

## SPRING 2005 MEETING

The MAA Missouri Section will hold their annual Spring Meeting on Friday and Saturday, April 1<sup>st</sup> and 2<sup>nd</sup>, at Missouri Western State College in Saint Joseph, MO. Information and registration forms are available at the meeting web page located at <http://www.mwsc.edu/csmp/maams/index.html> or at the section web page <http://www.cs.rockhurst.edu/~brandt/momaa/index.html>. Motel information is listed later in this newsletter.

**Dr. Carl Cowen** from Purdue University, and President of the Board of Governors of the MAA, will be the featured MAA speaker on April 2<sup>nd</sup>, and he will speak on “**Connections Between Mathematics and Biology.**” The abstract of his talk appeared in the Fall 2004 newsletter and can be accessed at the section web site address given above. **Dr. Bryan Shader** of the University of Wyoming is the invited speaker on April 1<sup>st</sup>, and the title of his talk will be announced at the meeting. Dr. Shader will also lead a student workshop on Friday afternoon discussing “**How Google Ranks Web Pages in a Search.**” **Dr. Les Reid**, the 2004 recipient of the MAA Missouri Section Distinguished Teaching Award, will deliver the banquet address on Friday evening, April 1<sup>st</sup>. Dr. Reid is Professor of Mathematics at Southwest Missouri State University and he recently returned from a sabbatical at Queen’s University in Kingston, Ontario.

The Missouri Collegiate Mathematics Competition will be held Thursday, March 31<sup>st</sup>, and Friday, April 1<sup>st</sup>. Student competitors are not required to pay a registration fee for the meeting and pay a reduced fee for the banquet. Students, however, are encouraged to submit registration forms to help in planning for the meeting, and are invited to attend the meeting and give presentations.

### Spring Meeting of the Missouri Section of the MAA Missouri Western State College

#### Thursday, March 31, 2005

7:30 - 10:00 PM Collegiate Mathematics Competition

#### Friday, April 1, 2005

8:30 - 11:00 AM Collegiate Mathematics Competition

10:00 AM - 5:00 PM Registration

1:00-1:50 PM Dr. Bryan Shader, The University of Wyoming

2:00 - 5:00 PM Displays, Exhibits, MAA book sale

2:00 - 2:35 PM Contributed Papers

3:00 - 4:00 PM Faculty Forum (Topics for discussion taken from the floor)

Student Workshop, Dr. Bryan Shader, ("How Google Ranks Webpages")

4:20 - 5:20 PM Contributed Papers

6:30 - 8:30 PM Banquet, Speaker, Dr. Les Reid, Professor of Mathematics, SMS

#### Saturday, April 2, 2005

6:15 - 7:00 AM 5k Run/Walk

7:30 - 8:20 AM Breakfast meetings of Department Chairs and MAA Liaisons

8:00 - 10:00 AM Registration, Displays, Exhibits, MAA book sale

8:30 - 9:45 AM Contributed Papers

10:00 - 10:50 AM MAA Invited Address, Dr. Carl Cowen, MAA President

11:00 - 11:50 AM Business Meeting

## **New This Year** **Electronic Notes of the Missouri MAA Section**

We have received permission from the national MAA organization to begin compiling a new Electronic Notes of the Missouri MAA. This is an opportunity for Missouri MAA members to communicate the content of talks given at the conference in written form for a broader audience. In particular, this provides an avenue for students to place their work on the web for parents, teachers, and prospective employers to see.

The purposes (goals) of this site are

- to facilitate communication among the participants in the Missouri Section of the MAA;
- to provide an avenue through which conference presentations can be put in a publicly accessible forum;
- to provide an opportunity for students to view their written work in a publicly accessible forum.

### **Guidelines for Submission of Items for Electronic Notes of the Missouri MAA Section**

This site should not be considered a substitute or equivalent to publishing in an established refereed mathematics journal. Items published elsewhere should not be submitted for inclusion in this site. Items included here and subsequently published elsewhere will be eliminated from this site or will be reduced to summary and appropriate citation.

Submissions meeting the following criteria will be accepted for inclusion:

1. Submissions must be well-written with proper citation of all sources used. Submissions are expected to be free of spelling and grammatical errors, with clear and appropriate notation.
2. Contents of the submission must be essentially those of the presentation given at the Missouri MAA Section meeting with limited modifications permissible for the sake of clarity.
3. The body of each submission should be in Times New Roman, 12 pt font with standard margins of 1" top and bottom and 1" on the left and right.
4. Submissions should be submitted in an electronic format compatible with MicroSoft Word (such as \*.doc, \*.ppt, \*.html, \*.pdf, \*.dvi, etc.)
5. Unless otherwise specified, submissions are due to andersk@mwsc.edu by two weeks after the annual spring meeting of the Missouri MAA.
6. Submissions should include the following contact information: Name, Institutional affiliation, e-mail, and in the case of a submission by a student, the name of a sponsoring faculty member.

The Electronic Notes will be facilitated by Kevin Anderson (andersk@mwsc.edu) and Jeff Poet (poet@mwsc.edu) until further notice.

## Motel and Restaurant Information for Missouri MAA Conference 2005

A block of rooms has been reserved at the Stoney Creek Inn for a specially negotiated price of \$60.00 per night (plus tax) for a standard room with either a king-sized bed or two double size beds or a price of \$70.00 per night (plus tax) for a deluxe room with two double beds. Note: A deluxe room comes with a microwave and refrigerator. To reserve these rooms, call the Stoney Creek Inn toll-free at 1(800) 659-2220 and follow the prompts to be connected to the St. Joseph Stoney Creek Inn front desk. Identify yourself as being with the Missouri MAA to get the special rate. Note that the above rates can only be obtained by calling the phone number above. On-line reservations will not receive the special group rate. The reserved block of rooms is all non-smoking. Smoking permitted rooms are available upon request for the same rate. The above prices are only valid if reservations are made by **February 28, 2005**. Sorry for the short notice. This motel has an 80 degree indoor/outdoor pool and a complimentary continental breakfast.

Other motels in the area include:

Comfort Suites  
Days Inn  
Drury Inn  
Hampton Inn  
Ramada Inn  
Super 8

Restaurants in the area include:

Applebee's  
Bredeaux Pizza  
Country Kitchen  
Cracker Barrel  
Denny's  
Red Lobster  
Whiskey Creek

All of the motels are within two blocks of the intersection of Frederick and Woodbine (I-29 Exit 47) and are about a mile from the Missouri Western Student Union where the contest and conference will be held. St. Joseph is a city with approximately 70,000 residents. There are many, many options not listed here. Establishments were chosen for this list based on proximity to campus and are listed in alphabetical order. The Belt Highway, the "Main Street" of St. Joseph, runs parallel to I-29 and is only about five blocks to the west of Woodbine.

## From the Governor

Leon Hall, UMR

The MAA Board of Governors met on January 4, 2005 and the MAA Section Officers met on January 5, 2005 in Atlanta.

The Board of Governors passed a motion "That the MAA form a joint committee with the National Council of Teachers of Mathematics (NCTM) called the MAA-NCTM Joint Committee on Mutual Concerns." The committee will consist of 8 members, 4 from each organization. The NCTM passed a similar motion in July, so this committee will become a reality soon.

On the subject of MAA officers and committees, the MAA has two web sites containing information for section officers. One is the Handbook for Section Officers at <http://www.maa.org/Sections/handbook.html>

and another is Information for Section Officers at <http://www.maa.org/Sections/officer-info.html>, which also contains a link to the Handbook. Regarding committees, the MAA is always looking for individual members who have an interest on serving on MAA committees. In fact, a new question this year on the annual report of the section will be asking for names of people who want to serve on committees. More than just a name is best, so if any of you are so inclined yourselves, or if you want to nominate someone, please send the section secretary, Mary Shepherd, a short paragraph about yourself or your nominee and also which committee(s) you are interested in. Mary will be sending the annual report in to MAA headquarters in May, I believe. MAA has many committees – for a listing of them, go to the Information for Section Officers link given above and click on “Committee on Sections.”

MathFest this summer will be August 4-6 in Albuquerque, New Mexico, Beginning this summer MAA wants to “get more mathematics in the summer meeting” and specific topics this year will include History of Mathematics, Difference Equations, and Applied Mathematics. Approved sites and dates for future MathFests and Joint Meetings are:

2005	Albuquerque, NM	MathFest	August 4-6
2006	San Antonio, TX	Joint Mtngs	January 12-15
2006	Knoxville, TN	MathFest	August 10-12
2007	New Orleans, LA	Joint Mtngs	January 4-7
2007	San Jose, CA	MathFest	August 3-5
2008	San Diego, CA	Joint Mtngs	January 6-9
2008	Madison, WI	MathFest	July 31 – August 2
2009	Washington, DC	Joint Mtngs	January 7-10
2010	San Francisco, CA	Joint Mtngs	January 6-9
2011	New Orleans, LA	Joint Mtngs	January 5-8

Starting with MathFest 2005, the Board of Governors travel reimbursement (and other reimbursements which use the same formula) will increase to include two nights housing (up from one), a \$25 meal reimbursement (up from \$15), and a cap of \$600 (up from \$500). The estimated increased cost to MAA is about \$15,00 per year or about \$1 per paid member. Even with this increase, \$600 is not enough to cover expenses for attending an entire MathFest or Joint Meetings, so the section should think about whether we want and can afford to use section funds to supplement some of these costs for the governor, section officers, prize recipients, etc. For me personally, paying for going to the meetings has not been a problem because UMR has been able to provide the extra expenses, but other institutions might not be as willing or as able to do this. Holding an office in MAA should not entail personal financial hardship in order to perform the duties of that office, and anything the section can do to help would be a positive step.

In other financial matters, the Board approved a dues increase of from \$2 to \$7, depending on the membership category, for 2006. The Budget Committee and the Membership Committee are looking at restructuring the MAA dues system and want input from the Governors on principles for a dues system that not only would be more fair, but also would recover a somewhat larger fraction of the organization’s costs. For example, current data (from 2003) on the average cost of supporting a member and average costs of journals indicate that Regular Paid members taking only one journal are subsidized by Regular Paid members taking more than one journal and Retired Paid members pay about \$100 less per person than their costs. In fact, the total income from dues and from member journal subscriptions in 2003 was about \$2.2 million while expenses for those journals and members was twice that amount, so other revenue sources clearly play

a large role in subsidizing member costs. Please tell me if you have any ideas about the dues structure so I can accurately represent the views of the section the next time this issue is discussed.

Are you all aware that a portion of your MAA dues can be deducted as a charitable contribution if you itemize on your income taxes? (Your AMS dues cannot be deducted except as a business expense.) This is because the MAA is a 501©3 organization with respect to the IRS. Other results of this designation are that MAA pays no corporate taxes and may not lobby in Washington, DC. However, any funds raised outside of a strict interpretation of the mission of MAA are subject to tax and it is strongly recommended that this should be avoided. Examples include advertising revenue including in electronic newsletters, fund-raising events with games of chance, and sale of merchandise w/o the MAA logo.

If you have not taken a look at the MAA Mathematical Sciences Digital Library (MathDL) at <http://www.mathdl.org>, be sure to do so soon. MathDL includes an online magazine, an online journal, free online learning materials, and open source, sharable Mathlets that you can use on your web pages, with more planned for the future. Also coming soon will be The Math Gateway, aimed at bringing together web collections with significant mathematical content and services (including MathDL). The Math Gateway is a project within the NSF's National Science Digital Library program.

Two new Governors-at-Large were elected: Susan Schwartz Wildstrom from Walt Whitman high School in Bethesda, MD, will be the new Governor-at-Large representing High School teachers and Efraim P. Armendariz from the University of Texas at Austin will be the new Governor-at-Large representing minorities.

In Director Steve Dunbar's report on the American Mathematics Competitions, he made the following statement, which bears repeating, "Active encouragement through the sections seems to highly correlate with good state participation [in the AMC]." I hasten to add that this means more than simply having state coordinators for the exams. Shing So (AMC 10 and 12) and Rob Roe (AMC 8) do a good job as directors for us in Missouri, but we all can help at the local level to increase participation in the exams. Sometimes all it takes is one of us having or building a good relationship with one secondary school teacher. If you are interested in contributing to the AMC by submitting, evaluating, critiquing, and/or proofreading problems for any or all of AMC 8, AMC 10, 12, AIME, or USAMO, let me know and I will send you a form to fill out and return to the AMC.

Project NExT and Project ACCESS continue to be important MAA programs, and many sections have set up their own section versions of Project NExT. We have talked about doing this in Missouri, and maybe one of you is interested in bringing us from the talk stage to the action stage. Information about Section NExTs can be found at Gavin Larose's website, <http://www.math.lsa.umich.edu/~glarose/pnext/sections>.

MAA is moving towards electronic voting, and the next Governor's election will be done this way. One thing to remember when voting electronically is that if you want to have your own record of your vote, be sure to keep a copy of your reply.

Leon Hall, Section Governor

## Missouri MAA Collegiate Mathematics Competition

The ninth Missouri Collegiate Mathematics Competition will be held Thursday, March 31, 2005 and Friday, April 1, 2005 on the campus of the Missouri Western State College in St. Joseph, Missouri. Any college or university in the state of Missouri can send up to two official teams of 1-3 undergraduates each to compete in the competition. Any number of unofficial teams can participate and compete in the contest just like official teams, although they will be ineligible for first, second, or third place in the team standings. A one-person team will only be allowed in the competition if this person is his or her college's only representative in the competition. A completed registration form for each team must be sent one week before the competition begins. Late registration will be accepted only if there is room for the team in the competition. No calculators or computers or reference material can be used during the competition. The contest will consist of challenging mathematical problems, comparable but not quite as difficult as the Putnam Exam. The Putnam Exam is a national exam sponsored by the MAA and given to outstanding college mathematics students. Previous Putnam Exams can be found in past October issues of the American Mathematical Monthly.

The first session will begin on Thursday evening at 7:30 pm and last until 10 pm and will consist of 5 problems for each team to solve. The second session will begin on Friday morning at 8:30 am and will end at 11 am. It will contain an additional 5 problems. Each problem will be worth 10 points and will be scored by a committee of the MAA Missouri section. The committee consists of the following members: Mangho Ahuja (SEMSU), Jim Bruening (SEMSU), Hang Chen (CMSU), Curtis Cooper (CMSU), Joseph B. Dence (UMSL), Leon Hall (UMR), and Don Vestal (MWSC). Some partial credit may be earned for substantially correct work toward a solution to the problem.

There will be a registration fee of \$40 per team. A complementary continental breakfast will precede the Friday morning competition. Each team member and the faculty sponsor are invited to a Friday luncheon at 11:30 am. Each team member is also invited to be a guest at the MAA Missouri Section Banquet on Friday night. At that time, the results of the competition will be announced. A traveling trophy will be awarded to the first place team. In addition, each member of the first place team will receive a plaque. Certificates will also be given to each participant in the competition.

Any questions about the competition can be sent to  
Curtis Cooper  
Department of Mathematics and Computer Science  
Central Missouri State University  
Warrensburg, MO 64093-5045  
(660) 543-8851      fax: (660) 543-8006      email: [cnc8851@cmsu2.cmsu.edu](mailto:cnc8851@cmsu2.cmsu.edu)

P.S. The Missouri Collegiate Mathematics Competition home page can be accessed directly with the URL <http://www.math-cs.cmsu.edu/~hchen/contest/>.

The following was taken from MAA Online (<http://www.maa.org/news/news.html>)

## **Announcement of the 2005 NSF-CBMS Regional Research Conferences in the Mathematical Sciences**

The National Science Foundation has funded three NSF-CBMS Regional Research Conferences to be held during the spring and summer of 2005. These three will bring to 302 the total number of such conferences since the NSF-CBMS Regional Research Conference Series began in 1969.

These conferences are intended to stimulate interest and activity in mathematical research. Each five day conference features a distinguished lecturer who delivers ten lectures on a topic of important current research in one sharply focused area of the mathematical sciences. The lecturer subsequently prepares an expository monograph based upon these lectures, which is normally published as a part of a regional conference series. Depending upon the conference topic, the monograph is published by the American Mathematical Society, the Society for Industrial and Applied Mathematics, or jointly by the American Statistical Association and the Institute of Mathematical Statistics.

Support for about 30 participants is provided and the conference organizer invites both established researchers and interested newcomers, including postdoctoral fellows and graduate students, to attend.

Information about an individual conference may be obtained by contacting the conference organizers. Information about the series and guidelines for submitting proposals for future conferences are found in the Call for Proposals for the 2006 NSF-CBMS Regional Research Conferences. Questions should be directed to:

CBMS

1529 18th St. NW

Washington DC 20036-1385

(202) 293-1170

Fax: (202) 293-3412

Email: [rosier@math.georgetown.edu](mailto:rosier@math.georgetown.edu) or [kolbe@math.georgetown.edu](mailto:kolbe@math.georgetown.edu).

For more information visit the CBMS website at: <http://www.cbmsweb.org>.

### **2005 NSF-CBMS Conferences**

#### **New Perspectives for Boundary Value Problems**

May 16-20

University of Texas - Pan American

Athanassios Fokas, lecturer

Organizers: Lokenath Debnath and Andras Balogh, 956-381-3459, [debnathl@utpa.edu](mailto:debnathl@utpa.edu) 956-381-2119 and [abalogh@utpa.edu](mailto:abalogh@utpa.edu) <http://www.math.panam.edu/cbms2005.html>.

(More on next page.)

**Nonlinear Dispersive and Wave Equations**

June 13-18

New Mexico State University

Terence Tao, lecturer

Organizers: Joseph Lakey, 505-646-2417, [jlakey@nmsu.edu](mailto:jlakey@nmsu.edu); Tiziana Giorgi, 505-646-2323, [tgiorgi@nmsu.edu](mailto:tgiorgi@nmsu.edu); Cristina Pereyra, 505-277-4147, [crisp@math.unm.edu](mailto:crisp@math.unm.edu); Adam Sikora, 505-646-6269, [asikora@nmsu.edu](mailto:asikora@nmsu.edu); Robert Smits, 505-646-2884, [rsmits@nmsu.edu](mailto:rsmits@nmsu.edu), <http://www.math.nmsu.edu/~jlakey/cbms.html>.

**Algebraic and Topological Combinatorics of Ordered Sets**

August 8-12

San Francisco State University

Anders Björner, lecturer

Organizers: Joseph Gubeladze and Serkan Hosten, 415-338-7722, [soso@math.sfsu.edu](mailto:soso@math.sfsu.edu) (Gubeladze); 415-338-7723, [serkan@math.sfsu.edu](mailto:serkan@math.sfsu.edu) (Hosten); <http://math.sfsu.edu/gubeladze/cbms.html>.