Spring 2025 Meeting

of MAA-NJ

held in conjunction with
MATYCNJ

and

Garden State Undergraduate Mathematics Conference

Rowan College at Burlington County

Saturday, March 29, 2025

Schedule: All events (except lunch) take place in Votta Hall. [The GSUMC schedule is on page 4.]

MAP

8:30 – 9:15	**Registration and Coffee.** Lobby
9:00 – 1:30	**Book Exhibits.** Lobby
9:15 – 9:30	**Welcome.** *Dr. Michael A. Cioce, President.* Auditorium
9:30 – 10:20	**Generative AI in Math Education.** *Alexander Diaz-Lopez*. Auditorium
10:20 – 11:00	• **MAA-NJ Business Meeting.** Auditorium • **MATYCNJ Business Meeting.** Room 131 • **Refreshments.** Lobby
11:00 – 11:50	**Empowering Students to Think Beyond the Classroom Through Real-World Problem Solving.** *Vinodh Chellamuthu*. Auditorium
12:00 – 1:30	**Lunch.** Student Success Center **Lunch Discussion Tables.**
1:00 – 2:00	**Student Poster Session.** Votta Hall Rotunda

2:00 – 3:15	• **Workshop: Thinking with things about mathematical things.** Room 133
	• **General Contributed Papers:**
	   o **Session 1.** Room 131
	   o **Session 2.** Room 146
	   o **Session 3.** Room 148
	• **Student Talks.** Rooms 225 and 236

3:15 – 3:45	**Intermission and Refreshments.** Lobby (Silent auction bidding ends at 3:30)
3:45 – 4:35	**An Unlikely Career Built Out of Saying "Yes!"** *Jenna P. Carpenter*. Auditorium
4:35 – 5:00	**Prizes and Awards.** GSUMC awards, door prizes and silent auction winners (must be present to win). Auditorium
5:30	**Dinner Honoring Speakers.** Barone's Tuscan Grill, 280 Young Ave, Moorestown, NJ 08057

Code of Conduct

GSUMC Schedule: All events (except lunch) take place in Votta Hall.

8:30 – 9:15	**Competition Team Check-In, Student Check-in, and Breakfast.** Lobby
9:20 – 9:30	**Announcements.** Rooms 135 and 148
9:30 – 10:30	**NJ Undergraduate Math Competition; Individual Part.** Rooms 135 and 148
10:30 – 12:00	**NJ Undergraduate Math Competition; Team Part.** rooms to be announced
12:00 – 1:00	**Lunch.** Student Success Center
1:00 – 2:00	**Student Poster Session.** Votta Hall Rotunda
2:00 – 3:15	**Student Talks.** Rooms 225 and 236
3:15 – 3:45	**Intermission and Refreshments.** Lobby (Silent auction bidding ends at 3:30)
3:45 – 4:35	[**An Unlikely Career Built Out of Saying "Yes!"**](#) *Jenna P. Carpenter*. Auditorium
4:35 – 5:00	**Prizes and Awards.** GSUMC awards, door prizes and silent auction winners (must be present to win). Auditorium

Additional program content

- [Future Meetings](#)
- [Call](#) for Contributed Papers, Topics for Special Sessions, and Lunch Table Discussion Topics for the Fall 2025 MAA-NJ Meeting
- [Carol Crawford Award for Excellence in Undergraduate Teaching](#)
- [25- and 50-year Members of the MAA](#)
- [Social Media Information](#)
- [MAA-NJ Committees](#)
- [GSUMC Committees](#)
- [MATYCNJ Section Officers](#)
- [MAA-NJ Section Officers](#)
- [Acknowledgements](#)

Generative AI in Math Education

Alexander Diaz-Lopez
Villanova University

"Should I use generative AI (gen AI) in my courses?" This is a question that directly or indirectly we answer every semester when we step into the classroom. Whether we wish to embrace or resist (or anything in between) gen AI, I firmly believe we should be informed about it. With no manuals and little guidance, getting informed is done by trying it out. In this talk, we will actively use gen AI for different tasks that are related to math education such as creating syllabus, generating problem sets/assessments, creating interactive exercises, or live tutoring. Bring your curiosity, questions, and phone/tablet/computer.

Alexander Diaz-Lopez is an Associate Professor at Villanova University. His research is in algebraic combinatorics and is currently supported by an NSF grant. Alexander is interested in exploring different

ways in which generative AI can impact math education at the college level. He loves the MAA, is part of the editorial board at Mathematics Magazine, is Member-at-Large of the MAA EPaDel section, and was the recipient of the 2021 MAA Henry Alder Award for Distinguished Teaching.

Empowering Students to Think Beyond the Classroom Through Real-World Problem Solving

Vinodh Chellamuthu

Utah Tech University

Many students approach mathematics as a sequence of step-by-step procedures with a clear, definitive solution. Over time, this mindset leads them to believe that all problems can be neatly solved within this structured framework. However, once they enter the workforce, students quickly realize that real-world problems are rarely so straightforward. These challenges are often complex, multifaceted, and ambiguous, with multiple potential solutions rather than one "right" answer. This realization can be overwhelming for students who are accustomed to more predictable problems. To prepare students for this shift, it is crucial to provide them with opportunities to engage with "real-world chaos" through collaborations with business, industry, and government agencies. By tackling messy, ill-defined problems, students develop essential skills in

innovative problem-solving, creative resilience, and out-of-the-box thinking. These hands-on experiences help students become comfortable with uncertainty, foster adaptability, and unlock their full potential for growth and impact in their future careers.

Dr. Vinodh Chellamuthu is an Associate Professor of Mathematics and Director of the Research Office at Utah Tech University in St. George, Utah. He is deeply committed to enhancing the education of future scientists by creating opportunities for career development through research, which he considers a high-impact teaching pedagogy. Dr. Chellamuthu has mentored numerous undergraduate research projects originating from business, industry, and government agencies. During his tenure at Utah Tech, he has guided over 60 undergraduates in 42 research projects, leading to more than 130 student research presentations at various conferences, including several awards for outstanding presentations and publications in peer-reviewed

journals. In recognition of his success as a teacher-mentor, Dr. Chellamuthu has received the 2022 Henry Alder Award from the Mathematical Association of America, the 2020 Early Career Mentoring Award from the Council on Undergraduate Research, the Distinguished Teaching Award from the MAA's Intermountain Section, and the Distinguished Teaching Award from Utah Tech University. He currently serves as a councilor on the Council on Undergraduate Research, Chair for BIG SIGMAA, and Program Coordinator for UR SIGMAA.
Texas Tech University.

An Unlikely Career Built Out of Saying "Yes!"

Jenna P. Carpenter

School of Engineering, Campbell University

Faculty are often advised to closely guard their time and energy and say "no" to a variety of opportunities that may come their way. While faculty do need to focus on meeting goals that are essential to achieving tenure and promotion, it turns out there is ample time to say yes to interesting experiences. In this talk, we will focus on what types of opportunities to say yes to and look at how they can lead to career paths you never dreamed possible.

Dr. Jenna P. Carpenter is Founding Dean and Professor of Engineering at Campbell University. She is President-Elect of the Mathematical Association of America and serves on the Editorial Board of Math Horizons. A national expert and thought leader in innovative STEM curricula and inclusion, she is Past

President of the American Society for Engineering Education (ASEE). A Fellow of ASEE and 2023 ASEE Hall of Fame Inductee, she received the 2023 ABET Claire Felbinger Award for Diversity and Inclusion, and the 2019 ASEE Sharon Keillor Award for Women in Engineering Education. She is a co-recipient of the 2022 National Academy of Engineering Bernard M. Gordon Prize for Innovation in Engineering and Engineering Technology Education as a co-founder of the Grand Challenges Scholars Program. Carpenter also received the 2018 Women in Engineering ProActive Network (WEPAN) Founder's Award and is a Past President of WEPAN. She has a long record of service to the MAA, having served as First Vice President, Chair of the Council on the Profession, Louisiana-Mississippi Section Governor, Chair of the Joint Committee on the Status of Women in the Mathematical Sciences, and Chair of the Committee on Professional Development, as well as on the 2015 CUPM Curriculum Guide Steering Committee and the StatPREP Project.

# Workshop: Thinking with things about mathematical things

Steven Greenstein

Montclair State University

As mathy people, we like to think about mathematical things. As a math educator, I like to think about how things shape our thinking about mathematical things. Things like physical manipulatives – tangible objects with pedagogical purposes – have a long history in math education. Recent research is contributing to the discussion by affirming that our thinking is not confined to the head. Rather, it is fully embodied. Even further, it's extended through our interactions with material things. As the theory goes, the knowledge we have arises from our engagement with the full sensations of these embodied and extended experiences. In a very real sense, *making sense* is *that which we make of our senses*.

In this talk, I will express some of these ideas through activities that invite the audience to make sense of mathematical ideas through their engagement with original manipulatives designed by future elementary

teachers as part of their mathematics teacher preparation coursework. These experiences aim to demonstrate that manipulatives can provide the experiential context for activities essential to students' learning of mathematics, and at every level of mathematics. And as far as objects-to-think-with go, they can be fun-to-think-with, too.

Steven Greenstein is a former high school math teacher and currently an Associate Professor at Montclair State University. He likes to think about mathematical things... and how people think about mathematical things.
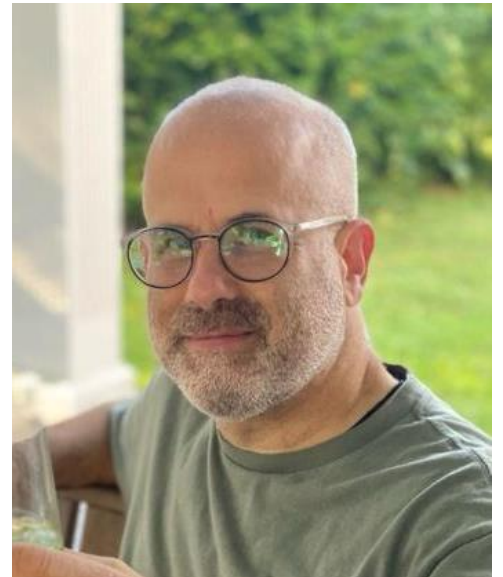
Steven is interested in enactivist theory and the phenomenology of mathematical experience; the design of tools that mediate it; cultivating creativity for radical change through qualitative mathematics; and issues of education and social justice. Through teaching and research, Steven wants his work to support the practices that democratize access to legitimate mathematical activity that honors the

diversity of learners' mathematical thinking and that is guided by agentive inquiry, mathematical play, and the pursuit of wonder-ful ideas.

Contributed Paper Sessions

Organizer: Kathy Turrisi, Centenary University

Session 1: Room 131

Moderator: Grace Cook, Bloomfield College of Montclair State University

2:00–2:15: Using Model-Eliciting STEM Problems to Improve STEM Content Knowledge, Thinking, and Identities.
Dr. Kara Teehan, Monmouth University

2:20–2:35: Transitioning to Informatics – A New Chapter for Bloomfield College.
Dr. Grace Cook, Bloomfield College of Montclair State University

2:40–2:55: A Network Theory Approach to Understanding Students' Meaning-Making of Their Math Program.
Dr. Ashwin Vaidya, Montclair State University

Abstracts are on the next page.

Session 1: Room 131

2:00–2:15: **Using Model-Eliciting STEM Problems to Improve STEM Content Knowledge, Thinking, and Identities.**

Kara Teehan, Monmouth University

Abstract: In the proposed session, the presenter will share examples of model-eliciting STEM problems used in a study with pre-service teachers and present findings for the research questions. The presenter will discuss participants' engagement with the problems and evidence of various levels of their STEM thinking within the context of our tasks. The presenter will also discuss initial STEM learner and STEM teacher identities as they engaged in and explored model-eliciting STEM problems through online discussions, as well as how to bring specific tasks to preservice math teachers to promote collaboration, perseverance, mathematical modeling, and quantitative reasoning into the student's learning. One task is called "Black Skimmer Colonies" and promotes geometric and proportional reasoning, measurement, and connection to climate change and environment.

2:20–2:35: **Transitioning to Informatics – A New Chapter for Bloomfield College.**

Dr. Grace Cook, Bloomfield College of Montclair State University

Abstract: As Bloomfield College merges with Montclair State University, we are restructuring our programs to address declining enrollment in Mathematics and Computer Science. Our new Informatics program aligns with student interests and job market needs while retaining the analytical rigor of mathematics in applied computing contexts. Mathematics remains central to Informatics, supporting fields like data science, cybersecurity, and system analysis. Core concepts from discrete math, statistics, and optimization ensure students develop strong problem-solving and computational skills. This talk will explore the reasons for this transition, how mathematics integrates into Informatics, and how this shift better prepares students for today's tech-driven careers.

2:40–2:55: A Network Theory Approach to Understanding Students' Meaning-Making of Their Math Program.

Dr. Ashwin Vaidya, Montclair State University

Abstract: According to Piaget's cognitive development theory and the constructivism learning theory of education, real learning occurs when students establish long term connections between disciplines by either adapting or redefining previously acquired knowledge. These ideologies have important teaching and learning implications that directly influence curriculum development and the design of a course of study. This poster explores the interconnectedness of the subjects required for the successful completion of an undergraduate math program at Montclair State University. More specifically, it models students' unique connections through a learning network and investigates the correlation between the interconnectivity of subjects and students' overall performance. Results from this project indicate that participants' GPA is significantly better when the number of connections between courses is higher. As a result, an integrated curriculum can provide

students with more opportunities to make strong neural connections between courses and consequently improve their overall performance.

Contributed Paper Sessions

Organizer: Kathy Turrisi, Centenary University

Session 2: Room 146

Moderator: Arianne Pathak, Brookdale Community College

2:00–2:15: Spectra for Multigraphs that are Underlying Complete Split.
Dr. John Saccoman, Seton Hall University

2:20–2:35: A Network-Theoretic Analysis of Soccer.
Kaitlyn Cohan, Montclair State University

2:40–2:55: Modeling the Efficiency and Performance of Vertical Axis Wind Turbines.
Kevin Vargas, Montclair State University

3:00–3:15: Mathematical Model of a Tongue Steel Drum.
RJ Chandler, Montclair State University

Abstracts are on the next page.

Session 2: Room 146

2:00–2:15: Spectra for Multigraphs that are Underlying Complete Split.

Dr. John Saccoman, Seton Hall University

Abstract: Complete split graphs are threshold graphs that have all nodes in the independent set adjacent to all nodes in the clique. In 2002, Hansen et. al. presented criteria for complete split graphs that have integral spectra for their adjacency matrix. We explore spectra of multigraphs that are underlying complete split for some of the matrices associated with graphs. This is joint work with various undergraduate mathematics majors at Seton Hall University.

2:20–2:35: A Network-Theoretic Analysis of Soccer.

Kaitlyn Cohan, Montclair State University

Abstract: Soccer is a game of constant movement paired with an immense amount of teamwork. This research is aimed to take a deeper dive into that teamwork and how the team acts within its network.

The overall goal is to see how the team plays as a single organism rather than its individual players by analyzing the game dynamics using a graph theoretic mathematical model. By tracking all the complete passes throughout a soccer game, we have gained insight into the teams' modularity, clustering coefficient, average path length and more. The comparisons of these statistics between the winning and losing teams sheds light on what aspects are a crucial factor to success.

2:40–2:55: Modeling the Efficiency and Performance of Vertical Axis Wind Turbines.

Kevin Vargas, Montclair State University

Abstract: This research builds on previous work done at the Complex Fluids Laboratory at Montclair State University, which includes small scale model testing in a wind tunnel and controlled autorotation experiments of small particles in a flow tank. The current project seeks to explore further refinement of the design and configuration of vertical axis wind turbines (VAWTs) based on commercially available

models and newer designs. Work on small scale models in the laboratory helps us understand the physics, mathematics and real-world performance of VAWTs through controlled experiments and simulations using Computation Fluid Dynamics (CFD) modeling. With the assistance of CFD software we can calculate relevant forces, torques, RPM, velocities, and other physically relevant phenomena that can help to evaluate the most optimal design of VAWTs and configuration of an array of VAWTs. Using CFD software helps reduce cost and saves time from testing actual models. In this presentation, we will discuss results from previous and ongoing work and plans for future studies.

3:00–3:15: Mathematical Model of a Tongue Steel Drum.

RJ Chandler, Montclair State University

Abstract: In this talk we analyze the fundamental tones/frequencies of a tongue steel drum. These frequencies are recognized as the first mode of longitudinal vibration in combination with the zeroth

mode of transverse vibration of a rectangular steel plate clamped at one end. We present acoustic measurements of such a musical instrument which match well with the analytical and numerical solutions derived from the vibrating plates equations. We also consider higher modes of vibration and the corresponding overtones in the acoustic spectrum.

Contributed Paper Sessions

Organizer: Kathy Turrisi, Centenary University

Session 3: Room 148

Moderator: John O'Meara, Montclair State University

2:00–2:15: Understanding Factors that Influence Pre-Service Elementary Teachers' Experiences with Relevant Mathematical Modeling Tasks.
Emily Olson and John O'Meara, Montclair State University

2:20–2:35: The Role of Connectivity and Personalized Meaning-Making in the Precalculus Classroom.
John O'Meara, Montclair State University

2:40–2:55: AI-Inspired Activities in the Calculus Classroom.
Samantha Doluweera, Brookdale Community College

Abstracts are on the next page.

Session 3: Room 148

2:00–2:15: **Understanding Factors that Influence Pre-Service Elementary Teachers' Experiences with Relevant Mathematical Modeling Tasks.**

Emily Olson and John O'Meara, Montclair State University

Abstract: In this presentation, we discuss findings derived from two mathematical modeling experiences that we each individually led with teams of pre-service elementary teachers as part of a doctoral course on mathematical modeling in mathematics education. These mathematical modeling tasks were designed to be relevant to students' experiences, introduce key aspects of the modeling cycle, and foster growth and perseverance so as to encourage students to apply different mathematical concepts to find solutions. Between our two tasks, we found some common themes about how these students approached mathematical modeling, some of which were surprising. We discuss how we interpret these themes, with special attention to how these individuals and teams of students approached the modeling process.

Our findings are relevant for mathematics education research that concerns both pre-service elementary teachers, and how students experience mathematical modeling tasks. We consider future directions for this work, as well as steps that might be taken to modify existing tasks to align with student-centered instructional goals.

2:20–2:35: **The Role of Connectivity and Personalized Meaning-Making in the Precalculus Classroom.**

John O'Meara, Montclair State University

Abstract: There is a distinction to be made between the presentation of connections afforded by a high-quality curriculum and the enactment of these connections by students in the classroom. We present our findings from a mixed-method study that draws on precalculus student data between Fall 2021 and Spring 2023. Data sources include student-constructed concept maps, as well as a pre- and post-survey to determine the impact of concept mapping on student identity and perceptions of the role of precalculus in their respective trajectories. We found that engaging students in the metacognitive practice of delineating

their perceived connections affords a personalized approach to teaching and learning, which is conducive to student-centered practices in undergraduate mathematics education.

2:40–2:55: AI-Inspired Activities in the Calculus Classroom.

Prof. Samantha Doluweera, Brookdale Community College

Abstract: As artificial intelligence (AI) continues to reshape education, it is important to explore innovative ways to use AI-powered tools to enhance student learning. This presentation will highlight AI-driven activities that foster discovery learning, error analysis, and critical thinking in a Calculus classroom. These activities encourage students to explore mathematical concepts, analyze errors, and develop problem-solving skills in an engaging and reflective way. Attendees will gain practical insights into integrating AI-based approaches into their teaching and see concrete examples of how AI can deepen students' mathematical understanding.

Lunch Discussion Tables
Organizer: Kathy Turrisi, Centenary University

1. **MAA Committee for VITAL (Visiting, Adjunct, TA, Adjunct, and Lecturer) Concerns,** led by Grace Cook, Bloomfield College of Montclair State University and Kathy Turrisi, Centenary University
2. **What aspects of our jobs can get easier and more productive with gen AI?** led by Alexander Diaz-Lopez, Villanova University
3. **Authentic Problems in the First Two Years of Curriculum,** led by Vinodh Chellamuthu, Utah Tech University
4. **How can the question of whether mathematics is invented or discovered inform your teaching?** led by Steven Greenstein, Montclair State University
5. **Active Learning,** led by Jenna P. Carpenter, Campbell University

We look forward to a set of lively and interesting discussions!

Dinner Honoring the Invited Speakers

Following the meeting, we will honor the invited speakers at dinner at [Barone's Tuscan Grill](), 280 Young Ave, Moorestown, NJ 08057.

[return to schedule]()

Book Sales at the Meeting

The AMS handles MAA book sales. There will be display books at the meeting, and there will be discounted prices, but you will not be able to buy books from AMS at the meeting. You can order them by calling (800) 321-4267 or via the website. You can also visit the AMS bookstore by scanning the QR code provided at the meeting. A coupon code to get 25% off will be provided at the meeting which is valid through May 25, 2025.

return to schedule

Acknowledgments

welcoming and stimulating environment for all attendees.

We thank Princeton University Press for their generous donations for silent auction and door prizes.
press.princeton.edu

return to schedule

Future Meetings

MAA-NJ. The Spring 2026 MAA-NJ Section meeting will be held at Ramapo College of New Jersey joint with MATYCNJ.

GSUMC. The 2026 Garden State Undergraduate Mathematics Conference will be held in conjunction with the Spring Meeting of the NJ Section at Ramapo College of New Jersey.

MathFest. The 2025 MathFest will be in Sacramento, CA, August 6-9, 2025.

MATYCNJ. Please visit our MATYCNJ website for information about our Fall 2025 MATYCNJ conference.

AMATYC. The 2025 AMATYC National Conference will be in Reno, NV, November 13-16, 2025.

Call for Contributed Papers, Topics for Special Sessions, and Lunch Table Discussion Topics for the Fall 2025 MAA-NJ Meeting

We are seeking abstracts for review for the General Contributed Paper Sessions. MAA Contributed Papers may focus on any aspect of mathematics. Examples include expository mathematics, connections within mathematics or between mathematics and other disciplines, the undergraduate mathematics curriculum, diversity, equity, inclusion in mathematics, social justice in the classroom, teaching, data analysis, or mathematical pedagogy. The CPS committee seeks and encourages proposals that will contribute toward a well-balanced and scholarly program that represents the MAA's mission. Please send the title and abstract to Kathy Turrisi, Executive Board Member and Chair of the CPS Committee, at: Kathy.Turrisi@centenaryuniversity.edu.

MAA members interested in proposing a Topic for a Special Session or are interested in leading a Lunch Table Discussion should submit their proposals to Kathy Turrisi at Kathy.Turrisi@centenaryuniversity.edu.

New Jersey Section's <u>Carol Crawford Award</u> for Excellence in Undergraduate Teaching

Dr. Ken McMurdy

The New Jersey Section of the Mathematical Association of America (MAA) is pleased to present its 2025 Carol Crawford Award for Excellence in Undergraduate Teaching to Dr. Ken McMurdy of Ramapo College of New Jersey.

Dr. Ken McMurdy has been a faculty member at Ramapo College of New Jersey since 2007, teaching a broad range of courses, including foundational mathematics, upper-level electives, and inter-disciplinary subjects such as Cryptography and Stochastic Calculus for Finance. His nominators speak about his unparalleled ability to engage students of all levels with clarity and enthusiasm.

Dr. McMurdy is acknowledged by his colleagues and students for his dedication to teaching, mentorship, and student engagement. His commitment to fostering student learning, both inside and outside the classroom, has earned him widespread admiration from students and colleagues alike. The nomination letters from students and colleagues observe that Dr. McMurdy clearly communicates challenging mathematical concepts while being encouraging and patient in his interactions with students.

One colleague shared their admiration of Dr. McMurdy's intentional and encouraging student engagement philosophy stating that:

> *"I am amazed at how he consistently is able to immediately communicate the clearest explanations, tailored to meet the needs of the particular student he is working with."*

A former student also confirmed Dr. McMurdy's dedication to student success by sharing her insights:

> *"In Fall 2019, Professor McMurdy was my linear algebra instructor, and prior to even entering his classroom his reputation as an intelligent,*

kind, enthusiastic and compassionate instructor preceded him…. his priority was always the students"

Dr. McMurdy's interest in addressing the needs of students from diverse backgrounds were evident in a student nomination letter:

> "…he would always try to incorporate student interests, as the class consisted not only of math majors, but computer science, and physics majors as well. Overall, Professor McMurdy is not an exceptional mathematician, but an incredible teacher."

It was evident in the letters from both colleagues and students that Dr. McMurdy cares deeply about students' well-being in addition to their mastery of math learning. A student stated that:

> "While he always wanted to make sure that I had a strong grasp on the mathematics we were covering, he was also concerned about how I was doing not only as a student, but as a person. Professor McMurdy is one of the most genuine and thoughtful professors I have ever had."

These genuine efforts in student learning and success are also acknowledged by Dr. McMurdy's colleagues in their endorsement letter:

> *"He also is very encouraging to his students (we all know how easily discouraged students get in mathematics courses). Most importantly, he gets to know his students as individuals, asking after their interests and goals."*

In addition to his purposeful empathetic teaching approach, Dr. McMurdy is also recognized for his mentoring that extends beyond the classroom. Students who wish to have an authentic mathematics research experience enthusiastically seek out Dr. McMurdy. A colleague of Dr. Ken McMurdy shared that:

> *"Ken has taught many students in our Research Honors Program over the years. He is regularly sought out by our brightest students, looking to have an authentic mathematics research experience. His work in Number Theory provides many opportunities for student projects that help propel them into graduate school."*

Due to his student-centered teaching approach, Dr. McMurdy is regularly invited by students to be the keynote speaker for Pi Mu Epsilon, the Mathematics Honor Society, a testament to the lasting impact he has on his students' academic journeys.

In addition to his mathematical expertise, Dr. McMurdy actively contributes to student life at Ramapo College. He serves as a faculty advisor to an a cappella student organization while playing in a jazz ensemble on campus, demonstrating his commitment to fostering a well-rounded college experience for his students. These efforts earn him admiration from students majoring in math as well as in other diverse disciplines.

Dr. McMurdy is known for going above and beyond to support students outside of the classroom. His involvement as a longtime organizer of the Garden State Undergraduate Mathematics Competition (GSUMC) further demonstrates his commitment to expanding students' mathematical experiences beyond coursework.

Dr. McMurdy's exceptional teaching, dedication to student success, and influential mentorship make him

an ideal recipient of the MAA-NJ Section Carol Crawford Award for Excellence in Undergraduate Teaching. His passion for mathematics education and consistent support for students truly set him apart as a distinguished educator.

Overall, the MAA-NJ award committee finds that Dr. McMurdy has demonstrated Excellence in Undergraduate Teaching, because "Ramapo is fortunate to have the greatest mathematics teacher in the world – Professor Ken McMurdy."

Dr. Lawrence D'Antonio, Professor of Mathematics at Ramapo College of New Jersey, nominated Dr. McMurdy for this Distinguished Teaching Award.

Response from Dr. McMurdy

I am very honored to be named this year's recipient of the MAA-NJ Section Carol Crawford Award for Excellence in Undergraduate Teaching. This award is particularly meaningful because it represents not only

a vote of confidence from past students but also from respected colleagues who know me well and have observed my teaching over many years. At Ramapo College, I am extremely fortunate to be part of a tight-knit group of dedicated mathematician teachers, who are always supportive and always happy to "talk shop" regarding our most important function.

I don't believe that there is one secret to quality teaching in mathematics, although there are many concrete strategies that can improve effectiveness. I'm sure that all of my students would say that my greatest strength is simply the unbridled enthusiasm and passion for the subject that I bring to the classroom - I openly celebrate and marvel at the countless beautiful ideas as they arise, projecting my belief that the value of studying mathematics is not simply to learn a practice but also to understand and appreciate those ideas, and as a result to change the way that one thinks.

Over the past several years, I've come to believe that one of the most helpful things that I can do as a math teacher is to craft and effectively communicate narratives and themes that tie ideas together and

show how they relate to each other. Specific details (and formulas) will be learned and reinforced through practice if the overall narrative is well understood. Conversely, without an understanding of the overall story, those details are often incorrectly processed by the student as a disconnected collection of facts which can then be misunderstood, misapplied and quickly forgotten.

　　If I had to identify one strategy or piece of advice, however, it would surely be to enjoy getting to know one's students as people. This enables the teacher to provide more meaningful support and encouragement, which in and of itself can have a huge positive impact. Moreover, it facilitates essential *two-way* communication that enables the instructor to really understand how students are thinking about a particular issue and respond accordingly. As teachers, we need to meet students where they are if we are to take them as far as they can go.

　　I can't imagine a more rewarding and pleasurable experience than my experience teaching mathematics at Ramapo College over the last nearly 20 years.

Again, I am deeply grateful for this recognition of my efforts, as well as the steadfast support of my many treasured colleagues at Ramapo and beyond.

25-year Members of the MAA

The section congratulates David Marshall, Branislav Radak, Stephen Fratini, and Colin Stewart for their 25 years of MAA membership.

[return to schedule](#)

Social Media Information

Check us out!

Email:	maanj.socialmedia@gmail.com
Instagram:	instagram.com/maanewjersey
Twitter:	twitter.com/maanewjersey
BlueSky:	

bsky.app/profile/maanewjersey.bsky.social

[return to schedule](#)

MAA-NJ Committees

Awards Committee: Tuan Le, Camden County College; Aihua Li, Montclair State University; David Nacin, William Paterson University; Elizabeth Uptegrove, Felician University; Jonathan Weisbrod (chair), Rowan College at Burlington County.

Nominating Committee: Amanda Beecher, Ramapo College; Karen Clark (chair), The College of New Jersey; Jonathan Weisbrod (ex-officio), Rowan College at Burlington County; Chung Wong, County College of Morris.

Teaching Award Committee: Amanda Beecher (chair), Ramapo College; Grace Cook, Bloomfield College of Montclair State University; Aihua Li, Montclair State University; Dawn Nelson, Saint Peter's University; Sheila Tabanli, Rutger's University; Jonathan Weisbrod (ex-officio), Rowan College at Burlington County.

Contributed Paper Committee: Keith Bosler, Middlesex College; Grace Cook, Bloomfield College of Montclair State University; Arianne Pathak, Brookdale Community College; Kathy Turrisi (chair), Centenary University.

GSUMC Committees

Organizing Committee: Lee Collins (co-director), Atlantic Cape Community College; Joseph Coyle (co-director), Monmouth University; Katarzyna Kowal (competition co-director); Ramapo College of NJ.

New Jersey Undergraduate Mathematics Competition Organizing Committee: Katarzyna Kowal (co-director), Ramapo College of NJ; Marek Slaby (co-director), Fairleigh Dickinson University at Florham Campus; Ken McMurdy, Ramapo College of NJ; David Molnar, Rutgers University at New Brunswick; Tom Leong, University of Scranton.

New Jersey Undergraduate Mathematics Competition Proctors and Graders: Patrick Sime, Caldwell U.; Robert Mayans, FDU; Israel Curbelo, Kean U.; Emanuel Palsu-Andriescu, Monmouth U.; Priti Mihalik, RCBC; Jennifer Hoxworth, RCSJ; Toufik Khyat, Rider U.; Ahmad Mojiri, Rider U.; Benjamin Daniels, Rowan U.; Rade Robert Musulin, Rowan U.; Jaree Hudson, Rowan U.; David Molnar, Rutgers U.; Corey Stone, Rutgers U.; Ioanna Mavrea, Rutgers U.; Michael Saks, Rutgers U.; Pavel Dubovski, Stevens Institute of Tech.; Bill Franczak, TCNJ.

MATYCNJ Section Officers

President	Samantha Doluweera, Brookdale Community College
President-Elect	Keith Bosler, Middlesex College
Vice-President North	Daniela Kitanska, Passaic County Community College
Vice-President South	Stephen Hiamang, Brookdale Community College
Treasurer	Chris Cooper, Rowan College at Burlington County
Recording Secretary	Arianne Pathak, Brookdale Community College
Newsletter Editor and Historian	Michael Nolan, Brookdale Community College
Webmaster	Prince Sekyi, Brookdale Community College

Join AMATYC!

return to schedule

MAA-NJ Section Officers

Congress Representative	Paul von Dohlen, William Paterson University
Chair	Jonathan Weisbrod, Rowan College at Burlington County
Past-Chair	Amanda Beecher, Ramapo College
Secretary	Reva Narasimhan, Kean University
Treasurer	Dirck Uptegrove
Vice-Chair for Fall Meetings	Joseph Coyle, Monmouth University
Vice-Chair for Spring Meetings	Dawn Nelson, Saint Peter's University
Vice-Chair for Speakers	Ik Jae Lee, Rowan University
Vice-Chair for Student Activities	Lee Collins, Atlantic Cape Community College
Vice-Chair for Two-Year Colleges	Christopher Cooper, Rowan College at Burlington County
GSUMC Co-Directors	Lee Collins, Atlantic Cape Community College; Joseph Coyle, Monmouth University
Book Sale Coordinators	Dirck Uptegrove; Elizabeth Uptegrove, Felician University
Door Prize Coordinator	Rasha Abadir, Rutgers University
Contributed Paper and Lunch Table Organizer	Kathy Turrisi, Centenary University
Liaison Coordinator	Sheila Tabanli, Rutgers University
Program Editor	Dawn Nelson, Saint Peter's University
Project NJ-NExT Co-Directors	Matthew Mizuhara, The College of New Jersey; Chung Wong, County College of Morris
Social Media Coordinator	Grace Cook, Bloomfield College of Montclair State University
Web Administrator	Dirck Uptegrove

Join the MAA!

MATHEMATICAL ASSOCIATION OF AMERICA