Juliette Bruce

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Department of Mathematics
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Employment

- **Dartmouth College** — Hanover, NH
  Assistant Professor (Tenure Track) — *2024 – Present*
- **Brown University** — Providence, RI
  Postdoctoral Research Associate — *2022 – 2024*
- **University of California, Berkeley** — Berkeley, CA
  NSF Postdoctoral Research Fellow — *2020– 2022*
- **Mathematical Sciences Research Institute** — Berkeley, CA
  Postdoctoral Fellow — *2020– 2021*

Education

- **University of Wisconsin** — Madison, WI
  Ph.D. Mathematics — *2014 – August 2020*
  - Advisor: Daniel Erman
- **University of Wisconsin** — Madison, WI
  M.A. Mathematics — *2014 – 2016*
- **University of Michigan** — Ann Arbor, MI
  B.S. in Mathematics & Political Science — *2010 – 2014*

Extended Invited Visits/Positions

- **Fields Institute - Long Term Visiting Researcher** — Toronto, ON
  Thematic Program in Commutative Algebra and Applications — *Spring 2025*
- **ICERM - Program Postdoc (Virtual)** — Providence, RI
  Semester Program in Combinatorial Algebraic Geometry — *Spring 2021*

Research Interests

Algebraic Geometry, Commutative Algebra, Arithmetic Geometry. Specifically, homological and combinatorial methods in algebraic geometry and commutative algebra.

Publications

21. J. Bruce, L. Cranton Heller, M. Sayrafi. Characterizing Multigraded Regularity and Virtual Resolutions on Products of Projective Spaces. *Advances in Mathematics.* E-Print: arXiv:2110.10705

20. J. Bruce. Asymptotic syzygies for products of projective spaces. *Journal of Algebra*, **649** (2024), 347-391. E-Print: arXiv:1904.04944

19. M. Brandt, J. Bruce, M. Chan, M. Melo, G. Moreland, C. Wolfe. On the Top-weight Cohomology of $\mathcal{A}_g$. *Geometry & Topology*, **28**:2 (2024), 497-538. E-Print: arXiv:2012.02892

18. J. Bruce, D. Corey, D. Erman, S. Goldstein, R. Laudone, and J. Yang. Syzygies of $\mathbb{P}^1 \times \mathbb{P}^1$: Data and Conjectures. *Journal of Algebra*, **593** (2022) no. 1, 589-621. E-Print: arXiv:2104.14598

17. J. Bruce, D. Erman, S. Goldstein, and J. Yang. The Schur-Veronese package in Macaulay2. *Journal of Software for Algebra and Geometry*, **11** (2021), 83-87 E-print: arXiv:1905.12661.

16. J. Bruce. The Quantitative Behavior of Asymptotic Syzygies for Hirzebruch Surfaces. *Journal of Commutative Algebra,* **14** (2022) no. 1, 19-26. E-Print: arXiv:1906.07333.

15. A. Almousa, J. Bruce, M. Loper, and M. Sayrafi. The Virtual Resolutions Package for Macaulay2. *Journal of Software for Algebra and Geometry*, **10** (2020), 50-60. E-print: arXiv:1905.07022.

14. J. Bruce and D. Erman. A probabilistic approach to systems of parameters and Noether normalization. *Algebra and Number Theory*, **13** (2019), no. 9, 2081–2102. E-print: arXiv:1604.01704.

13. J. Bruce and W. Li. Effective bounds on the dimensions of Jacobians covering abelian varieties. *Proc. Amer. Math. Soc.*, **148** (2020), no. 2, 535-551. E-print: arXiv:1804.11015.

12. J. Bruce, D. Erman, S. Goldstein, and J. Yang. Conjectures and computations about Veronese syzygies. *Experimental Mathematics*, **29** (2020), 398-413. E-print: arXiv:1711.03513.

11. M. Brandt, J. Bruce, T. Brysiewicz, R. Krone, and E. Robeva. The degree of $SO(n)$. *Combinatorial Algebraic Geometry*, 207-224, Fields Inst. Commun. **80** (2017). E-print: arXiv:1701.03200.

10. J. Bruce, M. Logue, and R. Walker. Monomial valuations, cusp singularities, and continued fractions. *Journal of Commutative Algebra*, **7** (2015) no. 4, 495-522. E-print: arXiv:1311.6493.

9. J. Bruce, P. Kao, E. Nash, B. Perez, and P. Vermeire. Betti tables of reducible algebraic curves. *Proc. Amer. Math. Soc.* **142** (2014) 4039-4051. E-print: arXiv:1210.3064.

Pre-Prints

8. J. Bruce. Level structures on tropical abelian varieties. *Pre-print.* E-Print: arXiv:2610.41931

7. E. Assaf, M. Brandt, J. Bruce, M. Chan, R. Vlad. Level structures on tropical abelian varieties. *Submitted.* E-Print: arXiv:2609.14895

6. J. Bruce. Eventual Nonstandard Koszulness Fails for Veronese Subrings of Weighted Polynomial Rings. *Submitted.* E-Print: arXiv:2608.23913

5. J. Bruce, J. Bucciarelli, B. Zacovic. Explorations of Matroid Complexes. *Submitted.* E-Print: arXiv:2605.24695

4. J. Bruce, L. Cranton Heller, M. Sayrafi, A. Seceleanu. Seshadri Regions and the Asymptotic Shape of Multigraded Regularity. *Submitted.* E-Print: arXiv:2512.05289

3. E. Assaf, M. Brandt, J. Bruce, M. Chan, R. Vlad. Tropicalizations of locally symmetric varieties. *Submitted.* E-Print: arXiv:2505.10504

2. M. Brandt, J. Bruce, D. Corey. The virtual Euler characteristic for binary matroids. *Submitted.* E-Print: arXiv:2301.10108

1. J. Bruce, L. Cranton Heller, M. Sayrafi. Bounds on Multigraded Regularity. *Submitted.* E-Print: arXiv:2208.11115

Software

4. SchurVeronese, (with D. Erman, S. Goldstein, and J. Yang). Submitted for distribution with future releases of Macaulay2, a compute algebra system focused on computations in algebraic geometry and commutative algebra.

3. VirtualResolutions, (with A. Almousa, M. Loper, and M. Sayrafi). Distributed with version 1.14 of Macaulay2 (2019).

2. FrobeniusThresholds, (with D. Hernández, K. Schwede, D. Smolkin, P. Teixeira, and E. Witt). Distributed with version 1.14 of Macaulay2 (2019).

1. TestIdeals, (with E. Bela, A. Boix, D. Ellingson, D. Hernández, Z. Kadyrsizova, M. Katzman, S. Malec, M. Mastroeni, M. Mostafazadehfard, M. Robinson, K. Schwede, D. Smolkin, P. Teixeira, and E. Witt). Distributed with version 1.14 of Macaulay2 (2019).

Non-Research Articles

2. J. Bruce. A Word from... Juliette Bruce, Inaugural President of Spectra. *Notices of the AMS*, **69** (2022) no. 6, 898–899.

1. A. Bonato, J. Bruce, and R. Buckmire. Spaces for All: The Rise of LGBTQ+ Mathematics Conferences. *Notices of the AMS*, **68** (2021) no. 6, 998-1003. https://doi.org/10.1090/noti2288

Multimedia

1. SyzygyData.com, (with D. Erman, S. Goldstein, and J. Yang). An online public database on large-scale syzygy computations.

Grants

- **Standard Grant – $20,000** October 2024*
  National Science Foundation
- **Conference Funding – $5000** December 2024
  Institutional Diversity & Equity – Dartmouth College
- **Conference Grant DMS-2332592 – $20,000** August 2023
  National Science Foundation
- **Conference Grant – $23,000** July 2022
  Fields Institute / National Science Foundation
- **Postdoctoral Research Fellowship – $150,000** 2020 – 2022
  National Science Foundation
- **Conference Grant DMS-1908799 – $15,000** March 2019
  National Science Foundation
- **Graduate Research Fellowship** 2015 – 2018
  National Science Foundation
- **Conference Grant DMS-1812462 – $15,000** February 2018
  National Science Foundation
- **Professional Development Grant – $1000** December 2016
  Graduate School – University of Wisconsin

Awards & Honors

- **US Junior Oberwolfach Fellow** April 2022
  Awarded to outstanding junior scientists from US to participate in activities at Oberwolfach.
- **Capstone Teaching Award** October 2019
  Awarded to one student in the math department for an exceptional record of teaching excellence.
- **Excellence in Mathematical Research Award** October 2019
  Recognizes significant and substantial contributions to research as part of their thesis.
- **Elizabeth Hirschfelder Prize** October 2018
  Awarded to an outstanding female student.
- **Mathematics TA Service Award** April 2018
  Dept. of Mathematics - University of Wisconsin
- **Teaching Assistant Award for Exceptional Service** February 2018
  Campus-wide award recognizing TA's who perform exceptional service
- **Outstanding Achievement in Mathematics** May 2014
  Dept. of Mathematics – University of Michigan

*Grant partially cancelled due to executive order.

- **Phi Beta Kappa** April 2014
  University of Michigan
- **Chancellor's Opportunity Award** April 2014
  University of Wisconsin

Invited Workshops

- Oberwolfach (MFO) - Asymptotic Invariants of Linear Systems September 2026
- Banff (BIRS) - Regularity in Algebra, Combinatorics, and Geometry April 2026
- American Inst. of Mathematics (AIM) - HMS & Multigraded Comm. Alg. August 2025
- Les Diablerets (SRS) - Polylogarithms, Homology of GL, & Steinberg modules June 2025
- Oberwolfach (MFO) - Toric Geometry April 2025
- Banff (BIRS) - Combinatorics and Geometry of Moduli Spaces of Curves August 2024
- Banff (BIRS) - Random Algebraic Geometry April 2023
- Oberwolfach (MFO) - Toric Geometry April 2022

Seminar and Colloquium Talks

- University of Illinois Chicago - Algebraic Geometry Seminar March 2026
- University of Nebraska Lincoln - Department Colloquium February 2026
- Amherst College - Department Colloquium October 2025
- UMass Amherst - Valley Geometry Seminar October 2025
- Perimeter Institute - Mathematical Physics Seminar March 2025
- University of Vermont - Combinatorics Seminar February 2023
- University of Illinois Urbana-Champaign - Department Colloquium February 2024
- Cal Poly Pomona - Department Colloquium February 2024
- Dartmouth College - Department Colloquium January 2024
- Bowdoin College - Department Colloquium January 2024
- University of Texas - Dallas - Department Colloquium January 2024
- San Francisco State University - Algebra, Geometry, & Combinatorics Seminar September 2023
- University of Vermont - Mathematics Colloquium May 2023
- Princeton University - Algebraic Geometry Seminar April 2023
- Dartmouth College - Algebra & Number Theory Seminar April 2023
- Bowdoin College - Mathematics Colloquium February 2023
- University of Texas - Austin - Geometry Seminar December 2022
- Harvard/MIT - Algebraic Geometry Seminar November 2022
- University of Kentucky - Algebra Seminar November 2022
- San Francisco State University - Mathematistas Raising Voices Colloquium April 2022
- COGENT Seminar - Held Virtually March 2022
- Simon Fraser University - Number Theory & Algebraic Geometry Seminar March 2022
- Reed College - Mathematics Colloquium April 2021

- San Francisco State University - Algebra, Geometry, & Combinatorics Seminar — April 2021
- Algebra, Geometry, and Combinatorics Online - Held Virtually — February 2021
- MPI MiS - Non-linear Algebra Seminar Online — February 2021
- Syracuse University - Algebra Seminar — November 2020
- Arizona State University - AWM Seminar — October 2020
- Arizona State University - Number Theory Seminar — October 2020
- Louisiana State University - Algebra & Number Theory Seminar — October 2020
- University of Georgia - Algebraic Geometry Seminar — October 2020
- Stanford University - Algebraic Geometry Seminar — October 2020
- MSRI - The Fellowship of the Ring — September 2020
- University of Washington - Algebra & Algebraic Geometry Seminar — May 2020†
- University of Nebraska - Commutative Algebra Seminar — April 2020†
- University of Michigan - Commutative Algebra Seminar — December 2019
- University of Notre Dame - Algebraic Geometry Seminar — November 2019
- DePaul University - Algebra, Combinatorics, and Number Theory Seminar — October 2019
- Lawerence University - Mathematics Colloquium — October 2019
- University of Utah - Algebraic Geometry Seminar — September 2019
- Stanford University - Algebraic Geometry Seminar — May 2019
- University of Kentucky - Algebra Seminar — April 2019
- University of Minnesota - Commutative Algebra Seminar — April 2019
- Rice University- Algebraic Geometry and Number Theory Seminar — September 2018
- DePaul University - Algebra, Combinatorics, and Number Theory Seminar — March 2018
- University of Michigan - Commutative Algebra Seminar — December 2017

Conference Talks

- Syzygies and Mirror Symmetry Virtual Seminar — February 2026
- Joint Math Meetings - Washington D.C. — January 2026
- Polylogarithms, Homology of GL, & Steinberg Modules - SwissMap Research Station — June 2025
- Combinatorial Algebraic Geometry HUG - Goethe University of Frankfurt — April 2025
- Joint Math Meetings (x2) - Seattle, WA — January 2025
- Spec($\mathbb{Q}(2\pi i)$) - Fields Institute — June 2024
- Workshop of the Kentucky-Ohio Algebra Alliance - University of Kentucky — May 2024
- Spring AMS Western Sectional - San Francisco State — May 2024
- Joint Math Meetings (x2) - San Francisco, CA — January 2024
- Random Algebraic Geometry - BIRS — April 2023
- Workshop for Graduate Students: Syzygies & Regularity - UIC — April 2023
- Spring AMS Southeastern Sectional - Georgia Tech University — March 2023
- Algebraic Geometry Northeast Series (AGNES) - UMass Amherst — November 2022
- Fall AMS Western Sectional - University of Utah — October 2022

†Canceled due to the COVID-19 pandemic.

- Fall AMS Southeastern Sectional - University of Tennessee, Chattanooga — October 2022
- BATMOBILE - Brown University — May 2022
- CA+ - Iowa State University — April 2022
- Joint Math Meetings (x2) - Seattle, WA — January 2022†
- CMS Winter Meetings - Held Virtually — December 2021
- Queer Research Showcase, QAtCanSTEM - Held Virtually — November 2021
- Fall AMS Central Sectional - Held Virtually — October 2021
- SIAM Conference on Applied Algebraic Geometry 2021 — August 2021
- Queer and Trans in Combinatorics — June 2021
- Math Summer Program for Inclusive Excellence — June 2021
- Spring AMS Western Sectional - Held Virtually — May 2021
- Spring AMS Central Sectional - Held Virtually — April 2021
- Bay Area Discrete (BAD) Math Day - Held Virtually — April 2021
- Spring AMS Southeastern Sectional - Held Virtually — March 2021
- LGBTQ+Math - Fields Institute — November 2020
- Written Geometry: Commutative Algebra - CIRM — October 2020†
- Early Commutative Algebra Researchers (eCARS) - Held Virtually — June 2020
- Foundations of Computational Mathematics - Simon Fraser University — June 2020†
- Western Algebraic Geometry Online (WAGON) - Held Virtually — April 2020
- CA+ - Iowa State University — April 2020†
- Joint Math Meetings - Denver, CO — January 2020
- Fall AMS Central Sectional - University of Wisconsin — September 2019
- SIAM Conference on Applied Algebraic Geometry 2019 — July 2019
- KUMUNUjr - University of Nebraska — March 2019
- Spring AMS Southeastern Sectional - Auburn University — March 2019
- Joint Math Meetings - Baltimore, MD — January 2019
- Fall AMS Central Sectional - University of Michigan — October 2018
- Structures on Free Resolutions - Texas Tech University — October 2017
- Midwest Algebraic Geometry Graduate Conference - University of Illinois, Chicago — April 2015

Poster Talks

- AWM Poster Session - Joint Math Meetings — January 2020
- Summer School on Randomness and Learning in NLA - Max Plank Institute, Leipzig — July 2019
- 2019 AWM Research Symposium - Rice University — April 2019
- AWM Poster Session - Joint Math Meetings — January 2018
- AGNES Poster Session - Brown University — September 2018
- Lectures on Arithmetic Geometry - Rice University — February 2017
- Introductory Workshop: Combinatorial Algebraic Geometry - Fields Institute — August 2016
- Commutative Algebra and Its Interactions with Algebraic Geometry — July 2016
- Midwest Commutative Algebra and Algebraic Geometry Conference — May 2016

Conference & Workshop Organizing

- **BATMOBILE** — Amherst College
  November 21, 2025
- **Algebraic Geometry Northeastern Series (AGNES)** — Dartmouth College
  November 8-10, 2024
- **BATMOBILE** — Dartmouth College
  November 8, 2024
- **GEMS in Commutative Algebra** — University of Minnesota
  November 10-13, 2023
- **GEMS in Combinatorics** — AIM
  March 27-31, 2023
- **Trans Math Day** — Held Virtually
  December 3, 2022
- **BATMOBILE** — Amherst College
  September 30, 2022
- **Spec**$(\overline{\mathbb{Q}})$ — Fields Institute
  July 6-8, 2022
- **LGBTQ+ Math Day** — Fields Institute
  November 18, 2021
- **GEMS in Combinatorics** — Held Virtually
  September 1-2, 2021
- **Trans Math Day** — Held Virtually
  June 14-15, 2021
- **Western Algebraic Geometry Symposium (WAGS)** — Held Virtually
  April 23 - April 24, 2021
- **Trans Math Day** — Held Virtually
  December 5, 2020
- **CAZoom** — Held Virtually
  April 25 - April 26, 2020
- **GWCAWMMG** — University of Minnesota
  April 12 - April 14, 2019
- **Geometry & Arithmetic of Surfaces** — University of Wisconsin
  February 9 - February 10, 2019
- **M2@UW** — University of Wisconsin
  April 14-17, 2018
- **Math Careers Beyond Academia** — University of Wisconsin
  April 14, 2017

Seminar & Session Organizing

- **Algebra & Number Theory Seminar** Dartmouth College
  July 2024 - Present
- **Special Session on Combinatorial Algebraic Geometry** AMS Sectional
  October 1 - October 2, 2022
- **Commutative Algebra & Algebraic Geometry Seminar** UC Berkeley
  September 2021 - May 2022
- **Special Session on Commutative Algebra** AMS Sectional
  May 1 - May 2, 2021
- **Experimental Talks in Algebraic Geometry** Held Virtually
  May - July, 2020
- **Special Session on Combinatorial Algebraic Geometry** AMS Sectional
  September 14 - September 15, 2019

Outreach Activities

- **Count Me In** University of Edinburgh
  Project Leader *July – August 2026*
  - Lead a diverse group of 4 undergraduate students on a project in algebraic geometry and combinatorics.
- **Michigan Research Experience for Graduate Students** University of Michigan
  Project Leader *July – August 2023*
  - Lead a diverse group of 4 early-stage graduate students on a project in algebraic geometry and combinatorics.
  - I expect this project to eventually result in a publication and software package.
- **Virtual Directed Readings in Geometry** Held Virtually
  Organizer *February 2021 – April 2021*
  - Created a virtual, open access, directed reading program for undergraduate students.
  - Approximately 30 students signed up for the 5-week reading group.
- **Virtual Directed Readings in Geometry** Held Virtually
  Organizer *February 2021 – April 2021*
  - Created a virtual, open access, directed reading program for undergraduate students.
  - Approximately 30 students signed up for the 5-week reading group.
- **Algebraic Geometry in the Time of COVID** Held Virtually
  Shepard *June 2020 – October 2020*
  - A virtual, open access introductory course in algebraic geometry.
  - Approximately 1600 registered participants.
- **Undergrad Directed Reading Program** University of Wisconsin
  Mentor *January 2018 – May 2019*
  - Lead two semester long reading projects on commutative algebra and algebraic geometry.
  - Lead an undergraduate women on a two semester reading project, and provided guidance on applying for REU's and graduate school.
- **Graduate Peer Mentoring** University of Wisconsin
  Mentor *September 2018 – December 2018*

  - Mentored 5 first year graduate students from minority genders, organizing monthly dinners where the mentees could discuss issues they were facing.

- **Girls Math Night Out** — University of Wisconsin
  Mentor — *September 2018 – December 2018*
  - Lead 2 women from local high schools on a semesters long project about cryptography.
- **Madison Math Circle** — University of Wisconsin
  Lead Organizer — *January 2016 – December 2018*
  - Lead the creation of a new outreach program, which directly visits high schools around the state of Wisconsin to better serve students from underrepresented groups.
  - Expanded the total number of students reached per year from 25 to >250.
- **Madison Math Circle** — University of Wisconsin
  Student Volunteer — *January 2015 – December 2018*
- **Out in STEM (oSTEM) @ UW-Madison** — University of Wisconsin
  co-Founder — *July 2017 – Math 2018*
  - Founded, at the time. the only campus resource specifically for LGBTQ+ individuals in STEM, and grew the organization to over 50 members.
  - Secured a travel grant to help 11 members (undergraduate and graduate students) attend the national oSTEM conference.
- **Madison Mega Math Meet** — University of Wisconsin
  Graded — *May 2015*
- **Bonding Undergraduate and Graduate Students** — University of Wisconsin
  Mentor for Undergraduate — *September 2014 – December 2014*
- **Michigan Math Circle** — University of Michigan
  Organizer — *January 2013 – June 2014*

Teaching Experience

- **Math 101: Graduate Algebra: Linear and Multilinear Algebra** — Dartmouth College
  Instructor — *Fall 2026*
- **Math 150: Topics in Algebra** — Dartmouth College
  Instructor — *Recurring*
  - Examples in Algebraic Geometry (F24)
  - The Weil Conjectures (W26)
  - Positivity in Algebraic Geometry (F26)
- **Math 121: Commutative Algebra** — Dartmouth College
  Instructor — *Spring 2026*
- **Math 125: Topics in Number Theory (Toric Geometry)** — Dartmouth College
  Instructor — *Spring 2026*
- **Math 8: Calculus of Functions of One and Several Variables** — Dartmouth College
  Instructor/Course Supervisor — *Fall 2024/2025*
- **Math 31: Topics in Algebra** — Dartmouth College
  Instructor — *Fall 2024*
- **Math 221: Calculus and Analytic Geometry I** — University of Wisconsin
  Teaching Assistant — *Fall 2014/2018/2019*

- Selected as a TA coordinator in 2018 and 2019, and was responsible for overseeing all other TA's and mentoring first year TA's.
- Sections ranged from 25-35 students on average, with typically teaching two sections at a time.
- Average score 4.9/5.0

- **Math 228: Wisconsin Emerging Scholars** University of Wisconsin
  Instructor *Fall 2018*
  - Course providing students from underrepresented groups additional support.
  - Course had approximately 10-15 students.
  - Average score: 5.0/5.0, 100% amongst all TA's

- **Math 132: Wisconsin Emerging Scholars** University of Wisconsin
  Instructor *Spring 2015*
  - Course had approximately 15-25 students.
  - Responsible for all aspects of the course.

- **Inquiry Based Learning Courses** University of Michigan
  Course Assistant *2012-2014*
  - Assisted with advanced undergraduate courses on topology, analysis, and probability.
  - Courses had approximately 25-35 students.
  - Facilitated inquiry based learning in the classroom, and responsible for office hours, grading, and review sessions.

Outreach Panels

- **Our Stories** OURFA2M2 Conference
  Speaker *January 2025*
- **Holding AMS Meetings in Localities with Discriminatory Practices** Joint Math Meetings
  Panelist *January 2022*
- **AWM 101: What You Need to Know about Women in Math** Joint Math Meetings
  Panelist *January 2022*
- **Equity, Diversity, and Inclusion in Mathematics** CAIMS
  Panelist *June 2021*
- **Diversity and Inclusion Panel** Womxn in Math at Berkeley
  Panelist *April 2021*
- **How to Stay Productive as a Researcher** Lunch in the Time of COVID
  Panelist *June 2020*
- **Mathematics Research Online: Hosting Virtual Events** Held Virtually
  Panelist *May 2020*
- **Supporting Transgender and Non-binary Students** MAA Panel at the JMM
  Organizer & Moderator *January 2020*
- **Out in Math: Professional Issues Facing LGBTQ Mathematicians** MAA Panel at the JMM
  Panelist *January 2018*

Service

- **AMS: Committee on Engagement, Participation, & Advancement**
  Member At-Large *February 2026 – Present*
- **Spectra: The Association for LGBTQ+ Mathematicians**
  Board of Trustees *January 2026 – Present*
- **SLMath/MSRI: Committee on Women in Mathematics**
  Committee Member *March 2023 – March 2025*
- **Spectra: The Association for LGBTQ+ Mathematicians**
  President, Immediate Past President *September 2020 – January 2022*
- **Communications in Algebra** Editorial Board
  Communications Editor *September 2020 – September 2022*
- **Spectra: The Association for LGBTQ+ Mathematicians**
  Board Member *September 2020 – January 2022*
- **AMS Graduate Student Blog** American Mathematical Society
  Writer & Editor *September 2015 – September 2018*
- **Committee on Inclusivity and Diversity** UW Dept. of Mathematics
  Member *November 2016 – August 2017*
  - Created policies seeking to make the department a more welcoming, inclusive, and comfortable place. This included drafting the department's statement on inclusivity, and creating similar statements for syllabi to be used throughout the department.
- **Committee on TA Pay and Performance** UW Dept. of Mathematics
  Member *September 2015 – August 2017*
  - Developed and implemented a new system to evaluate TA performance, with the goal of creating a more transparent, useful, and non-biased system.
- **Instructor Excellence Program** UW Dept. of Mathematics
  Teaching Mentor *September 2015 – May 2016*
- **Society of Undergraduate Math Students** University of Michigan
  President and Founder *December 2012 – June 2014*

Mentoring

- *Ph.D. Students:*
  - Will DeGroot. (2024 – Present)
  - Jacob Lehmann Duke. (2025 – Present)
- *Specialty Exam Committee:*
  - Will DeGroot. (2024)
  - Jacob Lehmann Duke. (2025)
  - Michaela Polley. (2025)

Referee Work

- *Journals:* AMS (Student Mathematical Library), Algebra & Number Theory, Communications in Algebra, Journal für die reine und angewandte Mathematik (Crelle's Journal), Journal of Algebra, Journal of Commutative Algebra, Journal of Pure and Applied Algebra, Journal of Symbolic Computation, La Matematica, Mathematica Scandinavia, Pacific Journal of Mathematics, Research in the Mathematical Sciences, Rocky Mountain Journal of Mathematics, Selecta Mathematica, Trans. London Math. Soc.
- *Grans:* National Science Foundation - Commutative Algebra Panel (2024)
- *Reviews:* Mathematical Reviews (MathSciNet)

Memberships

- Society of Industrial and Applied Mathematics — January 2017 – Present
- Association for Women in Mathematics — January 2016 – Present
- American Mathematical Society — September 2014 – Present