

Courtney R. Gibbons

Curriculum Vitæ

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EMPLOYMENT

Associate Professor, Dept. of Mathematics and Statistics, Hamilton College, Clinton, NY JUL 2019–PRES
Expert (Intermittent), National Science Foundation, Alexandria, VA JUL 2024–FEB 2025
AAAS Science and Technology Policy Fellow, Alexandria, VA AUG 2023–JUL 2024
*National Science Foundation, Directorate for Computer and Information Science and Engineering,
Division of Information and Intelligent Systems, Robust Intelligence Cluster*
AAAS Congressional Science and Technology Fellow, Washington, DC AUG 2022–JUL 2023
*Senate Homeland Security and Governmental Affairs Committee
Majority Staff of Chairman Gary C. Peters*
Assistant Professor, Dept. of Mathematics, Hamilton College, Clinton, NY JUL 2013–JUN 2019
Paraprofessional, Dept. of Mathematics and CS, Colorado College, Colorado Springs, CO AUG 2006–JUN 2027

EDUCATION

Ph.D. Mathematics, University of Nebraska–Lincoln AUG 2013
M.S. Mathematics, University of Nebraska–Lincoln MAY 2009
B.A. Mathematics, Colorado College; *Summa Cum Laude* with Distinction in Mathematics MAY 2006

RESEARCH

(* indicates a paper with undergraduate coauthors)

Published and Accepted Work

Article. N. R. Baeth et al., Divisor sequences of atoms in Krull monoids, *J. Commut. Algebra* **14** (2022), no. 1, 1–17; MR4430698
Article.* C. Bondi et al., A hypergraph characterization of nearly complete intersections, in *Women in commutative algebra*, 95–110, Assoc. Women Math. Ser., 29, Springer, Cham; MR4428288
Article. C. R. Gibbons, D. A. Jorgensen and J. A. Striuli, L -dimension for modules over a local ring, in *Commutative algebra—150 years with Roger and Sylvia Wiegand*, 83–91, Contemp. Math., 773, Amer. Math. Soc., RI; MR4321392
Article.* C. R. Gibbons, R. Huben and B. Stone, Recursive strategy for decomposing Betti tables of complete intersections, *Internat. J. Algebra Comput.* **29** (2019), no. 7, 1165–1191; MR4022702
Article. C. Améndola et al., The maximum likelihood degree of toric varieties, *J. Symbolic Comput.* **92** (2019), 222–242; MR3907355
Article.* M. T. Annunziata et al., Rational combinations of Betti diagrams of complete intersections, *J. Algebra Appl.* **17** (2018), no. 5, 1850079, 14 pp.; MR3795374
Article. C. R. Gibbons, J. D. Laison and E. J. Paul, Critical pebbling numbers of graphs, *J. Combin. Math. Combin. Comput.* **99** (2016), 199–224; MR3585742
Code. A. Conner, C. R. Gibbons, W. F. Moore, *NCAalgebra.m2* (new package), distributed with Macaulay2-v1.9.
Code. C. R. Gibbons and B. Stone, *BoijSoederberg.m2* (package revisions), distributed with Macaulay2-v1.8.
Article. C. R. Gibbons et al., Non-simplicial decompositions of Betti diagrams of complete intersections, *J. Commut. Algebra* **7** (2015), no. 2, 189–206; MR3370483
Dissertation. C. R. Gibbons, *Decompositions of Betti diagrams*, ProQuest LLC, Ann Arbor, MI, 2013; MR3153511
Article. C. Berkesch et al., The cone of Betti diagrams over a hypersurface ring of low embedding dimension, *J. Pure Appl. Algebra* **216** (2012), no. 10, 2256–2268; MR2925819
Article. C. R. Gibbons and J. D. Laison, Fixing numbers of graphs and groups, *Electron. J. Combin.* **16** (2009), no. 1, Research Paper 39, 13 pp.; MR2491641

Under Review

Curated Sequences. A392482, A392483, A392485, A392486; Online Encyclopedia of Integer Sequences.

Work in Preparation

Article. N. Baeth, C. R. Gibbons and R. Rissner, Tensor Products of Semigroups.

Article.* M. Donovan, C. R. Gibbons, I. Khan and A. Petrova, Boolean matrices: powers and properties.

Article. L. L. Avramov, C. R. Gibbons and R. Wiegand, Monoids of Betti tables over graded algebras: the case of short Gorenstein algebras. (Preprint in limited circulation.)

Conference Talks

† indicates an invited talk; * indicates an upcoming talk

JMM: Joint Mathematics Meetings (national gathering of mathematicians)

AMS: American Mathematical Society

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| 1217th AMS Meeting Special Session on Commutative Algebra at PUIs †* | APR 2026 |
| North Dakota State University, Fargo, ND
<i>Koszul Complexes and U[-grads]</i> | |
| 1176th AMS Meeting Special Session on Combinatorial Methods in Commutative Algebra † | MAR 2022 |
| Tufts University, Medford, MA (Online)
<i>Applications of Tensor Products of Semigroups</i> | |
| 1167th AMS Meeting Special Session on Commutative Algebra † | MAY 2021 |
| San Francisco, CA (Online)
<i>A Hypergraph Characterization of Nearly Complete Intersections</i> | |
| 1150th AMS Meeting Special Session on Commutative Algebra:
in Celebration of the 150th Birthday of Roger and Sylvia Wiegand † | SEP 2019 |
| University of Wisconsin-Madison, Madison, WI
<i>Realizing Divisor Sequences in Krull Monoids</i> | |
| MathFest: Commutative Algebra Special Session† | AUG 2019 |
| Cincinnati, OH
<i>Syzygy - When Submodules Align</i> | |
| Joint Mathematics Meetings (JMM): Special Session on Commutative Ring Theory:
Research for Undergraduate and Early Graduate Students Special Session † | JAN 2019 |
| Baltimore, MD
<i>Boij-Söderberg theory as an introduction to research in commutative algebra</i> | |
| Route 81 Conference | SEP 2018 |
| Syracuse University, Syracuse, NY
<i>Recursive strategy for decomposing Betti diagrams of complete intersections</i> | |
| SIAM Applied Algebraic Geometry Meeting: Maximum Likelihood Degree Minisymposium † | AUG 2017 |
| Georgia Institute of Technology, Atlanta, GA
<i>Maximum Likelihood Degrees for Discrete Random Models</i> | |
| Second International Workshop and Conference on Commutative Algebra † | OCT 2016 |
| Tribhuvan University, Kathmandu, Nepal
Preparatory Workshop Talk: <i>Graded Rings, Graded Modules, and Numerical Invariants</i>
Research Conference Talk: <i>Short Gorenstein Rings: Numerics and Consequences</i> | |
| Joint Mathematics Meetings (JMM): Commutative Algebra Special Session † | JAN 2016 |
| Seattle, WA
<i>A ring without a Boij-Söderberg theory</i> | |
| MathFest: Concrete Computations in Algebra and Algebraic Geometry Invited Paper Session † | AUG 2015 |
| Washington, DC
<i>The search for indecomposable modules</i> | |
| 1092nd AMS Meeting Special Session on Commutative Algebra † | OCT 2013 |
| University of Louisville, Louisville, KY | |

Non-simplicial decompositions of Betti diagrams of complete intersections

1085th AMS Meeting Special Session on Commutative Algebra † OCT 2012
University of Arizona, Tucson, AZ
Modules over short Gorenstein rings

JMM AMS Contributed Papers Session JAN 2013
San Diego, CA
Modules over short Gorenstein rings

1074th AMS Meeting Special session on Commutative Algebra † OCT 2011
University of Nebraska–Lincoln, Lincoln, NE
New directions in Boij–Söderberg theory

Research Seminar Talks

University of Nebraska–Lincoln Commutative Algebra Seminar, Lincoln, NE APR 2025
Tensor products of semigroups

Syracuse University Algebra Seminar, Syracuse, NY NOV 2024
Toward understanding semigroup properties under the tensor product(s)

National Science Foundation CISE Research Tea, Alexandria, VA MAR 2024
Boolean matrices and the semigroup action problem for creating shared secrets

University of Idaho Topics in Algebra, Topology, Etc. Research Seminar, Boise, ID (virtual) OCT 2024
Semigroups and Senators

George Mason University Mathematics Colloquium, Fairfax, VA APR 2023
Hypergraphs Applied to Commutative Algebra

Centro de Investigación en Matemáticas
Commutative Algebra and Algebraic Geometry Seminar, Guanajuato, Mexico (virtual) NOV 2021
Descomposiciones de Boij–Söderberg de intersecciones completas

University of Nebraska–Lincoln Commutative Algebra Seminar, Lincoln, NE FEB 2017
A Ring without a Boij–Söderberg Theory

Williams College Faculty Research Seminar, Williamstown, MA NOV 2016
Representations of Kronecker Quivers

Syracuse University Algebra Seminar, Syracuse, NY MAR 2015
Parametrizing a family of indecomposable modules

University of Utah Algebra Seminar, Park City, UT MAR 2012
Decomposition of Betti diagrams over a quadric hypersurface

University of Texas at Arlington Algebra Seminar, Arlington, TX MAR 2012
Betti diagrams over a small hypersurface

University of Nebraska–Lincoln Commutative Algebra Seminar, Lincoln, NE SEP 2010
Boij–Söderberg Theory I: Betti diagrams over polynomial rings
Boij–Söderberg Theory II: Betti diagrams over $k[x, y]/(x^2)$

University of Nebraska–Lincoln Commutative Algebra Reading Seminar, Lincoln, NE 2008–13

University of Nebraska–Lincoln Graduate Student Seminar, Lincoln, NE 2008–12

Posters

JMM Association for Women in Mathematics Workshop poster session JAN 2013

JMM Undergraduate research poster session JAN 2007

Selected Workshops, Conferences, and Summer Schools

Institute for Advanced Study Park City Mathematics Institute Park City, UT Undergraduate Faculty Program	JUL 2018
Banff International Research Station Banff, Alberta, CA New Trends in Syzygies	JUN 2018
Georgia Institute of Technology Atlanta, GA Applied Macaulay2 Tutorial	JUL 2017
AMS Mathematics Research Community Snowbird, UT Algebraic Statistics	JUL 2016
Commutative Algebra	JUL 2010
Mathematical Sciences Research Institute Berkeley, CA Macaulay2 Workshop	JAN 2014
Joint Introductory Workshop: Cluster Algebras and Commutative Algebra	AUG 2012
Summer Graduate School on Commutative Algebra	JUN 2011
Colorado College Colorado Springs, CO Macaulay2 Workshop	AUG 2010
The Abdus Salam International Center for Theoretic Physics Trieste, Italy School on Commutative Algebra and Interactions with Algebraic Geometry and Combinatorics	SUM 2010

Organizer

JMM Atlanta, GA Commutative Algebra: Research for Undergraduate and Early Graduate Students	JAN 2017
1115th AMS Meeting Rutgers University, New Brunswick, NJ Special Session on Aspects of Resolutions and Syzygies in Commutative Algebra	NOV 2015
KUMUNUjr (Co-Founder, Co-Organizer, Co-PI on funded NSF conference grant) Lincoln, NE	2012–13

Undergraduate Research Supervisor

Research Supervisor

Hamilton College Boolean Matrices: Eigen-Problems, Preperiodic Behavior, and CPU Benchmarking	SUM 2025
Differential Graded Algebras and Directed Graphs	SUM 2019
Physics, Mathematics, and Music [with K. Brown]	SUM 2016
Senior Fellowship (Robert Huben '15)	AY 2014–15
Clemson University COURAGE Research Experience for Undergraduates	SUM 2020
Willamette University WVMC Research Experience for Undergraduates	SUM 2015

TEACHING

Published and Accepted Work

Web Booklet. C. R. Gibbons, Logic for Linear Algebra, available online: [Logic For Linear Algebraists: 150 minutes of logic for proof writing](#). Self-published.

Article. R. Bedient and C. R. Gibbons, Grandma Makes Granola, *College Math. J.* 46 (2015), no. 1, 58–60.

Work in Progress

Text Book. C. R. Gibbons, Abstract Algebra Actively. (Contract in progress with 619 Wreath)

Article. C. R. Gibbons and E. Tripp, Click and Clack and Calc, Too.

Professional Teaching Experience

(* indicates a course I designed, † indicates an existing course I have significantly modified)

Instructor of Record

Hamilton College

MATH 113 Calculus I
 MATH 116 Calculus II
 MATH 224W† Linear Algebra (Writing Intensive)
 MATH 260* Decisions by Design: Applied Math in Society
 MATH 325W† Modern Algebra (Writing Intensive)
 MATH 327* Cryptography
 MATH 361* Number Theory with Applications (Speaking Intensive)
 MATH 450 Independent Study
 MATH 498† Mathematics in Social Context
 MATH 512* Number Theory with Applications (Speaking Intensive)
 MATH 525* Computational Algebra (Speaking Intensive)

Herkimer County Community College at Mohawk Correctional Facility

MATH 124 Contemporary Mathematics

University of Nebraska–Lincoln

MATH 101 College Algebra
 MATH 203 Contemporary Mathematics
 MATH 300 Mathematics Matters (for future elementary educators)

All Girls/All Math (cryptography summer camp for girls)
 Codes and Cryptology

Guest Lectures

Hamilton College

COLL 371 Common Seminar Adirondacks Program
 HSPST 370 Postmodern Spain: New Narratives and New Technologies

Graduate Teaching Assistant

University of Nebraska–Lincoln

MATH 806T Number Theory and Cryptology
 MATH 811T Functions for Precalculus Teachers (online)
 MATH 805T Discrete Math and Combinatorics
 Super-TA for all Calculus Courses

Pedagogical Engagement

Pedagogy in Practice Group

Computational Software for Data Science	SPR 2026
Student Learning Outcomes for Data-Driven SSIH Courses	SPR 2025

Webinars and Online Trainings

Mastery Grading Conference Online (14 hours)	MAY 2021
PEDESTALS 2: Teaching Mathematics Remotely and Doing It Well College Bridge (8 hours)	SUM 2020
Embodying Liberatory Practices in the Classroom NYU Metro Center (1.5 hours)	JUN 2020
Mastery Grading Conference Grand Valley State University (14 hours)	MAY 2020

Mathematical Association of America Minicourses

Alternative Grading	AUG 2019
Flipping the Classroom	JAN 2015

AHA! Group

Race, Pedagogy, and Building an Antiracist Institution	AY 2020–22
Research Advising in Virtual Environments	AY 2020–22
Active Learning in STEM	SPR 2020
Decolonizing Education	AY 2018–19

Curricular Development

Decisions by Design: Applied Math in Social Context SSIH, applied math elective

Number Theory and Applications senior seminar	
Computational Algebra senior seminar	
Math Department SSIH requirement	SUM 2016
Number Theory and Applications elective	
Cryptography elective	
Consortium on High Achievement and Success Grant	
Alumna participant	SPR 2017
Faculty Development on Teaching Diverse First-Year Students	SPR 2016
Hamilton College DOF Reading Discussions	
Book: <i>Teaching Naked</i>	SUM 2015
Book: <i>What the Best College Teachers Do</i>	SUM 2014

Presentations

Manhattan University Public Lecture	MAR 2025
Los Alamos Labs Athena Program Lecture	AUG 2024
BIG Network Online Lecture: Careers in Industry	JAN 2024
Simpson College Public Lecture	MAR 2022
Houghton College Math Department Colloquium	JAN 2022
Ithaca College Math Department Colloquium	FEB 2021
Connecticut College Senior Seminar	FEB 2021
Denison University Math and CS Colloquium	OCT 2019
Sacramento State Math Club Algebra, Number Theory, and Combinatorics Colloquium	MAR 2017
Williams College AWM Student Chapter Kick-Off Talk	FEB 2017
Utica College Math Colloquium	FEB 2017
Adelphi University Math and Comp Sci Seminar	
<i>From Statistics to Algebra and Back Again</i>	SEP 2016
<i>A Variety of Ways to Solve a Problem</i>	MAR 2015
Hampshire College HCiSSM Prime Time Lecture	AUG 2013
Williams College Undergraduate Mathematics Seminar	JAN 2013
Bard College Mathematics Seminar	NOV 2012
William Jewell College Pi Mu Epsilon Colloquium	NOV 2012
Colorado College Mathematics Seminar	APR 2010
Hamilton College Talking About Teaching series	
Panelist, Ada Lovelace Celebration	OCT 2018
Speaker, Inclusive Pedagogies: Teaching a Diverse Student Body	APR 2016
Hamilton College Why I Teach series	
Speaker, <i>Surprise, Satisfaction, and Joy</i>	DEC 2018

SERVICE

To the Profession

American Mathematical Society	
Committee Member, Committee on Science Policy	JAN 2025–PRES
Session Co-Organizer, JMM Panel Discussion - How the Federal Government Funds Science Research	JAN 2026
Association for Women in Mathematics	
Chair, Government Advocacy Committee	JAN 2024–25
Elected Committee Member, Executive Committee	JAN 2022–26
Committee Member, Education and Outreach Portfolio Committee	JAN 2022–26
Task Force Member, Noether Lecture Replacement at JMM FALL 2020	
Session Co-Organizer, JMM Panel Discussion - Equity, Ethics, and Bias in Mathematics	FALL 2020
Chair, Committee on Policy and Advocacy	NOV 2019–20
Committee Member, Committee on Policy and Advocacy	JAN 2018–20
Mathematical Association of America	

Search Committee Member, College Mathematics Journal editor	AY 2021–22
Editor, Anneli Lax New Mathematics Editorial Board	2022–PRES
National Science Foundation , Panelist, Grant Proposal Review	2018, 2022
Panelist	
ParaDIGMS Conference Panel - Becoming comfortable with discomfort: moving from thoughts to action	MAY 2022
Nebraska Conference for Undergrad. Women in Math (NCUWM) Panel - Random Bits of Advice	FEB 2017
JMM Joint Committee on Women in Mathematical Sciences Panel - Success in Graduate School	JAN 2016
MathFest Association for Women in Mathematics Panel - Mentoring Matters	JUN 2014
Referee/Reviewer	
<i>Amer. Math. Monthly, Coll. Math. Journal, J. Commut. Algebra, J. Algebra Appl., Mathematical Reviews, Minnesota J. of Undergrad. Math., Comm. Algebra</i>	

To Hamilton College

Shared Governance

Elected Member, Academic Council (ex officio)	AY 2025–26
Faculty Chair	AY 2025–26
Appointed Member, COACHE Survey Ad Hoc Committee	SPR 2025
Appointed Member, Data Science Program Committee	AY 2022–PRES
Director	AY 2025–28
Elected Member, Committee on Academic Policy	AY 2019–22
Chair	AY 2021–22
Member, SmartCatalog Team	AY 2020–22
Parliamentarian	AY 2020–21
Appointed Member, Middle States Standard VII Working Group	FALL 2019–20
Appointed Member, Quantitative and Symbolic Reasoning Advisory Committee	AY 2018–19
Appointed Hamilton Representative, Liberal Arts Consortium for Online Learning	FALL 2017–18
Appointed Member, Writing Advisory Committee	FALL 2017–19
Elected Member, Dean of Faculty Search Committee	FALL 2017
Member, Junior Faculty Caucus	AY 2014–18
Elected Member, Honor Court	AY 2014–16

Service to Phi Beta Kappa (Epsilon of New York)

Secretary and Treasurer	AY 2025–PRES
President	AY 2017–20
Vice President	AY 2014–16
Committee on selection criteria	SPR 2014
Active Member	2023–PRES

Mathematics Department

Calculus Czar	2017–PRES
Advisor, Student Chapter of the Association for Women in Mathematics	2017–PRES
Assistant, Mathletics Putnam Team (led by Prof. Andrew Dykstra)	2013–14

Consultant

Counseling Center usage statistics and projections for David Walden	FALL 2016
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Focus Group Member

Ellucian advising tool for Registrar's Office	FALL 2016
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PossePlus Retreat Invited Attendee

	2018, 2024
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Faculty Advisor Hamilton College Vegan Club

	AY2014–22
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Academic Advisor

	AY 2014–PRES
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To University of Nebraska–Lincoln

Orientation Leader and Panelist, Workshop for Graduate TAs	2010–12
Volunteer, Annual Math Day	FALL 2007–12
Elected Representative, Math Graduate Student Advisory Board	AY 2007–09

OUTREACH

Presentations

Trinity Upper School Fogelson Math Symposium, New York, NY <i>No Rectangles!</i>	FEB 2025
The Other Side Utica, NY <i>The Mathematics of Online Privacy</i>	APR 2021
<i>Gerrymandering: Hijacking Democracy One Non-Convex Region at a Time</i>	OCT 2018
<i>The Mathematics of Climate Change</i>	OCT 2015
Talk Math with your Friends <i>The Real Friends are the Betti Numbers We Calculated Along the Way</i>	OCT 2020
Institute for Advanced Study: Park City Mathematics Institute Ignite Talk, Park City, UT <i>From Zero to Syzygy in Five Minutes</i>	JUL 2018
The Arthur Levitt Public Affairs Center <i>Gerrymandering: The Math Behind the Madness</i>	APR 2018
Hamilton College Days-Massolo Center “What is...?” series <i>What is... Gerrymandering?</i>	OCT 2018
The Card Catalog Project <i>Googling It: How Google Ranks Search Results</i>	OCT 2017
Emerson Literary Society <i>Sudoku, Apes, and Algebra: An ELS “Tell Us What You Know” Lecture</i>	FALL 2015
Sigma Xi Colloquium <i>Syzygy: Understanding Relationships among Polynomials</i>	SPR 2014

Community Engagement

Creator, YouTube Channel	PRES
Coordinator and Key Personnel , Math Chairs for Racial Justice	JUL 2021
Facilitator , Math Chairs for Racial Justice	JUL 2020–21
Penpal, Prison Mathematics Project (connecting incarcerated folks to math mentors) – 3 penpals	2020–PRES
Web Design Team Member , covidcp.org (a COVID-19 protocol sharing site)	SPR 2020
Judge , Pfizer–Novartis–LPS Science Fair	2010–12
Classroom Leader , Saturday Science at UNL	FEB 2010

In the Media

In Print

<i>American Mathematical Society</i> page-a-day calendar illustration (Left-Handers Day)	AUG 2020
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Interviews

<i>My Favorite Theorem</i> math podcast Episode 73–Courtney Gibbons	JAN 2022
<i>Significant Figures</i> podcast Courtney Gibbons (Math)	DEC 2021
<i>My Favorite Theorem</i> math podcast Episode 45: Your Flash Favorite Theorems (timestamp 3:48)	AUG 2019
<i>Roots of Unity</i> Scientific American blog “shout out” in Mathematical Mondegreens	AUG 2019
<i>Chronicle of Higher Ed</i> Teaching Newsletter , 10/5/17	OCT 2017
<i>Relatively Prime</i> math podcast Diegetic Plots: Chapter 2	FEB 2016
<i>Girls’ Angle Bulletin</i> volume 8, no. 3-4	FEB 2015

Featured Columns

AMS Feature Column: All Columns	
This Queen Loves to Tango	JUL 2025
Lattices: Plane and Fancy	JUN 2024
Math Meets Congress	SEP 2023
Perspectives on Polynomials: It’s a Witch!	MAR 2023
Applied Algebra, a Variety Show	AUG 2022
What is a prime, and who Decides?	NOV 2021

Guest Columns

AMS Blog On Teaching and Learning Mathematics: Building Relationships Before the Semester Begins	MAY 2021
AMS Inclusion/Exclusion Blog: Women of Color: Who Tells Their Stories? (and why it matters)	MAY 2021
<i>The Global Math Department Newsletter</i> An AMC for the Mathematics Community (with B. Fantechi & M. VanDieren)	FEB 2021
Liberatory Mathematics for breaking out of jail	FEB 2021
<i>AMS Notices</i> Early Career column	MAY 2020

<i>AWM Newsletter</i> volume 49, no. 1: New NSF Funding Requirements	JAN 2019
<i>Girls' Angle Bulletin</i> volume 10, no. 5: Errorbusters	JUN 2017
AMS <i>e-Mentoring Network Blog</i> : The Four Parts of No	JUN 2017
<i>Math Babe</i> Be More Careful with Stats in Teaching Evaluations	FEB 2015
Actor Mathematically Bent Theater at JMM	JAN 2014–17

AWARDS, FELLOWSHIPS, AND AFFILIATIONS

Executive Branch STP Fellow American Association for the Advancement of Science (AAAS)	2023
Legislative Branch STP Fellow American Association for the Advancement of Science (AAAS)	2022
Partner Institute for the Quantitative Study of Inclusion, Diversity, and Equity (QSIDE)	2020
Adjunct Professor Mohawk Correctional Campus, Herkimer College, Rome, NY	2019
The John R. Hatch Class of 1925 Excellence in Teaching Award Hamilton College	2015
Project NExT Fellow Mathematical Association of America	2013
Outstanding Graduate Teaching Assistant UNL College of Arts and Sciences	2011
Emeritus Faculty Fellow UNL Department of Mathematics	2010
Graduate Fellowship UNL College of Arts and Sciences	2009
Outstanding Qualifying Exams UNL Department of Mathematics	2008
Florian Cajori Prize in Mathematics Colorado College	2006

GRANT-SUPPORTED ACTIVITY

Math Leaders 4 Racial Justice Workshop Key Personnel, NSF Grant #DUE-2141578	SUM 2022
Macaulay2 Virtual Workshop Co-PI NSF Grant #DMS-2003883	SUM 2020
Noncommutative Algebra Emerson Project Advisor	SUM 2019
Discovery-Based Algebra Activities Hamilton Class of 1966 Career Development Award	SUM 2016
WMC REU Research Mentor NSF Grant #DMS-1460982	SUM 2015
KUMUNUjr Co-PI NSF Grant #DMS-1303248	SPR 2013
Graduate Researcher NSF Grant #DMS-1103176	SPR 2012
GAANN Trainee DOE Grant #200A90002	AY 2010
NebraskaMATH Assistant NSF Grant #DUE-1035268	AY 2011–12
Project Fulcrum Resident Scientist NSF Grant #DGE-0086358	AY 2009–10
MCTP Trainee NSF Grant #DMS-0838463	AY 2007–08

PROFESSIONAL MEMBERSHIPS AND HONOR SOCIETIES

American Association for the Advancement of Science (AAAS), American Association of University Professors (AAUP), American Mathematical Society (AMS), Association for Women in Mathematics (AWM), Mathematics Association of America (MAA), Society for Industrial and Applied Mathematics (SIAM), National Association of Mathematicians (NAM), Golden Key Honor Society, Phi Beta Kappa (Φ BK)