The Mathematical Association of America
New Jersey Section Meeting

held in conjunction with the 14th annual

Garden State Undergraduate Mathematics Conference

The College of New Jersey
Ewing, NJ

Sunday, March 26, 2017

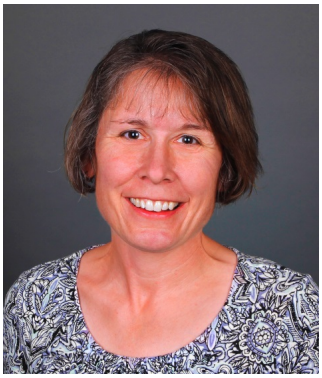
Abstracts and Biographies of Speakers

Basu's Elephants and the Problem with Large Weights

Jill M. DeMatteis, Westat and the Joint Program in Survey Methodology, University of Maryland

Survey data are often used to produce estimates of characteristics of the population of interest. The methods employed to use data from a sample to make inferences to the population are complex and involve many considerations. One issue that keeps survey sampling statisticians busy is how to construct "survey weights" that appropriately inflate the sample to population levels. A classic illustration of the problem of influential survey weights was developed by Debabrata Basu, a prominent Indian statistician; this example has come to be known as "Basu's Elephants". In this presentation, we will provide an overview of methods used to inflate a sample to population levels. We will introduce the issue of influential survey weights using Basu's elephants as well as a recent example involving an influential observation in a political poll.

Dr. Jill DeMatteis is Associate Director of the Statistics Group and Senior Statistician at Westat, a survey research company located in Rockville, Maryland. She is also a Research Associate Professor in the Joint Program in Survey Methodology at the University of Maryland. Jill's areas of interest include sample design and estimation for survey samples, with a particular focus on methods for addressing and assessing the impact of nonresponse to surveys and a new methodology known as address based sampling. Jill received her Ph.D. in Statistics from American University. She is a Fellow of the American Statistical Association and an Elected Member of the International Statistical Institute. In her spare time, Jill enjoys long-distance running and spending time with her dogs.



Algebraic Method in Rigidity Theory

Jessica Sidman, Mount Holyoke College

A bar-and-joint framework is a collection of fixed-length bars connected at flexible joints. The most fundamental question we can ask about a framework is: is it rigid or flexible? In rigidity theory this question is studied for the classical bar-and-joint frameworks as well as for other variants that arise in applications including mechanical engineering, architecture, biology, robotics, and computer-aided design. I'll give an introduction to rigidity theory emphasizing how algebraic methods can be used to give insights about the mobility of such structures.

Dr. Jessica Sidman is professor of mathematics and chair of the Department of Mathematics and Statistics of Mount Holyoke College. She works at the intersection of algebra, geometry, and computation. In particular, she is interested in applications of computational algebraic geometry, which is a fancy way of saying that she likes seeing how to use a computer to solve problems with polynomials. Her current research is focused on using algebraic methods to analyze systems of geometric constraints that arise in rigidity theory, a subject with many applications including robotics, protein folding, and computer-aided design.

The Mathematics and Mathematicians Behind Hidden Figures

Rudy L. Horne, Morehouse College

In January 2017, the movie *Hidden Figures* was released by 20th Century Fox studios. This movie tells the story of three African-American women mathematicians and engineers (Katherine Johnson, Mary Jackson and Dorothy Vaughan) who would play a pivotal role towards the successful mission of John Glenn's spacecraft orbit around the Earth and the NASA missions to the moon.

For this talk, we give a brief review of the space race going on at the time between the United States of America and the former Soviet Union. We will discuss the lives and contributions that NASA mathematician Katherine Johnson and the NASA engineers Mary Jackson and Dorothy Vaughan made to the space race, in

particular, their work as concerns John Glenn's orbit around the Earth in 1962 and to the moon missions. Also, we will talk about the experiences of being a mathematical consultant for this film.

Dr. Rudy L Horne is an associate professor in the mathematics department at Morehouse College. His experience includes teaching a variety of mathematics courses as well as conducting research with collaborators from around the world. He was born in Chicago, Illinois and earned a B.S. in Physics and a B.S. in Mathematics from the University of Oklahoma and an M.S. in Physics from the University of Colorado before earning a Ph.D. in Applied Mathematics from the University of Colorado at Boulder where he wrote his thesis on collision-induced timing jitter and four-wave mixing in wavelength division multiplexing soliton systems.

Workshop

Ideas for Promoting Active Learning in a Statistics Classroom

LTC Krista Watts, Assistant Professor
Director, Operations Research and Statistics Program
Department of Mathematical Sciences, United States Military Academy

The ASA recommends teaching "statistics as an investigative process of problem solving and decision making" (2016 Guidelines for Assessment and instruction in Statistics Education College Report), but how do we accomplish that in a classroom setting? One way is through hands-on activities that present students with a question and allow them to work through ways to answer it. We will discuss a variety of ways to bring exploratory learning into the statistics classroom - from magic tricks to paper airplanes to the German Tank Problem. Many of these examples are applicable to both introductory courses as well as follow-on courses. We will consider how to integrate these activities into your overall course objectives and resources for activities and datasets.

Abstracts of MAA-NJ Contributed Paper Sessions

Session 1: Innovations in the Precalculus Curriculum

Education Building room 109. Organizer and Presider: Tom Hagedorn, The College of New Jersey, hagedorn@tcnj.edu

1:30—1:45: **Shifting emphasis in the Precalculus courses at Kean University**

Reva Narasimhan, Kean University, Rnarasim@kean.edu

Abstract: We will discuss some of the changes we have made in our Precalculus course as a result of student performance in the prerequisite courses as well as feedback from calculus instructors. We will also discuss how the prevalence of mobile technologies such as Desmos and Wolfram|Alpha has enhanced our instruction.

1:50—2:05: **Precalculus for Biology Majors**

Sandra Zak, Monmouth University, szak@monmouth.edu

Abstract: In this talk, we will look at a Precalculus course designed primarily for Biology majors. The course, originally at the college algebra level, was recently redesigned and now will serve as a prerequisite for *Calculus for Life Sciences*. In the redesign, the historical rationale for the course was maintained: a reduced emphasis on symbolic notation, the use of technology, and modeling, but more advanced topics were included. Some of these topics include trigonometry, polynomial functions, and rational functions.

2:10—2:25: **Preparing Pre-Service High School Teachers to Teach Precalculus**

Mike Beals, Rutgers University, beals@math.rutgers.edu
Amy Cohen, Rutgers University, acc@math.rutgers.edu

Abstract: Recent experiences in working with pre-service high school teachers suggest that one important theme is “functions and their graphs” with particular attention to rational functions. Future teachers should recognize and exploit the value of the “rule of four” in problem solving, namely the interplay of graphical representations, numerical explorations, symbolic manipulations, and verbal discussions. Other classes of functions important for pre-calculus include the exponential functions, trigonometric functions, and their inverses. Most of our examples will be drawn from the analysis of rational functions and address the connections between algebraic and geometric points of view on locating axis crossings (factoring and roots, finding useful windows for calculator graphing),

checking where outputs change sign, and exploiting the shapes of poles and jump discontinuities. If time permits, we may also discuss the role of inequalities in working with piecewise-defined functions.

2:30—2:45: **Pathways to Precalculus Project and Implementation at Montclair State University**
Zareen Rahman, Montclair State University, rahmanz1@mail.montclair.edu
Amir Golnabi, Montclair State University, golnabia@mail.montclair.edu
Eileen Murray, Montclair State University, murrayei@mail.montclair.edu
Abstract: The presentation will describe a professional development model focused on supporting adjunct instructors implementing a Precalculus curriculum. The supports are part of a larger course-coordination effort to improve student achievement and retention in STEM fields by developing instructor knowledge and practice as well as increasing their job satisfaction. These supports include a summer workshop that gives instructors ideas for instructional practices needed for the curriculum; an online professional learning community where instructors can share questions and have discussions; and course coordination that includes providing common syllabi, pacing guides, assessments, grading rubrics as well as introduction to a course coordinator for guidance.

Session 2: Recreational Mathematics
Education Building, room 110. Organizer and Presider: David Nacin, William Paterson University, nacind@wpunj.edu

1:30–1:45: **KenKen Puzzles Over Small Groups**
David Nacin, William Paterson University, nacind@wpunj.edu
Abstract: The goal in KenKen is to form a Latin square by filling in a grid with numbers. The constraints come from caged areas, each which must reach a given target clue after an operation is applied. Though these puzzles are generally done only over subsets of positive integers, there is no reason things need to be that way! For a number of reasons, finite groups provide a better playing ground for this game when the order matches the grid size. We will give some examples for groups of small order, and discuss what is needed to guarantee these types of puzzles have a unique solution.

1:50—2:05: **Cycling Around the Clock – Exploring Divisibility Patterns**
Jay Schiffman, Rowan University, schiffman@rowan.edu
Abstract: This paper will explore sequences such as 9, 98, 987, 9876, 98765, 987654, 9876543, 98765432, 987654321, 9876543219, 98765432198, 987654321987, … and the reversal of the order of the digits forming the sequence 1, 12, 123, 1234, 12345, 123456, 1234567, 12345678, 123456789, 1234567891, 12345678912, 123456789123,…. Moreover, a catalogue of integer sequences and the reversal of their digital orders using the digits 1-9 will be explored to discover neat divisibility patterns. One of the interesting aspects will be to discover any prime outputs in the sequences. Such investigations can nicely augment courses in number theory, discrete mathematics and discrete structures while incorporating technology such as MATHEMATICA.

2:10—2:25: **W.A.R. What is it good for? Player evaluation**
John T. Saccoman, Seton Hall University, john.saccoman2@shu.edu
Abstract: Wins Above Replacement (WAR) is one of the more popular baseball player evaluation measures. However, there is currently no agreed upon formula for WAR, and, unlike most baseball statistics, its computation relies on proprietary data out of the reach of the average baseball enthusiast. We discuss some ways that player contributions can be quantified as wins, and indicate some future possible directions for this computation.

2:30—2:45: **252**
David Molnar, Rutgers University, theonlymolnar@gmail.com
Abstract: For me, much of the recreational value in Mathematics comes from making up problems (e.g., for the NJUMC). An artificial constraint – for example, that the answer be 252 – can be a spur to creativity. If I sit down to make up a problem whose answer is 252, I am more likely to come up with something than if I just sit down with the intent to make up a problem. In this talk, I will present an assortment of problems to which I have already given you the answer.

Lunch Discussion Tables

Organized by Theresa C. Michnowicz, New Jersey City University. There will be six discussion tables at lunch:

1. *Running an NSF STEM scholarship grant*, led by Sandy Caravella, New Jersey City University, scaravella@njcu.edu, and Beimnet Teclezghi, New Jersey City

University, bteclezghi@njcu.edu
2. *Enhancing effective teaching by early-career faculty*, led by Amy Cohen-Corwin, Rutgers University, acc@math.rutgers.edu
3. *The state of teacher preparation in New Jersey,* led by Grace Cook, Bloomfield College, grace_cook@bloomfield.edu
4. *Pursuing a graduate degree while working*, led by Jill M. DeMatteis, Westat and the Joint Program in Survey Methodology, University of Maryland, JillDeMatteis@Westat.com
5. *Encouraging and mentoring people from underrepresented groups to pursue careers in mathematics and the sciences*, led by Rudy L. Horne, Morehouse College, Rudy.Horne@morehouse.edu
6. *Co-curricular activities: building community for majors*, led by Jessica Sidman, Mount Holyoke College, jsidman@mtholyoke.edu

Announcements

MAA-NJ Section 2017 Distinguished Service Award

The recipient of the 2017 MAA-NJ Section Sr. Stephanie Sloyan Award for Distinguished Service is **Thomas Hagedorn** of The College of New Jersey.

Tom Hagedorn's service to the New Jersey Section of the Mathematical Association of America (MAA-NJ) is outstanding. He founded and organized the New Jersey Undergraduate Mathematics Competition (NJUMC) in 2004. He served on the Garden State Undergraduate Mathematics Conference (GSUMC) 2004 organizing committee and the NJUMC organizing committee from 2005 – 2006. He served as the GSUMC director in 2007 and 2008, and served as co-director in 2009 and 2010.

Tom served as MAA-NJ's Vice-Chair for Speakers from 2008 to 2013, and as the section's Chair-Elect, Chair, and Past-Chair from 2012 through 2016. He organized or co-organized contributed paper sessions at MAA-NJ meetings in 2003 (Use of

… continued on page 12

Mathematical Association of America
New Jersey Section, Spring 2017 Meeting Program

All events are in the Education Building

8:30 – 9:15	**Registration and Coffee;** lobby and room 212
8:30 – 1:30	**Book Exhibits;** hall in front of room 212
9:15 – 9:30	**Welcome by Dr. Jeffrey Osborn, Dean of the School of Science**; room 115
9:30 – 10:20	**Basu's Elephants and the Problem with Large Weights,** Jill M. DeMatteis, University of Maryland**.** Presider: Elizabeth Uptegrove, Felician University; room 115
10:25 – 10:40	**Business Meeting**; room 115
10:40 – 11:05	**Break**; room 212
11:05 – 11:55	**Algebraic Method in Rigidity Theory,** Jessica Sidman, Mount Holyoke College**.** Presider: Amanda Beecher, Ramapo College; room 115
12:00 – 1:30	**Lunch**; room 212
1:00 – 2:00	**Student Poster Sessions**; rooms 206 and 208
1:30 – 2:45	**Workshop: Ideas for Promoting Active Learning in a Statistics Classroom,** LTC Krista Watts, United States Military Academy; room 113
	Contributed Paper Sessions; rooms 109 and 110
2:15 – 3:15	**Student Talks**; rooms 204 and 207
2:45 – 3:30	**Break;** hall in front of room 212 3:30 is the deadline for door prize/silent auction entries
3:30 – 4:25	**The Mathematics and Mathematicians Behind *Hidden Figures*,** Rudy L. Horne, Morehouse College. Presider: A. David Trubatch, Montclair State University; room 115
4:30 – 5:00	**Prizes and Awards**; GSUMC awards, door prizes, and silent auction winners (must be present to win); room 115
5:30	**Dinner Honoring Speakers**

Garden State Undergraduate Math Conference
Spring 2017 Program

All events are in the Education Building

8:30 – 9:15	**Team Registration and Student Check-in;** first floor hall. **Breakfast;** room 110
9:20 – 9:30	**Announcements** regarding Math Competition; room 113
9:30 – 10:30	**New Jersey Undergraduate Math Competition**; Individual part, room 113
10:30 – 12:00	**New Jersey Undergraduate Math Competition**; Team part, rooms to be announced during the individual part
12:00 – 1:00	**Lunch**; first floor hall and rooms 109 and 113
1:00 – 2:00	**Student Poster Sessions**; rooms 206 and 208
2:15 – 3:15	**Student Talks**; rooms 204 and 207
3:15 – 3:30	**Break**; hall in front of room 212 3:30 is the deadline for door prize/silent auction entries
3:30 – 4:25	**The Mathematics and Mathematicians Behind *Hidden Figures*,** Rudy L. Horne, Morehouse College. Presider: A. David Trubatch, Montclair State University; room 115
4:30 – 5:00	**Prizes and Awards**; GSUMC awards, door prizes, silent auction winners (must be present to win); room 115

Dinner Honoring the Invited Speakers and Award Recipients

The Section will honor the invited speakers and award recipients at dinner following the meeting. Everyone is cordially invited.

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Technology for Teaching Undergraduate Mathematics), 2004 (Technology in the Mathematics Classroom), and this meeting (Innovations in the Precalculus Curriculum), and co-organized a workshop, Using WeBWorK, for the joint fall 2010 meeting with EPADEL. Most recently, Tom has chaired the MAA-NJ Nominating Committee this past fall.

At the Association level, Tom has served on the Contributed Paper Session Committee from 2008 to 2014, during which time he co-organized the General Contributed Paper Sessions for JMM 2011 and MathFest 2013. Since 2014, Tom has served on the Deborah and Franklin Tepper Haimo Award Committee, and is currently its chair. He served, from 2013 to 2015, on an ad-hoc Invited Address Committee for JMM 2015 and served on the WebSIGMAA nominating committee in 2010.

Tom has organized or co-organized several contributed paper sessions at national MAA meetings: “Open and Accessible Problems in Number Theory and Algebra” at MathFest 2010 and MathFest 2012, “Perspectives and Experiences in Mentoring Undergraduate Students in Research” at JMM 2015 and “Successful Implementation of Innovative Models for Developmental and General Education Mathematics” at JMM 2017. He also co-organized the poster sessions on “Me and My Gadgets—Teaching with Technology” at JMM 2016 and 2017.

We are very grateful to Tom Hagedorn for his many years of effective and dedicated service to the New Jersey Section of the Mathematical Association of America and the Association level of the MAA.

Call for Nominations for the MAA-NJ Award for Distinguished College or University Teaching

The MAA-NJ Section Distinguished Teaching Award Selection Committee is seeking nominations for the 2017 award. Please consider nominating an inspiring, respected, or influential deserving colleague for this prestigious award. Information about the nomination process and eligibility requirements are posted online at http://www.maa.org/newjersey. For additional information, contact Zhixiong Chen (Secretary, MAA-NJ) at zchen@njcu.edu. Award nominations are due by November 18, 2017.

Call for Contributed Papers and Lunch Discussion Leaders for the Fall MAA-NJ 2017 Meeting

There will be one general contributed paper session at the Fall 2017 meeting. Please submit title, 3-4 line summary, and a one-paragraph abstract in Word to Kathy Turrisi, Centenary University, kturrisi@gmail.com, by September 6, 2017.

MAA members interested in leading a lunch table discussion at the Fall 2017 meeting are asked to submit their proposed topic to Theresa C. Michnowicz, New Jersey City University, tmichnowicz@njcu.edu, by September 6, 2017.

Call for Special Contributed Paper Session Organizers for the Spring 2018 MAA-NJ Meeting

Those interested in organizing a special contributed paper session for the Spring 2018 meeting should submit the proposed topic to Theresa C. Michnowicz, New Jersey City University, tmichnowicz@njcu.edu, by September 6, 2017.

Governor's Report from Joint Math Meeting 2017 (Atlanta, GA)

MAA Board of Governors Meeting – January 3, 2017

The big news from JMM Atlanta was approval of the revised MAA bylaws by its membership during the business meeting on Saturday, January 7. The vote took place after an hour and a half of vigorous debate, but only after the original proposal was amended to keep in place the requirement that future bylaw changes be approved by the membership. The transition to the new governing model involving the Board of Directors and Congress took place smoothly on February 1, 2017. Section Governors automatically became Congress Representatives. This means that each Section will now need to revise its own bylaws to reflect the change in titles.

The other big news was the unveiling of outgoing MAA President Francis Su's MathFeed app developed by his students at Harvey Mudd College. Here's the official description of the app: "The MathFeed News App brings you news and views about math in the media, including newspapers, influential blogs, podcasts, videos and puzzle columns. See how mathematical people and ideas are influencing the world today. Learn some math too!" Users can also view articles from MAA journals if they have a subscription. The app is currently available for

iPhone/iPad on Apple's iTunes App Store, but an Android version will be released soon.

President Su gave a moving and inspiring Retiring President Address on Mathematics for Human Flourishing; a written version is available at: https://mathyawp.wordpress.com/2017/01/08/mathematics-for-human-flourishing/ He was replaced by MAA President-Elect Deanna Haunsperger (Carleton College, MN) on February 1, 2017.

Lastly, the MAA was selected to host the 2021 International Mathematical Olympiad in the US (exact location to be announced later). The last time the IMO was held in the US was in 2001 in Washington, DC.

Respectfully submitted,
Hieu Nguyen, Governor of MAA-NJ Section

Book Sales at the Meeting

The discounted meeting price (35% off) for MAA books also applies to books *not* currently on display. When you order books at the meeting, there are no shipping costs. We will also again offer "buy one, get one free": if you order a book at this meeting, you can also take one book from the "free" group of books. If you order books online by April 2, you can also get the 35% discount by entering code NJS17. (Shipping charges apply to books ordered online.)

Future MAA Meetings

MAA-NJ. The Fall 2017 MAA-NJ meeting will be held on Saturday, November 4, 2017 at Georgian Court University. The Spring 2018 MAA-NJ meeting will be held at Rowan College at Burlington County (formerly Burlington County Community College) on Saturday, April 7, 2018.

MathFest. The MAA will hold its annual MathFest in Chicago on July 26 – 29, 2017. For further information, refer to http://www.maa.org/mathfest/

Joint Mathematics Meeting. The 2018 JMM will be in San Diego, January 10 – 13.

NJAMTE Annual Meeting

The New Jersey Association of Mathematics Teacher Educators will hold its 11th annual conference at The College of New Jersey on Friday, June 2. This year's theme is challenges teacher candidates and teacher education programs face in preparing candidates to become mathematics teachers. Dawn Berk will offer commentary on the AMTE Standards for Teacher Knowledge. All mathematicians involved in the mathematical education of teachers at any level are invited (and encouraged) to join NJAMTE. For further information, contact Maria DeLucia at mdelucia@middlesexcc.edu.

25/50-year Members of the MAA: The section congratulates Kirke M. Bent, Stanley F. Cohen, George J. Fabiano, George Quillan, and Raymond Addabbo for their 25 years of MAA membership. We congratulate Fred S. Roberts, William J. Rickert, John M. Snygg, and David M. Weiss for their 50 years of membership.

MAA-NJ Committees

Awards Committee: Carol Avelsgaard, Middlesex County Community College; Bonnie Gold, Monmouth University (chair); Karen Clark, The College of New Jersey (ex officio); Theresa C. Michnowicz, New Jersey City University; Dexter Whittinghill, Rowan University.

Nominating Committee: Karen Clark, The College of New Jersey (ex-officio); Lawrence D'Antonio, Ramapo College; Bonnie Gold, Monmouth University; Thomas Hagedorn, The College of New Jersey (chair); David Marshall, Monmouth University; Hieu Nguyen, Rowan University.

Teaching Award Committee: Karen Clark, The College of New Jersey (ex-officio); Brian Hopkins, Saint Peter's University; Sarita Nemani, Georgian Court University; Diana Thomas, Montclair University (chair); Dirck Uptegrove, Nokia.

Selection Committee for Contributed Papers: Olcay Ilicasu, Rowan University; Theresa Michnowicz (ex-officio), New Jersey City University; Kathy Turrisi (chair), Centenary University.

Organizing Committee: Amanda Beecher, Ramapo College, Zhixiong Chen, New Jersey City University; Karen Clark, The College of New Jersey; Grace Cook, Bloomfield College; Kaaren Finberg, Ocean County College; Jana Gevertz, The College of New Jersey; Bonnie Gold, Monmouth University; Zachary Kudlak, Monmouth University; Ik Jae Lee, Rowan University; Aihua Li, Montclair State University; David Marshall, Monmouth University; Theresa C. Michnowicz, New Jersey City University; Sarita Nemani, Georgian Court University; Linda Ritchie, Centenary University; A. David Trubatch, Montclair State University; Kathy Turrisi, Centenary University; Dirck Uptegrove, Nokia; Elizabeth Uptegrove, Felician University; Paul von Dohlen, William Paterson University; Jonathan Weisbrod, Rowan College at Burlington County.

Section History Committee: Grace Cook, Bloomfield College; Lawrence D'Antonio, Ramapo College; Thomas Hagedorn, The College of New Jersey (chair); Aihua Li, Montclair State University; Theresa C. Michnowicz, New Jersey City University.

Hosting Committee: Karen Clark, Edward Conjura, Cynthia Curtis, Thomas Hagedorn, Judit Kardos, Cathy Liebars, Steffen Marcus, Suriza van der Sandt, Chung Wong, The College of New Jersey.

GSUMC Committees

Organizing Committee: Amanda Beecher, Ramapo College of New Jersey; Lee Collins, County College of Morris; Katarzyna Kowal, Ramapo College of New Jersey; Ken McMurdy, Ramapo College of New Jersey; A. David Trubatch, Montclair State University (Director).

New Jersey Undergraduate Mathematics Competition Committee: Katarzyna Kowal (Co-Director), Ramapo College of New Jersey; Ken McMurdy (Co-Director), Ramapo College of New Jersey; David Molnar, Rutgers University; Marek Slaby, Fairleigh Dickinson University.

New Jersey Undergraduate Mathematics Competition Proctors and Graders: Michael Beals, Rutgers University; David Buhanan, Centenary University; Benjamin Daniels, Rowan University; Steve Donahue, Cumberland County College; Christopher Holston, The College of New Jersey; Jennifer Hoxworth, Rowan College at Gloucester County; Ryan Hoxworth, Rowan College at Gloucester County; Priti

Mihalik, Rowan College at Burlington County; David Molnar, Rutgers University; Emanuel Palsu-Andriescu, Monmouth University; Robert Roach, Rowan College at Burlington County; Jeremy Russell, The College of New Jersey; Marek Slaby, Fairleigh Dickinson University; Jonathan Weisbrod, Rowan College at Burlington County; Chung Wong, The College of New Jersey; Chia-Lin Wu, Stockton University.

Student Presentation Coordinator: Lee Collins, County College of Morris.

Acknowledgments

The New Jersey Section thanks the following members, retiring from the indicated positions, for their service:

- Bonnie Gold of Monmouth University, retiring as chair of the Awards Committee and as a member of the Nominating Committee.
- David Marshall of Monmouth university, retiring as a member of the Nominating Committee.
- Diana Thomas of Montclair State University, retiring as chair of the Teaching Awards Committee.
- Dexter Whittinghill of Rowan University, retiring as a member of the Awards Committee.

The New Jersey Section thanks the Mathematics Department of The College of New Jersey for their kind hospitality in hosting the meeting. They also thank Princeton University Press and World Scientific Publishers for donations for the silent auction, door prizes, and GSUMC prizes.

The New Jersey Section offers congratulations to the GSUMC for fourteen years of successful undergraduate math conferences.

The 2017 GSUMC is supported by The College New Jersey and the NJ section of the MAA. The GSUMC thanks the Department of Mathematics and Statistics of The College of New Jersey for their kind hospitality in hosting the meeting.

Social Media Information

Check us out!	Email:	maanj.socialmedia@gmail.com
	Facebook:	https://www.facebook.com/maanewjersey
	Instagram:	https://instagram.com/maanewjersey
	Twitter:	https://twitter.com/maanewjersey

MAA-NJ Section Officers

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Chair	Karen Clark, The College of New Jersey
Chair-Elect	Aihua Li, Montclair State University
Secretary	Zhixiong Chen, New Jersey City University
Treasurer	Paul von Dohlen, William Paterson University
Vice-Chair for Fall Meetings	Sarita Nemani, Georgian Court University
Vice-Chair for Speakers	Amanda Beecher, Ramapo College
Vice-Chair for Spring Meetings	Elizabeth Uptegrove, Felician University
Vice-Chair for Student Activities and GSUMC Director	A. David Trubatch, Montclair State University
Vice-Chair for Two-Year Colleges	Jonathan Weisbrod, Rowan College at Burlington County
Book Sale Coordinators	Dirck Uptegrove, Nokia; Elizabeth Uptegrove, Felician University
Contributed Paper Organizer and Lunch Discussion Organizer	Theresa C. Michnowicz, New Jersey City University
Door Prize Coordinator	Linda Ritchie, Centenary University
Liaison Coordinator	Ik Jae Lee, Rowan University
Program Editor	Kathy Turrisi, Centenary University
Project NJ-NExT Co-Directors	Kaaren Finberg, Ocean County College; Jana Gevertz, The College of New Jersey
Social Media Director	Grace Cook, Bloomfield College
Webmaster	Dirck Uptegrove, Nokia
Workshop Organizer	Zachary Kudlak, Monmouth University