Allegheny Mountain Section of the Mathematical Association of America

Allegheny Mountain Section Newsletter



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VIRTUAL SPRING SECTION MEETING 2021

Our annual Spring Section Meeting will be hosted virtually by Edinboro University on April 9 -10, 2021. After much deliberation during our recent executive committee meeting, it was decided that the best and safest way to hold our upcoming annual Spring Meeting was to do so remotely. There will be a number of changes as a result of conducting the meeting online. There will be a reduced registration fee and students and faculty may be required to submit videos of their talks. More detailed information will be provided in the forthcoming spring newsletter.

Even though we will be meeting remotely, we have three exciting invited speakers lined up: **Tim Chartier** from Davidson College who is our Section Visitor this spring and is currently serving as the Chair of the MAA's Congress, **Tom Edgar** from Pacific Lutheran University and editor of *Math Horizons*, and **Carol Schumacher** from Kenyon College. Their impressive biographies can be found on pages 7 and 8 in this newsletter.

We hope to see everyone on Zoom in April! 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

"The Association is looking for stories of how the MAA has impacted you." I hope you are all staying healthy and managing through this pandemic time of teaching in new modes. This summer was supposed to be my first meeting of the MAA Congress at MathFest in Philadelphia. Due to the pandemic, MathFest was canceled, but the MAA Congress meeting was held remotely via Zoom around when it would have normally occurred. Below are some items of interest from that meeting.

The MAA has released its 2019 Impact Report which highlights many things that the MAA does centering around its core values of Community, Inclusivity, Teaching and Learning, and Communication. I hope you have a chance to read it. The Association is looking for stories of how the MAA has impacted you. If you would like to share a story, you can submit it here.

In her last report as section representative, Pam Wovchko men-

tioned the MAA was going to launch a micro-volunteering opportunity for members to volunteer 1-3 hours of time. There is now a Micro-Volunteering MAA Connect Community both to post opportunities to volunteer and willingness to participate in volunteer options. Lots of the current posts are about giving or hosting talks and it looks like a good way to find a speaker. The MAA Connect Communities in general are a great way to seek out resources for teaching as well.

The MAA will be part of hosting the Virtual Joint Mathematics Meeting in January 2021 and then will begin transitioning away from the JMM and focusing on Math-Fest and supporting the sections. They will be providing some assistance as we prepare to hold the Allegheny Mountain Section Meeting in April virtually.

Hope the end of your fall semester goes well! Thanks for your involvement in the MAA!



FROM THE CHAIR: Craig Dodge

At the risk of sounding cliche, I see no other way to begin my first letter as Chair to the Section other than to acknowledge what a challenging year 2020 has been. Since our Spring Section meeting in April was cancelled much of our membership has been coming to grips with the realities of working and living during the pandemic. We continue to navigate new pedagogies in order to instruct remotely or in HyFlex models. Moreover, our mental bandwidth has been taxed even further by the call to stand for racial justice and combat medical misinformation.

On the bright side, this year has called to mind a number of other cliches such as, "necessity is the mother of invention" and "strength is built through overcoming adversity." These virtuous tropes have been exemplified by the members of the Allegheny Mountain Section community. I have never been more thankful to be connected to the Section than now, when the demand for adaptation is so high. Our new technological normals have enabled us to collaborate, and even commiserate, over the large geographical distance that separates us. Our membership has created a wealth of experience over the past year; together we continue to share it and enhance the entire community.

During this challenging time I want to stress the importance of recognizing that wealth of experience as well as the accomplishments of our members. Please consider nominating a colleague for one of our Section awards. Furthermore, in order to make the Section all it can be, we want to tap into resources which we have not yet identified. There are a variety of ways you can get involved with the Section. I encourage everyone to reach out to myself or other Section officers in order to explore what opportunities there are in the Allegheny Mountain Section, including several officer positions that will be opening this year. Please see the call for nominations for Section officers in this newsletter and consider running.

Finally, I want to thank the previous Section Chair Pam Richardson for all the work she has done. Her leadership during the past year has done a tremendous amount to carry the Section through these challenging circumstances.

I wish you all continued strength and health. I will be looking forward to seeing all of you remotely at the Spring Section Meeting hosted by Edinboro University on April 9-10 2020.



Craig Dodge of Allegheny College, Section Chair

"I have never been more thankful to be connected to the Section than now,..."

SECTION NEXT REPORT

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

Our Fall 2020 Section NExT meeting, the first ever conducted entirely by Zoom, took place Saturday, September 19. Dr. Carolyn Cuff of Juniata College gave a workshop on resampling activities that could be used in introductory statistics classes. Her presentation included a tour of numerous applets as well as hands-on demos. The afternoon featured a panel on active learning in remote classrooms. The panelists were Rena Levitt from Minerva, Virgil Pierce from the University of Northern Colorado, Stanley Smith and Kuei-Nuan Lin, both from Penn State. Panelists discussed the importance of interaction with students and planning for students to be working during class more than listening. Panelists stressed the importance of being authentic and engaged with the students in order to build trust and community. The panel also discussed different technologies related to online teaching and ways of handling access issues. Following a lengthy discussion, participants shared something that was making their teaching life easier: comics and silly prompts posted before class are helping build community in Jeffrey Musyt's classes (and allowing him to grab a cup of tea!), Crowdmark, an online grading program that allows you to save points to comments, is making grading quick and consistent for Vicki Sealey, and Google Classroom is helping Kuei-Nuan Lin keep her students organized.

Our Spring 2021 Section NExT meeting will be remote. We are still deciding on the date and time. We encourage senior faculty to inform junior faculty in their department of the opportunity to attend the spring workshop.

CALL FOR NOMINATIONS

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

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 15, 2020 to:

Tim Flowers flowers@iup.edu



EXECUTIVE COMMITTEE POSITION DESCRIPTIONS

Secretary

The Secretary keeps minutes of the Business Meeting and the three Executive Committee Meetings each year and submits the Annual Section Report to the MAA after gathering the appropriate data (with the help of the Treasurer and others). The Secretary also preserves records of the section, maintains files of official correspondence of the section, and notifies members of all regular and special meetings. Most of the Secretary's duties occur immediately before and during the Executive Committee Meetings. The term of the position is three 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.

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.

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.

SEEKING NOMINATIONS FOR AWARD RECIPIENTS

2020 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, 2021 to:

J. Lyn Miller, Slippery Rock University

lyn.miller@sru.edu

2020 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, 2021 to:

Duane Farnsworth, Clarion University dfarnsworth@clarion.edu

2020 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, 2021 to:

Rachael Miller, Duquesne University millerneilanr@duq.edu

MEET OUR INVITED SPEAKERS: SPRING 2021

Tim Chartier is an award-winning professor of mathematics and computer science at Davidson College. A skilled teacher and researcher, Professor Chartier received the Alder Award. Euler Book Prize, and the Daniel Solow Author's Award from the MAA and is an Alfred P. Sloan Research Fellow. He specializes in sports analytics and has worked with the NBA, NFL, ESPN, NASCAR teams, and others. Dr. Chartier is one of three instructors in Outlier.org's Calculus course. He has also worked with Google and Pixar on K-12 educational initiatives. He is an award-winning author of multiple books on mathematics and computer science. He has served as vice president and is currently chair of the Congress of the MAA and was the first chair of the Advisory Council for the National Museum of Mathematics. He serves as an expert resource for major news organizations such as NPR, the New York Times, Bloomberg TV. and CBS.





Tom Edgar is an associate professor of mathematics at Pacific Lutheran University in Tacoma, Washington, where he has lived for the past decade. He received his undergraduate degree from Dickinson College in Pennsylvania, a Masters degree from Colorado State University, and his Ph.D. from the University of Notre Dame in Indiana. He is the recipient of the distinguished teaching award from the Pacific Northwest Section of the Mathematics Association of America, and he will serve as the editor of Math Horizons, the undergraduate magazine of the MAA, during the calendar years 2020-2024. He enjoys exploring integer sequences, combinatorial number theory, representation theory, and visual mathematics, especially with students in the classroom or via undergraduate research.

Carol Schumacher is Professor of Mathematics at Kenyon College and has served three terms as department chair. She received her Ph.D. in mathematics from The University of Texas at Austin. Schumacher is the recipient of Kenyon's Trustee Teaching Award and of the Ohio Section MAA's Distinguished Teaching Award. She is the author of Closer and Closer: Introducing Real Analysis and Chapter Zero: Fundamental Notions of Abstract Mathematics, 2E. She loves teaching pretty much anything, but especially loves Calculus I and Calculus III, the transitions to proof course, the real analysis sequence. And she has recently gotten into teaching applied differential equations and dynamics.

Schumacher is active in the Mathematical Association of America. She was co-chair of the 2015 CUPM Curriculum Guide to Majors in the Mathematical Sciences and is MAA VP. She has addressed Project NExT fellows at their summer workshop and has been involved with workshops that help faculty incorporate inquiry into their classrooms.



Congratulations to our 2020 Allegheny Mountain Section award recipients!

Mentor Award:

Dr. Rachel Neilan, Duquesne University

Service Award:

Dr. Duane Farnsworth, Clarion University

Teaching Award:

Dr. J. Lyn Miller, Slippery Rock University



UPCOMING MEETINGS

Virtual Joint Mathematics Meetings 2021 January 6 - 9, 2021

Virtual Allegheny Mountain Section Spring Meeting 2021 April 9 - 10, Hosted by Edinboro University

MAA MathFest 2021

Aug. 4 - 7, Sacramento, CA

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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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

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