Spring 2009

Allegheny Mountain Section of the Mathematical Association of America

Allegheny Mountain Newsletter

Spring Section Meeting!

This year's Section Meeting is being held <u>April 3-4</u> on the lovely campus of <u>Wheeling Jesuit University</u>. As usual, we have a marvelous array of invited speakers as well as opportunities for members and students to give talks, participate in events, and just enjoy mathematics.

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Look inside for more details. The deadline for registering is <u>March 27</u>, which is also the deadline for submitting a talk. Special lodging rates require a hotel reservation by <u>March 20</u>.



Wheeling Jesuit University



John Thompson of Pitt-Johnstown, Section Chair

From the Chair: John Thompson, University of Pittsburgh-Johnstown

Greetings from the University of Pittsburgh at Johnstown. I hope the semester is going well for you. As I eagerly anticipate spring break, I am also looking forward to this spring's Annual Section Meeting at Wheeling Jesuit University on April 3-4. The invited speakers have been confirmed and we are looking forward to an excellent program. We are anticipating excellent invited talks from Colin Adams of Williams College, Tom Hull of Western New England College and Betty Mayfield from Hood College. There will be sessions for student talks as well as faculty talks. Additionally, a problem session (with prizes!) specifically for students is being planned. For more detailed information, visit the Section website http://www.math.psu.edu/sellersj/alleghenymtn/annual_meeting_2009/meeting2009.htm. Wheeling Jesuit is a very nice campus and easily accessible via automobile. So, mark your calendar for April 3-4, bring your students, and plan to participate in the meeting. I look forward to seeing you there!

<u>Section NExT at the Spring Meeting</u> John Bukowski, Juniata College

Allegheny Mountain Section NExT is our local version of Project NExT (New Experiences in Teaching), an MAA program for new or recent Ph.D.'s in the mathematical sciences. We have one of the more active Section NExT programs in the MAA, and we are lucky to receive a great deal of support from our Section and its members. We are very excited about the upcoming Spring Workshop, to be held in conjunction with the section meeting at Wheeling Jesuit University.

We are thrilled to have Tom Hull of Western New England College presenting his popular "Origami Geometry Workshop" on the afternoon of Friday, April 3, before the opening talk of the section meeting. Among other things, participants will fold a modular icosahedron in honor of the MAA! Due to the "hands-on" nature of this workshop, we must limit the size of the group to 30 people and restrict participation to Section NExT Fellows.

Be sure to check the Section NExT website, <u>http://faculty.juniata.edu/</u> <u>bukowski/next</u>, for more details regarding this workshop.

Questions and suggestions regarding Section NExT should be directed to John Bukowski (bukowski@juniata.edu) or

Tami Lakins (<u>tlakins@allegheny.edu</u>).



Section NExT Workshop speaker **Tom Hull** of Western New England College

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From the Governor: James Sellers, Penn State University

Greetings! I hope that all of you are enjoying the spring semester. Is anyone else looking forward to Spring Break?!?

I truly enjoyed the MAA Board of Governors meeting at the Joint Meetings in January. I was again impressed with the reports shared by the organization's financial leadership. As I shared in my last letter to you, the MAA has made a wealth of information available to MAA members at http://www.maa.org/ treasurer/. It was also a real pleasure to take part in a number of other activities while at

the Joint Meetings, including serving on a James Sellers of Penn Project NExT panel centered around the State Section Governor topic of math clubs, taking part in a focus

group for Directors of Undergraduate Mathematics sponsored by the AMS, attending my other MAA committee meetings (CUPM and the Committee on Web Policy), hearing some great talks, and "networking" with numerous people.

I continue to be impressed with the MAA's desire to adapt and improve its services for members, as well as working hard to improve technologically. The MAA's choice to move the 2009 national elections to an electronic format is one such example of adaptation. Another can be seen via the MathFest and Joint Meeting wikis which contain a wealth of up-to-date information for those attending the national meetings. I am also personally thrilled to know that the MAA has updated its search engine on http://www.maa.org; if you have not tried to search for a webpage at the national website in a while, I would encourage you to do so once again.

Our section's next annual meeting will be held April 3-4 at Wheeling Jesuit University in Wheeling, WV. I hope you will make every effort to attend. It promises to be a great meeting. Check out our section's website at http://www.maa.org/alleghenymtn for information about the meeting. The plenary speakers include Colin Adams, Tom Hull, and Betty Mayfield. Please consider attending and bring a colleague or some students from your institution. Also encourage a student to give a student talk, or plan to give a talk yourself.



I know that most of you are probably not thinking about the summer (except if you are tired of the cold weather!). But I want to encourage you to think about attending the MAA MathFest in Portland, Oregon this year. The meeting will be held August 6-8, 2009. For many years, I did not attend the MathFest meetings on a regular basis. But I have really enjoyed doing so for the last few years. I find the meetings truly invigorating, especially just before the beginning of the fall semester each year. As an added bonus, a number of colleagues from the Allegheny Mountain Section have begun to meet for dinner one night at MathFest. This is a tradition that I would

really like to see grow. If you would like to join us for dinner, then consider yourself invited! Just send me an email message to let me know of your interest.

One of my primary goals as governor of the section is to consistently remind you to get involved in a significant way in the MAA, whether at the sectional or national level. I mentioned numerous ways you might do this in my previous letter. Please allow me to focus on a new idea today. Not only do you have the opportunity to nominate colleagues for three separate awards in our section, but you can also nominate colleagues for the MAA's Alder Awards. The Alder Awards are very new (with the first ones given in 2004). They are meant to "honor beginning college or university faculty whose teaching has been extraordinarily successful and whose effectiveness in teaching undergraduate mathematics is shown to have influence beyond their own classrooms." The focus here is on "beginning" since an "awardee must have taught full time in a mathematical science in the United States or Canada for at least two, but not more than seven, years since receiving the Ph.D." Nominating a colleague would be a great way to encourage one of the newer members of your department! More information on the Alder Award can be found at http://www.maa.org/ Awards/alder.html.

As always, if I can be of assistance to you in any way, please feel free to contact me at sellersj@math.psu.edu. I look forward to seeing you at the meeting in Wheeling, WV!

Allegheny Mountain Section Service Award: Call for Nominations

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 organization. George Bradley serves as Chair of the Service Award Committee. Any member of the Section is welcome to forward nominations to him by March 15, 2009. His contact information is as follows:

George Bradley

Department of Mathematics Duquesne University Pittsburgh, PA 15282

or bradley@duq.edu

Allegheny Mountain Section Mentor Award: Call for Nominations

Since the year 2000 the Allegheny Mountain Section of the MAA has awarded the Distinguished Faculty Mentor of Undergraduate Mathematics Students Award. We are soliciting nominations for this award from now through <u>March 20, 2009</u>. 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 criteria to:

Lyn Miller

Department of Mathematics Slippery Rock University 229 Vincent Science Hall Slippery Rock, PA 16057-9989

or lyn.miller@sru.edu

Tentative Schedule for Spring 2009 Section Meeting

Friday, April 3

11:30-12:30	Section officers meeting
12:30	Section NExT Lunch
1:00-3:30	Section NExT workshop
2:00-5:00	Registration
3:45-4:00	Welcome from Wheeling Jesuit University
4:00-5:00	Invited Address: Colin Adams, Williams College
5:15-6:30	Dinner and Awards
6:30-7:15	Student Problem Competition
7:00-8:30	Book Exhibits
7:30-9:30	Student Talks
9:30-??	Pizza Party

Saturday, April 4

7:30-8:45	Breakfast
8:00-8:45	Business Meeting
8:00-9:00	Registration
9:00-10:00	Invited Address: Tom Hull, Western New England College
9:30-12:00	Book Exhibit
10:15-11:25	Faculty Talks
11:45-12:45	Invited Address: Betty Mayfield, Hood College
12:45	Closing Remark

Be sure to check the Section webpage at <u>http://www.math.psu.edu/sellersj/</u><u>alleghenymtn</u> for locations and changes to information as they occur.

Invited Speakers for the Spring Section Meeting

Colin Adams, Williams College

- Talk Title: Blown Away: What Knot To Do When Sailing
- Abstract: This talk will be given by Sir Randolph Bacon III, cousin-in-law to Colin Adams (or is it just Colin in disguise?!?!). Being a tale of adventure on the high seas involving great risk to the tale teller, and how an understanding of the mathematical theory of knots saved his bacon. No nautical or mathematical background assumed.

Tom Hull, Western New England College

- Talk Title: Origami Math and its Increasing Intersections
- Abstract: Mathematical studies of origami (paper folding) have been enjoying growing attention over the past 7 years. Computational folding problems have found applications in protein folding, and engineering fields from nanotechnology to solar panels in outer space have turned to origami for assistance. Such attention had led to a deeper understanding of the various ways in which paper folding can be modeled mathematically. One surprise has been the sheer number of different branches of math that can be applied to origami. From geometry to abstract algebra to number theory to combinatorics, origami seems to crimp its way into everything. This talk will present a survey of the diverse field that is origami mathematics, with particular attention placed on recent discoveries of both old and new connections.

Betty Mayfield, Hood College

- Talk Title: Women & Mathematics in the Time of Euler
- Abstract: In 2007, mathematicians around the world focused on All Things Euler: his life, his work, his legacy. We were treated to special conferences, books, papers, posters, a study tour, and sessions at national meetings. We will examine a slightly different topic: female contemporaries of Leonhard Euler (1707 - 1783), some famous, some not so famous. We will look at their lives and their work, at mathematics that was written by and - surprisingly - for women in the time of Euler. This talk grew out of an experimental summer research project with a group of undergraduate students in the history of mathematics.

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At the business meeting during the section meeting we will elect four officers: Treasurer, Coordinator of Student Programs, Newsletter Editor and Second Vice Chair. The nominating committee has put forth the following names and we remind all section members that nominations can be made from the floor at the business meeting as well. The nominating committee consisted of Yu-Ju Kuo from IUP, John Bukowski from Juniata College, and Kim Roth from Juniata College.

Lyn Miller is stepping down from her service for two terms as newsletter editor. We thank her for her service.

Treasurer: Ben Freed, Clarion University

Ben Freed served as Secretary/Treasurer of the Section from 2001 until 2006; since then he has continued on as Treasurer. He earned his Ph.D. in geometric topology from Kent State University in 1975 and is currently interested in statistics. Ben has also served as Second and First Vice-Chair of the section.

Coordinator of Student Programs: Natacha Fontes-Merz, Westminster College

Natacha Fontes-Merz earned her Ph.D. in approximation theory and analysis from Kent State University in 2004 and since then has been Assistant Professor of Mathematics at Westminster College. She is a 2005-2006 national Project NExT fellow, has participated in the Allegheny Mountain Section NExT since 2004, and is currently the Coordinator for Student Activities of the Section.

Newsletter Editor: Marc Brodie, Wheeling Jesuit University

The long, arduous path that led Marc to his Associate Professorship Wheeling Jesuit University is of no interest to anyone but the most obsessive historian. Suffice it to say that he has just three-peated as a tenured faculty member, has a non-zero number of professional publications, and upon accepting the position of Newsletter Editor for the Allegheny Mountain Section of the MAA, will reach the pinnacle of his career.

Second Vice Chair:

Pam Wovchko, West Virginia Wesleyan College

Dr. Pam (Miltenberger) Wovchko is currently an assistant professor of mathematics at West Virginia Wesleyan College. She received her bachelors and masters degrees in mathematics from WVWC and West Virginia University respectively, and she earned her Ph.D. in educational mathematics from the University of Northern Colorado in 2002.

John Tolle, Penn State DuBois

John Tolle earned a Ph.D. from the University of Kentucky in 1996 in the area of partial differential equations. He was a Lecturer in the Mathematical Sciences Department at Carnegie Mellon University for 12 years, and in Fall 2008 joined the Mathematics and Geosciences Department at Penn State Du-Bois. He loves to attend the MAA section meetings and soak up student and faculty talks, and has given talks at the meetings for four years in a row. At Penn State DuBois he is organizing a brand new Applied Mathematics Colloquium with invited speakers from western Pennsylvania colleges and universities. He has written papers with undergraduates in differential equations and voting theory, and also has a very strong interest in mathematics pedagogy. His father recently bought him a copy of Newton's Principia, and John would like to be able to claim he's read it.

Allegheny Mountain Section Mathematical Association of America **Annual Spring Meeting -** <u>Talk Information Form</u> (online at http://www.math.psu.edu/sellersi/alleghenymtn/annual meeting 2009/talkreg.htm)

Note: All contributed talks are 15 minutes in length.

Mark the appropriate blank:	I am	a student	faculty.	
Name:				
Institution:				
Email Address:				
Mailing Address:				
Title of Talk:				

Abstract of Talk: (Please attach separately if needed.)

Equipment Needs — Please read carefully: Note that each room is equipped with whiteboard and a projector which displays the output of an <u>attached</u> MS Windows computer. In addition, there is a port where the output from a laptop can be connected to the projector. The computers in each room have PowerPoint software, the Internet Explorer web-browser, USB ports, and CD-ROM drives. It may be wise to bring one's talk on a jump drive/USB drive if possible. Overhead projectors, VCRs, etc., may be available with advance notification, but this is not guaranteed. If you request additional technology or software, please provide a <u>clear and comprehensive list</u> of your needs; attach separately if needed.

Mail student Talk Information Forms to:

Natacha Fontes-Merz Department of Mathematics and Computer Science Westminster College New Wilmington, PA 16172

Mail *faculty* Talk Information Forms to:

Kimberly Burch Mathematics Department Indiana University of Pennsylvania 210 S. Tenth St. Indiana, PA 15705

Talk Information Forms must be received by March 27, 2009.

Allegheny Mountain Section Mathematical Association of America Annual Spring Meeting – <u>Registration Form</u>

(online at http://www.math.psu.edu/sellersj/alleghenymtn/annual_meeting_2009/meetreg_start.htm)

Name:
Institution:
Email Address:
Mailing Address:

Registration Category (check one): (Faculty members, please select based on the **highest mathematics degree** offered at your institution.)

Regular Registration (\$25.00)	"New Person" Registration (free) *	
Faculty, Associate's Offered	Faculty, Associate's Offered	
Faculty, Bachelor's Offered	Faculty, Bachelor's Offered	
Faculty, Master's Offered	Faculty, Master's Offered	
Faculty, Doctorate Offered	Faculty, Doctorate Offered	
Business, Industry, or Government	Business, Industry, or Government	
High School Teacher	High School Teacher	
Special Registration (free)	* - A "new person" is defined as someone who, as of this	
Undergraduate Student	academic year, is either a new member of the MAA or	
Graduate Student	is a member of the MAA who is new to the Allegheny	
Retired	Mountain Section.	
MAA member?	yesno	
Optional Contribution supporting Section NEx	xT program?yes (\$5)no	_yes (\$10)
Friday Evening Dinner?	yes (\$20)no	
Saturday Breakfast?	yes (\$9)no	

Additional Information (such as whether you are bringing a guest to meals):

Checks should be made payable to *Allegheny Mountain Section, MAA*, and sent with this form to: <u>Ben Freed, Mathematics Department, 840 Wood St., Clarion University, Clarion, PA 16214</u>.

Deadline for receipt of registration forms: March 27, 2009

Allegheny Mountain Section of the Mathematical Association of America

Lyn Miller, Editor Department of Mathematics Slippery Rock University Slippery Rock, PA 16057



Local Arrangements for the Spring Section Meeting:

Driving Information:

Driving directions to Wheeling Jesuit University can be found on the University's web site at http://www.wju.edu/about/directions_tour.asp .

Hotel Information:

Thirty (30) rooms have been guaranteed at the Hampton Inn in Wheeling. The rates (if you say you're with the MAA sectional meeting) are \$98.10 Single/\$102.66 Double. The direct phone number is 304-233-0440. The hotel is at Exit 2A off interstate I-70, and includes continental breakfast and complimentary high-speed Internet access. The website for this hotel is: http://hamptoninn.hilton.com/en/hp/hotels/ index.jhtml;jsessionid=INAGRXPPXLWS4CSGBIUMVCQ?ctyhocn=WHEWVHX

This Hampton Inn is located just 1-2 miles from the Wheeling Jesuit University campus.

Note: The deadline for receiving this special group rate is March 20, 2009.