

THE NEWSLETTER OF THE ROWAN UNIVERSITY MATHEMATICS DEPARTMENT

VECTORS

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Welcome to the Equation

Mathematics Department Adds New Faculty

Over the past year and a half, the Mathematics Department welcomed eight new faculty members. Dr. Hung Tong joins as an Assistant Professor; Dr. Panakkal Mathew joins as an Associate Teaching Professor; Dr. Adam Abrams, Dr. Robert Freeman, Dr. Chun Pang Lin, and Dr. Mengsha Yao join as Assistant Teaching Professors; and Gina Ehler and Christopher Walker join as 3/4-Time Faculty.

Dr. Hung Tong started his undergraduate studies at De Anza College in 2015, where he took courses in computer science before deciding to major in statistics. After transferring to San Jose State University, he earned a B.S. in Applied Mathematics (Statistics) in 2019 and an M.S. in Statistics in 2021. During this time, he developed an interest in cluster analysis and model-based clustering. To continue studying this area, he pursued a Ph.D. in Applied Statistics at the University of Alabama. He is now an Assistant Professor of Statistics at Rowan University.

Dr. Panakkal Mathew has joined Rowan University as an Associate Teaching Professor. Previously, he was here as an adjunct faculty member since 2016, and he has always loved teaching at Rowan. He completed his master's and Ph.D. in Mathematics from Georgia State University. His hobbies include listening to all types of music and playing the guitar. He also loves to travel.



Dr. Hung Tong



Dr. Panakkal Mathew



Dr. Adam Abrams



Dr. Robert Freeman



Dr. Chun Pang Lin

Dr. Adam Abrams received his Ph.D. from Pennsylvania State University in 2018. He spent the last several years in Poland working first at the National Institute of Mathematics and then at the Wroclaw University of Science and Technology. Although he has published multiple papers in the areas of symbolic dynamical systems and ergodic theory (and presented these findings at conferences), he generally finds teaching to be more rewarding than pure research. He always enjoys helping students connect to and understand new material. He is now an Assistant Teaching Professor at Rowan University.

Dr. Robert Freeman grew up a few miles from Rowan University and attended Rutgers University-Camden for his bachelor's and master's degrees in pure mathematics. He taught part-time at several universities and colleges and full-time at Gloucester County College for a decade until he decided to attend the University of South Florida to earn his Ph.D. in pure mathematics. He graduated in 2020 and then taught at Penn State Berks for a few years as a research mathematician and at the University of South Florida for five years. He is now teaching as an Assistant Teaching Professor at Rowan University but still loves to research mathematics as a hobby.

Dr. Chun Pang Lin pursued his Ph.D. at City University of Hong Kong, focusing on data science. He is grateful that his Ph.D. collaborator invited him to the United States for a postdoctoral position. This is how he began his career in the United States. Previously, he worked on research in statistical modeling, biostatistics, and degradation modeling, both in academia and with industry partners. He also taught statistics courses part-time in academia. He now teaches courses in statistics and data science at Rowan

University as an Assistant Teaching Professor. His favorite area of mathematics is statistics because he enjoys using approximation techniques in statistical modeling and inference.

Dr. Mengsha Yao holds a Ph.D. in applied mathematics from the University of Southern California where she developed groundbreaking theories, and she was honored with the Edward and Dolores Blum Graduate Research Prize. Following her graduation, Dr. Yao pursued postdoctoral research at Temple University. She is passionate about teaching and is dedicated to providing high-quality mathematics education. She views mathematics as a journey of exploration and growth, where students develop confidence, patience, and problem-solving skills by embracing challenges, learning from mistakes, and experimenting with different strategies—preparing them for success in both academics and life. She is now an Assistant Teaching Professor.

Gina Ehler is a 3/4-time mathematics faculty member at Rowan University. She always wanted to teach higher level mathematics classes and was excited when given the opportunity to teach courses at Rowan University. She started her career teaching middle school mathematics, eventually moving on to teaching high school mathematics where she taught calculus and statistics. Now at Rowan



Dr. Mengsha Yao



Gina Ehler



Christopher Walker

University she continues to teach Calculus 1 along with Reasoning with Functions and Pre-Calculus. Gina has an amazing husband at home along with two beautiful kids, a dog and a cat. In her free time, she loves going to the beach with her family.

Christopher Walker graduated from Rowan University with a bachelor's degree in physics in 2011 and a master's degree in mathematics in 2015. He teaches a variety of courses at Rowan University and always tries to ensure his classroom has a welcoming atmosphere by occasionally breaking up the lecture with anecdotes and jokes related to the topic at hand. Such breaks are usually in reference to other disciplines which utilize the mathematics being taught, or areas in which he personally uses the mathematics concepts. He is now a 3/4-time mathematics faculty member at Rowan University. ■

Proof of Success

Dr. Sherman and Mr. Fine Receive Prestigious Awards

Each year, the College of Science & Mathematics recognizes faculty members for outstanding performance. In June 2024, two faculty members of the Mathematics Department earned awards. Dr. Cass Sherman received the Excellence in Academic Student Support Award, an award that goes to an individual who provides exceptional student support. Ira Fine received the Part-Time Faculty Excellence Award, an award that goes to an individual who shows exceptional commitment to student learning. Congratulations to both Dr. Sherman and Mr. Fine for their persistent commitment to student support, learning, and achievement.



Dr. Cass Sherman



Ira Fine

MATH TEAM



Hello Math Enthusiasts!!! Do you love solving problems? Do you want an opportunity to solve math-related puzzles and to socialize with students and faculty who also enjoy math? Do you like to eat pizza? Then the Math Team is for you!!!

Over the Fall 2024 semester, the Math Team hosted four math-tastical club meetings. At the first meeting, we introduced this year's e-board, explained all the different kinds of activities that we partake in, and played a game of Determinant Bingo. The second meeting was a discussion of

the various classes offered by the math department so students could pick classes that were of interest. The third meeting was a puzzle night where participants solved logic puzzles. The fourth meeting was a presentation night where students were able to give a presentation on a topic of their choice. There were some hilarious presentations! At each meeting, there is free pizza!!!

We also hosted a table at the Haunted Student Center, passing out candy and doing a fun arithmetic game with the kids! Finally, the Math Team ended Fall 2024 with Mod

Math Team is where ideas multiply and fun adds up.

Math Team e-Board

Jacob Levey, President
Rio Baliga, Vice President
Srivalli Valluri, Secretary
Ryan Correll and Abhijit Yadav, Senators
Merlie Kirschenbaum, Treasurer
Mary Lisicki, Events Coordinator



Bowling at the Turnersville Bowlero! Members of the Math Team competed for the highest score and for the highest score modulo 10. We also had pizza and endless soft-drinks while we played! The event ended with one of our Senators, Ryan Correll, getting three strikes in the last frame of the last game!!!

We are so excited for what's to come in the Spring semester! If you are interested in joining the Math Team, email the faculty advisor Dr. Rade Musulin at musulin@rowan.edu. ■



Meet Merlie

Meet Merlie Kirschenbaum, a senior mathematics major at Rowan University who is the driving force and spirit behind the university's Math Team.

Hi everyone! I am currently a senior Math major, with a minor in Data Science and concentration in Statistics. I am also a member of the Bantivoglio Honors College. I transferred to Rowan in Fall 2023 after completing my associate degree at Brookdale Community College.

I have found such a great community here at Rowan. I am an Information Services Specialist at the Student Center, a volunteer tutor in the Math Learning Center, and the treasurer of the Math Team. I have also been working really hard on maintaining our club social media and outreach, trying to grow our club as much as possible before my time at Rowan is done! Further, I am involved in a deep learning research project with Dr. Thanh Nguyen and Dr. Hieu Nguyen. This project has pushed me to learn and thrive beyond the classroom, learning new concepts and techniques that will likely be very helpful in my future career.

I am very excited about what's left for the Math Team to accomplish this semester. We are hoping to plan a few more fun events, club meetings, and even use our fundraising money to go on a trip. I am so



proud of how far the Math Team has come since I first joined, and I hope that it continues to grow and thrive.

Next fall, I am excited to be attending graduate school, working towards my Master's in Statistics. I have been offered full scholarships and teaching assistant

ships from multiple schools—though I have yet to make that life-changing decision. I intend on doing this soon and am excited to move onto this new chapter! I hope to become a Data Scientist in the future, perhaps in an area where I can analyze public policy and social issues. ■

FACULTY SPOTLIGHT

Dr. Rade Musulin

Dr. Musulin is a down to earth Assistant Teaching Professor of Mathematics with a deep love for pure mathematics. He is dedicated to inspiring students at Rowan University and enjoys sharing his expertise both inside and outside the classroom.

Dr. Rade Musulin is an Assistant Teaching Professor of Mathematics. Dr. Musulin earned his B.S. in Mathematics from Lander University in 2013 and Ph.D. in Mathematics from the University of South Carolina in 2018. His research interests as a graduate student were in Functional Analysis, Operator Theory, Quantum Theory, and Mathematical Physics.

Although he was born in Voorhees, New Jersey, Dr. Musulin grew up on Hilton Head Island in South Carolina and lived in the South for most of his life. Initially wanting to teach mathematics at the high school level, Dr. Musulin became increasingly interested in the pure mathematics classes he took as an undergraduate student. In particular, he was captivated by the abstract nature and elegance of the theory taught in the two Abstract Algebra (Modern Algebra) classes he took as an undergraduate student. To grow his understanding of mathematics, Dr. Musulin attended the pure mathematics Ph.D. program at the University of South Carolina with the desire to teach at the university level. At the University of South Carolina, Dr. Musulin met the love of his life, Dr. Jaree Hudson (also an Assistant Teaching Professor). He married Dr. Hudson in June 2019.

After graduating from the University of South Carolina with a Ph.D. in Mathematics in 2018, Dr. Musulin took a job as an Instructor of Mathematics at Florida Atlantic University before joining the faculty at Rowan University in Fall 2021. Dr. Musulin thoroughly enjoys sharing his passion for pure mathematics with his students in the classes he teaches. He also really appreciates the welcoming nature of the Mathematics



Department and the small class sizes that Rowan offers. In addition, Dr. Musulin is excited to be a new faculty advisor for the Math Team!

Outside of school, Dr. Musulin is an avid chess player and enjoys studying the game. In February 2023, Dr. Musulin drew a chess grandmaster in a simultaneous exhibition (he also drew a different chess grandmaster when he was a graduate student). In May 2023, he reached a lifetime goal of passing a USCF regular chess rating of 2000. Dr. Musulin has participated in chess tournaments organized by the Rowan Chess Club in the past and enjoys a friendly game of chess.

Dr. Musulin also enjoys going to amusement parks in his free time. He enjoys riding roller coasters. His favorite roller coaster is Nitro at Six Flags Great Adventure. In addition, Dr. Musulin plays video games. He doesn't have a favorite, but he plays many different genres of video games. ■



The AWM Recaps Their Productive Semester

Association for Women in Math (AWM) is a newer club at Rowan University! Our mission is to increase the visibility of women and anyone of a marginalized gender in STEM or math related endeavors. We strive to improve equal opportunities for all, regardless of race, gender identity, sexual orientation, etc. In the Fall 2024 semester, we had 4 meetings which all consisted of different activities.

Our first meeting was in September where we had our E-Board introductions and presented all the resources Rowan University has to offer students on campus. We also made an anonymous response questionnaire for members to write what they would like to see from AWM this school year. To help our members relax and engage with each other, we had an arts and crafts activity where we all painted wooden panels, which all turned out amazing by the way!

The next gathering in October was Halloween themed, where we presented different career paths in STEM. We also completed a leaf coloring activity where

we went outside and found leaves and traced them while interacting with each other and building friendships with one another.

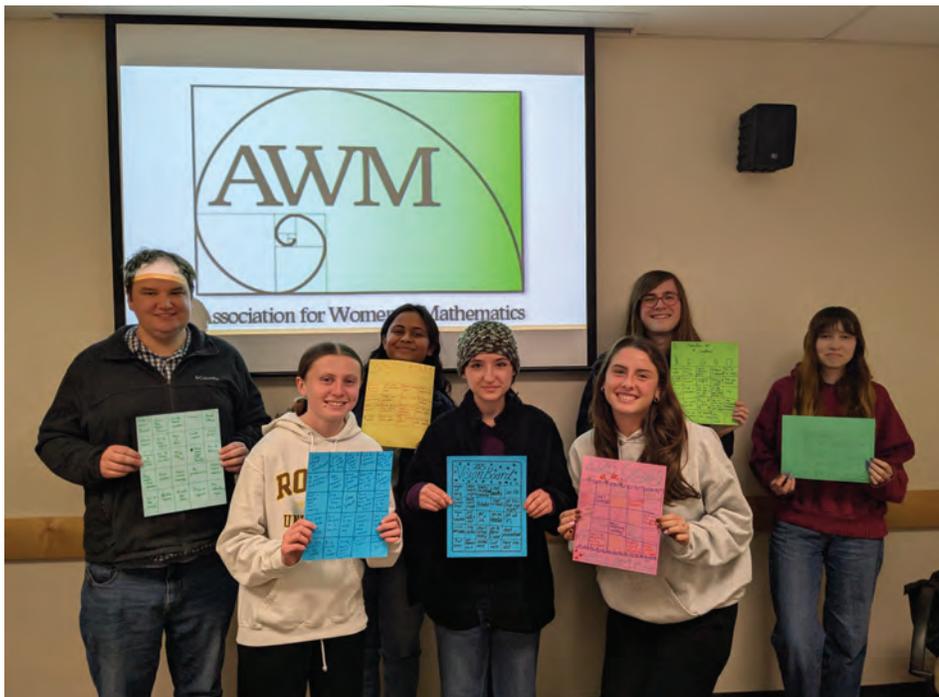
The next time we met was in November, for our Thanksgiving themed meeting. This is where we made hand turkeys to represent some things we are thankful for, while educating new members about what AWM aspires for as a club and completing a quick ice breaker activity.

Our last get-together of the semester was in December, which was centered around the upcoming holiday season. We made cards for Operation Gratitude, which is a non-profit organization that delivers care packages and cards to first responders and military personnel. We did this in an effort to make their Christmas and New Year's a little bit more special and brighten their spirits, since some may be away from their families during this time. As some of you may know, Rowan University has a food pantry available to those in need, called The Shop. During the holiday season, we made announcements to members that their donations would be much appreciated to help those in our community.

As you may have gathered from reading this, we love to come up with

different ideas for each meeting, based on which month we are in and any upcoming holidays! We believe that this helps keep everyone engaged in what we do each time we see each other, since it is always something different. Speaking about something different, since the fall semester, we have been highlighting influential women who have shaped mathematics or made significant breakthroughs in the field. Us on the E-board have been having so much fun with this new activity, and it seems like our members have been loving this too! Another thing that is very exciting for us is having little discussion questions to learn more about possible mutual interests and hobbies between each other.

For the spring semester, we're excited to host a collaborative Bingo Night with ACM-W, a bake sale, and many other fun activities! We are so excited for potential new members to join AWM and we are happy with how far we have come as a club! We love to branch out and meet new people, so please stop in and say hello! Our Instagram is @rowanawm where you can find meeting and activity information! Or contact the advisor, Shannon Miller, at millersh@rowan.edu. We hope to see you soon—feel free to bring a friend! ■



AWM e-Board

- Bella Stefanowicz, President
- Jackie Regensburger, Vice President and Social Media Chair
- Jess Rippman, Treasurer
- Rose Critelli, Secretary and Collaborative Events Chair
- Sarah Ely, Senator



Equations, Events, and Everything in Between

Mathematics Department Highlights from the Fall Semester



● Fall Meet & Greet

All Freshmen and transfer students in Mathematics were invited to attend the department's annual Mathematics Fall Meet & Greet! Pizza and other refreshments were served; mathematics games and puzzles were presented; opportunities for students to meet faculty members were given.



● Datathon Prep Workshop for Students

The Mathematics Department hosted the NJ Big Data Alliance half-day conference titled "Winning Strategies: Mastering Hackathons and Data Science Competitions." The sessions were led by a variety of data science leaders with the attendees learning about what it takes to compete and succeed in data hackathons, how to select a winning idea and execute it efficiently, how to use popular hackathon tools and design principles, and how to enhance their presentation skills to impress judges.



● Math Colloquium

The Mathematics Department held a math colloquium. Dante Gates, a former Rowan University student currently working as a data scientist, was the presenter. The presentation "Bayesian Inference: What is the Posterior, and Why Does it Matter?" dived into a topic that continues to gain popularity in machine learning. The colloquium discussed a key element of Bayesian inference: posterior distribution.



● Student Research Workshop

Dr. Thanh Nguyen hosted the annual Student Research Workshop. All mathematics students were invited to attend and learn about the research the mathematics faculty are currently working on as well as how to become a future research assistant.

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Visit Rowan University's website for more details:

<https://csm.rowan.edu/departments/ds/programs/bs-ds.html>

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