



# OHIO FOCUS

The Ohio Section Newsletter

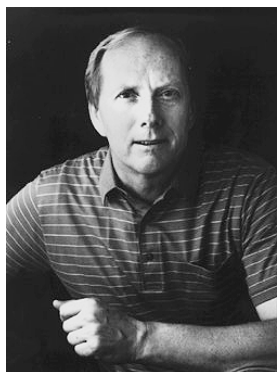
Volume 6

Spring, 1999

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## Ronald Graham at Dayton Meeting, March 26-27

The Section meeting at the University of Dayton gets underway with a talk on Friday afternoon by Ronald L. Graham, Chief Scientist Emeritus, AT&T Labs Research, entitled "Mathematics and Computers: Recent Success and Insurmountable Challenges".



The theme of the meeting is "mathematics in business and industry". He will participate in a panel on that subject on Saturday morn-

ing. This should be of particular interest to students attending the meeting.

As has been the case for many years, student activities form a significant part of the spring meeting. Graham's expertise in juggling, and its mathematics, will also appeal to students, and others alike. A juggling exhibition will be part of the after dinner activities, which includes an ice cream social. The student paper contest winners will also be announced. Students talks are scheduled for Friday afternoon. The student microcourse will be on the history of mathematics, presented by Fred Rickey. More details are on page 9.

The business meeting after the banquet will include the election of officers and the presentation of the Section teach-

ing award. Contributed papers are scheduled for Saturday. Start planning now.

Also on Saturday is a panel on middle school licensure organized by CONTEAC. Festivities will conclude with the Retiring President's Address, given by Roger Marty. See details beginning on page 8.

The meeting is preceded by the highly successful OhioNExT Workshop, page 7.

All details and updates, as well as online registration and contributed papers, will appear on the meeting web page ([www.bgsu.edu/departments/math/Ohio-section/Meetings/Spring99/](http://www.bgsu.edu/departments/math/Ohio-section/Meetings/Spring99/)), which is accessible from the Section web page.

### Nominations for Section Officers

The Nominating Committee presents the following slate of candidates: Judy Palagallo (U. of Akron) for President-Elect, Bill Friel (U. of Dayton) for Secretary-Treasurer-Elect and Dwight Olson (John Carroll U.) for a three year term on the Program Committee.

The elections will take place at the business meeting, Friday evening, March 26, 1999 after the banquet at the University of Dayton. Nominations may also be made from the floor.

The President-Elect subsequently serves as President, Past-President, and then on the Nominating Committee. The Secretary-Treasurer-Elect subsequently serves as Secretary-Treasurer for a three year term. The senior person on the Program Committee is chair.

Barbara Ashton  
Chair, Nominating Committee

### President's Comments

At the Fall 1998 Section Meeting the Executive Committee of the Section approved changes in the fee structure for registration at Section meetings. The new fees are \$15 for non-students who are employed full-time, \$5 for non-students employed less than full-time, and \$0 for undergraduate and for graduate students. Also a proposed change to split the position of secretary-treasurer into two positions was discussed. As a result of discussions within the Section, I have appointed Sherri Brugh to be an assistant to the Secretary-Treasurer.

Bill Friel was kind enough to agree to represent the Section at a meeting in San Antonio of the Ad Hoc Committee on Section Booksales. The representatives discussed new procedures for conducting MAA booksales at section meetings.

(Continued on page 7)

### Inside

*Spring meeting details  
and student activities*

*OhioNExT*

*Summer short course*

*Meritorious Service Award*

*Officers and committees*

*Governor's Report*

*Schedule of meetings*

*Campus News*

*Math Awareness Month*

## Section Governor's Report

The MAA Board of Governor's Meeting at the 1999 Annual Winter meeting in San Antonio was held on Tuesday, January 12 from 9:00 a.m. until 4:30 p.m. A number of items were discussed that I would like you to be aware of, although most of these subjects are available elsewhere, particularly on the MAA website.

The Board approved the site for the 2000 Summer Mathfest. It will be held in Los Angeles at UCLA on August 3-5 of that year. Other meetings that have been approved by the Board are the Summer MathFest in Providence set for July 31 through August 2 of 1999, Washington D.C. scheduled for January 19-22, 2000, New Orleans for January 10-13, 2001, and San Diego for January 6-9, 2002. All of the January meetings will be held, as traditional, with AMS, and SIAM will join us for the 2000 Joint Meetings. With regard to meetings, the Board also approved the following motion "The MAA approve in principle to have Mathfests after the year 2000 with the proviso that summer meetings be fiscally sound." In recent years there has been regular discussion regarding the fiscal feasibility of the Mathfests and the advisability of their continuance. Some members of the Executive Committee were concerned that the meetings might be too much of a drain on the finances of the Association, although this has not occurred in the Atlanta or Toronto Mathfests. At the Board meetings I have attended, the Governors have overwhelmingly expressed their support for the Mathfests as an important activity of the Association. This motion will permit the MAA site selection committee to do its work well in advance of the meetings, and should result in better coordination with the meetings of other mathematics organizations.

The major point of discussion at the Board of Governor's meeting concerned the steady decrease in the number of Regular Members of the MAA and plans to counteract this trend. In my initial meeting with Department Chairs and Liaisons at the Fall 1997 meeting of the Ohio Section, I discussed with Liaisons my hopes that they would assume a more active role in the recruitment and retention of MAA members in their collegiate and geographical area. It is, in my view, extremely important to the Association to have an active and vibrant membership, and that can be accomplished most effectively by maintaining close contact with the membership

at the local level. At that time I appointed Tom Price as Liaison Coordinator of the Section, and he has done an excellent job in a position that is, at best, vaguely defined. Tom has created a very informative website at [zippysun.math.uakron.edu/~tprice/MAA/](http://zippysun.math.uakron.edu/~tprice/MAA/) which I think you will find quite informative. I am also pleased to report that many of our views have been adopted by the National MAA leadership. A position paper concerning this subject is on MAA Online at <http://www.maa.org/data/mbsvcs/kalman.html>. The MAA is particularly interested in preparing the Association for changes in the future. A list of questions was given to the Board for consideration and input. Since I am a particularly poor crystal ball gazer, I would appreciate hearing your views regarding these items. You can e-mail responses to me at [fares@math.ysu.edu](mailto:fares@math.ysu.edu). The questions are:

1. What are your assumptions about the future as they relate to the mathematics profession?
2. What do you see as the single biggest problem facing the MAA over the next three years?
3. If you had to pick one thing for the MAA to achieve over the next three years on behalf of the profession, what would it be?
4. If you had to pick one thing for the MAA to achieve over the next three years on behalf of its individual members, what would it be?

There were a number of other items of general interest that were discussed at the meeting. Marcia Sward, the Executive Director of the MAA will retire at the end of 1999 and a committee headed by former President Ken Ross has been created to find a replacement. A new accounting system has been installed by Finance Director Neil Bernstein, and the finances of the MAA now seem to be quite stable. The MAA publications under the direction of Don Albers have been particularly active. Included in the new releases is an excellent short work on Euler's mathematics by Bill Dunham. I read the first third of the book on my trip home from San Antonio and found it to be as entertaining and educational as his Great Theorems book. The American Mathematics Contests committee has been approved to create a new examination for students in 9th and 10th grade. This test will be given parallel to the American High School Mathematics Examination and should provide a better

experience for younger students than they presently receive from the AHSME, which includes material that to which they have not been exposed. Titu Andreescu has been appointed Director of the American Mathematics Competitions, succeeding the long-time Director Walter Mientka, who has resigned to become the Executive Director of International Mathematics Olympiad 2001, Inc. This organization that has been formed for the purpose of conducting the International Mathematics Olympiad in the USA in the year 2001.

I encourage you to visit the MAA website at <http://www.maa.org>. There is a tremendous amount of interesting material at the site and it is changing constantly. In particular, take a look at the Columns and Reviews sections, which are the most popular.

There were many other interesting items that I would be happy to share with you. I am including the agenda for the meeting with the Web copy of this report. I you see anything on it that you would like me to discuss, please let me know. See you at the University of Dayton on March 26-27.

Doug Faires  
Section Governor

## 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.

Editor:

Thomas Hern  
Department of Mathematics and Statistics  
Bowling Green State University  
Bowling Green OH 43403-0221  
USA  
419-372-7450, Fax 372-6092  
[hern@math.bgsu.edu](mailto:hern@math.bgsu.edu)

Deadline for next newsletter is

**August 31, 1999**

Email copy preferred.

This information will also be posted, and updated, on the Section web page. Access from MAA On-Line or at URL <http://www.bgsu.edu/departments/math/Ohio-section/>

## David E. Kullman

### MAA Meritorious Service Award

Every 5 years the Section may nominate someone for one of the MAA Meritorious Service Awards. The award was presented at the January meetings in San Antonio.



### Citation

*The officers of the Ohio Section have selected Professor David Kullman of Miami University, Oxford, Ohio, for the MAA Meritorious Service Award this year. Dr. Kullman served the Ohio Section as governor and liaison coordinator from 1994 through 1997. He was president of the Section in 1991-92. He co-authored the Ohio Section History which was published in 1990., and served as Newsletter Editor from 1982-87. David has served as our liaison with the Ohio Math and Science Coalition since its inception. He has been the local arrangements coordinator for several Section meetings and he contributes talks to the Section meetings on a regular basis, including the spring 1998 meeting. Dave has served on many Section committees and he has chaired our Committee on Teacher Education and Certification (CONTEAC). He has also served as an informal liaison with the Ohio Council of Teachers of Mathematics (OCTM) for many years. Dave was instrumental in the implementation and continuation of the Annual Mathematics and Statistics Conference at Miami University which is now in its twenty sixth year. For the aforementioned reasons, the Section is pleased to nominate Dr. David Kullman for the MAA Meritorious Service Award.*

## David Kullman's Response

In my thirty years as a member of the Ohio Section, I have acquired many excellent teaching ideas and been stimulated mathematically by numerous outstanding speakers and authors. Most importantly, I have come to know many other mathematicians as professional colleagues and personal friends. Whatever service I have rendered to the Section and the Association has been a small repayment for the countless benefits I have received. I feel proud and deeply honored to be awarded this Certificate of Meritorious Service, and I look forward to many more years of active membership in the MAA.

### About David

David grew up in Kenosha, Wisconsin, where his high school geometry teacher, Mr. Moebius, convinced him to pursue a career in mathematics instead of engineering. He earned a B.A. in mathematics at Northwestern University, graduating with honors in 1962. He then spent a year as a Shell Merit Scholar at Cornell University, where he received his M.A. in mathematics education.

David taught mathematics and physics for two years and also coached the "Mathletes" at Evergreen Park High School, near Chicago. He recalls the department chairman once telling him, "If you want to go to graduate school and earn a 'real' Ph.D. in mathematics, I'll write a good letter of recommendation for you." So in August, 1965, he and Karen, his bride of two months, set out for Lawrence Kansas, where Dave had been awarded a teaching assistantship in the Department of Mathematics.

After writing a dissertation in point-set topology and completing his Ph.D. in 1969, David accepted an assistant professor position at Miami University. He says he was impressed with the faculty and students there, and the chairman, Elwood Bohn, wouldn't take "no" for an answer. Dave's never regretted that decision.

David was promoted to full professor in 1981, and he's been the department chair since 1993. His current research interests lie in the area of history of mathematics, and he's also heavily involved in programs for K-12 mathematics teachers. He has been director or co-director for nine of the annual Miami Mathematics and Statistics Conferences, and he also led Miami's Junior Scholars Program, for high school students, during its first twelve years.→

David served as Ohio Section Newsletter Editor from 1982-87 and as Section President in 1991-92. In between, he served a two-year term as President of the Ohio Council of Teachers of Mathematics. He represented Ohio on the MAA Board of Governors from 1994 to 1997. Currently he is a member of the MAA Committee on the Mathematical Education of Teachers (COMET) and the MAA Task Force on NCTM Standards.

David and Karen have a son who works for the Cincinnati Reds, a daughter who is a travel agent in Chicago, and one grandson. David's hobbies include model railroads, antique tractors, and gardening.

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## From the Editor/Webmaster

### Section History Online

*The Ohio Section, 1915-1990* has been put on the web page, complete with a group photo of the second annual meeting, April 6, 1917. There is also a list of charter members along with lots of interesting facts: by-laws, lists of officers, meeting dates and sites, short courses and invited addresses.

The committee that wrote the history, under the guidance of David Kullman, consisted of William Beyer, Will Hahn, Gus Mavrigian, and Fred Rickey. An updated edition is planned.

### Newsletters of Other Sections

As editor, I get copies of the newsletters of other sections mailed to me. They come in all shapes and sizes, and there is a lot of interesting stuff in them about section activities and the different (and similar) ways of doing things.

I will bring the copies that I have to our section meetings and place them in the registration area. Feel free to browse, or even take one—especially if you are an officer or committee person looking for ideas.

### Form of Submissions for Newsletter and Web Site.

I can handle almost any format that you might send me, but please do *not* send Word documents, at least versions above Word 5. Output as RTF from Word is OK.

Plain text via email is preferred, since that is what I will convert to for both the newsletter Pagemaker file and the HTML code for the web site.

Conversion is much more difficult with the new file formats. But more importantly I am not willing to expose myself to the new Word macro viruses.

*Ed.*

# 1998-1999

## Ohio Section Officers and Committees

### ELECTED OFFICERS

#### President

Roger Marty, Cleveland State  
216-523-7158, Fax: 687-9366  
home: 440-449-3784  
r.marty@popmail.csuohio.edu

#### President-Elect

Aparna Higgins, Dayton  
937-229-2103  
higgins@saber.udayton.edu

#### Past-President

Leo Schneider, John Carroll  
216-397-4481  
leo@jcu.edu

#### Section Governor

Douglas Faires, Youngstown State  
330-742-1805, faires@math.ysu.edu

#### Secretary-Treasurer

Janet Roll, Findlay  
419-424-4686, roll@lucy.findlay.edu

### OTHER OFFICERS

#### Newsletter Editor and Webmaster:

Thomas Hern, Bowling Green  
419-372-7450, Fax: 372-6092  
hern@math.bgsu.edu

#### Assistant to the Secretary-Treasurer.

Sherri Brugh, Mt Union  
330-823-3561, brughsl@muc.edu

#### Department Liaisons Coordinator

Thomas Price, Akron  
330-972-8352, tprice@uakron.edu

#### Public Information Officer:

John Zimmerman, Ohio U-Lancaster  
740-654-6711 x231, Fax: 687-9497  
zimmerman@lancaster.ohiou.edu

#### SUMMA Coordinator:

Dennis Davenport, Miami  
513-529-3555  
davenpde@casmil.muohio.edu

#### OhioMATYC Liaison to OhioMAA:

William Tulloss  
tullossb@cinstat.cc.oh.us

#### OhioMAA Liaison to OhioMATYC:

Robert Hovis, Ohio Northern  
419-772-2347, Fax: 772-2330  
r-hovis@onu.edu

#### OhioMAA Liaison to OCTM and

OCTM Liaison to OhioMAA  
David Wallach, Findlay  
419-424-4624, Fax: 424-4822  
wallach@lucy.findlay.edu

### COMMITTEES

• denotes committee chair. The elected officers and these committee chairs are the voting members of the Executive Committee. Terms expire at the end of the spring meeting of the year listed. See the Bylaws.

#### Program Committee:

Harold Putt• Ohio Northern 1999  
419-772-2351, Fax: 772-2330  
h-putt@onu.edu

Thomas Gantner Dayton 2000  
Dale Mugler Akron 2001

#### Committee on Curriculum (CONCUR)

Olaf Stackelberg• Kent State 1999  
330-672-4004 (ext 302)  
stack@mcs.kent.edu

Mark deSaint-Rat Miami Hamlt 2001  
Robert Hovis Ohio Northern 1999  
Felipe Martins Cleveland State 2001  
Danny Otero Xavier 2001  
Carol Schumacher Kenyon 2000  
Carl Spitznagel John Carroll 2000

#### Committee on Section Activities (CONSACT)

Bob Dieffenbach• Miami Middltn 2000  
513-727-3238, diefferm@muohio.edu  
Thomas Dence Ashland 2000  
John Holcomb Youngstown St. 2001  
Darrell Horwath John Carroll 2000  
Renee Koplon Wright State 1999

#### Committee on Student Members (CONSTUM)

Barbara D'Ambrosia• John Carroll 2000  
216-397-4682  
bdambrosia@jcvaxa.jcu.edu  
David Cusick Marshall 2001  
Paula Gnepp Cleveland State 2001  
Diane Groth Findlay 1999  
James Sellers Cedarville 2001  
Brian Shelburne Wittenberg 1999  
Gordon Swain Ashland 2000

#### Committee on Teacher Education and Certification (CONTEAC)

Delene Perley• Walsh 2001  
330-345-6889, perley@alex.walsh.edu  
or dperley@bright.net

David Flaspohler Xavier 1999  
Phil Huneke Ohio State 2000  
Richard Laatsch Miami 1999  
David Meel Bowling Green 2001  
Sherwood Silliman Cleveland St. 2000  
Cathy Stoffer Ashland 2001

### OTHER COMMITTEES

\* denotes committee chair.

#### Nominating Committee:

Barbara Ashton\* Wittenberg 2001  
937-327-7860, bashton@wittenberg.edu  
John Michel Marietta 2000  
Floyd Barger Youngstown 1999

#### Committee on Contests:

Bill Higgins Wittenberg AJHSME  
David Stenson John Carroll AHSME

#### ByLaws Committee

Darrell Horwath\* John Carroll  
216-397-4685, djh@jcvaxa.jcu.edu  
J. William Friel Dayton

#### Teaching Award Committee

Leo Schneider\* John Carroll  
Janet Roll Findlay  
Thomas Hern Bowling Green  
John Lancaster Marshall

#### Local arrangements for meetings:

Spring 1999: Dayton  
J. William Friel, 513-229-2511,  
friel@saber.udayton.edu  
Fall 1999: Wooster  
Charles Hampton, 330-263-2486,  
hampton@acs.wooster.edu

Spring 2000: Marshall  
Ari Aluthge, 304-696-3050  
aluthge@marshall.edu

Fall 2000: Wittenberg  
Brian Shelburne  
bjs@wittenberg.edu

## Mathematics Awareness Month April 1999

In preparation for Mathematics Awareness Month, April 1999, the Joint Policy Board for Mathematics is pleased to announce that Texas Instruments Incorporated has been named as the official sponsor of this year's event, *Mathematics and Biology*.

Mathematics Awareness Month provides the mathematical sciences community opportunity to promote the importance and versatility of mathematics and its relationship to our daily lives.

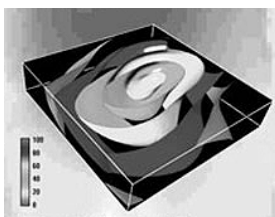
Texas Instruments and the JPBM invite you to use the MAM 1999 materials and the resources available on the MAM website to inform your colleagues, students, and the public about the value of mathematics. The URL is <http://forum.swarthmore.edu/mam>.

Mathematics is an essential element in fields as diverse as medicine, the human genome, epidemiology, and research analysis. As a representation of *Mathematics in Biology*, the 1999 Math Awareness Month poster (available on the web page) depicts the electrical activity of a normal heart as if it were stimulated at a single point. Color is used to highlight the arrival time of the electrical signal as it propagates through the heart. The rectangular domain represents a large slab of the ventricular wall, and all domains use geometry and fiber orientation that are taken from anatomical data. Without mathematics there is no other way to view this three-dimensional concept. For a more detailed article on mathematics in heart research please visit the web page

Mathematics Awareness Month is an excellent time to communicate with new audiences about the relevance of mathematics in their lives. Please help share Mathematics Awareness Month by posting announcements and reports of MAM activities on our mailing list at the web site.

Texas Instruments Incorporated, JPBM and its member societies — the American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics — appreciate the involvement of the American mathematical sciences community in Mathematics Awareness Month.

JPBM



James P. Keener, University of Utah  
A.V. Panfilov, Univ. of Utrecht, Neth.

## Campus News

### Bowling Green State University

Alexander Ivanov of Imperial College, London, will be visiting in spring, and BGSU will host an NSA-funded Midwest Group Theory Conference, April 9-10, 1999, on *Groups and Geometries* in his honor.

### Cleveland State University.

Sherwood Silliman is the new chair, replacing Bhushan Wadhwa.

Luiz Felipe Martins has been granted tenure and promoted to Associate Professor.

Sabbatical leaves: C. L. Chang and S. H. Chang, Fall, 1999. Alan Sielberger, Spring, 2000. Kondagunta Sundaresan, 1999-2000, planning to visit Tennessee State University.

### John Carroll University

Patrick Chen is on leave during Spring, 1999.

Carl Spitznagel was the recipient of the 1998 Lucrezia Culicchia Award, a college-wide award for excellence in teaching.

### Marshall University

New faculty: Joe Stickles, PhD U of Iowa, 1998, Commutative rings and semigroups. Deborah Sherman Denvir, PhD U Georgia, 1994, Group theory; as well as geometry and mathematical education. James Denvir, PhD Warwick, 1995, Dynamic systems and topology and writing educational software. Curtis Feist, Ph.D. 1998, U of California at Davis, Knot theory and 3-manifolds.

### Miami University

Robert Davis, Heather Hulett, and Kyoungah See have been granted tenure and promoted to the rank of Associate Professor, effective July, 1999.

Mark Smith and Dennis Burke are on sabbatical leave this semester.

Professor Gue Myung Lee, of Pukyong National University in Korea, is visiting the department this year. Dr. Lee's research specialty is vector optimization.

### University of Akron

Douglas Cameron retired last summer. Doug spent his last few years at the as the Assistant Chair Jerry Young and Wolfgang Pelz were appointed as Coordinators of the Applied Mathematics and Computer Science Divisions respectively.

Dr. Jeff Adler, University of Chicago, joined the departmental faculty as an Assistant Professor of Mathematics last fall. Mike Scherger was appointed Visiting Instructor of Computer Science.

Two students presented their undergraduate honors projects at the Student Poster Session of the meeting in San Antonio. Judith Palagallo directed both projects.

A grant from the MAA/Tensor Foundation for "Mentoring Women in Mathematics", a program to encourage university women to study mathematics, was used to establish the monthly programs "Mathematics afternoon for women." Faculty involved in this program are Laura Gross, Judy Palagallo, Linda Saliga and Ethel Wheland.

### University of Cincinnati

Christopher McCord received the Charles Phelps Taft Award for Distinguished Faculty from the McMicken College of Arts & Sciences.

Edward Merkes has retired.

### University of Toledo

On leave all or part of next year: Don White at Roswell Park (Buffalo), Biao Zhang at Maryland and Michigan, Henry Wentz visiting Bonn and Leipzig, Geoffrey Martin at Duke, En-Bing Lin. George Kertz and Paul Shields plan to retire in 1999.

New chairman is Lamar Bentley, replacing Harvey Wolff. En-Bing Lin is Associate Chair.

Violet B. Davis, who taught at U.T. from 1946 to 1975, died on October 14, 1998 at the age of 88.

### Youngstown State University

Professors Zbigniew Piotrowski and Steven Kent will be taking sabbaticals during the 1999-2000 year. Dr. Piotrowski will be writing a monograph on separate and joint continuity.



# The Mathematics of the Perfect Shuffle

Ohio Section Summer Short Course

Miami University, Oxford, OH

June 23 – 25, 1999

Presenter: S. Brent Morris, National Security Agency

**Abstract:** This minicourse will examine the mathematics of the perfect shuffle, a permutation often used by mathematicians, magicians and computer scientists for seemingly different ends. The perfect shuffle has broad appeal because of its interesting mathematics and surprising applications to magic tricks and computer design. Most of the mathematics should be accessible to anyone who has studied a semester of discrete mathematics. The basic shuffle and several generalizations will be introduced, and the group structure generated by the perfect shuffle will be explored. Participants will be taught several card tricks using different properties of the perfect shuffle. The course will conclude with a study of computer circuits using the perfect shuffle interconnection.

**Biographical Sketch:** S. Brent Morris earned his Ph.D. in Mathematics under Leonard Carlitz at Duke University in 1974 and later his M.S. in Computer Science at John Hopkins University in 1980. He has the only known doctorate in the world on card shuffling, entitled "Permutations by Cutting and Shuffling, A Generalization to Q Dimensions." Morris is the author of many articles. Since 1975 Morris has been employed by the National Security Agency (<http://www.nsa.gov>). He supported himself in college as a magician. He served as Governor-at-Large of the Mathematical Association of America (MAA), as a member and past chair of the Joint Committee on Employment Opportunities, as a Distinguished Lecturer for the Association of Computing Machinery and as a Visiting Lecturer for the MAA and the Society of Industrial and Applied Mathematicians. He has given invited talks at the Smithsonian Institution, NASA Goddard Space Flight Center, AT&T Bell Labs, the Annual Joint Mathematics Meetings and over 100 colleges and universities.

**Expenses:** The registration fee is \$125. It includes a copy of Morris' book, *Magic Tricks, Card Shuffling and Dynamic Computer Memories* (<http://www.maa.org/pubs/books/cards.html>). The U.S Playing Card Company [located in Cincinnati] will donate a deck of cards for each participant. A \$25 deposit should be sent in as soon as possible. Final deadline is May 28. Enrollment is limited to 35 participants.

A registration form is printed below, and on the web page (<http://miavx3.mid.muohio.edu/~rdieffenbach/shortcourse.htm>). Questions: Contact Bob Dieffenbach, Miami University Middletown, Middletown, OH 45042 Phone (513)-727-3238, FAX (513)-727-3367, Email: [diefferm@muohio.edu](mailto:diefferm@muohio.edu).

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## OHIO SECTION SHORT COURSE REGISTRATION FORM

Name \_\_\_\_\_ Nickname (for badge) \_\_\_\_\_

Institution \_\_\_\_\_ E-mail \_\_\_\_\_

Mailing Address \_\_\_\_\_  
\_\_\_\_\_

Phone (home) \_\_\_\_\_ (office) \_\_\_\_\_

Lodging: Will stay at an area motel \_\_\_\_\_ Send information \_\_\_\_\_

Dormitory room(s) (air-conditioned) \_\_\_\_\_ Single (\$24 per night) \_\_\_\_\_ (Number)  
Male \_\_\_\_\_ Female \_\_\_\_\_ Double (\$19 per person per night) \_\_\_\_\_ (Number of people)  
Tuesday \_\_\_\_\_ Wednesday \_\_\_\_\_ Thursday \_\_\_\_\_ Friday \_\_\_\_\_ (June 22-25, 1999)

Please check if you would attend a Thursday evening banquet ( ~ \$20 ): Yes \_\_\_\_\_ (Number) No \_\_\_\_\_

A \$25 deposit is required. Checks should be made payable to "Ohio Section Short Course."

Send to: Bob Dieffenbach, Miami University Middletown, Middletown, OH 45042. Fax: 513-727-3367

Phone: 513-727-3238, E-mail: [diefferm@muohio.edu](mailto:diefferm@muohio.edu)

## STUDENT REGISTRATION FORM

Registration must be returned by students who plan to attend the meeting, including those who are presenting papers. An interactive form on the meeting web page (or [www.cedarville.edu/dept/sm/jas/stureg.htm](http://www.cedarville.edu/dept/sm/jas/stureg.htm)) is preferred.

Name: \_\_\_\_\_

School: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

Freshman\_\_\_ Sophomore\_\_\_ Junior\_\_\_ Senior\_\_\_ Grad student\_\_\_

Attending student supper.....\_\_\_Yes \_\_\_No

Micro-course.....\_\_\_Yes \_\_\_No

Need overnight accomodations....\_\_\_Yes \_\_\_No

If Yes, indicate gender.....\_\_\_Female \_\_\_Male

Bring your own sleeping bag.

Mail by March 19 to: Dr. Barbara D'Ambrosia, Department of Mathematics and Computer Science, John Carroll University, Cleveland, OH 44118

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(Presidents Comments, from page 1)

In San Antonio I participated in a two-hour MAA Section Officers Meeting. After introductions and a presentation by Chris Stevens on section NExT programs/activities, several sections related their activities in NExT. Other topics discussed in the Meeting included annual reporting from the sections and the plan to put Section Reports on the List-serve; a modification of the process of selecting/appointing/reappointing department liaisons and section coordinators; the MAA "New Agenda for the 21st Century" planning process; both AMS and MAA are looking into joint memberships, with the possibility of a reduction in membership fees for multiple memberships; MAA may change institutional memberships to be more like AMS in terms of (free) memberships for graduate students; suggestions that teaching award winners give talks to graduate students at other universities at national MAA expense to promote mathematics and to recruit new MAA members; and recruitment of part-time faculty members into MAA.

The number of registrants through the penultimate day of the Joint Meetings was 4066. I am continually impressed at na-

tional math meetings of the volume of interest in sessions on mathematics education. Some of these sessions had standing-room-only crowds, with huge rooms. Particularly well-attended were the AMS Special Session on Mathematics Education and Mistaken Philosophies of Mathematics, and the AMS-MAA-MER Special Session on Mathematics and Education Reform. Other well-attended sessions dealt with topics such as the Draft of the Updated NCTM Standards, Discovery-based Teaching of Undergraduate Mathematics, Proof in Mathematical Education, Mathematical Education of Teachers, and Research on Undergraduate Mathematics Education.

My term as president was eased by the generous assistance of many in the Section. To you I am grateful. I would like to see a future where university administrators seek ways to encourage faculty members to attend section and national meetings. Whatever influence our section can provide to promote this position among administrators would be desirable.

I urge you to not sit back and wait to be asked for involvement in Section activities, but to actively seek ways to participate. I think our incoming president,

## OhioNExT

A full program of OhioNExT workshop activities will be held Thursday evening and Friday morning, March 25-26, preceding the Ohio Section spring meeting at the University of Dayton. This workshop will be the fifth since the founding of the Ohio Section's local version of the national Project NExT for new faculty members. The Ohio Section will provide housing for NExT Fellows on Thursday night and meals during the workshop. Activities begin with a banquet at 7:00 p.m. on the Dayton campus. Friday morning, after a continental breakfast on campus, workshop activities begin at 8:45 a.m. Leading off will be short talks by three OhioNExT fellows on their mathematical research activities. Following the short talks, there will be two major workshop sessions. Details about speakers and topics, as well as a detailed schedule of activities will soon appear on the Ohio Section webpage and will be sent to all NExT Fellows.

The NExT workshop at last fall's meeting at Columbus State was very successful. Twelve fellows and four mentors took part. Short talks by three fellows on their mathematical research activities were given by Tom LaFramboise (Marietta), Jonathan Rubin (Ohio State), and Gordon Swain (Ashland). There were two major workshop sessions. David Stone (Georgia Southern University) presented a session titled "Lessons and Examples from Thirty Years of Teaching Mathematics." Todd Will (Davidson College) presented a workshop session about resources on the Web for teaching mathematics. Photos of workshop speakers and participants can be viewed on the Ohio Section webpage.

There are now more than thirty OhioNExT fellows, and about half are also national NExT fellows. To be eligible, the only requirements are that a faculty member be in her/his first four years of teaching and have a strong commitment to teaching undergraduates. Applications for new OhioNExT fellows are now being accepted. Details and application materials can be found on the Section web page, or from Barbara Ashton (Wittenberg), e-mail: [bashton@wittenberg.edu](mailto:bashton@wittenberg.edu).

*John Michel*

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Aparna Higgins, would welcome your input on any topic and your help on committees would be appreciated. After all, this is your section. I will see you in Dayton.

*Roger Marty*

# Spring Ohio Section Meeting

## Preliminary Program

### March 26-27, 1999

### University of Dayton

All sessions are open to all registrants.

Friday	Saturday
Noon- 4:30	8:00 - 10:00 am
Registration and Book Exhibits	Registration and Exhibits
Miriam Hall	8:00 - 9:00
12:15- 1:15	Coffee and Donuts
Committee Meetings	8:15 - 9:00
(CONSTUM, CONSACT, CONCUR,	Department Chairs/Liaisons Meeting
CONTEAC, Program Committee)	9:00 - 10:00
1:30 - 1:45	<b>Panel Discussion:</b>
1:45 - 2:45	“Mathematics in Business and Industry”
Welcome and Announcements	Panelists will include Ronald Graham
<b>Invited Address:</b>	<b>CONTEAC Panel Discussion:</b>
“Mathematics and Computers: Recent Success	“Licensure in Mathematics for Middle
and Insurmountable Challenges”	School—What's Happening?”
Ronald L. Graham	Moderator: Delene Perley, Walsh University;
AT&T Labs Research	Coffee Break
2:45 - 3:30	10:00 - 10:30
Coffee Break	10:15 - 12:00
3:30 - 6:15	<b>Student Microcourse:</b>
<b>Student Paper Session</b>	“A Quick History of the Calculus”
MAA Executive Committee Meeting	V. Frederick Rickey
6:30 - 7:30	United States Military Academy
Banquet	<b>Contributed Papers</b>
Student Supper	(Executive Committee Meeting , if necessary)
7:30 - 8:30	<b>Retiring President's Address</b>
<b>Annual Business Meeting</b>	Roger Marty
Teaching Award Presentation	Closing Remarks/Announcements
Election of Officers	
8:30	1:00 pm
Ice Cream Social	
Juggling	

*Check the web for updates ([www.bgsu.edu/departments/math/Ohio-section/](http://www.bgsu.edu/departments/math/Ohio-section/)).*

### Mathematics and Computers: Recent Successes and Insurmountable Challenges

Ronald L. Graham

There is no question that the recent advent of the modern computer has had a dramatic impact on what mathematicians do and on how they do it. However, there is increasing evidence that many apparently simple problems may in fact be forever beyond any conceivable computer approach. In this talk I will describe a variety of mathematical problems in which computers either have had, may have or will probably never have a significant role

### About the Speaker

He is a juggler, gymnast, and a polyglot—not to mention a mathematician. A prodigious worker who sits on the editorial boards of 40 journals, Graham is chief scientist emeritus at AT&T Labs Research.

At what was formerly Bell Labs he nurtured some of the top mathematicians and computer scientists in the world. His work in number theory and other realms of mathematics earned him the prestigious Polya Prize in 1972 and membership in the National Academy of Sciences in 1985.→

### Registration and Banquet Ticket

Use the registration form on page 11, or preferably the interactive form on the meeting web page (or [www.udayton.edu/~mathdept/maa/online.htm](http://www.udayton.edu/~mathdept/maa/online.htm)). Deadline to ensure banquet ticket is March 19. On-site reservations are gladly accepted, but preregistration helps the people doing arrangements. Open to all.

He gives lectures and seminars around the world. He served during the past two years on a high-profile National Research Council committee on cryptography.

The most forceful fosterer of Graham's thinking was Paul Erdős, whom Graham calls “one of the great problem posers of all time.” They met in 1963, and their first joint paper appeared in 1972. Graham maintained an “Erdős room” in his house for his mentor, who never had a family or steady job but traveled around the world staying with friends. A 1979 paper by Graham helped to popularize the concept of one's “Erdős number”.

(Excerpted from a profile in *Scientific American*, March, 1997.)

### Call for Contributed Papers

A contributed paper session is scheduled for Saturday morning from 10:30 am to noon.

The theme for this meeting is “mathematics in business and industry” but twenty minute presentations on any topic in mathematics or a related area are encouraged. Reports on projects, research announcements, or anything else you believe would be of interest to those in attendance are welcome. In particular, one of these parallel sessions will be designated as the *Kenneth Cummins Teacher's Corner* in memory of Dr. Kenneth Cummins. Reports of classroom innovations or interesting projects will be collected together for this session.

Contributors for all sessions should send a title and a brief abstract by Friday, March 19, 1999 to: Harold L. Putt, Department of Mathematics, Ohio Northern University, Ada, Ohio 45810, e-mail (preferred): [h-putt@onu.edu](mailto:h-putt@onu.edu), Fax: 419-772-2330.

The contributed paper program will be posted on the web page prior to the meeting.



### CONTEAC Panel

CONTEAC stands for *Committee on Teaching and Certification*, even though the word now is “licensure” instead of “certification.” In the past, certification was awarded for elementary teaching K-8 and secondary teaching 7-12. The new licensure programs divide things into Early Childhood (PreK-Grade 3), Middle Childhood (Grades 4-9), and Adolescent to Young Adult (Grades 7-12).

Our committee’s recent attention has been on the Middle Childhood where two areas of concentration out of four are required; one of those being Mathematics. Many of the education departments of our schools in consultation with their mathematics department colleagues have recently submitted curricula for such concentrations. There have been a variety of successful proposals. At the spring meetings we plan to explain the requirements for such curricula, give some examples, discuss some of the unique courses offered at different institutions, and also take a look at the national scene through NCATE. Following our presentations we hope to have an open discussion time.

Members of the committee who will be participating are Delene Perley, Chair, Walsh University, Woody Silliman, Cleveland State University, Cathy Stoffer, Ashland University, and David Meel, Bowling Green State University. Other members of the committee include David Flaspohler, Xavier University, Philip Huneke, Ohio State University, and Richard Laatsch, Miami University. We look forward to seeing you.

*Delene Perley*

### Grant for Section Student Activities

An MAA Minigrant of \$500 has been awarded to the Section to “develop and promote undergraduate student activity in mathematical activities.”

This grant is made possible by a grant to the MAA from the Exxon Educational Foundation.

### T-shirts

CONSTUM will be selling Ohio Section commemorative t-shirts at the spring meeting to help support the student paper contest. So bring a little extra \$\$ for this must-have piece of apparel. Many thanks to Lisa Walker, a student at Cedarville College, for developing the design on the shirts.

### Student Activities

In addition to the regular attractions of Ohio Section meetings, there will be several activities for students during the spring meeting at Dayton. On Friday afternoon, there will be sessions of talks presented by students, followed by a student supper (free). Fred Rickey will present the student microcourse on Saturday morning. Students (undergraduate and graduate) planning to attend the meeting should complete the registration form in the newsletter, or the interactive form on the meeting web page (or at [www.cedarville.edu/dept/sm/jas/stureg.htm](http://www.cedarville.edu/dept/sm/jas/stureg.htm)). Registration via the Web is preferred. Making arrangements for student dinners and housing involves considerable effort on the part of the hosts. Students are asked to please honor the commitments they make. Students who will be staying overnight must bring a sleeping bag. Student registration deadline is March 19, 1999.

*Barbara D'Ambrosia*

### Call for Student Papers

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 co-op experience, or the results of a research project.

If there is sufficient interest, one session of talks will be set aside for graduate students. Depending on the topic and level of the intended audience, graduate students may present their talks during the contributed paper sessions on Saturday morning.

Each student speaker will receive a free one-year MAA membership. Student talks are an integral part of the meeting, and should be an enjoyable and rewarding experience for all who participate. Faculty members are asked to encourage their students to give presentations and to provide support and suggestions during the preparation of each talk.

Students preparing talks should refer to Joseph Gallian's article “How to Give a Good Talk” in the April, 1998, *Math Horizons* (p. 29). Abstracts should be between 25 and 75 words in length. Each presentation room will include a blackboard and one overhead projector. The student must provide anything else necessary for his/her talk. The rooms do not have internet connections. →

### Fred Rickey to Present Student Microcourse

Thanks to a generous grant from the Exxon Education Foundation, the Section was able to invite Fred Rickey to present this year's student microcourse, “A Quick History of the Calculus.” Fred is a professor of mathematics at the U.S. Military Academy, but many of us know him from his time at Bowling Green State University. We are pleased that Fred will be able to join us at the spring meeting, and we encourage students to participate in this interesting microcourse.

**Abstract:** The Calculus was created by Isaac Newton and Gottfried Leibniz in the seventeenth century. To illustrate what a fabulous accomplishment this was we shall look at some of the ad hoc methods used by their predecessors such as Fermat and Torricelli. Then, to see that the Calculus that Newton and Leibniz created is not the calculus we use today, we shall look at the contributions of Euler, Cauchy and Weierstrass. The aim will be to give a big picture of how the Calculus developed.

Two trophies will be awarded to the institutions sponsoring the most student talks. One trophy will be awarded to a school with an undergraduate enrollment of more than 10,000, and the other will be awarded to a school with an undergraduate enrollment of less than 10,000. The host institution is not eligible to receive a trophy.

Students are encouraged to use the interactive abstract submission form on the meeting page (or [www.cedarville.edu/dept/sm/jas/papersub.htm](http://www.cedarville.edu/dept/sm/jas/papersub.htm)).

Otherwise abstracts may be submitted by U.S. mail to Barbara D'Ambrosia, Department of Mathematics and Computer Science, John Carroll University, University Heights, Ohio 44118, or by e-mail to [bdambrosia@jcu.edu](mailto:bdambrosia@jcu.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 level undergraduate, lower level undergraduate, etc.), the title of the talk and a brief description of the presentation. Abstracts must be received by March 12, 1999. PLEASE NOTE: This deadline is one week earlier than the meeting registration deadline! Students who submit abstracts should also register for the meeting.

## University of Dayton

The University of Dayton, founded in 1850, is a private, coeducational school founded and directed by the Society of Mary (Marianists), a Roman Catholic teaching order. It is among the nations largest Catholic institutions of higher learning. The main campus is twenty-six acres overlooking the city of Dayton, Ohio.

On July 1, 1850, the University of Dayton had its beginning as St Marys School for Boys, with fourteen boarding students of high school age. The school was incorporated and empowered to confer collegiate degrees in 1882. Shortly thereafter it became known as St Marys College. It was not until 1920 that the name was changed to the University of Dayton.

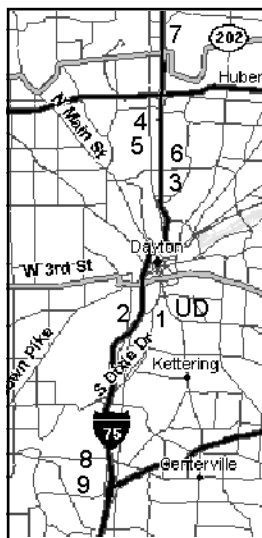
At the present the University is organized into five colleges: Arts & Sciences, Engineering, Business, Education, and Law. There are approximately 400 full time faculty and 6200 full time undergraduates (approximately 2/3 of those are in the College of Arts & Sciences). There are 15-20 different Bachelor degree programs, 10-15 different Masters programs, PhD in Biology, PhD in Engineering, Doctor of Engineering, and Juris Doctor. The graduate and part-time students account for another 3000 students.

The Mathematics Department, founded in 1920, offers BA in Math, BS in Math, and MA. The faculty, which consists of 18 full time and 8 part time people, offer courses for 30 majors, as well as service courses for Engineers, Physicists, Chemists, Computer Scientists, Education and others. For a major in mathematics, the students are required to take 9 courses beyond Calculus, of which 4 are specified.

The Computer Science Department, founded in 1965, offers BS in Computer Science, BS in Systems Analysis, and BS in CPS-Physics. The faculty, which consists of 9 full time and 12 part time instructors, offer courses for 350 majors, as well as service courses for many departments. For a major in CPS, after the first 4 introductory courses, the students are required to take 9 courses of which 4 are specified. They are also required to take 4 math courses beyond Calculus, of which 2 are specified.

The University, through the Office of Computing Activities, operates a NCR 3600, and a PRIME. The PRIME is used primarily for administrative work. Most CPS courses use the NCR 3600. There is

also a lab of 30 386-machines for the Intro to CPS courses. At present, each member of the Math Department has a PC in his/her office, connected to the LAN. The Math Department also now shares with other science departments, two computer labs, each having 20 PC's with pentium processors.



Motel and Area Map

### Directions

Take I-75 to Exit #51, Edwin C. Moses Boulevard. See maps and further directions on page 11. To get to this exit:

- From I-70, Westbound (from Columbus): Exit I-70 at Ohio Rt 4. Proceed southbound to I-75 south.
- From I-75, Southbound (from Toledo): Proceed southbound through downtown Dayton.
- From I-70, Eastbound (from Indianapolis and Dayton Airport): Exit I-70 at I-75 south. Proceed southbound through downtown Dayton.
- From I-75, Northbound (from Cincinnati): Exit #51 right, at Edwin C. Moses Boulevard.

### Banquet Menu

- Cash Bar - Wine, Beer & Soft Drinks
- Mixed Greens w/Gorgonzola & Honey Vinaigrette
- Mini Croissants & Sourdough Rolls
- Choice of entree: Honey Herb Chicken or Sauteed Orange Roughy or Vegetable Strudel. (Select on registration form.)
- Wild Rice
- Whole Green Beans w/ Red Pepper Ring
- Coffee, Tea, or Milk

For dessert, we will join the student participants for an Ice Cream Social after the business meeting.

## Places to Stay

Please make your reservations directly with the hotel/motel. For some of the rates quoted below, be sure to mention that you will be attending the Mathematics Meeting at the University of Dayton. All are just off I-75 at exit number given. See map.

### Near the University of Dayton Arena

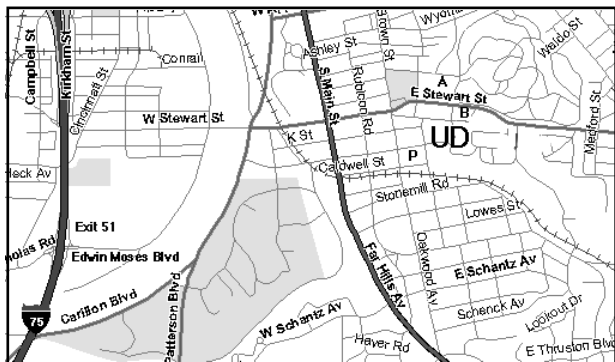
1. Dayton Marriott Hotel  
1414 S Patterson Blvd  
Dayton OH 45409, Exit 51  
937-223-1000 (1 mi.)  
\$99+ single or double - Mention UD
2. Holiday Inn Holidome  
2455 Dryden Rd  
Moraine OH 45439, Exit 50A  
937-294-1471 (3 mi.)  
\$75+ single or double - Mention UD

### North of downtown Dayton

3. Holiday Inn  
2301 Wagner Ford Rd  
Dayton OH 45414, Exit 57  
937-278-4871 (8 mi.)  
\$72+ single or double - Mention UD
4. Red Roof Inn  
7370 Miller Lane.  
I-75 & Little York Rd  
Dayton OH 45414, Exit 60  
937-898-1054 (10 mi.)  
\$39.99+ single or \$44.99+ double
5. Fairfield Inn  
6950 Miller Lane  
I-75 & Little York Rd  
Dayton OH 45414, Exit 60  
937-898-1120 (10 mi.)  
\$49+ single or double - Mention UD
6. Dayton Lodge (Best Western soon)  
2401 Needmore Rd  
Dayton OH 45414, Exit 58  
937-278-5711 (8 mi.)  
\$51+ single or double - Mention UD
7. Cross Country Inn  
550 East National Road  
Vandalia OH 45377, Exit 63  
937-898-7636 (14 mi.)  
\$42.99+ single or \$49.99+ double

### South of Dayton.

8. Knights Inn  
185 Byers Road  
Miamisburg OH 45342, Exit 44  
937-859-8797 (9 mi.) - Mention UD  
\$39.55+ single or \$42.25+ double
9. Red Roof Inn  
222 Byers Road  
Miamisburg OH 45342, Exit 44  
937-866-0705 (9 mi.)  
\$47.99+ single or double

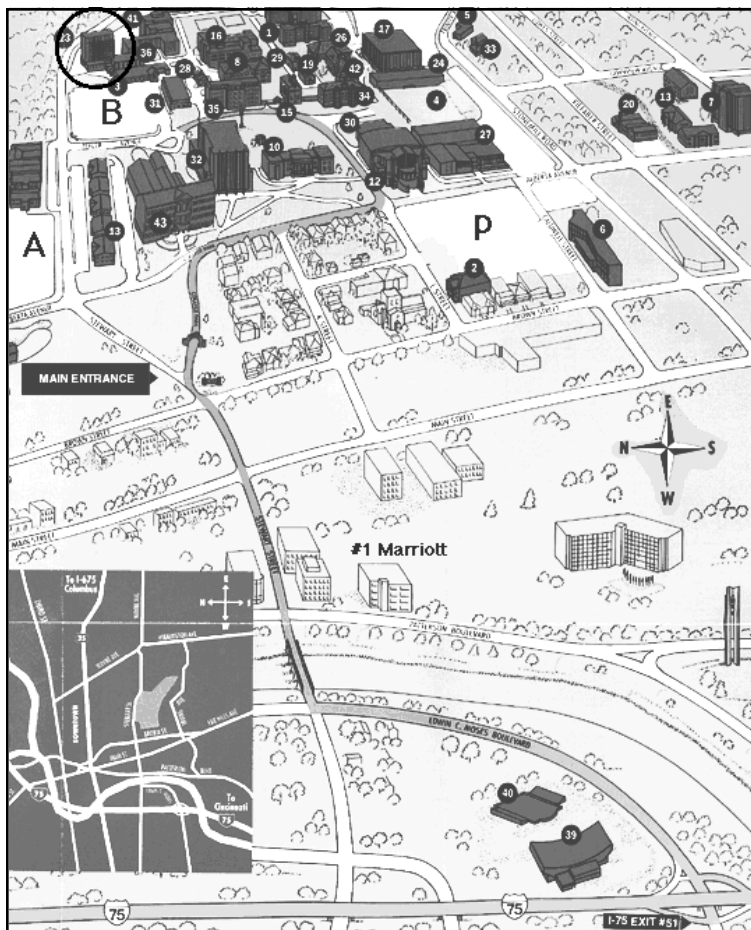


Take I-75 Exit #51, Edwin C. Moses Boulevard. Turn east and follow Edwin C. Moses Boulevard to Stewart St., turn right and continue on Stewart St. to the University entrance. Route is shaded on the campus map, right.

The street names are clearer on the map above. The campus map gives a good view of the area and the location of Miriam Hall, circled, the registration site. North is up on the map above, and to the left on the campus map.

### Parking

Since most of the sessions will be held in Miriam Hall, the most convenient place to park will be in B LOT (labeled "B" on the maps). However, that area will probably be very busy on Friday afternoon. Consequently, you will probably need to park in PLOT (labeled "P" on the maps). Please ask the Campus Security guard at the security kiosk for directions and a parking pass for P LOT. Some may be allowed to park in A LOT.



Clip or photocopy; or use the interactive form on the meeting web page (preferred).

## SPRING MEETING REGISTRATION FORM

There is separate student registration on page 7.

Name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Institutional Affiliation: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Amount enclosed: \_\_\_\_\_ Registration Fee (\$15.00 for full time, \$5.00 for others, waived for students)

\_\_\_\_\_ Banquet – indicate entree: \_\_\_\_\_ Honey Herb Chicken (\$10)  
 \_\_\_\_\_ Sauteed Orange Roughy (\$12) \_\_\_\_\_ Vegetable Strudel (\$9)

\_\_\_\_\_ Total

Please check one of the following: \_\_\_\_\_ University faculty \_\_\_\_\_ Four-year college faculty \_\_\_\_\_ Two-year college faculty  
 \_\_\_\_\_ Graduate Student \_\_\_\_\_ High school teacher \_\_\_\_\_ Industry/Government \_\_\_\_\_ Other

Mail the completed form, along with your check (Payable to "MAA OHIO SECTION"), to: J William Friel, Department of Mathematics, University of Dayton, Dayton, OH 45469-2316

Make reservations by March 19 to ensure a banquet ticket. Early registration will help those making arrangements.

## Calendar

### Ohio Section

Winter Technology Institute, Columbus State CC, 1999, March 5-6.

March 26-27, 1999, U. of Dayton, and OhioNEXT March 25-26.

Summer Short Course, *Mathematics of the Perfect Shuffle*,  
Brent Morris, NSA, June 23-25, 1999, Miami U..

October 22-23, 1999, College of Wooster

April 7-8, 2000, Marshall U., Huntington WV.

Fall, 2000, Wittenberg U., Springfield

### National MAA

July 31-Aug 2, 1999, Mathfest, Providence RI.

January 19-22, 2000, Annual Joint Meetings, Washington, DC,  
also with SIAM.

August 3-5, 2000, Mathfest, UCLA

January 10-13, 2001, Annual Joint Meetings, New Orleans

January 6-9, 2002, Annual Joint Meetings, San Diego

### Other

SIAM Great Lakes Section, *Forum on Numerics and Modeling for Partial Differential Equations*. March 13, 1999, Bowling Green.

Conference on Undergraduate Mathematics, March 19-20, 1999, Rose-Hulman Institute of Technology, Terre Haute, IN

Kentucky Section, March 26-27, 1999. University of Louisville

Indiana Section, March 26-27, 1999, Indiana U., Bloomington

Allegheny Mtn. Section, April 9-10, 1999, Allegheny C., Meadville, PA

NCTM, April 22-25, 1999, San Francisco.

Lukacs Statistics Symposium, April 23-25, 1999, Bowling Green.

Ohio Academy of Science, April 23-25, 1999, Cleveland State.

Michigan Section, May, 7-8, 1999, Eastern Mich. U, Ypsilanti.

SIAM Annual Meeting, May 12-15, 1999, Atlanta

Mathematics Across the Curriculum, July 9-10, 1999, Indiana U.

OCTM, September 23-25, 1999, Dayton

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*Complimentary copies of this newsletter are being distributed to people who might 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: <http://www.maa.org/mbsvcs/individual.html>. MAA Departmental Liaisons also have information. Low rates apply for new members*

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Department of Mathematics and Statistics  
Bowling Green State University  
Bowling Green OH 43403-0221

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