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# Mathematics Calendar

The most comprehensive and up-to-date Mathematics Calendar information is available on the AMS website at <http://www.ams.org/mathcal/>.

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## November 2007

\* 5–9 **Social Data Mining and Knowledge Building**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California.

**Overview:** Social Data Mining is a fast-growing and exciting area of inquiry, in which connections among and interactions between individuals are analyzed to understand innovation, collective decision making, and problem solving, and how the structure of organizations and social networks impacts these processes. Analysis of such inherently relational datasets is currently being applied in e-commerce to drive recommendation systems, in bibliometrics to describe patterns of publication and determine the influence of specific individuals, in security environments to understand the structure of terrorist or gang networks, and numerous other areas. This workshop will bring together researchers in mathematics, computer science, and the social sciences to explore collective decision making, social network analysis, social mapping and bibliometrics, the role of information visualization in understanding social networks, the application of graph-theoretical analysis to social networks, and data representation strategies.

**Organizing Committee:** Peter Jones, Chair (Yale University, Mathematics), Johan Bollen (Los Alamos National Laboratory) Ronald Coifman (Yale University), Andrew McCallum (University of Massachusetts Amherst, Computer Science), and Karin Verspoor (Los Alamos National Laboratory, CCS-3).

**Application/Registration:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/sews3/>. The application part is for people requesting financial support to attend the workshop. If you don't intend to do this, you may simply register. Applications received by September 24, 2007, will receive fullest consideration. Encouraging the careers of women and mi-

nority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications.

\* 26–30 **Search and Knowledge Building for Biological Datasets**, Institute for Pure and Applied Mathematics, UCLA, Los Angeles, California.

**Description:** The development of new bio-technologies that probe previously unexplored aspects of biological systems has radically changed the world of biological research. Contributions from diverse areas such as combinatorics, graph and network theory, differential equations, machine learning, data mining, statistics and statistical physics have been used to create more powerful information search and knowledge management. This workshop is intended as a convergence of quantitatively oriented researchers addressing these issues in their quest to answer important biological questions.

**Organizing Committee:** Yuval Kluger, Xiaole Liu, Itsik Pe'er, Gustavo Stolovitzky, and Olga Troyanskaya.

**Application/Registration:** Application and registration forms are available on our website. The application part is for people requesting financial support to attend the workshop. If you don't intend to do this, you may simply register. Applications received by October 15, 2007, will receive fullest consideration. <http://www.ipam.ucla.edu/programs/sews4/>.

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## December 2007

\* 19–22 **International Conference on Advances in Mathematics: Historical Developments & Engineering Applications**, Indian Society for History of Mathematics and G. B. Pant University at Pant Nagar, India.

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**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 held in North America 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. Meetings held outside the North American area may carry more detailed information. In any case, if there is any application deadline with

respect to participation in the meeting, this fact should be noted. All communications on meetings and conferences 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/>.

**Aims and Scope:** The conference will cover all aspects of history of the Mathematical Sciences and recent developments including Mathematics, Statistics, Operation Research, Computer Science and Engineering applications.

**Local Hospitality:** Free local transport and local hospitality including boarding and lodging will be provided to all the registered participants.

**Scientific Advisory Committee:** Mohammad Bagheri (Iran), S. G. Dani (India), S.D.Sharma (India), Karine Chemla (France), N. K. Dadhich (India), Ivor Grattan-Guinness (UK), Takao Hayashi (Japan), Subhash Kak (USA), Wenlin Li (China), Jean-Claude Mrtzloff (France), Jean-Paul Pier (Luxemburg), Jamil Ragep (Canada), Chikara Sasaki (Japan), Norbert Schlomiuk (Canada), Dinesh Singh (India), B. G. Sidharth (India), B. S. Yadav (India).

**Invited Speakers:** Invited speakers from about twenty countries abroad including eminent mathematicians from India are expected to take part in the conference.

**Information:** <http://www.indianshm.com> for information or contact [bsyadav@indianshm.com](mailto:bsyadav@indianshm.com), [vedicmri@gmail.com](mailto:vedicmri@gmail.com), [mcjoshi69@gmail.com](mailto:mcjoshi69@gmail.com).

## January 2008

\* 6-13 **1st Odense Winter School on Geometry and Theoretical Physics**, University of Southern Denmark, Campusvej 55, DK-5230, Odense M, Denmark.

**Description:** The purpose of the school is to endow the new generation of mathematicians and physicists with a common language. We wish to bring together scientists working at the frontier between mathematics and theoretical physics while stimulating further progress.

**Main Speakers:** Paolo di Vecchia (Copenhagen), A basic introduction to string theory and its application to particle phenomenology; Roger Bielawski (Leeds), Magnetic monopoles, L2-metrics and L2-cohomology; Vicente Cortés (Hamburg), To be announced; Eugene Ferapontov (Loughborough), Geometry and integrability of multi-dimensional dispersionless systems; Ulf Lindström (Uppsala), To be announced; Roman Zwicky (Durham), Unparticles. Organized by: Francesco Sannino (SDU), Martin Svensson (SDU), Andrew Swann (SDU). Programme Committee: Arne Lykke Larsen (SDU), Henrik Pedersen (SDU), John C. Wood (Leeds).

**Information:** <http://www.imada.sdu.dk/~swann/Winter-2008/>.

\* 7-27 **Data-driven and Physically-based Models for Characterization of Processes in Hydrology, Hydraulics, Oceanography and Climate Change**, Institute for Mathematical Sciences, National University of Singapore, Singapore.

**Description:** This program is jointly organized with Pacific Institute for Mathematical Sciences, UBC. The 3-week program will consist of a full week of seminars/lectures, and two weeks of workshops and research discussions aimed at developing research collaboration.

**Topics:** Three main topics are covered in the program: Development of fully integrated data driven and physical-based models for water resources management, Dynamic and Statistical Downscaling on Climate Change Study, Nonlinear Wave Dynamics and Tsunami Modeling.

**Organizing Committee:** Co-chairs: Sylvia Esterby (University of British Columbia); Hans-Rudolf Künsch (ETH Zurich); Shie-Yui Liong (National University of Singapore); Members: Vladan Babovic (National University of Singapore); Wolfgang Kinzelbach (ETH Zurich); Pavel Tkalich (National University of Singapore); Jim Zidek (University of British Columbia).

**Information:** For more information write to: email: [imssec@nus.edu.sg](mailto:imssec@nus.edu.sg). For enquiries on scientific aspects of the program, please email Yui Liong at: [tmslly@nus.edu.sg](mailto:tmslly@nus.edu.sg). email: [imscec@nus.edu.sg](mailto:imscec@nus.edu.sg); <http://www.ims.nus.edu.sg/Programs/ocean07/index.htm>.

## February 2008

\* 11-15 **Expanders in Pure and Applied Mathematics**, Institute for

Pure and Applied Math (IPAM), UCLA, Los Angeles, California.

**Scientific Overview:** Currently expanders are at the center of a great deal of research involving mutually beneficial interactions between computer science, number theory, combinatorics, group theory, and geometry. The workshop will bring together researchers from these fields to survey the progress made, outline the challenges ahead, and generate further collaborations.

**Organizing Committee:** Alexander Gamburd, Alexander Lubotzky, Audrey Terras, and Avi Wigderson

**Information:** An application/registration form is available at <http://www.ipam.ucla.edu/programs/eg2008/>. The application part is for people requesting financial support to attend the workshop. If you don't intend to do this, you may simply register. Applications received by December 1, 2007, 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.

\* 18-22 **Workshop on Algorithms (part of thematic programme Algorithms: New Directions and Applications**, Crown Hotel, Napier, New Zealand.

**Description:** Main aim of this workshop is to facilitate interaction between local and overseas researchers in algorithms.

**Speakers:** Five International Invited Speakers (S. Linton (St. Andrews), M. Langston (Tennessee), M. Mitzenmacher (Harvard), B. McKay (Australian National), D. Welsh (Oxford)) will give expository talks. Shorter contributed talks will also be scheduled.

**Themes:** Main themes of the thematic programme are: analysis of algorithms, randomized algorithms, approximation algorithms, fixed-parameter complexity, the relations between these, and applications to problems of interest to New Zealand researchers.

**Sponsor:** New Zealand Institute for Mathematics and its Applications.

**Information:** Participation is limited to 60 people. Those interested should indicate this interest at the URL given; accommodation is in short supply in Napier at this time (summer); email: [mcw@cs.auckland.ac.nz](mailto:mcw@cs.auckland.ac.nz); <http://www.cs.otago.ac.nz/algorithemics/activities/febmeeting.html>.

## March 2008

\* 13-15 **The 42nd Annual Spring Topology and Dynamical Systems Conference**, The University of Wisconsin Milwaukee, Milwaukee, Wisconsin.

**Description:** We plan the traditional four special sessions, session organizers follow. Continuum Theory (This session is dedicated to Tom Ingram, on the occasion of his 70th birthday): Veronica Martinez-de-la-Vega (UNAM), chair; David Ryden (Baylor); Janusz Prajs (Cal. State Sacramento). Dynamical Systems: Marcy Barge (Montana), co-chair; John Smillie (Cornell Univ.), co-chair; Bev Diamond (College of Charleston). General/Set Theoretic Topology: Ken Kunen (Madison), co-chair; Arnold Miller (Madison), co-chair. Geometric Topology & Geometric Group Theory: Ross Geoghegan (SUNY Binghamton), chair. The Milwaukee Local Organizing Committee consists of Ric Ancel, Karen Brucks, Craig Guilbault, Chris Hruska, Suzanne Hruska, Boris Okun (UWM), Paul Bankston (Marquette), Lois Kailhofer (Alverno College).

**Information:** email: [shruska@msm.umr.edu](mailto:shruska@msm.umr.edu); <http://www.math.uwm.edu/Events/stdc2008/>.

\* 28-29 **The 34th Annual New York State Regional Graduate Mathematics Conference**, Syracuse University, Syracuse, New York.

**Description:** The aim of this conference is to allow graduate students to present their research and be exposed to research being done in other areas. This year's Opening Address will be given on Friday, March 28, by Joseph Silverman of Brown University, and the Keynote Address will be given on Saturday, March 29, by Noam Elkies of Harvard University.

**Information:** Graduate students wishing to attend this conference or give a talk are encouraged to contact us by email at [tsbleier@syr.edu](mailto:tsbleier@syr.edu); <http://webwork.syr.edu/~mgo/index.php?n=Conference>. Conference.

\* 31–April 5 **International Workshop on Multi-Rate Processes and Hysteresis MURPHYS2008**, University College Cork, Cork, Ireland.

**Organizing Committee:** M. Mortell (Cork, Ireland) and A. Pokrovskii (Cork, Ireland, [a.pokrovskii@ucc.ie](mailto:a.pokrovskii@ucc.ie)).

**Scientific Committee:** R. O'Malley (USA), V. Sobolev (Russia).

**Topics:** Singular Perturbations, Hysteresis, Economic Dynamics, Laser Dynamics, Chemical Kinetics, Control, Bioinformatics, Systems Biology.

### April 2008

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\* 11–13 **The Eleventh Rivi re-Fabes Symposium on Analysis and PDE**, University of Minnesota, Minneapolis, Minnesota.

**Information:** Annually held symposium in memory of Nestor M. Rivi re and Eugene B. Fabes. [http://www.math.umn.edu/conferences/riv\\_fabes/](http://www.math.umn.edu/conferences/riv_fabes/).

### May 2008

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\* 5–June 27 **Mathematical Imaging and Digital Media**, Institute for Mathematical Sciences, National University of Singapore, Singapore.

**Description:** Despite the distinctiveness of the two diversified fields, mathematical imaging and digital media share many commonalities when it comes to the use of mathematical theory and computational tools. The purpose of this program is to conduct multidisciplinary studies involving mathematical perspectives and foundation of imaging science and digital media.

**Themes:** The focus will be on the following themes: Mathematical Imaging and Digital Media; Mathematical methods for computer graphics, computer vision, mesh generation, image restoration and reconstruction, image enhancement, image segmentation, object detection, image decomposition, image representation, image compression. Wavelet Theory and Applications: Sparse data representation and approximation by wavelets and redundant systems, noise removal, stochastic wavelet analysis, inverse problems via wavelet methods.

**Organizing Committee:** Co-chairs: Tony Chan (University of California, Los Angeles), Zuowei Shen (National University of Singapore). Members: Say Song Goh (National University of Singapore), Hui Ji (National University of Singapore), Seng Luan Lee (National University of Singapore), Andy M. Yip (National University of Singapore).

**Information:** email: [imssec@nus.edu.sg](mailto:imssec@nus.edu.sg). For enquiries on scientific aspects of the program, please email Zuowei Shen at [matzuows@nus.edu.sg](mailto:matzuows@nus.edu.sg); <http://www.ims.nus.edu.sg/Programs/imaging08/index.htm>.

\* 13–17 **Spectral geometry and related topics**, University of Potsdam, Germany.

**Description:** International meeting on spectral geometry and related areas such as geometric analysis, global differential geometry, index theory, gauge theory and conformal geometry.

**Main speakers:** K. Akutagawa, B. Ammann, U. Bunke, A. Grigoryan, N. Higson, J. Lohkamp, R. Mazzeo, D. Ruberman, D. Sch uth, B. Wilking.

**Information:** email: [hanke@mathematik.uni-muenchen.de](mailto:hanke@mathematik.uni-muenchen.de); <http://specgeo08.math.uni-potsdam.de/>.

\* 19–24 **Lie Theory and Geometry: The Mathematical Legacy of Bertram Kostant**, Pacific Institute of Mathematical Sciences, Vancouver, Canada.

**Description:** The plan of the conference is to consider recent advances in Lie theory, concentrating on connections with geometry. Among the topics that will receive special attention are: invariant theory, symplectic geometry, representation theory of real Lie groups, Kac-Moody Lie algebras and associated groups and flag

varieties, quantum groups, quiver varieties, quantum cohomology of flag varieties, Dirac cohomology and Gelfand-Zeitland theory.

**Principal Organizers:** Jim Carrell [bk08@pims.math.ca](mailto:bk08@pims.math.ca) and Shrawan Kumar [bk08@pims.math.ca](mailto:bk08@pims.math.ca).

**Principal Speakers:** A. Alekseev (Geneva), M. Brion (Grenoble), P. Etingof (MIT), V. Ginzburg (Chicago), I. Gordon (Edinburgh), V. Guillemin (MIT), A. Joseph (Weizmann Inst.), V. Kac (MIT), M. Kashiwara (Kyoto), A. Knutson (UCSD), J. Lepowsky (Rutgers), H. Nakajima (Tokyo), A. Okounkov (Princeton), D. Peterson (Vancouver), K. Reitsch (London), J.-P. Serre (Paris), B. Speh (Cornell), D. Vogan (MIT), N. Wallach (UCSD).

**Information:** For further information (accommodations etc.), please see the conference website: <http://www.pims.math.ca/~dxu/08kostant/>. There will be a limited amount of funds available for grad students and post docs. If you would like to apply for support, please contact one of the principal organizers.

\* 26–30 **ICCA8: 8th International Conference on Clifford Algebras and their Applications in Mathematical Physics**, UNICAMP, Campinas, Brazil.

**Description:** ICCA8 will be a continuation of a 20 year old sequence of international conferences devoted to the mathematical aspects of Clifford algebras and their varied applications. ICCA8 will be arranged in invited plenary talks (50 min), selected plenary talks (50 min) and regular talks (25 min). The list of the invited speakers who already confirmed their presence is available at the conference website: <http://www.ime.unicamp.br/~icca8>. Registration for ICCA8 is open from August 01, 2007 to January 31, 2008. Instructions and deadlines can be found at the conference website.

**Information:** <http://www.ime.unicamp.br/~icca8>.

### June 2008

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\* 17–22 **Differential Equations and Topology**, Lomonosov Moscow State University, Moscow, Russia.

**Description:** In commemoration of the 100th Anniversary of the birthday of Lev Semenovich Pontryagin (1908–1988), an outstanding mathematician of the 20th century, the Steklov Mathematical Institute of the Russian Academy of Sciences together with Moscow (Lomonosov) State University are organizing an international conference “Differential Equations and Topology”. The goal of the conference is to give a detailed overview of recent achievements in the fields of mathematics related to the works of L.S. Pontryagin.

**Topics:** Differential Equations (Chairman: Academician Dmitrii V. Anosov); Optimal Control and Differential Games (Chairman: Academician Arkady V. Kryazhimskiy); Topology (Chairman: Academician Sergey P. Novikov).

**Information:** <http://pont2008.cs.msu.ru>; email: [pont2008@cs.msu.ru](mailto:pont2008@cs.msu.ru).

\* 18–21 **Conference on Algebra and its Applications, in honor of S. K. Jain’s 70th birthday**, Ohio University, Athens, Ohio.

**Description:** The Conference is dedicated to recent developments in classical Ring Theory, Module Theory, Representation Theory, Group Algebras, Rings with Polynomial Identities, and related topics including applications. <http://www.math.ohiou.edu/~algebra/conference/ou.html>.

### July 2008

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\* 2–4 **The 2008 International Conference of Applied and Engineering Mathematics (ICAEM 2008)**, Imperial College London, London, United Kingdom.

**Description:** The topics of the ICAEM’07 include, but are not limited to, the following: Linear algebra and applications: matrix theory, tensor analysis, combinatorial linear algebra, numerical linear analysis, computational linear algebra, markov chains, iterative methods, large-scale systems; numerical analysis: Numerical methods for ordinary and partial differential equation; computational programming of numerical algorithms; finite elements; scientific computing;

error analysis; stability problems; convergence analysis; non-linear systems; chaos systems; dynamical systems; simulation; differential equations and applications: ordinary differential equations; partial differential equations; stochastic differential equations; difference equations; integral equations; variation methods; non-linear systems; perturbation problems; probabilities and statistics: probability theory; stochastic process; applied statistics; mathematical statistics; estimation theory; identification; simulation; operations research and optimization: mathematical programming; stochastic modeling; decision theory; game theory; queueing theory; reliability theory; routing theory; transportation problems; financial mathematics; inventory control; scheduling; optimization theory; linear programming; quadratic programming; convex programming; nonlinear programming; stochastic programming; combinatorial programming; discrete mathematics and control: methods of algorithmic analysis; algorithms; combinatorial problems; graph theory; coding; cryptology; signal processing; real time systems; network optimization; control theory.

**Information:** email: [wce@iaeng.org](mailto:wce@iaeng.org); <http://www.iaeng.org/WCE2008/ICAEM2008.html>.

- \* 7–9 **SIAM Conference on Imaging Science (IS08)**, Town & Country Resort and Convention Center, San Diego, California.

**Description:** Current developments in the technology of imaging have led to an explosive growth in the interdisciplinary field of imaging science. With the advent of new devices capable of seeing objects and structures not previously imagined, the reach of science and medicine has been extended in a multitude of different ways. The impact of this technology has been to generate new challenges associated with the problems of formation, acquisition, compression, transmission, and analysis of images. By their very nature, these challenges cut across the disciplines of physics, engineering, mathematics, biology, medicine, and statistics. While the primary purpose of this conference is to focus on mathematical issues, the biomedical aspects of imaging will also play an important role.

**Information:** <http://www.siam.org/meetings/is08/>.

- \* 7–11 **Spring Meeting of the Swiss Mathematical Society: Conference on Complex Analysis 2008–In honour of Linda Rothschild**, University of Fribourg, Switzerland.

**Description:** Complex Variables and Connections with PDEs and Geometry.

**Information:** <http://www.unifr.ch/math/events/ComplexAnalysis08>.

- \* 13–16 **CTAC08: The 14th Biennial Computational Techniques and Applications Conference**, Australian National University, Canberra, ACT, Australia.

**Description:** CTAC'08 will also be honouring Professor Ian Sloan on his 70th birthday. About the CTAC Meetings: CTAC is organized by the special interest group in computational techniques and applications of ANZIAM, the Australian and New Zealand Industrial & Applied Mathematics Division of the Australian Mathematical Society. The meeting will provide an interactive forum for researchers interested in the development and use of computational methods applied to engineering, scientific and other problems. The CTAC meetings have been taking place biennially since 1981, the most recent being held in 2006 at James Cook University, Queensland. CTAC'08 is the 14th meeting in the series and is hosted by the Mathematical Sciences Institute, Australian National University.

**Information:** <http://www.maths.anu.edu.au/events/ctac08/>.

## August 2008

- \* 19–22 **Duality and Involutions in Representation Theory**, National University of Ireland, Maynooth, Co. Kildare, Ireland.

**Organising Committee:** Rod Gow (University College Dublin), John Murray (National University of Ireland Maynooth), Rachel Quinlan (National University of Ireland Galway).

**Invited Speakers:** Christine Bessenrodt (Hannover), Everett Dade (Illinois), Burkhard Kulshammer (Jena), Gabriele Nebe (RWTH Aachen), Geoffrey Robinson (Aberdeen), Wolfgang Willems (Magdeburg).

**Information:** Maynooth is 15 miles due West of Dublin. <http://www.maths.nuim.ie/conference/>.