RANTHONY A.C. EDMONDS

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EDUCATION

PhD in Mathematics: University of Iowa, Iowa City, IA — August 2018
Dissertation: *Factorization in Polynomial Rings with Zero Divisors*
Advisor: Professor Daniel D. Anderson

M.S. in Mathematics: University of Iowa, Iowa City, IA — May 2015

M.S. in Mathematical Sciences: Eastern Kentucky University, Richmond, KY — May 2013
Thesis: *Amicable Pairs in the Gaussian Integers*
Advisor: Professor Patrick Costello

B.S. in Mathematics: University of Kentucky, Lexington, KY — May 2011

B.A. in English: University of Kentucky, Lexington, KY — May 2011
Minor: African American Studies

Certifications:

The Erdös Institute: The Ohio State University, Columbus, OH — December 2021
Data Science Bootcamp, 10 weeks

Graduate Certificate in Online Teaching: University of Iowa, Iowa City, IA — December 2017
Department of Psychological & Quantitative Foundations, 12 credit hours

Graduate Certificate in College Teaching: University of Iowa, Iowa City, IA — December 2017
Office of Graduate Teaching Excellence, 12 credit hours

EMPLOYMENT

National Science Foundation Postdoctoral Fellow — January 2022 - Present
Supported by NSF MPS Ascending Fellowship Award # 2138110 — Columbus, OH
Host Institution: The Ohio State University
Sponsoring Scientist: Facundo Mémoli

Postdoctoral Researcher — August 2020 - Present
The Ohio State University — Columbus, OH
Supported by NSF RTG Grant Algebraic Topology and Its Applications # 1547357

Ross Assistant Professor — August 2018 - August 2020
The Ohio State University — Columbus, OH

RESEARCH INTERESTS

- **Commutative Algebra:** Factorization, Commutative Rings, Zero Divisors, Numerical Semigroup Algebras
- **Applied Algebra:** Topological Data Analysis, Persistent Homology, Algebraic Topology
- **Data Science:** Unsupervised Learning, Hierarchical Clustering, Geospatial Data Analysis
- **Mathematics Education:** Online Teaching, Flipped Instruction, Service Learning, Black Math History
- **Social Justice:** Redistricting, Community, Storytelling, Diversity, Equity, and Inclusion in Mathematics

PUBLICATIONS

Research

- Austin Antoniou, Ranthony A.C. Edmonds, Bethany Kubik, Christopher O'Neil, and Shannon Talbott. *On Atomic Density of Numerical Semigroup Algebras*, 2021. (to appear in Journal of Commutative Algebra) [arXiv:2003.01710]

- Ranthony A.C. Edmonds and Jason Juett. *Associates, Irreducibility, and Factorization Length in Monoid Rings with Zero Divisors*, 2020. (to appear in Communications in Algebra)

- D.D. Anderson and Ranthony A.C. Edmonds. *Unique Factorization in Polynomial Rings with Zero Divisors*, 2020. (to appear in Journal of Algebra and its Applications)

- Patrick Costello and Ranthony A.C. Edmonds. *Gaussian Amicable Pairs*. Missouri J. Math. Sci. 30 (2018), 107-116

- Ranthony A.C. Edmonds. *Factorization in Polynomial Rings with Zero Divisors*. Dissertation. University of Iowa, 2018.

- Ranthony A. Clark. *Gaussian Amicable Pairs*. Master's Thesis. Eastern Kentucky University, 2013.

Expository

- Ranthony A.C. Edmonds and Omayra Ortega. *Perseverance and Representation: A Memorial for Katherine Coleman Goble Johnson August 26, 2018 - February 24, 2020*. Notices of the American Mathematical Society, March 2021.

- Ranthony A.C Edmonds and John H. Johnson, Jr. *Intersections of Mathematics and Society*. Early Career Section of the Notices of the American Mathematical Society, February 2021.

- Alexander J. Barrios, Ranthony A.C. Edmonds, and Roberto Soto. *Math Alliance: Investing in Tomorrow Today*. Count Me In: Community and Belonging in Mathematics by Della Dumbaugh and Deanna Haunsperger, MAA Press. [Book Chapter]

- Ranthony A.C. Edmonds and John H. Johnson, Jr. *Exploring Mathematical Careers and Community through the Hidden Figures Story*. The Ohio State University Department of Mathematics Newsletter, Summer 2020.

- Ranthony A.C. Edmonds. *Math Alliance: Field of Dreams Conference*. The Ohio State University Department of Mathematics Newsletter, Autumn 2019.

WORKS IN PROGRESS

Research

- *Atomic Density and Irreducibles in Power Series Rings over Numerical Semigroup Algebras*　　　in progress
  Ranthony A.C. Edmonds, Bethany Kubik, Christopher O'Neill, and Shannon Talbott

- *Quantifying Communities of Interest in Redistricting*　　　in progress
  Moon Duchin, Ranthony A.C. Edmonds, Parker Edwards, Vladimir Kogan, and Ari Stern.

Expository

- *Hidden Figures Revealed: Dynamic History and Narratives of Black Mathematicians at Ohio State*　　　in progress
  Ranthony A.C. Edmonds

GRANTS AND FELLOWSHIPS

Awards Supporting Research

- PI: NSF MPS Ascending Postdoctoral Research Fellowship (inaugural recipient)   January 2022
  $300,000 award, National Science Foundation Mathematical and Physical Sciences Directorate
  Title: "Persistent Homology, Metrics, and Applications on the Collection of Enriched Metric Measure Spaces"

- PI: Racial Justice Seed Grant (inaugural recipient)   December 2020
  $25,000 (+$25,000 matching funds from GAHDT), The Ohio State University Office of Research
  Funds to support case study research and digital archive of Black mathematicians from Ohio State

- Co-PI: 35th OSU-Denison Math Conference Funding Proposal   April 2019
  $5,000 award, Mathematics Research Institute (MRI) at The Ohio State University

- Sloan Mini-Grant Recipient   Spring 2018
  $500 award, Sloan Center at the University of Iowa
  Funds used towards purchase of Commutative Algebra textbooks

- Sloan Mini-Grant Recipient   Summer 2017
  $500 award, Sloan Center at the University of Iowa
  Funds for travel to work on paper *Gaussian Amicable Pairs* with Prof. Patrick Costello

- GAANN Fellowship   2014 to 2015
  University of Iowa year two fellowship

- Dean's Graduate Research Fellowship   2013 to 2018
  University of Iowa fellowship for first year and dissertation year, along with summer support

Awards Supporting Teaching

- PI: Arts and Sciences Service-Learning Course Proposal Grant   April 2019
  $2,000 stipend (+ course release), The Ohio State University Arts & Sciences Curriculum Committee
  Funds to develop course *Intersections of Mathematics and Society: Hidden Figures*

- PI: Service-Learning Course Grant   March 2019
  $4,000 award (+$4,000 matching funds), The Ohio State University Office of Service-Learning
  Funds to implement course *Intersections of Mathematics and Society: Hidden Figures*

- Teaching as Research (TAR) Fellow   December 2017
  $1,000 stipend, Center for the Integration of Research Teaching and Learning (CIRTL)
  Funds to support the implementation of a partially flipped classroom using iPad Pro

- Sloan Mini-Grant Recipient   Fall 2016
  $500 award, Sloan Center at The University of Iowa
  Funds used towards purchase of an iPad Pro

Awards Supporting Travel

- Professional Development Award   Fall 2020
  up to $400 award, The Ohio State Postdoctoral Association
  Funds to attend Virtual AMS Fall Southeastern Sectional Meeting

- Graduate Student Senate Travel Award   Spring 2018
  $750 award, University of Iowa Graduate Student Senate
  Funds to attend 2018 Joint Mathematics Meetings in San Diego, CA

- Sloan Mini-Grant Recipient   Spring 2017
  $500 award, Sloan Center at the University of Iowa
  Funds to attend 2017 MAA MathFest in Chicago, IL

- Sloan Mini-Grant Recipient   Spring 2016
  $500 award, Sloan Center at the University of Iowa
  Funds to attend 2016 MAA Mathfest in Columbus, OH

AWARDS AND HONORS

- Mathematically Gifted & Black Society of Industrial and Applied Mathematics Early Career Fellow   2022 to 2024
  Accepted into inaugural cohort of MSEC Fellows to support early career applied mathematicians.

- Top Data Science Project Award, Erdös Institute   Fall 2021
  Team won award for unsupervised learning project on quantifying special teams in the National Football League.

- Project NExT (peach '18 dot), Mathematical Association of America   2018 to 2019
  Accepted into national program for new mathematics teaching. faculty

- Professional Advancement Initiative (PAI) Fellow   2018 to present
  NSF Program for underrepresented postdoctoral fellows in STEM at Big 10 Schools.

- STEAM Factory: The Ohio State University   2020 to present
  Accepted as a member of network focused on outreach and interdisciplinary collaboration in the arts and sciences.

- Outstanding Teaching Assistant Award, University of Iowa Council on Teaching   2017
  Selected as 1 of 31 from approximately 1400 teaching assistants across all disciplines.

- Graduate Teaching Fellowship, University of Iowa Center for Teaching   2016 to 2017
  Selected as 1 of 4 graduate students campus-wide for the inaugural cohort.

- Iowa Section NExT Fellow, Iowa Section of MAA   2016 to 2017

- EDGE Program, New College of Florida   Summer 2013

TEACHING EXPERIENCE

The Ohio State University

- Introduction to Applied Algebraic Topology (Instructor)   Spring 2021

  This undergraduate course teaches the main concepts in applied algebraic topology with a view towards persistent homology of point clouds for applications to data analysis. Emphasis is on homology of simplicial complexes over a the finite field with two elements. Final project explored topological approaches to studying redistricting.

- Intersections of Mathematics and Society: Hidden Figures (Instructor)　　Spring 2020, Spring 2021

    Co-developed service-learning course for department focused on mathematics of the Space Race and diversity and inclusion in mathematical communities. Established community partnerships for service-learning with Columbus Metropolitan Library and Center of Science and Industry (COSI). Obtained local 'Hidden Figure' mentors for students from JP Morgan & Chase, Honda, Franklin County Coroner's Office, and Columbus City Schools.

- Abstract Algebra 2 (Recitation Leader)　　Spring 2020

    Qualifying Level Graduate Course for PhD Students

- Abstract Algebra 1 (Recitation Leader)　　Autumn 2019

    Qualifying Level Graduate Course for PhD Students

- Calculus 1 (Instructor)　　Spring 2019

- Calculus 1 Flipped and Flexible (Recitation Leader)　　Autumn 2018, Spring 2019

    Students view departmental lecture videos three days a week on their own and attend recitation twice a week (online or in person) where we reviewed course content in a collaborative group setting using inquiry based learning.

University of Iowa

- Trigonometry, Partially Flipped Classroom (Instructor)　　Spring 2017

- Basic Algebra (Instructor)　　Fall 2016

- Math for Business (Head Teaching Assistant)　　Spring 2016

- Calculus and Matrix Algebra for Business (Head Teaching Assistant)　　Fall 2015

- Discrete Mathematics, IBL Classroom (Teaching Practicum)　　Fall 2017

Bluegrass Community and Technical College

- Developmental Math (Adjunct Faculty)　　Summer 2013, Spring 2013

Eastern Kentucky University

- Developmental Algebra 1 (Instructor)　　Spring 2013

- Developmental Algebra 1 (Recitation Leader)　　Fall 2012, Fall 2012

- College Algebra (Recitation Leader)　　Fall 2011, Spring 2012

The Academy for Scholastic and Personal Success - Cedar Rapids, IA

- Algebra 2, Geometry, Physics (Instructor)　　June to July 2016

- Trigonometry, Algebra 1, Physics (Instructor)　　June to July 2015

Upward Bound - Bluegrass Community and Technical College

- Algebra 1, Precalculus (Instructor)　　June 2011

PEDAGOGICAL SKILLS

- **Online Teaching:** Universal Design for Learning
- **Active Learning Techniques:** Flipped Instruction, Inquiry Based Learning
- **Experiential Learning Techniques:** Service Learning

PRESENTATIONS

Keynote Talks

- "Uniqueness, Persistence, and Hidden Figures"   April 29, 2022
  Bolstering the Advancement of Masters in Mathematics (BAAM!) (virtual)

- "Math, Metrics, and Democracy"   March 26, 2022
  MAA Ohio Spring Sectional Meeting, Xavier University, Cincinnati, OH

- "Death to Determinants!"   March 25, 2022
  MAA Ohio Spring Sectional Meeting, Xavier University, Cincinnati, OH

- "Hidden Figures, Experiential Learning, and Social Justice: March 10, 2022
  How CIRTL Helped Launch my Academic Career"
  CIRTL Network Semi-annual Meeting (virtual)

- "All the Things They Told Me Not to Do: December 4, 2021
  Reflections on Service and Outreach as an Early Career Mathematician"
  Online Undegraduate Resource Fair for the Advancement in Academia of Marginalized Mathematicians (virtual)

- "Hidden Narratives in Mathematics"   October 7, 2021
  Ohio Council of Teachers of Mathematics 71st Annual Conference (virtual)

- "Hidden Narratives in Mathematics: The Power of Storytelling"   August 18, 2021
  ICERM Public Lecture (virtual)

- "Let's Break it Down: Atoms in Commutative Rings"   March 7, 2020
  WimSoCal Symposium for Women in Mathematics in Southern California:
  University of California at Irvine, Irvine, CA

Invited Talks

- "Reflections on Math for Social Good: Hidden Narratives in STEM and Redistricting"   April 1, 2022
  Mathematics and Social Justice Course Guest Speaker: Swarthmore College (virtual)

- "Breaking It Down: Factorization in Commutative Rings and Things"   June 18, 2021
  Colloquium: MSRI-UP (virtual)

- "Hidden Figures, Service-learning, and Mathematical Community"   June 4, 2021
  Colloquium: University of Washington (virtual)

- "Storytelling for Learning and Engagement"   May 3, 2021
  Enriching Scholarship Conference: University of Michigan (virtual)

- "Factorization in Numerical Semigroup Algebras"   May 2, 2021
  Special Session on Women in Commutative Algebra: AMS Spring Sectional Meeting (virtual)

- "Hidden Figures, Service-learning, and Mathematical Community"   March 18, 2021
  Teaching and Learning Seminar: University of Kentucky (virtual)

- "From Hidden Figures to Human Flourishing (w/Francis Su)"   March 11, 2021
  Webinar: Ohio Mathematics and Science Coalition (virtual)

- "Hidden Figures and Mathematical Community"   February 25, 2021
  Colloquium: Marian University (virtual)

- "Mathematical Communities and Friendly Numbers"   February 11, 2021
  Columbus Academy Math Club (virtual)

- "Hidden Figures, Service Learning, and Mathematical Community"   January 6, 2021
  AMS Special Session on Outreach and Engagement: Joint Mathematics Meetings (virtual)

- "On Atomic Density of Numerical Semigroup Alebgras"   January 6, 2021
  AMS Special Session on Commutative Algebra: Joint Mathematics Meetings (virtual)

- "My Journey in Mathematics" (Plenary Interview)   November 6, 2020
  Field of Dreams Conference (virtual)

- "On Atomic Density of Numerical Semigroup Algebras"   October 10, 2020
  AMS Special Session on Commutative Algebra: AMS Sectional Meeting (virtual)

- "Death to Determinants!"   September 30, 2020
  Radical Pi Math Club: The Ohio State University, Columbus, OH (virtual)

- "Exploring Diversity and Community in Mathematics through the Hidden Figures Story"   September 23, 2020
  Radical Pi Math Club: The Ohio State University, Columbus, OH (virtual)

- "Connecting the Dots: Dorothy Vaughan and Community in the Hidden Figures Story"   July 16, 2020
  PRiME REU Colloquium Series: Pomona College, Claremont CA (virtual)

- "Highlighting the Hidden Legacy of Eunice Gray Smith"   July 31, 2020
  MAA Invited Paper Session on African American Women and the Mathematics of Flight:
  MAA MathFest, Philadelphia, PA (cancelled COVID-19)

- "Amicable Pairs: Real and Imaginary Friendly Numbers"   November 6, 2019
  Radical Pi Math Club: The Ohio State University, Columbus, OH

- "On Their Shoulders: Hidden Figures and my Journey in Mathematics"   October 22, 2019
  Women in the Mathematical Sciences (WIMS): The Ohio State University, Columbus, OH

- "On Flavors of Factorization in Commutative Rings with Zero Divisors"   August 3, 2019
  AMS Invited Paper Session on Commutative Algebra: MAA MathFest, Cincinnati, OH

- "Factorization in Polynomial Rings with Zero Divisors"   April 13, 2019
  7th Midwest Women in Mathematics Symposium: University of Iowa, Iowa City, IA

- "Amicable Pairs: Real and Imaginary Friendly Numbers"   March 8, 2019
  Colloquium: Bates College, Lewiston, ME

- "Factorization in Polynomial Rings with Zero Divisors"   January 18, 2019
  NAM Haynes-Granville-Brown Session: Joint Mathematics Meetings, Baltimore, MD

- "Mathematical Atoms: An Introduction to Factorization Theory   October 29, 2018
  Colloquium: Centre College, Danville, KY

- "Unique Factorization in Polynomial Rings with Zero Diviosrs"   October 21, 2018
  AMS Sectional Meeting: University of Michigan, Ann Arbor, MI

- "Atoms in Mathematics: A Brief Introduction to Factorization Theory"   April 26, 2018
  Colloquium: Reed College, Portland, OR

- "Factorization in Polynomial Rings with Zero Divisors"   April 16, 2018
  Ring Theory Seminar: The Ohio State University, Columbus, OH

- "Some Remarks on Uniqueness: Polynomial Rings and My Journey in Mathematics"   November 30, 2017
  Seminar: William Penn University, Oskaloosa, IA

- "Gaussian Amicable Pairs: Friendly Imaginary Numbers"   April 29, 2013
  Colloquium: Eastern Kentucky University, Richmond, KY

Contributed Talks

- "Beyond Leaky Pipes: Fostering Pathways and Persistence in the Mathematical Sciences"   August 2, 2019
  MAA Contributed Paper Session, MAA MathFest, Cincinnati, OH

- "Inquiry Based Learning in Discrete Mathematics"   August 2, 2018
  MAA Contributed Paper Session, MAA MathFest, Denver, CO

- "Unique Factorization in Polynomial Rings with Zero Divisors"   January 12, 2018
  AMS Special Session: Joint Mathematics Meetings, San Diego, CA

- "A Case for a Partial Flip: A Blended Model for a College Trigonometry Course"   January 10, 2018
  MAA Contributed Paper Session: Joint Mathematics Meetings, San Diego, CA

- "A Case for a Partial Flip: A Blended Model for a College Trigonometry Course"   October 27, 2017
  MAA Iowa Section Meeting: Loras College, Dubuque, IA

- "A Partially Flipped Model for a College Trigonometry Course"   July 28, 2017
  MAA Contributed Paper Session: MAA MathFest, Chicago, IL

- "Enhancing a Partially Flipped Trigonometry Classroom with Inquiry Based Learning"   July 28, 2017
  Constructing the Future of IBL Poster Session: MAA MathFest, Chicago, IL

- "Teaching as Research: A Partially Flipped Model for a College Trigonometry Course"   June 28, 2017
  CIRTL at UIOWA TAR Presentation: University of Iowa, Iowa City, IA

- "Graduate Teaching Fellows: Transforming Teaching at the University of Iowa"   April 14, 2017
  Graduate Teaching Fellows Showcase: Center for Teaching, University of Iowa, Iowa City, IA

- "Graduate Teaching Fellows: Transforming Teaching at the University of Iowa"   March 25, 2017
  19th Annual Jakobsen Conference: University of Iowa, Iowa City, IA

- "Gaussian Amicable Pairs: Friendly Imaginary Numbers   April 6, 2013
  AMS Sectional Meeting: Transylvania University, Lexington, KY

- "Gaussian Amicable Pairs: Friendly Imaginary Numbers   March 29, 2013
  26th Annual EKU Symposium in the Mathematical, Statistical, and Computer Sciences:
  Eastern Kentucky University, Richmond, KY

Seminar Talks

- "Theoretical Foundations of Clustering"   March 3 & 24, 2022
  TDA Small Group: The Ohio State University, Columbus, OH

- "Topological Data Analysis and Electoral Voting"   April 8, 2021
  TDA Small Group: The Ohio State University, Columbus, OH

- "Let's Break it Down: Factorization in Commutative Rings with Zero Divisors"   February 7, 2019
  Welcome Seminar: The Ohio State University, Columbus, OH

- "The Hilbert Series of the Stanley Reisner Ring"   October 18, 2017
  Commutative Rings Seminar: University of Iowa, Iowa City, IA

- "Characterizing Stanley Reisner Ideals using Simplicial Complexes"   October 11, 2017
  Commutative Rings Seminar: University of Iowa, Iowa City, IA

- "Factorization in Commutative Rings with Zero Divisors"   October 19, 2016
  Commutative Rings Seminar: University of Iowa, Iowa City, IA

SERVICE

Service to the Profession

- Associate Editor: The American Mathematical Monthly   January 2021 to present

Institutional Service

- Co-organizer: "A Seat at the Table: A Dialogue on Equity and Inclusion in STEM"   Spring 2019
  Dialogue and Discussion Series at Ohio State sponsored by Department of Mathematics,
  Office of Diversity and Inclusion, and Department of African and African-American Studies

- CIRTL Steering Committee   2016, 2017
  University of Iowa, Iowa City, IA

- CIRTL Ambassador, CIRTL at the University of Iowa   2016 to 2017

Departmental Service

- Co-organizer: TGDA Seminar   2020, 2021, 2022
  Seminar for Topology, Geometry, and Data Analysis Group
  The Ohio State University, Columbus, OH

- Co-organizer: Reading (Semi)group   Fall 2020
  Reading Seminar on Semigroup Theory,
  The Ohio State University, Columbus, OH

Workshops Facilitated

- "Executing Your Teaching As Research Project (TAR) Project: Considerations for Implementation"   July 2018
  CIRTL Summer Series: University of Iowa, Iowa City, IA

- "Universal Design for Learning (UDL) in the College Classroom"   March 2017
  Center for Teaching, University of Iowa, Iowa City, IA

- Sonia Kovalevsky Day Event Organizer, Theme: Math Girls R.O.C.K.   March 2017
  University of Iowa Department of Mathematics, Iowa City, IA

Events

- Networking Participation Recipient   March 2017
  Iowa STEM Pre-service Teacher Conference, Kirkwood at University of Iowa, Coralville, IA

- TA Troubleshooting Case Studies Facilitator   August 2016
  Graduate College New TA Orientation, University of Iowa, Iowa City, IA

- Sonia Kovalevsky Day Event Volunteer: Jeopardy Room   October 2011
  University of Kentucky Department of Mathematics, Lexington, KY

Panels

- Panelist: "TBD"   May 12, 2022
  Redistricting Program for United Way of Central Ohio

- Panelist: "Mentoring Panel"   April 29, 2021
  Underrepresented Students in Topology and Algebra Research Symposium (ICERM)

- Panelist: "The Mathematician's Role in Society"   April 28, 2021
  Lunch in the Time of COVID: UC Santa Cruz

- Panelist: "Graduate Study and Careers in Academia"   March 26, 2021
  Graduate TA Q & A Panel: San Diego State University

- Panelist: "Science Fiction vs Science Fact in Hidden Figures"   December 9, 2020
  Monthly Movie Night - OSU Department of Astronomy and Department of Mathematics

- Panelist: "How Completing a TAR Project Impacted my Career"   November 16, 2020
  CIRTL Networking Presentation CIRTL at The University of Iowa, Iowa City, IA

- Panelist: Mentoring Panel   April 4, 2020
  USTARS 2020: University of Iowa, Iowa City, IA (cancelled COVID-19)

- Panelist: "Hidden Figures: eSTEAMed Women"   March 25, 2020
  11th Annual Gathering of Women, Society of Sisters, Columbus, OH (cancelled COVID-19)

- Panelist: "How Do You Know When You Know Math?"   November 16, 2020
  Field of Dreams Conference, St. Louis, MO

- Panelist: "Educating Black Girls and Women in STEM Fields"   September 28, 2019
  African American & African Studies Community Extension Center, Columbus, OH

- Panelist: "Fields of Success"   November 2, 2018
  Field of Dreams Conference, St. Louis, MO

- Panelist: "New TA Seminar"   December 4, 2017
  TA Seminar, University of Iowa Department of Mathematics, Iowa City, IA

- Panelist: "What to do Post Qual/Pre-Comp"   November 16, 2017
  University of Iowa Department of Mathematics, Iowa City, IA

- Panelist: "Hidden Figures Revealed"   March 23, 2017
  Adler Planetarium and DuSable Museum of African American History

- Panelist: "Graduate College Experiences"   August 16, 2017
  Graduate College Orientation, University of Iowa, Iowa , City, IA

- Panelist: "Teaching as a Transferable Skill for Your Career"   August 16, 2017
  Graduate College Orientation (CIRTL) at University of Iowa, Iowa City, IA

- Panelist: "University of Iowa Black Math PhDs"   June 23, 2017
  Academy for Scholastic and Personal Success, Cedar Rapids, IA

- Panelist: "Balancing Teaching and Research"   December 5, 2016
  New TA Seminar, University of Iowa Department of Mathematics

- Moderator: "Doctoral Experiences"   November 6, 2016
  Field of Dreams Conference, St. Louis, MO

- Organizer/Moderator: "University of Iowa Black Math PhDs"   June 15, 2016
  The Academy for Scholastic and Personal Success, Cedar Rapids, IA

- Co-organizer/Moderator: "Career Panel"   April 2015
  Sonia Kovalevsky Day, University of Iowa Department of Mathematics

- Panelist: "Being a Teaching Assisant"   April 2016
  Prospective Student Week, University of Iowa Department of Mathematics

Mentoring Activities

- Unofficial Mentoring to Women and Underrepresented Students 1-3 hrs/week

- F-GAP Program Faculty Facilitator 2019
  National Alliance for Doctoral Studies in the Mathematical Sciences

- Pre-doctoral Mentor 2019 to present
  National Alliance for Doctoral Studies in the Mathematical Sciences

- Invite a Professor to Lunch 2018, 2019
  College of Arts and Sciences Program, The Ohio State University, Columbus, OH

- First Year Buddy 2016
  Mentoring Program for First Year Graduate Students, University of Iowa, Iowa City, IA

PROFESSIONAL DEVELOPMENT

Certificates

- Course Design Institute: Service Learning May 2019
  University Institute for Teaching and Learning (UITL), The Ohio State University, Columbus, OH
  Five part workshop to design a course with hands-on guidance from UITL staff

- CIRTL Associate June 2016
  Center for the Integration of Research Teaching and Learning, University of Iowa, Iowa City, IA
  Six workshops on evidence-based teaching, learning communities, and learning through diversity

Workshop/Program Participation

- AMS Mathematics Research Community June 2022
  American Mathematical Society, Beaver Hollow, New York
  One week research workshop on 'Data Science at the Crossroads of Analysis, Topology, and Geometry'

- Broadening Participation: MPS 2020 Workshop for New Investigators November 2020
  National Science Foundation, University of Florida
  Two day workshop for future principal investigators to learn NSF Review Process

- Faculty Success Program Summer 2020
  National Center for Faculty Development and Diversity (NCFDD)
  12 Week Online Research and Writing Productivity Program

- MSRI Modern Math Workshop October 2019
  SACNAS: Society for the Advancement of Chicanos and Native Americans in the Sciences, Honolulu, HI

- PAI Postdoc Workshop June 2019
  Big Ten Academic Alliance, Rosemont, IL

- Early Career Faculty Workshop April 2019
  USTARS: Underrepresented Students in Algebra and Topology Research Symposium, Iowa State, Ames, IA

- Planning and Writing Successful Proposals Seminar   September 2018
  AtKisson Training Group, LLC, Columbus, OH

- MAA Project NExT   2018, 2019
  MAA Math Fest 2018, Joint Mathematics Meetings 2019, MAA MathFest 2019

- Iowa Section NExT Workshop   October 2016
  MAA Iowa Section Meeting, Loras College, Dubuque, IA

- Effective Teaching Institute   January 2016
  Center for Teaching, University of Iowa, Iowa City, IA

Reading Groups

- Text: MAA Instructional Practices Guide   Fall 2018
  The Ohio State University Department of Mathematics

Graduate Education Courses

- Web Based Learning   Fall 2017
- ePortfolio in College Teaching   Fall 2017
- Practicum in College Teaching   Fall 2016, Fall 2017
- Tools and Utilities for Online Teaching   Fall 2016
- Seminar in College Teaching   Spring 2016
- Universal Design & Accessibility Online   Spring 2016
- Design of Instruction   Fall 2015

CONFERENCE ACTIVITIES

Organized Conferences

- Columbus Coordinator   May 2020
  35th OSU-Denison Math Conference, Columbus, OH (cancelled COVID-19)

Organized Conference Sessions

- Workshop Co-organizer: "Navigating Academia as an Underrepresented Early Career Mathematician"   July 2020
  MAA MathFest, Philadelphia, PA (cancelled COVID-19)

- Contributed Paper Session Co-organizer: "Equity, Diversity, and Inclusion in Mathematics"   July 2020
  MAA MathFest, Philadelphia, PA (cancelled COVID-19)

- Contributed Paper Session Co-organizer: "Equity, Diversity, and Inclusion in Mathematics"   July 2019
  MAA MathFest, Cincinnati, OH

- Workshop Co-organizer: "Maximizing Student Outcomes in Flipped Classrooms"   January 2019
  Joint Mathematics Meetings, Baltimore, MD

Conferences Attended

- MAA Ohio Spring Sectional Meeting, Xavier University, Cincinnati, OH — March 2022
- AMS Sectional Meeting (virtual, formerly at San Franciso State University) — May 2021
- USTARS (virtual, ICERM) — April 2021
- paraDIGMS (virtual) — April 2021
- Mathematical and Computational Approaches to Social Justice, ICERM (virtual) — March 2021
- Joint Mathematics Meeting (virtual) — January 2020
- paraDIGMS (virtual) — November 2020
- Field of Dreams (virtual) — November 2020
- AMS Sectional Meeting (virtual, formerly at University of Tennessee at Chatanooga) — October 2020
- MAA MathFest, Philadelphia, PA (cancelled COVID-19) — July 2020
- 35th OSU-Denison Math Conference (postponed COVID-19) — May 2020
- CAZoom: Virtual Commutative Algebra Conference — April 2020
- USTARS, University of Iowa, Iowa City, IA (cancelled COVID-19) — April 2020
- WimSoCal, University of California at Irvine, Irvine, CA — March 2020
- Field of Dreams, St. Louis, MO — November 2019
- SACNAS, Honolulu, HI — October 2019
- Congressional Black Caucus, Washington D.C. — September 2019
- MAA MathFest, Cincinnati, OH — July 2019
- USTARS, Iowa State University, Ames, IA — April 2019
- 7th Midwest Women in Mathematics Symposium, University of Iowa, Iowa City, IA — April 2019
- Joint Mathematics Meeting, Baltimore, MD — January 2019
- Field of Dreams, St. Louis, MO — November 2018
- AMS Sectional Meeting, University of Michigan, Ann Arbor, MI — October 2018
- MAA MathFest, Denver, CO — July 2018
- Joint Mathematics Meetings, San Diego, CA — January 2018
- Field of Dreams, St. Louis, MO — November 2017
- MAA Iowa Section Meeting, Loras College, Dubuque, IA — October 2017
- MAA MathFest, Chicago, IL — July 2017
- Constructing the Future of Inquiry-Based Learning (IBL), Chicago, IL — July 2017
- 19th Annual Jakobsen Conference, University of Iowa, Iowa City, IA — March 2017
- Field of Dreams, St. Louis, MO — November 2016
- MAA Iowa Section Meeting, Grandview University, Des Moines, IA — October 2016
- MAA MathFest, Columbus, OH — August 2016
- USTARS, University of California at Berkley, Berkley, CA — April 2014
- Field of Dreams, Phoenix, AZ — November 2014
- AMS Sectional Meeting, Transylvania University, Lexington, KY — April 2013
- Joint Mathematics Meeting, Boston, MA — January 2012
- MAA MathFest, Lexington, KY — August 2011