Spring Meeting at The Ohio State University April 4 - 5, 2003

Mathematics Building - OSU

The Spring meeting of the Ohio Section of the MAA will be held at The Ohio State University, Columbus OH on Friday and Saturday April 4 - 5, 2003. The meeting starts at 1:30 P.M. Friday and continues through 1 P.M. Saturday.

Dan McWhorter of the National Security Agency begins the meeting with the invited address "Introductory Coding Theory". At 3:15, he is followed by Ravi Vakil of Stanford University who will present a talk titled "The Mathematics of Doodling". Dan McWorter will give a second presentation with an after-dinner address "Mathematics at the National Security Agency".

Whether you decide to attend the banquet or eat elsewhere, you are encouraged to attend the after-dinner address and the short business meeting that will follow. At the business meeting elections for sectional officers will take place (see the report of the nominating committee on page 3 to view the list of candidates) and the winner of the prestigious Ohio Section Award for Distinguished College or University Teaching of Mathematics will be announced.

On Saturday President Harold Putt from Ohio Northern will give the retiring president's address on "Some Applications of Abstract Algebra". Following Harold's talk, Ann Ritchey of Mount Union will present an invited talk on "Math Connections". Ravi Vakil will deliver the final talk of the meetings entitled "Why the Golden Mean".

Contributed paper sessions are scheduled for both Friday afternoon and Saturday morning and students are especially urged to contribute talks. Further details about the meeting can be found on page 8.

1

Section Governor's Report

I attended my sixth and last MAA Board of Governors' meeting in Baltimore on January 14. We accomplished much. Under the able leadership of President Ann Watkins, the meeting finished early, which I think might be a record. This spring the national MAA office will run the election between the two very experienced and capable candidates nominated to succeed me.

Despite a small electrical fire in the Sheraton Hotel the day before we arrived and weather almost as cold as Ohio's, Baltimore was a great place for our winter meeting. All those great Italian restaurants located in Little Italy, which is so close to Baltimore's convention center, make this a great location for the meeting. Attendance figures indicated this to be one of the best-attended national MAA meetings.

Some of us had to miss part of the Baltimore meeting because of interference with the start of our spring semester. For those inconvenienced in that way this year, some of our next winter meetings are scheduled earlier in January. No new meeting sites were approved. They are actively investigating locations for summer MathFests beyond 2005. These national meetings help us in so many ways to become better teachers. We all owe it to ourselves and our students to attend as many as we can. I hope to see you in Boulder this summer.

These are the future MAA summer and winter meeting sites and dates approved so far: Boulder, CO, July 31-August 2, 2003 [Thursday-Saturday]; Phoenix, AZ, January 7-10, 2004 [Wednesday-Saturday]; Providence, RI, August 12-14, 2004 [Thursday-Saturday]; Atlanta, GA, January 5-8, 2005 [Wednesday-Saturday]; Albuquerque, NM, August 4-6, 2005 [Thursday-Saturday]; San Antonio, TX, January 12-15, 2006 [Thursday-Sunday]; New Orleans, LA, January 4-7, 2007 [Thursday-Sunday]; San Diego, CA, January 6-9, 2008 [Sunday-Wednesday]; Washington, DC, January 7-10, 2009, [Wednesday-Saturday]. Jim Tattersall is our MAA Associate Secretary who works on selecting these sites, and he does a tremendous job!

Our Section Governor is a member of our Section Executive Committee. The Governor runs a meeting for departmental liaisons at the spring Ohio Section meeting. A more public function of the Governor at our Section activities involves the presentation of certificates to our 25-year and 50-year MAA members. We made the presentations at the banquet during our fall meeting in Warren. This was a very special event for me. I presented two of the certificates to faculty members I knew very well during my years of doctoral studies at Case Western Reserve University; one of the certificates was for one of my former students at John Carroll, and many of the other certificates were for friends I have worked with in the Ohio Section. I presented 50-year certificates to Robert Clark and Ernest Leach, and 25-year certificates to Constantine Kliorys, Danny Otero, and Michael Zwilling. Others who earned 25-year certificates but were not present to receive them at the meeting were Susan Colley, Todd Feil, David Trunnel, and Jeff Yoder.

In this, my final column as Section Governor, I would like to thank everyone in the Ohio Section for giving me this opportunity to serve them and to work with them. It was truly a pleasure!

The following paragraphs are gleanings from the topics covered at our Baltimore Board of Governors meeting:

Despite a dismal economy, preliminary unaudited figures indicate that fiscally, our national MAA came out just about even for 2002. The big financial news for the MAA this year were two large donations from well-known members from California. Professor and Mrs. Paul Halmos (retired from Santa Clara University) donated $3 million for the renovation of the smaller building behind our historic MAA headquarters in Washington so that it can be used for meetings and small mathematics conferences. Professor Henry Alder, retired from the University of California at Davis, died and left a substantial amount of money to the MAA to be used to initiate a Teaching Award for beginning college teachers. These awards will complement the Haimo Teaching Awards which are designated for those with more experience. These two large donations overshadow some large grants the MAA has been able to secure recently, and the programs funded by these grants will help all of us in our teaching, either directly or indirectly. PMET [Preparing Mathematicians to Educate Teachers] is one of the larger of these. This grant will make it possible for the MAA to offer several workshops this summer for college faculty who prepare elementary teachers and for those who prepare secondary teachers, so check out WWW.MAA.ORG/PMET for details. PREP [Professional Enhancement Programs] is a grant for workshops throughout the country on 15 different topics scheduled for various weeks between March 14, 2003 and January 6, 2004, and these are listed at

---

President's Message

Greetings everyone! I hope you had an enjoyable holiday season and that you are surviving this classic Ohio winter. In any case, I'm sure you are looking forward to spring and our spring meeting at The Ohio State University. I know that I am. The Program Committee (chaired by Sherri Brugh) has arranged for a very interesting meeting. The details concerning the meeting appear elsewhere in this newsletter, so I won't repeat them here. However, I do want to offer my thanks to Sherri and her committee for their fine work.

Those of you who attended the January 15 - 18 meetings in Baltimore can confirm that winter was in full force there as well. Nevertheless, the meetings were very well attended and the sessions that I visited very interesting. I must confess however that a bout of intestinal flu kept me from doing some of the things that I had planned. Having the flu is no fun when you are at home and it's really no fun in a hotel room.

I was able to attend the Wednesday afternoon Section Officer's Meeting. Bill Friel, Tom Hern, and I represented the Ohio Section. At this session we heard about an MAA grant proposal aimed at improving mathematics courses for pre-service teachers, material for a Mathematics for Business Decisions course which represents the MAA's first attempt at an all electronic publishing venture, and the wide variety of professional development workshops that will be offered this summer via the MAA's PREP program. Other items discussed at the Section Officer's Meeting were section newsletters (both hardcopy and electronic), websites, and histories. Bill, Tom and I noted with pride that our Ohio Section is experienced in all of these areas and has significantly more such experience than many other sections. Finally, there was discussion concerning ways to encourage various constituencies to attend section meetings and become involved in section activities. The constituencies mentioned included undergraduate and graduate students, high school teachers, two-year college faculty, and MAA members of "long duration."

Also during the Baltimore meetings, President-elect Dale Mugler and I met with Olaf Stackleberg of Kent State to discuss in more detail the MAA grant proposal related to improving courses for pre-service teachers. Initially, five states will be directly involved in this PMET (Preparing Mathematicians to Educate Teachers) program. Ohio is one of them. Olaf is coordinating Ohio's involvement. Olaf recently informed me that the proposal has been funded and that he is planning a workshop for summer 2004 at Kent State. Olaf will share the details of the program with the members of CONTEAC at the spring meeting.

As most of you know our section has done an excellent job of encouraging student participation. We consistently have large numbers of students attending and giving presentations at our spring meetings. I'm sure the April 4 - 5 meeting will be no exception. On the other hand, we don't see a lot of graduate students at our meetings. This is unfortunate because it is the current generation of graduate students in mathematics who will become the next generation of college faculty in mathematics. The future leaders of the MAA must come from this next generation of college faculty in mathematics. What can we do to increase graduate student participation in section activities? For one thing, faculty at institutions with graduate programs can bring graduate students with them to the meetings. I have fond memories from my graduate school experience of accompanying Tom Hern, Cliff Long, Fred Rickey and others to Ohio Section meetings. Their mentoring had a tremendous impact on me. I encourage all of you who are at institutions with graduate programs to bring a graduate student with you to the spring meeting. We could end up with just as many graduate students as undergraduate students at the meeting.

Take care and I hope to see you on April 4 - 5 in Columbus.

Harold Putt

Report of the Nominating Committee

The Nominating Committee presents the following slate of candidates: Mark A. Smith (Miami University) for President-Elect and William J. Higgins (Wittenberg 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.

Mark Smith has been at Miami University since 1977 and is currently Department Chair. In the Ohio Section, Mark is a coordinator of Ohio Project NExT.

William Higgins joined the Wittenberg faculty in 1984. He serves the Section as the Ohio Coordinator of the American Junior High School Mathematics Exam and as co-editor of the Ohio Section newsletter.

The elections will take place at the business meeting, Friday evening, April 4, 2003 after the banquet at The Ohio State University. Nominations may also be made from the floor.

Judy Palagallo, Chair
Roger Marty
Leo Schneider

Ohio Section Future Meeting Sites

3
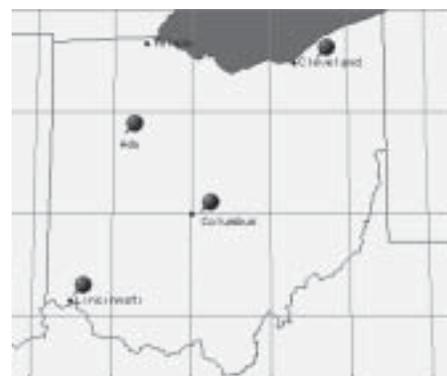
2002 -2003 Ohio Section Officers and Committees

ELECTED OFFICERS

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

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

Past-President
Thomas Gantner, Dayton
937-837-1152; gantner@udayton.edu

Section Governor
Leo Schneider, John Carroll   2003
216-397-4481; leo@jcu.edu

Secretary-Treasurer
J. William Friel, Dayton   2003
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 Co-oordinator
Mark Smith, Miami   2004
513-529-5818; smithma@muohio.edu

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

OhioMATYC Liaison to OhioMAA
Mary Ann Hovis, Rhodes State
419-995-8422;
hovis.ma@rhodesstate.edu

OhioMAA Liaison to OhioMATYC
Robert Hovis, Ohio Northern
419-772-2357; 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, Ohio U-Lancaster
740-654-6711 x231
zimmerman@lancaster.ohiou.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
*Sherri Brugh,   Mount Union   2003
Carl Spitznagel, John Carroll   2004
Vickie Van Dresar, Ashland   2005

Committee on Curriculum (CONCUR)
* Mark deSaint-Rat, Miami Mdtwn 2004
David Hahn, Malone   2003
Charles Hampton, Wooster   2003
Rajappa K. Asthagiri, Miami   2004
Jon Stadler, Capital   2004
Christopher Swanson, Ashland   2004

Committee on Section Activities (CONSACT)
*Donald Hunt, Ohio Northern   2004
Irina Chernikova, Akron   2004
Ann Ritchey, Mt. Union   2004
Maria Raiti, Ohio Northern   2005
Lisa Rome, Mt St Joseph   2005

Committee on Student Members (CONSTUM)
Darren Wick, Ashland   2004
Judith Holdener, Kenyon   2003
Gordon Swain, Ashland   2003
Deborah Denvir, Marshall   2004
Jeffery Adler, Akron   2005
Mihai Caragiu, Ohio Northern   2005

Committee on Teacher Education and Certification (CONTEAC)
*Cathy Stoffer, Ashland   2004
Woody Silliman, Cleveland St.   2003
Linda Saliga, Akron   2003
Phil Blau, Shawnee State   2004
John Prather, OU-Eastern   2005
Susan Enyart, Otterbein   2005

OTHER COMMITTEES

* denotes committee chair.

Nominating Committee
*Judith Palagallo, Akron   2005
Roger Marty, Cleveland St.   2003
Leo Schneider, John Carroll   2003

Committee on Contests
Bill Higgins, Wittenberg AMC8
David Stenson, John Carroll AMC12

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

Teaching Award Committee
Tom Gantner, Dayton (PP)
J. William Friel, Dayton (ST)
Jerry Moreno, John Carroll
Al Stickney, Wittenberg

Local arrangments for meetings:

Spring 2003 Ohio State
Phil Huneke, 614-292-7844;
huneke@math.ohio-state.edu

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

---

choosing not to write individual paragraphs use generic paragraphs written by EMPT staff.

The benefits to EMPT colleges are that each is sent a list of all students who have expressed an interest in the college (if requested), and each is given a list of students who have a high placement level and who have expressed interest in mathematics and/or teaching. In both cases, you have an opportunity to send letters to these students to encourage them to take more math courses (and higher level courses) while still in high school, and to encourage the second group to consider the teaching profession - at your college. If the EMPT contact writes the student report paragraphs, the college is cited - giving additional exposure to that college.

If your college does not participate and you would like to, please email Ed Laughbaum at <elaughba@math.ohio-state.edu> for a packet of information about our reports and summary data.

Ed Laughbaum
Director, EMPT Program

WWW.MAA.ORG/PREP.

The MAA's Special Interest Groups [known as SIGMAAs] have grown to seven. In addition to the four SIGMAAs you find one click away from WWW.MAA.ORG, there are three new ones: Environmental Mathematics; the Philosophy of Mathematics; and the Web.

From now on, MAA members will have the option to vote for national officers electronically. You will receive a notice of the election in the mail with a short biography of the candidates that will contain URLs with much more information. Your ballot, which you may mail in if you wish, will contain a number and directions for using that number to cast your ballot electronically (and therefore postage-free). Other professional societies have found an increase in the percentage of members voting when they have tried this system.

Because of all the financial and other responsibilities on the shoulders of any board, the MAA had to restrict the use of substitutes and proxies at its board meetings. At one point in our discussion it looked as though a Section whose Governor could not attend a meeting would be without a voice. The compromise that we finally approved permits a Section Governor who cannot attend a Board meeting to get a former Governor from the Section as a substitute.

Currently the MAA is selling lots of books electronically but through Amazon.com and members who purchase books this way cannot take advantage of the discounted prices for MAA members. At our January Board meeting, Carol Baxter of the MAA office, promised that by the time you are reading this MAA members will be able to purchase MAA books electronically directly from the MAA and receive their member discount when doing it. There are so many MAA good books being published (24 new titles in 2002) that it would be worth your while to regularly check WWW.MAA.ORG to look through their titles. Of course, if you can wait to make your purchase at Ohio Section meeting in Columbus, you get your discount and our Section gets a kick-back.

Retirement is no reason to drop the MAA. When you notify the MAA that you have retired, your dues go down to zero, and you have the right to subscribe to journals at a reduced rate (about half the cost of dues). In addition to the retired status, the MAA also offers Life memberships.

Leo Schneider [LEO@JCU.EDU]
John Carroll University
January 31, 2003

Cleveland and Northeast Ohio to host International Science Fair in May 2003

JUDGES NEEDED IN MATHEMATICS

The Intel ISEF, now in its 54th year, is the only international science project competition for students in the 9th - 12th grades. The Intel ISEF has been dubbed "The Olympics of Science Fairs" as approximately 1,500 students from all 50 states and 40 countries compete in 14 science and engineering categories for over $2,000,000 in scholarships and prizes. Student participants (referred to as Finalists) who compete at the Intel ISEF have gone through a stepwise process to qualify. Students first compete in school or local science fairs and then participate in regional and/or state fairs. Only as winners of these fairs may students be selected to participate in the Intel ISEF.

For us, this is a great opportunity to advertise the high quality of science we do here in Ohio, both to the students, and to the many state and national entitites involved here. As a pointed example, the local organizing leader (Jeanette Graselli Brown) is also chair of the Ohio Board of Regents (yes, those regents!). What we can do is volunteer to be judges -- they need over 1000 PhD or highly experienced scientists to judge projects ranging from biochemistry to zoology (and including MATHEMATICS). Judges will be active May 13 and 14, 2003. Along with judging perhaps 10 projects, the judges will be meeting with 5-10 NOBEL PRIZE WINNERS who will also be attending.

More information is available at:
http://www.intelisef2003.org/html/grand_award_judges.htm
and associated web pages

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 should read Joseph Gallian's article "How to Give a Good Talk" in the April 1998, Math Horizons. This article is available on the web at http://www.jcu.edu/math/constum/gallian.pdf

The presentation rooms will include a blackboard and one overhead projector. 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. Otherwise, abstracts may be submitted by U.S. mail or e-mail to the chair of the Program Committee: Sherri Brugh, Department of Mathematics, 1972 Clark Avenue, Mount Union College, Alliance OH 44601, brughsl@muc.edu. Please include your name, institution, e-mail address, student status (junior, senior, etc.), name of faculty mentor for the talk, your intended audience (upper lever undergraduate, lower level undergraduate, etc.), the title of the talk, and a brief description of the presentation.

Ohio Early College Mathematics Placement Testing Program

The Early Mathematics Placement Testing Program (EMPT) is almost a quarter century old. We test Ohio high school sophomores, juniors, and seniors for math readiness through a placement test - with funding from the Ohio Board of Regents. But the tests are simply tools used to provide the student and school personnel with information about their students. The school receives full summary statistics about all students and each student receives an individualized report based on the test results and answers to background questions about their possible college education.

There are currently 43 colleges/universities in Ohio who participate in the EMPT Program by providing information on math courses offered, and on mathematics degree requirements. Contacts at these colleges also provide individual paragraphs that make-up the student reports - all based on their placement score. EMPT contacts

Ohio Section MAA Summer Short Course - 2003
Cryptography
July 16 - 18, 2003
Robert Lewand, Goucher College
Hosted by Capital University

Abstract

Can you keep a secret? One can imagine that from the very outset human beings have held information that they wished to share with some, yet keep secret from others. Certainly cryptography, or secret writing, has a role to play in modern political and commercial correspondence. Anyone who has ever entered a credit card number into a text box on a secure web site has actually participated in cryptography, perhaps unwittingly.

In this course, designed for those with absolutely no experience in the subject, we will investigate techniques of encryption and decipherment along with the mathematical underpinnings of these systems. We will discuss various symmetric encryption schemes (affine, keyword, the Vigenère Square, Playfair's System and Hill's System) as well as the RSA implementation of public key cryptography. Students will have ample opportunity to encrypt, decrypt and decipher messages as part of the course.

An individual with a background in some elementary number theory and at least a rudimentary familiarity with computing (a programming language, or Maple, or even Excel) will be sufficiently prepared to understand the material in this course.

Robert Lewand

Robert Edward Lewand received his BS in mathematics from the University of Dayton and his PhD in mathematics from the University of Virginia. He is the author of *Cryptological Mathematics* and co-author of two other books: *Expert Systems Development* and *Intelligent Systems Design*. He has delivered numerous talks and published extensively in professional journals, largely in the area of expert systems and artificial intelligence. He has been the recipient of several scholarship and teaching awards, most recently the John M. Smith Award for Distinguished College or University Teaching (Maryland-Virginia-DC Section of the Mathematical Association of America, 2002).

Registration

Please visit the online registration page to enroll in this summer's short course. Please submit a check for $150 (payable to Capital University) to the address below.

Jon Stadler
Department of Mathematics
and Computer Science
2199 E. Main St.
Columbus, OH 43209

To register by mail or fax, please contact Jon Stadler at jstadler@capital.edu or (614) 236-6905. Registration deadline is June 20, 2003.

Schedule

The sessions will run from 9:00 a.m. to 4:30 p.m. on Wednesday and Thursday and from 9 a.m. to noon on Friday.

Travel

Capital University is conveniently located near Port Columbus International Airport. For those travelling by car, please visit the course's web site for directions.

Housing and Meals

Dormitory housing is available beginning July 15. Single rooms are available for $32 per night and doubles are available for $16 nightly. A meal plan is available for $15.85 per day or registrants may arrange their own meals. A picnic or banquet is planned for Thursday evening.

Web Links

For more information or to register online, please visit http://capital2.capital.edu/faculty/jstadler/maashort/.

Campus Notes

The University of Findlay

Janet Roll retired in May after 22 years of service to the University. She served the Ohio Section as President and Secretary-Treasurer and she developed and directed the Technology Management Program at the University.

Don Mathews retired in May after 17 years of service to the University. He served the University as Chairman of the Division of Mathematics and Computer Science and was active in the MAA Ohio Section.

Remember to submit your campus news for the next newsletter - The Editors

**Mathematics Awareness Month
April 2003:**
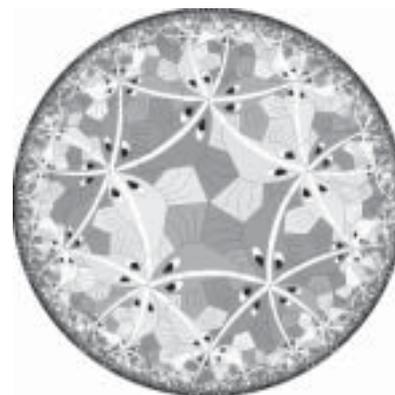
Mathematics and Art

The connection between mathematics and art goes back thousands of years. The ancient Greeks and Romans used mathematics in sculptures and to aesthetically design buildings. In the 15th century Leonardo da Vinci wrote "Let no one read me who is not a mathematician." In the 16th century Durer employed mathematics to introduce perspective in drawings. In the 18th and 19th centuries mathematics was extensively used in the design of Gothic cathedrals, Rose windows, mosaics and tilings. In the 20th century geometric forms were fundamental to the cubists and many abstract expressionists. In recent decades several award winning sculptors have used topology as the basis for their pieces.

Resources for this year's Mathematics Awareness Month program can be found at mathforum.org/mam/03

Proposed By-Laws Revision

At the suggestion of the Executive Committee, the By-Laws subcommittee has proposed some changes to our By-Laws. These changes will be discussed, and an initial vote will be taken at our Spring Meeting. (The final Section vote will be done by mail.) There will also be an opportunity to make amendments to these revisions. (The Secretary would greatly appreciate it if, anyone who plans to submit an amendment to these proposed By-Laws revisions, would submit a written copy at the meeting of their proposed amendment so that we can have an accurate wording of any proposed amendment.)

The primary purposes of these revisions are two-fold:
1. Partition the Secretary-Treasurer position into two positions, a Secretary
        and a Treasurer.
2. Update the name of the Committee from CONTEAC to CONTEAL.

A complete copy of the proposed revisions is available on the web at http://www.udayton.edu/~friel/maasectr/revision.html If you are unable to access this complete revision, please contact our Sec/Treas, Bill Friel, and he will send you a copy. His address is c/o Math Dept, Univ of Dayton, Dayton OH 45469-2316.

The following is a summary of the proposed By-Laws revisions:
Article III Section 1
        Replace "a Secretary-Treasurer, a Secretary-Treasurer-Elect"
        By "a Secretary, a Treasurer, a Secretary-Elect, a Treasurer-Elect"
Article III Section 6, Section 7, Section 10 d, Section 10 e, and Section 15
        Replace each of these Sections by two new Sections,
        one where "Secretary-Treasurer" has been replaced by "Secretary"
        and "Secretary-Treasurer-Elect" has been replaced by "Secretary-Elect"
        and one where "Secretary-Treasurer" has been replaced by "Treasurer"
        and "Secretary-Treasurer-Elect" has been replaced by "Treasurer-Elect"
Article III Section 6
        Also include the following:
        To affect 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.
Article III Section 10 g
        Replace the phrase "appoint candidates for membership"
        by the phrase "nominate candidates for membership"
Article III Section 12
        Replace this Section by two sections,one of which says:
        "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, and
        3) perform any other duties which may be assigned by the
           Executive Committee."
        And the other of which says:
        "The Treasurer shall perform the following duties:
        1) keep all the books, accounts, and records,
        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, and
        4) perform any other duties which may be assigned by the Executive
           Committee."
Article IV Section 1, and Section 10
        Replace the phrase "Teacher Education and Certification (CONTEAC)"
        by the phrase "Teacher Education and Licensure (CONTEAL)"
Article IV Section 6
        Replace the phrases "Secretary-Treasurer" and "Secretary-Treasurer-Elect"
        by two separate sentences containing "Secretary" and "Secretary-Elect"
        in one sentence and "Treasurer" and "Treasurer-Elect" in the other.
Article VI Section 2, and Section 3
         Replace "Secretary-Treasurer" by "Treasurer"
Then renumber the Sections as needed.   ----   End of Summary

DIVERSE OPPORTUNITIES
Ohio State prides itself on diversity-from the range of academic opportunities and student organizations to the vibrant makeup of the student body. Students come to Ohio State from all over the United States and from more than 100 countries around the world. No other single campus provides the opportunities for study with 11,000 available courses or the exposure to internationally recognized guests that Ohio State does. Ohio State hosts well-known political leaders, top-name entertainers, and attracts excellence in the arts, music, and dance. The university offers hundreds of student activities and organizations, the largest intramural and recreational sports department in the country, the excitement of Big Ten athletics, opportunities for community involvement, and cultural events.

COMMUNITY OUTREACH
Public service has always been central to Ohio State's mission, and the university is engaged in a multitude of contributions to improve the quality of the city's life. Faculty, staff, and students bring knowledge and methods from the classroom and laboratory to the community. University hospitals and clinics bring care and healing to hundreds of thousands each year. The university's radio and television stations provide news and information. Undergraduates take part in research projects that have a direct impact on the community. And Ohio State has a long and proud tradition of serving the needs of our state through, among other means, the outstanding work of The Ohio State University Extension, which makes the university's expertise available to all Ohioans. Ohio State also brings its people and facilities to the public through continuing education and noncredit programs. Ohio State is an arena for exchange, offering professionals and executives from any field the opportunity to meet with one another and with specialists on the faculty. Ohio State's Fisher College of Business, for example, has been offering professional development courses to individuals in all levels of management for nearly half a century. For 130 years, Ohio State has taken the lead in furthering research and education for the citizens of Columbus, in the state of Ohio, and for the nation.

Spring Meeting Program

Friday, April 4	
Noon-4:30	Registration, Math Tower, 213 W. 18th Ave.
Noon-4:30	Book Exhibits
12:15-1:15	Committee Meetings
1:30-1:45	Greetings, Announcements
1:45-2:45	**Invited Address** "Introductory Coding Theory" Dan McWhorter, National Security Agency
2:45-3:15	Break
3:15-4:15	**Invited Address** "The Mathematics of Doodling" Ravi Vakil, Stanford University
4:30-6:45	**Contributed Papers**
4:30-6:45	Executive Committee Meeting
7:00-8:15	Banquet and Student Pizza Party
8:15-9:00	**After-Dinner Address** "Mathematics at the National Security Agency", Dan McWhorter, National Security Agency
9:00-	Business Meeting and Presentation of Teaching Award

Saturday, April 5	
8-10:30 AM	Registration
8:00-8:45	Coffee, etc.
8:00-8:45	Liaisons Meeting
8:00-8:45	Meeting of Student Leaders
8:45-8:50	Announcements
8:50-9:50	**Retiring President's Address** "Some Applications of Abstract Algebra" Harold Putt, Ohio Northern University
9:50-10:05	Break
10:05-10:50	**Invited Address** "Math Connections" Ann Ritchey, Mount Union College
10:55-12:10	**Contributed Papers**
12:15-1:00	**Invited Address** "Why the Golden Mean?" Ravi Vakil, Stanford University
1:00-1:10	Closing remarks

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

Dan McWhorter
"Introductory Coding Theory"

Algebraic Coding Theory can be regarded as the study of efficient schemes for error correction, and how to implement them effectively in a given situation. Codes are used in almost every aspect of our increasingly digital lives. In this talk I will outline some beginning coding theory by discussing linear codes, Shannon's Theorem, and Reed Solomon codes. I will culminate the talk with brief explanations of "real world" error correction used in CD-ROMs (cross-interleaved Reed Solomon), DVDs (Reed Solomon product code), and some satellite modems (turbo product codes). This talk will be very general and is primarily aimed at those who have not yet been introduced to the world of algebraic coding theory.

"Mathematics at the National Security Agency"

The National Security Agency (NSA) is part of the "Intelligence Community" in this country. It is tasked with deriving intelligence from foreign communications to help the country's leaders make informed decisions. NSA designs and builds much of the equipment/technology that is used throughout the government to ensure the privacy of communications. In order to succeed, it maintains "state-of-the-art" capabilities in many areas of modern technology, including some aspects of mathematics.

For decades, NSA has been the nation's largest employer of mathematicians, and it continues to hire more mathematicians each year to satisfy its growing need. By using specific problems that I have seen worked at the agency, I will summarize the work of, and try to give the audience a peak into, the private world of an NSA mathematician.

Dan McWhorter was born in Louisville, Ohio, and currently resides in Mount Airy, Maryland. He attended Rose-Hulman Institute of Technology (Terre Haute, Indiana) for his first two years of undergraduate studies, and then concluded his last two years at Mount Union College (Alliance, Ohio). In 1999, he received his M.S. at the University of Cincinnati. After one more year of studies while attending the University of North Carolina at Chapel Hill, he found that he desired more than a graduate student's salary. For the last two years, Dan has been employed at the National Security Agency (NSA) as part of their Cryptologic Mathematics Program. (Foolishly, he believed that working for the federal government would be a way to achieve immense wealth.) As such, he has worked in several different fields and offices throughout the NSA. He is an active member of the NSA's mathematics community and has received awards, published papers, and presented several talks within the Agency. He spends his free time fly fishing, wood working, and manipulating his dwindling fortune to prepare for soon-to-come twin babies.

Ravi Vakil
"The Mathematics of Doodling"

Doodling has many mathematical aspects: patterns, shapes, numbers, and more. Not surprisingly, there is often some sophisticated and fun mathematics buried inside common doodles. I'll begin by doodling, and see where it takes us.

"Why the Golden Mean?"

The golden mean seems to turn up all over the place, in both mathematics and nature. (Is there any difference?). I'll try to explain why it comes up in some surprising circumstances, including matchstick games, pineapples, and the volume of an icosahedron. While some are old chestnuts, I hope that some of the examples will be new even to experts.

Ravi Vakil is from Toronto, Canada. He received his undergraduate degree at

the University of Toronto, where he was a four-time Putnam Competition winner. After completing a Ph.D. at Harvard, he taught at Princeton and MIT before moving to Stanford, where he is a tenure-track assistant professor. He is currently an American Mathematical Society Centennial Fellow and an Alfred P. Sloan Research Fellow. His field of research is algebraic geometry, with connections to nearby fields, including combinatorics, topology, number theory, and physics. He has long been interested in teaching mathematics through problem solving; he coached the Canadian team to the International Mathematical Olympiad from 1989 to 1996. He has co-authored three books, including *A Mathematical Mosaic: Patterns and Problem Solving* and *The William Lowell Putnam Competition 1985-2000: Problems, Solutions and Commentary*.

Harold Putt
"Some Applications of Abstract Algebra"

One of the most significant changes in textbooks on abstract algebra over the last 30 years is the inclusion of "real world" applications of the material. In this talk I will present a survey of the most common types of applications and discuss in detail some of my favorites among these applications.

Harold Putt is professor of mathematics at Ohio Northern University. He is in his 20th year at ONU. Harold did his graduate work at Bowling Green State University where he wrote his dissertation on ordered permutation groups under the direction of W. Charles Holland. He has been a member of the MAA and the Ohio Section since 1973. Over the years he has served as President, President-Elect, on the Program Committee (the third year as chair), CONCUR (two terms, one year as chair), CONTEAC, and CONSACT. Harold is also a member of the AMS and the NCTM. He is currently serving as a Teaching Fellow in Mathematics for the Ohio Board of Regents.

Ann Ritchey
"Math Connections"

The 2000 NCTM Standards serve as a guide for mathematics educators in grades K-12. One of the Standards is Connections. It states, among other things, that students should be able to recognize and apply mathematics in contexts outside of mathematics. I will share two projects that I use in teaching the Connections Standard: Origami and Islamic Art.

Ann Ritchey was born and raised in California. She moved to Oregon to attend graduate school at the University of Oregon. There she studied Poisson Manifolds and algebras defined on them with Dr. John Leahy. The last year of graduate school she taught the Mathematics for Elementary School Teachers course and then accepted a job at the University of Maine at Farmington. In 2000 she moved to Ohio and is now teaching at Mount Union College, the Home of the Mighty Purple Raiders. Ann's interests include origami, problem solving, college sports and playing with her Maine Coon cat.

Banquet

The Friday evening banquet will be in the OSU Faculty Club Main Dining Room, 181 South Oval Drive on the OSU campus. Cost of the banquet is $20.00 per person.

A reception/social hour (with cash bar and fruit and/or vegetable tray) will be held from 6:00 to 7:00 prior to the dinner.

The banquet, a buffet dinner, will be from 6:45 to near 8:00 p.m. Entrees at the dinner will include: Southwestern Rubbed Chicken Breast with Smoked Tomato and corn Ragout; Marinated Tenderloin Tips and Vegetables in a Mustard Caper Sauce; Green Beans with Red Pepper, Carrot and Almonds; Three Grain Rice Pilaf; Salads; Dessert; and Drinks: coffee, tea, water.

* Note: Simultaneous to the Buffet Banquet, there will be a **Student Pizza Party** (at no charge) held in MA 010. The party is scheduled to allow those in attendance to join the after dinner program in the Faculty Club Main Dining Room.

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 **March 21, 2003**.

Online submission is preferred. Or, mail (e-mail) to the chair of the Program Committee: Sherri Brugh, Department of Mathematics, 1972 Clark Avenue, Mount Union College, Alliance OH 44601, (330)-823-3561, brughsl@muc.edu.

Registration

Online registration is preferred; see the meeting web page at www.maa.org/Ohio. Deadline for online registration is **March 28, 2003.**

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, e-mail 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 $20] to MAA-Ohio Section, Phil Huneke, Department of Mathematics, OSU, 231 West 18th Ave., Columbus, Ohio 43210 or to huneke@math.ohio-state.edu E-mail registrations would be pending upon the receipt of registration fees.

Book Exhibits

Several text book publishers will be displaying their materials at this meeting. Please encourage any book reps you meet to contact Phil Huneke (at huneke.2@osu.edu) to take advantage of this opportunity to display their wares this spring to this 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.

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. 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.

Abstracts must be received by **March 21, 2003**. Due to time and space restrictions, we may not be able to accomodate all talks. Please submit your abstracts early. Students submitting abstracts should also register for the meeting.

Directions to The Ohio State University, Columbus

Locally:
From all freeways, seek the Route 315 Lane Avenue exit, turning eastward on Lane Avenue for one block, then south or right on Fyffe Road for one block, then east or left on Woody Hayes Drive, over the river and past the stadium, then south or right on Tuttle Park Place and into the Tuttle Park Place Parking Ramp on the left. Then walk to Math Tower at 231 W. 18th Ave. (see local map.)

Globally:
From the east, take I-70 westward until it merges with I-71; where I-71 splits off after downtown Columbus, go north on Route 315.

From the southeast, take Route 33 to I-70 west, then as above.

From the southwest, take I-71 northward, continuing north on State Route 315 when I-71 swings right to merge with I-70.

From the west, take I-70 eastward past I-270, exiting left onto I-670 to Route 315 and proceed north on Route 315 to Lane Ave.

From the northwest, take Route 33 to the outer belt, I-270; north then east on I-270 to Route 315; then south on Route 315.

From the north, take Route 23, I-71, or 3-C Hwy south to I-270, west on I-270 to State Route 315 then south on 315 to Lane Ave.

PARKING (see "P" on map)

Park in the Tuttle Park Place Parking Garage. The Department will pay for (legal) parking; bring the parking tab you receive as you enter the garage to the MAA registration table where you can exchange it for a parking pass. Saturday the gate to the Tuttle Parking Garage should be open with free parking for all.

Where to stay

Note: The hotel number shows location on map. All prices below are not guaranteed and exclude taxes. Check the web or hotel directly for updates or discounts, such as for AAA members.

1. The Blackwell, $169 plus tax. (Roger D. Blackwell Inn at Fisher College. 1/4 mile to Math Tower),
   2110 Tuttle Park Place
   (614) 247-4000, FAX (614) 247-4040
   email: patsiavos.1@osu.edu
   web: theblackwell.com/

2. Holiday Inn on the Lane, $89 plus tax.
   (1/2 mile to Math Tower)
   328 W. Lane Avenue
   (614) 294-4848, FAX: (614) 294-5366
   listocki@holidayinosu.com
   web: holidayinnosu.com

3. Cross Country Inn, $49.99 single, $56.99 double.
   (1.5 miles to Math Tower)
   1445 Olentangy River Road
   (614) 291-2983,   FAX: (614) 291-4082

4. Red Roof Inn, $ 59.99
   (1.7 miles from Math Tower)
   441 Ackerman Road at Olentangy River Road
   (614) 267-9941 ; FAX (614) 267-5925
   reservations: 800-RED-ROOF or redroof.com

5. Marriott Fairfield Inn, $82.00
   (2 miles from the Math Tower, has an indoor pool)
   3031 Olentangy River Road
   (614) 267-1111 ; FAX: (614) 267-0904
   reservations: 800-228-2800 or marriott.com

6. University Plaza, $105.00
   (2.1 miles from Math Tower)
   3110 Olentangy River Road,
   (614) 267-7461 ; FAX: (614) 263-5299;
   email: osuplaza@cwbusiness.com
   web: www.universityplazaosu.com

7. Villager Lodge, $59.00
   (2.2 miles from Math Tower)
   3160 Olentangy River Road
   (614) 261-0523

8. Super 8 Motel, $40 single; $54.99 double
   (2.3 miles to Math Tower)
   3232 Olentangy River Road
   (614) 261-7141 ; FAX: (614) 261-7380 ;
   reservations: 800-800-8000

9. Cross Country Inn, $43.99 single
   (2.4 miles to Math Tower)
   3246 Olentangy River Road
   (614) 267-4646 ; FAX: (614) 267-1535

The Ohio State University

One of Columbus's greatest assets, The Ohio State University is the largest comprehensive teaching and research university in the state. Combining a responsibility for the advancement and dissemination of knowledge with a heritage of public service, Ohio State offers an extensive range of academic programs in the liberal arts, the sciences, and the professions through nineteen colleges and seven schools. Regional campuses around Ohio include Lima, Mansfield, Marion, and Newark, in addition to the Agricultural Technical Institute (ATI) and Ohio Agricultural Research and Development Center (OARDC), located in Wooster.

Ohio State consistently ranks among the top national public universities for undergraduate, graduate, and professional programs. Few universities can match the breadth of its academic offerings,

which include more than 170 undergraduate majors, 200 graduate fields of study, and more than 90 professional programs. All of Ohio State's academic programs are designed to challenge students, prepare them for the future, and position them for success.
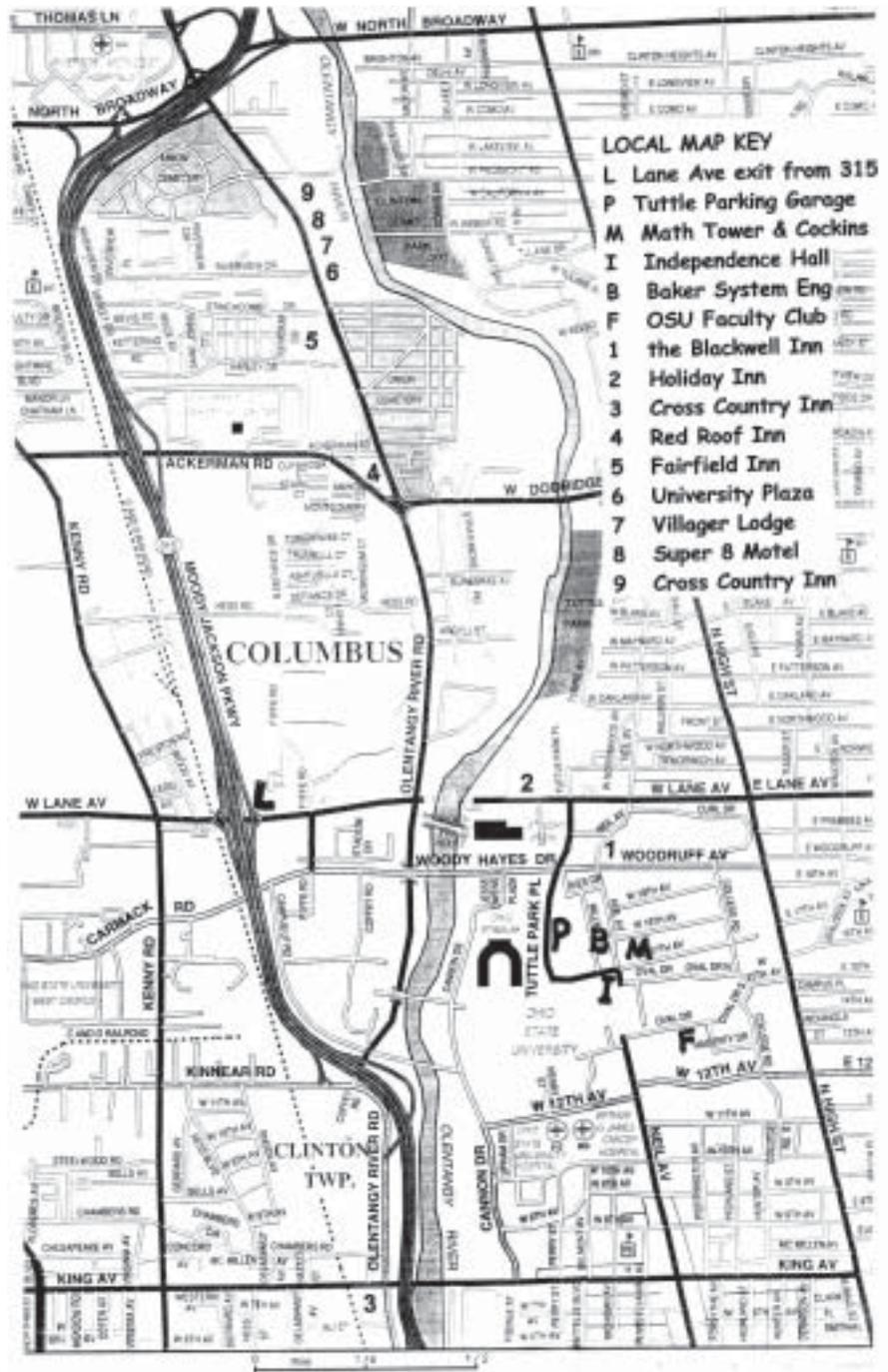
ACADEMIC SUPPORT

Ohio State faculty members are internationally known for their academic credentials, real-world experience, and leading edge research. As a Big Ten and major research university, Ohio State attracts the best scholars, artists, and scientists, as well as outstanding students.

Our student to faculty ratio is 14:1, which is similar to what you might find at smaller schools. In fact, 88 percent of first-year classes at Ohio State have fewer than 50 students and only 5 percent have more than 100. One-on-one instruction is provided for our students by staff in dozens of campus offices such as Minority Affairs, Disability Services, the Center for the Study and Teaching of Writing, and the Mathematics and Statistics Learning Center (MSLC). Outside the classroom, residence halls provide academic programs and assistance, including tutoring, study sessions, computer labs, and quiet hours. More than 14,000 staff members-including academic advisors, residence hall staff, and counselors-are committed to our students' success.

OUTSTANDING STUDENTS

Ohio State attracts some of the most impressive students in the United States and in the world. One of the best indicators of a university's quality is the caliber of its incoming class, and the quality of our incoming freshman class is the best ever in terms of academic profile. More than 60 percent of the current freshmen class of nearly 6,000 come from the top 25 percent of their high school class, and more than a quarter come from the elite 10 percent. Ohio State welcomed more than 1,300 Honors students, over 700 University Scholars, more than 100 National Merit Scholars, and over 200 class valedictorians. And our Honors programs give these students the opportunity to enhance their undergraduate experience through exceptional research opportunities and more than 180 Honors courses each year-each class with 25 or fewer students.

LOCAL MAP KEY
L Lane Ave exit from 315
P Tuttle Parking Garage
M Math Tower & Cockins
I Independence Hall
B Baker System Eng
F OSU Faculty Club
1 the Blackwell Inn
2 Holiday Inn
3 Cross Country Inn
4 Red Roof Inn
5 Fairfield Inn
6 University Plaza
7 Villager Lodge
8 Super 8 Motel
9 Cross Country Inn

IMPRESSIVE FACILITIES

Ohio State provides resources that are not available at many other universities. The Ohio State University Libraries house the largest library collection in Ohio and one of the top 20 largest academic library collections in North America, with more than five million print volumes and access to more than 600 million volumes through OhioLINK and WorldCat. Ohio State offers the nation's largest medical teaching facility and the Midwest's only freestanding cancer hospital. Along with many historic and traditional buildings on campus, there are hundreds of new facilities, including the impressive Fisher College of Business multibuilding complex and the Jerome Schottenstein Center. Currently under construction is the new Physics Research Building and the Knowlton School of Architecture.

11

Calendar

Ohio Section

April 4-5, 2003, The Ohio State University, Columbus, OH.

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

Spring Section Meeting, 2004, University of Cincinnati, Cincinnati, OH.

Fall Section Meeting, 2004, John Carroll University, Cleveland, OH. (University Heights)

National MAA-AMS

MathFest, July 31-August 2, 2003, Boulder, CO.

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.

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

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

Annual MAA-AMS Joint Meetings, January 7-10, 2009, Washington, D.C.

Other

NCTM Annual Meeting, April 9-12, 2003, San Antonio, TX.

OhioMATYC, May 2-3, 2003, Maumee Bay Resort & Conference Center.

Michigan Section, May 2-3, 2003 - Saginaw Valley State University, University Center, MI.

Summer Short Course, July 16-18, 2003, Capital University, Columbus, OH.

Joint Statistical Meetings, August 3-7, 2003, San Francisco, CA.

Indiana Section, Fall 2003, Goshen College, Goshen, IN.

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

Indiana Section, Spring 2004, Indiana State University, Terre Haute, IN.

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

Michigan Section, April/May 2004, Oakland University, Rochester, MI.

State Science Day, May 8, 2004

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

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

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.

---

wittenberg!!!
UNIVERSITY

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

Time Value Material - Please do not delay!