ASSOCIATION FOR WOMEN IN MATHEMATICS

Newsletter

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The purpose of the Association for Women in Mathematics is to create a community in which women and girls can thrive in their mathematical endeavors, and to promote equitable opportunity and treatment of women and others of marginalized genders and gender identities across the mathematical sciences.

IN THIS ISSUE

AWM Slate Announced!

We are pleased to announce the slate for this fall's AWM election. **Raegan Higgins** (Texas Tech University) has been nominated to serve as President-Elect. **Mary Shepherd** (Northwest Missouri State, Emerita) has been nominated to serve a second term as Treasurer. **Julie Bergner** (University of Virginia), **Monica Jackson** (American University), **Gizem Karaali** (Pomona College), **Christine Kelley** (University of Nebraska – Lincoln), **Emille Lawrence** (University of San Francisco), **Rosa Orellana** (Dartmouth College), **Katrin Wehrheim** (University of California at Berkeley), and **Emily Witt** (University of Kansas) have accepted nominations for Member-at-Large; four will be elected.

Nominations by petition signed by 15 members are due to our president by **September 1, 2023**. We give our thanks to the Nominating Committee (Ruth Haas, chair), Christine Berkesch, Alissa Crans, Stephan Garcia, Katharine Gurski, and Deanna Haunsperger)!

2023 AWM Research Symposium

The AWM Research Symposium will be held at Clark Atlanta University, September 30 – October 2, 2023. It will feature:

- Plenary Lecturers
  - Ranthony Edmonds, The Ohio State University
  - Monica Jackson, American University
  - Nicole Joseph, Vanderbilt University
  - Lillian Pierce, Duke University
  - TBA
- Special sessions on a broad range of research in pure mathematics, applied mathematics, and mathematics education (see below for session information)
- Poster sessions for graduate students and recent PhDs
- Networking sessions
- A presentation of the AWM Presidential Award at the Banquet
- Exhibitors from across academia, government and industry who will be co-located in the main meeting areas so that you can meet them and learn what they have to offer
- And plenty of informal opportunities to grow your network!

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ASSOCIATION FOR WOMEN IN MATHEMATICS

AWM was founded in 1971 at the Joint Meetings in Atlantic City.

The *Newsletter* is published bi-monthly. Articles, letters to the editor, and announcements are welcome.

Opinions expressed in *AWM Newsletter* articles are those of the authors and do not necessarily reflect opinions of the editors or policies of the Association for Women in Mathematics. Authors sign consent to publish forms.

Circulation: 3500.

2023 AWM RESEARCH SYMPOSIUM *continued from page 1*

Please register for this exciting event at https://awm-math.org/meetings/awm-research-symposium/ by clicking on the REGISTER HERE! Button.

More information is available at the symposium webpage. Here is a taste of what you will find when you attend.

Panels: Math Research in Government and Government Labs, Research Collaboration Conferences and Networks for Women, and Women in the Division of Mathematical Sciences at NSF.

Roundtables: Applications of Equations of Mathematical Physics; Constructing an "Elevator Pitch"; Discussion of Academia, Government, and Industry: Culture, Pathways, and Representation; Student-led Discussion on the Graduate Student Experience; The Room Where It Happens: A Community Roundtable on the AWM's Policy & Advocacy Priorities; and Writing Extraordinary Papers and Spectacular Referee Reports.

There will be a Wikipedia event, a training edit-a-thon to close the "Wikipedia gender gap."

The heart of the meeting will of course be the multitude of special sessions, listed here by title and organizers. What a wealth of coverage, such depth and breadth!

Advances in Partial Differential Equations and Applications
Maya Chhetri, UNC Greensboro
Nsoki Mavinga, Swarthmore College
Irina Mitrea, Temple University

Application of Monte Carlo Methods to Real-World Problems
Francesca Bernardi, Worcester Polytechnic Institute
Andrea Arnold, Worcester Polytechnic Institute

Combinatorial and Homological Methods in Commutative Algebra
Francesca Gandini, University of Primorska
Selvi Kara, University of Utah

Computational Inverse Problems and Uncertainty Quantification
Julianne Chung, Emory University
Rosemary Renaut, Arizona State University
Malena Sabate-Landman, Emory University

Driving Cultural Change in the Mathematical Sciences: Advice and Reflections from AWM's Moving Towards Action and Aligning Actions at Crossroads Workshop Participants
Elizabeth Donovan, Murray State University
Emerald Stacy, Washington University

Early Career Researchers in Mathematical Biology and Differential Equations
Rayanne Luke, George Mason University
Sarah Strikwerda, University of Pennsylvania
Prajakta Bedekar, Johns Hopkins University

Exploring the Intersection of Mathematics and Ecology: Research Applications and Findings
Lakmali Weerasena, University of Tennessee at Chattanooga
Maeve McCarthy, Murray State University

Extremal and Probabilistic Combinatorics
Jinyoung Park, Courant Institute
Corrine Yap, Georgia Institute of Technology

Geometric and Categorical Aspects of Representation Theory and Mathematical Physics
Mee Seong Im, United States Naval Academy
Xin Jin, Boston College

Interdisciplinary Research at the Interface of Math and Life Science
Asma Azizi, Kennesaw State University
Somayeh Mashayekhi, Kennesaw State University

Math for All Special Session & Discussion
Robyn Brooks, Boston College
Swati Patel, Oregon State University
Padi Fuster, University of Colorado Boulder

Meet Researchers Behind the Real-Life Examples of Elementary Statistics: A Guide to Data Analysis Using R
Nancy L. Glenn Griesinger, Texas Southern University

Multiscale Modeling for Preclinical and Clinical Oncology
Maureiq Ojwang', Moffitt Canver Center
Chengyue Wu, Oden Institute, University of Texas at Austin

Number Theory at Primarily Undergraduate Institutions
Bella Tobin, Agnes Scott College
Leah Sturman, Oregon State University

Post-Quantum Cryptography
Ryann Cartor, Clemson University
Angela Robinson, NIST

Progress in Low-dimensional Topology
Akram Alishahi, University of Georgia
Jennifer Hom, Georgia Institute of Technology
Feride Ceren Kose, University of Georgia
Gordana Matic, University of Georgia
Hannah Turner, Georgia Institute of Technology

Promoting Children's and Women's Health with Mathematical and Computational Approaches
Karin Leiderman, UNC Chapel Hill
Anna Nelson, Duke University

Pure and Applied Talks by Mathematicians Enhancing Diversity in Graduate Education (EDGE)
Quiyana M. Murphy, Virginia Tech
Sofía Martínez Alberga, Purdue University

Recent Advancements in the Mathematics of Materials Science
Anna Zemlyanova, Kansas State University
Silvia Jiménez Bolaños, Colgate University

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Membership Dues
Membership runs from Oct. 1 to Sept. 30
Individual: $70/$100 **Family:** $40
Contributing: $160 /$190
New member, affiliate and reciprocal members, retired, part-time: $35
Student: $25 **Unemployed:** $20
Outreach: $10
AWM is a 501(c)(3) organization.

Institutional Membership Levels
AWM offers a tiered pricing structure for institutional memberships in six categories. Higher levels are:
Supporting Institutions: $750+ and
Sponsoring Institutions: $3000+
See awm-math.org for details.

Executive Sponsorship Levels
$5000+
$2500–$4999
$1000–$2499
See awm-math.org for details.

Print Subscriptions and Back Orders—Regular and contributing members living in the US may elect to receive a print version of the *Newsletter.* Libraries, women's studies centers, non-mathematics departments, etc., may purchase a subscription for $75/year. Back orders are $20/issue plus shipping/handling ($5 minimum).

Payment—Payment is by check (drawn on a bank with a US branch), US money order, or international postal order. Visa and MasterCard are also accepted.

Newsletter Ads—AWM will accept ads for the *Newsletter* for positions available, programs in any of the mathematical sciences, professional activities and opportunities of interest to the AWM membership, and other appropriate subjects. The Managing Director, in consultation with the President and the Newsletter Editor when necessary, will determine whether a proposed ad is acceptable under these guidelines. *All institutions and programs advertising in the* Newsletter *must be Affirmative Action/Equal Opportunity designated.* Institutional members receive discounts on ads; see the AWM website for details. For non-members, the rate is $130 for a basic four-line ad. Additional lines are $16 each. See the AWM website for *Newsletter* display ad rates.

Newsletter Deadlines
Editorial: 24th of January, March, May, July, September, November
Ads: Feb. 1 for March–April, April 1 for May–June, June 1 for July–Aug., Aug. 1 for Sept.–Oct., Oct. 1 for Nov.–Dec., Dec. 1 for Jan.–Feb.

Addresses
Send all queries and all *Newsletter* material except ads and queries/material for columns to Anne Leggett, amcdona@luc.edu. Send all book review queries/material to Marge Bayer, bayer@math.ku.edu. Send all education column queries/material to Jackie Dewar, jdewar@lmu.edu. Send all media column queries/material to Sarah Greenwald, appalachianawm@appstate.edu and Alice Silverberg, asilverb@math.uci.edu. Send all student chapter corner queries/material to Emek Köse, student-chapters@awm-math.org. Send everything else, including ads and address changes, to AWM, awm@awm-math.org.

Recent Advances in Curves and Abelian Varieties
Renee Bell, Lehman College, CUNY
Padmavathi Srinivasan, ICERM
Isabel Vogt, Brown University

Recent Developments in Control, Optimization, and the Analysis of Partial Differential Equations
Lorena Bociu, North Carolina State University
Pelin Guven Geredeli, Iowa State University

Rethinking Number Theory
Deewang Bhamidipati, UC Santa Cruz
Eva Goedhart, Franklin & Marshall College
Amita Malik, Pennsylvania State University

Special Session on Discrete Harmonic Analysis
Christina Giannitsi, Georgia Institute of Technology
Michael Lacey, Georgia Institute of Technology

Tensor Methods for Data Modeling
Anna Konstorum, IDA/CCS

Tropical Geometry
Josephine Yu, Georgia Institute of Technology
Abeer Al Ahmadieh, Georgia Institute of Technology

Undergraduate Research in the Mathematical Sciences
Asma Azizi, Kennesaw State University
Leslie Julianna Meadows, Georgia State University

Women in Dynamical Systems and Applications
Christina Athanasouli, Georgia Institute of Technology
Rachel Kuske, Georgia Institute of Technology

Women in Groups, Geometry, and Dynamics
Hannah Hoganson, University of Maryland
Rylee Lyman, Rutgers University

Women in Mathematical Biology: Computation and Modeling
Katharine Gurski, Howard University
Yeona Kang, Howard University

Women in Quantum Algorithms and Computing (WQAC)
Sarah Chehade, Oak Ridge National Laboratory

Women in Tensor Optimization
Longxiu Huang, Michigan State University
Jing Qin, University of Kentucky

You can renew your membership at awm-math.org.

ASSOCIATION FOR WOMEN IN MATHEMATICS

AWM ONLINE

The *AWM Newsletter* is freely available online.

Online Ads Info: Classified and job link ads may be placed at the AWM website.

Website: https://awm-math.org
Updates: webmaster@awm-math.org

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AWM DEADLINES

RCCW Proposals: July 1, 2023 and February 1, 2024
AWM Workshop at JMM: August 15, 2023
AWM-AMS Noether Lecture: September 15, 2023
AWM–MAA Falconer Lecture: September 15, 2023
AWM–SIAM Kovalevsky Lecture: September 15, 2023
AWM Alice T. Schafer Prize: September 15, 2023
AWM Dissertation Prize: September 15, 2023
AWM Travel Grants: October 1, 2023 and February 15, 2024
Ruth I. Michler Memorial Prize: October 1, 2023
AWM Workshop at SIAM: November 15, 2023

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2023 AWM RESEARCH SYMPOSIUM

Hosted by Clark Atlanta University in partnership with the Atlanta University Center Data Science Initiative.

SAVE THE DATES

Sept. 30–Oct. 2

PLAN TO PARTICIPATE! Submit your suggestions for speakers, plan a special session or other event now.

SAVE THE DATES

JOIN US!

Sept. 30–Oct. 2, 2023
CLARK ATLANTA UNIVERSITY

AWM is excited to host our 2023 Symposium at Clark Atlanta University. Building on its social justice history and heritage, Clark Atlanta is a culturally diverse, research-intensive, liberal arts institution that prepares and transforms the lives of students and is located in the heart of Atlanta, Georgia.

The 2023 AWM Research Symposium will feature:

- Plenary and Emerging Talent Lectures
- Special Sessions on a broad range of topics
- Poster Sessions for early career mathematicians
- Professional Development Opportunities
- Networking Sessions
- Dedicated time and space for sponsors, exhibitors, publishers, and recruiters to interact with participants
- Social events, receptions, and a banquet

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Check the AWM website for updates.

CLARK ATLANTA UNIVERSITY

The AUC Data Science INITIATIVE

BOOK REVIEW

Book Review Editor: Margaret Bayer, University of Kansas, Lawrence, KS 66045-7523, bayer@ku.edu

Lean Your Loneliness Slowly Against Mine, by Klara Hveberg, translated by Alison McCullough, HarperVia, 2021. ISBN-13 978-0063038325.

Reviewer: Coralie Colmez, c.colmez@gmail.com

Lean Your Loneliness Slowly Against Mine is the fictional memoir of Rakel Havberg, though it mirrors in many ways the life of its author Klara Hveberg—starting with the author and character's names, which are anagrams of each other. Like her narrator, Hveberg is a young mathematician who had to leave university because of a debilitating post-viral infection and wrote her book during long bedridden hours back at her parents' house. Because Hveberg's illness left her only short moments of energy, the book is written in fragments, rarely more than a page or two long, each focused on just one idea or moment.

The first part of the book covers Rakel's childhood. The little girl is naturally shy and different from her classmates as the only bi-racial dark child in a class of little blonde Norwegians. Her only friends are the imaginary David, born out of the cover on her favorite book, and her parents. With her adored scientist Papa and through her own explorations, Rakel learns how the world works—math and physics, but also music and books. This first part is a riot of learning inside the eager mind of a little girl, who is just as excited to realize how the key it's written in affects the emotion of a piece of music as when she's finding new palindromes and anagrams, or understanding fractions. The things Rakel learns about are always compelling and beautifully described; with scientists, musicians and avid readers in my family, they reminded me very much of my own education and the things that also got me excited as a child. *Lean Your Loneliness Slowly Against Mine* remains firmly a novel rather than an educational manual however, and even if Rakel sometimes turns over problems in detail in her mind and we follow as she does, there is not quite enough there for a reader unfamiliar with the concepts to grasp them fully.

In the book's second part Rakel is a teenager at university, learning more advanced math and discovering poetry. Still as shy as before, she becomes close only with Jakob, her discrete mathematics tutor. Their connection is sparked by a problem involving identical balls distributed into identical containers, through which Jakob realizes that Rakel is no ordinary student. It continues to build around Rakel's mathematical education and the everyday problems they like solving together—like which lift will get them to the ground floor of their building quickest—but also on their shared interests in music and literature. The mathematics covered in this part doesn't shy away from some complicated concepts (like the dimension of the Sierpinski triangle fractal or topologically connected sets), but again, readers whose interests have been piqued will have to learn more by themselves.

For the first four years, Rakel and Jakob's relationship stays platonic, and then they start an affair. They agree that in eight years, when his children are old enough, he will leave his wife. Most readers, less naive than Rakel, won't be surprised with the way things play out.

Somewhere in these eight years, Rakel falls ill. She catches a fever which takes weeks to dissipate, and never fully recovers. Sometimes she's well for weeks at a time, and other times she can't manage a quick walk up the stairs. Her doctors aren't sure what is wrong with her, and she gets slowly worse. When we reach the last part of the book, Rakel has had to leave her research; she is bedridden and back living with her parents. Hveberg catches distressingly well not only the feeling of being so ill, but also the hoops Rakel has to jump through to be accepted as incapacitated by the government, including a fairly abrupt version of state-mandated cognitive behavioral therapy (CBT), which does nothing to help. Permanently exhausted, Rakel is no longer learning new things to share with us. Instead, she starts to put down the little fragments of writing which will eventually become this book, and to research the life of Russian mathematician Sofia Kovalevskaya, finding solace in the echoes between their stories—Sofia's closeness with her mathematical mentor Weierstrass, and her years-long break from math to write novels. Rakel has researched Sofia's life before, when Jakob was writing a book about her (never finished, in a move reminiscent of one of literature's most annoying older lovers; *Middlemarch*'s Casaubon). At the time, in the flush of her relationship with Jakob, she'd been convinced that love and heartbreak were behind all the mysteries of the mathematician's life. Now, older and having lived through more, Rakel asks herself deeper questions about what might have happened, in a fanciful few chapters which I found the weakest of the book.

Rakel's mind is a nice one to spend a book with. Her curiosity and excitement to learn is infectious. While her main interest is in math, we get to explore lots of other things with her, from the subtle differences of language that change how you feel about a poem, to the story of composers

Clara and Robert Schumann. Even her superstitious nature, occasionally grating, is a spark for learning: noticing patterns that bring out the numbers nineteen—the day of her birthday and her lucky number—and eight—her favourite number since childhood for its multiple symmetries; or discovering the Myers-Briggs personality system and the Chinese horoscope, both of which Rakel latches onto as frames to understand other people, something she struggles with. More frustrating are her willingness to be defined entirely by her relationship with one man (who, she only occasionally acknowledges, is not exactly worth it); and her almost anachronistic naiveté, to the point where I kept forgetting the book is set in the '90s and '00s, and pictured the 1950s in my mind instead.

Hveberg has explained in interviews (and Rakel explains in her memoir) that she has structured her book as a fractal, with the same patterns appearing again and again. This structure permeates all the different levels of writing. At the sentence level we see phrases come back at different points of the book, unchanged or barely changed, but with different effects and meaning. At the story level, though Rakel's memories are arranged mostly chronologically, the same themes appear and reappear—in particular, most of the other women mentioned in the book have lives that mirror hers but offer different perspectives. And finally, of course, there are the similarities between Rakel's and the author's own lives. The fractal structure is meticulously done, just like the writing itself, which is precise and lovely. I found it worked so well that it made a virtue out of some of my personal literary pet peeves, like ultra-short chapters and excessive repetition. However, it also means that we see the same stories come back again and again, and those stories aren't especially kind to women. There are many women with their lives on pause, starting with Rakel's mother, who left a career in her native country to become a devoted mum in Norway, and whose dedication succeeds only in annoying both her husband and her daughter. There are many women spurned by a lover, many couples where the man is a lot older, and many women building their life around just one man.

For me, the fractal frayed at the end, when Rakel is investigating Sofia's story, asking one-dimensional questions, unable to imagine the famous mathematician could have had motives or feelings different from her own and seeing broken hearts as the explanation for everything. But maybe it's a good thing that the fractal frays, because finally, on the last page, nineteen years and eight hours after her first kiss with Jakob, Rakel seems ready to leave the cycle.

Column Editor's Note: In the last issue, I reviewed *The Exceptions: Nancy Hopkins, MIT, and the Fight for Women in Science* by Kate Zernike. Here I want to point out an interesting interview with the author, which appears at https://kansaspublicradio.org/podcast/conversations/2023-03-31/the-exceptions-nancy-hopkins-mit-and-the-fight-for-women-in-science

NSF-AWM Travel Grants for Women

Mathematics Travel Grants. The objective of the NSF-AWM Travel Grants is to enable women mathematicians to attend conferences in their fields, which provides them a valuable opportunity to advance their research activities and their visibility in the research community. Having more women attend such meetings also increases the size of the pool from which speakers at subsequent meetings may be drawn and thus addresses the persistent problem of the absence of women speakers at some research conferences. The Mathematics Travel Grants provide full or partial support for travel and subsistence for a meeting or conference in the applicant's field of specialization.

Selection Procedure. All awards will be determined on a competitive basis by a selection panel consisting of distinguished mathematicians appointed by the AWM. A maximum of $2300 for domestic travel and of $3500 for foreign travel will be funded. For foreign travel, US air carriers must be used (exceptions only per federal grants regulations; prior AWM approval required).

Eligibility and Applications. Please see the website (https://awm-math.org/awards/awm-grants/travel-grants/) for details on eligibility and do not hesitate to contact awm@awm-math.org or 401-455-4042 for guidance. Applications from members of underrepresented minorities are especially welcome.

Deadlines. There are three award periods per year. Applications are due **February 15**, **May 15**, and **October 1**.

WIN6 at BIRS

Beth Malmskog, Colorado College

Thirty-nine women researchers in number theory converged on Banff International Research Station in Alberta, Canada during the last week of March for WIN6, a week-long research and community-building workshop. This was the sixth incarnation of Women in Numbers (WIN), a triennial conference series designed to build research networks for women-identifying mathematicians working in number theory. Working in eleven project groups, WIN6 participants experienced the highs and lows of intensive collaborative research, the joy of meeting new folks and seeing old friends, and the beauty of early spring in Banff National Park.

Participant Juanita Duque-Rosero pronounced the conference, ahem, a win. "WIN6 was my favorite conference ever! The safe and welcoming environment, where all ideas were respected and heard, made it truly special. I was pleasantly surprised by the enthusiasm and enjoyment displayed by everyone throughout the activities and research discussions. Being part of a research group that explored a new topic for me was a great experience as a junior participant. The atmosphere encouraged me to ask questions, enabling me to learn a lot. The stunning Banff facilities added an extra touch of magic to this amazing mathematical experience." Duque-Rosero was a graduate student during the conference and is now about to start a postdoctoral fellowship at Boston University.

The Women in Numbers workshops and network were founded by Kristin Lauter (Meta), Rachel Pries (Colorado State University), and Renate Scheidler (University of Calgary). The three women were frustrated by the lack of representation for women as invited speakers and participants at number theory conferences and, more broadly, in positions of power in the number theory community. "Generally, it was about female number theorists being invisible and not represented in any positions and on any bodies/committees where decisions were being made and the research landscape was shaped," Scheidler remembers. The three imagined a vibrant research community for women in number theory. The first Women in Numbers conference was held in 2008, and the format has remained nearly unchanged since. Research projects are proposed by established researchers and chosen in a competitive process. Participants apply to participate and are assigned to project groups in line with their interests. During the five-day workshop, group leaders deliver short talks on the proposed work to the entire group, to facilitate discussions beyond the small

groups. Groups spend the bulk of their time actively working on the designed projects, with the goal of publishing a research paper. Groups generally meet remotely after the end of the workshop to continue work and write up results. Each workshop has been followed by publication of a peer-reviewed proceedings volume, with several groups also publishing results in other research journals.

Scheidler believes that the workshops have lived up to the spirit of the original vision. "The vibe of broad support, good will and enthusiasm at the WIN workshops is amazing and incredibly invigorating. The WIN research collaborations are not only highly productive, but also a lot of fun!" The WIN model for collaborative research workshops for women has since been adopted beyond number theory, leading to the Research Networks for Women and Research Collaboration Conferences for Women initiatives of the AWM. The AWM received a $750,000 ADVANCE grant from the National Science Foundation in 2015 to support these networks. There are currently over 20 networks, including Women in Topology (WIT), Women in Mathematical Biology (WIMB), and Women in Shape Modeling (WiSh). The model has also extended to Europe, where four Women in Numbers Europe (WINE) workshops have been organized.

One of the signature aspects of WIN and the other research networks is bringing together mathematicians across career stages. Working groups often include a mix of early-career, mid-career, and senior-level researchers. Heidi Goodson, an associate professor at Brooklyn College in the CUNY system, found this to be a high point of the workshop. "One of the things I liked about WIN6 was that we could interact with mathematicians at all stages of their careers in a small-ish setting. It was great to be able to meet and talk with mathematicians who I have heard of for years and admire, and to have the chance to meet new-to-me folks. Aside from the math, I loved being in Banff, hiking up Sulphur Mountain, and taking the gondola down to the hot springs with other workshop participants!"

WIN6 was organized by Shabnam Akhtari (Penn State University), Alina Bucur (University of California San Diego), Jennifer Park (The Ohio State University), and Renate Scheidler. Jennifer "found it very rewarding to organize a conference that expanded the WIN network—several of the first-time attendees told me that they had a great time at WIN6." Park has attended a previous incarnation of WIN and this year both organized and led a project group with Marta Pieropan (Utrecht University).

March's workshop was a welcome return to a mainly in-person format. WIN5 had originally been planned for November 2020 in Banff but was shifted to a virtual workshop due to the pandemic. Despite the difficulties of online collaboration and the disappointments of missing time together in Banff, the eight project groups persevered and a proceedings volume will be published soon by Springer.

The next installment of WIN is in early planning stages, scheduled for 2026. WIN7 organizer Bianca Viray (University of Washington) has participated in some manner in every WIN workshop. Viray credits the WIN network as the most impactful program on her career. Viray and her co-organizers are considering ways that WIN may be able to adapt to changing constraints, like increasing applicant demand and an array of visa-related difficulties experienced by applicants and project group leaders.

The workshop was supported by BIRS, the National Science Foundation, Pacific Institute for the Mathematical Sciences, Number Theory Foundation, and *Journal of Number Theory*.

EDUCATION COLUMN

Education Column Editor: Jackie Dewar, Loyola Marymount University, jdewar@lmu.edu

Gender Bias in Teaching Evaluations: A New Study

Jackie Dewar, jdewar@lmu.edu, Professor Emerita of Mathematics, Loyola Marymount University

An article (Quinn, 2023) in *Inside Higher Ed* brought my attention to a new study on gender bias in teaching evaluations, one that takes a new perspective. It uses the framework of role congruity theory, which posits that people "gender" workplace positions by the ratios of men and women who fill them. According to the abstract, the researchers hypothesized that students would expect faculty in a department's gender majority to take on more essential positions such as teaching upper-level courses and those in the minority to fill more supportive positions such as teaching lower-level courses. As role congruity theory predicts, when an educator's gender violated expected gendered roles, they generally found discrimination in the form of lower evaluation scores.

While lopsided gender ratios can threaten either gender's career trajectory, women were disproportionately impacted because women were more often in the gender minority. In fact, a subsequent audit of the university's promotion guidelines suggested women's career trajectories had suffered an outsized effect. This is not surprising, since teaching evaluations are virtually always considered in the tenure and promotion process.

The study's authors note that reaching (or approaching) gender parity would be a way to reduce gender bias. Until that happens, they make other suggestions (supported by their research) to lessen the impact:

- Departments should emphasize the presence and achievements of both men and women within their departments. Apparently, even a department's webpages can have a significant effect on how faculty are evaluated.
- Having both male and female educators teach lower and upper-level courses can help neutralize gender expectations.
- As many others have recommended, promotion and hiring committees should be trained to spot this bias. It's possible to use "bias-corrected scores," and certainly a broad range of evidence beyond end of semester teaching evaluations should be part of any evaluation process.

CALL FOR NOMINATIONS

The AWM Dissertation Prize *(NEW DEADLINE!)*

In January 2016 the Executive Committee of the Association for Women in Mathematics established the AWM Dissertation Prize, an annual award for up to three outstanding PhD dissertations presented by female mathematical scientists and defended during the 24 months preceding the deliberations for the award. The Prizes will be given for those dissertations deemed most outstanding by the award committee. The award is intended to be based entirely on the dissertation itself, not on other work of the individual.

To be eligible for the award graduate students must have defended their dissertation within the last two years (September 15, 2021 to September 14, 2023). They must either be a US citizen or have graduated from a university in the US. The Prizes will be presented at the Joint Mathematics Meetings in San Francisco, CA.

Anyone can be a nominator, whether or not they are AWM members. Self-nominations are permitted. Nominations of members of underrepresented minorities are especially encouraged. The nomination should include: 1) a one to three page letter of nomination highlighting the exceptional mathematical research presented in the dissertation, 2) a copy of the dissertation and/or a URL address where it can be accessed, 3) two letters supporting the nomination, and 4) a curriculum vitae of the candidate not to exceed three pages. Nomination materials should be submitted online at MathPrograms.org. The submission link will be available 45 days prior to the nomination deadline. Nominations must be received by **September 15, 2023**. If you have questions, phone 401-455-4042, email awm@awm-math.org, or visit awm-math.org/awards/awm-dissertation-prize/ for more information.

I strongly encourage readers to look at the study (Aragón et al., 2023), which involved the analysis of over 100,000 student evaluations at Clemson University.

Postscript: As I have written before in this column (Dewar, 2008), everyone in higher ed—faculty, department chairs, deans, upper administrators, and tenure review committees—should understand the limits of student evaluation data and know best practices for when and how to use this data. A copy of the guidelines I helped develop for use of this data is contained in that article. Your campus library may be able to give you access to my journal article with the guidelines and supporting references (Dewar, 2011).

References

Oriana Aragón, Evava Pietri, and Brian Powell. (2023). Gender bias in teaching evaluations: the causal role of department gender composition. *Proceedings of the National Academy of Sciences* (2023). DOI: 10.1073/pnas.2118466120

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Jacqueline Dewar. (2011). Helping stakeholders understand the limitations of SRT data: Are we doing enough? *Journal of Faculty Development*, 25(3), 40–44.

Ryan Quinn. (2023, January 25). Faculty gender imbalances yield biased student ratings. *Inside Higher Ed*. Available at https://www.insidehighered.com/news/2023/01/25/study-student-evaluation-bias-gender-lopsided-departments

Recent Statements by the AWM Policy & Advocacy Committee

Statement on Opposing Anti-LGBTQ+ and Anti-Transgender Legislation (4/19/23)

The AWM is watching with growing concern as nearly half of US states are passing laws impacting the lives of our LGBTQ+ population [1]. These include:

- Regulating what can be taught or discussed about LGBTQ+ populations and history in schools,
- Banning transgender youth from participation in sports,
- Banning transgender people from using restrooms aligned with their gender identity,
- Criminalizing performances by people in drag, and
- Restricting healthcare options available to transgender people.

Legislators have introduced more than 400 anti-trans bills in just the first four months of this year, up from 156 over all of last year, and more than the previous four years combined, according to a 4/14/23 analysis of ACLU data [2] by the *Washington Post* [3].

These laws seek to instill fear of "others" and to invalidate or erase entire segments of society via discrimination. Many major medical organizations have warned of the potential harm bills limiting gender-affirming care could inflict, including the American Medical Association [4], the Endocrine Society [5], and the American Academy of Pediatrics [6].

The AWM encourages its membership to take action:

1. Check what legislation has been proposed in your state and reach out to your elected officials. The National Center for Transgender Equality's State Action Center provides a list of bills as well as links to find your legislators [1]. The American Psychological Association offers suggested discussion points with scientific references for those who wish to write to their legislators at all levels [7].
2. Donate to National Center for Transgender Equality [1] or the ACLU [2], both of which advocate for the equality of the transgender community at the policy level.
3. Consider approaching these activities by inviting others across your campus to a working group. You would spread awareness and information and generate additional ideas on how to act. Your local community would benefit from having a space to address this. AWM connects the community. If you have open activities, or successful initiatives that you would like to share with the greater community, please send it to the AWM Executive Director's Office (ed.admin@awm-math.org) to be shared in the next eCommunication.
4. Consider pursuing a research avenue that might track the distribution, timeline, frequency, and language alignment of these bills. AWM's research journal, *La Matematica*, would welcome the submission of such a piece.

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The rapid increase in introductions of anti-trans bills is of utmost concern and adds even more complicating factors for mathematicians navigating career and life choices. The AWM continues to work to create a community where people of all genders, gender identities, and orientations can thrive.

[1] https://transequality.org/state-action-center
[2] https://www.aclu.org/legislative-attacks-on-lgbtq-rights
[3] https://www.washingtonpost.com/dc-md-va/2023/04/17/anti-trans-bills-map/
[4] https://www.ama-assn.org/delivering-care/population-care/advocating-lgbtq-community
[5] https://www.endocrine.org/advocacy/position-statements/transgender-health
[6] https://www.aap.org/en/news-room/aap-voices/why-we-stand-up-for-transgender-children-and-teens/
[7] https://www.apa.org/topics/lgbtq/gender-affirmative-care

Statement on 2023 AWM Research Symposium (5/8/23)

The AWM has enjoyed holding past Research Symposia at Brown University, Santa Clara University, University of Maryland at College Park, University of California at Los Angeles, Rice University, and the University of Minnesota. This year, we are proud to host the 2023 AWM Research Symposium at Clark Atlanta University (CAU).

Clark Atlanta University is a culturally diverse, research-intensive, liberal arts institution in the heart of Atlanta, Georgia. CAU is the home institution of AWM President, Dr. Talitha Washington who, along with many dedicated CAU colleagues, has graciously stepped up to host this event. This is the first time an AWM Research Symposium will be held at a Historically Black College or University (HBCU). Located in "the cradle of the Civil Rights Movement," Atlanta is a diverse city with a rich history of culture and activism [1]. Known as the "LGBTQ capital of the South," Atlanta is home to a vibrant and thriving community with a Mayor, Andre Dickens, who is "committed to the fair treatment of all Atlantans, including lesbian, gay, bisexual, trans, and queer (LGBTQ+) residents, workers, and visitors" [2].

With the passage of Georgia Senate Bill 140 [3], Georgia joins the many states enacting anti-LGBTQ+ legislation at a time when the number and intensity of such actions are increasing across the country (see the AWM Statement on Opposing Anti-LGBTQ+ and Anti-Transgender Legislation [4]). Georgia has also made recent moves to restrict voting rights for minority populations [5] and to limit access to reproductive healthcare for those who can become pregnant [6]. Some of our members are opposed to the AWM holding a meeting in a state whose recent legislative actions are not in line with our values, and some members will choose not to travel to Georgia.

Balancing the needs of a diverse population such as AWM's membership is nontrivial given the political climate. The AWM chooses to support mathematicians where they are, throughout the US and abroad. By hosting the symposium at CAU, we support those who live and work in Atlanta and those who are most directly impacted by Georgia legislation. AWM hopes to show a united front and shine a spotlight on the individuals in Georgia who should be celebrated for their great work, both in mathematics and beyond. As a symposium with over 300 attendees, most of whom are women, the AWM presence is powerful. Together we can take a stance to amplify the AWM mission to "promote equitable opportunity and treatment of women and others of marginalized gender identities."

AWM leadership and the Research Symposium Committee are working with CAU and the City of Atlanta to plan ways to support all people who plan to attend in person, and will provide some virtual options. The latest updates will be posted on the AWM Research Symposium website.

[1] https://georgiaequality.org/2023/02/black-lgbtq-history/
[2] https://www.atlantaga.gov/government/mayor-s-office/executive-offices/office-of-equity-diversity-and-inclusion/lgbtq
[3] https://www.legis.ga.gov/legislation/64231
[4] https://awm-math.org/policy-advocacy/endorsements/#7afd956b2314f6405
[5] https://tracker.votingrightslab.org/states/georgia
[6] https://reproductiverights.org/maps/abortion-laws-by-state/?state=GA

In Memoriam

compiled by Anne Leggett

In this issue, I'm including many death notices from 2020 through this year, and at the end a couple of updates about deaths we have already reported on. We are informed of the deaths of members, former members, and other important figures in the community of mathematical scientists in numerous ways. I receive info from Darla Kremer, our executive director, or I find the news in AMS or MAA publications (both email and print); friends pass the news along to me, or I learn of a death when I'm searching online for someone for whatever reason. I have personally known or have previously corresponded with many of them.

Vera Pless died peacefully at home in Oak Park, Illinois, March 2, 2020, shortly before her 89th birthday. She earned her PhD in ring theory in 1957 from Northwestern University. Her research interests turned to the field of error-correcting codes, in which she became a leading expert. In 1975 she joined the faculty of the University of Illinois at Chicago and became professor emerita in 2006. She was a member of the Boston area precursor of the AWM and was active from the very beginning of the new organization. An informative memorial article appears at https://www.itsoc.org/news-events/recent-news/in-memoriam-vera-stepen-pless

Sister Miriam P. Cooney died December 16, 2020 at the age of 95. She earned her PhD in 1968 from the University of Chicago. She taught at Saint Mary's College in South Bend, Indiana, for over 40 years, beginning in 1950. She coauthored a study with Sister Stephanie Sloyan of 130 Catholic women, mostly religious sisters, who held doctoral degrees and had careers in mathematics. She had a significant archive of papers of her research on topics related to women in mathematics, including more on women religious in mathematics, that she donated to the Women and Leadership Archives (WLA) at Loyola University Chicago in 2012. Sadly, she was never able to publish the book she had hoped to, related to materials she used in her history of women in math course. She was an active member of AWM for many years. See https://www.saintmarys.edu/news/saint-marys-mourns-loss-sister-miriam-cooney and also the very informative obituary which is available via a link at the preceding webpage.

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CALL FOR NOMINATIONS

The 2024 Etta Zuber Falconer Lecture *(NEW DEADLINE!)*

The Association for Women in Mathematics and the Mathematical Association of America (MAA) annually present the Etta Zuber Falconer Lecture to honor women who have made distinguished contributions to the mathematical sciences or mathematics education. These one-hour expository lectures are presented at the MAA MathFest each summer. While the lectures began with MathFest 1996, the title "Etta Zuber Falconer Lecture" was established in 2004 in memory of Falconer's profound vision and accomplishments in enhancing the movement of minorities and women into scientific careers.

The mathematicians who have given the Falconer lectures in the past are: Karen E. Smith, Suzanne M. Lenhart, Margaret H. Wright, Chuu-Lian Terng, Audrey Terras, Pat Shure, Annie Selden, Katharine P. Layton, Bozenna Pasik-Duncan, Fern Hunt, Trachette Jackson, Katherine St. John, Rebecca Goldin, Kate Okikiolu, Ami Radunskaya, Dawn Lott, Karen King, Pat Kenschaft, Marie Vitulli, Erica Walker, Izabella Laba, Talithia Williams, Pamela Gorkin, Tara Holm, Bonita Saunders, Suzanne Weekes, and Tatiana Toro.

Anyone can be a nominator, whether or not they are AWM members. Self-nominations are permitted, in which case there must be at least one additional letter of support. Nominations for members of underrepresented minorities are especially encouraged. The letter of nomination should include an outline of the nominee's distinguished contributions to the mathematical sciences or mathematics education and address the nominee's capability of delivering an expository lecture. A curriculum vitae of the candidates not to exceed three pages is also required. Nominations are to be submitted as ONE PDF file via MathPrograms.org. The submission link will be available 45 days prior to the deadline. Nominations must be submitted by **September 15, 2023** and will be held active for a total of two years (one year beyond the initial nominations). If you have questions, phone 401-455-4042, email awm@awm-math.org or visit https://awm-math.org/awards/falconer-lectures/ to learn more.

Lynne H. Walling died May 28, 2021; she was born in 1958. She earned her PhD in number theory at Dartmouth in 1987. After an academic career in the US, she came to the University of Bristol, England, in 2007. Upon her death, she was Director of the Institute of Pure Mathematics in the School of Mathematics there. See a memorial article written by Misha Rudev at https://www.bristol.ac.uk/maths/news/2021/lynne-walling.html. It includes this passage: "Roughly a month before, she was diagnosed with terminal cancer. On the evening of Monday 10 May, after having seen a consultant on that day, she called a friend and said, 'I'm gonna die. It sucks. I don't have much time. I want a party on Friday.' She passed away on a Friday morning two weeks later at her Ashley Down home, surrounded by her friends and her pets."

Elinor Ruth Evenchick Berger died on June 5, 2021 in New York City at the age of 78. She wrote her dissertation "Concerning Fixed-Point Free Orientation Preserving Homeomorphisms of the Euclidean Plane" for her PhD at the City University of New York in 1969. She was professor of mathematics at Columbus State University (Columbus, GA), where she spent her 30-year career. At her death, her family asked for donations to be made to AWM. See her obituary at https://www.manhattanjewishfuneralhome.com/memorials/elinor-berger/4639561/.

Carol G. Crawford passed away on July 1, 2021, at the age of 69. She received her PhD from Georgetown University in 1979. She became professor emerita after almost 30 years at the Naval Academy in Annapolis. Her research areas included robotics, artificial intelligence and computer vision. She served as an associate editor of the *American Mathematical Monthly*. See https://www.legacy.com/us/obituaries/

CALL FOR NOMINATIONS

The 2024 Kovalevsky Lecture *(NEW DEADLINE!)*

AWM and SIAM established the annual Sonia Kovalevsky Lecture to highlight significant contributions of women to applied or computational mathematics. This lecture is given annually at the SIAM Annual Meeting. Sonia Kovalevsky, whose too-brief life spanned the second half of the nineteenth century, did path-breaking work in the then-emerging field of partial differential equations. She struggled against barriers to higher education for women, both in Russia and in Western Europe. In her lifetime, she won the Prix Bordin for her solution of a problem in mechanics, and her name is memorialized in the Cauchy-Kovalevsky theorem, which establishes existence in the analytic category for general nonlinear partial differential equations and develops the fundamental concept of characteristic surfaces.

The mathematicians who have given the prize lecture in the past are: Linda R. Petzold, Joyce R. McLaughlin, Ingrid Daubechies, Irene Fonseca, Lai-Sang Young, Dianne P. O'Leary, Andrea Bertozzi, Suzanne Lenhart, Susanne Brenner, Barbara Keyfitz, Margaret Cheney, Irene M. Gamba, Linda J.S. Allen, Liliana Borcea, Éva Tardos, Catherine Sulem, Lisa Fauci, Vivette Girault, Anne Greenbaum, and Annalisa Buffa.

The lectureship may be awarded to anyone in the scientific or engineering community whose work highlights the achievements of women in applied or computational mathematics. Anyone can be a nominator, whether or not they are AWM members. Self-nominations are permitted, in which case there must be an additional letter of support. Nominations of members of underrepresented minorities are especially encouraged. The letter of nomination should outline the nominee's contributions to applied or computational mathematics and provide a list of some of their most important research papers. This letter must be accompanied by a citation of about 100 words that may be read when introducing the speaker and a curriculum vitae of the candidate not to exceed three pages. Nominations are to be submitted as ONE PDF file via MathPrograms.org. The submission link will be available 45 days prior to the deadline. Nominations must be received by **September 15, 2023** and will be kept active for a total of two years (one year beyond the initial nominations).

The awardee will be chosen by a selection committee consisting of two members of AWM and two members of SIAM. Please consult the award web pages https://www.siam.org/prizes/sponsored/kovalevsky.php and https://awm-math.org/awards/kovalevsky-lectures/ for more details.

mydallaspost/name/carol-crawford-obituary?pid=199325058

Carole B. Lacampagne died on August 5, 2021, at the age of 87. She earned her EdD from Teachers College, Columbia University, in 1964. After teaching at Northern Illinois University and serving at the National Science Foundation, she became Director of the National Institute on Postsecondary Education, Libraries, and Lifelong Learning for the Department of Education in 1991. Next she was Director of the Mathematical Sciences Education Board at the National Academies of Science, followed by serving as an adjunct at George Washington University. Lacampagne was very active in the MAA, including serving as the first Tensor Summa director from 2007 to 2012. She became head of the Women and Mathematics (WAM) program at the MAA, and in 2012 became a fellow of the AMS.

Christine Bessenrodt passed away on January 24, 2022 at the age of 63. See https://euromathsoc.org/news/christine-bessenrodt-(1958---2022)-50 and https://www.europeanwomeninmaths.org/christine-bessenrodt-1958-2022/ for short remarks. EWM says: "In particular, we are immensely grateful for her commitment to the European Women in Mathematics as well as her many years of dedication as a representative for diversity and equal opportunities at the German Mathematical Society." A conference is being held in her memory on July 9, 2023; see https://www.iazd.uni-hannover.de/en/aktivitaeten/gedenkkolloquium-fuer-christine-bessenrodt.

Ruth Rebekka Struik died February 9, 2022 at Frasier Meadows Retirement Community in Boulder, Colorado, at age 93. After receiving her PhD from the Courant Institute, NYU, in 1955, she was eventually hired at the University of Colorado, where she taught for 40 years, mostly at the Boulder campus. Mentoring young women to pursue careers in mathematics and science was one of her passions; leftist politics was another. She was an activist for many causes, women's rights, voter education, environmentalism, and more. For more details on her activism and family life, see https://www.legacy.com/us/obituaries/dailycamera/name/ruth-rebekka-struik-obituary?id=33537509. An oral history interview with her from 2000 is available at https://localhistory.boulder library.org/islandora/object/islandora%3A77813. (It took me several tries to get it to play, but eventually it did! And there is an online summary of the contents.)

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CALL FOR NOMINATIONS

Alice T. Schafer Mathematics Prizes *(NEW DEADLINE AND CRITERIA!)*

The Executive Committee of the Association for Women in Mathematics calls for nominations for the Alice T. Schafer Mathematics Prize to be awarded to undergraduate women for excellence in mathematics. All members of the mathematical community are invited to submit nominations for the Prize. The nominees may be at any level in their undergraduate careers, but must be undergraduates as of September 15, 2023. They must either be a US citizen or have a school address in the US. Starting in 2024, two Schafer Prizes and one runner-up will be awarded at the Joint Mathematics Meetings in San Francisco, CA.

Anyone can be a nominator, whether or not they are AWM members. Self-nominations are permitted, in which case there must be at least one additional letter of support. Nominations of members of underrepresented, underserved, and marginalized populations and of students attending institutions with limited resources are especially encouraged. One letter of nomination (at most three pages) should highlight the exceptional qualities of the candidate to be recognized. The letter of nomination may include (but is not limited to) an evaluation of the nominee on the following criteria: quality of performance in advanced mathematics courses, special programs, or mathematical competitions; mathematical growth of the nominee; nominee's ability to overcome barriers in their mathematical journey; nominee's ability to seek out and make the most of resources both at and outside of their institution; ability for independent work in mathematics or ability to work equitably in a team in mathematics. With the letter of nomination, please include a copy of transcripts that indicate expected graduation date. Any additional supporting materials (e.g. reports from summer work using math, copies of talks given, recommendation letters from professors, colleagues, etc.) should be included with the nomination. All nomination material is to be submitted as ONE PDF file via MathPrograms.org. The submission link will be available 45 days prior to the deadline. Nominations must be received by **September 15, 2023**.

If you have questions, phone 401-455-4042, email awm@awm-math.org, or visit https://awm-math.org/awards/schafer-prize-for-undergraduates/.

Jane Purcell Coffee passed away on September 23, 2022. She was born in 1944 and grew up in Connecticut. She was one of the first women at the University of Pennsylvania to receive a PhD in mathematics when she earned her degree in 1970. She helped found the Teacher Education Honors Academy at the College of Staten Island and was its director at her death. See https://www.legacy.com/us/obituaries/siadvance/name/jane-coffee-obituary?pid=202890601. A memorial reunion was held in her honor in April 2023; see https://www.csi.cuny.edu/academics-and-research/specialized-programs/honors-programs/teacher-education-honors-academy/reunion.

Marta Cavallo Bunge died October 25, 2022. Born in Buenos Aires in 1938, she earned her PhD from the University of Pennsylvania in 1966. She spent her career at McGill University, where she became professor emeritus in 2003. She was known for her work on synthetic calculus of variation and synthetic differential topology and coauthored two books on these subjects. See a memorial notice at her department: https://www.mcgill.ca/mathstat/people-0/memoriam /marta-c-bunge

Sally Irene Lipsey died on November 26, 2022, at the age of 95. She was a math and math education professor at Brooklyn College. Lipsey was an author of books on math for nurses, co-editor of the *Encyclopedia of Mathematics Education*, an active member of the Association for Women in Mathematics, and a president of Women and Mathematics Education. Sally was the Education Column editor for this newsletter for many years. We received multiple requests to reprint her article "Mathematical Education in the Life of Florence Nightingale" that appeared in the July–August 1993 issue. See a short obituary at https://www.legacy.com/us/obituaries/nytimes/name/sally-lipsey-obituary?id=38262342

Nancy Angle was born on January 1, 1937, and died on December 12, 2022 in Denver. After teaching math in public schools for several years, she began graduate work and earned a doctorate in math education from the University of Colorado in 1974. She taught at several institutions, last at Colorado Mesa University in Grand Junction, until she retired in 2013. She served as president of Women in Mathematics Education (WME), 1983–1985. See: https://www.monarchsociety.com/obituary/nancy-s-angle

Tanya Leise passed away on January 18, 2023, at the age of 51. The Brian E. Boyle Professor of Mathematics and Computer Science at Amherst College, she was an applied mathematician whose work focused on biomathematics. Her 2006 paper with Kurt Bryan on "The $25,000,000,000 Eigenvector" about the linear algebra foundation of Google's search engine was a landmark expository piece. For the MAA, Leise served on the Joint Committee on Women and the *College Mathematics Journal* editorial board, along with other committees. See her memorial page at Amherst at https://www.amherst .edu/news/memoriam/node/ 872333

Joanne Elliott died on March 5, 2023; she was born in Providence, RI, in 1925. Her thesis was "On Some Singular Integral Equations of the Cauchy Type"; she earned her PhD from Cornell in 1950. After a year at Swarthmore, she was an assistant professor at Mount Holyoke College from 1952 through 1956. During that period, she wrote the 1956 *Transactions* paper "Stochastic Processes Connected with Harmonic Functions" with William Feller. In 1956, she relocated to Barnard College, and by 1964 reached her final academic home, Douglass College of Rutgers, where she was professor of mathematics from 1965 until her retirement in 1991. She supervised five PhD theses from 1967 through 1978. See her obituary at https://www.matherhodge.com/obituaries/Joanne-Elliott?obId=27489846#/celebrationWall

See *MAA Focus*, December 2021/January 2022, for "Reflections on **Dr. Genevieve M. Knight**: 1939–2021) by Bonita V. Saunders and William "Bill" Hawkins, Jr. It is freely available at http://digitaleditions.walsworthprint group.com/publication/?i=732159&article_id=4180377&view=articleBrowser and contains numerous lovely remembrances and several pictures. Here is a great quote from Genevieve herself: "Service is the rent we pay for living."

Bob Moses, who died July 25, 2021, is well-known in the mathematics community as a civil rights activist, peace activist, public education advocate, and math literacy educator. US Representative Adriano Espaillat (NY-13) reintroduced a bill in Congress on April 25, 2023 to award a posthumous Congressional Gold Medal to Robert Parris Moses. See https://www.congress.gov/bill/118th-congress/house-bill/2831 for details.

AWM Workshop at the 2024 SIAM Annual Meeting

Application deadline for graduate students: **November 15, 2023**

For many years, the Association for Women in Mathematics has held a series of workshops in conjunction with major mathematics meetings. The AWM Workshops serve as follow-up workshops to Research Collaboration Conferences for Women (RCCW), featuring speakers from one of the AWM Research Networks. An AWM Workshop is scheduled to be held in conjunction with the 2024 SIAM Annual Meeting happening in Spokane, Washington, July 8 – 12, 2024.

FORMAT: The workshop will consist of two research minisymposia focused on **Complex and Nonlinear Systems** organized by Heather Zinn Brooks, Nancy Rodriguez, and Alexandria Volkening, a **poster session**, and a **professional development session**. The research minisymposia will feature selected junior and senior mathematicians from the Research Network Women in Complex and Nonlinear Systems (WiCNS). This workshop follows the RCCW that took place in September 2022 at the Banff International Research Station for Mathematical Innovation and Discovery.

POSTER SESSION: The poster session is open to **all areas of research**; graduate students working in areas related to complex systems are especially encouraged to apply. Poster presenters will be selected through an application process to present at the workshop reception and poster session. With funding from NSF, AWM will offer partial support for travel and hotel accommodations for the selected graduate students. The workshop will include a luncheon and a mentoring session where workshop participants will have the opportunity to meet with other women and non-binary mathematicians at all stages of their careers. In particular, graduate students working in areas related to complex and nonlinear systems will have the opportunity to connect with the WiCNS Research Network.

ELIGIBILITY: To be eligible for selection and funding, a graduate student must have made substantial progress towards their thesis. Women and non-binary mathematicians with other sources of support are also welcome to apply.

All applications should be submitted on mathprograms.org and include:

- a title of the proposed poster
- an abstract (75 words or less) of the proposed poster
- a curriculum vitae
- a letter of recommendation.

Applications must be completed electronically by **November 15, 2023**. See https://awm-math.org/meetings/awm-siam/ for details.

MENTORS: We seek volunteers to act as mentors for graduate students as part of the workshop. If you are interested in volunteering, please contact the AWM office at awm@awm-math.org by May 15, 2024.

Mathematicians of all genders are invited to attend the talks and poster presentations. Departments are urged to help graduate students and junior faculty who are not selected for the workshop obtain institutional support to attend the presentations.

On Being a Woman in Mathematics, Then and Now

Dusa McDuff
reprinted with permission of the author from the LMS Newsletter*, Issue 500: May 2022, pp. 29–31*

AWM Ed. Note: This issue of the *London Mathematical Society Newsletter* was a special one, Issue 500! Congratulations to the LMS, LMS president Ulrike Tillmann, and Editor-in-Chief of the newsletter, Alina Vdovina. A pdf can be downloaded by clicking on May 2022 at the page https://www.lms.ac.uk/publications/lms-newsletter-back-issues.

Other articles of interest in this issue include: "The LMS Women in Mathematics Committee: A History, 1995–2021" by Caroline Series, emeritus, University of Warwick; "The Noether Theorems and their Application to Variational Problems on a Hyperbolic Surface" by Karen K. Uhlenbeck, retired, University of Texas, distinguished visiting professor, Institute for Advanced Study; and "The Combinatorics of Hopping Particles and Positivity in Markov Chains" by Lauren K. Williams, Robinson Professor of Mathematics at Harvard and Seaver Professor at Radcliffe Institute.

Abstract. This article describes how the author made her way as an aspiring mathematician some sixty years ago, with few guides and no senior women mathematicians to advise her. Indeed her election to the Royal Society came almost fifty years after Dame Mary Cartwright's, with no female mathematician in between.

Sidebar on author: *Dusa McDuff, Fellow of the Royal Society*

Dusa McDuff FRS is a British mathematician who has spent the greater part of her career in the USA. Born in 1945 in London, she did her first degree in Edinburgh and then went to Cambridge for her PhD. Subsequently she spent seven months in Moscow with her first husband, during which time she came under the influence of the brilliant Russian mathematician Israel Gel'fand. After another brief period as a postdoc in Cambridge, followed by a few years as a lecturer at York and then Warwick Universities, she moved to the US to take up a position at SUNY, Stony Brook. She is now Helen Lyttle Kimmel '42 Professor of Mathematics at Barnard College, Columbia University.

Dusa is especially known for her pioneering contributions to the new field of symplectic geometry and topology. Her work has been recognized by many honours. In 1994, she became only the second female mathematician (following Dame Mary Cartwright) to be elected to the Royal Society. She was elected an honorary member of the LMS in 2007 and in 2018 became only the second woman (also following Mary Cartwright) to be awarded the Sylvester Medal of the Royal Society.

The article:

It is hard to remember now that people thought this way, but when I was young I was once told that it was unnatural for a woman to be good at mathematics, the life sciences maybe, but not something so abstract and austere as mathematics. I imagine that no-one would say that out loud today—though they might think it. At the time this reaction was something I was used to; since my name is Dusa (after Medusa) my schoolmates would often tease me that my glance would turn them to stone.

As a young girl, I was very diligent, doing what everyone expected of me. I always loved mathematics because of its beauty and precision, even when that just meant doing sums. I did well in exams, and was very much encouraged, especially by my mother, who was an architect with (unusually for the time) a full-time job in the civil service. But in my midteens I rebelled; I was devoted to an unsuitable boyfriend (now a distinguished literary translator), and outgrew my school. It was a girls' school, the best my parents could find in Edinburgh, but (despite its wonderful maths teacher) inferior in what they offered in maths to the corresponding boys' school and inferior in English teaching to the school my boyfriend went to. It was the early sixties. My father, an eminent geneticist, brought home brilliantly patterned paper dresses and wonderful jazz records from New York. I essentially had two lives, one as a poetry groupie and proto-hippy, and one that I kept to myself as a student of mathematics; playing music served as a shaky bridge.

It took me a long time to reconcile these two strands in my life. I refused my scholarship to Cambridge, remaining in Edinburgh, but made no contact with other maths students there. When I did get to Cambridge as a graduate student, I married my boyfriend fairly soon after, and did not fit into any accepted social framework. I never went to Girton College (which I nominally belonged to) because it was so far away, and there was neither anything mathematical for me there nor any provisions for married students; I was excluded from the main colleges (where people had lunch and dinner) because I was female. I did talk to a few maths students in my functional analysis group as well as

to my supervisor, so I wasn't as isolated as before. I also managed to write a thesis (on a problem suggested by my supervisor) that was published in the *Annals of Mathematics*—that success is probably the main reason I managed to survive as a mathematician. However, it was really only in Moscow (where I went in 1969–70 so that my husband could work on his dissertation) that the contradictions in my life started to resolve. I had the unplanned good fortune to work with Gel'fand; his world included music and poetry as well as a vast realm of beautiful mathematics that he opened up to me.

On my return from Moscow, I completely switched fields, so that during my two years as a postdoc in Cambridge I was again very isolated, with only tenuous mathematical contacts. However, in spring 1972 a chance encounter with Cassels (then Chair of the Cambridge mathematics department) provided the opportunity to attend a conference in Seattle, where I met Graeme Segal. I wrote what was essentially a second PhD under Graeme's guidance, and slowly began building a useful foundation of mathematical knowledge in topology that led to my later work in symplectic geometry. I am very glad that I had time to develop my mathematics without too many demands being put on me.

Although I had a more limited undergraduate education at Edinburgh than I would have obtained in Cambridge, it is not clear that I would have been any better off if I had taken the expected path. I am sure there were other mathematically talented girls who just didn't make it. When I got to Cambridge, there were three other female graduate students, but after graduation they were planning either to go back to their home country, or to get married rather than pursue a career. I never knew them really well. (Of course, at the time I was married—but I didn't see the contradiction since I expected to be the one to support the family: mathematics paid better than poetry.) I never met Dame Mary Cartwright as a mathematician: my only meeting with her was in my entrance interview, when as Mistress of Girton she handed out delicate tea cups to the group of potential students seated around her. I also never met Sheila Edmonds, another considerable mathematician, but who never had a University lectureship and was immersed in college life. I did talk to Helen Alderson, a somewhat older woman, once a mathematical child prodigy in Moscow and now trying to get back to research, after emigration, marriage and having a family. People helped her find fellowships, but she was very marginalized and had a difficult life. There were no other women in the maths department then. That was the situation for women in Cambridge for a long time because of structural problems. The positions easily available to women were in colleges rather than in the university, and thus were essentially teaching positions which did not 'count'.

I was definitely happier, and began to fit in more, when I got a job as a lecturer, first in York and then Warwick, both 'new universities' with fewer traditions and prejudices. In both places I was the first female lecturer, but felt accepted by my colleagues. I didn't socialize much or have many friends—I didn't have time, what with teaching, doing mathematics, and looking after my young daughter. I still knew hardly anyone with the same kind of life and with whom I felt free to talk.

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CALL FOR PROPOSALS

Research Collaboration Conferences for Women

The AWM works to establish and support research networks for women in all areas of mathematics research. In particular, the AWM RCCW Committee provides mentorship and support to new networks wishing to organize a Research Collaboration Conference for Women (RCCW). The Committee offers help finding a conference venue, developing and submitting a conference proposal, and soliciting travel funding for participants. Thanks to a National Science Foundation grant, some funding may be available through the AWM to support new RCCWs, especially interdisciplinary proposals and proposals that bring together researchers from traditionally underrepresented populations.

Mathematicians interested in organizing the first conference of a new RCCW are invited to submit a proposal to the AWM describing the conference topic, potential co-organizers and project leaders, and potential participants. Proposals should be no more than one page (PDF files only, please) and should be sent to awm.rccw@gmail.com. Deadlines for submission: **February 1** and **July 1**.

More information about Research Collaboration Conferences for Women, existing RCCW networks, and related initiatives can be found at http://awm-math.org/programs/advance-research-communities/.

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I heard of the women's movement from Graeme, who was surprised to find how little I knew about it. I thought I was beyond all that: separated from my husband by the time I got to Warwick, I was already earning my own living, trying to bring up a child and set on making my mark as a mathematician. And anyway I knew of no like-minded women with whom to form a consciousness-raising group.

I learnt later that the faculty wives in Warwick felt sorry for me, I am not sure why; I loved my job, though I was very busy, and my mathematics was finally reviving. I would have been happy to stay there—but I fell in love with John Milnor and moved to the U.S. to be closer to him, giving up a tenured lectureship at Warwick for an untenured Assistant Professorship at Stony Brook. When I left Warwick, Caroline Series had just completed her PhD at Harvard and spent a year as a Research Fellow at Newnham College, Cambridge. She was the first female British mathematician I met; I advised her to apply for my soon-to-be vacated position in Warwick—which she did. She enjoyed it, but for many years was the only female faculty member. Things moved very slowly in the U.K.

The situation in the U.S. was a little different: the women's movement was more visible, and had been making demands that universities reform themselves. In the early 70s, the Ivy League was opening its campuses to female students and getting rid of nepotism rules, perhaps even thinking of offering proper jobs to female faculty, though that was controversial and in many cases came considerably later. I first went to the U.S. as a Visiting Professor at M.I.T. in 1974, invited out of the blue because they were looking for a suitable woman to add to their faculty. (My name must have come up via Isadore Singer's close connection with Gel'fand.) This was a wonderful opportunity. I had a real mathematical idea again, writing a paper with Graeme on the group-completion theorem that is still cited today, and I started to be more proactive in my career, applying to visit the Institute for Advanced Study. During my year at M.I.T., I met Ragni Piene from Oslo, who was a graduate student there. She was the first woman mathematician I had the chance

CALL FOR NOMINATIONS

The 2025 Noether Lecture *(NEW DEADLINE!)*

AWM established the Emmy Noether Lectures in 1980 to honor women who have made fundamental and sustained contributions to the mathematical sciences. In April 2013 the lecture was renamed the AWM-AMS Noether Lecture and since 2015 has been jointly sponsored by AWM and AMS. This one-hour expository lecture is presented at the Joint Mathematics Meetings each January. Emmy Noether was one of the great mathematicians of her time, someone who worked and struggled for what she loved and believed in. Her life and work remain a tremendous inspiration.

The mathematicians who have given the Noether lectures in the past are: Jessie MacWilliams, Olga Taussky Todd, Julia Robinson, Cathleen Morawetz, Mary Ellen Rudin, Jane Cronin Scanlon, Yvonne Choquet-Bruhat, Joan Birman, Karen Uhlenbeck, Mary Wheeler, Bhama Srinivasan, Alexandra Bellow, Nancy Kopell, Linda Keen, Lesley Sibner, Ol'ga Ladyzhenskaya, Judith Sally, Olga Oleinik, Linda Rothschild, Dusa McDuff, Krystyna Kuperberg, Margaret Wright, Sun-Yung Alice Chang, Lenore Blum, Jean Taylor, Svetlana Katok, Lai-Sang Young, Ingrid Daubechies, Karen Vogtmann, Audrey Terras, Fan Chung Graham, Carolyn Gordon, Susan Montgomery, Barbara Keyfitz, Raman Parimala, Georgia Benkart, Wen-Ching Winnie Li, Karen E. Smith, Lisa Jeffrey, Jill Pipher, Bryna Kra, Birgit Speh, Marianna Csörnyi, and Laura DeMarco. The 2024 lecturer will be Anne Schilling.

Anyone can be a nominator, whether or not they are AWM members. Self-nominations are permitted, in which case there must be an additional letter of support. Nominations of members of underrepresented minorities are especially encouraged. The letter of nomination should include a one-page outline of the nominee's contribution to mathematics, giving four of her/their most important papers and other relevant information. A curriculum vitae of the candidates not to exceed three pages is also required. Nominations are to be submitted as ONE PDF file via MathPrograms.org. The submission link will be available 45 days prior to the deadline. Nominations must be submitted by **September 15, 2023** and will be held active for a total of three years (two years beyond the initial nominations). If you have questions, phone 401-455-4042, email awm@awm-math.org or see the website https://awm-math.org/awards/noether-lectures/

to know. She has been a life-long friend, as has Caroline.

I learned recently that at that time Harvard admitted one or two female math graduate students every year or so. Nancy Hingston, Linda Ness, and Caroline Series are the mathematicians that I know from that group. A few other universities and individual mathematicians were also making similar efforts to seek out and train promising young women, laying the foundations for a slowly growing cohort of strong female mathematicians. The fact that some universities (such as M.I.T. and, a little later, Stony Brook) were actively seeking women to hire, was a help. Also, a few women came from Europe and flourished, feeling liberated from the expectations of their home societies and being blissfully unaware of the corresponding societal strictures in the U.S. Over the years I have enjoyed working with a variety of female students, encouraging them to pursue their interest in mathematics in whatever way suits them best. But the progress in building a visible presence of women in mathematics in the U.S. has been slow. In many leading departments there are still too few women faculty and graduate students.

I have participated in many efforts to bring female mathematicians together, mostly in the States, but also via wonderful European Women in Mathematics meetings, and the British Women in Mathematics Days now sponsored by the LMS. Even today, these programs have a purpose. Although there are more female mathematicians, they are not evenly distributed among the different universities and research groups, and still too many women feel intimidated into silence, as I was for many years. I help organize the Women and Mathematics program at IAS, Princeton, started by Karen Uhlenbeck, a one-week program for (in non-covid days) about 60 participants. The students almost uniformly say how refreshing and liberating it is to be in an all-female environment for once. Some of them are surprised by the difference it makes, not having realized the extent to which they had felt intimidated.

Recently, the Association for Women in Mathematics (AWM) has become much more active in promoting research. Under the leadership of Kristin Lauter (who worked at Microsoft for many years), it has recently been organizing networks of women in different fields, that every so often run workshops in which groups, with participants ranging from graduate students to senior faculty, come together to work on specific problems. At first glance, this format seems artificial and industry-inspired—but often it works beautifully, leading to the development of new ideas and unexpected collaborations, with new talent coming to the fore.

I can't of course talk about what it is like to be a young female mathematician today. Women are more visible, and the possibility of their having real mathematical talent that is worth nurturing is much more widely acknowledged. It is still very hard to navigate the issues of two-career families, or how to look after children (even more impossible in covid times). However, there is much more awareness and discussion of these questions and there also has been some effective action. Both mathematical societies AMS and LMS have recently had female presidents, and in their different ways are working hard to bring about real change in the common practises around the issues of diversity, equity and inclusion.

News from the AMS

Maddock Named AMS Interim Executive Director

May 2023

Lucy Maddock has been appointed the interim executive director of the American Mathematical Society (AMS) as of July 1, 2023, announced Bryna Kra, AMS president, and Joseph Silverman, chair of the AMS board of trustees. Maddock is currently chief financial officer (CFO) and associate executive director for finance and administration at the AMS.

Maddock will begin her term as interim executive director serving alongside the current executive director, Catherine Roberts, who will transition into an advisory role until she leaves the AMS at the end of August 2023.

"We're delighted that Lucy Maddock has agreed to serve as interim executive director of the American Mathematical Society, continuing her outstanding business decision-making leadership for the past three years at the AMS," Kra said.

The AMS Board of Trustees is currently conducting a search for a new executive director. Upon the installation of a new AMS executive director, Maddock will resume her role of CFO.

"Lucy has served as a senior leader in organizations for more than two decades," said Silverman. "We will look to this extensive experience to inform and guide the AMS through the transitions of the coming months."

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A key member of the AMS senior leadership team, Maddock has been responsible for maintaining the organization's overall fiscal health, helping to establish financial targets and assessing the results. As the AMS's primary financial advisor, she has managed the processes and procedures to insure an audit-ready position and has overseen contract creation, management, and compliance. Maddock's duties include supervising the directors of human resources, facilities and purchasing, and the fiscal department at the AMS.

"I am honored to be appointed interim executive director," Maddock said. "I look forward to continuing the work of the AMS to serve the entire mathematical community. Catherine Roberts positioned the AMS for a thriving future in many ways."

Prior to her position at the AMS, Maddock was CFO for the Rhode Island Public Health Institute, responsible for the fiscal management and compliance of significant federaland state contracts as well as private and corporate grants. She also served as CFO and director of finance for the East Providence School District and as CFO and administrative director for ROSRI, LLC, a regional cancer treatment center.

Maddock earned bachelor's and master's degrees from Boston University and a master's of business administration from Babson College. She is also a Certified Management Accountant.

JMM Lecturers Announced

Suzanne Lenhart, University of Tennessee, Knoxville, will give the Josiah Willard Gibbs Lecture. Melanie Matchett Wood, Harvard University, will deliver the Maryam Mirzakhani Lecture. The Gerald and Judith Porter Public Lecture will be given by Maria Chudnovsky, and the AMS Lecture on Education, by Suzanne Weeks.

Watch Videos of Winning Math Poems

The winners of the 2023 Math Poetry contest may be found at http://www.ams.org/programs/students/math-poetry reciting their poems. They are: "infinity," River Oxenreider, The Ohio State University, college student entry; "Sum of Us," Angela Zhou, International Academy East, high school student entry; and "Forest of Numbers," Miranda Jedlinski, Arthur and Polly Mays Conservatory for the Arts, middle school student entry.

Announcements

EDGE 25th Anniversary Conference

The EDGE Program is celebrating its 25th Anniversary with a conference, "Mobilizing the Power of Diversity," at Bryn Mawr College October 13–14, 2023. AWM is an "Over the EDGE" sponsor of the event. The conference website and registration form may be found at https://www.edgeforwomen.org/edge25/. See page 25 for the conference flyer.

Since 1998, the EDGE Program (Enhancing Diversity in Graduate Education) has provided support to women, particularly those from underrepresented minority groups, pursuing careers in the mathematical sciences. Initially a joint project of Bryn Mawr and Spelman Colleges, the program creates a community in which women with diverse backgrounds and strengths can thrive and work together. The EDGE Program has given rise to a cohort of educators, researchers, entrepreneurs, and corporate and government workers who create programs of their own and share the values of diversity with their students, colleagues, and communities.

2023 AAAS Members

https://www.amacad.org/new-members-2023

Nearly 270 outstanding individuals have been elected to the American Academy of Arts & Sciences in 2023. The new members of the Section on Mathematics, Applied Mathematics, and Statistics include:

Liliana Borcea, University of Michigan
Alison Etheridge (International Honorary Member), University of Oxford
Karen Vogtmann, University of Warwick

The new members elected to other sections who also have connections to the mathematical sciences include:

Sally Benson, Stanford University
Mirjam Cvetič, University of Pennsylvania
Claudia de Rham (IHM), Imperial College London
Lydia E. Kavraki, Rice University
Susan S. Margulies, National Science Foundation
Kathryn S. McKinley, Google LLC
Risa Wechsler, Stanford University

National Academy of Sciences Elects Members and International Members

NAS, May 2023

Newly elected members and their affiliations at the time of election include:

Lisa J. Fauci, professor, Department of Mathematics, Tulane University

Newly elected international members, their affiliations at the time of election, and their country of citizenship include:

Alison M. Etheridge, professor of probability, Department of Statistics, University of Oxford (United Kingdom)

Dominique Picard, emeritus professor, Paris Diderot University (France)

SIAM Announces Distinguished Class of 2023 Fellows

SIAM, March 2023

The Society for Industrial and Applied Mathematics (SIAM) is pleased to announce the 2023 Class of SIAM Fellows. These distinguished members were nominated for their exemplary research as well as outstanding service to the community. Through their various contributions, SIAM Fellows are a core group of individuals helping to advance the fields of applied mathematics and computational science.

SIAM congratulates new members of the community, listed below in alphabetical order:

Fioralba Cakoni, Rutgers, The State University of New Jersey, is being recognized for seminal contributions to inverse scattering theory, the existence of transmission eigenvalues, and non-scattering phenomena.

Daniela Calvetti, Case Western Reserve University, is being recognized for outstanding contributions to numerical linear algebra, Bayesian scientific computing, and inverse problems and applications, and for extraordinary mentoring activities.

Coralia Cartis, University of Oxford, is being recognized for theoretical and practical developments in continuous optimization.

Alina Chertock, North Carolina State University, is being recognized for significant contributions to numerical methods for hyperbolic systems of conservation laws and important service to the applied mathematics community.

Lenore Jennifer Cowen, Tufts University, is being recognized for seminal contributions to computational biology through the design of graph-based algorithms and insights into network distance measures.

Chandrika Kamath, Lawrence Livermore National Laboratory, is being recognized for community leadership and contributions to data mining and its application to real-world problems in science and engineering.

Angela Kunoth, University of Cologne, is being recognized for fundamental contributions to multi-level and wavelet methods for the numerical solution of partial differential equations and optimal control with partial differential equation constraints.

Catherine Sulem, University of Toronto, is being recognized for numerical and analytical contributions to nonlinear dispersive waves in optics and fluids.

Konstantina Trivisa, University of Maryland, College Park, is being recognized for outstanding contributions to analysis of nonlinear partial differential equations, exemplary service, and excellence in mentoring of students and postdocs.

Caroline Uhler, Massachusetts Institute of Technology and Broad Institute, is being recognized for fundamental contributions at the interface of statistics, machine learning, and biology.

Yongjie Jessica Zhang, Carnegie Mellon University, is being recognized for pioneering contributions to computational geometry, volumetric parameterization, isogeometric analysis, mesh generation, image processing, and simulation-based engineering applications.

UNM Annual Mentoring Conference

The Mentoring Institute at UNM is pleased to announce its 16th Annual Mentoring Conference, Mentoring Networks: The Impact of Developmental Relationships on the Future of Work. See https://mentor.unm.edu/conference/

We invite faculty, staff, and students of higher education, researchers, K–12 educators, community leaders, administrators, non-profit partners, government agencies, and other professionals to participate in this five-day event, which will be held from Monday, October 23, 2023, through Friday, October 27, 2023, at The University of New Mexico's Student Union Building in Albuquerque, New Mexico. The standard registration deadline is October 14, 2023.

Together, we will develop dynamic conversations and networking opportunities through hands-on workshops, individual/panel presentations, and plenary sessions. We aim to foster engagement among scholars and professionals in the fields of mentoring, coaching, supervision, and leadership.

In the event of a virtual conference due to health-related restrictions, a one-year membership to the Mentoring Institute will be included in the conference registration.

AWM Workshop at the 2024 Joint Mathematics Meetings

Application deadline for graduate student poster session: **August 13, 2023**

For many years, the Association for Women in Mathematics has held a series of workshops in conjunction with major mathematics meetings. The AWM Workshops serve as follow-up workshops to Research Collaboration Conferences for Women (RCCW), featuring both junior and senior speakers from one of the AWM Research Networks. An AWM Workshop will be held in conjunction with the Joint Mathematics Meetings in San Francisco, CA, January 3–6, 2024.

FORMAT: The workshop will consist of a Special Session focused on Women in Operator Theory organized by Asuman Aksoy and Catherine Bénéteau, and a Poster Session for graduate students and recent PhDs. The Special Session will feature selected junior and senior mathematicians from the Research Network Women in Operator Theory (WinOT) and follows the Lorentz Center workshop "Working Groups for Women in Operator Theory" that was held virtually in July of 2021 as well as the WinOT workshop that was held at the University of Memphis in October 2022.

POSTER SESSION: The Poster Session is open to all areas of research; graduate students working in areas related to operator theory are especially encouraged to apply. Poster presenters will be selected through an application process to present posters at the Workshop Reception & Poster Session. With funding from NSF, AWM will offer partial support for travel and hotel accommodations for the selected graduate students. The workshop will include a reception, luncheon and a mentoring session where workshop participants will have the opportunity to meet with other women and non-binary mathematicians at all stages of their careers. In particular, graduate students in operator theory will have the opportunity to connect with the WinOT Research Network.

ELIGIBILITY: To be eligible for selection and funding, a graduate student must have made substantial progress towards their thesis. Women and non-binary mathematicians with grants or other sources of support are welcome to apply.

All applications should be submitted on mathprograms.org and include:

- a title of the proposed poster
- an abstract in the form required for AMS Special Session submissions for the Joint Mathematics Meetings
- a curriculum vitae
- one letter of recommendation from the applicant's thesis advisor.

Applications must be completed electronically by **August 15, 2023**. See https://awm-math.org/meetings/awm-jmm/ for details.

MENTORS: We also seek volunteers to act as mentors for graduate students as part of the workshop. If you are interested in volunteering, please contact the AWM office at awm@awm-math.org by **September 15, 2023**.

Mathematicians of all genders are invited to attend the talks and poster presentations. Departments are urged to help graduate students and junior faculty who are not selected for the workshop to obtain institutional support to attend the presentations.

edge 25

MOBILIZING THE POWER OF DIVERSITY

A conference at Bryn Mawr College on the occasion of the 25th Anniversary of the EDGE Program

October 13-14, 2023

This conference will convene community leaders to assess the gains made by diversity initiatives, how those gains fuel innovation and creativity, and the ongoing challenges that remain.

Ruth I. Michler Prize

The Association for Women in Mathematics invites applications for the Ruth I. Micheler Memorial Prize.

A $50,000 prize will be awarded to a woman, recently promoted to associate professor or the equivalent, for a semester of mathematical research without teaching obligations in the Mathematics Department of Cornell University.

A supplemental housing/ subsistence stipend award of $3,000 will be provided. Office space, library access, and computing facilities will be provided by Cornell.

The application deadline is October 1 for the award to be used during the 2024–25 academic year.

www.awm-math.org/michlerprize.html.

Cornell University

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ADVERTISEMENT

SUMMER RESEARCH IN MATHEMATICS
SLMath (MSRI): Berkeley, California

The **2024 Summer Research in Mathematics (SRiM) program at the Simons Laufer Mathematical Sciences Institute (SLMath)**, formerly MSRI, provides space, funding, and the opportunity for in-person collaboration to small groups of mathematicians with partial results on an established project, especially women and gender-expansive individuals, whose ongoing research may have been disproportionately affected by various obstacles including family obligations, professional isolation, or access to funding. **Visits for the program are expected to take place between June 10 and July 26, 2024.** Participants are provided with lodging, meals, and travel expenses; funding to support childcare expenses is also available. **Apply via MathPrograms.org from July 1 - Oct. 8, 2023.**

NSF

msri.org/summer

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DISPLAY AD RATES

Full-page	7 1/8" x 8 1/2"	$638
1/2 page (horizontal)	7 1/8" x 4 1/8"	$385
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For further information, see awm-math.org.

ADVERTISEMENT

POSITION AVAILABLE

Executive Director

AMERICAN MATHEMATICAL SOCIETY

POSITION

The Trustees of the American Mathematical Society invite applications for the position of Executive Director of the Society. The Executive Director has the opportunity to strongly influence all activities of the Society, as well as the responsibility of overseeing a large and diverse spectrum of people, programs, and publications. **The desired starting date is February 1, 2024.**

DUTIES AND TERMS OF APPOINTMENT

The American Mathematical Society, founded in 1888 to further the interests of mathematical research and scholarship, serves the national and international community through its publications, meetings, advocacy, and other programs. The AMS promotes mathematical research and its communication and uses; encourages and promotes the transmission of mathematical understanding and skills; supports mathematical education at all levels; advances the status of the profession of mathematics, encouraging and facilitating the full participation of all individuals; and fosters an awareness and appreciation of mathematics and its connections to other disciplines and everyday life.

These aims are pursued mainly through an active portfolio of programs, publications, meetings, conferences, and advocacy. The Society is a major publisher of mathematical books and journals, including MathSciNet®, an organizer of numerous meetings and conferences each year, and a sponsor of grants and training programs. The Society's headquarters are located in Providence, Rhode Island, and the Executive Director is based there. The society also maintains a print shop in Pawtucket, Rhode Island; an office in Washington, DC, that houses the Office of Government Relations and the Office of Equity, Diversity, and Inclusion; and an office in Ann Arbor, Michigan, that publishes MathSciNet.

The Executive Director is the principal executive officer of the Society and is responsible for the execution and administration of the policies of the Society as approved by the Board of Trustees and by the Council. The Executive Director is a full-time employee of the Society and is responsible for the operation of the Society's offices in Providence, and Pawtucket, RI; Ann Arbor, MI; and Washington, DC. The Executive Director attends meetings of the Board of Trustees, the Council, and the Executive Committee, is an ex-officio (nonvoting) member of the policy committees of the Society, and is often called upon to represent the Society in its dealings with other scientific and scholarly bodies.

The Society employs a staff of over 200 in the four offices. The directors of the various divisions report directly to the Executive Director. Information about the operations and finances of the Society can be found in its Annual Reports, available at www.ams.org/annual-reports.

The Executive Director is appointed by and serves at the pleasure of the Trustees. The terms of appointment, salary, and benefits will be consistent with the nature and responsibilities of the position and will be determined by mutual agreement between the Trustees and the prospective appointee.

DESIRED QUALIFICATIONS

The successful candidate must be a leader, and we seek candidates who additionally have as many as possible of the following:

- A doctoral degree (or equivalent) in mathematics or a closely related field.
- Substantial experience and demonstrated visibility as a professional mathematician in academic, industrial, or governmental employment, with success in obtaining and administering grants.
- Extensive knowledge of the Society, the mathematics profession, and related disciplines and organizations, with a thorough understanding of the mission that guides the Society.
- Excellent communication skills, both written and oral, and an enthusiasm for public outreach.
- Demonstrated sustained commitment to diverse, inclusive, and equitable organizational environments and substantial experience in advancing equity, diversity, and inclusion priorities in the mathematical community.
- Demonstrated leadership ability supported by strong organizational and managerial skills.
- Familiarity with the mathematical community and its needs, and an ability to work effectively with mathematicians and nonmathematicians.
- Strong interest in engaging in fundraising and enjoyment of social interactions.

APPLICATIONS PROCESS

A search committee co-chaired by **Joseph Silverman** (joseph_silverman@brown.edu) and **Bryna Kra** (kra@math.northwestern.edu) has been formed to seek and review applications. All communication with the committee will be held in confidence. Suggestions of suitable candidates are most welcome.

Applicants should submit a CV and a letter of interest on MathJobs. The letter should be at most four pages, explaining your interest in being the Executive Director of the AMS and why you consider yourself to be a compelling candidate. The majority of the letter should discuss your major accomplishments and experiences that illustrate your leadership philosophy and address the desired qualifications for the position. **Applications received by September 15, 2023 will receive full consideration.**

AMS AMERICAN MATHEMATICAL SOCIETY

Advancing research. Creating connections.

The AMS supports equality of opportunity and treatment for all participants, regardless of gender, gender identity or expression, race, color, national or ethnic origin, religion or religious belief, age, marital status, sexual orientation, disabilities, veteran status, or immigration status.

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ASSOCIATION FOR WOMEN IN MATHEMATICS

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