MAA MISSOURI SECTION NEWSLETTER WINTER 2006 • VOLUME 27 • NUMBER 2

2006 MAA Missouri Section Meeting

The MAA Missouri Section will hold its annual Spring Meeting on Friday March 31 and Saturday April 1 on the campus of the University of Missouri at Columbia. Information and registration forms are available at the meeting web page or at the Missouri Section web page. Motel information is listed on the meeting web page and in this newsletter.

Our keynote speaker on Friday will be **Steven Rudich**, MAA Polya Lecturer and Professor of Computer Science at Carnegie Mellon University. His title is **"A Bird's Eye View of the P vs. NP Problem."** The P vs. NP problem is the outstanding unsolved problem in theoretical computational complexity and one of the seven Millennium Prize mathematics problems.

Lisa Sattenspiel, Professor of Anthropology at UMC, will deliver the banquet address on the Friday evening. Professor Sattenspiel's research involves mathematical modeling of problems in epidemiology. The title of her talk is "Why Canadian Fur Trappers Should Stay in Bed When They Have the Flu: Modeling the Geographic Spread of Infectious Diseases."

On Saturday, **John Kenelly**, Treasurer of the MAA, will be the featured MAA speaker. His title is **"The Mathematics of Testing and Vice Versa."**

Shing So and Mahmoud Yousef of CMSU are organizing a special session focusing on the Moore Method and Inquiry Based Learning. If you are interested participating, please get in touch with Mahmoud at yousef@cmsu1.cmsu.edu.

The **Missouri Collegiate Mathematics Competition** will be held Thursday March 30 and Friday March 31. Information about the competition is located in this newsletter. Although there is no meeting registration fee for students, they are encouraged to submit registration forms to help in planning for the meeting. We hope many students will attend the meeting and banquet.

If you plan to give a talk and haven't yet sent in a contributed talk form, you should complete and return the form by e-mail or regular mail at your earliest convenience (but no later than March 21). This form is *in addition* to your meeting registration form. The contributed talk form can be found here.

Spring Meeting of the Missouri Section of the MAA University of Missouri at Columbia

Thursday March 30

7:30—10:00 PM Collegiate Mathematics Competition

Friday March 31

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Registration: 10:00	AM - 5:00 PM
8:30—11:00 AM	Collegiate Mathematics Competition
1:00—1:50 PM	Invited address: Steven Rudich, MAA Polya Lecturer
2:00—5:00 PM	Displays, Exhibits, MAA book sale
2:00—2:35 PM	Contributed Papers
3:00—4:00 PM	Panel discussions and special presentations
4:20—5:20 PM	Contributed Papers
6:30—8:30 PM	Banquet, Invited address: Lisa Sattenspiel, Professor of Anthropology, UMC
	Saturday April 1
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: John Kenelly, MAA Treasurer
11:00—11:50 AM	Business Meeting

Lodging for the 2006 Spring Meeting of the Missouri Section of MAA

Blocks of rooms have been reserved at the following three hotels. You should make your reservations by March 16. Mention MAA to get the quoted rates. Rates quoted below are per night and do not include tax.

Baymont Inn & Suites \$64.99	Regency Hotel Downtown Columbia \$60
(573) 445-1899	(573) 443-2090
2500 I-70 Dr SW, Columbia, MO 65203	1111 E. Broadway, Columbia, MO 65201
(Approximately 5 miles from the meeting site)	(Approximately 0.8 miles from the meeting site)

Comfort Inn and Suites \$75

(573) 445-0055 1010 W Business Loop 70, Columbia, MO, US, 65202 (Approximately 3.5 miles from the meeting site)

The following two hotels are also recommended, but no blocks of rooms have been reserved.

Red Roof Inn \$43.99	Super 8 Motel \$45.88
(573) 442-0145	(573) 474-8488
I-70 & Providence Rd., Columbia, MO 65202	3216 Clark Lane, Columbia, MO 65202
(Approximately 2.3 miles from the meeting site)	(Approximately 5 miles from the meeting site)

Missouri Collegiate Mathematics Competition

The eleventh Missouri Collegiate Mathematics Competition will be held Thursday, March 30, 2006 and Friday, March 31, 2006 on the campus of the University of Missouri - Columbia in Columbia, 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 (MWSU). 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 pizza party 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 (660) 543-8851

fax: (660) 543-8013

email: 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/

Voting is now open

By now you should have received your ballot for the 2006 Missouri Section Governor Election. If you have not received your ballot, you should contact Tina Straley at the National Office. Online voting is also possible by visiting www.maa.org/voting/sg. All ballots must be received by March 15, 2006. Our candidates are Jim Bruening of Southeast Missouri State University and Yungchen Cheng of Missouri State University.

Call for Help

Leon Hall suggested that we compile a list of all winners of the Section Teaching Awards and Haimo Teaching Awards. This will be posted on the Section Web Page. Below is what we have, so far. If anyone can help fill in the remaining gaps, it will be greatly appreciated.

1992 - Gus Garver (UMR)

1993 - ?

1994 - Curtis Cooper (CMSU)

1995 - ?

1996 - Christine Stevens (SLU), Haimo Award Winner

1997 - Troy Hicks (UMR)

1998 - Robert Kennedy (CMSU)

1999 - Rhonda McKee (CMSU)

2000 - Ed Spitznagel (Wash U), Haimo Award Winner

2001 - Lou Grimm (UMR)

2002 - Bob Sheets (SEMO)

2003 - Tom Ingram (UMR)

2004 - Les Reid (SMSU, now MSU)

2005 - No Recipient

Please send information to Dix Pettey dix@math.missouri.edu or Keith Brandt Keith.Brandt@Rockhurst.edu.

Electronic Proceedings of the Missouri MAA

As a section, we are continuing the Electronic Proceedings of the Missouri MAA into its second year. This online journal provides an opportunity for students and faculty of the Missouri Section to make the contents of their talks publicly accessible. Contents of submissions must be essentially those of the presentation given at the Missouri MAA Section meeting with limited modifications permissible for the sake of clarity. Submissions are due to andersk@missouriwestern.edu by two weeks after the annual spring meeting of the Missouri MAA.

More information is available at http://www.missouriwestern.edu/orgs/momaa/.

Jeff Poet

Missouri Western State University

FROM THE GOVERNOR

Board of Governor's Report, 2006 Joint Mathematics Meetings

The MAA Board of Governors met January 11, 2006 and the MAA Section Officers met January 12, 2006 in San Antonio, Texas. MAA President Carl Cowan presided.

Financially, the MAA continues to do well. Treasurer John Kenelly describes the organization's financial spectrum as 9-8-7-7, meaning that the operating budget is about \$9 million, the endowment is about \$8 million, buildings are worth \$7 million, and we have about \$7 million in grants. As the Carriage House renovation continues (a progress report and photo gallery about this project is on MAA Online), we can anticipate the spectrum changing to 9-7-8-7, and given the long-term slopes of the quantities involved, 10-10-10-10 appears to be achievable in not too many years. Investments are also doing well.

The board passed the MAA Code of Ethics, a document stating the organization's commitment to ethical business practices and our policy of honesty and integrity in all operations. Part of this is a "whistle blower protection policy." The complete document can be found at MAA Online by clicking on "About MAA" and then finding the link to the document under "Statements and Policies."

Dues restructuring: The Board approved a plan for restructuring dues, which will be phased in over four years, starting in 2007. This has been a topic under consideration both by the Membership Committee and the Budget Committee, as well as the Board, for some time (see, for example, my reports on the January and August 2005 meetings). The basic principles on which the restructuring is based are:

- 1. Dues income from core members (i.e. Regular and Regular Discounted members) should approximately equal the cost of providing them journals and operating the Association.
- 2. Dues for Regular members taking exactly one journal should roughly equal the average cost.
- 3. Dues for Regular Discounted members taking exactly one journal should remain at 80% of corresponding Regular member dues.
- 4. Additional subscriptions to journals should be provided for a dues increment that is the same in every dues category.

What is the bottom line? Dues will go up, but not exorbitantly. Current dues (2006) are \$169 for a Regular member taking the *Monthly* (denoted RM), and \$238 for a Regular member taking all three of the *Monthly*, the *CMJ*, and *Math*. *Mag* (denoted R3). Other journal combinations are possible, but I will focus on these two as examples. Under the new structure, dues for RM would be \$178 in 2007, \$181 in 2008, \$184 in 2009, and \$188 in 2010. For R3, dues would be \$250 in 2007, \$253 in 2008, \$258 in 2009, and \$262 in 2010. For Regular Discounted members taking only the Monthly, the dues would be 80% of the RM values, but for a Regular Discounted member taking all three journals, the dues would be \$214, \$217, \$222, and \$225 for 2007 through 2010. Note that these are more than 80% of the R3 dues because of principle 4 above – the 80% will not apply to additional subscriptions. The largest increases will be for Regular Discounted members and Retired members (rate is 50% of Regular) who take more than one journal, mainly because their discounts will not apply to second and third journals. I hope nobody drops back to one journal because of the new dues structure – I personally recommend all MAA journals and subscribe to all of them myself. Keep in mind, these numbers are all in 2007 dollars, so if increases due to inflation become necessary, those would be additional.

Secretary Martha Siegel reminded us that FOCUS *Online* has an *In Memoriam* column: http://www.maa.org/news/inmemoriam.html. When an MAA member has died, let *FOCUS Online* editor Fernando Gouvêa know (or inform the section Governor who will tell Fernando).

As most of you know, the 2007 Joint Meetings are scheduled for New Orleans. At this year's Meetings, we were reassured from several sources that New Orleans would be ready and able to host our Meetings. Apparently the downtown/French Quarter area was less affected by the hurricane than some of the residential areas. We were told that the main hotels for our meetings were not damaged and are fully operating, the French Quarter had little damage and was not flooded, and that there will be no discernable health hazards in the area of our meeting. The dates for the Meetings have been shifted from January 4-7 to January 5-8 because the Sugar Bowl football game will be January 3, 2007 in New Orleans, and this way conflict between the two events will be minimized.

This summer's MathFest will be August 10-12 in Knoxville, TN; dates and locations for future Joint Meetings and MathFests are

2006	Knoxville, TN	MathFest	August 10-12
2007	New Orleans, LA	Joint Mtngs	January 5-8
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
2009	Portland, OR	MathFest	August 6-8
2010	San Francisco, CA	Joint Mtngs	January 6-9
2010	Pittsburgh, PA	MathFest	August 5-7
2011	New Orleans, LA	Joint Mtngs	January 5-8
2012	Boston, MA	Joint Mtngs	January 4-7
2013	San Diego, CA	Joint Mtngs	January 9-12
2015	Washington, DC	MathFest	August 5-8

Note that the 2015 MathFest is already being planned. This is because 2015 will be the 100th anniversary of the founding of the MAA. One of the events at MathFest that year will be a parade, which leads to the following question: **Where is our section flag?** We have less than 10 years to find it or create a new one. Another project with a 2015 deadline is completing a history of our section. I am working on this along with Susan Callahan. If anyone has anything, including memories (especially memories – write them down!), pertaining to the history of the section, please get in touch with Susan or me.

For whoever is elected as the next Missouri Section Governor, note that the *Handbook for Governors* is now available online at http://www.maa.org/bog/. One part of this document that might be of interest to everyone is Section 10: Acronym Anthology. Do you know what NASULGC is? PMET? CPAM? COMET? Why would your local weather forecaster look at you funny when you mention you belong to AMS? The answers are in the Acronym Anthology.

I mentioned this in my report last fall, but it is timely to repeat it this spring. You all should be aware that a portion of your MAA dues can be deducted as a charitable contribution if you itemize on your federal income tax return. (AMS dues cannot be deducted except as a business expense because, for business purposes, they are organized differently than MAA.) Your annual renewal notice has a receipt at the bottom that gives the correct amounts to use, depending on your membership category.

Did you know that *MAA Online* has a "members only" section? This is available to all MAA members, but you need to login with your MAA member number and your password. How do you find these? It's easy – even I can do it. Find one of your issues of *FOCUS* and look on the back at the label. In the upper left, just above your name, is a number with some initial zeros. This is your member number, and you don't need to use the initial zeros. Mine (without the zeros) is five digits. Your password is your last name, and you can change this

after logging in if you want. This is worth knowing because there is some interesting stuff at MAA Online for members only. One of these is *Classroom Capsules and Notes*. Another is *Online Reviews*. Both of these can be found under the "MathDL" link at MAA Online. Some parts of *FOCUS Online* are also members only.

The 2006 Mathematical Study Tour will be June 6-21 and the destination will be China. As of December 1, 22 people had signed up and the limit is 30, so a few spots might still be open. The 2007 tour will be in honor of Euler's 300th birthday and the itinerary will include Basel, Berlin, and St. Petersburg. More information is at *MAA Online*.

The Board approved a change in the rules for choosing the Haimo Award winners to the following: "Up to three Haimo Awards are given each year. The Haimo Awards will include at least one nominee who is a Current Section Teaching Award winner. At most one nominee who is not a current or past Section Award winner may receive the Haimo Award in a given year." Candidates for the Haimo Award come from two sources – the current Section Award winners and "direct nominations." Direct nominations are just that – nominations made directly to the National Committee which bypass that year's Section Awards. Most direct nominations (which can be made by either a section or an individual) are for people who have won a Section Award in the past, but who did not win the Haimo Award the year they got their Section Award. In many cases these people have continued to grow as teachers and are currently even better than they were when they won their Section Award. Before, at most one "direct nomination" of any kind could get the Haimo Award in a given year. The new wording still guarantees that one (or more) Haimo Awards will go to current Section Award winners, but now allows the possibility of up to two awards going to past Section Award winners. Past Section Award winners are not automatically considered, however, with one exception – the runner(s)-up from the previous year's competition – so if they are to be in the pool, someone has to nominate them. I have suggested to the Executive Committee that we consider doing just that – pick a (non-retired, preferably) past Section Award winner to nominate in addition to the current Section Award winner.

Finally, I want to express my appreciation to the Missouri Section for the opportunity to serve as Section Governor the last three years. It has been a rewarding experience, and one that I recommend for any active section member to consider. If serving as Governor is something you would be interested in, let it be known – you have to get on the ballot in the first place, and the Chair or Nominating Committee always appreciates knowing about potential candidates who will represent us well. Elsewhere in this newsletter is an overview of the Missouri Section MAA Governors. It is good company to be in, and was an incentive for me to try and maintain the standard of those who preceded me.

Leon Hall Missouri Section Governor

FROM THE CAMPUSES

Southeast Missouri State University

Dr. Cheryl McAllister has completed her PhD in Mathematics Education at UMSL and will be converted from a non-tenure track to a tenure track position beginning in Fall 2006. **Dr.** Haohao Wang and **Dr.** Craig Roberts have received a grant entitled Modified Moore Method in a Concepts of Geometry Class. **Dr.** Shing So of Central Missouri State University will serve as a consultant on this project. **Dr.** Tamela Randolph has married and may now be addressed as Dr. Tamela Hanebrink with email thanebrink@semo.edu.

(Submitted by Vic Gummersheimer)

Southwest Baptist University

The mathematics department hosted its 7th annual mathematics contest on January 21 and February 4, 2006. Four hundred sixty two students, grades 3-8, from forty schools participated in one of the two contest dates. Out of the level of interest in these contests, Dr. Kevin Hopkins will be running a math contest camp, July 9-14, 2006 on the campus of Southwest Baptist University. Information on the camp is available at http://www.sbuniv.edu/~khopkins/mcc2006.html.

Dr. Bob Glasgow, Associate Professor of Mathematics, was awarded the Life Beautiful Award. This award is among the highest honors that SBU bestows upon a faculty member. Recipients of the Faculty Life Beautiful Award are selected by a University-wide balloting process. Criteria for the award include "Christ-like behavior in family, school, church, and social interactions," "participates actively in worship and service in a body of Christian believers," "exhibits a Christ-like lifestyle in his or her personal and daily life."

Dr. Glasgow also presented research at a Workshop on Educational Research Positions in Science, Technology, Engineering and Mathematics (STEM) Disciplinary Departments held in Washington, D.C., Dec. 5. The purpose of the workshop, which was held at the Keck Center of the National Academies, was to explore the development of faculty positions focusing on discipline-specific educational research located in STEM disciplinary departments. The workshop involved young faculty and department administrators from research institutions involved in content-specific educational research.

(Submitted by Kevin Hopkins)

Culver-Stockton College

Dr. Fred Helsabeck, Associate Professor of Mathematics, will be retiring at the end of the Fall 2006 semester.

(Submitted by Gary Cochell)

HISTORY OF THE MISSOURI SECTION

The Section Governors

As I said in my Governor's Report, Susan Callahan and I have been working on the history of the Missouri Section. One of the things we have finished is a list of all the Section Governors.

Originally, the MAA had a twelve-member Board of Trustees with no particular connection to the Sections. However, about 1940 (see "Report of the Committee to Review the Activities of the Mathematical Association of America" in the February 1940 *Monthly*) it was proposed to modify the Association's scheme of organization. A big reason for doing this was to correct the fact that "the inter-relation between the Sections and the Association as a central body is tenuous almost to the point of non-existence." Part of this reorganization resulted in replacing the twelve Trustees by a Board of Governors, to include two Governors elected to three-year terms by the membership at large, and also a Governor elected to a two-year term by the membership in each of fourteen Regions. Transition plans were made and this reorganization was carried out. Region 10 was composed of Nebraska, Kansas, and Missouri, and at the 1940 MAA Summer Meeting the first four Regional Governors, from Regions 5, 7, 10, and 12, were announced. According to the transition plan, and

to avoid having all the regional Governors' terms expire at the same time, the other Regions were to elect Governors later in 1940 or in 1941. There were four Governors of Region 10:

1.	O. J. Peterson, Kansas State Teachers College, Emporia, KS	1940-42
2.	L. M. Blumenthal, University of Missouri, Columbia, MO	1942-44
3.	G. W. Smith, University of Kansas, Lawrence, KS	1944-46
4.	Ralph Hull, University of Nebraska, Lincoln, NE	1946-48

The regional set-up lasted less than ten years. At the 1945 MAA Winter Meeting, the Board recommended changes in the By-laws of the Association, part of which were to "do away with our present regions and provide for the election of a Governor from each Section of the Association." This By-law change was to be voted on at a business meeting in 1946. At this time it was also recommended that the Section Governors serve three-year terms instead of the two-year terms of the Regional Governors. All this was adopted at the 30th Annual Meeting of the MAA in December, 1946. Another part of the By-laws change was the requirement that there must be at least two nominations for every Governor-of-Section election, a rule still in effect. Again, a transition to the new organization was developed, and the Section Governor elections were set up so that each year approximately a third of the Sections would elect their Governor. This left Missouri without representation for 1948-49, unless Ralph Hull continued an extra year representing Kansas and Missouri, which is doubtful because he lived in neither state. Hull's term as Region 10 Governor ended in 1948, and in 1948 Nebraska elected a different Governor, so Hull did not represent Nebraska in 48-49. The first Governor of the Missouri Section was G. M. Ewing, whose term began in July, 1949. This year, 2006, the Missouri Section will elect its 20th Governor. Governor's terms begin in the summer, with the Summer Meeting (now MathFest) their first official meeting. Names of institutions in the following list are as close as we can determine to the institution name in the year the Governor was elected.

1. G. M. Ewing, University of Missouri, Columbia	1949-52
2. R. J. Michel, Southwest Missouri State College, Springfield	1952-55
3. F. F. Helton, Central College, Fayette	1955-58
4. W. R. Utz, Jr., University of Missouri, Columbia	1958-61
5. R. J. Michel, Southwest Missouri State College, Springfield	1961-64
6. J. J. Andrews, St. Louis University, St. Louis	1964-67
7. Paul Burcham, University of Missouri at Columbia, Columbia	1967-70
8. A. G. Haddock, University of Missouri-Rolla, Rolla	1970-73
9. R. W. Freese, St. Louis University, St. Louis	1973-76
10. Charles J. Stuth, Stephens College, Columbia	1976-79
11. Troy L. Hicks, University of Missouri-Rolla, Rolla	1979-82
12. H. Keith Stumpf, Central Missouri State University, Warrensburg	1982-85
13. Harold Hager, Southeast Missouri State University, Cape Girardeau	1985-88
14. Shirley Huffman, Southwest Missouri State University, Springfield	1988-91
15. Curtis Cooper, Central Missouri State University, Warrensburg	1991-94
16. Lanny Morley, Truman State University, Kirksville	1994-97
17. Al Tinsley, Central Missouri State University, Warrensburg	1997-2000
18. Vic Gummersheimer, Southeast Missouri State U., Cape Girardeau	2000-03
19. Leon Hall, University of Missouri-Rolla, Rolla	2003-06

As you can see, Missouri Section Governors have come from nine different institutions with no more than three (four, if we include Blumenthal as Region 10 Governor in UMC's group) from one institution, which shows balanced participation in the Section from all over the state, a positive thing. Only one person served more than one term, and only one was a woman. You can glean other, more trivial, bits of information from the list. Only four of the Governors' last names begin with a letter in the last half of the alphabet, N-Z. Should the order of

the names on the ballots be randomized? The record for the shortest name, counting only the names used by the person in normal discourse, is Roy Utz, six letters, and the longest is Vic Gummersheimer, sixteen letters (nineteen if we get formal and use Victor instead of Vic). Both Roy and Vic set wonderful examples of service to the section. While on the topic of word length, Vic is clearly at the appropriate school – "Southeast Missouri State University, Cape Girardeau" is the longest institution-plus-city name, as well, and you might have noticed that Vic's entry was the only one I couldn't fit on one line without abbreviating something.

Leon Hall

The **MAA Missouri Section Newsletter** is published in October, March, and May each year. Please send any news, comments, questions or corrections to me at **setourville@ccis.edu**.

Thanks.

Suzanne Tourville Newsletter Editor