

Volume 7 Fall 2003 Number 3

# Fall Meeting at Ohio Northern University October 17-18, 2003



#### **McIntosh Center - Ohio Northern University**

The Fall meeting of the Ohio Section of the MAA will be held at Ohio Northern University, Ada OH on Friday and Saturday, October 17-18, 2003. The meeting starts at noon Friday and continues through 12:40 p.m.Saturday.

Carl Cowen of Purdue University, who is serving as First Vice President of the Mathematical Association of America and is President-Elect, will give an invited address Friday afternoon titled "Rearranging the Alternating Harmonic Series." And whether you decide to attend the banquet or eat elsewhere, you are encouraged to attend Carl's after-dinner address titled "Connections Between Mathematics and Biology."

David Minda of the University of Cincinnati and last year's teaching award winner, will also give an invited address on Friday titled "Some Geometric Gems via Möbius Transformations."

On Saturday there will be two more invited addresses. Leo Schneider of John Carroll Univeristy will give one titled "A Prime AIME Problem" and Jon Stadler of Capital Univeristy will deliver a second titled "Lights (over and) Out." In addition, Cathy Stoffer of CONTEAC and the University of Ashland will do a presentation on "Undergraduate Early Childhood and Middle Childhood Teacher Licensure in Ohio."

Contributed paper sessions are scheduled for both Friday afternoon and Saturday morning and readers are encouraged to submit talks. Further details about the meeting can be found on pages 12-16.

#### 2003 Teaching Award

Professor Thomas Dence of the Department of Mathematics and Computer Science at Ashland University is the 2003 recipient of the prestigious Award for Distinguished College or University Teaching of Mathematics given by the Ohio Section.

Continued page 6

Be sure to vote on the revision of the By-Laws of the Ohio Section. You may vote electronically or by U.S. mail. See details on page 6. The deadline for ballots is November 15, 2003.

#### Inside

Fall Meeting Details

Officers and Committees

Governor's Report

President's Message

Proposed Ohio Section By-Laws and Ballot

Calendar of Events

1

In July, I took over as Section Governor from Leo Schneider. I would like you all to join me in thanking Leo for his diligent work for the last three years as Section Governor, and for the many more years that he has served the Section in numerous different capacities. It is working with people like Leo, and many others too numerous to mention, that makes service in the Ohio Section so rewarding.

It is my role to report to the Section and its members on the affairs of the MAA. That is the primary purpose of this report: to report on the recent Board of Governor's meeting, held this summer in Boulder, Colorado. This body, fifty members strong, meets twice a year for a full day preceding the summer and winter meetings. For more on that topic, see below.

It also falls to me to ensure that the reports from the Section are sent to the national officers. That is easy, since our Secretary-Treasurer Bill Friel is so dependable. I am charged with finding people who might serve as members of MAA committees. The MAA is mostly a volunteer organization. There are only 26 professional staff in the DC office. Much of the work of the MAA is accomplished through the committees—there are over a hundred. A list can be found on MAA Online.

The Section Governor is the Section's representative on the MAA Board of Governors--a voting member. The term is three years. The election is conducted by the MAA. More detail is contained in the Bylaws on the Section web site. Other recent Governors have been Andrew Sterrett, Cliff Long, Olaf Stackelberg, David Kullman, and Douglas Faires--certainly a daunting list of people to follow. You can find the whole list of officers, since 1917, in the Section history on the web site.

The Board is the governing board of the MAA, much like a board of trustees. Everything goes through it. The meeting of the Board of Governors is a tightly managed affair, which is certainly necessary to get all the work done in a single day. The business conducted consists of hearing reports of the officers and some of the committees, hearing reports of staff and journal editors, approving recipients of the various awards, and electing members to various committees. The booklet containing the agenda and reports is about half an inch thick.

A down side of being section governor

#### **Section Governor's Report**

is that board members are personally liable financially for the affairs of the MAA. The good news is that the MAA has insurance to cover its governors. Part of what I found enlightening at the board meeting was the lengthy discussion of the finances of the MAA. President Ron Graham kept apologizing for the dreary detail, but on the contrary I found this information very informative, and comforting.

The MAA is certainly in good financial hands. Treasurer John Kenelly, as well as James Daniel and Dan Maki who also serve on several finance committees such as Audit, Budget, and Investment, gave reports that were thorough and well presented.

The financial news is good. In fact, this is the first year that the outside audits have had no 'reportable conditions', a technical auditing term. After some belt-tightening in 2002, we are about on track with respect to the 2003 budget. A balanced operating budget was approved for 2004.

The finances of the MAA are much more extensive than you might realize. The MAA has a \$6 million operating budget. It also administers \$6 million in grants, owns \$6 million of historic real estate near Dupont Circle in DC, and has a \$6 million endowment. The endowment was recently doubled though a gift from Paul and Virginia Halmos of \$3 million. This will be used to support the remodeled carriage house behind headquarters as a mathematical conference center.

The membership has been reported as stable, with a high renewal rate. However, there are concerns about the long term. Currently, the MAA is actively recruiting new Ph.D.'s with generous introductory dues rates and aggressive mailings. They are also promoting the sections by informing new members about the sections that they will belong to.

The MAA has begun to discuss how it can attract graduate students--at an earlier stage of their careers. The MAA has been very good about including undergraduate students in its activities and encouraging them to study mathematics, but most graduate students have very little knowledge of the MAA while pursuing their degrees. The large research institutions have few MAA members, and their graduates often have very little preparation for their real role in collegiate teaching--which more will be doing than their advisers and department chairs are willing to admit. Getting more

of these students involved in MAA will certainly help alleviate this situation. Recently, one of our own graduates returned to BGSU (not quite a large research university) on his sabbatical, and he said that it was only after he was out a while that he discovered the MAA. Now that he has discovered it, he actively publishes in its journals. He wishes this had happened earlier.

On a section level, we should actively recruit grad students, especially as they near graduation. The Ohio Section now makes grad students more welcome--by treating them as a group separate from undergraduates, for example. In the past, I have tried to drag some to Section meetings, with a little success. Sometimes they attend on their own accord. Some are now active in the Section. Since the fall Section meeting is somewhat close to us in Ada, you can be sure that I will be beating the bushes. I can report that there is a group of BGSU students who have attended meet-

Continued on page 5

#### **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.

Co-Editors
William Higgins 937-327-7859
whiggins@wittenberg.edu
Brian Shelburne 937-327-7862
bshelburne@wittenberg.edu
Department of Math & Comp Sci,
Wittenberg University
Springfield OH 45501

Deadline for the next newsletter is **February 2, 2004**Email copy is preferred.

Please send copy to the Editors (above) for the newsletter and to the Section Webmaster, Tom Price (teprice@uakron.edu), for the web.

This information will also be posted and updated on the web page www.maa.org/Ohio

#### President's Message

Do you have time next year to take a summer course? What about to take a guided "mathematical" tour of a part of Europe? Do you have a colleague, perhaps even someone new who has taught for at least two years, who you would like to honor with a nomination for a teaching award this year? Perhaps you would just like to get together with colleagues from different universities throughout the Ohio section?

I've been trying to know as much as possible about the Ohio Section and about the MAA in general. As the current president, one of my goals is to be aware of the many activities that are sponsored by our organization and to help make you aware of those activities as well.

We are all excited about the speakers coming to the fall and spring Ohio Section meetings for 2003-4. Carl Spitznagel (John Carroll University) has been very active in recruiting speakers for both the meeting at Ohio Northern University (Oct 17-18) and at the University of Cincinnati (March 26-27). I think that you will find a variety of speakers talking about interesting topics in mathematics at these meetings. Perhaps the chance to visit with colleagues from other universities in the Ohio Section is something that draws you to the meetings as well.

Thinking ahead to next summer, the Ohio Section will sponsor another great Summer Short Course. This year's course was held at Capital University (thanks for local arrangements to Jon Stadler!) on the topic of cryptology. I was able to participate for a short time, and was impressed with the number of students involved. There were faculty from several different states present. Next year, Colin Adams will be teaching about knot theory, and that should also be very good. If you're going to be traveling next summer, you should know that the national MAA sponsors short courses all around the country. Just check out the "Professional Enhancement Programs (PREP)" page at the MAA web site www.maa.org/prep for updates on the many different possibilities.

The national MAA sponsored a mathematical tour of Greece this past summer, and they felt that it was quite successful. They're planning a similar tour, led by a person specializing in mathematical history, to England for next summer. This program is called an "MAA Study Tour Abroad". There'll be details available on

the national web site, at www.maa.org.

It's not surprising to find the MAA sponsoring awards for college teaching. I'm sure you know about the one that the Ohio Section awards, but you may not know that there is a new national award. Since I taught at a university in Santa Clara for many years, I had the chance to meet Henry Alder on several occasions. In his will, he left an endowment for a teaching award for a new faculty member. The awards "are to be made to college or university faculty who have taught full time in a mathematical science in the United States or Canada for at least two but not more than seven years since receiving their Ph.D. and whose teaching has been extraordinarily successful. Their effectiveness in teaching undergraduate mathematics must be documented and shown to have influence beyond their own classroom." Applications are due on December 15, and it would be great to have an Alder Award go to a member of the Ohio Section. For our own Ohio Section Teaching Award, I'd like to encourage you to nominate a colleague by January 1. Having been honored with this award, I can say that it has meant a lot to me!

The national MAA summer meeting "MathFest 2003" was held at my old alma mater, the University of Colorado at Boulder. One new development is a book that the MAA has designed for a mathematics course for business students that is an "ebook". The course is called "Math for Business Decisions", and the MAA would be happy to give you information about it! The Ohio Section had two national NExT ("New Experiences in Teaching") Fellows involved in the summer meeting: Kevin Hutson (Denison University) and Dennis Keeler (Miami University). On another front, the MAA has an NSF grant to help "Prepare Mathematicians to Educate Teachers" (PMET), and Olaf Stackelberg (Kent State University) is one of our section members that is involved with this. You'll be hearing more about this in the next few months. Finally, the national office would like members to update their addresses on the CML ("Combined Membership List"). Just go to https://www.ams.org/ cml-update for an easy way to update your mailing address.

The Ohio NExT is a great experience for new faculty in our section. If there are new faculty joining your department this fall, do ask them to look at the Ohio Section web page http://www.bgsu.edu/departments/math/Ohio-section/NExT/ and consider submitting an application. It's a great way for them to interact with other new faculty in the Section.

I'll bet that you're a busy person, so it might be a wise thing to write the dates of Oct 17-18 and March 26-27 on your calendar now. That way you'll be ready for the Ohio Section meetings coming on those dates. I hope you'll be able to participate!

Dale Mugler



#### **Ohio Masters of Mathematics**

This web page of biographical sketches is part of Ohio's Bicentennial celebration. The project is sponsored by the Section and has been endorsed by the Science & Technology Council of The Ohio Bicentennial Commission. It is designed to "foster public understanding, education, and appreciation of mathematics as a human endeavor and Ohio's contributions to that enterprise."

There are now over three dozen sketches on the page now, with more on the way. People like Grace Bareis, the first Ph.D. from Ohio State, to Joseph Ray (Ray's Mathematical Series), Kenneth Cummins, Arnold Ross, B. F. Finkel (founder of The Monthly), and Hans Zassenhaus. The stories are fascinating.

We are now entering a new phase of the project. We still need new articles, but we also need to make the web site accessible to large numbers of people-- particularly students. For that we need your help. Please put a link to that page on your home page, department page, or the page for any appropriate organization. The more the better.

Also use this page actively in your classes. You might find a local mathematical hero. We found Edward Olney, who grew up only 10 miles from Bowling

Continued on page 5

#### 2003 -2004 Ohio Section Officers and Committees

#### **ELECTED OFFICERS**

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

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

Past-President Harold Putt, Ohio Northern 419-772-2352; h-putt@onu.edu

Section Governor 2006 Thomas Hern, Bowling Green 419-372-7450; hern@wcnet.org

Secretary-Treasurer 2006 J. William Friel, Dayton 937-229-3071; friel@udayton.edu

#### OTHER OFFICERS

Department Liaisons Coordinator, On-line Registration and Webmaster Thomas Price, Akron 330-972-8352; teprice@uakron.edu

Newsletter Co-Editors
William Higgins, Wittenberg 2005
937-327-7859;
whiggins@wittenberg.edu
Brian J. Shelburne, Wittenberg 2005
937-327-7862;
bshelburne@wittenberg.edu

Ohio Project NExT Coordinators
Mark Smith, Miami 2004
513-529-5818; smithma@muohio.edu
Dave Sobecki, Miami-Hamilton
513-785-3226; sobeckdm@muohio.edu

Public Information Officer David Meel, Bowling Green 419-372-8574; meel@math.bgsu.edu

OhioMATYC Liaison to OhioMAA Jim Anderson, Toledo 419-530-3345; jim.anderson@utoledo.edu

OhioMAA Liaison to OhioMATYC Robert Hovis, Ohio Northern 419-772-2347; r-hovis@onu.edu

OCTM Liaison
David Wallach, Findlay
419-424-4624; wallach@findlay.edu

Technology Conference Coordinator Al Stickney, Wittenberg 937-327-7856; astickney@wittenberg.edu

Archivist
John Zimmerman, Washington &
Jefferson College

724-250-3322 zim@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
\* Carl Spitznagel, John Carroll
Vickie Van Dresar, Ashland
Bill Higgins, Wittenberg
2006

Committee on Curriculum (CONCUR)

\* Mark deSaint-Rat, Miami Mdtwn 2004
Rajappa K. Asthagiri, Miami 2004
Jon Stadler, Capital 2004
Michelle Wiggins, Ursuline 2006

Committee on Section Activities (CONSACT)

\*Donald Hunt, Ohio Northern 2004
Ann Ritchey, Mt. Union 2004
Maria Raiti, Ohio Northern 2005
Lisa Rome, Coll of Mt St Joseph 2005

Committee on Student Members
(CONSTUM)
\*Darren Wick, Ashland
Judith Holdener, Kenyon
Gordon Swain, Ashland
2004
2006

Committee on Teacher Education and
Certification/Licensure (CONTEAC/L)
\*Cathy Stoffer, Ashland 2004
Phil Blau, Shawnee State 2004
Susan Enyart, Otterbein 2005
John Prather, OSU-Eastern 2005
Marsha Nichol, Capital 2006
Woody Silliman, Cleveland State 2006

#### **OTHER COMMITTEES**

\* denotes committee chair.

Nominating Committee \*Tom Gantner, Dayton Judith Palagallo, Akron Aparna Higgins, Dayton Committee on Contests
Bill Higgins, Wittenberg AMC8
David Stenson, John Carroll AMC10
& AMC12

ByLaws Committee Darrell Horwath, John Carroll J. William Friel, Dayton

Teaching Award Committee Harold Putt, Ohio Northern (PP) J. William Friel, Dayton (ST) Jerry Moreno, John Carroll Aparna Higgins, Dayton

Local arrangements for meetings:

Fall 2003 Ohio Northern Harold Putt 419-772-2352; h-putt@onu.edu

Spring 2004 Cincinnati Chuck Groetsch 513-556-7851;groetsch@emila.uc.edu

Fall 2004 John Carroll Barbara D'Ambrosia 216-397-4682; bdambrosia@jcu.edu

An updated list of Ohio Section officers and committee members may be found at http://www.maa.org/Ohio.

### Call for Teaching Award Nominations continued from page 14

in which they are nominated qualify if they fulfilled the requirement in the previous year.

Nominees should be widely recognized as extraordinarily successful in their teaching, have teaching effectiveness that can be documented, have had influence in their teaching beyond their own institution, and foster curiosity and generate excitement about mathematics in their students.

Please send inquiries, or the nomination form (see section web page) and supporting information, postmarked by January 1, 2004 to the committee chair: Harold Putt, Department of Mathematics, Ohio Northern University, Ada, OH 45810, 419-772-2352, Fax: 419-772-2985, h-putt@onu.edu.

#### Governor's Report cont. from page 2

ings-mostly national meetings (and openings of Apple stores, but that is another story).

The problem of being ill-prepared for the profession has been very successfully addressed by Project NExT, both at the national and state level. That project alone will be responsible for much of the future health of our profession, but we can do

I pointed out to the Board, using one of our instructors as an example, that the MAA should be seeking out master's level people as well. Right now, they do not have the attractive rates that the new Ph.D.s have. The MAA seems to have been receptive to the idea.

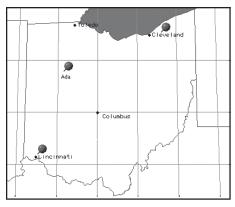
The MAA is looking ahead to the centennial of its founding. They are thinking about a 2015 meeting in Columbus, where the MAA was founded in 1915. The MAA has other roots in Ohio. The Section is one of the first sections of the MAA, and arguably the first. The American Mathematical Monthly was founded by an Ohioan, B. F. Finkel, who was also a graduate of Ohio Northern. The MAA was founded to support the publication of the Monthly-and the concerns that it addressed--when the American Mathematical Society declined to take over publication. It looks like it is time for us to start thinking about revising the Section history, which was written 1990. It is on the web site, with updated appendices.

On a separate note, the web site for the Section was successfully transferred to Akron at the end of May from BGSU. If you have been using the URL www.maa.org/Ohio as instructed, which is implemented by the MAA as web page forwarding, then you didn't notice any difference. Please use this address on all pages with links to the Section. The site is now in the capable hands of Tom Price. Please send all contributions to him at teprice@uakron.edu

I hope that this report gives you a better understanding of how the MAA works at the national level, and that you realize that you are an important part of the big picture. Remember, your involvement keeps this organization running smoothly. Please consider volunteering for a committee, and bring new people of all classifications to the fall meeting. Give them one of the extra newsletters that are sent to Liaisons.

If you have concerns or would like more information concerning the MAA, do not hesitate to contact me--that is my job.

Thomas Hern



Section Meeting Sites

#### Ohio Masters cont. from page 3

Green. Many of the institutions in the state have long histories, and there are many figures from the past connected with them. Go to the page and find yours. If none is there, then maybe you should write an article. There are still large gaps.

We have links to other sites when appropriate. The link for E.H. Moore goes to a site in Great Britain, for example. There are several articles on Ohio State's history page that we link to. (If you know of others, please let us know.) This brings up another idea. Ohio State's excellent page prompted us to start one for BGSU. So consider starting a history page for your own department. And then link back to our Bicentennial page too! We also made a page for Madison College (ever heard of it?), that came up in an article.

You can access the page from the Section web page (www.maa.org/Ohio), or directly at www.bgsu.edu/departments/math/Ohio-section/bicen/

To link to our page from yours, we suggest the follow HTML code:

<A HREF="http://www.bgsu.edu/
departments/math/Ohio-section/bicen/"><I>Ohio Masters
of Mathematics</I></A>. This
collection of biographical
sketches is part of Ohio's
Bicentennial celebration.

David Kullman kullmade@muohio.edu Thomas Hern hern@wcnet.org

#### **Ohio Project NExT**

Ohio Project NExT is a program to help young faculty members meet and interact with colleagues from colleges and universities within the Ohio Section, to share ideas and experiences that promote professional growth, and to encourage newer faculty to become involved in the Section.

Members of the Ohio Section Project NExT met in Columbus on Thursday evening, April 3rd, the day before the Section Meeting. The gathering began with a banquet at the Buckeye Hall of Fame Café. After the banquet, the NExTers held an after-dinner discussion (the topic of discussion changes each meeting; past topics have included such things as dealing with student academic dishonesty, dealing with student teaching evaluations, and dealing with the department chair).

On Friday morning, April 4th, the Ohio NExT workshop was held in the Mathematics Department Conference Room on the Ohio State University campus. The workshop featured two major speakers: John Holcomb (Cleveland State University) who spoke on "The Scholarship of Teaching and Learning" and Aparna Higgins (University of Dayton) who spoke on "Recommending, Reviewing, Refereeing". In addition to the featured speakers, short-talks on teaching were given by Ohio Project NExT members: Chris Swanson (Ashland University) and Carol Phillips-Bey (Cleveland State University).

The Ohio NExTers extend sincere "THANKS" to Phil Huneke (Ohio State) for handling all the local arrangements to make our gathering a real success. After the conclusion of the workshop, the NExTers attended the Spring Meeting of the Ohio Section.

The Ohio NExTers also want to thank John Holcomb (Cleveland State University) for three years of service as Co-Director of the program. John did a fantastic job in leading Ohio Project NExT; his enthusiasm and expertise were wonderful.

Ohio Project NExT is open to anyone who is in his/her first five years of teaching and who is strongly committed to undergraduate education. Contact Dave Sobecki <sobeckdm@muohio.edu> for membership information and Angie Spalsbury <angie@math.ysu.edu> for program information. Please consider joining us for this fall's NExT Banquet and Workshop, and the Ohio Section meeting.

Mark A. Smith Miami University

#### **Ohio Section By-Laws Voting Procedure:**

To All Members of the OHIO Section of MAA:

As you know, we, the members of the OHIO Section, are in the process of modifying our by-laws. The next step in the process is a final approval vote by the members of the Section. (Later, the national Board of Governors must also approve the changes.) In the next few pages of this Newsletter you will find a complete copy of the amended by-laws. We ask that you cast your vote in favor of these changes.

The major changes will cause the position of Secretary/Treasurer to be partitioned into two offices, a Secretary and a Treasurer. If you wish to compare the new by-laws with the present by-laws, on the web at http://homepages.udayton.edu/~friel/maasectr/revision.html you will find a "strikethrough/underline" version of the by-laws. This file will clearly indicate all the additions and deletions to the present by-laws that give the revised by-laws printed on the following pages.

You may cast your vote by either of two methods:

- 1. an electronic ballot; or
- 2. a paper ballot.

If you wish to vote electronically, please access the Ohio Section web page at http://www.maa.org/Ohio and follow the directions for casting your vote.

If you wish to use a paper ballot, please detach the ballot below and send it to:

J William Friel c/o Math Dept University of Dayton Dayton OH 45469-2316

In either case, the **deadline** for voting, as approved by the Ohio Section Executive Committee, is **15 November 2003.** 

J. William Friel, Secretary -Treasurer, Ohio Section MAA

#### 2003 Teaching Award continued from page 1

The award was presented at the spring meeting held at Ohio State University.



Professor Dence (seen on the left with his son during the presentation of the award) is a native Ohioan, from Toledo, who earned his BS degree in Education with a concentration in mathematics from Bowling Green State University in 1967. He completed an MA in mathematics at the University of Colorado

and returned to teach high school mathematics in Toledo for three years. He then resumed his studies, completing the Ph.D. in analysis at Colorado State University in 1974. Except for a post-doctoral year and a few visiting positions out of state, he has spent the rest of his teaching career in Ohio, which includes a nine-year term as chair of his department.

Over the past two decades, Professor Dence has taught a wide variety of courses, over three dozen distinct ones, ranging in level from developmental mathematics and various precalculus courses through advanced calculus and complex variables, and in breadth from the core areas of mathematics to courses such as mathematics for elementary teachers, history of mathematics, number theory, mathematical logic, operations research, numerical analysis, and several computer language and data structures courses. A colleague asserts that "he is an excellent teacher. He has a genuine concern for the success of all mathematics students and gives freely of his time to assist them and to encourage them. He is able to stimulate an excitement in mathematics in students at all levels, from the senior mathematics major to the freshman student struggling with a required mathematics course." Indeed, the students in his classes, both majors and non-majors, give him excellent ratings as a teacher, in spite of the fact that his classes are not continued on page 10

#### Ohio Section By-Laws Revision Ballot Fall 2003

#### **Revised Ohio Section By-Laws**

**NOTES:** This is a copy of our new and revised By-Laws, assuming they are approved by our section membership and and by the Board of Governors. Written by the By-Laws Subcommittee: D. J. Horwath & J. William Friel.

You may keep a copy of these revised By-Laws for your files by pulling the center pages intact from this newsletter.

This revision was approved by a voice vote of the Ohio Section, April 4, 2003, and is subject to approval by a mail ballot Fall 2003. Voting procedures are described in this Newsletter and Ohio Section members are encouraged to vote!

#### THE OHIO SECTION

#### **OF THE**

#### MATHEMATICAL ASSOCIATION OF AMERICA

#### **BY-LAWS**

#### ARTICLE I

#### Name and Purpose

- 1. The name of this Section shall be "The Ohio Section of the Mathematical Association of America", hereinafter referred to as The Section
- 2. The purpose of The Section shall be to further the development and understanding of, and instruction in, the mathematical sciences by carrying out the purposes of the national organization within the territory defined below in Article II, section 1.a.

#### ARTICLE II

#### Membership

- 1. The membership of The Section shall be as follows:
- a. Members of The Mathematical Association of America, residing in the State of Ohio or in the County of Cabell in the State of West Virginia, zip codes 43001-45899 or 25700-25799.
- b. Members of The Mathematical Association of America, not being resident in the territory of this Section, who have become members of this Section in accordance with Article VI of the By-Laws of the Mathematical Association of America

#### ARTICLE III

#### Officers

- 1. The officers of The Section shall be a President, a Past-President, a President-Elect, a Secretary, a Secretary-Elect (when this office is filled), a Treasurer, a Treasurer-Elect (when this office is filled), and a Section Governor.
- 2. Each Section officer must be a member of the Mathematical

Association of America, and of The Section.

- 3. The term of office of the President-Elect shall be one year. At the end of this term, the President-Elect shall become President. A President-Elect shall be elected each year at the Annual Meeting of The Section and shall assume office upon the adjournment of that Annual Meeting.
- 4. The term of office of the President shall be one year, beginning with the end of the term as President-Elect.
- 5. The term of office of the Past-President shall be one year, beginning with the end of the term as President.
- 6. The term of office of the Secretary-Elect shall be one year. At the end of this term, the Secretary-Elect shall become Secretary. A Secretary-Elect shall be elected at the Annual Meeting one year prior to the completion of the term of the Secretary and shall assume office upon adjournment of that Annual Meeting.
- 7. The term of office of the Treasurer-Elect shall be one year. At the end of this term, the Treasurer-Elect shall become Treasurer. A Treasurer-Elect shall be elected at the Annual Meeting one year prior to the completion of the term of the Treasurer and shall assume office upon adjournment of that Annual Meeting. To effect a staggering of offices, the first Treasurer-Elect shall be elected one year after the first Secretary-Elect. Also if necessary, the Executive Committee may appoint an Interim Secretary or an Interim Treasurer to facilitate this staggering of offices.
- 8. The term of office of the Secretary shall be three years, beginning with the end of the term as Secretary-Elect.
- 9. The term of office of the Treasurer shall be three years, beginning with the end of the term as Treasurer-Elect.
- 10. Elections to offices shall be held at the Annual Meeting. The list of candidates nominated by the Nominating Committee may be augmented by nominations made and seconded from the floor. All elections shall be by simple majority vote of those members of The Section present and voting.
- 11. Except as provided in Article III, Section 12, no one who has served as President for a term of at least six months shall be eligible for election as President-Elect or for appointment as President-Elect or President until at least four years have elapsed since the last membership on the Executive Committee resulting from election to the post of President-Elect or President as the case may be.
- 12. If an office becomes vacant between Annual Meetings, the procedure shall be as follows:
- a. Past-President. The most recent past-president who is available for appointment shall be recalled to the office.
- b. President. The President-Elect shall succeed to the office and shall serve the remainder of the term and through the succeeding term. The Executive Committee shall appoint an additional member to the Executive Committee (not as President-Elect) to serve

until the next Annual Meeting.

- c. President-Elect. The Executive Committee shall appoint an additional member to the Executive Committee (not as President-Elect) to serve until the next Annual Meeting. The Nominating Committee shall in this case nominate a candidate for President to stand for election at the next Annual Meeting.
- d. Secretary-Elect. This office shall remain vacant until the next Annual Meeting at which time a Secretary-Elect would be elected as provided for in Article III, Section 6.. The Nominating Committee shall nominate a candidate for Secretary to stand for election at the next Annual Meeting.
- e. Treasurer-Elect. This office shall remain vacant until the next Annual Meeting at which time a Treasurer-Elect would be elected as provided for in Article III, Section 7. The Nominating Committee shall nominate a candidate for Treasurer to stand for election at the next Annual Meeting.
- f. Secretary. If there is a Secretary-Elect, the Secretary-Elect shall succeed to the office of Secretary and shall serve the remainder of the term and through the succeeding term. If there is no Secretary-Elect, the Executive Committee shall appoint a Secretary to serve until the next Annual Meeting. The Nominating Committee shall, in this case, nominate a candidate for Secretary to stand for election at the next Annual Meeting, this election to be for a full term of three years.
- g. Treasurer. If there is a Treasurer-Elect, the Treasurer-Elect shall succeed to the office of Treasurer and shall serve the remainder of the term and through the succeeding term. If there is no Treasurer-Elect, the Executive Committee shall appoint a Treasurer to serve until the next Annual Meeting. The Nominating Committee shall, in this case, nominate a candidate for Treasurer to stand for election at the next Annual Meeting, this election to be for a full term of three years.
- h. Chair of the Program Committee. The member of the Program Committee next in line to become Chair shall assume that office and shall hold it to the end of the term to which the member was elected.
- i. Other Members of the Program Committee. The Nominating Committee shall nominate candidates for membership on the Program Committee to fill the vacancies for the remainder of the respective terms. Members elected to fill vacancies shall succeed to the Chair in the third year of the regular term, the unexpired portion of which they are completing, except in the case in which the office of Chair of the Program Committee is filled under the provisions of Article III, Section 10, h.
- 13. The President shall be the chief executive officer of The Section, presiding at all business meetings of The Section and of the Executive Committee, shall appoint all committees except those whose memberships are provided for in these By-Laws (unless otherwise directed by The Section), and shall be an ex-officio member of all committees.
- 14. The Secretary shall perform the following duties: 1) keep all

- the minutes of meetings of The Section, 2) circulate preliminary announcements of Annual Meetings and announcements of all other meetings of The Section, 3) prepare and submit the annual report of the section activity to the National MAA, and 4) perform any other duties which may be assigned by the Executive Committee.
- 15. The Treasurer shall perform the following duties: 1) keep all the financial records of The Section, 2) receive all monies paid to The Section for membership dues and fees and for all other purposes and shall deposit such monies in a federally insured account of The Section, 3) pay all bills of The Section out of The Section funds. 4) prepare and submit the annual report of the section's financial activity to the National MAA, and 5) perform any other duties which may be assigned by the Executive Committee.
- 16. The Past-President shall be a member of the Executive Committee and shall perform such other duties as may be delegated or assigned by the President.
- 17. The President-Elect shall be a member of the Executive Committee and shall prepare to assume the duties and responsibilities of the Office of the President.
- 18. The Secretary-Elect shall be a member of the Executive Committee and shall prepare to assume the duties and responsibilities of the office of Secretary.
- 19. The Treasurer-Elect shall be a member of the Executive Committee and shall prepare to assume the duties and responsibilities of the office of Treasurer.
- 20. The President of The Section shall appoint, for terms of appropriate length, members of The Section to such offices as are necessary for the execution of the Section's business, e.g., newsletter editor, public information officer, and the representative to the Ohio Mathematics Association for Two-Year Colleges.

#### ARTICLE IV

#### Committees

- 1. The Executive Committee shall consist of the officers of The Section, the Chairs of the Program Committee, the Committee on Section Activities, the Committee on Curriculum, the Committee on Teacher Education and Licensure and the Committee on Student Members. The President of The Section shall be the Chair of the Executive Committee.
- 2. Duties of the Executive Committee:
- a. The Executive Committee shall transact the business of The Section between the Annual Meetings of The Section and shall report its actions to The Section at the next Annual Meeting. In case of a special meeting of The Section, the Executive Committee shall submit an interim report of its actions since the last meeting of The Section. Interim reports will be included in the report submitted at the next Annual Meeting.

b. The Executive Committee shall formulate plans and policies for the consideration of The Section in meeting assembled. In making such formulations, it shall take into account any and all suggestions which it may receive from members of The Section. In addition, the Executive Committee shall fix the dues and fees as described in Article VI. In particular, it shall formulate and present at the Annual Meeting a budget to finance the operations of The Section for the year following the Annual Meeting.

With the aid of the Program Committee, the Executive Committee shall have the responsibility of organizing the Annual Meeting and all other meetings. At its discretion, the Executive Committee may delegate this responsibility or any part of it to subcommittees which the President may appoint from the membership of The Section.

- 3. The Program Committee shall consist of three members of The Mathematical Association of America, who are also members of The Section, one elected each year by the Section at its Annual Meeting to serve for a term of three years and to act as Chair of the Program Committee during the third year of the term. The newly elected member of the Program Committee shall take office upon the adjournment of the Annual Meeting at which the member is elected.
- 4. The Program Committee shall arrange, in cooperation with the Executive Committee, suitable programs for presentation at the Annual Meetings and other meetings of The Section.
- 5. The Nominating Committee shall consist of the three most recent past presidents of The Section who are members of The Section and are available for membership on the Nominating Committee, and who are not the Past-President. The most recent past president on the Nominating Committee shall be Chair of the Nominating Committee.
- 6. The Nominating Committee shall nominate at least one candidate for the office of President-Elect each year, at least one candidate for membership on the Program Committee each year, and at least one candidate for the office of Secretary-Elect one year prior to the expiration of the term of office of the Secretary (The Secretary may be nominated as Secretary-Elect.), and at least one candidate for the office of Treasurer-Elect one year prior to the expiration of the term of office of the Treasurer. (The Treasurer may be nominated as Treasurer-Elect.) It shall also nominate candidates to fill vacancies in accordance with the provisions of Article III, Section 12. The report of the Nominating Committee shall be included in the written notification sent to members of the Annual Meeting at which the elections will be held. (Cf. Article V, section 5.)
- 7. The officers of The Section shall nominate at least two candidates for the office of Section Governor during the final year of the term of the incumbent Section Governor.
- 8. The Committee on Section Activities (CONSACT) shall consist of a chair and various members of The Section appointed by the President of The Section for staggered three-year terms. Its duties shall consist of such activities of The Section as are charged to it by the President of The Section.

- 9. The Committee on Curriculum (CONCUR) shall consist of a chair and various members of The Section appointed by the President of The Section for staggered three-year terms. Its duties shall consist of ongoing studies of undergraduate mathematics curriculum and such other related matters as may be charged to it by the President of The Section.
- 10. The Committee on Teacher Education and Licensure (CONTEAL) shall consist of a chair and various members of The Section appointed by the President of The Section for staggered three-year terms. Its duties shall consist of continual study of teacher training and licensure in the state, reporting same to The Section, preparing recommendations for appropriate state authorities, and such other related matters as are charged to it by the President of The Section.
- 11. The Committee on Student Members (CONSTUM) shall consist of a chair and various members of The Section appointed by the President of The Section for staggered three-year terms. Its duties shall consist of directing and coordinating all activities of The Section which are specifically for student members of The Section, e.g., enrolling students as members of The Association, organizing and supporting student chapters, and organizing student paper sessions as meetings of The Section. The chair of the committee will serve as the Section Coordinator for Student Chapters.

#### ARTICLE V

#### Meetings

- 1. The Section shall hold one regular meeting (called the Annual Meeting) each year.
- 2. The time and place of the Annual Meeting shall be determined by the Executive Committee.
- 3. The programs for all meetings shall be arranged by the Program Committee.
- 4. The Executive Committee shall call such special meetings as it deems necessary or expedient. It shall fix the time and place of such special meetings.
- 5. The members of The Section shall be notified in writing of any regular or special meeting at least ten days in advance of the meeting. If there is to be an election held, the report of the Nominating Committee will be included in the written announcement of the meeting.
- 6. A quorum shall consist of those members of The Section present at a properly called meeting.

#### ARTICLE VI

#### Finances and Use of Assets

1. A registration fee in an amount fixed by the Executive Committee will be paid by each person in attendance at section meetings. Students shall be exempt from paying this fee.

- 2. The Executive Committee is authorized to establish voluntary annual dues for members to be paid to the Treasurer.
- 3. The Treasurer is authorized to accept financial contributions from individuals and organizations. Such contributions must be used in accordance with Article I, Section 2, of these By-Laws. Any individual or organization providing such support shall be designated as a Contributor to the Ohio Section.
- 4. A Life Payment of Fees option shall be available to any member of The Section who satisfies a minimum age requirement set by the Executive Committee and completes payment of a single sum in an amount fixed by the Executive Committee. Such an individual shall be designated as a Life Member of the Ohio Section and shall be exempt from paying dues and registration fees.
- 5. The assets of The Section shall be used exclusively to further the purposes of The Section, and in the event of the dissolution of The Section, the remaining assets shall be returned to the national organization to be used for a purpose consistent with the purpose of the national organization.

#### ARTICLE VII

#### Amendments

- 1. These By-Laws may be amended, subject to the approval of the Board of Governors of The Mathematical Association of America, in the following manner:
- a. Amendments may be proposed by the Executive Committee or by the written endorsement of at least ten members of The Section.
- b. Proposed amendments will be distributed to the membership of The Section not less than ten days prior to the next meeting of The Section, and opportunity for discussion of the proposed amendment will be provided for in the program of the meeting.
- c. The proposed amendment with any modifications adopted by a majority of those present and voting at the meeting referred to in b above shall be circulated together with a ballot for a mail vote in the next regular mailing or in an earlier mailing if so directed at the meeting by the Executive Committee. Instructions will be included to inform the membership of the deadline for reception of ballots, such deadline to be not less than one month from the date of mailing.
- d. The proposed amendment will become an amendment approved by members of The Section provided at least 55 percent of the ballots returned by the deadline specified so affirm.
- e. When an amendment has been approved by the members of The Section, it must be submitted to the Committee on Sections for its recommendation to The Board of Governors.
- 2. A complete revision of this set of By-Laws will be subject to the same procedure as that for amending this set.

known to be easy.

His students cite as major assets his enthusiasm for mathematics, his humorous attitude in class, and his availability to students. One student states that, "He challenges you to not only work to get an answer, but to understand the concepts behind the problem." Another student, who barely survived the fifth grade and entered college as an adult, had understandable fear when she entered her first calculus course. She said that, "Each day I watched closely as he answered the many questions of the other students with patience and a funny but warm smile. I often walked by his office and watched him as he helped other students. In the days that followed, I noticed as he handed back quizzes and homework that he gave each student a friendly smile, pat on the back, and hearty congratulations on a job well done; and when he reached a student who hadn't done well, he offered words of encouragement. The true litmus test came when one day I blurted out a question. He just smiled his funny smile and answered the question. More questions followed until I found myself asking every question that came to my mind." This student recently graduated with honors in mathematics, physics, and secondary education integrated science, and entered a graduate program in applied mathematics with a full tuition assistantship.

Tom has also been active over the years in the Ohio Section: he founded the MAA student chapter and organized a few MAA short courses at his school, has given several talks at Ohio Section meetings, and has published a number of papers accessible to students in the various MAA journals, including one in the latest issue of The College Mathematics Journal. When he was assigned to facilitate the mathematics Senior Seminar for the spring 1998 semester, he challenged his students to give a talk at an Ohio Section meeting, rather than just to their Mathematics Department. Twenty-two students met the challenge — and students from that school have given talks at every meeting since, including ten student talks at the spring 2003 meeting.

Tom has also been active in outreach efforts during his career: as a presenter of several summer workshops for high school teachers, as a frequent speaker at junior and senior high schools, as a coach for the local Math Counts team, as an organizer of a local mathematics contest for high school students, and as an AP calculus grader for nine years.

In addition to the teaching award presented to Tom by the Ohio Section this past spring, Tom has also won the University Academic Mentor Award (2000) and the TKE Apollo Teaching Award (2000).

(Adapted by the editors from the teaching award citation written by Tom Gantner on behalf of the Teaching Award Committee.)

#### **Campus Notes**

Miami University: This fall, Miami University welcomes two new tenure-track Assistant Professors: Dr. Dennis Keeler, Ph.D. (2000) in algebraic geometry from Michigan and a three-year appointment as a C.L. Moore Instructor and NSF Postdoc at M.I.T., and Dr. Ivonne Ortiz, Ph.D. (2003) in algebraic K-theory from SUNY Binghamton. Dennis did his undergraduate work at Miami, and Ivonne did her undergraduate work at the Universidad de Antioquia in Colombia.

**Denison University:** On October 25, 2003 Denison University will host the First Midstates Conference for Undergraduate Research in Computer Science and Mathematics (MCURCSM-2003). This is a chance for undergraduates to present original research in mathematics and/or computer science. For more information, visit the conference web site at: http://www.denison.edu/mathsci/mcurcsm2003/index.html.

Denison University would like to welcome two new members to their mathematics and computer science faculty. Dr. Kevin Hutson earned his doctorate from Clemson University and works in operations research. Dr. Snezhana Hristova is from Plovdiv, Bulgaria and works in differential equations and functional analysis.

Zaven Karian, longtime member of the MAA and of the Ohio Section, retired from Denison University at the end of the 2002-03 academic year. Zaven was the holder of the Benjamin Barney Chair of mathematics at Denison and was recognized by the Ohio Section with its Mathematics Teaching Award in 1999.

Congratulations to Denison students Michael Khoury ('03) and Elizabeth Ehret for their fine performance in the National Problem Solving Contest at Mathfest in Boulder, CO. Michael placed 1st in the nation and Elizabeth placed 5th.

University of Dayton: Wiebke Diestelkamp and Aparna Higgins organized Conversations among Women in Mathematics on Saturday, November 2, 2002, with a generous grant from UD Women's Center. The goal was to provide a forum in which women in various stages of study or careers could discuss the opportunities and challenges of pursuing careers in mathematics with each other. The program took the form of a panel discussion, followed by a luncheon that provided an opportunity for more informal discussion. The panelists were all UD alumnae and represented university teaching, high school teaching, business and industry, and informatics and library science. Participants included high school students, math alumnae, women faculty at UD, graduate students and undergraduates. We hope to be able to make this a biennial event, held in conjunction with our Biennial Alumni Seminar.

On April 8, 2003, the Department of Mathematics at the University of Dayton held its first annual Integration Bee. Over 60 students on 22 teams participated in the competition. Afterwards, the participants and math faculty enjoyed pizza, soda and conversation. For more information and pictures, visit our web site at http://academic.udayton.edu/stephanieedwards/IntegrationBee/I-B-Home.htm

Shannon Driskell joined the faculty in the Department of Mathematics this fall. Shannon recently completed all degree requirements for the PhD in Mathematics Education at the University of Virginia.

Donald Jurick, a UD alum and member of the Department of Mathematics, passed away unexpectedly in October 2002. Don was supervisor of the MathSci Learning Environment -- the computer labs housed in our department. Since Don believed that students learn best when given the opportunity to experiment and to teach each other, he gave this opportunity to the undergraduate students that he hired as monitors for the labs. Students who worked for him appreciated his attitude, as was evidenced by the number of current and former students who attended his funeral.

Undergraduate Mathematics Day at the University of Dayton will be held on Saturday, 1 November 2003. We invite contributed papers from undergraduates celebrating undergraduate mathematics in all forms - research, learning, teaching, history. There will also be limited opportunities for contributed papers from high school students, graduate students, and faculty. The day will provide an occasion for undergraduate mathematicians to meet and network with more established mathematicians. Robert Lewand, Goucher College, will present the Fourth Annual Schraut Memorial Lecture. Further details can be found at http://www.udayton.edu/~mathdept/DepartmentPage/UndergraduateConference/UndergraduateConference03.htm

**John Carroll University:** Over the summer, the department moved into the new Dolan Center for Science and Technology. Our phone numbers and mailing address are unchanged.

Linda Seiter has joined the department in a tenure track position as an assistant professor of Computer Science. Linda has a Ph.D. in Computer Science from Northeastern University, and taught at Santa Clara University and Princeton before finding her way to John Carroll.

The department is participating in the MSP (Mathematics and Science Partnership) program, made possible by an NSF grant. The partnership is between the Cleveland Municipal School District, JCU, Case Western Reserve University, Cleveland State University, and the Education Development Center. The major portion of JCU's contribution to this partnership is the development of content/best practices graduate programs in mathematics and science for Cleveland middle school teachers. The department plans to eventually open the mathematics program to all middle school teachers.

Barbara D'Ambrosia is the recipient of the 2003 Lucrezia Culicchia Award for Teaching Excellence in the College of Arts and Sciences.

Wittenberg University: The Department of Mathematics and Computer Science at Wittenberg welcomes two new visiting instructors, Sarah Hodel and John Davenport. Sarah comes to Wittenberg from the University of Akron where she completed a Master's degree in Mathematics. John comes to us from the University of Colorado where he is finishing up his PhD degree.

Barbara Ashton who was chairperson of the department is on sabbatical leave in New York City. The new chair is Brian Shelburne.

#### **Fall Meeting Program**

#### Friday, October 17

#### Saturday, October 18

Noon-4:30	Registration, Book Exhibits	8-10:30 AM	Registration, Book Exhibits
	Committee Meetings:	8:00-8:50	Coffee & donuts
	CONCUR, CONSACT, CONSTUM,	8:05-8:45	Committee meeting continuations
	CONTEAC, Program Committee.		(if necessary)
	Department Liaisons Meeting	8:50-9:00	Announcements
	Department Chairs Meeting	9:00-10:00	Invited Address
1:30-1:45	Welcome and announcements		"A Prime AIME Problem"
1:45-2:45	Invited Address		Leo Schneider, John Carroll University
	"Rearranging the Alternating	10:00-10:30	Break & refreshments
	Harmonic Series"	10:30-11:30	<ul> <li>CONTEAC presentation:</li> </ul>
	Carl Cowen, Purdue University		"Undergraduate Early Childhood and
2:45-3:15	Break & refreshments		Middle Childhood Teacher Licensure
3:15-4:05	Invited Address		in Ohio", Cathy Stoffer, Ashland Univ.
	"Some Geometric Gems via		• Contributed Papers
	Möbius Transformations"	11:40-12:40	Invited Address
	David Minda, University of Cincinnati		"Lights (over and) Out"
4:15-5:50	• Contributed Papers		Jon Stadler, Capital University
	• Executive Committee Meeting	12:40	Closing remarks
6:00-6:30	Social Time		
6:30-7:45	Banquet		
7:45-8:40	After-dinner talk		
	"Connections Between Mathematics and		
	Biology", Carl Cowen		

Check the web page for updates, online registration, and paper submission (www.maa.org/Ohio).

# Carl Cowen "Rearranging the Alternating Harmonic Series"

The commutative property of addition is so familiar to all of us as school children that it comes as a shock to those studying college level mathematics that NOT all "natural extensions" of the law are true! One of the first instances that we see the failure of an extended commutative law of addition is in infinite series. Often in the introduction to infinite series in calculus, one sees Riemann's Theorem: A conditionally convergent series can be rearranged to sum to any number. Unfortunately, the usual proof of this theorem does not indicate what the sum of a given rearrangement is. In this talk, we will examine the best known conditionally convergent series, the alternating harmonic series, and show how to find the sum of any rearrangement in which the positive terms and the negative terms are each in their usual order.

# "Connections between Mathematics and Biology"

Dr. Rita Colwell, a research microbiologist and current Director of the National Science Foundation, regards the mathematical sciences as the backbone for US

Scientific and Engineering research. Many scholars see the next few decades as a time of intensive progress in the biological sciences. Dr. Colwell sees mathematics as being an integral part of the progress in biology, not a traditional view, but a forward looking one. In this talk, Carl Cowen will outline some of the research areas in the emerging collaborations between mathematical and biological scientists. In addition, Cowen, currently studying the mathematics of neuroscience in the Purdue Biology Department and at the Mathematical Biosciences Institute at Ohio State University, will illustrate the connection between mathematics and neuroscience with a discussion of the Pulfrich phenomenon, an experiment that helps illuminate how the brain processes visual images. There are few mathematical or biological prerequisites for this discussion.

Carl Cowen was educated at Hanover College, Indiana University, University of Warwick, and received his Ph.D. in pure mathematics from the University of California, Berkeley. Following a post-doc position and teaching experiences in junior high school and small colleges, he has been at Purdue since 1978, where he served as Head of the Mathematics Department from 1997 to 2002.

For many years, his primary research interests have been in operator theory and complex analysis, specifically, studying the operator on spaces of analytic functions given by composition with a fixed function. His primary pedagogical interests have been in teaching linear algebra, both to math majors and to engineering students. Last year, Carl spent a sabbatical year at the Mathematical Biosciences Institute at The Ohio State University where he began changing his research attention to the mathematics of neuroscience. This year he is working with biologists at Purdue to develop a mathematical model of parts of the sensory system of the medicinal leech.

Carl has been involved in each of the three major mathematical organizations, and is currently serving as First Vice President of the Mathematical Association of America. He recently won the MAA's election for President-Elect, and will begin serving as President of the MAA in 2005.

# David Minda "Some Geometric Gems via Möbius Transformations"

A number of striking results in Euclidean plane geometry have elegant proofs using Möbius transformations. Several of these geometric gems will be presented. The basics of Möbius transformations will be introduced before the geometric results are given, so the talk will be accessible to anyone with an interest in geometry. Möbius transformations can be viewed as an analog of Euclidean isometries. The group of Euclidean isometries of the plane is generated by reflections over lines, while Möbius transformations are generated by both reflections over lines and reflections over circles. Orientation preserving Möbius transformations are often discussed in an undergraduate complex variables class since they have a simple expression in terms of complex numbers.

David Minda was born in Cincinnati and obtained his BS (1965) and MS (1966) in mathematics from the University of Cincinnati before leaving for the University of California at San Diego, where he received his Ph.D. in 1970. After a post-doctoral year at the University of Minnesota, he accepted a faculty position at the University of Cincinnati. His research and his teaching interests both focus on geometry. His research involves the use of hyperbolic geometry in complex analysis, and he enjoys teaching geometry classes for both pre-service and in-service math teachers.

David won the Dolly Cohen Award for Excellence in Teaching at UC in 2001, and in 2002 he received both the Ohio Section MAA Award for Distinguished College or University Teaching of Mathematics and the UC Honors Program Teacher of the Year Award.

# Leo Schneider "A Prime AIME Problem"

During my years on the MAA's national high school contest committee, one of the problems I authored for the American Invitational Mathematics Examination maximized the correlation with the overall results for that year's problems. Let's solve it. Then I will discuss its connections with: (a) a proof of a theorem occasionally seen in number theory texts; (b) that proof's second order connection with the Ohio Section; and (c) a very direct connection with this fall's Ohio Section meeting.

Leo Schneider received his B.S. and M.S. in mathematics from Xavier University in Cincinnati, and his Ph.D. from Case Western Reserve University in Cleveland, writing his thesis, Oscillatory Properties of the Fourth Order Linear Self-Adjoint Differential Equation, under Alan Lazer.

He is now a Professor of Mathematics at John Carroll University, where he began as an Instructor in 1963.

Leo has served the Ohio Section in numerous capacities, including a 14-year stint as the Ohio Examination Coordinator for the MAA's American Mathematics Competitions, various committee memberships, President of the Section, and a three-year term as Ohio Section Governor. For the national MAA he served 12 years on the American High School Mathematics Committee, the last six as chair; he helped host the 2001 International Mathematics Olympiad in Washington, and also served as one of the 48 IMO coordinators (graders). He has been involved with the American Regions Mathematics League [ARML] for the past 17 years in various capacities (Test Construction Committee, Power Question Grader, Head Judge). This will be his fourth year as the author of the New York State Mathematics League [NYSML] state meet, and he has recently authored the annual Massachusetts Mathematical Olympiad. Currently, Leo is beginning his fifth year on the national Pi Mu Epsilon Council, and his second year as their national Secretary-Treasurer.

# CONTEAC presentation: Cathy Stoffer "Undergraduate Early Childhood and Middle Childhood Teacher Licensure in Ohio"

CONTEAC has conducted a study of the undergraduate early childhood and middle childhood teacher licensure programs in Ohio to answer the questions: What courses are required? How are these courses taught? Are the programs meeting NCTM's Professional Standards and the recommendations of the MET Report? The data has been compiled and will be shared.

## Jon Stadler "Lights (Over and) Out"

Lights Out is a handheld puzzle produced by Tiger Electronics. Played on a 5x5 array of buttons/lights, its solution is rich in linear algebra and combinatorics. We will investigate and solve fictitious versions of Lights Out by exploiting the solution to the original puzzle. The first version generalizes the original puzzle by allowing each light to take on integer values. We then will use this solution to demonstrate how to play when the lights take values selected from any group whose elements can be written as a finite product of generators. We will

conclude by solving one such puzzle, Lights Over and Out.

Jon Stadler from Capital University is Ohio through-and-through. After receiving his undergraduate degree from Bowling Green in 1992, he pursued his Ph.D. at The Ohio State University, receiving it in 1997. Jon taught at Coastal Carolina University in South Carolina for one year before returning to Ohio to teach at Capital University, where he is in his fifth year of teaching. Since returning to Ohio, he has been active in the Ohio MAA and the Ohio Project NExT.

Jon's areas of interest include enumerative combinatorics, number theory and calculus. Recently, he has enjoyed studying combinatorial game theory. He has been juggling for about 20 years and has been studying the mathematics of juggling for about half that time. This mixture of hobby and mathematics has provided him several opportunities to share his investigations of juggling patterns and their mathematical curiosities.

#### **Call for Contributed Papers**

Fifteen-minute presentations on any topic of general interest in mathematics or related areas are encouraged. 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 **October 3, 2003**.

Although online submission with your meeting registration is preferred, you may also submit your abstract by mail or email to the chair of the Program Committee: Carl Spitznagel, Department of Mathematics, John Carroll University, Cleveland, OH 44118, spitz@jcu.edu. Presentation rooms will include an overhead projector and either a blackboard or a whiteboard. The contributed paper program will be posted on the web page prior to the meeting.

#### **Banquet**

The Friday evening banquet will be in the Wishing Well in McIntosh Center. It is a buffet with seasonal fruit medley, mixed green salad, apple salad, chicken breast, sliced roast beef, vegetable lasagna, oven browned potatoes, rice pilaf, vegetable medley, rolls/w butter, coffee or hot/iced tea and assorted pies for dessert.

The banquet cost is \$17. Registration deadline is October 10, 2003. Space is limited. There may be additional banquet tickets available on site, but this cannot be guaranteed.

#### Directions to Ada, Ohio

From Toledo(1 hr 15 mins.): Take I-75 south to Mt. Cory/Ada exit; then State Route 235 south to Ada, Ohio.

From Cincinnati (2.5 hrs.) or Dayton, OH (1.5 hrs.): Take I-75 north to Lima Ohio; then State Route 81 east to State Route 235 south to Ada, Ohio.

From Columbus (1.5 hrs.): Take I-270 northwest to US 33 west to Marysville, Ohio; then State Route 31 to Kenton, Ohio; then State Route 309 west 13 miles to the intersection of State Route 235; then State Route 235 north to Ada, Ohio.

From East Cleveland (3 hrs.): Take I-271 south; then I-71 south to Route 30; then Route 30 west to State Route 235; then State Route 235 south to Ada, Ohio.

From West Cleveland (2.5 hrs.): Take the turnpike, Route 80, west to Route 53 south exit, follow Route 53 south to Route 6 west; then Route 6 west to I-75; then I-75 south to Mt. Cory/Ada exit; then State Route 235 south to Ada, Ohio.

From Youngstown (3.5 hrs.): Take I-76 west through Akron, Ohio; then I-71 south; then US 30 west; then SR 235 south to Ada, Ohio.

From Southeast Ohio: Proceed to Columbus and then take I-270 northwest; then US 33 north to Marysville, Ohio; then SR 31 north to Kenton, Ohio; then SR 309 west; then SR 235 north to Ada, Ohio.

#### Where to stay

Note: Please call the motel for availability and room rates. The rates provided will give you an approximate charge for each establishment. Be sure to specify that you are a guest of Ohio Northern University when making reservations. The mileage given represents the approximate distance from the location to ONU. The letters correspond to the locations shown on the area map.

- A. **Bluffton** (I-75 & St. Rt. 103, exit 142, 11 mi) Comfort Inn, 419-358-6000, \$58.49+tax
- B. Lima (I-75 & St. Rt. 309, exit 125, 15 mi)
  Hampton Inn, 419-225-8300, \$72.00+tax
  Holiday Inn, 419-222-0004, \$59.00+tax
  Motel 6, 419-228-0456, \$33.99+tax (single)
  \$39.99+tax (2 people)
  Super 8, 419-227-2221, \$40.95+tax (1person, 1 bed)
  \$50.95+tax (2 people, 1 bed)
  \$56.95+tax (2 people, 2 beds)
- C. **Lima** (I-75 & St. Rt. 81, exit 127, 15 mi) Comfort Inn, 419-228-4251, \$54.00+tax Days Inn, 419-227-6515, \$33.95+tax (single) Econo Lodge, 419-222-0596, \$36.00+tax (single) \$40.00+tax (double)
- D. **Kenton** (902 E Columbus, St. Rt 67, 16 mi) Amerihost, 419-675-1400, \$60.00+tax

#### **Parking and Registration Locations**

Parking for the meeting will be available in lots P and S (see campus map) off W. Lincoln Avenue. Lincoln Avenue and Main Street (St Rt 235) intersect in the center of Ada. The Post Office is on the northwest corner of this intersection. Meeting registration will take place in McIntosh Center (#25 on campus map) on Friday afternoon and in Meyer Hall of Science (#45 on campus map) on Saturday morning.

#### Meeting Registration

Online registration is preferred; see the meeting web page www.maa.org/Ohio. Deadline for online registration is October 10

On-site registration is always available, but last minute banquet tickets cannot be guaranteed. Early registration helps those making arrangements and is always appreciated.

You may also register by sending the following information: name, affiliation, address, phone, email address (if any), type of position, and banquet information. Send with check, payable to Ohio Section MAA, for applicable fees [registration fee (\$20 full time, \$10 retired or part time, no fee for students), banquet (\$17)] to Harold Putt, Department of Mathematics, Ohio Northern University, Ada, Ohio 45810 (419)772-2985(fax), h-putt@onu.edu. Fax or email registrations would be pending upon receipt of registration fees.

#### **Book Exhibits**

At press time, the organizers are in the process of contacting publishers concerning book exhibits. Please encourage book reps to contact Harold Putt and take advantage of a captive audience. 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.

# Call for Distinguished Teaching Award Nominations

Nominations for the 2004 Ohio Section Award for Distinguished College or University Teaching of Mathematics are now being welcomed. Anyone may nominate an Ohio Section member for the award. Department chairs and MAA Liaisons should verify that all worthy colleagues will be considered.

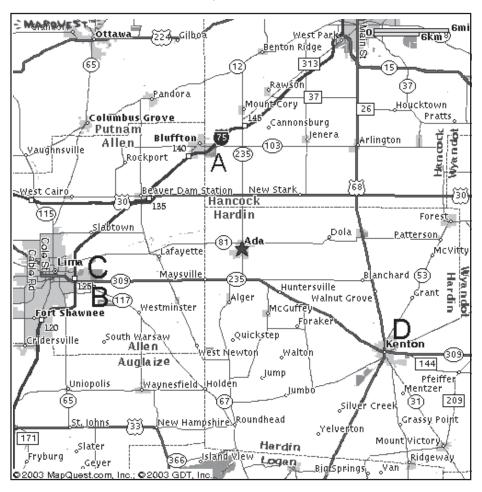
The awardee will be announced and honored at the 2004 Spring Ohio Section meeting. News of the Award will be published in the Section newsletter, newspapers, and in other sources. Official letters will be sent to the appropriate persons at the awardee's institution.

The awardee will also be the Section candidate in the pool from which the recipients of the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics will be selected. There will be up to three such awards, each of which will be honored at the National Mathematics Meetings in January, 2005, and receive a \$1000 check and a certificate.

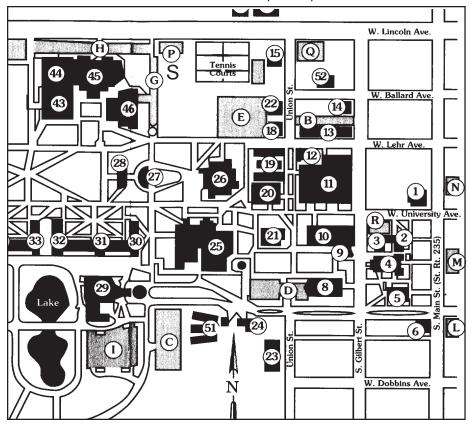
The following are the rules and guidelines from the MAA: Those eligible are College or University teachers assigned at least halftime during the academic year to teaching a mathematical science in a public or private college or university (from two-year college teaching through teaching at the Ph.D. level), who have at least five years teaching experience in a mathematical science, and are members of the Ohio Section of the MAA. Those

Continued on page 4

#### Map of the Area



#### Ohio Northern Campus Map





#### OHIO NORTHERN UNIVERSITY

Ohio Northern University is a coeducational, residential, United Methodist church-related institution, founded in 1871. ONU enrolls approximately 3,300 students engaged in exciting, comprehensive, cutting-edge educational programs in the Colleges of Arts and Sciences, Engineering, Pharmacy, Business Administration, and Law. The undergraduate colleges at ONU offer over 60 majors and pre-professional programs. The College of Law offers the J.D. ONU is known for its solid educational programs and excellent networking connections with employers.

The University has a well-designed and maintained physical plant located on a 280-acre site in the village of Ada, OH. Ada is a community with a population of 5,000 in a rural area 15 miles east of Lima and approximately 1-1/2 hours driving distance from Toledo, Dayton, and Columbus. Ada provides a small town atmosphere that compliments the friendly environment found on the ONU campus.

The Department of Mathematics offers the B.S. and B.A. degree with majors in mathematics and mathematics/statistics and minors in mathematics, applied mathematics and applied statistics. The department also provides coursework for students in engineering, pharmacy, business, and a variety of areas in the arts and sciences. The department presently has 12 full-time and several adjunct faculty members.

Among the notable alumni of ONU are Benjamin Franklin Finkel who founded the American Mathematical Monthly and C. J. Keyser a prolific writer and lecturer in the area of mathematical philosophy who served as Adrian Professor of Mathematics at Columbia University from 1904-1927.

#### Spring 2004 Meeting

Mark your calendar for the Spring 2004 Ohio Section meeting on March 26-27 at the University of Cincinnati. We have a program that you won't want to miss, including featured talks by Joe Gallian, Dan McWhorter (from NSA), Judy Holdener and Dale Mugler. For a look at the preliminary spring program, see http://www.jcu.edu/math/maa/spring/program.htm.

#### Calendar

#### **Ohio Section**

Fall Section Meeting, October 17-18, 2003, Ohio Northern University, Ada, OH.

Spring Section Meeting, March 26-27, 2004, University of Cincinnati, Cincinnati, OH.

Fall Section Meeting, October 22-23, 2004, John Carroll University, Cleveland, OH. (University Heights).

#### **National MAA-AMS**

Annual Joint Meetings, January 7-10, 2004, Phoenix, AZ.

MathFest, August 12-14, 2004, Providence, RI.

Annual Joint Meetings, January 5-8, 2005, Atlanta, GA.

MathFest, August 4-6, 2005, Albuquerque, NM.

Annual Joint Meetings, January 12-15, 2006, San Antonio, TX.

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

Annual Joint Meetings, January 4-7, 2007, New Orleans, LA.

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

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

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

#### Other

Indiana Section, October 18, 2003, Goshen College, Goshen, IN.

AMATYC Annual Conference, November 13-16, 2003, Salt Lake City, UT.

Allegheny Mountain Section, March 26-27, 2004, West Virginia Weslevan College, Buckhannon, WV.

Indiana Section, April 2-3, 2004, Indiana State University, Terre Haute, IN.

Kentucky Section, April 2-3, 2004, Murray State University, Murray, KY.

NCTM Annual Meeting, April 21-24, 2004, Philadelphia PA.

Michigan Section, May 7-8, 2004, Oakland University, Rochester, MI.

State Science Day, May 8, 2004.

Joint Statistical Meetings, August 8-12, 2004, Toronto, Canada.

Indiana Section, Nov 5-6, 2004, University of Evansville.

AMATYC Annual Conference, November 18-21, 2004, Orlando, FL.

NCTM Annual Meeting, April 6-9, 2005, Anaheim, CA.

Michigan Section, April/May, 2005, Alma College, Alma, MI.

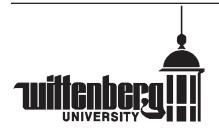
Non-Profit Org. U.S. Postage

**PAID** 

Springfield, OH

Permit No. 30

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, look at the web page: www.maa.org/ mbsvcs/individual.html. MAA Departmental Liaisons also have membership information.



Department of Math and Computer Science Ward Street at North Wittenberg Avenue Post Office Box 720 Springfield, Ohio 45501-0720

If undeliverable, do not return. Give to someone in mathematics.

Complimentary Copy