

# Mathematics Calendar

Please submit conference information for the Mathematics Calendar through the Mathematics Calendar submission form at <http://www.ams.org/cgi-bin/mathcal-submit.pl>. The most comprehensive and up-to-date Mathematics Calendar information is available on the AMS website at <http://www.ams.org/mathcal/>.

## September 2008

**1–5 Combinatorics and Representation Theory (The 8th International Conference by the Graduate School of Mathematics, Nagoya University)**, Graduate School of Mathematics, Nagoya University, Nagoya, Japan. (Jun./Jul./ 2008, p. 736)

**Description:** The main theme is combinatorics and representation theory, and we will emphasize their interactions and their connections to other fields such as mathematical physics, probability theory, geometry, etc. Invited speakers: Francesco Brenti, Vyjayanthi Chari, Philippe Di Francesco, Takeshi Ikeda, Masao Ishikawa, Noriaki Kawanaka, Rinat Kedem, Ronald C. King, Anatol N. Kirillov, Alexander Kleshchev, Atsuo Kuniba, Thomas Lam, Cedric Lecouvey, Sho Matsumoto, Jorn B. Olsson, Arun Ram, Piotr Sniady, John Stembridge, Takeshi Suzuki.

**Organizers and Information:** Soichi Okada (Chair), Akihito Hora, Hiroyuki Ochiai, Masato Okado, Hiro-Fumi Yamada. <http://www.math.nagoya-u.ac.jp/en/research/conference/2008/nagoya.html>.

**1–5 Conference in Numerical Analysis (NumAn 2008) recent approaches to numerical analysis: Theory, methods and applications honoring Richard S. Varga on his 80th birthday**, Kalamata, Greece. (Feb. 2008, p. 308)

**Description:** The aims of the conference are: (1) to bring together and bequeath scientific activities, directions and pursuits of scientists on subjects that pertain to the conference, (2) to foster an exchange of views and ideas, (3) to study the theoretical background required for methods, algorithms and techniques used in applications, (4) to search directions of theoretical results towards applications, (5) to highlight open problems and future directions of numerical analysis.

**This section** contains announcements of meetings and conferences of interest to some segment of the mathematical public, including ad hoc, local, or regional meetings, and meetings and symposia devoted to specialized topics, as well as announcements of regularly scheduled meetings of national or international mathematical organizations. A complete list of meetings of the Society can be found on the last page of each issue.

An announcement will be published in the *Notices* if it contains a call for papers and specifies the place, date, subject (when applicable), and the speakers; a second announcement will be published only if there are changes or necessary additional information. Once an announcement has appeared, the event will be briefly noted in every third issue until it has been held and a reference will be given in parentheses to the month, year, and page of the issue in which the complete information appeared. Asterisks (\*) mark those announcements containing new or revised information.

In general, announcements of meetings and conferences carry only the date, title of meeting, place of meeting, names of speakers (or sometimes a general statement on the program), deadlines for abstracts or contributed papers, and source of further information. If there is any application deadline with respect to participation in the meeting, this fact should be noted. All communications on meetings and conferences

**Information:** <http://www.math.upatras.gr/numan2008/>.

**1–5 Summer School on Functional Analytic Methods in PDEs**, Leibniz University Hannover, Hannover, Germany. (Jun./Jul./ 2008, p. 736)

**Description:** The Summer School is devoted to recent developments in the field of functional analytic methods in partial differential equations. This school addresses young scholars working toward a master or Ph.D. degree. Distinguished experts will each give three talks on new research results and the underlying mathematical methods and techniques.

**Topics:** Include nonlinear evolutions, maximal regularity, H-infinity calculus, pseudodifferential operators, moving boundaries, and weak compactness methods.

**Organizers:** Christoph Walker, Jörg Seiler, Elmar Schrohe, Joachim Escher.

**Speakers:** Dieter Bothe, Adrian Constantin, Robert Denk, Giovanni Dore, Joachim Escher, Philippe Laurencot, Elmar Schrohe, Lutz Weis.

**Information:** <http://www.math-conf.uni-hannover.de/pde08>; email: [walker@ifam.uni-hannover.de](mailto:walker@ifam.uni-hannover.de).

**1–6 School (and Workshop) on the Geometry of Algebraic Stacks**, Fondazione Bruno Kessler-IRST, Povo, Trento, Italy. (Jun./Jul./ 2008, p. 736)

**Description:** The meeting is articulated in a School and in a Workshop. The school will give the students and young researchers the opportunity of learning the subject from experts in the area. Professors B. Fantechi (SISSA Trieste) and A. Kresch (Zuerich) will deliver a short course of five lessons of one hour-and-a-half on the subject. Dr.

in the mathematical sciences should be sent to the Editor of the *Notices* in care of the American Mathematical Society in Providence or electronically to [notices@ams.org](mailto:notices@ams.org) or [mathcal@ams.org](mailto:mathcal@ams.org).

**In order** to allow participants to arrange their travel plans, organizers of meetings are urged to submit information for these listings early enough to allow them to appear in more than one issue of the *Notices* prior to the meeting in question. To achieve this, listings should be received in Providence **eight months** prior to the scheduled date of the meeting.

The complete listing of the Mathematics Calendar will be published only in the September issue of the *Notices*. The March, June/July, and December issues will include, along with new announcements, references to any previously announced meetings and conferences occurring within the twelve-month period following the month of those issues. New information about meetings and conferences that will occur later than the twelve-month period will be announced once in full and will not be repeated until the date of the conference or meeting falls within the twelve-month period.

The Mathematics Calendar, as well as Meetings and Conferences of the AMS, is now available electronically through the AMS website on the World Wide Web. To access the AMS website, use the URL: <http://www.ams.org/>.

E. Mann (SISSA Trieste) will deliver some exercises and complements classes coordinating himself with Professors Fantechi and Kresch. The workshop on the state of art gives the opportunity to senior researchers to compare each other.

**Confirmed invited speakers are:** F. Catanese (Bayreuth), G. Farkas (Berlin), E. Sernesi (Roma Tre), A. Verra (Roma Tre), A. Vistoli (Pisa).

**Scientific Organizers:** G. Casnati, C. Fontanari, R. Notari, M.L. Spreafico (Torino).

**Information:** <http://calvino.polito.it/~geometri/2008-1.htm>; email: michelet@science.unitn.it.

**1–6 Workshop on Random Tilings, Random Partitions and Stochastic Growth Processes**, Centre de recherches mathématiques, Université de Montréal, Montréal, Québec, Canada. (Jan. 2008, p. 78)

**Information:** <http://www.crm.umontreal.ca/Mathphys2008>.

**Description:** Tiling problems have a long tradition in combinatorics and in statistical mechanics. One of the central problems is understanding the statistical structure of the patterns obtained when randomly tiling a large domain. As noticed by N. Elkies and J. Propp a decade ago, random tilings of a large planar domain may exhibit phase segregation; the density of tiles has a smooth (non-constant) variation in some regions of the domain in coexistence with a frozen region where the density of tiles is constant. In the corresponding surface picture the frozen region corresponds to a facet of constant slope while in the complement one has a rounded surface.

**1–12 School on Algebraic Topics of Automata**, Complexo Interdisciplinar da Universidade de Lisboa Av. Prof. Gama Pinto, 2 1649-003, Lisboa, Portugal. (May 2008, p. 634)

**Description:** This school aims to present to the scientific communities, in particular to post-graduate students, various topics on algebraic theory of automata, delivered as courses, advanced seminars and student's seminars.

**Topics:** The programme includes eight courses on various aspects of algebraic theory of automata, plus an advanced seminar on mainstream topics and a student's seminar on their research work.

**Sponsor:** By the project automata: from mathematics to applications (AutoMathA) of the European Science Foundation (ESF).

**Organizer:** Within the activities of Centro de Álgebra da Universidade de Lisboa (CAUL) and Centro de Matemática da Universidade do Porto (CMUP).

**Information:** <http://caul.cii.fc.ul.pt/SATA2008/>; email: patricia@ciifc.ul.pt.

**\* 2–3 CRM-University of Ottawa Mini-Workshop: Introduction to infinite-dimensional topological groups**, Department of Mathematics and Statistics, University of Ottawa, Ottawa, Ontario, Canada.

**Description:** The workshop will consist of 8 hours of lectures given in turn by Vladimir Uspenskij (Ohio University) and Stefano Ferri (Universidad de los Andes) over two days.

**Event organizers:** Vladimir Pestov (University of Ottawa) and Matthias Neufang (Carleton University).

**Registration:** There is no registration fee, and very limited financial support for out-of-town graduate students may be available.

**Information:** <http://aix1.uottawa.ca/~vpest283/varia/workshop.html>; email: vpest283@uottawa.ca.

**2–4 2008 MBI Workshop for Young Researchers in Mathematical Biology (WYRMB)**, Mathematical Biosciences Institute, The Ohio State University, Columbus, Ohio. (May 2008, p. 634)

**Description:** The workshop is intended to broaden the scientific perspective of young researchers in mathematical biology and to encourage interactions with other scientists. Workshop activities include plenary talks and poster sessions, as well as group discussions on issues relevant to mathematical biologists. We cordially invite young mathematical biologists to participate.

**Application deadline:** April 17, 2008.

**Information:** <http://www.mbi.ohio-state.edu/postdocworkshop/wyrm2008.html>; email: jday@mbi.osu.edu.

**2–5 Introductory Workshop on Analysis of Singular Spaces**, Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul./2008, p. 737)

**Description:** This four-day program will be an introduction to the main themes of the analysis of singular spaces program, geared toward graduate students and postdocs. It will consist of several

minicourses, covering topics in spectral and scattering theory, index theory, and  $L^2$ -cohomology, as well as developing the technical tools needed as background.

**Organizers:** Gilles Carron, Eugénie Hunsicker, Richard Melrose, Michael Taylor, Andras Vasy and Jared Wunsch.

**Information:** [http://www.msri.org/calendar/workshops/WorkshopInfo/443/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/443/show_workshop).

**2–5 X Spanish Meeting on Cryptology and Information Security (X RECSI)**, Hospedería Fonseca, Salamanca, Spain. (Dec. 2007, p. 1536)

**Description:** The Spanish Meeting on Cryptology and Information Security is a biennial conference that can be considered as the most important Spanish conference that works on Cryptology and Information Security. X RECSI will be the tenth of a series. The main goals of X RECSI are two: To show the most important and recent advances in the design, development, implementation, realisation and application of efficient and secure cryptographic algorithms, and to review the first two years of the establishment of the DNI-e. Three lectures will be presented by international researchers of prestige as for the Cryptology and Information Security community. Also people from Spanish government and private sector will present another four lectures. Moreover several contributions will be presented in two parallel sessions (Cryptology and Information Security) and a roundtable will be organized whose participants belong to the most important Spanish security companies.

**Information:** <http://www.usal.es/xrecsi/english/main.htm>.

**2–7 International Conference “Geometry, Dynamics, Integrable Systems”**, Mathematical Institute SANU, Belgrade, Serbia. (Jun./Jul./2008, p. 737)

**Description:** The International Conference “Geometry, Dynamics, Integrable Systems” will be held under the auspices of the Mathematical Institute SANU (Belgrade), V.A. Steklov Mathematical Institute RAS (Moscow), and “Regular and Chaotic Dynamics” journal.

**Goal:** To bring together the best scientists to intensify the exchange of experience, methods and ideas, and encourage collaboration among diverse groups in community. In order to achieve an effective communication between participants the number of active participants will be limited. Anticipated attendance of the meeting is approximately 50 persons.

**Topics:** Main topics of the meeting: Integrable systems in classical mechanics; Nonholonomic mechanics; Rigid body dynamics; Lie algebras and Lax representation; Separation of variables.

**Organizers:** The organizers of the conference are V. V. Kozlov, A. V. Borisov and V. Dragovic.

**Information:** <http://www.mi.sanu.ac.yu/~gdis08/>.

**3–6 Fifth International Workshop on Numerical Analysis and Lattice QCD**, University of Regensburg, Regensburg, Germany. (Jun./Jul. 2008, p. 737)

**Description:** The aim of this workshop is to bring together applied mathematicians and theoretical physicists to stimulate the exchange of ideas between leading experts in the fields of lattice QCD and numerical analysis. The algorithms used for QCD computations have been growing in sophistication over the years, making use of mathematical methods including stochastic processes, linear algebra, approximation theory, multi-scale techniques, and symplectic integrators. The interplay between physicists and mathematicians has become more valuable as the level of sophistication increases, with both sides contributing innovative and powerful new approaches.

**Information:** <http://www.homepages.uni-regensburg.de/~b1j05290/qcdna08>.

**3–6 XVII International Fall Workshop on Geometry and Physics**, CIEM Centro Internacional de Encuentros Matemáticos, Castro Urdiales, Cantabria, Spain. (Jun./Jul./2008, p. 737)

**Description:** The Fall Workshops on Geometry and Physics have been held yearly since 1992, and bring together Spanish and Portuguese geometers and physicists, along with an ever increasing number of participants from outside the Iberian peninsula. The main topics of the meeting are: Lie algebroids and mechanics, Lorentz and Poisson geometries, Riemannian geometry, symplectic and contact geometries, mechanics of continuous media, quantum mechanics, relativity, supergravity and supersymmetry, integrable systems, control theory, classical theory of fields, and string theory.

**Information:** email: fioravam@unican.es; <http://www.ciem.unican.es/encuentros/ifwgp08/index.html>.

**3–9 10th International Congress on Algebraic Hyperstructures and its Applications AHA 2008**, University of Defence, Brno, Czech Republic. (Jun./Jul./ 2008, p. 737)

**Description:** This congress follows the previous AHA, which were held in Iran (Babolsar 2005), Greece (Samotraki 2002, Xanthi 1990), Italy (Taormina 1978, 1983, 1999, Udine 1985), Romania (Iasi 1993) and Czech Republic (Prague 1996). Union of Czech Mathematicians and Physicists will organize this congress with the collaboration of the University of Defence. AHA 2008 aims to provide a forum for researchers and practitioners to present their work and to exchange their views on developments and future directions.

**Topics:** Hypergroupoids, Semi-hypergroups, hypergroups, hyperrings, hyperfields, hypermodules, hyperspaces, hyperalgebras, hv-structures, non-associative and feebly associative hypergroups, join spaces, hyperstructures associated to geometric spaces, ordered hyperstructures, fuzzy algebraic hyperstructures, (Fuzzy) BCK-algebras, hypergraphs, generalizations and applications.

**Information:** <http://www.unob.cz/en/veda.aspx?id=1829>; email: aha2008@seznam.cz.

**8–9 Drexel University Workshop on Topology and Physics**, Departments of Mathematics and Physics, Drexel University, Philadelphia, Pennsylvania. (Aug. 2008, p. 868)

**Description:** The purpose of the workshop is to bring together mathematicians, physicists, and students interested in the interaction between topology and physics. Six invited lectures will describe various classical and current aspects of this interaction at a level appropriate to an audience of non-specialists. Poster sessions and extended discussion periods will provide the opportunity for participants to exchange ideas and establish contacts and collaborations.

**Invited speakers include:** Tony Pantev (University of Pennsylvania), Amir Hajian (Princeton University), Wilma Olson and Irwin Tobias (Rutgers University), Robert Gilmore (Drexel University), Eric Sharpe (Virginia Tech), and Randall D. Kamien (University of Pennsylvania).

**Information:** <http://www.pages.drexel.edu/~gln22/Workshop.htm>; email: gln22@drexel.edu.

**8–10 Calculus of Variations and Its Applications From Engineering to Economy**, Departamento de Matemática Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa Caparica, Portugal. (May 2008, p. 634)

**Description:** The aim of this event is to promote the scientific exchange of ideas and methods in such a broad and useful area as the calculus of variations. With the goal of applications to different areas such as mathematics, mechanics, engineering, economy, finances, chemistry, biology, just to name a few, models and methods have been developed, with apparent different languages that are susceptible of an unified analytical and numerical treatment. Taking into account the most recent developments in this area of mathematics, we wish to address problems associated with partial differential equations, optimal control, finite or infinite dimension optimization, shape optimization in structural engineering, together with the associated computational aspects.

**Information:** email: mcm@fct.unl.pt; <http://ferrari.dmat.fct.unl.pt/cva2008/>.

**8–10 GLAM, Global Analysis on Manifolds**, University of Rome "La Sapienza", Rome, Italy. (Aug. 2008, p. 868)

**Description:** On the occasion of the 60th birthday of Sylvestre Gallo.

**Scientific Committee:** V. Ancona (Italy, Univ. Firenze), W. Ballmann (Germany, Univ. Bonn), P. Berard (France, Institut Fourier), J. P. Bourguignon (France, CNRS-IHES - Bures-sur-Yvette), J. Cheeger (U.S.A., N.Y.U.), H. Karcher (Germany, Univ. Bonn), S. Marchiafava (Italy, Univ. Roma La Sapienza), S. Salamon (Italy, Politecnico Torino).

**Organizing Committee:** G. Besson (France, Institut Fourier), M. Borodoni (Italy, Univ. Roma La Sapienza), G. D'Ambrìa (Italy, Univ. Cagliari), A. El Soufi (France, Univ. Tours), B. Franchi (Italy, Univ. Bologna), R. Grimaldi (Italy, Univ. Palermo), O. Hijazi (France, Univ. Nancy), A. Sambusetti (Italy, Univ. Roma La Sapienza), A. Savo (Italy, Univ. Roma La Sapienza).

**Information:** <http://www.dmmm.uniroma1.it/glam>; email: leon@dmmm.uniroma1.it.

**8–11 Logic, Algebra and Truth Degrees**, College Santa Chiara, Siena, Italy. (Mar. 2008, p. 412)

**Description:** This is the first official meeting of the working group on Mathematical Fuzzy Logic (<http://www.cs.cas.cz/mathfuzzlog/>). Mathematical Fuzzy Logic is a subdiscipline of Mathematical Logic which studies the notion of comparative truth. The assumption that "truth comes in degrees" has revealed very useful in many, both theoretical and applied, areas of Mathematics, Computer Science and Philosophy. The main goal of this meeting is to foster collaboration between researchers in the area of Mathematical Fuzzy Logic, and to promote communication and cooperation with members of neighbouring fields.

**Programme Committee:** Franco Montagna (chair), Roberto Cignoli, Petr Cintula, Francesc Esteva, Hiroakira Ono.

**Invited speakers:** Stefano Aguzzoli, Matthias Baaz, Xavier Caicedo, Christian Fermüller, Lluís Godo, Petr Hájek, Kazushige Terui, Constantine Tsinakis.

**Information:** <http://www.mat.unisi.it/~latd2008/>.

**8–12 International Workshop on Orthogonal Polynomials and Approximation Theory 2008. Conference in honor of professor Guillermo López Lagomasino in his 60th Anniversary**, Universidad Carlos III de Madrid, Madrid, Spain. (Apr. 2008, p. 525)

**Description:** It is well known the increasing attention paid in the last decades to the theory of Orthogonal Polynomials. Numerous applications of these mathematical objects in different areas of Mathematics like numerical integration, spectral methods, interpolation, combinatorics, mathematical physics, quantum physics, and approximation theory among others have been particularly relevant.

**Topics:** The topics to be considered are: Approximation theory; Numerical analysis, in particular quadrature formulas; orthogonal polynomials and special functions; analytic properties and applications; integrable systems.

**Information:** <http://www.uc3m.es/iwopa08>.

**8–12 Long Program: Internet Multi-Resolution Analysis: Foundations, Applications and Practice**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Feb. 2008, p. 308)

**Description:** The focus of this IPAM program will be on innovations and breakthroughs in the theoretical foundations and practical implementations of a network-centric multi-resolution analysis (MRA). Participants will learn about Internet MRA from the perspectives of mathematics, statistics, computer science and engineering—and will meet a diverse group of people and have an opportunity to form new collaborations. There will be opening tutorials, four workshops, and a culminating workshop at Lake Arrowhead.

**Organizing Committee:** Paul Barford, John Doyle, Anna Gilbert, Mauro Maggioni, Craig Partridge, Matthew Roughan, and Walter Willinger.

**Application:** An application form is available at: <http://www.ipam.ucla.edu/programs/mra2008/>. Applications for individual workshops will be posted on individual workshop home pages. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

**Information:** <http://www.ipam.ucla.edu/programs/mra2008/>.

**8–12 Topology of Stratified Spaces**, Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul./ 2008, p. 737)

**Description:** This workshop will bring together researchers interested in the topology of stratified spaces. It will focus roughly on four topics: topology of complex varieties, signature theory on singular spaces, and intersection cohomology, and mixed Hodge theory and singularities. Aside from talks on current research, there will be a series of introductory lectures on these themes. These talks will be aimed at strengthening the connections among the various topology research groups and the connections between topology researchers and researchers at the program on Analysis of Singular Spaces, running concurrently.

**Organizers:** Greg Friedman, Eugénie Hunsicker, Anatoly Libgober, and Laurentiu Maxim.

**Information:** email: jz@msri.org; [http://www.msri.org/calendar/workshops/WorkshopInfo/469/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/469/show_workshop).

**10 Nonlinear Differential Equations, A Tribute to the work of Patrick Habets & Jean Mawhin on the occasion of their 65th birthdays,** Académie Royale de Belgique, Brussels, Belgium. (Mar. 2008, p. 412)  
**Speakers:** Antonio Ambrosetti, Cristian Bereanu, Denis Bonheure, Haïm Brezis, Colette De Coster, Thierry De Pauw, Jean-Pierre Gossez, Jean-Pierre Kahane, Louis Nirenberg, Pierpaolo Omari, Rafael Ortega, Miguel Ramos, Luis Sanchez, Didier Smets, James Serrin, Michel Willem, Fabio Zanolin.

**Organizing committee:** D. Bonheure (Université catholique de Louvain) J.P. Gossez (Université libre de Bruxelles) J. Van Schaftingen (Université catholique de Louvain) M. Willem (Université catholique de Louvain).

**Information:** <http://www.uclouvain.be/node/2008.html>.

**11-13 Ricci flow in Mathematics and in Physics,** Institut de Recherche Mathématique Avancée (Université Louis Pasteur), Strasbourg, France. (Jun./Jul./ 2008, p. 737)

**Description:** Ricci Flow in Mathematics and in Physics.

**Organizers:** Vincent Maillot and Athanase Papadopoulos.

**List of speakers:** G. Besson (Grenoble), M. Carfora (Pavia), D. Friedan (Rutgers U.), W. Graf (Wien ), J. Keller (Marseille), F. Luo (Rutgers U.), P. Topping (Warwick), B. Wilking (Muenster).

**Information:** Financial support for speakers. For more information please visit: <http://www-irma.u-strasbg.fr/article678.html>; email: papadop@math.u-strasbg.fr.

\* **12 Herb Keller Memorial Workshop,** California Institute of Technology, Pasadena, California.

**Description:** The Applied and Computational Mathematics Department at Caltech is hosting this day-long workshop in memory of Herb Keller, Professor Emeritus of Applied and Computational Mathematics.

**Featured speakers include:** Tony Chan, Roland Glowinski, Thomas Hagstrom, Michael Holst, Arieh Iserles and Peter Lax.

**Registration:** Attendance is free, but registration is required.

**Information:** <http://www.acm.caltech.edu/hbk08/> for more information. email: sydney@caltech.edu.

**13 63rd Algebra Day,** Carleton University, Ottawa, Canada.

**Speakers:** Osamu Iyama (Nagoya), Bernhard Keller (Paris), Claus Michael Ringel (Bielefeld), Paul Smith (Washington). (May 2008, p. 634)

**Information:** billig@math.carleton.ca, bsteinbg@math.carleton.ca or vdlab@math.carleton.ca.

**15-18 Information Security Conference 2008 (ISC 2008),** Taipei, Taiwan. (Mar. 2008, p. 412)

**Description:** Information Security Conference (ISC 2008) is an annual international conference covering research in theory and applications of Information Security. ISC aims to attract high quality papers in all technical aspects of information security. It was first initiated as a workshop in Japan in 1997 (ISW'97, LNCS 1396). ISC 2008 will be held in Taipei, a beautiful city with a vibrant blend of traditional culture and cosmopolitan life. For more information, please see <http://isc08.twisc.org/>.

**Information:** <http://isc08.twisc.org>.

\* **15-18 MODSIM World 2008 Conference & Expo,** Virginia Beach Convention Center, Virginia Beach, Virginia.

**Description:** Sponsored by the Virginia Modeling, Analysis and Simulation Center (VMASC) and NASA Langley Research Center, MODSIM World 2008 is a unique, multi-disciplinary International Conference and Exposition for the exchange of modeling and simulation knowledge, research, and technology across academia, industry, and government. MODSIM World promotes the application of modeling and simulation technologies across disciplines and fields of practice to support and enhance leadership and management and to improve decision-making. MODSIM World 2008 is divided into the following tracks: Health & Medicine; Transportation & Logistics; Homeland Security & Defense; Engineering & Technology; and Education & Training. The conference also features cross-cutting sessions that explore the conceptual and technological connections between the disciplines represented by the main tracks. The cross-cutting sessions this year will focus on Game-Based Technology [Serious Games].

**Information:** <http://www.modsimworld2008.com>; email: thomas.e.pinelli@nasa.gov.

**15-19 International Conference on K-Theory and Homotopy Theory,** Universidad de Santiago de Compostela, Santiago de Compostela, Spain. (Jun./Jul./ 2008, p. 738)

**Description:** Proceedings of the conference will be published in Journal of Homotopy and Related Structures (<http://rmi.acnet.ge/jhrs/>).

**Organizers:** Nick Inassaridze (A. Razmadze Math.Inst., Georgia and Univ. de Vigo, Spain), Manuel Ladra (Univ. de Santiago de Compostela, Spain).

**Scientific Committee:** Andrew Baker (Univ.of Glasgow,UK), Pilar Carrasco (Univ. de Granada, Spain), Carles Casacuberta (Univ. de Barcelona, Spain), Guillermo Cortiñas (Univ. de Buenos Aires, Argentina), Hvedri Inassaridze (A. Razmadze Math. Inst., Georgia), Ryszard Nest (Univ. of Copenhagen, Denmark), Lionel Schwartz (Univ. Paris 13, France), Aydin Shahbazov (Inst. Math. and Mech. of NAS, Azerbaijan), Rainer Vogt (Univ. Osnabrück, Germany), Charles Weibel (Rutgers University, USA).

**Important Dates:** Deadline for submission of abstracts: May 23, 2008. Deadline for answering with presentations acceptance: June 6, 2008. Deadline for submission of articles: December 31, 2008

**Information:** email: niko.inas@gmail.com; <http://www.usc.es/regaca/kth/>.

**15-21 Ninth Crimean Workshop on the Method of Lyapunov Functions and Its Applications,** Alushta, Crimea, Ukraine. (May 2008, p. 634)

**Description:** The conference is dedicated to 70th anniversary of Academician A. M. Samoilenco.

**Focus:** The workshop will bring together researchers in the theory of stability and related fields of pure and applied mathematics, in particular, qualitative theory of differential equations, mechanics, mathematical modelling and control.

**Program Committee:** A. M. Samoilenco (chairman), I. V. Gaishun, M. M. Khapaev, D. Ya. Khusainov, V. I. Korobov, A. M. Kovalev, A. I. Malikov, A. A. Martynyuk, N. A. Perestyuk, S. N. Vassilyev.

**Organizing Committee:** O. V. Anashkin (chairman), E. P. Belan, V. I. Shostka, V. V. Zhuravlev.

**Information:** Oleg V. Anashkin; email: anashkin@crimea.edu.

**16-19 Conference on Boundary Value Problems: Mathematical Models in Engineering, Biology and Medicine,** University of Santiago de Compostela, Santiago de Compostela, Spain. (Feb. 2008, p. 308)

**Description:** The Conference on Boundary Value Problems, "Mathematical Models in Engineering, Biology and Medicine" tries to keep in touch some of the most relevant experts in these fields. It is prepared under the auspices of the International Federation of Nonlinear Analysts and is organized by the Nonlinear Analysis Group of the Department of Mathematical Analysis of the University of Santiago de Compostela.

**Topics:** Theory of differential and difference equations in a broad sense, with special attention to nonlinear and singular phenomena arising in the mathematical models that appear in engineering, biology and medicine.

**Information:** <http://www.usc.es/congresos/bvp2008/>.

**16-19 Rings and Modules, in honour of Patrick F. Smith's 65th birthday,** Complexo Interdisciplinar da Universidade de Lisboa, Portugal. (Jun./Jul./ 2008, p. 738)

**Invited Speakers:** T. Albu (Bucharest, Romania); A. Facchini (Padova, Italy); J. L. Gómez Pardo (Santiago de Compostela, Spain); C. Hajarnavis (Warwick, UK); C. Lomp (Porto, Portugal); S. Lopez-Permouth (Ohio, USA); B. Osofsky (Rutgers, USA); D. Passman (Wisconsin-Madison, USA); M. Prest (Manchester, UK); E. Puczylowski (Warsaw, Poland); A. Tercan (Hacettepe, Turkey); R. Wisbauer (Düsseldorf, Germany).

**Organizing Committee:** N. V. Dung (Ohio, USA); P. A. Guil Asensio (Murcia, Spain); R. J. Marsh (Leeds, UK); C. Santa-Clara (Lisboa, Portugal).

**Scientific Committee:** K. A. Brown (Glasgow, UK); J. Clark (Otago, New Zealand); J. L. Gómez Pardo (Santiago de Compostela, Spain); D. V. Huynh (Ohio, USA); B. Osofsky (Rutgers, USA); R. Wisbauer (Düsseldorf, Germany).

**Information:** The programme will also include short talks. For logistic reasons, the number of participants is limited, so please register as soon as possible. Contact the organizers at [pfs2008@ciii.fc.ul.pt](mailto:pfs2008@ciii.fc.ul.pt); <http://pfs2008.cii.fc.ul.pt/>.

**16–20 International Conference of Numerical Analysis and Applied Mathematics 2008 (ICNAAM 2008)–Honoring John Butcher on the occasion of his 75th birthday**, Hotel Kypriotis Village-Kypriotis Panorama-Kypriotis International Conference Center, Psalidi, Kos, Greece. (Mar. 2008, p. 413)

**Description:** The aim of ICNAAM 2008 is to bring together leading scientists of the International Numerical & Applied Mathematics community and to attract original research papers of very high quality. **Invited Speakers so far:** Prof. Dr. John Butcher, New Zealand; Prof. Dr. Gotz Alefeld, Germany; Prof. Dr. Uri Ascher, Canada; Prof. Dr. Martin Berzins, USA; Prof. Dr. Peter Deuflhard, Germany; Dr. Adrian Hill, United Kingdom; Prof. Dr. Zdzislaw Jackiewicz, USA; Prof. Dr. Rolf Jeltsch, Switzerland; Prof. Dr. Daniel W. Lozier, USA; Prof. Dr. Christian Lubich, Germany; Prof. Dr. Brynjulf Owren, Norway; Prof. Dr. Stefan Vandewalle, Belgium.

**Information:** <http://www.icnaam.org/>.

**17–19 First Summer School on Copulas**, Johannes Kepler University, Linz, Austria. (Aug. 2008, p. 868)

**Description:** The Summer School aims at providing a meeting point for exchanging ideas and presenting new directions on the theory of copulas and related applications.

**Information:** <http://www.f111.jku.at/ssc>; email: fabrizio.durante@jku.at.

**18–20 MTISD08: Methods, models and information technologies for decision making**, Lecce, Italy. (Jun./Jul./ 2008, p. 738)

**Information:** <http://www.mtisd2008.unile.it>; email: squillan@unisannio.it.

**19–26 Harmonic Analysis and Approximations, IV (International Conference)**, Tsaghkadzor, Armenia. (Apr. 2008, p. 525)

**Description:** The Conference continues the series of International Conferences organized in Armenia (HAA I - Nor Amberd, 1998, HAA II - Nor Amberd, 2001, HAA III - Tsaghkadzor, 2005) which were attended by 177 participants from 19 countries. This conference is dedicated to the 80th anniversary of academician Alexandre Talalian. The program of the conference will consist of invited 50-minute plenary lectures and contributed 20-minutes talks.

**Speakers:** The following mathematicians have agreed to give a plenary lecture at the conference: Sergey Konyagin (Russia), Thomas Korner (UK), Michael Lacey (USA), Konstantin Oskolkov (USA), Allan Pinkus (Israel), Vilmos Totik (USA), Przemyslaw Wojtaszczyk (Poland).

**Information:** <http://math.sci.am/conference/sept2008/conf.html>.

**21–24 Applied Statistics 2008**, Hotel Ribno, Ribno, Slovenia. (May 2008, p. 634)

**Description:** The conference, organized in Ribno in the vicinity of the beautiful Lake Bled, will provide an opportunity for researchers in statistics, data analysts, and other professionals from various statistical and related fields to come together, present their research, and learn from each other. Cross-discipline and applied paper submissions are especially welcome. A three day program consists of invited paper presentations, contributed paper sections from diverse topics, and finishes with a workshop. Selected papers will be published in *Advances in Methodology and Statistics*, a peer-reviewed journal of the statistical society of Slovenia.

**Keynote Speakers:** Jaak Billiet, Katholieke Universiteit Leuven, Belgium; Ornulf Borgan, University of Oslo, Norway; William S. Cleveland, Purdue University, USA.

**Important Dates:** Abstract Submission: June 1, 2008. Registration: July 1, 2008.

**Contact:** Andrej Blejec, info.AS@nib.si.

**Information:** <http://conferences.nib.si/AS2008>; email: andrej.blejec@nib.si.

**22–26 Multiscale Representation, Analysis and Modeling of Internet Data and Measurements**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (May 2008, p. 635)

**Overview:** We will discuss the structure of the Internet and of network traffic on the Internet. Topics will include current tools to measure and infer the connectivity structure of the Internet, and the modeling of both the emergence of network structures and traffic patterns. Challenges and opportunities in constructing multiscale models for such complex networks and traffic patterns will be studied from various perspectives.

**Organizing Committee:** Mauro Maggioni, Paul Barford, Anna Gilbert, Morley Mao, Rob Nowak.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/mraws1/>. If you don't intend to request financial support, you may simply register. We urge you to apply as early as possible. Applications received by August 11, 2008 will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

**Information:** email: sbeggs@ipam.ucla.edu; <http://www.ipam.ucla.edu/programs/mraws1/>.

**22–28 A joint conference of 5th Annual International Conference on Voronoi Diagrams in Science and Engineering and 4th International Kyiv Conference on Analytic Number Theory and Spatial Tessellations**, Dragomanov National Pedagogical University, Kyiv, Ukraine. (Feb. 2008, p. 308)

**Main topics:** a) Voronoi Diagrams. b) Fields in Pure Mathematics founded by Voronoi.

**Organizers:** Inst. of Mathematics of the NAS of Ukraine; Dragomanov Pedagogical University, Ukraine; Voronoi Diagram Research Center, Seoul, Korea; Inst. of Mathematics of the PAS, Warsaw, Poland; Steklov Mathematical Inst. of the RAS, Moscow, Russia.

**Registration deadline:** March 15, 2008. Abstract Submission deadline: March 22, 2008.

**Information:** email: voronoi@imath.kiev.ua; <http://www.imath.kiev.ua/~voronoi>.

**24–27 (REVISED INFORMATION) Vector Measures, Integration and Applications**, Katholische Universitaet Eichstaett-Ingolstadt, Eichstaett, Germany. (Feb. 2007, p. 308)

**Organizers:** W. J. Ricker & G. Mockenhaupt.

**Information:** <http://www-math-analysis.ku-eichstaett.de/vmia-2008/>.

**26–28 Fourth Yamabe Symposium: "Geometry and Analysis"**, School of Mathematics, University of Minnesota, Minneapolis, Minnesota. (Aug. 2008, p. 868)

**Confirmed speakers are:** Simon Brendle, Stanford University; Alice Chang, Princeton University; Gerhard Huisken, Albert Einstein Institute, Potsdam; Ngaiming Mok, Hong Kong University; Leon Simon, Stanford University; Yum-Tong Siu, Harvard University; Neil Trudinger, Australian National University; and Burkhard Wilking, University of Muenster.

**Support:** From the National Science Foundation will be used to defray workshop expenses for a number of participants, with highest preference given to younger scientists (grad students, postdocs, young faculty or researchers at most five years after Ph.D.), although all active people are eligible. Women and minorities are especially encouraged to apply.

**Deadline:** The application deadline for full consideration for funding is Thursday, August 7, 2008.

**Information:** <http://www.math.umn.edu/yamabe/>; email: gulliver@math.umn.edu.

**26–28 2008 Southern Regional Algebra Conference (With Recognition of the Retirement of K. M. Rangaswamy)**, University of Colorado at Colorado Springs, Colorado Springs, Colorado. (Jun./Jul./ 2008, p. 738)

**Description:** The University of Colorado at Colorado Springs will host the 2008 Southern Regional Algebra Conference. The conference this year will in particular honor the 70th birthday and retirement of Professor K. M. Rangaswamy. We will follow the usual SRAC format of 25 minute talks. As usual, there is no financial support provided by the host institution for SRAC participants. The conference is open to all interested participants. Algebraists from the Southern Region of the United States are encouraged to attend. Talks in all areas of algebra are welcome, but especially in those areas related to Professor Rangaswamy's work. Deadline for abstracts is August 15, 2008. For more specific information visit the conference website at <http://www.uccs.edu/~math/News/RangafestMain.htm>, or contact the conference organizer, Gene Abrams, at [abrams@math.uccs.edu](mailto:abrams@math.uccs.edu) or 719-262-3182.

**27 Illinois/Missouri Applied Harmonic Analysis Seminar**, Southern Illinois University, Edwardsville, Illinois. (Aug. 2008, p. 868)

**Description:** The Seminar is an ongoing sequence of meetings fostering research interactions among mathematicians, engineers, and physicists who develop and apply techniques from harmonic analysis.

**Theoretical topics of interest include:** Wavelets, Gabor systems (time-frequency analysis), frames and Riesz bases, approximation theory, X-ray type transforms.

**Applications of interest include:** All kinds of signal and image analysis, processing and reconstruction, both analogue and digital.

**Support:** This conference is supported in part by the National Science Foundation and the Institute for Mathematics and its Applications (IMA) through its Participating Institution (PI) Program. PI members may use IMA/PI funds to support travel of their personnel to this conference.

**Registration:** Conference registration is free, and all interested researchers are invited to attend.

**Information:** For more information, please visit the conference website or contact the local organizer: Myung-Sin Song; [msong@sieu.edu](mailto:msong@sieu.edu); <http://www.sieu.edu/~msong/IMAHA/IMAHA4.html>.

**27-29 Discrete Analysis and Applications (Walsh-Fourier Series, Symbolic Sequences-Complexity and Cryptography),** Department of Informatics, Aristotle University of Thessaloniki, Thessaloniki, Greece. (Apr. 2008, p. 525)

**Description:** The aim of this workshop is to focus on both theoretical-applied results and new potentialities of applications of Discrete Analysis. Special attention is given to Walsh-Fourier analysis, symbolic sequences analysis, complexity, non-linearity and cryptography.

**Information:** <http://web.auth.gr/DiscreteAnal08/>.

**29-October 3 13th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Verified Numerical Computations SCAN'2008,** El Paso, Texas. (Apr. 2008, p. 525)

**Description:** The conference continues the series of international SCAN symposia held under the joint sponsorship of GAMM (International Association of Applied Mathematics and Mechanics) and IMACS (International Association for Mathematics and Computers in Simulation). These symposia have covered the numerical and algorithmic aspects of scientific computing, with a strong emphasis on verification of computed results, as well as on arithmetic, programming, and algorithmic tools for this purpose. Their objectives have been both to propagate current applications and research and to promote a greater understanding and increased awareness of the subject matters. SCAN 2008 strives to become a forum for the researchers of various fields in numerical verification to discuss many existing verification tools and approaches.

**Information:** <http://www.cs.utep.edu/interval-comp/scan08.html>; email: vladik@utep.edu.

**29-October 4 Workshop on Quantum Many-Body Systems, Bose-Einstein Condensation,** Centre de recherches mathématiques, Université de Montréal, Montréal, Québec, Canada. (Jan. 2008, p. 78)

**Description:** The physics of ultracold quantum gases and Bose-Einstein condensation is currently a very active field of both experimental and theoretical research worldwide. Unveiling the fascinating properties of such quantum many-body systems by rigorous mathematical analysis is an important and difficult challenge for mathematical physics. Considerable progress has been made in recent years involving a variety of mathematical techniques, such as spectral theory of partial differential operators with a large number of variables, nonlinear partial differential equations, random walks on lattices and functional integration. Several of the most basic questions are still unanswered, however, and there is much to be learned. The workshop will bring together experts with different backgrounds to review the current status of mathematical results in the field and to discuss new developments where a mathematical approach is potentially fruitful.

**Information:** <http://www.crm.umontreal.ca/Mathphys2008>.

### October 2008

**3-5 II Iberian Mathematical Meeting,** Departamento de Matemáticas, Universidad de Extremadura, 06071 Badajoz, Spain. (May 2008, p. 635)

**Description:** The II Iberian Mathematical Meeting, jointly organized by the Spanish Royal Mathematical Society (<http://www.rsme.es/>), the Portuguese Mathematical Society (<http://www.spm.pt/>), and the Department of Mathematics of the University of Extremadura

(<http://matematicas.unex.es/>), will be held on October 3-5, 2008 in Badajoz (Spain). In this second meeting, the main scientific areas will be: Algebra and Algebraic Methods; Functional Analysis-Statistics and Biometry.

**Information:** <http://imm2.unex.es>; email: [ojedamc@unex.es](mailto:ojedamc@unex.es); tel: +34924289568; fax: +34924272911; email: [imm2@unex.es](mailto:imm2@unex.es).

**4-5 AMS Western Section Meeting,** University of British Columbia and the Pacific Institute of Mathematical Sciences, Vancouver, Canada. (Jun./Jul 2007, p. 784)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

**\* 4-5 Number Theory and Related Topics: Conference in honour of Professor Paulo Ribenboim on the occasion of his 80th birthday,** Laval University, Quebec City, Canada.

**Information:** For further information, contact J.-M. De Koninck ([jmdk@mat.ulaval.ca](mailto:jmdk@mat.ulaval.ca)) or C. Levesque ([c1@mat.ulaval.ca](mailto:c1@mat.ulaval.ca)).

**5-12 International Conference on Differential Equations, Function Spaces, and Approximation Theory: Dedicated to the 100th anniversary of the birthday of S. L. Sobolev,** Sobolev Institute of Mathematics, Novosibirsk, Russia. (Apr. 2008, p. 525)

**Description:** October 6, 2008, will be the 100th anniversary of the birthday of Sergei L'vovich Sobolev (1908-1989), an outstanding mathematician of the 20th century. The Sobolev Institute of Mathematics of the Siberian Branch of the Russian Academy of Sciences jointly with Novosibirsk State University are organizing the International Conference on Differential Equations, Function Spaces, and Approximation Theory dedicated to this significant event.

**Topics:** Ordinary differential equations; partial differential equations; equations of mathematical physics; operator theory; spectral theory; function spaces; embedding theorems; numerical methods; approximation theory; cubature formulas; mathematical modeling.

**Information:** email: [sobolev100@math.nsc.ru](mailto:sobolev100@math.nsc.ru); <http://www.math.nsc.ru/conference/sobolev100/english>.

**6-10 Conference on Arithmetic Algebraic Geometry on the occasion of Michael Rapoport's 60th birthday,** Universitaet Bonn, Bonn, Germany. (Feb. 2008, p. 308)

**Description:** The conference is an activity of the Sonderforschungsbereich Mainz/Bonn/Essen on Periods, Moduli Spaces, and Arithmetic of Algebraic Varieties, and is supported by the Hausdorff Center for Mathematics (Bonn).

**Information:** For further information, please see the conference web site: <http://aag-bonn08.sfb45.de>.

**6-10 Partial differential equations and differential Galois theory: A conference on the occasion of the 80th birthday of Bernard Malgrange,** Centre International de Rencontres Mathématiques (CIRM), Marseille, France. (Aug. 2008, p. 868)

**Description:** The purpose of this meeting is to exchange ideas on algebraic structures of Pde's going back to Elie Cartan, Lie and Galois while celebrating the birthday of one of the most active mathematicians in this field. Main topics will be differential Galois theory, groupoids, Cartan's involutivity, non linear algebraic partial differential equations. The scientific committee is composed of L. Boutet de Monvel, J.P. Ramis, C. Sabbah and the two organizers Y. Laurent and L. Stolovitch.

**Information:** [http://www.cirm.univ-mrs.fr/liste\\_rencontre/Rencontres2008/Renc319/Renc319.html](http://www.cirm.univ-mrs.fr/liste_rencontre/Rencontres2008/Renc319/Renc319.html); email: [stolo@picard.ups-tlse.fr](mailto:stolo@picard.ups-tlse.fr).

**9-11 Algebra, Geometry and Mathematical Physics, Baltic-Nordic Workshop,** University of Tartu, Tartu, Estonia. (Apr. 2008, p. 526)

**Description:** The aim of this conference is to strengthen interaction between algebra, differential geometry and theoretical physics. The scope of conference includes the following topics: noncommutative geometry, operad and group theoretical methods, generalizations of Lie algebras, non-associative systems, quantum groups, Hopf algebras, categorical physics, integrable systems.

**Information:** email: [viktor.abramov@ut.ee](mailto:viktor.abramov@ut.ee); <http://www.agmf.astralgo.eu/tartu08/>.

**10-11 Twenty-Eighth Southeastern Atlantic Regional Conference on Differential Equations (SEARCDE),** University of Arkansas at Little Rock, Little Rock, Arkansas. (Jun./Jul. 2008, p. 739)

**Speakers:** Martin Bohner (Missouri University of Science and Technology), Jerry Bona (University of Illinois at Chicago), Om. P. Agrawal (Southern Illinois University).

**Deadlines:** The deadline for abstracts in contributed session is September 20, 2008. The deadline for conference rates for hotels ranges from September 10, 2008, to September 30, 2008, depending on the hotel. The deadline for application for travel support is September 15, 2008.

**Information:** In addition to the plenary speakers, there will be sessions of twenty minute contributed talks. Pending funding from the National Science Foundation, travel support funds will be available for advanced graduate students and recent Ph.D. recipients (2004 or later). Women and minorities are especially encouraged to participate in this conference and to apply for support. Please visit the conference website at <http://www.ualr.edu/SEARCDE28/> for information on registration, lodging, submission of abstracts, and application for support.

**Information:** email: [erkaufmann@ualr.edu](mailto:erkaufmann@ualr.edu); <http://www.ualr.edu/SEARCDE28/>.

11-12 **AMS Eastern Section Meeting**, Wesleyan University, Middletown, Connecticut. (Jun/Jul 2007, p. 784)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

11-13 **International Conference on Applied Mathematics and Approximation Theory 2008**, University of Memphis, Memphis, Tennessee. (Mar. 2008, p. 413)

**Description:** Honoring 80th Birthday of P. L. Butzer (AMAT08).

**Plenary Speakers:** C. Bardaro, J. Bona, B. Berndt, F. Deutscher, K. Diethelm, S. Dragomir, J. Goldstein, M. Ismail, M. J. Lai, H. Mhaskar, J. Prestin, S. Samko, R. Stens, A. Zayed.

**Organizer:** George Anastassiou.

**Information:** <http://www.mscl.memphis.edu/AMAT2008/>.

\* 13 **Teachers Workshop**, The Marriott Wardman Park Hotel, Washington, District of Columbia.

**Description:** A Workshop for Middle/High School/Community College Mathematics and Science Teachers, 8:30a.m. to 4:00p.m., by the Public Awareness Committee, as part of the Institute for Operations Research and the Management Sciences, Washington General Meeting.

**Purpose:** The workshop provides teachers with applications that can stimulate their students' interest in mathematics. Participants become aware of real-world applications that can be shared with their students. Teachers also receive a generous packet of take-away materials, including work modules and videos.

**Information:** email: [pauvette.bronis@informs.org](mailto:pauvette.bronis@informs.org);

13-16 **Scaling up for modeling transport and flow in porous media**, Centre for Advanced Academic Studies, Dubrovnik, Croatia. (Apr. 2008, p. 525)

**Description:** The aim of the conference is to bring together researchers, scientists, engineers, and students to exchange and share their experiences, new ideas, and research results about upscaling for modeling, analysis and simulation of flow and transport in porous media and application to problems including subsurface hydrology, petroleum exploration, contaminant remediation, carbon sequestration and nuclear waste storage.

**Topics:** Flow and transport in heterogeneous porous media, multiphase flows, multiscale phenomena, scaling and heterogeneity, scaling in porous media, in particular scaling of processes from the microscale to the mesoscale, the use of coarse grid descriptions in modeling multiphase flow phenomena, numerical homogenization, numerical simulation of multiphase flow in heterogeneous porous media, mathematical modeling of multiphase flow in porous media.

**Information:** email: [brahim.amaziane@univ-pau.fr](mailto:brahim.amaziane@univ-pau.fr); <http://web.math.hr/~jurak/Dubrovnik08/>.

13-17 **Applications of Internet MRA to Cyber-Security**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Aug. 2008, p. 868)

**Overview:** Internet-security is a large and complex problem space with profound implications for our society. On one side are defenders who are responsible for creating systems, protocols, policies, and other mechanisms to protect an IT infrastructure from unwanted access. On the other side are attackers who conduct malicious activity in the Internet for recognition, profit, or more sinister reasons. This

workshop will assemble a group of leading researchers and cyber-security professionals to discuss several key challenges for defenders.

**Organizing Committee:** Bill Aiello, Paul Barford, Tal Malkin, Niels Provos, Mike Reiter, Matthew Roughan.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/mraws2/>. Applications received by September 1, 2008 will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

17-19 **AMS Central Section Meeting**, Western Michigan University, Kalamazoo, Michigan. (Jun/Jul 2007, p. 784)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

18-19 **Bachman Memorial Conference**, Polytechnic University, Brooklyn, New York. (Jun/Jul. 2008, p. 739)

**Description:** Memorial Conference.

18-20 **The Second International Workshop on Post-Quantum Cryptography (PQCrypto 2008)**, University of Cincinnati, Cincinnati, Ohio. (May 2008, p. 635)

**Description:** Can we build large quantum computers? What will they do to the cryptographic world, in particular, public key cryptographic world? PQCrypto 2008 is the second of the new series of workshops on Post-Quantum cryptography, which is devoted to the cryptographic research in preparing us for the world of the possible future quantum computers.

**Organizers:** This series of workshop is organized due to the growing interest from academic researchers, industries and governments in this area. PQCrypto 2008 will serve as a forum for researchers to present results and exchange ideas in post-quantum cryptography.

**Information:** email: [ding@math.uc.edu](mailto:ding@math.uc.edu); <http://math.uc.edu/~aac/pqcrypto2008/>.

\* 19-22 **IV Congress of the Mathematicians of Republic of Macedonia**, Struga, Republic of Macedonia.

**Description:** Conference is devoted to all areas of mathematics.

**Information:** <http://smmk.pmf.ukim.edu.mk>; email: [nikita@iunona.pmf.ukim.edu.mk](mailto:nikita@iunona.pmf.ukim.edu.mk).

20-22 **International Conference on Analysis and Its Applications**, Aligarh Muslim University, Aligarh, India. (May 2008, p. 635)

**Information:** <http://www.amudirectory.com/ICAA08>. For update informations: <http://ICAA-08.tripod.com>

20-22 **10th International Conference on Information and Communications Security (ICICS'08)**, Birmingham, United Kingdom. (Aug. 2008, p. 868)

**Description:** The event, which started in 1997, brings together individuals involved in multiple disciplines of Information and Communications Security, in order to foster the exchange of ideas.

**Organizers:** ICICS 2008 will be organized by the School of Computer Science, University of Birmingham, in co-operation with HP Laboratories (Bristol, UK), the UK Engineering and Physical Sciences Research Council (EPSRC), and the International Communications and Information Security Association (ICISA).

**Information:** email: [a.j.brown@cs.bham.ac.uk](mailto:a.j.brown@cs.bham.ac.uk); <http://events.cs.bham.ac.uk/icics08/>.

22-23 **DIMACS Workshop on Nanotechnology and Biology**, DIMACS Center, CoRE Building, Rutgers University, Piscataway, New Jersey. (Aug. 2008, p. 868)

**Short Description:** Recent years have witnessed the development of fabrication and characterization technologies to manipulate and analyze matter at the nanoscale. These technologies have applications in myriad areas, including in biology, where nature has evolved its own nanotechnologies that inspire many contemporary engineered nanodevices. As first generation nanotechnologies have provided proofs of principle for many exciting applications, the need for better understanding of biology and physics at the nanoscale through modeling and computation has become apparent. This workshop will explore the foundations of nanoscale assembly in natural and engineered systems. Natural systems may include viruses, organelles, or multi-molecular machines as they self-assemble and take shape in processes that might include, for example, development, adaptation, or cancer. Engineered systems under development

include smart drug delivery systems, DNA-based fabrication, layer-by-layer assembly and electrospun nanofibers. The ability to model and understand the natural systems will accelerate the development of engineered nanosystems. While efforts to attain better understanding through modeling and computation are of primary interest, the integration of modeling and experiments is quite relevant and necessary to advance our understanding of self-assembly at the nanoscale. Because this field is so interdisciplinary, we envision an audience that includes biologists, chemists, physicists, computer scientists and engineers.

**Organizers:** Stan Dunn, Rutgers University; email: [smd@occlusal.rutgers.edu](mailto:smd@occlusal.rutgers.edu); Yannis Androulakis, Rutgers University, email: [yanis@rci.rutgers.edu](mailto:yanis@rci.rutgers.edu); Charlie Roth, Rutgers University, email: [cmroth@rci.rutgers.edu](mailto:cmroth@rci.rutgers.edu).

**Local Arrangements:** Workshop Coordinator, DIMACS Center, email: [workshop@dimacs.rutgers.edu](mailto:workshop@dimacs.rutgers.edu); 732-445-5928; <http://dimacs.rutgers.edu/Workshops/Nanotechnology/index.html>.

**22-23 The Second Conference on Mathematical Sciences (CMS'2008),** Department of Mathematics, Faculty of Science and Information Technology, Zarqa Private University, Zarqa 13110, Jordan. (Apr. 2008, p. 526)

**Scope:** Pure Mathematics, Applied Mathematics and Statistics and its Techniques.

**Languages:** Arabic or English.

**Deadlines:** For Abstract Submission: March 30th, 2008. Full Paper Submission: May 30th, 2008. Notification of Acceptance: July 31st, 2008.

**Information:** There is no registration fee. <http://www.zpu.edu.jo/cms/cms.htm>.

**22-24 International Conference in Modeling Health Advances 2008,** San Francisco, California. (Apr. 2008, p. 526)

**Description:** To tackle these illnesses, the cooperation of modelers, mathematicians, statisticians, computer scientists, and others, and of researchers from the medical community is absolutely essential. Modeling is important because it gives important insight into the method of treatment. In the case of HIV/AIDS, for example, mathematical modeling indicated that a combination of both protease inhibitors and reverse transcriptase inhibitors would be far more effective than any one of these two drugs. The purpose of this conference is to bring all the people working in the area of epidemiology under one roof and encourage mutual interaction.

**Information:** <http://www.iaeng.org/WCECS2008/ICMHA2008.html>.

**22-24 Twenty-Second Midwest Conference on Combinatorics, Cryptography, and Computing (MCCCC),** University of Nevada, Las Vegas (UNLV), Las Vegas, Nevada. (Aug. 2008, p.869)

**Description:** The title of the conference is fairly descriptive of the subjects discussed.

**Invited speakers:** Gary Chartrand, Western Michigan University; Ronald Graham, University of California, San Diego; Spyros Magliveras, Florida Atlantic University; Doug Stinson, University of Waterloo, Canada; and Catherine Yan, Texas A&M University.

**Talks:** Twenty-minute contributed talks are invited.

**Information:** <http://www.mcccc.info>; email: [ebrahim.salehi@unlv.edu](mailto:ebrahim.salehi@unlv.edu).

**23-25 Second Workshop on Mathematical Cryptology (WMC 2008),** University of Cantabria, Santander, Spain. (Jun./Jul./ 2008, p. 739)

**Description:** There is growing interest among mathematicians and cryptographers in cryptosystems based on algebraic problems and in related cryptanalysis. The Workshop on Mathematical Cryptology (WMC 2008) is the second of a series of meetings where the main purpose is to learn and discuss recent developments and emerging open problems derived from Cryptology and having mathematical interest. Topics for WMC 2008 include, but are not limited to: Primality and integer factorization. Secure encryption schemes based on group theory. Multivariate polynomial cryptosystems. Gröbner Bases. Elliptic and hyperelliptic curve cryptosystems. Computational complexity. Lattice-based cryptosystems. Computational number theory in Cryptology. Pseudorandom sequence generators for stream ciphers. Public key cryptosystem based on algebraic coding theory. Quantum Cryptography. Information security with mathematical emphasis.

The workshop will consist of invited lectures, short contributed talks and posters.

**Information:** <http://grupos.unican.es/amac/wmc-2008>; email: [jaime.gutierrez@unican.es](mailto:jaime.gutierrez@unican.es).

**24-26 AMS Southeastern Section Meeting,** University of Alabama, Huntsville, Alabama. (Jun/Jul 2007, p. 784)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

\* **25 2008 Harvey Mudd Mathematics Conference: Nonlinear Functional Analysis,** Harvey Mudd College, Claremont, California

**Description:** Five lectures, accessible to upper division undergraduates in mathematics, on the state of the art in Nonlinear Functional Analysis will presented by: Peter Bates (Mathematical excursions inspired by material science), Monica Clapp (Classical and recent results on elliptic problems with critical nonlinearity), Yanyan Li (A Liouville theorem and a Harnack inequality), Ratnasingham Shivaji (Population dynamics with diffusion), and Zhi-Qiang Wang (A twisting condition, resonances, and periodic solution to Hamiltonian systems).

**Information:** <http://www.math.hmc.edu/conferences/2008/nonlinear>; email: [castro@math.hmc.edu](mailto:castro@math.hmc.edu).

**27-29 DIMACS Workshop on Models/Methodological Problems of Botanical Epidemiology,** DIMACS Center, CoRE Building, Rutgers University, Piscataway, New Jersey. (Aug. 2008, p. 869)

**Description:** Presented under the auspices of the Special Focus on Computational and Mathematical Epidemiology. This workshop will gather experts from the botanical epidemiology and genetics communities together with mathematicians interested in modeling using differential equations, discrete systems, and stochastic processes to investigate modeling and methodological problems of spread of disease in plants. The workshop will investigate modeling approaches including ode, pde, individual-based models including percolation, random graph, stochastic, spatially-explicit and spatially-implicit (moment closure and pairwise approximation) and metapopulation models. We will also discuss data and model testing issues, such as parameter estimation for spatially-explicit and spatially-implicit models with and without unobserved compartments; data collection for model testing and parameter estimation from lattice crops, row crops, continuum and mosaics; optimization of experimental design for parameter estimation and model discrimination; and analysis of microcosm data to distinguish demographic and environmental stochasticity.

**Organizers:** Chris Gilligan, Cambridge; [cag1@cus.cam.ac.uk](mailto:cag1@cus.cam.ac.uk).

**Local Arrangements:** Workshop Coordinator, DIMACS Center, [workshop@dimacs.rutgers.edu](mailto:workshop@dimacs.rutgers.edu), 732-445-5928.

**Information:** <http://dimacs.rutgers.edu/Workshops/Botanical/>.

**27-31 Elliptic and Hyperbolic Equations on Singular Spaces,** Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul./ 2008, p. 739)

**Description:** This workshop will focus on the study of PDEs on singular spaces and their connections with the spaces' underlying geometry. Topics will be cohomology theory, index theory, and spectral geometry on the elliptic side; and wave propagation and associated inverse problems on the hyperbolic. A unifying theme will be asymptotic expansions of solutions in various regimes, as for instance high frequency eigenfunction expansions, which draws techniques from hyperbolic equations into the elliptic theory.

**Organizers:** Gilles Carron, Eugenie Hunsicker, Richard Melrose, Michael Taylor, Andras Vasy and Jared Wunsch.

**Information:** email: [jz@msri.org](mailto:jz@msri.org); [http://www.msri.org/calendar/workshops/WorkshopInfo/444/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/444/show_workshop).

**28-30 The Second International Conference on Mathematics and Natural Sciences (ICMNS) 2008,** Institut Teknologi Bandung, Bandung, Indonesia. (Jun./Jul./ 2008, p. 739)

**Description:** The International Conference on Mathematics and Natural Sciences (ICMNS) 2008 aims to promote interdisciplinary research in science and technology, to promote the development of science and their roles in the development of science-based technology, and to disseminate research in various field of mathematics and natural sciences. The scope of this conference is, but not limited to, in the fields of Health sciences, Environmental sciences, Biosciences and biotechnology, Physical sciences, Material sciences, Mathematics,

Computer science and computational science, Instrumentation, and Earth and space sciences.

**Information:** email: rino@math.itb.ac.id; <http://www.fmiipa.itb.ac.id/icmns2008>.

\* 29-31 **The 2nd International Conference: E-Medical Systems E-MEDISYS 2008**, Sfax, Tunisia.

**Information:** You can find details in: <http://www.setit.rnu.tn/E-Medisys>. The paper submission can be done on-line at: <http://www.setit.rnu.tn/E-Medisys/submission/>.

## November 2008

3-4 **International Workshop on New Trends in Science and Technology**, Cankaya University, Ankara, Turkey. (Mar. 2008, p. 413)

**Description:** This workshop will provide a place to exchange recent developments and progresses on nanoscience and nanotechnology, nonlinear science and complexity in mathematics, physics and engineering as well as on symmetries, supersymmetries and integrable systems. The applications of the nanotechnology in the renewable energy production and storage as well as the nanostructured materials for nanoelectronics, energy and sensing will be discussed. The experimental details of detection of cancer cell, the development of censors and the multi purpose thin films are going to be presented in the perspectives of the nanoscience point of view.

**Purpose:** The purpose of the workshop is to bring together scientists whose common interests are the nanoscience, nonlinear science and complexity, the symmetries, supersymmetries and integrability.

**Information:** <http://ntst08.cankaya.edu.tr/index.html>.

3-7 **Beyond Internet MRA: Networks of Networks**, Institute for Pure and Applied Mathematics (IPAM), UCLA Los Angeles, California. (Aug. 2008, p. 869)

**Overview:** This workshop will bring together domain experts from the fields of engineering, biology, mathematics, and critical infrastructure protection to develop the foundation of a nascent theory in support of the networks of networks concept. In particular, we will use the Internet as a case study to illustrate how early verbal observations and arguments with deep engineering insight have led via an interplay with mathematics and measurements to increasingly formal statements and powerful theoretical developments.

**Organizing Committee:** Walter Willinger (chair), David Alderson, John Doyle, Ramesh Govindan, Craig Partridge.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/mraws3/>. Applications received by September 22, 2008, will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

3-7 **Discrete Rigidity Phenomena in Additive Combinatorics**, Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul. 2008, p. 739)

**Organizers:** Ben Green, Bryna Kra, Emmanuel Lesigne, Anthony Quas, and Mate Wierdl.

**Description:** This workshop will explore environments in which rigid structural information can be deduced from rather soft combinatorial hypotheses. There will be a particular focus on finite and quantitative questions, although an important aspect of the workshop will be to explore connections with corresponding infinite and qualitative questions in ergodic theory, where as a general rule more is known. Topics include (but are not limited to) the following: 1. Freiman's theorem concerning the structure of sets with small doubling; 2. The Gowers Inverse Conjecture, concerning the structure of sets containing many parallelepipeds; 3. Finite versions of Ratner's theorem, concerning the structure of finite unipotent orbits in dynamical systems.

**Information:** [http://www.msri.org/calendar/workshops/WorkshopInfo/440/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/440/show_workshop).

\* 3-7 **Hitting, returning and matching in dynamical systems, information theory and mathematical biology**, EURANDOM, Eindhoven, The Netherlands.

**Description:** This workshop aims at gathering people from various areas dealing with probabilistic aspects of the occurrence and the repetition of rare events. The following themes will be covered: Entropy, hitting and return times in ergodic theory; Sequence alignment and occurrence of words in biological sequences; Occurrence and matching

of patterns in stochastic processes and random fields; Pattern matching and data compression in information theory. There will be three minicourses (ergodic theory, information theory and mathematical biology) and around 15 one hour lectures.

**Information:** <http://www.eurandom.nl>; email: redig@math.leidenuniv.nl.

3-14 **Structural Probability**, Erwin Schrödinger International Institute for Mathematical Physics (ESI), Vienna, Austria. (Jun./Jul./ 2008, p. 739)

**Description:** The workshop is a continuation of a series of earlier programmes at ESI: special semester "Random Walks" (2001), RDSES/ESI Educational Workshop on Discrete Probability (2006), workshop "Algebraic, geometric and probabilistic aspects of amenability" (2007). We plan to mostly concentrate on the following 3 areas of discrete structural probability: random walks, percolation on groups and graphs, random groups. Limited financial support is available.

**Information:** Applications (deadline: August 31) and further information: Visit <http://aesl.esi.ac.at>; email: v.kaimanovich@jacobs-university.de.

4-6 **Multi-Scale Phenomena In Biology**, OIST Seaside House, Okinawa, Japan. (Aug. 2008, p. 869)

**Description:** A multitude of biological phenomena are described at multiple levels. What are the commonalities and differences between neuroscience, evolutionary biology, molecular biology and ecology in this regard? How can mathematics help in describing these phenomena?

**Confirmed Speakers:** Bjorn Engquist; The University of Texas at Austin; Hans Othmer; University of Minnesota; Eric Vanden-Eijnden; Courant Institute; Keiko Takahashi, Earth Simulator Center; Dan Rockmore, Dartmouth College; Terry Sejnowski, Salk Institute; Diego Rasskin-Gutman, Konrad Lorenz Institute for Evolution and Cognition Research; Tony Bell, Redwood Center for Theoretical Neuroscience; Robert Warner, University of California; Walter R. Tschauder, Florida State University; Klaus M. Stiefel, OIST.

**Support:** Travel scholarships are available. We encourage applications by graduate students and postdocs whose research interests touch these subjects. To apply please contact Ryoko Uchida or Shino Fibbs ([multi@oist.jp](mailto:multi@oist.jp)).

**Information:** <http://www.ipr.oist.jp/tenu/multi.html>.

5-7 **Fractional Differentiation and its Applications**, Ankara, Turkey. (Mar. 2008, p. 413)

**Description:** The scope of the workshop is to present the state of the art on fractional systems, both on theoretical and application aspects. The growing research and development on fractional calculus in the areas of mathematics, physics and engineering, both from university and industry, motivates this international event gathering and unifying the whole community. Main Areas: Representation tools; modeling vibration insulation; analysis tools; identification filtering synthesis tools; observation pattern recognition simulation tools; control edge detection.

**Deadlines:** For submission of proposals: April 15, 2008. Notification for acceptance of proposals: June 6, 2008.

**Information:** <http://www.cankaya.edu.tr/fda08/>.

7-9 **Applications of Geometry to Topology and Physics: A conference in honor of the 70th birthday of Herman Gluck**, Rutgers-Newark, Newark, New Jersey. (Aug. 2008, p. 869)

**Description:** This conference, in honor of the 70th birthday of Herman Gluck, will address two topics in the application of geometry to other fields: (1) calibrated geometry and its applications to physics; (2) the application of geometry to knot theory, including topics such as Freedman's Möbius energy and Nabutovsky's ropelength.

**Speakers tentatively include:** Thomas Banchoff, Jason Cantarella, Robert Connelly, Dennis DeTurck, David Gabai, Weiqing Gu, Blaine Lawson, David Singer, Dennis Sullivan, and Gang Tian.

**Support:** Some financial support is available.

**Information:** email: parslerj@wfu.edu; <http://www.math.uga.edu/gluckfest>.

10-12 **International Conference on Recent Trends in Mathematical Sciences**, Manama, Kingdom of Bahrain. (May 2008, p. 635)

**Description:** The aim of the conference is to bring together the teachers, researchers and scientists working in the field of pure mathemat-

ics, applied mathematics, statistics and operation areas including operation research.

**Organizer:** The International Department of Mathematics, College of Science, University of Bahrain.

**Information:** email: [mabdelaty@sci.uob.bh](mailto:mabdelaty@sci.uob.bh); <http://www.icrms.uob.edu.bh/page-1.htm>.

**11-14 2nd International Conference of Young Mathematicians on Differential Equations and Applications dedicated to Ya. B. Lopatinskii**, Department of Differential Equations, Donetsk National University, Universitetskaya, 24, Donetsk, 83055, Ukraine. (Aug. 2008, p. 869)

**Topics:** General theory of boundary value problems for PDEs, Lopatinskii condition. Investigations of boundary value problems for classes of PDEs. Nonlinear PDEs, free boundary problems. Qualitative theory of PDEs. Differential and integral operators, operator methods, difference equations. Algebraic, geometrical and topological methods in the theory of ODEs and PDEs. Ordinary DEs, dynamical systems, optimal control. Mathematical physics and other applications of DEs in natural-science, technical and social studies.

**Aim:** Bringing together young and some venerable researchers in above areas in order to get acquainted, to communicate, and to understand what directions are actual and perspective. The word "young" in the title means a general direction of the conference but doesn't mean any age limitations for the participants.

**Information:** <http://www.donnu.edu.ua/en/index.asp> (then click button from conference announcement left-side column); email: [icde2008@matfak.dongu.donetsk.ua](mailto:icde2008@matfak.dongu.donetsk.ua); tel: +38(062)3054628 +38(062)3029260; fax: +38(062)3054628.

**13-16 Third International Conference on Differential Algebra and Related Topics**, Rutgers University at Newark, Newark, New Jersey. (Jun./Jul./ 2008, p. 740)

**Description:** The Third International Conference on Differential Algebra and Related Topics (DART-III) is the third in a series of conferences after DART in 2000 and DART-II in 2007, on the subject of differential algebra and related topics. There will be sessions for contributed talks and for posters. Limited funding is available.

**Information:** email: [liguo@rutgers.edu](mailto:liguo@rutgers.edu); <http://andromeda.rutgers.edu/~liguo/DARTIII/diffalg.html>;

**17-21 Analytic theory of  $GL(3)$  automorphic forms and applications**, American Institute of Mathematics, Palo Alto, California. (Jun./Jul./ 2008, p. 740)

**Description:** This workshop, sponsored by AIM and the NSF, has the goal of providing a description of  $GL_3$  automorphic forms and their  $L$ -functions amenable to analytic number theorists and to explain the various approaches available to perform harmonic analysis on these spaces. A second objective will be to discuss the extension of some of the important tools existing in the  $GL_2$  theory to the  $GL_3$  context: a typical example is Kuznetsov's formula. A third objective will be to list some important problems known for  $GL_2$  and to identify the main obstructions to the extension of these to  $GL_3$ ; typical problems are non-vanishing problems for central values of L-functions and subconvexity problem. To achieve these goals we plan to bring together analytic number theorists and specialists from the theory of automorphic forms and related fields who are interested in analytic questions.

**Information:** email: [farmer@aimath.org](mailto:farmer@aimath.org); <http://aimath.org/ARCC/workshops/g13.html>.

**17-21 New Mathematical Frontiers in Network Multi-Resolution Analysis**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Aug. 2008, p. 740)

**Description:** This workshop will bring together researchers in mathematics, computer science, electrical engineering, and statistics to develop new mathematical foundations in network-centric multi-resolution analysis and to explore and define new mathematical or algorithmic techniques in network MRA. These techniques include methods of analysis, representation, and synthesis of large networks, as well as visualization, analysis, and representation of network measurements.

**Organizing Committee:** Robert Calderbank, Anna Gilbert, Peter Jones, Steven Low, Matthew Roughan, Denis Zorin.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/mraws4/>. Appli-

cations received by October 6, 2008, will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

### December 2008

**1-4 SGT-in-Rio: Workshop on Spectral Graph theory with applications on Computer Science, Combinatorial Optimization and Chemistry**, Military Institute of Engineering, Rio de Janeiro, Brazil. (May 2008, p. 635)

**Description:** The theory of graph spectra is now a well established field of research in Mathematics and in several applied sciences (e.g. chemistry, computer science and operational research), and many results have been published over the last few decades.

**Goals:** The main goals of the workshop are to bring together the leading researchers on graph spectra and related topics, to establish the state of the art, and to discuss recent achievements and challenges.

**Topics:** The topics include applications of graph spectra to computer science, combinatorial optimization, chemistry and other branches of science.

**Organizer:** In recognition of the strong developments in the subject, this workshop has been organized as a forum for the many researchers around the world.

**Information:** email: [nair@pep.ufrj.br](mailto:nair@pep.ufrj.br); <http://www.sgt.pep.ufrj.br/~tegrio>.

**1-5 Nonnegative Matrix Theory: Generalizations and Applications**, American Institute of Mathematics, Palo Alto, California. (Jun./Jul./ 2008, p. 740)

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to the study of nonnegative matrices and their generalizations. The goal is to make progress both in specific areas and on the global themes that unify this subject.

**Information:** email: [farmer@aimath.org](mailto:farmer@aimath.org); <http://aimath.org/ARCC/workshops/nonnegmatrix.html>.

**5-8 International Conference on Partial Differential Equations and Applications in honour of Professor Philippe G. Ciarlet's 70th birthday**, City University of Hong Kong, Kowloon, Hong Kong. (Aug. 2008, p. 870)

**Description:** The objectives of the Conference are to review and discuss some of the latest trends in the field of partial differential equations and applications. The conference is dedicated to Professor Philippe G. Ciarlet, professor emeritus, Université Pierre et Marie Curie, and chair professor, City University of Hong Kong, on the occasion of his 70th birthday, in recognition of his mathematical achievements and of his dedication to the mathematical community.

**Information:** <http://www6.cityu.edu.hk/rcms/ICPDEA2008/>; email: [mclbj@cityu.edu.hk](mailto:mclbj@cityu.edu.hk).

**8-12 FEMTEC 2008 (Finite Element Methods in Engineering and Science)**, University of Texas at El Paso, Texas. (Jun./Jul./ 2008, p. 740)

**Description:** The goal of FEMTEC 2008 is to advance the frontiers in performance and reliability of finite element methods, and broaden their interdisciplinary applications in engineering and sciences.

**Topics:** Include multi-scale and multi-physics problems, model adaptivity, adaptivity and error control for stationary and nonstationary problems, higher-order methods, meshfree, generalized, and enriched methods, reliability of FEM models, sensitivity analysis and uncertainty quantification, and advanced engineering and scientific applications. FEMTEC has a single-session format with limited number of participants.

**Information:** email: [solin@utep.edu](mailto:solin@utep.edu); [http://servac.math.utep.edu/femtec\\_2008/home](http://servac.math.utep.edu/femtec_2008/home).

**8-12 Small Ball Inequalities in Analysis, Probability and Irregularities of Distribution**, American Institute of Mathematics, Palo Alto, California. (May 2008, p. 635)

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to a theme common to irregularity of distributions, approximation theory, probability theory and harmonic analysis. In each of these subjects, there are outstanding conjectures in dimensions three and higher that stipulate that functions which satisfy certain conditions on its mixed derivative are necessarily large in sup norm. This workshop will survey these conjectures, seeking both commonalities

and differences, describe recent advances, and discuss proof techniques and strategies.

**Information:** <http://aimath.org/ARCC/workshops/smallballineq.html>.

**8-22 Algebraic Topology, Braids and Mapping Class Groups,** Institute for Mathematical Sciences, National University of Singapore, Singapore. (Jun./Jul./ 2008, p. 740)

**Description:** The recent progress in topology has shed light on many deep connections between algebraic topology and the theory of braids. A successful program on Braids was organized in May-July, 2007. This present program is going to explore further the connections between algebraic topology and braids, and to establish further research collaborations in algebraic topology in Asia. The present program will consist of a conference on algebraic topology, and a workshop on special topics. 1. The Second East Asia Conference on Algebraic Topology, December 8-12, 2008. 2. Workshop on Homotopy, Braids and Mapping Class Groups, December 13-22, 2008.

**International Organizers for conference 1:** Haibao Duan (China), Jianzhong Pan (China), Akira Kono (Japan), Norio Iwase (Japan), Yongjin Song (Korea).

**Information:** email: [imscc@nus.edu.sg](mailto:imscc@nus.edu.sg); <http://www.ims.nus.edu.sg/Programs/braids08/index.htm>.

**10-14 Ninth Pacific Rim Geometry Conference,** National Taiwan University, Taipei, Taiwan. (Jun./Jul./ 2008, p. 740)

**Description:** The Pacific Rim Geometry Conference has been held every two years since 1992, with previous meetings occurring at Murramarang, Australia (2006), Shanghai (2004), Hong Kong (2002), Sendai (2000), Vancouver (1998), Seoul (1996), Singapore (1994), and Hong Kong (1992). The main purpose of the conference is to bring together researchers from Pacific Rim countries that are interested in areas related to geometry. The conference serves as a means to disseminate the most recent research developments and to cultivate working relationships among its participants.

**Organizers:** Robert Bartnik (Monash University, Australia), Yng-Ing Lee (National Taiwan University), Chang-Shou Lin (National Taiwan University), Richard Schoen (Stanford University, USA), Mao-Pei Tsui (University of Toledo, USA), Mu-Tao Wang (Columbia University, USA).

**Information:** email: [mao-pei.tsui@utoledo.edu](mailto:mao-pei.tsui@utoledo.edu); <http://www.math.ntu.edu.tw/~prg2008/>.

**13-17 The 48th American Society for Cell Biology Annual Meeting,** The Moscone Center, San Francisco, California. (May 2008, p. 636)

**Deadlines:** Abstract Deadline (to be considered for minisymposia presentations): August 7, 2008. Abstract Deadline (to be considered for poster presentations only): September 3, 2008. Late Abstract Deadline (to be considered for poster presentations only): October 16, 2008.

**Information:** For more information, visit: <http://ascb.org/meetings/>.

**15-19 4th International Conference on Combinatorial Mathematics and Combinatorial Computing (4ICC),** University of Auckland, Auckland, New Zealand. (Jun./Jul./ 2008, p. 740)

**Description:** The ICC is held every 10 years. This year it includes the annual ACCMCC meeting of the Combinatorial Society of Australasia, and the New Zealand leg of the map conferences held annually in Slovenia/Slovakia/Arizona-Portugal/New Zealand. Note: this event is held during summer in New Zealand.

**Invited speakers (accepted unless stated):** Alexander Barvinok, University of Michigan; Peter Cameron, Queen Mary College, London; Jan de Gier, University of Melbourne; Jesus de Loera, University of California-Davis; Robin Pemantle, University of Pennsylvania (tentative); Cheryl Praeger, University of Western Australia; Chris Rodger, Auburn University; Paul Seymour, Princeton University (tentative); Mike Steel, University of Canterbury; Carsten Thomassen, Technical University of Denmark (tentative); Nick Wormald, University of Waterloo; Doron Zeilberger, Rutgers University.

**Information:** email: [mcw@cs.auckland.ac.nz](mailto:mcw@cs.auckland.ac.nz); <http://www.cs.auckland.ac.nz/research/groups/theory/4ICC/>.

**15-19 The 13th Asian Technology Conference in Mathematics (ATCM 2008),** Suan Sunandha Rajabhat University, Bangkok, Thailand. (Mar. 2008, p. 413)

**Description:** The ATCM 2008 is an international conference held in Thailand that will continue addressing technology-based issues in all Mathematical Sciences. Thanks to advanced technological tools such as computer algebra systems CAS), interactive and dynamic geometry, and hand-held devices, the effectiveness of our teaching and learning, and the horizon of our research in mathematics and its applications continue to grow rapidly.

**Aim:** To provide a forum for educators, researchers, teachers and experts in exchanging information regarding enhancing technology to enrich mathematics learning, teaching and research at all levels.

**Language:** English is the official language of the conference. There will be over 300 participants coming from over 26 countries around the world.

**Deadline:** Submitting abstracts: June 15, 2008. Submitting full papers: July 30, 2008.

**Information:** <http://atcm.mathandtech.org>.

**17-21 First Joint International Meeting with the Shanghai Mathematical Society,** Shanghai, China. (Jun./Jul. 2007, p. 784)

**Information:** <http://www.ams.org/amsmtgs/internmtgs.html>.

**18-20 Pre-ICM International Convention on Mathematical Sciences,** University of Delhi, Delhi, India. (Jun./Jul. 2008, p. 741)

**Description:** On the initiative of Department of Science and Technology (DST), Government of India, an activity cell to organize "India Mathematics Year 2009 (IMY2009) as Pre-ICM activity" has been set up in the Department of Mathematics, University of Delhi. To launch IMY-2009, we are organizing: Pre-ICM International Convention on Mathematical Sciences (ICMS2008) at the Department of Mathematics, University of Delhi during December 18-20, 2008. The academic programme of the convention will include activities like workshops, symposia, brain-storming sessions, panel discussions, group discussions, seminars, poster sessions, tutorials, compact sessions etc. on various topics of mathematical sciences including interdisciplinary aspects.

**Information:** Write to Prof. B. K. Dass, [icmsdu@gmail.com](mailto:icmsdu@gmail.com) or <http://icms2008.du.ac.in>.

**19-21 Centenary Celebration of Calcutta Mathematical Society: International Symposium on Recent Advances in Mathematics and its Applications: (ISRAMA 2008),** Calcutta Mathematical Society at AE-374, Sector-1, Salt Lake City Kolkata (Calcutta) 700064, India. (Aug. 2008, p. 870)

**Description:** The Calcutta Mathematical Society is organizing an International Symposium on Recent Advances in Mathematics and its Applications (ISRAMA 2008) on occasion of its Centenary.

**Topics:** Algebra, discrete mathematics & theoretical computer science analysis & topology and their applications; geometry and its applications; dynamical systems; chaos and fractals continuum mechanics; plasma physics; control theory and optimization; theory bio-mechanics and bioinformatics; applications of mathematics to environmental problems; history and philosophy of physical science; quantum information; theory relativity and its applications.

**Deadline:** Last Date: August 31, 2008, for receipt of full paper along with an abstract and registration.

**Information:** email: [cms.centenary@gmail.com](mailto:cms.centenary@gmail.com); <http://www.calmath.org/forthcoming.html>.

**22-23 Mathematical Sciences for Advancement of Science and Technology (MSAST 2008),** Institute for Mathematics, Bioinformatics, Information Technology and Computer Science (IMBIC), Salt Lake City, Kolkata (Calcutta), India. (Aug. 2008, p. 870)

**Call for Papers:** Authors are requested to submit the full paper related to the theme of the Conference: "Mathematical Sciences for Advancement of Science and Technology" with an abstract indicating the motivation of the problem, its method of solution and important results to the Secretary of IMBIC. All the papers are to be screened for presentation in the Conference. All deliberations of the Symposium shall take place in English. All correspondences in respect of the Conference are to be addressed to Dr Avishek Adhikari, Secretary, IMBIC, AE 317, Salt Lake City, Sector II, Kolkata 700091, West Bengal, India; email: E-mail [avishhek.adh@gmail.com](mailto:avishhek.adh@gmail.com).

**Information:** <http://www.imbic.org/forthcoming.html>.

23–26 **International Conference on Computer Analysis of Science and Technology problems**, Tajik State National University (TSNU), Dushanbe, Tajikistan. (Mar. 2008, p. 413)

**Description:** The Second International Conference on Computer Analysis and its applications in Information Technology will be held on the beautiful campus of TSNU in December 2008 over four days.

**Topics:** Computer analysis of economical and ecological systems; Computer analysis of singular problems of science and technology; Theoretical problems of Computer analysis; Problems of Computer and Information Security.

**Scientific Committee:** Mahmadyusuf Yunusi, Dmitrii Logofet, Zafar Usmanov, Zahra Afsharnejat, Aleksandr Uspensky, Tasleem Mustafa.

**Deadlines:** Submission of one full page abstract: September 1, 2008. Notification of Acceptance of Abstract: October 1, 2008. Registration: September 1, 2008. Abstracts could be written in: WORD. Not to exceed one page, and can be sent by email to: [icca2008@mail.tj](mailto:icca2008@mail.tj).

**Information:** <http://www.yunusi.com/conference>; email: [myu@yunusi.com](mailto:myu@yunusi.com).

### January 2009

\* Jan.–Mar. **I-Math Winter School DocCourse Combinatorics and Geometry 2009: Discrete and Computational Geometry**, Centre de Recerca Matematica, Bellaterra, Spain.

**Co-ordinators:** Marc Noy, Ferran Hurtado and Julian Pfeifle (Universitat Politècnica de Catalunya).

**Intensive Courses:** Jiri Matousek (Charles University, Prague) "Metric embeddings"; Günter Ziegler (Technical University, Berlin) "Convex Polytopes: Examples and Conjectures"; Thematic Seminars: Oswin Aichholzer, Imre Bárány, Stefan Felsner, Sergey Fomin, Peter Gruber, Martin Henk, Gil Kalai, and Michel Pocchiola.

**Information:** <http://www.crm.cat/DOCCOURSE2009>.

4–6 **ACM-SIAM Symposium on Discrete Algorithms (SODA09)**, New York Marriott Downtown, New York, New York. (Aug. 2008, p. 870)

**Description:** This symposium focuses on research topics related to efficient algorithms and data structures for discrete problems. In addition to the design of such methods and structures, the scope also includes their use, performance analysis, and the mathematical problems related to their development or limitations. Performance analyses may be analytical or experimental and may address worst-case or expected-case performance. Studies can be theoretical or based on data sets that have arisen in practice and may address methodological issues involved in performance analysis.

**Information:** <http://www.siam.org/meetings/da09/>; email: [wilden@siam.org](mailto:wilden@siam.org).

5–8 **Joint Mathematics Meetings**, Washington, District of Columbia. (Aug. 2008, p. 870)

**Information:** <http://www.ams.org/amsmtgs/national.html>.

4–9 **Workshop on Random Functions and Random Surfaces and Interfaces**, Centre de recherches mathématiques, Université de Montréal, Montréal, Québec, Canada. (Jan. 2008, p. 78)

**Description:** This workshop is devoted to random fields such as Gaussian random fields  $ai(w)ji(x)$  where  $\{ji\}$  is an orthonormal basis for a Hilbert space  $H$  and where the coefficients  $ai(w)$  are independent (real or complex) Gaussian random variables of mean zero and variance one. Motivated by such physical models as (i) the large scale matter distribution in the universe or (ii) landscape statistics in string theory or (iii) the random wave model in quantum chaos or (iv) limit shapes of phase interfaces in statistical mechanics, the workshop will largely focus on the zeros or critical points of random fields.

**Information:** <http://www.crm.umontreal.ca/Mathphys2008>.

5–8 **Joint Mathematics Meetings**, Washington, D.C. (May 2008, p. 636)

**Information:** <http://www.ams.org/amsmtgs/national.html>.

5–16 **Group Theory, Combinatorics and Computation**, The University of Western Australia, Perth, Australia. (May 2008, p. 636)

**Description:** Special Theme Program on group theory, combinatorics and computation at the University of Western Australia.

**Invited Speakers:** Rosemary Bailey, Peter Cameron, Marston Conder, Marcel Herzog, Kathy Horadam, Sasha Ivanov, William Kantor, Cai Heng Li, Charles Leedham-Green, Martin Liebeck, Brendan McKay,

Peter Neumann, Eamonn O'Brien, Tim Penttila, Jan Saxl, Akos Seress.

**Topics:** Week 1: An international conference in honour of Professor Praeger's 60th birthday. It will contain invited 1 hour talks and short contributed talks by participants. Week 2: An informal week of short courses, workshops and problem sessions, especially beneficial to early career researchers and postgraduate students.

**Information:** <http://sponsored.uwa.edu.au/gcc09/welcome>; email: [alice@maths.uwa.edu.au](mailto:alice@maths.uwa.edu.au).

\* 8–10 **2009 International Joint Conference**, Singapore.

**Description:** This international conference is jointed by the 3rd Conference on MDIS (<http://mdis2009.org/>), the 3rd Conference on e-CASE (Commerce, Administration, Society, Education) (<http://e-case.org/>), and the 1st Conference on e-Technology (<http://www.e-case.org/etech2009/>). Notably, competitive papers will be selected from this international conference and have opportunities to be awarded as Best Papers with US \$500 cash and to be published in Emerging Markets Finance and Trade (an SSCI journal), International Journal of Business and Information (IJBI), and International Journal of Cyber Society and Education (IJCSE).

**Information:** The related information such as Paper Awards, Publication Opportunities, and Submission Deadline can be browsed via the website <http://www.e-case.org/> and <http://mdis2009.org/>.

12–16 **Quantitative and Computational Aspects of Metric Geometry**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Aug. 2008, p. 870)

**Overview:** We have witnessed a recent revival of interest in the rich structure and profound properties of metric spaces. Much contemporary research on metric geometry is motivated by the discovery of unexpected connections linking fundamental questions in geometry and analysis with combinatorial optimization, computational complexity, and statistics. This has led to the emergence of an impressive and growing repertoire of common problems and techniques.

**Organizing Committee:** Subhash Khot, Bruce Kleiner, Manor Mendel, Assaf Naor, Yuval Rabani.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/mg2009/>. Applications received by December 1, 2008, will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications. You may also simply register and attend without IPAM funding.

**Information:** email: [sbeggs@ipam.ucla.edu](mailto:sbeggs@ipam.ucla.edu); <http://www.ipam.ucla.edu/programs/mg2009/>.

12–May 22 **Algebraic Geometry**, Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul. 2008, p. 741)

**Organizers:** William Fulton, Joe Harris, Brendan Hassett, János Kollar, Sándor Kovács, Robert Lazarsfeld, Ravi Vakil.

**Description:** This semester-long "jumbo" program on algebraic geometry will emphasize cross-fertilization between different areas, including classical and complex algebraic geometry, linear series techniques, moduli spaces, enumerative geometry, varieties with group actions, birational geometry, rational curves on algebraic varieties, and classification theory. The full resources of MSRI will be devoted to a comprehensive discussion of these topics. The organizers hope to convey the essential unity of the subject, especially to young researchers and established mathematicians in other fields who use algebraic geometry in their research.

**Information:** [http://www.msri.org/calendar/programs/programinfo/251/show\\_program](http://www.msri.org/calendar/programs/programinfo/251/show_program).

12–June 26 **Algebraic Lie Theory**, Isaac Newton Institute for Mathematical Sciences, 20 Clarkson Road, Cambridge CB3 OEH, United Kingdom. (Aug. 2008, p. 870)

**Description:** Lie theory has profound connections to many areas of pure and applied mathematics and mathematical physics. In the 1950s, the original "analytic" theory was extended so that it also makes sense over arbitrary algebraically closed fields, in particular, fields of positive characteristic. Understanding fundamental objects such as Lie algebras, quantum groups, reductive groups over finite or  $p$ -adic fields and Hecke algebras of various kinds, as well as their representation theory, are the central themes of "Algebraic Lie The-

ory". It is anticipated that the activities of the programme will lead to a focalisation and popularisation of the various recent methods, advances and applications of Algebraic Lie Theory.

**Organizers:** Professor M. Geck (Aberdeen), Professor A. Kleshchev (Oregon) and Professor G. Röhrl (Ruhr-Universität Bochum).

**Information:** email: [s.penton@newton.cam.ac.uk](mailto:s.penton@newton.cam.ac.uk); <http://www.newton.ac.uk/programmes/ALT/index.html>.

**14–16 International Conference on Modeling of Engineering and Technological Problems and 9th National Conference of Indian Society of Industrial & Applied Mathematics**, BMAS Engineering College, Sharda Group, Agra, India. (Aug. 2008, p. 870)

**Information:** Details can be found at the website: <http://www.bmas.edu.in> and <http://www.siam-india.org>. Those who are interested in participating in this conference may visit the websites and contact: Prof. Abul Hasan Siddiqi, Convener, Scientific Committee, through email: [Siddiqi.abulhasan@gmail.com](mailto:Siddiqi.abulhasan@gmail.com) or mobile # 00 91 9837069944.

**19–July 3 Discrete Integrable Systems**, Isaac Newton Institute for Mathematical Sciences, Cambridge, England. (Aug. 2008, p. 871)

**Description:** The programme will focus on a number of aspects which are likely to become of major importance for subsequent developments, such as: the connection between integrable dynamical maps and the algebraic geometry of rational surfaces, the issue of irreducibility of nonlinear special functions defined through discrete equations and the underlying Galois theory of difference equations, the underlying spectral theory and isomonodromic deformations of linear difference equations, the connection with modern developments in representation theory such as cluster algebras and affine Weyl groups, the emergence of Diophantine problems of number theory and p-adic analysis in connection with the integrability of analytic difference equations, the problem of finding symmetries and conservation laws for discrete systems, and the primary role discrete integrable systems play in quantum mechanics, in particular quantum groups and quantum field theory on the space-time lattice.

**Information:** email: [info@newton.ac.uk](mailto:info@newton.ac.uk); <http://www.newton.ac.uk/programmes/DIS/>.

**22–24 Connections for Women: Algebraic Geometry and Related Fields**, Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul. 2008, p. 741)

**Organizers:** Angela Gibney, Brendan Hassett, Sándor Kovács, Diane MacLagan, Jessica Sidman, and Ravi Vakil.

**Description:** Twenty-first century algebraic geometry is a broad subject, with mathematicians on different frontiers sharing little background. This workshop will consist of colloquium-style talks introducing some of its subfields to people, particularly postdocs, working in other areas. The workshop is part of the semester program on Algebraic Geometry, and some additional funding will be available for participants to attend the associated introductory workshop "Classical algebraic geometry", January 26–30, 2009.

**Information:** [http://www.msri.org/calendar/workshops/WorkshopInfo/471/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/471/show_workshop).

**22–30 Numerical Approaches to Quantum Many-Body Systems**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Aug. 2008, p. 871)

**Overview:** The aim of this workshop is to bring together an interdisciplinary group of researchers from mathematics, physics, quantum information, computer science, and other fields to discuss advances in the computational description of quantum many-body systems. On January 22–24, we will offer a short course for young researchers with lectures and hands-on tutorials on state-of-the-art numerical techniques. The second week will feature lectures and discussions by experts in the field.

**Organizing Committee:** Ulrich Schollwöck, Simon Trebst, Guifré Vidal.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/qs2009/>. Applications received by December 11, 2008, will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications. You may also simply register for the second week and attend without IPAM funding.

**Information:** email: [sbeggs@ipam.ucla.edu](mailto:sbeggs@ipam.ucla.edu); <http://www.ipam.ucla.edu/programs/qs2009/>.

**26–30 Classical Algebraic Geometry**, Mathematical Sciences Research Institute, Berkeley, California. (Jun./Jul., p. 741)

**Organizers:** Lucia Caporaso, Brendan Hassett, James McKernan, Mircea Mustata, Mihnea Popa. (Jun./Jul. 2008, p. 741)

**Description:** The main theme of the workshop will be to explore modern approaches to problems originating in Classical Algebraic Geometry, and at the same time offer an introduction to various subfields to the younger participants in the semester-long program. Topics will include: (1) Birational geometry; (2) Moduli spaces of curves; (3) Moduli spaces of vector bundles; (4) Abelian varieties.

**Information:** [http://www.msri.org/calendar/index\\_workshops\\_by\\_date](http://www.msri.org/calendar/index_workshops_by_date).

## February 2009

**9–13 Laplacian Eigenvalues and Eigenfunctions: Theory, Computation, Application**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Aug. 2008, p. 871)

**Overview:** The investigation of eigenvalues and eigenfunctions of the Laplace operator in a bounded domain or a manifold is a subject with a history of more than two hundred years, and is still a central and active area in mathematics, physics, engineering, and computer science. This workshop will be an exciting opportunity to discuss various aspects of new or long-standing problems in the field with experts in different fields, including mathematics, physics, biology, and computer sciences.

**Organizing Committee:** Denis Grebenkov, Peter Jones, Naoki Saito.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/le2009/>. Applications received by December 15, 2008, will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications. You may also simply register and attend without IPAM funding.

**Information:** email: [sbeggs@ipam.ucla.edu](mailto:sbeggs@ipam.ucla.edu); <http://www.ipam.ucla.edu/programs/le2009/>.

**23–27 Modern Moduli Theory**, Mathematical Sciences Research Institute, Berkeley, California. (Aug. 2008, p. 871)

**Organizers:** I. Coskun, S. Katz, A. Marian, R. Pandharipande, R. Thomas, H. H. Tseng, R. Vakil.

**Description:** This workshop will convene experts specializing on the minimal model program, derived categories and moduli spaces in an informal environment to facilitate the cross-fertilization of ideas across these different fields of algebraic geometry.

**Information:** [http://www.msri.org/calendar/workshops/WorkshopInfo/472/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/472/show_workshop).

**23–27 Rare Events in High-Dimensional Systems**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Aug. 2008, p. 871)

**Overview:** It is a significant theoretical and computational challenge to quantify the rates and mechanisms of rare events. While there is a growing consensus on the open questions, it is still not clear how well current theoretical and computational techniques address them. The aim of the workshop is to address these issues through discussions with and presentations by mathematicians, chemists, physicists, and engineers.

**Organizing Committee:** Giovanni Ciccotti, Kristen Fitchhorn, Ioannis Kevrekidis, Christof Schuetz, Eric Vanden-Eijnden, Arthur Voter.

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/re2009/>. Applications received by January 12, 2009 will receive fullest consideration. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications. You may also simply register and attend without IPAM funding.

**Information:** <http://www.ipam.ucla.edu/programs/re2009/>; email: [sbeggs@ipam.ucla.edu](mailto:sbeggs@ipam.ucla.edu).

### March 2009

9–June 12 **Quantum and Kinetic Transport: Analysis, Computations, and New Applications**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. (Apr. 2008, p. 526)

**Overview:** This long program will focus on the mathematical analysis, computational challenges and new applications of quantum and kinetic transport theory. Besides applied mathematicians, we will invite researchers in science and engineering, representing academic, national lab and industrial research.

**Organizing Committee:** Irene Gamba and Shi Jin (chairs), Eric Carlen, Pierre Degond, Frank Graziani, Karl Kempf, Dave Levermore, Peter Markowich, Stanley Osher, Christian Ringhofer, Marshall Slemrod.

**Funding:** We have funding especially to support the attendance of recent Ph.D.s, graduate students and researchers in the early stages of their career. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

**Application:** Please apply online to request financial support to attend and participate for extended periods up to the entire length of the program. The application is available online.

**Information:** <http://www.ipam.ucla.edu/programs/kt2009/>.

\* 14 **Statistical Methods for Complex Data: A conference in honor of the 60th birthday of Raymond J. Carroll**, Texas A&M University, Department of Statistics, College Station, Texas.

**Description:** The conference, which is open to the public, will feature presentations by internationally recognized researchers engaged in statistical methods for complex data in a variety of fields—many revolutionized by Raymond J. Carroll and his worldwide legion of protégés.

**Topics:** Will be grouped into three sessions: Nonparametric and semi-parametric regression; measurement error and inverse problems; statistical methods in biology, genetics and population science.

**Keynote speakers:** Mitchell Gail (National Cancer Institute) and Peter Hall (University of Melbourne).

**Registration:** Is required for the conference, which is scheduled to coincide with the 2009 International Biometric Society (ENAR) meeting, slated for March 16–18 in San Antonio, Texas.

**Information:** <http://www.stat.tamu.edu/carroll/>. For scientific questions, contact Xihong Lin, program committee chair, at: [xlin@hsph.harvard.edu](mailto:xlin@hsph.harvard.edu). For logistical issues, please contact Joyce Sutherland, conference coordinator, at (979) 845-5528 or [joyce@stat.tamu.edu](mailto:joyce@stat.tamu.edu). Contact: Shana K. Hutchins, (979) 862-1237 or [shutchins@science.tamu.edu](mailto:shutchins@science.tamu.edu).

15–20 **ALGORITMY 2009 Conference on Scientific Computing**, Hotel Permon, Podbanske, High Tatra Mountains, Slovak Republic. (Jun./Jul. 2008, p. 741)

**Topics:** The main topics of the ALGORITMY 2009 conference are: computational fluid dynamics, heat transfer and porous media flow, nonlinear conservations laws, free boundary problems, inverse problems, image processing and computer vision, computer graphics and computational geometry, computational finance, computational biology and medicine, computational geosciences, high-scale and parallel computing, direct and iterative methods for large linear algebraic systems, preconditioning techniques, optimization and nonlinear algebraic problems, scientific visualization, software for scientific computations. In solving the above mentioned real-world problems, the main attention is given to a new development and advanced applications of modern numerical methods as finite element, finite volume and level set methods, applied on structured and unstructured adaptive grids and accompanied by a fast and stable solution of arising systems of equations.

**Information:** email: [algoritm@math.sk](mailto:algoritm@math.sk); <http://www.math.sk/alg2009>.

18–20 **IAENG International Conference on Scientific Computing ICSC 2009**, Regal Kowloon Hotel, Kowloon, Hong Kong. (Aug. 2008, p. 871)

**Description:** The conference ICSC'09 is held under the International MultiConference of Engineers and Computer Scientists 2009. The IMECS 2009 is organized by the International Association of Engineers (IAENG), and serves as good platforms for the engineering community members to meet with each other and to exchange ideas. The last

IMECS 2008 has attracted more than one thousand participants from over 50 countries. All submitted papers will be under peer review and accepted papers will be published in the conference proceeding (ISBN: 978-988-17012-2-0). The abstracts will be indexed and available at major academic databases. The accepted papers will also be considered for publication in the special issues of the journal Engineering Letters, in IAENG journals and in edited books.

**Important Dates:** Draft Manuscript submission deadline: December 8, 2008. Camera-Ready Papers Due & Registration Deadline: January 10, 2009. ICCA 2009: March 18–20, 2009.

**Information:** <http://www.iaeng.org/IMECS2009/ICSC2009.html>; email: [imecs@iaeng.org](mailto:imecs@iaeng.org).

23–27 **Combinatorial, Enumerative and Toric Geometry**, Mathematical Sciences Research Institute, Berkeley, California. (Aug. 2008, p. 871)

**Organizers:** Michel Brion, Anders Buch, Linda Chen, William Fulton, Sándor Kovács, Frank Sottile, Harry Tamvakis, and Burt Totaro.

**Description:** This workshop will present the state of the art in combinatorial, enumerative, and toric algebraic geometry. It will highlight this part of modern algebraic geometry within the context of the broader semester-long parent program at MSRI, and convey its scope to young researchers.

**Information:** [http://www.msri.org/calendar/workshops/WorkshopInfo/473/show\\_workshop](http://www.msri.org/calendar/workshops/WorkshopInfo/473/show_workshop).

27–29 **AMS Central Section Meeting**, University of Illinois at Urbana-Champaign, Urbana, Illinois. (Aug. 2008, p. 871)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

### April 2009

4–5 **AMS Southeastern Section Meeting**, North Carolina State University, Raleigh, North Carolina. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

6–10 **The 3D Euler and 2D surface quasi-geostrophic equations**, American Institute of Mathematics, Palo Alto, California. (May 2008, p. 636)

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to the 3D Euler equations of incompressible fluids and the 2D surface quasi-geostrophic (QG) equation of geophysical flows.

**Information:** email: [farmer@aimath.org](mailto:farmer@aimath.org); <http://aimath.org/ARCC/workshops/3deuler.html>.

19–26 **NoDIA-2009: Nonlinear Differential Equations, Integrability and Applications**, Cape Town, South Africa. (May 2008, p. 636)

**Description:** The conference aims to bring together both experts and young researchers in the subject of nonlinear differential equations, with emphasis on the following subjects: integrability of differential equations and systems, hierarchies and sequences of equations, singularity analysis, symmetry analysis and applications. The meeting is financed partially by SIDA (Sweden) and NRF (South Africa).

**Information:** <http://www.sm.luth.se/~norbert/nodia09.html>; email: [norbert@sm.luth.se](mailto:norbert@sm.luth.se).

25–26 **AMS Eastern Section Meeting**, Worcester Polytechnic Institute, Worcester, Massachusetts. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

25–26 **AMS Western Section Meeting**, San Francisco State University, San Francisco, California. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

27–May 1 **Combinatorial Challenges in Toric Varieties**, American Institute of Mathematics, Palo Alto, California. (Jun/Jul 2008, p. 741)

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to a selection of problems on lattice polytopes that arise in the theory of toric varieties. Besides structural results, we will work on search strategies and computational approaches to these questions.

**Information:** email: [farmer@aimath.org](mailto:farmer@aimath.org); <http://aimath.org/ARCC/workshops/toricvarieties.html>.

**May 2009**

**10-15 ICMI Study 19: Proof and Proving in Mathematics Education**, Taipei, Taiwan. (May 2008, p. 636)

**Call for contributions:** Participation in the conference is by invitation to the authors of accepted contributions following a refereeing process. The International Program Committee (IPC) invites individuals or groups to submit original contributions. A submission should represent a significant contribution to knowledge about learning and teaching proof. It may address questions from one or more of the study themes, or further issues relating to these, but it should identify its primary focus. The Study themes are set out in the Discussion Document which is available on the ICMI Study 19 website (still under construction but functional) <http://jps.library.utoronto.ca/ocs/index.php?cf=8> (or via Google: ICMI 19). Submissions will be a maximum of 6 pages, including references and figures, written in English, the language of the conference. Further technical details about the format of submissions will be available on the study website.

**Important dates:** By 30 June 2008: Potential authors upload their papers to the conference website. By 15 November 2008: Potential authors receive the result of the refereeing process. Invitations to participate in the conference are sent to authors whose papers are accepted.

**ICMI Executive Advisors:** Hyman Bass (USA); Mariolina Bartolini-Bussi (Italy).

**12-16 (NEW DATE) First Buea International Conference on the Mathematical Sciences**, University of Buea, Cameroon. (Mar. 2008, p. 408)

**Description:** The Department of Mathematics at the University of Buea, Cameroon, is organizing its first International Conference on Mathematical Sciences, with the aim of bringing together academics and professionals with cross-disciplinary interests related to Mathematical Sciences, to demonstrate the vital role that mathematics plays in society, and to bridge as well as nurture understanding and collaboration between global and Cameroon regional mathematical scientists and practitioners

**Information:** <http://www.bueaconference.com>.

**17-22 Topology, C\*-Algebras, and String Duality—an NSF/CBMS Regional Conference in the Mathematical Sciences**, Texas Christian University, Fort Worth, Texas. (Jun./Jul. 2008, p. 742)

**Description:** Principal Lecturer: Jonathan Rosenberg (Univ. of Maryland). The subject of the conference will involve a number of mathematical "spin-offs" of string theory into pure mathematics, and the way they connect with other topics in topology and operator algebras that were initially developed for other purposes. The conference will focus largely on the rich interaction between these and other important concepts of current interest. Topics from pure mathematics will include K-theory and twisted K-theory, continuous-trace algebras and the Dixmier-Douady invariant, crossed product C\*-algebras and their K-theory, bundles, and homotopy theory. The lecturer will develop parts of these subjects in their own right, as well as discussing their relevance to the very active current research in mathematical physics concerning dualities between various string theories, especially T-duality and S-duality.

**Information:** <http://faculty.tcu.edu/gfriedman/CBMS/>.

**18-23 Workshop on Interacting Stochastic Particle Systems**, Centre de recherches mathématiques, Université de Montréal, Montréal, Québec, Canada. (Jan. 2008, p. 78)

**Description:** Statistical mechanics provides the formalism of Gibbsian ensembles for computing properties of equilibrium systems from a knowledge of the microscopic interactions between the constituent particles. Our understanding of nonequilibrium situations is less satisfactory. In the field of interacting stochastic particle systems nonequilibrium questions are studied in simplified models that are amenable to mathematically rigorous analysis. This workshop brings together researchers from interacting stochastic systems and related areas to survey recent successes and to map out promising future directions

**Information:** <http://www.crm.umontreal.ca/Mathphys2008>.

**27-June 1 The International Conference "Infinite Dimensional Analysis and Topology"**, Yaremche, Ivano-Frankivsk, Ukraine. (May 2008, p. 636)

**Topics:** The main scientific topics to be presented at the conference are: Infinite dimensional holomorphy, topological tensor products, Banach space theory, operator theory, general topology, set-theoretic topology, geometric and infinite dimensional topology.

**Language:** Official language of the Conference is English.

**Deadline:** For registration is May 1, 2009.

**Organizers:** The organizers of the conference are: Precarpathan National University, Ivano-Frankivsk, Ukraine; Lviv Ivan Franko National University, Lviv, Ukraine; Institute for Applied Problems of Mechanics and Mathematics, Lviv, Ukraine; Institute of Mathematics of National Academy of Sciences, Kyiv, Ukraine.

**Information:** email: [andriyzag@yahoo.com](mailto:andriyzag@yahoo.com); <http://www.idat-frankivsk.org>.

**June 2009**

**\* 3-5 Conference on Character Theory of Finite Groups in honor of Martin Isaacs**, Universitat de Valencia, Spain.

**Main Speakers:** E. Dade, P. Diaconis, P. Fong, S. Gagola, G. Glauberman, D. Gluck, R. Gow, R. Guralnick, T. Keller, A. Mann, A. Moretó, G. Robinson, R. Solomon, J. Thompson and A. Turull.

**Organizers:** M. Lewis, G. Navarro, D. Passman and T. Wolf.

**Information:** <http://www.uv.es/isaacs09/>; email: [gabriel.navarro@uv.es](mailto:gabriel.navarro@uv.es).

**8-12 Computational Methods and Function Theory 2009**, Bilkent University, Ankara, Turkey. (Jun./Jul. 2008, p. 742)

**Description:** The general theme of the meeting concerns various aspects of interaction of complex variables and scientific computation, including related topics from function theory, approximation theory and numerical analysis. Another important aspect of the CMFT meetings, previously held in Valparaiso 1989, Penang 1994, Nicosia 1997, Aveiro 2001, and Joensuu 2005, is to promote the creation and maintenance of contacts with scientists from diverse cultures. The organizers are Mefharet Kocatepe (Bilkent University, Ankara, Turkey), Ilpo Laine (University of Joensuu, Finland), Stephan Ruscheweyh (University of Würzburg, Germany) and Edward Saff (Vanderbilt University, Nashville).

**Information:** email: [cmft@bilkent.edu.tr](mailto:cmft@bilkent.edu.tr).

**8-13 Workshop on Disordered Systems: Spin Glasses**, Centre de recherches mathématiques, Université de Montréal, Montréal, Québec, Canada. (Jan. 2008, p. 78)

**Organizers:** G. Ben Arous (Courant Institute), E. Bolthausen (Zürich), M. Mézard (Paris-Sud), D. Stein (New York).

**Information:** <http://www.crm.math.ca/Mathphys2008>.

**14-20 Stochastic Analysis and Random Dynamical Systems**, Ivan Franko National University of Lviv, Ukraine. (Aug. 2008, p. 872)

**Description:** The Conference is devoted to the modern aspects of the theory of random dynamical systems. The Conference is aimed to bring together knowledge from different fields of probability theory and stochastic processes related to this subject. The Conference will take place in Lviv, one of the oldest and most beautiful cities of Ukraine. It will be held in the building of Ivan Franko National University of Lviv. During the Conference Social and Cultural Program will be organized.

**Information:** <http://www.imath.kiev.ua/~sard/>; email: [sard@imath.kiev.ua](mailto:sard@imath.kiev.ua).

**15-19 Waves 2009: The 9th International Conference on Mathematical and Numerical Aspects of Waves Propagation**, Pau, France. (Jun./Jul. 2008, p. 742)

**Description:** This conference is one of the main venues where significant advances in the analysis and computational modeling of wave phenomena and exciting new applications are presented. Conference themes include but are not limited to forward and inverse scattering, nonlinear wave phenomena, fast computational techniques, high performance computing, numerical analysis, absorbing layers and approximate boundary conditions, analytic and semi-analytic techniques for wave problems, domain decomposition, guided waves, random media etc.

**Information:** email: [julien.Diaz@inria.fr](mailto:julien.Diaz@inria.fr); <http://waves-2009.bordeaux.inria.fr/>.

**22-26 (NEW DATE) 5th Asian Mathematical Conference (AMC 2009)**, Penang /Kuala Lumpur, Malaysia. (Jun./Jul. 2008, p. 742)

**Description:** Activities of the conference will include the following; Keynote addresses by internationally renowned mathematicians; Invited talks by prominent regional mathematicians; Contributed papers; Workshops Focus Areas of this conference are; Algebra; Algebraic Geometry; Analysis; Operator Algebra & Functional Analysis; Lie Groups and Lie Algebras; Number Theory; Combinatorics; Logic & Foundations of Mathematics; Ordinary Differential Equations and Dynamical Systems; Partial Differential Equations; Topology; Mathematical Aspects of Computer Science; Numerical Analysis and Scientific Computing; Control Theory, Optimization and Operations Research; Probability and Stochastic Process; Statistics; Application of Mathematics in Sciences.

**Information:** email: vravi@maths.du.ac.in; <http://math.usm.my/amc2009>.

\* 28-July 18 **IAS/Park City Mathematics Institute (PCMI) 2009 Summer Session: Arithmetic of L-functions**, Park City, Utah.

**Description:** This will be the 19th annual PCMI Summer Session for research mathematicians, graduate students, undergraduate students, undergraduate faculty, and secondary school teachers.

**Organizers:** Cristian Popescu, Karl Rubin, Alice Silverberg. Director: Robert L. Bryant.

**Sponsor:** PCMI is sponsored by the Institute for Advanced Study, Princeton, NJ. PCMI lecture notes are published by the American Mathematical Society.

**Deadline:** For application will be January 30, 2009.

**Information:** Applications and detailed program information will be available as of November of 2009; <http://pcmi.ias.edu/>.

### July 2009

6-10 **26th Journées Arithmétiques**, Université de Saint-Etienne, Saint-Etienne, France. (Jun./Jul. 2008, p. 742)

**Description:** About 12 invited talks; parallel sessions of 20 minutes communications in all branches of Number Theory.

**Information:** ja2009@univ-st-etienne.fr; <http://ja2009.univ-st-etienne.fr/>.

\* 6-10 **First PRIMA Pacific Rim Congress of Mathematicians**, University of New South Wales, Sydney, Australia.

**Description:** The Pacific Rim Mathematical Association (PRIMA) is an association of mathematical sciences institutes, departments and societies from around the Pacific Rim. It was established in 2005 to promote and facilitate the development of the mathematical sciences throughout the Pacific Rim region. As one of its activities, PRIMA aims to hold an international congress every four years. As well as plenary addresses by eleven leading international speakers there will be a range of special sessions on topics reflecting the breadth and diversity of research in the mathematical sciences across the region.

**Information:** <http://www.primath.org/prima2009>; email: lind@math.washington.edu.

6-10 **Journées de Géométrie Arithmétique de Rennes**, Institut de Recherche Mathématique de Rennes, Université de Rennes 1, Rennes, France. (Jun./Jul 2008, p. 742)

**Description:** The conference will cover the following subjects : ramification theory, vanishing cycles, rigid geometry, arithmetic D-modules, geometric and p-adic aspects of the Langlands Correspondence and related topics.

**Information:** email: ahmed.abbes@univ-rennes1.fr; <http://perso.univ-rennes1.fr/ahmed.abbes/jgar.html>.

13-17 **9th International Conference on Finite Fields and Applications**, University College Dublin, Dublin, Ireland. (Jun./Jul. 2008, p. 742)

**Description:** The aim of this conference is to bring together researchers from all aspects of finite fields: theory, computation and applications. Previous meetings have been in Las Vegas (USA), Glasgow (Scotland), Waterloo (Canada), Augsburg (Germany), Oaxaca (Mexico), Toulouse (France) and Melbourne (Australia). As in previous years we intend to publish conference proceedings with one of the major scientific publishers.

**Topics:** Of interest include, but are not limited to, the following. Theory: additive and multiplicative structure, polynomials, curves, varieties, character sums, function fields. Computation: polynomial factorisation, decomposition and irreducibility testing, finding primitive and other special elements of finite fields, algorithms for poly-

nomials, codes, curves, varieties, and other objects over finite fields. Applications: cryptography, codes, information theory, combinatorics, quantum information science.

**Information:** <http://www.shannoninstitute.ie/fq9/>; email: gary.mcguire@ucd.ie.

20-24 **Equadiff 12**, Brno, Czech Republic. (Aug. 2008, p. 872)

**Description:** Under the name "Equadiff" a series of important international conferences on differential equations have been organized in Europe during the last decades. The first one took place in Prag (1962) and the second one in Bratislava (1966). From 1970 on the location alternated between Czech Republic/Slovakia and various countries of Western Europe. The most recent Equadiff conferences took place in Vienna (2007), Bratislava (2005), Hasselt (2003), Prag (2001), and Berlin (1999).

**Information:** email: dosly@math.muni.cz; <http://www.math.muni.cz/~equadiff/>.

20-December 18 **Non-Abelian Fundamental Groups in Arithmetic Geometry**, Isaac Newton Institute for Mathematical Sciences, Cambridge, England. (Aug. 2008, p. 872)

**Description:** In the 1980's Grothendieck formulated his anabelian conjectures that brought to an hitherto-unexplored depth the interaction between topology and arithmetic. This suggested that the study of non-abelian fundamental groups could lead to a new understanding of deep arithmetic phenomena, including the arithmetic theory of moduli and Diophantine finiteness on hyperbolic curves. A certain amount of work in recent years linking fundamental groups to Diophantine geometry intimates deep and mysterious connections to the theory of motives and Iwasawa theory, with their links with arithmetic problems on special values of L-functions such as the conjecture of Birch and Swinnerton-Dyer. The goal of this programme is to investigate the ideas and problems of anabelian geometry within the global context of mainstream arithmetic geometry.

**Organisers:** M. Kim (UCL), J. Coates (Cambridge), F. Pop (Pennsylvania), M. Saidi (Exeter), P. Schneider (Münster).

**Information:** email: info@newton.ac.uk; <http://www.newton.ac.uk/programmes/NAG/>.

27-31 33rd **Conference on Stochastic Processes and their Applications**, Berlin, Germany. (May 2008, p. 636)

**Main Venue:** Will be the Mathematics Institute of Technische Universität, located in the center of Berlin.

**Description:** The conference is the major annual meeting for researchers working in the field of Stochastic Processes. The conference covers a wide range of active research areas, in particular featuring 20 invited plenary lectures presented by leading specialists. In addition, there will be a large variety of special sessions, consisting of three talks each.

**Confirmed Plenary Speakers:** J. Baik, S. Chatterjee, F. Delbaen, A. Dembo, S. Hamadène, C. Klüppelberg, J. Martin, S. Martinez, P. Mattheiu, J. Mattingly, P. Mörters, E. Perkins, G. Reinert, L. Saloff-Coste, S. Smirnov, A. Schied, G. Slade, M. Takeda, F. Y. Wang, A. Wakolbinger.

**Information:** email: roelly@math.uni-potsdam.de; <http://www.math.tu-berlin.de/SPA2009>.

29-July 24 **The Cardiac Physiome Project**, Isaac Newton Institute for Mathematical Sciences, Cambridge, England. (Aug. 2008, p. 872)

**Description:** Predicting physiological behaviour from experimental data combined with environmental influences is a compelling, but unfulfilled, goal of post-genomic biology. This undeniably ambitious goal is the aim of the Physiome Project and its subset the Cardiome Project which is an international effort to build a biophysically based multi-scale mathematical model of the heart. To achieve this goal requires further development of the current generation of advanced cardiac models which span an already diverse set of mathematical representations from stochastic sub-cellular regulation models to whole organ based sets of coupled partial differential equations. The focus of this programme will be on the development and application of the mathematical techniques which underpin the ongoing extension of this approach.

**Organizers:** R. H. Clayton (Sheffield); P. Hunter (Auckland); N. Smith (Oxford); S. Waters (OCIAM).

**Information:** email: info@newton.ac.uk; <http://www.newton.ac.uk/programmes/CPP/>.

**August 2009**

12-December 18 **Dynamics of Discs and Planets**, Isaac Newton Institute for Mathematical Sciences, Cambridge, England. (Aug. 2008, p. 872)

**Description:** This programme will bring together world-leading researchers in disciplines including accretion disc theory, planet formation, planet-disc interaction and solar system dynamics. With such a group we seek to provide a firm theoretical basis for our understanding of extrasolar planetary systems and their formation in protoplanetary discs. The programme encompasses three themes: (1) dynamics of astrophysical discs and the numerical and analytical methods used to study them (i.e., the study of gaseous accretion discs); (2) dynamics specific to discs in which planets are forming including that formation process (i.e. the study of how solid material interacts with gaseous discs); (3) dynamics that is relevant once planets have formed (i.e. the study of solid body interactions).

**Organizers:** A Morbidelli (Observatoire de Nice); R. P. Nelson (Queen Mary, London); G. Ogilvie (Cambridge); J. M. Stone (Princeton), M. C. Wyatt (Cambridge).

**Information:** email: [info@newton.ac.uk](mailto:info@newton.ac.uk); <http://www.newton.ac.uk/programmes/DDP/>.

\* 17 **Symplectic and Contact Geometry and Topology**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** The goals of the 2009-2010 program at MSRI are to I. Promote the cross-pollination of ideas between different areas of symplectic and contact geometry; II. Help assess and formulate the main outstanding fundamental problems and directions in the field; III. Lead to new breakthroughs and solutions of some of the main problems in the area; IV. Discover new applications of symplectic and contact geometry in mathematics and physics; V. Educate a new generation of young mathematicians, giving them a broader view of the subject and the capability to employ techniques from different areas in their research. To achieve these goals, the program will concentrate on three broad, interrelated themes that encompass many of the modern trends in symplectic geometry: algebraic structures associated to holomorphic curves; symplectic and contact geometry in low-dimensional topology; and symplectic topology and dynamics.

**Information:** [http://www.msri.org/calendar/programs/ProgramInfo/257/show\\_program](http://www.msri.org/calendar/programs/ProgramInfo/257/show_program); email: [jz@msri.org](mailto:jz@msri.org).

17-21 **Modular forms on noncongruence groups**, American Institute of Mathematics, Palo Alto, California. (Aug. 2008, p. 872)

**Description:** This workshop, sponsored by AIM and the NSF, will explore the arithmetic and analytic properties of noncongruence modular forms and their potential applications. A special focus will be on the connection between Scholl representations attached to noncongruence cuspforms and automorphic forms by applying modularity lifting theorems.

**Information:** <http://aimath.org/ARCC/workshops/noncongruence.html>; email: [farmer@aimath.org](mailto:farmer@aimath.org).

\* 17-December 18 **Tropical Geometry**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** Tropical Geometry is the algebraic geometry over the min-plus algebra. It is a young subject that in recent years has both established itself as an area of its own right and unveiled its deep connections to numerous branches of pure and applied mathematics. From an algebraic geometric point of view, algebraic varieties over a field with non-archimedean valuation are replaced by polyhedral complexes, thereby retaining much of the information about the original varieties. From the point of view of complex geometry, the geometric combinatorial structure of tropical varieties is a maximal degeneration of a complex structure on a manifold. The goal of this program is, through its workshops and various other activities, to bring together researchers from the broad range of research areas involved, and to provide an extended forum of interaction on Tropical Geometry while it is still in its forming phase.

**Information:** [http://www.msri.org/calendar/programs/ProgramInfo/255/show\\_program](http://www.msri.org/calendar/programs/ProgramInfo/255/show_program); email: [jz@msri.org](mailto:jz@msri.org).

\* 24-28 **Relative trace formula and periods of automorphic forms**, American Institute of Mathematics, Palo Alto, California.

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to the study of the relative trace formula and periods of automorphic forms. In particular, we hope to formulate a precise general

conjecture for the exact value of period integrals which encompasses all known and conjectured cases.

**Information:** <http://aimath.org/ARCC/workshops/traceformula.html>; email: [farmer@aimath.org](mailto:farmer@aimath.org).

**September 2009**

12-18 (NEW DATE) **Models in Developing Mathematics Education**, Dresden University of Applied Sciences, Dresden, Germany. (Apr. 2007, p. 498)

**Description:** 10th International Conference of The Mathematics Education into the 21st Century Project Our project was founded in 1986 and is dedicated to the planning, writing and disseminating of innovative ideas and materials in Mathematics and Statistics Education.

**Program:** Papers are invited on all innovative aspects of mathematics education. There will be an additional social programme for accompanying persons. Our conferences are renowned for their friendly and productive working atmosphere. They are attended by innovative teachers and mathematics educators from all over the world, 25 countries were represented at our last conference for example!

**Information:** email: [arogerson@inetia.pl](mailto:arogerson@inetia.pl).

**October 2009**

16-18 **AMS Central Section Meeting**, Baylor University, Waco, Texas. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

24-25 **AMS Eastern Section Meeting**, Pennsylvania State University, University Park, Pennsylvania. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

30-November 1 **AMS Southeastern Section Meeting**, Florida Atlantic University, Boca Raton, Florida. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.

**November 2009**

7-8 **AMS Western Section Meeting**, University of California, Riverside, California. (Aug. 2008, p. 872)

**Information:** <http://www.ams.org/amsmtgs/sectional.html>.