



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.



Friday, January 4

- 8:00 a.m.–5:00 p.m. **AMS SHORT COURSE ON APPLICATIONS OF KNOT THEORY (PART I)**
8:00 a.m.–5:00 p.m. **MAA SHORT COURSE ON COMBINATORICS: PAST, PRESENT, AND FUTURE (PART I)**

Saturday, January 5

- 8:00 a.m.–6:00 p.m. **MAA BOARD OF GOVERNORS**
9:00 a.m.–5:00 p.m. **AMS SHORT COURSE ON APPLICATIONS OF KNOT THEORY (PART II)**
9:00 a.m.–5:00 p.m. **MAA SHORT COURSE ON COMBINATORICS: PAST, PRESENT, AND FUTURE (PART II)**
1:30 p.m.–10:00 p.m. **AMS COUNCIL**
3:00 p.m.–7:00 p.m. **JOINT MEETINGS REGISTRATION**, Exhibit Hall B, San Diego Convention Center

Sunday, January 6

- 7:30 a.m.–4:00 p.m. **JOINT MEETINGS REGISTRATION**, Exhibit Hall B, San Diego Convention Center
7:00 a.m.–7:50 a.m. **ASSOCIATION FOR CHRISTIANS IN THE MATHEMATICAL SCIENCES
NONDENOMINATIONAL WORSHIP SERVICE**
8:00 a.m.–10:50 a.m. **AMS-MAA SPECIAL SESSION ON THE SCHOLARSHIP OF TEACHING AND LEARNING IN
MATHEMATICS, I**
AMS-SIAM SPECIAL SESSIONS
8:00 a.m.–10:50 a.m. *Asymptotic Methods in Analysis with Applications, I*
8:00 a.m.–10:50 a.m. *Environmental Mathematics: Some Mathematical Problems on Climate Change and Geophysical
Fluid Dynamics, I*
8:00 a.m.–10:50 a.m. **AMS-ASL SPECIAL SESSION ON SET THEORY AND BANACH SPACES, I**
8:00 a.m.–10:50 a.m. **AMS-AWM SPECIAL SESSION ON ZETA FUNCTIONS OF GRAPHS, RAMANUJAN GRAPHS,
AND RELATED TOPICS, I**
AMS SPECIAL SESSIONS
8:00 a.m.–10:50 a.m. *Automorphic Forms and Related Topics, I*
8:00 a.m.–10:50 a.m. *Recent Advances in Mathematical Biology, Ecology, and Epidemiology, I*
8:00 a.m.–10:50 a.m. *Progress in Commutative Algebra, I*
8:00 a.m.–10:50 a.m. *The Mathematics of Information and Knowledge, I*
8:00 a.m.–10:50 a.m. *Hyperbolic Dynamical Systems, I*
8:00 a.m.–10:50 a.m. *Interactions Between Noncommutative Algebra and Algebraic Geometry, I*
8:00 a.m.–10:50 a.m. *Algebraic Topology, I*
8:00 a.m.–10:50 a.m. *Groups, Representations, and Character Theory, I*

- 8:00 a.m.–5:55 p.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- MAA CONTRIBUTED PAPER SESSIONS**
- 8:00 a.m.–10:55 a.m. *Crossing the “Bridge to Higher Mathematics”: What Works and Why*
- 8:00 a.m.–10:55 a.m. *Ethnomathematics and Its Uses in Teaching*
- 8:00 a.m.–10:55 a.m. *Great Activities for an Introductory Statistics Class*
- 8:00 a.m.–10:55 a.m. *Preparing Faculty for Success in a Problem-Solving and Technology-Rich Curriculum*
- 8:00 a.m.–10:55 a.m. *General Session, I*
- 8:00 a.m.–11:00 a.m. **SIAM MINISYMPOSIUM ON EDUCATION AND APPLIED MATHEMATICS**
- 8:00 a.m.–10:55 a.m. **AMS WORKSHOP: PART I** *Grant writing in the mathematical sciences.*
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #12: PART A** *Developing department self-studies.*
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #1: PART A** *Teaching a Galois theory course for undergraduates.*
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #7: PART A** *Directing undergraduate research.*
- 9:00 a.m.–10:20 a.m. **MAA-PROJECT NEXT AND YOUNG MATHEMATICIANS NETWORK JOINT PANEL DISCUSSION** *Tenure (and promotion)—You know you want it.*
- 9:00 a.m.–10:20 a.m. **MAA SPECIAL PRESENTATION** *National Science Foundation programs supporting learning and teaching in the mathematical sciences.*
- 9:00 a.m.–10:20 a.m. **MAA SIGMAA ON RESEARCH IN UNDERGRADUATE MATHEMATICS EDUCATION PANEL DISCUSSION** *Making the connection between research and teaching in undergraduate mathematics education.*
- 10:05 a.m.–10:55 a.m. **AMS INVITED ADDRESS** *Combinatorics and number theory.* **Wen-Ching Winnie Li**
- 11:10 a.m.–12:00 p.m. **AMS-MAA INVITED ADDRESS** *Structure and randomness in the prime numbers.* **Terence Tao**
- 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** *Random conformally invariant pictures (Part I).* **Wendelin Werner**
- 2:15 p.m.–3:05 p.m. **MAA INVITED ADDRESS** *Title to be announced.* **John H. Conway**
- 2:15 p.m.–6:05 p.m. **AMS-MAA SPECIAL SESSION ON THE SCHOLARSHIP OF TEACHING AND LEARNING IN MATHEMATICS, II**
- AMS-SIAM SPECIAL SESSIONS**
- 2:15 p.m.–6:05 p.m. *Asymptotic Methods in Analysis with Applications, II*
- 2:15 p.m.–6:05 p.m. *Environmental Mathematics: Some Mathematical Problems on Climate Change and Geophysical Fluid Dynamics, II*
- 2:15 p.m.–6:05 p.m. **AMS-ASL SPECIAL SESSION ON SET THEORY AND BANACH SPACES, II**
- 2:15 p.m.–6:05 p.m. **AMS-AWM SPECIAL SESSION ON ZETA FUNCTIONS OF GRAPHS, RAMANUJAN GRAPHS, AND RELATED TOPICS, II**
- AMS SPECIAL SESSIONS**
- 2:15 p.m.–6:05 p.m. *Automorphic Forms and Related Topics, II*
- 2:15 p.m.–6:05 p.m. *Recent Advances in Mathematical Biology, Ecology, and Epidemiology, II*
- 2:15 p.m.–6:05 p.m. *The Mathematics of Information and Knowledge, II*
- 2:15 p.m.–6:05 p.m. *Hyperbolic Dynamical Systems, II*
- 2:15 p.m.–6:05 p.m. *Interactions Between Noncommutative Algebra and Algebraic Geometry, II*
- 2:15 p.m.–6:05 p.m. *Algebraic Topology, II*
- 2:15 p.m.–6:05 p.m. *Groups, Representations, and Character Theory, II*
- 2:15 p.m.–4:15 p.m. **MAA MINICOURSE #13: PART A** *Teaching and the philosophy 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 #9: PART A** *Classroom response systems: Teaching with clickers.*
- MAA CONTRIBUTED PAPER SESSIONS**
- 2:15 p.m.–6:00 p.m. *The Power of Inductive and Recursive Thinking*

Meetings & Conferences

- 2:15 p.m.–6:00 p.m. *Serving Students Who Have Taken Calculus in High School*
- 2:15 p.m.–6:00 p.m. *Using Ideas from Asian Mathematics in the Classroom*
- 2:15 p.m.–6:00 p.m. *General Session, II*
- 2:15 p.m.–6:15 p.m. **SIAM MINISYMPOSIUM ON ANALYSIS AND COMPUTATION OF STOCHASTIC EQUATIONS**
- 2:15 p.m.–5:00 p.m. **MATH ON THE WEB, I**
- 2:15 p.m.–4:15 p.m. **MAA-PROJECT NEXT AND YOUNG MATHEMATICIANS NETWORK JOINT POSTER SESSION**
- 2:15 p.m.–5:30 p.m. **AMS WORKSHOP: PART II** *Grant writing in the mathematical sciences.*
- 2:15 p.m.–3:35 p.m. **MAA SIGMAA ON MATHEMATICS AND THE ARTS PANEL DISCUSSION** *Mathematics and Hollywood: A conversation with mathematical Hollywood writers and mathematics faculty.*
- 2:15 p.m.–3:35 p.m. **MAA COMMITTEE ON GRADUATE STUDENTS-YOUNG MATHEMATICIANS NETWORK JOINT PANEL DISCUSSION** *How to interview for a job in the mathematical sciences.*
- 2:15 p.m.–3:35 p.m. **MAA SESSION FOR CHAIRS** *What every chair should know about NSF funding.*
- 2:15 p.m.–3:40 p.m. **AWM PANEL DISCUSSION**
- 2:30 p.m.–5:00 p.m. **MAA SECTION OFFICERS**
- 3:20 p.m.–4:10 p.m. **MAA INVITED ADDRESS** *Mathematics and the law: The apportionment of the House of Representatives.* Paul H. Edelman
- 3:45 p.m.–4:15 p.m. **AWM BUSINESS MEETING**
- 3:50 p.m.–5:50 p.m. **MAA COMMITTEE ON CURRICULUM RENEWAL ACROSS THE FIRST TWO YEARS PANEL DISCUSSION** *Tracking our students from college algebra to calculus: Where they come from, where they go, and where they don't.*
- 3:50 p.m.–5:10 p.m. **MAA PANEL DISCUSSION** *Engaging students in college mathematics courses.*
- 4:00 p.m.–5:30 p.m. **SIGMAA ON ENVIRONMENTAL MATHEMATICS GUEST LECTURE AND BUSINESS MEETING**
- 4:00 p.m.–5:00 p.m. **RECEPTION FOR UNDERGRADUATES**
- 4:30 p.m.–6:00 p.m. **AMS SPECIAL PRESENTATION ON CONGRESSIONAL FELLOWSHIPS**
- 4:45 p.m.–6:45 p.m. **MAA MINICOURSE #14: PART A** *Beyond formulas and algorithms: Teaching a conceptual/thematics single variable calculus course.*
- 4:45 p.m.–6:45 p.m. **MAA MINICOURSE #3: PART A** *Introduction to the mathematics of modern cryptography.*
- 4:45 p.m.–6:45 p.m. **MAA MINICOURSE #8A: PART I** *Mathematics and geometry of voting.*
- 5:00 p.m.–6:30 p.m. **MAA SPECIAL PRESENTATION** *Help for undergraduates: Negotiating the Joint Meetings.*
- 5:30 p.m.–7:30 p.m. **SIGMAA ON THE HISTORY OF MATHEMATICS GUEST LECTURE AND BUSINESS MEETING**
- 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 organization.*
- 5:30 p.m.–8:00 p.m. **MATHEMATICAL INSTITUTES OPEN HOUSE RECEPTION**
- 8:30 p.m.–9:30 p.m. **AMS JOSIAH WILLARD GIBBS LECTURE** *Randomness—A computational complexity view.* Avi Wigderson
- 9:30 p.m.–11:00 p.m. **AWM RECEPTION**

Monday, January 7

- 7:30 a.m.–4:00 p.m. **JOINT MEETINGS REGISTRATION**, Exhibit Hall B, San Diego Convention Center
- 8:00 a.m.–11:50 a.m. **AMS-ASL SPECIAL SESSION ON SET THEORY AND BANACH SPACES, III**
- AMS SPECIAL SESSIONS**
- 8:00 a.m.–11:50 a.m. *Structure, Geometry, and Symbolic Computation of Algebraic Groups and Symmetric Spaces, I*
- 8:00 a.m.–11:50 a.m. *Stochastic, Large-Scale, and Hybrid Systems with Applications, I*
- 8:00 a.m.–11:50 a.m. *Time-Frequency Analysis: Hilbert Huang Transform and Wavelet Analysis, I*
- 8:00 a.m.–11:50 a.m. *Recent Advances in Mathematical Biology, Ecology, and Epidemiology, III*
- 8:00 a.m.–11:50 a.m. *Progress in Commutative Algebra, II*

- 8:00 a.m.–11:50 a.m. *Monotone Discrete Dynamical Systems with Applications, I*
- 8:00 a.m.–11:50 a.m. *The Mathematics of Information and Knowledge, III*
- 8:00 a.m.–11:50 a.m. *Mathematics for Teaching: Educating Elementary and Middle School Teachers for Success, I*
- 8:00 a.m.–11:50 a.m. *Conformally Flat Lorentzian Manifolds, I*
- 8:00 a.m.–11:50 a.m. *Voting Theory, I*
- 8:00 a.m.–11:50 a.m. *Graph Theory, I*
- 8:00 a.m.–11:50 a.m. *Modular Forms and Modularity, I*
- 8:00 a.m.–11:50 a.m. *Algebraic Topology, III*
- 8:00 a.m.–10:00 a.m. **MAA MINICOURSE #4: PART A** *Wavelets and applications: A multidisciplinary undergraduate course with an emphasis on scientific computing.*
- MAA CONTRIBUTED PAPER SESSIONS**
- 8:00 a.m.–12:00 p.m. *Assessment of Student Learning in Undergraduate Mathematics*
- 8:00 a.m.–12:00 p.m. *College Algebra: Concepts, Data, and Models*
- 8:00 a.m.–12:00 p.m. *Demos and Strategies with Technology that Enhance Teaching and Learning Mathematics, I*
- 8:00 a.m.–12:00 p.m. *Philosophy of Mathematics*
- 8:00 a.m.–12:00 p.m. *Topics and Techniques for Real Analysis*
- 8:00 a.m.–12:00 p.m. *General Session, III*
- 8:00 a.m.–11:00 a.m. **SIAM MINISYMPOSIUM ON FROM GLOBAL PREDICTIONS TO LOCAL ACTION, I: DYNAMICAL SYSTEMS CHALLENGES IN CLIMATE CHANGE**
- 8:00 a.m.–4:10 p.m. **AMS SESSIONS FOR CONTRIBUTED PAPERS**
- 8:00 a.m.–10:00 a.m. **SIGMAA OFFICERS MEETING**
- 9:00 a.m.–9:50 a.m. **MAA INVITED ADDRESS** *4000 years of algebra: An historic tour from BM 13901 to Moderne Algebra.* Karen H. Parshall
- 9:00 a.m.–12:00 p.m. **MAA INVITED PAPER SESSION ON USING THE NEW TECHNOLOGIES IN TEACHING MATHEMATICS**
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #10: PART A** *The Fibonacci and Catalan numbers.*
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #15: PART A** *Evaluating student presentations in mathematics.*
- 9:00 a.m.–11:00 a.m. **MAA POSTER SESSION ON OUTREACH PROGRAMS FOR UNDERREPRESENTED POPULATIONS IN MATHEMATICS**
- 9:00 a.m.–10:20 a.m. **MAA SPECIAL PRESENTATION** *Proposal writing workshop for grant applications to the NSF Division of Undergraduate Education.*
- 9:00 a.m.–10:20 a.m. **MAA PANEL DISCUSSION** *Exciting, surprising, and satisfying: Why and how to teach proof.*
- 9:00 a.m.–10:20 a.m. **MAA PANEL DISCUSSION** *Research and outreach focusing on the mathematics education of K–8 Latino/a students.*
- 9:30 a.m.–5:30 p.m. **EXHIBITS AND BOOK SALES**
- 10:00 a.m.–5:00 p.m. **MATH ON THE WEB, II**
- 10:05 a.m.–10:55 a.m. **AWM EMMY NOETHER LECTURE** *Title to be announced.* Audrey Terras
- 10:30 a.m.–12:30 p.m. **MAA MINICOURSE #5: PART A** *Visualizing abstract mathematics with cellular automata.*
- 10:45 a.m.–12:05 p.m. **MAA SPECIAL PRESENTATION** *Undergraduate career paths in math: What can you do with a math degree?*
- 10:45 a.m.–12:05 p.m. **MAA COMMITTEE ON THE TEACHING OF UNDERGRADUATE MATHEMATICS PANEL DISCUSSION** *Classroom voting comes to the mathematics classroom.*
- 11:10 a.m.–12:00 p.m. **SIAM INVITED ADDRESS** *From global predictions to local action: Mathematical challenges in global warming.* Inez Fung
- 1:00 p.m.–2:00 p.m. **AMS COLLOQUIUM LECTURE: LECTURE II** *Random conformally invariant pictures (Part II).* Wendelin Werner
- 1:00 p.m.–3:50 p.m. **AMS-MAA-SIAM SPECIAL SESSION ON RESEARCH IN MATHEMATICS BY UNDERGRADUATES, I**

AMS SPECIAL SESSIONS

- 1:00 p.m.–3:50 p.m. *Structure, Geometry, and Symbolic Computation of Algebraic Groups and Symmetric Spaces, II*
- 1:00 p.m.–3:50 p.m. *Stochastic, Large-Scale, and Hybrid Systems with Applications, II*
- 1:00 p.m.–3:50 p.m. *Time-Frequency Analysis: Hilbert Huang Transform and Wavelet Analysis, II*
- 1:00 p.m.–3:50 p.m. *Progress in Commutative Algebra, III*
- 1:00 p.m.–3:50 p.m. *Monotone Discrete Dynamical Systems with Applications, II*
- 1:00 p.m.–3:50 p.m. *The Mathematics of Information and Knowledge, IV*
- 1:00 p.m.–3:50 p.m. *Mathematics for Teaching: Educating Elementary and Middle School Teachers for Success, II*
- 1:00 p.m.–3:50 p.m. *Low Genus Curves and Applications, I*
- 1:00 p.m.–3:50 p.m. *Conformally Flat Lorentzian Manifolds, II*
- 1:00 p.m.–3:50 p.m. *Voting Theory, II*
- 1:00 p.m.–3:50 p.m. *Graph Theory, II*
- 1:00 p.m.–3:50 p.m. *Modular Forms and Modularity, II*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #11: PART A** *More music and mathematics.*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #16: PART A** *A beginner's guide to the scholarship of teaching and learning in mathematics.*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #6: PART A** *Sonification for mathematics instruction.*

MAA CONTRIBUTED PAPER SESSIONS

- 1:00 p.m.–4:10 p.m. *Curriculum Materials for Preservice Middle School Mathematics Teachers*
- 1:00 p.m.–4:10 p.m. *Demos and Strategies with Technology that Enhance Teaching and Learning Mathematics, II*
- 1:00 p.m.–4:10 p.m. *Mathematics and the Arts*
- 1:00 p.m.–5:30 p.m. *Research on the Teaching and Learning of Undergraduate Mathematics*
- 1:00 p.m.–5:30 p.m. *General Session, IV*

SIAM MINISYMPOSIUM ON FROM GLOBAL PREDICTIONS TO LOCAL ACTION, II: MATHEMATICS OF SOCIAL AND ECONOMIC FEEDBACK IN CLIMATE CHANGE

- 1:00 p.m.–2:20 p.m. **MAA PANEL DISCUSSION** *Creating and implementing a capstone course in mathematics for preservice secondary teachers.*
- 1:00 p.m.–3:00 p.m. **SIGMAA ON THE HISTORY OF MATHEMATICS PANEL DISCUSSION** *The political dimension of ethnomathematics.*
- 2:00 p.m.–4:00 p.m. **MAA POSTER SESSION ON PROJECTS SUPPORTED BY THE NSF DIVISION OF UNDERGRADUATE EDUCATION**
- 2:15 p.m.–3:05 p.m. **AMS INVITED ADDRESS** *Quantum field theory and generalized cohomology.* **Peter Teichner**
- 2:30 p.m.–4:00 p.m. **PROJECT NEXT PANEL DISCUSSION** *Making the math major work for the under-prepared student.*
- 2:30 p.m.–3:50 p.m. **MAA PANEL DISCUSSION** *Dueling platforms: Java vs. Flash.*
- 3:00 p.m.–3:45 p.m. **SIGMAA ON BUSINESS, INDUSTRY, AND GOVERNMENT GUEST LECTURE** *From flapping birds to space telescopes: The art, math, and science of origami.* **Robert J. Lang**
- 3:20 p.m.–4:10 p.m. **AMS RETIRING PRESIDENTIAL ADDRESS** *Semisimple groups as universal examples.* **James G. Arthur**
- 4:25 p.m.–5:25 p.m. **JOINT PRIZE SESSION**
- 5:30 p.m.–6:30 p.m. **JOINT PRIZE SESSION RECEPTION**
- 5:45 p.m.–6:30 p.m. **SIGMAA ON THE PHILOSOPHY OF MATHEMATICS GUEST LECTURE** *How applied mathematics became pure.* **Penelope Maddy**
- 5:45 p.m.–6:45 p.m. **SIGMAA ON QUANTITATIVE LITERACY BUSINESS MEETING AND RECEPTION**
- 5:45 p.m.–7:00 p.m. **UNIVERSITY OF IOWA MATHEMATICS DEPARTMENT RECEPTION**
- 5:45 p.m.–7:00 p.m. **LEHIGH UNIVERSITY RECEPTION FOR FRIENDS AND GRADUATES**
- 5:45 p.m.–7:00 p.m. **ASSOCIATION OF LESBIAN, GAY, BISEXUAL, AND TRANSGENDERED MATHEMATICIANS RECEPTION**
- 5:45 p.m.–7:00 p.m. **MAA TWO-YEAR COLLEGE RECEPTION**

5:45 p.m.–7:15 p.m.	RECEPTION FOR FRIENDS OF THE NEW MEXICO STATE UNIVERSITY DEPARTMENT OF MATHEMATICAL SCIENCES.
5:45 p.m.–7:15 p.m.	SIGMAA ON STATISTICS EDUCATION BUSINESS MEETING
6:00 p.m.–7:30 p.m.	MAA SPECIAL PRESENTATION <i>The proof is in the pudding: Humorous theater of the mathematical variety.</i>
6:00 p.m.–7:00 p.m.	UNIVERSITY OF CHICAGO MATHEMATICS ALUMNI RECEPTION
6:30 p.m.–9:30 p.m.	MER BANQUET
6:30 p.m.–8:30 p.m.	NSA WOMEN IN MATHEMATICS SOCIETY NETWORKING SESSION
8:15 p.m.–9:45 p.m.	KNITTING CIRCLE

Tuesday, January 8

7:30 a.m.–4:00 p.m.	JOINT MEETINGS REGISTRATION , Exhibit Hall B, San Diego Convention Center
8:00 a.m.–10:50 a.m.	AMS-MAA-SIAM SPECIAL SESSION ON RESEARCH IN MATHEMATICS BY UNDERGRADUATES, II
8:00 a.m.–10:50 a.m.	AMS-MAA SPECIAL SESSION ON THE HISTORY OF MATHEMATICS, I
	AMS SPECIAL SESSIONS
8:00 a.m.–10:50 a.m.	<i>Structure, Geometry, and Symbolic Computation of Algebraic Groups and Symmetric Spaces, III</i>
8:00 a.m.–10:50 a.m.	<i>Financial Mathematics, I</i>
8:00 a.m.–10:50 a.m.	<i>Secant Varieties and Related Topics, I</i>
8:00 a.m.–10:50 a.m.	<i>Wavelet Sets and Tilings of R^n, I</i>
8:00 a.m.–10:50 a.m.	<i>Low Genus Curves and Applications, II</i>
8:00 a.m.–10:50 a.m.	<i>Algebraic Dynamics, I</i>
8:00 a.m.–10:50 a.m.	<i>Dynamics and Stability of Coherent Structures, I</i>
8:00 a.m.–10:50 a.m.	<i>Graph Theory, III</i>
8:00 a.m.–10:50 a.m.	<i>Modular Forms and Modularity, III</i>
8:00 a.m.–10:50 a.m.	<i>Inverse Problems in Geometry, I</i>
	MAA CONTRIBUTED PAPER SESSIONS
8:00 a.m.–10:55 a.m.	<i>Countering “I Can’t Do Math”: Strategies for Teaching Under-Prepared Math-Anxious Students Interested in Business and the Sciences</i>
8:00 a.m.–10:55 a.m.	<i>Innovative and Effective Ways to Teach Linear Algebra</i>
8:00 a.m.–10:55 a.m.	<i>Mathematics Experiences in Business, Industry, and Government</i>
8:00 a.m.–10:55 a.m.	<i>General Session, V</i>
8:00 a.m.–11:00 a.m.	SIAM MINISYMPOSIUM ON ENVIRONMENTAL MATHEMATICS: SOME MATHEMATICAL PROBLEMS ON CLIMATE CHANGE AND GEOPHYSICAL FLUID DYNAMICS, I
8:00 a.m.–4:00 p.m.	ASL INVITED ADDRESSES AND CONTRIBUTED PAPERS
8:00 a.m.–5:55 p.m.	AMS SESSIONS FOR CONTRIBUTED PAPERS
8:00 a.m.–11:00 a.m.	PME COUNCIL
9:00 a.m.–9:50 a.m.	MAA INVITED ADDRESS <i>The covering congruences of Paul Erdős.</i> Carl Pomerance
9:00 a.m.–11:00 a.m.	MAA MINICOURSE #12: PART B <i>Developing department self-studies.</i>
9:00 a.m.–11:00 a.m.	MAA MINICOURSE #1: PART B <i>Teaching a Galois theory course for undergraduates.</i>
9:00 a.m.–11:00 a.m.	MAA MINICOURSE #7: PART B <i>Directing undergraduate research.</i>
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
10:00 a.m.–10:55 a.m.	AMS SPECIAL PRESENTATION <i>Who wants to be a mathematician.</i>
10:05 a.m.–10:55 a.m.	AMS INVITED ADDRESS <i>A new mathematical frontier: The social and behavioral sciences.</i> Donald G. Saari
11:10 a.m.–12:00 p.m.	AMS-MAA INVITED ADDRESS <i>The mathematics of PageRank.</i> Fan Chung

- 1:00 p.m.–2:00 p.m. **AMS COLLOQUIUM LECTURE: LECTURE III** *Random conformally invariant pictures (Part III).* Wendelin Werner
- 1:00 p.m.–1:50 p.m. **MAA STUDENT LECTURE** *The Riemann Hypothesis.* J. Brian Conrey
- 1:00 p.m.–6:00 p.m. **AMS CURRENT EVENTS BULLETIN**
- 1:00 p.m.–5:50 p.m. **AMS-MAA SPECIAL SESSION ON THE HISTORY OF MATHEMATICS, II**
- AMS SPECIAL SESSIONS**
- 1:00 p.m.–5:50 p.m. *Financial Mathematics, II*
- 1:00 p.m.–5:50 p.m. *Representation Theory and Nonassociative Algebras*
- 1:00 p.m.–5:50 p.m. *Secant Varieties and Related Topics, II*
- 1:00 p.m.–5:50 p.m. *Wavelet Sets and Tilings of R^n , II*
- 1:00 p.m.–5:50 p.m. *Low Genus Curves and Applications, III*
- 1:00 p.m.–5:50 p.m. *Learning and Math Graduate Students in K–12 Classroom*
- 1:00 p.m.–5:50 p.m. *Algebraic Dynamics, II*
- 1:00 p.m.–5:50 p.m. *Applications of Computer Algebra in Enumerative and Algebraic Combinatorics*
- 1:00 p.m.–5:50 p.m. *Biomathematical Modeling*
- 1:00 p.m.–5:50 p.m. *Expanders and Ramanujan Graphs: Construction and Applications, I*
- 1:00 p.m.–5:50 p.m. *Dynamics and Stability of Coherent Structures, II*
- 1:00 p.m.–5:50 p.m. *Inverse Problems in Geometry, II*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #13: PART B** *Teaching and the philosophy of mathematics.*
- 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 #9: PART B** *Classroom response systems: Teaching with clickers.*
- MAA CONTRIBUTED PAPER SESSIONS**
- 1:00 p.m.–5:55 p.m. *Guided Discovery in Mathematics Education*
- 1:00 p.m.–5:55 p.m. *General Session, VI*
- 1:00 p.m.–5:00 p.m. **SIAM MINISYMPOSIUM ON ENVIRONMENTAL MATHEMATICS: SOME MATHEMATICAL PROBLEMS ON CLIMATE CHANGE AND GEOPHYSICAL FLUID DYNAMICS, II**
- 1:00 p.m.–2:15 p.m. **AMS SPECIAL PRESENTATION** *Wiki math.*
- 1:00 p.m.–2:20 p.m. **MAA SPECIAL PRESENTATION** *A quick introduction to WebWork, a web-based interactive homework system.*
- 1:00 p.m.–2:20 p.m. **PROJECT NEXT PANEL DISCUSSION** *Capstone and one-semester research projects for a variety of students.*
- 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. **SUMMA SPECIAL PRESENTATION** *Summer research programs.*
- 3:00 p.m.–5:20 p.m. **MAA POSTER SESSION FOR UNDERGRADUATES**
- 3:30 p.m.–5:30 p.m. **MAA MINICOURSE #14: PART B** *Beyond formulas and algorithms: Teaching a conceptual/thematics single variable calculus course.*
- 3:30 p.m.–5:30 p.m. **MAA MINICOURSE #3: PART B** *Introduction to the mathematics of modern cryptography.*
- 3:30 p.m.–5:30 p.m. **MAA MINICOURSE #8: PART B** *Mathematics and geometry of voting.*
- 4:20 p.m.–5:10 p.m. **AMS-MAA SCIENCE POLICY GOVERNMENT SPEAKER** *Speaker and title to be announced.*
- 5:00 p.m.–7:00 p.m. **MAA INFORMATION SESSION** *Current issues in actuarial science education.*
- 5:30 p.m.–7:30 p.m. **UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, DEPARTMENT OF MATHEMATICS ALUMNI RECEPTION**
- 6:00 p.m.–8:30 p.m. **MAA FILM PRESENTATION AND RECEPTION** *Hard Problems: A documentary about the USA team's participation in the 2006 International Mathematical Olympiad.*

6:00 p.m.–7:00 p.m.	SIGMAA ON RESEARCH IN UNDERGRADUATE MATHEMATICS BUSINESS MEETING
6:00 p.m.–10:00 p.m.	ASSOCIATION OF CHRISTIANS IN THE MATHEMATICAL SCIENCES BANQUET
6:00 p.m.–8:00 p.m.	BUDAPEST SEMESTERS IN MATHEMATICS REUNION
6:00 p.m.–7:00 p.m.	HAWKES LEARNING SYSTEMS PRESENTATION
6:00 p.m.–7:00 p.m.	AMS MATHEMATICAL REVIEWS RECEPTION
6:00 p.m.–9:30 p.m.	NAM RECEPTION, BANQUET, AND COX-TALBOT ADDRESS
6:45 p.m.–7:45 p.m.	MAA SPECIAL PRESENTATION <i>Dancing mathematics and the mathematics of dance.</i>
7:00 p.m.–8:00 p.m.	MAA DRAMATIC PRESENTATION <i>So you want to teach environmental math, do you?</i>
7:00 p.m.–10:00 p.m.	INFORMAL EVENING OF WINE AND JAZZ
7:00 p.m.–8:00 p.m.	YOUNG MATHEMATICIANS NETWORK TOWN MEETING
8:30 p.m.–10:00 p.m.	MAA-PROJECT NEXT RECEPTION <i>All Project NExT Fellows, consultants, and other friends of Project NExT are invited.</i>
8:45 p.m.–9:30 p.m.	NAM COX-TALBOT ADDRESS <i>Speaker and title to be announced.</i>

Wednesday, January 9

7:30 a.m.–2:00 p.m.	JOINT MEETINGS REGISTRATION , Exhibit Hall B, San Diego Convention Center
8:00 a.m.–10:50 a.m.	AMS-MAA-SIAM SPECIAL SESSION ON RESEARCH IN MATHEMATICS BY UNDERGRADUATES, III
8:00 a.m.–10:50 a.m.	AMS-MAA-MER SPECIAL SESSION ON MATHEMATICS AND EDUCATION REFORM, I
8:00 a.m.–10:50 a.m.	AMS-MAA SPECIAL SESSION ON THE HISTORY OF MATHEMATICS, III
8:00 a.m.–10:50 a.m.	AMS-SIAM SPECIAL SESSION ON ENVIRONMENTAL MATHEMATICS: SOME MATHEMATICAL PROBLEMS ON CLIMATE CHANGE AND GEOPHYSICAL FLUID DYNAMICS, III
	AMS SPECIAL SESSIONS
8:00 a.m.–10:50 a.m.	<i>Financial Mathematics, III</i>
8:00 a.m.–10:50 a.m.	<i>The Feynman Integral in Mathematics and Physics, I</i>
8:00 a.m.–10:50 a.m.	<i>Heegaard Splittings, Bridge Positions, and Low Dimensional Topology, I</i>
8:00 a.m.–10:50 a.m.	<i>E-Theory, Extensions, and Elliptic Operators, I</i>
8:00 a.m.–10:50 a.m.	<i>Algebraic and Geometric Aspects of Integrable Systems, I</i>
8:00 a.m.–10:50 a.m.	<i>Expanders and Ramanujan Graphs: Construction and Applications, II</i>
8:00 a.m.–10:50 a.m.	<i>Probability Theory and Statistical Mechanics, I</i>
8:00 a.m.–10:50 a.m.	<i>Global Optimization and Operations Research Applications, I</i>
	MAA CONTRIBUTED PAPER SESSIONS
8:00 a.m.–10:55 a.m.	<i>Biomathematics in the Undergraduate Curriculum, I</i>
8:00 a.m.–10:55 a.m.	<i>Building Diversity in Advanced Mathematics: Models that Work</i>
8:00 a.m.–10:55 a.m.	<i>Cryptology for Undergraduates</i>
8:00 a.m.–10:55 a.m.	<i>Mathlets and Web Resources for Mathematics and Statistics Education</i>
8:00 a.m.–10:55 a.m.	<i>Using Innovative Technologies to Implement Active Learning in Mathematics (and in other STEM disciplines)</i>
8:00 a.m.–10:55 a.m.	<i>General Session, VII</i>
8:00 a.m.–11:00 a.m.	SIAM MINISYMPOSIUM ON GRAPH COLORING AND PARTITIONING, I
8:00 a.m.–5:00 p.m.	ASL INVITED ADDRESSES AND CONTRIBUTED PAPERS
8:00 a.m.–5:55 p.m.	AMS SESSIONS FOR CONTRIBUTED PAPERS
8:30 a.m.–10:00 a.m.	AMS COMMITTEE ON EDUCATION PANEL DISCUSSION
8:30 a.m.–5:30 p.m.	AWM WORKSHOP <i>This session has several parts that will be listed separately by time in the program. All presentations are open to all JMM participants.</i>
9:00 a.m.–9:50 a.m.	AMS INVITED ADDRESS <i>Progress in hyperbolic conservation laws.</i> Constantine M. Dafermos

Meetings & Conferences

- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #10: PART B** *The Fibonacci and Catalan numbers.*
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #15: PART B** *Evaluating student presentations in mathematics.*
- 9:00 a.m.–11:00 a.m. **MAA MINICOURSE #4: PART B** *Wavelets and applications: A multidisciplinary undergraduate course with an emphasis on scientific computing.*
- 9:00 a.m.–9:50 a.m. **NAM PANEL DISCUSSION**
- 9:00 a.m.–1:00 p.m. **EXHIBITS AND BOOK SALES**
- 9:30 a.m.–11:00 a.m. **PROJECT NEXT PANEL DISCUSSION** *New technologies for faculty: Wikis, discussion boards, and clickers.*
- 10:00 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 RETIRING PRESIDENTIAL ADDRESS** *The teaching-technology linkage in mathematics.*
Carl C. Cowen
- 11:10 a.m.–11:40 a.m. **MAA BUSINESS MEETING**
- 11:45 a.m.–12:15 p.m. **AMS BUSINESS MEETING**
- 1:00 p.m.–1:50 p.m. **NAM CLAYTOR-WOODARD LECTURE** *Speaker and title to be announced.*
- 1:00 p.m.–5:50 p.m. **AMS-MAA-SIAM SPECIAL SESSION ON RESEARCH IN MATHEMATICS BY UNDERGRADUATES, IV**
- 1:00 p.m.–5:50 p.m. **AMS-MAA-MER SPECIAL SESSION ON MATHEMATICS AND EDUCATION REFORM, II**
- 1:00 p.m.–5:50 p.m. **AMS-MAA SPECIAL SESSION ON THE HISTORY OF MATHEMATICS, IV**
- AMS SPECIAL SESSIONS**
- 1:00 p.m.–5:50 p.m. *Financial Mathematics, IV*
- 1:00 p.m.–5:50 p.m. *The Feynman Integral in Mathematics and Physics, II*
- 1:00 p.m.–5:50 p.m. *Heegaard Splittings, Bridge Positions, and Low Dimensional Topology, II*
- 1:00 p.m.–5:50 p.m. *The Linear Diophantine Problem of Frobenius*
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- 1:00 p.m.–5:50 p.m. *Probability Theory and Statistical Mechanics, II*
- 1:00 p.m.–5:50 p.m. *Global Optimization and Operations Research Applications, II*
- 1:00 p.m.–5:50 p.m. *Mathematical Problems in Biological Formations*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #11: PART B** *More music and mathematics.*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #16: PART B** *A beginner's guide to the scholarship of teaching and learning in mathematics.*
- 1:00 p.m.–3:00 p.m. **MAA MINICOURSE #5: PART B** *Visualizing abstract mathematics with cellular automata.*
- MAA CONTRIBUTED PAPER SESSIONS**
- 1:00 p.m.–5:30 p.m. *Biomathematics in the Undergraduate Curriculum, II*
- 1:00 p.m.–5:30 p.m. *Research on the Teaching and Learning of Undergraduate Mathematics*
- 1:00 p.m.–5:30 p.m. *General Session, VIII*
- 1:00 p.m.–5:00 p.m. **SIAM MINISYMPOSIUM ON GRAPH COLORING AND PARTITIONING, II**
- 3:30 p.m.–5:30 p.m. **MAA MINICOURSE #6: PART B** *Sonification for mathematics instruction.*
- 6:30 p.m.–7:30 p.m. **AMS BANQUET RECEPTION**
- 7:30 p.m.–10:00 p.m. **AMS BANQUET**