



## Program at a Glance

This document provides a thumbnail sketch of all scientific and social events so you can easily see which events may overlap and better plan your time.

### W E D N E S D A Y , J A N U A R Y 3

- 8:00 a.m. — 5:00 p.m. **AMS SHORT COURSE ON ASPECTS OF STATISTICAL LEARNING, I**  
 9:00 a.m. — 5:00 p.m. **MAA SHORT COURSE ON LEONHARD EULER: LOOKING BACK AFTER 300 YEARS, I**

### T H U R S D A Y , J A N U A R Y 4

- 8:00 a.m. — 6:30 p.m. **AMS DEPARTMENT CHAIRS WORKSHOP**  
 8:30 a.m. — 4:00 p.m. **MAA BOARD OF GOVERNORS**, Mardi Gras Ballrooms E/F/G/H, 3rd Floor, Marriott  
 9:00 a.m. — 5:00 p.m. **AMS SHORT COURSE ON ASPECTS OF STATISTICAL LEARNING, II**  
 9:00 a.m. — 5:00 p.m. **MAA SHORT COURSE ON LEONHARD EULER: LOOKING BACK AFTER 300 YEARS, II**  
 1:30 p.m. — 10:00 p.m. **AMS COUNCIL**, Mardi Gras Ballroom D, 3rd Floor, Marriott  
 3:00 p.m. — 8:00 p.m. **JOINT MEETINGS REGISTRATION** *Full registration will be conducted from 3:00 p.m. to 7:00 p.m. Badge/program pickup for those registered in advance will be open until 8:00 p.m., La Galeries 5 & 6, 2nd Floor, Marriott*

### F R I D A Y , J A N U A R Y 5

- 7:30 a.m. — 6:00 p.m. **JOINT MEETINGS REGISTRATION** *Full registration will be conducted from 7:30 a.m. to 4:00 p.m. Badge/program pickup for those registered in advance will be open until 6:00 p.m., La Galeries 5 & 6, 2nd Floor, Marriott*
- 7:30 a.m. — 6:00 p.m. **EMPLOYMENT CENTER**
- AMS-MAA SPECIAL SESSION**  
 8:00 a.m. — 10:55 a.m. *Math Circles and Similar Programs for Students and Teachers, I*
- 8:00 a.m. — 10:55 a.m. **AMS-ASL SPECIAL SESSION ON LOGICAL METHODS IN COMPUTATIONAL MATHEMATICS, I**
- 8:00 a.m. — 10:55 a.m. **AMS-AWM SPECIAL SESSION ON GEOMETRIC GROUP THEORY, I**
- AMS SPECIAL SESSIONS**  
 8:00 a.m. — 10:55 a.m. *Fixed Point Theory, Dynamics, and Group Theory, I*  
 8:00 a.m. — 10:55 a.m. *Knots, 3-Manifolds, and Their Invariants, I*  
 8:00 a.m. — 10:55 a.m. *Arrangements and Related Topics, I*  
 8:00 a.m. — 10:55 a.m. *Recent Developments in Analysis and Numerics of Geophysical Fluid Dynamics Problems, I*  
 8:00 a.m. — 10:55 a.m. *Coding Theory and Its Applications, I*  
 8:00 a.m. — 10:55 a.m. *Cohomology and Representation Theory, I*  
 8:00 a.m. — 10:55 a.m. *Experimental Mathematics in Action, I*  
 8:00 a.m. — 10:55 a.m. *Financial Mathematics, I*

**F R I D A Y , J A N U A R Y 5 ( c o n t ' d )**

**MAA CONTRIBUTED PAPER SESSIONS**

- 8:00 a.m. — 10:55 a.m. *Content Courses for the Mathematical Education of Middle School Teachers*
- 8:00 a.m. — 11:00 a.m. *Euler in the Classroom*
- 8:00 a.m. — 11:00 a.m. *Integrating Mathematics and Biology in Undergraduate Education*
- 8:00 a.m. — 11:00 a.m. *Teaching Mathematics Courses Online*
- 8:00 a.m. — 11:00 a.m. *Use of Technology in Abstract Algebra and Number Theory*
- 8:00 a.m. — 11:00 a.m. *General Contributed Paper Session, I*

8:00 a.m. — 10:55 a.m. **SIAM MINISYMPOSIUM ON PHYLLOTAXIS**

8:00 a.m. — 10:55 a.m. **SIAM MINISYMPOSIUM ON MATHEMATICS AND MATERIALS SCIENCE**

8:00 a.m. — 10:55 a.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**

- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #12: PART A** *Combinatorially thinking.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #1: PART A** *Introduction to the mathematics of modern cryptography.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #7: PART A** *Directing undergraduate research.*

9:00 a.m. — 5:00 p.m. **STUDENT HOSPITALITY CENTER**

9:30 a.m. — 10:55 a.m. **AMS SPECIAL PRESENTATION** *Report on the findings of the 2005 CBMS survey of undergraduate mathematical and statistical sciences in the U.S.*

9:30 a.m. — 10:50 a.m. **MAA-YMN PANEL DISCUSSION** *Keeping your research alive.*

9:30 a.m. — 10:50 a.m. **MAA SPECIAL PRESENTATION** *National Science Foundation programs supporting learning and teaching in the mathematical sciences.*

9:30 a.m. — 10:50 a.m. **SIGMAA ON THE TEACHING OF ADVANCED HIGH SCHOOL MATHEMATICS PANEL DISCUSSION** *What mathematical content should future mathematics majors learn while in high school?*

10:00 a.m. — 10:55 a.m. **AMS SPECIAL PRESENTATION** *Who wants to be a mathematician.*

10:05 a.m. — 10:55 a.m. **AMS INVITED ADDRESS** *Diffraction by edges.* **Andras Vasy**

11:10 a.m. — 12:00 p.m. **AMS-MAA INVITED ADDRESS** *Dynamics of integer sets.* **Bryna R. Kra**

12:15 p.m. — 5:30 p.m. **EXHIBITS AND BOOK SALES**

1:00 p.m. — 2:00 p.m. **AMS COLLOQUIUM LECTURE: LECTURE I** *Limit shapes, real and imagined, Part 1.* **Andrei Okounkov**

2:00 p.m. — 5:00 p.m. **MATH ON THE WEB, I**

2:15 p.m. — 3:05 p.m. **MAA INVITED ADDRESS** *Forming committees.* **Penny Haxell**

**AMS-MAA SPECIAL SESSION**

2:15 p.m. — 7:00 p.m. *Math Circles and Similar Programs for Students and Teachers, II*

2:15 p.m. — 6:10 p.m. **AMS-ASL SPECIAL SESSION ON LOGICAL METHODS IN COMPUTATIONAL MATHEMATICS, II**

2:15 p.m. — 6:10 p.m. **AMS-AWM SPECIAL SESSION ON GEOMETRIC GROUP THEORY, II**

**AMS SPECIAL SESSIONS**

- 2:15 p.m. — 6:10 p.m. *Fixed Point Theory, Dynamics, and Group Theory, II*
- 2:15 p.m. — 6:10 p.m. *Knots, 3-Manifolds, and Their Invariants, II*
- 2:15 p.m. — 6:10 p.m. *Arrangements and Related Topics, II*
- 2:15 p.m. — 6:10 p.m. *Recent Developments in Analysis and Numerics of Geophysical Fluid Dynamics Problems, II*
- 2:15 p.m. — 6:10 p.m. *Coding Theory and Its Applications, II*
- 2:15 p.m. — 6:10 p.m. *Cohomology and Representation Theory, II*

## FRIDAY, JANUARY 5 (cont'd)

- 2:15 p.m. — 6:10 p.m. *Experimental Mathematics in Action, II*  
 2:15 p.m. — 6:10 p.m. *Financial Mathematics, II*
- 2:15 p.m. — 4:15 p.m. **MAA MINICOURSE #13: PART A** *Teaching a course in the history of mathematics.*
- 2:15 p.m. — 4:15 p.m. **MAA MINICOURSE #2: PART A** *Some deterministic models in mathematical biology and their simulations.*
- 2:15 p.m. — 4:15 p.m. **MAA MINICOURSE #8: PART A** *Mathematics and geometry of voting.*
- MAA CONTRIBUTED PAPER SESSIONS**
- 2:15 p.m. — 6:00 p.m. *Chaos and Fractals*  
 2:15 p.m. — 6:00 p.m. *Entertaining with Math*  
 2:15 p.m. — 6:00 p.m. *Mathlets for Teaching and Learning Mathematics*  
 2:15 p.m. — 6:00 p.m. *Research and Other Mathematical Experiences for Students Outside the Classroom*  
 2:15 p.m. — 6:00 p.m. *General Contributed Paper Session, II*
- 2:15 p.m. — 6:00 p.m. **SIAM MINISYMPOSIUM ON RECENT ADVANCES IN COMPUTATIONAL SCATTERING**
- 2:15 p.m. — 6:00 p.m. **SIAM MINISYMPOSIUM ON EDUCATION**
- 2:15 p.m. — 4:15 p.m. **PROJECT NEXT-YMN POSTER SESSION**
- 2:15 p.m. — 3:35 p.m. **MAA COMMITTEE ON THE PROFESSION PANEL DISCUSSION** *Ethics in the mathematical sciences.*
- 2:15 p.m. — 3:35 p.m. **MAA COMMITTEE ON THE UNDERGRADUATE PROGRAM IN MATHEMATICS AND THE SIGMAA ON STATISTICS EDUCATION PANEL DISCUSSION** *Preparing majors for the nonacademic workforce: Projects and internships in applied mathematics and statistics.*
- 2:15 p.m. — 3:35 p.m. **MAA PANEL DISCUSSION** *The role of assessment in helping students learn.*
- 2:15 p.m. — 3:40 p.m. **AWM PANEL DISCUSSION**
- 2:15 p.m. — 5:55 p.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 2:30 p.m. — 5:00 p.m. **MAA SECTION OFFICERS**, Mardi Gras Ballroom D, 3rd Floor, Marriott
- 3:00 p.m. — 5:00 p.m. **PROJECT NEXT PANEL DISCUSSION** *Becoming a leader in your department.*
- 3:20 p.m. — 4:10 p.m. **MAA INVITED ADDRESS** *Baseball, Shakespeare, and modern statistical theory.* **Bradley Efron**
- 3:45 p.m. — 4:15 p.m. **AWM BUSINESS MEETING**
- 3:50 p.m. — 5:40 p.m. **SIGMAA ON THE HISTORY OF MATHEMATICS PANEL DISCUSSION** *The practice of math history.*
- 3:50 p.m. — 5:40 p.m. **MAA STUDY ABROAD TOURS SUBCOMMITTEE PANEL DISCUSSION** *Mathematics and mathematicians in emerging nations.*
- 3:50 p.m. — 5:10 p.m. **MAA COMMITTEE ON GRADUATE STUDENTS-YMN PANEL DISCUSSION** *How to interview for a job in the mathematical sciences.*
- 4:00 p.m. — 5:30 p.m. **SIGMAA ON ENVIRONMENTAL MATHEMATICS ANNUAL MEETING AND GUEST LECTURE**
- 4:30 p.m. — 6:00 p.m. **AMS COMMITTEE ON THE PROFESSION PRESENTATION**
- 4:45 p.m. — 6:45 p.m. **MAA MINICOURSE #14: PART A** *Contemporary college algebra: A refocused college algebra course.*
- 4:45 p.m. — 6:45 p.m. **MAA MINICOURSE #3: PART A** *A tool to implement quantitative literacy (QL): Spreadsheets Across the Curriculum.*

Program at a Glance

**FRIDAY, JANUARY 5 (cont'd)**

- 4:45 p.m. — 6:45 p.m. **MAA MINICOURSE #9: PART A** *Evaluating student presentations in mathematics.*
- 4:45 p.m. — 6:45 p.m. **MAA INFORMATION SESSION** *Current issues in actuarial science education.*
- 5:30 p.m. — 6:30 p.m. **RECEPTION FOR GRADUATE STUDENTS AND FIRST-TIME PARTICIPANTS** *The AMS and MAA warmly invite these special groups to meet the leadership of your sponsoring organizations.*
- 5:30 p.m. — 8:00 p.m. **MATHEMATICAL INSTITUTES OPEN HOUSE**
- 6:00 p.m. — 8:00 p.m. **SIGMAA ON THE HISTORY OF MATHEMATICS ANNUAL MEETING AND GUEST LECTURE**
- 6:00 p.m. — 7:00 p.m. **NEBRASKA CONFERENCE FOR UNDERGRADUATE WOMEN OPEN HOUSE REUNION**
- 7:00 p.m. — 11:00 p.m. **CARLETON SUMMER MATHEMATICS PROGRAM FOR WOMEN REUNION**
- 8:30 p.m. — 9:30 p.m. **AMS JOSIAH WILLARD GIBBS LECTURE** *Mathematics and physics.* **Peter D. Lax**
- 9:30 p.m. — 11:00 p.m. **AWM RECEPTION**

**SATURDAY, JANUARY 6**

- 7:00 a.m. — 8:30 a.m. **MAA DEPARTMENT LIAISONS BREAKFAST MEETING**
- 7:00 a.m. — 7:30 p.m. **EMPLOYMENT CENTER**
- 7:30 a.m. — 4:00 p.m. **JOINT MEETINGS REGISTRATION**, La Galeries 5 & 6, 2nd Floor, Marriott
- 8:00 a.m. — 11:55 a.m. **AMS-ASL SPECIAL SESSION ON LOGICAL METHODS IN COMPUTATIONAL MATHEMATICS, III**
- AMS SPECIAL SESSIONS**
- 8:00 a.m. — 11:55 a.m. *Free Discontinuity Problems: From Image Processing to Materials Science, I*
- 8:00 a.m. — 11:55 a.m. *Initial- and Boundary-Value Problems, Solvability, and Stability for some Nonlinear PDEs: Theorem, Computation, and Application, I*
- 8:00 a.m. — 11:55 a.m. *Invariant Theory, I*
- 8:00 a.m. — 11:55 a.m. *Mathematical Techniques in Musical Analysis, I*
- 8:00 a.m. — 11:55 a.m. *Radon Transforms, Convex Geometry, and Geometric Analysis, I*
- 8:00 a.m. — 11:55 a.m. *Calculus of Variations and Nonlinear PDEs: Theory and Applications, I*
- 8:00 a.m. — 11:55 a.m. *Cohomology and Representation Theory, III*
- 8:00 a.m. — 11:55 a.m. *Dynamic Programming, I*
- 8:00 a.m. — 11:55 a.m. *Financial Mathematics, III*
- 8:00 a.m. — 10:00 a.m. **MAA MINICOURSE #4: PART A** *Creating visual mathematics applets using flash programming.*
- MAA CONTRIBUTED PAPER SESSIONS**
- 8:00 a.m. — 12:00 p.m. *Mathematics and Biology 2010: Building Connections*
- 8:00 a.m. — 12:00 p.m. *Getting Students to Discuss and to Write about Mathematics, I*
- 8:00 a.m. — 12:00 p.m. *Philosophy of Mathematics, I*
- 8:00 a.m. — 12:00 p.m. *Innovative and Effective Ways to Teach Linear Algebra*
- 8:00 a.m. — 12:00 p.m. *Research on the Teaching and Learning of Undergraduate Mathematics*
- 8:00 a.m. — 12:00 p.m. *General Contributed Paper Session, III*
- 8:00 a.m. — 10:55 a.m. **SIAM MINISYMPOSIUM ON MATHEMATICAL MODELING OF COMPLEX SYSTEMS IN BIOLOGY, I**
- 8:00 a.m. — 10:55 a.m. **SIAM MINISYMPOSIUM ON STRUCTURE AND TOPOLOGY IN GRAPH THEORY, I**
- 8:00 a.m. — 11:55 a.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**

<b>S A T U R D A Y , J A N U A R Y 6 ( c o n t ' d )</b>
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- 8:00 a.m. — 10:00 a.m. **SIGMAA OFFICERS MEETING**
- 8:30 a.m. — 9:50 a.m. **MAA PANEL DISCUSSION** *Euler's continuing influence.*
- 8:30 a.m. — 9:50 a.m. **PROJECT NEXT PANEL DISCUSSION** *Getting your first book published.*
- 9:00 a.m. — 9:50 a.m. **AWM EMMY NOETHER LECTURE** *Automorphisms of free groups, outer space, and beyond.*  
**Karen Vogtmann**
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #10: PART A** *A beginner's guide to the scholarship of teaching and learning in mathematics.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #16: PART A** *More music and mathematics.*
- 9:00 a.m. — 10:20 a.m. **JOINT AMS-MAA COMMITTEE ON TEACHING ASSISTANTS AND PART-TIME INSTRUCTORS PANEL DISCUSSION** *Strategic thinking about nonladder faculty.*
- 9:00 a.m. — 5:00 p.m. **STUDENT HOSPITALITY CENTER**
- 9:30 a.m. — 5:30 p.m. **EXHIBITS AND BOOK SALES**
- 10:00 a.m. — 11:20 a.m. **MAA PANEL DISCUSSION** *Using student portfolios for assessment.*
- 10:00 a.m. — 11:20 a.m. **MAA COMMITTEE ON TECHNOLOGIES IN MATHEMATICS EDUCATION AND WEBSIGMAA PANEL DISCUSSION** *Best practices for expository mathematics in the digital age.*
- 10:00 a.m. — 5:00 p.m. **MATH ON THE WEB, II**
- 10:05 a.m. — 10:55 a.m. **MAA INVITED ADDRESS** *The Bernoulli brothers in the arena of the early calculus.* **Jan van Maanen**
- 10:30 a.m. — 12:30 p.m. **MAA MINICOURSE #5: PART A** *Wavelets and applications: A multidisciplinary undergraduate course with emphasis on scientific computing.*
- 10:30 a.m. — 11:50 a.m. **MAA SPECIAL PRESENTATION** *Proposal writing workshop for grant applications to the NSF Division of Undergraduate Education.*
- 11:10 a.m. — 12:00 p.m. **SIAM INVITED ADDRESS** *Geometry in the movies.* **Tony DeRose**
- 1:00 p.m. — 2:00 p.m. **AMS COLLOQUIUM LECTURE: LECTURE II** *Limit shapes, real and imagined, Part 2.*  
**Andrei Okounkov**
- 1:00 p.m. — 3:55 p.m. **AMS-AWM SPECIAL SESSION ON GEOMETRIC GROUP THEORY, III**
- AMS SPECIAL SESSIONS**
- 1:00 p.m. — 3:55 p.m. *Free Discontinuity Problems: From Image Processing to Materials Science, II*
- 1:00 p.m. — 3:55 p.m. *Initial- and Boundary-Value Problems, Solvability, and Stability for some Nonlinear PDEs: Theorem, Computation, and Application, II*
- 1:00 p.m. — 3:55 p.m. *Invariant Theory, II*
- 1:00 p.m. — 3:55 p.m. *Knots, 3-Manifolds, and Their Invariants, III*
- 1:00 p.m. — 3:55 p.m. *Arrangements and Related Topics, III*
- 1:00 p.m. — 3:55 p.m. *Mathematical Techniques in Musical Analysis, II*
- 1:00 p.m. — 3:55 p.m. *Radon Transforms, Convex Geometry, and Geometric Analysis, II*
- 1:00 p.m. — 3:55 p.m. *Calculus of Variations and Nonlinear PDEs: Theory and Applications, II*
- 1:00 p.m. — 3:55 p.m. *Dynamic Programming, II*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #11: PART A** *Origami in undergraduate mathematics courses.*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #13: PART B** *Teaching a course in the history of mathematics.*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #6: PART A** *WeBWork 2: An Internet-based system for generating and delivering homework.*

**S A T U R D A Y , J A N U A R Y 6 ( c o n t ' d )**

- MAA CONTRIBUTED PAPER SESSIONS**
- 1:00 p.m. — 4:00 p.m. *Communication Theory in Undergraduate Courses*
- 1:00 p.m. — 4:00 p.m. *Getting Students to Discuss and to Write about Mathematics, II*
- 1:00 p.m. — 4:00 p.m. *Philosophy of Mathematics, II*
- 1:00 p.m. — 4:00 p.m. *Reconceptualizing Content Courses for Prospective High School Mathematics Teachers*
- 1:00 p.m. — 4:00 p.m. *The Scholarship of Teaching and Learning in Mathematics*
- 1:00 p.m. — 4:00 p.m. *General Contributed Paper Session, IV*
- 1:00 p.m. — 2:30 p.m. **AMS-ASL PANEL DISCUSSION** *Contemporary perspectives on Hilbert's Second Problem and the Gödel Incompleteness Theorems.*
- 1:00 p.m. — 4:10 p.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 1:00 p.m. — 2:20 p.m. **MAA CUPM SUBCOMMITTEE ON CURRICULUM RENEWAL ACROSS THE FIRST TWO YEARS PANEL DISCUSSION** *Reshaping undergraduate mathematics for biology-related disciplines: Ideas and innovations.*
- 1:00 p.m. — 2:20 p.m. **MAA COMMITTEE ON TWO-YEAR COLLEGES AND COMMITTEE ON ARTICULATION AND PLACEMENT PANEL DISCUSSION** *Placement: Friend or foe?*
- 1:00 p.m. — 2:20 p.m. **MAA COMMITTEE ON UNDERGRADUATE STUDENT ACTIVITIES AND CHAPTERS PANEL DISCUSSION** *Engaging students in research, clubs, student chapters, and internships.*
- 1:00 p.m. — 4:10 p.m. **SIAM MINISYMPOSIUM ON MATHEMATICAL MODELING OF COMPLEX SYSTEMS IN BIOLOGY, II**
- 1:00 p.m. — 4:10 p.m. **SIAM MINISYMPOSIUM ON STRUCTURE AND TOPOLOGY, II**
- 2:00 p.m. — 4:00 p.m. **MAA POSTER SESSION ON PROJECTS SUPPORTED BY THE NSF DIVISION OF UNDERGRADUATE EDUCATION**
- 2:00 p.m. — 3:30 p.m. **PROJECT NEXT PANEL DISCUSSION** *Updating the undergraduate mathematics major.*
- 2:15 p.m. — 3:05 p.m. **AMS INVITED ADDRESS** *Title to be announced.* **Manjul Bhargava**
- 2:30 p.m. — 3:50 p.m. **MAA COMMITTEE ON TECHNOLOGIES IN MATHEMATICS EDUCATION PANEL DISCUSSION** *Electronic student assessment systems.*
- 2:30 p.m. — 3:50 p.m. **SIGMAA ON QUANTITATIVE LITERACY PANEL DISCUSSION** *Current practices in quantitative literacy: An interdisciplinary perspective.*
- 2:30 p.m. — 4:10 p.m. **SIGMAA ON RESEARCH IN UNDERGRADUATE MATHEMATICS EDUCATION PANEL DISCUSSION** *Featured presentations from the Ninth Conference on Research in Undergraduate Mathematics Education.*
- 3:20 p.m. — 4:10 p.m. **AMS INVITED ADDRESS** *A tale of three complexities: The worst of times, the best of times, the spring of hope.* **Margaret H. Wright**
- 4:25 p.m. — 5:25 p.m. **JOINT PRIZE SESSION**
- 5:25 p.m. — 6:25 p.m. **JOINT PRIZE SESSION RECEPTION**
- 5:30 p.m. — 7:00 p.m. **MICHIGAN MATHEMATICS ALUMNI AND FRIENDS RECEPTION**
- 5:45 p.m. — 6:30 p.m. **SIGMAA ON THE HISTORY OF MATHEMATICS GUEST LECTURE**
- 5:45 p.m. — 7:15 p.m. **SIGMAA ON THE PHILOSOPHY OF MATHEMATICS ANNUAL MEETING AND GUEST LECTURE**
- 5:45 p.m. — 6:45 p.m. **SIGMAA ON BUSINESS, INDUSTRY, AND GOVERNMENT RECEPTION**
- 5:45 p.m. — 6:30 p.m. **SIGMAA ON QUANTITATIVE LITERACY ANNUAL BUSINESS MEETING AND RECEPTION**

**S A T U R D A Y , J A N U A R Y 6 ( c o n t ' d )**

- 5:45 p.m. — 8:15 p.m. **SIGMAA ON RESEARCH IN UNDERGRADUATE MATHEMATICS EDUCATION BUSINESS MEETING AND PRESENTATION OF THE 2006 RUME BEST PAPER AWARD**
- 5:45 p.m. — 7:00 p.m. **MAA TWO-YEAR COLLEGE RECEPTION**
- 5:45 p.m. — 7:00 p.m. **UNIVERSITY OF IOWA RECEPTION**
- 5:45 p.m. — 7:00 p.m. **LEHIGH UNIVERSITY RECEPTION**
- 6:00 p.m. — 6:45 p.m. **MATHEMATICS IN ART PRESENTATION** *Tetrahedral variations.*
- 6:00 p.m. — 9:00 p.m. **ASSOCIATION OF CHRISTIANS IN THE MATHEMATICAL SCIENCES BANQUET**
- 5:45 p.m. — 7:00 p.m. **ASSOCIATION OF LESBIAN, GAY, BISEXUAL, AND TRANSGENDERED MATHEMATICIANS RECEPTION**
- 6:00 p.m. — 8:00 p.m. **CLAREMONT COLLEGES RECEPTION**
- 6:30 p.m. — 9:00 p.m. **MER BANQUET**
- 7:30 p.m. — 8:30 p.m. **YOUNG MATHEMATICIANS' NETWORK TOWN MEETING**
- 8:15 p.m. — 9:45 p.m. **KNITTING CIRCLE**

**S U N D A Y , J A N U A R Y 7**

- 7:00 a.m. — 8:00 a.m. **JOINT PI MU EPSILON AND MAA STUDENT CHAPTER ADVISORS' BREAKFAST**
- 7:00 a.m. — 7:50 a.m. **ASSOCIATION FOR CHRISTIANS IN THE MATHEMATICAL SCIENCES NONDENOMINATIONAL WORSHIP SERVICE**
- 7:30 a.m. — 4:00 p.m. **JOINT MEETINGS REGISTRATION**, La Galeries 5 & 6, 2nd Floor, Marriott
- 7:30 a.m. — 7:30 p.m. **EMPLOYMENT CENTER**
- 8:00 a.m. — 10:55 a.m. **AMS-MAA SPECIAL SESSION**  
*History of Mathematics, I*
- AMS SPECIAL SESSIONS**
- 8:00 a.m. — 10:55 a.m. *Frames and Wavelets in Harmonic Analysis, Geometry, and Applications, I*
- 8:00 a.m. — 10:55 a.m. *Group Representations, Ergodic Theory, and Mathematical Physics: Honoring the Memory of George W. Mackey, I*
- 8:00 a.m. — 10:55 a.m. *Infinite Dimensional Analysis, Honoring H.-H. Kuo, I*
- 8:00 a.m. — 10:55 a.m. *Nonlinear Variational Inclusion Problems and Optimization Theory, I*
- 8:00 a.m. — 10:55 a.m. *Nonsmooth Analysis in Inverse and Variational Problems, I*
- 8:00 a.m. — 10:55 a.m. *Numerical Relativity, I*
- 8:00 a.m. — 10:55 a.m. *Arithmetic of Function Fields, I*
- 8:00 a.m. — 10:55 a.m. *Universal Algebra and Order, I*
- 8:00 a.m. — 10:55 a.m. *Microlocal Analysis and Singular Spaces, I*
- 8:00 a.m. — 10:55 a.m. *Continuous and Discrete Integrable Systems and Their Applications, I*
- MAA CONTRIBUTED PAPER SESSIONS**
- 8:00 a.m. — 11:00 a.m. *Building Diversity in Advanced Mathematics Models that Work*
- 8:00 a.m. — 11:00 a.m. *How to Start and Develop Undergraduate Level Financial Mathematics Programs*
- 8:00 a.m. — 11:00 a.m. *Teaching Operations Research in the Undergraduate Classroom*
- 8:00 a.m. — 11:00 a.m. *The Mathematics of Sudoku and Other Puzzles*
- 8:00 a.m. — 11:00 a.m. *General Contributed Paper Session, V*
- 8:00 a.m. — 10:55 a.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 8:00 a.m. — 10:55 a.m. **ASL INVITED ADDRESSES AND CONTRIBUTED PAPERS**
- 8:00 a.m. — 11:00 a.m. **PME COUNCIL**

SUNDAY, JANUARY 7 (cont'd)

- 9:00 a.m. — 9:50 a.m. **MAA INVITED ADDRESS** *Geometric topology and topological geometry in dimension three.* **Jeffrey Brock**
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #12: PART B** *Combinatorially thinking.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #1: PART B** *Introduction to the mathematics of modern cryptography.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #8: PART B** *Mathematics and geometry of voting.*
- 9:00 a.m. — 10:20 a.m. **MAA PANEL DISCUSSION** *The top ten things you should know if you intend to implement the standards of Beyond Crossroads.*
- 9:00 a.m. — 10:20 a.m. **MAA PANEL DISCUSSION** *Calculus, liberal arts, and quantitative literacy.*
- 9:00 a.m. — 10:30 a.m. **PROJECT NEXT PANEL DISCUSSION** *Publishing undergraduate research and expository articles.*
- 9:00 a.m. — 5:00 p.m. **STUDENT HOSPITALITY CENTER**
- 9:30 a.m. — 5:30 p.m. **EXHIBITS AND BOOK SALES**
- 10:00 a.m. — 5:00 p.m. **MATH ON THE WEB, III**
- 10:05 a.m. — 10:55 a.m. **AMS INVITED ADDRESS** *The abc conjecture.* **Bjorn Poonen**
- 11:10 a.m. — 12:00 p.m. **AMS-MAA INVITED ADDRESS** *Statistics for smart people who don't know anything about statistics.* **Persi W. Diaconis**
- 1:00 p.m. — 2:00 p.m. **AMS COLLOQUIUM LECTURE: LECTURE III** *Limit shapes, real and imagined, Part 3.* **Andrei Okounkov**
- 1:00 p.m. — 1:50 p.m. **MAA STUDENT LECTURE** *Mathematics: A question of history.* **Della Fenster**
- 1:00 p.m. — 5:55 p.m. **AMS-MAA SPECIAL SESSION**  
*History of Mathematics, II*
- AMS SPECIAL SESSIONS**
- 1:00 p.m. — 5:55 p.m. *Frames and Wavelets in Harmonic Analysis, Geometry, and Applications, II*
- 1:00 p.m. — 5:55 p.m. *Group Representations, Ergodic Theory, and Mathematical Physics: Honoring the Memory of George W. Mackey, II*
- 1:00 p.m. — 5:55 p.m. *Infinite Dimensional Analysis, Honoring H.-H. Kuo, II*
- 1:00 p.m. — 5:55 p.m. *Nonlinear Variational Inclusion Problems and Optimization Theory, II*
- 1:00 p.m. — 5:55 p.m. *Nonsmooth Analysis in Inverse and Variational Problems, II*
- 1:00 p.m. — 5:55 p.m. *Numerical Relativity, II*
- 1:00 p.m. — 5:55 p.m. *Arithmetic of Function Fields, II*
- 1:00 p.m. — 5:55 p.m. *Universal Algebra and Order, II*
- 1:00 p.m. — 5:55 p.m. *Microlocal Analysis and Singular Spaces, II*
- 1:00 p.m. — 5:55 p.m. *Continuous and Discrete Integrable Systems and Their Applications, II*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #15: PART A** *Geometry with history for teaching teachers.*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #2: PART B** *Some deterministic models in mathematical biology and their simulations.*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #7: PART B** *Directing undergraduate research.*
- 1:00 p.m. — 6:00 p.m. **AMS CURRENT EVENTS BULLETIN**
- MAA CONTRIBUTED PAPER SESSIONS**
- 1:00 p.m. — 5:00 p.m. *Teaching Innovations in Real Analysis*
- 1:00 p.m. — 5:00 p.m. *Mathematics Experiences in Business, Industry and Government*
- 1:00 p.m. — 5:00 p.m. *Countering "I Can't Do Math": Strategies For Teaching Under-Prepared, Math-Anxious Students*
- 1:00 p.m. — 5:00 p.m. *Innovative Examples of Using Graphs in Statistics*

**SUNDAY, JANUARY 7 (cont'd)**

- 1:00 p.m. — 5:00 p.m. *General Contributed Paper Session, VI*
- 1:00 p.m. — 5:55 p.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 1:00 p.m. — 2:30 p.m. **MAA COMMITTEE ON THE UNDERGRADUATE PROGRAM IN MATHEMATICS PANEL DISCUSSION** *The “bridge” course.*
- 1:00 p.m. — 5:00 p.m. **ASL INVITED ADDRESSES AND CONTRIBUTED PAPERS**
- 1:30 p.m. — 4:30 p.m. **SIGMAA ON ENVIRONMENTAL MATHEMATICS SPECIAL PRESENTATION** *New Orleans and the environment.*
- 2:15 p.m. — 4:00 p.m. **NAM GRANVILLE-BROWN-HAYNES SESSION OF PRESENTATIONS BY RECENT DOCTORAL RECIPIENTS IN THE MATHEMATICAL SCIENCES**
- 2:15 p.m. — 4:10 p.m. **RMMC BOARD OF DIRECTORS**
- 2:30 p.m. — 4:00 p.m. **MAA PRESENTATIONS BY TEACHING AWARD RECIPIENTS**
- 2:30 p.m. — 4:00 p.m. **AMS COMMITTEE ON SCIENCE POLICY PANEL DISCUSSION**
- 2:30 p.m. — 3:50 p.m. **MAA PANEL DISCUSSION** *Attracting underrepresented students to graduate study through research.*
- 3:30 p.m. — 5:30 p.m. **MAA UNDERGRADUATE POSTER SESSION**
- 3:30 p.m. — 5:30 p.m. **MAA MINICOURSE #14: PART B** *Contemporary college algebra: A refocused college algebra course.*
- 3:30 p.m. — 5:30 p.m. **MAA MINICOURSE #3: PART B** *A tool to implement quantitative literacy (QL): Spreadsheets Across the Curriculum.*
- 3:30 p.m. — 5:30 p.m. **MAA MINICOURSE #9: PART B** *Evaluating student presentations in mathematics.*
- 4:20 p.m. — 5:10 p.m. **AMS COMMITTEE ON SCIENCE POLICY-MAA SCIENCE POLICY COMMITTEE GOVERNMENT SPEAKER** *Speaker and title to be announced.*
- 6:00 p.m. — 9:30 p.m. **NAM RECEPTION AND BANQUET**
- 6:00 p.m. — 7:00 p.m. **AMS MATHEMATICAL REVIEWS RECEPTION**
- 8:30 p.m. — 9:15 p.m. **NAM COX-TALBOT ADDRESS** *Speaker and title to be announced.*
- 8:30 p.m. — 10:30 p.m. **MAA-PROJECT NEXT RECEPTION**

**MONDAY, JANUARY 8**

- 7:00 a.m. — 8:45 a.m. **MAA MINORITY CHAIRS BREAKFAST MEETING**
- 7:30 a.m. — 4:00 p.m. **JOINT MEETINGS REGISTRATION**, La Galeries 5 & 6, 2nd Floor, Marriott
- 8:00 a.m. — 10:55 a.m. **AMS-MAA-SIAM SPECIAL SESSION ON RESEARCH IN MATHEMATICS BY UNDERGRADUATES, I**
- 8:00 a.m. — 10:55 a.m. **AMS-MAA-MER SPECIAL SESSION ON MATHEMATICS AND EDUCATION REFORM, I**
- 8:00 a.m. — 10:55 a.m. **AMS-MAA SPECIAL SESSION**  
*History of Mathematics, III*
- 8:00 a.m. — 10:55 a.m. **AMS SPECIAL SESSIONS**  
*Group Representations, Ergodic Theory, and Mathematical Physics: Honoring the Memory of George W. Mackey, III*
- 8:00 a.m. — 10:55 a.m. *Mapping Class Groups and Handlebodies, I*
- 8:00 a.m. — 10:55 a.m. *Recent Advances in Mathematical Biology, Ecology, and Epidemiology, I*
- 8:00 a.m. — 10:55 a.m. *Recent Developments in Floer Homology, I*

**M O N D A Y , J A N U A R Y 8 ( c o n t ' d )**

- 8:00 a.m. — 10:55 a.m. *Representation Theory and the Theta Correspondence, I*  
 8:00 a.m. — 10:55 a.m. *Structure Theory for Matroids and Graphs, I*  
 8:00 a.m. — 10:55 a.m. *Time Scales: Dynamic Equations with Applications, I*  
 8:00 a.m. — 10:55 a.m. *Arithmetic Geometry, I*  
 8:00 a.m. — 10:55 a.m. *Computational Algebraic and Analytic Geometry for Low-Dimensional Varieties, I*  
 8:00 a.m. — 10:55 a.m. *Commutative Algebra and Algebraic Geometry, I*
- MAA CONTRIBUTED PAPER SESSIONS**
- 8:00 a.m. — 10:55 a.m. *Applications of Discrete Mathematics*  
 8:00 a.m. — 11:00 a.m. *Assessment of Student Learning in Undergraduate Mathematics*  
 8:00 a.m. — 11:00 a.m. *Mathematics of Chemistry*  
 8:00 a.m. — 11:00 a.m. *College Algebra: Concepts, Data, and Models*  
 8:00 a.m. — 11:00 a.m. *General Contributed Paper Session, VII*
- 8:00 a.m. — 10:55 a.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 8:00 a.m. — 10:55 a.m. **ASL INVITED ADDRESSES AND CONTRIBUTED PAPERS**
- 8:20 a.m. — 4:30 p.m. **AWM WORKSHOP** *This session has several parts listed separately by time in the program. Listed workshop presentations are open to all JMM participants.*
- 8:30 a.m. — 10:20 a.m. **AWM WORKSHOP: RESEARCH PRESENTATIONS BY RECENT PH.D.'S, I**
- 8:30 a.m. — 10:00 a.m. **AMS COMMITTEE ON EDUCATION PANEL DISCUSSION**
- 9:00 a.m. — 9:50 a.m. **AMS INVITED ADDRESS** *New combinatorics from the invariant theory of reflection groups.*  
**Victor S. Reiner**
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #10: PART B** *A beginner's guide to the scholarship of teaching and learning in mathematics.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #16: PART B** *More music and mathematics.*
- 9:00 a.m. — 11:00 a.m. **MAA MINICOURSE #4: PART B** *Creating visual mathematics applets using Flash programming.*
- 9:00 a.m. — 10:20 a.m. **MAA PANEL DISCUSSION** *Undergraduate career paths in mathematics.*
- 9:00 a.m. — 10:20 a.m. **MAA SPECIAL REPORT** *Algebra: Gateway to a technological future.*
- 9:00 a.m. — 9:50 a.m. **NAM PANEL DISCUSSION**
- 9:00 a.m. — 3:00 p.m. **STUDENT HOSPITALITY CENTER**
- 9:00 a.m. — 1:00 p.m. **EXHIBITS AND BOOK SALES**
- 9:00 a.m. — 12:00 p.m. **EMPLOYMENT CENTER**
- 9:30 a.m. — 12:00 p.m. **MATH ON THE WEB, IV**
- 10:00 a.m. — 10:50 a.m. **NAM BUSINESS MEETING**
- 10:05 a.m. — 10:55 a.m. **MAA INVITED ADDRESS** *Big waves in deep water.* **Jerry L. Bona**
- 10:30 a.m. — 11:00 a.m. **AWM WORKSHOP: POSTER SESSION WITH PRESENTATIONS FROM WOMEN RECENT PH.D.'S AND GRADUATE STUDENTS**
- 11:10 a.m. — 11:40 a.m. **AMS BUSINESS MEETING**
- 11:45 a.m. — 12:15 p.m. **MAA BUSINESS MEETING**
- 1:00 p.m. — 1:50 p.m. **NAM CLAYTOR-WOODARD LECTURE** *Speaker and title to be announced*

<b>M O N D A Y , J A N U A R Y 8 ( c o n t ' d )</b>
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- 1:00 p.m. — 5:55 p.m. **AMS-MAA-SIAM SPECIAL SESSION ON RESEARCH IN MATHEMATICS BY UNDERGRADUATES, II**
- 1:00 p.m. — 5:55 p.m. **AMS-MAA-MER SPECIAL SESSION ON MATHEMATICS AND EDUCATION REFORM, II**
- 1:00 p.m. — 5:55 p.m. **AMS-MAA SPECIAL SESSION**  
*History of Mathematics, IV*
- 1:00 p.m. — 5:55 p.m. **AMS SPECIAL SESSIONS**  
*Group Representations, Ergodic Theory, and Mathematical Physics: Honoring the Memory of George W. Mackey, IV*
- 1:00 p.m. — 5:55 p.m. *Mapping Class Groups and Handlebodies, II*
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- 1:00 p.m. — 5:55 p.m. *Computational Algebraic and Analytic Geometry for Low-Dimensional Varieties, II*
- 1:00 p.m. — 5:55 p.m. *Commutative Algebra and Algebraic Geometry, II*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #11: PART B** *Origami in undergraduate mathematics courses.*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #15: PART B** *Geometry with history for teaching teachers.*
- 1:00 p.m. — 3:00 p.m. **MAA MINICOURSE #5: PART B** *Wavelets and applications: A multidisciplinary undergraduate course with emphasis on scientific computing.*
- 1:00 p.m. — 5:00 p.m. **MAA GENERAL CONTRIBUTED PAPER SESSION, VIII**
- 1:00 p.m. — 5:55 p.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 1:00 p.m. — 2:20 p.m. **MAA PANEL DISCUSSION** *Knowing mathematics for teaching: Issues in assessment and teacher preparation.*
- 1:00 p.m. — 5:00 p.m. **ASL INVITED ADDRESSES AND CONTRIBUTED PAPERS**
- 2:30 p.m. — 4:20 p.m. **AWM WORKSHOP: RESEARCH PRESENTATIONS BY RECENT PH.D.'S, II**
- 3:30 p.m. — 5:30 p.m. **MAA MINICOURSE #6: PART B** *WeBWork 2: An Internet-based system for generating and delivering homework.*
- 6:30 p.m. — 7:30 p.m. **AMS BANQUET RECEPTION**
- 7:30 p.m. — 10:30 p.m. **AMS BANQUET**