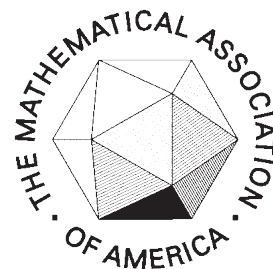


Norman Richert, Editor
Michigan Section–MAA Newsletter
Mathematical Reviews
University of Michigan
P.O. Box 8604
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Michigan Section – MAA NEWSLETTER

Volume 34, Number 1

December 2007



Fairlane Center at UM-Dearborn

IN THIS ISSUE:
The Future of High School Mathematics
New Priorities and Promising Innovations

Mathematical Association of America
Michigan Section Newsletter
Volume 34, Number 1

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Editor: Norman Richert, Mathematical Reviews, P.O. Box 8604, Ann Arbor, MI 48107-8604; 734-996-5254; fax 734-996-2916; nrichert@ams.org.

Advertising Manager: William Dickinson, Department of Mathematics, GVSU, Allendale, MI 49401; 616-331-3745; dickinsw@gvsu.edu.

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Abbreviations

C = College	MTU = Michigan Technological U
CC = Community College	NMU = Northern Michigan U
CMU = Central Michigan U	OU = Oakland U
EMU = Eastern Michigan U	SHU = Siena Heights U
FSU = Ferris State U	SVSU = Saginaw Valley State U
GVSU = Grand Valley State U	U = University
KU = Kettering U	UDM = U of Detroit Mercy
LSSU = Lake Superior State U	UM = U of Michigan
LTU = Lawrence Technological U	WMU = Western Michigan U
MSU = Michigan State U	WSU = Wayne State U

Calendar of Events

January 6–9, 2008	MAA/AMS Annual Meeting, San Diego
April 9–12, 2008	NCTM Annual Meeting, Salt Lake City
May 2–3, 2008	Michigan Section Meeting, GVSU
July 31–August 2, 2008	MAA MathFest, Madison
November 20–23, 2008	AMATYC Annual Meeting, Washington, D.C.
January 5–8, 2009	MAA/AMS Annual Meeting, Washington, D.C.
April 22–25, 2009	NCTM Annual Meeting, Washington, D.C.
May 8–9, 2009	Michigan Section Meeting, CMU
August 6–8, 2009	MAA MathFest, Portland
November 12–15, 2009	AMATYC Annual Meeting, Las Vegas
January 6–9, 2010	MAA/AMS Annual Meeting, San Francisco
April 21–24, 2010	NCTM Annual Meeting, San Diego
August 5–7, 2010	MAA MathFest, Pittsburgh
November 11–14, 2010	AMATYC Annual Meeting, Boston
January 5–8, 2011	MAA/AMS Annual Meeting, New Orleans
November 10–13, 2011	AMATYC Annual Meeting, Austin
January 4–7, 2012	MAA/AMS Annual Meeting, Boston

Organizational Web sites

Michigan Section–MAA	www.michmaa.org
MAA	www.maa.org
NCTM	www.nctm.org
MCTM	www.mictm.org
AMATYC	www.amatyc.org
MichMATYC	www.michmatyc.org
MMPC	www.math.oakland.edu/main/mmpe
MiNExT	www.math.hope.edu/pearson/MINExT.html

Chairperson's Report

The Michigan Section functions well because of the totally volunteer staff who devote their time and effort. See the Committees and Appointments pages of any recent Michigan Section Newsletter or go to the section web site at www.michmaa.org for a list of our many volunteers. I cannot thank each of these people individually in the space provided, so I will take this opportunity to thank all of you collectively here and then recognize those in positions that have recently changed below. I also want to bring to your attention a few of the many activities of the section.



Bette Warren (EMU) is currently serving as our newly-elected Governor and has already represented us at the Board of Governors meeting this past summer. Bette has been an active member of the Section for many years and has previously served as Section Chair, as Secretary/Treasurer, and as Director of the HSVLP, and was the recipient of the Distinguished Service Award. Special thanks go to **Ruth Favro** (LTU) for her three years of dedication and hard work as our past Section Governor.

John Fink (Kalamazoo C) completed his term as Past Chair and **Randy Pruim** (Calvin C) as Chair. They both served as excellent leaders of the Section and role models for me as the current Chair. Randy will continue his leadership as Past Chair of the Section this year.

Matt Boelkins (GVSU) is the new Four-Year Vice Chair, and **David Redman** (Delta C) continues to serve as the Two-Year Vice Chair. They, along with others of the Program Committee have been hard at work and have an impressive list of speakers planned for the 2008 Spring Meeting in Grand Rapids. **Steve Schlicker** (GVSU) is chair of the Local Arrangements Committee. Please see Matt's Annual Meeting in May report for details of the meeting and recognition of others involved. I also want to take this opportunity to thank, on behalf of the Section, **Margret Höft** (UM-Dearborn) and all those on the 2007 Local Arrangements Committee for providing us with such a successful Spring Meeting at UM-Dearborn.

Mark Bollman (Albion C) is now serving as Secretary/Treasurer of the Section, as **Nancy Colwell** (SVSU) completed her three-year term this

past spring. The past years of diligent work by Nancy to keep the Section finances and records in order, and to provide information to the national office, are greatly appreciated.

The Michigan Math Prize Competition is a huge annual event of the Michigan Section, and **Eddie Cheng** (OU) is currently serving in his third and final year as the Director of the MMPC. The amount of work done by Eddie and the Exam Committee to provide this service to 8,000 high school students each year is tremendous. Thank you to **Patrick Pan** (SVSU) for serving for four years on the Exam Committee and to **Jennifer Zhao** (UM-Dearborn) for volunteering to replace Patrick.

Another annual event offered in the fall is the fairly new Michigan Undergraduate Mathematics Conference. The Section is active in supporting this valuable opportunity provided for Michigan's undergraduate math students. The Student Activities Coordinator, **John Clifford** (UM-Dearborn), makes sure MUMC happens each year. Special thanks go to MSU for hosting the event this year and to the Conference Committee chaired by **Peter Bates**, **Moxun Tang**, and **Aklilu Zeleke**, all of MSU.

We are also fortunate to have the continued service of those involved in communicating Section information to members and Section activities to the public. These people include **Norm Richert** (Mathematical Reviews), the *Newsletter* Editor, **Bob Xeras** (SHU), the Public Information Officer, and **Scott Barnett** (HFCC), the Webmaster. Scott has recently done an excellent job in updating and enhancing the section website.

We also appreciate the commitment of **Brian Snyder** (LSSU) and **Kimberly Muller** (LSSU) in supporting the High School Visiting Lecture Program.

As is evident, it takes many committed people to keep the Michigan Section functioning smoothly. The Nominating Committee, Randy Pruim (Calvin C) and David Redman (Delta C), is always looking to find a new supply of volunteers, so if you are interested in volunteering or would like to nominate someone, let them know.

I am sorry that I cannot mention all those that deserve thanks. Some others are mentioned throughout the Newsletter, and all are greatly appreciated. I am looking forward to seeing you all in Grand Rapids.

Tom Zerger, Chair

Grand Valley in May

Annual Meeting in May

The annual Spring meeting of the Michigan Section of the MAA and MichMATYC will occur Friday and Saturday, May 2 and 3, 2008 on the Grand Rapids campus of Grand Valley State University. The Program Committee is delighted to announce a confirmed speaker list that includes plenary addresses by **Anna Gilbert** (UM-Ann Arbor), **Gail Burrill** (MSU), **Carl Pomerance** (Dartmouth), **Francis Su** (Harvey Mudd C), **Jeff Lagarias** (UM-Ann Arbor), and **Chris Swanson** (Ashland U). In addition, we look forward to local-invited talks given by our Michigan colleagues **Eddie Cheng** (OU), **Stephanie Edwards** (Hope C), **Joan Remski** (UM-Dearborn), and **Aklilu Zeleke** (Lyman Briggs College/MSU). Further details about the program schedule, including titles and abstracts of these presentations, will appear in the Spring *Newsletter*.



Contributed talks form an essential component of the annual section meeting. The Program Committee requests that all section members consider giving a contributed talk, as this venue is an excellent way to share your scholarly work, become better acquainted with your Michigan colleagues, and foster opportunities for collaborative work. Talks may be on any subject related to mathematics: mathematical scholarship, expository mathematics, or issues related to curriculum or pedagogy in the collegiate classroom. In addition, both undergraduate and graduate students are invited to give presentations at the meeting; faculty should urge students to consider this opportunity. Instructions for submitting abstracts for one of the contributed sessions are included in the "Call for Papers" in this *Newsletter* on page 30.

The conference will run all day Friday and through lunch Saturday, with luncheons and following addresses both days, as well as a banquet Friday evening. In keeping with tradition, the section will present its annual teaching and service awards at the Friday banquet, followed by a plenary talk (given this year by Francis Su).

See Annual Meeting on page 6

Governor's Report

I want to take this opportunity to thank Ruth Favro for her leadership over the last three years. Ruth has been actively involved in MAA committees and projects at the state and national level for many years. She is highly regarded and deeply appreciated by all who have worked with her.

The MAA is currently in Cycle II of its Strategic Planning process, focusing on Governance, Students, and Membership. The topics selected for Cycle III are Meetings, Sections, and STEM Issues. Cycle I is complete—Ruth gave brief synopses of the final reports in the Spring 2007 *Newsletter*.



MAA book sales continue to be strong. Members may be particularly interested in the expanding selection of textbooks for upper division courses; information about requesting review copies and adoption policy is available at the Online Bookstore on the MAA web site. A new series—*Guides*—is planned. Each will provide an overview of a mathematical topic with key definitions, theorems, and references. *Guides* are currently in preparation for Number Theory, Modern Algebra, and Complex Analysis; Real Analysis will follow.

The MAA Web site www.maa.org has recently been redesigned. In addition to providing easier access to information, there are daily updates, columns, links to online versions of journals for journal subscribers, and links to resources for teaching. The MAA online job listing is also being reorganized and revised to provide a Career Center focused on undergraduate mathematics majors. It will function as a search site for students and employers and a resource for campus career centers.

The fifth annual MAA Mathematical Study Tour celebrated the 2007 Euler tercentenary with a tour of St. Petersburg, Basil, and Berlin. The 2008 Tour will explore the sites and mathematics of Peru.

Finally, I hope to see many of you at the 2008 Joint Mathematics Meetings in San Diego January 6–9. In addition to the usual rich selection of invited and contributed talks and professional development opportunities for mathematicians, there will be a number of special sessions for students

Bette Warren, Governor

Secretary/Treasurer's Report

In the words of M*A*S*H's Lt. Col. Henry Blake, I find it "somewhat of a frightening honor" to have been elected as the Secretary/Treasurer of the Michigan Section. No doubt many members of the Section have served as treasurers of various other organizations, so I feel as though many eyes are watching me as I do this job. Let me begin by thanking my predecessor, **Nancy Colwell**, for her excellent assistance as I have moved into this position and worked through the transition.



The Section's current bank balance (as of September 30) is \$2603.49, compared to \$3128.93 one year ago. This is the lowest point of the year, as it is before all the dues come in. Two major costs to the Section are the printing and mailing of the *Newsletter* and the annual Section meeting in the spring. The *Newsletter* is sent to all faculty in Mathematical Sciences departments in Michigan colleges and universities. It is an essential way of keeping Michigan mathematics faculty informed of all the events related to our discipline going on in the area. The annual meeting, which will be held at Grand Valley State University next May, is a wonderful way for Michigan mathematicians to meet each other, hear and present talks, and stay connected to the local professional community. I urge everyone to join us next year at GVSU. The Michigan Section also provides some financial support to the Michigan Undergraduate Mathematics Conference, held this year at Michigan State University on October 27.

The Section has some support (\$1090 this year) from the national MAA and an occasional grant, but most of the Section's income is from voluntary dues payments from its members. The annual request for dues will soon be sent to each member of the MAA in Michigan and to all chairs of Mathematical Sciences departments of colleges and universities in the state. I would like to express my gratitude, on behalf of the Michigan Section, to those of you who have responded early this year. Dues remain at \$15 for a regular individual membership, \$30 (or more) for a contributing individual membership, and \$40 or \$70 for an institutional membership, depending on the size of the institution. Now that you are thinking about all the valuable

services our local Section does to promote mathematics in Michigan, watch your mailbox for your chance to contribute to these worthy efforts.

I look forward to serving all the Michigan Section members. If I can be of any help, drop me a line at mbollman@albion.edu.

Mark Bollman, Secretary/Treasurer

Annual Meeting continued from page 3

The 2008 Program Committee consists of David Austin (GVSU), Matt Boelkins (GVSU), and David Redman (Delta C). If you have a question or suggestion regarding the program, please contact one of us. **Steve Schlicker** (GVSU) is chairing the Local Arrangements Committee. Contact information for all of us may be found on page 34 in this *Newsletter*.

Matt Boelkins, Four-Year College Vice Chair

Student Chapter News

Grand Valley State University

Feryal Alayont and **Phyllis Curtiss** are co-advisors of the Mathematics and Statistics Club. **Casey Jelsema** is student president. **Paul Fishback** serves as Pi Mu Epsilon advisor. Planned club and chapter activities during the upcoming year include participating in the GVSU Alumni-in-Residence Program, game nights, and conducting a student LaTeX workshop.

Lawrence Technological University

The Student Chapter of MAA hosted a two-day Euler Symposium to honor Euler's 300th birthday. Students presented short talks relating to his life and works, and prizes were presented to the best speakers. Chapter officers are President **George Placinta**, Vice-President **Rich Geyer**, Secretary **Warren Beard**, Treasurer **Alex Lane**, and Webmasters **Steve Kryskalla** and **Ken Paluch**.

Michigan NExT

The Ninth Annual Michigan NExT Symposium will be held at Grand Valley State University on the afternoon of Thursday, May 1, 2008, in conjunction with the 2008 Section Meeting (May 2–3 at GVSU). The symposium will address issues of importance to new faculty, such as developing successful teaching and assessment strategies, mentoring undergraduate research projects, planning new courses and selecting texts, and balancing the responsibilities of an academic career. Last year's symposium, "Explorations in Calculus", included a wide variety of talks about teaching calculus and a

keynote address on undergraduate research by MAA President **Joe Gallian**. As plans for this year's symposium unfold, information will be posted on the Michigan NExT Web site: math.hope.edu/pearson/minext.html.

Michigan NExT is a forum for pre-tenure faculty who have a strong commitment to teaching undergraduate mathematics. Co-organizers **Mark Pearson** (Hope C) and **Paul Yu** (GVSU) are currently soliciting suggestions for topics and speakers (self-nominations welcome) for this year's symposium. To become involved in Michigan NExT, or to recommend a topic or speaker for this year's symposium, please contact Mark (pearson@hope.edu) or Paul (yupaul@gvsu.edu).

Mark Pearson, Hope C

Positions Available

NOTE: Most positions in the mathematical sciences, including many of the ones listed here, are advertised in Employment Information in the Mathematical Sciences (www.ams.org/eims). The MAA also has a Web site for employment opportunities (www.maa.org/pubs/employ.html). All openings are for Fall 2008 unless otherwise stated, and further information is available from the department.

Albion College (www.albion.edu/mathcs/Position0708_Math_OY.asp) invites applications for a full-time visiting position beginning January 2008 and continuing through the 2008–2009 academic year.

Calvin College (www.calvin.edu/academic/math) has an open position in statistics, and one or two term positions in mathematics.

Grand Valley State University (www.gvsu.edu/math/jobs.html) has openings for an assistant professor in mathematics and an assistant or associate professor in mathematics education. The university is committed to diversity and is interested in hiring new faculty who can contribute through their teaching, scholarship, and/or service to the diversity and excellence of the academic community.

Northern Michigan University (math.nmu.edu) has a tenure-track position in mathematics and a two-year term position in computer science.

University of Detroit Mercy (eng-sci.udmercy.edu/math_cs) has a tenure-track position open in mathematics and is now receiving applications. They should be sent to: Professor Michael Canjar, Mathematics and Computer Science Department, UDM, 4001 W. McNichols, Detroit, MI 48221.

CITATION FOR

Robert A. Messer

for the
Michigan Section
Mathematical Association of America
DISTINGUISHED SERVICE AWARD

The Michigan Section of the Mathematical Association of America is pleased to recognize Robert A. Messer, Professor of Mathematics, Albion College, as the 2007 recipient of its Distinguished Service Award. We gratefully acknowledge the many contributions he has made over the years both to our Section and to the larger mathematical community.

Bob has a long history of service to the Michigan Section. As Director of the Michigan Mathematics Prize Competition, he oversaw the production, distribution, and grading of one of the nation's oldest exams. As co-founder and Head Coach of the Michigan All Star Mathematics Team he gave a generation of Michigan's brightest mathematics students the chance to work together in training for the annual ARML Competition.

Bob has also served the larger mathematics community as an author, a reviewer, and a consultant for the National Science Foundation and the Advanced Placement Calculus Program. In the late 1980's he joined mathematicians from a consortium of twenty-three liberal arts colleges in the Midwest to produce a set of resource materials for calculus as part of a five-year calculus reform project funded by the National Science Foundation. He is the author of two beautiful books, *Linear Algebra: Gateway to Mathematics* and *Topology Now!*

Bob joined the faculty at Albion College in 1981 and has served as Chair of its Department of Mathematics at several different times. During his most recent tenure in this capacity, from 1997 to 2002, he oversaw the establishment of the Quantitative Academic Skills Center.

For his many years of dedicated service and outstanding leadership, the Michigan Section is proud to present the

2007 DISTINGUISHED SERVICE AWARD

to

Robert A. Messer

**Award for
Distinguished College or University Teaching of Mathematics
Presented to
Eddie Cheng**

The Michigan Section of the Mathematical Association of America is pleased to announce that Professor Eddie Cheng of Oakland University has been selected as the 2007–2008 recipient of the Award for Distinguished College or University Teaching of Mathematics. Dr. Cheng has been at OU since 1997. Prior to that, he taught at Rice University as a Natural Science and Engineering Research Council of Canada Postdoctoral Fellow. He holds a bachelor's degree with honours from the Memorial University of Newfoundland and a master's degree and Ph.D. from the University of Waterloo. His research interests lie in combinatorial optimization, integer programming and network analysis. That he is a member of the editorial board of *Networks* and a Fellow of the Institute of Combinatorics and Its Applications speaks to this mathematical stature.

Dr. Cheng's classes are conducted in a participatory style where students go to the board to address questions that have arisen during classroom discussions. He is adept at putting his students at ease and in this he is aided by learning each of their names even with class sizes up to 60. One of his students wrote "I have always considered math to be my weakest subject. However, with the right teacher, anything is possible! I thought that you should know that my accomplishments are a direct reflection of your teaching abilities. I cannot thank you enough."

Dr. Cheng has been extremely active in supervising undergraduate research projects. One of these involved a mathematical model of the National Hockey League season that permitted the precise determination of when a team was unable to make the playoffs. This work was reported in *The Detroit News* and led to a publication. He has also had a tremendous impact at OU as a member of the Putnam Coaching Staff and through his central role in their Summer Mathematics Institute. As one of his colleagues expressed it "For Eddie, teaching and research are not separate parts of his job but rather are fruitfully interrelated."

Dr. Cheng's impact has extended well beyond campus. He is active in the Section's Visiting Lecturer Program and serves as the Director of the Michigan Mathematics Prize Competition. The impact that he has on his students persists well after they have left his mentorship. Consider that a Semifinalist in the 2004 Intel Science Talent Search named him "the one person who has been most influential in the development of my scientific career" and that he was notified by MIT that "each year we ask our newly admitted students to share with us the name of a teacher who has been especially influential in their development. It is a remarkable achievement and great honor to change a life, so we congratulate you on being so named this year." Amen.

**The MAA Michigan Section is proud to presents this Award to
Dr. Eddie Cheng.**

The Future of High School Mathematics New Priorities and Promising Innovations

James T. Fey, *University of Maryland*

Christian R. Hirsch, *Western Michigan University*

Harold L. Schoen, *University of Iowa*

Since the National Council of Teachers of Mathematics published the 1989 *Curriculum and Evaluation Standards for School Mathematics*, the 1991 *Professional Standards for Teaching Mathematics* and the 1995 *Assessment Standards for School Mathematics*, five major NSF-funded curriculum projects have developed and field-tested materials to support high school mathematics programs that reflect the recommendations of those widely acclaimed advisory documents. At the same time, innovative curriculum projects focused on middle school mathematics have developed programs that provide students with enhanced preparation for success in high school mathematics. Activities at the collegiate level, like the MAA Curriculum Foundations Project and the AMATYC Beyond Crossroads recommendations, have encouraged reconsideration of curriculum content and teaching that students will experience when they leave high school.

Now several major high school curriculum projects (CPMP, IMP, SIMMS, UCSMP, and CME/EDC) are completing new versions of innovative texts that reflect learning from wide use of first-edition student and teacher materials. At the same time, the American Diploma Project, the College Board Mathematics and Statistics Advisory Committee, and the American Statistical Association have disseminated major policy recommendations about goals for high school mathematics.

Efforts to reshape the content and teaching of high school and early college mathematics are motivated by at least four major changes in the outcome expectations and background conditions for mathematics education.

- Increasing mathematization of work in fields outside the traditional physical science clientele for mathematical methods has expanded the scope of required mathematical preparation to include substantial topics in statistics and discrete mathematics and to serve a much larger fraction of the high school and college population.
- Changes in the working environments where quantitative reasoning and problem solving are applied have highlighted the importance of developing student ability to work in collaboration with others and to communicate their thinking and results effectively.
- Insights from research on learning and teaching of mathematics have

given strong support for changing traditional lecture-based instruction to more student-centered teaching that engages students in learning through independent and collaborative mathematical investigations and problem solving.

- Emergence of powerful numeric, graphic, and symbolic computing tools and dynamic visualization tools have made new approaches to learning and applying traditional mathematical topics both feasible and attractive.

The major curriculum development projects that have been operating at the high school and early college levels over the past 15 years have taken a variety of approaches to the challenges and opportunities of rethinking the content and teaching of mathematics to serve new clients in new conditions. However, there is remarkable agreement on fundamental principles. Furthermore, we now have experience with extensive field tests of the innovative mathematics curricula that enables informed consideration of future directions for change in traditional content and teaching. The aims, experiences, and lessons learned by the Core-Plus Mathematics Project provide an interesting case study.

The Case of Core-Plus Mathematics

In 1992 a group of mathematicians, teachers, curriculum developers, and researchers met in Kalamazoo to design and begin development of student and teacher curriculum materials that would support approaches to high school mathematics consistent with the NCTM *Standards* recommendations and with the insights of other advisory groups concerned about the future of school and early college mathematics. Over a period of 10 years this group developed, field-tested, evaluated, and disseminated materials for a complete college-preparatory mathematics curriculum that would reflect the best of current thinking about mathematics and its teaching.

Across our field-test evaluation studies and those by others, a consistent pattern of mathematical learning has emerged. CPMP students perform better than students in more traditional programs on measures of conceptual understanding, mathematical thinking, interpretation of mathematical representations and calculations, and problem solving in applied contexts. At the same time, there is evidence that CPMP students are at least as well prepared for the SAT and ACT college entrance examinations as similar students in more conventional curricula. On measures of algebraic manipulative skills, the findings are mixed. For further details, see *The American Mathematical Monthly*, February 2003.

With the publication of the first edition of the Core-Plus Mathematics program (1997–1999), CPMP evaluators began a five-year longitudinal study to monitor students and teachers in three high schools that were using the curriculum with all students. Student performance on a variety of measures was tracked from grade 9 through their first year of postsecondary study or work.

To briefly overview the main findings, students who studied from Core-Plus Mathematics materials demonstrated levels of conceptual understanding and problem-solving competence at or above those of students who had used the field-test curriculum. Students using the published program also consistently scored as well or better on several measures of algebraic symbol manipulation as students at comparable stages in more conventional curricula. At the end of Course 3, CPMP students completed a TIMSS-based test of mathematical literacy and scored near the level of the highest scoring country internationally (the Netherlands). In their first college semester, when compared with students from more conventional high school mathematics programs, Core-Plus Mathematics graduates with similar high school mathematics backgrounds completed mathematics courses through Calculus II in various colleges and universities at similar frequencies and with similar success rates. For more details, see www.wmich.edu/cmpmp/longitudinalstudysummary.html.

A Second Edition

Over the past five years, the CPMP development team, with funding from the National Science Foundation, has been engaged in a major revision of the original Core-Plus Mathematics materials. The revision has been shaped by research on the program's effectiveness and by extensive feedback from teachers. A distinguishing feature of the second edition development process is the active engagement of mathematicians (Deborah Hughes Hallett, Steve Maurer, William McCallum, Robert Megginson, Doris Schattschneider, and David Smith) and a statistician (Richard Scheaffer) in the design and review of revised units for each course.

As with the first edition, Core-Plus Mathematics courses are organized around interwoven strands of algebra and functions, geometry and trigonometry, statistics and probability, and discrete mathematics. Those mathematical strands are developed each year in coherent, focused units that are connected by fundamental ideas such as function, symmetry, and data analysis, and by mathematical habits of mind such as visual thinking, recursive thinking, searching for and explaining patterns, and providing convincing arguments and proofs. Key ideas and techniques are developed by engaging students in active investigation of realistic problems, mathematical modeling, and problem solving. Graphing calculators and computer software are used throughout as problem solving and learning tools.

The second edition improvements include:

- an accelerated introduction of algebraic reasoning and technique;
- more explicit development of symbol sense—connecting algebraic forms to numeric, graphic, and context interpretation and implications;
- earlier introduction of inverse functions and logarithms;
- a reorganized development of important geometric ideas, including increased

use of coordinate methods and earlier and more explicit development of geometric reasoning and proof;

- sharpened focus of investigations leading to student articulation of general mathematical principles and strategies;
- expanded use of technology including new CPMP-Tools software;
- review and skill practice in each homework set.

As part of our development work, we are creating and testing a suite of public domain Java-based software tools to support student work in algebra, geometry, statistics, and discrete mathematics both in and outside of school. CPMP-Tools includes a computer algebra system, a spreadsheet, and tools for interactive geometry, data analysis, and discrete mathematics investigations. CPMP-Tools for Courses 1 and 2 are available at www.wmich.edu/cmpmp/CPMP-Tools. The software can be used online or downloaded to a computer desktop. Faculty at several universities are currently exploring the use of this software in their teacher preparation programs.

Second edition Course 1 and Course 2 texts have been published. The Course 3 text is in press. Course 4 units are now being refined based on our field tests. A description of the units and topics in each second edition course can be found at www.wmich.edu/cmpmp.

Looking Ahead

The Core-Plus Mathematics Project work has consistently aimed at providing materials whose content and implicit teaching philosophy will prepare students for successful future mathematical studies and work, as those futures have been projected by thoughtful recommendations from curriculum advisory groups like the NCTM *Standards*, the MAA Curriculum Foundations Project, the several calculus reform initiatives, and most recently the College Board. A variety of studies suggest that the final published version of our materials generally leads to quite acceptable results on a variety of student learning criteria, and the focused revisions in the second edition appear to be even more effective. We are currently in contact with researchers in the field in an effort to stimulate a program of independent evaluations of the published second edition materials. Students who have completed a four-year high school mathematics program based on the published second edition will begin to arrive on college campuses in Fall 2011.

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American Mathematical Association of Two-Year Colleges (AMATYC).

(2006). *Beyond Crossroads: Implementing Mathematics Standards in the First Two Years of College*. Available from www.beyondcrossroads.com/doc/PDFs/BCAll.pdf.

American Statistical Association. (2007). *Guidelines for Assessment and Instruction in Statistics Education (GAISE)*. Available from www.amstat.org/education/gaise.

51st Annual MMPC

The 51st Annual Michigan Mathematics Prize Competition is underway. **Eddie Cheng** (OU) is the Director of the 49th, 50th, and 51st MMPC. All information related to the MMPC is posted at the MMPC Web site, www.math.oakland.edu/MMPC/mmpc.html.

About 190 schools and 8,000 students participated in Part I, which took place on Wednesday, October 10, and results have been tabulated. Part II is completed and invitations will be extended to approximately 1000 students to participate in Part II on Wednesday, December 5.

The exam committee of **Akalu Tefera** (Chair, GVSU), **Lazaros Kikas** (UDM), **Ada Cheng** (Kettering), and **Jennifer Zhao** (UM-Dearborn) has worked very hard in preparing Part I and Part II.

Grading Day is Saturday, January 19, 2008 on the campus of Oakland University located in Rochester.

Directions, problems, solutions, and assignments will be posted on our Web site. Teams of 10 to 12 people will work on each of the five problems of Part II. This is our tentative schedule:

8:30 a.m. – 8:55 a.m. Welcome and Refreshments

9:00 a.m. – 12:30 p.m. Grading (Executive Committee Meeting)

12:30 p.m. – 1:30 p.m. Lunch

Discuss this event in your department and come as a group to enjoy this important and fun project of the Michigan Section of the MAA. Send the names of those who are able to attend Grading Day to the Director (echeng@oakland.edu).

We are in the process of inviting speakers for the Awards Day (tentatively scheduled on February 23, 2008). Awards Day presentations and banquet will be held on the campus of Oakland University.

Eddie Cheng, OU

Upper Peninsula Regional Conference

The annual Upper Peninsula Regional Meeting, co-sponsored by the Section, was held at Northern Michigan University October 5 and 6. The program consisted of two invited plenary talks and twelve shorter contributed talks.

For the first time ever, it was necessary to hold parallel sessions for an hour to accommodate all of the contributed talks. The attendance on Friday afternoon was about 50 and on Saturday morning about 25. The Friday attendance was larger because a Northern calculus class attended to hear the invited talk by **Randall Pruim**, Past Chair of the Section, who spoke about the infinitesimal approach to calculus. (This class is learning calculus using this approach, which motivated the thought of the pioneers of calculus, but was not made rigorous until the twentieth century, yielding the field of rigor to the epsilon-delta approach.) In the other plenary talk on Saturday morning, **Donald Saari**, Distinguished Professor at the University of California-Irvine and Upper Peninsula native, spoke on planetary motion and work he and a student of his have done on the n -body problem. Next year's meeting will be at Lake Superior State University at a date yet to be determined.

Roxin Zhang, NMU

John Kiltinen raised the cultural level of the Section to new heights at the Annual Meeting by writing the lyrics to, and leading the singing of, musical accompaniments to the presentation of the Distinguished Teaching and Service Awards. The lyrics are reproduced below and on page 25. John retired in 2007 after 36 years at NMU.

Hail to Our Friend, Bob Messer

(Sung to the tune of the Univ. of Mich. Fight Song)

Hail to our friend Bob Messer,
We love him more, not lesser,
He's, he's the pride of Albion,
And our honoree.
He led the M. M. P. C.,
Has coached our team for ARML,
Hail, hail this stalwart servant,
Don't we all agree!

High School Visiting Lecture Program

The High School Visiting Lecture Program is a long-standing program organized by the Section that offers high school students and teachers throughout Michigan the opportunity to connect with college and university faculty and other mathematics professionals. Though it is a wonderful program, in recent years, due to lack of awareness, the number of visits to high schools has declined. This year we are seeking to revitalize this program by updating our Web site, calling for new speakers, and pursuing more awareness of the program in Michigan high schools.

The topics that mathematicians share with schools include alternate geometries, careers in mathematics, the mathematics of voting, recreational mathematics and topics in areas such as chaos theory and applied mathematics. A new speaker this year, **Chris Cartwright** from LTU, is also offering to give one lecture on how calculators work and another on the Millennium problems. These topics illustrate two of the extremes for the topics available for discussion: what can you as a student do now with mathematics and what may you be able to do with further study. When asked about HSVLP, **Matt Boelkins** from GVSU replied, "HSVLP is a great way to promote the cause of mathematics and encourage students to study more of it in college. I think a great idea is to give a talk that includes some information about possibilities for further study and careers to attract more students to our discipline."

We are always looking for new speakers and talks of interest to students with a solid background in high school mathematics. All mathematicians who are interested in giving presentations to a high school audience are encouraged to participate. The updated list of speakers will be available soon on the Section Web site and we invite you to include your name and abstract. Speakers volunteer their time and can have their travel expenses reimbursed through the HSVLP. Funding is provided by the Michigan Mathematics Prize Competition.

In addition, please encourage any high school teachers you may know to take advantage of the program. It is important that we increase awareness of this program. There is no charge to them for this service and teachers can apply directly from the Web site. Teachers are encouraged to select speakers who are relatively close, but there have been speakers who have traveled great distances to share their love of mathematics with the next generation. Sharing an anecdote about HSVLP, **Jerry Grossman** (OU) recalled, "When I went to give a talk to a rural school in the Traverse City area, the teacher explained that she viewed her students as 'at risk' because of their isolation from the cultural heart of the state. She really appreciated the opportunity

to expose her students to more than what was in the textbooks." If you are interested in taking part in this program, please visit the Web site or contact one of the co-directors.

Brian Snyder and Kimberly Muller, LSSU

Michigan Undergraduate Mathematics Conference

On Saturday, October 27, Michigan State University hosted the Joint Tenth Annual Michigan Undergraduate Mathematics Conference (MUMC) and the Midwest Systems Biology Conference. There were approximately 210 faculty and students in attendance from different colleges, universities and research centers across the nation. Of these 150 were MUMC participants.

For the MUMC part, seventeen students made oral presentations and a group of four students gave a poster presentation. The topics of the presentations covered a variety of areas in the mathematical sciences such as group theory, dynamical systems, statistics, graph theory, and mathematical biology.

In addition to the student talks, presentations were given about various graduate programs in mathematics and statistics as well as REU opportunities

See MUMC on page 32

A UNIQUE PhD

in Applied Mathematical Sciences.

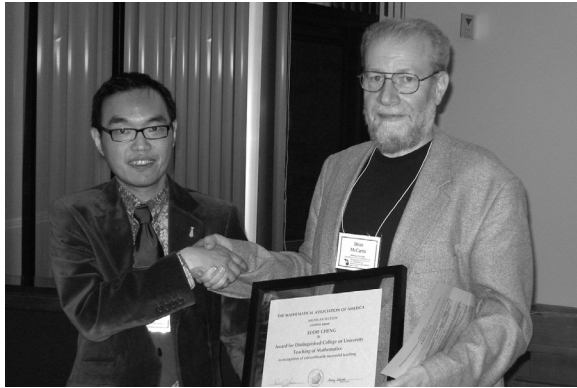
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- Other Degrees: MA, MS in Applied Statistics, and MS in Industrial Applied Mathematics.

Oakland University

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Annual Meeting at University of Michigan-Dearborn, May 4–5, 2007



Brian McCartin (r.) presents the Distinguished Teaching Award to Eddie Cheng.



John Fink (r.) presents the Distinguished Service Award to Robert Messer.



Ron Solomon, on the classification of finite simple groups.



Doris Schattschneider spoke Saturday morning.



Richard Hill speaking at Friday luncheon.



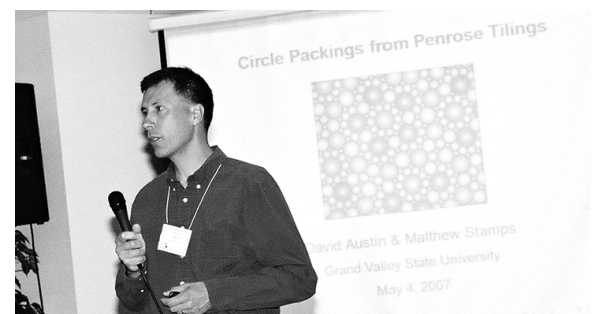
Anna Spagnuolo spoke at Saturday luncheon.



Retiring governor Ruth Favro passes the "baton" of office to Bette Warren.



Sid Graham chats with Awards Banquet speaker Joe Gallian at the Social Hour.



David Austin spoke Friday morning on circle packings from Penrose tilings.

Contest News

During the 2006–2007 academic year, 9,002 Michigan students participated in the American Mathematics Competitions (AMC)—6,310 students from 80 schools in the AMC8 and 2,692 students throughout Michigan in the AMC10/12. Due to the massive Michigan public school cold weather closings on the AMC 10/12A test day, both the number of total students participating in AMC 10/12 and the number of students qualified for the subsequent AIME dropped dramatically. However, the number of qualifiers for the USAMO (the next higher level test after AIME) increased by one. This was largely due to the efforts of **Dr. Khetan** of ICAE, who, following the special instructions of **Steven Dunbar**, the AMC National Director, offered AMC 10/12A to every student who requested it.

Among the 28 Michigan AMC winners, eight received perfect scores on the AMC8 and two did so on the AMC10. Further, 242 students qualified for the AIME (American Invitational Mathematics Examination), 19 further qualified for the USAMO (United States of America Mathematics Olympiad), and one (**Kevin Wu** from Cranbrook) qualified for MOSP, the Mathematical Olympiad Summer Program. Of the five 2006 middle school Edith May Sliffe Award winners in Region 4 (Indiana, Michigan, and Ohio), three are Michigan teachers: **Margaret Chyh-lin Hom** of Boulton Park Middle School (Troy), **Jan Michael Janigian** of Hillside Middle School (Northville), and **Frank Walter Sikorski**, Smith Middle School (Troy).

Following our tradition of recognizing the achievements of the AMC winners, their teachers, and their parents, two celebrations were planned. The reception with the Governor was not possible, but Governor Granholm instead issued certificates to the winners. The Awards Ceremony was held on September 18 at UM-Ann Arbor, with **Brian Conrad** presenting a lecture on the construction of the regular 17-gon.

These events were funded by the AMC, sponsored by the Department of Mathematics at UM, Wolfram Research, and the Art of Problem Solving Foundation. Some of the AMC winners are pictured on the facing page.

Three Michigan college students were honored by the Section for their outstanding performances on the 2006 William Lowell Putnam Examination. They were **Timothy Heath** (40 points, rank 140), **David Benjamin** (34 points, rank 180.5), and **Jeff Madsen** (31.9, rank 189.5), all students at UM-Ann Arbor at the time of the exam.

The 2007 American Regions Mathematics League (ARML) competition took place on June 2nd on the campuses of the University of Iowa, Pennsylvania State University, and the University of Nevada at Las Vegas. A total of 117 teams of 15 students each represented various regions of the

United States and Canada. Teams from five foreign countries, Taiwan, the Philippines, Turkey, Bulgaria, and Colombia, competed in the first ever ARML International competition.

Thirty-four students boarded the bus for Iowa City on June 1st. They competed in two teams of 15 each, the Michigan Reals and the Michigan Naturals, with four students on an Alternate team with students from other states. The Reals placed 10th out of 37 teams in Division A, and won the Iowa site award as the top A team at Iowa below the top 7 teams nationally. The Naturals finished 24th out of a large field of 80 in Division B, and the Alternate team was 49th with only 12 members. The contest consists of four parts: Team problems, 20 minutes for 10 problems; Power problem, one hour for a sequence of related problems requiring proof; Individual problems, eight problems, 10 minutes for each group of two; and the Relay, short problems requiring a number to be passed back to the next team member. Groups of three get six minutes to complete each of two Relays. A tie-breaker round is held for ties for the top score in the individual round.

The coaches were **Ruth Favro**, LTU, **Ada Dong**, ICAE, and **Chris Cartwright**, LTU, with help from **Mike Bolt**, Calvin C. Assistant coaches were **Jeff Madsen**, **Kevin Dilks**, **Fred Sala**, and **Dan Echlin**, all from UM-Ann Arbor.



Michigan AMC winners pictured (l. to r.). First row: Robin He, Sai Namuduri, Nicholas Triantafillou, Brian Conrad, Andrew Jeanguenat, Philip Hu, Di-sha Bora. Second row: Andy Zou, Surya Nagaraja, Sudharshan Mohanram, Saurabh Pandey, Alan Huang, Nicholas Fireman. Not pictured: Lajari Anne, Raghav Subramaniam, Perry Zong, Michael Dimattia, Neil Gurram, Randy Jia, Roger Jia, Paul Lewis, Mason Liang, David Sherman, Matthew Vengalil, Kevin Wu, Allen Yuan, Mo Zhou, Sunil Agarwal, James Scott.

Nominations Sought for Awards and Offices

Nominations for the seventeenth (2008) Award for Distinguished College or University Teaching of Mathematics from the Michigan Section of the Mathematical Association of America are now being accepted. The Distinguished Teaching Award Committee will choose one of the nominees for the Section Award.

The awardee will be honored at the Spring meeting of the Section and will be widely recognized and acknowledged within the Section. The awardee will also be the official Section candidate for the national MAA Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics. Each of the three national awardees will be honored at the national MAA meeting in January 2009 and receive a \$1000 check and certificate. The Section awardees for the past three years, **Ted Sundstrom** (GVSU), **Tim Carroll** (EMU), and **Eddie Cheng** (OU), form the selection committee (see page 35).

Anyone (other than the candidate him/herself) is entitled to make a nomination, but nominations from chairs or MAA liaisons are especially encouraged. Any college or university teacher 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) is eligible, provided he or she has at least seven years teaching experience in a mathematical science and is a member of the MAA.

The nominees should be widely recognized as extraordinarily successful in their teaching (interpreted in its broadest sense), have documented teaching effectiveness, have had influence in teaching beyond their own institutions, and foster curiosity and generate excitement about mathematics in their students.

Please send your nominations in triplicate to Ted Sundstrom, Department of Mathematical Sciences, Grand Valley State University, Allendale, MI 49401. Deadline for completed dossiers is January 1, 2008. Nomination forms can be found at www.michmaa.org/awards.html.

Nominations are also now being solicited for the Michigan Section's Distinguished Service Award. Please submit your nominations by January 14 to **Randy Pruim** (Calvin C); see contact information on page 35.

In addition, as Past Chair, Randy also chairs the Nominating Committee for Section officers and would appreciate suggestions (by January 5) for future Section leaders (this includes self-volunteering). We need to elect a Chair and two Vice Chairs (two-year school and four-year school) to one-year terms.



$$X,[Y,Z]]+[Y,[Z,X]]+[Z,[X,Y]]=0$$

Western Michigan University



The Department of Mathematics, Western Michigan University, consists of 37 full-time faculty members with specialties in many areas of mathematics and mathematics education, with about 40 graduate teaching assistants and doctoral associates. Western Michigan University is located in beautiful Southwestern Michigan, midway between Chicago and Detroit, near Lake Michigan.

Degree Programs The Department offers a variety of graduate programs tailored to meet the wants and needs of our graduate students. We offer Ph.D.s in Mathematics and Mathematics Education; and Master's degrees in Mathematics, Applied Mathematics, and Mathematics Education. Graduate students receive individualized attention and encouragement from professors committed to maintaining the highest standards in research and teaching.

Financial Assistance The Department offers several forms of financial assistance. Stipends range from \$10,662-\$16,455. Additional summer support may be available. Currently all supported doctoral students and master's students receive tuition waivers. Fellowships are also available through the Center for the Study of Mathematics Curriculum and the Core-Plus Mathematics Project. These stipends range from \$18,000-\$26,000. Applications are due by 15 February 2008. Late applications are accepted as long as openings remain. For additional information, please contact:

Maryann Bovo,
Graduate Secretary
Department of Mathematics
Western Michigan University
Kalamazoo, MI 49008-5248

Phone: (269) 387-4512
Fax: (269) 387-4530
E-mail: maryann.bovo@wmich.edu
Web site: www.wmich.edu/math

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News from the Campuses

Adrian College [reported by Elizabeth Lamprecht]

Adrian C has hired two new Assist. Profs. **Weiqun Zhang** has a Ph.D. from the U of Wisconsin Milwaukee. His areas of specialty are numerical analysis and scientific computing. **Alia Khurram** is completing the Ph.D. degree at Southern Illinois U at Carbondale. Her specialty is numerical analysis. In addition, the college has hired a Visit. Inst. in Mathematics for the 2007–2008 academic year. **Justin Witt** has an M.S. degree in Mathematics from Middle Tennessee State U. His primary interest areas are algebra and combinatorics. [elamprecht@adrian.edu]

Albion College [reported by Robert Messer]

We welcome **David Anderson** and **Nadiya Potsepun** as Visit. Assist. Profs. • **Darren Mason** is on sabbatical leave at the U of Minnesota this year. **Mark Bollman** is on sabbatical leave in Michigan for the Fall semester. • **Robert Messer** has taken early, early retirement from Albion. • **Paul Anderson** is planning a leave of absence; he will be visiting the Department of Probability and Statistics at MSU for three semesters starting in January 2008. [Ram@albion.edu]

Andrews University [reported by Don Rhoads]

Assoc. Prof. **Joon Hyuk Kang** received “Continuous Appointment” (Andrews’ equivalent for “tenure”). [dhr@andrews.edu]

Calvin College [reported by John Ferdinands]

At the end of the Spring semester of 2007, **Daryl Brink** and **Jim Bradley** retired from the department. Daryl had served for 33 years, and Jim for 21 years. • We welcomed three new colleagues this year. **Todd Kapitula** joined us from the U of New Mexico, **Amy Moore** from Albion C, and **Marilyn Myers** from Queens U, where she recently completed a Ph.D. • **Chris Moseley**, who spent Spring 2007 as a Visit. Prof. at the U of Hawaii, returned to Calvin in the Fall. • The Department hosted two conferences last summer. The 24th Workshop in Geometric Topology, organized by **Gerard Venema** with help from student **Laura Feys**, was held in June. Funds were provided by an NSF grant subcontracted to Calvin C. In July, **Jim Bradley** and **Gary Talsma** ran a workshop for teachers of mathematics at Christian schools. • **Mike Bolt** has been awarded a 3-year grant by the NSF for research in complex analysis. The grant includes funding to support students doing summer research. • Gerard Venema has been elected by the MAA Board of Governors as the next Associate Secretary of the Association. He will be Associate Secretary Elect in 2008, and will begin his 5-year term as Associate Secretary in January 2009. [ferd@calvin.edu]

Central Michigan University [reported by Sid Graham]

Tom Miles and **Rich Fleming** retired at the end of the Spring 2007 semester. Both are former CMU department chairs and former MAA Michigan Section chairs.



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Hail to a Cheng named Eddie

(Sung to the tune of the Univ. of Mich. Fight Song)

Hail to a Cheng named Eddie,
In front of class he's steady,
In, in his OU classroom,
Seldom they're bored,
Pride of our noble Section,
Nearest teaching perfection,
That's why he has been giv'n,
Our top teaching award.

• **En-Bing Lin** (applied and computational mathematics) is a new Prof. and Department Chair. He joined our faculty from the U of Toledo. **Tibor Marcinek** (mathematics education) is a new Assist. Prof. **Matt Briggs** (statistics) is a new visiting faculty member this year, and **Tammy Nitzke** is a new temporary instructor. **Doug Lapp** and **Jungswyan Sepanski** were promoted to Prof. **Lisa DeMeyer** received tenure. She also won the College Distinguished Teaching Award. • **Mike Bolt** (Calvin C) gave a colloquium on visualization in complex analysis. [sidney.w.graham@gmail.com]

Eastern Michigan University [reported by Tim Carroll]

John Ginther retired. • **Steve Blair** and **Ron Carlson** are new faculty. [tcarroll@emich.edu]

Grand Valley State University [reported by Paul Fishback]

Ed Aboufadel is now department chair, replacing **Steve Schlicker**, who served in that role the past six years. • **Steve Blair**, **Reva Kasman**, and **Matt Wyneken** have resigned from their positions. **Manish Chakrabarti** has taken a leave of absence. • **Ted Sundstrom** and **Gary Klingler** are taking sabbaticals during the current academic year. **Akalu Tefera** has returned from a year-long sabbatical at MIT. **Firas Hindelah** has joined the department as a postdoctoral teaching fellow. **Charles Brian Crane**, **Karen Fonkert**, **Tae-Wan Park**, **Darren Parker**, and **Okan Tekman** have all joined the department in visiting positions. • Eight students participated in the 2007 GVSU Summer REU program, with two of the students receiving awards at MathFest. **Will Dickinson**, **Filiz Dogru**, **Jon Hodge**, and **Steve Schlicker** served as faculty advisors. The department will be hosting its REU program again this coming summer of 2008, with Ed Aboufadel, Steve Schlicker, **Matt Boelkins**, and **Jon Hodge** serving as mentors. More program information can be found at www.gvsu.edu/mathreu. • Math-In-Action will be held on Wednesday, February 27, 2008. This year's theme is Practical Resources for Real Classrooms, with **Glenda Lappan** delivering the keynote address. Conference organizers are **Jon Hodge** (hodgejo@gvsu.edu) and **Nancy Mack** (mackn@gvsu.edu). For more details, see <http://gvsu.edu/math/MathInAction>. • The department looks forward to hosting the upcoming 2008 Michigan Section meeting May 2–3. [fishbacp@gvsu.edu]

Hope College [reported by Todd Swanson]

We are happy to welcome **Stephanie Edwards** to our Department. Stephanie received her Ph.D. from the U of Wisconsin. She most recently taught at the U of Dayton. • **Aaron Cinzori** is on sabbatical for the year. • The Department was recently awarded a 5-year NSF REU award. Students interested in participating in next summer's REU program are encouraged to visit the program's Web site at www.math.hope.edu/reu.html. [swansont@hope.edu]

Lansing Community College [reported by JingLing Wang]

The Mathematics and Computer Science Department is now offering Honors Calculus I and II. **Homa Ghaussi** is currently teaching the two courses. Also, we are in the process of developing another college algebra course. This new course is targeted to the students who may not later take the calculus sequence. **Dan Harned** is leading to this effort. [wangj@lcc.edu]

Lawrence Technological University [reported by Michael Merscher]

The 2007 Robofest World Championship, led by **C. J. Chung**, was held at LTU in April. This year a total of 1,413 students on 576 teams from five countries participated in Robofest. • The 38th Annual LTU Math Competition for High School students, authored by **Mike Merscher**, was won by **Sunil Agarwal** of Troy High School. [merscher@ltu.edu]

Northern Michigan University [reported by Roxin Zhang]

Carol J. Bell joined the Mathematics and Computer Science Department faculty in Fall 2007. Carol came to NMU from SUNY Cortland, New York. She earned a Ph.D. in mathematics education from the U of Texas at Austin, a M.S. from the U of Illinois at Urbana-Champaign, and a B.S. in mathematics and computer science from Bemidji State U. Her research interests include teacher preparation, students' understanding of mathematical proof, use of technological tools in teaching and learning mathematics, and history of mathematics. • **Akhtar A. Khan** joins the Department as an Assist. Prof. He received his Ph.D. degree in applied mathematics from MTU in 2005. He has a M.S. in industrial mathematics from Technological University of Kaiserslautern, Germany. Akhtar has worked as a researcher for three years at the Department of Applied Mathematics, University of Erlangen-Nuremberg, Germany. He has also taught for two years at the U of Wisconsin-Barron County. His areas of research interest include inverse problems, set-valued optimization, variational inequalities, and nonsmooth analysis. • After 36 years on the faculty, **John Kiltinen** retired in 2007. He got his Ph.D. in math from Duke University in 1967 and taught four years at the U of Minnesota before coming to NMU. From 1998 to 2001, he represented the Michigan Section on the Board of Governors of the MAA. • [rzhang@nmu.edu]

Oakland University [reported by Jerry Grossman]

Jerry Grossman is on a full-year sabbatical leave, during which he is working part-time as an editor at Mathematical Reviews, in charge of the papers in combinatorics and graph theory. **Barry Turett** is on a one-year leave of absence as a distinguished visiting professor at Miami U in Oxford, Ohio. **Jack Tsui** retired after 32 years at Oakland University. **Eddie Cheng** was promoted to Prof. **László Lipták** was promoted to Assoc. Prof. with tenure. • Anna Spagnuolo received an NSF grant. • We expect to conduct the thirteenth annual OU Summer Mathematics Institute next summer; see www.math.oakland.edu/ousmi.html for details. • The

Department of Mathematics and Statistics will host an eight-week REU summer research program, Computational and Numerical Statistics and Mathematics, for undergraduate students. The goal is to provide talented under-represented minority students with research experience and training in the computational aspects of the mathematical sciences. Ten students with majors in the sciences, engineering, and mathematics will be recruited from Michigan and other areas of the United States. Each student will work under initial close supervision with one or more of the six faculty mentors in an area of computational mathematics (medical simulations, engineering modeling, routing problems, computational algebraic geometry) or statistics (high throughput screening analysis), leading to independent work by the end of the eight-week period. [grossman@oakland.edu]

Saginaw Valley State University [reported by Tony Crachiola]

Amy Hlavacek received tenure. **Anthony Crachiola** and **Todorka Nedeva** were promoted to the rank of Assist. Prof. **William Vautaw** (Ph.D., MSU) joined the department as Assist. Prof. He comes to us from Southeastern Louisiana U. **Hamza Ahmad** posthumously received the Earl L. Warrick Award for Excellence in Research. [acrachio@svsu.edu]

University of Detroit Mercy [reported by John O'Neill]

The 45th Midwestern Graph Theory Conference was held at UDM on October 5 and 6, 2007. • The UDM Department will be hosting AMC 8 in November. [oneilljd@udmercy.edu]

University of Michigan-Ann Arbor [reported by Hugh Montgomery]

New faculty: **Volker Elling** (pde of gas dynamics), **Juan Souto** (geometry/topology). • New post-docs: **Xiaojun Chen** (topology/geometry), **Bin Cheng** (numerical analysis), **Cecilia Diniz Behn** (math biology), **Farkhod Eshmatov** (algebra), **Joel Fish** (diff. geometry), **Mohar Guha** (pde), **Jonathan Handy** (complex analysis), **Kenneth Harris** (logic), **Tatiana Howard** (topology), **Amanda Knecht** (alg. geometry), **Lina Lee** (several complex variables), **Zhi Lin** (applied math), **Carl Miller** (number theory/alg geometry), **Pavlo Pylyavskyy** (combinatorics), **Jack Waddell** (complex dynamics/math biology), **Katharine Walker** (diff. geometry), **Richard Yamada** (math biology). • Kudos: **Hyman Bass** has been awarded the National Medal of Science (the highest science award given by the U.S. Government); **John Stembridge** is a member of the team that computed the representations of the Lie group E_8 , which comprises about 60 gigabytes of data (the human genome is *only* about 1 gigabyte); **Sergey Fomin** and **Robert Lazarsfeld** have been named to Collegiate Professorships. **Robert Griess** as been elected to the American Academy of Arts and Sciences. **Mircea Mustata** has won a Packard Fellowship. **Selim Esedoglu** has won a Sloan Fellowship. UM alumnus **Stephen Smale** (BS 1952, Ph.D. 1957) has been awarded the 2007 Wolf Prize. UM alumna **Frances Allen** (M.A. 1957) won the 2006 Turing Award (which is thought of as the equivalent of a Nobel Prize in computer science). •



Profs. Steve Schlicker and Jon Hodge (GVSU) having lunch with part of the GVSU REU contingent during MathFest in San Jose: (l. to r.) Steve, Jennifer Lahr (student, U of St. Thomas), Hanna Komlos (student, Rutgers U), Jon, Daniel Guillot (student, Louisiana State U).

**University of Michigan
Biostatistics Department
MS, MPH, PhD Degree Programs**

Our department offers training in the development and application of statistical and mathematical methods to the design and analysis of biomedical research. We offer course work leading to the degrees of Master of Science, Master of Public Health, and Doctor of Philosophy. We have a large number of funding opportunities for our students including graduate student instructorships, graduate student research assistantships, training grants, scholarships, and fellowships. The faculty conduct cutting-edge research in bioinformatics, imaging, longitudinal data, missing data, survival analysis, statistical genetics, and many other areas. Our graduates have great job opportunities in fields such as government, industry (e.g. biotech, pharmaceuticals), medical research institutions, and universities.

For detailed information on our programs and to find out how to apply go to: www.sph.umich.edu/biostat.

For further information, please contact sph.bio.inquiries@umich.edu.

Call for Papers

The Michigan Section of the MAA and MichMATYC invite papers from students and faculty for the next combined Annual Meeting.

Grand Valley State University Grand Rapids, MI May 2–3, 2008

Abstract submission will be available at www.michmaa.org in early December 2007. Abstracts can also be e-mailed to Matt Boelkins at boelkinm@gvsu.edu or faxed to 616-331-3120.

Talks should be 20 minutes in length, including a few minutes for questions. Your abstract must include your name, affiliation, home or office address, phone number, e-mail address, and any equipment needs you have for your presentation. If you have any questions, please contact Matt Boelkins.

The deadline for abstracts is Friday, February 1, 2008.
Undergraduate abstracts may be submitted until March 28.

Abstracts received after the February 1 deadline will be considered as space permits, but may not appear in the advance program.

Deaths: **Robert Bartels** (9 September, 2006), **Tom Storer** (9 November, 2006). [hlm@umich.edu]

University of Michigan-Dearborn [reported by Margret Höft]

Roger Verhey has retired from the faculty. He continues to serve as the director of the Center for Mathematics Education. **Rheta Rubenstein** is taking a one-year sabbatical. **James Brown** is on sabbatical leave in the Fall term. **Nesrin Cengiz** is a new Assist. Prof. in mathematics education at the elementary level. She received her Ph.D. in Mathematics Education at WMU. [mhocht@umd.umich.edu]

University of Michigan-Flint [reported by Ken Schilling]

Shu-Yi Tu was promoted to Assoc. Prof. with tenure. Shu-Yi is spending her Fall semester sabbatical in Taiwan. • **Krista Hansen** was awarded UM-Flint's Distinguished Service Award. • **Zhen-Jun Shi**, of Qufu Normal University, and the team of **Jeff Boats** and **Lazros Kikos** of UDM delivered talks to the Mathematics Department Research Seminar. • The annual Greater Flint Educational Consortium Conference on Mathematics Education will be held at UM-Flint on November 20. The keynote speaker, **Pat Shure**, will speak on "Algebra for All". • Family Math Night will be held at UM-Flint on November 6. • The forty-first annual Math Field Day will be held at UM-Flint on February 26. [ksch@umflint.edu]

Washtenaw Community College [reported by Jim Egan]

The Department bids farewell and best wishes to **Janet Remen**, who retired this summer after 25 years teaching both mathematics and computer sciences. [JEgan@wccnet.edu]

Wayne State University [reported by Daniel Frohardt]

A new assistant professor is **Jing Shi**, Ph.D., 2001, Brown U (Advisor: **Chi-Wang Shu**, computational and applied mathematics) • A visitor this year is **Ualbai Umirbaev** (algebra), Ph.D., 1986, D.Sc., 1995, Novosibirsk, AMS Moore Prize, 2007. • **Daniel Isaksen** has been promoted to Assoc. Prof. and given tenure. • **Boris Mordukhovich** has received a WSU Board of Governors Faculty Recognition Award. • Sabbatical and other leaves: **Robert Berman**, 2007–08, **Robert Bruner**, 2007–08, **Daniel Drucker**, Winter 2008, **Tachen Liang**, Winter 2008, **Kay Magaard**, 2007–08, **George Yin**, Winter 2008. • **Stephen Williams** has retired effective Fall, 2007, after 38 years in the Department. **Gregory Bachelis**, who has been in the department since 1971 is also retiring. • **Lowell Hansen** will be stepping down as department chair at the end of this academic year, after eight years of service in this capacity. A search for his replacement is now underway. [danf@math.wayne.edu]

Western Michigan University [reported by Paul Eenigenburg]

Three recent Ph.D.s were awarded. **Nesrin Cengiz** (mathematics education, "What Allows Teachers to Extend Student Thinking During Whole Group Discussion?").

Nesrin is an Assist. Prof. at UM-Dearborn. **Ovidiu Furdui** (complex variables and analytic spaces, “The Fock Space and Related Bergman Type Integral Operator”). Ovidiu is a Visit. Assist. Prof. at U of Toledo. **Futaba Okamoto** (graph theory, “Measures of Traversability in Graphs”). Futaba is an Assist. Prof. at UW-LaCrosse. • **Jon Davis** is on a faculty exchange, trading places with **Valentina Aguilar** from the Universidad San Francisco de Quito in Quito, Ecuador. • **Jane-Jane Lo** was promoted to Assoc. Prof. with tenure. **Theresa Grant** was promoted to Prof. • **Chris Hirsch** received the MCTM 2007 Outstanding Achievement Award, which is “the highest recognition MCTM can bestow upon one of its members for significant contributions to mathematics education”. • **Allen Schwenk** received the MAA 2007 George Pólya Award for his article, “Distortion of Class Size: The Lake Wobegon Effect”, *The College Mathematics Journal*, vol 37, 2006. • Four projects were awarded grants: **Ruth Ann Meyer** and **Sandy Madden** (Dow Foundation), **Yuri Ledyae** (NSF), **Nil** and **Steve Mackey** (NSF), **Steve Ziebarth** et al. (NSF). • **Art White** was named to the Michigan State Advisory Committee to the U.S. Commission on Civil Rights. • The department is sponsoring a series of career talks: Sept. 21, **Daniel Dunlavy** (Sandia National Laboratories); Oct. 12, **Bob Campbell** and **Stacy Haizman** (Watson Wyatt Worldwide); Nov. 2, **Stephen Keeler** (The Boeing Company); Nov. 30, **John Aarsvold** (Atlanta VA Medical Center and Emory U). [paul.eenigenburg@wmich.edu]

MUMC continued from page 17
for Summer 2008.

Michael Waterman (U of Southern California) delivered the keynote address, entitled “Mathematics, Computers, and Genomes”. He shared the history of computational biology, bioinformatics, and biomathematics, including the first collections of protein and DNA sequences. He also described a computational and mathematical theme that appeared in the solution of a number of early sequence analysis problems in the subject and discussed some of the recent discoveries made about the human population resulting from having genomic sequence information, including race.

The MUMC part of the conference concluded with a math competition game where groups of students solved challenging problems from geometry, pre-calculus, calculus, algebra, and number theory. All students competing received some great prizes that were donated by sponsors of the conference.

A grant from the MAA Regional Undergraduate Mathematics Conference Program funded through the NSF was awarded to MSU to support the conference this year. This once again made it possible to have the conference “registration free”. A complete list of talks and sponsors is available at www.math.msu.edu/mumc.

Aklilu Zeleke, MSU

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<i>Editor</i>	Norman Richert	Math. Reviews	nrichert@ams.org	734-996-5254
<i>Assoc. Ed.</i>	Jerrold W. Grossman	Oakland U	grossman@oakland.edu	248-370-3443
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<i>Webmaster</i>	Scott Barnett (08)	Henry Ford CC	sebarnett@hfcc.edu	313-845-6496
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