

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 <i>National Science Foundation, Directorate for Computer and Information Science and Engineering, Division of Information and Intelligent Systems, Robust Intelligence Cluster</i> | AUG 2023–JUL 2024 |
| AAAS Congressional Science and Technology Fellow , Washington, DC <i>Senate Homeland Security and Governmental Affairs Committee Majority Staff of Chairman Gary C. Peters</i> | AUG 2022–JUL 2023 |
| 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

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| Ph.D. Mathematics , University of Nebraska–Lincoln | AUG 2013 |
| M.S. Mathematics , University of Nebraska–Lincoln | MAY 2009 |
| B.A. Mathematics , Colorado College; <i>Summa Cum Laude</i> 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. Liaison 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, *NCAgebra.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. Liaison, 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 Hyper graph 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

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| 1085th AMS Meeting Special Session on Commutative Algebra † | OCT 2012 |
| University of Arizona, Tucson, AZ | |
| <i>Modules over short Gorenstein rings</i> | |
| JMM AMS Contributed Papers Session | JAN 2013 |
| San Diego, CA | |
| <i>Modules over short Gorenstein rings</i> | |
| 1074th AMS Meeting Special session on Commutative Algebra † | OCT 2011 |
| University of Nebraska–Lincoln, Lincoln, NE | |
| <i>New directions in Boij–Söderberg theory</i> | |

Research Seminar Talks

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|--|----------|
| University of Nebraska–Lincoln Commutative Algebra Seminar, Lincoln, NE | APR 2025 |
| <i>Tensor products of semigroups</i> | |
| Syracuse University Algebra Seminar, Syracuse, NY | Nov 2024 |
| <i>Toward understanding semigroup properties under the tensor product(s)</i> | |
| National Science Foundation CISE Research Tea, Alexandria, VA | MAR 2024 |
| <i>Boolean matrices and the semigroup action problem for creating shared secrets</i> | |
| 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 |
| <i>Hypergraphs Applied to Commutative Algebra</i> | |
| Centro de Investigación en Matemáticas | |
| Commutative Algebra and Algebraic Geometry Seminar, Guanajuato, Mexico (virtual) | Nov 2021 |
| <i>Descomposiciones de Boij–Söderberg de intersecciones completas</i> | |
| University of Nebraska–Lincoln Commutative Algebra Seminar, Lincoln, NE | FEB 2017 |
| <i>A Ring without a Boij–Söderberg Theory</i> | FEB 2017 |
| Williams College Faculty Research Seminar, Williamstown, MA | Nov 2016 |
| <i>Representations of Kronecker Quivers</i> | |
| Syracuse University Algebra Seminar, Syracuse, NY | MAR 2015 |
| <i>Parametrizing a family of indecomposable modules</i> | |
| University of Utah Algebra Seminar, Park City, UT | MAR 2012 |
| <i>Decomposition of Betti diagrams over a quadric hypersurface</i> | |
| University of Texas at Arlington Algebra Seminar, Arlington, TX | MAR 2012 |
| <i>Betti diagrams over a small hypersurface</i> | |
| University of Nebraska–Lincoln Commutative Algebra Seminar, Lincoln, NE | SEP 2010 |
| <i>Boij–Söderberg Theory I: Betti diagrams over polynomial rings</i> | |
| <i>Boij–Söderberg Theory II: Betti diagrams over $k[x, y]/(x^2)$</i> | |
| University of Nebraska–Lincoln Commutative Algebra Reading Seminar, Lincoln, NE | 2008–13 |
| University of Nebraska–Lincoln Graduate Student Seminar, Lincoln, NE | 2008–12 |

Posters

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| JMM Association for Women in Mathematics Workshop poster session | JAN 2013 |
| JMM Undergraduate research poster session | JAN 2007 |

Selected Workshops, Conferences, and Summer Schools

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

Organizer

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

Undergraduate Research Supervisor

Research Supervisor

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| 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

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

Webinars and Online Trainings

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| 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

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|------------------------|----------|
| Alternative Grading | AUG 2019 |
| Flipping the Classroom | JAN 2015 |

AHA! Group

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| 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

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

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| 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
Session Co-Organizer, JMM Panel Discussion - How the Federal Government Funds Science Research

JAN 2025–PRES
JAN 2026

Association for Women in Mathematics

Chair, Government Advocacy Committee
Elected Committee Member, Executive Committee
Committee Member, Education and Outreach Portfolio Committee
Task Force Member, Noether Lecture Replacement at JMM FALL 2020
Session Co-Organizer, JMM Panel Discussion - Equity, Ethics, and Bias in Mathematics
Chair, [Committee on Policy and Advocacy](#)
Committee Member, [Committee on Policy and Advocacy](#)

JAN 2024–25
JAN 2022–26
JAN 2022–26
FALL 2020
NOV 2019–20
JAN 2018–20

Mathematical Association of America

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| 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

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| 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)

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| 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

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| 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

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

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

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| | 2018, 2024 |
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Faculty Advisor Hamilton College Vegan Club

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| | AY 2014–22 |
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Academic Advisor

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| | AY 2014–PRES |
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To University of Nebraska–Lincoln

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| 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

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|---|---|---|
| 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> <i>Gerrymandering: Hijacking Democracy One Non-Convex Region at a Time</i> <i>The Mathematics of Climate Change</i> | APR 2021 OCT 2018 OCT 2015 |
| Talk Math with your Friends | <i>The Real Friends are the Betti Numbers We Calculated Along the Way</i> | OCT 2020 |
| Institue 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 | <i>Days-Massolo Center “What is...?” series What is... Gerrymandering?</i> <i>The Card Catalog Project Googling It: How Google Ranks Search Results</i> <i>Emerson Literary Society Sudoku, Apes, and Algebra: An ELS “Tell Us What You Know” Lecture</i> <i>Sigma Xi Colloquium Syzygy: Understanding Relationships among Polynomials</i> | OCT 2018 OCT 2017 FALL 2015 SPR 2014 |

Community Engagement

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| 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

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| In Print | |
| <i>American Mathematical Society</i> page-a-day calendar illustration (Left-Handers Day) | AUG 2020 |
| Interviews | |
| <i>My Favorite Theorem</i> math podcast Episode 73–Courtney Gibbons | JAN 2022 |
| <i>Significant Figures</i> podacst 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

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| 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

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| 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 |

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| <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 |
| <i>AMS e-Mentoring Network Blog: The Four Parts of No</i> | JUN 2017 |
| <i>Math Babe Be More Careful with Stats in Teaching Evaluations</i> | 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

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|---|---|------------|
| 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 (ΦBK)