

MAA MISSOURI SECTION SPRING 2003 NEWSLETTER

The MAA Missouri Section Newsletter is published in October, March, and May each year. This Newsletter is also available on the Missouri Section Home Page at <http://momaa.math.umr.edu/newsletters.html>. If anyone would like to read future issues of MAA Missouri Section newsletters online rather than receiving a hard copy, then please contact me at jbruening@semo.edu. This will save the Section additional printing costs. Thank you.

MEETING ANNOUNCEMENT

The 2004 Spring Meeting of the Missouri Section of MAA will be held April 2nd and 3rd at Southeast Missouri State University in Cape Girardeau, Missouri with the Missouri MAA Collegiate Mathematics Competition held on the evening of April 1st and the morning of April 3rd. The Fall 2003 and Winter 2004 newsletters will carry more details on this meeting.

Future Meeting Sites

The Spring Meeting is held at various locations around the state. As part of its long-range planning, the Executive Committee is entertaining invitations for future meetings in 2007 and thereafter. **Southwest Missouri State University is tentatively scheduled for 2007, and Truman State University for 2008, but if other schools are interested in hosting the Spring Meeting, Southwest Missouri State and Truman State will be flexible.** The meeting sites for the past several years and the next three years are listed below for your convenience. If your campus would be willing to host a Spring Meeting, then please contact Tim Ray, Chair, or any other member of the Executive Committee. Please see the inside of the front cover for information on the members of the committee.

1985	Central Missouri State University	1998	Southwest Missouri State University
1986	Southwest Missouri State University	1999	Rockhurst College
1987	Truman State University	2000	Central Missouri State University
1988	Washington University	2001	U. of Missouri-Rolla
1989	University. of Missouri-Columbia	2002	Truman State University
1990	College of the Ozarks	2003	Washington University
1991	University of Missouri-Rolla	2004	Southeast Missouri State
University			
1992	Northwest Missouri State University	2005	Missouri Western State
College			
1993	Westminster College	2006	University. of Missouri-Columbia
1994	Missouri Southern State College	2007	

1995 Central Missouri State University 2008
1996 Southeast Missouri State University
1997 Missouri Western State College

Congratulations to Dr. Tom Ingram

Congratulations to Professor William T. (Tom) Ingram, Professor of Mathematics and former Department Chair at the University of Missouri-Rolla, the 2003 winner of the Distinguished College or University Teaching of Mathematics Award for the Missouri Section of the Mathematical Association of America. Dr. Ingram has twice won Outstanding Teaching Awards at UMR, and during his career as a faculty member at several universities, he has directed 12 Ph.D. and 12 masters students. Quoting from the nomination written by Dr. Robert Roe, fellow teacher at the University of Missouri-Rolla, "Tom Ingram has a deep and abiding respect both for his students and the subject of mathematics. In his career, he has taken the method of instruction exemplified by R. L. Moore and modified it to fit the needs of all of his mathematics students, undergraduate and graduate. Through his careful instruction, generations of students have been introduced to the beauty and joy of mathematical discovery." As chair of the Department of Mathematics at UMR, Tom was instrumental in substantially increasing the number of undergraduate and graduate mathematics majors at a time of declining majors nationally, and he instituted changes in the college algebra and trigonometry courses that dramatically increased the number of students passing these courses with a "C" or better. He continues to work to share the excitement in the discovery of mathematics and to pass this to another generation of teachers. He has received grants from the Educational Advancement Foundation to help educate others about the "Moore" or discovery method of mathematics. A grant application has also been submitted to the Educational Advancement Foundation to enable Tom to serve as a teaching mentor at Baylor University after he retires from UMR.

(These notes are paraphrased from the nomination form submitted by faculty members from the University of Missouri-Rolla in support of Dr. Ingram's nomination for the teaching award.)

Congratulations to Leon Hall

Dr. Leon M. Hall, Chair of the Department of Mathematics at the University of Missouri-Rolla, has been elected governor of the Missouri Section of the MAA to serve from July 1, 2003 to June 30, 2006. Leon replaces Dr. Victor Gummersheimer, Chair of the Department of Mathematics at Southeast Missouri State University, who has served as Governor the past three years. We thank Vic for his great service to the Missouri Section and his representation of our section at the national meetings. We congratulate Leon on his election, and wish him well in his service as Governor of the Missouri Section of MAA.

Minutes of Missouri Section Executive Committee Meeting April 4, 2003

The Executive Committee meeting of the Missouri Section was held at Small Group Housing on the campus of Washington University in St. Louis. Chair Renato Feres called the meeting to order after the banquet. The following officers attended the meeting:

Chair	Renato Feres (Wash U)
Governor	Vic Gummersheimer (SEMO)
Chair Elect	Tim Ray (SEMO)
Past Chair	James Guffey (Truman)
Student Chapter Coordinator	Les Reid (SMSU)
Secretary-Treasurer	Susan Callahan (Cotney)

1. Two schools are interested in hosting meetings. Les Reid said that SMSU was considering 2007. James Guffey said Truman would like to host again, perhaps in 2007 or 2008. If other schools are interested in hosting, SMSU and Truman will be flexible. Next year's meeting will be April 1-3, 2004 at SEMO.
2. Tim Ray, who is a member of the national committee on liaisons, said that the person who coordinates the department liaisons in a section is called the Section Liaison. Michael Pearson at MAA Headquarters is trying to increase liaison activities and find duties for section liaisons.

A disadvantage of the Missouri Section's practice of having the Chair Elect serve as Section Liaison is that a different person holds the position each year. A one-year term is too short. Secretary-Treasurer, Newsletter Editor, and Public Information Coordinator were mentioned as possible offices with which to team the Section Liaison position. The Executive Committee decided the Public Information Coordinator should also be the Section Liaison.

3. Executive Committee members reviewed the draft of the agenda for the Business Meeting and suggested appropriate revisions.

Respectfully submitted,

Susan Callahan
Secretary-Treasurer

Minutes of MAA Missouri Section Business Meeting

April 5, 2003, Washington University

(Approval will be considered at the Spring 2004 Business Meeting: April 3, 2004.)

The Business Meeting of the Missouri Section was held in 300 Lab Sciences Building on the campus of Washington University in St. Louis. Chair Renato Feres called the meeting to order at 11:00 a.m.

1. Susan Callahan awarded certificates to all students who presented papers at the Meeting. She asked that the gratis membership forms be returned to her because Headquarters would like to receive all forms from the Section in one envelope.

Don Vestal presented the Governor's Proclamation of Mathematics Awareness Week to Renato. The plan is to make leaving the proclamation at the meeting site/host school an annual practice.

2. The minutes of the 2002 Business Meeting were approved as published in the Spring 2002 Newsletter.
3. Renato Feres reported on issues discussed at the Executive Committee Meeting. Two schools would like to host Section meetings. SMSU is tentatively scheduled for 2007, and Truman State 2008. If other schools are interested in hosting, SMSU and Truman will be flexible.

The Executive Committee decided to have the Public Information Coordinator serve as Section Liaison.

4. Vic Gummersheimer attended the Governors' meetings in Burlington and Baltimore. Ron Graham is now President of the MAA. Before his recent death, Henry Alder endowed a new teaching award targeted for faculty with two to seven years of full time teaching experience. A gift from Paul Halmos will be used to renovate the Carriage House at MAA Headquarters for use as a conference center. Money has been set aside to arrange for math conferences to be held in the facility.

Vic recommended reading Martha Siegel's article about the Baltimore meetings in the March 2003 issue of FOCUS. The Mathematics Awareness Month poster appears on the back of that issue.

Al Tinsley of CMSU was presented with a Certificate of Meritorious Service at the Joint Meetings. The Illinois Section winner was Larry Morley, brother of the Missouri Section's Lanny Morley.

Vic encouraged members to attend the MathFest in Boulder this summer. The meeting next January is in Phoenix. Vic also encouraged members to vote in the Section Governor election, with ballots due April 18.

Vic thanked the Section for allowing him to serve as Governor. It has been exciting to go to the national meetings. Section members expressed their appreciation to Vic for representing them for three years.

5. Susan Callahan, Secretary-Treasurer, distributed the Treasurer's Report. The balance as of April 1, 2003, is \$5,490.80.
6. Les Reid, Student Chapter Coordinator, reported that the number of student chapters has remained constant. He will try to set up a web page with links to the student chapters' web pages. He would welcome any suggestions to increase the number of student chapters.
7. Rhonda McKee, High School Lecturers Coordinator, reported that she received three requests for information and one request for a speaker. A talk was given at Jefferson High School in Columbia.

Ideas for increasing high school participation were discussed. A letter about the lecturers program is included in Shing So's mailing for the AMC. The Optical Society of America is creating a web site on lecturers in math and science. Rhonda was invited to send them a link, but it not up yet. A presence at the MCTM meeting was suggested. The High School Lecturers program could have a display table, or someone could speak at the meeting and mention the program.

8. Shing So, High School Contest Coordinator, reported that 82 schools registered this year. A handout listing Missouri's top scorers on the ACM 10 and ACM 12 and giving a preliminary financial report was distributed.
9. Robert Roe, Junior High School Contest Coordinator, reported that there were four perfect papers on the AMC 8. Plaques will be presented at the Governor's Open House on April 17. Only 58 schools participated this year.
10. Leon Hall, Web Page Administrator, asked people to check and be sure their institutions' links and information on the web page are up to date. Send corrections to him, and please notify him if there is trouble accessing the site.
11. Curtis Cooper listed the top five teams in the Collegiate Mathematics Competition: Washington University Team A, Truman Team A, UMR Team A, Washington University Team B, and Drury Team A. Thirty two teams, including six unofficial teams, and 93 students participated in competition activities.
12. Ed Spitznagel said it had been his honor to chair the Selection Committee for the teaching award. Tom Ingram is the winner of the 2003 Missouri Section Award for Distinguished College or University Teaching of Mathematics. Ed encouraged people to make nominations for next year's award.

13. Curtis Cooper reported that he, Lanny Morley and Ilene Morgan served on the Nominating Committee. Last November they nominated Yungchen Cheng and Leon Hall for Governor. (Tina Straley's office conducts the Governor's election.) Today they made the following nominations:

Jeff Poet of Missouri Western for Chair Elect
Les Reid of SMSU for Student Chapter Coordinator

Both Jeff and Les were elected by the Section.

14. Renato thanked the students who helped to plan the 5K Run. Six MAA members participated. Winners of the drawing for prizes were Bob Sheets, Curtis Cooper and Harold Hager.
15. Tim Ray, Chair Elect, complimented Renato on this year's meeting. Next year the meeting and competition will be Thursday, April 1, through Saturday, April 3, at SEMO in Cape Girardeau. Tim would like to hear any ideas for a workshop.
16. A motion to have the secretary write a letter to the appropriate official at Washington University, expressing gratitude for their having hosted the meeting, was approved.

Respectfully submitted,

Susan Callahan
Secretary-Treasurer

2003 Workshops and Conferences

June 16-20: Messiah College, Grantham, PA

[Introduction to Combinatorics](#)

The EPADEL Section of the MAA presents Professor Ralph Grimaldi in its 2003 Faculty Development Workshop. Topics include: Functions as a unifying theme; Introduction to combinatorics including basic counting methods as well as the principle of inclusion and exclusion, generating functions, and recurrence relations; A survey of examples and properties of the Fibonacci and Catalan numbers; The role of combinatorics in the study of trees and graphs; and Graph theory and enumeration.

Contact: Marvin Brubaker, mbrubake@messiah.edu

June 16-18: St. Michael's College, Colchester, VT

[Hands-on Statistics for Teachers](#)

If you are a teacher from a high school, college, or university who will be doing a first course in statistics then this summer short course will help you out. Two professional statisticians and renown teachers, **Robin Lock** and **Rick Cleary**, will lead a discussion on what material should be covered, what is the most fruitful syllabus, and what approaches work the best. There will be plenty of things that you can take back to your classroom, including computer work. This short course is sponsored by the **Northeastern Section** of the **MAA**.

Contact Jim Hefferon, jhefferon@smcvt.edu

June 27-29: Chicago, IL

[COMPASS/Show-me National Curriculum Showcase](#)

COMPASS (Curricular Options in Mathematics Programs for All Secondary Students) will host a conference June 27-29, 2003 in Chicago, IL. The conference, intended for teacher leaders, school district administrators, state education department personnel, and teacher educators, will showcase five Standards-based, NSF-supported secondary school mathematics curricula. Participation is limited to 150 persons. The registration deadline is May 1, 2003; the fee, \$100.

Contact: compass@ithaca.edu, 800.688.1829

July 10-15: Enumclaw, WA

AMATYC Teacher Preparation Summer Institute

This workshop includes an in-depth examination of some of the mathematics that prospective should know, technology modules integrated into the teacher education curriculum, pedagogical models that deliver appropriate standards based mathematical content, and current research on learning.

Contact: Ruth Collins, lv2fly@comcast.net

July 14-18: Online from Saint Louis University, St. Louis, MO

[Abstract Algebra with GAP](#)

This **MAA/PREP** online workshop will provide participants with the resources, teaching materials, and knowledge they need to teach a course in abstract algebra which uses GAP exercises and projects. Previous experience with GAP software is not necessary for successful participation. Prior to the workshop, participants will complete a short tutorial on the installation and basics of GAP software.

During the workshop, participants will examine and discuss specific computer projects that incorporate the software GAP into an abstract algebra class. Participants will work through these computer project examples and discuss how they can be useful in helping students comprehend basic abstract algebra concepts. Teams of workshop participants are encouraged, but not required. Organized by **Russell Blyth** and **Julianne Rainbolt**

Contact: Gretchen Brown, gbrown@maa.org

July 16-18: Capital University, Columbus, OH

[Cryptography](#)

Professor **Robert Lewand**, Goucher College, presents this annual summer short course of the Ohio Section of the MAA . Designed for those with absolutely no experience in the subject, the course will investigate techniques of encryption and decipherment along with the mathematical underpinnings of these systems. We will discuss various symmetric encryption schemes (affine, keyword, the Vigenère Square, Playfair's System and Hill's System) as well as the RSA implementation of public key cryptography. Students will have ample opportunity to encrypt, decrypt and decipher messages as part of the course.

An individual with a background in some elementary number theory and at least a rudimentary familiarity with computing (a programming language, or Maple, or even Excel) will be sufficiently prepared to understand the material in this course.

Contact: Jonathan Stadler, jstadler@capital.edu

July 23-27: Oberlin College, Oberlin, OH

[Regression Analysis: The Heart of Statistical Methodology](#)

Regression, in its many facets, is probably the most widely used statistical methodology in existence. It is the basis of modeling, whether the modeling is directed toward searching for associations among variables in observational studies or establishing treatment differences in designed experiments. Regression serves as an ideal topic for a second course in statistics.

This **MAA/PREP** workshop is organized by **Richard Scheaffer** and **Jeffrey Witmer**, and will cover the data analytic techniques appropriate to modern use of regression analysis, as well as the inferential procedures most widely used with this methodology. Beginning with establishing principles and concepts through simple linear regression, the workshop will build to discussions of multiple regression, including models involving categorical response variables. Emphasis will be on applications rather than theory, with heavy reliance on modern statistical software.

Contact: Gretchen Brown, gbrown@maa.org

August 3-8: Montana State University, Bozeman, MT

[Mathematical Methods and Modeling for Secondary Mathematics Teacher Education](#)

This hands-on workshop is designed for those teaching mathematics and mathematics methods courses for pre-service and in-service secondary school teachers. The workshop addresses the NCTM and CBMS recommendations for the mathematical education of secondary teachers of mathematics and outlines a modern methods course for secondary school teachers of mathematics featuring mathematical modeling. Specific focus will be given to meshing methods content with modeling experiences to illustrate how they can both be realized in secondary classrooms. Participants will share features of their methods courses, participate in modeling activities appropriate for the secondary methods classroom, and discuss the roles of content, pedagogy, and clinical experiences in such a methods course. An MAA/PREP workshop organized by John Dossey, Frank Giordano, and **Sharon McCrone**.

Contact: Gretchen Brown, gbrown@maa.org

October 23-26: Scottsdale, AZ

[SIGMAA on RUME Research Conference](#)

As part of its ongoing activities to foster research in undergraduate mathematics education and the dissemination of such research, the Special Interest Group of the MAA on Research in Undergraduate Mathematics Education (SIGMAA on RUME) will hold its seventh Conference on Research in Undergraduate Mathematics Education in Scottsdale, Arizona, October 23-26, 2003. The program will include plenary addresses, interactive plenary panels, contributed paper sessions, and preliminary report

sessions. For current information on the program and the call for papers, please visit and bookmark the conference web page.

Contact: Draga Vidakovic, draga@gsu.edu