cornell University	Jan 2020
	• Graduate Student Fellowship , Cornell University	2015-2016
	• NBHM M.Sc. Fellowship , Department of Atomic Energy (DAE), India,	2013-2014
	• INSPIRE Fellowship , Department of Science and Technology, India	2010-2015

TALKS

Invited Talks

- *On Three Adic Galois Images associated to Isogeny Torsion Graphs of non CM Elliptic Curves defined over Rationals*, AMS Special Session on Arithmetic Geometry with a view towards computation at Joint Maths Meetings (JMM), January 2024

- *On Possible Genus 0 Galois Images of non CM Elliptic Curves defined over Rationals*, Algebra Seminar, Brown University, November 2023
- *On Three Adic Galois Images associated to Isogeny Torsion Graphs of non CM Elliptic Curves defined over Rationals*, Philadelphia Area Number Theory Seminar at Temple University, September 2023
- *Serre Curves Relative to Obstructions Modulo 2*, LuCaNT Conference at ICERM, Brown University, July 2023
- *Serre Curves Relative to Obstructions Modulo 2*, Philadelphia Area Number Theory Seminar at Temple University, January 2023
- *Classification of Genus 0 Modular Curves with a Rational Point*, GAUSS Seminar at University of Iowa, April 2021

Contributed Talks

- *Elliptic Curves, Isogenies, and Adelic Indices*, Maine-Quebec Number Theory Conference, October 2025
- *Elliptic Curves, Isogenies, and Adelic Indices*, UMaine Colloquium, December 2024
- *On Three Adic Galois Images associated to Isogeny Torsion Graphs of non CM Elliptic Curves defined over Rationals*, Algebra Seminar at University of Pennsylvania, May 2023
- *Classification of Genus 0 Modular Curves with a Rational Point*, Algebra Seminar at University of Pennsylvania, September 2021
- *Classification of Genus 0 Modular Curves with a Rational Point*, Connecticut Number Theory Conference (CTNT), June 2020
- *On Classification of Genus 0 Modular Curves with a Rational Point*, Number Theory Seminar at Cornell University, February 2020
- *Computing Models for Genus 0 Modular Curves*, Lightning Talk given at Arithmetic of Low-Dimensional Abelian Varieties, ICERM, Brown University, June 2019
- *Action of finite subgroups*, Student Project Presentation at Arizona Winter School, March 2019

CONFERENCES AND WORKSHOPS

- *Maine-Quebec Number Theory Conference*, The University of Maine, October 2025
- *LMFDB Workshop*, MIT, July 14-18, 2025
- *LuCaNT Conference*, ICERM, Brown University, July 7-11, 2025
- *Algebraic Points on Curves*, ICERM, Brown University, June 23-27, 2025
- *Annual Simons Collaboration Meeting*, Invited for, January 2025
- *The Mordell conjecture 100 years later*, MIT, July 2024
- *ANTS XVI*, MIT, July 2024
- *Connecticut Number Theory Research Conference (CTNT)*, University of Connecticut, June 2024
- *Annual Simons Collaboration Meeting*, Invited for, January 2024
- *LuCaNT Conference*, ICERM, Brown University, July 2023
- *Annual Simons Collaboration Meeting*, Invited for, January 2023
- *Modular curves workshop II*, Invited for, Contributed code for computing model and j-map for genus 0 modular curves for LMFDB, MIT, November 2022
- *Modular curves workshop I*, Invited for, Contributed code for computing model and j-map for genus 0 modular curves with a rational point for LMFDB, MIT, March 2022
- *Upstate Number Theory Conference*, Union College, October 2021

- *Connecticut Number Theory Research Conference (CTNT)*, University of Connecticut, June 2020
- *Arizona Winter School*, University of Arizona, March 2020
- *Arithmetic of Low-Dimensional Abelian Varieties*, ICERM, Brown University, June 2019
- *Upstate Number Theory Conference*, Cornell University, April 2019
- *Arizona Winter School*, University of Arizona, March 2019
- *15th Canadian Number Theory Association (CNTA) meeting*, Laval University, Quebec city, July 2018
- *Connecticut Number Theory Research Conference (CTNT)*, University of Connecticut, June 2018
- *Upstate Number Theory Conference*, University at Buffalo, April 2018
- *Arizona Winter School*, University of Arizona, March 2017
- *Southern New England Conference on quadratic and Modular forms*, Wesleyan University, Connecticut, June 2016

TEACHING	<ul style="list-style-type: none"> • MATH 116 Introduction to Calculus, <i>Instructor at The University of Maine, Fall 2025, Fall 2024</i> • MATH 127 Calculus II, <i>Instructor at The University of Maine, Spring 2025</i> • MATH 465 Theory of Numbers, <i>Instructor at The University of Maine, Spring 2025</i> • MATH 314 Linear Algebra, <i>Instructor at University of Pennsylvania, Spring 2024</i> • MATH 370 Algebra I, <i>Instructor at University of Pennsylvania, Spring 2024, Fall 2021</i> • MATH 1300 Introduction to Calculus, <i>Instructor at University of Pennsylvania, Fall 2023, Spring 2022</i> • MATH 350 Number Theory, <i>Instructor at University of Pennsylvania, Spring 2023</i> • MATH 1410 Multivariable Calculus, <i>Instructor at University of Pennsylvania, Spring 2023</i> • MATH 312 Linear Algebra, <i>Instructor at University of Pennsylvania, Fall 2021</i> • MATH 1340 Strategy, Cooperation, and Conflict, <i>Grader at Cornell University, Spring 2021</i> • MATH 3320 Introduction to Number Theory, <i>Grader at Cornell University, Fall 2020, Fall 2016</i> • MATH 1120 Calculus II, <i>Instructor at Cornell University, Fall 2019</i> • MATH 1110 Calculus I, <i>Instructor at Cornell University, Spring 2019</i> • MATH 2210 Linear Algebra, <i>TA at Cornell University, Fall 2018, Fall 2017, Spring 2017</i> • MATH 4500 Matrix Groups, <i>Grader at Cornell University, Spring 2018</i> • MATH 3360 Applicable Algebra, <i>Grader at Cornell University, Spring 2018</i>
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MENTORING	<p>Elliptic Curves and L-functions, <i>Directed undergraduate student Yukun Zhao of University of Pennsylvania during April 2023- August 2023 on an expository project</i></p> <p>Torsion of Elliptic Curves over Cubic Number Fields, <i>Advised G Yuwan Shankar of IIT Guwahati, India during February 2023 - March 2024 on an undergraduate research project that led to a publication</i></p>
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OUTREACH AND TEACHING WORKSHOPS	<p>SAIL Workshop: <i>University of Pennsylvania, August 2023- May 2024</i></p> <p>Math Teaching Workshop: <i>University of Pennsylvania, January 2023- May 2023</i></p> <p>Math Discovery Workshops: <i>Elementary schools in Ithaca, New York, May 2019</i></p> <p>Math Explorers' Club: <i>For grades 8-12 students at Cornell University, October 2018</i></p>
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DEPARTMENT SERVICES	Prize Committee: <i>Department of Mathematics, University of Pennsylvania, 2021-2022</i> Prelim Committee: <i>Department of Mathematics, University of Pennsylvania, 2022-2023</i> Prize Committee: <i>Department of Mathematics, University of Pennsylvania, 2023-2024</i>
ACADEMIC SERVICES	Reviewer for: <i>Journal de Théorie des Nombres de Bordeaux,</i> <i>Mathematical Proceedings of the Cambridge Philosophical Society,</i> <i>Mathematical Reviews (MathSciNet)</i>