MAA MISSOURI SECTION NEWSLETTER
FALL 2008 • VOLUME 29 • NUMBER 1

2009 MAA Missouri Section Meeting

Truman State University is excited about hosting next year's Missouri MAA meeting on April 17-18, 2009, with the Missouri Collegiate Mathematics Competition beginning the evening of Thursday, April 16. Ivars Peterson has agreed to come and speak. His biography can be found on his website http://ivarspeterson.googlepages.com/bio.

We look forward to seeing all of you. If you have suggestions for the meeting schedule or if you have an initiative that you would like to be incorporated into this meeting, please don't hesitate to contact me. I am currently working on the meeting website. When it is up and running, a link will be posted on our section web page.

David Garth, Section Chair

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:

> David Garth
> Department of Mathematics and Computer Science
> Truman State University
> 100 E. Normal
> Kirksville, MO 63501

Or e-mail to dgarth@truman.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 **February 1, 2009.**

Call for Nominations

Nominations for the positions of Governor, Student Chapter Coordinator, and Public Information Officer are now being accepted. Each is a 3-year position which begins after the April 2009 meeting. Please send nominations to the Section Chair David Garth at dgarth@truman.edu. Nominations will be forwarded to the nominating committee.

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 five years are listed below for your convenience. If your campus would be willing to host a Spring Meeting, please contact David Garth, Chair, or any other member of the Executive Committee.

2000	Central Missouri State University	2007	College of the Ozarks
2001	U. of Missouri-Rolla	2008	Missouri State University
2002	Truman State University	**2009**	**Truman State University**
2003	Washington University	2010	University of Central Missouri
2004	Southeast Missouri State University	2011	Columbia College
2005	Missouri Western State College	2012	University of Missouri-St. Louis
2006	University of Missouri-Columbia	2013	Northwest Missouri State University

Section Teaching Award

STATE YOUR INTENTION TO NOMINATE BY NOVEMBER 21, 2008.

Nominations for the 2009 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 2009 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 2009 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 2010 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 **November 21, 2008.** The deadline for the submission of all materials remains February 1, 2009.

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 **November 21, 2008**.

- 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, 2009**. 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

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 17, 2009 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://catpages.nwmissouri.edu/m/msheprd/Application_08a.htm

Send completed form by April 1, 2009 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

Contest at Forest Park

Excellence in Mathematics

The 38th annual Excellence in Mathematics Contest cosponsored by the Mathematics Educators of Greater St. Louis and St. Louis Community College at Forest Park will be held on November 8, 2008, at the St. Louis Community College at Forest Park campus. Grades 9-12 are eligible to compete. Trophies and ribbons are awarded to the top individuals and teams. Two $1000 Loeb/MEGSL scholarships along with a copy of *Mathematica* will be awarded to the top scoring senior in Divisions I and II. Mementos and certificates of participation will also be distributed to every participant. To pre-register or obtain more information please contact Ev Corich at 314-644-9241 or visit www.stlcc.edu/fp/math/contest.

Fourth M.A.K.O. Undergraduate Math Conference

On Saturday, November 8, 2008, the fourth Missouri/Arkansas/Kansas/Oklahoma Undergraduate Math Research Conference will be held at Missouri State University, Springfield, MO. Undergraduates from Missouri, Arkansas, Kansas, and Oklahoma will be invited to present short talks on their research. Limited funds will be available to partially support student travels.

Further details will be forthcoming and posted at the conference's website:

> http://math.missouristate.edu/43564.htm

This conference is supported by an NSF grant through the MAA.

Mathematics and Statistics Student Paper Competition
MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Open to undergraduate and master's students in Missouri and surrounding states.

Four Competition Categories:
- Undergraduate Mathematics Paper Competition
- Undergraduate Statistics Paper Competition
- Graduate Mathematics Paper Competition
- Graduate Statistics Paper Competition

Cash Prizes of $150, $200, and $300.

Top 48 Entrants will be invited to a Conference and Awards Banquet on March 7, 2009

For competition rules and additional information, please go to: http://math.mst.edu/contest
Submission deadline: January 15, 2009

MAA Launches Math Classifieds

The MAA has unveiled its new tool for both job seekers and prospective employers, mathclassifieds.org. The already popular "Math Jobs" section of MAA Online has added a number of features that make it easier for job seekers to find that perfect fit, and likewise for institutions and companies seeking candidates for their mathematical positions. At Math Classifieds you can:

- Create an Employer Account- Employers can post jobs, update and edit job announcements, search for candidates, and contact potential candidates.

- View Résumés - Employers can check out résumés and pay only for the ones that interest them.

- Create a Job Seeker Account- A personal job seeker account allows members to find jobs, manage résumés, and set up job alerts.

- Post a Résumé - Job seekers now have the ability to post their résumé online. Whether actively or passively seeking work, an online resume is your ticket to great job offers.

- Sign up for personal job alerts- Job Alerts allow new jobs that match a seeker's search criteria to be emailed directly to them.

MAA Math Classifieds provides a unique service that pairs job seekers with degrees at the bachelor's, master's, and Ph.D. levels with potential employers eager to hire candidates with a math background. To access Math Classifieds, simply click on the link at the top-right portion of the MAA Homepage, or just type www.mathclassifieds.org into your browser. Take a look around, and remember that Math Classifieds is the new home for all of your mathematical employment needs.

Missouri Collegiate Mathematics Competition

The fourteenth Missouri Collegiate Mathematics Competition will be held Thursday, April 16, 2009 and Friday, April 17, 2009 on the campus of Truman State University in Kirksville, 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 sent one week before the competition begins. 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/

FROM THE GOVERNOR

The MAA Board of Governors met July 30, 2008 in Madison, WI. MAA President Joe Gallian presided.

Data was provided to show that the attendance in both the January Joint Mathematics Meeting and the summer MathFest increased significantly last year (7% for JMM and 31% for MathFest). In particular, the attendance of both graduate students and undergraduate students also went up.

Just as this report was in preparation, the stock market went through a tough time. It's timely that the MAA Treasurer John Kenelly sent the following message to the governors and asked us to share with you.

"As you most likely know our investments are diversified and conservative. There are currently heavy in cash and that is a good thing.

In many of the recent financial moves I have frequently been on the phone with our Chief Financial Officer to discuss and share together our understanding of what the news items mean to the MAA investments. We first reassured ourselves that we had no auction bond exposure. We later discussed credit default swaps and again felt that we were free of any involvement there. Later when money market accounts were shown to be exposed and the government moved in with insurance for those accounts, we breathed a sigh of relief and renewed our appreciation for having moved heavy into cash.

Our accounts are with GMO, Vanguard, and Fidelity. All three firms continue to be widely respected and appear to be above the troubles that are striking firms like Wachovia and most of the investment banks.

In these very volatile times there can be no guarantees. We should be prepared for some loss and in that we will be in with a lot of company. I honestly think that we will end up better than most and that will be our reason for continuing to maintain our diversified and conservative investment approach."

The Treasurer's section on the website (http://www.maa.org/treasurer/) is still a *work in progress*. It will be in the *members only section* and will contain the most recent audited balance sheet, investment policy statement and the percentage holdings in the investment categories, the aggregated dollar holdings in the three accounts GMO, Fidelity, and Vanguard, list of the named endowed funds with a brief description, selected charts like expenses/income and the total net assets ($14,092,870 in 2007), a summary table and comments about income sources and expenditure area, and a summary statement about the MAA's financial profile.

The 2007 operating budget deficit was $278,066 due to the low indirect cost recovery from grants and the high cost associated with the MathFest in San Jose. The 2008's is projected to be $314,598 due to the low indirect cost recovery from grants and the downturned market's affecting the investment returns. While there is a general recognition that small operating deficits may be acceptable in the short term, the staff has worked hard to save on expenses.

One of the key discussions during the Board meeting was on the recommendations by the Working Group on Governance. Actions taken involved creating and renaming Councils and committees and realigning Councils and committees. The Council Chairs will serve on the Board of Governors. The Board also approved recommendations on how the President, Secretary, Associate Secretary, Treasurer, and editors of the official publications of the MAA will be elected.

The final reports of Cycle I and II Strategic Planning are available at

https://www.maa.org/ecomtpro/members/sp/index.cfm?loc=index2.cfm.

The topics currently under review as part of Cycle III of Strategic Planning are STEM Issues, Sections, Meetings, and Periodicals and Communications.

The Strategic Planning Work Group on Membership stated in their report that their most important finding is, "Dues income plays a very important role in the finances of the Association; however, it is unrealistic to believe that dues alone can sustain the many activities of the MAA. Much progress has already been made in seeking other sources of income." The group recommends that: (1) Basic dues should be determined solely on income (under $25,000, between $25,000 and $60,000, greater than $60,000). (2) The member would choose which journals (including Math Horizon and online journals) to receive and be billed accordingly. Among other things, the group further recommends that the MAA should explore ways to increase international membership, and consider ways of providing incentives for the sections to recruit MAA members.

Executive Director Tina Straley highlighted in her report a few areas that have significant issues to consider. (1) Membership decreased in 2007 significantly but improved in 2008. Effort should be given to translate the retention rate into real increases. (2) The office directors had done some belt-tightening on the 2008 budget, and the 2009 budget is based on the trimmed 2008 budget. Investment income will not be strong for 2008 so it is important to balance the operating budget as much as possible. (3) The Strategic Planning continues to be a major activity. The Working Group on Membership has made many recommendations, while the Working Groups on Sections and STEM have begun soliciting input from sections. (4) The MAA will do long range planning on public policy, and should be more proactive in what we advocate and in influencing legislation at the beginning stages when it is being drafted rather than supporting legislation that is favorable at the budget stage. (5) Sections increasingly want and need more web services from the MAA, such as online election, online meeting registration with payment, and hosting of sections websites. The MAA needs to move to more interactive presence on the web, build e-communities, and provide more information to members.

A total of 104,008 students took the 2008 AMC 10 (compared to 99,083 in 2007), and a total of 121,312 took the AMC 12 (compared to 128,290 in 2007). A total of 5,875 took the AIME in 2008 (compared to 8,440 in 2007). The decreased numbers in AIME may be due to its occurring close to holidays and during spring break in 2008 for many schools.

The Mathematical Olympiad Summer Program (MOSP) was held in June on the University of Nebraska's campus. The MOSP is a three-week training camp for the USA team to the International Mathematical Olympiad (IMO), and the potential future competitors who scored high on the USAMO. There were 57 students at the MOSP this year. The IMO was held in July in Spain, and the U.S. team took the third place. Four of the team members earned gold medal and two earned silver medal.

The Carriage House has been extremely busy with both internal and external meetings and lectures. A variety of organizations, including the National Science Foundation and Knowles Science Teaching Foundation, have repeatedly used the Carriage House for staff retreats or meetings.

Overall journal circulation is down in 2008 but only slightly, reversing a trend of steeper declines in previous years. The number of institutional subscriptions this year is also down slightly from last year. JSTOR income for 2007 was up over the previous year, partly reflecting the sale of individual articles in the archive.

Last year's redesign of the MAA website allowed expansion of news and information offerings at MAA Online. New items appear daily, encouraging repeat visits to the website. Of particular note are the links to "Math in the News", which go to daily prepared articles. Also highlighted on MAA Online are Carriage House Conference Center lectures, JMM events, meeting announcements, new books and reports, and competition results. The transition of "MAA Reviews" and "Classroom Capsules and Notes" from MathDL to MAA Online has already started.

Acquiring new textbooks is an area of the MAA Books program that is meeting a need – providing good textbooks at reasonable prices. The pipeline is pleasantly full with fifty new books expected to be published during the next twenty months. The Program has been vigorously seeking textbooks in abstract algebra, linear algebra, differential equations, applied mathematics, financial mathematics, and mathematics for teachers.

The renewal rates for most membership categories in 2008 have either remained stable or improved over the last year. This may partly be a result from the decision to postpone dues increases. The dues will be kept at the current levels through the 2009 renewal series. There were other measures taken to improve the results and the renewal process.

There were 817 donations to the MAA in 2007 for a total amount of $1,000,026.

Updates on 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 Foundation) (www.maa.org/nreup), MAA Professional Enhancement Program (PREP)(NSF) (www.maa.org/prep). The MAA also received $27,000 from the National Security Agency to fund both undergraduate and graduate students travel to MathFest in 2008 and 2009.

Bestsellers among the MAA books in 2008 so far: Math through the Ages, Geometry Revisited, Euler the Master of Us All, A Garden of Integrals, Game Theory and Strategy, First Step for Math Olympians, and Math Made Visual.

Dates and locations for future Joint Meetings and MathFests are

2009	Washington, DC	Joint Meetings	January 5-8
2009	Portland, OR	MathFest	August 6-8
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
2012	Boston, MA	Joint Meetings	January 4-7
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

Yungchen Cheng

IN MEMORIAM

Last year we lost our dear colleague and friend Dr. James T. Bruening. Jim Bruening, who was Professor of Mathematics at Southeast Missouri State University and Governor of the Missouri Section of the MAA, passed away on September 9, 2007. Bruening received his PhD from the University of Missouri at Rolla in 1977 and had taught at Southeast Missouri State since 1985. His main mathematical interests were in algebra and combinatorics, and he especially enjoyed problem-solving. Among his many roles within the MAA, he was editor of the "Problems and Solutions" section of the College Mathematics Journal and Governor of the Missouri Section. He began his term as Governor in July, 2006, and had made a special effort to be at the meeting of the Board of Governors in San Jose. Martha Siegel, Secretary of the Association, says that "he wanted to be at every minute of the meeting, although I know he was tired." He was a member of the Association since 1987. (From the October 2007 issue of *MAA Focus)*

FROM THE CAMPUSES

Culver-Stockton College

We have a new addition to our department here at Culver-Stockton College. **Dr Randall Weiss** is a Visiting Professor.

(Submitted by Gary G. Cochell)

Southeast Missouri State University

The Department welcomes two new Assistant Professors. **Dr. Andrew Schwartz** received his Ph.D. from Southern Illinois University Carbondale in 2008 (Extremal Combinatorics and Graph Theory). **Dr. Yanping Xia** received her Ph.D. from University of Louisiana at Lafayette in Statistics (2007). Prior to joining our Department, she taught statistics at University of Nevada, Las Vegas. We also welcome new instructors **Mrs. Geetha Rajamanickam, Mrs. Ann Schnurbusch** and **Mr. Stephen Schroeppel**. Mrs. Rajamanickam received B.S from Putra University of Malaysia and M.S. from Southeast (2008). Mrs. Schnurbusch received B.S and M.S. from Southeast and taught mathematics at Central High School in Cape Girardeau. Mr. Schroeppel received B.S. and M.S. from Southeast and held a part time position with the Department.

Dr. Candide Walton was tenured and promoted to Associate Professor. Dr. Walton taught in public schools, received her Ph.D. form Southern Illinois University Carbondale (Curriculum and Instruction) and joined the Department in 2001. **Dr. Haohao Wang** was tenured and promoted to Associate Professor. Dr. Wang received her Ph.D. in Algebraic Geometry and Commutative Algebra from Louisiana State University. She has been with the Department since 2003.

We had two retirements in May 2007. **Mr. Tom Wencewicz**, Assistant Professor, retired after 42 years of service to the Department. **Ms. Sharon Schwarz**, Instructor of Mathematics, retired after eight years of service to the Department.

Dr. Timothy Ray is returning from a year and a half sabbatical at the National Security Agency.

Dr. Vic Gummersheimer has announced his retirement effective June 2009, and the Mathematics Department is searching for a new chair. Details will be available at http://www2.semo.edu/provost/faculty/positions/ and http://www.ams.org/cgi-bin/eims/eims-display.pl?JI=pKK8pmBA6ABB.

(Submitted by Jerzy Wojdylo)

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 **FEBRUARY 1, 2009**, TO:

> David Garth
> Department of Mathematics and Computer Science
> Truman State University
> 100 E. Normal
> Kirksville, MO 63501

Or e-mail to dgarth@truman.edu.