



OHIO FOCUS

The MAA Ohio Section Newsletter

Volume 8

Spring 2006

Number 2

Spring Meeting at The University of Akron March 31- April 1, 2006

The Spring Meeting of the Ohio Section of the MAA will be held at The University of Akron, Akron, Ohio, on March 31 and April 1, 2006. The meeting will start at noon on Friday, with the first invited address at 1:30, and will conclude at 1:10 pm on Saturday. Major addresses will be given by invited speakers **Georgia Benkart** of the University of Wisconsin, Madison, **Dwight Olson** of John Carroll University, **Thomas Price** of The University of Akron, and **David Finn** of Rose-Hulman Institute of Technology. Other meeting participants, including students, are encouraged to submit talks for the contributed paper sessions on Friday afternoon and Saturday morning. Publishers' exhibits, a Friday evening banquet, and a student pizza party are also being planned.



University of Akron Student Union

Meeting Registration

Online registration is preferred. Visit the Section web site at www.maa.org/Ohio for one-stop registration, banquet reservation and abstract submission. The deadline for meeting pre-registration and banquet reservations is **March 27**. Abstracts for contributed papers must be submitted by **March 17**.

On-site meeting registration is always available, but last-minute banquet tickets cannot be guaranteed. Early registration helps those making meeting arrangements and is always appreciated. On-site registration will take place in the Student Union on Friday afternoon and Saturday morning.

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Student Team Competition

It's not too late to organize a student team to participate in the Ohio Section's third annual Student Team Mathematics Competition. Undergraduate students from institutions of the Ohio Section are invited to participate in the competition, which will take place on Friday, March 31, from Noon to 1:20, just prior to the start of the Spring Section Meeting. Student teams should report to Room 107 of the CAS building. Cash prizes will be awarded at the meeting to the top three teams. Complete rules and registration information, as well as copies of the questions from previous competitions, can be found on the web at <http://personal.ashland.edu/~dwick/constum.html>.

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Section Governor's Report

This is my last report as Governor. My term lasts until the end of June, but this is my last national meeting of the MAA Board of Governors. Sometime in February or March everyone in the Section will get a ballot from the MAA for the election of the next Governor from the Ohio Section, since this is really a national office.

Not to rub it in too much, but the national Joint Meetings in San Antonio were nice and warm—both in the weather sense and the people sense. Saturday I was sitting outside without a jacket by the famous River Walk, reading a manuscript for some new chapters for Lay's linear algebra book. And I got to talk to a lot of people (which is really the main point of the meeting), some of whom I haven't seen in years. I guess when you have been around as long as I have, you make a lot of contacts. I have also noticed quite a few people who are obviously retired at the meetings, at least at the warm-weather meetings. I guess it is always in the blood. We will always need to get our math fix.

This meeting had a little bit of a weird quality for me. Even though San Antonio is a favorite site for the MAA and AMS (and a future meeting is planned there), I had not been back since my first national meeting. Not a lot had changed, but I had. As I recall, there were 2000 people at that first meeting. This time the attendance was closer to 5000. For one thing, there are many more students attending now.

If you want to see what the Board of Governors meeting looks like, go to www.maa.org/daily/ (if it is still up), and select Wednesday.

There were the usual reports and presentations at the Board of Governors Meeting and the Section Officers Meeting. Some were very informative, and some unnecessarily long. At the meeting we approved some appointments, award recipients, etc.

The AMS and MAA have decided it is a go for New Orleans next January. They wanted to show support for that region, and I think they got some good deals. The Governor from that section informed us that the hotels, restaurants, and strip clubs are open. To avoid the Sugar Bowl, the meetings have been moved one day, to January 5-8, 2007.

The next national MAA meeting is MathFest in Knoxville, August 10-12, 2006, and the Joint Meetings in January are set through 2013. Check the web or newsletter for details. There will be a river boat dinner cruise in Knoxville, and Jeopardy contest for students.

Don Albers always gives a dog and pony show for the new publications of the MAA. I always want to go out and buy a bunch, but I resist. The MAA has an active program of new and interesting publications. Several new books caught my eye, including one by our own Don Bonar of Denison entitled *Real Infinite Series*. Another is *Topology Now!* by Messer and Straffin. Remember, you can buy MAA books at our Section meetings. Not only do you get an extra discount, but the Section earns a little, too.

A major role of the Board is its fiduciary responsibility. Treasurer John Kennelly always gives a detailed report on the financial condition of the MAA. In a nutshell, it is very good, and getting better. Money is well accounted for and investments are soundly handled. His capsule description of the finances is now up to "9-8-7-7": \$9 million operating budget, \$8 million endowment, \$7 million in buildings, and \$7 million of grants in place. Financial reporting has much improved since the early 90s. I would be glad to share the details.

The budget for 2006 is on track and need not be revised, based on experience in 2005. The budget is basically balanced. There is a phase-in of some dues restructuring to bring the various categories more into line with their costs (e.g. journals). You shouldn't see any major change. One major point of confusion is that the voluntary dues supplement and the annual giving are really quite separate. There was also an appeal for members to include the MAA in their estate plans. It is even possible to endow funds for the Section's benefit.

Jim Gandorf reported that membership is stable, with a high retention rate. Eight hundred to 1200 new Ph.D.s get complimentary memberships.

One of the things the MAA wants is more mathematics in the meeting programs. If you would like to organize a contributed paper session, you are encour-

aged to do so. The deadlines are on MAA Online (<http://www.maa.org>).

And finally: One evening I had dinner with some young Bowling Green people. One is a tenured faculty member at BGSU, one is coming up for tenure at a small college, one is graduating and looking for a job, and one is a former BGSU undergraduate who is now in college teaching. It occurred to me that if this is a representative group, then the MAA and the profession are in good hands for the near, and even distant, future. (And I told them that!)

If you know me at all, you know that I am pretty cynical (one of my heroes is David Brinkley) and critical, especially of institutional administration and the current tenure process. But I am basically an optimistic person. It is things like the dinner just mentioned, and the many young faces I see at Section meetings, that make me so.

*Thomas Hern
Section Governor
hern@wcnet.org
January, 2006*

OHIO FOCUS

The newsletter of the Ohio Section of the Mathematical Association of America, which first appeared in 1973, is published twice yearly in time to reach members before the fall and spring meetings. Newsletters are sent using labels provided by the MAA.

Editor:
Carl Spitznagel 216-397-4683
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Dept. of Math & Comp Science
John Carroll University
Cleveland OH 44118

Deadline for the next newsletter is
August 22, 2006
Email copy is preferred. Early submission is appreciated.

Please send copy to the editor (see above), and also to the Section Webmaster, Darren Wick, for posting on the web (dwick@ashland.edu).

President's Message

Greetings, again, from John Carroll, as I look out my window at the snowstorm! I hope everyone had an enjoyable holiday season and that the New Year will bring only the best to all.

I attended the national meeting in San Antonio in early January and I found that much of what I heard was repetitious of the summer session I attended in August. Therefore, I don't have much to offer as I sit to write, but I will contribute a few items.

We will be electing a new Section Governor this spring, so be sure to vote when that ballot shows up in your mail.

Many thanks to all those who have answered my call for volunteers! I can announce that **Wiebke Diestelkamp** has been appointed to be the new Liaison Coordinator for the Section, and that **Darren Wick** has been appointed to be the new Webmaster; thus giving credence to the notion that it takes two people to replace **Tom Price**. On behalf of the Section I want to bestow a huge THANK YOU to Tom for his exceptional performance in those two positions.

The Mathematics Departments at **Shawnee State University, Wittenberg University, Marietta College and Capital**



University have volunteered to provide meeting sites for the Section meetings (in that order) beginning with the Spring 2007 meeting. As of this writing, dates for those meetings have not been set, so check upcoming editions of OHIO FOCUS for the dates. Again, the Section certainly appreciates those who offered their campuses and their labor for these events.

The MAA will be celebrating its Centennial in the summer of 2015 and plans are being made for a blowout in Washington, DC, for MathFest. Each section is being asked to update its Section history and to identify a person to be the Section Liaison to this celebration. I'm sure that this effort will heat up as the nine years to 2015 wind down and future Section presidents will mention this again, but for now, pencil the date on your calendar and think about how the section can participate in the festivities.

Finally, many thanks to the officers and committee members of the Section for your contributions to the smooth year I have had, and thanks again to the Section for your support.

See you at the Spring Meeting.

D. M. Olson

Ohio Project NExT Spring Workshop

Ohio Project NExT (New Experiences in Teaching) is a program for young faculty members. Its goal is to help newer faculty to network with colleagues, to share ideas and experiences that promote professional growth, and to encourage faculty to become involved in the Ohio Section.

On Thursday evening, March 30, preceding the Ohio Section Spring Meeting, members of Ohio Project NExT will gather for a banquet - a great opportunity to meet old friends and make new ones. After the banquet, the NExTers will spend an hour discussing a topic related to the profession. Then, on Friday morning, March 31, our NExT Workshop will be held. The workshop will feature two major speakers, along with two contributed talks by NExT members.

Prior to last fall's meeting, the NExT workshop at Ashland University featured R. Stanton Hale (The College of Wooster), Barbara D'Ambrosia (John Carroll University), Mary Bergs (Mercy College of Northwest Ohio) and John Tynan (Marietta College).

Ohio Project NExT is open to anyone who is in his/her first five years of teaching in the Ohio Section. If you're in this group, please consider joining us this spring for our NExT Banquet and Workshop, as well as for the Ohio Section Meeting.

Contact Dale Mugler <dmugler@uakron.edu> for membership information and details. MAA leaders of Ohio Project NExT also include Dave Sobecki (Miami University), Wiebke Diestelkamp (Dayton), and Chris Swanson (Ashland).

Dale Mugler

Campus Notes

Marietta College: Mark Miller is on sabbatical for the Spring 2006 semester; Dave Mafer will serve as department chair in Mark's absence. John Tynan, Assistant Professor of Mathematics, is also serving the college as the Director of Institutional Research.

University of Dayton: Atif Abueida has been approved for promotion to Associate Professor, and Youssef Raffoul has been approved for tenure, effective with the start of the 2006-2007 academic year. John Kauflin and Harold Mushenheim retired in May of 2005. Both have been granted emeritus status. The University of Dayton now offers a summer Master's in Mathematics Education program. The program received final approval by the Ohio Board of Regents in June 2005. The program is offered as a collaborative effort by the Departments of Mathematics and Teacher Education.

Wittenberg University: Effective Fall Semester, 2005, Adam Parker started in his new position as a tenure track Assistant Professor of Mathematics at Wittenberg University. He grew up near Akron before earning undergraduate degrees in mathematics and psychology from the University of Michigan. His Ph.D. is from the University of Texas at Austin where his thesis was in algebraic geometry.

2005 - 2006 Ohio Section Leadership

ELECTED OFFICERS

President

Dwight Olson, John Carroll Univ.
216-397-4372; olson@jcu.edu

Past-President #1

Mark Smith, Miami University
513-529-5818; smithma@muohio.edu

Past-President #2

Dale Mugler, University of Akron
330-972-5365; dmugler@uakron.edu

President-Elect

Tom Dence, Ashland University
419-289-5262, tdence@ashland.edu

Section Governor

2006

Thomas Hern, Bowling Green
419-372-7450; hern@wcnet.org

Secretary-Treasurer

2006

J. William Friel, University of Dayton
937-229-3071; friel@udayton.edu

Secretary-Elect

Mark De Saint-Rat, Miami-Middletown
513-523-8896; desainme@muohio.edu

OTHER OFFICERS

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Newsletter Editor

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Ohio Project NEXt Coordinators

Dave Sobecki, Miami-Hamilton 2006
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Dale Mugler, University of Akron 2007
330-972-5365; dmugler@uakron.edu

OhioMATYC Liaison to OhioMAA

Jim Anderson, University of Toledo
419-530-3345
jim.anderson@utoledo.edu

OhioMAA Liaison to OhioMATYC

Robert Hovis, Ohio Northern University
419-772-2347; r-hovis@onu.edu

OCTM Liaison

David Wallach, University of Findlay
419-424-4624; wallach@findlay.edu

Archivist

John Zimmerman, Washington &
Jefferson College
724-250-3322
jzimmerman@washjeff.edu

COMMITTEES

* Denotes committee chair. Elected Officers and Committee Chairs are voting members of the Executive Committee. Terms expire at the end of the Spring meeting of the year listed. See the Bylaws.

Program Committee

*Bill Higgins, Wittenberg 2006
937-327-7859
whiggins@wittenberg.edu
Barbara D'Ambrosia, John Carroll 2007
Don Hunt, Ohio Northern 2008

Committee on Curriculum (CONCUR)

*Michelle Wiggins, Ursuline Coll 2006
Roger Marty, Cleveland State 2006
Cathy Stoffer, Ashland Univ. 2007
Darren Parker, Univ. of Dayton 2008

Committee on Section Activities (CONSACT)

* Lisa Rome, Mount Saint Joseph 2008
Juan Bes, Bowling Green 2007
Danny Otero, Xavier University 2007
Phil Blau, Shawnee State Univ. 2008

Committee on Student Members (CONSTUM)

* Darren Wick, Ashland Univ. 2007
Judith Holdener, Kenyon College 2006
Darrell Horwath, John Carroll U 2006
Christopher Swanson, Ashland U 2007
Jeffrey Adler, University of Akron 2008
Mihai Caragiu, Ohio Northern 2008
Stephanie Edwards, Dayton 2008

Committee on Teacher Education and Certification/Licensure (CONTEAL)

* Marsha Guntharp, Capital U 2008
David Kullman, Miami University 2006
Irina Chernikova, Univ. of Akron 2006
Maria Raiti, Ohio Northern 2006

continued in next column

Susan Thompson, Otterbein Coll 2008
John Prather, Ohio Univ. Eastern 2008
Chris O'Connor, Shawnee State 2008
Jim Fitzsimmons, Wilmington Col 2008

OTHER COMMITTEES

* Denotes committee chair.

Nominating Committee

* Dale Mugler, Univ. of Akron 2008
Harold Putt, Ohio Northern 2007
Tom Gantner, Univ. of Dayton 2006

Committee on Contests

David Stenson, John Carroll AMC12

Teaching Award Committee

Mark Smith, Miami University (PP)
J. William Friel, Univ. of Dayton (ST)
Tom Dence, Ashland University (Past recipient)

LOCAL ARRANGEMENTS FOR MEETINGS

Spring 2006, University of Akron
Dale Mugler
dmugler@uakron.edu

Fall 2006, Muskingum College
Rich Daquila
rdaquila@muskingum.edu

Spring 2007, Shawnee State University
Phil Blau
pblau@shawnee.edu

Fall 2007, Wittenberg University
Brian Shelburne
bjs@wittenberg.edu

Spring 2008, Marietta College
Mark Miller
millerr@marietta.edu

*Mark your calendar for
the
Fall 2006
Ohio Section Meeting:
October 27-28, 2006
Muskingum College
New Concord, OH*

Nominations for Section Offices

The Nominating Committee presents the following slate of candidates: **Bill Higgins** (Wittenberg University) for President-Elect, **Charles Hampton** (College of Wooster) for Treasurer (a new position), and **Jon Stadler** (Capital University) for a three-year term on the Program Committee. The President-Elect subsequently serves as the Section President. The senior person on the Program Committee is the chair.

Bill Higgins, the nominee for President-Elect, joined the Wittenberg University faculty in 1984. He served as the Ohio Junior High School (AMC 8) American Mathematics Competition Director from 1986 to 2004 and, since 2000, as a member of the editorial board of the MAA Classroom Resource Materials book series. He has served the Ohio Section as a member of CONSACT, as co-editor of the section newsletter and he is currently chair of the Program Committee. Bill is a 1976 graduate of Kenyon College with majors in math and physics, and graduated from the University of Notre Dame in 1982 with a Ph.D. in mathematics under the direction of Warren Wong. He has taught at the Naval Postgraduate School and West Point while on leave from Wittenberg.

Charles (Chuck) Hampton, the nominee for Treasurer, has been a member of the mathematics faculty at The College of Wooster since 1972 and is currently the Johnson Professor of Mathematics. He has been active in the Ohio Section since the mid 1970s and served as Section President in 1988-89. He has taught almost every math course offered at Wooster, and his research interests are in the philosophy of mathematics and the mathematics of legislative redistricting.

Jon Stadler, the nominee for Program Committee Member, received his Bachelor's degree in Mathematics Education from Bowling Green State University and his Ph.D. at Ohio State. After spending a year at Coastal Carolina University he moved back to Columbus in 1999 to begin his current position at Capital University. He has served the Ohio Section through CONCUR and by organizing the 2003 Summer Short Course in Cryptology.

The election will take place at the business meeting, Friday evening, March 31, 2006, after the banquet at the University of Akron. At that time, nominations may also be made from the floor.

*Dale Mugler, Chair
Harold Putt
Tom Gantner*

Coming up in Ohio

Ohio Section Summer Short Course Baseball, Statistics, and the Role of Chance in the Game

Are you a baseball fan or someone interested in discovering ways to use baseball applications in your teaching of probability and statistics? Come be part of the fun at the Ohio Section 2006 summer short course: "Baseball, Statistics, and the Role of Chance in the Game," which is being planned for **June 7-9, 2006** at Mount Union College in Alliance, Ohio. Learn how to use baseball for teaching statistical thinking and probabilistic modeling. Explore baseball data as you search for the ultimate batting statistic, look for clutch ability, model run production with Markov Chains, or compare great players of different eras, such as Babe Ruth and Barry Bonds. The instructor for



this course will be **Dr. James Albert**, professor of Mathematics and Statistics at Bowling Green State University, author of *Teaching Statistics Using Baseball*, and coauthor of *Curve Ball: Baseball, Statistics, and the Role of Chance in the Game*. For further information, visit <http://www.muc.edu/~zwilliml/shortcourse/> or contact Gerry Wuchter, wuchtegj@muc.edu, 330-823-3625.

Sherri Brugh

Miami University Annual Fall Conference Understanding Biological and Medical Systems Using Statistics

The Thirty-fourth Annual Fall Conference will be held on **September 29-30, 2006** in Oxford, Ohio. This year's theme will be "Understanding biological and medical systems using statistics." Authors wishing to contribute a paper consistent with the theme of the Conference should submit an abstract by September 1, 2005 to: Statistics Conference, Department of Mathematics and Statistics, Miami University, Oxford, Ohio 45056, (513) 529-5818; Fax: (513) 529-1493; or email the director, A. John Bailer (ajbailer@muohio.edu) or check the WEBpage: <http://www.miami.muohio.edu/mathstat>.

Mark Smith

Miami University Pi Mu Epsilon Student Conference

The Ohio Delta Chapter of Pi Mu Epsilon will hold its thirty-third annual Student Conference on **September 29, 2006**. Undergraduate and graduate students are invited to contribute 15 or 30-minute papers on any mathematical science topic, and should contact Milt Cox, Department of Mathematics and Statistics, Miami University, Oxford, Ohio 45056, (513) 529-6648 or email coxmd@muohio.edu.

Mark Smith

Fall Section Meeting

The Fall 2006 meeting of the Ohio Section will be held at Muskingum College, in New Concord, Ohio, on **October 27-28, 2006**. Complete meeting details will appear in the Fall issue of Ohio Focus.

Spring Meeting Program

Registration and invited addresses will take place in the Student Union, second floor.

Friday, March 31

12:00—4:30	Registration, book exhibits	<i>Student Union</i>
12:00—1:20	Student Team Competition	<i>CAS 107</i>
12:15—1:15	Committee Meetings:	<i>Student Union:</i>
	CONCUR	<i>Room 308</i>
	CONSACT	<i>Room 310</i>
	CONSTUM	<i>Room 312</i>
	CONTEAL	<i>Room 314</i>
	Program Committee	<i>Room 316</i>
1:30—1:45	Welcome & announcements	<i>Student</i>
1:45—2:45	Invited Address: “Going Up and Down” Georgia Benkart, University of Wisconsin—Madison	<i>Union</i> <i>Theatre</i>
2:45—3:10	Break & refreshments	
3:10—4:05	Retiring President’s Address: “Some Thoughts on Rings and Things” Dwight Olson, John Carroll University	<i>Student</i> <i>Union</i> <i>Theatre</i>
4:20—6:15	Contributed Paper Sessions	<i>CAS Building</i>
4:20—6:15	Session on Applied Math	<i>CAS Building</i>
4:20—6:15	Executive Committee meeting	<i>CAS 124</i>
6:15—8:00	Student Pizza Party	<i>CAS Atrium</i>
6:15—6:45	Social time, cash bar	<i>Martin</i>
6:45—8:00	Banquet	<i>University</i>
8:00—8:45	After-Dinner Talk: “Developing an Undergraduate Research Program” Thomas Price, Univ. of Akron	<i>Center</i> <i>(Fir Street)</i>
8:45	Business meeting and presentation of Section Teaching Award	

Saturday, April 1

8:00—10:30	Registration, book exhibits	<i>Student Union</i>
8:00—8:50	Coffee and donuts	
8:05—8:45	Executive Committee meeting continuation (if necessary)	
8:05—8:45	Meeting of Department Liaisons and Chairs	<i>Student Union</i> <i>Room 314</i>
8:05—8:45	Meeting of student leaders	<i>Room 318</i>
8:50—8:55	Announcements	
8:55—9:55	Invited Address: “Ladies of the Rings” Georgia Benkart, University of Wisconsin—Madison	<i>Student Union</i> <i>Theatre</i>
9:55—10:20	Break & refreshments	
10:20—11:55	Contributed Paper Sessions	<i>CAS Building</i>
12:10—1:10	Invited Address: “Bicycle Tracks on the Plane and the Sphere” David Finn, Rose-Hulman Institute of Technology	<i>Student Union</i> <i>Theatre</i>
1:10	Closing remarks	

For additional
meeting details, see
pages 6 through 11.

Check the Section web page for updates, online registration, and contributed papers: <http://www.maa.org/Ohio>.

Meeting Registration

(continued from page 1)

Meeting participants who are unable to register online at www.maa.org/Ohio may register by mail, by sending the following information: name, affiliation, address, phone, e-mail address (if any), type of position, and banquet information. Send with check, payable to Ohio Section MAA, for applicable fees [registration fee (\$25 ordinary registration, \$10 retired or part-time, no fee for students or first-time attendees), banquet (\$25 or \$27, depending on entrée)], to Ohio Section MAA Spring Meeting, c/o Dr. Dale Mugler, University of Akron, Akron, OH 44325-1803. Phone (330-972-7966), FAX (330-972-5625). Fax or e-mail registration would be pending upon receipt of registration fees.

Call for Contributed Papers

Fifteen-minute presentations on any topic of general interest in mathematics or related areas are encouraged for the Contributed Paper Sessions on Friday afternoon and Saturday morning at the fall Ohio Section meeting. Reports on projects, research announcements, or anything you believe would be of interest to those in attendance are welcome.

Contributors should send a title and a brief abstract by **March 17, 2006**. Although online submission with your meeting registration is preferred, you may also submit your title and abstract by U.S. mail or email to the chair of the Program Committee: Bill Higgins, Department of Mathematics and Computer Science, Wittenberg University, Ward Street at North Wittenberg Avenue, P.O. Box 720, Springfield, Ohio 45501-0720, whiggins@wittenberg.edu. Please use only plain text in your title and abstract as the abstract submittal system cannot process TeX or other graphics code.

The presentation rooms will include a ceiling-mounted projector and a wall hook-up for the presenter’s own laptop computer. Wireless internet access is available throughout campus. No document cameras are available in the rooms, but overhead transparency projectors will be available and each room has a whiteboard. Speakers with specific questions about technology needed for contributed talks should contact Dale Mugler, dmugler@uakron.edu.

See page 9 for information about the Special Session on Applied Math.

Georgia Benkart “Going Up and Down”

A partially ordered set has its ups and downs. That is, on any set with a partial order there is an up operator and a down operator. These operators encode essential combinatorial information. Sometimes they even behave like the operators in the Heisenberg uncertainty principle. You can be certain that during this talk will be one of those times.



“Ladies of the Rings”

A tale of science non-fiction about two women and their magical mathematics.

Georgia Benkart was born 40 miles east of Akron in Youngstown, Ohio. She received her BS degree summa cum laude from Ohio State University and her Ph.D. degree from Yale University under the direction of Professor Nathan Jacobson.

Since graduating, she has been at the University of Wisconsin - Madison, where presently she is E.B. Van Vleck Professor of Mathematics. She has held visiting positions at the Institute for Advanced Study and the Mathematical Sciences Research Institute. Her main research area is Lie algebras, but she has also worked in related areas, like quantum groups, combinatorics, and associative and nonassociative algebras. She has written over

100 papers and two AMS Memoirs, and has had 21 Ph.D. students. She has been an editor of the Journal of Algebra, chair of the AMS Monographs and Surveys Committee, and a member of the AMS Council.

In 1987, Georgia Benkart received the University of Wisconsin’s highest prize for distinguished teaching. She was the Polya Lecturer of the MAA (2000-2002) and has given 5 MAA-AMS Invited Hour Lectures and hundreds of other invited talks.

Dwight M. Olson “Some Thoughts on Rings and Things”

Three scenarios will be addressed in which the defining axioms for a ring are modified. The resulting structures are *non-associative rings*, *semirings* and *hyper-rings*. We will discuss some of the properties of rings that are lost as a result of the changes, and consider some properties that mathematicians have added back in to try to compensate for the change in axiomatic structure.

The talk will be aimed primarily at the undergraduates in the audience. It is hoped that students will find in the talk some interesting non-traditional areas for future undergraduate research.

Dwight Olson received his undergraduate degree from Jamestown College, Jamestown, ND, in 1966, and his Ph.D.



from the University of Wyoming in 1971. He previously taught at Cameron University in Lawton, OK, and has been at John Carroll University since 1984, where he served as Chair of the Department of Mathematics and Computer Science from 1995 to 2003. He has published more than a dozen research articles on the theory of radicals in rings and semirings, and regularly writes reviews for *Zentralblatt*.

For the last few years Dwight has taught mainly abstract algebra and statistics. He is currently involved in an MSP grant program with the Cleveland Municipal School District, teaching statistics/discrete math/algebra to middle school teachers in a JCU Master’s program. He and his

wife Colleen have two sons: Steig, who is an attorney in New York City; and Torrey, who is a Ph.D. candidate in Math. Ed. at U. Cal. Davis, and who is the father of their only grandchild, 6-month-old Henry.

Thomas E. Price “Developing an Undergraduate Research Program.”

The Fibonacci numbers have a rich and interesting history. Most mathematicians are acquainted with the basics of their development and find delight in staying abreast of new Fibonacci Facts. These numbers inspired me to form an undergraduate research team called The Fibonacci Forum that evolved into my contributions to our mathematics REU program. In this talk I will discuss the chronological development of the Forum.

Thomas Price completed his Ph.D. in mathematics at the University of Georgia in 1976. That same year he accepted a position at The

University of Akron and has remained there except for four professional leaves. During his 30-year career he has taken a shotgun ap-



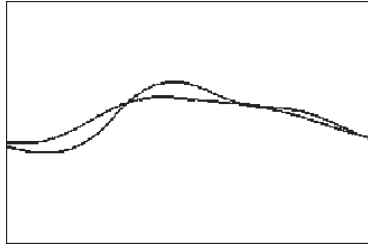
proach to research and has publications in the areas of numerical analysis, approximation theory, number theory, fractal analysis, biomedical engineering, medicine, statistics, and mathematics education. Tom’s primary academic love, however, is teaching mathematics. Most of his undergraduate mathematics education was strongly influenced by the Moore or “do it yourself” method. This teaching strategy, coupled with the influence of his excellent professors, instilled in him a love for mathematics and a desire to teach mathematics. Over the years Tom has endeavored to utilize the Moore style of teaching as much as possible to stimulate students’ latent creative mathematical talent and gratification in doing mathematics. Tom enjoys trying new teaching strategies. Recently he developed an online course for teaching the software package Scientific Workplace.

During the past ten years Tom has combined his love for research and teaching by developing an undergraduate research group called the Fibonacci Forum. He used the Forum as a pilot program for his part of the mathematics REU program now located at UA.

David Finn
**“Bicycle Tracks on the
Plane and the Sphere”**

The title problem of the MAA book *Which Way Did the Bicycle Go? ... and Other Intriguing Mathematical Mysteries*, by Konhauer, Velleman and Wagon, considers the following situation:

Imagine a 20-foot wide mud patch through which a bicycle has just passed, with its front and rear tires leaving tracks as illustrated below. In which direction was the bicyclist traveling?



The origin of this problem is one brief conversation between Holmes and Watson in the Sherlock Holmes mystery, *The Priory School*, in which Holmes and Watson encounter a pair of tire tracks in the mud and the great detective immediately deduces the direction the bicycle was traveling. This evidence then leads Holmes and Watson to find a duke’s kidnapped son and arrest the murderer of a school teacher.

In this talk, we will describe how an incredibly gifted bicyclist could potentially fool the great detective when trying to determine in which direction the bicyclist was traveling. How, you ask? There is an infinite-dimensional class of bicycle tracks on both the plane and the sphere for which it is impossible to tell the direction the bicyclist was traveling. Moreover, there is also an infinite-dimensional class of bicycle tracks on the plane and the sphere that only creates one curved track, leaving the great detective to wonder whether he is trailing a bicyclist or a unicyclist.

David Finn is an Associate Professor of Mathematics at Rose-Hulman Institute of Technology in Terre Haute, Indiana. His degrees are from Stevens Institute of Technology in Hoboken, NJ (B.S. in Applied Mathematics) and Northeastern University in Boston, MA (M.S. and Ph.D. in Partial Differential Equations). Before arriving at Rose-Hulman in 1999, he taught at Goucher College in Baltimore MD and Merrimack College in North Andover, MA. As one might guess from his background, he is not a native Hoosier, rather he is a transplanted New England Yankee having been raised in a suburb of Boston. He, in fact, still possesses the Bostonian view of the world with Boston as the hub of the universe and everything orbiting Boston.



He has been a member of the MAA since graduate school, currently serving as Newsletter Editor for the Indiana Section and MAA Liaison for Rose-Hulman. He is a national NExT fellow (1996-97), an original Blue Dot. He has been awarded

the MAA’s George Polya Award for his article “Can a bicycle create a unicycle track?”, the contents of which you will hear about in his talk. He is currently active in student research opportunities participating in the Rose-Hulman NSF-REU with students this summer working on a project called “*The Shape of a Cookie*,” which continues the work of a student on an independent research project over the last year. In addition, over the past few summers, he has directed teams of programmers (MA/CS double majors) developing interactive java applets for teaching “Geometric Modeling,” a geometry for computer graphics course, funded by an NSF-CCLI grant.

In what little free time he possesses, he can normally be found walking the family dog Frannie (his second job), playing with his son Jonathan Avery (4 years old), or reading/telling stories to him or baking cookies with him (pure recreational activity). Once Avery and Frannie go to sleep, he then gets to spend time with and talk to his wife Suzanne.

Banquet

The Friday, March 31, banquet will be held in the Martin University Center, which functions as the faculty club for the University of Akron. The Martin University Center is only a short walk from the location of that afternoon’s contributed papers session. There is also ample parking at the Center.

A cash bar at the Martin University Center will precede the banquet. The banquet will be a served meal with the choice of the following entrees: Honey Pecan Chicken, Roast Top Round, or Vegetable Napoleon (each costing \$25), or Grilled Sea Bass (costing \$27). Each meal includes entrée, house salad with choice of dressing, redskin potatoes or rice pilaf, vegetable, bread and butter, beverage and dessert (fruit pies or layer cake). The choice of entrée must be made by the registration deadline for the banquet, which is **March 27, 2006**. Space is limited. There may be additional banquet tickets available on site, but this can not be guaranteed.

Note: Students attending the meeting are invited to attend the **Student Pizza Party** (at no charge) held at the same time as the banquet, in the CAS Atrium, near the location of that afternoon’s contributed papers session. At the conclusion of the pizza party, students are invited to join those in attendance at the banquet in the Martin Center for the after dinner talk, business meeting, and announcement of the teaching award winner.

Publishers’ Exhibits

Several commercial publishers will exhibit their wares in the Theatre area on the second floor of the University of Akron Student Union, on Friday and Saturday. Please encourage any book reps you meet to contact Dale Mugler at dmugler@uakron.edu or 330-972-5365, to take advantage of this opportunity to display their wares this spring for a gathering of mathematics faculty from around Ohio.

There will also be MAA books on display, with an opportunity to buy books at a discount. Not only would you save money, but the Section would earn some too!

Student Activities at the Meeting

Call for Student Talks

Undergraduate and graduate students are encouraged to submit abstracts for 15-minute talks at the Spring Meeting. Topics may be drawn from any area of mathematics or a related discipline. The presentation may be an expository talk, a recounting of a mathematical internship or a co-op experience, or the results of a research project. Students planning to speak on an area of applied mathematics may wish to submit their abstracts to the special session described in the far right column. It is expected that each talk will be delivered by a single speaker. Co-authors will be listed in the program. Each student speaker will receive a free one-year MAA membership.

Contributed talks by students, faculty, and others will be given on Friday afternoon and Saturday morning. Talks will be scheduled primarily according to topic and audience level. Student talks are an integral part of the meeting and should be an enjoyable and rewarding experience for all who participate. Students preparing talks are encouraged to read Joseph Gallian's article "How to Give a Good Talk" in the April 1998, *Math Horizons*. This article is available at <http://www.jcu.edu/math/constum/gallian.pdf>.

The presentation rooms will include a ceiling-mounted projector and a wall hook-up for the presenter's own computer. Wireless internet access is available throughout campus. No document cameras are available in the rooms, but overhead transparency projectors will be available and each room has a whiteboard.

Abstracts should be between 25 and 75 words in length and should employ proper English grammar and spelling. Students are strongly encouraged to use the abstract submission form on the MAA Ohio Section webpage (www.maa.org/Ohio). Otherwise, a title and abstract may be submitted by U.S. mail or email to the chair of the Program Committee: Bill Higgins, Department of Math and C.S., Wittenberg University, Ward Street at North Wittenberg Avenue, P.O. Box 720, Springfield, Ohio 45501-0720, whiggins@wittenberg.edu. Please

use only plain text in your title and abstract as the abstract submittal system cannot process TeX or other graphics code. If submitting an abstract by mail or e-mail, please include your name, institution, e-mail address, student status (junior, senior, etc.), name of faculty mentor for the talk, your intended audience (upper level undergraduate, lower level undergraduate, etc.), the title of the talk, and a brief description of the presentation.

Abstracts must be received by **March 17, 2006**. Due to time and space restrictions, we may not be able to accommodate all talks. Please submit your abstracts early. Students submitting abstracts should also register for the meeting.

Pizza Party

A student pizza party will be held Friday evening at 6:15 in the atrium of the CAS building, followed by dessert and the after-dinner address at the general session. There is no charge, but meeting registration is necessary. See the Section webpage (www.maa.org/Ohio) for online registration.

Student Competition

Undergraduate students from institutions of the Ohio Section are invited to participate in the third annual Student Team Competition. The competition will take place on **Friday from Noon to 1:20**, in Room 107 of the CAS building. Cash prizes will be awarded to the top three teams. Rules and registration information can be found at <http://personal.ashland.edu/~dwick/constum.html>.

Special Session on Applied Mathematics

The University of Akron is organizing a special session for undergraduate and graduate student presentations on Applied Mathematics for the Spring 2006 meeting. A student interested in presenting a 15-minute talk at this session should submit his or her name and abstract of the talk (as a LaTeX or Microsoft Word document) by e-mail to Curtis Clemons at curtis@math.uakron.edu before **March 10, 2006**. Submitters must also register for the meeting using any of the available means such as on line registration. Please indicate the desired method of presentation such as Power Point, pdf, or overhead slides. A computer projection system will be available at the session. Approximately ten talks will be accepted for presentation. Unless otherwise indicated by submitters, abstracts of talks that cannot be included will be forwarded in a timely manner to the meeting program chair for inclusion in a regular session.

Meeting of Student Leaders

A meeting of student leaders will be held Saturday morning at 8:00 in Room 314 of the Student Union. This meeting is open to leaders of campus mathematical organizations (MAA, PME, KME, Math Club, etc.) and other interested persons.

*Information submitted by
Darren Wick, Chair; CONSTUM*



CAS Building
Site of Contributed Paper Sessions and Student Pizza Party

Directions to The University of Akron

From the NORTH (Route 8): Take Route 8 South to the Buchtel Avenue/Carroll Street exit and turn right at the first stop onto Buchtel Avenue. At the first stoplight, turn left onto Spicer Street. Take Spicer to Exchange Street and turn right. Follow Exchange past Lee Jackson Field and the Exchange Street Parking Deck. Turn right onto Buckeye Street (just before bridge over railroad tracks). Turn right onto Carroll. Follow Carroll to Lot 18, in the cul-de-sac to the south of the building.

From the NORTH (I-77): Take I-77 South to the Wolf Ledges Parkway/Grant Street exit. Turn left at the first traffic light onto Wolf Ledges. Follow Wolf Ledges under the Exchange Street bridge and stay right as the road becomes Carroll Street. Follow Carroll to Lot 18, the cul-de-sac to the south of the building.

From the SOUTH: Take I-77 North to I-77 North/I-76 West. Exit at the Wolf Ledges Parkway/Grant Street ramp. Turn right at the second traffic light onto Wolf Ledges. Follow Wolf Ledges under the Exchange Street bridge and stay right as the road becomes Carroll Street. Follow Carroll to Lot 18, in the cul-de-sac to the south of the building.

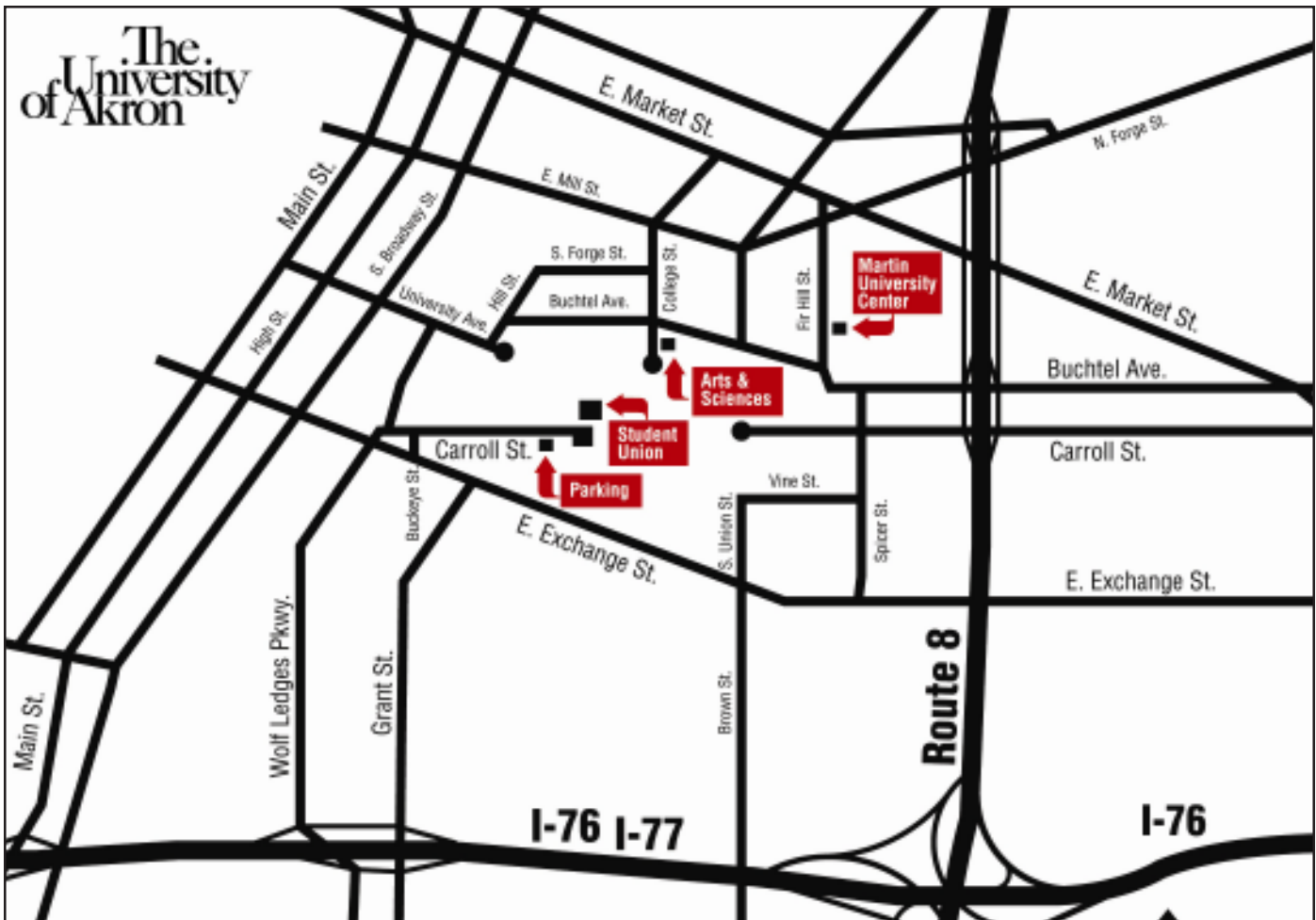
From the EAST: Take I-76 West to I-77 North/I-76 West. Exit at the Wolf Ledges Parkway/Grant Street ramp. Turn right at the second traffic light onto Wolf Ledges. Follow Wolf Ledges under the Exchange Street bridge and stay right as the road becomes Carroll Street. Follow Carroll to Lot 18, the cul-de-sac to the south of the building.

From the WEST: Take I-76 East to I-77 North/I-76 East. Exit at the Wolf Ledges

Parkway/Grant Street ramp. Turn left at the first traffic light onto Wolf Ledges. Follow Wolf Ledges under the Exchange Street bridge and stay right as the road becomes Carroll Street. Follow Carroll to Lot 18, the cul-de-sac to the south of the building.

Parking: The preferred parking lot for the meeting is Lot 18, which is accessible from Carroll Street. Meeting participants should download the parking pass which is on the meeting web site. (Start at the Section web page, www.maa.org/Ohio, and navigate to the web site that has been set up for the meeting.)

Campus map: If you wish to print a map of the University of Akron campus, there are high-quality color and black-and-white campus maps available at <http://www.uakron.edu/resources/campusMap/>



Where to Stay

Crowne Plaza (adjacent to campus)
135 South Broadway
Akron, OH 44308
330-253-5970
Ask for the special rate of \$89 for
“friends of UA.”
www.crowneplaza.com

Radisson Hotel Akron City Centre
(1/2 mile)
20 West Mill Street
Akron, OH 44308
330-384-1500
When booking, reserve under “MAA” to
receive UA rate of \$72.00.
Newly renovated rooms and lobby.
www.akronRadisson.com

Days Inn Akron (7 miles)
3237 South Arlington Rd. (at I-77 and
Arlington Rd. – Exit 120)
Akron, OH 44312
330-644-1204
Confirmed rate of \$44.95 (+ tax) for
UA / MAA conference – *per Barbara*
Rooms must be reserved or canceled 2
weeks prior to event.

Sheraton Suites Akron /Cuyahoga Falls
(5 miles)
1989 Front Street
Cuyahoga Falls, OH 44221
330-929-300
Special UA rate confirmed at \$105.00.
www.sheratonakron.com

Red Roof Inn Akron South
(7 miles)
I-77 and Arlington Rd. (Exit 120)
330-644-7748
Standard Rooms \$53.99 (+) tax
Double/King Rooms \$63.99 (+) tax
If reserved on-line, rooms range \$8-12
less.
www.redroof.com

Country Inn & Suites by Carlson
(4 miles)
(Rt. 8 and Howe Rd.)
1420 Main Street
Cuyahoga Falls, OH
330-926-1233
Standard Rooms \$79 (+) tax
Rooms will be on hold until March 9.
(*Per Monica Corbin*)

New Liaison Coordinator and New Webmaster

After eight years of service to the Ohio Section as Department Liaisons Coordinator, Tom Price is passing the torch to Wiebke Diestelkamp, of the University of Dayton. As of June 1, 2006, anyone wishing to disseminate information to Ohio Section members through the Department Liaisons' network should contact Wiebke by e-mail at Wiebke@udayton.edu, or by telephone at 937-229-2013.

Tom has also served as the Section webmaster since 2001, with the duties of maintaining the Section web site and managing the online meeting registration system. As of June 1, these duties will be performed by Darren Wick, of Ashland University. Please send your ideas and web postings to Darren at dwick@ashland.edu

The Section would like to thank Tom for his many years of service in these important roles. At the same time, we welcome Darren and Wiebke in their new roles, and thank them for their willingness to serve the Section.

T³ Regional Conferences

Do you want to learn more about teaching with technology, or do you have ideas to share with others? Then consider attending or presenting at one of the T³ (Teachers Teaching with Technology) Regional Conferences in our area:

- Siena Heights University, Adrian, Michigan, May 12-13
- Columbus State Community College, Columbus, Ohio, June 15-16.

For more information, visit www.sienahts.edu/~mat/conference.html and www.pi-dye.com/.

Attend
MathFest
Knoxville, TN
August 10-12 2006

About

The University of Akron

Founded in 1870, The University of Akron became a state university in 1967. Today, UA is the only public university in Ohio with a science and engineering program ranked in the top five nationally by *U.S. News & World Report*, and has gained national recognition in polymer science, global business, dance, psychology, marketing, nursing and intellectual property law.

The University's ten degree-granting colleges offer more than 350 associate, bachelor's, master's, doctoral and law degree programs and 100 certificate programs. The University serves approximately 23,000 students at its main campus, its Wayne College branch campus in Orrville, and at sites throughout Medina and Summit counties.

The University of Akron's 180-acre campus is located near downtown Akron. In 2004, the University completed the New Landscape for Learning initiative, a five-year program that transformed the campus with nine new buildings, 14 major renovations and 30 acres of new green space. Among the new features on campus are a Student Recreation and Wellness Center, a Student Union, and an Honors complex. Students also enjoy new classroom facilities and Simmons Hall, a one-stop shop where nearly all administrative needs are met under one roof.

The Department of Theoretical and Applied Mathematics is located in the new College of Arts and Sciences building. The Department offers bachelor's and master's degrees in mathematics and in applied mathematics, an accelerated 5-year BS/MS degree, and a Ph.D. program in engineering applied mathematics (joint with the College of Engineering).

The Department has 19 full-time faculty, all of whom are active scholars and dedicated teachers – since 2003, departmental faculty have received 11 campus awards for teaching, research and service. The Department offers about 35 different courses to over 6000 students each year, serving majors in the sciences, engineering, business and education, in addition to general education requirements.

The Department welcomes you to The University of Akron for the Spring 2006 Meeting of the Ohio Section.

Calendar

Ohio Section

Spring Section Meeting, March 31-April 1, 2006, University of Akron, Akron, OH

Ohio Section Short Course, June 7-9, 2006, Mount Union College, Alliance, OH

Fall Section Meeting, October 27-28, 2006, Muskingum College, New Concord, OH

National MAA-AMS

MathFest, August 10-12, 2006, Knoxville, TN

Annual Joint Meetings, January 5-8, 2007, New Orleans, LA

MathFest, August 3-5, 2007, San Jose, CA

Annual Joint Meetings, January 6-9, 2008, San Diego, CA

MathFest, July 31-August 2, 2008, Madison, WI

Annual Joint Meetings, January 7-10, 2009, Washington, DC

MathFest, August 6-8, 2009, Portland OR

Annual Joint Meetings, January 6-9, 2010, San Francisco, CA

MathFest, August 5-7, 2010, Pittsburgh PA

Annual Joint Meetings, January 5-8, 2011, New Orleans, LA

Other

International Conference on Technology in Collegiate Mathematics, March 16-19, 2006, Orlando, FL

Indiana Section, March 17-18, 2006, Taylor University, Upland, IN

Kentucky Section, March 31-April 1, 2006, Centre College, Danville, KY

Allegheny Mountain Section, April 7-8, 2006, Juniata College, Huntingdon, PA

NCTM Annual Meeting, April 26-29, 2006, St. Louis, MO

Michigan Section, May 5-6, 2006, Calvin College, Grand Rapids, MI

State Science Day, May 6, 2006, Ohio State University

MAA PREP workshop "Conics: Searching for Beauty Reveals Deeper Truths." May 15-19, 2006, Cleveland State U.

Joint Statistical Meetings, August 6-10, 2006, Seattle, WA.

OCTM Conference, October 12-14, 2006, Toledo OH

Indiana Section, October 15, 2006, Valparaiso University, Valparaiso, IN

AMATYC Annual Conference, Nov. 2-5, 2006, Cincinnati, OH

Complimentary copies of this newsletter are being distributed to people who would be interested in Ohio Section activities. By joining the MAA, you will get your own copy of the newsletter. If you are not an MAA member, visit the MAA's web page: <http://www.maa.org/mbsvcs/individual.html>. MAA Departmental Liaisons also have membership information.



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University Heights, OH 44118-4581

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