



## Spring Section Meeting April 10-11, 2015 at Washington and Jefferson College

Do you enjoy mathematics? Do you want to re-connect with friends and colleagues from the Western Pennsylvania and West Virginia areas? Come to the Spring 2015 section meeting!

Our three featured speakers will be **Dave Kung** (St. Mary's College), **Ron Wasserstein** (American Statistical Association), and **Barbara Faires** (Secretary of the MAA).

At this time, the titles and abstracts of the talks are not available, but as always we look forward to excellent presentations by our invited speakers, contributed paper sessions for faculty and student speakers, the student problem-solving competition, and a pizza party on Friday night. Also planned is an advanced WeBWoRK workshop by Tim Flowers.

In addition to our program, we will be celebrating the 100<sup>th</sup> birthday of the MAA! Planned activities include a group picture, birthday cake, free t-shirts, a drawing for a free registration to the Centennial MathFest in Washington, D.C., and a drawing for an MAA student membership.

Detailed information, including the all-important deadlines for booking hotels at the reduced rates, will be included in the spring newsletter.

### In this issue:

*Reports from the Governor and the Chair of the Section.*

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*Call for nominations: Executive Committee.*



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## News from the Governor: John Thompson, University of Pittsburgh, Johnstown

On Tuesday August 5<sup>th</sup> I attended the New Governors' Meeting in Portland, OR. We were instructed regarding various aspects and responsibilities of the role of governor within the MAA structure. Currently there are 3 major roles for the governor. We are to be the main conduit of information between the Section members and the National organization. We are to serve, and potentially lead one of the committees of the MAA. We are to actively serve on the Board of Governors, the main decision making body of the MAA.

Based upon my experience at the Board of Governor (BoG) meeting on the 6<sup>th</sup>, filling the role in the BoG mainly constitutes deciding whether the work of committees and recommendation of committees should be followed or not. Typically the recommendations are reasonable and there is little debate that the recommendations should be followed. However, there are times that the debate is robust. One such situation that will be coming before the board over the next year or so is the possibility of restructuring the governance of the MAA and the role of the BoG. At this stage we do not have a formal proposal for the restructuring of the BoG, but the governors have already been involved in determining what the role of the governors should be. This is an issue of which we should all be aware.

Concerning my responsibility as governor to serve on a committee, I have been assigned to serve on the Membership Committee. While I don't officially join the committee until January, I did attend the committee meeting in Portland so as to get a feel for what our responsibilities will be. One aspect of the committee's work is to receive reports regarding membership regarding the demographics and trends of membership in the MAA. Another role is to work with MAA administrators to formulate strategies that will help to make the MAA a thriving organization that serves its members in valuable ways so as to assure the financial stability of the organization.

The final main responsibility of a governor is to facilitate communication between the membership of the MAA and the administrators of the MAA. If you wish to be more active in the organization by serving on a committee, please contact me and I will act as your advocate to help your placement efforts. If you have ideas on how to improve the operation and services of the MAA, please contact me with this information so that I can see that it gets to the appropriate location. The ultimate goal of a governor is to ensure the strength of the organization so as to better serve the mathematics community.



Once again, if you would like to get more involved with the MAA, please let me know.

## From the Chair: Pam Wovchko, West Virginia Wesleyan College

Happy Centennial to the MAA! In case you haven't heard, the MAA turns 100 this year, and MathFest 2015, which will be held in Washington, D.C., will be full of festivities. Our section will join the year-long celebration with numerous activities at the 2015 Spring Section Meeting at Washington and Jefferson College on April 10<sup>th</sup> and 11<sup>th</sup>. These special events include: a Special Dessert, a T-Shirt Giveaway, a Section Photo, a drawing for Student Memberships, a drawing for a MathFest 2015 Registration, and more!



As part of the preparation for the MAA's Centennial, John Bukowski, our Section Historian, has spent an extensive amount of time compiling the history of our section. The section history can be found at <http://jcsites.juniata.edu/faculty/bukowski/MAAhistory/AlleghenyMountainSectionHistory.htm> (*The preface to the section history appears on page 4 of this newsletter – editor.*) Many thanks to John and those who have provided him with information.

Plans are shaping up for our Spring Section Meeting at W&J. Dave Kung, Ron Wasserstein, and Barbara Faires will be our invited speakers. In addition to the centennial activities and usual events, our schedule includes an Advanced Web Work workshop on Friday evening. Also new this year, in an effort to encourage students to attend faculty talks on Saturday, some talks will be designated as student-friendly.

Every year at the Friday evening dinner of the Spring section meeting, we have the presentation of awards. It is not too early to nominate a colleague for the section's Distinguished Teaching, Mentor, or Service Award. More details about the nomination process can be found in another part of this newsletter. Also, at the Business Meeting on Saturday morning of the Spring meeting, members of the section will elect nominees to serve on the Executive Committee. This year we will be electing a Second Vice-Chair, Newsletter Editor, Treasurer, and Coordinator of Student Programs. If you want to serve in one of these positions, please let a member of the nominating committee know of your interest. Again, another part

of the newsletter will detail the descriptions of the offices and will name the members of the nominating committee.

In just a couple months, the 2015 Joint Meetings will be upon us. This year they are being held in San Antonio, Texas. So, if you like to mix mathematics with warm weather in January, this is the place for you.

Best wishes for the end of the term!

## Section NExT News: Kim Roth, Juniata College

The fall Section NExT meeting was on undergraduate research and networking. It was held at Penn State Erie on September 27th. Darren Narayan from Rochester Institute of Technology and Tamara Lakins from Allegheny College spoke about undergraduate research in the morning session. Pamela Richardson from Westminster College, James Sellers from

Penn State and Darren Narayan spoke about networking in the afternoon session.

Section NExT is undergoing a leadership transition, as Jacqueline Jensen-Vallin has a new job at Lamar University in Texas and John Thompson is now section governor. Kim Roth is the current Section NExT coordinator and will be

joined by a new co-coordinator after the spring section meeting.

If you are interested in attending a future meeting please contact Kim Roth, [roth@juniata.edu](mailto:roth@juniata.edu)

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## Preface to the Allegheny Mountain Section History: John Bukowski, Juniata College

This history of the Allegheny Mountain Section (at <http://jcsites.juniata.edu/faculty/bukowski/MAAhistory/AlleghenyMountainSectionHistory.htm>) was prepared in anticipation of the celebration of the Centennial of the Mathematical Association of America in 2015. I thoroughly enjoyed working on it during the summer of 2014, and I learned many new things about the history of our great Section. I am fortunate to be the Section Historian during this exciting time for the MAA.

When I became Historian in 2012, I received two large three-ring binders from George Bradley, the previous Historian. Two things in the binders proved to be especially important in my work on this history: a set of old Section Newsletters, and lists of officers and section meetings prepared in 1994 by the late Albert A. Rabenstein. I certainly could not have done such a thorough job with this history in such a short time without Rabenstein's

work from twenty years ago, and I am very grateful to him for this assistance. Fortunately, he also left his computer files (prepared in WordPerfect 5.0) on a 3.5 inch floppy disk that I was able to read!

As you will see, my focus in this history was on the early years of the Section and the activities of the last twenty years or so. I do not have much access to information about the "middle" years of our Section at this time. Perhaps an expansion of this history to cover those years could be a future project.

Again, I learned many new things about the Section while doing this work. I have long thought that the people who make up the MAA are the best thing about the Association, so I especially enjoyed learning about all those people who have been involved in our Section throughout the past eighty-one years. They have fascinating stories, and I am grateful to them for their efforts.

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## News from Around the Section

### Allegheny College

Several members of the mathematics faculty at Allegheny College will be collaborating with Bryn Mawr College and other participating institutions in a FIPSE First in the World Program grant. This grant involves the development of a blended learning approach to assist students who are lacking the mathematical skills to succeed in gateway courses in math, physics, and chemistry. The goal is to get these students into the gateway courses earlier, thus eliminating a delay in progress toward their intended degrees.

### Gannon University

The Gannon University Mathematics Department has some very exciting news from the previous year.

This past spring, our Calculus 2 students participated in the first annual Integration Bee. This contest pitted teams of students against each other in an effort to find the best integrator among them.

In mid-November, our department will be hosting a similar competition called the Differentiation Bee for local high school students. The top teams will be granted prizes in the form of GU gear and scholarships.

Our department is starting a new Supplemental Instruction initiative with some of our Calculus courses. We have hired students to join classes and hold weekly sessions in an effort to boost success and retention. We are hoping for measurable improvements and therefore incentive to continue the program.

**Dr. David Prier** published an article with a former Gannon student and another colleague in the journal *Involve* titled “New Results on an Anti-Waring Problem.”

### Penn State Behrend

**Gregor Olsavsky** retired after 30 years of service. Replacing him is **Jen Ulrich**, a 2002 Behrend alumus, who earned her MS degree from Texas A&M. Also hired this year is **Jamie Henderson**, who taught mathematics and philosophy at the University of Pittsburgh at Titusville for over 20 years before coming to Penn State. **Dave Falvo** celebrated 25 years of service at Behrend this month.

**Papiya Bhattacharjee** had a very productive year. She was invited to the University of South Africa (UNISA) in May where she visited for 4 weeks, collaborated with professors from UNISA, and submitted an article to a peer-reviewed journal. She was also invited to Chapman University in July where she visited for 3 weeks, collaborated with CECAT members, and submitted two articles to peer-reviewed journals. Most recently, she organized the MAA Allegheny Mountain Section NExT Fall workshop at Behrend. She conducted undergraduate research this year with 6 students; 2 of them presented their research work at the MAA Allegheny Mountain Section spring meeting, and 2 students presented at MathFest.

Twenty-six students were inducted in the Behrend Chapter of Pi Mu Epsilon, which is a national mathematics honorary society. This brings the Behrend Chapter membership to 59 students and 6 faculty members.

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## Penn State University Greater Allegheny Campus

We have hired **Dr. Kuei-Nuan Lin** as a new tenure-track assistant professor of mathematics at Penn State University Greater Allegheny Campus since July 2014. Dr. Lin got her Ph. D in mathematics from Purdue University under Professor Bernd Ulrich. Before coming to Penn State, Dr. Lin was a visiting assistant professor at Smith College and University of California-Riverside. Her area of research is Commutative Algebra with connections to Algebraic Geometry and Combinatorics.

**Professor Zhibo Chen** successfully completed his sabbatical at Xiamen University of China and came back to campus in early January 2014. He published 2 articles in 2014:

“A Pascal-like triangles from finding power sums”, *International Journal of Mathematical Education in Science and Technology*, 45 (6) (2014) 932-938.

“Ramsey Numbers, Graph Eigenvalues, and a Conjecture of Cao and Yuan”, in *Linear Algebra and Its Applications*, 458 (1) (2014) 526–533.

The second paper is his joint research paper with Professor Fuji Zhang during his sabbatical at Xiamen University.

## University of Pittsburgh

**Dr. Jeffrey Wheeler**, Lecturer in the Kenneth P. Dietrich School of Arts and Sciences reports:

This fall I organized and chaired an Undergraduate Mathematics Seminar, which has as its goal the presentation of topics accessible to undergraduates. Junior mathematics major **Derek**

**Orr** presented the Frobenius Coin Problem and offered a proof of his own of the coin problem for  $n=2$  (the problem is still open for 3 or more coins). Graduate student **Torrey Gallagher** recently presented on divergent Series.

This spring the University of Pittsburgh's Mathematics department will offer Math 1103 - Mathematical Problems in Business, Industry, and Government. Dr. Wheeler designed and will teach this course, which is one of 30 accepted nationally into the MAA's pilot PIC Math program (Preparation for Industrial Careers in the Mathematical Sciences - see

<http://www.maa.org/programs/students/undergraduate-research/pic-math-preparation-for-industrial-careers-in-mathematical-sciences>

for details). Students will team together to address problems obtained from Business, Industry, and Government. As part of the program, each team will be required to give a presentation, which will be recorded and submitted to the MAA for judging. PIC Math would like students to attend the MAA's national meeting MathFest 2015, which will be held August 5-8, 2015 in Washington, DC.

Last Spring Dr. Wheeler supervised junior Mathematics major **Jourdain Lamperski** in an independent study exploring Szemerédi's Regularity Lemma. Jourdain gave a presentation of the Regularity Lemma to Pitt's Math Club. He also presented a poster on it at last spring's Erdos Memorial Lecture Series at the University of Memphis.

Last Spring Dr. Wheeler organized an “Interviewing Seminar” for mathematics students as they sought jobs. The seminar and its participants will take place again in Spring 2015.

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### Washington & Jefferson College

**Dr. Faun Doherty** was granted tenure and **Dr. Jeannette Kline** was promoted to full Professor this past May. **Dr. Ryan Higginbottom** is diligently preparing for the upcoming 2015 MAA Allegheny Mountain Section spring meeting at W&J.

### Wheeling Jesuit University

**Ted Erickson** announced that he will retire at the end of the 2014-15 academic year, after 35 years at WJU. **Nate Mays** left WJU after the 2013-2014 academic year to take a job in industry.

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## Highlights of the Spring 2014 Section Meeting

The Spring 2014 Section Meeting was April 4-5, 2014 at Westminster College. With a total attendance of 217 participants, there were 24 student talks and 25 faculty talks.

Congratulations to Pam Richardson, Natacha Fontes-Merz, and the rest of the faculty and staff at Westminster for a successful and expertly organized meeting!

The invited speakers were Drs. Frank Farris of Santa Clara University, Colm Mulcahy from Spelman College, and Robin Lock from St. Lawrence University. Dr. Farris's talk "Polyhedral Symmetry in the Plane?" presented his most recent work in this area, combining mathematics with beautiful images of food. Dr. Mulcahy's talk "Martin Garner: Man of Mathematics, Magic, & Mystery" gave us a sneak preview of the 2014 Mathematics Awareness Month multimedia activities and an engaging survey of Martin Gardner's achievements. Dr. Mulcahy also led the Section NEXt workshop on the same topic. Robin Lock's "Statistical Inference Using Scrambles and

Bootstraps" provided inspiration and ideas for elementary statistics courses.

Tim Flowers of IUP presented an introductory WeBWork workshop, and the Student Problem-Solving Competition drew a large crowd, as usual.

Our section's annual awards were announced at the Friday night banquet. The winner of the Section's Teaching Award was Richard White of Edinboro University. Mike Berry of West Virginia Wesleyan College won the Service award. Patrick Kelly of Mercyhurst University earned the Outstanding Mentor Award.

The next Section Meeting is April 10-11, 2015 at Washington & Jefferson College in Washington, PA. We hope to see you there!!

## Call for Nominations

### Section Awards

The section gives out three awards at the annual meeting. These are the Service, Mentor, and Teaching Awards. Nominations for these awards will be accepted until early-March. Below is the criterion for each award. Please consider nominating your colleagues and honoring their hard work.

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The criterion for the annual Allegheny Mountain Section Service Award is a consistent record of excellent 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, serving 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 organization.

The section announces the winner of this award each year at its annual meeting in the spring. Recent recipients of the award include:

2014: **Michael Berry**, West Virginia Wesleyan College  
 2013: **James Sellers**, Penn State University  
 2012: **Robert Vallin**, Slippery Rock University

The service award selection committee consists of Pam Wovchko (West Virginia Wesleyan College), Papiya Bhattacharjee (Penn State Behrend), and John Bukowski (Juniata College). Please send your nomination, with a description of how the nominee meets the criterion, by March 1, 2015 to:

Pam Wovchko  
 Dept. of Mathematics and Computer Science  
 West Virginia Wesleyan College  
 59 College Avenue  
 Buckhannon, WV 26201  
[wovchko\\_p@wwvc.edu](mailto:wovchko_p@wwvc.edu)  
 (304) 473-8310

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The Allegheny Mountain Section of the MAA seeks nominations for the annual Distinguished Faculty Mentor of Undergraduate Mathematics Students Award. Awardees 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.

Recent recipients of the award include:

2014: **Patrick Kelly**, Mercyhurst University  
 2013: **Jackie Jensen**, Slippery Rock University  
 2012: **Stacey Levine**, Duquesne University

The mentor award selection committee consists of Pat Kelly (Mercyhurst University), Duane Farnsworth (Clarion University), and Daniel Shifflet (Clarion University). Please send your nomination, with a description of how the nominee meets the criterion, by March 1, 2015 to:

Pat Kelly  
 Mathematics and Computer Systems Dept.  
 Mercyhurst University  
 501 East 38<sup>th</sup> Street  
 Zurn 313A  
 Erie, PA 16335  
[pkelly@mercyhurst.edu](mailto:pkelly@mercyhurst.edu)  
 (814) 824-2174





## Call for Nominations

### Section Awards (continued)

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Nominations for the 2015 Allegheny Mountain Section Award for Distinguished College or University Teaching of Mathematics are now being solicited. The criterion for nomination for the teaching award is on the section website at [http://sections.maa.org/allegheny/teachingaward\\_call.htm](http://sections.maa.org/allegheny/teachingaward_call.htm).

Each year, the Allegheny Mountain Section of the MAA recognizes one of its own for Distinguished College or University Teaching of Mathematics. The awardee is honored at the spring meeting of the Allegheny Mountain Section and is widely recognized and acknowledged within the Section. The winner will also be nominated for the national MAA Deborah and Franklin Tepper Haimo Awards for College or University Teaching of Mathematics.

Anyone is entitled to make a nomination, although self-nomination is not permitted. Even if not selected this year, completed nominations are held for three years with the permission of the nominator's.

Former recipients of the award include:

2014 **Richard White**, Edinboro University of Pennsylvania  
 2013 **David Miller**, West Virginia University  
 2012 **Rick Brazier**, Penn State Dubois

The teaching award selection committee consists of Richard White (Edinboro University), Shelly Bouchat (Indiana University of Pennsylvania), and Janet Harding (Washington & Jefferson College). Please send your nomination, with a description of how the nominee meets the criterion, by March 1, 2015 to:

Richard White  
 Mathematics and Computer Science Dept.  
 Edinboro University  
 220 Scotland Road  
 Ross Hall 151  
 Edinboro, PA 16444  
 (814) 732-1188

### Section Executive Committee

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At the Spring 2015 Section Meeting at Washington & Jefferson College, the members of the Section will elect the **Second Vice-Chair, Newsletter Editor, Treasurer, and Coordinator of Student Programs**. Descriptions of the responsibilities of these positions can be found in this newsletter.

We welcome nominations for these positions. Please consider nominating a colleague or even yourself. Please send your nominations to one of the following members of the Nominating Committee:

Kim Roth (Chair), Juniata College  
 roth@juniata.edu  
 (814) 641-3593

Faun Doherty, Washington & Jefferson College  
[fdoherty@washjeff.edu](mailto:fdoherty@washjeff.edu)  
 (724) 503-1001 ext:6178

David Miller, West Virginia University  
 millerd@math.wvu.edu  
 (304) 293-2011 ext:2323

The deadline for nominations is January 23, 2015. Nominations will also be taken from the floor at the Business Meeting in April.

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## Description of Open Executive Committee Positions

### **Second Vice-Chair/First 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.

### **Treasurer**

The Treasurer keeps all the financial accounts and records of the Section. The Treasurer receives all money paid into the Section and deposits it in the Section's bank account. The Treasurer also pays all bills of the Section out of the Section's funds and files the Annual Financial Reports and other requested reports with the MAA Director of Finance. The Treasurer has additional responsibilities with regard to the Spring Section Meeting, including organizing the MAA book and merchandise sale, contacting book company representatives for donations, preparing meeting folders and name tags, and collecting registration information to be used for the Annual Section Report. Most of the work occurs right before and after Executive Committee Meetings with

the largest amount being before and during 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, typically 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.

### **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 breakout session. The Coordinator collects the student talk registrations (submitted by e-mail), coordinates with the host institution, schedules times and rooms, finds moderators for student talks and also prepares the abstracts of student talks. The break-out session has recently been a student problem-solving competition, but it has previously consisted of panels and talks on REUs, mathematics competitions, and careers in mathematics. 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.

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### All Section Officers

All section officers are expected to participate in three Executive Committee Meetings each year. The Spring meeting is held at the Spring Section Meeting, usually in April. The Summer meeting is usually held in June, and the Fall meeting is usually held in October. Section officers are also expected to attend the Business Meeting held at the Spring Section Meeting. Section officers often serve the Section in other ways, 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.

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# MAA

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#### Interim Newsletter Editor

Dr. Tamara Lakins

Allegheny College

tlakins@allegheny.edu

#### Upcoming Allegheny Mountain Section Meetings:

April 1-2, 2016 at Gannon University

2017 Duquesne University

2018 Penn State Erie, the Behrend College

*If your school is interested in hosting a Section meeting, please contact Pam Wovchko ([wovchko\\_p@wwc.edu](mailto:wovchko_p@wwc.edu)) for more information.*