



# ALLEGHENY MOUNTAIN SECTION NEWSLETTER

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VOLUME XXIV, NUMBER 2

October, 2001

DAVE WELLS, EDITOR

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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.

## Message from the Chair

John Zhang, IUP

Tom Keagy, our Section's Past Chair, warned me in his parting letter (Section Newsletter, Spring 2001) that I should be careful in assuming that being the Section Chair was an opportunity for me to give something back to the Section. Rather, he told me that both the Section and I would be more indebted to our colleagues for any givebacks that had accrued by the end of my two-year tenure. I know exactly what he meant after six months of being the Section Chair. I am already in debt to many people, members and Section officers, who have volunteered their time and worked diligently to serve our Section. They help me to learn the nuts and bolts of how to be a Section Chair. As a result of their hard work, the planning of the 2002 Spring Meeting is continuing smoothly and we are continuing our efforts to increase both membership and Spring Meeting participation.

The 2002 Spring Meeting will be held at West Liberty College in West Virginia. Although West Virginia is one of the three demographic areas making up our Section, this is the first time since 1994 that the Spring Meeting will be held in West Virginia. Having the Spring Meeting there is part of our effort to increase West Virginia's participation in our Section's activities. I extend a special invitation and

welcome to the folks in West Virginia. Come join us for an enjoyable meeting.

We have lined up three excellent keynote speakers: Woody Dudley, Joe Gallian (MAA-sponsored), and Kathy Heid for the 2002 spring meeting. We also organized two breakout sections: one on how to organize a vibrant student club/organization, and the other on the Section NExT experience, entitled "Capstone Experiences". Under the leadership of Tami Lakins, Barbara Faires, and Beverly Michael, our Section NExT project is among the best in the nation. It is important for us to support the newer mathematicians and math educators, and our Executive Committee has unanimously pledged financial support to the Section NExT project for the next five years.

We are continuing our efforts to increase membership and Spring Meeting participation. In particular, we are seeking ways to increase student participation and faculty membership from two-year colleges. We need everyone's help to accomplish this goal. If you have any ideas or suggestions, please send them to [zhang@grove.iup.edu](mailto:zhang@grove.iup.edu).

I am looking forward to see you again in April at West Liberty College.

## **Governor's Report**

George Bradley, Duquesne University

Madison in August proved to be very hot, steamy, and stormy. Still, MathFest was very enjoyable. Madison is a fascinating town, with many interesting shops and restaurants, particularly along State Street, which is now only for pedestrians. The Capitol Building is beautiful, as is the Frank Lloyd Wright designed Convention Center. More than 1000 mathematicians attended MathFest, making it one of the most popular summer meetings ever.

The U. S. team in the International Mathematical Olympiad came in tied for second with Russia. The team had two perfect scores and 4 gold medals. It was the best showing by a U. S. team ever. Since the competition was held in Washington, D. C., it was an extra-special triumph.

The New Orleans meeting had 5134 people in attendance, making it the best attended national meeting ever.

More students and schools competed in the American Mathematics Competitions than ever before. Still, a large number of schools do not have students competing. The Board of Governors urges schools that do not field teams to consider doing so. There are now competitions for eighth, tenth, and twelfth graders.

Ron Graham, Carl Cowen, and Joe Gallian will begin serving as President-Elect, First Vice President, and Second Vice President, respectively, of the MAA, starting after the January meetings.

Membership in the MAA is strong, and the organization is in good shape financially. The conversion to the TIMSS Association Management Software should be completed and was within budget.

Our Section NeXT is one of the largest, if not the largest, in the country. The national NeXT program is also thriving.

Project PREP, Professional Enhancement Programs, offered six programs this summer. The PREP

committee is looking for applicants to do other programs. Also, please keep a lookout for announcements about next year's programs. The six offered all received very positive reviews.

Many new books published by the MAA have been well received. Keep an eye out for them at section and national meetings, or check out the catalogue.

Please consider nominating someone for our section awards. Announcements about the teaching award and other awards are forthcoming, so when you see the announcements please respond.

I hope that many of you will be able to attend the January meeting in beautiful (and warm) San Diego, and MathFest 2002 in Burlington, VT. Two great locations, and lots of interesting programs at each one. I also look forward to an enjoyable Section Meeting in April.

### **Distinguished Teaching Award**

Michael Berry

West Virginia Wesleyan College

Nominations are being accepted for the 2001/2002 Allegheny Mountain Section Award for Distinguished College or University Teaching of Mathematics. Department Chairs and MAA Liaisons are especially encouraged to make a nomination. The Selection Committee will work with the nominator and the nominee's Department Chair to prepare a nomination packet. At this time we seek only nominees. A Selection Committee will choose one of the nominees to be honored at the 2002 Section meeting. The awardee will also become a candidate for one of three national MAA Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics. National award recipients will be recognized

at the January 2003 national MAA meeting and receive a \$1,000 honorarium.

Please help us to identify good candidates. You may nominate only members of the Allegheny Mountain Section of the MAA with at least five years of teaching experience. According to national criteria, awards are to be made to teachers of a mathematical science at the post-secondary level who are widely recognized as extraordinarily successful. Their teaching effectiveness must be documented and must have influence beyond their own institutions.

Complete guidelines and information are being sent to all Chairs and MAA representatives of departments in the mathematical sciences. You may request your own copy if necessary. Updates of past nominations are encouraged. Please get nominations to the Committee by December 1, 2001 in order to give us time to obtain a complete nomination packet. A preliminary nomination form can be found elsewhere in this newsletter. Send the nomination form (and/or direct questions) to the Selection Committee Chair, Michael Berry, West Virginia Wesleyan College, Box 93, Buckhannon, WV 26201 (304-473-8330, [berry@wwvc.edu](mailto:berry@wwvc.edu)).

### **Section NExT Program**

Tamara Lakins, Allegheny College

The Allegheny Mountain Section is accepting applications for a new class of Section NExT fellows. The Allegheny Mountain Section NExT program is an extension of the national MAA professional development program Project NExT. Section NExT is a program for full-time faculty with primary teaching responsibilities in a post-secondary mathematical sciences department who are interested in improving the teaching and learning of undergraduate mathematics. Participants are given access to resources that can help them adjust to institutional expectations in teaching, scholarship, and service. One of the primary strengths of the program is the establishment of a peer

support group that provides important contacts for beginning faculty.

The first activities of the 2002-04 class of Allegheny Mountain Section NExT fellows will take place at the annual Spring Meeting on April 5-6, 2002 at West Liberty State College. Special NExT sessions will take place before and during the section meeting, including "How to Get Undergraduates Involved in Research," conducted by Joe Gallian from University of Minnesota, Duluth. In addition to activities at this and next year's Spring Meeting, Section NExT fellows will also participate in a Saturday meeting in the early fall. Present and past national and section NExT fellows are also invited to participate in all Section NExT activities.

Full-time faculty who have completed fewer than four years of full-time teaching experience at the post-secondary level and have primary teaching responsibilities in a post-secondary mathematical sciences department are eligible to apply to participate in the program. Faculty from all types of institutions within the Section who satisfy these criteria are encouraged to complete and return the short application form. The form can be obtained at

<http://AlleghenyMountainMaa.org/sectionnext/> or by contacting Tamara Lakins. Modest financial support to attend the Spring 2002 Section Meeting may be available to those accepted in the program.

Applications should be returned by February 15, 2002. Questions regarding the Section program can be directed to any of:

Barbara Faires, Westminster College  
(724-946-7293, [fares@westminster.edu](mailto:fares@westminster.edu))  
Tamara Lakins, Allegheny College  
(814-332-2957, [tlakins@allegheny.edu](mailto:tlakins@allegheny.edu))  
Beverly Michael, University of Pittsburgh  
(412-624-8335, [bkm@pitt.edu](mailto:bkm@pitt.edu)).

### **Section Offices to be Filled**

At the Spring Meeting next April, members of the Section will elect officers to serve as Chair-elect, Secretary-Treasurer, and Second Vice Chair. Nominations for those offices are being solicited. Self-nominations are permitted. The Nominating Committee this year consists of Michael Berry, George Bradley (Chair), and Dick McDermot. Submit nominations to George (412-396-5115, [bradley@duq.edu](mailto:bradley@duq.edu)).

### **Section Short Course**

The Section's annual Short Course will be held at Allegheny College on June 17-20, 2002. Stan Wagon, of Macalester College, will conduct a course on computational number theory. Watch for more details in the Spring newsletter, or for additional information, contact the Short Course Co-Directors:

Ron Harrell, Allegheny College  
814-332-5344, [rharrell@allegheny.edu](mailto:rharrell@allegheny.edu)

Don Platte, Mercyhurst College  
[platte@mercyhurst.edu](mailto:platte@mercyhurst.edu)

### **News from the Campuses**

#### **Allegheny College**

Steve Bowser

Allegheny College is pleased to welcome Professor Caryn Werner to the Department and to the section. Caryn completed her Ph.D. in Algebraic Geometry at Colorado State University and comes to us from Towson University. She fills one of the tenure track vacancies created by the departure of Vonn Walter, who has taken a position at Dickinson College, and Aaron Cinzori, who has taken a position at Hope College in Holland, Michigan. The department is conducting a tenure track search this year to fill the second of these vacancies.

Tamara Hummel was awarded tenure last spring and is on sabbatical leave this academic year. In January 2001 she gave an invited 50-minute lecture at the

Winter Meeting of the Association for Symbolic Logic, held during the Joint Mathematics Meetings in New Orleans. In Summer 2001 she taught in the George Washington University Summer Program for Women in Mathematics, an intensive program for outstanding undergraduate women math majors. Michael Barry and Steve Bowser have returned this fall from sabbatical leaves. They both spent the bulk of their respective leaves in Meadville.

Ron Harrell chaired the organizing committee for the 50<sup>th</sup> Annual Meeting of the Pennsylvania Council of Teachers of Mathematics, held in Pittsburgh on March 15-17, 2001. There were about 200 presentations on math education at levels K-college and 850 attendees.

Our Fall Speaker this year was Steven Krantz of Washington University, who gave lectures on October 3, 4, and 5.

#### **Duquesne University**

Tom Keagy

We welcome Eric Rawdon, who joins our mathematics faculty this fall at the rank of Assistant Professor. Previously Eric taught at Chatham College for four years following the receipt of this Ph.D. from the University of Iowa. Among his strengths is an excellent record of promoting undergraduate research through his current NSF grant. His area of research specialization is knot theory.

The Department is also pleased to announce a \$30,750 grant from the Alcoa Foundation. The grant has two components. First, it supports a special program designed to interest high school minority and female students in considering careers involving technology. Second, it provided scholarship support for minority and female students enrolled in computational programs within our Department. The grant period is the 2001-2002 academic year.

### **Edinboro University**

Frank Marzano

We have had several new hires, including Richard White in January, 2001, and Dave Tucker and Dan Bennett in August, 2001. We also had several retirements after the Spring, 2001 semester ended: K. Aiyappan Nair, Anne Jedlicka, and Rembing Xiong. We are also sad to report that Bill Etling passed away during the summer.

Two of our faculty members, Pamela Lasher and Richard White, completed their Ph.D.'s. Pamela Lasher was awarded tenure. Fred Weening was promoted to Associate Professor.

### **Penn State – Erie**

Ann Kraus

There are three new faculty in mathematics this year. Lawrence Downey is a new tenure-track Assistant Professor who received his Ph.D. from Kent State University. His research areas are functional analysis and operator theory. Andrew George and Amos Ong have been appointed as lecturers. Andrew received his M.S. from Purdue University and has research interests in applied math and math education. Amos received his Ph.D. from the University of Rochester and has research interests in algebraic geometry and algebraic topology.

Antonella Cupillari had the second edition of her book, *The Nuts and Bolts of Proofs*, published by Academic Press.

We will have one Assistant Professor position open for the fall of 2002. For more information, visit our website at [www.pserie.psu.edu/science/scnindx.htm](http://www.pserie.psu.edu/science/scnindx.htm).

### **Penn State - McKeesport**

Zhibo Chen

Dr. Pinaki Das is continuing his teaching and research at Penn State - University Park for another year.

### **University of Pittsburgh – Johnstown**

Michael Ferencak

Associate Professor Stephan J. Curran has returned from sabbatical and will continue as Chair. Dr. Curran attended the Second Pacific Rim Conference on Mathematics at Academia Sinica in Taipei, Taiwan, January 4-8, 2001. Dr. Curran presented a paper there, "Hamilton Cycles in Cayley Digraphs on Abelian Groups".

Professor Boris Kushner attended the Joint Meeting in January with Associate Professor Marc Mehlman. Dr. Mehlman is on leave from UPJ this year and is visiting at the University of New Haven in Connecticut.

Assistant Professor John Thompson served as a grader this summer for the AP Calculus exams. Dr. Thompson, together with part-time Instructor Anita Thompson, also took several of our undergraduates to the Spring Meeting at Penn State - Altoona in April.

Assistant Professor Michael N. Ferencak will have a joint paper with A.J.W. Hilton (U. of Reading, UK), "Outline and Amalgamated Triple Systems of Even Index", appearing in the *Proceedings of the London Mathematical Society* in 2002. Dr. Ferencak attended the 32<sup>nd</sup> Southeastern Conference on Combinatorics, Graph Theory, and Computing, and presented a talk entitled, "Outline and Amalgamated Triple Systems". A second paper with Hilton, "Pseudo-outline Transitive Triple Systems", has been accepted to the Proceedings of the 32<sup>nd</sup> SEC and will appear in *Congressus Numerantium* in 2002.

UPJ has hired several new faculty this year. Joining the Department as Instructors are Jacqueline Baird (M.Ed., IUP) and Elizabeth Hoffman (M.S., IUP). Joining the Department as a Visiting Instructor is Dawn Cable (M.A., U. of Pittsburgh).

Upon approval from administration, the Department may be filling two positions this year. One should be tenure-track and the other non-tenure-track. Please watch for our ads and flyers.

The Center for Mathematics and Science Education and UPJ hosted



“Sharpening Skills in the Teaching of Mathematics and Science”, the 12<sup>th</sup> in the series of Math/Science on Saturday programs, on Saturday, October 6, 2001. The program features 42 workshop sessions aimed primarily at K-12 mathematics and science teachers and administrators. Instructor Terry Shustrick hosted two of the workshops. For further information about the programs, contact Nina Girard, Assistant Professor of Education and Director of the Center for Mathematics and Science Education ([www.pitt.edu/~sosmos](http://www.pitt.edu/~sosmos)). Funding has been provided by a grant from the Dwight D. Eisenhower program.

Terry Shustrick was also part of a team from UPJ that will be involved with a grant from NSF, being administered by AASCU. The import of the grant is the improvement in the mathematics preparation of future elementary school teachers. The team traveled to San Diego in June for a one-week working seminar and will begin to implement our proposal in the fall.

### **Slippery Rock University**

Bob Vallin

We welcome two new faculty members. J. Lyn Miller joins us on the tenure track. She earned her Ph.D. in algebra from the University of Maryland and joins us after a stint at Western Kentucky. Tim Straney is a one-year addition. He earned his Ph.D. from Kent State University.

Elise Grabner attended the NSF Initiative Collaborative for Excellence in Teacher Preparation Conference II in Bloomsburg, PA. She is the campus evaluation liaison for the NSF-CETP-PA grant and attended training in Harrisburg last June.

Gary Grabner was a visiting scholar last November at Ehime University in Matsuyama, Japan.

Bob Buck gave a talk at the Spring Topology Conference in Morelia, Mexico. He spoke on joint work with R. Heath and P. Zenor, entitled “Strong Monotone and Nested Normality”.

Bob Vallin is on sabbatical for Fall, 2001 at Youngstown State University. He is working with Zbigniew Piotrowski. This past September he gave an invited 20-minute talk, “Interpolative Continuity and the Darboux Hierarchy”, at the AMS Special Session on Real Analysis in Chattanooga, TN.

### **Westminster College**

Jim Hall

John Bonomo was head judge for the ACM Regional Programming Contest. During the summer he reviewed grant proposals for the NSF.

John Bonomo and Barbara Faires are part of the faculty for Westminster’s interdisciplinary first-year program, an opportunity to broaden the experience of both students and faculty.

Terri Lenox is teaching a course on neural networks as part of Westminster’s program of “cluster courses.” Students in the course also take a companion course in psychology with the same title, taught by Alan Gittis. Together they are exploring how computers are helping us to understand how humans think.

David Shaffer has designed a web-based lab submission program for the first computer science course. This course has a required two-hour lab beginning this fall. David has made major improvements in the department’s UNIX lab. During the summer he consulted for Erie Plating.

Carolyn Cuff is to give the keynote address at the AMTONP meeting in October. During the summer she graded AP

Statistics exams for the college board and participated in the annual ASA meeting.

Alane Ferland, Ph.D., has joined the faculty as Assistant Professor of Mathematics. She plans to teach statistics and work with prospective actuarial students.

Warren Hickman attended Math Fest in Madison, Wisconsin, in August. He continues his work with teaching alliances.

Barbara Faires is chairing the MAA Treasurer Search Committee. She is to join four other Westminster faculty in October at the CUR conference on Institutionalizing Undergraduate Research.

Jim Hall welcomes the arrival of his latest creative effort, the textbook *Differential Equations with Linear Algebra* (Prentice-Hall), jointly written with Jerry Farlow (U. of Maine), Jean Marie McDill (Cal Poly) and Bev West (Cornell), growing out of his 1999 sabbatical year at Cornell. He looks forward, after two rounds with photocopied preliminary editions, to teaching the DiffEqu/LinAlg course this spring from the completed hardbound edition.

On a trip around the world early in the summer, Hall found his interest in tilings rekindled by the many exquisite examples he encountered in India. Another opportunity for student projects is the mathematical astronomy related to the "Jantar Mantar" observatories in Jaipur and New Delhi.

### **WVU Institute of Technology**

Fred Cavalier

Dr. Joe Urbanski has stepped down as Chair and returned full time to the classroom. He served as Chair for nine years. Fred Cavalier has been named as Interim Chair.

Dr. Andy Blackwood has returned from a sabbatical during the spring semester of 2001. He completed his Ed.D. while on leave.

Dr. Norma Lauer retired from the department with 25 years of service to the

institution. Her position has not yet been filled.

Dr. Susan Barton continues to serve as organizer of the Regional Math and Science Bowl. This event is usually held in November and is a preliminary to the Department of Energy's National Science Bowl.

Dr. Joe Urbanski attended an NSF Chautauqua course, "The Mathematics of Cryptology", this past summer.

All the previously named faculty, along with Dr. Ranjith Munasinghe, Dr. Bing Yang, Dr. Chengmin Yang, Dr. Barbara Crist, and Dr. Scott Mansour, have been active in writing and grading county and regional math competitions for the area high schools.

### **West Virginia University**

Mike Mays

Laura Pyzdrowski has been appointed as a tenure-track Assistant Professor with additional responsibilities as Pre-collegiate Mathematics Coordinator. Robert Mayes has been hired as Professor of Mathematics and Director of the Institute for Mathematics Learning. A new 86-station computer lab was dedicated for use in IML courses this fall. WVU plans to make two or three additional tenure-track appointments in mathematics or mathematics education to support the efforts of IML.

The department is soliciting funds to set up an undergraduate mathematics scholarship in honor of Associate Professor Emeritus Betty Miller.

Dr. Yuesheng Xu has been appointed as a new Eberly Family Professor of Mathematics. Dr. Xu earned B.S. and M.A. degrees from Zhongshan University in China and a Ph.D. from Old Dominion University. His primary areas of focus are approximation theory, boundary integral equations, and wavelet analysis with applications to image processing.

The University approved an "Agreement for the Student Exchange Program between West Virginia University

and National Autonomous University of Mexico”. Professor Sam Nadler and Professor Sergio Macias, the Department’s Eiesland visitor last year, are the main contact people for the program.

**West Virginia Wesleyan**

Michael Berry

David Burns has accepted a faculty position at Western Connecticut State University.

Jeff Sykes has been named Chair of the Mathematics and Computer Science Department.

Hobert Corley has been named Visiting Instructor of Mathematics for the academic year 2001-2002.

**Allegheny Mountain Section Officers, 2001-2002**

Francisco Alarcon, Director of E-communications, 724-357-2206, [falarcon@grove.iup.edu](mailto:falarcon@grove.iup.edu)

Michael Berry, Second Vice Chair,

George Bradley, Governor, 412-396-5115, [bradley@duq.edu](mailto:bradley@duq.edu)

Ben Freed, Secretary-Treasurer,

Ron Harrell, Short Course Co-director, 814-332-5344, [rharrell@allegheny.edu](mailto:rharrell@allegheny.edu)

Tom Keagy, Past Chair, 412-396-6467, [keagy@duq.edu](mailto:keagy@duq.edu)

Tamara Lakins, First Vice Chair, 814-332-2957, [tlakins@allegheny.edu](mailto:tlakins@allegheny.edu)

Dick McDermot, Historian, 814-332-5341, [jandrmcd@toolcity.net](mailto:jandrmcd@toolcity.net)

Donald Platte, Short Course Co-director, [platte@mercyhurst.edu](mailto:platte@mercyhurst.edu)

Bob Vallin, Coordinator of Student Programs,

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**MATHEMATICAL ASSOCIATION OF AMERICA**  
Award 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: \_\_\_\_\_

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, 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: \_\_\_\_\_ Email: \_\_\_\_\_

Nominator's signature: \_\_\_\_\_

Send to:        Selection Committee Chair  
                 Michael Berry  
                 West Virginia Wesleyan College

Box 93  
Buckhannon, WV 26201

Penn State University  
New Kensington, PA 15068