

## Monday, July 28

- 11:00am–5:00pm**     **Project NExT Registration**  
*1st Floor Lobby  
 Univ. of Wisconsin  
 Lowell Center*
- 1:30pm–9:00pm**     **Project NExT Workshop  
 (for 2008–2009 Fellows)**  
*Univ. of Wisconsin  
 Lowell and Pyle Centers*

## Tuesday, July 29

- 8:00am–5:00pm**     **Project NExT Registration**  
*1st Floor Lobby  
 Univ. of Wisconsin  
 Lowell Center*
- 8:30am–5:25pm**     **Project NExT Workshop  
 (for 2008–2009 Fellows)**  
*Univ. of Wisconsin  
 Lowell and Pyle Centers*
- 9:00am–5:00pm**     **Part 1: Two Day  
 Short Course**  
*Capital Ballroom B  
 Concourse Hotel*
- Game–Theoretic Modeling:  
 Techniques and Applications**  
*Michael A. Jones,  
 Montclair State University*
- 2:00pm–8:00pm**     **New Governors  
 Orientation**  
*Capitol A, Concourse Hotel*

## Wednesday, July 30

- 8:00am–5:00pm**     **MAA Board of Governors**  
*Capital AB, Concourse Hotel*

- 8:00am–5:00pm**     **Project NExT Registration**  
*1st Floor Lobby  
 Univ. of Wisconsin  
 Lowell Center*
- 8:15am–5:30pm**     **Project NExT Workshop  
 (for 2007–2008 and  
 2008–2009 Fellows)**  
*Univ. of Wisconsin  
 Lowell and Pyle Centers*
- 8:30am–2:30pm**     **The Madison Tour**  
*Main Entrance, Concourse Hotel*
- 9:00am–5:00pm**     **Part 2: Two Day  
 Short Course**  
*Capital Ballroom B  
 Concourse Hotel*
- Game–Theoretic Modeling:  
 Techniques and Applications**  
*Michael A. Jones,  
 Montclair State University*
- 2:00pm–7:00pm**     **Registration**  
*Lakeside Commons, Level 1  
 Monona Terrace*
- 2:45pm–4:00pm**     **CUSAC Meeting**  
*Concourse Hotel,  
 Conference Room II*
- 4:30pm–5:30pm**     **MAA–PME Student  
 Reception**  
*Senate Rooms AB  
 Concourse Hotel*
- 5:30pm–6:45pm**     **Undergraduate Activity**  
*Wisconsin Ballroom  
 Concourse Hotel*
- Math JEOPARDY**  
*John Harris, Furman University*
- Mike Berry,  
 University of Tennessee*
- Mike Mossinghoff,  
 Davidson College*

6:30pm–7:30pm **Opening Reception**

*Madison Ballroom  
Monona Terrace*

7:30pm–9:30pm **Opening Banquet**

*Capitol AB Ballroom,  
Monona Terrace*

## Thursday, July 31

8:00am – 4:00pm **Registration**

*Lakeside Commons  
Level 1, Monona Terrace*

8:30am–9:20am **MAA Invited Address**

*Ballroom AB, Monona Terrace*

**Intellectual Need and its Role  
in Mathematics Instruction**

*Guershon Harel, University of  
California, San Diego*

8:30am–10:30am **Contributed Paper Session**

*Hall Ideas E, Monona Terrace*

**Fascinating Examples from  
Combinatorics, Discrete  
Mathematics, and Graph  
Theory**

*Suzanne Dorée, Augsburg College*

*Nancy Ann Neudauer,  
Pacific University*

8:30am–8:45am

**Applications of Graph  
Theory to Conservation  
Biology**

*Kay Smith, Saint Olaf College*

8:50am–9:05am

**Equal Circle Packing On a  
Square Torus**

*William Dickinson, Grand Valley  
State University*

9:10am–9:25am

**Solving Instant Insanity  
Without Going Insane**

*Rachel Marie Robertson, Michigan  
Technological University*

9:30am–9:40am

**The Guessing Secrets  
Problem: Classical  
and Quantum Algorithms**

*Michael Nathanson, St. Mary's  
College of California*

9:50am–10:05am

**Permutation Patterns and  
Patience Sorting:  
Sophisticated Combinatorics  
From a Simple Card Game**

*Isaiah Lankham,  
Simpson University*

8:30am–10:30am

**Contributed Paper Session**

*Hall Ideas F, Monona Terrace*

**Interesting Topics in History  
of Mathematics That  
Enhance the Teaching and  
Learning of Mathematics I**

*Daniel Curtin, Northern  
Kentucky University*

*Amy Shell–Gellasch,  
Pacific Lutheran University*

8:30am–8:40am

**Conjectures on Egyptian  
Fractions**

*Mehdi Radjabalipour,  
University of Keman*

8:45am–8:55am

**Brain Injury and  
Mathematical Discovery:  
The Enigma of Stanislaw  
Ulam**

*Alexander G. Atwood, Suffolk  
County Community College*

9:00am–9:10am

**Edlin's Enigma**

*Anne E. Edlin,  
La Salle University*

9:15am–9:25am

**Maya Mathematical  
Presentation**

*Doy O. Hollman,  
Lipscomb University*

# Schedule of Events | Thursday

9:30am–9:40am	<p>My Mathematician is Better than Your Mathematician</p> <p><i>Sarah Mabrouk, Framingham State University</i></p>
9:45am–9:55am	<p>Positive Impacts From Using the History of Mathematics When Teaching Students With Weak Mathematical Backgrounds</p> <p><i>Ciaran Mac an Bhaird, National University of Ireland, Maynooth</i></p>
10:00am–10:10am	<p>The Calculation of Galois Groups By Classical Methods With the Aid of Mathematica</p> <p><i>Matt David Lunsford, Union University</i></p>
10:15am–10:30am	<p>The Role of History of Mathematics</p> <p><i>Dr. Pragati, Jain, SIMS, Indore</i></p>
8:30am–10:30am	<p><b>General Contributed Paper Session I</b></p> <p><i>Meeting Room O Monona Terrace</i></p> <p><i>Sarah Mabrouk, Framingham State College</i></p>
8:30am–8:40am	<p>Redesigning Developmental Math to More Efficient and Effective</p> <p><i>Sue Beck, Morehead State University</i></p>
8:45am–8:55am	<p>Report on Progress in Developmental Algebra at Lindsey Wilson College</p> <p><i>Scott Dillery, Lindsey Wilson College</i></p>
9:00am–9:10am	<p>Using a Homework Notebook in College Algebra</p> <p><i>Patricia Kihne, Illinois College</i></p>

9:15am–9:25am	<p>Math Chats: Engaging Students in Mathematics Outside the Classroom</p> <p><i>Robin Lydiann Anderson, Southwestern Illinois College</i></p>
9:30am–9:40am	<p>Mathematics Skills Assessment and Training in Freshman Engineering Courses</p> <p><i>Janet Marie McShane, Phillip Mlsna, Jennifer Maynard, Chester Ismay, and Sarah Brown, Northern Arizona University</i></p>
9:45am–9:55am	<p>Lessons Learned From a Calculus Redesign Project</p> <p><i>Jennifer McLoud–Mann, University of Texas at Tyler</i></p>
10:00am–10:10am	<p>Google’s PageRank for Beginners: A Directed Graph Example for Liberal Arts Math Courses</p> <p><i>Rebecca S. Wills, Roanoke College</i></p>
10:15am–10:25am	<p>Frontloading Statistical Inference Topics in an Introductory Statistics Course</p> <p><i>Kate McGivney, Shippensburg University</i></p>
8:30am–10:30am	<p><b>MAA Student Paper Session (1)</b></p> <p><i>Meeting Room L Monona Terrace</i></p>
8:30am–10:30am	<p><b>MAA Student Paper Session (2)</b></p> <p><i>Meeting Room M Monona Terrace</i></p>
8:30am–10:30am	<p><b>MAA Student Paper Session (3)</b></p> <p><i>Meeting Room N, Monona Terrace</i></p>

**8:30am–10:30am**    **MAA Student Paper Session (4)**  
*Meeting Room Q, Monona Terrace*

**8:30am–10:30am**    **MAA Student Paper Session (5)**  
*Meeting Room R, Monona Terrace*

**9:00am–10:20am**    **Panels and Other Sessions**  
*Ballroom C, Monona Terrace*

**The Role of Quantitative Literacy Centers in Supporting Students and Faculty**  
*Maura Mast, University of Massachusetts, Boston*

**9:00am–5:00pm**    **Art Exhibit**  
*Exhibit Hall B  
 Monona Terrace*

**9:00am–5:00pm**    **Exhibits and Book Sales**  
*Exhibit Hall B  
 Monona Terrace*

**9:00am–5:00pm**    **Undergraduate Activities**  
*Exhibit Hall B, Monona Terrace  
 Student Hospitality Center*

*Richard and Araceli Neal,  
 American Society for the  
 Communications of Math*

**9:30am–10:20am**    **MAA Invited Address**  
*Ballroom AB, Monona Terrace*

**Ecological and Evolutionary Consequences of Species Interactions**  
*Claudia Neuhauser,  
 University of Minnesota*

**9:30am–10:30am**    **Contributed Paper Session**  
*Hall Ideas I, Monona Terrace*

**Teaching Mathematics and Statistics Through Current Civic Issues**  
*Rikki Wagstrom and  
 Cynthia Kaus,  
 Metropolitan State University*

**9:30am–9:45am**    **Developing “Mathematics and Social Justice.” A Course Which Incorporates Social Justice Issues and Service–Learning Projects**  
*Lisa Marano, West Chester University of Pennsylvania*

**9:50am–10:05am**    **Global Consciousness, Social Responsibility, Ethical Awareness (and MATH!) at Westminster**  
*Bradford Bynum,  
 Westminster College*

**10:10am–10:25am**    **Integrating Service Learning Projects in a Differential Equations Course**  
*John Zobitz, Augsburg College*

**10:30am–11:20am**    **Earle R. Hedrick Lecture Series**  
*Ballroom AB, Monona Terrace*

**Lecture 1 | Mathematics Meets Art, Puzzles, and Magic**  
*Erik Demaine, Massachusetts Institute of Technology*

**1:00pm–1:50pm**    **MAA Lecture for Students**  
*Ballroom A, Monona Terrace*

**Sudoku: Questions, Variations, and Research**  
*Laura Taalman,  
 James Madison University*

**1:00pm–2:20pm**      **Panels and Other Sessions**  
*Lecture Hall, Monona Terrace*

**Writing for MAA Periodicals**  
*Lowell Beineke, Indiana University–Purdue University Fort Wayne and Editor, The College Mathematics Journal*

*Ivars Peterson, MAA Director of Publications for Journals and Communications*

**1:00pm–3:00pm**      **Contributed Paper Session**  
*Ballroom D, Monona Terrace*

**Integrating Biology and Mathematics**  
*James Fulton, Suffolk County Community College*

*Timothy Comar, Benedictine University*

**1:00pm–1:20pm**      **Analyzing the Interaction of Species: Game Theory in a Calculus Course**  
*Lee Stemkoski, Adelphi University*

**1:20pm–1:40pm**      **Biofuels, Useful Arithmetic and Embodied Energy**  
*Ben Fusaro, Florida State University*

**1:40pm–2:00pm**      **Biology, Discrete Mathematics and Theoretical Computer Science**  
*Dr. Atabong Timothy Agendia and Dr. Awunglefack Dominic Fobellah, BaaP Systems*

**2:00pm–2:20pm**      **Using Knot Theory to Model DNA: An Undergraduate Research Project**  
*William Schellhorn, Simpson College*

**2:20pm–2:40pm**      **Teaching Mathematics to Biology Majors Using the Scientific Method**  
*James Fulton and Linda Sabatino, Suffolk County Community College*

**2:40pm–3:00pm**      **Discussion on Integrating Biology and Mathematics**  
*James Fulton, Suffolk County Community College*

*Timothy Comar, Benedictine University*

**1:00pm–3:00pm**      **Contributed Paper Session**  
*Hall Ideas E, Monona Terrace*

**Advances in Recreational Mathematics**  
*Paul R. Coe and Kristen Schemmerhorn, Dominican University*

**1:00pm–1:15pm**      **Problems From the Pages of the Journal of Recreational Mathematics That are Still Unsolved**  
*Charles Ashbacher, Mount Mercy College*

**1:20pm–1:35pm**      **Combinatorics, Probabilities, and the NCAA Basketball Tournaments**  
*Matthew Menzel, Marietta College*

**1:40pm–1:55pm**      **Re-Distributing and Reconstruction Probabilities in Horse Races, Voting Theory, and Poker**  
*Michael Jones and John Stevens, Montclair State University*

**2:00pm–2:15pm**      **Voting Off: How Bad Can It Be?**  
*Dylan Helliwell, Seattle University*

2:20pm–2:35pm Mathematical Thinking With Magic Squares  
*Hossein Behforooz, Utica College*

2:40pm–2:55pm Stuck in a Sudoku  
*Helen Schroeder, University of Wisconsin – Stout*

1:00pm–3:00pm Contributed Paper Session  
*Hall Ideas I, Monona Terrace*  
Teaching Mathematics and Statistics Through Current Civic Issues  
*Rikki Wagstrom and Cynthia Kaus, Metropolitan State University*

1:00pm–1:20pm Authentic Discovery Learning Projects in Statistics with Constructs From Environmental and Social Science Disciplines  
*Diana Spence and Robb Sin, North Georgia College & State University*

1:20pm–1:40pm The Gini Coefficient: Measuring Inequality in Resource Allocation  
*Michael Catalano, Dakota Wesleyan University*

1:40pm–2:00pm Confounder Influence on Cases Attributed  
*Milo Schield, W. M. Keck Statistical Literacy Project*

2:00pm–2:20pm Equity: Not Just a Goal, But a Vehicle in Introductory Statistics  
*Lawrence Lesser, The University of Texas at El Paso*

2:20pm–2:40pm College Algebra in Context: A Report and Examples From an NSF Project  
*Michael Catalano, Thomas Pfaff and Tanya Leise, Dakota Wesleyan University*

2:40pm–3:00pm The Homeless Average Age 9? Examining a Bad Statistic  
*Adam Molnar, Bellarmine University*

1:00pm–3:00pm Minicourse | 1  
*Hall Ideas G, Monona Terrace*  
A Game Theory Path to Quantitative Literacy  
*Rick Gillman, Valparaiso University*  
*David Housman, Goshen College*

1:00pm–3:00pm General Contributed Paper Session 2  
*Meeting Room O Monona Terrace*  
*Sarah Mabrouk, Framingham State College*

1:00pm–1:10pm Mathematical Myths: Some Interesting Facts and Fictions  
*Linda Becerra and Ron Barnes, University of Houston–Downtown*

1:15pm–1:25pm Resourceful Session Before a Developmental Math Test  
*Gowribalan Ananda Vamadeva, University of Cincinnati*

1:30pm–1:40pm Developing Mathematical Thinkers – Laying the Foundation for Successful Math Majors  
*Trae Holcomb, United States Air Force Academy*

1:45pm–1:55pm The “No WAY!” Moment in Mathematics  
*Mike Krebs, California State University, Los Angeles*

# Schedule of Events | Thursday

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2:00pm–2:10pm **Visual Mathematics for the Visually Impaired: Reflections and Strategies**  
*Mandi Shea Maxwell, Trinity Christian College*

2:15pm–2:25pm **The Ultimate Class Project ...and No Grade!**  
*Terry Jo Leiterman, St. Norbert College*

2:30pm–2:40pm **The Mathematics of Games as Experiential Learning**  
*Jacob Robert Heidenreich, Loras College*

2:45pm–2:55pm **Academic Program Review**  
*Siamack Bondari and Monika Vo, Saint Leo University*

1:00pm–3:00pm **Minicourse | 2**  
*Hall Ideas J, Monona Terrace*

**The Ubiquitous Catalan Numbers and Their Applications**  
*Thomas Koshy, Framingham State College*

1:00pm–4:00pm **Invited Paper Session**  
*Ballroom C, Monona Terrace*

**Classical Euclidean Geometry**  
*Paul Yiu, Florida Atlantic University*

1:00pm–1:30pm **The Circles of Lester, Evans, Parry, and Their Generalizations**  
*Paul Yiu, Florida Atlantic University*

1:30pm–2:00pm **Use of Oriented Angles and Their Extension to  $n$ -Sections**  
*Eisso J. Atzema, University of Maine*

2:00pm–2:30pm **High Points in the Encyclopedia of Triangle Centers**  
*Clark Kimberling, University of Evansville*

2:30pm–3:00pm **Special Quadrilaterals and Special Conics**  
*James L. Parish, Southern Illinois University at Edwardsville*

3:00pm–3:30pm **Algebraic Ramifications in Triangle Geometry**  
*Steve Sigur, The Paideia School, Atlanta, Georgia*

3:30pm–4:00pm **The Equation of Euler's Line Yields a Tzitzeica Surface**  
*Bogdan Suceava, California State University, Fullerton*

1:00pm–5:00pm **Project NExT**  
*Doty, Hilton*

1:00pm–5:00pm **Project NExT**  
*Vilas, Hilton*

1:00pm–5:00pm **Project NExT**  
*Tenny, Hilton*

2:00pm–3:00pm **Green Tour**  
*Meet at Lakeside Commons, Monona Terrace*

2:00pm–5:00pm **Invited Paper Session**  
*Hall Ideas H, Monona Terrace*

**Isoperimetric Problems and Manifolds With Density**  
*Frank Morgan, Williams College*

2:00pm–3:55pm **Pi Mu Epsilon Student Paper Session 1**  
*Meeting Room L, Monona Terrace*

2:00pm–3:55pm **Pi Mu Epsilon Student Paper Session 2**  
*Meeting Room M, Monona Terrace*

2:00pm–3:55pm **MAA Student Paper Session 6**  
*Meeting Room N, Monona Terrace*

2:00pm–3:55pm **MAA Student Paper Session 7**  
*Meeting Room Q, Monona Terrace*

2:00pm–3:55pm **MAA Student Paper Session 8**  
*Meeting Room R, Monona Terrace*

2:30pm–5:00pm **Panels and Other Sessions**  
*Ballroom B, Monona Terrace*  
**MAA Section Officers Meeting**  
*Moderator: Nancy L. Hagelgans, Ursinus College*

3:00pm–4:20pm **Panels and Other Sessions**  
*Lecture Hall, Monona Terrace*  
**SUMMA Special Session on MAA Summer Research Programs**  
*William Hawkins, MAA and University of the District of Columbia*  
*Robert Megginson, University of Michigan*

3:15pm–5:15pm **General Contributed Paper Session 3**  
*Meeting Room O Monona Terrace*  
*Sarah Mabrouk, Framingham State College*

3:15pm–3:25pm **Pizza Delivery: 2–Stop–Return Distances in Graphs**  
*Raluca Gera, Naval Postgraduate School*  
*Linda Eroh, Steven J. Winters, and Grady Bullington, University of Wisconsin-Oshkosh*

3:30pm–3:40pm **Three Colorings in Graphs**  
*Gary Chartrand and Ping Zhang, Western Michigan University*  
*Futaba Okamoto, University of Wisconsin–La Crosse*  
*Zsolt Tuza, Hungarian Academy of Sciences, University of Pannonia*

3:45pm–3:55pm **Signed Graph Coloring, a Theorem of Jacobi, and the Art of Linear Algebra**  
*Steven Morse and Elisha Peterson, United States Military Academy (West Point)*

4:00pm–4:10pm **Open Source Software: What Can It Do for You?**  
*Tony Weathers, Adams State College*

4:15pm–4:25pm **Validating the Warrant  $P(k) \rightarrow P(k+1)$ : Does Any Means Justify the Ends?**  
*Tabitha T. Mingus, Western Michigan University*  
*Richard M. Grassl, University of Northern Colorado*

4:30pm–4:40pm **The Lorentz Transformation as a Visual Consequence of the Swiveled Line Theorem**  
*John E. dePillis, University of California, Riverside*

4:45pm–4:55pm **The Explicit Solution to an Infinite Linear Differential Equation System**  
*Mahmoud F. Almanassra, University of Wisconsin–Marinette*

5:00pm–5:10pm **Exploring Prime Gaps with CAS (Computer Algebra System) Technology**  
*Jay Lawrence Schiffman, Rowan University*



**3:15 pm–5:45pm**      **Invited Paper Session**  
*Ballroom D, Monona Terrace*

Graph Theory With  
 Connections to Geometry  
 and Topology

*Joshua Laison,  
 Willamette University*

**3:15pm–3:45pm**      **An Adventurer’s Guide to  
 the Colorful Tale of  
 Thickness—Two Graphs**

*Ellen Gethner,  
 University of Colorado – Denver*

**3:45pm–4:15pm**      **Visibility Graphs: Different  
 Models of Sight**

*Stephen Hartke, University of  
 Nebraska – Lincoln*

**4:15pm–4:45pm**      **Recent Rectangle Visibility  
 Results**

*Alice Dean, Skidmore College*

**4:45pm–5:15pm**      **Crossing Numbers**

*Michael Pelsmajer,  
 Illinois Institute of Technology*

**5:15pm–5:45pm**      **Recognition Algorithms for  
 Some Generalization of  
 Interval Graphs**

*Art Busch, University of Dayton*

**3:15pm–6:15pm**      **Contributed Paper  
 Session**  
*Hall Ideas F, Monona Terrace*

Incorporating Humanities  
 and the Arts into the  
 Mathematics Classroom  
 (and Vice Versa)

*Michelle Ghrist,  
 U.S. Air Force Academy*

**3:15pm–3:30pm**      **Mandala as the Key to  
 Teaching Trigonometry to  
 Multiple Intelligences**

*Paul F. Stang*

**3:35pm–3:50pm**      **What is Mathematics and  
 Why Won’t It Go Away?**

*Susan Jane Colley,  
 Oberlin College*

**3:55pm–4:10pm**      **Teaching Art, Literature,  
 Science, Theater, Speech,  
 and Computer Science All in  
 One Mathematics Course**

*Julie Barnes,  
 Western Carolina University*

**4:15pm–4:30pm**      **Viewing Mathematics as  
 Human Endeavor**

*Mike Pinter, Belmont University*

**4:35pm–4:50pm**      **MathTV: A Curiously Funny  
 Mathematical Production**

*Michelle Ghrist,  
 U.S. Air Force Academy*

*Cynthia Elizabeth Chin,  
 Madison East High School*

*Jeffrey Sanders, Oberlin College*

*Jonathon Glam,  
 U.S. Air Force Academy*

**4:55pm–5:10pm**      **This World, and Others:  
 FLATLAND in the Classroom,  
 Rehearsal Studio, Theater,  
 and Beyond**

*Mary Paulson,  
 Madison East High School*

**5:15pm–5:30pm**      **Mathematicians Can  
 Participate in Faculty  
 Development for the Arts &  
 Humanities**

*David Edward Boliver,  
 University of Central Oklahoma*

**5:35pm–5:50pm**      **Combinators, Topology, and  
 Graph Theory in Jorge Luis  
 Borges’ Short Story  
 “The Library of Babel”**

*William L. Bloch,  
 Wheaton College*

5:55pm–6:10pm **Running Circles ‘round the Truth: A Mathematical Perspective on Deconstructive**  
*Michael Wodzak, Viterbo University*

3:15pm–6:15pm **Contributed Paper Session**  
*Hall Ideas I, Monona Terrace*  
**Actual Problems, Actual Mathematics – Applied Mathematics in Science and the Classroom I**  
*William Stone, New Mexico Institute of Mining and Technology*  
*Stephen Davis, Davidson College*

3:15pm–3:30pm **Quartic Equations Applied to 6–DOF Wiimote Tracking**  
*William Stone, New Mexico Institute of Mining and Technology*  
*Stephen Davis, Davidson College*

3:35pm–3:50pm **Energy Efficient Flight: Decision–Making Mathematics Glider Pilots Use to Soar Great Distance**  
*Michael Lundin, Central Washington University*

3:55pm–4:10pm **What Else Can You Do With an Open Topped Box?**  
*Doug Shaw, University of Northern Iowa*

4:15pm–4:30pm **The Math Behind a Roll–Call Vote**  
*Chen–Han Sung, Texas A&M International University*

4:35pm–4:50pm **Gender Division of Labor in Parenting: A Game–Theoretic Perspective**  
*Angela Vierling–Claassen, Lesley University*

4:55pm–5:10pm **Four Stories in Applied Mathematics**  
*William Joseph Stazer, 3M Company*

5:15pm–5:30pm **Elementary Physical Chemistry Problems in Multi–Variable Calculus**  
*George Rublein, College of William and Mary*

5:35pm–5:50pm **Predator–Prey Models – A Generalization of Lotka–Volterra Model**  
*Leon Kaganovskiy, New College of Florida*

5:55pm–6:10pm **The Brachistochrone Revisited: A Timely Consideration**  
*Alfred Paul Lehnen, Madison Area Technical College*

3:30pm–5:00pm **Graduate Student Sessions**  
*Exhibit Hall B, Monona Terrace*  
**Graduate Student Poster Session**  
*James Freeman, Cornell College*

3:30pm–5:30pm **Minicourse | 3**  
*Hall Ideas G, Monona Terrace*  
**Teaching a Proof–Based Course as the Gateway to the Mathematics Major**  
*James Sandefur, Georgetown University*  
*Connie Campbell, Millsaps College*

3:30pm–5:30pm	<p><b>Minicourse   4</b> <i>Hall Ideas J, Monona Terrace</i></p> <p>How to Run a Successful Math Circle <i>Matthias Beck, San Francisco State University</i></p> <p><i>Tatiana Shubin, San Jose State University</i></p> <p><i>Sam Vandervelde, Saint Lawrence University</i></p>
4:00pm–5:00pm	<p><b>Panels and Other Sessions</b> <i>Ballroom A, Monona Terrace</i></p> <p>SIGMAA on the History of Mathematics</p> <p>Grand Unveiling and Reception <i>Amy Shell–Gellasch, Pacific Lutheran University</i></p>
4:20pm–6:15pm	<p><b>Undergraduate Activities</b></p> <p>Pi Mu Epsilon Student Paper Session 3 <i>Meeting Room L, Monona Terrace</i></p>
4:20pm–6:15pm	<p>Pi Mu Epsilon Student Paper Session 4 <i>Meeting Room M, Monona Terrace</i></p>
4:20pm–6:15pm	<p>MAA Student Paper Session 9 <i>Meeting Room N, Monona Terrace</i></p>
4:20pm–6:15pm	<p>MAA Student Paper Session 10 <i>Meeting Room Q, Monona Terrace</i></p>
4:20pm–6:15pm	<p>MAA Student Paper Session 11 <i>Meeting Room R, Monona Terrace</i></p>

5:00pm–6:00pm	<p><b>Graduate Student Session</b> <i>Senate AB, Concourse Hotel</i></p> <p>Graduate Student Reception <i>David Manderscheid, University of Nebraska–Lincoln</i></p> <p><i>James Freeman, Cornell College</i></p>
5:00pm–6:30pm	<p><b>SIGMAA on Teaching Advanced High School Mathematics</b> <i>Ballroom C, Monona Terrace</i></p> <p>Business Meeting and Reception</p> <p>Creating a Post–Calculus Pre–Calculus Course for Advanced High School Students</p>
7:00pm–10:00pm	<p><b>Jazz on the Terrace</b> <i>Rooftop, Monona Terrace</i></p>

## Friday, August 1

8:00am – 4:00pm	<p><b>Registration</b> <i>Lakeside Commons, Level 1, Monona Terrace</i></p>
8:30am–9:20am	<p><b>MAA Invited Address</b> <i>Ballroom AB, Monona Terrace</i></p> <p>The Chaotic Evolution of Newton’s Universe <i>Donald Saari, University of California, Irvine</i></p>
8:30am–10:30am	<p><b>General Contributed Paper Session 4</b> <i>Meeting Room O, Monona Terrace</i></p> <p><i>Sarah Mabrouk, Framingham State College</i></p>

8:30am–8:40am **The Status of Mathematics Education in Palestine**  
*AbdelNaser Al–Hasan, MSOE & An–Najah National University*

8:45am–8:55am **Assessing General Education Mathematics Courses**  
*James Hamblin, Shippensburg University*

9:00am–9:10am **Calculus: One Lesson Study at a Time**  
*Joy Becker, Christopher P. Bendel, and Helen Schroeder, University of Wisconsin–Stout*

9:15am–9:25am **Applying Active–Cooperative Learning in Calculus 1**  
*Christopher K. Cartwright, Lawrence Technological University*

9:30am–9:40am **Calculus: Where We’ve Been; Where Are We Going?**  
*Karen Rhea, University of Michigan*

9:45am–9:55am **CAGD, Geometer’s Sketchpad and Secondary Mathematics**  
*Murphy Waggoner, Simpson College*

10:00am–10:10am **Mathematicians’ Uses of Computer Algebra Systems in Mathematics Teaching in the UK, US, and Hungary**  
*Zsolt Lavicza, University of Cambridge*  
*Laszlo Erdodi, Eastern Michigan University*

10:15am–10:25am **Teaching Statistics from A to Z**  
*Jason Joseph Moliterno, Sacred Heart University*

8:30am–10:30am **MAA Student Paper Session 12**  
*Meeting Room L, Monona Terrace*

8:30am–10:30am **MAA Student Paper Session 13**  
*Meeting Room M Monona Terrace*

8:30am–10:30am **MAA Student Paper Session 14**  
*Meeting Room N Monona Terrace*

8:30am–10:30am **MAA Student Paper Session 15**  
*Meeting Room Q Monona Terrace*

8:30am–10:30am **MAA Student Paper Session 16**  
*Meeting Room R Monona Terrace*

8:30am–10:30am **Contributed Paper Session**  
*Hall Ideas E, Monona Terrace*  
**Fascinating Examples from Combinatorics, Discrete Mathematics, and Graph Theory**  
*Suzanne Dorée, Augsburg College*  
*Nancy Ann Neudauer, Pacific University*

8:30am–8:45am **Adapting Hosoya’s Topological Index as a Local Vertex Environment Descriptor**  
*Matthew G. Hudelson, Washington State University*

8:50am–9:05am **Viewing the Hamming Code in its Natural Habitat**  
*Paul Weiner, Saint Mary’s University of Minnesota*

# Schedule of Events | Friday

9:10am–9:25am MIT vs. Harvard: The Mathematics of Good Will Hunting  
*Kristina Garrett, St. Olaf College*

9:30am–9:45am Generalized Permutation Descents and Inversions Controlled By a Drop Sequence  
*William Griffiths IV and Albert Bush, Southern Polytechnic State University*

9:50am–10:05am Edge Cut Cycles and Cutting Numbers of Cycles and Graphs  
*Dianna Spence, Brad Bailey, and John Holliday, North Georgia College and State University*  
*Peter D. Johnson, Auburn University*

10:10am–10:25am Cover Times for Stars, Sparklers, and the Petersen Graph  
*Robert Dobrow, Rebecca Ferrell, Miranda Fix and Michael Duyzend, Carleton College*

8:30am–10:30am Contributed Paper Session  
*Hall Ideas F, Monona Terrace*  
Creative Uses of Emerging Technologies for Mathematics Teaching  
*Lila F. Roberts, Clayton State University*  
*David R. Hill, Temple University*

8:30am–8:45am Mathematics on the iPhone  
*Lila F. Roberts, Clayton State University*

8:50am–9:05am Using Video Podcasts to Model Critical Thinking in Undergraduate Mathematics  
*Jennifer Kosiak, University of Wisconsin*

9:10am–9:25am Using Technology to Promote Reflective Discourse: Combining Dynamically Connected Representations With Video Reflection  
*Douglas A. Lapp, Central Michigan University*

9:30am–9:45am Popcorn Statistics  
*Allan Struthers, Michigan Technological University*

9:50am–10:05am YouTube in the Classroom  
*Andrew S. Leahy, Knox College*

10:10am–10:25am Online Collaboration with a Wiki in Real Analysis  
*Elisha Peterson, United States Military Academy*

8:30am–10:30am Contributed Paper Session  
*Hall Ideas I, Monona Terrace*  
Incorporating Humanities and the Arts into the Mathematics Classroom (and Vice Versa)  
*Michelle Ghrist, U.S. Air Force Academy*

8:30am–8:45am Math Modeling Can Help Build Bridges to the Humanities  
*Rick L. Spellerberg, Simpson College*

8:50am–9:05am Group Theory is Child's Play  
*Pamela Warton, University of Findlay*

9:10am–9:25am **Mathematical World:  
Liberal Arts Mathematics  
With an Art Emphasis**  
*Patricia Oakley, Goshen College*

9:30am–9:45am **Perspective Drawing  
Experiment in a Freshman  
Interdisciplinary Seminar**  
*Anna Davis,  
Ohio Dominican University*

9:50am–10:05am **An Artistic Exploration  
Within an Introduction  
to Measure Theory and  
Dimension**  
*Zdenka Guadarrama,  
Rockhurst University*

10:10am–10:25am **An “Unreasonable” Reading  
Component to a Reasonable  
Course: Readings for a  
Transitional Class**  
*Gizem Karaali, Pomona College*

9:00am–10:30am **SIGMAA on Research in  
Undergraduate  
Mathematics Education**  
*Meeting Room K, Monona Terrace*

**Workshop on Essential  
Reasoning Abilities and  
Conceptual Foundations of  
Calculus**  
*Marilyn P. Carlson,  
Arizona State University*

9:00am–5:00pm **Art Exhibit**  
*Exhibit Hall B, Monona Terrace*

9:00am–5:00pm **Exhibits and Book Sales**  
*Exhibit Hall B, Monona Terrace*

9:00am–5:00pm **Undergraduate Activities**  
*Exhibit Hall B, Monona Terrace*

**Student Hospitality Center**  
*Richard and Araceli Neal,  
American Society for the  
Communications of Math*

9:30am–10:20am **Earle R. Hedrick  
Lecture Series**  
*Ballroom AB, Monona Terrace*

**Lecture 2 | Origami, Linkages  
and Polyhedra: Geometric  
Folding Algorithms**  
*Erik Demaine, Massachusetts  
Institute of Technology*

10:30am–11:20am **James R. Leitzel Lecture**  
*Ballroom AB, Monona Terrace*

**Building Mathematical  
Communities**  
*T. Christine Stevens,  
Saint Louis University*

11:30am–12:00pm **MAA Prize Session**  
*Ballroom AB, Monona Terrace*

*Moderator: Martha J. Siegel*

11:30am–12:30pm **Green Tour**  
*Meet at Lakeside Commons,  
Monona Terrace*

11:30am–1:30pm **Square Wheeled Bicycle  
Demonstration**  
*Exhibit Hall B, Monona Terrace*

1:00pm–1:50pm **NAM David Blackwell  
Lecture**  
*Lecture Hall, Monona Terrace*

**Random Dynamics and  
Memory: Structure Within  
Chaos**  
*Salah–Eldin A. Mohammed,  
Southern Illinois University–  
Carbondale*

1:00pm–1:50pm **Undergraduate Activities  
Session**  
*Ballroom A, Monona Terrace*

**What is the Color of My Hat?**  
*Ezra (Bud) Brown, Virginia Tech*

# Schedule of Events | Friday

**1:00pm–1:50pm Undergraduate Student Activities Session**  
*Ballroom B, Monona Terrace*

**Mathematics in Forensics**  
*Dan Russel, Oklahoma State Bureau of Investigation*

**1:00pm–3:00pm Invited Paper Session**  
*Ballroom C, Monona Terrace*

**Ramanujan’s Impact on Number Theory—Then and Now**  
*James Sellers, Penn State University*  
*Krishna Alladi, University of Florida*  
*George Andrews, Penn State University*  
*Bruce Berndt, University of Illinois at Urbana–Champaign*  
*Ken Ono, University of Wisconsin*

**1:00pm–3:00pm Invited Paper Session**  
*Ballroom D, Monona Terrace*

**1:00pm–1:15pm Mathematical Biology**  
*Julie Mitchell, University of Wisconsin*

**1:20pm–1:35pm Multiple Equilibria and Global Attractors in Biochemical Reaction Network Dynamics**  
*Gheorghe Craciun, University of Wisconsin*

**1:40pm–1:55pm Physical Chemical Principles for Mathematical Analysis and Simulation of Large–Scale Biochemical Systems**  
*Daniel Beard, Medical College of Wisconsin*

**2:00pm–2:15pm Modeling Protein – DNA Complexes Using Tangles**  
*Isabel Darcy, University of Iowa*

**2:20pm–2:35pm Mathematical Modeling of Immune Response in Tissue**  
*Bo Su, Iowa State University*

**1:00pm–3:00pm Contributed Paper Session**  
*Hall Ideas H, Monona Terrace*

**Interesting Topics in History of Mathematics that Enhance the Teaching and Learning of Mathematics II**  
*Daniel Curtin, Northern Kentucky University*  
*Amy Shell–Gellasch, Pacific Lutheran University*

**1:00pm–1:15pm Motivating Infinite Series Through Modified Leap Years**  
*Robert Myers, Bethel College*

**1:20pm–1:35pm Napier’s “Logarithms” Weren’t**  
*Andrew deLong Martin, Kentucky State University*

**1:40pm–1:55pm Fermat’s Shrinking Rectangles**  
*Amy Shell–Gellasch, Pacific Lutheran University*

**2:00pm–2:15pm It’s Just Thin Air: Resistance and Projectile Motion**  
*Shawnee McMurrin, California State University San Bernardino*

**2:20pm–2:35pm Thomas Harriot’s Pythagorean Triples: Could He List Them All?**  
*Janet L. Beery, University of Redlands*

**2:40pm–2:55pm What’s Interesting About the Number 1729?**  
*Peter Schumer, Middlebury College*

**1:00pm–3:00pm**      **General Contributed Paper Session 5**  
*Meeting Room K, Monona Terrace*  
*Sarah Mabrouk,*  
*Framingham State College*

**1:00pm–1:10pm**      **Angle Trisection in the Nine Pointed Star, and Introducing  $\Psi$**   
*Paul Stang*

**1:15pm–1:25pm**      **Dissecting  $2n$ -Gons to Approximate the Circle–Squaring Process**  
*Pamela B. Pierce and*  
*Jeffrey Willert,*  
*The College of Wooster*

**1:30pm–1:40pm**      **Exploring a Quartet of Triangle Theorems – Old and New Insights via Geometer’s Sketchpad**  
*Gregory Gerard Wojnar, Frostburg State University*

**1:45pm–1:55pm**      **Limit Cycles From a Sum and Number of Digits Concatenated Sequence**  
*Richard Brazier, Penn State University– DuBois Campus*  
*Shauna Knarr and*  
*Andra Barraclough,*  
*Penn State University*

**2:00pm–2:10pm**      **The Harmonic Series: Used, Abused, and Confused**  
*Scott Hochwald,*  
*University of North Florida*

**2:15pm–2:25pm**      **A Streamfunction–Velocity Based Simulation of the Laminar Flow Past a Square Cylinder**  
*Jiten C. Kalita, Indian Institute of Technology Guwahati, INDIA*

**2:30pm–2:40pm**      **The Elementary Mathematical Theory of Parallelism, Convergence and Divergence**  
*Stewart Ernest Brekke,*  
*International University for Graduate Studies*

**1:00pm–3:00pm**      **Minicourse | 2**  
*Hall Ideas J, Monona Terrace*

**The Ubiquitous Catalan Numbers and Their Applications**

*Thomas Koshy,*  
*Framingham State College*

**1:00pm–3:00pm**      **Minicourse | 1**  
*Hall Ideas G, Monona Terrace*

**A Game Theory Path to Quantitative Literacy**

*Rick Gillman,*  
*Valparaiso University*

*David Housman,*  
*Goshen College*

**1:00pm–3:20pm**      **Contributed Paper Session**  
*Hall Ideas E, Monona Terrace*

**Projects and Demonstrations That Enhance a Differential Equations Course**

*Shawnee McMurrin,*  
*California State University, San Bernardino*

*Richard Marchand,*  
*Slippery Rock University*

**1:00pm–1:20pm**      **Exploring Differential Equations Using MS Excel**  
*Sarah Mabrouk,*  
*Framingham State College*

# Schedule of Events | Friday



# Schedule of Events | Friday

1:20pm–1:40pm	<p>The Laplace Transform: Motivating the Definition</p> <p><i>Howard I. Dwyer, Monmouth College</i></p>	1:20pm–1:35pm	<p>Using CaluMath Software to Create Interactive Web Pages for College Algebra, Pre–Calculus, and Calculus</p> <p><i>Peter Turbek, Purdue University Calumet</i></p>
1:40pm–2:00pm	<p>Integrating Synaptic Models into a Different Equations Course</p> <p><i>Joe Latulippe, Cal Poly Pomona</i></p>	1:40pm–1:55pm	<p>Interactive CaluMath Web Pages for College Algebra and Pre–Calculus</p> <p><i>Jeff Gregg, Purdue University Calumet</i></p>
2:00pm–2:20pm	<p>Desktop Circuits: Audio Data Collection</p> <p><i>Allen Struthers, Michigan Technological University</i></p>	2:00pm–2:15pm	<p>Capturing a Class: Adventures with Tegrity</p> <p><i>Kevin William Dennis and Chad Kjørlien, Saint Mary’s University of Minnesota</i></p>
2:20pm–2:40pm	<p>Getting Your Hands Wet in a Differential Equations Course</p> <p><i>Terry Jo Leiterman, St. Norbert College</i></p>	2:20pm–2:35pm	<p>“Tabulating” Mathematics</p> <p><i>Denise LeGrand and Sally Robinson, UALR</i></p>
2:40pm–3:00pm	<p>Fundamental Solutions of Dirac System</p> <p><i>Wen Liu and Gro Hovhannisyan, Kent State University</i></p>	2:40pm–2:55pm	<p>Using Tablet PCs in Calculus 1</p> <p><i>Christopher K. Cartwright, Lawrence Technological University</i></p>
3:00pm–3:20pm	<p>Stabilizing Elastic Beams</p> <p><i>Richard Marchand, Slippery Rock University</i></p>	3:00pm–3:15pm	<p>Using Clickers to Encourage Discussion and Communication in Mathematics</p> <p><i>Erick Hofacker and Kathryn Teresa Ernie, University of Wisconsin – River Falls</i></p>
1:00pm–4:00pm	<p>Contributed Paper Session</p> <p><i>Hall Ideas F, Monona Terrace</i></p> <p>Creative Uses of Emerging Technologies for Mathematics Teaching</p> <p><i>Lila F. Roberts, Clayton State University</i></p> <p><i>David R. Hill, Temple University</i></p>	3:20pm–3:35pm	<p>Using Clickers Toward Conceptual Understanding: Experiences in Statistical Courses</p> <p><i>Teri Jo Murphy, University of Oklahoma</i></p>
1:00pm–1:15pm	<p>Mathematical Handwriting Recognition for Education</p> <p><i>Peter Garst, Enventra, Inc.</i></p>	3:40pm–3:55pm	<p>ICLICK the MATH in Class</p> <p><i>Chen–Han Sung, Texas A&amp;M International University</i></p>

1:00pm–5:00pm **Project NExT**  
*Doty, Hilton*

1:00pm–5:00pm **Project NExT**  
*Vilas, Hilton*

1:00pm–5:00pm **Project NExT**  
*Tenny, Hilton*

2:00pm–3:30pm **Panels and Other Sessions**  
*Lecture Hall, Monona Terrace*  
**MAA Alder Awards Session**  
*Moderator—Joseph Gallian, University of Minnesota, Duluth, MAA President*

2:00pm–4:55pm **Pi Mu Epsilon Student Paper Session 5**  
*Meeting Room L, Monona Terrace*

2:00pm–4:55pm **Pi Mu Epsilon Student Paper Session 6**  
*Meeting Room M, Monona Terrace*

2:00pm–4:55pm **Pi Mu Epsilon Student Paper Session 7**  
*Meeting Room N, Monona Terrace*

2:00pm–4:55pm **MAA Student Paper Session 17**  
*Meeting Room Q, Monona Terrace*

2:00pm–4:55pm **MAA Student Paper Session 18**  
*Meeting Room R, Monona Terrace*

2:15pm–3:35pm **Panels and Other Sessions**  
*Ballroom A, Monona Terrace*  
**Teachers for a New Era’s Impact on Mathematics Education**  
*Magnhild Lien, California State University, Northridge*  
*Nancy Marcus, University of Texas, El Paso*

*Aaron Brakoniecki, Michigan State University*

*Henry Kepner, Kevin McLeod, and DeAnn Huinker, University of Wisconsin-Milwaukee*

*Joel Zeitlin and Jerrold Gold, California State University, Northridge*

2:15pm–3:35pm **Panels and Other Sessions**  
*Ballroom B, Monona Terrace*  
**Using On-Line Homework in Mathematics Classes**  
*Michael E. Gage, Arnold L. Pizer and Vicki Roth, University of Rochester*

3:15pm–5:15pm **Invited Paper Session**  
*Ballroom D, Monona Terrace*  
**Implications for Teaching of Research on Learning**  
*Patrick Thompson, Arizona State University*

3:15pm–3:30pm **The Role of Quantitative Reasoning in Learning Word Problems in Pre-Calculus Mathematics**  
*Marilyn Carlson, Arizona State University*

3:35pm–3:50pm **From Individual Interviews to Whole-Class Experiments: Reconstructing a Course in Abstract Algebra**  
*Sean Larsen, Portland State University*

3:55pm–4:10pm **Successful and Unsuccessful Students’ Learning Strategies in Real Analysis**  
*Keith Weber, Rutgers University*

# Schedule of Events | Friday

4:15pm–4:30pm Learning Without Understanding and Its Implications for the Mathematics That Teachers Teach

*Pat Thompson,  
Arizona State University*

3:15pm–4:35pm Panels and Other Sessions  
*Ballroom C, Monona Terrace*

How to Apply for Jobs

*David Manderscheid,  
University of Nebraska–Lincoln*

3:15pm–5:30pm General Contributed Paper Session 6

*Meeting Room O  
Monona Terrace*

*Sarah Mabrouk,  
Framingham State College*

3:15pm–3:25pm Challenging Gifted High School Students

*Vince Matsko, IMSA*

3:30pm–3:40pm Cross–Cultural Analysis of Females Identified with Exceptional Mathematical Talent

*Janet E. Mertz, University of Wisconsin – Madison*

*Titu Andreescu,  
University of Texas – Dallas*

*Joseph A. Gallian, University of Minnesota Duluth*

*Jonathan Kane, University of Wisconsin – Whitewater*

3:45pm–3:55pm Compass and Straightedge Constructions, Without a Compass

*Charlotte Schulze–Hewett,  
Harper College*

4:00pm–4:10pm Teach Concepts and Understanding, and Do Not Concentrate on Manipulations Which Hinder This

*Herman Rubin,  
Purdue University*

4:15pm–4:25pm Strengthening and Assessing College Students' Learning Outcomes in General Education Mathematics Courses

*Xuhui Li, California State University, Long Beach*

4:30pm–4:40pm The Effect of Knotting on the Shape of Polymers

*Kenneth Cary Millett,  
University of California*

4:45pm–4:55pm SPLN–What is it?

*Monika Vo,  
St. Leo University*

5:00pm–5:10pm Teaching Mathematics to Lebanese Engineers: The Experience of the Ecole Supérieure d'Ingénieurs de Beyrouth

*Salim Wehbé Salem,  
Ecole Supérieure d'Ingénieurs de Beyrouth*

5:15pm–5:25pm Facilitating IBL Classroom Issues With Technology

*Glenn Hurlbert,  
Arizona State University*

**3:15pm–6:15pm**      **Contributed Paper Session**

*Hall Ideas H, Monona Terrace*

Projects, Applications and Demonstrations to Enhance a Numerical Analysis or Computational Mathematics Course

*Olga Brezhneva,  
Miami University*

*David Coulliette, Asbury College*

**3:15pm–3:30pm**

**Muscle Contraction Modeling – This Will Pump You Up!**

*David Coulliette, Asbury College*

**3:35pm–3:50pm**

If I May Make a Generalization, Generalizations are Generally Good (in numerics)

*Anthony Tongen,  
James Madison University*

**3:55pm–4:10pm**

Expert vs. Novice Understanding of Estimation Using Taylor Series

*Jason Howard Martin,  
University of Oklahoma*

**4:15pm–4:30pm**

**Computational Applications in Mathematical Biology**

*Nicoleta Eugenia Tarfulea, Purdue University Calumet*

**4:35pm–4:50pm**

**Exploring Computational Mathematics: Unfolding Polyhedra**

*Brittany Terese Fasy,  
Duke University*

*David Millman,  
UNC – Chapel Hill*

**4:55pm–5:10pm**

Some Interesting Applications of Numerical Analysis in Science and Engineering

*Muhammad Usman,  
University of Dayton*

**5:15pm–5:30pm**

Truth, Justice and the Search for Rigorous Error Bounds: A Case Study in Interval Analysis

*Matthew Glomski,  
Marist College*

**5:35pm–5:50pm**

Providing Options: Making Projects Work for a Diverse Audience

*Andrew John Miller,  
Belmont University*

**5:55pm–6:10pm**

Projects and Illustrations That Can Be Used In a Numerical Analysis Course

*Olga Brezhneva,  
Miami University*

**3:30pm–5:30pm**

**Contributed Paper Session**

*Hall Ideas E, Monona Terrace*

How To Get Students to Read the Text and Does This Matter?

*Mike Axtell, Wabash College*

*Joe A. Stickles Jr. and  
Paula R. Stickles,  
Millikin University*

**3:30pm–3:45pm**

Read It— Techniques to Get It to Happen

*Allen Hibbard, Central College*

**3:50pm–4:05pm**

“Do Real Mathematicians Read The Book?”: Encouraging Mathematical Maturity Via Reading Checks

*Andrea Frazier,  
North Central College*

# Schedule of Events | Friday

4:10pm–4:25pm	Assessing Student Growth in Reading Mathematics <i>Bonnie Gold, Monmouth University</i>
4:30pm–4:45pm	Learning Styles and Measurable Reading Assignments <i>Rachel Esselstein, California State University, Monterey Bay</i>
4:50pm–5:05pm	What Do Students Actually Read, and Its Educational Implications? <i>Bill Rybolt, Babson College</i>
5:10pm–5:25pm	What Students Read is Not Necessarily What They “Get” <i>Mary D. Shepherd, Northwest Missouri State University</i>
3:30pm–5:30pm	Minicourse   5 <i>Hall Ideas G, Monona Terrace</i> Perspective Viewing and Drawing Make Good Math Problems <i>Marc Frantz, Indiana University</i> <i>Annalisa Crannell, Franklin &amp; Marshall College</i>
3:30pm–5:30pm	Minicourse   6 <i>Hall Ideas J, Monona Terrace</i> Mathematics and the Geometry of Voting <i>Donald G. Saari, University of California Irvine</i>

4:00pm–5:30pm	SIGMAA on the Philosophy of Mathematics <i>Ballroom A, Monona Terrace</i> Guest Lecture and Reception <i>Mo Hirsch, University of California, Berkeley</i>
4:00pm–5:45pm	Panels and Other Sessions <i>Lecture Hall, Monona Terrace</i> <i>Hard Problems: Movie</i> <i>George Csicsery, Zala Films</i>
4:15pm–5:15pm	Contributed Paper Session <i>Hall Ideas E, Monona Terrace</i> Advances in Recreational Mathematics <i>Paul R. Coe and Kristen Schemmerhorn, Dominican University</i>
4:15pm–4:30pm	Falling Through the Earth in the <i>Mirror of the World</i> <i>Andrew Simoson, King College</i>
4:35pm–4:50pm	$N + k$ Queens Reflection <i>Doug Chatham, Morehead State University</i>
4:55pm–5:10pm	First Occurrence Counterexamples in Odd Abundant Number Sequences <i>Jay Schiffman, Rowan University</i>
4:30pm–6:00pm	SIGMAA on Environmental Mathematics <i>Ballroom D, Monona Terrace</i> Guest Lecturer and Business Meeting Models for Managing Forested Landscape <i>Joseph Buongiorno, University of Wisconsin</i>

- 6:00pm–7:45pm**      **Undergraduate Activities**  
*Grand Terrace, Monona Terrace*
- Pi Mu Epsilon Student Banquet and Awards Ceremony**
- 7:00pm–9:00pm**      **UW-Madison Alumni Reunion**  
*UW-Madison Campus, Van Vleck Hall*
- 8:00pm–8:50pm**      **Pi Mu Epsilon J. Sutherland Frame Lecturer**  
*Ballroom AB, Monona Terrace*
- The Symmetries of Things**  
*John H. Conway, Princeton University*
- 9:00pm–10:00pm**      **MAA Ice Cream Social**  
*Grand Terrace, Monona Terrace*

## Saturday, August 2

- 7:00am–9:00am**      **5K Fun Run/Walk**  
*Meet in the Lobby, Monona Terrace*
- 8:00am–2:00pm**      **Registration**  
*Lakeside Commons, Level 1 Monona Terrace*
- 8:30am–9:20am**      **AWM–MAA Etta Z. Falconer Lecture**  
*Ballroom AB, Monona Terrace*
- The Circle: From Antiquity to Today**  
*Rebecca Goldin, George Mason University*
- 8:30am–10:30am**      **Contributed Paper Session**  
*Hall Ideas I, Monona Terrace*
- Actual Problems, Actual Mathematics – Applied Mathematics in Science and the Classroom**

- William Stone, New Mexico Institute of Mining and Technology*
- Stephen Davis, Davidson College*
- 8:30am–8:45am**      **Problem Formulation for Sustainability**  
*Chulin Likasiri, Chiang Mai University*
- 8:50am–9:05am**      **A Modular Approach to Teaching a Course in Application–Based Problem Solving**  
*Benjamin Galluzzo, University of Iowa*
- Theodore Wendt, University of Wisconsin – La Crosse*
- 9:10am–9:25am**      **Using Simulation to Verify Biological Model Fit with Field Data**  
*Scott Searcy and Paul Bartelt, Waldorf College*
- 9:30am–9:45am**      **Modeling the Buoyancy Properties of Virginia Class Submarines**  
*James S. Rolf and Kimberly Swetz, United States Air Force Academy*
- 9:50am–10:05am**      **Euler’s Constant in Interstate Highway Driving**  
*Mostafa Ghandehari and Siamak Ardekani, University of Texas at Arlington*
- 10:10am–10:25am**      **Wavelet Transforms: The Linear Algebra Approach**  
*Jenae Beauchamp, Eastern Connecticut State University*
- 8:30am–10:30am**      **General Contributed Paper Session 7**  
*Hall Ideas I, Monona Terrace*
- Sarah Mabrouk, Framingham State College*

# Schedule of Events | Saturday

8:30am–8:40am	<p>Statistics'r'us – Reshaping Students' Attitude From Aversion and Anxiety to Curiosity and Confidence</p> <p><i>Laszlo Erdodi,</i> <i>Eastern Michigan University</i></p> <p><i>Zsolt Lavicza,</i> <i>University of Cambridge</i></p>
8:45am–8:55am	<p>Data Mining: An Emerging Topic in Mathematical/ Statistical Education</p> <p><i>Deborah Gougeon,</i> <i>University of Scranton</i></p>
9:00am–9:10am	<p>The Next Phase In Developing Effective Teaching Techniques For Undergraduate College Algebra Courses</p> <p><i>Jonathan Paul Lambright,</i> <i>Savannah State University</i></p>
9:15am–9:25am	<p>Let's Do This Once: Folding Vector Calculus into Multivariable Calculus Using Geometry and Language</p> <p><i>Aaron Wangberg,</i> <i>Winona State University</i></p>
9:30am–9:40am	<p>Dual Enrollment Using Mathxl</p> <p><i>William Calbeck,</i> <i>LSU–Alexandria</i></p>
9:45am–9:55am	<p>College Entrance Examinations You Need to Pass to Be a Middle School or High School Mathematics Teacher in Japan</p> <p><i>Kazuko Ito West,</i> <i>Keio Academy of New York</i></p>

10:00am–10:10am	<p>Common Misconceptions in Middle School Math Textbooks</p> <p><i>Jerome Dancis,</i> <i>University of Maryland</i></p>
10:15am–10:25am	<p>Maplets for Calculus– Tutoring Without the Tutor</p> <p><i>Philip B. Yasskin,</i> <i>Texas A&amp;M University</i></p> <p><i>Douglas B. Meade,</i> <i>University of South Carolina</i></p>
8:30am–10:30am	<p><b>Contributed Paper Session</b></p> <p><i>Meeting Room M</i> <i>Monona Terrace</i></p> <p>Fascinating Examples from Combinatorics, Discrete Mathematics, and Graph Theory</p> <p><i>Suzanne Dorée,</i> <i>Augsburg College</i></p> <p><i>Nancy Ann Neudauer,</i> <i>Pacific University</i></p>
8:30am–8:45am	<p>Changing Dimensionality in Data Processing</p> <p><i>Amy Mihnea,</i> <i>Florida Atlantic University</i></p>
8:50am–9:05am	<p>Building Fast Communications Networks: A Brief Introduction to Expanders and Ramanujan Graphs</p> <p><i>Mike Krebs,</i> <i>California State University, Los Angeles</i></p>
9:10am–9:25am	<p>Minimum Spanning Trees: An In–Class Project</p> <p><i>Pallavi Jayawant,</i> <i>Bates College</i></p>
9:30am–9:45am	<p>Egalitarian Matching and Normalized Matching</p> <p><i>Mark Joseph Logan,</i> <i>University of Minnesota – Morris</i></p>

9:50am–10:05am **A Graph Theoretic Proof That There Are Only Five Platonic Solids**  
*Alan Alewine, McKendree University*

10:10am–10:25am **The Pohlig–Hellman Exponentiation Cipher as a Bridge Between Classical and Modern Cryptography**  
*Joshua Holden, Rose–Hulman Institute of Technology*

8:30am–10:30am **Contributed Paper Session**  
*Meeting Room N, Monona Terrace*  
**How To Get Students to Read the Text and Does This Matter?**  
*Mike Axtell, Wabash College*  
*Joe A. Stickles, Jr. and Paula R. Stickles, Millikin University*

8:30am–8:45am **Learning to Read and Reading to Learn: The Value of Reading the Text Before Class**  
*Matt Boelkins, Grand Valley State University*

8:50am–9:05am **Homework Can Motivate Students to Read the Book**  
*Richard Maher, Loyola University Chicago*

9:10am–9:25am **Journal Forms to Test Student’s Understanding**  
*Amy Wehe and Rala Diakite, Fitchburg State College*

9:30am–9:45am **An Analysis Sketchbook: Rethinking Texts to Generate Student Interest**  
*Clark Wells, Grand Valley State University*

9:50am–10:05am **Students and College Algebra Textbooks**  
*Satish C. Bhatnagar, UNLV*

8:30am–10:30am **Contributed Paper Session**  
*Meeting Room Q, Monona Terrace*  
**Incorporating Humanities and the Arts into the Mathematics Classroom (and Vice Versa)**  
*Michelle Ghrist, U.S. Air Force Academy*

8:30am–8:45am **Teaching the Mathematics of Music**  
*Rachel Hall, Saint Joseph’s University*

8:50am–9:05am **Mathematics in Music: An Interdisciplinary Course**  
*James Richard Hughes, Elizabethtown College*

9:10am–9:25am **A Musical Journey Through Abstract Algebra**  
*Samuel A. Lopes, University of Poto, Portugal*

9:30am–9:45am **Leading a Book Discussion in a Liberal Arts Mathematics Class**  
*Russell Goodman, Central College*

9:50am–10:00am **Honor–ing Mathematics History**  
*Tracey McGrail, Marist College*

10:10am–10:25am **Finite, Infinite, and Countable Infinite**  
*Timothy Agendia Atabong, Madonna University, Nigeria*

8:30am–10:30am **Contributed Paper Session**  
*Meeting Room R, Monona Terrace*

# Schedule of Events | Saturday



# Schedule of Events | Saturday

	<p>Interesting Topics in History of Mathematics that Enhance the Teaching and Learning of Mathematics</p> <p><i>Daniel Curtin, Northern Kentucky University</i></p> <p><i>Amy Shell–Gellach, Pacific Lutheran University</i></p>
8:30am–8:45am	<p>Connecting Pascal’s Triangle to Geometry and Trigonometry</p> <p><i>Tom McMillian and Jim Fulmer, University of Arkansas at Little Rock</i></p>
8:50am–9:05am	<p>Treasures in Three</p> <p><i>Joyati Debnath, Winona State University</i></p>
9:10am–9:25am	<p>“Vedic” Decimal Fraction Patterns</p> <p><i>Jeff Johannes, SUNY Geneseo</i></p>
9:30am–9:45am	<p>Ghosts of Departed Errors: Berkeley’s Mathematical Objections to the Calculus</p> <p><i>Eugene Boman, Penn State University, Harrison Campus</i></p>
9:50am–10:05am	<p>Mathematician or Poet</p> <p><i>Mohammad Moazzam, Salisbury University</i></p>
10:10am–10:25am	<p>Who Discovered Discontinuous Derivatives?</p> <p><i>Dave Lawrence Renfro, ACT, Inc.</i></p>
9:00am–10:20am	<p>Finding a Good Fit in a Graduate Program</p> <p><i>Hall Ideas H, Monona Terrace</i></p> <p><i>Abbe H. Herzig, SUNY at Albany</i></p>

9:00am–10:30am	<p>Math Matters: Numerate Approaches to Everyday Issues</p> <p><i>Ballroom C, Monona Terrace</i></p> <p><i>Maura Mast, University of Massachusetts at Boston</i></p>
9:00am–10:30am	<p>Undergraduate Activity</p> <p><i>Hall Ideas E, Monona Terrace</i></p> <p>MAA Mathematical Contest in Modeling (MCM) Winners</p> <p><i>Ben Fusaro, Florida State University</i></p>
9:00am–10:30am	<p>SIGMAA on Research in Undergraduate Mathematics Education</p> <p><i>Hall Ideas F, Monona Terrace</i></p> <p>Workshop on Essential Reasoning Abilities and Conceptual Foundations of Calculus</p> <p><i>Marilyn P. Carlson, Arizona State University</i></p>
9:00am–2:00pm	<p>Art Exhibit</p> <p><i>Exhibit Hall B, Monona Terrace</i></p>
9:00am–2:00pm	<p>Exhibits and Book Sale</p> <p><i>Exhibit Hall B, Monona Terrace</i></p>
9:00am–2:00pm	<p>Undergraduate Activities</p> <p><i>Exhibit Hall B, Monona Terrace</i></p> <p>Student Hospitality Center</p> <p><i>Richard and Araceli Neal, American Society for the Communications of Math</i></p>
9:30am–10:20am	<p>Earle R. Hedrick Lecture Series</p> <p><i>Ballroom AB, Monona Terrace</i></p> <p>Lecture 3   Transformers: Reconfigurable Robots and Hinged Dissections</p> <p><i>Erik Demaine, Massachusetts Institute of Technology</i></p>

**9:30am–10:30pm**    **Math Horizons Session**  
*Lecture Hall, Monona Terrace*

**10:30am–11:20am**    **MAA Invited Address**  
*Ballroom AB, Monona Terrace*  
**Generalizing “ $\ell$ ”: The Combinatorics of “ $\ell$ ” Sequences**  
*Carla Savage, North Carolina State University*

**11:00am–12:00pm**    **Green Tour**  
*Meet at Lakeside Commons, Monona Terrace*

**11:30am–12:00pm**    **MAA Business Meeting**  
*Ballroom AB, Monona Terrace*  
*Moderated by Martha J. Siegel, Towson University, MAA Secretary*

**1:00pm–2:00pm**    **Flatland: Movie**  
*Ballroom B, Monona Terrace*

**1:00pm–2:20pm**    **Creating a Post–Calculus Pre–Calculus Course for Advanced High School Students**  
*Lecture Hall, Monona Terrace*  
*Dan Teague, NC School of Science and Mathematics*  
*Dan Lotesto, Milwaukee Public Schools*

**1:00pm–2:20pm**    **First–Year Courses Designed to Attract Students to the Serious Study of Mathematics**  
*Ballroom A, Monona Terrace*  
*Michael Starbird, University of Texas*  
*James Sellers, Penn State University*

**1:00pm–3:00pm**    **Invited Paper Session**  
*Ballroom D, Monona Terrace*  
**History of Mathematics**  
*Amy Shell–Gellasch, Pacific Lutheran College*  
*Shawnee L. McMurrin, California State University, San Bernardino*

**1:00pm–1:15pm**    **Motivating Infinite Series Through Modified Leap Years**  
*Robert Myers, Bethel College*

**1:20pm–1:35pm**    **Napier’s “Logarithms” Weren’t**  
*Andrew deLong Martin, Kentucky State University*

**1:40pm–1:55pm**    **Fermat’s Shrinking Rectangles**  
*Amy Shell–Gellasch, Pacific Lutheran University*

**2:00pm–2:15pm**    **It’s Just Thin Air: Resistance and Projectile Motion**  
*Shawnee McMurrin, California State University, San Bernardino*

**2:20pm–2:35pm**    **Thomas Harriot’s Pythagorean Triples: Could He List Them All?**  
*Janet L. Beery, University of Redlands*

**2:40pm–2:55pm**    **What’s Interesting About the Number 1729?**  
*Peter Schumer, Middlebury College*

**1:00pm–3:00pm**    **Contributed Paper Session**  
*Hall Ideas F, Monona Terrace*  
**Innovations in Mathematics Education I**  
*Nancy Leveille and Carol Vobach, University of Houston–Downtown*

# Schedule of Events | Saturday

1:00pm–1:10pm	Supplementing Pre–Service Mathematical Content Courses with Online Homework  <i>Michael B. Scott, California State University, Monterey Bay</i>
1:15pm–1:25pm	Development of a Survey to Assess Pre–Service Teachers’ Views and Uses of Problem–Solving in Mathematics  <i>Jane Ries Cushman, Buffalo State College</i>
1:30pm–1:40pm	Focusing Pre–Service Elementary Teachers’ Thinking on Children’s Thinking in Order to Deepen Their Mathematical Understanding  <i>Jeff Gregg and Gayle Millsaps, Purdue University Calumet</i>
1:45pm–1:55pm	Using Cryptography to Teach Number Theory to Future Middle School Teachers  <i>Bonnie Saunders and Janet Simpson Bessinger, University of Illinois at Chicago</i>
2:00pm–2:10pm	Vertically Connecting College and Middle Grades Mathematics: The Two–Problem Comparison Paper  <i>Theresa A. Jorgensen, University of Texas at Arlington</i>
2:15pm–2:25pm	The Impact of Teaching for Understanding Experiment in 8–12th Grade Mathematics  <i>John Hasenbank and Jennifer Kosiak, University of Wisconsin – La Crosse</i>

2:30pm–2:40pm	Technology, Conjecture and Proof: Exposing the Thinking of Teachers  <i>Kathryn Shafer, Bethel College</i>
2:45pm–2:55pm	University Geometry: Pre–Service Teachers’ Views on Its Role in the Classroom  <i>Angela Marie Hodge, North Dakota State University</i>
1:00pm–3:00pm	Minicourse   3  <i>Hall Ideas G, Monona Terrace</i>
	Teaching a Proof–Based Course as the Gateway to the Mathematics Major  <i>James Sandefur, Georgetown University</i>  <i>Connie Campbell, Millsaps College</i>
1:00pm–3:00pm	General Contributed Paper Session 8  <i>Hall Ideas I, Monona Terrace</i>  <i>Sarah Mabrouk, Framingham State College</i>
1:00pm–1:10pm	The Impact of K-12 Mathematics on College Mathematics  <i>Magdalena Luca, Massachusetts College of Pharmacy and Health Sciences</i>
1:15pm–1:25pm	Induced Topologies and Separation Axioms  <i>Jay Stine, Misericordia University</i>
1:30pm–1:40pm	An Integral Representation for Zeta( $n$ )  <i>Ranjith A Munasinghe, WVU Institute of Technology</i>

1:45pm–1:55pm Addressing the Hammer-and-Nail Phenomenon in Mathematics Classrooms  
*Kien Hwa Lim, University of Texas at El Paso*

2:00pm–2:10pm Modified Taylor Polynomials  
*Sayel Ali, Minnesota State University, Moorhead & The Petroleum Institute/Abu Dhabi*  
*Radwan Al-jarrah, Southwestern Oklahoma State University*

2:15pm–2:25pm Obsession From the Greeks: Doubling Cubes, Squaring Circles, Trisecting Angles, and Constructing Regular Polygons  
*Charlie Smith, Park University*

2:30pm–2:40pm Factor, Factor - Who's Got the Factor?  
*Leslie Horton, Delta State University*

2:45pm–2:55pm An Idealized Mathematical Model of a Runner Built-Up From the Angle-of-Lean  
*Michael Edward Zeidler, Retired*

1:00pm–3:00pm Minicourse | 4  
*Hall Ideas J, Monona Terrace*  
How to Run a Successful Math Circle  
*Matthias Beck, San Francisco State University*  
*Tatiana Shubin, San Jose State University*  
*Sam Vandervelde, Saint Lawrence University*

1:00pm–3:00pm Graduate Paper Session  
*Meeting Room M, Monona Terrace*  
*James Freeman, Cornell College*

1:00pm–4:15pm Contributed Paper Session  
*Hall Ideas E, Monona Terrace*  
Fascinating Examples from Combinatorics, Discrete Mathematics, and Graph Theory  
*Suzanne Dorée, Augsburg College*  
*Nancy Ann Neudauer, Pacific University*

1:00pm–1:20pm Fibonacci Trees: A Dream Come True  
*Benjamin V.C. Collins, University of Wisconsin – Platteville*

1:25pm–1:45pm Using Recursion to Study Mathematical Induction, Schur Numbers, and the Pill Problem  
*Keith Brandt, Rockhurst University*

1:50pm–2:10pm An Unexpected Appearance of Continued Fractions  
*David Molnar and Adam McDougall, University of Iowa*

2:15pm–2:35pm Numerals Based on the Golden Ration  
*Bruce Walker Atkinson, Samford University*

2:40pm–3:00pm Activities Exploring the Collatz Conjecture – An Unsolved Problem in Fifth Grade Arithmetic  
*Doug Shaw, University of Northern Iowa*

3:05pm–3:25pm Edge Nets of Cubes  
*Vince Matsko, IMSA*

3:30pm–3:50pm Hard to Guard Art Galleries  
*T.S. Michael, United States Naval Academy*

# Schedule of Events | Saturday

# Schedule of Events | Saturday

3:55pm–4:15pm **Paint By Numbers: Constructing a Map That Needs Nineteen Colors**  
*Todd Cadwallader Olsker, California State University, Fullerton*

1:00pm–5:00pm **Invited Paper Session**  
*Ballroom C, Monona Terrace*  
**Research With Undergraduates**  
*Mario Martelli, Claremont–McKenna College*

1:00pm–1:30pm **From Chaos to Colleagues**  
*Annalisa Crannell, Franklin & Marshall College*

1:30pm–2:00pm **Knot Theory Research with Undergraduates**  
*Colin Adams, Williams College*

2:00pm–2:30pm **Compactness in Metric Trees**  
*Asuman Aksoy, Claremont-McKenna College*

2:30pm–3:00pm **Building Communities Through REU Programs**  
*Carlos Castillo–Chavez, Arizona State University*

3:00pm–3:30pm **How to Juggle Seven Undergraduate Student Projects Without Dropping Any**  
*Jacqueline Jensen, Sam Houston State University*

3:30pm–4:00pm **The Applied Representation Theory Group at Harvey Mudd College**  
*Michael Orrison, Harvey Mudd College*

4:00pm–4:30pm **Tracing Certain  $n$  – Dimensional Space Point**  
*Aihua Li, Montclair State University*

4:30pm–5:00pm **Ramanujan’s Dream**  
*Marc Chamberland, Grinnell College*

1:30pm–5:00pm **Aldo Leopold Legacy Center Trip**  
*Meet in the Lobby, Monona Terrace*

2:00pm–3:15pm **Undergraduate Activity**  
*Meeting Room R, Monona Terrace*  
**Do Dogs Know Calculus? Bifurcations at the Beach**  
*Tim Pennings, Hope College and his dog Elvis*

2:30pm–3:45pm **Undergraduate Activity**  
*Ballroom A, Monona Terrace*  
**Student Problem Solving Competition**  
*Richard Neal, American Society for the Communication of Mathematics*

3:00pm–4:20pm **The Role of Open Source Math Projects in the Mathematics Community**  
*Lecture Hall, Monona Terrace*  
*Charles Weaver, University of Phoenix*  
*Jason Aubrey, University of Missouri*  
*Michael Scott, California State University, Monterey Bay*

3:15pm–5:15pm **General Contributed Paper Session 9**  
*Hall Ideas I, Monona Terrace*  
*Sarah Mabrouk, Framingham State College*

3:15pm–3:25pm **Illuminating Group Lattices**  
*Nancy Rodgers, Hanover College*  
*Doug Anewalt, University of Kentucky*

3:30pm–3:40pm **Elastic–plastic Transition of Transversely Isotropic Thin Rotating Disc**  
*Sanjeev Sharma and Noida Manojshani, Jaypee Institute of Information Technology University*

3:45pm–3:55pm **Creep Transition of Transversely Isotropic Thin Rotating Disc**  
*Noida Manojshani and Sanjeev Sharma, Jaypee Institute of Information Technology University*

4:00pm–4:10pm **A Generalization of Taylor’s Theorem: A Determinant Approach Using Mathematica**  
*Radwan Al–jarrah, Southwestern Oklahoma State University*  
*Sayel Ali, Minnesota State University, Moorhead & The Petroleum Institute/Abu Dhabi*

4:15pm–4:25pm **Probe into Goldbach Problem**  
*Liu Maocheng, Shengli Petroleum Bureau*

4:30pm–4:40pm **Beyond Classic: New Solution to Generalized Quadratic Function and Equation**  
*Roland Shen, Olympia Institute*

4:45pm–4:55pm **Multipliers and Operators on The Tempered Ultra–distributional Spaces of Roumieu Type for The Hankel Type Transformation**  
*Shrideh Khalaf Alomari*

5:00pm–5:10pm **Biharmonic–Extension Space**  
*Ibtesam Bajunaid, King Saud University*

3:15pm–5:15pm **Invited Paper Session**  
*Ballroom B, Monona Terrace*  
**Gems in Number Theory**  
*Sarah Mabrouk, Framingham State College*

3:15pm–3:40pm **A Tale of Two Curves**  
*Ezra Brown, Virginia Tech*

3:45pm–4:05pm **Farey Fractions and Ford Circles**  
*Richard K. Guy, University of Calgary*

4:10pm–4:30pm **Two Ways to Count to Polynomial Equations Solutions**  
*Margaret Robinson, Mt. Holyoke College*

4:35pm–5:10pm **Biscuits of Number Theory**  
*Art Benjamin, Harvey Mudd College*  
*Ezra Brown, Virginia Tech*

3:15pm–5:15pm **Contributed Paper Session**  
*Hall Ideas E, Monona Terrace*  
**Innovations in Mathematics Education II**  
*Nancy Leveille and Carol Vobach, University of Houston–Downtown*

3:15pm–3:25pm **Geometer’s Sketchpad Software (GPS) as a Teaching Aid for Secondary School Level**  
*Abd Rahim Abd Salim, University Teknologi Petronas*

# Schedule of Events | Saturday

3:30pm–3:40pm	Putting a STAMP on Mathematics Teacher Education <i>Tim Hendrix, Meredith College</i>
3:45pm–3:55pm	Constructing a World of Mathematics in the Middle School <i>Melissa A. Stoner, Lehigh University</i>
4:00pm–4:10pm	PRAXIS Project WI: Interactive Learning Objects <i>Kathryn Teresa Ernie and Erick Hofacker, University of Wisconsin – River Falls</i>
4:15pm–4:25pm	Math 201: Mathematics, Education, and Access to Power <i>Alan P. Knoerr, Occidental College</i>
4:30pm–4:40pm	Place Value Arithmetic via Polynomials <i>Jeff Johannes, SUNY Geneseo</i>
4:45pm–4:55pm	Preparing Elementary School Teaching Candidates to Meet Changing Licensure Requirements in Mathematics <i>Donna Beers, Simmons College</i>
5:00pm–5:10pm	Using Prediction Items and Clickers to Address Misconceptions <i>Kien Hwa Lim, University of Texas at El Paso</i>
3:15pm–5:15pm	Graduate Student Paper Session <i>Meeting Room M Monona Terrace</i> <i>James Freeman, Cornell College</i>

3:15pm–5:15pm	General Contributed Paper Session 10 <i>Meeting Room N Monona Terrace</i> <i>Sarah Mabrouk, Framingham State College</i>
3:15pm–3:25pm	The Box Method for Teaching Ratio and Proportion Problems <i>Jim Sullivan, Dallas ISD</i>
3:30pm–3:40pm	Simultaneous Binary Collision for the Collinear Four Body Problem <i>Duokui Yan, Brigham Young University</i>
3:45pm–3:55pm	Paracycles in Snell Geometries <i>Jack Mealy and Cicily Smith, Austin College</i>
4:00pm–4:10pm	Thin Film Over Thin Porous Layers <i>Kummit Nong, George Mason University</i>
4:15pm–4:25pm	On the Representation of Recursive Functions by Integrals <i>Raymond Stanley Puzio, PlanetMath</i>
4:30pm–4:40pm	Milking the Fascinating Applications of Geometric Power Series <i>Mulatu Lemma, Savannah State University</i>
4:45pm–4:55pm	Lagrangian Formulations of Mechanics With Designer Conservation Laws <i>Artem Yankov, BYU REU</i>

3:30pm–5:30pm **Minicourse | 5**  
*Hall Ideas G, Monona Terrace*

Perspective Viewing and Drawing Make Good Math Problems

*Marc Frantz, Indiana University*

*Annalisa Crannell, Franklin & Marshall College*

3:30pm–5:30pm **Minicourse | 6**  
*Hall Ideas J, Monona Terrace*

Mathematics and the Geometry of Voting

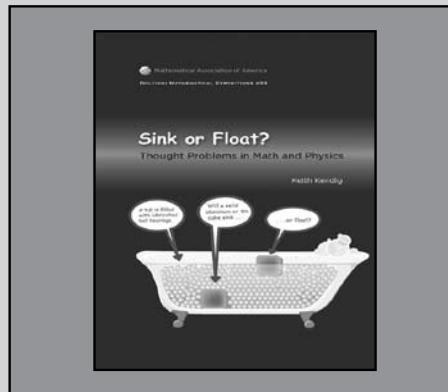
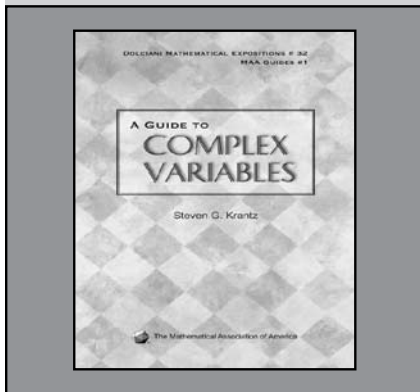
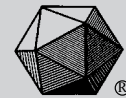
*Donald G. Saari, University of California, Irvine*

6:00pm–9:00pm **MAA Silver and Gold Reception and Banquet**  
*Grand Terrace, Monona Terrace*

## Sunday, August 3

8:15am–12:15pm **Taliesin Tour**  
*Meet in the Lobby Concourse Hotel*

## New Titles from the Mathematical Association of America:



Also, Join Us at the Publications Booth for Signings by these Authors:

Thursday, July 31:

11:30am-12:00pm- **John DePillis** author of “777 Mathematical Conversation Starters”

Friday, August 1:

11:30am-12:00pm- **Art Benjamin** author of “Secrets of Mental Math”

12:00pm-12:30pm- **Keith Kendig** author of “Sink or Float? Thought Problems in Math and Physics”