

Fall 2022

Allegheny Mountain Section of the Mathematical  
Association of America

## Allegheny Mountain Section Newsletter

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**PennWest**   
**EDINBORO** PA

## SPRING 2023 SECTION MEETING HOSTED BY PENNWEST EDINBORO

Our annual Spring Section Meeting will be held in person (fingers crossed!) at PennWest Edinboro on Friday, March 31 and Saturday, April 1, 2023. Following the first plenary talk on Friday, we will have our traditional banquet dinner as well as a free pizza dinner for all interested students. A student problem solving competition will be held immediately following the pizza dinner.

We have three fantastic invited speakers lined up: **Deirdre Longacher Smeltzer**, who is currently serving as the Senior Director for Programs at the MAA and is our Section Visitor this year, **David Richeson** from Dickinson College, and **Haydee Lindo** from Harvey Mudd College. You can find their biographies on pages 7 and 8 in this newsletter.

We are looking forward to seeing everyone in person at Edinboro! More detailed information will be available in the spring newsletter. Don't forget to like us on Facebook (<https://www.facebook.com/allegHENYMAA/>) and follow us on Twitter (<https://twitter.com/allegHENYMAA>).

## REPORT FROM OUR MAA SECTION CONGRESS REPRESENTATIVE: Kim Roth



**Kim Roth of Juniata College,  
MAA Congress Representative**

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*“The MAA has increased its virtual programming with a schedule of virtual talks and workshops.”*

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Greetings from central Pennsylvania! My term as section representative is coming to an end in the spring and I am glad that I had a chance to serve as the representative of the Allegheny Mountain Section to the association as a whole. Elections for the next section representative will occur before our spring section meeting. If you are interested in serving in this role, please contact Dan Shifflet [dshifflet@clarion.edu](mailto:dshifflet@clarion.edu).

The MAA Congress met right before MathFest which was held in Philadelphia last August. We discussed many of the MAA's new and continuing activities. The [2021 MAA Impact Report](#), is a great overview of these activities and I will highlight some of them below.

The MAA has increased its [virtual programming](#) with a schedule

of virtual talks and workshops. One free workshop for undergraduates is the 2022 [Online Undergraduate Resource Fair for the Advancement and Alliance of Marginalized Mathematicians, OURFA<sup>2</sup>M<sup>2</sup>](#) which will be held virtually November 19<sup>th</sup> and 20<sup>th</sup>. There are also mostly in person [professional development opportunities](#) through the MAA.

MathFest was a great time this year including lots of fun talks and mathematical rope tricks. The IGNITE celebration Friday night was a blast and there were many events at the MAA pavilion celebrating award winners. Next year's MathFest will be in Tampa, Florida from August 2nd - 5th, 2023. I encourage you to consider attending.

See you all at the Allegheny Mountain Section Meeting, March 31<sup>st</sup>-April 1<sup>st</sup> 2023 at PennWest Edinboro!



## FROM THE CHAIR: Shelly Bouchat

Hello and welcome to the Allegheny Mountain Section! As I sit down to write this letter, the phrase “new normal” keeps circulating through my mind. We are still in the midst of the Covid-19 pandemic, but we seem to be settling into our new, normal routines. I hope that in these new routines, we are beginning to feel more stability and predictability in how the pandemic effects our daily lives.

For the past two years, we have had virtual spring Section meetings, and like many others I have missed seeing everyone in-person. It has been amazing to see how well our Section was able to pivot during these times to bring us all together to celebrate the mathematical achievements of our faculty and students in a virtual format. Revisiting the thought of settling into a new normal, I do feel confident that this year we will be able to have a face-to-face Section meeting at PennWest Edinboro, March 31st to April 1st.

Our Section grew in the expanse of its offerings during the pandemic, and as we continue in this new nor-

mal, the Colloquium Series also continues. On September 12th, Dr. Florian Frick of Carnegie Mellon University spoke on the “Geometry of fair division,” and on November 8th we hope you will join us to hear Dr. Bismark Oduro from PennWest California speak.

My term as chair is nearing its end, and I will hand over this position to Dan Shifflet of PennWest Clarion at the end of the spring Section meeting. For me, this upcoming spring Section meeting is more than the ending of my time as chair of the Section, but also the time when I will transition from a member of the Allegheny Mountain Section to a member of the Kentucky Section. I have benefited and grown so much from my participation in the Allegheny Mountain Section, and I want to sincerely thank each and every one of you for helping me learn and grow in this profession. I am extremely grateful. I hope that each of you feels the direct benefits from participating in this Section, and I hope you will also reach out and encourage others to join in our Section activities.



**Shelly Bouchat of Berea College, Section Chair**

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*“I hope that each of you feels the direct benefits from participating in this Section.”*

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## SECTION NExT REPORT

### Kristen Pueschel, Penn State New Kensington and John Tolle, Penn State DuBois

The fall 2022 Section NExT meeting took place Saturday, October 1 at Gannon University in Erie, PA. The meeting began with a panel discussion by Kim Roth of Juniata College and Jeffrey Musyt of Slippery Rock University. The theme of the panel was "Engaging Students Outside of the Classroom". Roth and Musyt discussed the math clubs at their campuses and generally described ways to build community and broaden students' experience in mathematics.

The fall meeting also included a 3-hour workshop conducted by Brian Winkel, director of the Systematic Initiative for Modeling Investigations and Opportunities with Differential Equations (SIMIODE). Winkel led participants through a number of modeling activities that can be incorpo-

rated into calculus and differential equations courses, but which, in some cases, could be adapted to suit other courses as well. Extensive examples, spanning a wide range of applications, were provided from Winkel's experience in teaching students how to model.

The spring 2023 Section NExT meeting will take place Saturday, April 1, at the close of the MAA Allegheny Mountain Section spring meeting. We will begin with lunch, and a workshop will follow. Further details are yet to be determined.

If you are interested in attending a future meeting or you have a new colleague in mathematics whom you'd like to receive emails about future meetings, email Kristen Pueschel ([klp65@psu.edu](mailto:klp65@psu.edu)) or John Tolle ([jut14@psu.edu](mailto:jut14@psu.edu)).

## CALL FOR NOMINATIONS

The Executive Committee is looking for MAA Allegheny Mountain Section members to fill the following four positions: Coordinator of Student Programs, Second Vice-Chair, Newsletter Editor and Treasurer.

All section officers participate in three Executive Committee meetings each year. One meeting is held at the Spring Section Meeting, usually in early April. Another meeting is typically held in May or June, and the third meeting is usually held in early October. Section officers are also expected to attend the Business Meeting which is conducted the Saturday morning of the Spring Section Meeting. Section officers often serve in other ways as well, such as serving on committees or assisting with the events of the Spring Section Meeting. In addition, all section officers contribute to e-mail discussions about Section business throughout the year.

Please consider nominating one of your Allegheny Mountain Section friends or colleagues for one of these service positions. Self-nominations are welcomed. All nominations should be sent by January 14, 2023 to:

Dan Shifflet, PennWest Clarion  
[dshifflet@clarion.edu](mailto:dshifflet@clarion.edu)



## EXECUTIVE COMMITTEE POSITION DESCRIPTIONS

### **Coordinator of Student Programs**

The primary responsibility of the Coordinator of Student Programs is to organize student activities at the Spring Section Meeting. This includes scheduling student talks and organizing a student problem-solving competition. The Coordinator collects the student talk registrations (submitted by email), coordinates with the host institution, schedules times and rooms, finds moderators for and prepares the abstracts of the student talks. Much of this work is done in the weeks directly preceding the Spring Section Meeting. The term of the position is two years with possibility of re-election for subsequent terms.

### **Second Vice-Chair**

The primary duty of the Second Vice-Chair is to organize the faculty contributed talks at the Spring Section Meeting. This includes collecting the faculty talk registrations (typically sent by e-mail), coordinating with the host institution, scheduling times and rooms, and finding moderators for talks. Much of this work is done in the weeks directly preceding the Section Meeting. After one year, the Second Vice-Chair becomes the First Vice-Chair for one year. The First Vice-Chair acts as the contact person for the three invited speakers for the Spring Section Meeting. Duties include inviting the speakers who have been determined by the executive committee (usually during the summer) and confirming travel, lodging, and registration with the invited speakers. The First Vice-Chair also finds people to meet the speakers when they arrive at the meeting and to introduce the speakers. This work occurs mostly in the summer and in the month before the section meeting. The term of the position is two years total.

### **Newsletter Editor**

The primary responsibility of the Newsletter Editor is to publish a newsletter to be disseminated to all members of the Section at least twice each academic year — one in the fall usually distributed late October and one at least a month prior to the Spring Meeting. The term of the position is two years with possibility of re-election for subsequent terms.

### **Treasurer**

The Treasurer is responsible for handling all section money. This includes collecting any fees charged by the section, receiving funds provided by the MAA, maintaining proper and accurate books of section money, and paying any debts incurred by the section. Prior to the annual Spring Meeting, the treasurer (in partnership with the Director of E-Communications) is responsible for creating and maintaining the official records for all meeting attendees who preregister. The treasurer uses these records to oversee the creation of name tags, folder labels and receipts for meeting attendees who preregister. At the annual section meeting, the treasurer oversees the registration process and collects all registration fees. Additional duties of the treasurer include filing an annual report with the MAA and collecting section meeting registration information to be used for an annual section report to the MAA Committee on Sections. The term of the Treasurer is three years.

## SEEKING NOMINATIONS FOR AWARD RECIPIENTS

### 2023 Allegheny Mountain Section Distinguished Teaching Award

The criterion for the Annual Allegheny Mountain Section Distinguished Teaching Award is a record of extraordinary success in teaching, a record of teaching effectiveness that can be documented, and an ability to foster curiosity and generate excitement about mathematics. It is preferable to have an award recipient whose teaching influence extends beyond their own institution. The nominee should be a member of the MAA, must teach at an institution within the section, and should have at least five years of teaching experience in a mathematical science.

Teaching is to be interpreted in its broadest sense, not necessarily limited to classroom teaching (it may include activities such as preparing students for mathematical competitions at the college level, for example, the Putnam Prize Competition or the Mathematical Contest in Modeling, or attracting students to become majors in a mathematical science or to become Ph.D. candidates).

Please send your nomination, with a description of how the nominee meets the criterion, by March 5, 2023 to:

Kuei-Nuan Lin, Penn State Greater Allegheny  
[linkn@psu.edu](mailto:linkn@psu.edu)



### 2023 Allegheny Mountain Section Service Award

The criterion for the Annual Allegheny Mountain Section Service Award is a consistent record of excellence in service to the section over a period of time. In this context "service" is interpreted in a broad sense to include holding office, coordinating contests, organizing sessions, acting as a panelist, speaking at sessions, acting as the coordinating host for a meeting, or participating in any other activity that contributes to the well-being of the Section. Please send your nomination, with a description of how the nominee meets the criterion, by March 5, 2023 to:

Kristen Pueschel, Penn State New Kensington  
[klp65@psu.edu](mailto:klp65@psu.edu)

### 2023 Allegheny Mountain Section Mentor Award

The Mentor Award has been a part of the Allegheny Mountain Section since the year 2000. A nominee should have made significant contributions to the development of undergraduate students in mathematics as scholars. This includes, but is not limited to, encouraging student participation in MAA activities and advising students who make presentations at the Section meetings. Please send your nomination, with a description of how the nominee meets the criterion, by March 5, 2023 to:

Kim Roth, Juniata College  
[roth@juniata.edu](mailto:roth@juniata.edu)

## MEET OUR INVITED SPEAKERS: SPRING 2023

**Deirdre Longacher Smeltzer** began as Senior Director for Programs at the MAA in August 2020. Deirdre served for six years as Vice President & Undergraduate Dean at Eastern Mennonite University (EMU) in Harrisonburg, VA, overseeing all undergraduate academic and several community-facing programs. Prior to moving into full-time administrative work, Deirdre was a mathematics faculty member (and later, department chair) at EMU and at the University of St. Thomas in St. Paul, MN. Deirdre enjoyed teaching a broad range of mathematics and general education courses, mentoring students and new faculty, serving as a faculty leader in shared governance, and co-leading a cross-cultural semester in China. Deirdre has co-authored two textbooks, *Journey into Discrete Mathematics* and *Methods for Euclidean Geometry*. Deirdre is a member of the inaugural Project NExT cohort and a long-time active MAA member.



**David Richeson** is a professor of mathematics and the John J. & Ann Curley Faculty Chair in the Liberal Arts at Dickinson College. He has a bachelor's degree from Hamilton College and a Ph.D. from Northwestern University. He is the author of *Euler's Gem: The Polyhedron Formula and the Birth of Topology* (Princeton University Press, 2008) and *Tales of Impossibility: The 2000 Year Quest to Solve the Problems of Antiquity* (Princeton University Press, 2019). He was the editor of *Math Horizons*, the undergraduate magazine of the Mathematical Association of America from 2014 through 2019.

**Haydee Lindo** is an assistant professor of mathematics at Harvey Mudd College. Her current research interests lie in commutative algebra, homological algebra and representation theory where her focus is on the development and application of the theory of trace modules over commutative rings. She is also interested in developing the research capabilities of undergraduate students and science communication to the general public. Originally from Jamaica, she earned a B.A. in mathematics and political science from Williams College, an M.S. in mathematics from the University of Nebraska, Lincoln, and a Ph.D. in mathematics from the University of Utah.



## SECTION AWARDS

**Congratulations to our 2022 Allegheny Mountain Section award recipients!**

**Mentor Award:**

Dr. Kim Roth, Juniata College

**Service Award:**

Dr. Kristen Pueschel, Penn State New Kensington

**Teaching Award:**

Dr. Kuei-Nuan Lin, Penn State Greater Allegheny



## UPCOMING MEETINGS

**Joint Mathematics Meetings 2023**

January 4 - 7, 2023  
Boston, MA

**Allegheny Mountain Section Spring Meeting 2023**

March 31 - April 1, Hosted by PennWest Edinboro

**MAA MathFest 2023**

August 1 - 5, Tampa, FL



## FOUND MATH



An Escher-like tessellation of the plane in ceramic tiles. Found on a wall in a metro station in São Paulo, Brazil.

Photo by Roger Nelsen, Lewis & Clark College.

Found Math is a photo gallery of mathematical images on the MAA website.

<https://www.maa.org/community/columns/maa-found-math>

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	9						2	
8		4						2
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4	3				5			
		5		3				8

### FALL PUZZLE Jigsaw Sudoku

A jigsaw sudoku puzzle is very similar to a regular sudoku puzzle. The digits 1 through 9 can only be used once in each region. And, every digit can occur only once per row and once per column.

Puzzle from <http://innoludic.com>

Do you have any exciting news you would like to share? If so, please send it to me! We would love to hear what you and/or your students are doing within our section.

### Newsletter Editor

Kim Jones

Retired from  
Washington & Jefferson College

[kjones@washjeff.edu](mailto:kjones@washjeff.edu)