

Meetings & Conferences of the AMS

IMPORTANT INFORMATION REGARDING MEETINGS PROGRAMS: AMS Sectional Meeting programs do not appear in the print version of the *Notices*. However, comprehensive and continually updated meeting and program information with links to the abstract for each talk can be found on the AMS website. See <http://www.ams.org/meetings/>. Final programs for Sectional Meetings will be archived on the AMS website accessible from the stated URL and in an electronic issue of the *Notices* as noted below for each meeting.

Kalamazoo, Michigan

Western Michigan University

October 17–19, 2008

Friday – Sunday

Meeting #1043

Central Section

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: August 2008

Program first available on AMS website: September 4, 2008

Program issue of electronic *Notices*: October 2008

Issue of *Abstracts*: Volume 29, Issue 4

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: Expired

For abstracts: Expired

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtg/sectional.html.

Invited Addresses

M. Carme Calderer, University of Minnesota, *Title to be announced.*

Alexandru Ionescu, University of Wisconsin, *Global Schrödinger maps: Small data in the critical Sobolev spaces.*

Boris S. Mordukhovich, Wayne State University, *Variational analysis: New trends and applications.*

David Nadler, Northwestern University, *Representation theory via topological field theory.*

Special Sessions

Affine Algebraic Geometry, **Shreeram Abhyankar**, Purdue University, **Anthony J. Crachiola**, Saginaw Valley State University, and **Leonid G. Makar-Limanov**, Wayne State University.

Computation in Modular Representation Theory and Cohomology, **Christopher P. Bendel**, University of Wisconsin-

Stout, **Terrell L. Hodge**, Western Michigan University, **Brian J. Parshall**, University of Virginia, and **Cornelius Pillen**, University of South Alabama.

Computational Group Theory, **Luise-Charlotte Kappe**, State University of New York Binghamton, **Arturo Magidin**, University of Louisiana-Lafayette, and **Robert F. Morse**, University of Evansville.

Graph Labeling, Graph Coloring, and Topological Graph Theory, **Arthur T. White**, Western Michigan University, and **David L. Craft**, Muskingum College.

Homotopy Theory, **Michele Intermont**, Kalamazoo College, and **John R. Martino** and **Jeffrey A. Strom**, Western Michigan University.

Linear Codes Over Rings and Modules, **Steven T. Dougherty**, University of Scranton, and **Jay A. Wood**, Western Michigan University.

Mathematical Finance, **Qiji J. Zhu**, Western Michigan University, and **George Yin**, Wayne State University.

Mathematical Knowledge for Teaching, **Kate Kline** and **Christine Browning**, Western Michigan University.

Nonlinear Analysis and Applications, **S. P. Singh**, University of Western Ontario, **Bruce B. Watson**, Memorial University, and **Mahi Singh**, University of Western Ontario.

Optimization/Midwest Optimization Seminar, **Jay S. Treiman** and **Yuri Ledyev**, Western Michigan University, and **Ilya Shvartsman**, Penn State Harrisburg.

Quasigroups, Loops, and Nonassociative Division Algebras, **Clifton E. Ealy Jr.** and **David Richter**, Western Michigan University, and **Petr Vojtechovsky**, University of Denver.

Representations of Real and p -adic Lie Groups, **Alessandra Pantano**, University of California Irvine, **Annegret Paul**, Western Michigan University, and **Susana Alicia Salamanca-Riba**, New Mexico State University.

Topological Field Theory, **David Nadler**, Northwestern University.

Variational Analysis and its Applications, **Yuri Ledyev** and **Jay S. Treiman**, Western Michigan University, **Ilya Shvartsman**, Penn State Harrisburg, and **Qiji J. Zhu**, Western Michigan University.

Huntsville, Alabama

University of Alabama, Huntsville

October 24–26, 2008

Friday – Sunday

Meeting #1044

Southeastern Section

Associate secretary: Matthew Miller

Announcement issue of *Notices*: August 2008

Program first available on AMS website: September 11, 2008

Program issue of electronic *Notices*: October 2008

Issue of *Abstracts*: Volume 29, Issue 4

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: Expired

For abstracts: Expired

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Invited Addresses

Mark Behrens, Massachusetts Institute of Technology, *Congruences amongst modular forms and the stable homotopy groups of spheres.*

Anthony M. Bloch, University of Michigan, Ann Arbor, *Variational principles and nonholonomic dynamics.*

Roberto Camassa, University of North Carolina, Chapel Hill, *Spinning rods, microfluidics, and propulsion by cilia in biological systems.*

Mark V. Sapid, Vanderbilt University, *Geometry of groups, random walks, and polynomial maps over finite fields.*

Special Sessions

Applications of PDEs and ODEs (in honor of Karen Ames), **Suzanne M. Lenhart** and **Philip W. Schaefer**, University of Tennessee, Knoxville.

Applications of Topology to Dynamical Systems, **John C. Mayer** and **Lex G. Oversteegen**, University of Alabama at Birmingham.

Applied Probability, **Moonyu Park** and **Boris Kunin**, University of Alabama in Huntsville.

Dynamics and Applications of Differential Equations, **Wenzhang Huang** and **Shangbing Ai**, University of Alabama in Huntsville, and **Weishi Liu**, University of Kansas.

Gaussian Analysis and Stochastic Partial Differential Equations, **Davar Khoshnevisan**, University of Utah, and **Dongsheng Wu**, University of Alabama in Huntsville.

Geometric Mechanics, Control, and Integrability, **Anthony M. Bloch**, University of Michigan, Ann Arbor, and **Dmitry Zenkov**, North Carolina State University.

Graph Decompositions, **Robert A. Beeler** and **Robert B. Gardner**, East Tennessee State University.

Graph Theory, **Peter J. Slater** and **Grant Zhang**, University of Alabama in Huntsville.

Homotopy Theory and Algebraic Topology, **Mark Behrens**, Massachusetts Institute of Technology, and **Michael Hill**, University of Virginia.

Inverse Limits and Their Applications, **Judy A. Kennedy**, Lamar University.

Mathematical Biology: Modeling, Analysis, and Simulations, **Jia Li**, University of Alabama in Huntsville, **Azmy S. Ackleh**, University of Louisiana at Lafayette, and **Maia Martcheva**, University of Florida.

Nonlinear Operator Theory and Partial Differential Equations, **Claudio H. Morales**, University of Alabama in Huntsville, and **Pei-Kee Lin**, University of Memphis.

Probability on Discrete and Algebraic Structures, **Kyle T. Siegrist**, University of Alabama in Huntsville.

Random Matrices, **Leonard N. Choup**, University of Alabama in Huntsville, and **Jack Silverstein**, North Carolina State University.

Set-Theoretic Topology, **Gary Gruenhage**, Auburn University, and **Peter J. Nyikos** and **Robert M. Stephenson Jr.**, University of South Carolina.

Shanghai, People's Republic of China

Fudan University

December 17–21, 2008

Wednesday – Sunday

Meeting #1045

First Joint International Meeting Between the AMS and the Shanghai Mathematical Society

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: June 2008

Program first available on AMS website: Not applicable

Program issue of electronic *Notices*: Not applicable

Issue of *Abstracts*: Not applicable

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: Not applicable

For abstracts: October 31, 2008

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/internmtgs.html.

Invited Addresses

Robert J. Bryant, University of California Berkeley, *Title to be announced.*

L. Craig Evans, University of California Berkeley, *Title to be announced.*

Zhi-Ming Ma, Chinese Academy of Sciences, *Title to be announced*.

Richard Schoen, Stanford University, *Title to be announced*.

Xiaoping Yuan, Fudan University, *Title to be announced*.

Weiping Zhang, Chern Institute, *Title to be announced*.

Special Sessions

Biomathematics: Newly Developed Applied Mathematics and New Mathematics Arising from Biosciences, **Banghe Li**, Chinese Academy of Sciences, **Reinhard C. Laubenbacher**, Virginia Bioinformatics Institute, and **Jianjun Paul Tian**, College of William and Mary.

Combinatorics and Discrete Dynamical Systems, **Reinhard C. Laubenbacher**, Virginia Bioinformatics Institute, **Klaus Sutner**, Carnegie Mellon University, and **Yaokun Wu**, Shanghai Jiao Tong University.

Differential Geometry and Its Applications, **Jianguo Cao**, University of Notre Dame, and **Yu Xin Dong**, Fudan University.

Dynamical Systems Arising in Ecology and Biology, **Qishao Lu**, Beijing University of Aeronautics & Astronautics, and **Zhaosheng Feng**, University of Texas-Pan American.

Elliptic and Parabolic Nonlinear Partial Differential Equations, **Changfeng Gui**, University of Connecticut, and **Feng Zhou**, East China Normal University.

Harmonic Analysis and Partial Differential Equations with Applications, **Yong Ding**, Beijing Normal University, **Guo-Zhen Lu**, Wayne State University, and **Shanzhen Lu**, Beijing Normal University.

Integrable System and Its Applications, **En-Gui Fan**, Fudan University, **Sen-Yue Lou**, Shanghai Jiao Tong University and Ningbo University, and **Zhi-Jun Qiao**, University of Texas-Pan American.

Integral and Convex Geometric Analysis, **Deane Yang**, Polytechnic University, and **Jiazu Zhou**, Southwest University.

Lie Algebras, Vertex Operator Algebras and Related Topics, **Hu Nai Hong**, East China Normal University, and **Yi-Zhi Huang**, Rutgers University.

Nonlinear Systems of Conservation Laws and Related Topics, **Gui-Qiang Chen**, Northwestern University, and **Shuxing Chen** and **Yi Zhou**, Fudan University.

Optimization and Its Application, **Shu-Cherng Fang**, North Carolina State University, and **Xuexiang Huang**, Fudan University.

Quantum Algebras and Related Topics, **Naihuan N. Jing**, North Carolina State University, **Quanshui Wu**, Fudan University, and **James J. Zhang**, University of Washington.

Recent Developments in Nonlinear Dispersive Wave Theory, **Jerry Bona**, University of Illinois at Chicago, **Bo Ling Guo**, Institute of Applied Physics and Computational Mathematics, **Shu Ming Sun**, Virginia Polytech Institute and State University, and **Bingyu Zhang**, University of Cincinnati.

Representation of Algebras and Groups, **Birge K. Huisgen-Zimmermann**, University of California Santa Barbara,

Jie Xiao, Tsinghua University, **Jiping Zhang**, Beijing University, and **Pu Zhang**, Shanghai Jiao Tong University.

Several Complex Variables and Applications, **Siqi Fu**, Rutgers University, **Min Ru**, University of Houston, and **Zhihua Chen**, Tongji University.

Several Topics in Banach Space Theory, **Gerard J. Buskes** and **Qingying Bu**, University of Mississippi, and **Lixin Cheng**, Xiamen University.

Stochastic Analysis and Its Application, **Jiangang Ying**, Fudan University, and **Zhenqing Chen**, University of Washington.

Topics in Partial Differential Equations and Mathematical Control Theory, **Xiaojun Huang**, Rutgers University, **Gengsheng Wang**, Wuhan University of China, and **Stephen S.-T. Yau**, University of Illinois at Chicago.

Washington, District of Columbia

Marriott Wardman Park Hotel and Omni Shoreham Hotel

January 5–8, 2009

Monday – Thursday

Meeting #1046

Joint Mathematics Meetings, including the 115th Annual Meeting of the AMS, 92nd Annual Meeting of the Mathematical Association of America (MAA), annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association for Symbolic Logic (ASL), with sessions contributed by the Society for Industrial and Applied Mathematics (SIAM).

Associate secretary: Bernard Russo

Announcement issue of *Notices*: October 2008

Program first available on AMS website: November 1, 2008

Program issue of electronic *Notices*: January 2009

Issue of *Abstracts*: Volume 30, Issue 1

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: Expired

For abstracts: Expired

Program Updates

AMS Sessions

Because of the untimely death of Oded Schramm, the **Gibbs Lecture** will be given by **Percy A. Deift**, Courant Institute, on *Integrable systems: A modern view*, at 8:30 p.m. on Monday.

Speakers in the **Current Events Bulletin** session on Wednesday afternoon are **Matthew J. Emerton**, Northwestern University; **Olga V. Holtz** and **Michael L. Hutchings**,

University of California Berkeley; and **Frank Sottile**, Texas A&M University.

Congressional Fellowship Session, Wednesday, 4:30 p.m.–6:30 p.m., organized by **Samuel M. Rankin III**, AMS. This session will describe the AMS Congressional Fellowship, administered by the American Association for the Advancement of Science (AAAS), and the fellowship's unique public policy learning experience. This fellowship demonstrates the value of science-government interaction by allowing the fellows to bring a technical background and external perspective to the decision-making process in Congress. Previous and current AMS-sponsored Congressional Fellows will give their perspectives on the fellowship to interested meeting participants in an effort to encourage applications for future fellowships.

MAA Sessions

Presentations by Teaching Award Winners will be given by **Michael J. Bardzell**, Salisbury University; **David Pengelley**, New Mexico State University; and **Vali Siadat**, Richard J. Daley College; at 2:30 p.m. on Wednesday afternoon.

Invited Paper Session on The Beauty and Power of Number Theory, Wednesday, 1:00 p.m.–3:00 p.m., organized by **Thomas Koshy**, Framingham State College, and **Thomas Moore**, Bridgewater State College. This session features talks by **George E. Andrews** and **Kristen Eisentrager**, Pennsylvania State University, **Carl Pomerance**, Dartmouth University, and **Ken Ono**, University of Wisconsin-Madison.

Contributed Paper Session on Wavelets in Undergraduate Education, Tuesday afternoon, organized by **Catherine Beneteau**, University of South Florida; **Caroline Haddad**, SUNY Geneseo; **David Ruch**, Metropolitan State College of Denver; and **Patrick Van Fleet**, University of St. Thomas.

Math Club in a Box, Thursday, 1:00 p.m.–3:00 p.m., organized by **Kay B. Somers**, Moravian College, and **Elizabeth Mayfield**, Hood College. One of the recommendations of the Strategic Planning Group on Students is that the MAA offer support to student chapter advisors by making available “in-a-box” resources such as Jeopardy-in-a-box, Career-Day-in-a-box, Fun-Math-Games-in-a-box, Student-Fair-information-for-parents-and-students-in-a-box, Math-Volunteer-Ideas-in-a-box ... activities that advisors could easily carry out on their own campuses, with their own students. In some cases, we picture a literal box: something an advisor receives in the mail and opens to find a ready-made activity within. In other cases, participants may offer “virtual boxes”. What would you put in such a box? What activity or resource would you contribute to this new collection of MAA Student Activity Boxes? We seek field-tested resources from faculty across the MAA to assist student chapter advisors and others who want to engage students in mathematics-related activities. These “boxes” could be used as part of a course, but more likely will involve activities intended to be completed outside the classroom. Proposals and questions regarding the session may be directed to **Kay Somers**, mekbs01@moravian.edu. The deadline for proposals is Friday, November 7, 2008. The session is sponsored by the MAA Committee on Undergraduate Student Activities and Chapters (CUSAC).

SIGMAA on Statistics Education Business Meeting, Tuesday, 5:45 p.m.–7:15 p.m.

SIGMAA on Research in Undergraduate Mathematics Education Business Meeting, Tuesday, 6:00 p.m.–7:30 p.m.

MAA Department Liaisons Meeting will take place on Monday, 9:30 a.m.–11:00 a.m.

Other Organizations

Society for Industrial and Applied Mathematics

An Invited Address will be given by **Kenneth M. Golden**, University of Utah, on *Mathematics of sea ice to help predict climate change* on Tuesday, 11:10 a.m.–noon.

The following **minisymposia** are scheduled on the days indicated:

Mathematical Modeling of Natural Resources, organized by **Catherine A. Roberts**, College of the Holy Cross, Monday morning and afternoon;

Mathematical and Computational Challenges in Global Climate and Energy Processes, organized by **Margot Geritsen**, Stanford University, Tuesday morning;

Graph Theory, organized by **Stephen G. Hartke**, University of Nebraska-Lincoln, Tuesday afternoon and Wednesday morning;

Polar Climate Modeling, organized by **Kenneth M. Golden**, University of Utah; and **David M. Holland**, Courant Institute of Mathematical Sciences-NYU; and moderated by **Deborah L. Sulsky**, University of New Mexico, Wednesday afternoon;

The Mathematics of Energy Conversion, **Keith Promislow**, Michigan State University; and

Education Minisymposium on Professional Development and Career Choices for Students, organized by **William L. Briggs**, University of Colorado at Denver, Thursday afternoon.

Urbana, Illinois

University of Illinois at Urbana-Champaign

March 27–29, 2009

Friday – Sunday

Meeting #1047

Central Section

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: January

Program first available on AMS website: February 12, 2009

Program issue of electronic *Notices*: March

Issue of *Abstracts*: To be announced

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: December 9, 2008

For abstracts: February 3, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Invited Addresses

Jeffrey C. Lagarias, University of Michigan, *Title to be announced* (Erdős Memorial Lecture).

Jacob Lurie, Massachusetts Institute of Technology, *Title to be announced*.

Gilles Pisier, Texas A&M University, *Title to be announced*.

Akshay Venkatesh, New York University-Courant Institute, *Title to be announced*.

Special Sessions

Algebra, Geometry and Combinatorics (Code: SS 10A), **Rinat Kedem**, University of Illinois at Urbana-Champaign, and **Alexander T. Yong**, University of Minnesota.

Algebraic Methods in Statistics and Probability (Code: SS 3A), **Marlos A. G. Viana**, University of Illinois at Chicago.

Complex Dynamics and Value Distribution (Code: SS 11A), **Aimo Hinkkanen** and **Joseph B. Miles**, University of Illinois at Urbana-Champaign.

Concrete Aspects of Real Positive Polynomials (Code: SS 20A), **Victoria Powers**, Emory University, and **Bruce Reznick**, University of Illinois at Urbana-Champaign.

Differential Geometry and Its Applications (Code: SS 16A), **Stephanie B. Alexander**, University of Illinois at Urbana-Champaign, and **Jianguo Cao**, University of Notre Dame.

Geometric Function Theory and Analysis on Metric Spaces (Code: SS 6A), **Sergiy Merenkov**, **Jeremy Taylor Tyson**, and **Jang-Mei Wu**, University of Illinois at Urbana-Champaign.

Geometric Group Theory (Code: SS 2A), **Sergei V. Ivanov**, **Ilya Kapovich**, **Igor Mineyev**, and **Paul E. Schupp**, University of Illinois at Urbana-Champaign.

Graph Theory (Code: SS 4A), **Alexander V. Kostochka** and **Douglas B. West**, University of Illinois at Urbana-Champaign.

Holomorphic and CR Mappings (Code: SS 9A), **John P. D'Angelo**, **Jiri Lebl**, and **Alex Tumanov**, University of Illinois at Urbana-Champaign.

Hyperbolic Geometry and Teichmüller Theory (Code: SS 18A), **Jason Deblois**, University of Illinois at Chicago, **Richard P. Kent, IV**, Brown University, and **Christopher J. Leininger**, University of Illinois at Urbana-Champaign.

Local and Homological Methods in Commutative Algebra (Code: SS 13A), **Florian Enescu**, Georgia State University, and **Sandra Spiroff**, University of Mississippi.

Mathematical Visualization (Code: SS 7A), **George K. Francis**, University of Illinois at Urbana-Champaign, **Louis H. Kauffman**, University of Illinois at Chicago, **Dennis Martin Roseman**, University of Iowa, and **Andrew J. Hanson**, Indiana University.

Number Theory in the Spirit of Erdős (Code: SS 14A), **Kevin Ford** and **A. J. Hildebrand**, University of Illinois at Urbana-Champaign.

Operator Algebras and Operator Spaces (Code: SS 8A), **Zhong-Jin Ruan**, **Florin P. Boca**, and **Marius Junge**, University of Illinois at Urbana-Champaign.

Probabilistic and Extremal Combinatorics (Code: SS 5A), **Jozsef Balogh** and **Zoltan Furedi**, University of Illinois at Urbana-Champaign.

The Interface Between Number Theory and Dynamical Systems (Code: SS 17A), **Florin Boca**, University of Illinois at Urbana-Champaign, **Jeffrey Lagarias**, University of Michigan, and **Kenneth Stolarsky**, University of Illinois at Urbana-Champaign.

Time, Scale and Frequency Methods in Harmonic Analysis (Code: SS 15A), **Richard S. Laugesen**, University of Illinois at Urbana-Champaign, and **Darrin M. Speegle**, St. Louis University.

Topological Dynamics and Ergodic Theory (Code: SS 19A), **Alica Miller**, University of Louisville, and **Joseph Rosenblatt**, University of Illinois at Urbana-Champaign.

Topological Field Theories, Representation Theory, and Algebraic Geometry (Code: SS 12A), **Thomas Nevins**, University of Illinois at Urbana-Champaign, and **David Ben-Zvi**, University of Texas at Austin.

q-Series and Partitions (Code: SS 1A), **Bruce Berndt**, University of Illinois at Urbana-Champaign, and **Ae Ja Yee**, Pennsylvania State University.

Raleigh, North Carolina

North Carolina State University

April 4–5, 2009

Saturday – Sunday

Meeting #1048

Southeastern Section

Associate secretary: Matthew Miller

Announcement issue of *Notices*: January 2009

Program first available on AMS website: February 19, 2009

Program issue of electronic *Notices*: April 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: December 16, 2008

For abstracts: February 10, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Invited Addresses

Nathan Dunfield, University of Illinois at Urbana-Champaign, *Surfaces in finite covers of 3-manifolds: The Virtual Haken Conjecture*.

Reinhard C. Laubenbacher, Virginia Bioinformatics Institute, *Algebraic models in systems biology*.

Jonathan C. Mattingly, Duke University, *Stochastically forced fluid equations: Transfer between scales and ergodicity*.

Raman Parimala, Emory University, *Title to be announced*.

Special Sessions

Advancements in Turbulent Flow Modeling and Computation (Code: SS 8A), **Leo G. Rebholz**, Clemson University, and **Traian Iliescu**, Virginia Polytechnic Institute and State University.

Applications of Algebraic and Geometric Combinatorics (Code: SS 2A), **Seth M. Sullivan**, Harvard University, and **Carla D. Savage**, North Carolina State University.

Brauer Groups, Quadratic Forms, Algebraic Groups, and Lie Algebras (Code: SS 12A), **Eric S. Brussel** and **Skip Garibaldi**, Emory University.

Computational Methods in Lie Theory (Code: SS 10A), **Eric Sommers**, University of Massachusetts, Amherst, and **Molly Fenn**, North Carolina State University.

Enumerative Geometry and Related Topics (Code: SS 7A), **Richard L. Rimanyi**, University of North Carolina, Chapel Hill, and **Leonardo C. Mihalcea**, Duke University.

Galois module theory and Hopf algebras (Code: SS 13A), **Robert G. Underwood**, Auburn University Montgomery, and **James E. Carter**, College of Charleston.

Geometry of Differential Equations (Code: SS 9A), **Thomas A. Ivey**, College of Charleston, and **Irina A. Kogan**, North Carolina State University.

Homotopical Algebra with Applications to Mathematical Physics (Code: SS 3A), **Thomas J. Lada**, North Carolina State University, and **Jim Stasheff**, University of North Carolina, Chapel Hill.

Kac-Moody Algebras, Vertex Algebras, Quantum Groups, and Applications (Code: SS 1A), **Bojko N. Bakalov**, **Kailash C. Misra**, and **Naihuan N. Jing**, North Carolina State University.

Low Dimensional Topology and Geometry (Code: SS 4A), **Nathan M. Dunfield**, University of Illinois at Urbana-Champaign, **John B. Etnyre**, Georgia Institute of Technology, and **Lenhard Ng**, Duke University.

Mathematics of Immunology and Infectious Diseases (Code: SS 14A), **Stanca M. Ciupe**, Duke University.

Nonlinear Dynamics and Control (Code: SS 11A), **Anthony M. Bloch**, University of Michigan, Ann Arbor, and **Dmitry Zenkov**, North Carolina State University.

Recent Advances in Symbolic Algebra and Analysis (Code: SS 5A), **Michael F. Singer** and **Agnes Szanto**, North Carolina State University.

Rings, Algebras, and Varieties in Combinatorics (Code: SS 6A), **Patricia Hersh**, North Carolina State University, **Christian Lenart**, SUNY Albany, and **Nathan Reading**, North Carolina State University.

Worcester, Massachusetts

Worcester Polytechnic Institute

April 25–26, 2009

Saturday – Sunday

Meeting #1050

Eastern Section

Associate secretary: Steven H. Weintraub

Announcement issue of *Notices*: February 2009

Program first available on AMS website: March 12, 2009

Program issue of electronic *Notices*: April 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: January 6, 2009

For abstracts: March 3, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtg/sectional.html.

Invited Addresses

Octav Cornea, Université de Montréal, *Title to be announced*.

Fengbo Hang, Courant Institute of New York University, *Title to be announced*.

Umberto Mosco, Worcester Polytechnic Institute, *Title to be announced*.

Kevin Whyte, University of Illinois at Chicago, *Title to be announced*.

Special Sessions

Discrete Geometry and Combinatorics (Code: SS 5A), **Egon Schulte**, Northeastern University, and **Brigitte Servatius**, Worcester Polytechnic Institute.

Number Theory (Code: SS 4A), **John T. Cullinan**, Bard College, and **Siman Wong**, University of Massachusetts, Amherst.

Quasi-Static and Dynamic Evolution in Fracture Mechanics (Code: SS 6A), **Christopher J. Larsen**, Worcester Polytechnic Institute.

Symplectic and Contact Topology (Code: SS 1A), **Peter Albers**, Courant Institute of Mathematical Sciences, and **Basak Gurel**, Université de Montréal.

The Mathematics of Climate Change (Code: SS 3A), **Catherine A. Roberts**, College of the Holy Cross, **Mary Lou Zeeman**, Bowdoin College, and **Gareth E. Roberts**, College of the Holy Cross.

Topological Robotics (Code: SS 2A), **Li Han** and **Lee N. Rudolph**, Clark University.

San Francisco, California

San Francisco State University

April 25–26, 2009

Saturday – Sunday

Meeting #1049

Western Section

Associate secretary: Michel L. Lapidus

Announcement issue of *Notices*: February 2009

Program first available on AMS website: March 12, 2009

Program issue of electronic *Notices*: April 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: Expired

For consideration of contributed papers in Special Sessions: January 6, 2009

For abstracts: March 3, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Invited Addresses

Yehuda Shalom, University of California Los Angeles, *Title to be announced.*

Roman Vershynin, University of California Davis, *Title to be announced.*

Karen Vogtmann, Cornell University, *Title to be announced.*

Efim Zelmanov, University of California Los Angeles, *Title to be announced.*

Special Sessions

Advances in the Theory of Integer Linear Optimization and its Extensions (Code: SS 7A), **Mathias Koppe** and **Peter Malkin**, University of California Davis.

Banach Algebras, Topological Algebras and Abstract Harmonic Analysis (Code: SS 1A), **Thomas V. Tonev**, University of Montana-Missoula, and **Fereidoun Ghahramani**, University of Manitoba.

Concentration Inequalities (Code: SS 3A), **Sourav Chatterjee**, University of California Berkeley, and **Roman Vershynin**, University of California Davis.

Geometry and Topology of Orbifolds (Code: SS 6A), **Elizabeth Stanhope**, Lewis & Clark University, and **Joseph E. Borzellino**, California State University San Luis Obispo.

Nonlinear Dispersive Equations (Code: SS 4A), **Sebastian Herr**, University of California Berkeley, and **Jeremy L. Marzuola**, Columbia University.

Q-Series and Partitions (Code: SS 5A), **Neville Robbins**, San Francisco State University.

Recent Progress in Geometric Group Theory (Code: SS 2A), **Seonhee Lim** and **Anne Thomas**, Cornell University.

Waco, Texas

Baylor University

October 16–18, 2009

Friday – Sunday

Meeting #1051

Central Section

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: August 2009

Program first available on AMS website: September 3, 2009

Program issue of electronic *Notices*: October 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: March 17, 2009

For consideration of contributed papers in Special Sessions: June 30, 2009

For abstracts: August 25, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Invited Addresses

David Ben-Zvi, University of Texas at Austin, *Title to be announced.*

Alexander A. Kiselev, University of Wisconsin, *Title to be announced.*

Michael C. Reed, Duke University, *Title to be announced.*

Igor Rodnianski, Princeton University, *Title to be announced.*

Special Sessions

Commutative Algebra: Module and Ideal Theory (Code: SS 4A), **Lars W. Christensen**, Texas Tech University, **Louiza Fouli**, University of Texas at Austin, and **David Jorgensen**, University of Texas at Arlington.

Dynamic Equations on Time Scales: Analysis and Applications (Code: SS 1A), **John M. Davis**, **Ian A. Gravagne**, and **Robert J. Marks**, Baylor University.

Mathematical Models of Neuronal and Metabolic Mechanisms (Code: SS 3A), **Janet Best**, Ohio State University, and **Michael Reed**, Duke University.

Numerical Solutions of Singular or Perturbed Partial Differential Equation Problems with Applications (Code: SS 2A), **Peter Moore**, Southern Methodist University, and **Qin Sheng**, Baylor University.

Topological Methods for Boundary Value Problems for Ordinary Differential Equations (Code: SS 5A), **Richard Avery**, Dakota State University, **Paul W. Eloe**, University of Dayton, and **Johnny Henderson**, Baylor University.

University Park, Pennsylvania

Pennsylvania State University

October 24–25, 2009

Saturday – Sunday

Meeting #1052

Eastern Section

Associate secretary: Steven H. Weintraub

Announcement issue of *Notices*: August 2009

Program first available on AMS website: September 10, 2009

Program issue of electronic *Notices*: October 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: March 24, 2009

For consideration of contributed papers in Special Sessions: July 7, 2009

For abstracts: September 1, 2009

Boca Raton, Florida

Florida Atlantic University

October 30 – November 1, 2009

Friday – Sunday

Meeting #1053

Southeastern Section

Associate secretary: Matthew Miller

Announcement issue of *Notices*: August 2009

Program first available on AMS website: September 17, 2009

Program issue of electronic *Notices*: October 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: March 30, 2009

For consideration of contributed papers in Special Sessions: July 14, 2009

For abstracts: September 8, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Invited Addresses

Spyros Alexakis, Princeton University, *Title to be announced*.

Kai-Uwe Bux, University of Virginia, *Title to be announced*.

Dino J. Lorenzini, University of Georgia, *Title to be announced*.

Eduardo D. Sontag, Rutgers University, *Title to be announced*.

Special Sessions

Concentration, Functional Inequalities, and Isoperimetry (Code: SS 2A), **Mario Milman**, Florida Atlantic University, **Christian Houdre**, Georgia Institute of Technology, and **Emanuel Milman**, Institute for Advanced Study.

Constructive Mathematics (Code: SS 1A), **Robert Lubar-sky**, **Fred Richman**, and **Martin Solomon**, Florida Atlantic University.

Riverside, California

University of California

November 7–8, 2009

Saturday – Sunday

Meeting #1054

Western Section

Associate secretary: Michel L. Lapidus

Announcement issue of *Notices*: September 2009

Program first available on AMS website: September 24, 2009

Program issue of electronic *Notices*: November 2009

Issue of *Abstracts*: To be announced

Deadlines

For organizers: April 6, 2009

For consideration of contributed papers in Special Sessions: July 21, 2009

For abstracts: September 15, 2009

The scientific information listed below may be dated. For the latest information, see www.ams.org/amsmtgs/sectional.html.

Special Sessions

Algebraic Geometry (Code: SS 1A), **Christopher Hacon**, University of Utah, and **Ziv Ran**, University of California Riverside.

History and Philosophy of Mathematics (Code: SS 4A), **Shawnee L. McMurrin**, California State University San Bernardino, and **James J. Tattersall**, Providence College.

Noncommutative Geometry (Code: SS 2A), **Vasilii Dolgushev** and **Wee Liang Gan**, University of California Riverside.

Representation Theory (Code: SS 3A), **Vyjayanthi Chari**, **Wee Liang Gan**, and **Jacob Greenstein**, University of California Riverside.

San Francisco, California

Moscone Center West and the San Francisco Marriott

January 13–16, 2010

Wednesday – Saturday

Joint Mathematics Meetings, including the 116th Annual Meeting of the AMS, 93rd Annual Meeting of the Mathematical Association of America (MAA), annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association for Symbolic Logic (ASL), with sessions contributed by the Society of Industrial and Applied Mathematics (SIAM).

Associate secretary: Matthew Miller

Announcement issue of *Notices*: October 2009

Program first available on AMS website: November 1, 2009

Program issue of electronic *Notices*: January 2010

Issue of *Abstracts*: Volume 31, Issue 1

Deadlines

For organizers: April 1, 2009

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

Lexington, Kentucky

University of Kentucky

March 27–28, 2010

Saturday – Sunday

Southeastern Section

Associate secretary: Matthew Miller

Announcement issue of *Notices*: To be announced

Program first available on AMS website: To be announced

Program issue of electronic *Notices*: To be announced

Issue of *Abstracts*: To be announced

Deadlines

For organizers: August 28, 2009

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

St. Paul, Minnesota

Macalester College

April 10–11, 2010

Saturday – Sunday

Central Section

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: To be announced

Program first available on AMS website: To be announced

Program issue of electronic *Notices*: To be announced

Issue of *Abstracts*: To be announced

Deadlines

For organizers: September 10, 2009

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

Albuquerque, New Mexico

University of New Mexico

April 17–18, 2010

Saturday – Sunday

Western Section

Associate secretary: Michel L. Lapidus

Announcement issue of *Notices*: To be announced

Program first available on AMS website: To be announced

Program issue of electronic *Notices*: To be announced

Issue of *Abstracts*: To be announced

Deadlines

For organizers: September 17, 2009

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

Berkeley, California

University of California at Berkeley

June 2–5, 2010

Wednesday – Saturday

Eighth Joint International Meeting of the AMS and the Sociedad Matemática Mexicana.

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: February 2010

Program first available on AMS website: To be announced

Program issue of electronic *Notices*: To be announced

Issue of *Abstracts*: To be announced

Deadlines

For organizers: To be announced

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

Notre Dame, Indiana

Notre Dame University

September 18–19, 2010

Saturday – Sunday

Central Section

Associate secretary: Susan J. Friedlander

Announcement issue of *Notices*: To be announced

Program first available on AMS website: To be announced

Program issue of electronic *Notices*: To be announced

Issue of *Abstracts*: To be announced

Deadlines

For organizers: February 19, 2010

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

Los Angeles, California

University of California Los Angeles

October 9–10, 2010

Saturday – Sunday

Western Section

Associate secretary: Michel L. Lapidus

Announcement issue of *Notices*: To be announced

Program first available on AMS website: To be announced

Program issue of electronic *Notices*: To be announced

Issue of *Abstracts*: To be announced

Deadlines

For organizers: March 10, 2010

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

New Orleans, Louisiana

New Orleans Marriott and Sheraton New Orleans Hotel

January 5–8, 2011

Wednesday – Saturday

Joint Mathematics Meetings, including the 117th Annual Meeting of the AMS, 94th Annual Meeting of the Mathematical Association of America, annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association for Symbolic Logic (ASL), with sessions contributed by the Society for Industrial and Applied Mathematics (SIAM).

Associate secretary: Steven H. Weintraub

Announcement issue of *Notices*: October 2010

Program first available on AMS website: November 1, 2010

Program issue of electronic *Notices*: January 2011

Issue of *Abstracts*: Volume 32, Issue 1

Deadlines

For organizers: April 1, 2010

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

Boston, Massachusetts

John B. Hynes Veterans Memorial Convention Center, Boston Marriott Hotel, and Boston Sheraton Hotel

January 4–7, 2012

Wednesday – Saturday

Joint Mathematics Meetings, including the 118th Annual Meeting of the AMS, 95th Annual Meeting of the Mathematical Association of America, annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association for Symbolic Logic (ASL), with sessions contributed by the Society for Industrial and Applied Mathematics (SIAM).

Associate secretary: Michel L. Lapidus

Announcement issue of *Notices*: October 2011

Program first available on AMS website: November 1, 2011

Program issue of electronic *Notices*: January 2012

Issue of *Abstracts*: Volume 33, Issue 1

Deadlines

For organizers: April 1, 2011

For consideration of contributed papers in Special Sessions: To be announced

For abstracts: To be announced

San Diego, California

San Diego Convention Center and San Diego Marriott Hotel and Marina

January 9–12, 2013

Wednesday – Saturday

Joint Mathematics Meetings, including the 119th Annual Meeting of the AMS, 96th Annual Meeting of the Mathematical Association of America, annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association for Symbolic Logic (ASL), with sessions contributed by the Society for Industrial and Applied Mathematics (SIAM).

Associate secretary: Susan J. Friedlander
Announcement issue of *Notices*: To be announced
Program first available on AMS website: To be announced
Program issue of electronic *Notices*: To be announced
Issue of *Abstracts*: To be announced

Deadlines

For organizers: April 1, 2012
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

Baltimore, Maryland

Baltimore Convention Center

January 15–18, 2014

Wednesday – Saturday

Joint Mathematics Meetings, including the 120th Annual Meeting of the AMS, 97th Annual Meeting of the Mathematical Association of America, annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association for Symbolic Logic, with sessions contributed by the Society for Industrial and Applied Mathematics (SIAM).

Associate secretary: Matthew Miller
Announcement issue of *Notices*: To be announced
Program first available on AMS website: To be announced
Program issue of electronic *Notices*: To be announced
Issue of *Abstracts*: To be announced

Deadlines

For organizers: April 1, 2013
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

San Antonio, Texas

Henry B. Gonzalez Convention Center and Grand Hyatt San Antonio

January 10–13, 2015

Saturday – Tuesday

Joint Mathematics Meetings, including the 121st Annual Meeting of the AMS, 98th Annual Meeting of the Mathematical Association of America, annual meetings of the Association for Women in Mathematics (AWM) and the National Association of Mathematicians (NAM), and the winter meeting of the Association of Symbolic Logic, with sessions contributed by the Society for Industrial and Applied Mathematics (SIAM).

Associate secretary: Steven H. Weintraub
Announcement issue of *Notices*: October 2014

Program first available on AMS website: To be announced
Program issue of electronic *Notices*: January 2015
Issue of *Abstracts*: To be announced

Deadlines

For organizers: April 1, 2014
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

Correction

The following information pertaining to the Short Course (Quantum Computation and Quantum Information) being given in Washington, DC, at the Joint Meetings in January 2009, is being reprinted from page 1163 of the October 2008 issue of the *Notices*. Some of the mathematical notation was incorrectly transcribed by a computer program. The *Notices* regrets this error.

Riemannian Geometry of Quantum Computation

Howard Brandt, U. S. Army Research Laboratory

An introduction is given to some recent developments in the differential geometry of quantum computation for which the quantum evolution is described by the special unitary unimodular group in 2^n dimensions, $SU(2^n)$. Using the Lie algebra $su(2^n)$, detailed derivations are given of a useful Riemannian geometry of $SU(2^n)$, including the connection and the geodesic equation for minimal complexity quantum computations. Examples of some solutions to the geodesic equation are elaborated.

References

- [1] M. A. NIELSEN and I. L. CHUANG, *Quantum Information and Computation*, Cambridge University Press, 2000.
- [2] M. A. NIELSEN, A geometric approach to quantum circuit lower bounds, *Quantum Information and Computation* 6 (2006), 213–262.
- [3] M. R. DOWLING and M. A. NIELSEN, The geometry of quantum computation, (2006), arXiv: quant-ph/0701004.
- [4] M. A. NAIMARK and A. I. STERN, *Theory of Group Representations*, Springer-Verlag, New York (1982).
- [5] MARK R. SEPANSKI, *Compact Lie Groups*, Springer 2007.
- [6] WALTER PFEIFER, *The Lie Algebras $su(N)$* , Birkhäuser, Basel, 2003.
- [7] P. PETERSEN, *Riemannian Geometry*, 2nd Edition, Springer, New York, 2006.
- [8] BO-YU HOU and BO-YUAN HOU, *Differential Geometry for Physicists*, World Scientific, Singapore, 1997.
- [9] H. E. BRANDT, “Qubit Devices” in Quantum Computation, AMS Short Course, S. J. Lomonaco, ed., *Proc. Symp. Appl. Math.* 59, Amer. Math. Soc., Providence, RI, 2000.
- [10] S. J. LOMONACO and H. E. BRANDT, eds., Quantum computation and information, *Contemp. Math.* 305, Amer. Math. Soc., Providence, RI, 2000.