



# Ohio Focus

The MAA Ohio Section Newsletter

Volume 9

Fall 2008

Number 1

## Fall Meeting at Capital University October 24-25, 2008

The Fall Meeting of the Ohio Section MAA will be held at Capital University in Columbus, Ohio, on October 24-25, 2008. The meeting will start with committee meetings at noon on Friday, with the first invited lecture at 1:30 pm in the Kerns Religious Life Center. The meeting will conclude on Saturday at 12:50 pm. Major addresses will be given by invited speakers **John Tynan** of Marietta College, **Susanna Epp** of DePaul University, **David Bressoud** of Macalester College, and **Wiebke Diestelkamp** of the University of Dayton. Other meeting participants are encouraged to submit talks for the contributed paper sessions on Friday afternoon and Saturday morning. CONCUR will also conduct a “swap session” of ideas for capstone and seminar courses during the contributed paper session. Graduate students in mathematics or mathematics education are especially encouraged to attend. A Friday evening banquet is planned as well.



Ruff Learning Center - Registration Location

### Meeting Registration

Visit the Section web site at [www.maa.org/Ohio](http://www.maa.org/Ohio) for one-stop registration, banquet reservation, and abstract submission. The deadline for meeting pre-registration and banquet reservations is **October 17**. Abstracts for contributed papers must be submitted by **October 10**.

On-site meeting registration is always available, but last-minute banquet tickets cannot be guaranteed. Early registration helps

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### MAA Launches Math Classifieds

The MAA has unveiled its new tool for both job seekers and prospective employers, [mathclassifieds.org](http://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

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## President's Message



As I write this message, the end of August is fast approaching and we are all preparing to begin another semester. My how time flies when you are busy and having fun. I have been doing both since I began my term as the President of the Ohio Section of the MAA. I assumed my new duties at the end of our excellent Spring Meeting held at Marietta College. As you know the Spring Meeting is full of extra excitement due to the many student participants. This year was no

exception. Thirty-one teams (89 students) participated in the student problem solving contest and over 30 students, representing 15 colleges and universities, gave 15 minute talks. CONSTUM also organized a Graduate School Panel to discuss options and answer questions about graduate school in Mathematics. Invited addresses were given by Carl Pomerance (Dartmouth College), Lew Lefton (Georgia Institute of Technology), and our own Bill Higgins (Wittenberg University). The Ohio Section Teaching Award was presented to Judy Holdener from Kenyon College. Congratulations, Judy!

The summer short course was held at Xavier University and was co-  
led by Danny Otero (Xavier University) and David Pengelley (New Mexico State University). Eleven participants attended this two and one-half day course entitled "Study the Masters: Using Primary,

Historical Sources in Teaching and Research." Danny Otero is to be commended for receiving a grant to help with the costs of this course. Many thanks to all the members of CONSACT for their continued efforts that enable our Section to offer great summer short courses.

The Executive Committee has been working on several tasks given to us by the MAA National Working Group on Sections (NWGS). We finalized our responses to these tasks during our summer planning meeting held at Ashland University in June. I attended my first MathFest at Madison, WI in August and many other Ohio MAA members were in attendance. During the session for Section Officers, I was able to present the Ohio Section's responses to our tasks from the NWGS. One of these tasks was to list five things the Ohio Section can do to support the National MAA. Our

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### Judy Holdener Receives 2008 Ohio Section Teaching Award

Judy Holdener of Kenyon College is the 2008 recipient of the Award for Distinguished College or University Teaching of Mathematics given by the Ohio Section. Teaching Award Committee member Tom Dence presented the award to Judy at the Spring 2008 Meeting of the Ohio Section.

Judy has a distinguished record of teaching and scholarship. She supervises high school teachers who teach Calculus, and also holds the Distinguished Teaching Chair position at Kenyon. It is her responsibility to organize campus activities that promote the discussion of excellent teaching among the university faculty. Judy is a national Project NEXt Fellow, and has served the Ohio Section by being a member of both CONSTUM and CONSACT.

Judy's students and colleagues wrote these comments in the application for the award:

"One day early this semester, Professor Holdener sat down and went through a list of 50 graduate programs with me. We spent a total of two hours discussing each school individually, until I had pared down the list to seven schools. Since then I have gone to her office several times worried about graduate school, and she has always been there to help. Professor Holdener has been open, accessible, and always helpful. I know without a doubt that

*(Continued on page 5)*



## Section Governor's Report

I have just returned from Math Fest in Madison, Wisconsin. Although I heard that 100 inches of snow fell there last winter, Madison is a lovely place to attend a summer meeting. The convention center, designed by Frank Lloyd Wright, is beautiful and provided a comfortable facility for Math Fest.

Once again it was nice to see Ohio students presenting, and winning awards, in both the MAA and Pi Mu Epsilon sessions. The invited talks were some of the highlights of the meeting. For example, Erik Demaine dazzled us with lectures about art, puzzles, origami, magic and algorithms. In the annual student lecture, John Conway gave a new look at crystallographic tilings. Christine Stevens presented the James Leitzel lecture, tracing the fifteen year history of Project NExT. She noted how involvement with Project NExT has encouraged new faculty to become involved in the activities of the MAA. Christine reminded us that we can see Jim's legacy by just looking around at any conference and noting the participation of the new faculty. The Ohio Section has also been invigorated by the participation of our NExTers. Some remember Jim Leitzel as a vital member of the Ohio Section. Jim was certainly one of the established leaders of the Ohio Section who encouraged me (forcefully, sometimes) to take on responsibilities within the Section.

While in Madison, I attended the MAA Board of Governors meeting. The Executive Committee of the MAA continues to work on strategic planning for the MAA in cycles. In response to the final report from Cycle II on governance, the

committee is proposing a realignment of standing committees and a change in some representation on the Board of Governors. No formal proposals have yet been presented to the Board. Cycle III groups started their work which will concentrate on STEM issues, Sections and Meetings, and Publications. To this end we had two breakout sessions to brainstorm on these issues. Many of you participated in the "dot" session at our spring meeting in Marietta. Similar sessions were conducted in other Sections and at Math Fest. This data will be part of the considerations for Cycle III.

The US team placed third at the 2008 International Mathematical Olympiad ([www.imo-2008.es/](http://www.imo-2008.es/)) in Madrid. Alex Zhai earned one of only three perfect papers ([www.imo-official.org/year\\_individual\\_r.aspx?year=2008](http://www.imo-official.org/year_individual_r.aspx?year=2008)). At Math Fest I had the opportunity to see "Hard Problems," a documentary on the 2006 IMO in Slovenia. It is a movie that you may want to share with your students.

I urge you to continue seeking ways to participate in Ohio Section activities. Vickie Van Dresar welcomes your input and your help on various committees. Plan ahead to attend the meetings, and invite your colleagues and students to join you. I look forward to seeing you in Columbus.

*Judith Palagallo*  
*Section Governor*



### OHIO FOCUS

The newsletter of the Ohio Section of the Mathematical Association of America, which first appeared in 1973, is published twice yearly in time to reach members before the fall and spring meetings. Newsletters are published electronically at [www.maa.org/ohio](http://www.maa.org/ohio). Notification postcards are sent using labels provided by the MAA.

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Deadline for the next newsletter is **February 2, 2009**. E-mail copy is preferred. Early submission is appreciated.

Please send copy to the editor (see above), and also to the Section Webmaster, Darren Wick, for posting on the web ([dwick@ashland.edu](mailto:dwick@ashland.edu)).

## Introducing Michael Henle, New CMJ Editor

In January of this year, I became editor-elect of *The College Mathematics Journal*. This warm-up year I've been kept somewhat busy examining new submissions to the journal. Already I've plowed through papers that claim to prove the impossibility of odd perfect numbers (several) and one that claimed to prove Fermat's Last Theorem in only 4 pages.

I have taught at Oberlin College for almost four decades. At this point I'm ready to declare that I am finally adjusted to being an Ohioan. So, as a long time Ohio resident, I would like to see more submissions to *The College Mathematics Journal* from Ohio authors, specifically members of the Ohio section of the MAA. These can be on any subject, as long as they are written in a lively and engaging manner and contribute something to the understanding of the mathematics that is normally taught to college undergraduates.

As an amateur photographer and also an amateur composer, with emphasis on *amateur*, I'd particularly like to see papers that relate mathematics to art or to music. These subjects are popular at the moment, and have the additional merit that students often can enjoy them as well as professional mathematicians. I'm also a big fan of the English novelist Anthony Powell. In *The Dance to the Music of Time*, Powell has his narrator, Nick Jenkins, write '... music holds for me none of that hard, cold-blooded, almost mathematical pleasure I take in writing and painting.' For consistency's sake, therefore, I must also request submissions to **CMJ** relating mathematics to literature.

Regardless of these preferences, I hope that *any* author with a question or concern about the suitability of their work for **The College Mathematics Journal**—whatever subject it is on—will feel free to email me at [cmj@oberlin.edu](mailto:cmj@oberlin.edu).

*Michael Henle*  
*Department of Mathematics*  
*Oberlin College*

## Student Team Competition Results

The fifth annual Student Team Competition was held during the Spring Ohio Section Meeting at Marietta College on Friday April 11, 2008. A total of 89 students participated, forming 31 teams and representing 18 institutions: Ashland University, Bowling Green State University, Capital University, Case Western Reserve University, Cleveland State University, College of Wooster, Denison University, Kenyon College, Malone College, Marietta College, Marshall University, Mount Vernon Nazarene University, Ohio Northern University, Ohio Wesleyan University, Shawnee State University, University of Findlay, Wittenberg University, Youngstown State University. The first place team, winning \$120, was Stephanie Cochrell, Rob Fraser, and David Kent, from Case Western Reserve University. The second place team, Anisha Babora, Jeane Pham, and Dias Ayubuyev from Ohio Wesleyan University, won \$60. The Marietta College team of Harrison Potter, Phil DeOrsey, Frances Bolden placed third, and won \$45.

Students, start planning to enter the Student Team Competition at the 2009 Spring Meeting at Bowling Green State University.

## Campus Notes

**Ashland University:** The Department of Mathematics and Computer Science welcomes Paul Cao as an Assistant Professor of Computer Science starting in Fall, 2008. Paul received his Ph.D. in electrical engineering from Duke University in May 2006, with his dissertation focusing on gene regulatory network modeling. Krista Hands is a 2008-2009 National Project NEXt Fellow. Chris Swanson is on senior study leave this year and is continuing as the Director of the Honors Program.

**Denison University:** Lew Ludwig has been promoted to Associate Professor with tenure, effective Fall, 2008.

**John Carroll University:** Tom Short joins the Mathematics and Computer Science department this fall. Tom is a John Carroll alumnus who earned his Ph.D. in Statistics from Carnegie Mellon and taught at Villanova and Indiana University of Pennsylvania before returning to JCU. Last spring, Jerry Moreno retired after 40 years on the faculty of JCU. Jerry has won a number of awards for excellence in teaching, including the Ohio Section Teaching Award.

**Otterbein College:** Otterbein welcomes three new colleagues this fall. Ryan Berndt joins us as an Assistant Professor with a Ph.D. from the University of Minnesota. His specialty is in harmonic analysis, and his thesis was *Singular Integrals with New Singularities*. Ryan taught previously at the Ohio State University, Kansas State University, and most recently at Yale University. Greg Oman joins us as a Visiting

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## 2008 Teaching Award

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she has changed my life for the better.”

“Judy is the single most gifted teacher with whom I’ve ever had the pleasure to serve. She is a complete natural, but is also meticulous and thorough in preparation for class. She is also a master of designing engaging and instructive projects. She challenges the students, but they enjoy the process so much it doesn’t feel like they are being pushed. This connection with students – combined with her prodigious mathematical insight – has made Judy the most sought after research advisor in our department. Within the past few years Judy has worked with students on projects as diverse as computer models of the gut of a worm, visualization of binary sequences as fractals, and the distribution of perfect numbers.”

“I have said that Judy is unusually successful at getting students immersed in the mathematics, so that what they do (not what she does) is the engine that drives her classes. Papers, projects, computer visualization and simulation, student presentations, independent research, design of web pages and scientific posters are all present in Judy’s teaching. She brings to the classroom the same intelligence and care and fire as the students have, but in her classes, it is the students who give the great performances. It changes them forever.”

(Adapted by the Editor from the teaching award citation written by Tom Dence on behalf of the Teaching Award Committee.)

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### Meeting Registration

(Continued from page 1)

those making the meeting arrangements and is always appreciated. On-site registration will be held on Friday afternoon and Saturday morning.

Meeting participants who are unable to register online at [www.maa.org/Ohio](http://www.maa.org/Ohio) may register by mail by sending the following information: name, affiliation, address, phone, e-mail address (if any), type of position, and banquet buffet reservation. Send with check, payable to Ohio Section MAA, for applicable fees [registration fee (\$25 ordinary registration, \$10 retired or part-time, no fee for students or first-time attendees), banquet buffet fee (\$24 per person)] to: Ohio Section MAA Fall Meeting, c/o Thomas Gearhart, Department of Mathematics, Computer Science & Physics, Capital University, 1 College and Main, Columbus, OH 43209-2394. Phone (614-236-6605), FAX (614-236-6518). Registration by FAX or e-mail will be pending upon receipt of registration fees.

### Ohio NExT Workshop

Ohio NExT (New Experiences in Teaching) is a program for new faculty in the mathematical sciences. Its goal is to help newer faculty to network with colleagues, to share ideas and experiences that promote professional growth, and to encourage faculty to become involved in the Ohio Section. Ohio NExT is open to anyone in the Ohio Section who is in his/her first five years of teaching in Ohio. If this applies to you, please consider joining us this fall for our NExT Banquet and Workshop, as well as the Ohio Section Meeting that follows. Contact Chris Swanson of Ashland University at [cswanson@ashland.edu](mailto:cswanson@ashland.edu) for membership information and details. The other co-coordinators of Ohio NExT are Wiebke Diestelkamp, University of Dayton ([wiebke@udayton.edu](mailto:wiebke@udayton.edu)) and John Prather, Ohio University Eastern Campus ([prather@ohiou.edu](mailto:prather@ohiou.edu)).

On Thursday evening, October 23, the night preceding the Ohio Section Fall Meeting, members of Ohio NExT will gather for a banquet beginning at 7:00 p.m. This is a great opportunity to meet old friends and make new ones. After the banquet, the NExTers will spend an hour or so discussing a topic related to the profession. The Ohio NExT workshop will continue on Friday morning, October 24. The program will feature workshops by David Bressoud, Professor of Mathematics at Macalester College and President-elect of the MAA, and Susanna Epp, Professor of Mathematics at DePaul University and author of *Discrete Mathematics with Applications*. There will also be two contributed talks by Ohio NExT fellows.

Barbara Margolius from Cleveland State University and Leo Schneider from John Carroll University presented the fifty-minute workshops at the Spring 2008 NExT workshop at Marietta College. Katie Cerrone (University of Akron) and Fabio Santos (University of Cincinnati) gave 20-minute talks. A total of 16 people (11 NExTers and 5 organizer/presenters) participated in the workshop.

## Math Classifieds

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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 Resumé - Job seekers now have the ability to post their resumé online. Whether actively or passively seeking work, an online resumé 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](http://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.

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## President's Message

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list consisted of the following: 1) Encouraging full participation of the Mathematics community to enhance the Association's mission through providing quality Sections meetings with student participation at Spring Meetings and providing quality summer short courses; 2) Being fiscally responsible and keeping accurate records; 3) Responding to activities requested by the Association; 4) Maintaining a quality website for our Section; and 5) Providing timely communication to our Section and the Association. We should be proud to note that the Ohio Section is already doing all of these items and plans to continue to do them with great success.

A new Centennial Committee was formed last year to begin planning for our big MAA Centennial Celebration in 2016. The MAA and the Ohio Section were both founded on December 31, 1915 and the Ohio Section held its first meeting in April 1916. All members of the Ohio Section are encouraged to update their department's history and make it available on their departmental webpage. If you have any suggestions for celebrating our

centennial, please forward them to any of the committee members.

During the summer months I contacted Section members about continuing or beginning committee assignments. We could still use a few more members on CONCUR and CONSACT committees. Please let me know if you are interested in serving on either of these committees so you can be appointed in time to meet with the committee during our Fall Meeting at Capital University in October. If you wish to serve on any of the other committees, I will be compiling a list of interested people for filling committee openings in the coming years. Committee membership is a great way to get more involved with the Section and "give back" a little for all the wonderful benefits we receive through our membership.

We have a great Fall Meeting shaping up for October 24-25, 2008, at Capital University. The Spring Meeting will be held April 3-4, 2009, at Bowling Green State University. Nominations for the Ohio Section Teaching Award are due January 1, 2009. Please see the call for nominations in this newsletter and consider nominating a deserving faculty member for the 2009 award.

I wish everyone the best as we begin another academic year and hope to see you at the Fall Meeting in October.

*Vickie Van Dresar  
Ashland University  
Section President*

### About Capital University



Founded in 1850, Capital University is a mid-size, comprehensive, private, church-related university of the ELCA (Evangelical Lutheran Church in America). The University offers a wide range of programs in an atmosphere of personal attention to students. With an enrollment of 4000 students, including 2000 traditional undergraduates, Capital is the largest institution in North America related to the ELCA.

## Fall Meeting Program

Events will take place in the Ruff Learning Center (RLC), the Harry Moores Campus Center (HMCC), the Kable Chapel in the Kerns Religious Life Center (KC), and Troutman Hall (TH).

The locations of these buildings can be found on the campus map on page 11.

### Friday, October 24

12:00-4:30	Registration	RLC Lobby
12:00-1:00	Committee Meetings:	HMCC
	CONCUR	Mtg Rm 1
	CONSACT	Mtg Rm 2
	CONSTUM	Schneider Lounge
	CONTEAL	Schuh Conf Rm
	Centennial Committee	TBA
1:00-4:30	Vendor and Book Exhibits	TBA
1:15-1:30	Welcome & Announcements	KC
1:30-2:30	<b>Invited Address:</b> "Answering One of Calculus' Most Boring Questions. (Math with Cosmo)" John Tynan Marietta College	KC
2:30-3:00	Break	TBA
3:00-4:00	<b>Invited Address:</b> "Linguistic Issues in College Mathematics Courses" Susanna Epp DePaul University	KC
4:10-6:05	<b>Contributed Paper Sessions</b>	RLC, TH
4:10-6:05	Executive Committee meeting	HMCC, Schuh Conf Rm
6:05-6:30	<b>Social time</b>	HMCC, Weiler Conf Suites
6:30-7:45	<b>Banquet</b>	HMCC, Weiler Conf Suites
7:55-8:35	<b>After-Dinner Talk:</b> "Proofs and Confirmations: The Story of the Alternating Sign Matrix Conjecture" David Bressoud Macalester College	HMCC, Weiler Conf Suites

### Saturday, October 25

8:00-10:15	Registration	TH Lounge
8:00-10:15	Vendor and Book Exhibits	TBA
8:00-8:50	Coffee and donuts	TH Lounge
8:05-8:40	Executive Committee meeting (if necessary)	HMCC, Schuh Conf Rm
8:50-8:55	Announcements	RLC Bridge
8:55-9:55	<b>Invited Address:</b> "On the Difficulty of Faking Data" Wiebke Diestelkamp University of Dayton	RLC Bridge
9:55-10:15	Break	TH Lounge
10:25-11:40	<b>Contributed Paper Sessions</b>	RLC, TH
11:50-12:50	Invited Address: "Calculus as a High School Course" David Bressoud Macalester College	RLC Bridge

*Event locations are subject to change. Check the official program you receive when you register for the meeting in the RLC lobby.*

*For additional  
meeting details,  
see pages 8-11.*

*Check the Section web page,  
[www.maa.org/ohio](http://www.maa.org/ohio),  
for updates, and online  
registration and paper  
submissions.*

**John Tynan**  
**“Answering one of Calculus’ Most Boring Questions.**  
**(Math with Cosmo)”**



We have all asked our students to determine the maximum area that can be enclosed using a fixed amount of fence and perhaps a barn, or a river (everyone knows cattle cannot go in the water), or the not quite as nice cliff (that the cattle do not want to fall off of). Countless times we have given full credit for the nice square answer and maybe even a rectangle twice as long as it is wide with the above mentioned barn as one side. But have we really thought about this question? Fortunately, the good people at KramERICA Incorporated have not only thought about this

question, they have asked for help from Calculus students from all over the world (or at least the tri-state area). Their answers may surprise you and will hopefully allow you to see this boring question in a new light.

**John Tynan** received his B.A. from Grove City College and his M.S. (1998) and Ph.D. (2002) from Ohio University. He then stumbled into a position at Marietta College where he has been ever since. A matrix theorist specializing in generalized inverses of non-negative matrices by trade, Tynan enjoys dabbling in Knot Theory. John is a national Project NExT Fellow. He lives in Marietta with his wife Tracy, their two daughters Fredley and Lynncoln and their Jack Russell – Beagle mix dogs Nikki and Leia.

**Susanna S. Epp**  
**“Linguistic Issues in College Mathematics Courses”**



Much of what we say and write in our mathematics classes assumes that

our students understand linguistic and logical conventions that have never been made explicit to them. What problems result from this assumption, and how can we address them?

**Susanna S. Epp** (Ph.D., University of Chicago, 1968) is Vincent de Paul Professor of Mathematical Sciences at DePaul University. After initial research in commutative algebra, she became

interested in cognitive issues associated with teaching analytical thinking and proof and has published a number of articles and given many talks related to this topic. She is the author of *Discrete Mathematics with Applications* and is co-author of *Precalculus and Discrete Mathematics*, which was developed as part of the University of Chicago School Mathematics Project. Long active in the Mathematical Association of America, she is a co-author of *CUPM Curriculum Guide 2004* and is now the content editor of *Illustrative Resources for CUPM Guide 2004*, an online supplement to the *Guide*. In January 2005 she received the Louise Hay Award for contributions to mathematics education.



**Wiebke Diestelkamp**  
**“On the difficulty of**  
**faking data”**

Most people have preconceived notions of randomness that often differ from true randomness. We will discuss examples that seem to contradict our intuition, as well as methods that can help to distinguish random from fake data. In particular, we will investigate the distribution of digits in certain data sets and show how it can be used to detect fraud.

**Wiebke Diestelkamp** studied at the Georg-August-Universität in Göttingen and the Universität Ulm before coming to the University of Wisconsin – Milwaukee, where she earned an M.S. and a Ph.D. in Mathematics. She joined the University of Dayton in 1998, and she is currently an Associate Professor of Mathematics. Wiebke is a national Project NExT fellow, and she has been an active Ohio NExT fellow as well. Wiebke became involved in the leadership of Ohio NExT when she became program co-chair in 2005 (with Chris Swanson). Since 2007, Chris Swanson, John Prather and Wiebke have been the Ohio NExT coordinators. Wiebke has also been a co-organizer (with Aparna Higgins) of Undergraduate Mathematics Day, a biennial undergraduate conference at the University of Dayton.



## David Bressoud

### “Proofs and Confirmations: The Story of the Alternating Sign Matrix Conjecture”

What is the role of proof in mathematics? Most of the time, the search for proof is less about establishing truth than it is about exploring unknown territory. In finding a route from what is known to the result one believes is out there, the mathematician often encounters unexpected insights into seemingly unrelated problems. I will illustrate this point with an example of recent research into a generalization of the permutation matrix known as the "alternating sign matrix." This is a story that began with Charles Dodgson (aka Lewis Carroll), matured at the Institute for Defense Analysis, drew in researchers from combinatorics, analysis, and algebra, and ultimately was solved with insights from statistical mechanics.



David Bressoud is DeWitt Wallace Professor of Mathematics at Macalester College and President-Elect of the Mathematical Association of America. He served in the Peace Corps, teaching math and science at the Clare Hall School in Antigua, West Indies, before studying with Emil Grosswald at Temple University and then teaching at Penn State for 17 years. He chaired the Department of Mathematics and Computer Science at Macalester from 1995 until 2001. He has held visiting positions at the Institute for Advanced Study, the University of Wisconsin-Madison, the University of Minnesota, Université Louis Pasteur (Strasbourg, France), and the State College Area High School.

David has received the MAA Distinguished Teaching Award (Allegheny Mountain Section), the MAA Beckenbach Book Award for *Proofs and Confirmations*, and has been a Pólya Lecturer for the MAA. He is a recipient of Macalester's Jefferson Award. He has published over fifty research articles in number theory, combinatorics, and special functions. His other books include *Factorization and Primality Testing*, *Second Year Calculus from Celestial Mechanics to Special Relativity*, *A Radical Approach to Real Analysis* (now in 2nd edition), *A Radical Approach to Lebesgue's Theory of Integration*, and, with Stan Wagon, *A Course in Computational Number Theory*. David's cousin, Tom Bressoud, teaches Computer Science at Denison University.

### “Calculus as a High School Course”

Over the past quarter century, 2- and 4-year college enrollment in first semester calculus has remained constant while high school enrollment in calculus has grown tenfold, from 50,000 to 500,000, and continues to grow at 6% per year. We have reached the cross-over point where each year more students study first semester calculus in US high schools than in all 2- and 4-year colleges and universities in the United States. There is considerable overlap between these populations. Most high school students do not earn college credit for the calculus they study. This talk will present some of the data that we have about this phenomenon and its effects and will raise issues of how colleges and universities should respond.

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## Call for Contributed Papers

Fifteen-minute presentations on any topic of general interest in mathematics or related areas are encouraged for the Contributed Paper Sessions on Friday afternoon and Saturday morning at the Fall Ohio Section meeting. Reports on projects, research announcements, or anything you believe would be of interest to those in attendance are welcome. Graduate students in Mathematics or Mathematics Education are strongly encouraged to submit talks. Contributors should send a title and brief abstract by October 10, 2008. Although online submission with your meeting registration is preferred, you may also submit your title and abstract by U.S. mail or e-mail to the Chair of the Program Committee: Jon Stadler, Department of Mathematics, Computer Science and Physics, Capital University, 1 College and Main, Columbus, OH 43209, [jstadler@capital.edu](mailto:jstadler@capital.edu). Please use only plain text in your title and abstract as the abstract submittal system cannot process TeX or other graphics code. Each presentation room will have a whiteboard or chalkboard, overhead projector, computer projector, and laptop connections. Presenters can either plug in their laptops to the overhead projection system or plug in a flash drive to the resident computer. If internet access is needed, please mark the appropriate box when submitting your abstract online. Speakers with specific questions about technology availability should contact Tom Gearhart, [tgearhar@capital.edu](mailto:tgearhar@capital.edu).

## Where to Stay

The map at the right shows the route between campus and the group of hotels on Airport Drive. The drive along Cassady Avenue between Airport Drive and East Main Street is about three miles.

### A. Staybridge Suites

2890 Airport Drive  
Columbus, OH 43219  
hotel phone: (614) 473-9888  
Group Code: MAA  
reservations phone: (877) 238-8889  
(Ask for special negotiated rate for MAA Group)  
reservations website:  
[www.staybridge.com/columbusohap](http://www.staybridge.com/columbusohap)  
(Enter MAA in the Group Code field)  
20 rooms reserved for Friday (10/24)  
rooms held until 9/24/08  
\$89 + tax for 1 queen bed and pullout sofa  
\$99 + tax for 2 double beds and pullout sofa

### B. Best Western Port Columbus

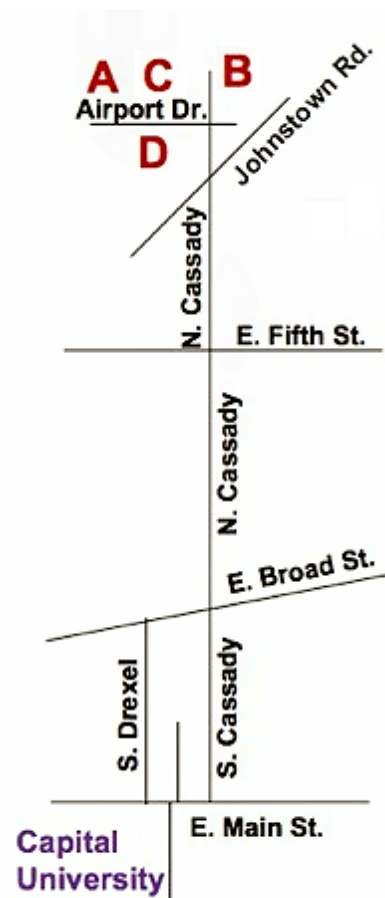
1450 Airpointe Drive  
Columbus, OH 43219  
hotel phone: (614) 337-8400  
Group Code: MATH  
reservations phone: same as hotel phone  
20 rooms reserved for Thursday (10/23) and/or Friday (10/24)  
\$79 + tax; rooms held until 10/3/08

### C. Country Inn & Suites by Carlson

2900 Airport Drive  
Columbus, OH 43219  
hotel phone: (614) 478-2900  
Group Code: MAA  
reservations phone: same as hotel phone  
20 rooms reserved for Thursday (10/23) and/or Friday (10/24)  
\$84 + tax; rooms held until 10/9/08

### D. Courtyard by Marriott Columbus Airport

2901 Airport Drive  
Columbus, OH 43219  
hotel phone: (614) 475-8530  
Group Code: MAAMAAA  
reservations phone: (800) 321-2211  
reservations website:  
[www.courtyardcolumbusairport.com](http://www.courtyardcolumbusairport.com)  
(Enter MAAMAAA in the Group Code field in the Optional Information section)  
20 rooms reserved for Friday (10/24)  
rooms held until 9/26/08  
\$99 + tax for 1 king bed



## Driving Directions

### From the North or South:

Travel I-71 to the Broad Street exit. Turn east (driving away from downtown) onto Broad Street and drive 2.5 miles to Drexel Avenue in Bexley. Turn right onto Drexel Avenue and continue south until Drexel ends in front of the campus at Main Street. Turn left (east) onto Main Street. At the next light, Pleasant Ridge Avenue, turn right (south).

### From the West

Travel east on I-70 to the Bexley/Main Street exit. Exit at Bexley/Main Street. The exit ramp automatically turns onto Alum Creek Drive, which will dead end at Main Street (in front of the Kroger store). Turn right (east) on Main Street. At the fourth traffic light, turn right (south) on Pleasant Ridge Avenue.

### From the East

Travel west on I-70 to the Livingston Avenue exit. Turn left (west) on Livingston Avenue. Turn right (north) at the first traffic light onto Alum Creek Drive. When Alum Creek dead ends in front of the Kroger store, turn right (east) on Main Street. At the fourth traffic light, turn right (south) on Pleasant Ridge Avenue.

### From the Northwest

Travel south on I-75 to Route 23. Follow Route 23 into Columbus and take I-270 east to I-71 South. Travel south on I-71 to the Broad Street exit. Turn east (driving away from downtown) onto Broad Street and drive 2.5 miles to Drexel Avenue in Bexley. Turn right onto Drexel Avenue and continue south until Drexel ends in front of the campus at Main Street. Turn left (east) onto Main Street. At the next light, Pleasant Ridge Avenue, turn right (south).

For additional local arrangements information, see <http://capital2.capital.edu/orgs/MAA>.

The local contact person at Capital University is Tom Gearhart, at [tgearhar@capital.edu](mailto:tgearhar@capital.edu), 614-236-6605.



### Where to Park

Conference parking will be available in the lots on both sides of Pleasant Ridge Avenue near the Moores Campus Center. A campus map is available on the web site. See the local arrangements web page (<http://capital2.capital.edu/orgs/MAA>) for a larger campus map.

## Call for Distinguished Teaching Award Nominations

The Ohio Section Teaching Award Committee encourages you to consider nominating a worthy colleague for the *2009 Ohio Section Award for Distinguished College or University Teaching of Mathematics*. A suitable candidate would be a member of the MAA-Ohio Section with at least five years of college-level teaching experience who is recognized as being an exceptional teacher.

To make a nomination you would need to complete a one-page nomination form, write a description of why you have chosen the particular individual to nominate, and solicit some recommendations from former students and colleagues of the nominee. Forms and other information are available at [www.maa.org/ohio](http://www.maa.org/ohio) under "Events."

The award will be announced at the Spring 2009 meeting, and appropriate publicity will be generated at the award winner's institution. The Award Committee will also forward the winner's file to the national MAA office to be the Section's candidate for the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. Three winners of the national award are selected each year from the nominees from the sections. Past winners of the Haimo Award have been the Ohio Section's **Aparna Higgins**, University of Dayton (2005) and **V. Frederick Rickey**, Bowling Green State University (1993).

The deadline for nominations is January 1, 2009. Please address inquiries and/or nominations to the Committee chair, Bill Higgins, at [whiggins@wittenberg.edu](mailto:whiggins@wittenberg.edu). Though email is preferred, Bill may also be reached at his home phone, 805-987-0757 and by mail at 322 Twin Harbor Drive, Camarillo, CA 93012.

### Coming Up in Ohio ...

#### **National Council of Teachers of Mathematics**

The NCTM is holding a regional conference in Cleveland on **October 16-17, 2008**. For more information, see [www.nctm.org](http://www.nctm.org).

#### **College of Wooster**

The College of Wooster is hosting MCURCSM '08 (The Midstates Conference for Undergraduate Research in Computer Science and Mathematics) on Saturday, **November 1**. There will be a special presentation by Colin Adams and Tom Garrity, both from Williams College. The paper submission deadline is October 12. For more information, see the conference web page at [www.wooster.edu/cs/mcurcsm2008/](http://www.wooster.edu/cs/mcurcsm2008/).

#### **The Ohio State University at Mansfield**

Distinguished Diversity Speaker Robert Moses will present a lecture on Monday, **November 3, 2008**, with an emphasis on civil rights from voter registration to math literacy. Robert Moses is the founder of The Algebra Project. For more information, see [www.mansfield.ohio-state.edu/50thAnniversaryEvents.html](http://www.mansfield.ohio-state.edu/50thAnniversaryEvents.html).

#### **Youngstown State University**

The annual Pi Mu Epsilon Student Conference will be in late February. Check the web site [www.math.yzu.edu/pme/](http://www.math.yzu.edu/pme/) for details.

## Campus Notes

(Continued from page 4)

Assistant Professor with a Ph.D. from the Ohio State University, specializing in commutative algebra. His dissertation was *A Generalization of Jónsson Modules over Commutative Rings with Identity*. Greg taught this past year at Ohio State. Alex Frentz joins us as a Visiting Instructor with a Master's degree from the University of California, Davis, and has studied number theory at the University of Minnesota and Ohio State. Alex's previous teaching includes appointments at Ohio State and Winona State University. We also congratulate Professor Bill Harper on his selection as an associate editor for the *Journal of Environmental Statistics*.

**Sinclair Community College:** Karl Hess and Jim Willis received tenure effective Fall 2008. Richard Uchida and Moez Ben-Azzouz were promoted to Associate Professor effective Fall 2008. Bob Chaney received the Teaching Excellence Award for 2008 from OhioMATYC. Al Giambone, who retired as chair of the department in March 2007 was awarded Emeritus status by the college in June 2008.

**The Ohio State University at Mansfield:** One of our Mansfield Campus colleagues, Sergei Chmutov, is spending this academic year at a Max Plank Institute. Faculty Heather Tanner and Lee McEwan received a 2008 Excellence in Engagement Grant for the Mansfield Young People's Project (MYPP), a unique partnership among The Ohio State University at Mansfield,

Mansfield City Schools, the Algebra Project (a national math literacy program founded by civil rights pioneer Bob Moses), and its associated national after-school program, the Young People's Project.

**University of Dayton:** Joe Mashburn is the new chair of the Department of Mathematics. He succeeds Paul Eloe, who served as chair for eight years. Maher Qumsiyeh has joined the department as an assistant professor. He has a Ph.D. in Statistics from Indiana University. Before coming to the University of Dayton, Maher spent a number of years at Bethlehem University. Laura Suzuki has joined the department as a lecturer. She has a Ph.D. in Applied Mathematics from the Air Force Institute of Technology. Aparna Higgins is spending the 2008/2009 academic year on sabbatical at California State University, Channel Islands. Gerry Shaughnessy is on sabbatical for Fall 2008. The Department of Mathematics will host its 23rd Biennial Alumni Seminar on Saturday, November 1, 2008. Alums of our department will return to campus to talk about their professions with students interested in mathematics. More information will be available at <http://academic.udayton.edu/MathEvents/>.

**University of Findlay:** The University of Findlay welcomes two new assistant professors of mathematics, Shelly McGee and Chandra Dinavahi. Shelly completed her Ph.D. in Applied Mathematics in 2007 at Texas Tech University. Chandra completed his Ph.D. in Mathematics at Auburn University this August.

**Wittenberg University:** Donald Mills has joined the mathematics faculty as a visiting assistant professor for the 2008-09 academic year. Don received his Ph.D. from Clemson University in 1999, and he has held positions at several institutions, including West Point, Southern Illinois University, and Rose-Hulman Institute of Technology. He is serving as a leave replacement for Bill Higgins who is spending the year at California State University, Channel Islands.



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Current and former Ohio Section Teaching Award winners posed for this picture at the Spring 2008 meeting at Marietta College. From left to right: Bill Higgins, Al Stickney, Judy Holdener, Tom Price, Aparna Higgins, Tom Dence.

## Report on the 2008 Ohio Section Summer Short Course

The 2008 Summer Short Course, *Study the Masters: Using Primary Historical Sources in Teaching and Research*, was held on 18-20 June, at Xavier University in Cincinnati. The eleven participants included six residents of Ohio and out-of-staters from Pennsylvania, New York, Iowa, North Carolina, and Michigan. They were led by co-presenters David Pengelley (New Mexico State University, Los Alamos, NM) and Danny Otero (Xavier University), who was also the local host and sometime chauffeur.

Having prepared some weeks beforehand with reading assignments on the use of historical sources in the mathematics classroom, the group spent the first morning listening to presentations by Pengelley, on using Pascal's Treatise on the Arithmetical Triangle, and Otero, on using Babylonian clay tablet Plimpton 322, that modeled how primary materials can be used in the classroom to enrich the teaching of mathematics. A large collection of source material books was brought into the special space in Xavier's Macdonald Library where the Short Course was held for all three days, and participants had opportunities throughout the course

of the workshop to browse through them. By Wednesday afternoon, the participants were already set loose in the library to begin work preparing a module (or modules) of their own that would incorporate primary source materials in a mathematics lesson of their choice. Through the morning on Thursday, work continued on preparation of these modules; the presenters discussed topics and design choices with some of the participants, monitoring progress along the way.

The highlight of the Short Course took place on Thursday afternoon, when the group paid a visit to the University of Cincinnati Archives and Rare Book Library. In a special gallery on the top floor of Blegen Hall, some 18 rare mathematics books belonging to the collection were put on display and the participants got the opportunity to hold and page through some of the volumes. These included a 1546 Latin edition of Euclid's *Elements*, a copy of Tartaglia's 1557 publication in which he tells the story of his celebrated victory in a contest with Antonio Maria Fior over who could first solve a set of cubic polynomial equations, Maria Agnesi's calculus text of 1748 and Cauchy's *Cours*

*d'Analyse* of 1821, in which the limit definition of the derivative appears for the first time. After the Rare Books visit, the group had dinner together at Mecklenburg Gardens, one of Cincinnati's oldest restaurants, where they enjoyed German-style food and home-brewed beers and ales. After completing their work on Friday morning, the participants reported on their progress to end the sessions in the afternoon.

The workshop was a success all around, providing the participants with resources for developing materials for classroom use and the chance to enter into discussions with others who have had experience with the same methods.

It should be mentioned that the Short Course received some vital financial support from the Wheeler Fund, an internal Xavier University grant. It allowed the Xavier Library to purchase some 20 or so new titles of primary source books in the history of mathematics to support the workshop, as well as additional funds that were used to supplement the registration fees by the participants to fund the rest of the event.

Danny Otero  
Xavier University

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### In Memoriam

**Samuel Wilfred (Will) Hahn**, long-time member of the mathematics faculty at Wittenberg University and of the Ohio Section, died on July 31, 2008 at the age of 87. During his tenure at Wittenberg, Will was the MAA Ohio Section Chairman for 1972-1973, the Ohio Section Governor for 1979-82, and founder of the Ohio Section Newsletter in 1973. Will was awarded the MAA's Certificate for Meritorious Service in 1984. Will joined the faculty at Wittenberg in 1949. He left in 1951, but returned to Wittenberg in 1960, where he stayed until he retired in 1983. While at Wittenberg, Will served several terms as Chair of the Mathematics Department as well as Associate Dean of the College.

**David C. Wallach**, of the University of Findlay, died on March 28, 2008. David started teaching at Findlay in 1984, and had planned to retire at the end of the 2008 school year. During his years at Findlay, David served as chairman of the Division of Mathematics and Computer Science, and also as Director of Mathematics. He was active in both the MAA and OCTM, (Ohio Council of Teachers of Mathematics). David served as the OCTM liaison to the MAA Ohio Section for many years.

## 2008-2009 Ohio Section Officers and Committees

### ELECTED OFFICERS

#### President

Vickie Van Dresar, Ashland University  
419-289-5265; vvandres@ashland.edu

#### Past-President #1

Bill Higgins, Wittenberg University  
805-987-7859, whiggins@wittenberg.edu

#### Past President #2

Thomas Dence, Ashland University  
419-289-5262; tdence@ashland.edu

#### President-Elect

Mark Miller, Marietta College  
740-376-4811; millerr@marietta.edu

#### Section Governor

Judith Palagallo, University of Akron  
330-688-5856 ; palagallo@uakron.edu

#### Secretary

Mark De Saint-Rat, Miami-Middletown  
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#### Treasurer

Charles Hampton, College of Wooster  
hampton@wooster.edu

### OTHER OFFICERS

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#### Webmaster

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#### On-line Registration

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#### Newsletter Editor

Barbara D'Ambrosia, John Carroll University  
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#### OhioMATYC Liaison to OhioMAA

Jim Anderson, University of Toledo  
419-530-3345; jim.anderson@utoledo.edu

#### OhioMAA Liaison to OhioMATYC

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#### Ohio Project NExT Co-Coordinators

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740-699-2498; prather@ohio.edu

#### Archivist

Daniel Otero, Xavier University  
513-745-2012; otero@xavier.edu

### COMMITTEES

\* Denotes committee chair. Elected Officers and Committee Chairs are voting members of the Executive Committee. Terms expire at the end of the Spring meetings of the year listed. See the Bylaws.

#### Program Committee

\* Jon Stadler, Capital University (2009)  
Brian Shelburne, Wittenberg Univ (2010)  
Phil Blau, Shawnee State University (2011)

#### CONTEAL

\*John Prather, Ohio Univ Eastern (2011)  
Jon Dunlap, Wright State Univ – Lake (2009)  
Irina Chemikova, University of Akron (2009)  
Sandy Schroeder, Ohio Northern Univ (2010)  
Becky Krakowski, Univ of Dayton (2010)  
Chris O'Connor, Shawnee State Univ (2011)  
Susan Thompson, Otterbein College (2011)  
Katie Cerrone, University of Akron (2011)

#### CONSTUM

\*John Whitaker, Shawnee State (2010)  
Christopher Swanson, Ashland Univ (2009)  
Noah Aydin, Kenyon College (2009)  
Art Busch, University of Dayton (2010)  
Frank Ingram, Youngstown St Univ (2010)  
Sarah Crown, Denison University (2010)  
Michael Ferrara, University of Akron (2010)  
Mihai Caragiu, Ohio Northern Univ (2011)

#### CONSACT

\* Lew Ludwig, Denison University (2010)  
Judith Holdener, Kenyon College (2009)  
Juan Bes, Bowling Green State Univ (2009)  
Pamela Warton, University of Findlay (2010)  
Shannon Miller, Marshall University (2011)

#### CONCUR

\* Adam Parker, Wittenburg University (2009)  
Robert Mendris, Shawnee State (2010)  
Rob-Roy Mace, Marshall University (2010)  
Charles McCracken, Sinclair CC (2010)  
Allan Silberger, Cleveland State Univ (2010)  
William Fuller, Ohio Northern Univ (2011)  
Richard Daquilla, Muskingum College (2011)

### OTHER COMMITTEES

#### Nominating Committee

\* Tom Dence, Ashland University (2011)  
Mark Smith, Miami University (2009)

#### Committee on Contests

David Stenson, John Carroll Univ, AMC12

#### Teaching Award Committee

\* Bill Higgins, Wittenberg Univ (Past President, Past Recipient 2007),  
Mark De Saint-Rat, Miami University (Sec),  
David Singer, Case-Western Reserve University (Past Recipient 2005)  
Tom Price, University of Akron (Past Recipient 2006)

#### Centennial Committee

\*David Kullman, Miami University  
Tom Hern, Bowling Green State University,  
Danny Otero, Xavier University  
John Zimmerman, Washington and Jefferson College  
Tom Dence, Ashland University  
Jon Dunlap, Wright State University – Lake

#### Local Arrangements for Meetings

Fall 2008: Capital University  
Thomas Gearhart, tgearhar@capital.edu

Spring 2009: Bowling Green State Univ  
David Meel, meel@bgnnet.bgsu.edu

Fall 2009: Baldwin-Wallace College

Spring 2010: Kent State University

Fall 2010: Ursuline College

Fall 2011: Kenyon College

## Calendar

### Ohio Section

Spring 2009 Section Meeting, April 3-4, 2009, Bowling Green State University, Bowling Green, OH

Fall 2009 Section Meeting, Baldwin-Wallace College, Cleveland, OH

Spring 2010 Section Meeting, dates to be announced, Kent State University, Kent, OH

### National MAA-AMS



MathFest, August 6-8, 2009, Portland, OR

Annual Joint Meetings, January 13-16, 2010, San Francisco, CA

MathFest, August 5-7, 2010, Pittsburgh, PA

Annual Joint Meetings, January 5-8, 2011, New Orleans, LA

Annual Joint Meetings, January 4-7, 2012, Boston, MA

MathFest, August 5-8, 2015, Washington, D.C.

**Question:** Why do mathematicians often confuse Christmas with Halloween?

**Answer:** Because Oct 31 = Dec 25.

### Other

Miami University 36th Annual Conference, September 26-27, 2008, Miami University, Oxford, OH

NCTM Regional Meeting, October 16-17, 2008, Cleveland, OH

AMS Central Section Meeting, October 17-19, 2008, Western Michigan University, Kalamazoo, MI

Indiana Section Meeting, October 18, 2008, Rose-Hulman Institute of Technology, Terre Haute, IN

AMATYC Annual Conference, November 20-23, 2008, Washington, D.C.

T<sup>3</sup> International Conference, February 27-March 1, 2009, Seattle, WA

International Conference on Technology in Collegiate Mathematics (ICTCM), March 12-15, 2009, New Orleans, LA

Indiana Section Meeting, March 20-21, 2009, Indiana University-Purdue University, Indianapolis, IN

Kentucky Section Meeting, March 27-28, 2009, Kentucky State University, Frankfort, KY

AMS Central Section Meeting, March 27-29, 2009, University of Illinois at Urbana-Champaign, Urbana, IL

Allegheny Mountain Section Meeting, Spring, 2009, Wheeling Jesuit University, Wheeling, WV

NCTM National Meeting, April 22-25, 2009, Washington, D.C.

Michigan Section Meeting, May 8-9, 2009, Central Michigan University, Mount Pleasant, MI

SIAM Annual Meeting, July 6-10, 2009, Denver, CO

NCTM National Meeting, April 21-24, 2010, San Diego, CA