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.

Vancouver, Canada

University of British Columbia and the Pacific Institute of Mathematical Sciences (PIMS)

October 4–5, 2008

Saturday – Sunday

Meeting #1041

Western Section
Associate secretary: Michel L. Lapidus
Announcement issue of *Notices*: August 2008
Program first available on AMS website: August 21, 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: August 12, 2008

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

Invited Addresses

Freeman Dyson, Institute for Advanced Study, *Birds and Frogs* (Einstein Public Lecture in Mathematics).

Richard Kenyon, Brown University, *Branched polymers in two and three dimensions.*

Alexander S. Kleshchev, University of Oregon, *Representation theory of symmetric groups.*

Mark Lewis, University of Alberta, *Title to be announced.*

Audrey A. Terras, University of California San Diego, *Ihara zeta functions and quantum chaos.*

Special Sessions

Algebraic Topology and Related Topics (Code: SS 3A), **Alejandro Adem**, University of British Columbia, and **Stephen Ames Mitchell**, University of Washington.

Algorithmic Probability and Combinatorics (Code: SS 15A), **Manuel Lladser**, University of Colorado, **Robert S. Maier**, University of Arizona, **Marni Mishna**, Simon Fraser University, and **Andrew Rechnitzer**, University of British Columbia.

Applications of Algebraic Geometry (Code: SS 14A), **Elizabeth S. Allman**, University of Alaska Fairbanks, and **Rekha R. Thomas**, University of Washington.

Combinatorial Representation Theory (Code: SS 1A), **Sara C. Billey**, University of Washington, **Alexander S. Kleshchev**, University of Oregon, and **Stephanie Jane Van Willigenburg**, University of British Columbia.

Convex and Discrete Geometry and Asymptotic Analysis (Code: SS 17A), **Karoly Bezdek**, University of Calgary, and **A. E. Litvak**, University of Alberta.

Harmonic Analysis and Related Topics (Code: SS 12A), **Malabika Pramanik**, University of British Columbia, and **Burak Erdogan**, University of Illinois at Urbana-Champaign.

Hilbert Functions and Free Resolutions (Code: SS 4A), **Susan Cooper**, California Polytechnic State University, **Christopher A. Francisco**, Oklahoma State University, and **Benjamin P. Richert**, California Polytechnic State University.

History and Philosophy of Mathematics (Code: SS 11A), **Shawnee L. McMurran**, California State University San Bernardino, and **James J. Tattersall**, Providence College.

Knotting and Linking of Macromolecules (Code: SS 18A), **Eric J. Rawdon**, University of Saint Thomas, and **Kenneth C. Millett**, University of California Santa Barbara.

Moduli Spaces and Singularity Theory (Code: SS 8A), **James B. Carrell**, **Patrick Brosnan**, and **Kalle Karu**, University of British Columbia.

Noncommutative Algebra and Geometry (Code: SS 6A), **Jason Bell**, Simon Fraser University, and **James Zhang**, University of Washington.

Noncommutative Geometry (Code: SS 13A), **Raphael Ponge**, University of Toronto, **Bahram Rangipour**, University of New Brunswick, and **Heath Emerson**, University of Victoria.

Nonlinear Waves and Coherent Structures (Code: SS 16A), **Bernard Deconinck**, University of Washington, and **Jeffrey DiFranco**, Seattle University.

Probability and Statistical Mechanics (Code: SS 7A), **David Brydges**, University of British Columbia, and **Richard Kenyon**, Brown University.

Special Functions and Orthogonal Polynomials (Code: SS 2A), **Mizanur Rahman**, Carleton University, and **Diego Dominici**, State University of New York New Paltz.

Wavelets, Fractals, Tilings and Spectral Measures (Code: SS 5A), **Dorin Ervin Dutkay**, University of Central Florida, **Palle E. T. Jorgensen**, University of Iowa, and **Ozgur Yilmaz**, University of British Columbia.

West End Number Theory (Code: SS 9A), **Nils Bruin**, Simon Fraser University, **Matilde N. Lalin**, University of Alberta, and **Greg Martin**, University of British Columbia.

p-adic Groups and Automorphic Forms (Code: SS 19A), **Clifton L. R. Cunningham**, University of Calgary, and **Julia Gordon**, University of British Columbia.

Accommodations

Participants should make their own arrangements directly with the properties listed below. Special rates for the meeting are available at the properties shown below for the period of October 2-6. When making reservations **participants should state that they are a guest of the American Mathematical Society or AMS**. The AMS is not responsible for rate changes or for the quality of the accommodations. Hotels have varying cancellation or early checkout penalties; be sure to ask for details when making your reservation}. Please note that all prices are in Canadian dollars (CAD) and do not include taxes.

West Coast Suites, 5959 Student Union Blvd, Vancouver, BC V6T 2C9; 604-882-1000 or toll-free: 888-822-1030 or make reservations online at: `https://reserve.ubcconferences.com/pls/wss/html_ui_search.availability?ref=12345&ses=&cha=GROU P&grp=G81002A&arr=10/02/2008&dep=10/06/2008&pro=UBC`; CAD$139 per night, single/double. The West Coast Suites are located directly on campus and within walking distance to the meeting. Rooms feature natural wood and stone materials, king bed in the bedroom and double sofa in the living room, wireless high-speed Internet, and LCD television. Conveniently located on campus at Campus Suites `http://www.ubcconferences.com/travel_information_maps/directions/`. **Deadline for reservations is September 2, 2008**.

Park Inn & Suites Vancouver Broadway, 898 West Broadway, Vancouver, BC, V5Z 1J8; 604-872-8661, fax: 604-872-2270, or toll-free 800-663-5403; rates start at CAD$89 single/double. Complimentary high-speed wireless Internet, bottle of water and newspaper as well as local and 800# calls. All rooms have a balcony. Please visit `http://www.parking.com/vancouverca`. **Deadline for reservations is August 18, 2008**.

Holiday Inn Vancouver Center, 711 West Broadway, Vancouver, BC, V5Z 3Y2; 604-707-1939; Rates start at CAD$139 per night, single/double. For further information please visit `http://www.ichotelsgroup.com/h/d/hi/1/en/hotel/yvrbw?_requestid=309598`. **Deadline for reservations is September 3, 2008**.

Food Service

The UBC food services website lists all available on-campus restaurants: `http://www.food.ubc.ca/campusdining/locations/index.html`.

Local Information

Please visit the following sites: Pacific Institute for the Mathematical Sciences (PIMS) at `http://www.pims.math.ca/` and UBC Mathematics Department at `http://www.math.ubc.ca/`. A comprehensive local guide can also be found at: `http://www.pims.math.ca/~kleung/07local_guide.doc`. Visit the Vancouver Tourist info centre at 200 Burrard Street or at `http://www.tourismvancouver.com` or call 800-663-6000.

There are two useful campus maps: UBC Wayfinder (Web version of campus map with search engine) `http://www.maps.ubc.ca/PROD/index.php` and a UBC campus map (hardcopy version) `http://www.maps.ubc.ca/PROD/images/pdf/ubcmap.pdf`.

Other Activities

AMS Book Sale: Stop by the on-site AMS Bookstore—review the newest titles from the AMS, enter the FREE book drawing, enjoy up to 25% off all AMS publications or take home an AMS T-shirt! Complimentary coffee will be served courtesy of AMS Membership Services.

AMS Editorial Activity: An acquisitions editor from the AMS book program will be present to speak with prospective authors. If you have a book project that you would like to discuss with the AMS, please stop by the book exhibit.

Einstein Public Lecture in Mathematics: Freeman Dyson, Institute for Advanced Study, *Birds and Frogs,* 6:00 p.m., Saturday, October 4, Woodward (Instructional Resources Centre-IRC), Room 2. `http://www.students.ubc.ca/facultystaff/buildings.cfm?code=WOOD`.

Social Event

PIMS will host a reception following the Einstein lecture at 7:15 p.m. in the Pacific Spirit Place located in the Student Union Building, Main Floor, 6138 Student Union Boulevard.

Parking

UBC Parking info can be found at `http://www.parking.ubc.ca/visitor.html`. Participants are strongly encouraged to park at the Parkades located on campus. The rate on weekends is a flat rate of CAD$4.

Registration and Meeting Information

The registration desk and book exhibit will be located in the South Concourse display area in the Student Union Building, 6138 Student Union Boulevard, http://www.maps.ubc.ca/PROD/index_detail.php?locat1=790. The desk will be open Saturday, October 4, from 7:30 a.m. until 4:00 p.m. and Sunday, October 5, from 7:30 a.m. until noon. Fees are CAD/US$40 for AMS or Canadian Mathematical Society (CMS) members, CAD/US$60 for nonmembers; and CAD/US$5 for students/unemployed/emeritus, payable on site by cash (either CAD$ or US$), check or credit card.

The **Invited Addresses** are in the Biological Sciences Building, BIOL 2000, http://www.students.ubc.ca/facultystaff/buildings.cfm?code=BIOL.

The **Special sessions and Contributed Paper Session** are in the following buildings:

Chemical and Biological Engineering Building, http://www.students.ubc.ca/facultystaff/buildings.cfm?code=CHBE.

Biological Sciences Building, http://www.students.ubc.ca/facultystaff/buildings.cfm?code=BIOL.

Chemistry Building, http://www.students.ubc.ca/facultystaff/buildings.cfm?code=CHML.

Hugh Dempster Pavilion, http://www.students.ubc.ca/facultystaff/buildings.cfm?code=DMP.

Forest Sciences Centre, http://www.students.ubc.ca/facultystaff/buildings.cfm?code=FSC.

Transportation

The nearest major commercial airport is the Vancouver International Airport. The airport is located approximately 9.5 miles from UBC. Travel time to the campus is approximately 25 minutes. Please visit Google Maps for comprehensive directions to or from UBC.

Driving From Vancouver International Airport: Head south on Grant McConachie Way. Take the Granville Street-City Centre exit. Turn left at West 70th Avenue. West 70th Avenue becomes SW Marine Drive; follow SW Marine Drive for approximately 10 km (6 miles). Turn right onto 16th Avenue. Turn left onto Wesbrook Mall; follow Wesbrook Mall through two sets of lights and turn left at Student Union Boulevard.

Driving from Seattle: Take Interstate 5 North to the Canadian border. Continue north for 40 minutes on Highway 99. Highway 99 turns into Oak Street at the Oak Street Bridge, 6 km north of the George Massey Tunnel. Continue across the bridge on Oak Street and turn left onto West 49th Avenue. Continue along West 49th until it joins SW Marine Drive. Turn right onto 16th Avenue. Turn left onto Wesbrook Mall; follow Wesbrook Mall through two sets of lights and turn left at Student Union Boulevard.

Driving from Downtown Vancouver: Turn right onto 4th Avenue West from either Granville or Burrard Street. Follow 4th Ave. westbound for approximately 5 km (3 miles). 4th Avenue turns into Chancellor Boulevard. Turn left onto Wesbrook Mall and right onto Student Union Boulevard.

Taxi: The Vancouver International Airport is 15 km (9.5 miles) from the UBC Campus. Taxi fare is metered and is approximately CAD$35 one way.

Car rental: Special rates have been negotiated with **Avis Rent A Car** for the period September 26 to October 12, 2008, beginning at CAD$25/day for a subcompact car at the weekend rate (the weekend rate is available from noon Thursday until midnight Monday) All rates include unlimited free mileage. Rates do not include state or local surcharges, tax, optional coverages, or gas refueling charges. Renter must meet Avis' age, driver, and credit requirements, and return to the same renting location. Make reservations by calling 800-331-1600 or online at http://www.avis.com. Please quote **Avis Discount Number JO98887** when making reservations.

Weather

The fall season in Vancouver (September–October) is comfortable, with moderate temperatures (43-56 degree Fahrenheit) and occasional rain.

Information for International Participants

Entry into Canada is solely determined by Canadian Border Services Agency (CBSA) officials in accordance with Canadian law, see http://www.cbsa.gc.ca for details. Canadian law requires that all persons entering Canada must carry both proof of citizenship and identity. A valid U.S. passport or NEXUS card satisfies these requirements for U.S. citizens. If U.S. citizen travelers to Canada do not have a passport or approved alternate document such as a NEXUS card, they must show a government-issued photo ID (e.g., driver's license) and proof of U.S. citizenship such as a U.S. birth certificate, naturalization certificate, or expired U.S. passport. Children under sixteen need only present proof of U.S. citizenship.

U.S. citizens entering Canada from a third country must have a valid U.S. passport. A visa is not required for U.S. citizens to visit Canada for up to 180 days. Anyone seeking to enter Canada for any purpose besides a visit (e.g., to work, study, or immigrate) must qualify for the appropriate entry status, and should contact the Canadian Embassy or nearest consulate and see the Canadian immigration website at http://www.cic.gc.ca/english/index.asp. Anyone with a criminal record (including even misdemeanors or Driving While Impaired (DWI)) charges may be barred from entering Canada and must qualify for a special waiver well in advance of any planned travel for further processing, which may take some time.

For further information on entry requirements, travelers may contact the Canadian Embassy at 501 Pennsylvania Avenue NW, Washington DC 20001, telephone 202-682-1740, or the Canadian consulates in Atlanta, Boston, Buffalo, Chicago, Dallas, Detroit, Los Angeles, Miami, Minneapolis, New York, San Juan, or Seattle. The Canadian Embassy's web site is http://www.canadianembassy.org/.

Middletown, Connecticut

Wesleyan University

October 11–12, 2008

Saturday – Sunday

Meeting #1042

Eastern Section
Associate secretary: Lesley M. Sibner
Announcement issue of *Notices*: August 2008
Program first available on AMS website: August 28, 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: August 19, 2008

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

Invited Addresses

Pekka Koskela, University of Jyväskylän, *Title to be announced*.

Monika Ludwig, Polytechnic University New York, *Title to be announced*.

Duong Hong Phong, Columbia University, *Title to be announced*.

Thomas W. Scanlon, University of California, Berkeley, *Title to be announced*.

Special Sessions

Algebraic Geometry (Code: SS 1A), **Eyal Markman** and **Jenia Tevelev**, University of Massachusetts, Amherst.

Algebraic Topology (Code: SS 10A), **Mark A. Hovey**, Wesleyan University, and **Kathryn Lesh**, Union College.

Analysis on Metric Measure Spaces and on Fractals (Code: SS 15A), **Piotr Hajlasz**, University of Pittsburgh, **Luke Rogers**, University of Connecticut, **Robert S. Strichartz**, Cornell University, and **Alexander Teplyaev**, University of Connecticut.

Complex Geometry and Partial Differential Equations (Code: SS 3A), **Jacob Sturm** and **Jian Song**, Rutgers University.

Computability Theory and Effective Algebra (Code: SS 14A), **Joseph S. Miller**, **David Reed Solomon**, and **Asher Kach**, University of Connecticut.

Convex and Integral Geometry (Code: SS 16A), **Monika Ludwig**, Polytechnic University of New York, **Daniel Klain**, University of Massachusetts, Lowell, and **Franz Schuster**, Vienna University of Technology.

Difference Equations and Applications (Code: SS 8A), **Michael A. Radin**, Rochester Institute of Technology.

Geometric Function Theory and Geometry (Code: SS 5A), **Petra Bonfert-Taylor**, Wesleyan University, **Katsuhiko Matsuzaki**, Okayama University, and **Edward C. Taylor**, Wesleyan University.

Geometric Group Theory and Topology (Code: SS 6A), **Matthew Horak**, University of Wisconsin-Stout, **Melanie Stein**, Trinity College, and **Jennifer Taback**, Bowdoin College.

History of Mathematics (Code: SS 11A), **Robert E. Bradley**, Adelphi University, **Lawrence A. D'Antonio**, Ramapo College of New Jersey, and **Lee J. Stemkoski**, Adelphi University.

Low-Dimensional Topology (Code: SS 13A), **Constance Leidy**, Wesleyan University, and **Shelly Harvey**, Rice University.

Model Theory and Its Applications (Code: SS 12A), **Thomas Scanlon**, University of California, Berkeley, and **Philip A. Scowcroft** and **Carol S. Wood**, Wesleyan University.

Number Theory (Code: SS 4A), **Wai Kiu Chan** and **David Pollack**, Wesleyan University.

Real and Complex Dynamics of Rational Difference Equations with Applications (Code: SS 7A), **Mustafa Kulenovic** and **Gerasimos Ladas**, University of Rhode Island.

Riemannian and Lorentzian Geometries (Code: SS 2A), **Ramesh Sharma**, University of New Haven, and **Philippe Rukimbira**, Florida International University.

Accommodations

Participants should make their own arrangements directly with a hotel of their choice as early as possible. Special rates have been negotiated with the hotels listed below. The AMS is not responsible for rate changes or for the quality of the accommodations. When making a reservation, **participants should state that they are with the Wesleyan University Department of Mathematics Meeting**. Cancellation and early checkout penalties vary with each hotel; be sure to check the policy when you make your reservations.

N.B. The number of rooms available at these prices in these hotels is limited! Participants are encouraged to **book a hotel room early** as rooms may sell out.

The Inn at Middletown, Middletown, 70 Main Street, Middletown, CT 06457; 860-854-6300, toll free 800-637-9851; fax: 860-854-6301; `http://www.innatmiddletown.com/`. The hotel is approximately 7/10 of a mile walking distance of the meeting site; US$125 for single/double. Rates quoted **do not** include the sales and occupancy tax of 12%. Amenities include a full-service restaurant, as well as a lounge on the premises, Internet access in sleeping room at no charge, free wireless access in the lobby and heated indoor pool/spa. Self-parking is complimentary although valet parking is US$6 and US$12 overnight. **Deadline for reservations is September 10, 2008**. Be sure to check cancellation and early checkout policies. You will find there are a number of restaurants within walking distance.

The Courtyard by Marriott, Cromwell, 4 Sebethe Drive, Cromwell, Connecticut 06416; 860-635-1001; fax: 860-635-0684; `http://www.marriott.com/hotels/travel/bdlhc-courtyard-hartford-cromwell/`. The

hotel is approximately six miles, about (a 15–20 minute drive) to the meeting site; US$99 for single/double. Rates quoted **do not** include the sales and occupancy tax of 12%. Be sure to check cancellation and early checkout policies. Amenities include a restaurant which serves breakfast and dinner, lounge, swimming pool, fitness center, 24-hour business center, wireless Internet in public areas, complimentary lobby computer, Starbuck's, and complimentary on-site parking. **Deadline for reservations is September 10, 2008**.

Comfort Inn in Cromwell, 111 Berlin Rd., Cromwell, Connecticut, 06416; 860-635-4100; fax: 860 632-9546; `http://www.comfortinn.com/ires/en-US/html/HotelInfo?hotel=CT032&promo=gglocal`. The hotel is an approximate 10-minute drive to the meeting site; US$79.99 single/double. Rates quoted **do not** include the sales and occupancy tax of 12%. Be sure to check cancellation and early checkout policies. Amenities include complimentary high speed access in all rooms, free continental breakfast (6–10 a.m.), and complimentary parking. **Deadline for reservations is September 10, 2008**.

The Marriott Rocky Hill, 100 Capital Boulevard, Rocky Hill, Connecticut, 06067; 860-257-6000; toll-free: 800-228-9290; fax: 860-257-6060; `http://www.marriott.com/hotels/fact-sheet/travel/bdlrh-hartford-marriott-rocky-hill/`. The hotel is approximately less than a 9-mile, 20-minute drive to the campus meeting site; US$139 for single. Rates quoted **do not** include the sales and occupancy tax of 12%. Be sure to check cancellation and early checkout policies. Amenities include complimentary wireless in public areas and high-speed in sleeping room, swimming pool, fitness center, and complimentary on-site parking. There is a restaurant on site which serves breakfast, lunch and dinner. **Deadline for reservations is September 10, 2008**.

Residence Inn by Marriott, 680 Cromwell Avenue, Rocky Hill, Connecticut, 06067; (**rate program code: AMSS**) telephone: 860-257-7500; fax: 860-529-6952; `http://www.marriott.com/hotels/travel/bdlrr-residence-inn-hartford-rocky-hill/` the hotel is less than a 9-mile, 15-minute drive to the campus meeting site; US$129.95 per room for one-bedroom suites and US$199.95 per room for two-bedroom suites. Rates quoted **do not** include the sales and occupancy tax of 12%. Be sure to check cancellation and early checkout policies. Amenities include complimentary breakfast buffet served 7:00–10:00 a.m., complimentary wireless in lobby and complimentary high-speed Internet access in sleeping rooms, indoor pool, and whirlpool, 24/7 fitness center and complimentary on-site parking. **Deadline for reservations is September 10, 2008**.

Food Service

On campus: the Usdan Campus Center is open all day Saturday and Sunday. The PI cafe in the Exley Science Tower is open from 1:00 p.m. to 6:00 p.m. Saturday and Sunday. There is also a cafe in the campus bookstore, Broad Street Books, 45 Broad St.

Within walking distance one can find a variety of choices for an informal meal. Details at `http://www.wesleyan.edu/about/restaurants.html`; additional information and recommendations will be provided on site.

Local Information

The Wesleyan University visitor's guide can be found at `http://www.wesleyan.edu/about/`.

Other Activities

AMS Book Sale: Stop by the on-site AMS Bookstore—review the newest titles from the AMS, enter the FREE book drawing, enjoy up to 25% off all AMS publications or take home an AMS T-shirt! Complimentary coffee will be served courtesy of AMS Membership Services.

AMS Editorial Activity: An acquisitions editor from the AMS book program will be present to speak with prospective authors. If you have a book project that you would like to discuss with the AMS, please stop by the book exhibit.

Parking

All campus lots are available for parking on the weekend; there is no fee for parking. The lot behind Exley is small; there are larger parking lots nearby, one at the corner of Lawn and High Street, and another on Pine Street a block south of campus. There is also on-street parking south of Exley, e.g., on Lawn, Brainard, Pine, and Home Streets.

Registration and Meeting Information

The meeting will be held in the Exley Science Center, Wesleyan University, Middletown, CT. Meeting registration, Exhibits and the Invited Addresses will all take place in Exley. Fees are US$40 for AMS or CMS members; US$60/nonmembers; and US$5 students, unemployed mathematicians, and emeritus members. Fees are payable on site by cash, check, or credit card. Sessions will be held in both Exley (Bldg. #34 on the campus map) and in the Public Affairs Center (Bldg #66). See the map at `http://www.wesleyan.edu/about/campusmap.html`.

Travel and Campus Information (as of April 2008 and subject to change)

Wesleyan campus map at `http://www.wesleyan.edu/about/campusmap.html`.

Car Rental: Avis is the official car rental company for the sectional meeting in Middletown, CT. All rates include unlimited free mileage. Weekend daily rates are effective from noon Thursday, October 8, 2008, to 11:59 p.m. Monday, October 13, 2008, and rates start at US$30 per day. Should a lower qualifying rate become available at the time of booking, Avis is pleased to offer a 5% discount off the lower qualifying rate or the meeting rate, whichever is lowest. Rates do not include any state or local surcharges, tax, optional coverages or gas refueling charges. Renters must meet Avis' age, driver, and credit requirements. Reservations can be made by calling 1-800-331-1600 or online at `http://www.avis.com` and use the **Avis Meeting Discount Number J098887**.

All the major car rental companies can be found at the airport.

By Air: Bradley International Airport (BDL) is physically located in Windsor Locks, Connecticut, and is the closest airport to the Wesleyan University campus (approximately 32 miles and about a 40-minute drive). Taxi fare from the airport is about US$75. All the major car rental companies can be found at the airport.

By Train: The closest AMTRAK (800-872-7245) station is in Meriden, CT (7 miles from Middletown). Amtrak (`http://www.amtrak.com`) arrives and departs from Meriden train station (7 miles from campus). However, Union Station, in New Haven, CT, is a larger train station with more service than the Meriden station. It offers service from New York's Grand Central Metronorth 800-638-7646 as well as from AMTRAK from Boston and New York's Penn Station. Taxi fare from the New Haven train station is about US$75. There is an Avis rental office at the New Haven train station.

By Bus: Both Greyhound Bus Lines, 800-229-9424, `http://www.greyhound.com`, and Peter Pan Bus Lines, 800-343-9999, `http://www.peterpanbus.com`, serve the campus.

Driving directions:

From Hartford and points north: Take I-91 south to Exit 22 for Route 9 southbound. At exit 15, turn right onto Route 66 West (Washington Street), turn left onto High Street.

From New Haven, New York, and points south: Take I-95 North to I-91 North. At exit 18, take Route 691/66 East. Route 66 becomes Washington Street in Middletown. Take right onto High Street. Or, take I-95 north to the Merritt/Wilbur Cross Parkway (Route 15 North) to Route 66 Eastbound. Take right onto High Street.

From Waterbury and points west: Take I-84 East. Take exit 27 to Route 691/66 East. Route 66 becomes Washington Street in Middletown. Take right onto High Street.

From Boston and points northeast: Take the Massachusetts Turnpike (I-90) West to Exit 9 for I-84 West to Hartford. Take exit 57 over the Charter Oak Bridge and follow the signs to I-91 South. Take I-91 south to exit 22 for Route 9 Southbound, At exit 15, turn right onto Route 66 West (Washington Street), turn left onto High Street. Or, take I-95 South through Providence, then take Exit 69 to Route 9 North (approximately 26 miles to Middletown). At exit 15, turn left.

Information for International Participants

Visa regulations are continually changing for travel to the United States. Visa applications may take from three to four months to process and require a personal interview, as well as specific personal information. International participants should view the important information about traveling to the U.S. found at `http://www7.nationalacademies.org/visas/Traveling_to_US.html` and `http://travel.state.gov/visa/index.html`. If you need a preliminary conference invitation in order to secure a visa, please send your request to `dls@ams.org`.

If you discover you do need a visa, the National Academies website (see above) provides these tips for successful visa applications:

* Visa applicants are expected to provide evidence that they are intending to return to their country of residence. Therefore, applicants should provide proof of "binding" or sufficient ties to their home country or permanent residence abroad. This may include documentation of the following:

- family ties in home country or country of legal permanent residence
- property ownership
- bank accounts
- employment contract or statement from employer stating that the position will continue when the employee returns;

* Visa applications are more likely to be successful if done in a visitor's home country than in a third country;

* Applicants should present their entire trip itinerary, including travel to any countries other than the United States, at the time of their visa application;

* Include a letter of invitation from the meeting organizer or the U.S. host, specifying the subject, location and dates of the activity, and how travel and local expenses will be covered;

* If travel plans will depend on early approval of the visa application, specify this at the time of the application;

* Provide proof of professional scientific and/or educational status (students should provide a university transcript).

This list is not to be considered complete. Please visit the web sites above for the most up-to-date information.

Weather

In this region of Connecticut, the averages for the month of October are normally mild at approximately 59° F and lows of 40° F. Precipitation in October averages 3 inches and snow is not expected (but you never know!). New England weather varies considerably. It would be wise to consult the weather forecast on the web (e.g. `http://www.wunderground.com/cgi-bin/findweather/getForecast?query=06459` or `http://www.weather.com`).

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: August 26, 2008

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

Invited Addresses

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

Alexandru Ionescu, University of Wisconsin, *Title to be announced*.

Boris S. Mordukhovich, Wayne State University, *Title to be announced*.

David Nadler, Northwestern University, *Title to be announced*.

Special Sessions

Affine Algebraic Geometry (Code: SS 9A), **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 (Code: SS 2A), **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 (Code: SS 13A), **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 (Code: SS 5A), **Arthur T. White**, Western Michigan University, and **David L. Craft**, Muskingum College.

Homotopy Theory (Code: SS 8A), **Michele Intermont**, Kalamazoo College, and **John R. Martino** and **Jeffrey A. Strom**, Western Michigan University.

Linear Codes Over Rings and Modules (Code: SS 11A), **Steven T. Dougherty**, University of Scranton, and **Jay A. Wood**, Western Michigan University.

Mathematical Finance (Code: SS 3A), **Qiji J. Zhu**, Western Michigan University, and **George Yin**, Wayne State University.

Mathematical Knowledge for Teaching (Code: SS 7A), **Kate Kline** and **Christine Browning**, Western Michigan University.

Nonlinear Analysis and Applications (Code: SS 1A), **S. P. Singh**, University of Western Ontario, **Bruce B. Watson**, Memorial University, and **Mahi Singh**, University of Western Ontario.

Optimization/Midwest Optimization Seminar (Code: SS 6A), **Jay S. Treiman** and **Yuri Ledyaev**, Western Michigan University, and **Ilya Shvartsman**, Penn State Harrisburg.

Quasigroups, Loops, and Nonassociative Division Algebras (Code: SS 14A), **Clifton E. Ealy Jr.** and **David Richter**, Western Michigan University, and **Petr Vojtechovsky**, University of Denver.

Representations of Real and P-adic Lie Groups (Code: SS 10A), **Alessandra Pantano**, University of California Irvine, **Annegret Paul**, Western Michigan University, and **Susana Alicia Salamanca-Riba**, New Mexico State University.

Topological Field Theory (Code: SS 12A), **David Nadler**, Northwestern University.

Variational Analysis and its Applications (Code: SS 4A), **Yuri Ledyaev** and **Jay S. Treiman**, Western Michigan University, **Ilya Shvartsman**, Penn State Harrisburg, and **Qiji J. Zhu**, Western Michigan University.

Accommodations

Participants should make their own arrangements directly with a hotel of their choice as early as possible. Special rates (rates do not include any applicable taxes) have been negotiated with the hotels listed below. The AMS is not responsible for rate changes or for the quality of the accommodations. When making a reservation, **participants should state that they are with the AMS Meeting Group**. Cancellation and early checkout penalties may apply; be sure to check the policy when you make your reservations. **Room rates are based on availability. Participants are encouraged to make reservations early.**

Radisson Plaza Hotel & Suites, 100 W Michigan Avenue, Kalamazoo, MI 49007; 269-343-3333; `http://www.radisson.com/kalamazoomi`. AMS meeting rate: US$135 standard room, space available basis, complimentary airport shuttle. The distance to Fetzer Center: 2 miles.

Holiday Inn West, 2747 S. 11th St, Kalamazoo, MI 49009; 269-375-6000; `http://www.kalamazooholidayinn.com`. AMS meeting rate: US$119 Fri/Sat, US$99 other nights, standard room, space available basis, complimentary airport shuttle. The distance to Fetzer Center: 3.5 miles.

Comfort Inn, 739 W Michigan Avenue, Kalamazoo, MI 49007; 269-384-2800; `http://www.comfortinn.com`. AMS meeting rate: US$104, standard room, space available basis. The distance to Fetzer Center: 1.5 miles.

Baymont Inn & Suites, 2203 S 11th St, Kalamazoo, MI 49009; 269-372-7999; `http://www.baymontinns.com`. AMS meeting rate: US$55, standard room, space available basis. The distance to Fetzer Center: 3 miles.

Food Service

The Fetzer Center will offer a la carte breakfast and lunch items during the day on Saturday. There will be a variety of hot and cold selections including beverages. Sunday morning, breakfast muffins, coffee, and juices will be available. The Fetzer Center accepts cash only as payment.

The WMU Student Center (Bernhard Center) is a short walk from the Fetzer Center, and offers a variety of dining options, open weekends. Visit `http://www.wmich.edu/bernhard` for Bernhard Center restaurants and hours of operation.

Further information regarding dining options in Kalamazoo can be found online at `http://www.discoverkalamazoo.com/images/diningguide2008.pdf`.

Local Information

For further information please consult the websites maintained by Western Michigan University: `http://wmich.`

edu and the department of mathematics at http://www.wmich.edu/math. A detailed printable campus map can be found at: http://maps.pp.wmich.edu/KaMai/ and http://www.wmich.edu/fetzer/location/map_wmu.html.

Other Activities

AMS Book Sale: Stop by the on-site AMS Bookstore—review the newest titles from the AMS, enter the FREE book drawing, enjoy up to 25% off all AMS publications or take home an AMS T-shirt! Complimentary coffee will be served courtesy of AMS Membership Services.

AMS Editorial Activity: An acquisitions editor from the AMS book program will be present to speak with prospective authors. If you have a book project that you would like to discuss with the AMS, please stop by the book exhibit.

Social Event

Reception hosted by the WMU Department of Mathematics, Fetzer Center, Main Lobby, Saturday, October 18, 6:00 p.m.–7:00 p.m.

Parking

The Fetzer Center provides complimentary parking directly adjacent to the building. More information is provided on the Fetzer Center website http://www.wmich.edu/fetzer/location/parking.html.

Registration and Meeting Information

The meeting will be held on the campus of Western Michigan University. All of the activities for the meeting, including registration, invited lectures, special sessions, and book exhibit will take place in the John E. Fetzer Center (Fetzer Center) and Schneider Hall. Lecture rooms will be equipped with a computer projector, overhead projector, screen, blackboards and/or white boards.

The registration desk will be in the Fetzer Center and will be open from noon until 4:30 p.m. on Friday, October 17, and 7:30 a.m.–4:00 p.m. on Saturday, October 18. Fees are US$40 for AMS or CMS members, US$60 for nonmembers; and US$5 for students/unemployed/emeritus, payable on site by cash, check or credit card.

Travel

Kalamazoo is located midway between Chicago and Detroit, 140 miles from each, 2.5 hours driving time on I-94. Kalamazoo offers commercial transportation by train, bus, and major airline. For information regarding ground transportation visit http://www.azoairport.com/info/ground_transport.html.

Kalamazoo/Battle Creek International Airport (AOZ) is located approximately 10 miles from the campus and is served by the following airlines: Northwest, Comair/Delta Connection, American Eagle, and United Express.

Driving: Strategically located midway between Chicago and Detroit, the Fetzer Center is easily accessible from both I-94 and U.S. 131.

- **From I-94 Detroit (east) and Chicago (west)**

At Exit #75, turn north onto Oakland Drive, drive 2.7 miles; turn left onto Howard Street, go 1.1 miles; turn right onto West Michigan Avenue. Follow the roundabout to the second turn, which is Rankin, and exit. Go to the stop sign, turn right onto Business Court, then left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot #72F.

- **From US 131 (North) Grand Rapids, Muskegon**

At Exit #36A, turn east onto Stadium Drive, drive 2.2 miles to Howard Street. Turn left and go 0.6 miles, turn right onto West Michigan Avenue. Follow the roundabout to the second turn, which is Rankin, and exit. Go to the stop sign and turn right onto Business Court, then left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot #72F.

- **From M-43 North of Kalamazoo**

Follow westbound M-43 through downtown Kalamazoo (Gull Road–Riverview Avenue–East Michigan Avenue–Kalamazoo Avenue–West Main Street) until reaching Solon Street (the fourth traffic light after Kalamazoo Avenue merges with West Main Street and becomes two-way traffic, near Kalamazoo College). Turn left onto Solon and drive south 0.5 miles where Solon turns into Howard Street. At the light turn left onto West Michigan Avenue. Follow the roundabout to the second turn, which is Rankin, and exit. Go to the stop sign and turn right onto Business Court, then left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot #72F.

- **From M-43 West of Kalamazoo**

Drive easterly past US 131. After 1.9 miles, turn right onto Solon Avenue and drive south 0.5 miles where Solon turns into Howard Street. At the light turn left onto West Michigan Avenue. Follow the roundabout to the second turn, which is Rankin, and exit. Go to the stop sign and turn right onto Business Court, then left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot #72F.

- **From Downtown Kalamazoo**

Drive westerly on Stadium Drive (Business Route 131). At Howard Street turn right and drive 0.6 miles; at the light turn right onto West Michigan Avenue. Follow the roundabout to the second turn, which is Rankin, and exit. Go to the stop sign and turn right onto Business Court, then left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot #72F.

Car Rental: **Avis** is the official car rental company for the sectional meeting in Kalamazoo. All rates include unlimited free mileage. Weekend daily rates are available from noon Thursday to Monday at 11:59 p.m. and start at US$30.00 per day. Rates for this meeting are effective October 10, 2008–October 27, 2008. Should a lower qualifying rate become available at the time of booking, Avis is pleased to offer a 5% discount off the lower qualifying rate or the meeting rate, whichever is lowest. Rates do not include any state or local surcharges, tax, optional coverages, or gas refueling charges. Renters must meet Avis' age, driver, and credit requirements. Reservations can be made by calling 1-800-331-1600 or online at http://www.avis.com. **Meeting Avis Discount Number J098887**.

Weather

Typical cool but mild autumn weather prevails in October, with average temperatures 42–62° Fahrenheit.

Information for International Participants

Visa regulations are continually changing for travel to the United States. Visa applications may take from three to four months to process and require a personal interview, as well as specific personal information. International participants should view the important information about traveling to the U.S. found at `http://www7.nationalacademies.org/visas/Traveling_to_US.html` and `http://travel.state.gov/visa/index.html`. If you need a preliminary conference invitation in order to secure a visa, please send your request to `dls@ams.org`.

If you discover you do need a visa, the National Academies website (see above) provides these tips for successful visa applications:

* Visa applicants are expected to provide evidence that they are intending to return to their country of residence. Therefore, applicants should provide proof of "binding" or sufficient ties to their home country or permanent residence abroad. This may include documentation of the following:

- family ties in home country or country of legal permanent residence
- property ownership
- bank accounts
- employment contract or statement from employer stating that the position will continue when the employee returns;

* Visa applications are more likely to be successful if done in a visitor's home country than in a third country;

* Applicants should present their entire trip itinerary, including travel to any countries other than the United States, at the time of their visa application;

* Include a letter of invitation from the meeting organizer or the U.S. host, specifying the subject, location and dates of the activity, and how travel and local expenses will be covered;

* If travel plans will depend on early approval of the visa application, specify this at the time of the application;

* Provide proof of professional scientific and/or educational status (students should provide a university transcript).

This list is not to be considered complete. Please visit the websites above for the most up-to-date information.

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: September 2, 2008

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, *Title to be announced.*

Mark V. Sapir, 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) (Code: SS 6A), **Suzanne M. Lenhart** and **Philip W. Schaefer**, University of Tennessee, Knoxville.

Applications of Topology to Dynamical Systems (Code: SS 11A), **John C. Mayer** and **Lex G. Oversteegen**, University of Alabama at Birmingham.

Applied Probability (Code: SS 10A), **Moonyu Park** and **Boris Kunin**, University of Alabama in Huntsville.

Dynamics and Applications of Differential Equations (Code: SS 3A), **Wenzhang Huang** and **Shangbing Ai**, University of Alabama in Huntsville, and **Weishi Liu**, University of Kansas.

Gaussian Analysis and Stochastic Partial Differential Equations (Code: SS 4A), **Davar Khoshnevisan**, University of Utah, and **Dongsheng Wu**, University of Alabama in Huntsville.

Geometric Mechanics, Control, and Integrability (Code: SS 8A), **Anthony M. Bloch**, University of Michigan, Ann Arbor, and **Dmitry Zenkov**, North Carolina State University.

Graph Decompositions (Code: SS 2A), **Robert A. Beeler** and **Robert B. Gardner**, East Tennessee State University.

Graph Theory (Code: SS 5A), **Peter J. Slater** and **Grant Zhang**, University of Alabama in Huntsville.

Homotopy Theory and Algebraic Topology (Code: SS 13A), **Mark Behrens**, Massachusetts Institute of Technology, and **Michael Hill**, University of Virginia.

Inverse Limits and Their Applications (Code: SS 14A), **Judy A. Kennedy**, Lamar University.

Mathematical Biology: Modeling, Analysis, and Simulations (Code: SS 1A), **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 (Code: SS 7A), **Claudio H. Morales**, University of Alabama in Huntsville, and **Pei-Kee Lin**, University of Memphis.

Probability on Discrete and Algebraic Structures (Code: SS 9A), **Kyle T. Siegrist**, University of Alabama in Huntsville.

Random Matrices (Code: SS 12A), **Leonard N. Choup**, University of Alabama in Huntsville.

Set-Theoretic Topology (Code: SS 15A), **Gary Gruenhage**, Auburn University, **Peter J. Nyikos**, University of South Carolina, and **Robert M. Stephenson Jr.**, University of South Carolina.

Accommodations

Participants should make their own arrangements directly with a hotel of their choice as early as possible. Special rates have been negotiated with the hotels listed below. Rates quoted do not include sales tax of 12%, plus the city fee of US$1/night. The AMS is not responsible for rate changes or for the quality of the accommodations. When making a reservation, participants should state that they are with the **American Mathematical Society (AMS) Meeting at UAH Math** group. Cancellation and early checkout policies vary; be sure to check when you make your reservation.

Huntsville Marriott Hotel, 5 Tranquility Base, Huntsville, AL 35805; 256-830-2222; fax: 256-895-0904; US$89/single or double (king or two doubles), coffee and coffee maker in room, high-speed Internet access (fee charged), free parking, fitness center with sauna and jacuzzi, indoor/outdoor heated pool, computer/printer in lobby to print boarding passes. Full service restaurant and lounge on premises. The hotel is located on the grounds of the U.S. Space and Rocket Center, the world's largest space museum. **Deadline for reservations is October 3, 2008**. Be sure to check cancellation and early checkout policies.

Bevill Conference Center & Hotel, 550 Sparkman Drive, on the UAH campus; 256-721-9428 or 888-721-9428 toll-free; fax: 704-892-9402; US$59/single or US$62/doubles or one king (one or two people) includes complimentary deluxe continental buffet breakfast with hot items; mini-refrigerator, microwave, and coffee maker in rooms; complimentary pass to the University Fitness Center; free wireless. Limited shuttle service to/from airport, restaurants, and local attractions (Friday, 8:30 a.m.–3:30 p.m. and Sunday, 3:00 p.m.–11:00 p.m.) **Deadline for reservations is September 30, 2008.** Be sure to check cancellation and early checkout policies.

Food Service

Information will be available at the meeting.

Local Information

The university's website is `http://www.uah.edu`; the department of mathematics is at `http://www.math.uah.edu`.

Other Activities

Book Sales: Stop by the on-site AMS Bookstore and review the newest titles from the AMS, enter the free book drawing, enjoy up to 25% off all AMS publications, or take home an AMS t-shirt! Complimentary coffee will be served courtesy of AMS Membership Services.

AMS Editorial Activity: An acquisitions editor from the AMS book program will be present to speak with prospective authors. If you have a book project that you would like to discuss with the AMS, please stop by the book exhibit.

Parking

Watch the AMS website at `http://www.ams.org/amsmtgs/sectional.html` for updated information on parking.

Registration and Meeting Information

The meeting is on the campus of the University of Alabama in Huntsville. Invited Addresses, sessions, and registration will take place in the Shelby Center for Science and Technology.

The registration desk will be open Friday, October 24, noon to 4:00 p.m., and Saturday, October 25, 7:30 a.m. to 4:00 p.m.; it will not be open on Sunday, October 26. Fees are US$40 for AMS or CMS members, US$60 for nonmembers; and US$5 for students, unemployed mathematicians, and emeritus members. Fees are payable on site by cash, check, or credit card.

Travel, Campus Map, and Directions

A good campus map is found at `http://www.uah.edu/map`. The nearest airport is Huntsville International Airport, 1000 Glenn Hearn Blvd., Huntsville, AL 35824; 256-772-9395, fax: 256-772-0305 or `info@hsvairport.org`, and is just over ten miles from the university. A one-way taxi fare to campus is about US$30 for the 20-minute ride.

Driving directions to campus from the airport: Go toward International Way, SW and take the ramp onto I-565 East toward Huntsville and proceed about 7.7 miles. Take exit #15/Madison Pike/Sparkman Drive/Bob Wallace Ave. toward Sparkman Dr. Continue on Sparkman until you see the university on your right.

Weather

October temperatures in Huntsville range from 50° F to 73° F. While October is one of the drier months averaging just 3.52" of rainfall, bringing an umbrella is advisable.

Information for International Participants

Visa regulations are continually changing for travel to the United States. Visa applications may take from three to four months to process and require a personal interview, as well as specific personal information. International participants should view the important information about traveling to the U.S. found at `http://www7.nationalacademies.org/visas/Traveling_to_US.html` and `http://travel.state.gov/visa/index.html`. If you need a preliminary conference invitation in order to secure a visa, please send your request to `dls@ams.org`.

If you discover you do need a visa, the National Academies website (see above) provides these tips for successful visa applications:

* Visa applicants are expected to provide evidence that they are intending to return to their country of residence. Therefore, applicants should provide proof of "binding" or sufficient ties to their home country or permanent residence abroad. This may include documentation of the following:

- family ties in home country or country of legal permanent residence
- property ownership
- bank accounts
- employment contract or statement from employer stating that the position will continue when the employee returns;

* Visa applications are more likely to be successful if done in a visitor's home country than in a third country;

* Applicants should present their entire trip itinerary, including travel to any countries other than the United States, at the time of their visa application;

* Include a letter of invitation from the meeting organizer or the U.S. host, specifying the subject, location and dates of the activity, and how travel and local expenses will be covered;

* If travel plans will depend on early approval of the visa application, specify this at the time of the application;

* Provide proof of professional scientific and/or educational status (students should provide a university transcript).

This list is not to be considered complete. Please visit the websites above for the most up-to-date information.

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: To be announced
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

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.*

Richard Taylor, Harvard 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 **Jianju 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, and **Guo-Zhen Lu**, Wayne State 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: July 22, 2008
For abstracts: September 16, 2008

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

Joint Invited Addresses

Douglas N. Arnold, University of Minnesota, Minneapolis, *Title to be announced* (AMS-MAA Invited Address).

AMS Invited Addresses

Luis A. Caffarelli, University of Texas at Austin, *Title to be announced*.

Mikhail Khovanov, Institute for Advanced Study, *Title to be announced*.

Girgorii A. Margulis, Yale University, *Title to be announced* (AMS Colloquium Lectures).

Ken Ono, University of Wisconsin-Madison, *Title to be announced*.

Christor Papadimitriou, University of California Berkeley, *Title to be announced*.

Oded Schramm, Microsoft, *Title to be announced* (AMS Josiah Willard Gibbs Lecture).

James A. Sethian, University of California Berkeley, *Title to be announced*.

AMS Special Sessions

Some sessions are cosponsored with other organizations. These are noted within the parenthesis at the end of each listing, where applicable.

Algebraic Cryptography and Generic Complexity (Code: SS 41A), **Vladimir Shpilrain**, The City College of New York, and **Yesem Kurt**, Randolph College.

Algebraic Structures in Knot Theory (Code: SS 33A), **Sam Nelson**, Claremont McKenna College, and **Alissa S. Crans**, Loyola Marymount University.

Asymptotic Geometric Analysis (Code: SS 45A), **Alexander E. Litvak**, University of Alberta, and **Dmitry Ryabogin** and **Artem Zvavitch**, Kent State University.

Asymptotic Methods in Analysis with Applications (Code: SS 19A), **Diego Dominici**, SUNY New Platz, and **Peter A. McCoy**, U.S. Naval Academy (AMS-SIAM).

Automorphic and Modular Forms in Number Theory (Code: SS 55A), **Ken Ono** and **Amada Folsom**, University of Wisconsin-Madison, and **Sharon A. Garthwaite**, Bucknell University.

Categorification and Link Homology (Code: SS 58A), **Aaron Lauda** and **Mikhail Khovanov**, Columbia University.

Commutative Rings (Code: SS 1A), **Jay A. Shapiro**, George Mason University, **David E. Dobbs**, University of

Tennessee, Knoxville, **Shane P. Redmond**, Eastern Kentucky University, and **Joe A. Stickles**, Millikin University.

Complex Dynamics and Complex Function Theory (Code: SS 16A), **Stephanie Edwards**, Hope College, and **Rich L. Stankewitz**, Ball State University.

Computational Algebra and Convexity (Code: SS 9A), **Henry K. Schenck**, University of Illinois at Urbana-Champaign, **Michael Stillman**, Cornell University, and **Jan Verschelde**, University of Illinois at Chicago.

Computational Algebraic and Analytic Geometry for Low-dimensional Varieties (Code: SS 48A), **Mika K. Seppälä**, Florida State University, **Tanush Shaska**, Oakland University, and **Emil J. Volcheck**, Association for Computing Machinery.

Conformal Geometry, Twistor Theory, and Integrable Systems (Code: SS 36A), **Dana Mihai**, Carnegie Mellon University, and **George Sparling**, University of Pittsburgh.

Continued Fractions (Code: SS 50A), **James G. McLaughlin**, West Chester University, and **Nancy J. Wyshinski**, Trinity College.

Convex and Discrete Geometry (Code: SS 10A), **Wlodzimierz Kuperberg**, Auburn University, and **Valeriu Soltan**, George Mason University.

Difference Equations (Code: SS 4A), **Michael Radin**, Rochester Institute of Technology.

Discrete Dynamical Systems in Periodic Environments (Code: SS 38A), **M. R. S. Kulenović** and **Orlando Merino**, University of Rhode Island, and **Abdul-Aziz Yakubu**, Howard University.

Dynamical Systems and Differential Equations: Theory and Applications (Code: SS 44A), **Annalisa Crannell**, Franklin & Marshall College, and **Suzanne Sindi**, Brown University.

Experimental Mathematics (Code: SS 27A), **Tewodros Amdeberhan**, **Luis A. Medina**, and **Victor H. Moll**, Tulane University.

Financial Mathematics (Code: SS 42A), **Erhan Bayraktar**, University of Michigan, and **Tim Siu-Tang Leung**, Princeton University.

Geometry, Algebra, and Topology of Character Varieties (Code: SS 29A), **Sean Lawton**, Instituto Superior Tecnico, and **Elisha Peterson**, United States Military Academy.

Group Actions on Curves (Code: SS 31A), **Darren Glass**, Gettysburg College, and **Amy E. Ksir**, United States Naval Academy.

Group Actions on Homogeneous Spaces and Applications (Code: SS 57A), **Dimtry Y. Kleinbock**, Brandeis University, **Gregory A. Margulis**, Yale University, and **Hee Oh**, Brown University.

Harmonic Analysis (Code: SS 49A), **Paul A. Hagelstein**, Baylor University, and **Alexander M. Stokolos**, Depaul University.

Heavy-Tailed Behavior: Theory and Applications (Code: SS 28A), **Thomas B. Fowler**, **Marty Fischer**, and **Denise Masi**, Noblis Incorporated, and **John F. Shortle**, George Mason University.

History of Mathematics (Code: SS 17A), **Joseph W. Dauben**, Lehman College, **Karen H. Parshall**, University of Virginia, **Patti Hunter**, Westmont College, and **Deborah Kent**, Hillsdale College (AMS-MAA).

Homotopy Theory and Higher Categories (Code: SS 3A), **Thomas M. Fiore**, University of Chicago, **Mark W. Johnson**, Penn State Altoona, **James M. Turner**, Calvin College, **W. Stephen Wilson**, Johns Hopkins University, and **Donald Yau**, Ohio State University at Newark.

Infinite Dimensional Analysis, Path Integrals and Related Fields (Code: SS 46A), **Tepper L. Gill**, Howard University, **Lance W. Nielsen**, Creighton University, and **Woodford W. Zachary**, Howard University.

Inquiry-Based Learning (Code: SS 35A), **William B. Jacob**, University of California Santa Barbara, **Paul J. Sally**, University of Chicago, **Ralf J. Spatzier**, University of Michigan, and **Michael Starbird**, University of Texas at Austin (AMS-MAA).

Logic and Dynamical Systems (Code: SS 12A), **Stephen G. Simpson**, Pennsylvania State University (AMS-ASL).

MAA General Contributed Paper Session (Code: MAACPZ7), **Sarah L. Mabrouk**, Framingham State University (AMS-MAA-MER).

Mathematical Models of Biological Structures and Function (Code: SS 32A), **Chandrajit Bajaj** and **Andrew K. Gillette**, University of Texas at Austin.

Mathematics and Education Reform (Code: SS 52A), **William H. Barker**, Bowdoin College, **William G. McCallum**, University of Arizona, and **Bonnie S. Saunders**, University of Illinois at Chicago (AMS-MAA-MER).

Mathematics and Mathematics Education in Fiber Arts (Code: SS 30A), **Sarah-Marie Belcastro**, The Hampshire College Summer Studies in Mathematics, and **Carolyn A. Yackel**, Mercer University.

Mathematics of Computation (Code: SS 43A), **Susanne C. Brenner**, Louisiana State University, and **Chi-Wang Shu**, Brown University.

Model Theoretic Methods in Finite Combinatorics (Code: SS 18A), **Martin Grohe**, Humboldt University, and **Johann A. Makowsky**, Technion Israel Institute of Technology (AMS-ASL).

New Connections Between Topology, Combinatorics, and Physics (Code: SS 23A), **Paul Fendley** and **Slava Krushkal**, University of Virginia.

Noncommutative Algebra (Code: SS 39A), **Greg Marks** and **Ashish K. Srivastava**, St. Louis University.

Nonlinear Evolution Equations and Their Applications (Code: SS 34A), **Gaston N'Guerekata**, **Alexander A. Pankov**, **Guoping Zhang**, and **Xuming Xie**, Morgan State University, and **Zhijun Qiao**, University of Texas Pan American.

Nonlinear Partial Differential Equations and Applications (Code: SS 20A), **Gui-Qiang G. Chen**, Northwestern University, and **Cleopatra C. Christoforou**, University of Houston.

Nonsmooth Analysis in Inverse and Variational Problems (Code: SS 47A), **M. Zuhair Nashed**, University of Central Florida, and **Otmar Scherzer**, University of Innsbruck.

Operator Theoretic Function Theory (Code: SS 13A), **John B. Conway**, George Washington University, **Sherwin Kouchekian**, University of South Florida, and **William T. Ross**, University of Richmond.

Orderings in Logic and Topology (Code: SS 54A), **Valentina S. Harizanov** and **Jozef H. Przytycki**, George Washington University.

Recent Advances in Mathematical Modeling in Medicine (Code: SS 21A), **David Chan**, **John W. Cain**, and **Rebecca A. Segal**, Virginia Commonwealth University.

Recent Trends in Coding Theory (Code: SS 14A), **Gretchen L. Matthews**, Clemson University, and **Judy L. Walker**, University of Nebraska.

Representation Theory of Lie Algebras and Algebraic Groups (Code: SS 15A), **David G. Taylor**, Roanoke College, **Terrell L. Hodge**, Western Michigan University, and **Daniel K. Nakano**, University of Georgia.

Research in Mathematics by Undergraduates (Code: SS 22A), **Darren A. Narayan**, Rochester Institute of Technology, **Jacqueline A. Jensen**, Sam Houston State University, **Carl V. Lutzer**, Rochester Institute of Technology, **Vadim Ponomarenko**, San Diego State University, and **Tamas Wiandt**, Rochester Institute of Technology (AMS-MAA-SIAM).

Role of Generalized Maximal Monotonicity Frameworks in Optimization and Control Theory with Applications (Code: SS 6A), **Ram U. Verma**, International Publications.

SAGE and Mathematical Research Using Open Source Software (Code: SS 2A), **William A. Stein**, University of Washington, Seattle, **David Saunders**, University of Delaware, **David Harvey**, Harvard University, and **David Joyner**, U.S. Naval Academy.

Scientific Computing and Advanced Computation (Code: SS 8A), **John B. Bell**, Lawrence Berkeley National Lab, **Randall J. LeVeque**, University of Washington, and **Juan C. Meza**, Lawrence Berkeley National Lab.

Spectra of Matrix Patterns and Applications to Dynamical Systems (Code: SS 40A), **Bryan L. Shader**, University of Wyoming, **Luz M. DeAlba**, Drake University, **Leslie Hogben**, Iowa State University, and **In-Jae Kim**, Minnesota State University.

Stochastic, Large-Scale, and Hybrid Systems with Applications (Code: SS 26A), **Aghalaya S. Vatsala**, University of Louisiana at Lafayette, and **G. S. Ladde** and **K. Ramachandran**, University of South Florida.

Teichmüller Theory and Low-Dimensional Topology (Code: SS 7A), **Francis Bonahon**, University of Southern California, **Howard Masur**, University of Chicago, **Abigail A. Thompson**, University of California Davis, and **Genevieve Walsh**, Tufts University.

The Mathematics of Information and Knowledge (Code: SS 53A), **Ronald R. Coifman**, Yale University, **James G. Glimm**, SUNY at Stony Brook, **Peter W. Jones**, Yale University, and **Stephen Smale**, Toyota Institute.

The Redistricting Problem (Code: SS 51A), **Daniel Goroff**, Harvey Mudd College, and **Dan Ullman**, George Washington University.

The Scholarship of Teaching and Learning (Code: SS 24A), **Curtis D. Bennett** and **Jacqueline M. Dewar**, Loyola Marymount University (AMS-MAA).

Topological Methods in Applied Mathematics (Code: SS 56A), **Yongwu Rong**, George Washington University.

Von Neumann Algebras (Code: SS 37A), **Pinhas Grossman**, Vanderbilt University, and **Remus Nicoara**, University of Tennessee.

Call for MAA Contributed Papers

The MAA Committee on Contributed Paper Sessions solicits contributed papers pertinent to the sessions listed below. Contributed paper session organizers generally limit presentations to 15 minutes with a five-minute break between talks; in the general session talks are limited to 10 minutes with a five-minute break. Each session room contains a computer projector, an overhead projector, and a screen. Please note that the dates and times scheduled for these sessions remain tentative.

Assessment of Student Learning in Undergraduate Mathematics, Wednesday afternoon, **William O. Martin**, North Dakota State University, and **Bernard L. Madison**, University of Arkansas. Assessment continues to be an important issue for the mathematical sciences, with increasing faculty involvement in assessment activities. Departments are expected to document assessment activities focusing on student learning in general education, the major, and graduate programs for program review and institutional accreditation. We encourage faculty to disseminate information about their experiences by inviting contributed papers that (a) describe assessment projects in undergraduate mathematics programs, including the areas of quantitative literacy, general education, and the major; (b) report findings of those projects; and (c) describe faculty and departmental responses to those findings. Papers are solicited from any individuals or groups actively involved in assessment.

Building Diversity in Advanced Mathematics: Models that Work, Monday afternoon, **Patricia L. Hale**, California State Polytechnic University Pomona, and **Abbe Herzig**, University at Albany. Papers presented at this session give models of programs that have been successful at supporting diverse groups of people (women of all races, African Americans, Latinos and Chicanos, and Native Americans, people of all economic groups, people with disabilities) in their pursuit of advanced mathematics study and careers. Presentations will span the educational pathway, since issues of diversity need to be addressed at every educational and professional juncture. Proposals are sought that describe successful programs for post-doctoral (faculty), graduate, undergraduate or pre-college students. We interpret "success" broadly, and are looking for ideas that should be shared with others in the mathematics community as models for promoting diversity across the educational spectrum. These might be academic or extracurricular programs, which have targeted any group of people traditionally underrepresented in the mathematical sciences. Historical perspectives are also welcome.

College Algebra: Focusing on Conceptual Understanding, Real-World Data, and Mathematical Modeling, Thursday morning, **Florence S. Gordon**, New York Institute of Technology; **Laurette B. Foster**, Prairie View A&M University; **Yajun Yang**, Farmingdale State College; and **Ray E. Collings**, Georgia Perimeter College. The MAA, under the leadership of CRAFTY, is conducting a national initiative

to refocus the courses below calculus to better serve the majority of students taking these courses. The goal is to encourage courses that place much greater emphasis on conceptual understanding and realistic applications compared to traditional courses that too often are designed to develop algebraic skills needed for calculus.

We seek talks addressing all the college level courses below calculus, particularly college algebra and precalculus, that focus on conceptual understanding, the use of real-world data, and mathematical modeling. We seek presentations that present new visions for such courses; discuss experiences teaching such courses; discuss implementation issues (such as faculty training, placement, introduction of alternative tracks for different groups of students, transferability issues, etc); present results of studies on student performance and tracking data in both traditional and new versions of these courses and in follow-up courses; discuss the needs of other disciplines and the workplace from courses at this level; and/or discuss connections to the changing high school curricula and implications for teacher education. The session is cosponsored by CRAFTY and the Committee on Two-Year Colleges.

Cryptology for Undergraduates, Monday afternoon, **Chris Christensen**, Northern Kentucky University, and **Robert E. Lewand**, Goucher College. In increasing numbers cryptology courses are being developed to serve the needs of undergraduate mathematics and computer science majors. For mathematics majors cryptology fits into the undergraduate curriculum in much the same way that number theory does. In addition cryptology is appearing as a topic in mathematics courses for nonmajors, as it is a hook to interest these students in mathematics. This session solicits presentations that address topics appropriate for undergraduate cryptology courses for mathematics or computer science majors, or presentations of cryptological topics that could interest and motivate nonmathematics majors.

Demos and Strategies with Technology that Enhance Teaching and Learning Mathematics, Tuesday morning and afternoon. **David R. Hill**, Temple University; **Scott Greenleaf**, University of New England; **Mary L. Platt**, Salem State College; and **Lila F. Roberts**, Georgia College & State University. Mathematics instructors use an ever expanding variety of instructional strategies to teach mathematical concepts. As new technologies emerge, instructors employ them in interesting ways as a means to boost creativity and flexibility in lesson design. Tools an instructor utilizes may include specialized computer applications, animations (possibly with audio), and other multimedia tools on standard delivery platforms or handheld devices. This session will focus on novel demos, projects, or labs that mathematics instructors have successfully used in their classrooms that support conceptual understanding. Presenters are encouraged to illustrate their approach with the technology, if time and equipment allow, and to discuss how it is employed in the classroom. Proposals should describe how the presentation with technology fits into a course, the effect it has had on student attitudes toward mathematics, and include a summary of any assessment techniques employed. The session is endorsed by CTiME (Committee on Technology in Mathematics Education).

Developmental Mathematics Education: Helping Under-Prepared Students Transition to College-Level Mathematics, Thursday morning, **J. Winston Crawley** and **Kimberly Presser**, Shippensburg University. Many students are arriving at college today under-prepared for college-level mathematics courses. In order to help these students to be successful, we need to undertake new strategies for support services, courses offered, and perhaps even in our programs themselves. This session invites papers on all aspects of developmental mathematics education. In particular what classroom practices are effective with such students and how does research in student learning inform these practices? For students interested in math-intensive majors such as the sciences, how can we best prepare these students for several subsequent mathematics courses? How can we best coordinate support services with the courses offered in our mathematics departments?

Environmental Mathematics, Monday afternoon, **Karen Bolinger**, Clarion University, and **Ben A. Fusaro**, Florida State University. We invite presentations that apply undergraduate mathematics to solve environmental problems. We also invite presentations on expositional and pedagogical aspects of environmental mathematics. This session is sponsored by the SIGMAA Environmental Mathematics.

Guided Discovery in Mathematics Education, Thursday afternoon, **Jerome S. Epstein**, Polytechnic University. Following on a good session on the topic for JMM-2008, we are again soliciting contributions for 2009 on a topic which we believe to be of central importance for the further development of quality programs in mathematics education at all levels. We seek papers on: (1) programs with more than anecdotal evidence of efficacy, or the lack thereof; (2) means of assessment used to determine efficacy of discovery-based programs; (3) well thought out papers on the operational meaning of terms such as "Guided Discovery", and thus on what specific aspects of programs actually are responsible for any observed differences in outcomes; and/or (4) differences in outcomes in later mathematics courses for those in discovery-based programs vs. traditional lecture-based. The session is sponsored by SIGMAA on Research in Undergraduate Mathematics Education (SIGMAA on RUME).

Innovative and Effective Ways to Teach Linear Algebra, Tuesday morning and afternoon, **David M. Strong**, Pepperdine University; **Gil Strang**, Massachusetts Institute of Technology; and David C. Lay, University of Maryland. Linear algebra is one of the most interesting and useful areas of mathematics, because of its beautiful and multifaceted theory, as well as the enormous importance it plays in understanding and solving many real world problems. Consequently, many valuable and creative ways to teach its rich theory and its many applications are continually being developed and refined. This session will serve as a forum in which to share and discuss new or improved teaching ideas and approaches. These innovative and effective ways to teach linear algebra include, but are not necessarily

limited to (1) hands-on, in-class demos; (2) effective use of technology, such as Matlab, Maple, Mathematica, Java Applets or Flash; (3) interesting and enlightening connections between ideas that arise in linear algebra and ideas in other mathematical branches; (4) interesting and compelling examples and problems involving particular ideas being taught; (5) comparing and contrasting visual (geometric) and more abstract (algebraic) explanations of specific ideas; and (6) other novel and useful approaches or pedagogical tools.

Mathematics and the Arts, Thursday morning and afternoon, **Douglas E. Norton**, Villanova University. This session invites presentations of results on the connections between mathematics and the arts: mathematical aspects of arts, music, and architecture, as well as artistic representations of mathematical objects, ideas, and theorems. We invite explorations of connections old and new: tilings, architecture, quilting, cross-stitch, painting, sculpture, musical composition and analysis, mathematical properties of or themes in poetry and literature, and new technological explorations. The math-arts connection is not just about Escher and the golden mean any more! (These topics are not excluded, of course.) The sharing of experiences and ideas for incorporation into course design and classroom activities is also encouraged. The session is sponsored by the SIGMAA on Mathematics and the Arts.

Mathematics of Chemistry, Monday afternoon, **George T. Rublein**, College of William and Mary, and **Thomas R. Hagedorn**, The College of New Jersey. Mathematics makes its appearance early on in college-level chemistry courses. Physical chemistry, which is heavily laced with mathematical models, has a reputation as the most difficult course in the undergraduate chemistry curriculum. The treatment of mathematics in chemistry textbooks often bears little resemblance to the approaches that students see in mathematics courses. This session solicits contributions that show examples of models drawn from chemistry that might comfortably appear in the calculus, differential equations or linear algebra courses in which chemistry students are commonly enrolled. Chemical thermodynamics, stoichiometry, and chemical kinetics are good sources for such models.

Mathematics Experiences in Business, Industry, and Government, Wednesday morning, **Philip Gustafson**, Mesa State College, and **Michael Monticino**, University of North Texas. This session will provide a forum for mathematicians with experience in business, industry, and government (BIG) to present papers or discuss projects involving the application of mathematics to BIG problems. BIG mathematicians as well as faculty and students in academia who are interested in learning more about BIG practitioners, projects, and issues, will find this session of interest. This session is sponsored by the MAA Business, Industry and Government Special Interest Group (BIG SIGMAA).

Mathematics of Games and Puzzles, Tuesday morning, **Laura A. Taalman**, James Madison University. With the recent popularity of Sudoku, the mathematics of games and puzzles is enjoying a renaissance. In addition to those doing mathematical research about the game of Sudoku, people are continuing to research other games and puzzles such as Nim, SET, Rubik's Cube, the 15- puzzle, knight tours, origami, Mancala, cake division, and Japanese pencil puzzles such as Slitherlink, Nurikabe, Heyawake, and Masyu. These puzzles are related to a surprisingly wide variety of mathematical topics, from graph theory, game theory, and NP-completeness to number theory, topology, and integer programming. The mathematical research of games and puzzles is also a fertile ground for undergraduate research projects and for popularizing mathematics. This session invites talks about mathematical research, classroom use, and possible undergraduate research projects that relate to games and puzzles. Handouts of puzzles are encouraged.

Mathematics and Sports, Tuesday morning, **Howard L. Penn**, U. S. Naval Academy. Sports provide a host of applications of mathematics. Examples exist that use concepts taught in calculus, differential equations, probability, statistics, and combinatorics. In this session, we will showcase interesting applications of mathematics in various sports. The application should be suitable for use in the classroom. The mathematics may be at any level from freshman to senior. Talks may be expository or may highlight undergraduate research.

Mathlets for Teaching and Learning Mathematics, Wednesday morning and afternoon, **Thomas E. Leathrum**, Jacksonville State University, **David M. Strong**, Pepperdine University, and **Joe Yanik**, Emporia University. This session seeks to provide a forum in which presenters may demonstrate mathlets and related materials that they have created or further developed. Mathlets are small computer-based (but ideally platform-independent) interactive tools for teaching math, frequently developed as World Wide Web materials such as scripts or Java applets, but there may be many other innovative variations. Mathlets allow students to experiment with and visualize a variety of mathematical concepts, and they can be easily shared by mathematics instructors around the world. This session is sponsored by the MAA Committee on Technology in Mathematics Education (CTiME).

Operations Research in the Undergraduate Classroom, Monday afternoon, **Gerald Kobylski** and **Josh Helms**, U. S. Military Academy, and **William Fox**, Naval Post Graduate School. This session solicits submissions highlighting innovative instructional strategies and assessment methods in the introductory undergraduate operations research courses or sequence. Suggested topics include, but are not limited to, course content, course projects, case studies, technology demonstrations, cooperative learning activities, and writing assignments. Course projects or case studies presented can be from mathematics courses other than operations research but should highlight operations research topics. Talks may focus on original teaching materials or the creative use of previously existing ones, but all talks should provide specific learning objectives addressed by the use of such materials. Each submission must focus on operations research topics at the undergraduate level, including those in the introductory undergraduate operations research sequence or undergraduate courses in stochastic processes, statistical modeling, simulation modeling, queuing theory, networks, linear

optimization, nonlinear optimization, etc., and should be accompanied by a course syllabus.

Performing Mathematics, Monday afternoon, **Timothy P. Chartier**, Davidson College, and **Karl Schaffer**, De Anza College. Performing arts such as juggling, dance, magic, and drama can enrich the mathematics classroom, and reveal intriguing connections between mathematics and the performing arts. Beyond entertaining students and the general public, such demonstrations can offer new and novel perspectives on mathematical content and engage a class in a fun, educational, and interactive activity. This session seeks to provide a forum in which presenters may demonstrate and discuss creative ways of teaching and presenting mathematics using techniques generally associated with entertainment and the performing arts. Proposals should clearly delineate the mathematical subject that will be covered. When a short performance or portion of a performance is included, a presenter might also incorporate a clear discussion of how a presenter's methods can be adapted for general classroom use. Descriptions of classroom activities that are suitable for use by teachers and professors without a performance background are also strongly encouraged.

Productive Roles for Math Faculty in the Professional Development of K–12 Teachers, Wednesday morning, **Dale R. Oliver**, Humboldt State University, and **Elizabeth Burroughs**, Montana State University. This session is a forum for faculty whose involvement in professional development for teachers might be described as "productive". The word productive here implies that the professional development produced some observable improvement in what teachers understand about mathematics, in how they think about and do mathematics, or in their pedagogical practices in teaching mathematics. The faculty who present in this session will highlight the key features of the professional development they delivered, including the structure, content, and pedagogy of the work they did with teachers. Of particular interest to the organizers will be descriptions of partnerships between math faculty and lead K–12 teachers to design and deliver the professional development. This session is sponsored by the MAA Committee on the Mathematical Education of Teachers (COMET).

Promoting Deep Learning for Mathematics Majors through Experiential Learning, Writing, and Reflection, Thursday morning and afternoon, **Murphy Waggoner**, Simpson College, and **Chuck Straley**, Wheaton College. Active and engaged learning helps our students gain genuine ownership of concepts and to become independent thinkers with truly transferable skills. This session is intended to give those who are currently helping students move from surface learning to deep learning to share their ideas with others. We invite presentations that describe ways to promote deep learning within the curriculum for mathematics majors, such as effective internship programs, service learning projects, or other experiential experiences that allow students to apply mathematical skills in real situations; courses that use a discovery method to teach mathematical concepts; innovative teaching techniques that are proven to make concepts "stick"; or the use of writing as a way to help students deepen their understanding of mathematics. Presentations should describe how the learning experiences were developed and how a deeper and lasting understanding of mathematics was demonstrated. Of special interest are presentations that show how to include written and/or oral reflection as a method of strengthening the learning experience.

Quantitative Literacy Across the Curriculum, Wednesday morning, **Kimberly M. Vincent**, Washington State University, and **Cinnamon Hillyard**, University of Washington, Bothell. There are a growing number of colleges and universities with programs that embed QL in various disciplines. We would encourage dissemination of this important work by soliciting papers from any individuals or groups actively involved in quantitative literacy across the curriculum. The need to interpret and make inferences from quantitative data arises in all disciplines. Individuals and teams, who have embedded QL in various disciplines or institution wide, are welcome to submit contributed papers. Papers should provide examples from various disciplines that authentically embed QL in mathematics and/or other curriculum. Preference will be given to abstracts that provide evidence on the impact of the program or projects on student learning. If you have been working with faculty from other disciplines we encourage you to bring these faculty to JMM to present with you. The session is sponsored by SIGMAA-QL.

Research on the Teaching and Learning of Undergraduate Mathematics, Tuesday afternoon, **Keith H. Weber**, Rutgers University; **Michelle J. Zandieh**, Arizona State University; and **Karen A. Marrongelle**, Portland State University. As part of its ongoing activities to foster research in undergraduate mathematics education and the dissemination of such research, the Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education (SIGMAA on RUME) solicits reports of research on the learning and teaching of undergraduate mathematics for its contributed paper session. We solicit proposals for research reports presenting results from completed research studies on undergraduate mathematics education that address one or more of the following themes: (1) results of current research; (2) contemporary theoretical perspectives and research paradigms, and (3) innovative methodologies and analytical approaches as they pertain to the study of undergraduate mathematics education. We also welcome preliminary reports on research projects in early stages of development or execution.

Statistics in K–12 Education: How Will It Affect Statistics at the College Level?, Wednesday morning, **Patricia B. Humphrey**, Georgia Southern University, and **Robin H. Lock**, St. Lawrence University. Teaching statistics in K–12 has exploded in the past few years, due both to a change in curriculum in new state standards and the growth of AP Statistics (over 100,000 exams in 2007). Unfortunately, most math teachers at this level are ill-equipped to teach the subject. We seek presentations that illustrate how we can support these teachers (both current and future) via successful pre- and in-service programs and interaction as a "mentor". What preparation should K–12 teachers have?

How will/has this explosion impact teaching introductory statistics at the college level? Has your "intro" course been expanded/modified to (hopefully) adapt to students better prepared for our subject? The session is sponsored by the SIGMAA on Statistics Education and the ASA-MAA Joint Committee on Statistics Education. In order to be considered for this session applicants should submit a one-page summary of the presentation to Pat Humphrey at `phumphre@georgiasouthern.edu` along with the abstract via the JMM website. Presenters in the session will be considered for the SIGMAA on Statistics Education's Best Contributed Presentation Award.

Statistics Resources on the Web, Wednesday afternoon, **Dorothy W. Anway**, University of Wisconsin, Superior; **Patricia B. Humphrey**, Georgia Southern University; **Christopher J. Lacke**, Rowan University. This session seeks to provide a forum in which presenters may demonstrate web-based applets, mathlets, data sets, activities and related materials they have successfully used in statistics classes. With the proliferation of such resources (try a Google search on "statistical applets"; there are 941,000 results!), endeavoring to find worthwhile resources can be time-consuming and difficult. No one has the time available to do a thorough search and examination when looking for a particular item on any given topic. We invite submissions that detail the following about one or more items found on the Web: what it was, any resources required, how it was used, the time involved (in and out of class), the success and/or failure in terms of pedagogical intent, suggestions for improvement, and the Web address where the resource was found. The intent is that attendees will take away a bag of handy tricks that can be used without "reinventing the wheel". The session is sponsored by the SIGMAA on Statistics Education. In order to be considered for this session, applicants should submit a one-page summary of the presentation to Dorothy Anway at `danway@uwsuper.edu` in addition to the abstract submitted through the JMM website. Presenters in the session will be considered for the SIGMAA on Statistics Education's Best Contributed Presentation Award.

Teaching Calculus in High School: Ideas that Work, Tuesday morning, **Dan Teague**, North Carolina School of Science and Mathematics, and **John F. Mahoney**, Benjamin Banneker Academic High School. Today, most STEM majors had their introductory calculus course while in high school. SIGMAA TAHSM is committed to assisting teachers in making the mathematical experiences of their students as challenging and exciting as possible. This session will serve as a forum in which to share activities and approaches to teaching calculus that work well with high school students. Of particular interest are projects and investigations, activities, demonstrations, teaching strategies, and techniques that bring the class and the mathematics to life for the students, and illustrate the nature and utility of mathematics. University faculty interested in or concerned about what happens in high school calculus classrooms are encouraged to participate and attend the sessions.

Undergraduate Mathematical Biology, Tuesday, morning and afternoon, **Timothy D. Comar**, Benedictine University, **Raina Robeva**, Sweet Briar College, and **Eric S. Marland**, Appalachian State University. Reports including "BIO 2010: Transforming Undergraduate Education for Future Research Biologists" (National Research Council, 2003) and "Math and BIO 2010: Linking Undergraduate Disciplines" (L. A. Steen, ed., MAA, 2005) emphasize that aspects of biological research are becoming more quantitative and that life science students should be introduced to a greater array of mathematical and computational techniques and to the integration of mathematics and biological content at the undergraduate level. Since these reports, many successful programs and materials have been designed to address these issues. This session is designed to highlight available and successful, print, electronic, or online materials which are available for implementation in the classroom. This session would also like to highlight programs and workshops which have helped train faculty in the pedagogy of undergraduate mathematical biology. The session is particularly interested in presenters who have created materials after participating in workshops offered by the MAA or other professional organizations. We encourage presenters to provide handouts or electronic copies of materials that can readily be used in the classroom. This session is sponsored by the BIO SIGMAA.

General Session, Monday, Tuesday, Wednesday, and Thursday mornings and afternoons; **Sarah L. Mabrouk**, Framingham State University. Papers may be presented on any mathematical topic. Papers that fit into one of the other sessions should be sent to that organizer, not to this session. Note the restriction below that you may give only one talk in this session.

Submission Procedures for MAA Contributed Papers

Send your abstract directly to the meeting website (abstracts should not be sent to the organizer(s) who will automatically receive a copy). Please read the session descriptions thoroughly as some organizers require an additional summary of your proposal be sent to them directly. Participants may speak in at most two MAA contributed paper sessions. If your paper cannot be accommodated in the session for which it was submitted, it will be automatically considered for the general session. Speakers in the general session will be limited to one talk because of time constraints. Abstracts must be submitted by Tuesday, **September 16, 2008**.

All accepted abstracts will be published in a book available at the meeting to all registered participants. Abstracts must be submitted electronically. While no knowledge of LaTeX is necessary for submission, LaTeX and $\mathcal{A}\mathcal{M}\mathcal{S}$-LaTeX are the only typesetting systems that can be used if mathematics or any text markup (e.g., accent marks) is included. The abstracts submissions page is at `http://www.ams.org/cgi-bin/abstracts/abstract.pl`. Simply select the Washington, D.C. meeting, fill in the number of authors, and proceed with the step-by-step instructions. Submitters will be able to view their abstracts before final submission. Upon completion of your submission, your unique abstract number will immediately be sent to you.

All questions concerning the submission of abstracts should be addressed to abscoord@ams.org.

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*: 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 29, 2008
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

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.

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.

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.

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.

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*: 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 4, 2008
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

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, *Title to be announced.*

Reinhard C. Laubenbacher, Virginia Biomathematics Institute at Virginia Tech, *Title to be announced.*

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

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

Special Sessions

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

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-hampaign, **John B. Etnyre**, Georgia Institute of Technology, and **Lenhard Ng**, Duke 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*: 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 25, 2008
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

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

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*: 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 25, 2008
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

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

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.

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
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: March 17, 2009
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

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

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.

Boca Raton, Florida

Florida Atlantic University

October 30 – November 1, 2009

Friday – 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: March 30, 2009
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

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

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

Riverside, California

University of California

November 7–8, 2009

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: April 6, 2009
For consideration of contributed papers in Special Sessions: To be announced
For abstracts: To be announced

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.

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

San Francisco, California

Moscone Center West and the San Francisco Marriott

January 6–9, 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

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

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: Susan J. Friedlander
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: Steven H. Weintraub
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

2008
First Joint Meeting *of the* American Mathematical Society and the Shanghai Mathematical Society

Fudan University • Shanghai, China
December 17-21, 2008

Plenary Speakers

L. Craig Evans, *University of California, Berkeley*
Zhi-Ming Ma, *Chinese Academy of Sciences*
Richard Schoen, *Stanford University*
Richard Taylor, *Harvard University*
Xiaoping Yuan, *Fudan University*
Weiping Zhang, *Chern Institute*

AMS
American Mathematical Society

For accommodations, travel information, and the scientific program, go to: www.ams.org/amsmtgs/internmtgs.html or math.fudan.edu.cn/science/Conference/SMS-AMS/index.html

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: Susan J. Friedlander
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