



ALLEGHENY MOUNTAIN SECTION NEWSLETTER

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DAVE WELLS, EDITOR

Please share this newsletter with colleagues, and encourage them to join MAA. If you have received a copy as a department chair, please place it where it will be accessible to your faculty.

Governor's Report

Tom Keagy, Duquesne University

First, I would like to express my appreciation to the members of the Allegheny Mountain Section for the confidence you have shown in electing me to represent you on the national level over the next three years. Second, on behalf of the entire Section, I extend our heartfelt thanks to our retiring Governor, George Bradley, for his dedicated service to the Section and the national MAA. He ably followed in the proud tradition of past Governors of our Section.

My first responsibility as Governor was to attend the 2002 MathFest Board of Governors meeting in Burlington, Vermont on July 31. Having been a member of the MAA for approximately thirty years, I was confident that I had a basic understanding of the activities of the organization. After reviewing the more than one hundred pages of documents that comprised the agenda and relevant attachments, I began to realize how limited that knowledge actually was.

During the 8+ hour meeting of the Board, I was reminded of my first experience with the New York subway system. I can still vividly recall standing on the platform as a train came roaring into the station. I tried to look in through the car windows to see the people inside, but they all appeared as one big blur passing me by.

Finally, the train screeched to a halt, and I had the opportunity to step aboard.

The activities of the MAA are so diverse that it requires approximately 130 volunteer committees and a paid staff of more than thirty to oversee all the work. Some of these groups, such as the Committee on Sections, deal with activities that for many years have been at the heart of the MAA mission. Others are focusing on exciting new opportunities for the organization. All committees welcome new members on a regular rotation, and I encourage you to consider volunteering to join one that interests you. [You can view the full list of committees at www.maa.org. Send me the names of which committees are attractive to you and a very brief list of any experience you may have related to the committee activities. My email address is keagy@duq.edu].

Several relatively new MAA ventures have expanded the outreach of the organization. Four special interest groups (SIGMAA's) have been established: Research in Undergraduate Mathematics Education; Statistics Education; Business, Industry, and Government; and History of Mathematics. Each of these groups is in the process of establishing policies and creating opportunities for interested persons to participate in special sessions devoted to these topics. If any of the topics is of

particular interest to you, I encourage you to consider joining the appropriate SIGMAA.

The Mathematical Sciences Digital Library (MathDL) is now in its second year. Made possible through a grant from the National Science Foundation, MathDL consists of three web-related components. The library of commercial products lists all types of commercially available learning materials in the mathematical sciences and their applications. The library of online materials is a collection of online resources in mathematics and its applications. The Journal of Online Mathematics and its Applications (JOMA) is a new MAA publication.

The MAA continues to monitor several disturbing trends in staffing collegiate mathematics departments. The Conference Board of the Mathematical Sciences (CBMS) 2000 Survey provides a clear picture of the decline in the number of tenured and tenure-eligible faculty in the mathematical sciences. A resolution passed by the Board of Governors points to standards already approved in the MAA Departmental Guidelines and calls for careful monitoring of future CBMS survey information on this matter.

Finally, the health of the MAA as reflected through its membership and financial stability continues to be excellent. The organization received a clean audit report reflecting its good overall financial position and good liquidity. John Kenelly, newly appointed Treasurer of the MAA has made three observations about the future. First, the financial structure of the MAA is such that its primary income source is through dues. Expansion of services to members will probably require finding new revenue streams. Second, the organization needs to work toward building its "rainy day" reserves. The economic downturn following 9/11 was successfully met by the organization, but the experience of the past year has focused more attention on this issue. Third, the MAA endowment falls short of accepted standards for an

organization of its type and will thus initiate a program to expand this resource.

I look forward to representing the Allegheny Mountain Section as governor. If you have any questions about issues related to the national organization, please contact me. The basic truth remains the same: the strength of the MAA comes through its section activity. Your section officers are working hard to plan an exciting spring meeting with excellent speakers. Please plan to join us in Dubois.

Message from the Chair

John Zhang, IUP

The 2002 summer was very rewarding for me. I went to five conferences. At the end of the spring semester, I visited Shanghai Normal University. After that, I attended the 6th International Conference on the Teaching of Statistics (ICOTS-6) at Cape Town, South Africa. In August, I attended the MAA summer meeting at Burlington, organized a session on statistical consultancy for the Annual Statistical Conference at New York, and finally went to Beijing for the Mathematics Congress.

I like going to different meetings because I can generate teaching and research ideas by presenting my works and seeing other people's presentations. I traveled far to some of these meetings, but the one I love the most is still our section's spring meeting. To me, our section's spring meeting is always stimulating, interesting, and best of all, it is just around the corner. Many of our colleagues have been working hard to bring you another successful spring meeting. So, please pencil it in your calendar: April 4-5 2003. Your 2003 section spring meeting will be at Wesleyan College in West Virginia.

Your section is continuing to organize different activities throughout the year. In the summer, Don Platte and Ron Harrell organized a short course on Computational Number Theory at Allegheny College, lectured by Stan Wagon. The attendance of this year's short course

was lower than last year. We are in the process of picking a topic and lecturer(s) for next year's short course. I encourage you and your friends' input and future participation.

Thanks to the excellent work of Tami Lakins, Barbara Faires, and Beverly Michael, our section NExT project is going strong. They just organized a meeting at the University of Pittsburgh. Please spread the word about our section NExT project and encourage your department's new faculty to participate.

James Sellers has picked up the responsibility as our section's E-communication director. I want to thank Francisco Alarcon, our previous E-communication director, for his long history of excellent service to our section in different capacities. James has updated our section web page. We will offer the option of online registration for this year's spring meeting thanks to James' effort. Please visit our page at

<http://www.math.psu.edu/sellersj/allegHENymtn>. If you have any suggestions on improving our page, please contact James at sellersj@math.psu.edu.

Last but not the least, your section gives three awards annually: the teaching award, the service award, and the mentor awards. We need your help to nominate candidates for these awards. We are working on putting application and nomination materials online. Please help us to make this year's competition a successful one.

Call for Nominations

At the 2003 Spring Meeting, the Section will need to fill the offices of Second Vice Chair, Director of Student Programs, Director of Short Courses, and Newsletter Editor. Nominations for these offices should be submitted to the Chair of the Nominating Committee, Tami Lakins (814-332-2957, tlakins@allegHENY.edu).

Distinguished Teaching Award

Michael Berry, WV Wesleyan College

Nominations for the 2003 Award for Distinguished College or University Mathematics Teacher of the year in the Allegheny Mountain Section are being solicited. A nomination form is included elsewhere in this newsletter.

The members of selection committee realize that it is a very busy time of the semester for all of us. However, we feel that there are individuals teaching in our section who are worthy of the nomination and urge you to take the time to make a nomination.

It is not necessary to submit a complete application at this time. We are soliciting names and a brief reason why you are nominating the individual. The initial submission can be made by e-mail. The complete nomination packet is due by January 15, 2003. If you have any questions or concerns, please contact Michael Berry (304-473-8330, berry@wvwc.edu).

Section Mentoring Award

Nominations for the 2003 Allegheny Mountain Section Mentoring Award are being solicited. Do you have a colleague who excels in mentoring students (involving students in research, supervising presentations at Section meetings, etc.)? Submit a letter describing his or her qualifications to Robert Vallin, Department of Mathematics, Slippery Rock University, Slippery Rock, PA 16057. Nominations should be received by March 7, 2003. Questions may be directed to Bob Vallin at 724-738-2856 or robert.vallin@sru.edu.

Section NExT

Barbara Faires, Westminster College

The fall workshop with Doug Ensley was held on Saturday, September 21, in the refurbished Mathematics lounge in Thackeray Hall at the University of Pittsburgh. Beverly Michael arranged for wonderful bagels and coffee and another outstanding lunch. Doug is professor of

mathematics at Shippensburg, is editor of the Digital Classroom Resources, and swerves on the Editorial Board for the MAA's Project Welcome. During the morning session, Doug talked about his discrete mathematics project for first year students and the threads: recursive thinking, mathematical proof, role of technology, research experience, abstraction and applications. We had fun with the Josephus problem as well as Doug's other ideas for motivating students to discover ideas for themselves. With twenty-one participants, we enjoyed a good exchange of ideas in both the morning and afternoon sessions. If you would like to learn more about Doug's project, check out his website www.ship.edu/~deensl

Plans for the Spring 2003 Section Meeting include a special NExT session on Friday afternoon, April 4, and this should be another winner! Professor Annalisa Crannell, Chair of the Department of Mathematics at Franklin and Marshall, will be the speaker. Annalisa's professional interests include mathematics and art, writing across the curriculum, and topological dynamics. While we do not have the topic for her session, you can see that her interests can lead to some good discussions; again, for more information see her website at www.fandm.edu.

NExT participants (including faculty new to the Section this fall) who were at the Pitt workshop are: Natasha Dobrinen (Penn State), Larry Downey (Penn State Erie), Joseph Santmyer (Bethany), Daniell Toth (Juniata), Japheth Wood (Chatham), Cathy Stenson (Juniata), John Bukowski (Juniata) John Thompson (Pitt Johnstown), Kim Roth (Wheeling Jesuit), Yu-Ju Kuo (IUP), Svenja Lowitzsch (WVU), John Lattanzio (IUP), Alex Lipecky (Duquesne), David Saunders (Pitt), Eddie Fuller (WVU), and Tami Lakins (Allegheny), who also organizes Section NExT events.

News from the Campuses

Alderson-Broaddus College

Nick Loudin

Dr. Marjorie Darrah resigned to pursue research interests.

Ms. Betsy Kuhn was appointed Assistant Professor of Mathematics.

Allegheny College

Steve Bowser

Tami Lakins and Ron Harrell are participating in the MAA's PREP Assessment Workshop. The workshop spans three conferences spread over a year and at Allegheny will result in changing the precalculus offerings. These new courses will have as part of their design an ongoing program to regularly assess their effectiveness. Our department is now designing the courses, which will begin in fall of 2003, and Tami and Ron are writing up the department's experience as a case study to be presented at the final PREP Workshop in January of 2003.

Allegheny College hosted a series of three talks given by Professor Steven Krantz of Washington University on October 3-5, 2001. The titles were "Buffon's Needle Problem and the Calculation of Pi", "Bertrand's Paradox and the Perils of Probability Theory", and "The Kakeya Needle Problem and Modern Issues in Fourier Analysis".

This year's guest speaker will be Professor Colin C. Adams of Williams College will give a series of three talks on January 22-24 2002. Titles and additions details will be provided in a future announcement.

Duquesne University

Tom Keagy

We welcome Alex Lipecky who joins our mathematics faculty this fall in a one year appointment at the rank of Instructor. He completed his master's degree at Virginia Tech University.

Jeff Jackson has received support from the National Science Foundation in the

amount of \$200, 567 for a three year grant entitled "RUI: Fourier Analysis of Learning Problems and Function Classes". The award includes support for undergraduate and graduate student research.

The department is also pleased to announce a \$27,500 grant from the Alcoa Foundation. The grant has two components. First (\$20,000), it continues support for a special program designed to interest high school minority and women students in considering careers involving technology. Second (\$7,500), it provides scholarship support for minority and women students enrolled in computational programs within our department. The grant period is for the 2002-2003 academic year.

Edinboro University of PA

Frank Marzano

New hires are Korey Kilburn, Charles Ramsey, and Matthew Piglowski (temporary), Corinne Schaeffer and John Onderko (tenure-track).

Anne Quinn has been promoted to Full Professor.

Marc Sylvester has earned a Ph.D.

Juniata College

John Bukowski

The Department of Mathematics and Computer Science is very pleased to welcome two new faculty members this year. Daniell Toth, Assistant Professor of Mathematics, received his Ph.D. this summer from Indiana University, in the field of mathematical finance. He joined our Section NExT at the April meeting, even before he began teaching at Juniata. John Wright (Juniata '93), Assistant Professor of Computer Science, received his M.S. from Villanova, and he brings nine years of experience in industry.

John Bukowski began a term as department chair, taking over from Sue Esch, who served as chair for the last four years. This summer John attended the MAA PREP workshop, "Leading the Academic Department: A Workshop for Chairs of Departments of Mathematical

Sciences," which he gives extremely positive reviews. He also attended Mathfest this summer, as did Cathy Stenson, who "graduated" from Project NExT at these meetings.

Last spring, Jerry Kruse, Loren Rhodes, and Bill Thomas attended SIGCSE in Northern Kentucky.

The department is excited to be introducing the new courses Discrete Structures (taught by Jerry Kruse) and Heart of Mathematics (taught by Cathy Stenson), and to be making some serious efforts to get students involved in Math Seminar and Research (also led by Cathy Stenson).

In February, a team of Juniata students (Jen Bergman, Doug Hogan, and Marty Schettler) entered the Mathematical Contest in Modeling for the first time, earning a Meritorious rating. Marty Schettler and Thera Crane presented a talk at the Moravian College Student Math Conference, also in February.

The department got the new year off to a good start with its opening Mathematics Colloquium. The speaker was James Sellers (PSU), who spoke with great enthusiasm on "A Search for Odd Nonunitary Abundant Numbers."

Penn State – DuBois

Bud Boman

Bud Boman has been granted tenure and promoted to Associate Professor. Professor Boman was invited to present at the International Conference on Structured Matrices in Hong Kong. The conference was jointly supported by the Chinese University of Hong Kong and the University of Hong Kong.

Rick Brazier presented a paper at the International Conference on Mathematical Geophysics in Italy. The conference was supported by NSF, the International Union of Geodesy and Geophysics, and the Institute for Scientific Interchange.

The campus will be searching for a tenure track Assistant Professor during the coming year.

Penn State – McKeesport

Zhibo Chen

Dr. Pinaki Das has accepted a position at Penn State Altoona this semester.

The search for a tenure track assistant professor will begin, probably around the end of this year or early next year.

Slippery Rock University

Bob Vallin

Leah Shilling (student) attended the SIMU Research Experience for Undergraduates at University of Puerto Rico, Humacao this summer. Scott Nickleach (student) won a \$150 prize for his presentation "Simplified Mastermind" at Mathfest this summer.

Mohammad Ismail was promoted to Full Professor.

Andrzej Szymanski is on sabbatical in Eastern Europe for the fall.

We have two temporaries: Tim Straney is back for a second year and Debbie Vallin for the fall.

We have a tenure track assistant/associate professor and temporary position search.

Bob Vallin presented *Preserving Lebesgue Spaces* at the Summer Symposium in Real Analysis in Lexington, VA. His paper *Newhouse Thickness and Porosity of Cantor Sets* appeared in the Real Analysis Exchange. Bob Buck's paper *Strong Monotone and Nested Normality* appeared in Topology Proceedings.

Gary Grabner and Elise Grabner attended the 2nd Japan-Mexico Joint Topology Conference in Matsue City, Japan and the Summer Topology Conference in Auckland, New Zealand. Their paper (with K. Miyazaki) *On Properties of Relative Metacompactness and Paracompactness* appeared in Topology Proceedings. Elise Grabner attended the annual CEPTA-PA at Millersville University. Lyn Miller attended the MAA PREP Workshop Teaching Future High School and Middle School Teachers at SUNY Potsdam in Potsdam, NY.

University of Pittsburgh – Johnstown

Michael Ferencak

Instructors Terry Shustrick and Jackie Baird attended the Second Summer Seminar on Mathematics Preparation of Elementary Teachers held at San Diego State University in June of 2002. The seminar was sponsored by the AASCU through an NSF grant. A five member team from the Division of Education, Mathematics and UPJ Administration submitted a proposal in December 2000. UPJ was one of 18 institutions nationwide selected to participate in the grant and attend sessions in 2001 and 2002. At this year's session, Shustrick and Baird presented the results of their work.

Associate Professor and Chair Stephan J. Curran attended the 2002 International Congress of Mathematicians in Beijing, China this past August 20-28. Dr. Curran presented a paper entitled "Enumeration of Hamilton paths in Caley digraphs."

Assistant Professor John W. Thompson (National NExT Brown Dot) continues to participate in the Section NExT project and attended both the Fall 2001 and Fall 2002 Allegheny Section NExT meetings at Pitt-Oakland. Dr. Thompson has a paper entitled "A family of harmonic mappings" under review by *Complex Variables: Theory and Applications*. For the second year, Dr. Thompson served as an AP Calculus Reader this summer at Colorado State University. Dr. Thompson, together with Anita Thompson (Part-time Instructor), also took several of our undergraduates to the Allegheny Section Spring Meeting in April at West Liberty State College.

Instructor Anita Thompson has led the UPJ Mathematics Alumni Project, gathering information on the careers upon which our former students have embarked. This currently consists of a centrally located billboard and in the future will be duplicated on the departmental web site. This has given our current and prospective math

majors many ideas about what they can do with a mathematics degree.

Assistant Professor Michael N. Ferencak had a joint paper with A.J.W. Hilton (U of Reading, UK) entitled "Outline and amalgamated triple systems of even index" appeared in the *Proceedings of the London Mathematical Society* in January 2002. Dr. Ferencak attended the 33rd Southeastern Conference on Combinatorics, Graph Theory and Computing, and presented a talk entitled "Pseudo-outline transitive triple systems". A second paper with Hilton, "Pseudo-outline transitive triple systems," appeared in *Congressus Numerantium* this year.

Assistant Professor of Mathematics Education Nina Girard completed her doctoral work at the University of Pittsburgh this summer. Her doctoral thesis entitled *Students' Representational Approaches to Solving Calculus Problems: Examining the Role of Graphing Calculators* investigated the use of multiple representations and the graphing calculator in solving limit and derivative problems and used data gathered in calculus classes at UPJ. These courses were taught using a multiple-representational-view-of-concepts model of instruction with integral use of the graphing calculator; an approach that has become more common in mathematics education at both collegiate and secondary levels. The results and conclusions of her study endorse the use of these instructional practices.

UPJ Mathematics has several new additions to our faculty to report. Joining the department this year as Assistant Professor is Dr. Carl Letsche (Ph.D. Indiana U.). Joining the department this year as a Visiting General Education Quantitative Reasoning Coordinator is Dawn Cable (M.A. U of Pittsburgh). Joining us for a second year as Visiting Instructor is Victoria Czarnek (M.S. VPI).

Upon approval from administration, the department hopes to again be filling at least two positions this year. Please watch for our ads and flyers.

Washington and Jefferson College

Dean Morrow

John Zimmerman joins the department as department chair this fall. His previous position was at Ohio University - Lancaster. After 12 years as department chair, Dean Morrow will return to regular faculty status.

Mike Woltermann has returned from his January and Spring sabbatical. Much of Mike's sabbatical time was spent developing a significant compendium of Geometer's Sketchpad activities for use in his courses Dynamic Geometry and Geometry and History of Mathematics.

Robert Gouirand will be on sabbatical during the January and Spring terms 2003. He will study the Microsoft applications platform .Net including Visual Basic .Net.

Westminster College

James Hall

Westminster's fall term colloquium series kicked off with presentations by three individuals and one duo on their summer internships. One CS major interned with the campus computing center, two CS majors worked for Professor David Shaffer's consulting firm (the Erie Plating Project), one math major did actuarial work for Buck Consultants, and one math major did oceanographic research at the University of Rhode Island.

Upcoming colloquium include "A Little Bit Off", to be presented by Bob Roos of Allegheny College at 7:00 pm on October 10, and "Strategies for Problem Solving", to be presented by Jacek Fabrykowski of Youngstown State University at 4:00 pm on November 21.

The department seeks to fill a tenure-track position in mathematics at the Assistant Professor level for the fall of 2003. Perhaps someone already in the Section may be interested or may know of a colleague coming into the area from elsewhere.

Carolyn Cuff had a busy summer grading AP Statistics exams and reading proposals for CCLI grants. As a leader at a robotics camp for girls she helped build and program robots out of Legos. Carolyn advises our KME chapter. She will chair a session on “Best Practices for Statistics” at the joint meetings in Baltimore.

Barbara Faires attended a summer conference on architecture and mathematics in Obidos, Portugal, as well as the Bridges Conference at Towson State. She continues to serve us by chairing the department ably and with style.

Warren Hickman attended a summer short course on game theory, presented by Phil Straffin (Beloit College) at the University of Dayton. Modeling conflict and the formation of coalitions were just two of the topics covered.

David Shaffer attended conferences on object-oriented programming, on Smalltalk, and on multimedia programming in CS education. He continued his consulting work in the electroplating industry.

As author or co-author, Terri Lennox will be presenting three papers this fall, two at the ISECON meeting in San Antonio and one at the American

Association for Artificial Intelligence fall symposium in North Falmouth, MA.

Jim Hall took a western trip that included, among other things, tutoring young inmates at the El Paso County jail. He also participated in MATHFest at the University of Vermont.

Versatile John Bonomo, computer scientist and mathematician, is teaching the department’s core introductory course in discrete analysis. Over the summer he joined Carolyn Cuff in reading NSF proposals.

West Virginia Wesleyan College

Mike Berry

Jeff Sykes has resigned his position at Wesleyan and has accepted a position at Ouichita Baptist University in Arkansas.

Prof. Michael Berry has been named Chair of the Department of Mathematics and Computer Science.

Dr. Pete McGill has been hired as Assistant Professor of Mathematics. He was at Occidental College in Los Angeles last year.

Hobart Corley has been hired for the current academic year as an adjunct instructor in mathematics.

Allegheny Mountain Section Officers, 2002-2003

Michael Berry, First Vice Chair, 304-473-8330, berry@wvwc.edu

George Bradley, Past Governor, 412-396-5115, bradley@duq.edu

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Ron Harrell, Short Course Co-Director, 814-332-5344, rharrell@allegheny.edu

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John (Jun-Lue) Zhang, Chair, 724-357-4601, 724-357-4530, zhang@iup.edu

MATHEMATICAL ASSOCIATION OF AMERICA

Awards for
Distinguished College or University Teaching of Mathematics

Nomination Form

Please type.

Nominee's Name (first name first): _____

College or University Affiliation: _____

College or University Address: _____

City: _____ State: _____ Zip: _____

Nominee's number of years teaching experience in a mathematical science: _____

Has the nominee taught at least half time in a mathematical science during the current academic year or during the previous year if on approved leave or sabbatical? _____

In the space below or on another page, please briefly describe the-unusual personal and professional qualities of the nominee that contribute to his or her extraordinary teaching success.

Name of nominator (first name first): _____

Address of nominator: _____

Telephone: _____ E-mail: _____

Nominator's Signature: _____

Send to: Selection Committee Chair
Michael L. Berry
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W. Va. Wesleyan College
Buckhannon, W. Va. 26201

Penn State University
New Kensington, PA 15068