

MAA MISSOURI SECTION NEWSLETTER

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2010 MAA Missouri Section Meeting

The **Mathematics Department** of the **University of Central Missouri** in Warrensburg is looking forward to hosting the **Spring Meeting of the Missouri Section of the Mathematics Association of America** on Friday April 9 and Saturday April 10, 2010 (with the Missouri Collegiate Mathematics Competition beginning the evening of Thursday April 8). **Daniel J. Velleman**, editor of the monthly, will be our main speaker at the meeting.

Shing So
so@ucmo.edu

University of Central Missouri Regional Undergraduate Mathematics Conference

We are pleased to announce that the 2010 UCM Regional Undergraduate Mathematics Conference will be held on Thursday, April 8, 2010 on the campus of the University of Central Missouri in Warrensburg, MO. This conference will take place between the hours of 10:00 a.m. and 4:30 p.m., on the day preceding the Spring meeting of the Missouri Section of the MAA, and hours before the Missouri Collegiate Mathematics Competition, both of which will be held at UCM.

The conference will begin with a plenary lecture, given by Professor Daniel J. Velleman, editor of the American Mathematical Monthly, at the level of second semester calculus. This will be followed by several 15-20 minute contributed undergraduate talks. A continental breakfast will be provided during registration and lunch will be provided between the morning and afternoon sessions.

Undergraduates at all levels are invited to present short talks on their research in any area associated with mathematics, its applications, its history, or its education. The deadline for submitting abstracts is March 8, 2010. Further information and registration instructions can be found at the conference website www.math-cs.ucmo.edu/~CUMC

Please forward questions to either
Dr. Nicholas Baeth (baeth@ucmo.edu) or
Dr. Lianwen Wang (lwang@ucmo.edu).

We look forward to seeing you in April.

Funding for this conference is provided by NSF grant DMS-0846477 through the MAA Regional Undergraduate Mathematics Conferences program.

CALL FOR PAPERS

You are invited to present a paper at the Spring Meeting. Papers are to be between 15 and 20 minutes in length and may be on research topics or expository in nature and may deal with any topic in mathematics or mathematics education. For example, papers may pertain to your current mathematical scholarly activity, new courses that you have developed, or successful techniques you have found useful in teaching. You may opt to design a presentation directed to the undergraduate and graduate students attending the meeting. Faculty members are urged to assist honors students in presenting papers at the meeting. MAA student memberships will be awarded as prizes for the top student papers.

The abstract form is on the last page of this newsletter. Abstracts should be submitted by mail to:

Shing So
Department of Mathematics and Computer Science
University of Central Missouri
Warrensburg, MO 64093

Or e-mail to so@ucmo.edu.

Please include all of the information requested on the abstract form: presenter's name, title, affiliation, contact information, title of paper, abstract, AMS subject classification, and special accommodations needed (overhead projector, computer, etc.). Also please indicate if the speaker is a student and if the paper is directed toward a student audience. Deadline for receipt of abstracts is **March 1, 2010**.

Secretary/Treasurer Nominations

Nominations for the position of Secretary/Treasurer are now being accepted. This is a 3 year position. As stated in the Section Bylaws:

The Secretary-Treasurer shall keep all the books, accounts, and records of the Section. The Secretary-Treasurer shall receive all monies paid into the Section for any purpose and shall deposit such money in a bank to the account of the Section, taking regular receipt of deposit thereof. The Secretary-Treasurer shall pay all bills of the Section out of the Section funds after the approval of the Chair. After each meeting of the Section the Secretary-Treasurer shall prepare a summary of the meeting and submit it to the Secretary of the Association.

Please send nominations to the Section Chair Shing So (email: so@ucmo.edu). Nominations will be forwarded to the nominating committee.

Section Teaching Award

STATE YOUR INTENTION TO NOMINATE BY DECEMBER 1, 2009.

Nominations for the 2010 Missouri Section Award for Distinguished College or University Teaching of Mathematics are now being accepted. The Missouri Section Selection Committee will determine the recipient of the award from those nominated. The awardee will be honored at the Spring 2010 meeting of the Section and will be widely recognized and acknowledged within the Section. The awardee will also be the official Section nominee for the 2010 Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics awarded by the MAA. There will be at most three national awardees, each of whom will be honored at the national MAA meeting in January 2011 and receive a \$1,000 check and a certificate. A special session at that meeting is devoted to talks by the awardees on aspects of their teaching. Anyone may make a nomination. An outline of the nomination process can be found on the MAA web site <http://www.maa.org/awards/teachingawards.htm>. Self-nomination is not permitted. If you are planning to nominate someone from your department, please send the name of your nominee to Mary Shepherd at MSHEPRD@nwmissouri.edu by **December 1, 2009**. The deadline for the submission of all materials remains February 1, 2010.

Eligibility

Nominees must satisfy the following criteria:

- College or university teachers assigned at least half-time during the academic year to teaching a mathematical science in a public or private college or university (from two-year college teaching through teaching at the Ph.D. level) in the United States or Canada. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.
- At least five years teaching experience in a mathematical science.
- Membership in the Mathematical Association of America.

Guidelines for Nomination

The nominees should

- be widely recognized as extraordinarily successful in their teaching*
- have teaching effectiveness that can be documented
- have had influence in their teaching beyond their own institutions**
- foster curiosity and generate excitement about mathematics in their students.

*"teaching" is to be interpreted in its broadest sense, not necessarily limited to classroom teaching (it may include activities such as preparing students for mathematical competitions at the college level, for example, the Putnam Prize Competition or the Mathematical Contest in Modeling, or attracting students to become majors in a mathematical science or to become Ph.D. candidates).

**"influence beyond their own institution" can take many forms, including demonstrated lasting impact on alumni, influence on the profession through curricular revisions in college mathematics teaching with national impact, influential innovative books on the teaching of college mathematics, etc.

Procedures

- Send an email to Mary Shepherd MSHEPRD@nwmissouri.edu stating your intention to nominate by **December 1, 2009**.
- Nominations must be submitted on the "**Nomination Form**" found on the Missouri Section web page at <http://www.maa-mo.org/teachingaward/teachingaward.html>. Anyone may nominate an eligible candidate, but self-nomination is not permitted.
- Please follow the instructions on the form precisely to assure uniformity in the selection process both at the Section and national levels. If a file on a Section awardee significantly exceeds the prescribed limits it will not be considered for a national award and will be returned to the Section.
- Nominations for the Missouri Section Award should be sent to Mary Shepherd at the address below so as to be received no later than **February 1, 2010**. Nominations for candidates who are not members of the Missouri Section should be sent to the Secretary of the nominee's Section.

Dr. Mary Shepherd
 Department of Mathematics
 Northwest Missouri State University
 Maryville, MO 64468

Future Meeting Sites

The Spring Meeting is held at various locations around the state. The meeting sites for the past several years and the next seven years are listed below for your convenience. If your campus would be willing to host a Spring Meeting, please contact Shing So, Chair, or any other member of the Executive Committee.

2001	U. of Missouri-Rolla	2009	Truman State University
2002	Truman State University	2010	University of Central Missouri
2003	Washington University	2011	Columbia College
2004	Southeast Missouri State University	2012	University of Missouri-St. Louis
2005	Missouri Western State College	2013	Northwest Missouri State University
2006	University of Missouri-Columbia	2014	Saint Louis University
2007	College of the Ozarks	2015	Missouri University of Science and Technology
2008	Missouri State University	2016	Missouri Western State University

MISSOURI PROJECT NExT

Project NExT (New Experiences in Teaching) is a national program for new or recent faculty in the mathematical sciences who are interested in improving the teaching and learning of undergraduate mathematics. Missouri NExT is a similar program designed for faculty members in the Missouri Section of the MAA. Any full-time faculty member in the Section with less than 6 years in current position is invited to apply to become a Missouri NExT Fellow. Information about Project NExT is available at the NExT web site: <http://archives.math.utk.edu/projnext/>

Project NExT Fellows will meet for a morning workshop on Friday April 9, 2010 just prior to the Spring Missouri Section meeting. At the workshop, the Fellows will have a chance to interact with one another while attending sessions dealing with different aspects of our profession. It is anticipated that contact between fellows will continue through the year, both electronically and in person. Fellows will be linked in an electronic network with one another and with a number of distinguished teachers of mathematics.

SUPPORT: Expenses for the Friday morning program including breakfast and lunch, and full registration costs for the Missouri Section Spring meeting will be covered for new Fellows. The remainder of the expenses should be covered by the Fellows' home institutions. However some funds may be available for accommodation costs in cases where the Fellow's home institution is not able to cover these costs (see application form). Financial support for this program is provided by the Missouri Section of the MAA and by another grant.

TO APPLY: Application forms can be found at

http://web.missouri.edu/~aubreyja/mo_next/application.html

Send completed form by April 1, 2010 to:

Dr. Mary Shepherd
Temporary Missouri NExT Organizer
Department of Mathematics
Northwest Missouri State University
Maryville, MO 64468

Phone: (660) 562-1205

Fax: (660) 562-1188

E-mail: msheprd@nwmissouri.edu

Missouri Collegiate Mathematics Competition

The fourteenth Missouri Collegiate Mathematics Competition will be held Thursday, April 8, 2010 and Friday, April 9, 2010 on the campus of the University of Central Missouri in Warrensburg, 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. Unofficial teams will be allowed, depending on the amount of available space, but will not be eligible for awards. They will also be charged the normal registration fee. A one-person team will be allowed if this person is his or her college's only representative in the competition. A completed registration form for each team must be received by Monday April 5, 2010. Late registration will be accepted only if there is room available. No calculators or computers or reference material can be used during the competition. The contest consists of challenging mathematical problems, comparable to but not quite as difficult as the Putnam Exam.

The first session will begin on Thursday evening at 7:30 pm and last until 10 pm and the second session will begin on Friday at 8:30 am and will end at 11 am. There are five problems in each session. Each problem will be worth 10 points and will be scored by a committee of the MAA Missouri section. Some partial credit may be earned for substantially correct work toward a solution to the problem. The team earning the highest total points is the winner. In case of a tie, the committee will vote to determine the winning team.

The registration fee is \$90 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
University of Central Missouri
Warrensburg, MO 64093
(660) 543-8851
fax: (660) 543-8013
email: cooper@ucmo.edu

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

Missouri Journal of Mathematical Sciences

The Missouri Journal of Mathematical Sciences (MJMS) is a peer-reviewed journal published three times a year and has served the mathematics community since 1988. It aims to publish high quality original research articles and short notes in analysis, differential equations, algebra, number theory, geometry, topology, graph theory, and statistics. As a peer-reviewed mathematics journal, articles and short notes published in the MJMS are currently reviewed by the AMS Mathematical Reviews.

The MJMS would like to invite you to submit your research for publication. Submissions for publication in the MJMS should not be under consideration, published, or copyrighted elsewhere. Papers should be submitted electronically as a single file to the appropriate associate editors listed below. Instructions for authors can be found on the MJMS Home Page: www.math-cs.ucmo.edu/~mjms/ <<http://www.math-cs.ucmo.edu/~mjms/>>.

Analysis and Differential Equations Editor: Leon Hall
Department of Mathematics and Statistics
Missouri University of Science & Technology
Rolla, MO 65409-0020
e-mail: lmhall@mst.edu

Graph Theory Editor: Linda Lesniak
Department of Mathematics
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Kalamazoo, MI 49008
e-mail: lindalesniak@gmail.com

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732 N. Washington St.
Alexandria, VA 22314
e-mail: ron@amstat.org

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Geometry Editor: Haohao Wang
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e-mail: hwang@semo.edu

Short Notes Editor: Valerio De Angelis
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New Orleans, LA 70125
e-mail: vdeangel@xula.edu

To defray the publication cost of producing the MJMS, authors of accepted papers are requested to arrange page charges at the rate of 20 US dollars per page. Two copies of the issue where the accepted article/short note appeared will be sent to the corresponding author.

Sincerely,

Curtis Cooper and Shing So
MJMS
cooper@ucmo.edu
so@ucmo.edu

FROM THE GOVERNOR

The MAA Board of Governors met August 5, 2009 in Portland, Oregon. MAA President David Bressoud presided. It was noted that Martha Siegel's term as Secretary will end at the conclusion of the Joint Meetings in January 2010 and Barbara Faires becomes the next Secretary then.

Among other things, President Bressoud mentioned his work with Strategic Planning Group on STEM Issues, and he anticipated funding (\$2M) of the NSF REESE proposal on *Characteristics of Successful Programs in College Calculus*, a five-year study of Calculus I to begin in September.

Secretary Martha Siegel noted that Paul Zorn will become President-Elect after the January 2010 Board meeting and serve as president in 2011 and 2012. Also, Francis Edward Su will serve as the First Vice President and Doug Ensley the Second Vice President. She also mentioned that there is an *ad hoc* Bylaws Task Force to revise the bylaws as necessary in light of changes in governance recommended by the board. The membership will have the opportunity to vote on the Bylaws when the revisions have been made and approved by the Executive Committee.

Three ad hoc committees have been appointed by the President – one to consider the role of the MAA in Professional Science Master's Degree Programs in the Mathematical Sciences; one to work on MAA's role in outreach to mathematically gifted high school students (and their parents and teachers); another one on development and maintenance of e-community.

It was reported that there has been a steady increase in attendance at the joint meetings, including the student categories. There were 5,144 mathematicians, 650 undergraduates, and 915 graduate students at the 2000

meeting in D.C. The 2010 JMM (at San Francisco) fee for MAA members is \$220 by Dec. 15 and \$288 at meeting.

By the meeting time, the Portland MathFest appeared to be the largest ever. (Note: The attendance in 2008 in Madison, WI was 1402.)

The Treasurer's section on the website (<http://www.maa.org/treasurer/>) is now open in the members-only section and it has been brought to the attention of the members in two issues of *Focus*. This section will be updated once a year when a new audited balance sheet arrives, and it will contain items such as audited balance sheet, investment policy statement, monthly balances in investment accounts, list of endowed funds and dollar amounts, selected charts like expenses/income and summary tables and comments. John Kenelly commented that it now looks like we will be able to continue on without tapping our investment funds.

According to Treasurer Kenelly, the MAA investment portfolio continues to have some serious declines. In the first quarter we took a \$200K hit. We are still holding a great deal of cash equivalents – almost half of the funds in the MAA Investment Fund and about 60% in the conference center funds. The total value of the MAA Investment Funds was \$7.3M at the end of April, 2009. The MAA has and will continue to need a strong Investment Committee with extensive financial experience.

The Budget Committee, chaired by Rick Cleary, reported that the actual operating-deficit from 2008 was \$248,713, smaller than the forecast deficit of \$314,598, which represented a concerted effort by MAA staff to lower costs. The 2009 operating budget already showed an operating deficit of \$134,613 and the revised forecast for 2009 deficit is \$225,779. The proposed 2010 budget (total \$7,773,295) only shows a projected deficit of \$37,559 after another round of thoughtful cost cutting by the staff.

The Cycle III Strategic Planning group (Sections, STGM, Meetings, Publications) are nearing the end of their work. The Sections and STEM groups will present their final report to the Board meeting at the 2009 MathFest. The Meetings group will present theirs at the 2010 Joint Meetings, and the Publications groups will present theirs at the 2010 MathFest. At the completion of this cycle, we will stop, study the reports carefully, and begin to set priorities and make plans.

The Strategic Planning Working Group on Meetings reported that their central question was “How do our national meetings meet the needs of our members?” Their first reading of the response data indicated that virtually all of our members believe that holding the meetings is a very important activity of the Association, one of the most important things we do for our members.

The Strategic Planning Working Group on Periodicals and Communications reported their planned activities such as developing a SWOT analysis, using focus groups, studying paper or e-delivery, proposing new publications, and making access convenient to members.

The Strategic Planning Working Group on Sections presented their final report with various recommendations in the following categories: Organization of the Sections: Geographic Boundaries and Population, Section Meetings, Section and MAA Membership, Communication, Officers of the Sections.

The final report from the Strategic Planning Working Group on STEM Issues focused on general strengths and weaknesses of the MAA, reaching out to new populations and retaining students, encouraging and supporting curricular change and strengthening of the major, improving the first-year experience, sustaining and expanding course offerings (especially upper-level courses), teacher preparation, assessment and accountability, interdisciplinarity, research experience for undergraduates, technology, and professional science master's programs. It identified the MAA's most pressing challenge as to find more effective means by which its members can find the resources, information, and services they need when and as they need it.

Executive Director Tina Straley reiterated MAA departments' efforts to trim expenses for both 2008 and 2009 and to search for ways to increase new revenues. She mentioned the bright spots, financially speaking, have been the annual meetings. Information technology provides us with the most likely alternative ways to deliver information and services in a cost efficient way. *MAA Focus* is being published six times this year, but with larger issues and no loss of content. She reported that MAA had a very good year in Development, receiving several legacies. We also had another successful audit. One of the new initiatives we are pursuing, in collaboration with the IT department, is the development of a managed hosting platform to support websites and other e-community tools for Sections, SIGMAAs, Project Next, and other groups as the need arise.

Check the MAA website for details of the Carriage House's lecture series. Stories on the lectures and interviews (including audio excerpts) are available through the MAA website. In addition, video segments of the lectures are posted on the new MAA Video channel on YouTube (<http://www.youtube.com/maavideo>).

Currently funded projects: MAA Distinguished Lecture Series (NSA) (www.maa.org/dist-lecture), MAA Regional Undergraduate Mathematics Conferences (NSF-DMS) (www.maa.org/rumc), MAA SUMMA Research Experiences for Undergraduates (NSA, NSF, Moody's) (www.maa.org/nreup), MAA Professional Enhancement Program (PREP)(NSF) (www.maa.org/prep), Tensor-SUMMA Program (<http://www.maa.org/programs/tensor-summa.html>). NSF will also fund the syndication of "Hard Problems" for American Public Television. This will enable local stations to broadcast a one-hour version of the show.

The 2009 American Invitational Mathematical Exam I and II were held on March 17 (5,523 participants) and April 1 (4,400 participants). The 2009 USA Mathematical Olympiad was held on April 28 (514 students invited) and the Mathematical Olympiad Summer Program was held from June 9 to July 3 with 54 students.

Overall journal circulation continues to decline from past years, while the number of views of the digital editions of the journals has been growing. The most frequently downloaded articles have been Problems and Solutions of the *Monthly*. We now have an online archive of past issues of MAA's *Math Alert*, the monthly e-newsletter distributed by e-mail.

MathDL (<http://mathdl.maa.org/>) is proving to be a useful testing ground for new online capabilities, including the use of Open Journal System for managing journal publication and various types of software for conducting online editorial board meetings. We are planning to obtain a copy of JSTORE's database of past journal issues for our own use, mainly to simplify the task of extracting and assembling relevant material from past issues for posting on Classroom Capsules and in the section devoted to MAA award-winning articles.

The following books have been or will be published: *Calculus Deconstructed: A Second Course in First-Year Calculus*, *MAA Guide to Advanced Real Analysis*, *MAA Guide to Real Variables*, *MAA Guide to Topology*, *Who Gave You the Epsilon? Mathematics in Historical Context*, *Highways and Byways* (translation), *Visual Group Theory*, and *The Moore Method*.

The MAA has approved its first online course, *Calculus Modeling and Applications*. All pages are actual web pages. This is a two-semester course focused solely on the calculus of functions of one variable. Various distribution models of this course and other to follow are being discussed. The MAA also delivers *Mathematics for Business Decisions* (by CDs) through license agreements to receiving institutions. MAA textbooks and supplements provide our best hope for increased revenue for books. Six of the ten top bestselling books in 2008 were textbooks. We are beginning to explore more widespread distribution of e-textbooks.

The Regular, Discounted, Retired, and Institutional member categories generate nearly 85% of the total membership revenue. Others are Intro Rate, Graduate Student, and Undergraduates. For most of the segments, the 2009 renewal rate was very close to last year's. There are many things that we are looking to investigate

and implement in the next few months. The number one objective is to introduce electronic memberships to the MAA. We are also looking to convert our international members to electronic memberships via the 2010 renewal series.

Bylaws changes for Illinois and Intermountain Sections were approved.

Dates and locations for future Joint Meetings and MathFests are

2010	San Francisco, CA	Joint Meetings	January 13-16
2010	Pittsburgh, PA	MathFest	August 5-7
2011	New Orleans, LA	Joint Meetings	January 5-8
2011	Lexington, KY	MathFest	August 4-6
2012	Boston, MA	Joint Meetings	January 4-7
2012	Madison, WI	MathFest	August 2-4
2013	San Diego, CA	Joint Meetings	January 9-12
2014	Baltimore, MD	Joint Meetings	January 15-18
2015	San Antonio, TX	Joint Meetings	January 10-13
2015	Washington, DC	MathFest	August 5-8
2016	Seattle, WA	Joint Meetings	January 6-9
2017	Atlanta, GA	Joint Meetings	January 4-7

Yungchen Cheng

FROM THE CAMPUSES

Culver-Stockton College

We have a new faculty member: **Dr Jonathan McCrary**. He is a summer graduate of the University of Arkansas with a Ph.D. in Mathematics. He joins our staff as an Assistant Professor of Mathematics.

I would also like to report the sad news that our visiting professor, **Dr. Randall Weiss**, from last year died unexpectedly late last spring.

(Submitted by Gary G. Cochell)

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.

Suzanne Tourville
Newsletter Editor

**MISSOURI SECTION
OF
THE MATHEMATICAL ASSOCIATION OF AMERICA**

ABSTRACT FOR CONTRIBUTED PAPERS

Name(s) (* means Speaker): _____

Institution: _____

Address: _____

Phone: (____) _____

Email: _____

PAPER TITLE: _____

BRIEF ABSTRACT OR DESCRIPTION OF PAPER:

AMS SUBJECT CLASSIFICATION (see [Math. Subj. Class.](#)) _____

SPECIAL ACCOMMODATIONS NEEDED (Overhead projector, computer, etc.):

Is the speaker a student? _____

Is the presentation directed toward a student audience? _____

PLEASE RETURN THIS FORM BY **MARCH 1, 2010**, TO:

Shing So
Department of Mathematics and Computer Science
University of Central Missouri
Warrensburg, MO 64093

Or e-mail to so@ucm.edu.