

# LA/MS SECTION NEWSLETTER

## Winter 2000-2001 - DRAFT

Volume 23, No. 2

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## SPRING 2001 MEETING INFORMATION

### REGISTRATION INFO

Dates for the Spring 2001 LA-MS Section meeting are **MARCH 23-24, 2001**. The University of Mississippi, under the direction of Section Chair Gerard Buskes, will be the hosting institution. A [registration form and other information regarding the meeting](#) is available on our section web site. A [registration form](#) will be included in the printed version of the newsletter.

Unless otherwise stated, contact [maa@olemiss.edu](mailto:maa@olemiss.edu) to submit papers or obtain any other information regarding the meeting.

### ACCOMMODATION INFO

The meeting will be held on the University Campus. The main meeting quarters will be in the Student Union, Hume Hall (the Department of Mathematics), the Old Chemistry Auditorium and the Education Auditorium.

The Downtown Inn Hotel is about a mile away from the campus and right off the historic square of Oxford. A block of rooms have been reserved at the rate of \$55. To help the organizers with planning, attendees are encouraged to reserve their rooms at the conference hotel before January 31. Further, in order to obtain the conference rate, members should make reservations before the hotel starts releasing rooms on February 22.

- Phone number: 662-234-3031
- Fax: 662-234-2834

Some other hotels close by:

- Holiday Inn Express, 1-800-465-4329
- Oliver Britt House Inn, 662-234-8043
- Puddin Place, 662-234-1250
- Best Western, 662-234-9500
- Comfort Inn, 662-234-6000

The Oliver Britt House and the Puddin Place are smaller and more expensive. For more information or if you have questions, contact Gerard Buskes.

## CALL FOR PAPERS

Several contributed paper sessions will be held in conjunction with the section meeting in Oxford. This will be the second year in which faculty can submit a paper to the proceedings of the section meeting. For any faculty who are interested in presenting a paper, please send your name, school, and title of talk to Dr. Gerard Buskes, Department of Mathematics, University of Mississippi, University, MS 38677 or electronically via [maa@olemiss.edu](mailto:maa@olemiss.edu). Please, include an abstract of no more than fifty words for inclusion in the meeting program.

For more information, see <http://www.mc.edu/campus/users/travis/maa/meeting/papers.html>.  
Deadline: March 10, 2001

## SPECIAL SESSION ON COMBINATORICS

There will be a special session on Combinatorics. Please submit your abstract for that session to Haidong Wu or Talmage James Reid via:

- email: [hwu@sunset.olemiss.edu](mailto:hwu@sunset.olemiss.edu) or [mmreid@olemiss.edu](mailto:mmreid@olemiss.edu)
- regular mail: Department of Mathematics, University of Mississippi, University, MS 38677.

Deadline: March 10, 2001

## CALL FOR STUDENT PAPERS

The Louisiana-Mississippi Section of the MAA will hold its annual Student Paper Competition on Friday, March 23, 2001 at the section meeting in Oxford, Mississippi. Papers are solicited in two categories: graduate and undergraduate. The graduate category is limited to master's students. Ph.D students are encouraged to submit a paper to the contributed paper sessions. Presentations will not be longer than 12 minutes.

To participate in the student paper competition, a hardcopy (6 pages or less) of the paper must be received before March 10, 2001, which includes the author's name, institutional affiliation and faculty advisor. If available, please provide an e-mail address. Late entries will not be considered. Send undergraduate papers to: Dr. W.A. Staton, Department of Mathematics, University of Mississippi, University, MS 38677. Send graduate papers to Dr. Dale Bowman, Department of Mathematics, University of Mississippi, University, MS 38677.

Prizes will be awarded in each category separately, with no more than three prizes in each category. The number of prizes awarded shall be at the discretion of the judges, and shall be determined depending on the quality and number of the entries in each category. The amount of the prizes shall be as follows: first prize, \$75.00; second prize, \$50.00; third prize, \$25.00. Each

entry will be judged on the basis of both the written and the oral presentation, with equal consideration given to both.

For more information, see <http://www.mc.edu/campus/users/travis/maa/meeting/papers.html>.

Deadline: March 10, 2001

## **STUDENT TEAM COMPETITION**

The eighth student team competition will be held on Friday, March 23, 2001 from 8:30 to 11:00 a.m. Each school is invited to enter one or two teams. Please encourage your students to participate in this competition. A team must have a faculty sponsor and shall consist of at most 4 students. Team members must be undergraduate students and must be currently enrolled at the institution that they represent. Cash prizes will be awarded to the top three teams.

An application form for this competition is available online and will also be included in a separate mailing to Department Chairs in February. For more information or for assistance in judging the competition or participating in other ways (like submitting problems and grading solutions) in this important competition, please contact George Cochran at LSU.

For more information, see <http://www.mc.edu/campus/users/travis/maa/meeting/studcomp.html>.

Deadline: March 10, 2001

## **GRANT WRITING WORKSHOP**

A Grant Writing Workshop will be held on Friday at 8:30am-11:30am. This workshop is organized by the MAA via an NSF sponsored grant. There is a fee of \$15, which can be paid with the registration. Please notify Gerard Buskes of your intent to participate.

Topics:

- reasons why proposal writing is beneficial (with undergraduate faculty in mind)
- priorities of the NSF Division of Undergraduate Education and others
- the grant writing process both in general and with respect to DUE
- the budget process and the submission process
- a mock review

The workshop leader will be Melinda Miller Holt. For more information, contact Dr. Holt directly:

Melinda Miller Holt, Ph.D.  
Mathematics and Computer Science  
Texas Woman's University  
P.O. Box 425886  
Denton, TX 76204-5886  
(940) 898-2168

If anyone has specific wishes for additional topic that the Grant Writing Workshop should cover,

please e-mail Melinda Holt at [mholt@twu.edu](mailto:mholt@twu.edu).

Deadline for participation: March 10, 2001

## **SPEAKERS AND OTHER SPECIAL FEATURES**

Invited speakers are Frank Morgan, who will speak about Double Bubble Trouble, Harry Coonce who single handedly started a website for the genealogy of mathematicians, and Pulitzer Prize winner Douglas Hofstadter, who will present the 9th annual Dalrymple lecture (see abstract below). The latter lecture will be from 2:00 to 3:00 p.m. on Saturday March 24, after the business meeting. In addition there is an MAA/NSF sponsored workshop for Grant writing. The nationally acclaimed book store Square Books will host a reception for Hofstadter on Saturday afternoon in its Off Square location to which all of the participants of the conference are invited. Student participants in the Student team Competition will be offered a lunch on Friday, March 23, following the competition. At their luncheon a motivational speaker will speak to them briefly. There also will be two panel discussions, one led by Stan Chadick and the other by Dick Anderson. Plans are in the make to offer participants the opportunity for a ride in Oxford's Double Decker Bus and tour the main sites of this charming little town.

Friday night at 7 there will be a banquet with barbecued ribs and barbecued chicken, Mississippi style in the University Memory House. All are invited to attend.

For much more information about the conference, please visit the website <http://www.mc.edu/campus/users/travis/maa/meeting/index.html>.

### Dalrymple Lecture Abstract

#### **A JOLLY ROMP IN THE EUCLIDUAL PLANE, WHERE POINTS AND LINES HAVE THEIR ROLES REVERSED Douglas Hofstadter**

Several years ago, it occurred to me that, for reasons of abstract symmetry, Euclidean geometry must have a "dual" geometry in which there are "parallel points" but no parallel lines. I pondered this bizarre idea for a while, and gradually and gropingly worked out some of the most basic concepts and theorems in what I dubbed "Euclidual" (it rhymes with "residual") geometry. What, for instance, do the three slides of a "trislid" add up to? And what is the shape of a "circual"? (Incidentally, not least of the several challenges I had to face was that of figuring out what to call the new objects that populate the Euclidual plane. This led to some rather amusing terminology.)

After further pondering, I realized that by allowing both parallel points and parallel lines, or by allowing neither notion, or by exploring other variants, I could coax out of the woodwork a small family of nine closely related geometries, including not only the famous Noneuclidean geometries but also their duals -- the "Noneuclidual" (of course!) geometries.

I later learned, to my disappointment, that much of what I had uncovered had been found before, but to this day these lovely ideas are little known and little appreciated. In my talk I will describe my intuitive explorations, concentrating most of all on the disorienting world of Euclidual geometry, but also suggesting a little of the flavor of the others.

# Governor's Report

The Governor of a section serves for three years and my tenure as your Governor ends in June of 2001. Soon you will be receiving a ballot to select a new Governor who will begin their term with the MathFest meeting on August 2-4, 2001 in Wisconsin.

It has been an honor to represent the Louisiana-Mississippi Section as your Governor. In January, I attended my sixth national meeting of the MAA representing our Section. The Board of Governors meets on the day before the official start of these meetings. We meet for the entire day as we discuss and vote on the business of the MAA. These meetings were not drudgery for me as I got to meet and hear from outstanding contributors to the MAA and mathematics. I can report to you that these mathematicians at the national level work diligently to serve you as you seek to promote and teach college mathematics at your college or university. Your dues support activities and publications that are truly meaningful to our profession.

The MAA is bringing a new website that I think will be a service to all college teachers of mathematics. The Mathematical Sciences Digital Library (MathDL) is an important new resource for mathematics faculty. This website includes these features:

1. lists all relevant published material, books and software with reviews and user comments,
2. provides a wide range of high-quality learning materials reviewed and selected by editors you trust, and
3. features an online journal that publishes the best learning materials, interactive mathematics, and articles on how students learn online.

Check MAA Online, [www.maa.org](http://www.maa.org) for updates on MathDL.

I look forward to visiting with you at the Spring Section meeting at Ole Miss. Please email me at [chadick@nsula.edu](mailto:chadick@nsula.edu) or call 318.357.5033 if I can be of assistance to you.

*Stan Chadick*

# Section Chair's Report

It has been my pleasure to serve as your Chair over the past year. Organizing the spring conference is one of the pleasant duties of the chair and it has taught me how well organized this section is and how numerous its people who selflessly offer their services for the advancement of mathematics and teaching mathematics. The diversity of the annual spring conference attests to this. The willingness to organize several student events really makes our section shine.

The executive committee met under the hospitality of John Travis in Clinton Mississippi in November. The most important point of legislation to which I would like to draw the attention of all of you is the resurrection of the bylaws. Roger Waggoner has done an outstanding job of finding the original words of the bylaws, dusting them off and retyping them. A copy of these bylaws is now available on our section website.

Last but not least, I wish to urge you to entuse as many students as you can to get to our section meeting. Our section has a truly spectacular line up for them and for you and the University of Mississippi is looking forward to be your host. See you all there!

## Section Proceedings

The LA/MS section of the MAA officially has published its first proceedings of the Spring 2000 meeting under the direction of Managing Editor Michael Pearson and Editorial Board Bradd Clark, Ken Li, James Reid and John Travis. Members are encouraged to make plans for submitting papers for the second set of proceedings following our upcoming Spring 2001 meeting.

Papers presented at the annual meeting are eligible to be submitted for consideration of publication in the Proceedings. The editorial board will consider papers in the broad categories of Research, Pedagogy and Student papers. Papers submitted will be refereed for both content and style. The area editor will make a recommendation for or against publication for each paper submitted in that area. Final approval for publication rests with the full editorial board.

All papers must include author name, institutional affiliation and complete contact information, including e-mail address, on the title page of the paper. Student papers must also include corresponding information for the faculty advisor. While we have not yet fixed any overall style constraints, authors are encouraged to avoid any unusual style elements.

Electronic submission of the paper is required. File formats must be either Unix or PC. All papers will be published in PDF format (readable using the Adobe Acrobat plug-in), and it is therefore preferable that papers be submitted in that format. However, LaTeX, PostScript (preferred), DVI, Word or WordPerfect files may also be submitted. Authors should be aware that graphics files are not usually embedded in LaTeX, DVI, Word or WordPerfect files, so care should be exercised if papers include any tables, graphs or other figures.

Submission deadline for papers presented at a given year's meeting is the following May 1.

Any section member who would like to comment on this is encouraged to contact the committee via Michael Pearson at [pearson@math.msstate.edu](mailto:pearson@math.msstate.edu).

## Section Mailing List

Interested faculty are encouraged to utilize the section mailing list for sharing pertinent information with fellow members of the section. Information on section meetings and other section activities will be routinely broadcast via the list. If you would like to join the list or if you have something to share with the list, send an email to [Web Coordinator](#).

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### Member News:

## The University of Southern Mississippi:

### Retirements:

**Steve A. Doblin** is leaving to become Executive Vice President for Academic Affairs at Lamar University in Beaumont, Texas. He will assume his new duties starting July 1. Steve came to USM in 1972, served as department chair from 1981 to 1989, and since 1989 has been Dean of the College of Science and Technology. He will long be remembered for his innovative leadership.

**Jim Caveny** is retiring at the end of spring 2001. Jim came to USM in 1971 as department chair and served in that capacity until 1981. He also served the College of Science and Technology as assistant dean (1981-1983) and then as acting dean (1983-1984). Jim has a deserved reputation as an excellent teacher as well as a capable administrator.

**Ron A. Putthoff** is retiring at the end of spring 2001. Ron began his teaching career at USM in 1983 as a visiting instructor and is now arguably USM's most popular instructor. He has routinely each semester taught three 'monster' sections of introductory mathematics to an average of 400 students.

### New Faculty:

There were two new instructor hires during spring 2000. **Susan R. Howell** has been teaching developmental algebra for us since 1994 on an adjunct basis. Previously she taught at Winthrop University in South Carolina and at Millsaps in Jackson. **Jancie G. Fletcher** comes to us directly from Oak Grove High School where she served as mathematics head. Janice has been active in USM's Gifted Studies Program and College Discovery Program. She has made numerous presentations at both the Mississippi Council of Teachers of Mathematics and the National Council of Teachers of Mathematics.

There was also one assistant professor hire. **Sheri J. Boyd** earned her Ph.D. from Vanderbilt University. Her primary research interest is semigroups. She comes to us from Agnes Scott College where she was on a visiting position.

**Barry Piazza** has been appointed Graduate Coordinator.

**Temple H. Fay** has received a summer grant for the improvement of instruction. His proposal is to implement the use of 'bread-board' circuits in differential equations. The bread-board can be configured by the students into various electric circuits. Each circuit represents a differential equation. Concepts such as non-linearity and chaos can be introduced by appropriate tuning of the circuit and then viewed.

**Lida G. McDowell** has received a summer grant for the improvement of instruction. Her proposal is to develop a workshop and resource guide for prospective teachers of 'Explorations.' This course teaches college algebra using a student-centered approach rather than the customary instructor-lecture approach. It includes group projects, written assignments, and oral presentations. Algebra topics are learned via data driven problems. Problems are solved in a variety of ways which include using the graphing calculator, coputers, and plotting graphs. In other words, the usual analytical approach is not the only

approach. Explorations even fosters discovery learning with calculator-based laboratory experiments.

**Dexuan Xie** has received an Aubrey K. and Ella Ginn Lucas Endowment for Faculty Excellence Award. He will use his summer support to develop an algorithm that visualizes a huge chemical database as a two dimensional array. The idea is that two 'close' points in this array will correspond to similar compounds.

**Susan R. Ross** received a \$60,000 grant from the Eisenhower Title II program. She will serve as lead PI with **Mary B. Peters** and **Janice G. Fletcher** serving as co-project directors. They will use the grant to conduct a 4-week summer institute working with 6-12 grade teachers on pre-algebra and algebra I concepts.

**Temple H. Fay** will host The Weekend Algebra Conference during the weekend of April 20-22. Beginning at 1:00 pm on Friday, half hour talks with short breaks between are delivered, lasting until 6:30 pm. A banquet Friday night is sponsored by USM. Saturday talks begin 8:00 am and run until about 1:30 pm. The department hosts a picnic immediately after the last talk. The Sunday session begins at 8:00 am and ends at 12:30 pm.

The 10th Annual University of South Alabama/Unviersity of Southern Mississippi Mini-Conference Mini-Conference on Undergraduate Research in the Mathematical Sciences will be held on the USM campus on Friday, April 6. The host is **Temple H. Fay** <[thfay@mozart.st.usm.edu](mailto:thfay@mozart.st.usm.edu)>.

*Submitted by Wally Pye*

## Mississippi College

### Promotions:

- **John Travis** was promoted to Associate Professor.
- **Melinda Gann** was promoted to Assistant Professor.

**Dr. Teresa Floyd**, Associate Professor, recently received a \$60,000 grant through the Dwight D. Eisenhower Professional Development Act to conduct a Summer Institute in Mathematics entitled "Middle School Mathematics Initiative." She will serve as principal instructor and director of the project. **Dr. Melinda Gann**, Assistant Professor, will serve as a part-time instructor for the endeavor. The MSMI will work with twenty middle school teachers of mathematics in June 2001 for four weeks to enhance their knowledge of content, methodology, & technology usage in middle school mathematics classrooms.

## University of Louisiana at Lafayette

### Promotions

- **Baker Kearfott** was promoted to Full Professor.
- **Azmy Ackleh, Lan Ke, Qin Sheng, and Thelma West** were promoted to Associate Professor.

### Administrative changes



- **Roger Waggoner** has been named Acting Dept. Head.
- **Azmy Ackleh** is Graduate Coordinator.
- **Darren Alcock** is the Director of Freshman Mathematics.

#### Recognitions/Research

- **Baker Kearfott** received one of the university's Distinguished Professor awards.
- **Bradd Clark** and **Vic Schneider** directed a LaSIP sponsored summer project which used compressed video to work with two groups of grades 4-6 teachers.

Tom Boullion is retiring at the end of Spring 2001

*Submitted by Roger Waggoner*

### **Southeastern Louisiana University**

New new tenure track assistant professors:

- **Dr. Johnathan Hatch** who received his Ph.D. for the University of Missouri at Rolla
- **Dr. John Lewallen** who received his Ph.D. from University of Louisiana at Lafayette
- **Dr. Katherine Roegner** who received her Ph.D. from Technische Universitaet Berlin

**Dr. Brian O'Callaghan** was awarded tenure and promoted to the rank of Associate Professor

**Dr. Tilak DeAlwis** was promoted to the rank of Full Professor

**Dr. Elizabeth Gray** was granted a sabbatical leave in the Fall Semester of 2000.

For more information on the Mathematics Department at SLU visit or web page at <http://www.selu.edu/Academics/Depts/Math/>.

*Submitted by Randy Wills*

### **Mississippi State University**

The Department of Mathematics and Statistics at MSU has a new head this year. **Prof. Bruce Ebanks** comes to MSU after serving as head at Marshall University in West Virginia.

New faculty members:

- **Daniil Sarkissian** (numerical analysis)
- **Jeff Jonkman** (statistics)

**Michael Pearson** is now associate head of the department.

A recent grant from NSF will allow the department to install a 40-seat computer lab. We will use the lab primarily to enhance instruction in linear algebra, differential equations and beginning statistics courses. This continues our efforts in multivariate calculus. The grant was written by **Len Miller, Michael Neumann, Jane Harvill** and **Michael Pearson**.

**Bruce Ebanks, Regina Halpin, Jane Harvill, Betty Scarborough,** and **Corlis Johnson** were recipients of a grant through the Mississippi Board of Trustees of State Institutes of Higher Learning from the Dwight D. Eisenhower Professional Development Program. The grant will establish the Institute of Algebra and Quantitative Literacy in the Department of Mathematics and Statistics at Mississippi State University. The primary function of the Institute will be to provide mathematics teachers in grades six through eight with training in curriculum and technology for teaching algebra and statistics.

*Submitted by Michael Pearson*

## **LSU at Eunice**

**Dr. Grace Cascio Houston** (formerly of our section) has returned to Louisiana and has assumed the position of Head of the Division of Math and Sciences.

**Dr. Chris Devillier** (Ph.D. from ULL) has been appointed as full-time Assistant Professor of Mathematics.

**Dr. Diane Fisher** (PhD, ULL) has been appointed as Assistant Professor, replacing Mr. Bill Dean.

**Ms. Gloria Hernandez** (MS, LSU) has been appointed as Instructor, replacing Dr. Scott McClendon.

*Submitted by A.J. Roques*

## **University of Mississippi**

**Dr. Gerard Buskes** was named Department Chair beginning in January.

The Department of Mathematics received a \$70,000 Eisenhower grant for a Summer Institute for Middle School teachers.

The Department of Mathematics received a \$306,000 GANN graduate fellowship grant from the Department of Education.

*Submitted by James Reid*

## **Northwestern State University**

**Roosevelt Toussaint** retired from the Mathematics Department in July of 2000. Roosevelt is planning to preach and build fences in his retirement.

**James Stamey** joined the mathematics faculty this year after completing his Ph.D. in

Statistics at Baylor University. James received his undergraduate degree in mathematics at Northwestern State University, and now he has returned to his hometown with his wife and baby boy.

**Frank Serio Jr.** served as coordinator of the Mathematics Department for one year, and this past year the title was changed to Department Head of Mathematics.

*Submitted by Stan Chadick*

## **Mississippi University for Women**

**Dr. Jane H. Wenstrom** was awarded tenure and promoted to the rank of Associate Professor.

MUW hosted a Math Camp last June that was funded by a grant from MAA and the Tensor Foundation. Twenty rising freshmen girls worked with algebra ideas for one week, and everyone had a great time. We had so much fun, in fact, that we are going to try it again! There will be some changes, though... This camp will be a Geometry Camp. Any student (boy or girl, any grade) who has completed Algebra I and will be going into Geometry the next school year may apply. The camp will hold 32 students. The tuition for the week-long residential camp (June 3-8) will be \$350. There are possible scholarships available: We have asked the CocaCola Foundation for funding, and if we get it, all students will be on full scholarships. Call Dr. Bonnie Oppenheimer (662-329-7239) at MUW for details.

*Submitted by Shaochen Yang*